

**Vehicle Research and Test Center
Moving Deformable Barrier into
2001 Buick LeSabre at 52.9 km/h
TRC Inc. Test Number: 030915-1**

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¹ The vehicle is incorrectly labeled C45600 in all exterior photos.

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Section 1.0

Purpose and Test Procedure

Purpose

This 48/24 km/h (32.9 mph) 90° side impact test was conducted for the National Highway Traffic Safety Administration (NHTSA) and Vehicle Research and Test Center (VRTC) by Transportation Research Center Inc. (TRC Inc.).

The purpose of this test was to evaluate side impact protection in a moving deformable barrier impact test. The subject vehicle was a 2001 Buick LeSabre 4-door sedan.

Test Procedure

This test was conducted in accordance with VRTC instructions for a moving deformable barrier into a vehicle side impact test. Data was obtained relative to FMVSS 214D, "Side Impact Protection-Dynamic" performed using SID-IIs anthropomorphic test devices (dummies).

A 2001 Buick LeSabre 4-door sedan was impacted on the driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 52.9 km/h (32.9 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on September 15, 2003. Pre-test and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SIDs) are included in Appendix A.

The moving deformable barrier was equipped with a 214 style deformable barrier face and five (5) accelerometers to measure longitudinal, lateral, and vertical axis accelerations. The barrier's specified impact velocity range was 57.1 to 53.7 km/h.

Two restrained Side Impact Dummies (SID-IIs) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OVSC Side Impact Laboratory Test Procedure (TP-214D-07, dated January 2003). Both SID-IIs were certified prior to this test and were both belted. The driver dummy was additionally restrained by a torso airbag.

Both dummies were instrumented with an array of twelve (12) accelerometers in the head, upper and lower neck moment and force load cells, and shoulder, spine, rib, and pelvis accelerometers. The dummies were also instrumented with both lumbar and femur moment and force load cells, pelvic and shoulder force load cells, and an array of twenty (20) rib contact switches.

The 257 data channels were digitally sampled and recorded at 12,500 samples per second and processed per SAE J211 March 1995.

The crash event was recorded by one (1) real-time panning motion picture camera and ten (10) high-speed motion picture cameras. The pre- and post-test conditions were recorded by one (1) real-time motion picture camera.

The side impact test summary data are presented in Section 2.0. The summary of FMVSS 214D data are presented in Section 3.0. The occupant, camera, vehicle, and barrier measurements are presented in Section 4.0. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots. Appendix C contains the dummy verification data. Appendix D contains test equipment and instrumentation calibration information. Appendix E contains a copy of the INSIA Report on Structural Measurements.

Section 2.0

Moving Deformable Barrier Side Impact Test Summary

Test Results Summary

This moving deformable barrier side impact test was conducted by TRC Inc. on September 15, 2003.

The test vehicle, a 2001 Buick LeSabre 4-door sedan, was equipped with a 3.8-liter transverse engine, automatic transmission, power steering, power brakes, single stage front airbags, and side front torso airbags. The vehicle's test weight was 1851.6 kg. The moving deformable barrier's impact speed was 52.9 km/h. The moving deformable barrier impacted 9 mm to the left of the target point (583 mm rearward of front axle).

The driver's 36 millisecond Head Injury Criteria (HIC) was 130. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 63.6 g. The driver's left and right femur maximum axial compressive forces were 1237 N and 769 N, respectively. The driver dummy's peak upper neck tension force was 1254 N and peak neck compression force was 93 N.

The left rear passenger's 36 millisecond HIC was 221. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 71.6 g. The passenger's left and right femur maximum axial compressive forces were 1159 N and 1706 N, respectively. The passenger dummy's peak upper neck tension force was 2246 N and peak neck compression force was 153 N.

Data Acquisition Explanations

The driver's X-axis shoulder acceleration data channel, SHLXG1, recorded questionable data throughout the test. The calculated driver's shoulder resultant was also affected.

The driver's thorax rib 1 Z-axis acceleration data channel, RB1ZG1, did not return to zero post-test. The calculated driver's thorax rib 1 resultant was also affected.

The left rear passenger's left acetabulum Y-axis force channel, LACYF4, recorded questionable data between approximately 40 to 42 milliseconds. The calculated velocity and displacement results were also affected.

The vehicle's left lower A-pillar Y-axis acceleration data channel, LLAYG1, did not record any useful data throughout the test. The calculated velocity and displacement results were also affected.

The vehicle's left lower B-pillar Y-axis acceleration data channel, LLBYG1, recorded questionable data throughout the test. The calculated velocity and displacement results were also affected.

The vehicle's left front seat track Y-axis acceleration data channel, LFTYG1, did not record any useful data throughout the test. The calculated velocity and displacement results were also affected.

The vehicle's left rear seat track Y-axis acceleration data channel, LRTYG1, did not record any useful data throughout the test. The calculated velocity and displacement results were also affected.

Table 1 Crash Test Summary

Test mode:	Moving deformable barrier side impact			
Test date:	09/15/03			
Test time:	14:13			
Ambient temperature:	21° C			
Vehicle year/make/ model/body style:	2001/Buick/LeSabre/4-door sedan			
Vehicle test weight:	1851.6 kg			
Impact angle ¹ :	270°			
Impact velocity ² :	52.9 km/h			
Maximum vehicle static crush:	372 mm			
Maximum barrier static crush:	109 mm			
Number of data channels:	257			
Number of cameras:	High-speed	10	Real-time	1
<u>Dummies:</u>	<u>Driver #020</u>		<u>Passenger #033</u>	
Type:	SID-IIs		SID-IIs	
Location:	Left front		Left rear	
Restraint:	3-pt. seat belt, side torso airbag		3-pt. seat belt	
<u>Seat track position for test:</u>				
Driver:	Full forward			
Passenger:	Fixed			
<u>Seat back position for test:</u>				
Driver:	Full forward			
Passenger:	Fixed			
<u>Head restraint position for test:</u>				
Driver:	Full down			
Passenger:	None			
<u>Steering column position:</u>	3 down from full up (3 rd of 6 positions)			

¹ With respect to tow track centerline.

² Speed trap measurement (± .08 km/h accuracy)

Table 2 General Test and Vehicle Parameter Data

Vehicle year/make/ model/body style:	2001/Buick/LeSabre/4-door sedan
VIN:	1G4HR54K01U152366
Model year:	2001
Body style:	4-door sedan
Color:	Driftwood
Engine data:	
Cylinders:	6
Displacement	3.8 liters
Cylinder placement:	V
Engine placement:	transverse
Transmission data:	<u>3</u> speed, ___ manual, <u>X</u> automatic, <u>X</u> overdrive
Final drive:	<u>X</u> FWD, ___ RWD, ___ 4WD
Date vehicle received:	09/09/03
Odometer reading:	54466
Dealer's name and address:	N/A

Accessories:

Power steering	Yes	Automatic transmission	Yes
Power brakes	Yes	Automatic speed control	Yes
Power seats	Yes	Tilting steering wheel	Yes
Power windows	Yes	Telescoping steering wheel	No
Tinted glass	Yes	Air conditioning	Yes
Radio	Yes	Anti-skid brake	Yes
Clock	Yes	Rear window defroster	Yes
Other	None	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by:	General Motors Corporation
Date of manufacture:	09/00
VIN:	1G4HR54K01U152366
GVWR:	2135 kg (4707 lbs.)
GAWR: Front:	1148 kg (2532 lbs.)
Rear:	987 kg (2175 lbs.)

Table 2 General Test and Vehicle Parameter Data, Cont'd.

Tires on vehicle (mfr., line, size): Firestone, Supreme, P225/60R16

Tire pressure with maximum capacity vehicle load:

Front:	44 psi	(300 kPa)
Rear:	44 psi	(300 kPa)

Spare tire (mfr., line, size): Firestone, Temporary, T125/70R16

Type of seats:

Front	Split bench
Rear	Bench

Maximum width: 1880 mm

Wheelbase: 2850 mm

Location of "Recommended Tire Pressure" label:

The label was located on driver's door jam.

Data from vehicle's "Recommended Tire Pressure" label:

Recommended tire size: P225/60R16

Recommended cold tire pressure:

Front:	30 psi	(210 kPa)
Rear:	30 psi	(210 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):

Front	3
Rear	3
Total	6

Vehicle capacity weight: 488 kg

Rated cargo/luggage weight¹ 80 kg

Test vehicle attitude:

Delivered attitude:	LF	725 mm;	RF	725 mm;	LR	758 mm;	RR	755 mm
Fully loaded attitude:	LF	710 mm;	RF	718 mm;	LR	709 mm;	RR	715 mm
Pre-test attitude:	LF	706 mm;	RF	713 mm;	LR	687 mm;	RR	698 mm
Post-test attitude:	LF	728 mm;	RF	697 mm;	LR	693 mm;	RR	697 mm

¹ RCLW = VCW - (68 kg * designated seating capacity)

Table 2 General Test and Vehicle Parameter Data Cont'd

Weight of test vehicle as received (with maximum fluids)=UDW:

Right front	501.5 kg	Right rear	323.5 kg
Left front	514.0 kg	Left rear	318.0 kg
Total front weight	1015.5 kg	(61.3 % of total vehicle weight)	
Total rear weight	641.5 kg	(38.7 % of total vehicle weight)	
Total delivered weight	1657.0 kg		

Calculation of test vehicle's target test weight:

Total Delivered Weight (UDW) =	1657.0 kg
Rated Cargo/Luggage Weight (RCLW) =	80.0 kg
Weight of 2 SID-IIs Dummies @ 60 kg each =	120.0 kg
Target test weight =	1857.0 kg

Weight of test vehicle with required dummies and 74.6 kg of cargo weight:

Right front	506.8 kg	Right rear	396.6 kg
Left front	547.8 kg	Left rear	400.4 kg
Total front weight	1054.6 kg	(57.0% of total vehicle weight)	
Total rear weight	797.0 kg	(43.0% of total vehicle weight)	
Total test weight	1851.6 kg	(0.3% below target test weight)	

Weight of ballast secured in vehicle: 0 kg

Components removed to meet target test weight: Alternator, coolant reservoir, rear tail light, head light, door seal, and belt.

Location of Vehicle's CG: 1226 mm rearward of front wheel centerline

Fuel System Data:

Usable fuel system capacity	70.0 liters (from owner's manual)
Actual test volume:	65.1 liters (93% of usable)

Table 3 Post-Impact Data

Test number: 030915-1
Test date: 09/15/03
Test time: 14:13
Test type: Moving deformable barrier left side impact
Impact angle: 270°
Ambient temperature
at impact area: 21° C
Required impact velocity range: 52.1 to 53.7 km/h

MDB impact velocity:

Primary: 52.9 km/h
Secondary: 52.9 km/h
Distance from vehicle to barrier:
Entering velocity trap: 661 mm
Exiting velocity trap: 51 mm

Location of Impact Point On Test Vehicle Side To Be Impacted:

Wheelbase = 285 millimeters
Intended impact point is 592 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)
Actual Impact Point is 583 millimeters rearward of front axle centerline

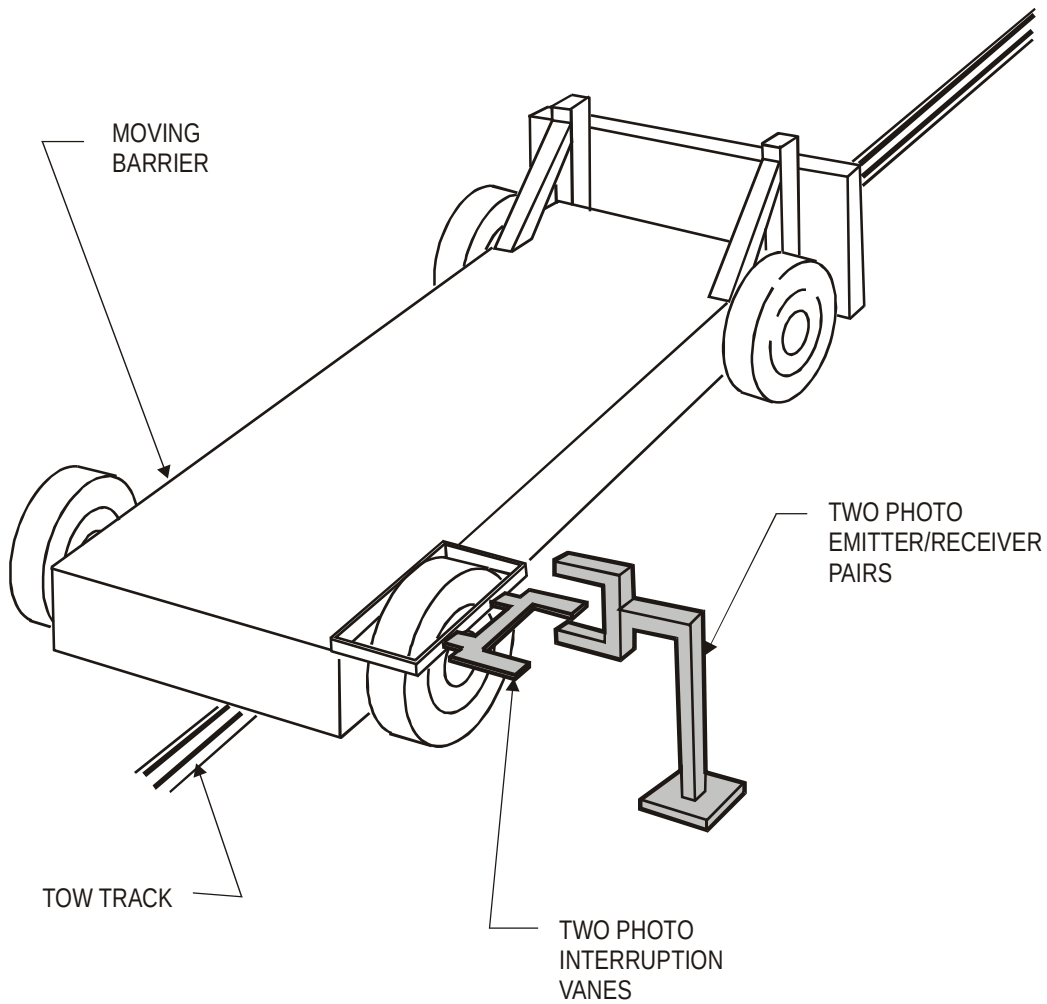
Impact Point:

Actual Impact Point is 9 mm left of nominal impact ref. line (Lateral)
Actual Impact Point is 0 mm up from nominal impact point (Vertical)

Maximum Exterior Static Crush:

1. Level 1 (310 mm above ground) = 223 mm
2. Level 2 (547 mm above ground) = 366 mm
3. Level 3 (615 mm above ground) = 358 mm
4. Level 4 (944 mm above ground) = 310 mm
5. Level 5 (1440 mm above ground) = 56 mm
Maximum Post-Test Intrusion = 366 mm

Figure 1 Impact Velocity Measurement System



The final vane clears the final emitter/receiver pair 51 millimeters before impact.

The vanes have 610-millimeter spacing.

Figure 2 Vehicle Accelerometer and String Potentiometer Placement

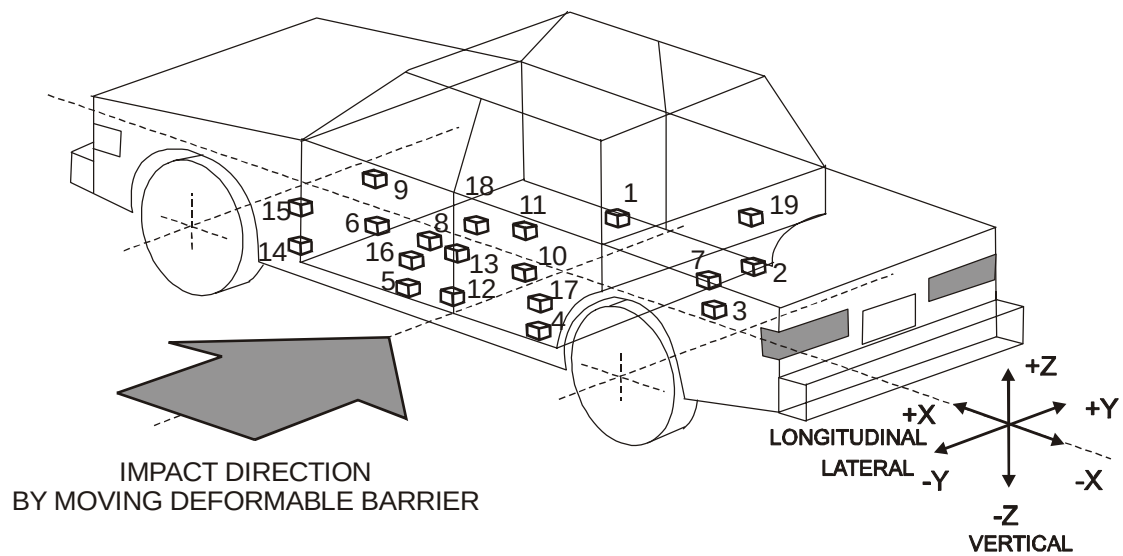


Table 4 Vehicle Accelerometer Locations and Data Summary

TEST NUMBER: 030915-1

No.	LOCATION		X	Y	Z	POSITIVE DIRECTION		NEGATIVE DIRECTION	
1	RIGHT SIDE SILL	PRE	3530 mm	705 mm	-274 mm				
	AT FRONT SEAT	POST	3530 mm	705 mm	-267 mm				
	LONGITUDINAL					1.7 g	@ 44.4 ms	3.5 g	@ 25.4 ms
	LATERAL					22.2 g	@ 11.7 ms	3.1 g	@ 76.8 ms
	VERTICAL					5.0 g	@ 33.4 ms	2.7 g	@ 70.0 ms
	RESULTANT					22.4 g	@ 11.8 ms		
2	RIGHT SIDE SILL	PRE	2551 mm	702 mm	-269 mm				
	AT REAR SEAT	POST	2551 mm	702 mm	-260 mm				
	LONGITUDINAL					1.8 g	@ 56.8 ms	4.0 g	@ 25.2 ms
	LATERAL					17.2 g	@ 10.6 ms	2.9 g	@ 141.4 ms
	VERTICAL					3.9 g	@ 65.4 ms	6.2 g	@ 15.6 ms
	RESULTANT					17.3 g	@ 10.6 ms		
3	REAR FLOORPAN	PRE	1500 mm	0 mm	-505 mm				
	ABOVE AXLE	POST	1500 mm	0 mm	-540 mm				
	LONGITUDINAL					4.8 g	@ 38.9 ms	5.1 g	@ 66.7 ms
	LATERAL					13.1 g	@ 37.2 ms	2.0 g	@ 140.0 ms
	VERTICAL					11.2 g	@ 38.9 ms	6.2 g	@ 58.2 ms
	RESULTANT					17.1 g	@ 38.6 ms		
4	LEFT SIDE SILL	PRE	2575 mm	-702 mm	-277 mm				
	AT REAR SEAT	POST	2543 mm	-635 mm	-288 mm				
	LATERAL					68.1 g	@ 17.8 ms	22.7 g	@ 22.1 ms

Table 4 Vehicle Accelerometer Locations and Data Summary, Cont'd.

TEST NUMBER: 030915-1
No. LOCATION

		X	Y	Z	POSITIVE DIRECTION			NEGATIVE DIRECTION		
5 LEFT SIDE SILL AT FRONT SEAT LATERAL	PRE	3560 mm	-705 mm	-288 mm						
	POST	3515 mm	-635 mm	-285 mm						
					64.2 g	@	6.2 ms	5.7 g	@	19.1 ms
6 LEFT FRONT DOOR ON CENTERLINE LATERAL	PRE	3275 mm	-790 mm	-600 mm						
	POST	3236 mm	-632 mm	-536 mm						
					184.2 g	@	9.5 ms	24.2 g	@	26.4 ms
7 RIGHT REAR OCCUPANT COMPARTMENT LATERAL	PRE	2452 mm	640 mm	-345 mm						
	POST	2451 mm	640 mm	-340 mm						
					15.1 g	@	10.1 ms	2.5 g	@	140.3 ms
8 LEFT FRONT DOOR MIDREAR LATERAL	PRE	2980 mm	-790 mm	-616 mm						
	POST	3163 mm	-650 mm	-650 mm						
					147.2 g	@	7.0 ms	84.4 g	@	19.4 ms
9 LEFT FRONT DOOR UPPER CENTERLINE LATERAL	PRE	3292 mm	-790 mm	-850 mm						
	POST	2895 mm	-690 mm	-635 mm						
					108.1 g	@	13.4 ms	27.6 g	@	9.3 ms
10 LEFT REAR DOOR MIDREAR LATERAL	PRE	2115 mm	-750 mm	-667 mm						
	POST	1811 mm	-560 mm	-700 mm						
					95.4 g	@	21.0 ms	47.3 g	@	16.2 ms
11 LEFT REAR DOOR UPPER CENTERLINE LATERAL	PRE	2330 mm	-750 mm	-667 mm						
	POST	2211 mm	-573 mm	-908 mm						
					106.7 g	@	25.8 ms	46.2 g	@	79.8 ms

Table 4 Vehicle Accelerometer Locations and Data Summary, Cont'd.

TEST NUMBER: 030915-1					POSITIVE		NEGATIVE		
No.	LOCATION		X	Y	Z	DIRECTION		DIRECTION	
12	LEFT LOWER B-POST	PRE	2800 mm	-736 mm	-525 mm				
		POST	2742 mm	-465 mm	-476 mm				
	LATERAL ¹					164.7 g	@ 7.1 ms	53.7 g	@ 25.8 ms
13	LEFT MIDDLE B-POST	PRE	2800 mm	-730 mm	-818 mm				
		POST	2679 mm	-455 mm	-802 mm				
	LATERAL					94.8 g	@ 5.8 ms	29.2 g	@ 44.9 ms
14	LEFT LOWER A-POST	PRE	3892 mm	-821 mm	-481 mm				
		POST	3710 mm	-790 mm	-510 mm				
	LATERAL ¹					---	---	---	---
15	LEFT MIDDLE A-POST	PRE	3880 mm	-814 mm	-797 mm				
		POST	3710 mm	-835 mm	-805 mm				
	LATERAL					57.7 g	@ 32.0 ms	33.5 g	@ 36.4 ms
16	LEFT FRONT SEAT TRACK	PRE	3140 mm	-705 mm	-306 mm				
		POST	2995 mm	-660 mm	-285 mm				
	LATERAL ¹					---	---	---	---
17	LEFT REAR SEAT TRACK	PRE	2188 mm	-722 mm	-333 mm				
		POST	2146 mm	-585 mm	-295 mm				
	LATERAL ¹					---	---	---	---

Table 4 Vehicle Accelerometer Locations and Data Summary, Cont'd.

TEST NUMBER: 030915-1

No. LOCATION		X	Y	Z	POSITIVE DIRECTION		NEGATIVE DIRECTION	
18 VEHICLE CENTER	PRE	3355 mm	0 mm	-350 mm				
OF GRAVITY	POST	3355 mm	0 mm	-355 mm				
LONGITUDINAL					1.9 g	@ 30.1 ms	7.9 g	@ 33.8 ms
LATERAL					16.2 g	@ 24.3 ms	1.9 g	@ 72.4 ms
VERTICAL					25.3 g	@ 34.8 ms	16.5 g	@ 30.4 ms
RESULTANT					30.4 g	@ 34.7 ms		
19 REAR DECK	PRE	628 mm	0 mm	-450 mm				
	POST	628 mm	0 mm	-492 mm				
LONGITUDINAL					5.2 g	@ 55.3 ms	8.1 g	@ 66.9 ms
LATERAL					14.0 g	@ 28.6 ms	4.7 g	@ 127.0 ms

REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + RIGHTWARD FROM VEHICLE CENTERLINE
Z: + DOWNWARD FROM GROUND LEVEL

For acceleration data sign convention see Report Sign Convention in Appendix D.

¹ See DATA ACQUISITION EXPLANATIONS

Table 5 Moving Deformable Barrier(MDB) Summary

MDB Face Manufacturer And Serial Number:

Plascore, 033A0303 024A0403

Position Of Impactor (MDB) On Monorail:

Crabbed 27° to the left

MDB Specifications:

Overall Width of Framework Carriage	=	<u>1251</u>	mm
Overall Length of MDB (Incl. honeycomb impact face)	=	<u>4014</u>	mm
Wheelbase of Framework Carriage	=	<u>2591</u>	mm
Track of Framework Carriage (Front & Rear)	=	<u>1881</u>	mm
C.G. Location Rearward of Front Axle	=	<u>1110</u>	mm

MDB Weight:

Left Front	=	<u>417.4</u>	kg	Left Rear	=	<u>264.8</u>	kg
Right Front	=	<u>362.0</u>	kg	Right Rear	=	<u>319.2</u>	kg
Total Front	=	<u>779.4</u>	kg	Total Rear	=	<u>584.0</u>	kg
Total MDB Weight	=	<u>1363.4</u>	kg				
Impact Angle (MDB C/L to Target Vehicle C/L) = <u>90</u> degrees							
Impact Speed = <u>52.9</u> km/h							

Maximum Static Crush of Honeycomb Impact Face:

1. Row A at Center of Bumper Level	=	<u>109.3</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>64.8</u>	millimeters
3. Row C at Mid Level	=	<u>N/A¹</u>	millimeters
4. Row D at Top of Stack Level	=	<u>97.8</u>	millimeters

Instrumentation:

Number of MDB Data Channels = 5

¹ Row C at Mid Level was not measured pre-test.

Section 3.0

Summary of FMVSS 214D Data

Table 6 Dummy Injury Criteria Data

TEST NUMBER: 030915-1

DRIVER DUMMY SERIAL NUMBER: 020

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

HEAD ACCELERATION				
LONGITUDINAL	6.2 g	@ 223.3 ms	12.0 g	@ 57.0 ms
LATERAL	14.9 g	@ 75.3 ms	2.8 g	@ 193.0 ms
VERTICAL	36.6 g	@ 57.0 ms	3.3 g	@ 125.2 ms
RESULTANT	39.3 g	@ 57.0 ms		
HIC	130 from 43.4 to 68.2 ms			
HEAD LEFT ACCELERATION				
LONGITUDINAL	6.2 g	@ 219.6 ms	13.4 g	@ 57.2 ms
VERTICAL	42.9 g	@ 51.8 ms	5.3 g	@ 89.8 ms
HEAD FRONT ACCELERATION				
LATERAL	19.4 g	@ 75.2 ms	2.2 g	@ 192.9 ms
VERTICAL	43.7 g	@ 57.0 ms	5.2 g	@ 124.6 ms
HEAD TOP ACCELERATION				
LONGITUDINAL	11.0 g	@ 224.8 ms	13.0 g	@ 76.2 ms
LATERAL	25.1 g	@ 81.3 ms	8.1 g	@ 47.2 ms
UPPER NECK FORCE				
X-AXIS SHEAR	28.7 N	@ 223.1 ms	339.3 N	@ 57.2 ms
Y-AXIS SHEAR	392.6 N	@ 81.6 ms	86.3 N	@ 199.0 ms
Z-AXIS AXIAL	1253.9 N	@ 57.2 ms	93.3 N	@ 122.8 ms
UPPER NECK MOMENT				
ABOUT X-AXIS	33.6 N-m	@ 72.9 ms	20.0 N-m	@ 47.4 ms
ABOUT Y-AXIS	17.0 N-m	@ 122.6 ms	21.7 N-m	@ 56.5 ms
ABOUT Z-AXIS	14.5 N-m	@ 77.6 ms	3.9 N-m	@ 236.8 ms
OCCIPITAL COND	39.3 N-m	@ 77.8 ms	15.0 N-m	@ 47.2 ms
LOWER NECK FORCE				
X-AXIS SHEAR	91.7 N	@ 205.2 ms	289.6 N	@ 107.8 ms
Y-AXIS SHEAR	908.2 N	@ 57.6 ms	142.7 N	@ 203.5 ms
Z-AXIS AXIAL	1238.1 N	@ 51.8 ms	504.6 N	@ 85.8 ms
LOWER NECK MOMENT				
ABOUT X-AXIS	114.7 N-m	@ 78.4 ms	26.5 N-m	@ 196.6 ms
ABOUT Y-AXIS	75.5 N-m	@ 112.0 ms	44.5 N-m	@ 51.3 ms
ABOUT Z-AXIS	37.1 N-m	@ 58.0 ms	14.2 N-m	@ 117.3 ms
SHOULDER DISPLACEMENT				
LATERAL	43.8 mm	@ 49.3 ms	0.0 mm	@ 2.9 ms

Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

DRIVER DUMMY SERIAL NUMBER: 020

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

SHOULDER ACCELERATION

LONGITUDINAL ¹	---		---		---
LATERAL	128.5 g	@	37.3 ms		41.6 g @ 46.9 ms
VERTICAL	70.7 g	@	73.1 ms		42.9 g @ 111.5 ms
RESULTANT ¹	---		---		

SHOULDER FORCE

X-AXIS	256.3 N	@	73.8 ms		325.0 N @ 36.6 ms
Y-AXIS	2241.8 N	@	46.9 ms		291.1 N @ 73.8 ms
Z-AXIS	374.9 N	@	45.3 ms		226.1 N @ 75.9 ms

UPPER SPINE ACCELERATION

LONGITUDINAL	6.4 g	@	72.9 ms		9.0 g @ 45.6 ms
LATERAL	52.5 g	@	47.2 ms		12.4 g @ 67.8 ms
VERTICAL	10.0 g	@	44.4 ms		8.2 g @ 115.5 ms
RESULTANT	53.0 g	@	47.2 ms		

SPINE RIB 1 ACCELERATION

LONGITUDINAL	8.7 g	@	39.0 ms		10.3 g @ 50.4 ms
LATERAL	53.2 g	@	45.3 ms		10.8 g @ 73.0 ms
VERTICAL	5.5 g	@	49.3 ms		15.6 g @ 39.2 ms
RESULTANT	53.3 g	@	43.7 ms		

SPINE RIB 2 ACCELERATION

LONGITUDINAL	6.2 g	@	65.5 ms		8.4 g @ 50.2 ms
LATERAL	58.0 g	@	45.0 ms		11.2 g @ 73.0 ms
VERTICAL	5.5 g	@	49.3 ms		14.9 g @ 39.2 ms
RESULTANT	58.0 g	@	45.0 ms		

SPINE RIB 3 ACCELERATION

LONGITUDINAL	7.5 g	@	65.6 ms		9.2 g @ 50.1 ms
LATERAL	61.9 g	@	44.6 ms		12.8 g @ 105.5 ms
VERTICAL	5.4 g	@	49.2 ms		14.4 g @ 39.2 ms
RESULTANT	62.1 g	@	44.6 ms		

SPINE RIB 4 ACCELERATION

LONGITUDINAL	8.9 g	@	77.5 ms		8.5 g @ 49.9 ms
LATERAL	66.3 g	@	44.3 ms		15.8 g @ 104.7 ms
VERTICAL	4.9 g	@	87.0 ms		14.7 g @ 39.2 ms
RESULTANT	66.6 g	@	44.3 ms		
3 MS CLIP	63.5 g	from 42.8 to 45.8 ms			
TTI	76.4				

Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

DRIVER DUMMY SERIAL NUMBER: 020

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

SPINE RIB 5 ACCELERATION					
LONGITUDINAL	10.6 g	@	77.4 ms	8.8 g	@ 43.1 ms
LATERAL	70.3 g	@	39.5 ms	17.9 g	@ 105.0 ms
VERTICAL	4.8 g	@	86.9 ms	16.2 g	@ 39.1 ms
RESULTANT	72.0 g	@	39.4 ms		
THORAX RIB 1 ACCELERATION					
LONGITUDINAL	34.0 g	@	38.9 ms	28.6 g	@ 88.2 ms
LATERAL	97.1 g	@	39.4 ms	49.2 g	@ 45.7 ms
VERTICAL ¹	---		---	---	---
RESULTANT ¹	---		---		
THORAX RIB 2 ACCELERATION					
LONGITUDINAL	28.8 g	@	41.1 ms	23.5 g	@ 31.7 ms
LATERAL	70.9 g	@	38.6 ms	36.9 g	@ 45.0 ms
VERTICAL	35.0 g	@	70.8 ms	21.8 g	@ 43.7 ms
RESULTANT	74.7 g	@	38.5 ms		
THORAX RIB 3 ACCELERATION					
LONGITUDINAL	36.9 g	@	67.7 ms	27.7 g	@ 34.8 ms
LATERAL	62.8 g	@	32.6 ms	23.7 g	@ 75.5 ms
VERTICAL	53.2 g	@	40.3 ms	31.2 g	@ 43.8 ms
RESULTANT	67.1 g	@	34.4 ms		
ABDOMEN RIB 4 ACCELERATION					
LONGITUDINAL	68.6 g	@	40.3 ms	60.4 g	@ 63.9 ms
LATERAL	177.1 g	@	36.6 ms	137.2 g	@ 39.4 ms
VERTICAL	33.3 g	@	37.4 ms	21.7 g	@ 77.2 ms
RESULTANT	184.8 g	@	36.7 ms		
ABDOMEN RIB 5 ACCELERATION					
LONGITUDINAL	62.5 g	@	39.0 ms	68.1 g	@ 64.2 ms
LATERAL	210.5 g	@	33.7 ms	129.3 g	@ 38.4 ms
VERTICAL	34.6 g	@	39.1 ms	26.4 g	@ 69.8 ms
RESULTANT	216.7 g	@	33.8 ms		
THORAX RIB DISPLACEMENT					
1 LATERAL	41.2 mm	@	47.6 ms	0.0 mm	@ 18.8 ms
2 LATERAL	37.7 mm	@	47.2 ms	0.1 mm	@ 18.8 ms
3 LATERAL	29.0 mm	@	47.3 ms	0.1 mm	@ 19.1 ms
4 LATERAL	36.9 mm	@	46.9 ms	0.0 mm	@ 31.3 ms
5 LATERAL	39.8 mm	@	46.9 ms	3.0 mm	@ 92.6 ms

Table 6 Dummy Injury Criteria Data. Cont'd.

TEST NUMBER: 030915-1

DRIVER DUMMY SERIAL NUMBER: 020

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

LUMBAR FORCE				
X-AXIS	350.5 N	@ 112.0 ms	645.6 N	@ 43.9 ms
Y-AXIS	1227.5 N	@ 43.8 ms	738.5 N	@ 114.6 ms
Z-AXIS	811.8 N	@ 72.2 ms	645.2 N	@ 119.9 ms
LUMBAR MOMENT				
ABOUT LONGITU	46.1 N-m	@ 44.2 ms	44.4 N-m	@ 121.7 ms
ABOUT LATERAL	49.4 N-m	@ 44.9 ms	19.4 N-m	@ 240.2 ms
ABOUT VERTICAL	23.5 N-m	@ 45.8 ms	16.8 N-m	@ 85.6 ms
PELVIS ACCELERATION				
LONGITUDINAL	12.7 g	@ 107.8 ms	14.6 g	@ 34.6 ms
LATERAL	80.5 g	@ 40.6 ms	25.5 g	@ 102.6 ms
VERTICAL	13.9 g	@ 46.1 ms	14.6 g	@ 36.4 ms
RESULTANT	80.7 g	@ 40.6 ms		
ACETABULUM FORCE				
Y-AXIS	3125.1 N	@ 39.4 ms	63.9 N	@ 59.3 ms
ILLIAC WING FORCE				
Y-AXIS	2057.2 N	@ 44.2 ms	119.3 N	@ 63.6 ms
LEFT FEMUR FORCE				
X-AXIS	151.4 N	@ 100.0 ms	270.0 N	@ 38.6 ms
Y-AXIS	122.5 N	@ 128.5 ms	976.4 N	@ 42.2 ms
Z-AXIS	1237.3 N	@ 44.6 ms	150.4 N	@ 34.2 ms
LEFT FEMUR MOMENT				
ABOUT LONGITU	166.6 N-m	@ 41.4 ms	54.2 N-m	@ 61.4 ms
ABOUT LATERAL	38.3 N-m	@ 99.8 ms	66.8 N-m	@ 40.7 ms
ABOUT VERTICAL	61.4 N-m	@ 41.9 ms	19.8 N-m	@ 76.5 ms
RIGHT FEMUR FORCE				
X-AXIS	84.6 N	@ 118.4 ms	175.0 N	@ 57.0 ms
Y-AXIS	386.3 N	@ 41.0 ms	431.6 N	@ 52.7 ms
Z-AXIS	769.0 N	@ 51.0 ms	338.8 N	@ 57.8 ms
RIGHT FEMUR MOMENT				
ABOUT LONGITU	47.4 N-m	@ 63.4 ms	89.6 N-m	@ 41.5 ms
ABOUT LATERAL	29.7 N-m	@ 57.4 ms	11.9 N-m	@ 135.1 ms
ABOUT VERTICAL	10.9 N-m	@ 126.9 ms	36.8 N-m	@ 41.1 ms

POSITIVE DIRECTION

LONGITUDINAL: FORWARD
LATERAL: RIGHTWARD
VERTICAL: DOWNWARD

NEGATIVE DIRECTION

LONGITUDINAL: REARWARD
LATERAL: LEFTWARD
VERTICAL: UPWARD

¹ See DATA ACQUISITION EXPLANATION

Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

PASSENGER DUMMY SERIAL NUMBER: 033

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

HEAD ACCELERATION

LONGITUDINAL	3.1 g	@ 219.4 ms	19.1 g	@ 67.8 ms
LATERAL	29.1 g	@ 68.1 ms	3.6 g	@ 309.9 ms
VERTICAL	46.5 g	@ 64.2 ms	4.0 g	@ 99.8 ms
RESULTANT	55.4 g	@ 67.8 ms		
HIC	221 from 55.0 to 85.2 ms			

HEAD LEFT ACCELERATION

LONGITUDINAL	3.4 g	@ 213.2 ms	22.0 g	@ 64.3 ms
VERTICAL	39.7 g	@ 61.1 ms	11.7 g	@ 95.8 ms

HEAD FRONT ACCELERATION

LATERAL	45.8 g	@ 67.7 ms	4.2 g	@ 306.3 ms
VERTICAL	56.8 g	@ 64.3 ms	6.9 g	@ 100.1 ms

HEAD TOP ACCELERATION

LONGITUDINAL	4.8 g	@ 221.4 ms	22.7 g	@ 68.0 ms
LATERAL	54.2 g	@ 68.4 ms	20.7 g	@ 54.6 ms

UPPER NECK FORCE

X-AXIS SHEAR	61.8 N	@ 198.0 ms	678.5 N	@ 68.1 ms
Y-AXIS SHEAR	484.0 N	@ 98.9 ms	114.9 N	@ 309.9 ms
Z-AXIS AXIAL	2245.5 N	@ 68.3 ms	153.4 N	@ 97.4 ms

UPPER NECK MOMENT

ABOUT X AXIS	39.9 N-m	@ 94.5 ms	39.5 N-m	@ 55.2 ms
ABOUT Y AXIS	19.8 N-m	@ 101.2 ms	39.9 N-m	@ 62.2 ms
ABOUT Z AXIS	9.9 N-m	@ 96.4 ms	4.1 N-m	@ 305.1 ms
OCCIPITAL CONDYLE	47.1 N-m	@ 94.6 ms	35.1 N-m	@ 54.3 ms

LOWER NECK FORCE

X-AXIS SHEAR	84.5 N	@ 34.1 ms	394.7 N	@ 67.3 ms
Y-AXIS SHEAR	1121.3 N	@ 74.4 ms	172.9 N	@ 310.0 ms
Z-AXIS AXIAL	2357.2 N	@ 68.2 ms	690.0 N	@ 98.9 ms

LOWER NECK MOMENT

ABOUT X AXIS	123.9 N-m	@ 78.2 ms	28.3 N-m	@ 187.6 ms
ABOUT Y AXIS	45.1 N-m	@ 98.1 ms	76.3 N-m	@ 68.4 ms
ABOUT Z AXIS	48.4 N-m	@ 74.3 ms	11.8 N-m	@ 97.8 ms

SHOULDER DISPLACEMENT

LATERAL	18.4 mm	@ 53.4 ms	1.3 mm	@ 36.6 ms
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Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

PASSENGER DUMMY SERIAL NUMBER: 033

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

SHOULDER ACCELERATION

LONGITUDINAL	28.1 g	@	53.8 ms	30.1 g	@	40.4 ms
LATERAL	96.3 g	@	43.4 ms	27.5 g	@	41.3 ms
VERTICAL	38.0 g	@	45.9 ms	35.1 g	@	55.0 ms
RESULTANT	103.1 g	@	43.5 ms			

SHOULDER FORCE

X-AXIS	55.2 N	@	89.1 ms	252.1 N	@	65.8 ms
Y-AXIS	890.5 N	@	50.3 ms	100.8 N	@	35.7 ms
Z-AXIS	45.2 N	@	308.5 ms	307.8 N	@	38.9 ms

UPPER SPINE ACCELERATION

LONGITUDINAL	3.9 g	@	99.8 ms	16.9 g	@	52.2 ms
LATERAL	51.4 g	@	50.2 ms	7.9 g	@	90.0 ms
VERTICAL	4.0 g	@	61.1 ms	7.6 g	@	44.9 ms
RESULTANT	53.2 g	@	51.8 ms			

SPINE RIB 1 ACCELERATION

LONGITUDINAL	4.6 g	@	117.2 ms	21.9 g	@	48.6 ms
LATERAL	47.3 g	@	47.3 ms	11.4 g	@	76.1 ms
VERTICAL	15.7 g	@	82.6 ms	22.3 g	@	43.7 ms
RESULTANT	52.5 g	@	47.0 ms			

SPINE RIB 2 ACCELERATION

LONGITUDINAL	4.7 g	@	117.1 ms	21.4 g	@	47.3 ms
LATERAL	52.2 g	@	46.7 ms	15.5 g	@	78.9 ms
VERTICAL	15.5 g	@	82.4 ms	22.9 g	@	43.8 ms
RESULTANT	58.2 g	@	46.6 ms			

SPINE RIB 3 ACCELERATION

LONGITUDINAL	6.9 g	@	68.1 ms	21.8 g	@	47.0 ms
LATERAL	59.2 g	@	44.7 ms	19.3 g	@	78.9 ms
VERTICAL	15.5 g	@	82.1 ms	24.3 g	@	43.4 ms
RESULTANT	64.3 g	@	44.7 ms			

SPINE RIB 4 ACCELERATION

LONGITUDINAL	10.6 g	@	67.8 ms	24.5 g	@	46.4 ms
LATERAL	71.8 g	@	44.2 ms	24.7 g	@	79.4 ms
VERTICAL	15.2 g	@	82.1 ms	24.8 g	@	43.5 ms
RESULTANT	77.3 g	@	44.2 ms			
3 MS CLIP	71.6 g	from 43.2 to 46.2 ms				
TTI	79.4					

Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

PASSENGER DUMMY SERIAL NUMBER: 033

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

SPINE RIB 5 ACCELERATION

LONGITUDINAL	13.0 g	@	67.8 ms	25.2 g	@	46.3 ms
LATERAL	79.0 g	@	44.2 ms	27.1 g	@	79.2 ms
VERTICAL	15.6 g	@	82.0 ms	27.4 g	@	43.5 ms
RESULTANT	85.0 g	@	44.1 ms			

THORAX RIB 1 ACCELERATION

LONGITUDINAL	38.5 g	@	49.9 ms	35.1 g	@	37.0 ms
LATERAL	59.8 g	@	41.0 ms	27.5 g	@	73.2 ms
VERTICAL	21.0 g	@	45.9 ms	17.3 g	@	52.4 ms
RESULTANT	62.4 g	@	40.8 ms			

THORAX RIB 2 ACCELERATION

LONGITUDINAL	22.5 g	@	47.8 ms	31.3 g	@	33.6 ms
LATERAL	78.8 g	@	39.0 ms	32.7 g	@	80.7 ms
VERTICAL	21.8 g	@	45.5 ms	16.5 g	@	52.0 ms
RESULTANT	81.0 g	@	39.0 ms			

THORAX RIB 3 ACCELERATION

LONGITUDINAL	30.7 g	@	49.4 ms	36.0 g	@	33.4 ms
LATERAL	149.4 g	@	38.4 ms	66.3 g	@	32.1 ms
VERTICAL	30.7 g	@	41.0 ms	17.6 g	@	81.0 ms
RESULTANT	149.8 g	@	38.4 ms			

ABDOMEN RIB 4 ACCELERATION

LONGITUDINAL	116.2 g	@	40.5 ms	80.8 g	@	33.1 ms
LATERAL	126.8 g	@	28.2 ms	71.3 g	@	33.0 ms
VERTICAL	43.6 g	@	72.0 ms	39.9 g	@	34.1 ms
RESULTANT	141.8 g	@	28.2 ms			

ABDOMEN RIB 5 ACCELERATION

LONGITUDINAL	67.7 g	@	41.1 ms	53.8 g	@	27.9 ms
LATERAL	122.8 g	@	27.7 ms	47.0 g	@	33.2 ms
VERTICAL	34.6 g	@	70.2 ms	50.9 g	@	67.3 ms
RESULTANT	135.3 g	@	27.7 ms			

THORAX RIB DISPLACEMENT

1 LATERAL	18.9 mm	@	55.3 ms	0.0 mm	@	19.7 ms
2 LATERAL	29.3 mm	@	55.2 ms	0.0 mm	@	23.1 ms
3 LATERAL	37.5 mm	@	54.2 ms	0.0 mm	@	3.1 ms
4 LATERAL	29.8 mm	@	51.0 ms	0.0 mm	@	26.2 ms
5 LATERAL	26.9 mm	@	46.6 ms	1.3 mm	@	94.7 ms

Table 6 Dummy Injury Criteria Data, Cont'd.

TEST NUMBER: 030915-1

PASSENGER DUMMY SERIAL NUMBER: 033

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

LUMBAR FORCE					
X-AXIS	876.6 N	@	68.2 ms	521.3 N	@ 42.6 ms
Y-AXIS	1379.2 N	@	43.0 ms	683.1 N	@ 78.6 ms
Z-AXIS	2179.2 N	@	67.4 ms	370.7 N	@ 36.3 ms
LUMBAR MOMENT					
ABOUT X AXIS	58.4 N-m	@	43.0 ms	21.6 N-m	@ 103.4 ms
ABOUT Y AXIS	22.1 N-m	@	38.2 ms	67.6 N-m	@ 72.6 ms
ABOUT Z AXIS	1.2 N-m	@	52.5 ms	17.9 N-m	@ 83.8 ms
PELVIS ACCELERATION					
LONGITUDINAL	14.5 g	@	53.0 ms	44.8 g	@ 41.8 ms
LATERAL	91.7 g	@	39.4 ms	33.1 g	@ 60.4 ms
VERTICAL	10.3 g	@	80.2 ms	18.0 g	@ 45.0 ms
RESULTANT	99.5 g	@	42.8 ms		
ACETABULUM FORCE					
Y-AXIS ¹	3561.8 N	@	41.7 ms	9682.8 N	@ 40.9 ms
ILLIAC WING FORCE					
Y-AXIS	485.6 N	@	41.6 ms	156.8 N	@ 57.4 ms
LEFT FEMUR FORCE					
X-AXIS	132.1 N	@	56.2 ms	536.2 N	@ 42.6 ms
Y-AXIS	262.3 N	@	34.7 ms	1983.5 N	@ 42.7 ms
Z-AXIS	1159.9 N	@	64.1 ms	2674.9 N	@ 42.4 ms
LEFT FEMUR MOMENT					
ABOUT X AXIS	323.1 N-m	@	42.6 ms	14.7 N-m	@ 242.5 ms
ABOUT Y AXIS	48.5 N-m	@	56.2 ms	44.0 N-m	@ 42.6 ms
ABOUT Z AXIS	142.7 N-m	@	43.3 ms	12.2 N-m	@ 248.8 ms
RIGHT FEMUR FORCE					
X-AXIS	147.7 N	@	45.0 ms	357.6 N	@ 53.5 ms
Y-AXIS	1840.2 N	@	42.6 ms	344.4 N	@ 52.6 ms
Z-AXIS	1706.3 N	@	42.8 ms	21.7 N	@ 156.9 ms
RIGHT FEMUR MOMENT					
ABOUT X AXIS	109.0 N-m	@	53.7 ms	61.0 N-m	@ 42.7 ms
ABOUT Y AXIS	38.2 N-m	@	44.9 ms	29.7 N-m	@ 53.0 ms
ABOUT Z AXIS	95.3 N-m	@	64.2 ms	10.3 N-m	@ 111.4 ms

POSITIVE DIRECTION

LONGITUDINAL: FORWARD
LATERAL: RIGHTWARD
VERTICAL: DOWNWARD

NEGATIVE DIRECTION

LONGITUDINAL: REARWARD
LATERAL: LEFTWARD
VERTICAL: UPWARD

¹ See DATA ACQUISITION EXPLANATION

Table 7 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Head restraint	Door panel, seat back
Shoulder	Airbag	Door panel
Abdomen	None	None
Left knee	Door panel	Door panel
Right knee	None	None

Door opening:

	<u>Left</u>	<u>Right</u>
Front	Jammed and latched	Easy
Rear	Jammed and latched	Easy

Seat movement:

	<u>Seat back failure</u>	<u>Seat shift</u>
Left Front	None	None
Left Rear	None	None

Glazing damage:

Front windshield - top of driver's A-pillar; driver and passenger side windows shattered.

Other notable impact effects:

Maximum impact side door separation was 216 and 178 mm for front and rear doors respectively.

Section 4.0

Occupant, Vehicle, Camera, and Barrier Information

Dummy Kinematic Summary

Driver Dummy

Upon impact, the driver dummy translated leftward on the seat impacting the left knee into the door panel and the left shoulder into the torso airbag. The dummy's head and neck extended left on impact as the shoulder impacted the airbag. The dummy's head contacted the head restraint on rebound. The driver dummy came to rest seated in the driver's seat.

Left Rear Passenger Dummy

Upon impact, the passenger dummy translated leftward impacting the left knee into the door panel. The dummy's head and neck extended left and the head contacted the door panel. The dummy's head rotated backward as the dummy rebounded contacting the seat back. The dummy came to rest shifted to the left touching the door panel.

Table 8 Vehicle Structural Measurements^{1,2}

	Elements	Pre-Test
1	Total Length	5080
2	Total Width	1882
3	Bumper Top Height	511
4	Bumper Bottom Height	391
5	Longitudinal Member Top Height	506
6	Longitudinal Member Bottom Height	401
7	Distance Between Longitudinal Members	1300
7'	Longitudinal Member Width	150
8	Engine Top Height	844
9	Engine Bottom Height	175
10	Engine and Gearbox Width	765
11	Front Bumper - Engine Distance	560
12	Front Shock Absorber Fixing Height	876
13	Bonnet Leading Edge Height	760
14	Front Shock Absorber Fixing Width	1230
15	Front Bumper - Front Axle Distance	1080
16	Front Axle - A Pillar Distance	585
17	A Pillar - B Pillar Distance	990
18	B Pillar - Rear Axle Distance	1280
19	B Pillar - C Pillar Distance	1505
20	Roof Sill Bottom Height	1208
21	Roof Sill Top Height	1337
22	Floor Sill Bottom Height	170
23	Floor Sill Top Height	368

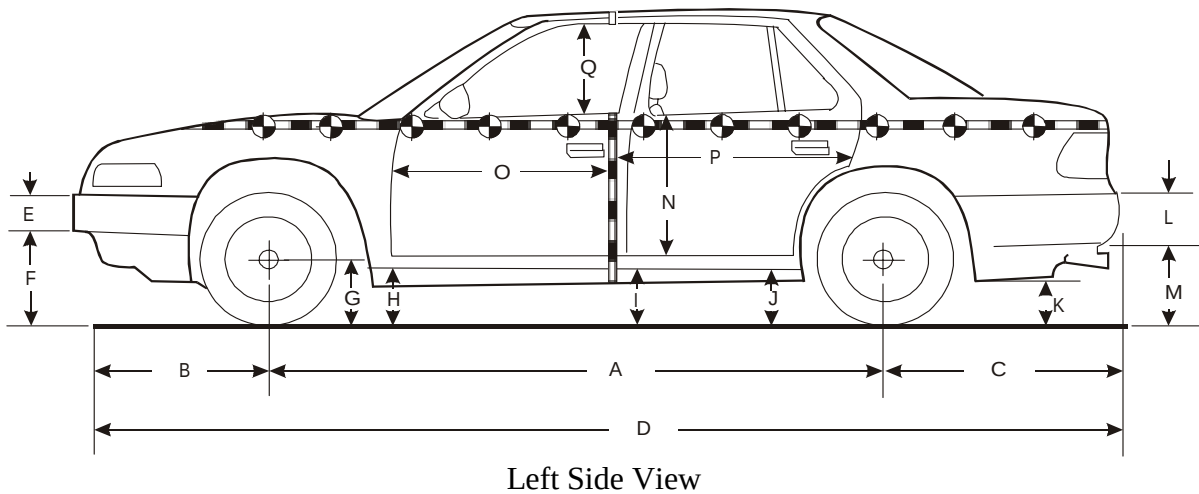
All distance measurements are in millimeters.

¹ Taken from INSIA report, “Structural Survey of Cars, Methodology of the Main Resistant Elements in the Car Body”, March 1999. This report is included in Appendix E.

² The vertical measurements from the ground are adjusted based on the test vehicle’s pre-test attitude measurements.

Figure 3 Pre-Test And Post-Test Measurement Points

Vehicle: 2000 Buick LeSabre 4-door



Note: All dimensions are in millimeters with tolerance of ± 3 mm

Code	Measurement Description	Pre-Test	Post-Test	Change
A	Wheelbase	2850	2790	60
B	Front Axle to FSOV	1080	1080	0
C	Rear Axle to RSOV	1150	1150	0
D	Total Length at Centerline	5080	5080	0
E	Front Bumper Thickness	240	240	0
F	Front Bumper Bottom to Ground	330	338	-8
G	Sill Height at Front Wheel Well	312	312	0
H	Sill Height at Front Door Leading Edge	240	331	-91
I	Sill Height at "B" Pillar	233	320	-87
J1	Sill Height at Rear Wheel Well	149	159	-10
J2	Pinch Weld Height at Rear Wheel Well	218	230	-12
K	Sill Height Aft of Rear Wheel Well	259	280	-21
L	Rear Bumper Thickness	262	262	0
M	Rear Bumper Bottom to Ground	324	350	-26
N	Sill Height to Window Bottom Sill	790	665	125
O	Front Door Leading Edge to Impact CL	840	825	15
P	Rear Door Trailing Edge to Impact CL	1380	1140	240
Q	Front Window Opening	478	460	18
R	Right Side Length	5003	4938	65
S	Left Side Length	4915	4850	65
T	Vehicle Width at "B" Post	1385	1120	265

D = Length at centerline
T = Width at B-pillar

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

S = Left Side Length

Table 9 SID-IIs Driver Clearance Dimensions

Test Vehicle: 2001 Buick LeSabre Test Date: September 15,2003

AA	Ankle to Ankle	Taken between the center points of both ankles, after the feet are placed.	258
AD	Arm to Door	Horizontal measurement taken from the center point of the elbow to the first contact point of the door panel.	146
HA	Head to A-pillar	Horizontal measurement taken from the center of the head's outboard CG target to the A-pillar.	360
HCM	Hub to Chest	Minimum horizontal distance measured from the hub to the dummy's chest.	138
HD	H-point to Door	Horizontal measurement taken from the H-point hole to the first contact point of the door panel.	175
HH	Head to Header	Taken from center point between eyes to header directly in front of dummy.	223
HR	Head to Roof	Taken from the center of the outboard target to the roof edge (not the upper edge of the car door), perpendicular to the long axis of the car. If a tape measure is held from the target and extends below the roof, the point to measure is at the low edge of the roof line, which will make contact with the tape measure.	202
HS	Head to Side Window	Taken from the center of the outboard target to the side window, measured horizontally and perpendicular to the long axis of the car. In cases where the window is not fully up, a flat bar should be placed across the window opening to simulate the position of the window.	332
HW	Head to Windshield	Taken from the center point between the dummy's eyes to the point on the windshield directly level with the dummy's forehead.	485
KDL	Knee to Dash Left	Taken from the knee pivot point to the point on the dash that is directly level with the center of the knee.	30
KK	Knee to Knee	With the legs in a vertical plane after the feet are placed, the measurement is taken from outside flange to outside flange.	227
NAS	Neck Angle Seated	Taken from the neck when the dummy is seated across two of the "vertebral discs" of the neck.	4.1
NR	Nose to Rim	Taken from the tip of the nose to the steering wheel rim at the 12 o'clock position.	173
PA	Pelvic Angle	Taken by placing an inclinometer on the H-point bar.	18.4
RA	Rim to Abd	Taken from the point where the bottom of the chest jacket and the pelvic structure meet to the steering wheel rim at the 6 o'clock position.	39
SA	Seat Back Angle	Taken from the head restraint support posts.	12.5
SCH	Steering Wheel to Chest	Horizontal measurement taken from the center of the steering wheel to the dummy's chest.	N/A
SCR	Steering Wheel to Chest	Taken from the center of the steering wheel to the top of the rib guide.	143
SHH	Striker to H point Horizontal	Taken from the H-point to the driver door striker.	343
SHV	Striker to H point Vertical	Taken from the H-point to the driver door striker. Value is negative if the striker is above the H-point and positive if the striker is below the H-point.	136
SK	Striker to Knee	Taken from the center point of the knee to the striker.	703
SKA	Striker to Knee Angle	Taken on top of the tape measure while it is extended from the center point of the knee to the striker.	-1.8

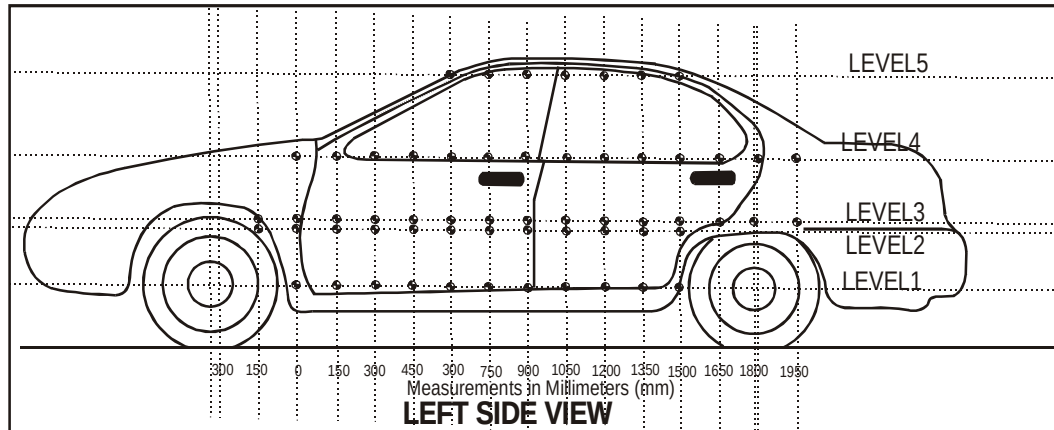
Table 10 SID-IIs Passenger Clearance Dimensions

Test Vehicle: 2001 Buick LeSabre Test Date: September 15,2003

AA	Ankle to Ankle	Taken between the center points of both ankles, after the feet are placed.	218
AD	Arm to Door	Horizontal measurement taken from the center point of the elbow to the first contact point of the door panel.	146
CS	Chest to Seat	Horizontal measurement taken from the top rib guide in the chest to a point on the back of the driver seat.	785
HC	Head to C-pillar	Horizontal measurement taken from the center of the head's outboard CG target to the C-pillar.	298
HD	H-point to Door	Horizontal measurement taken from the H-point hole to the first contact point of the door panel.	175
HHR	Head to Head Restraint	Taken from center point between eyes to header directly in front of dummy.	900
HR	Head to Roof	Taken from the center of the outboard target to the roof edge (not the upper edge of the car door), perpendicular to the long axis of the car. If a tape measure is held from the target and extends below the roof, the point to measure is at the low edge of the roof line, which will make contact with the tape measure.	240
HS	Head to Side Window	Taken from the center of the outboard target to the side window, measured horizontally and perpendicular to the long axis of the car. In cases where the window is not fully up, a flat bar should be placed across the window opening to simulate the position of the window.	380
KK	Knee to Knee	With the legs in a vertical plane after the feet are placed, the measurement is taken from outside flange to outside flange.	183
NAS	Neck Angle Seated	Taken from the neck when the dummy is seated across two of the "vertebral discs" of the neck.	11.2
PA	Pelvic Angle	Taken by placing an inclinometer on the H-point bar.	23.4
SA	Seat Back Angle	Taken from the lower left corner of the passenger seat frame	N/A
SHH	Striker to H point Horizontal	Taken from the H-point to the driver door striker.	350
SHV	Striker to H-point Vertical	Taken from the H-point to the driver door striker. Value is negative if the striker is above the H-point and positive if the striker is below the H-point.	345
SK	Striker to Knee	Taken from the center point of the knee to the striker.	730
SKA	Striker to Knee Angle	Taken on top of the tape measure while it is extended from the center point of the knee to the striker.	22.8

Figure 4 Vehicle Side Measurements

Vehicle: 2001 Buick LeSabre 4-door



Level 5 - Window Top

Level 4 - Window Sill

Level 3 - Mid-Door

Level 2 - Occupant H-Point

Level 1 - Axle Centerline Height or Sill Top Height

Measurements Are Taken When The Vehicle Is In The “As Tested” Configuration.

Measurements along the vertical 750 mm line shown above:

Level 5 @ Window Top	=	<u>1440</u>	mm
Level 4 @ Window Sill	=	<u>944</u>	mm
Level 3 @ Mid Door	=	<u>615</u>	mm
Level 2 @ Occupant H-Point	=	<u>547</u>	mm
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>310</u>	mm

Table 11 Vehicle Exterior Crush Profiles - All Levels

Vehicle: 2001 Buick LeSabre 4-door

Location	Height		(mm) From Impact Point													
			-1200	-1050	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750
Level 1 Side Sill	310	Pre	660	637	615	---	---	---	---	---	614	619	626	628	626	630
		Post	660	640	620	---	---	---	---	---	643	610	655	673	694	710
		Crush	0	3	5	---	---	---	---	---	29	-9	29	45	68	80
Level 2 H-Point	547	Pre	615	595	585	---	---	---	---	562	562	562	562	564	568	569
		Post	613	597	594	---	---	---	---	613	641	736	780	793	805	828
		Crush	-2	2	9	---	---	---	---	51	79	174	218	229	237	259
Level 3 Mid-Door	615	Pre	---	---	590	---	---	---	---	565	565	564	563	565	569	570
		Post	---	---	598	---	---	---	---	610	633	708	751	762	775	795
		Crush	---	---	8	---	---	---	---	45	68	144	188	197	206	225
Level 4 Window Sill	944	Pre	---	---	705	692	675	664	655	646	640	636	634	629	624	625
		Post	---	---	715	704	699	688	682	680	680	705	740	785	840	864
		Crush	---	---	10	12	24	24	27	34	40	69	106	156	216	239
Level 5 Window Top	1440	Pre	---	---	---	---	---	---	---	---	---	---	---	---	925	915
		Post	---	---	---	---	---	---	---	---	---	---	---	---	961	935
		Crush	---	---	---	---	---	---	---	---	---	---	---	---	36	20

Table 11 Vehicle Exterior Crush Profiles - All Levels, Cont'd.

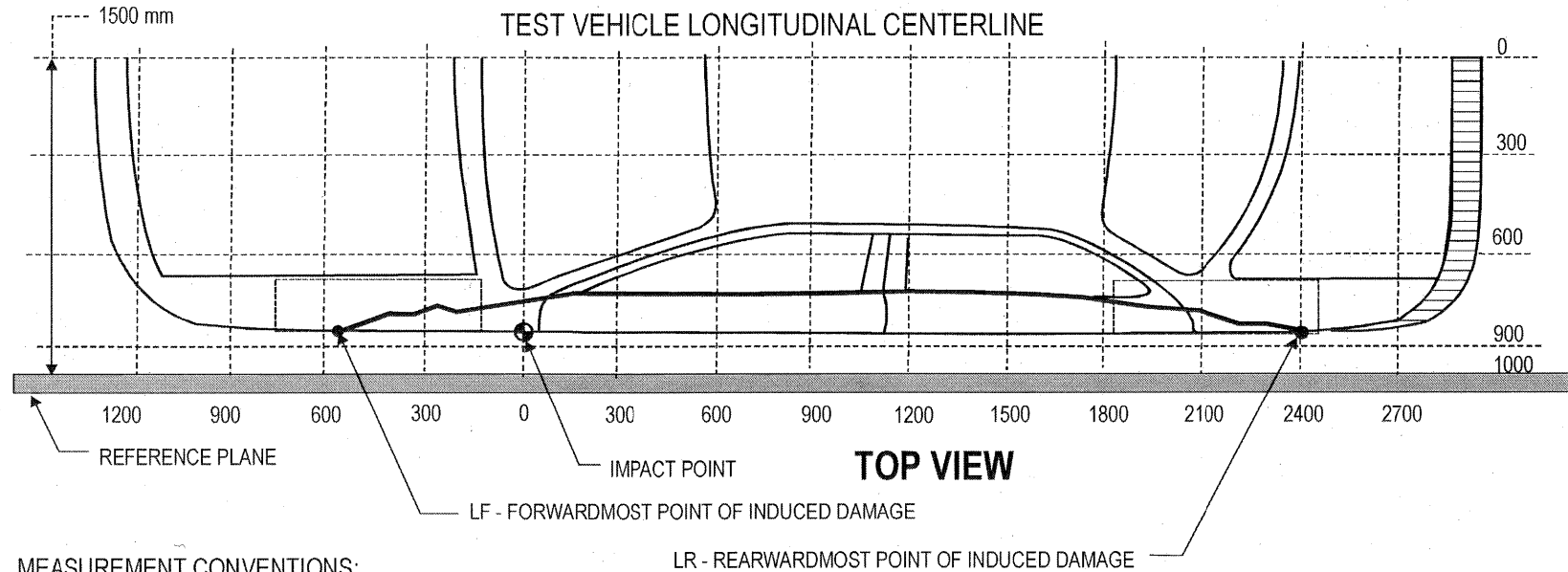
Vehicle: 2001 Buick LeSabre 4-door

Location	Height		(mm) From Impact Point												
			900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700
Level 1 Side Sill	310	Pre	635	638	639	635	638	637	637	618	---	---	---	---	---
		Post	724	740	833	845	852	860	784	657	---	---	---	---	---
		Crush	89	102	194	210	214	223	147	39	---	---	---	---	---
Level 2 H-Point	547	Pre	572	577	576	577	577	578	577	582	---	---	---	---	---
		Post	838	850	905	934	943	950	900	790	---	---	---	---	---
		Crush	266	273	329	357	366	372	323	208	---	---	---	---	---
Level 3 Mid-Door	615	Pre	572	572	575	576	572	572	570	575	---	---	---	---	597
		Post	805	824	870	880	906	930	910	790	---	---	---	---	609
		Crush	233	252	295	304	334	358	340	215	---	---	---	---	12
Level 4 Window Sill	944	Pre	626	626	625	625	620	620	619	612	615	617	620	629	640
		Post	880	891	918	911	930	907	837	719	620	648	645	650	650
		Crush	254	265	293	286	310	287	218	107	5	31	25	21	10
Level 5 Window Top	1440	Pre	889	892	882	882	877	872	872	875	891	---	---	---	---
		Post	945	930	925	923	915	909	903	905	905	---	---	---	---
		Crush	56	38	43	41	38	37	31	30	14	---	---	---	---

Figure 5 Vehicle Damage Profile Distances

Vehicle: 2001 Buick LeSabre 4-door

NOTE: All measurements are in millimeters (mm) and should be accurate to plus or minus 3mm.



MEASUREMENT CONVENTIONS:

Forward of the impact point (towards front of vehicle) is considered negative (-)

Rearward of the impact point (towards rear end of vehicle) is considered positive (+)

DPD Measurements	Post-Test (mm)	Pre-Test (mm)	Static Crush (mm)
6: LF = -150 mm (Level 2)	613	562	51
5: 450 mm (Level 2)	793	564	229
4: 750 mm (Level 2)	828	569	259
3: 1050 mm (Level 2)	850	577	273
2: 1500 mm (Level 2)	943	577	366
1: LR = 1950 mm (Level 3)	790	575	215

Full length of induced damage was -150 to 1950 mm.

Figure 6 Exterior Static Crush For Impactor Face

(Grid as looking at MDB from front)

Vehicle: 2001 Buick LeSabre 4-door

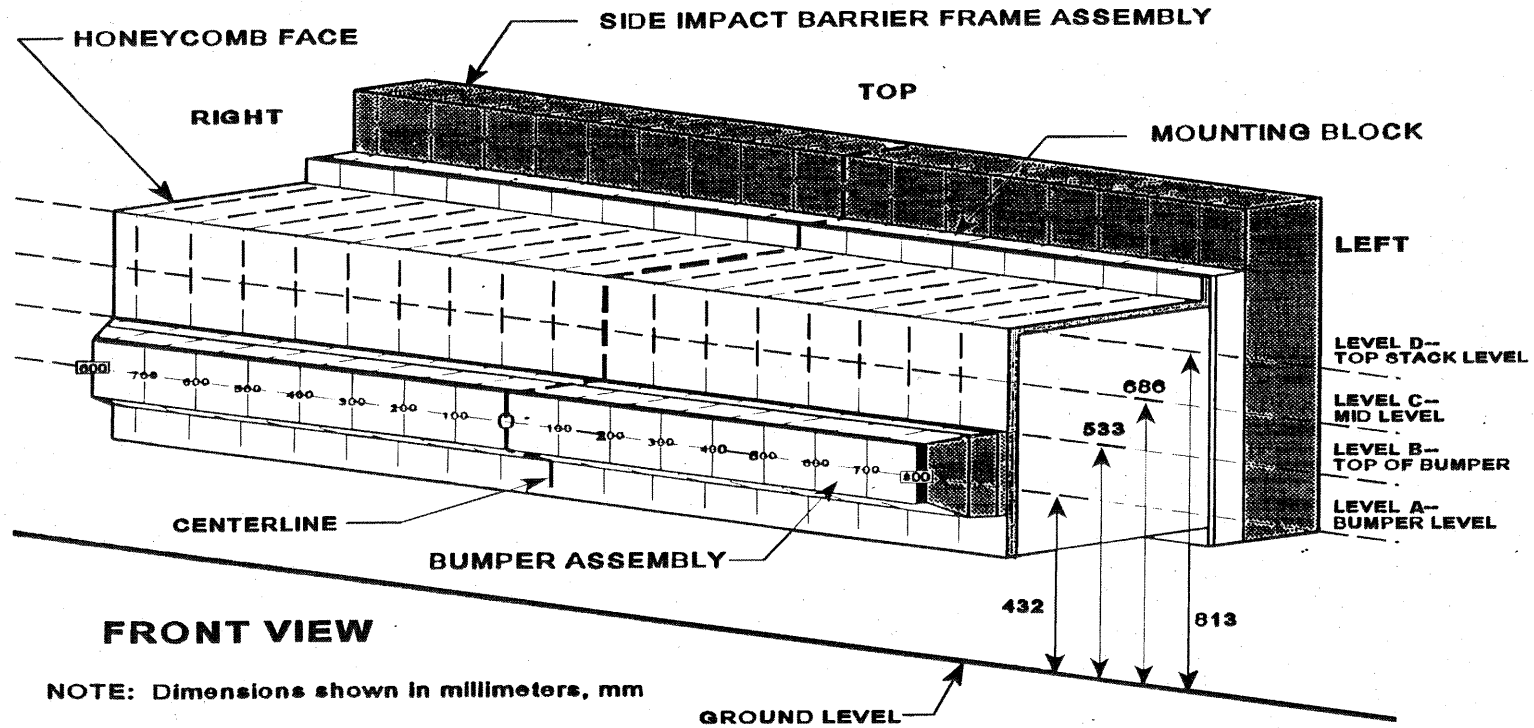


Table 12 Exterior Static Crush For Impactor Face

Vehicle: 2001 Buick LeSabre 4-door

		Distance Right of Center (mm)										Distance Left of Center (mm)							
Location	Height At CL	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
Top Stack Level - Level D	812	-37.0	8.3	9.8	8.2	7.0	5.5	3.1	1.9	1.1	0.0	-0.8	-2.4	-3.7	-10.2	-31.7	-63.9	-107.2	
Mid Level Level C	N/A ¹	2.6	4.4	4.4	3.5	2.4	1.4	0.5	-0.6	-1.2	-1.9	-2.7	-2.8	-4.1	-5.4	-9.8	-26.3	-68.9	
Top Bumper Level - Level B	558	-19.3	-9.0	-5.5	-6.3	-5.1	-5.1	-3.6	-4.3	-4.6	-6.4	-7.4	-9.7	-12.4	-15.6	-21.7	-30.7	-65.0	
Mid Bumper Level - Level A	432	-73.6	-63.1	-51.7	-41.8	-42.0	-52.4	-44.0	-38.1	-39.8	-42.5	-45.3	-48.5	-51.7	-55.0	-59.8	-73.2	-98.7	

All measurements are in millimeters and have a tolerance of ± 3 mm.

¹ The height of the Mid Level was not recorded pre-test.

Table 13 Deformable Barrier Face Profile

Vehicle: 2001 Buick LeSabre 4-door

Deformable Barrier Face Profile

Level D - Top Stack

Pre-Test

Index	Xmm	Ymm	Zmm
1	-378.7	799.7	-41.1
2	-379.0	699.6	-41.1
3	-379.1	599.5	-42.0
4	-379.1	499.2	-42.6
5	-379.4	399.5	-42.9
6	-379.8	299.6	-43.6
7	-380.4	199.4	-44.4
8	-380.3	99.9	-44.3
9	-380.3	-0.6	-44.9
10	-380.5	-100.3	-46.0
11	-380.9	-200.4	-46.2
12	-380.9	-300.0	-46.7
13	-380.9	-400.0	-46.6
14	-380.5	-500.8	-48.0
15	-380.7	-600.9	-48.6
16	-380.8	-701.0	-48.9
17	-381.4	-800.4	-49.2

Post-Test

Index	Xmm	Ymm	Zmm
1	-341.7	783.0	-70.1
2	-387.3	695.6	-60.7
3	-388.9	596.2	-59.6
4	-387.3	496.0	-58.4
5	-386.4	396.0	-57.1
6	-385.3	296.3	-56.2
7	-383.5	196.0	-55.2
8	-382.2	96.3	-53.6
9	-381.4	-4.3	-52.6
10	-380.5	-104.0	-52.5
11	-380.1	-204.2	-51.1
12	-378.5	-303.9	-50.1
13	-377.2	-403.8	-48.7
14	-370.3	-504.1	-49.6
15	-349.0	-601.3	-51.1
16	-316.9	-694.9	-54.3
17	-274.2	-778.7	-59.9

Difference

Index	Xmm	Ymm	Zmm
1	-37.0	16.7	29.0
2	8.3	4.0	19.6
3	9.8	3.3	17.6
4	8.2	3.2	15.8
5	7.0	3.5	14.2
6	5.5	3.3	12.6
7	3.1	3.4	10.8
8	1.9	3.6	9.3
9	1.1	3.7	7.7
10	0.0	3.7	6.5
11	-0.8	3.8	4.9
12	-2.4	3.9	3.4
13	-3.7	3.8	2.1
14	-10.2	3.3	1.6
15	-31.7	0.4	2.5
16	-63.9	-6.1	5.4
17	-107.2	-21.7	10.7

Table 13 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

Deformable Barrier Face Profile Cont'd.

Level C - Mid Level

Pre-Test ¹			
Index	Xmm	Ymm	Zmm
18	-380.0	801.1	-297.4
19	-380.2	700.6	-297.9
20	-380.0	600.3	-297.7
21	-380.0	500.7	-298.7
22	-380.0	400.9	-297.9
23	-380.5	301.2	-298.1
24	-380.6	201.1	-298.2
25	-380.8	100.8	-299.2
26	-381.0	0.7	-299.0
27	-381.1	-99.9	-299.6
28	-381.1	-199.2	-299.8
29	-380.8	-299.5	-299.4
30	-381.3	-399.6	-300.6
31	-381.0	-500.3	-300.7
32	-381.4	-599.6	-300.6
33	-381.6	-700.1	-301.4
34	-382.2	-799.9	-302.0

Post-Test			
Index	Xmm	Ymm	Zmm
18	-382.6	793.2	-188.4
19	-384.6	693.9	-186.4
20	-384.4	593.5	-185.5
21	-383.5	494.2	-184.2
22	-382.4	393.7	-183.1
23	-381.9	293.9	-182.0
24	-381.1	193.9	-181.1
25	-380.2	93.8	-180.0
26	-379.8	-5.9	-179.3
27	-379.2	-105.7	-178.2
28	-378.4	-205.7	-177.2
29	-378.0	-305.5	-176.1
30	-377.2	-406.1	-175.0
31	-375.6	-505.8	-174.0
32	-371.6	-605.3	-173.1
33	-355.3	-703.3	-172.5
34	-313.3	-791.8	-180.4

Difference			
Index	Xmm	Ymm	Zmm
18	2.6	7.9	-109.0
19	4.4	6.7	-111.5
20	4.4	6.8	-112.2
21	3.5	6.5	-114.5
22	2.4	7.2	-114.8
23	1.4	7.3	-116.1
24	0.5	7.2	-117.1
25	-0.6	7.0	-119.2
26	-1.2	6.6	-119.7
27	-1.9	5.8	-121.4
28	-2.7	6.5	-122.6
29	-2.8	6.0	-123.3
30	-4.1	6.5	-125.6
31	-5.4	5.5	-126.7
32	-9.8	5.7	-127.5
33	-26.3	3.2	-128.9
34	-68.9	-8.1	-121.6

¹Pre-test measurements were not recorded for Mid Level. Measurements from a second barrier face were used as pre-test values.

Table 13 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

Deformable Barrier Face Profile Cont'd.

Level B - Top of Bumper

Pre-Test

Index	Xmm	Ymm	Zmm
35	-378.5	800.9	-294.4
36	-379.3	700.8	-295.5
37	-379.5	600.8	-295.7
38	-379.7	499.6	-296.6
39	-379.9	399.9	-297.0
40	-379.7	299.8	-297.7
41	-380.0	200.3	-298.3
42	-380.3	100.6	-298.9
43	-380.4	0.8	-299.5
44	-380.7	-99.9	-299.9
45	-381.2	-199.9	-300.2
46	-380.5	-300.5	-301.1
47	-381.2	-399.6	-300.8
48	-381.5	-499.5	-301.3
49	-381.5	-599.3	-303.4
50	-381.7	-699.8	-303.1
51	-381.7	-799.5	-303.2

Post-Test

Index	Xmm	Ymm	Zmm
35	-359.2	792.4	-310.6
36	-370.3	693.0	-312.8
37	-374.0	593.2	-312.3
38	-373.4	491.9	-311.5
39	-374.8	392.2	-310.4
40	-374.6	292.1	-309.4
41	-376.4	192.9	-309.1
42	-376.0	93.2	-308.2
43	-375.8	-6.7	-307.0
44	-374.3	-107.3	-305.0
45	-373.8	-207.4	-303.8
46	-370.8	-308.0	-302.6
47	-368.8	-407.1	-300.7
48	-365.9	-507.0	-299.7
49	-359.8	-606.9	-298.4
50	-351.0	-706.9	-294.7
51	-316.7	-797.3	-291.1

Difference

Index	Xmm	Ymm	Zmm
35	-19.3	8.5	16.2
36	-9.0	7.8	17.3
37	-5.5	7.6	16.6
38	-6.3	7.7	14.9
39	-5.1	7.7	13.4
40	-5.1	7.7	11.7
41	-3.6	7.4	10.8
42	-4.3	7.4	9.3
43	-4.6	7.5	7.5
44	-6.4	7.4	5.1
45	-7.4	7.5	3.6
46	-9.7	7.5	1.5
47	-12.4	7.5	-0.1
48	-15.6	7.5	-1.6
49	-21.7	7.6	-5.0
50	-30.7	7.1	-8.4
51	-65.0	-2.2	-12.1

Table 13 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

Deformable Barrier Face Profile Cont'd.

Level A - Mid Bumper

Pre-Test

Index	Xmm	Ymm	Zmm
52	-472.9	798.3	-421.4
53	-482.7	701.2	-420.0
54	-483.2	601.8	-421.2
55	-483.6	502.2	-421.8
56	-483.7	402.4	-422.1
57	-483.9	301.3	-423.5
58	-484.2	202.2	-423.4
59	-484.3	101.8	-425.0
60	-484.7	2.0	-425.2
61	-484.9	-98.1	-426.3
62	-485.0	-197.2	-426.4
63	-485.1	-297.5	-427.2
64	-485.2	-397.4	-427.5
65	-485.2	-498.4	-428.7
66	-485.2	-597.5	-428.9
67	-485.2	-697.7	-429.1
68	-475.9	-796.2	-430.3

Post-Test

Index	Xmm	Ymm	Zmm
52	-399.3	782.1	-453.0
53	-419.6	686.6	-455.4
54	-431.5	588.0	-457.8
55	-441.8	488.8	-459.6
56	-441.7	388.9	-458.0
57	-431.5	288.4	-454.8
58	-440.2	189.8	-455.3
59	-446.2	89.3	-456.8
60	-444.9	-10.5	-454.7
61	-442.4	-110.6	-453.4
62	-439.7	-209.7	-451.0
63	-436.6	-309.9	-449.3
64	-433.5	-409.8	-446.9
65	-430.2	-510.8	-445.6
66	-425.4	-609.7	-443.0
67	-412.0	-708.9	-438.1
68	-377.2	-800.8	-429.5

Difference

Index	Xmm	Ymm	Zmm
52	-73.6	16.2	31.6
53	-63.1	14.6	35.4
54	-51.7	13.8	36.6
55	-41.8	13.4	37.8
56	-42.0	13.5	35.9
57	-52.4	12.9	31.3
58	-44.0	12.4	31.9
59	-38.1	12.5	31.8
60	-39.8	12.5	29.5
61	-42.5	12.5	27.1
62	-45.3	12.5	24.6
63	-48.5	12.4	22.1
64	-51.7	12.4	19.4
65	-55.0	12.4	16.9
66	-59.8	12.2	14.1
67	-73.2	11.2	9.0
68	-98.7	4.6	-0.8

Figure 7 Deformable Barrier Face Profile

Vehicle: 2001 Buick LeSabre 4-door

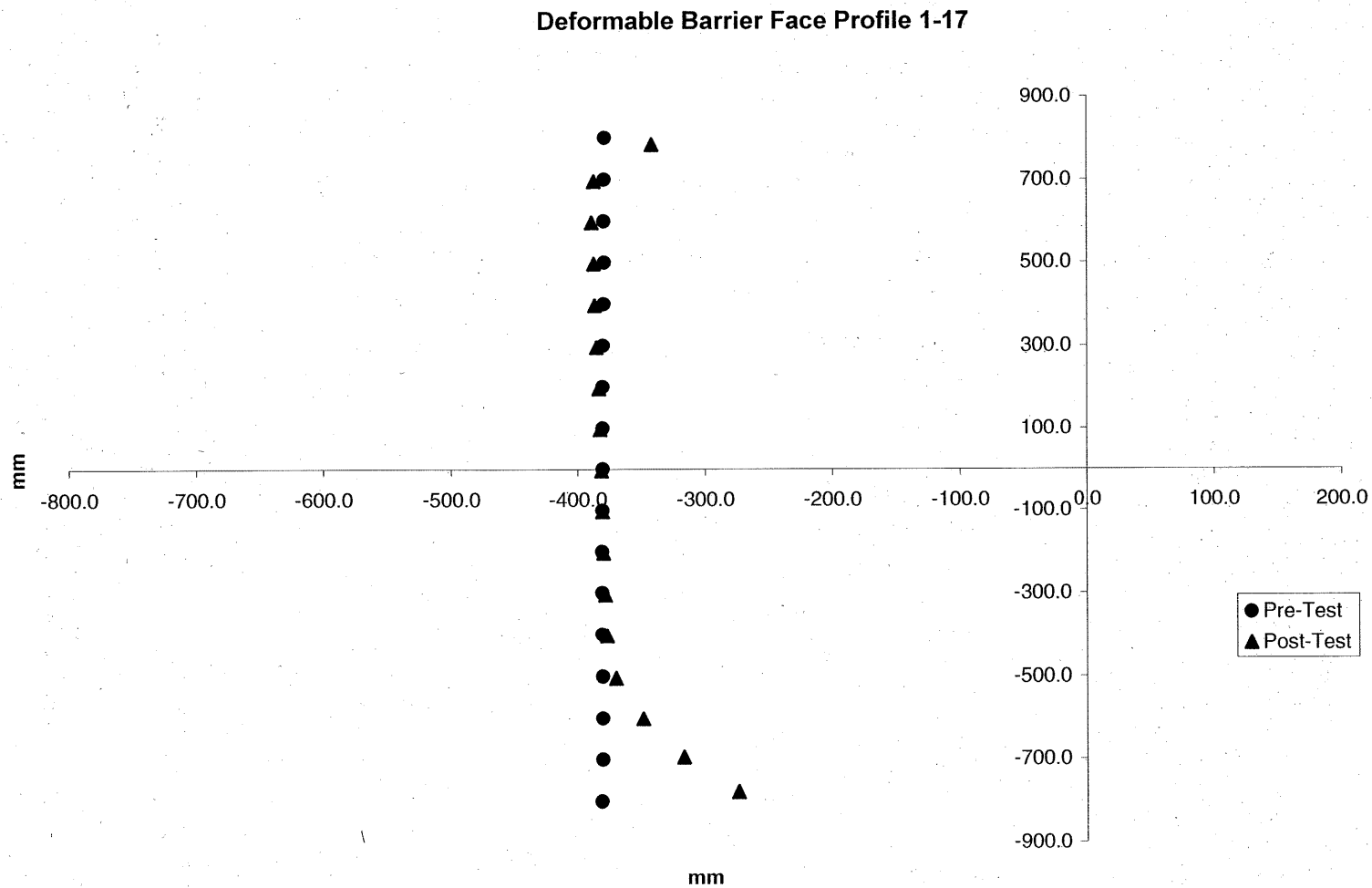


Figure 7 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

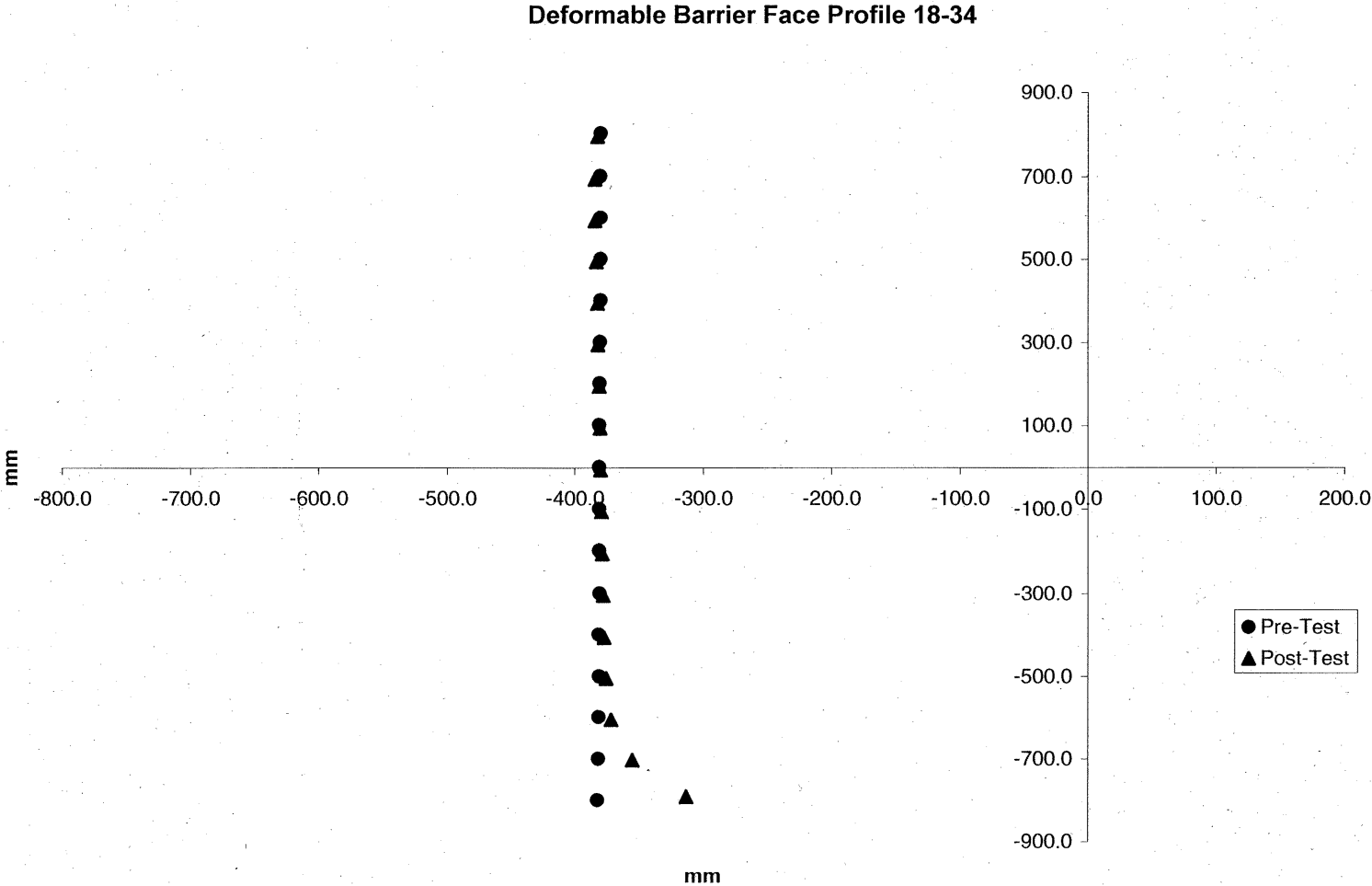


Figure 7 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

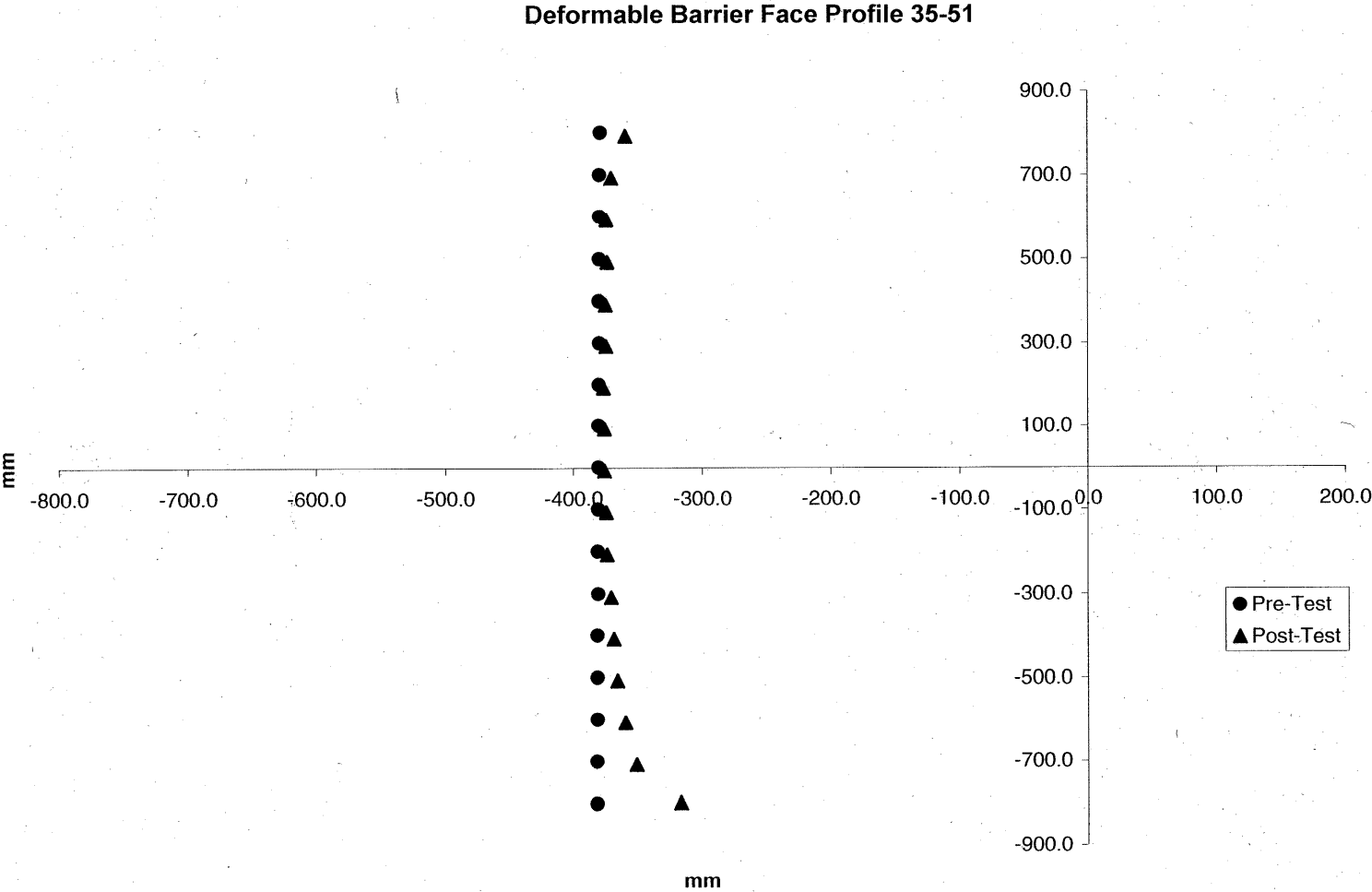


Figure 7 Deformable Barrier Face Profile, Cont'd.

Vehicle: 2001 Buick LeSabre 4-door

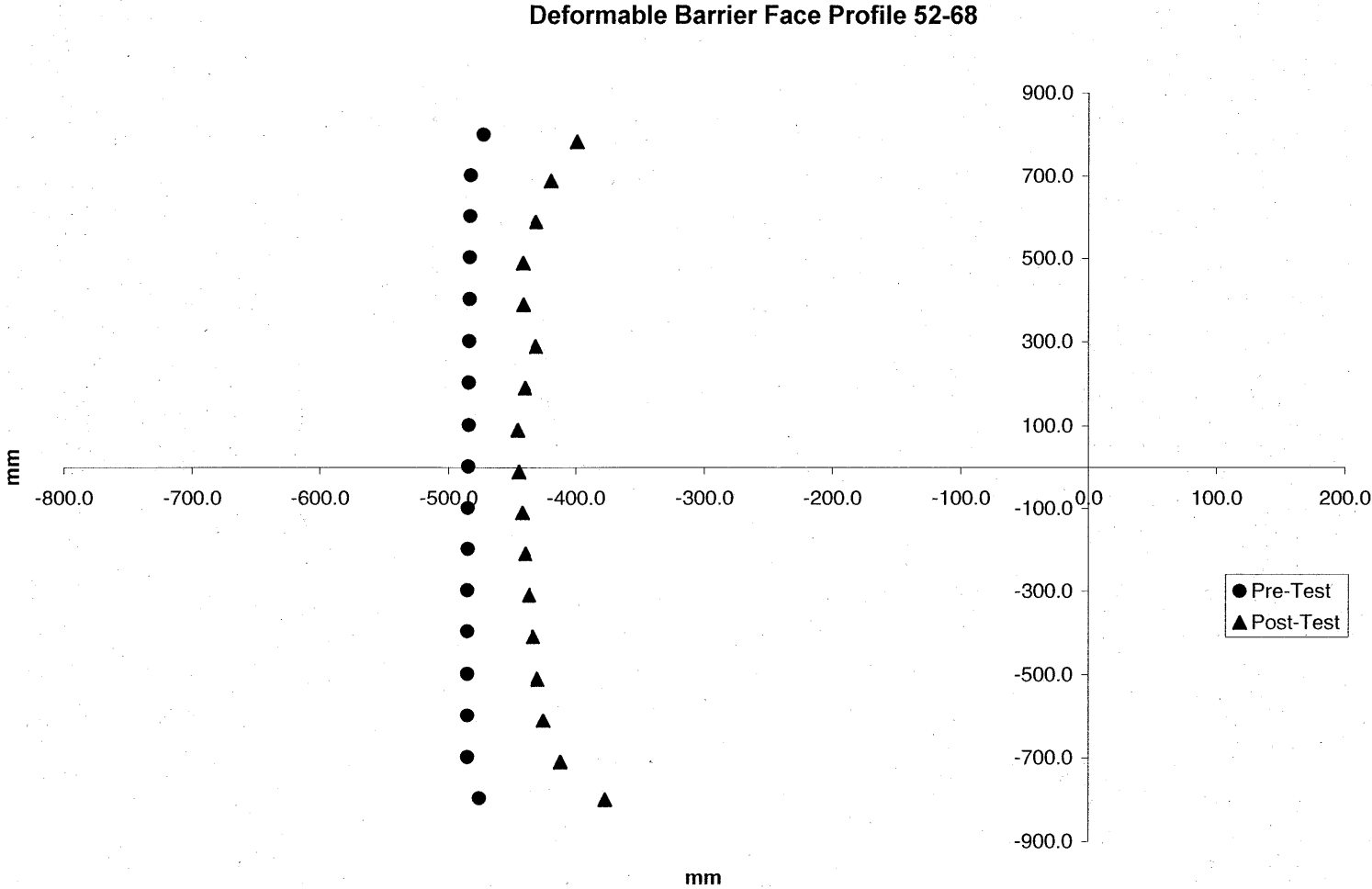
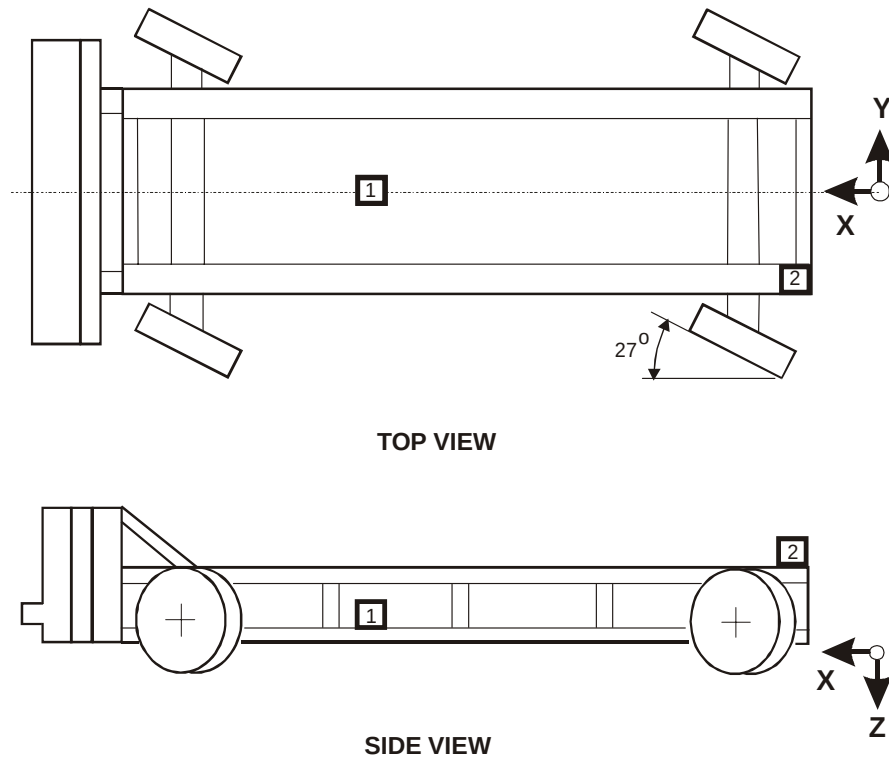


Figure 8 MDB Accelerometer Locations and Data Summary

Vehicle: 2001 Buick LeSabre 4-door



Accel. No.	Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
		X*	Y*	Z*	Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	MDB Center of Gravity	1853	0	-519				
	Longitudinal X				1.6	125.1	16.6	31.0
	Lateral Y				3.1	62.6	7.8	34.4
	Vertical Z				5.4	59.8	4.3	25.2
	Resultant R				18.1	31.1		
2	Rear Frame Member	411	-738	-628				
	Longitudinal X				11.1	244.4	15.9	38.6
	Lateral Y				15.6	34.3	8.5	246.6

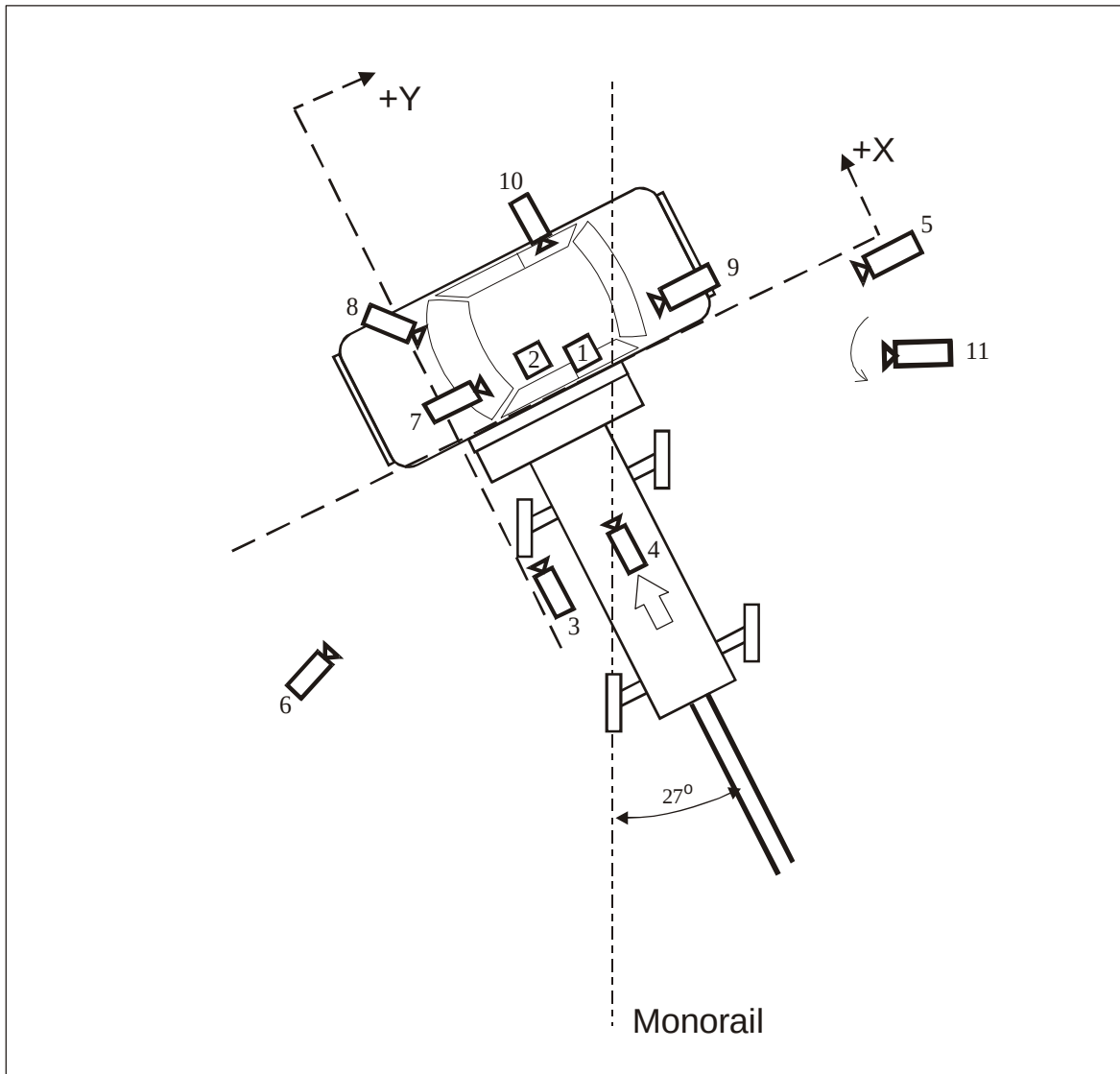
*Reference: X = Rear Bumper (+ Forward)

Y = Vehicle Centerline (+ To Right)

Z = Ground Level (+ Down)

All measurements accurate to within ± 3 mm.

Figure 9 Camera Positions



Impact
Area

Table 14 Camera Information

Camera Number	Location	Type	Lens (mm)	Speed (fps)	Purpose of camera data
1	Overhead wide	Digital HG	20	1000	Vehicle dynamics
2	Overhead tight	Digital HG	50	1000	Vehicle crush
3	Onboard MDB left	Photosonic	13	---- ¹	Dummy kinematics
4	Onboard MDB center	Photosonic	25	995	Dummy and airbag
5	Right wide to MDB	Digital HG	50	1000	Dummy kinematics
6	Right one-quarter wide to MDB	Digital HG	28	1000	Dummy kinematics
7	Driver front	Digital HG	8	1000	Dummy and airbag
8	Driver front angled	Digital HG	8	1000	Airbag deployment
9	Passenger rear	Digital HG	8	1000	Vehicle dynamics
10	Passenger side	Digital HG	8	1000	Vehicle crush
11	Panning	VHS			Real-time

¹ No LEDs

Appendix A

Photographs



Figure A-1 Pre-Test Front View of Test Vehicle



Figure A-2 Post-Test Front View of Test Vehicle



Figure A-3 Pre-Test Impacted Side View of Test Vehicle



Figure A-4 Post-Test Impacted Side View of Test Vehicle



Figure A-5 Pre-Test Rear View of Test Vehicle



Figure A-6 Post-Test Rear View of Test Vehicle

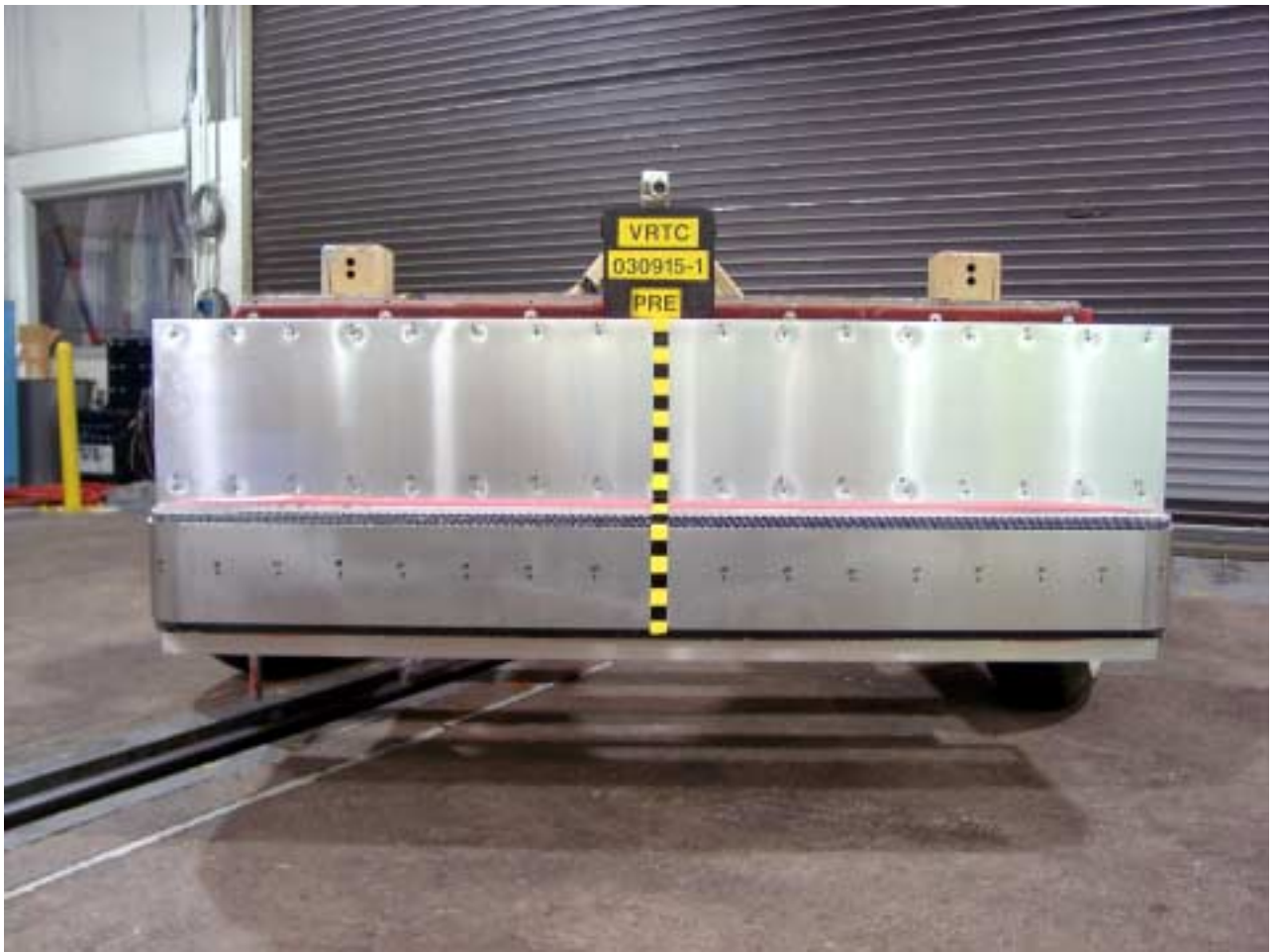


Figure A-7 Pre-Test Frontal View of Impactor Face



Figure A-8 Post-Test Frontal View of Impactor Face



Figure A-9 Pre-Test Left Side View of Impactor Face



Figure A-10 Post-Test Left Side View of Impactor Face



Figure A-11 Pre-Test Right Side View of Impactor Face



Figure A-12 Post-Test Right Side View of Impactor Face

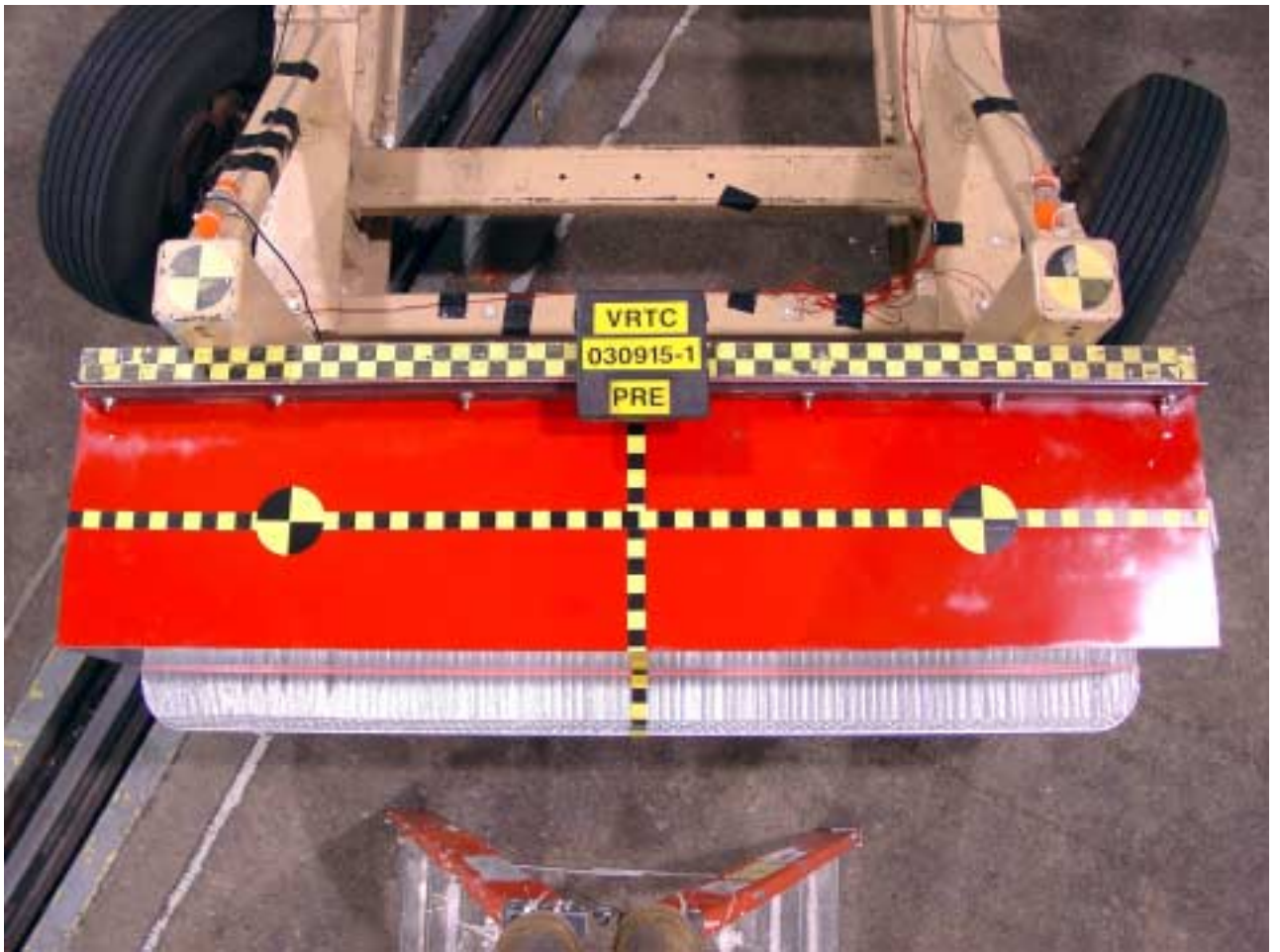


Figure A-13 Pre-Test Top View of Impactor Face



Figure A-14 Post-Test Top View of Impactor Face



Figure A-15 Pre-Test View of MDB Showing Contact Switches in Place

Intentionally Left Blank



Figure A-16 Pre-Test Overhead View of MDB Aligned with Vehicle



Figure A-17 Post-Test Overhead View of Vehicle and MDB



Figure A-18 Pre-Test Right Occupant Compartment View of Front SID-IIs



Figure A-19 Post-Test Right Occupant Compartment View of Front SID-II



Figure A-20 Pre-Test Right Occupant Compartment View of Rear SID-IIs



Figure A-21 Post-Test Right Occupant Compartment View of Rear SID-IIs



Figure A-22 Pre-Test Left View of Front SID-IIs - View 1



Figure A-23 Post-Test Left View of Front SID-II's View



Figure A-24 Pre-Test Left View of Front SID-IIIs - View 2

Intentionally Left Blank



Figure A-25 Pre-Test Front View of Front SID-IIs and Door Clearance



Figure A-26 Post-Test Front View of Front SID-IIs and Door Clearance



Figure A-27 Pre-Test Left View of Rear SID-IIs



Figure A-28 Post-Test Left View of Rear SID-IIs



Figure A-29 Pre-Test Left of Rear SID-IIs

Intentionally Left Blank



Figure A-30 Pre-Test Left View of Rear SID-IIs and Door Clearance



Figure A-31 Post-Test Left View of Rear SID-IIs and Door Clearance



Figure A-32 Pre-Test Interior of Front Door



Figure A-33 Post-Test Interior of Front Door Showing SID-IIs Impact Locations



Figure A-34 Post-Test Front SID-IIs Contact - View 1



Figure A-35 Post-Test Front SID-IIs Contact - View 2



Figure A-36 Post-Test Front SID-IIs Contact - View 3

Intentionally Left Blank



Figure A-37 Pre-Test Interior of Rear Door



Figure A-38 Post-Test Interior of Rear Panel Showing SID-IIs Impact Locations



Figure A-39 Post-Test Rear SID-IIs Contact - View 1



Figure A-40 Post-Test Rear SID-IIs Contact - View 2



Figure A-41 Post-Test Rear SID-IIs Contact - View 3



Figure A-42 Pre-Test Left Side View of MDB with Impactor Face in Position



Figure A-43 Pre-Test Primary Impact Point View



Figure A-44 Post-Test Primary Impact Point View



Figure A-45 Pre-Test Right Side View of MDB with Impactor Face in Position

Intentionally Left Blank



Figure A-46 Pre-Test Secondary Impact Point View



Figure A-47 Post-Test Secondary Impact Point View



Figure A-48 Post-Test Vehicle Door Deformation Front Angled View



Figure A-49 Post-Test Vehicle Door Deformation Rear Angled View



Figure A-50 Vehicle Certification Label View



Figure A-51 Vehicle Recommended Tire Pressure Label View

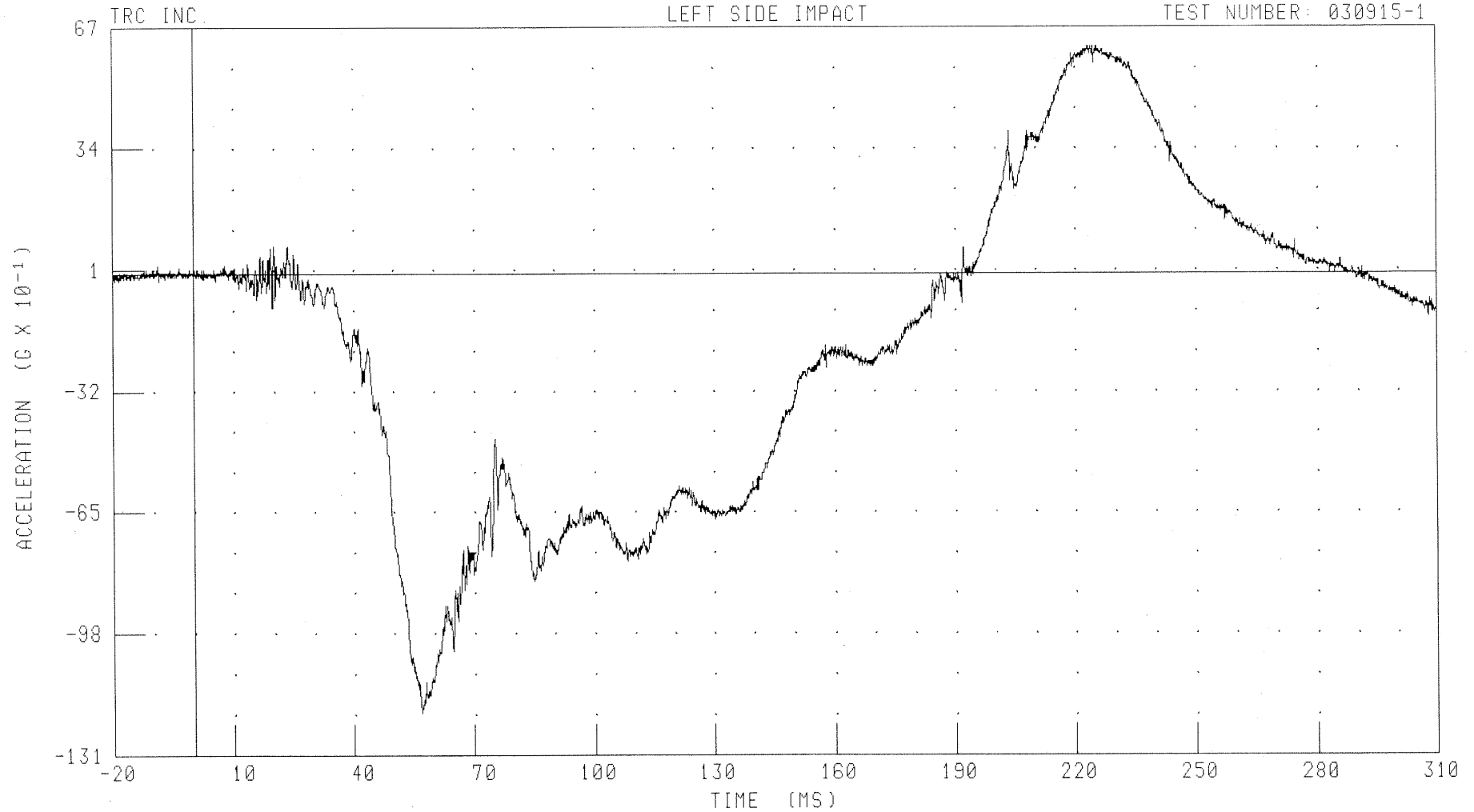
Appendix B

Data Plots

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDXG1 FILTER: CH. CLASS 1000

PEAK DATA: 6.16 G @ 223.28 MS; -11.97 G @ 56.96 MS

B-2

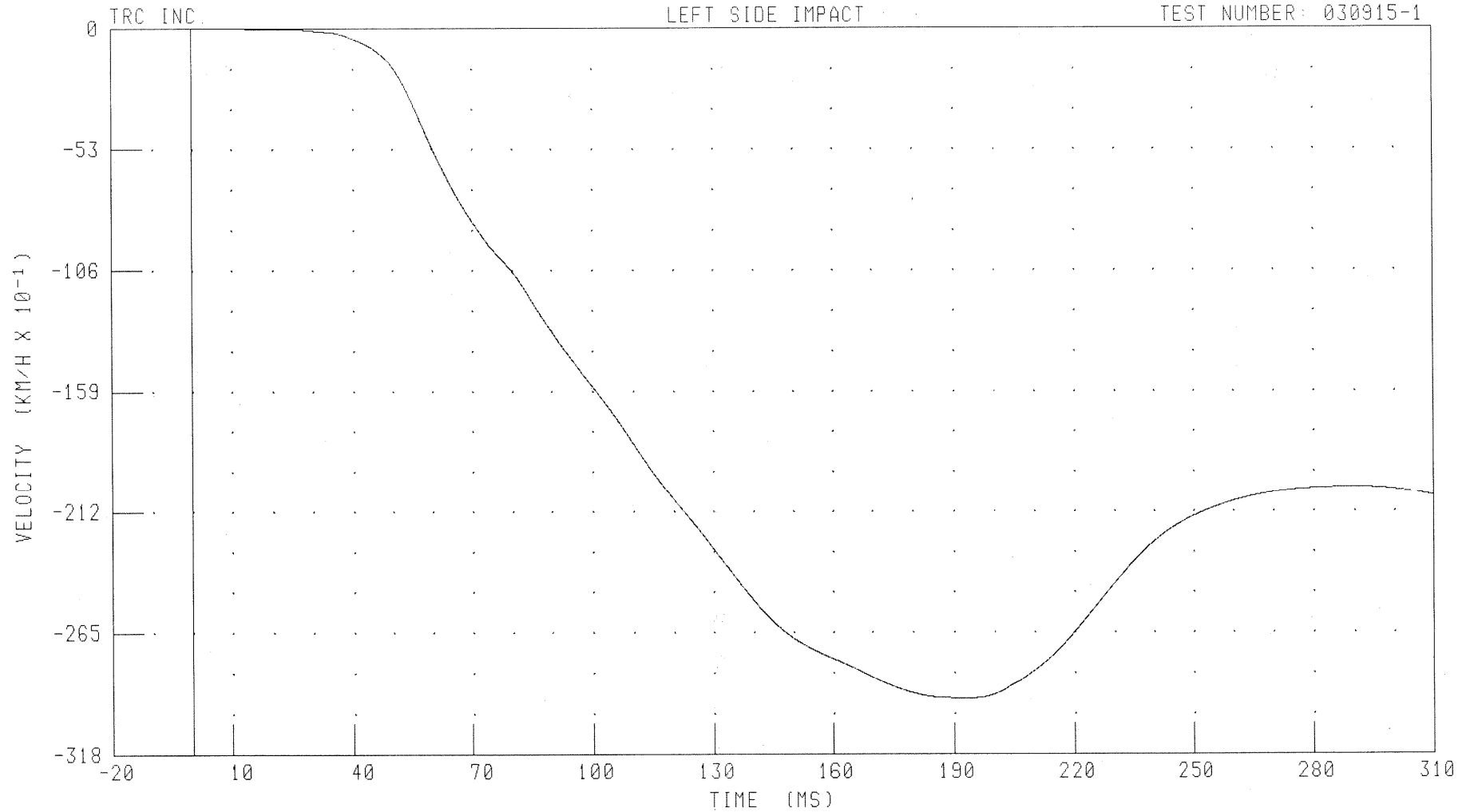
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER HEAD X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDXV1

FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 10.00 MS, -29.38 KM/H @ 192.00 MS

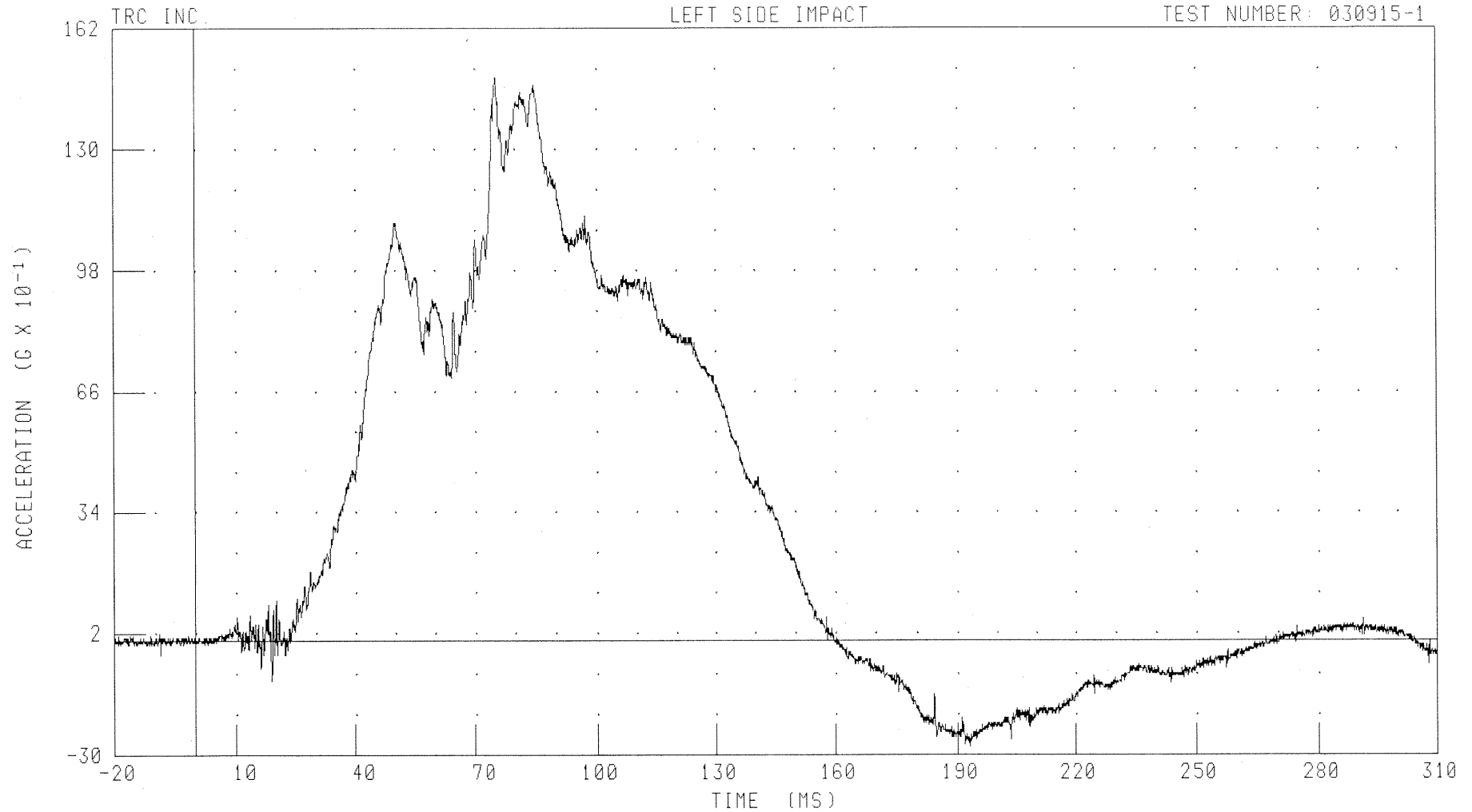
B-3

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDYG1 FILTER: CH. CLASS 1000

PEAK DATA: 14.90 G @ 75.28 MS; -2.78 G @ 192.96 MS

B-4

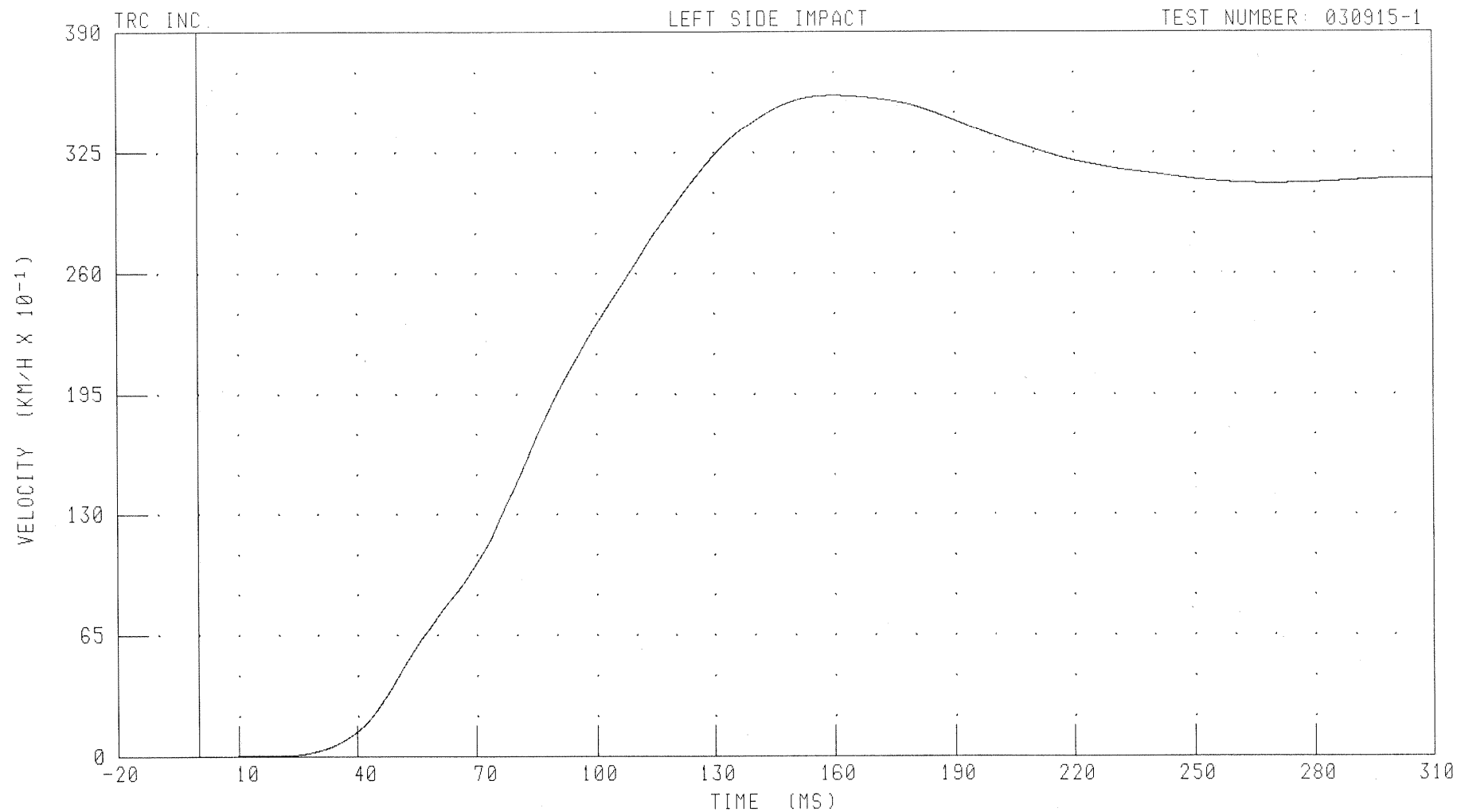
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER HEAD Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



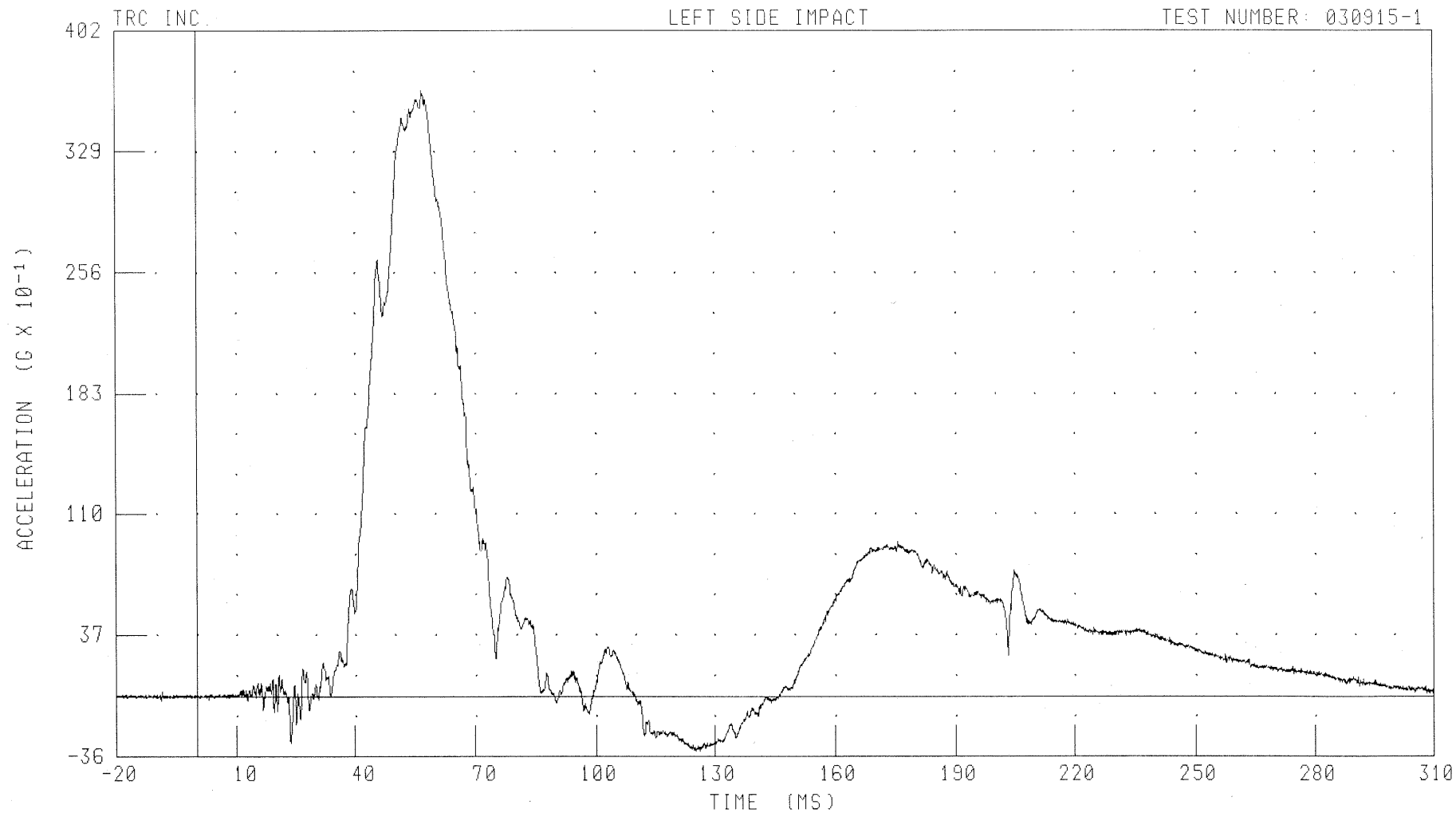
CHANNEL: HEDYV1 FILTER: CH. CLASS 180

PEAK DATA: 35.58 KM/H @ 160.00 MS; 0.00 KM/H @ 4.08 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDZG1 FILTER: CH. CLASS 1000

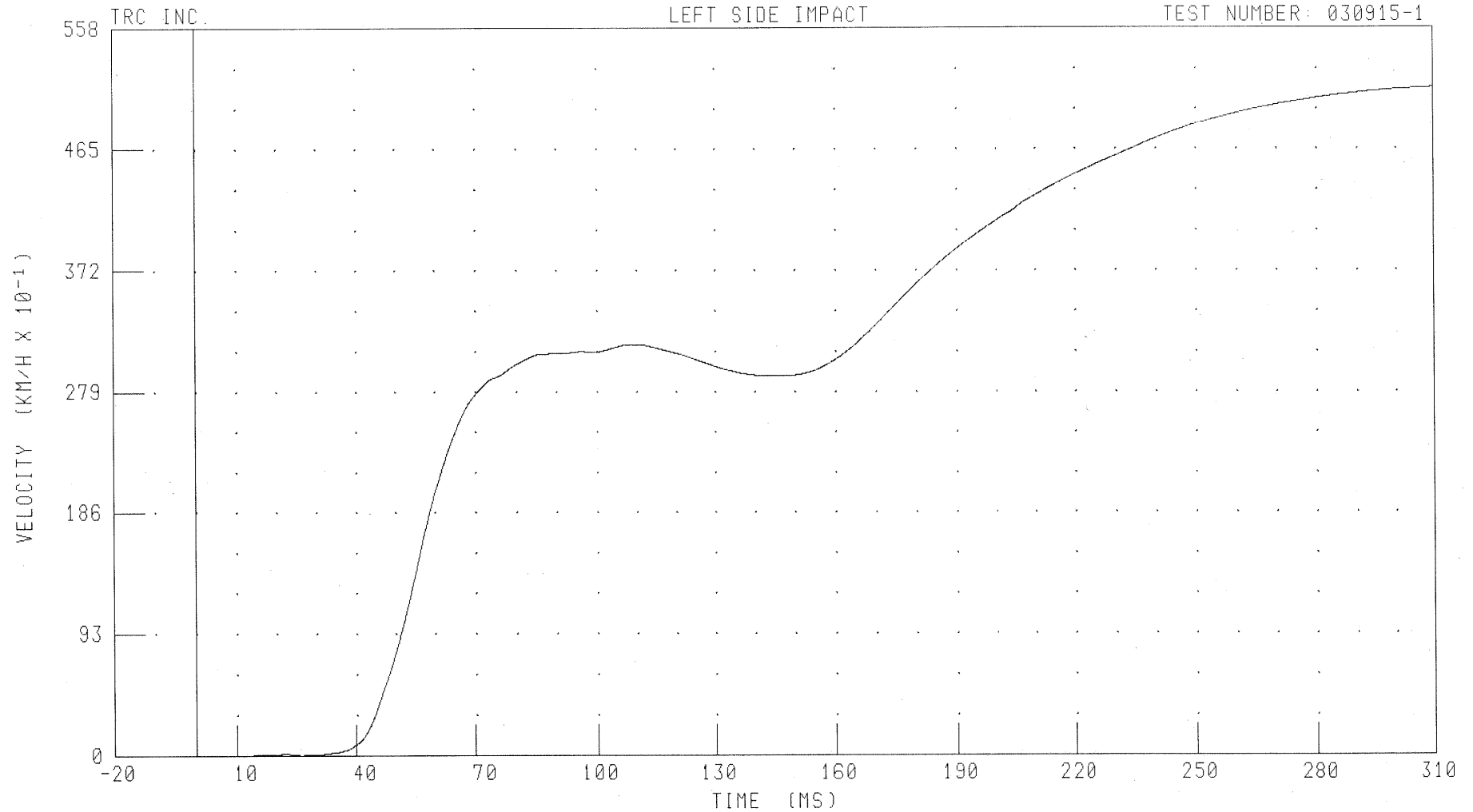
PEAK DATA: 36.64 G @ 56.96 MS; -3.30 G @ 125.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER HEAD Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDZV1

FILTER: CH. CLASS 180

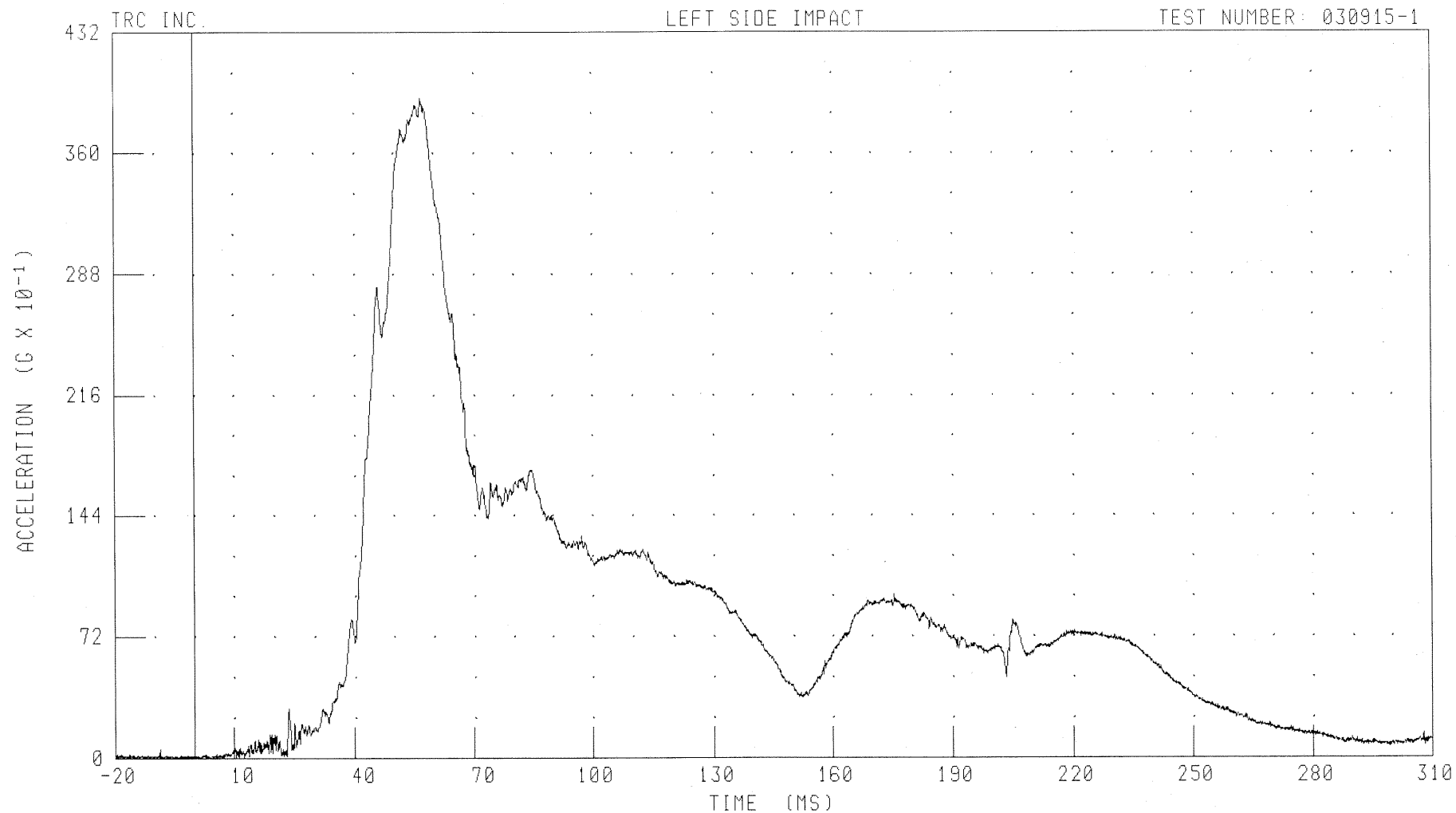
PEAK DATA: 51.22 KM/H @ 310.00 MS; 0.00 KM/H @ 0.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER HEAD RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDRG1

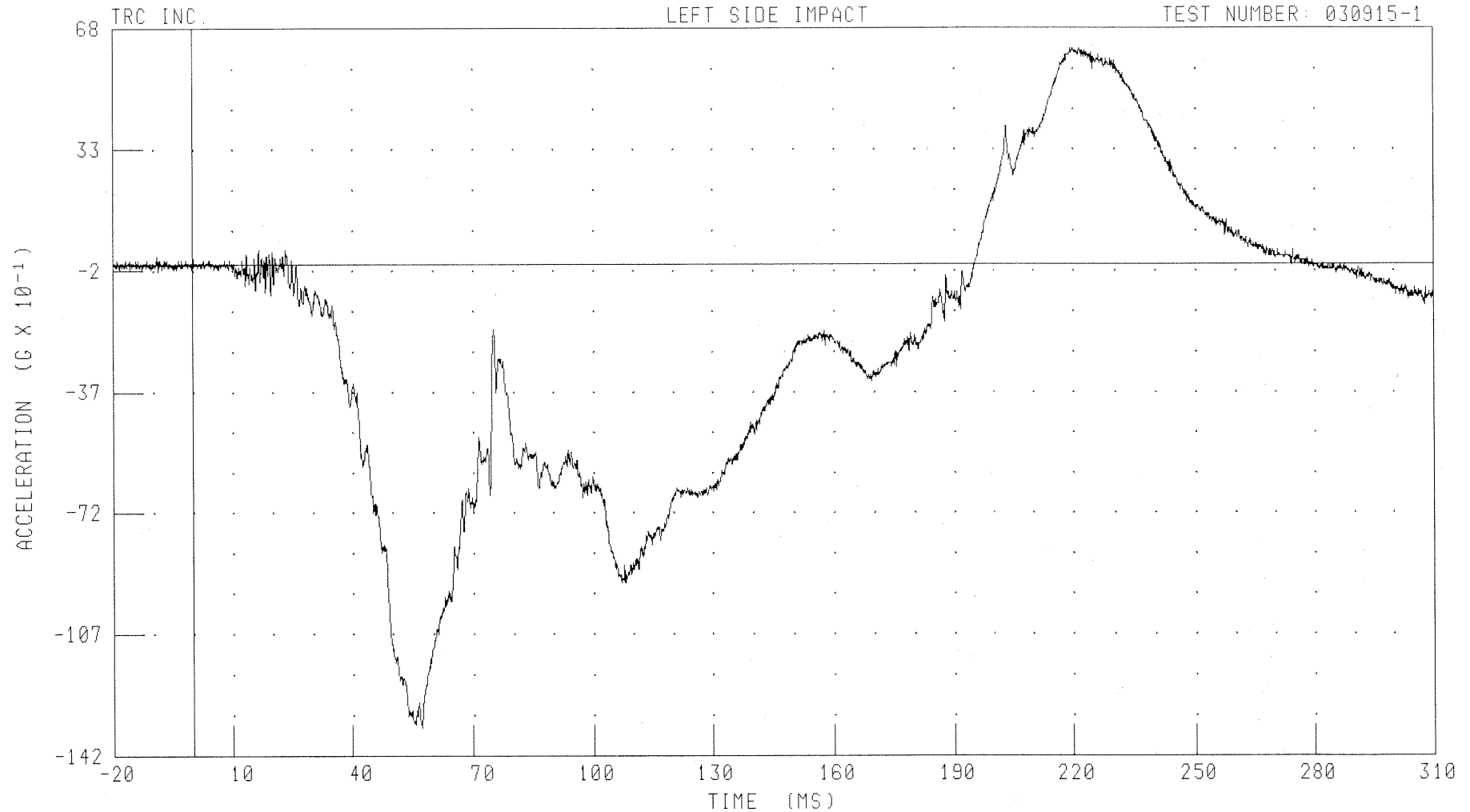
FILTER: CH. CLASS 1000

PEAK DATA: 39.32 G @ 56.96 MS; 0.03 G @ -20.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (LT) X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



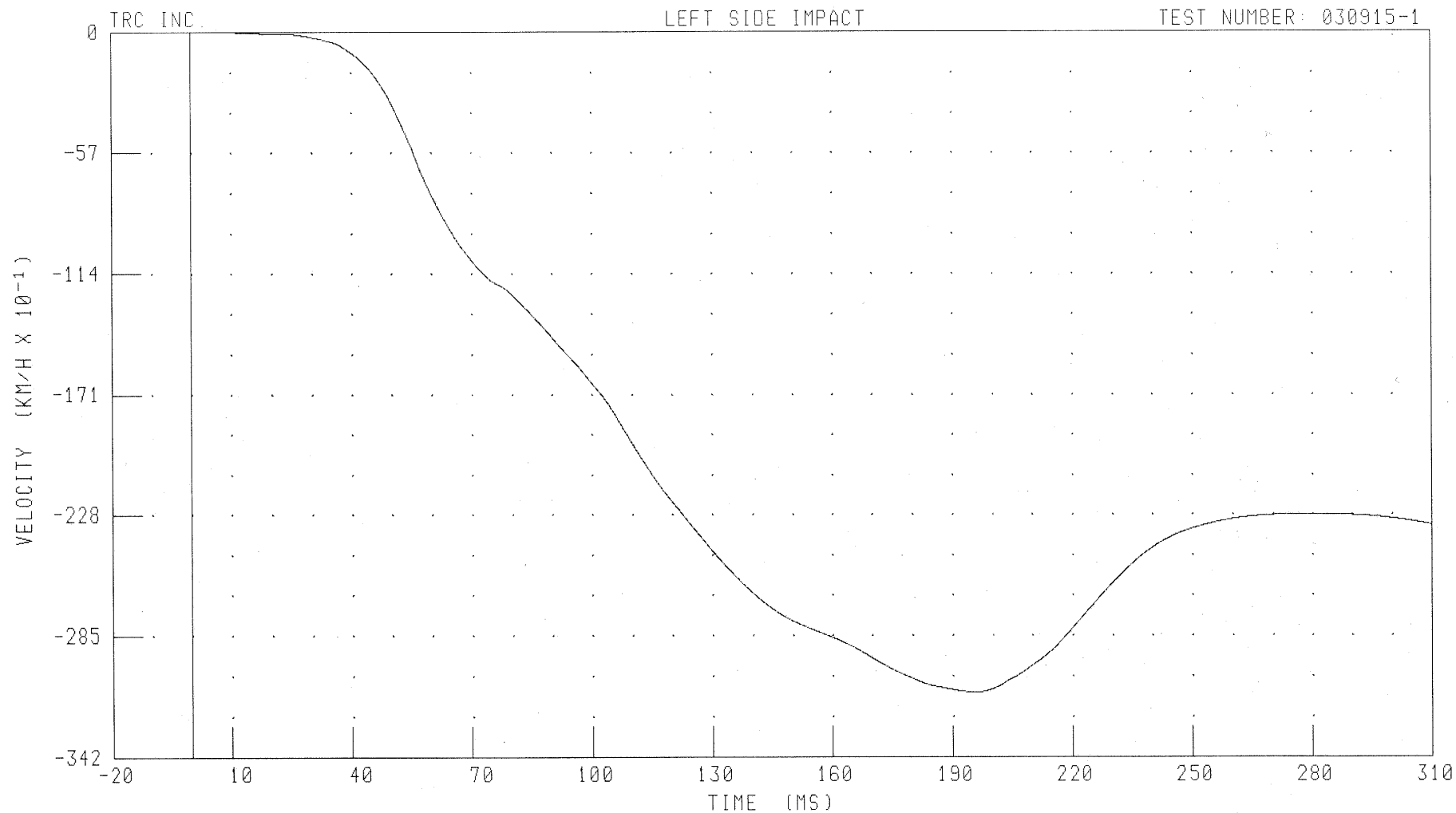
CHANNEL: HD1XG1 FILTER: CH. CLASS 1000

PEAK DATA: 6.22 G @ 219.60 MS; -13.39 G @ 57.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (LT) X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1XV1

FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 4.80 MS; -31.18 KM/H @ 195.36 MS

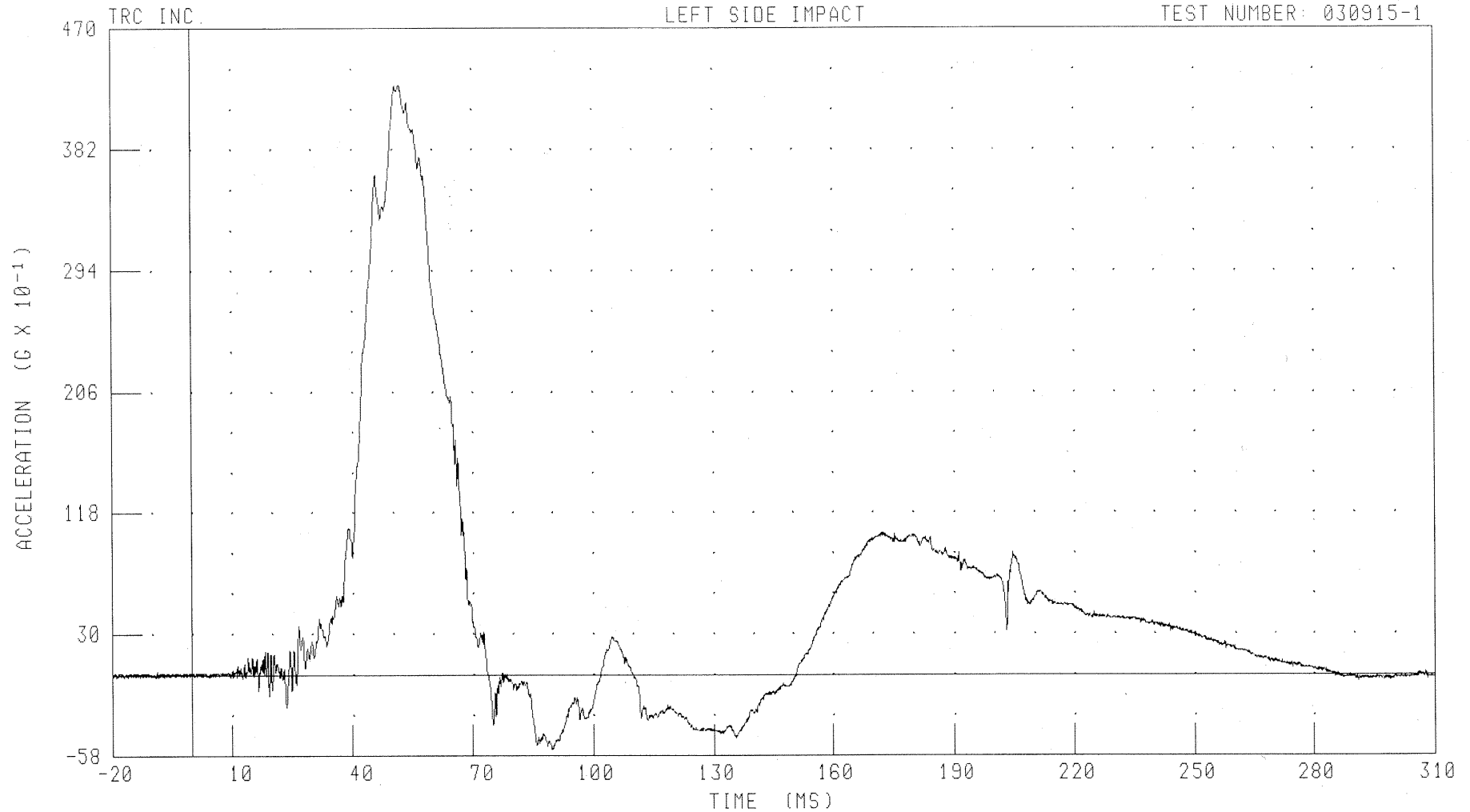
B-10

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (LT) Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1ZG1 FILTER: CH. CLASS 1000

PEAK DATA: 42.94 G @ 51.76 MS; -5.33 G @ 89.76 MS

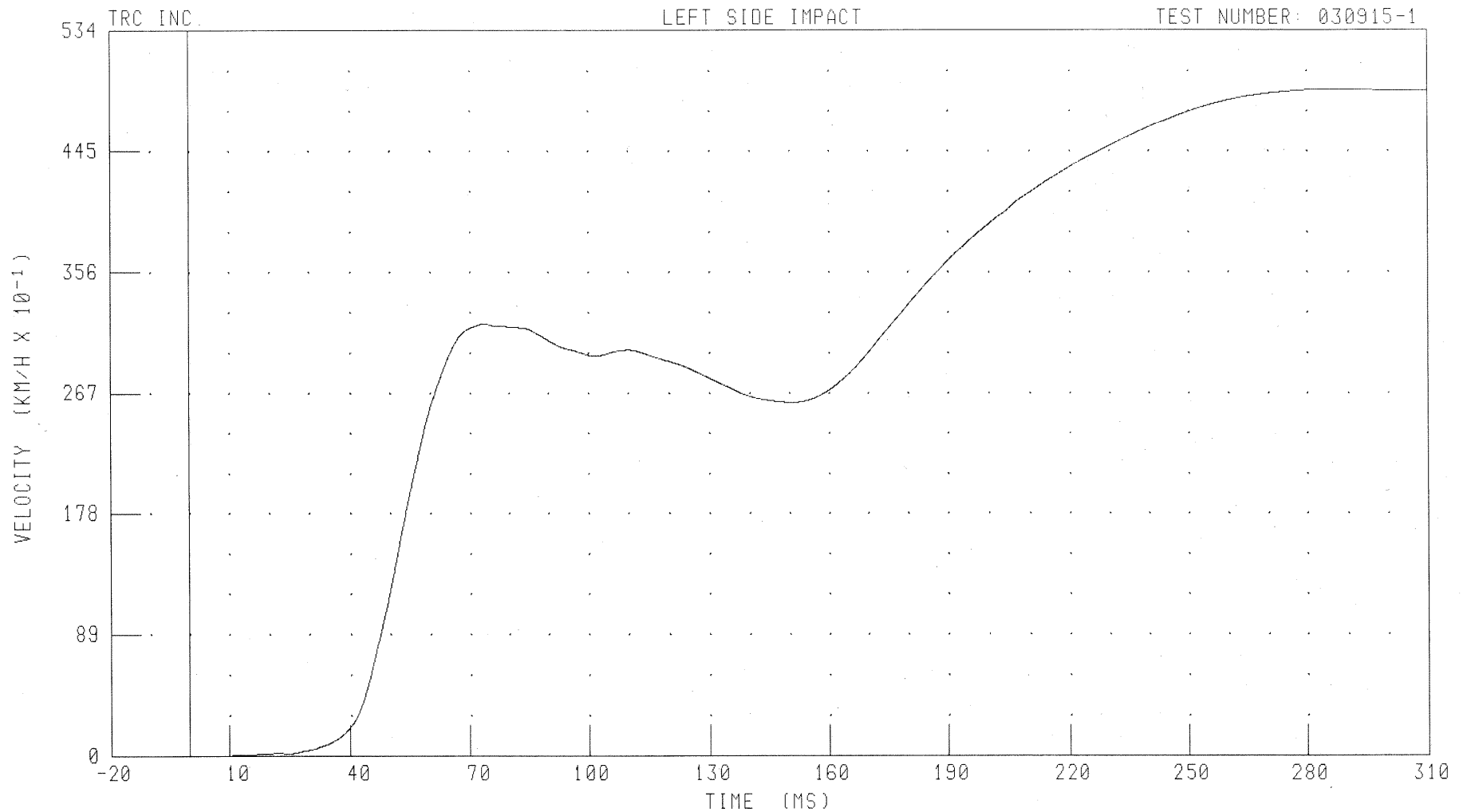
B-11

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (LT) Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1ZV1 FILTER: CH. CLASS 180

PEAK DATA: 49.07 KM/H @ 285.92 MS; 0.00 KM/H @ 0.00 MS

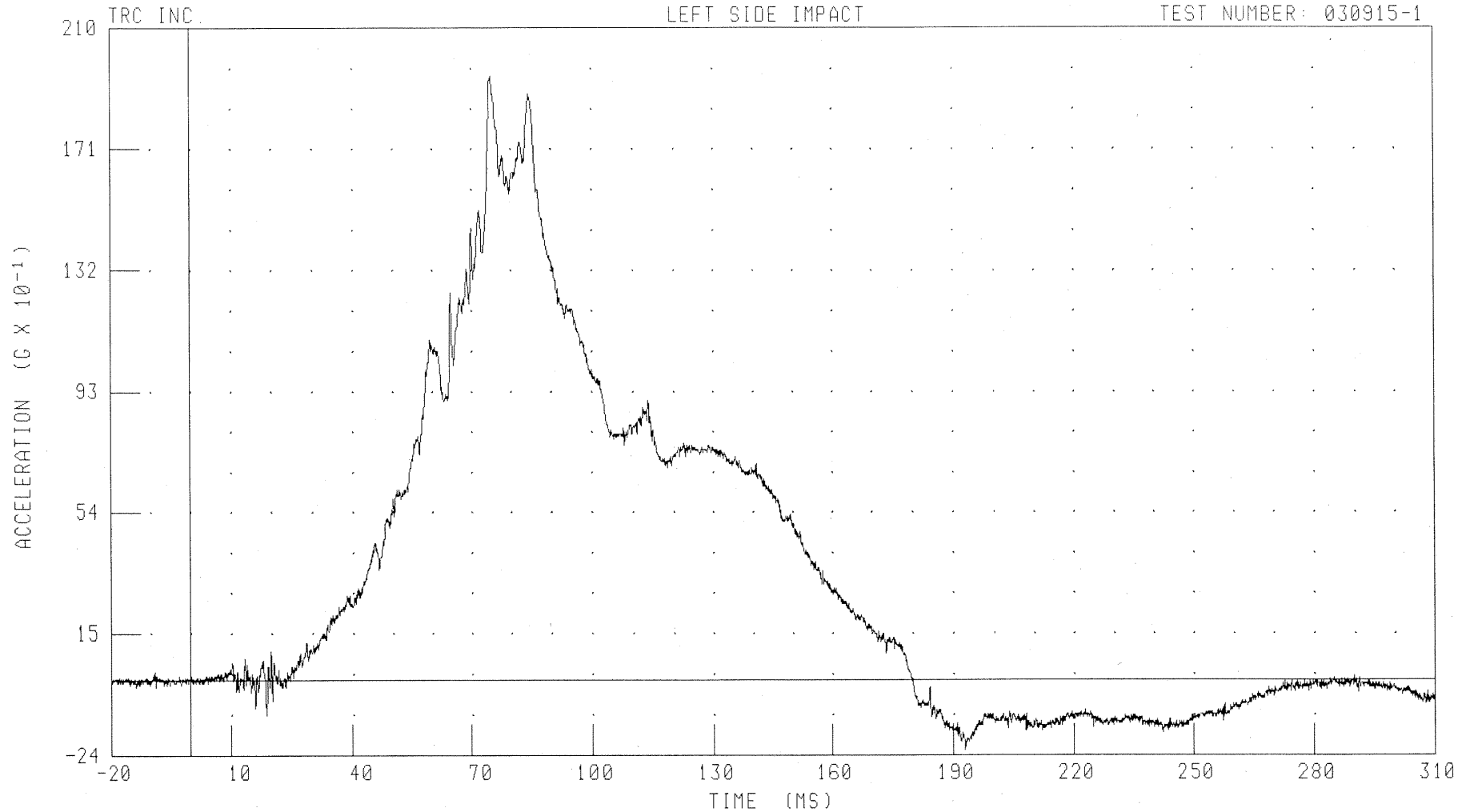
B-12

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (FT) Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2YG1

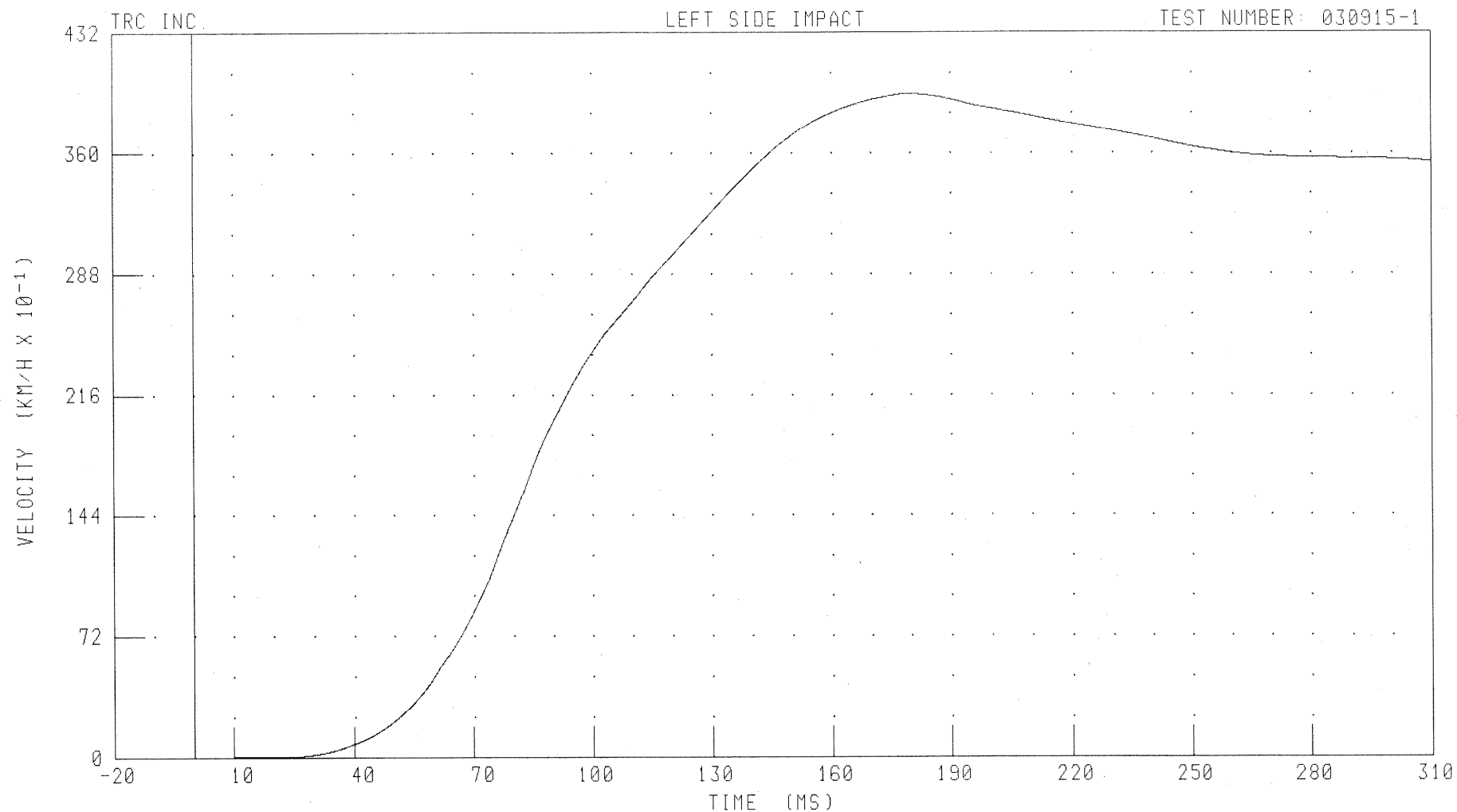
FILTER: CH. CLASS 1000

PEAK DATA: 19.44 G @ 75.20 MS, -2.23 G @ 192.88 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (FT) Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2YV1 FILTER: CH. CLASS 180

PEAK DATA: 39.57 KM/H @ 179.84 MS; 0.00 KM/H @ 3.36 MS

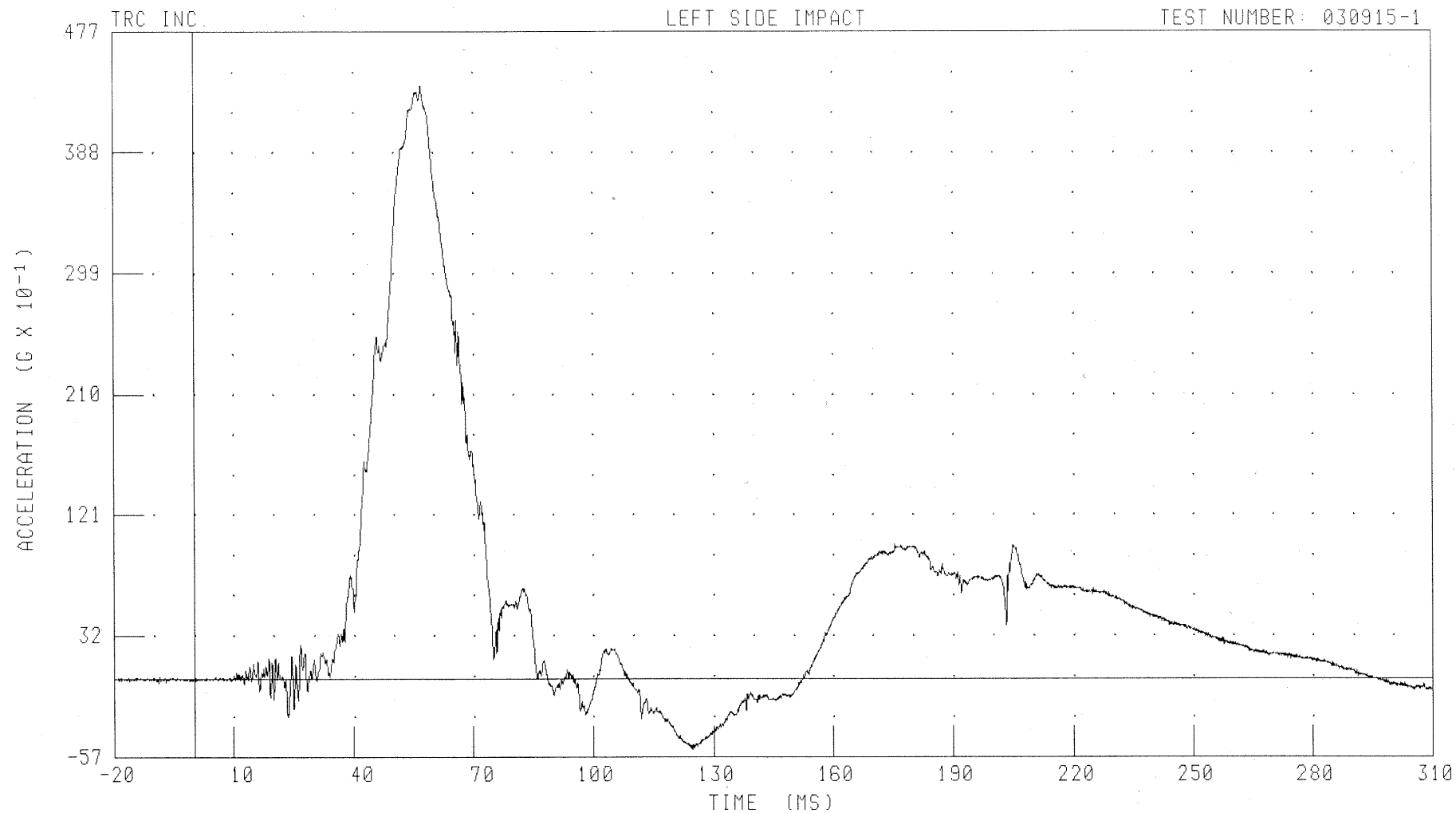
B-14

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (FT) Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2ZG1 FILTER: CH. CLASS 1000

PEAK DATA: 43.72 G @ 56.96 MS, -5.18 G @ 124.64 MS

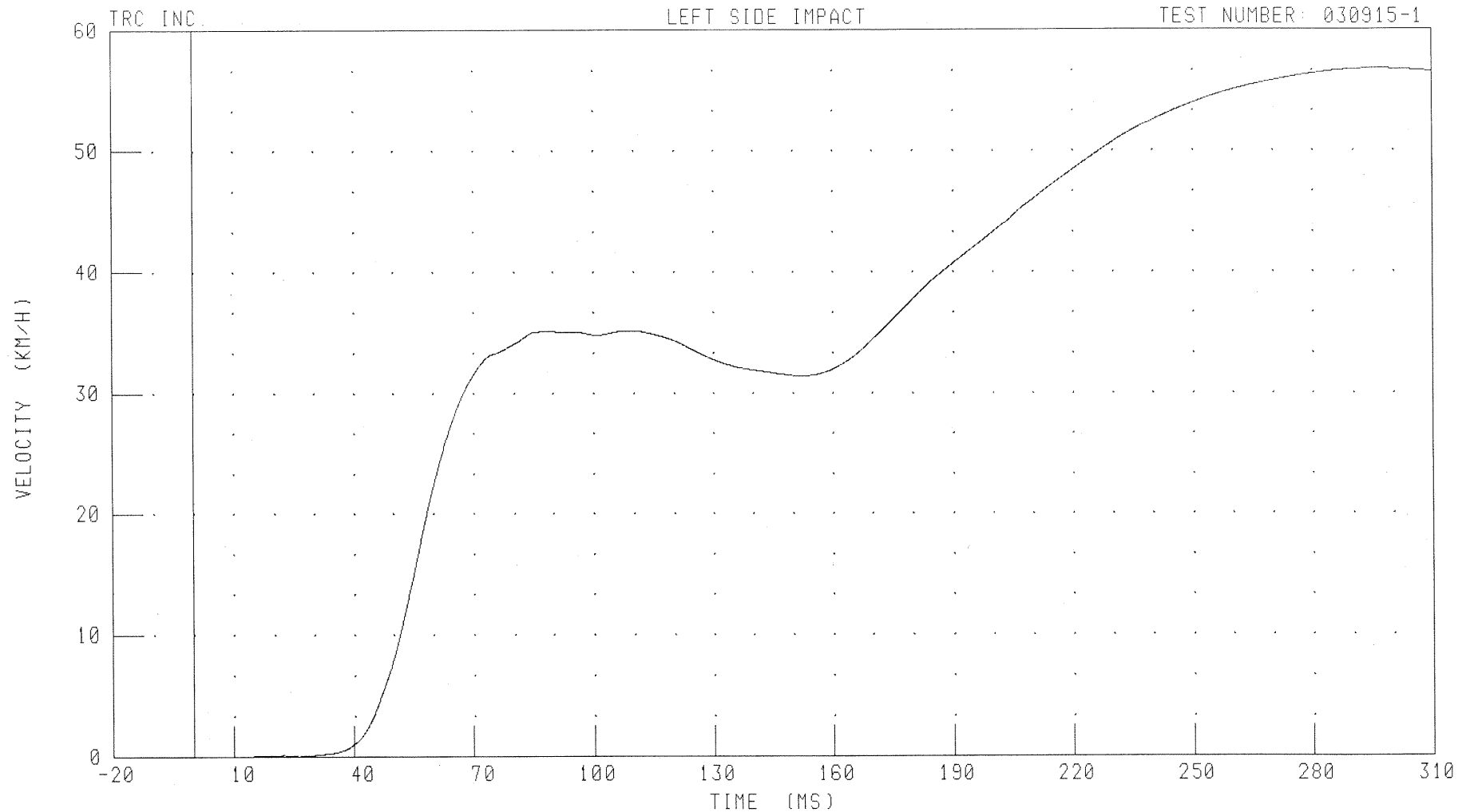
B-15

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (FT) Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



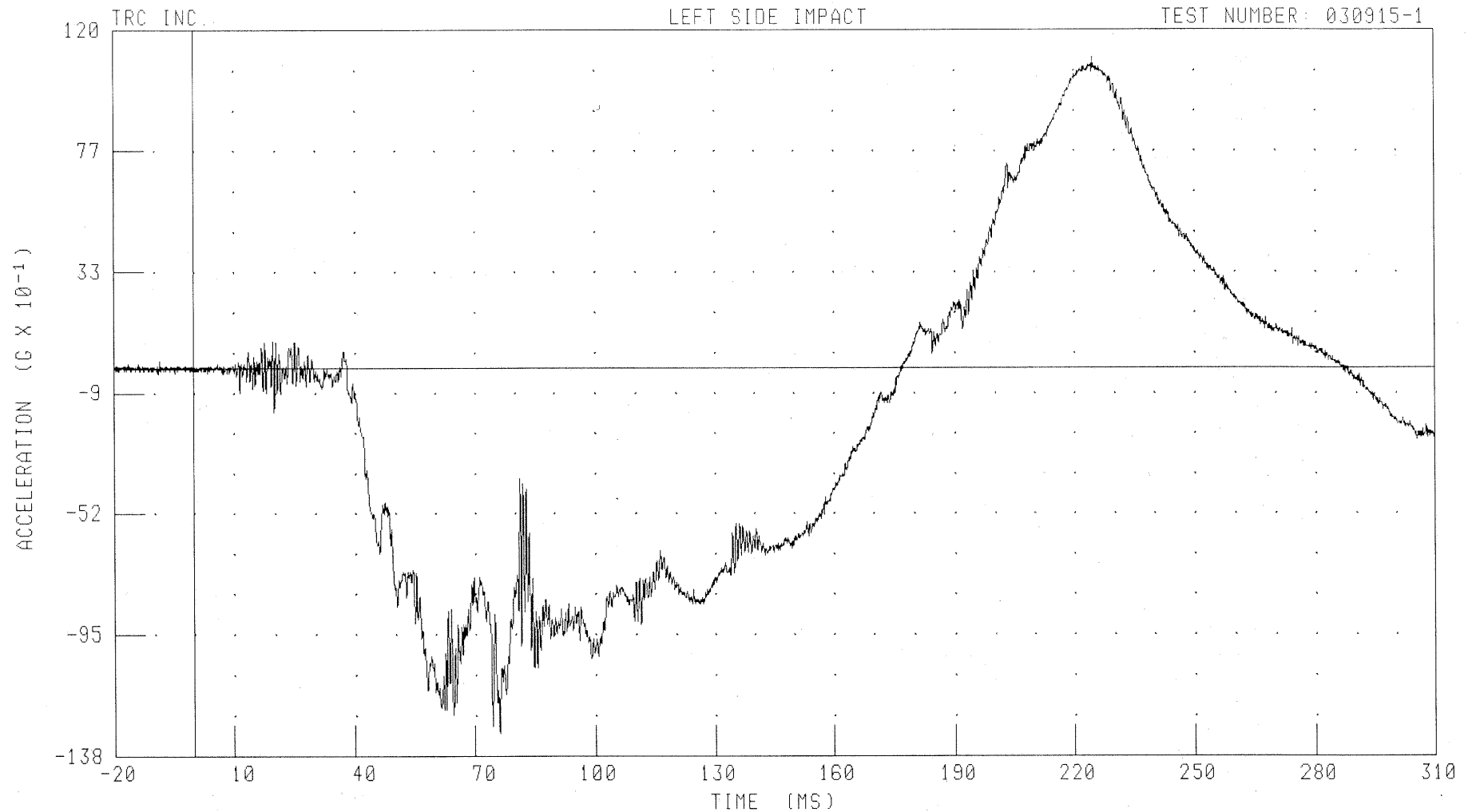
CHANNEL: HD2ZV1 FILTER: CH. CLASS 180

PEAK DATA: 56.78 KM/H @ 295.76 MS; 0.00 KM/H @ 1.60 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (TP) X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD3XG1

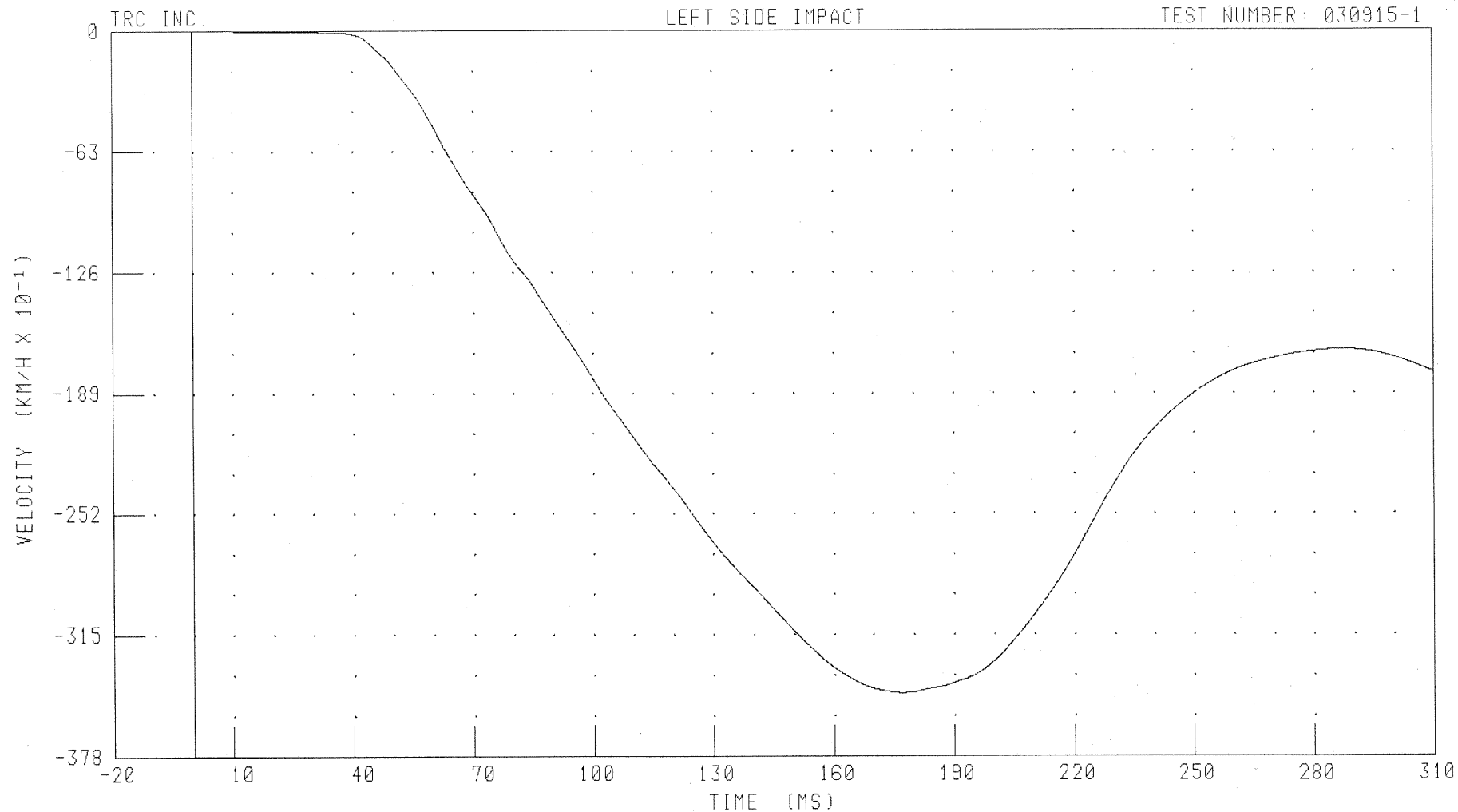
FILTER: CH. CLASS 1000

PEAK DATA: 11.01 G @ 224.80 MS, -12.99 G @ 76.16 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (TP) X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD3XV1 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS; -34.53 KM/H @ 177.12 MS

B-18

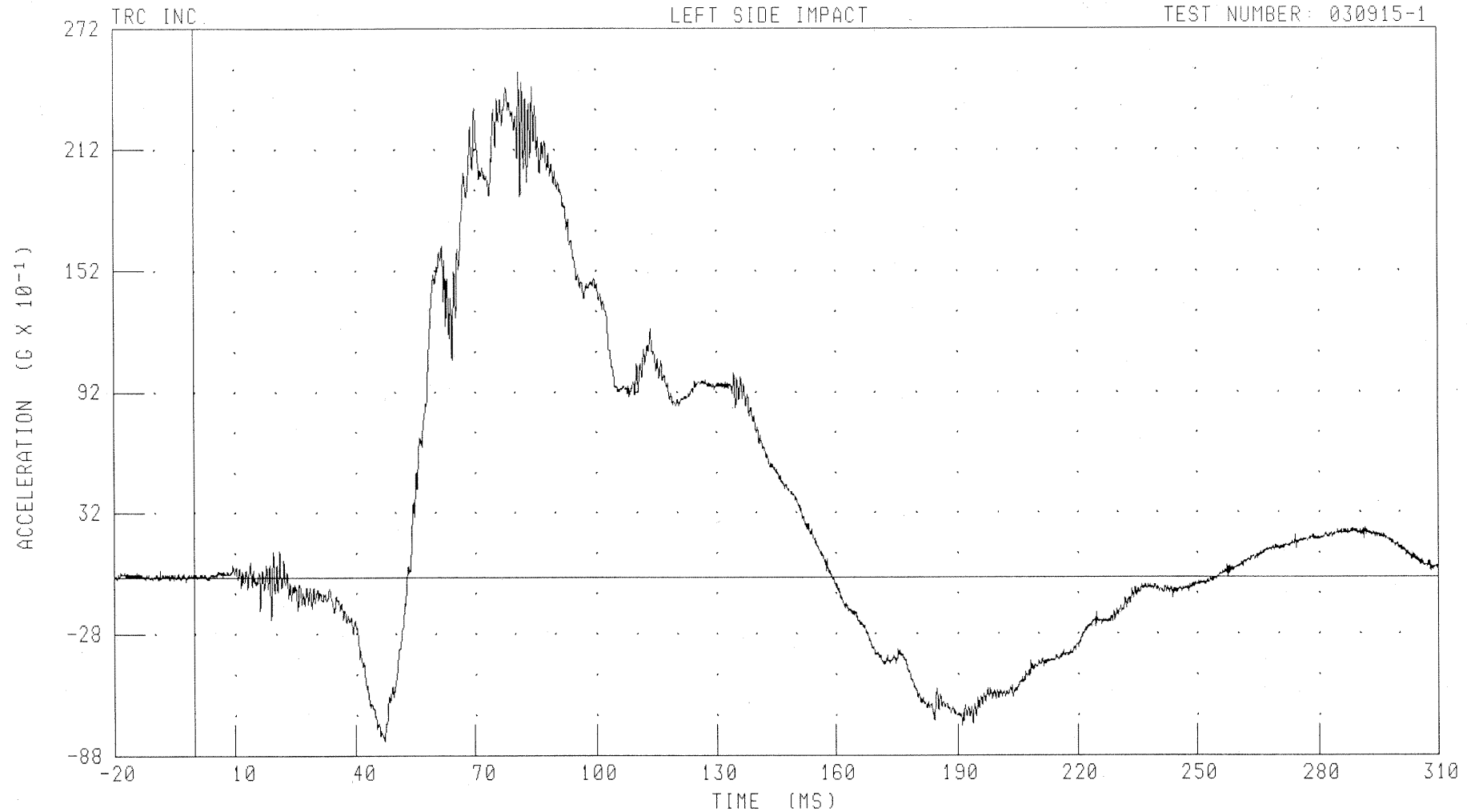
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER HEAD (TP) Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



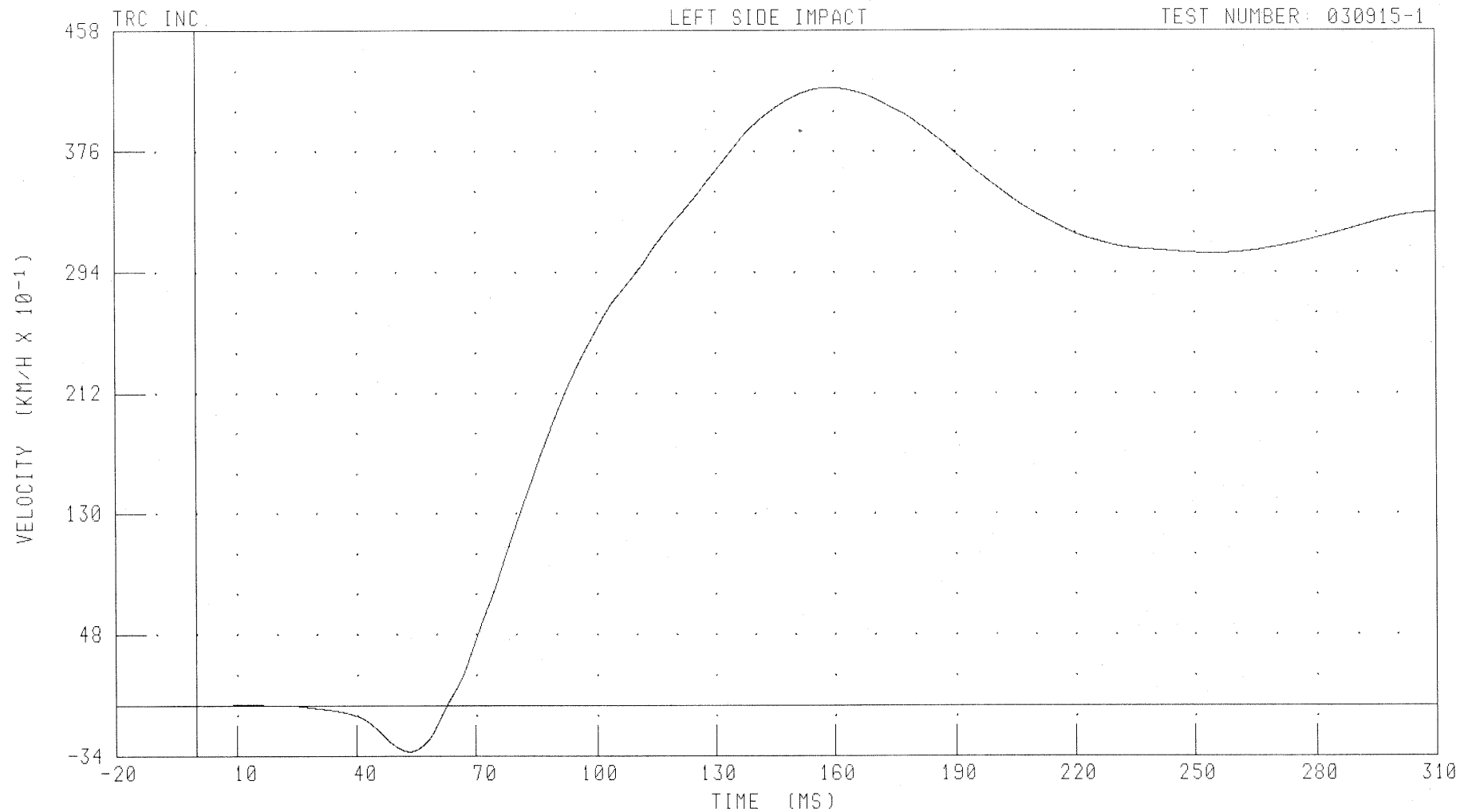
CHANNEL: HD3YG1 FILTER: CH. CLASS 1000

PEAK DATA: 25.07 G @ 81.28 MS; -8.09 G @ 47.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER HEAD (TP) Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



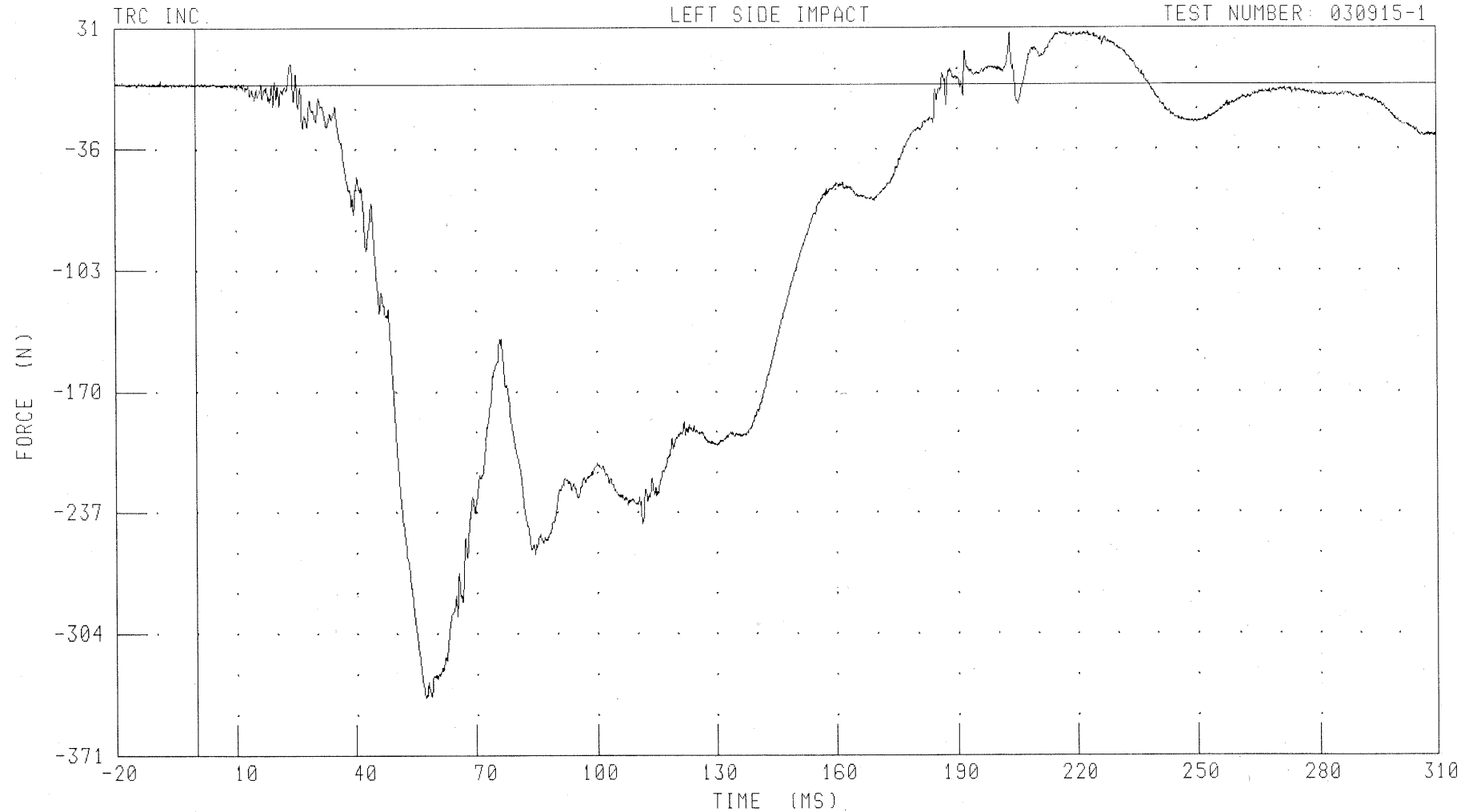
CHANNEL: HD3YV1 FILTER: CH. CLASS 180

PEAK DATA: 41.96 KM/H @ 159.20 MS; -3.11 KM/H @ 53.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER NECK X-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKXF1 FILTER: CH. CLASS 1000

PEAK DATA: 28.68 N @ 223.12 MS; -339.31 N @ 57.20 MS

B-21

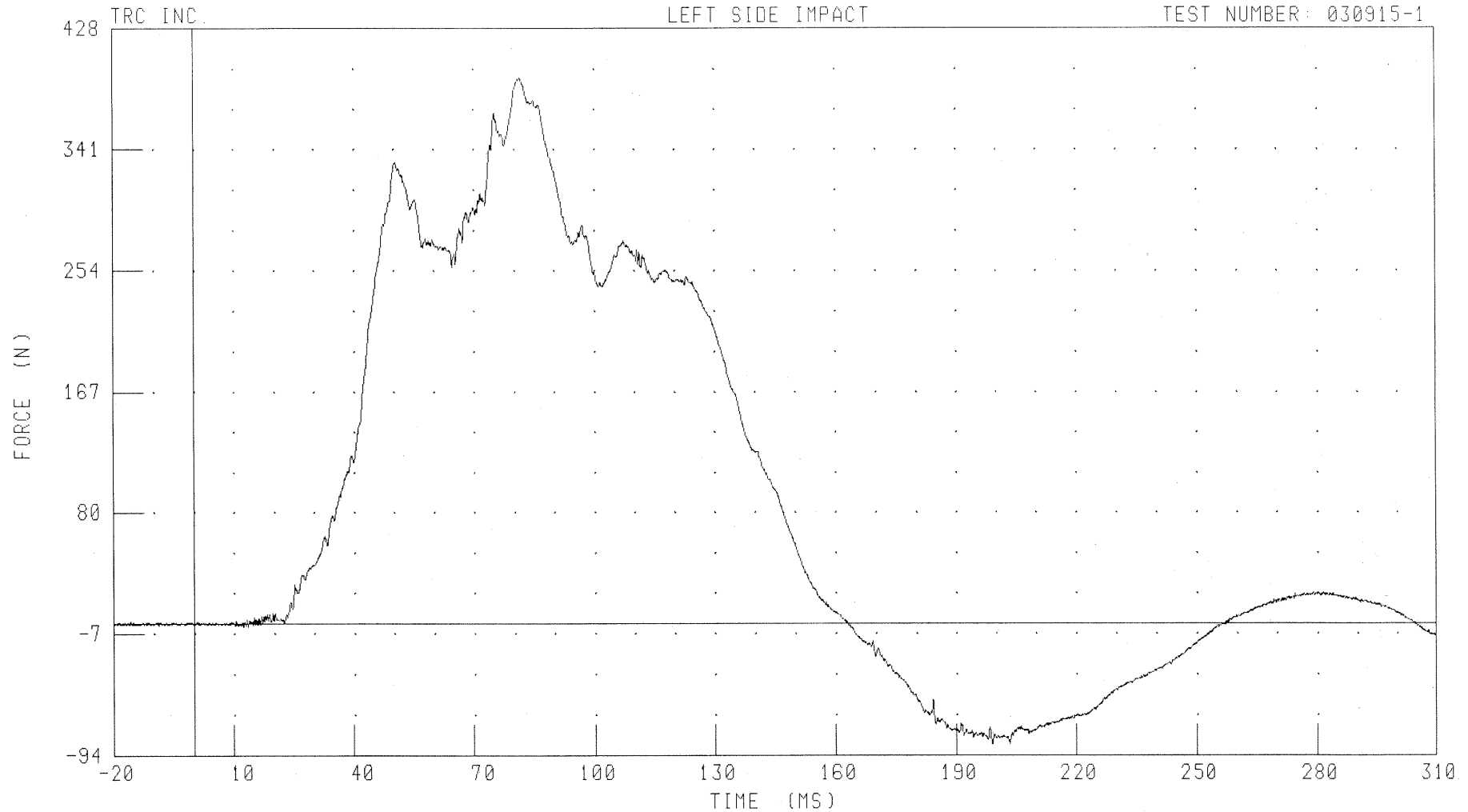
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER UPPER NECK Y-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKYF1 FILTER: CH. CLASS 1000

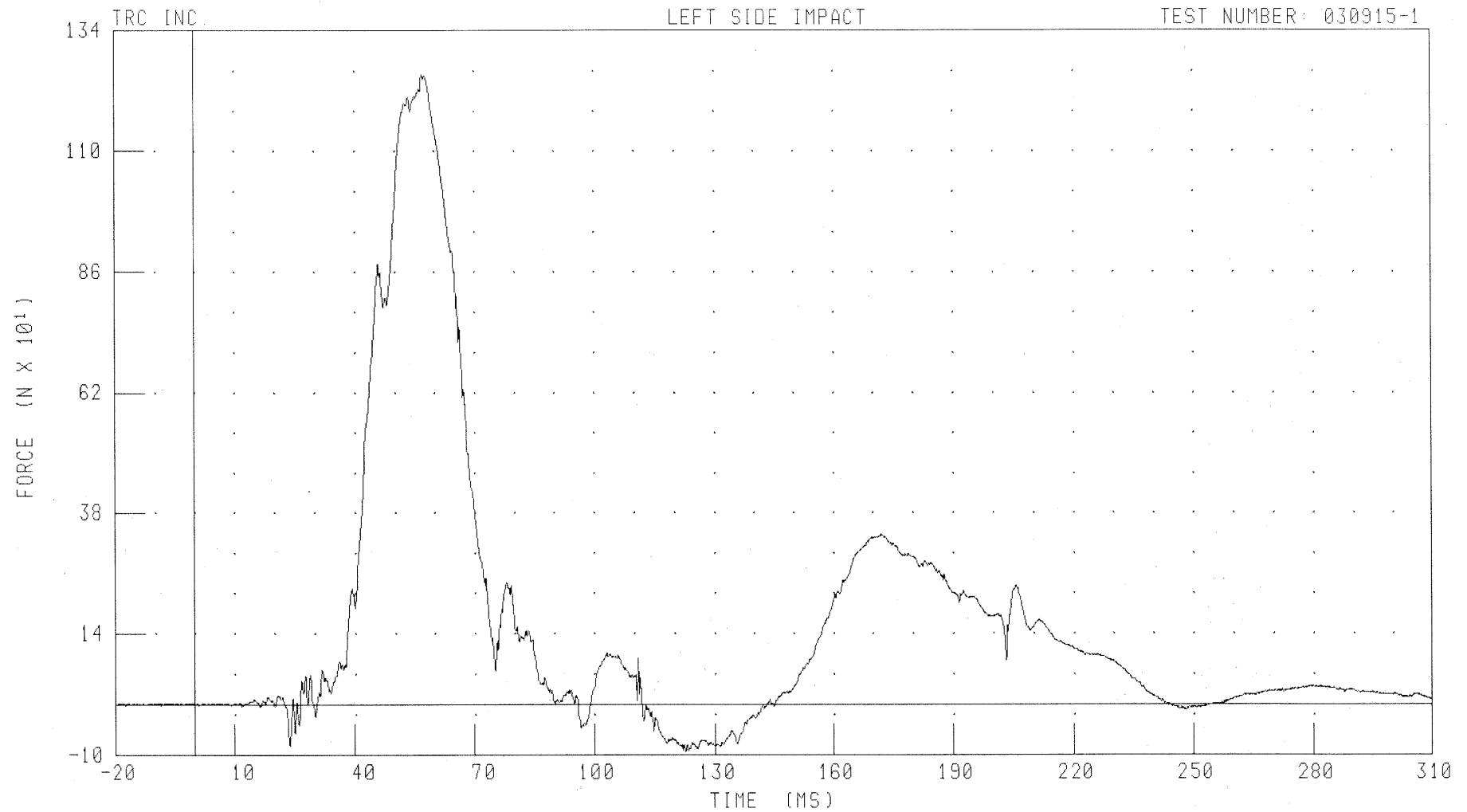
B-22

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER NECK Z-AXIS AXIAL FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



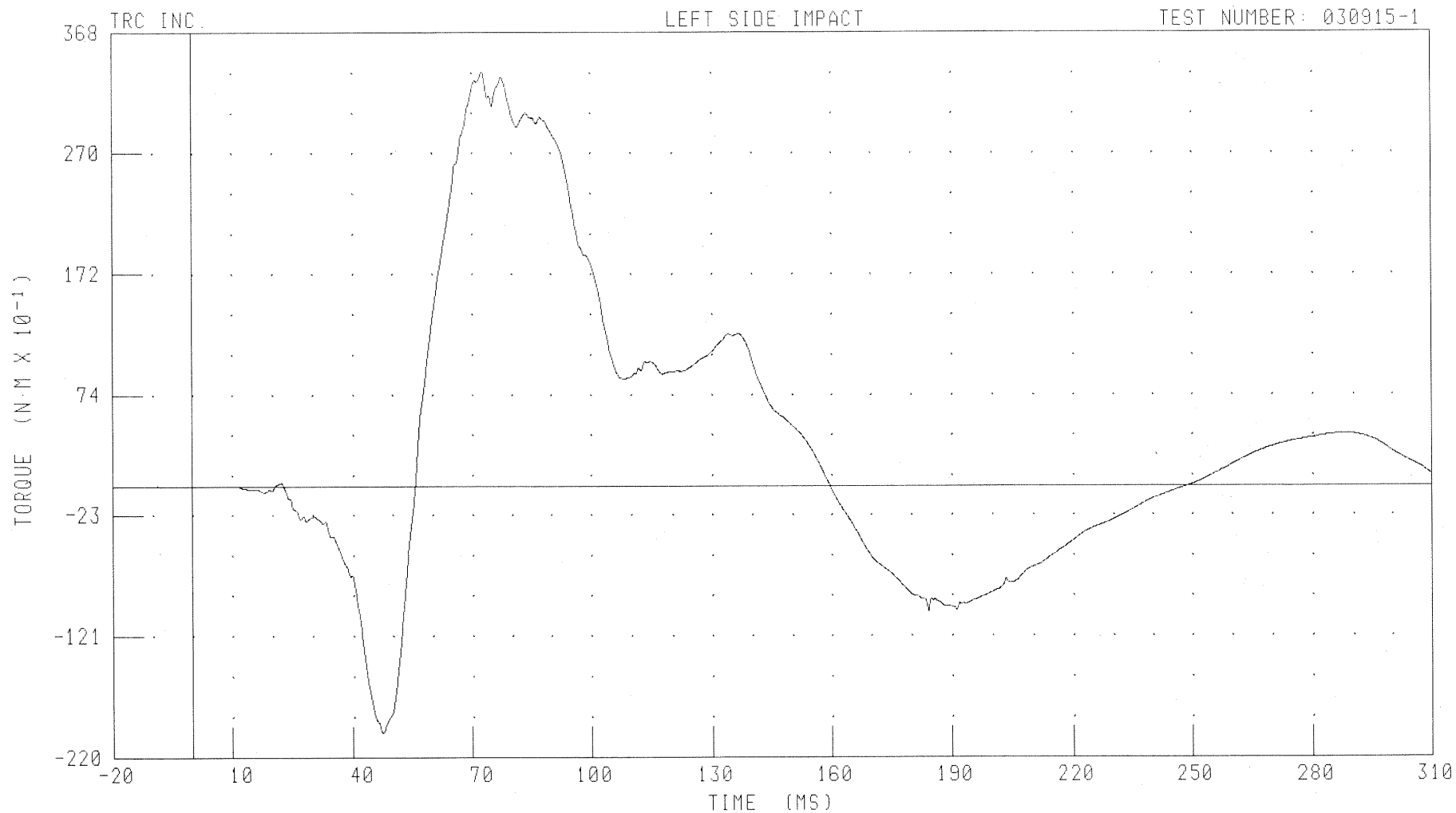
CHANNEL: NEKZF1 FILTER: CH. CLASS 1000

PEAK DATA: 1253.88 N @ 57.20 MS; -93.29 N @ 122.80 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER NECK MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



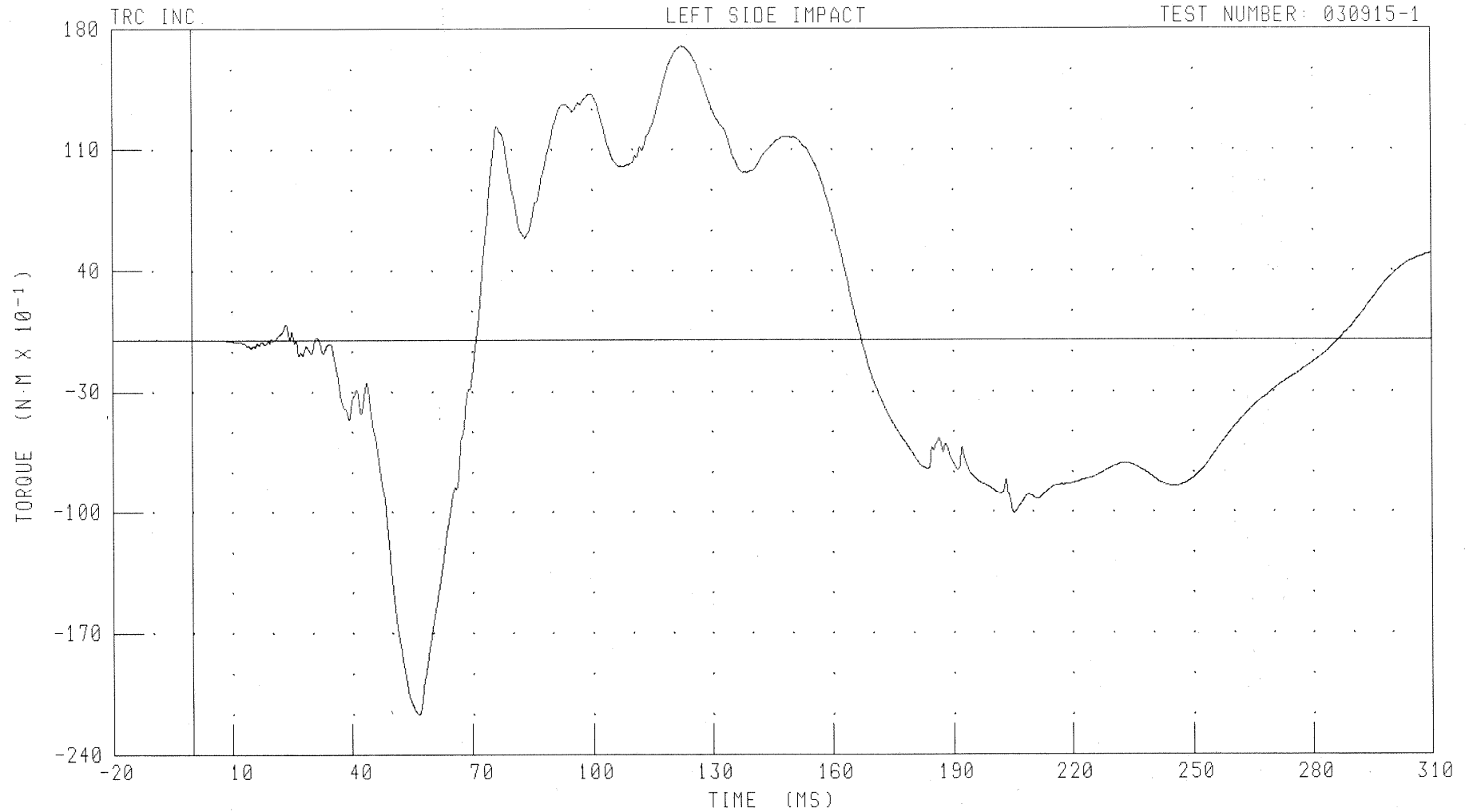
CHANNEL: NEKXM1 FILTER: CH. CLASS 600

PEAK DATA: 33.62 N·M @ 72.88 MS; -20.01 N·M @ 47.44 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER NECK MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



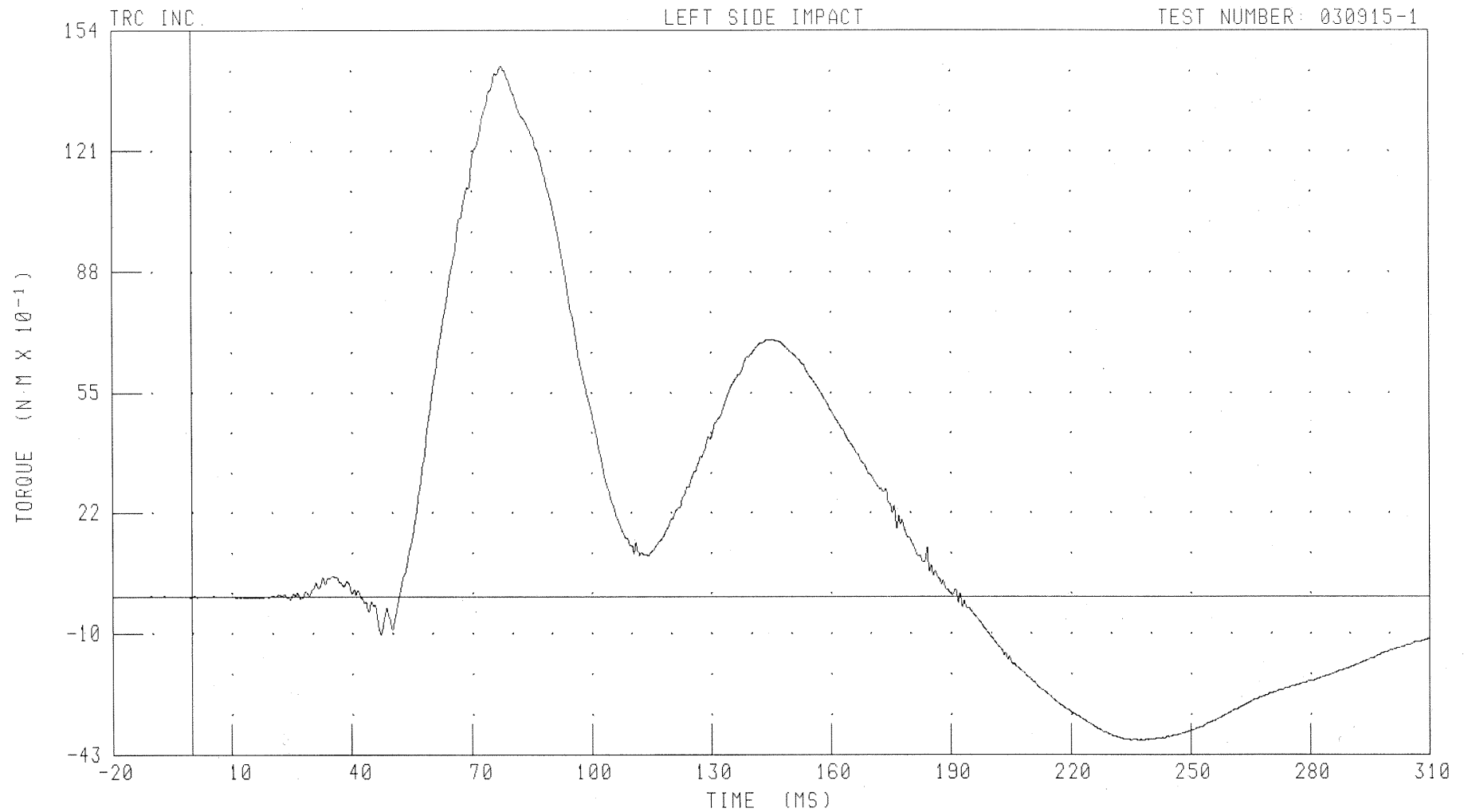
CHANNEL: NEKYM1 FILTER: CH. CLASS 600

PEAK DATA: 16.99 N·M @ 122.56 MS; -21.69 N·M @ 56.48 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER NECK MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



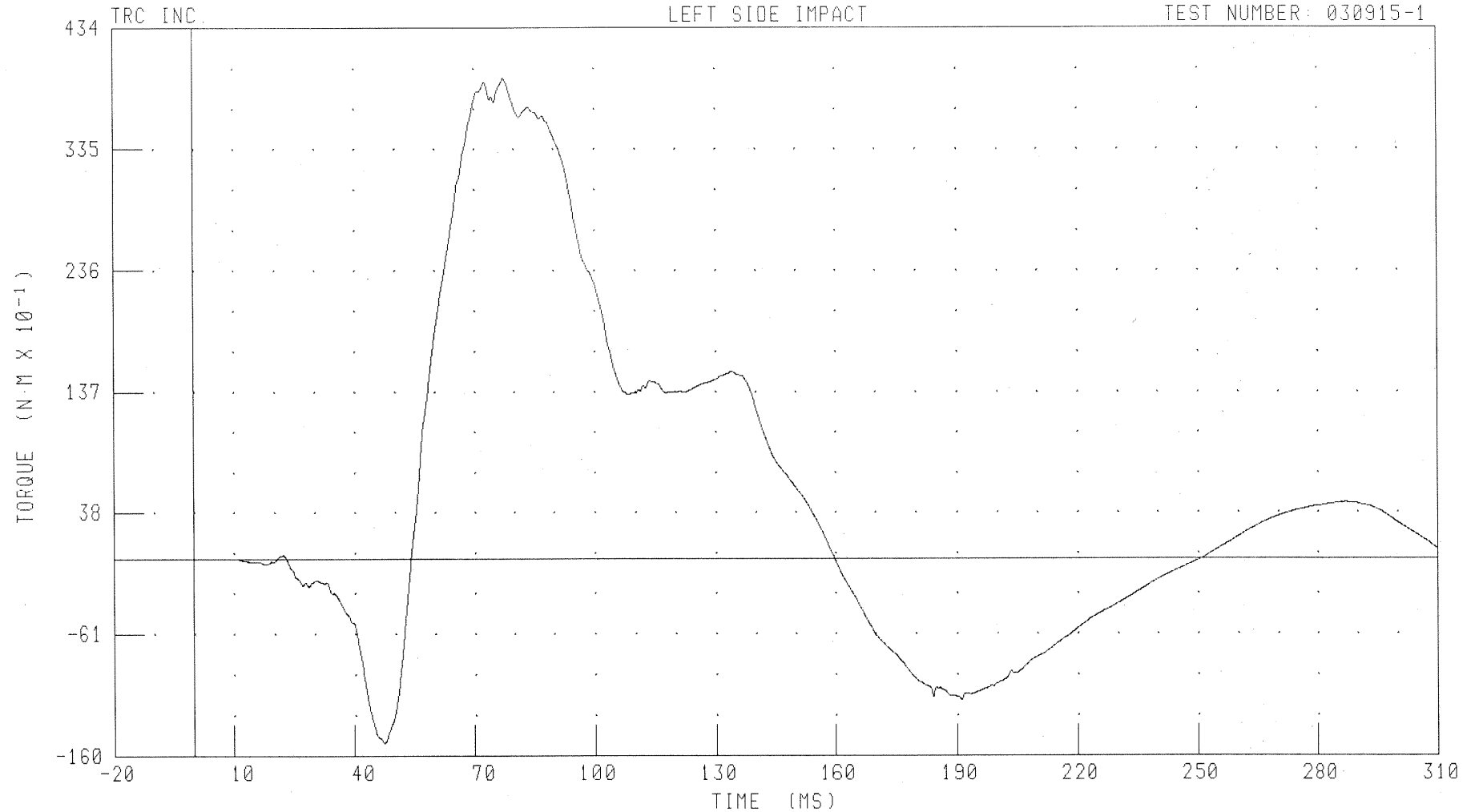
CHANNEL: NEKZM1 FILTER: CH. CLASS 600

PEAK DATA: 14.54 N·M @ 77.60 MS; -3.91 N·M @ 236.80 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NK0XM1 FILTER: CH. CLASS 600

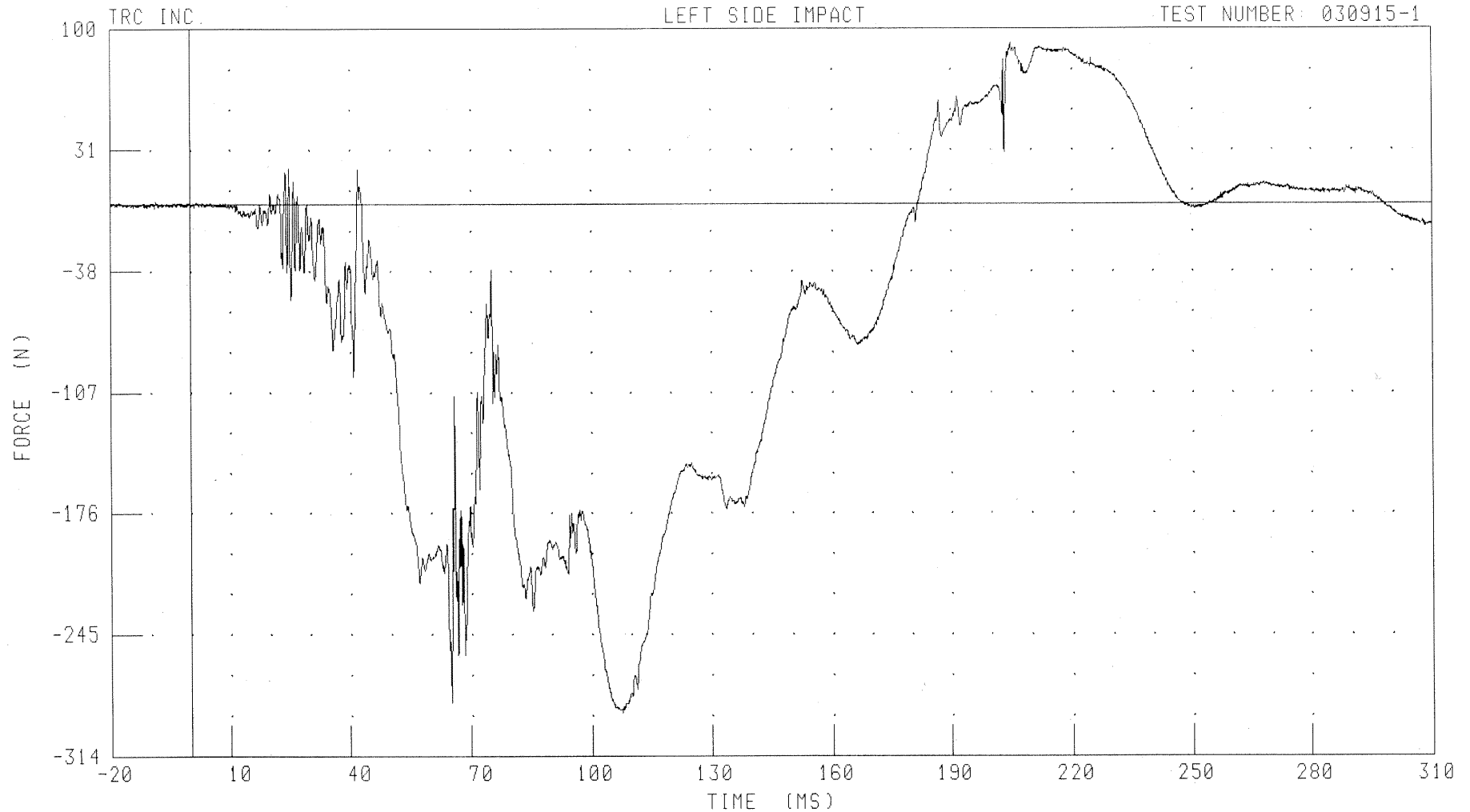
PEAK DATA: 39.30 N·M @ 77.76 MS; -14.96 N·M @ 47.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LOWER NECK X-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLXF1 FILTER: CH. CLASS 1000

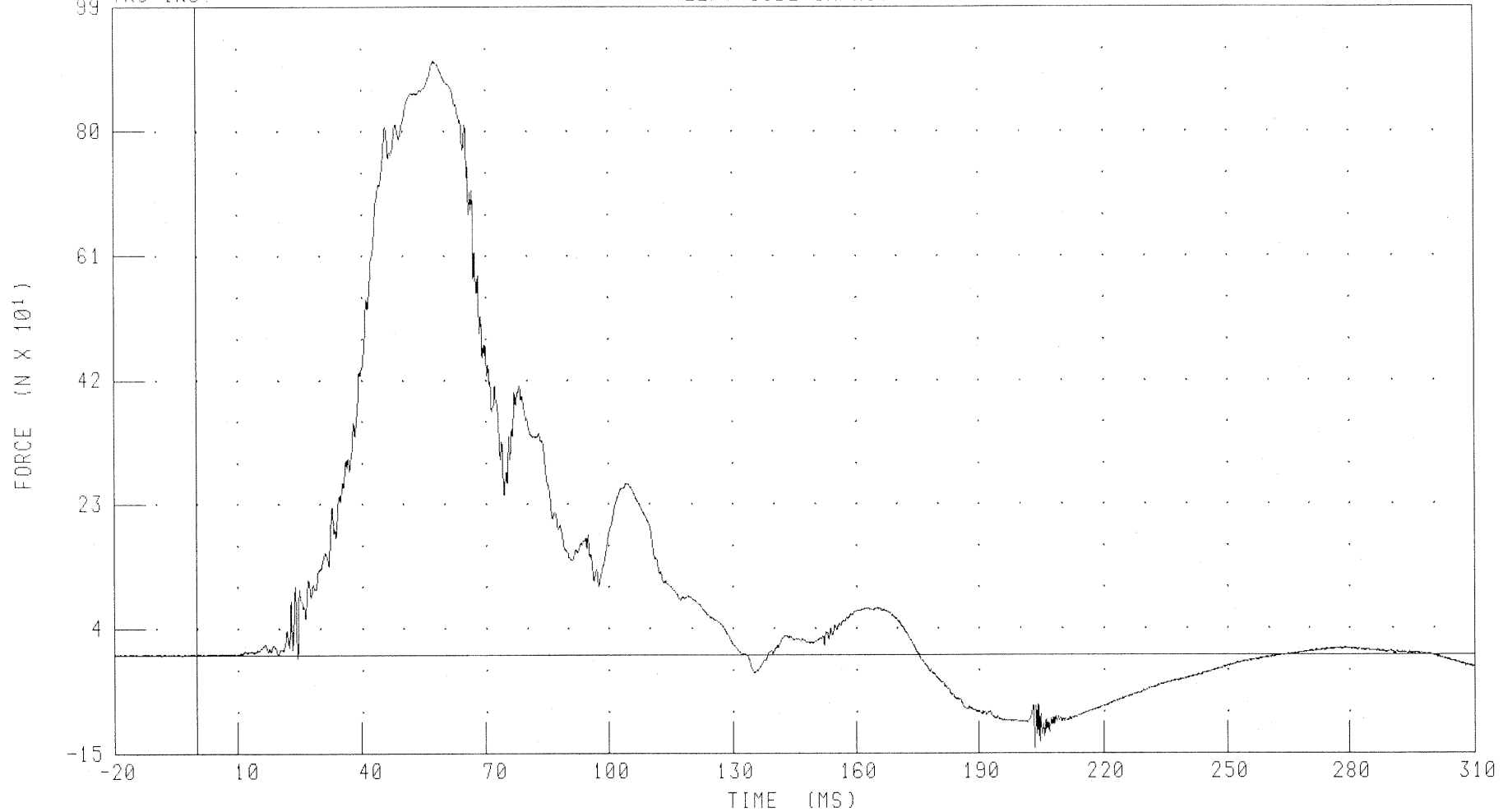
PEAK DATA: 91.70 N @ 205.20 MS; -289.56 N @ 107.76 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LOWER NECK Y-AXIS SHEAR FORCE

TRC INC.

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLYF1 FILTER: CH. CLASS 1000

PEAK DATA: 908.21 N @ 57.60 MS; -142.71 N @ 203.52 MS

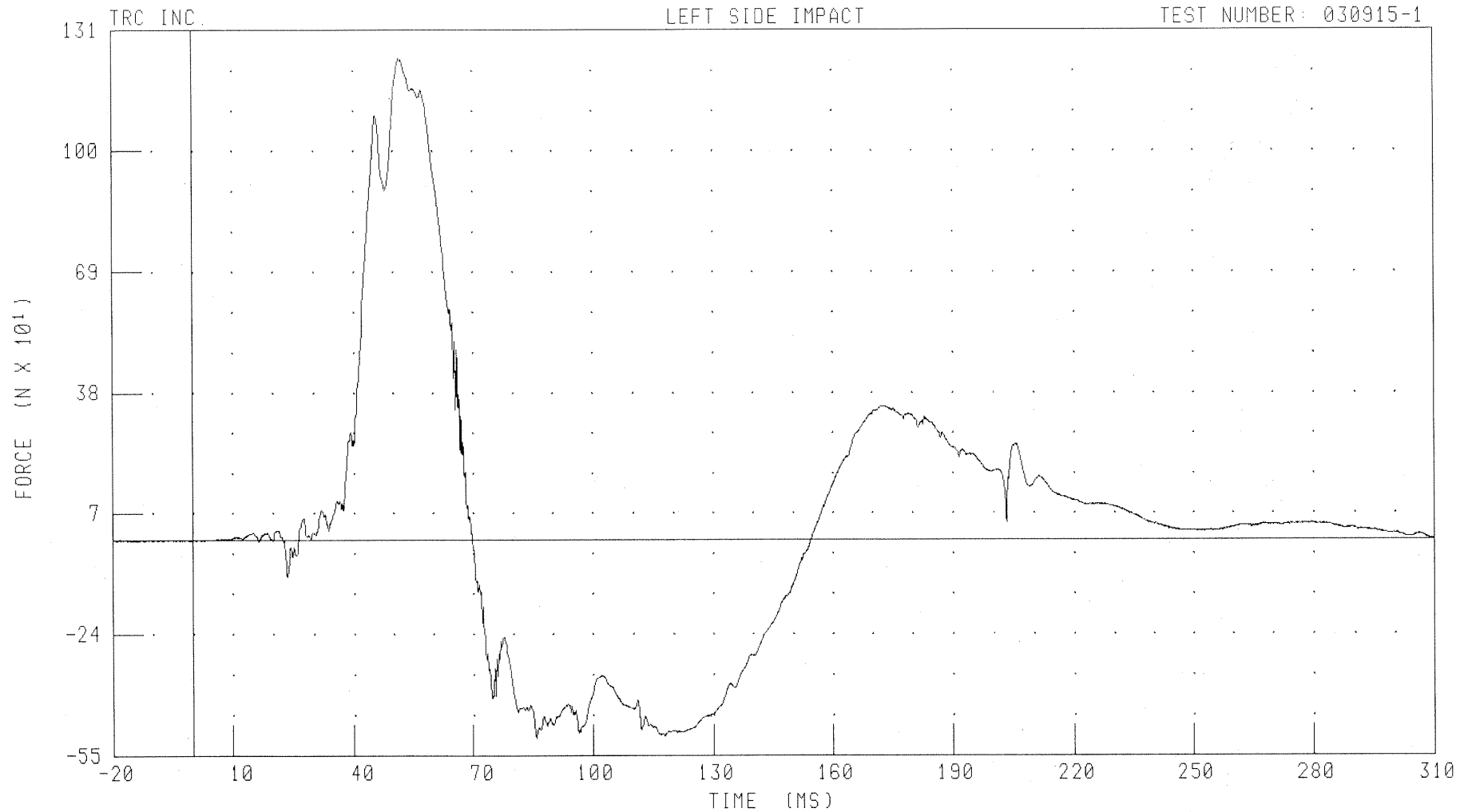
B-29

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LOWER NECK Z-AXIS AXIAL FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLZF1 FILTER: CH. CLASS 1000

PEAK DATA: 1238.06 N @ 51.76 MS, -504.62 N @ 85.84 MS

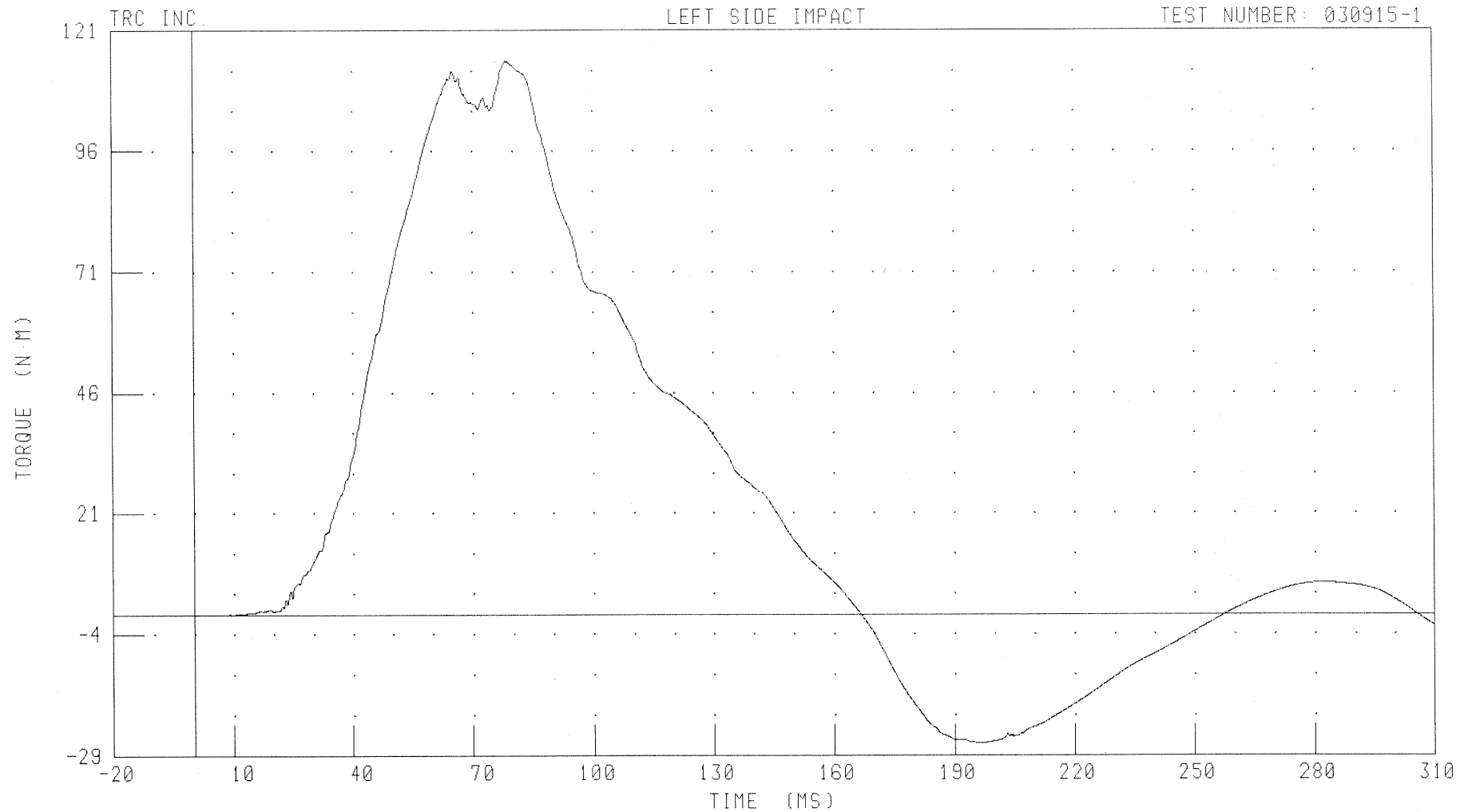
B-30

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LOWER NECK MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLXM1 FILTER: CH. CLASS 600

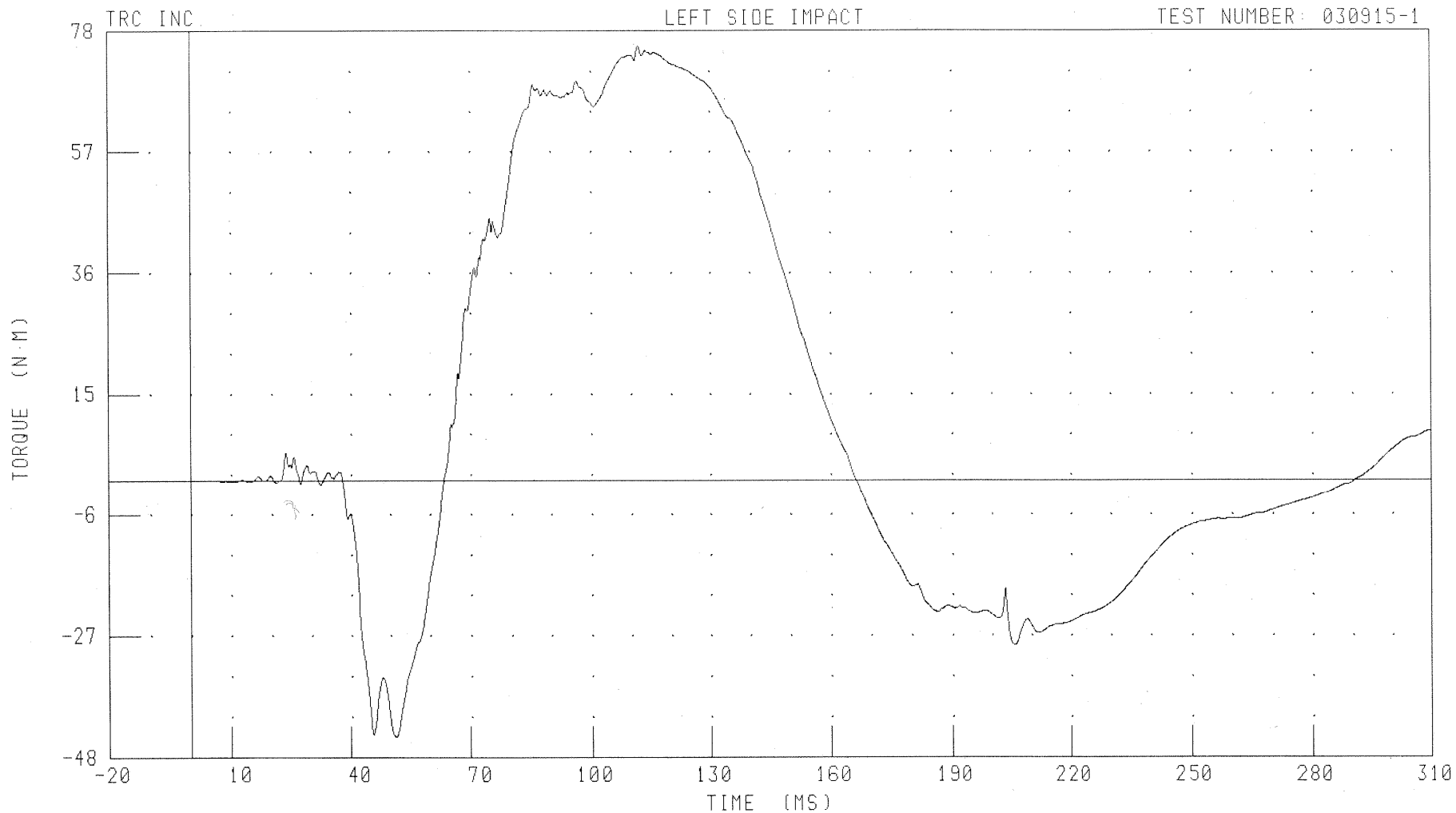
B-31

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LOWER NECK MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLYM1 FILTER: CH. CLASS 600

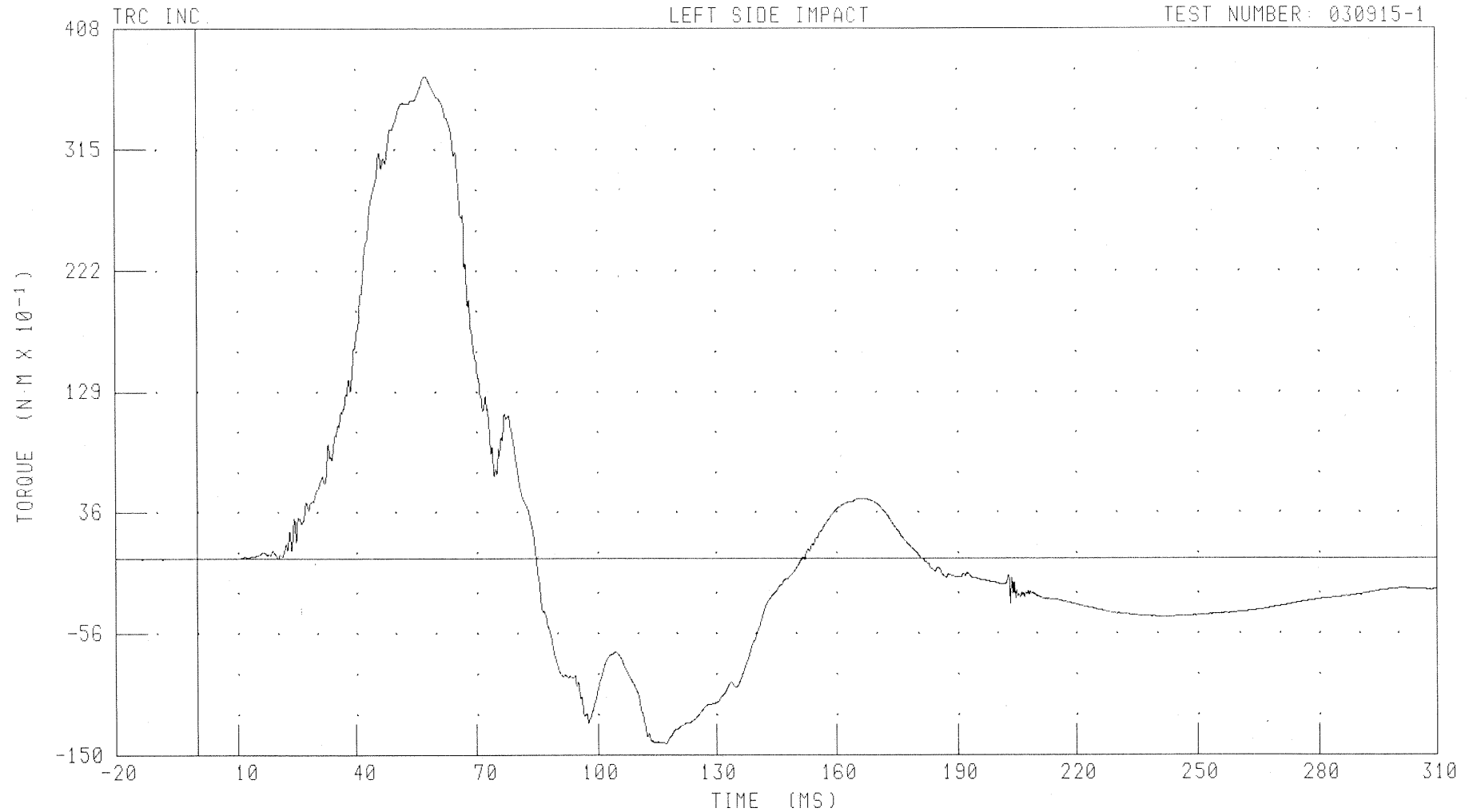
PEAK DATA: 75.46 N·M @ 112.00 MS; -44.53 N·M @ 51.28 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LOWER NECK MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLZM1 FILTER: CH. CLASS 600

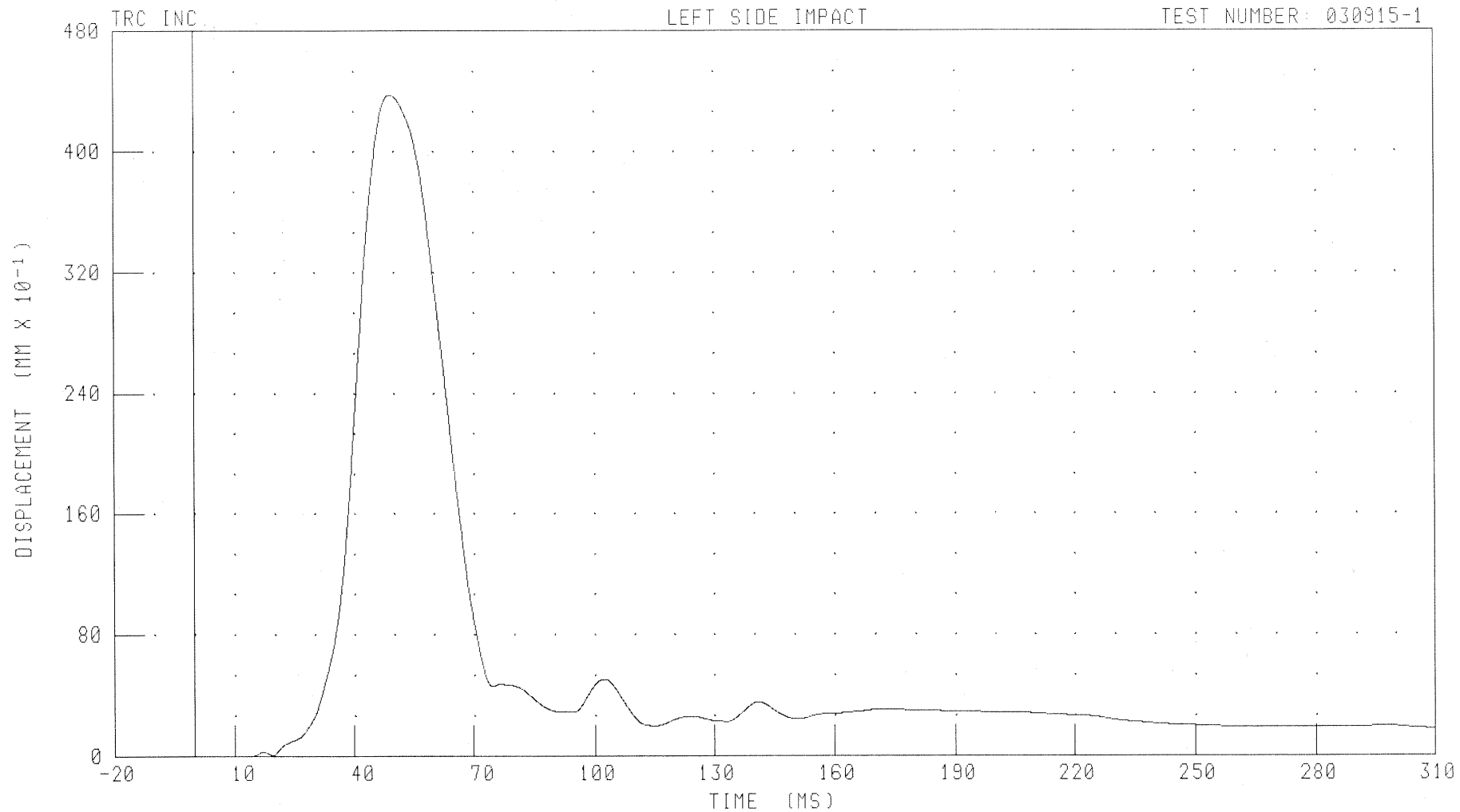
B-33

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



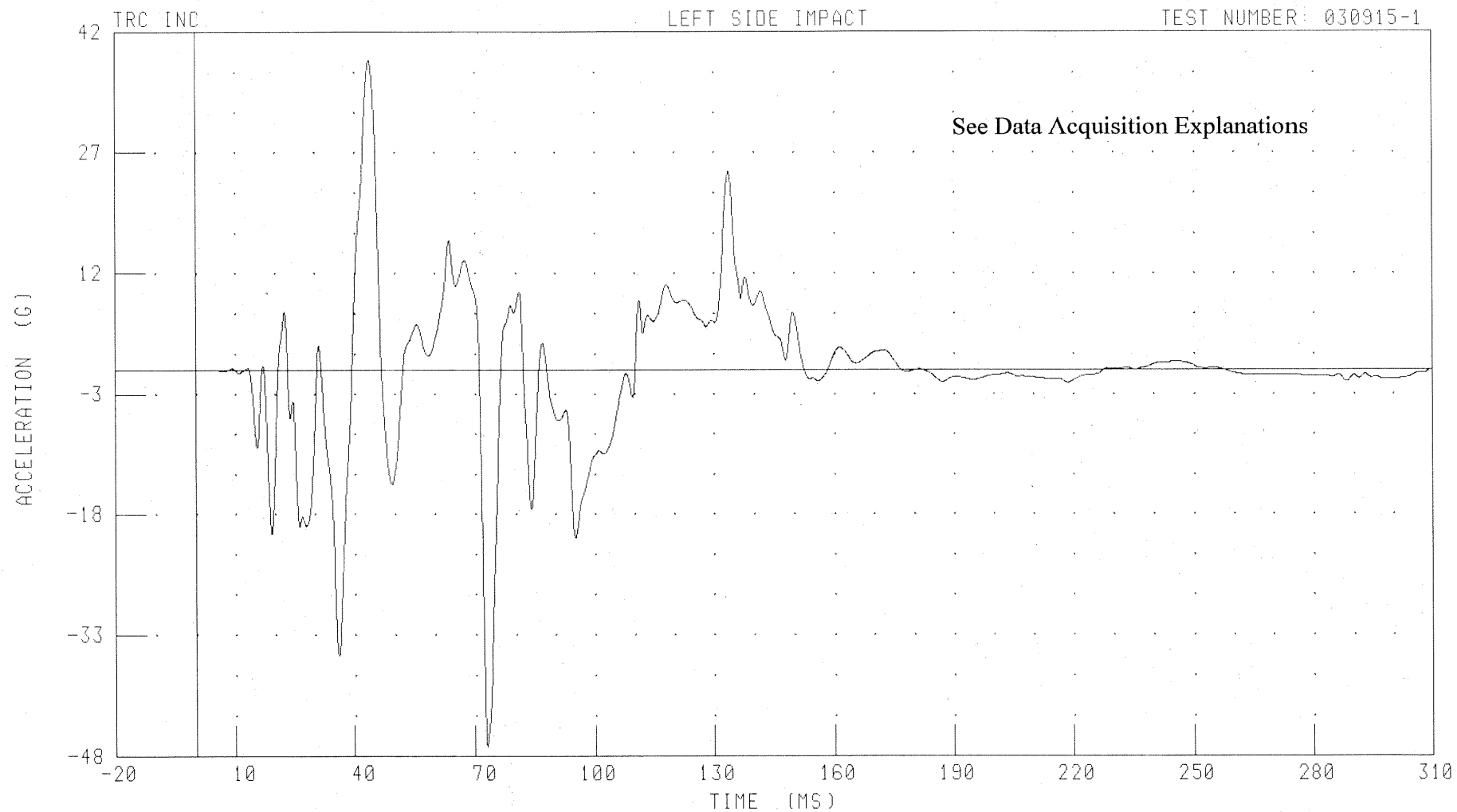
CHANNEL: SHLYD1 FILTER: CH. CLASS 180

PEAK DATA: 43.77 MM @ 49.28 MS; 0.00 MM @ 2.88 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



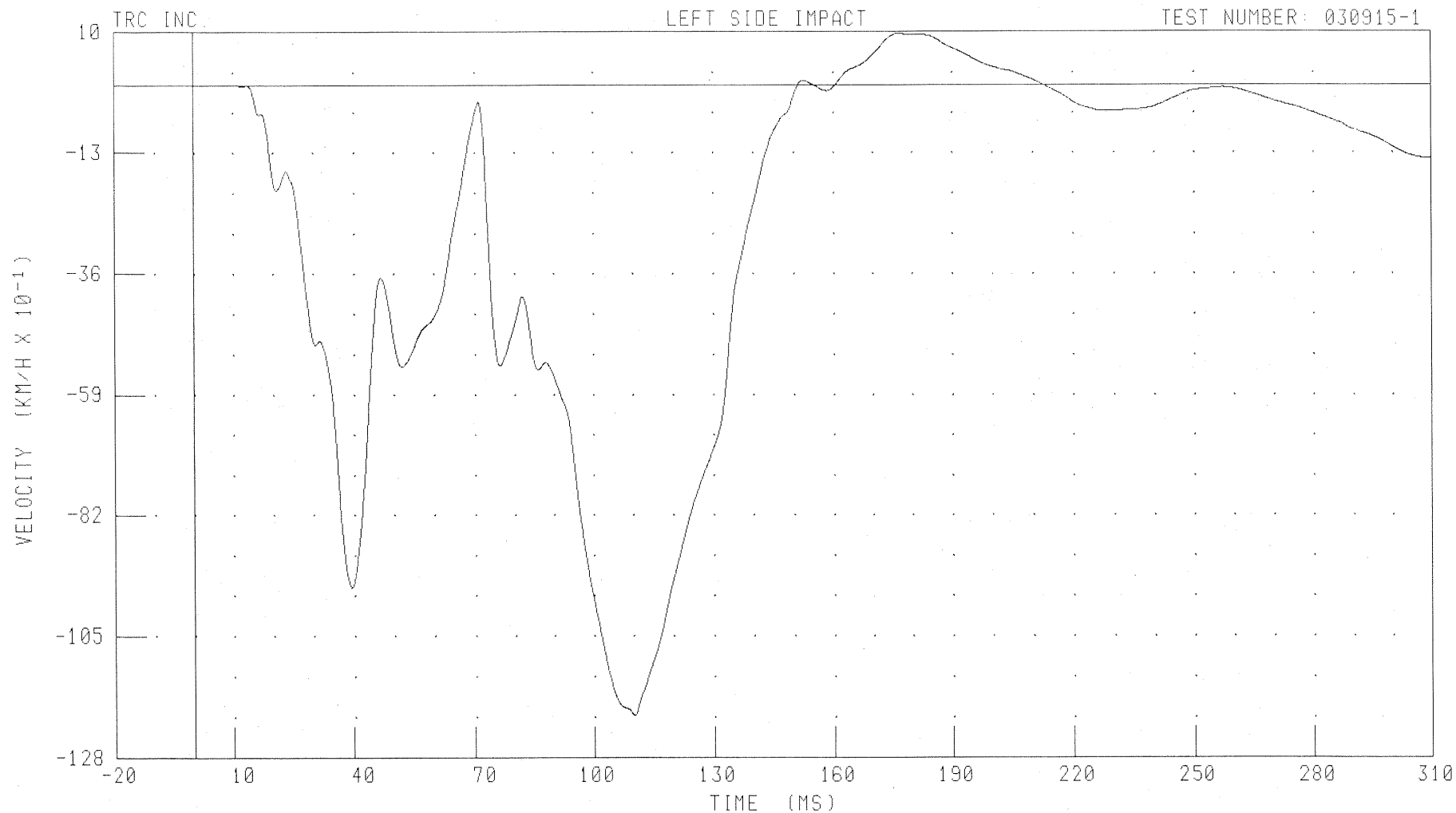
CHANNEL: SHLXG1 FILTER: CH. CLASS 180

PEAK DATA: 38.53 G @ 43.84 MS; -46.83 G @ 72.96 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



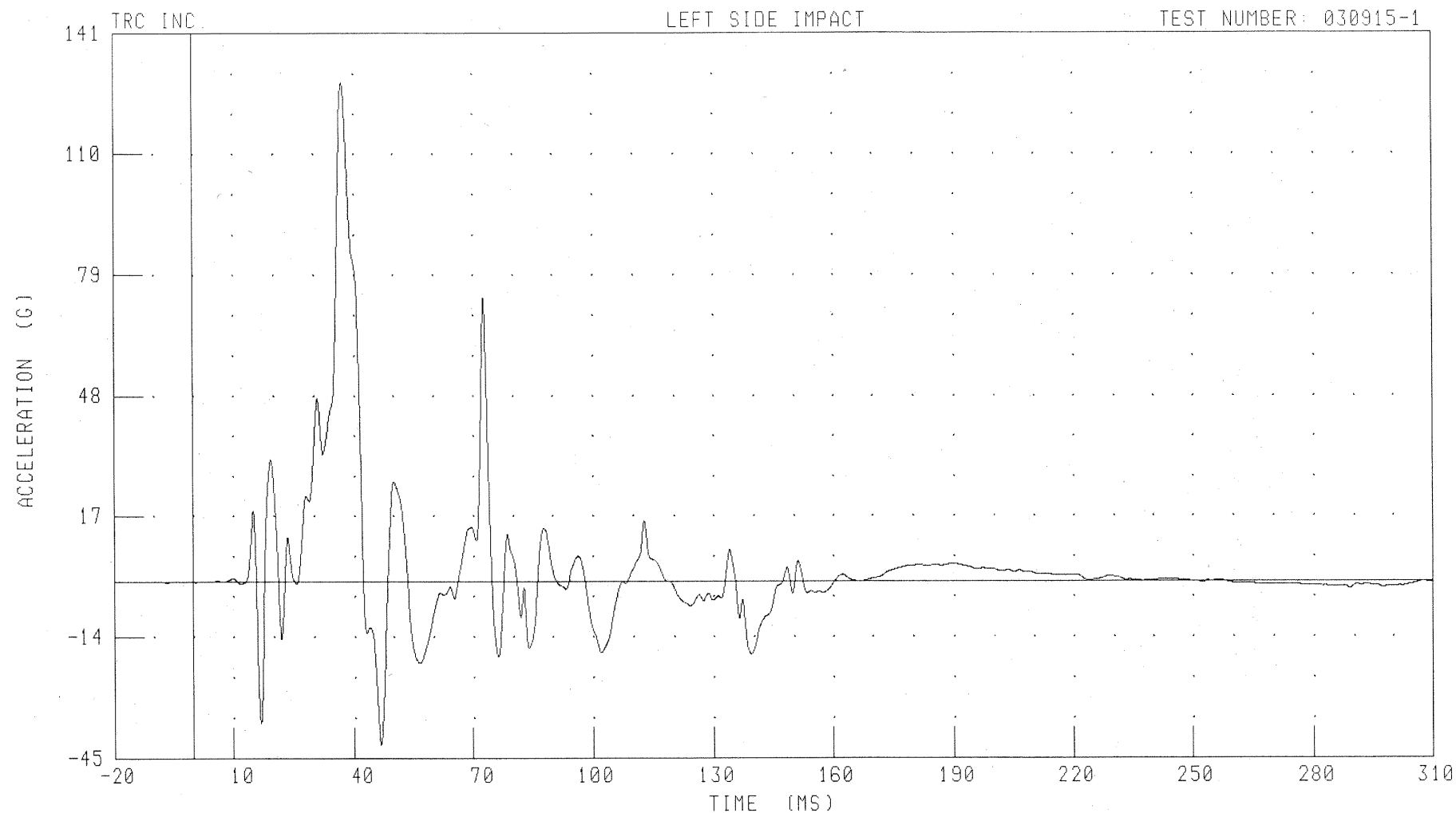
CHANNEL: SHLXV1 FILTER: CH. CLASS 180

PEAK DATA: 0.96 KM/H @ 176.80 MS, -12.01 KM/H @ 110.32 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYG1 FILTER: CH. CLASS 180

PEAK DATA: 128.50 G @ 37.28 MS, -41.61 G @ 46.88 MS

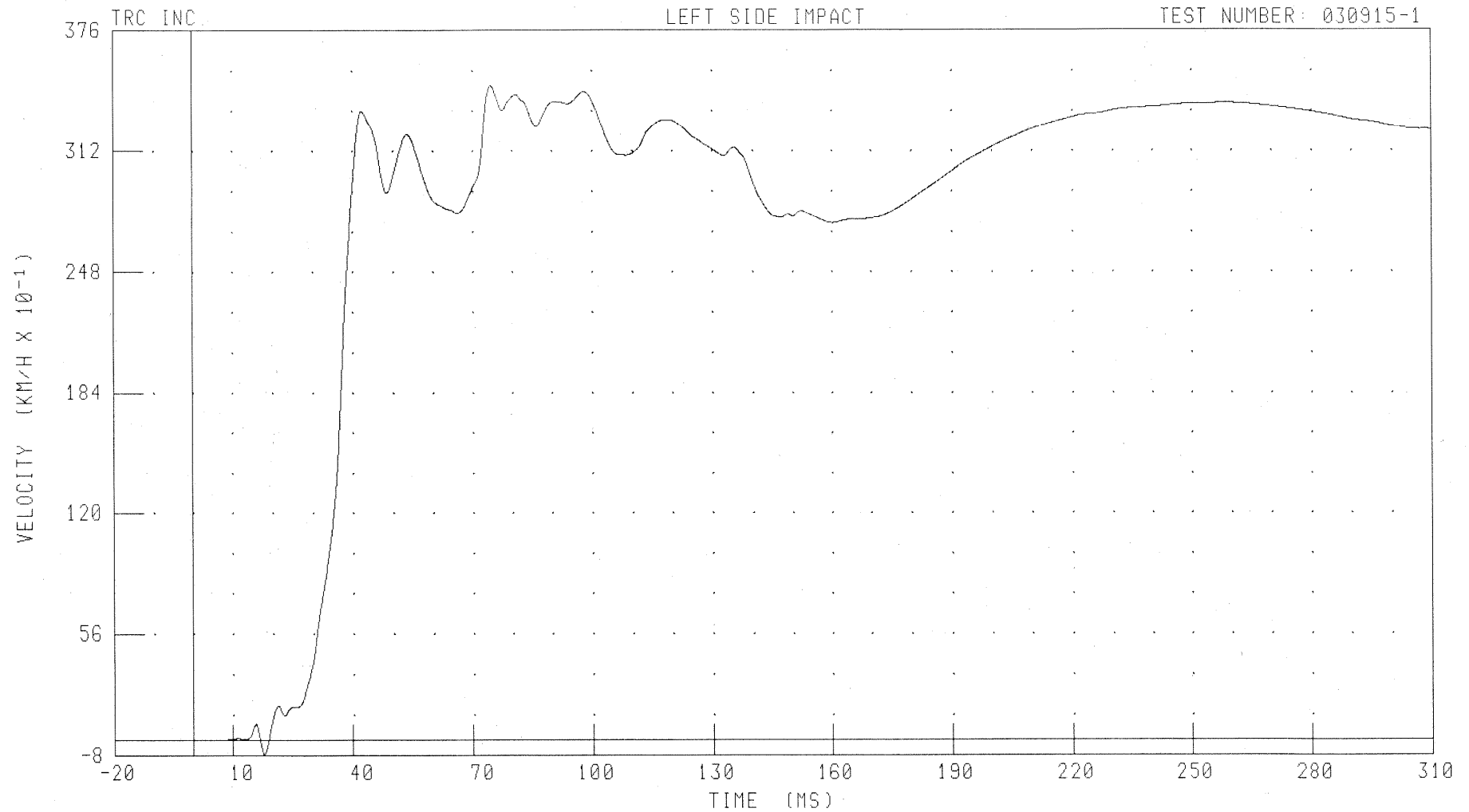
B-37

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



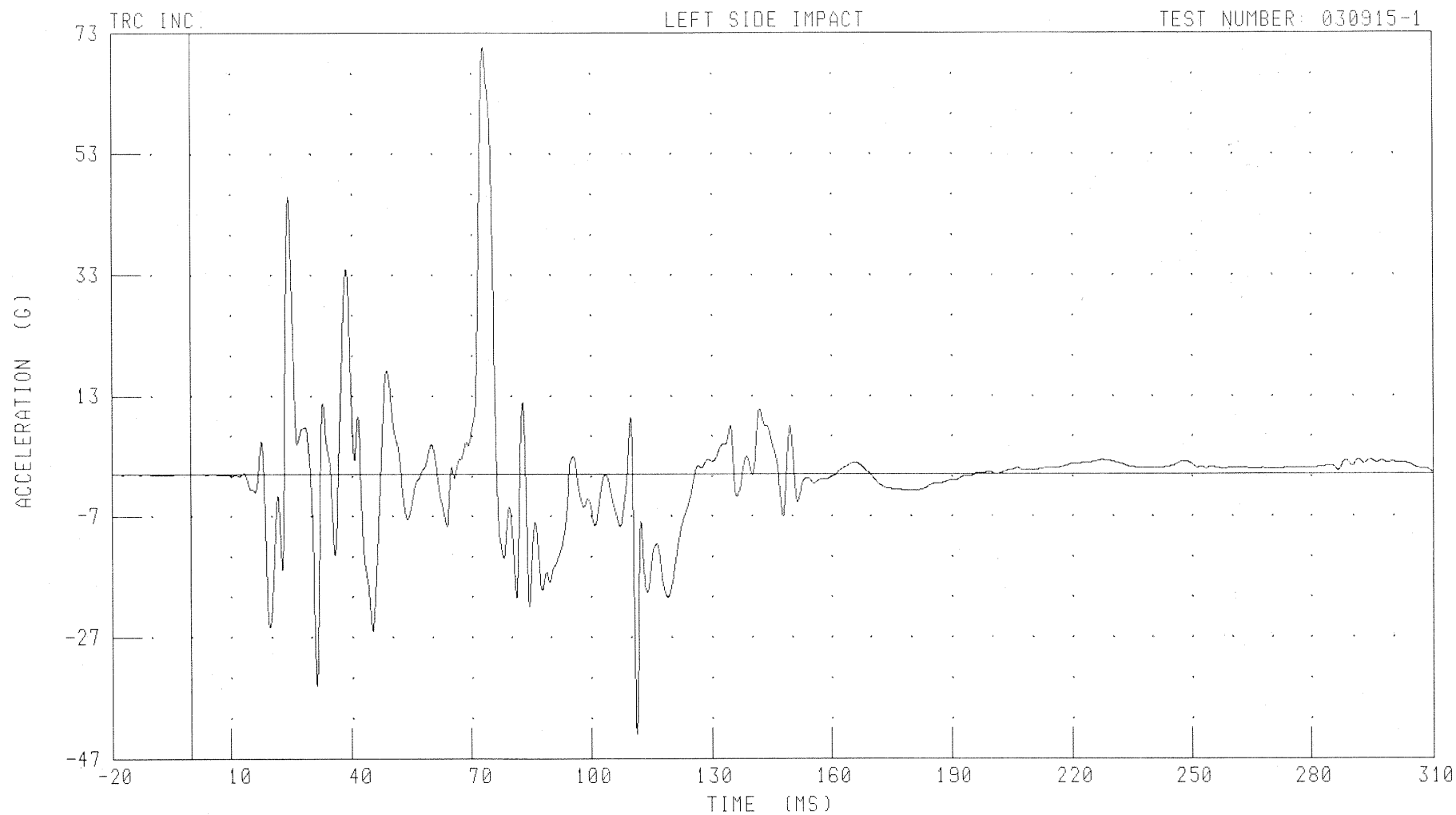
CHANNEL: SHLYV1 FILTER: CH. CLASS 180

PEAK DATA: 34.68 KM/H @ 74.80 MS; -0.75 KM/H @ 17.76 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



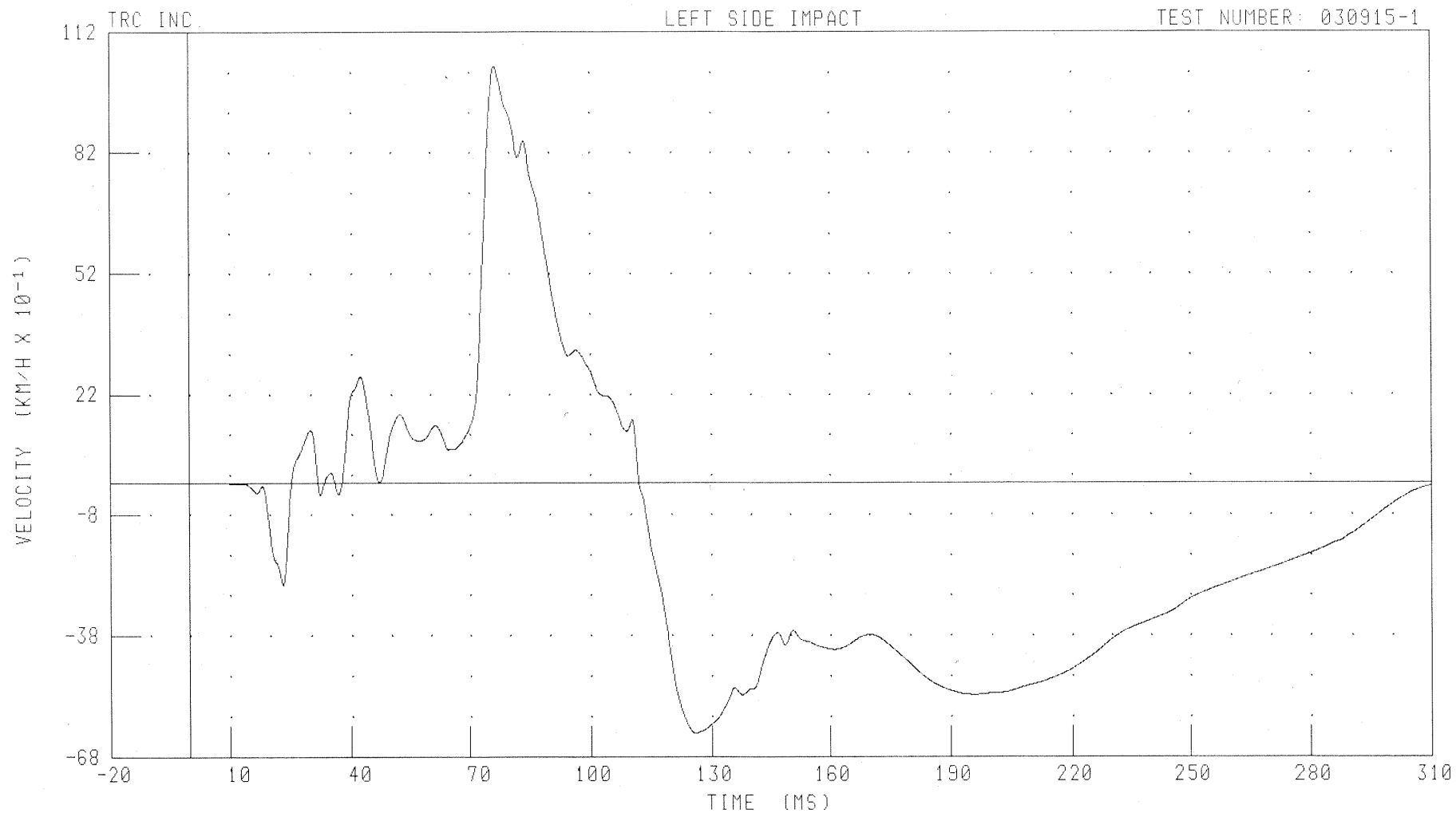
CHANNEL: SHLZG1 FILTER: CH. CLASS 180

PEAK DATA: 70.67 G @ 73.12 MS; -42.90 G @ 111.52 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLZV1 FILTER: CH. CLASS 180

PEAK DATA: 10.35 KM/H @ 76.48 MS; -6.23 KM/H @ 125.84 MS

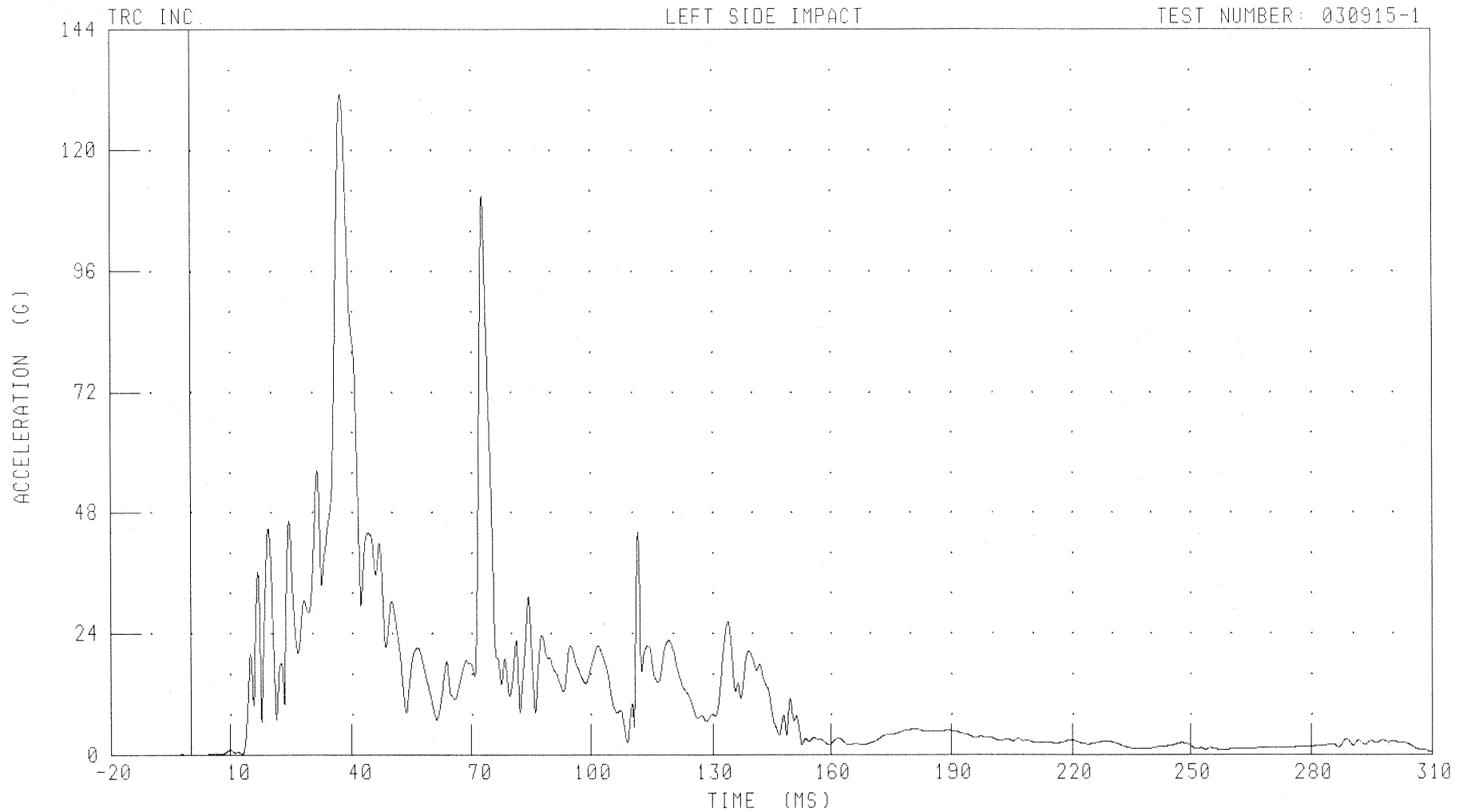
B-40

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SHOULDER RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLRG1 FILTER: CH. CLASS 180

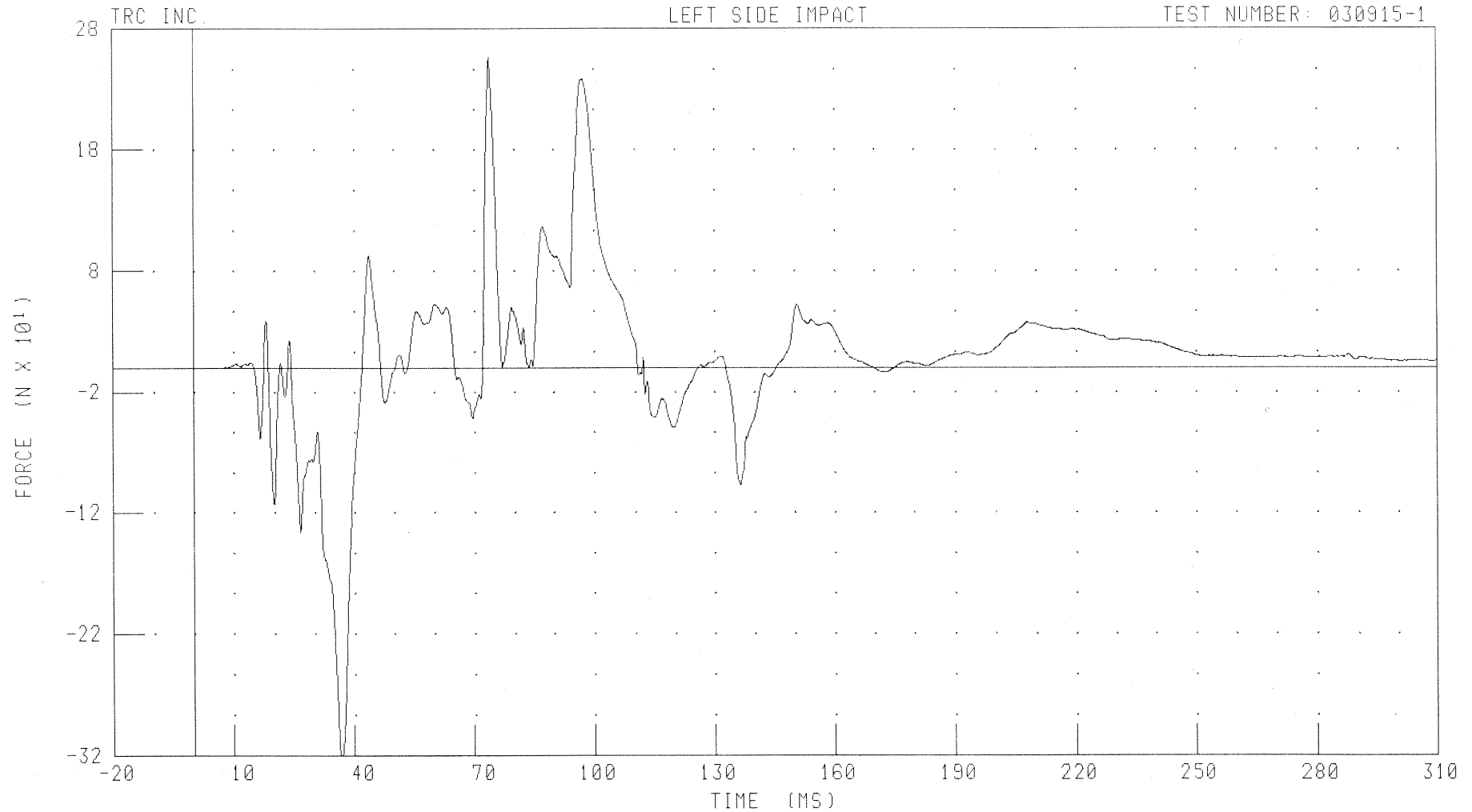
PEAK DATA: 131.16 G @ 37.28 MS; 0.00 G @ -16.08 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SHOULDER X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLXF1 FILTER: CH. CLASS 600

PEAK DATA: 256.29 N @ 73.84 MS; -325.03 N @ 36.56 MS

B-42

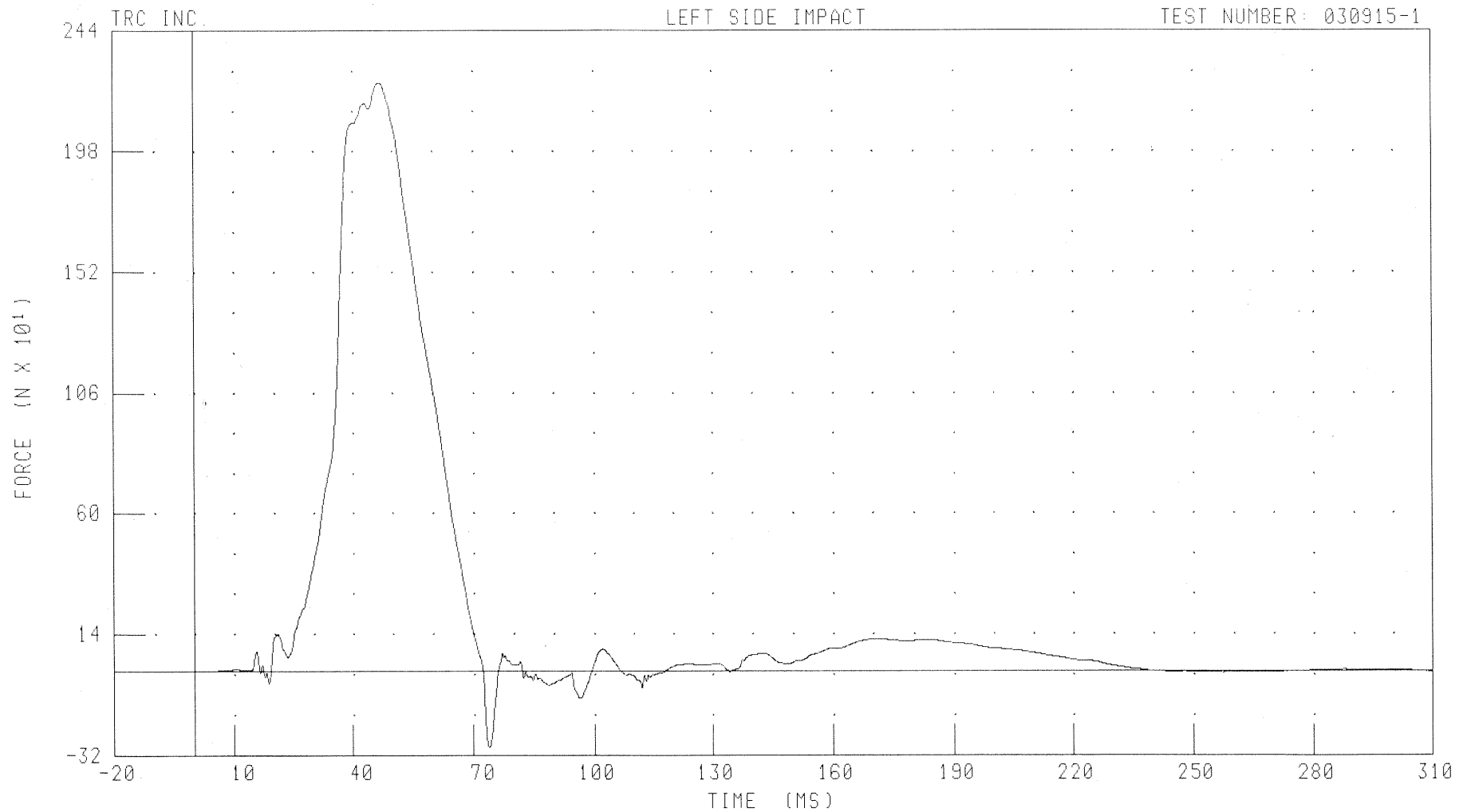
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SHOULDER Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYF1 FILTER: CH. CLASS 600

B-43

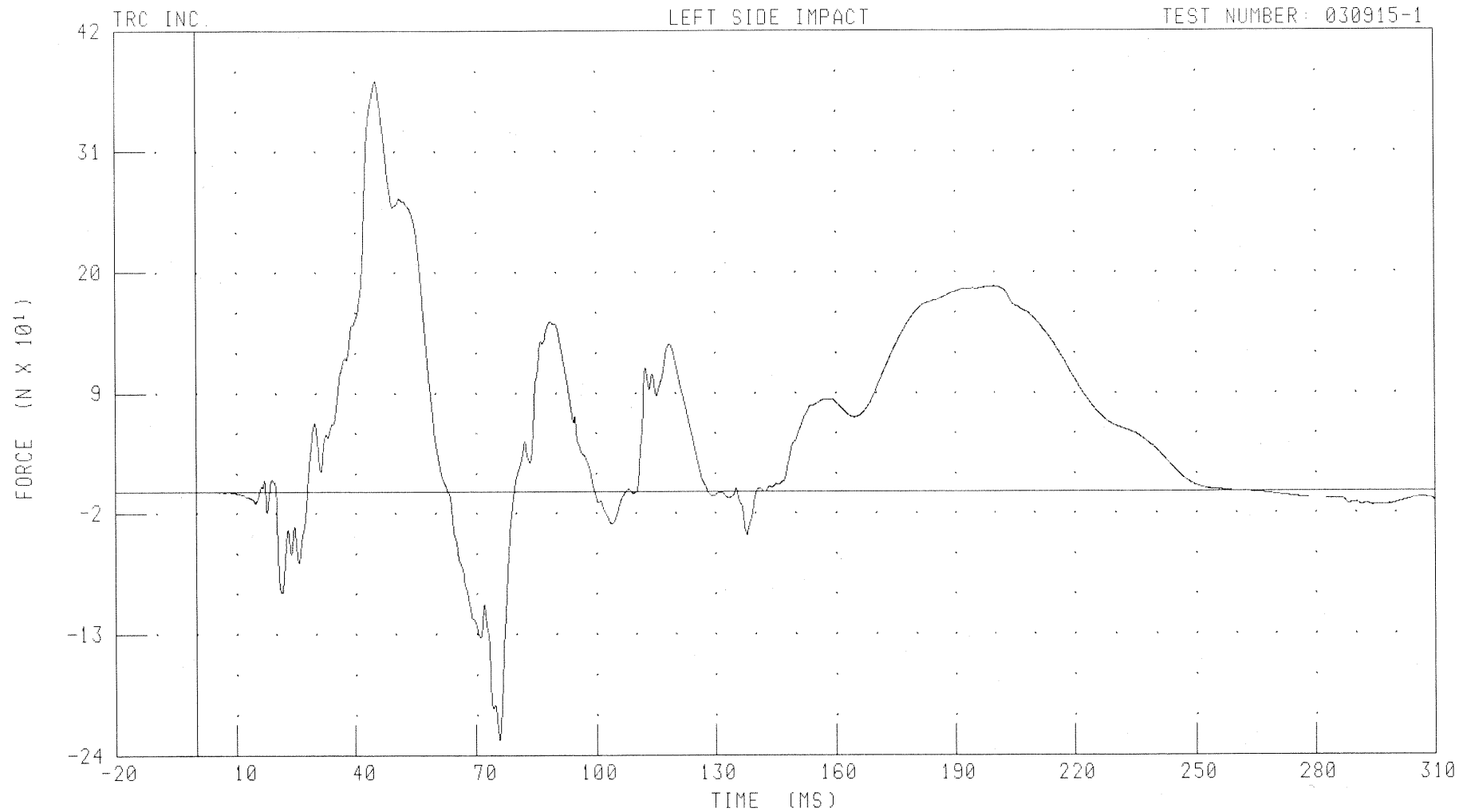
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SHOULDER Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLZF1 FILTER: CH. CLASS 600

PEAK DATA: 374.85 N @ 45.28 MS; -226.06 N @ 75.92 MS

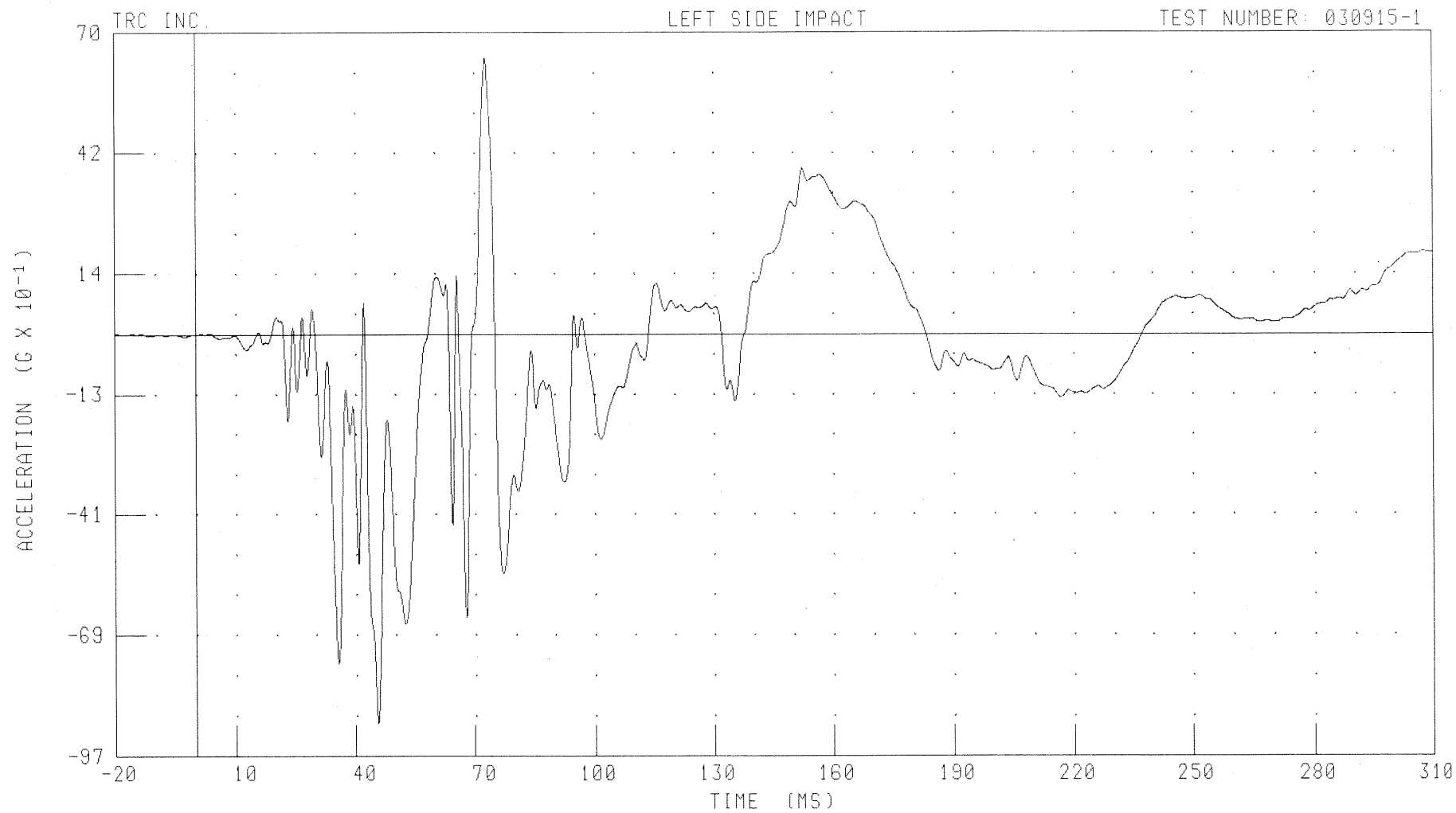
B-44

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01XC1 FILTER: CH. CLASS 180

PEAK DATA: 6.42 G @ 72.88 MS; -9.04 G @ 45.60 MS

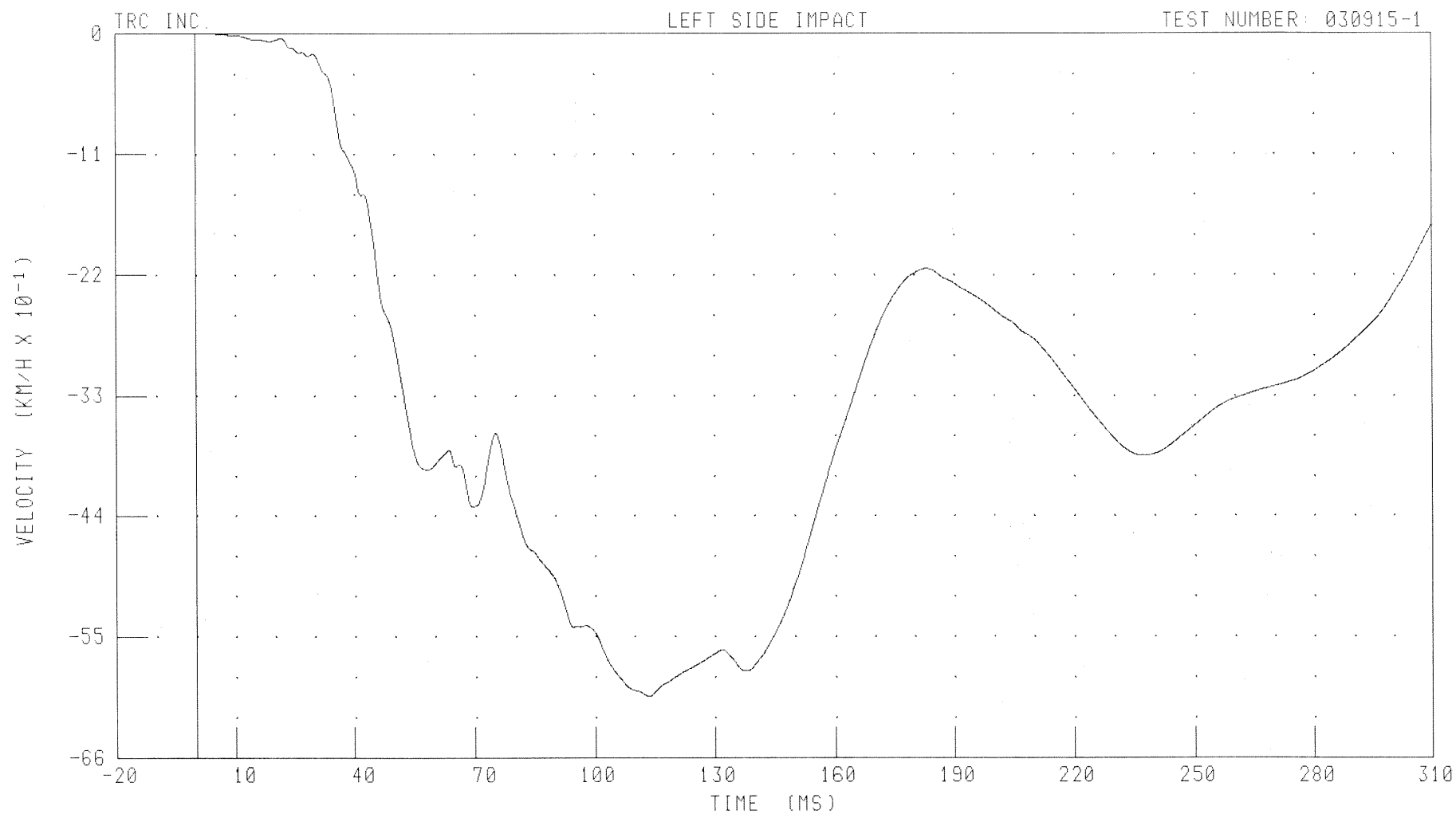
B-45

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



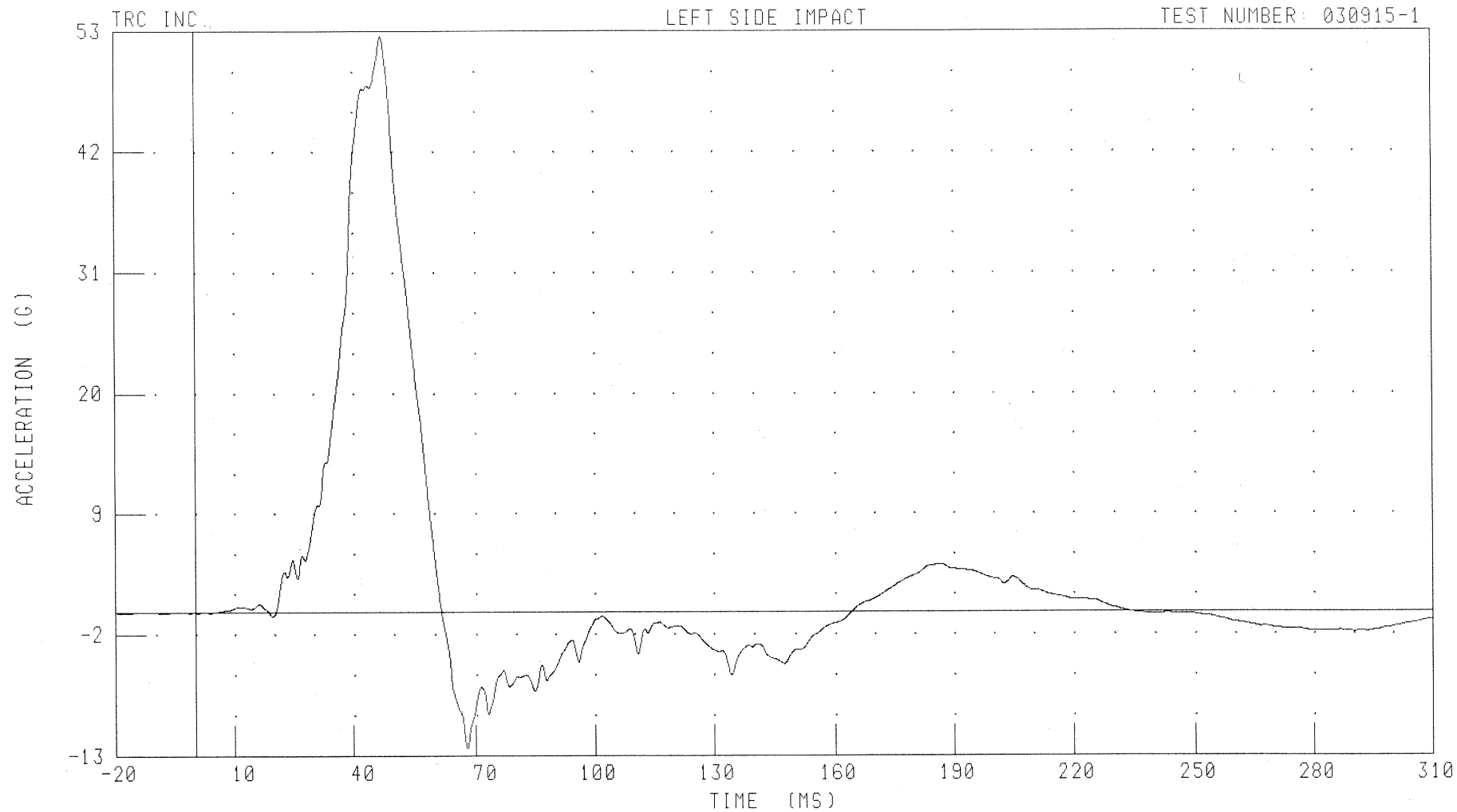
CHANNEL: T01XV1 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS; -6.04 KM/H @ 113.68 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



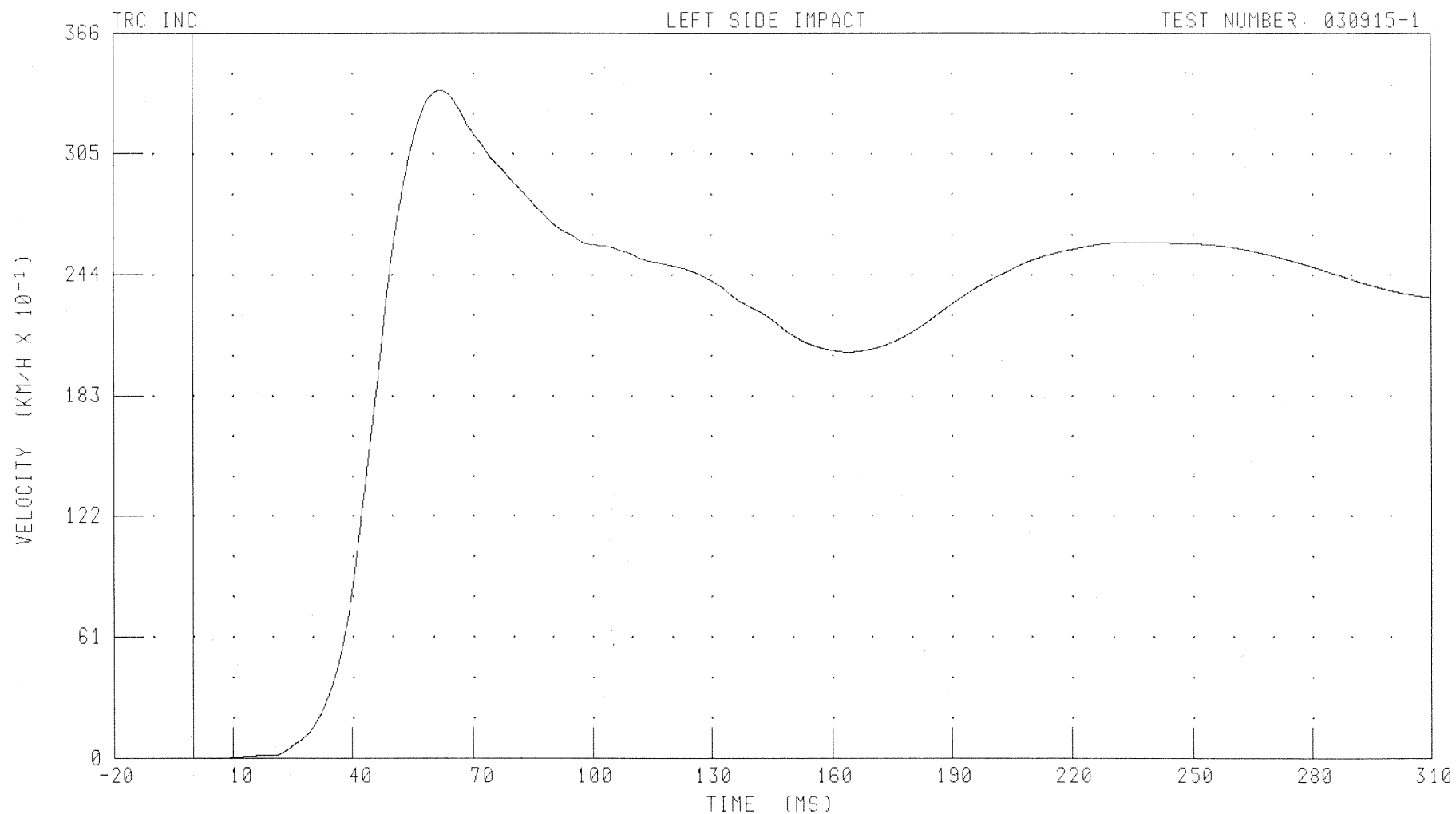
CHANNEL: T01YG1 FILTER: CH. CLASS 180

PEAK DATA: 52.52 G @ 47.20 MS; -12.36 G @ 67.84 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



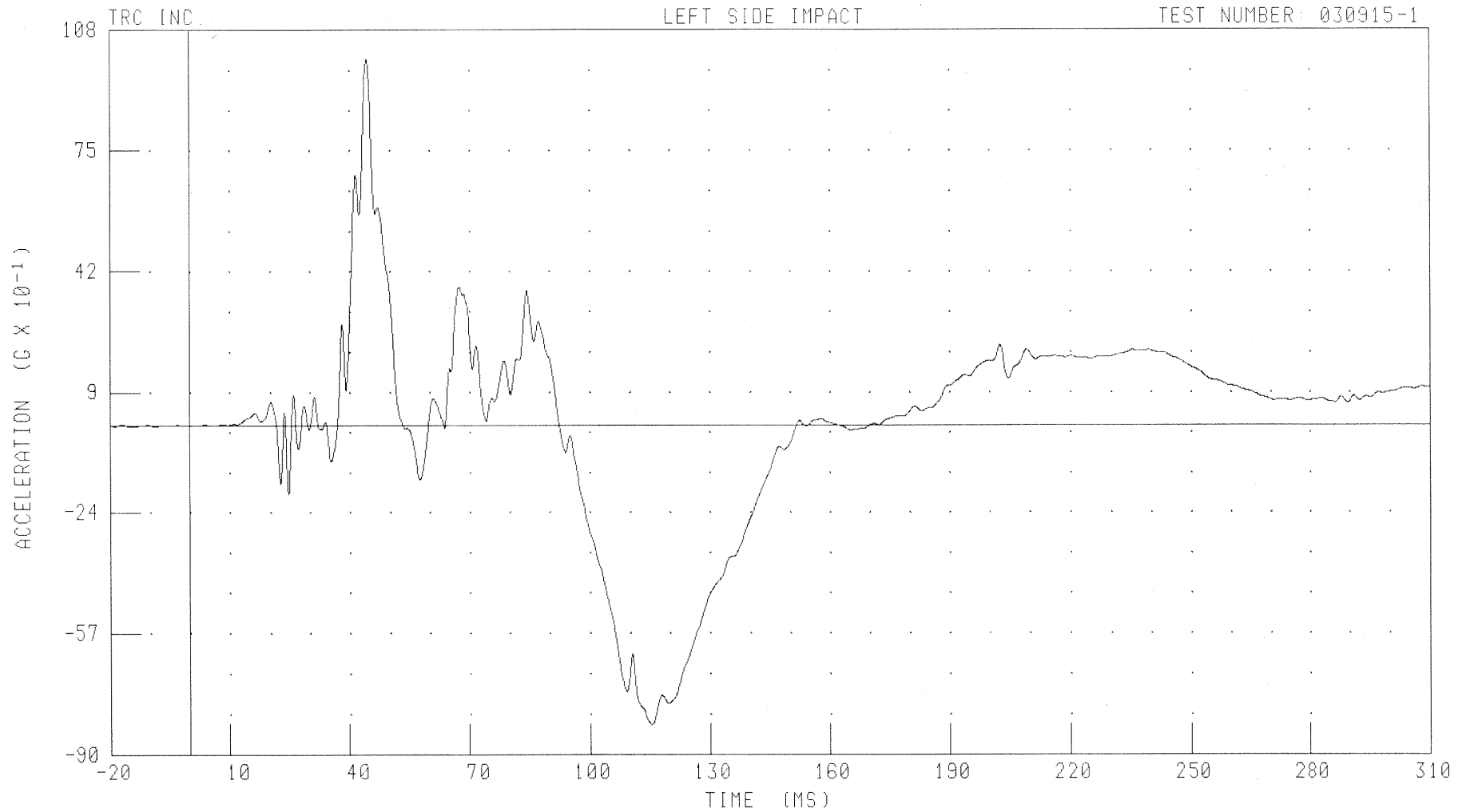
CHANNEL: T01YV1 FILTER: CH. CLASS 180

PEAK DATA: 33.72 KM/H @ 61.76 MS; 0.00 KM/H @ 4.64 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZG1 FILTER: CH. CLASS 180

PEAK DATA: 9.99 G @ 44.40 MS; -8.20 G @ 115.52 MS

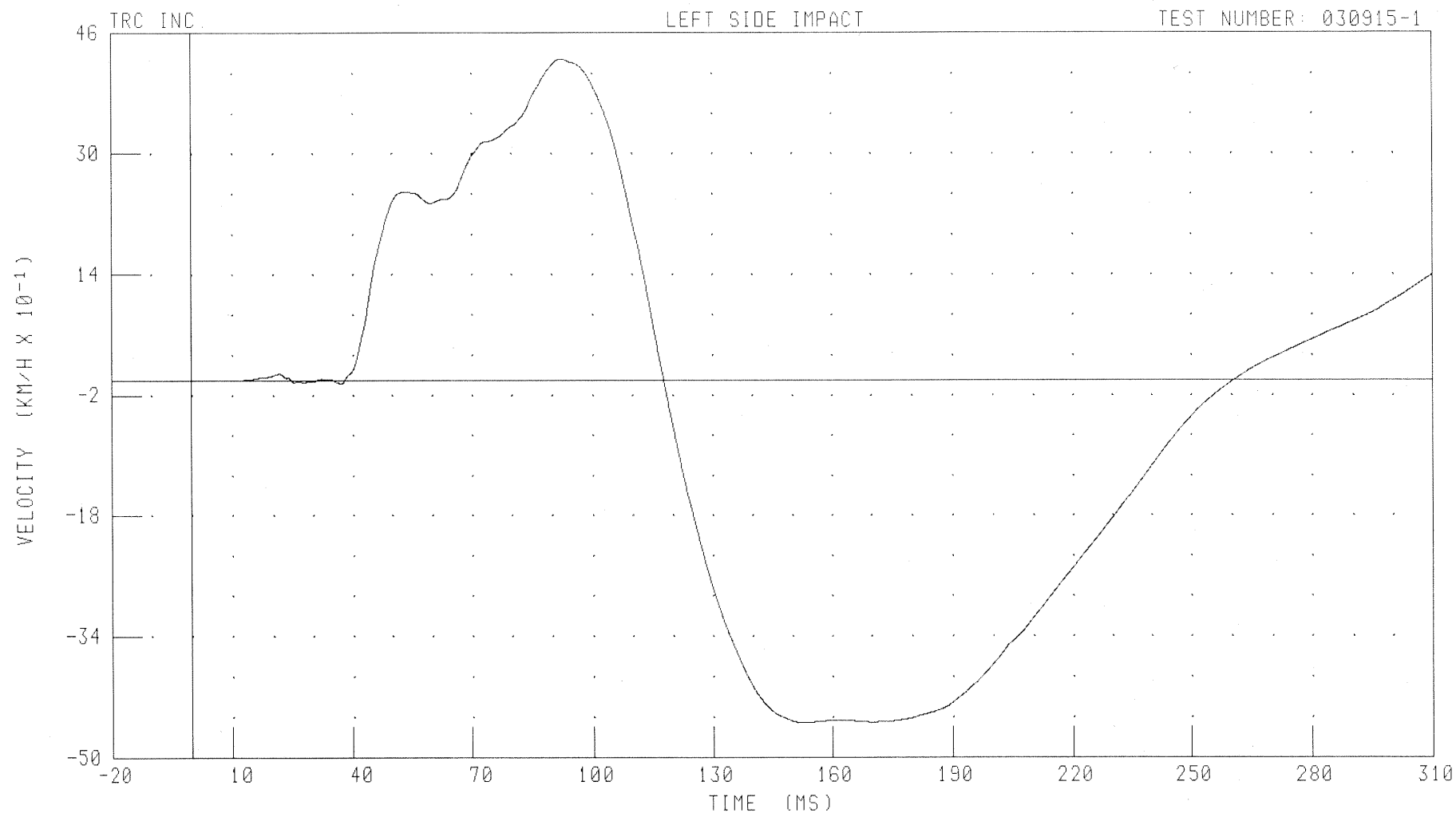
B-49

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZV1 FILTER: CH. CLASS 180

PEAK DATA: 4.25 KM/H @ 92.48 MS, -4.54 KM/H @ 151.76 MS

B-50

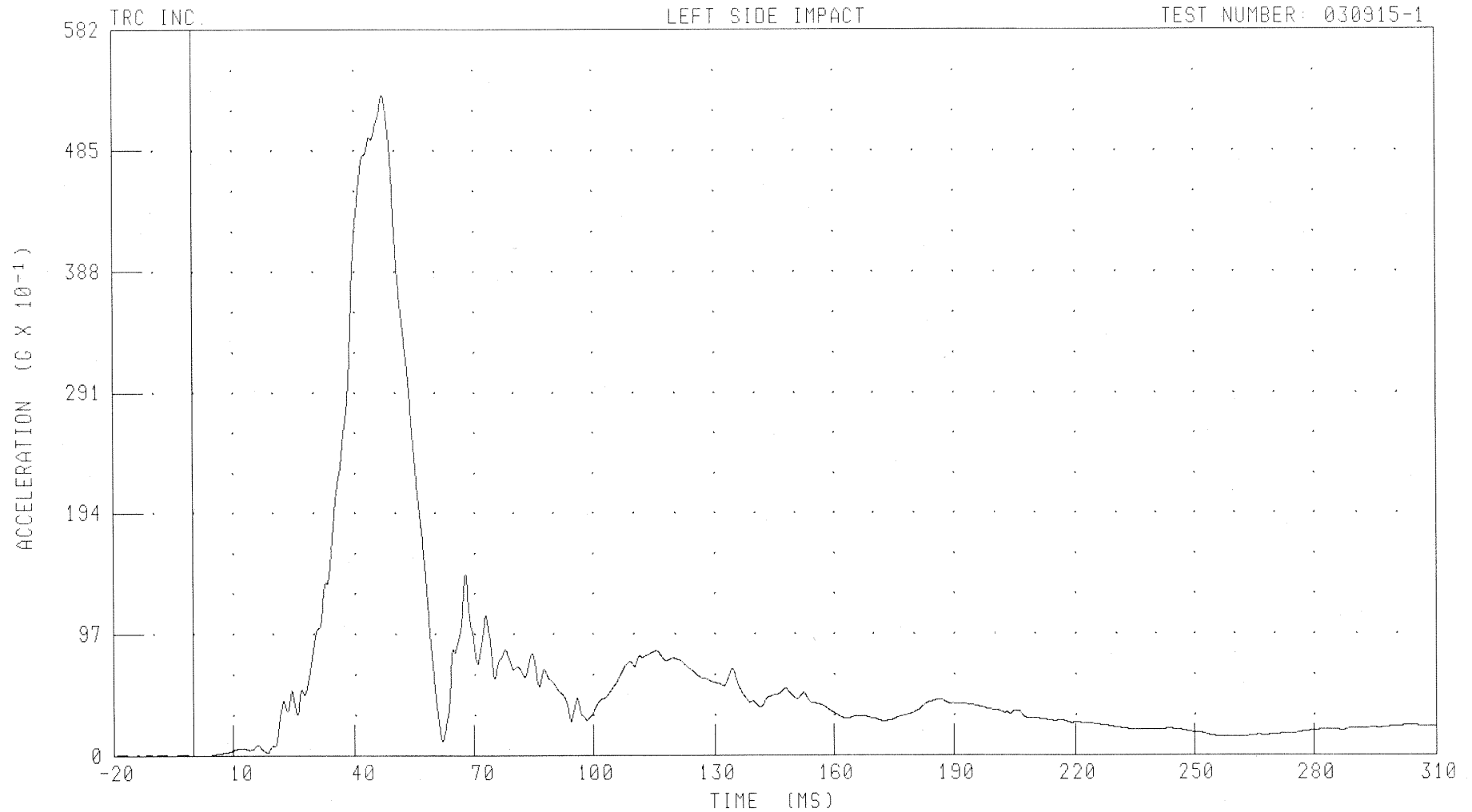
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER UPPER SPINE RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01RG1 FILTER: CH. CLASS 180

PEAK DATA: 52.97 G @ 47.20 MS; 0.00 G @ -20.00 MS

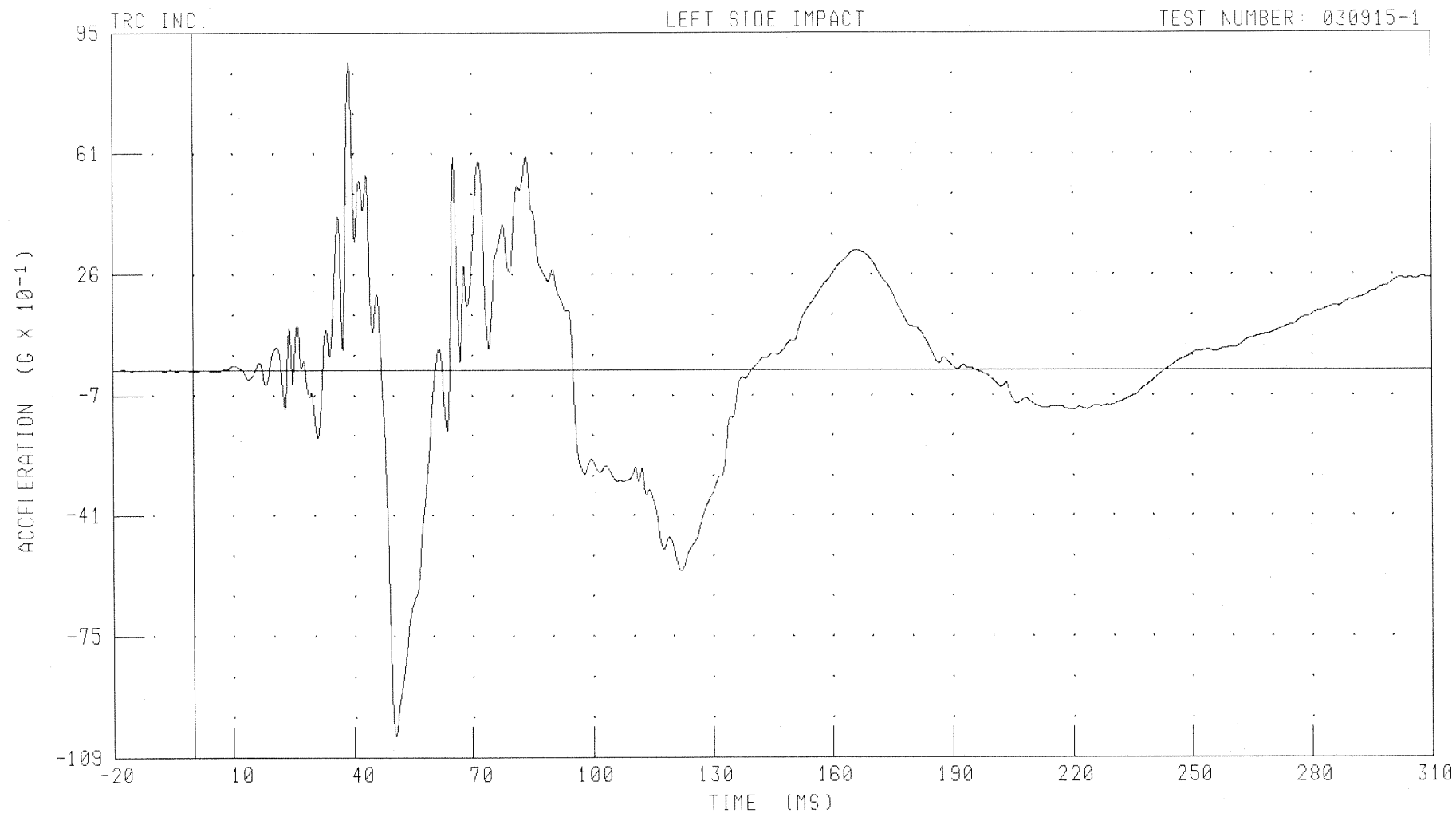
B-51

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1XG1 FILTER: CH. CLASS 180

PEAK DATA: 8.68 G @ 39.04 MS; -10.31 G @ 50.40 MS

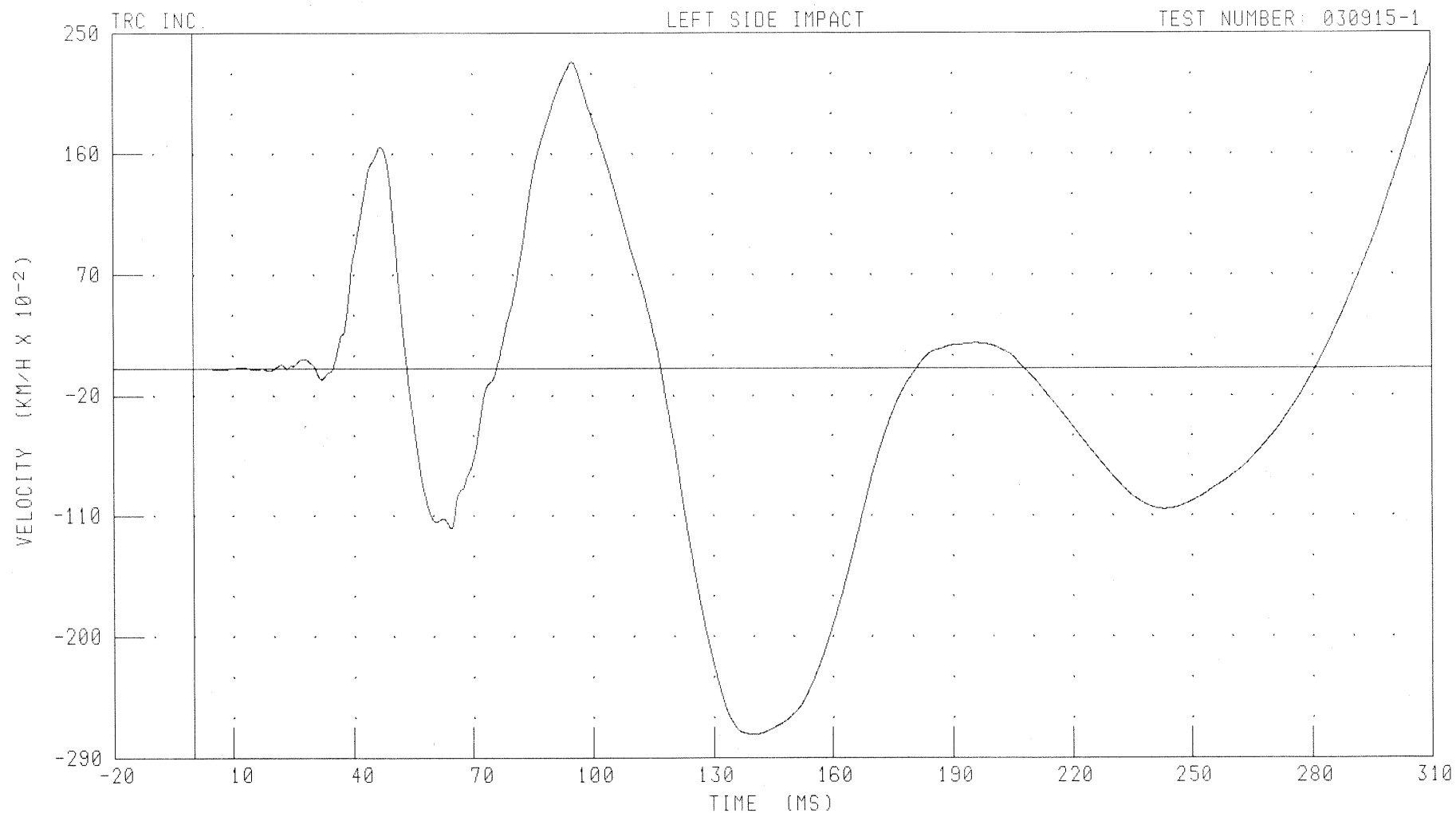
B-52

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



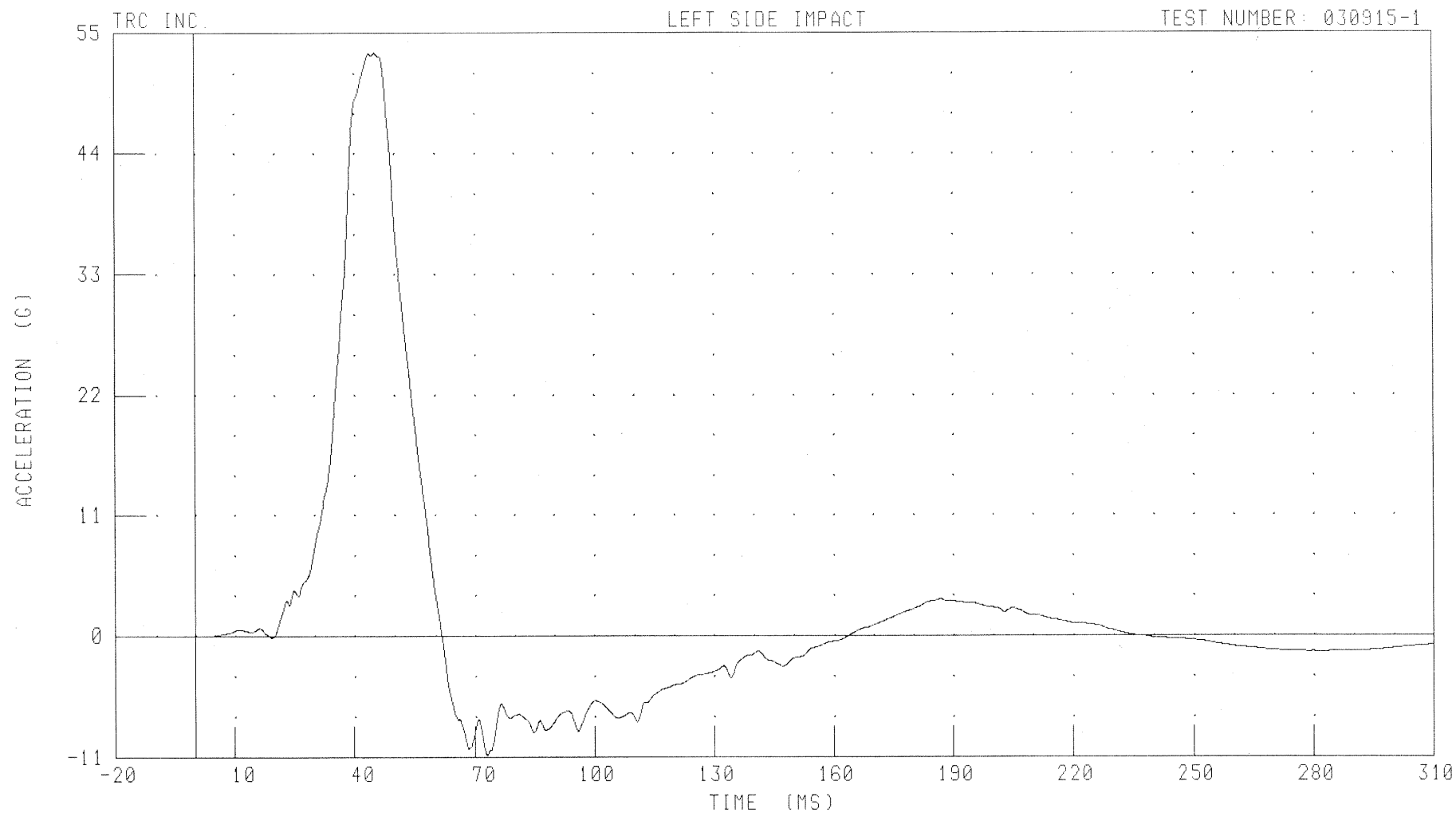
CHANNEL: SR1XV1 FILTER: CH. CLASS 180

PEAK DATA: 2.29 KM/H @ 95.28 MS; -2.73 KM/H @ 139.84 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



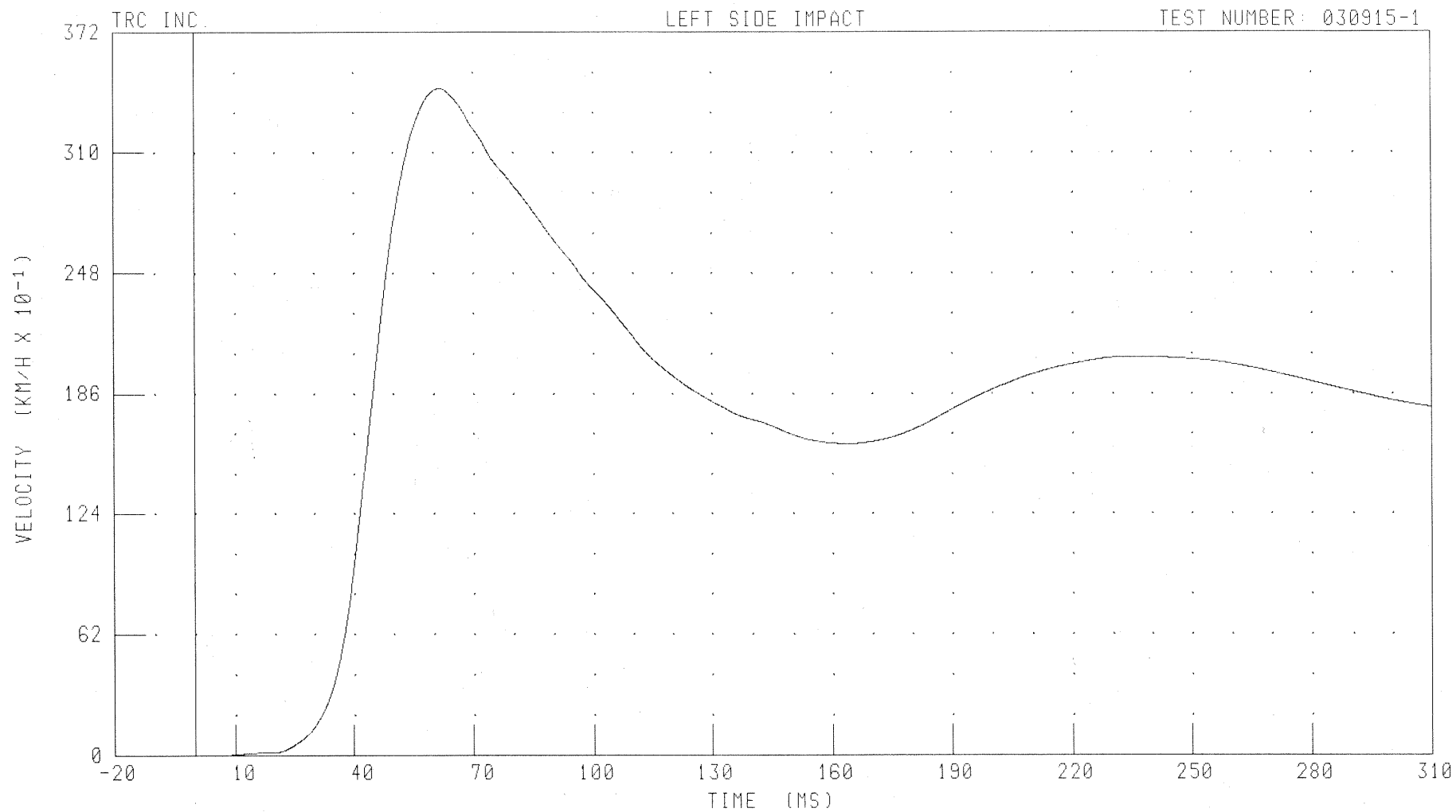
CHANNEL: SR1YG1 FILTER: CH. CLASS 180

PEAK DATA: 53.21 G @ 45.28 MS, -10.81 G @ 73.04 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1YV1 FILTER: CH. CLASS 180

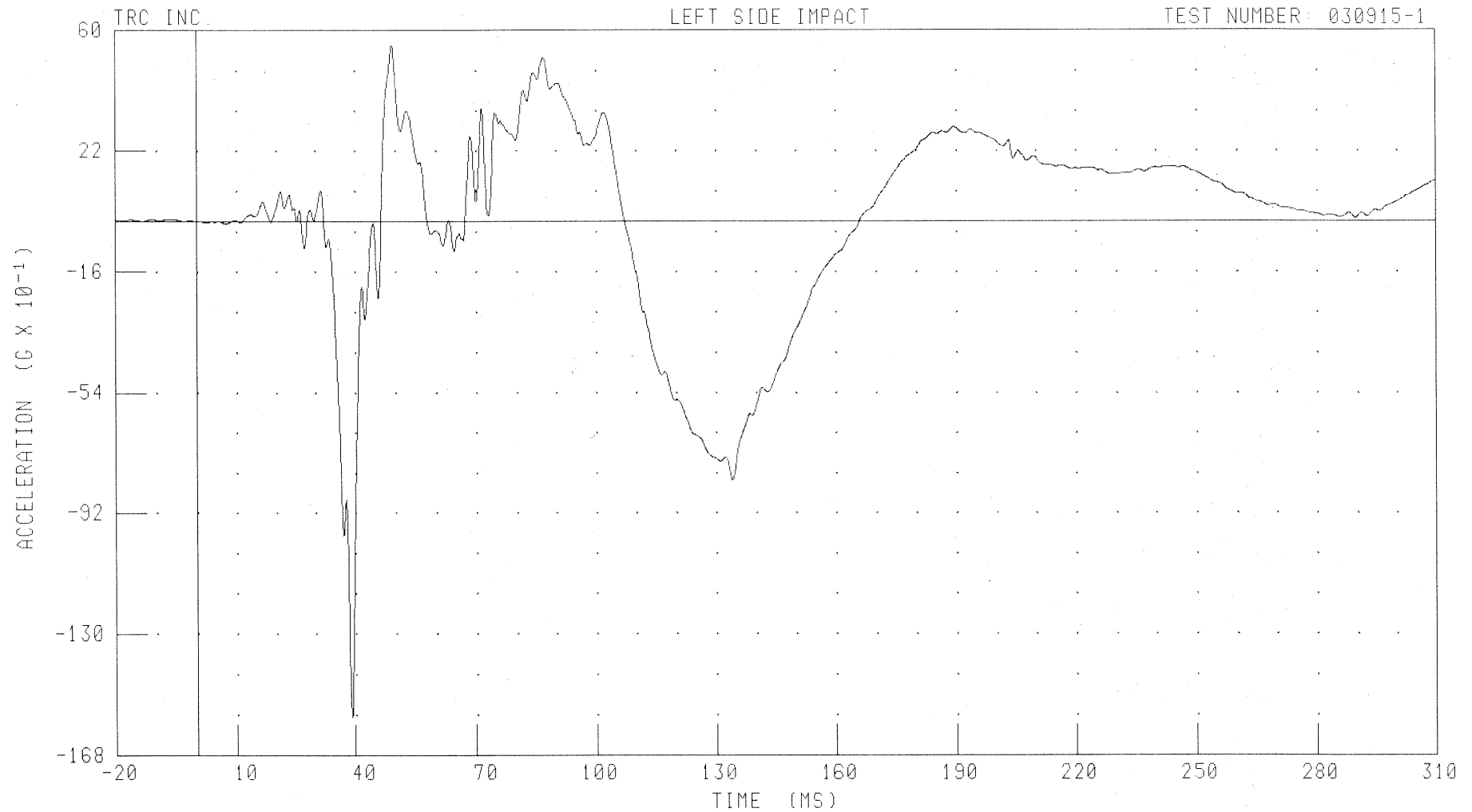
PEAK DATA: 34.32 KM/H @ 61.68 MS; 0.00 KM/H @ 0.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



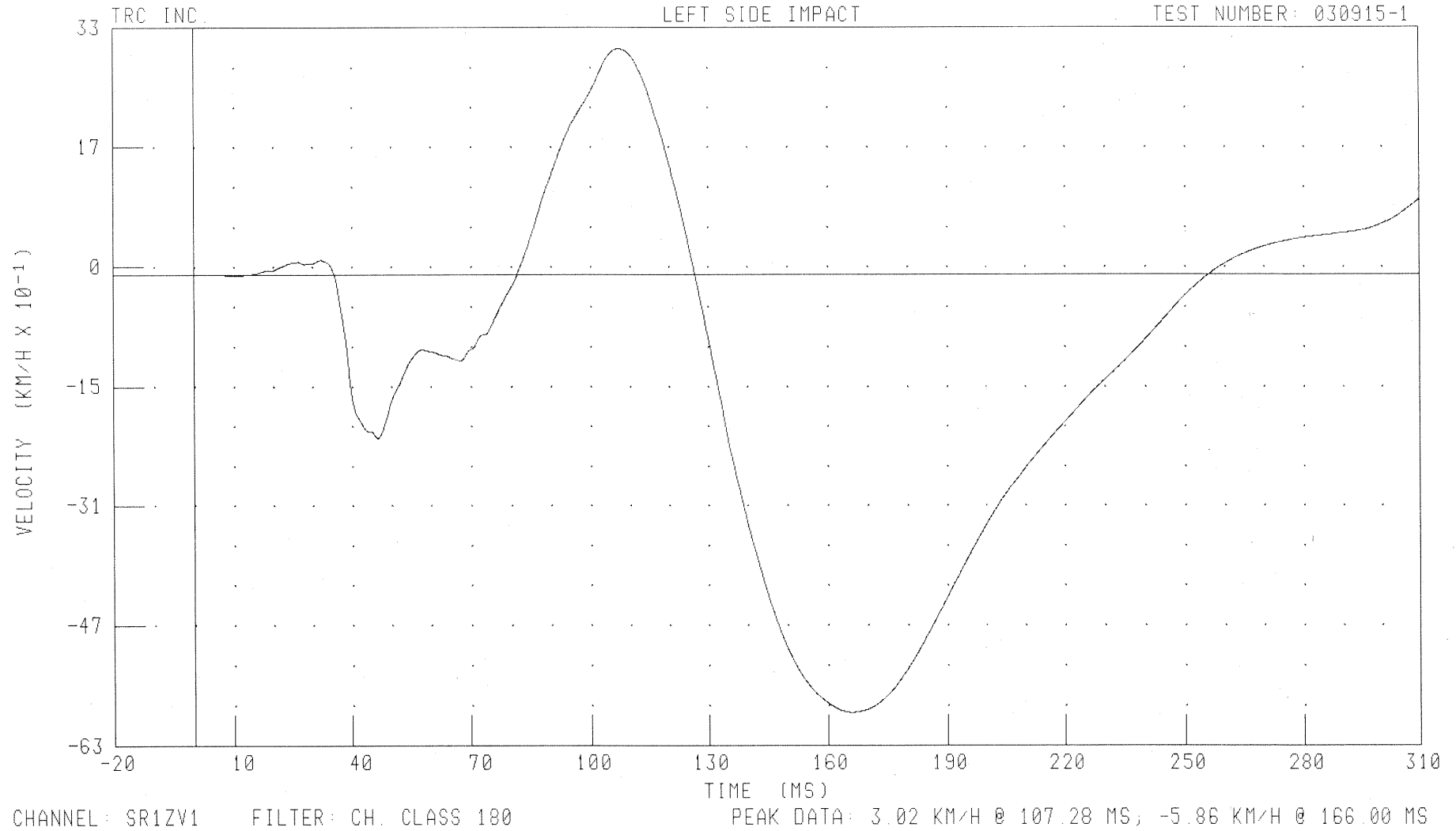
CHANNEL: SR1ZG1 FILTER: CH. CLASS 180

PEAK DATA: 5.53 G @ 49.28 MS, -15.62 G @ 39.20 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



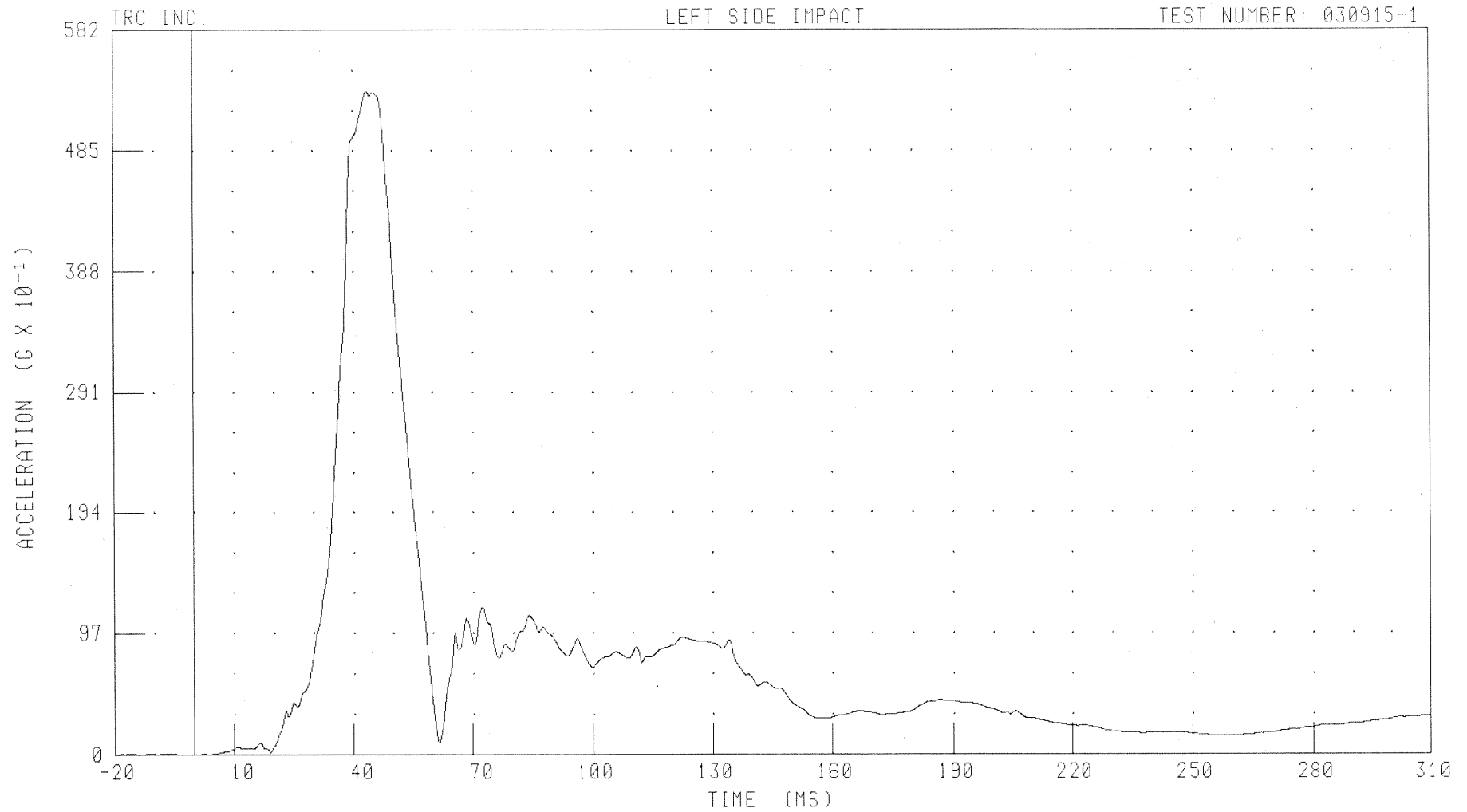
B-57

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1RG1 FILTER: CH. CLASS 180

PEAK DATA: 53.32 G @ 43.68 MS; 0.00 G @ -20.00 MS

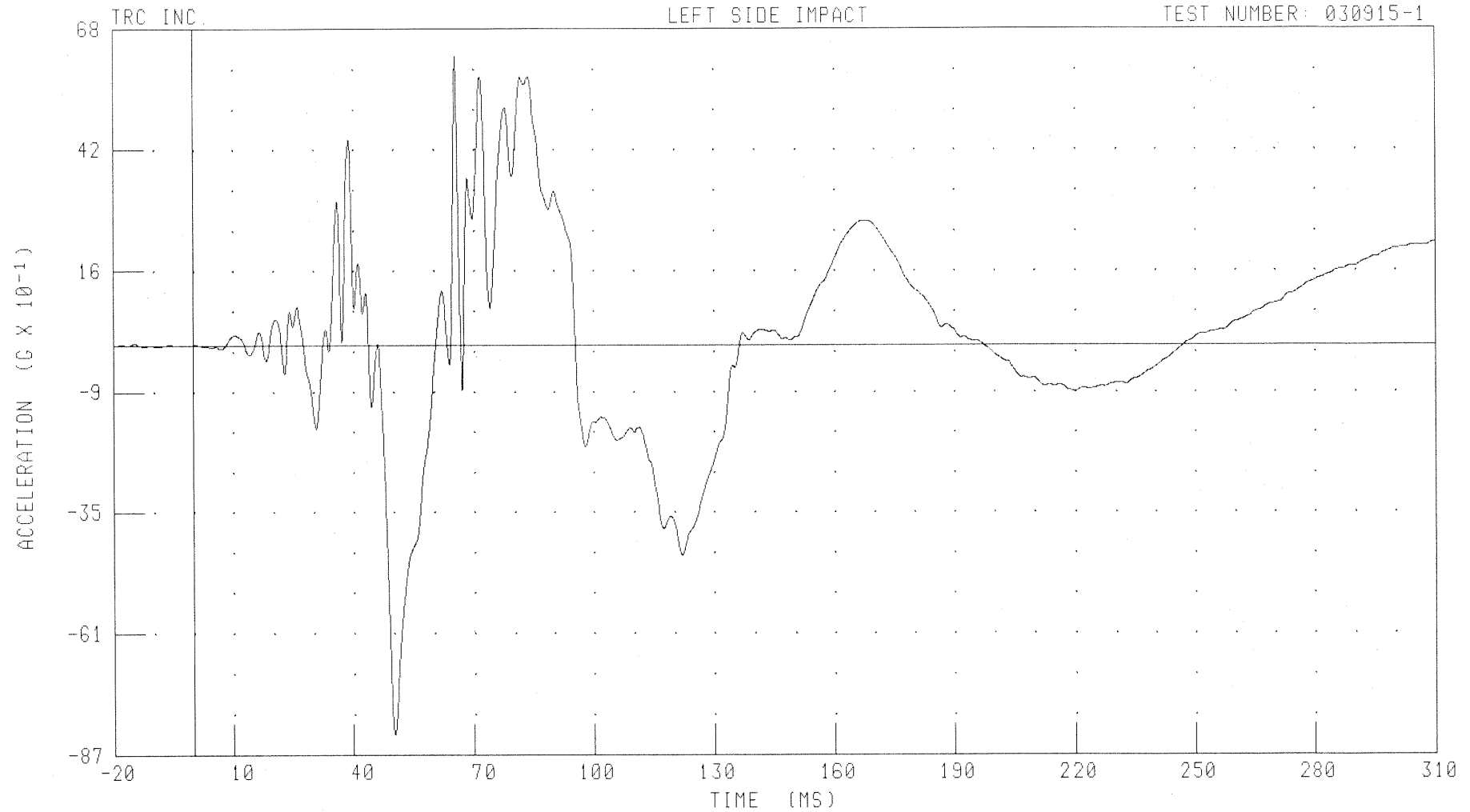
B-58

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2XG1 FILTER: CH. CLASS 180

PEAK DATA: 6.22 G @ 65.52 MS; -8.36 G @ 50.16 MS

B-59

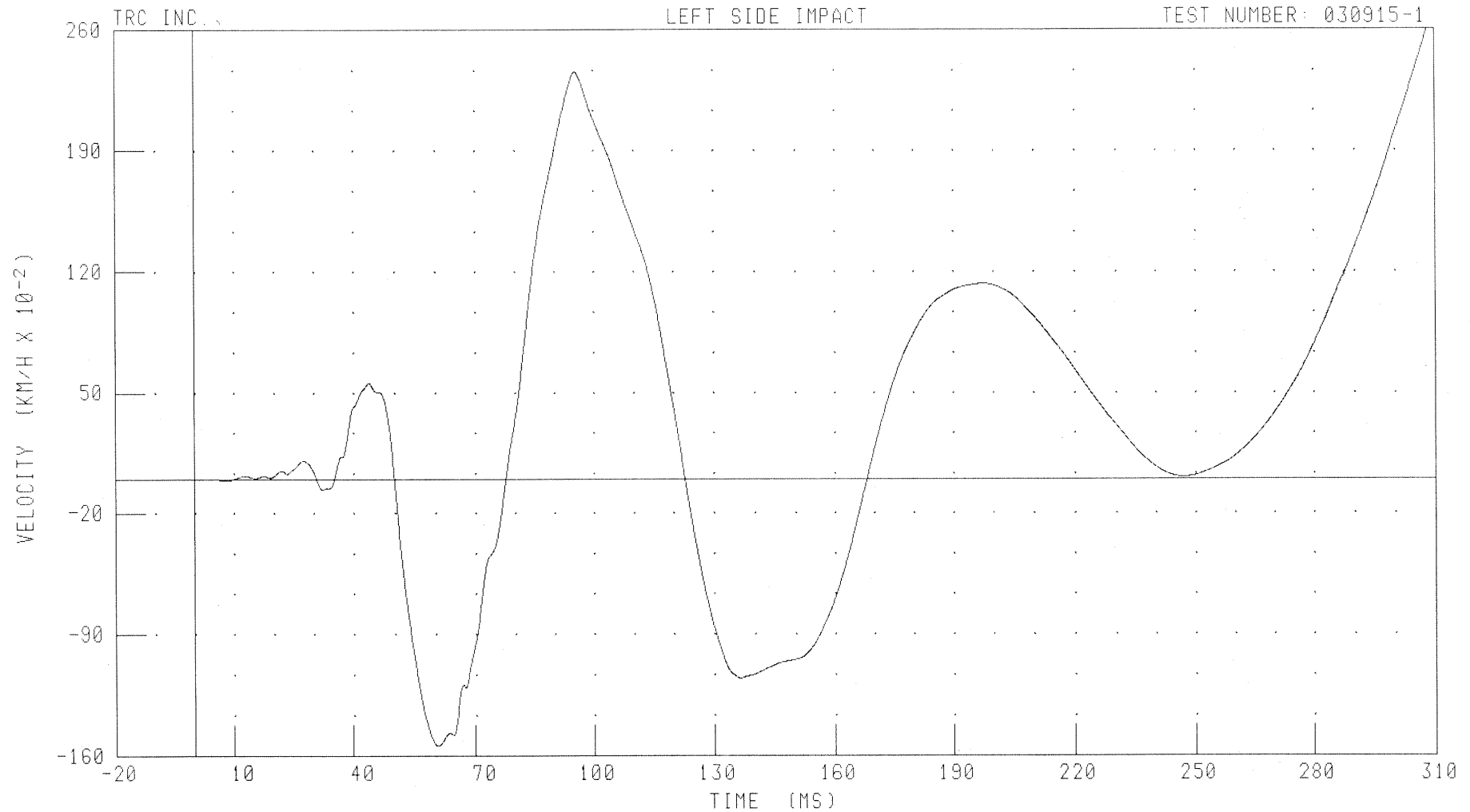
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 2 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2XV1 FILTER: CH. CLASS 180

PEAK DATA: 2.75 KM/H @ 310.00 MS, -1.54 KM/H @ 60.48 MS

B-60

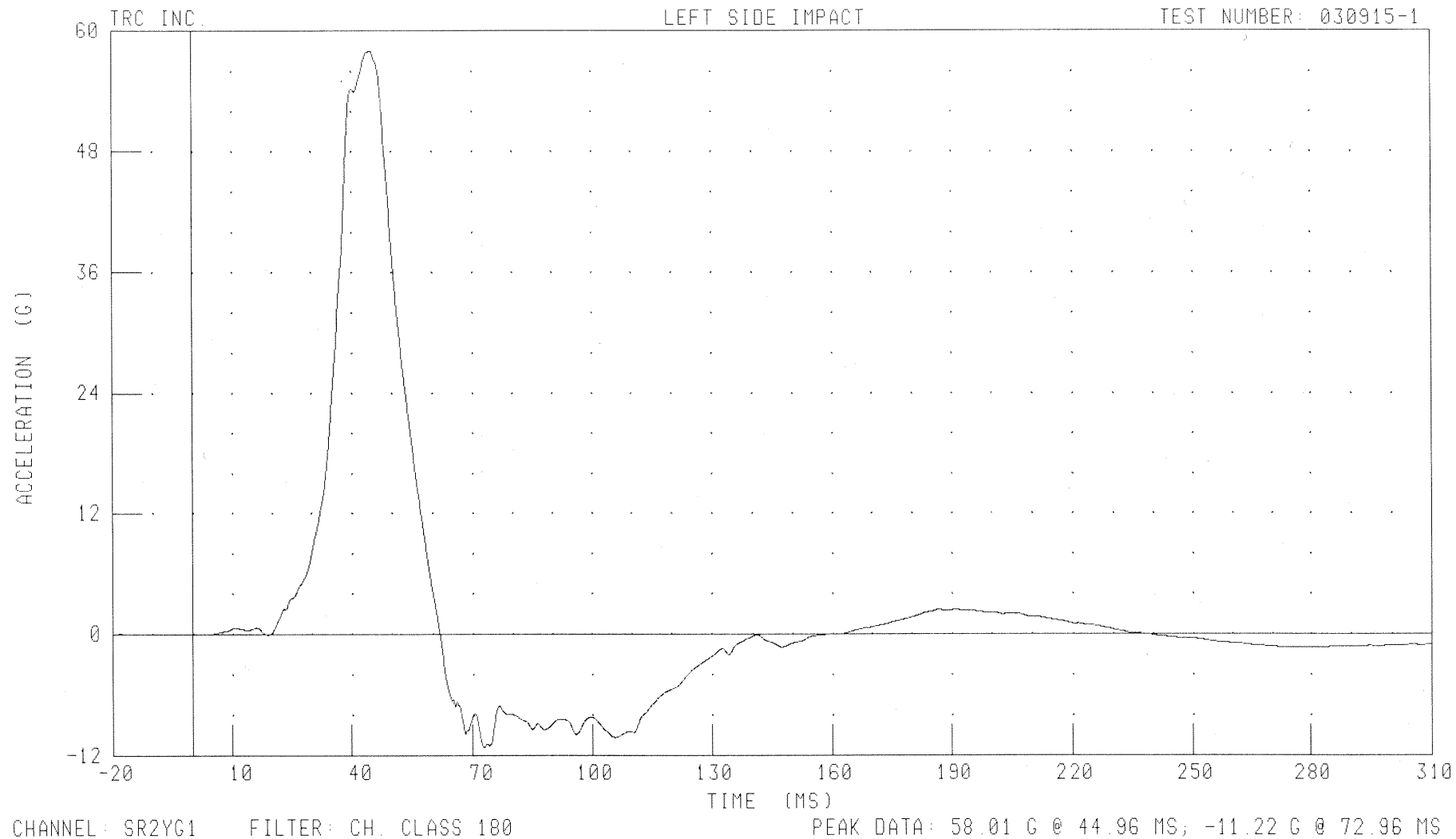
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



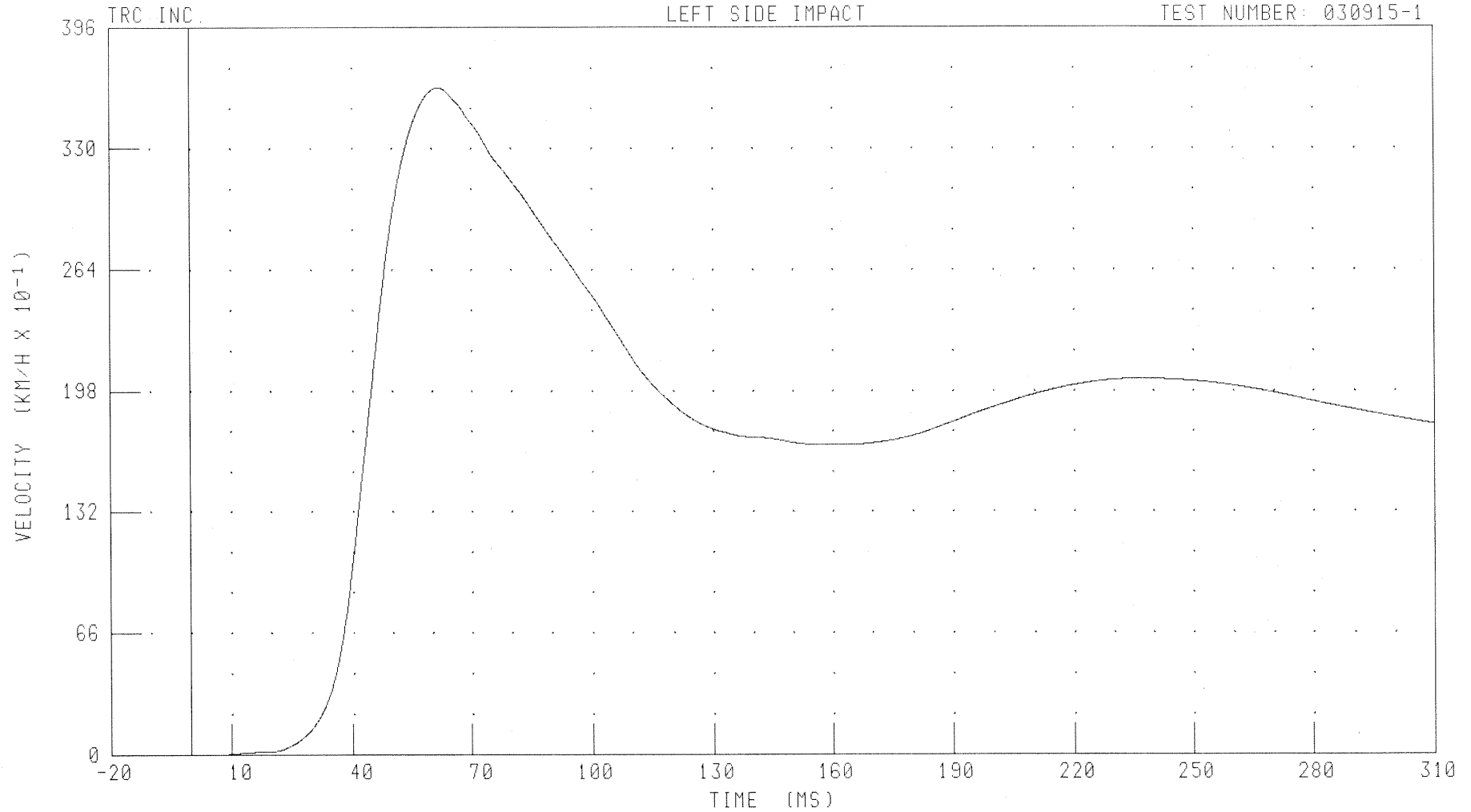
B-61

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2YV1 FILTER: CH. CLASS 180

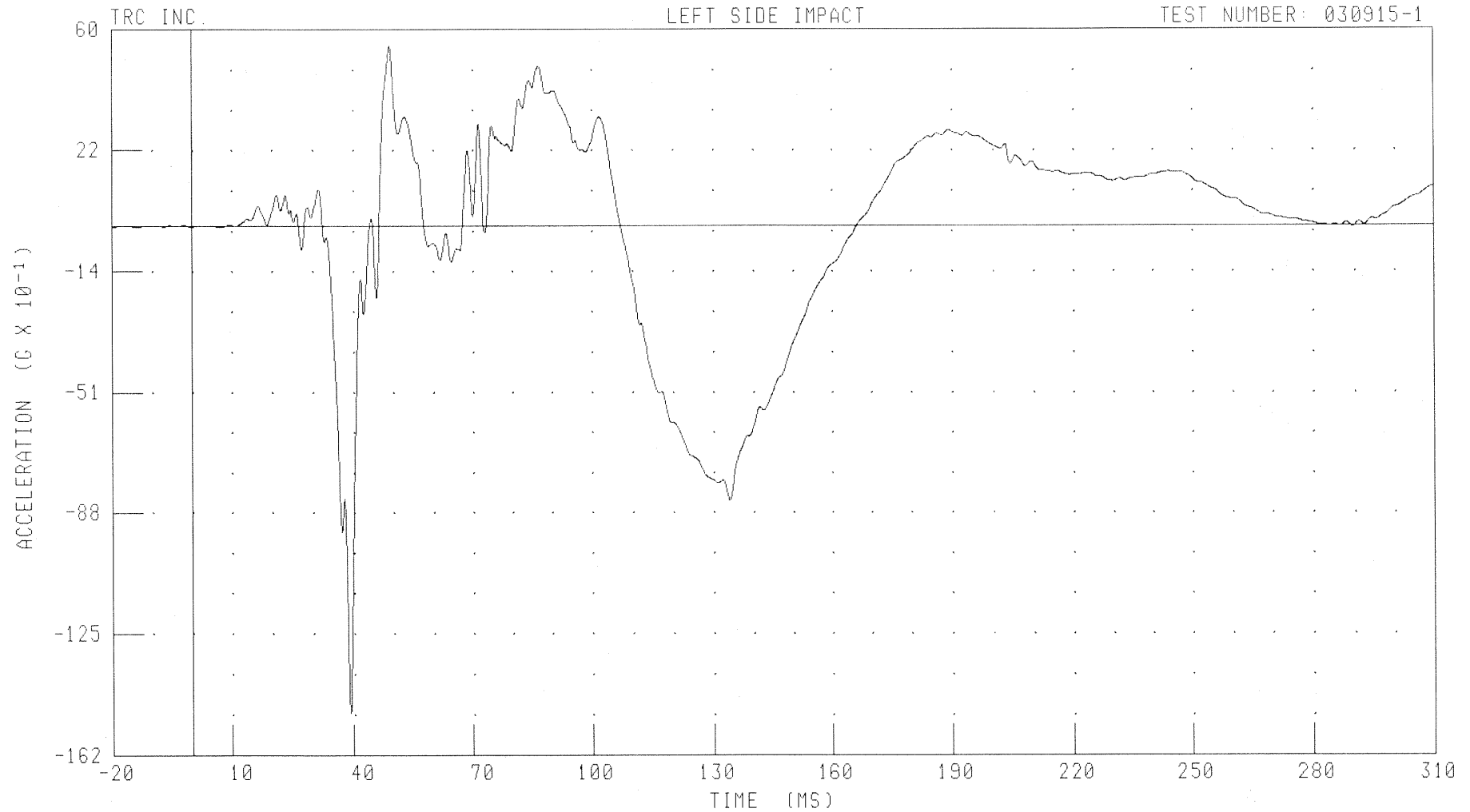
PEAK DATA: 36.33 KM/H @ 61.84 MS; 0.00 KM/H @ 4.24 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZG1 FILTER: CH. CLASS 180

PEAK DATA: 5.49 G @ 49.28 MS; -14.92 G @ 39.20 MS

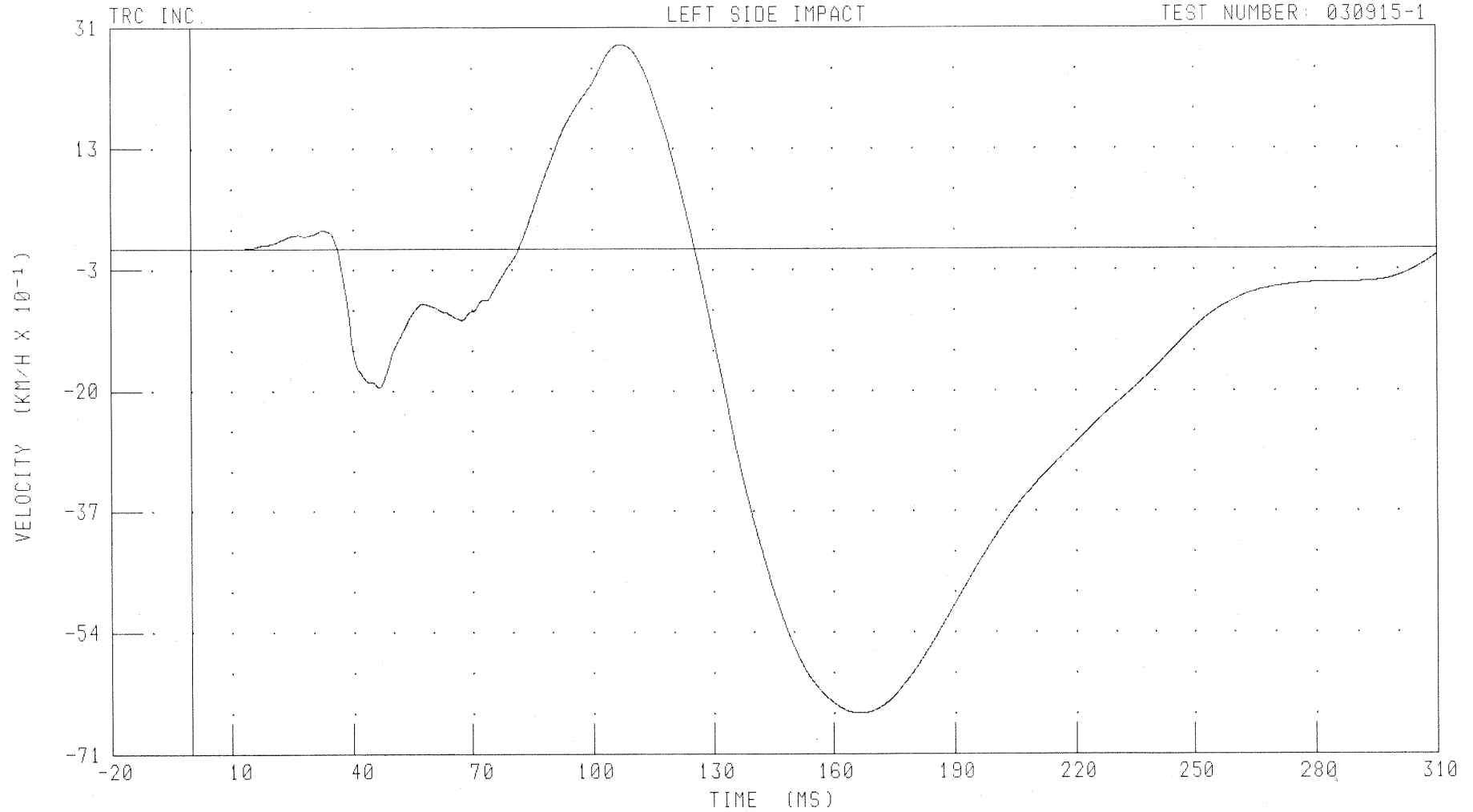
B-63

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZV1 FILTER: CH. CLASS 180

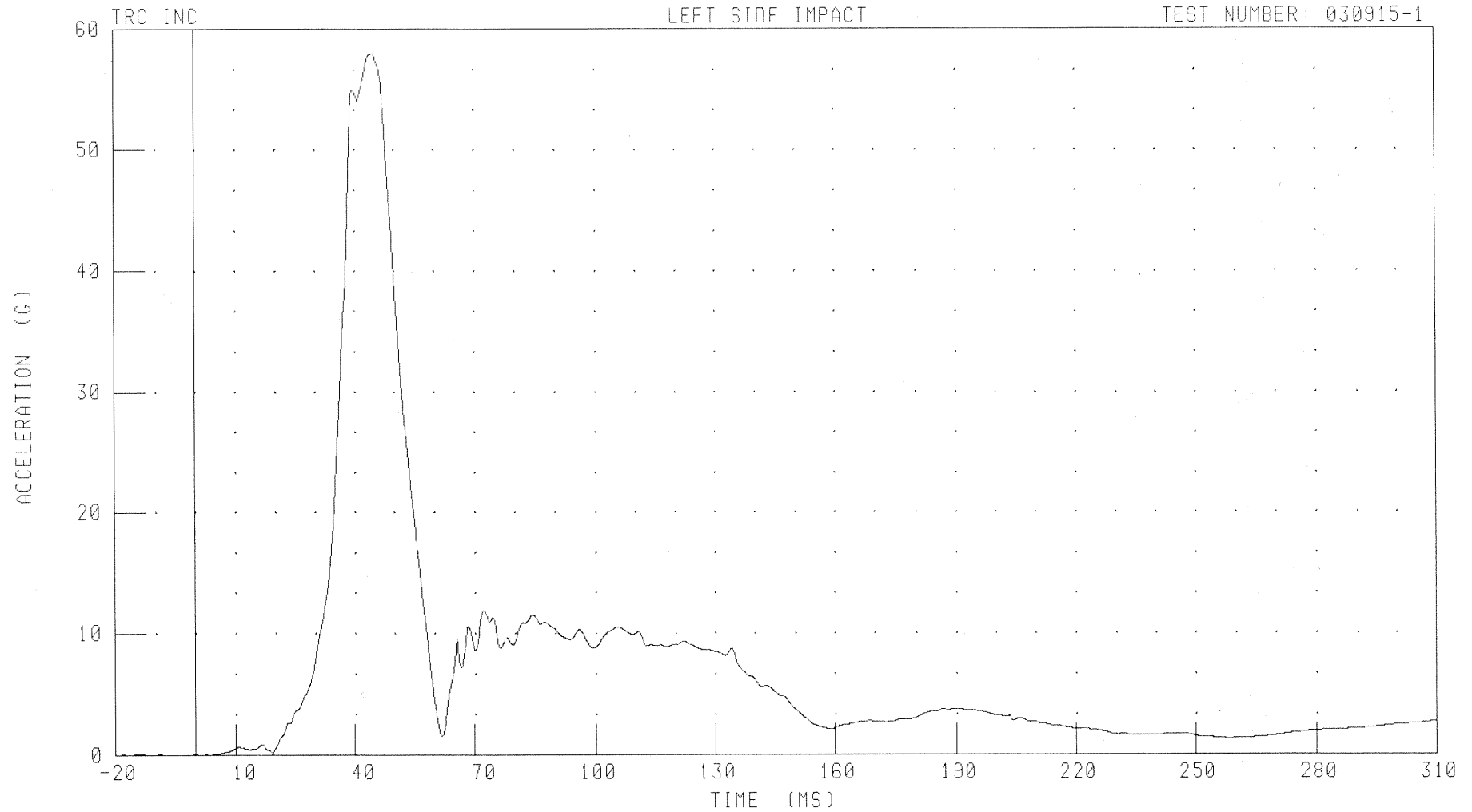
B-64

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2RG1

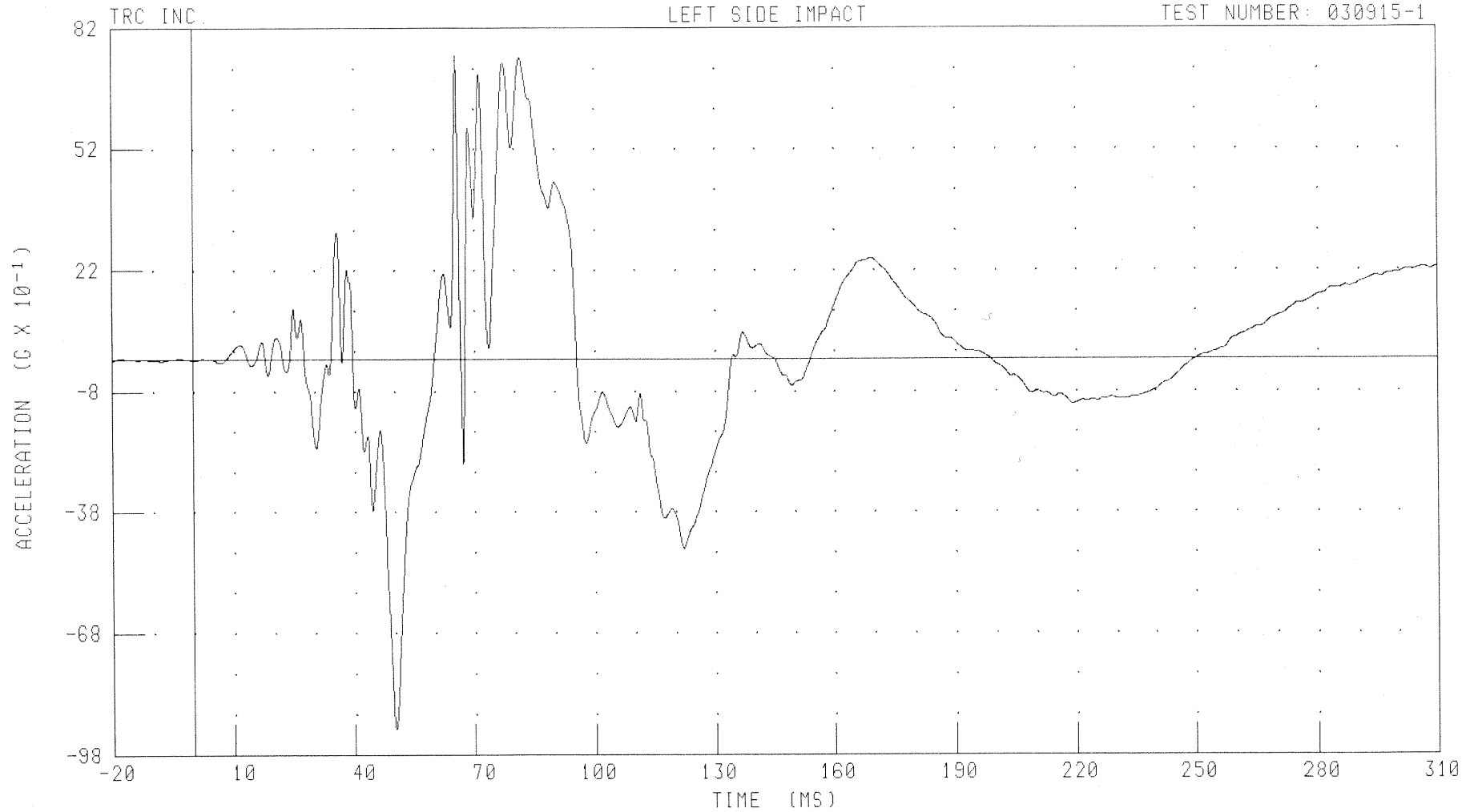
FILTER: CH. CLASS 180

PEAK DATA: 58.02 G @ 44.96 MS; 0.00 G @ -4.16 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3XG1 FILTER: CH. CLASS 180

PEAK DATA: 7.51 G @ 65.60 MS; -9.16 G @ 50.08 MS

B-66

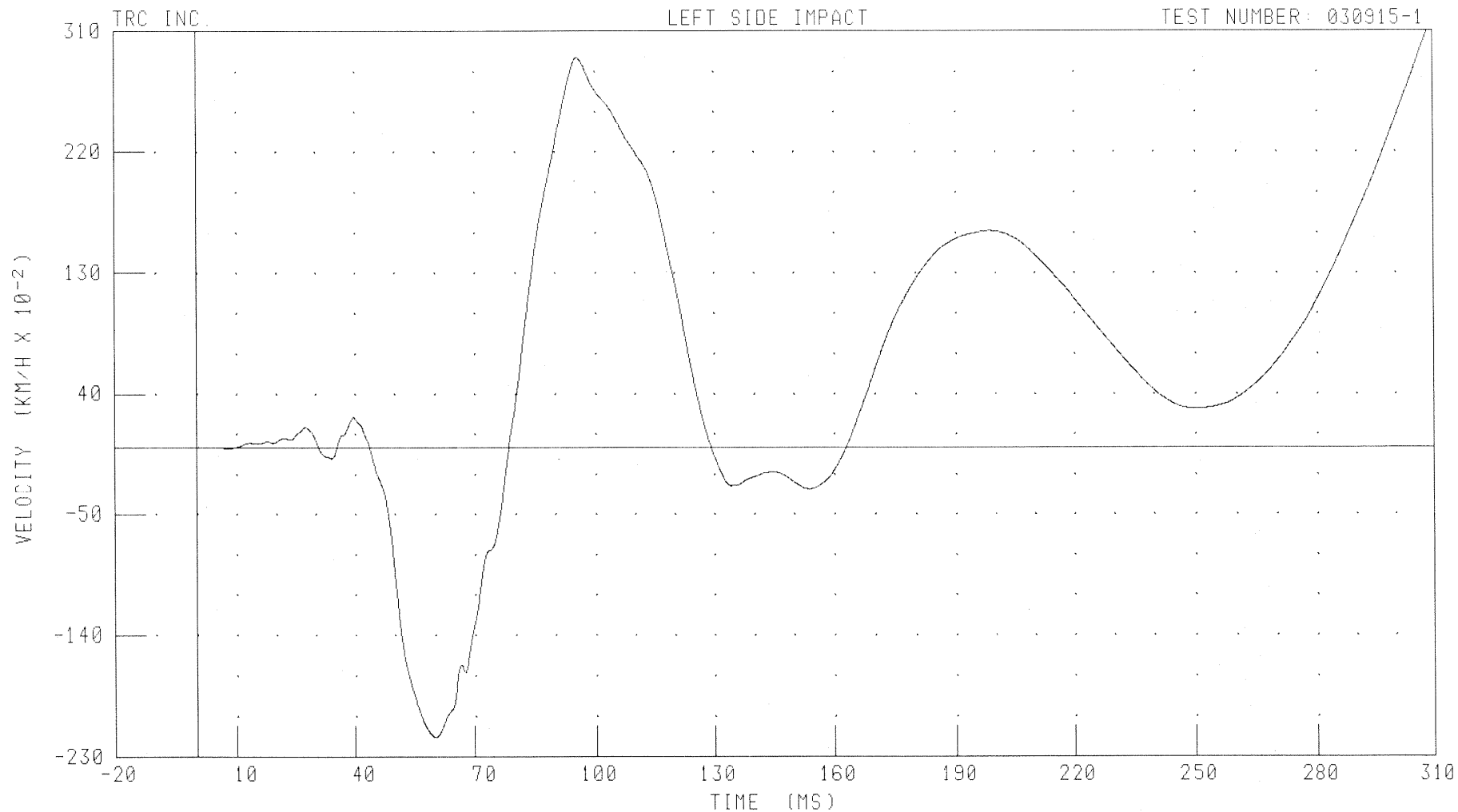
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 3 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3XV1

FILTER: CH. CLASS 180

PEAK DATA: 3.22 KM/H @ 310.00 MS; -2.16 KM/H @ 59.92 MS

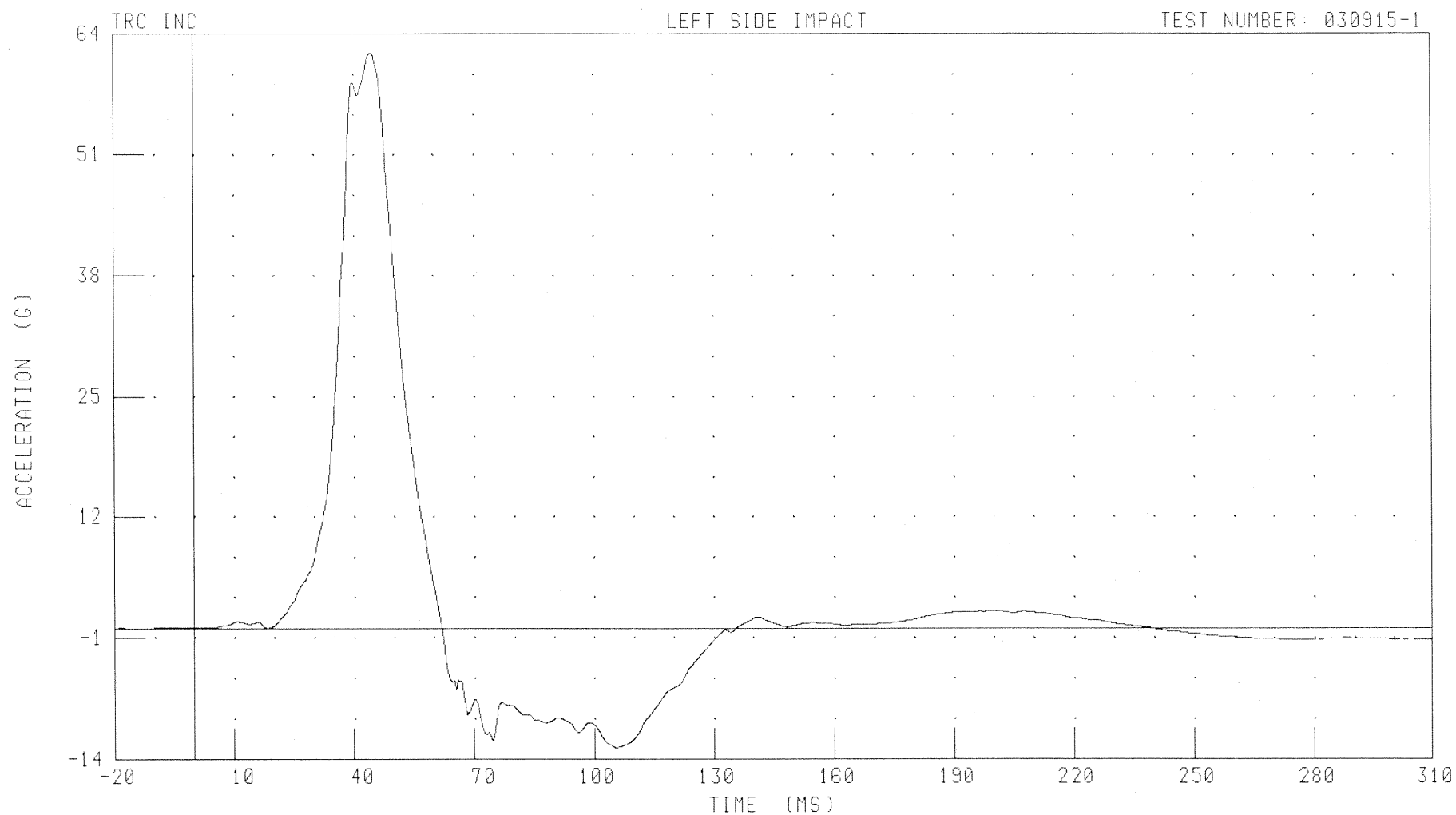
B-67

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3YG1 FILTER: CH. CLASS 180

PEAK DATA: 61.94 G @ 44.56 MS; -12.78 G @ 105.52 MS

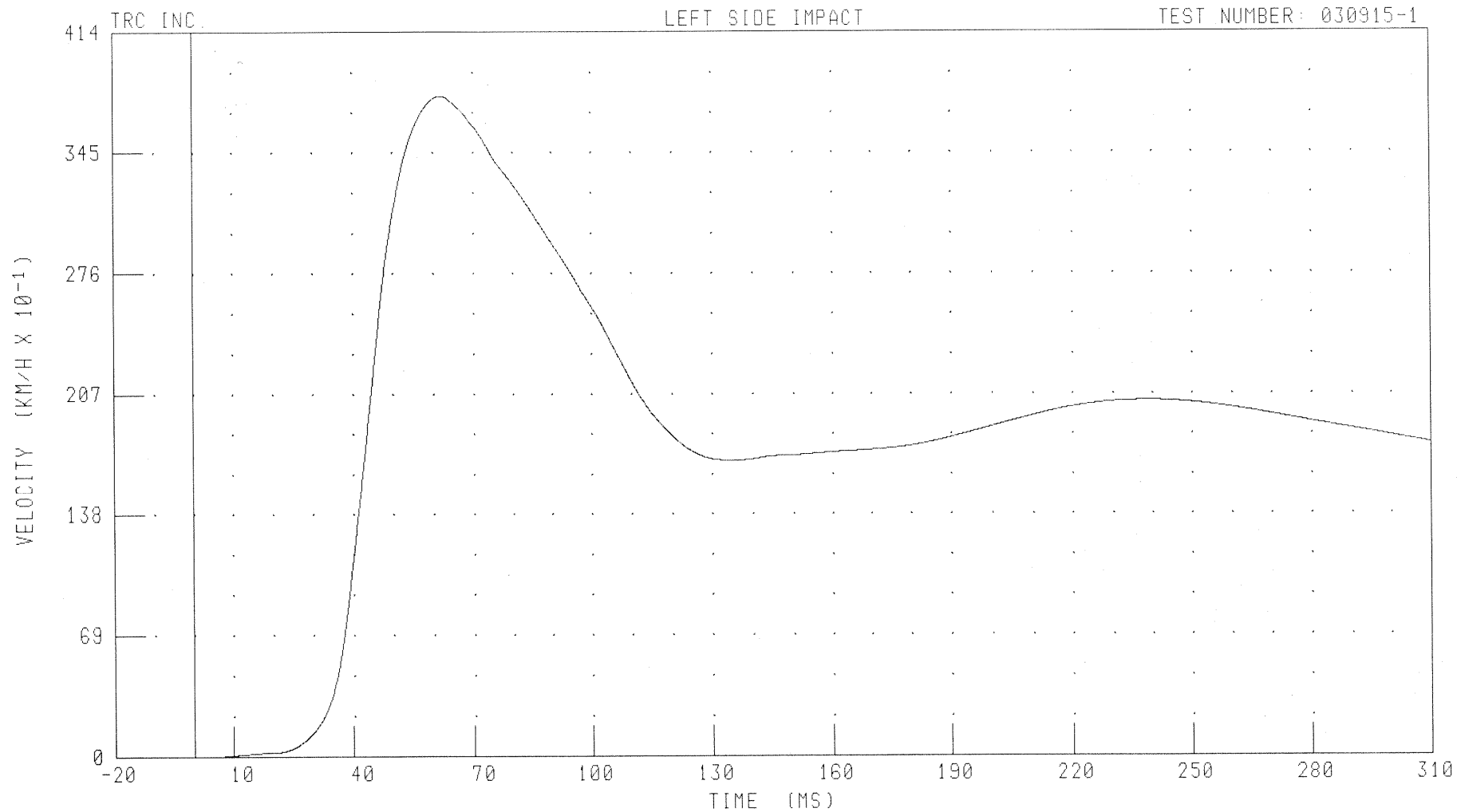
B-68

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3YV1

FILTER: CH. CLASS 180

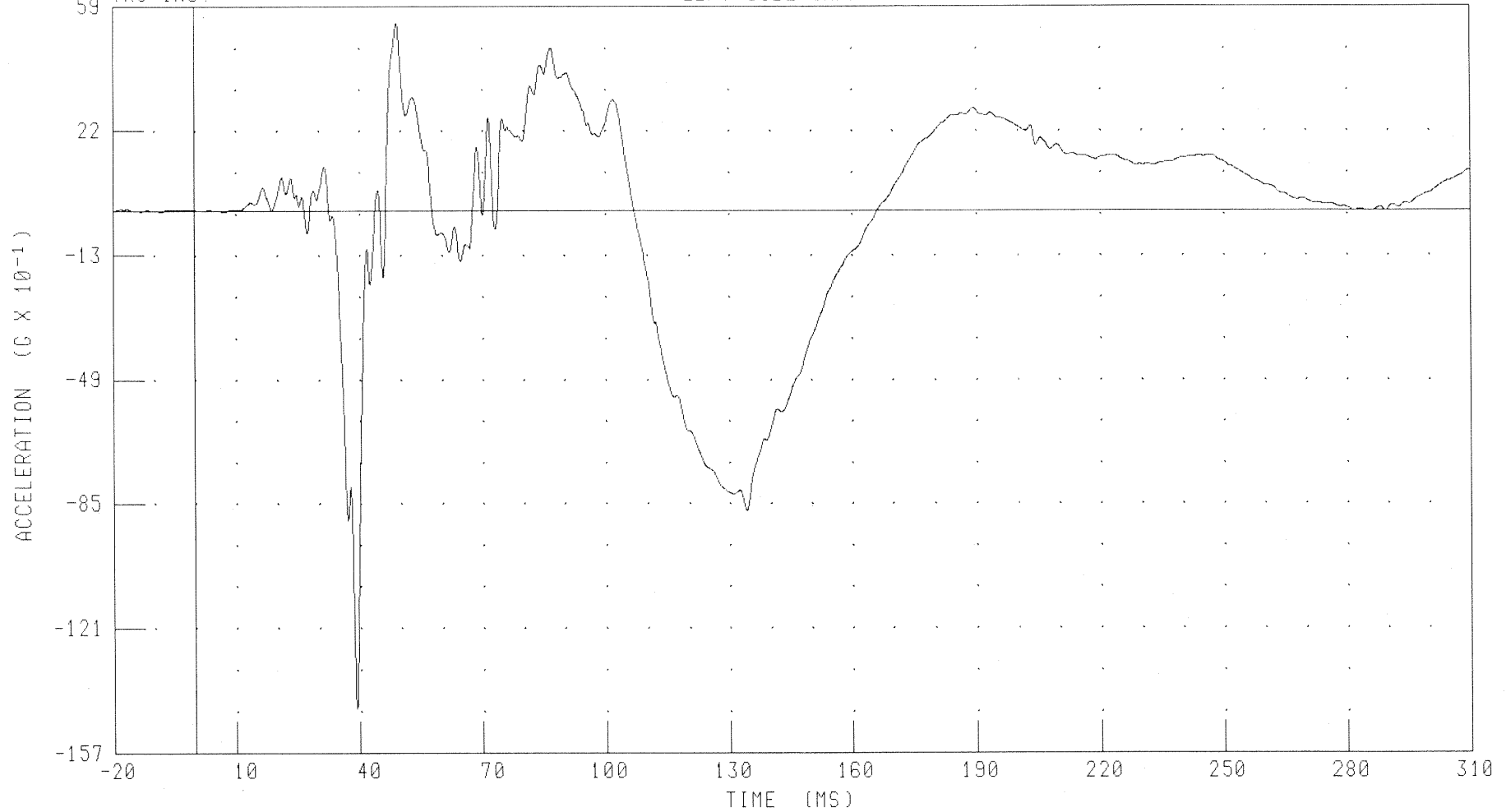
PEAK DATA: 37.76 KM/H @ 62.08 MS; 0.00 KM/H @ 0.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 Z-AXIS ACCELERATION

TRC INC.

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3ZG1 FILTER: CH. CLASS 180

PEAK DATA: 5.43 G @ 49.20 MS; -14.44 G @ 39.20 MS

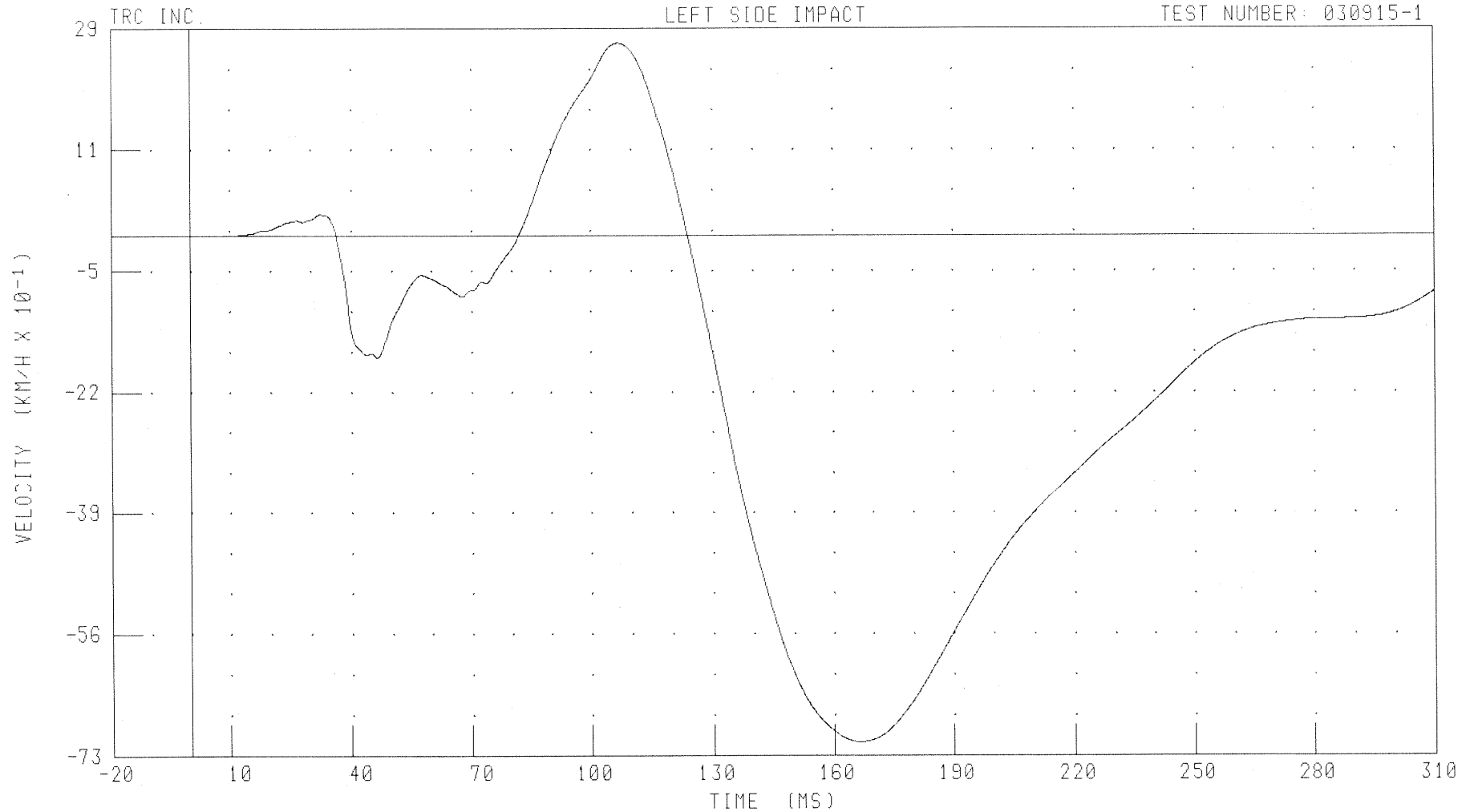
B-70

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



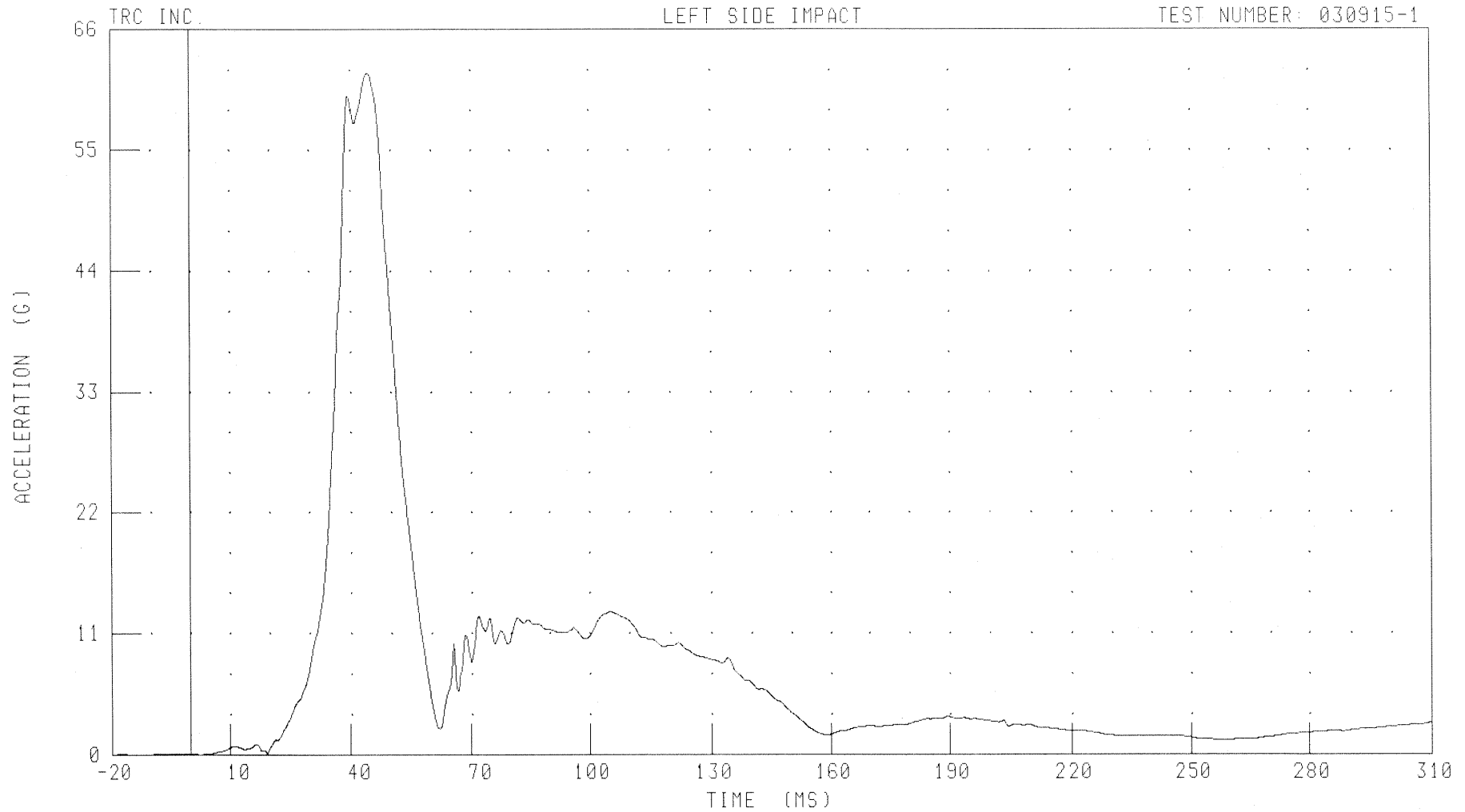
CHANNEL: SR3ZV1 FILTER: CH. CLASS 180

PEAK DATA: 2.70 KM/H @ 107.04 MS; -7.11 KM/H @ 166.40 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



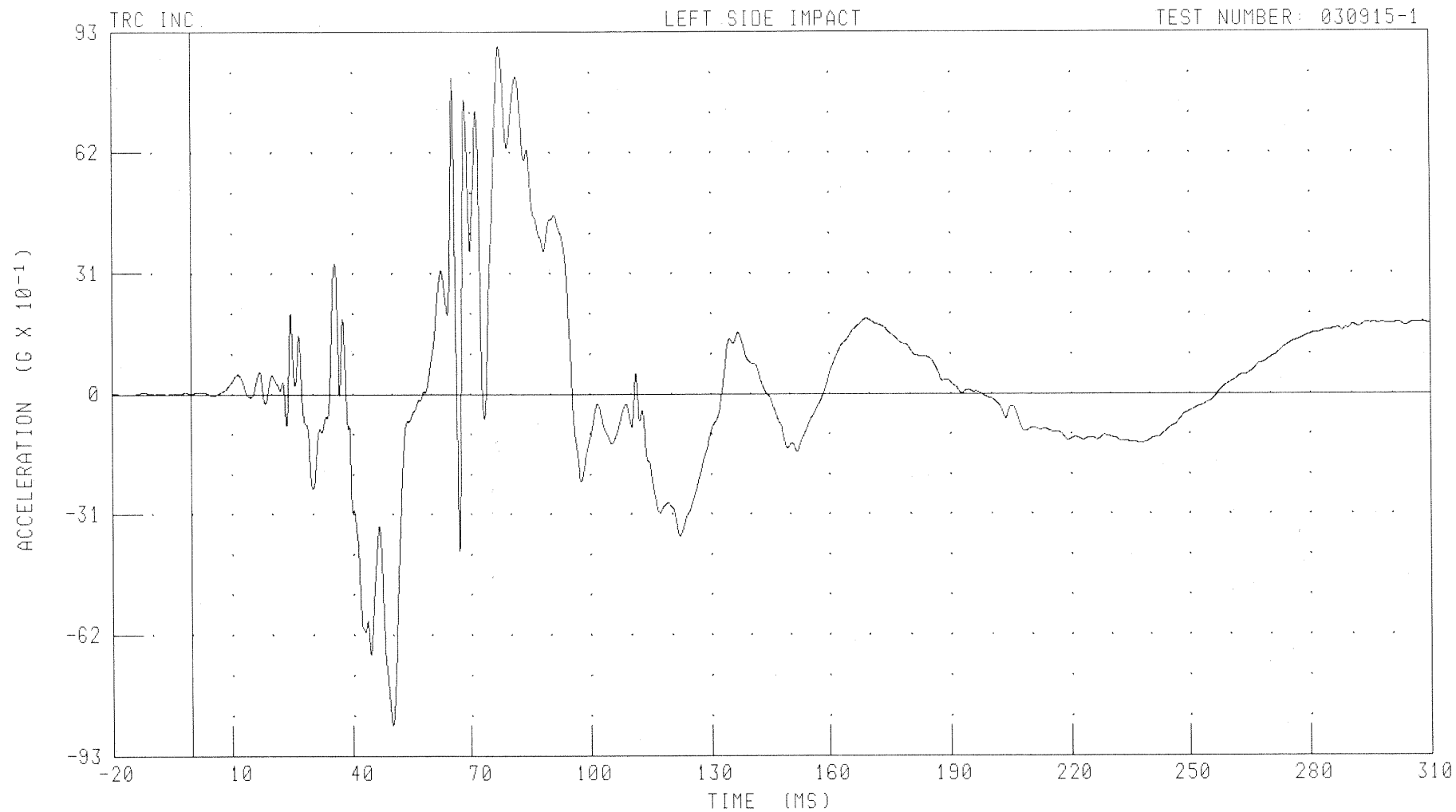
CHANNEL: SR3RG1 FILTER: CH. CLASS 180

PEAK DATA: 62.06 G @ 44.56 MS; 0.00 G @ -20.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



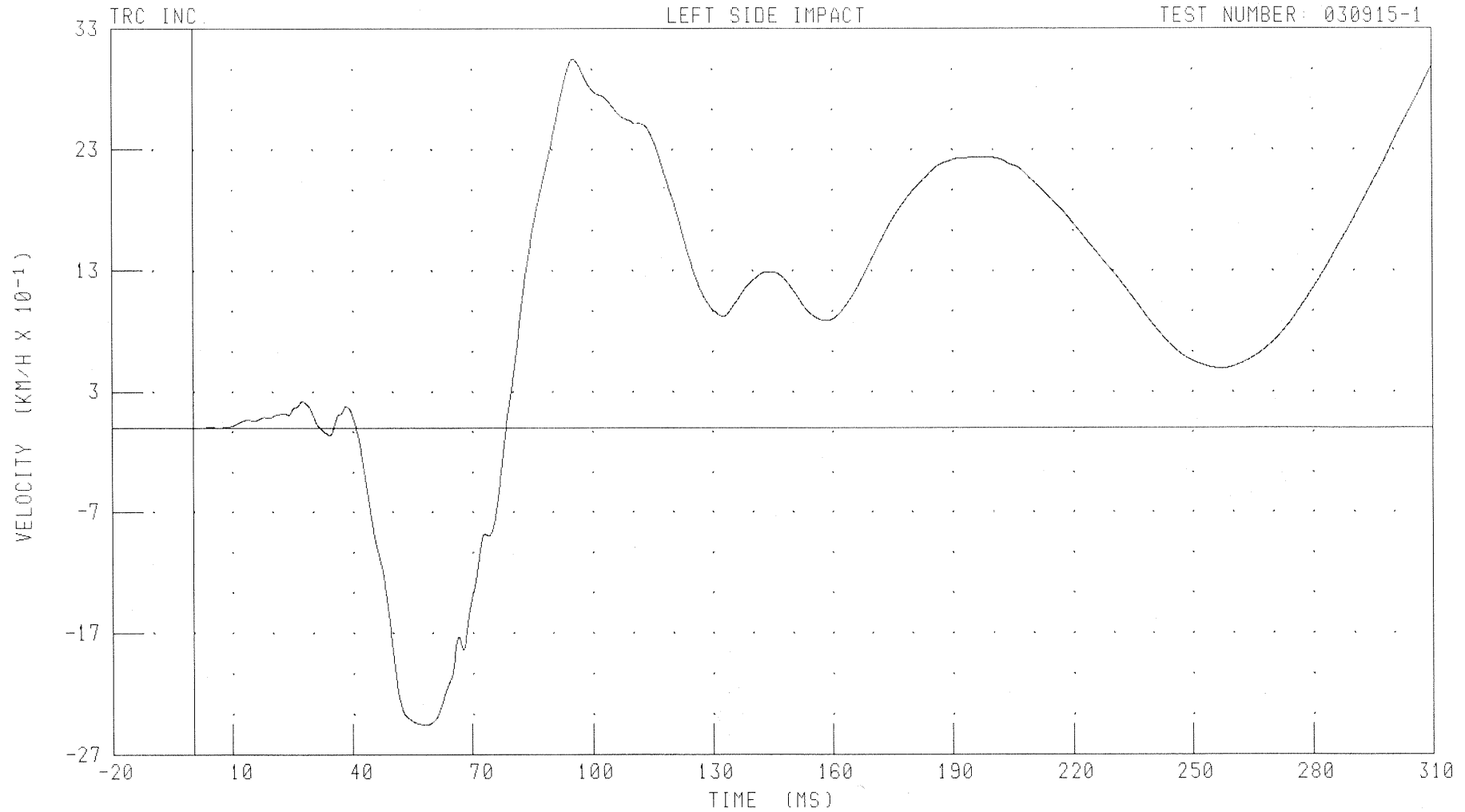
CHANNEL: SR4XC1 FILTER: CH. CLASS 180

PEAK DATA: 8.94 G @ 77.52 MS; -8.51 G @ 49.92 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4XV1 FILTER: CH. CLASS 180

PEAK DATA: 3.05 KM/H @ 95.44 MS; -2.45 KM/H @ 57.92 MS

B-74

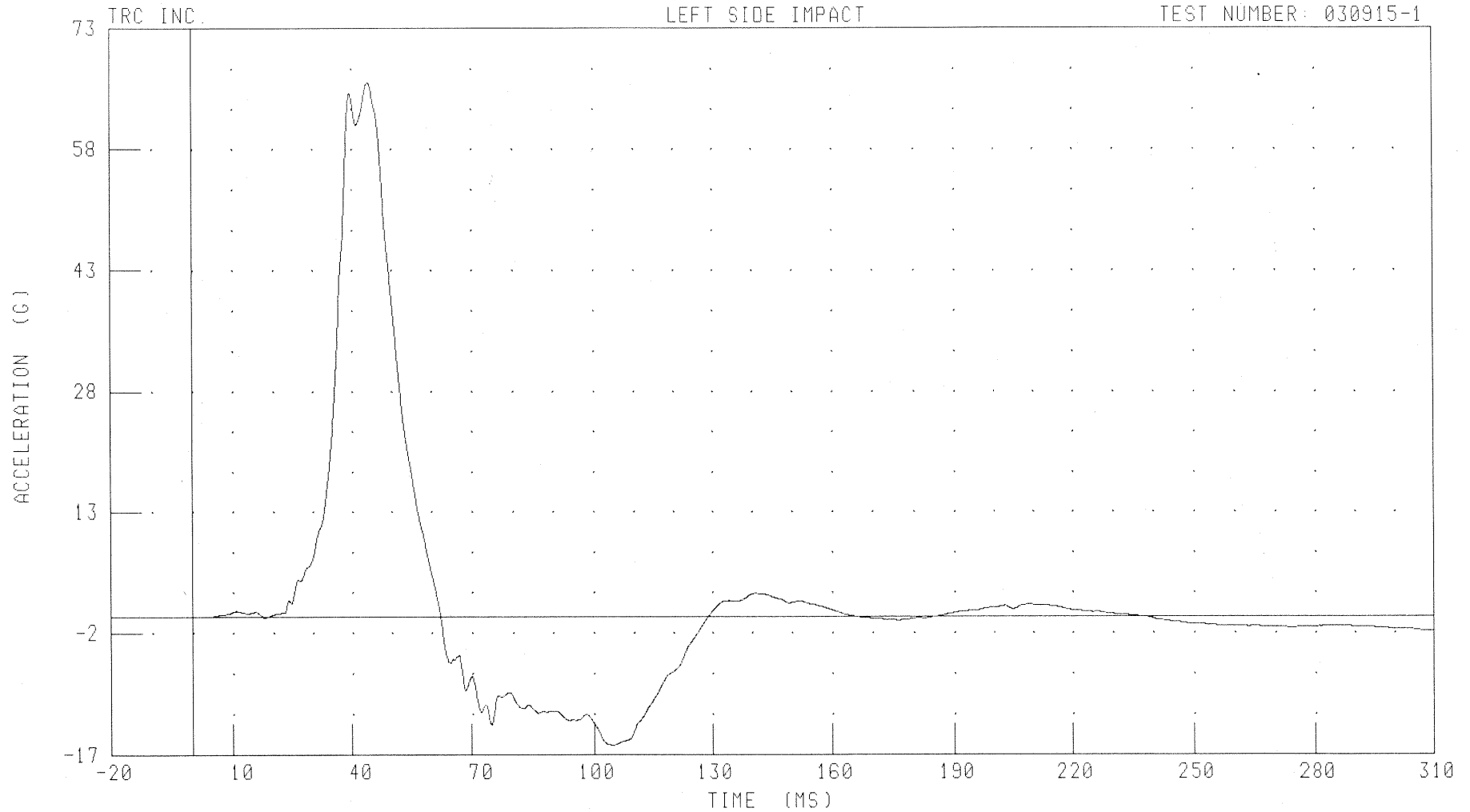
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4YG1 FILTER: CH. CLASS 180

PEAK DATA: 66.27 G @ 44.32 MS; -15.84 G @ 104.72 MS

B-75

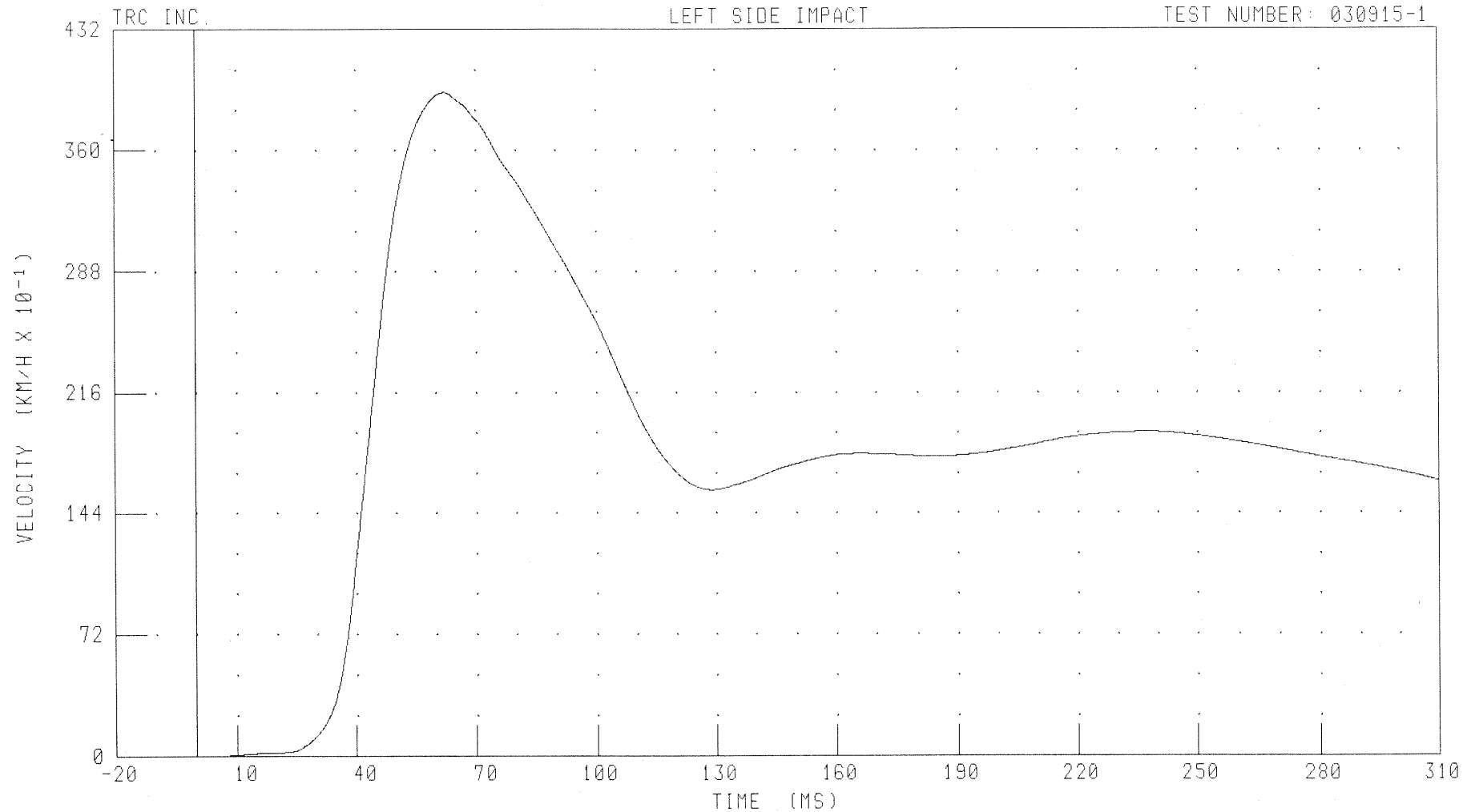
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 4 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4YV1 FILTER: CH. CLASS 180

PEAK DATA: 39.47 KM/H @ 62.32 MS; 0.00 KM/H @ 0.00 MS

B-76

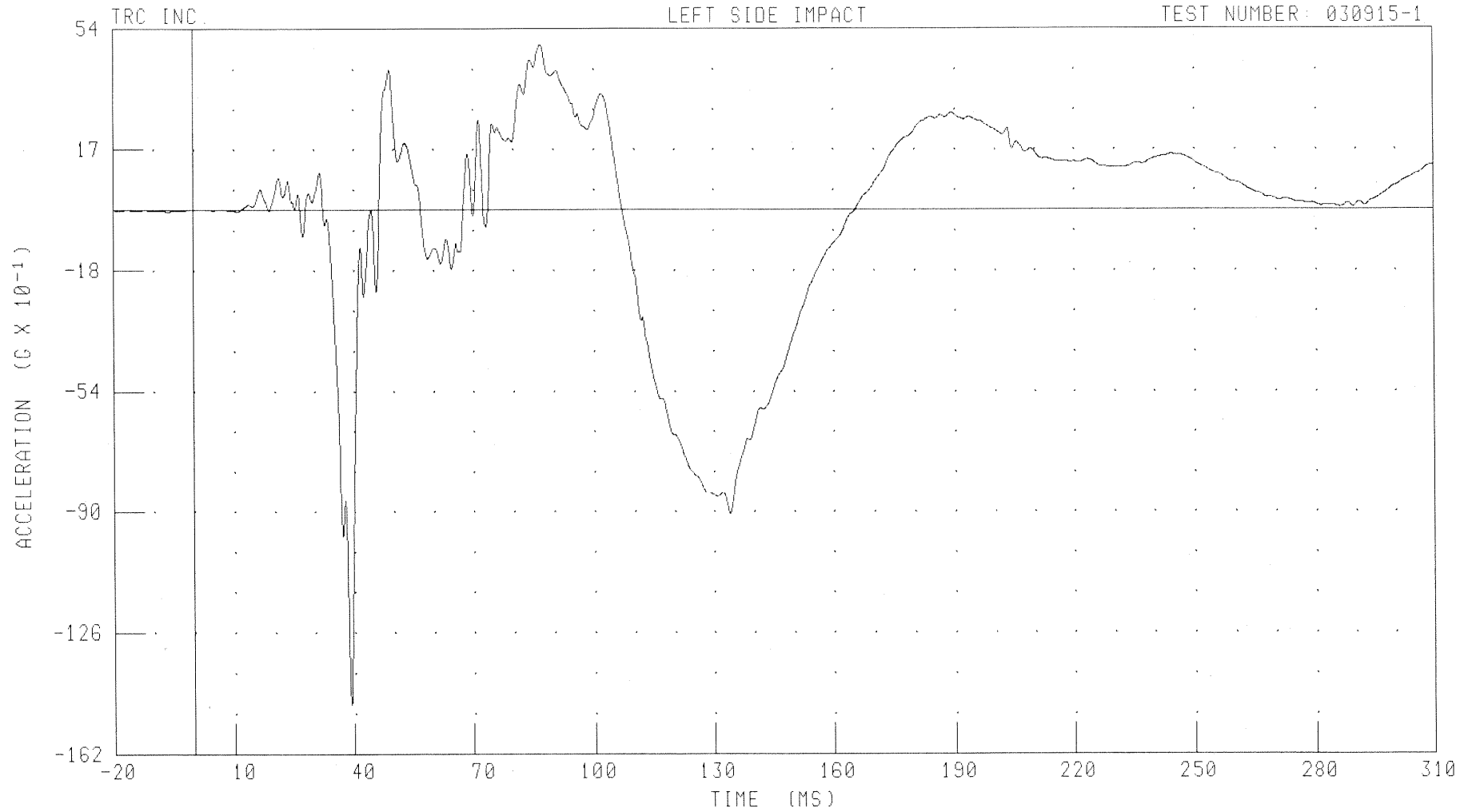
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZG1 FILTER: CH. CLASS 180

PEAK DATA: 4.93 G @ 86.96 MS; -14.74 G @ 39.20 MS

B-77

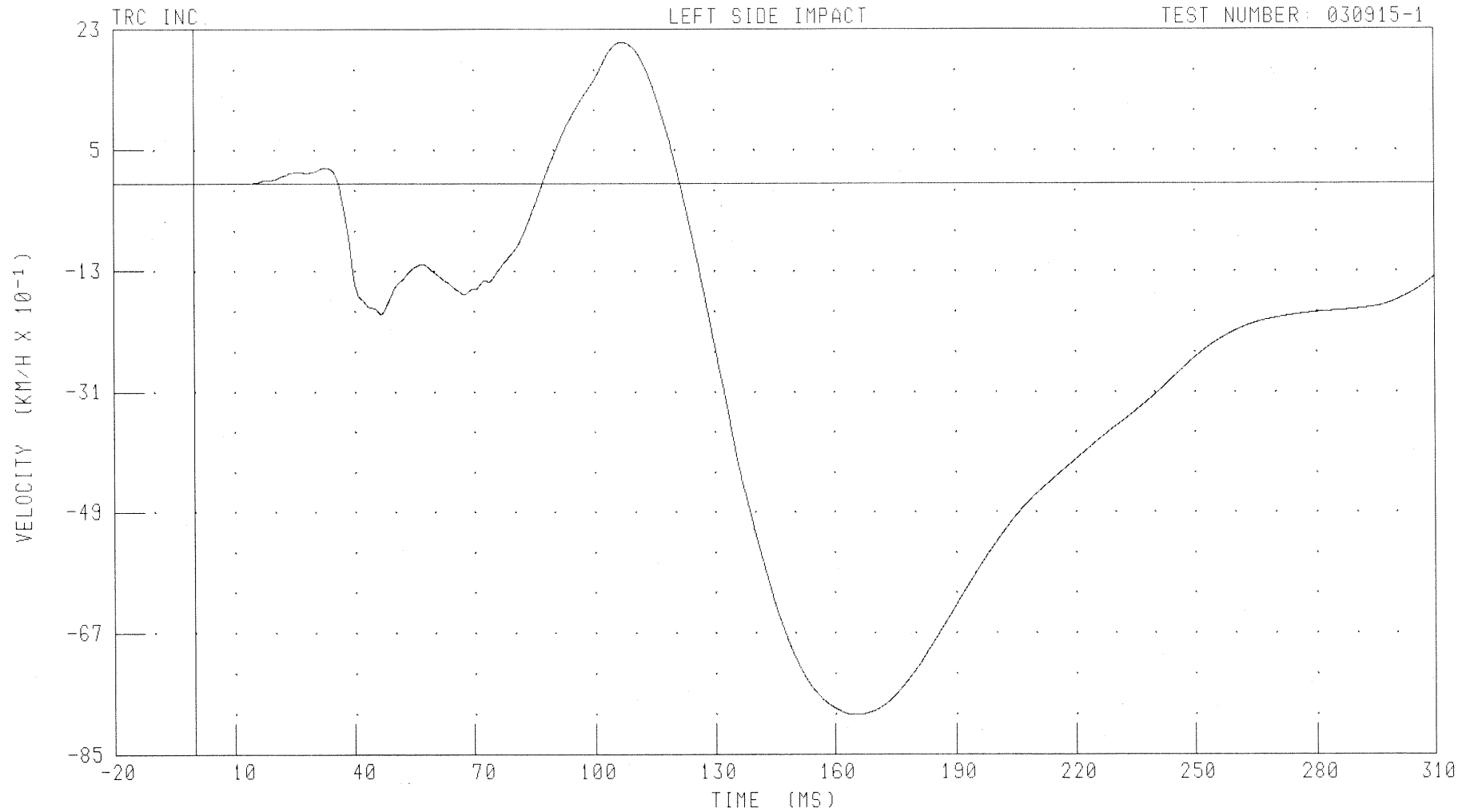
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 4 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZV1 FILTER: CH. CLASS 180

PEAK DATA: 2.11 KM/H @ 107.12 MS; -7.91 KM/H @ 165.60 MS

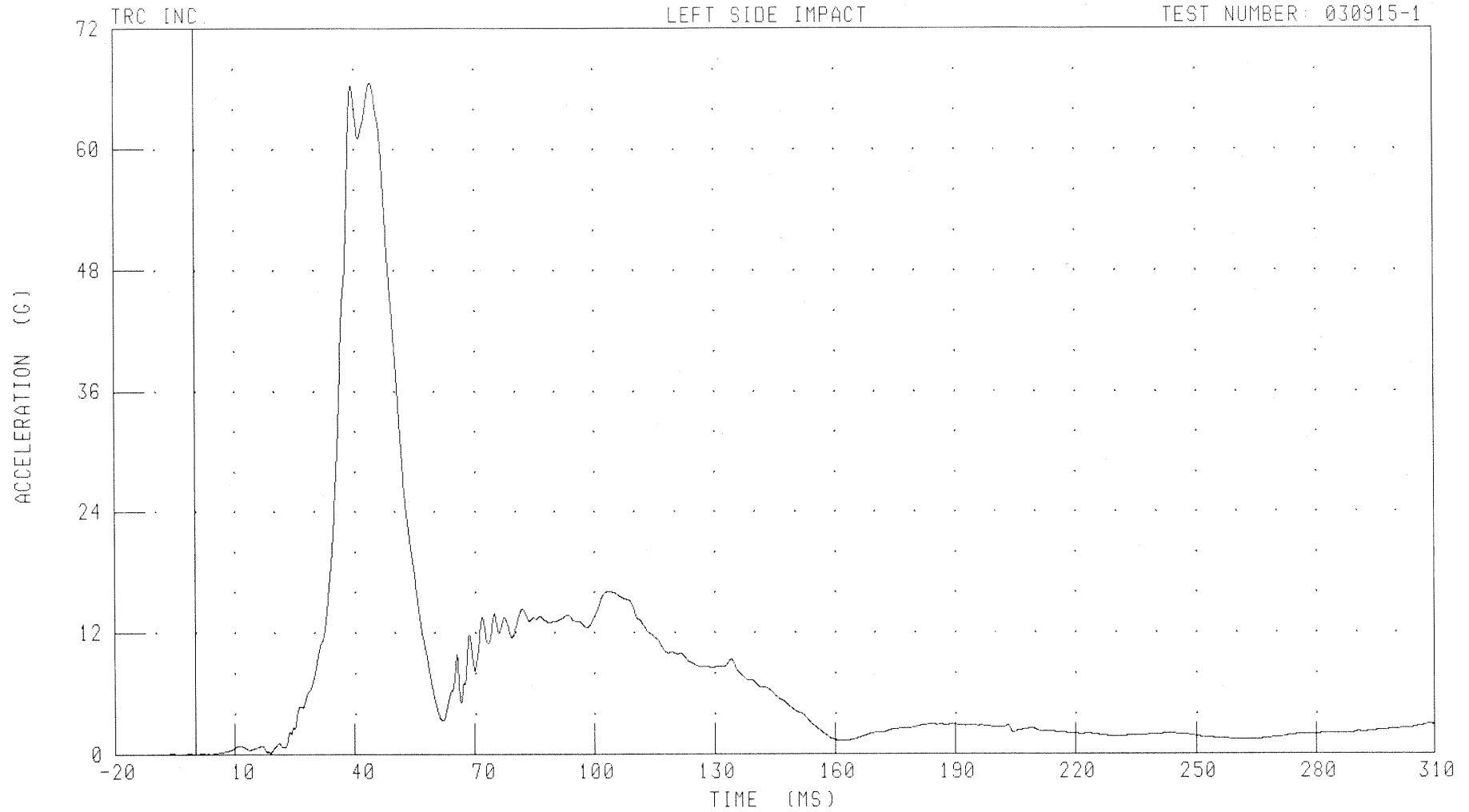
B-78

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4RG1 FILTER: CH. CLASS 180

PEAK DATA: 66.61 G @ 44.32 MS; 0.01 G @ -20.00 MS

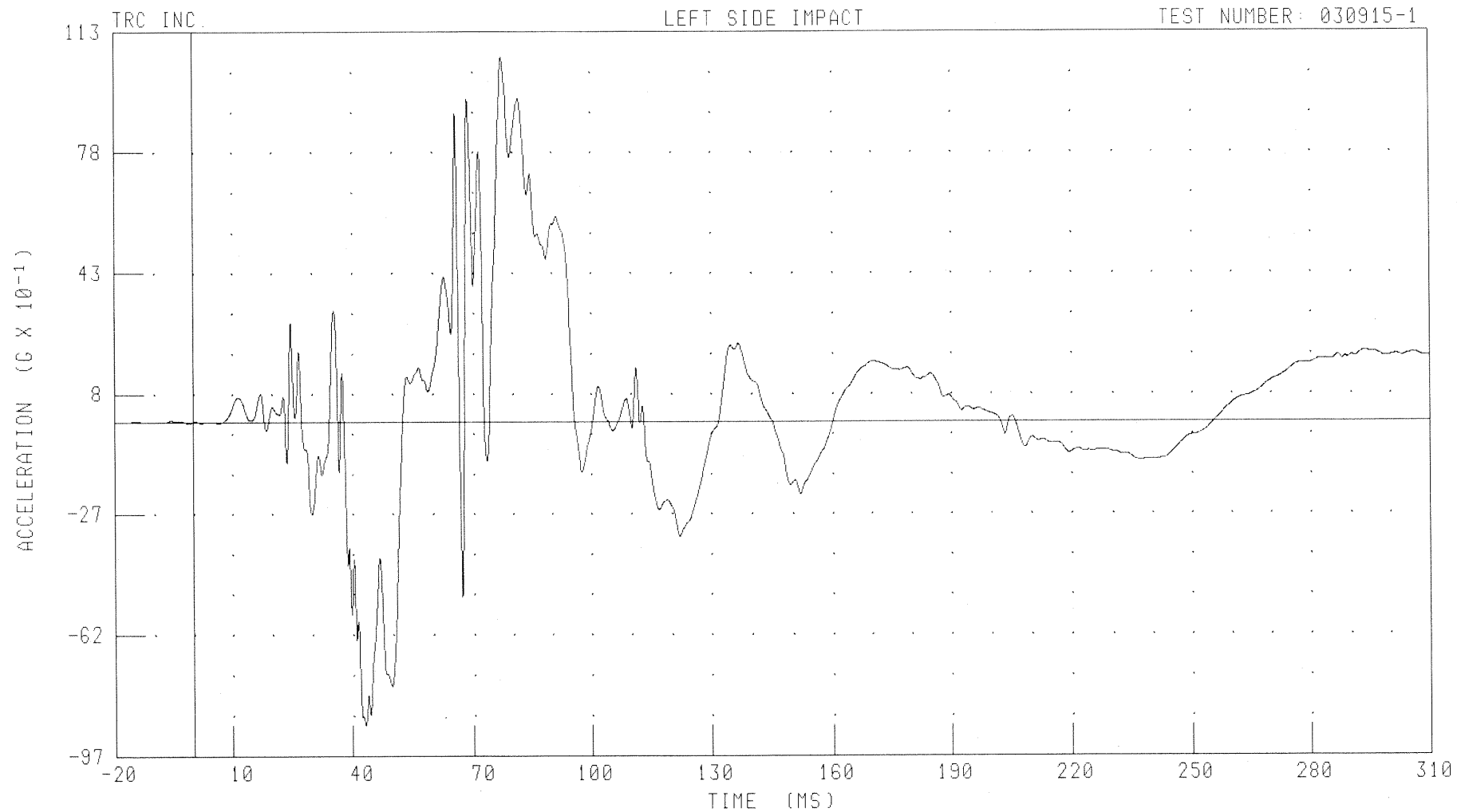
B-79

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



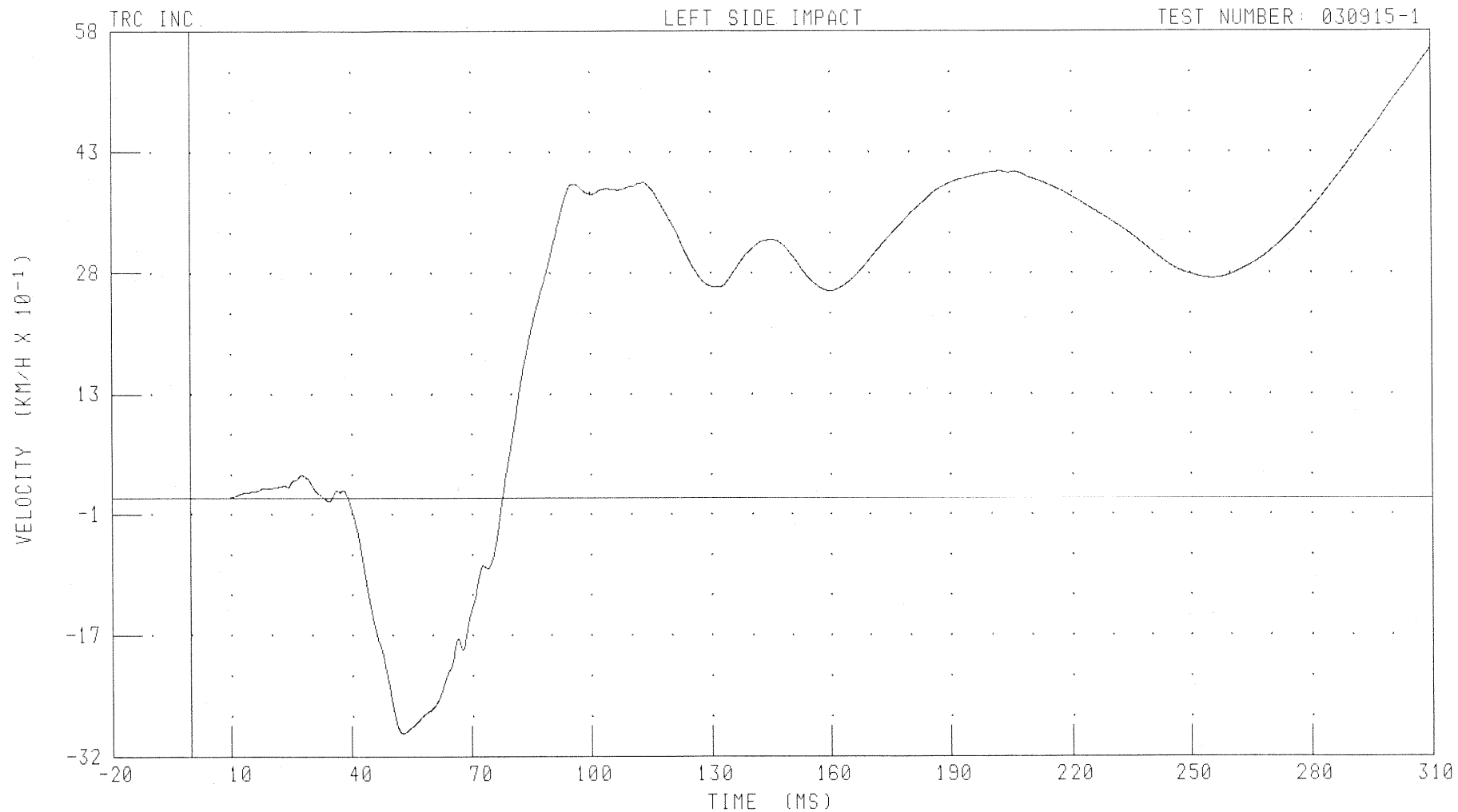
B-80

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5XV1 FILTER: CH. CLASS 180

PEAK DATA: 5.58 KM/H @ 310.00 MS; -29.2 KM/H @ 52.64 MS

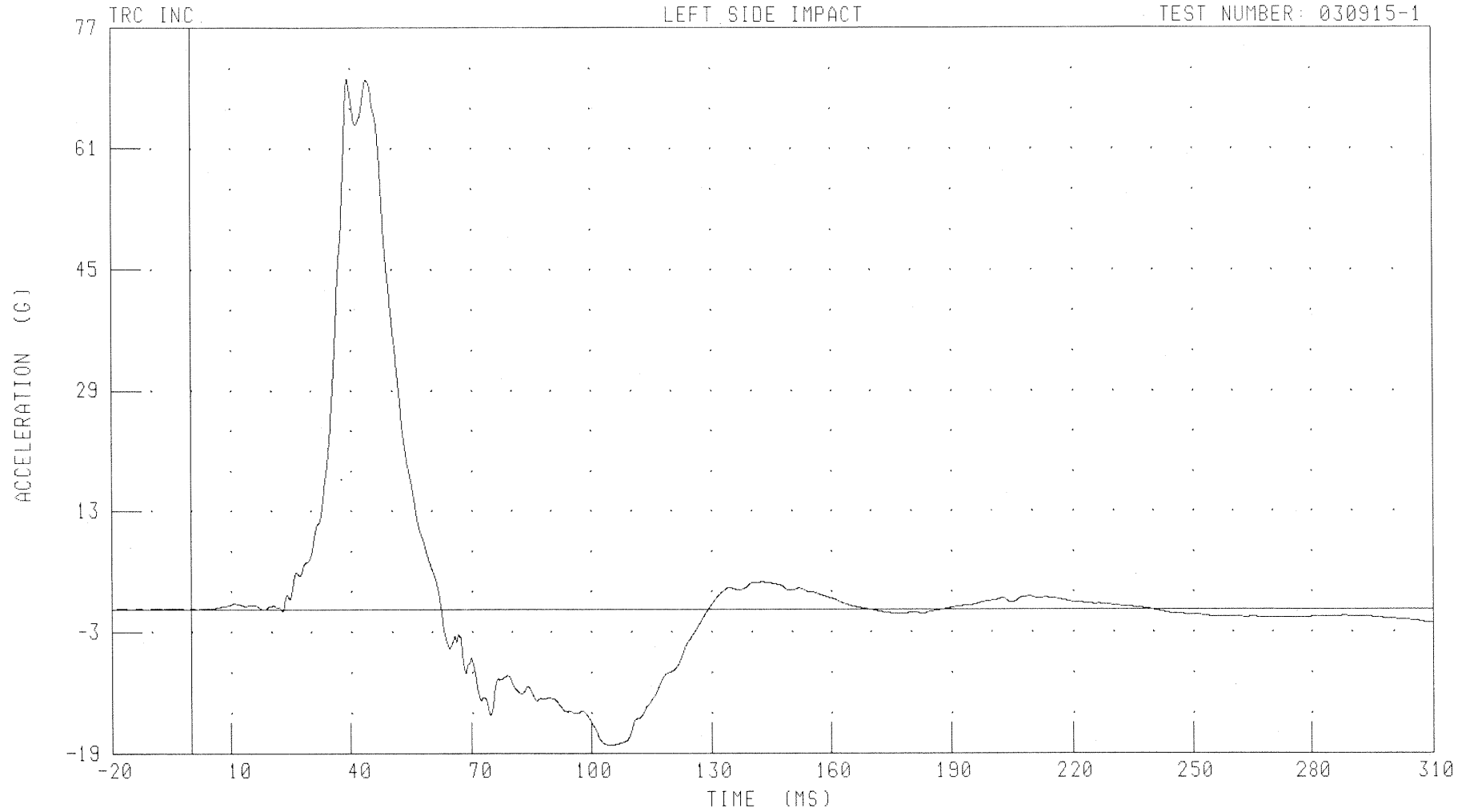
B-81

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5YG1 FILTER: CH. CLASS 180

PEAK DATA: 70.32 G @ 39.52 MS; -17.93 G @ 104.96 MS

B-82

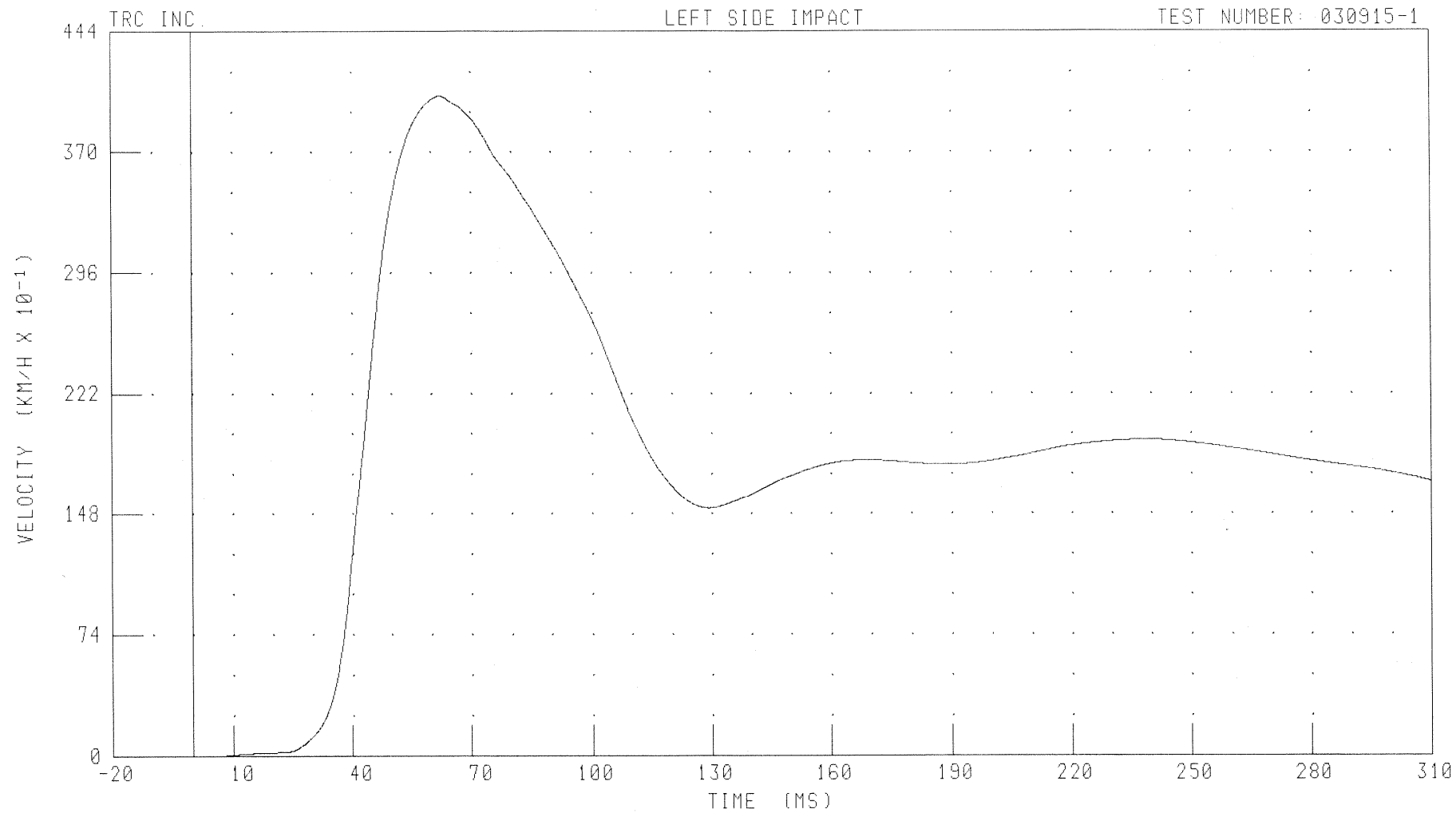
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 5 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



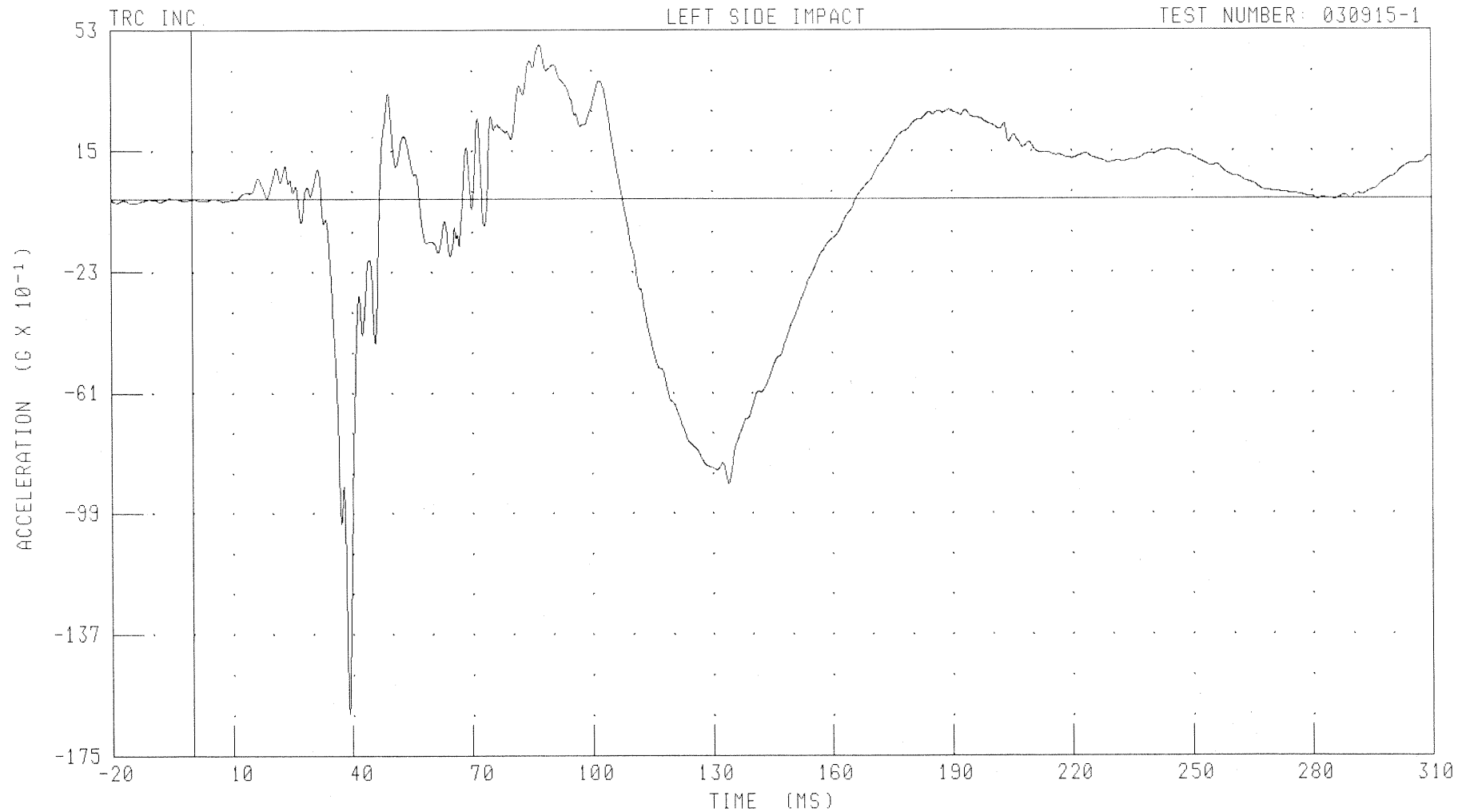
CHANNEL: SR5YV1 FILTER: CH. CLASS 180

PEAK DATA: 40.46 KM/H @ 62.40 MS; 0.00 KM/H @ 0.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5ZG1 FILTER: CH. CLASS 180

PEAK DATA: 4.84 G @ 86.88 MS; -16.18 G @ 39.12 MS

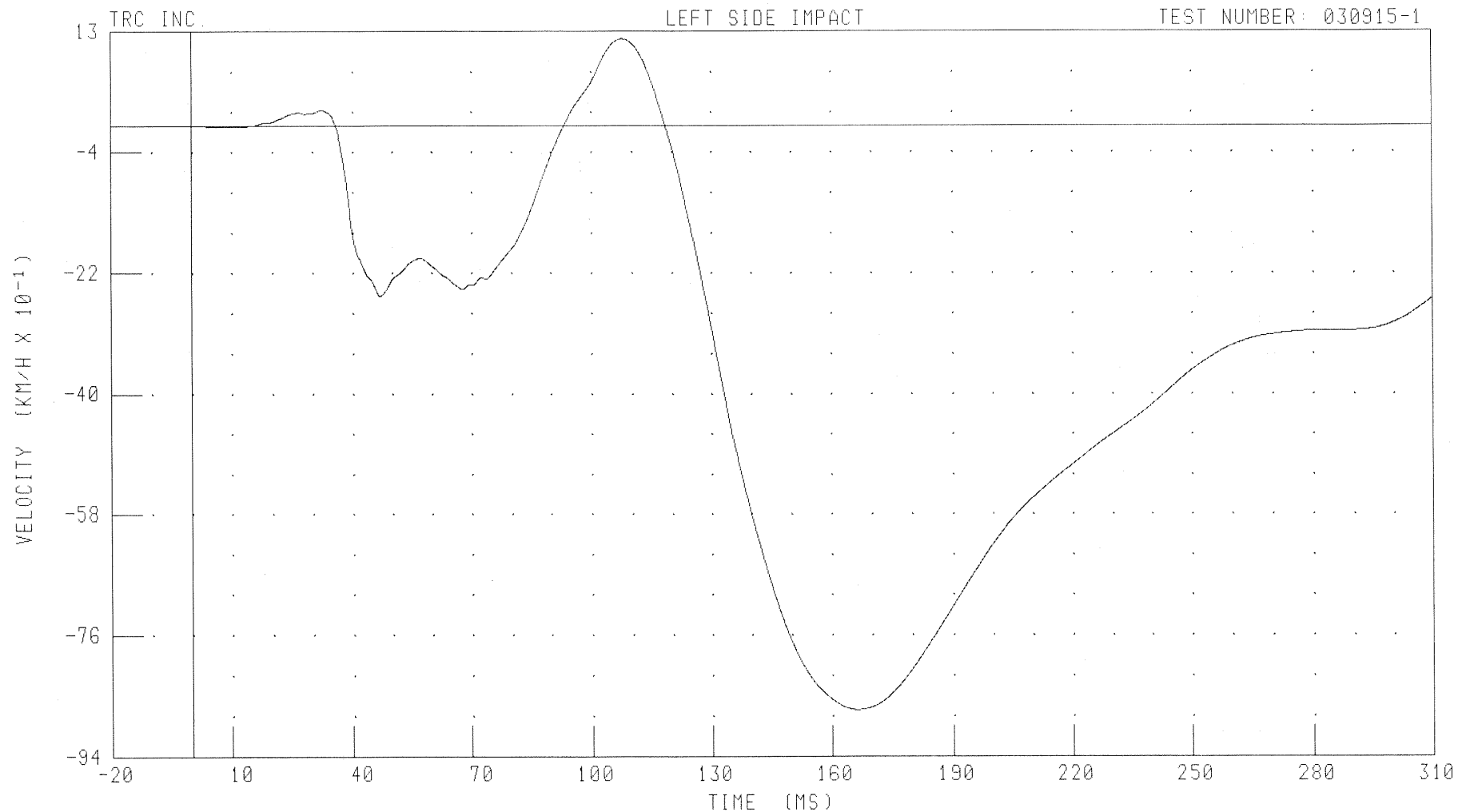
B-84

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



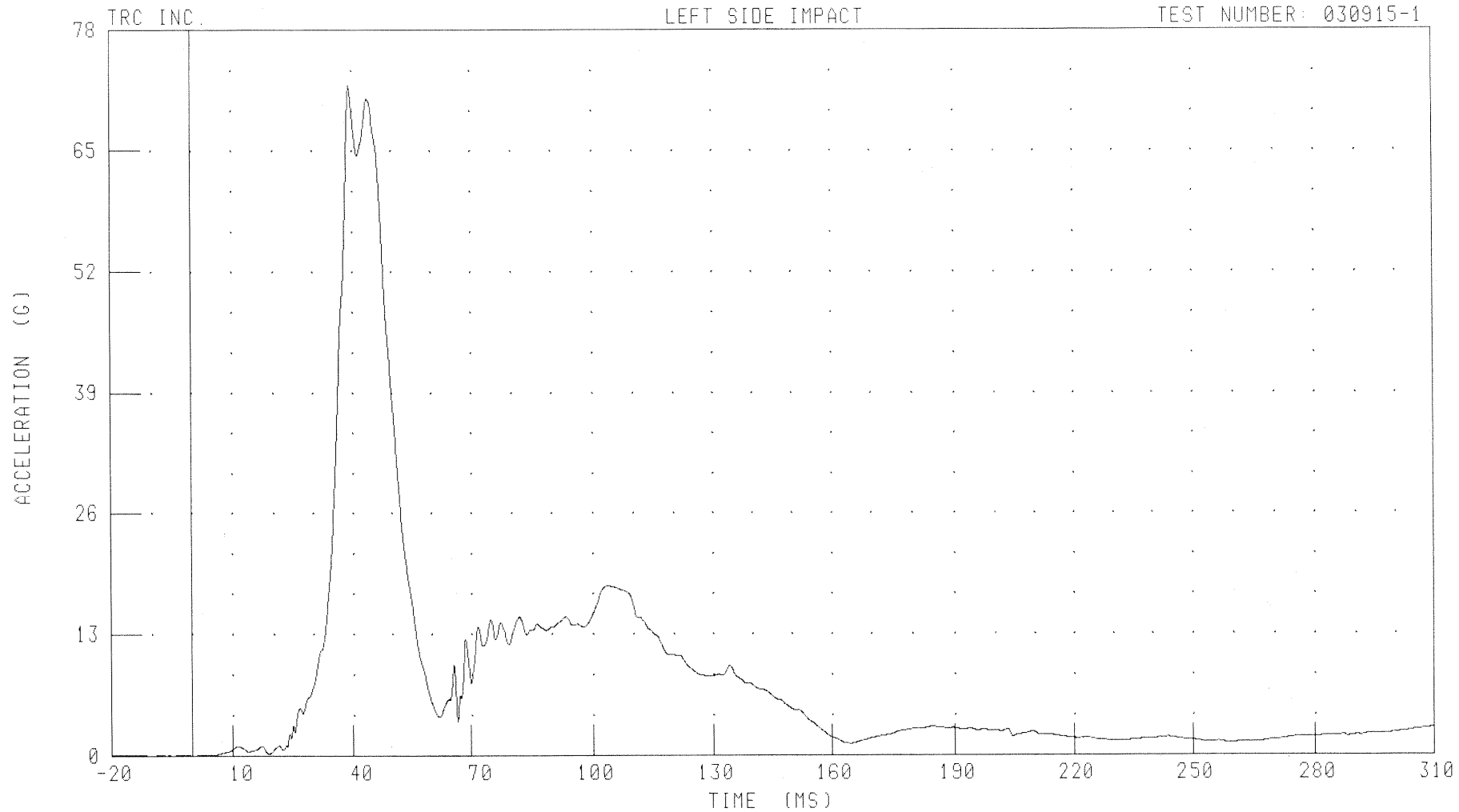
CHANNEL: SR5ZV1 FILTER: CH. CLASS 180

PEAK DATA: 1.29 KM/H @ 107.76 MS, -8.71 KM/H @ 166.24 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5RG1 FILTER: CH. CLASS 180

PEAK DATA: 72.03 G @ 39.44 MS; 0.01 G @ -20.00 MS

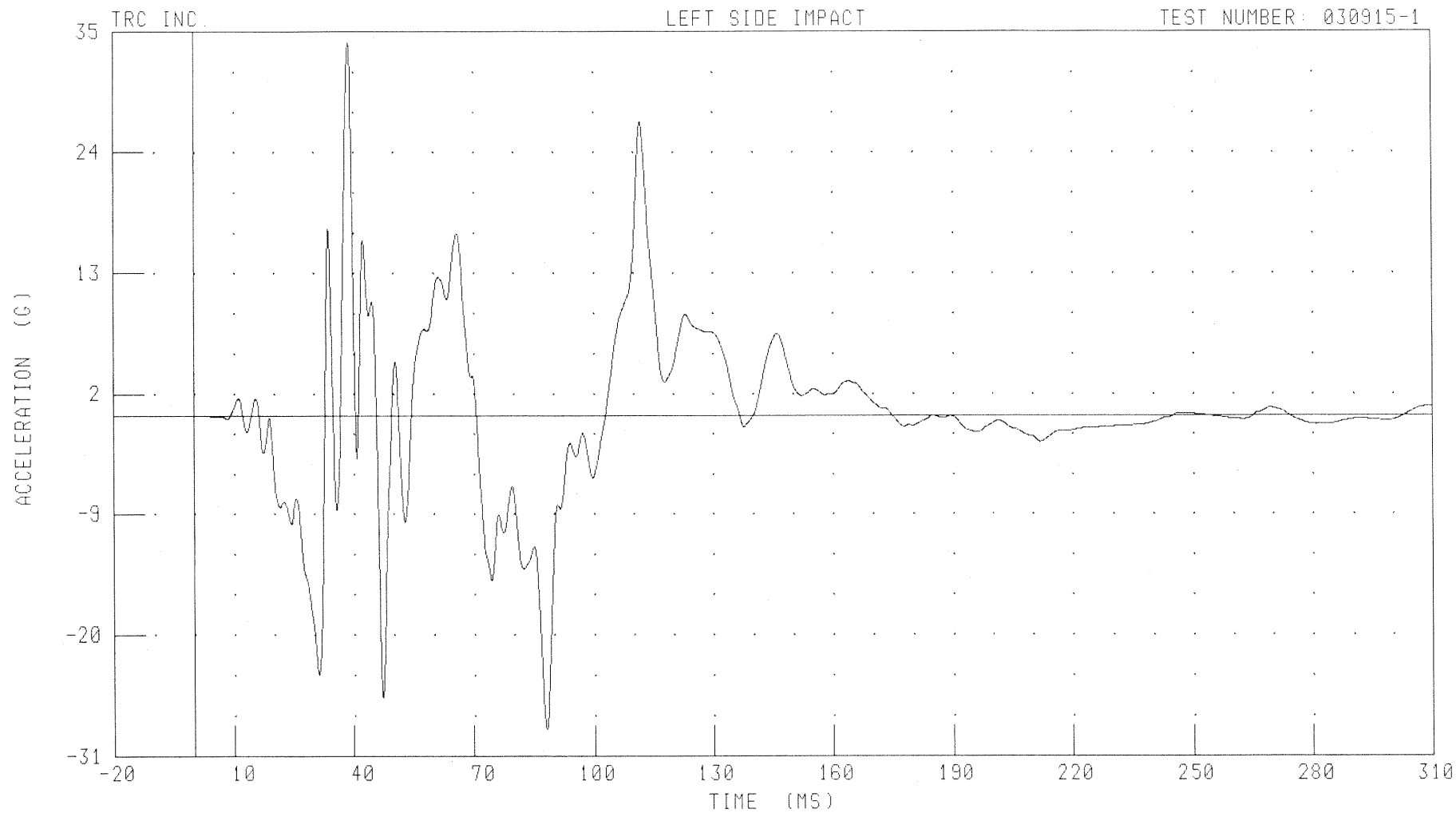
B-86

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XG1 FILTER: CH. CLASS 100

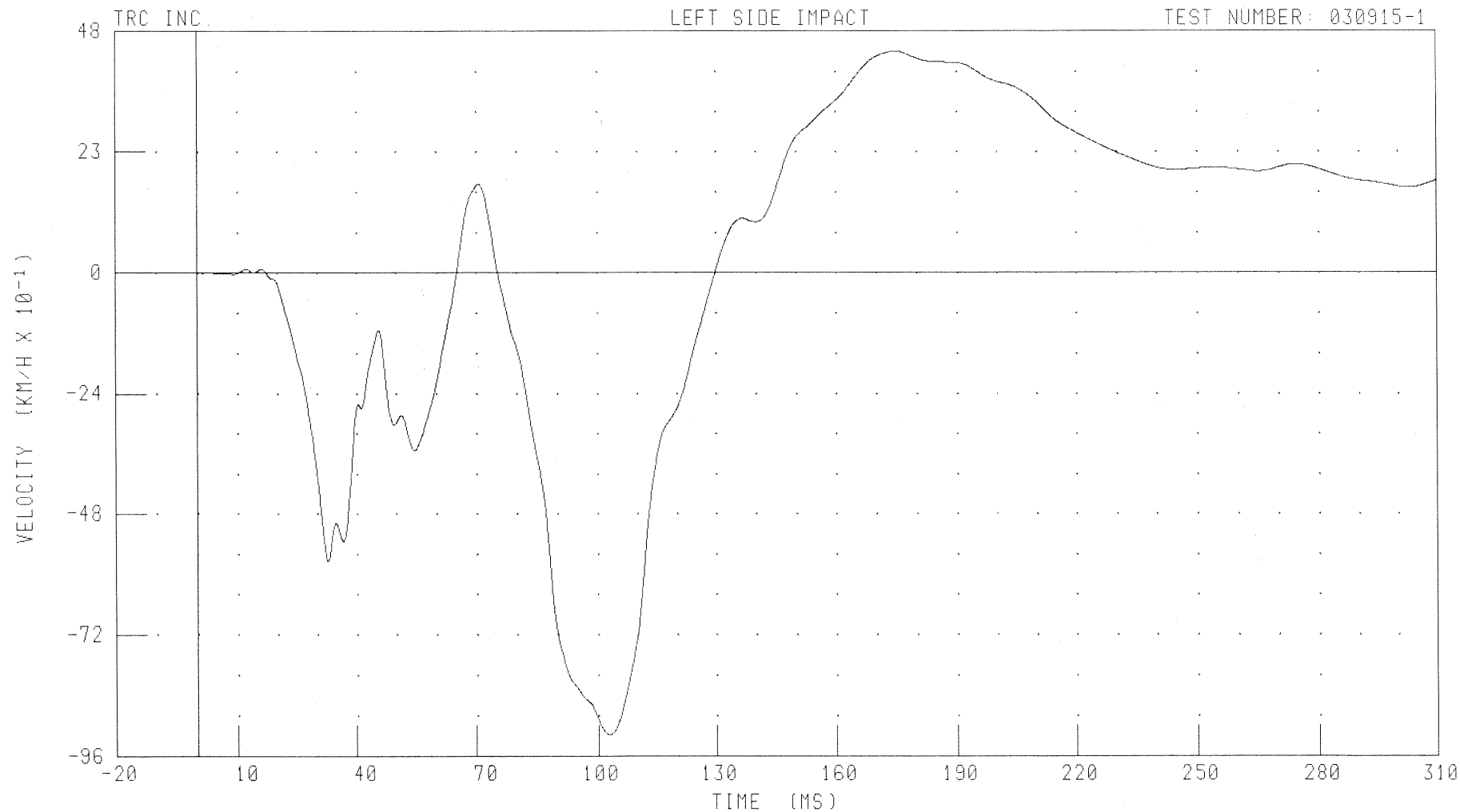
B-87

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XV1 FILTER: CH. CLASS 180

PEAK DATA: 4.40 KM/H @ 174.88 MS, -9.18 KM/H @ 102.96 MS

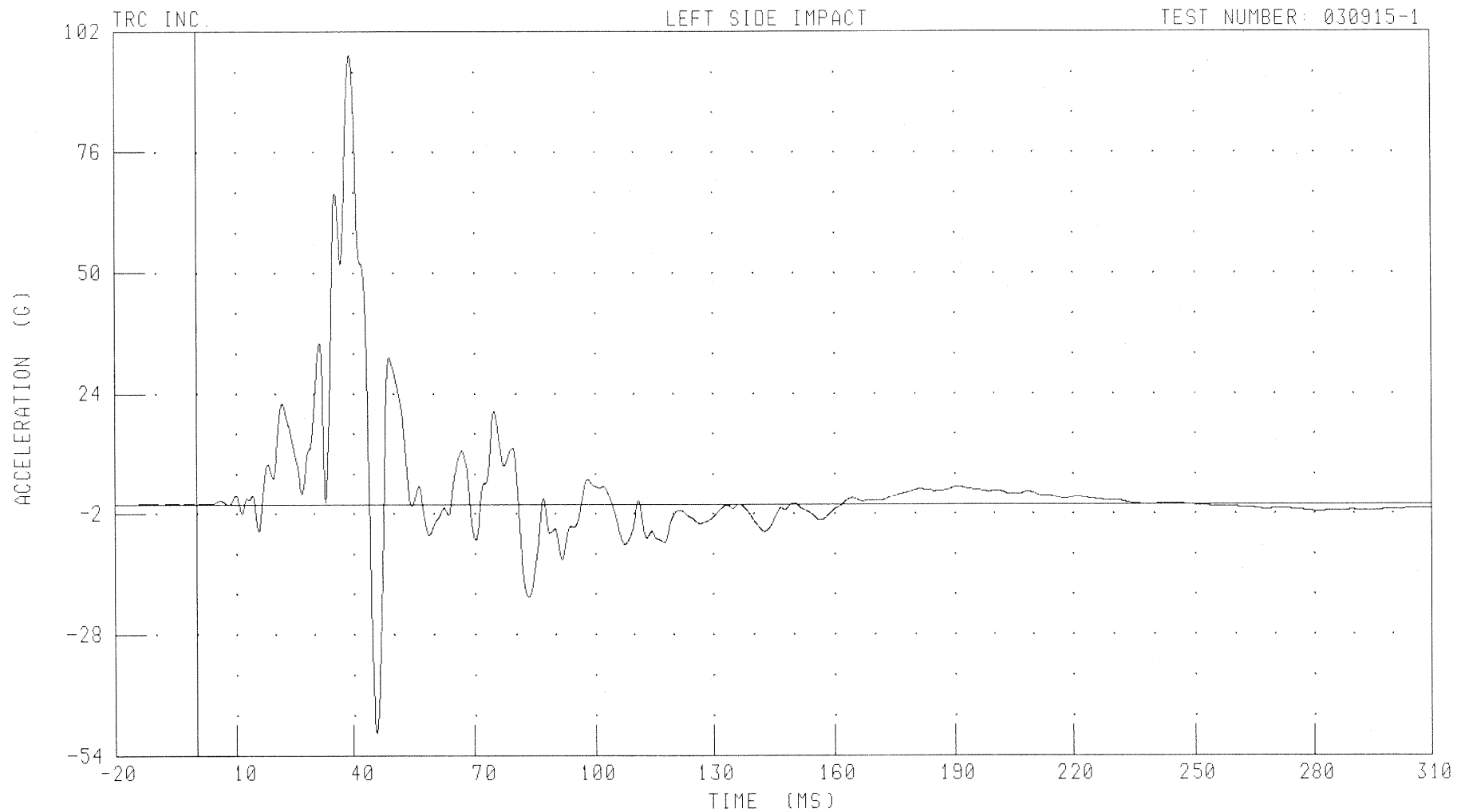
B-88

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YG1 FILTER: CH. CLASS 180

PEAK DATA: 97.09 G @ 39.36 MS; -49.18 G @ 45.68 MS

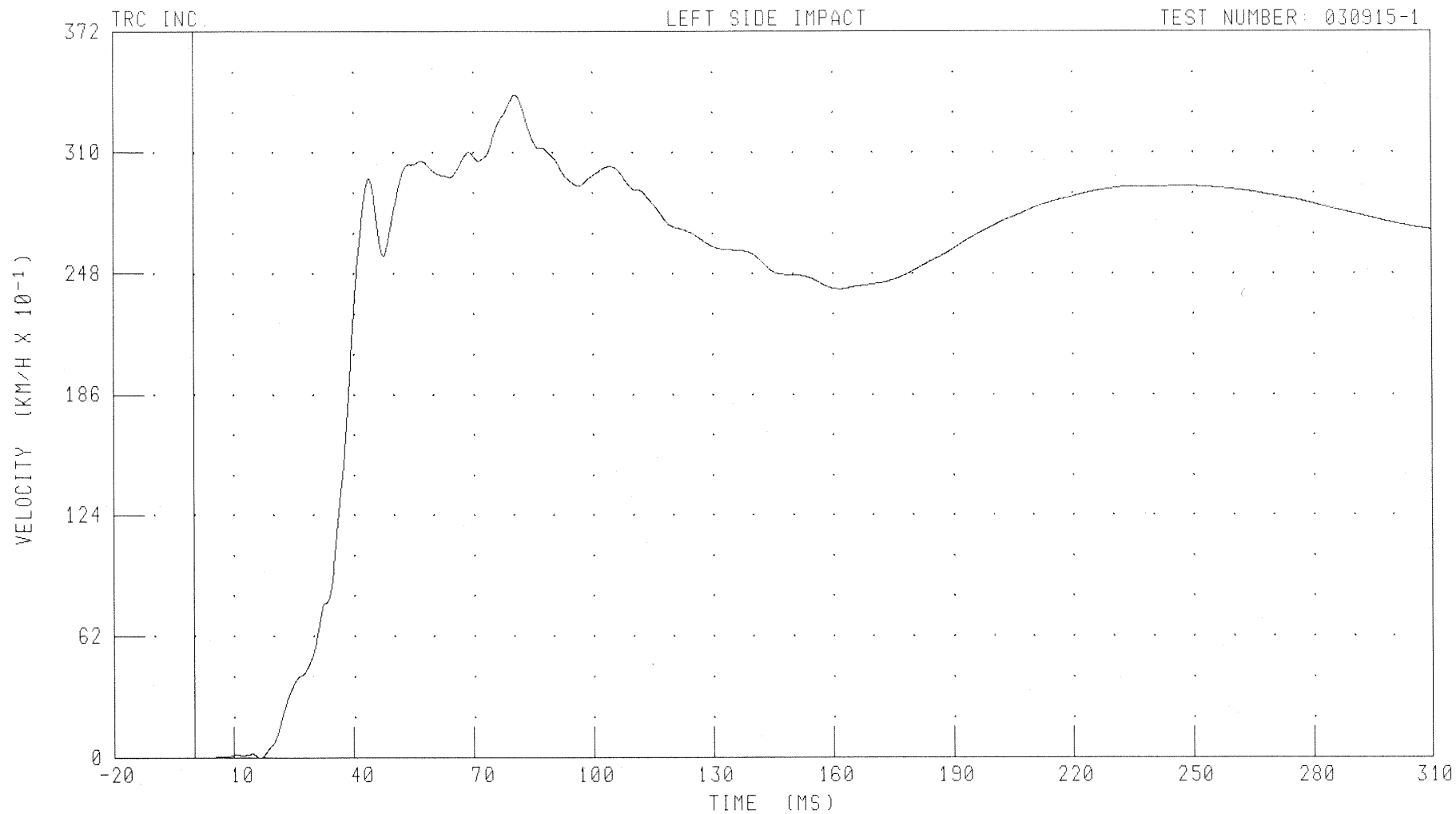
B-89

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YV1 FILTER: CH. CLASS 180

PEAK DATA: 33.96 KM/H @ 80.72 MS; -0.05 KM/H @ 16.64 MS

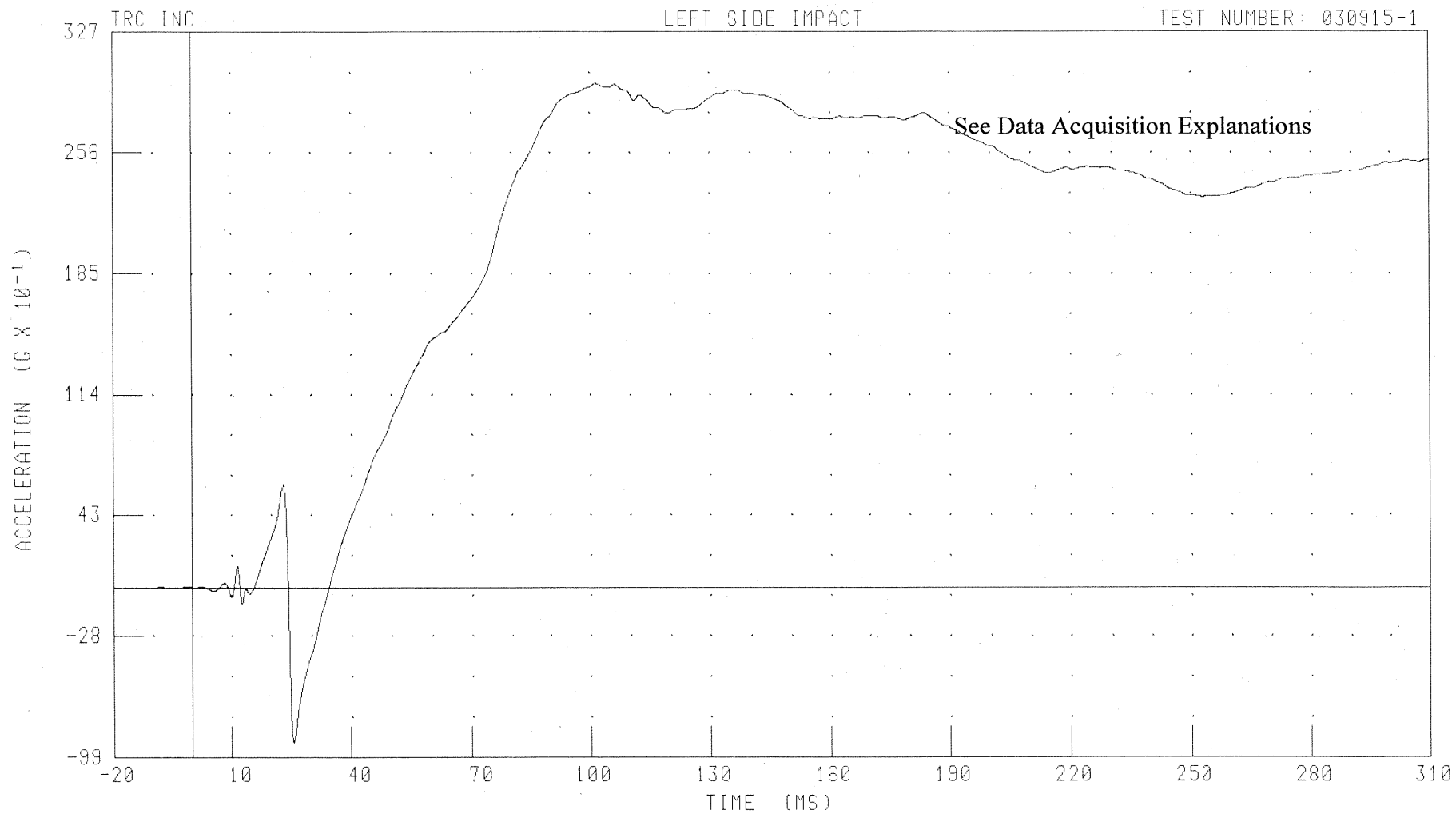
B-90

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1ZG1 FILTER: CH. CLASS 180

PEAK DATA: 29.69 G @ 101.76 MS, -9.04 G @ 25.60 MS

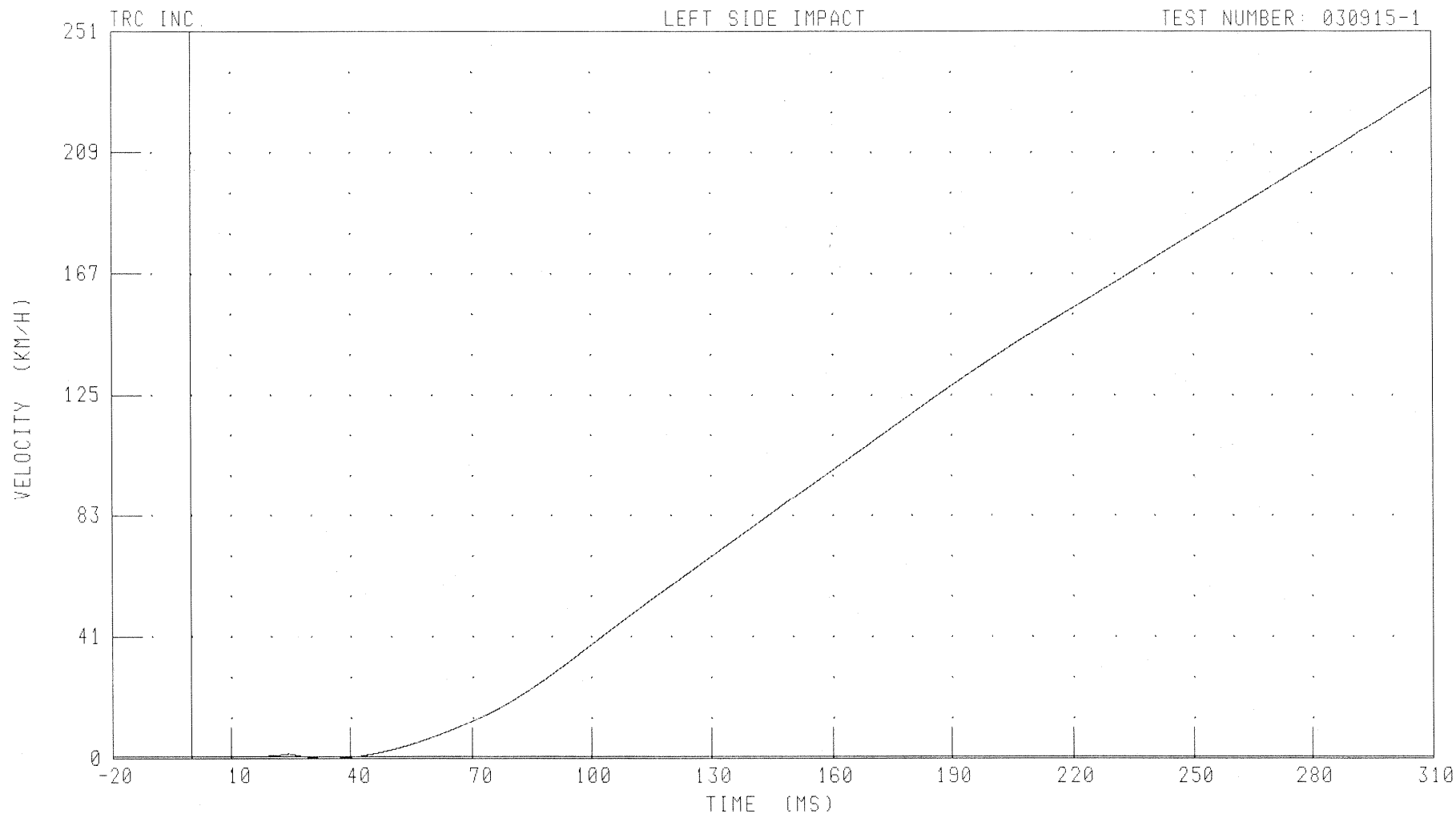
B-91

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1ZV1 FILTER: CH. CLASS 180

PEAK DATA: 232.16 KM/H @ 310.00 MS; -0.68 KM/H @ 34.48 MS

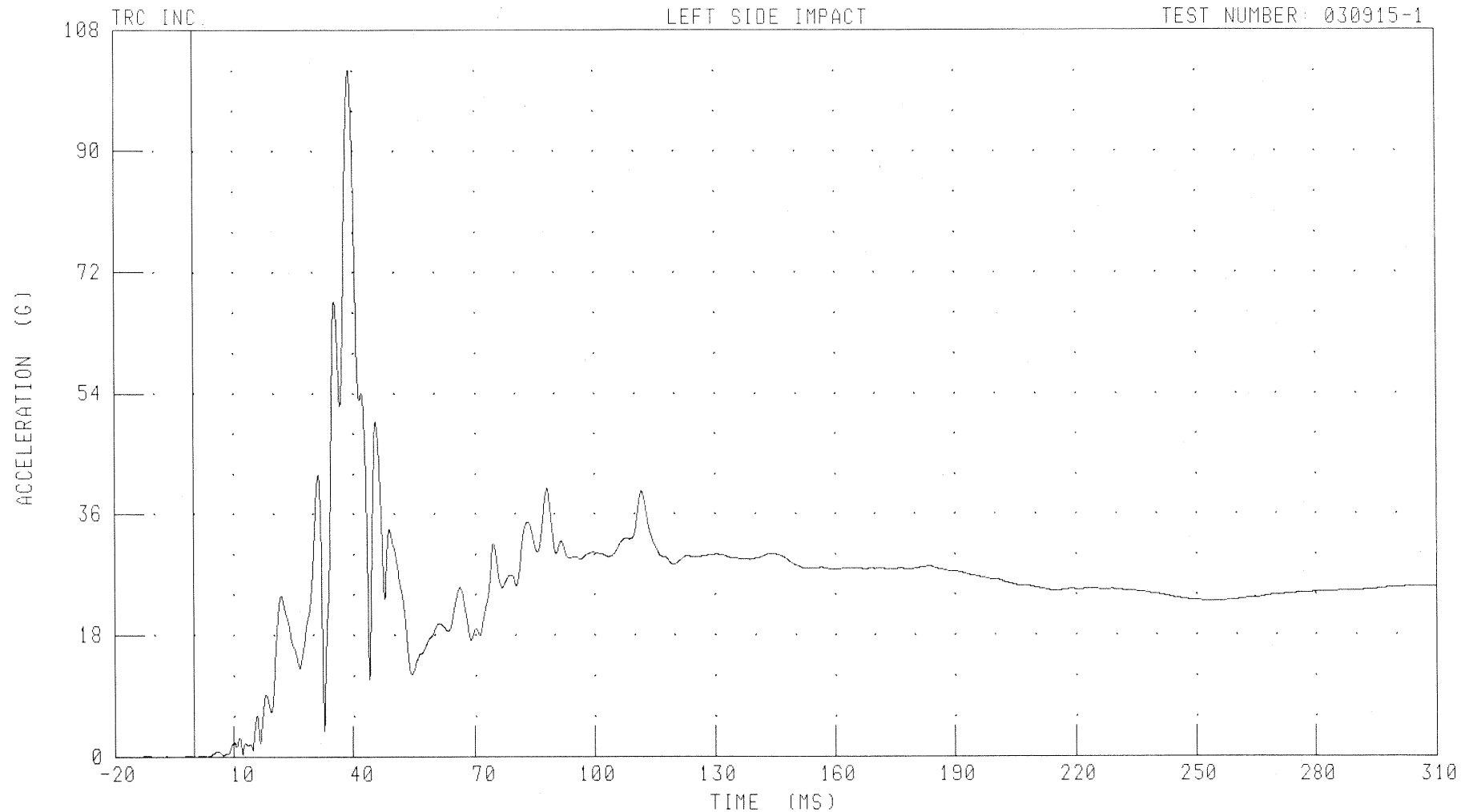
B-92

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1RG1 FILTER: CH. CLASS 180

PEAK DATA: 102.09 G @ 39.20 MS; 0.00 G @ -20.00 MS

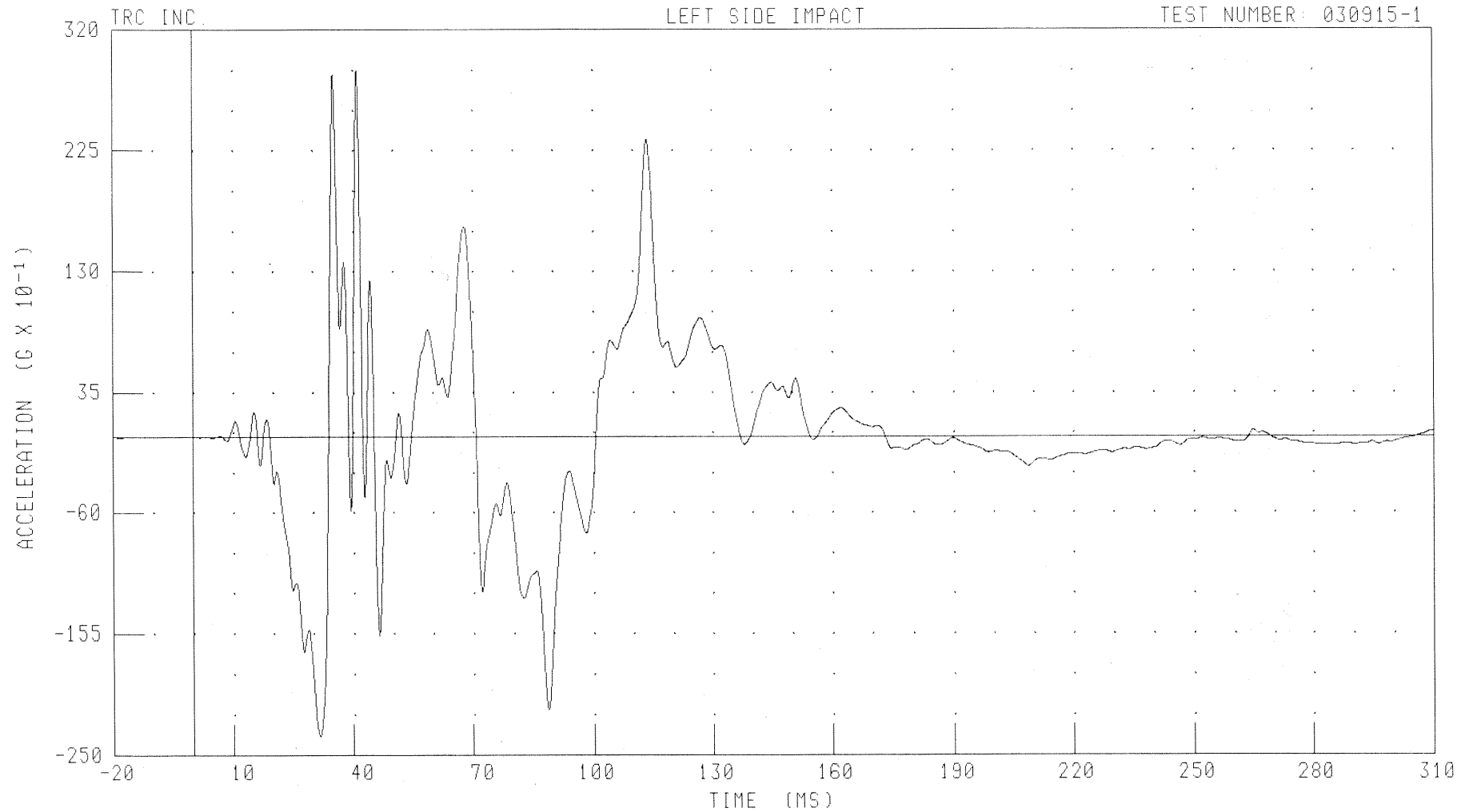
B-93

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



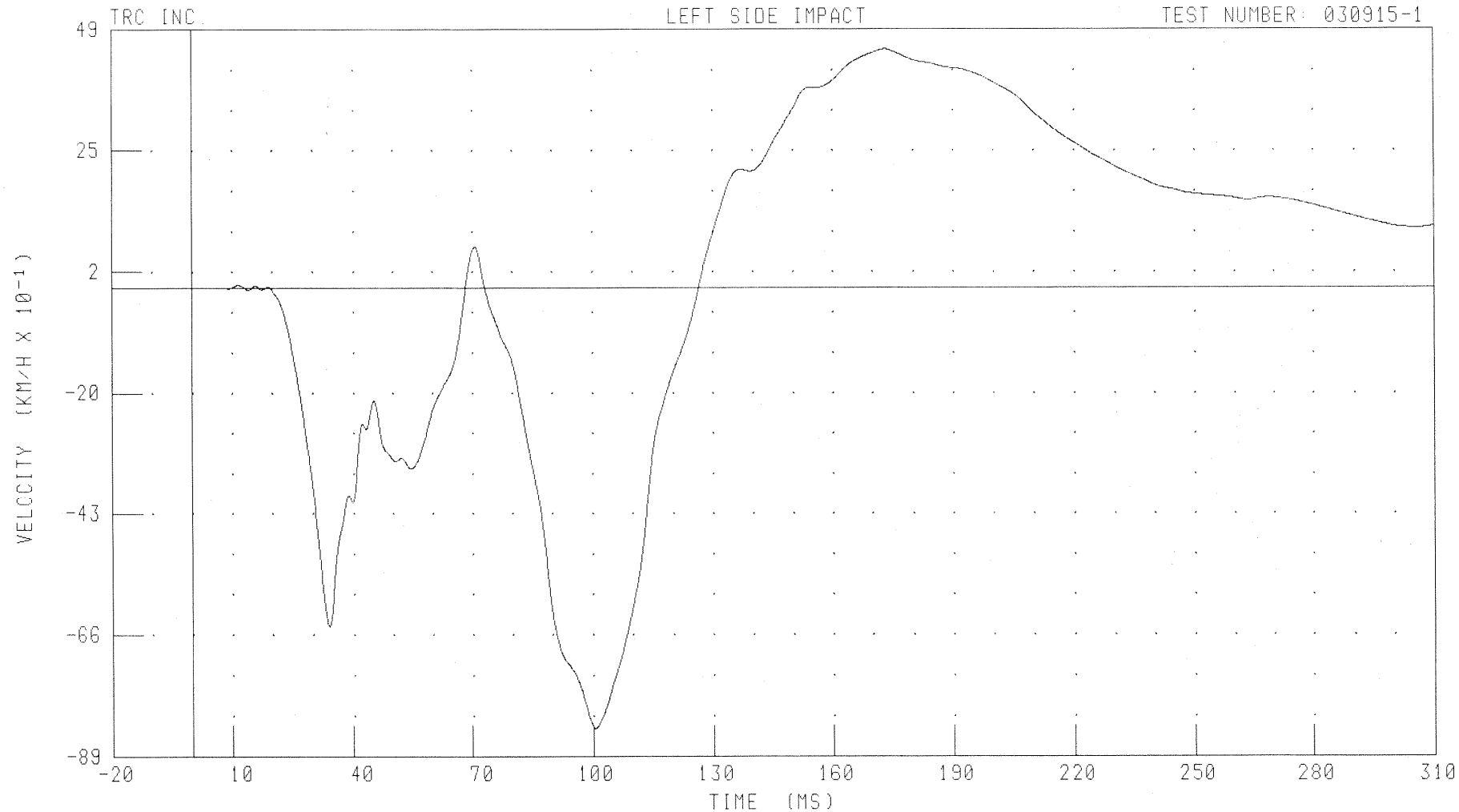
B-94

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2XV1 FILTER: CH. CLASS 180

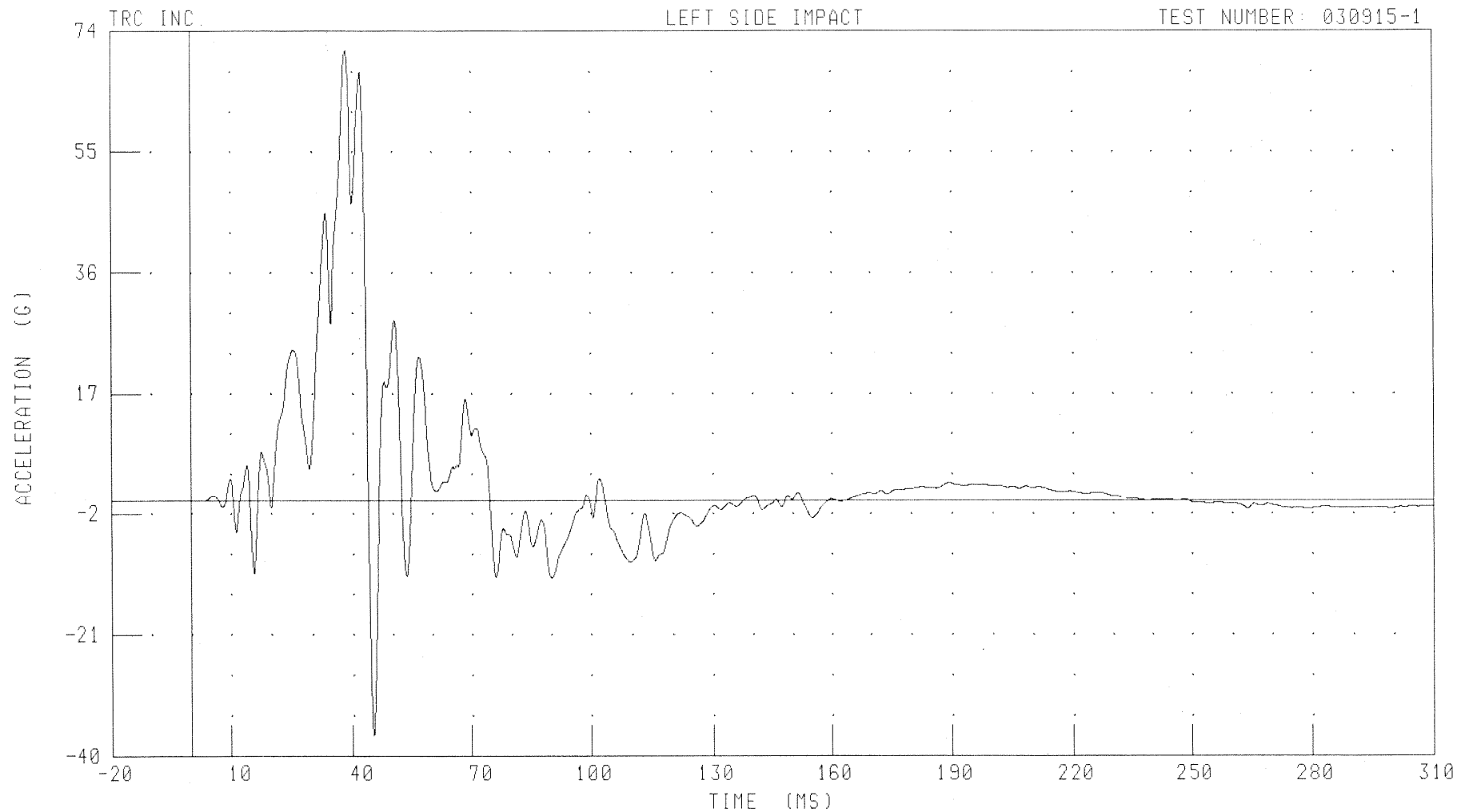
B-95

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YG1 FILTER: CH. CLASS 180

PEAK DATA: 70.91 G @ 38.56 MS; -36.87 G @ 45.04 MS

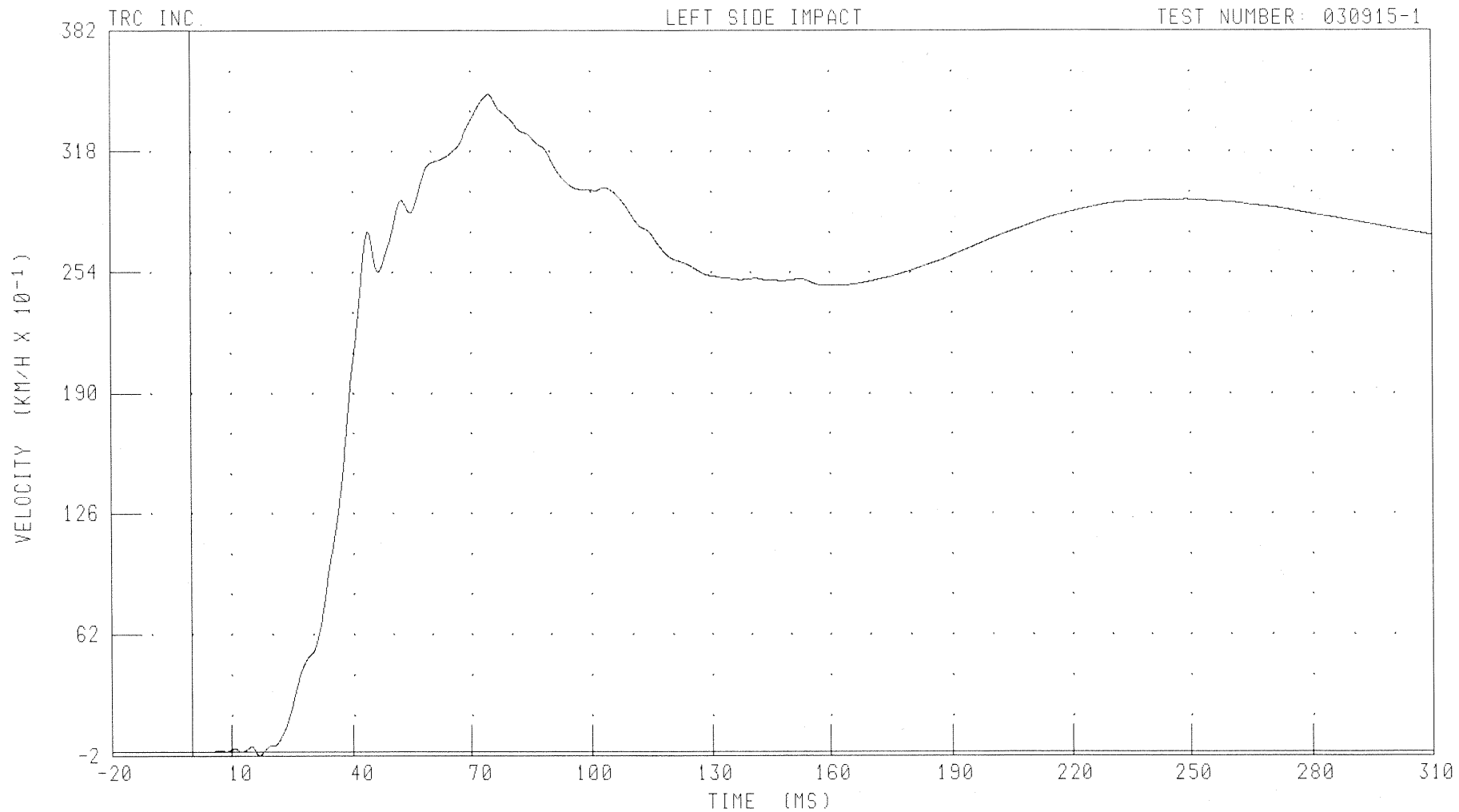
B-96

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YV1 FILTER: CH. CLASS 180

PEAK DATA: 34.83 KM/H @ 74.72 MS; -0.19 KM/H @ 16.80 MS

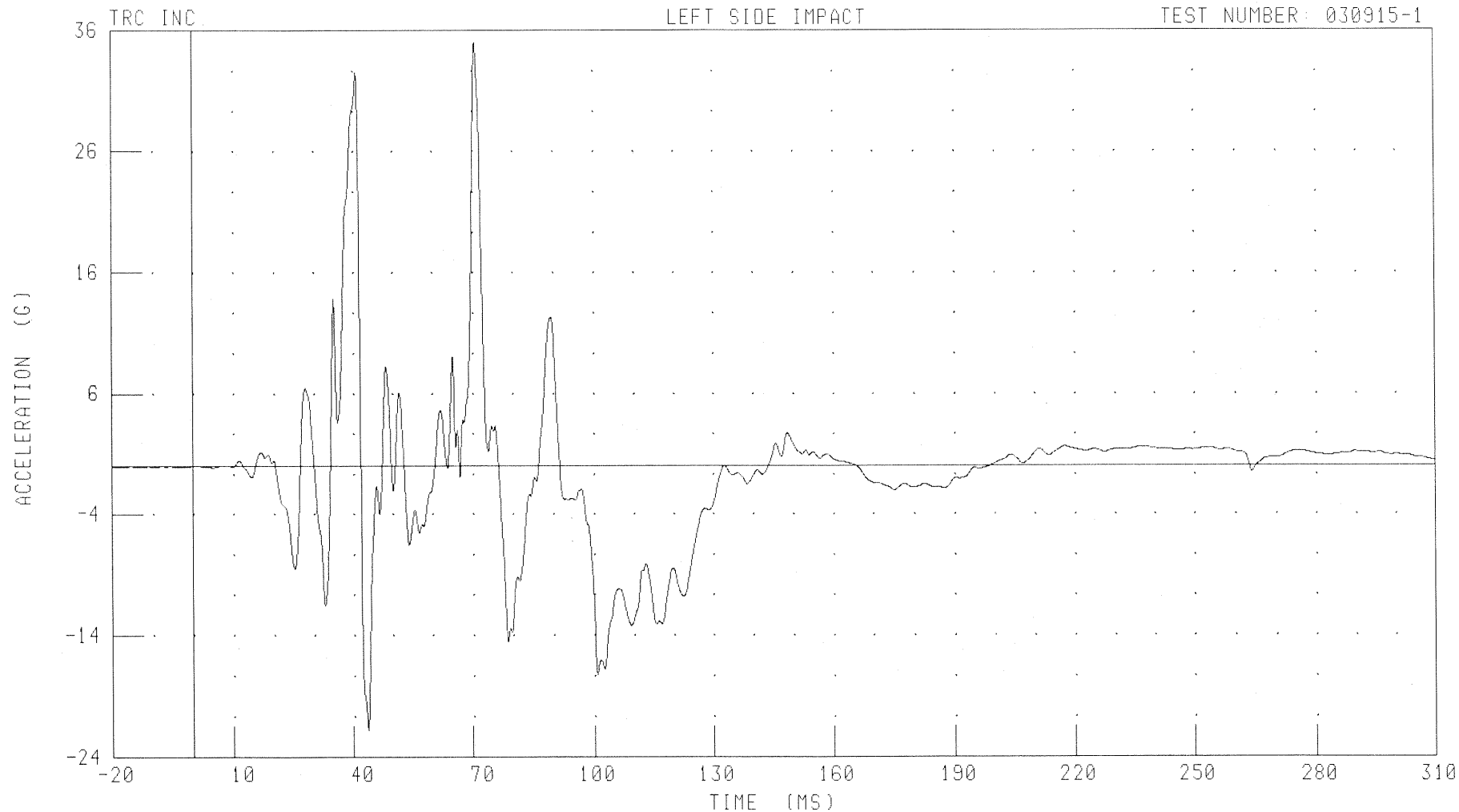
B-97

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZG1 FILTER: CH. CLASS 180

PEAK DATA: 35.03 G @ 70.80 MS, -21.82 G @ 43.68 MS

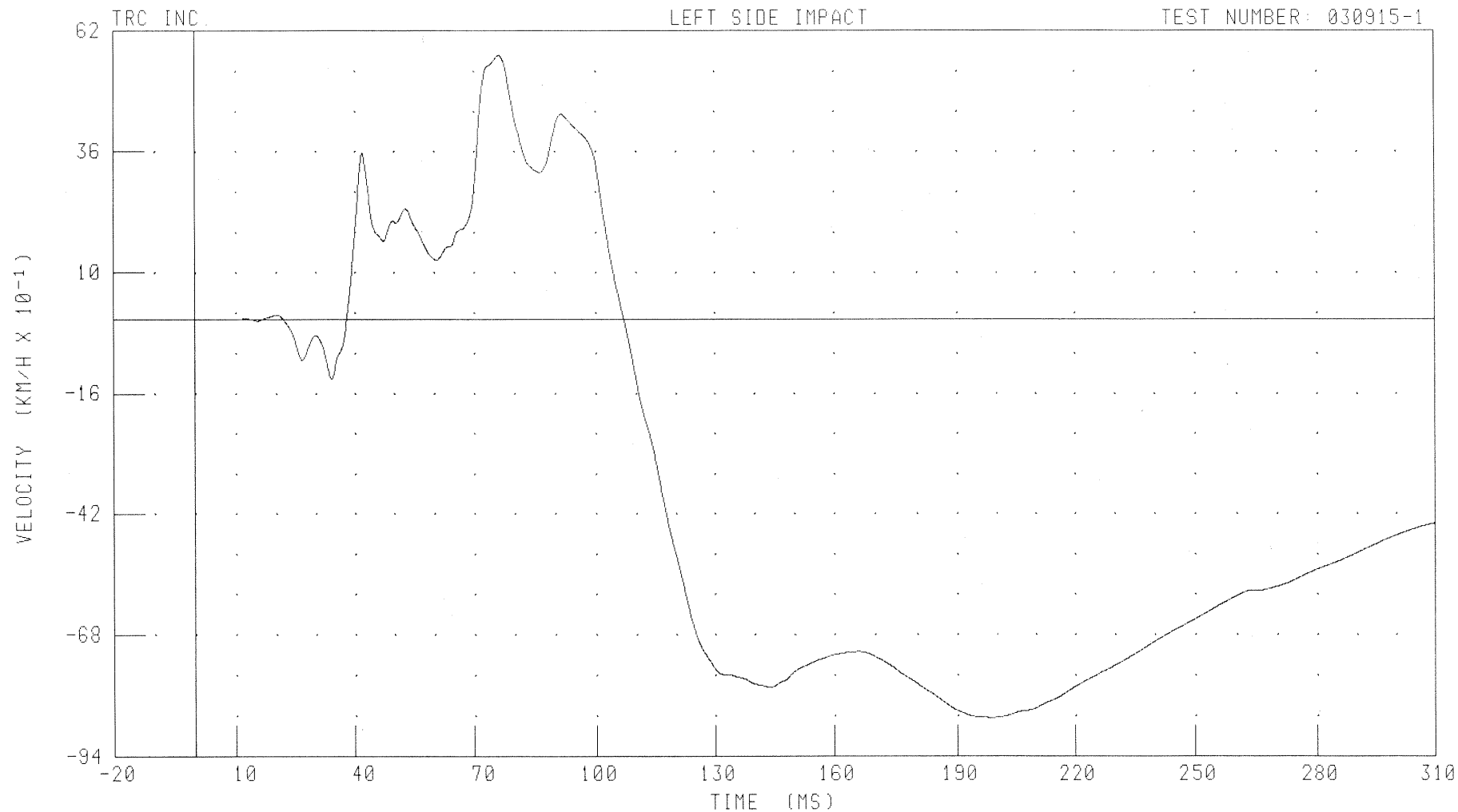
B-98

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZV1 FILTER: CH, CLASS 180

PEAK DATA: 5.67 KM/H @ 76.40 MS, -8.58 KM/H @ 198.64 MS

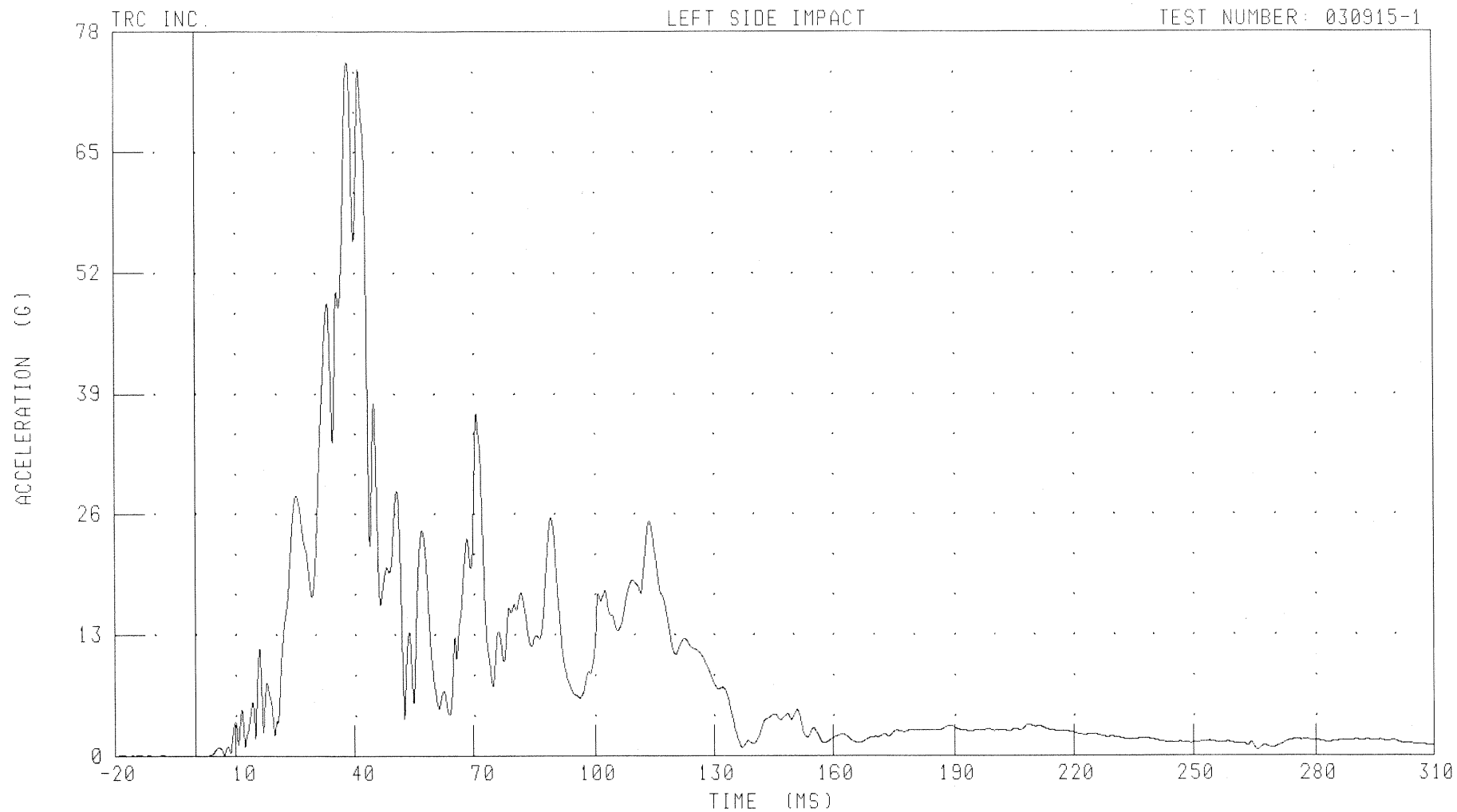
B-99

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2RG1 FILTER: CH. CLASS 180

PEAK DATA: 74.73 G @ 38.48 MS; 0.00 G @ -20.00 MS

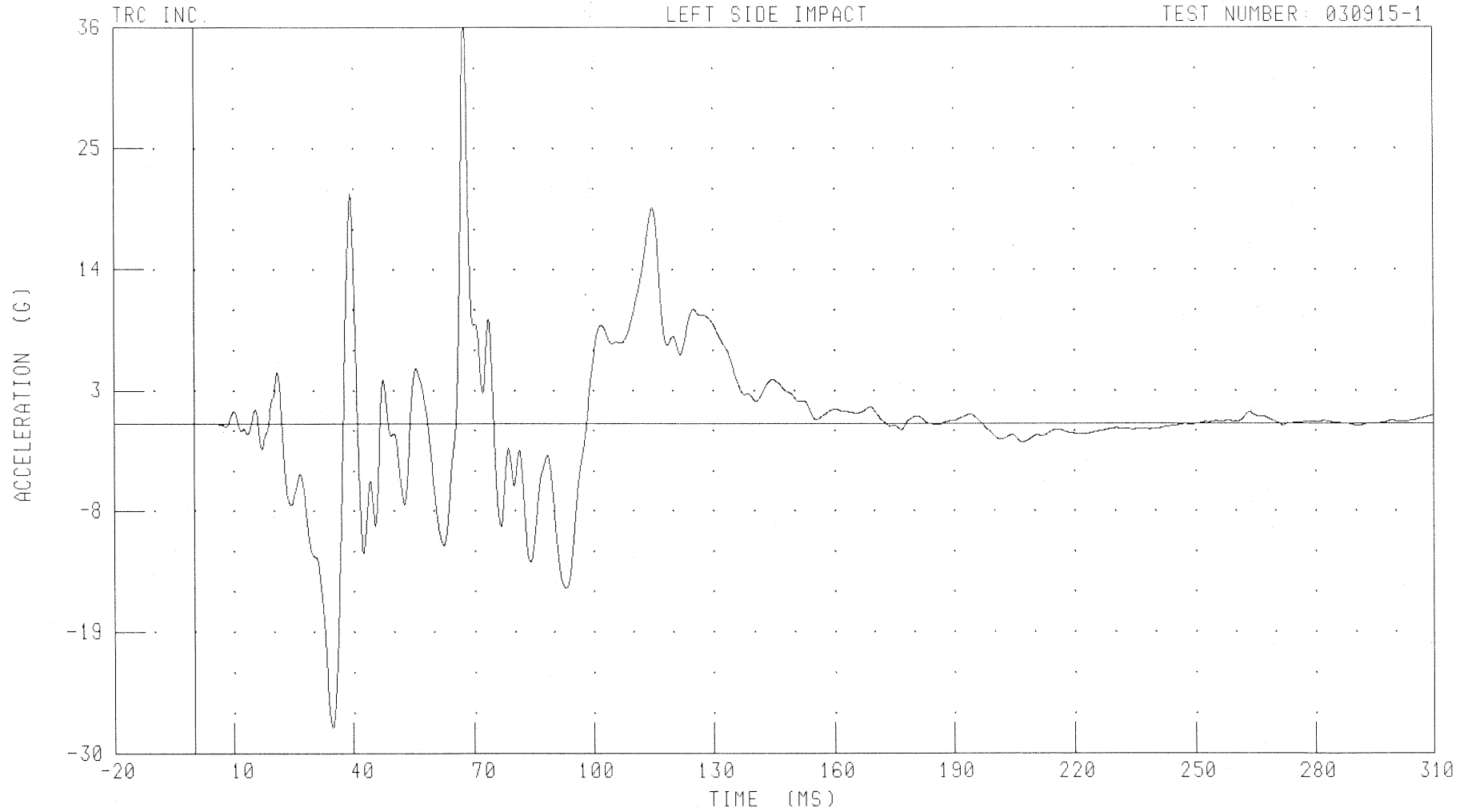
B-100

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XG1 FILTER: CH. CLASS 180

PEAK DATA: 36.89 G @ 67.68 MS; -27.67 G @ 34.80 MS

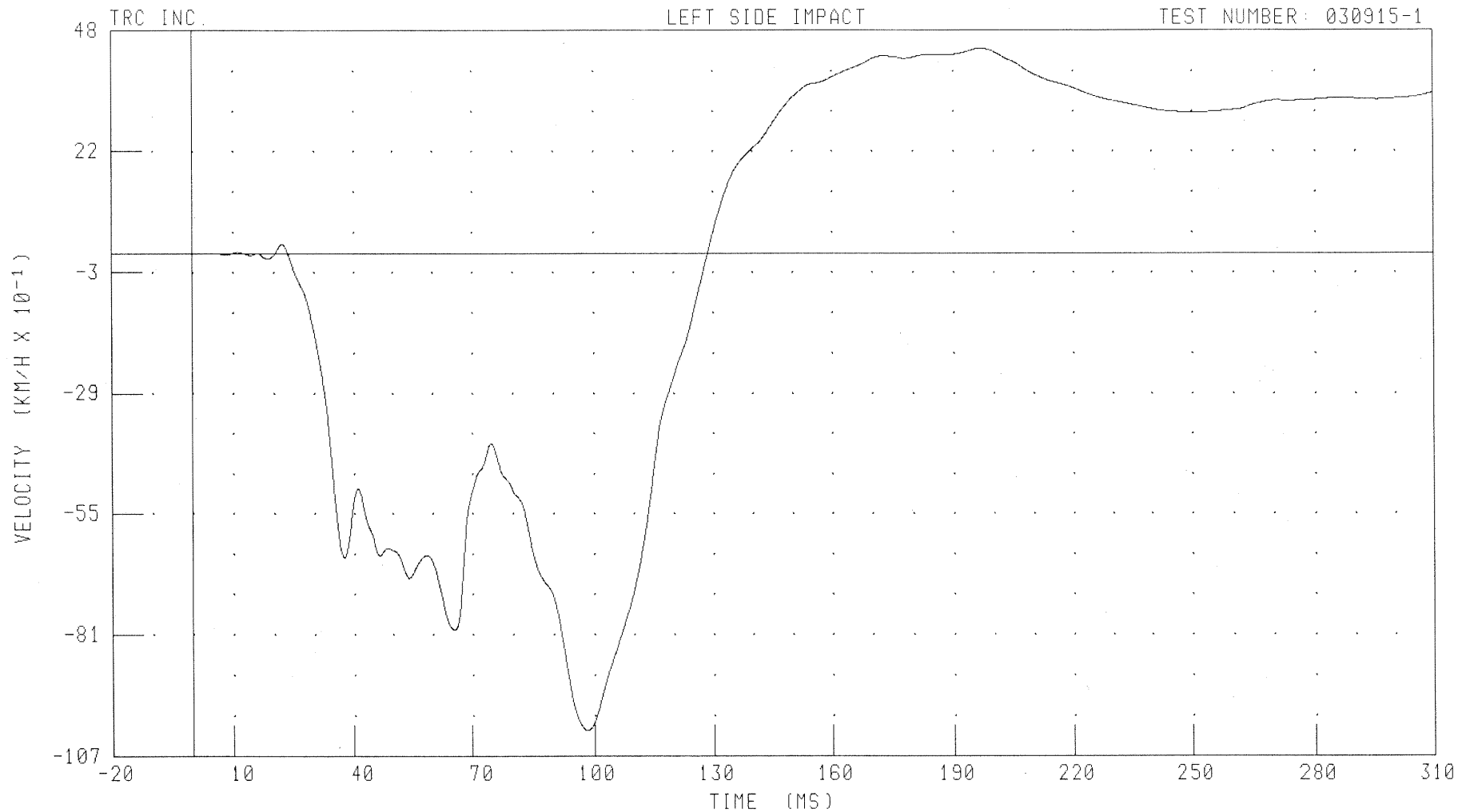
B-101

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XV1 FILTER: CH. CLASS 180

PEAK DATA: 4.41 KM/H @ 197.12 MS; -10.26 KM/H @ 98.40 MS

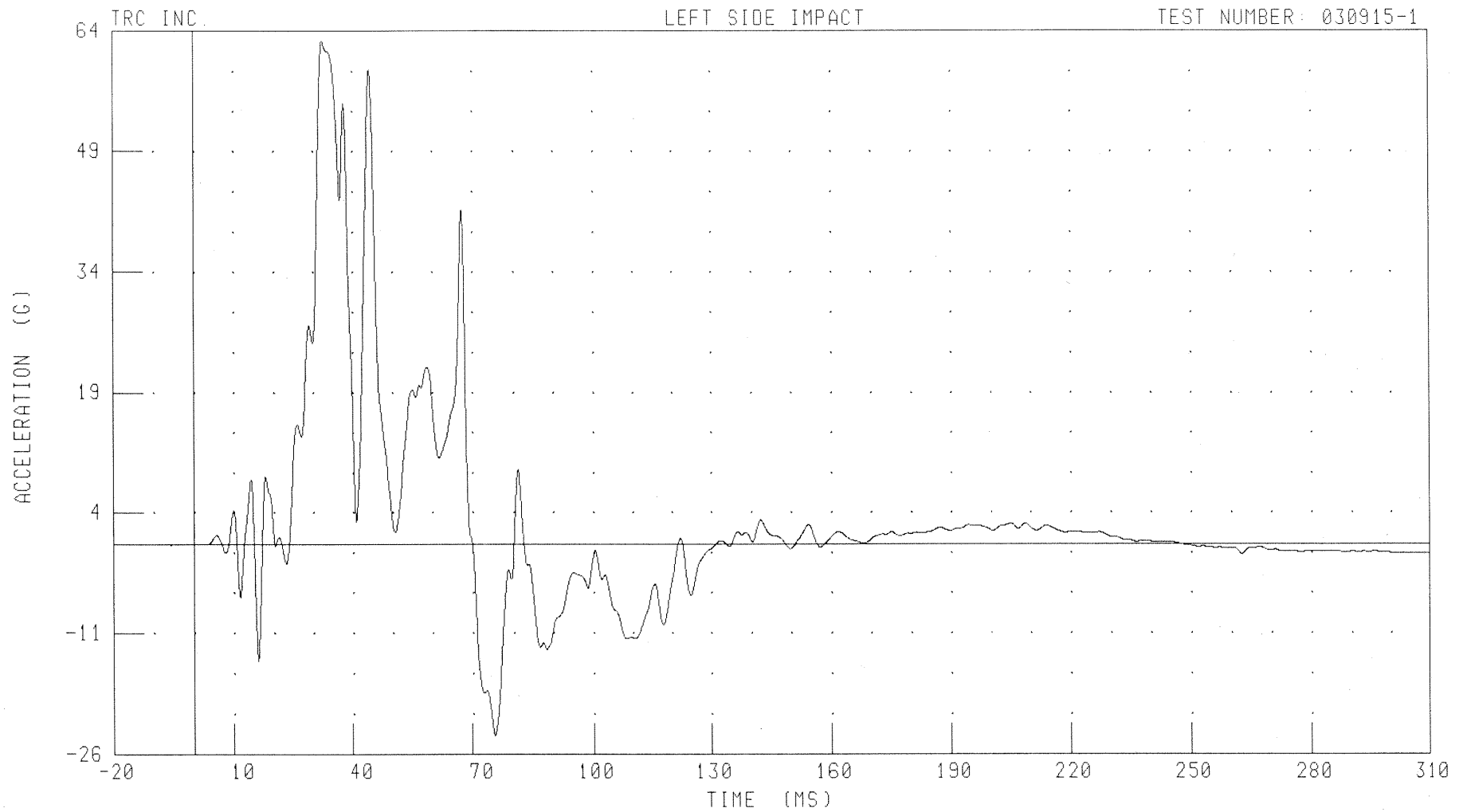
B-102

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YG1 FILTER: CH. CLASS 180

PEAK DATA: 62.77 G @ 32.56 MS; -23.69 G @ 75.52 MS

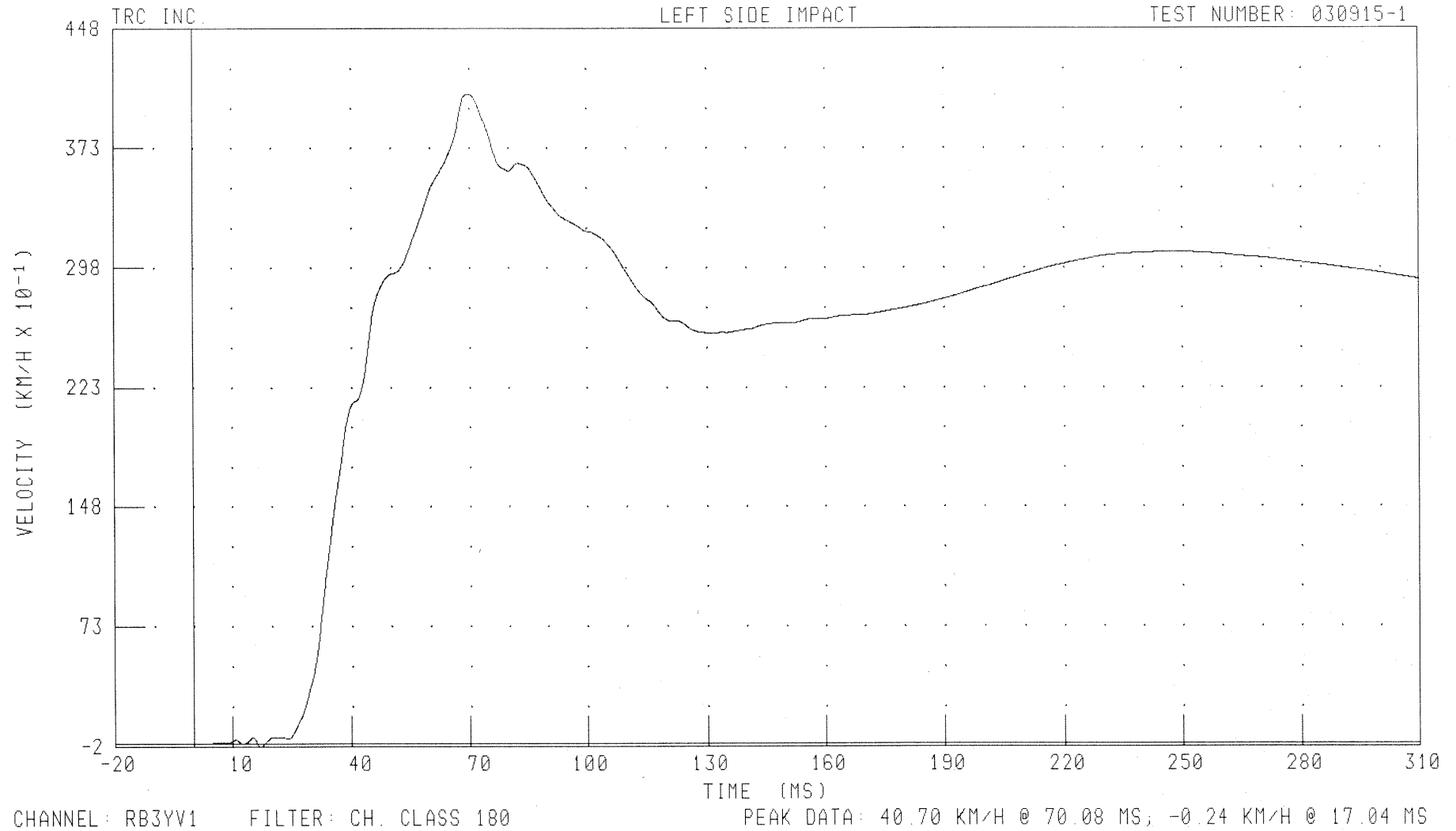
B-103

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



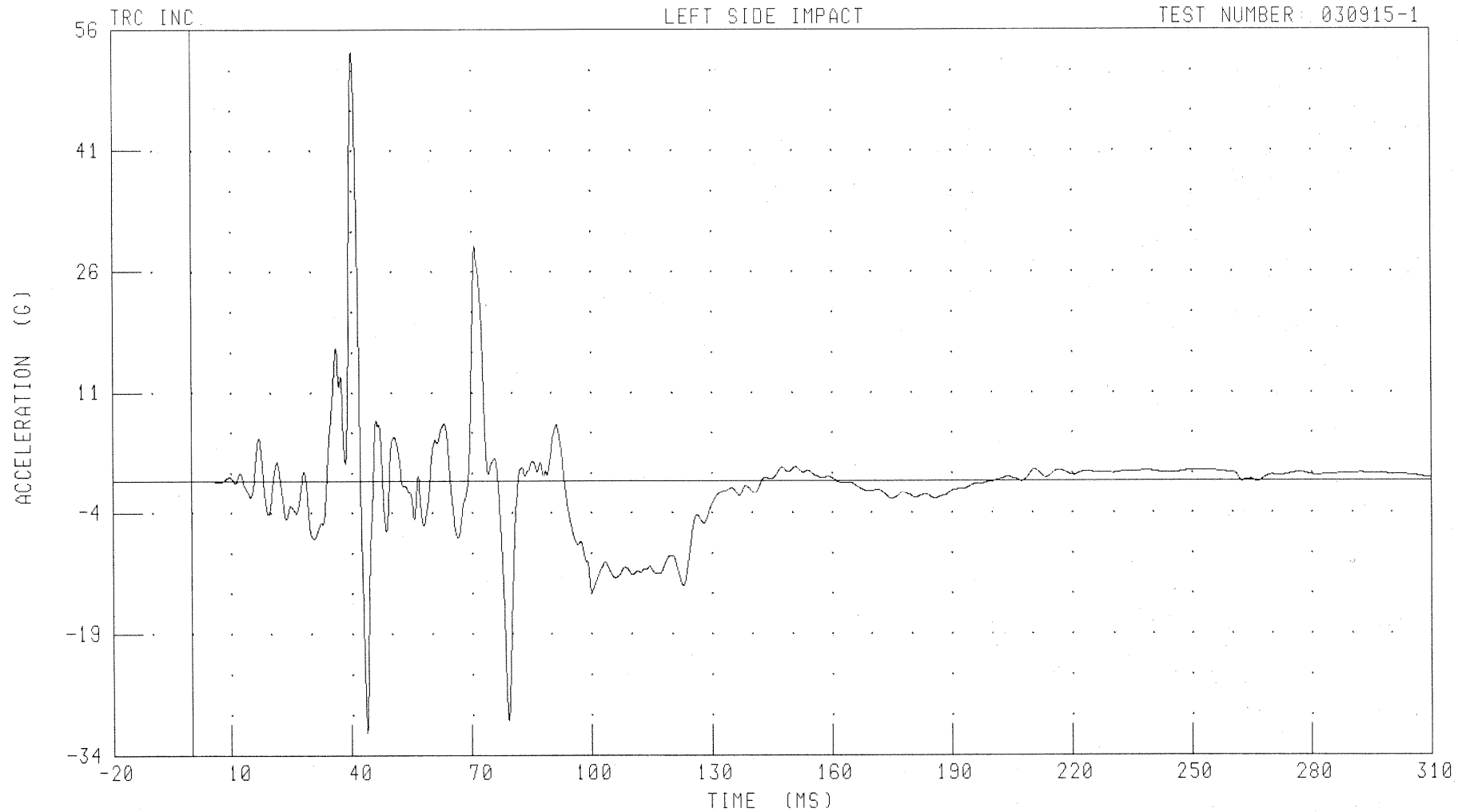
B-104

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZG1 FILTER: CH. CLASS 180

PEAK DATA: 53.22 G @ 40.32 MS; -31.19 G @ 43.76 MS

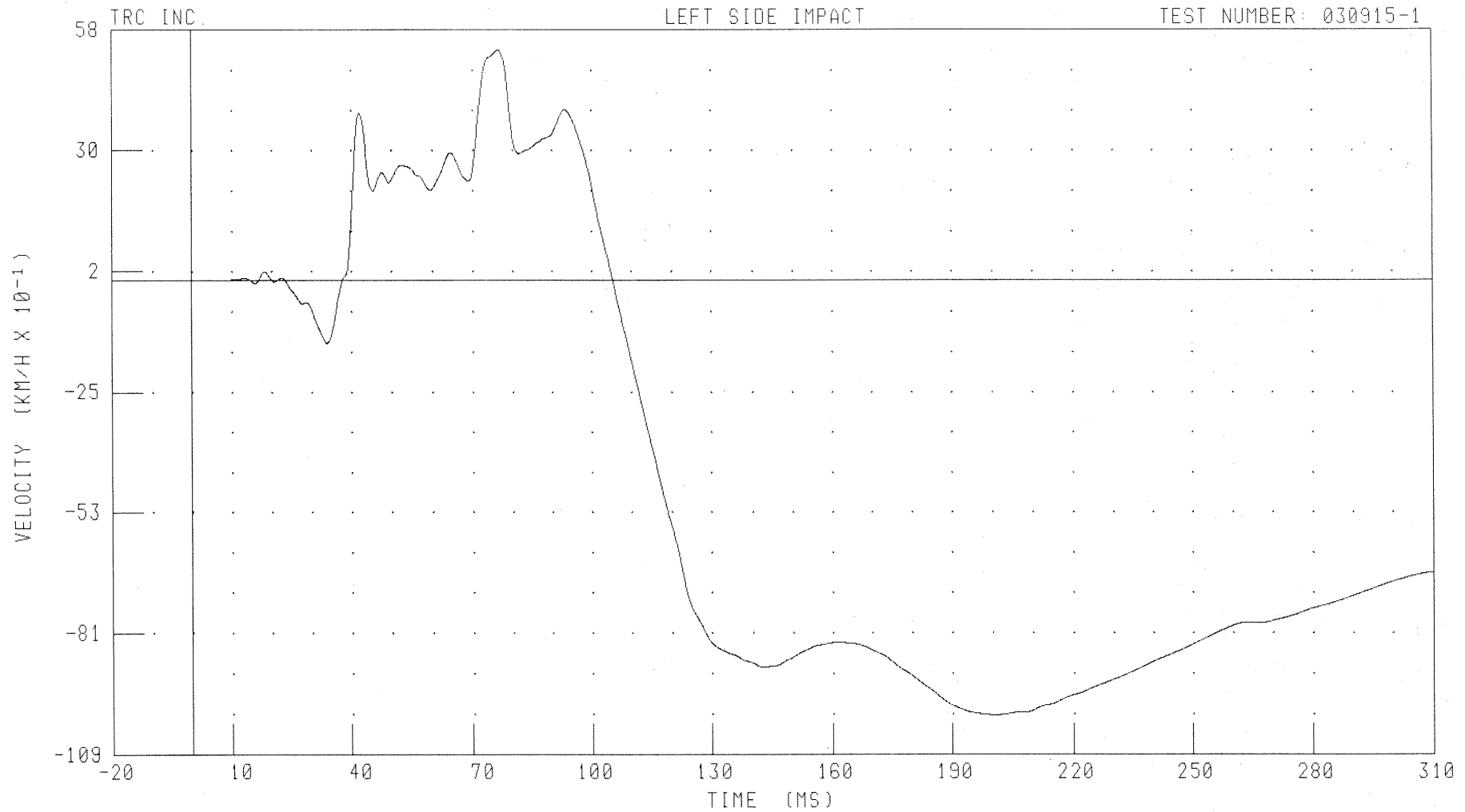
B-105

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZV1 FILTER: CH. CLASS 180

PEAK DATA: 5.33 KM/H @ 76.64 MS, -10.09 KM/H @ 200.64 MS

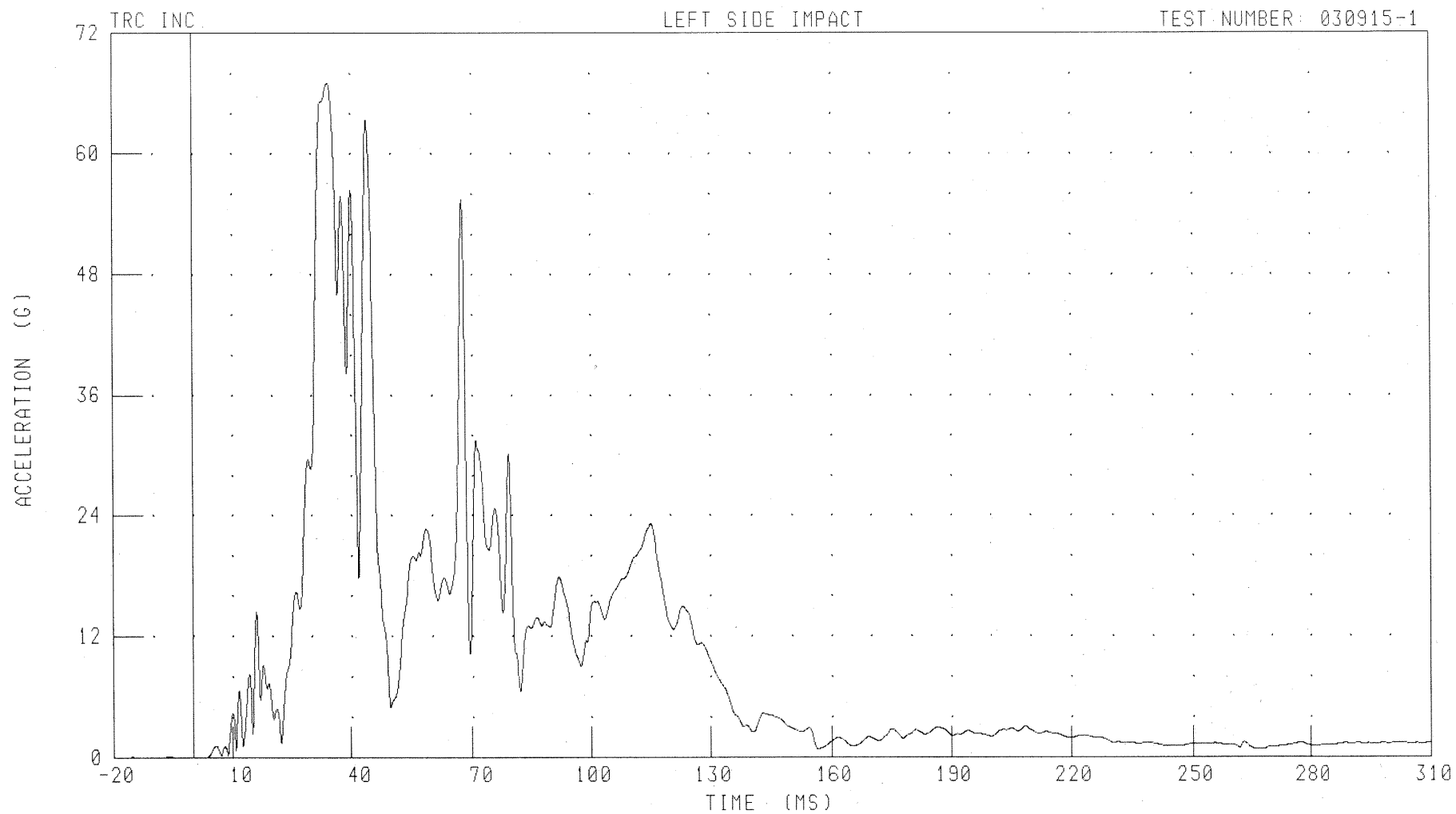
B-106

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3. RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3RG1

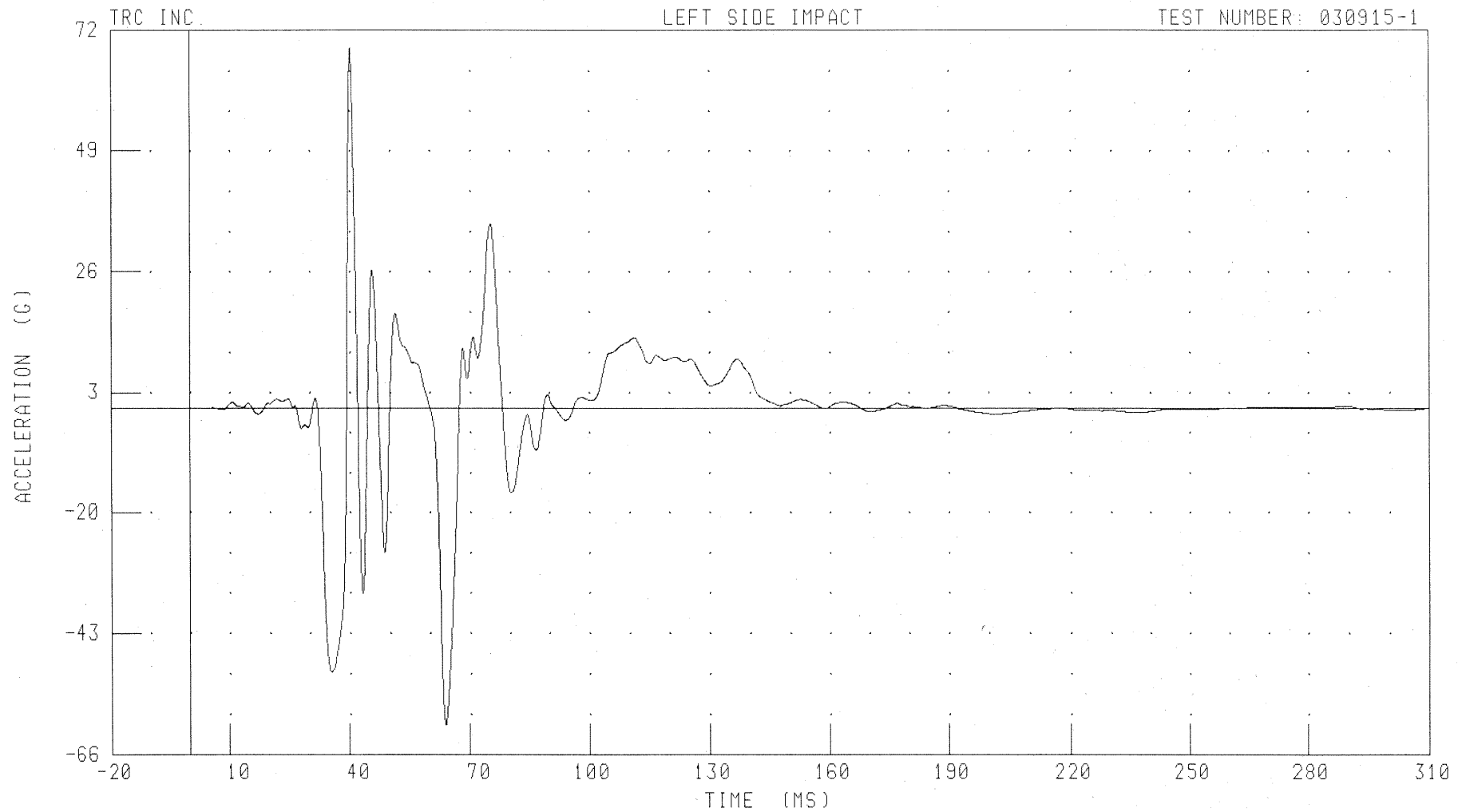
FILTER: CH. CLASS 180

PEAK DATA: 67.07 G @ 34.40 MS; 0.00 G @ -20.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMIN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XC1 FILTER: CH. CLASS 180

PEAK DATA: 68.64 G @ 40.32 MS, -60.44 G @ 63.92 MS

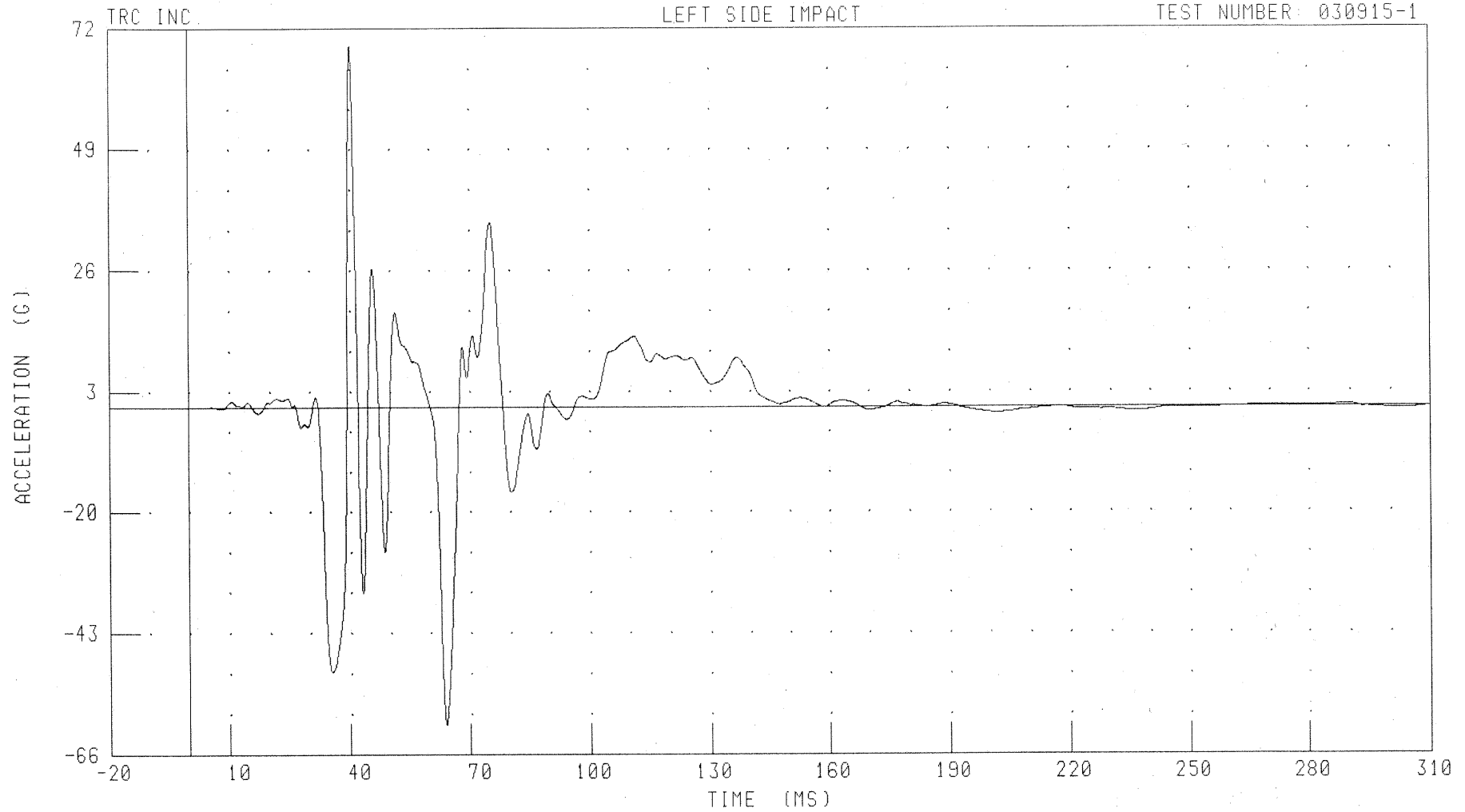
B-108

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XG1 FILTER: CH. CLASS 180

PEAK DATA: 68.64 G @ 40.32 MS, -60.44 G @ 63.92 MS

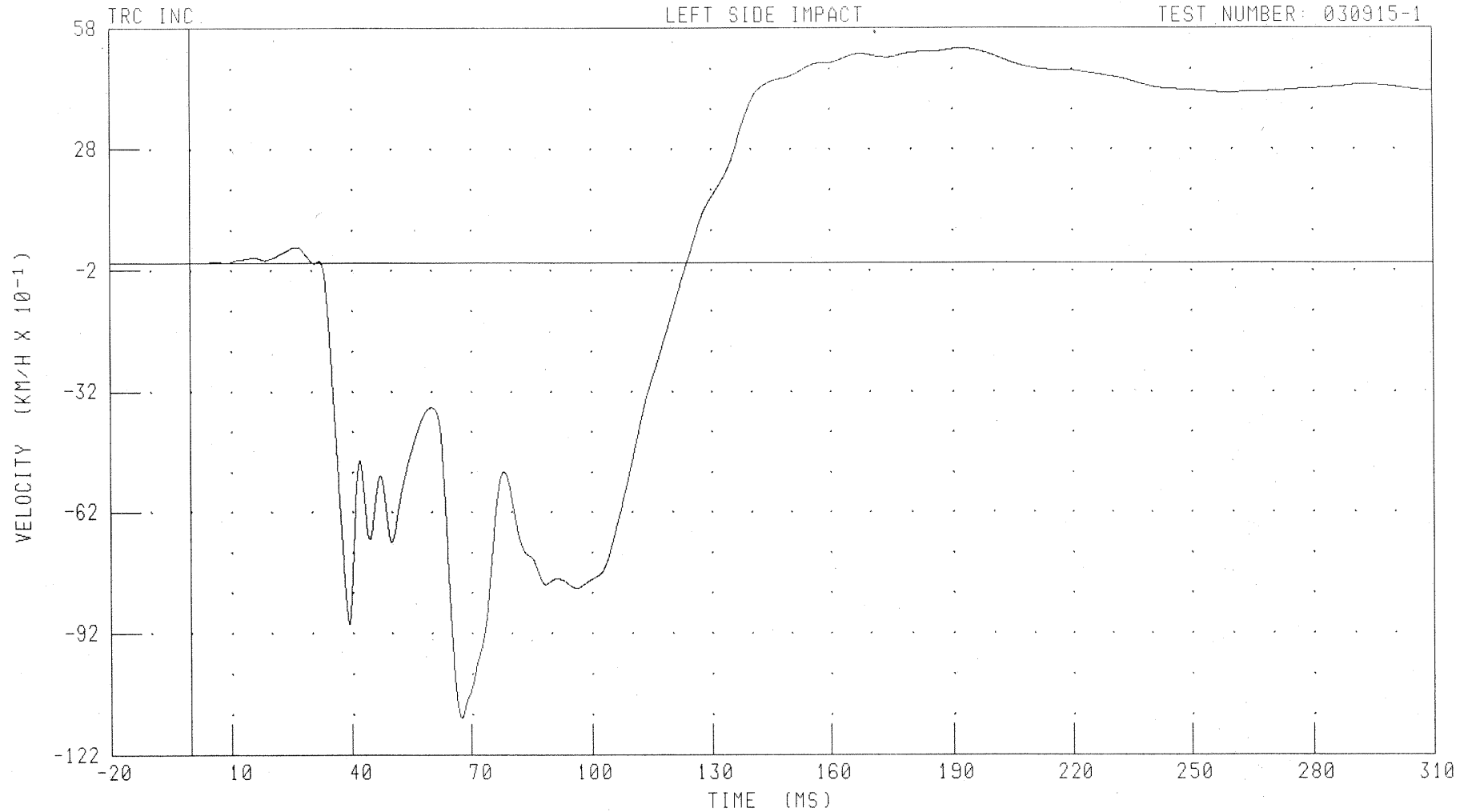
B-109

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XV1 FILTER: CH. CLASS 180

PEAK DATA: 5.30 KM/H @ 192.32 MS, -11.29 KM/H @ 67.44 MS

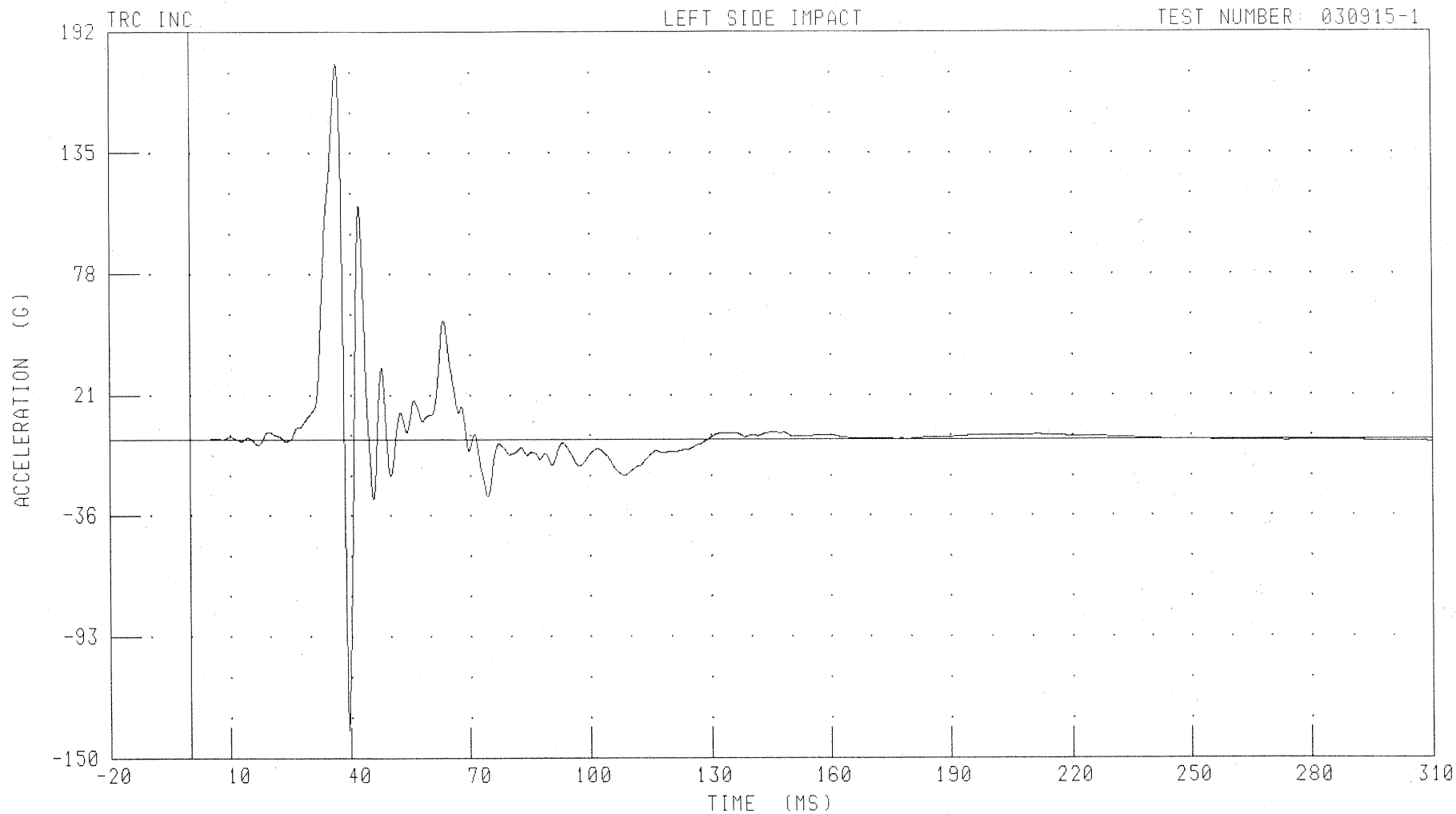
B-110

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YG1 FILTER: CH. CLASS 180

PEAK DATA: 177.15 G @ 36.64 MS; -137.17 G @ 39.44 MS

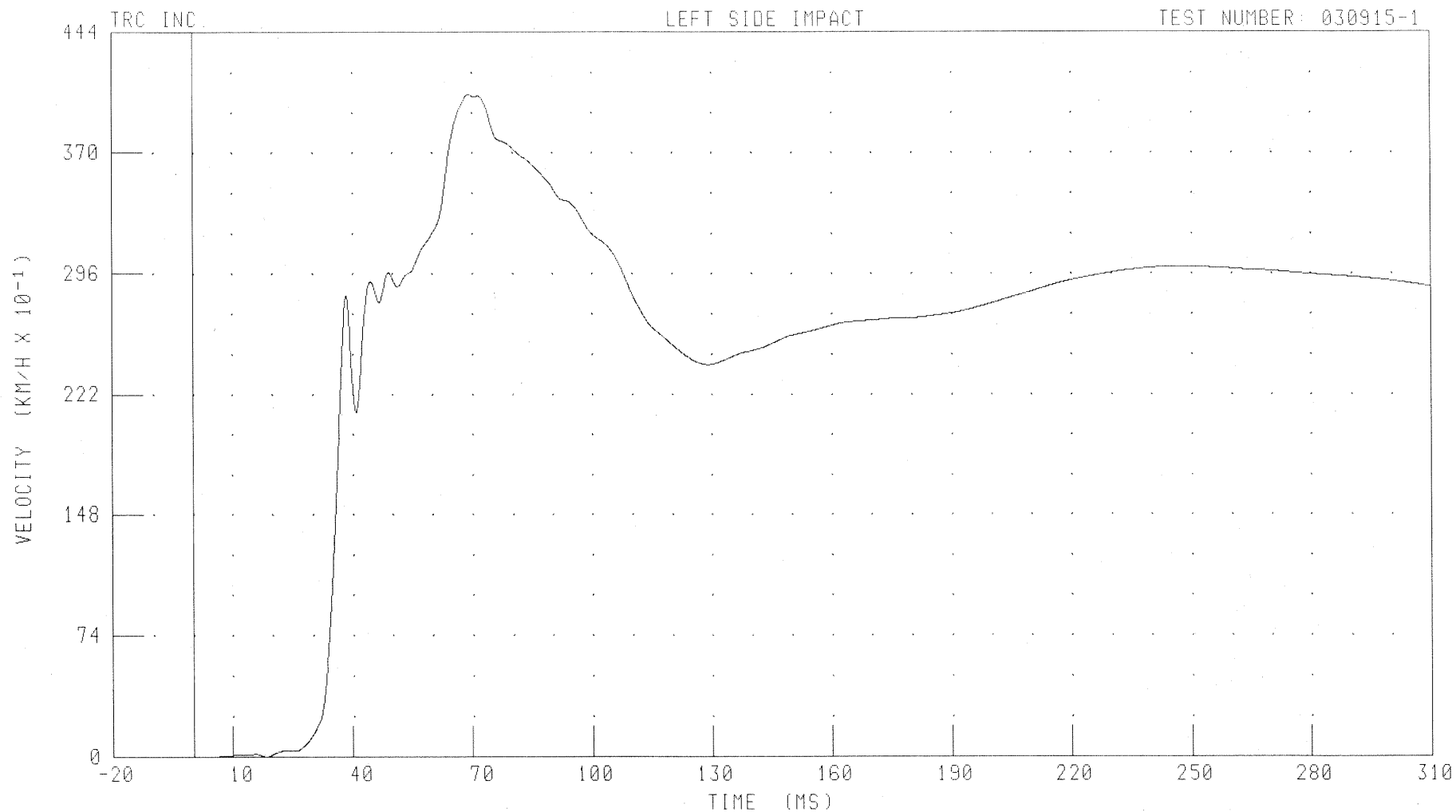
B-111

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YV1 FILTER: CH. CLASS 180

PEAK DATA: 40.62 KM/H @ 69.20 MS; 0.00 KM/H @ 0.32 MS

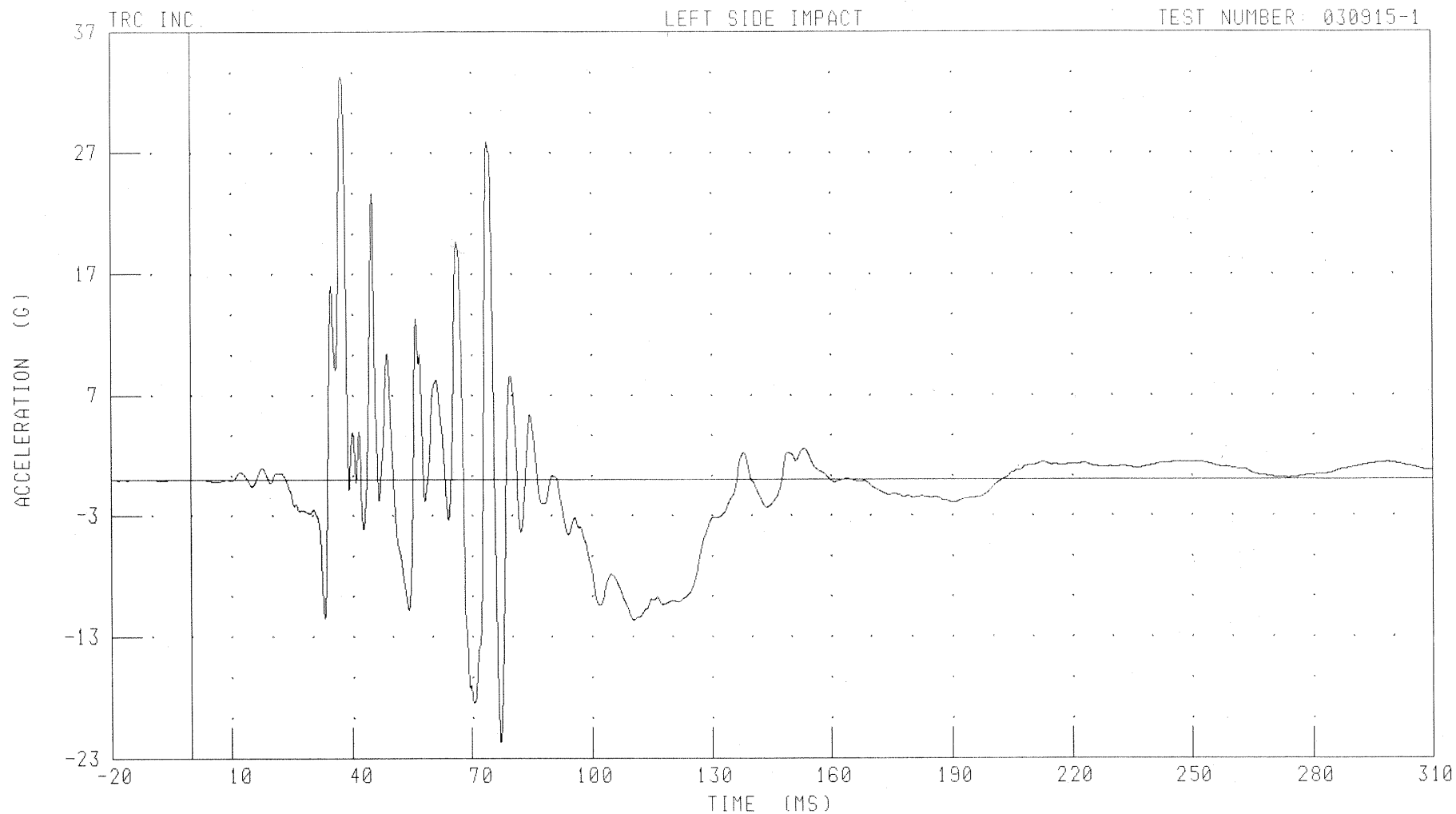
B-112

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZG1 FILTER: CH. CLASS 180

PEAK DATA: 33.33 G @ 37.36 MS; -21.69 G @ 77.20 MS

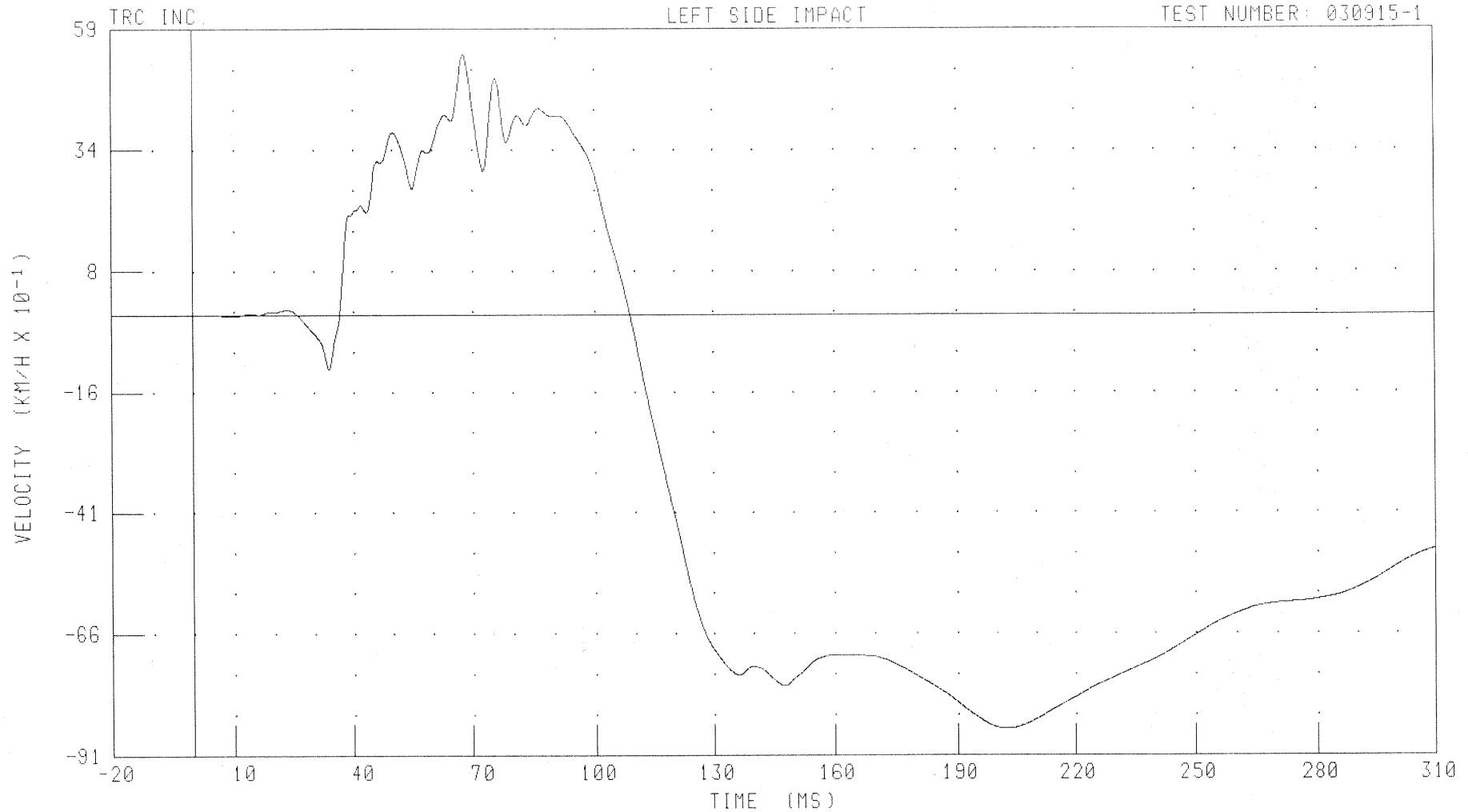
B-113

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZV1

FILTER: CH. CLASS 180

PEAK DATA: 5.38 KM/H @ 68.00 MS, -8.56 KM/H @ 202.40 MS

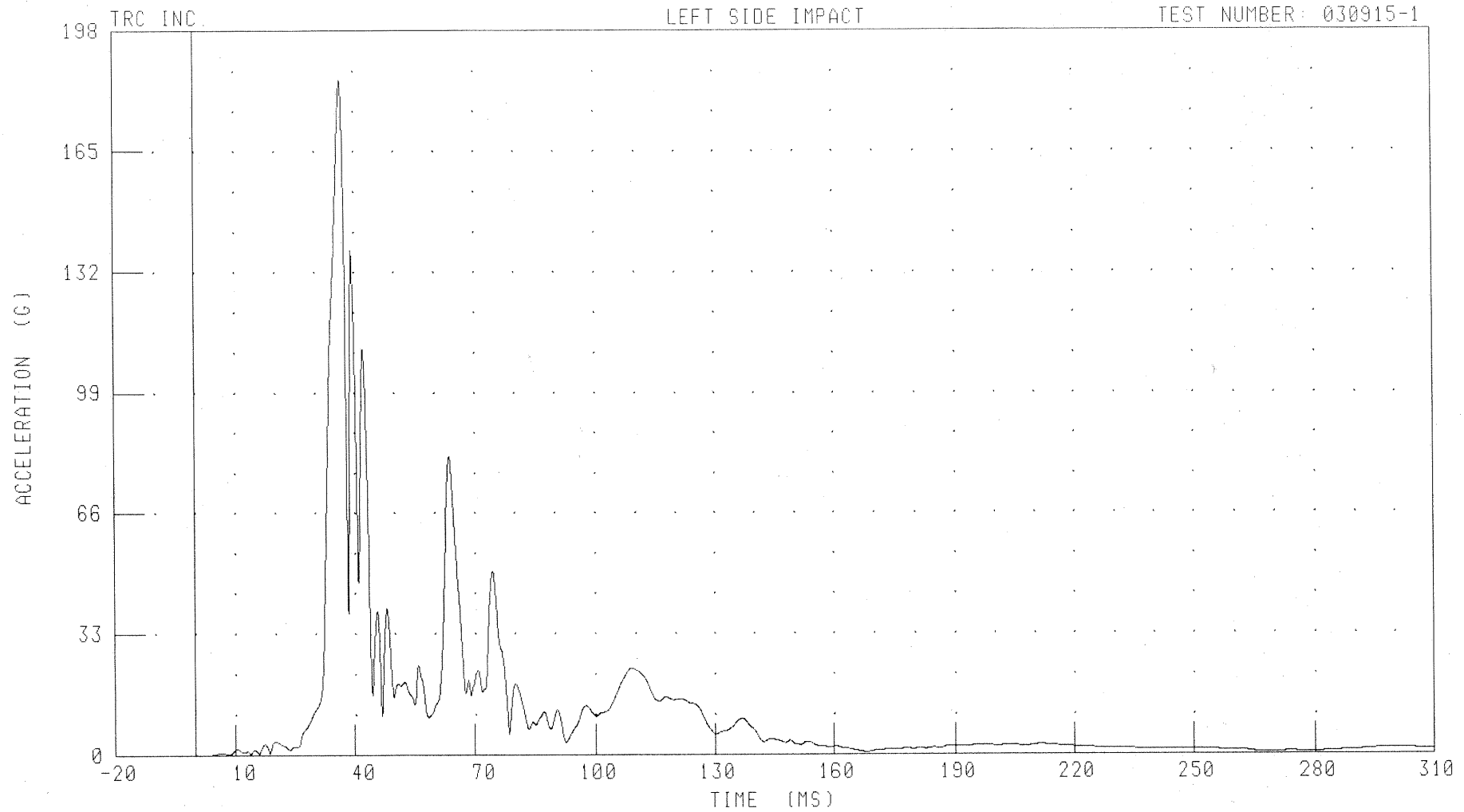
B-114

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4RG1

FILTER: CH. CLASS 180

PEAK DATA: 184.76 G @ 36.72 MS; 0.00 G @ -9.36 MS

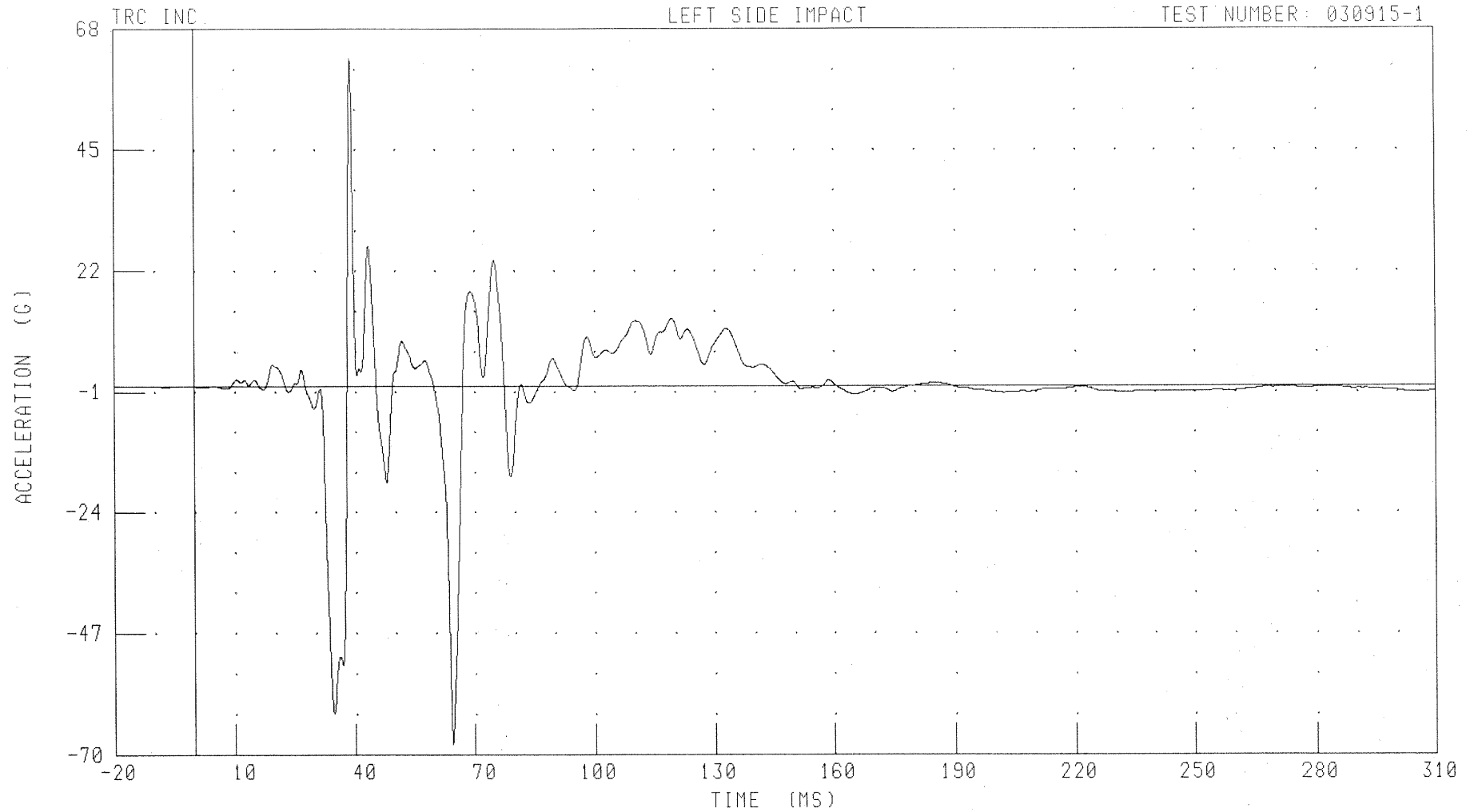
B-115

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XG1 FILTER: CH. CLASS 180

PEAK DATA: 62.46 G @ 38.96 MS; -68.12 G @ 64.16 MS

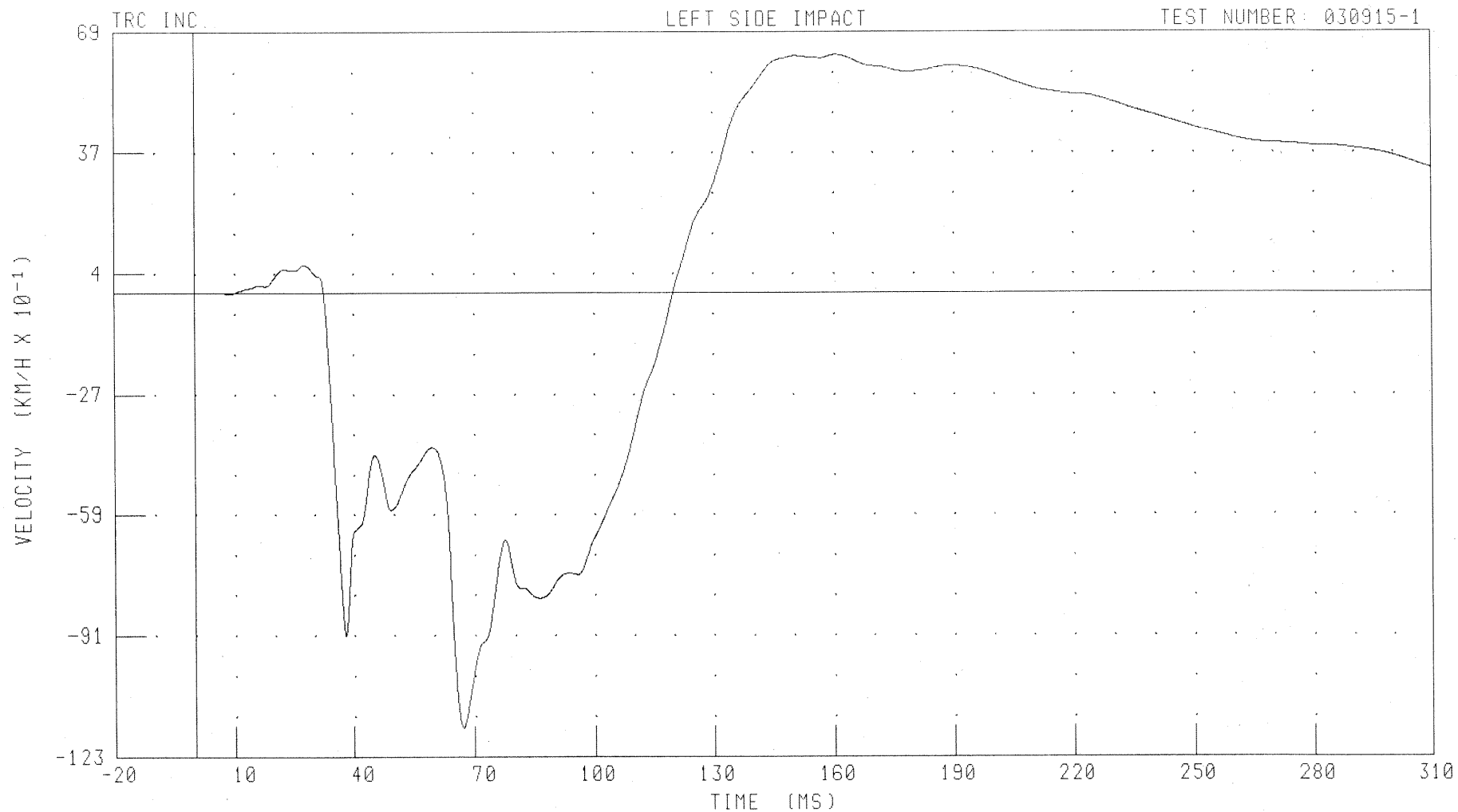
B-116

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XV1 FILTER: CH. CLASS 180

PEAK DATA: 6.30 KM/H @ 160.88 MS; -11.55 KM/H @ 67.12 MS

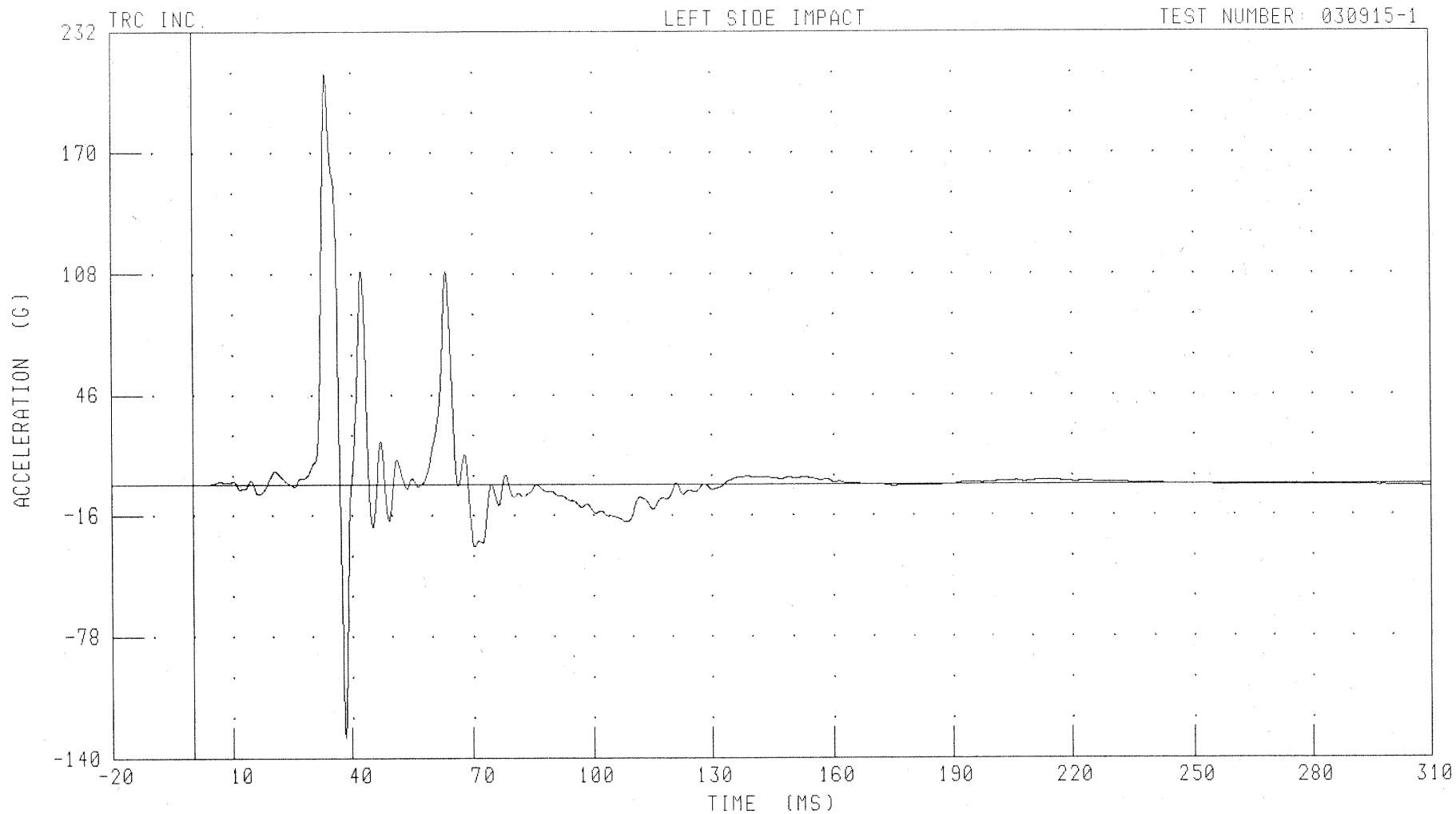
B-117

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YC1 FILTER: CH. CLASS 180

PEAK DATA: 210.46 G @ 33.68 MS; -129.33 G @ 38.40 MS

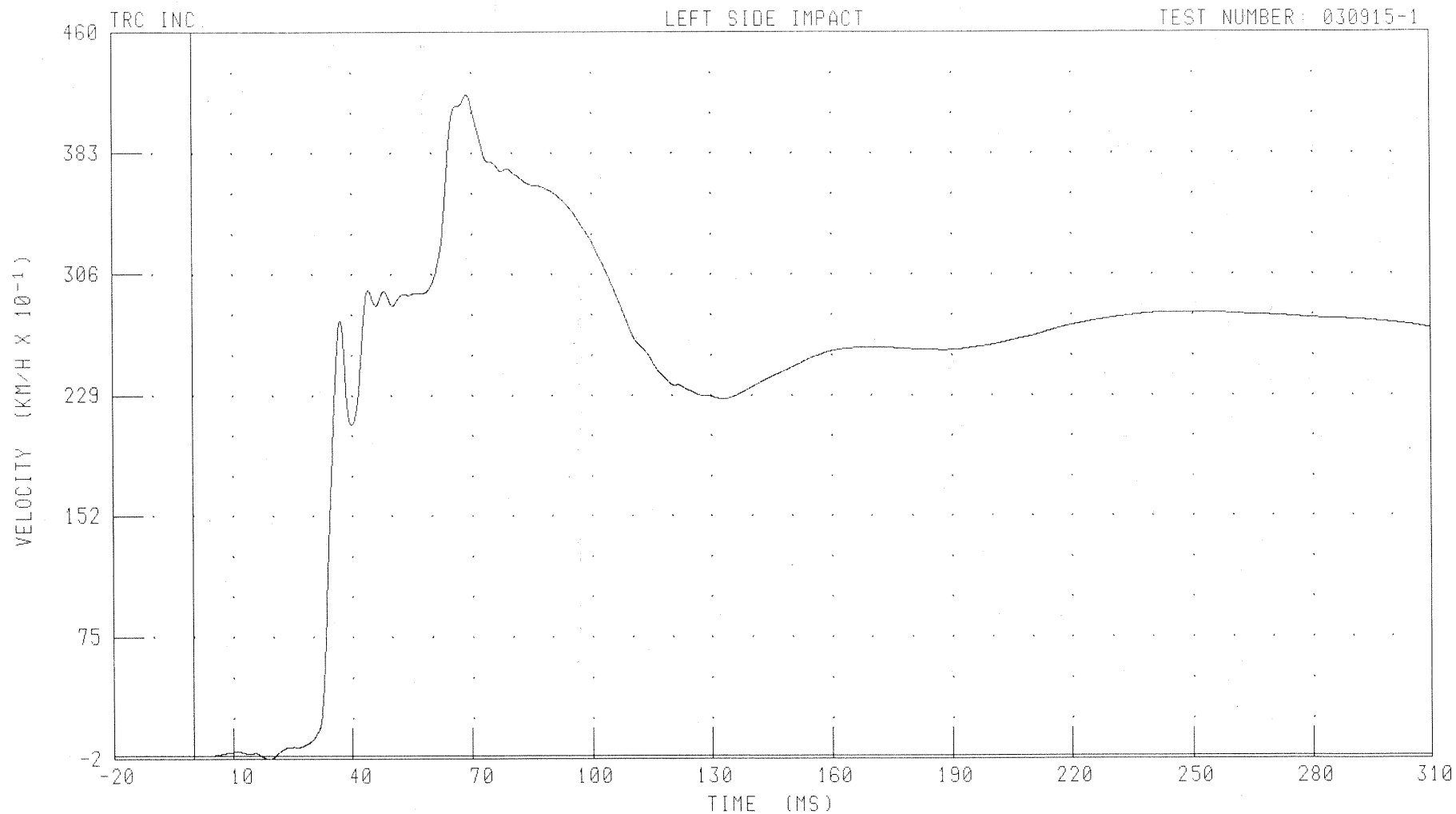
B-118

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YV1 FILTER: CH. CLASS 180

PEAK DATA: 42.03 KM/H @ 68.88 MS, -0.22 KM/H @ 18.80 MS

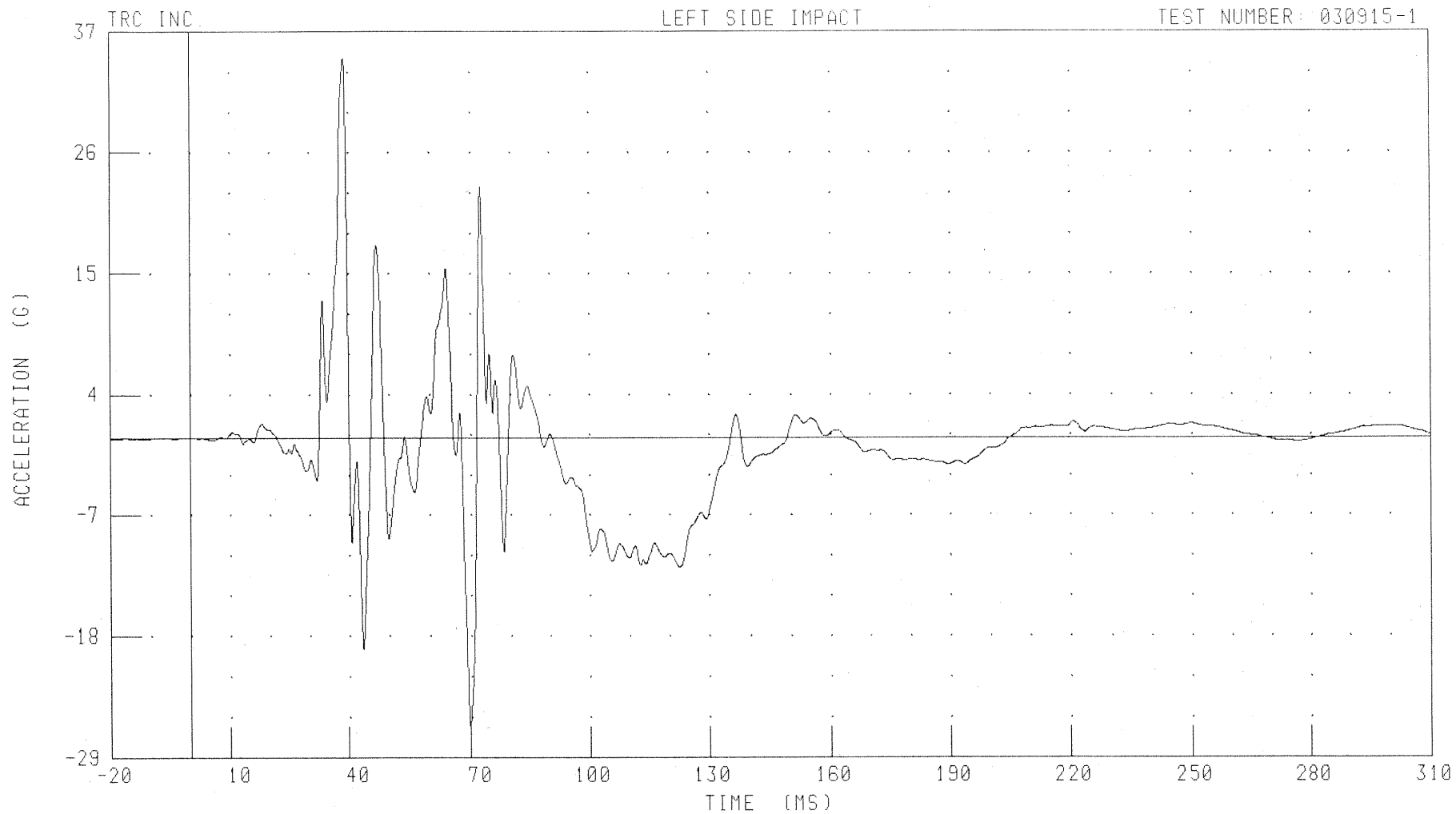
B-119

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZG1 FILTER: CH. CLASS 100

PEAK DATA: 34.60 G @ 39.12 MS, -26.39 G @ 69.84 MS

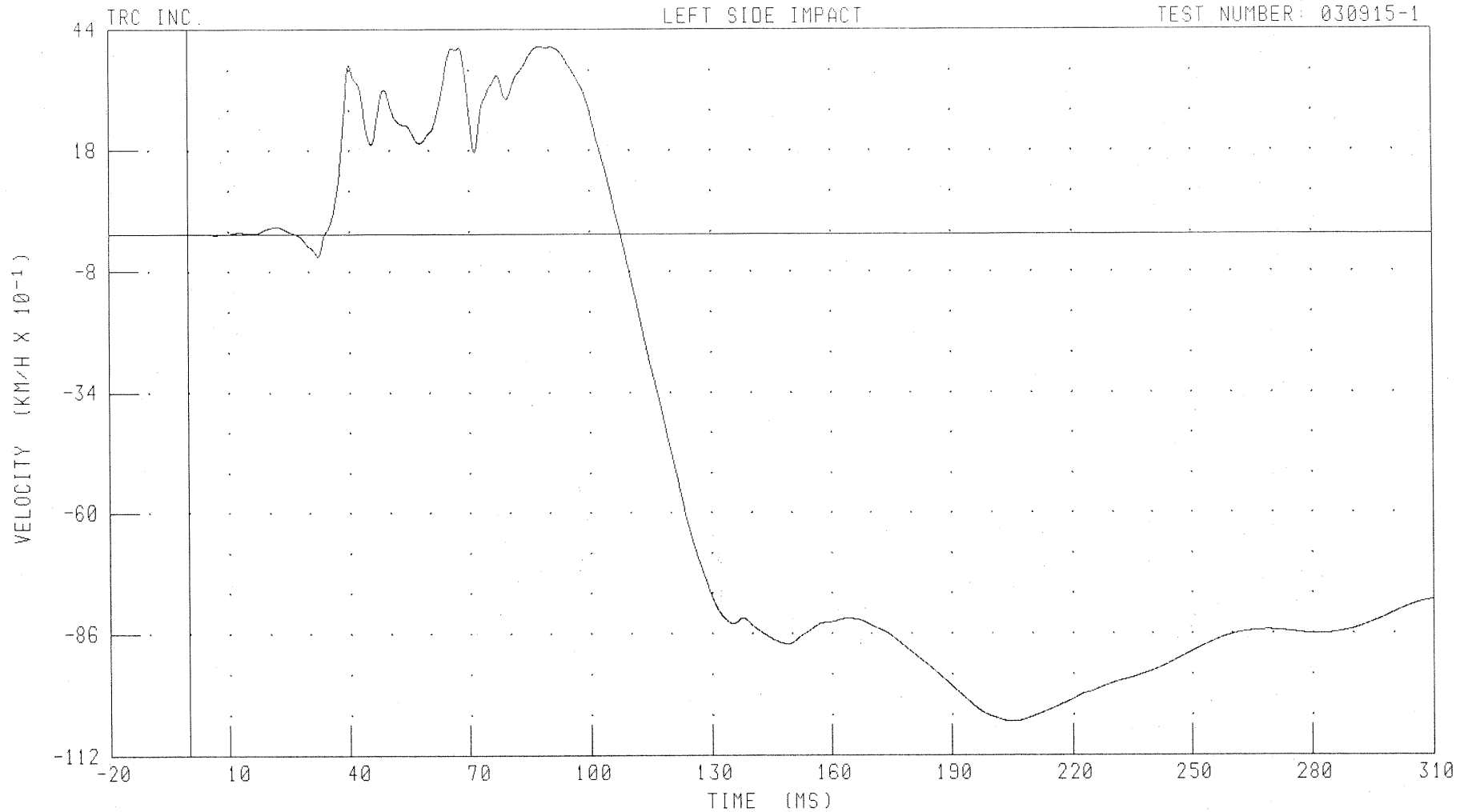
B-120

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZV1 FILTER: CH. CLASS 100

PEAK DATA: 4.04 KM/H @ 87.84 MS; -10.48 KM/H @ 204.72 MS

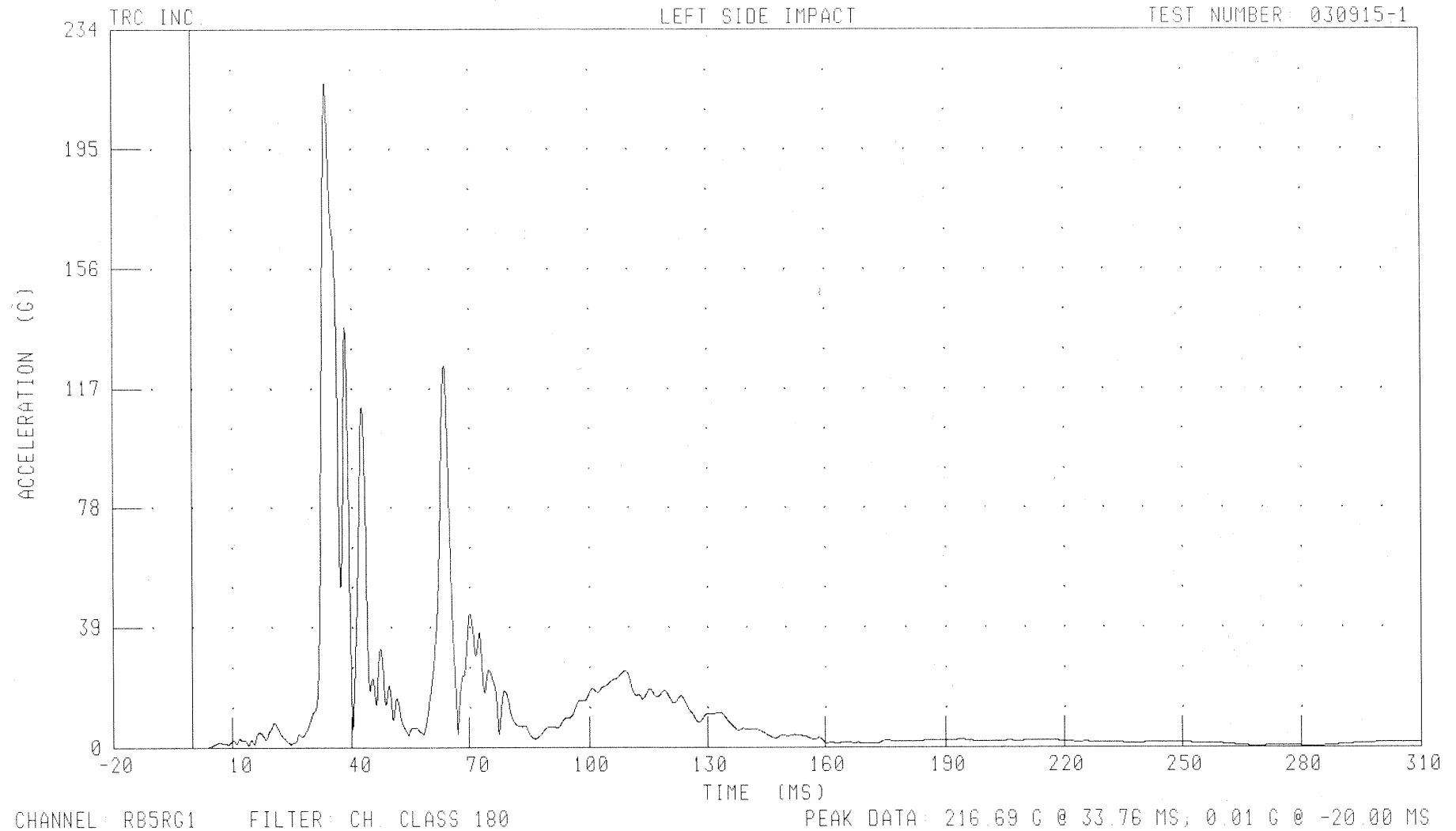
B-121

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



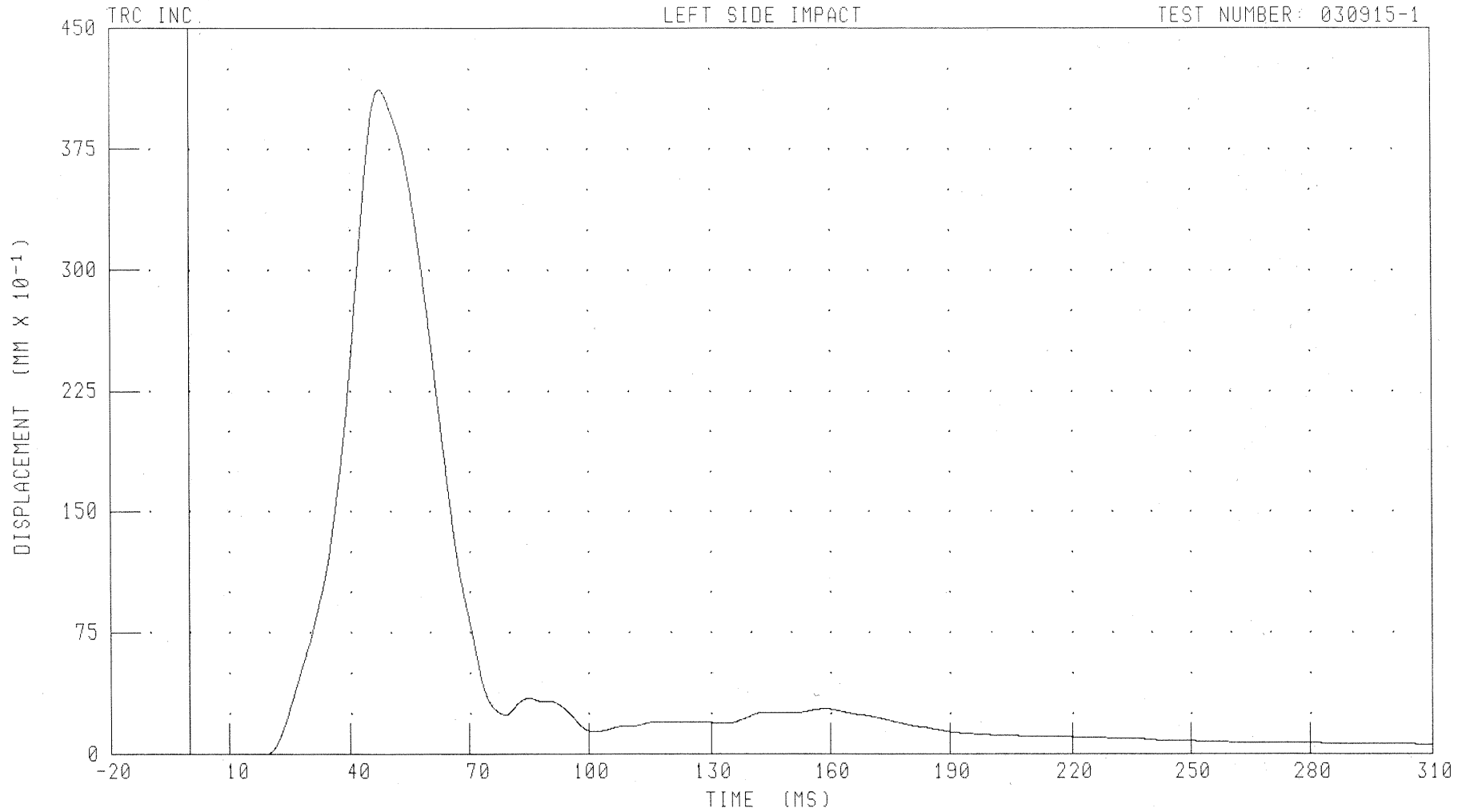
B-122

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YD1 FILTER: CH. CLASS 180

PEAK DATA: 41.20 MM @ 47.60 MS; -0.04 MM @ 18.80 MS

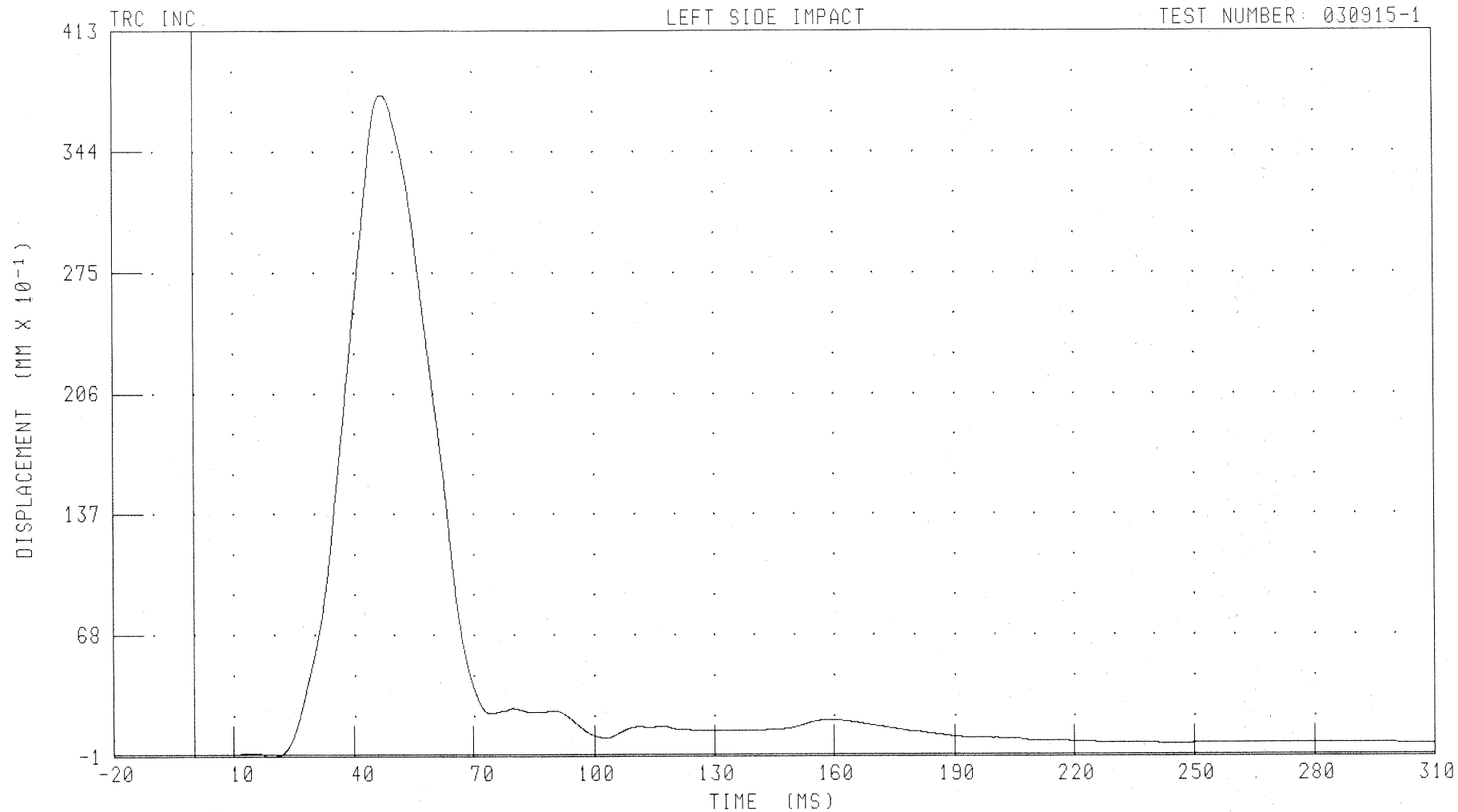
B-123

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YD1

FILTER: CH. CLASS 180

PEAK DATA: 37.66 MM @ 47.20 MS; -0.14 MM @ 18.80 MS

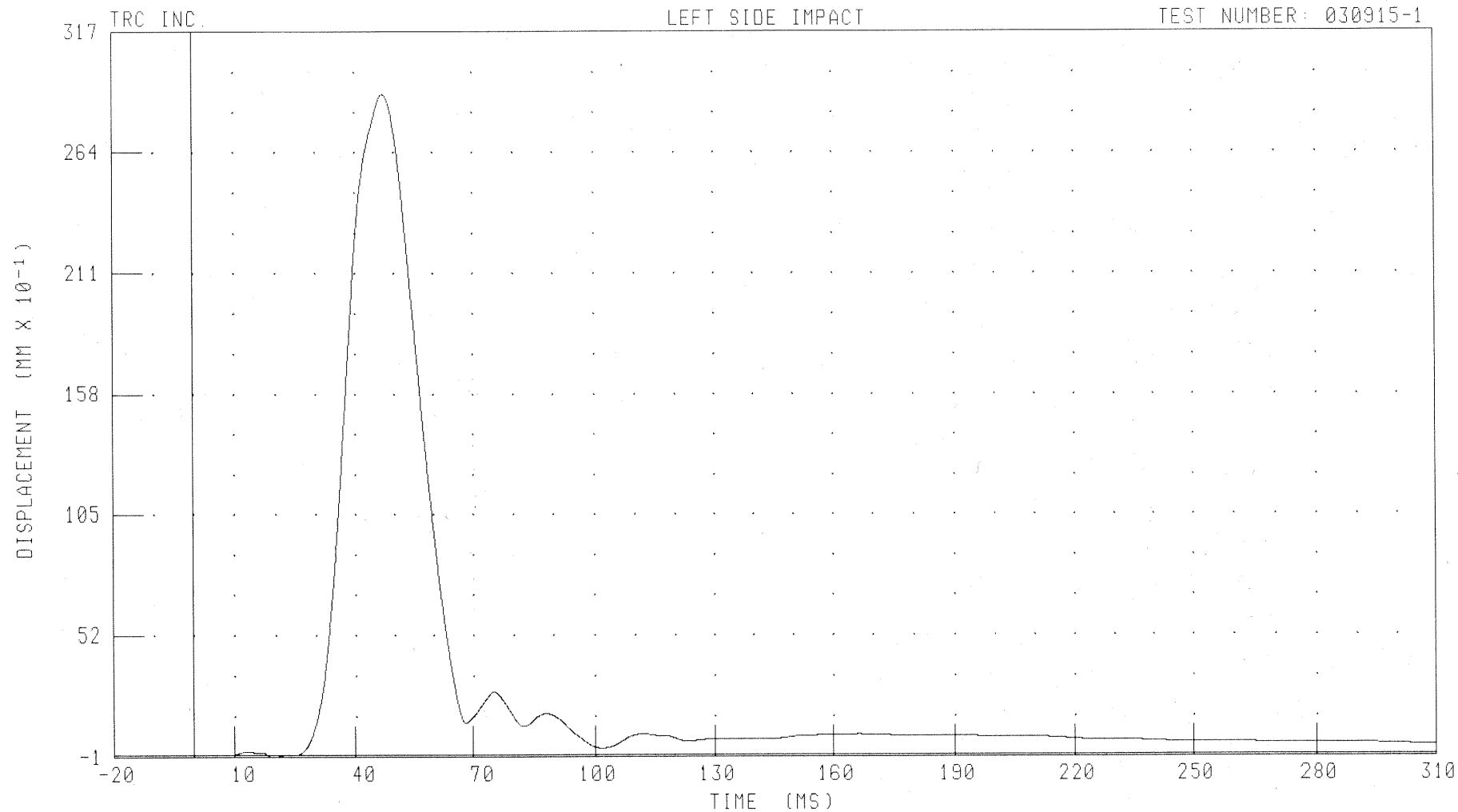
B-124

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YD1 FILTER: CH. CLASS 180

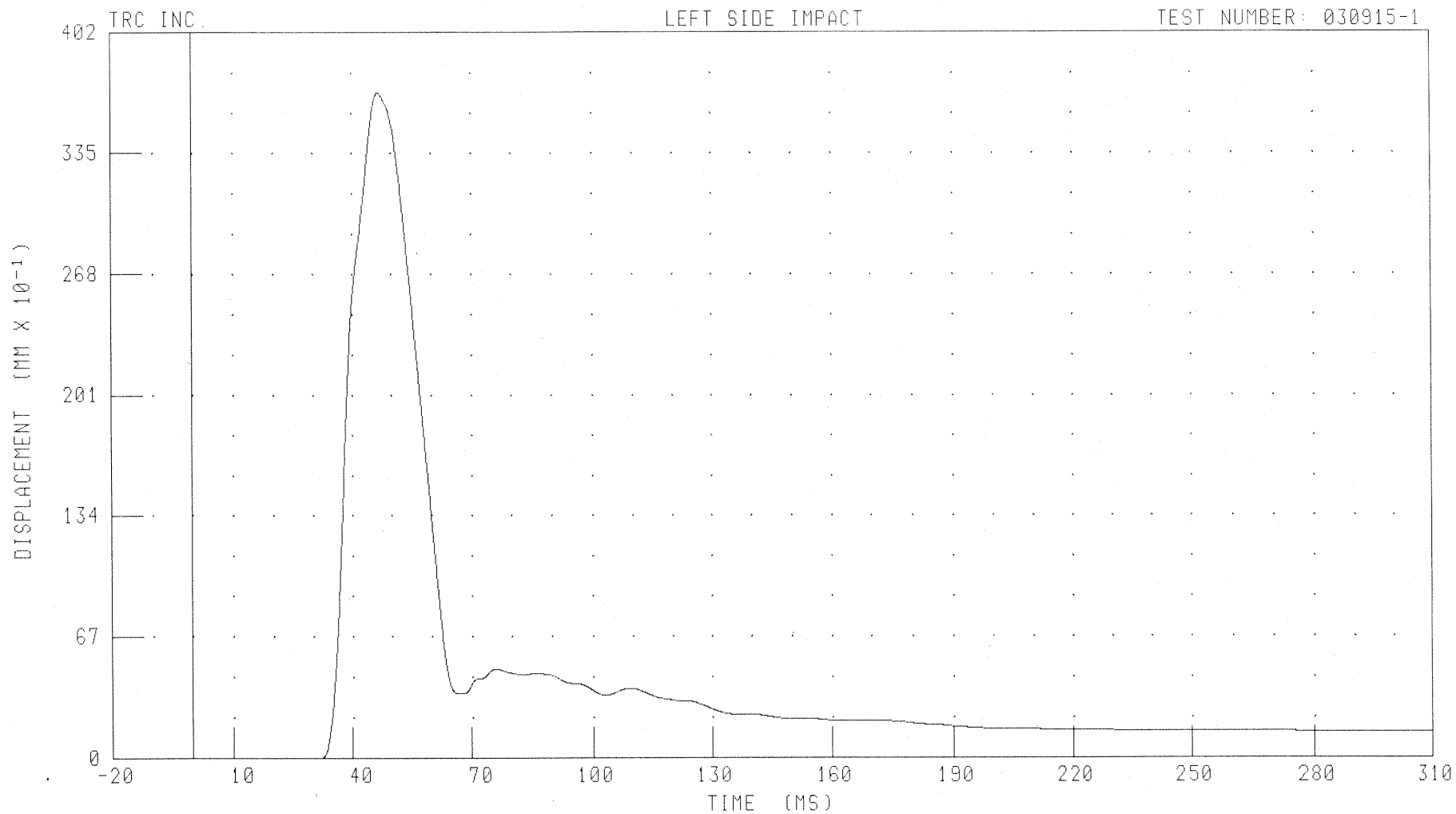
B-125

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 4 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YD1

FILTER: CH. CLASS 180

PEAK DATA: 36.88 MM @ 46.88 MS; -0.03 MM @ 31.28 MS

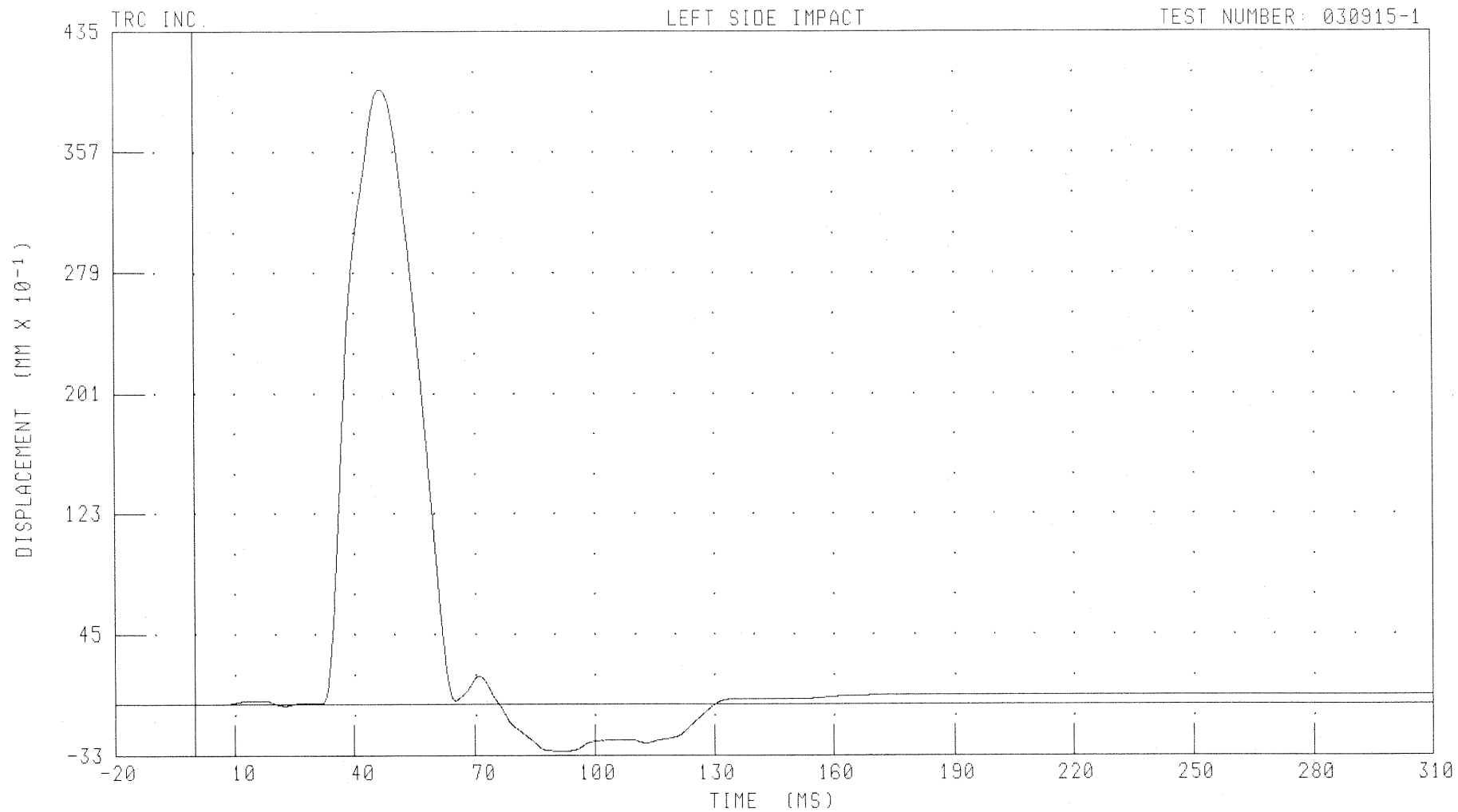
B-126

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 5 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YD1 FILTER: CH. CLASS 180

PEAK DATA: 39.77 MM @ 46.88 MS; -3.02 MM @ 92.64 MS

B-127

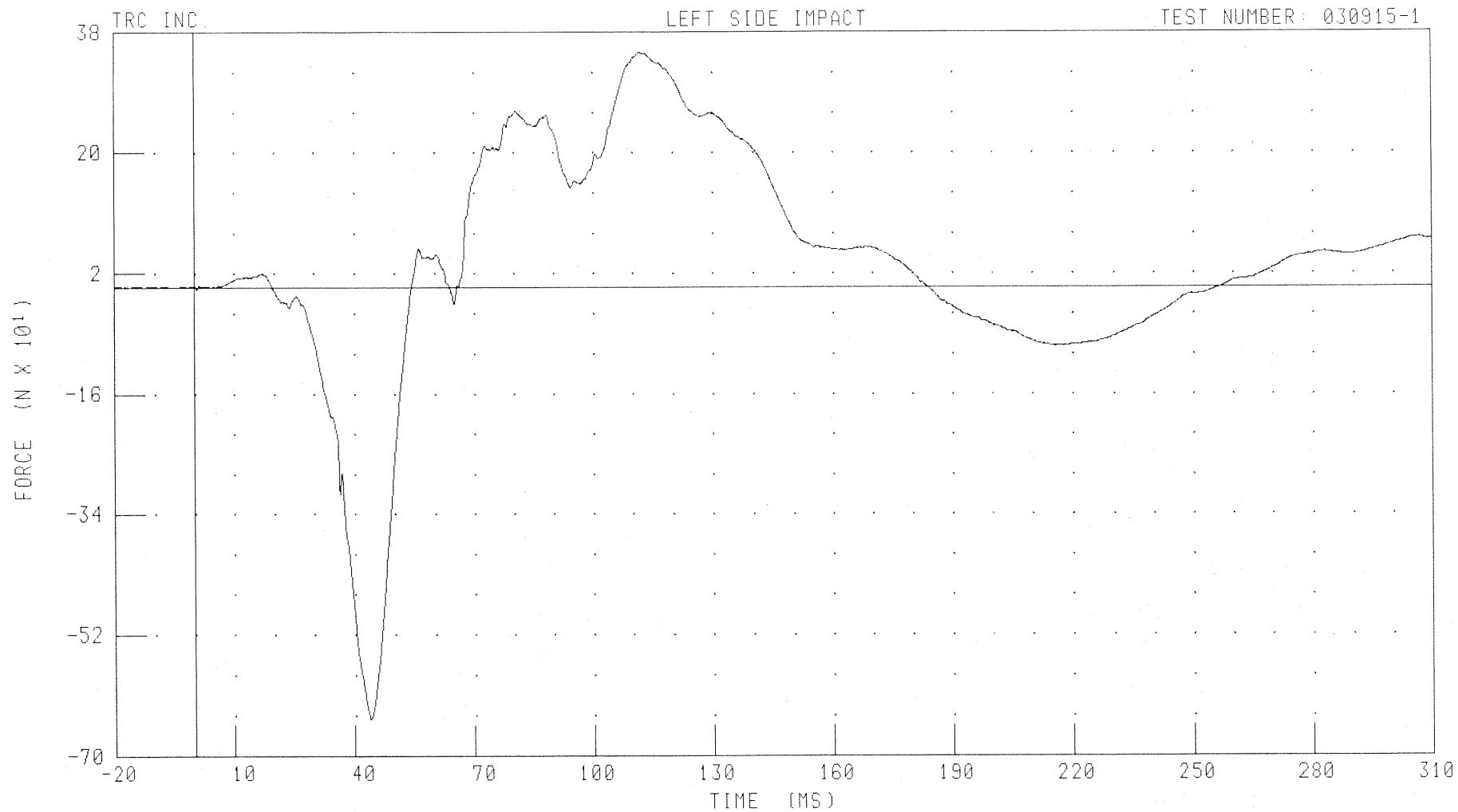
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LUMBAR X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBXF1 FILTER: CH. CLASS 600

PEAK DATA: 350.51 N @ 112.00 MS; -645.56 N @ 43.92 MS

B-128

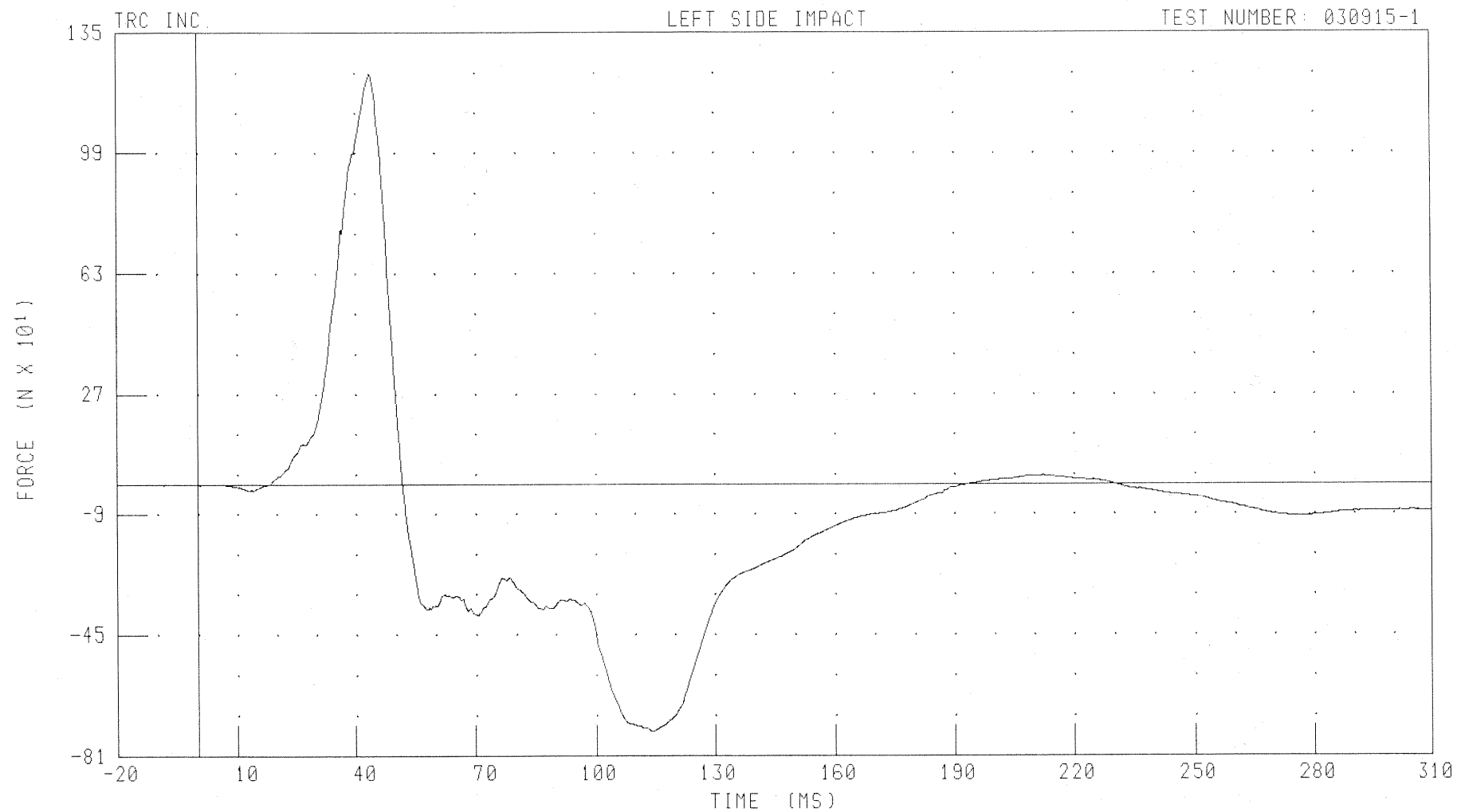
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LUMBAR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LM BYF1 FILTER: CH. CLASS 600

PEAK DATA: 1227.48 N @ 43.84 MS, -738.50 N @ 114.56 MS

B-129

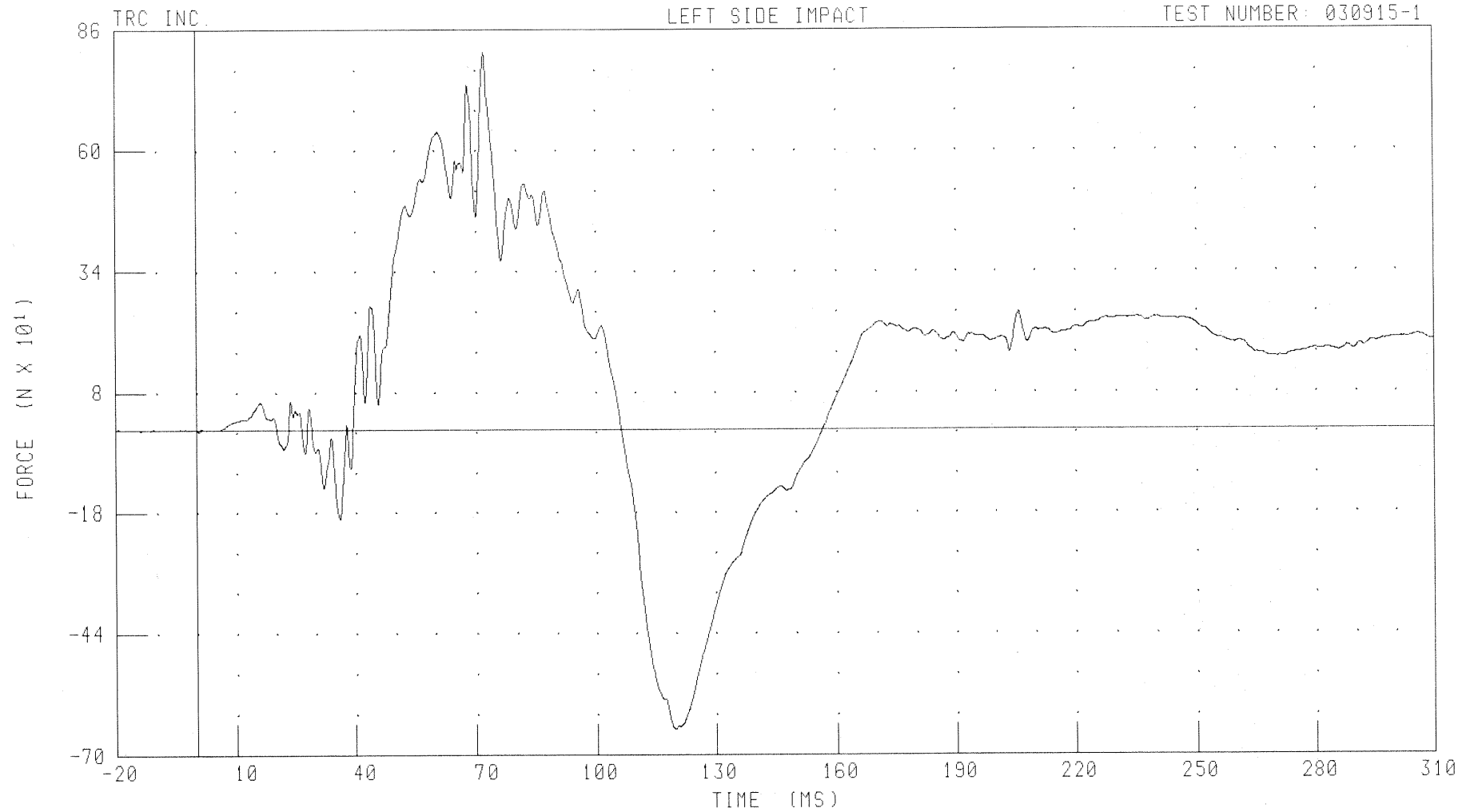
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LUMBAR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBZF1 FILTER: CH. CLASS 600

PEAK DATA: 811.75 N @ 72.16 MS, -645.24 N @ 119.92 MS

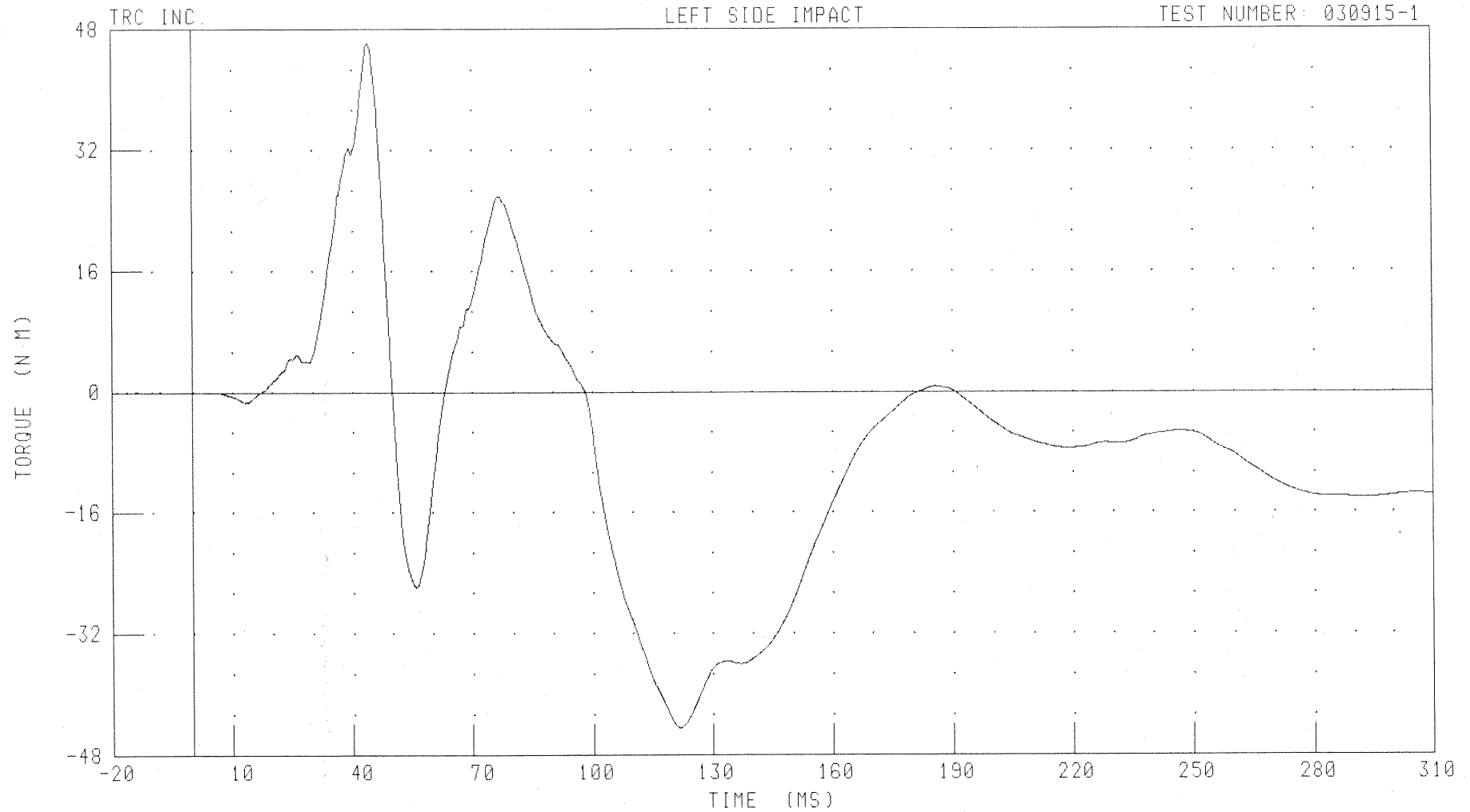
B-130

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LUMBAR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBXM1 FILTER: CH. CLASS 600

PEAK DATA: 46.12 N·M @ 44.24 MS; -44.45 N·M @ 121.68 MS

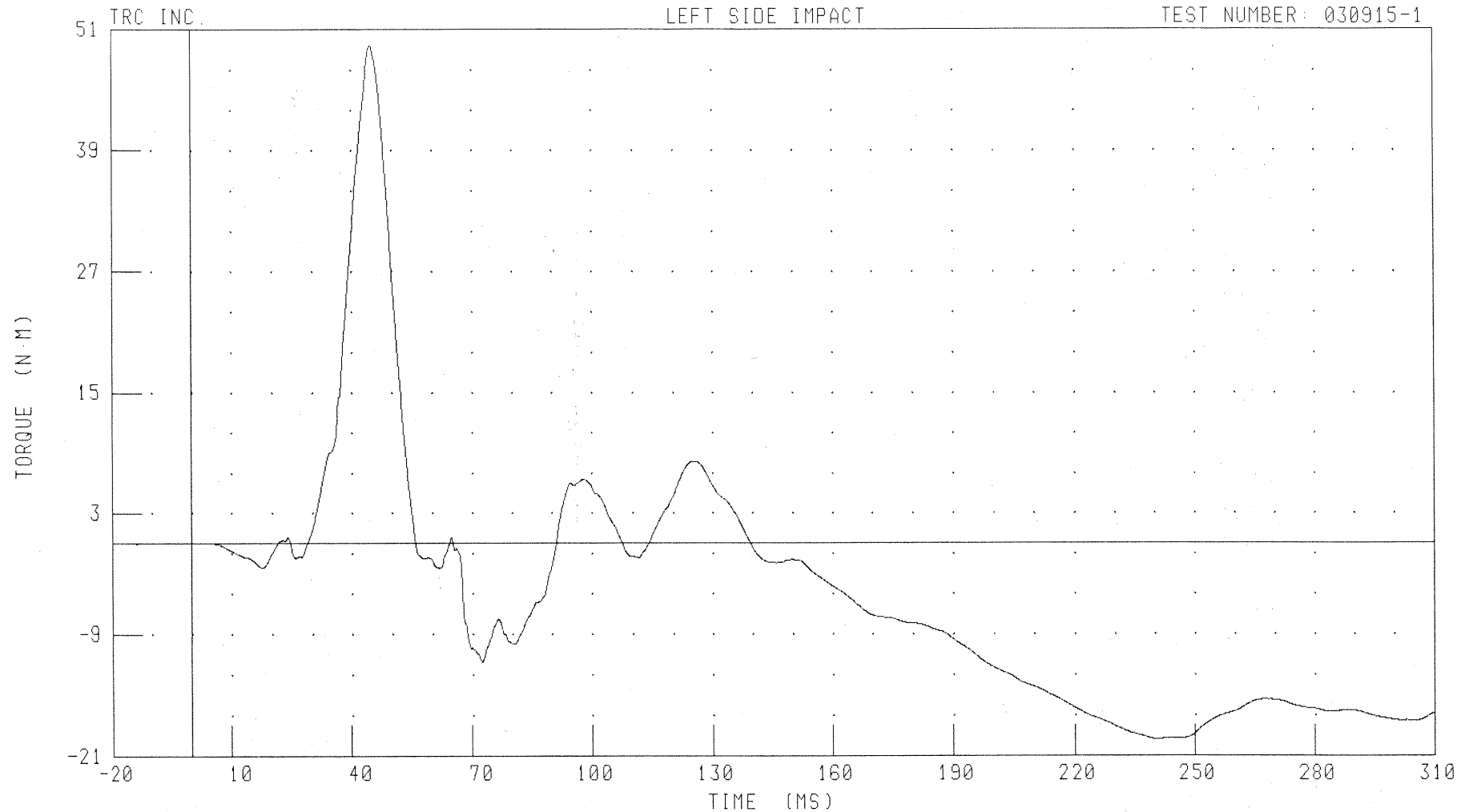
B-131

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LUMBAR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYM1 FILTER: CH. CLASS 600

PEAK DATA: 49.44 N·M @ 44.88 MS; -19.39 N·M @ 240.24 MS

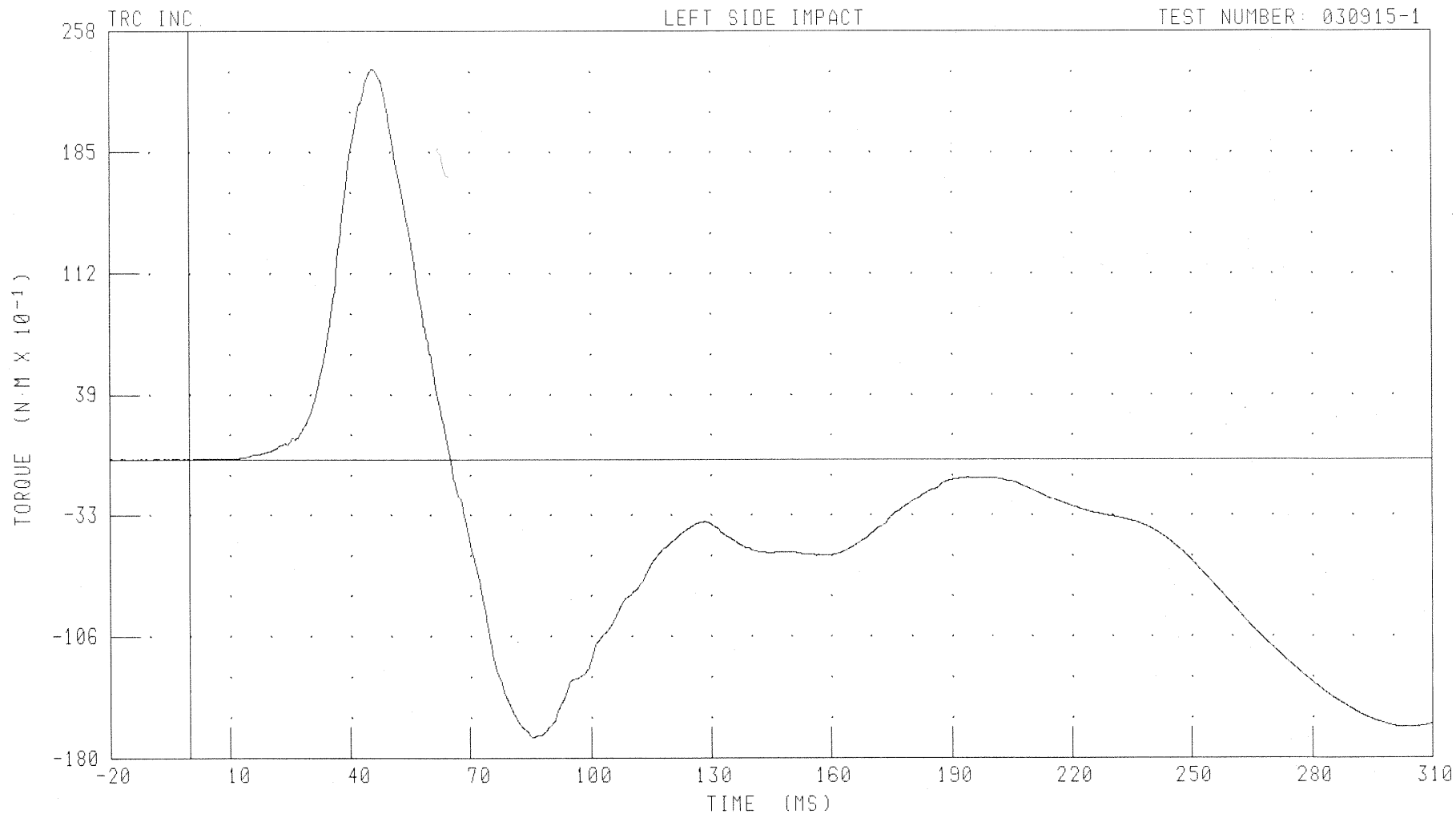
B-132

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LUMBAR MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBZM1 FILTER: CH. CLASS 600

PEAK DATA: 23.52 N·M @ 45.76 MS, -16.78 N·M @ 85.60 MS

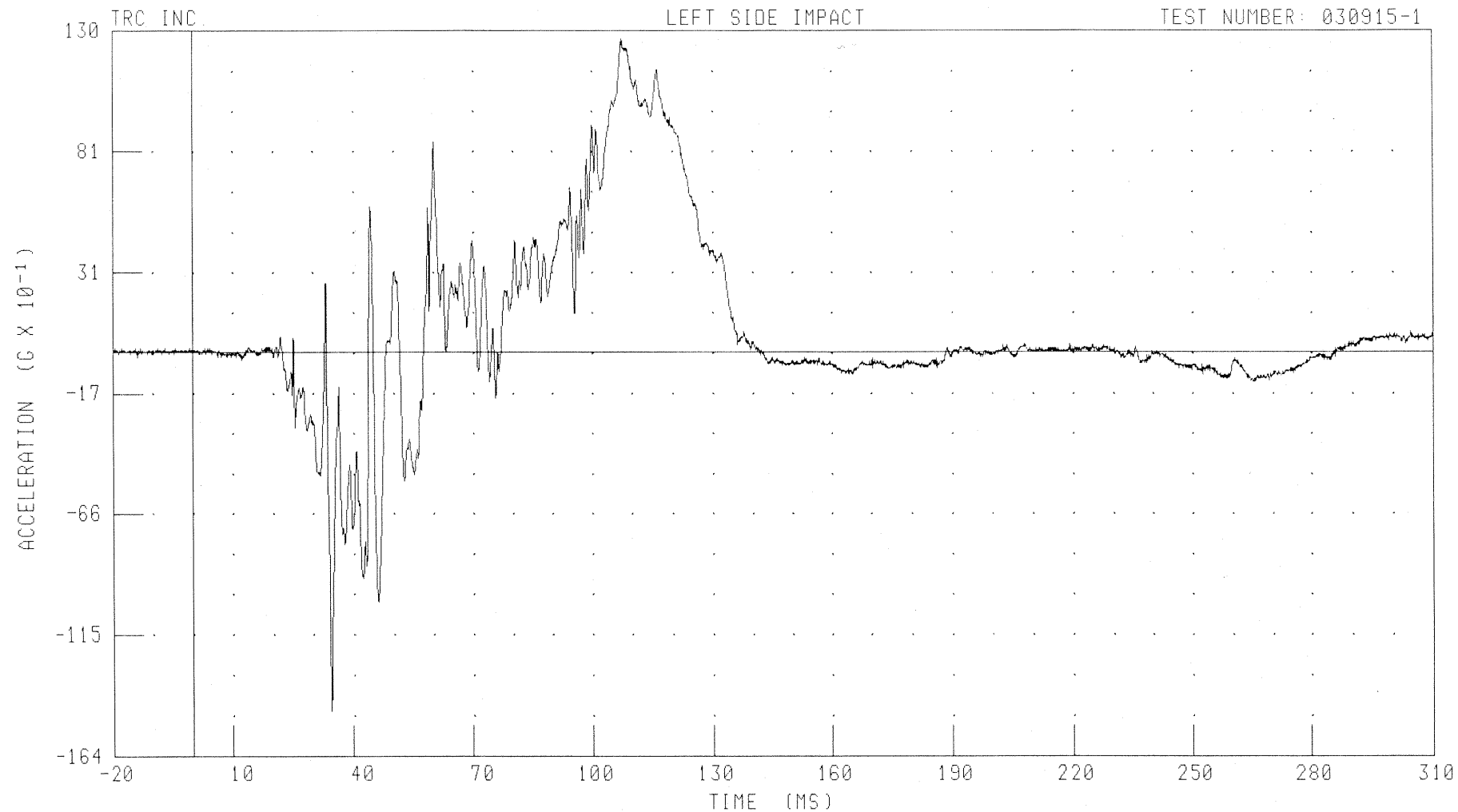
B-133

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXG1 FILTER: CH. CLASS 1000

PEAK DATA: 12.67 G @ 107.76 MS; -14.60 G @ 34.64 MS

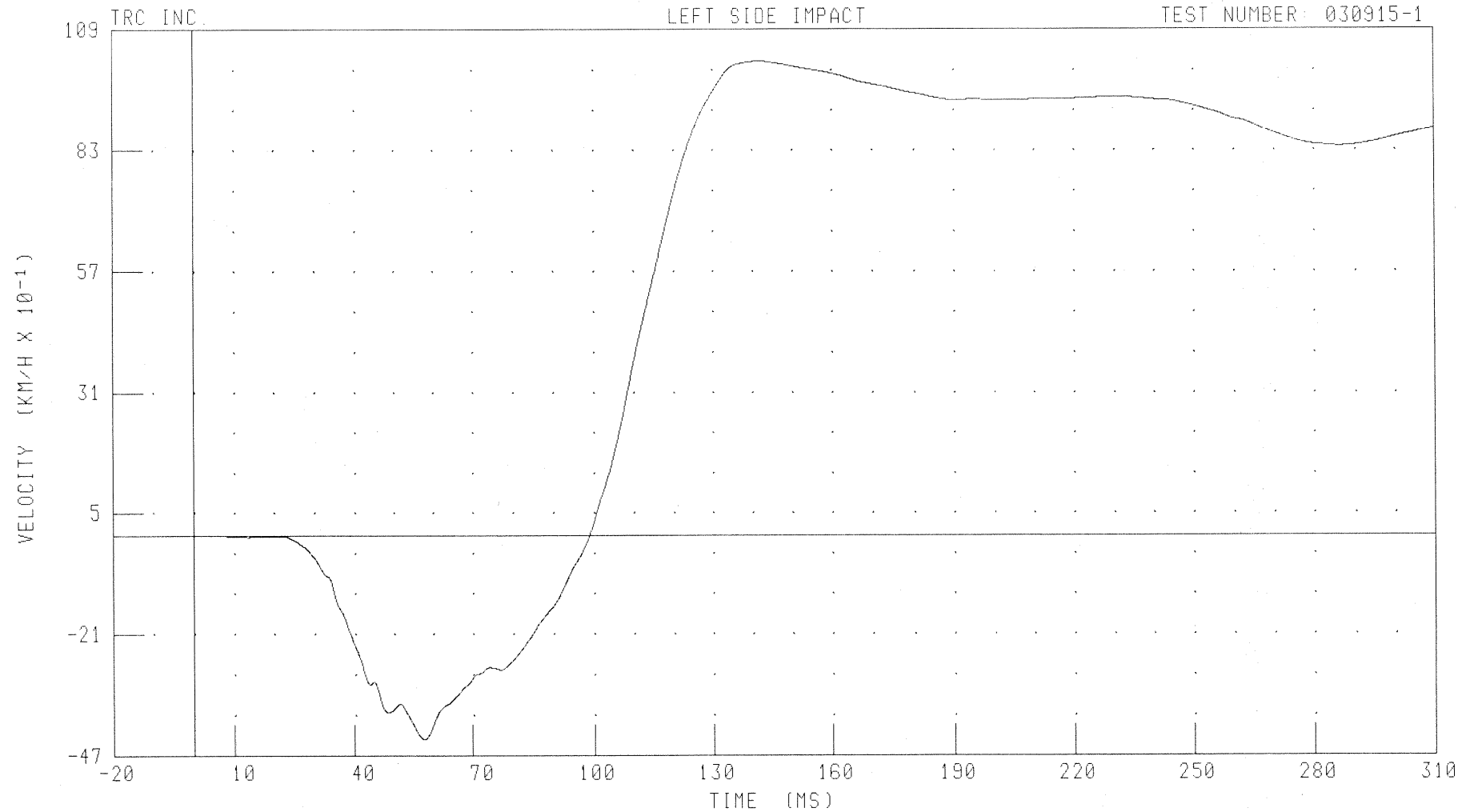
B-134

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXV1 FILTER: CH. CLASS 180

PEAK DATA: 10.22 KM/H @ 142.08 MS; -4.35 KM/H @ 57.60 MS

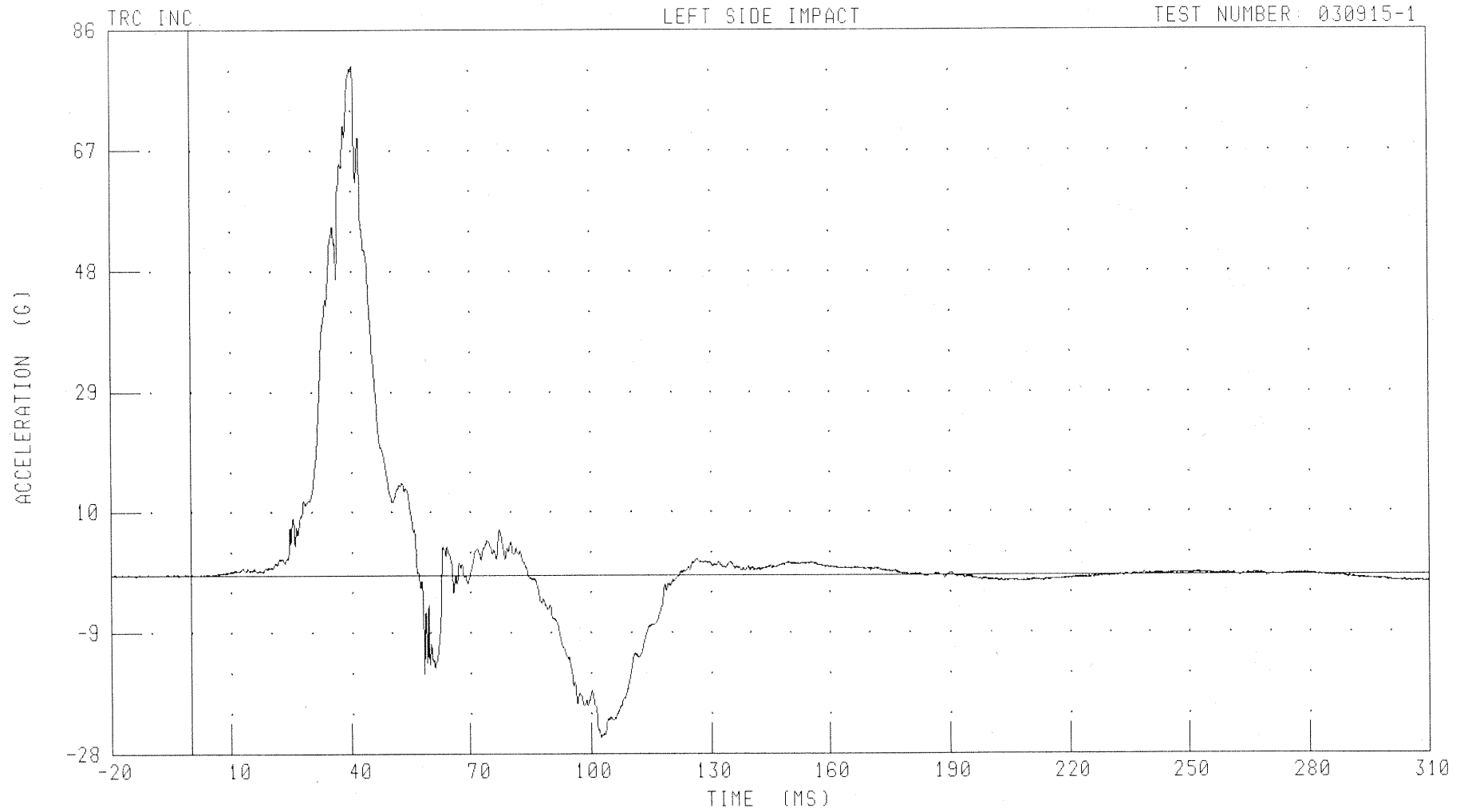
B-135

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYG1 FILTER: CH. CLASS 1000

PEAK DATA: 80.48 G @ 40.56 MS, -25.51 G @ 102.56 MS

B-136

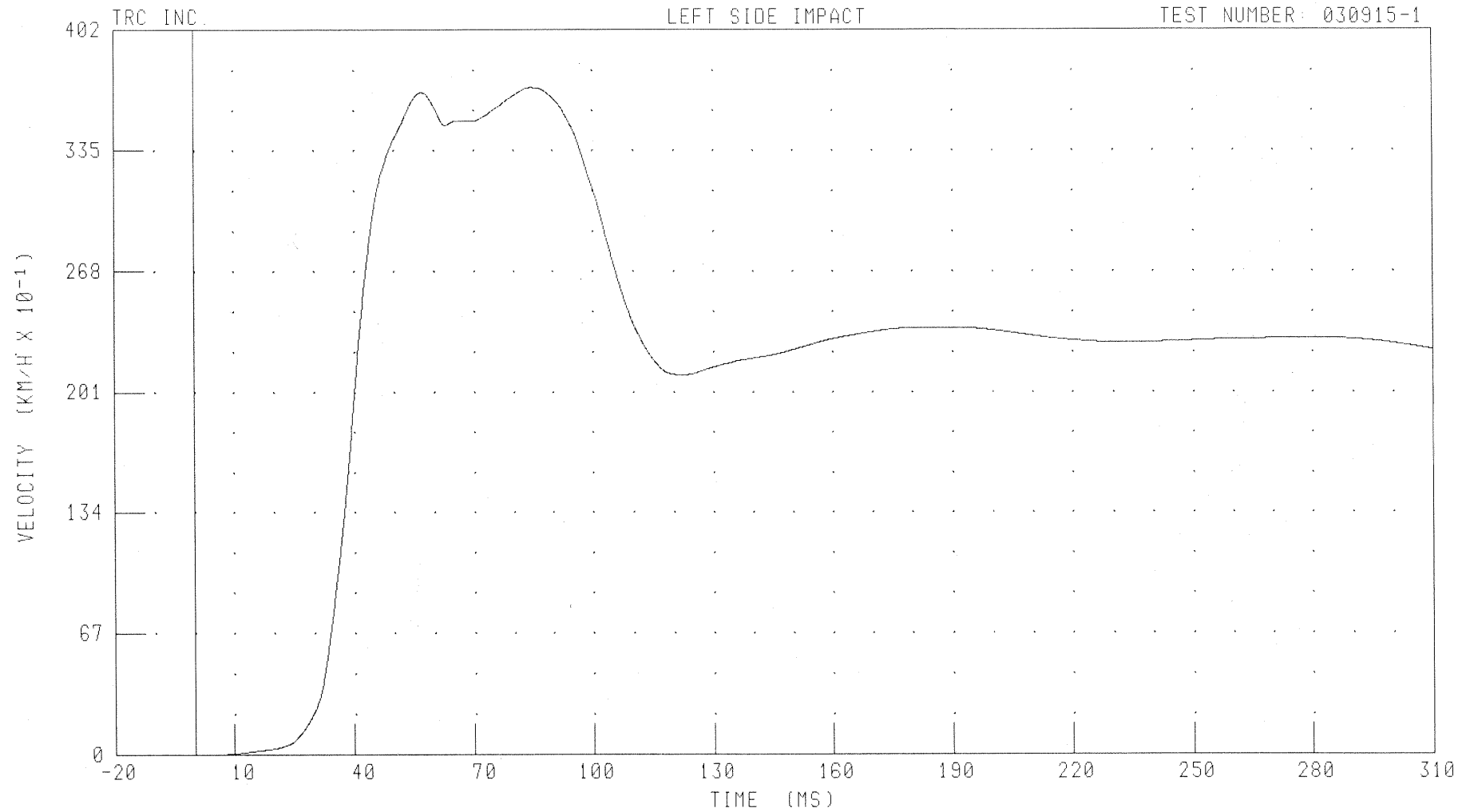
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER PELVIS Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYV1 FILTER: CH. CLASS 180

PEAK DATA: 37.01 KM/H @ 84.72 MS; 0.00 KM/H @ 1.92 MS

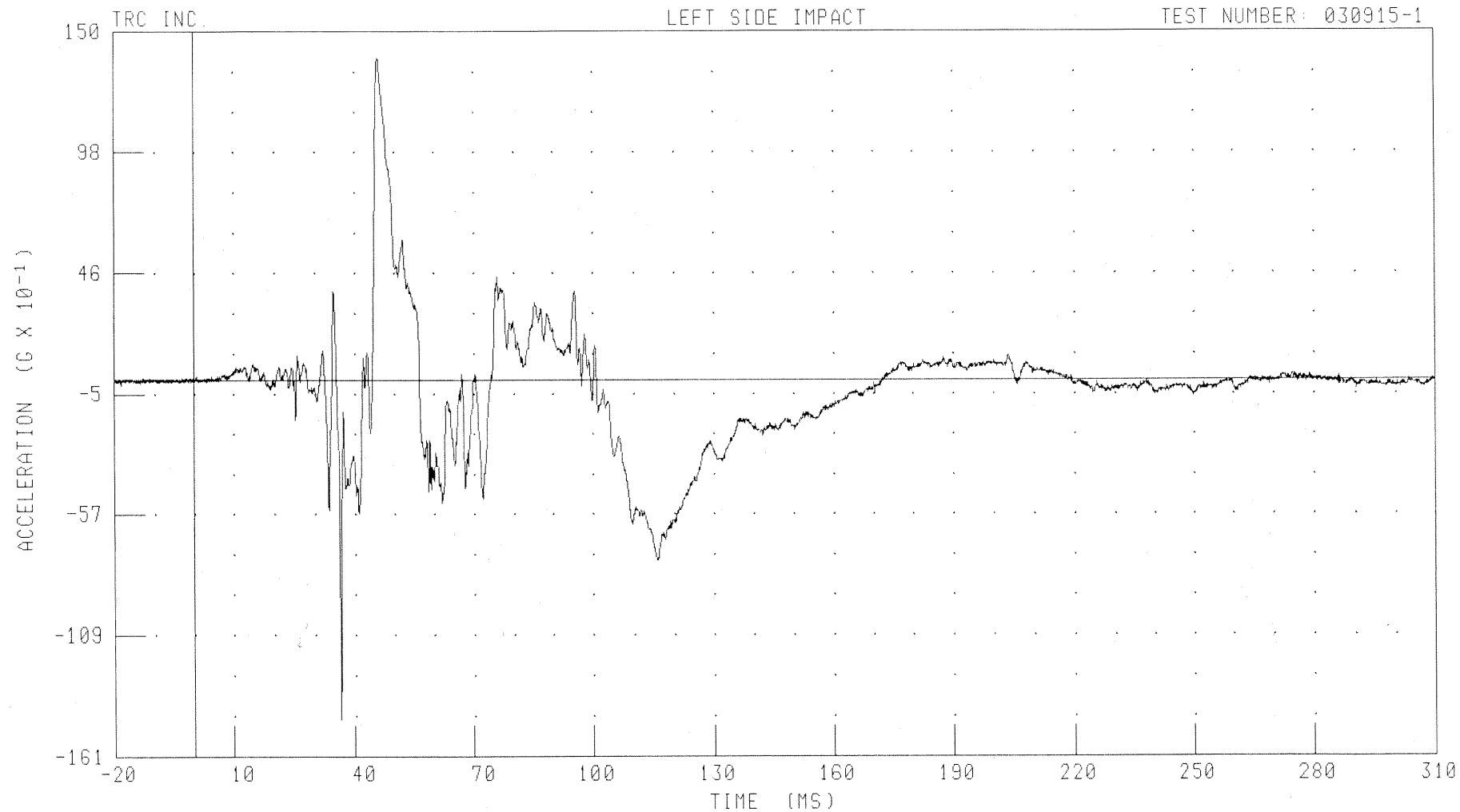
B-137

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZG1 FILTER: CH. CLASS 1000

PEAK DATA: 13.89 G @ 46.08 MS; -14.61 G @ 36.40 MS

B-138

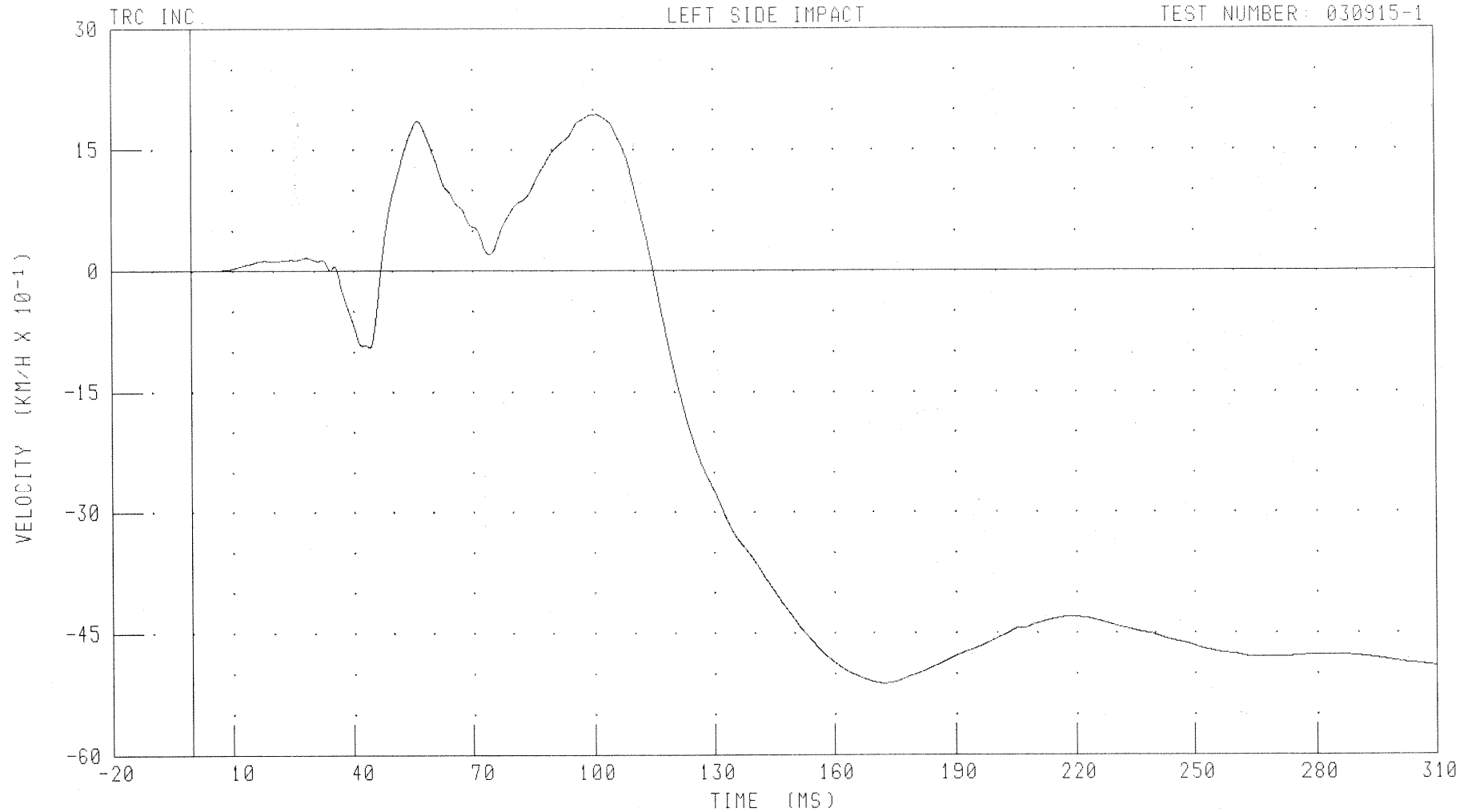
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER PELVIS Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZV1 FILTER: CH. CLASS 180

PEAK DATA: 1.94 KM/H @ 100.96 MS; -5.12 KM/H @ 172.64 MS

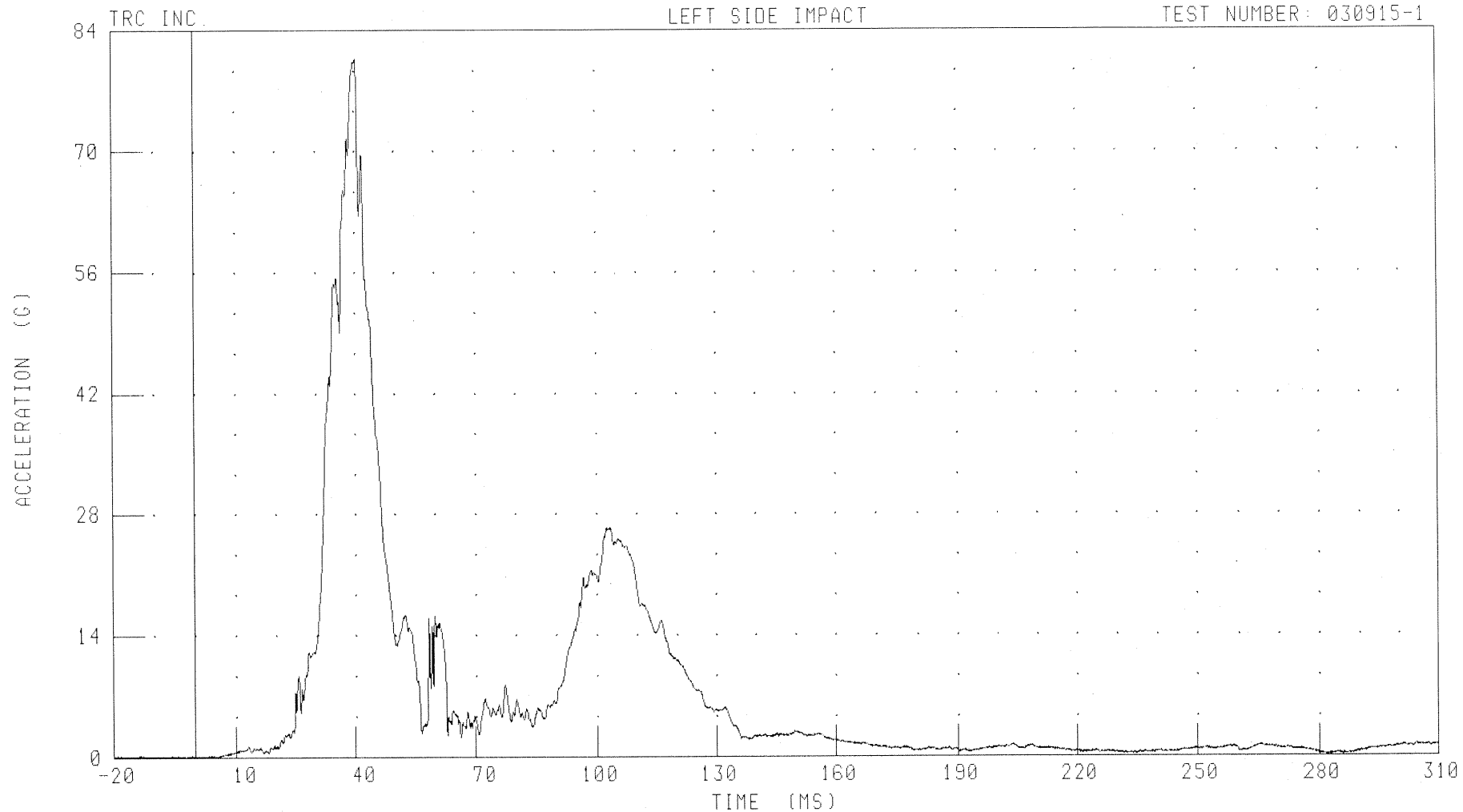
B-139

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVRG1 FILTER: CH. CLASS 1000

PEAK DATA: 80.75 G @ 40.56 MS; 0.04 G @ -19.84 MS

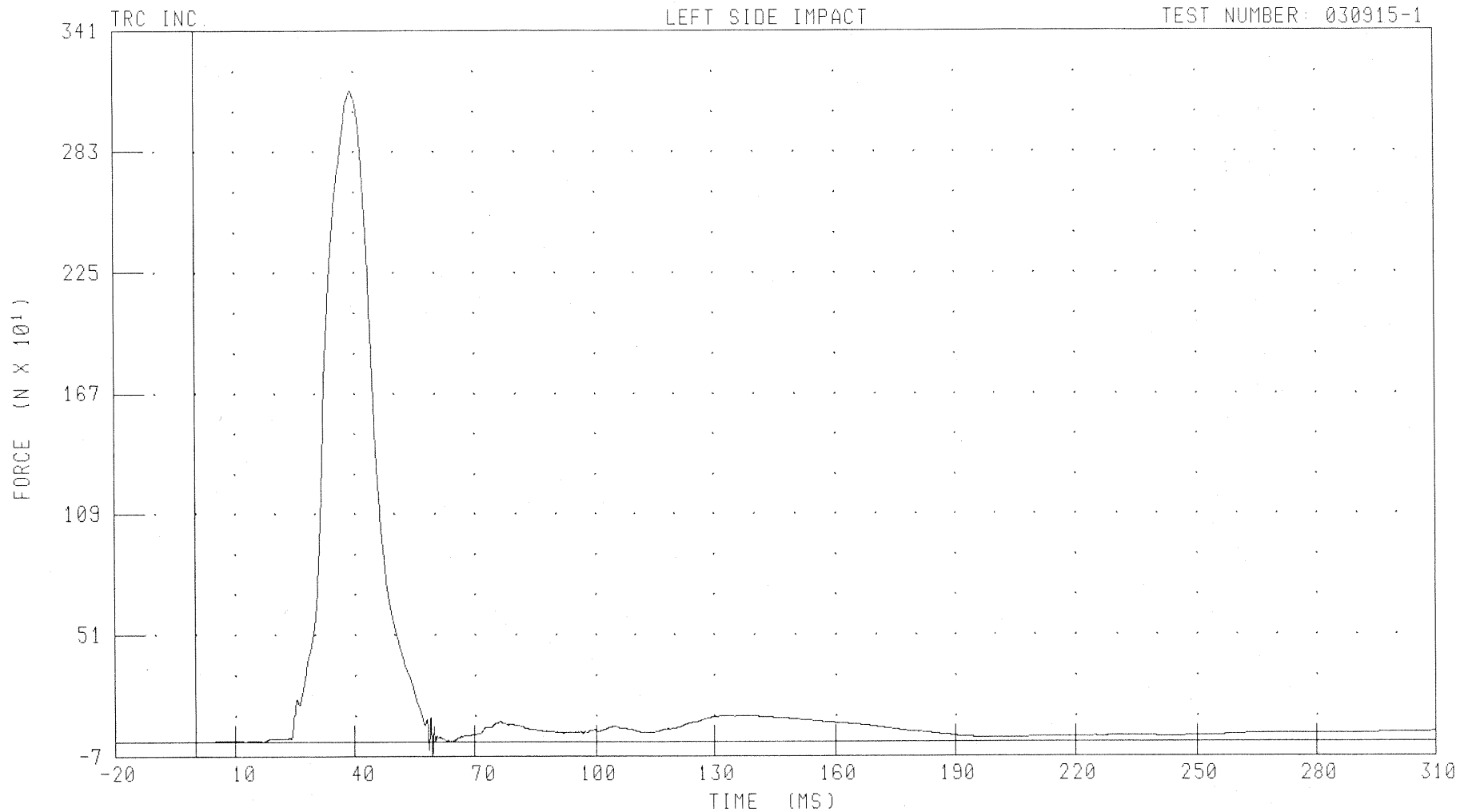
B-140

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LEFT ACETABULUM Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LACYF1 FILTER: CH. CLASS 600

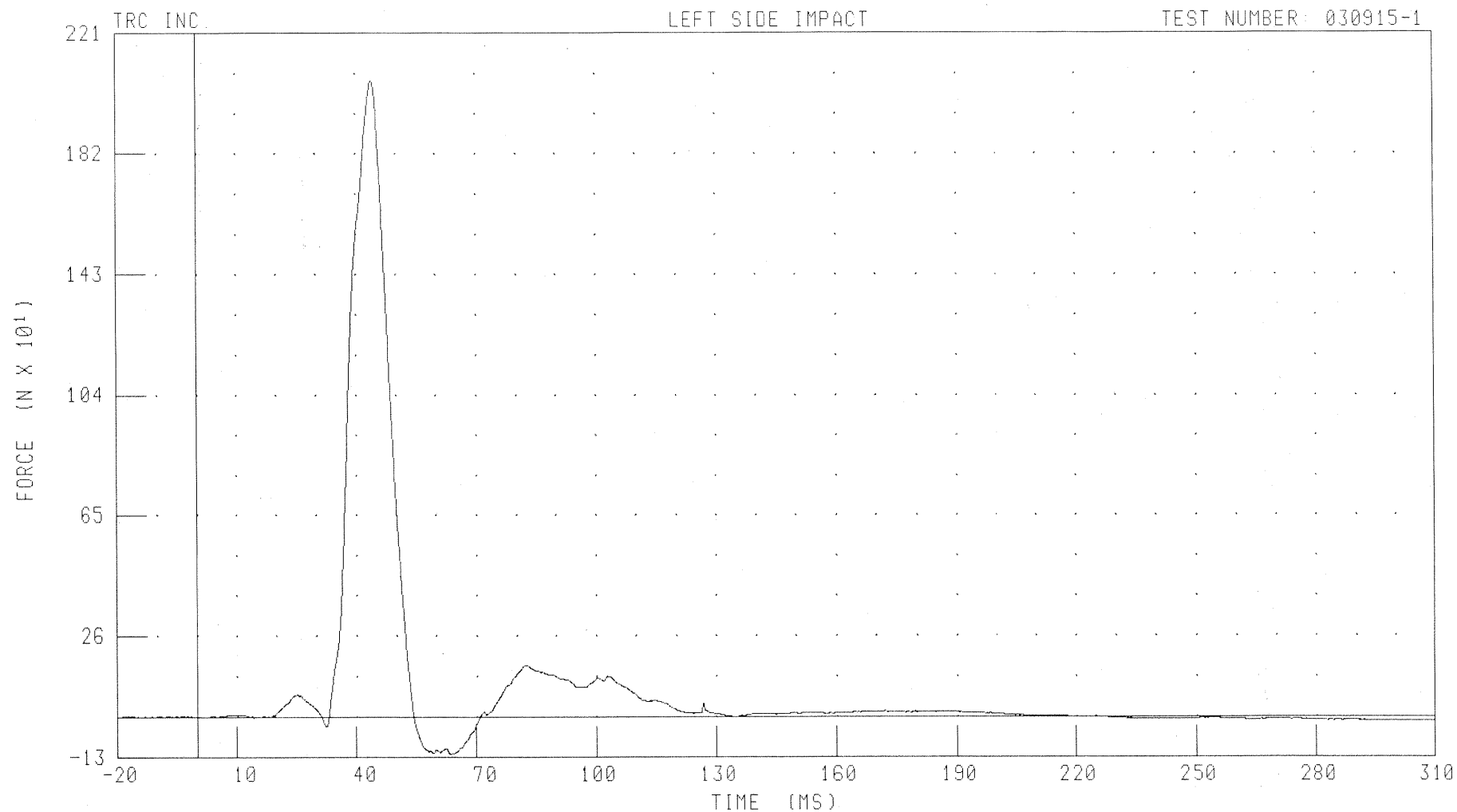
B-141

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LEFT ILLIAC WING Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



B-142

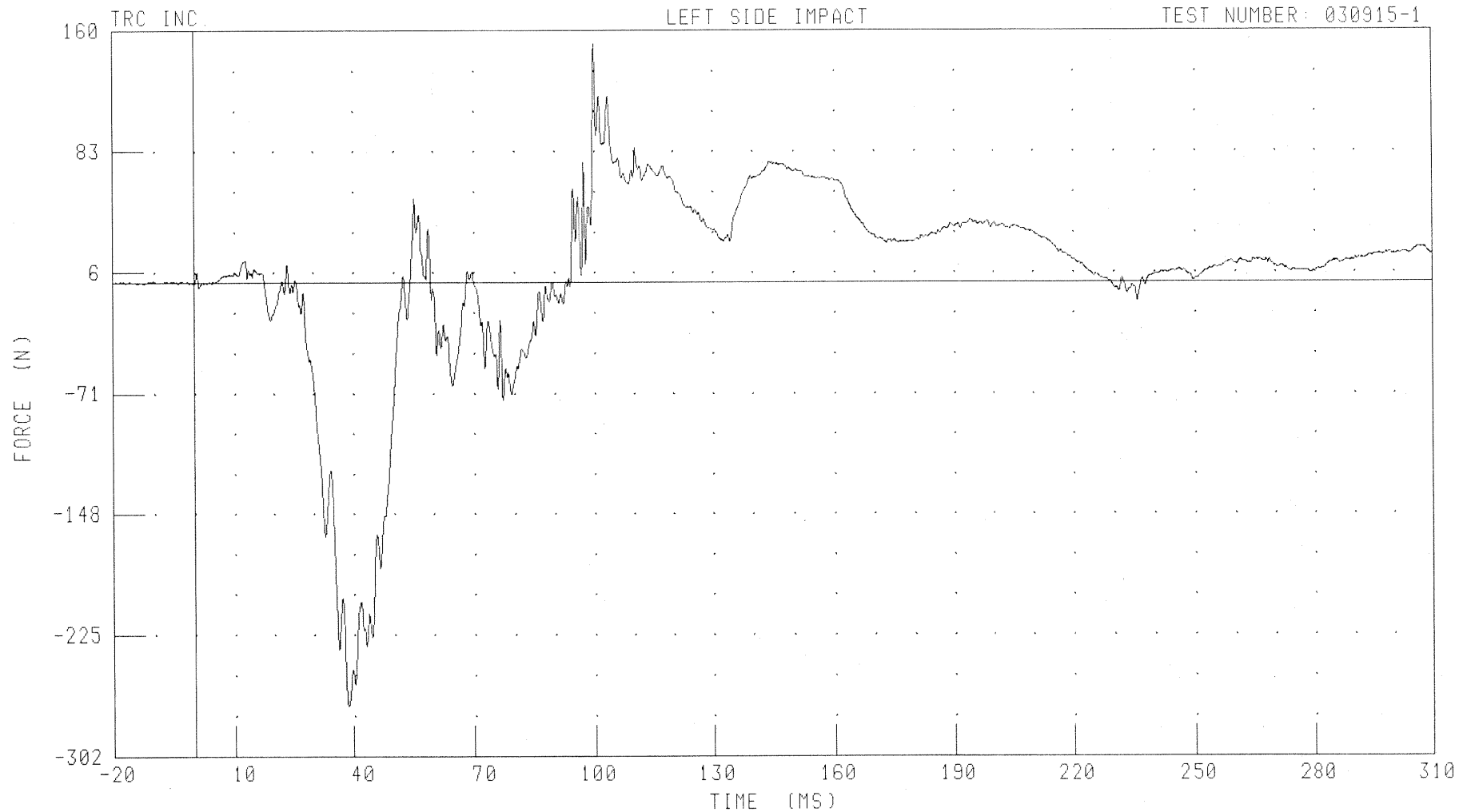
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LEFT FEMUR X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMXF1 FILTER: CH. CLASS 600

PEAK DATA: 151.38 N @ 100.00 MS; -270.02 N @ 38.64 MS

B-143

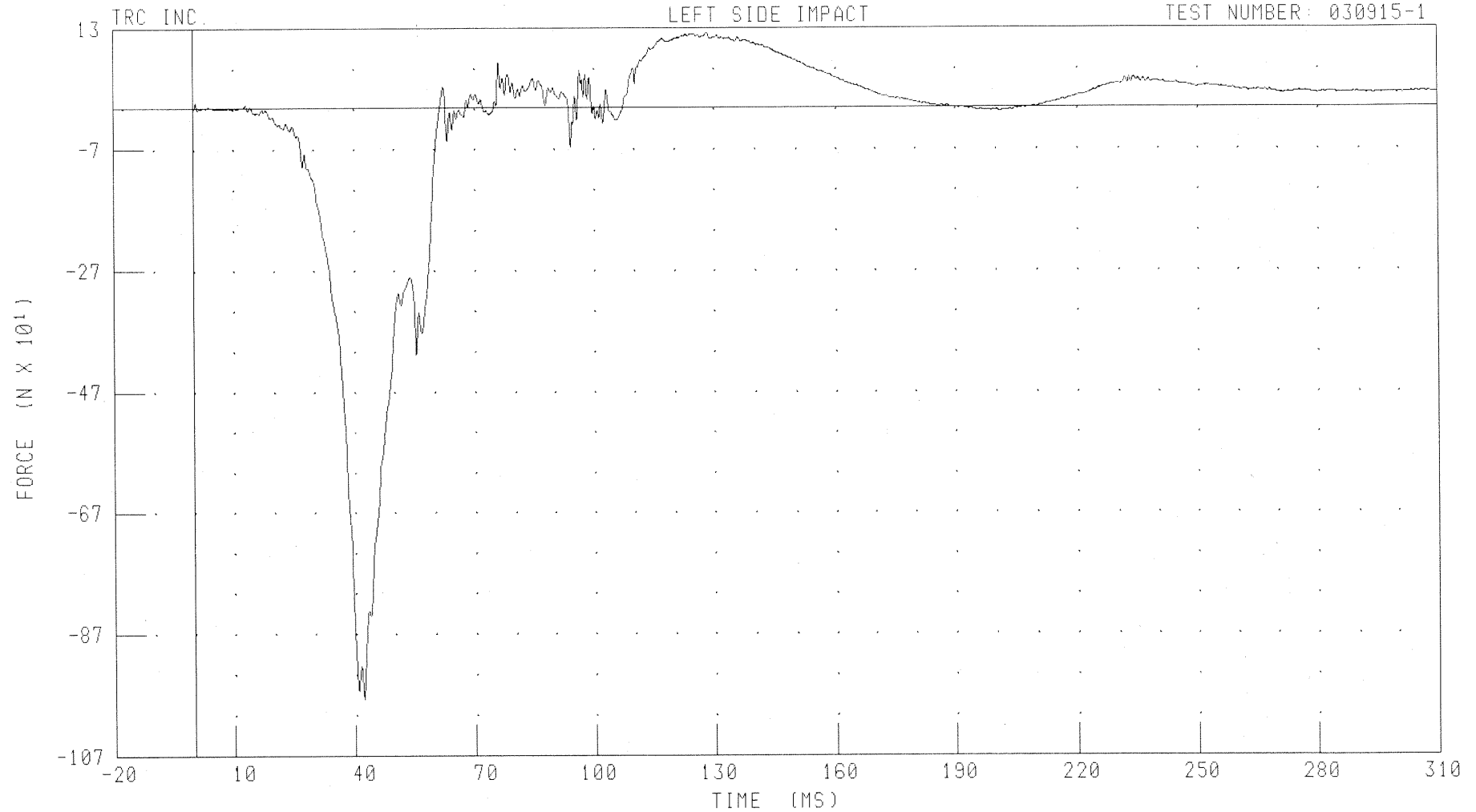
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LEFT FEMUR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYF1 FILTER: CH. CLASS 600

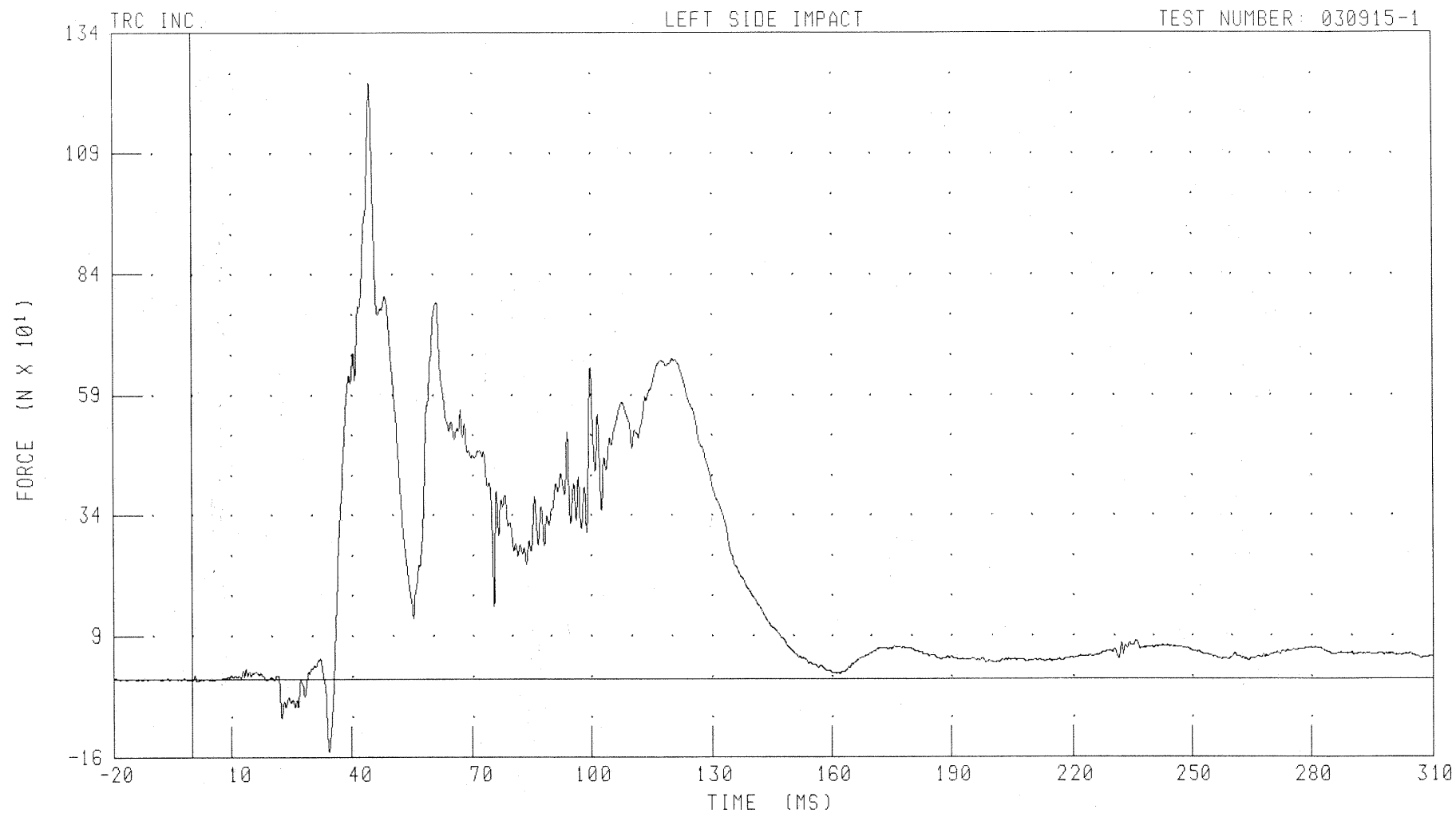
PEAK DATA: 122.54 N @ 128.48 MS, -976.39 N @ 42.16 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER LEFT FEMUR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMZF1 FILTER: CH. CLASS 600

PEAK DATA: 1237.26 N @ 44.56 MS; -150.40 N @ 34.24 MS

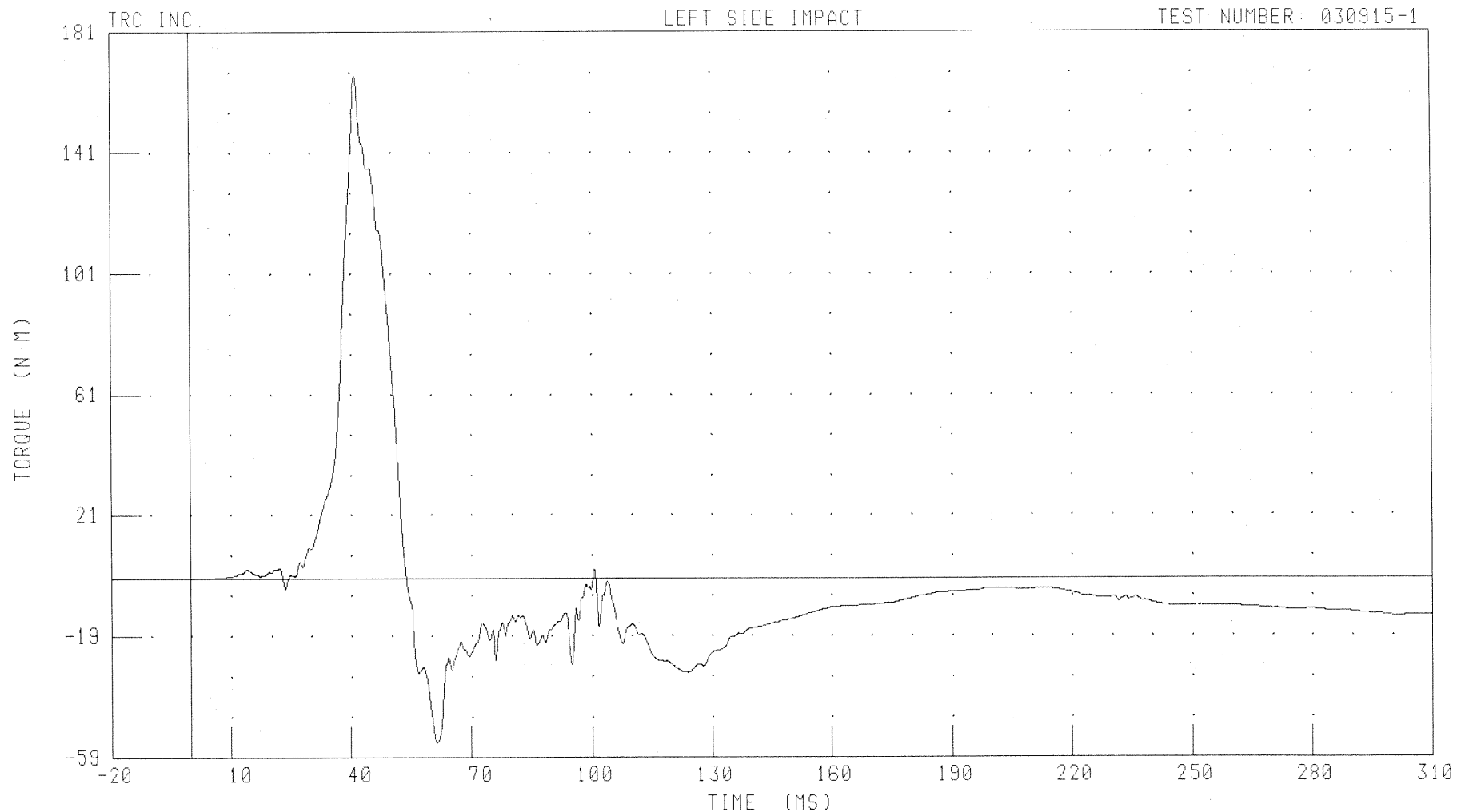
B-145

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LEFT FEMUR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMXM1 FILTER: CH. CLASS 600

PEAK DATA: 166.55 N-M @ 41.36 MS; -54.15 N-M @ 61.36 MS

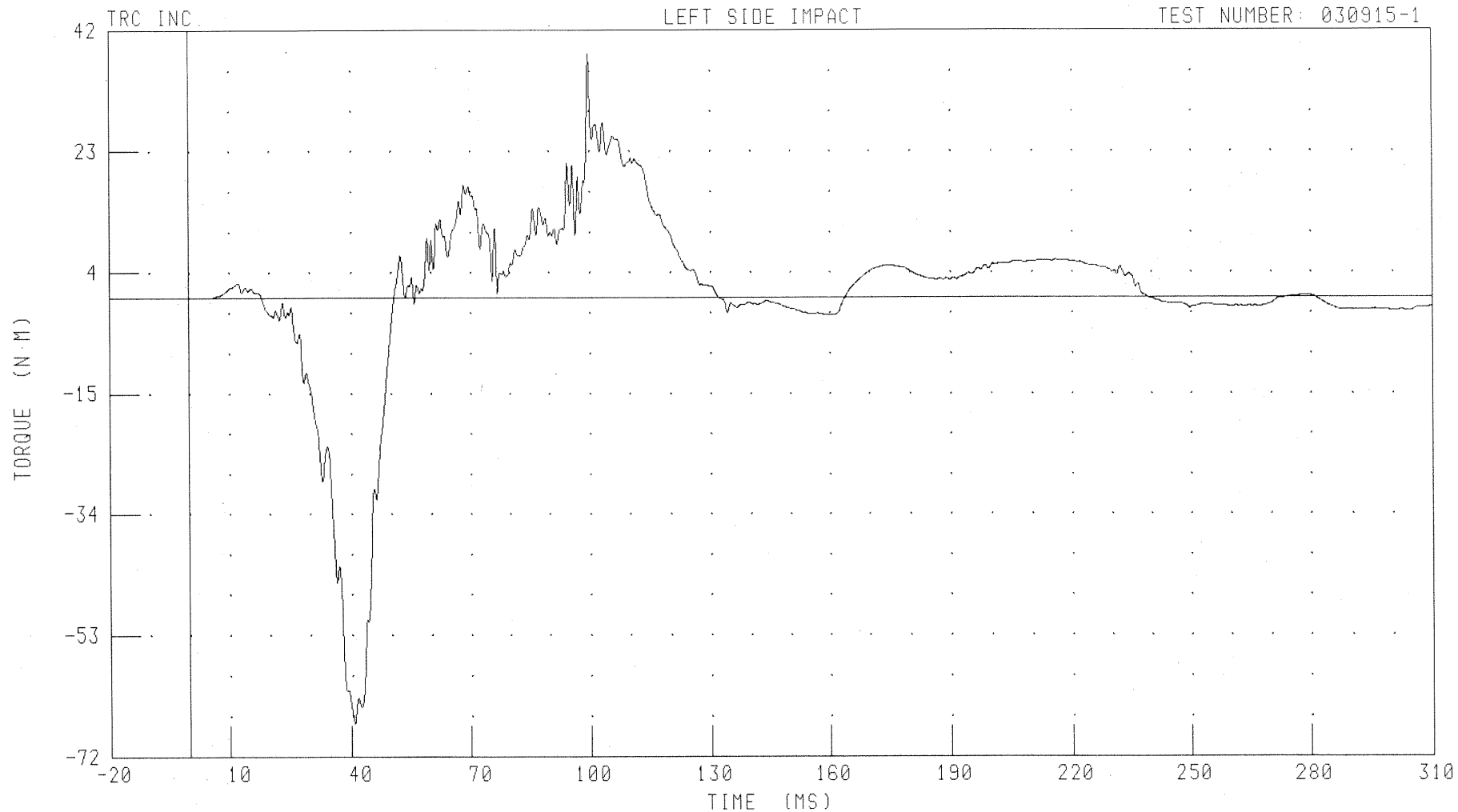
B-146

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LEFT FEMUR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYM1 FILTER: CH. CLASS 600

PEAK DATA: 38.28 N·M @ 99.84 MS; -66.82 N·M @ 40.72 MS

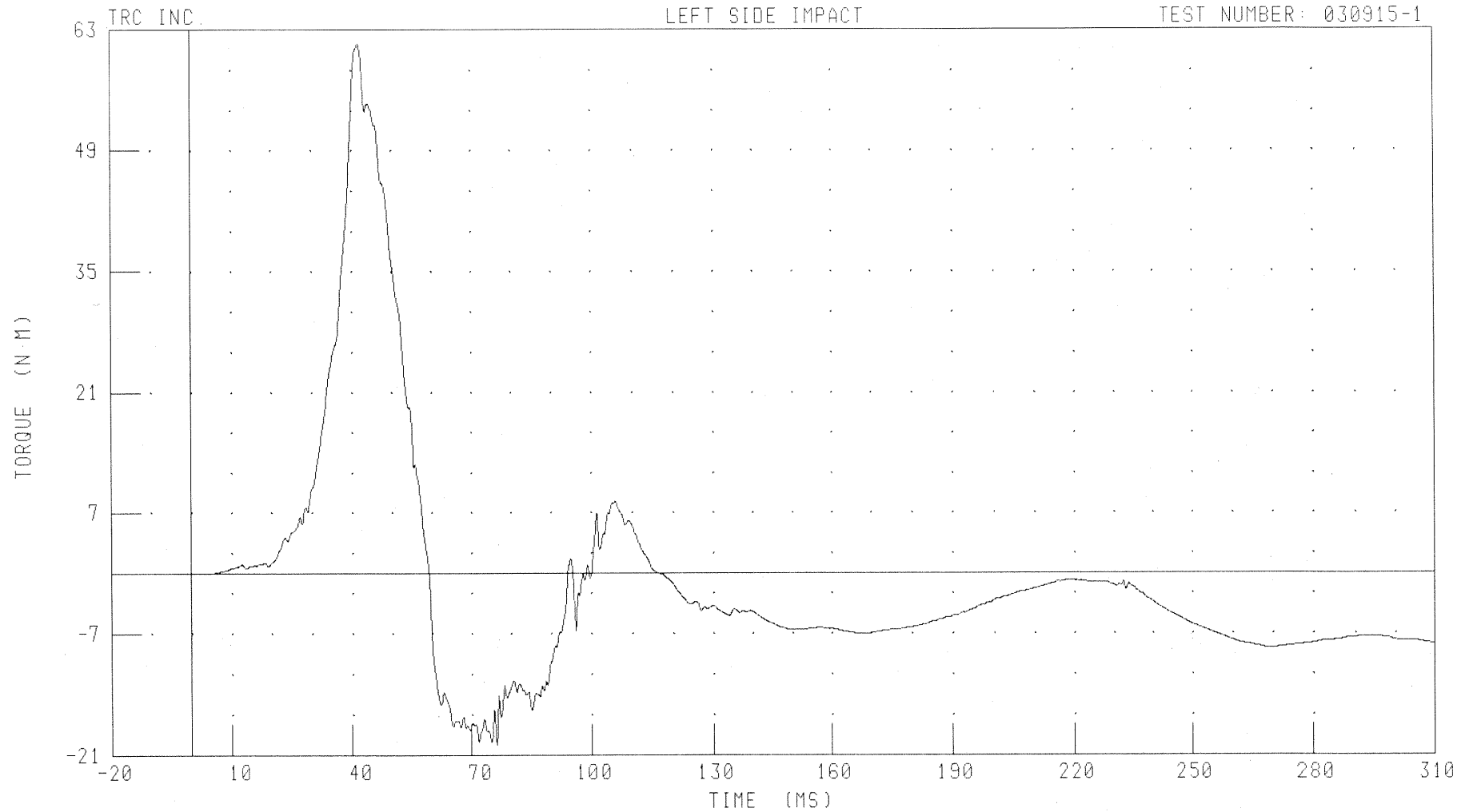
B-147

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER LEFT FEMUR MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMZM1 FILTER: CH. CLASS 600

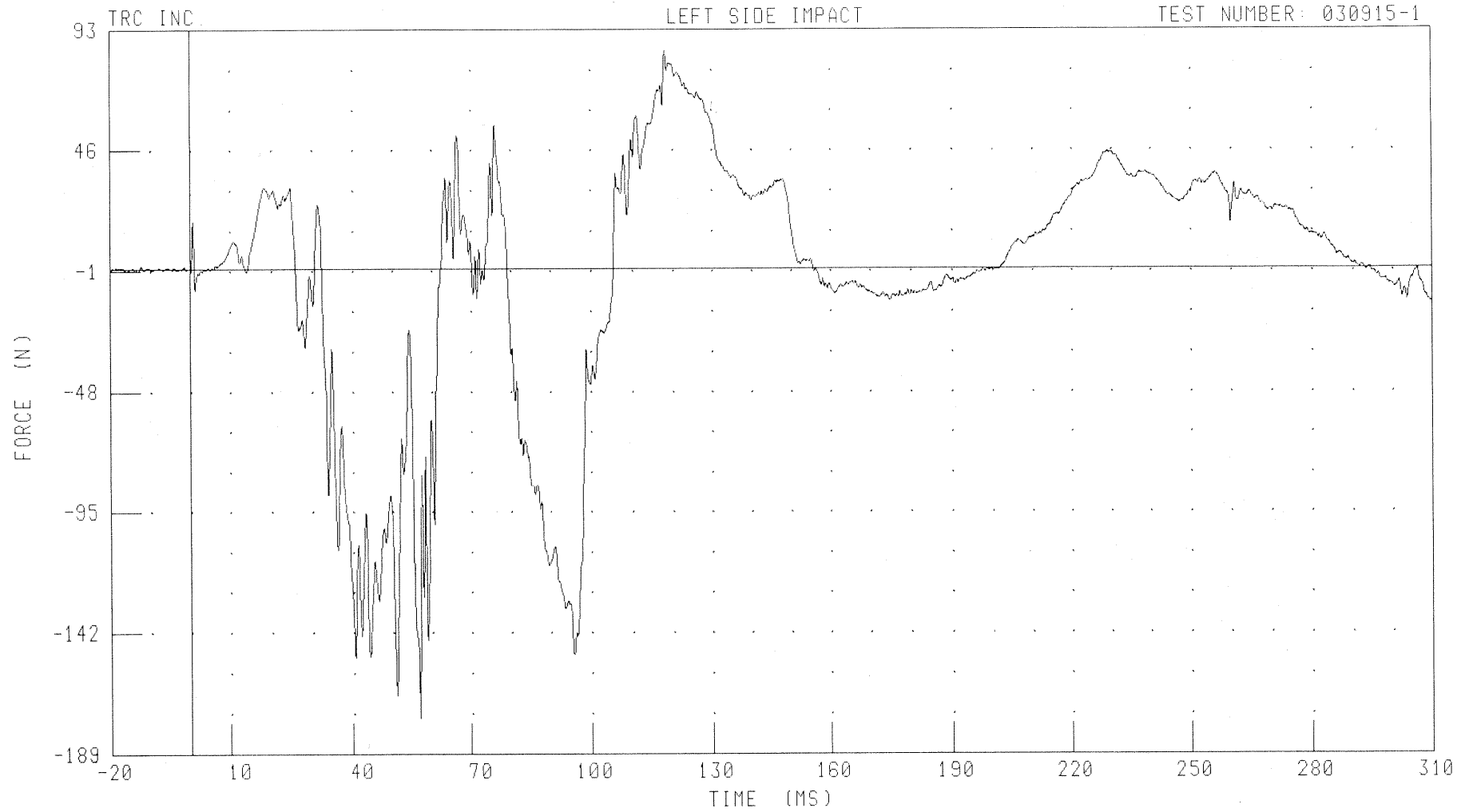
PEAK DATA: 61.38 N·M @ 41.92 MS; -19.80 N·M @ 76.48 MS

B-148

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIGHT FEMUR X-AXIS FORCE

TEST NUMBER: 030915-1



CHANNEL: RFMXF1 FILTER: CH. CLASS 600

PEAK DATA: 84.56 N @ 118.40 MS; -175.03 N @ 56.96 MS

B-149

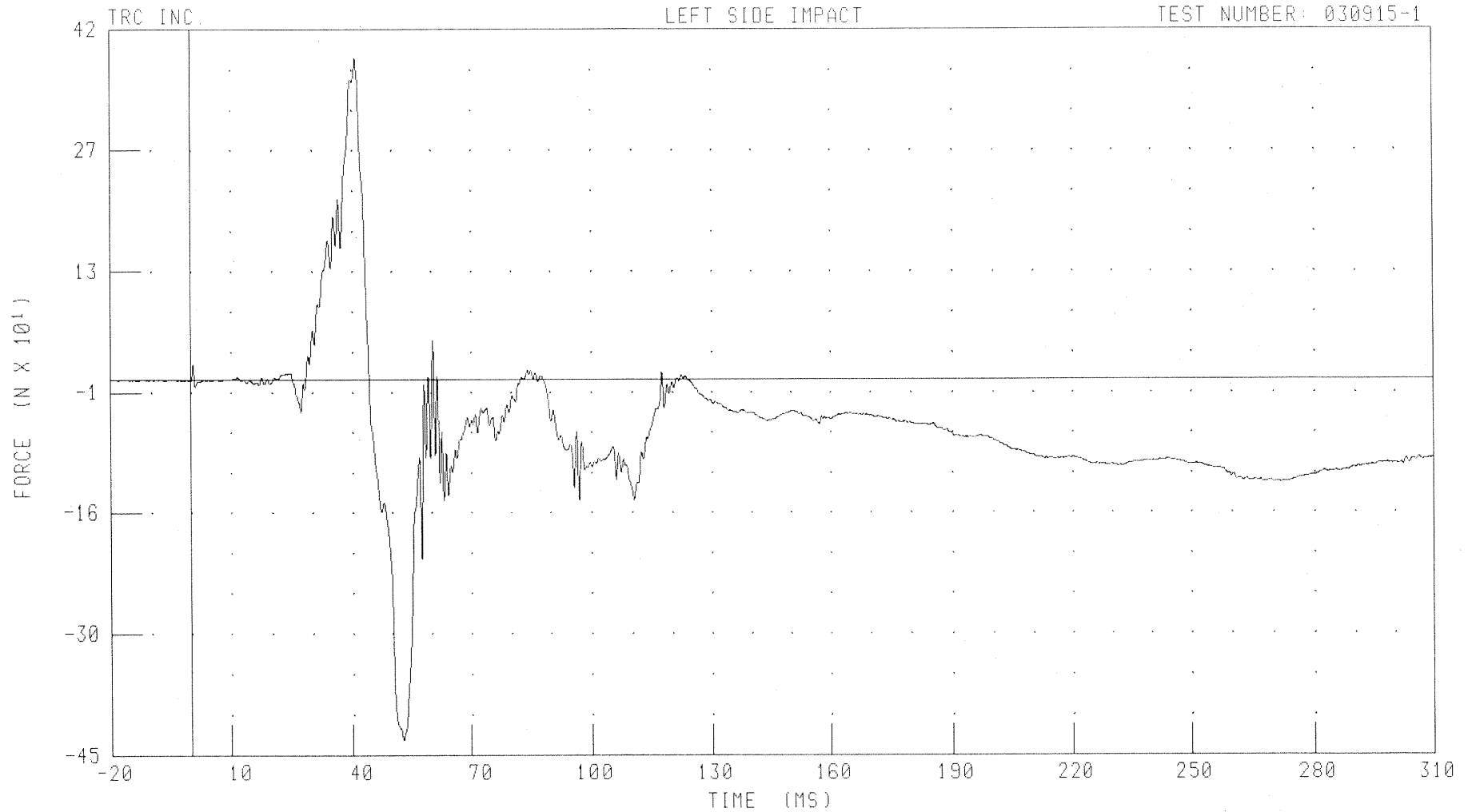
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIGHT FEMUR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMYF1 FILTER: CH. CLASS 600

PEAK DATA: 386.28 N @ 41.04 MS; -431.58 N @ 52.72 MS

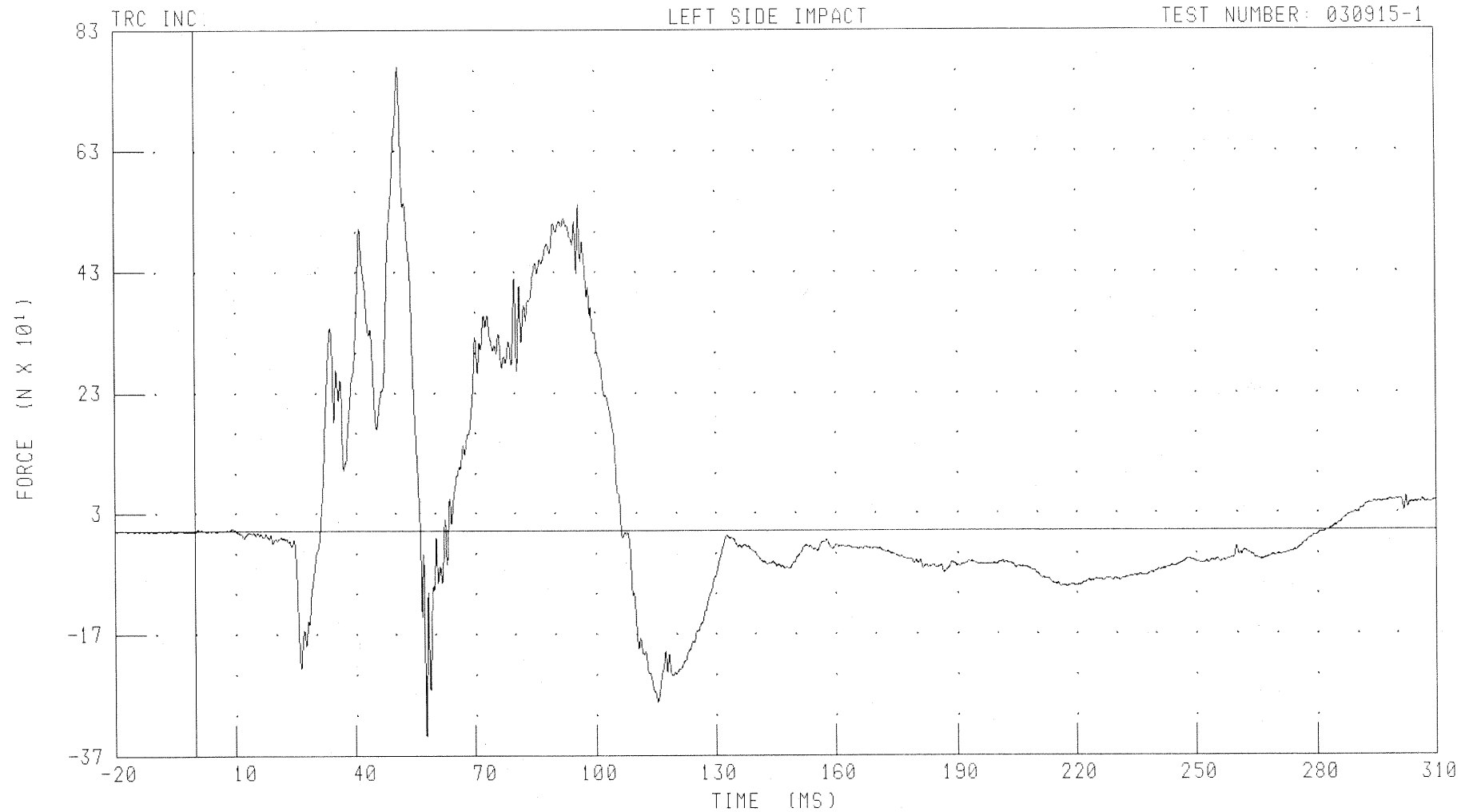
B-150

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIGHT FEMUR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMZFI FILTER: CH. CLASS 600

PEAK DATA: 769.04 N @ 51.04 MS; -338.80 N @ 57.84 MS

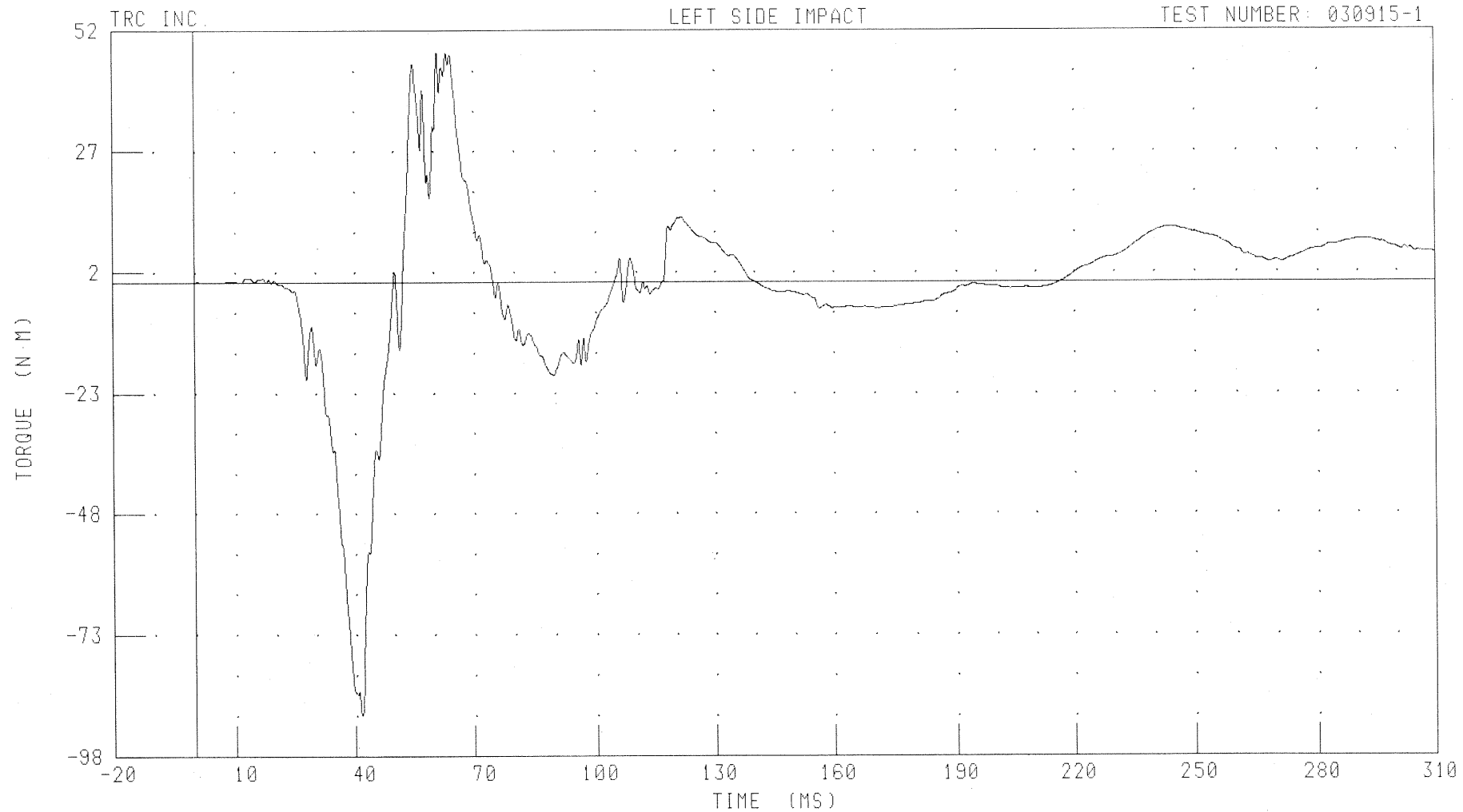
B-151

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIGHT FEMUR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMXM1 FILTER: CH. CLASS 600

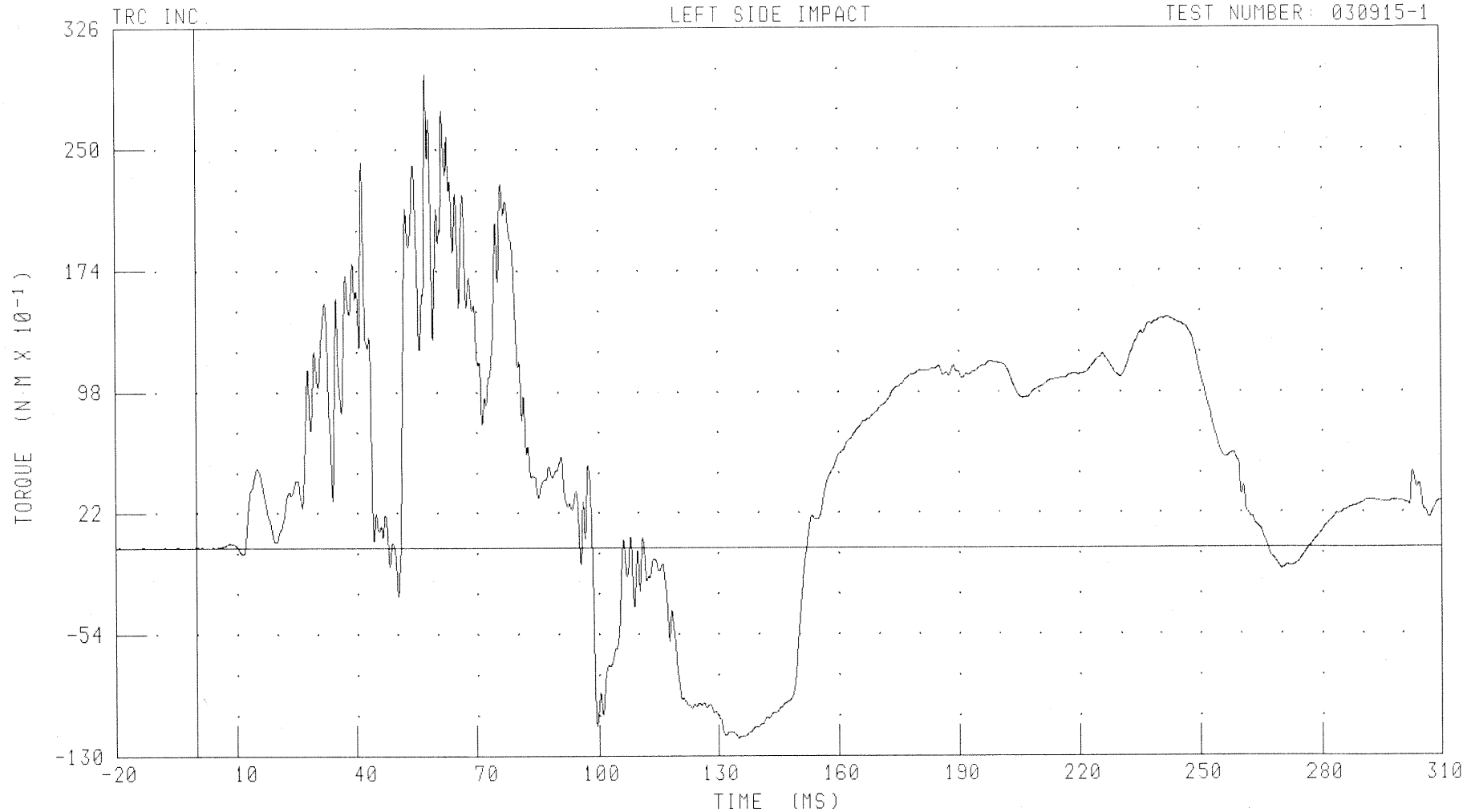
B-152

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIGHT FEMUR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMYM1 FILTER: CH. CLASS 600

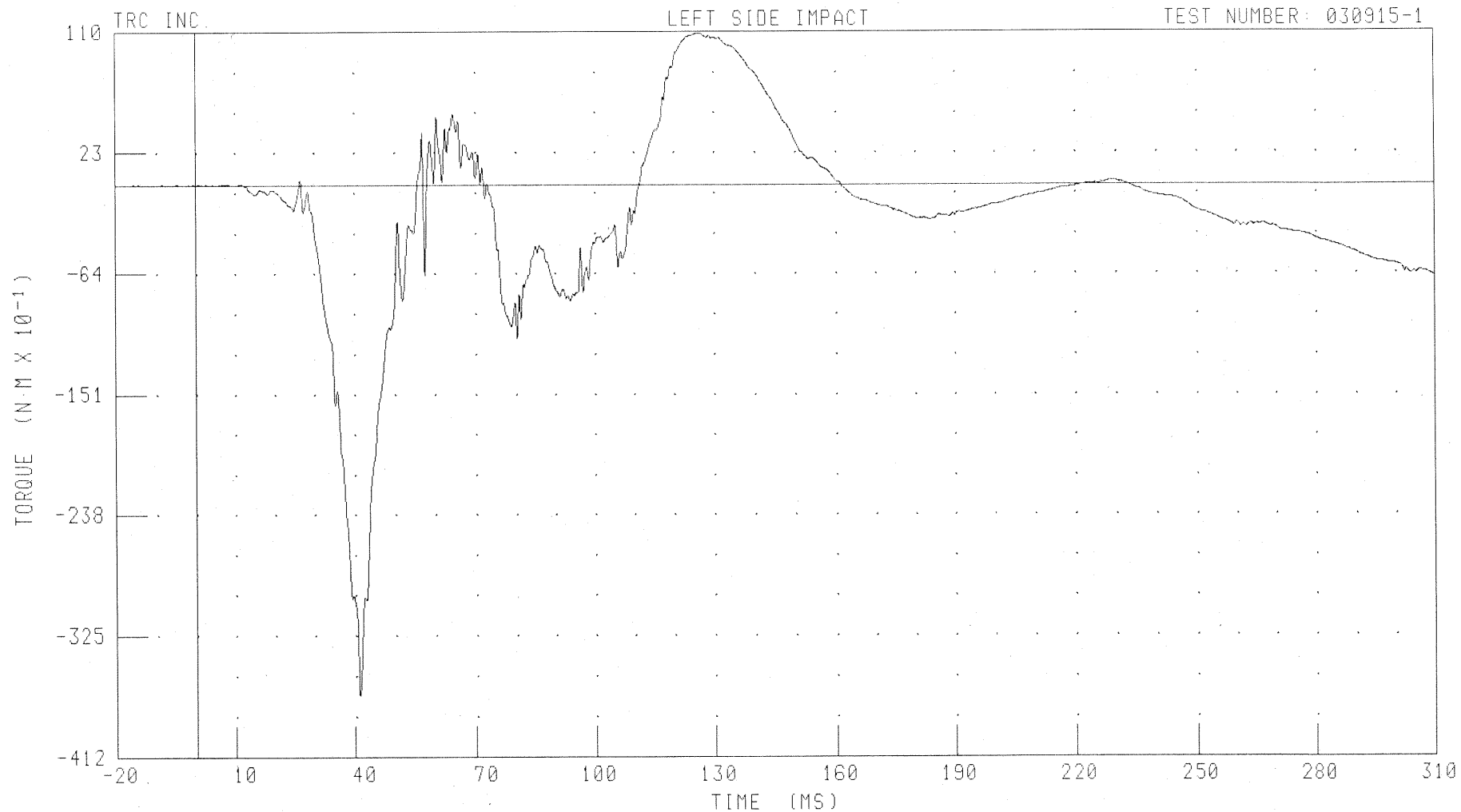
PEAK DATA: 29.72 N·M @ 57.36 MS; -11.90 N·M @ 135.12 MS

B-153

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIGHT FEMUR MOMENT ABOUT Z AXIS

TEST NUMBER: 030915-1



CHANNEL: RFMZM1 FILTER: CH. CLASS 600

PEAK DATA: 10.88 N·M @ 126.88 MS; -36.75 N·M @ 41.12 MS

B-154

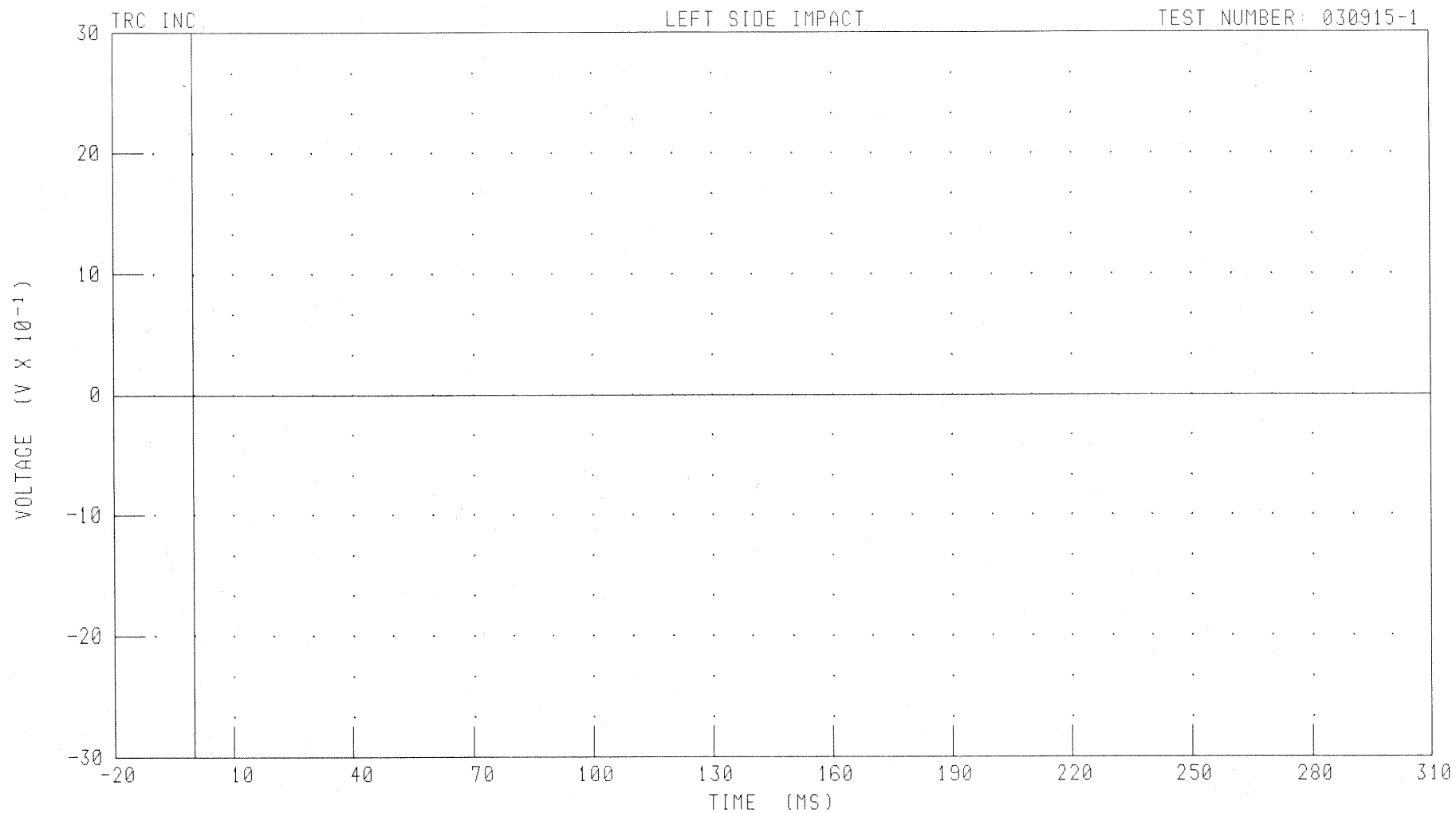
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 1 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF1V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-155

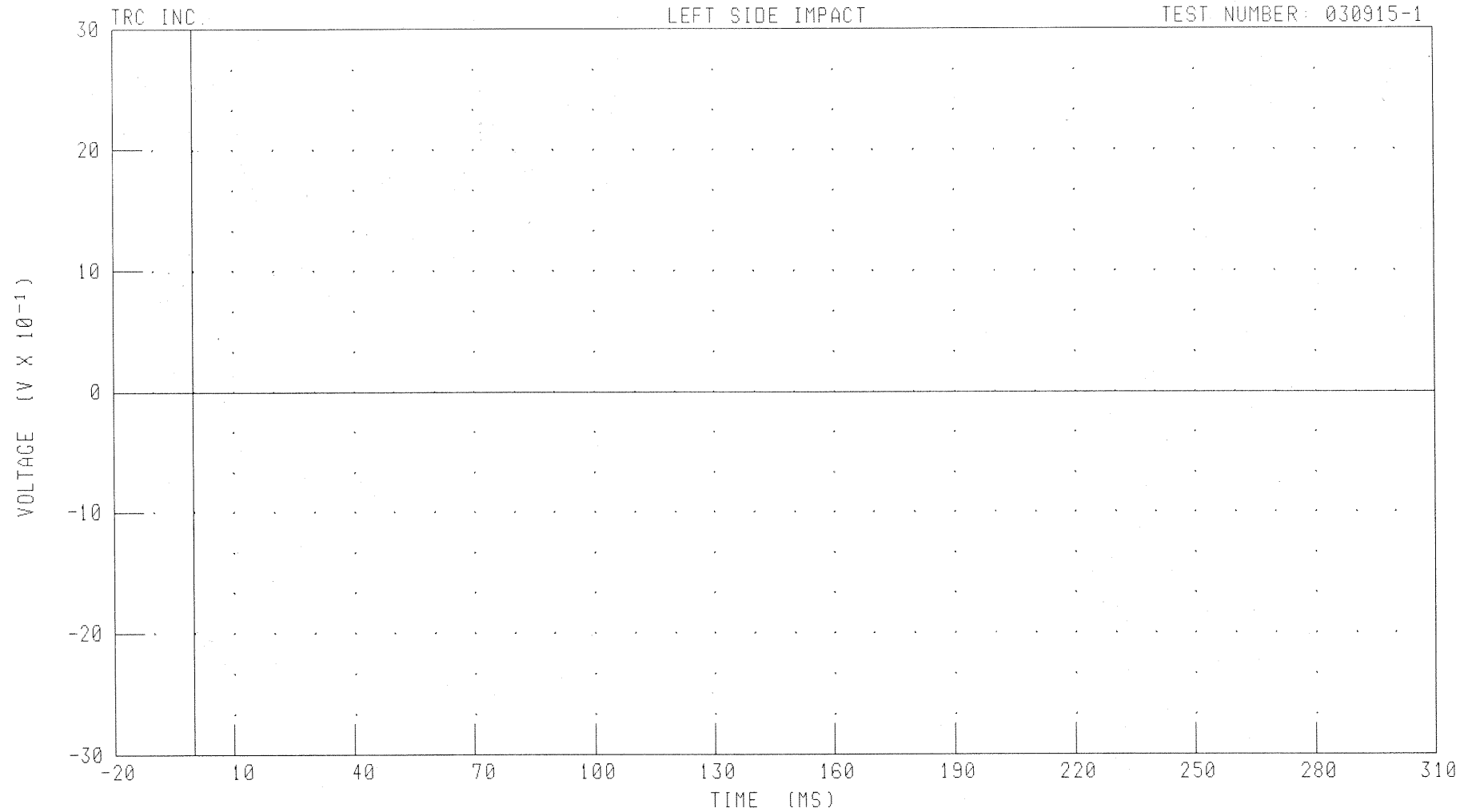
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 2 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF2V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-156

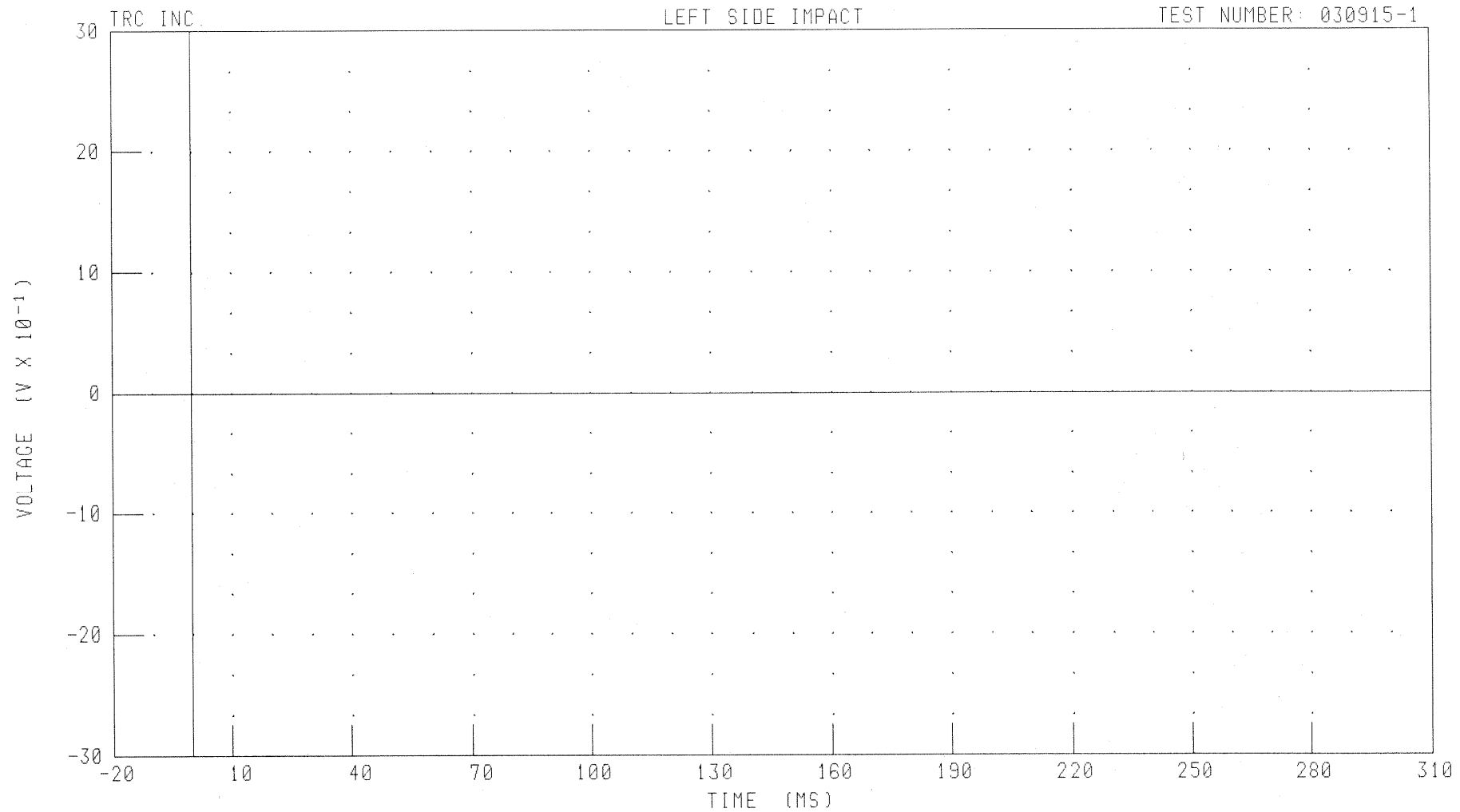
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 3 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF3V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-157

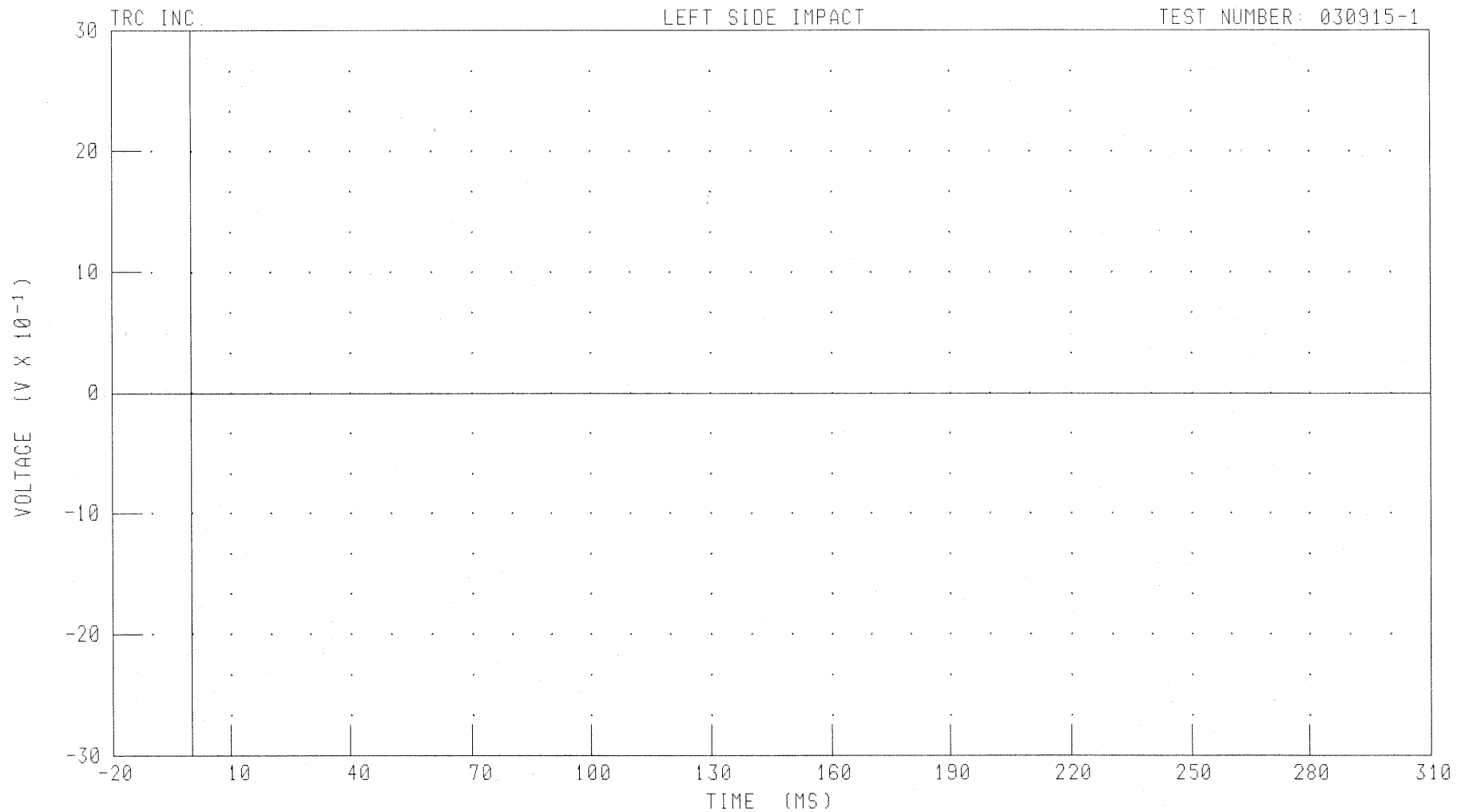
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 4 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF4V1 FILTER: CH. CLASS 1000

B-158

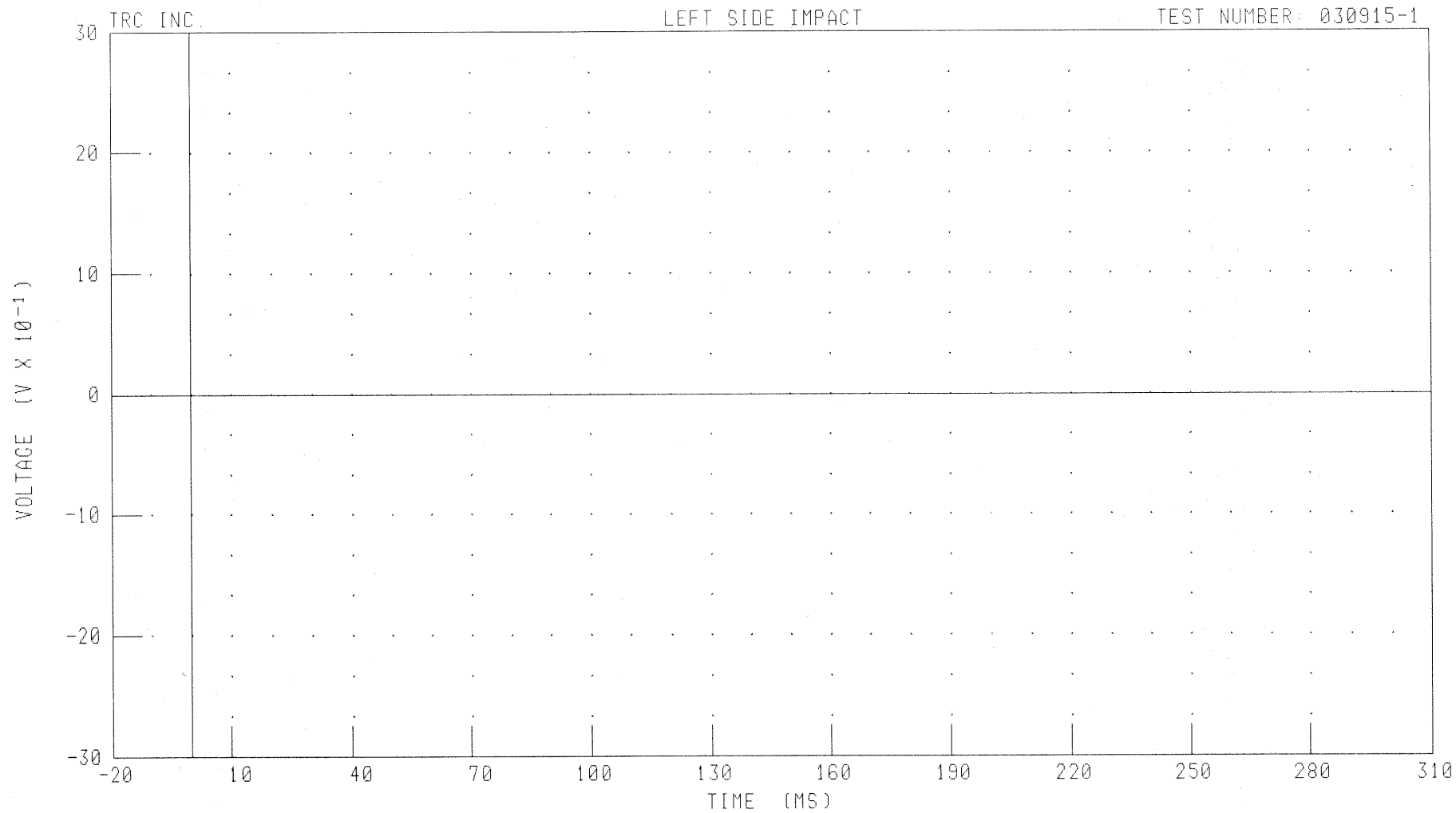
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 5 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF5V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-159

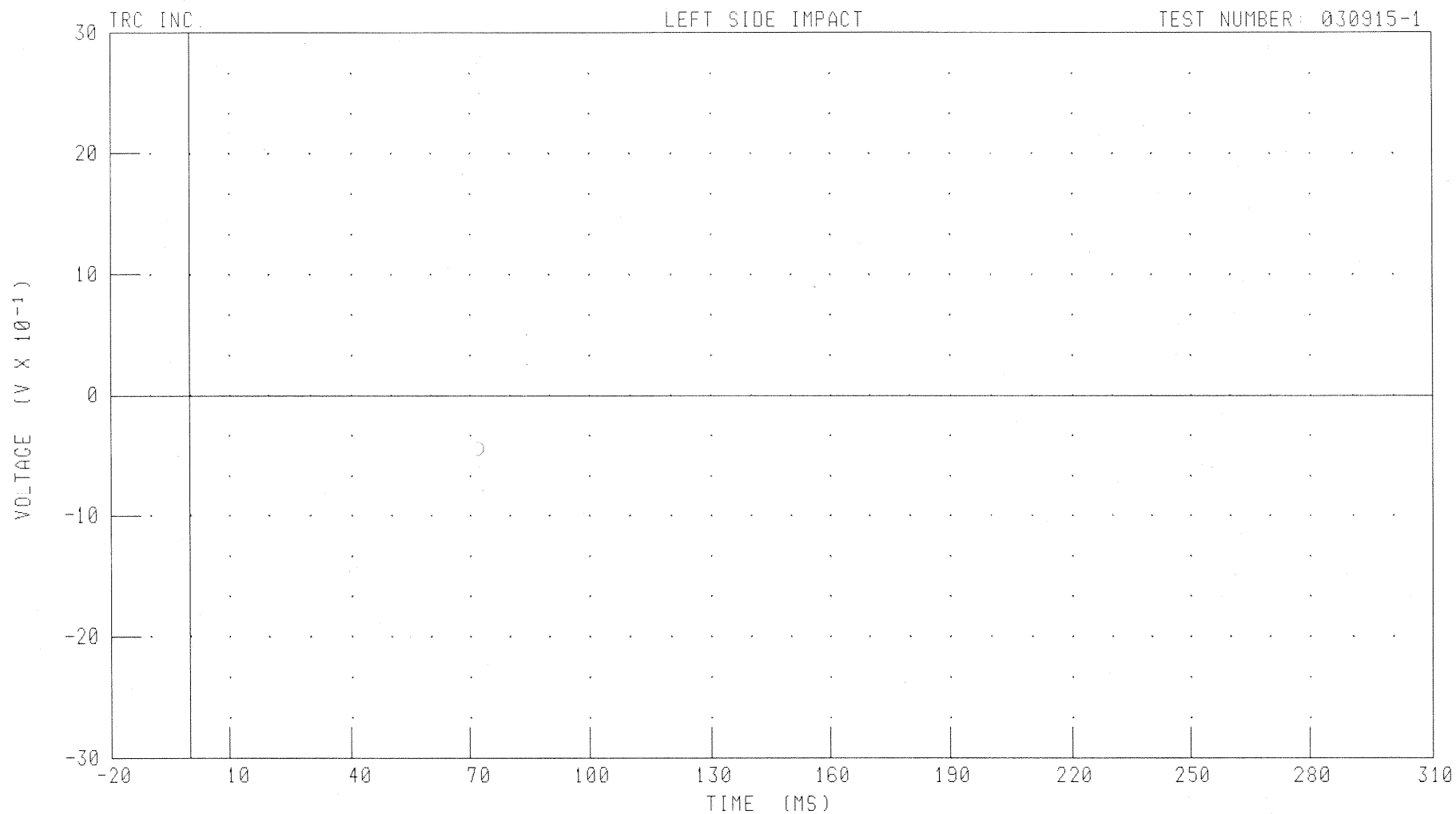
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 1 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1V1

FILTER: CH CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-160

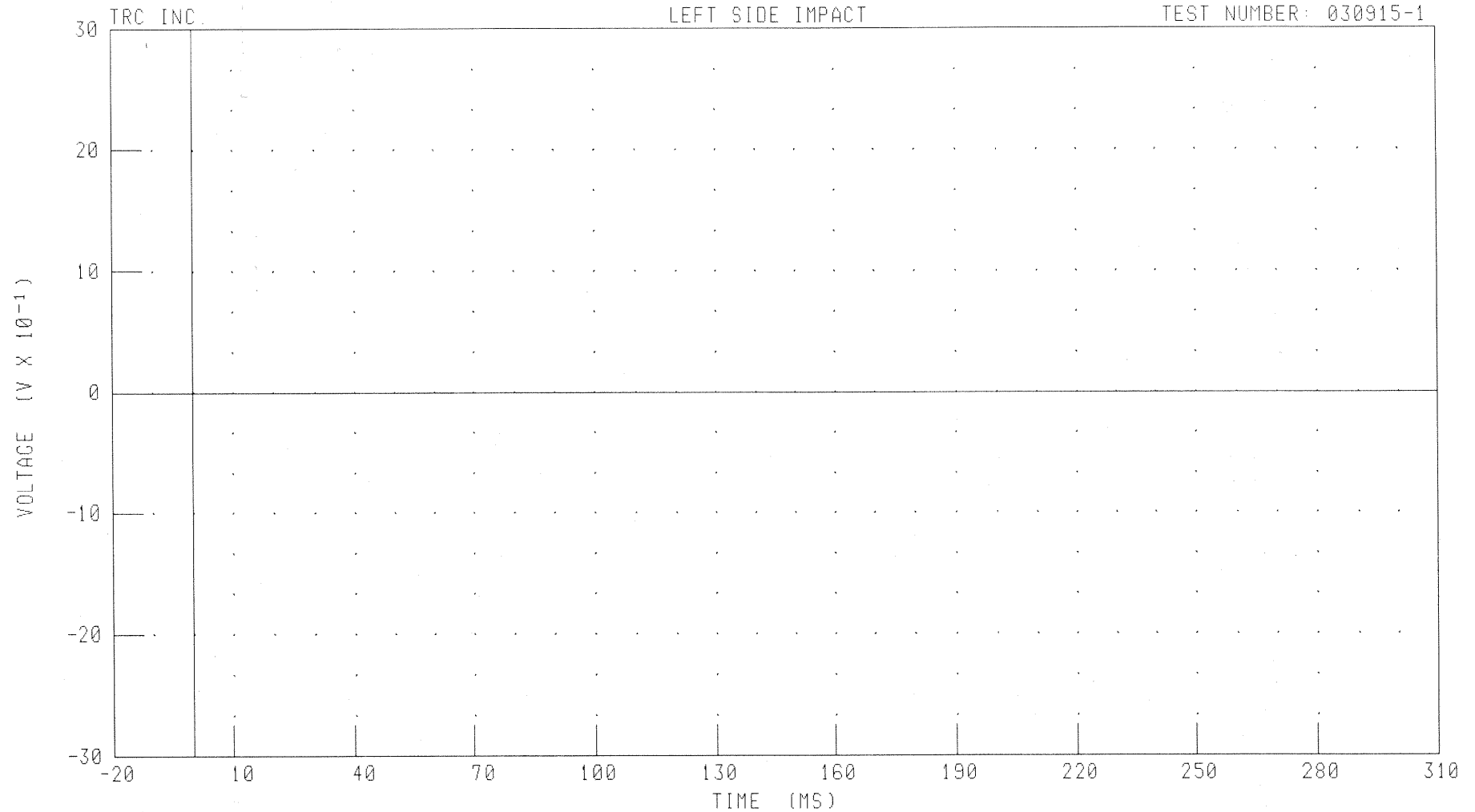
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 2 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

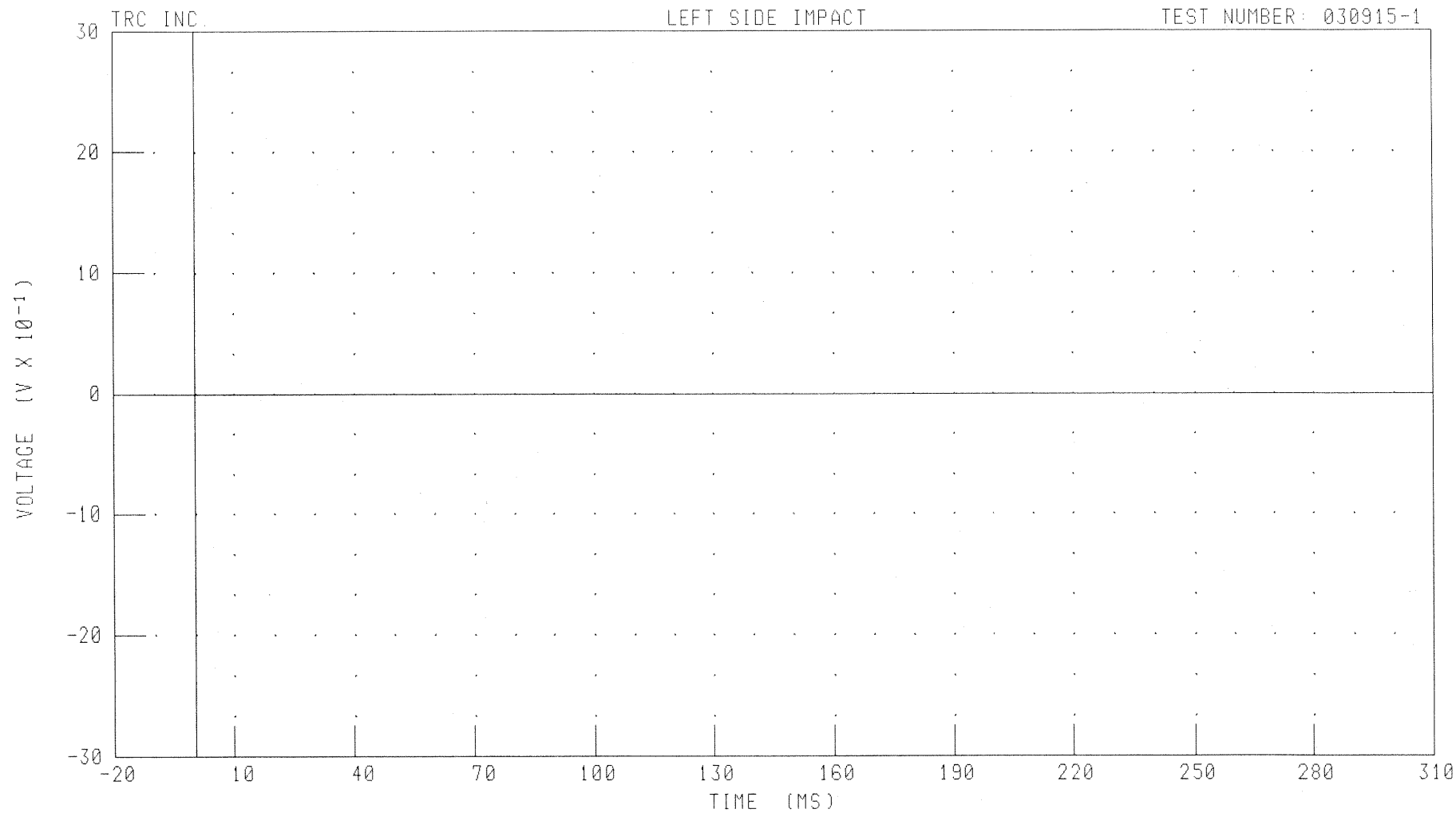
B-161

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 3 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

B-162

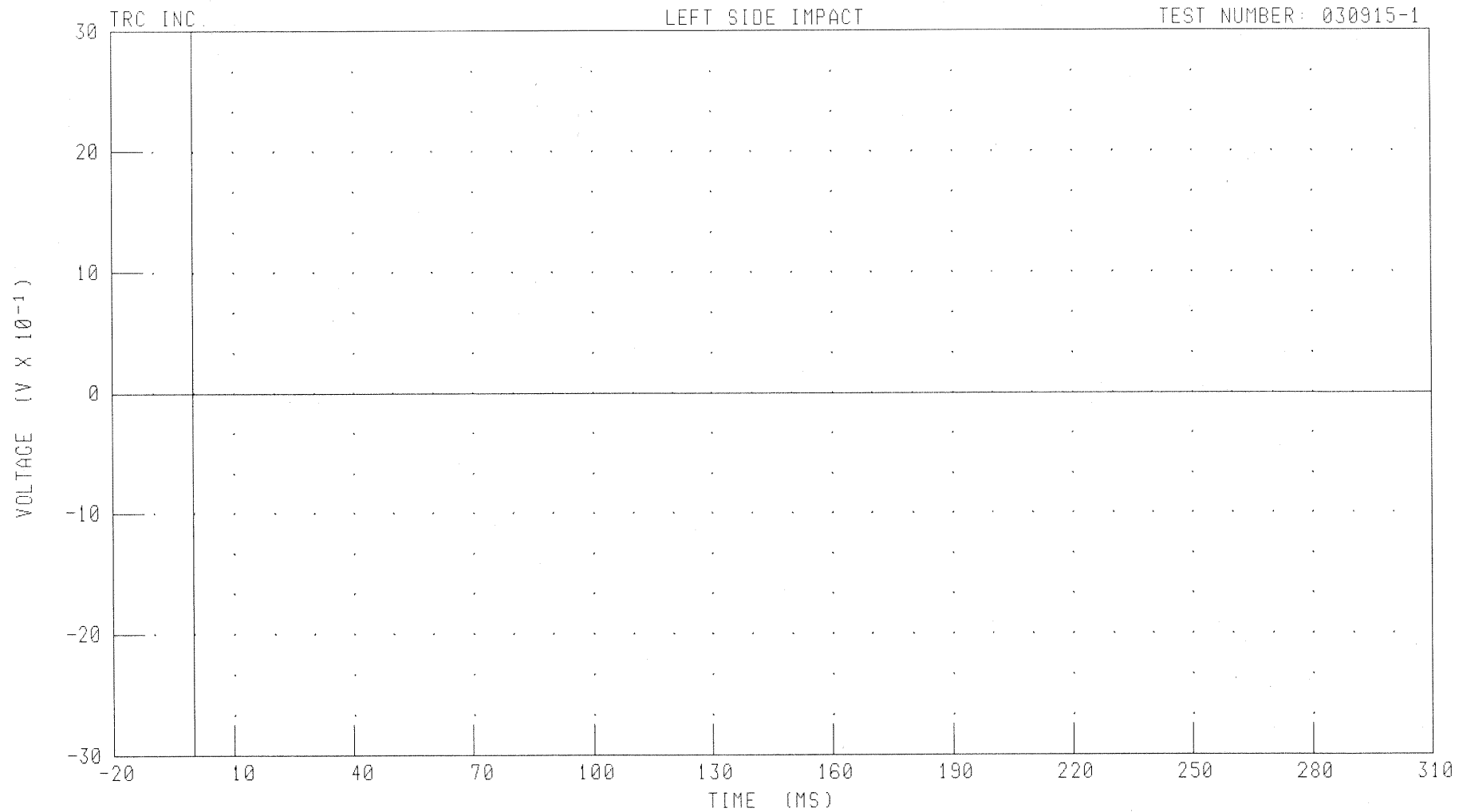
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 4 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4V1 FILTER: CH. CLASS 1000

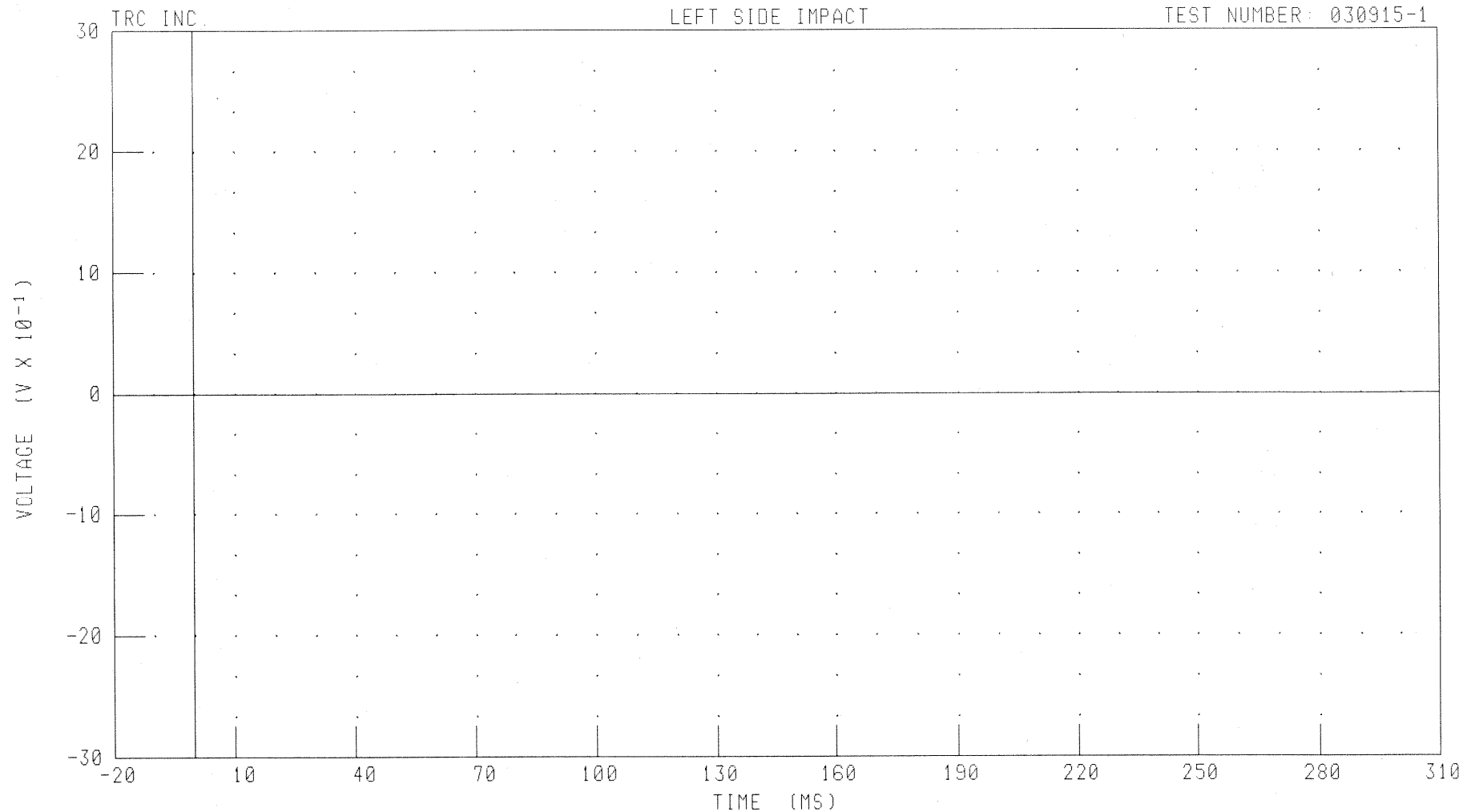
B-163

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 5 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5V1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

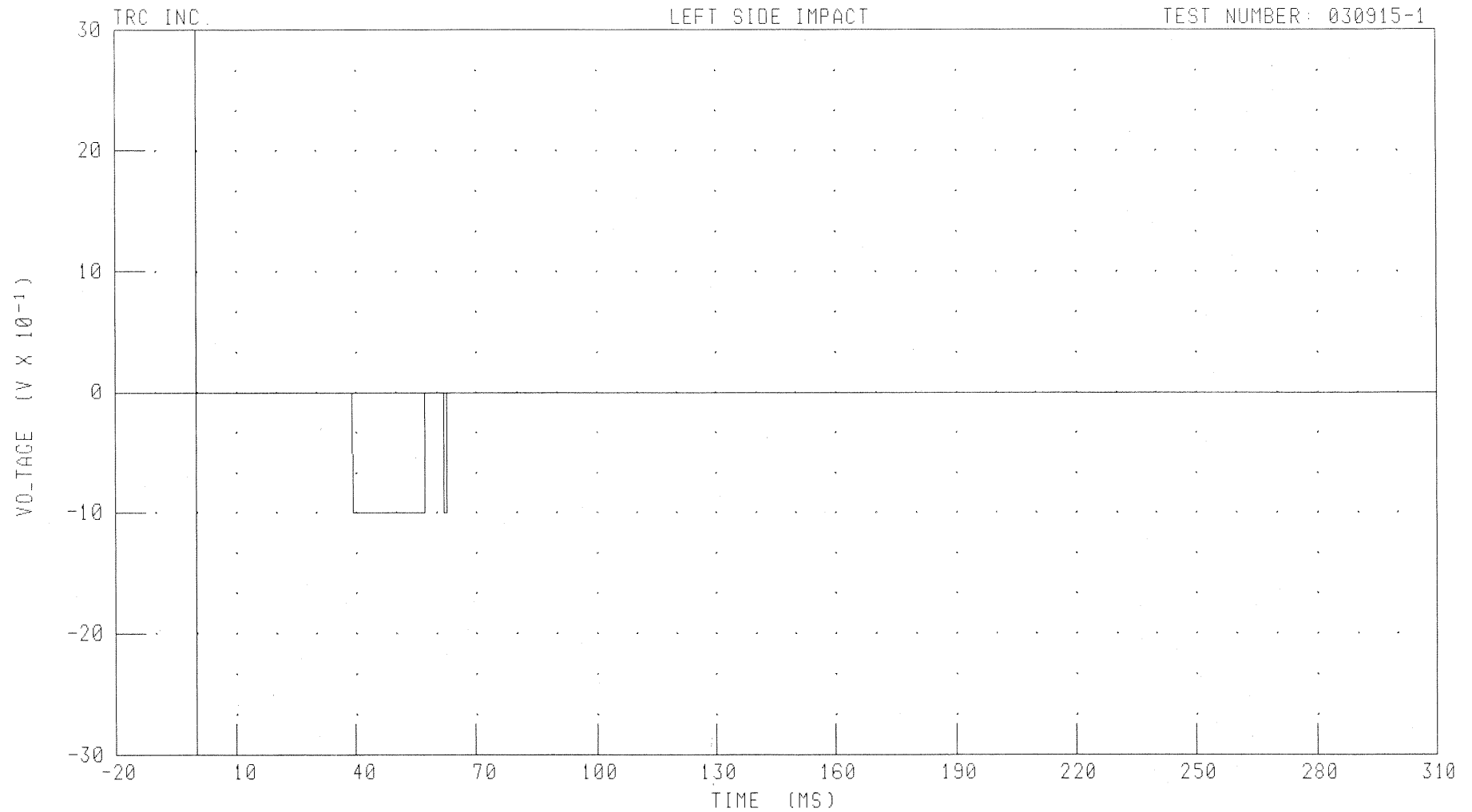
B-164

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 1 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



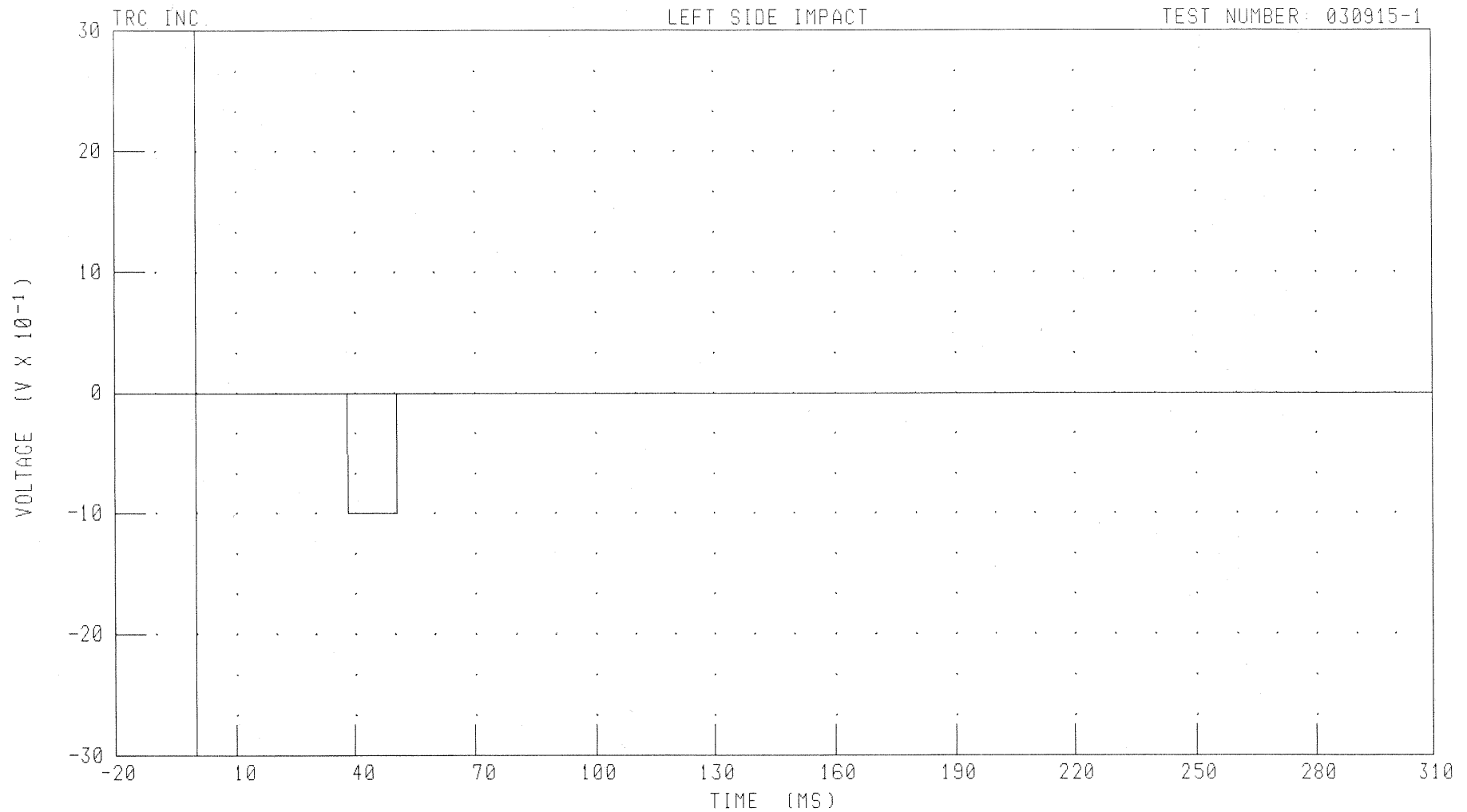
CHANNEL: RFG1V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 39.28 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 2 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG2V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 38.32 MS

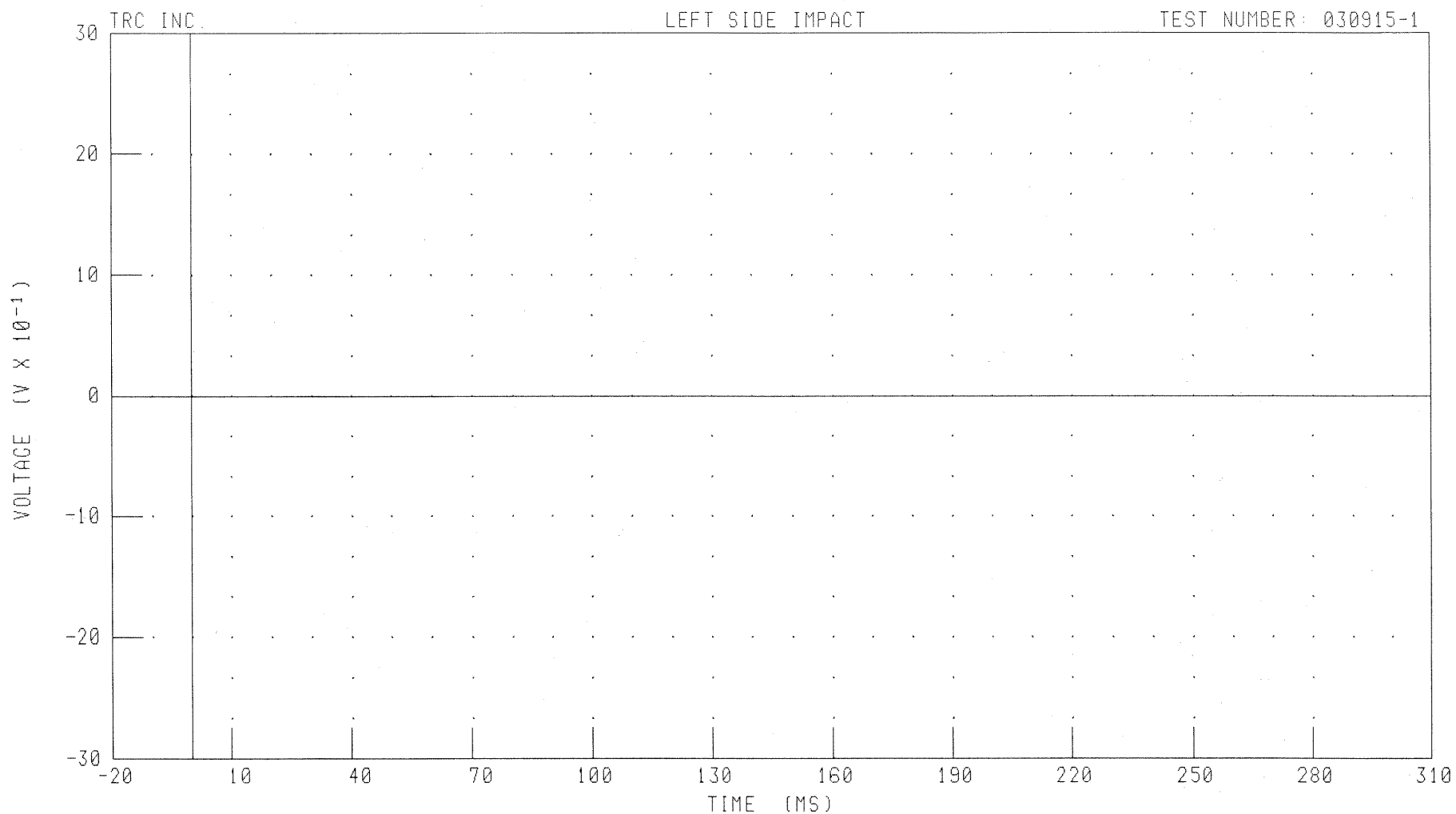
B-166

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 3 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG3V1 FILTER: CH. CLASS 1000

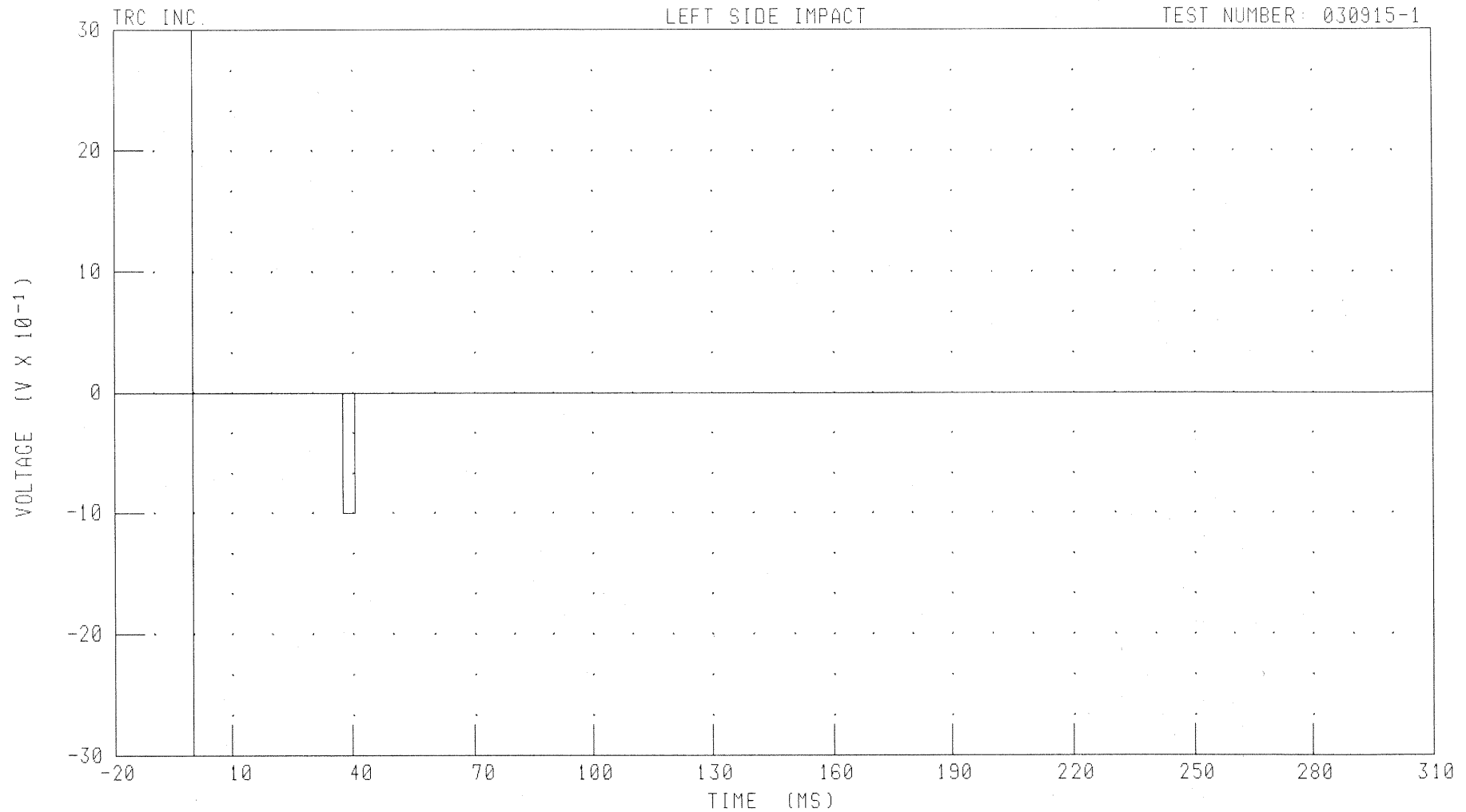
B-167

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 4 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG4V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 37.68 MS

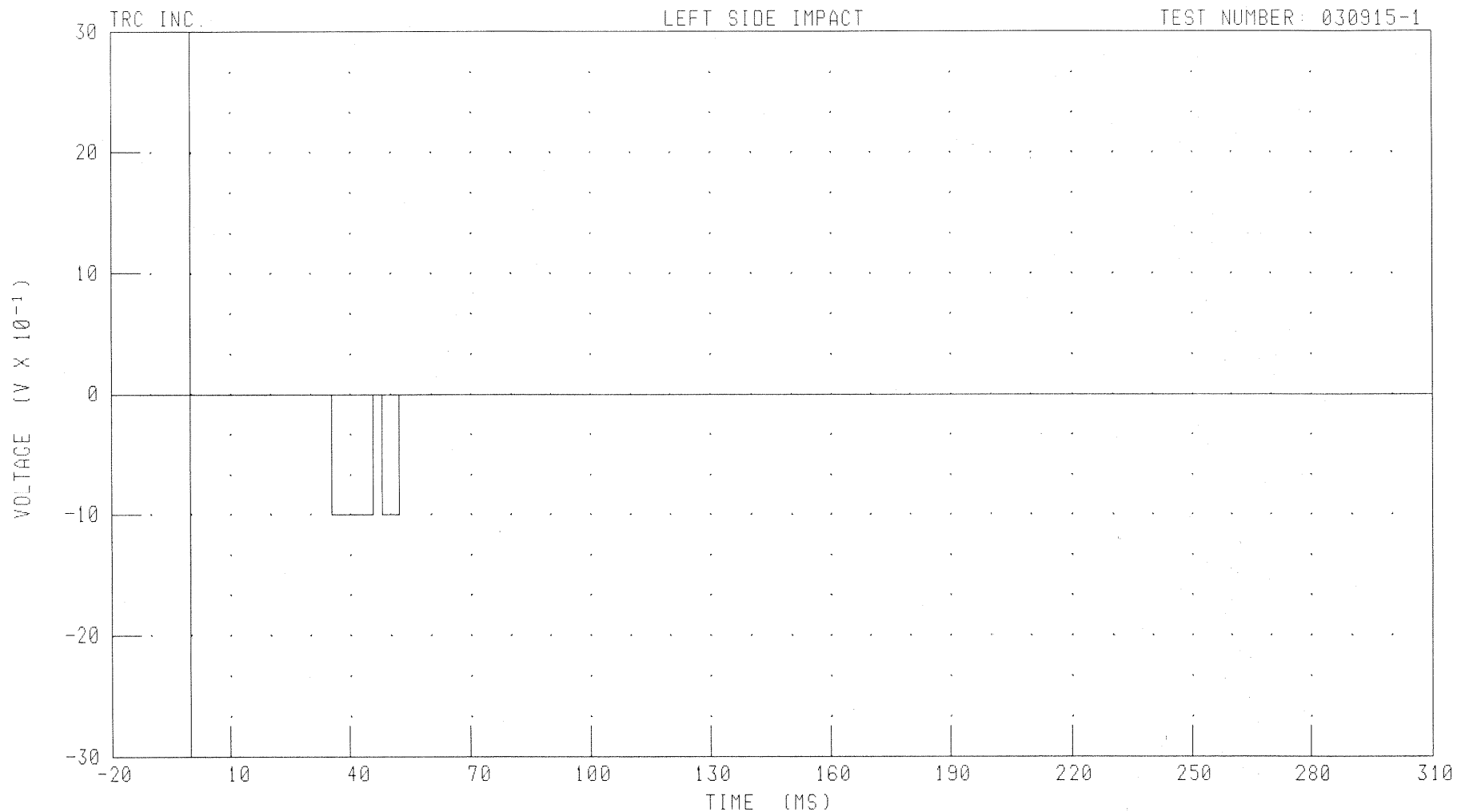
B-168

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 5 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG5V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 35.68 MS

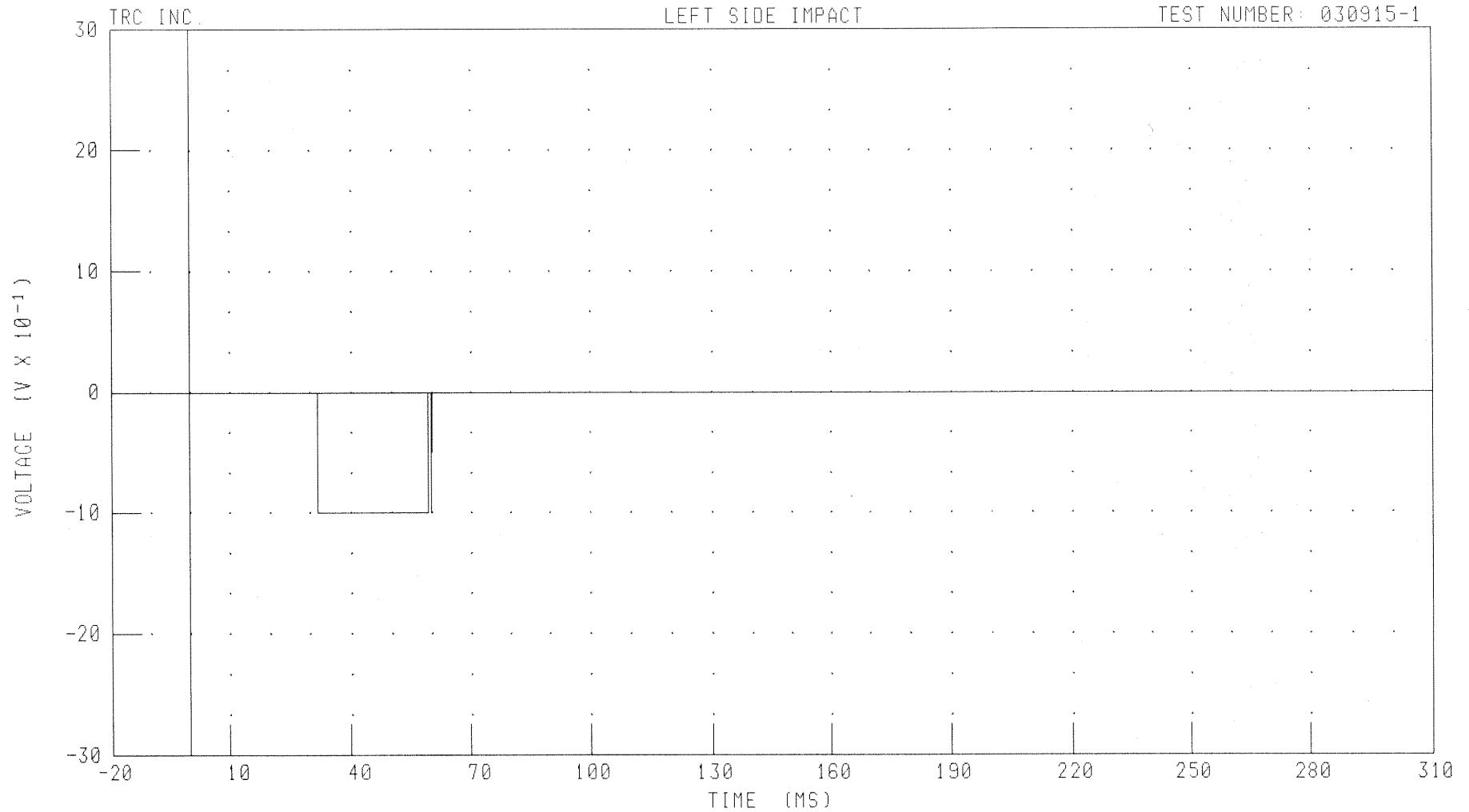
B-169

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 1 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC1V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 32.08 MS

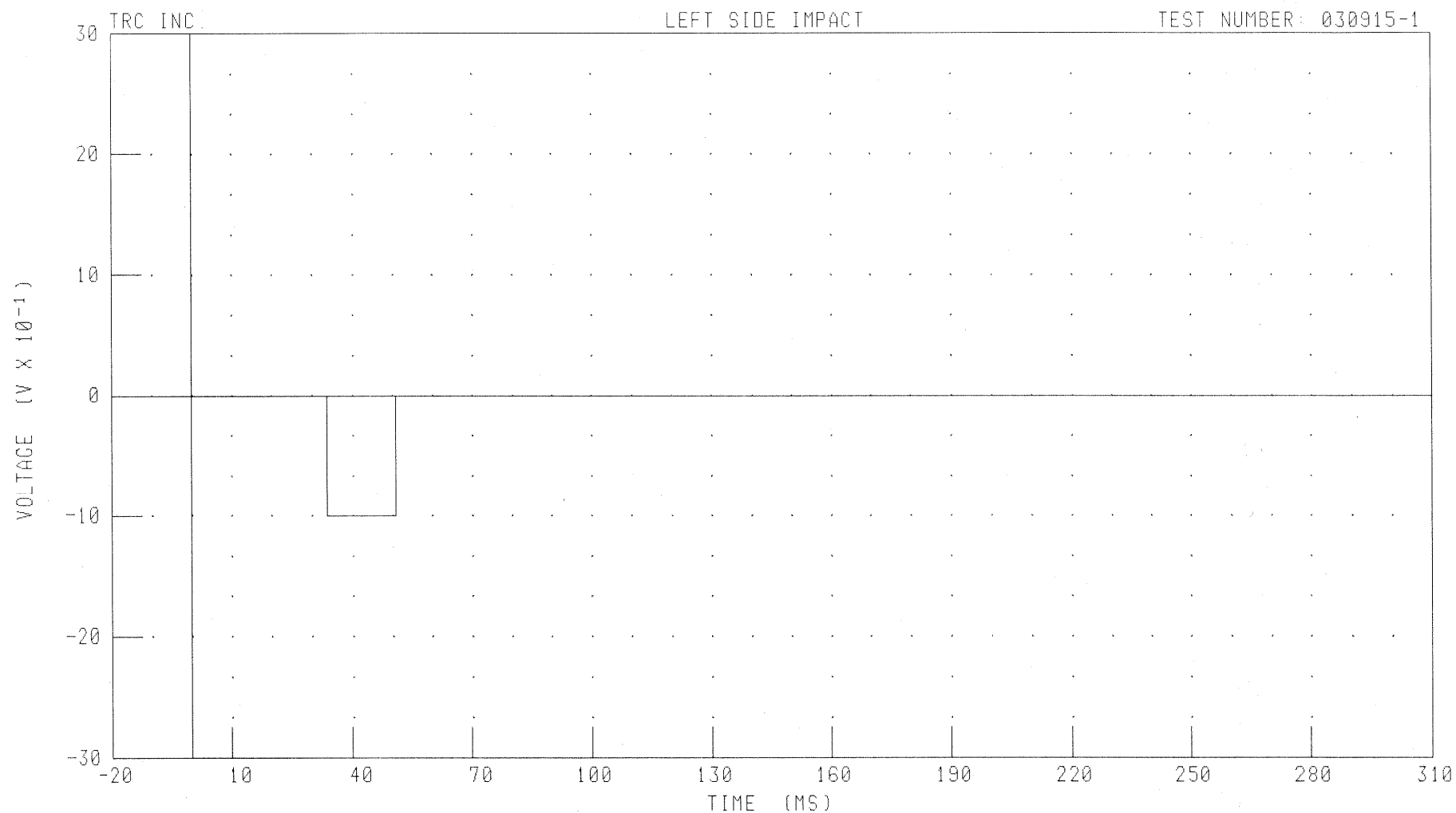
B-170

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 2 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC2V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 33.92 MS

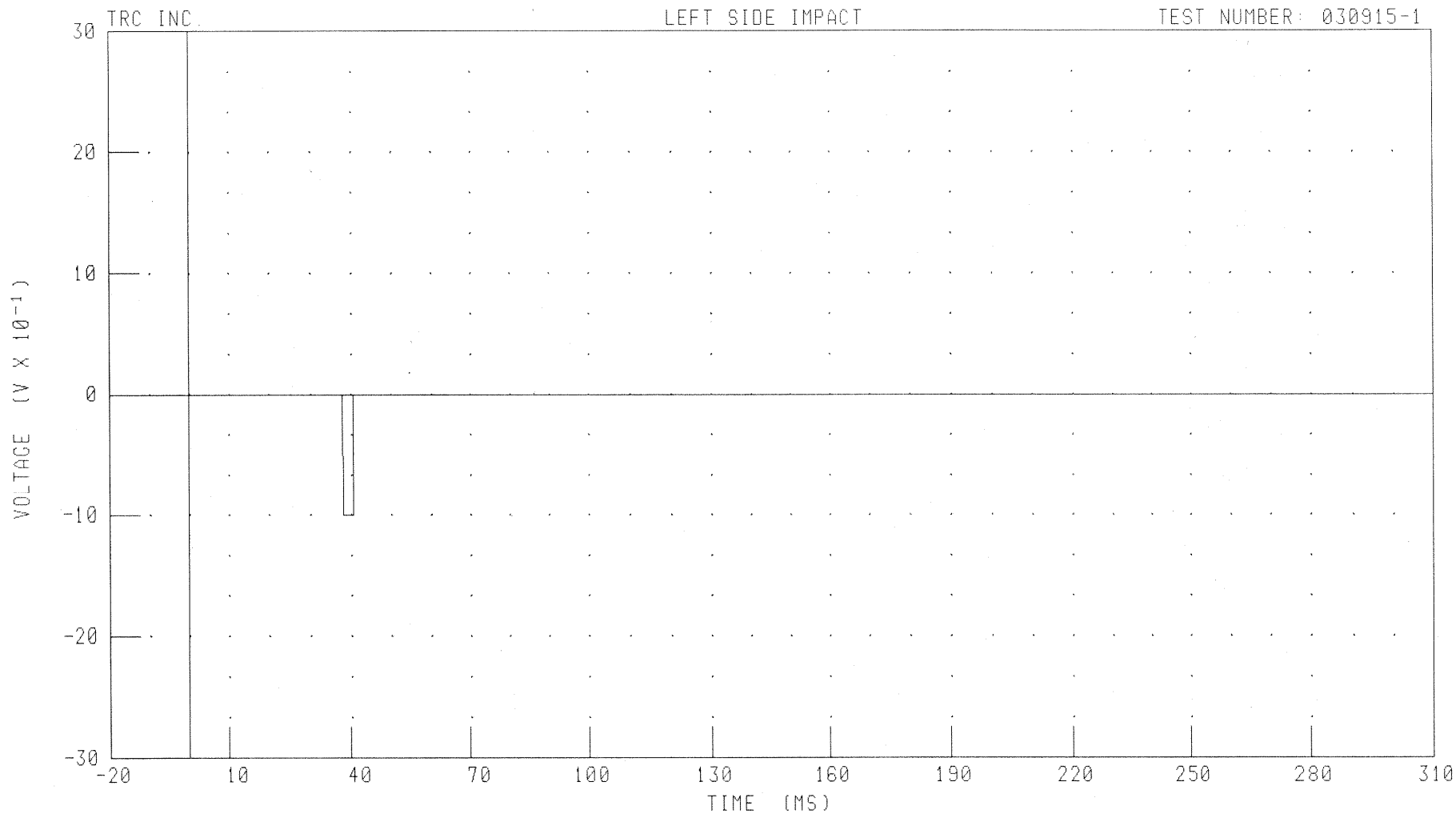
B-171

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 3 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBG3V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 38.08 MS

B-172

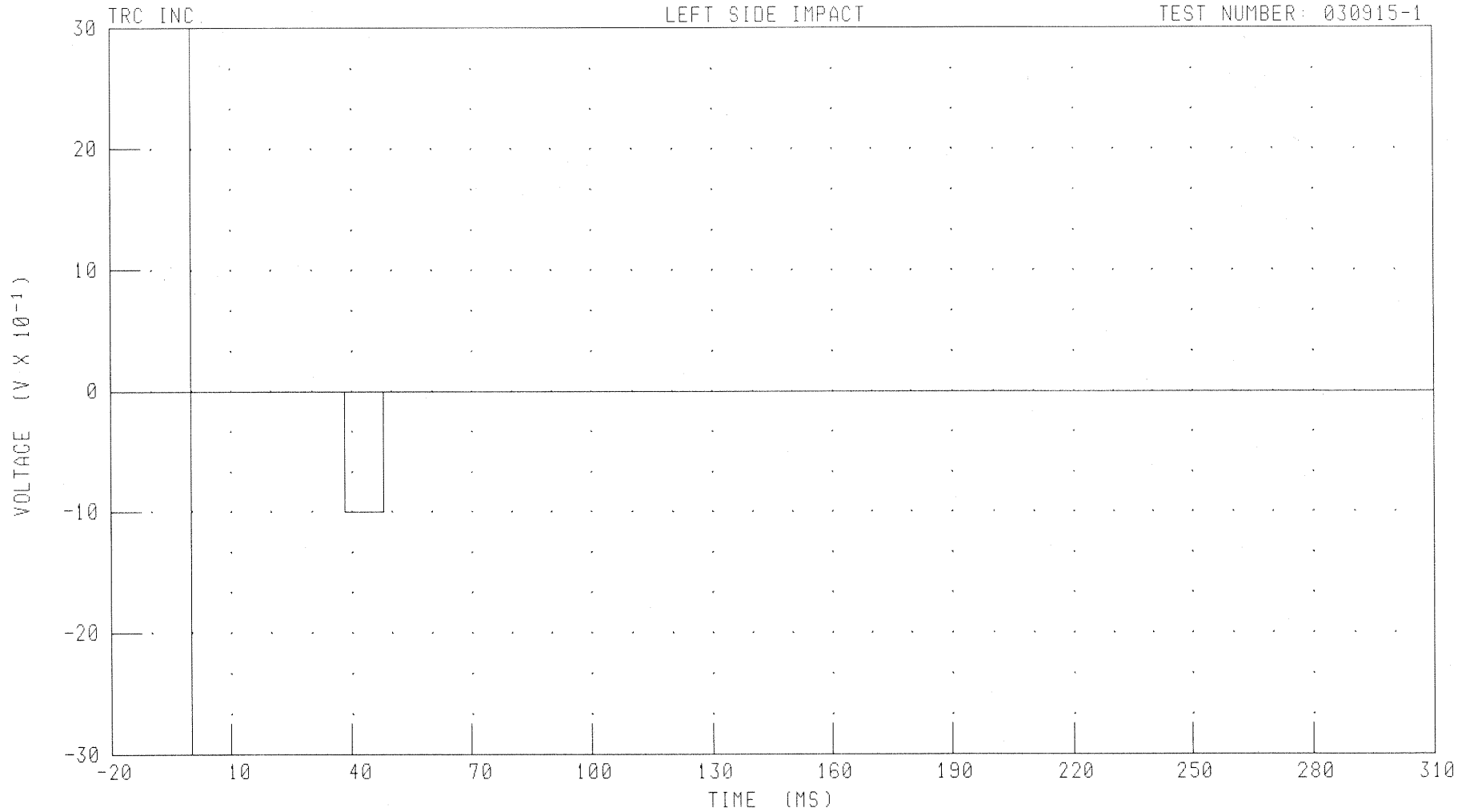
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER RIB 4 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC4V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 38.40 MS

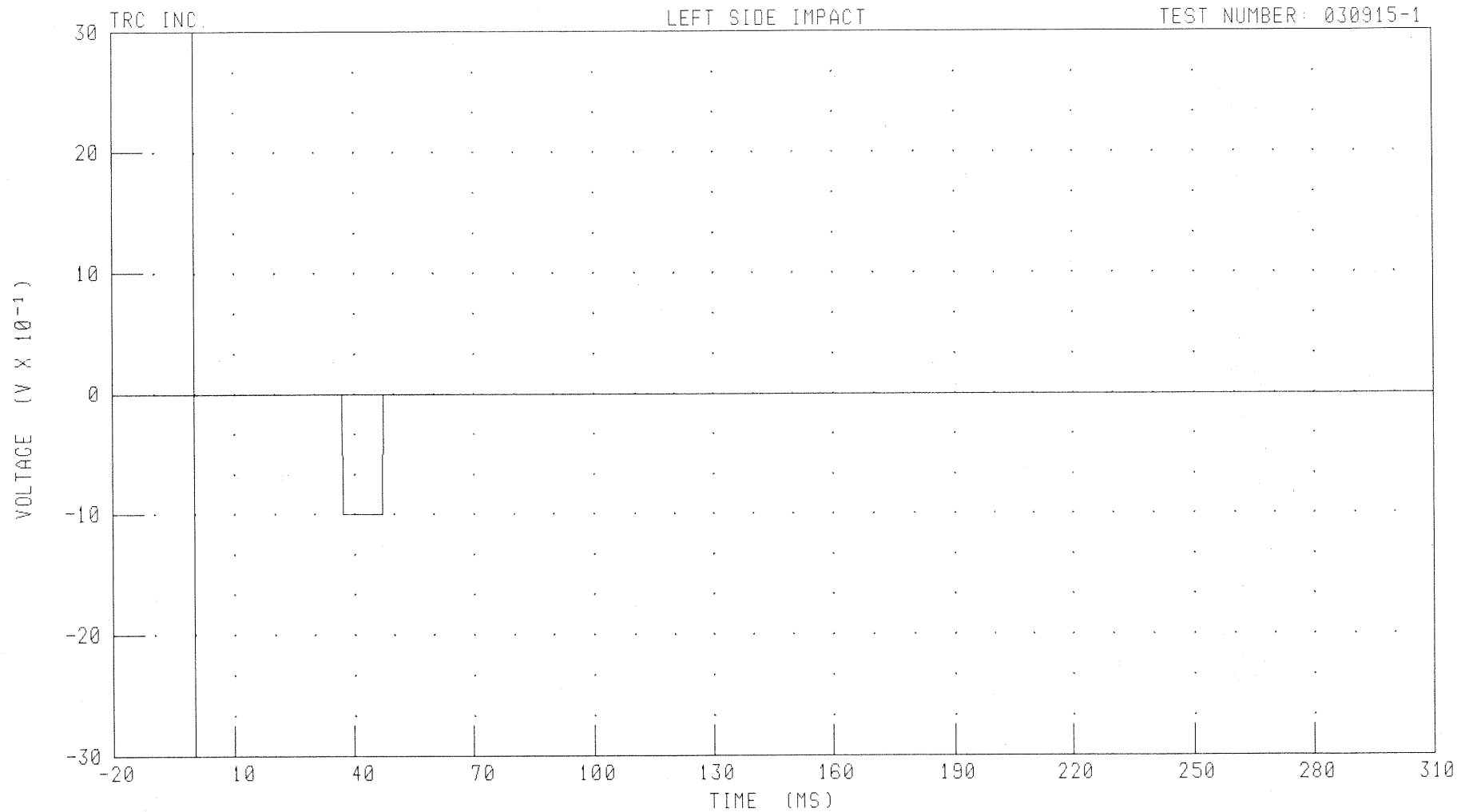
B-173

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER RIB 5 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBG5V1 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS, -1.00 V @ 37.28 MS

B-174

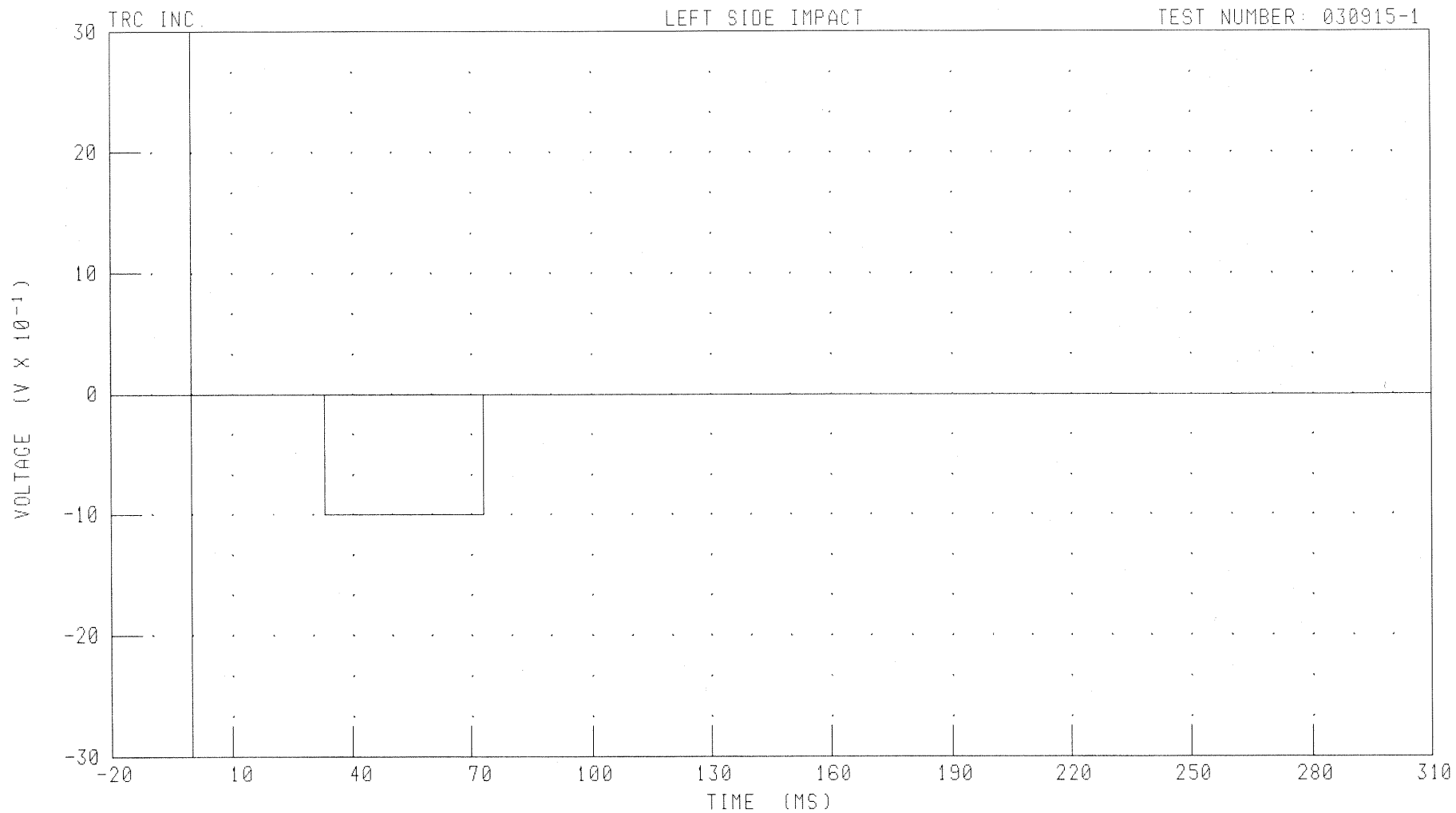
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SHOULDER CONTACT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: CSTC1 FILTER: CH. CLASS 1000

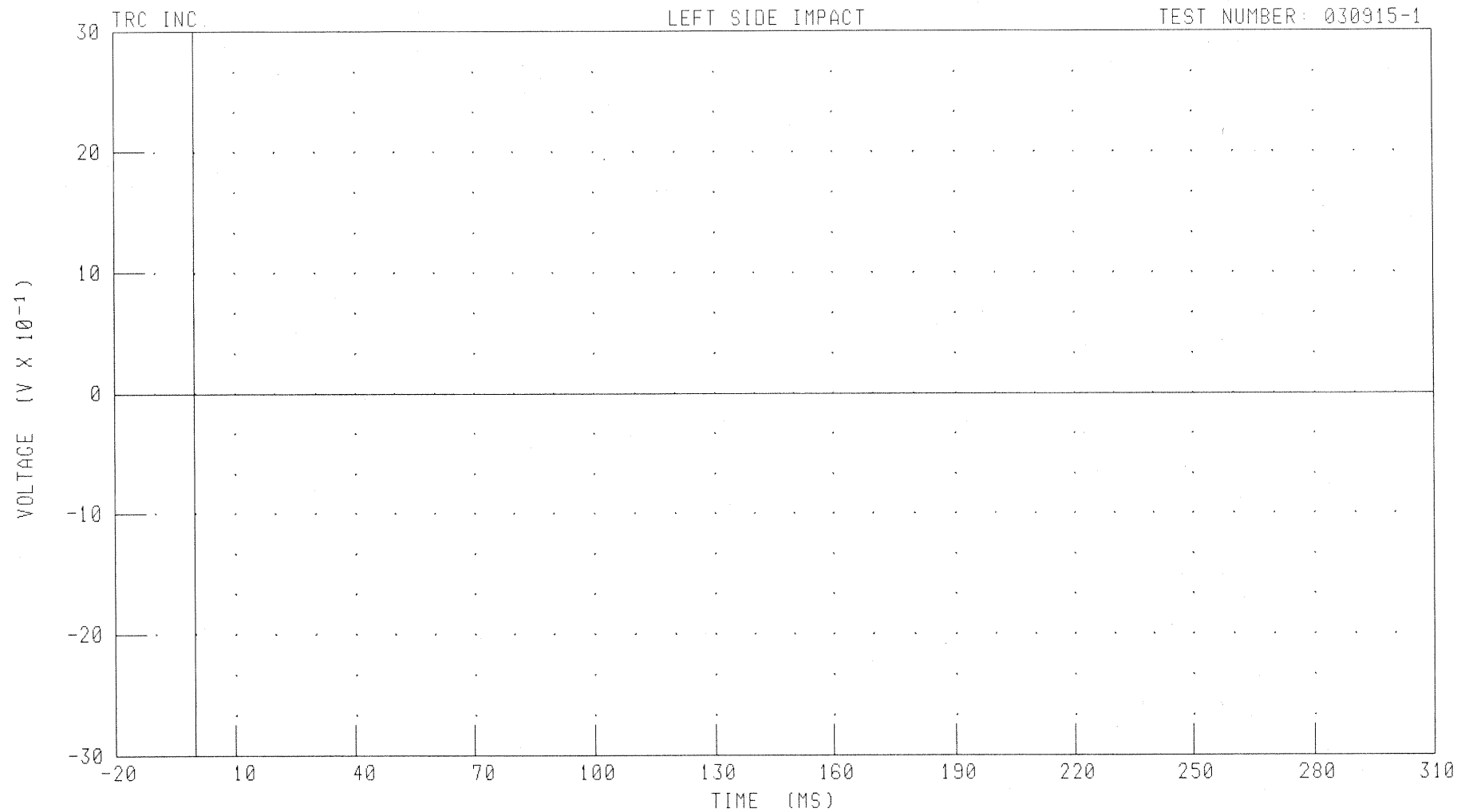
PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 33.04 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER PELVIS CONTACT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVC1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; 0.00 V @ -20.00 MS

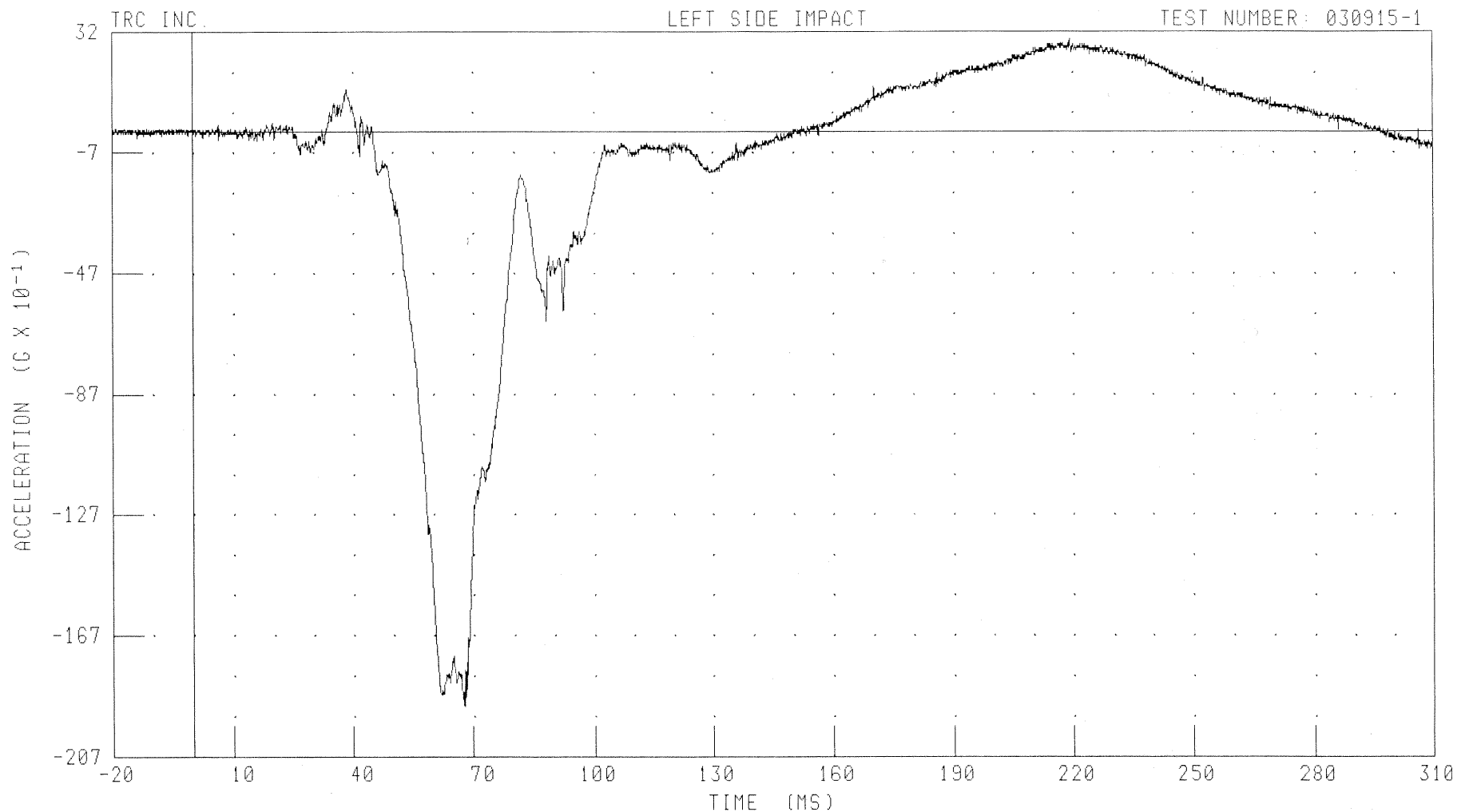
B-176

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDXC4 FILTER: CH. CLASS 1000

PEAK DATA: 3.07 G @ 219.36 MS; -19.06 G @ 67.76 MS

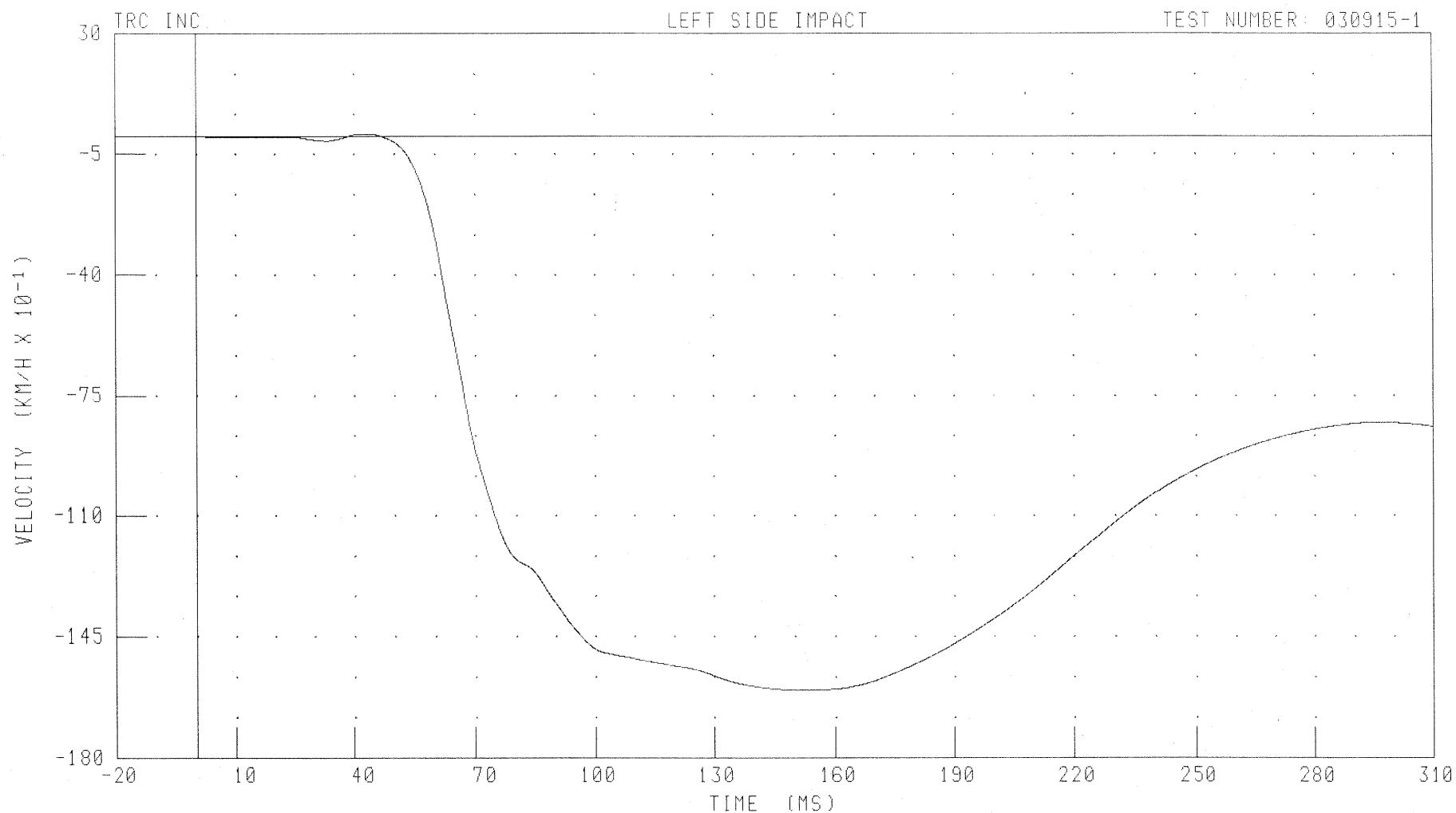
B-177

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDXV4 FILTER: CH. CLASS 180

PEAK DATA: 0.07 KM/H @ 41.20 MS, -16.06 KM/H @ 152.00 MS

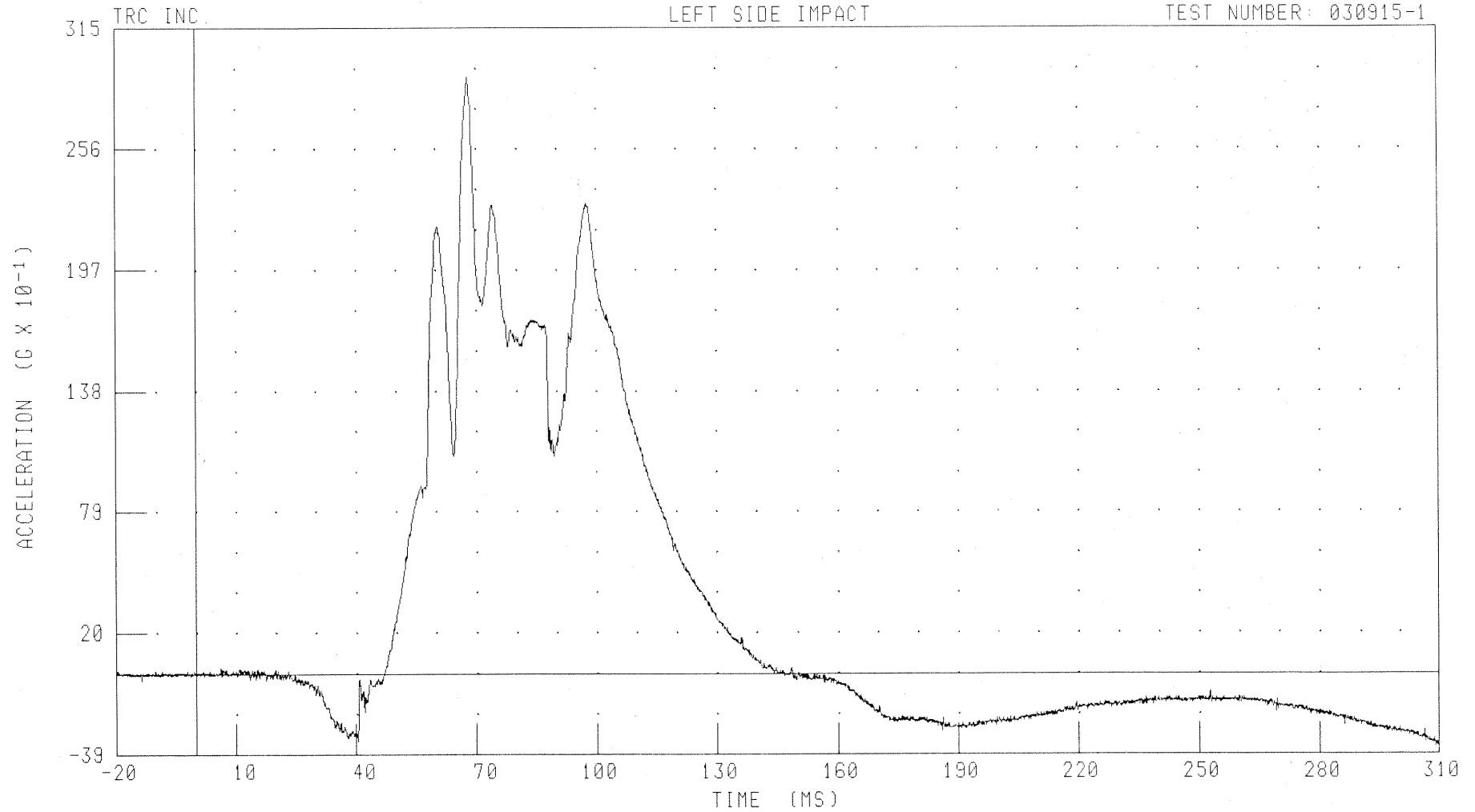
B-178

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDYG4 FILTER: CH. CLASS 1000

PEAK DATA: 29.12 G @ 68.08 MS, -3.61 G @ 309.92 MS

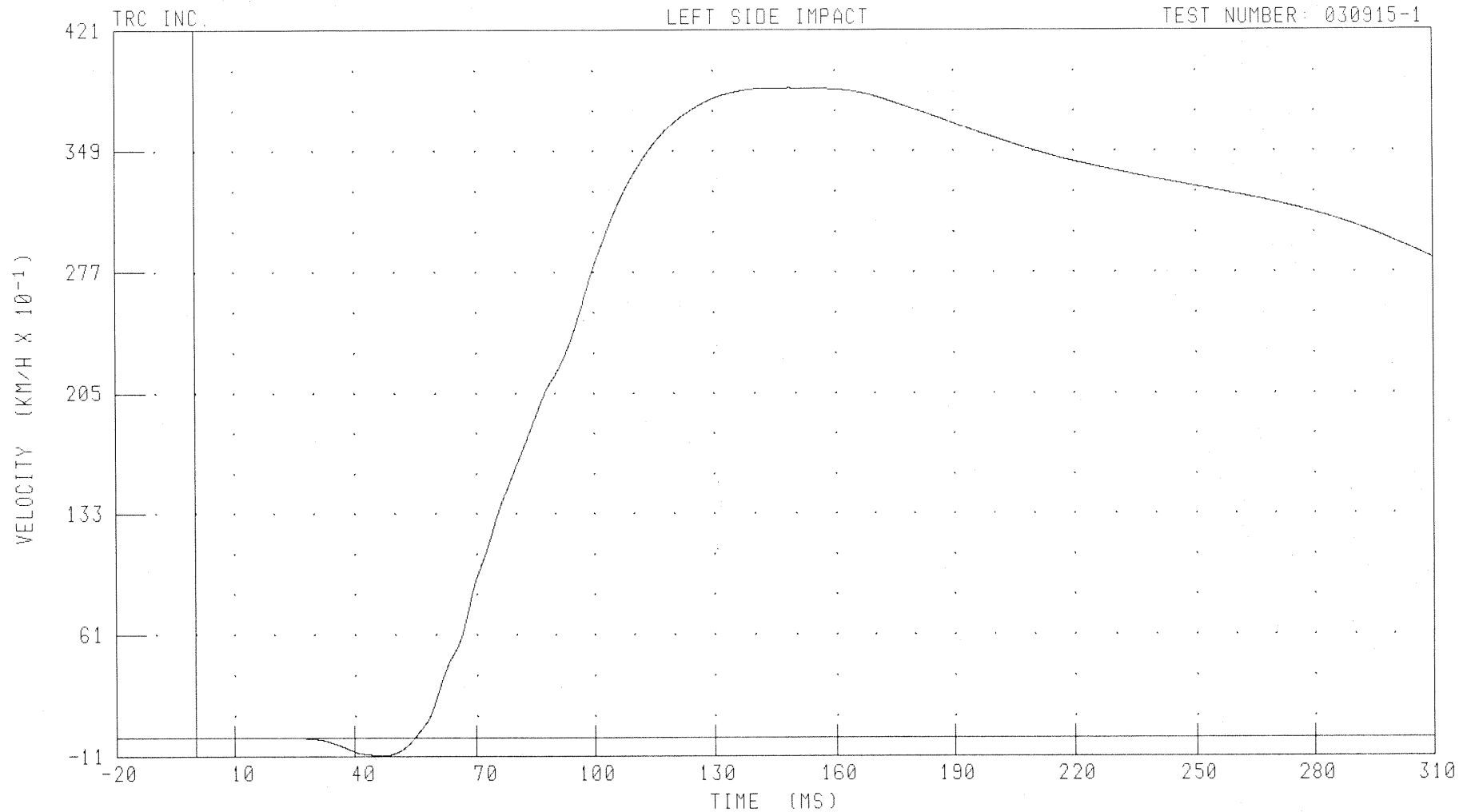
B-179

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDYV4 FILTER: CH. CLASS 180

PEAK DATA: 38.67 KM/H @ 148.80 MS; -1.06 KM/H @ 47.12 MS

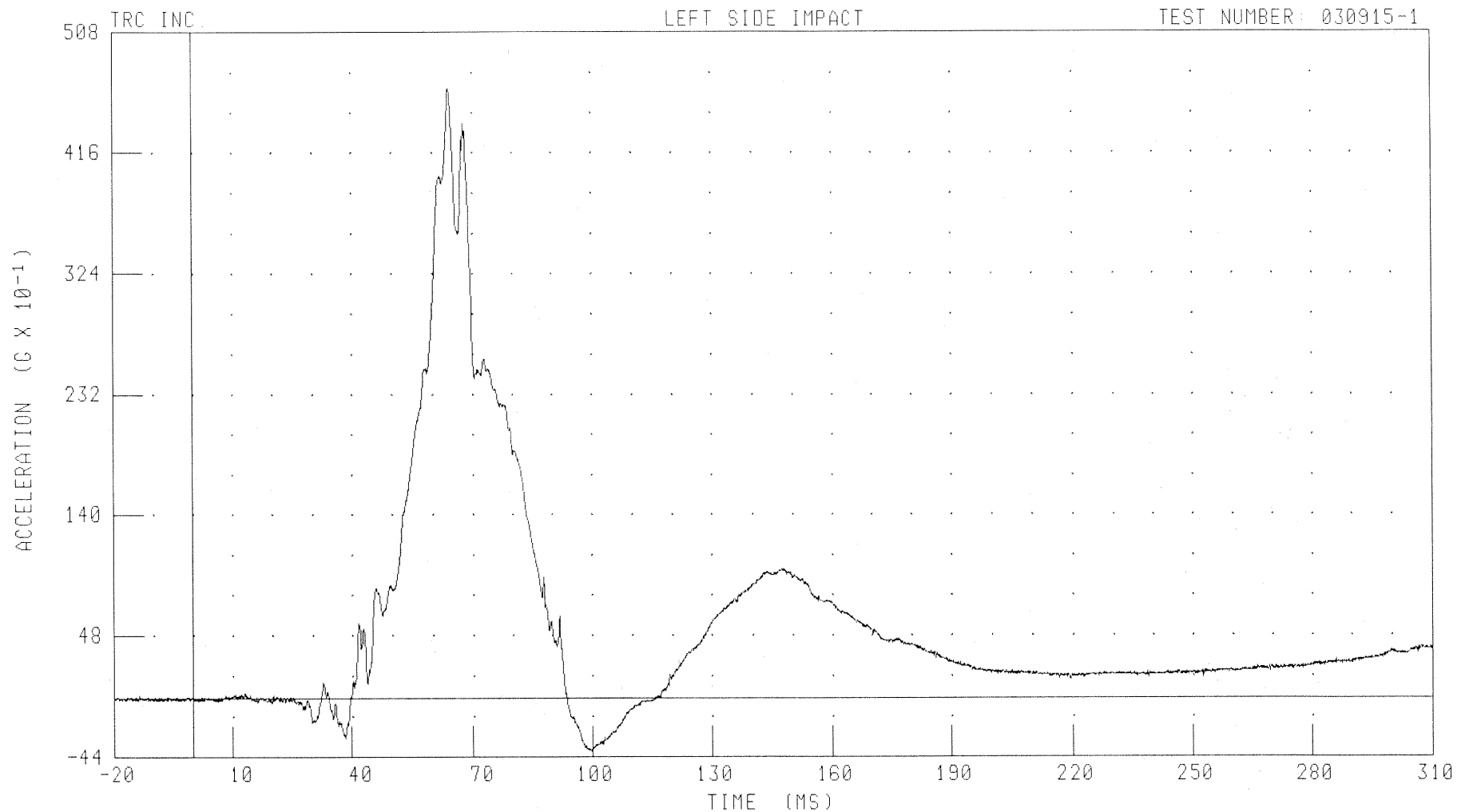
B-180

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDZG4 FILTER: CH. CLASS 1000

PEAK DATA: 46.51 G @ 64.24 MS; -4.01 G @ 99.84 MS

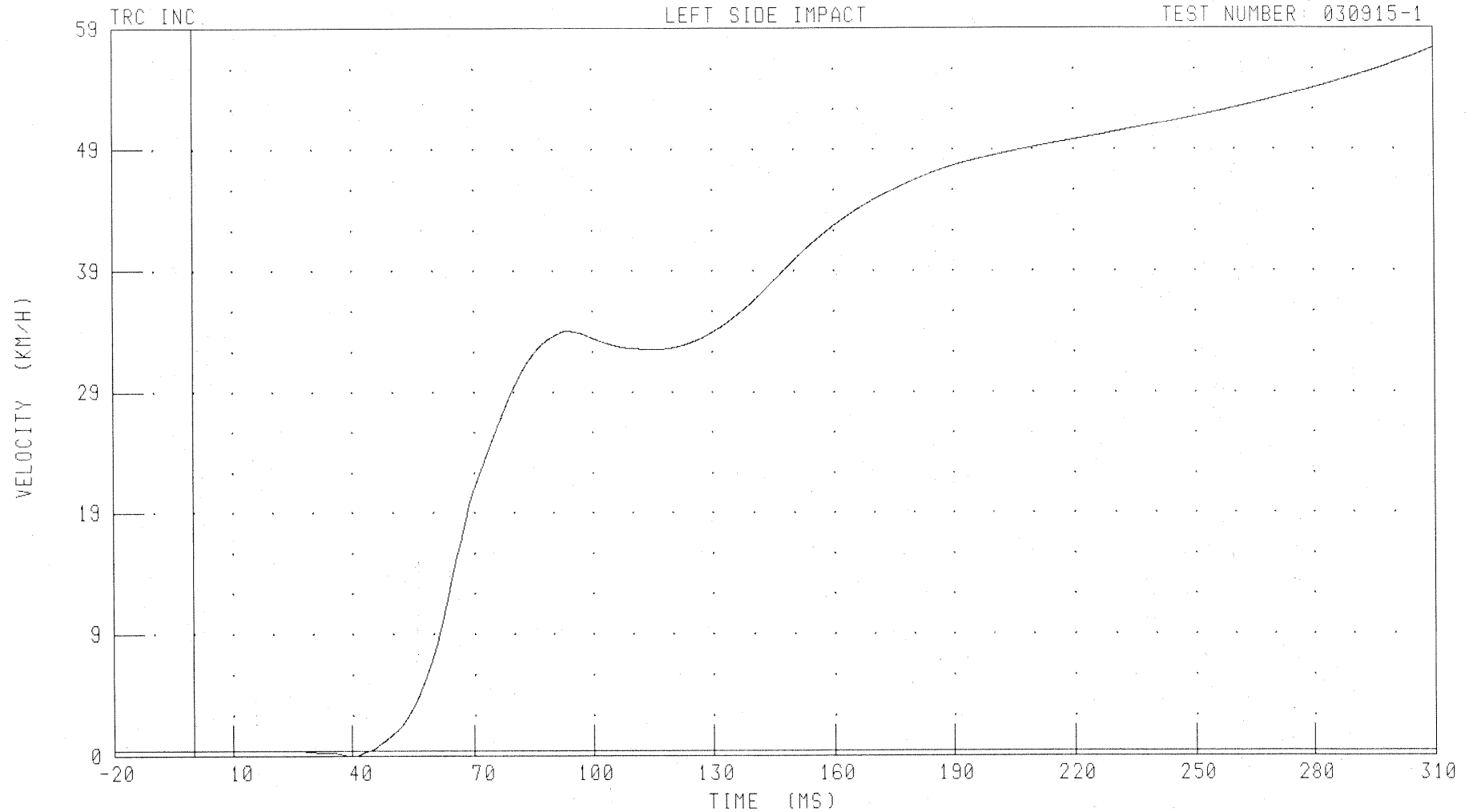
B-181

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDZV4 FILTER: CH. CLASS 180

PEAK DATA: 57.97 KM/H @ 310.00 MS, -0.44 KM/H @ 39.92 MS

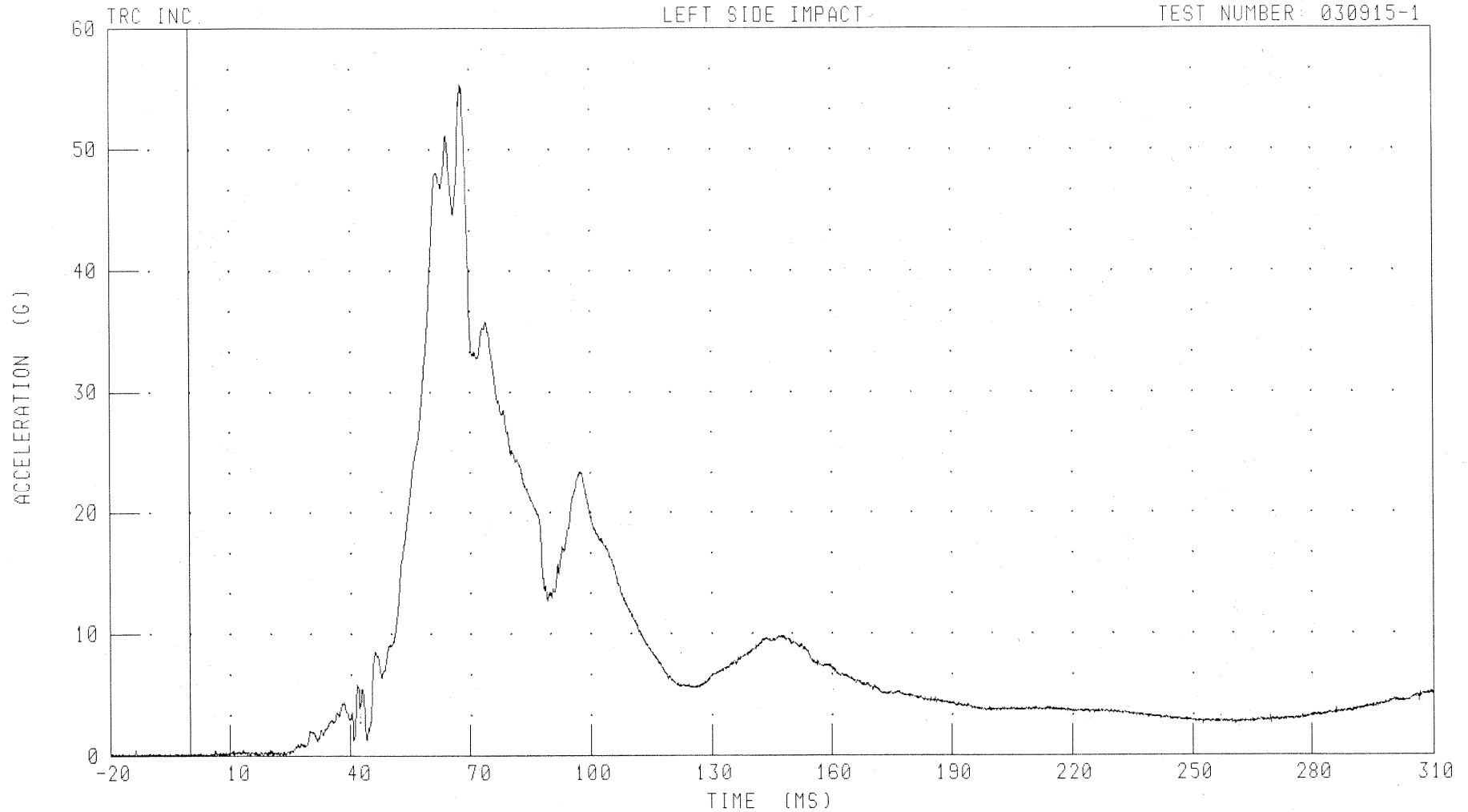
B-182

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HEDRG4 FILTER: CH. CLASS 1000

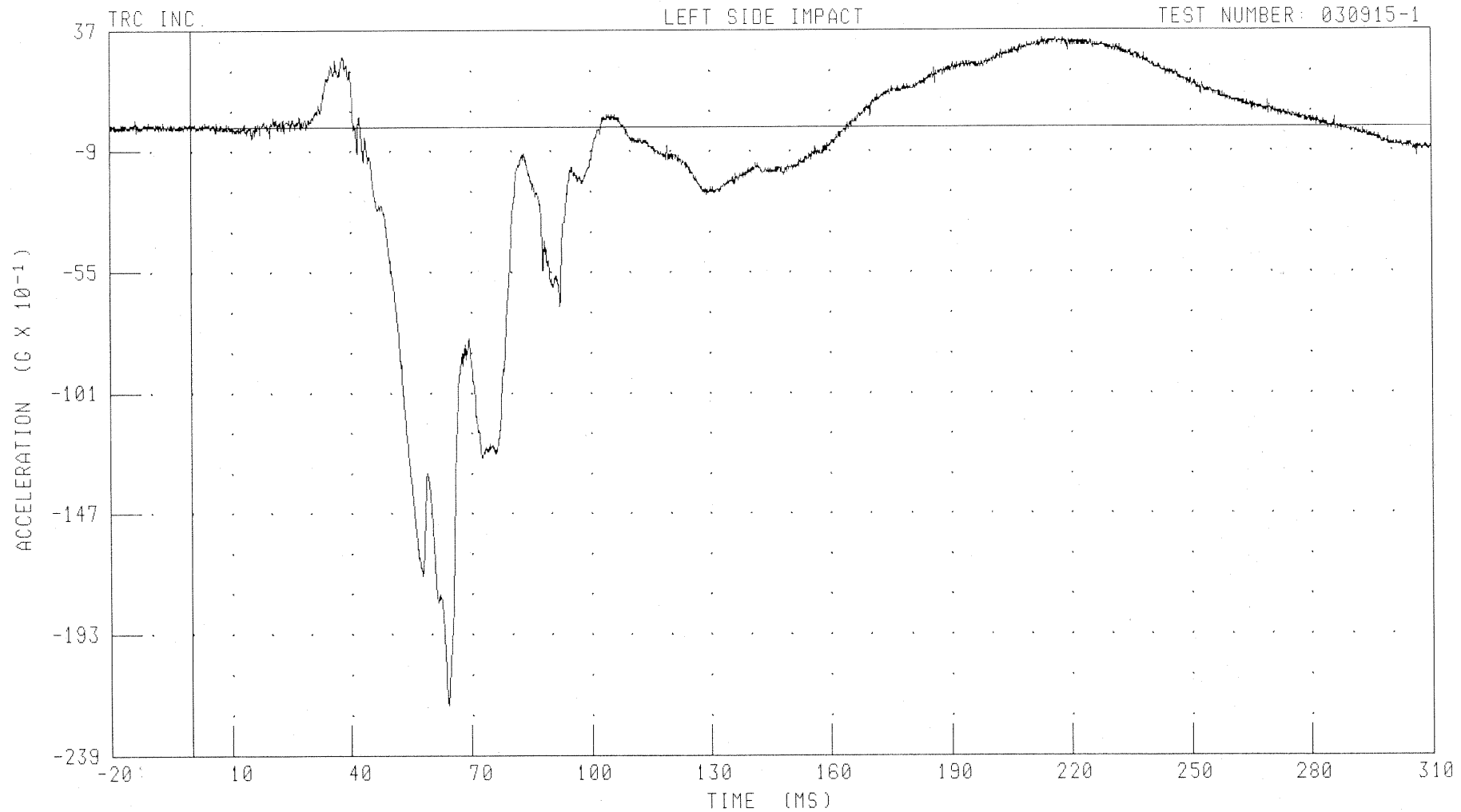
PEAK DATA: 55.45 G @ 67.84 MS; 0.03 G @ -18.32 MS

B-183

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (LT) X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: HD1XG4 FILTER: CH. CLASS 1000

PEAK DATA: 3.39 G @ 213.20 MS; -21.98 G @ 64.32 MS

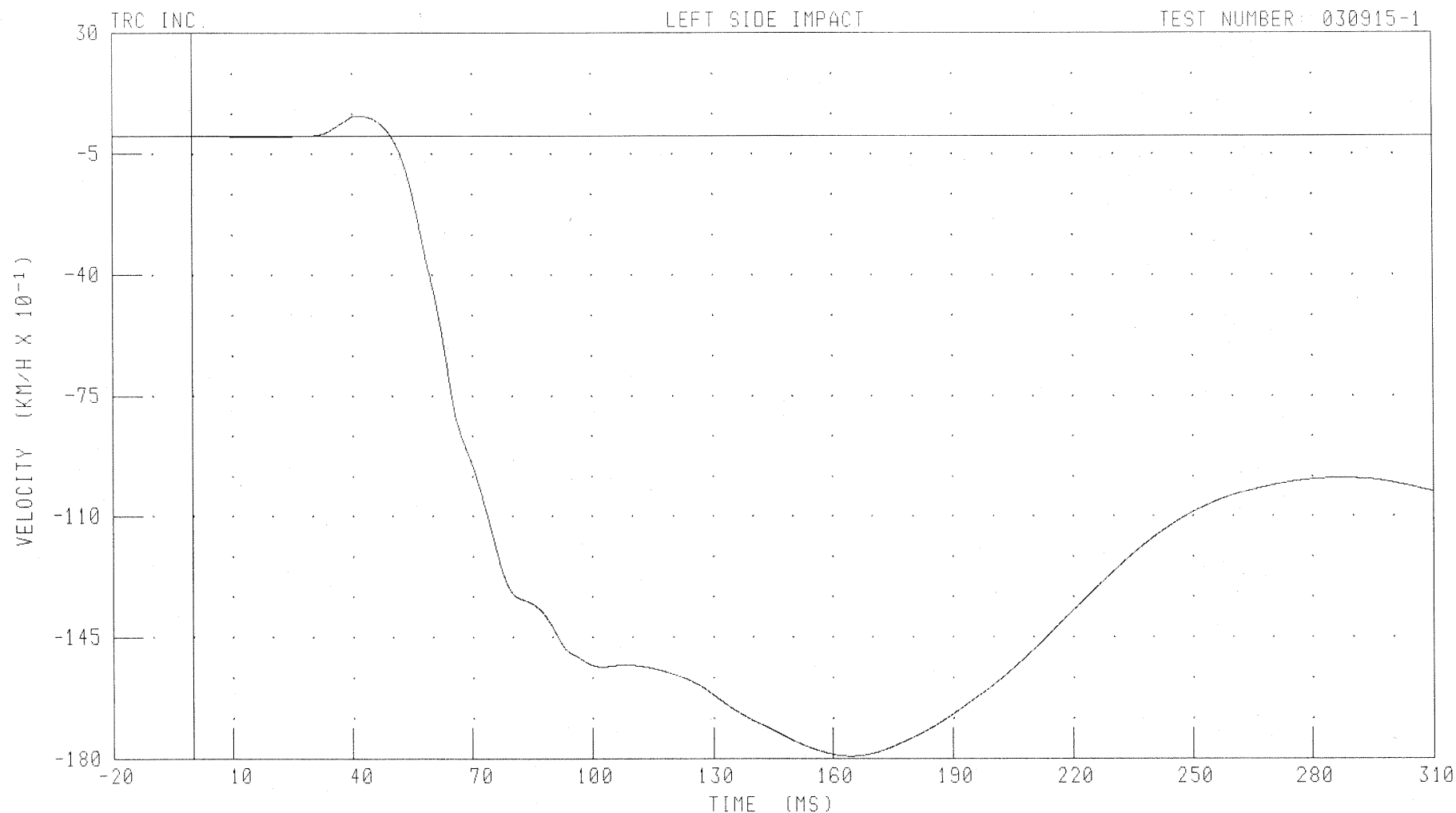
B-184

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (LT) X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1XV4

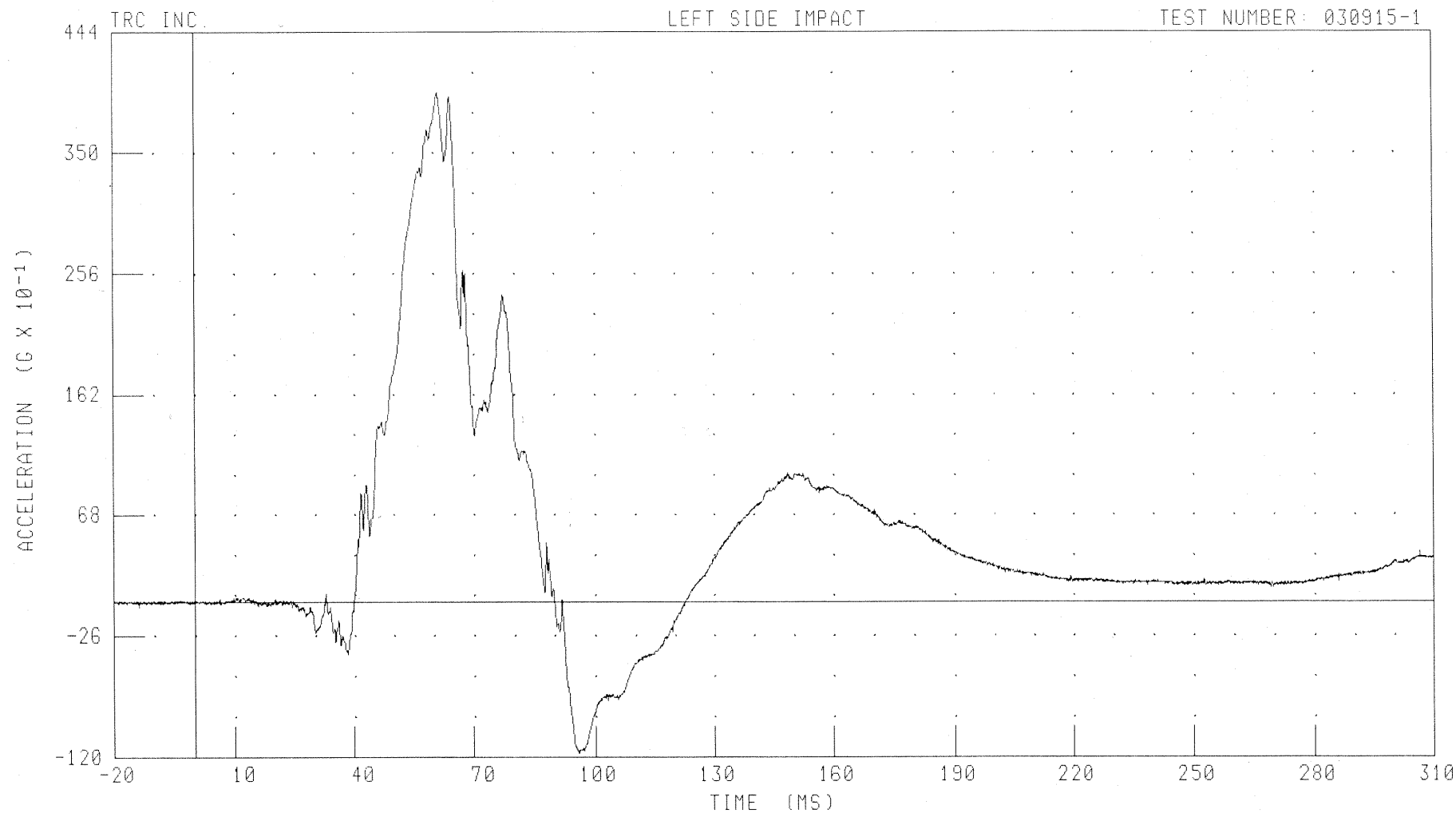
FILTER: CH. CLASS 180

PEAK DATA: 0.62 KM/H @ 41.28 MS; -17.93 KM/H @ 164.48 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (LT) Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1ZG4 FILTER: CH. CLASS 1000

PEAK DATA: 39.71 G @ 61.12 MS; -11.66 G @ 95.76 MS

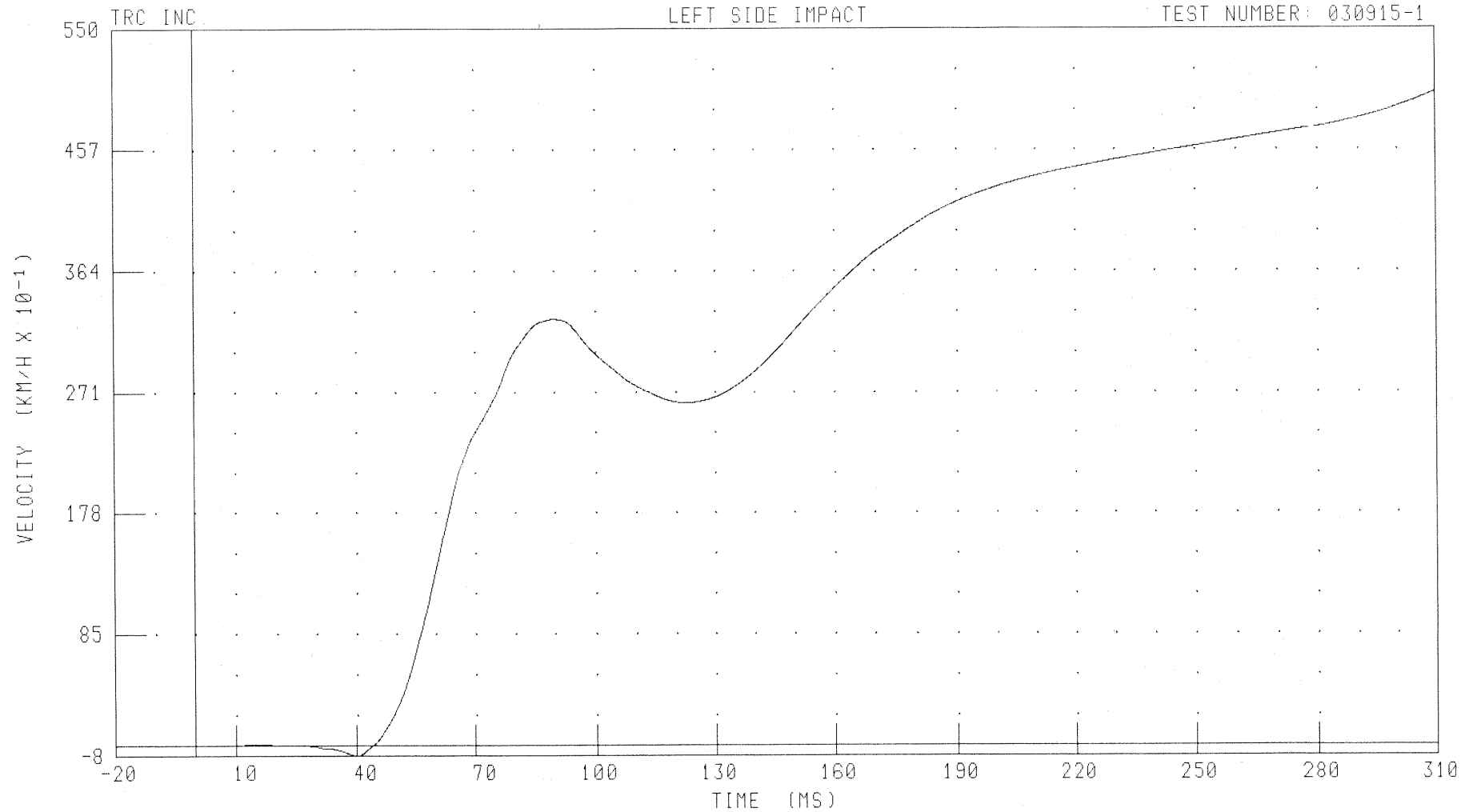
B-186

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (LT) Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD1ZV4 FILTER: CH. CLASS 180

PEAK DATA: 50.14 KM/H @ 310.00 MS, -0.82 KM/H @ 39.92 MS

B-187

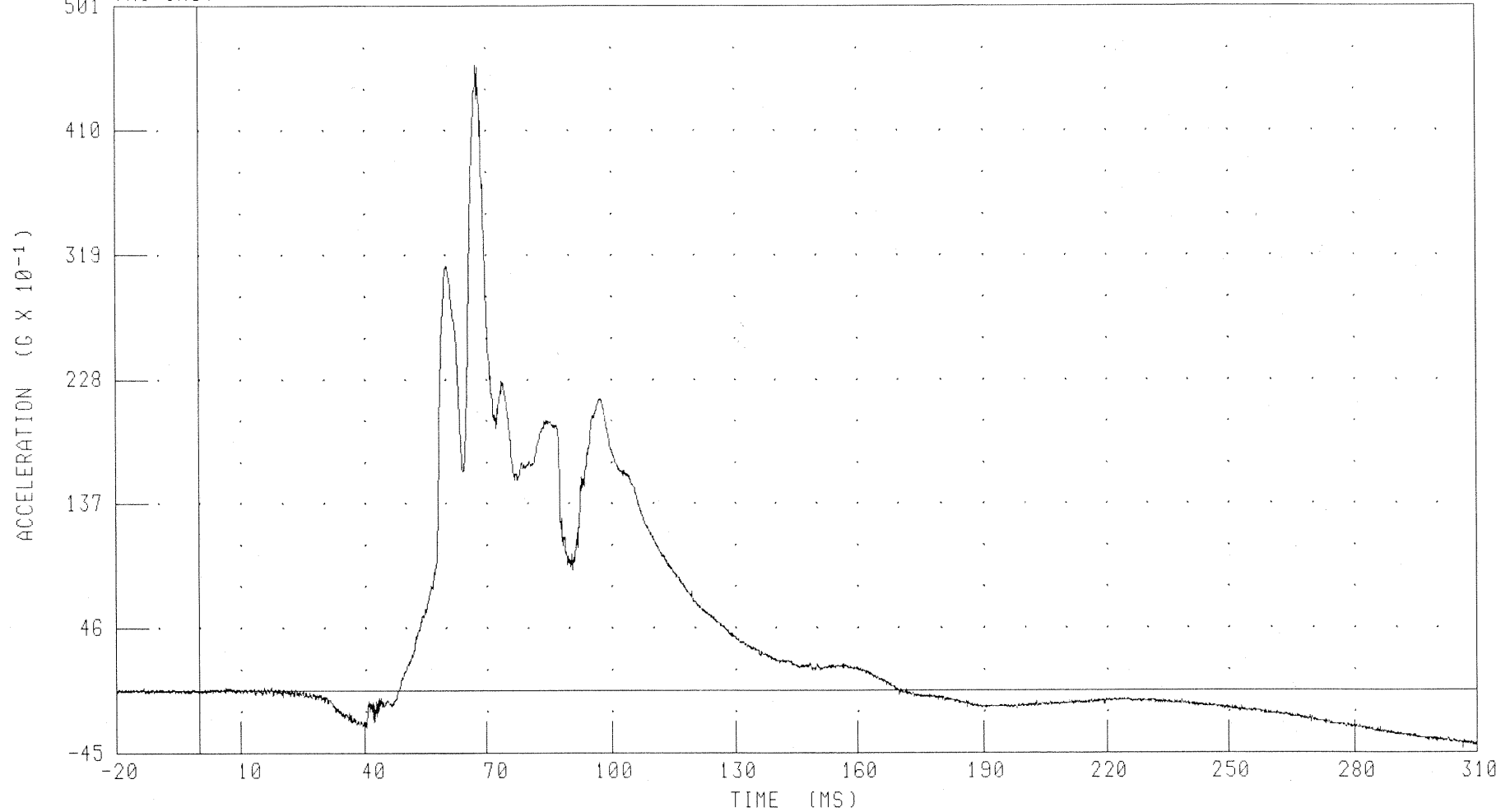
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (FT) Y-AXIS ACCELERATION

TRC INC.

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2YC4 FILTER: CH. CLASS 1000

PEAK DATA: 45.82 G @ 67.68 MS; -4.17 G @ 306.32 MS

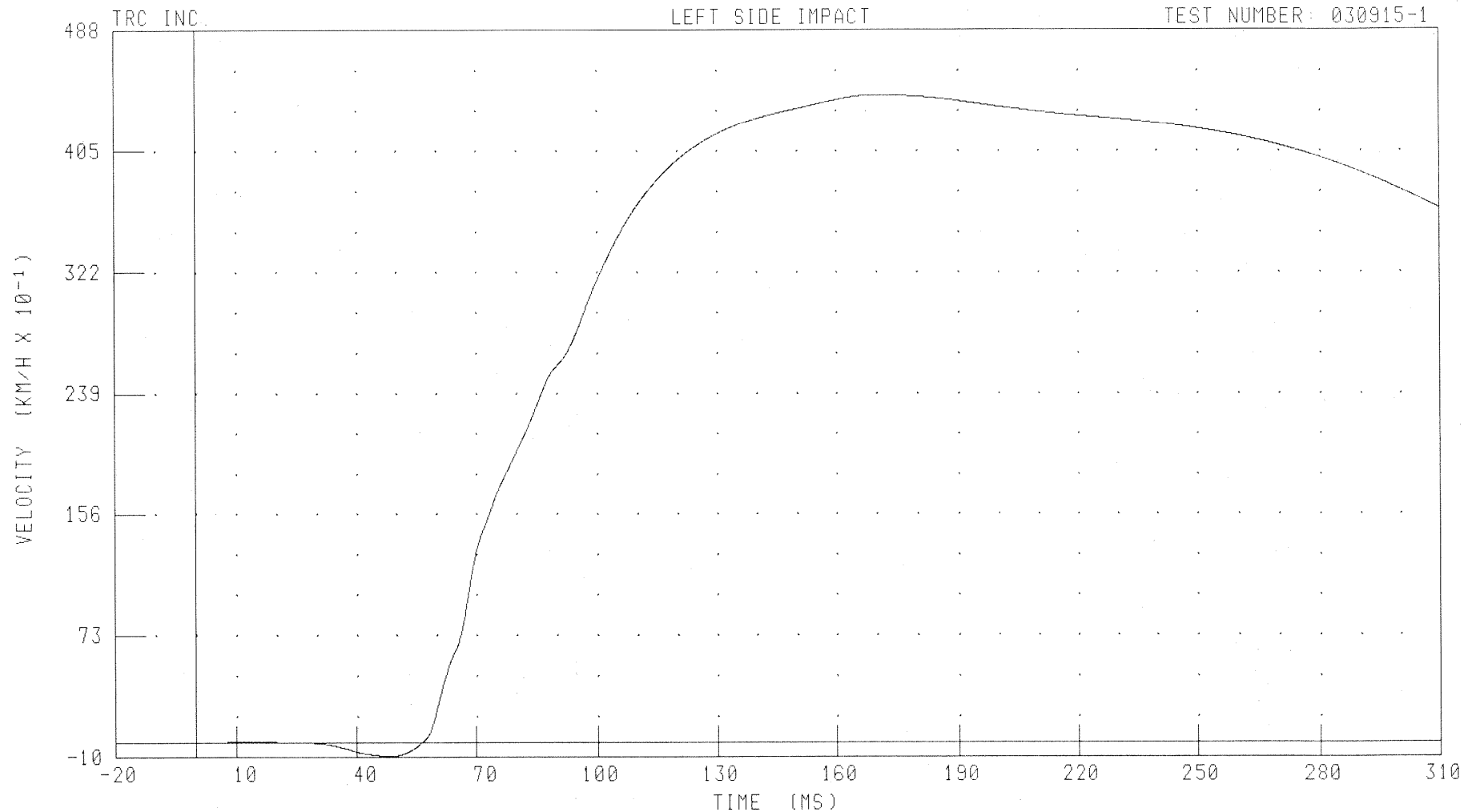
B-188

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (FT) Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2YV4

FILTER: CH. CLASS 180

PEAK DATA: 44.35 KM/H @ 170.32 MS; -0.97 KM/H @ 48.16 MS

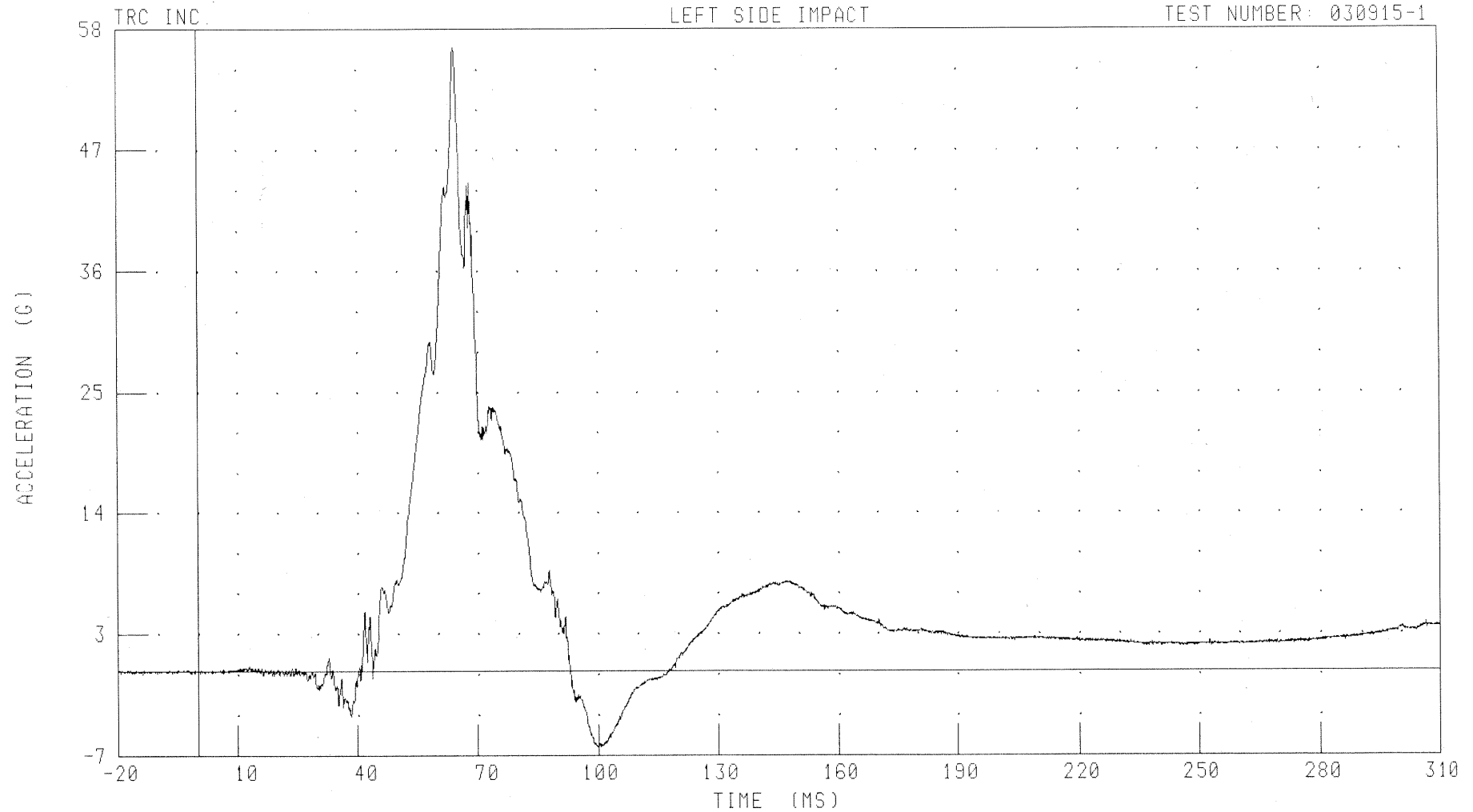
B-189

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (FT) Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2ZC4 FILTER: CH. CLASS 1000

PEAK DATA: 56.79 G @ 64.32 MS; -6.92 G @ 100.08 MS

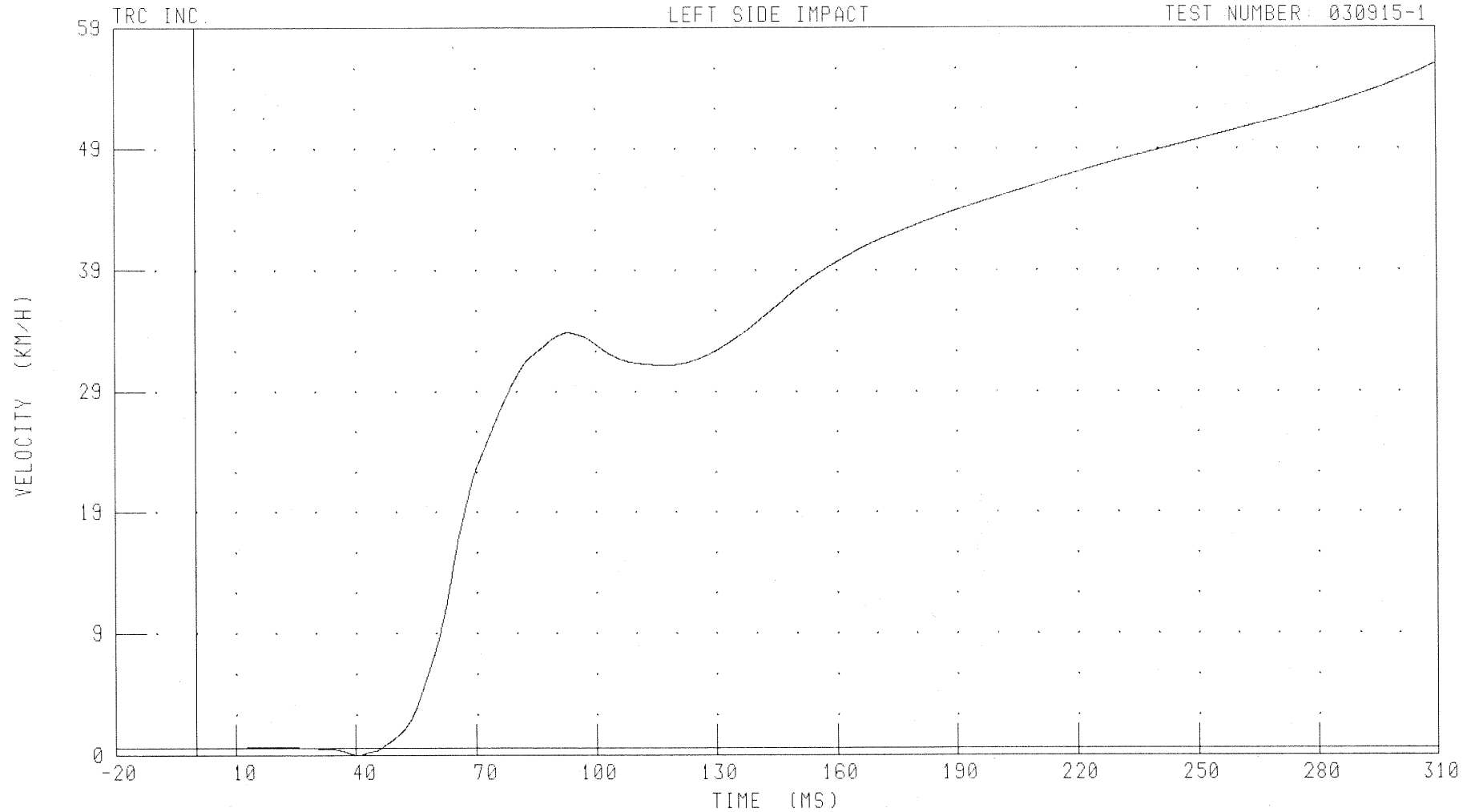
B-190

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (FT) Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD2ZV4 FILTER: CH. CLASS 180

PEAK DATA: 56.44 KM/H @ 310.00 MS; -0.59 KM/H @ 40.48 MS

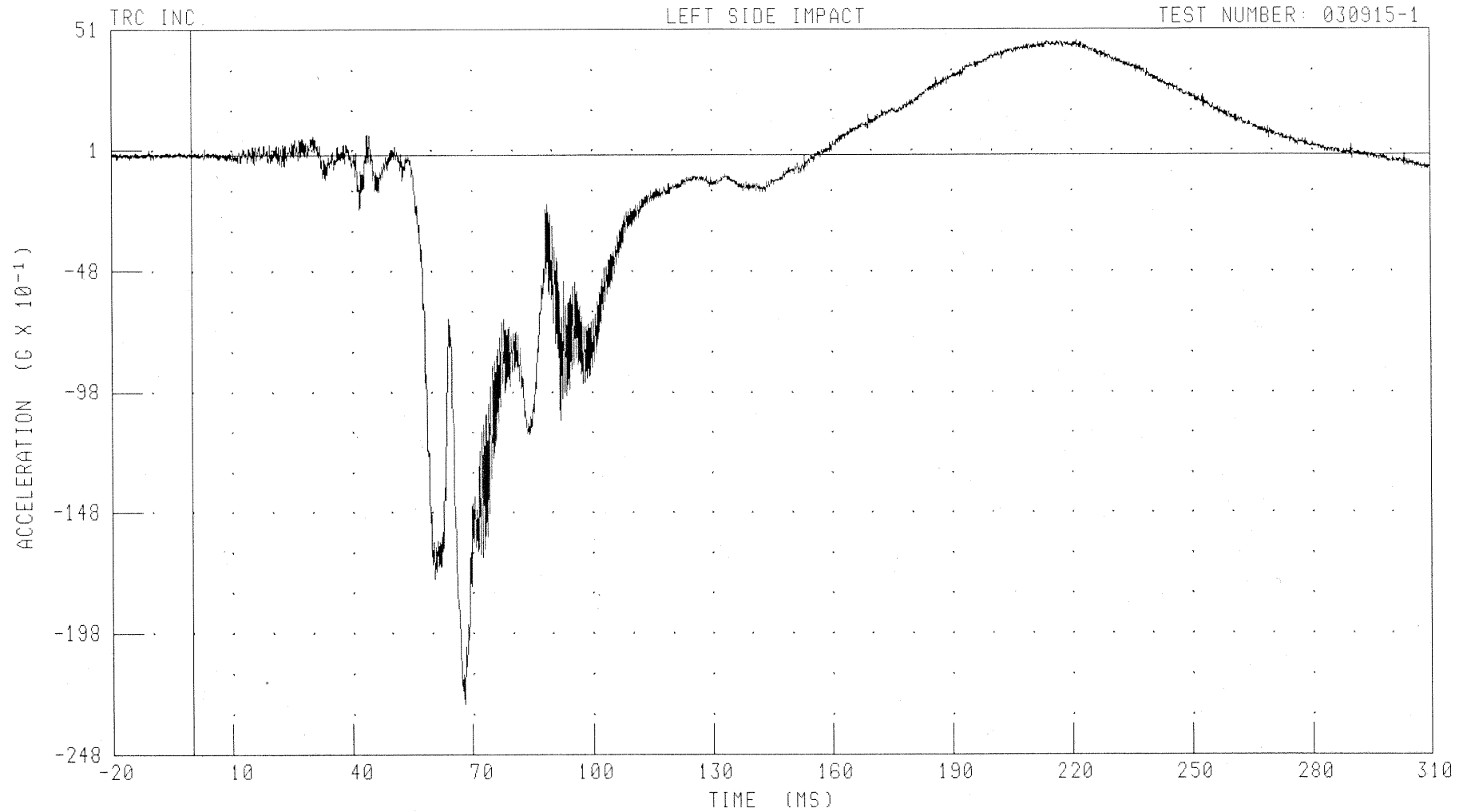
B-191

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER HEAD (TP) X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: HD3XG4 FILTER: CH. CLASS 1000

PEAK DATA: 4.76 G @ 221.44 MS; -22.72 G @ 68.00 MS

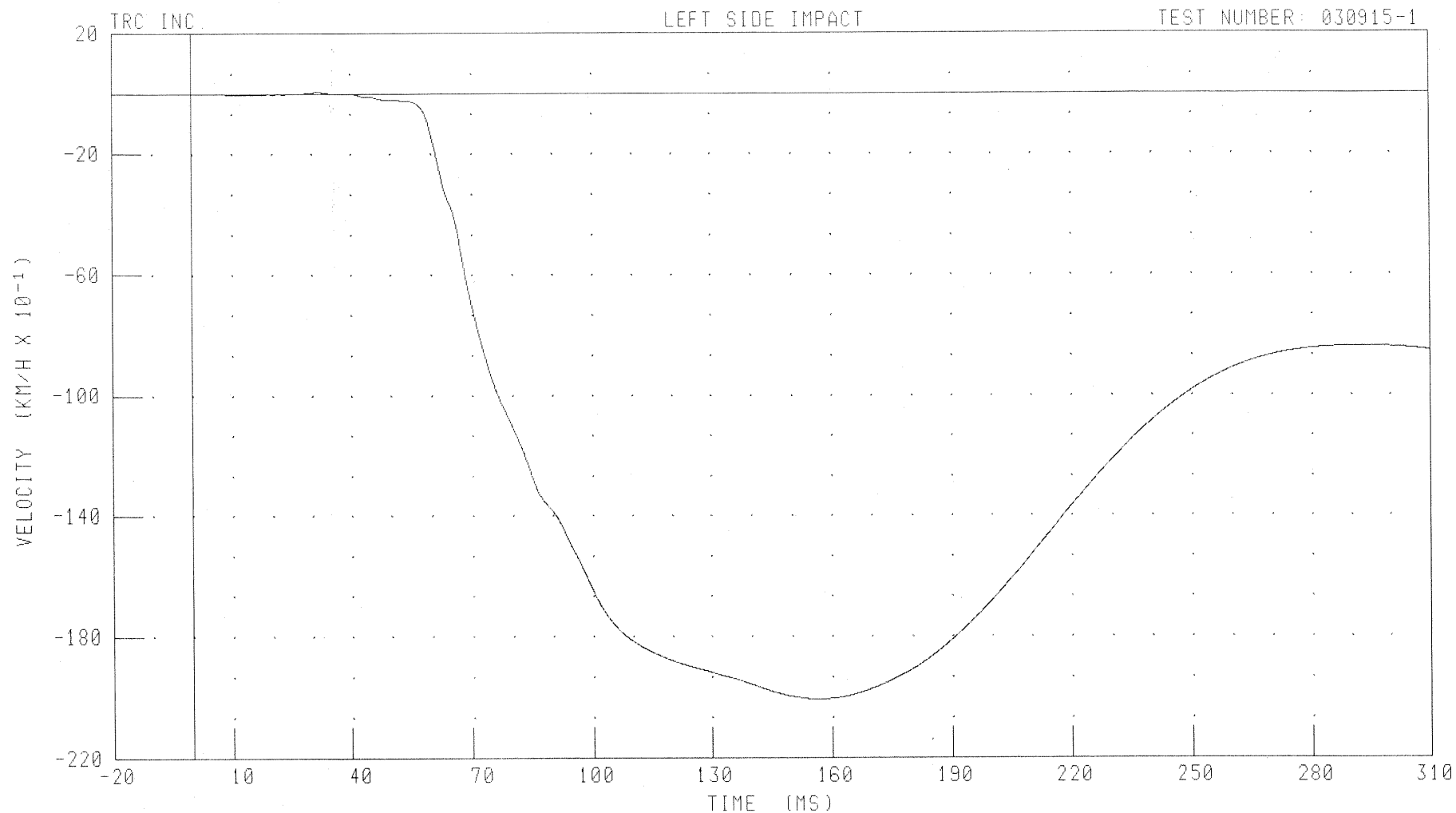
B-192

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (TP) X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD3XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.07 KM/H @ 31.92 MS, -20.07 KM/H @ 156.40 MS

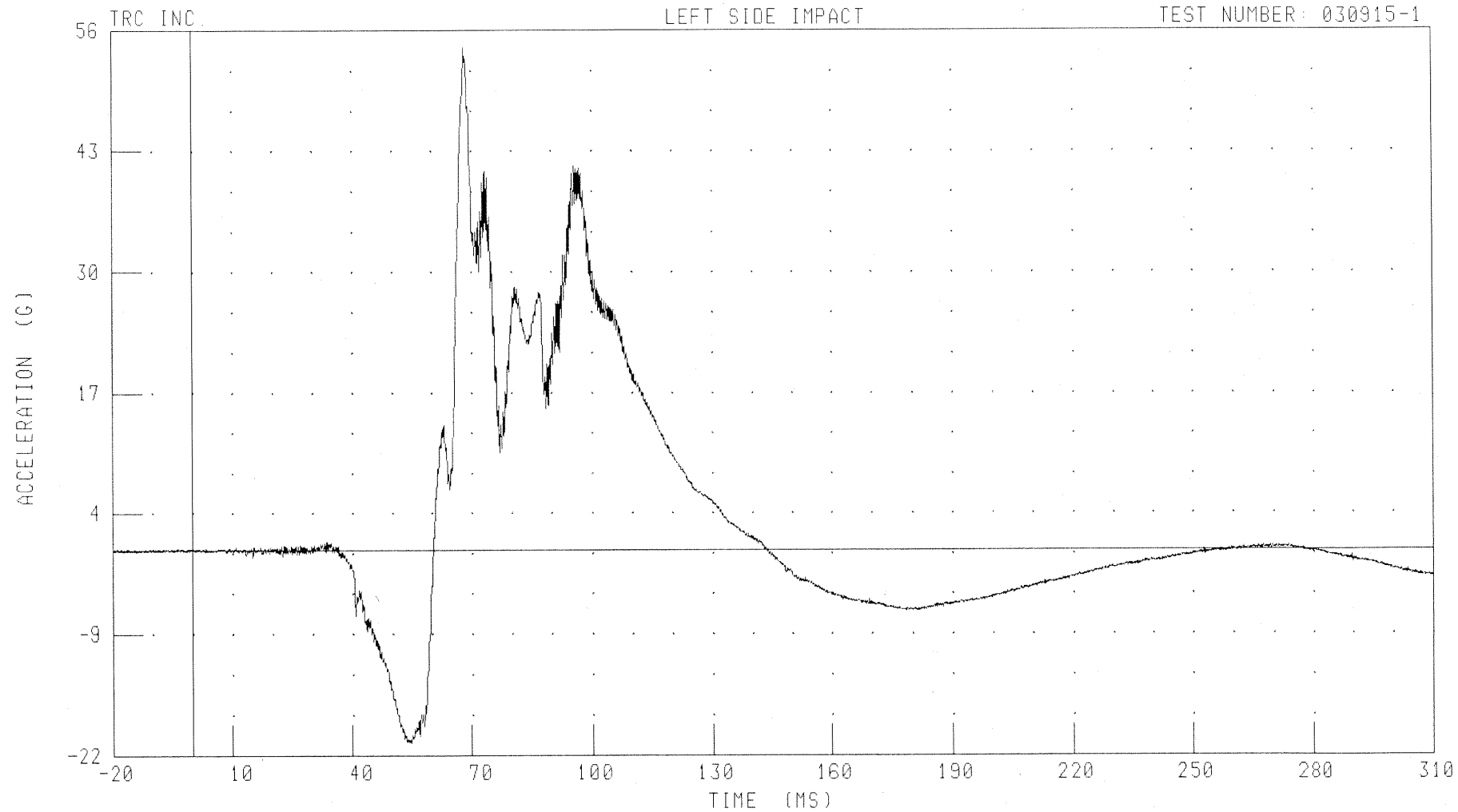
B-193

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (TP) Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD3YG4 FILTER: CH. CLASS 1000

PEAK DATA: 54.18 G @ 68.40 MS; -20.67 G @ 54.56 MS

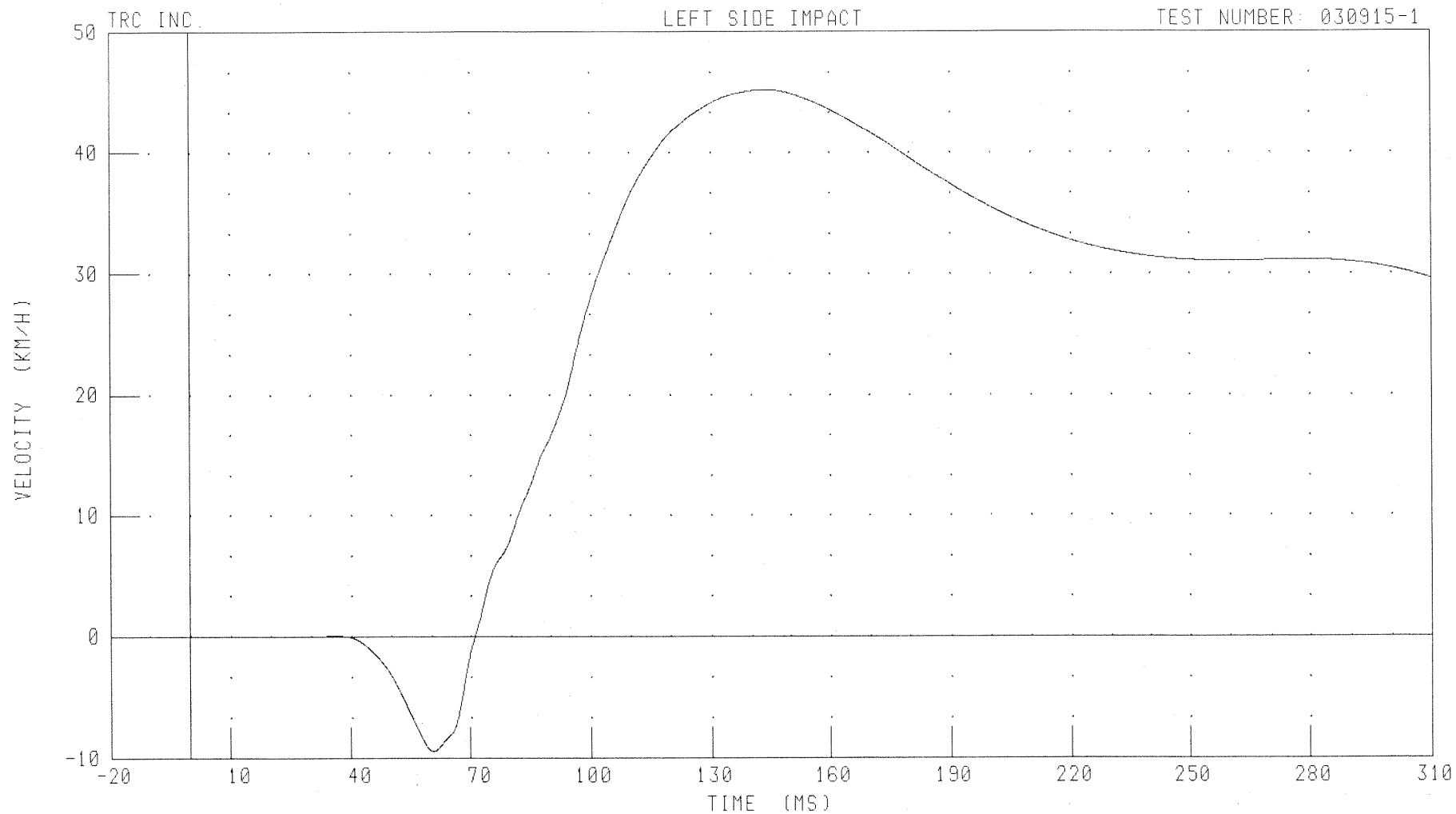
B-194

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER HEAD (TP) Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: HD3YV4 FILTER: CH. CLASS 180

PEAK DATA: 45.23 KM/H @ 143.68 MS; -9.46 KM/H @ 60.48 MS

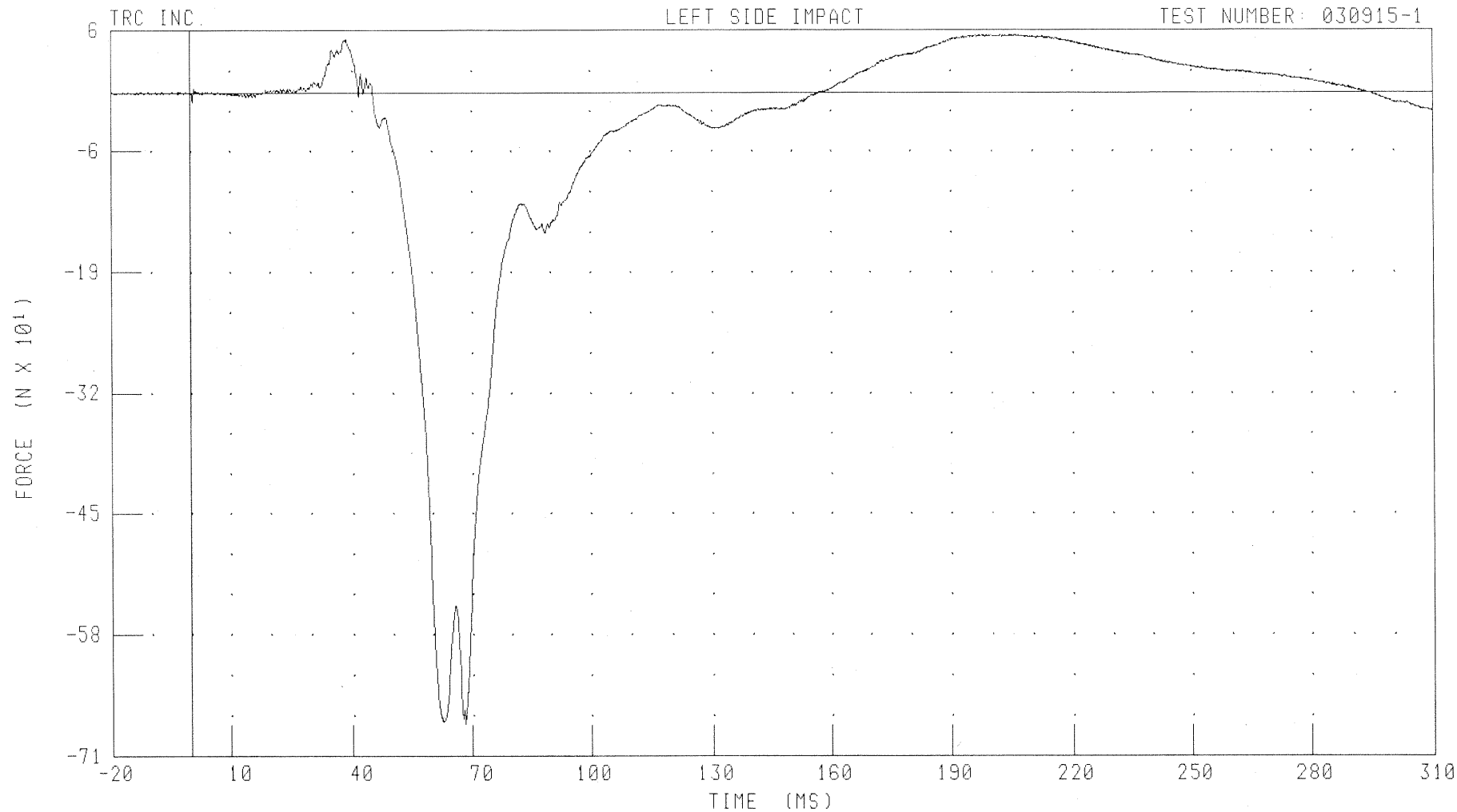
B-195

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK X-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKXF4 FILTER: CH. CLASS 1000

PEAK DATA: 61.76 N @ 198.00 MS; -678.55 N @ 68.08 MS

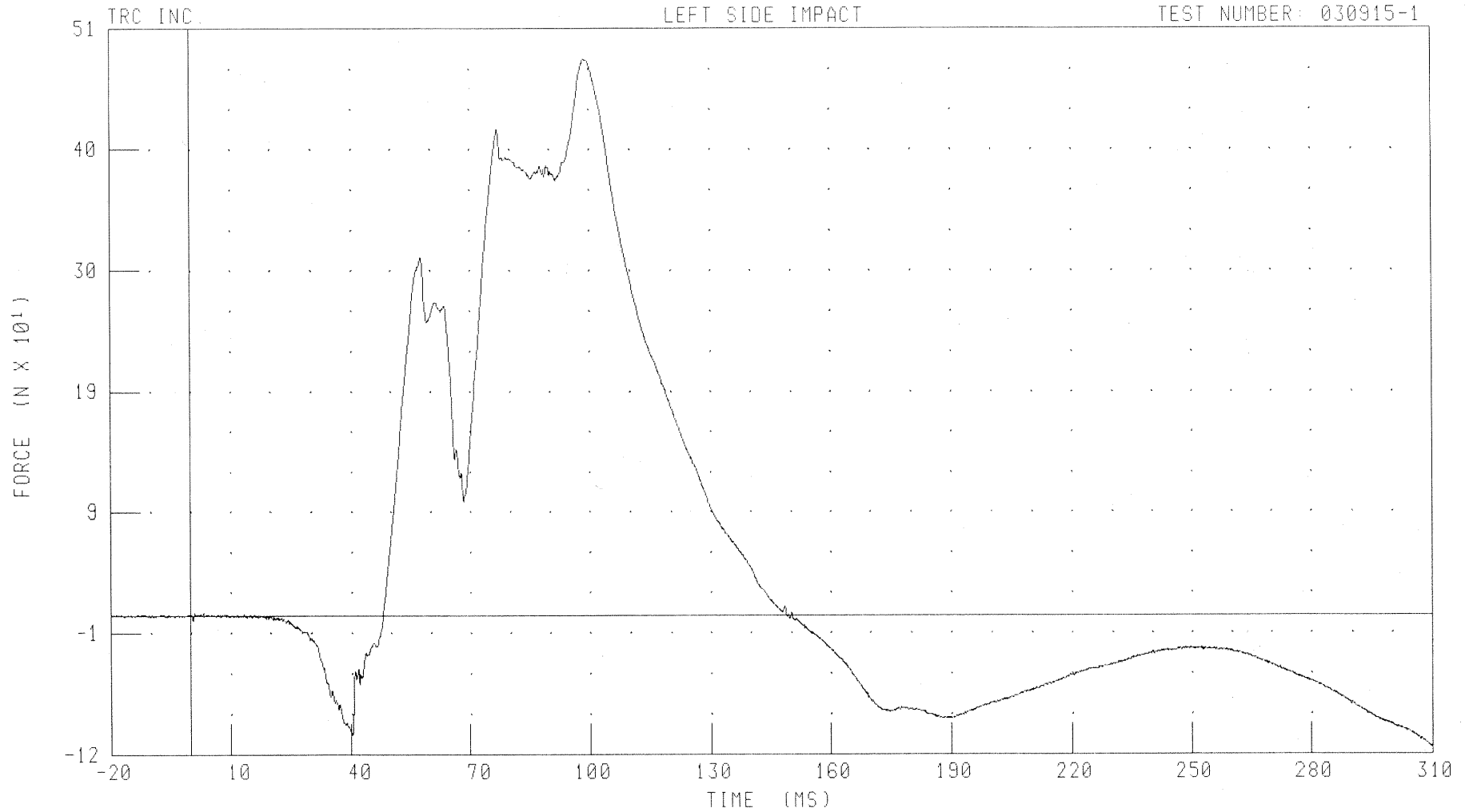
B-196

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK Y-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKYF4 FILTER: CH. CLASS 1000

PEAK DATA: 483.99 N @ 98.88 MS, -114.92 N @ 309.92 MS

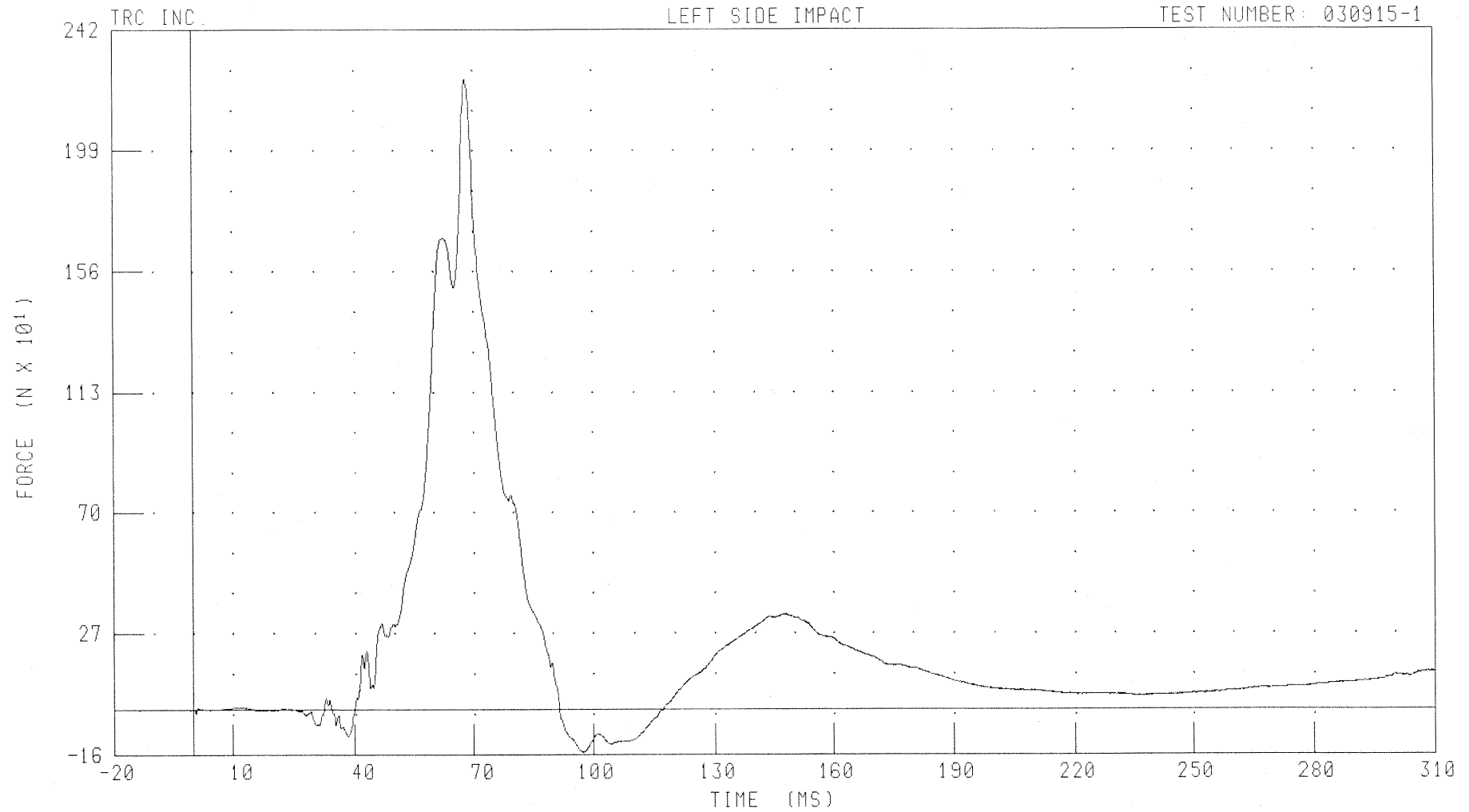
B-197

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK Z-AXIS AXIAL FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKZF4 FILTER: CH. CLASS 1000

PEAK DATA: 2245.54 N @ 68.32 MS; -153.43 N @ 97.36 MS

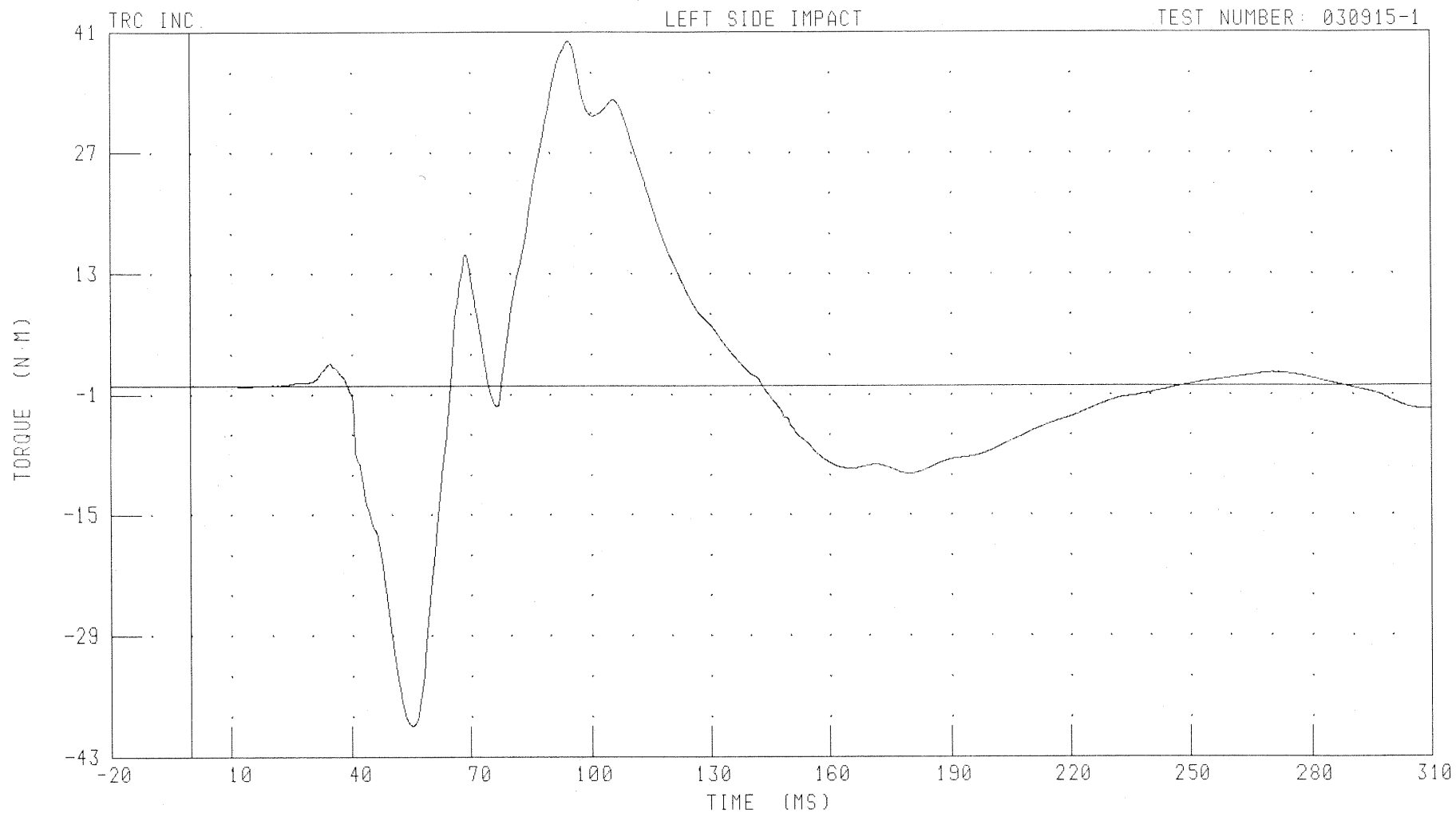
B-198

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKXM4

FILTER: CH. CLASS 600

PEAK DATA: 39.95 N·M @ 94.48 MS; -39.46 N·M @ 55.20 MS

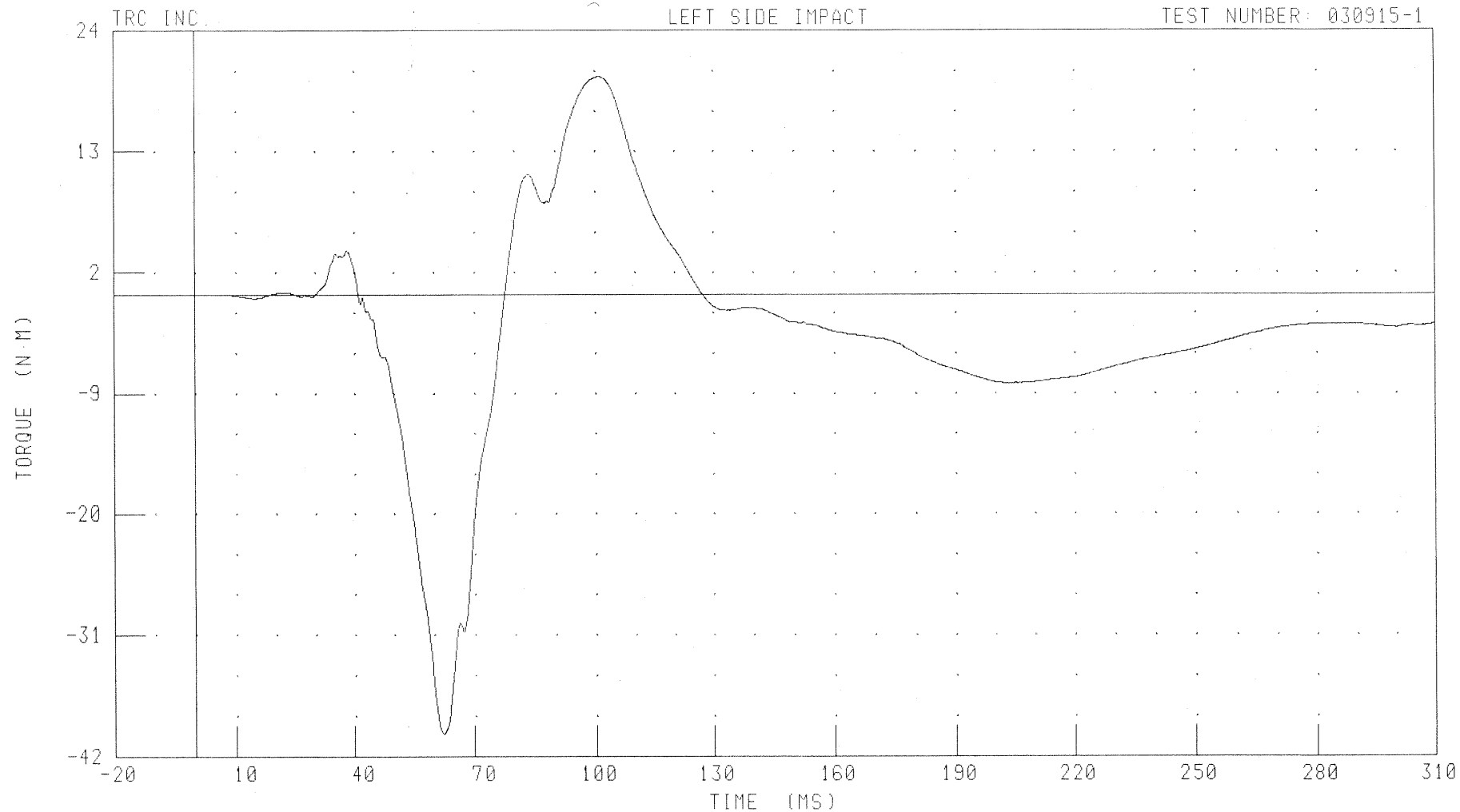
B-199

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKYM4 FILTER: CH. CLASS 600

PEAK DATA: 19.83 N·M @ 101.20 MS, -39.93 N·M @ 62.24 MS

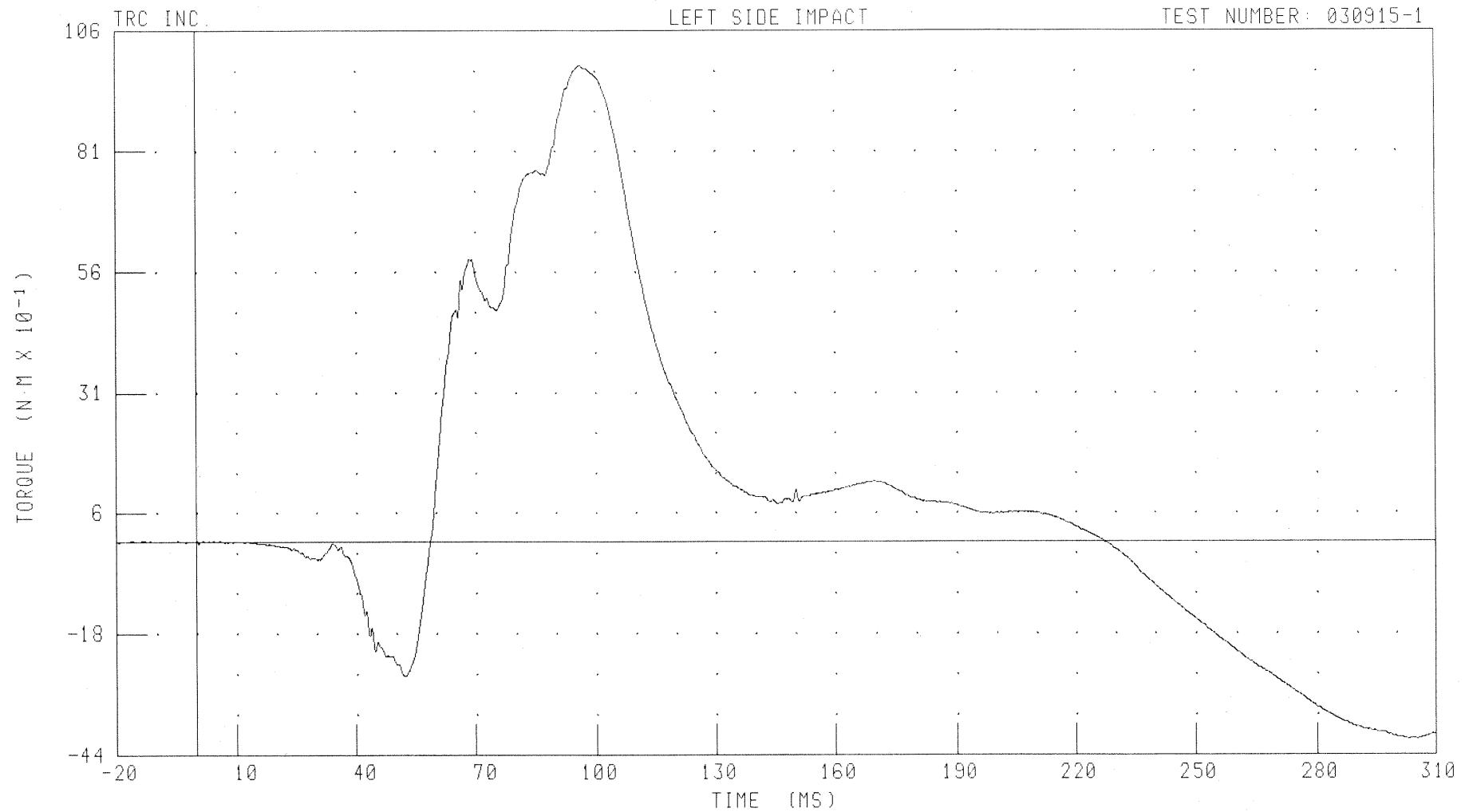
B-200

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER NECK MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NEKZM4 FILTER: CH. CLASS 600

PEAK DATA: 9.89 N·M @ 96.40 MS; -4.08 N·M @ 305.12 MS

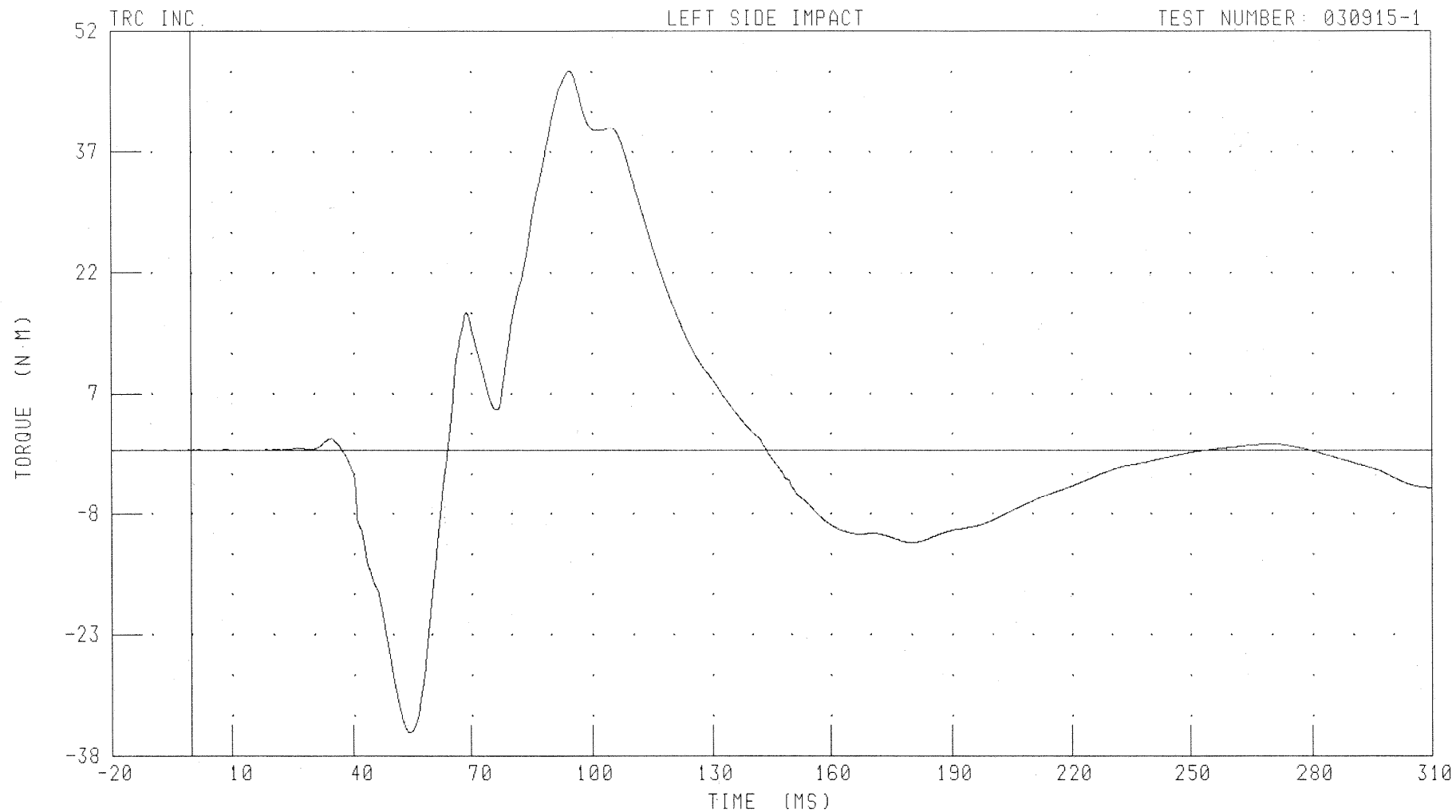
B-201

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER NECK OCCIPITAL CONDYLE MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NK0XM4 FILTER: CH. CLASS 600

PEAK DATA: 47.10 N·M @ 94.64 MS; -35.09 N·M @ 54.32 MS

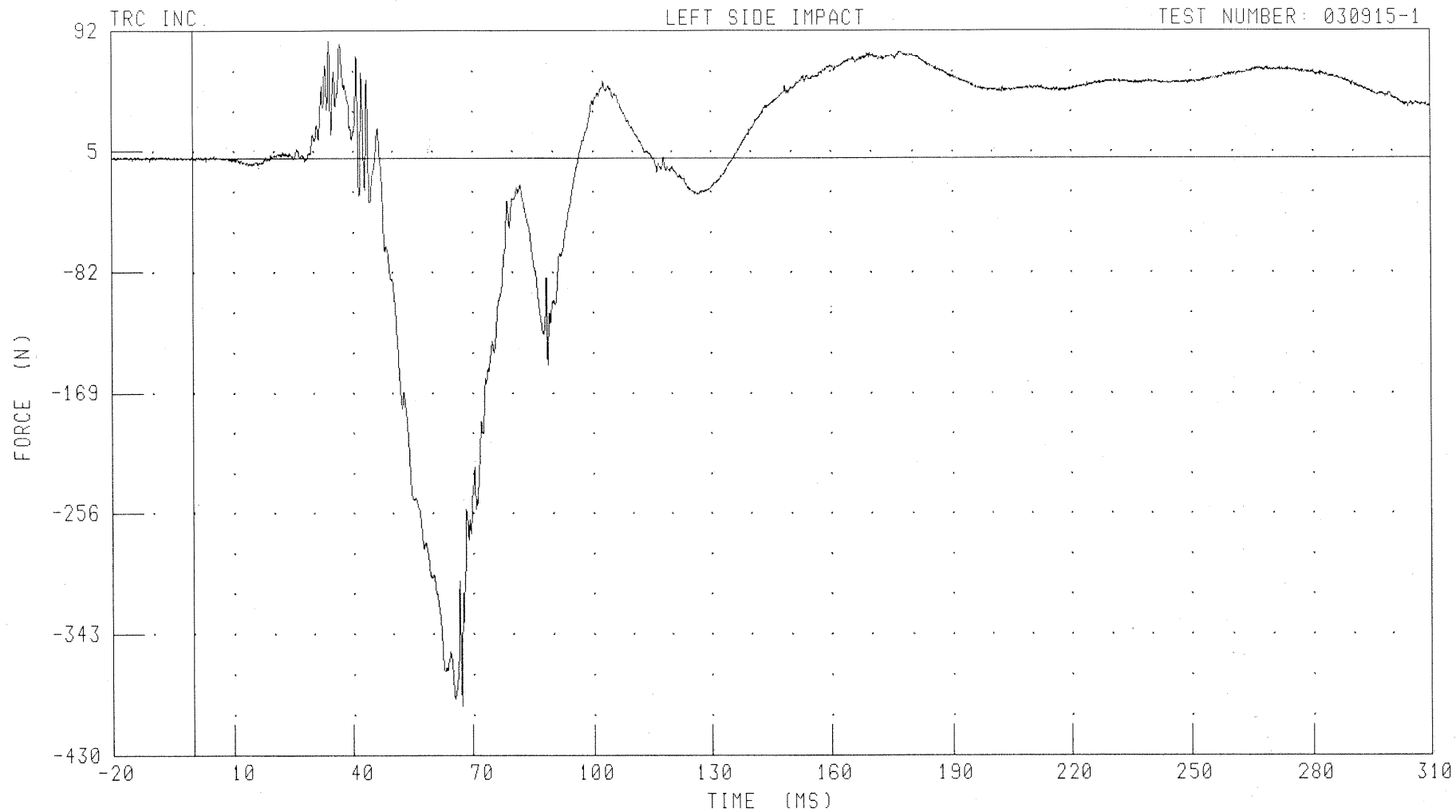
B-202

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK X-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLXF4 FILTER: CH. CLASS 1000

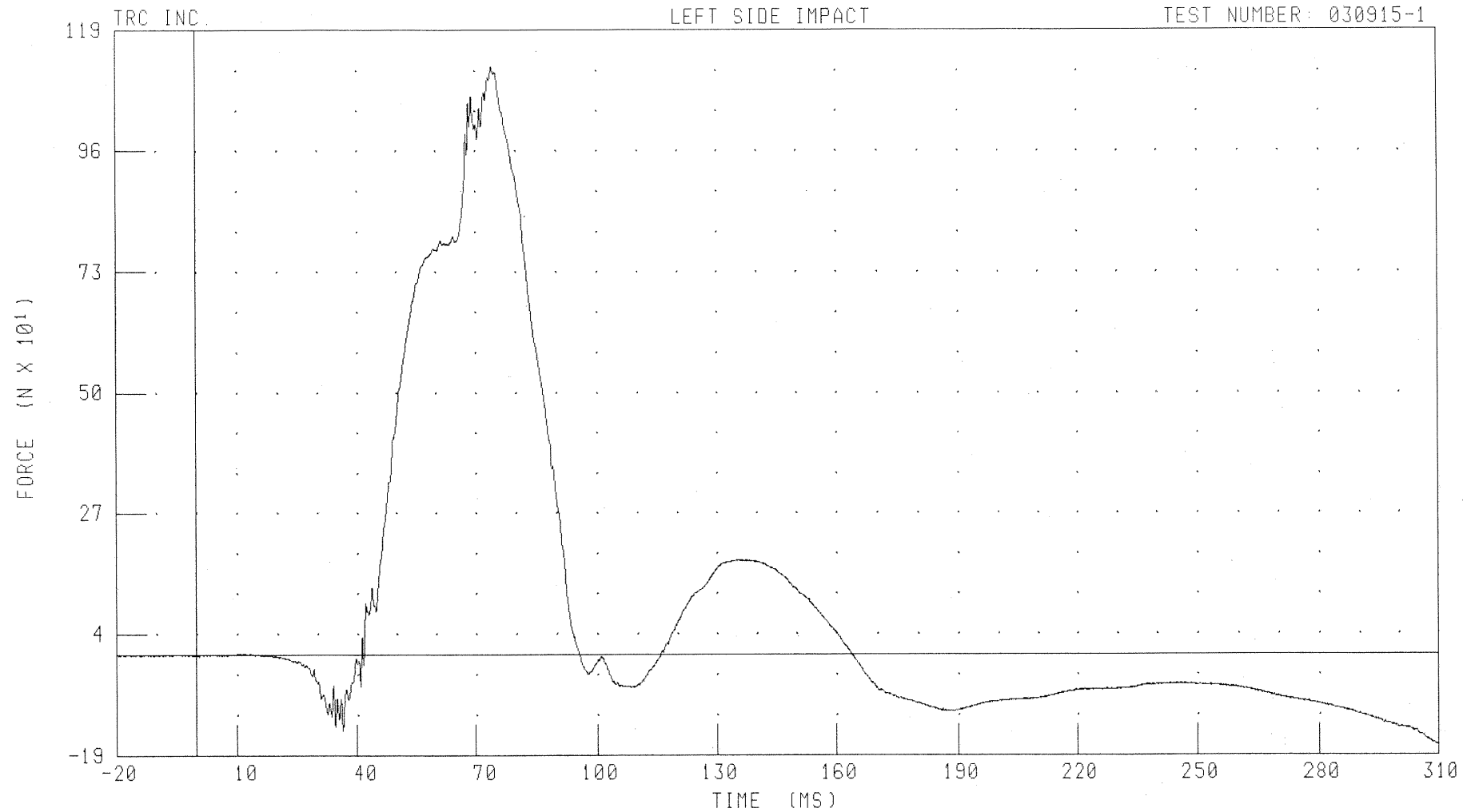
B-203

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK Y-AXIS SHEAR FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLYF4 FILTER: CH. CLASS 1000

PEAK DATA: 1121.25 N @ 74.40 MS; -172.86 N @ 310.00 MS

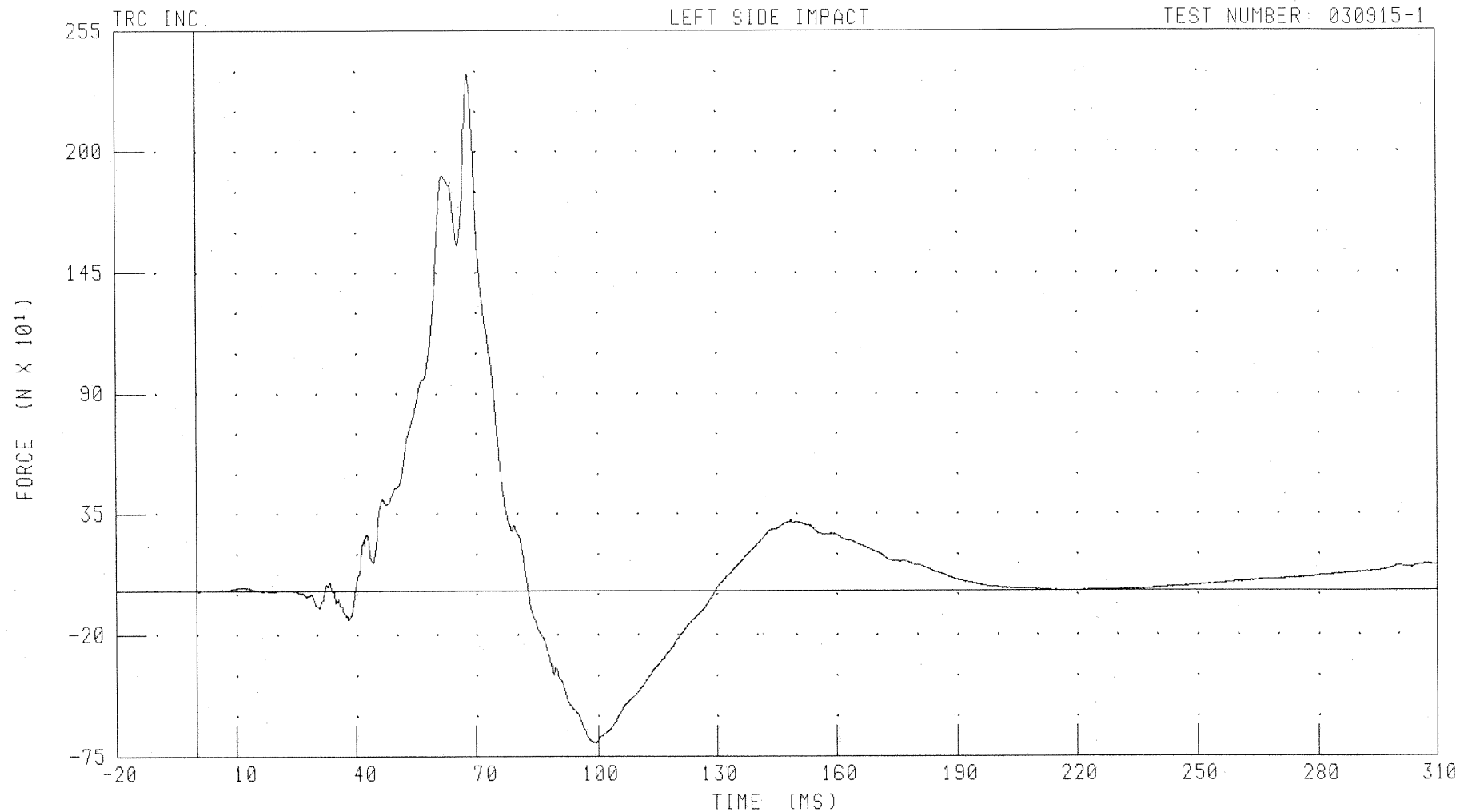
B-204

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK Z-AXIS AXIAL FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLZF4 FILTER: CH. CLASS 1000

PEAK DATA: 2357.21 N @ 68.16 MS, -689.97 N @ 98.88 MS

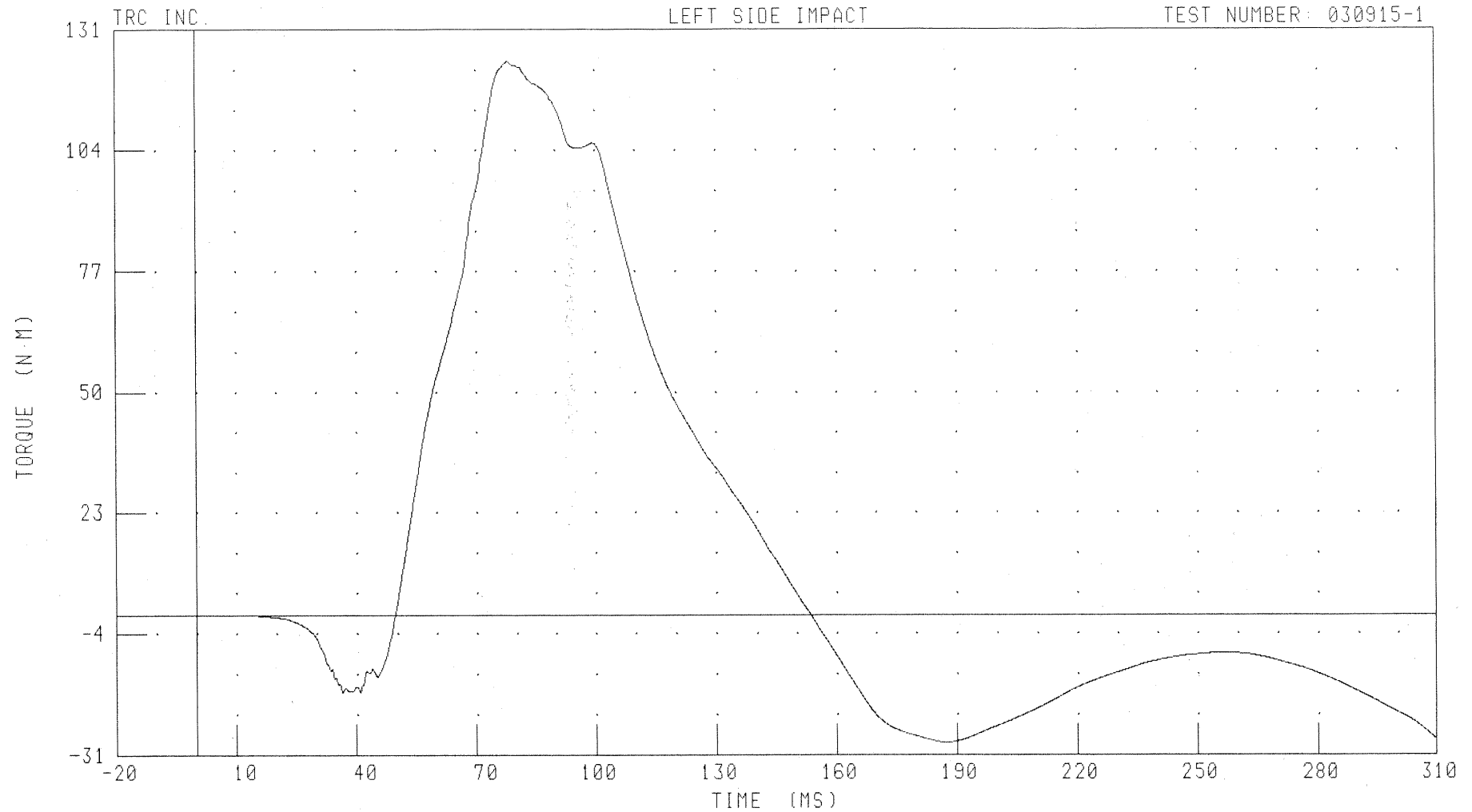
B-205

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLXM4 FILTER: CH. CLASS 600

PEAK DATA: 123.87 N·M @ 78.16 MS, -28.26 N·M @ 187.60 MS

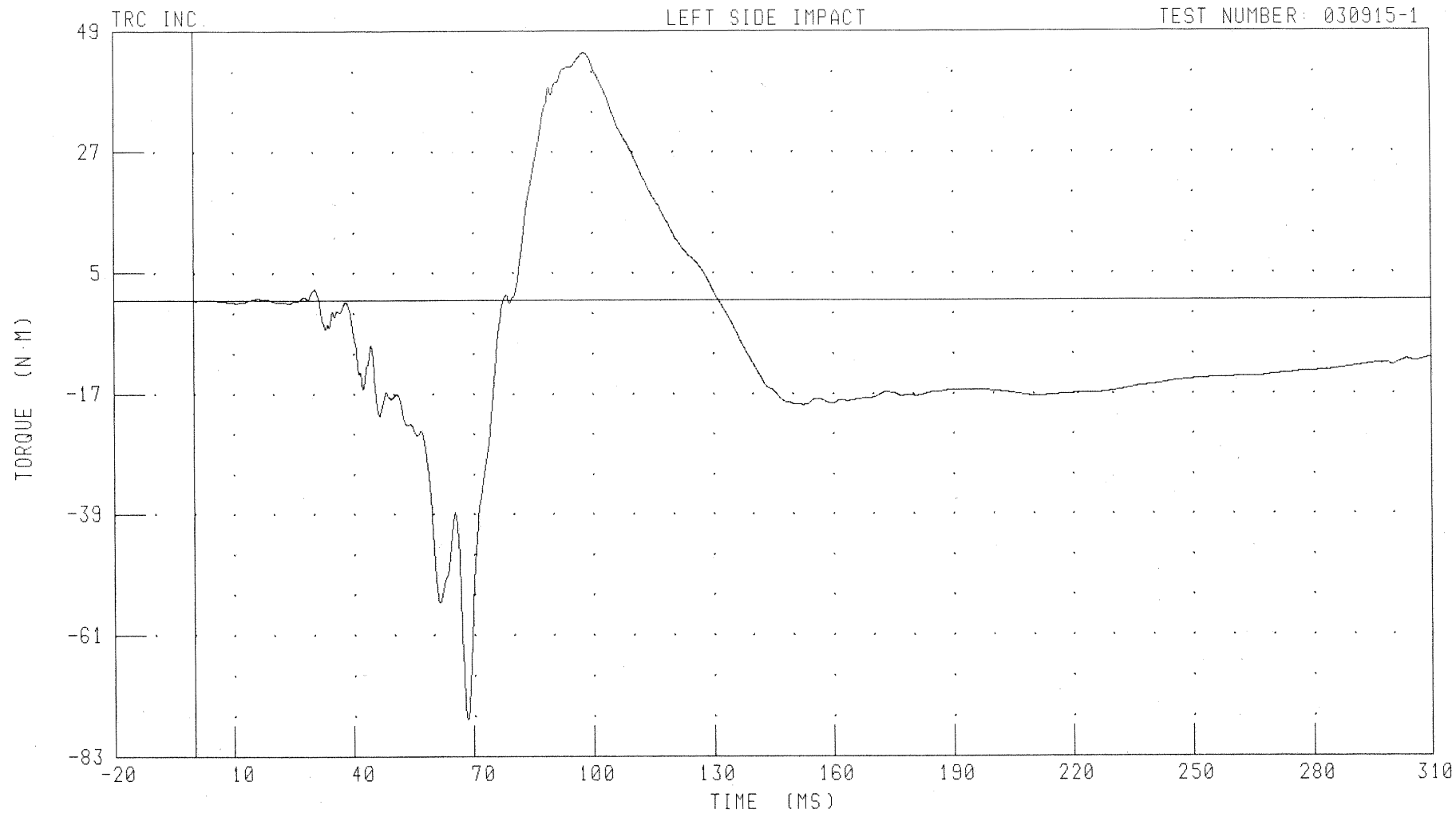
B-206

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLYM4 FILTER: CH. CLASS 600

PEAK DATA: 45.08 N·M @ 98.08 MS; -76.32 N·M @ 68.40 MS

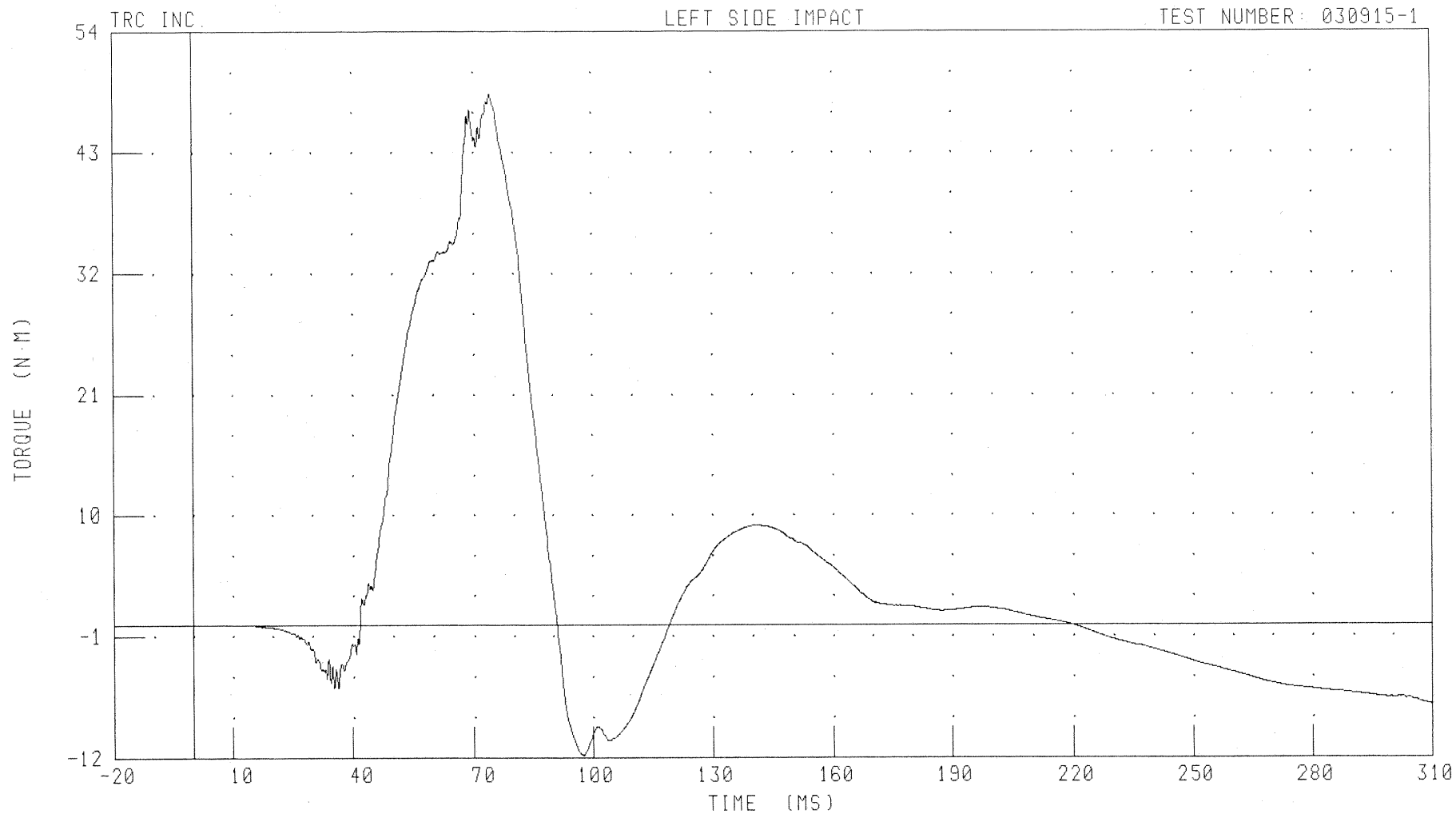
B-207

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LOWER NECK MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: NKLZM4

FILTER: CH. CLASS 600

PEAK DATA: 48.36 N·M @ 74.32 MS; -11.79 N·M @ 97.76 MS

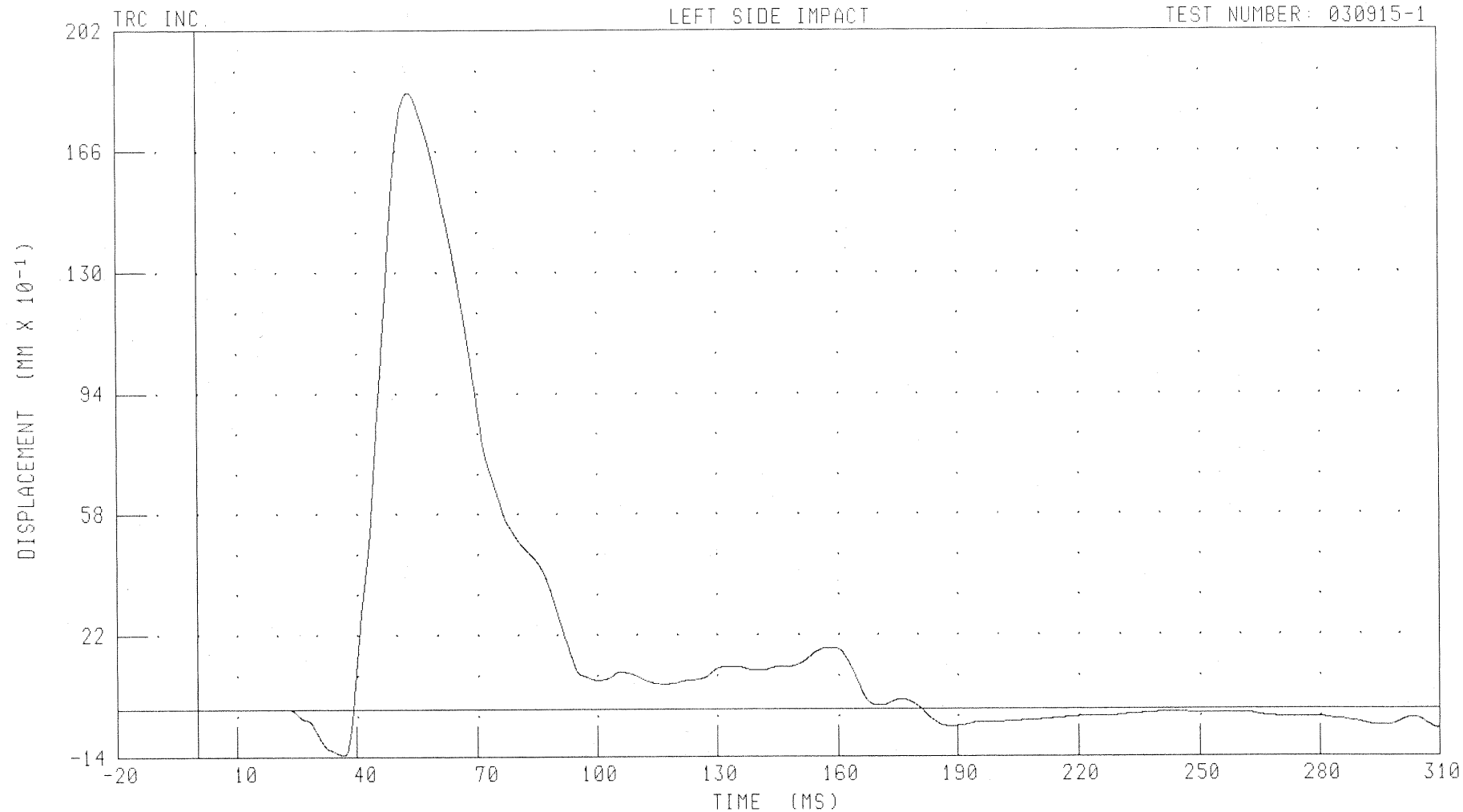
B-208

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYD4 FILTER: CH. CLASS 180

PEAK DATA: 18.36 MM @ 53.36 MS; -1.34 MM @ 36.64 MS

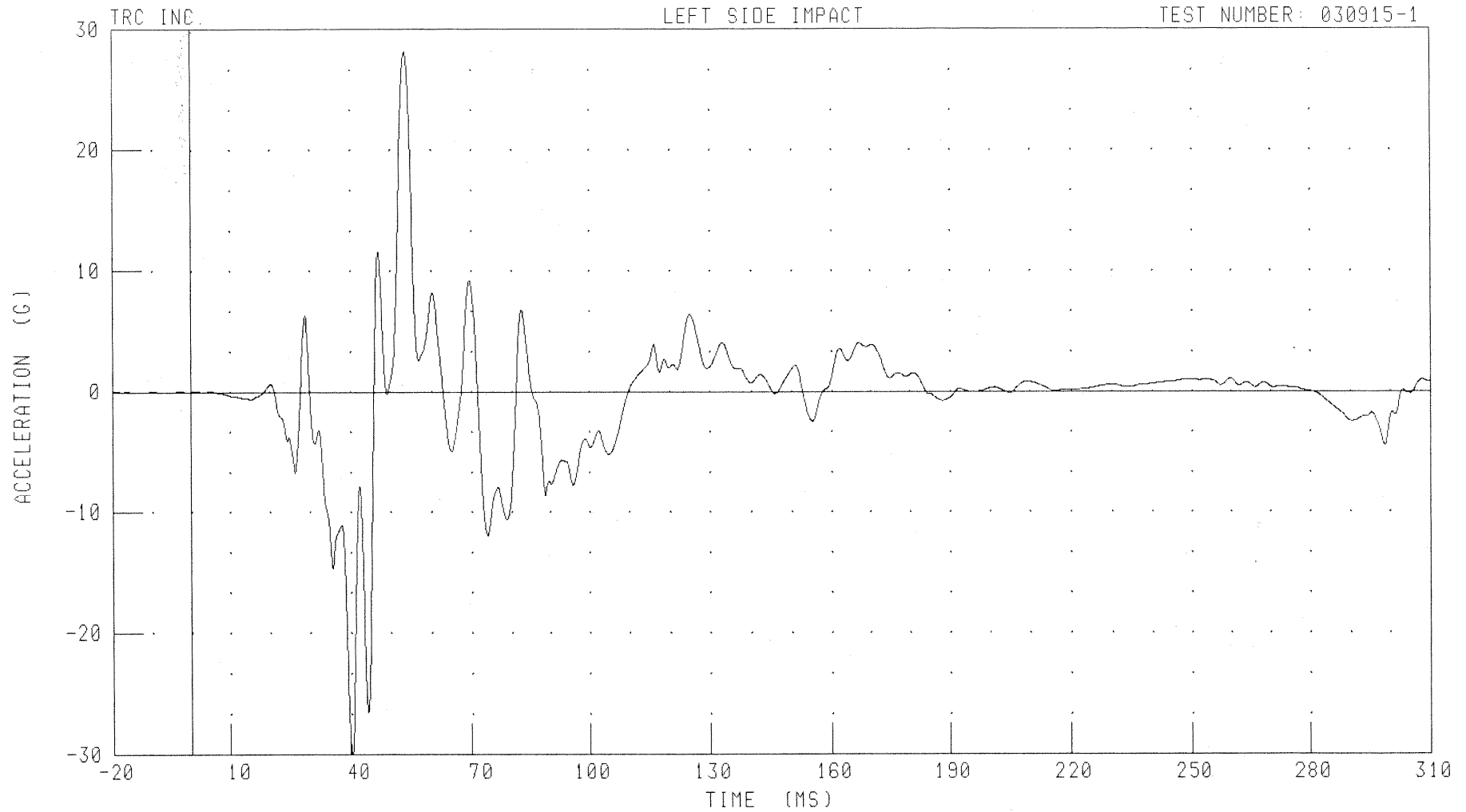
B-209

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLXG4 FILTER: CH. CLASS 180

PEAK DATA: 28.12 G @ 53.84 MS; -30.12 G @ 40.40 MS

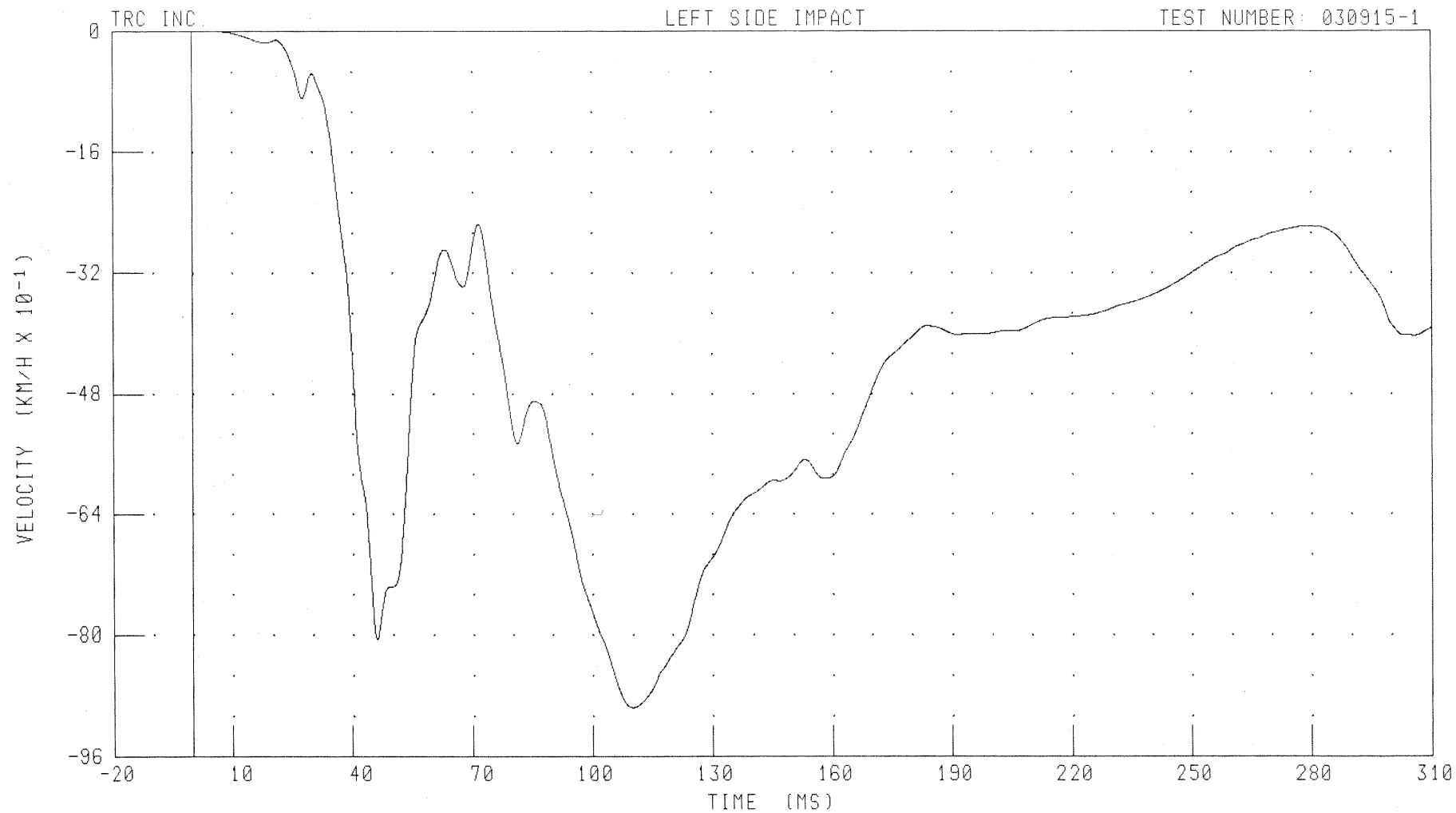
B-210

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLXV4 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 2.56 MS, -8.96 KM/H @ 110.00 MS

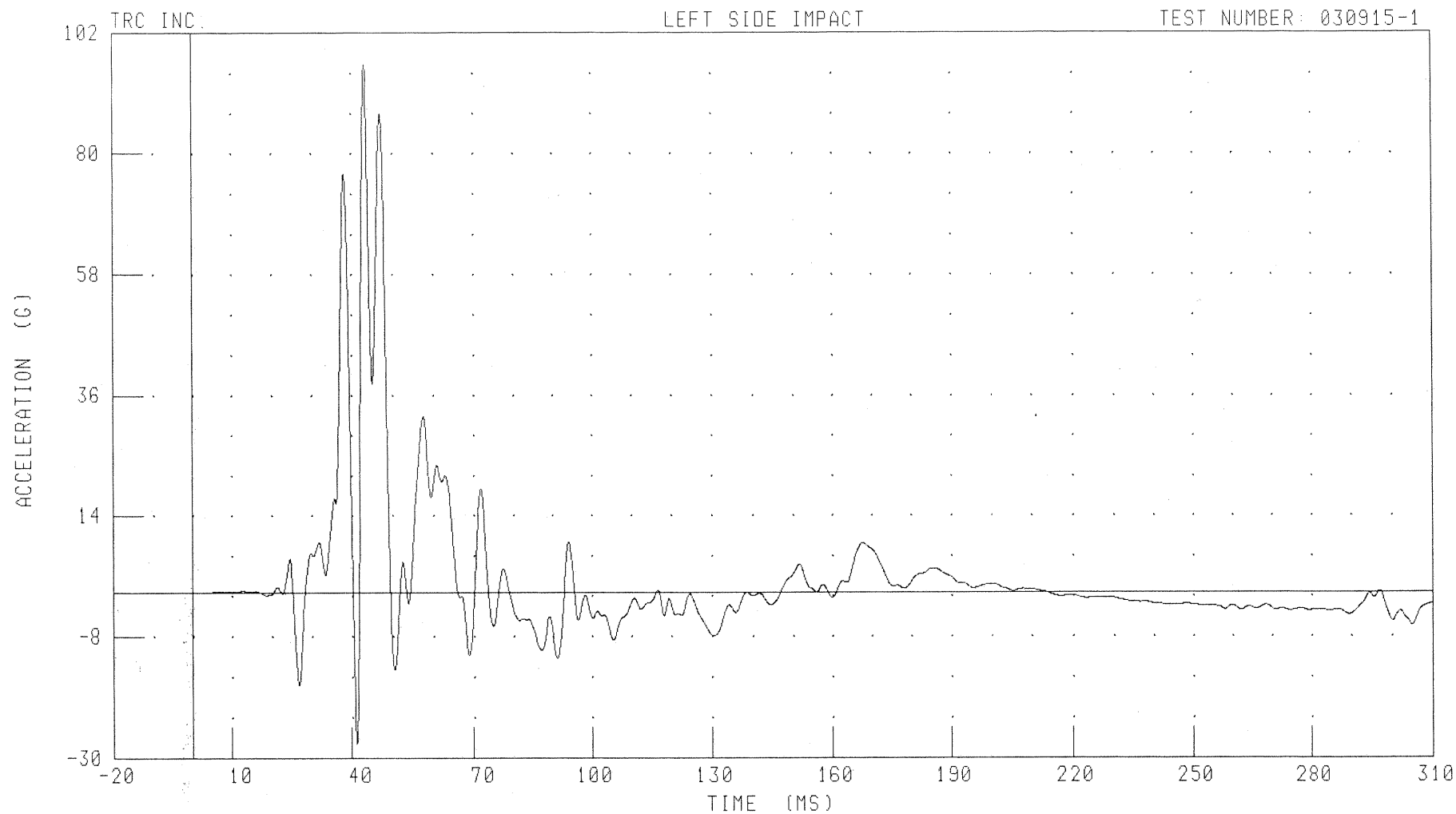
B-211

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYG4 FILTER: CH. CLASS 180

PEAK DATA: 96.28 G @ 43.44 MS; -27.47 G @ 41.28 MS

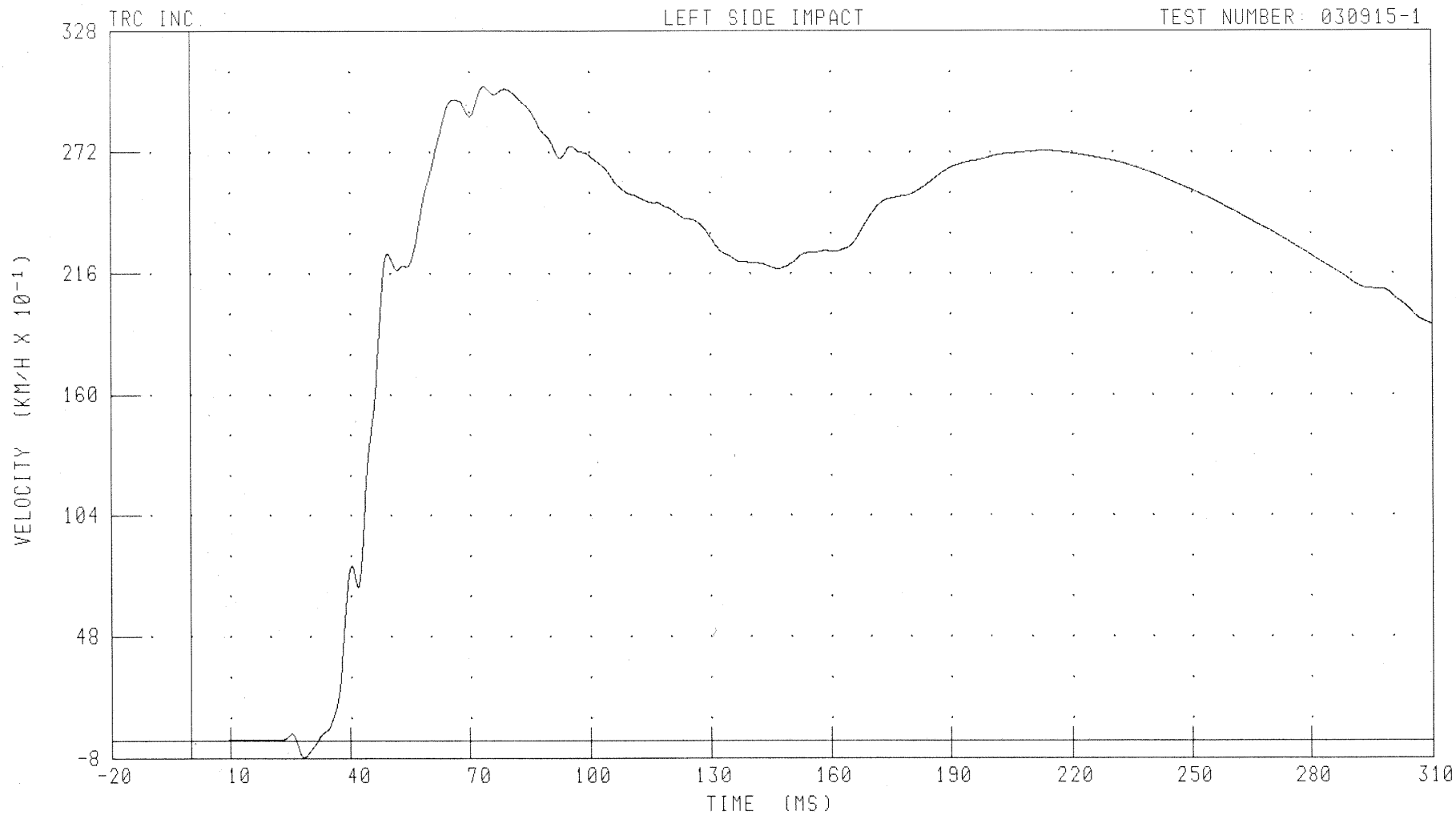
B-212

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYV4 FILTER: CH. CLASS 180

PEAK DATA: 302.4 KM/H @ 73.68 MS; -0.75 KM/H @ 28.40 MS

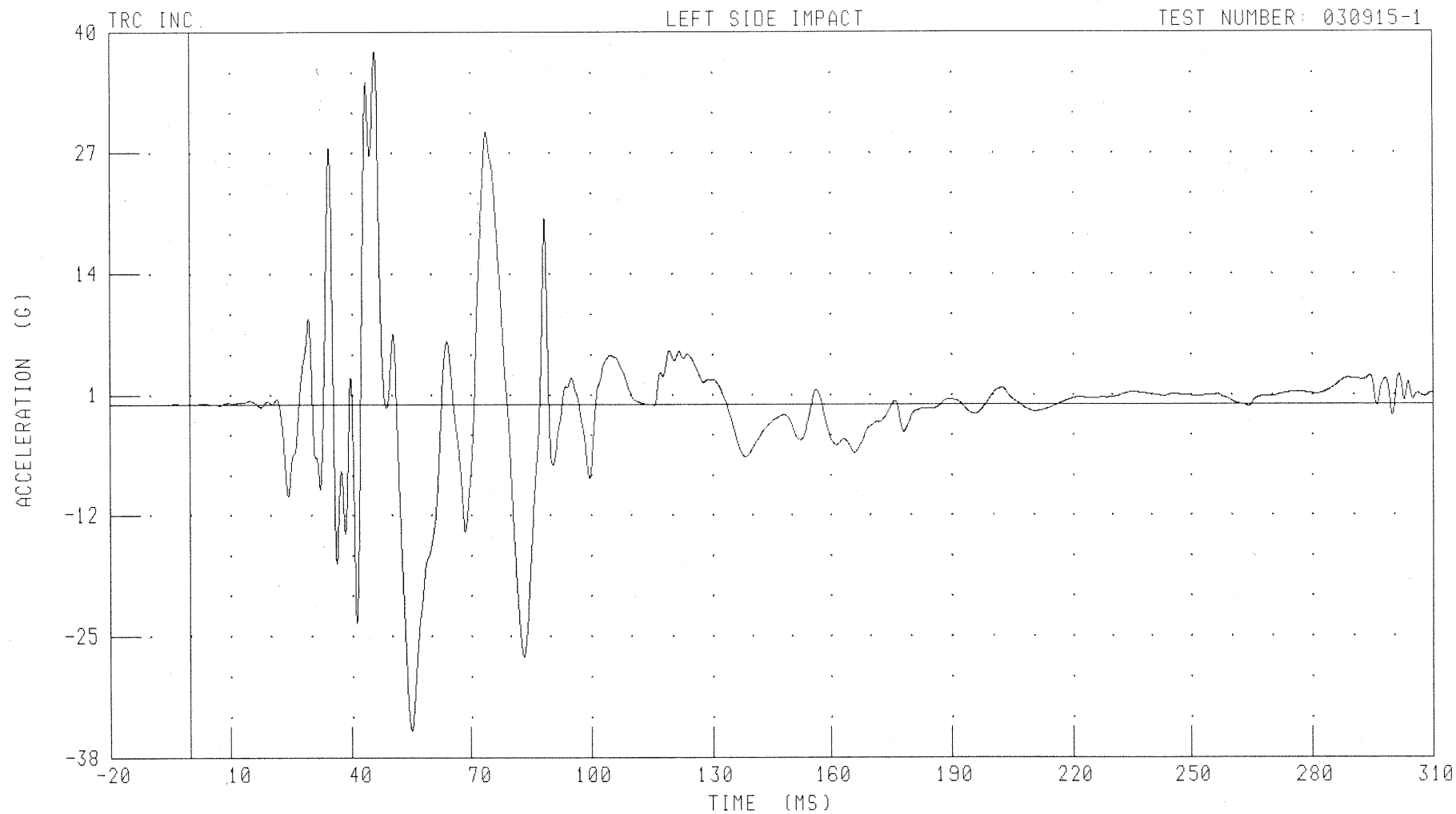
B-213

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLZG4 FILTER: CH. CLASS 180

PEAK DATA: 37.96 G @ 45.92 MS; -35.13 G @ 54.96 MS

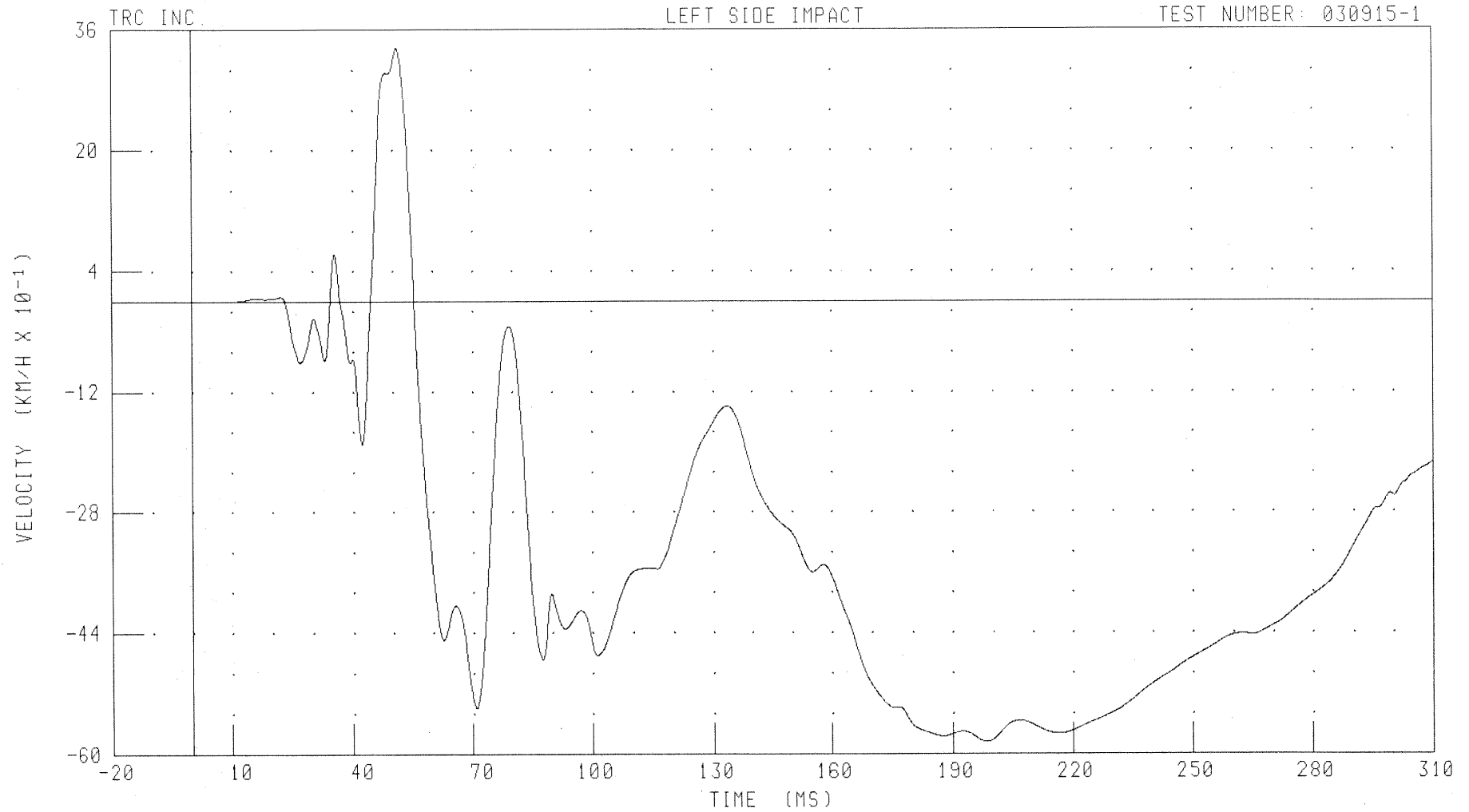
B-214

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLZV4 FILTER: CH. CLASS 180

PEAK DATA: 3.35 KM/H @ 51.28 MS; -5.84 KM/H @ 198.32 MS

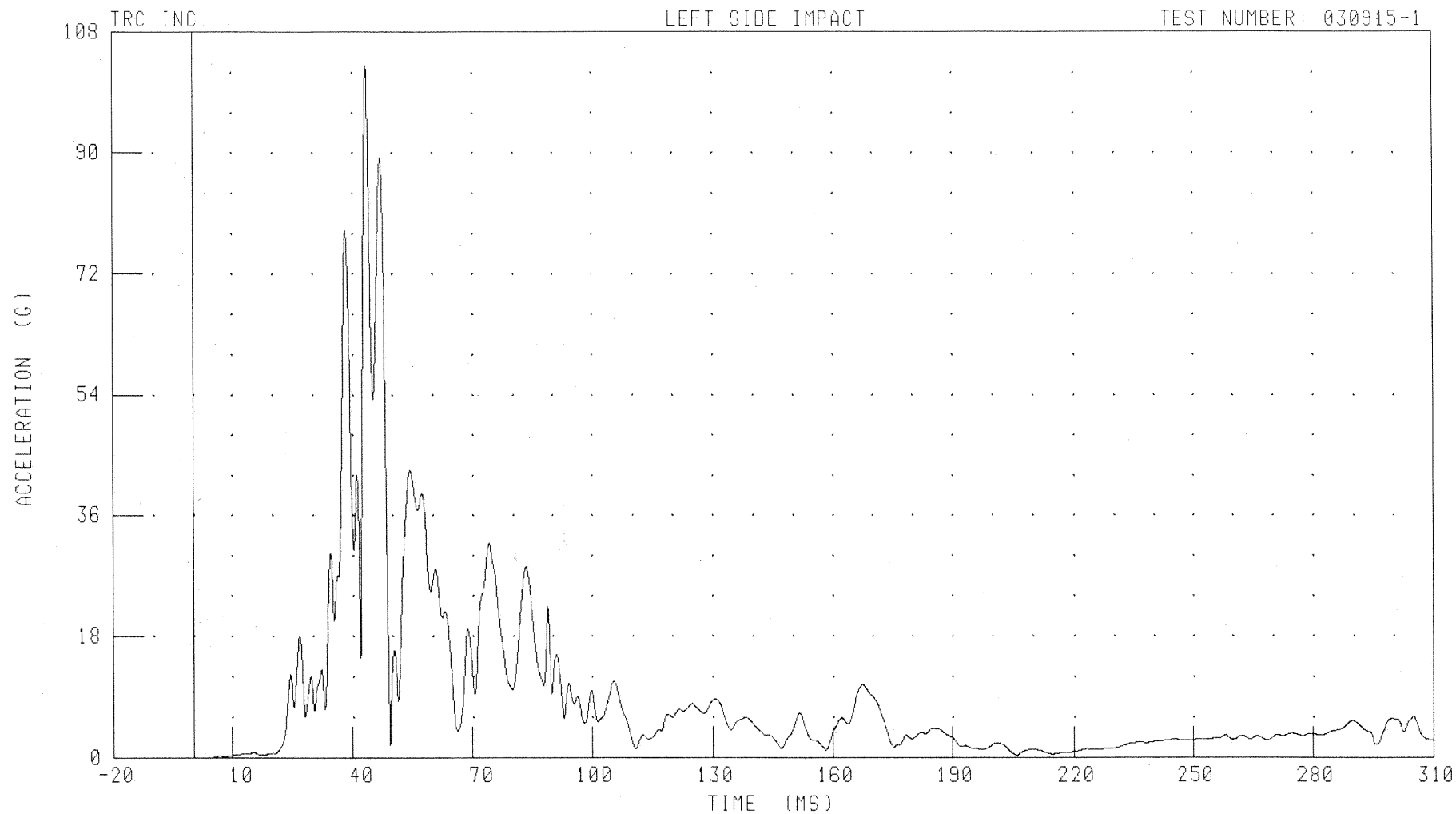
B-215

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLRG4 FILTER: CH. CLASS 180

PEAK DATA: 103.05 G @ 43.52 MS; 0.00 G @ -20.00 MS

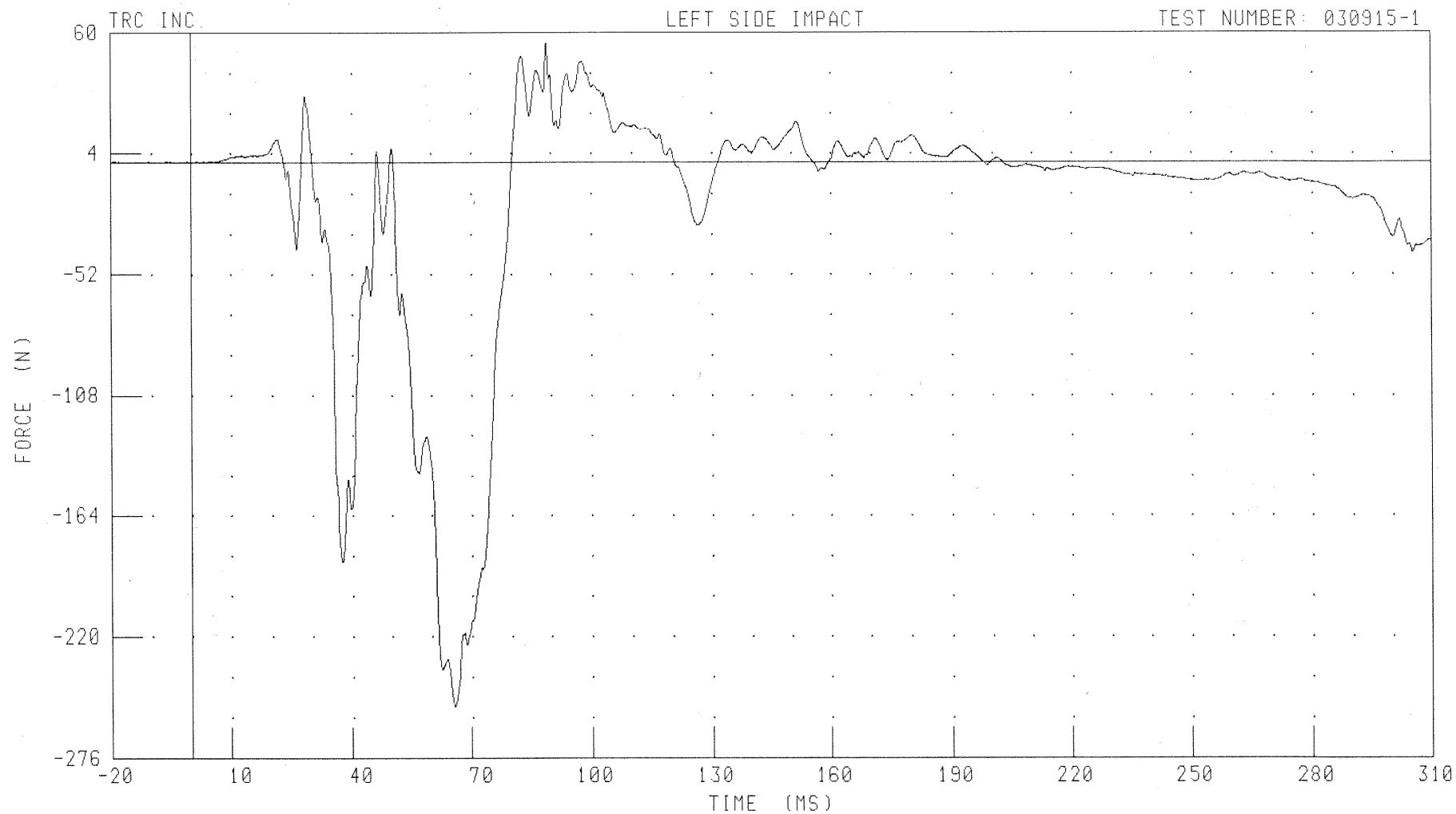
B-216

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLXF4 FILTER: CH. CLASS 600

PEAK DATA: 55.19 N @ 89.12 MS; -252.15 N @ 65.76 MS

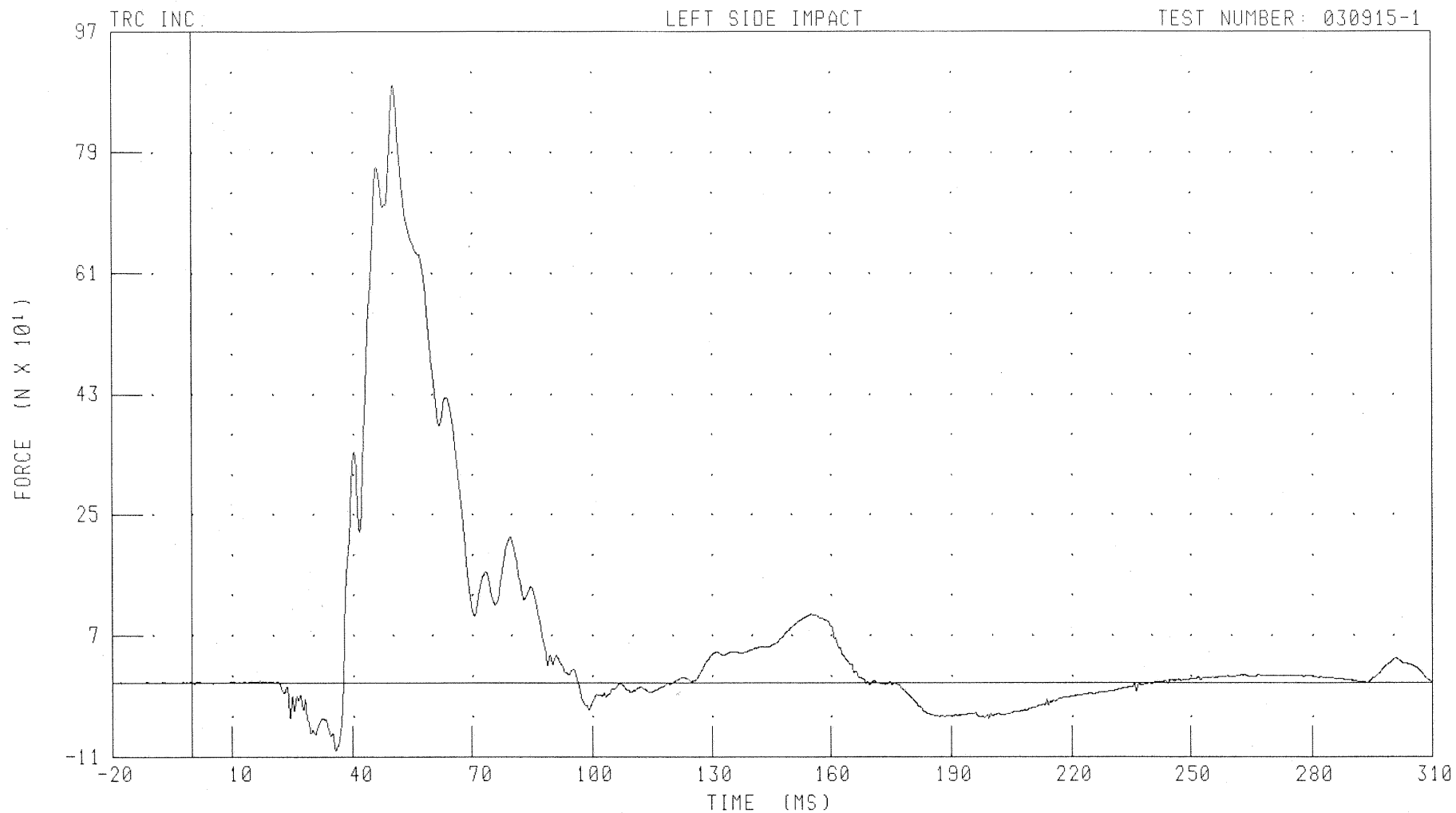
B-217

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLYF4

FILTER: CH. CLASS 600

PEAK DATA: 890.53 N @ 50.32 MS; -100.77 N @ 35.68 MS

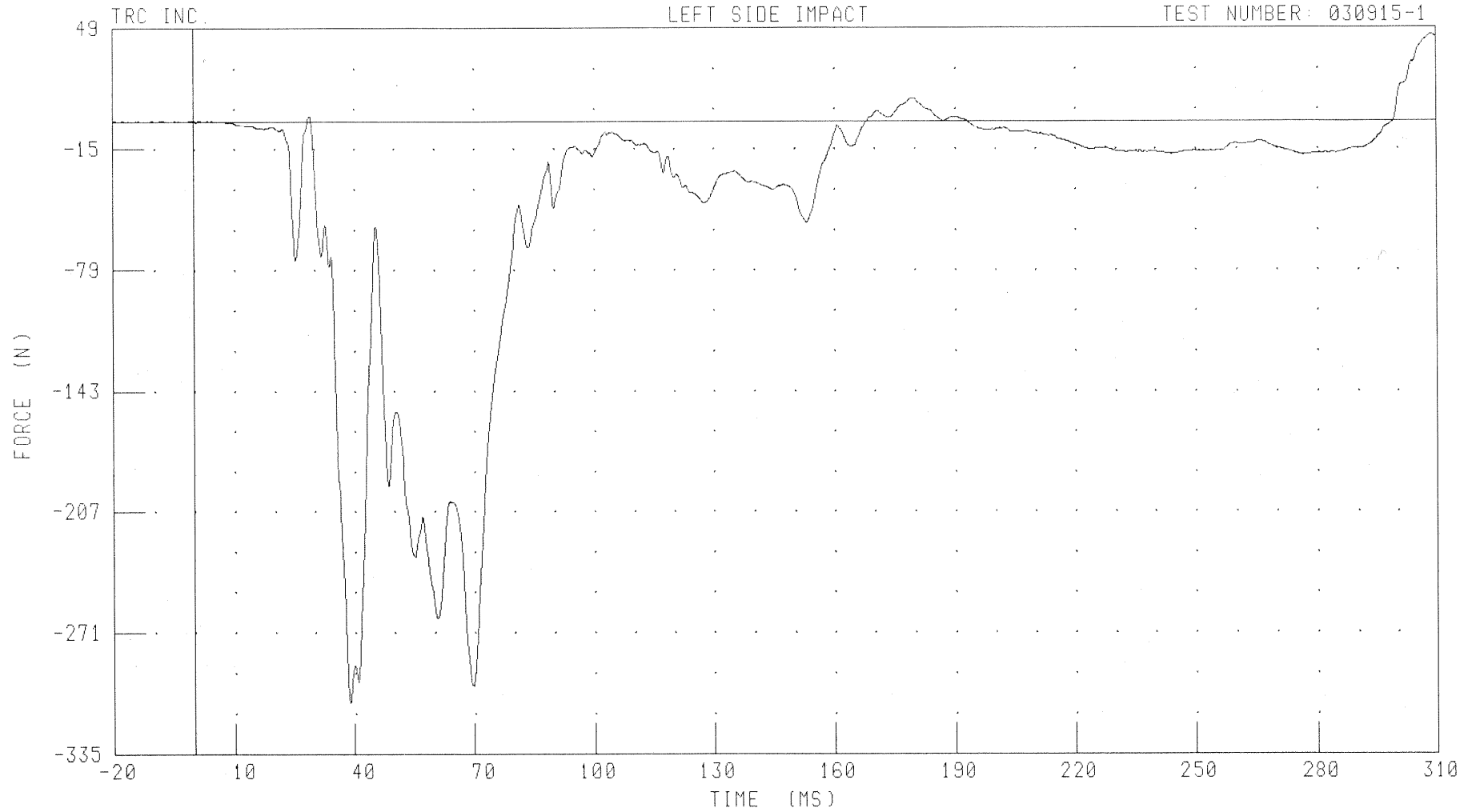
B-218

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SHOULDER Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SHLZF4 FILTER: CH. CLASS 600

PEAK DATA: 45.18 N @ 308.48 MS; -307.80 N @ 38.88 MS

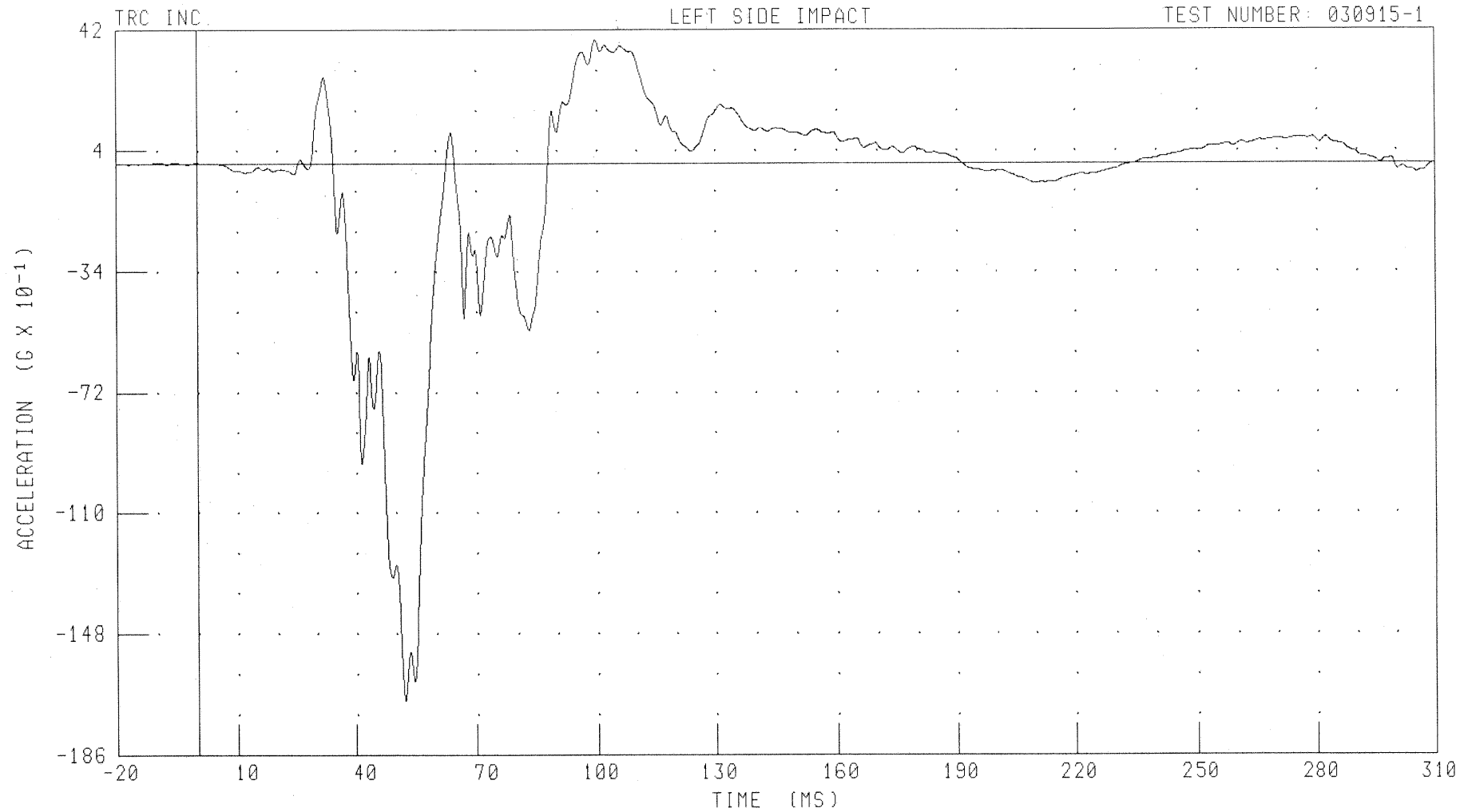
B-219

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01XG4 FILTER: CH. CLASS 180

PEAK DATA: 3.88 G @ 99.76 MS; -16.90 G @ 52.24 MS

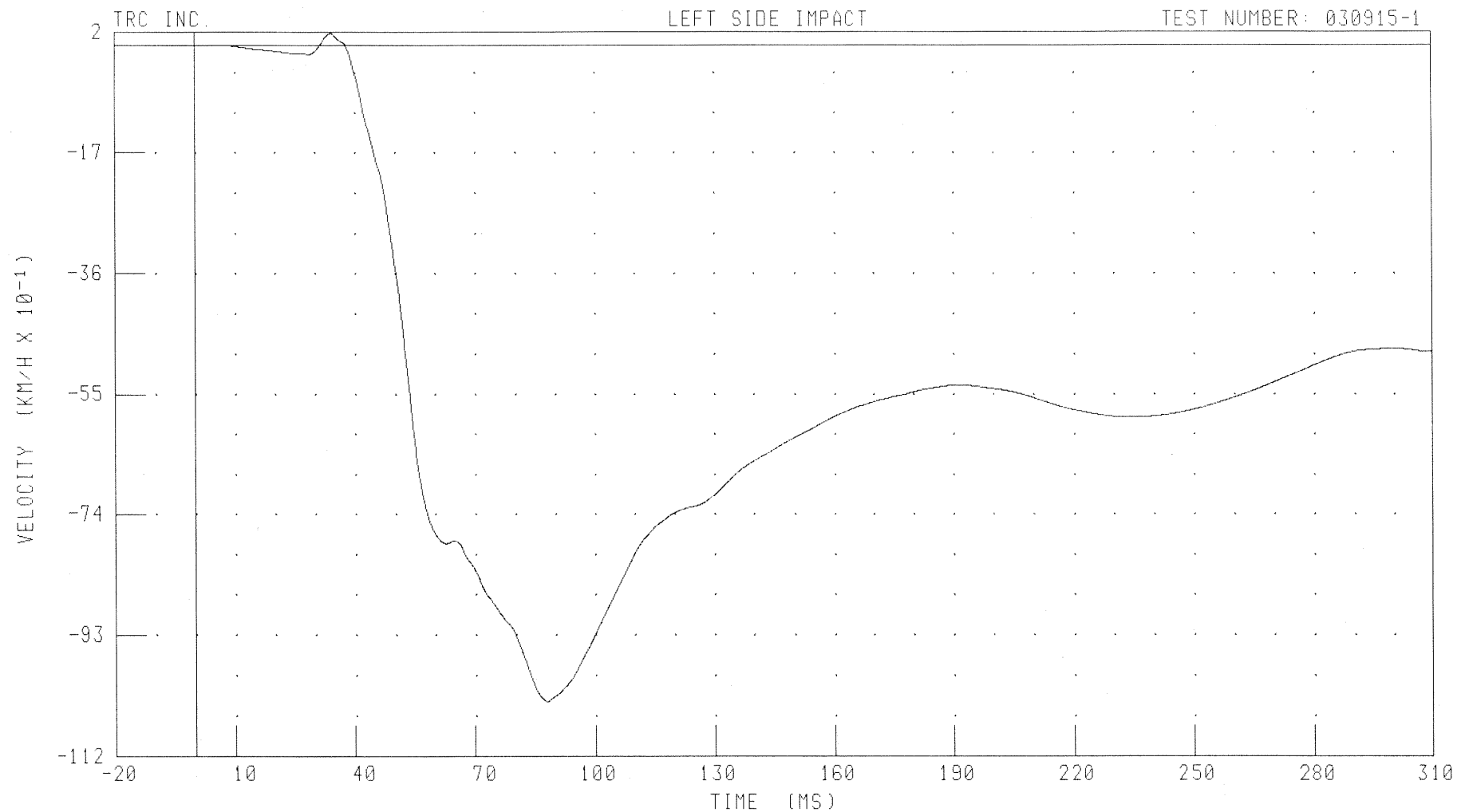
B-220

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.18 KM/H @ 34.32 MS; -10.34 KM/H @ 87.84 MS

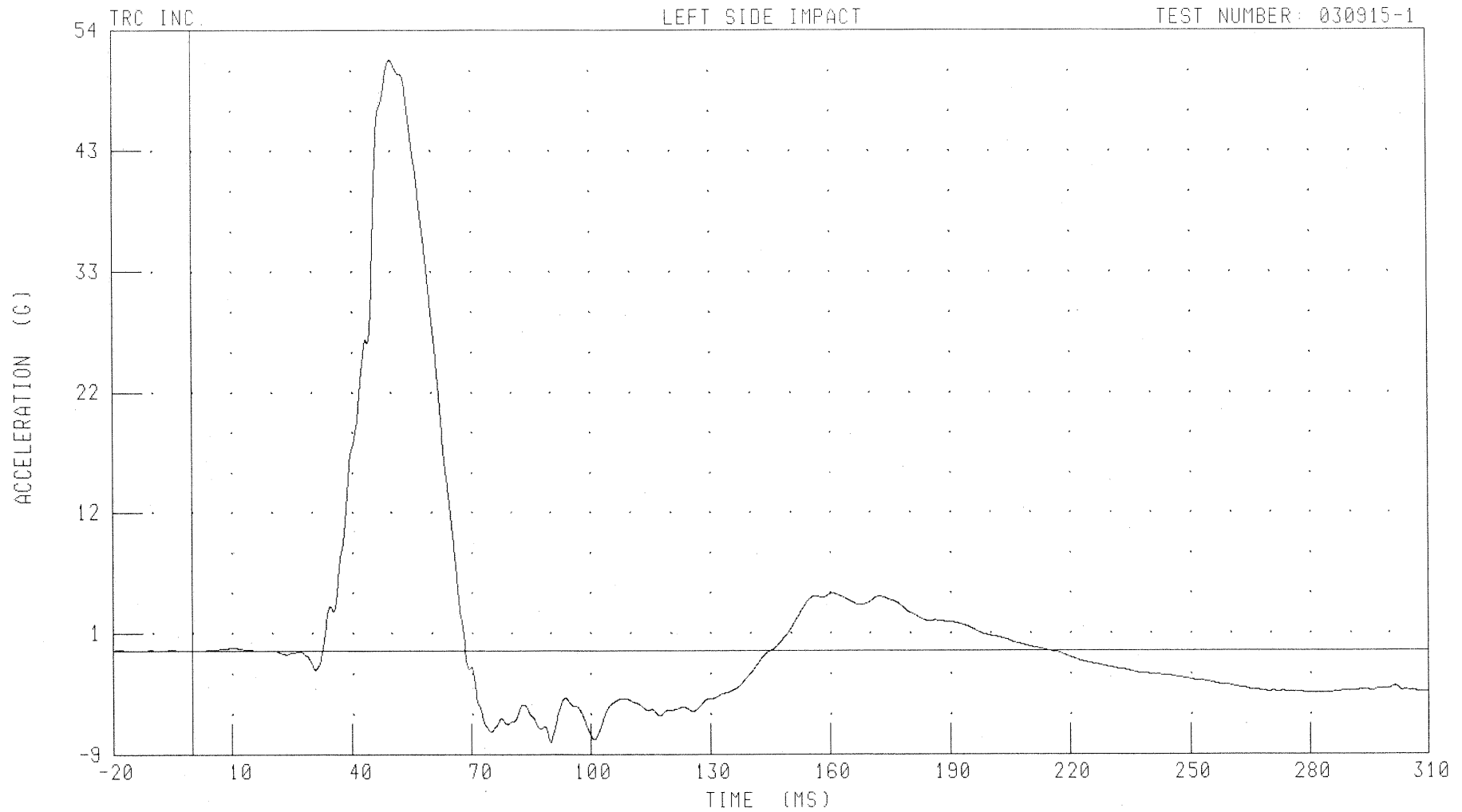
B-221

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01YG4 FILTER: CH. CLASS 180

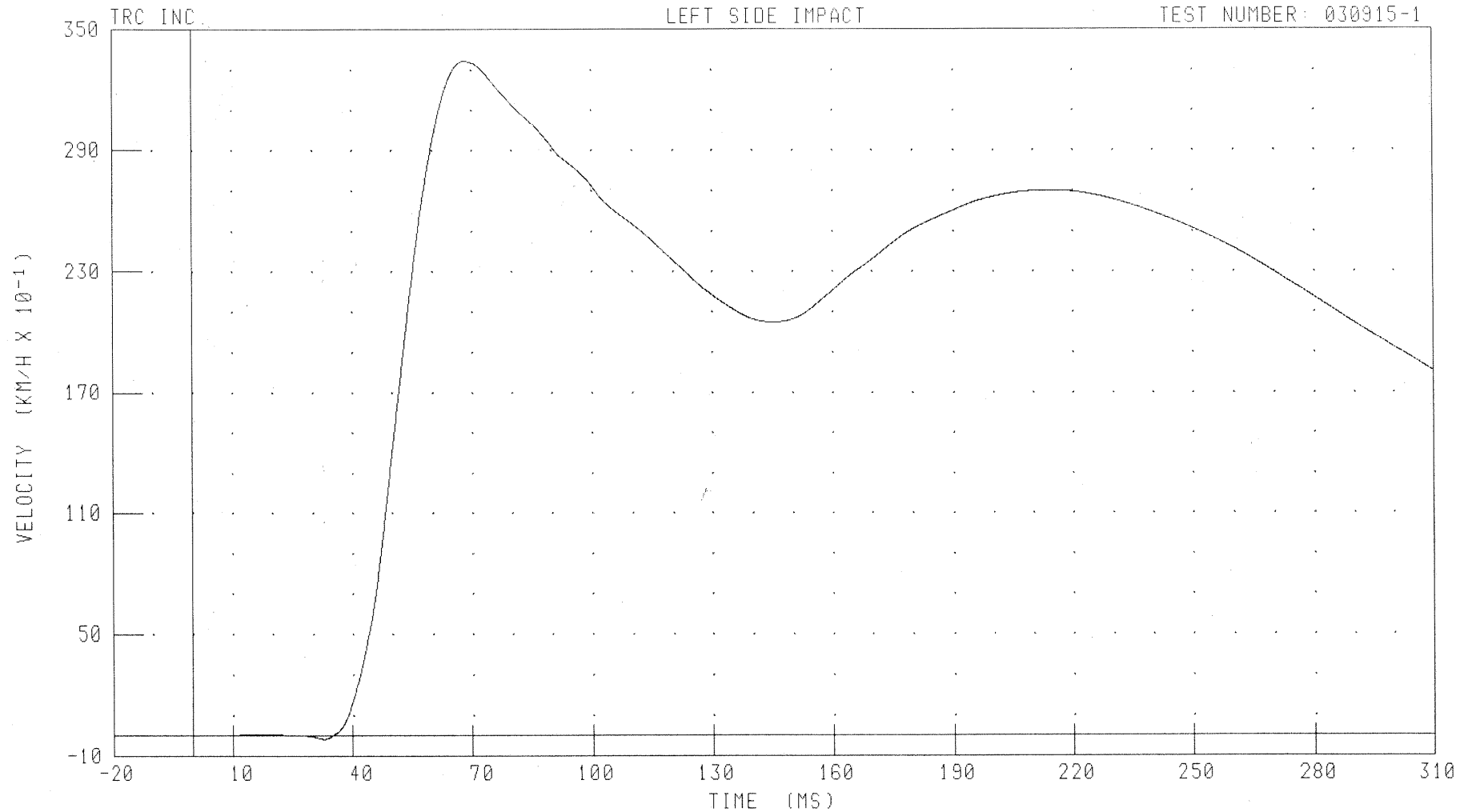
B-222

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01YV4 FILTER: CH. CLASS 180

PEAK DATA: 33.44 KM/H @ 68.40 MS; -0.17 KM/H @ 32.64 MS

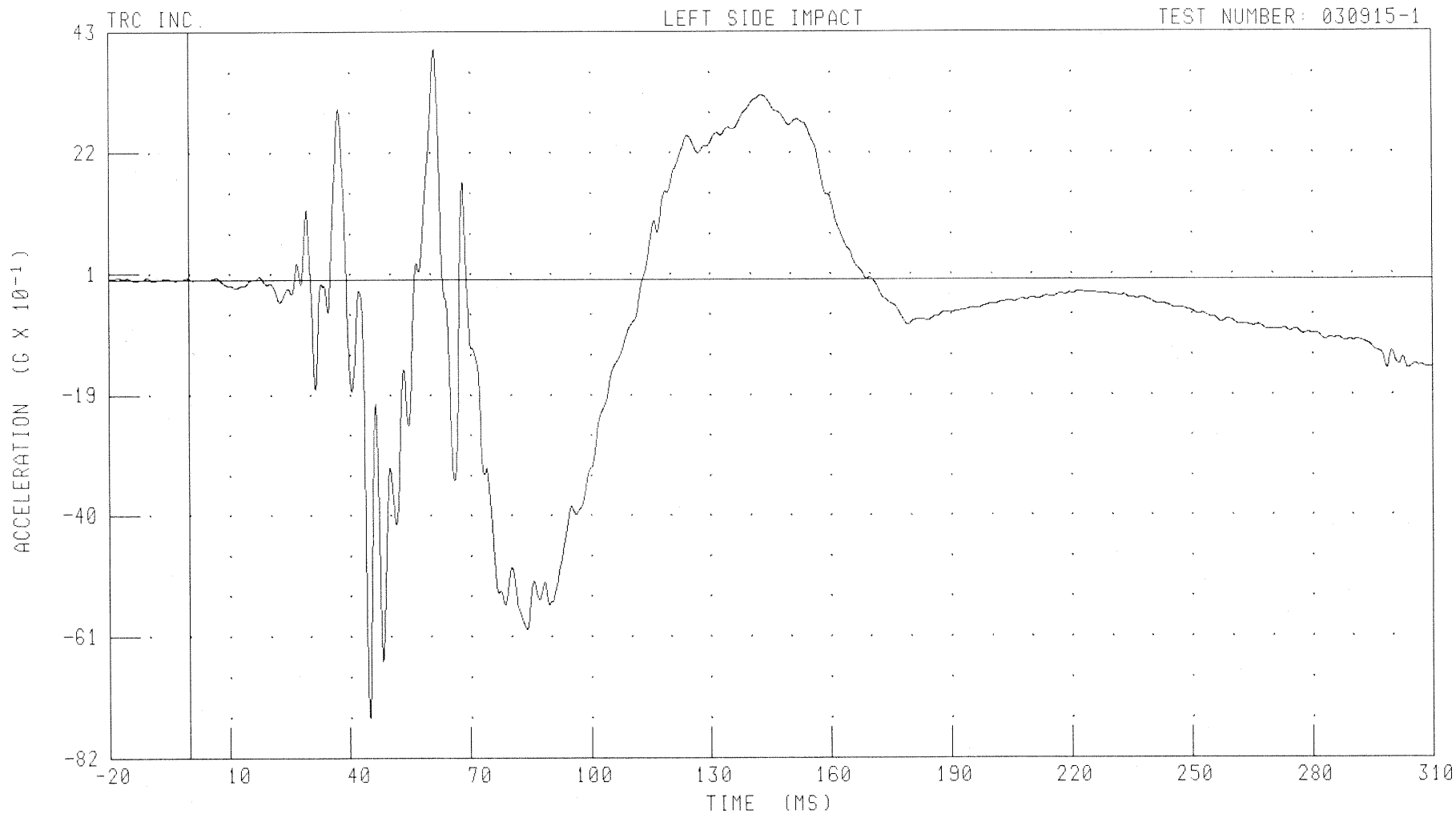
B-223

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZG4

FILTER: CH. CLASS 180

PEAK DATA: 4.00 G @ 61.12 MS; -7.60 G @ 44.88 MS

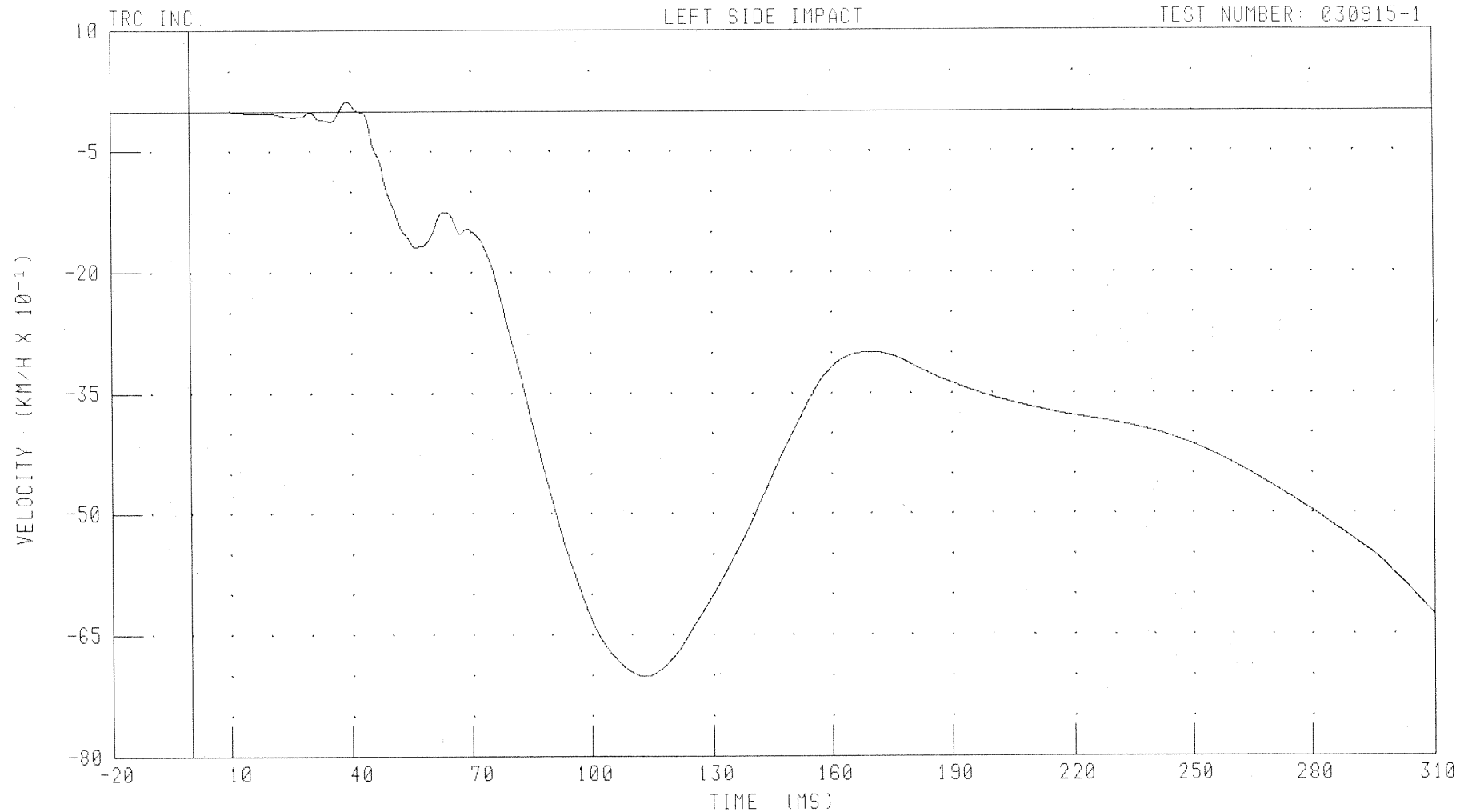
B-224

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZV4 FILTER: CH. CLASS 180

PEAK DATA: 0.12 KM/H @ 39.28 MS; -7.02 KM/H @ 113.12 MS

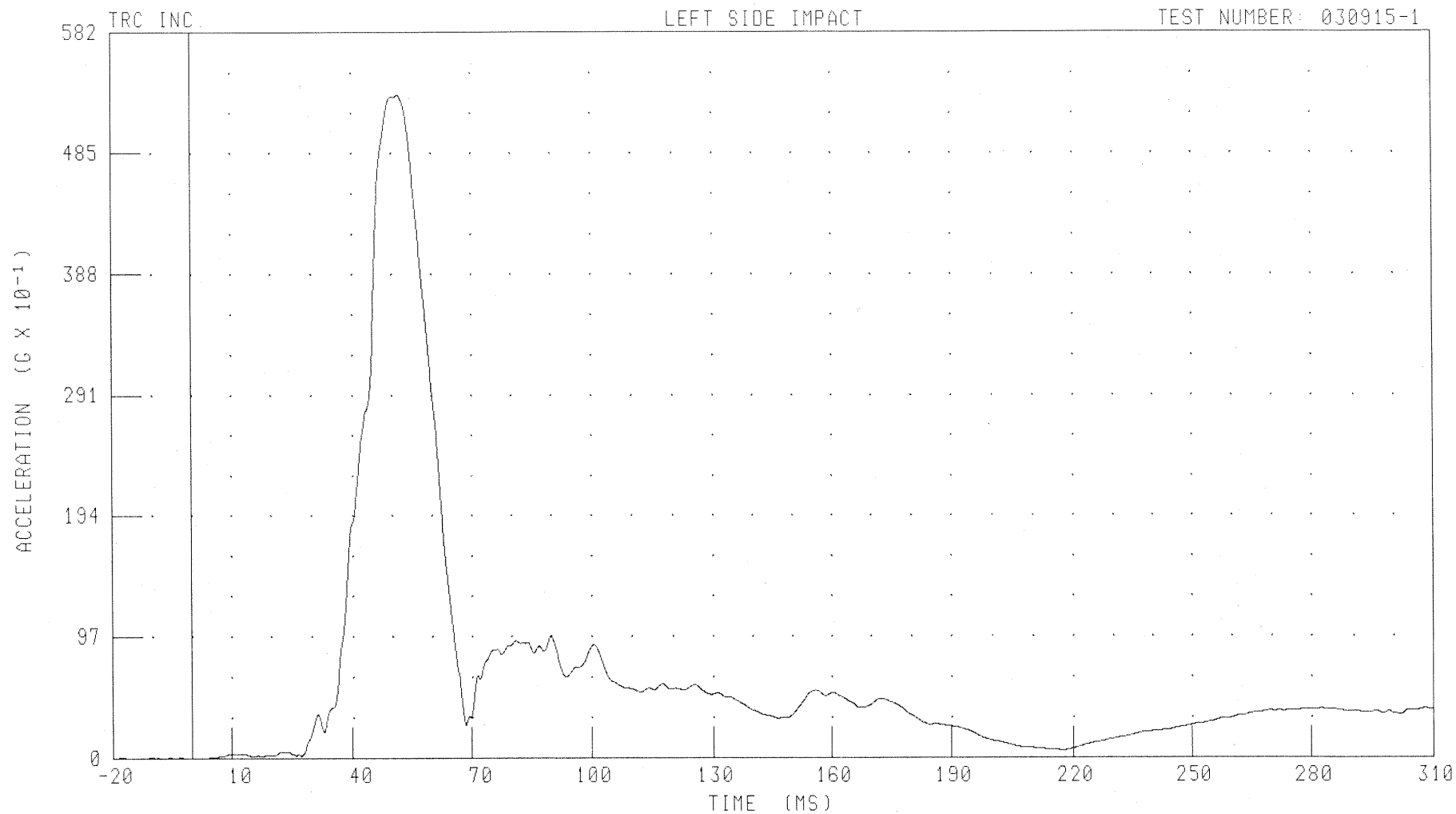
B-225

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01RG4 FILTER: CH. CLASS 180

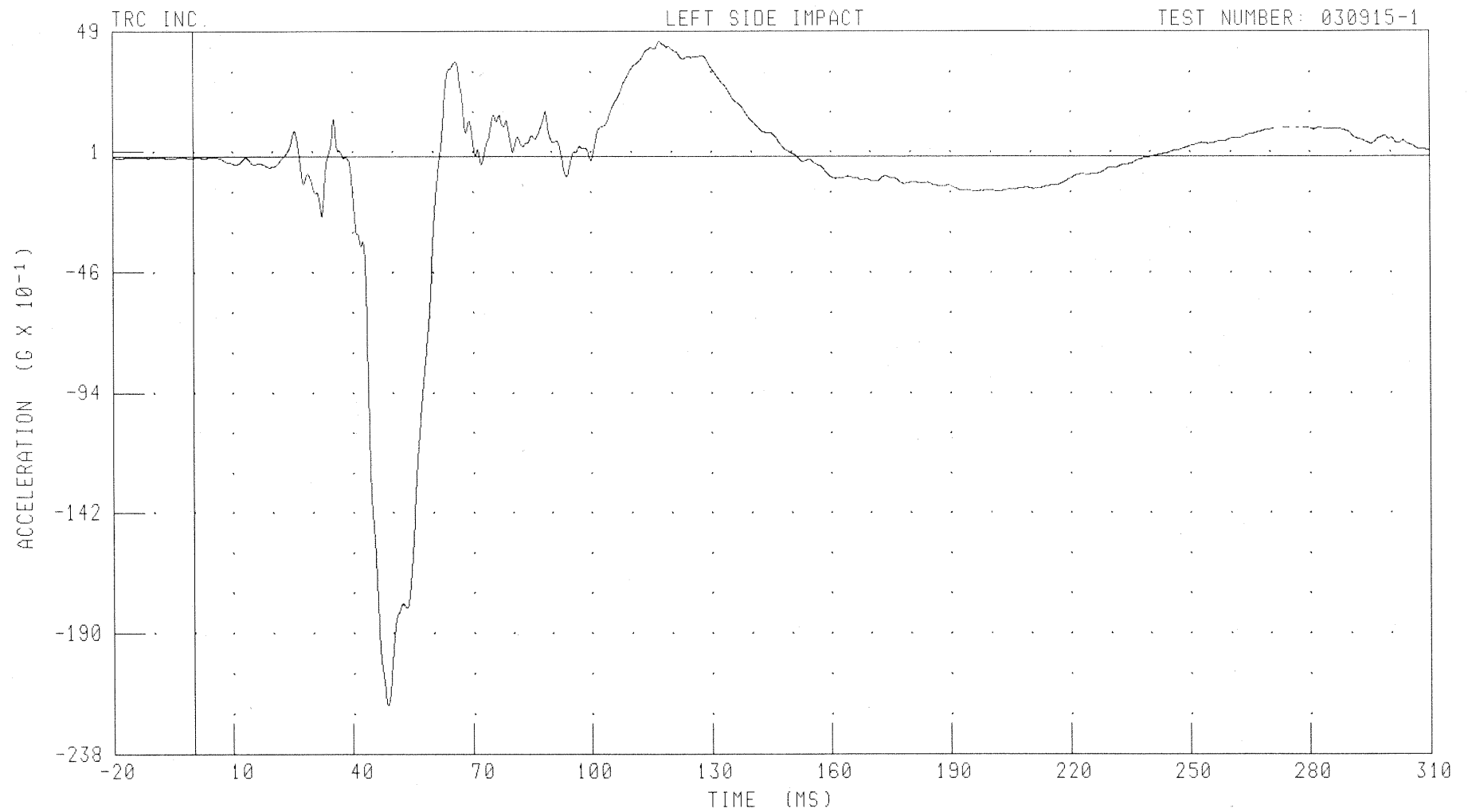
PEAK DATA: 53.19 G @ 51.76 MS; 0.00 G @ -20.00 MS

B-226

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: SR1XG4 FILTER: CH. CLASS 180

PEAK DATA: 4.61 G @ 117.20 MS; -21.87 G @ 48.64 MS

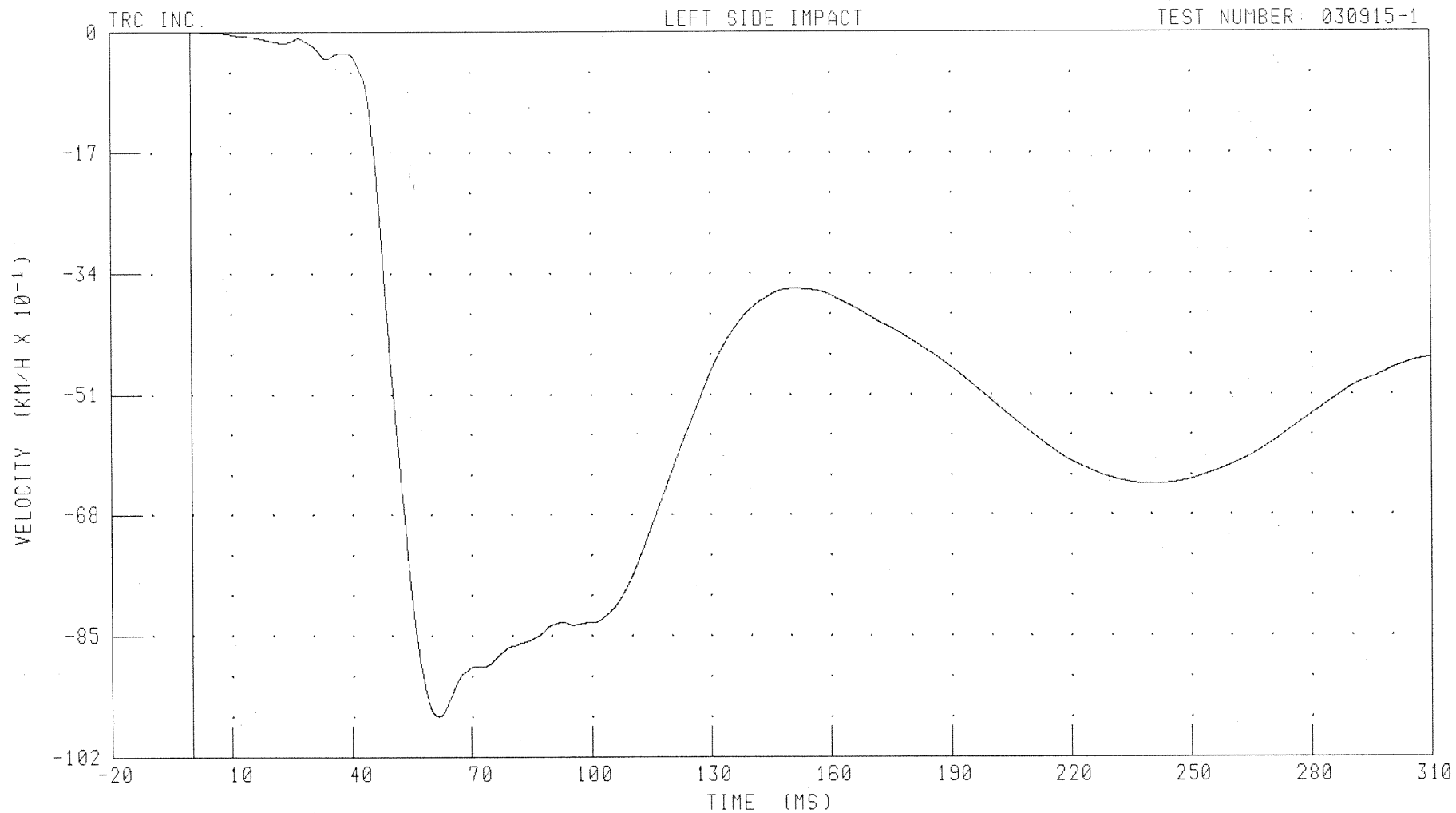
B-227

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS; -9.63 KM/H @ 61.76 MS

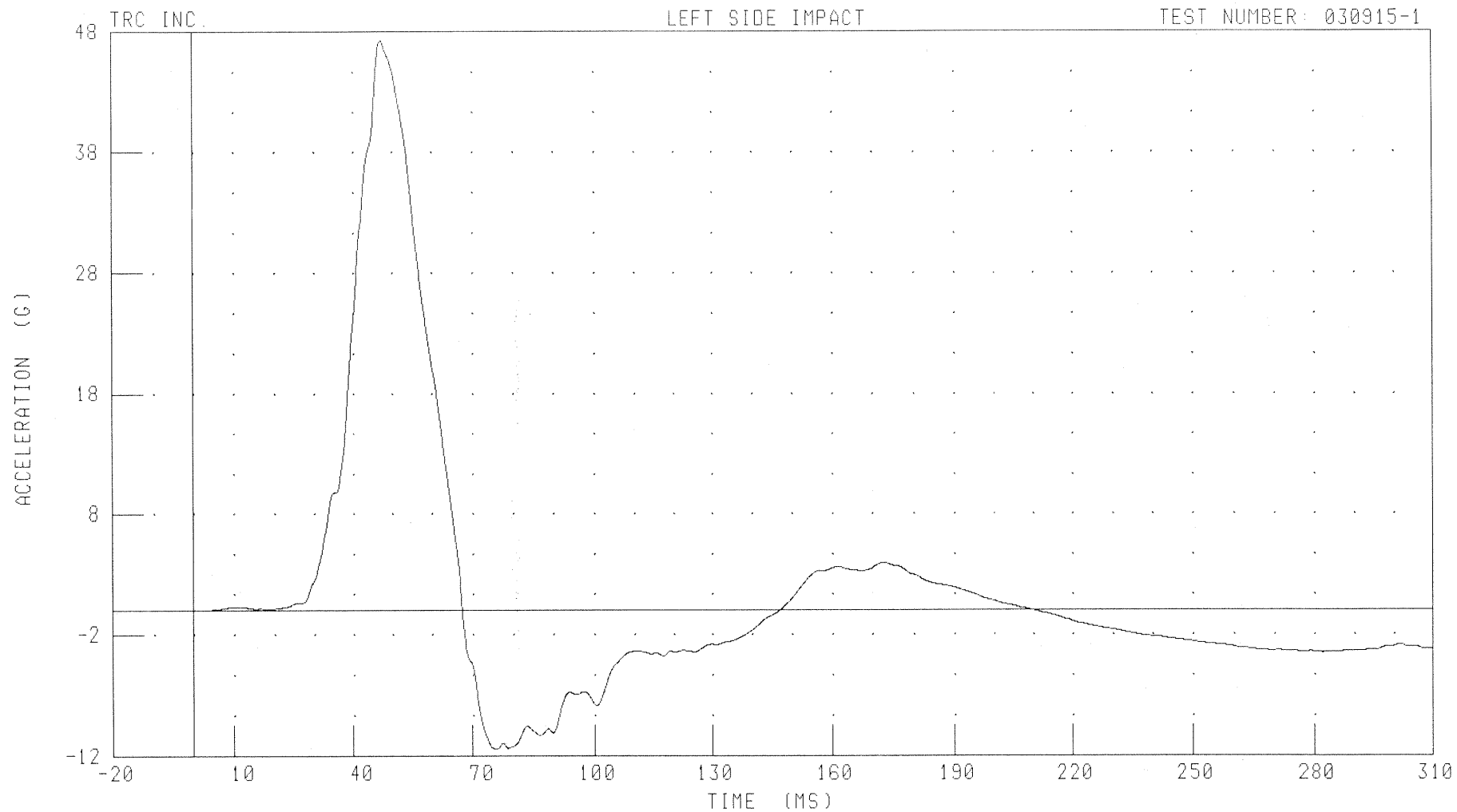
B-228

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1YG4

FILTER: CH. CLASS 180

PEAK DATA: 47.25 G @ 47.28 MS; -11.42 G @ 76.08 MS

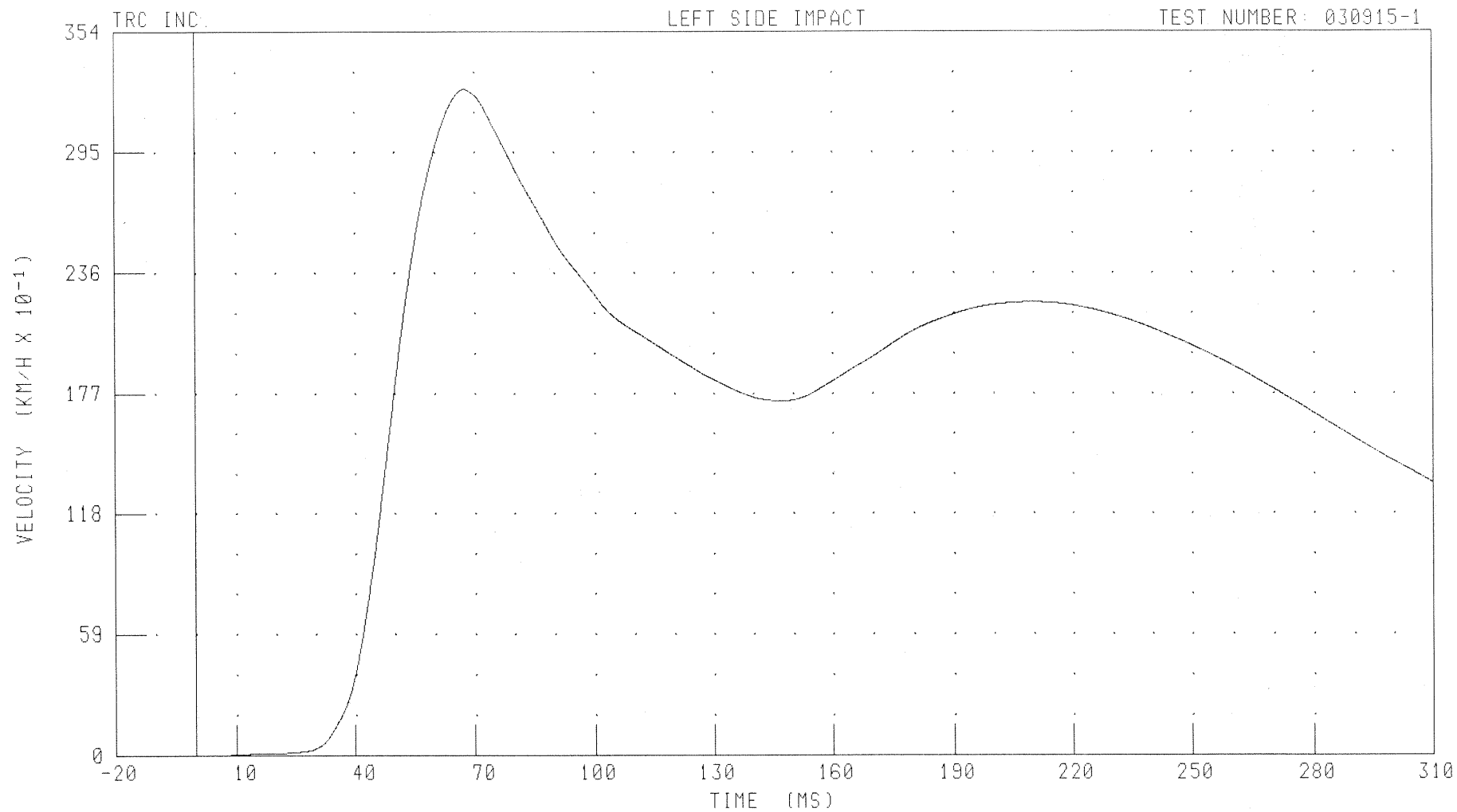
B-229

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1YV4 FILTER: CH. CLASS 180

PEAK DATA: 32.61 KM/H @ 67.52 MS; 0.00 KM/H @ 0.00 MS

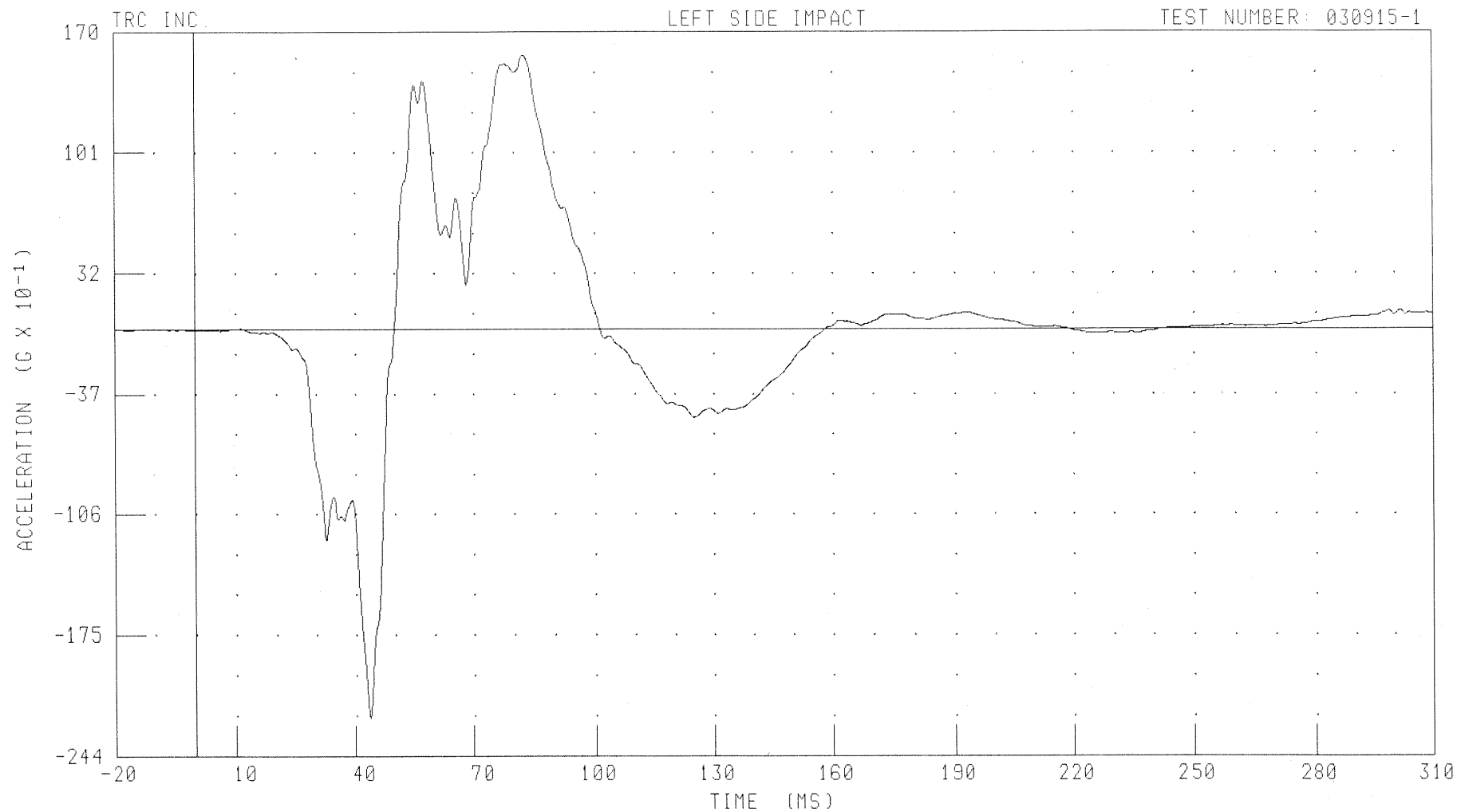
B-230

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1ZG4 FILTER: CH. CLASS 180

PEAK DATA: 15.68 G @ 82.56 MS; -22.26 G @ 43.68 MS

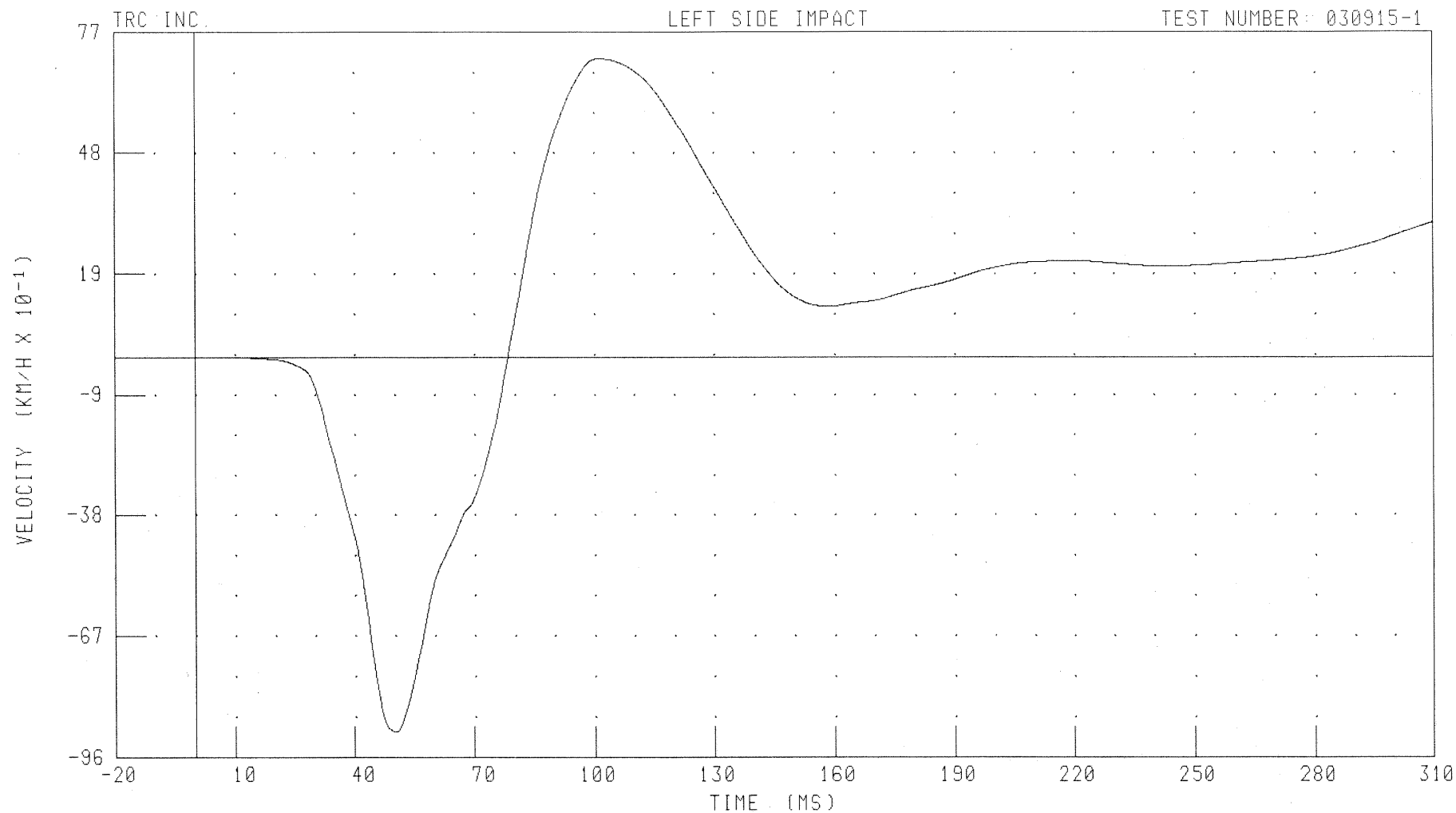
B-231

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1ZV4 FILTER: CH. CLASS 180

PEAK DATA: 7.18 KM/H @ 101.36 MS; -9.00 KM/H @ 50.08 MS

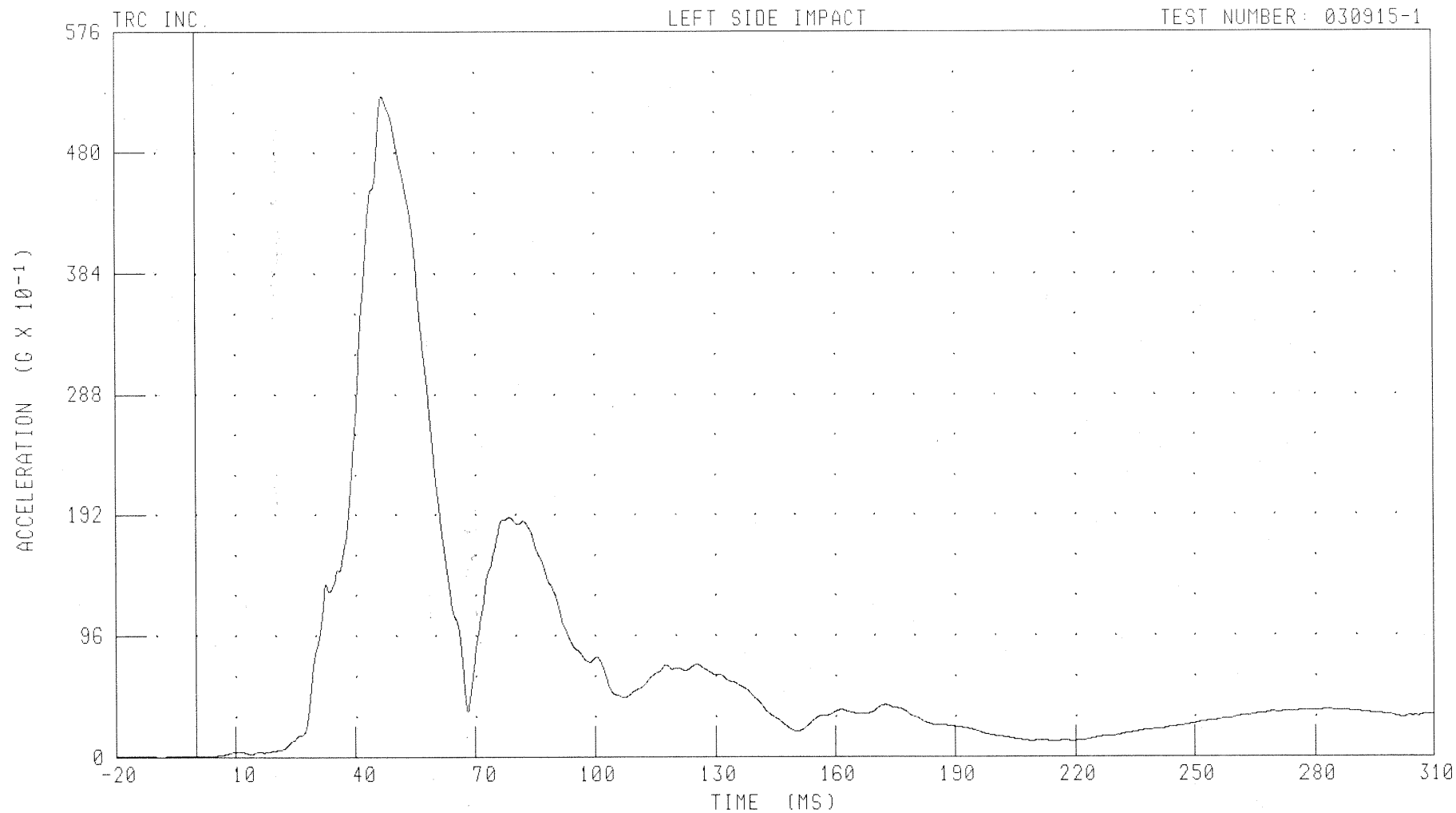
B-232

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1RG4 FILTER: CH. CLASS 180

PEAK DATA: 52.49 G @ 46.96 MS; 0.00 G @ -20.00 MS

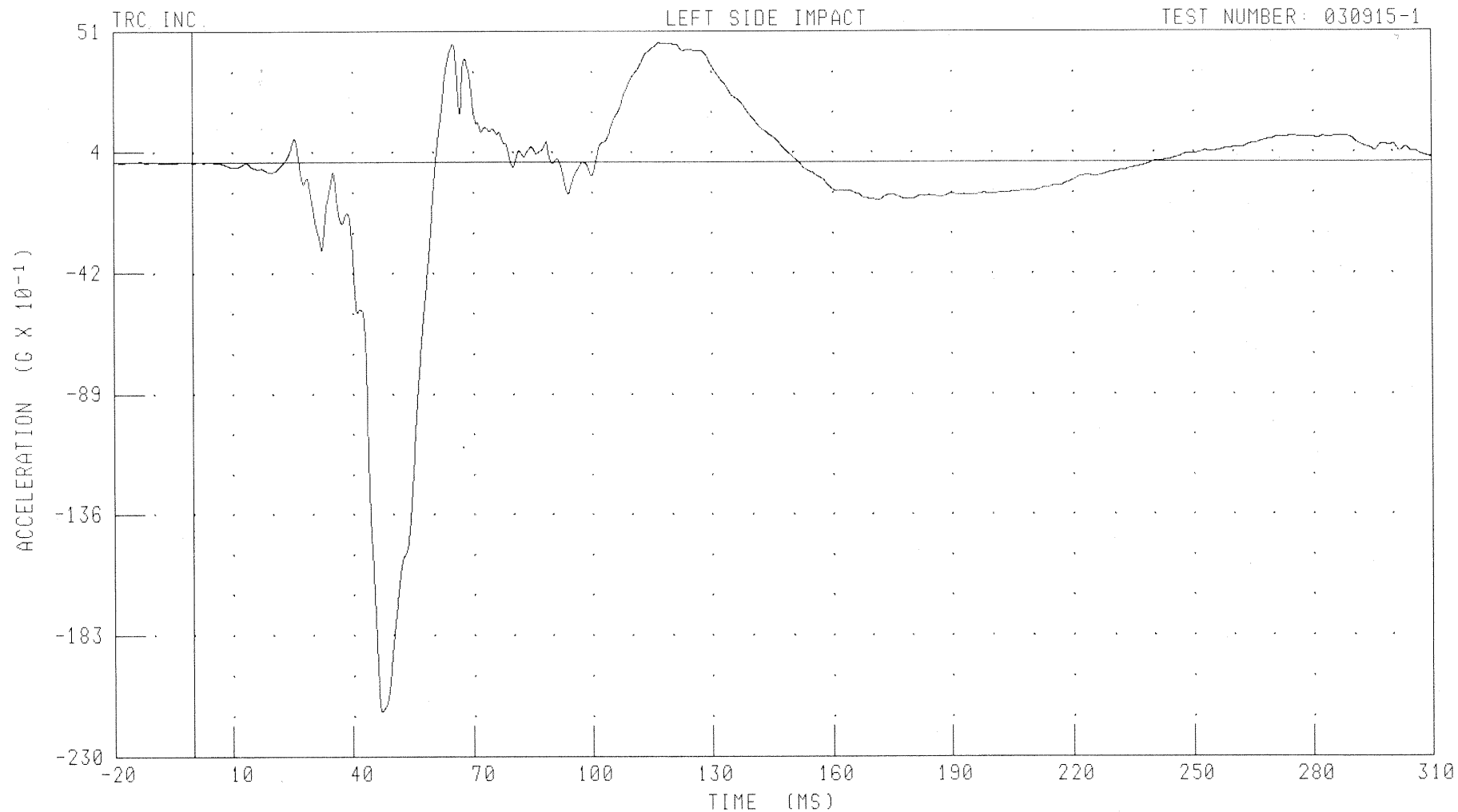
B-233

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2XG4 FILTER: CH. CLASS 180

PEAK DATA: 4.66 G @ 117.12 MS, -21.37 G @ 47.28 MS

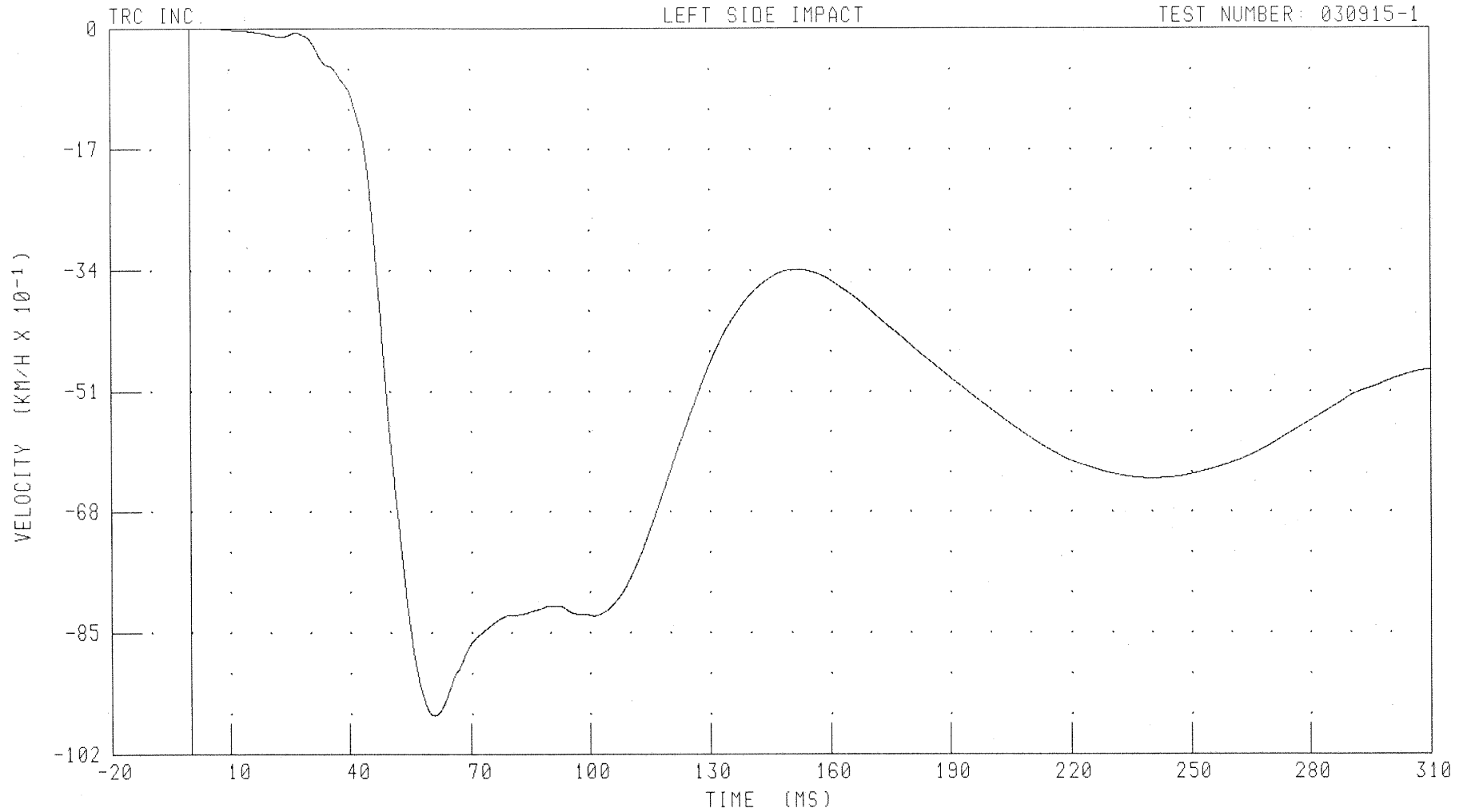
B-234

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2XV4

FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS; -9.66 KM/H @ 60.72 MS

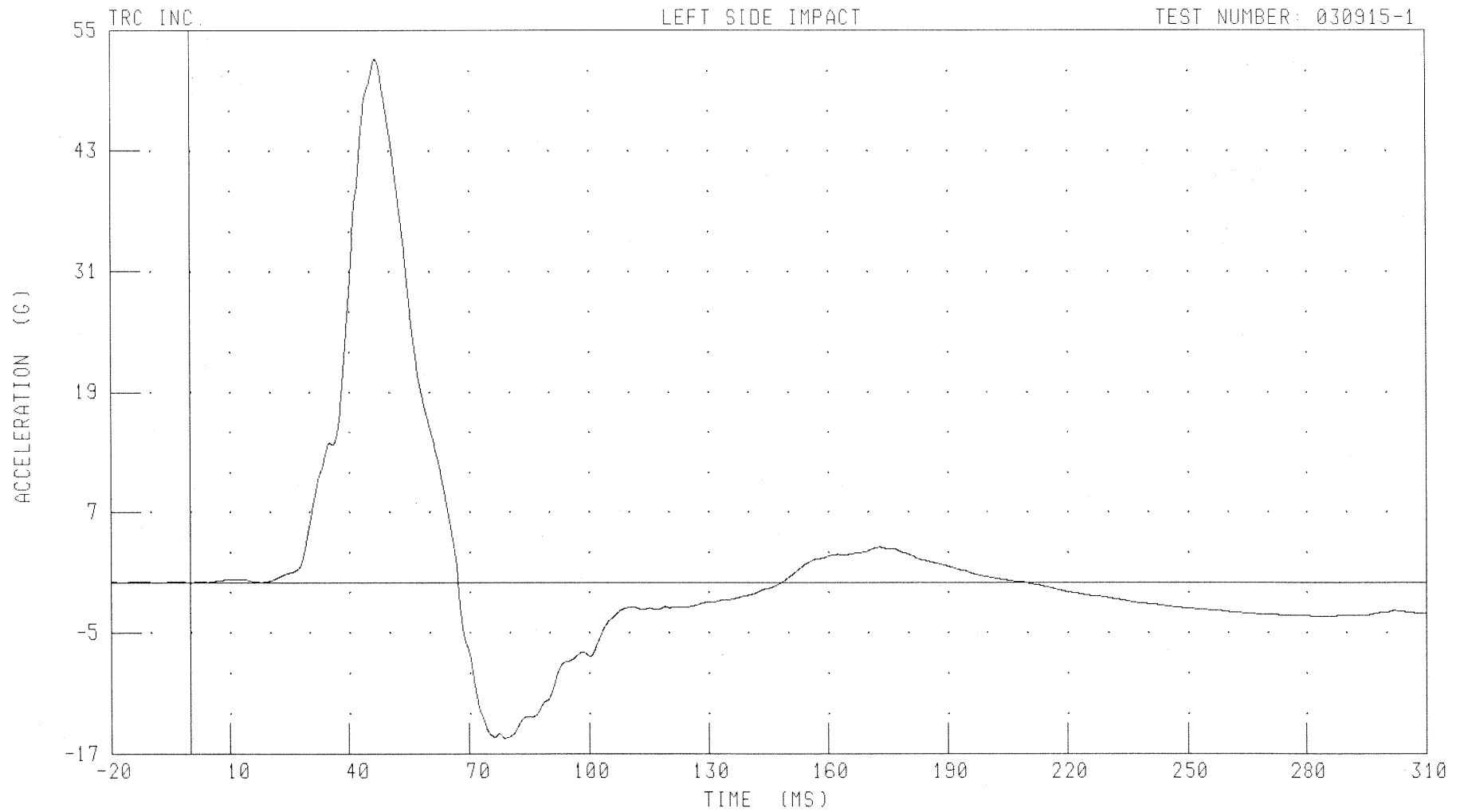
B-235

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2YG4 FILTER: CH. CLASS 180

PEAK DATA: 52.16 G @ 46.72 MS, -15.46 G @ 78.88 MS

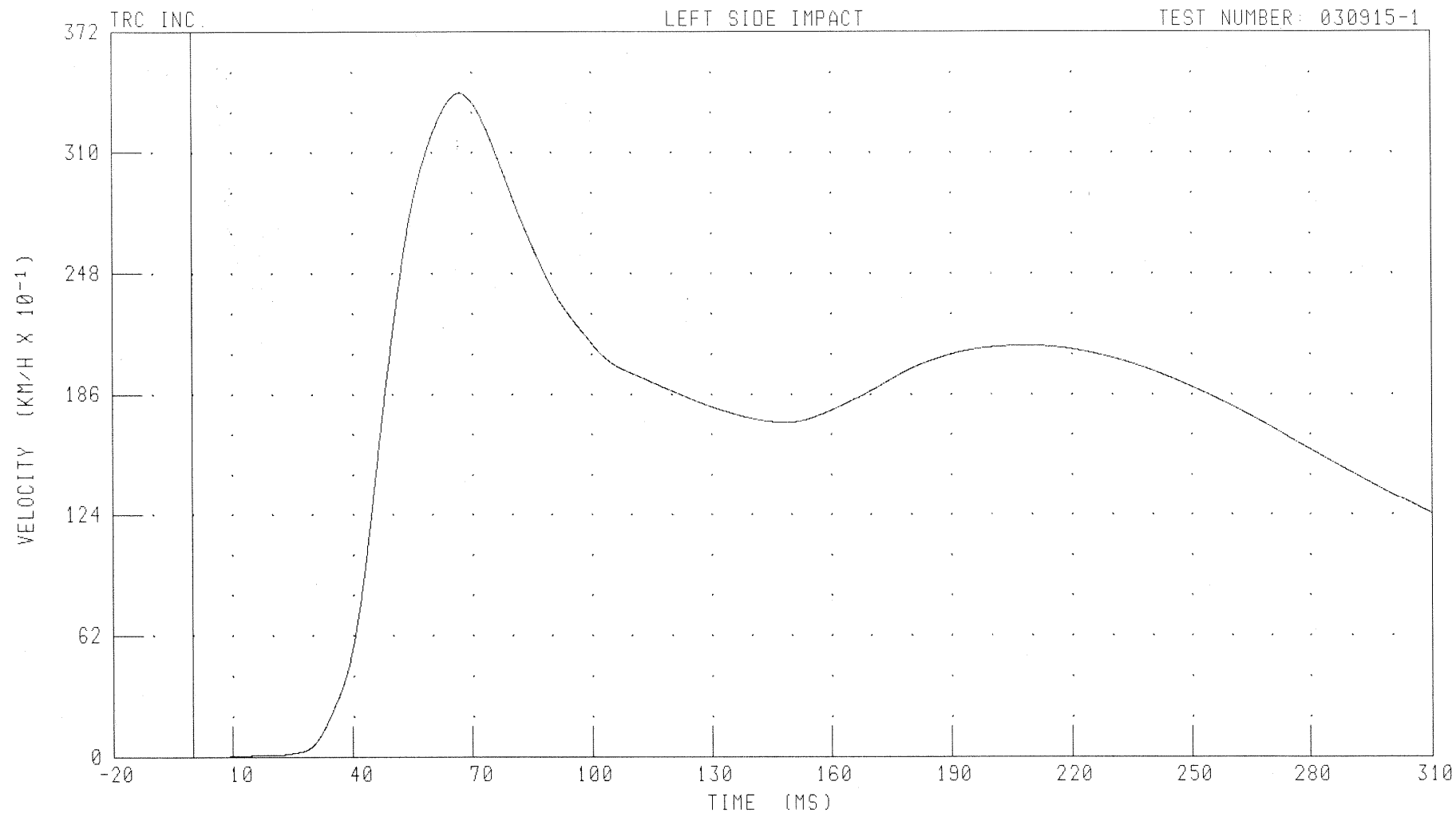
B-236

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2YV4

FILTER: CH. CLASS 180

PEAK DATA: 34.09 KM/H @ 67.12 MS; 0.00 KM/H @ 0.80 MS

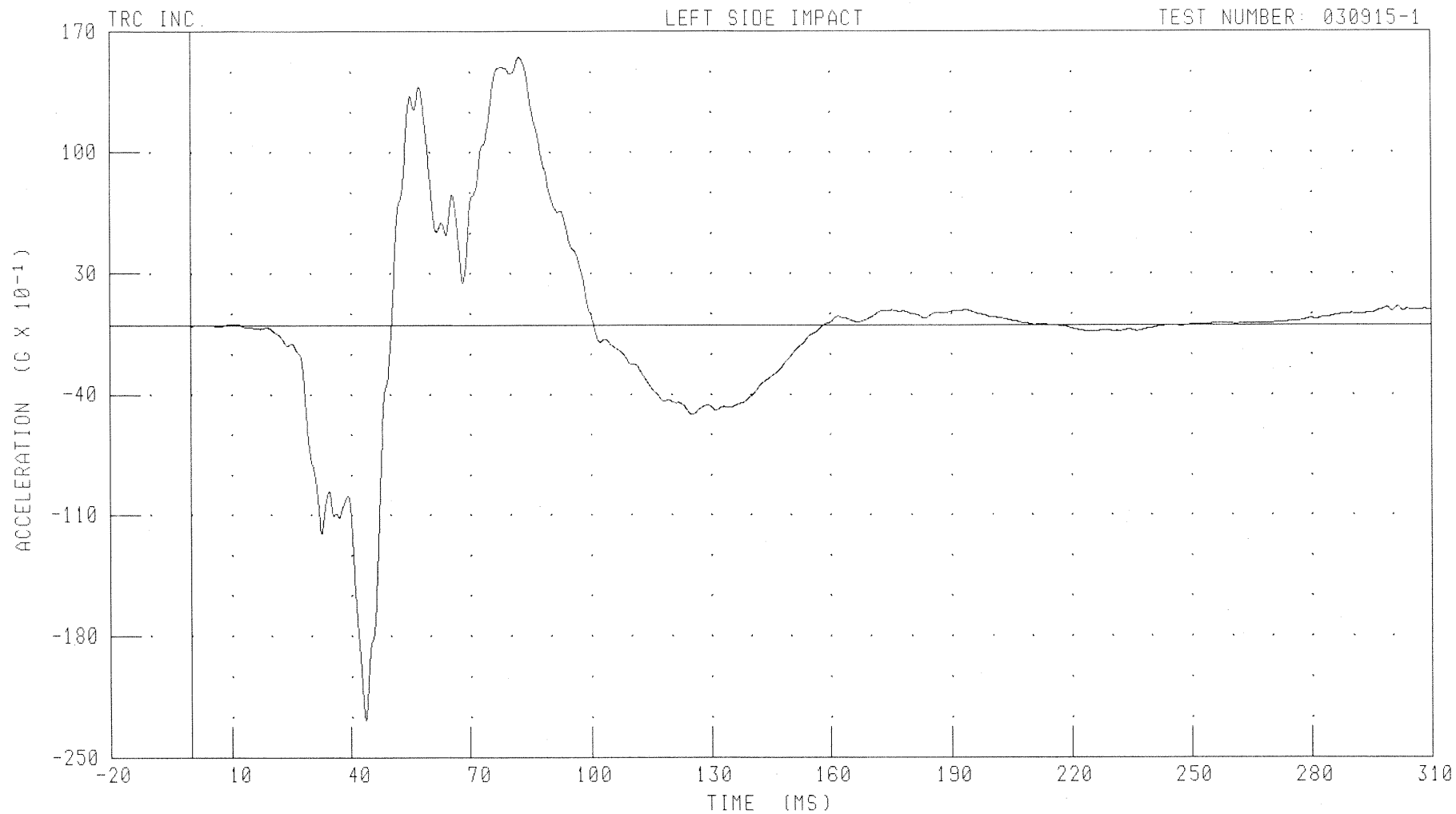
B-237

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZG4 FILTER: CH. CLASS 180

PEAK DATA: 15.51 G @ 82.40 MS; -22.88 G @ 43.76 MS

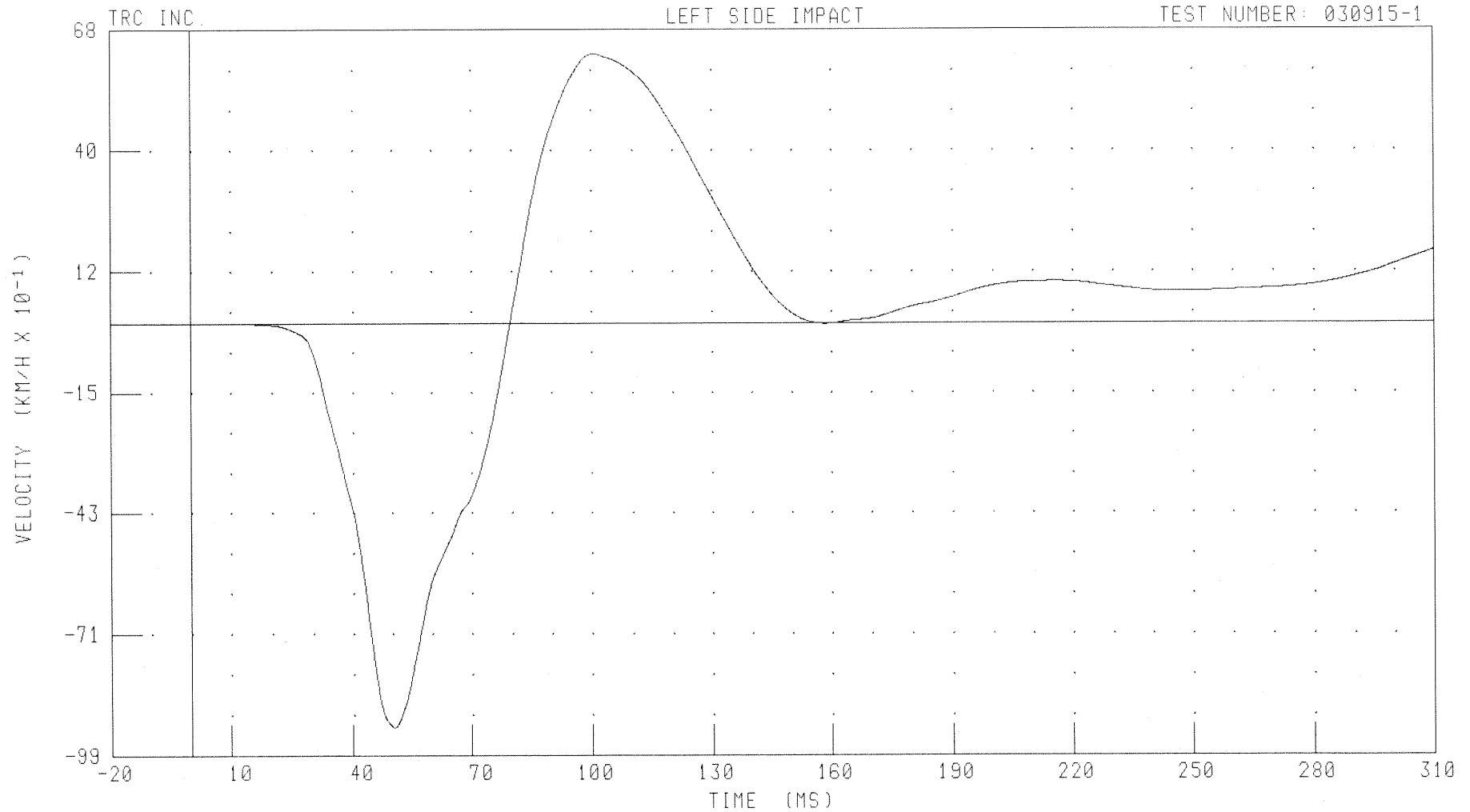
B-238

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZV4 FILTER: CH. CLASS 180

PEAK DATA: 6.24 KM/H @ 100.88 MS, -9.35 KM/H @ 50.48 MS

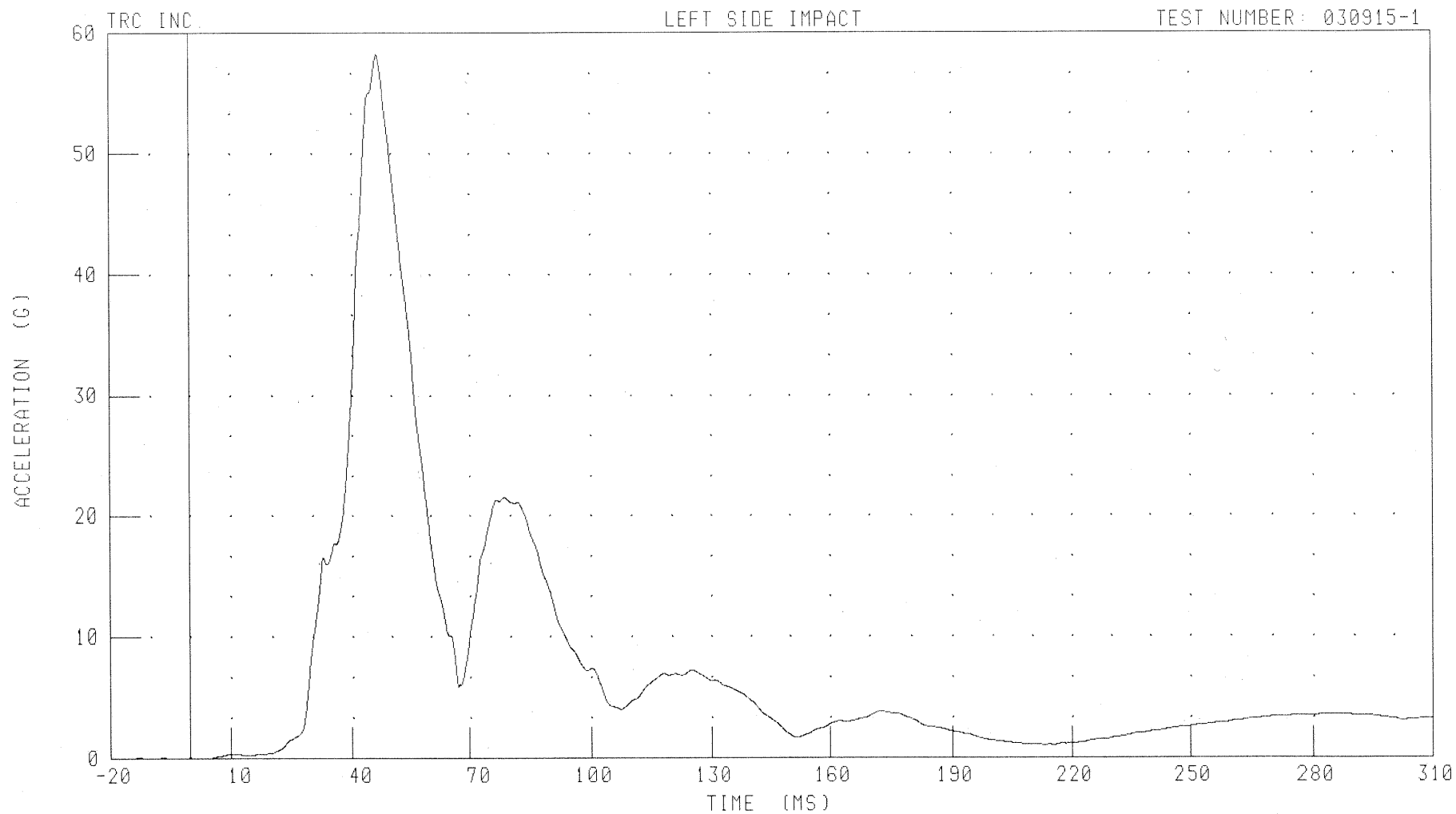
B-239

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2RG4

FILTER: CH. CLASS 180

PEAK DATA: 58.22 G @ 46.56 MS; 0.00 G @ -20.00 MS

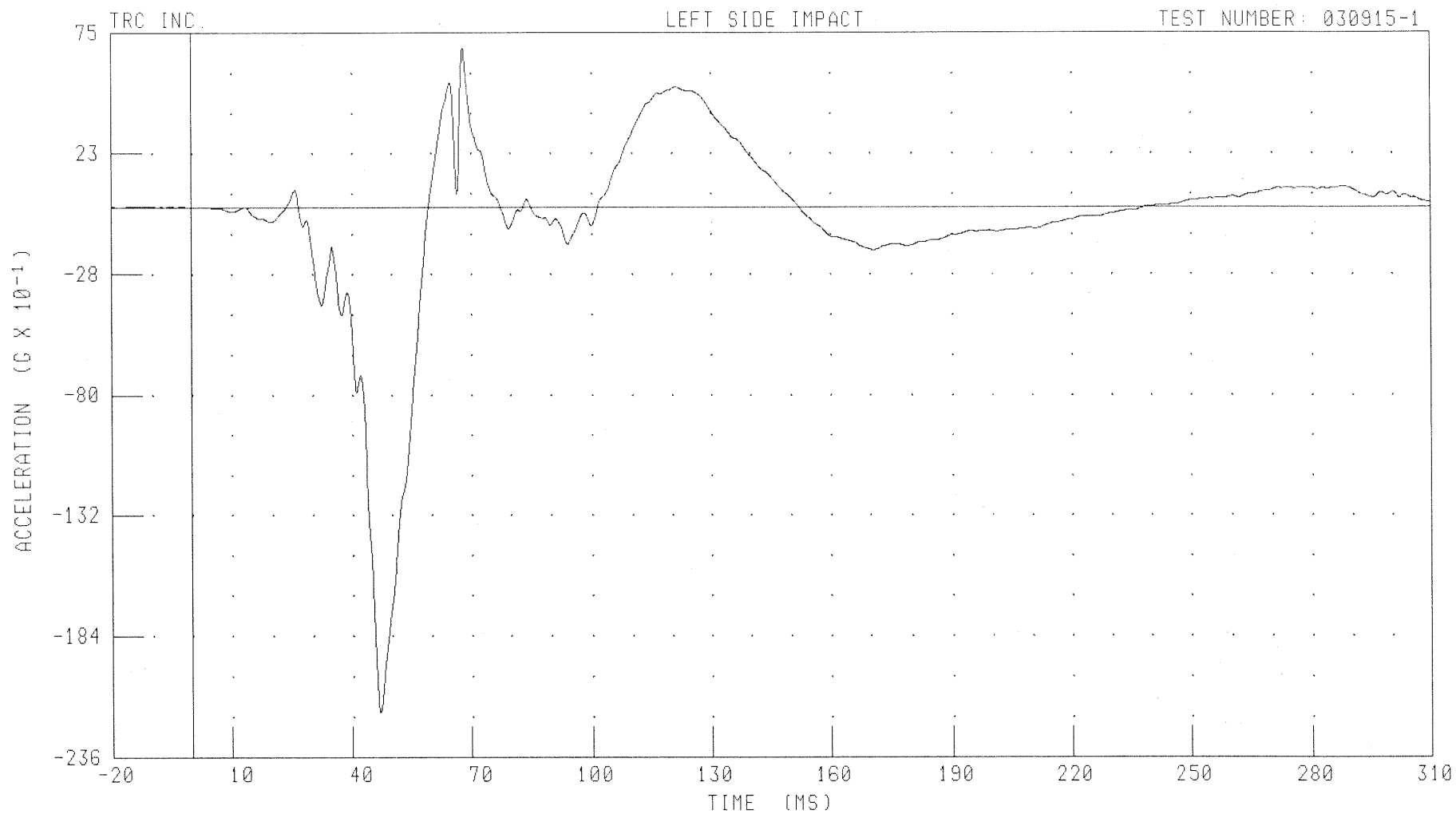
B-240

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3XG4 FILTER: CH. CLASS 180

PEAK DATA: 6.86 G @ 68.08 MS; -21.78 G @ 46.96 MS

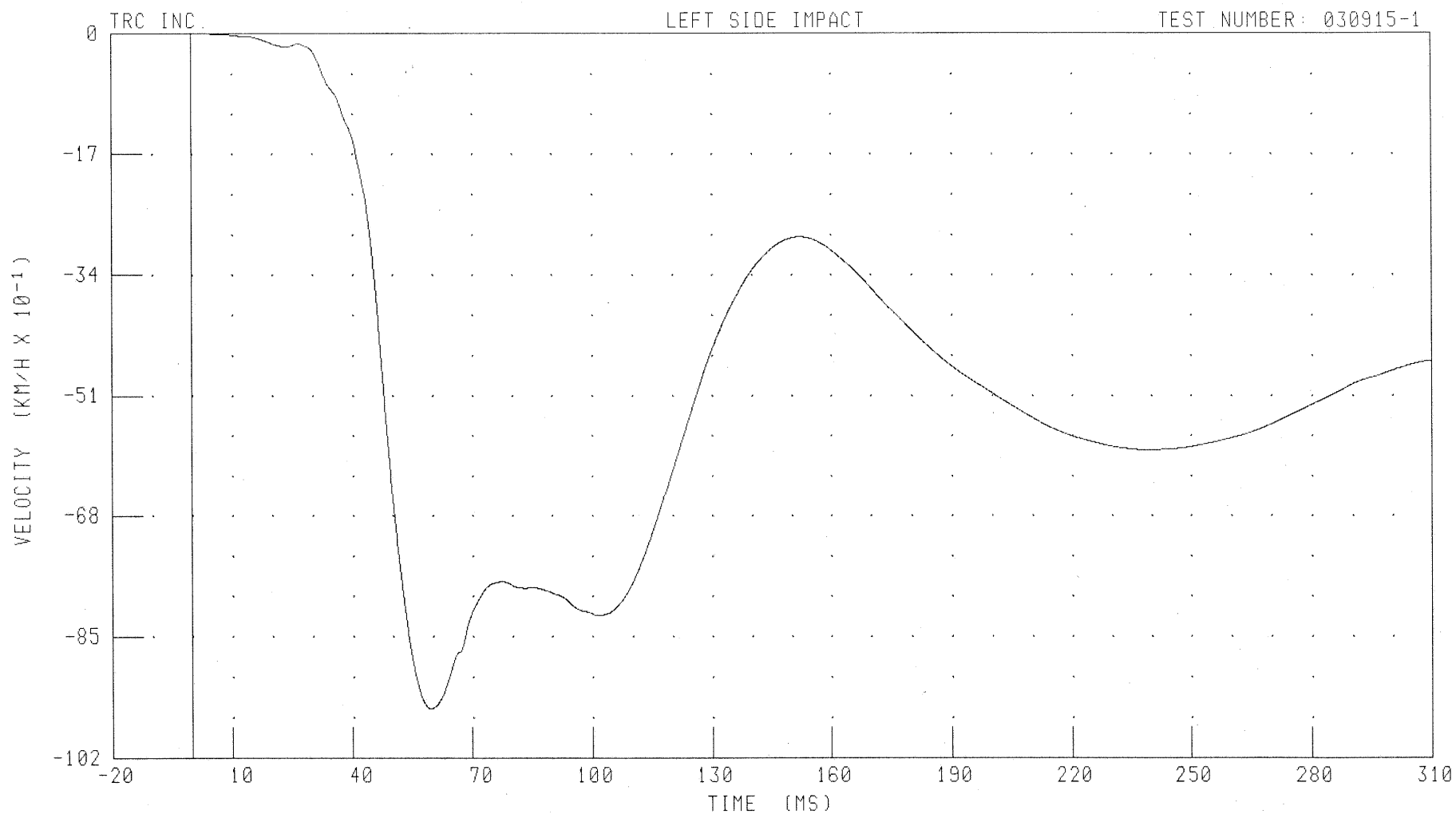
B-241

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS, -9.51 KM/H @ 59.44 MS

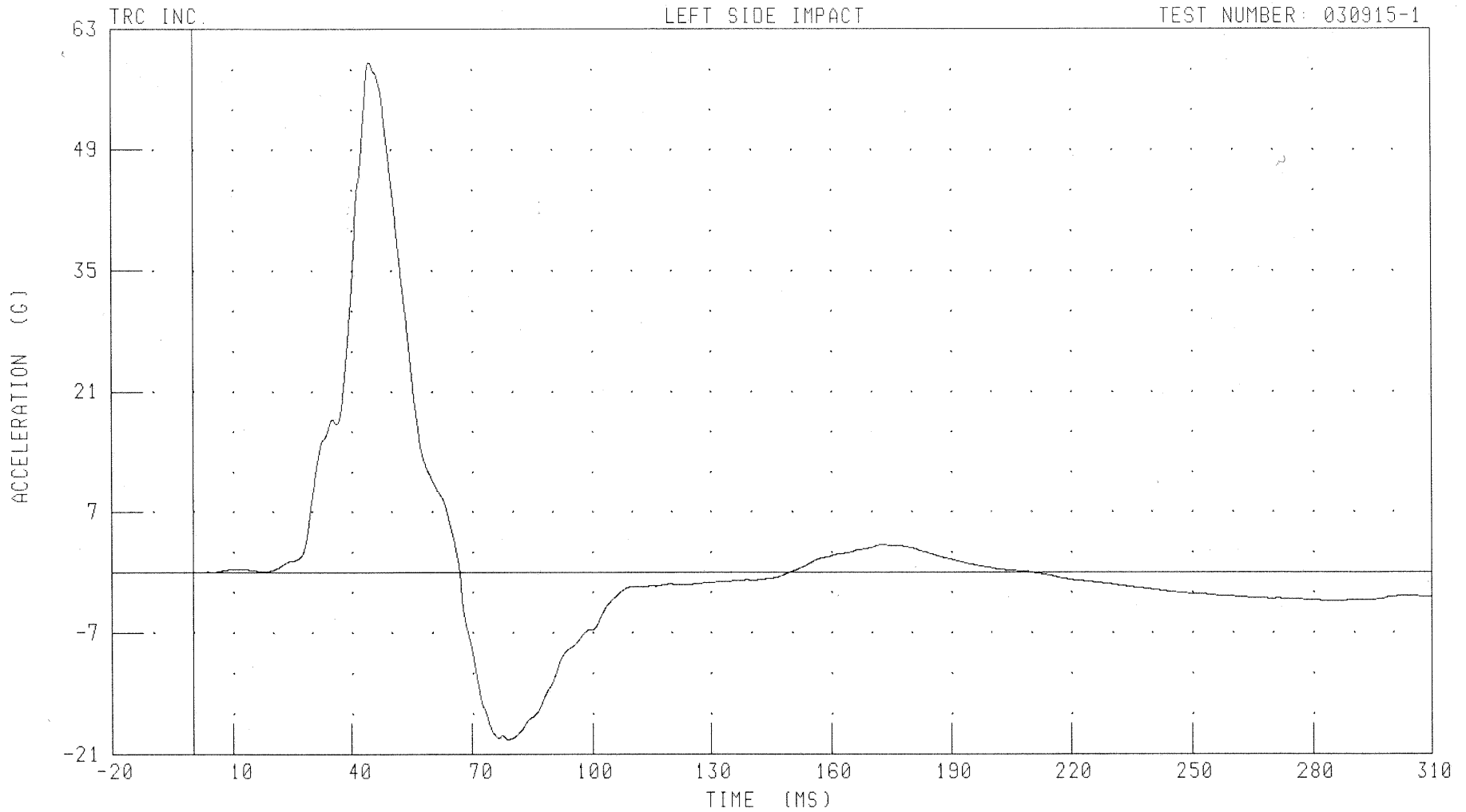
B-242

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3YG4 FILTER: CH. CLASS 180

PEAK DATA: 59.17 G @ 44.72 MS; -19.32 G @ 78.88 MS

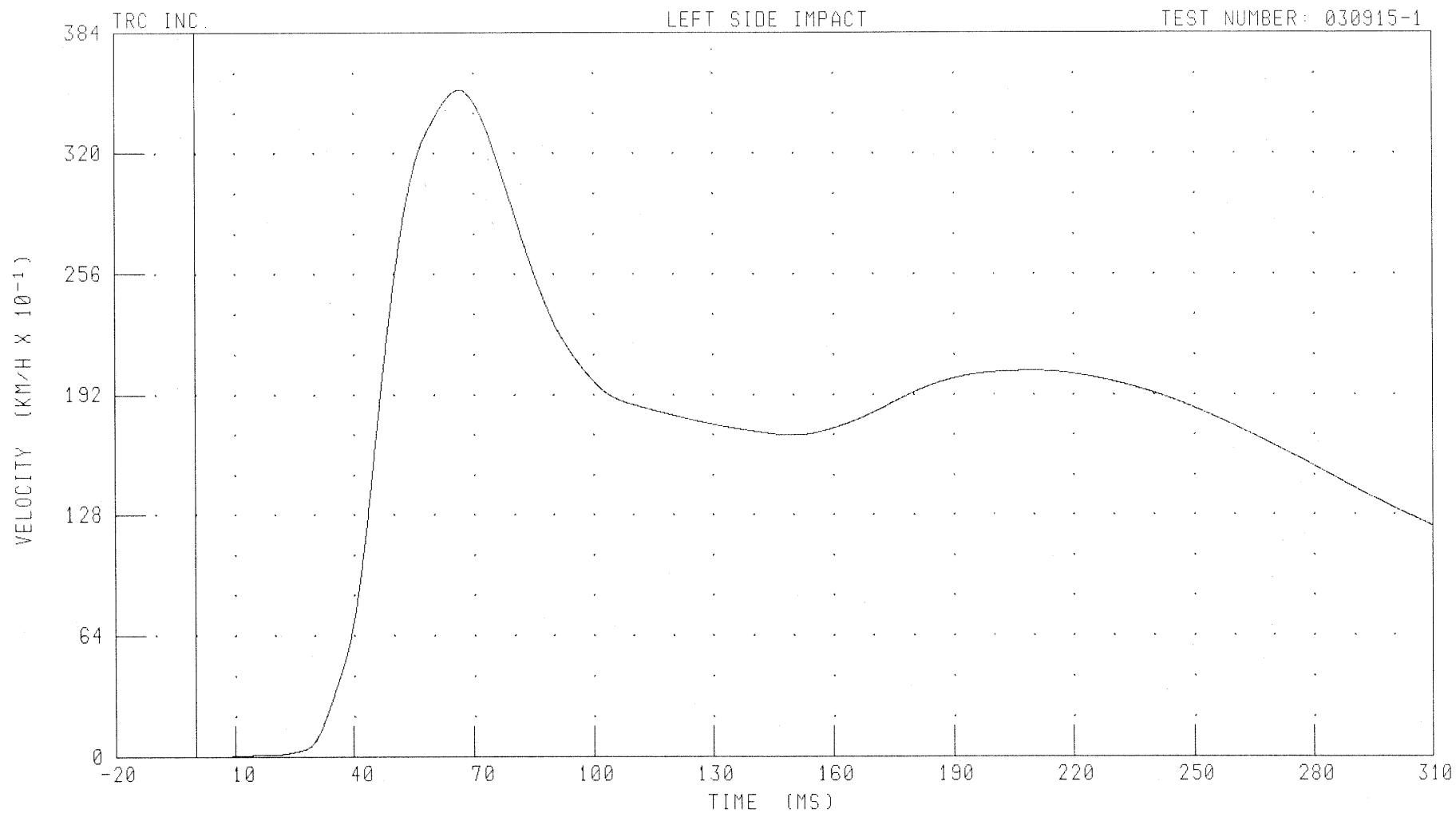
B-243

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3YV4 FILTER: CH. CLASS 180

PEAK DATA: 35.40 KM/H @ 66.72 MS; 0.00 KM/H @ 0.24 MS

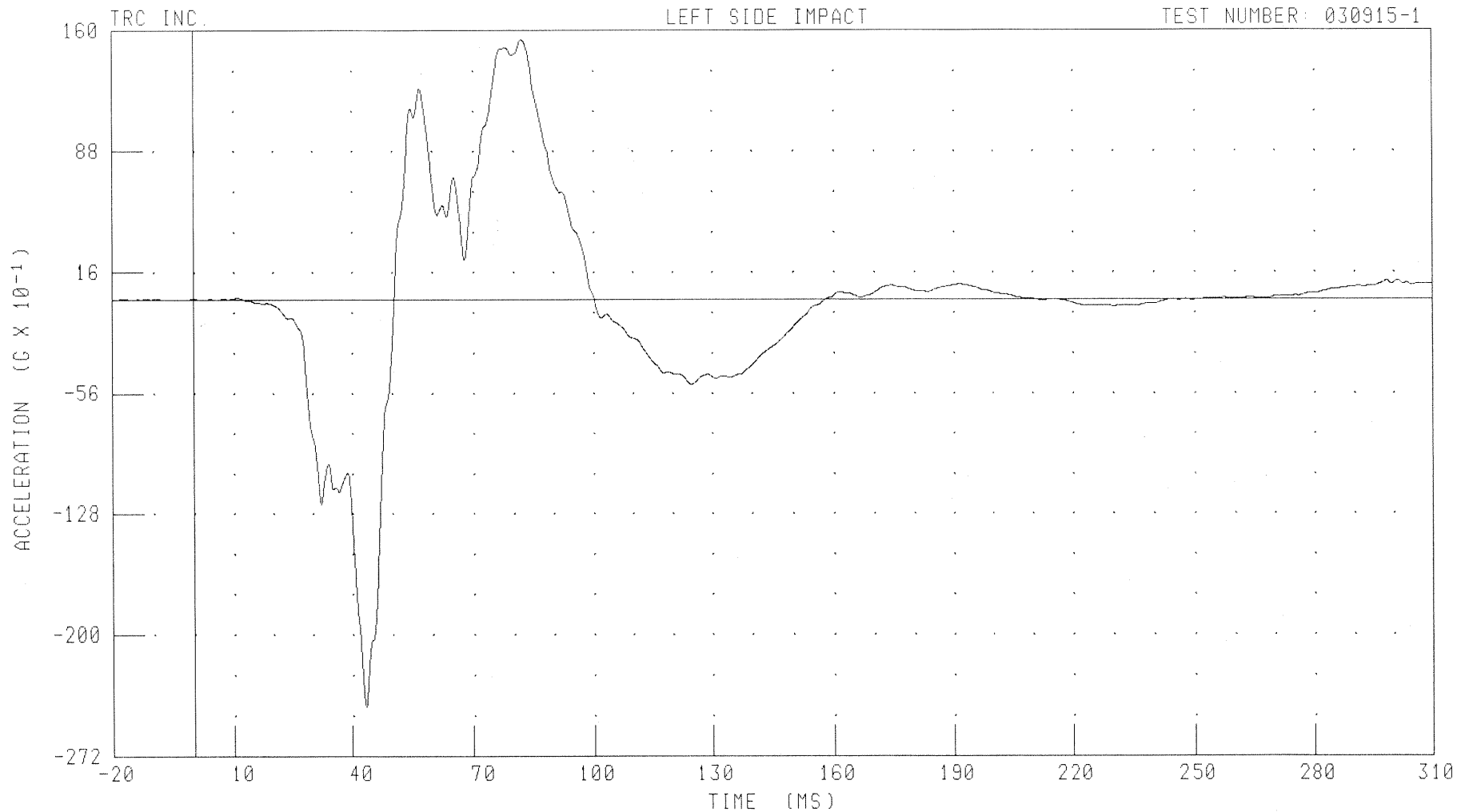
B-244

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3ZG4 FILTER: CH. CLASS 180

PEAK DATA: 15.45 G @ 82.08 MS, -24.25 G @ 43.44 MS

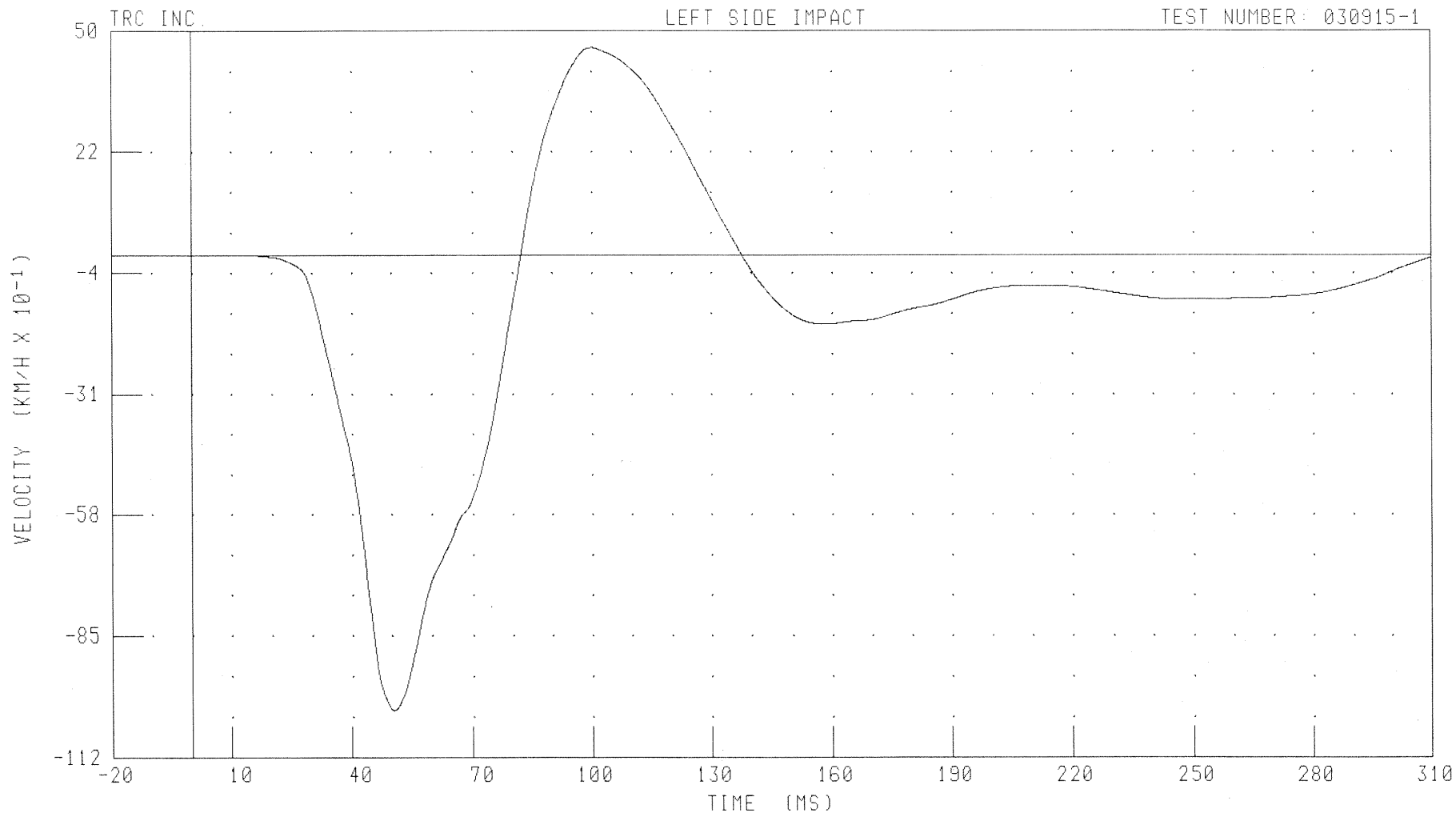
B-245

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3ZV4 FILTER: CH. CLASS 180

PEAK DATA: 4.63 KM/H @ 100.32 MS; -10.16 KM/H @ 50.64 MS

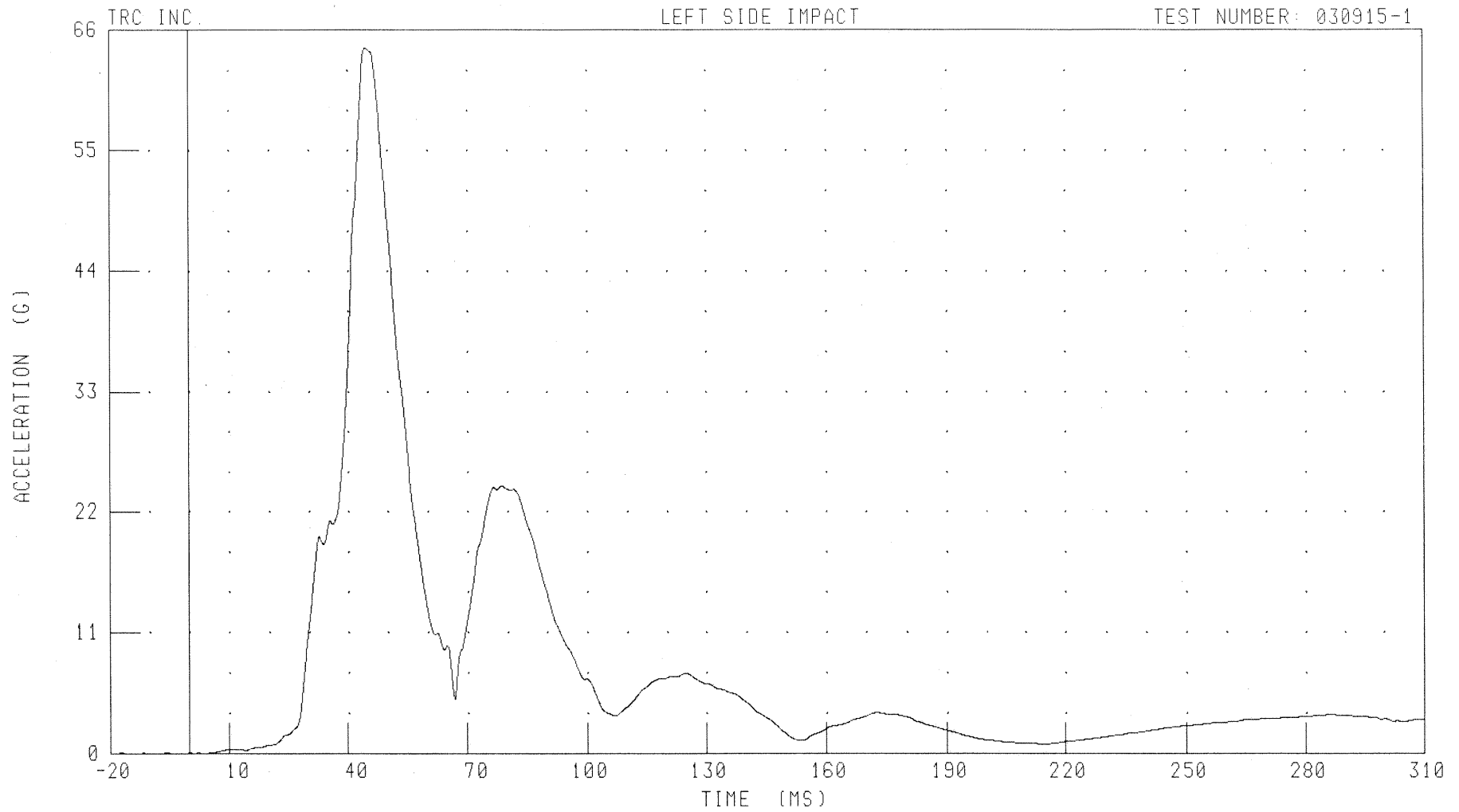
B-246

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3RG4 FILTER: CH. CLASS 180

PEAK DATA: 64.32 G @ 44.72 MS; 0.01 G @ -20.00 MS

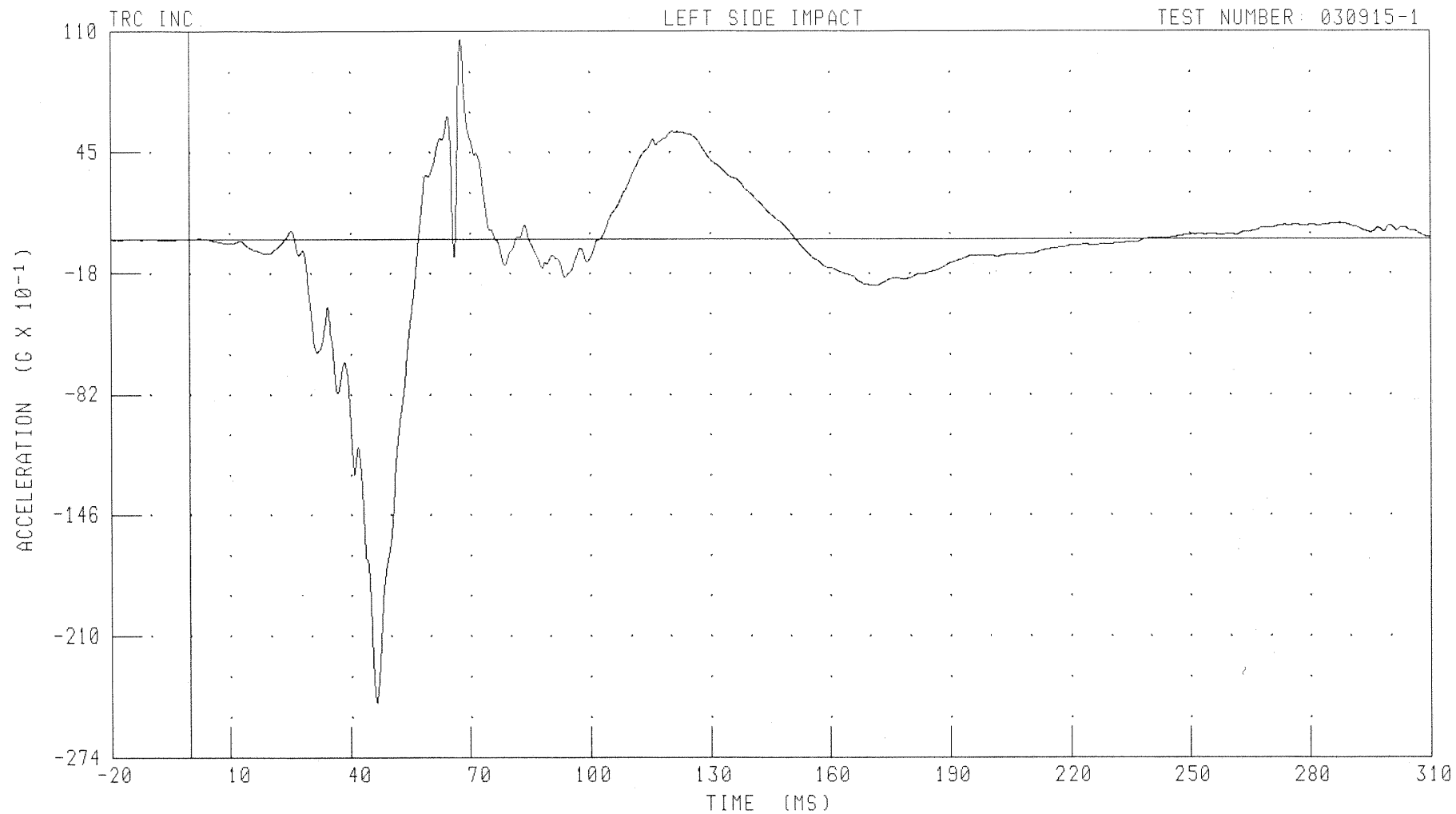
B-247

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4XG4 FILTER: CH. CLASS 180

PEAK DATA: 10.59 G @ 67.76 MS; -24.51 G @ 46.40 MS

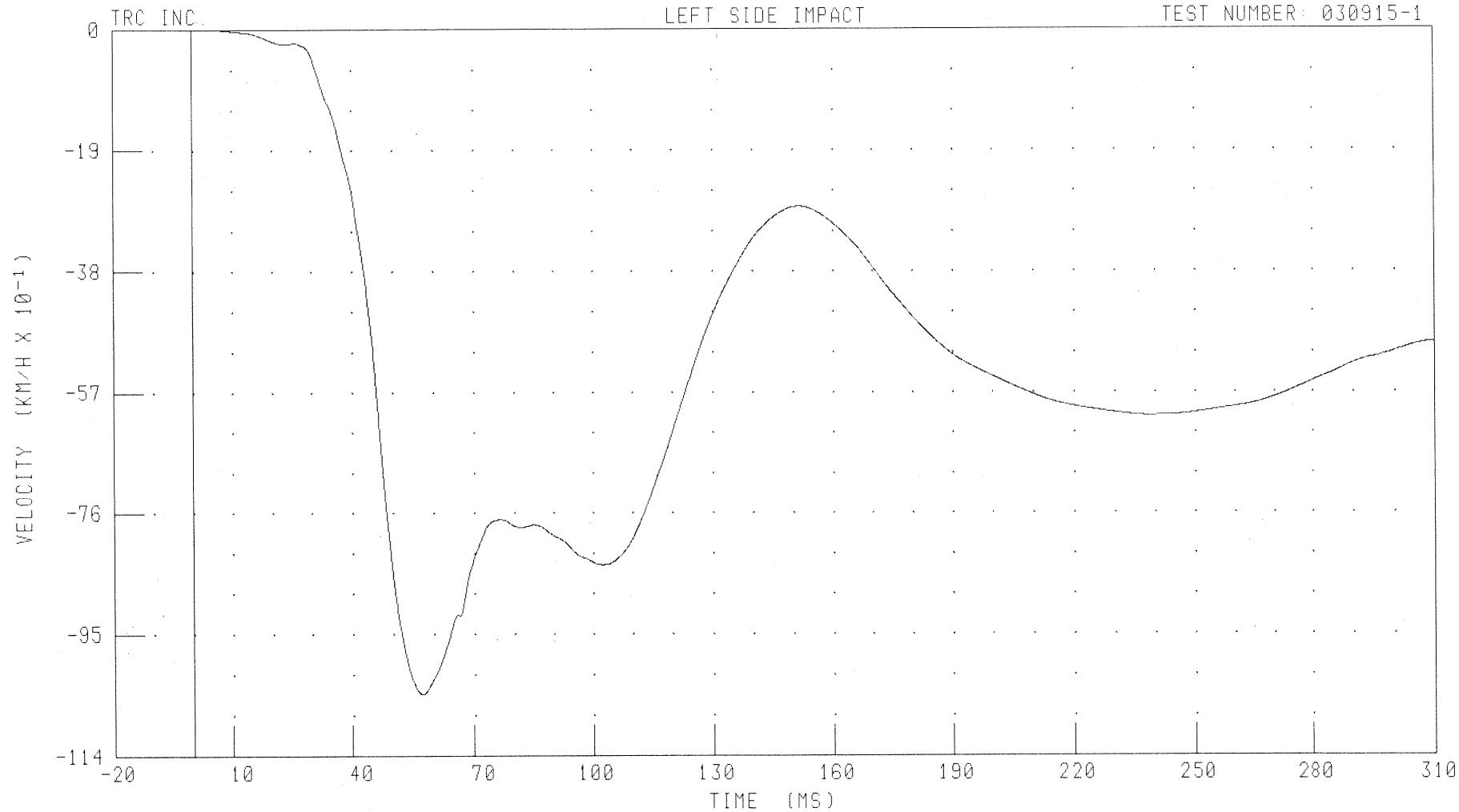
B-248

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4XV4 FILTER: CH. CLASS 180

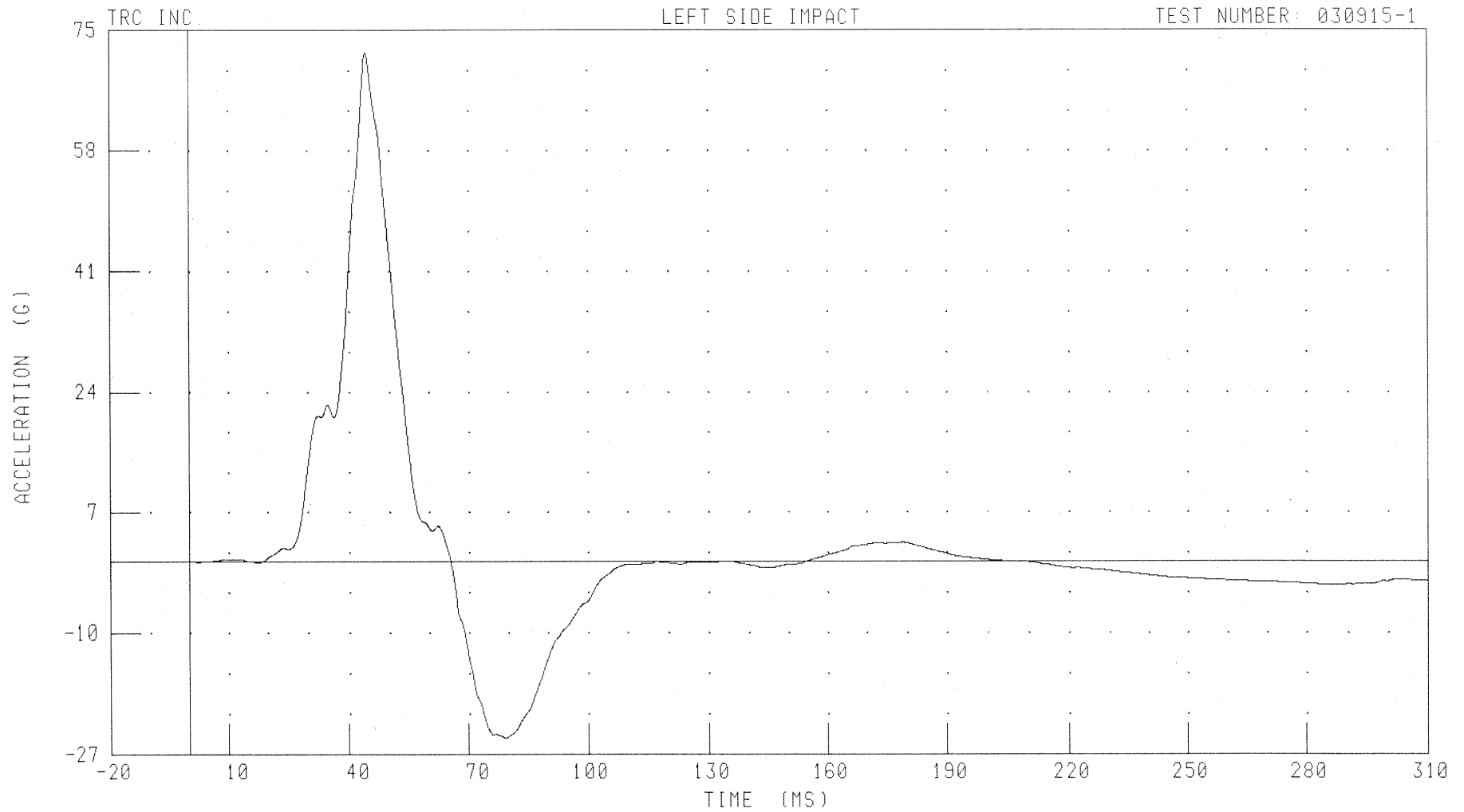
B-249

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4YG4 FILTER: CH. CLASS 180

PEAK DATA: 71.81 G @ 44.24 MS; -24.71 G @ 79.36 MS

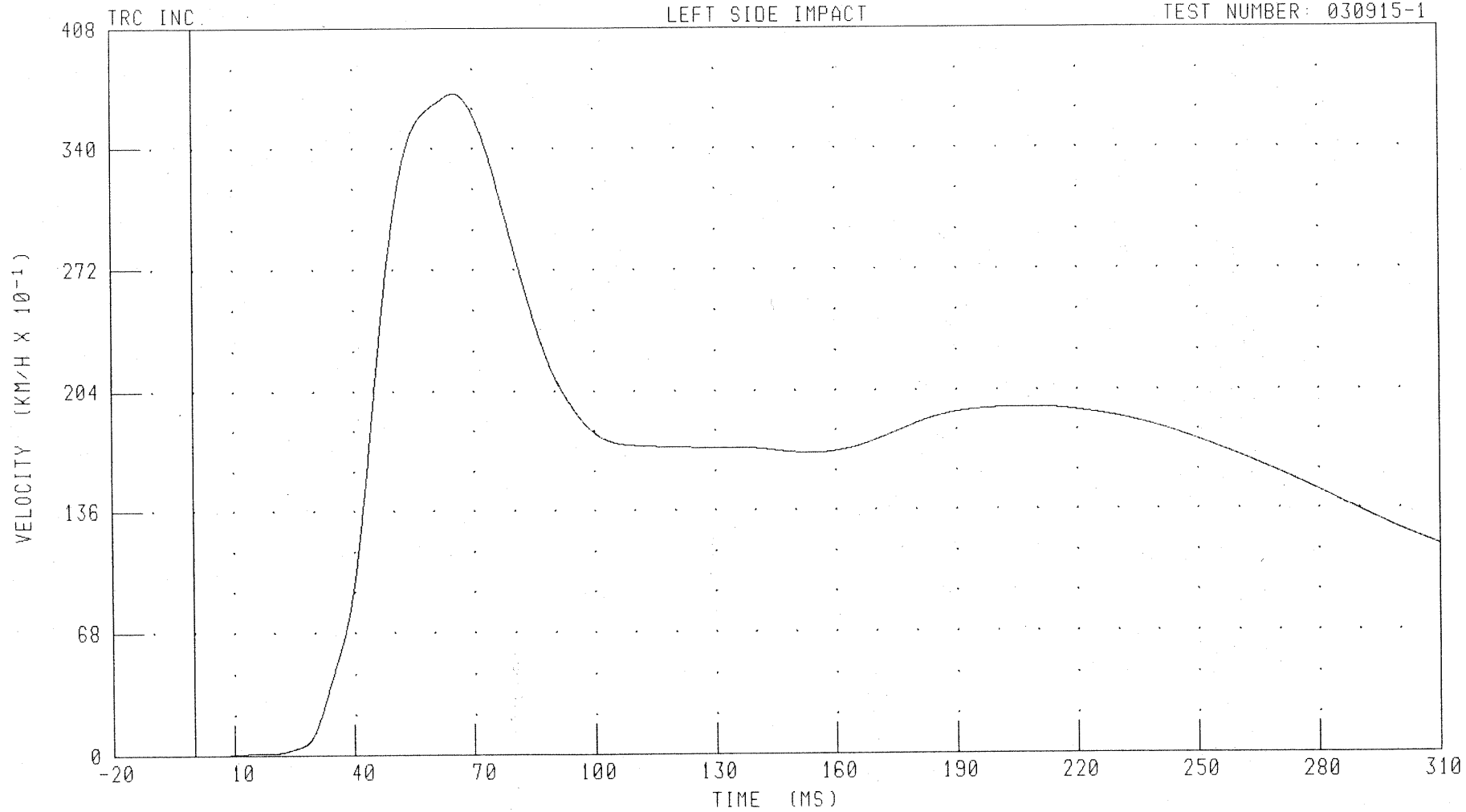
B-250

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4YV4 FILTER: CH. CLASS 180

PEAK DATA: 37.13 KM/H @ 65.52 MS; 0.00 KM/H @ 4.56 MS

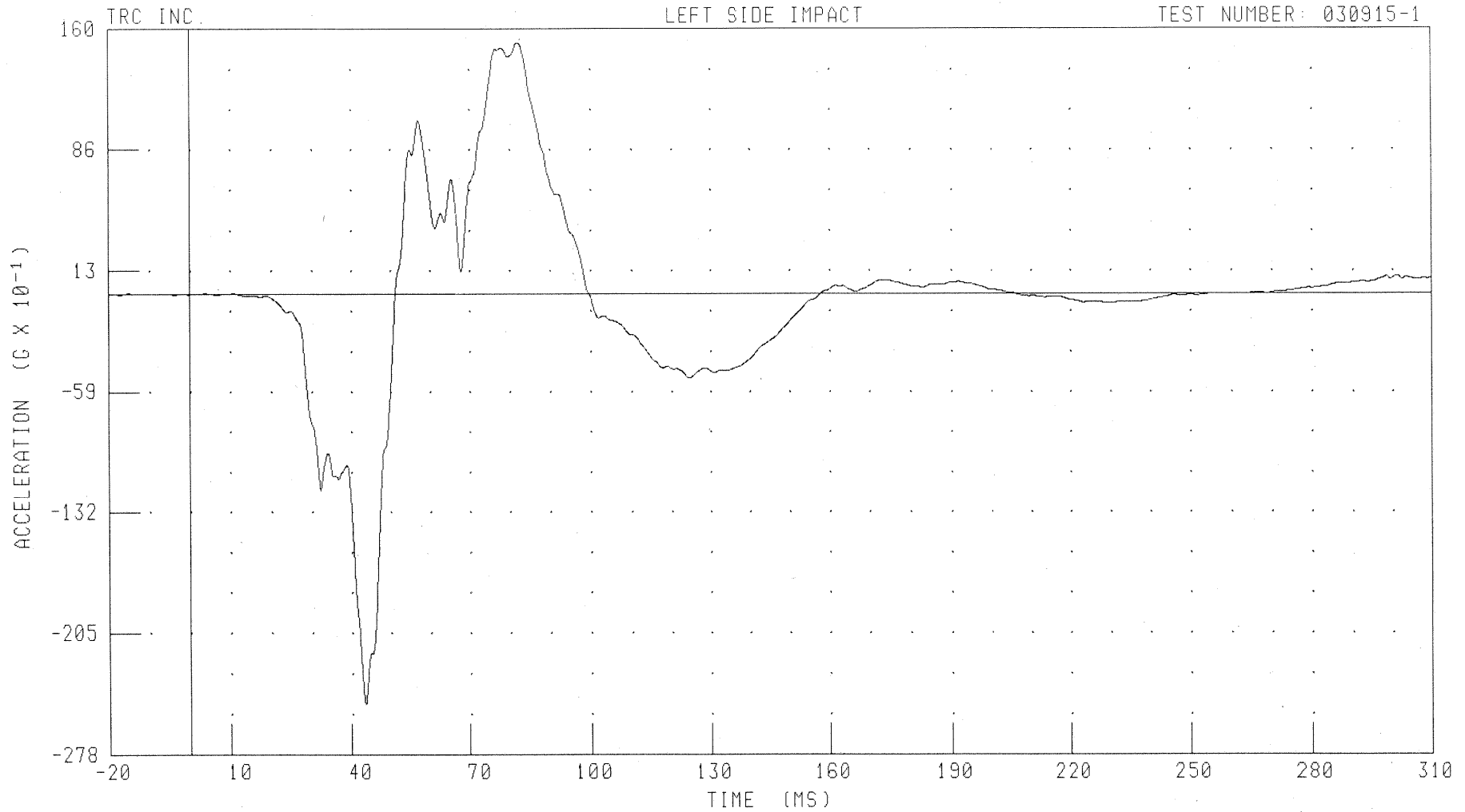
B-251

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZG4 FILTER: CH. CLASS 180

PEAK DATA: 15.18 G @ 82.08 MS, -24.77 G @ 43.52 MS

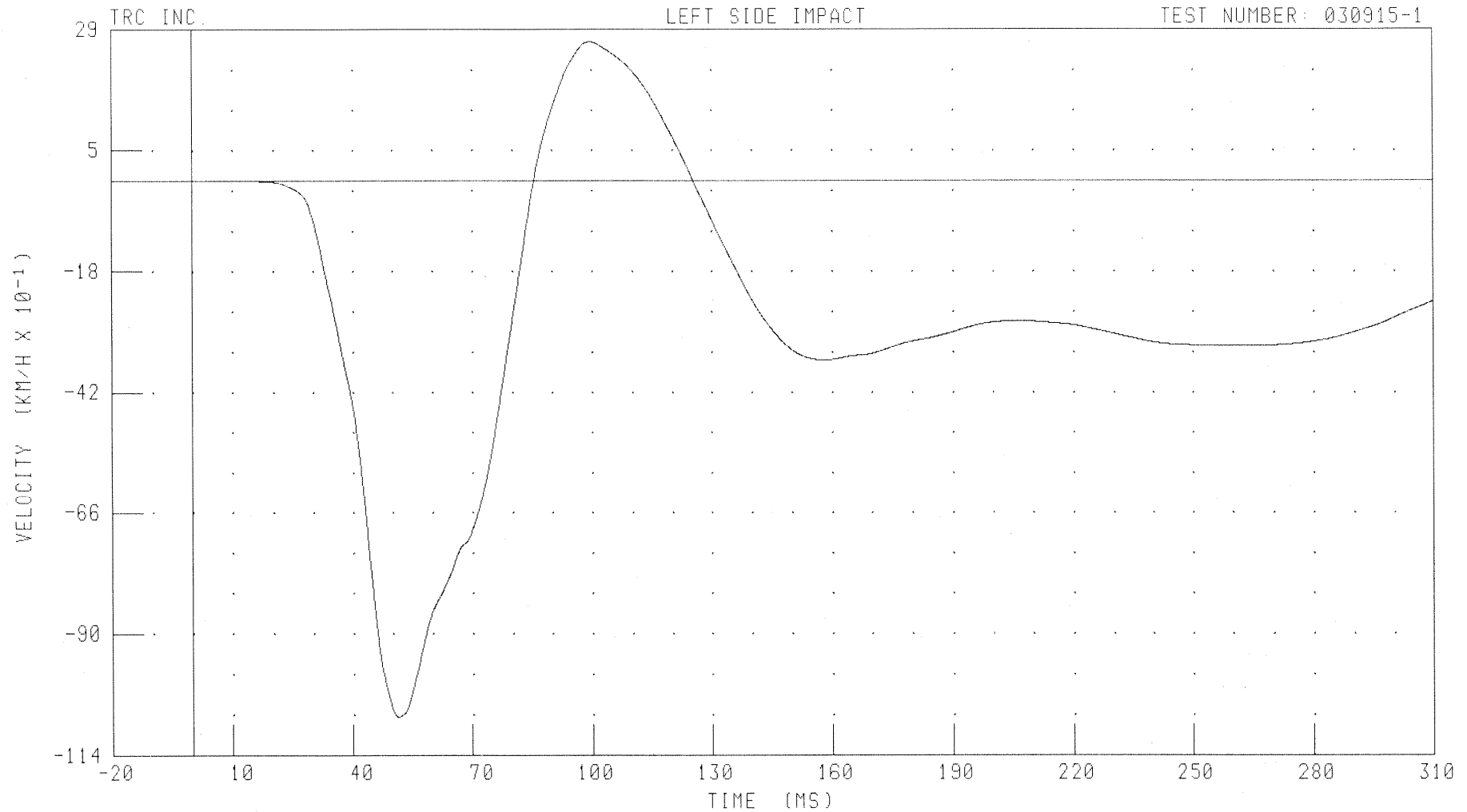
B-252

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZV4 FILTER: CH. CLASS 180

PEAK DATA: 2.75 KM/H @ 99.68 MS; -10.65 KM/H @ 51.36 MS

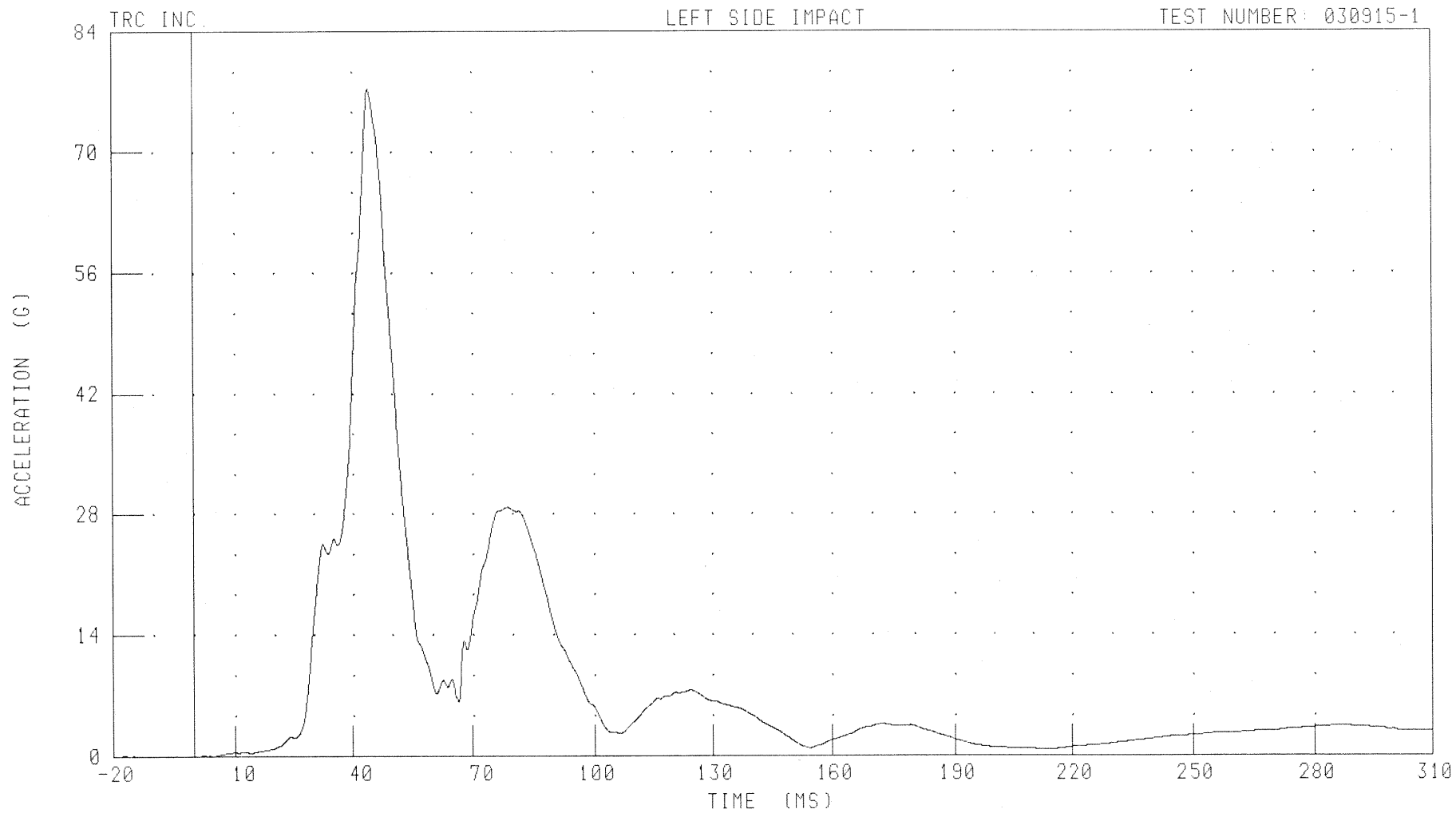
B-253

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4RG4

FILTER: CH. CLASS 180

PEAK DATA: 77.33 G @ 44.16 MS; 0.00 G @ -20.00 MS

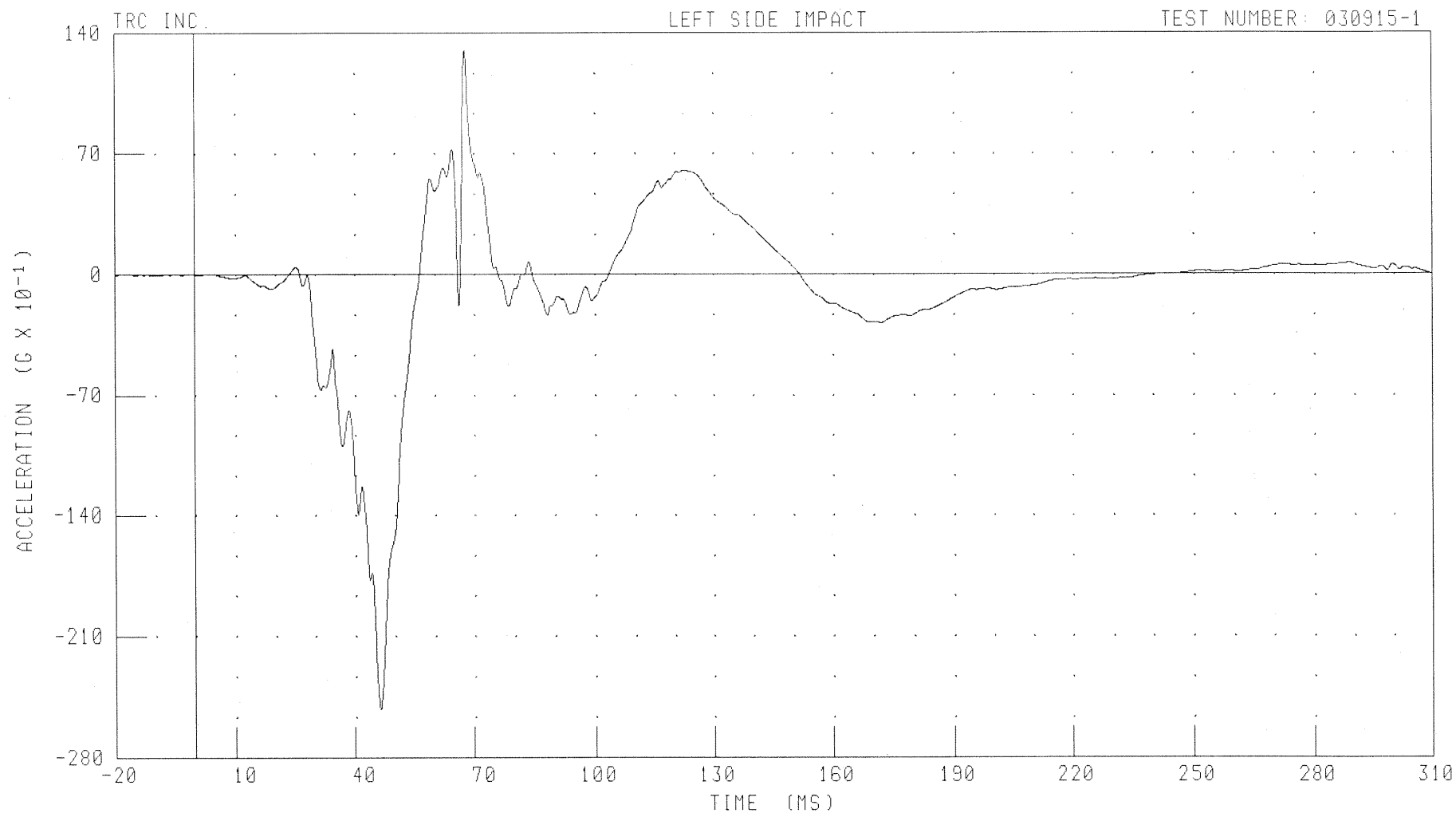
B-254

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5XG4 FILTER: CH. CLASS 180

PEAK DATA: 13.00 G @ 67.76 MS; -25.21 G @ 46.32 MS

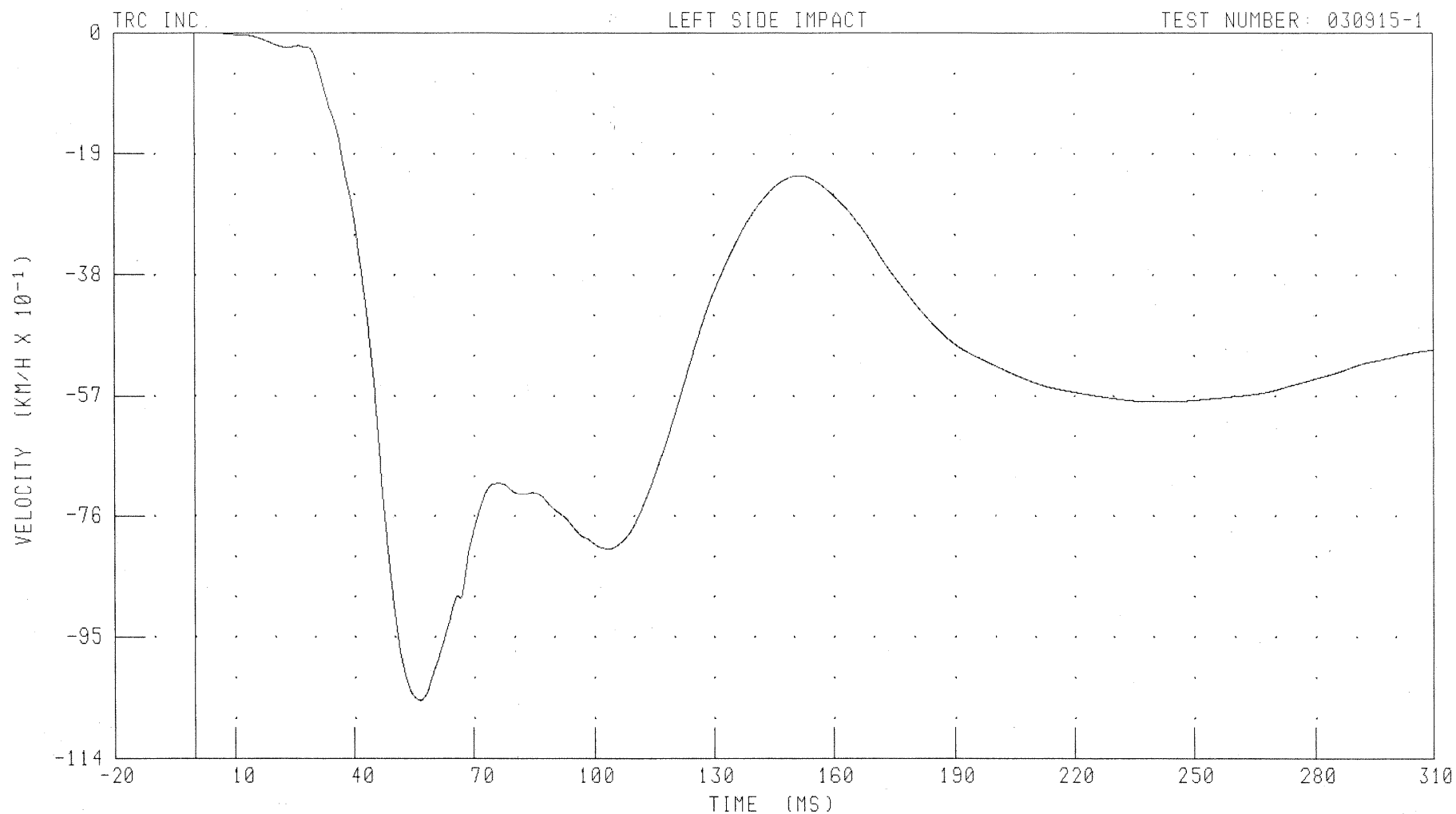
B-255

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 5.28 MS; -10.49 KM/H @ 56.24 MS

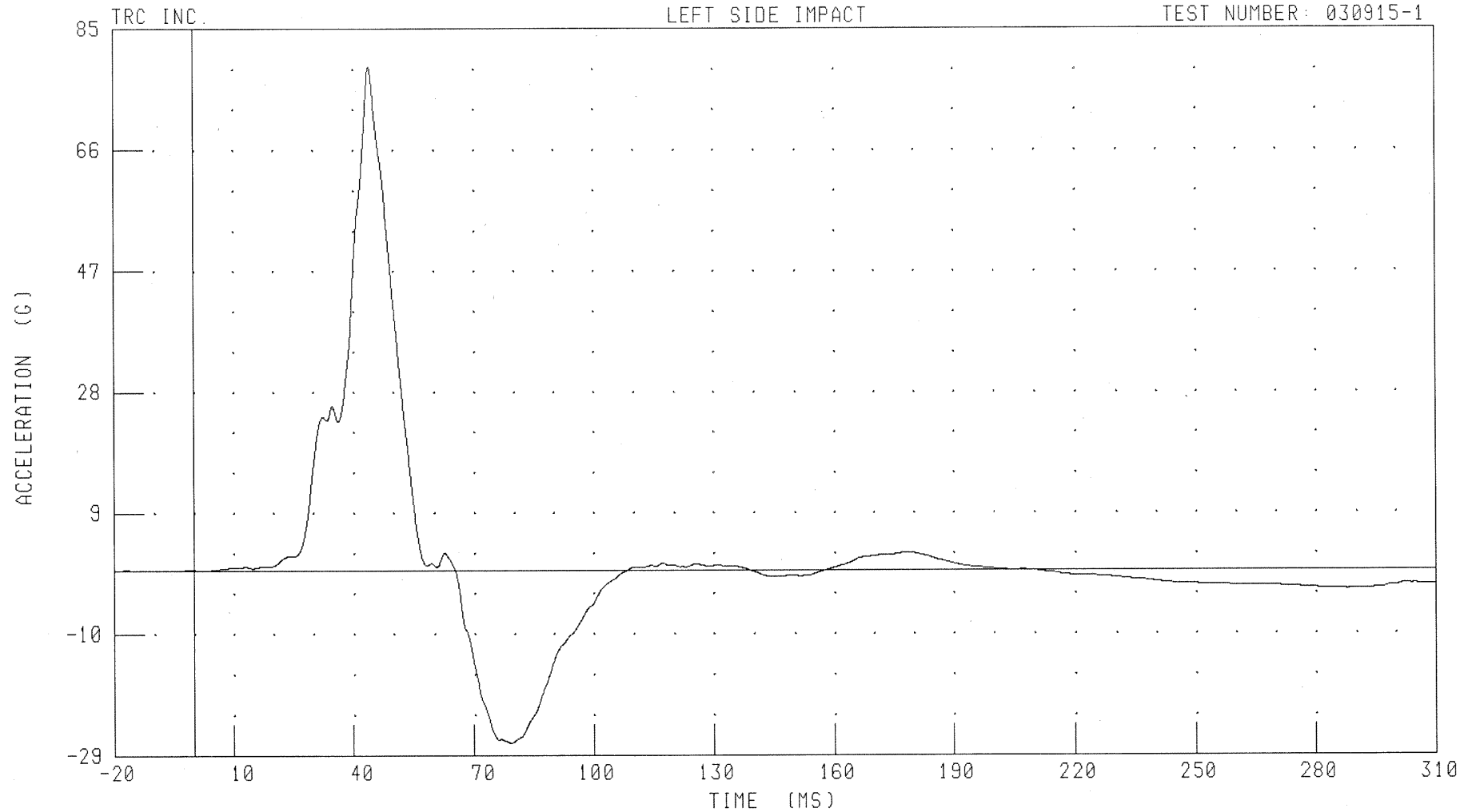
B-256

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5YG4 FILTER: CH. CLASS 180

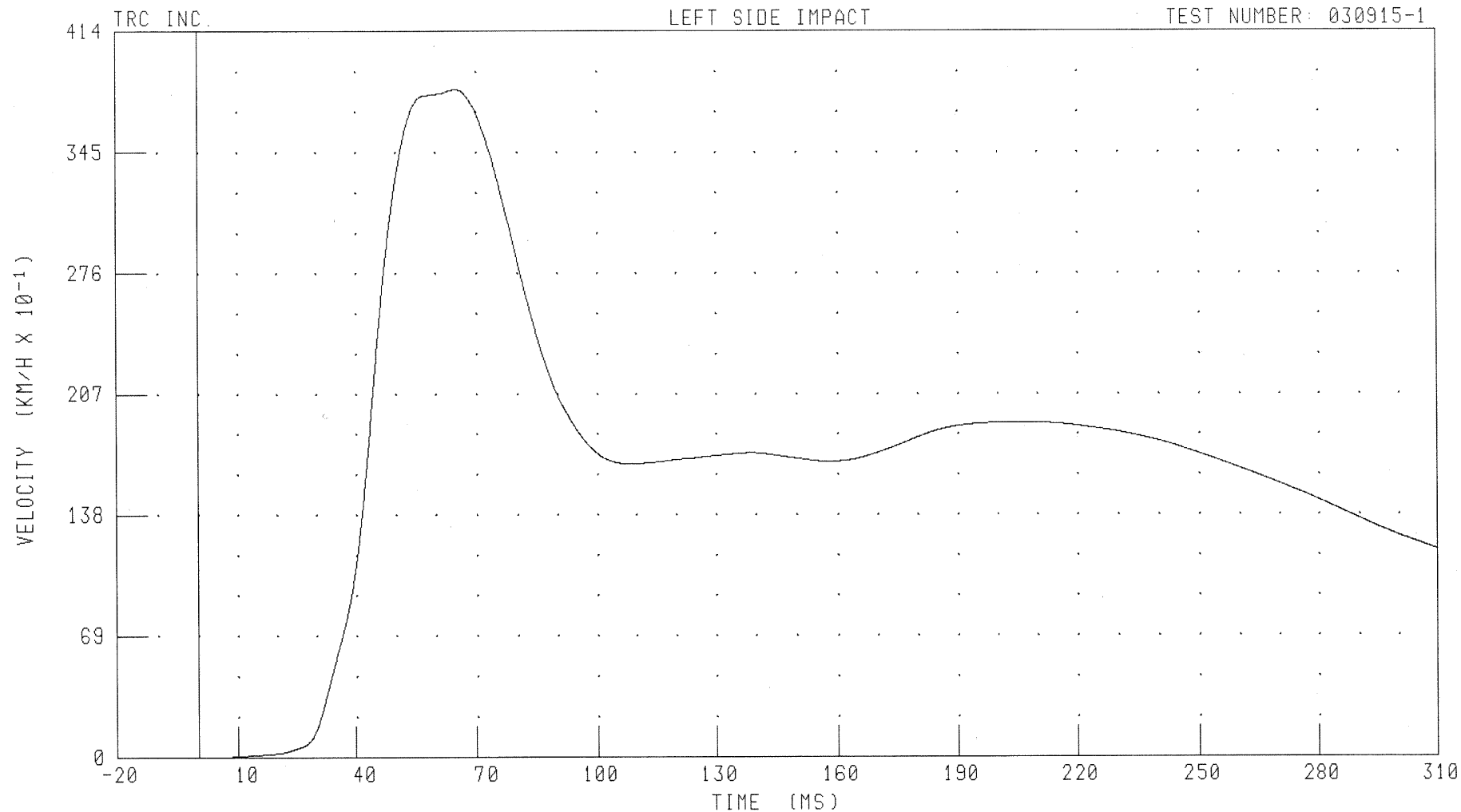
B-257

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5YV4 FILTER: CH. CLASS 180

PEAK DATA: 38.07 KM/H @ 65.12 MS; 0.00 KM/H @ 2.56 MS

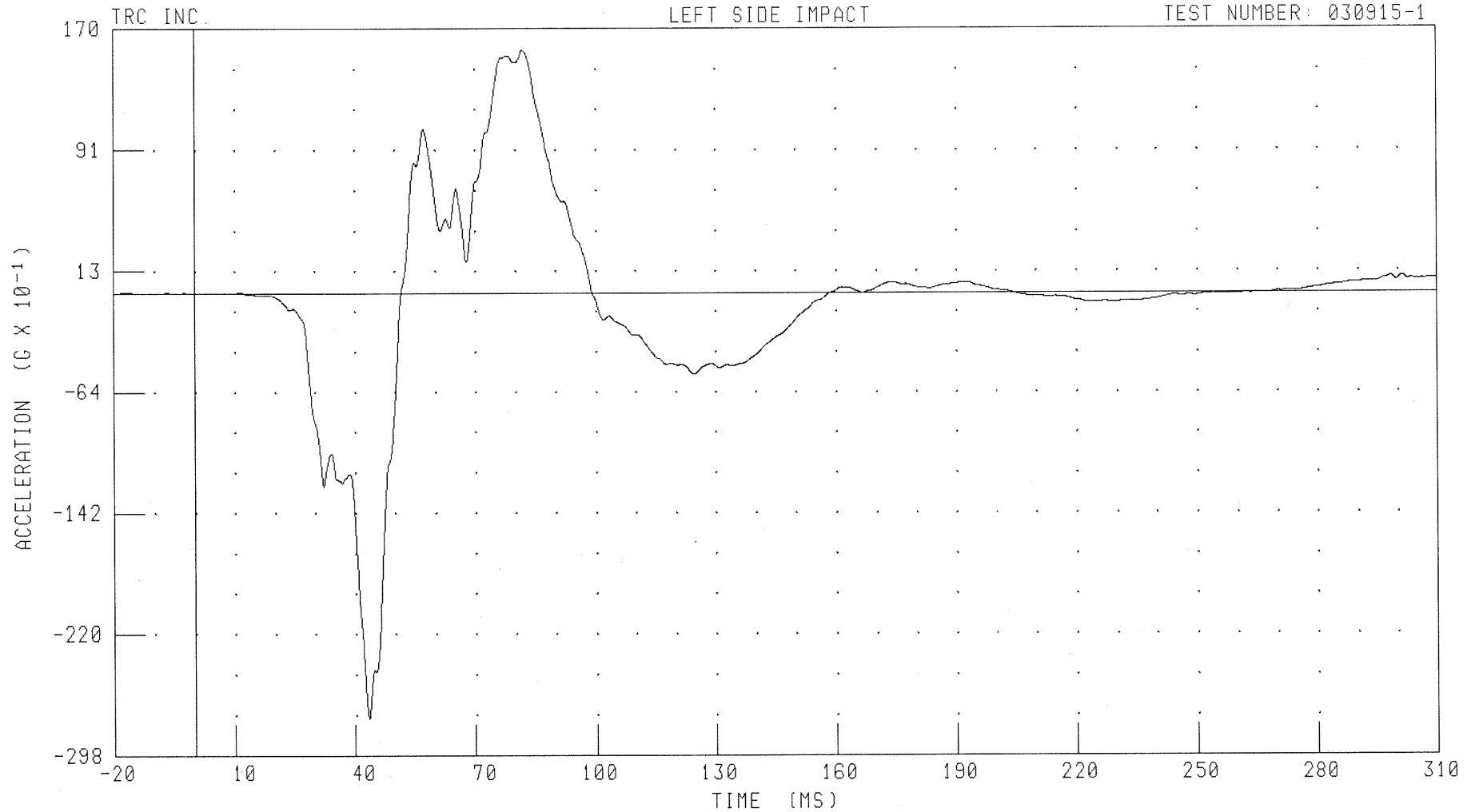
B-258

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5ZG4 FILTER: CH. CLASS 180

PEAK DATA: 15.62 G @ 82.00 MS; -27.42 G @ 43.52 MS

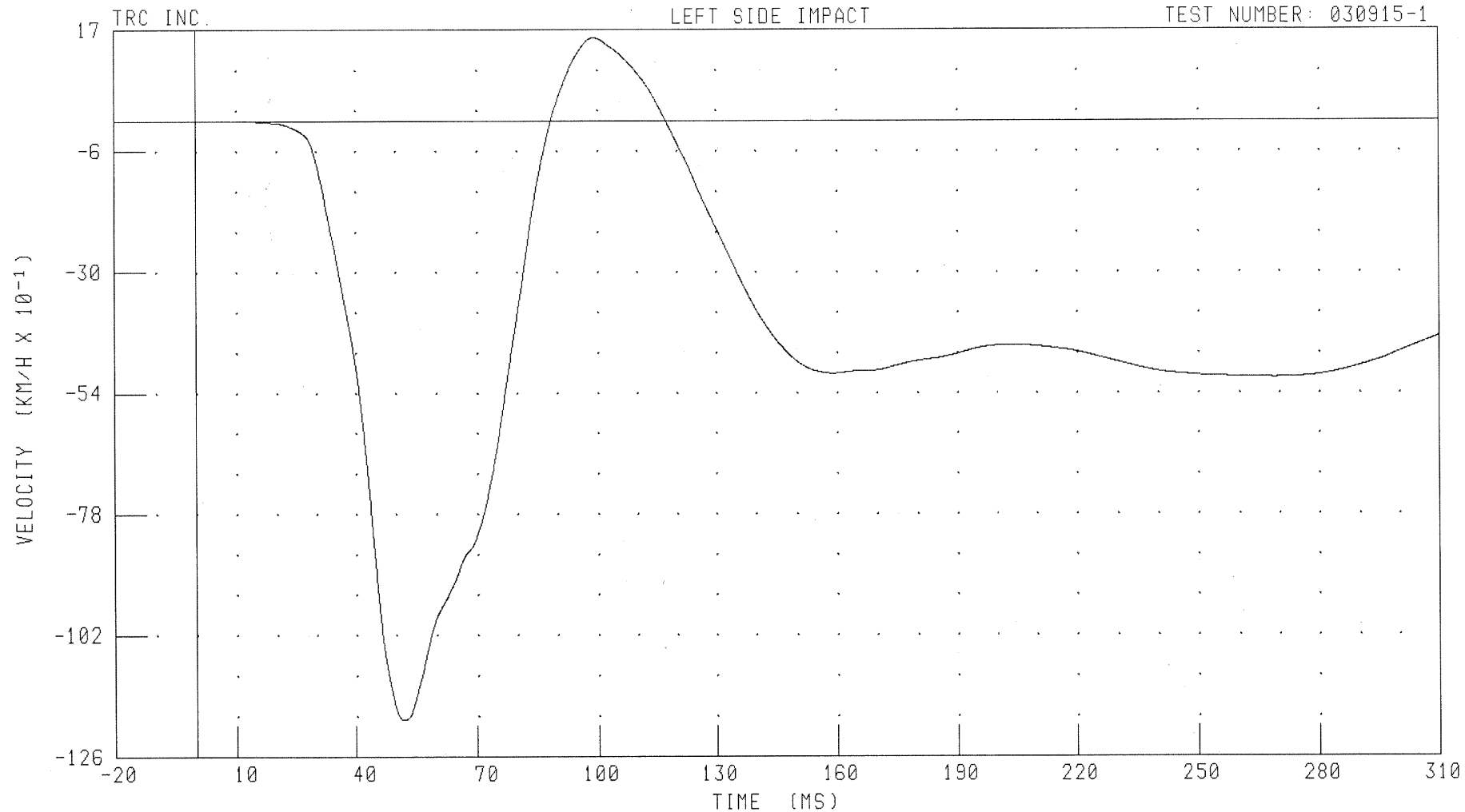
B-259

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5ZV4

FILTER: CH. CLASS 180

PEAK DATA: 1.64 KM/H @ 99.12 MS; -11.88 KM/H @ 51.76 MS

B-260

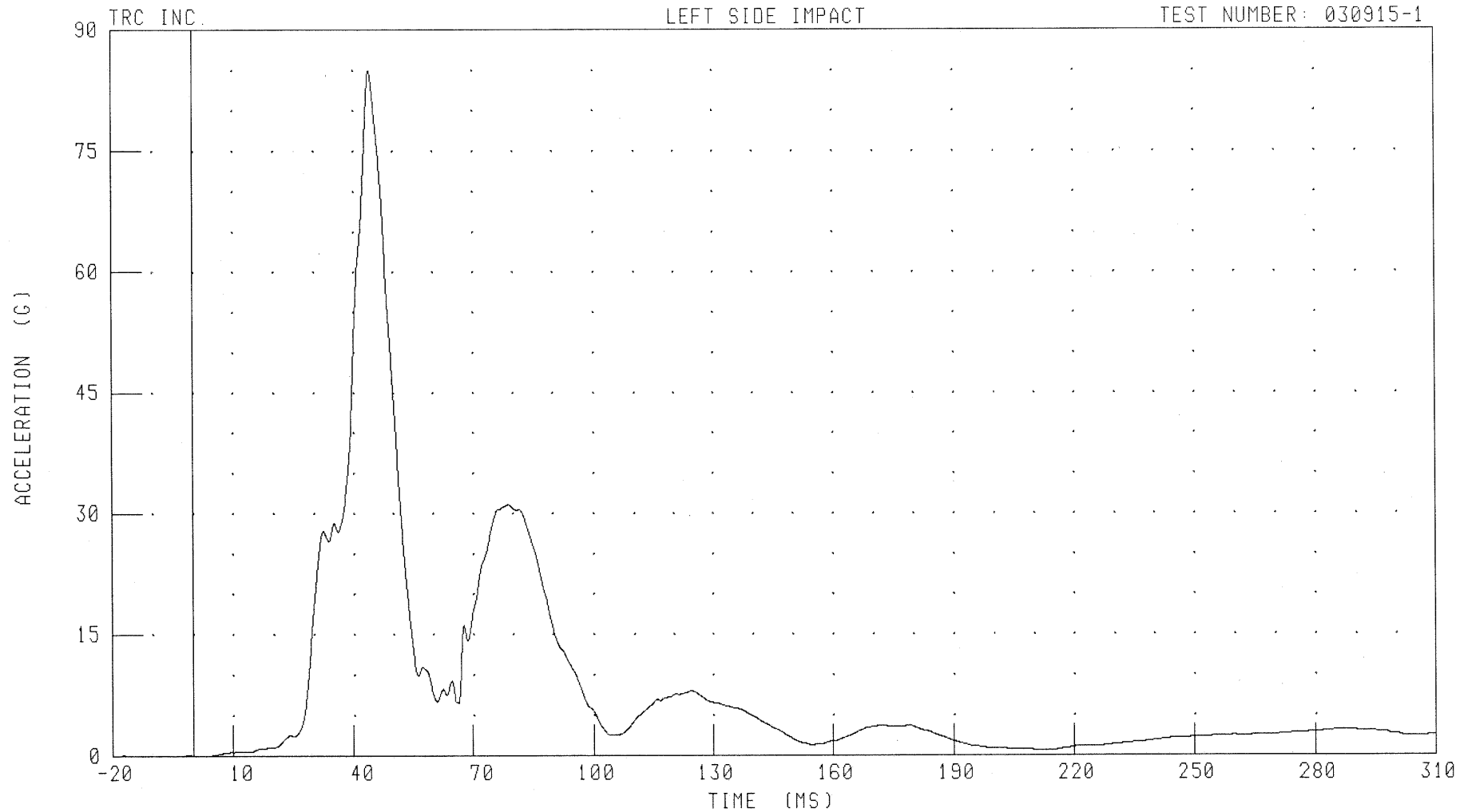
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER SPINE RIB 5 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5RG4 FILTER: CH. CLASS 180

PEAK DATA: 84.97 G @ 44.08 MS; 0.00 G @ -7.68 MS

B-261

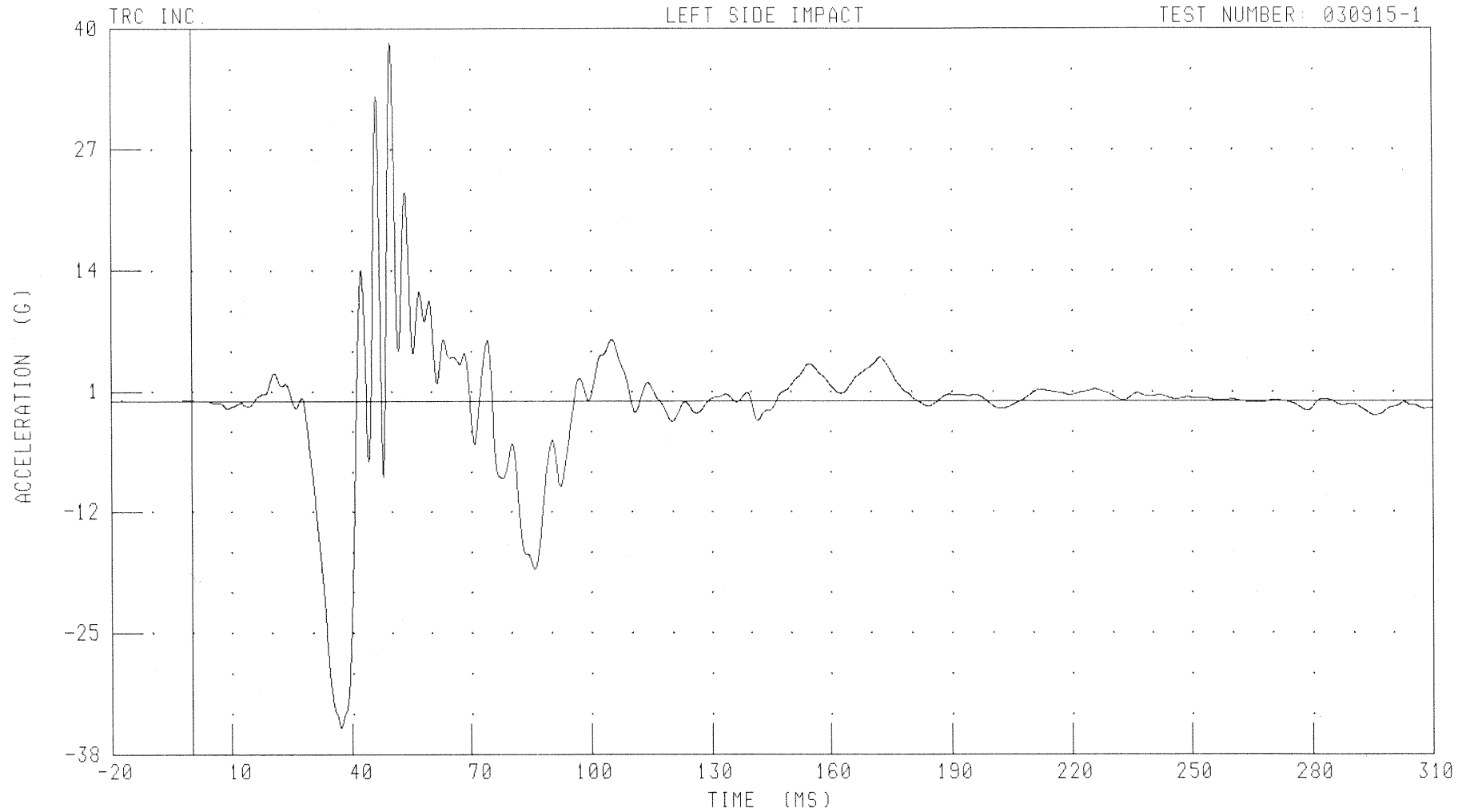
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XG4 FILTER: CH. CLASS 180

PEAK DATA: 38.54 G @ 49.92 MS; -35.12 G @ 37.04 MS

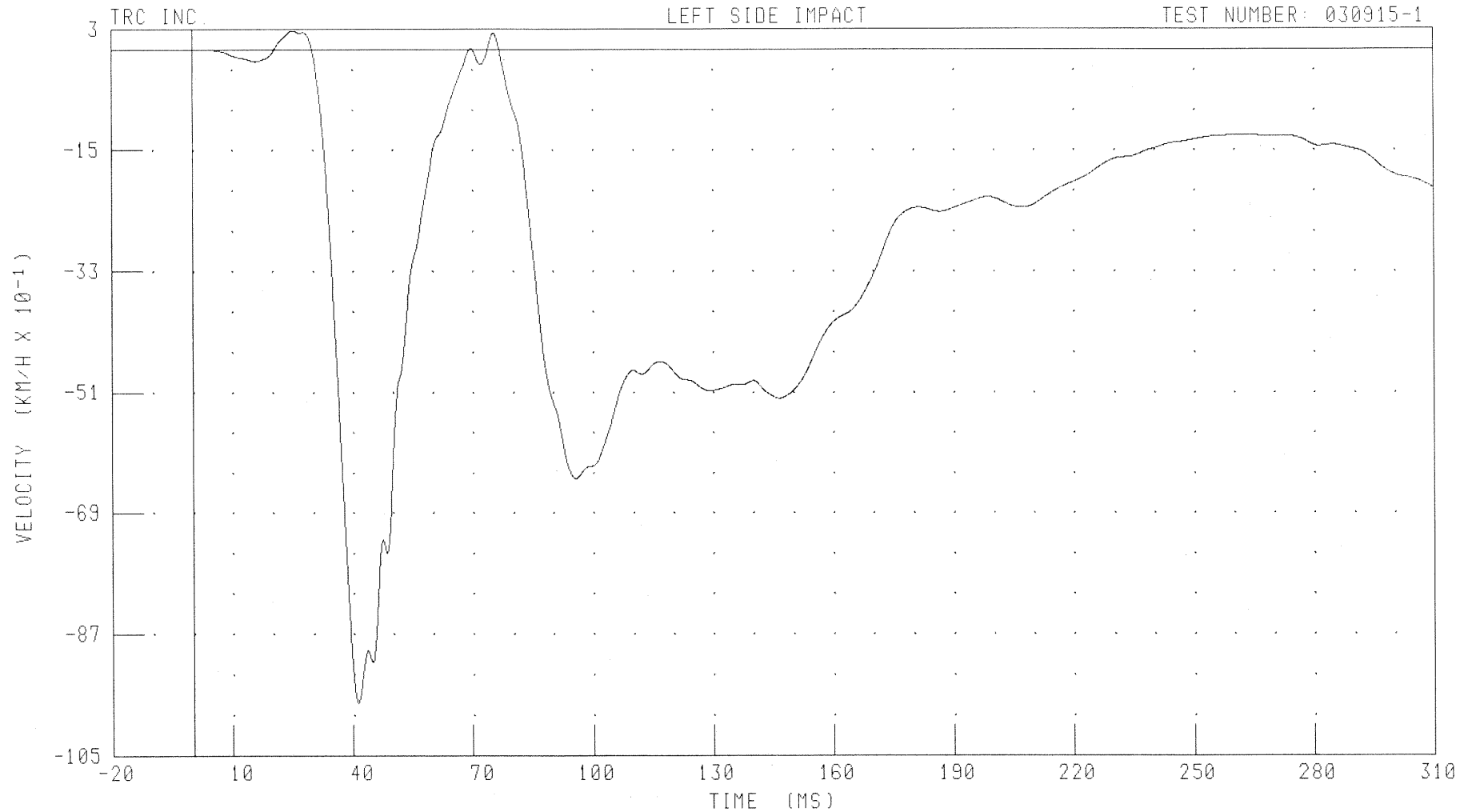
B-262

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XV4 FILTER: CH. CLASS 180

PEAK DATA: 0.28 KM/H @ 25.12 MS; -9.72 KM/H @ 41.20 MS

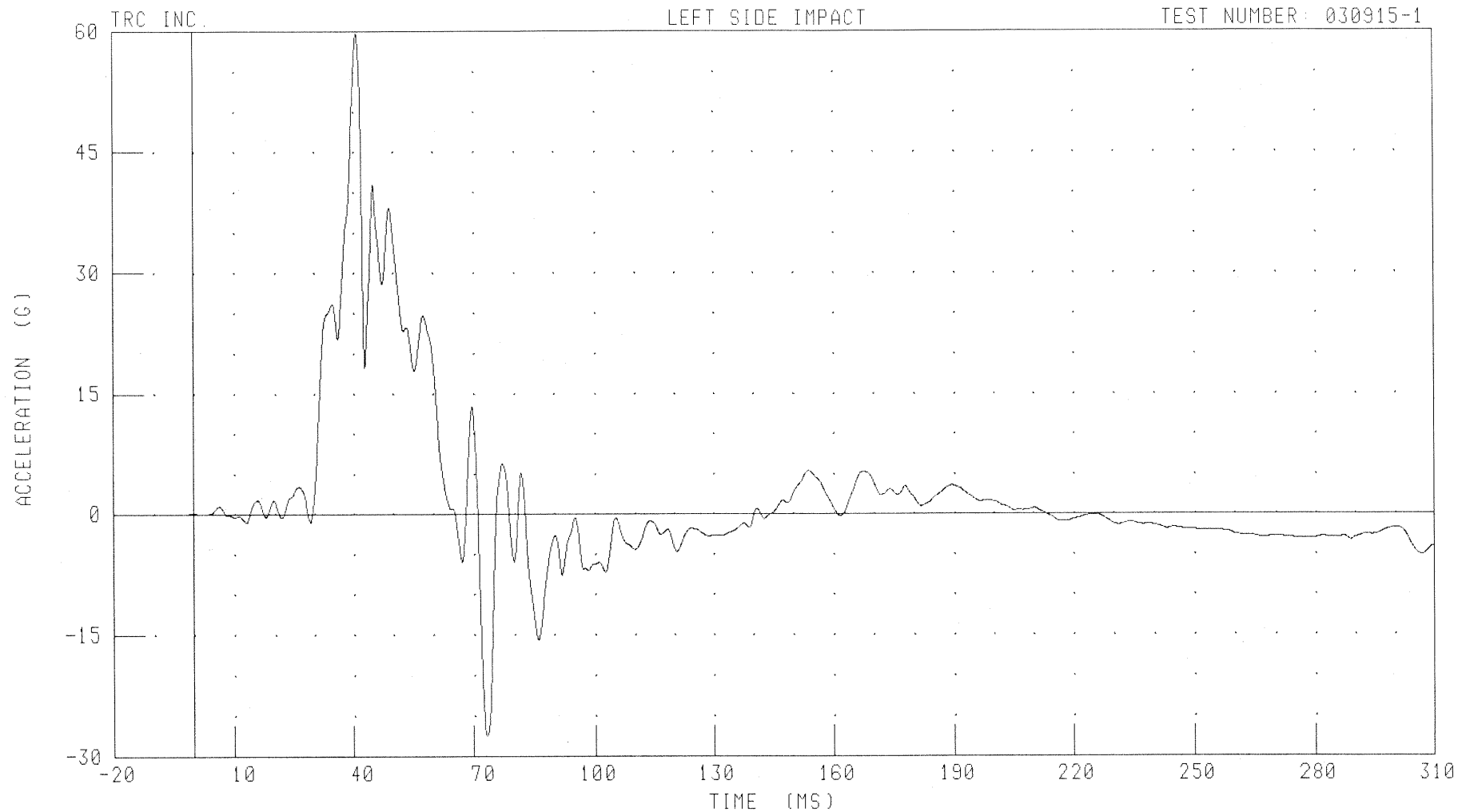
B-263

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YG4 FILTER: CH. CLASS 180

PEAK DATA: 59.79 G @ 40.96 MS; -27.47 G @ 73.20 MS

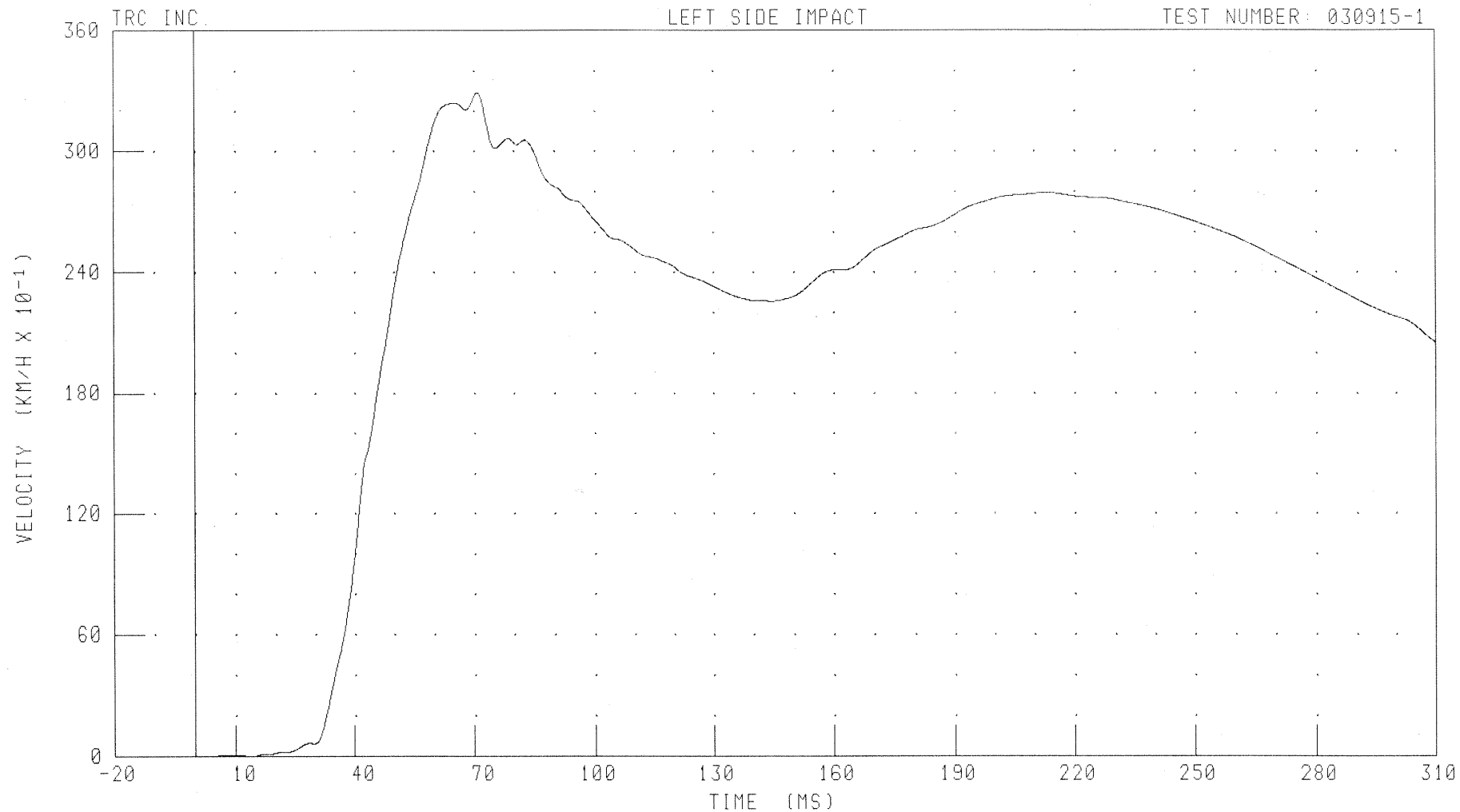
B-264

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YV4 FILTER: CH. CLASS 180

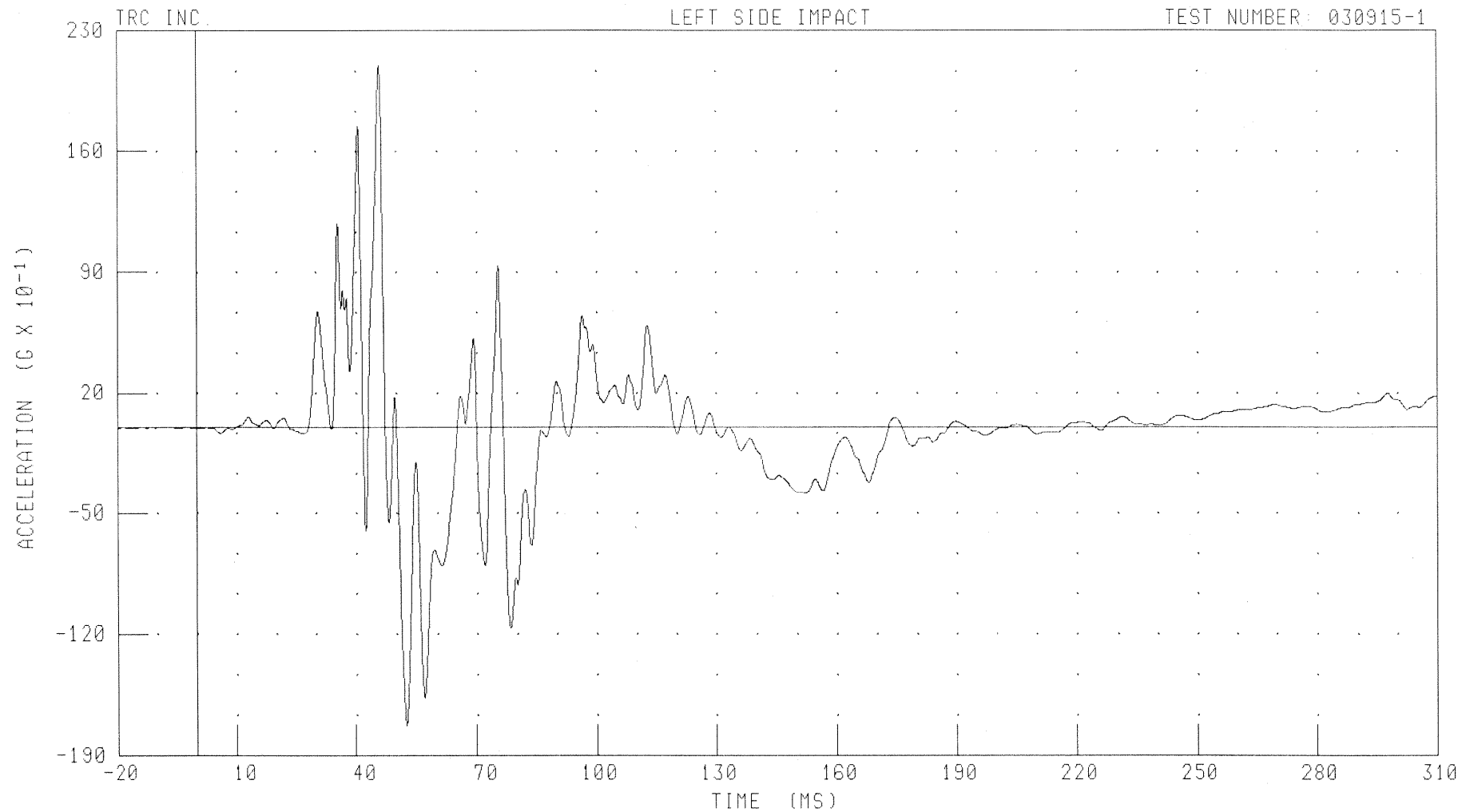
PEAK DATA: 32.93 KM/H @ 71.04 MS; -0.03 KM/H @ 13.84 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



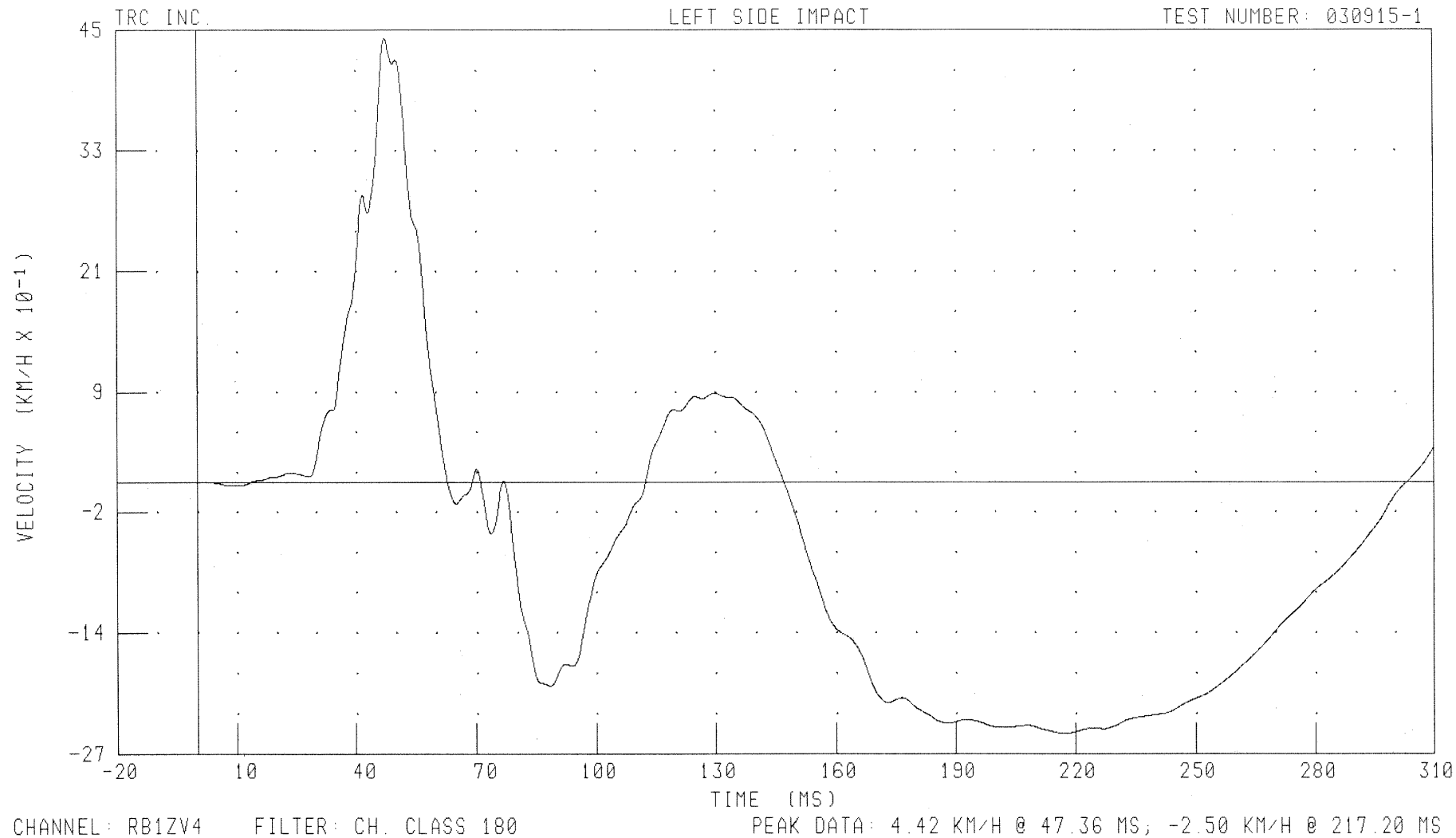
CHANNEL: RB1ZG4 FILTER: CH. CLASS 180

PEAK DATA: 21.00 G @ 45.92 MS; -17.31 G @ 52.40 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



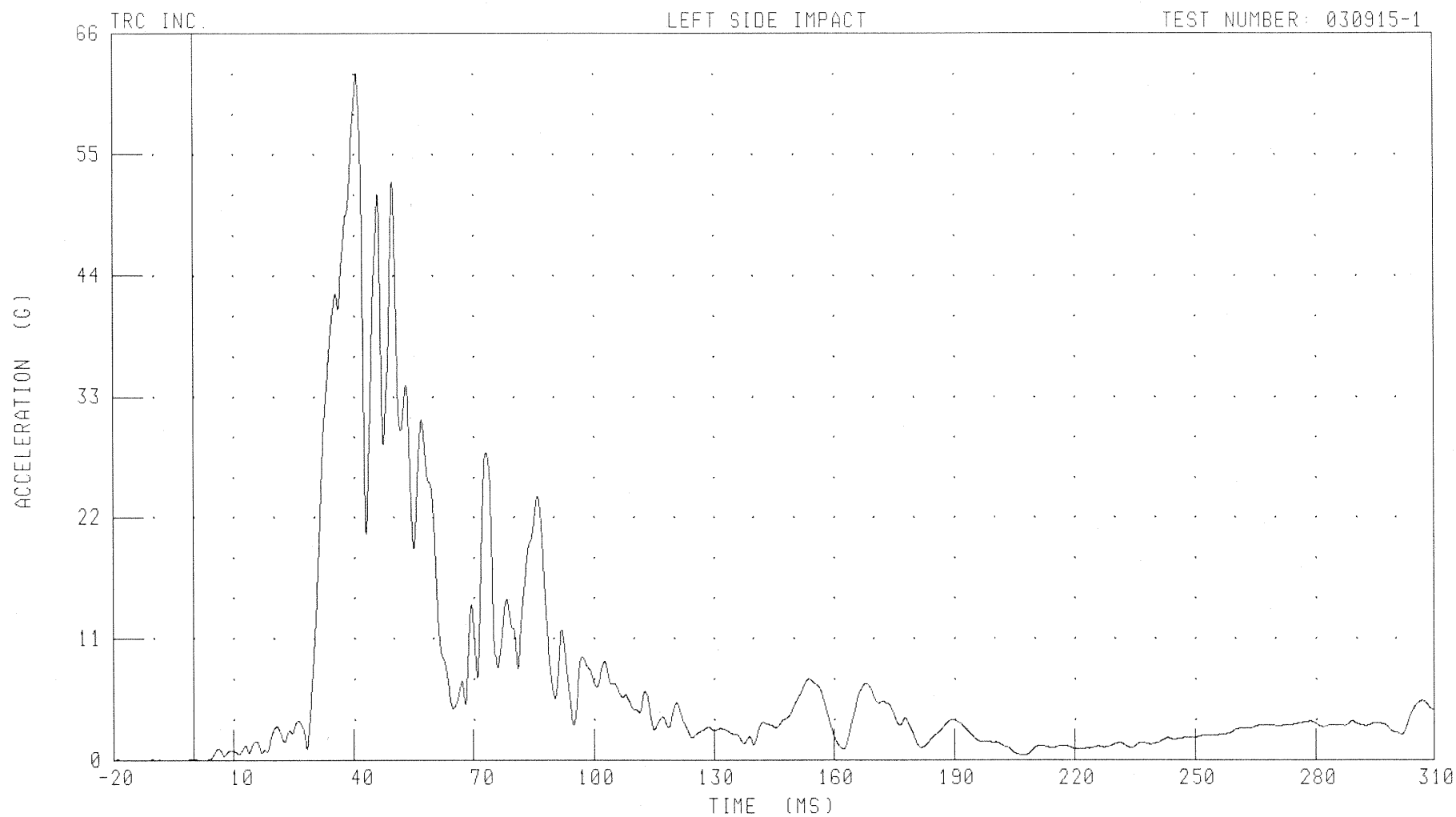
B-267

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1RG4 FILTER: CH. CLASS 180

PEAK DATA: 62.37 G @ 40.80 MS; 0.00 G @ -2.96 MS

B-268

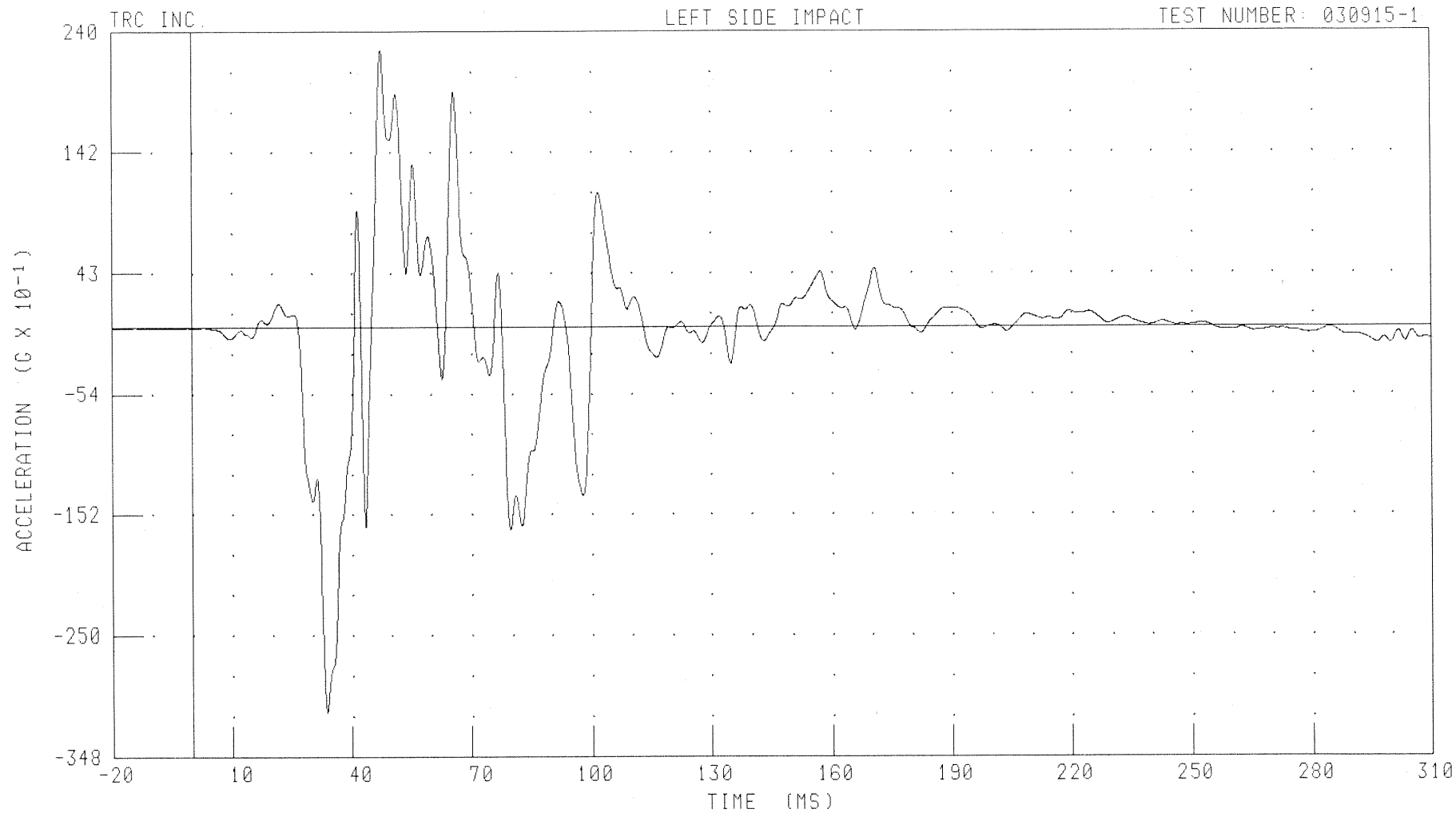
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2XG4 FILTER: CH. CLASS 180

PEAK DATA: 22.55 G @ 47.76 MS; -31.25 G @ 33.60 MS

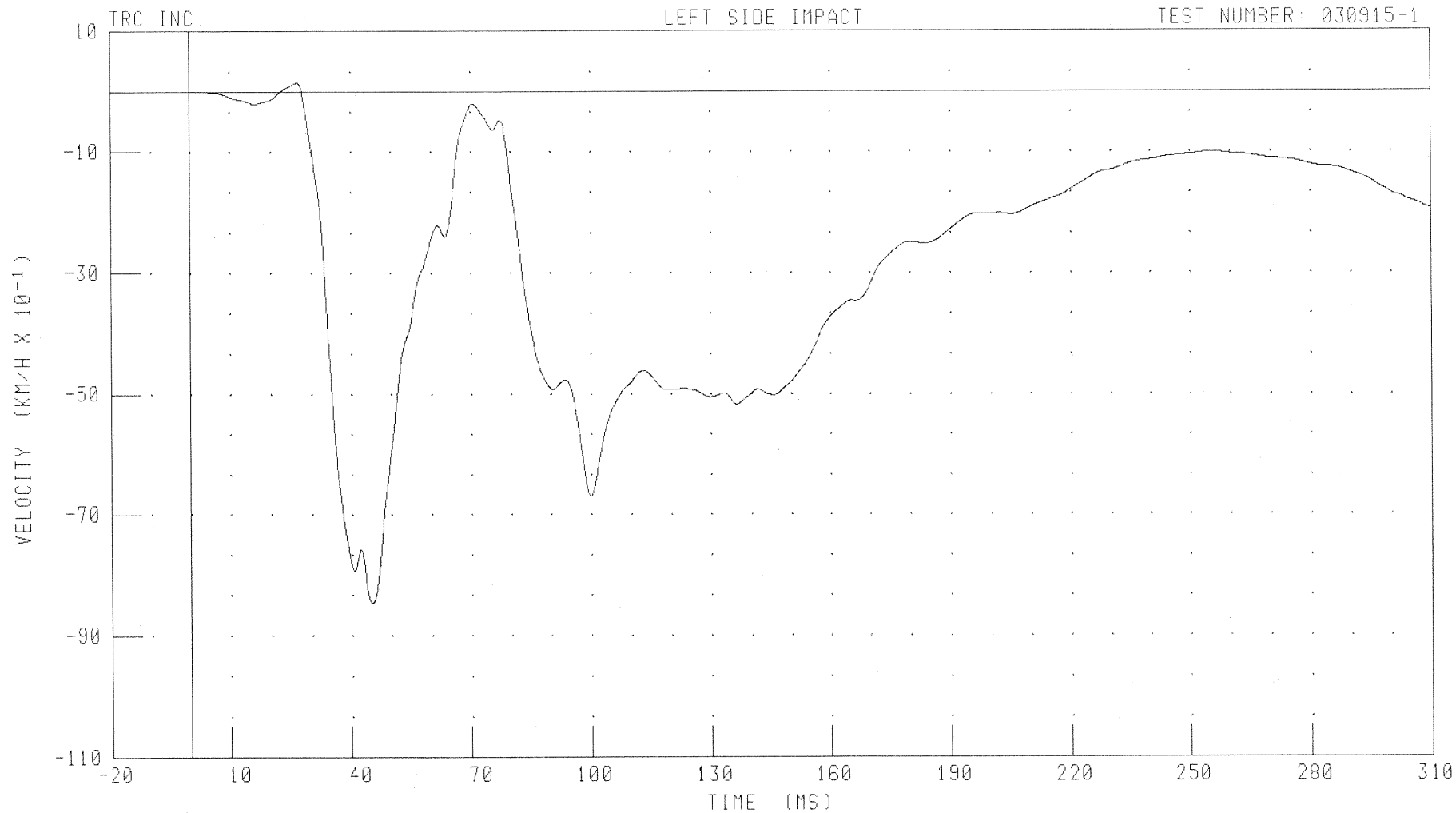
B-269

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2XV4

FILTER: CH. CLASS 180

PEAK DATA: 0.15 KM/H @ 26.72 MS; -8.46 KM/H @ 45.28 MS

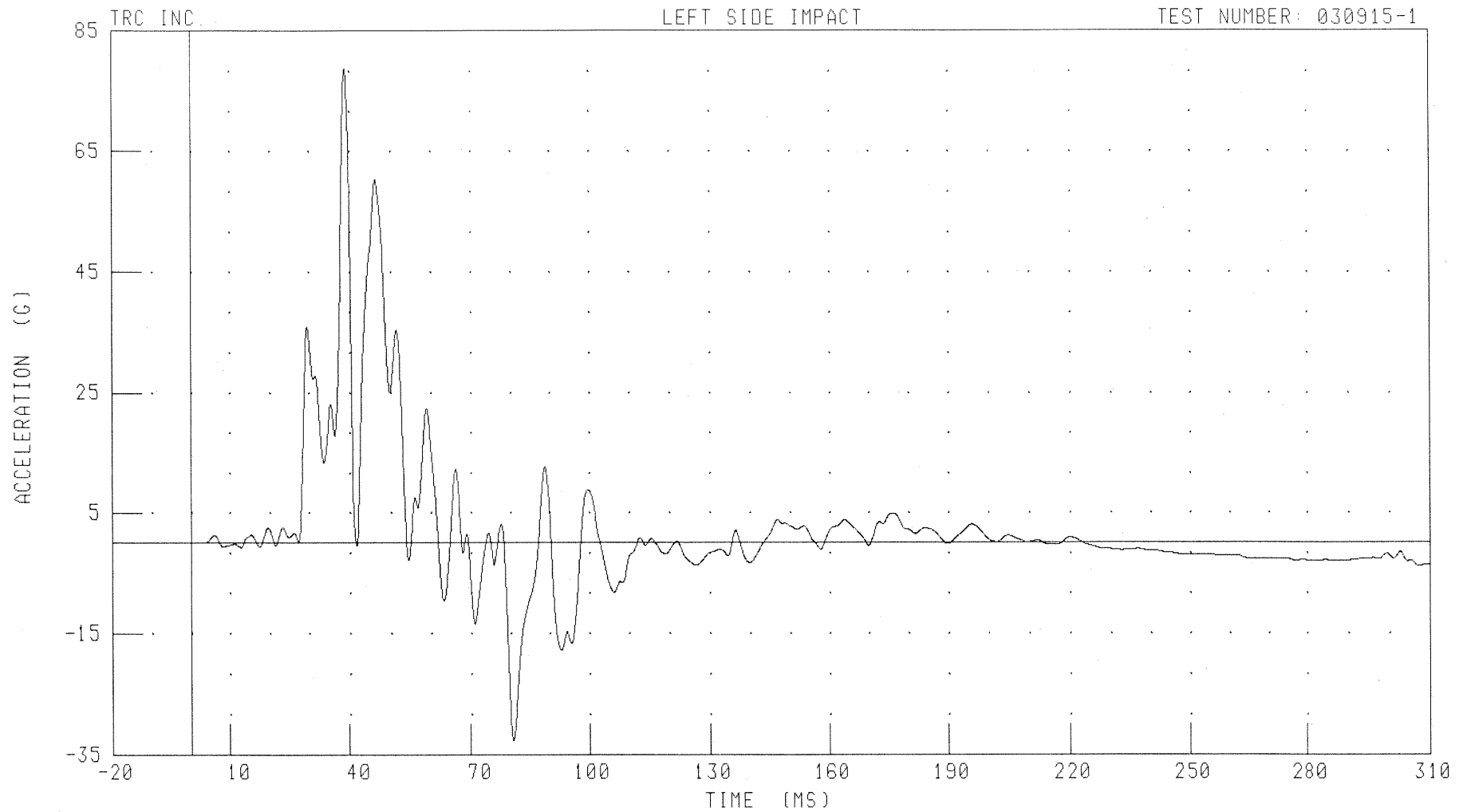
B-270

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YG4 FILTER: CH. CLASS 180

PEAK DATA: 78.76 G @ 39.04 MS; -32.72 G @ 80.72 MS

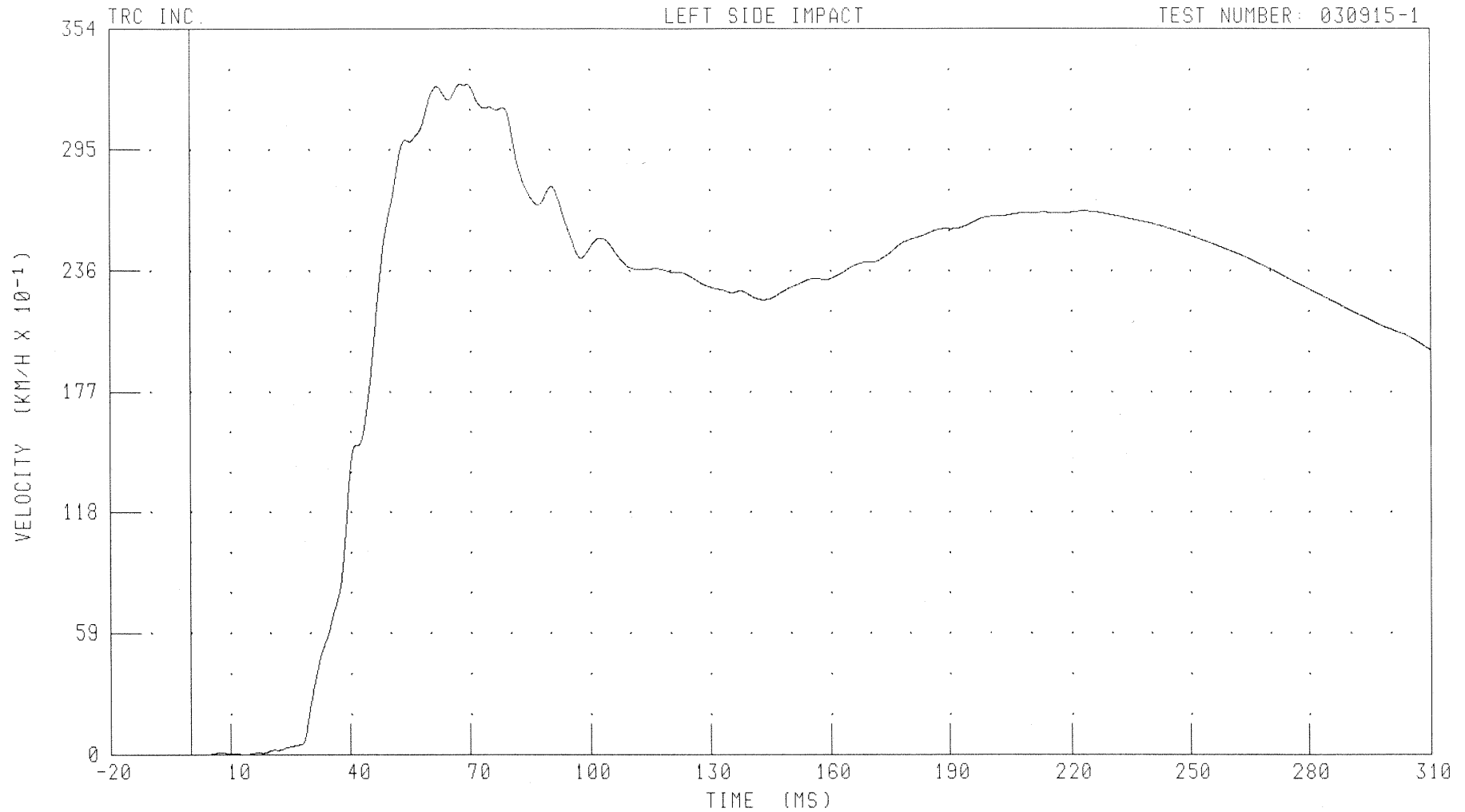
B-271

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YV4 FILTER: CH. CLASS 180

PEAK DATA: 32.71 KM/H @ 67.60 MS; -0.01 KM/H @ 13.60 MS

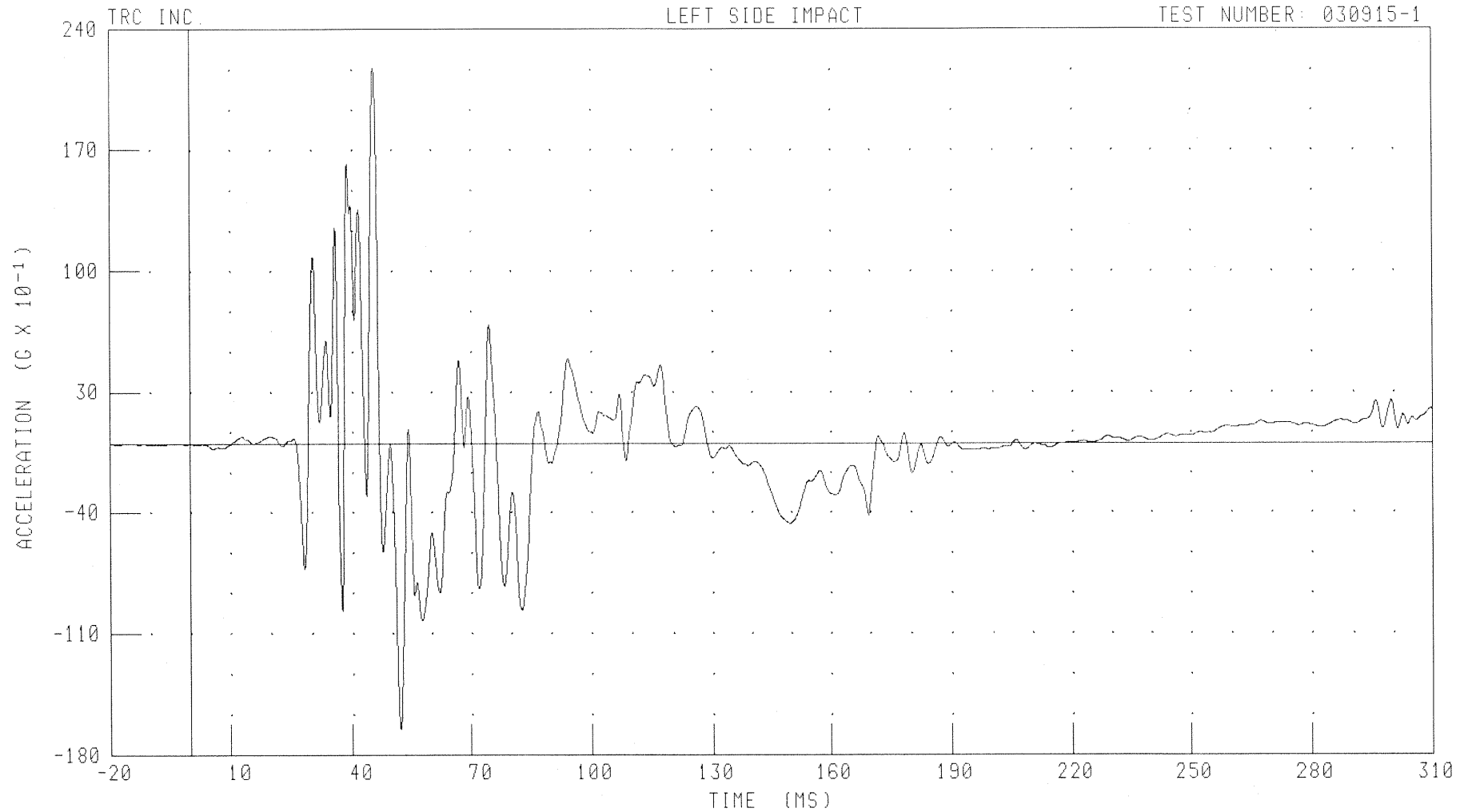
B-272

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZG4 FILTER: CH. CLASS 180

PEAK DATA: 21.76 G @ 45.52 MS; -16.54 G @ 52.00 MS

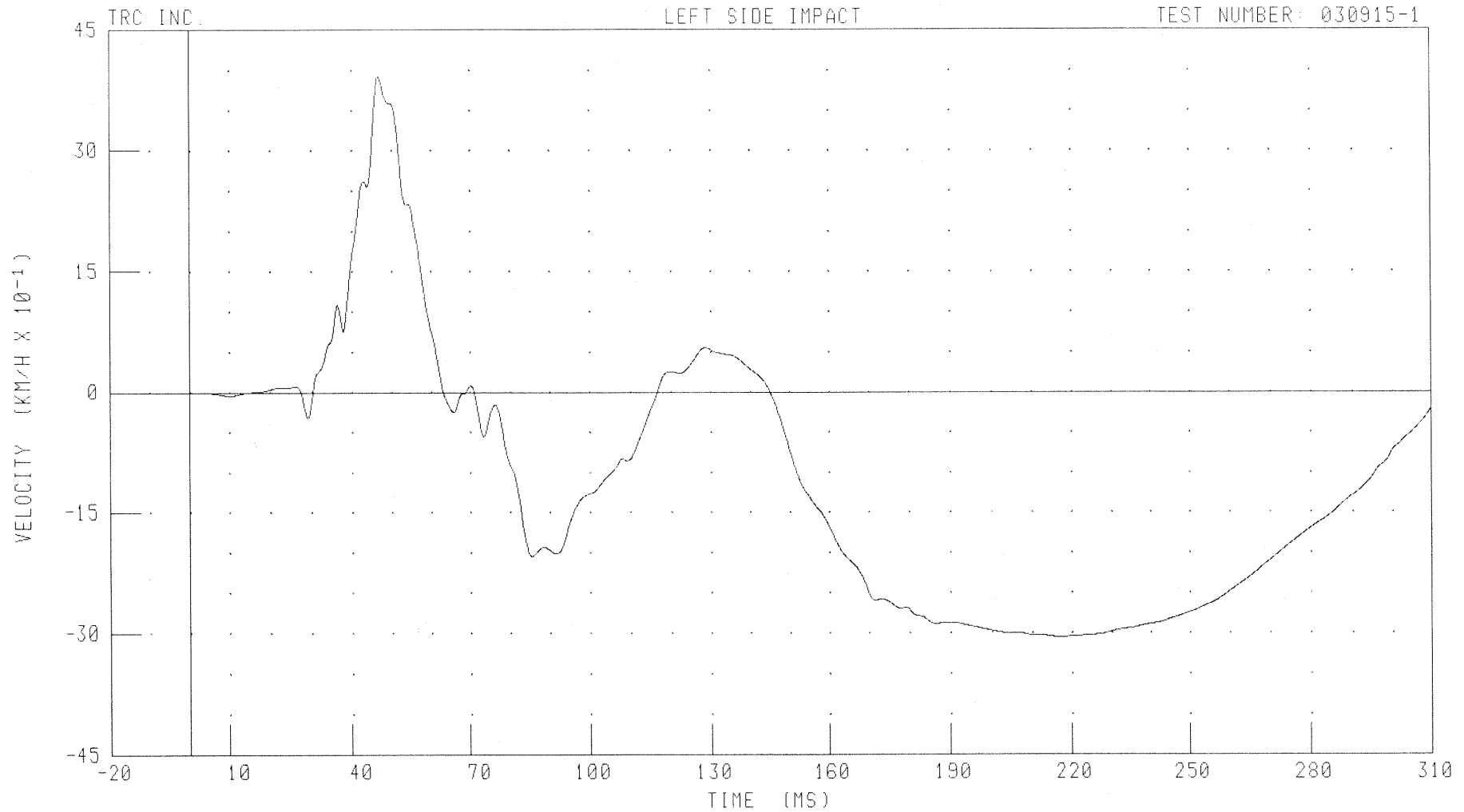
B-273

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZV4 FILTER: CH. CLASS 180

PEAK DATA: 3.92 KM/H @ 46.88 MS, -3.05 KM/H @ 216.64 MS

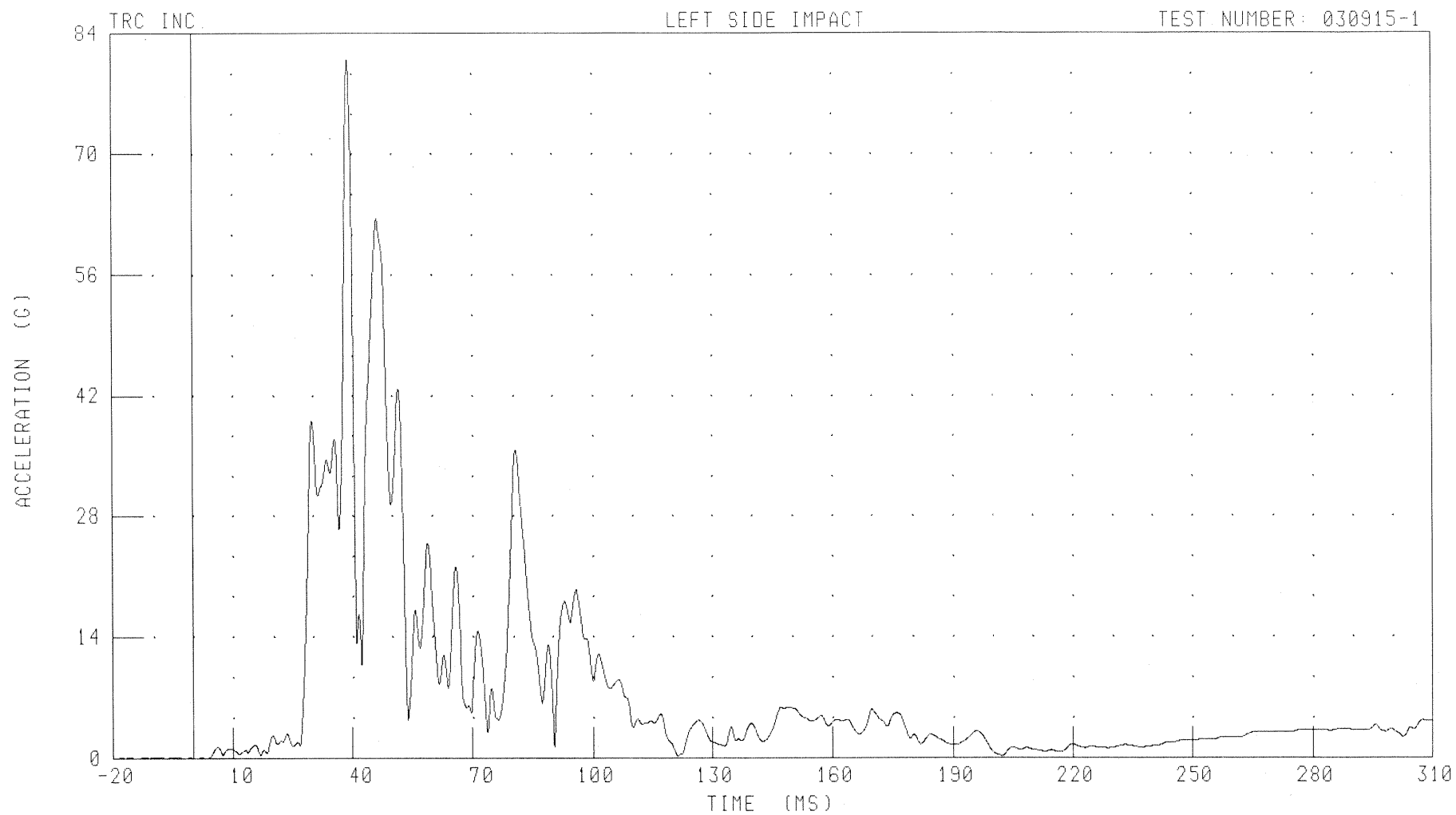
B-274

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2RG4 FILTER: CH. CLASS 180

PEAK DATA: 80.96 G @ 39.04 MS; 0.00 G @ -20.00 MS

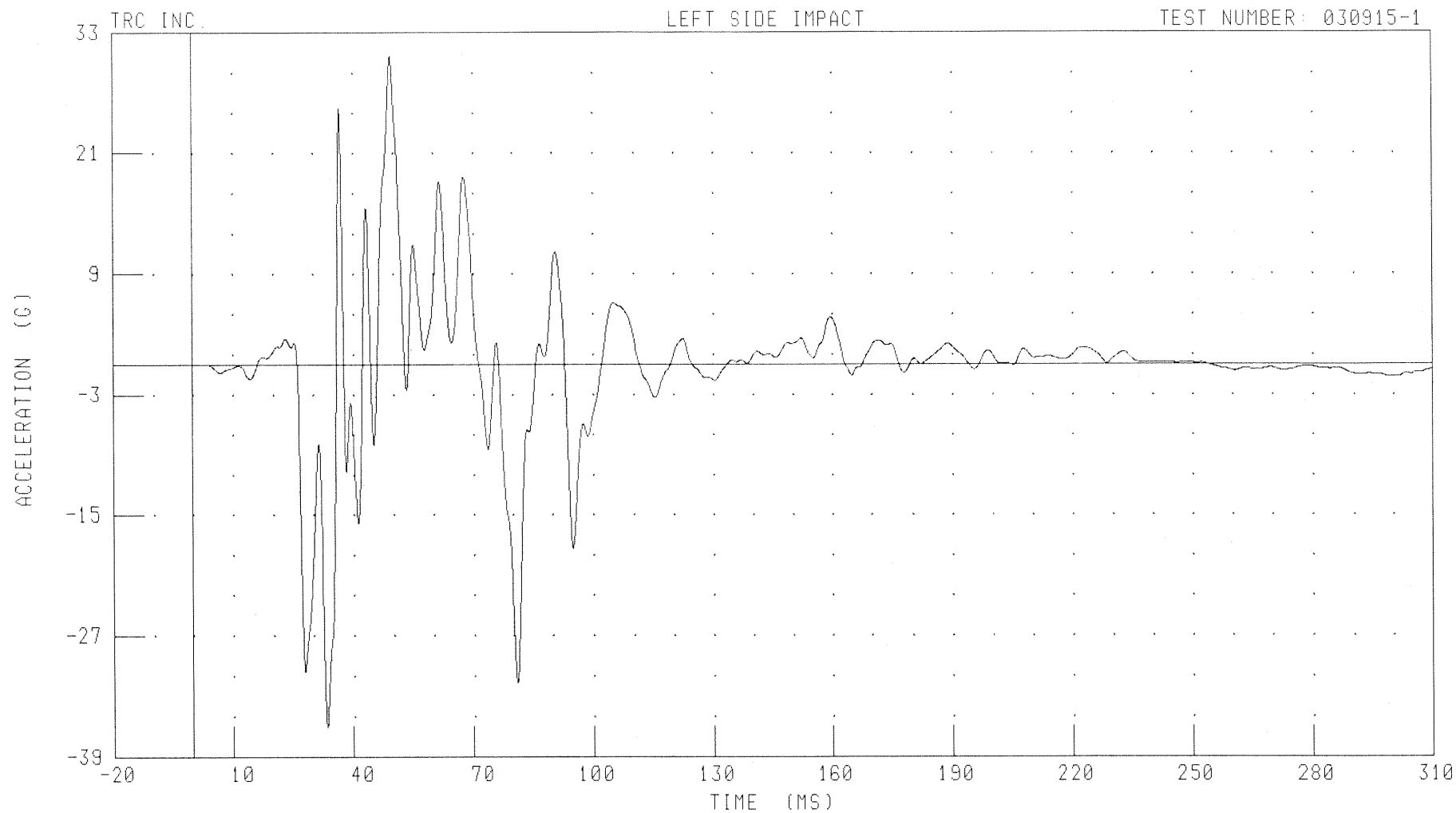
B-275

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XG4 FILTER: CH. CLASS 180

PEAK DATA: 30.66 G @ 49.44 MS; -36.04 G @ 33.36 MS

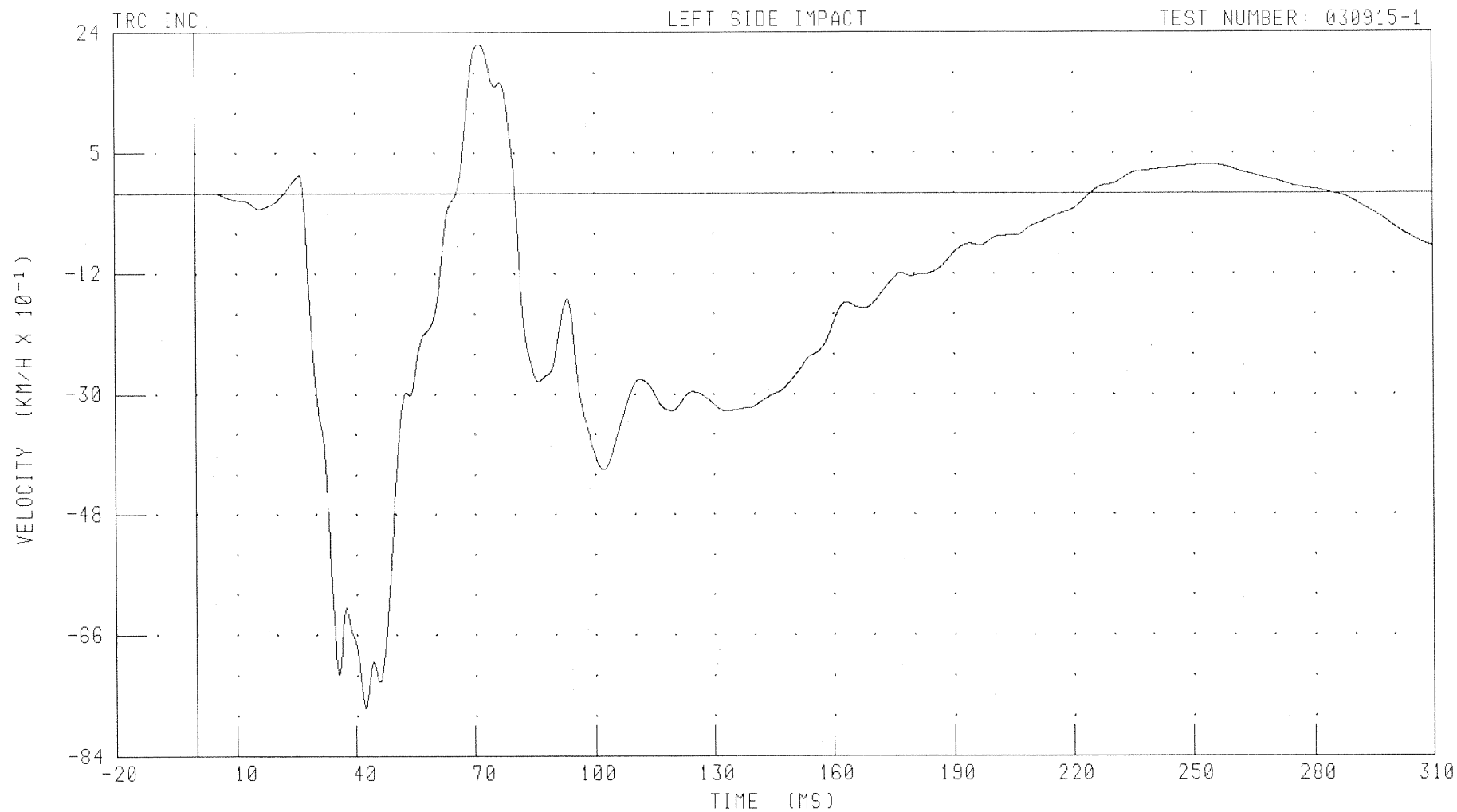
B-276

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XV4 FILTER: CH. CLASS 180

PEAK DATA: 22.2 KM/H @ 71.52 MS; -76.8 KM/H @ 42.40 MS

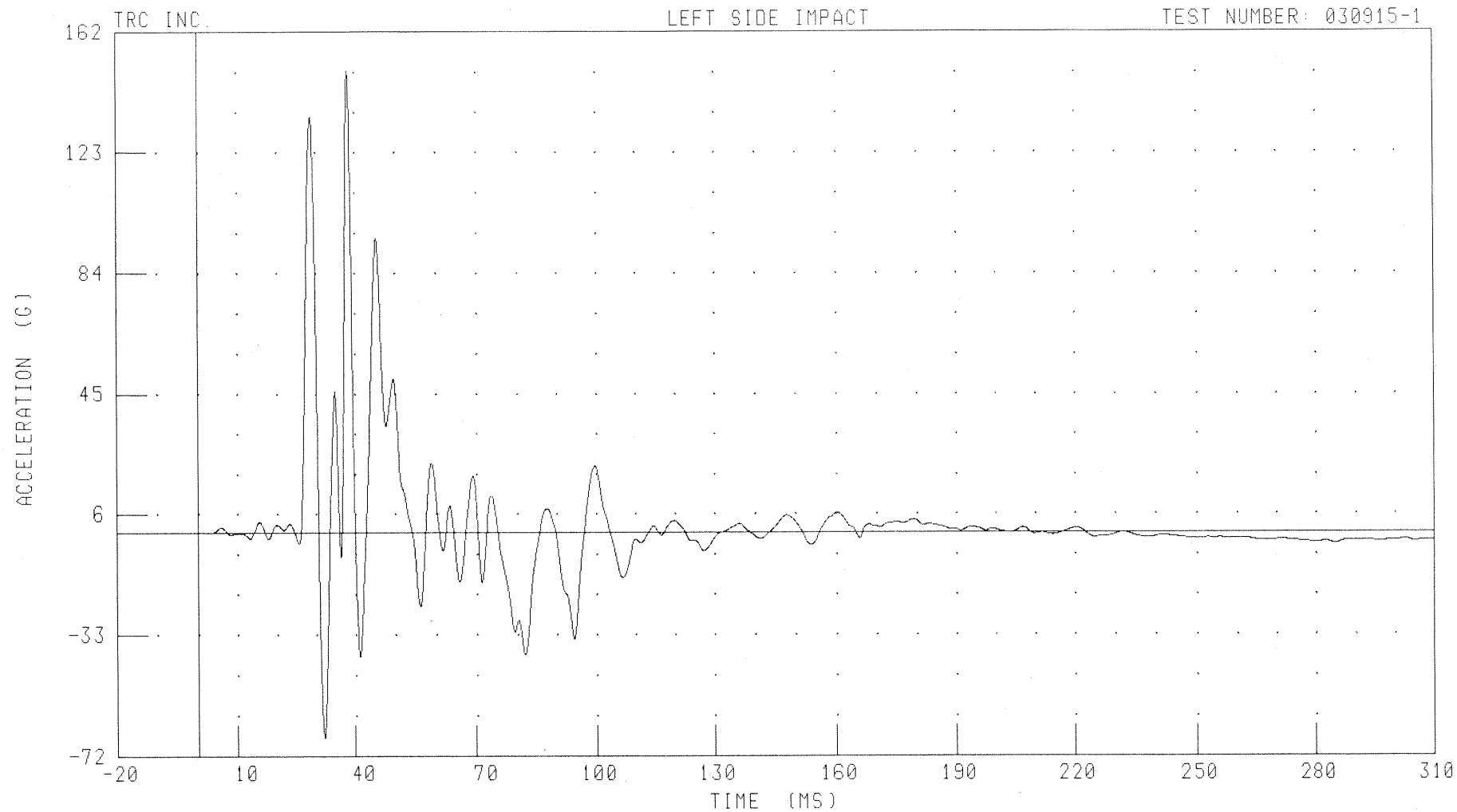
B-277

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YG4 FILTER: CH. CLASS 180

PEAK DATA: 149.40 G @ 38.40 MS; -66.26 G @ 32.08 MS

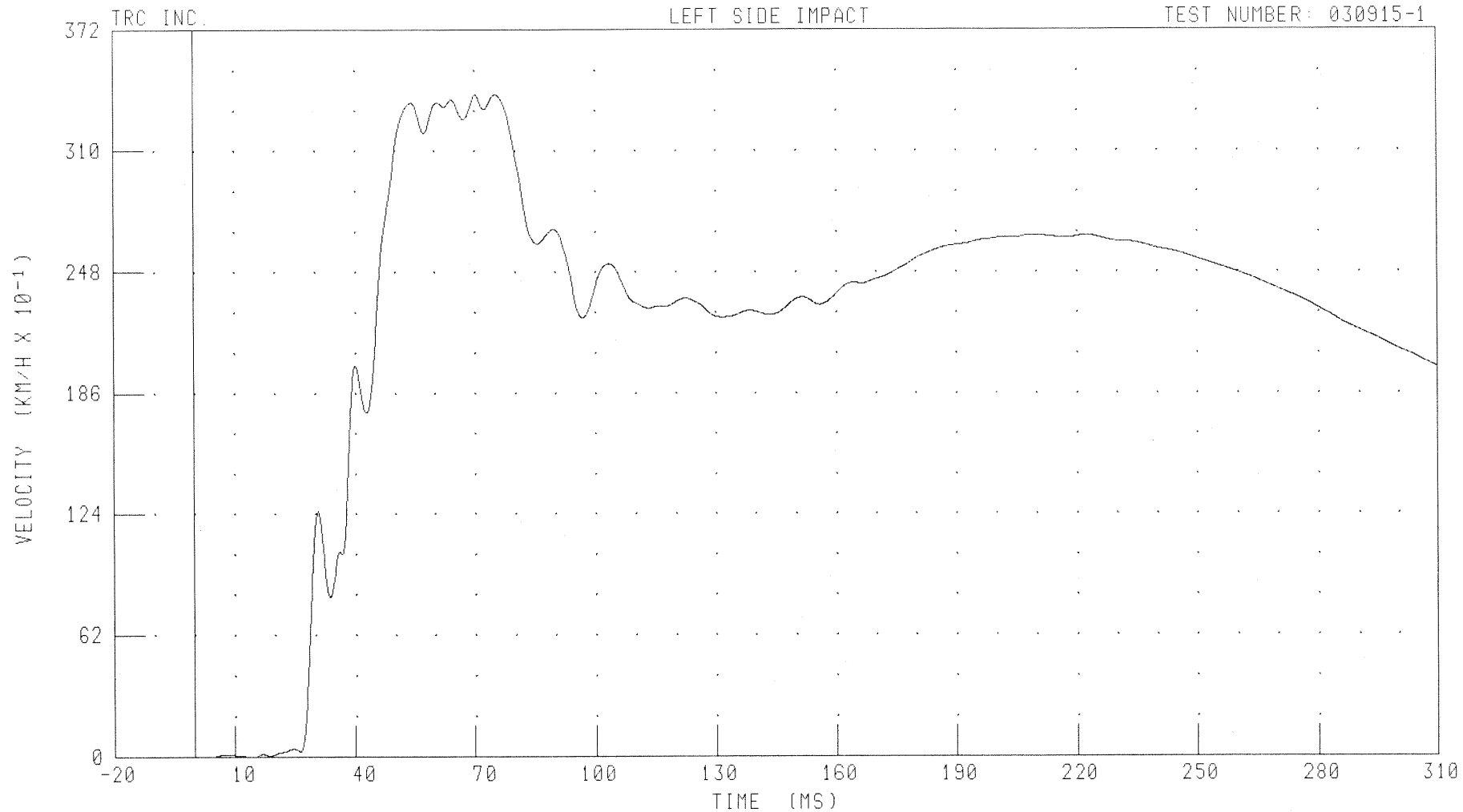
B-278

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YV4

FILTER: CH. CLASS 180

PEAK DATA: 33.91 KM/H @ 75.28 MS; -0.06 KM/H @ 14.16 MS

B-279

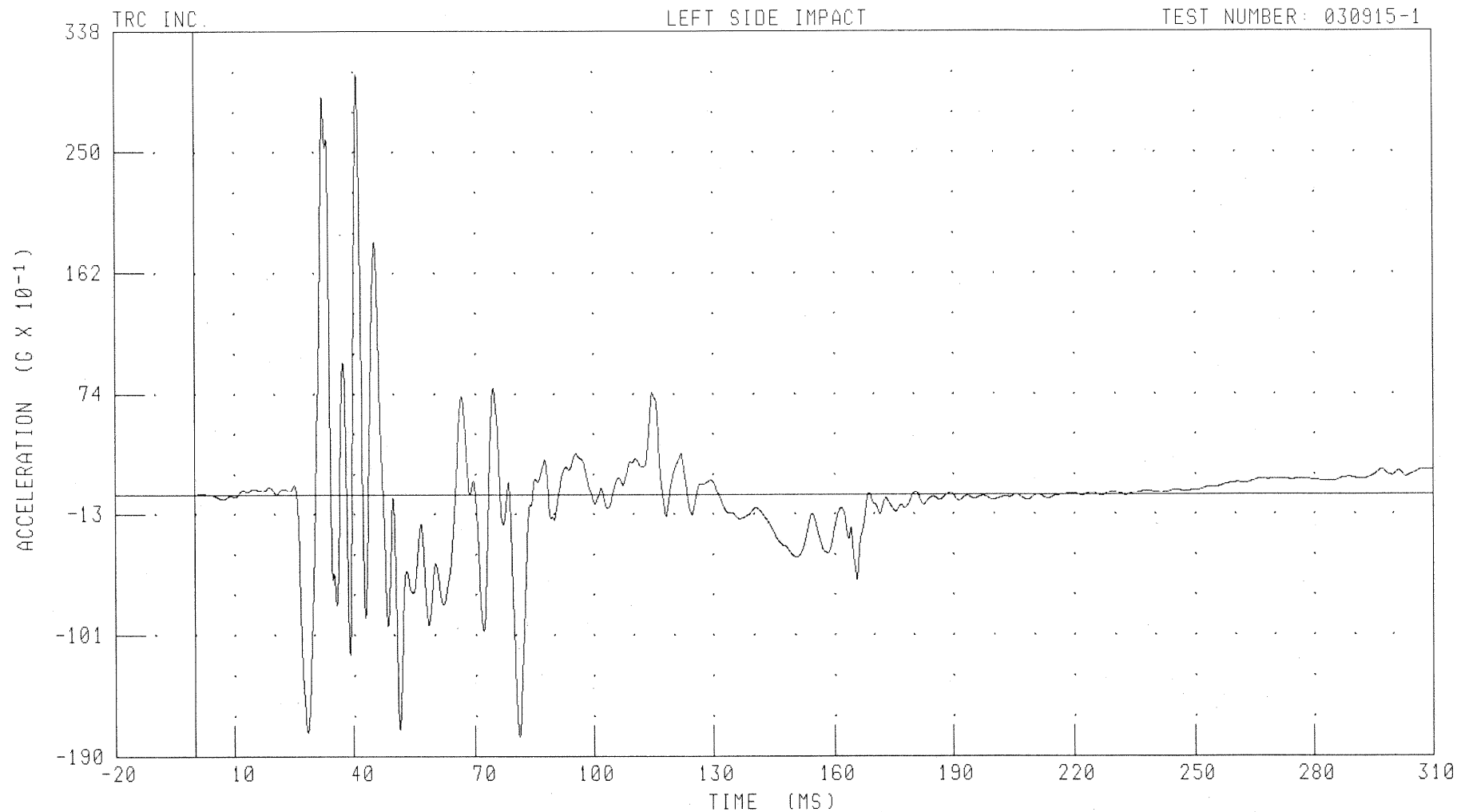
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZG4 FILTER: CH. CLASS 180

PEAK DATA: 30.72 G @ 41.04 MS; -17.60 G @ 81.04 MS

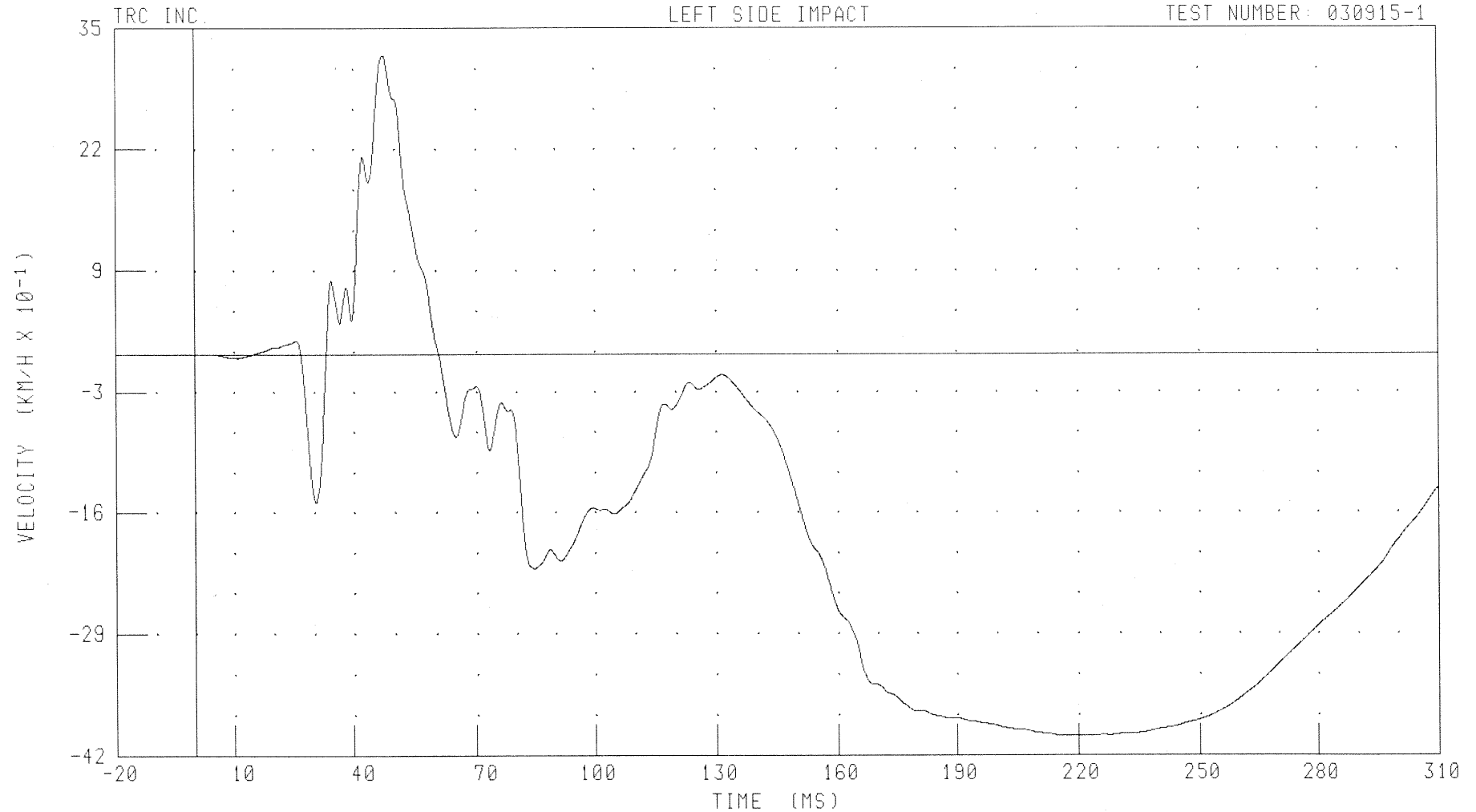
B-280

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZV4 FILTER: CH. CLASS 180

PEAK DATA: 3.21 KM/H @ 47.44 MS; -4.10 KM/H @ 217.44 MS

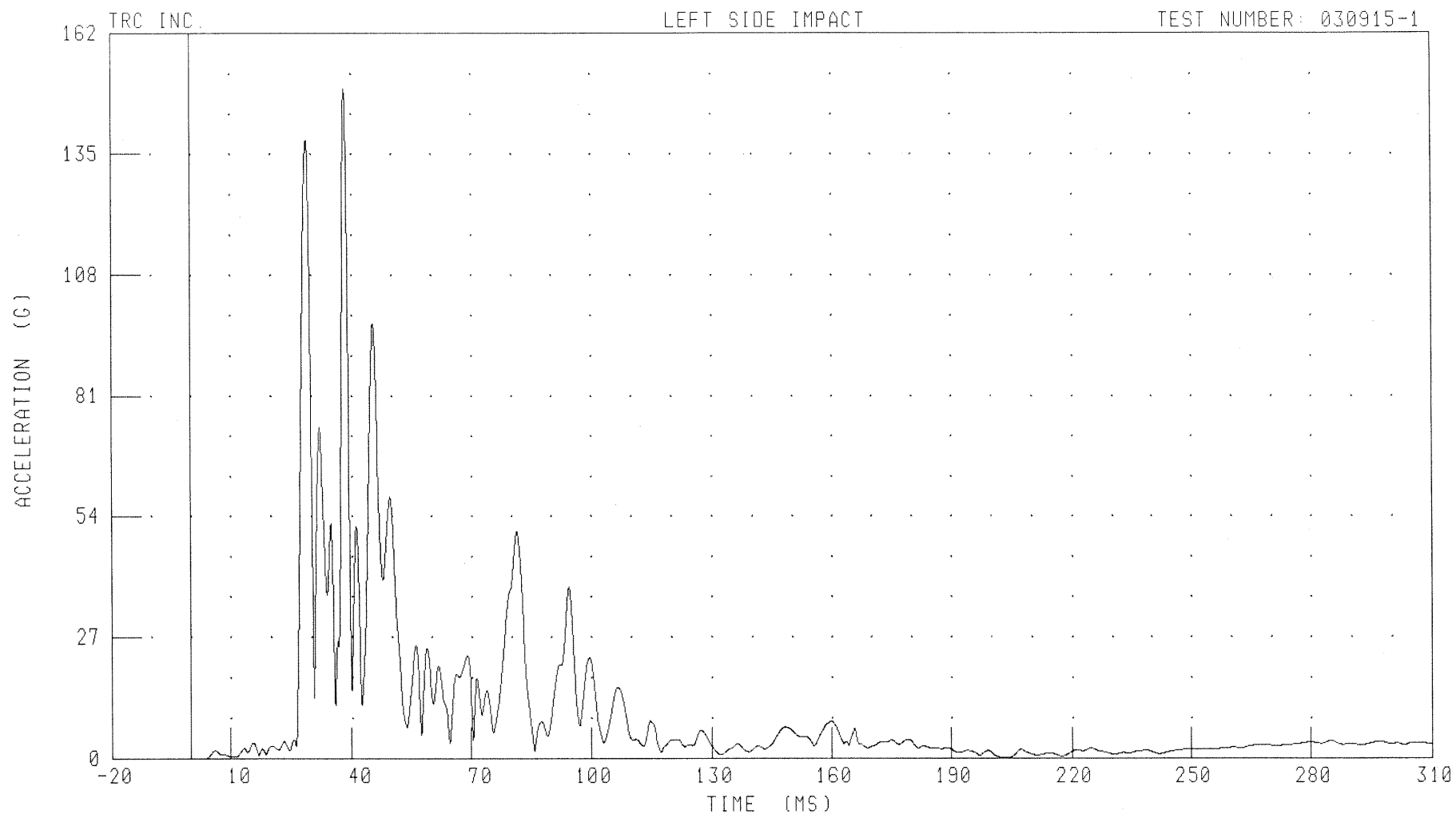
B-281

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3RG4

FILTER: CH. CLASS 180

PEAK DATA: 149.78 G @ 38.40 MS; 0.00 G @ -20.00 MS

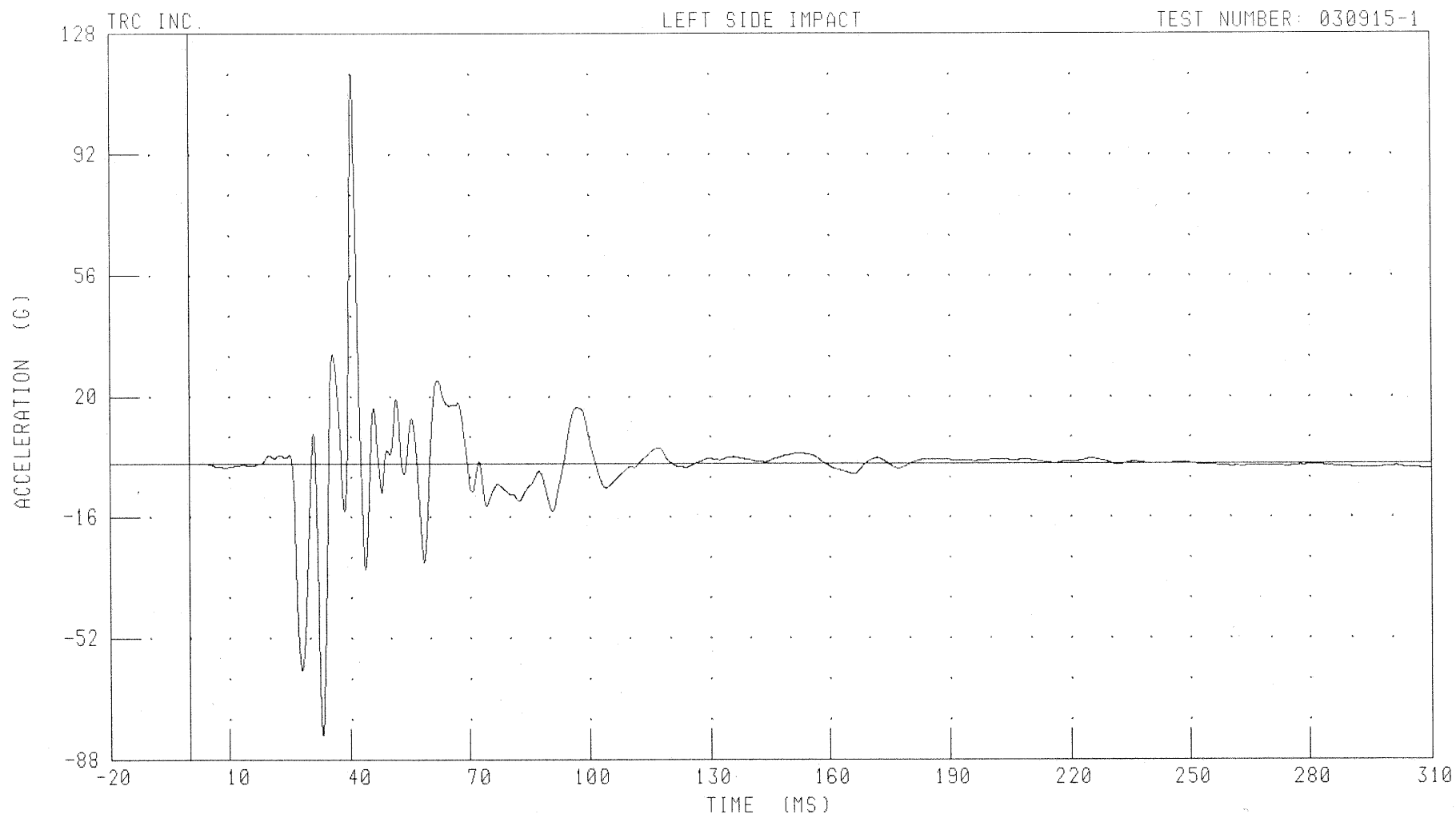
B-282

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XG4 FILTER: CH. CLASS 180

PEAK DATA: 116.20 G @ 40.48 MS; -80.78 G @ 33.12 MS

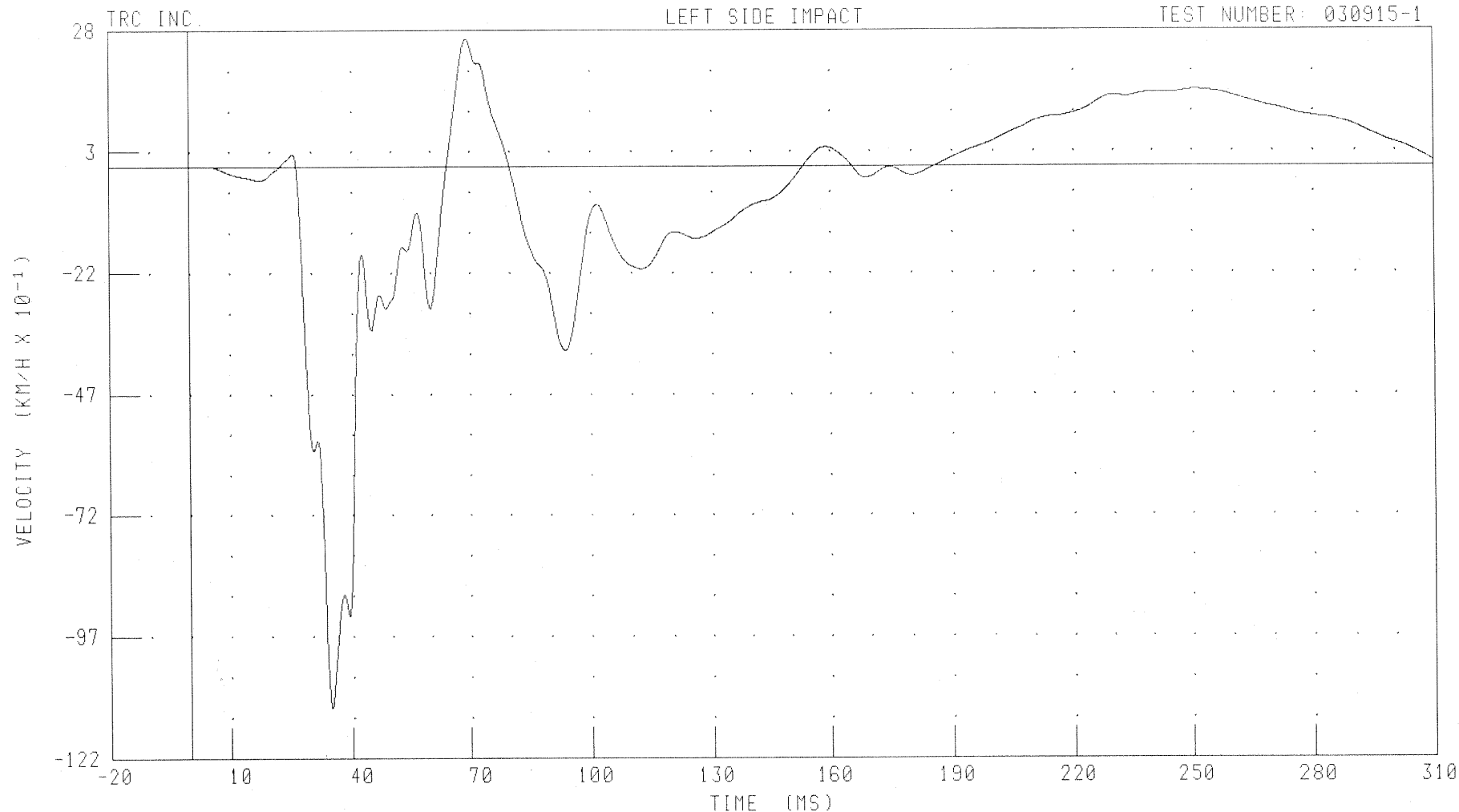
B-283

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XV4 FILTER: CH. CLASS 180

PEAK DATA: 2.62 KM/H @ 69.44 MS, -11.17 KM/H @ 34.80 MS

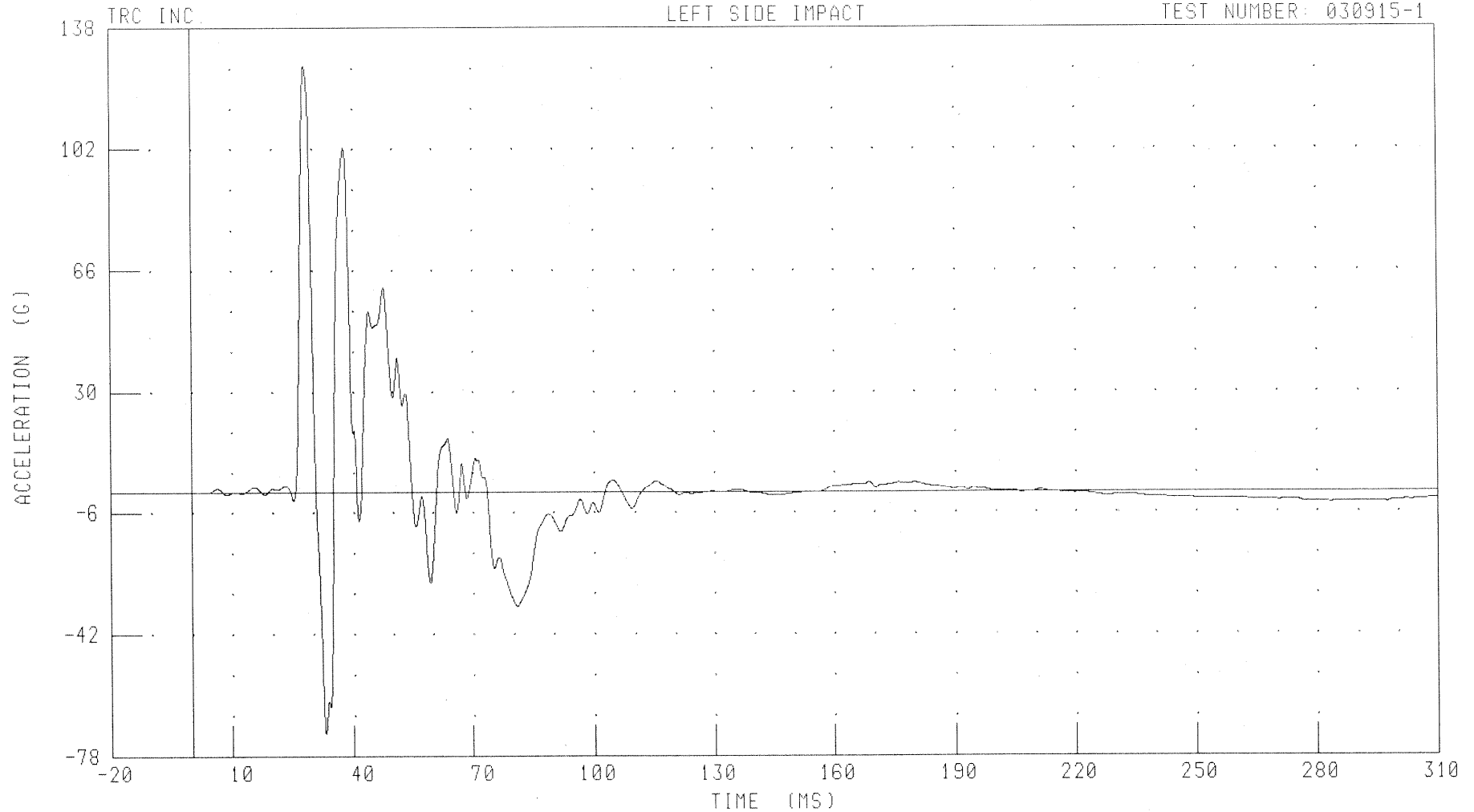
B-284

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YG4 FILTER: CH. CLASS 180

PEAK DATA: 126.76 G @ 28.24 MS, -71.33 G @ 32.96 MS

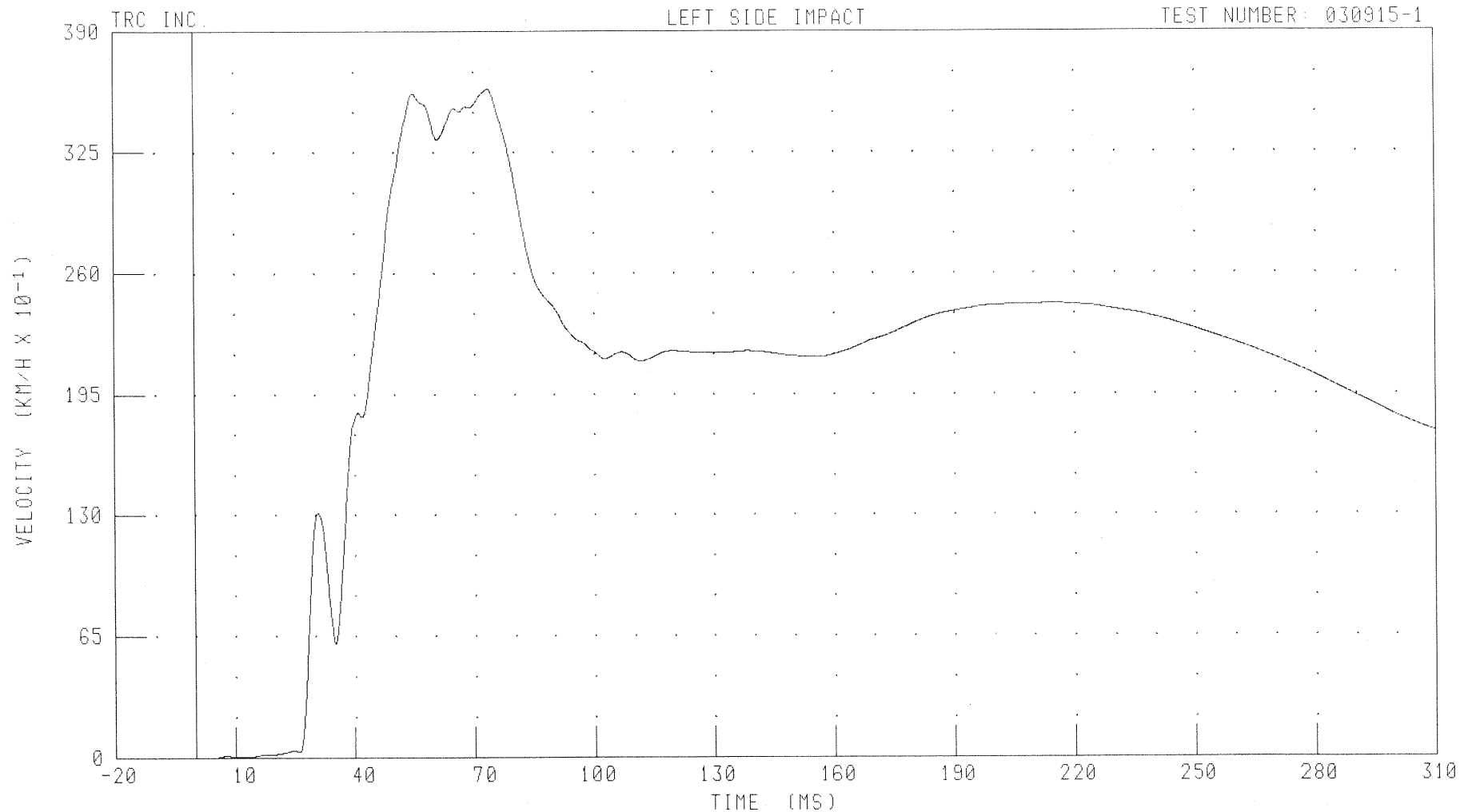
B-285

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YV4 FILTER: CH. CLASS 180

PEAK DATA: 35.93 KM/H @ 73.68 MS; 0.00 KM/H @ 0.00 MS

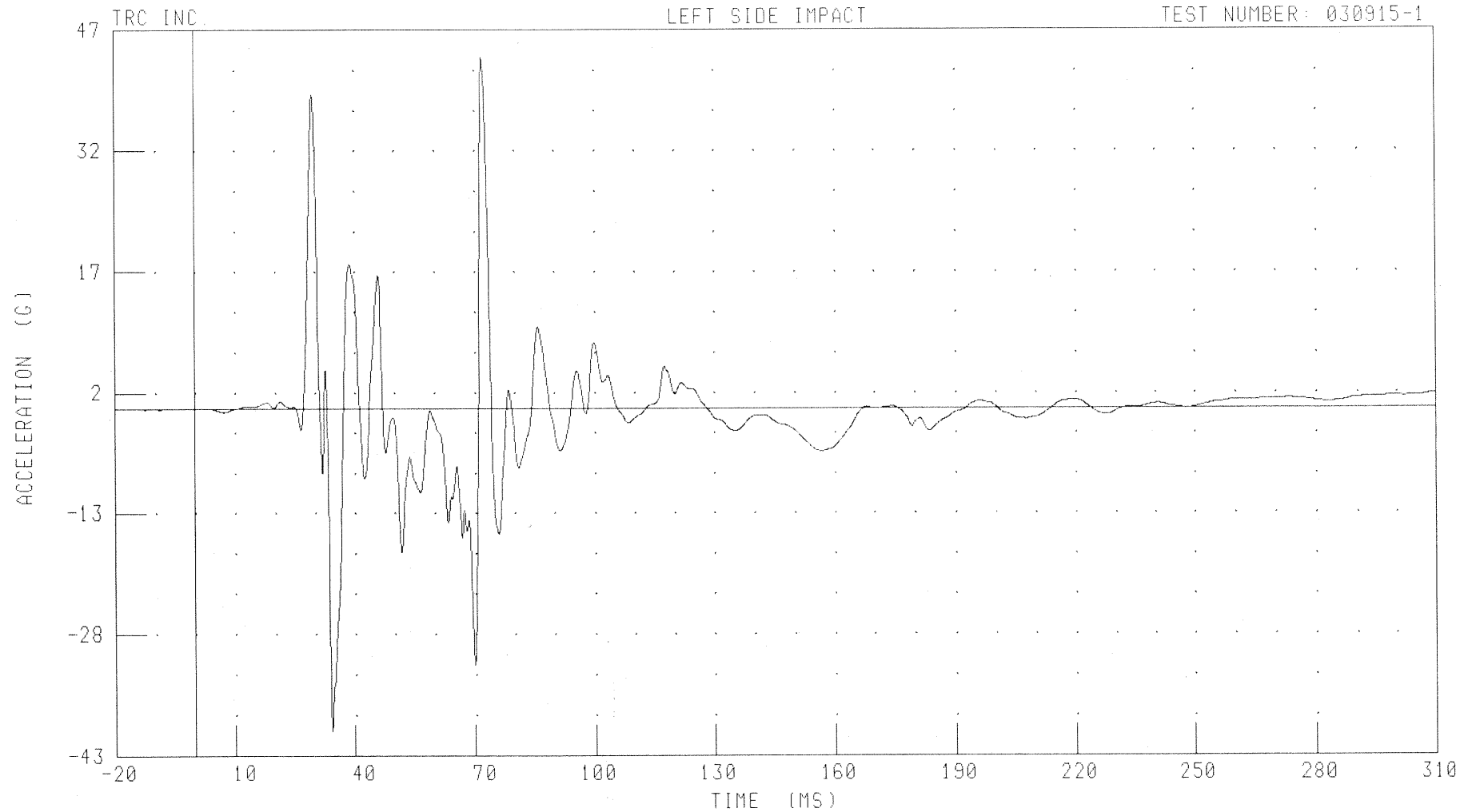
B-286

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZG4 FILTER: CH. CLASS 180

PEAK DATA: 43.63 G @ 72.00 MS; -39.92 G @ 34.08 MS

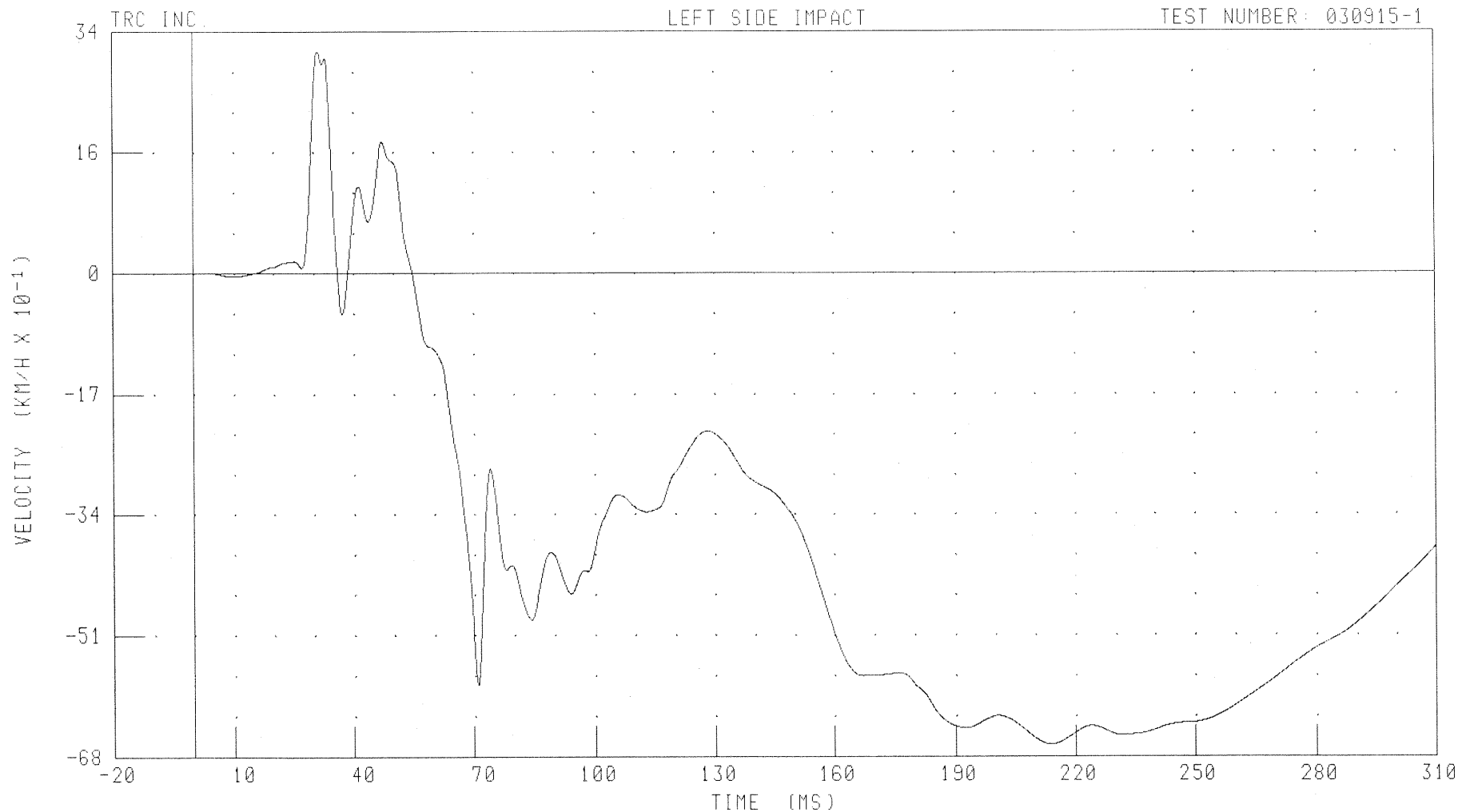
B-287

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZV4 FILTER: CH. CLASS 180

PEAK DATA: 3.12 KM/H @ 31.28 MS, -6.63 KM/H @ 213.92 MS

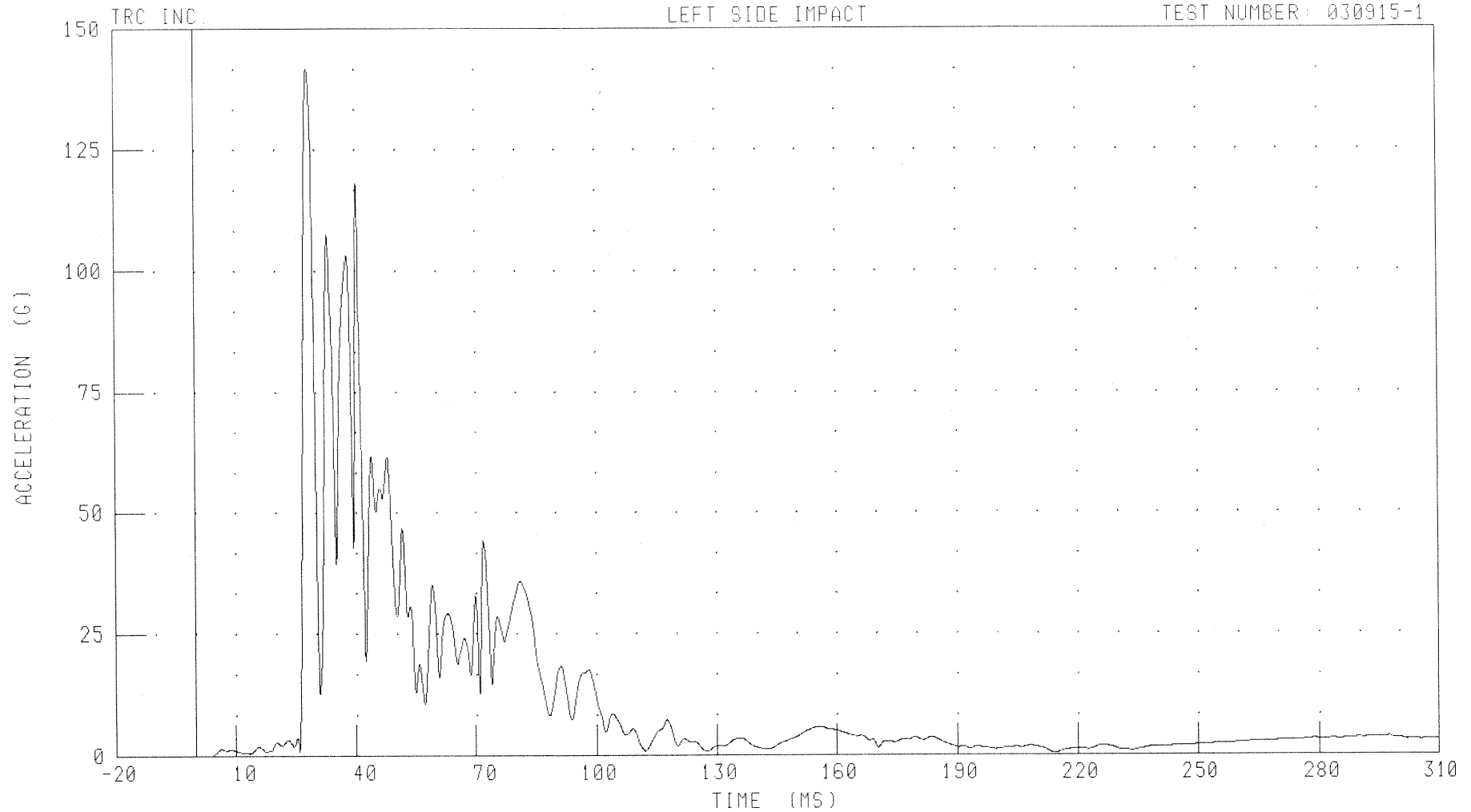
B-288

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4RG4 FILTER: CH. CLASS 180

PEAK DATA: 141.78 G @ 28.24 MS; 0.01 G @ -20.00 MS

B-289

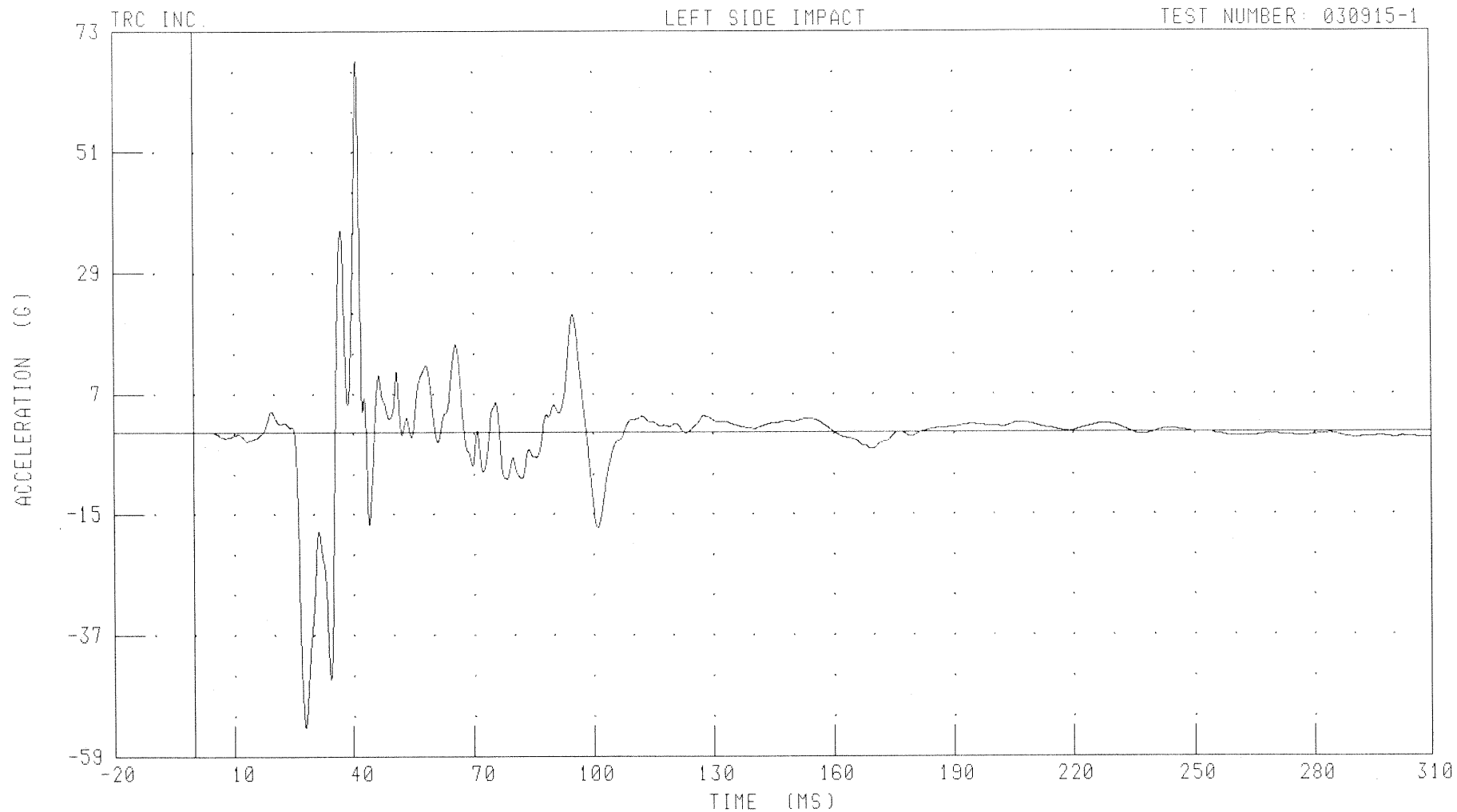
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER ABDOMEN RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XG4 FILTER: CH. CLASS 180

PEAK DATA: 67.67 G @ 41.12 MS; -53.83 G @ 27.92 MS

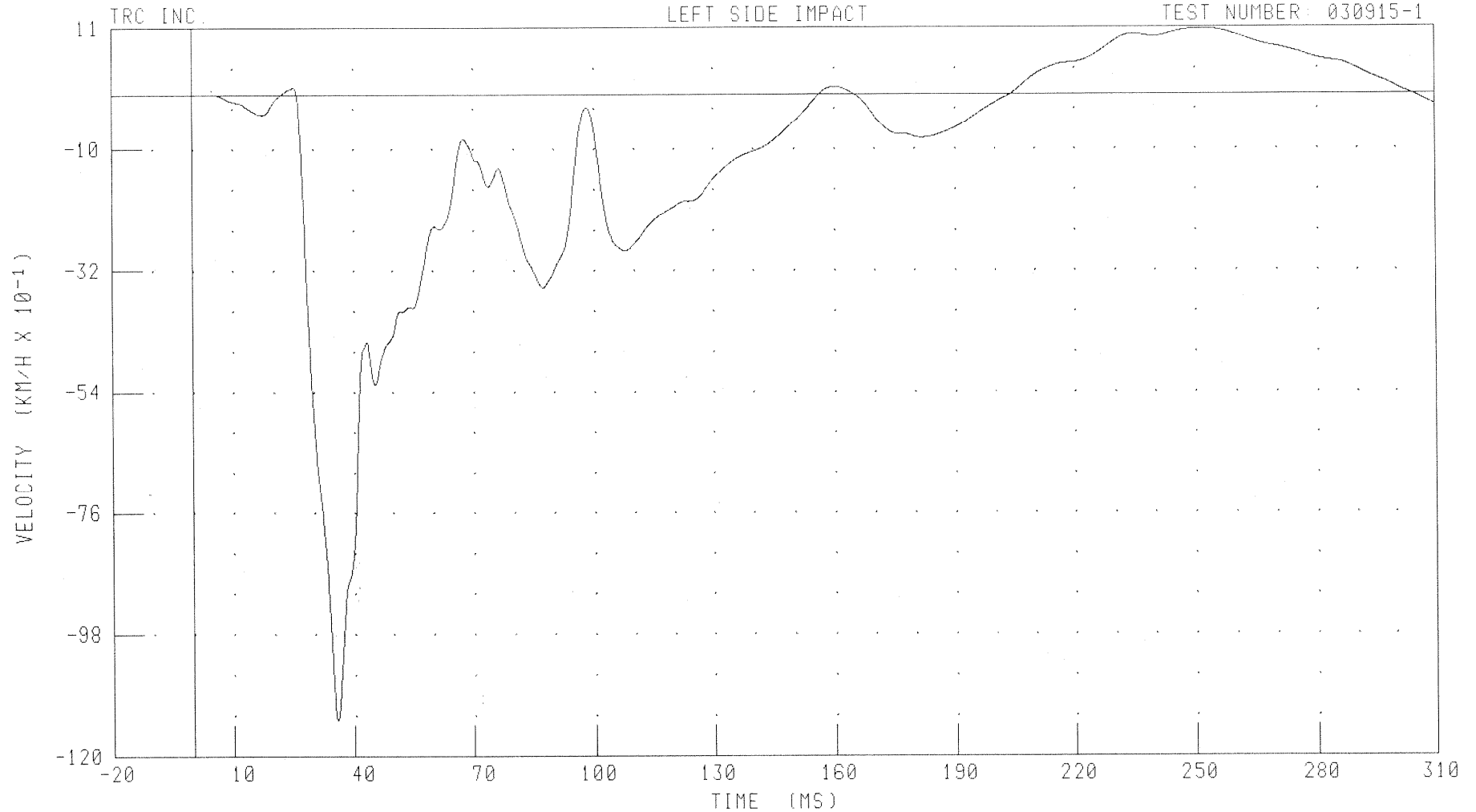
B-290

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XV4 FILTER: CH. CLASS 180

PEAK DATA: 1.17 KM/H @ 250.32 MS; -11.36 KM/H @ 35.68 MS

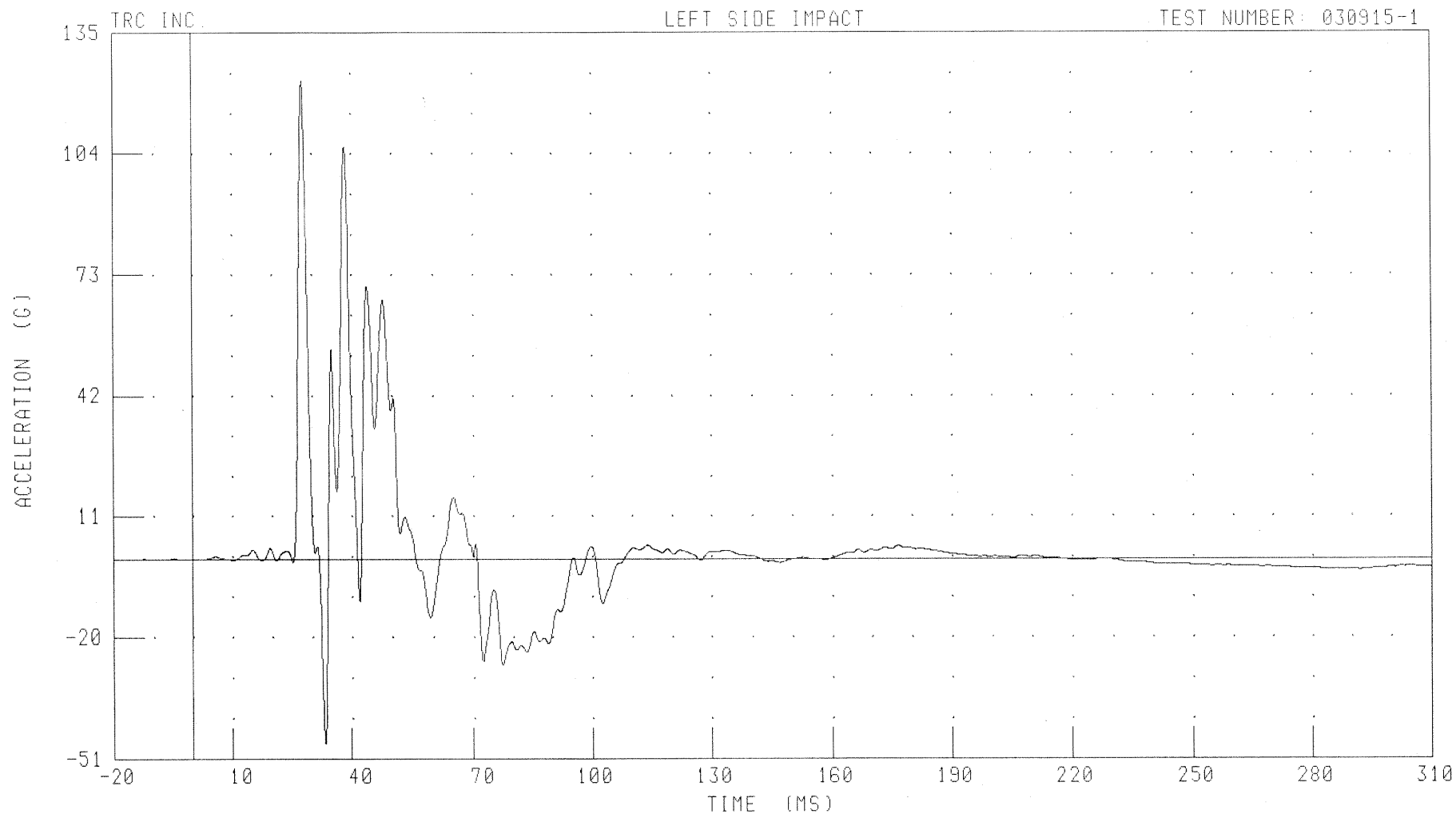
B-291

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YG4 FILTER: CH. CLASS 180

PEAK DATA: 122.78 G @ 27.68 MS; -47.00 G @ 33.20 MS

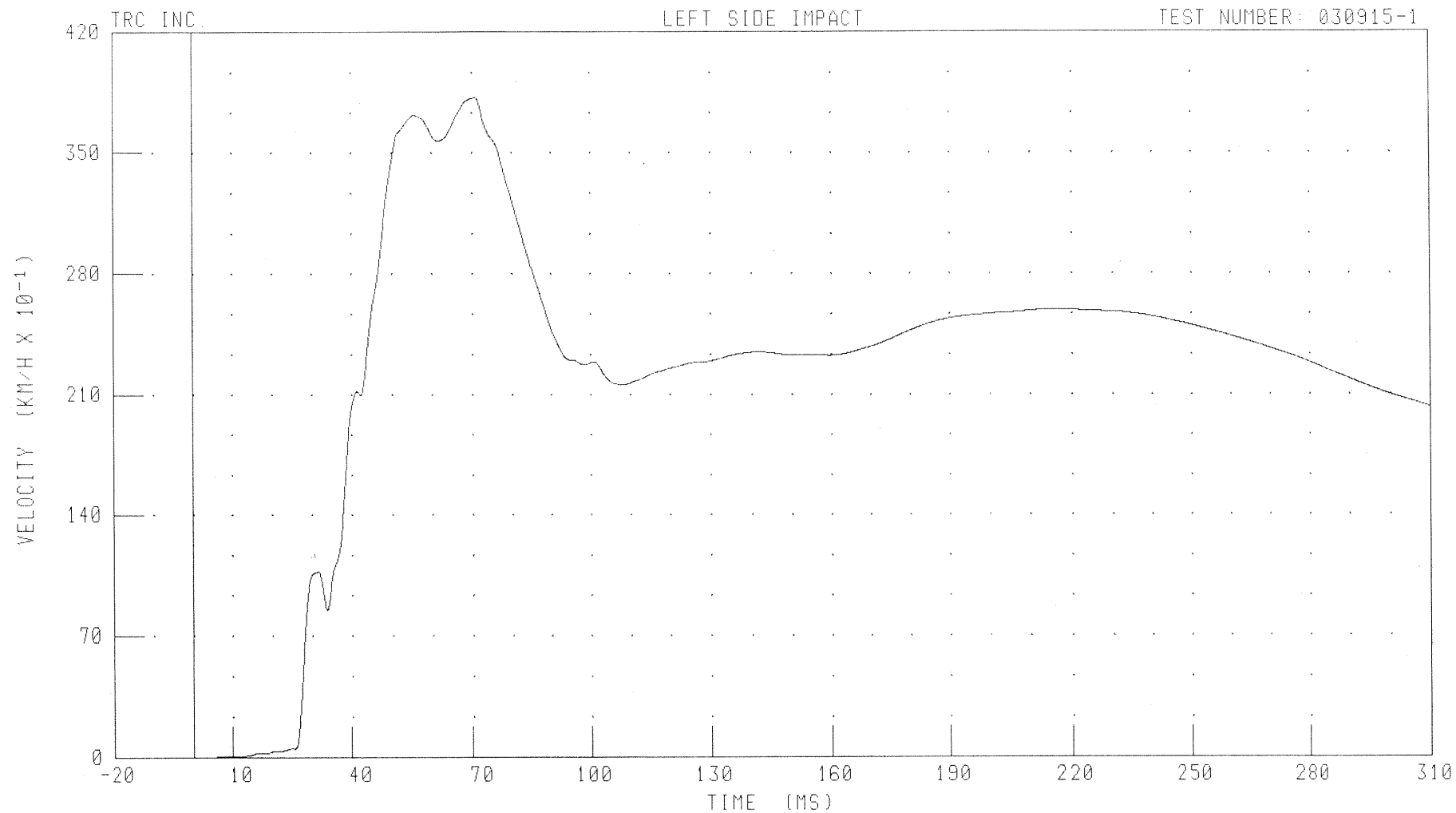
B-292

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YV4 FILTER: CH. CLASS 180

PEAK DATA: 38.23 KM/H @ 70.96 MS; 0.00 KM/H @ 0.00 MS

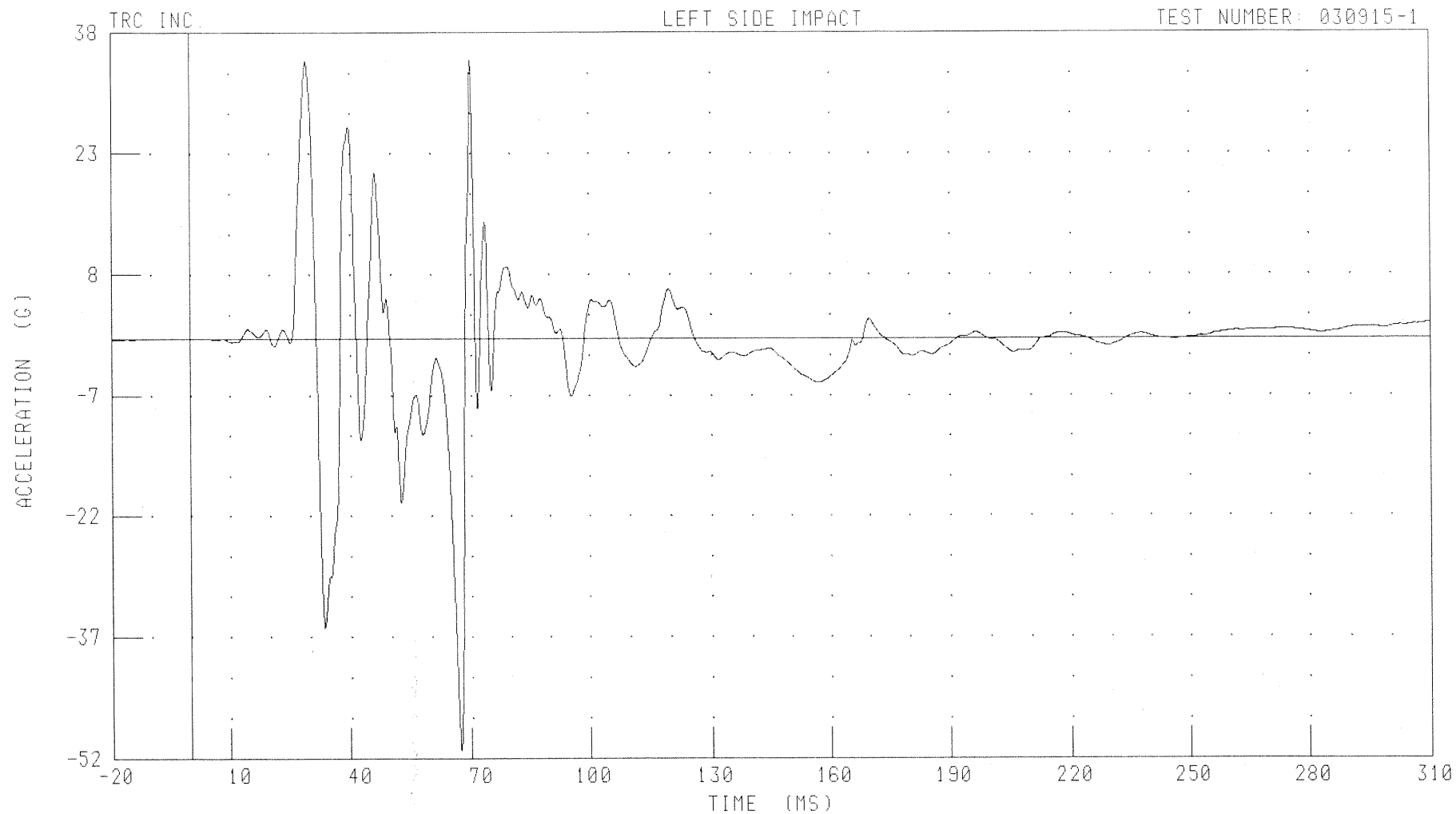
B-293

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZG4 FILTER: CH. CLASS 180

PEAK DATA: 34.62 G @ 70.16 MS; -50.94 G @ 67.28 MS

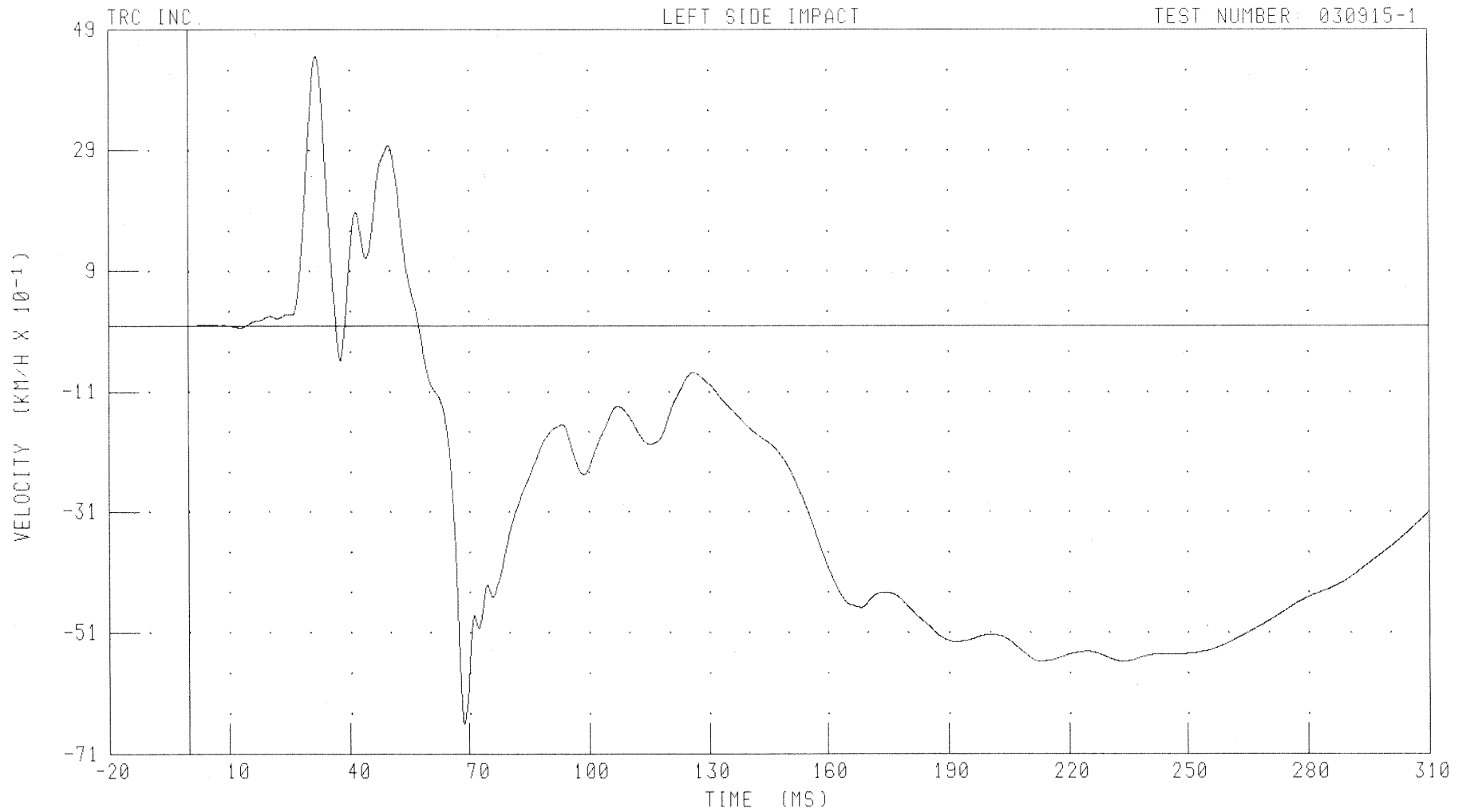
B-294

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZV4

FILTER: CH. CLASS 180

PEAK DATA: 4.46 KM/H @ 31.84 MS, -6.61 KM/H @ 68.64 MS

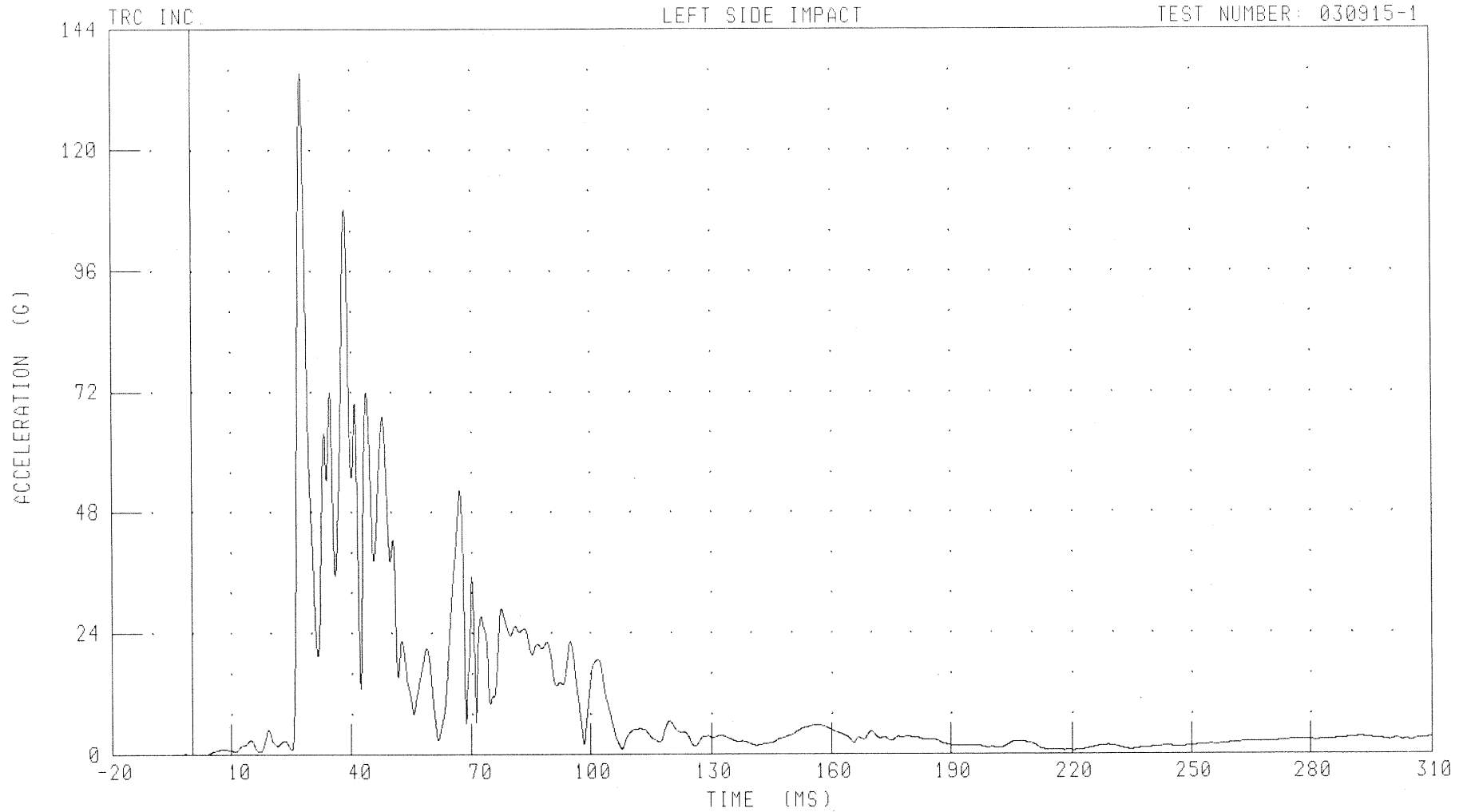
B-295

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5RG4 FILTER: CH. CLASS 180

PEAK DATA: 135.34 G @ 27.68 MS, 0.00 G @ -16.00 MS

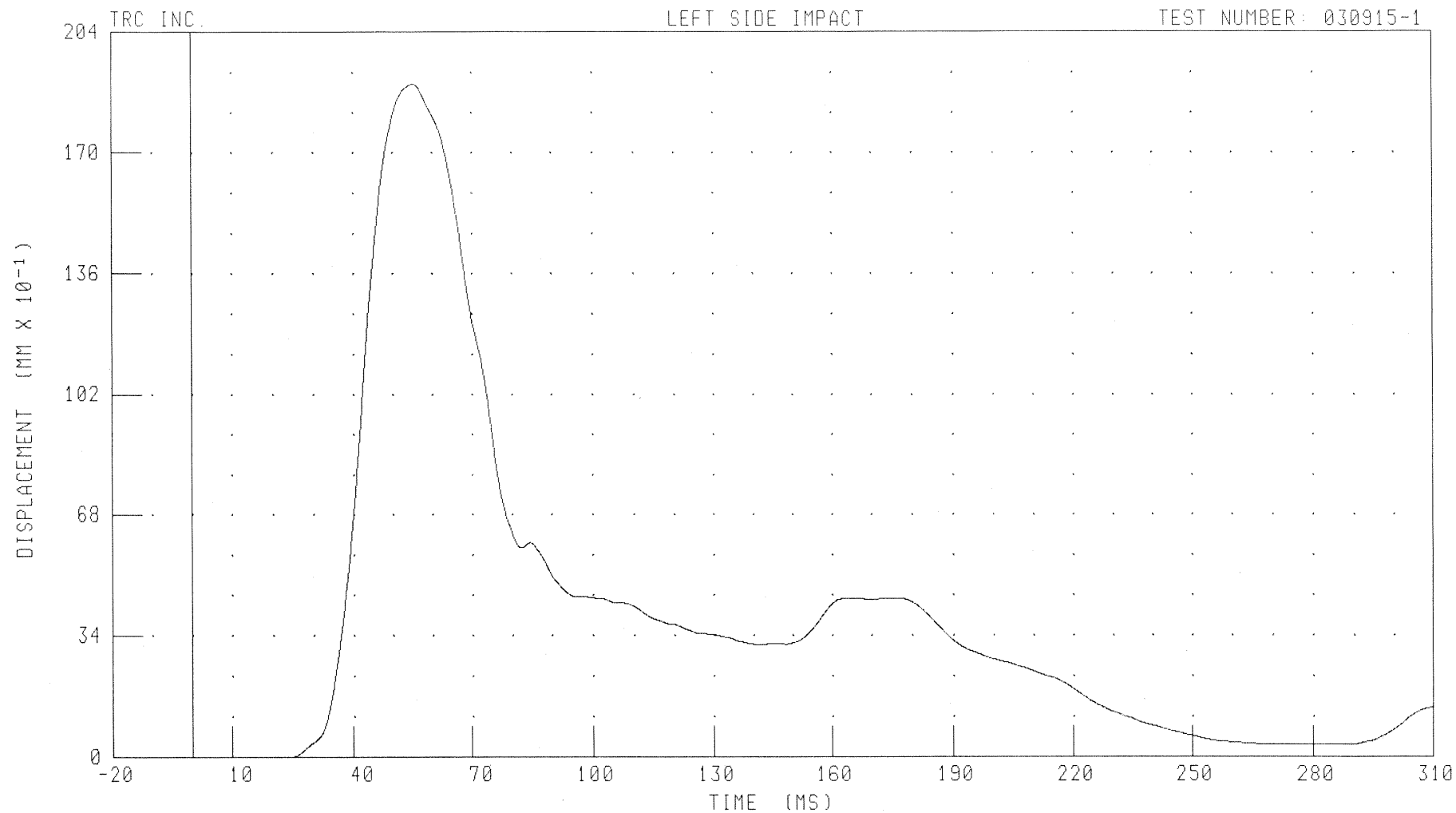
B-296

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YD4

FILTER: CH. CLASS 180

PEAK DATA: 18.93 MM @ 55.28 MS; -0.02 MM @ 19.68 MS

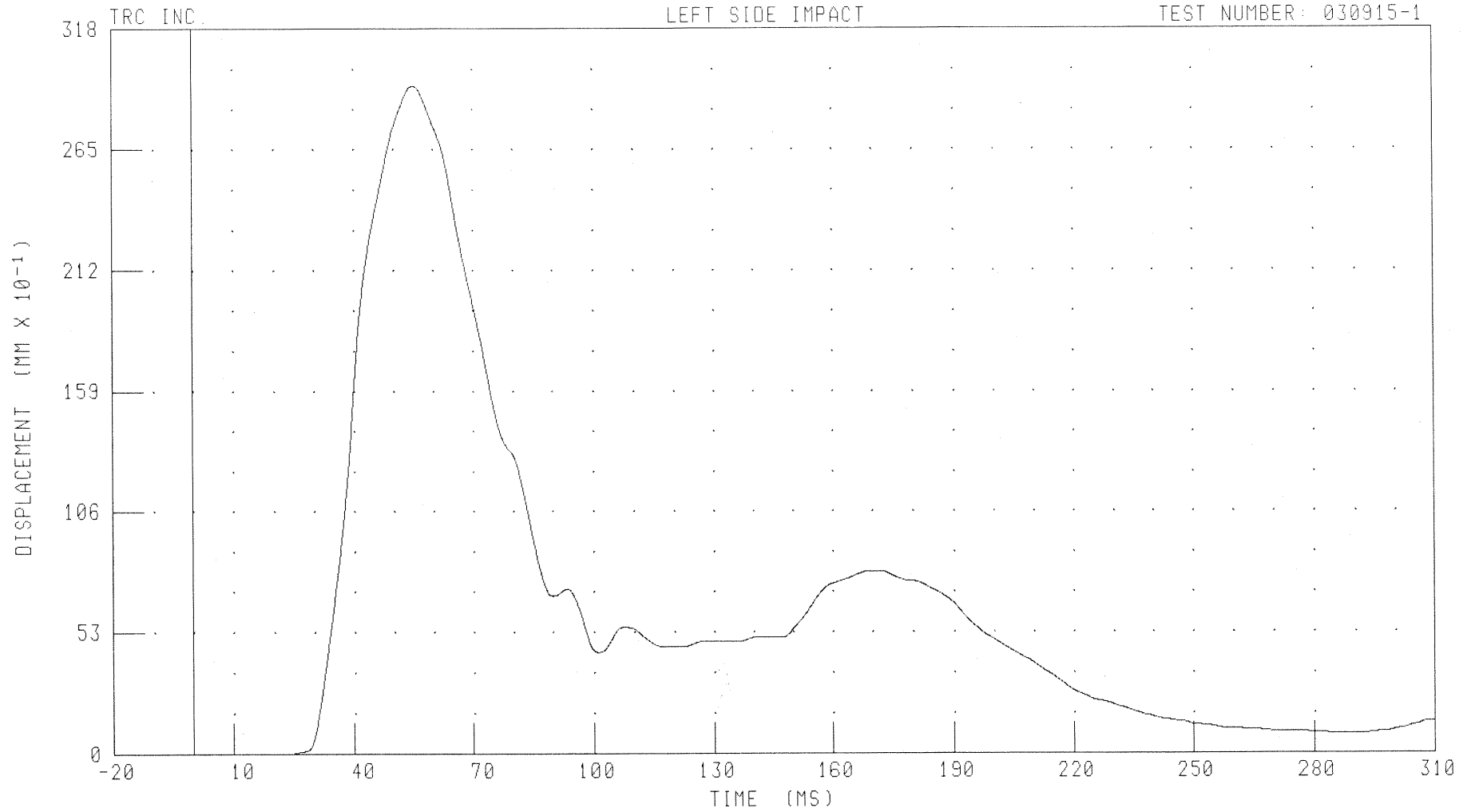
B-297

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YD4 FILTER: CH. CLASS 180

PEAK DATA: 29.30 MM @ 55.20 MS; -0.01 MM @ 23.12 MS

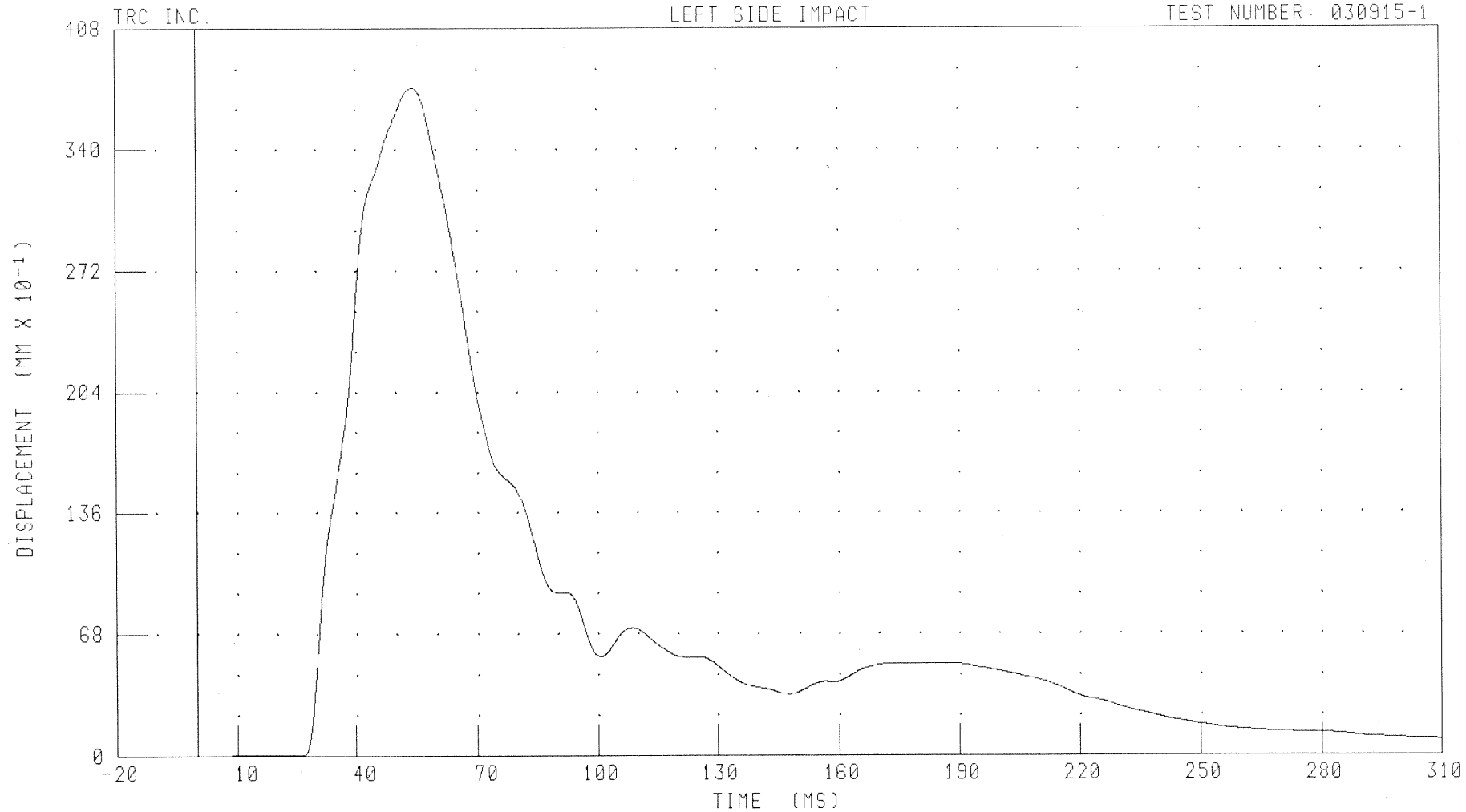
B-298

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YD4 FILTER: CH. CLASS 180

PEAK DATA: 37.47 MM @ 54.24 MS; 0.00 MM @ -12.72 MS

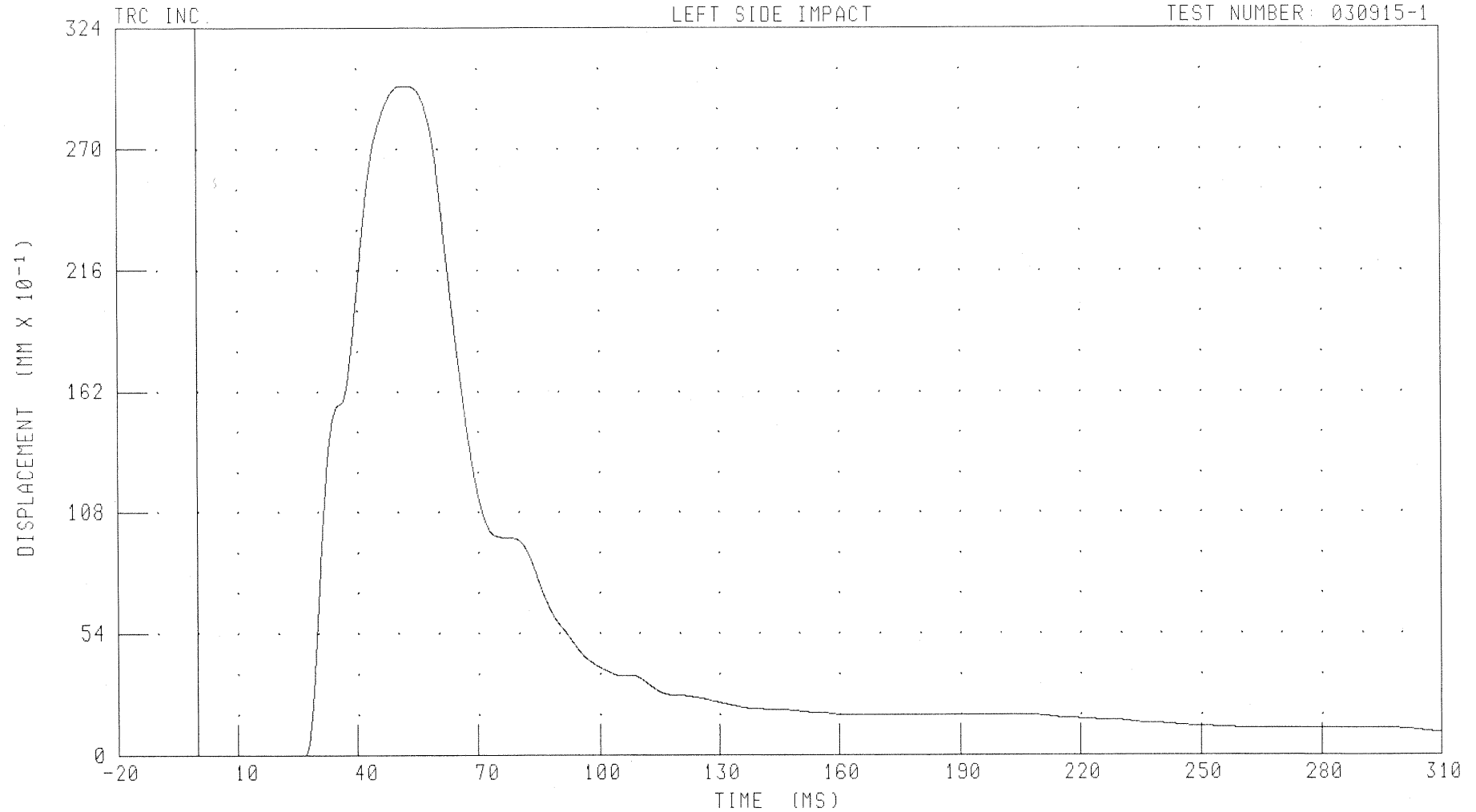
B-299

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 4 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YD4 FILTER: CH. CLASS 180

PEAK DATA: 29.81 MM @ 50.96 MS; -0.03 MM @ 26.24 MS

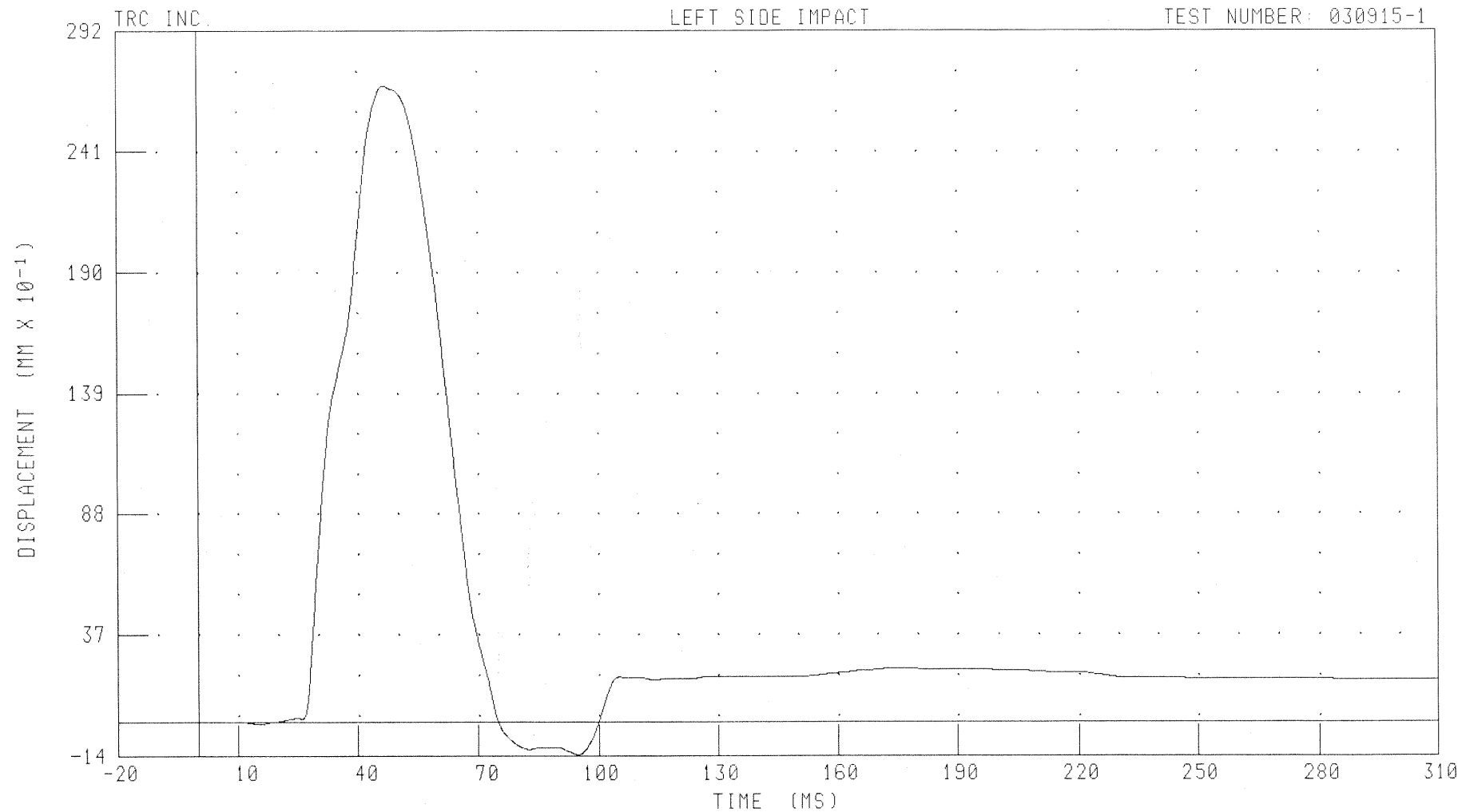
B-300

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 5 Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YD4 FILTER: CH. CLASS 180

PEAK DATA: 26.90 MM @ 46.64 MS; -1.35 MM @ 94.72 MS

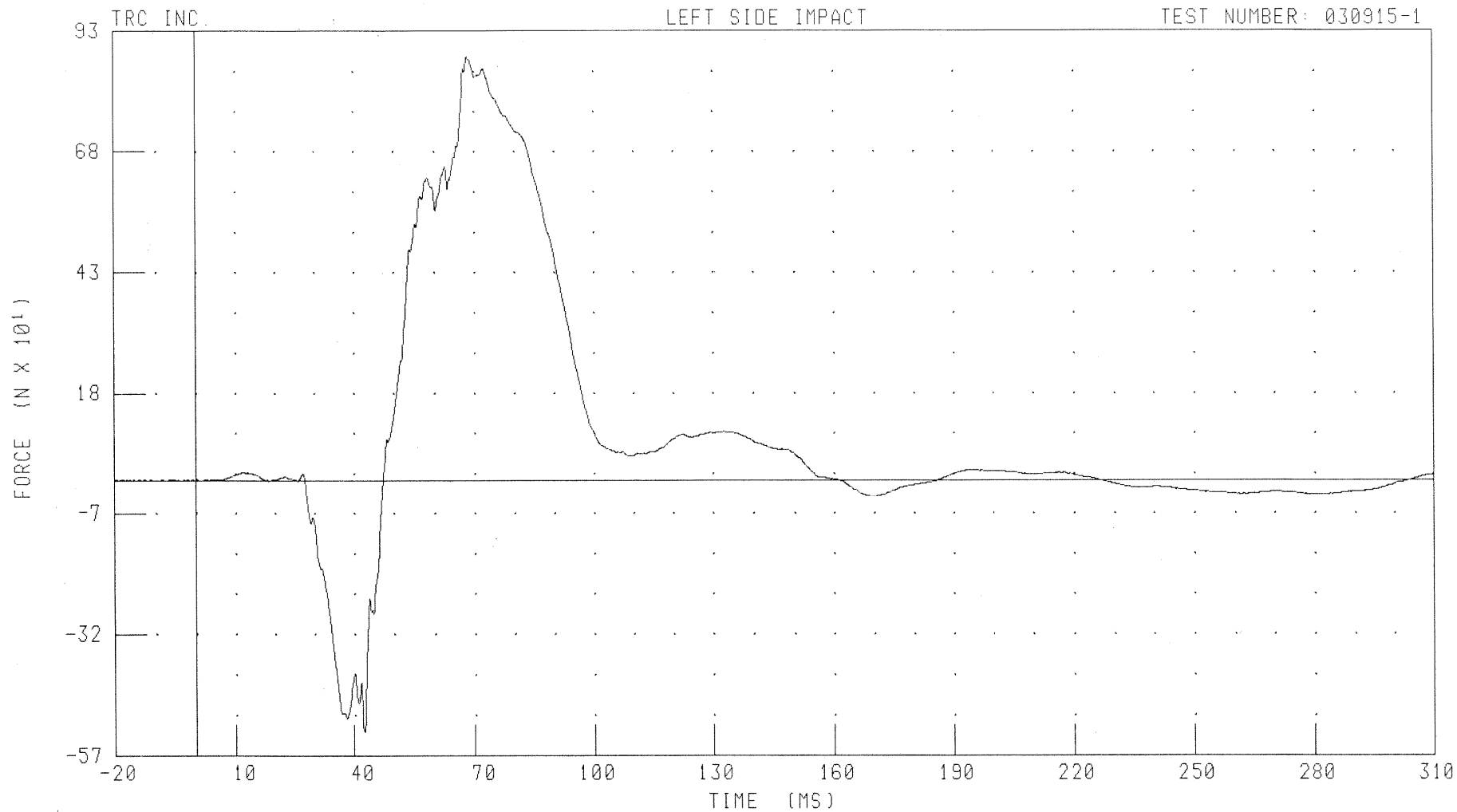
B-301

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBXF4 FILTER: CH. CLASS 600

PEAK DATA: 876.57 N @ 68.24 MS; -521.29 N @ 42.64 MS

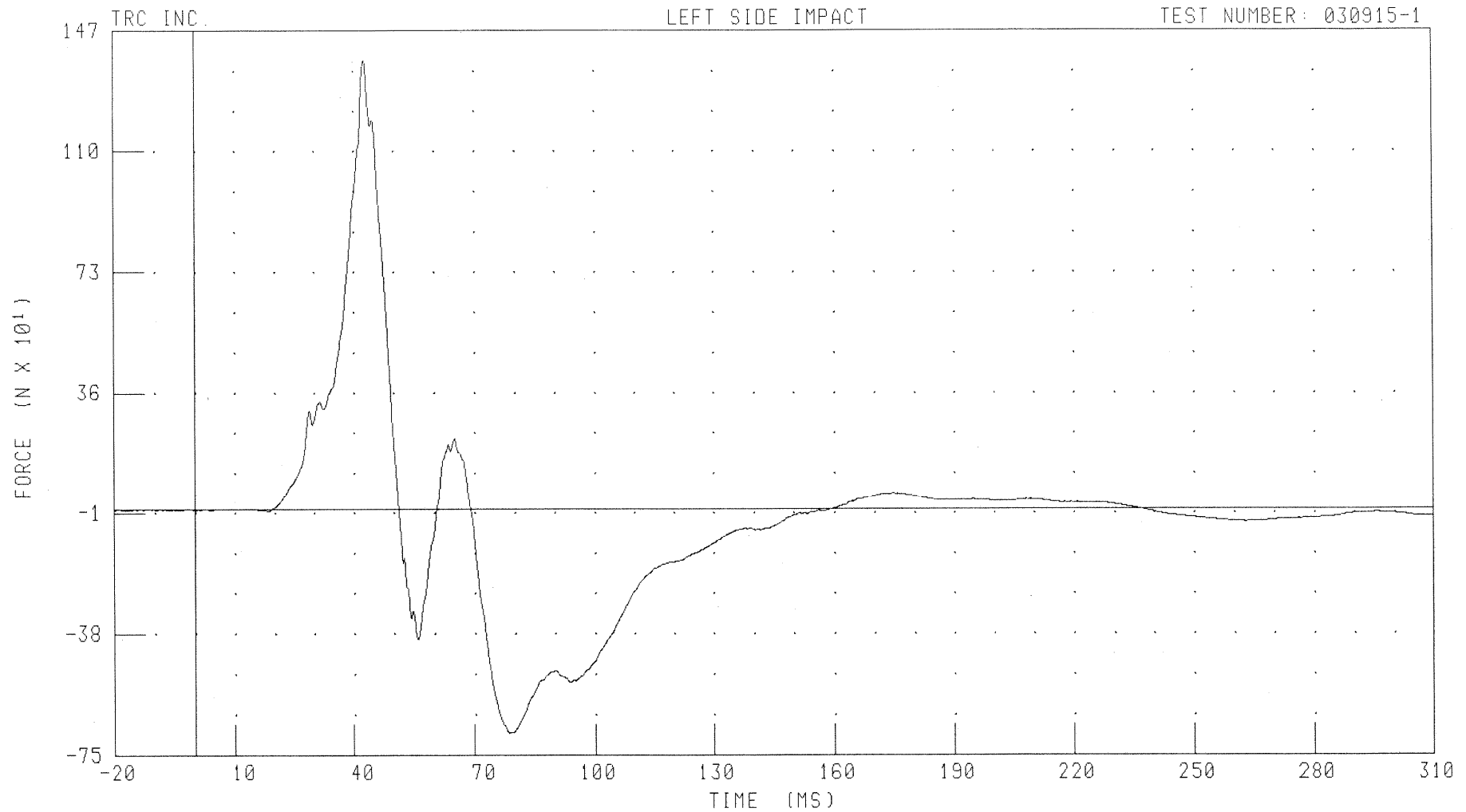
B-302

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYF4 FILTER: CH. CLASS 600

PEAK DATA: 1379.22 N @ 42.96 MS; -683.13 N @ 78.56 MS

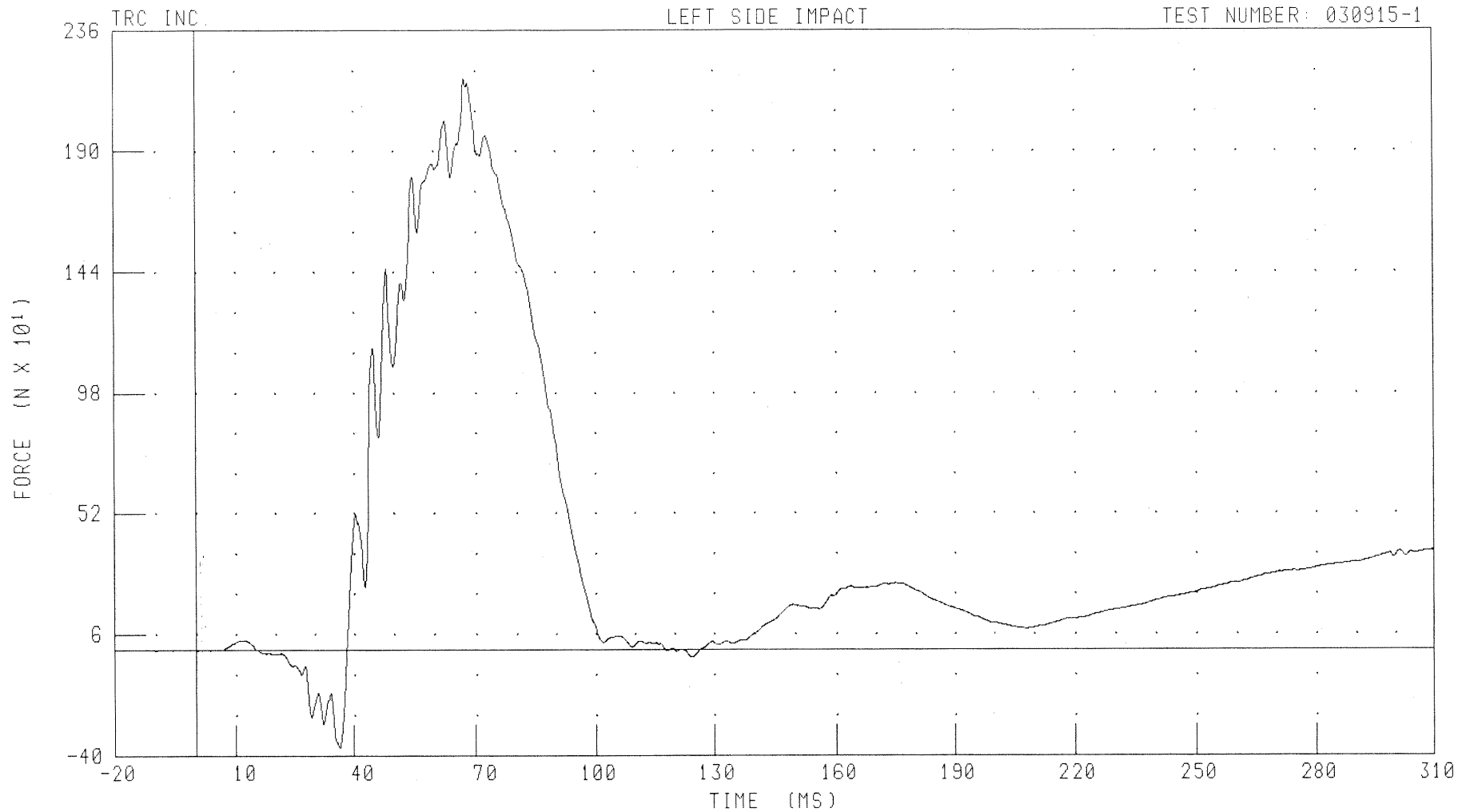
B-303

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBZF4 FILTER: CH. CLASS 600

PEAK DATA: 2179.21 N @ 67.44 MS; -370.72 N @ 36.32 MS

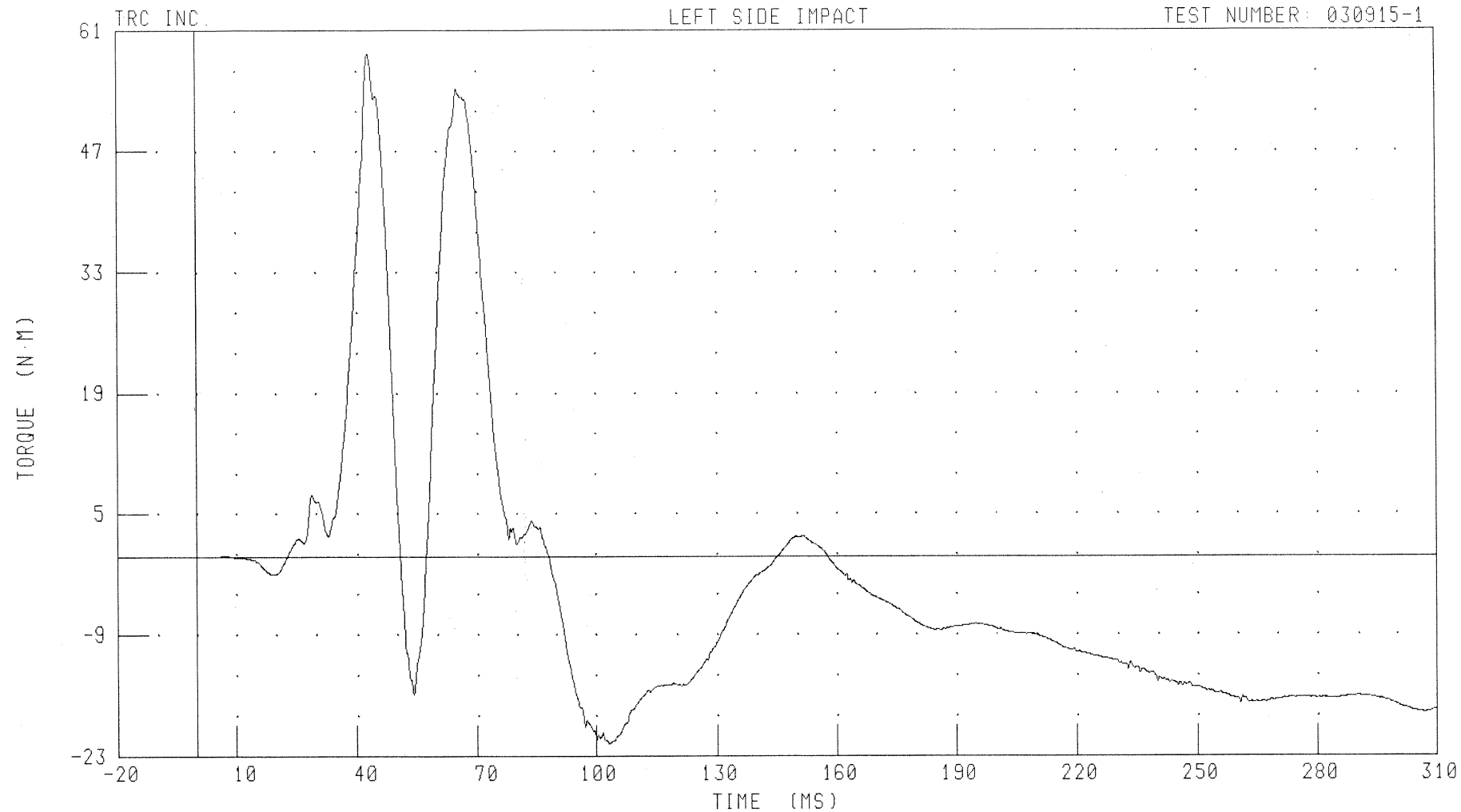
B-304

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



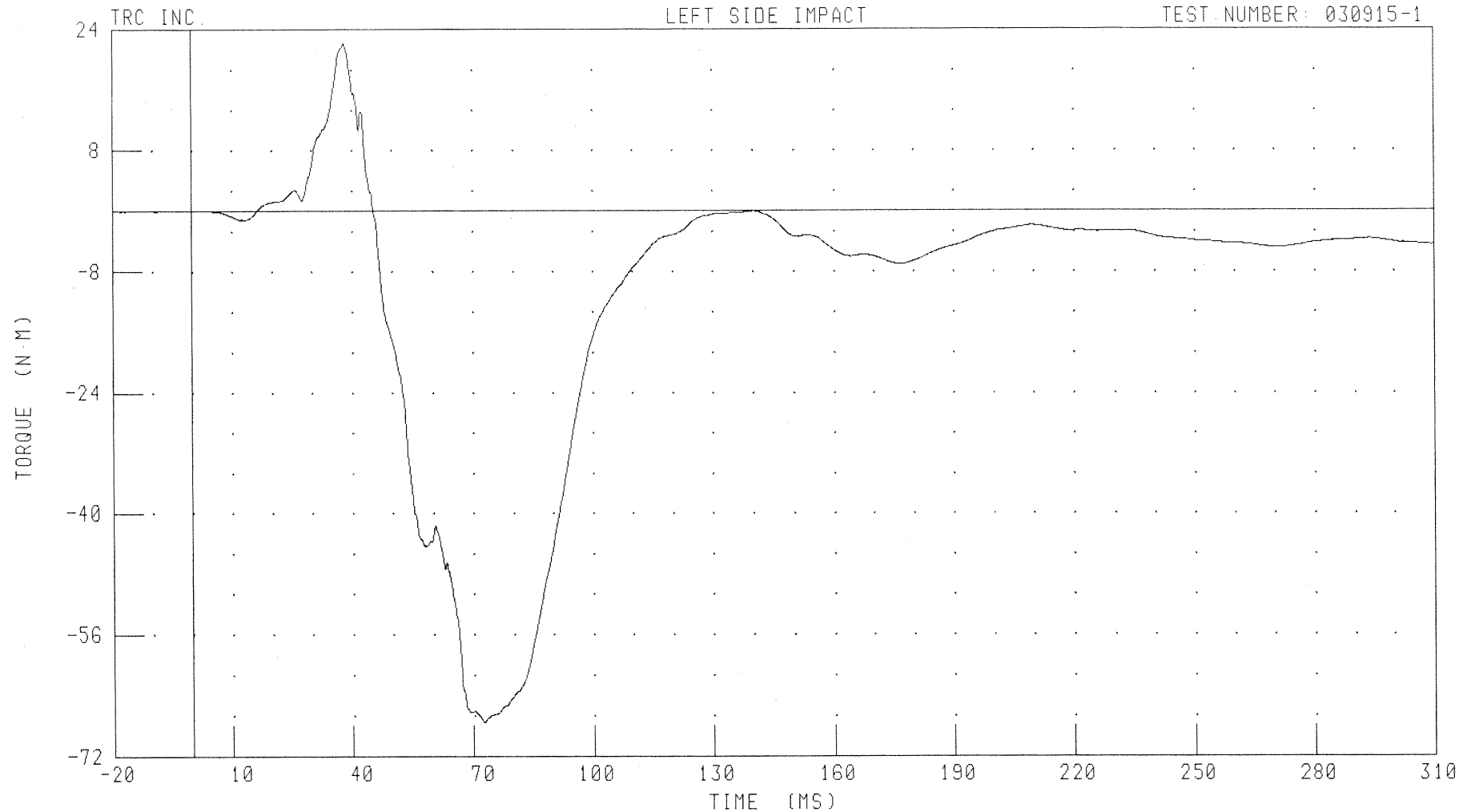
CHANNEL: LMBXM4 FILTER: CH. CLASS 600

PEAK DATA: 58.36 N·M @ 43.04 MS; -21.58 N·M @ 103.44 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYM4 FILTER: CH. CLASS 600

PEAK DATA: 22.14 N·M @ 38.24 MS; -67.61 N·M @ 72.64 MS

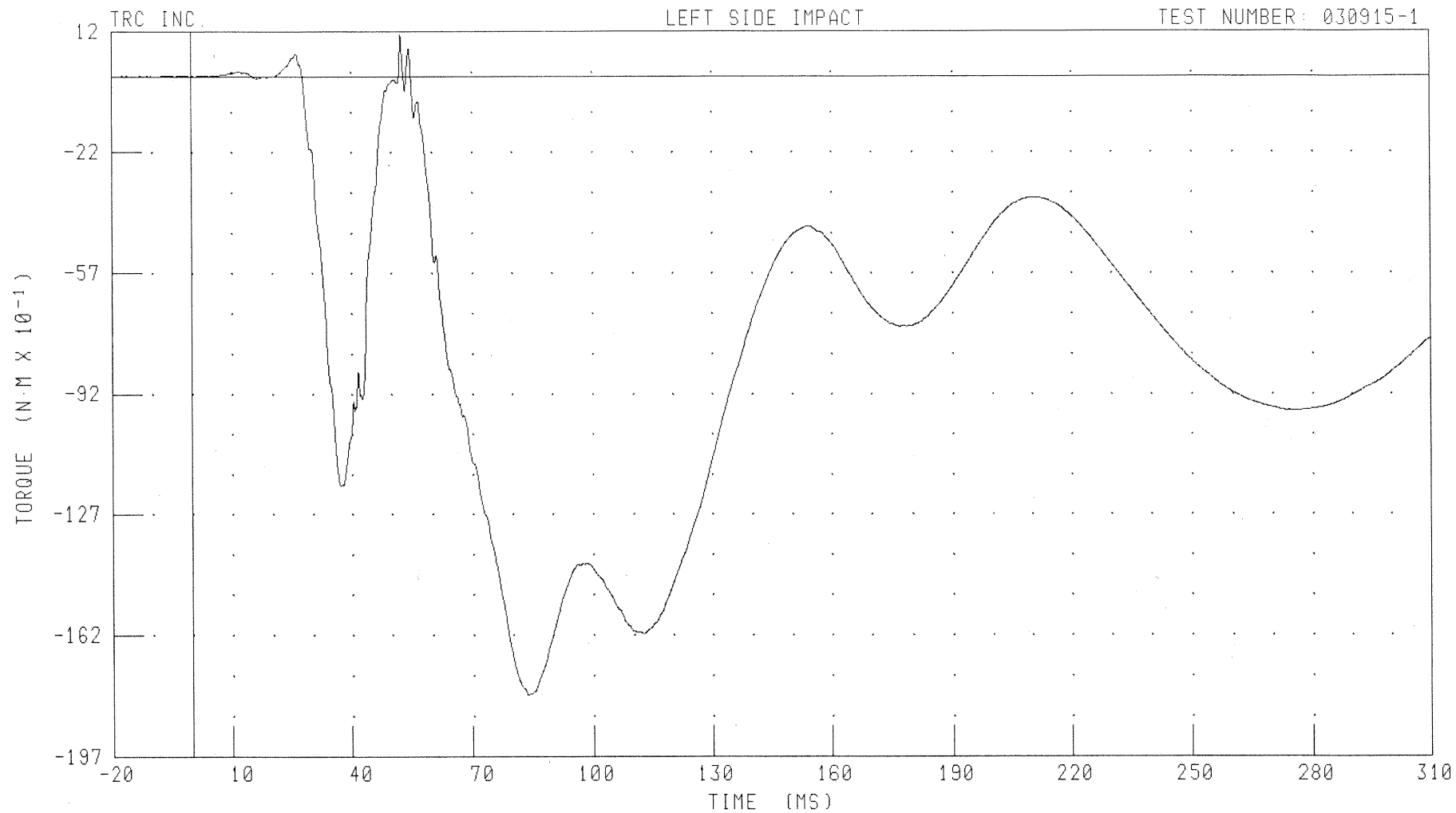
B-306

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LUMBAR MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBZM4 FILTER: CH. CLASS 600

PEAK DATA: 1.23 N·M @ 52.48 MS; -17.92 N·M @ 83.84 MS

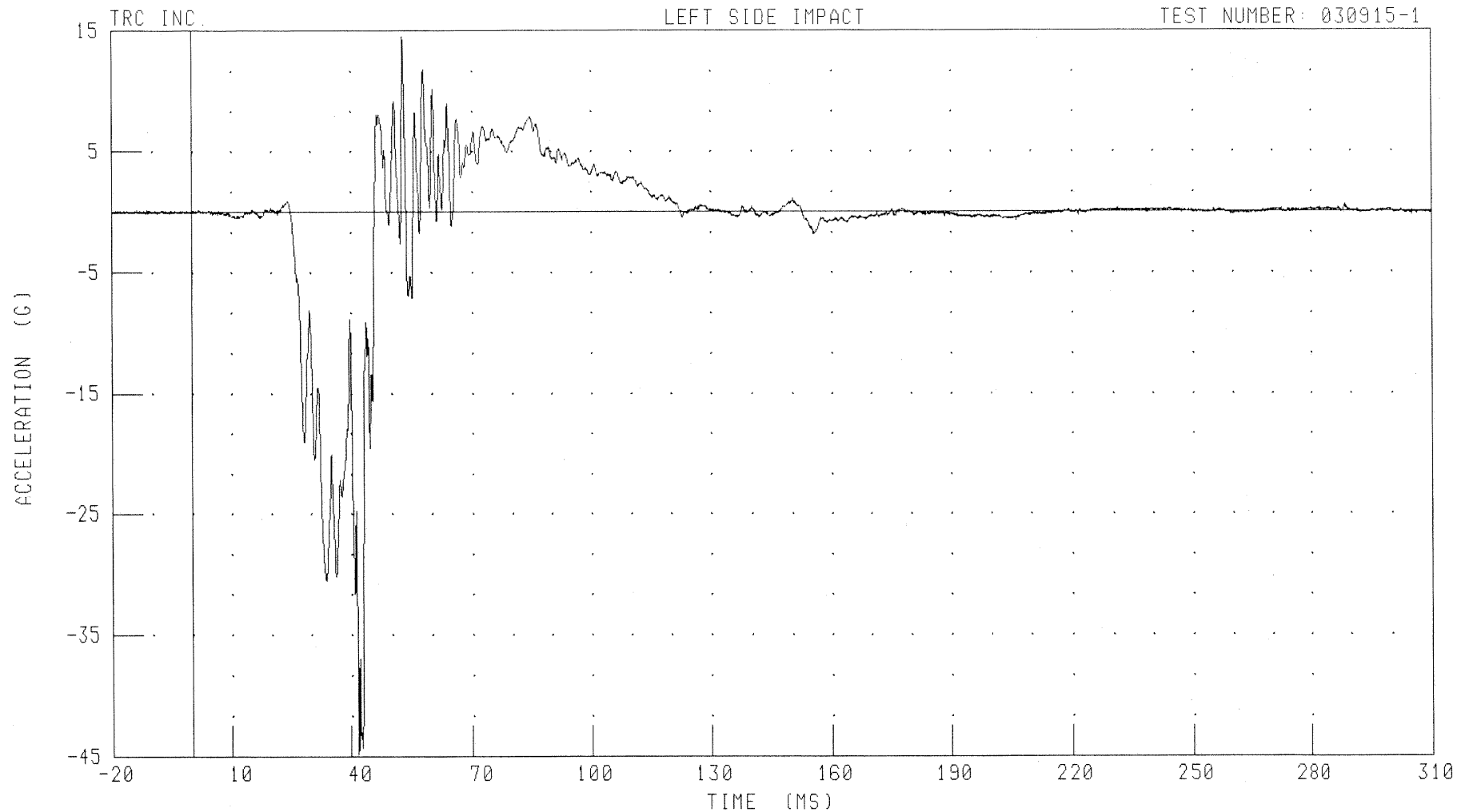
B-307

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXG4 FILTER: CH. CLASS 1000

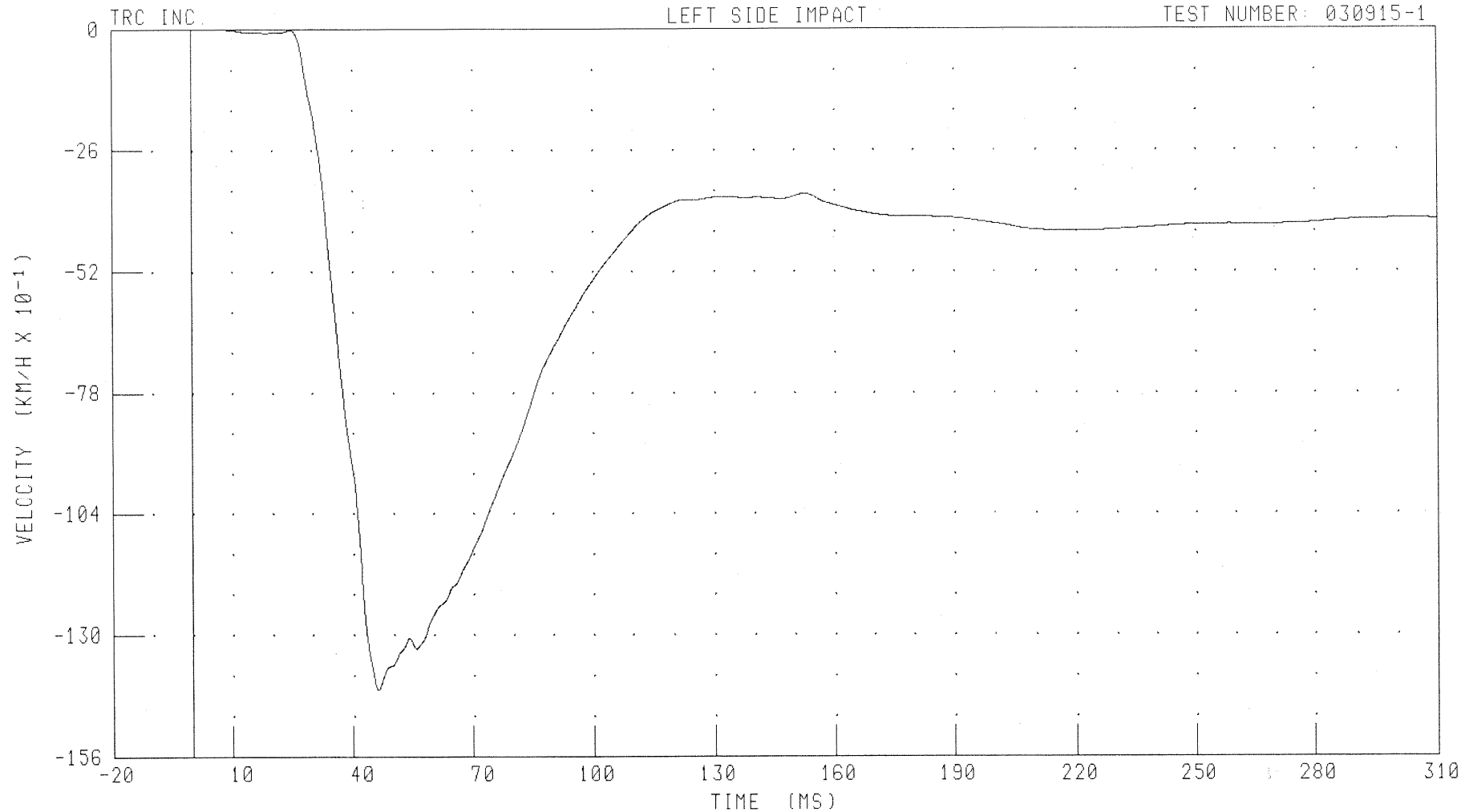
B-308

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXV4

FILTER: CH. CLASS 180

PEAK DATA: 0.01 KM/H @ 4.96 MS; -14.18 KM/H @ 46.08 MS

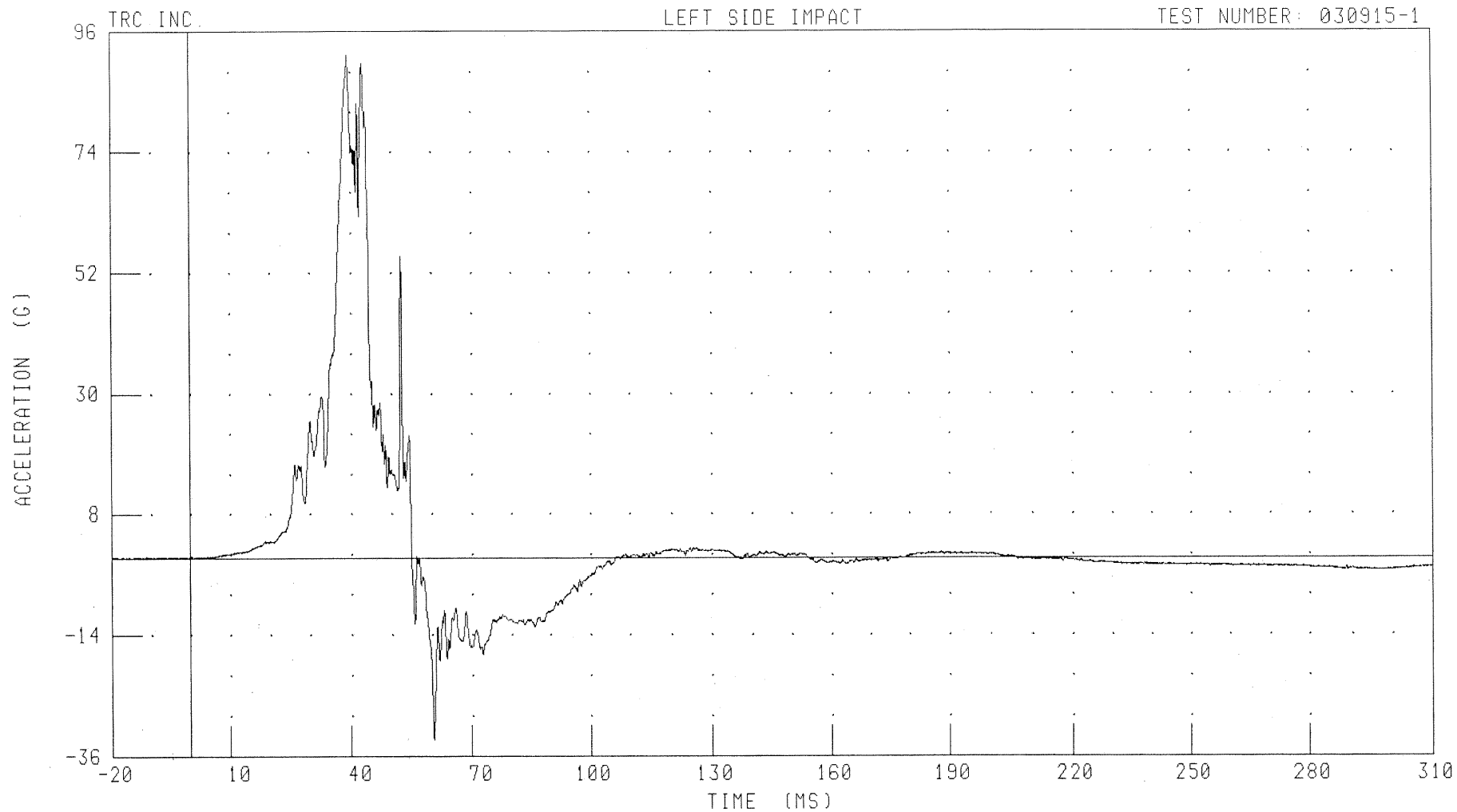
B-309

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYG4 FILTER: CH. CLASS 1000

PEAK DATA: 91.70 G @ 39.44 MS; -33.07 G @ 60.40 MS

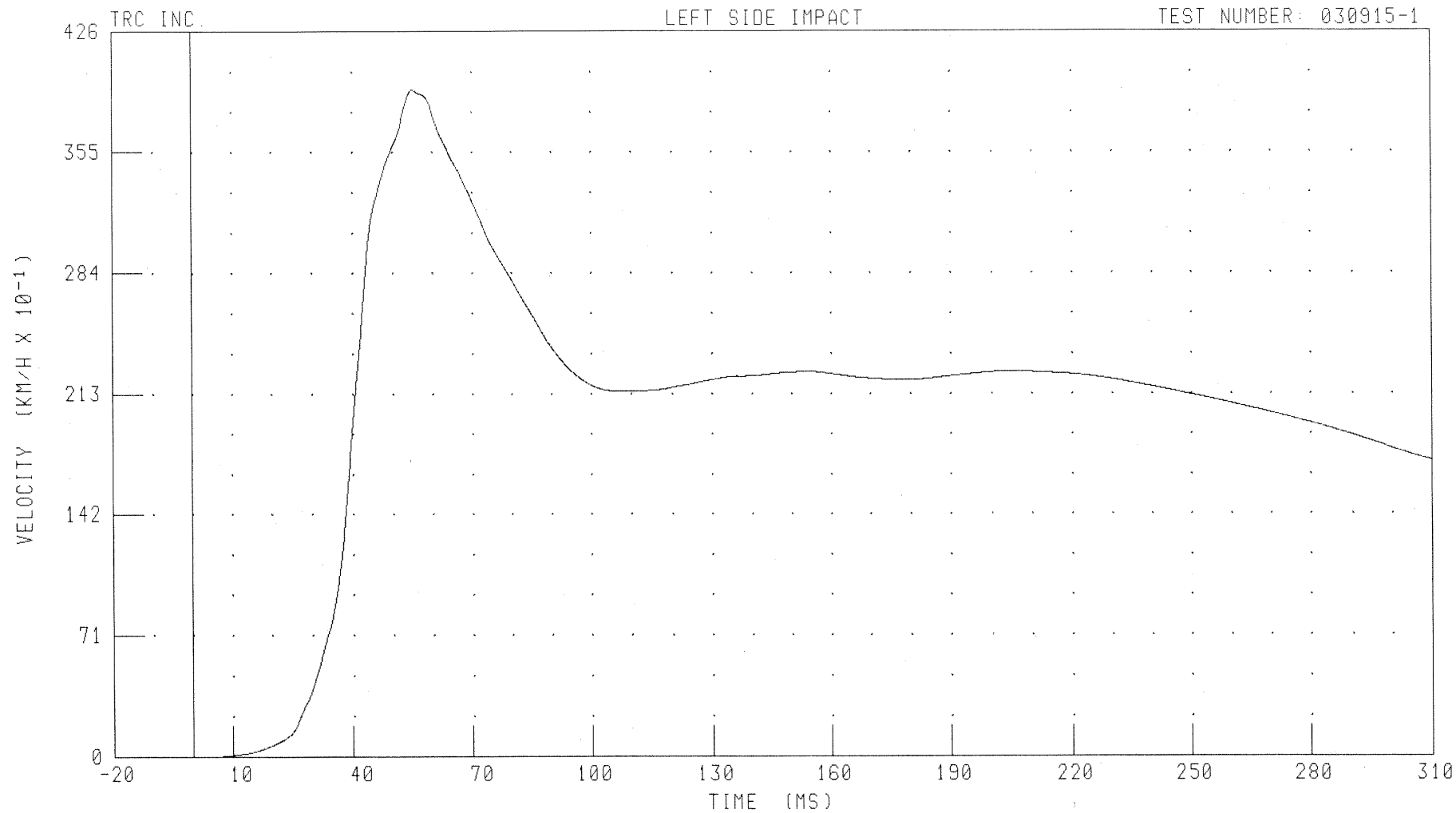
B-310

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYV4

FILTER: CH. CLASS 180

PEAK DATA: 39.20 KM/H @ 55.12 MS; 0.00 KM/H @ 0.00 MS

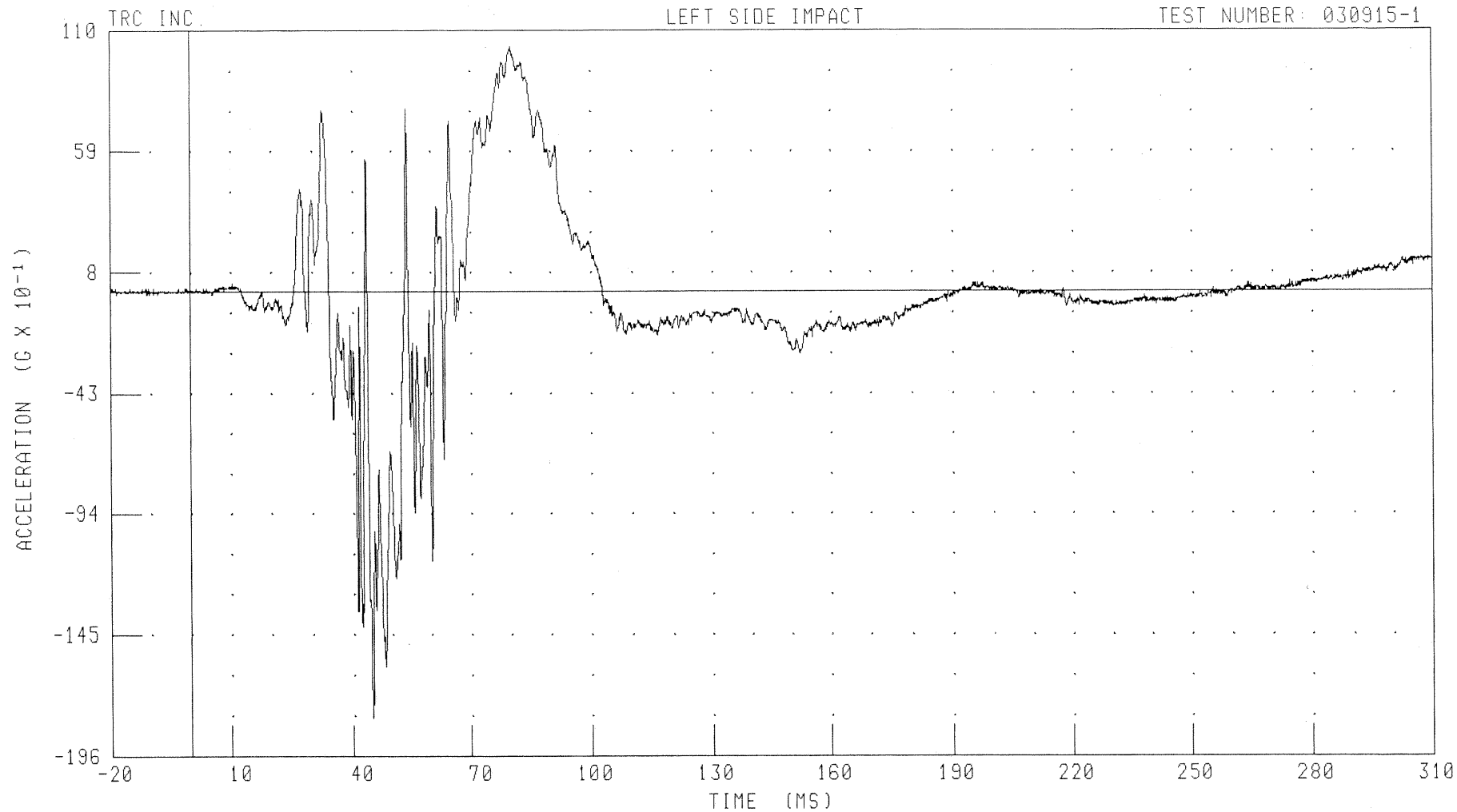
B-311

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZG4 FILTER: CH. CLASS 1000

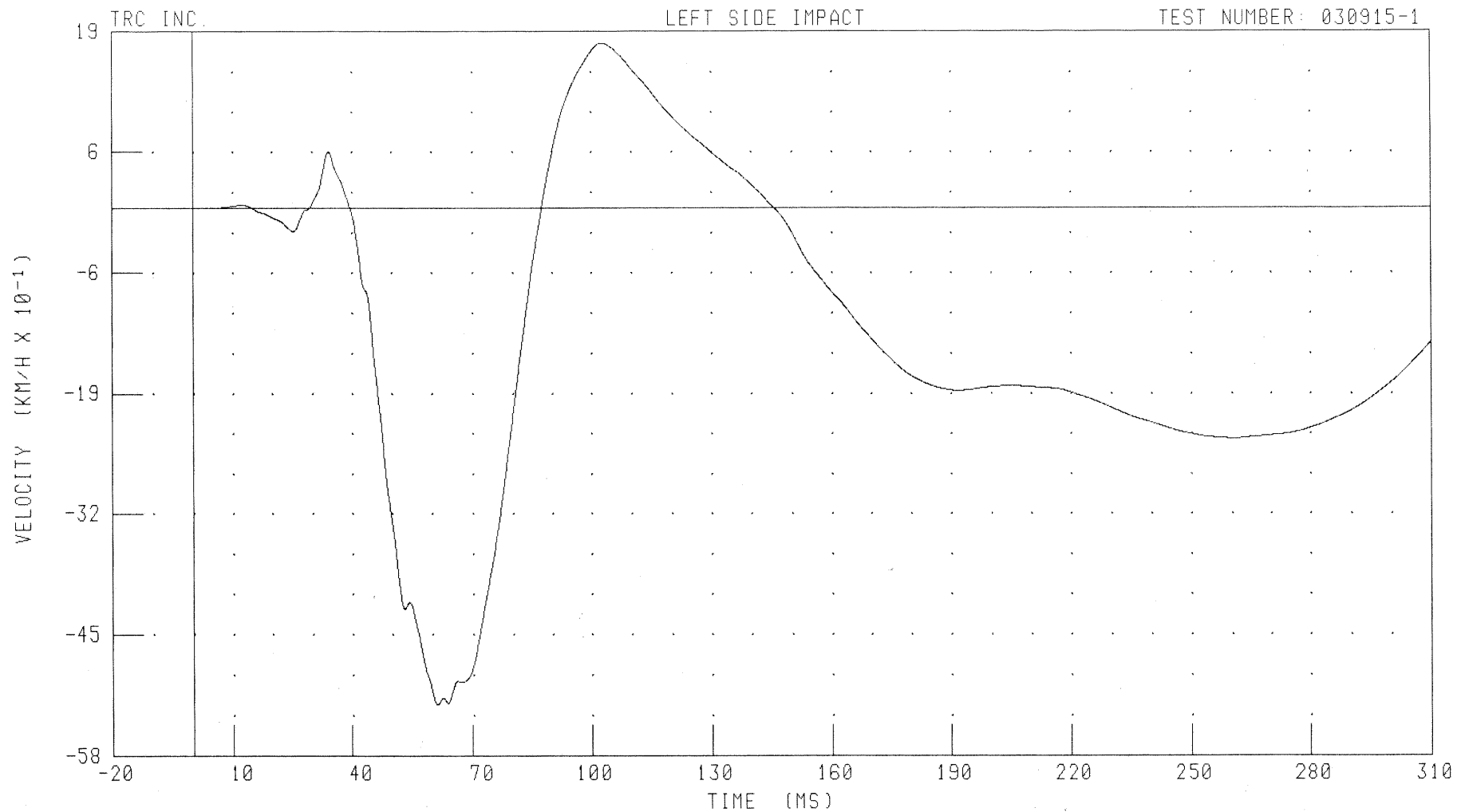
B-312

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZV4 FILTER: CH. CLASS 180

PEAK DATA: 1.78 KM/H @ 102.88 MS; -5.36 KM/H @ 61.20 MS

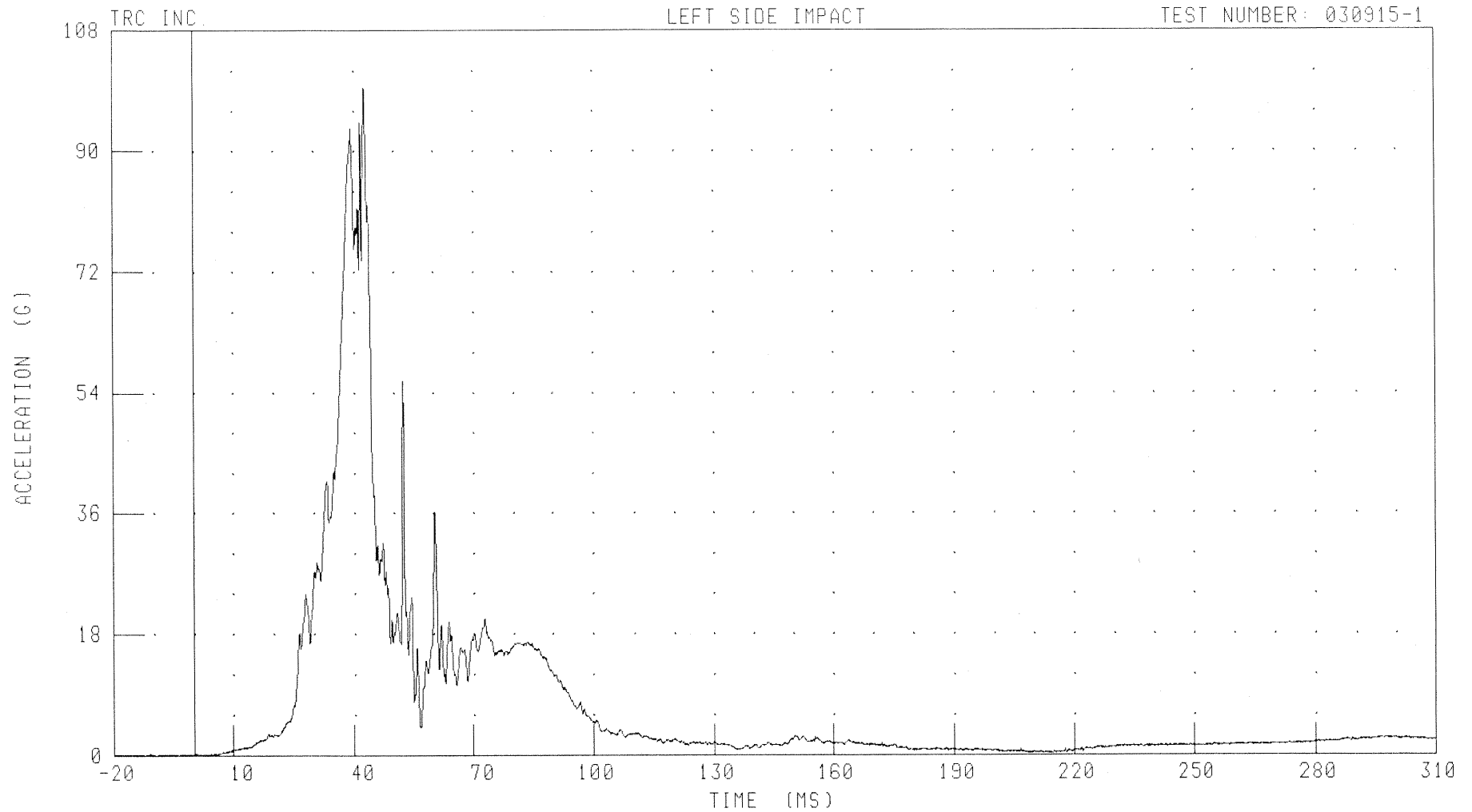
B-313

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVRG4 FILTER: CH. CLASS 1000

PEAK DATA: 99.54 G @ 42.80 MS; 0.03 G @ -17.52 MS

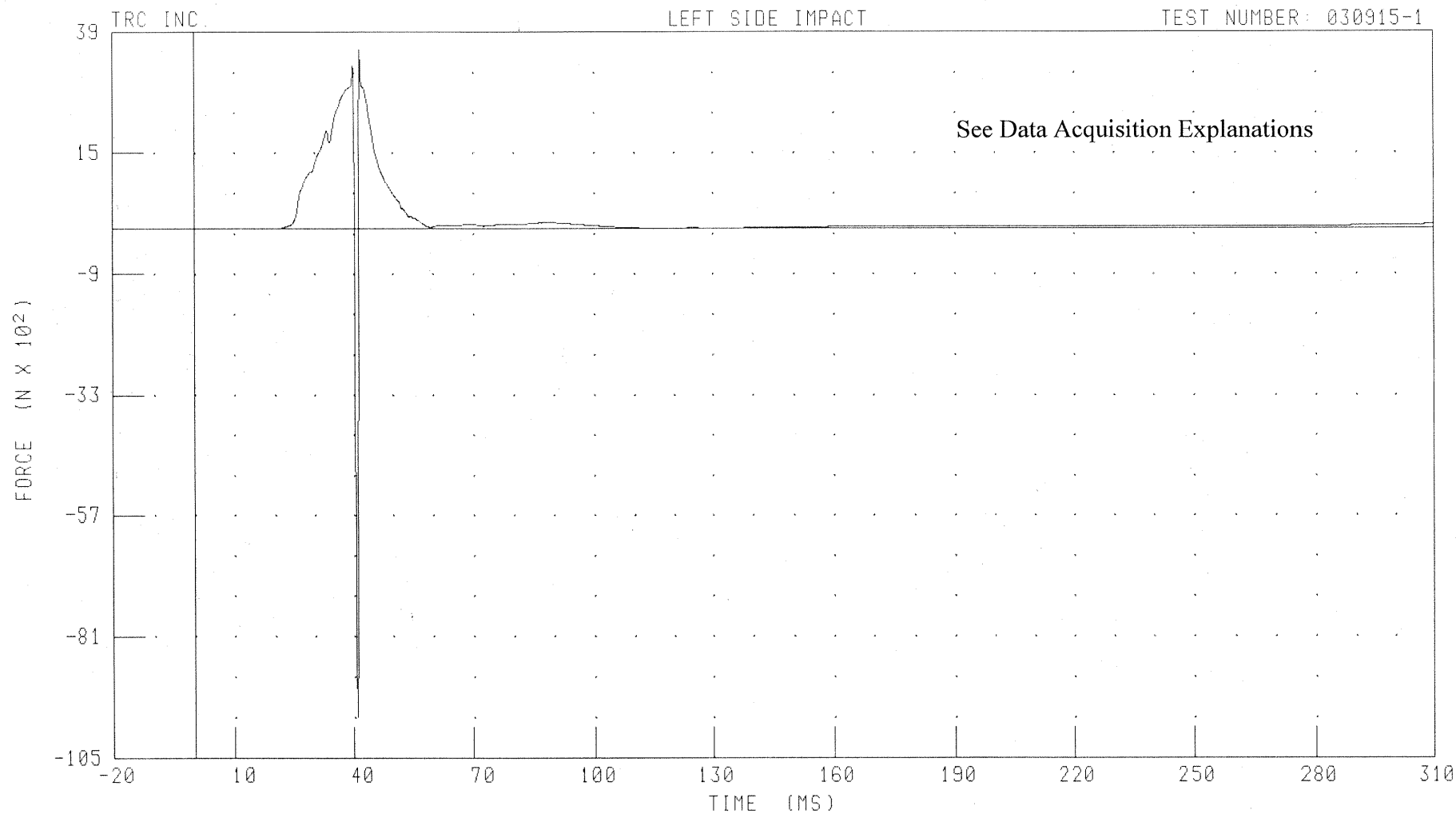
B-314

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT ACETABULUM Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LACYF4 FILTER: CH. CLASS 600

PEAK DATA: 3561.78 N @ 41.68 MS; -9682.78 N @ 40.88 MS

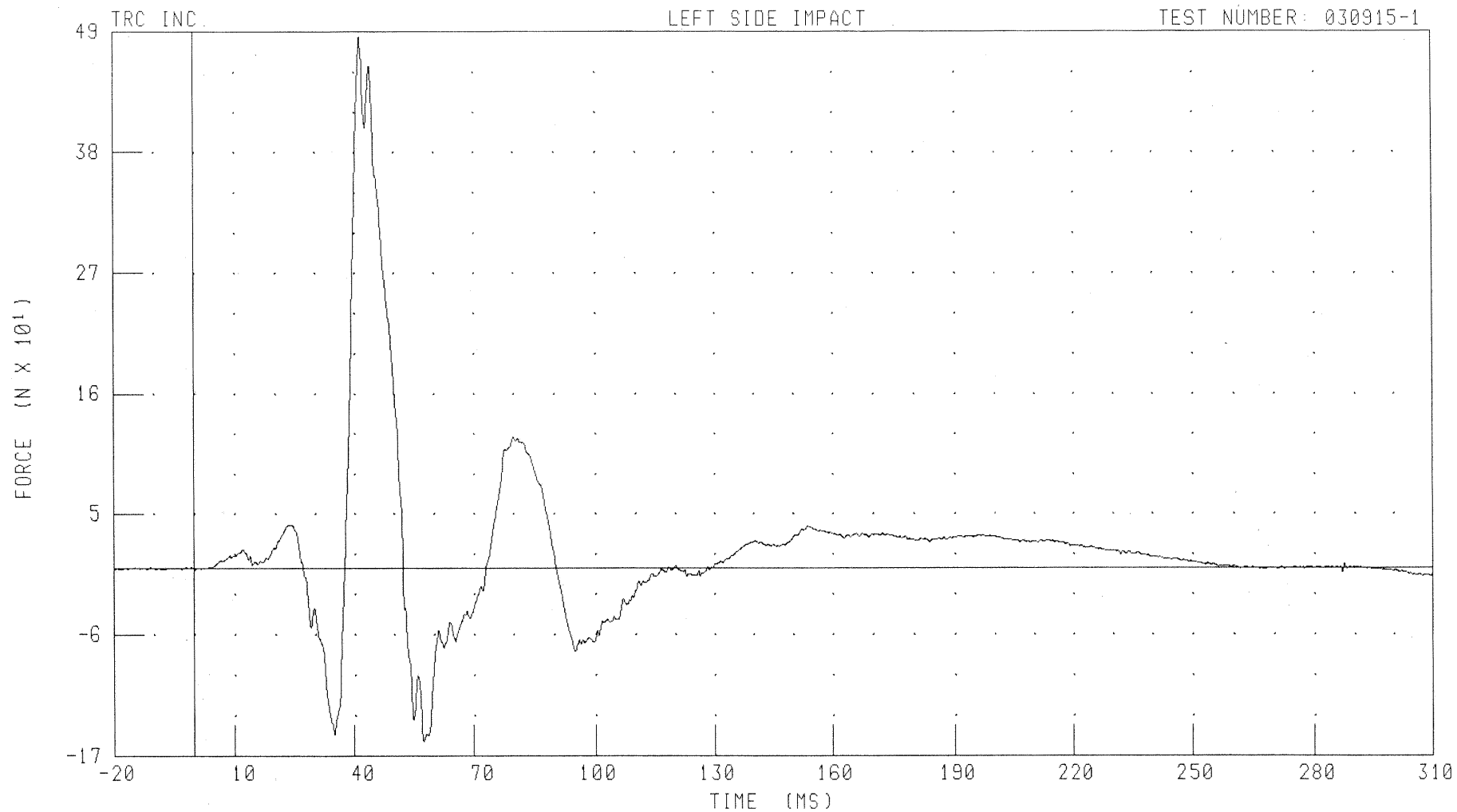
B-315

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT ILLIAC WING Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LIWYF4 FILTER: CH. CLASS 600

PEAK DATA: 485.55 N @ 41.60 MS; -156.82 N @ 57.36 MS

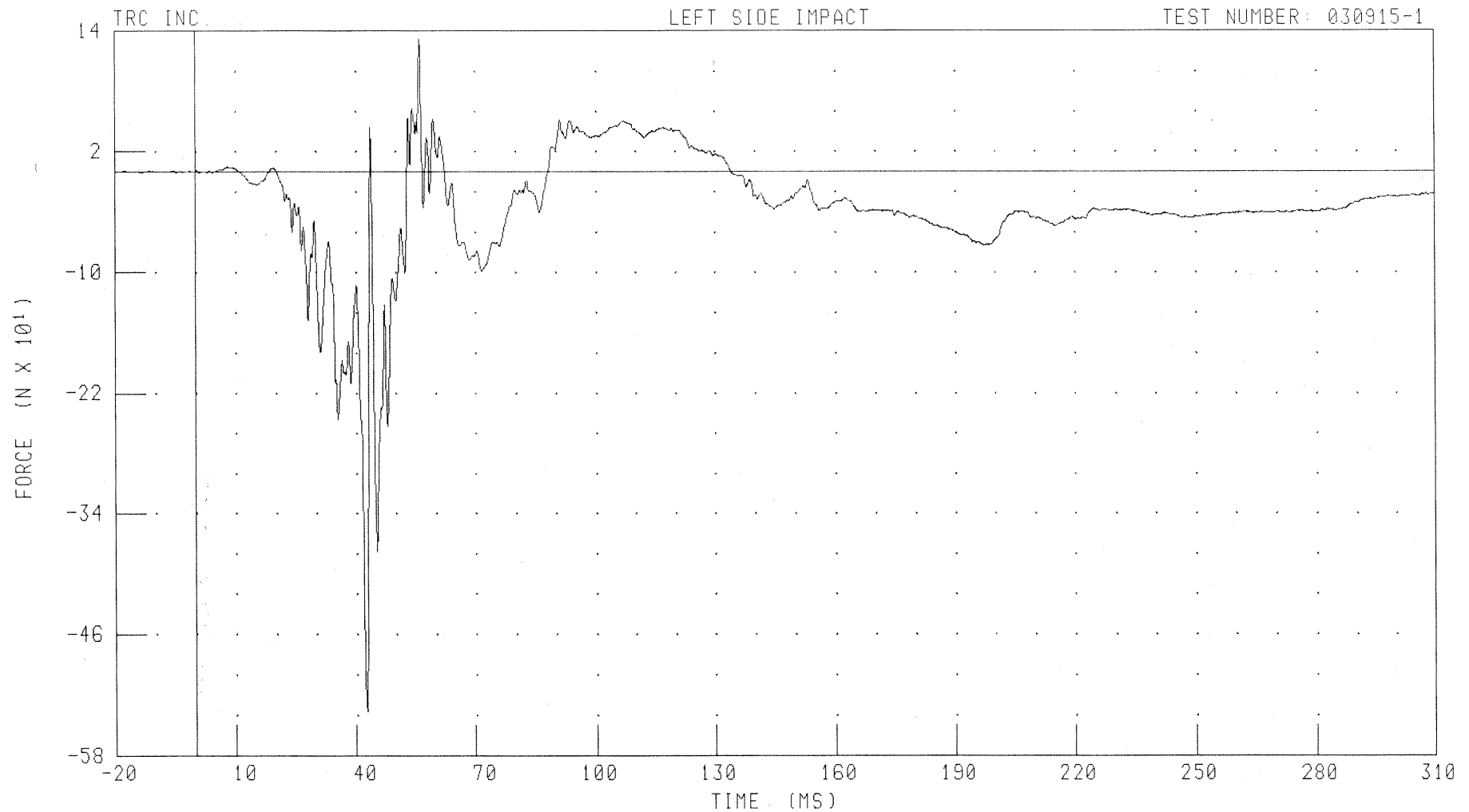
B-316

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT FEMUR X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMXF4 FILTER: CH. CLASS 600

PEAK DATA: 132.09 N @ 56.24 MS; -536.24 N @ 42.64 MS

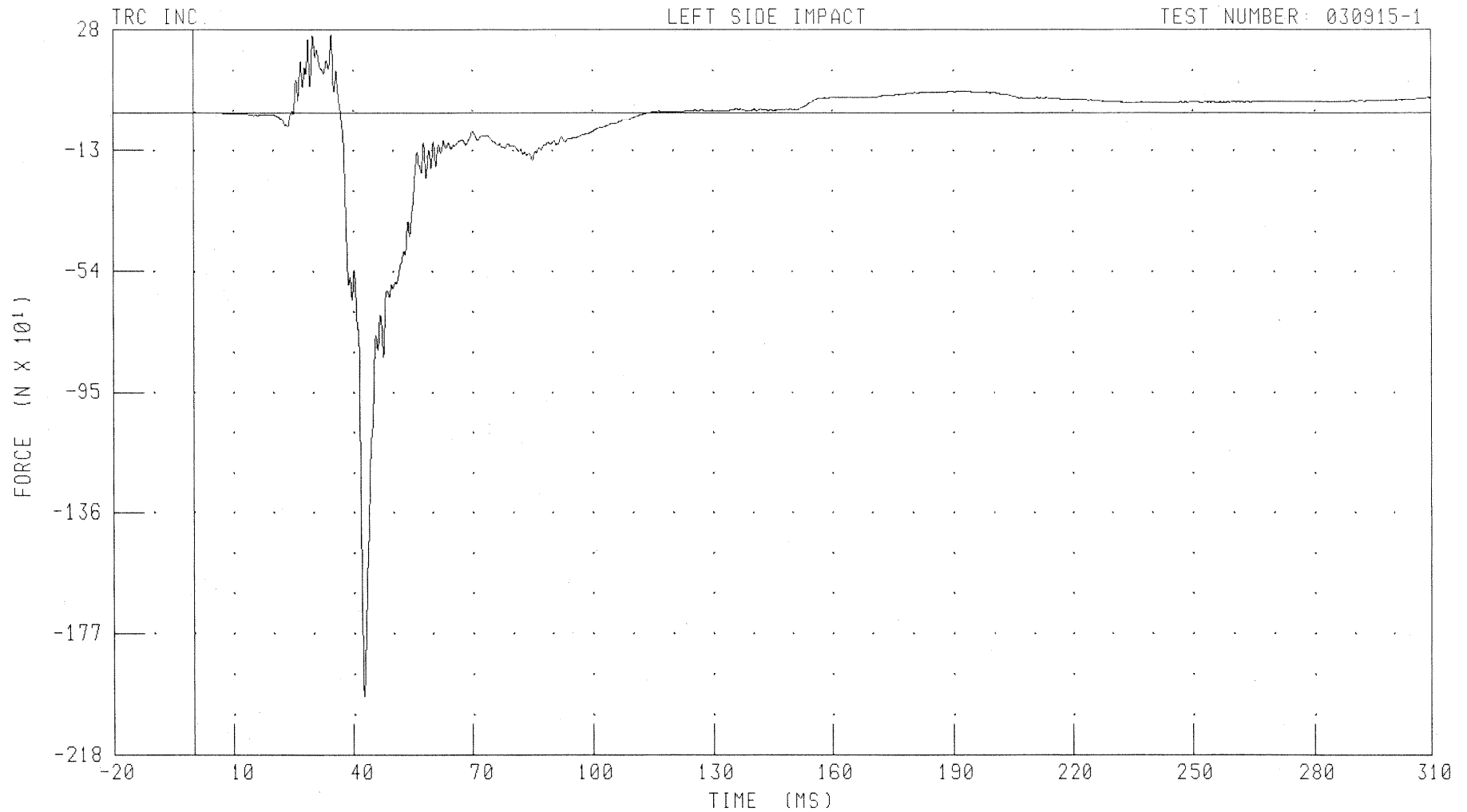
B-317

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT FEMUR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYF4 FILTER: CH. CLASS 600

PEAK DATA: 262.28 N @ 34.72 MS; -1983.50 N @ 42.72 MS

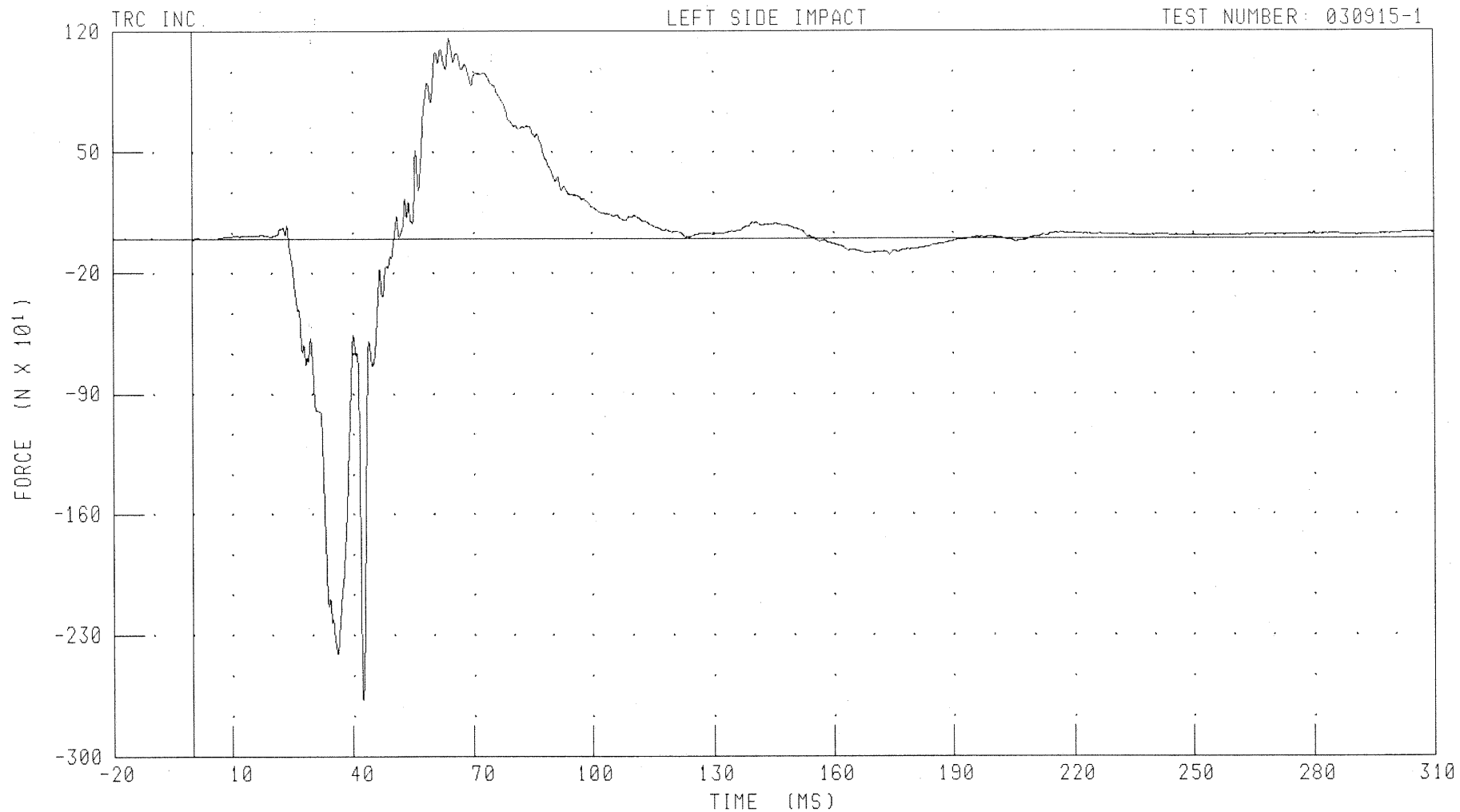
B-318

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT FEMUR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMZF4 FILTER: CH. CLASS 600

PEAK DATA: 1159.85 N @ 64.08 MS; -2674.93 N @ 42.40 MS

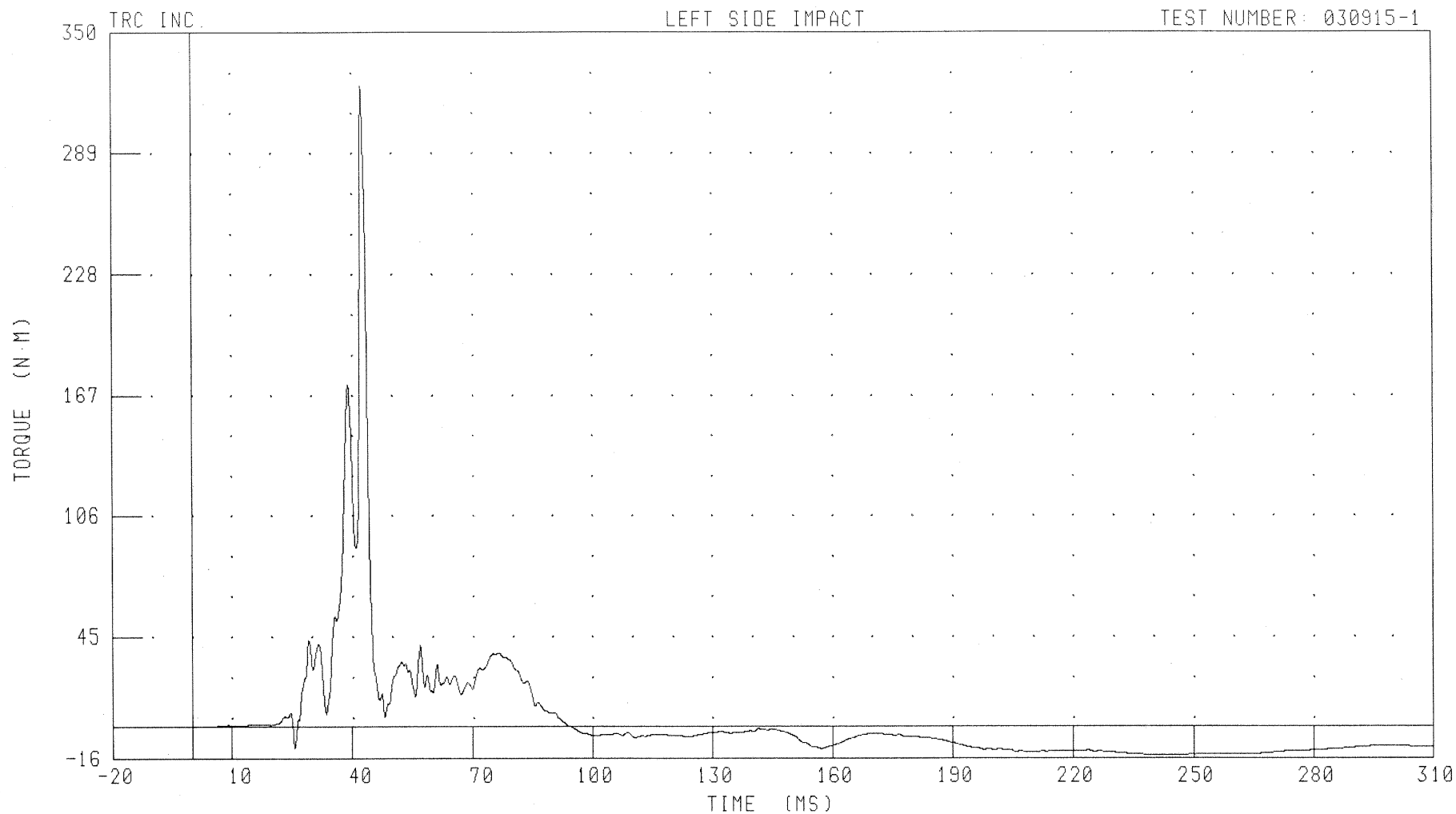
B-319

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER LEFT FEMUR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMX4 FILTER: CH. CLASS 600

PEAK DATA: 323.10 N·M @ 42.56 MS; -14.70 N·M @ 242.48 MS

B-320

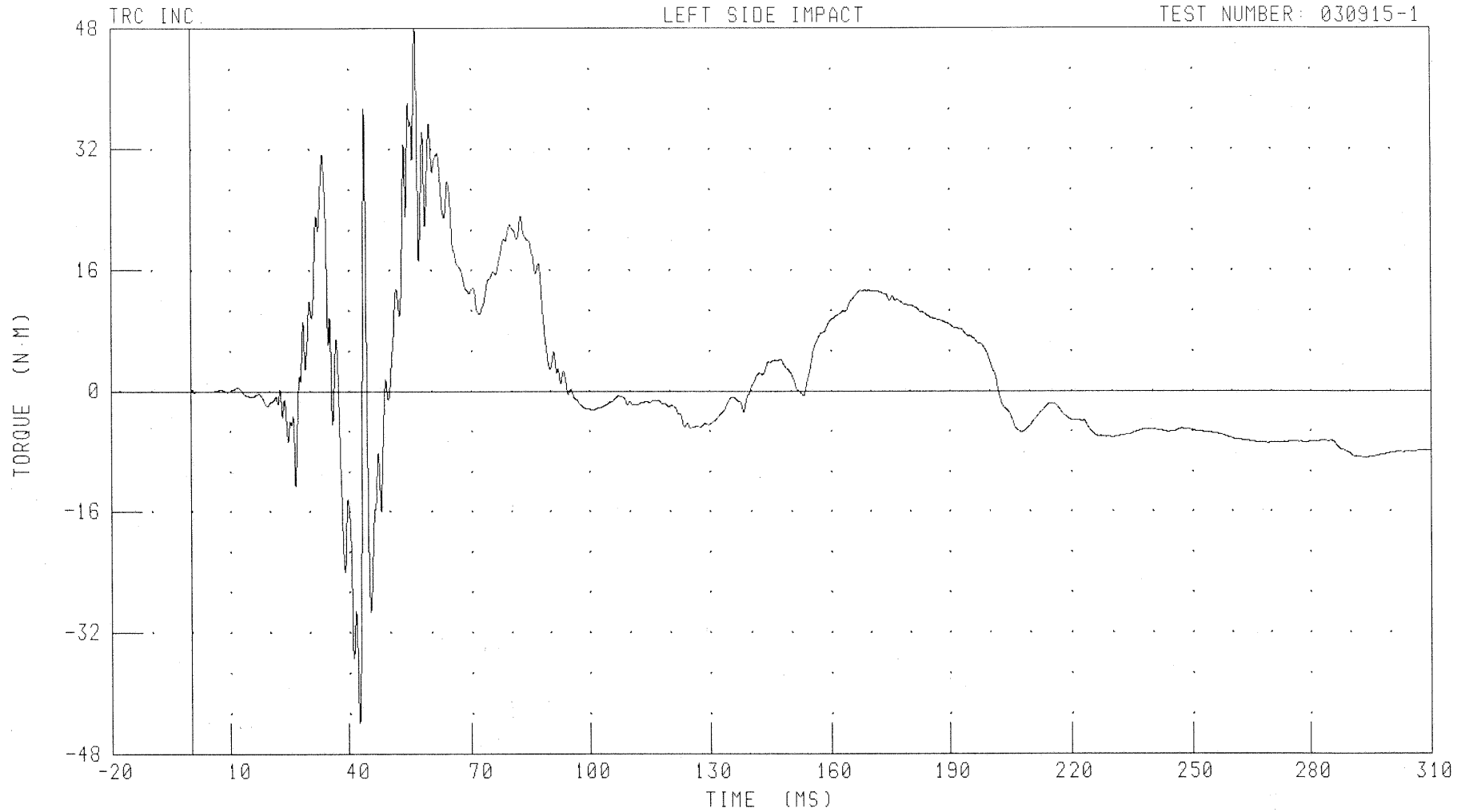
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER LEFT FEMUR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYM4 FILTER: CH. CLASS 600

PEAK DATA: 48.55 N·m @ 56.24 MS; -43.98 N·m @ 42.56 MS

B-321

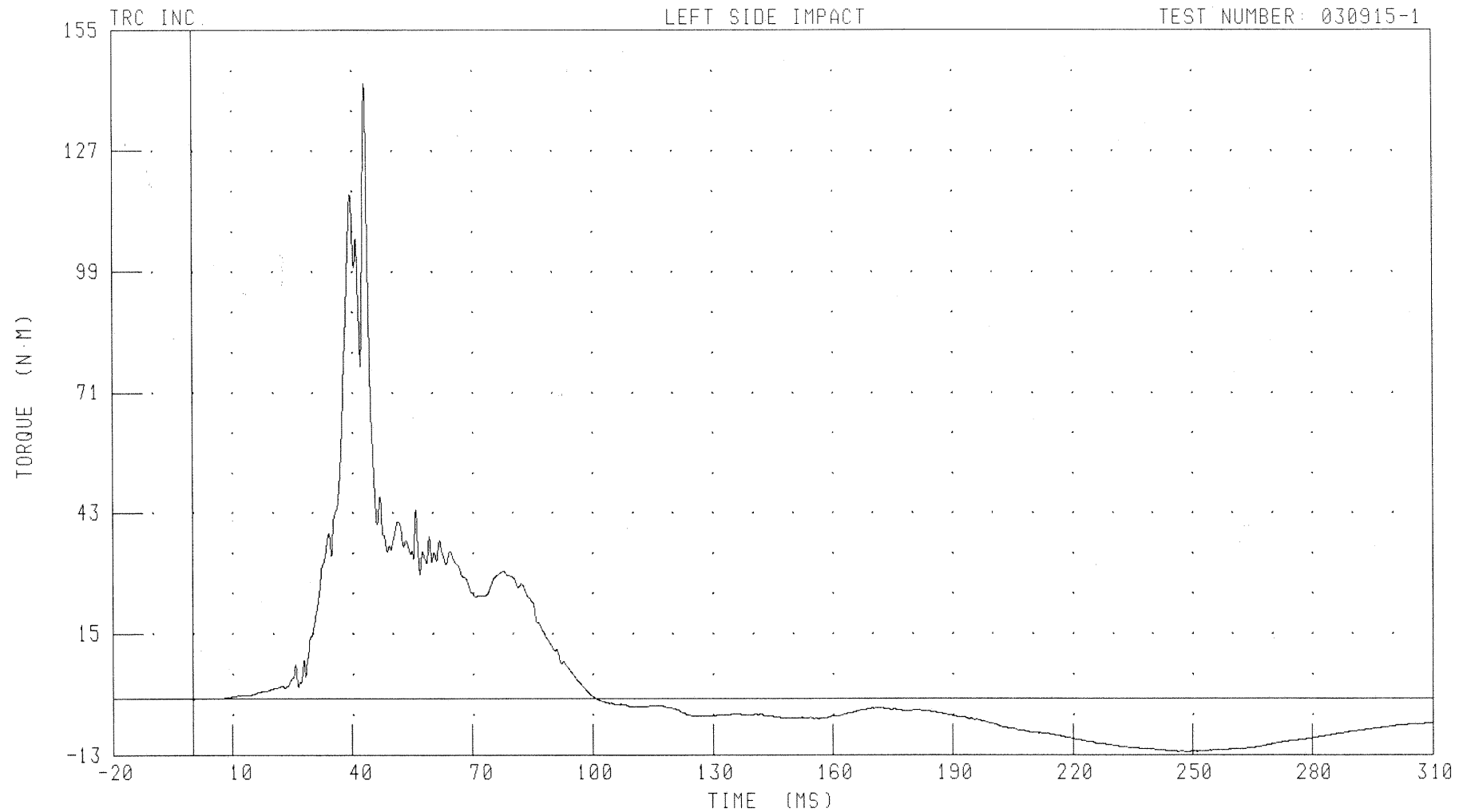
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER LEFT FEMUR MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



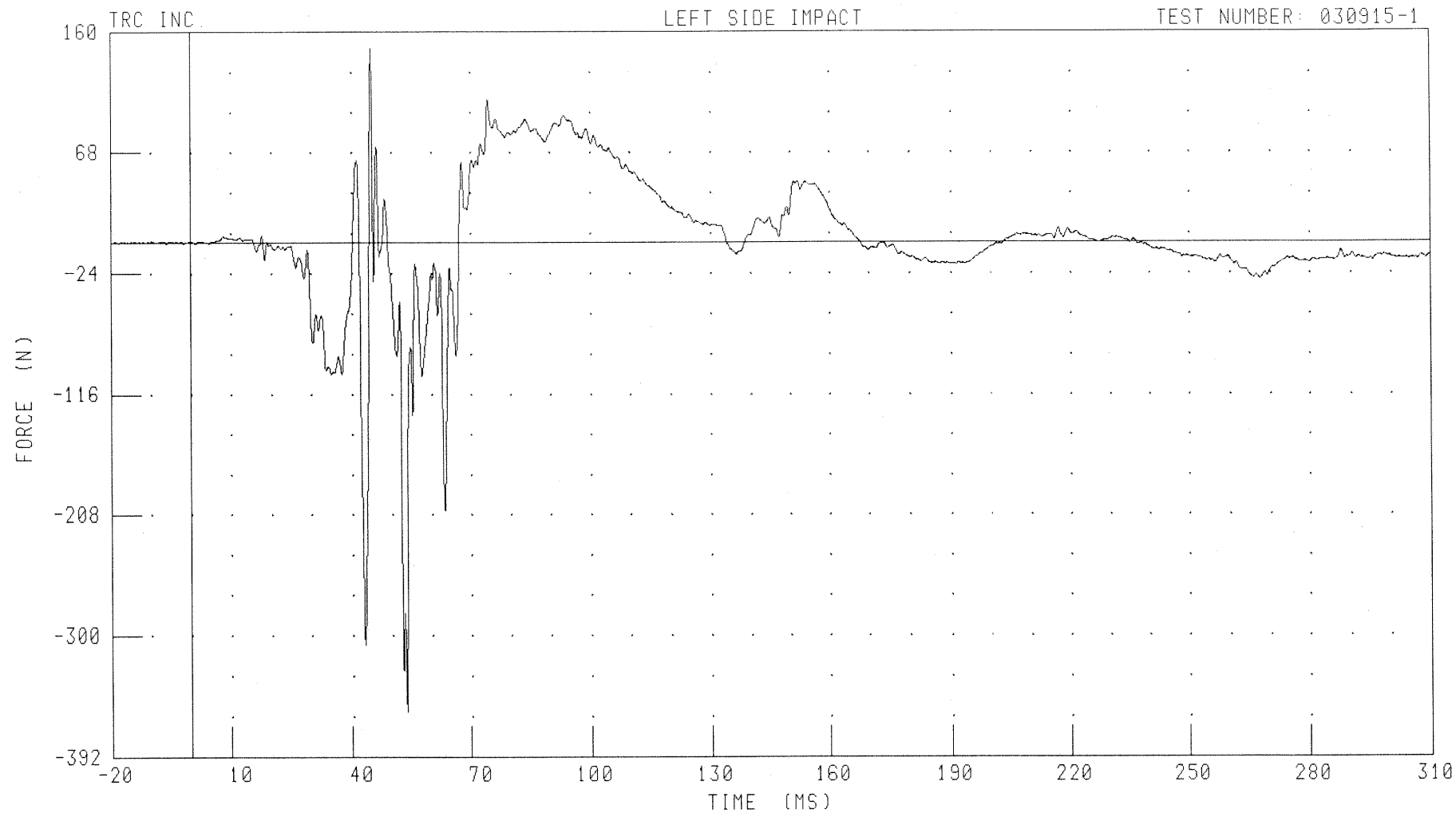
B-322

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR X-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMXF4 FILTER: CH. CLASS 600

PEAK DATA: 147.73 N @ 44.96 MS; -357.65 N @ 53.52 MS

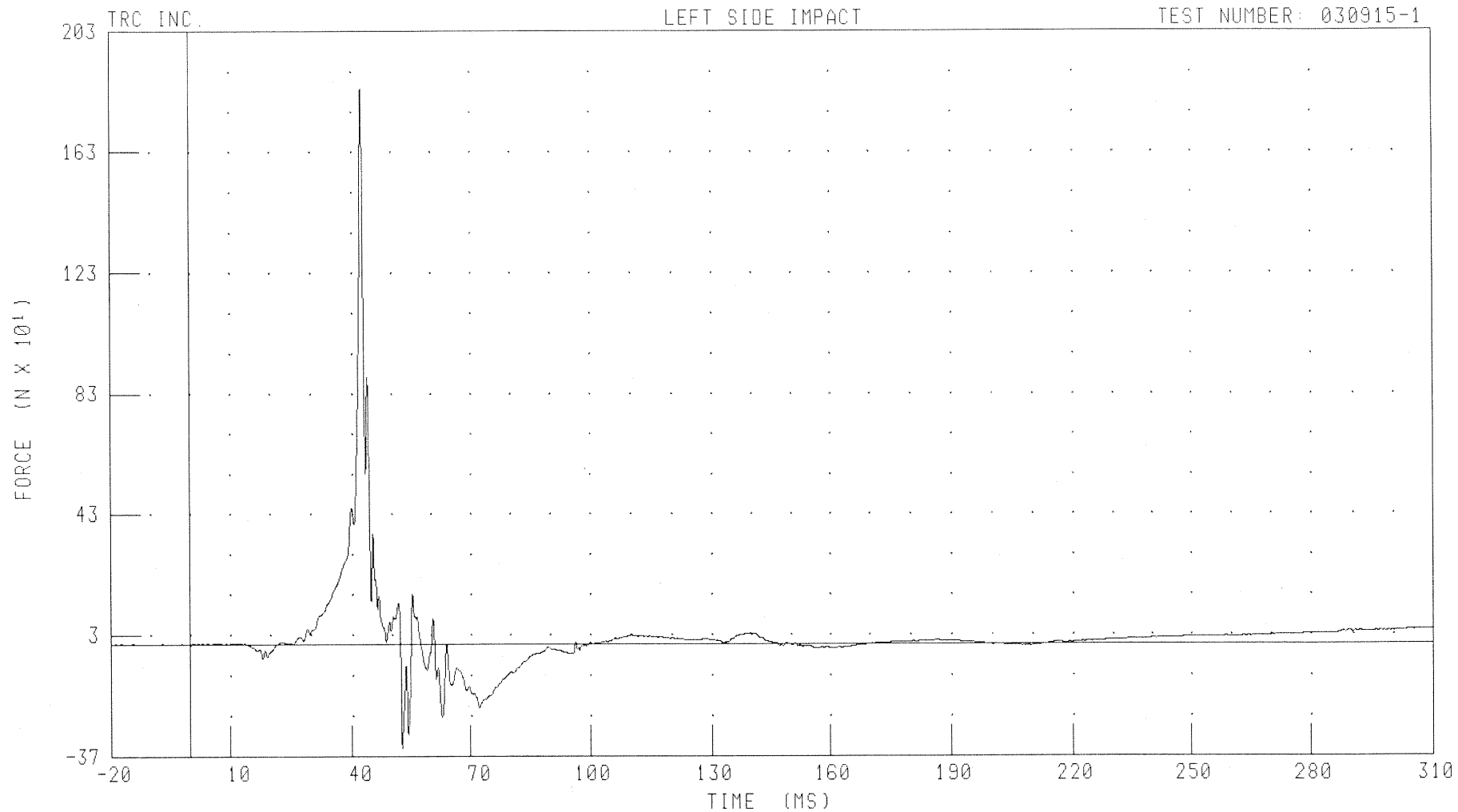
B-323

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR Y-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMYF4 FILTER: CH. CLASS 600

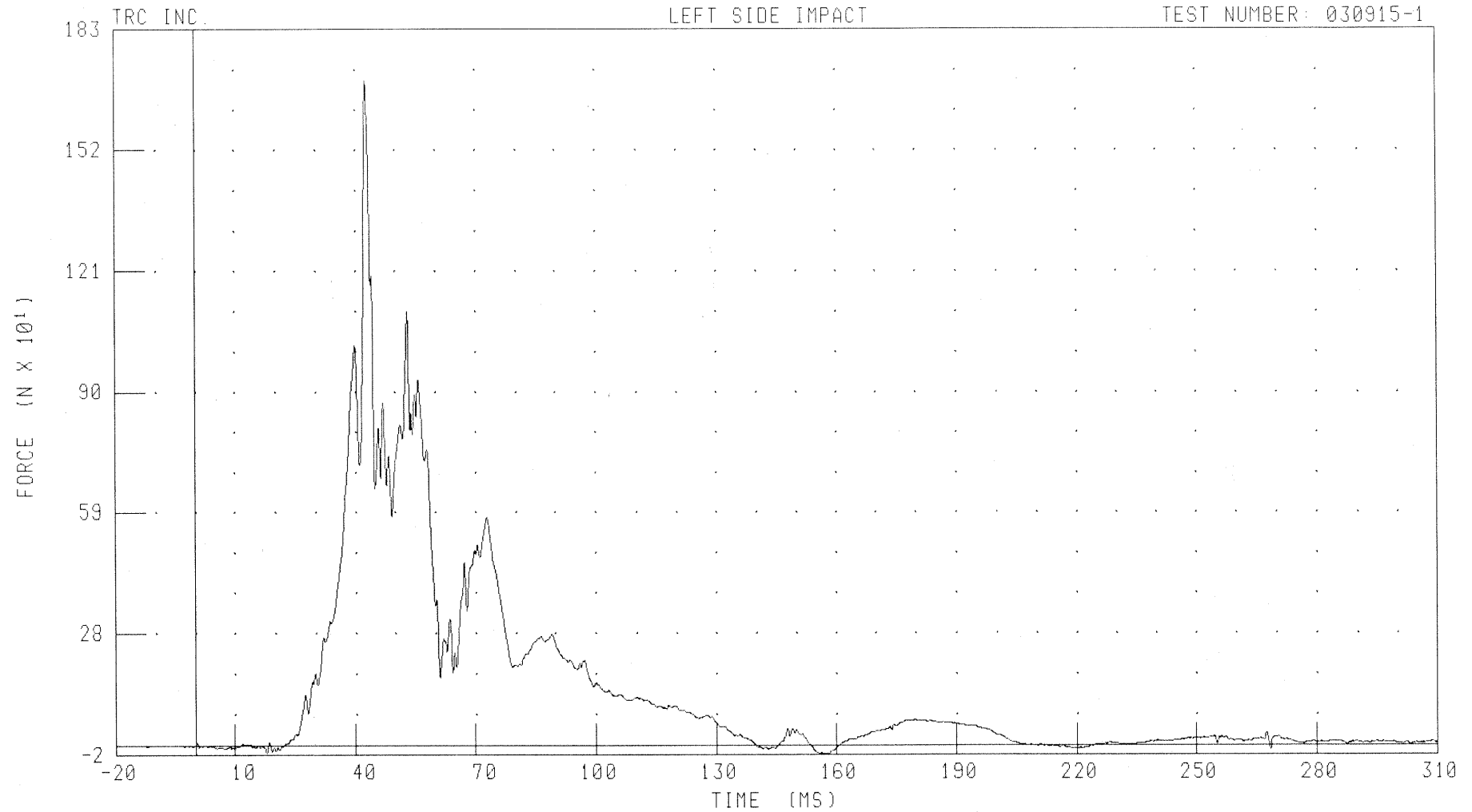
B-324

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR Z-AXIS FORCE

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMZ4 FILTER: CH. CLASS 600

PEAK DATA: 1706.26 N @ 42.80 MS; -21.69 N @ 156.88 MS

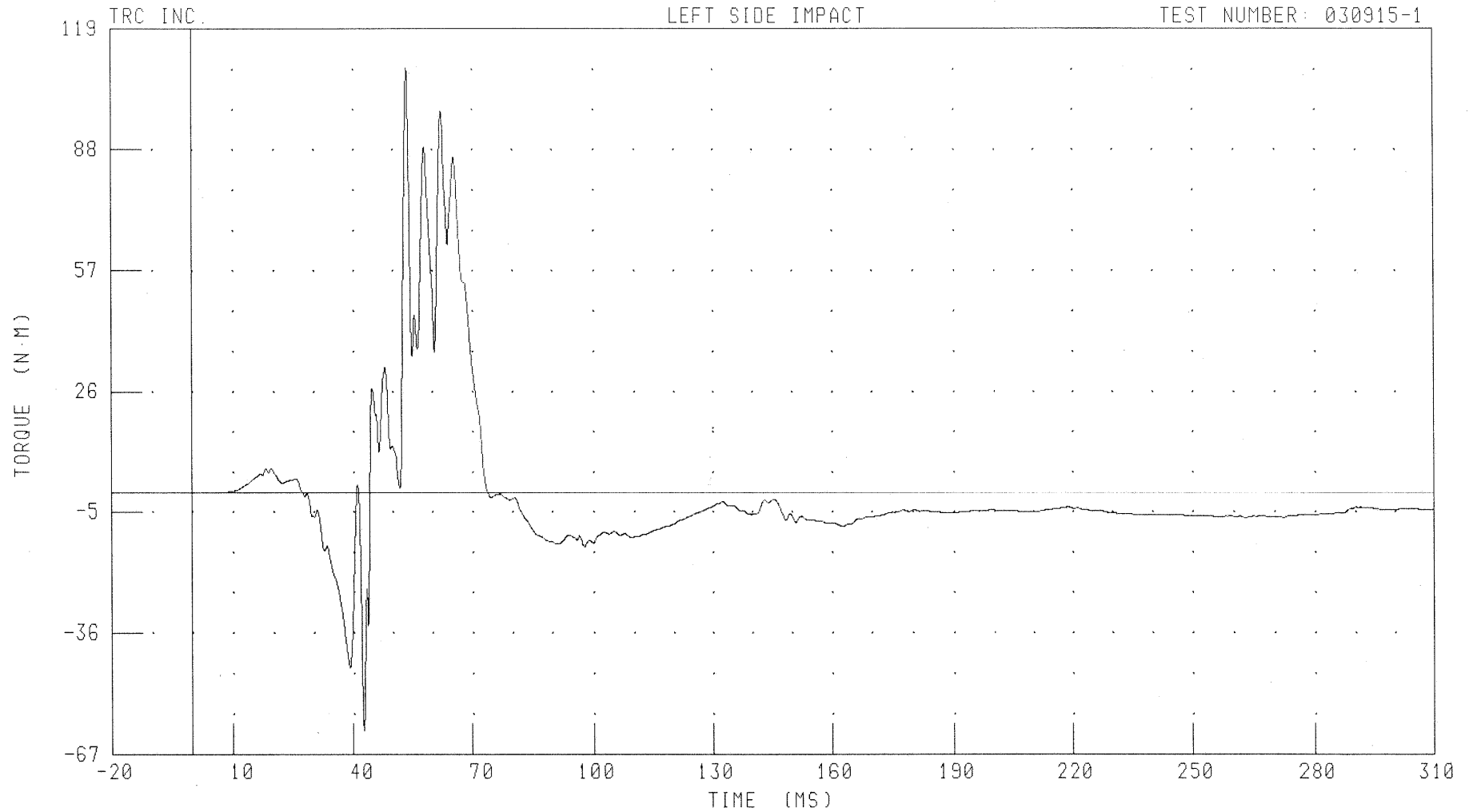
B-325

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR MOMENT ABOUT X AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMXM4 FILTER: CH. CLASS 600

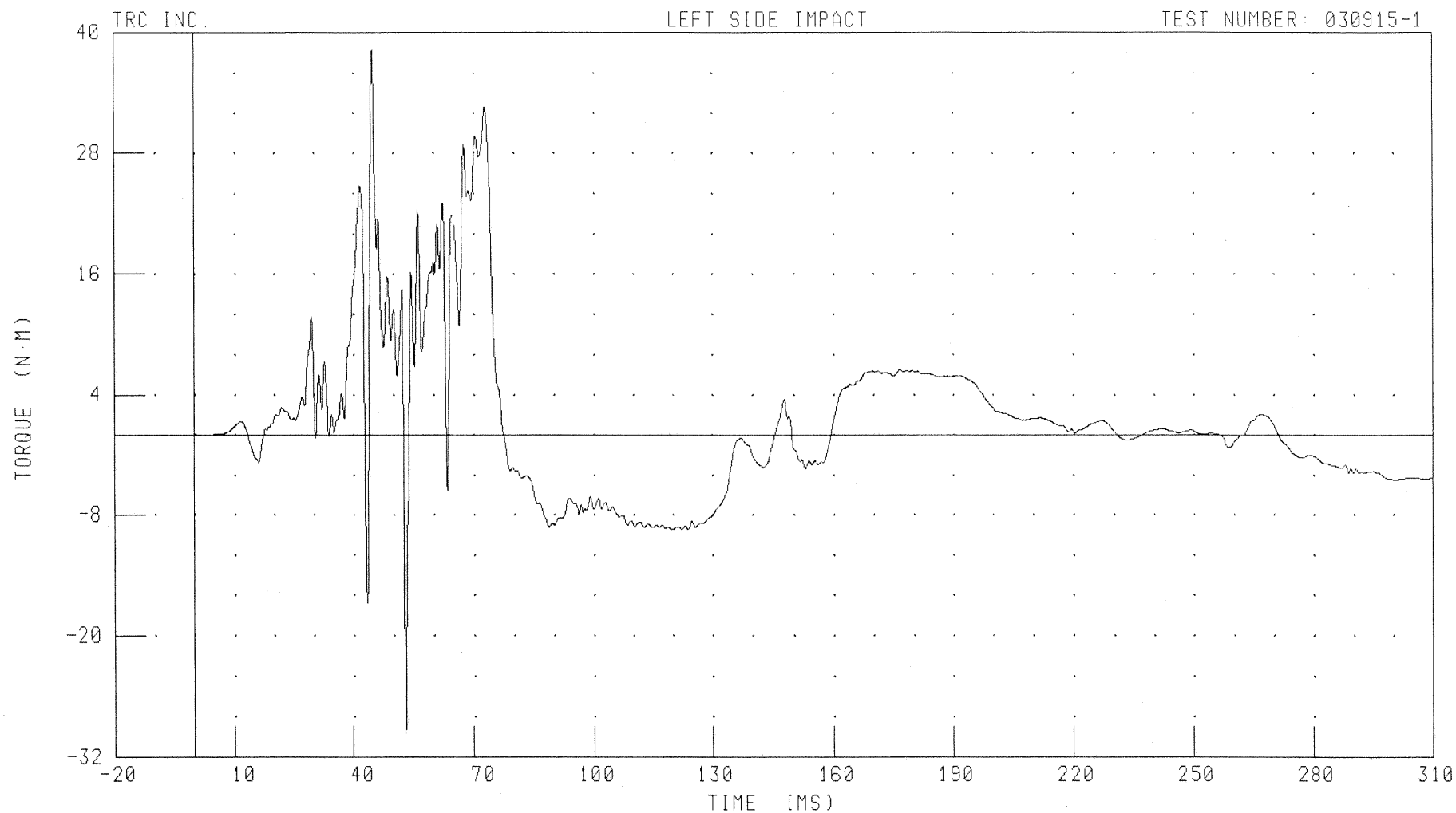
B-326

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR MOMENT ABOUT Y AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMYM4 FILTER: CH. CLASS 600

PEAK DATA: 38.25 N·M @ 44.88 MS; -29.69 N·M @ 52.96 MS

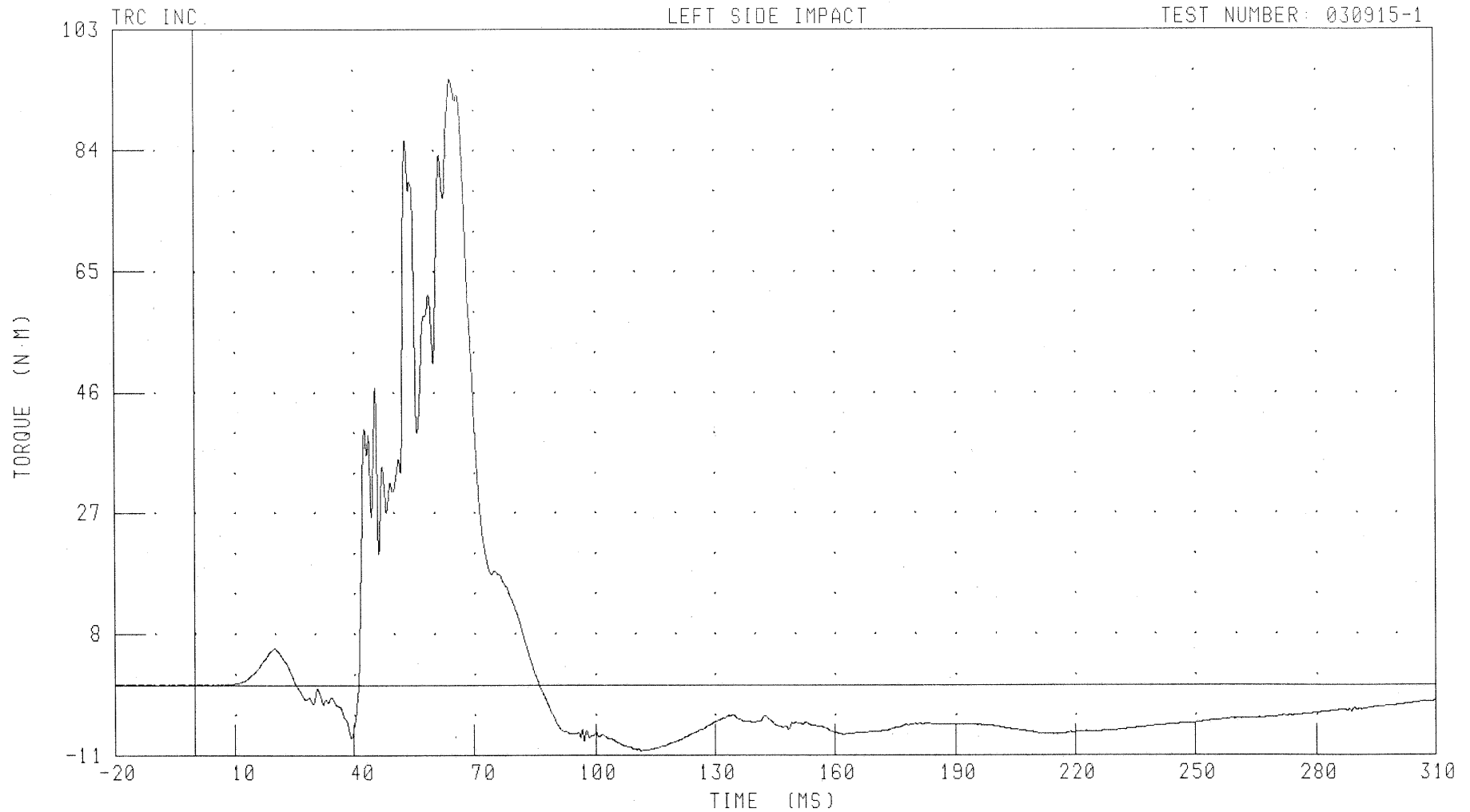
B-327

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIGHT FEMUR MOMENT ABOUT Z AXIS

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFMZM4 FILTER: CH. CLASS 600

PEAK DATA: 95.27 N·M @ 64.16 MS; -10.32 N·M @ 111.44 MS

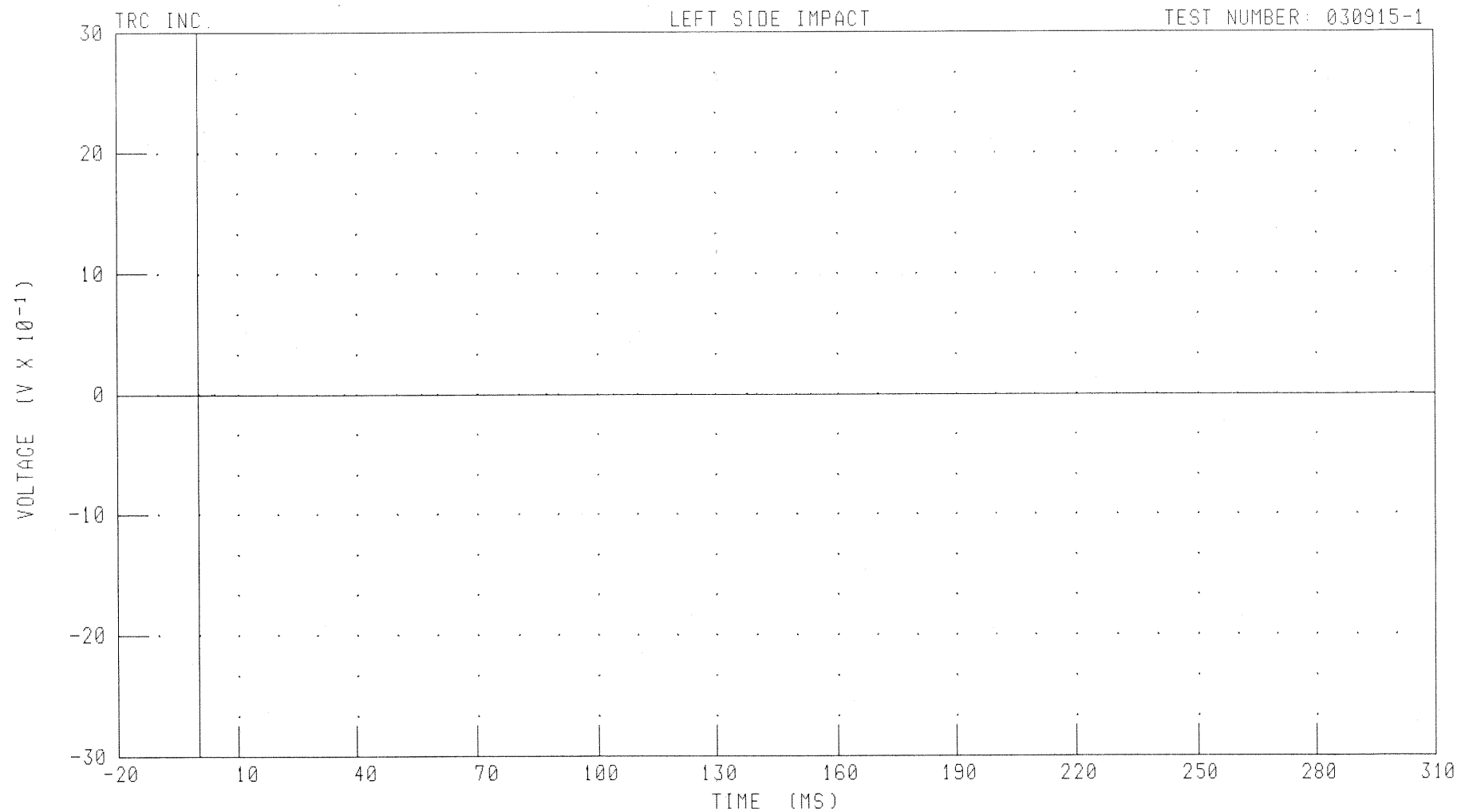
B-328

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 1 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF1V4 FILTER: CH. CLASS 1000

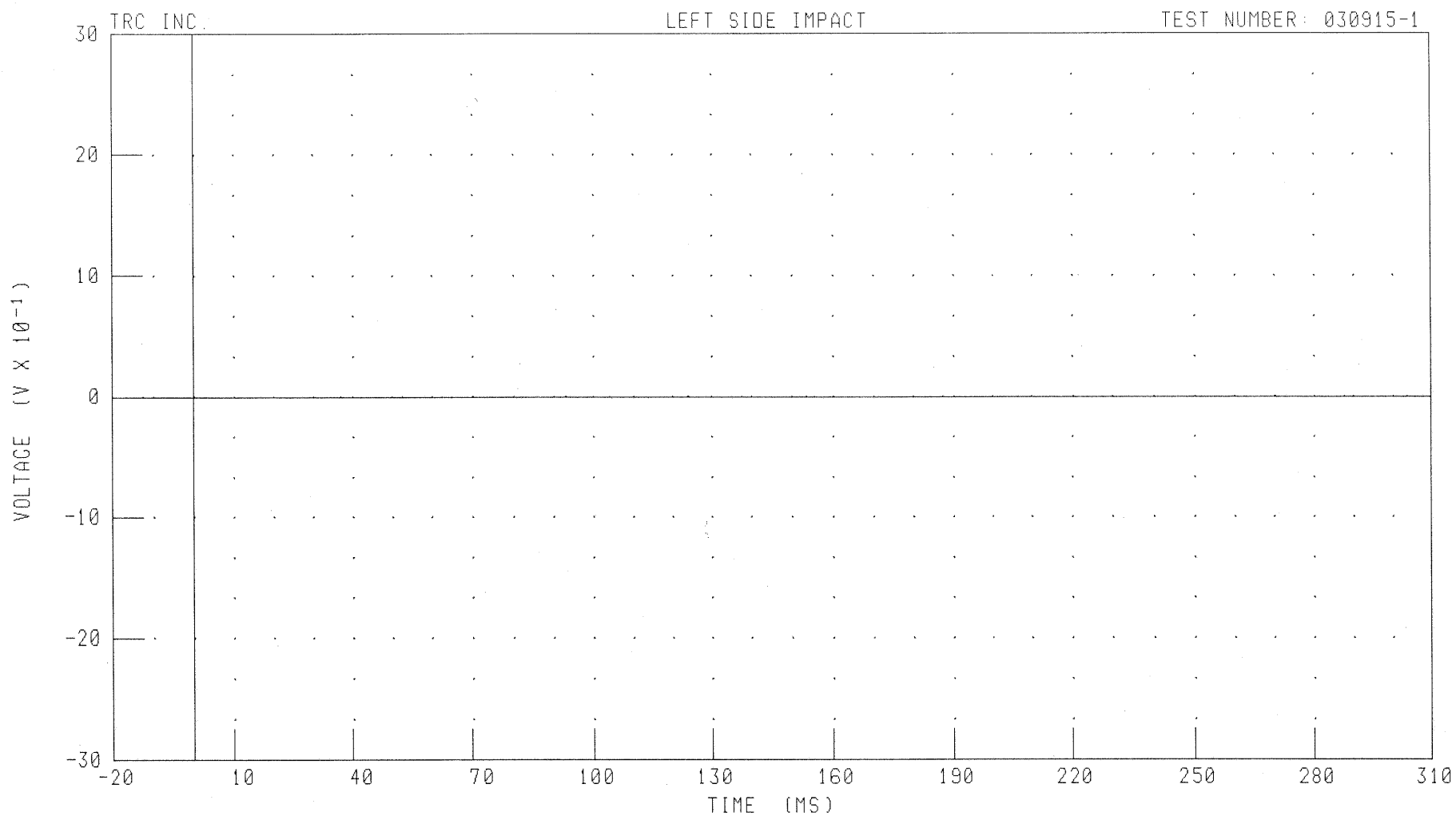
B-329

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 2 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF2V4

FILTER: CH. CLASS 1000

B-330

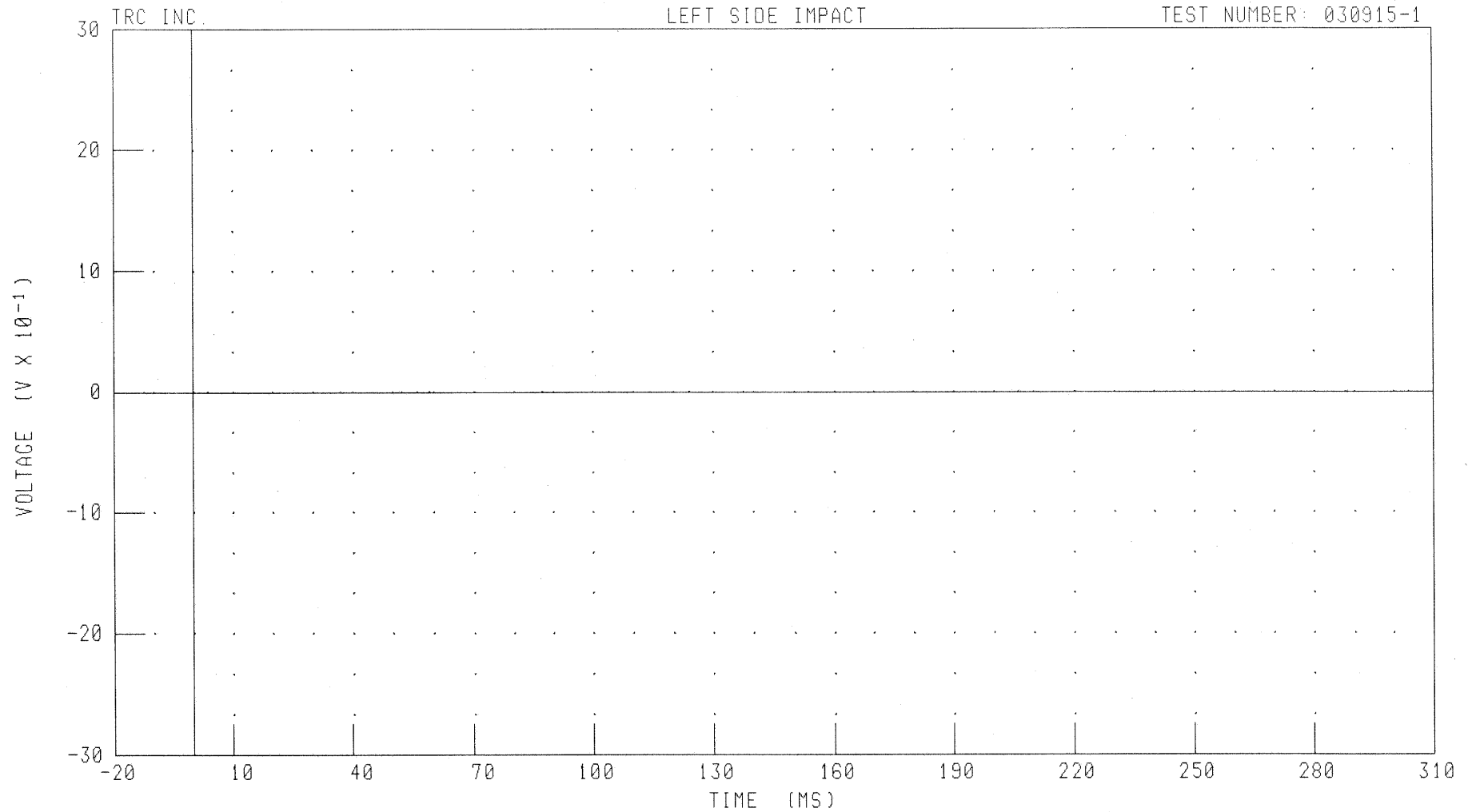
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE.

LEFT REAR PASSENGER RIB 3 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF3V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 59.12 MS; 0.00 V @ 40.00 MS

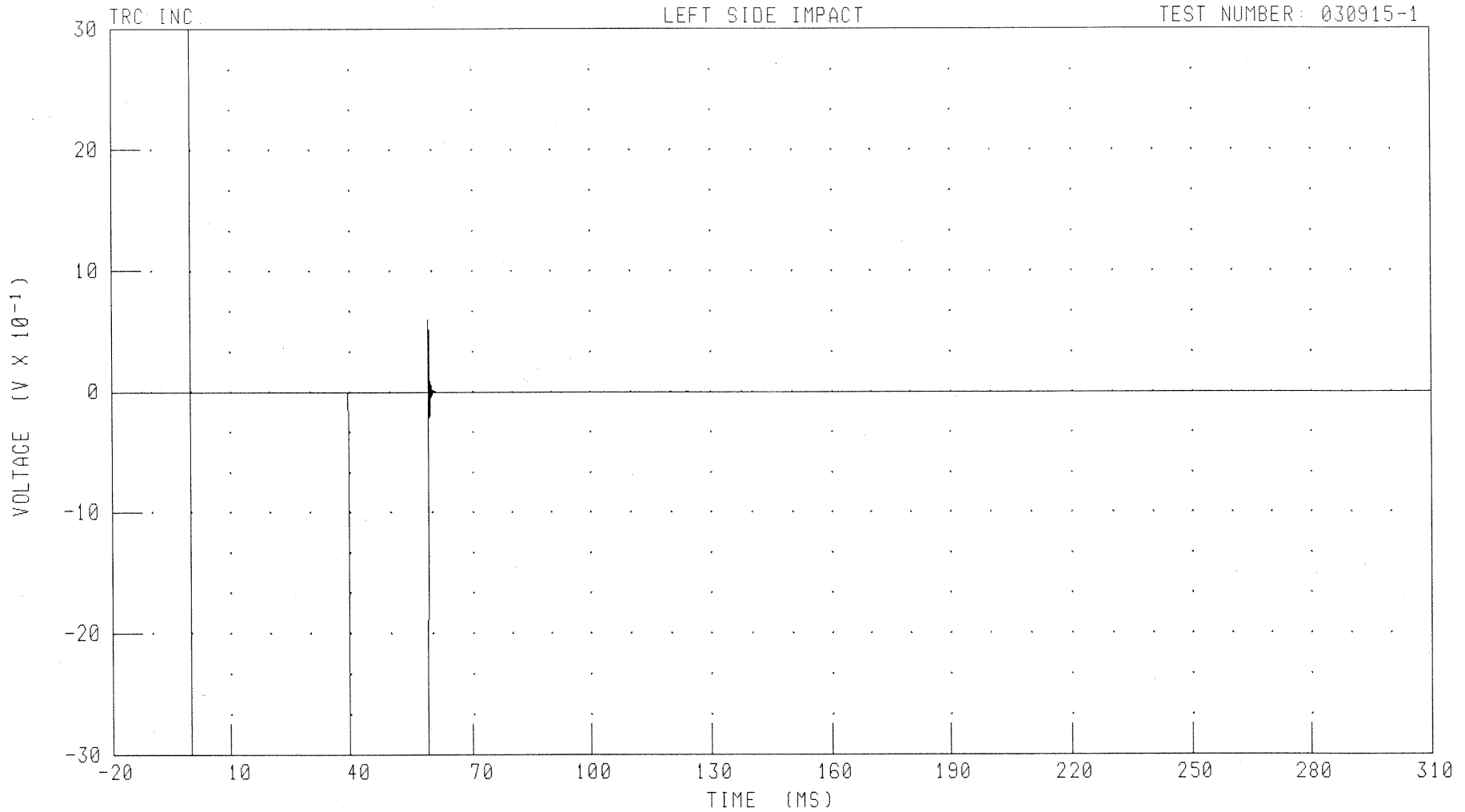
B-331

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 4 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF4V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.60 V @ 59.28 MS; -5.12 V @ 40.16 MS

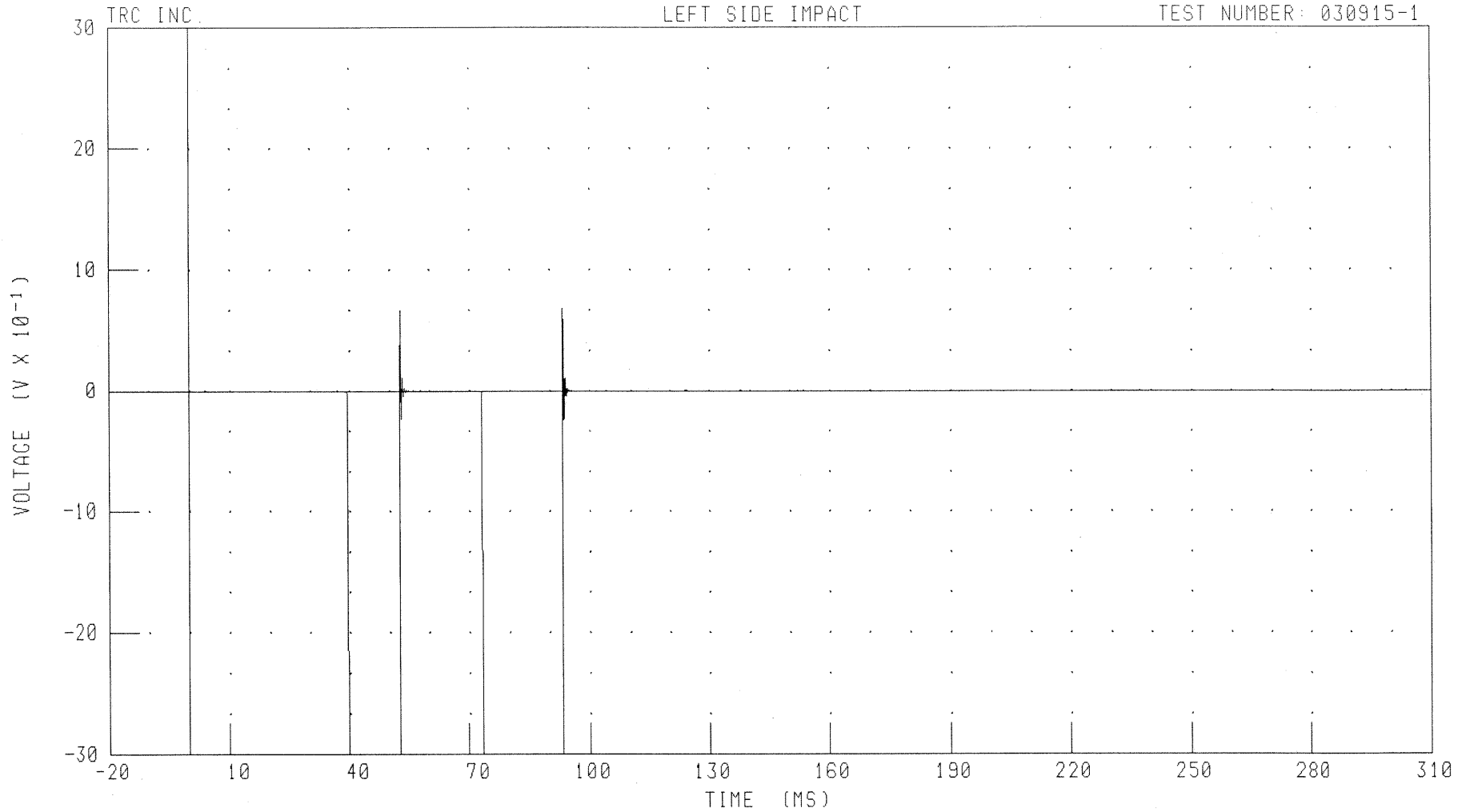
B-332

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 5 TO FRONT STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RF5V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.69 V @ 93.36 MS; -5.13 V @ 40.00 MS

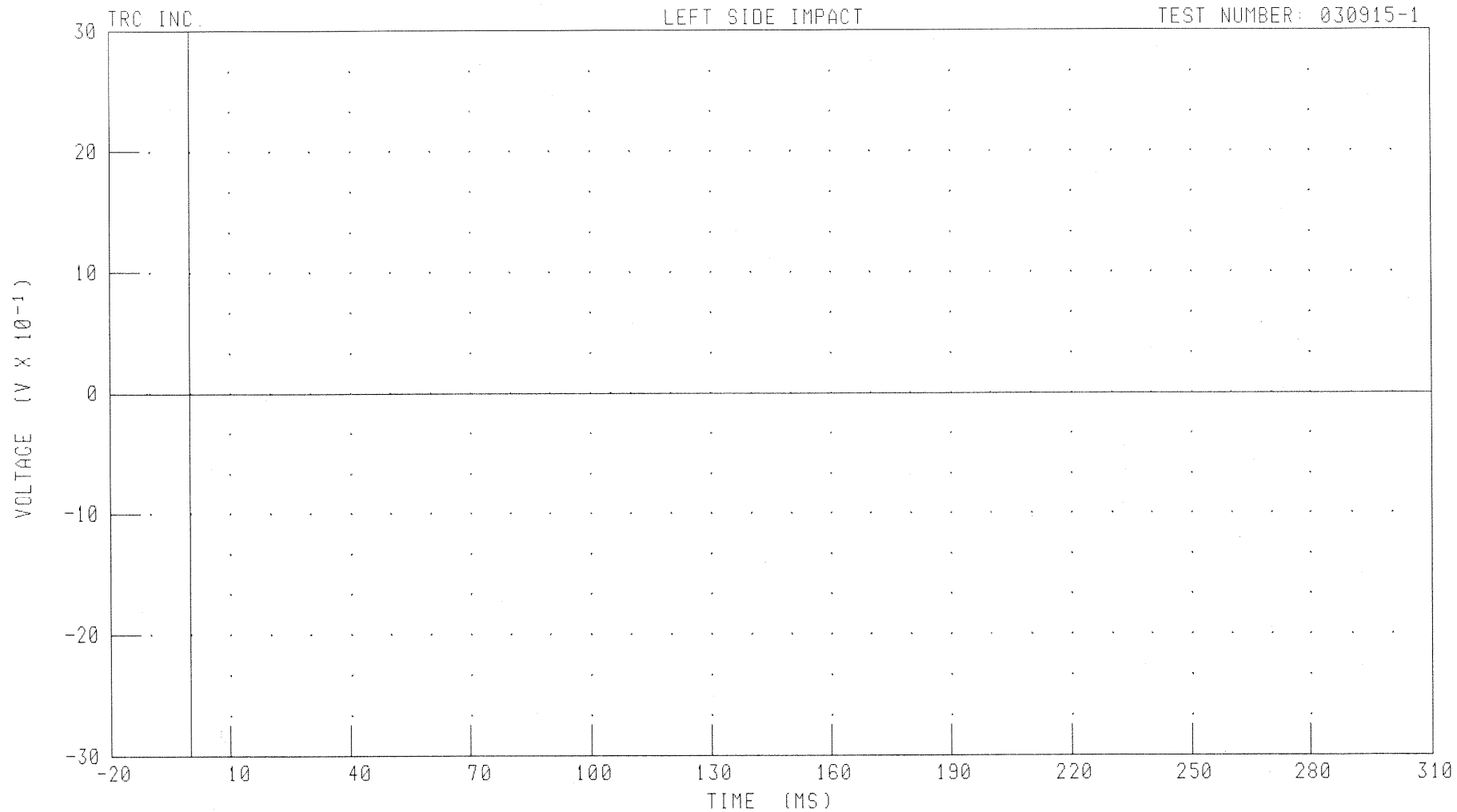
B-333

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 1 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1V4 FILTER: CH. CLASS 1000

B-334

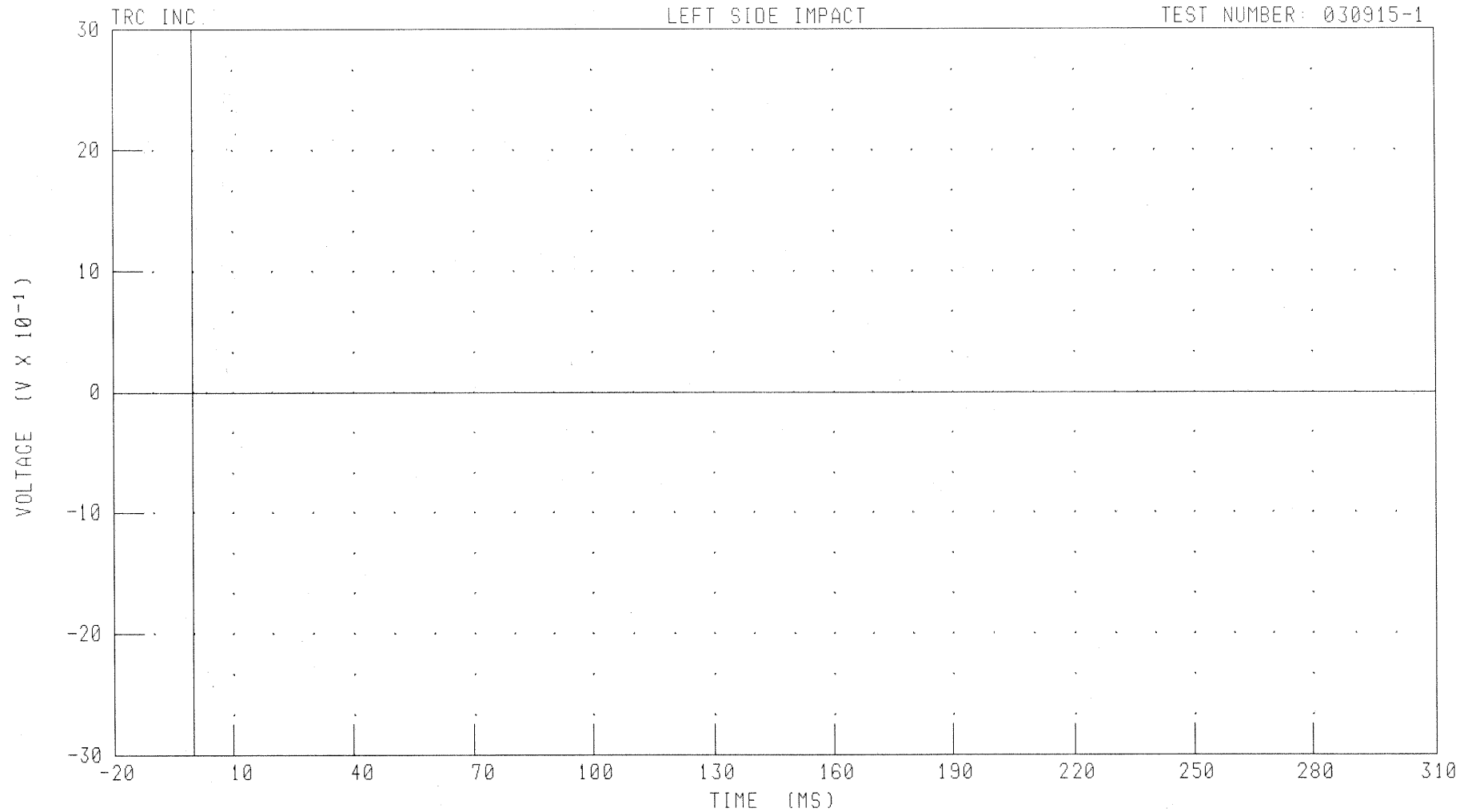
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER RIB 2 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 3.68 MS; 0.00 V @ 35.68 MS

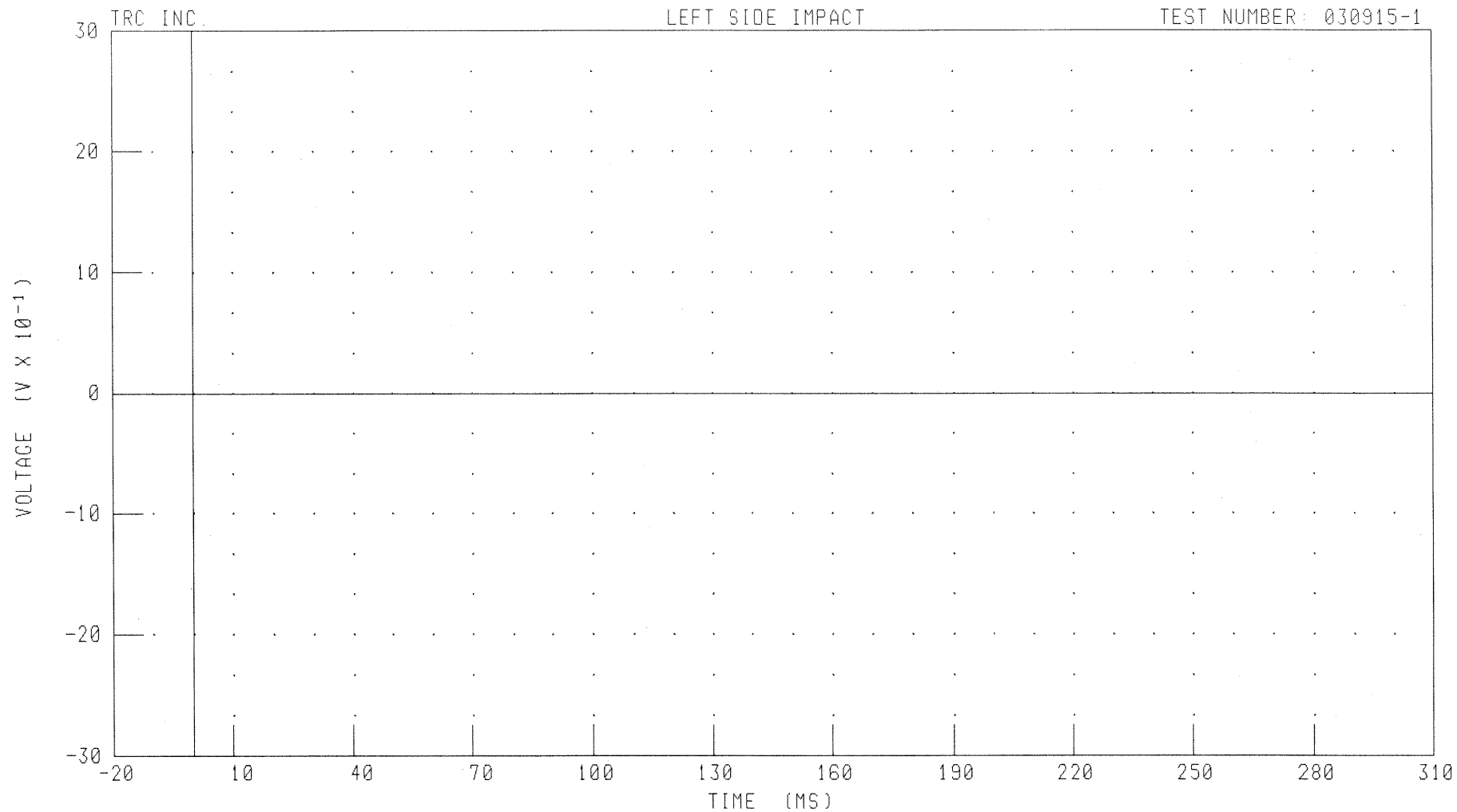
B-335

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 3 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 138.80 MS; 0.00 V @ 221.68 MS

B-336

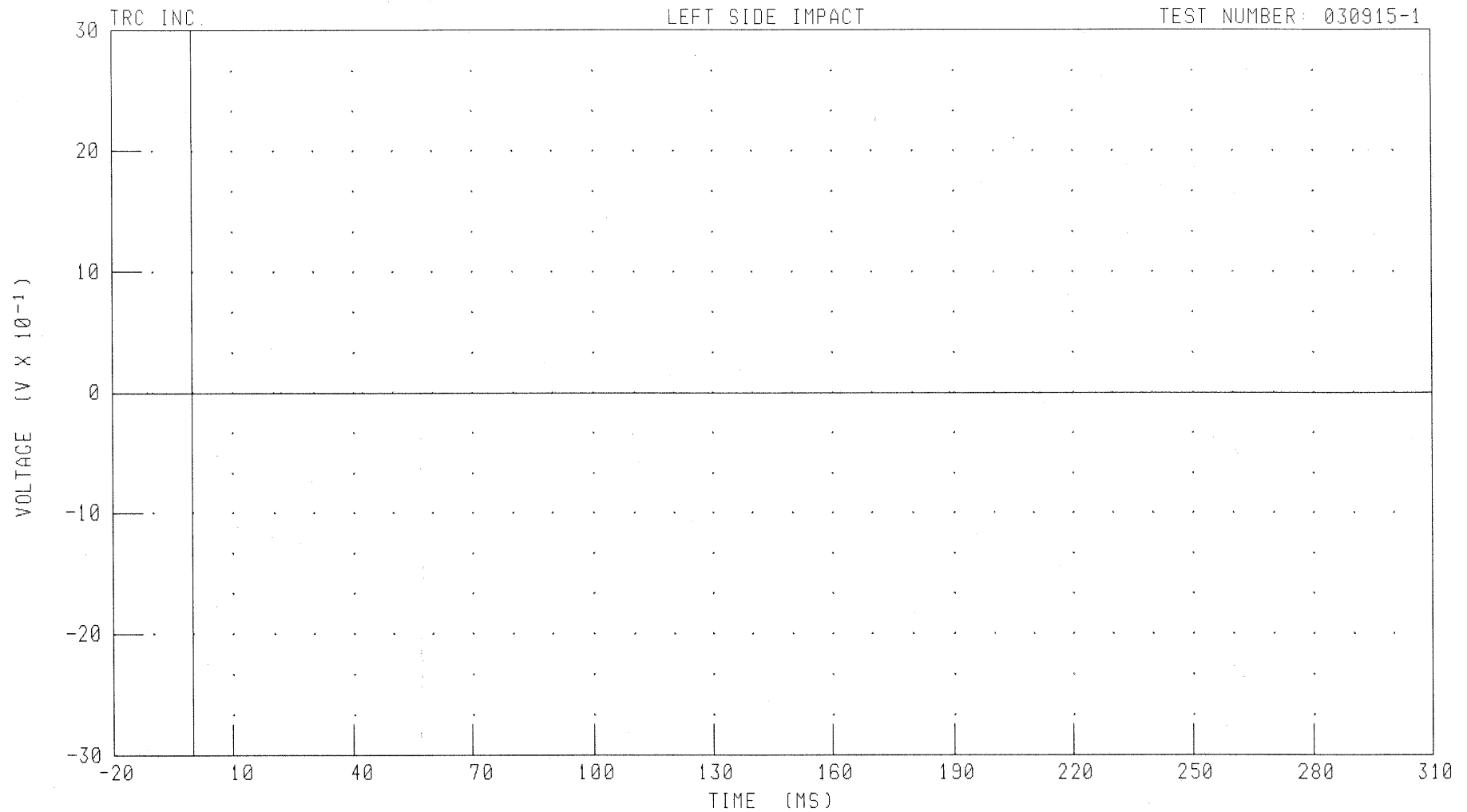
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER RIB 4 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4V4

FILTER: CH. CLASS 1000

B-337

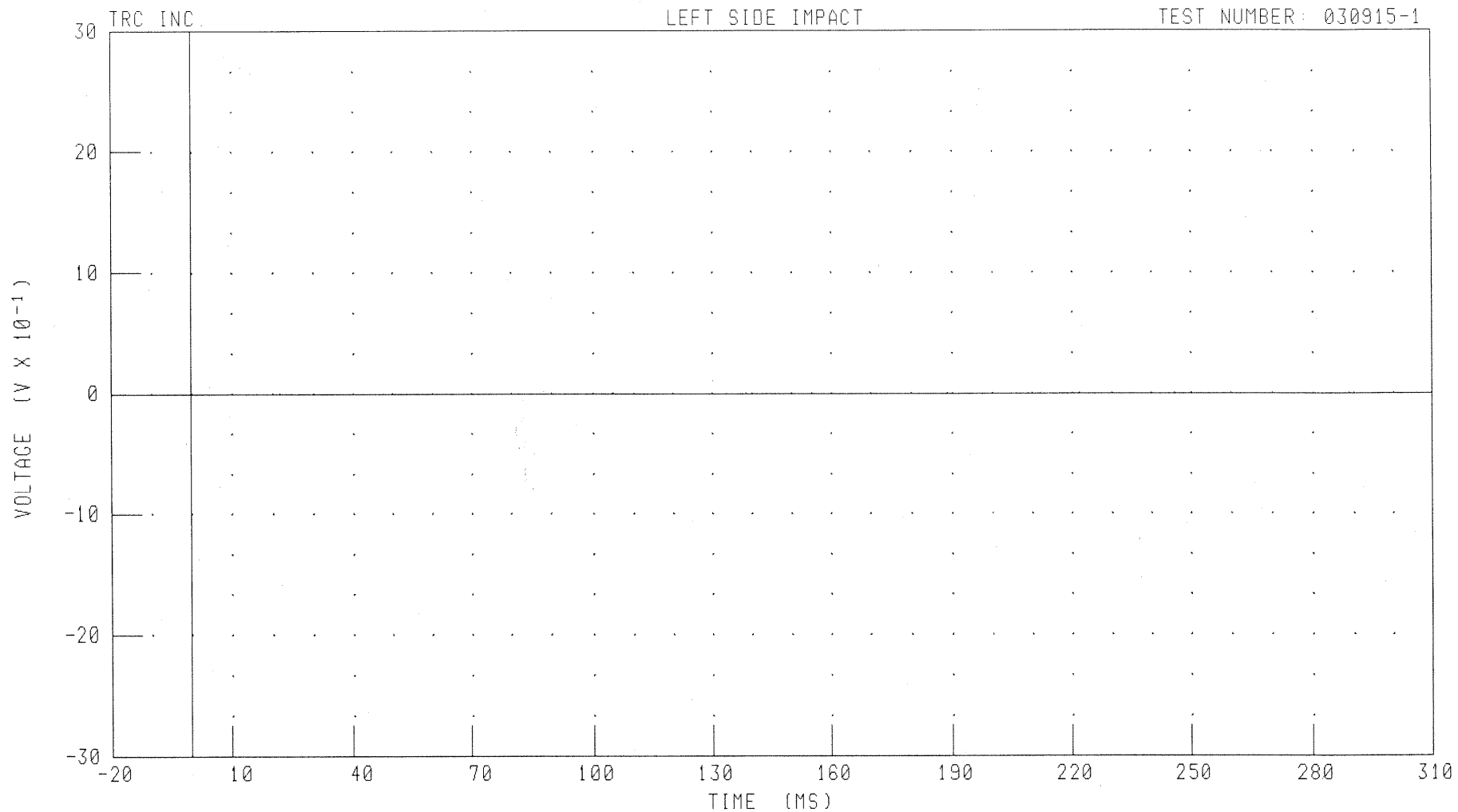
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER RIB 5 TO REAR STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5V4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 288.72 MS; 0.00 V @ 42.16 MS

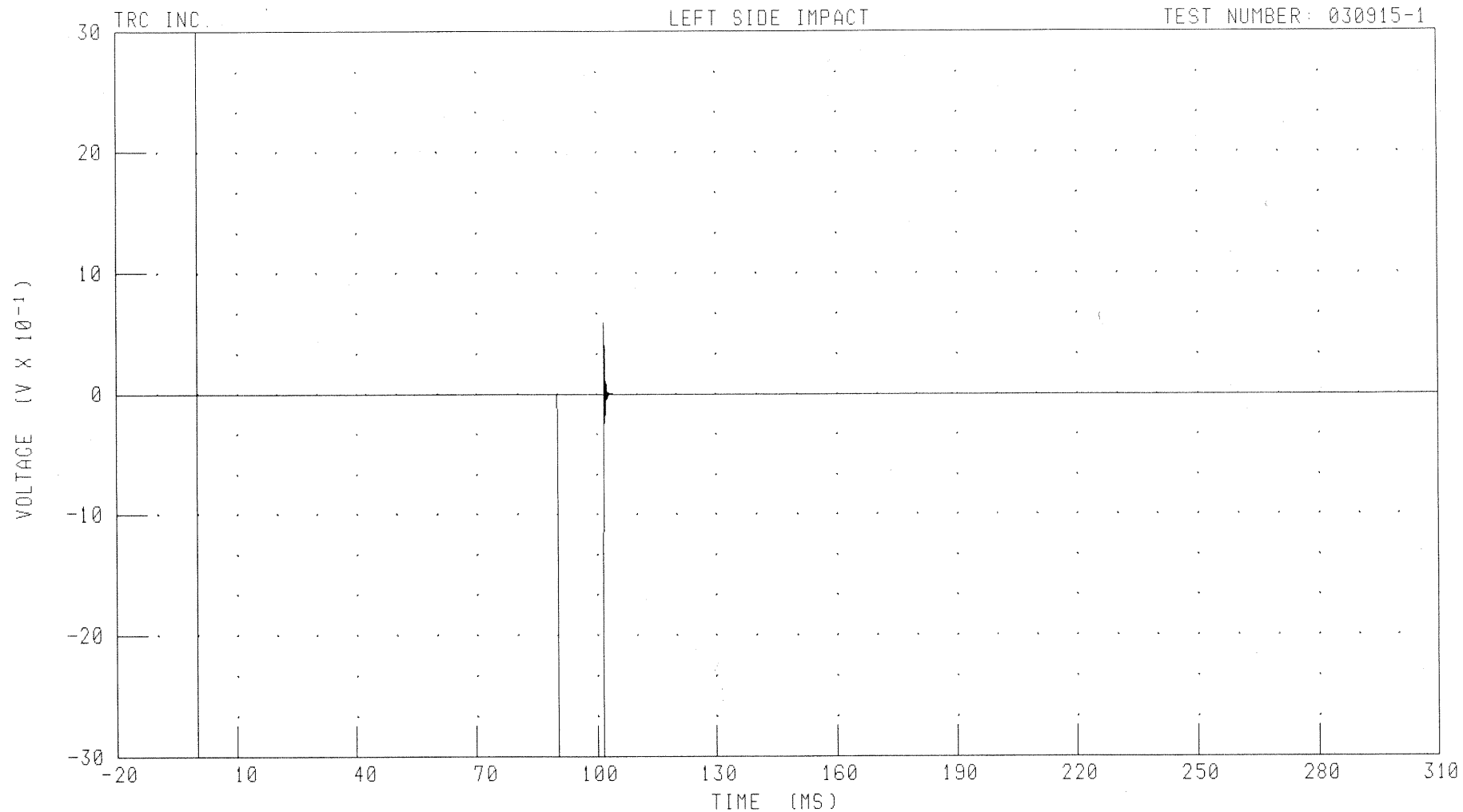
B-338

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 1 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG1V4 FILTER: CH. CLASS 1000

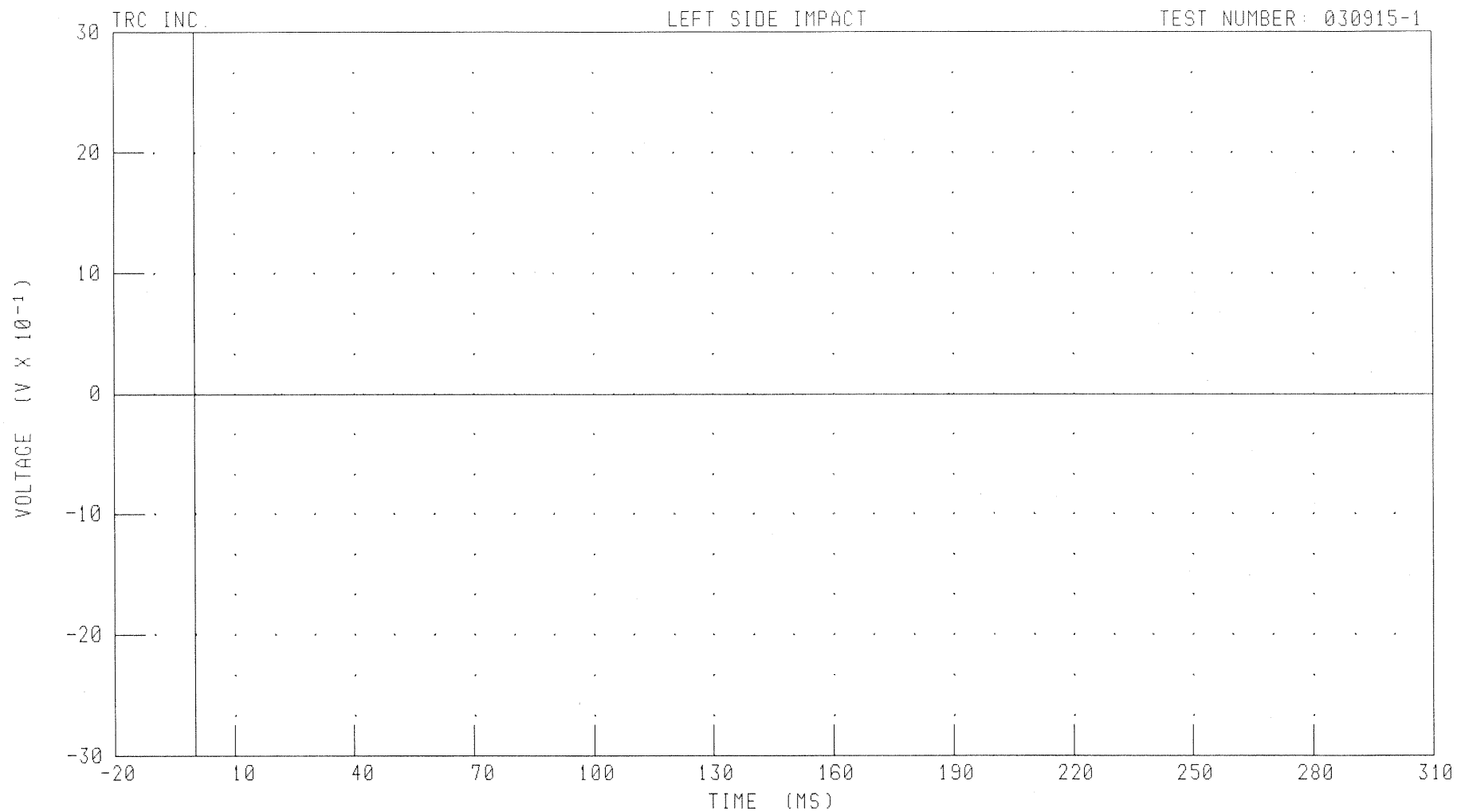
B-339

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 2 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG2V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 188.88 MS; 0.00 V @ 42.16 MS

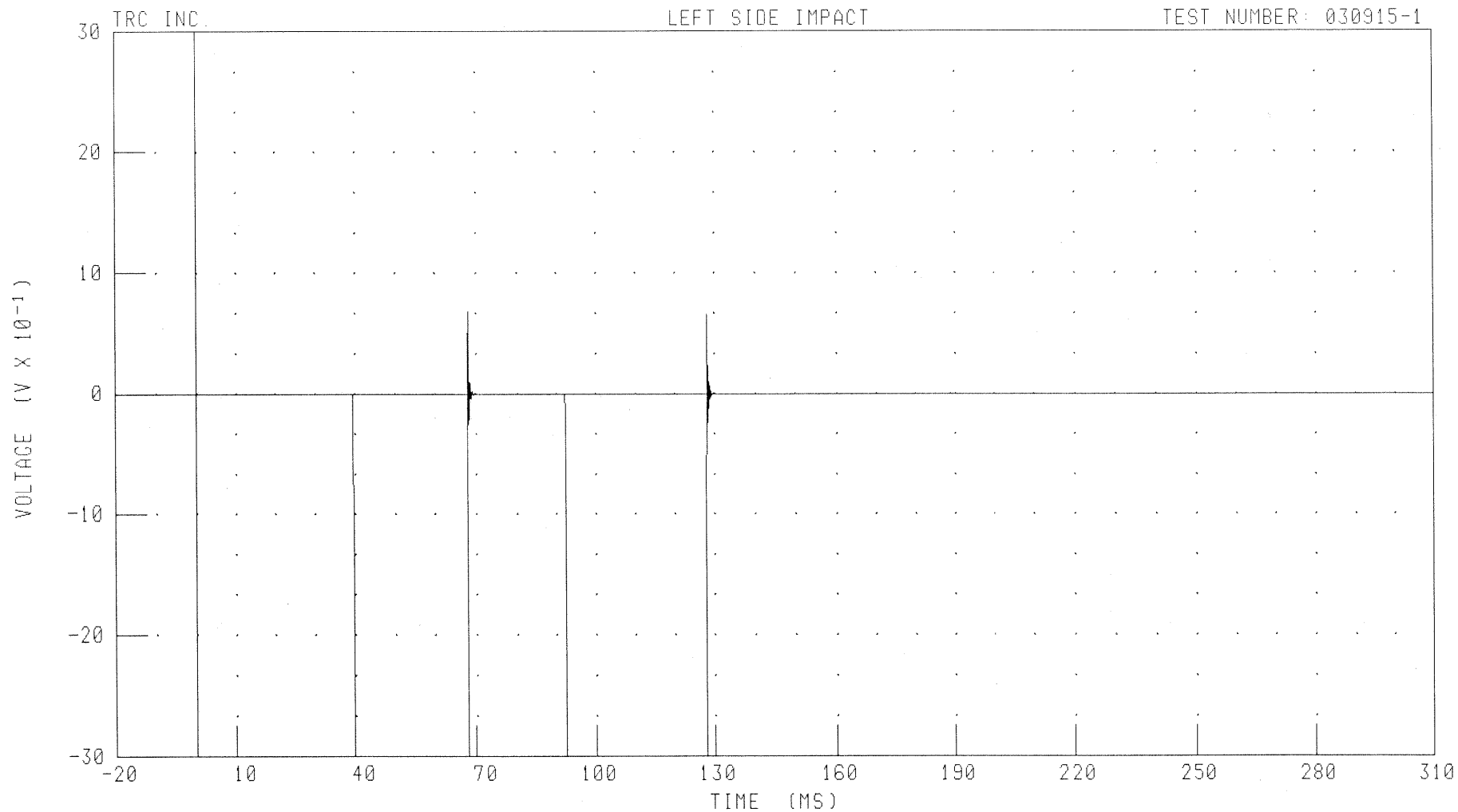
B-340

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 3 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG3V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.68 V @ 68.24 MS; -5.12 V @ 40.08 MS

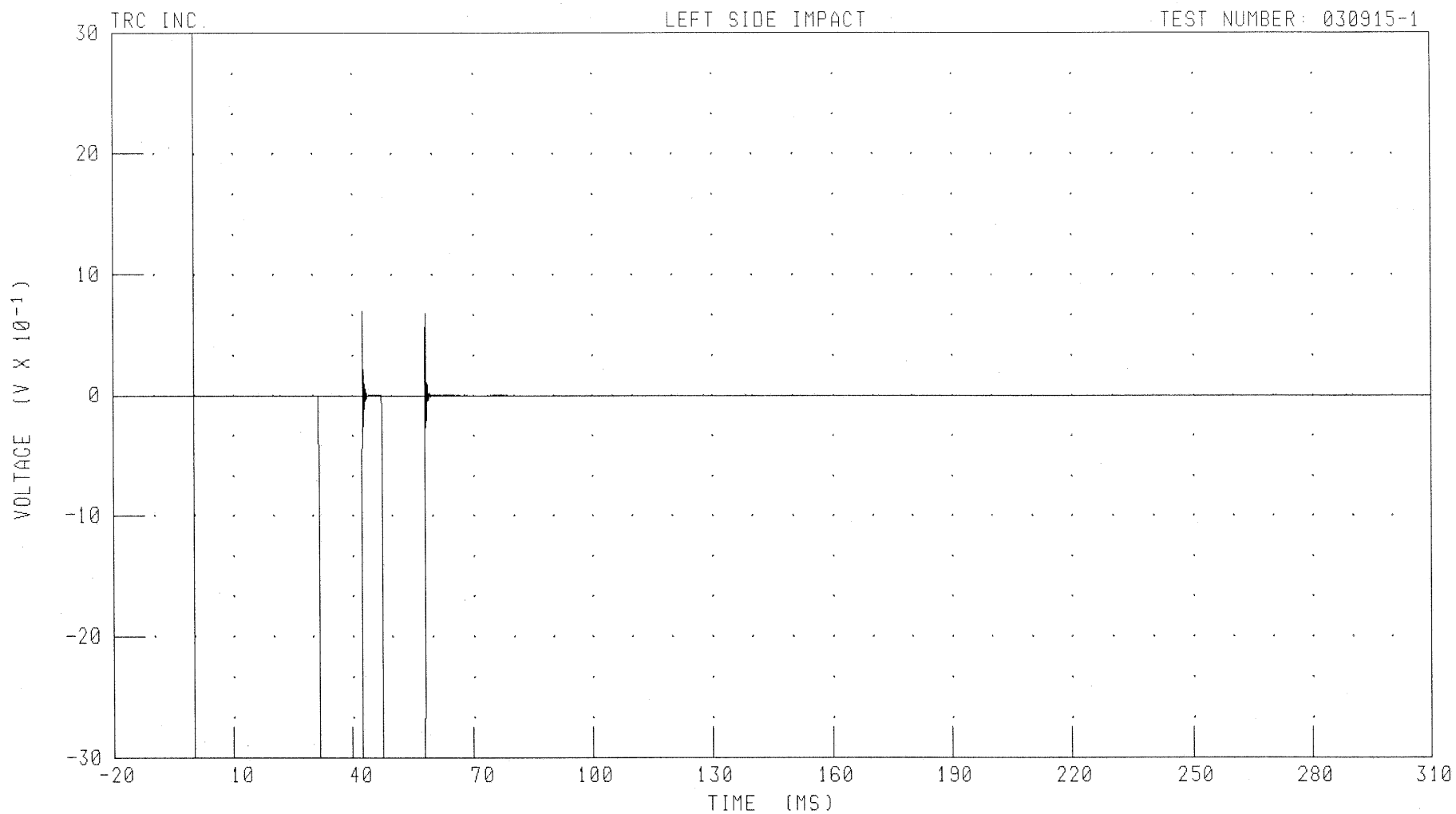
B-341

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 4 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFC4V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.70 V @ 42.72 MS; -5.12 V @ 31.92 MS

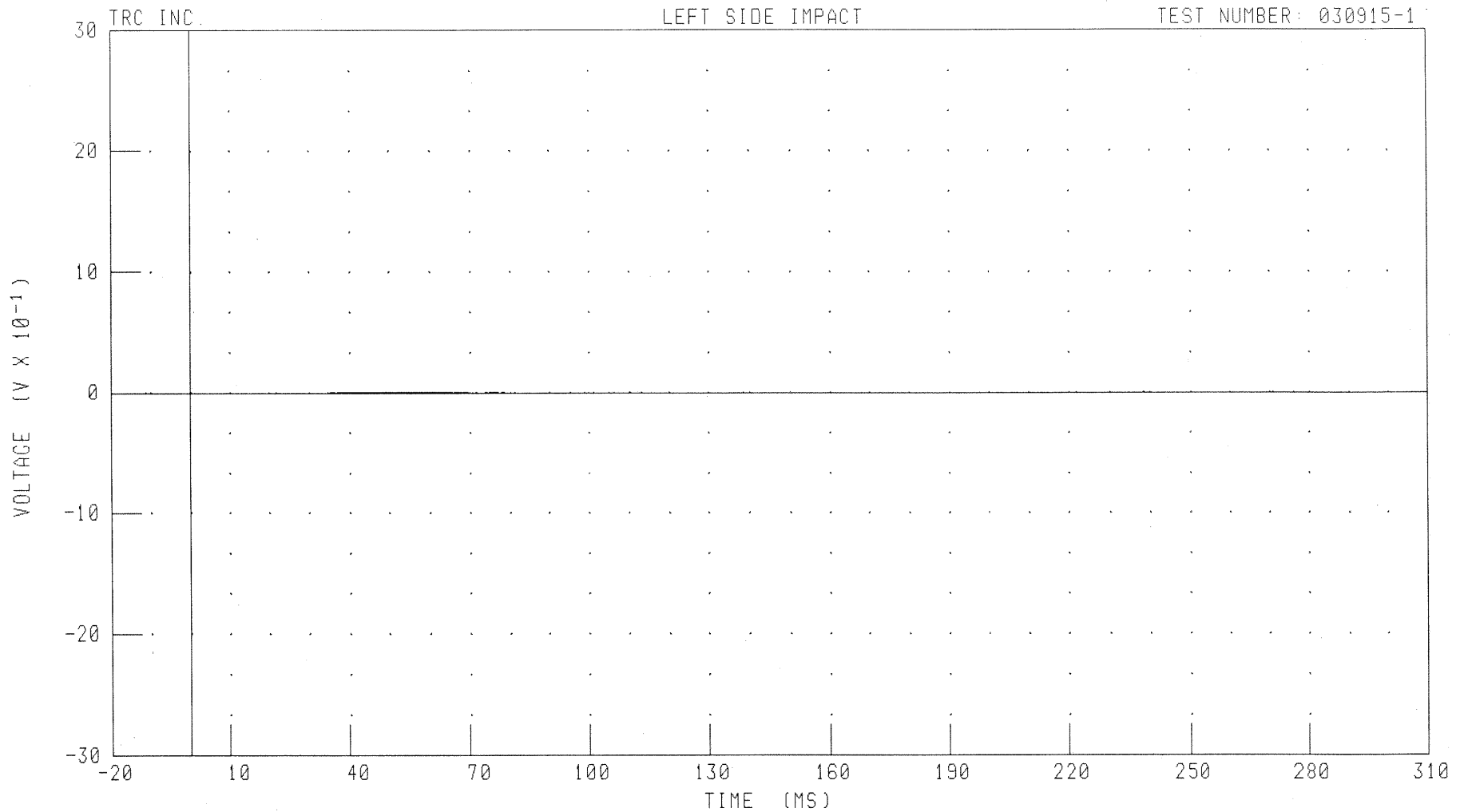
B-342

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 5 TO FRONT GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFG5V4 FILTER: CH. CLASS 1000

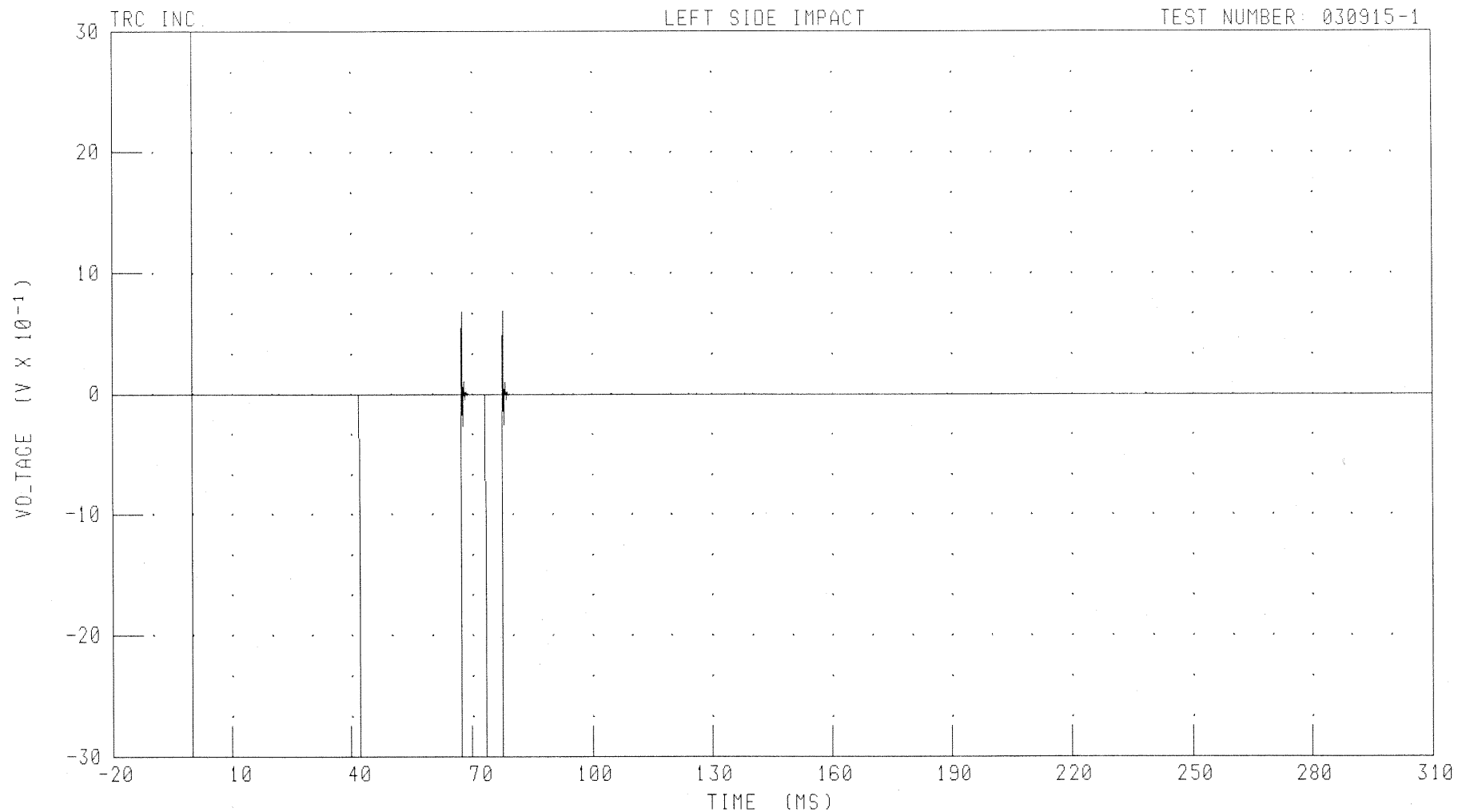
B-343

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 1 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC1V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.69 V @ 77.68 MS; -5.12 V @ 42.32 MS

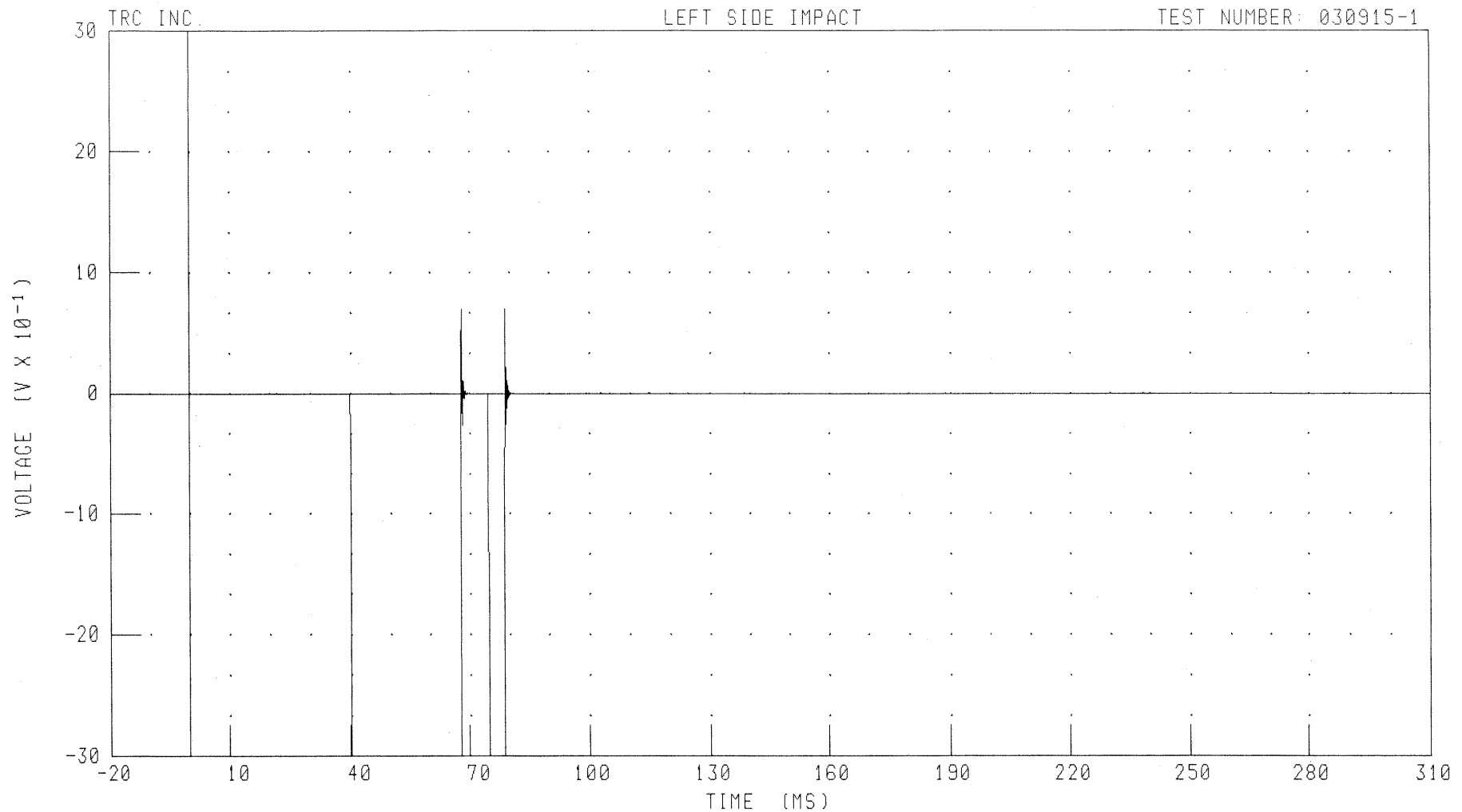
B-344

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 2 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC2V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.70 V @ 79.04 MS; -5.12 V @ 40.40 MS

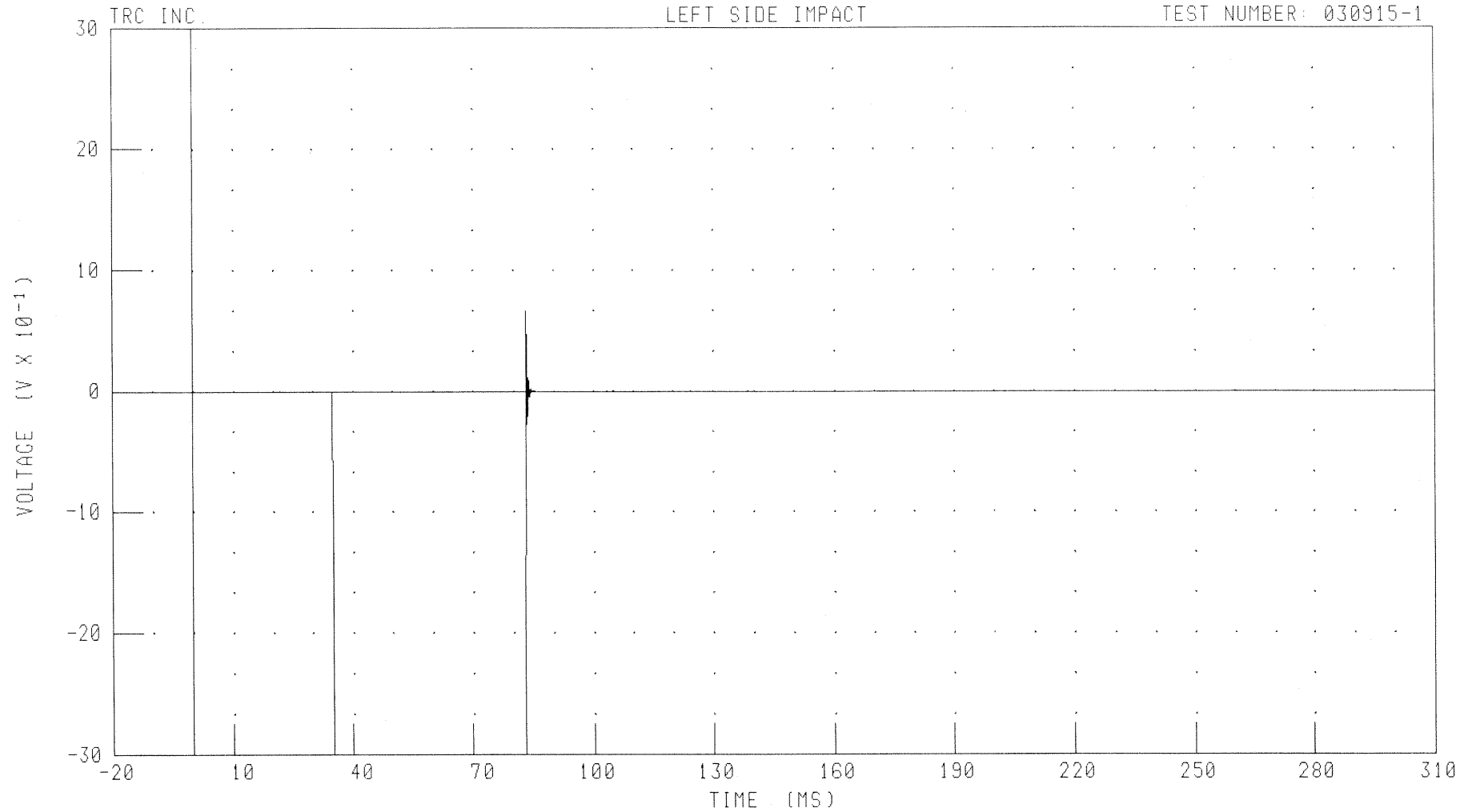
B-345

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 3 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC3V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.67 V @ 83.44 MS; -5.13 V @ 35.52 MS

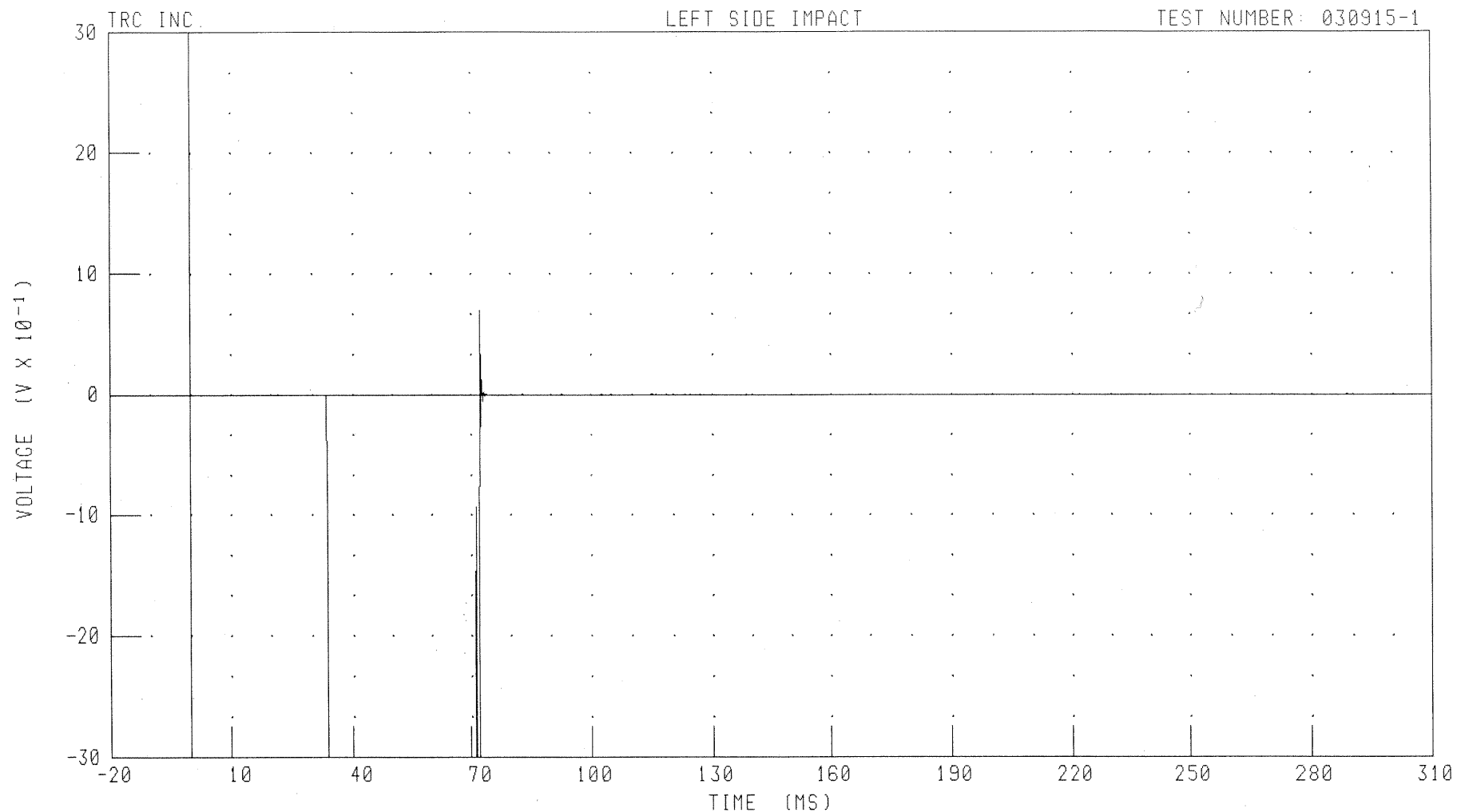
B-346

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 4 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBG4V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.70 V @ 72.40 MS; -5.12 V @ 34.00 MS

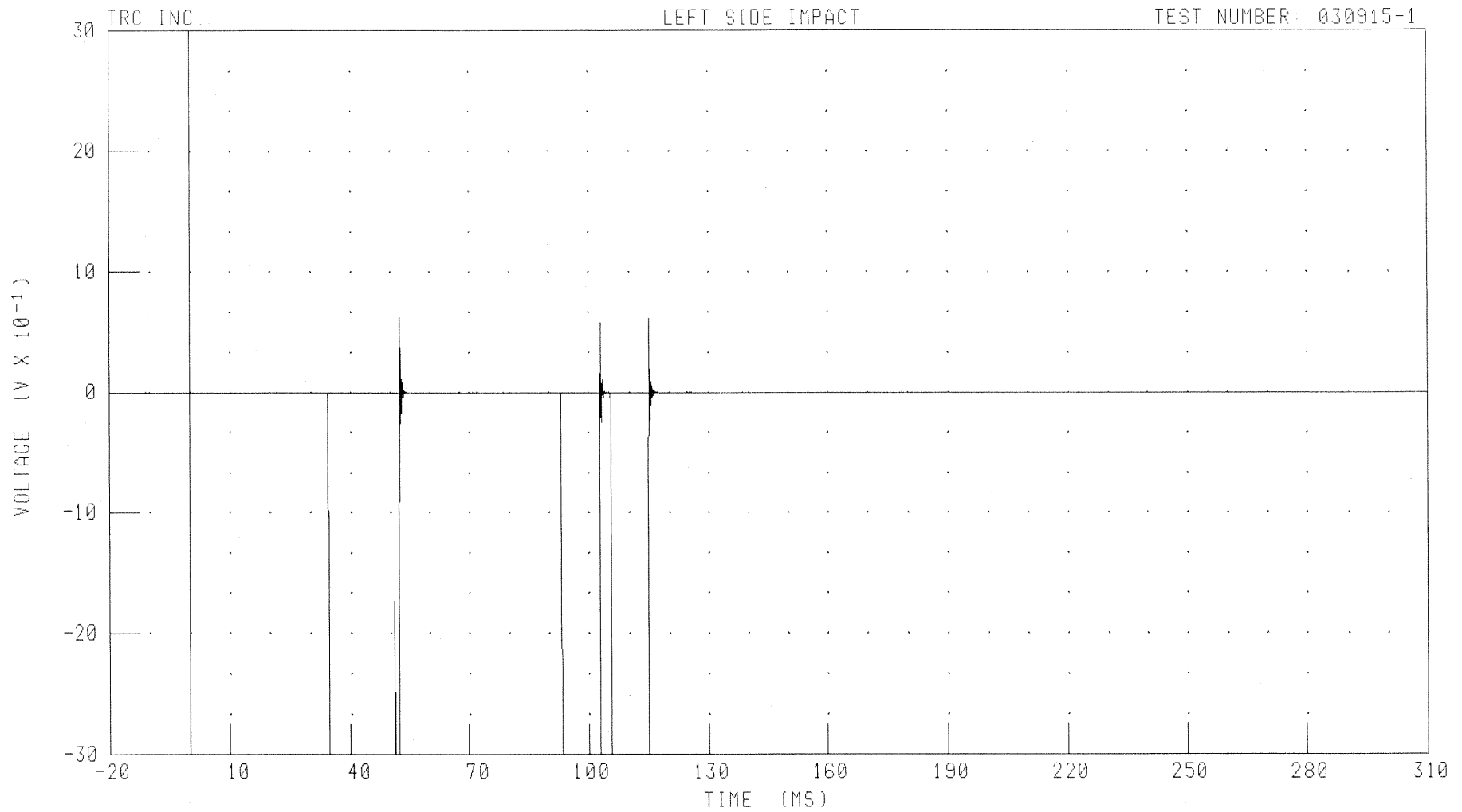
B-347

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER RIB 5 TO REAR GUIDE STOP

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RBC5V4 FILTER: CH. CLASS 1000

PEAK DATA: 0.62 V @ 52.64 MS; -5.12 V @ 34.72 MS

B-348

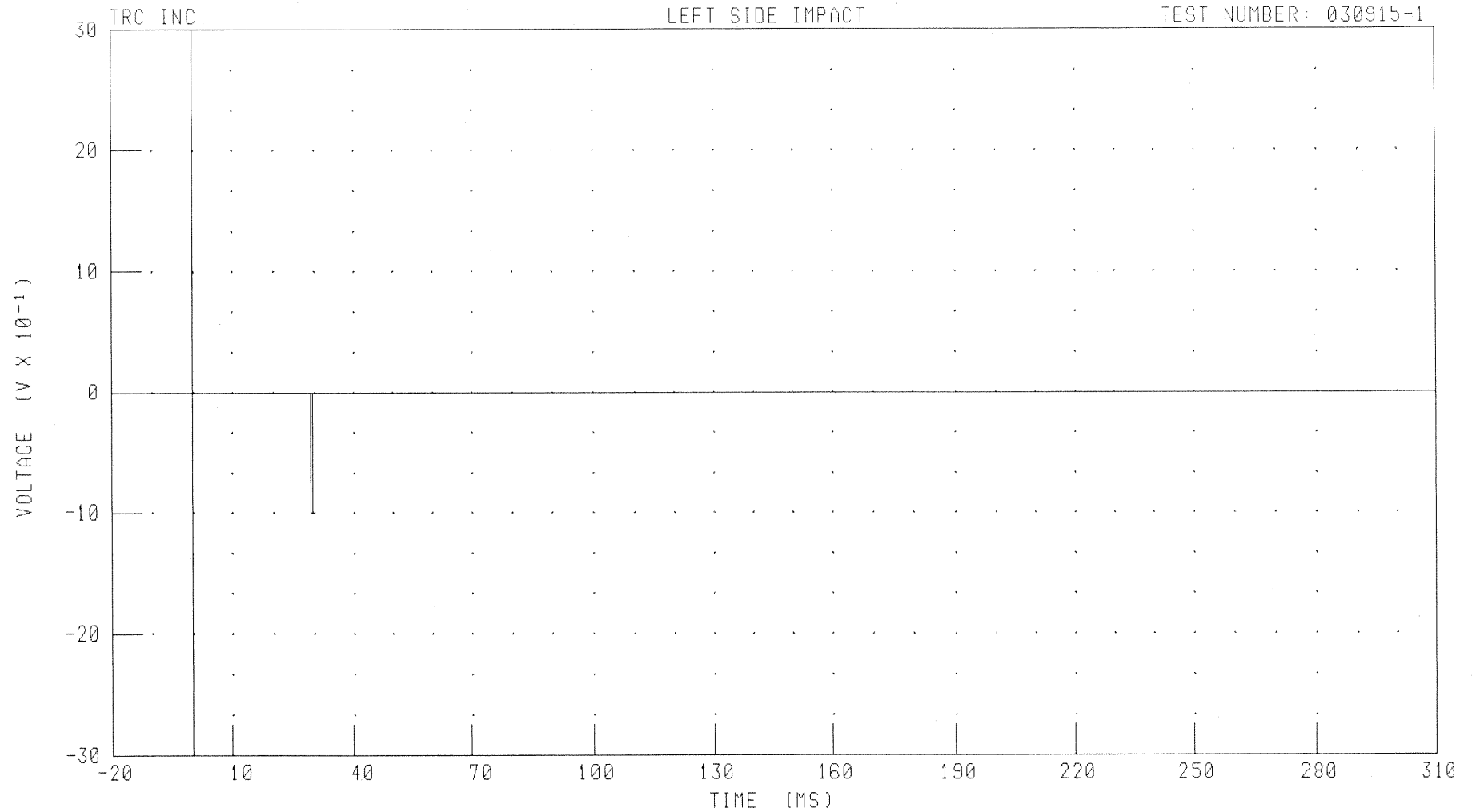
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER SHOULDER CONTACT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: CSTC4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 29.28 MS

B-349

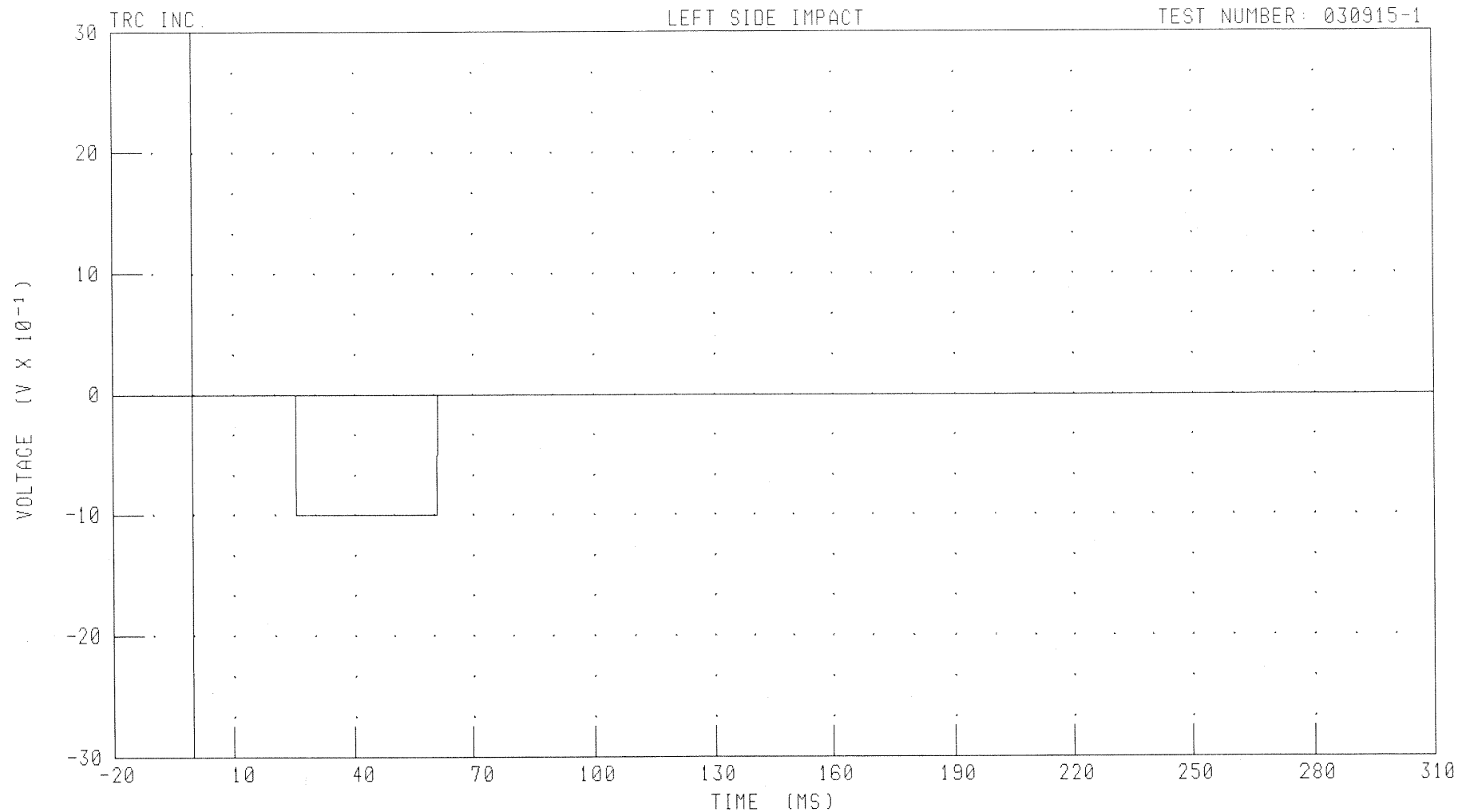
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER PELVIS CONTACT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVC4

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 25.44 MS

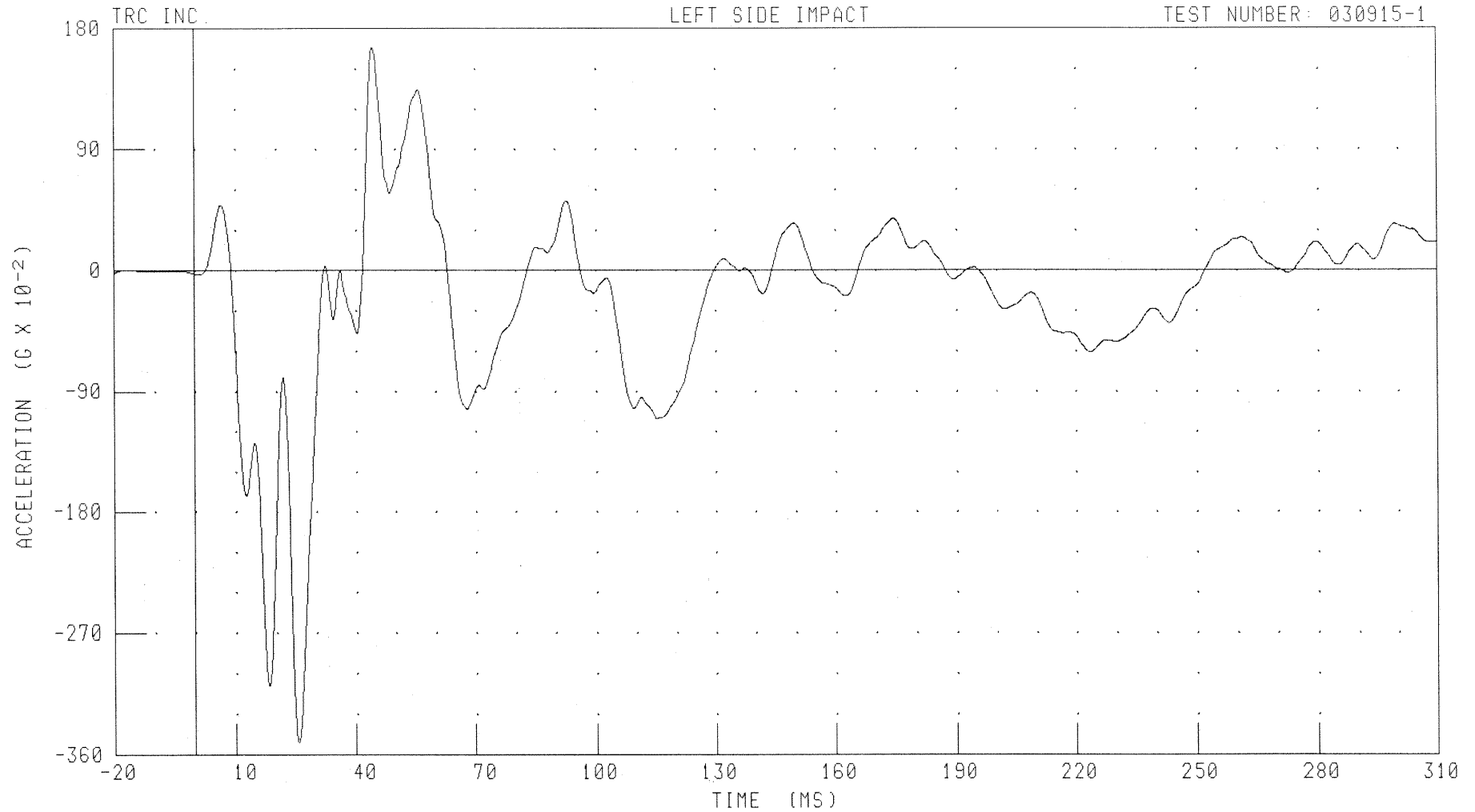
B-350

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSXG1

FILTER: CH. CLASS 60

PEAK DATA: 1.66 G @ 44.40 MS; -3.51 G @ 25.44 MS

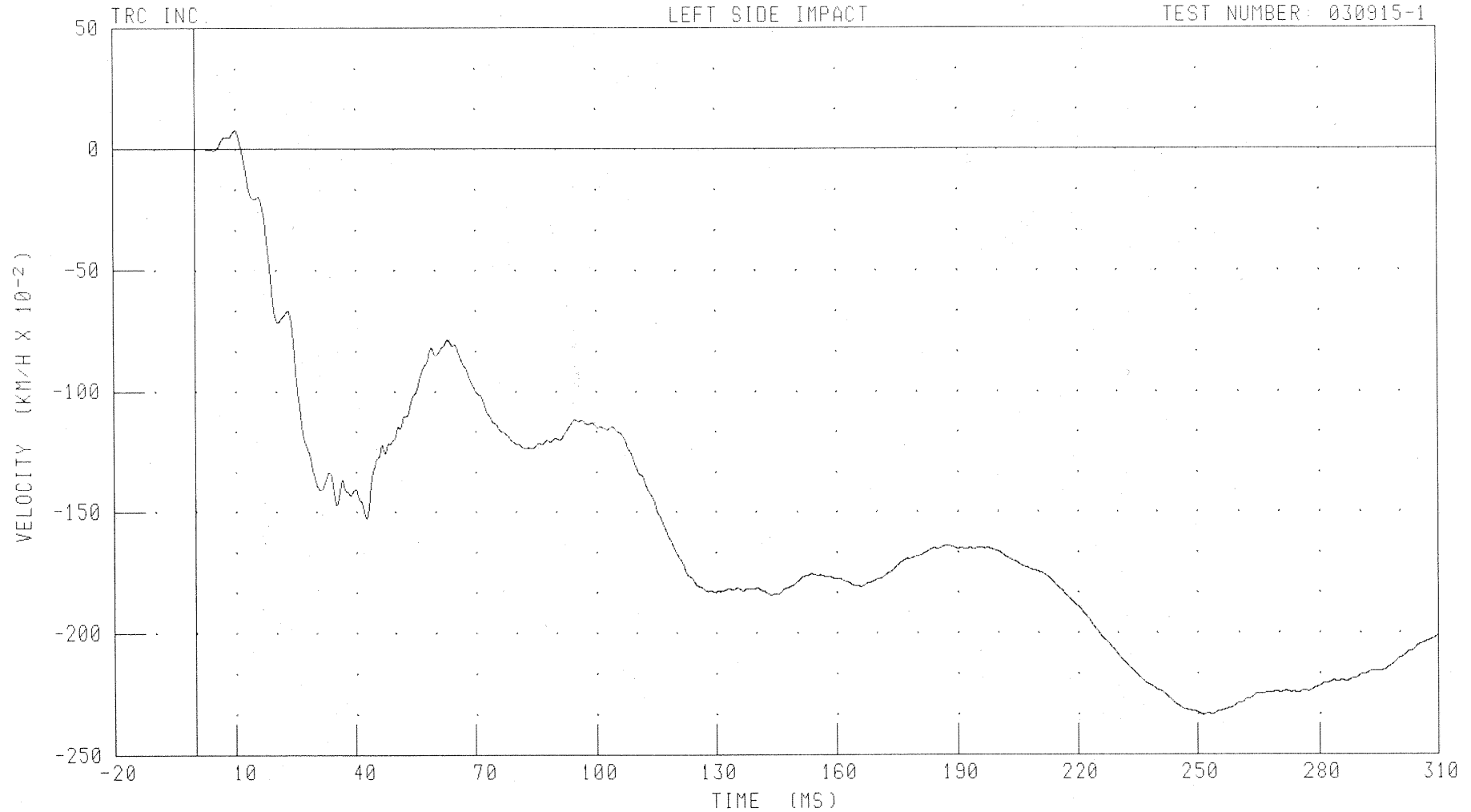
B-351

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSXV1 FILTER: CH. CLASS 100

PEAK DATA: 0.08 KM/H @ 10.08 MS, -23.4 KM/H @ 251.36 MS

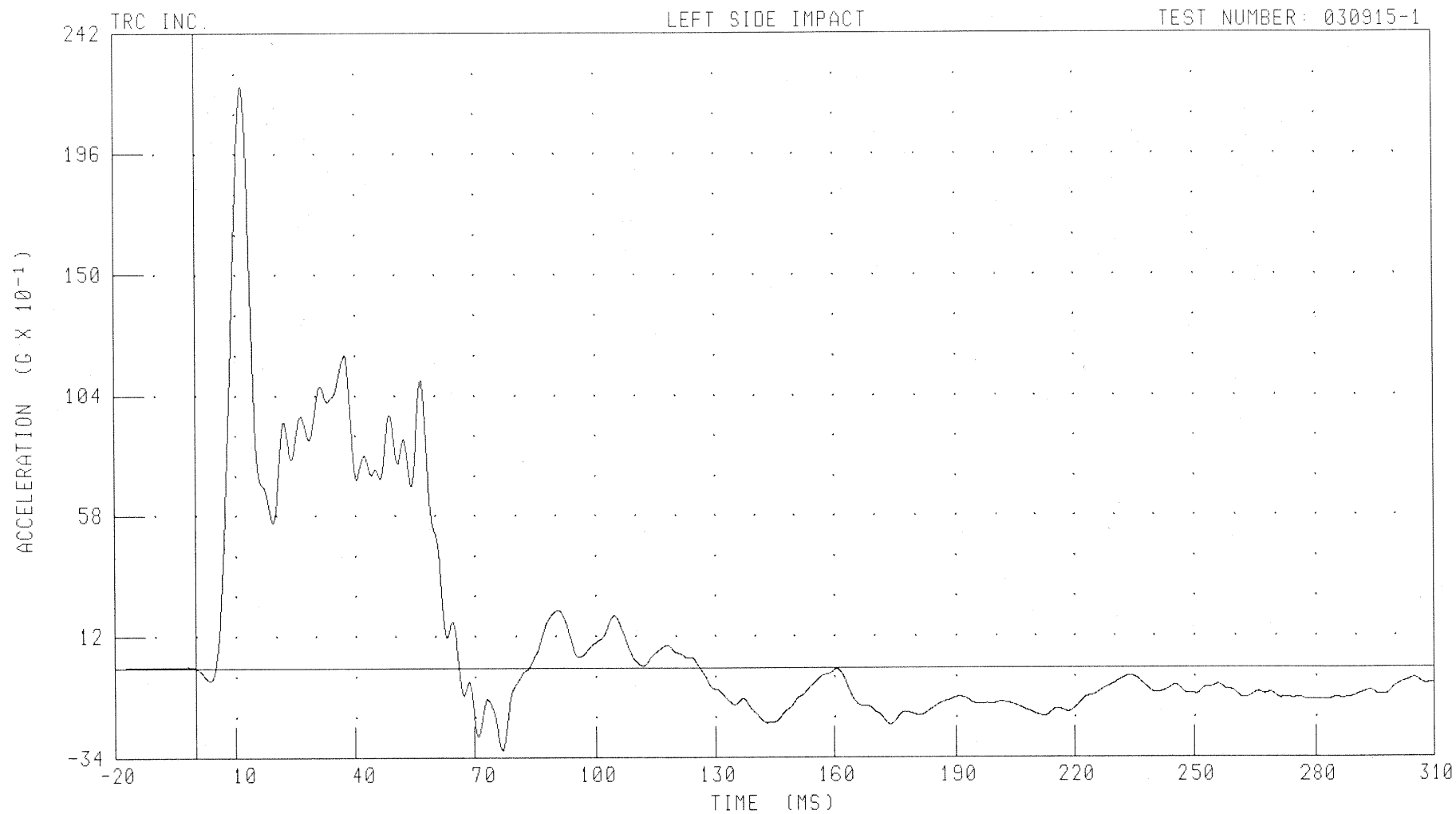
B-352

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSYG1 FILTER: CH. CLASS 60

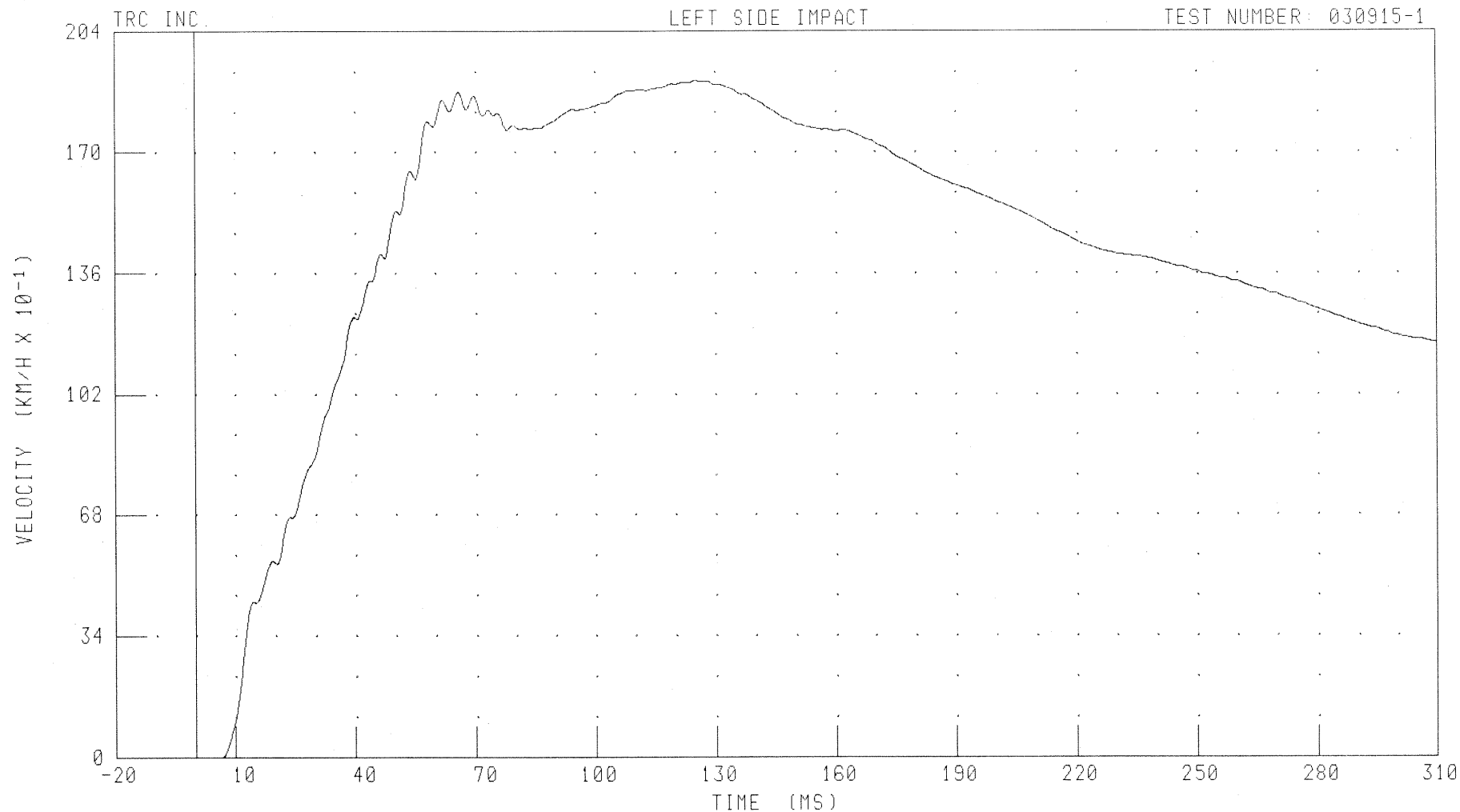
B-353

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSYV1 FILTER: CH. CLASS 180

PEAK DATA: 19.02 KM/H @ 125.20 MS; -0.01 KM/H @ 6.32 MS

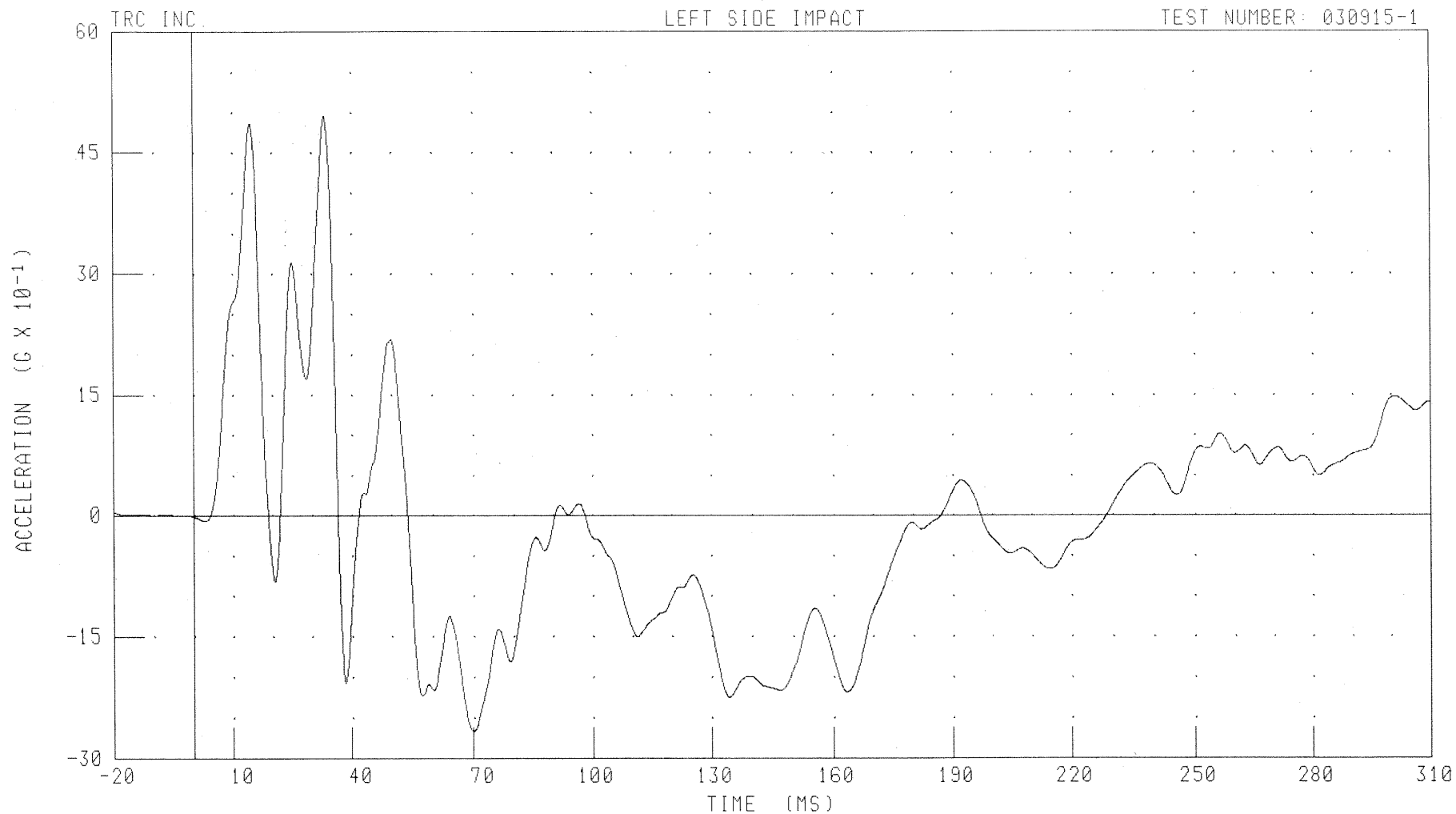
B-354

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSZG1 FILTER: CH. CLASS 60

PEAK DATA: 4.96 G @ 33.36 MS; -2.67 G @ 70.00 MS

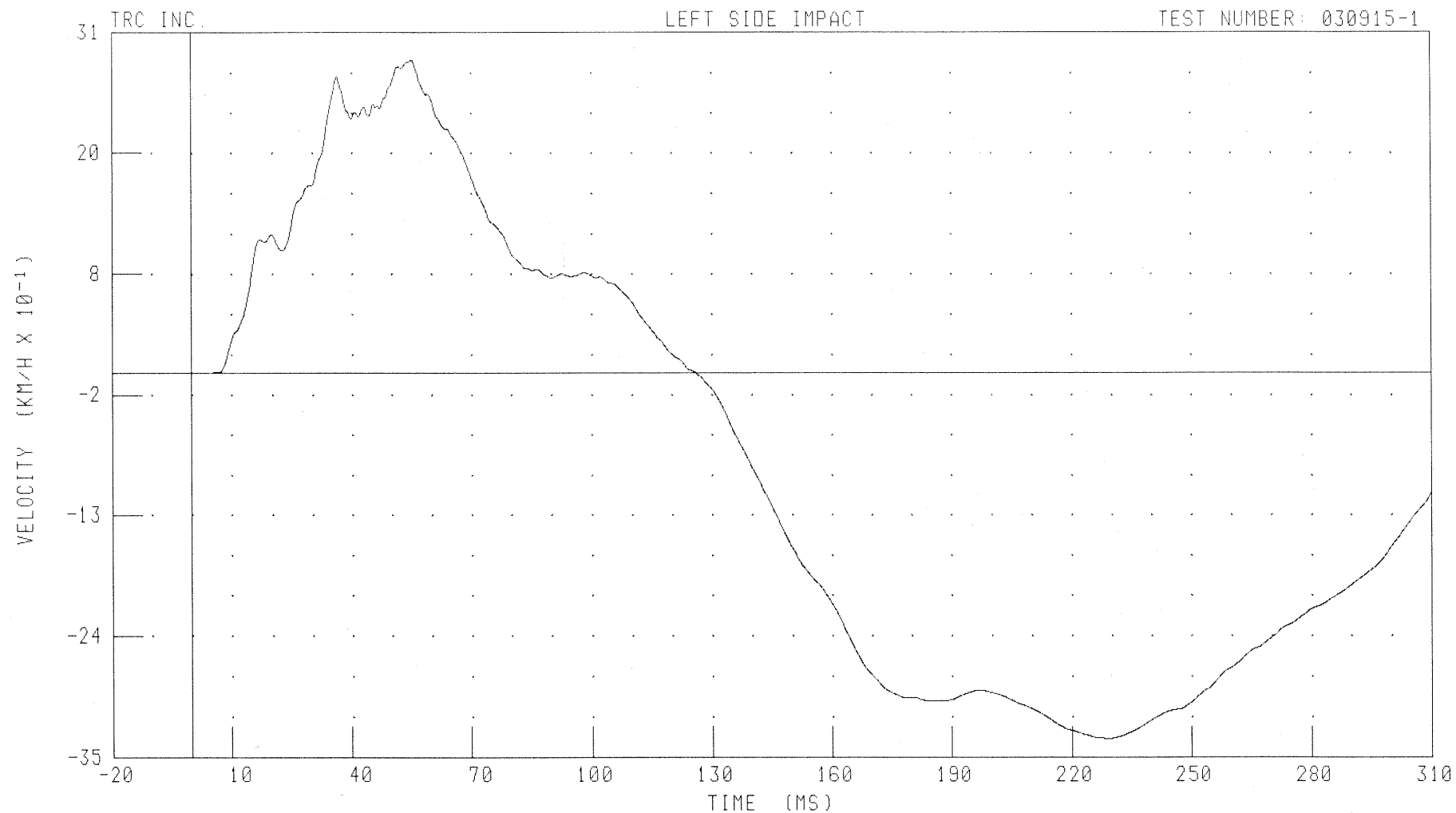
B-355

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSZV1

FILTER: CH. CLASS 180

PEAK DATA: 2.85 KM/H @ 55.12 MS; -3.33 KM/H @ 229.44 MS

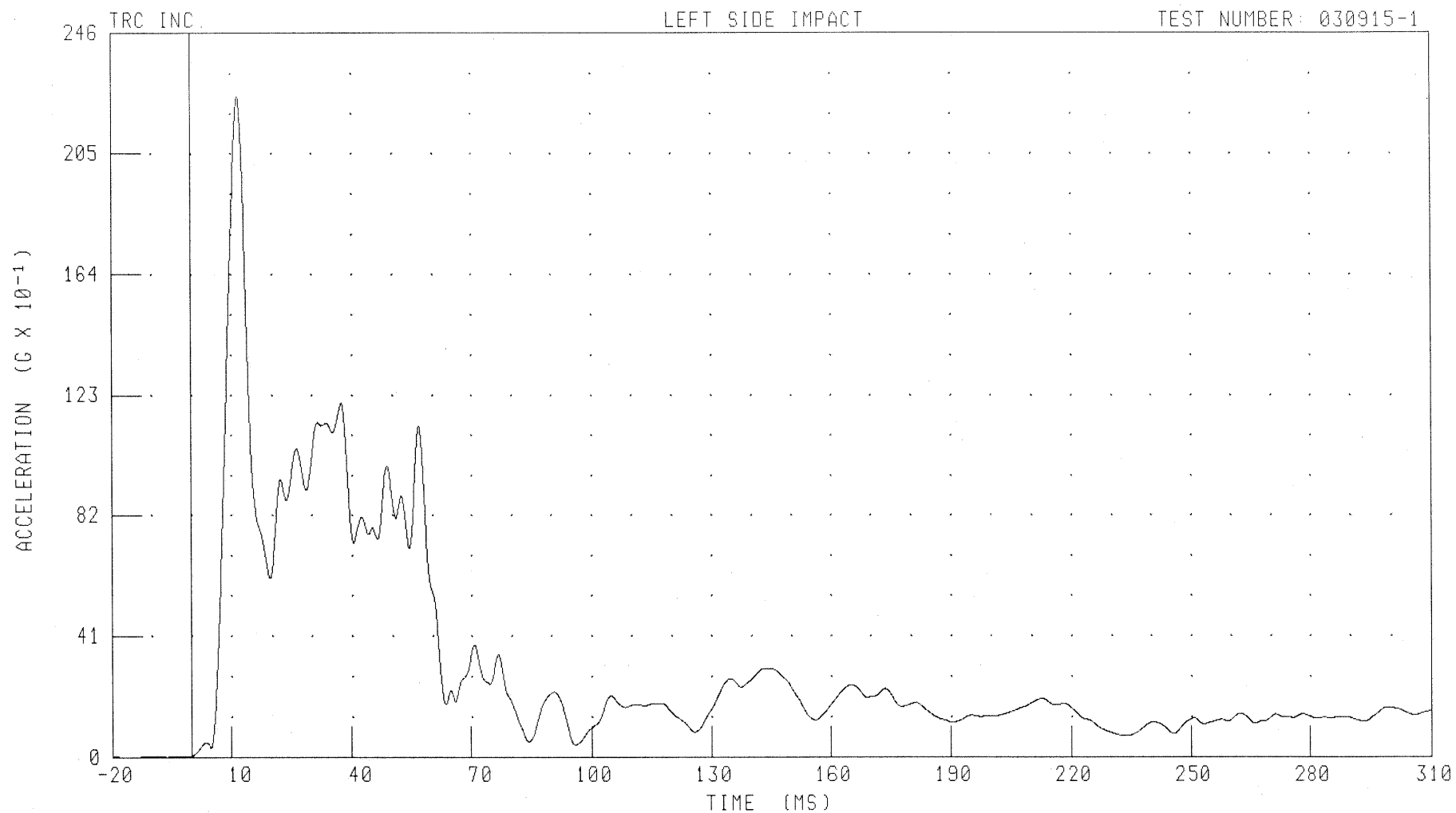
B-356

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RFSRG1 FILTER: CH. CLASS 60

PEAK DATA: 22.45 G @ 11.76 MS; 0.01 G @ -17.20 MS

B-357

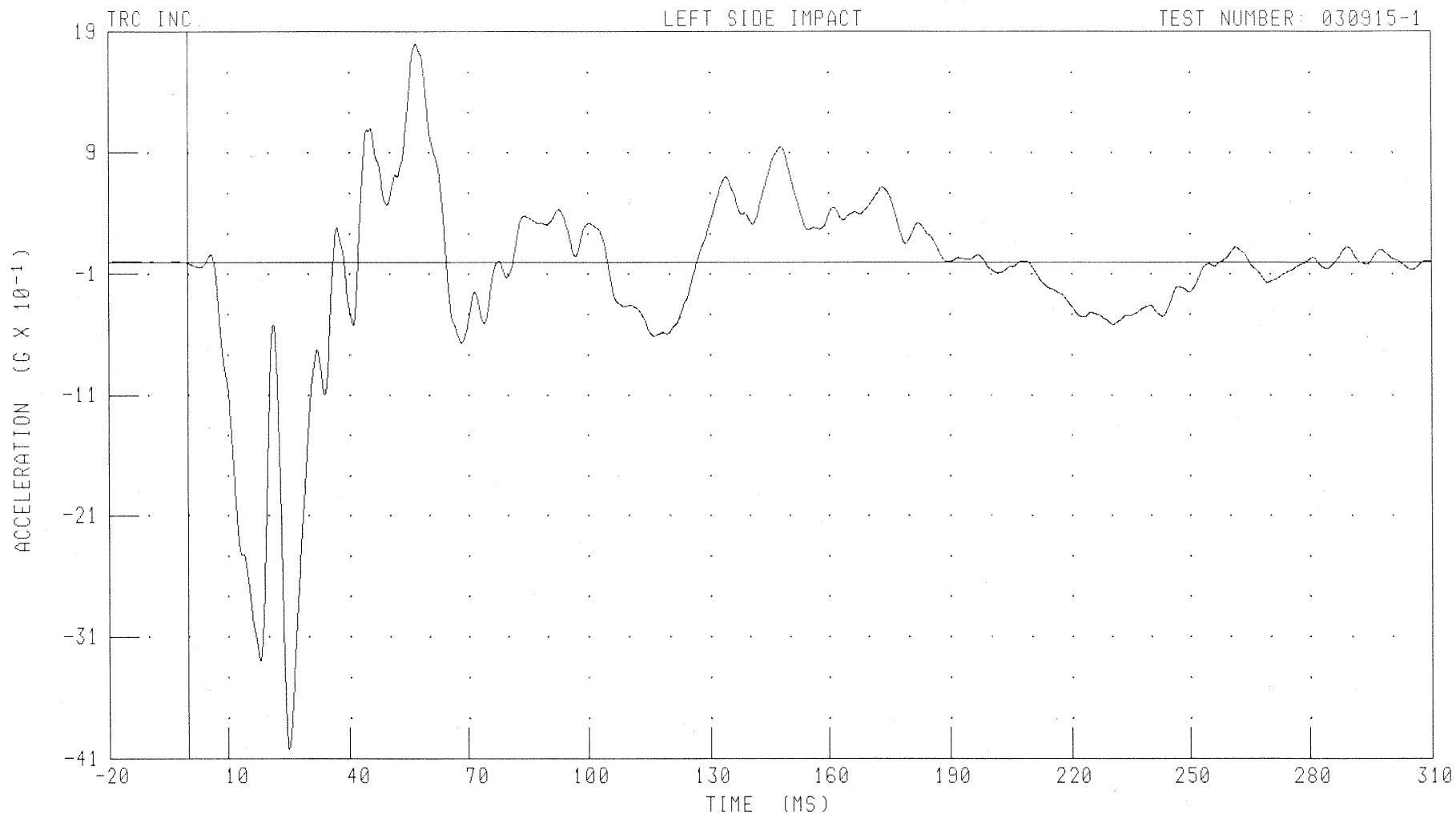
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

RIGHT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSXG1 FILTER: CH. CLASS 60

PEAK DATA: 1.80 G @ 56.80 MS; -4.03 G @ 25.20 MS

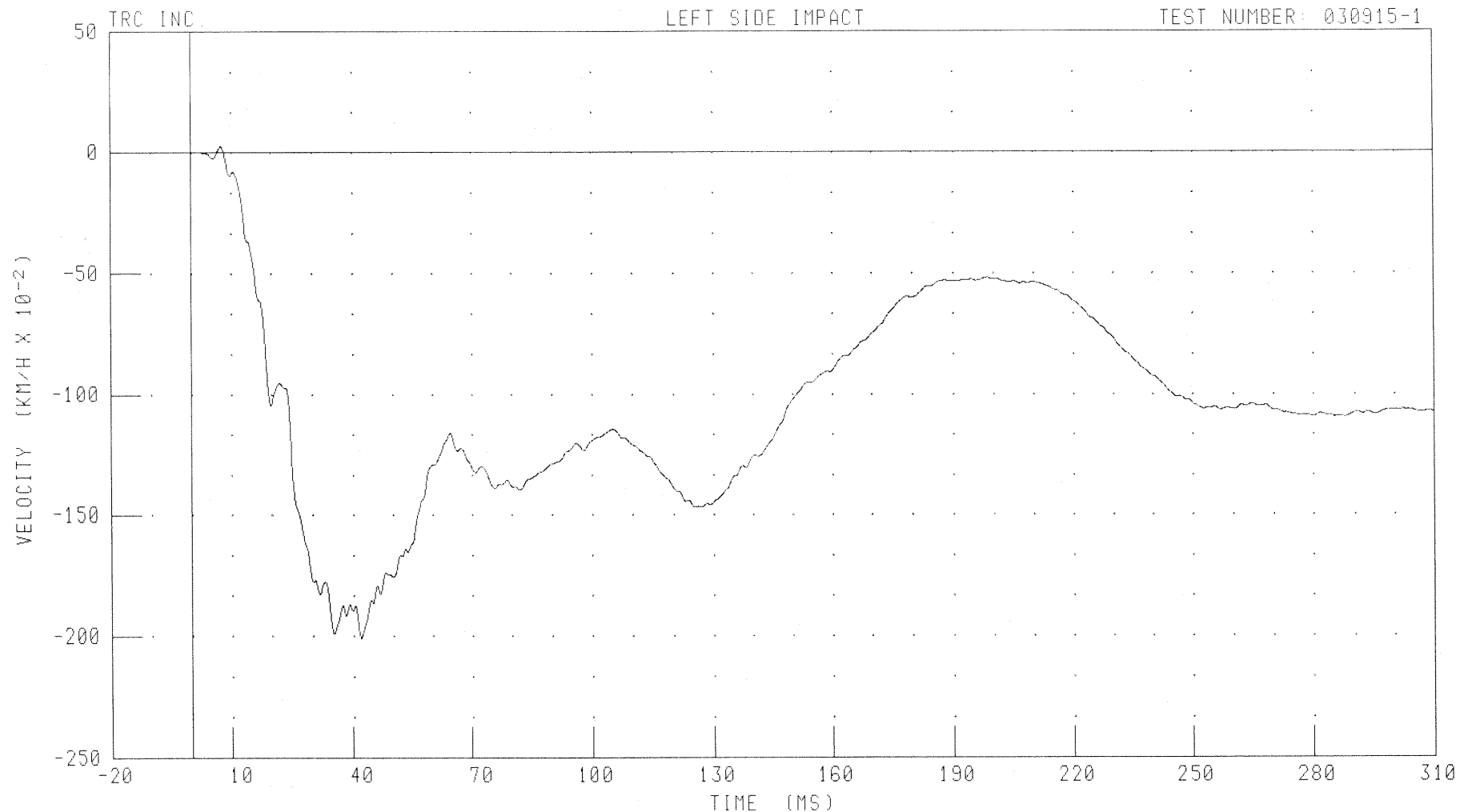
B-358

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSXV1

FILTER: CH. CLASS 180

PEAK DATA: 0.03 KM/H @ 7.52 MS; -2.01 KM/H @ 42.08 MS

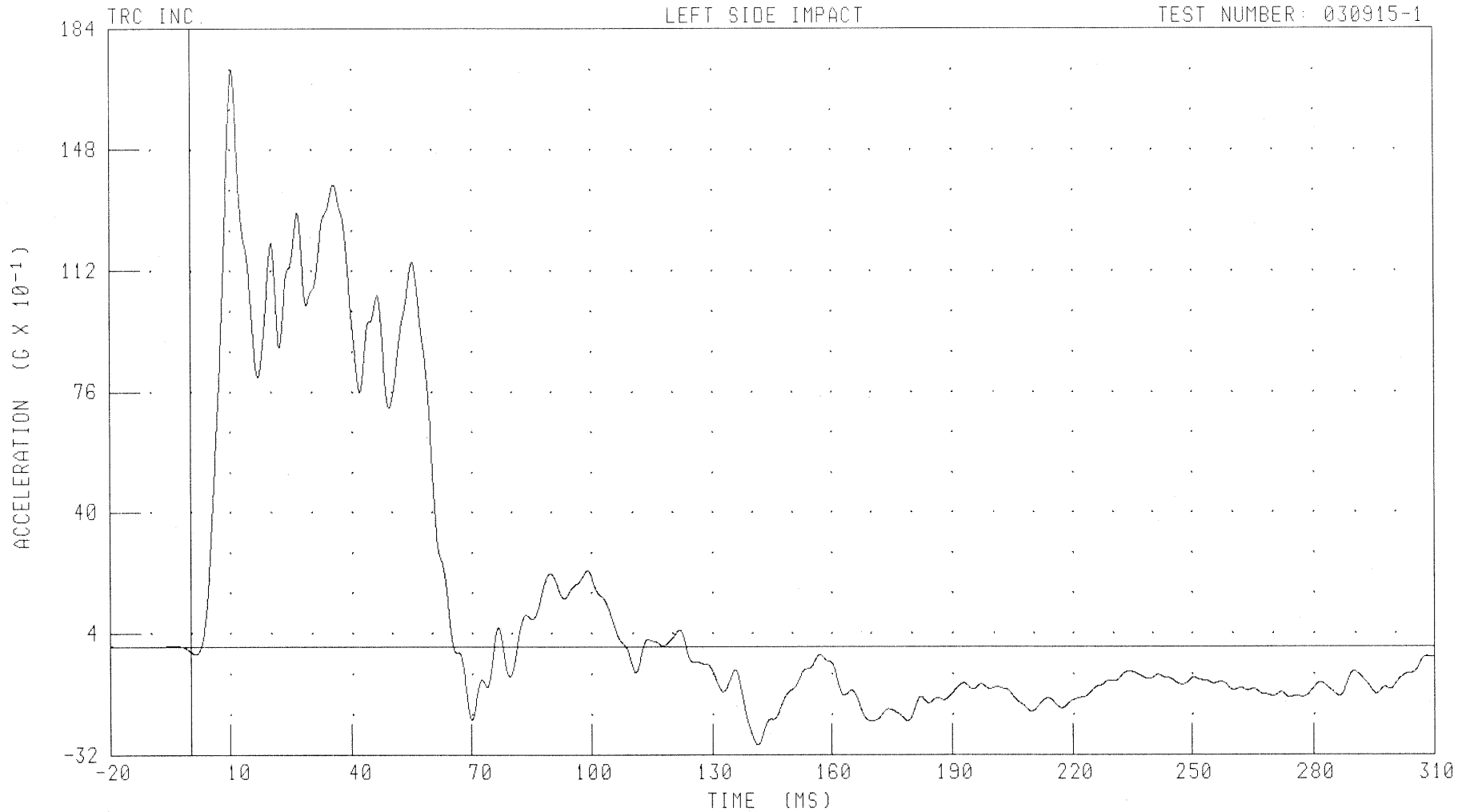
B-359

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSYG1 FILTER: CH. CLASS 60

PEAK DATA: 17.20 G @ 10.56 MS; -2.91 G @ 141.44 MS

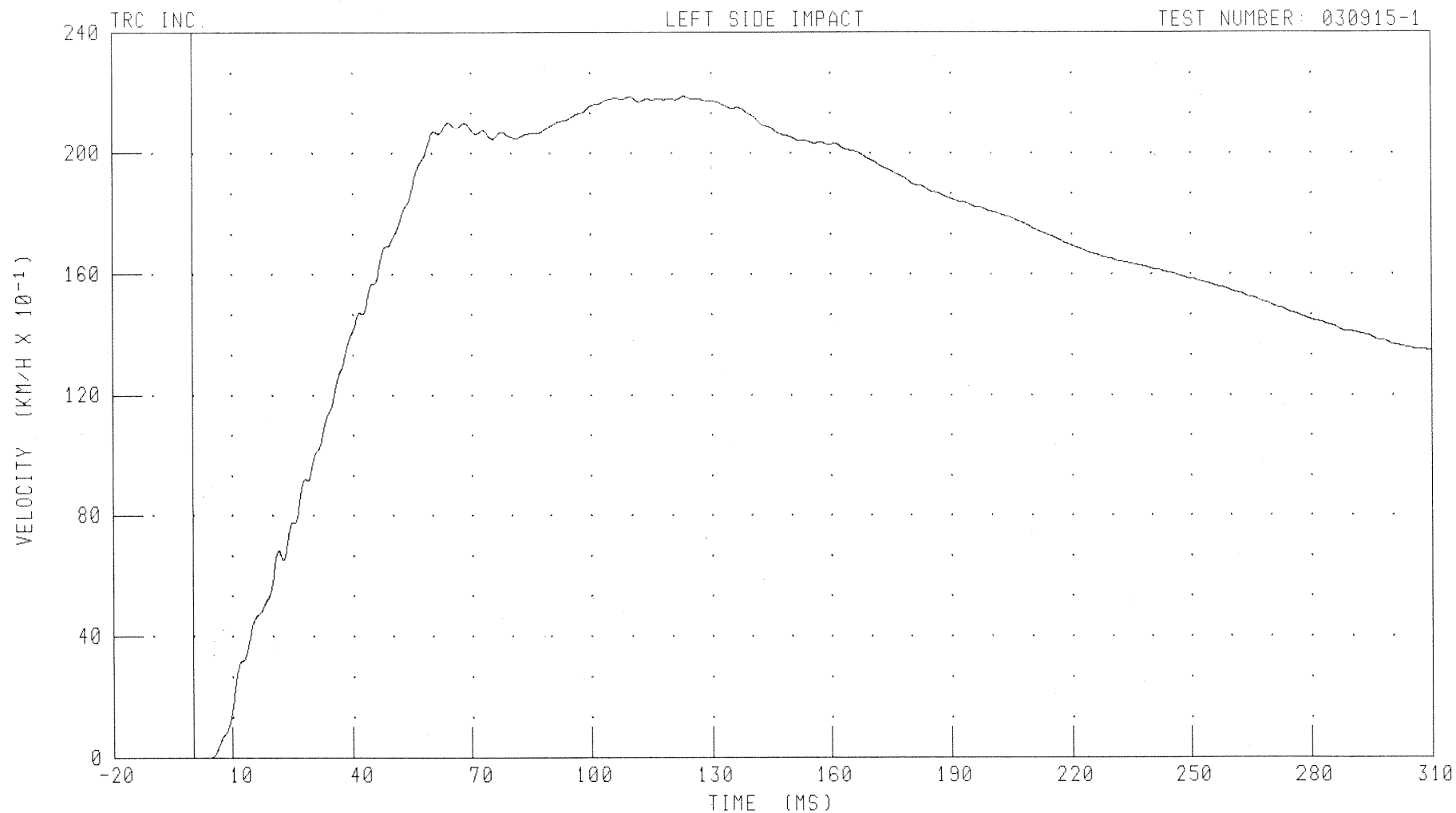
B-360

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSYV1 FILTER: CH. CLASS 180

PEAK DATA: 21.90 KM/H @ 123.28 MS; 0.00 KM/H @ 0.32 MS

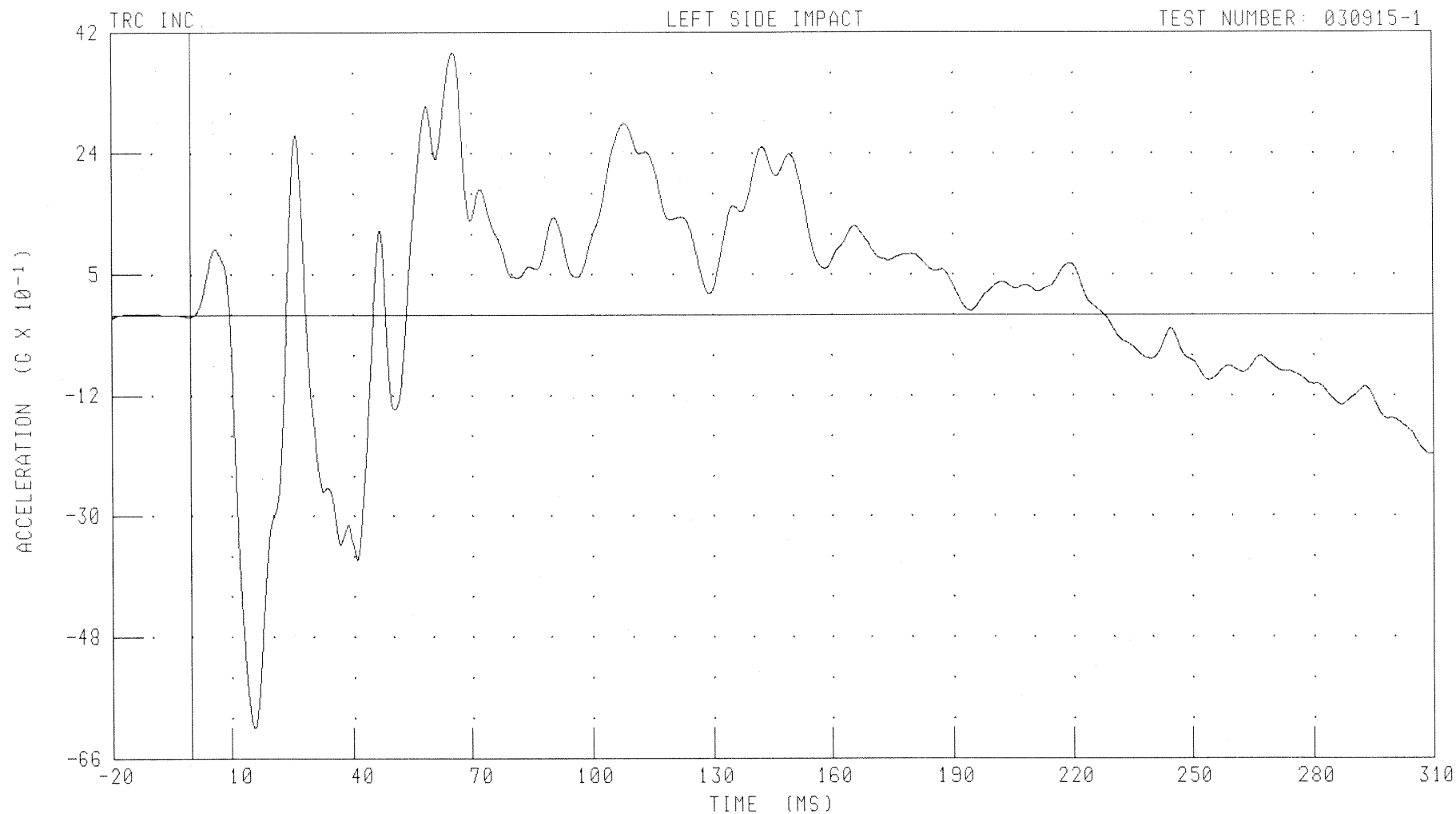
B-361

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSZG1

FILTER: CH. CLASS 60

PEAK DATA: 3.90 G @ 65.44 MS; -6.15 G @ 15.60 MS

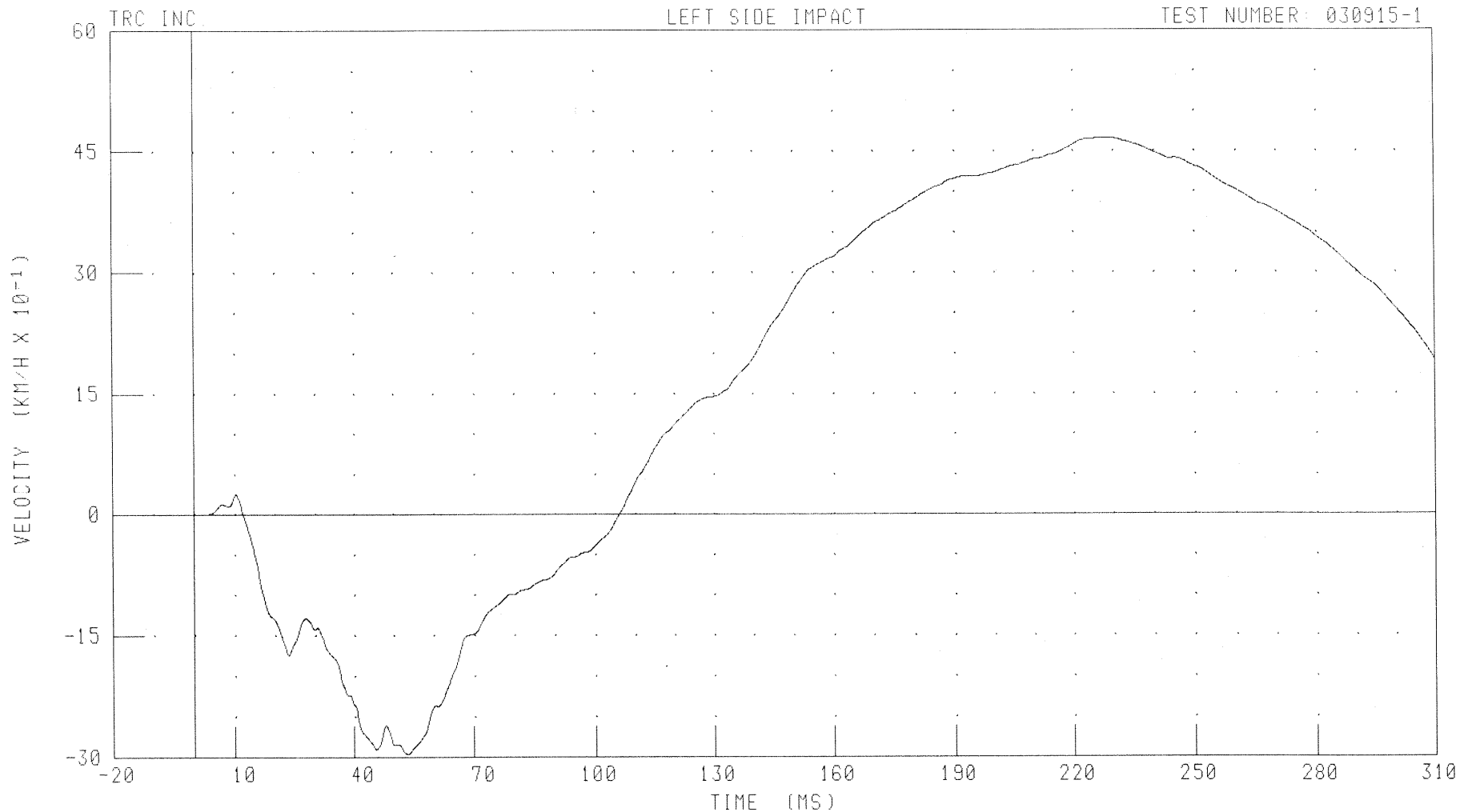
B-362

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSZV1 FILTER: CH. CLASS 180

PEAK DATA: 4.66 KM/H @ 229.44 MS, -2.97 KM/H @ 53.52 MS

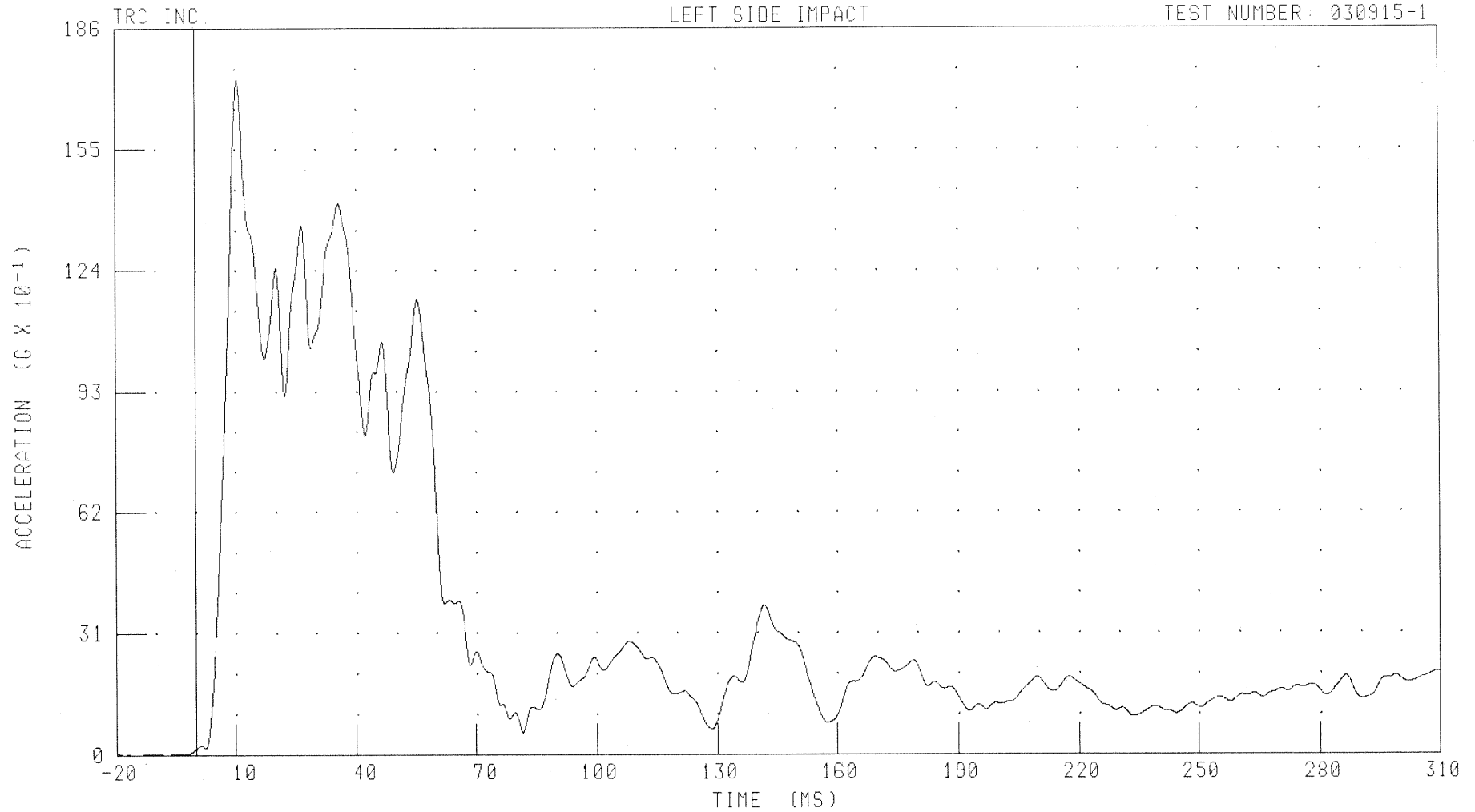
B-363

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRSRG1

FILTER: CH. CLASS 60

PEAK DATA: 17.29 G @ 10.56 MS; 0.01 G @ -18.24 MS

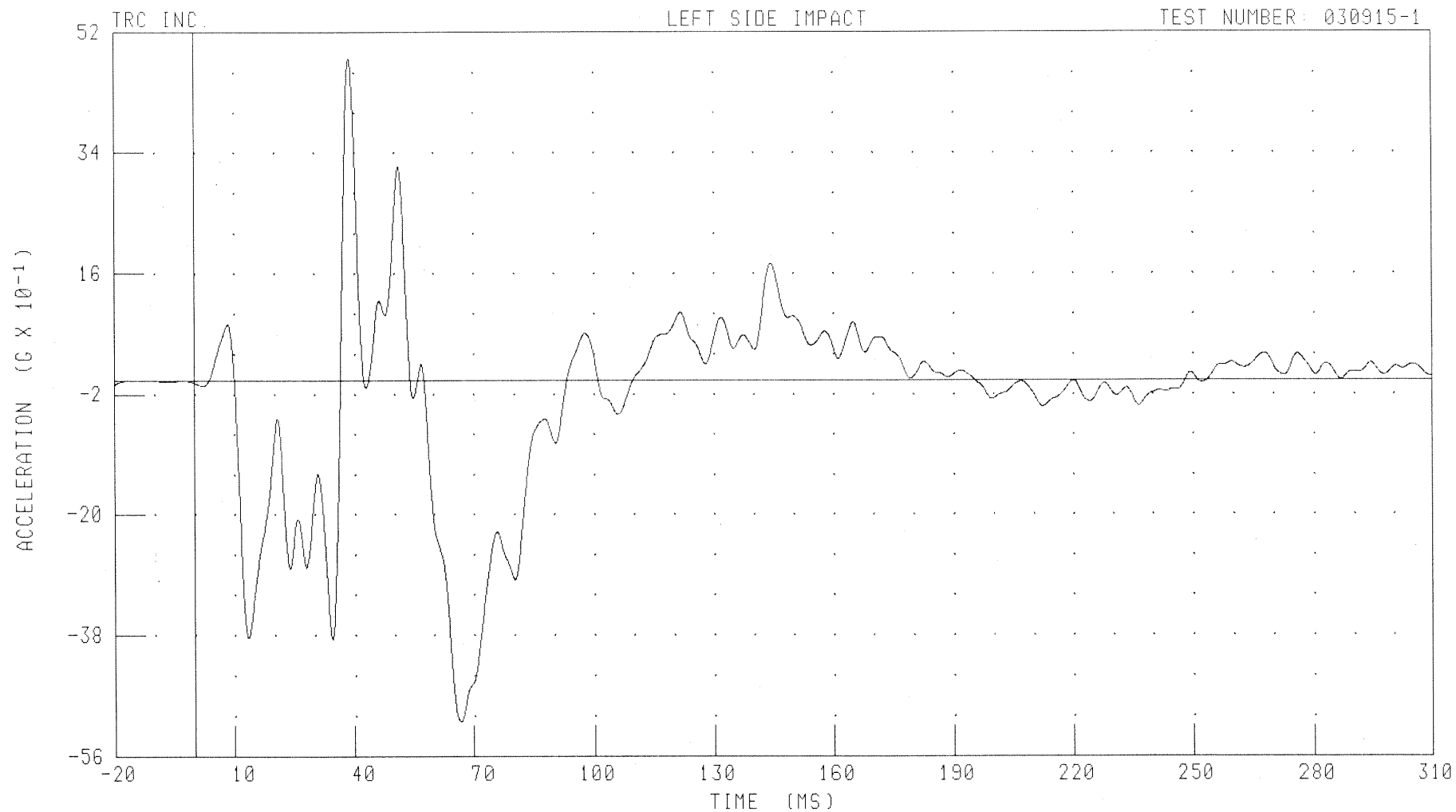
B-364

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKXG1 FILTER: CH. CLASS 60

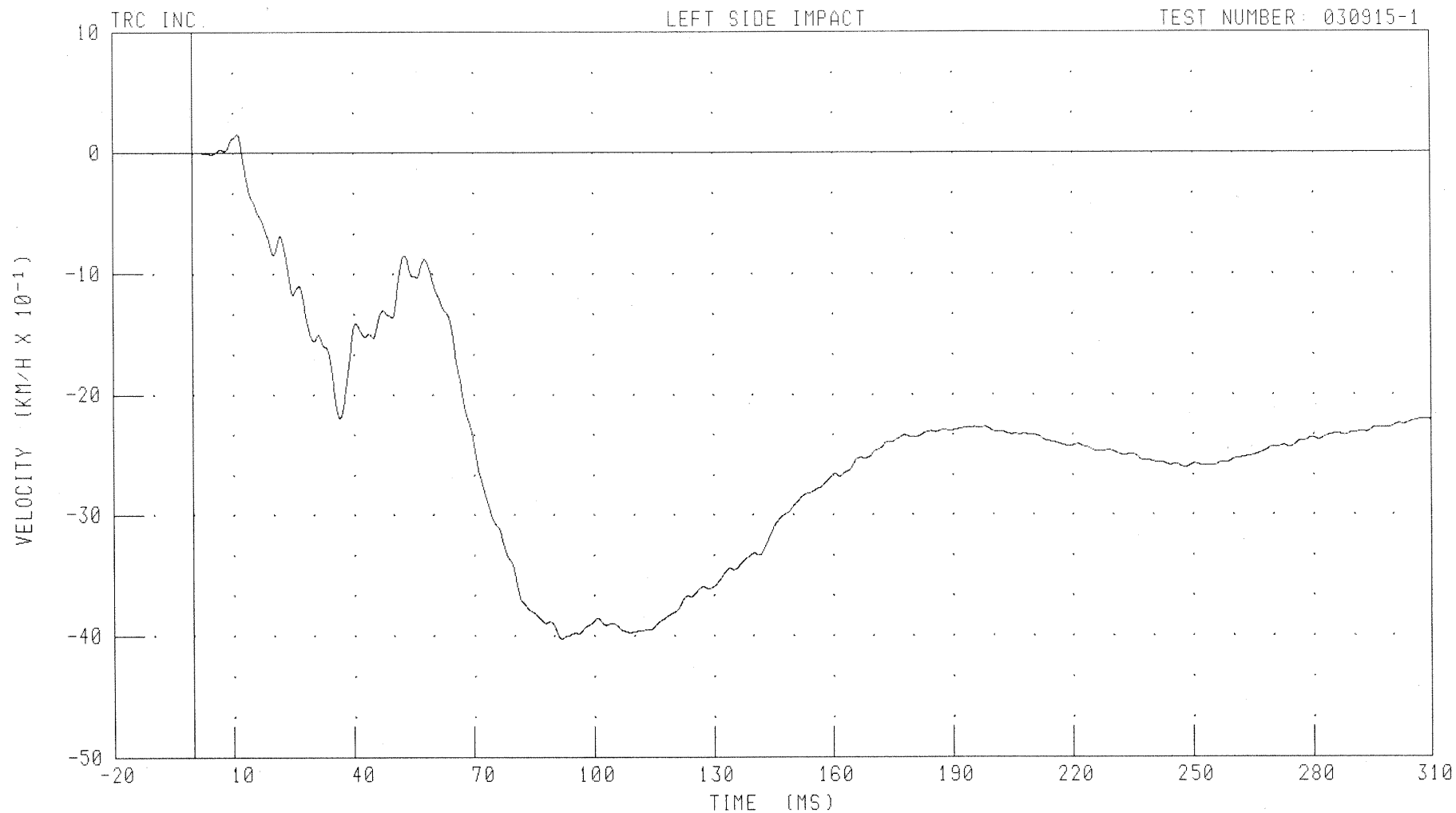
B-365

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKXV1 FILTER: CH. CLASS 180

PEAK DATA: 0.15 KM/H @ 11.20 MS; -4.03 KM/H @ 91.92 MS

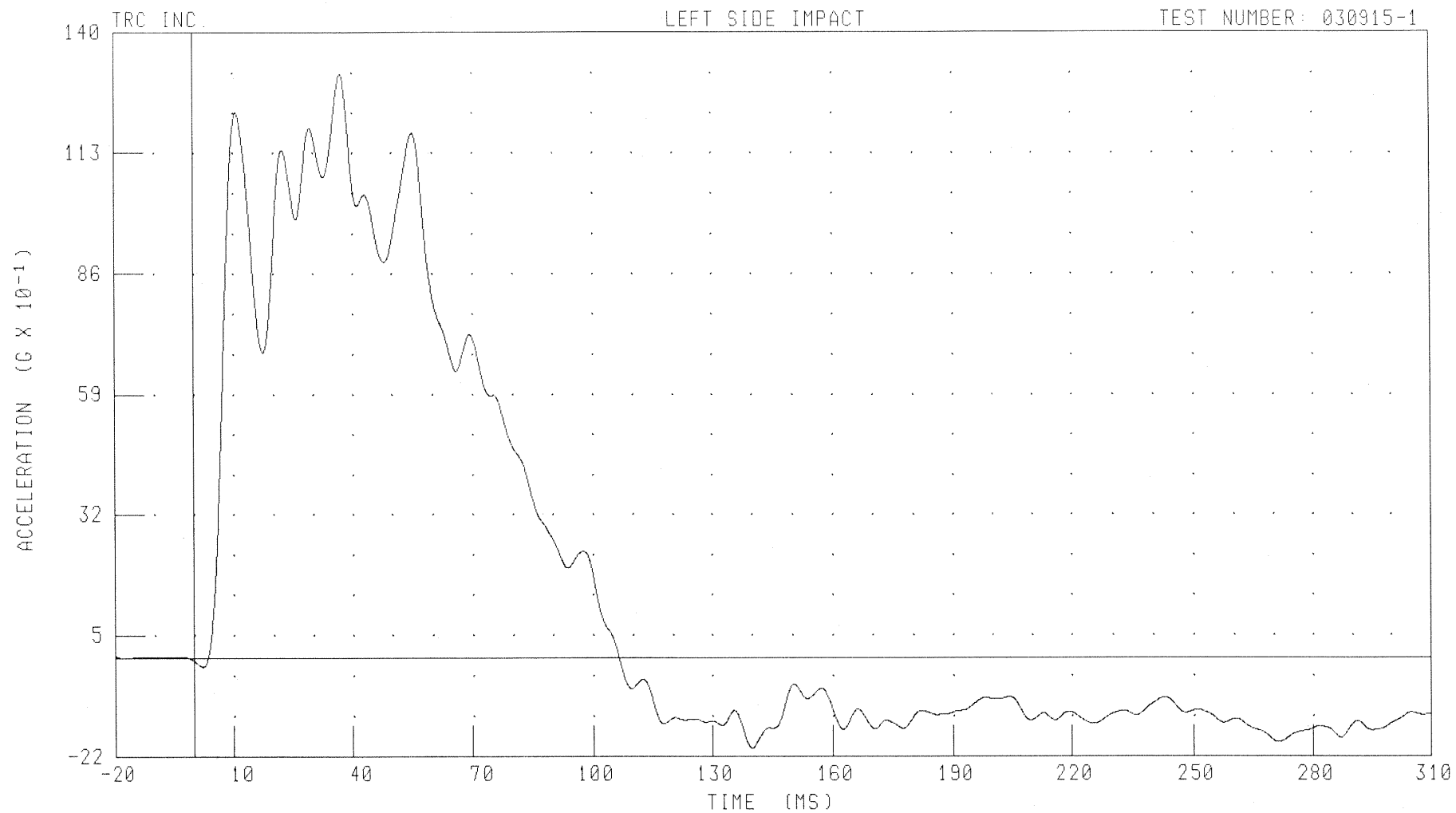
B-366

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKYG1

FILTER: CH. CLASS 60

PEAK DATA: 13.08 G @ 37.20 MS; -2.02 G @ 140.00 MS

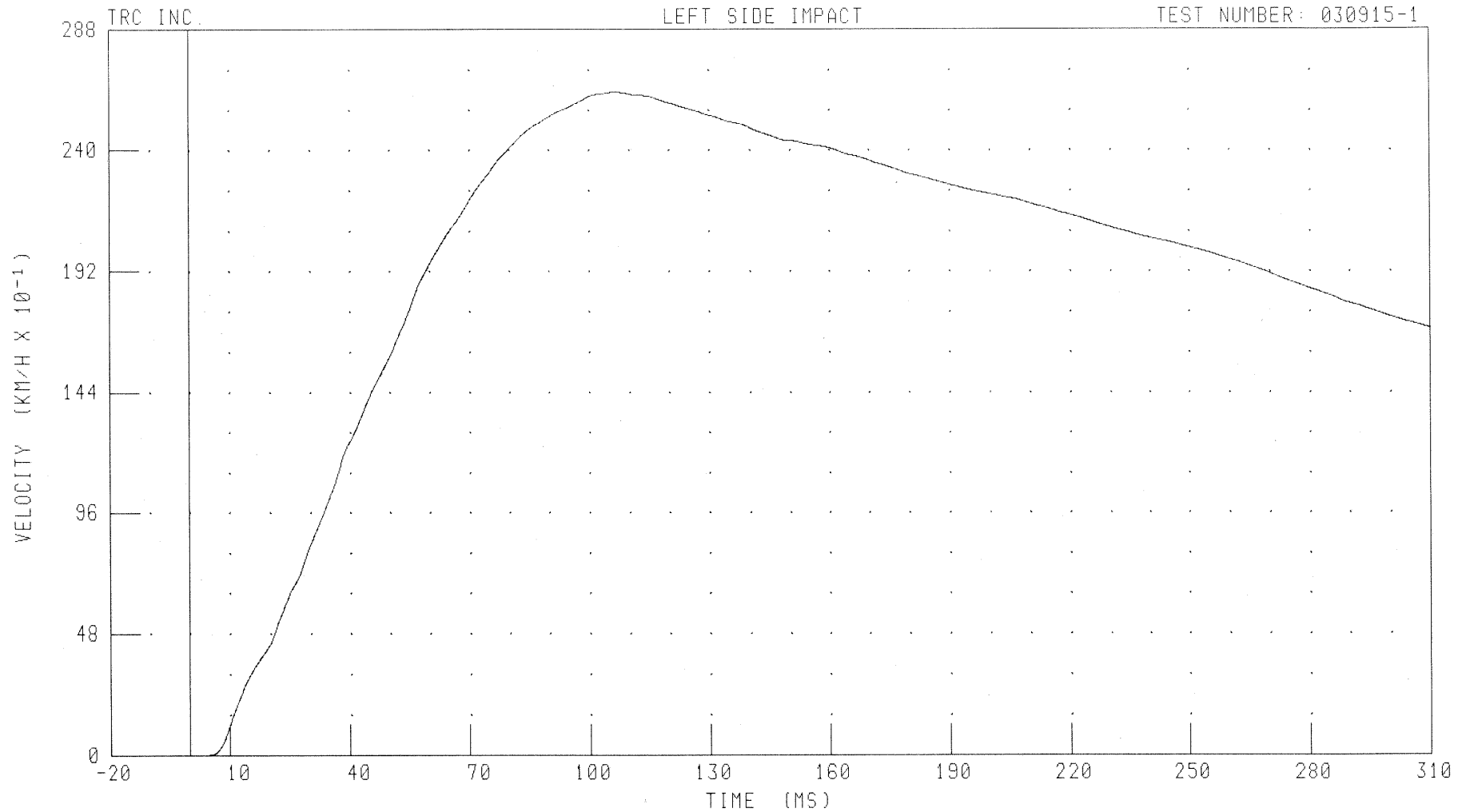
B-367

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKYV1 FILTER: CH. CLASS 180

PEAK DATA: 26.33 KM/H @ 106.88 MS; 0.00-KM/H @ 0.72 MS

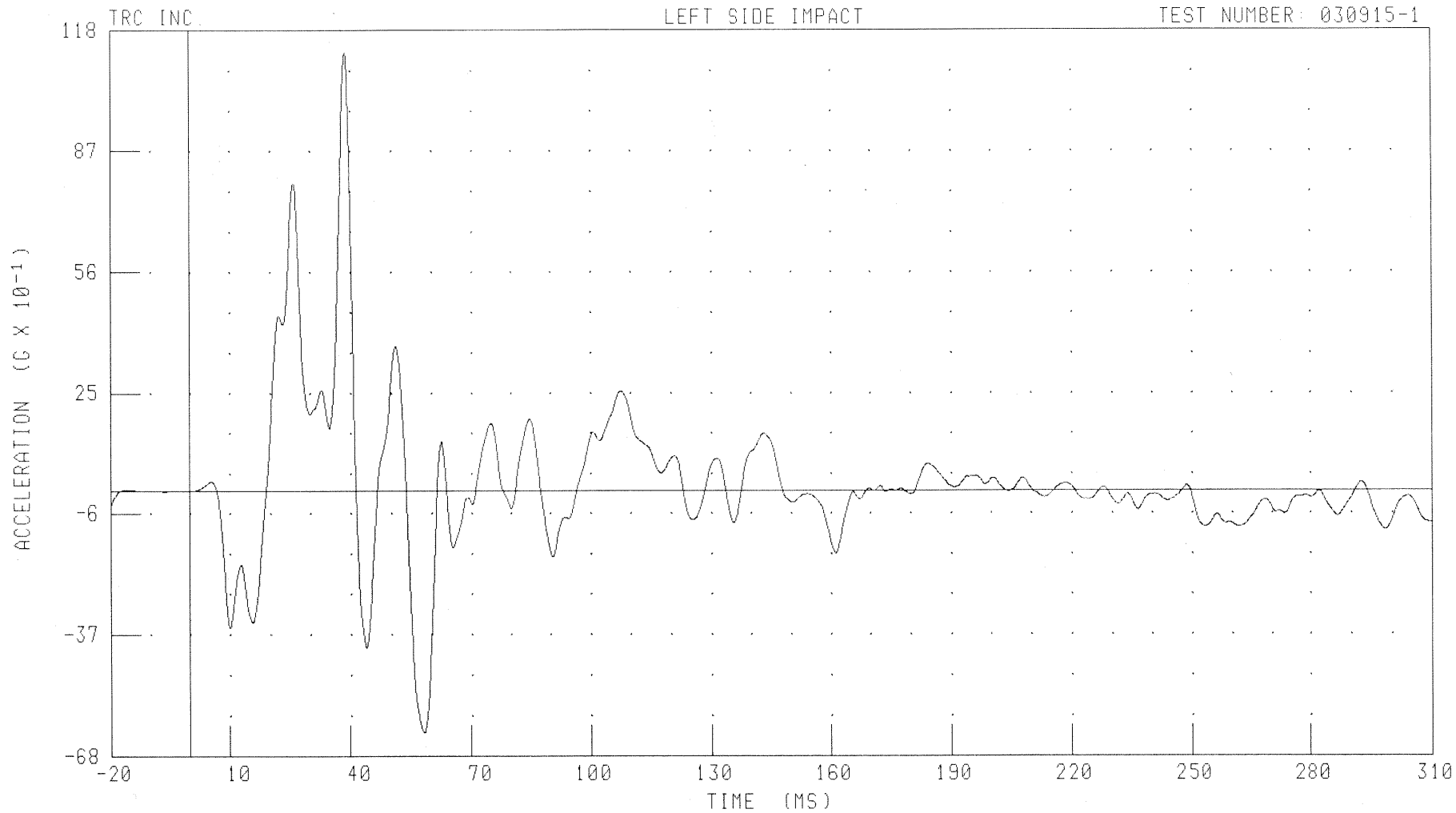
B-368

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKZG1 FILTER: CH. CLASS 60

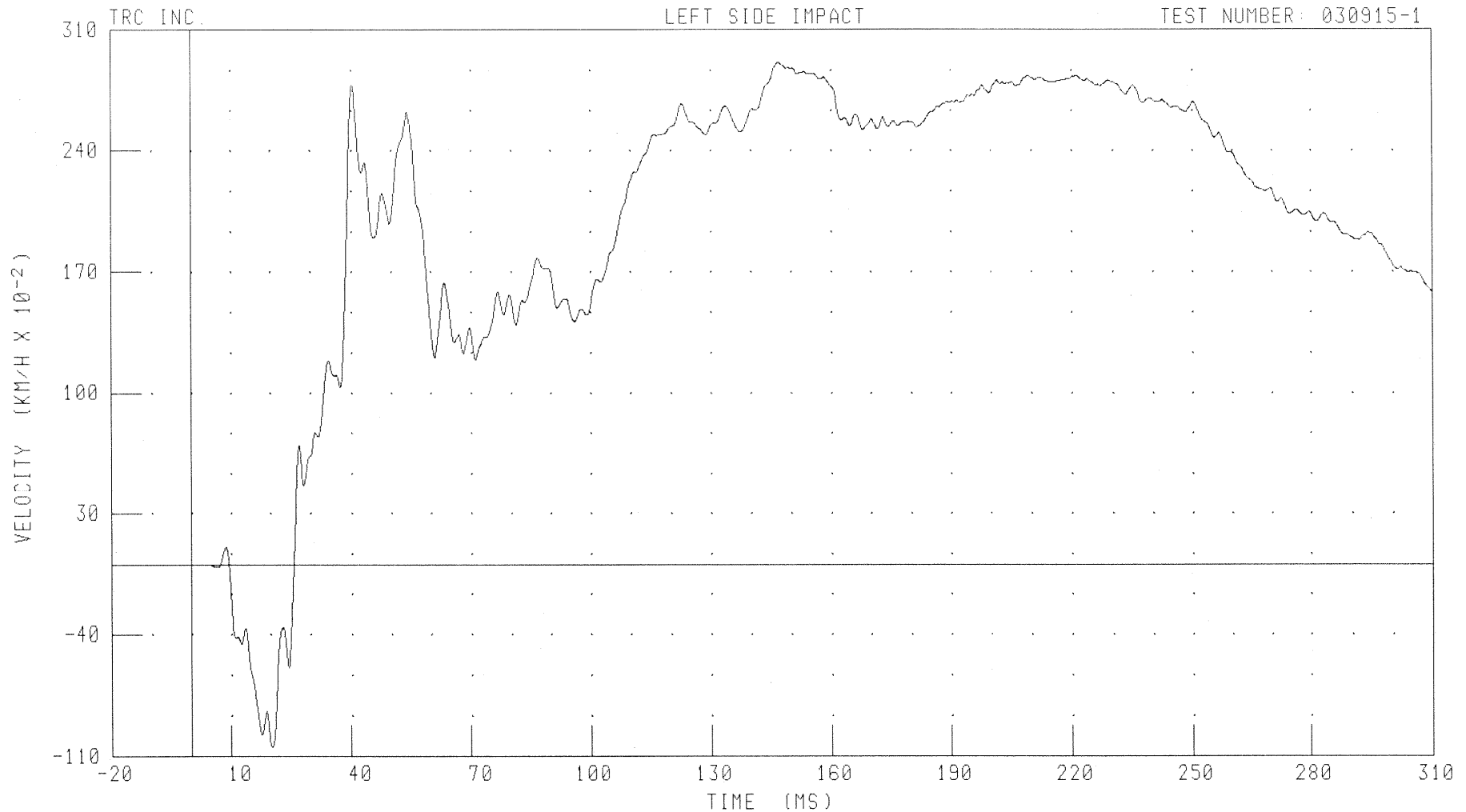
B-369

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKZV1 FILTER: CH. CLASS 180

PEAK DATA: 2.91 KM/H @ 147.12 MS; -1.05 KM/H @ 20.48 MS

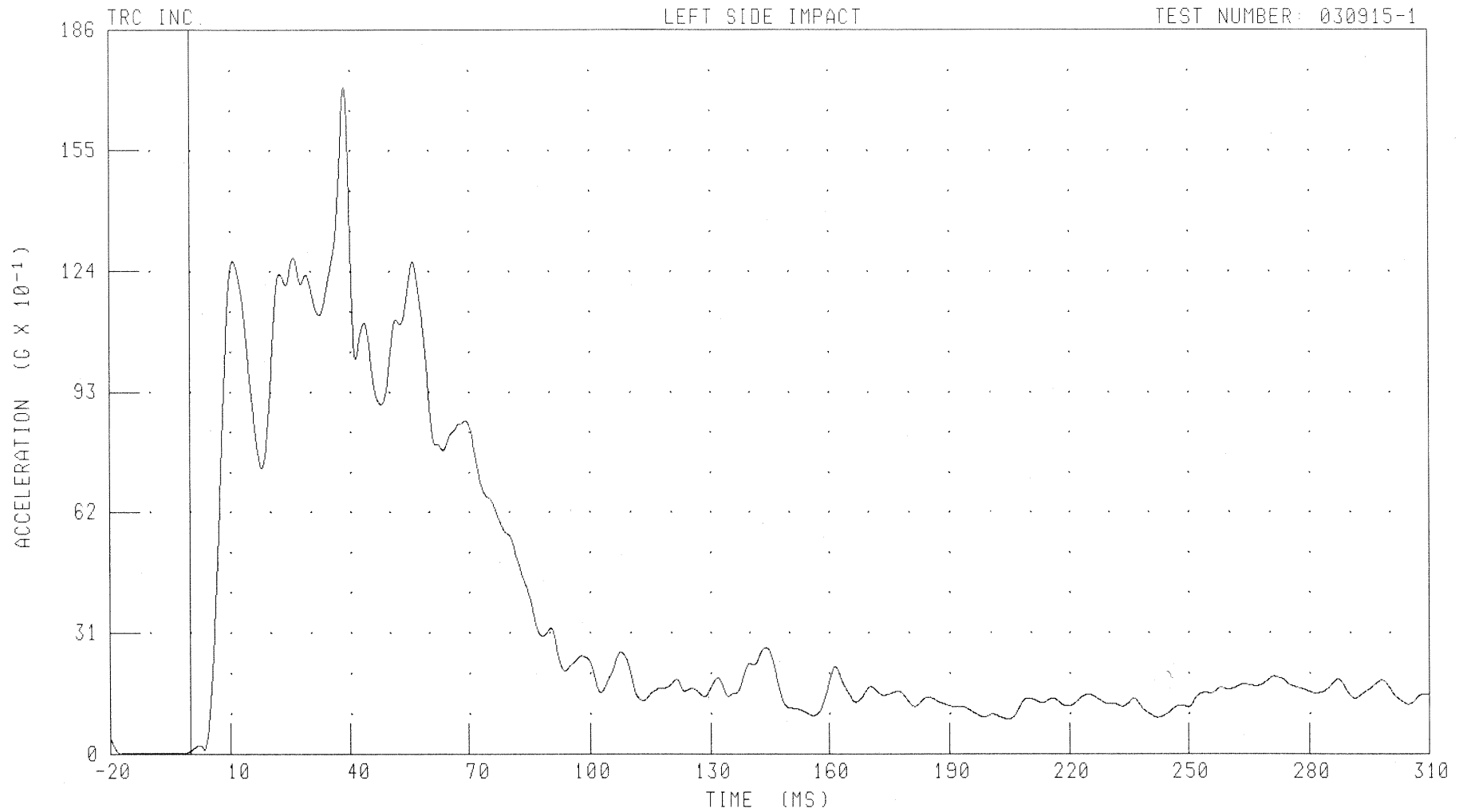
B-370

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDKRG1 FILTER: CH. CLASS 60

PEAK DATA: 17.14 G @ 38.64 MS; 0.01 G @ -17.60 MS

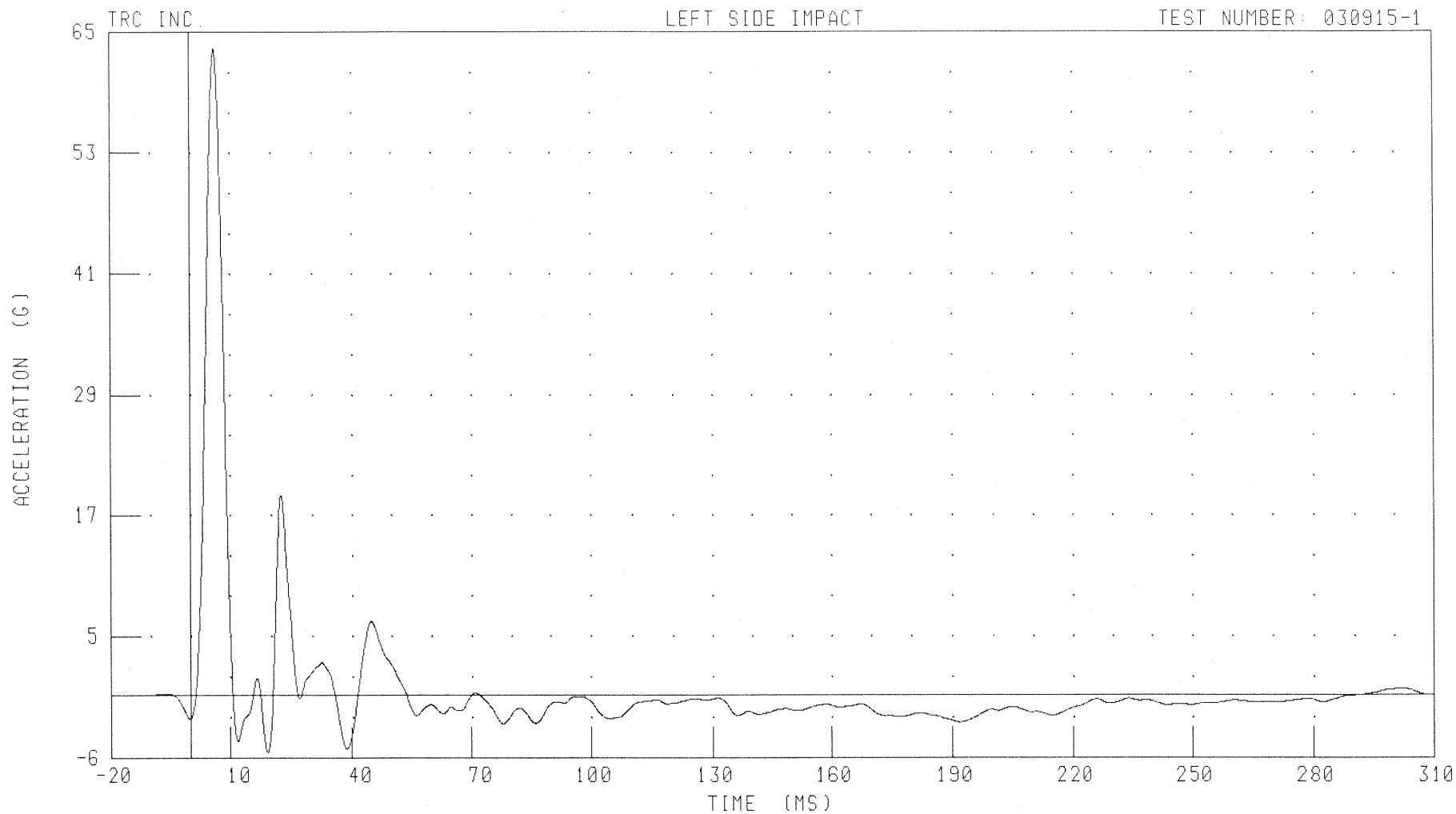
B-371

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFSYG1 FILTER: CH. CLASS 60

PEAK DATA: 64.19 G @ 6.16 MS; -5.72 G @ 19.12 MS

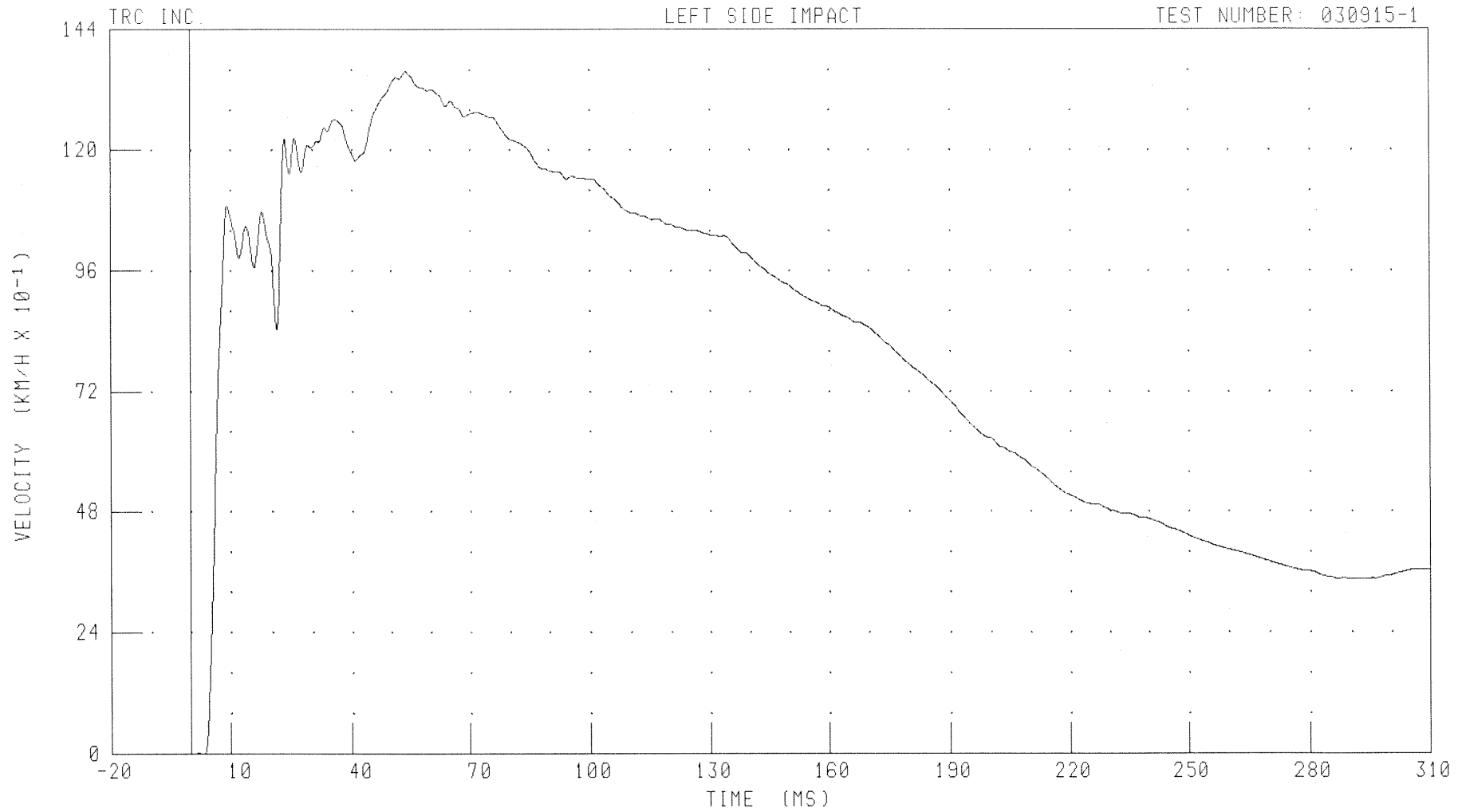
B-372

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFSYV1 FILTER: CH. CLASS 180

PEAK DATA: 13.57 KM/H @ 53.92 MS; -0.03 KM/H @ 3.28 MS

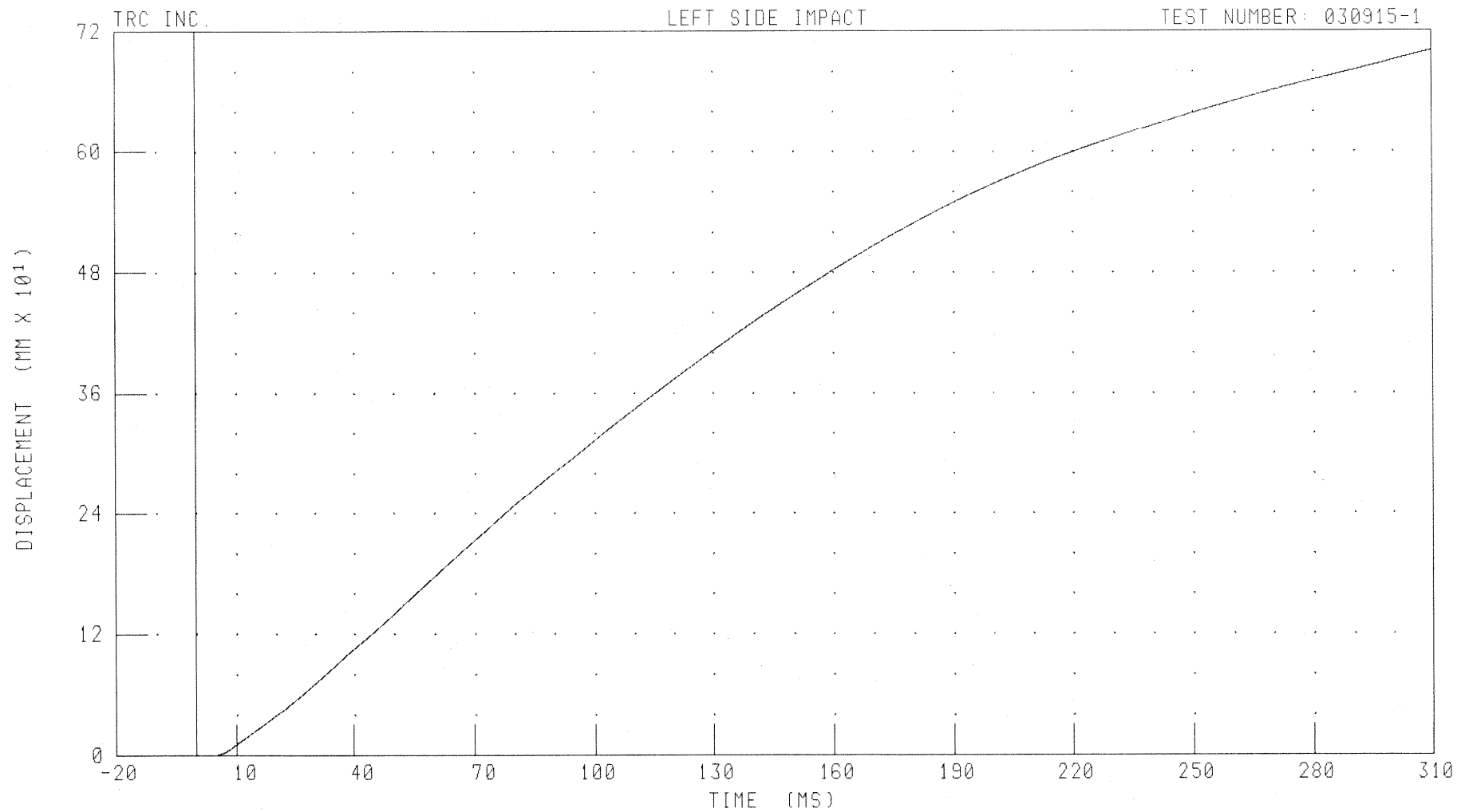
B-373

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT FRONT SEAT Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFSYD1

FILTER: CH. CLASS 180

PEAK DATA: 700.79 MM @ 310.00 MS, 0.00 MM @ 3.60 MS

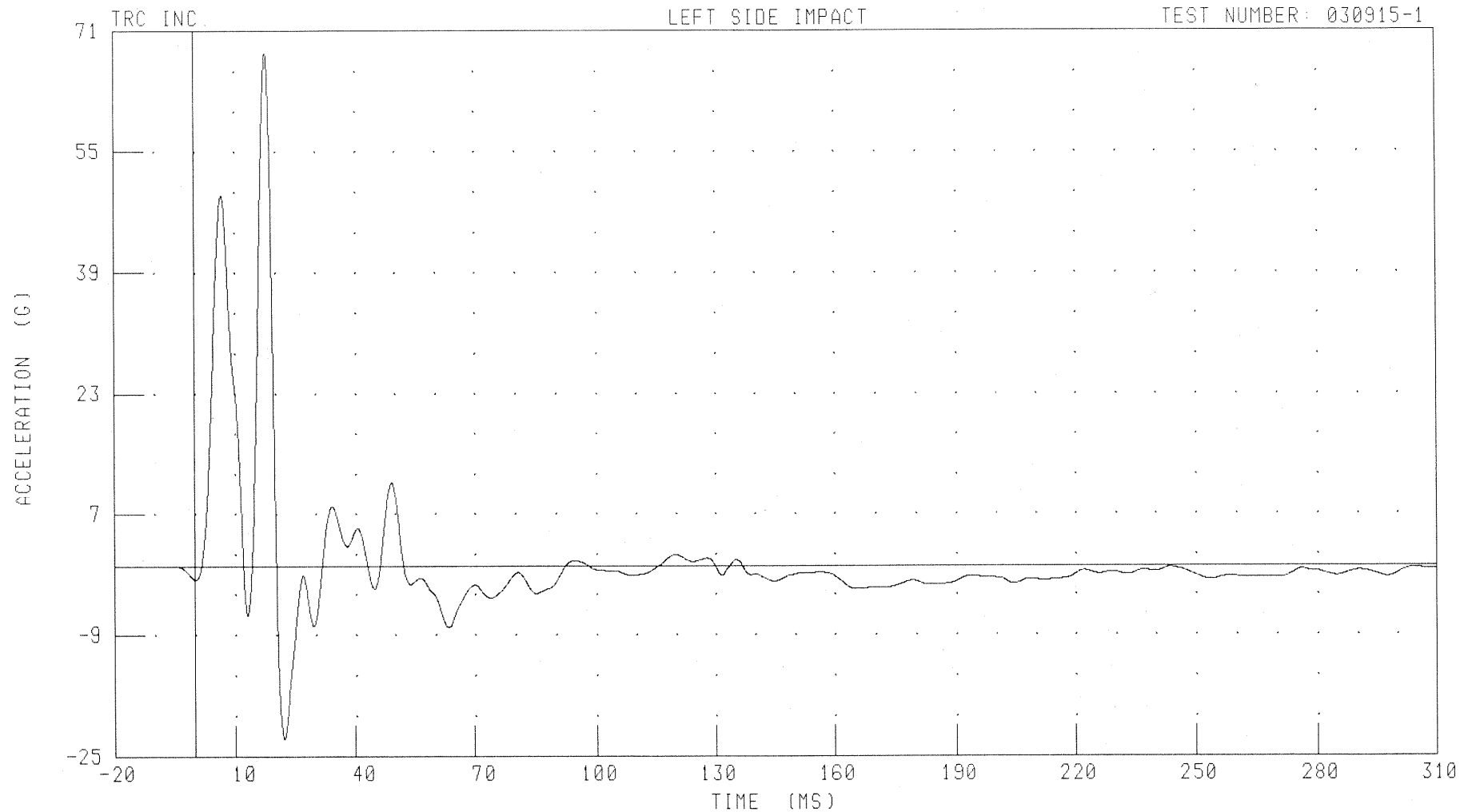
B-374

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRSYG1

FILTER: CH. CLASS 60

PEAK DATA: 68.11 G @ 17.84 MS, -22.74 G @ 22.08 MS

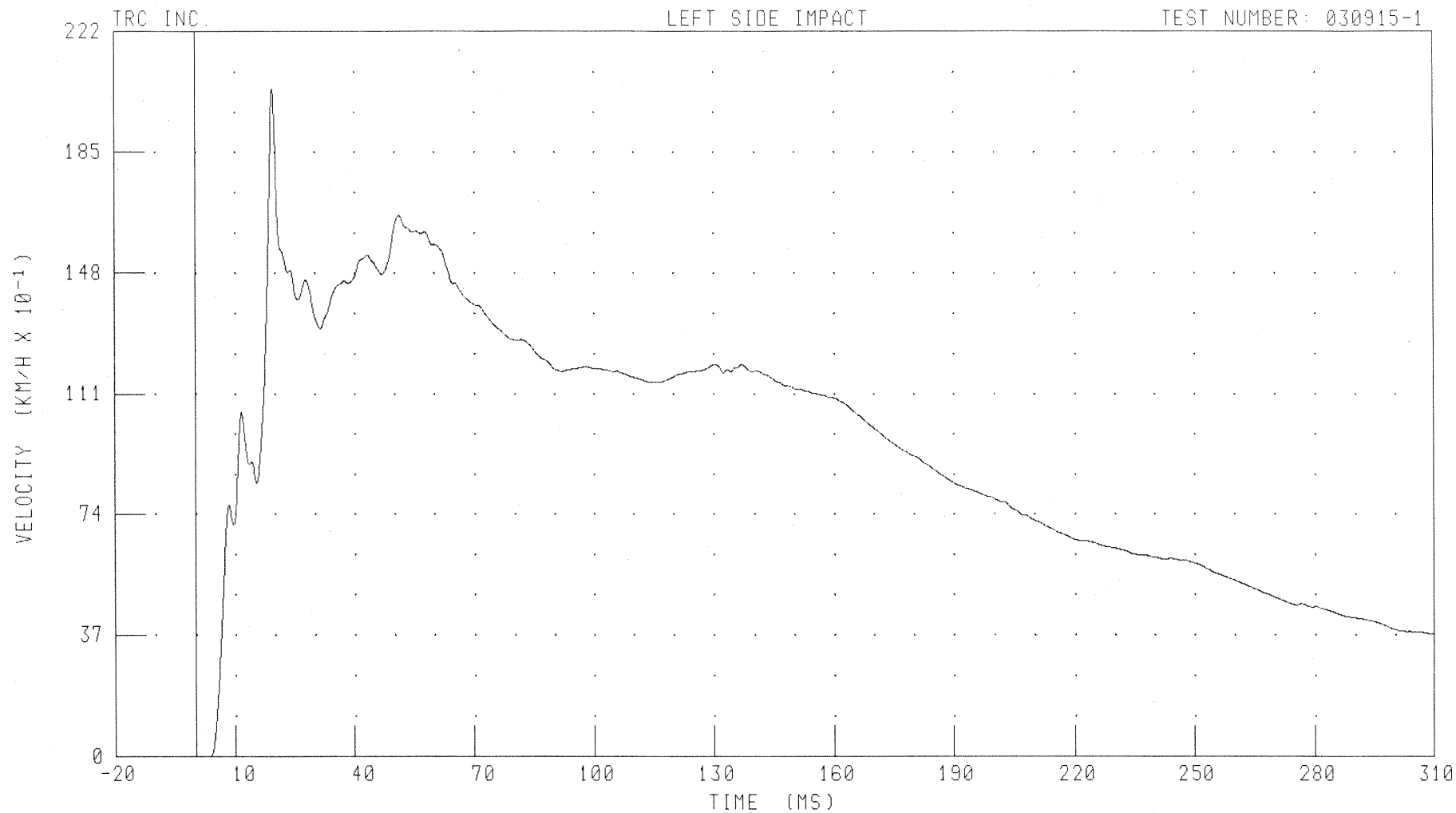
B-375

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRSYV1 FILTER: CH. CLASS 180

PEAK DATA: 20.46 KM/H @ 19.52 MS; -0.02 KM/H @ 3.28 MS

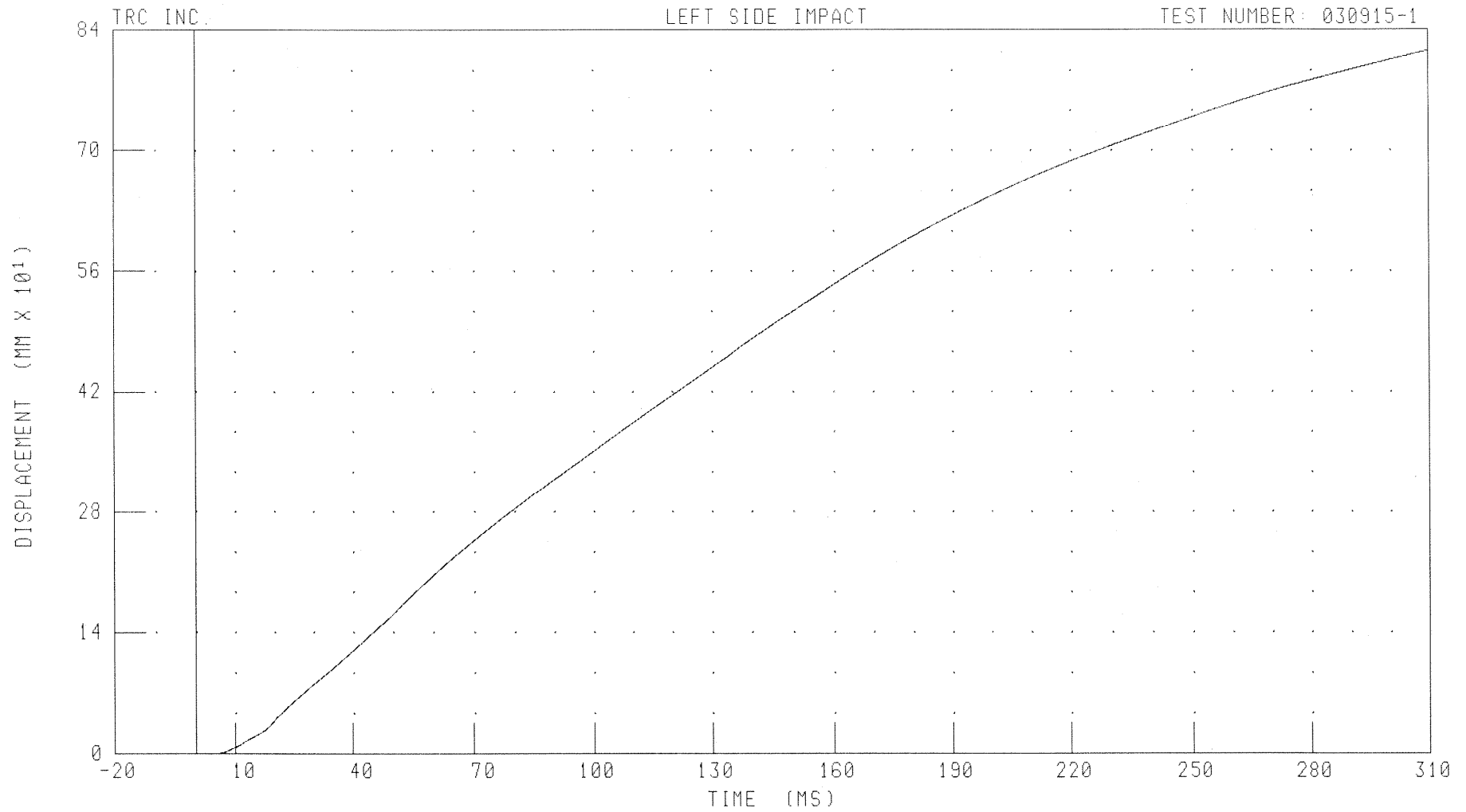
B-376

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT SIDE SILL AT REAR SEAT Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRSYD1 FILTER: CH. CLASS 180

PEAK DATA: 815.78 MM @ 310.00 MS; 0.00 MM @ 3.68 MS

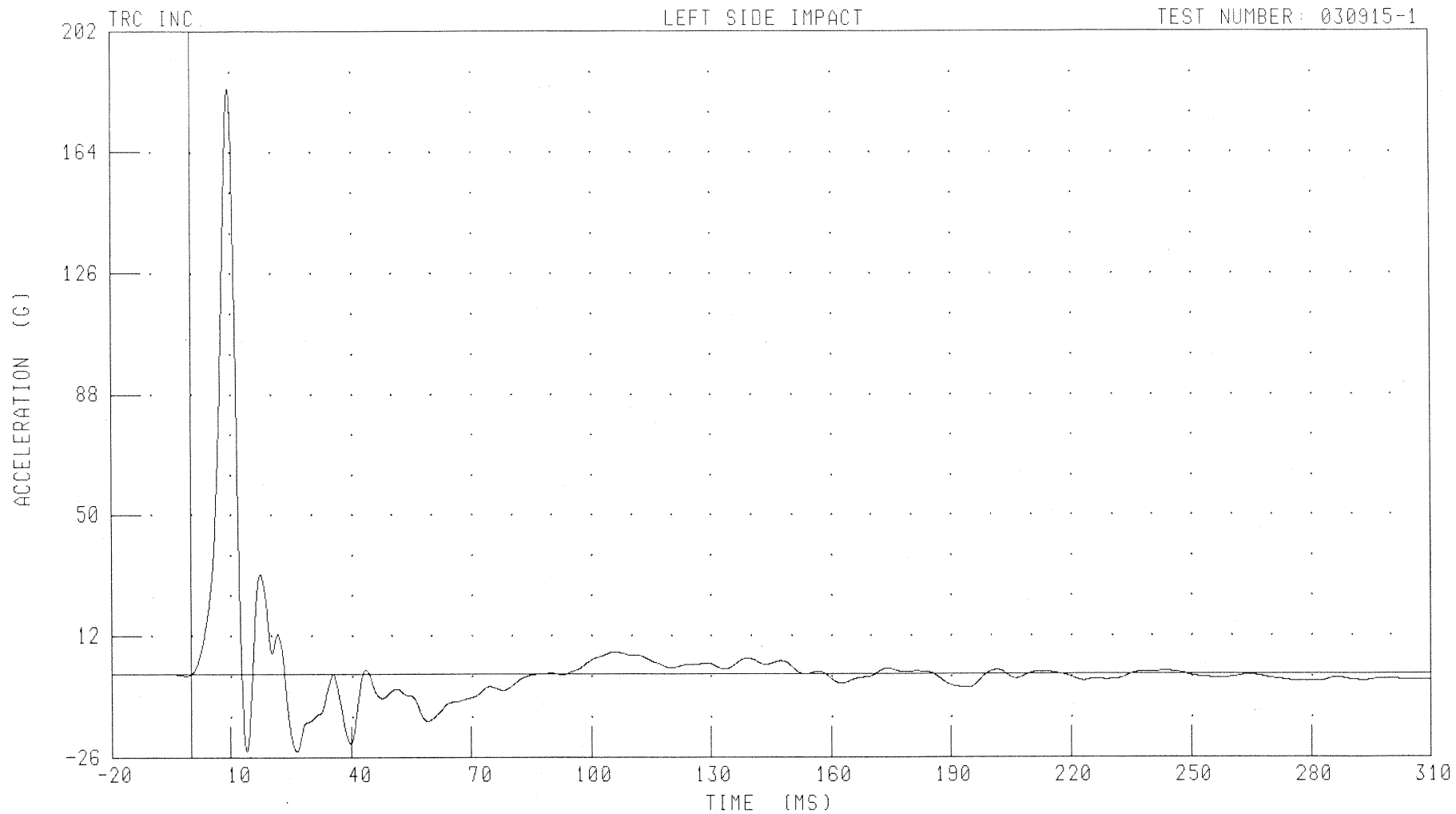
B-377

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR ON CENTERLINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



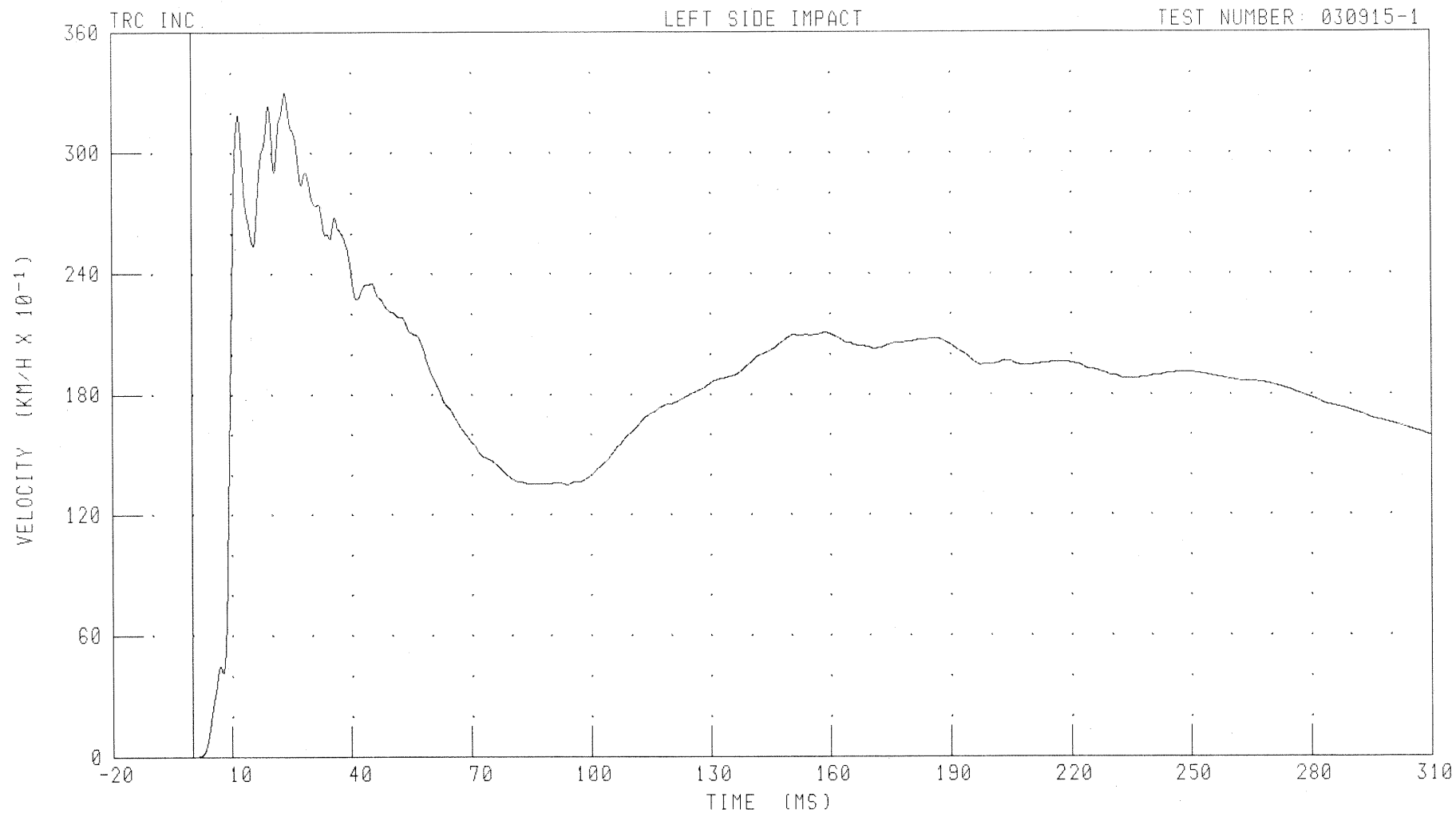
B-378

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR ON CENTERLINE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFCYV1

FILTER: CH. CLASS 180

PEAK DATA: 33.01 KM/H @ 23.60 MS; 0.00 KM/H @ 0.00 MS

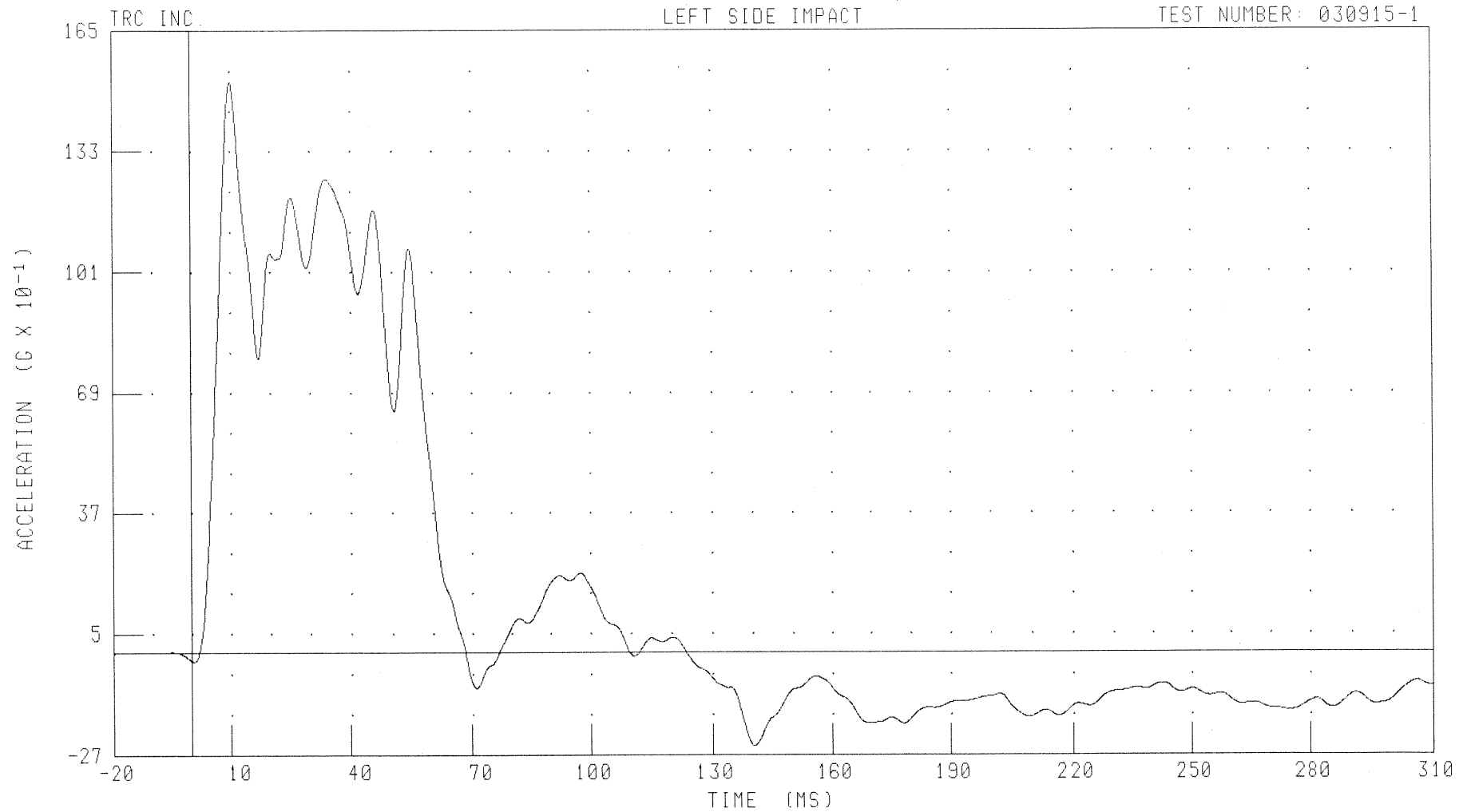
B-379

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRTYG1 FILTER: CH. CLASS 60

PEAK DATA: 15.14 G @ 10.08 MS; -2.47 G @ 140.32 MS

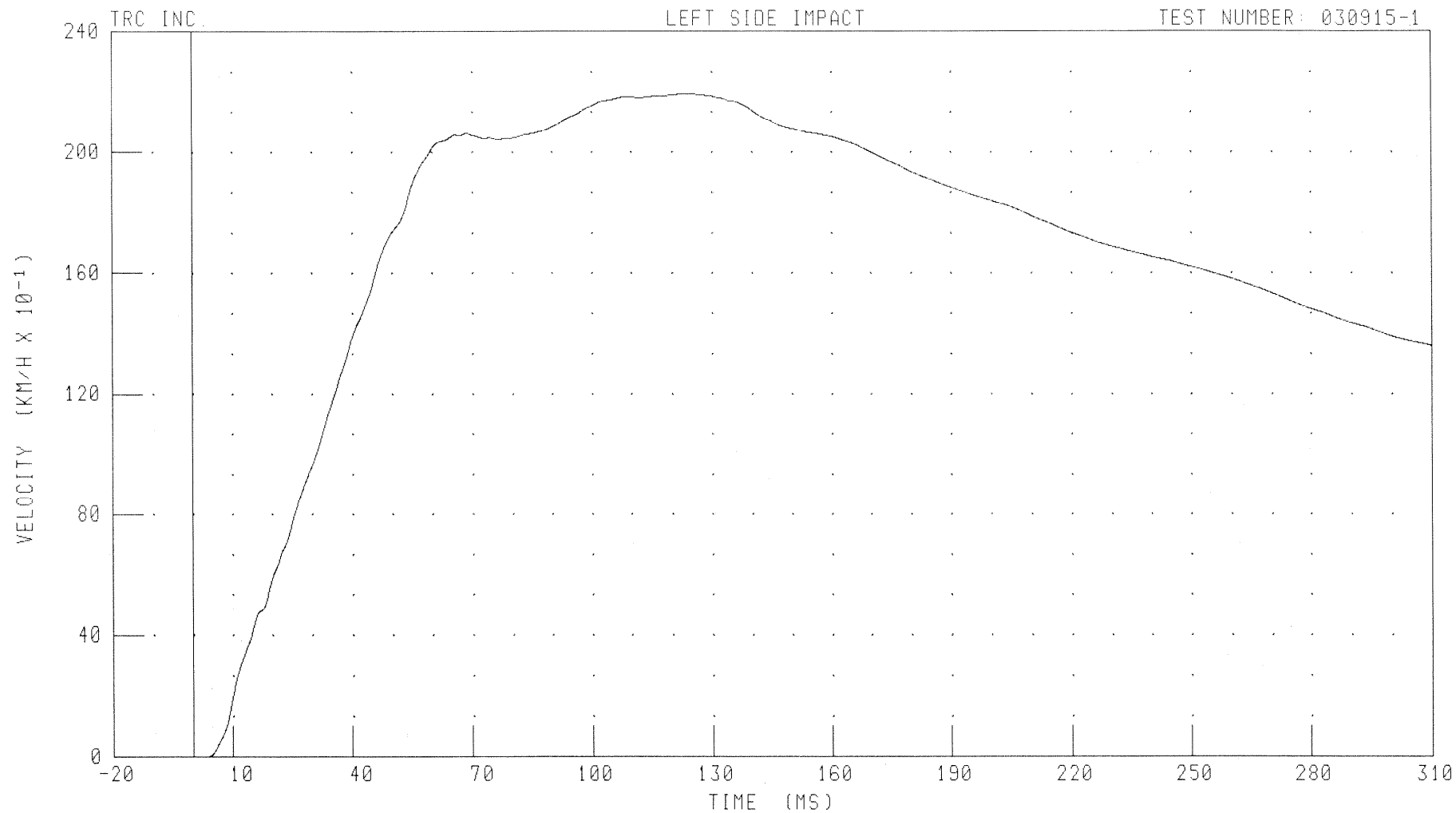
B-380

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRTYV1

FILTER: CH. CLASS 180

PEAK DATA: 21.95 KM/H @ 122.96 MS; 0.00 KM/H @ 0.00 MS

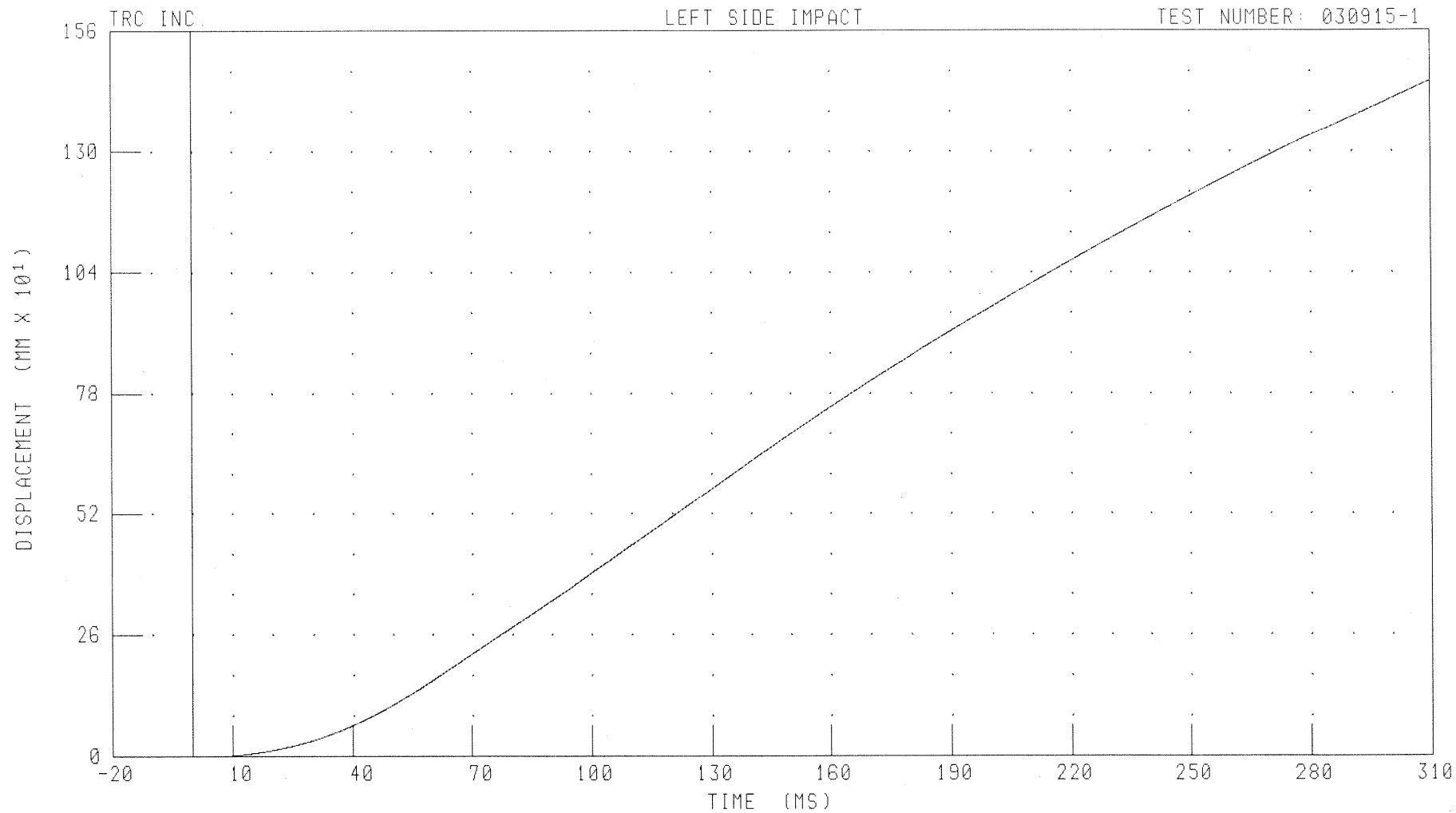
B-381

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RRTYD1

FILTER: CH. CLASS 180

PEAK DATA: 1451.82 MM @ 310.00 MS; 0.00 MM @ 0.00 MS

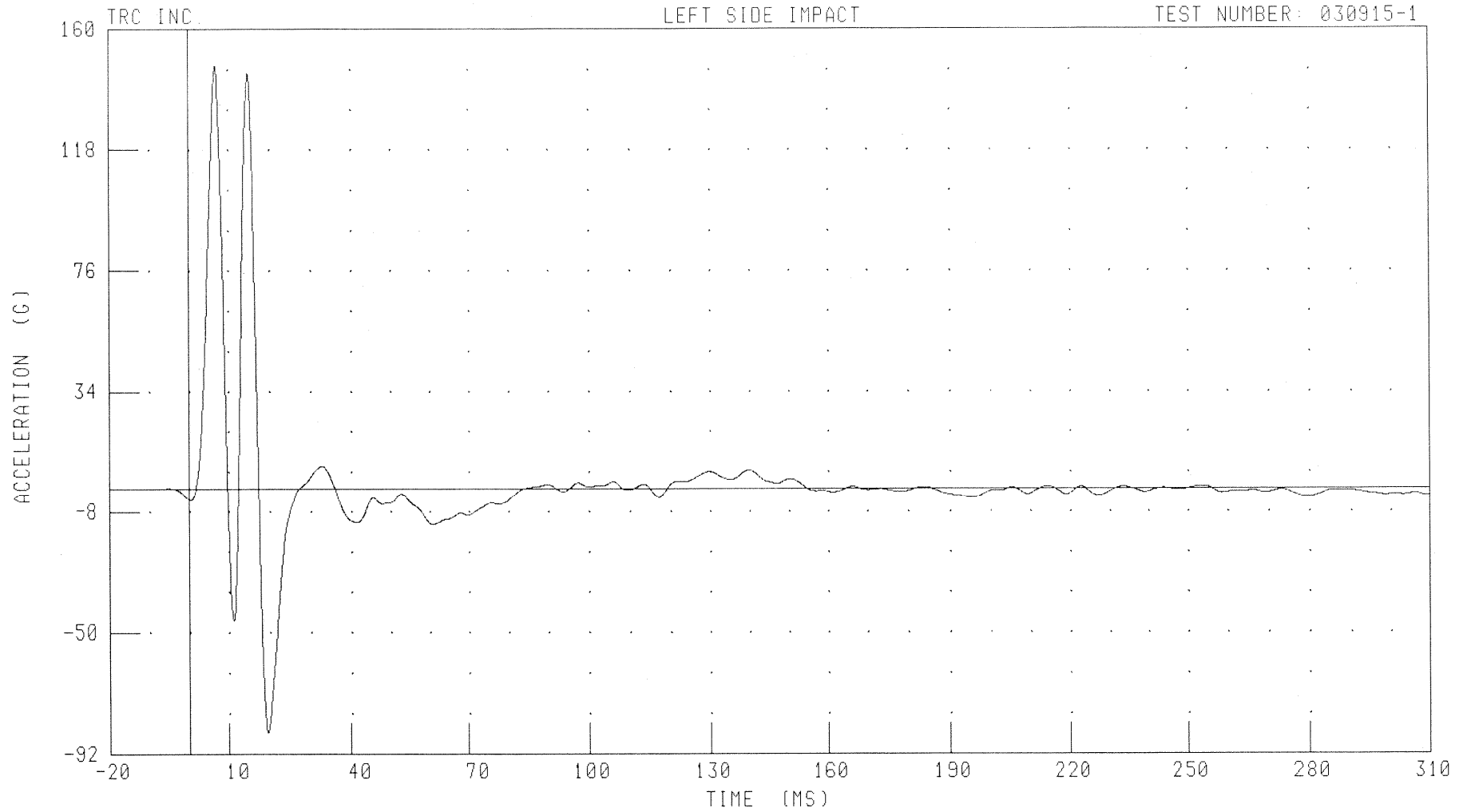
B-382

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR MID-REAR Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYG1 FILTER: CH. CLASS 60

PEAK DATA: 147.23 G @ 6.96 MS; -84.44 G @ 19.44 MS

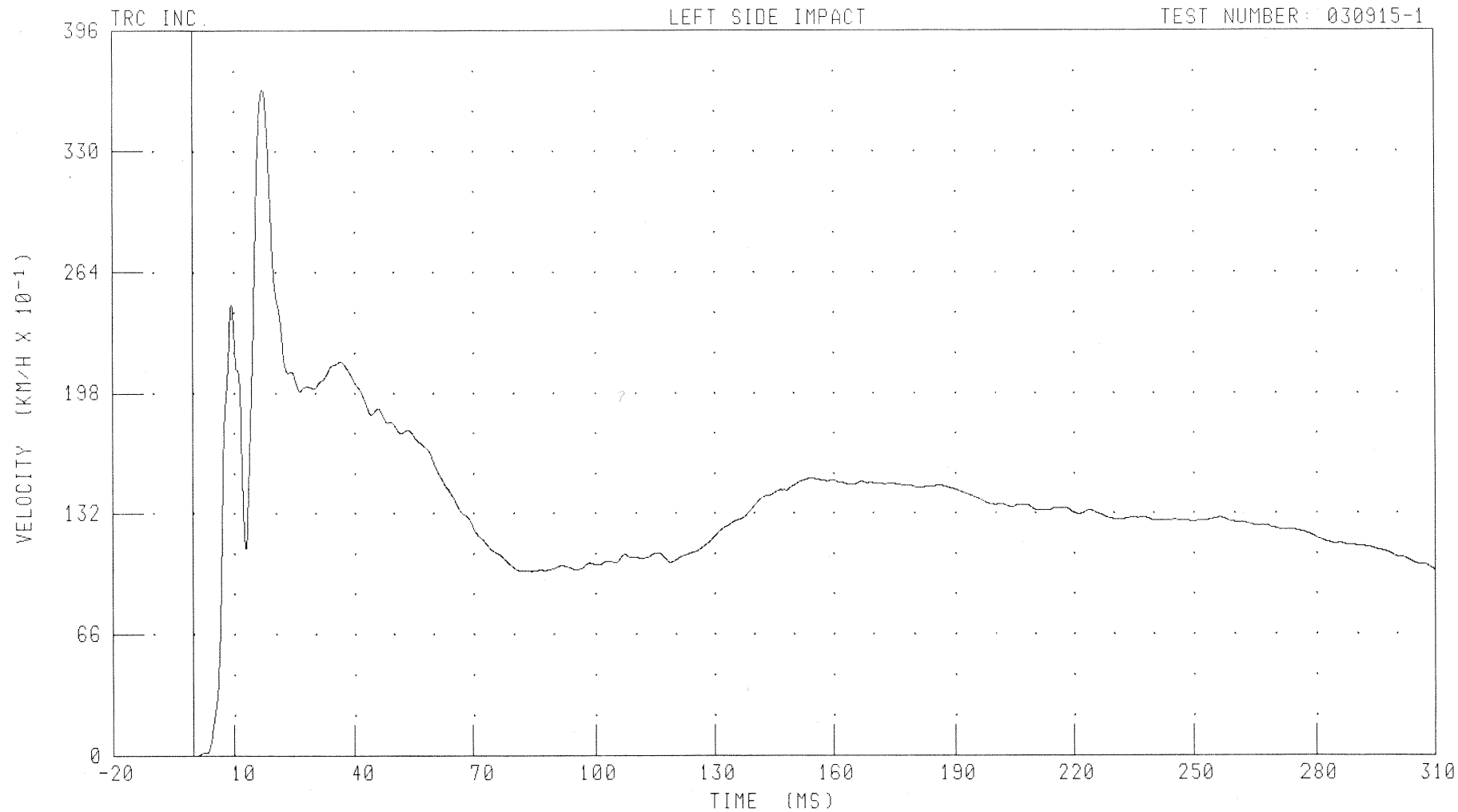
B-383

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR MID-REAR Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYV1

FILTER: CH. CLASS 180

PEAK DATA: 36.39 KM/H @ 16.96 MS; 0.00 KM/H @ 0.00 MS

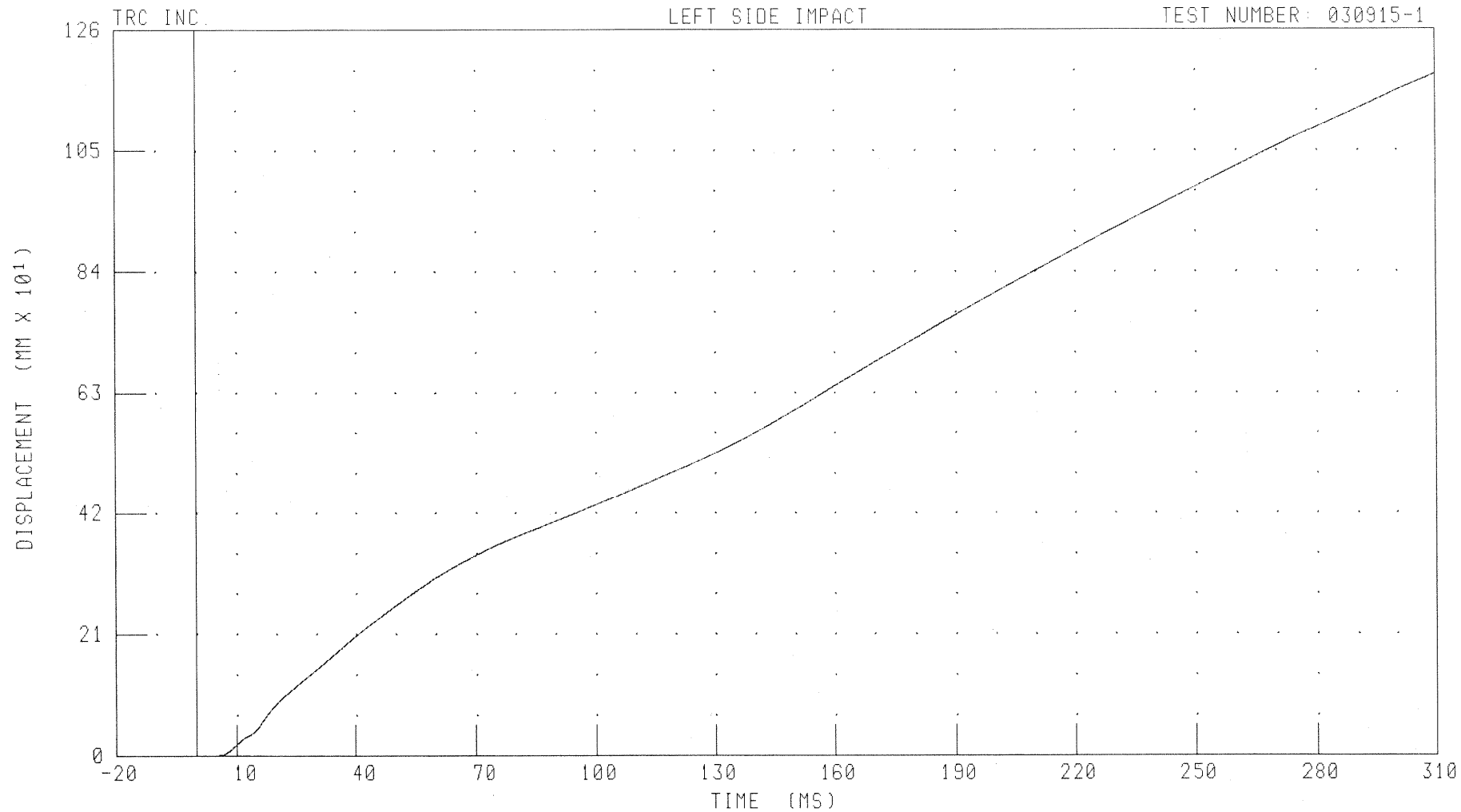
B-384

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR MID-REAR Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFMYD1

FILTER: CH. CLASS 180

PEAK DATA: 1183.02 MM @ 310.00 MS; 0.00 MM @ 0.00 MS

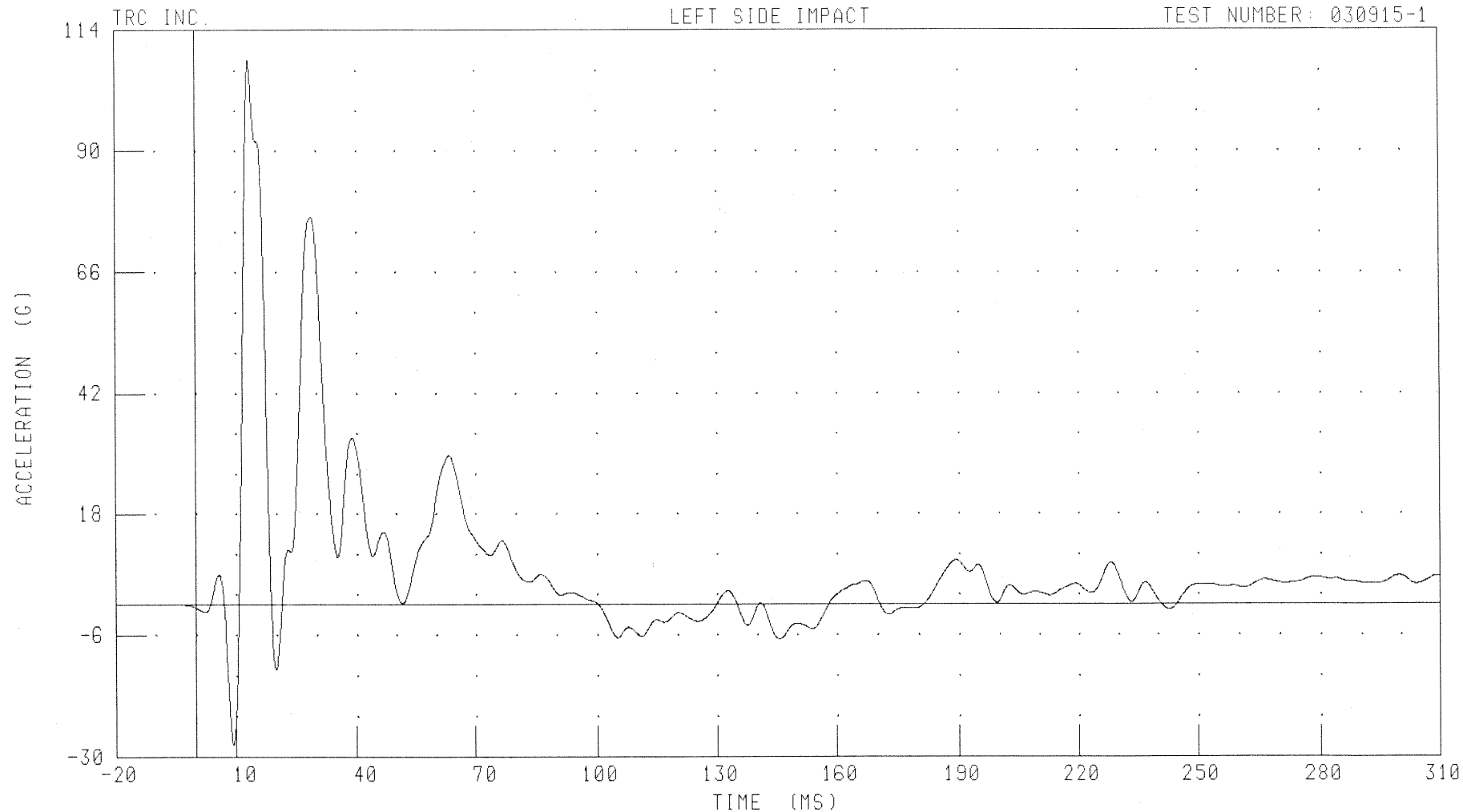
B-385

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR UPPER CENTERLINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFUYG1 FILTER: CH. CLASS 60

PEAK DATA: 108.12 G @ 13.36 MS; -27.58 G @ 9.28 MS

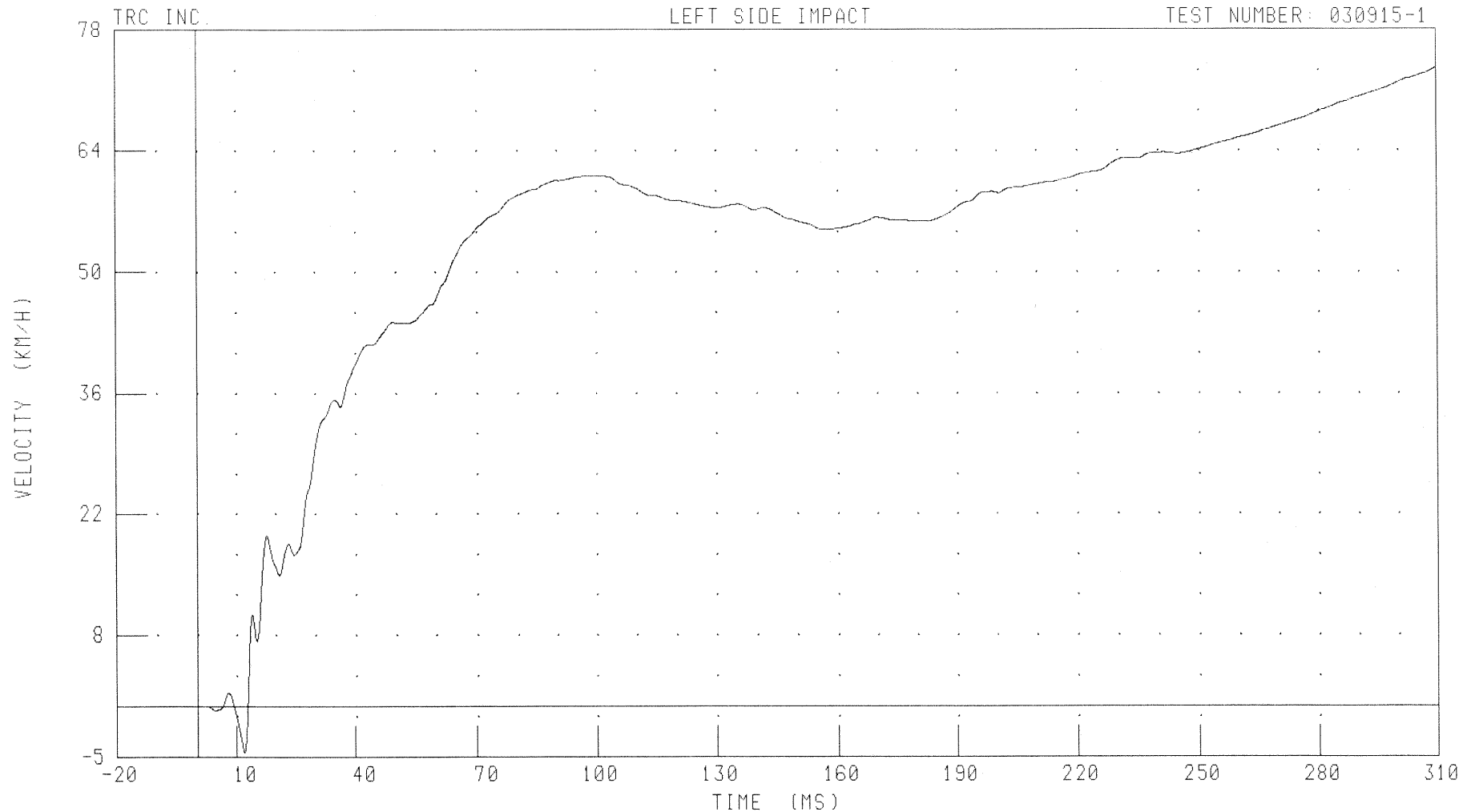
B-386

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR UPPER CENTERLINE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFUYV1 FILTER: CH. CLASS 180

PEAK DATA: 73.82 KM/H @ 310.00 MS; -5.31 KM/H @ 12.00 MS

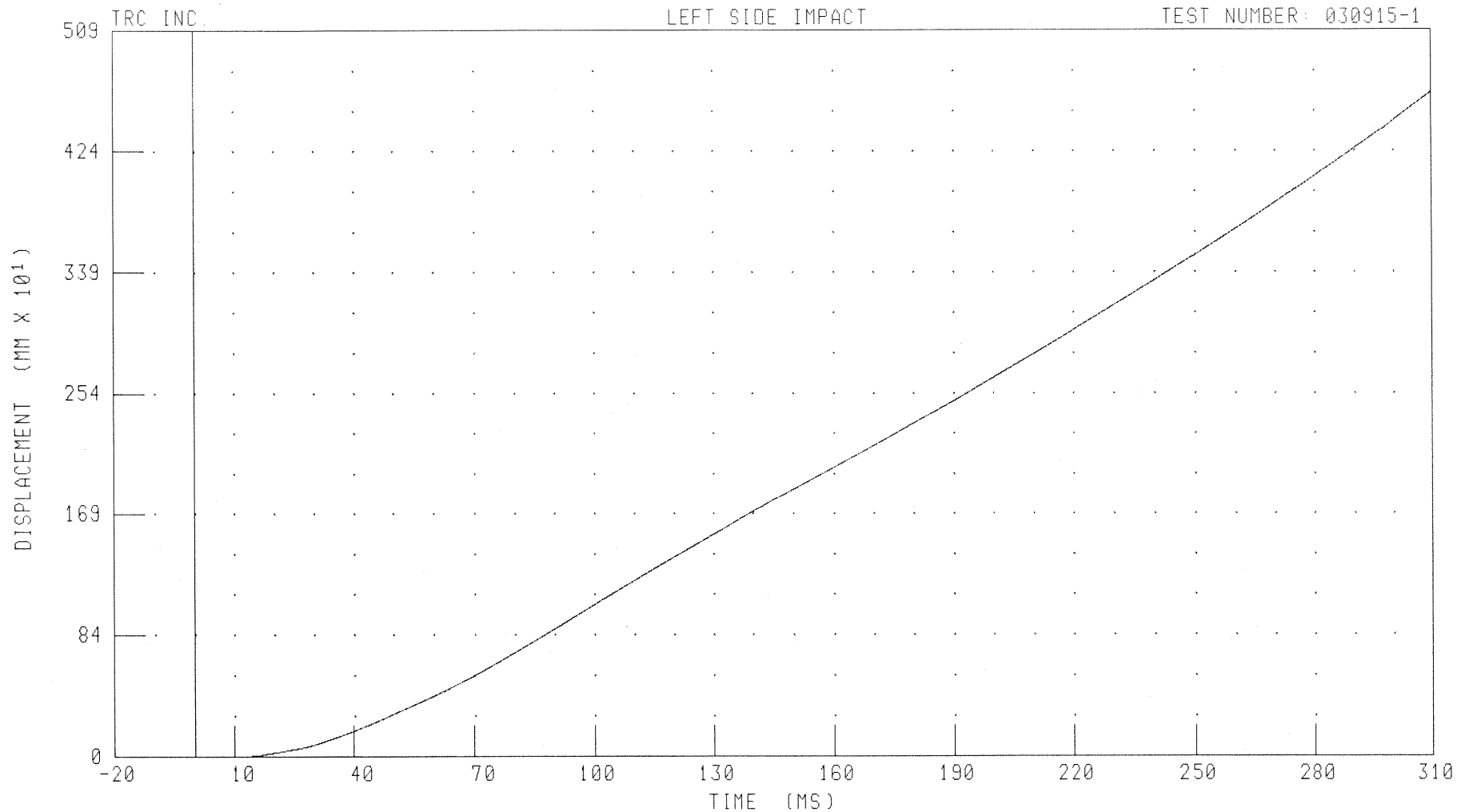
B-387

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT DOOR UPPER CENTERLINE Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFUYD1 FILTER: CH. CLASS 180

PEAK DATA: 4661.92 MM @ 310.00 MS; -2.34 MM @ 12.80 MS

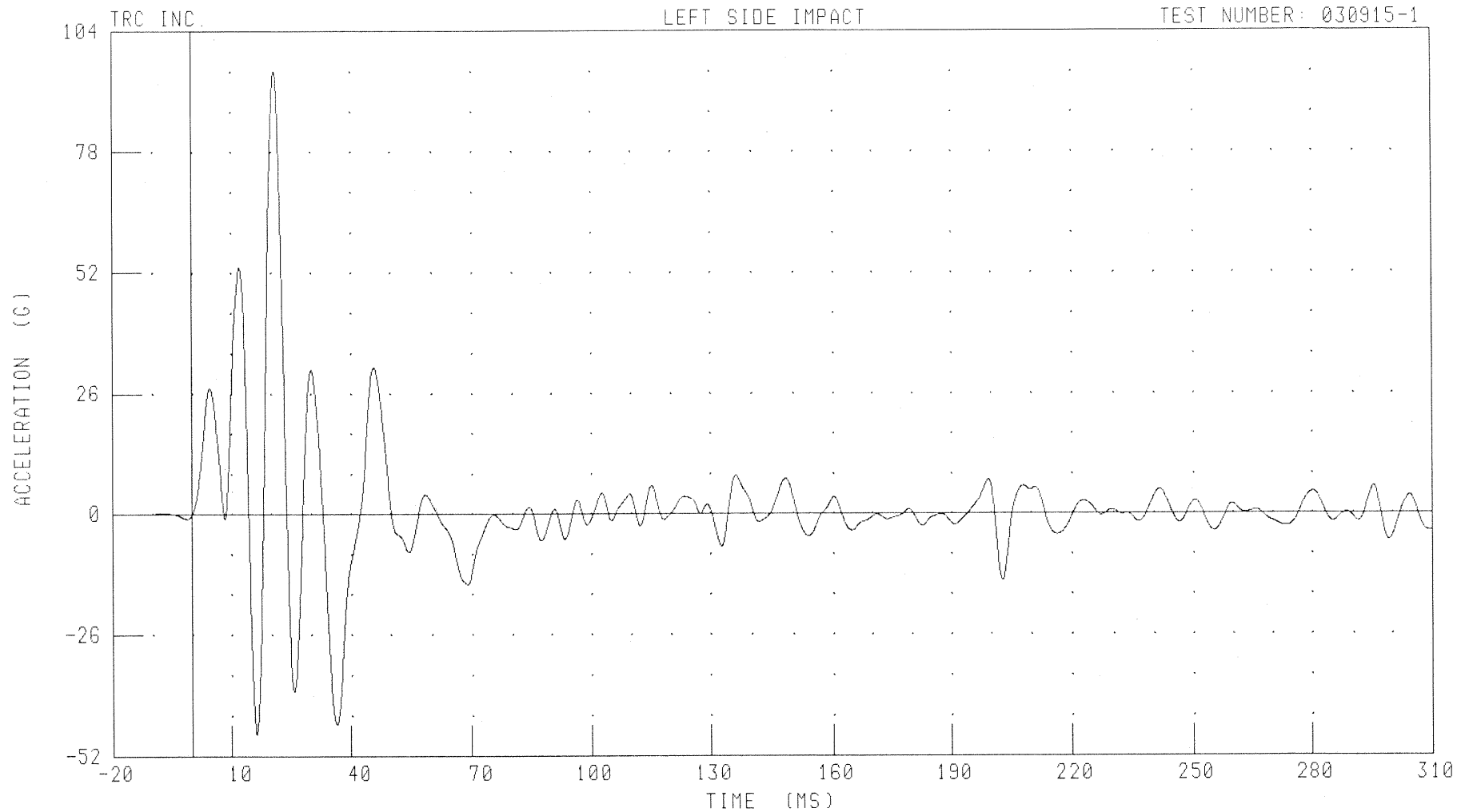
B-388

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR MID-REAR Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRMYG1 FILTER: CH. CLASS 60

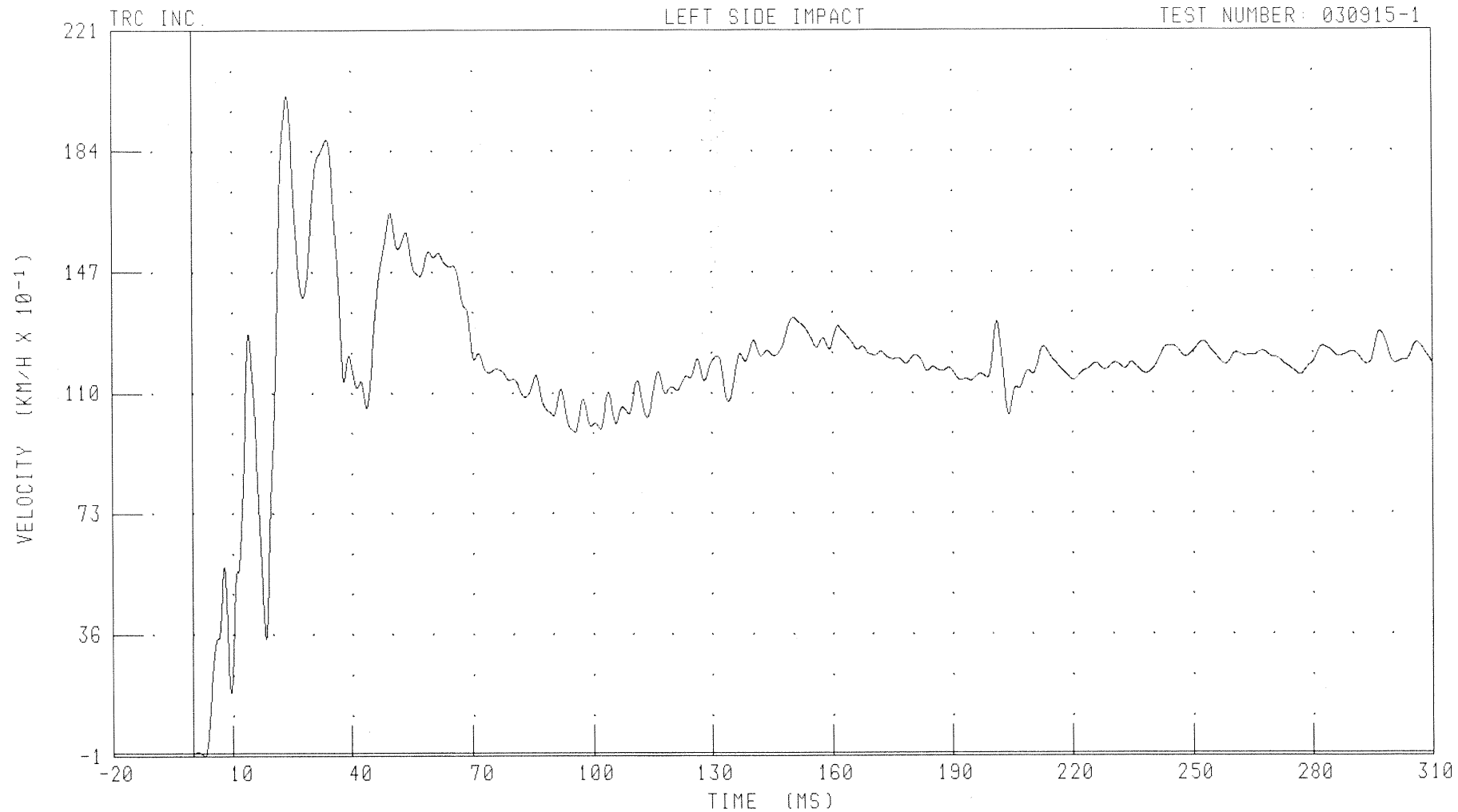
B-389

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR MID-REAR Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRMYV1 FILTER: CH. CLASS 180

PEAK DATA: 20.10 KM/H @ 23.76 MS; -0.10 KM/H @ 2.88 MS

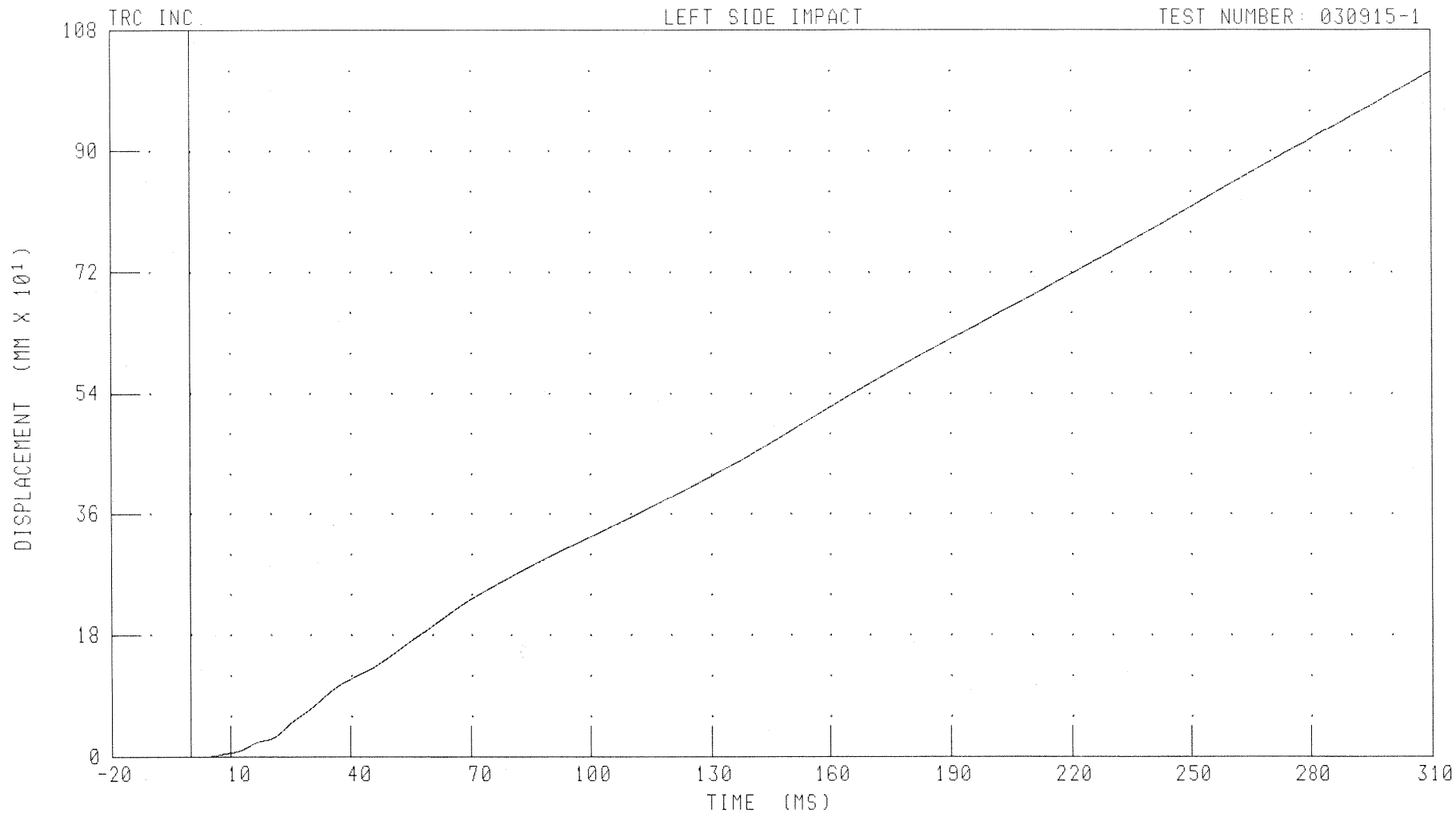
B-390

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR MID-REAR Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRMYD1 FILTER: CH. CLASS 180

PEAK DATA: 1019.15 MM @ 310.00 MS; -0.02 MM @ 3.28 MS

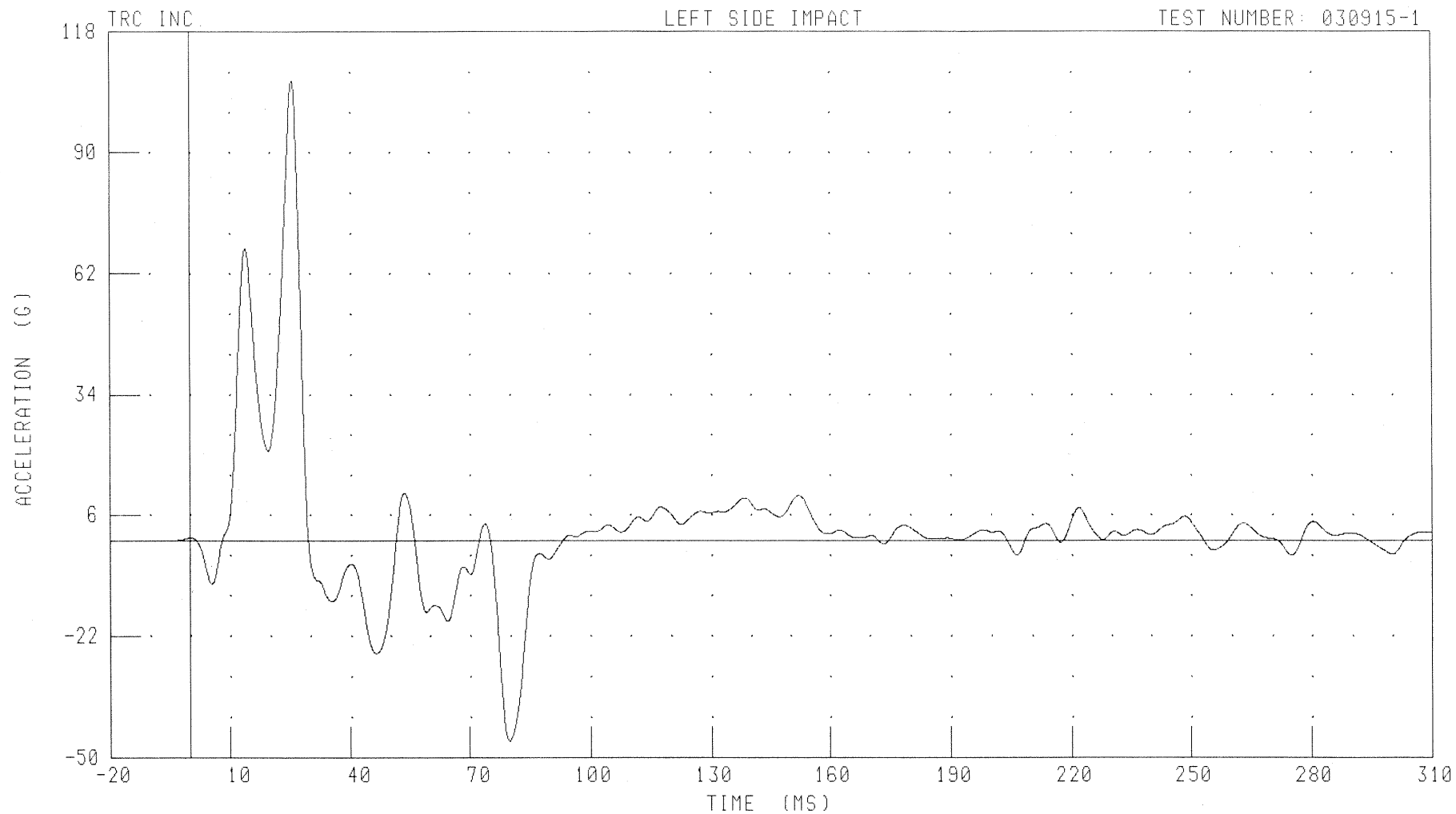
B-391

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR UPPER CENTERLINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRUYG1 FILTER: CH. CLASS 60

PEAK DATA: 106.74 G @ 25.76 MS; -46.17 G @ 79.84 MS

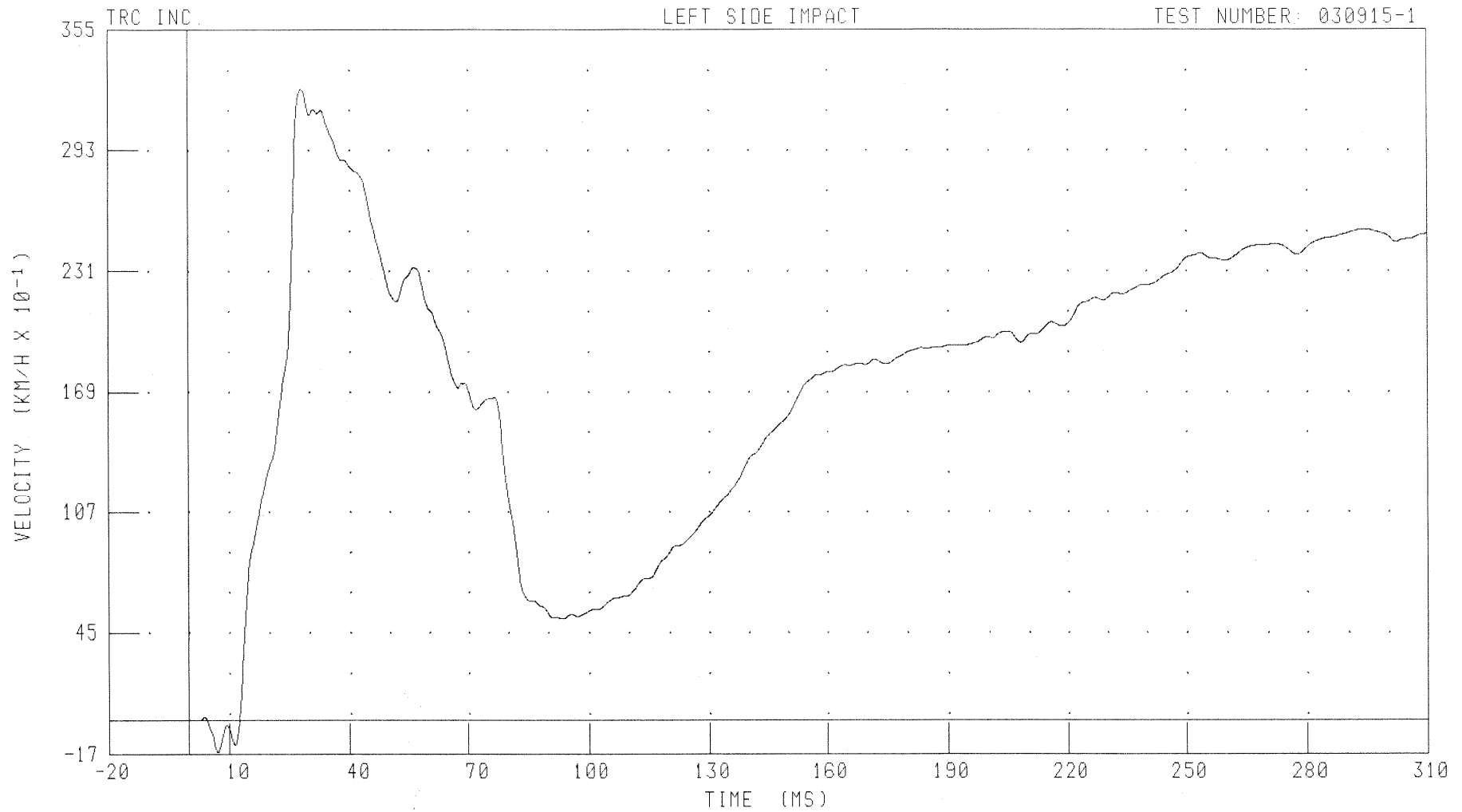
B-392

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR UPPER CENTERLINE Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRUUV1 FILTER: CH. CLASS 180

PEAK DATA: 32.46 KM/H @ 28.16 MS; -1.61 KM/H @ 7.12 MS

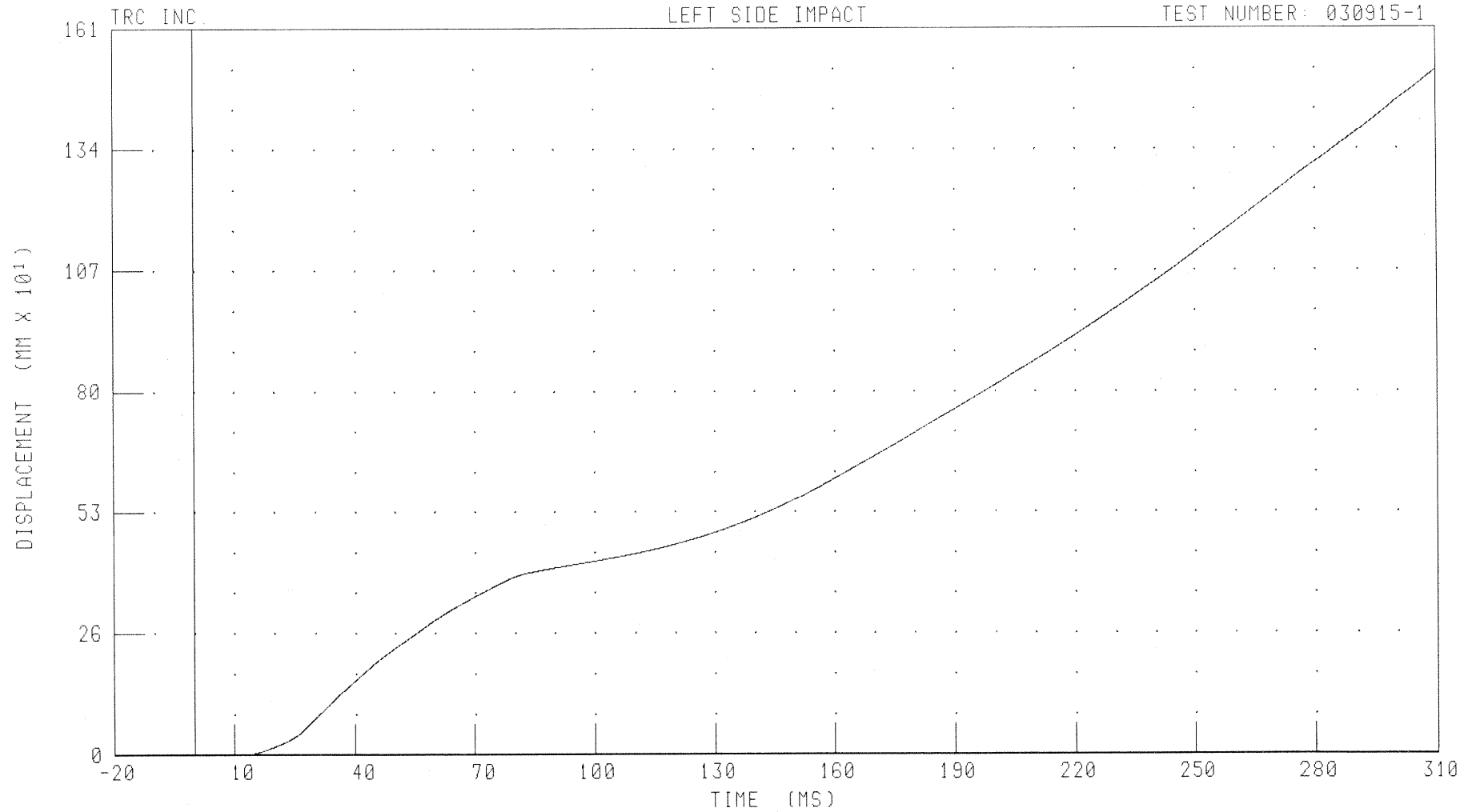
B-393

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR DOOR UPPER CENTERLINE Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRUYD1

FILTER: CH. CLASS 180

PEAK DATA: 1524.66 MM @ 310.00 MS; -1.72 MM @ 12.48 MS

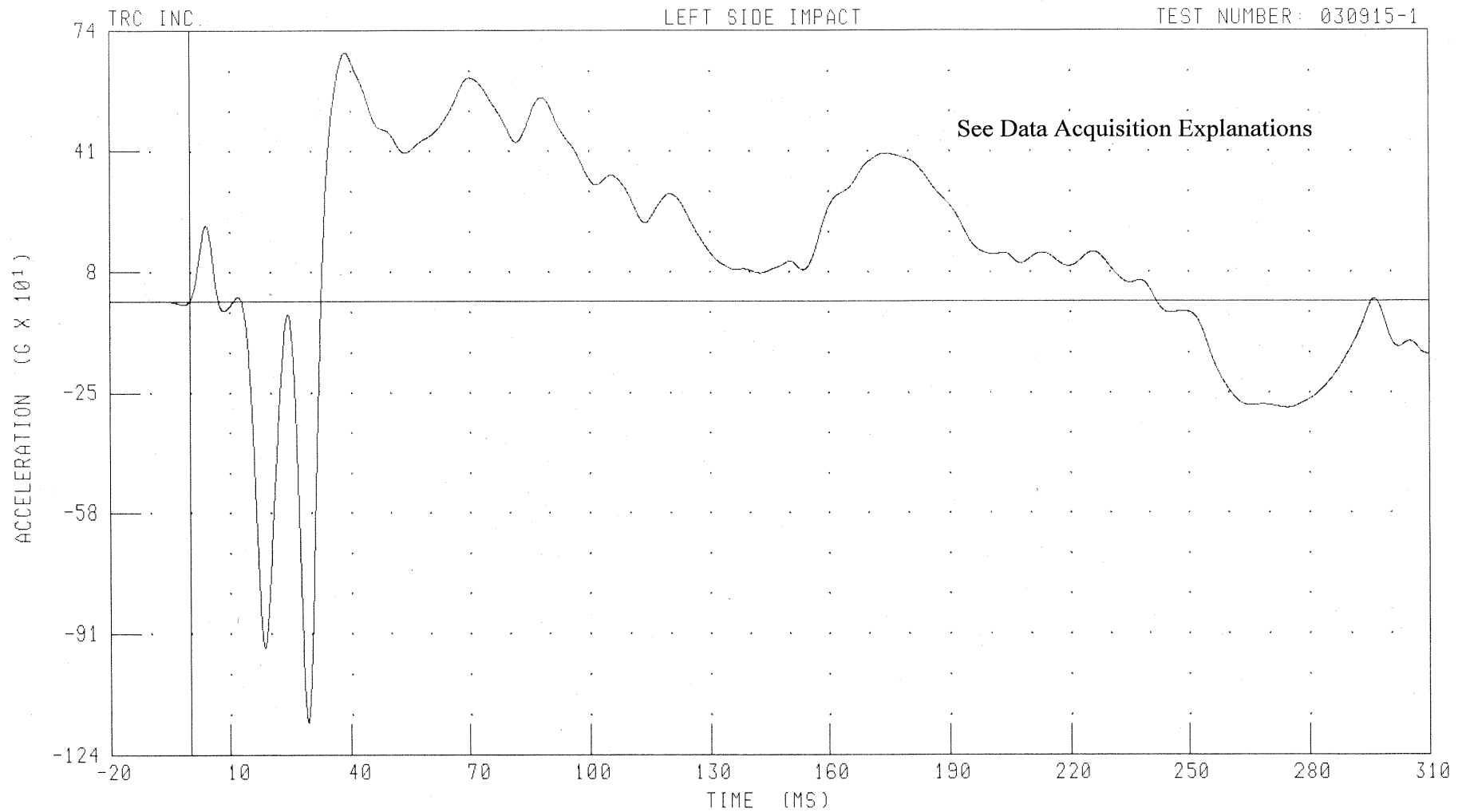
B-394

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER A-POST Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LLAYG1 FILTER: CH. CLASS 60

PEAK DATA: 680.14 G @ 38.72 MS, -1153.14 G @ 29.12 MS

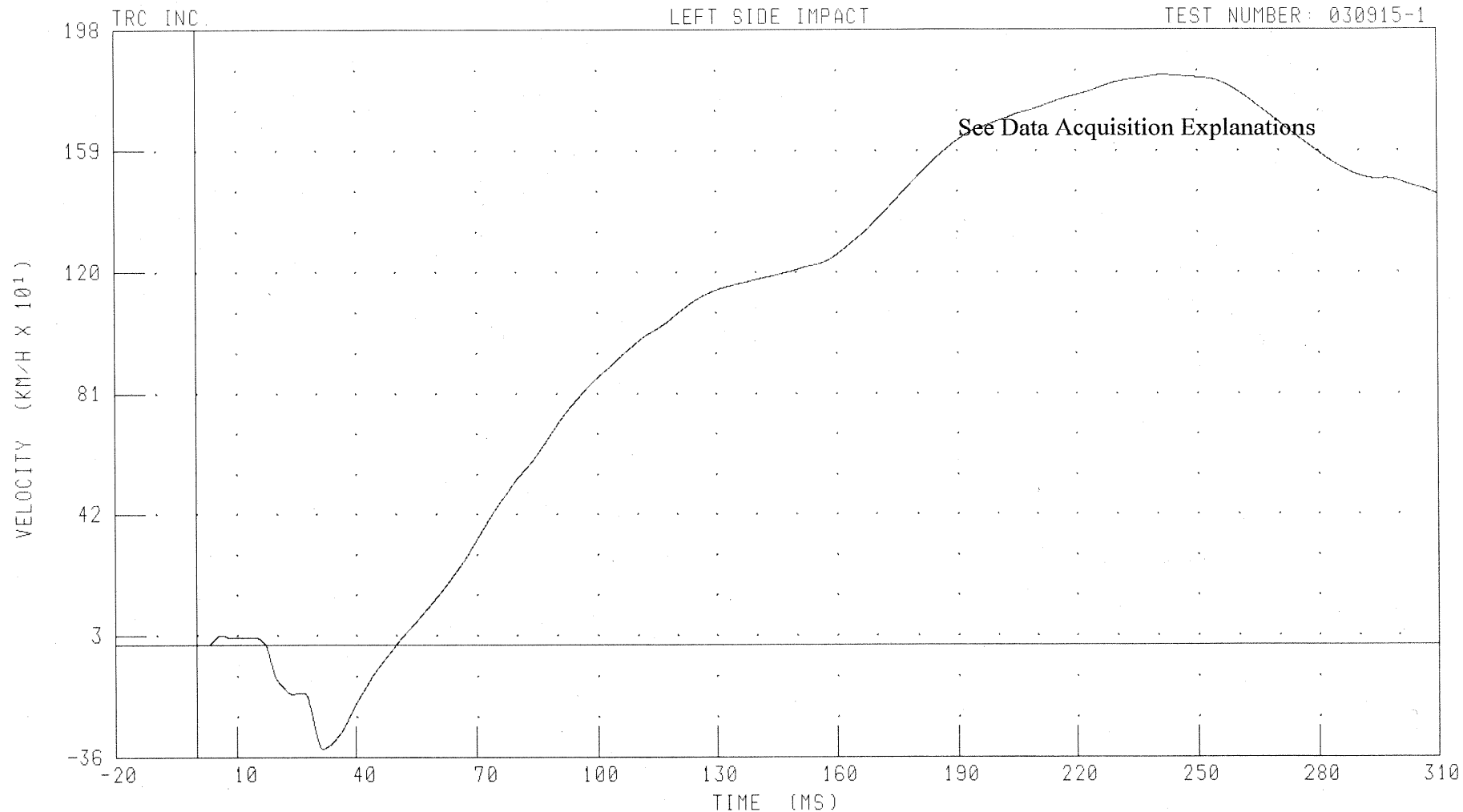
B-395

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER A-POST Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LLAYV1 FILTER: CH. CLASS 180

PEAK DATA: 1834.56 KM/H @ 241.60 MS; -333.86 KM/H @ 31.44 MS

B-396

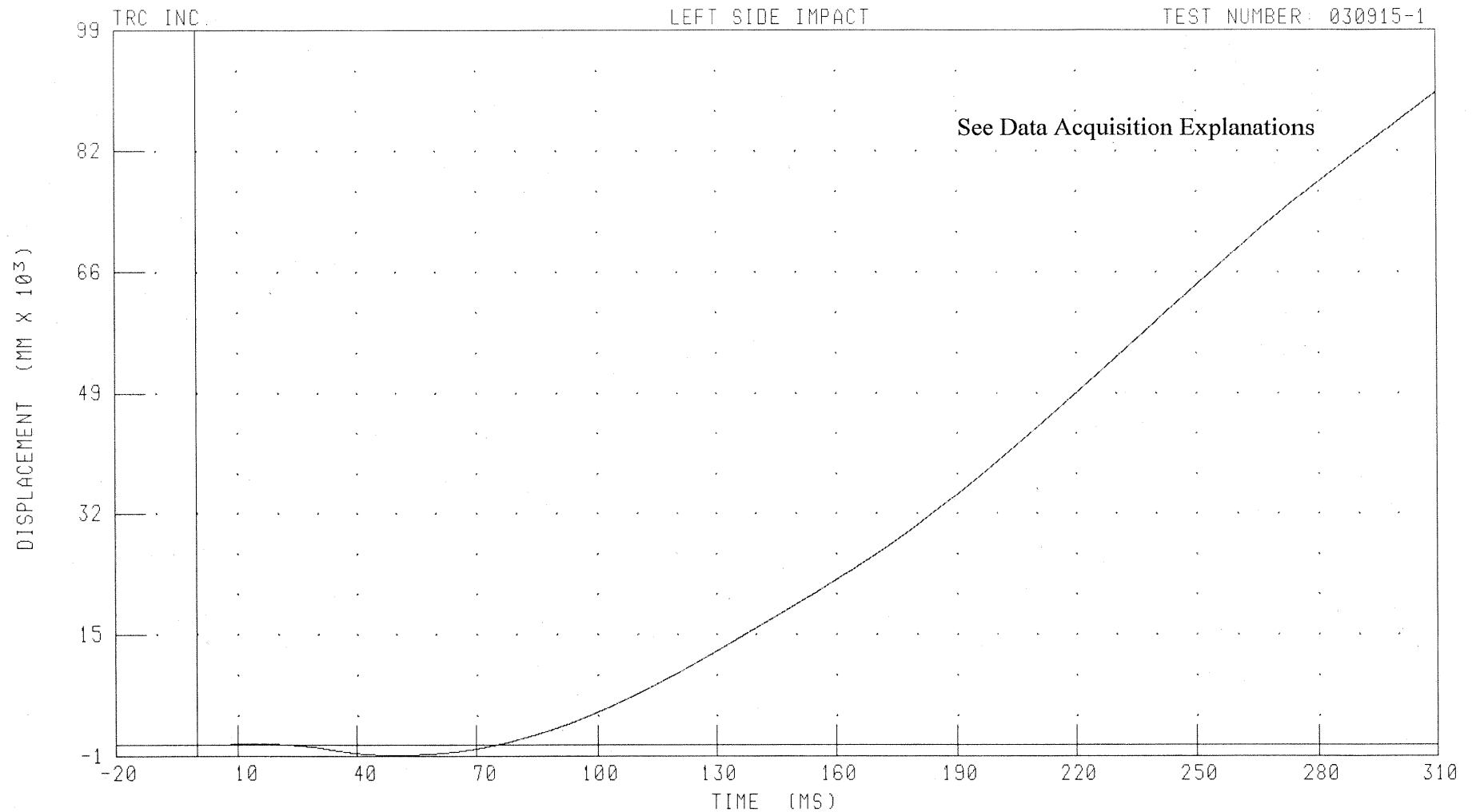
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER A-POST Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1

See Data Acquisition Explanations



CHANNEL: LLAYD1 FILTER: CH CLASS 180

PEAK DATA: 9113.70 MM @ 310.00 MS; -1468.48 MM @ 50.08 MS

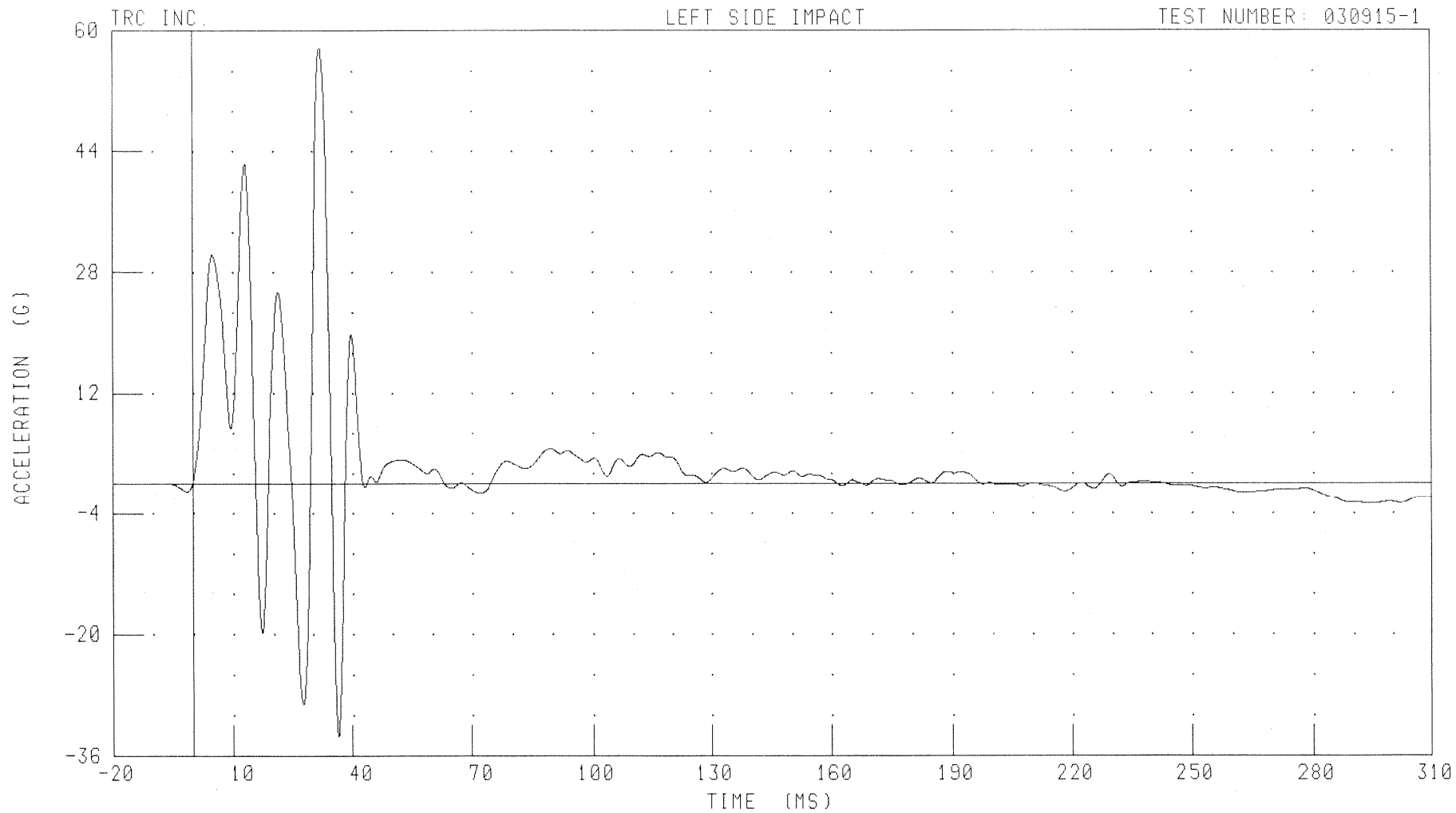
B-397

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE A-POST Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMAYG1 FILTER: CH. CLASS 60

PEAK DATA: 57.74 G @ 32.00 MS; -33.49 G @ 36.40 MS

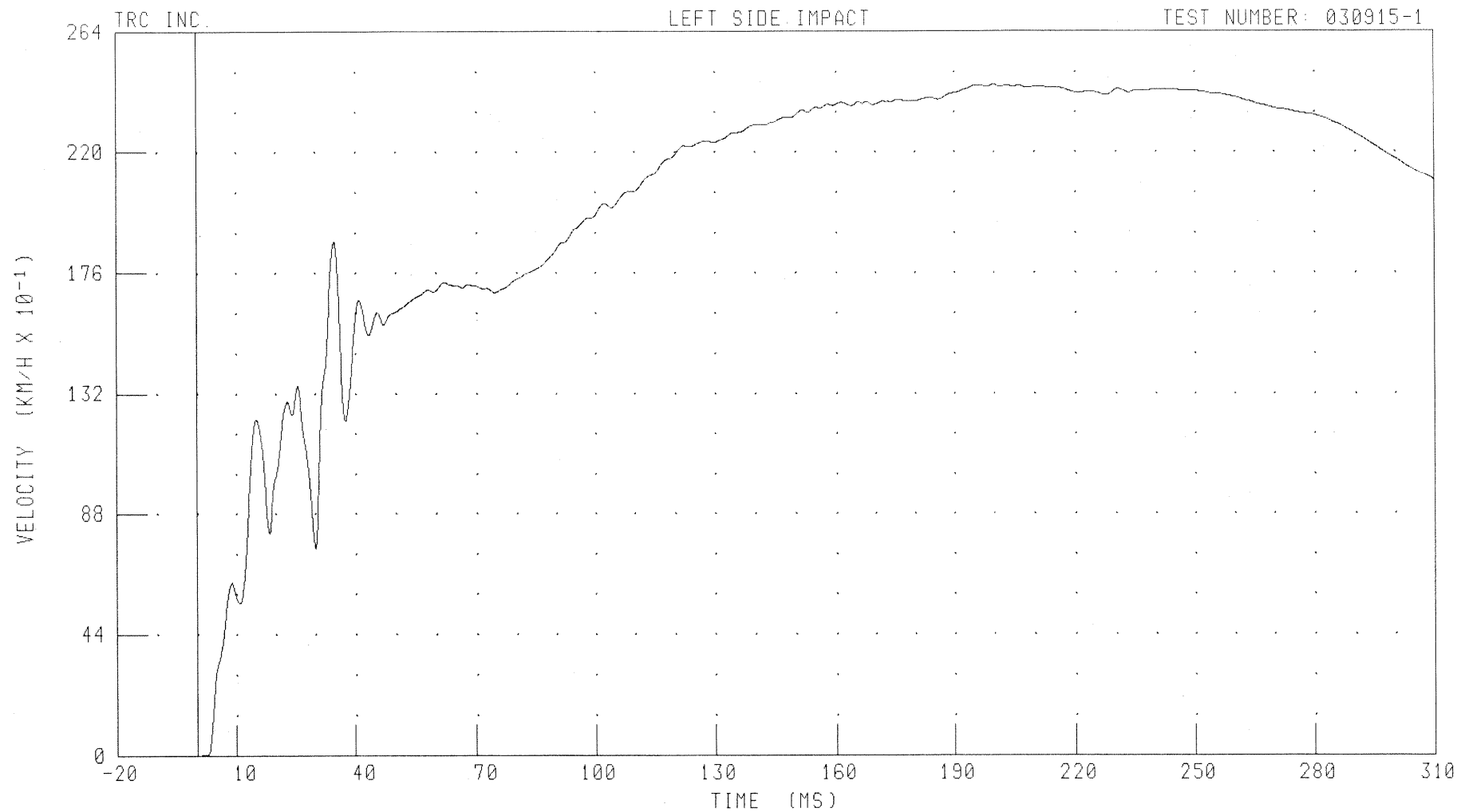
B-398

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE A-POST Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMAYV1 FILTER: CH. CLASS 180

PEAK DATA: 24.48 KM/H @ 200.16 MS; 0.00 KM/H @ 0.00 MS

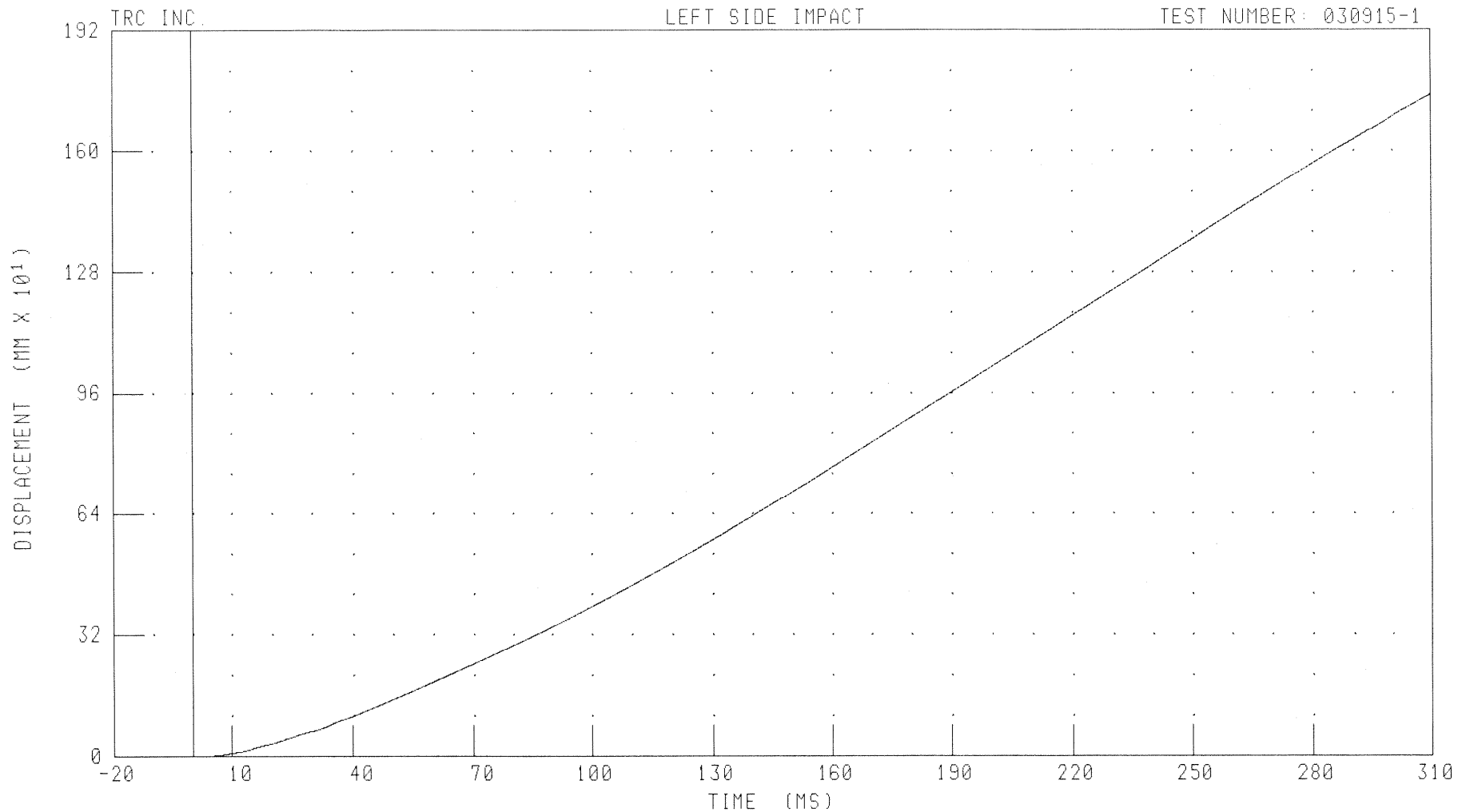
B-399

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE A-POST Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMAYD1 FILTER: CH. CLASS 180

PEAK DATA: 1750.07 MM @ 310.00 MS; 0.00 MM @ 0.00 MS

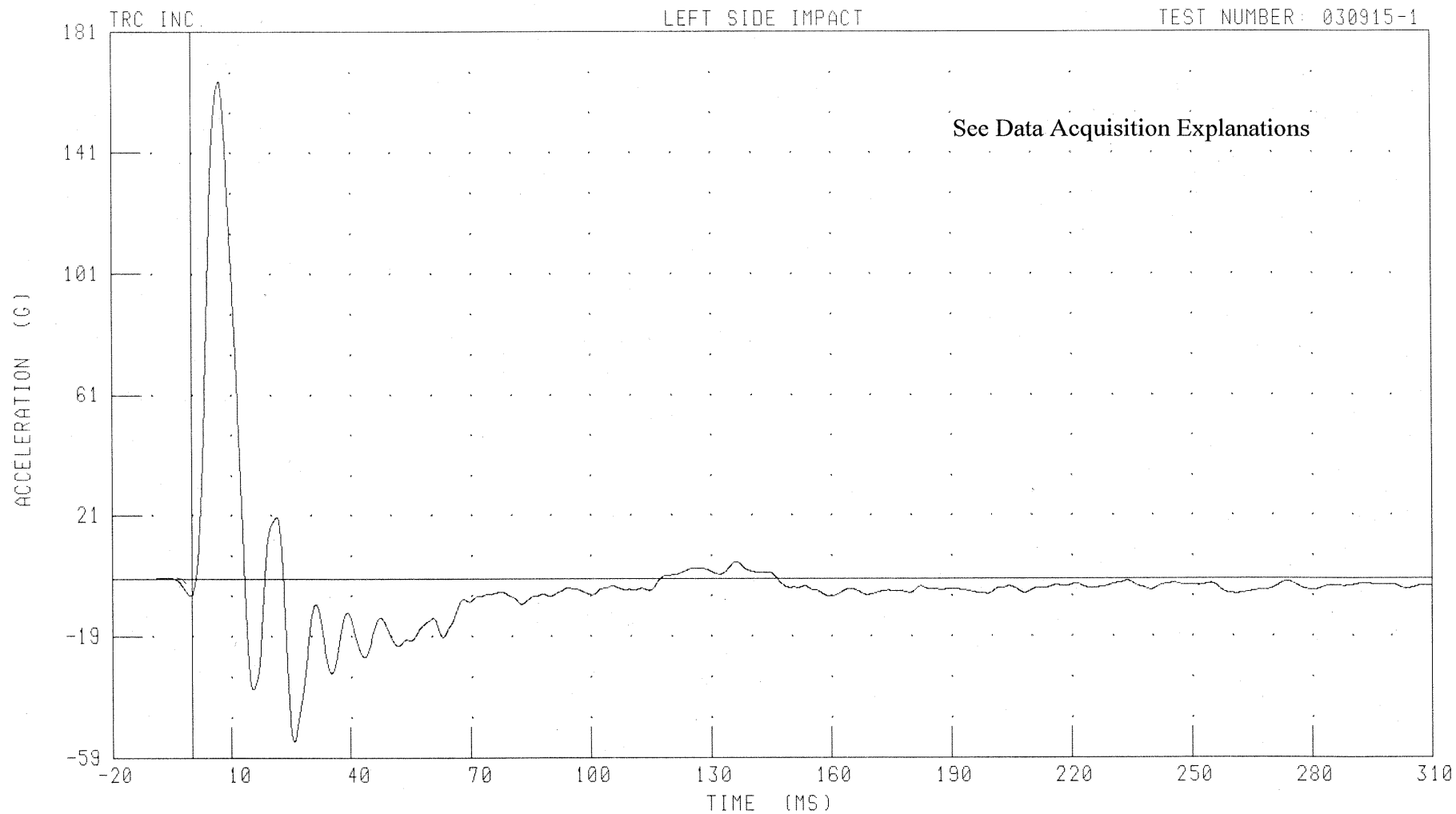
B-400

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER B-POST Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LLBYG1 FILTER: CH. CLASS 60

PEAK DATA: 164.70 G @ 7.12 MS, -53.72 G @ 25.76 MS

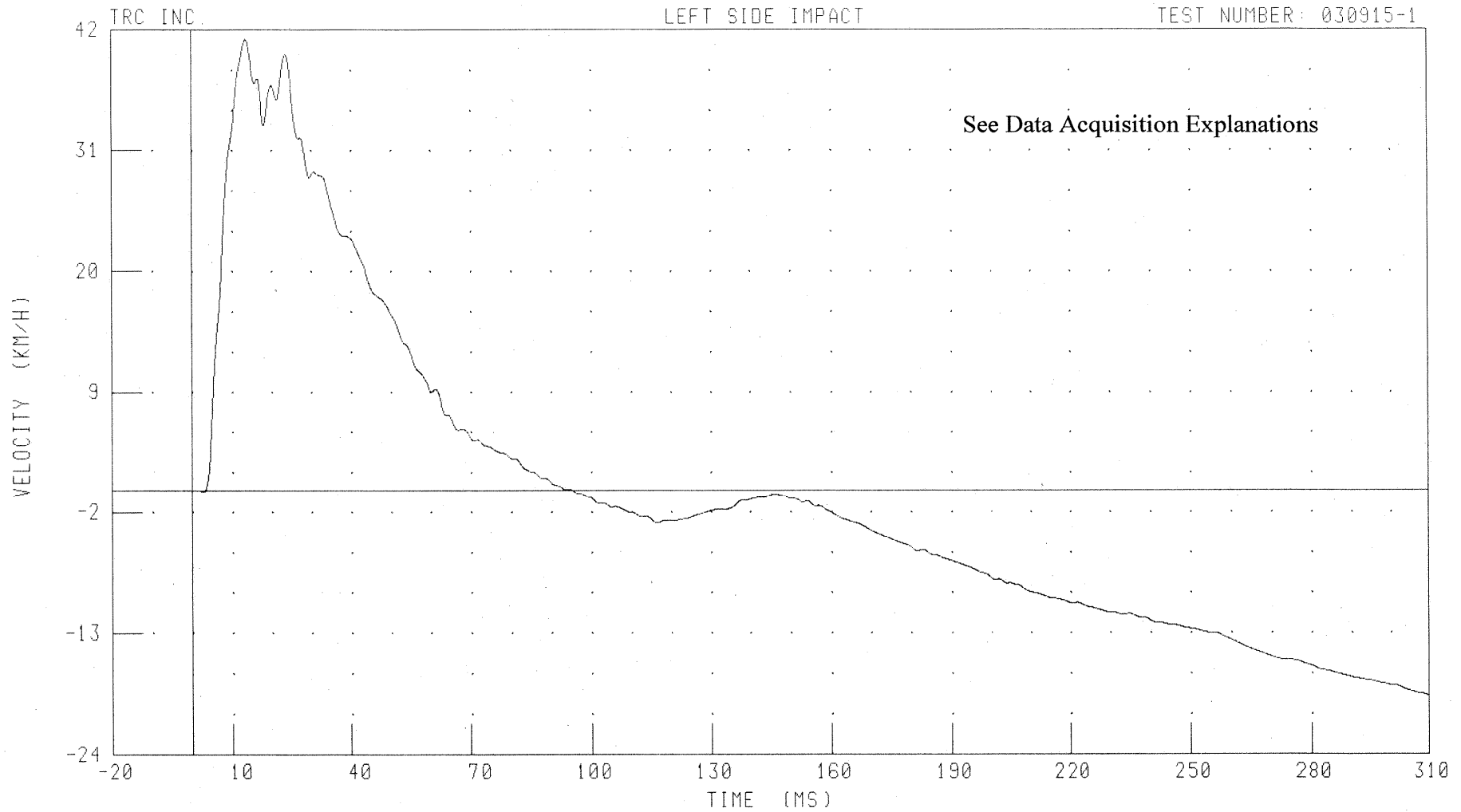
B-401

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER B-POST Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LLBYV1 FILTER: CH CLASS 180

PEAK DATA: 41.15 KM/H @ 13.60 MS, -18.75 KM/H @ 310.00 MS

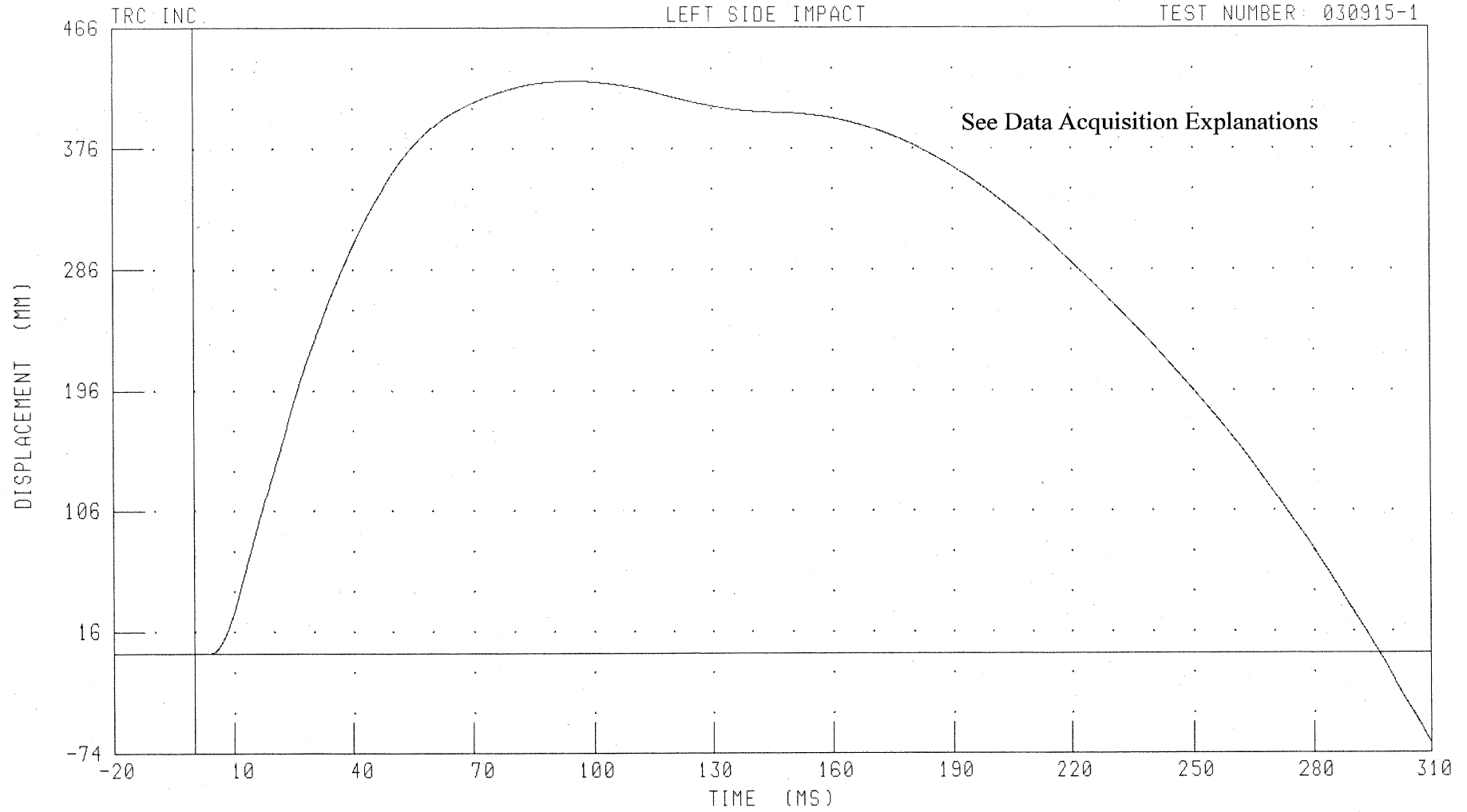
B-402

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT LOWER B-POST Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LLBYD1 FILTER: CH. CLASS 180

PEAK DATA: 426.50 MM @ 95.36 MS; -67.79 MM @ 310.00 MS

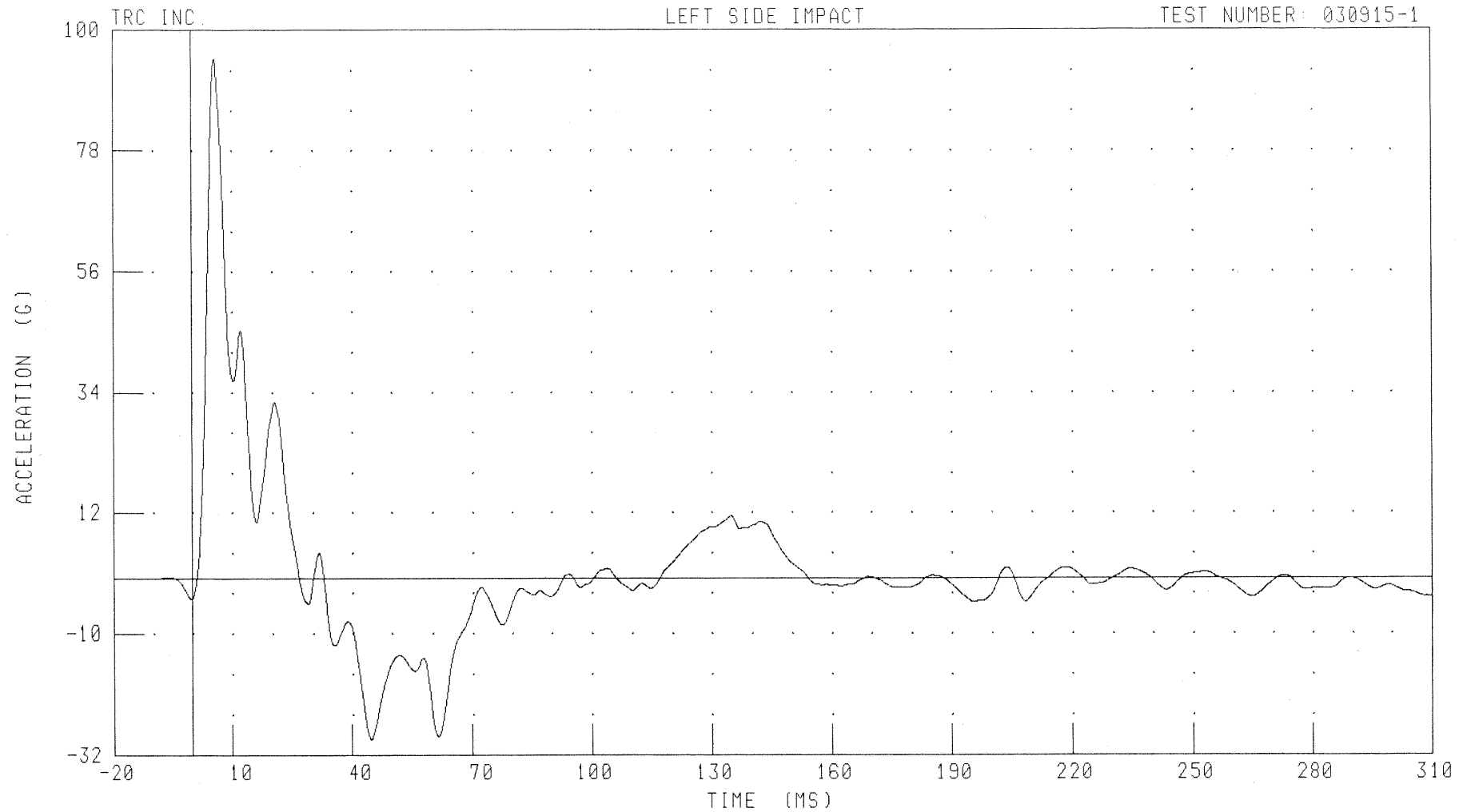
B-403

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE B-POST Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYG1 FILTER: CH. CLASS 60

PEAK DATA: 94.76 G @ 5.76 MS; -29.16 G @ 44.88 MS

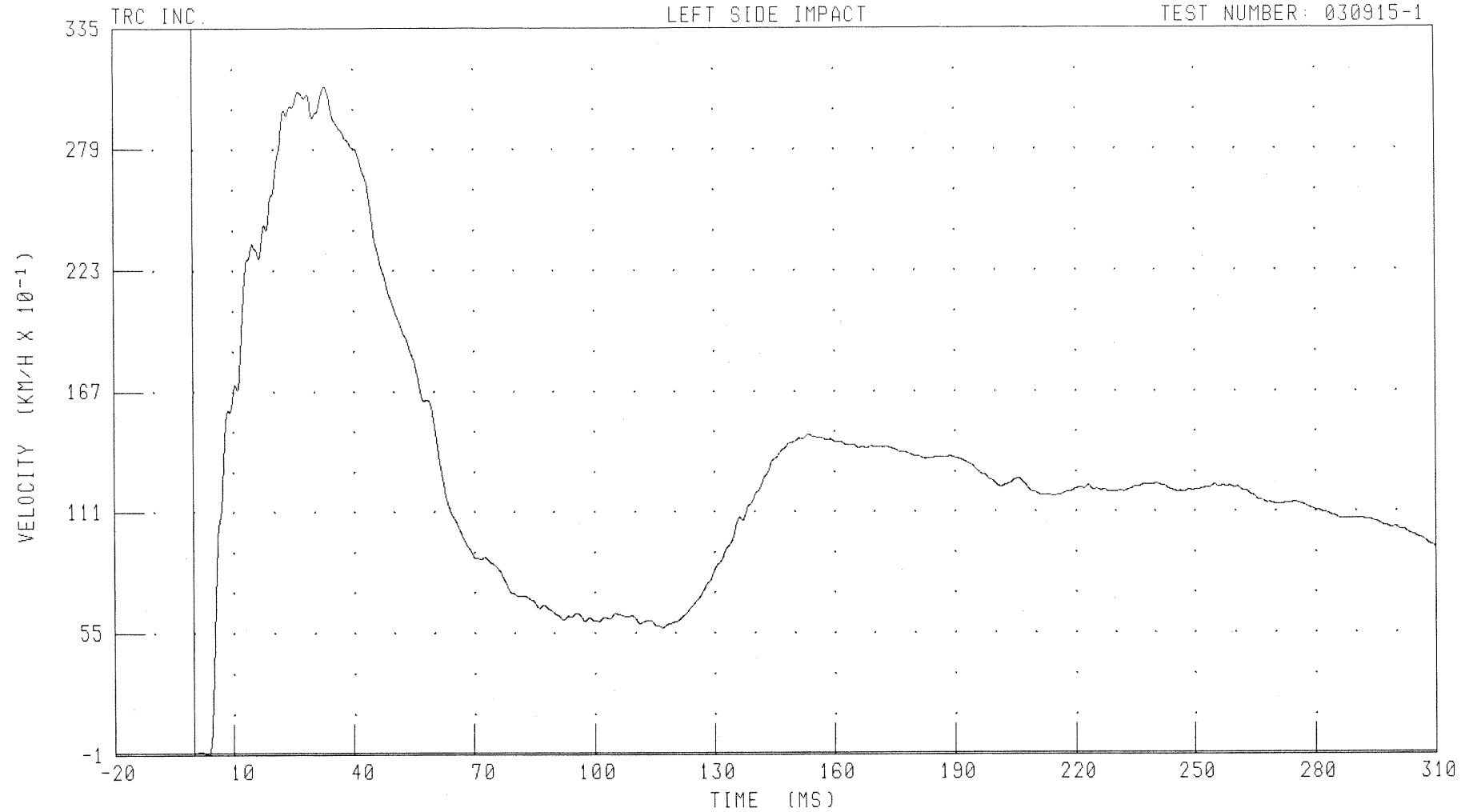
B-404

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE B-POST Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYV1 FILTER: CH. CLASS 180

PEAK DATA: 30.81 KM/H @ 33.04 MS; -0.10 KM/H @ 3.52 MS

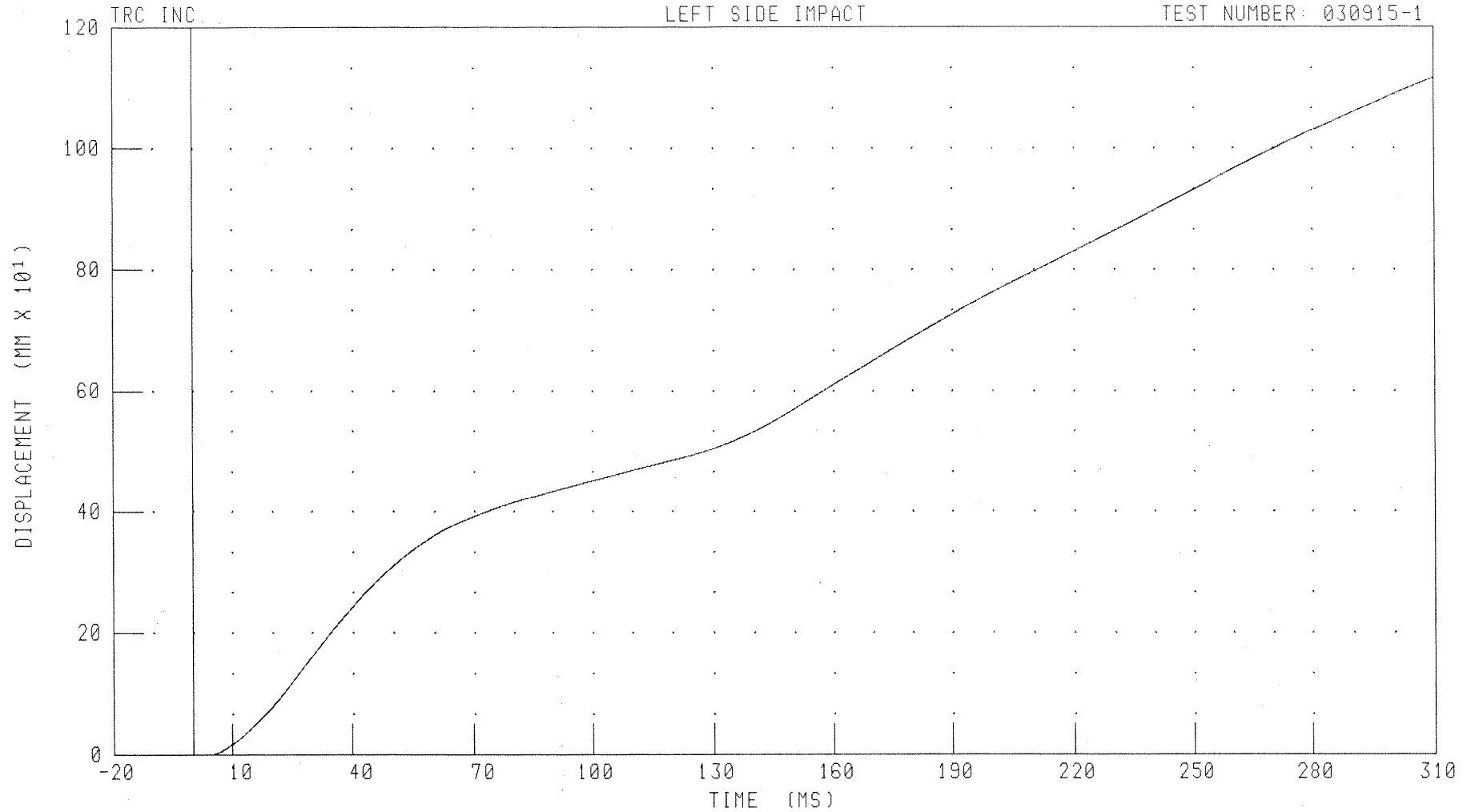
B-405

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT MIDDLE B-POST Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LMBYD1 FILTER: CH. CLASS 180

PEAK DATA: 1116.97 MM @ 310.00 MS; -0.01 MM @ 3.92 MS

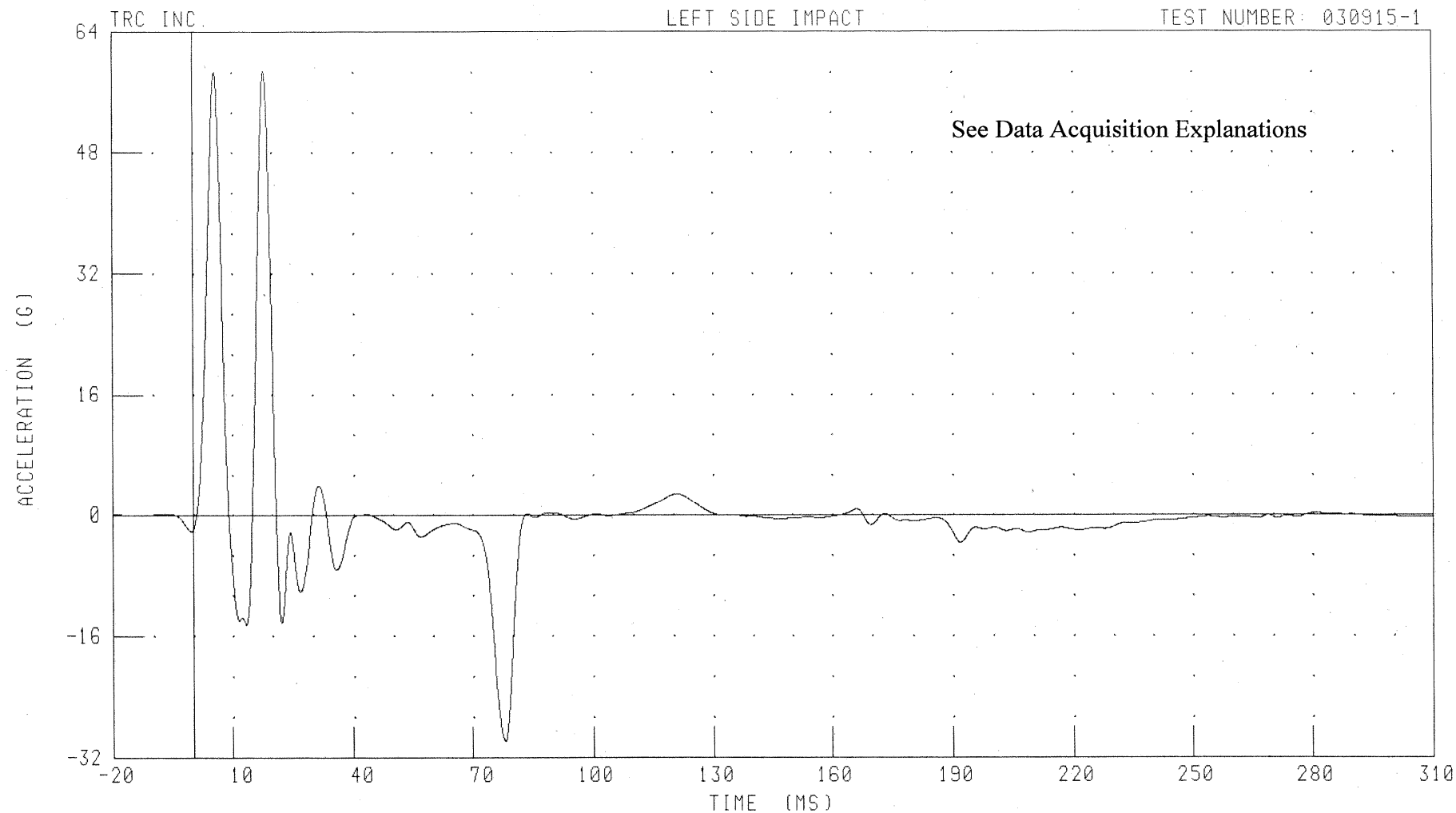
B-406

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT SEAT TRACK Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFTYG1 FILTER: CH. CLASS 60

PEAK DATA: 58.86 G @ 18.08 MS, -29.85 G @ 78.08 MS

B-407

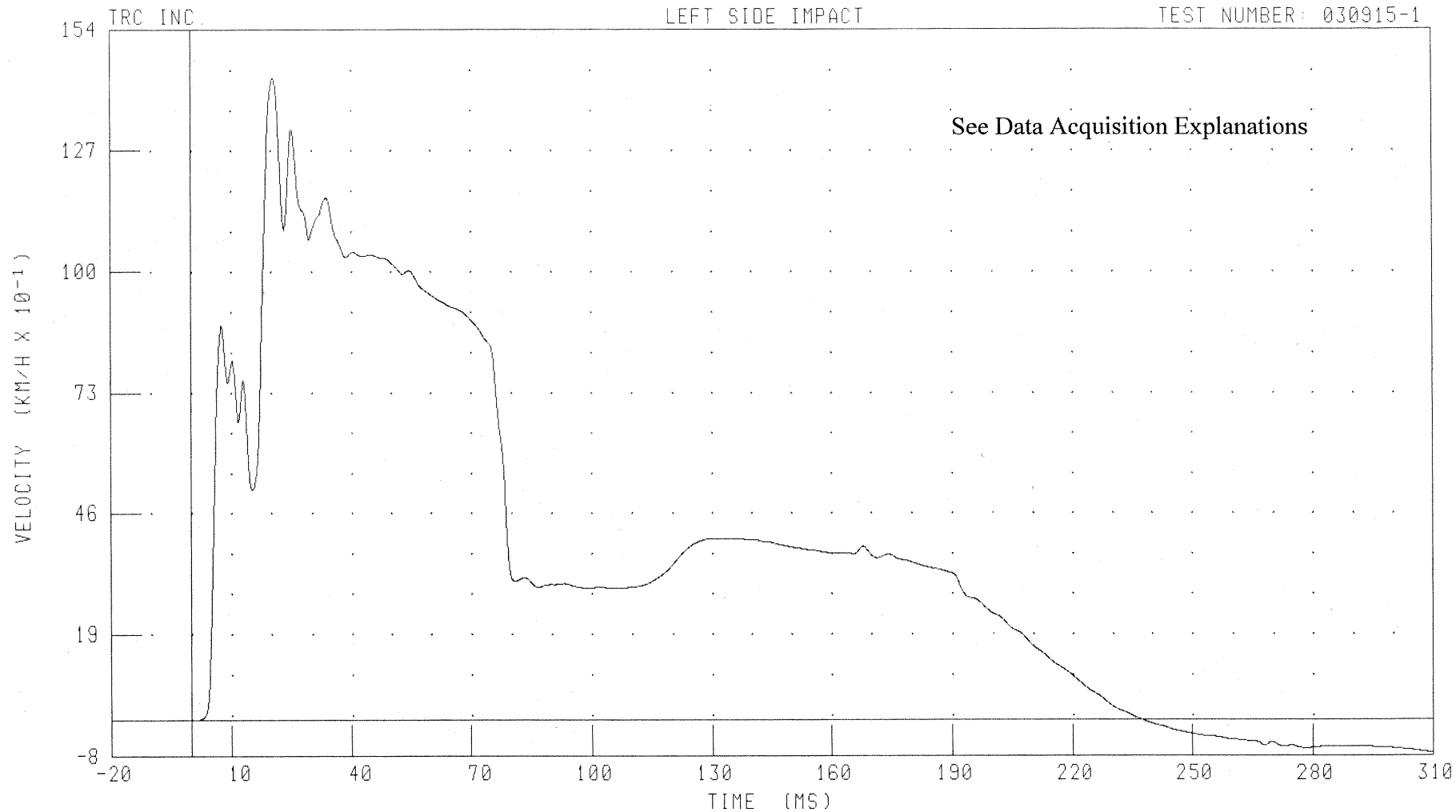
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT SEAT TRACK Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1

See Data Acquisition Explanations



CHANNEL: LFTYV1 FILTER: CH. CLASS 180

PEAK DATA: 14.33 KM/H @ 20.80 MS; -0.74 KM/H @ 310.00 MS

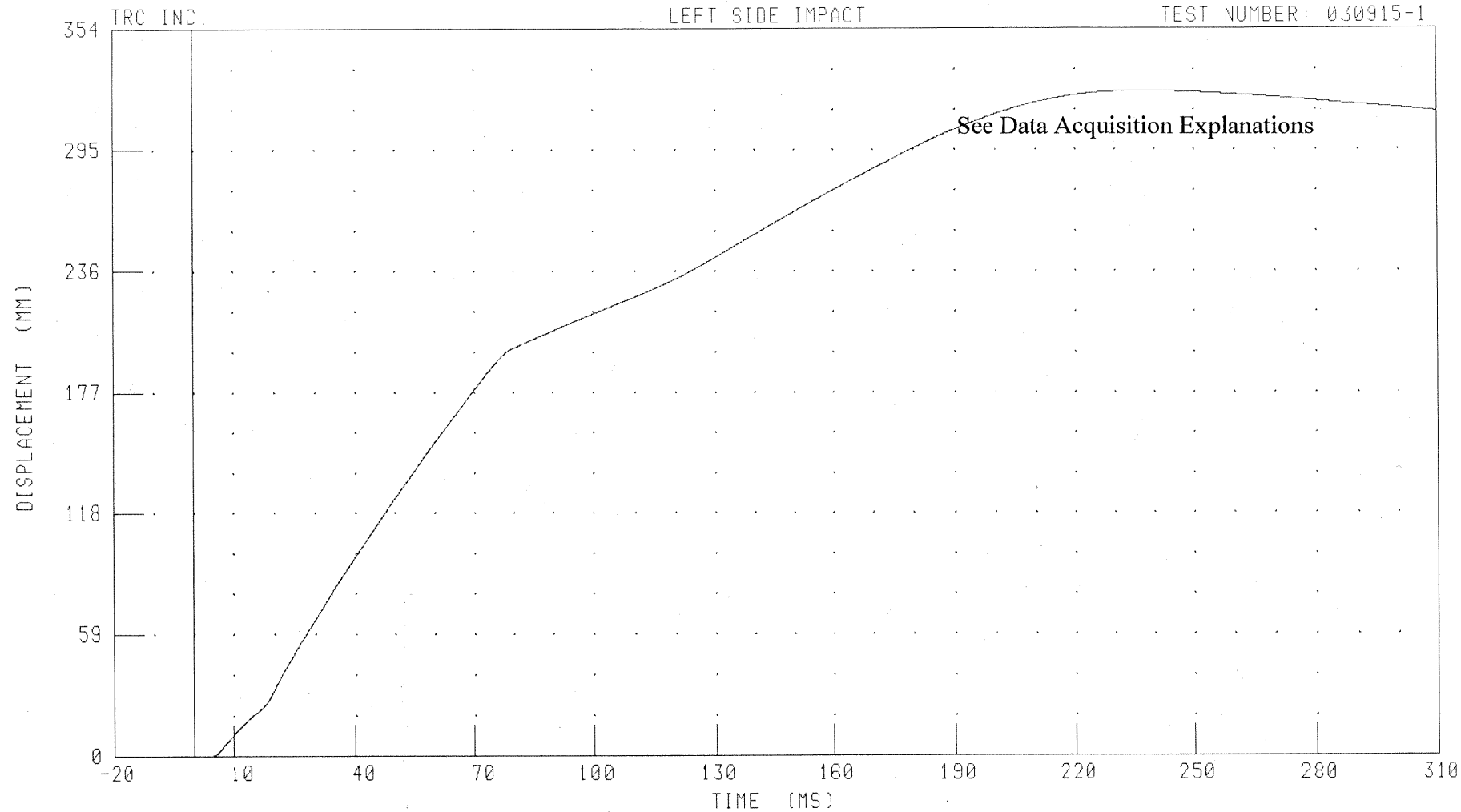
B-408

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT FRONT SEAT TRACK Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LFTYD1

FILTER: CH. CLASS 180

PEAK DATA: 323.68 MM @ 237.28 MS; 0.00 MM @ 0.00 MS

B-409

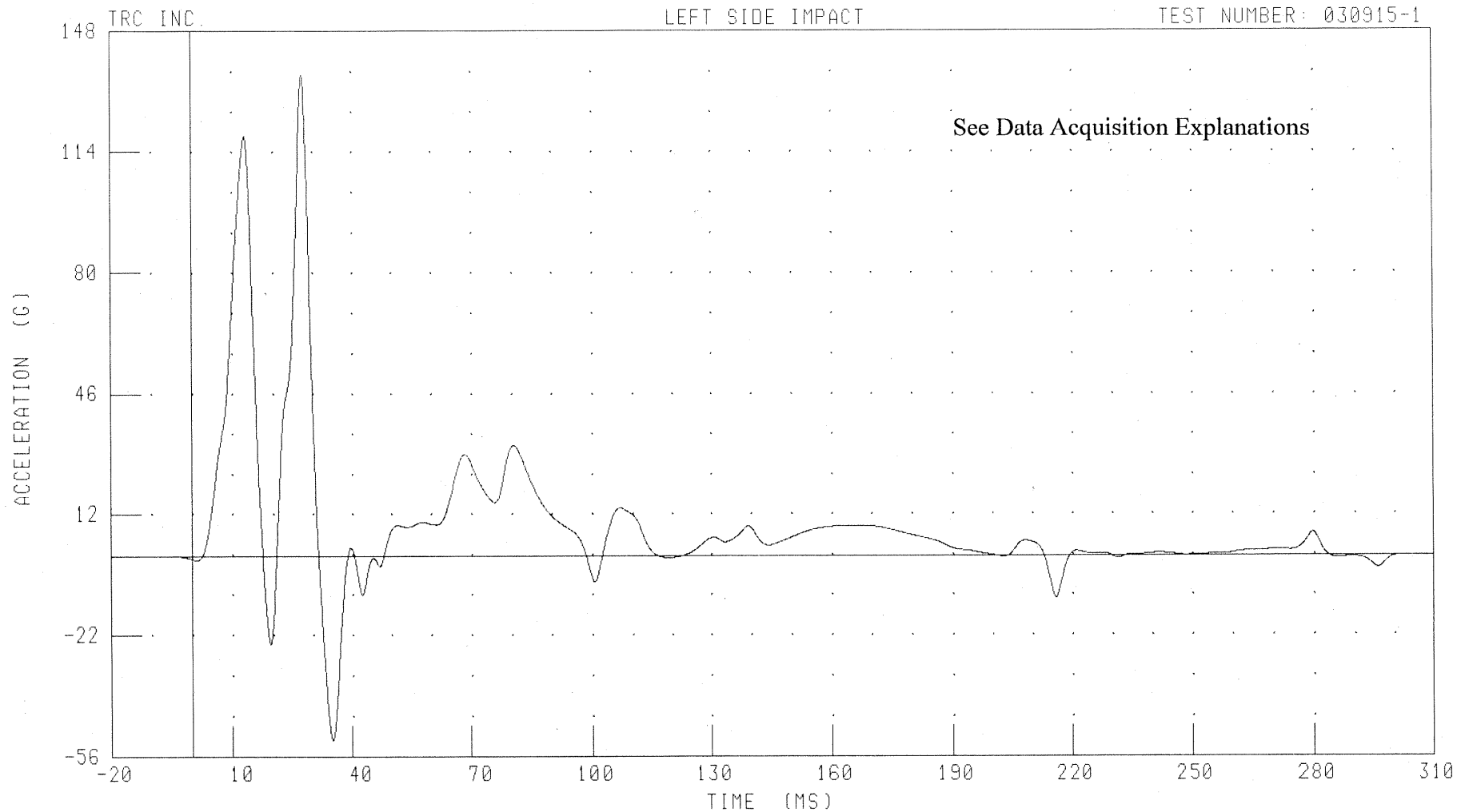
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR SEAT TRACK Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1

See Data Acquisition Explanations



CHANNEL: LRTYG1

FILTER: CH. CLASS 60

PEAK DATA: 135.71 G @ 27.44 MS; -51.51 G @ 34.96 MS

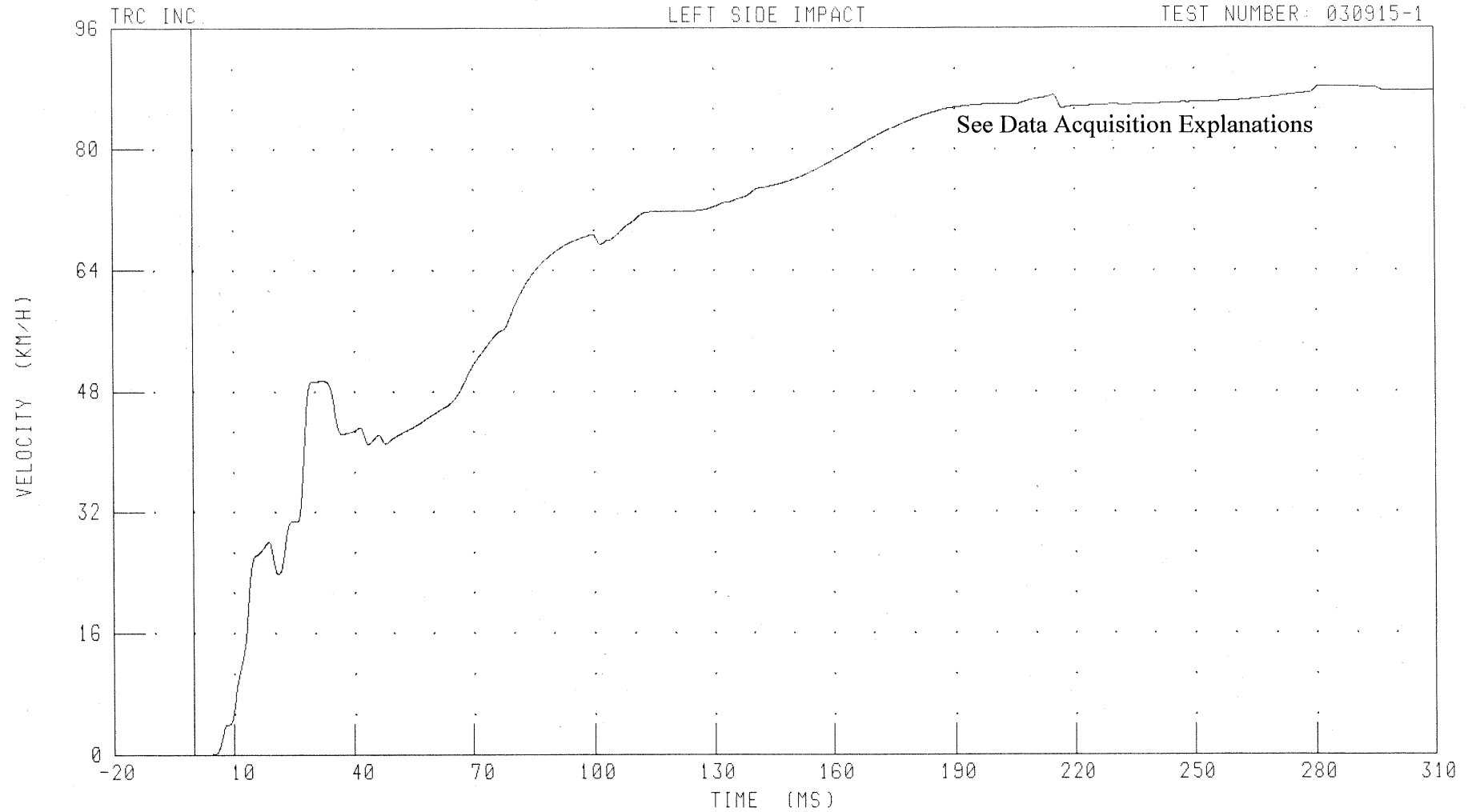
B-410

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR SEAT TRACK Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRTYV1 FILTER: CH. CLASS 180

PEAK DATA: 88.35 KM/H @ 281.28 MS; 0.00 KM/H @ 0.00 MS

B-411

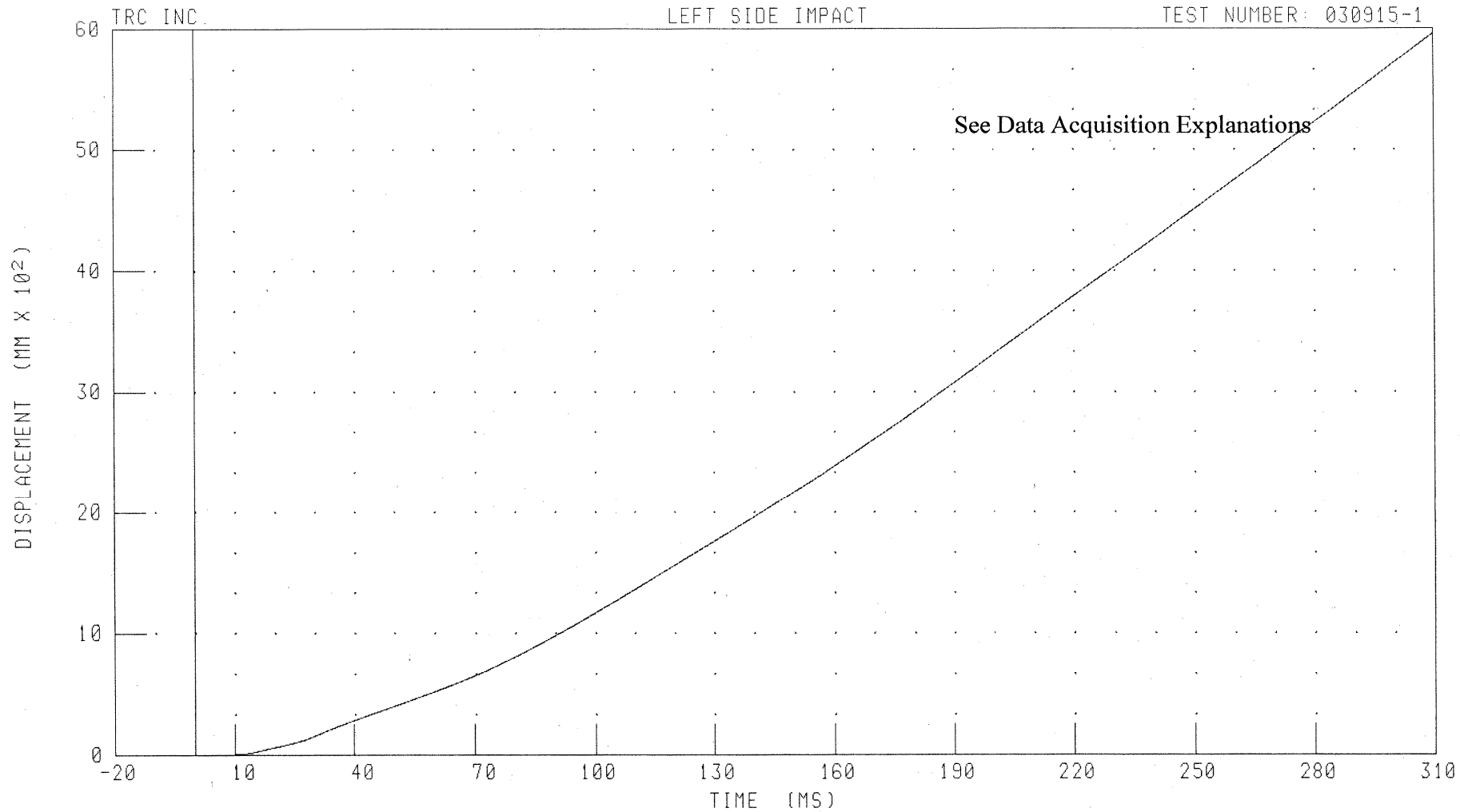
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR SEAT TRACK Y-AXIS DISPLACEMENT

LEFT SIDE IMPACT

TEST NUMBER: 030915-1

See Data Acquisition Explanations



CHANNEL: LRTYD1

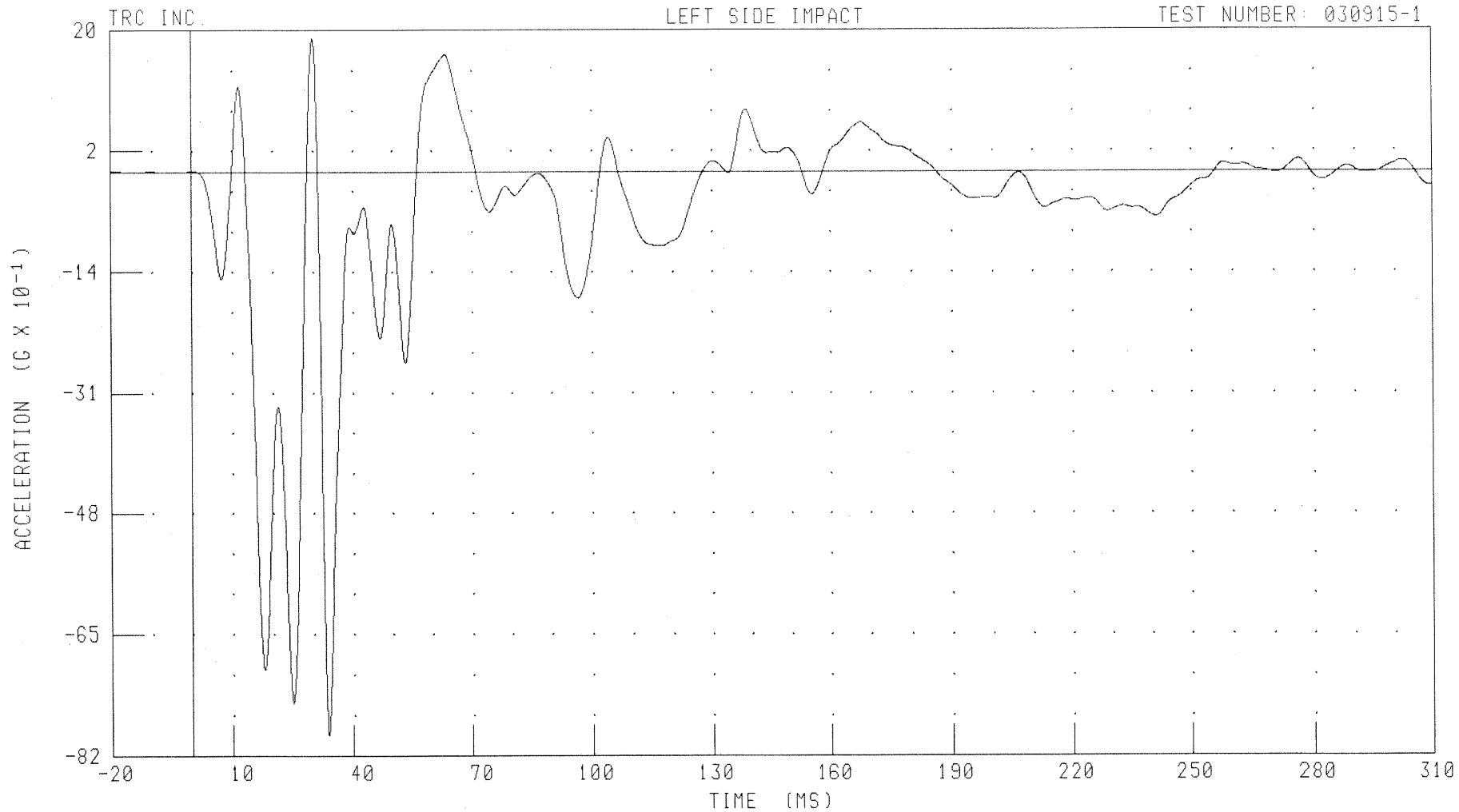
FILTER: CH. CLASS 180

PEAK DATA: 5962 01 MM @ 310.00 MS; 0.00 MM @ 0.00 MS

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGXG1 FILTER: CH. CLASS 60

PEAK DATA: 1.89 G @ 30.08 MS; -7.91 G @ 33.84 MS

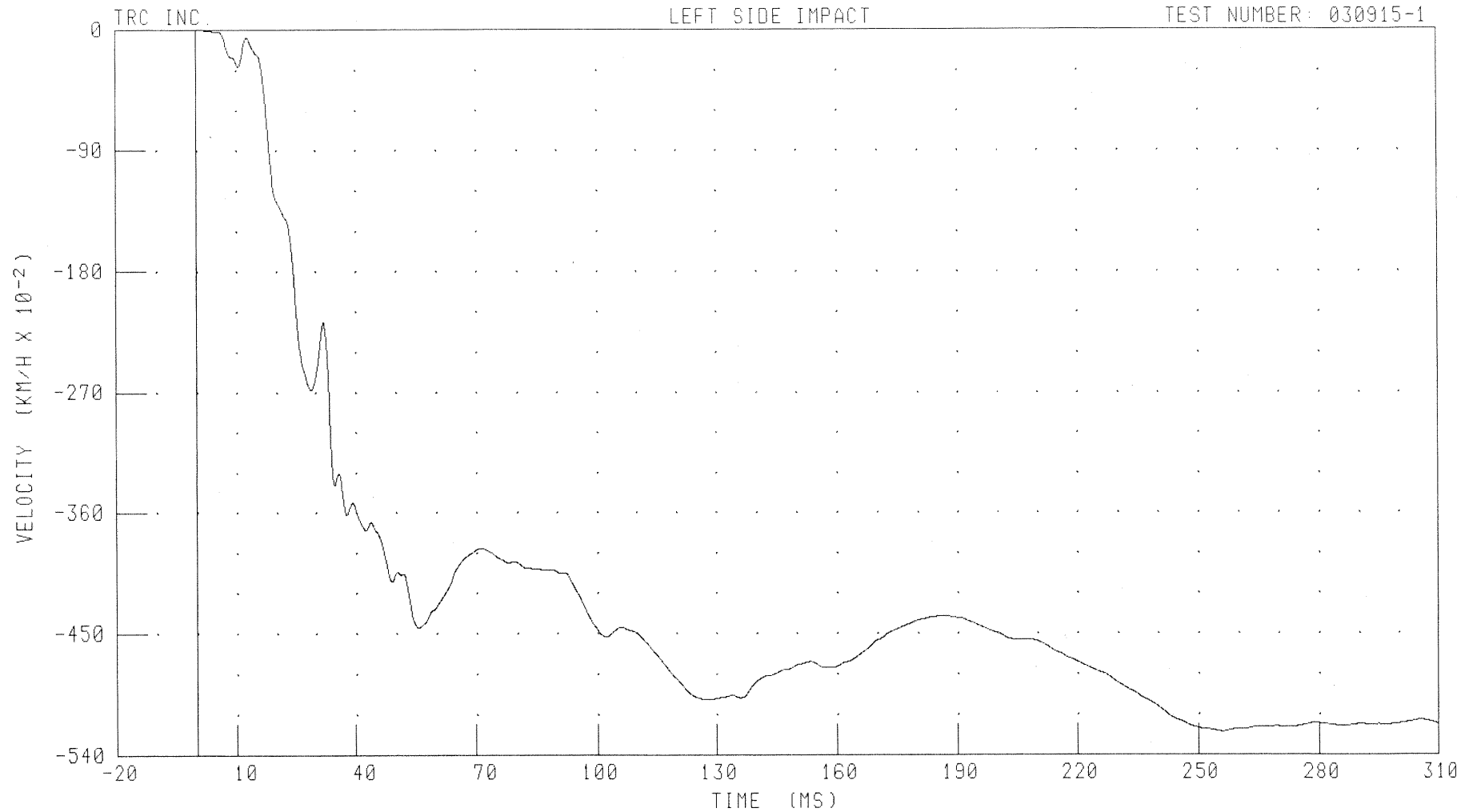
B-413

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGXV1 FILTER: CH. CLASS 180

PEAK DATA: 0.00 KM/H @ 0.00 MS, -5.23 KM/H @ 256.00 MS

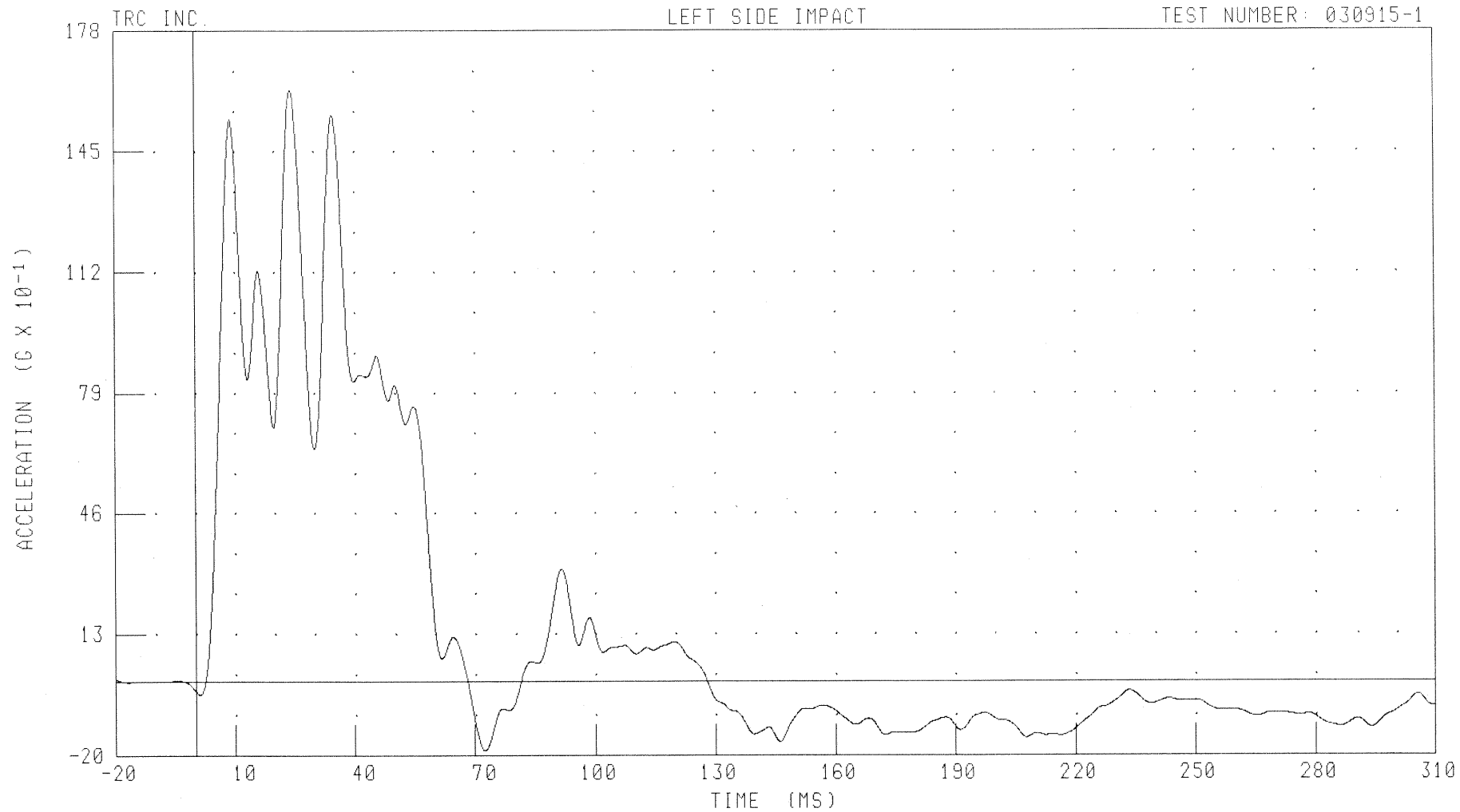
B-414

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGYG1 FILTER: CH. CLASS 60

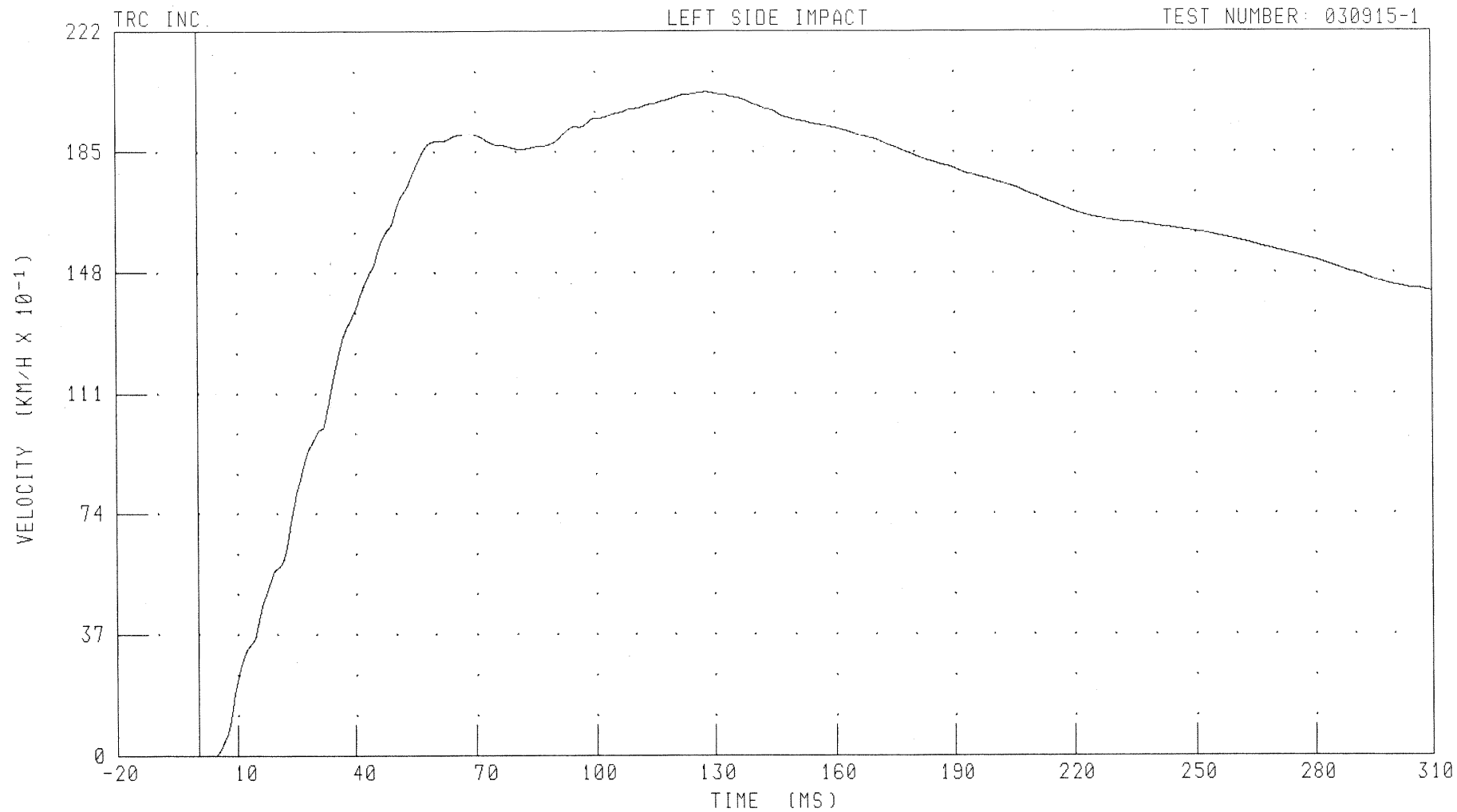
B-415

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGYV1 FILTER: CH. CLASS 180

PEAK DATA: 20.35 KM/H @ 128.32 MS; -0.01 KM/H @ 3.68 MS

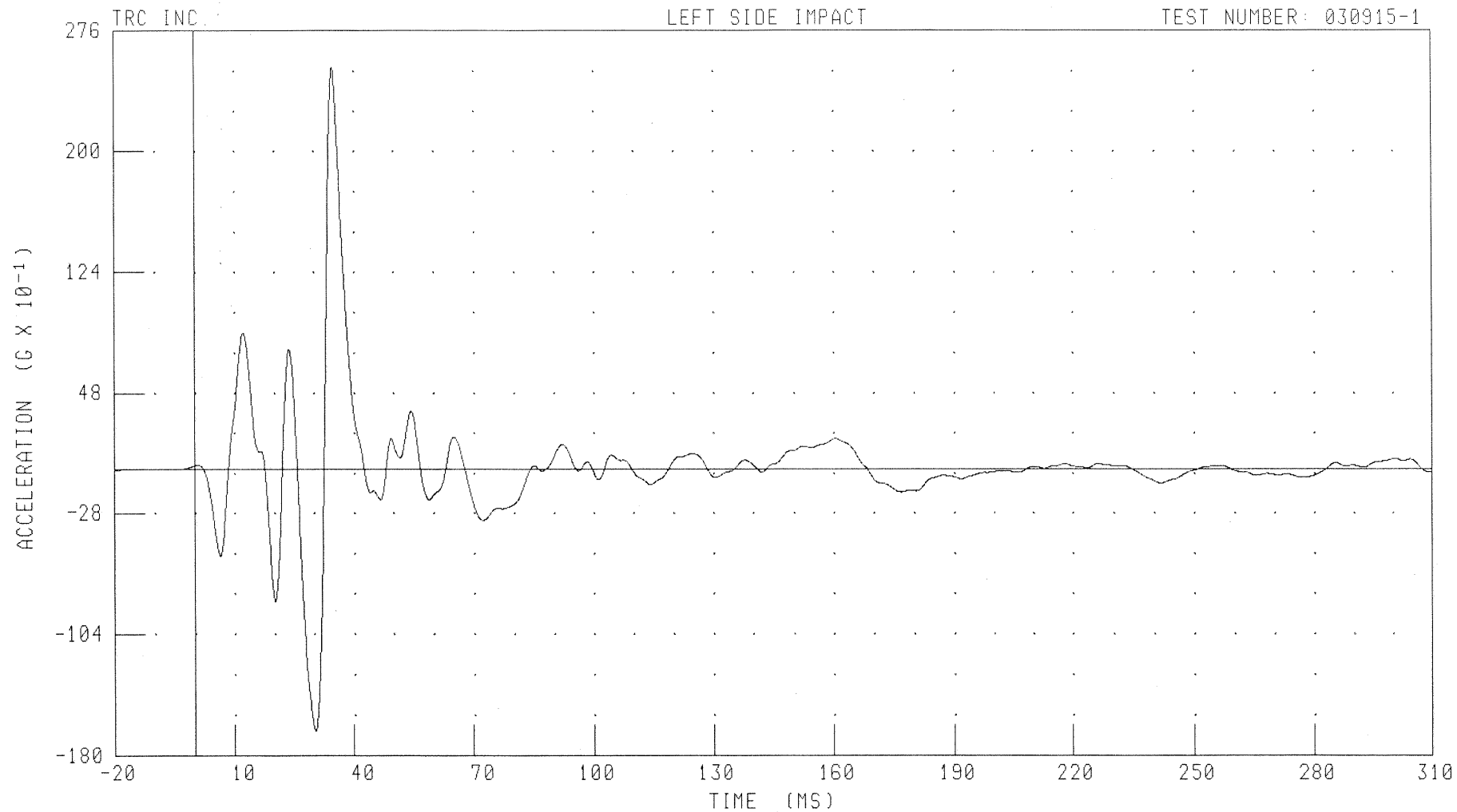
B-416

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGZG1

FILTER: CH. CLASS 60

PEAK DATA: 25.28 G @ 34.80 MS; -16.47 G @ 30.40 MS

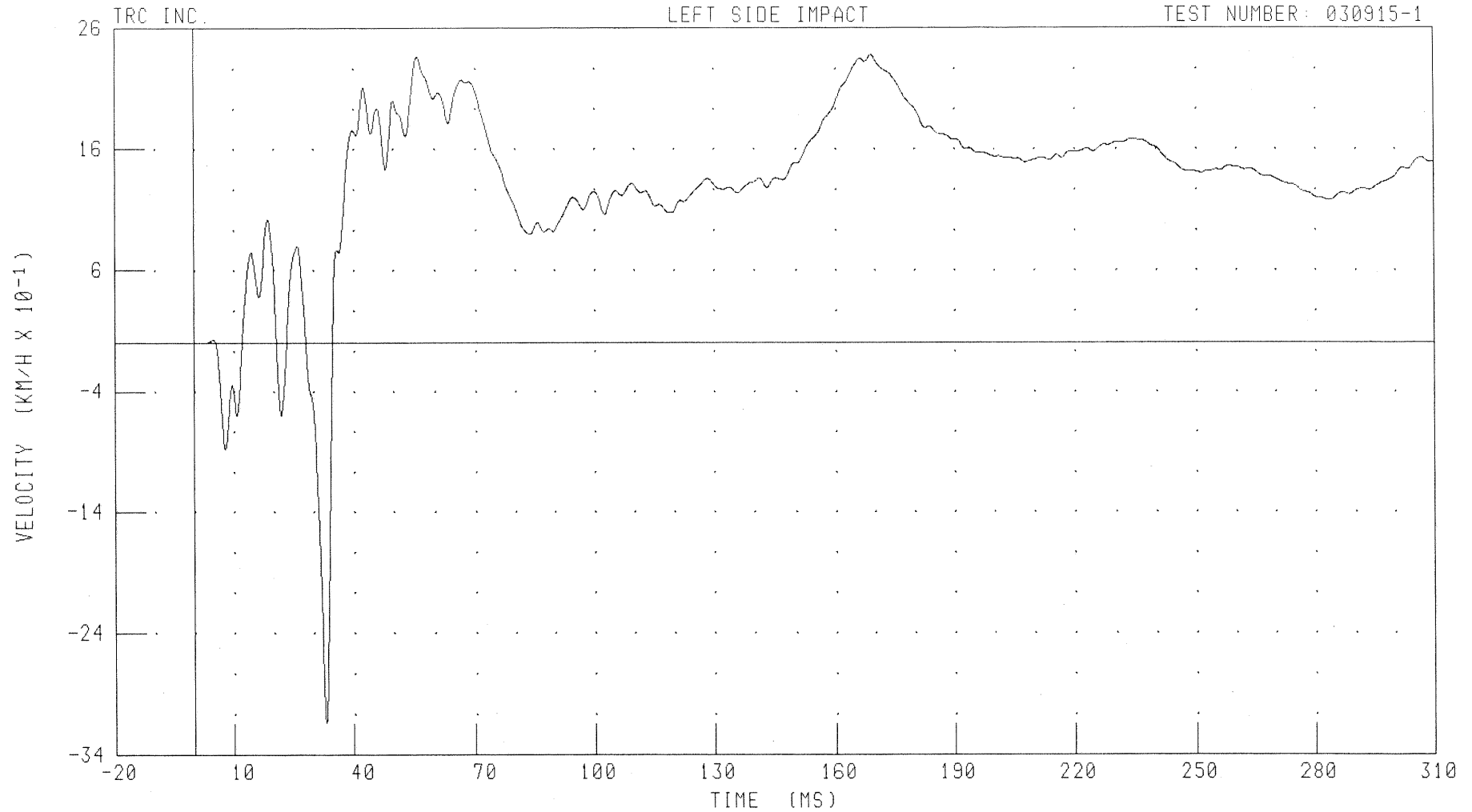
B-417

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGZV1 FILTER: CH. CLASS 180

PEAK DATA: 2.38 KM/H @ 169.28 MS; -3.14 KM/H @ 33.04 MS

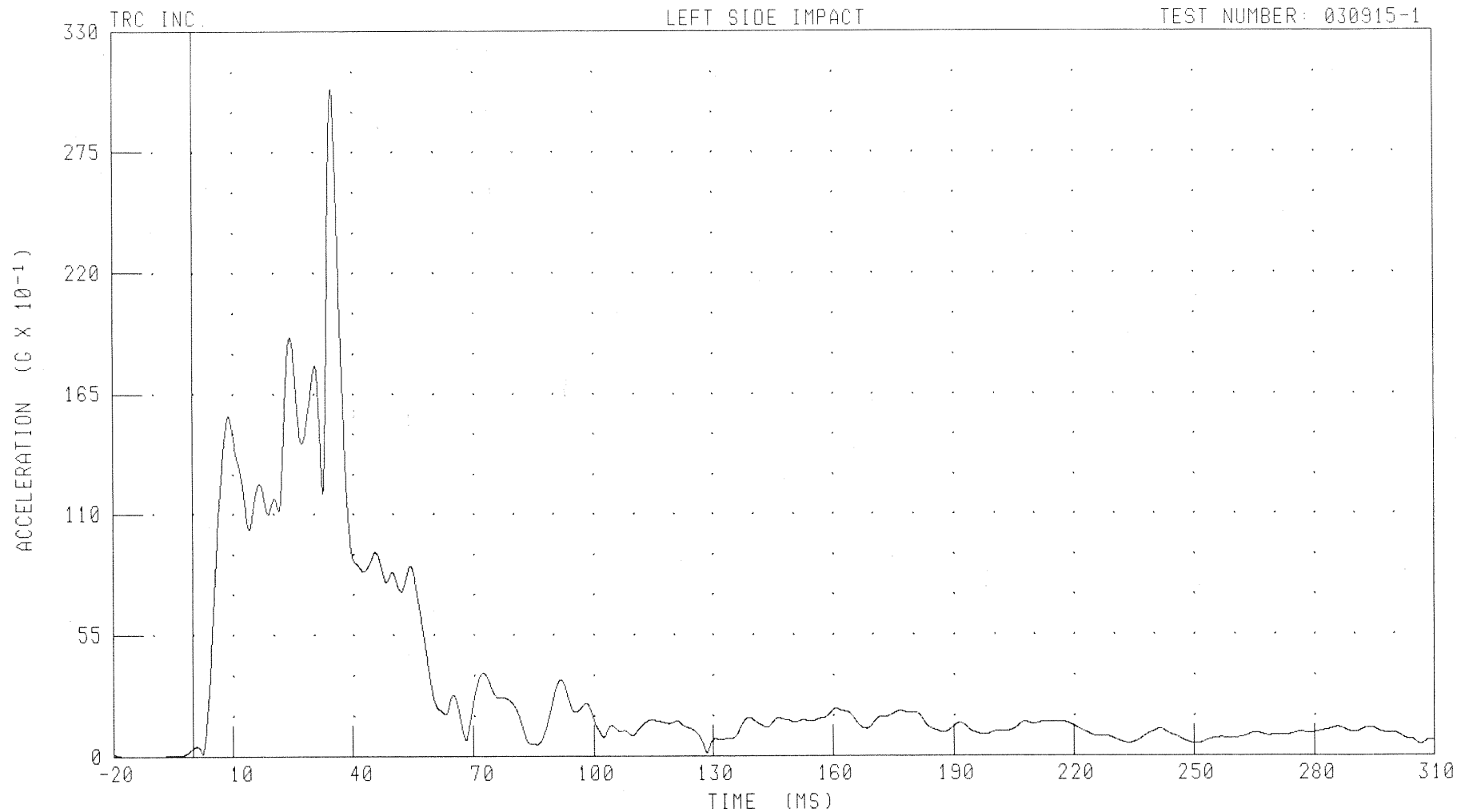
B-418

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: VCGRG1

FILTER: CH. CLASS 60

PEAK DATA: 30.39 G @ 34.72 MS; 0.00 G @ -15.12 MS

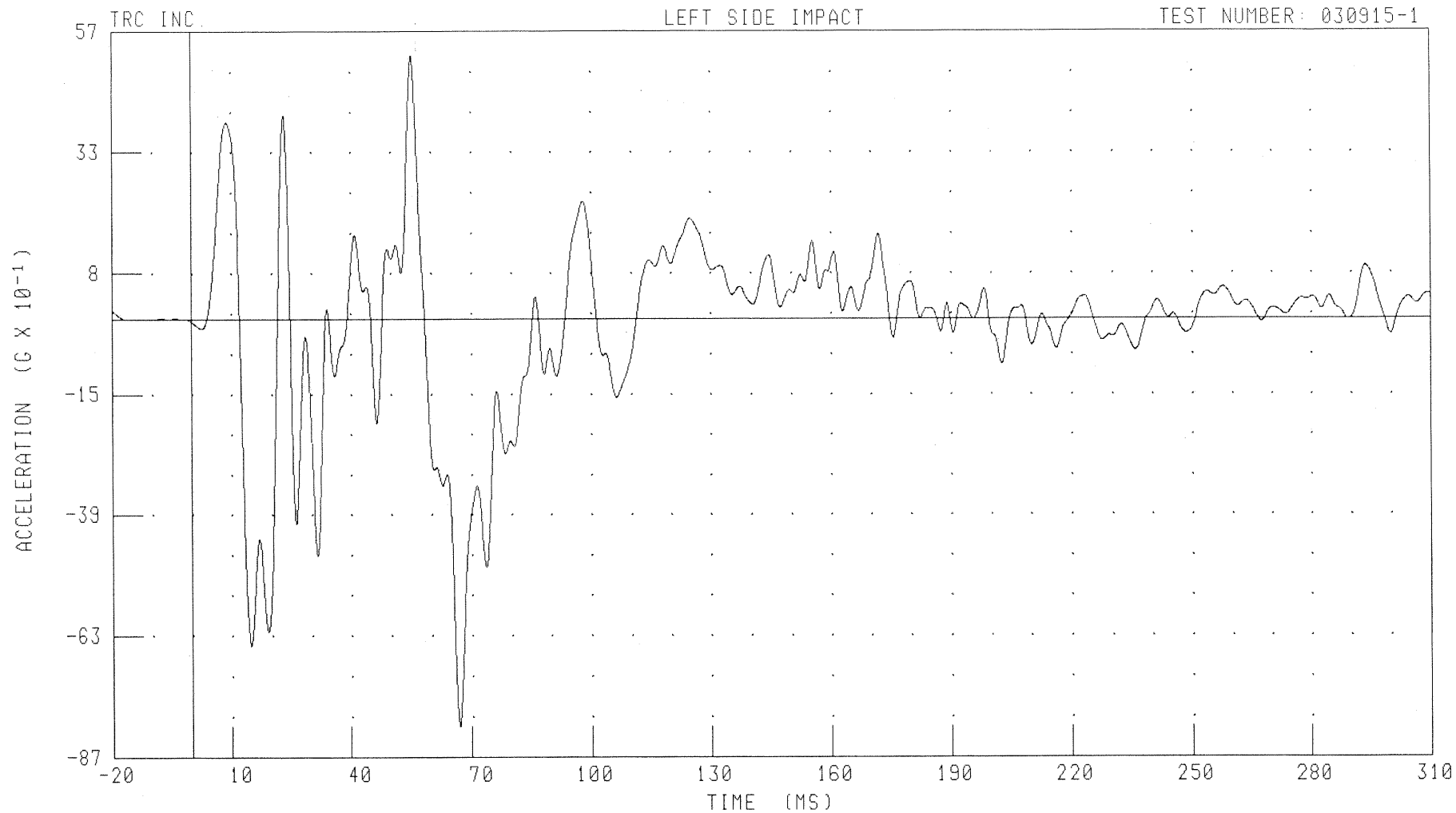
B-419

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE REAR DECK X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDXG1

FILTER: CH. CLASS 60

PEAK DATA: 5.21 G @ 55.28 MS; -8.09 G @ 66.88 MS

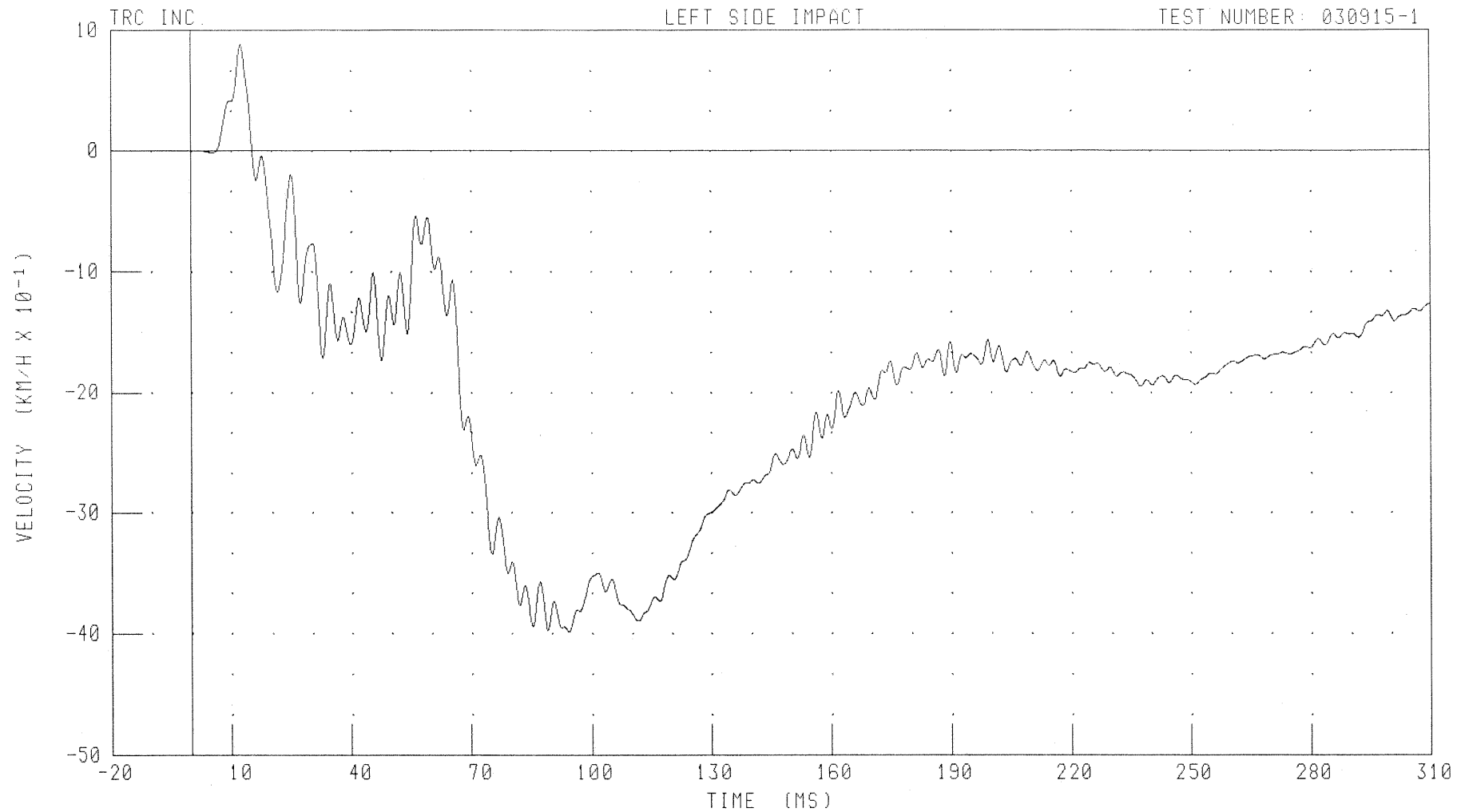
B-420

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE REAR DECK X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDXV1

FILTER: CH. CLASS 180

PEAK DATA: 0.88 KM/H @ 12.40 MS; -3.99 KM/H @ 94.32 MS

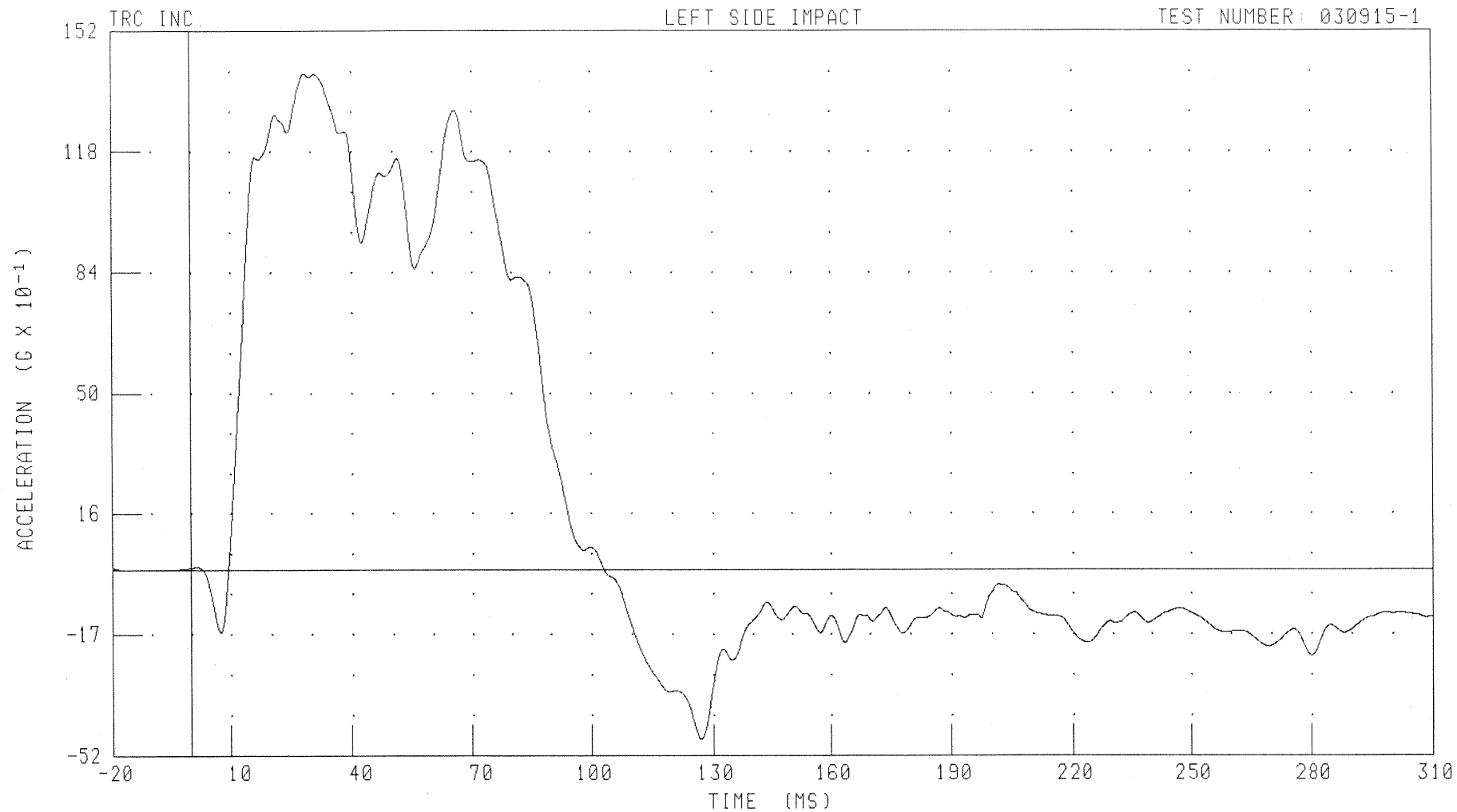
B-421

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE REAR DECK Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDYG1

FILTER: CH. CLASS 60

PEAK DATA: 13.99 G @ 28.56 MS; -4.74 G @ 127.04 MS

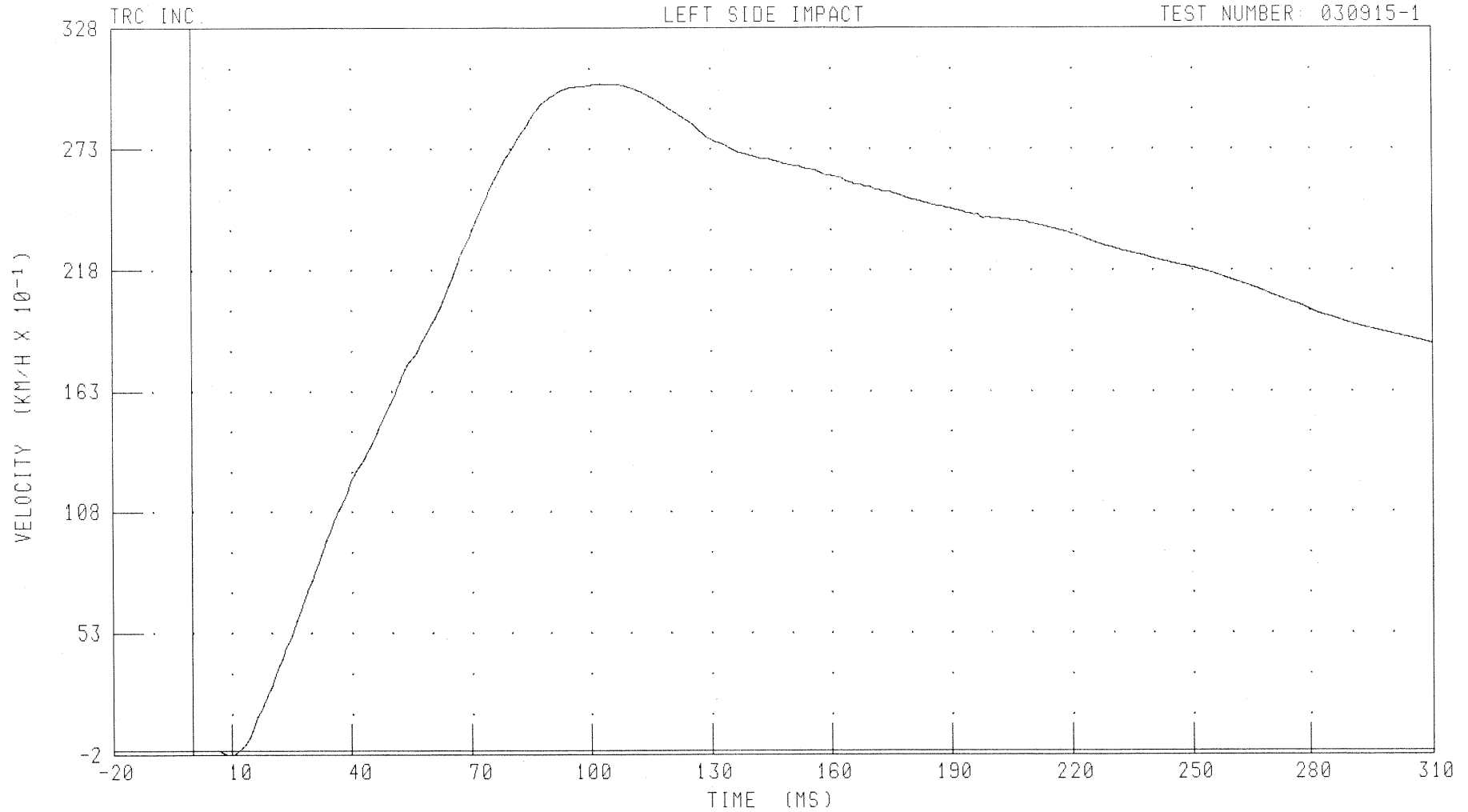
B-422

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
VEHICLE REAR DECK Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RDYV1 FILTER: CH. CLASS 180

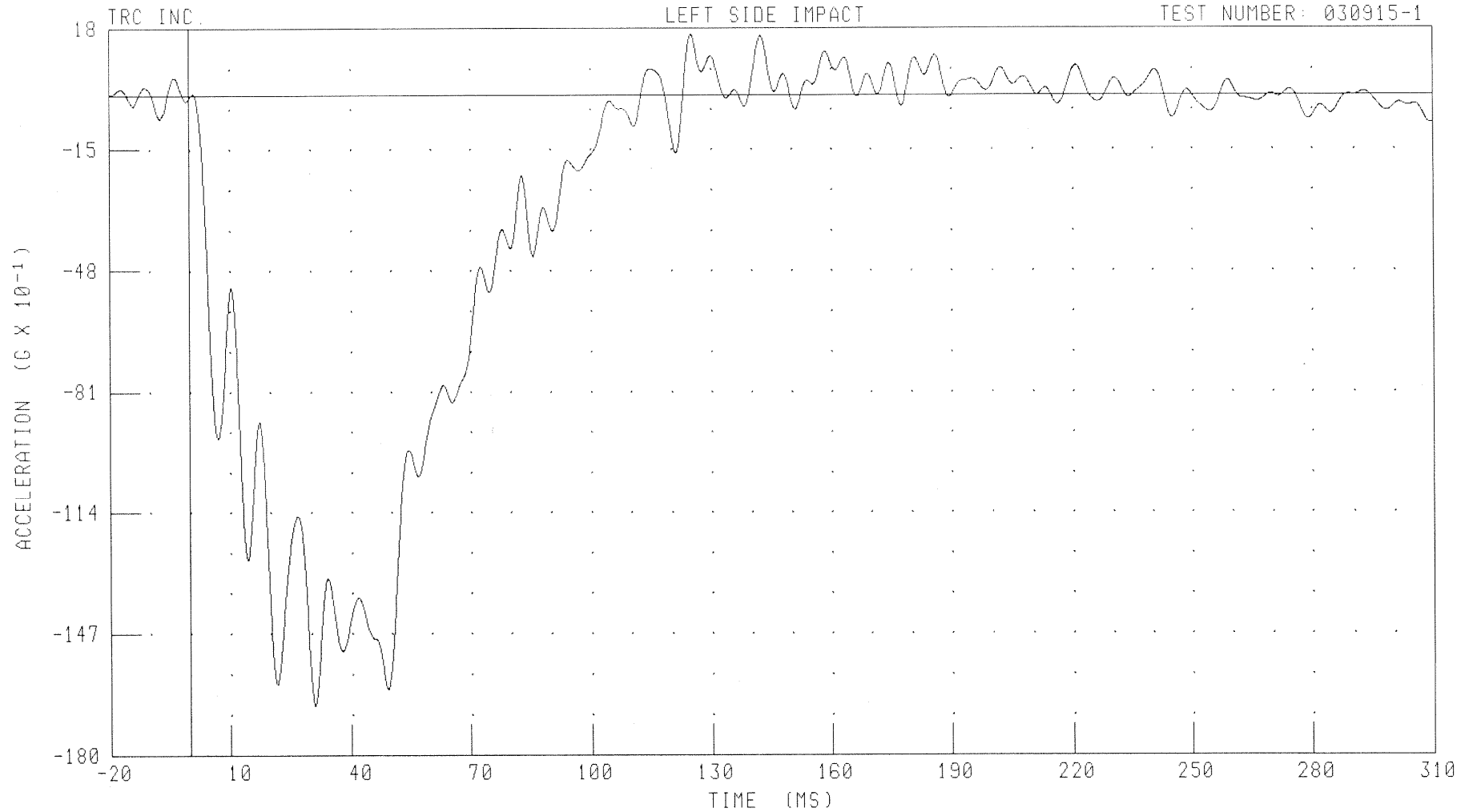
PEAK DATA: 302.7 KM/H @ 102.88 MS; -0.24 KM/H @ 9.44 MS

B-423

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB CENTER OF GRAVITY X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: BCGXG1 FILTER: CH. CLASS 60

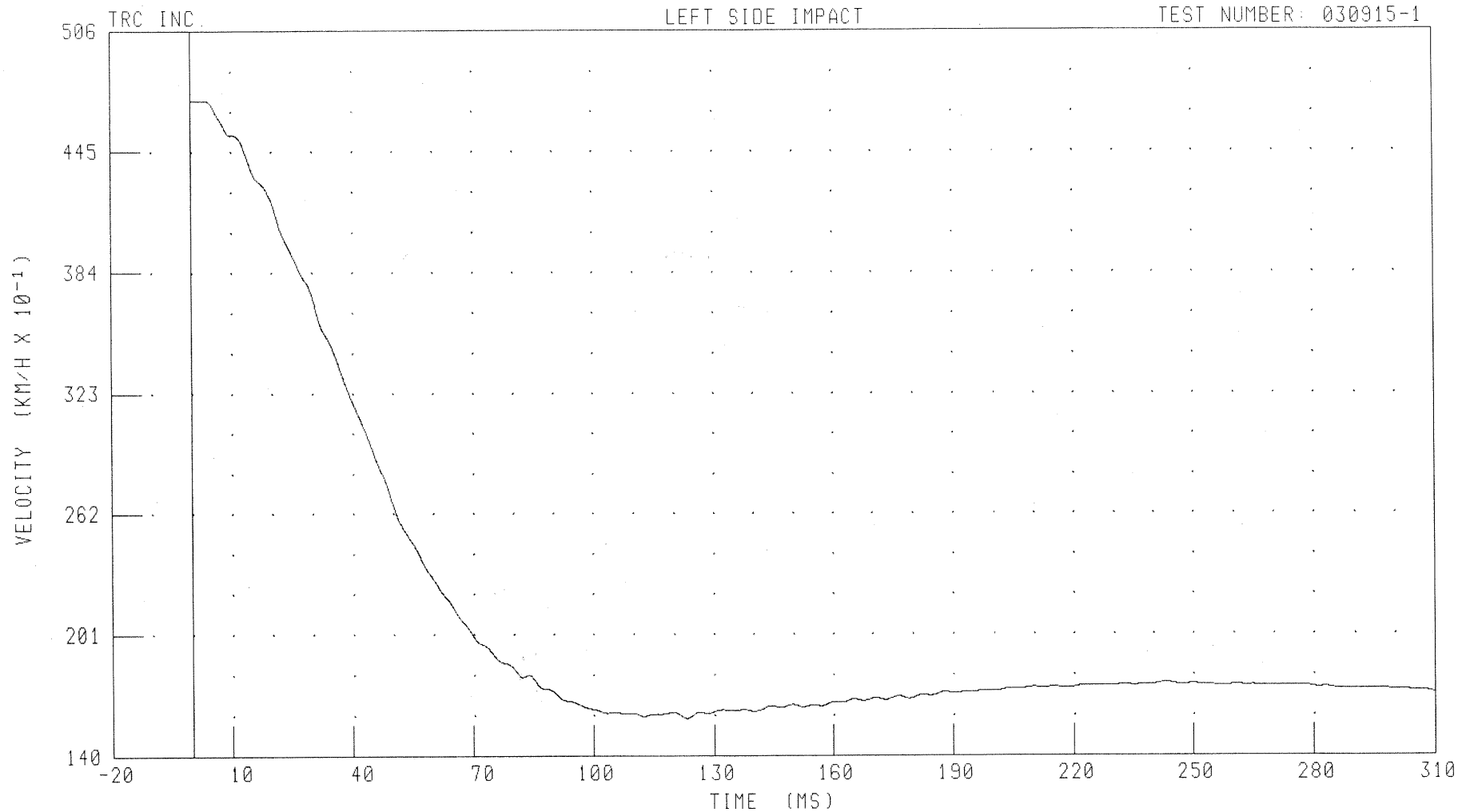
B-424

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB CENTER OF GRAVITY X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: BCGXV1 FILTER: CH. CLASS 180

PEAK DATA: 47.12 KM/H @ 2.56 MS; 15.88 KM/H @ 123.20 MS

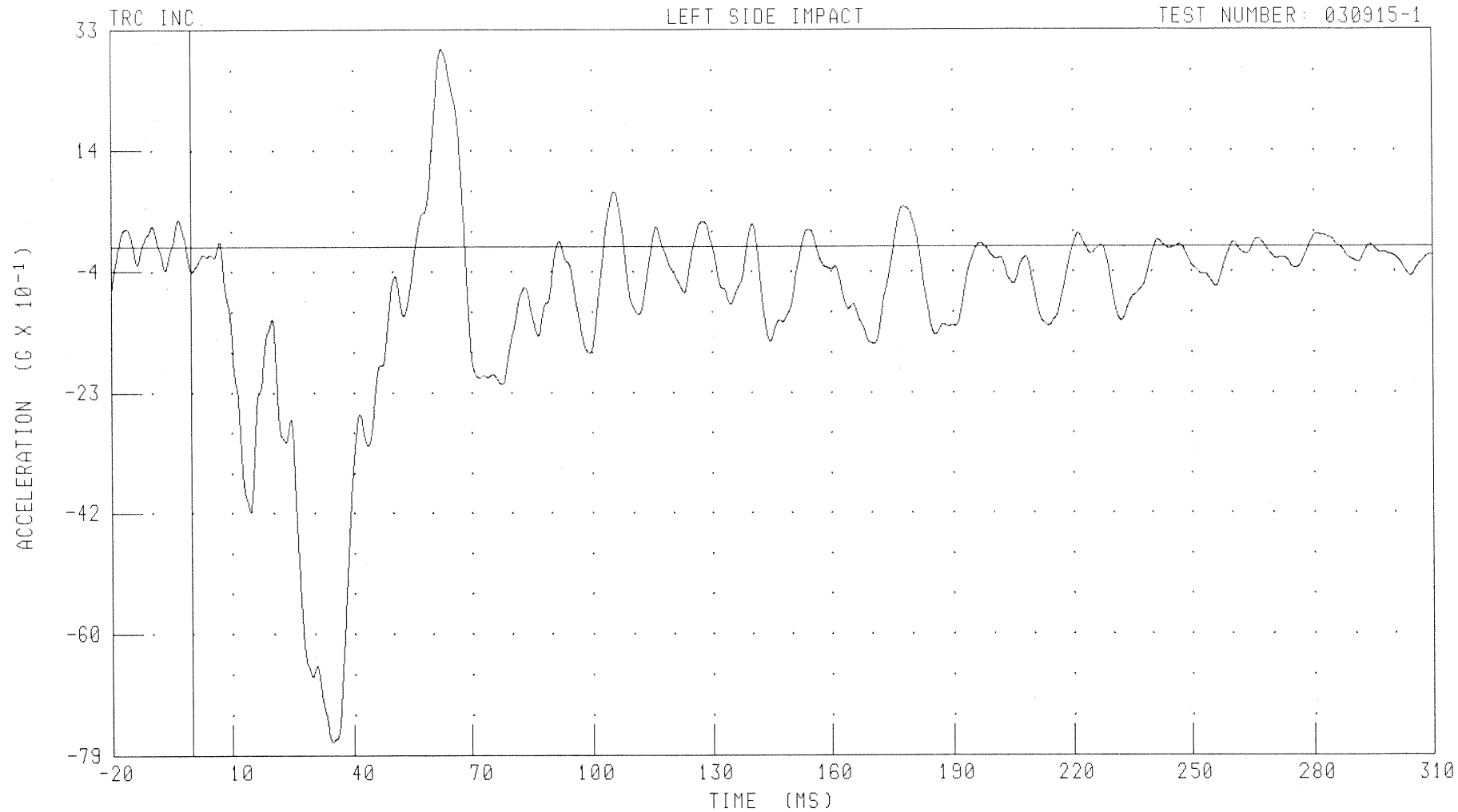
B-425

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB CENTER OF GRAVITY Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: BCGYG1 FILTER: CH. CLASS 60

PEAK DATA: 3.10 G @ 62.56 MS; -7.80 G @ 34.40 MS

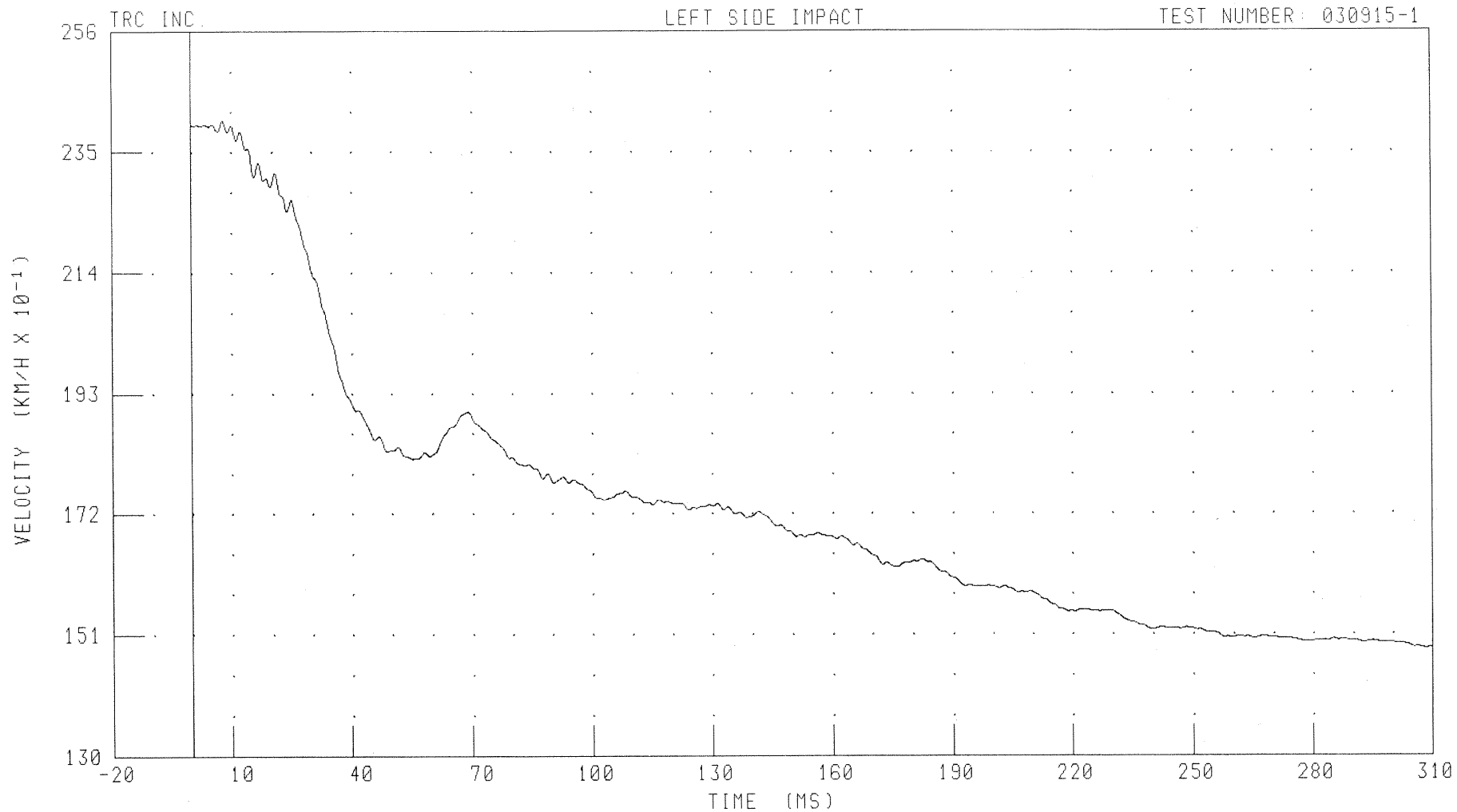
B-426

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MOB CENTER OF GRAVITY Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: BCGYV1 FILTER: CH. CLASS 180

PEAK DATA: 24.06 KM/H @ 7.92 MS; 14.85 KM/H @ 308.32 MS

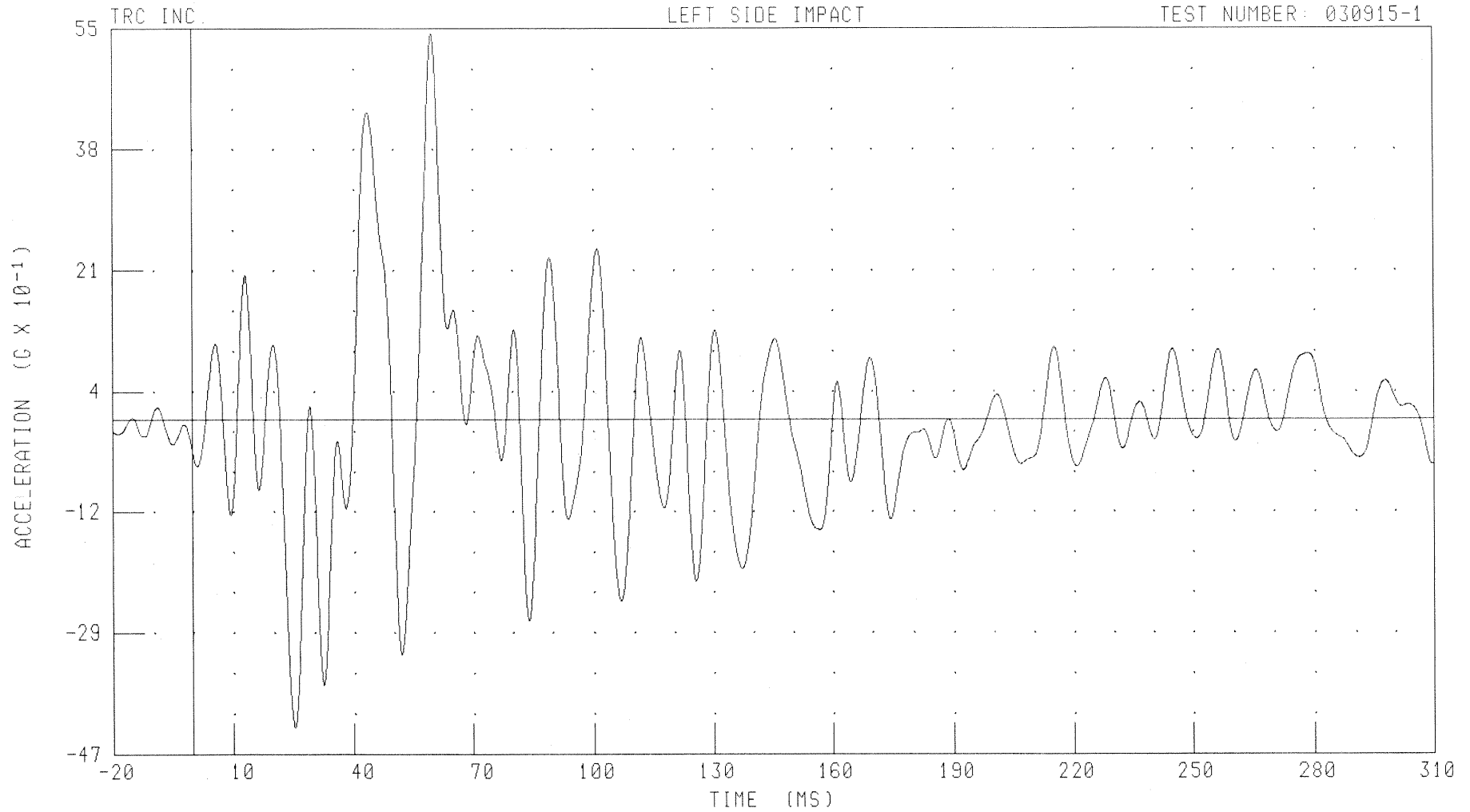
B-427

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB CENTER OF GRAVITY Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: BCGZG1 FILTER: CH. CLASS 60

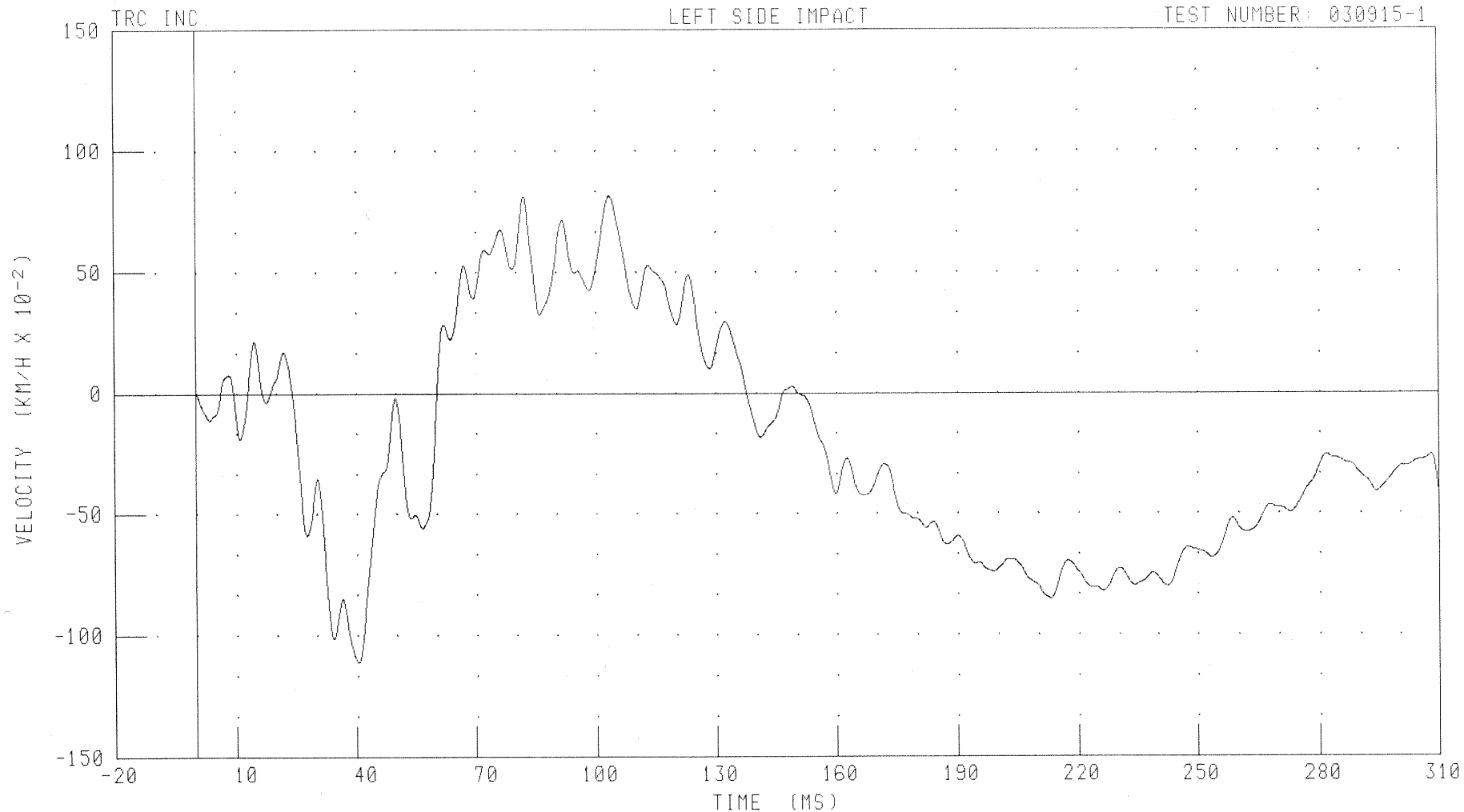
B-428

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MOB CENTER OF GRAVITY Z-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: BCGZV1

FILTER: CH. CLASS 180

PEAK DATA: 0.81 KM/H @ 103.60 MS; -1.11 KM/H @ 40.48 MS

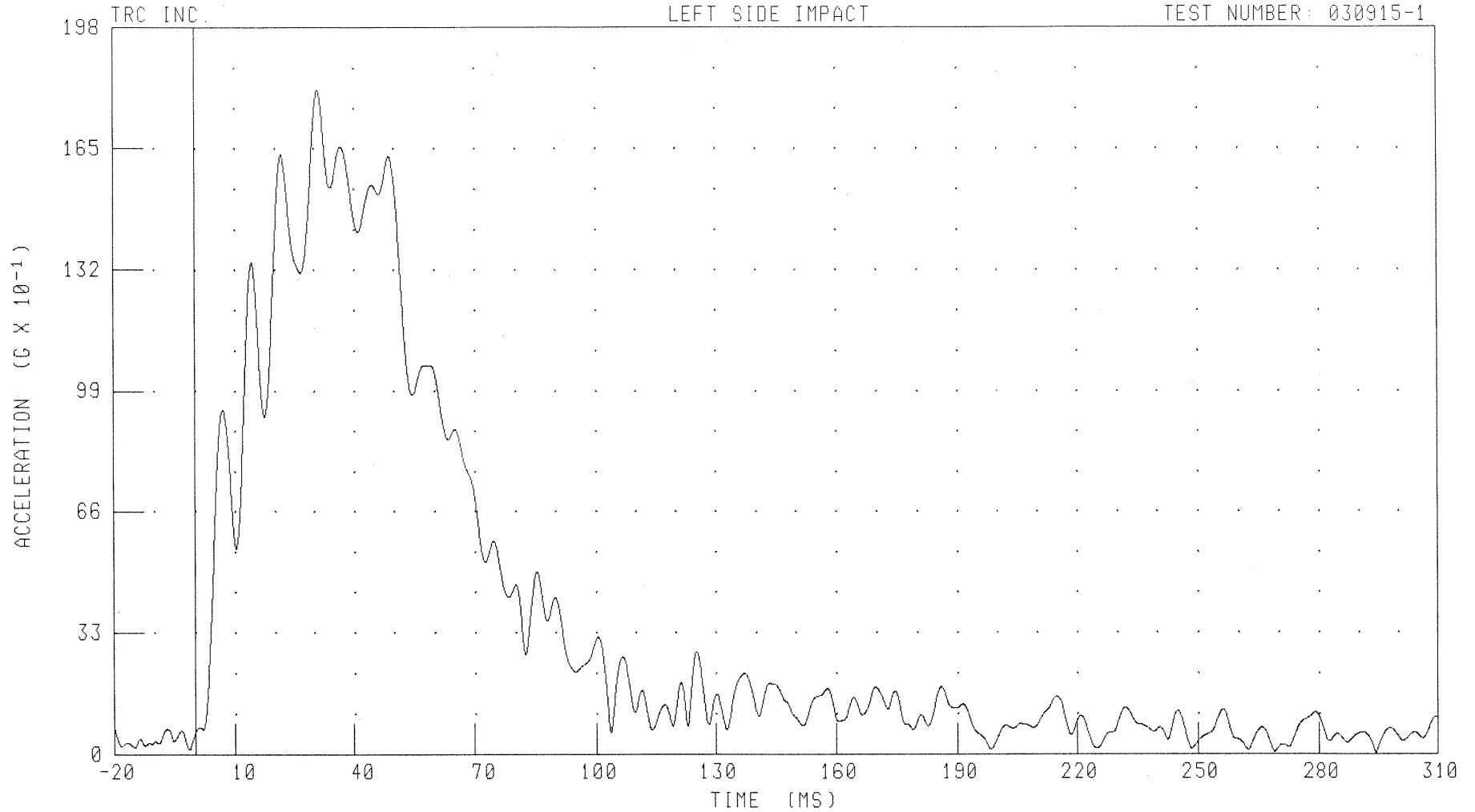
B-429

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB CENTER OF GRAVITY RESULTANT ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



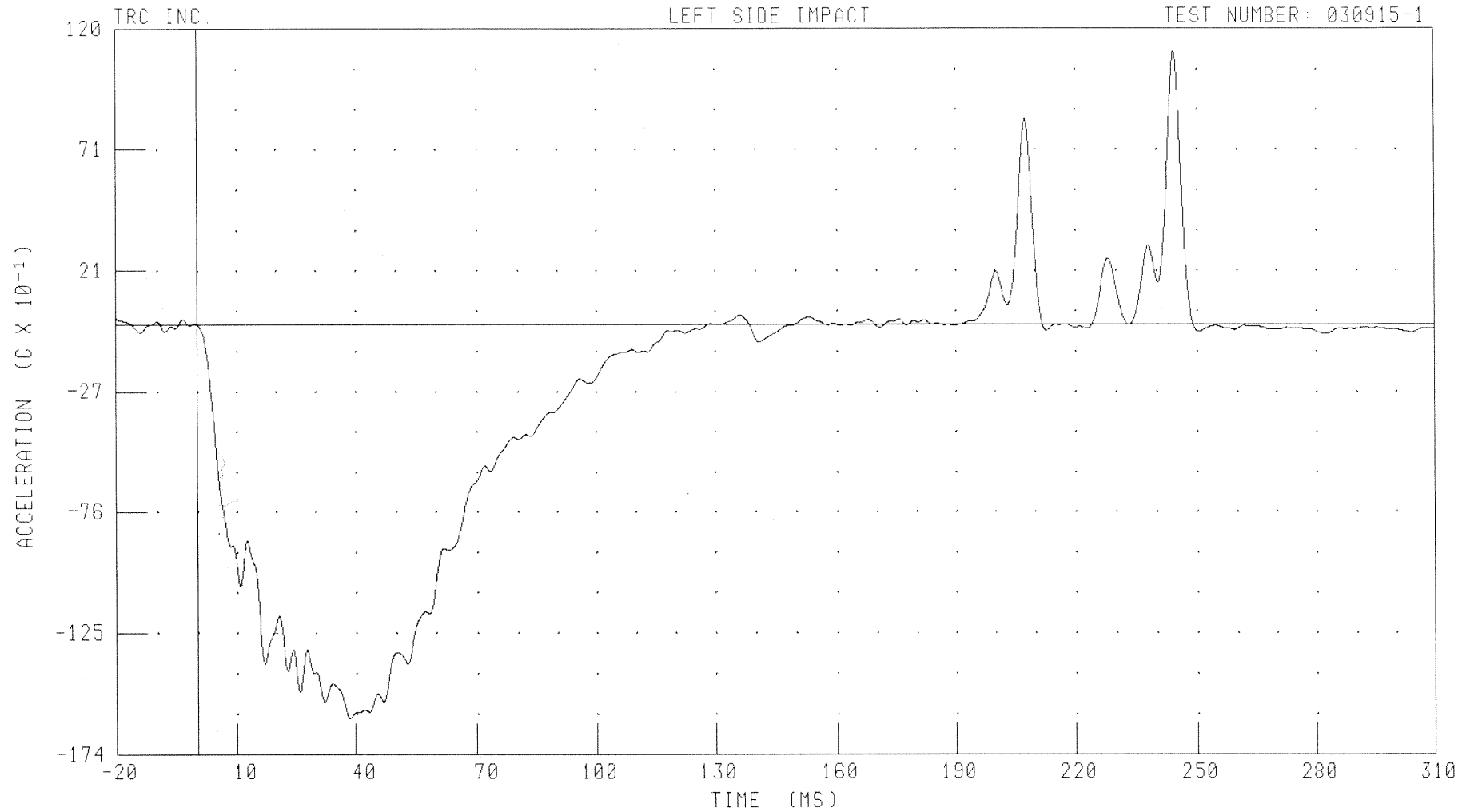
B-430

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MOB LEFT REAR X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRRXG1

FILTER: CH. CLASS 60

PEAK DATA: 11.11 G @ 244.40 MS; -15.94 G @ 38.56 MS

B-431

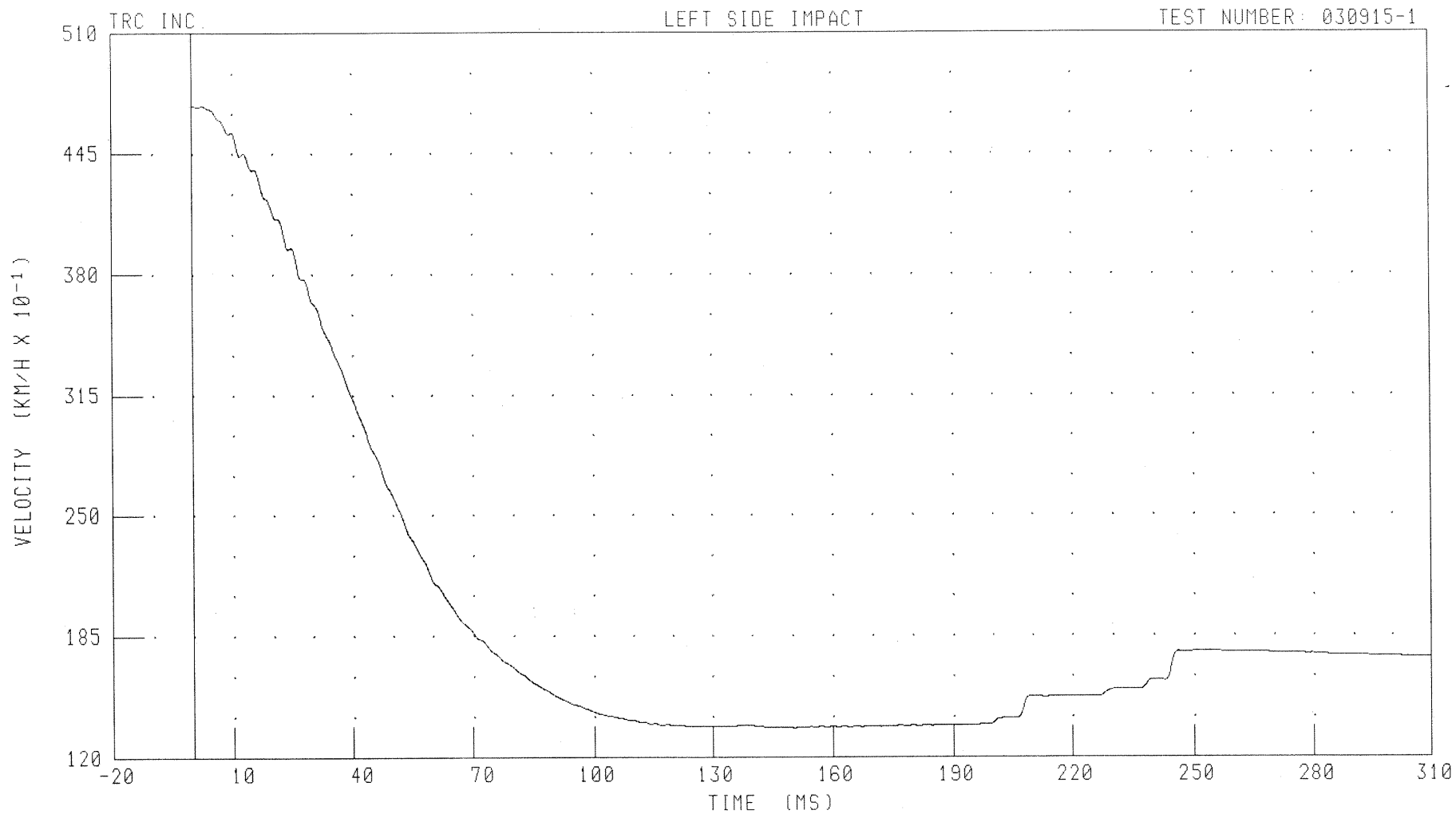
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

MDB LEFT REAR X-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRRXV1

FILTER: CH. CLASS 180

PEAK DATA: 47.10 KM/H @ 0.24 MS; 13.56 KM/H @ 150.56 MS

B-432

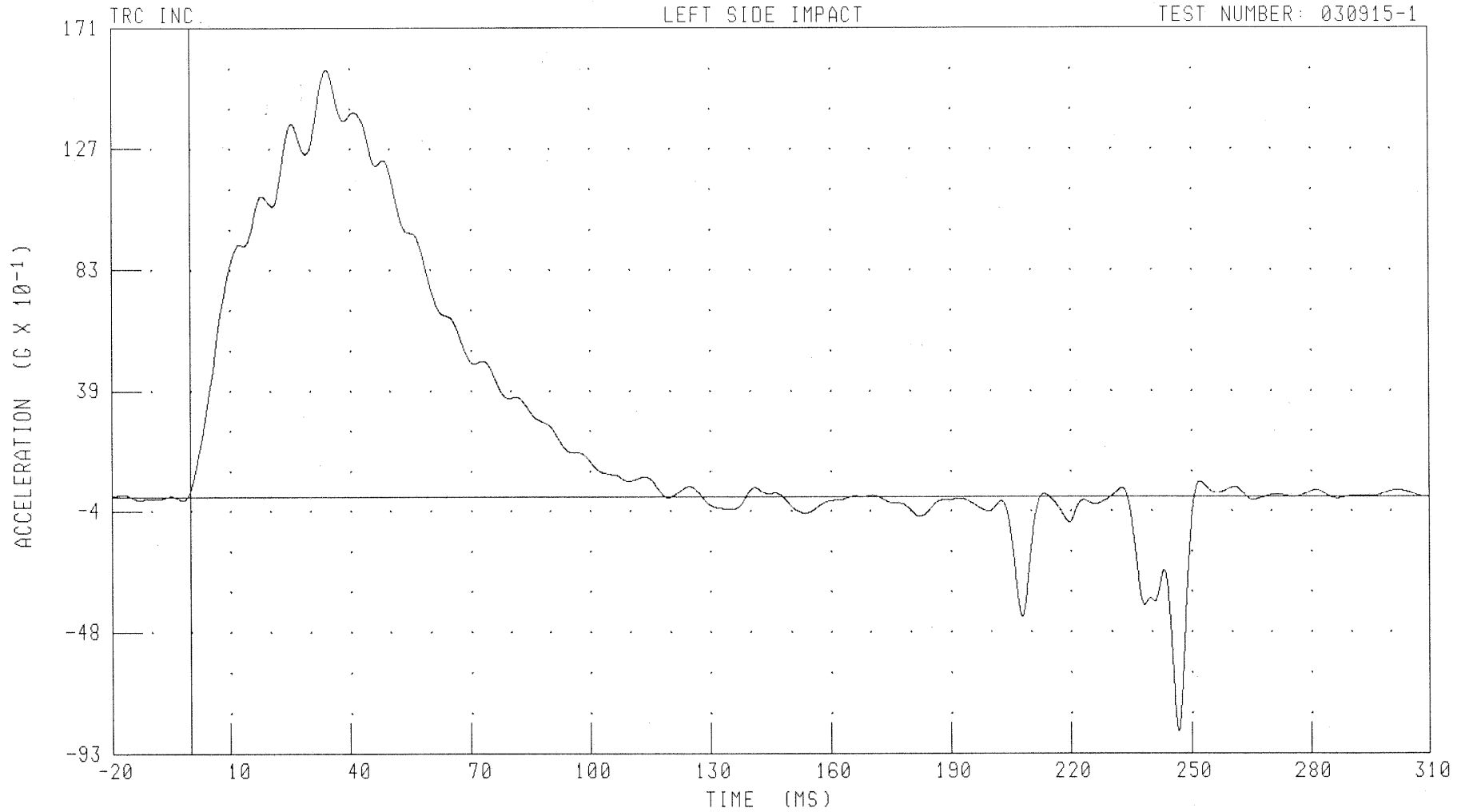
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

MDB LEFT REAR Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRRYG1 FILTER: CH. CLASS 60

PEAK DATA: 15.58 G @ 34.32 MS, -8.49 G @ 246.56 MS

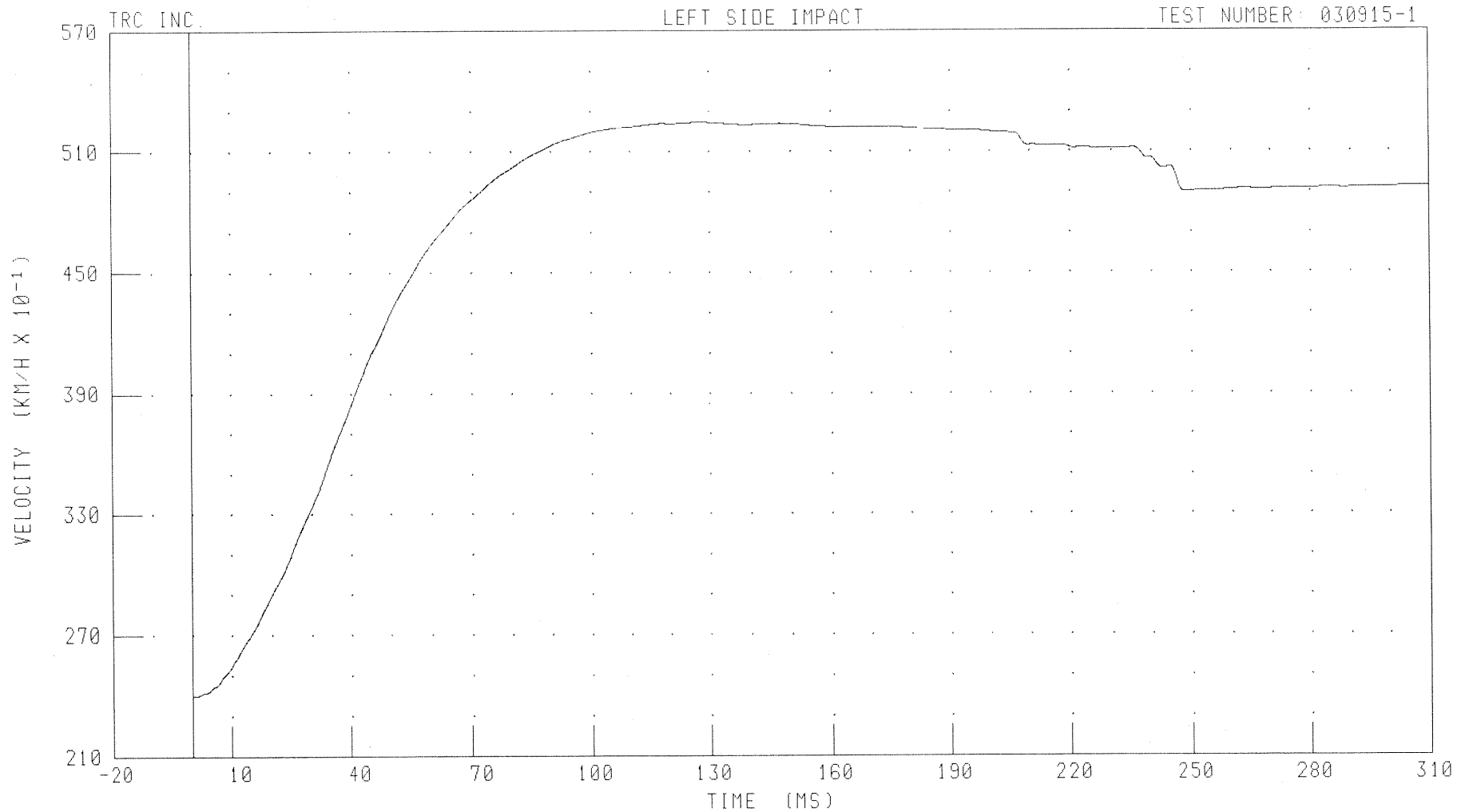
B-433

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB LEFT REAR Y-AXIS VELOCITY

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: LRRYV1 FILTER: CH. CLASS 180

PEAK DATA: 52.48 KM/H @ 128.24 MS; 24.00 KM/H @ 0.40 MS

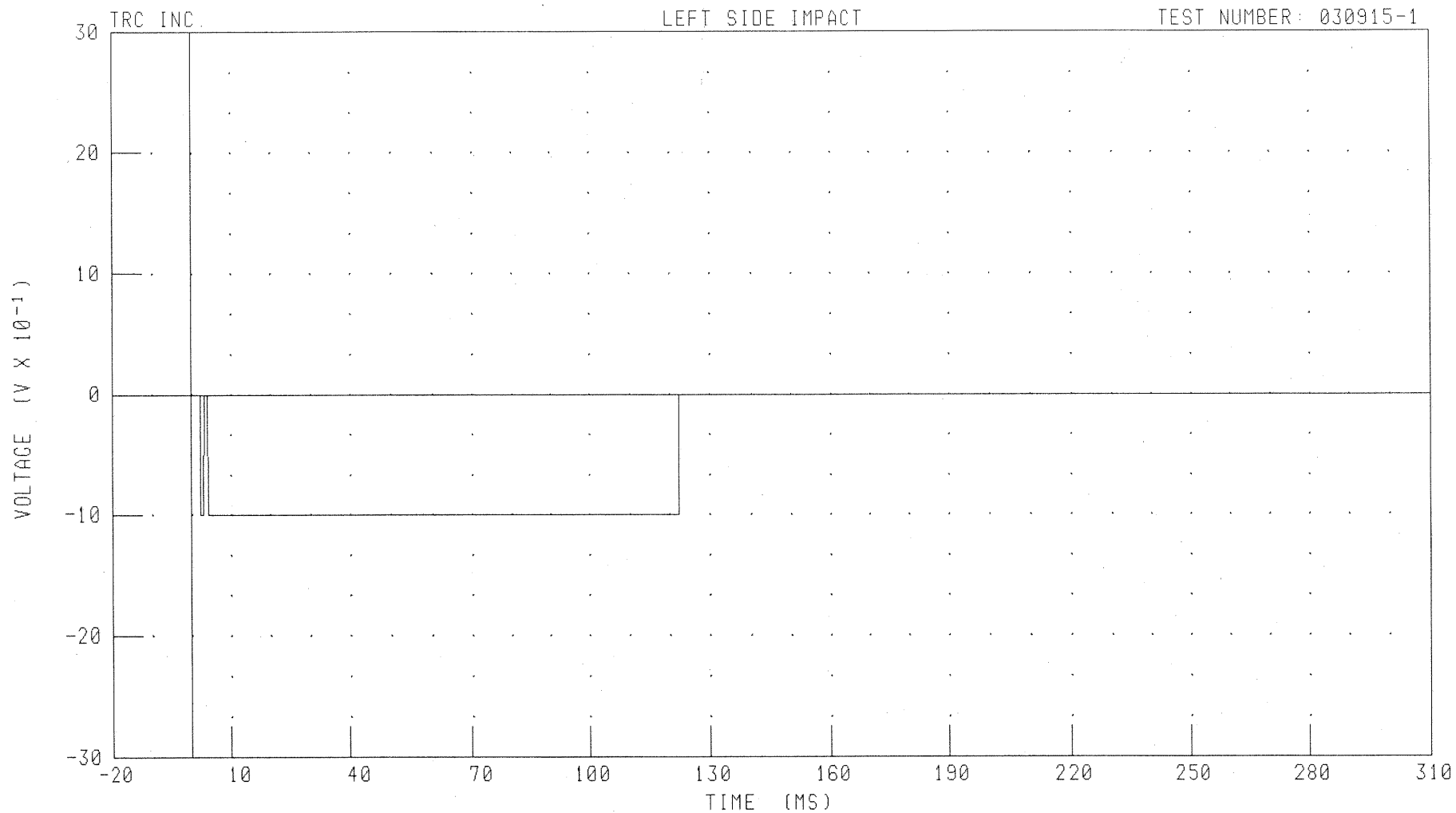
B-434

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
MDB RIGHT SIDE CONTACT SWITCH

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: MDBR1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 2.32 MS

B-435

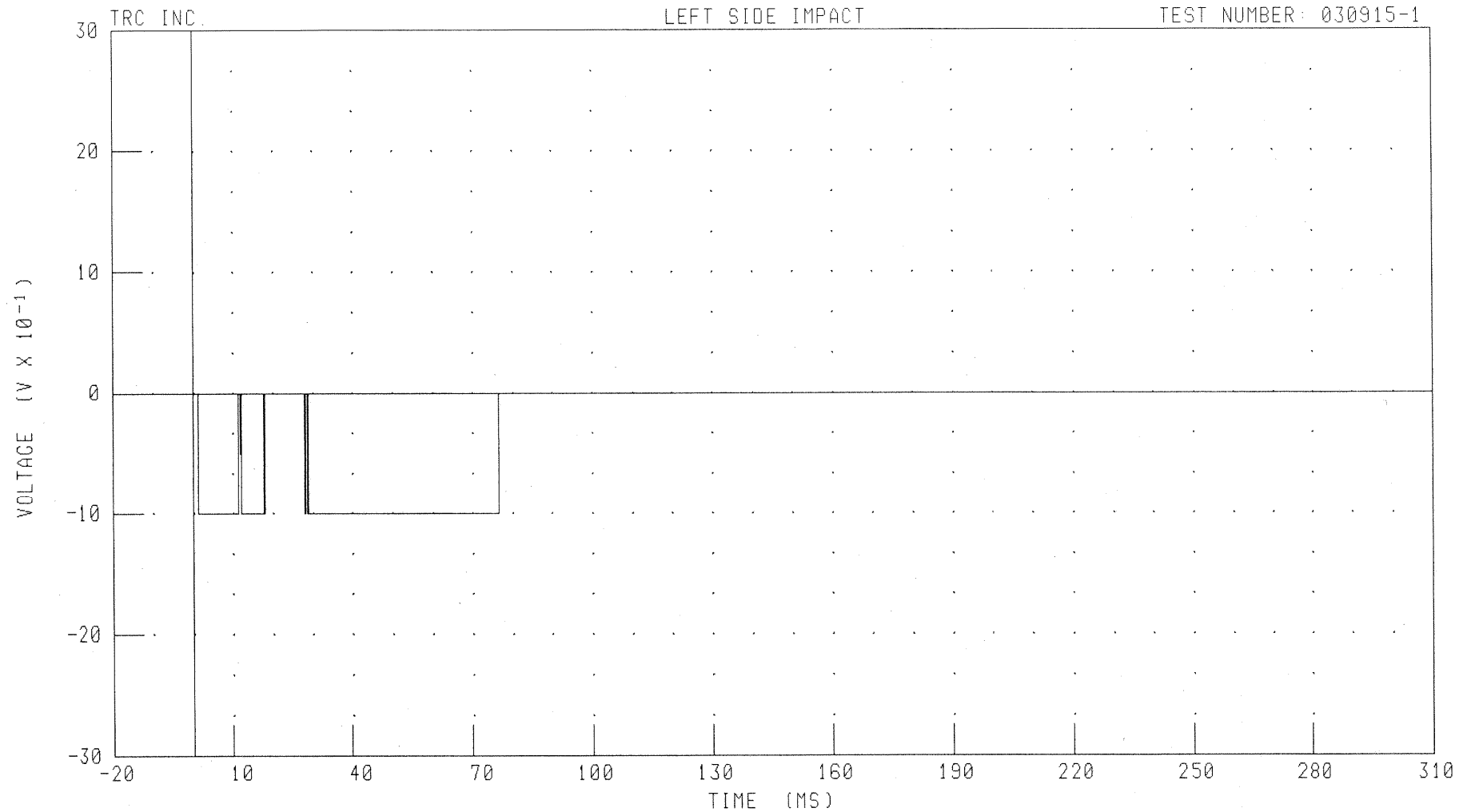
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

MDB LEFT SIDE CONTACT SWITCH

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: MDBL1

FILTER: CH. CLASS 1000

PEAK DATA: 0.00 V @ 310.00 MS; -1.00 V @ 1.28 MS

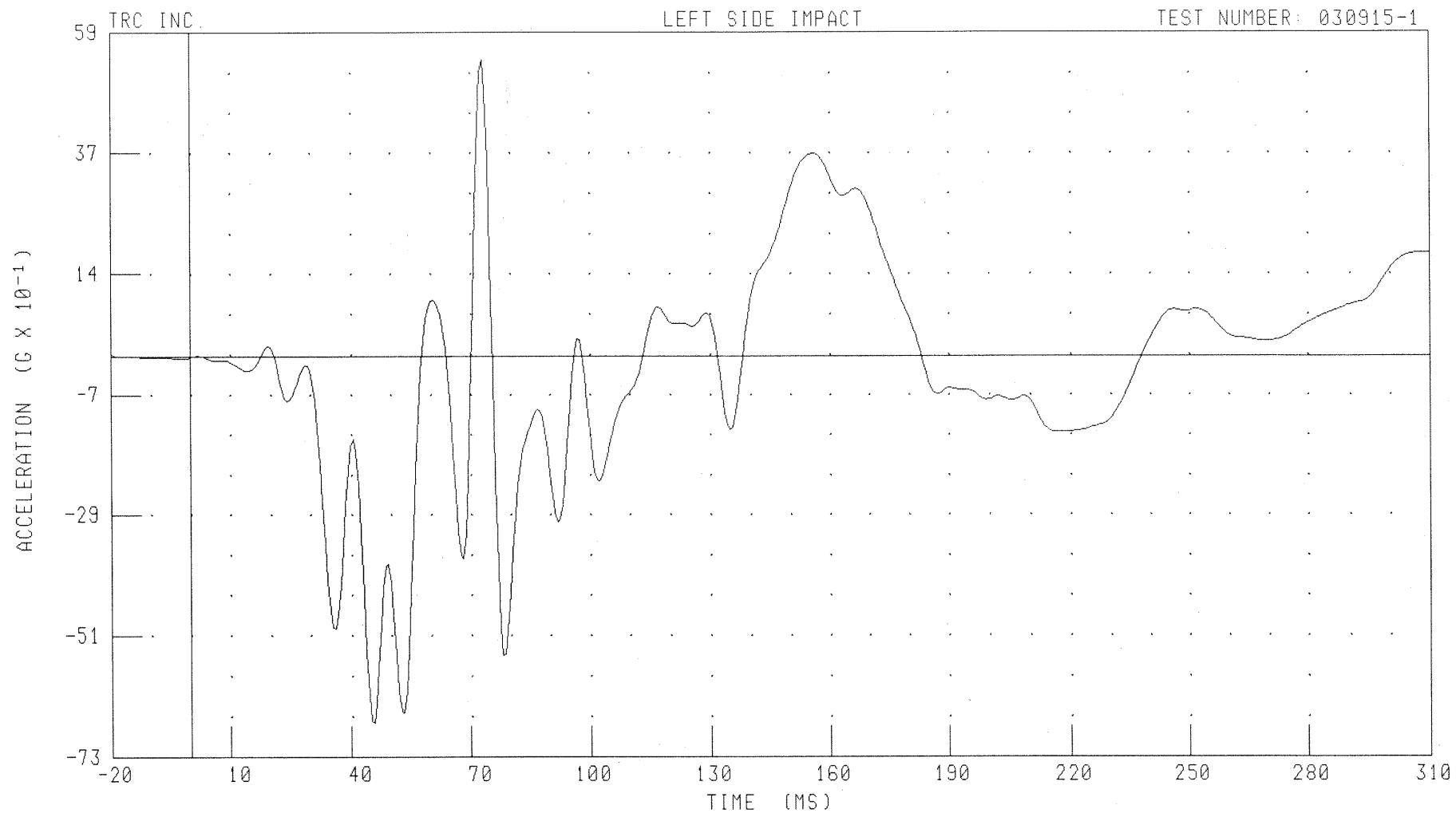
B-436

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01XG1 FILTER: FIR 100

PEAK DATA: 5.41 G @ 73.13 MS; -6.70 G @ 45.62 MS

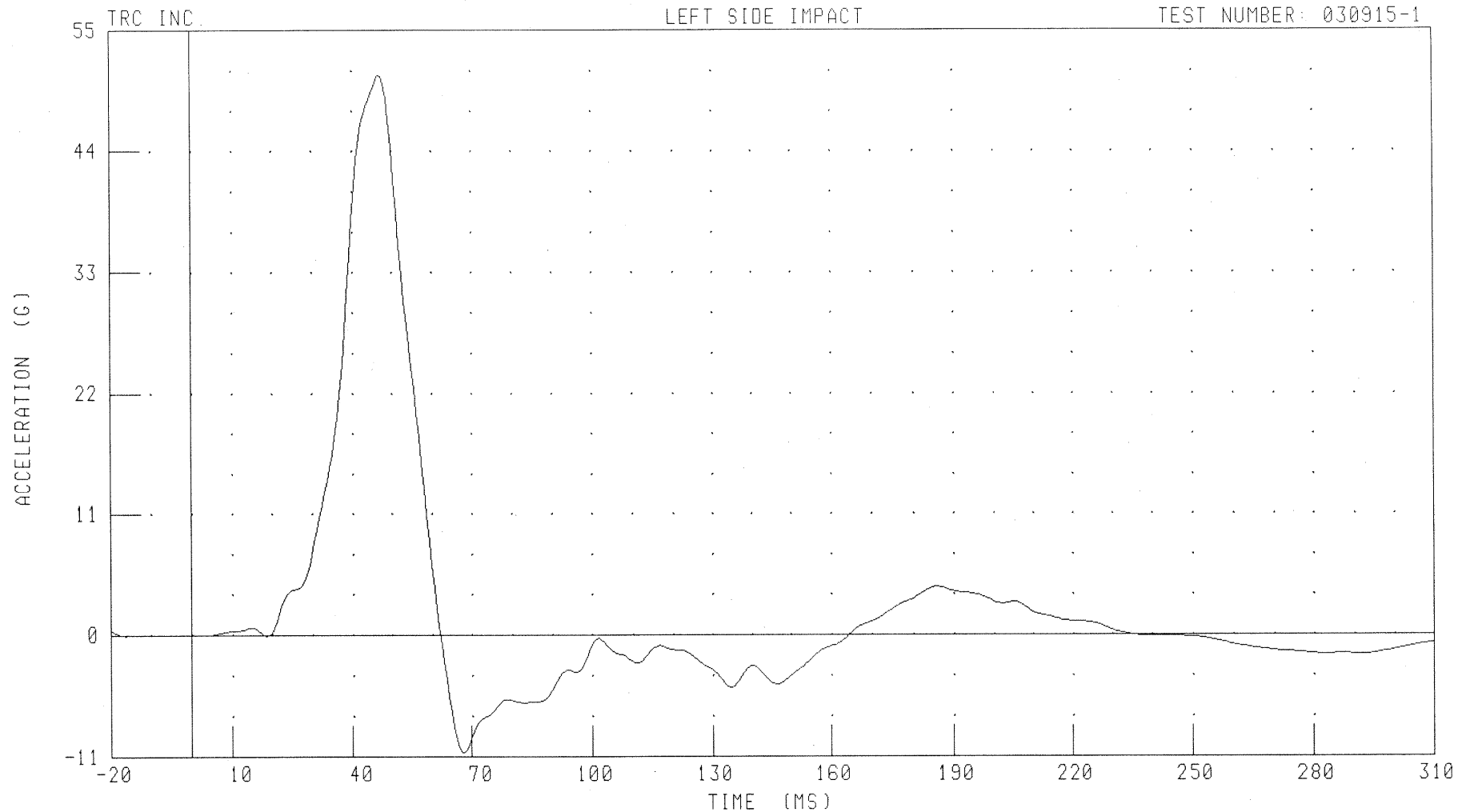
B-437

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01YG1 FILTER: FIR 100

PEAK DATA: 50.94 G @ 46.88 MS, -10.64 G @ 68.13 MS

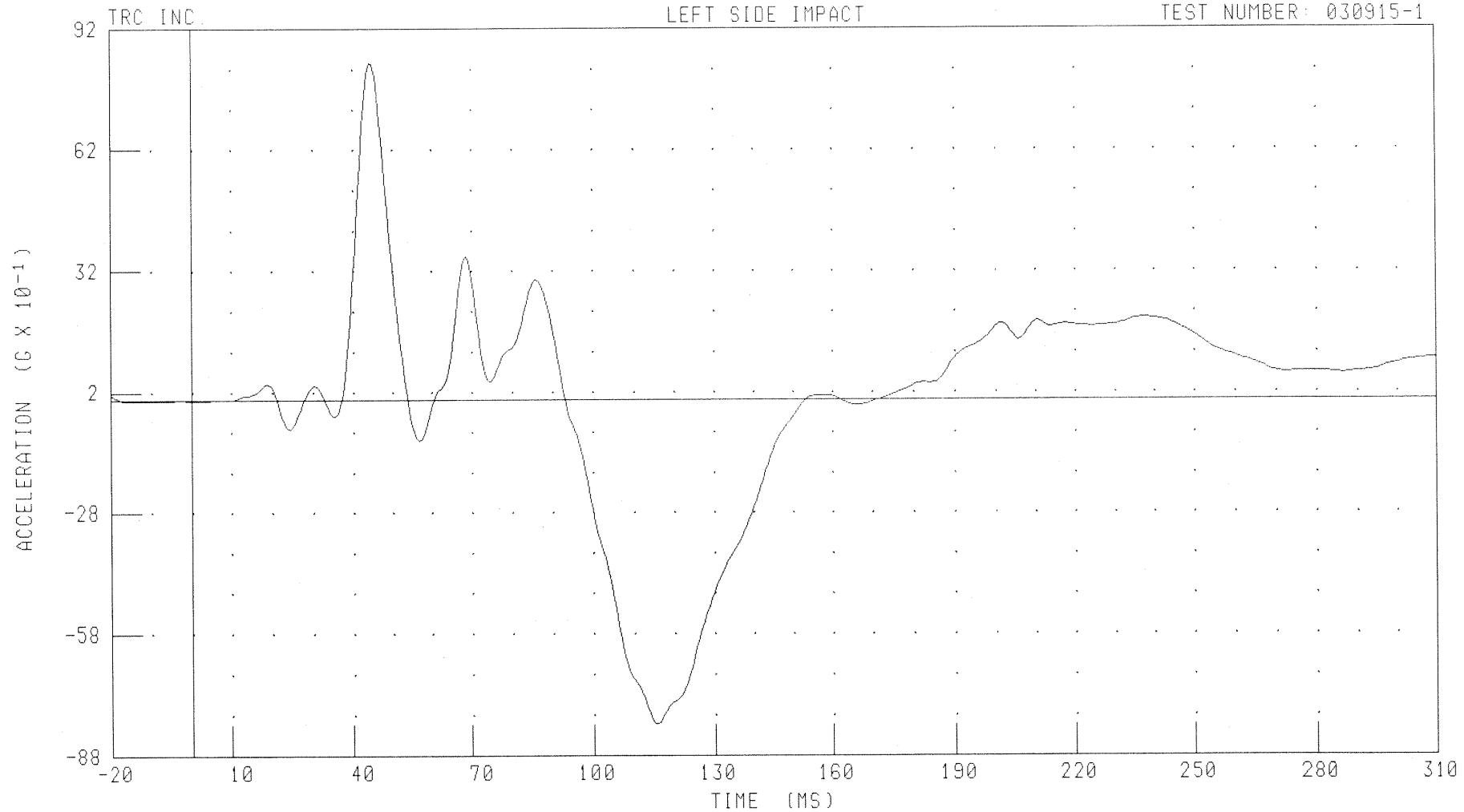
B-438

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER UPPER SPINE Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZG1 FILTER: FIR 100

PEAK DATA: 8.37 G @ 44.38 MS; -8.03 G @ 115.62 MS

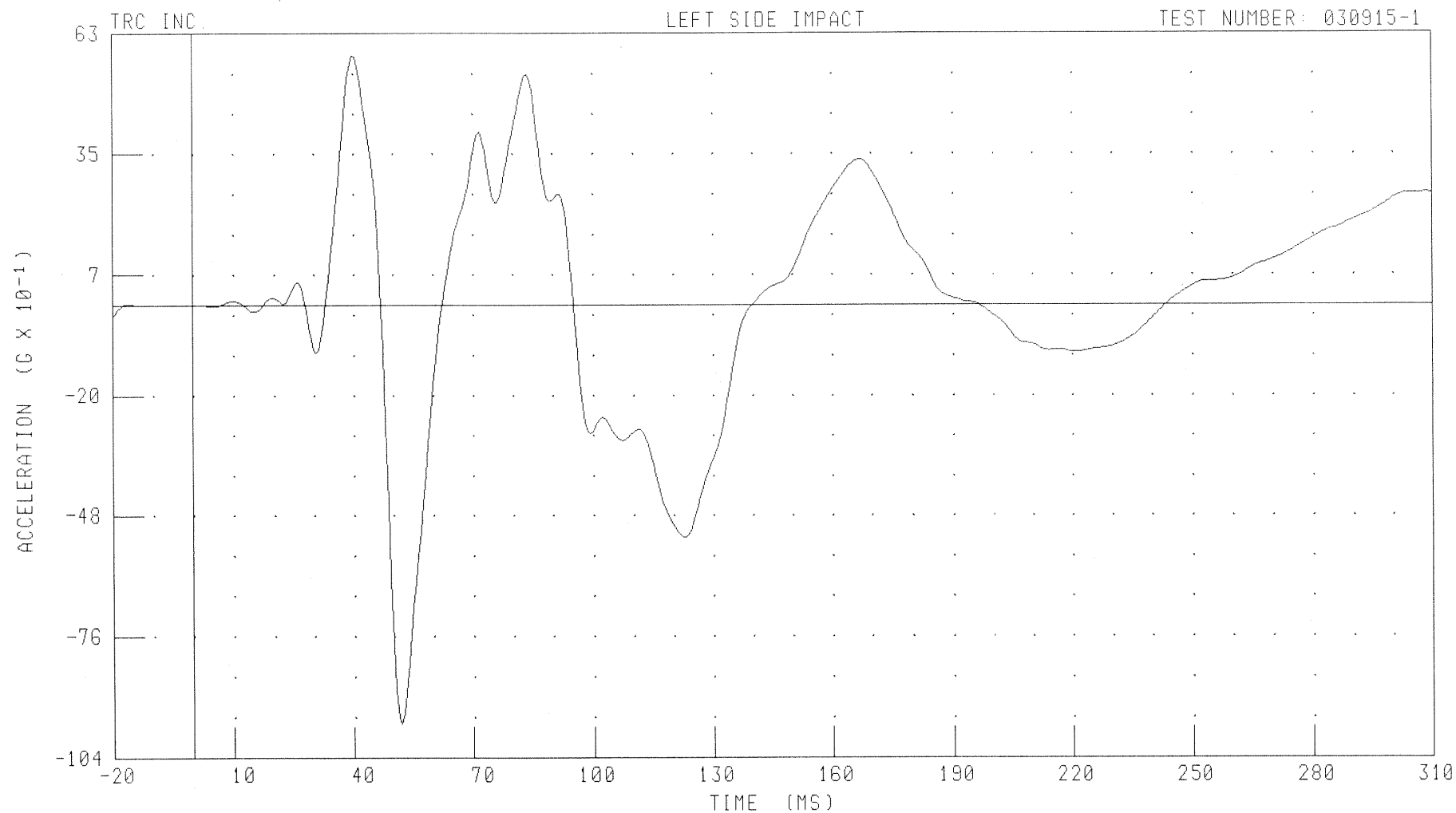
B-439

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1XG1

FILTER: FIR 100

PEAK DATA: 5.79 G @ 40.00 MS, -9.73 G @ 51.88 MS

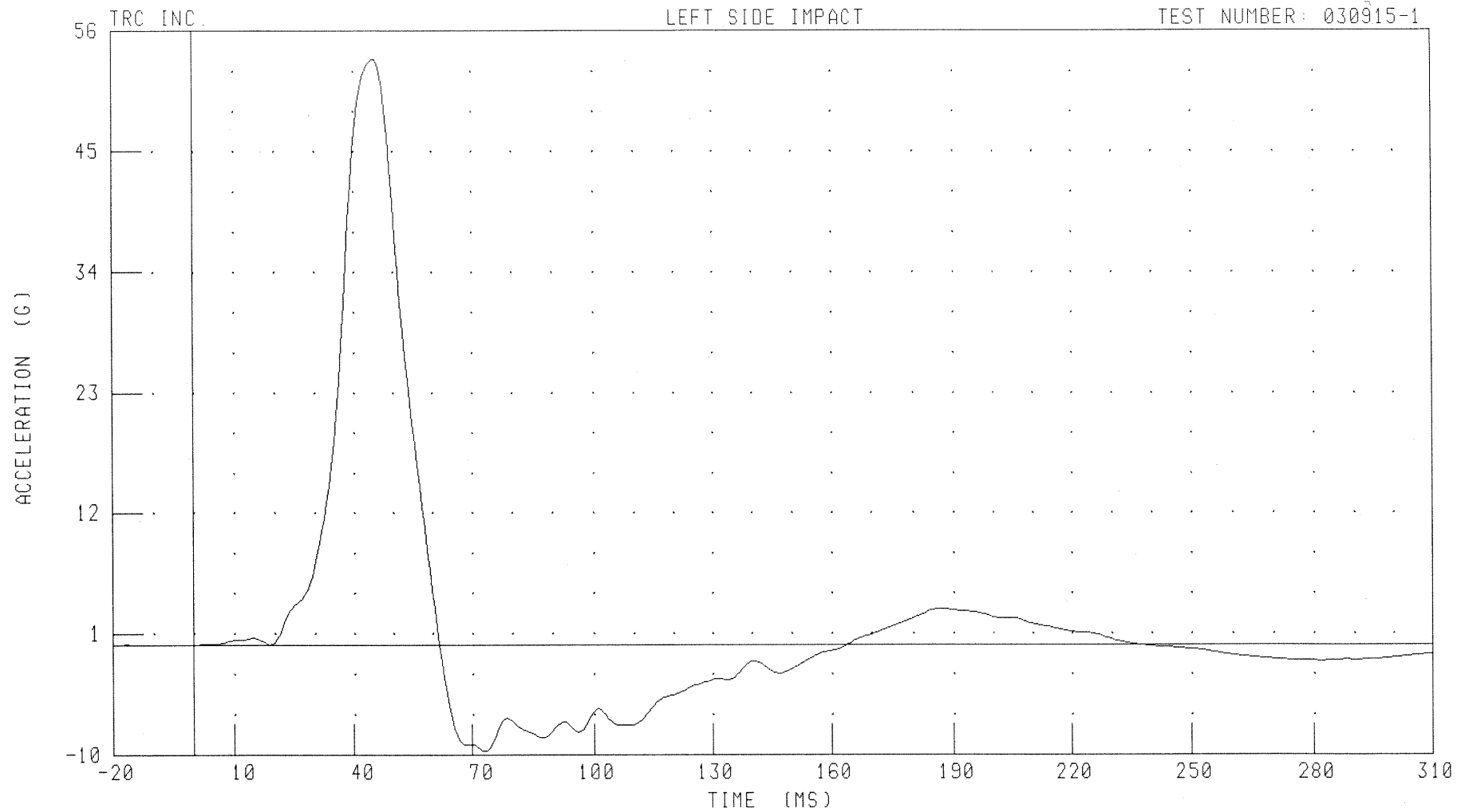
B-440

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1YG1 FILTER: FIR 100

PEAK DATA: 53.41 G @ 45.00 MS; -9.67 G @ 73.13 MS

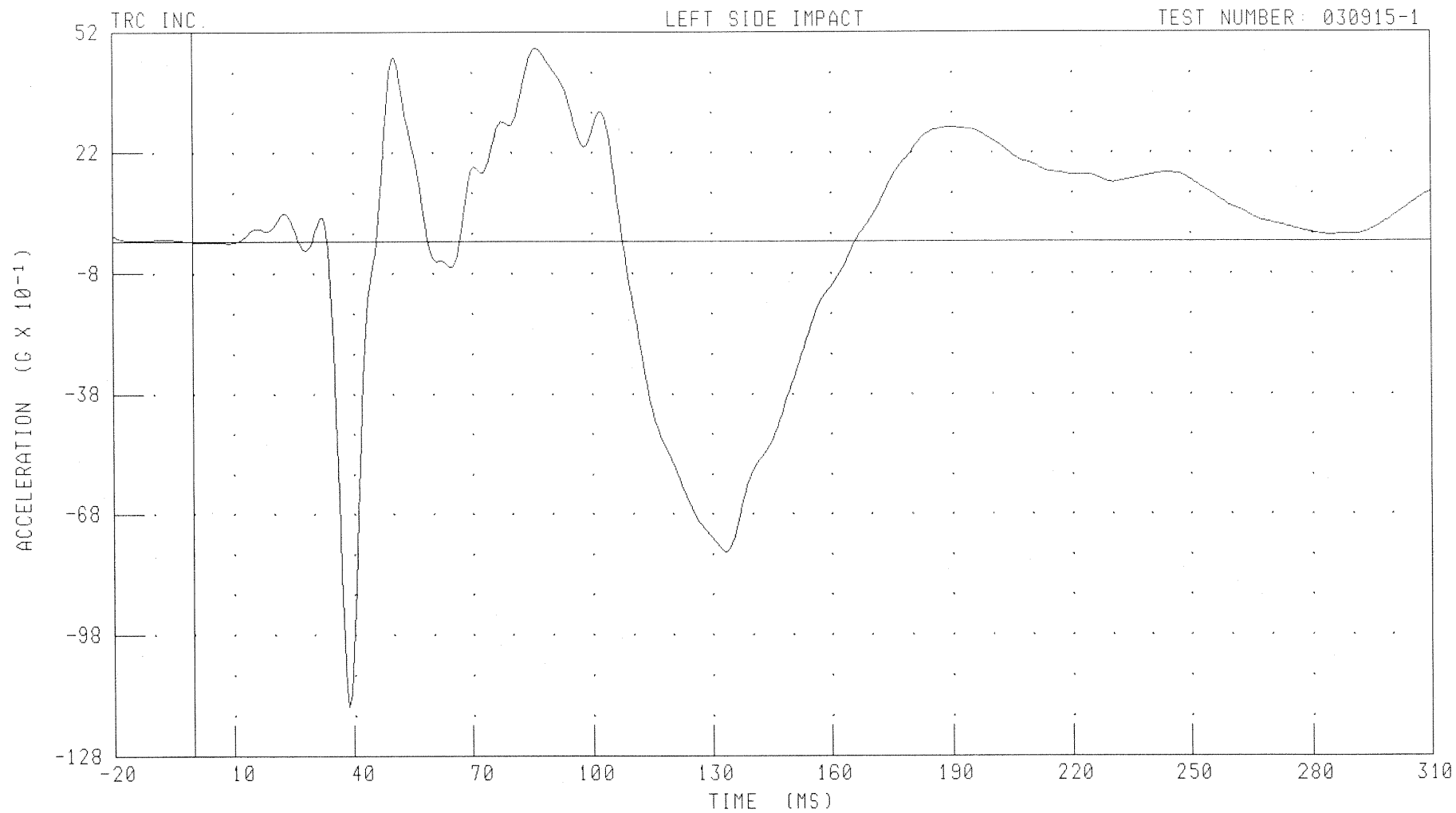
B-441

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1ZG1 FILTER: FIR 100

PEAK DATA: 4.80 G @ 86.25 MS; -11.58 G @ 38.75 MS

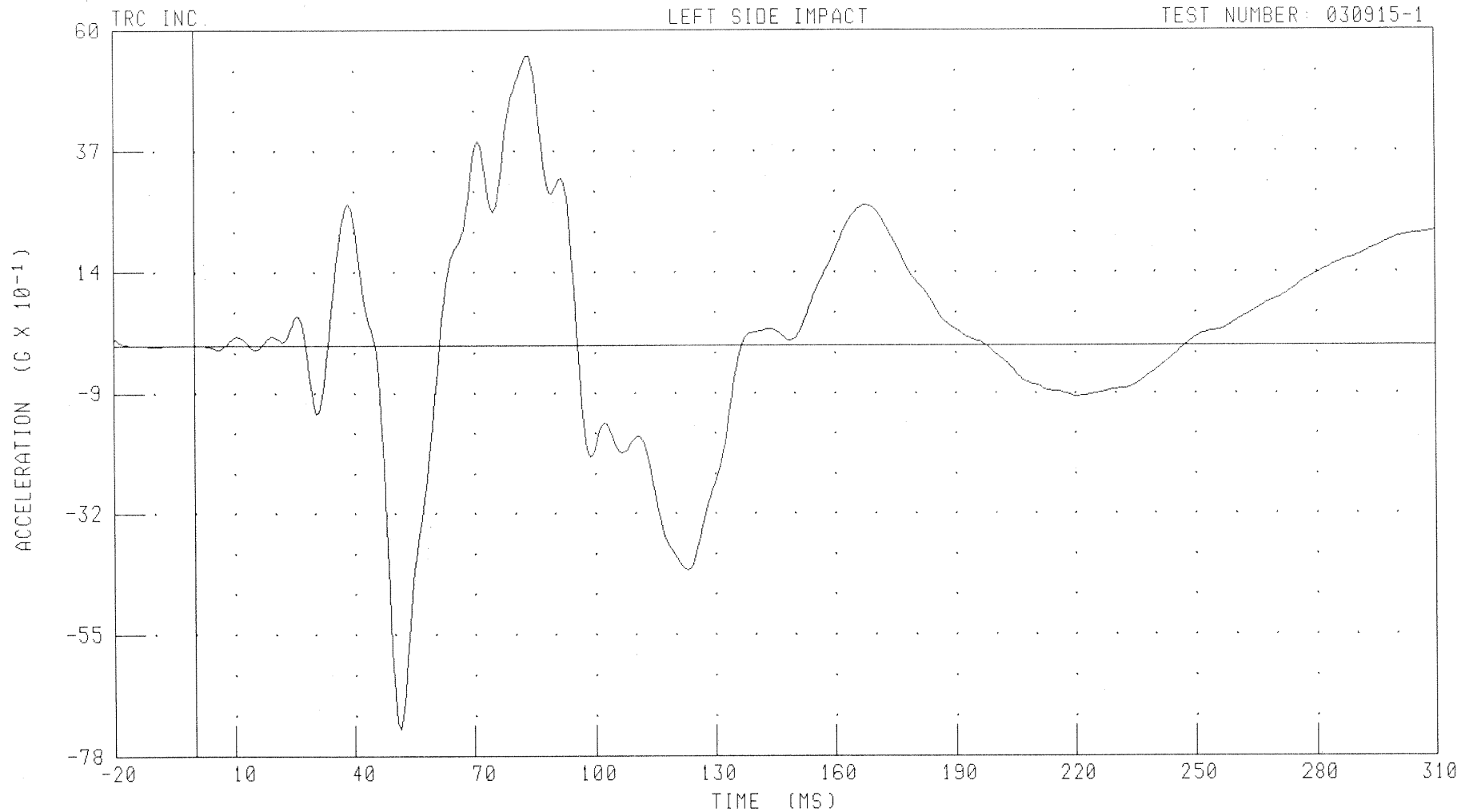
B-442

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2XG1 FILTER: FIR 100

PEAK DATA: 5.52 G @ 83.12 MS; -7.29 G @ 51.25 MS

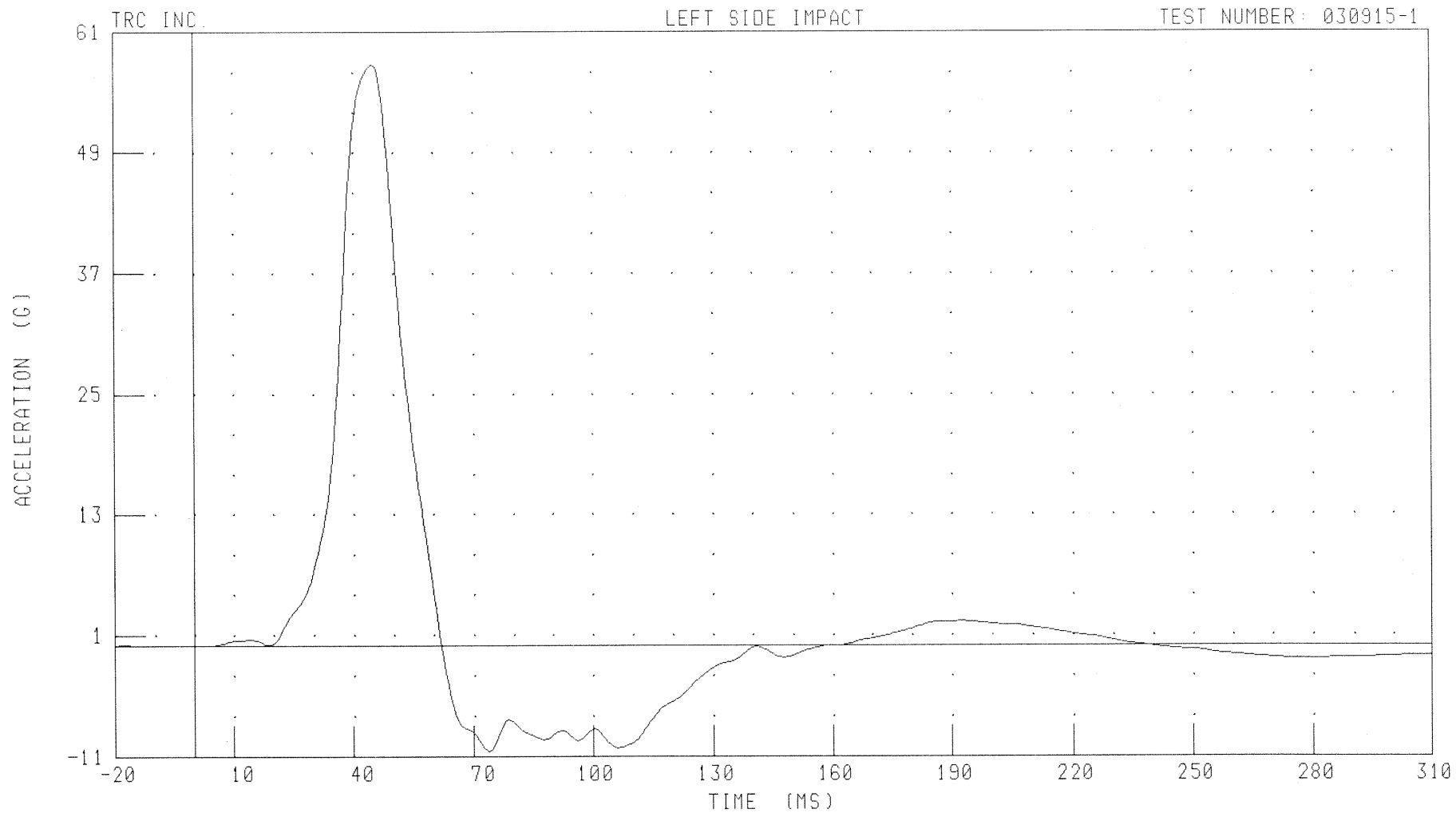
B-443

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2YG1 FILTER: FIR 100

PEAK DATA: 57.79 G @ 45.00 MS; -10.49 G @ 73.75 MS

B-444

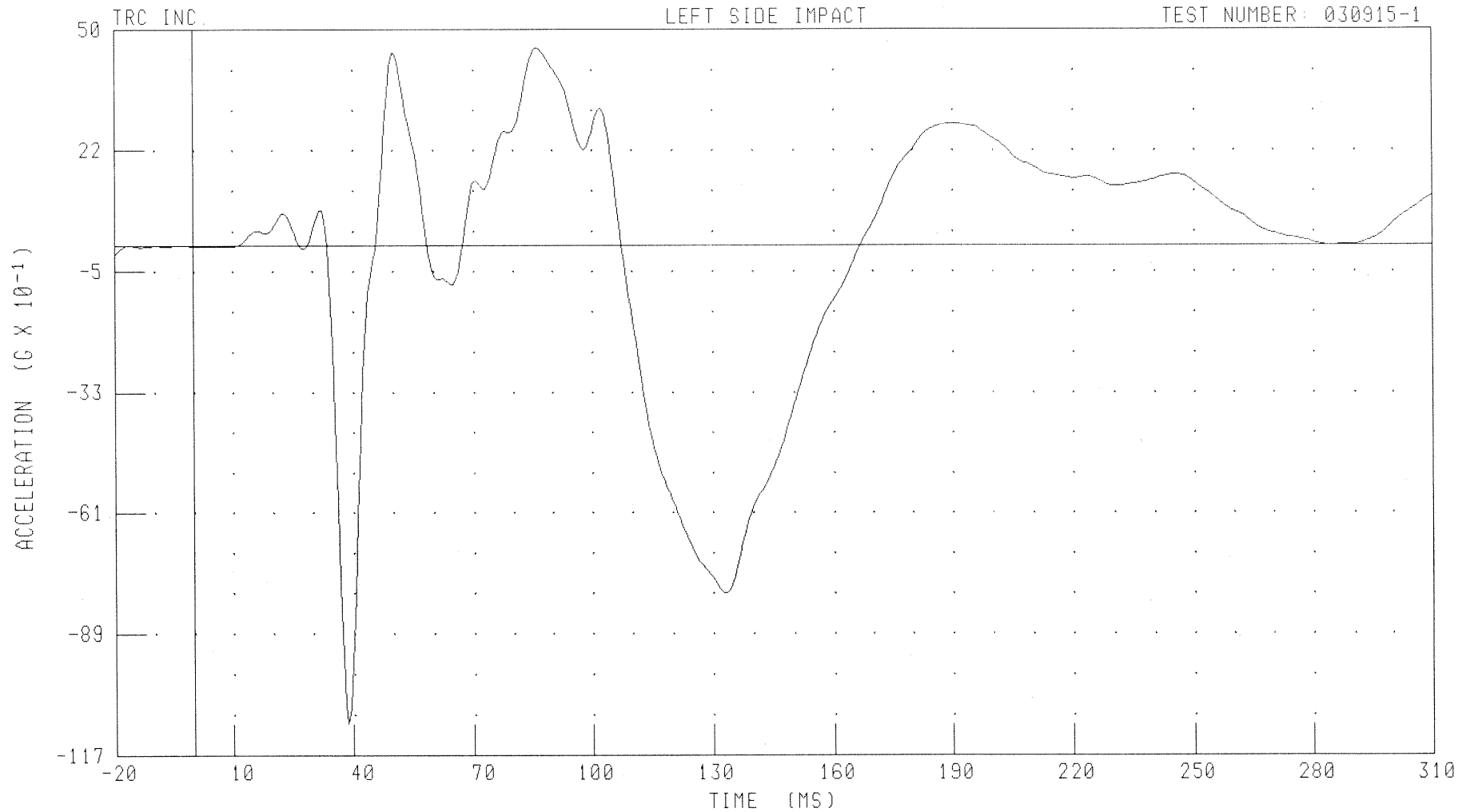
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZG1

FILTER: FIR 100

PEAK DATA: 4.58 G @ 86.25 MS; -11.06 G @ 38.75 MS

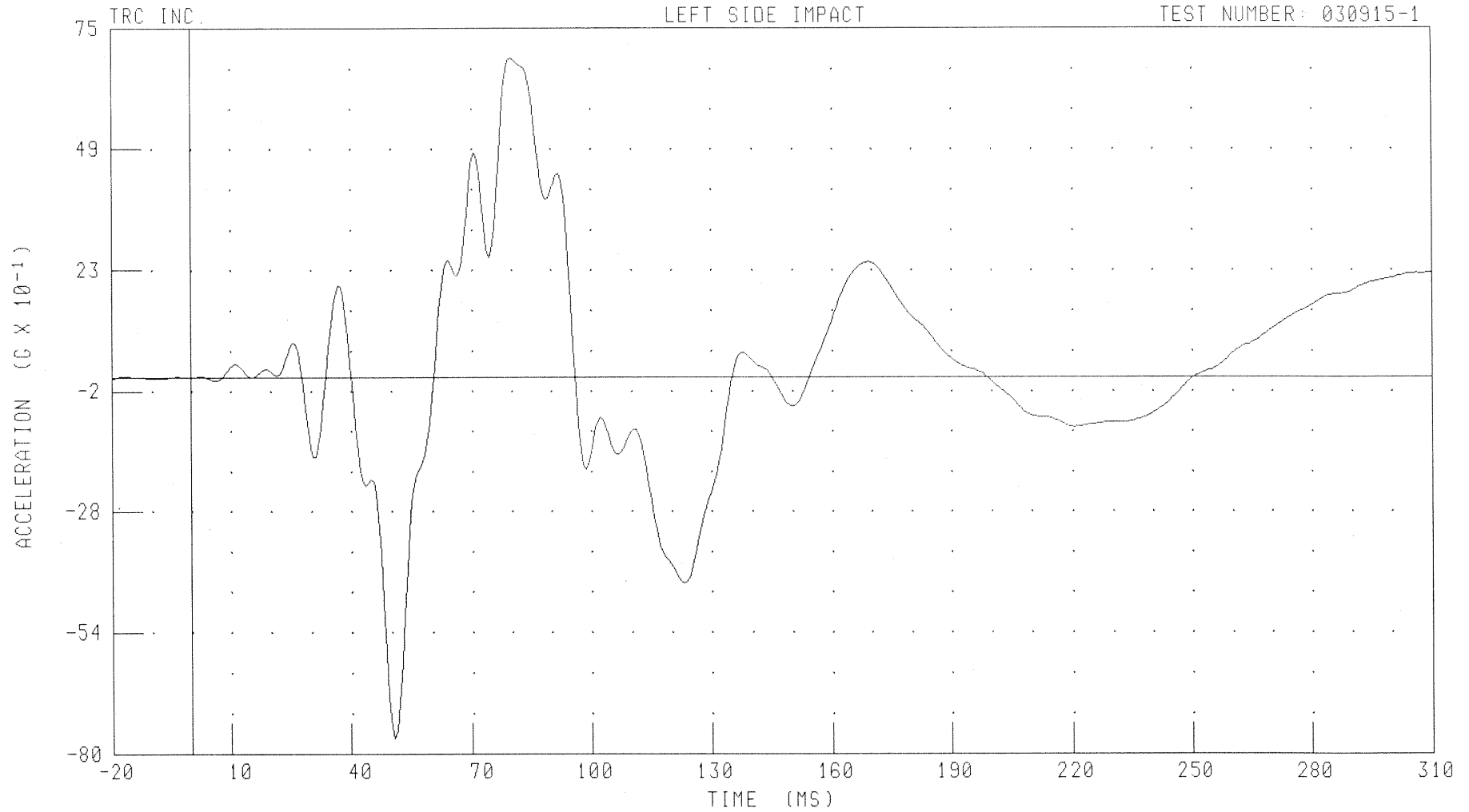
B-445

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3XG1

FILTER: FIR 100

PEAK DATA: 6.88 G @ 80.00 MS; -7.78 G @ 50.63 MS

B-446

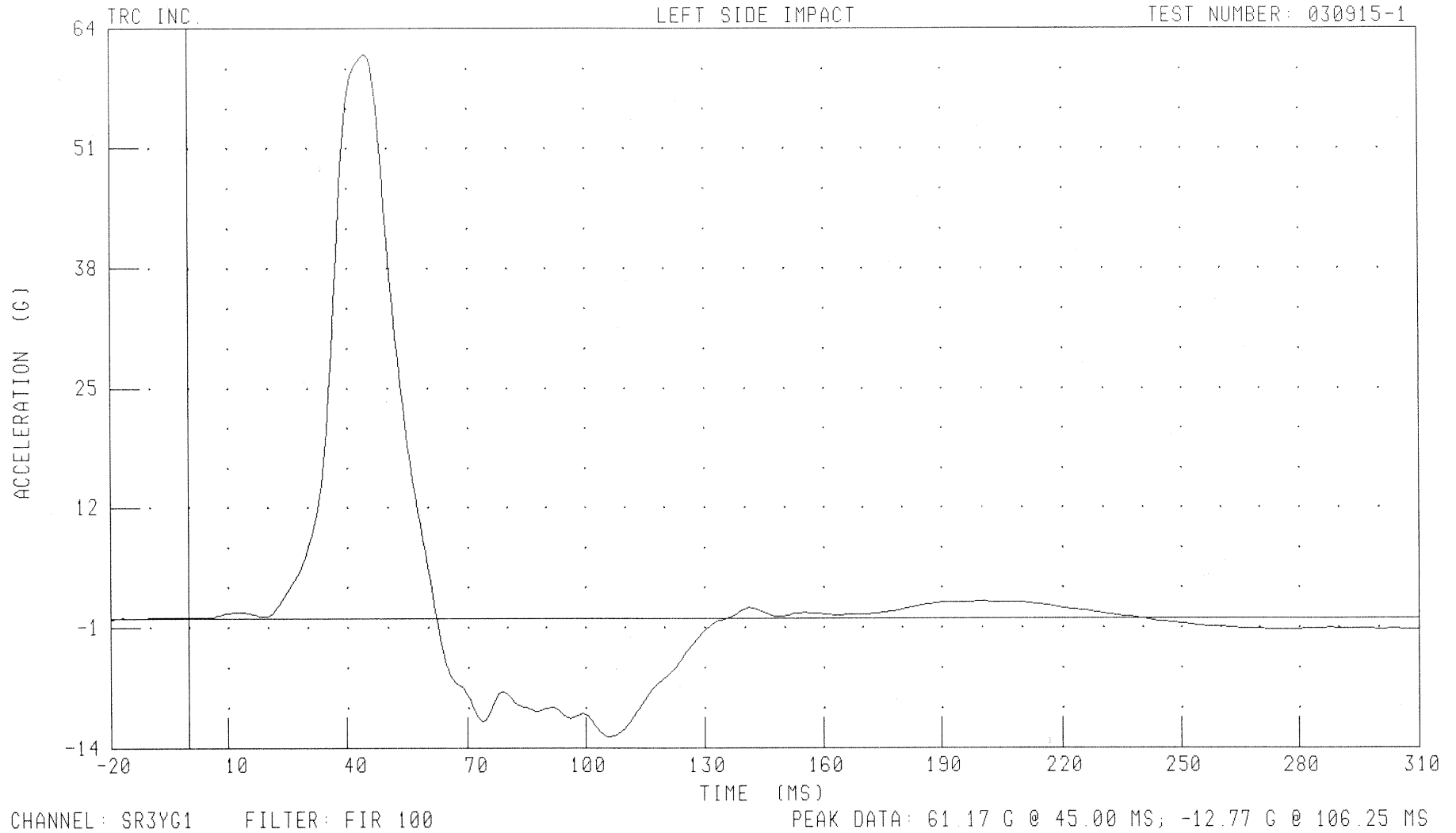
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

DRIVER SPINE RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



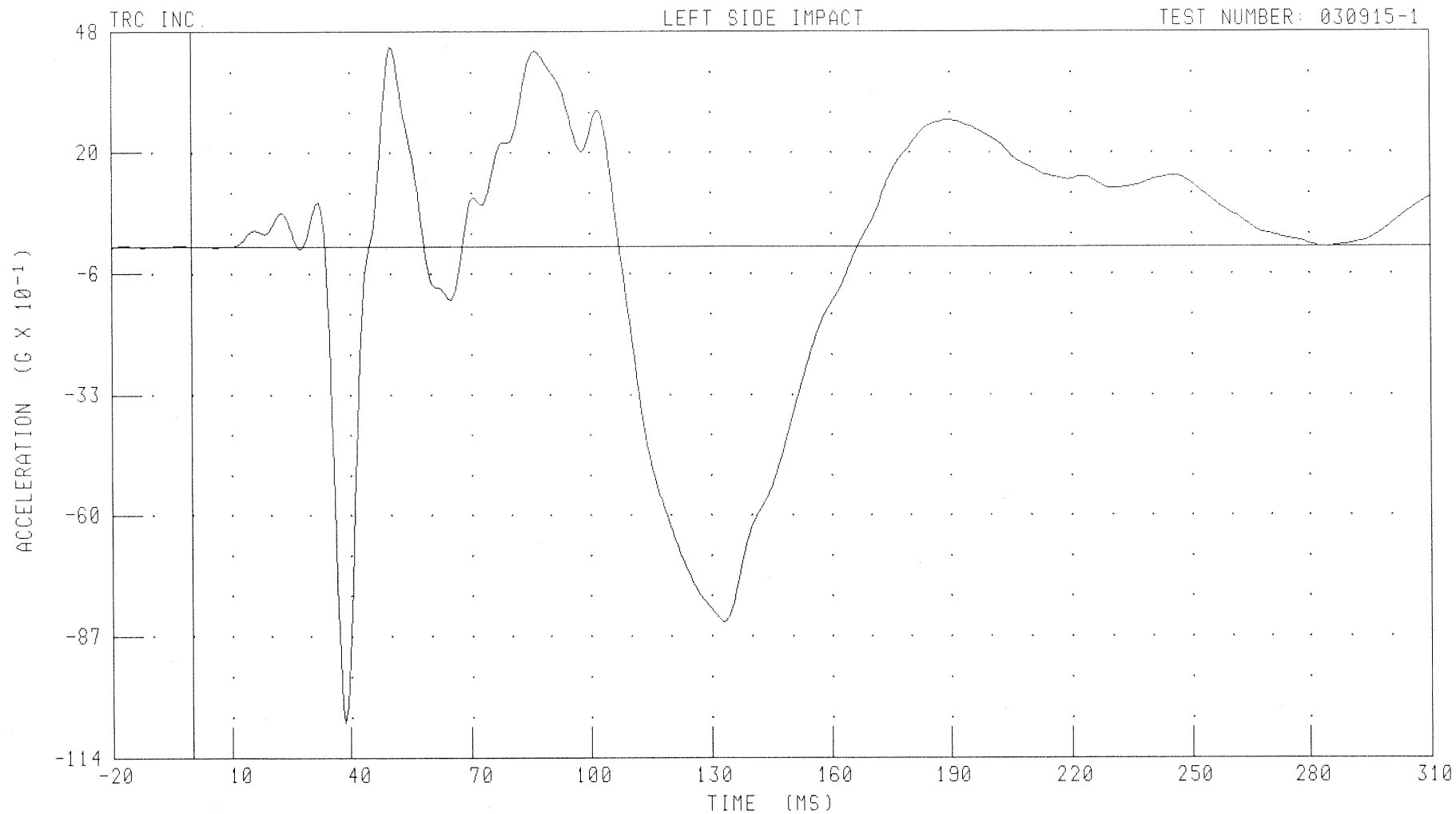
B-447

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3ZG1 FILTER: FIR 100

PEAK DATA: 4.45 G @ 50.00 MS; -10.62 G @ 38.75 MS

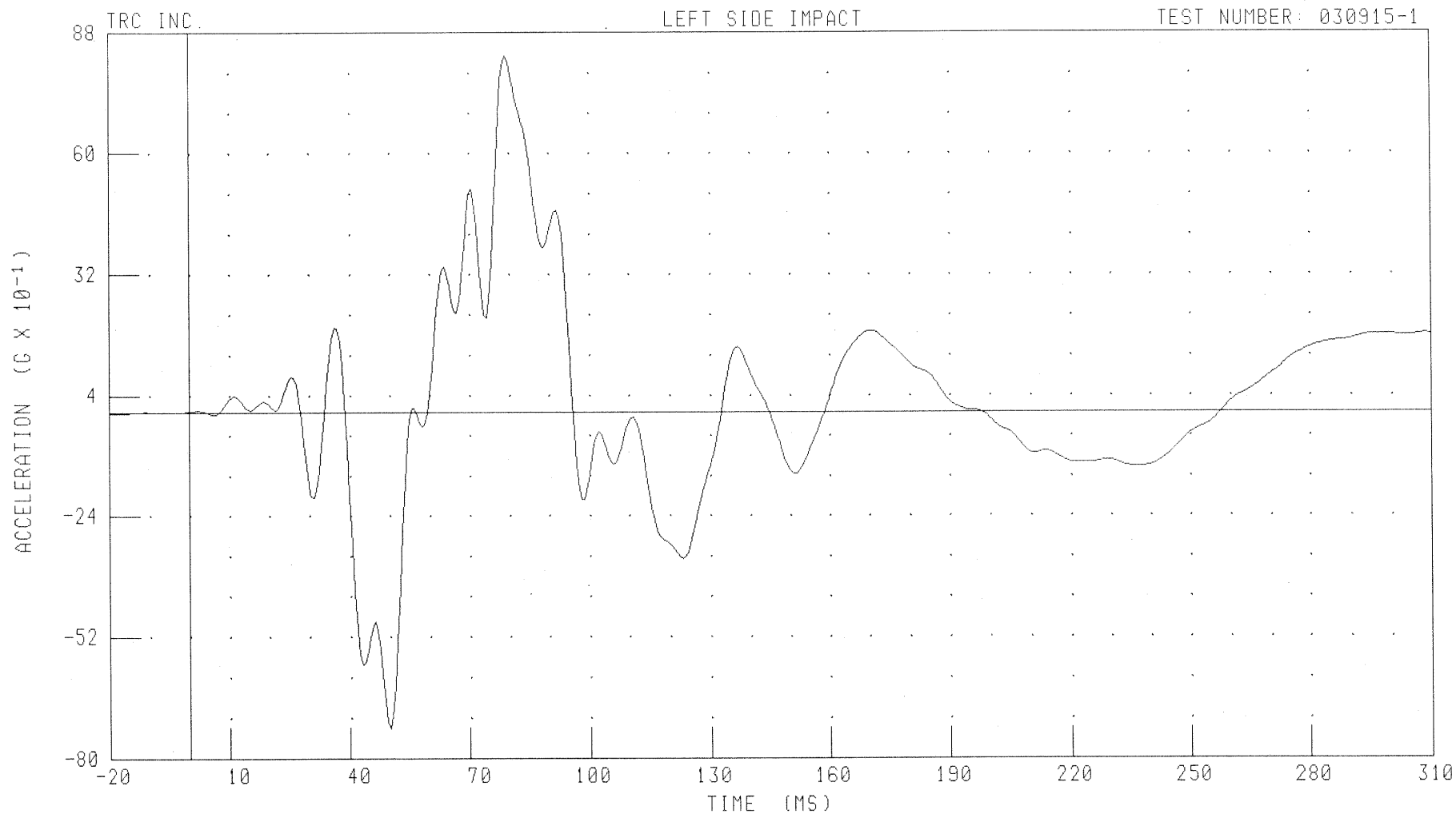
B-448

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4XG1 FILTER: FIR 100

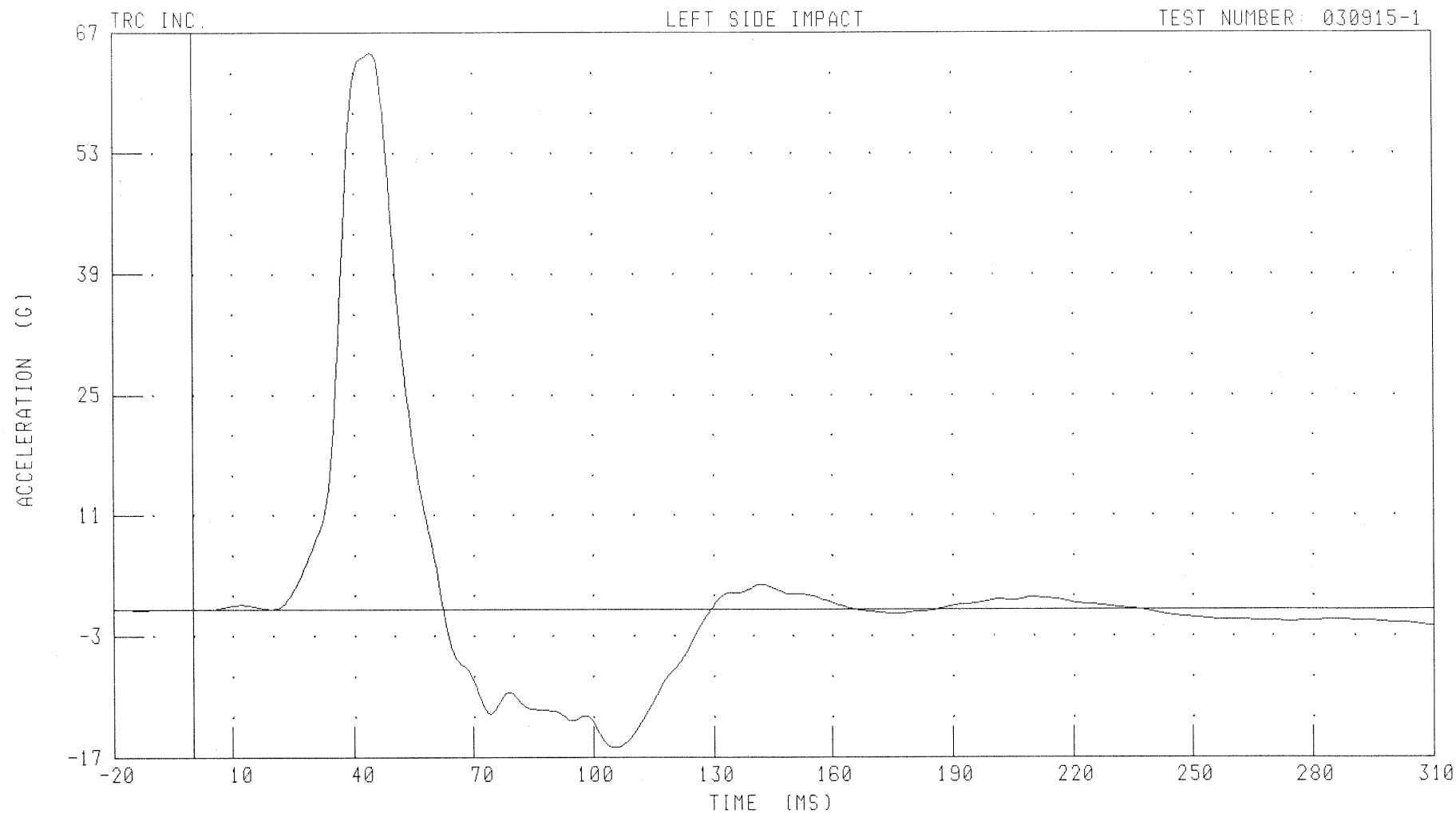
B-449

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4YC1 FILTER: FIR 100

PEAK DATA: 64.66 G @ 44.38 MS, -15.88 G @ 105.00 MS

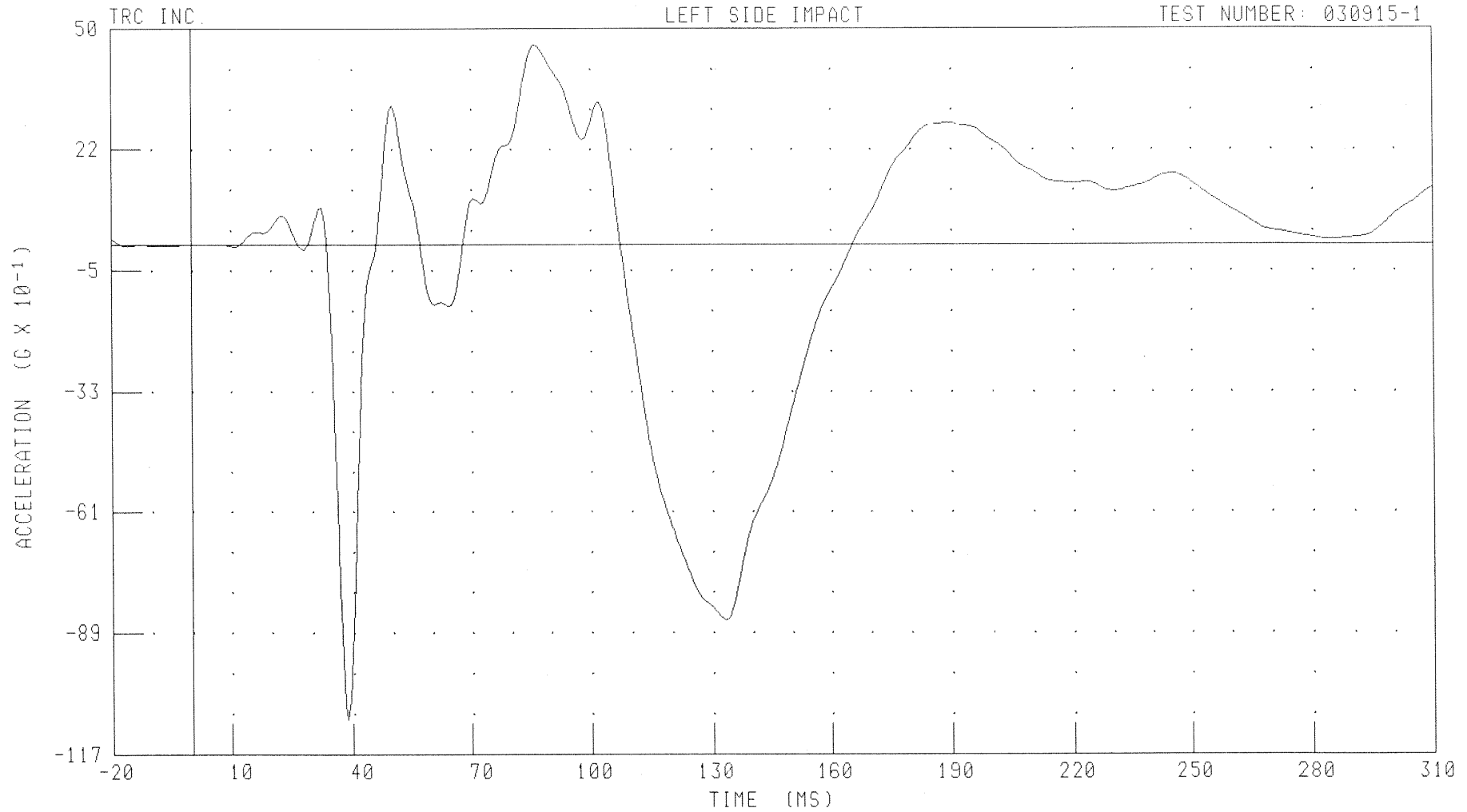
B-450

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZG1 FILTER: FIR 100

PEAK DATA: 46.3 G @ 86.25 MS; -11.01 G @ 38.75 MS

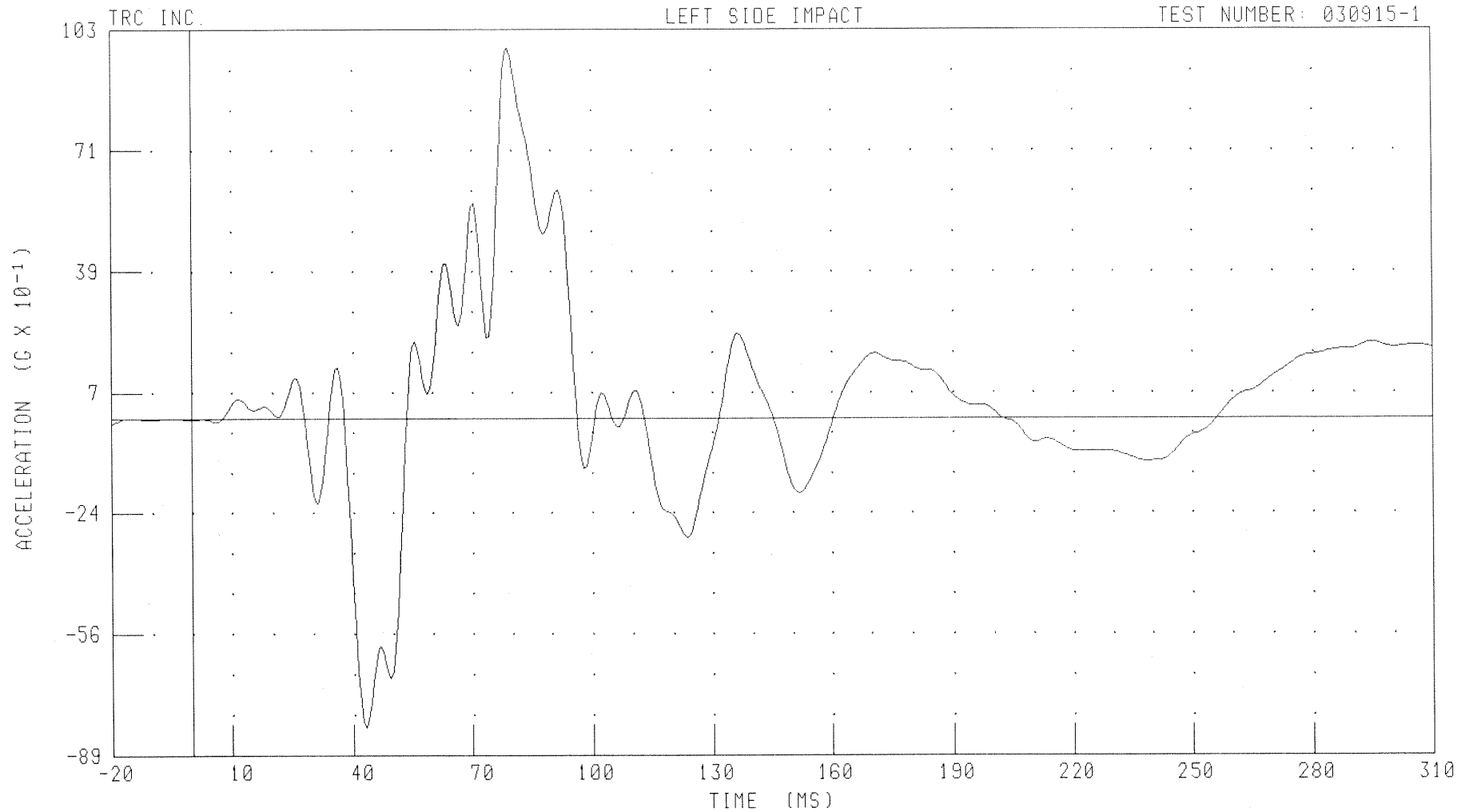
B-451

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5XC1

FILTER: FIR 100

PEAK DATA: 9.83 G @ 79.38 MS; -8.17 G @ 43.13 MS

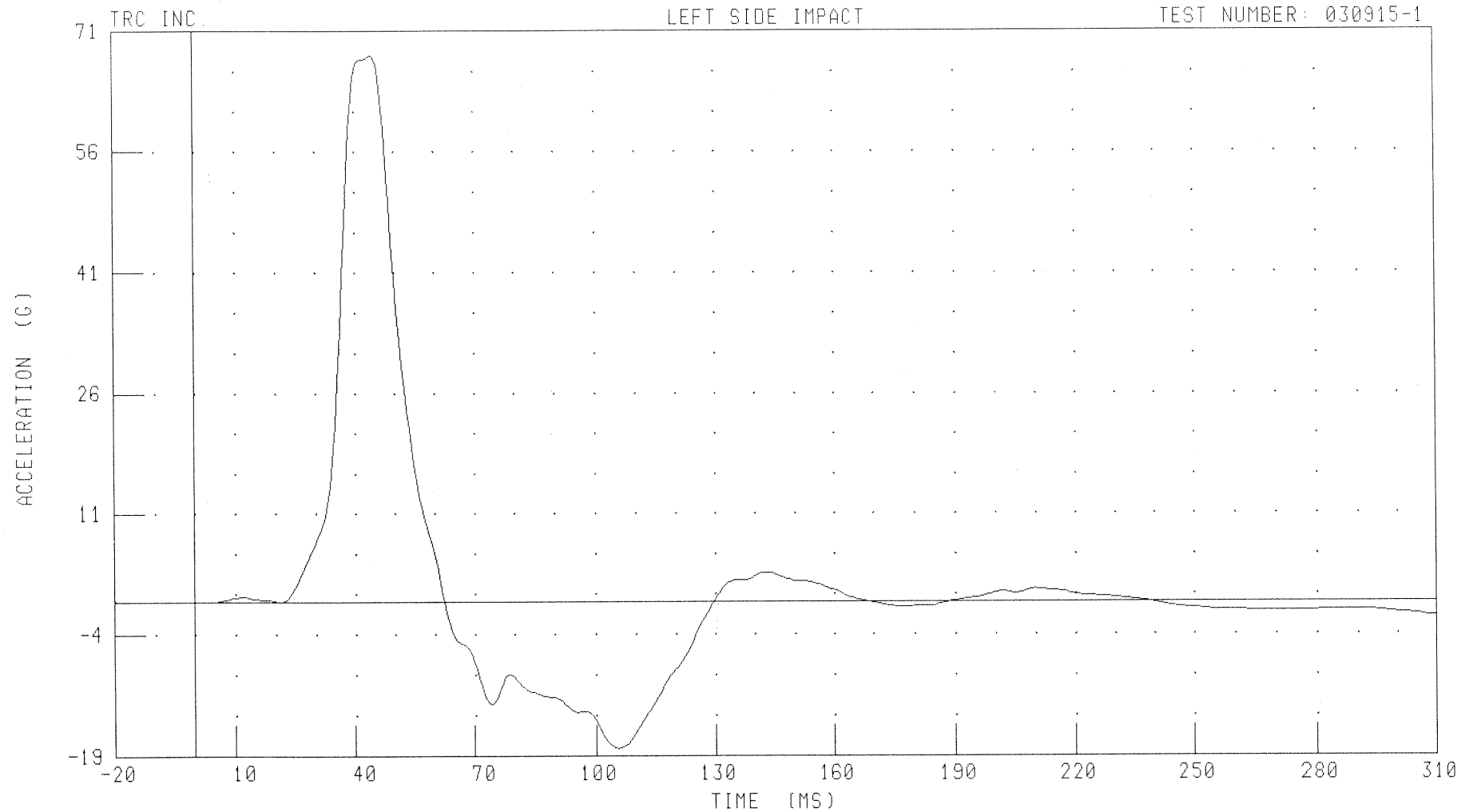
B-452

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5YG1

FILTER: FIR 100

PEAK DATA: 67.94 G @ 44.38 MS; -18.07 G @ 105.62 MS

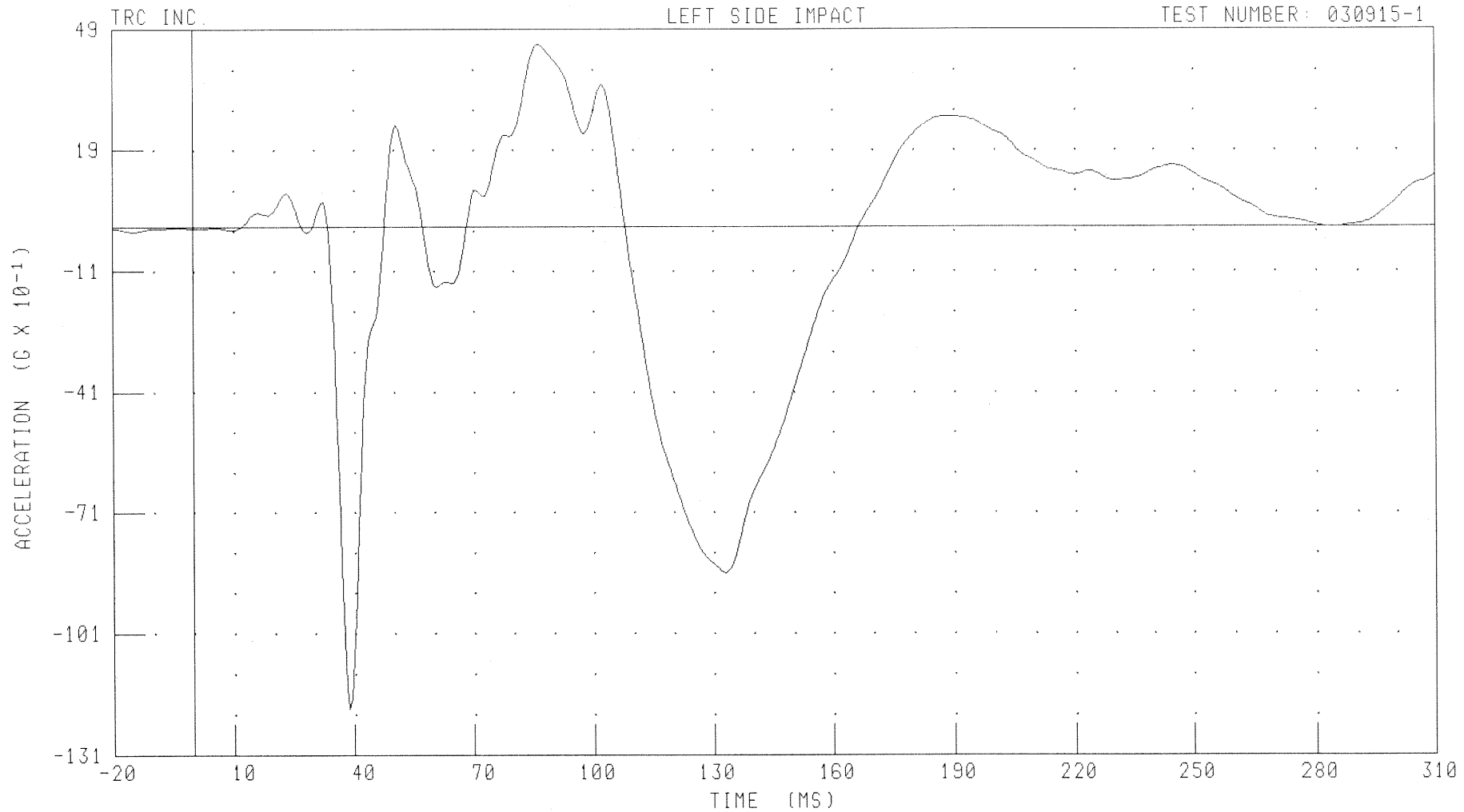
B-453

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER SPINE RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5ZG1 FILTER: FIR 100

PEAK DATA: 4.53 G @ 86.25 MS; -11.95 G @ 38.75 MS

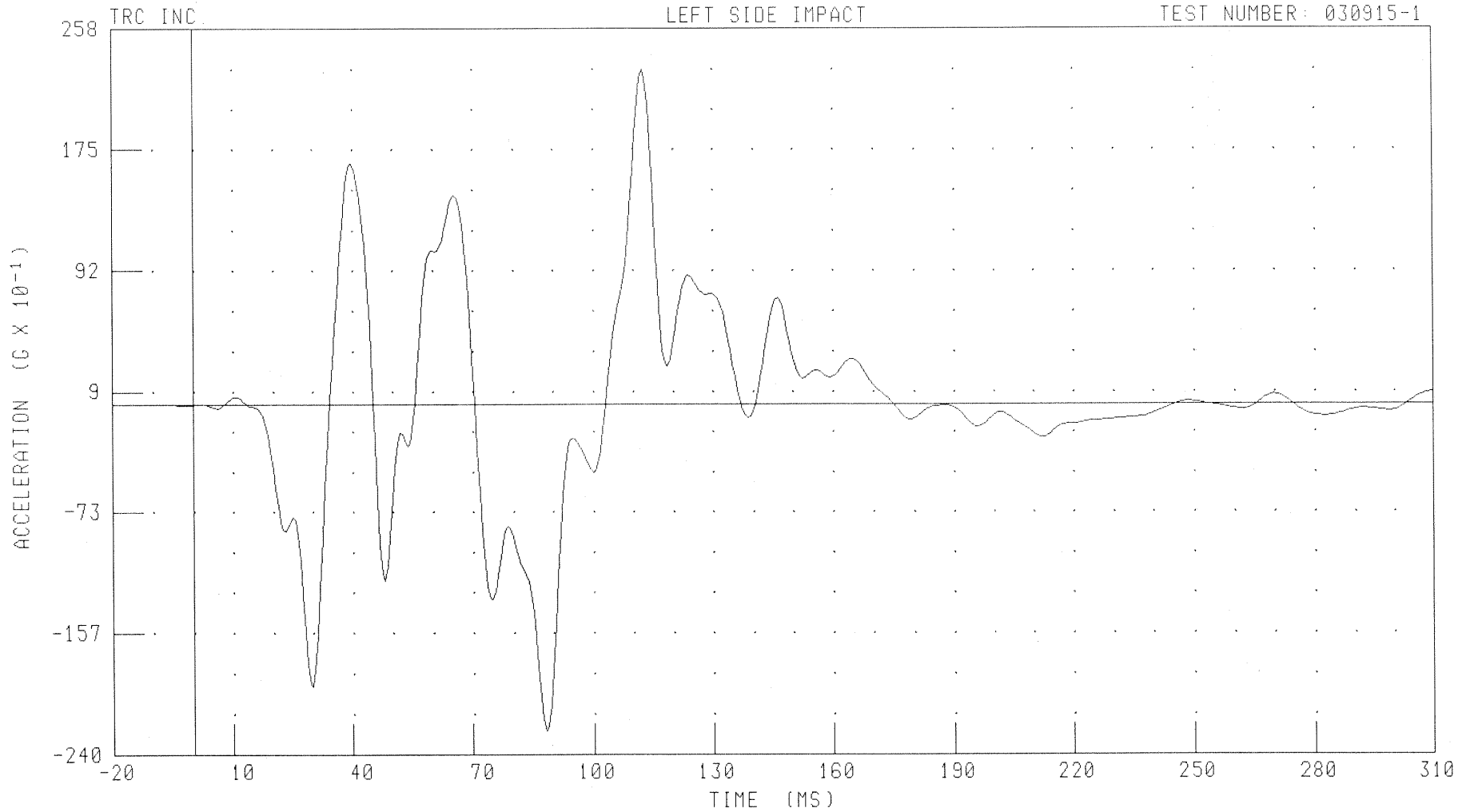
B-454

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XC1 FILTER: FIR 100

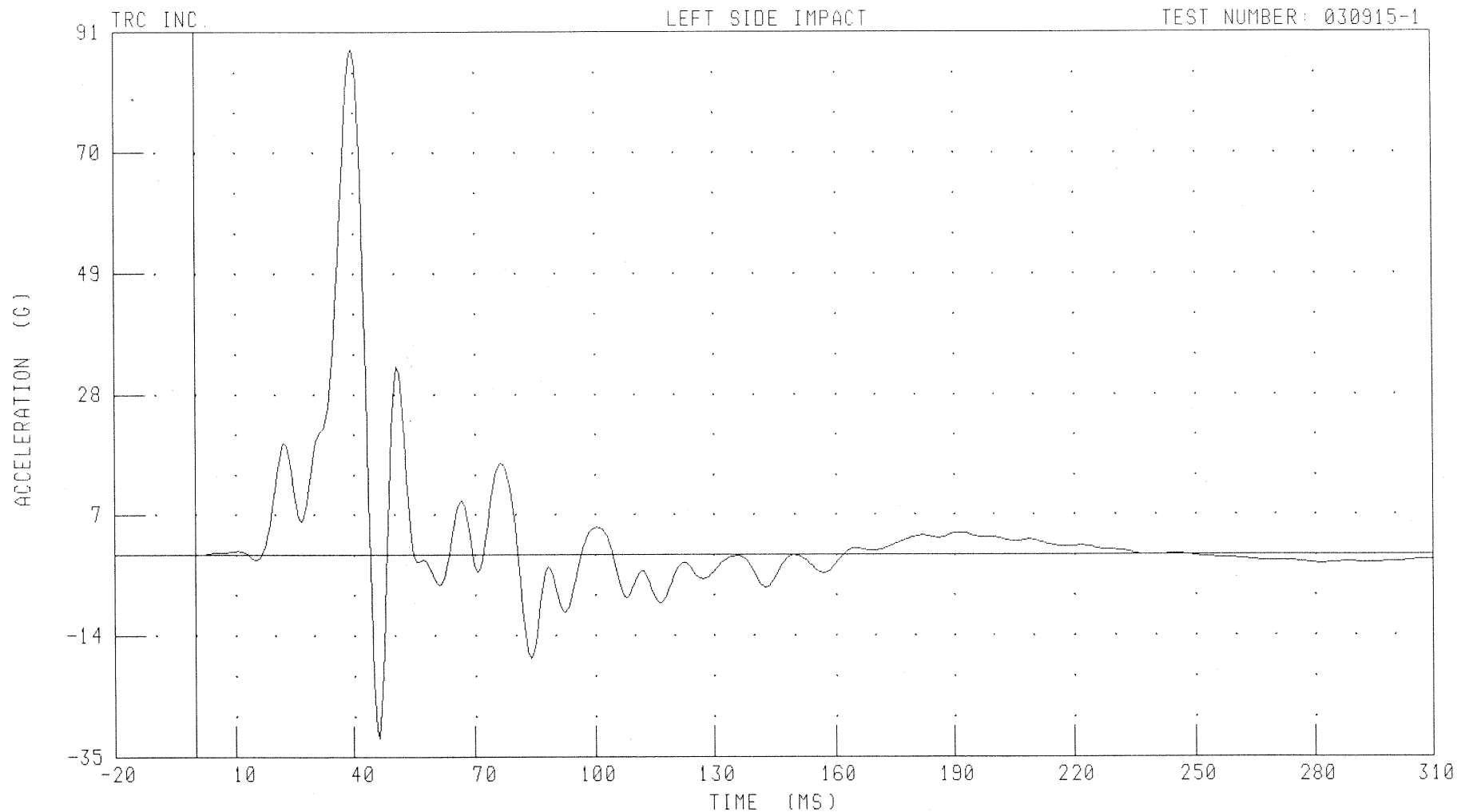
B-455

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YG1 FILTER: FIR 100

PEAK DATA: 88.10 G @ 40.00 MS; -31.88 G @ 46.25 MS

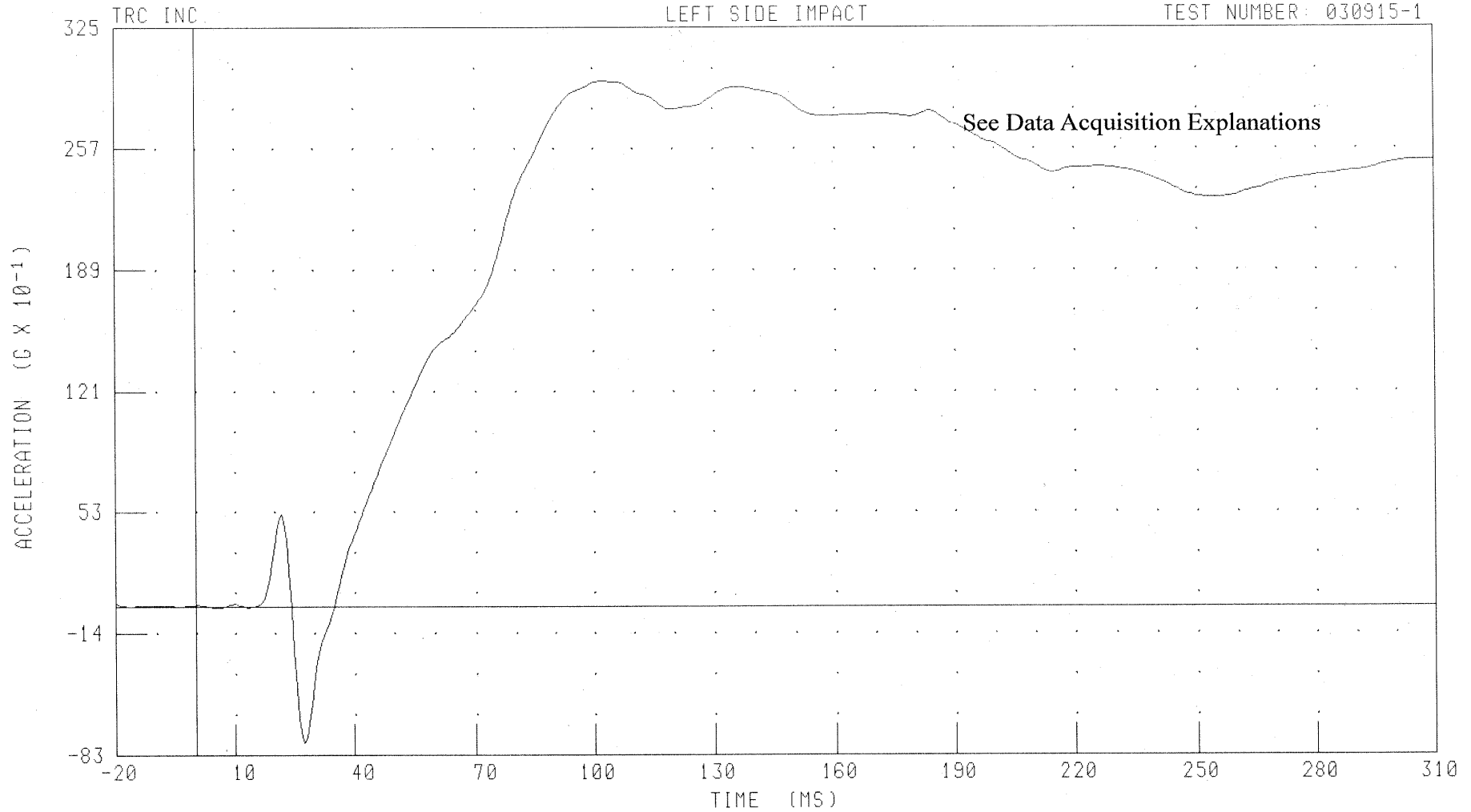
B-456

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1ZG1 FILTER: FIR 100

PEAK DATA: 29.51 G @ 102.50 MS; -7.61 G @ 27.50 MS

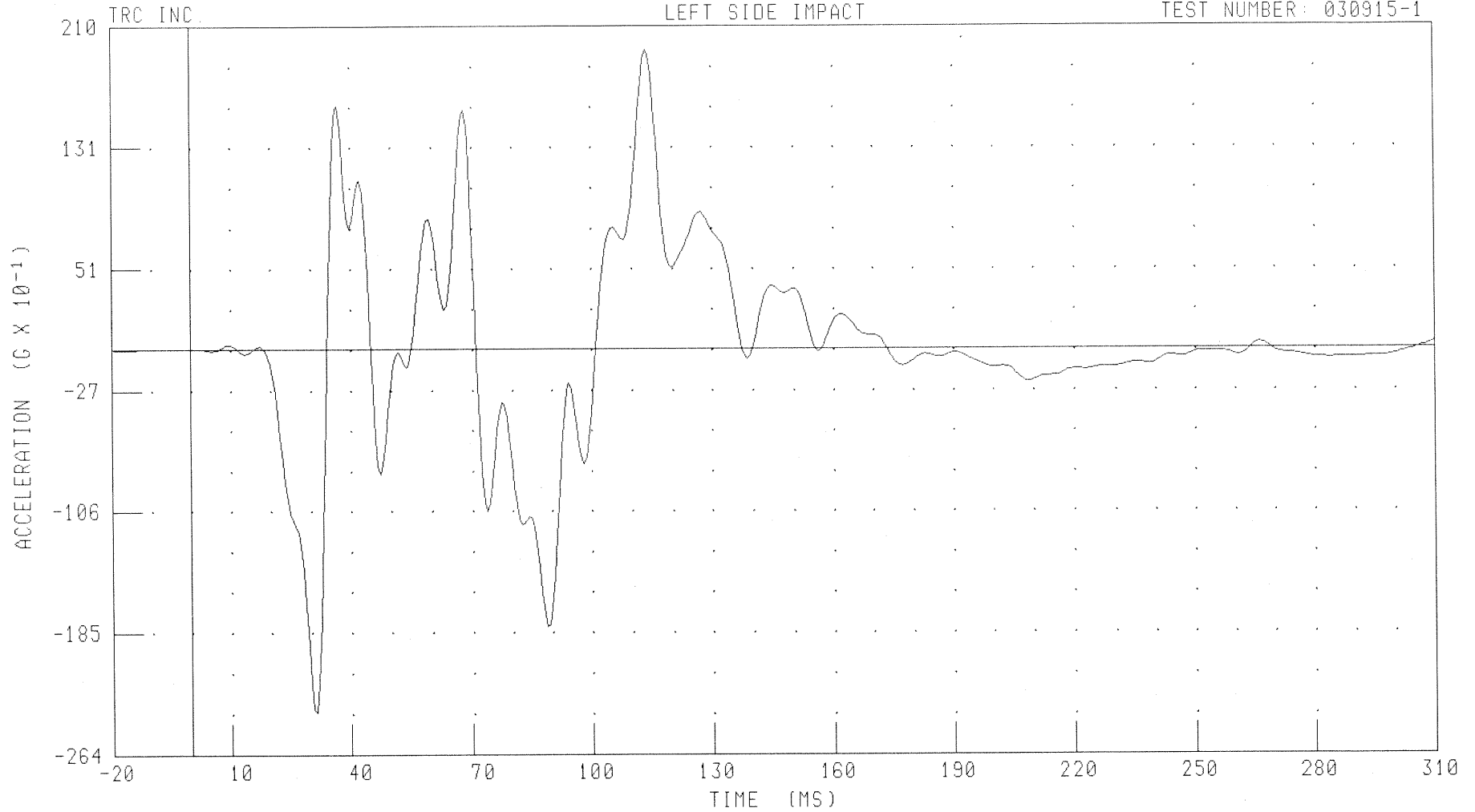
B-457

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2XG1 FILTER: FIR 100

PEAK DATA: 19.47 G @ 113.75 MS; -23.67 G @ 31.25 MS

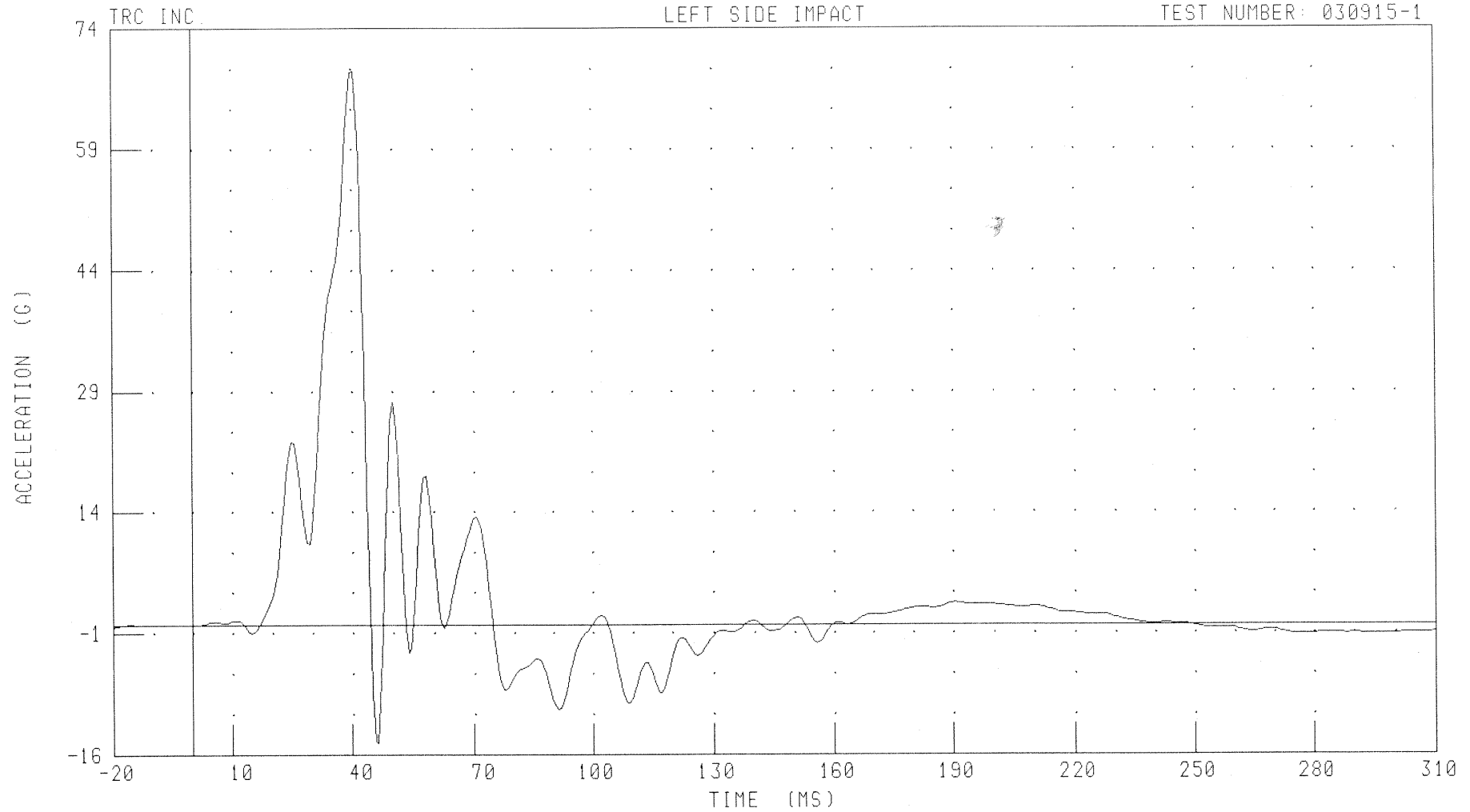
B-458

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YG1 FILTER: FIR 100

PEAK DATA: 68.73 G @ 40.63 MS; -14.60 G @ 46.25 MS

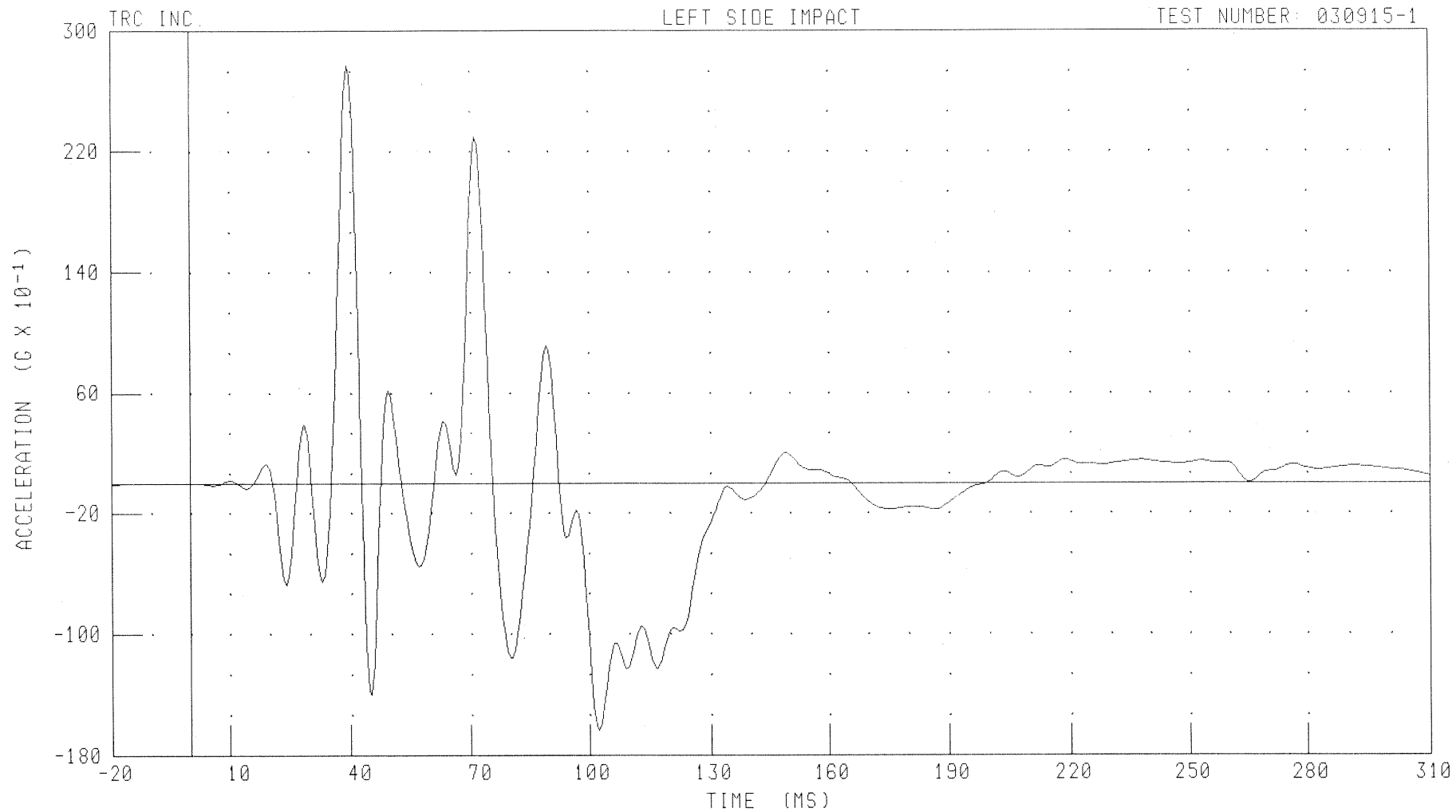
B-459

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZG1 FILTER: FIR 100

PEAK DATA: 27.69 G @ 39.38 MS; -16.38 G @ 102.50 MS

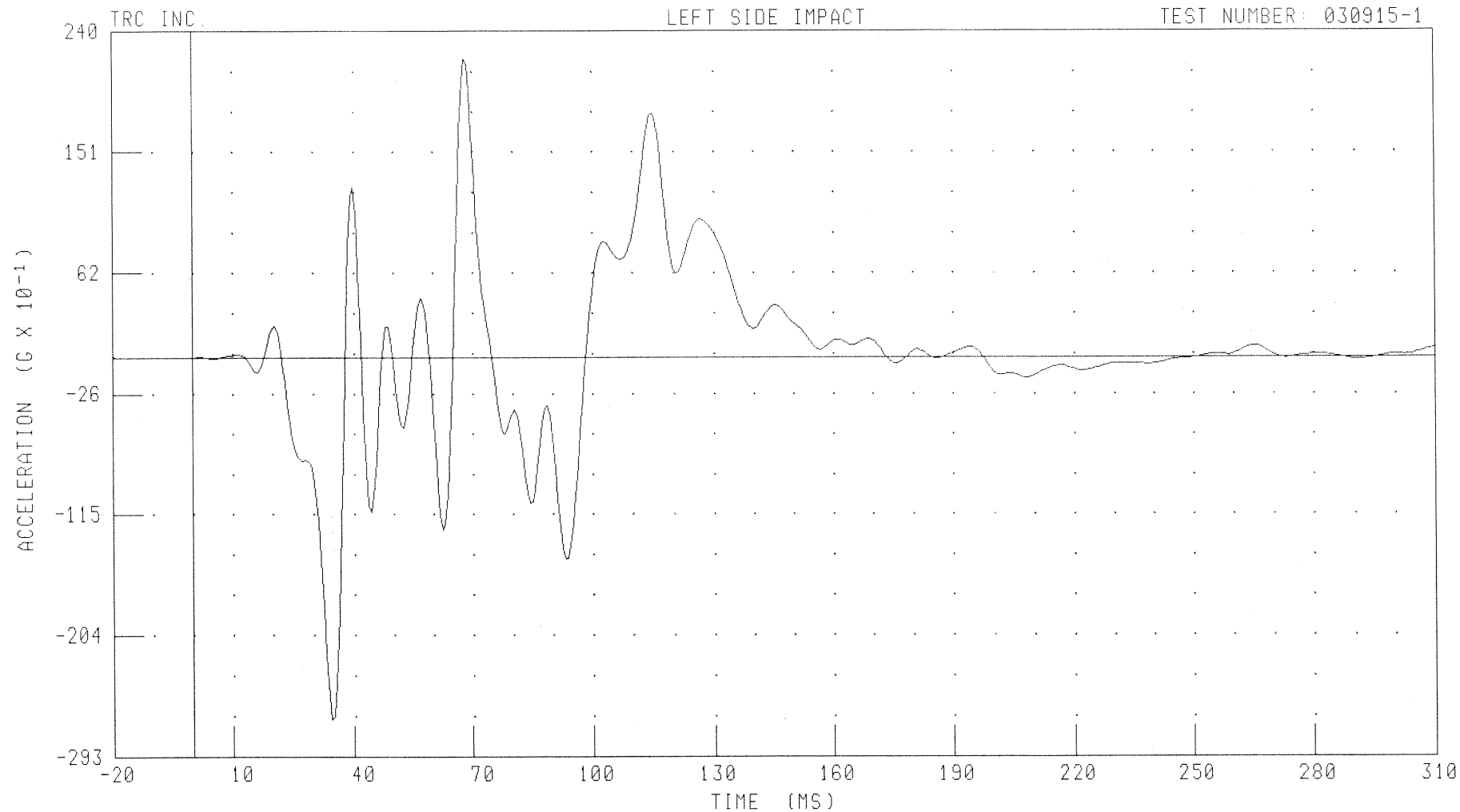
B-460

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XG1

FILTER: FIR 100

PEAK DATA: 22.01 G @ 68.13 MS; -26.72 G @ 34.38 MS

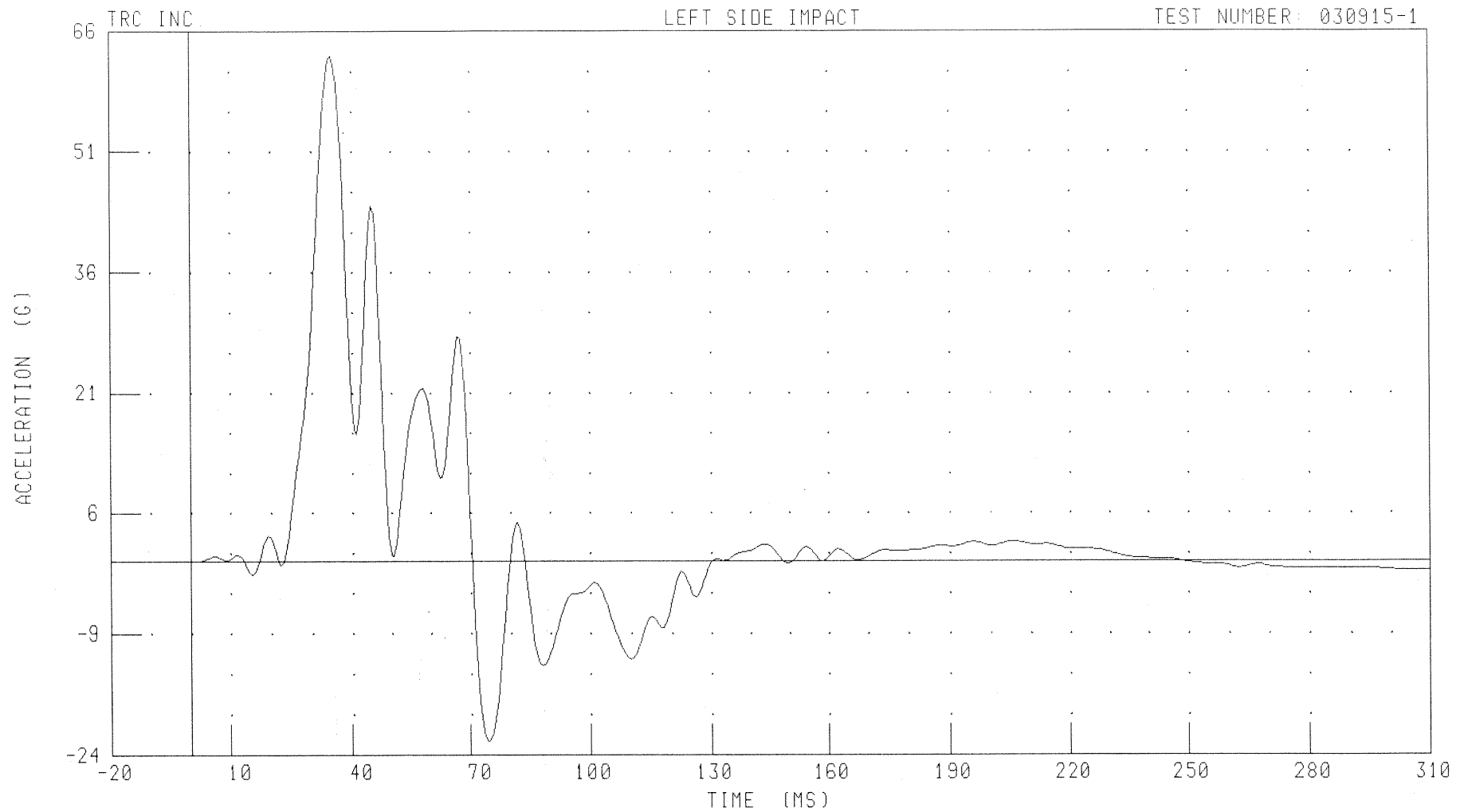
B-461

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YG1 FILTER: FIR 100

PEAK DATA: 62.97 G @ 35.00 MS; -22.34 G @ 74.37 MS

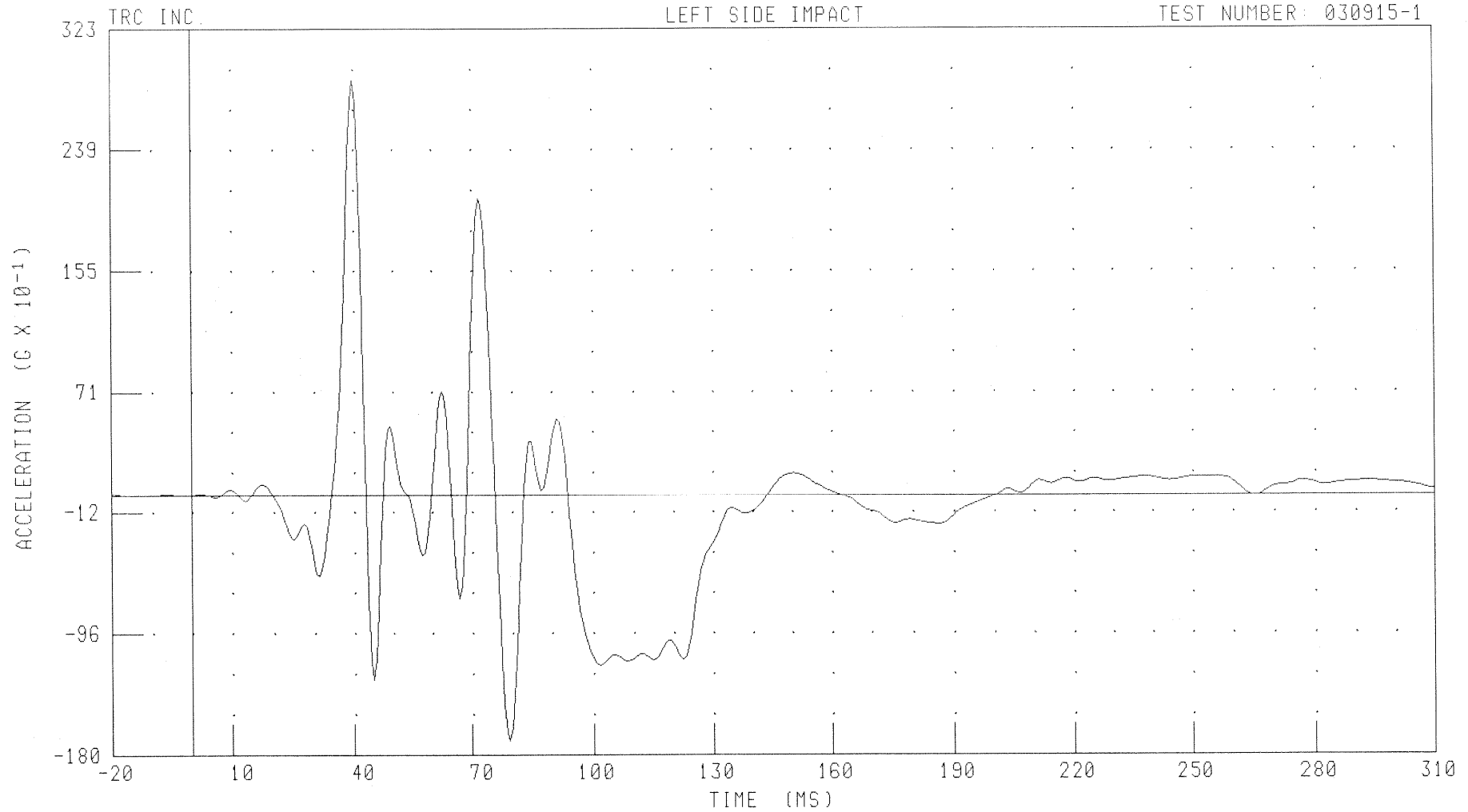
B-462

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER THORAX RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZG1 FILTER: FIR 100

PEAK DATA: 28.83 G @ 40.00 MS; -17.01 G @ 79.38 MS

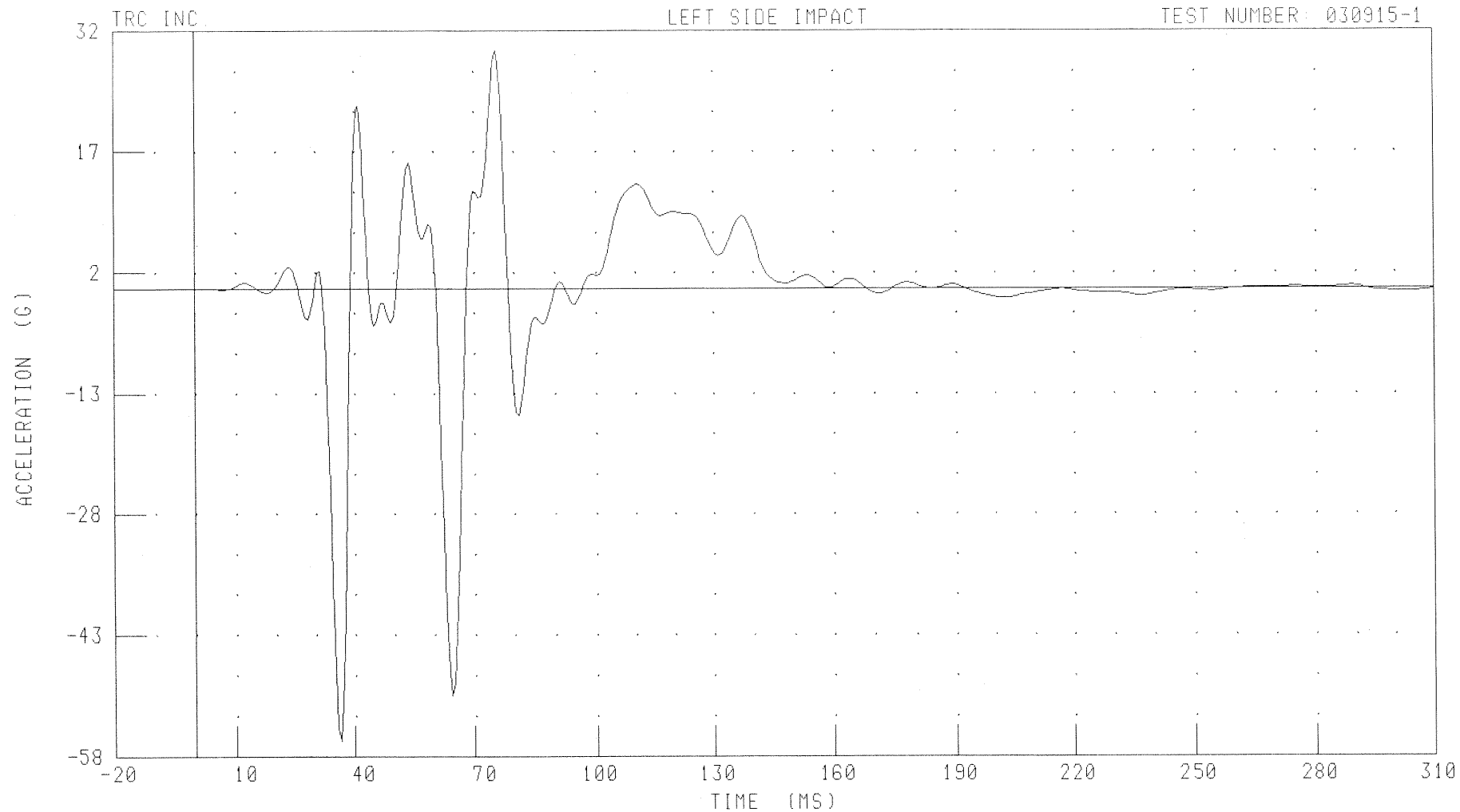
B-463

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XG1 FILTER: FIR 100

PEAK DATA: 29.57 G @ 75.62 MS; -56.12 G @ 36.25 MS

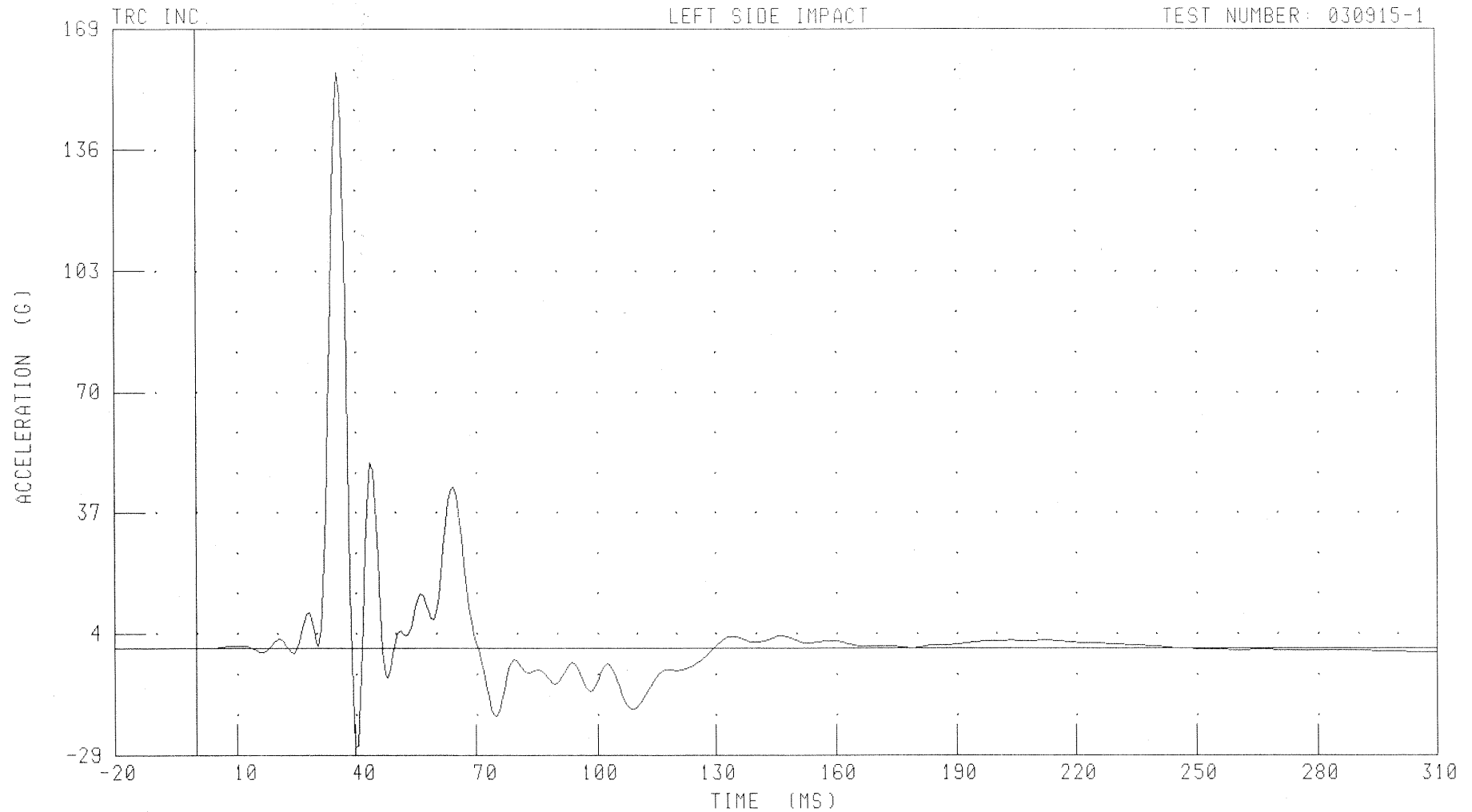
B-464

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YG1 FILTER: FIR 100

PEAK DATA: 157.46 G @ 35.63 MS, -26.78 G @ 40.00 MS

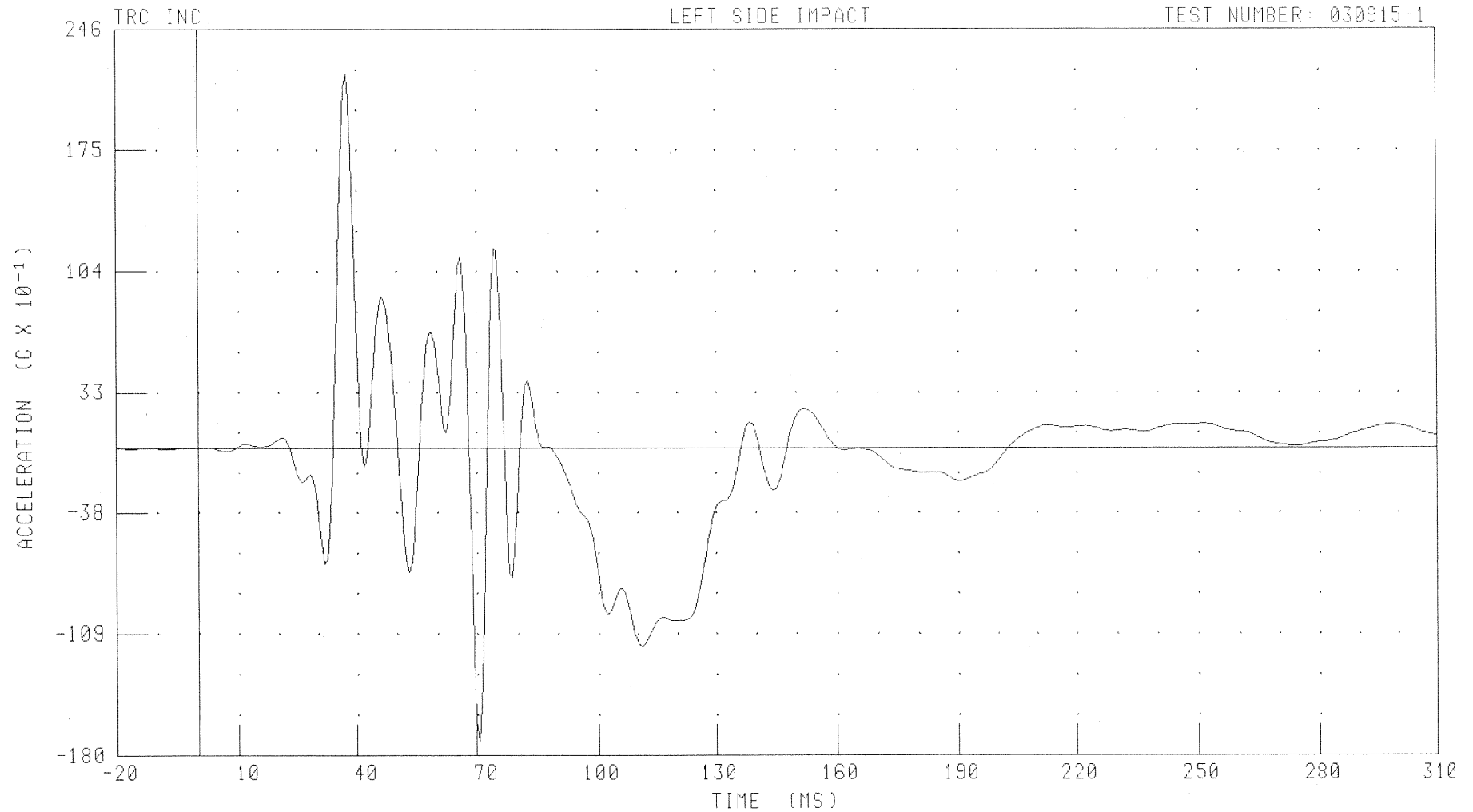
B-465

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZG1 FILTER: FIR 100

PEAK DATA: 21.97 G @ 37.50 MS, -17.20 G @ 70.63 MS

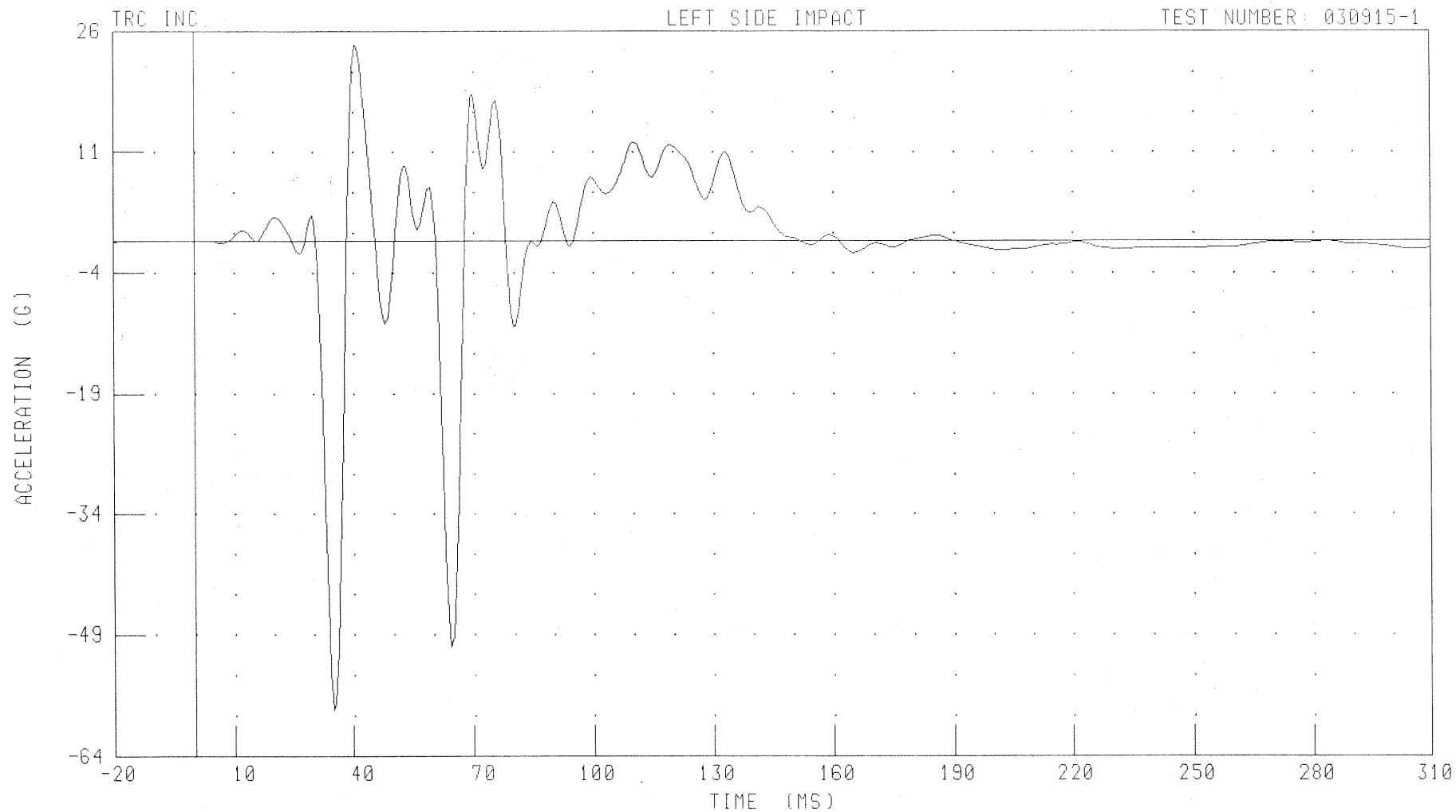
B-466

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XG1 FILTER: FIR 100

PEAK DATA: 24.34 G @ 40.63 MS; -58.31 G @ 35.00 MS

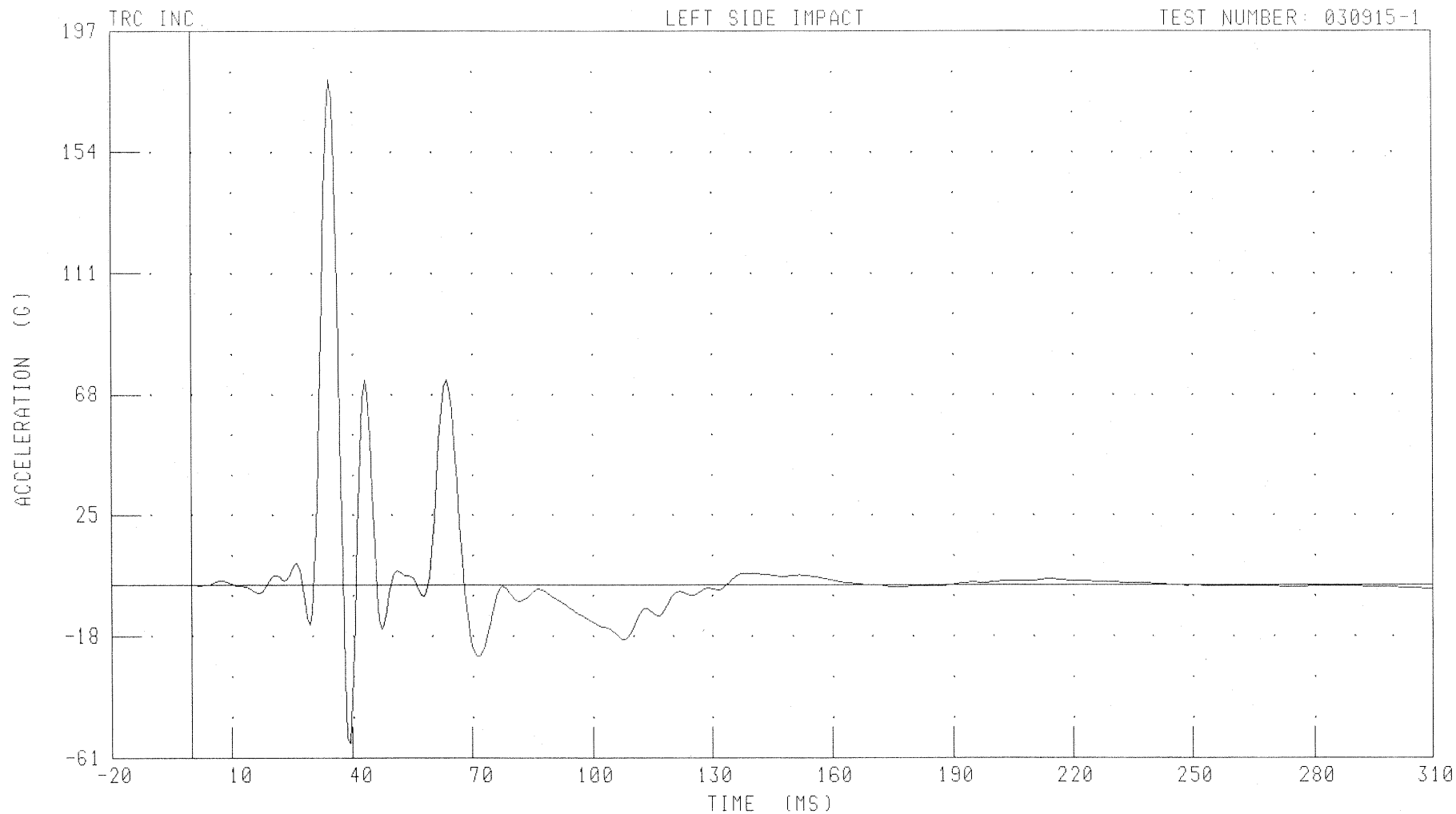
B-467

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YG1

FILTER: FIR 100

PEAK DATA: 179.91 G @ 34.38 MS; -55.84 G @ 39.38 MS

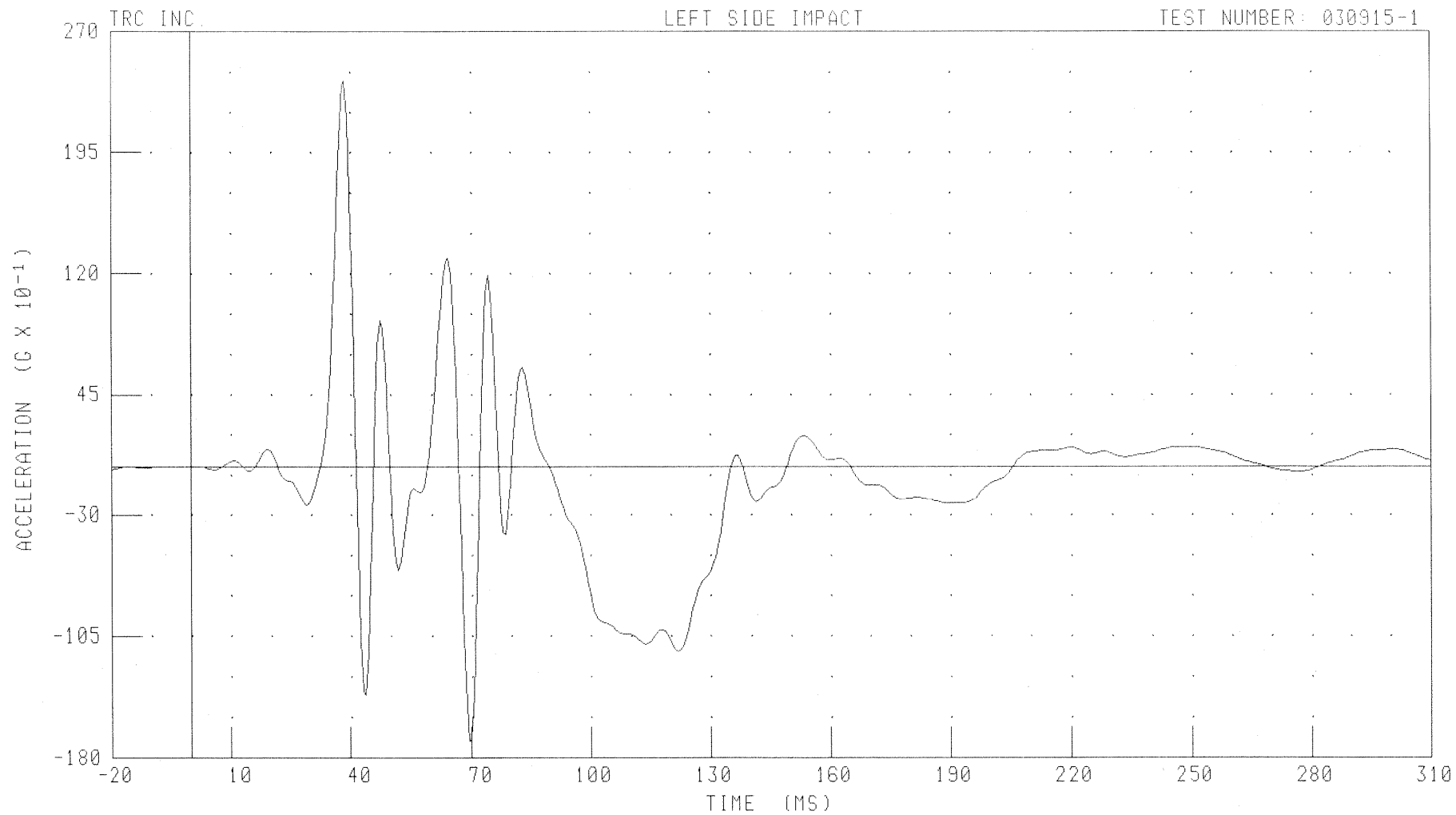
B-468

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER ABDOMEN RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZG1 FILTER: FIR 100

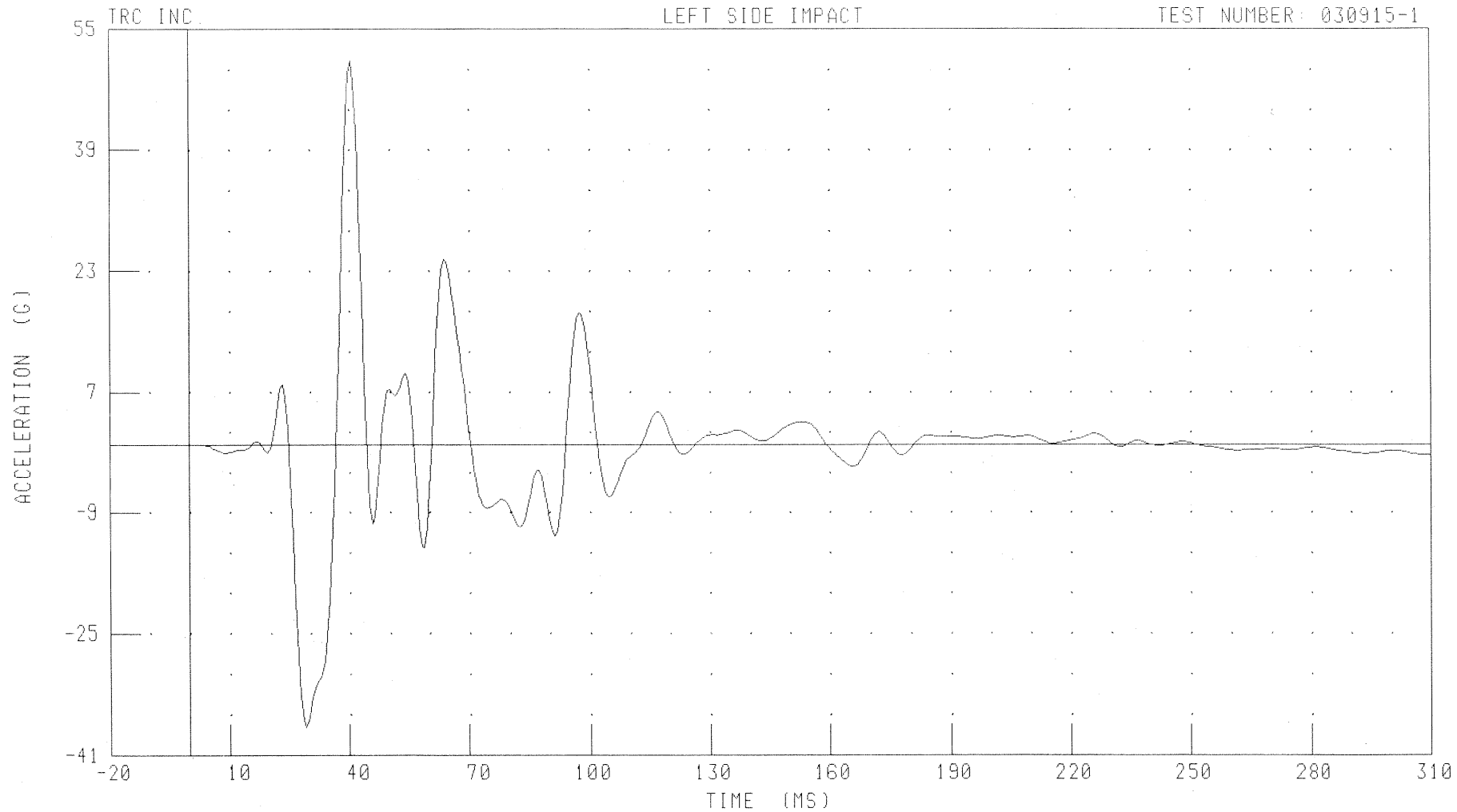
B-469

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XC4 FILTER: FIR 100

PEAK DATA: 50.80 G @ 40.63 MS; -37.32 G @ 28.75 MS

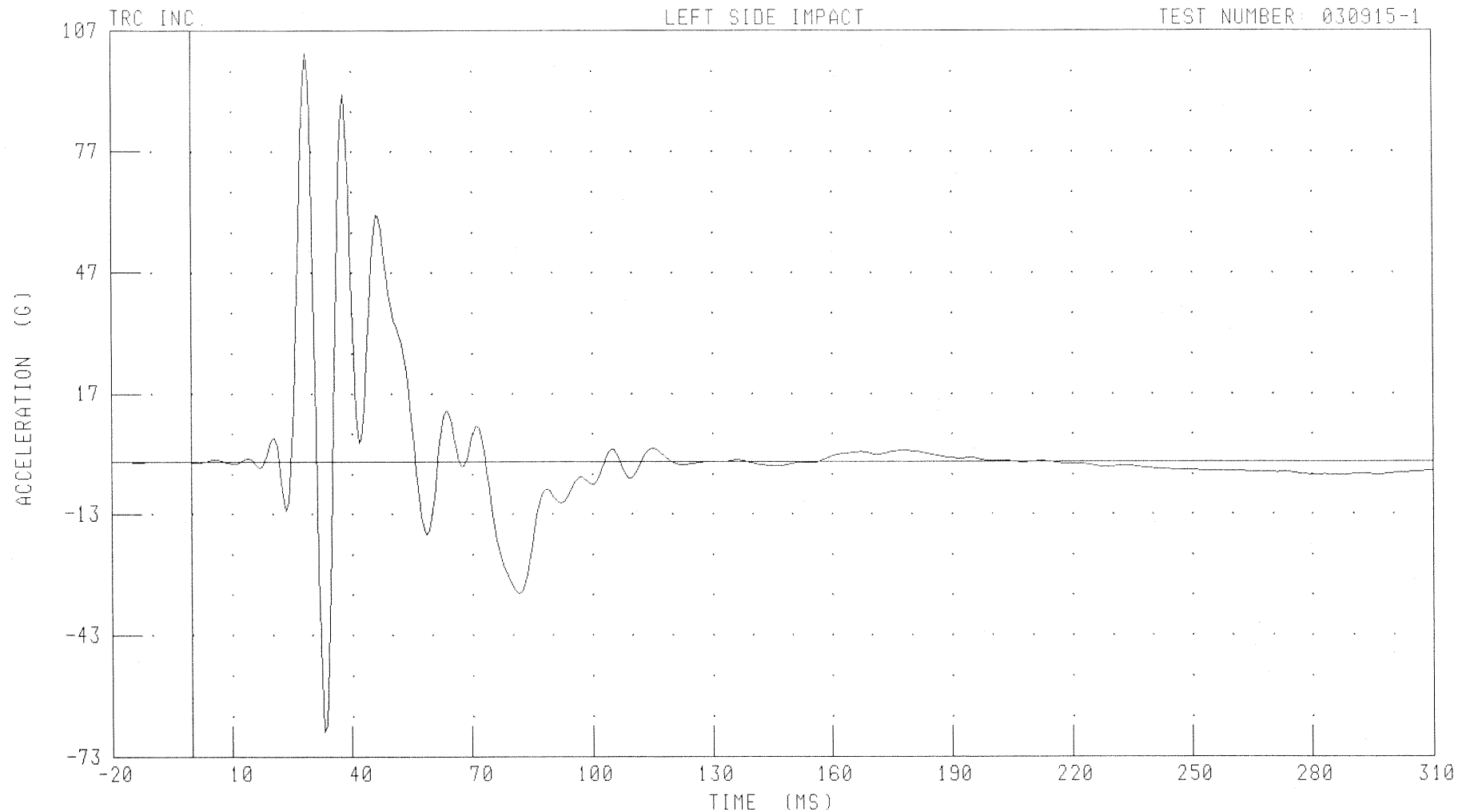
B-470

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YG4

FILTER: FIR 100

PEAK DATA: 101.39 G @ 28.75 MS; -66.85 G @ 33.13 MS

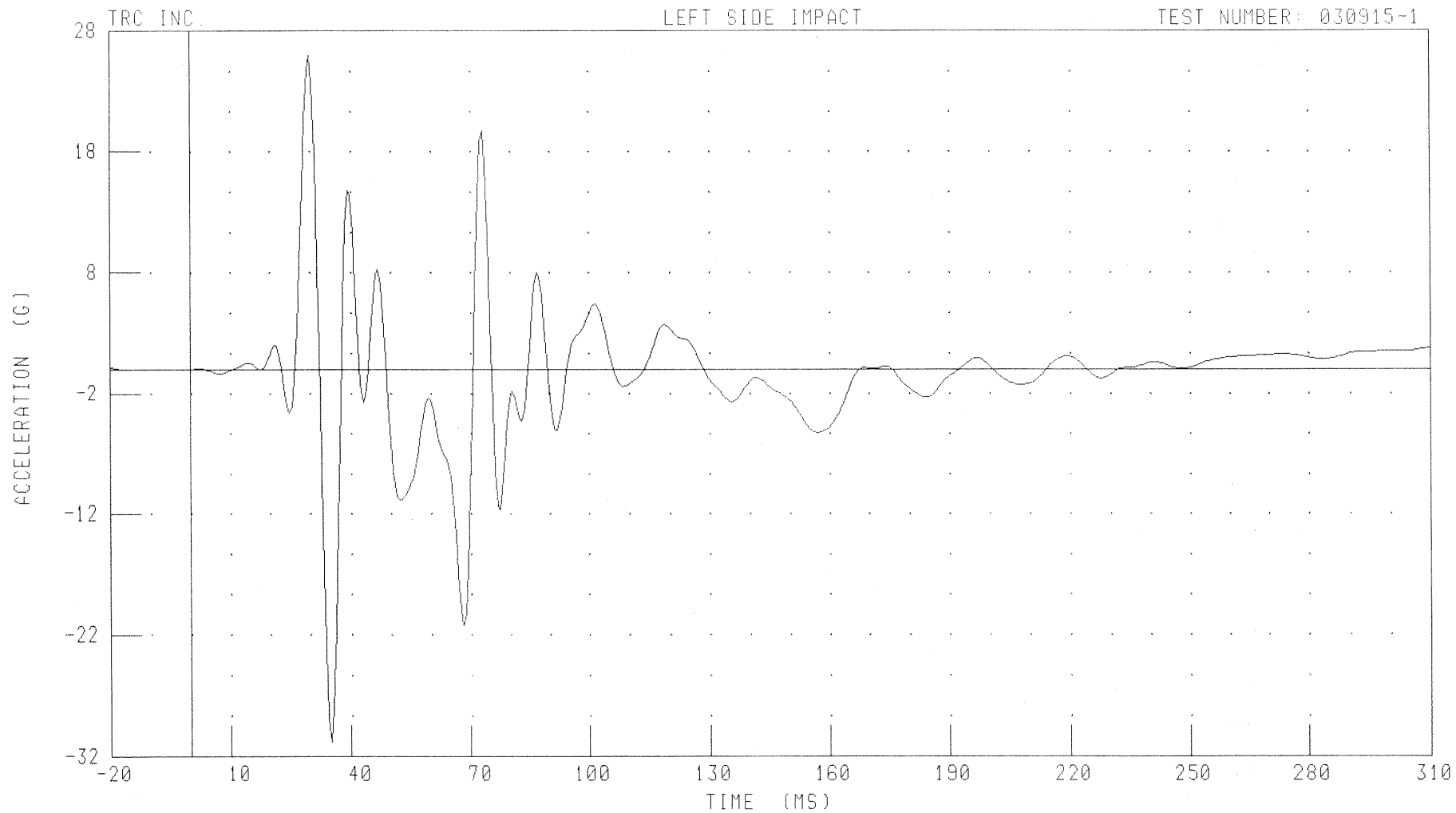
B-471

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZG4 FILTER: FIR 100

PEAK DATA: 26.00 G @ 30.00 MS; -30.79 G @ 35.00 MS

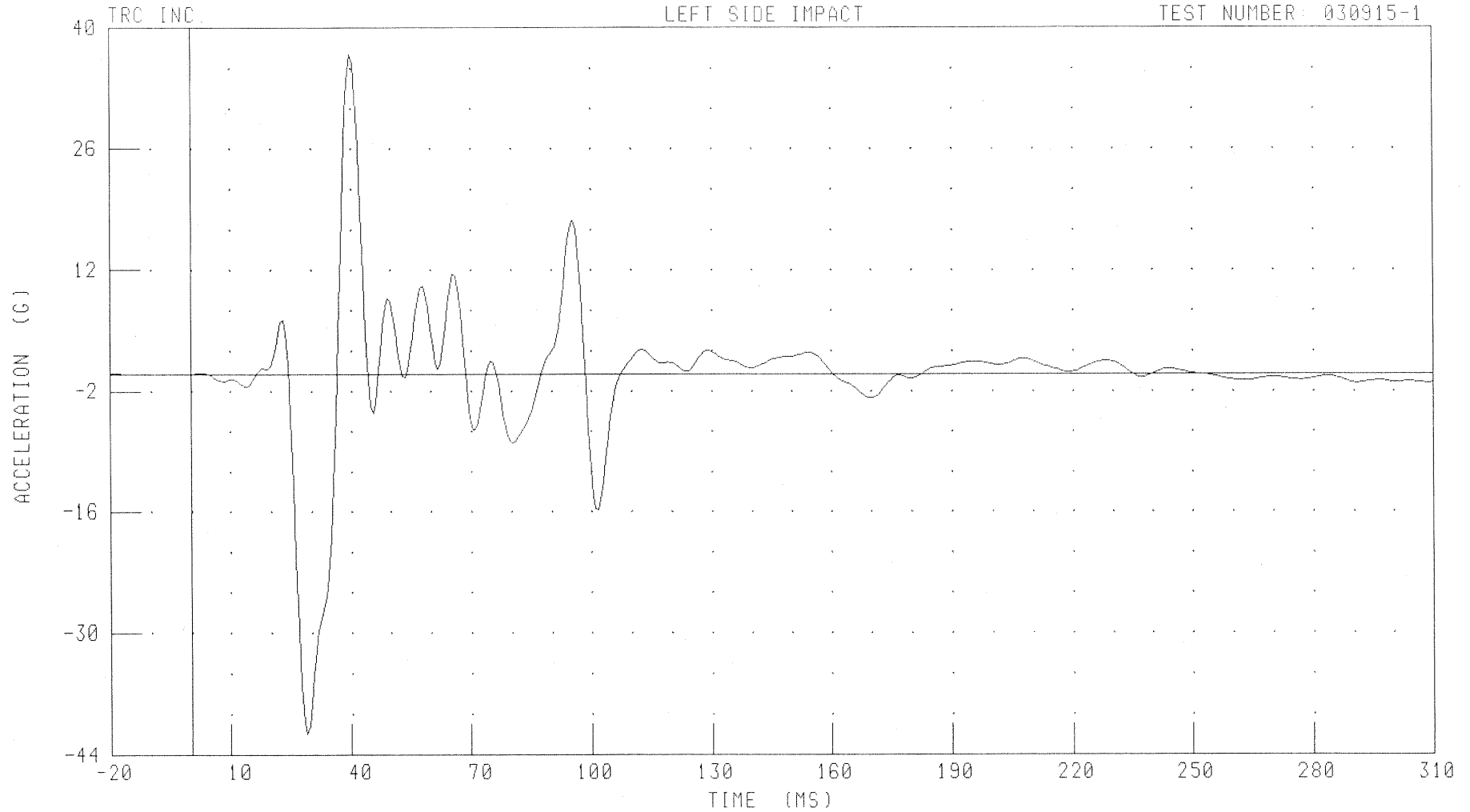
B-472

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XC4

FILTER: FIR 100

PEAK DATA: 36.99 G @ 40.00 MS; -41.60 G @ 28.75 MS

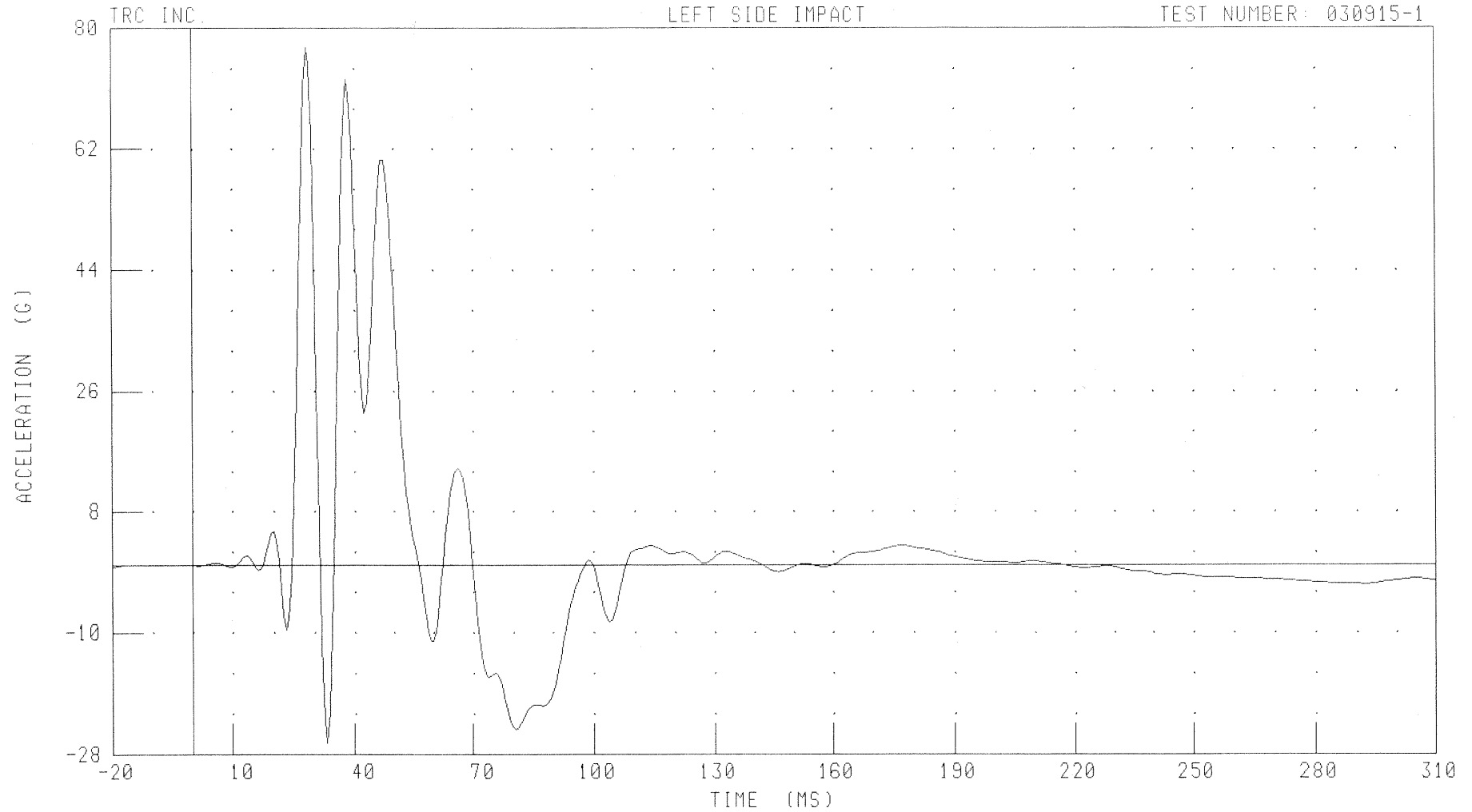
B-473

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YG4 FILTER: FIR 100

PEAK DATA: 77.08 G @ 28.13 MS; -26.31 G @ 33.13 MS

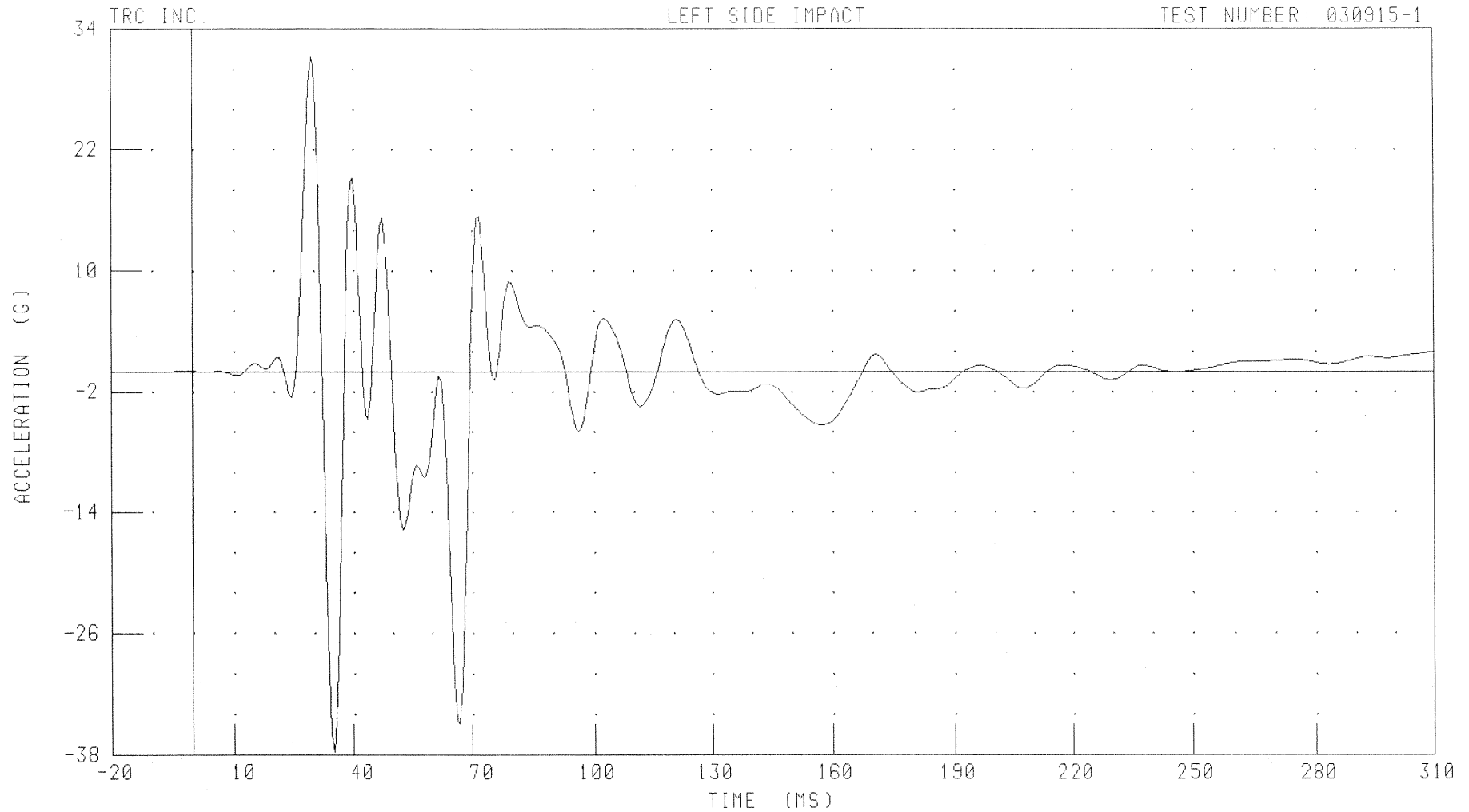
B-474

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMEN RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZG4 FILTER: FIR 100

PEAK DATA: 31.25 G @ 29.38 MS; -37.71 G @ 35.00 MS

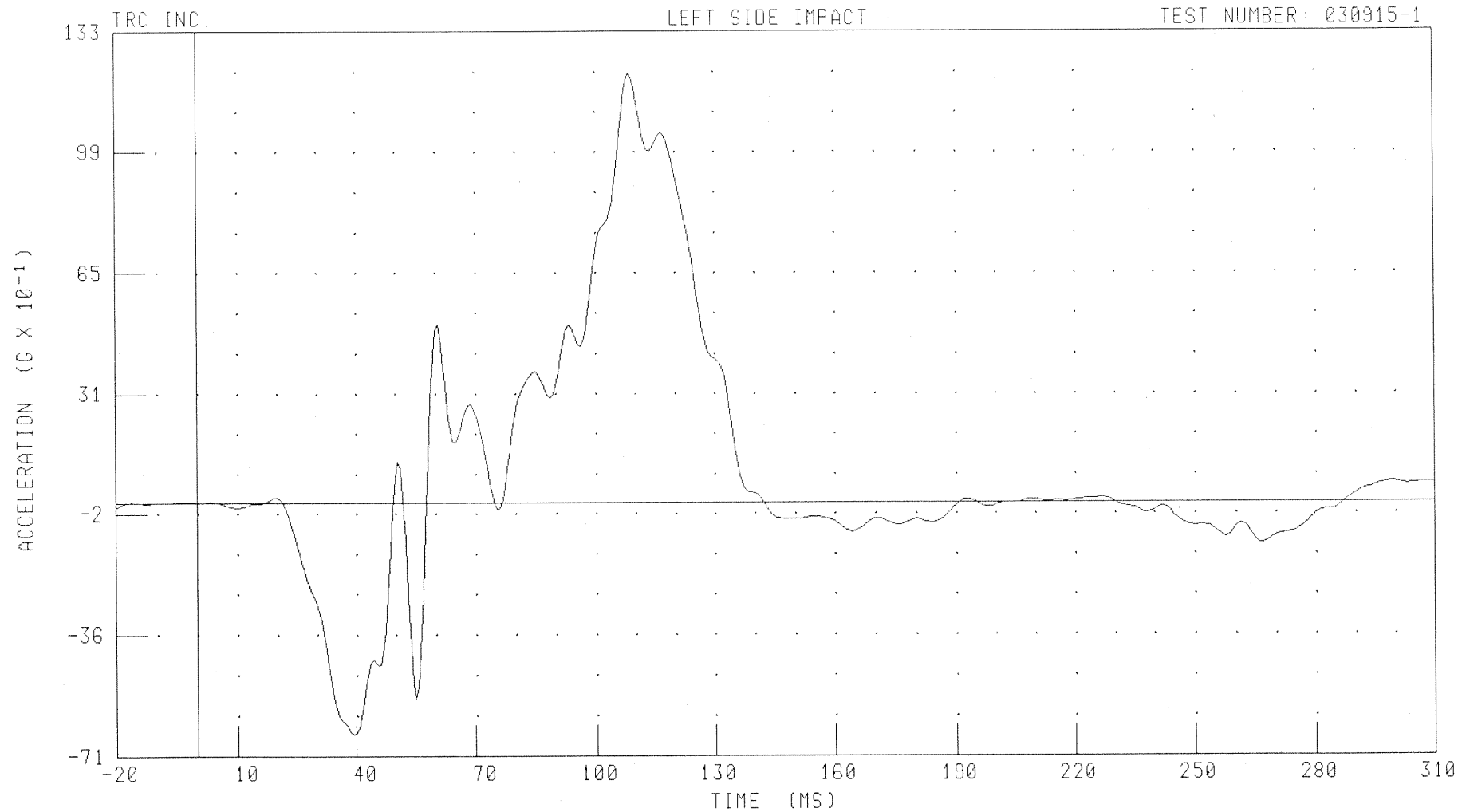
B-475

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXG1 FILTER: FIR 100

PEAK DATA: 12.13 G @ 108.75 MS; -6.50 G @ 39.38 MS

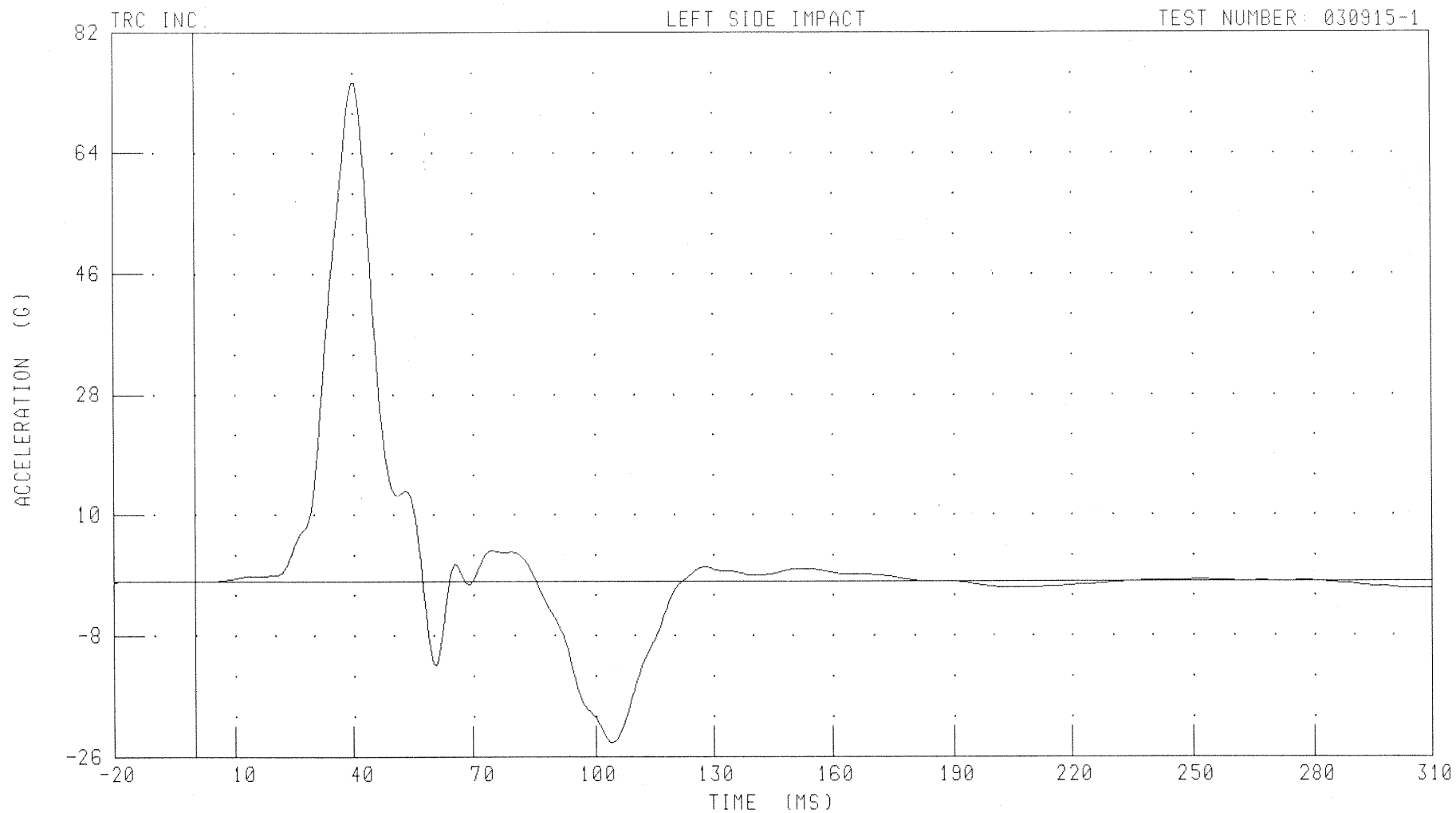
B-476

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYG1

FILTER: FIR 100

PEAK DATA: 74.62 G @ 40.00 MS; -23.95 G @ 104.38 MS

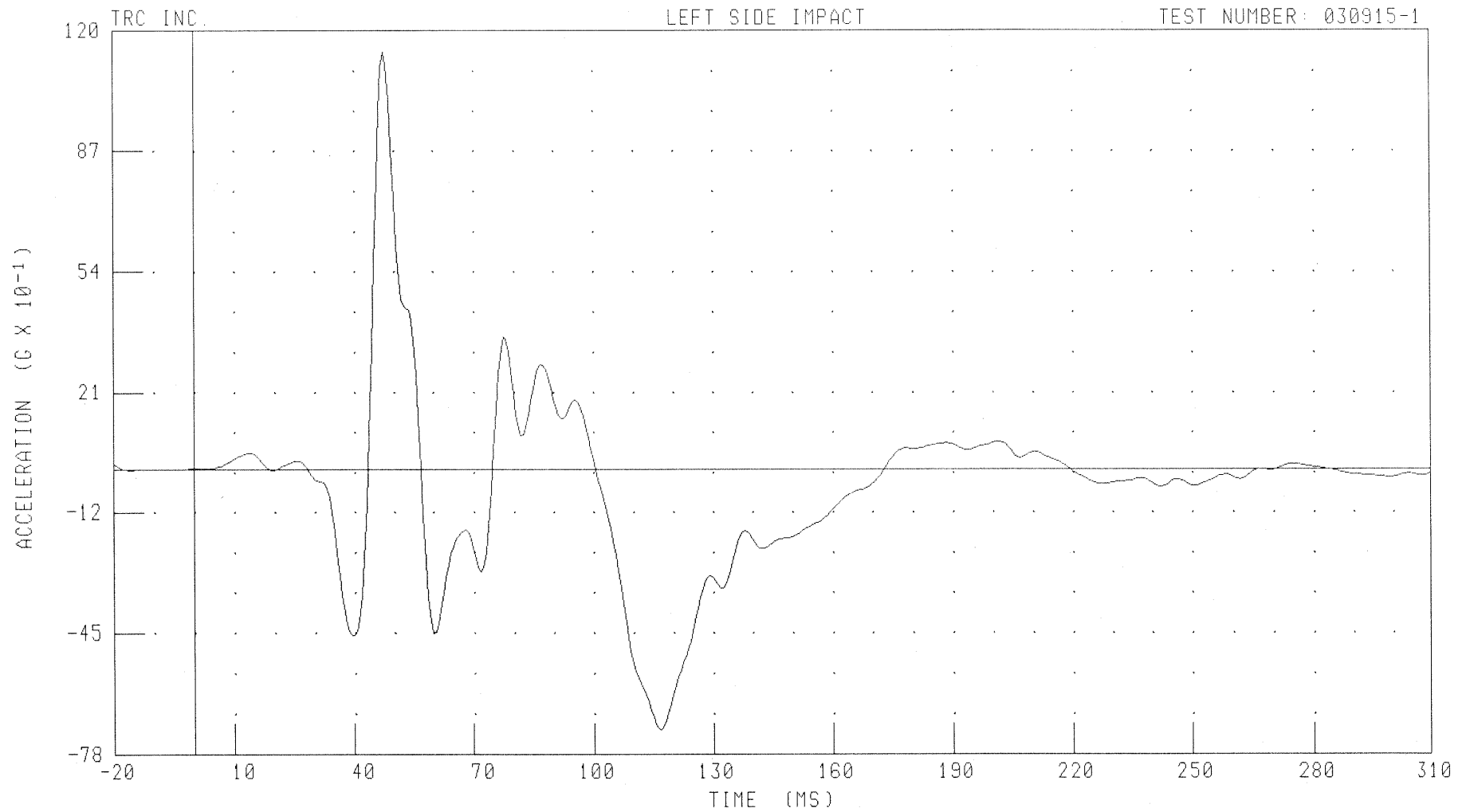
B-477

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
DRIVER PELVIS Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZG1

FILTER: FIR 100

PEAK DATA: 11.42 G @ 47.50 MS, -7.13 G @ 116.88 MS

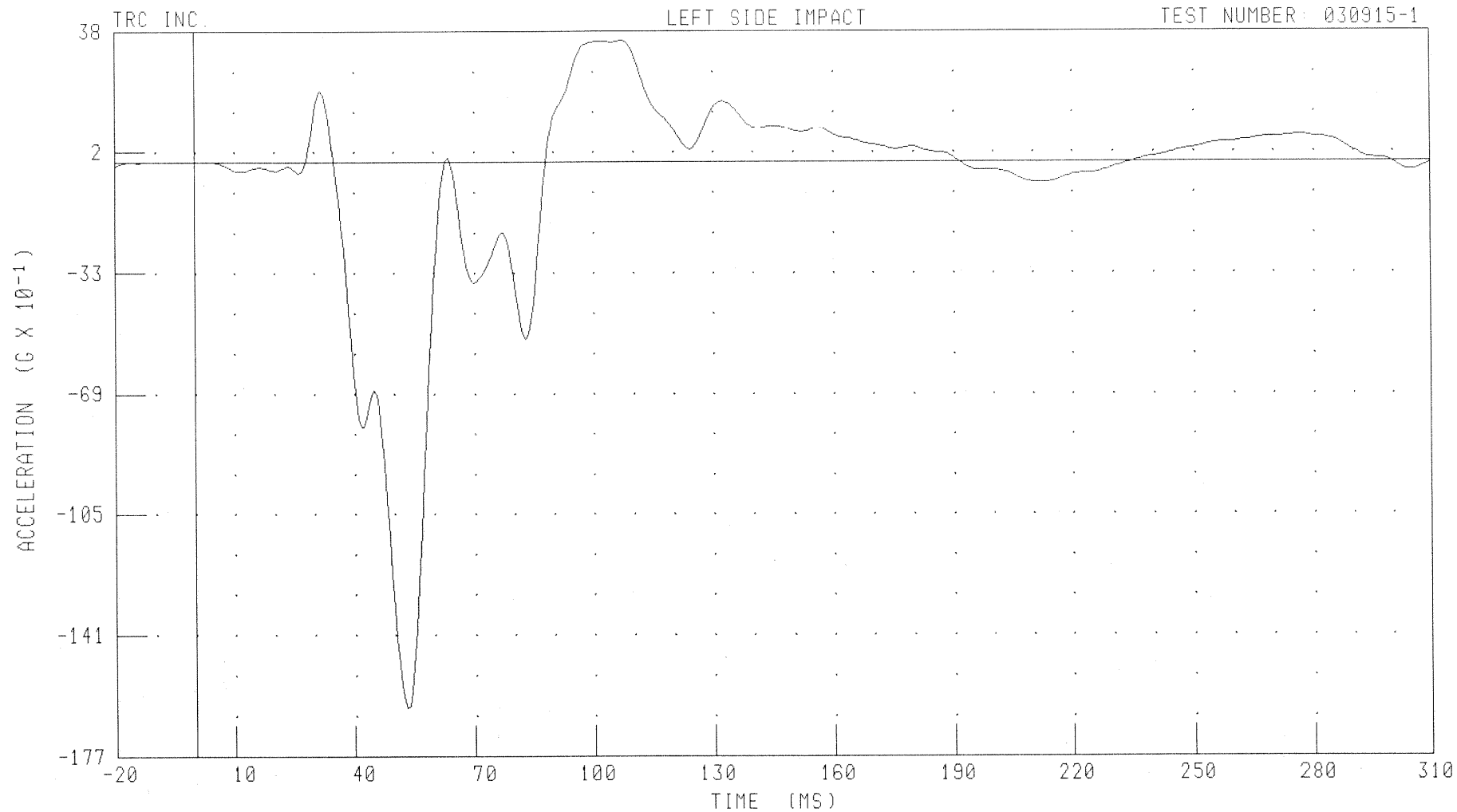
B-478

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01XG4 FILTER: FIR 100

PEAK DATA: 3.62 G @ 107.50 MS; -16.27 G @ 53.12 MS

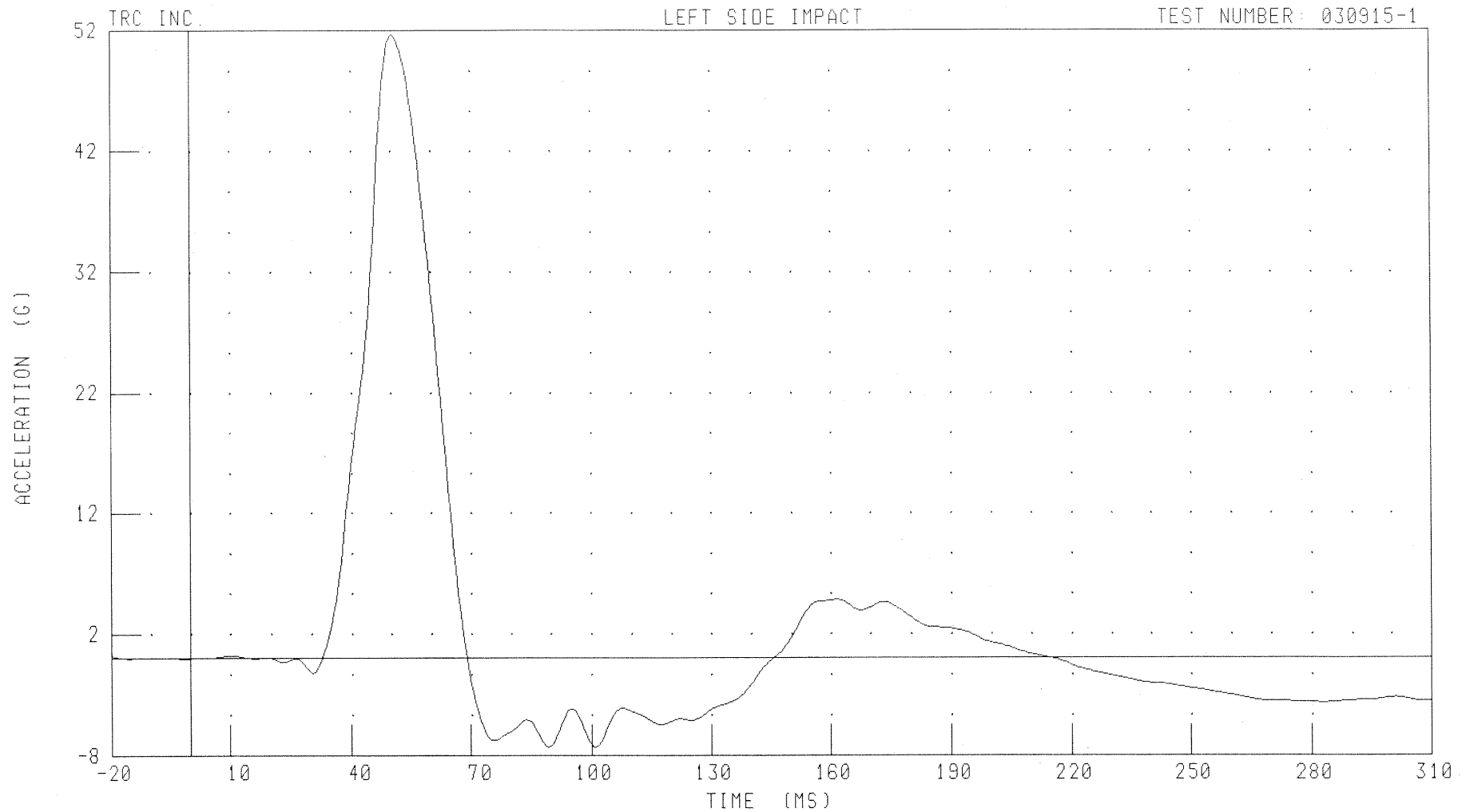
B-479

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01YG4 FILTER: FIR 100

PEAK DATA: 51.67 G @ 50.63 MS; -7.34 G @ 89.38 MS

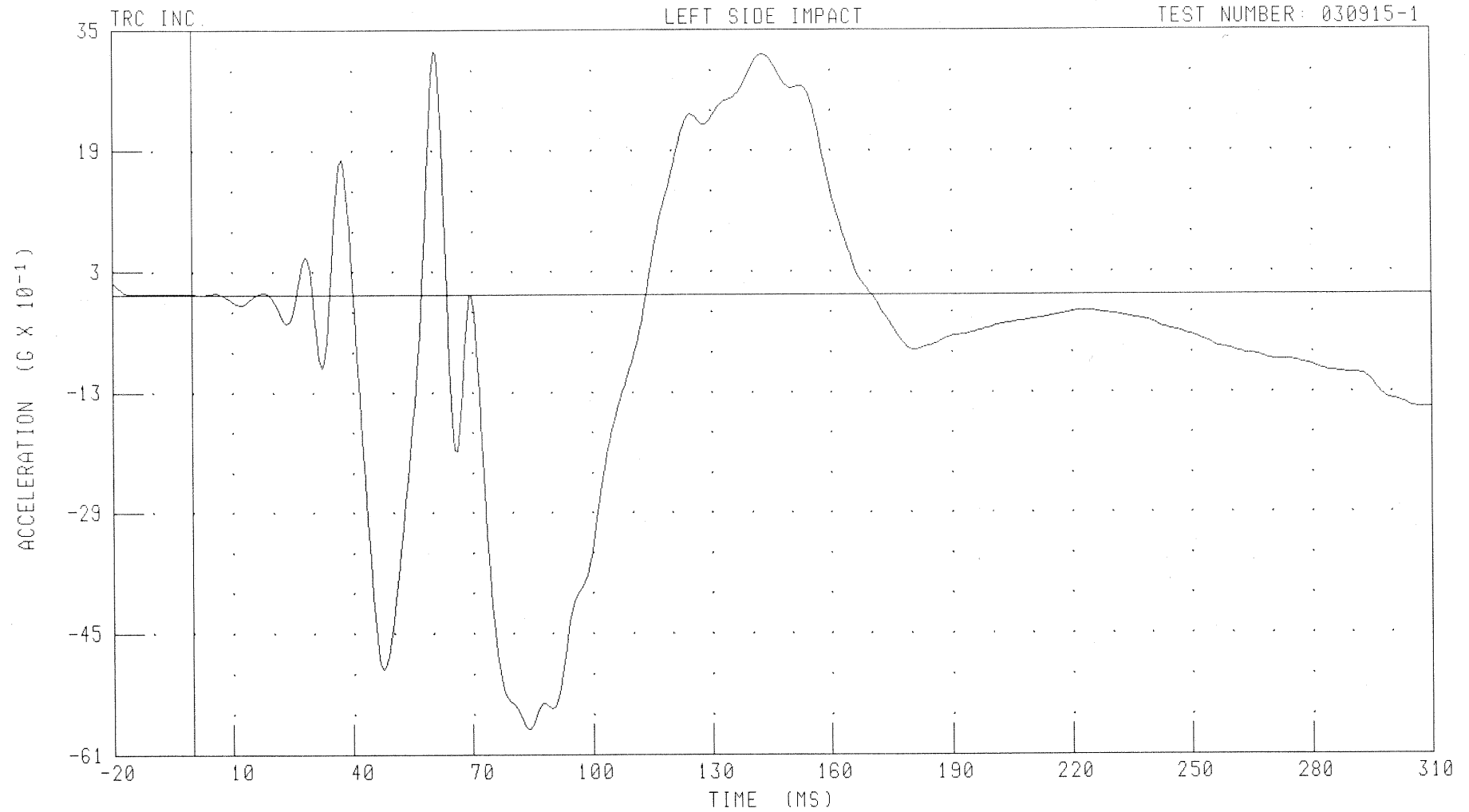
B-480

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER UPPER SPINE Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: T01ZG4

FILTER: FIR 100

PEAK DATA: 3.21 G @ 60.62 MS, -5.76 G @ 83.75 MS

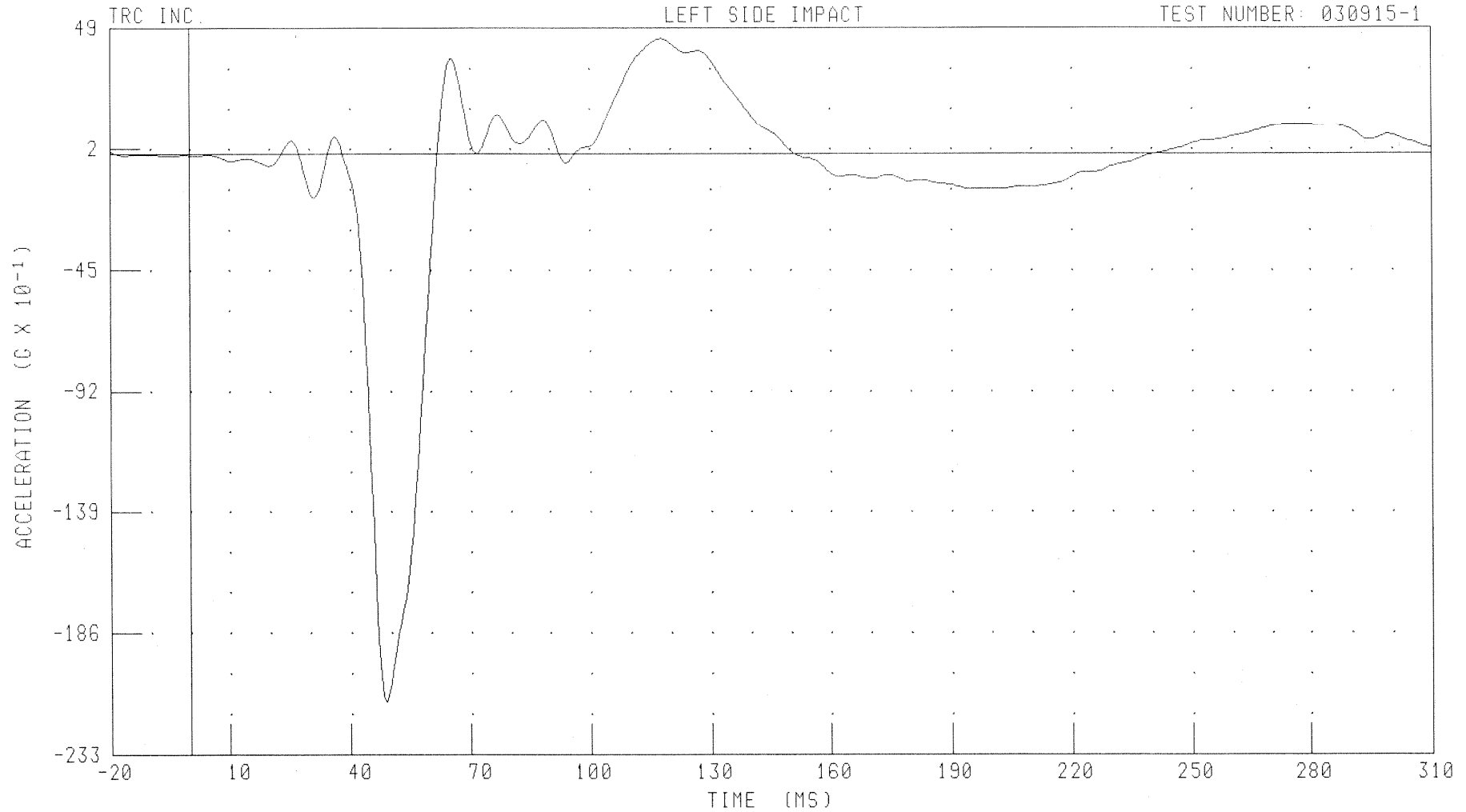
B-481

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1XG4 FILTER: FIR 100

PEAK DATA: 4.50 G @ 118.13 MS; -21.26 G @ 48.75 MS

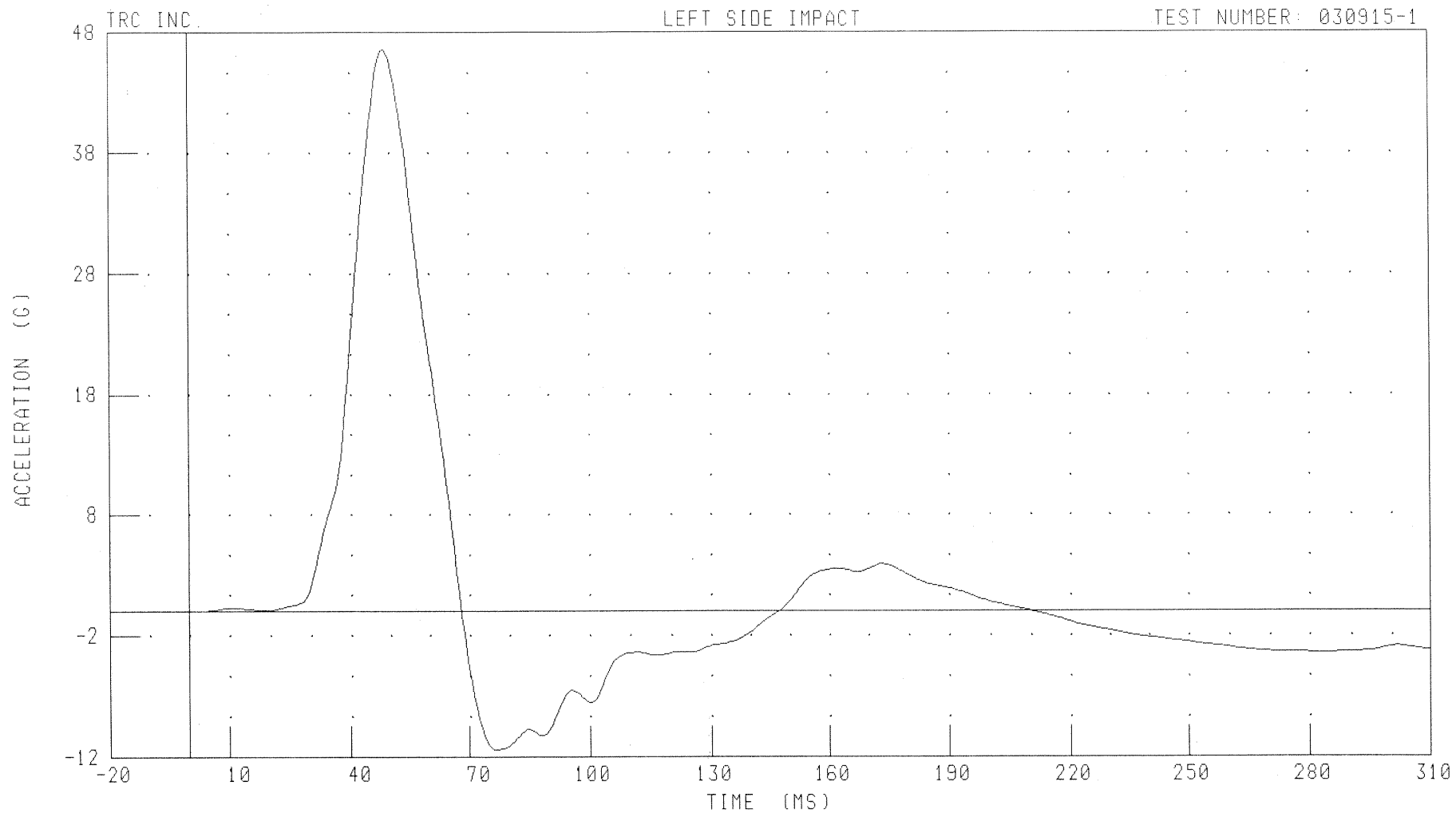
B-482

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1YG4 FILTER: FIR 100

PEAK DATA: 46.61 G @ 48.75 MS; -11.44 G @ 76.88 MS

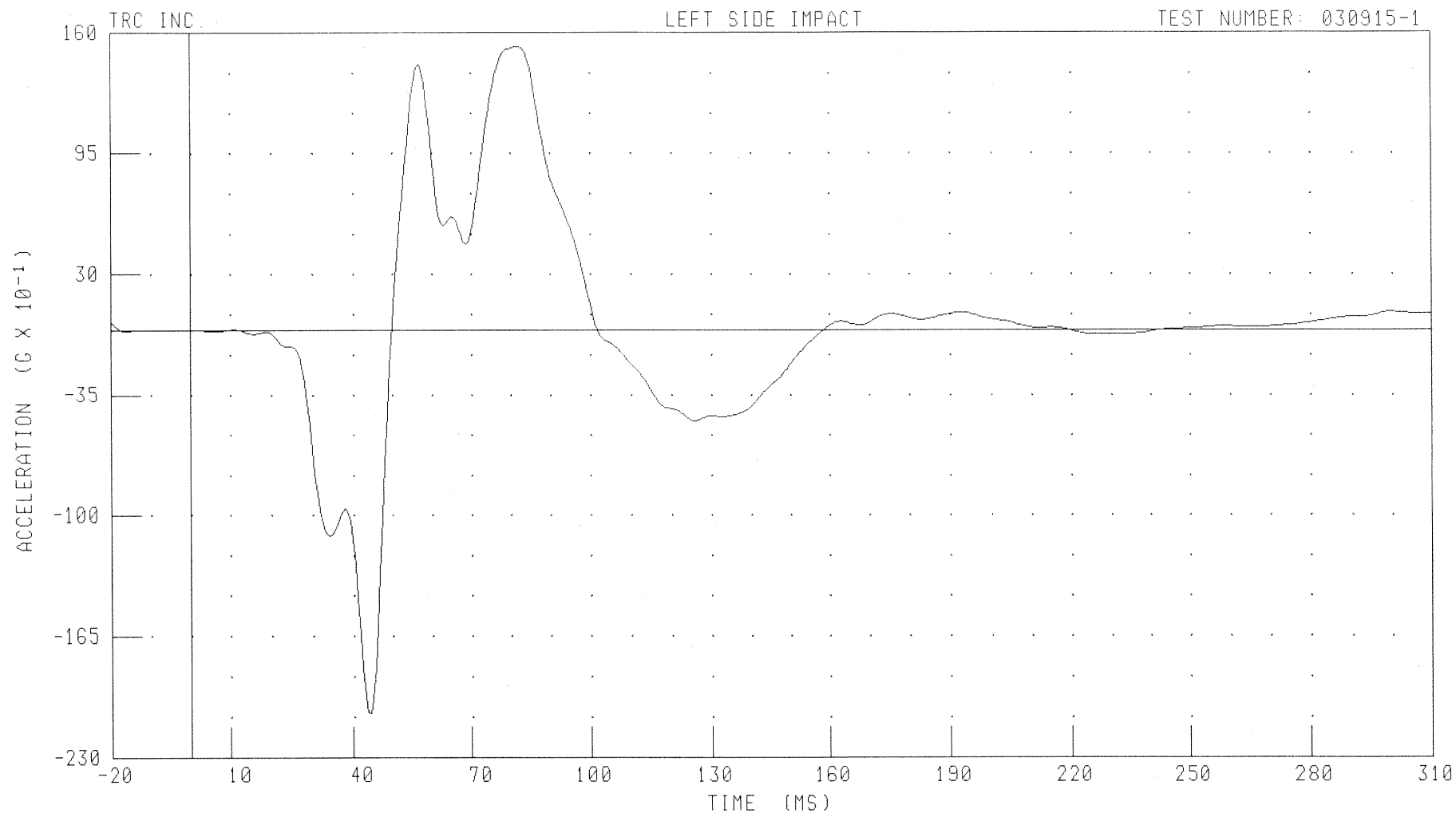
B-483

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR1ZG4

FILTER: FIR 100

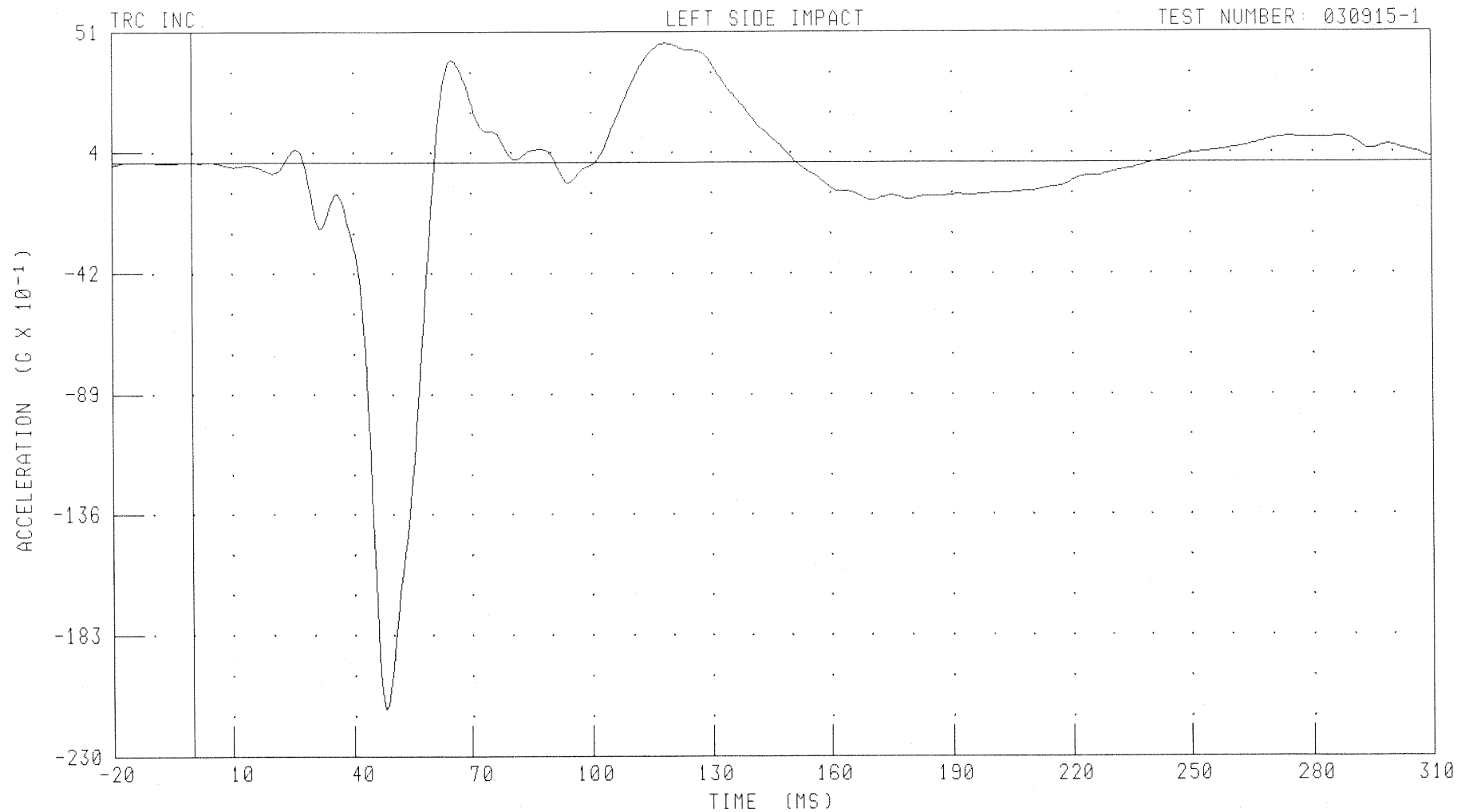
PEAK DATA: 15.26 G @ 81.88 MS; -20.67 G @ 44.38 MS

B-484

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: SR2XG4 FILTER: FIR 100

PEAK DATA: 4.66 G @ 118.75 MS; -21.29 G @ 48.13 MS

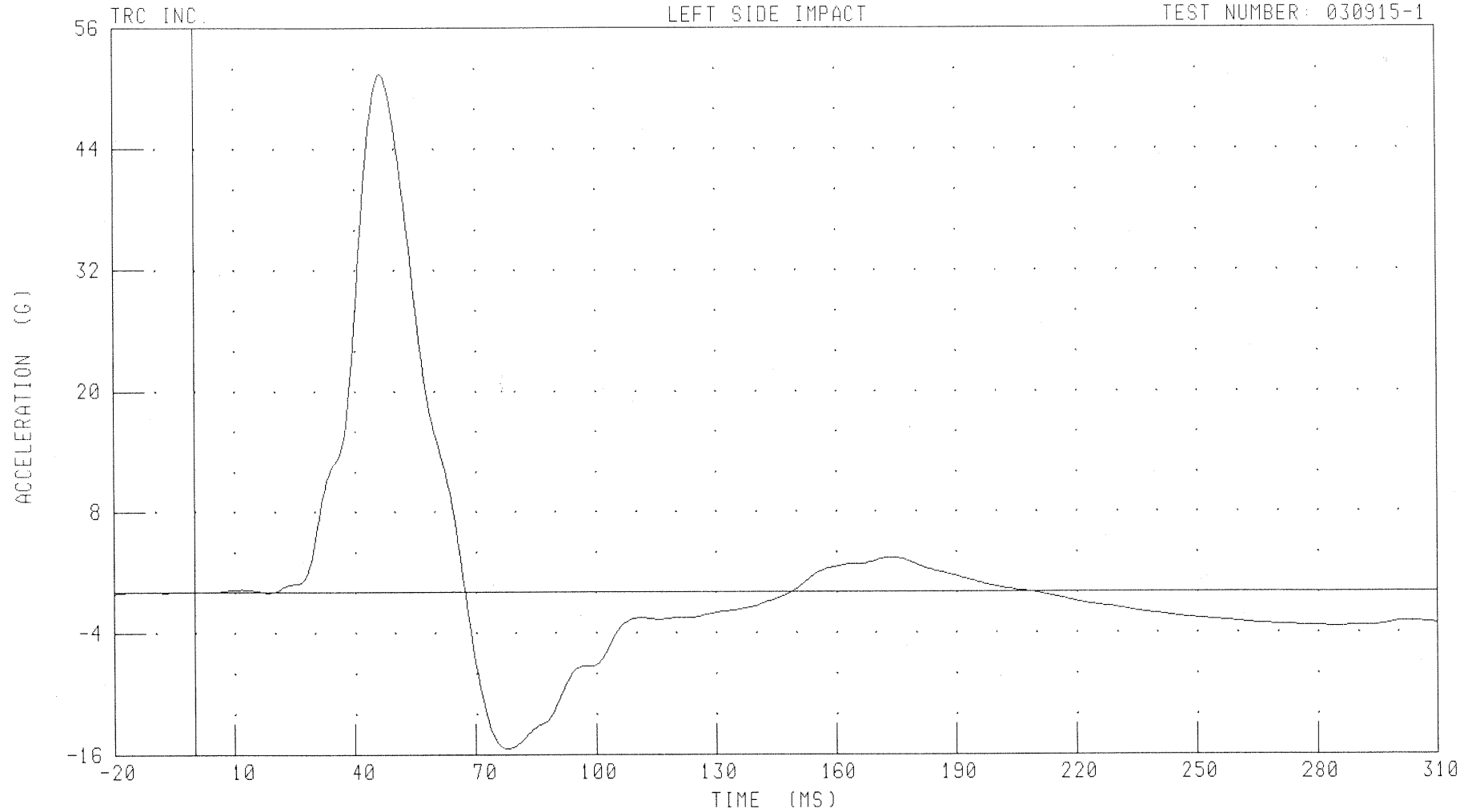
B-485

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2YG4 FILTER: FIR 100

PEAK DATA: 51.46 G @ 46.88 MS; -15.43 G @ 77.50 MS

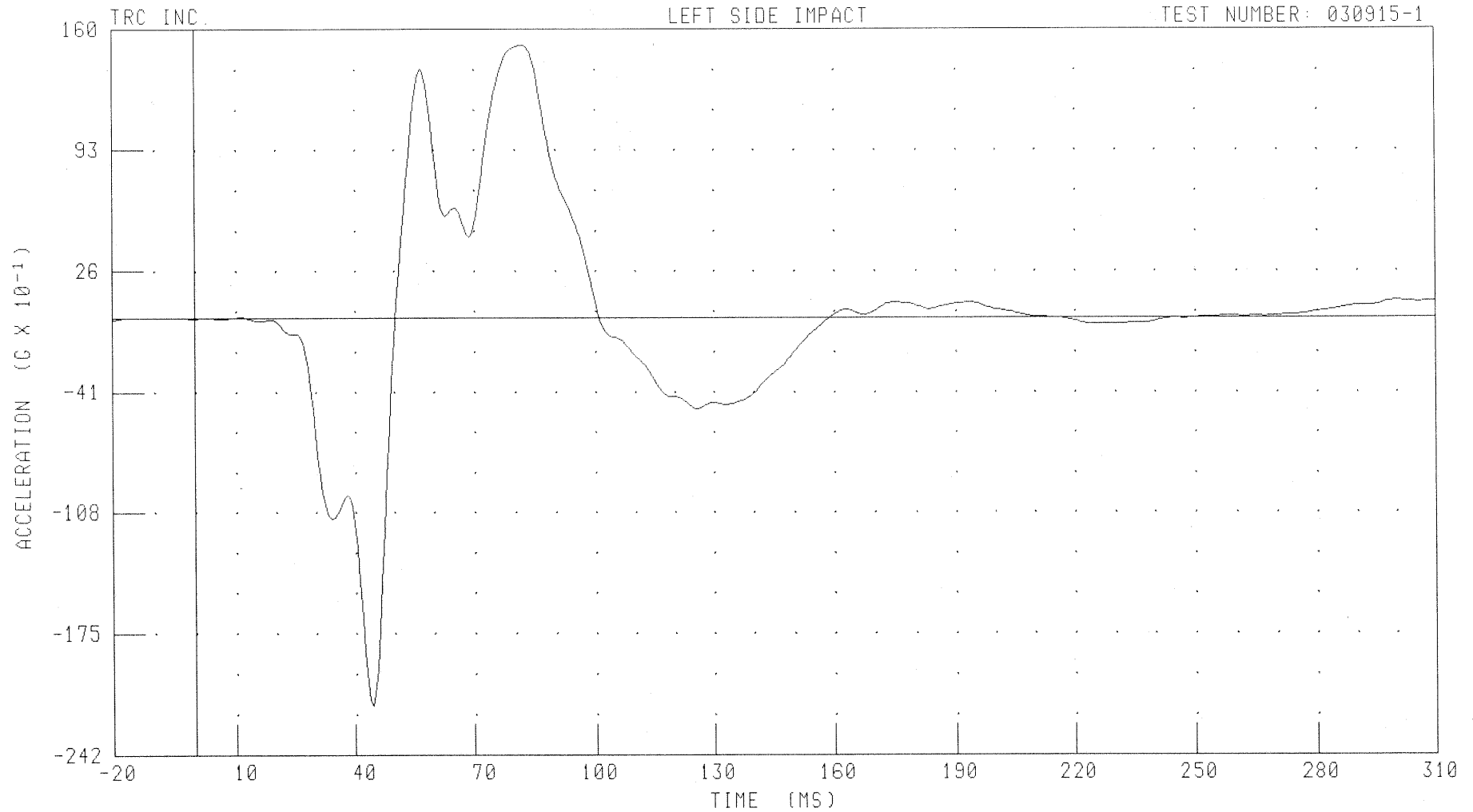
B-486

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR2ZG4 FILTER: FIR 100

PEAK DATA: 15.12 G @ 81.88 MS; -21.47 G @ 44.38 MS

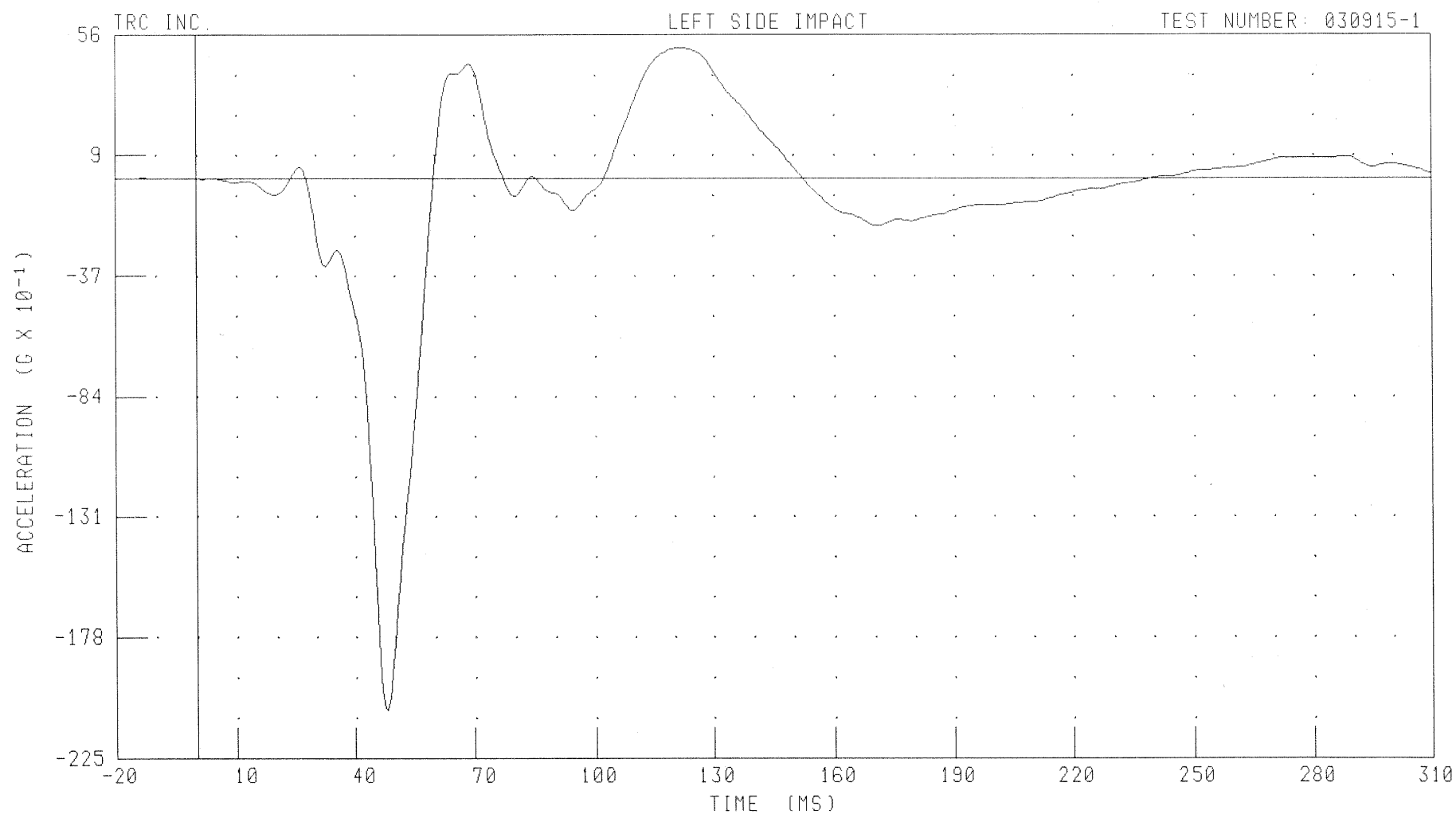
B-487

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER SPINE RIB 3 X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: SR3XG4 FILTER: FIR 100

PEAK DATA: 5.10 G @ 121.87 MS; -20.74 G @ 48.13 MS

B-488

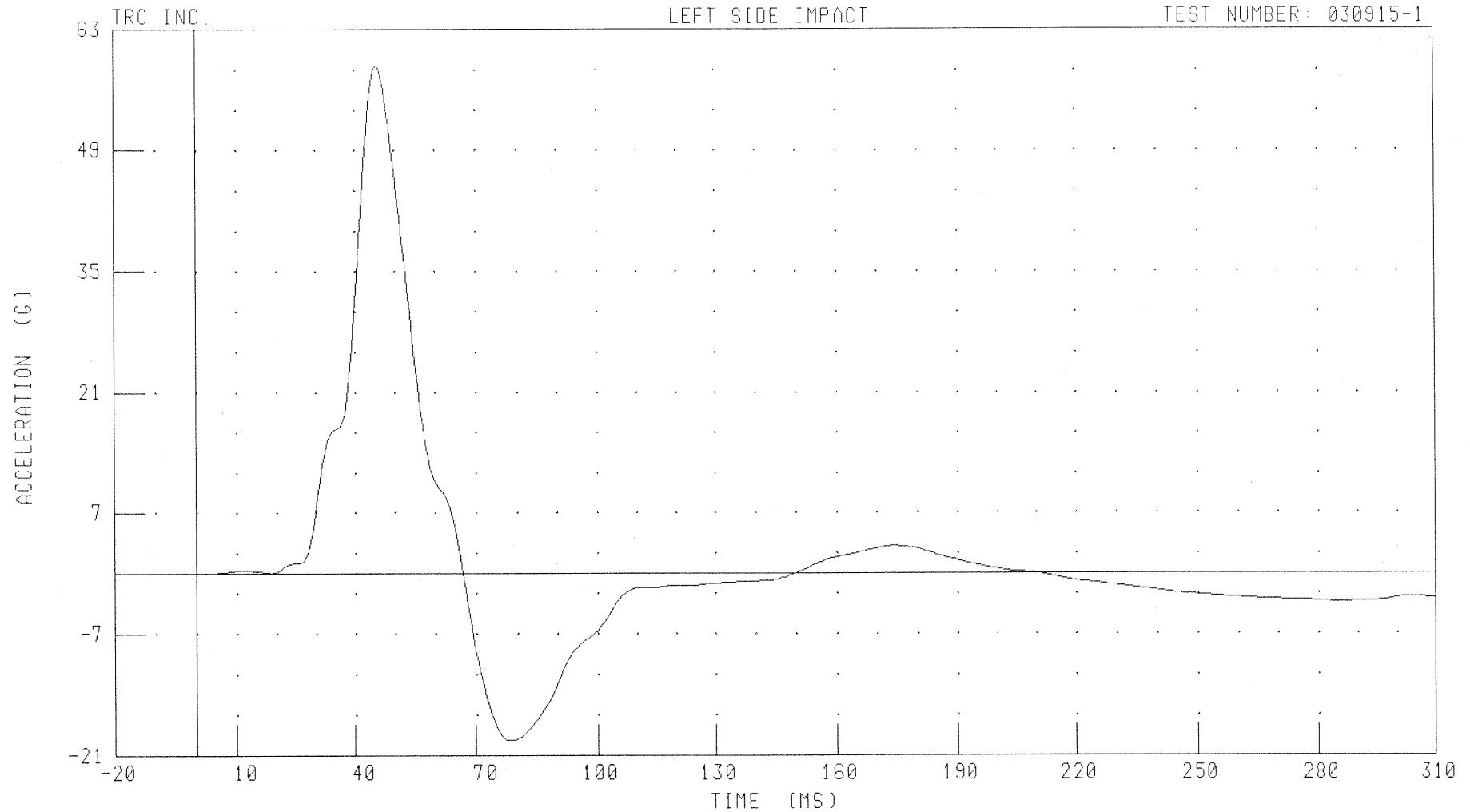
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER SPINE RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3YG4 FILTER: FIR 100

PEAK DATA: 58.85 G @ 45.62 MS; -19.29 G @ 78.75 MS

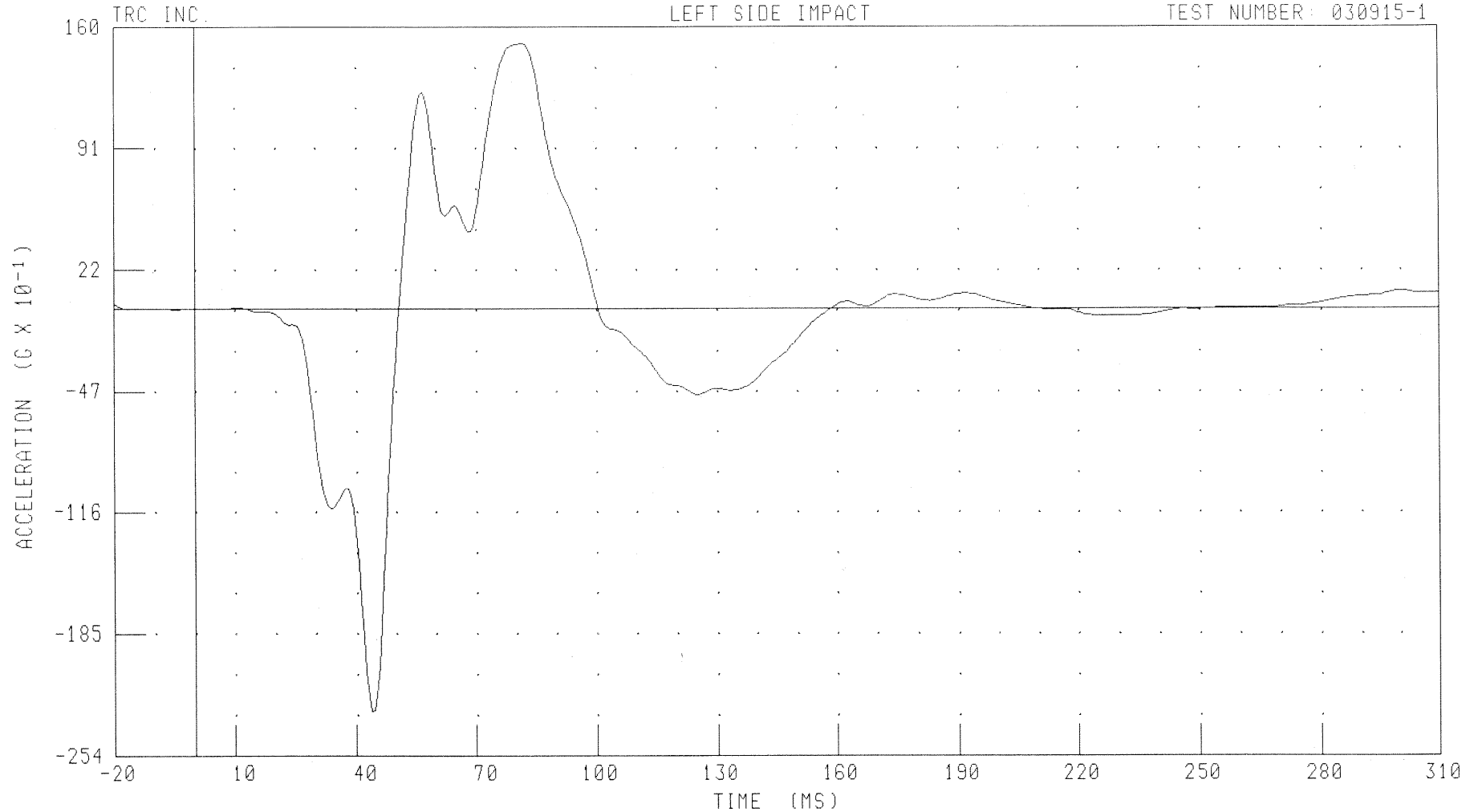
B-489

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR3ZG4 FILTER: FIR 100

PEAK DATA: 15.08 G @ 81.88 MS; -22.89 G @ 43.75 MS

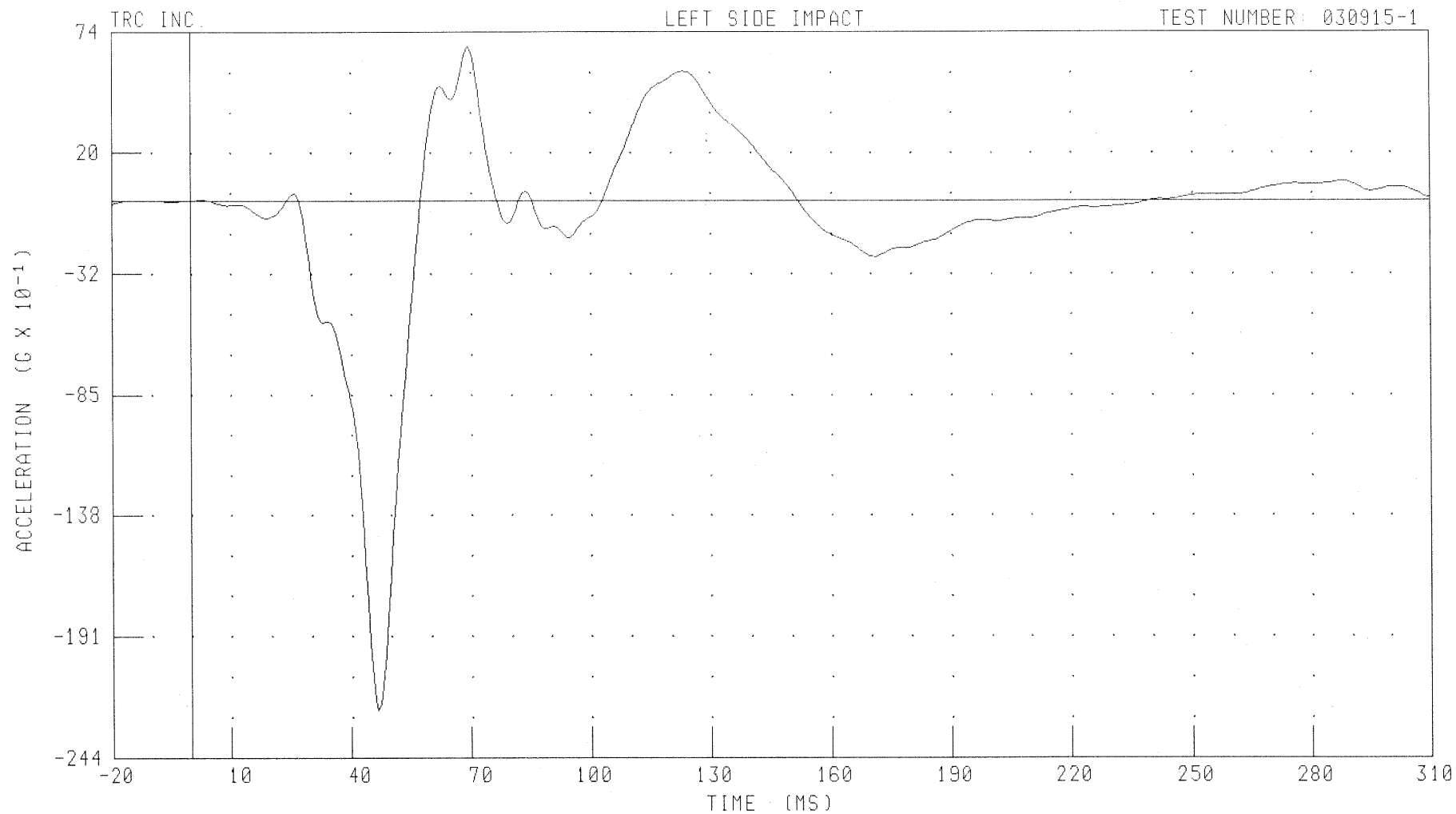
B-490

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4XC4 FILTER: FIR 100

PEAK DATA: 6.77 G @ 69.38 MS; -22.32 G @ 46.88 MS

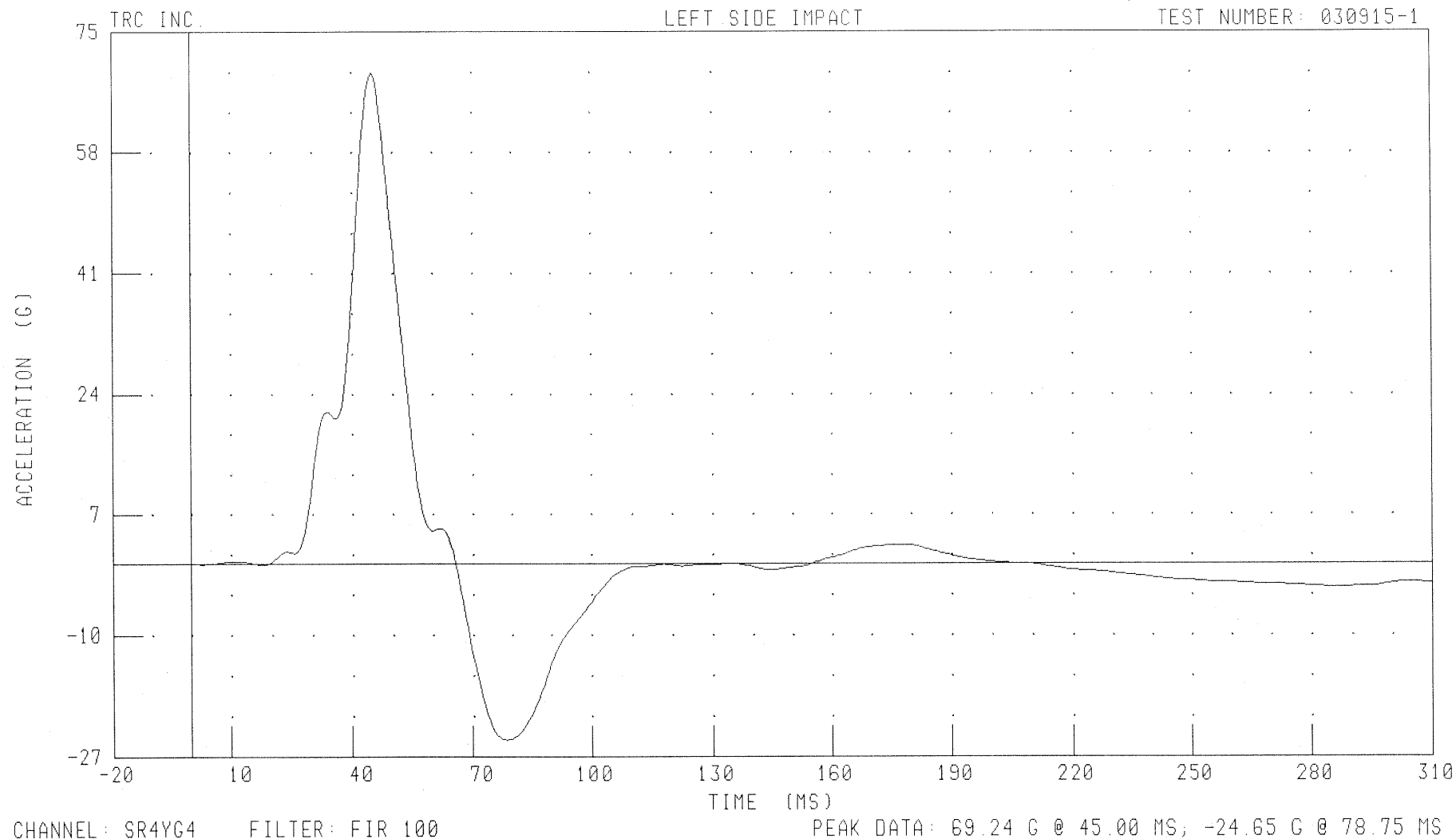
B-491

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



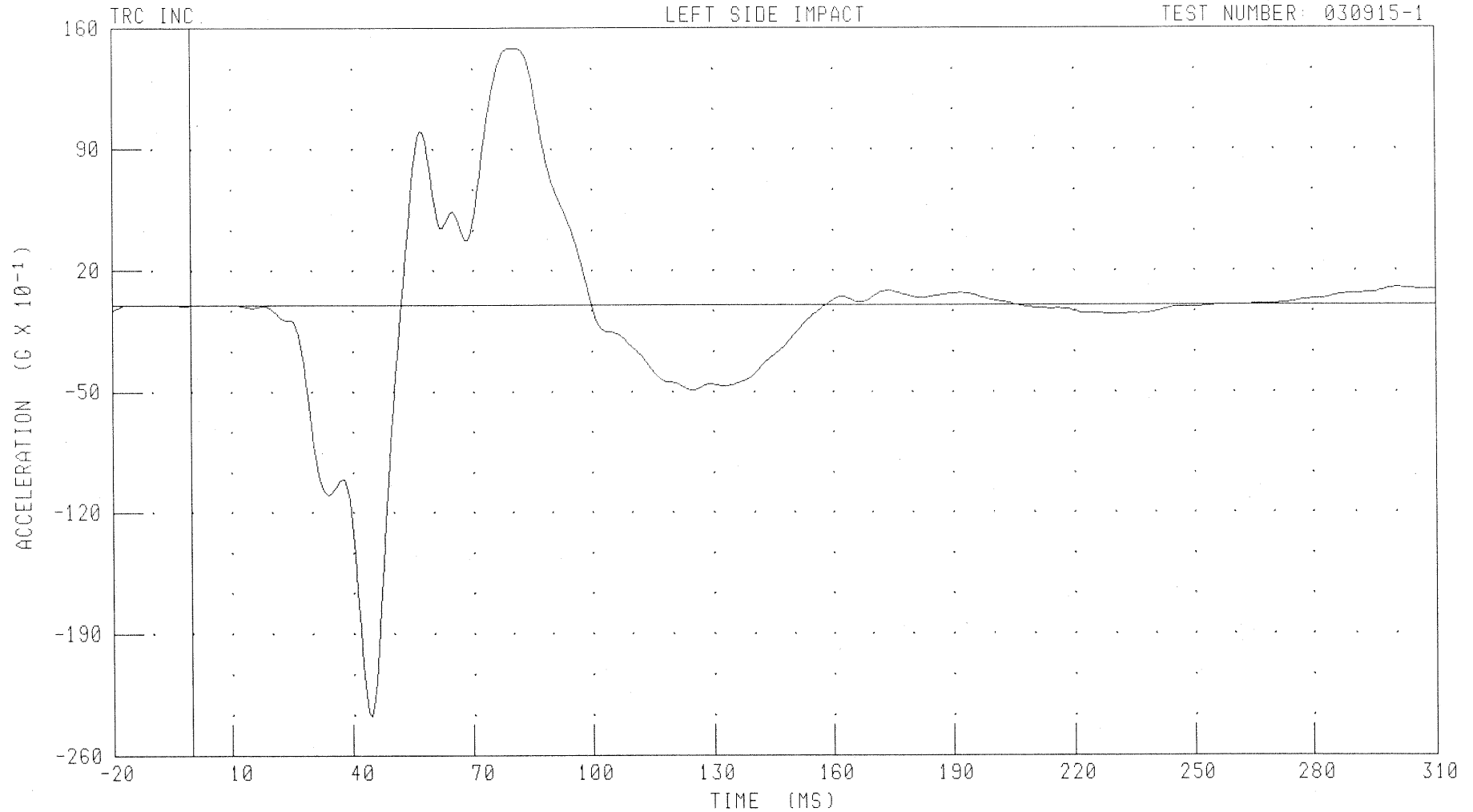
B-492

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR4ZG4 FILTER: FIR 100

PEAK DATA: 14.85 G @ 81.25 MS; -23.73 G @ 44.38 MS

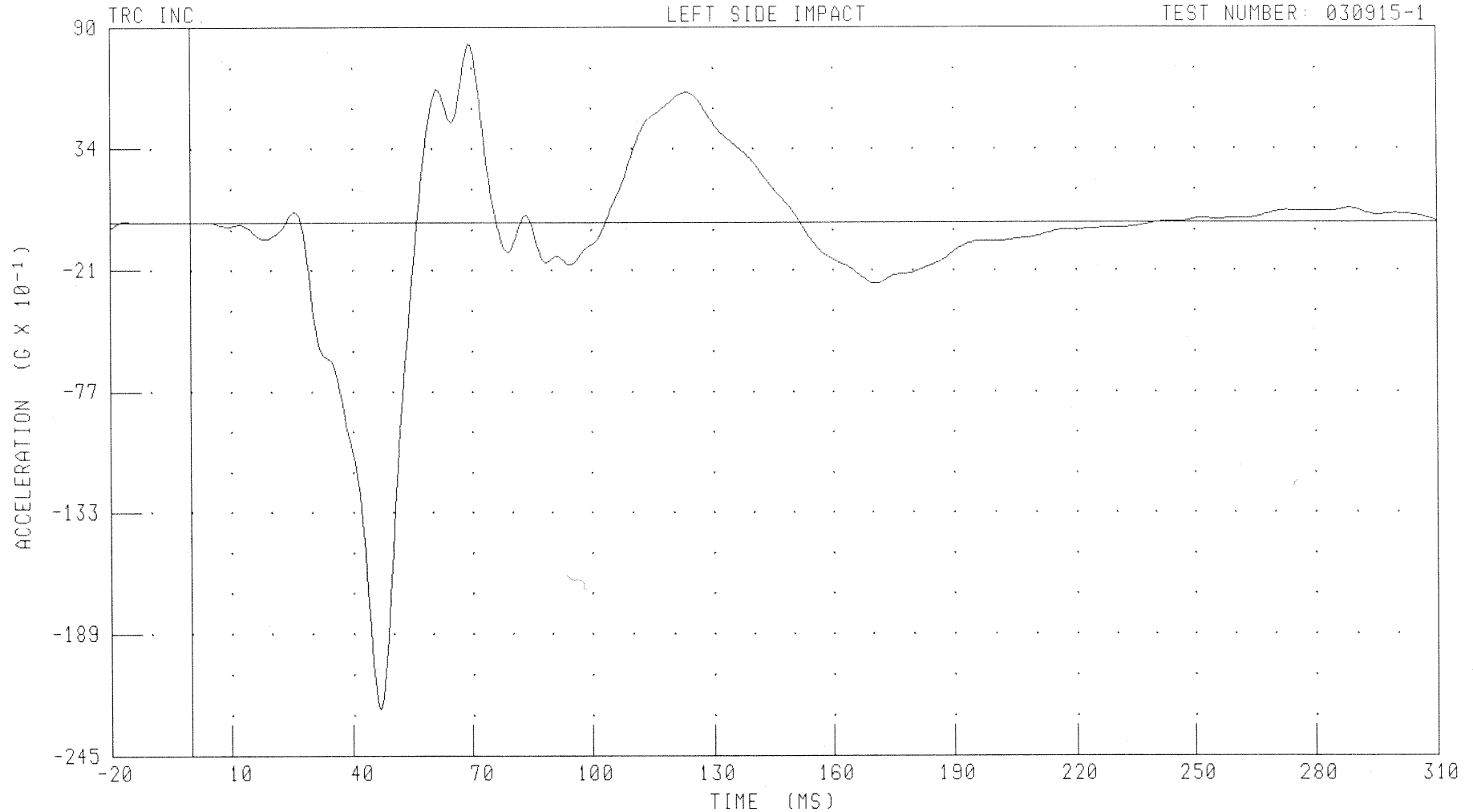
B-493

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5XG4 FILTER: FIR 100

PEAK DATA: 8.27 G @ 69.38 MS; -22.47 G @ 46.88 MS

B-494

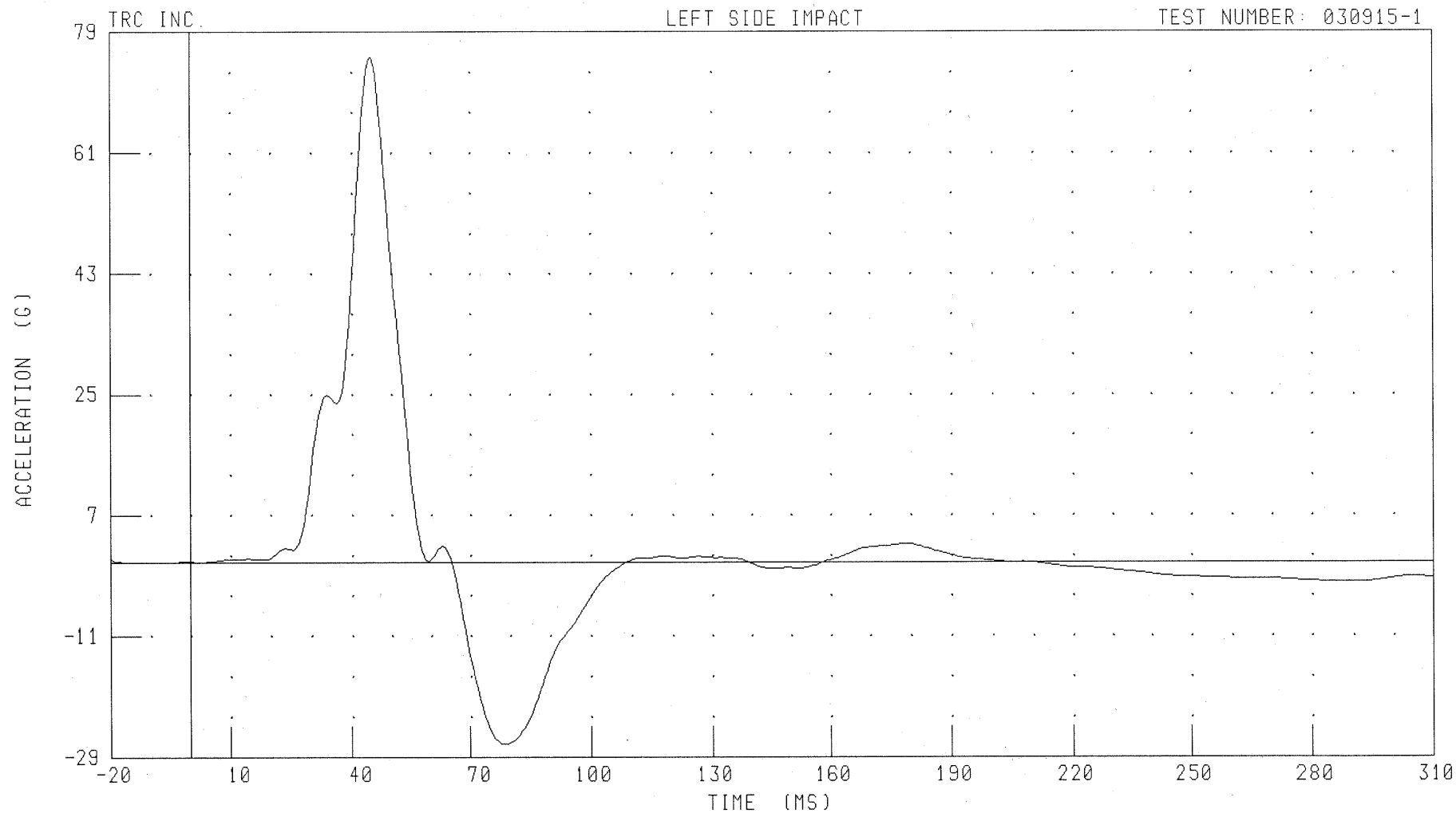
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER SPINE RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5YG4 FILTER: FIR 100

PEAK DATA: 75.20 G @ 45.00 MS; -27.01 G @ 78.75 MS

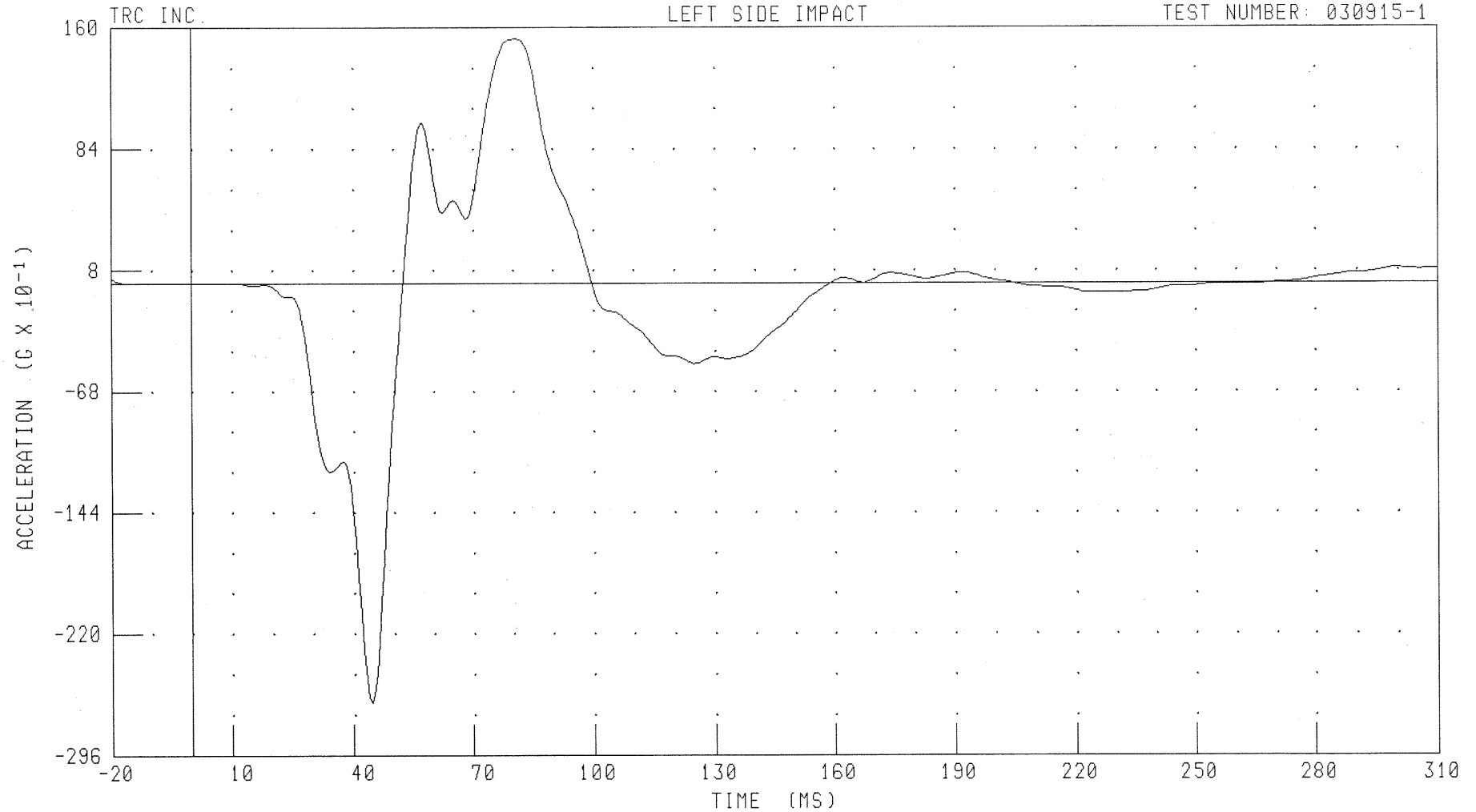
B-495

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER SPINE RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: SR5ZG4 FILTER: FIR 100

PEAK DATA: 15.30 G @ 81.25 MS; -26.34 G @ 44.38 MS

B-496

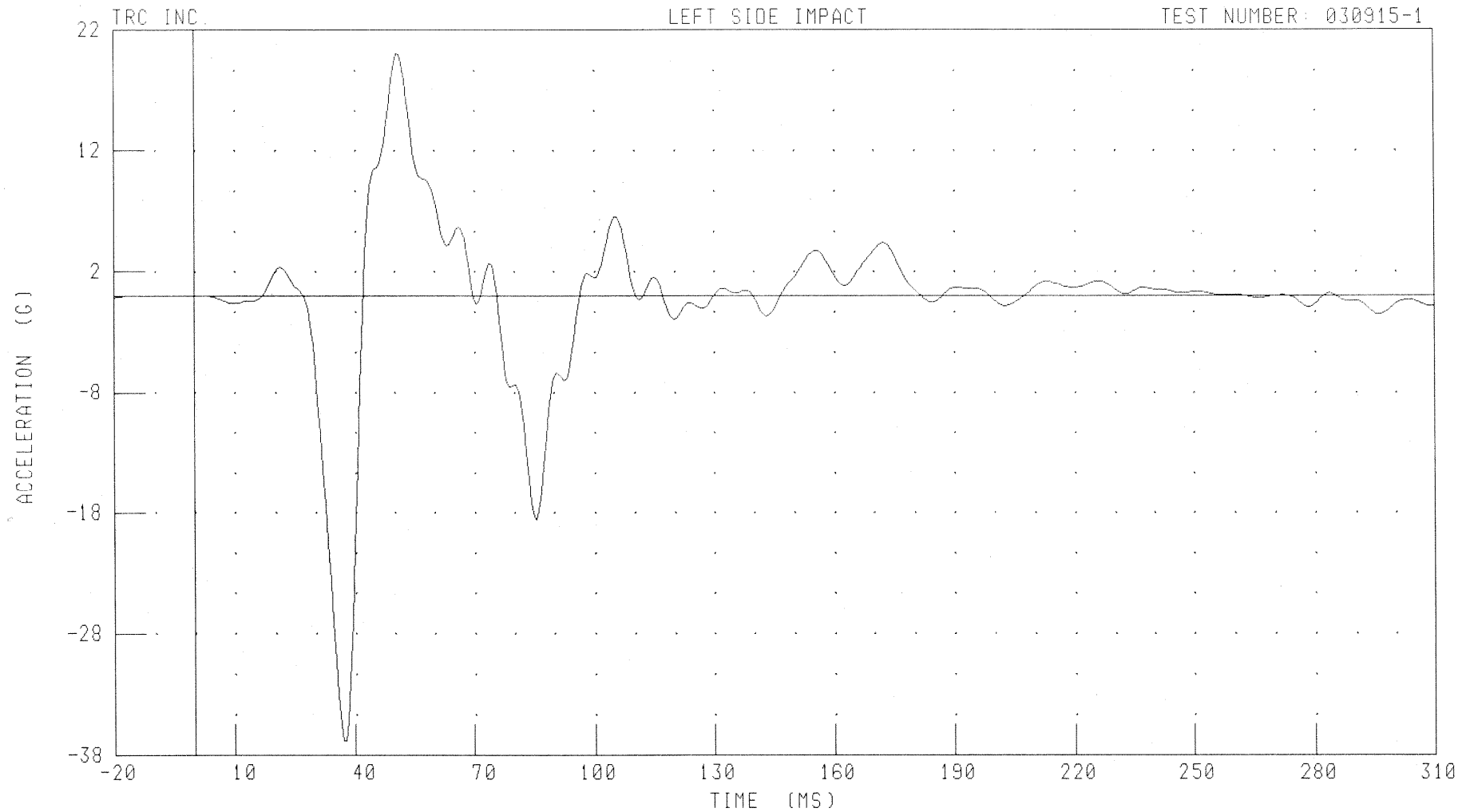
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 1 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1XG4 FILTER: FIR 100

PEAK DATA: 20.03 G @ 50.63 MS; -36.86 G @ 37.50 MS

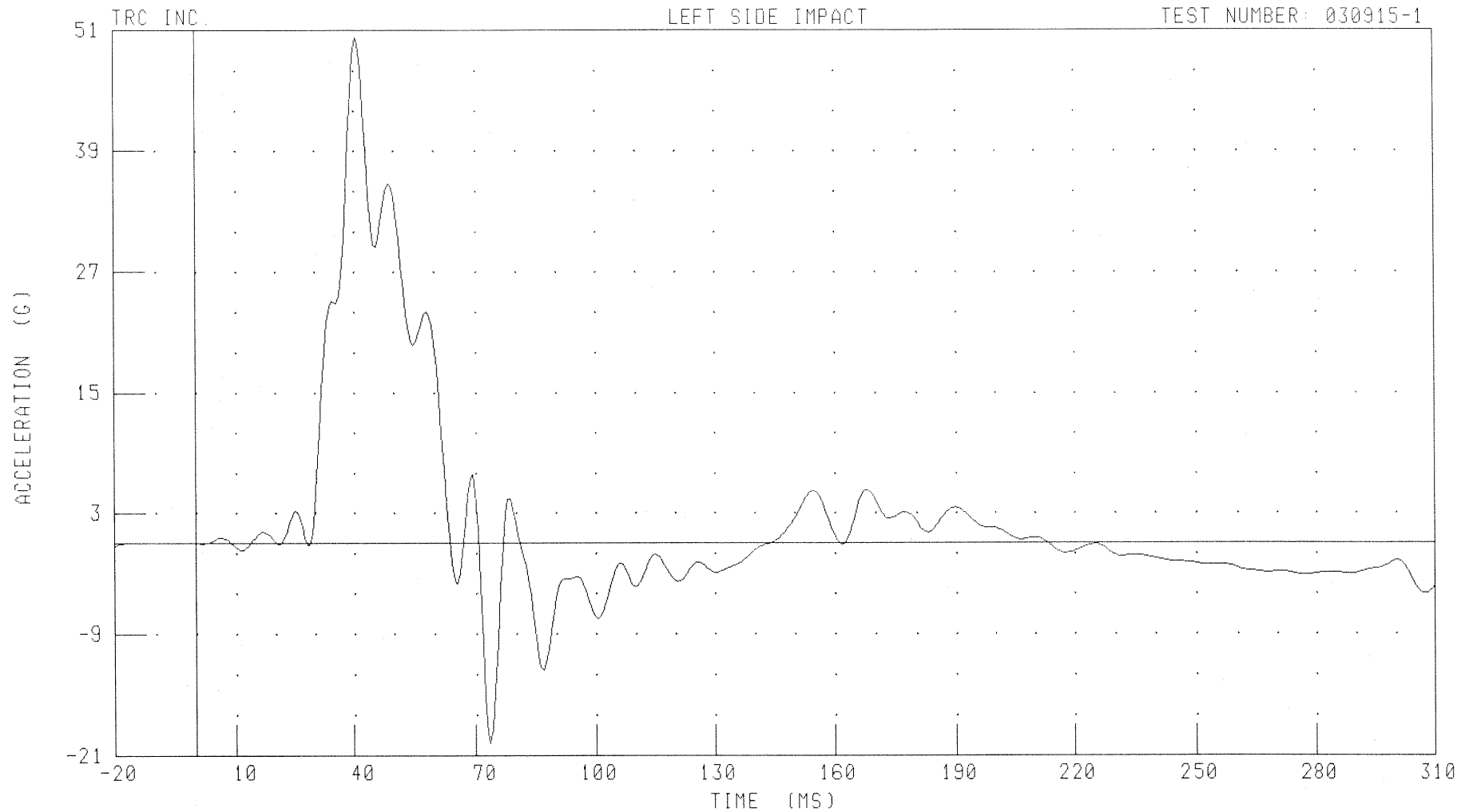
B-497

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1YG4 FILTER: FIR 100

PEAK DATA: 50.27 G @ 40.63 MS; -19.82 G @ 73.75 MS

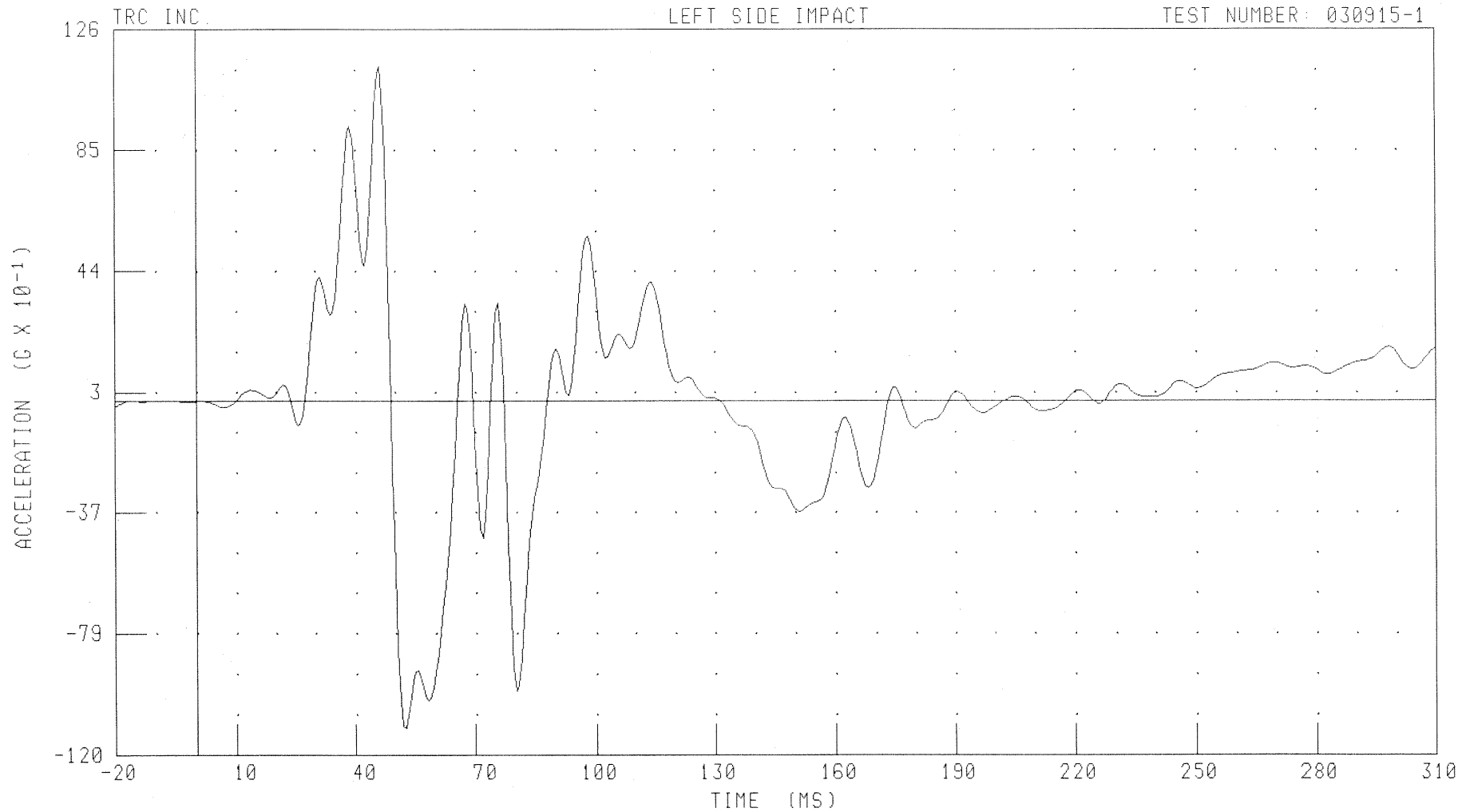
B-498

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 1 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB1ZG4 FILTER: FIR 100

PEAK DATA: 11.37 G @ 46.25 MS; -11.09 G @ 52.50 MS

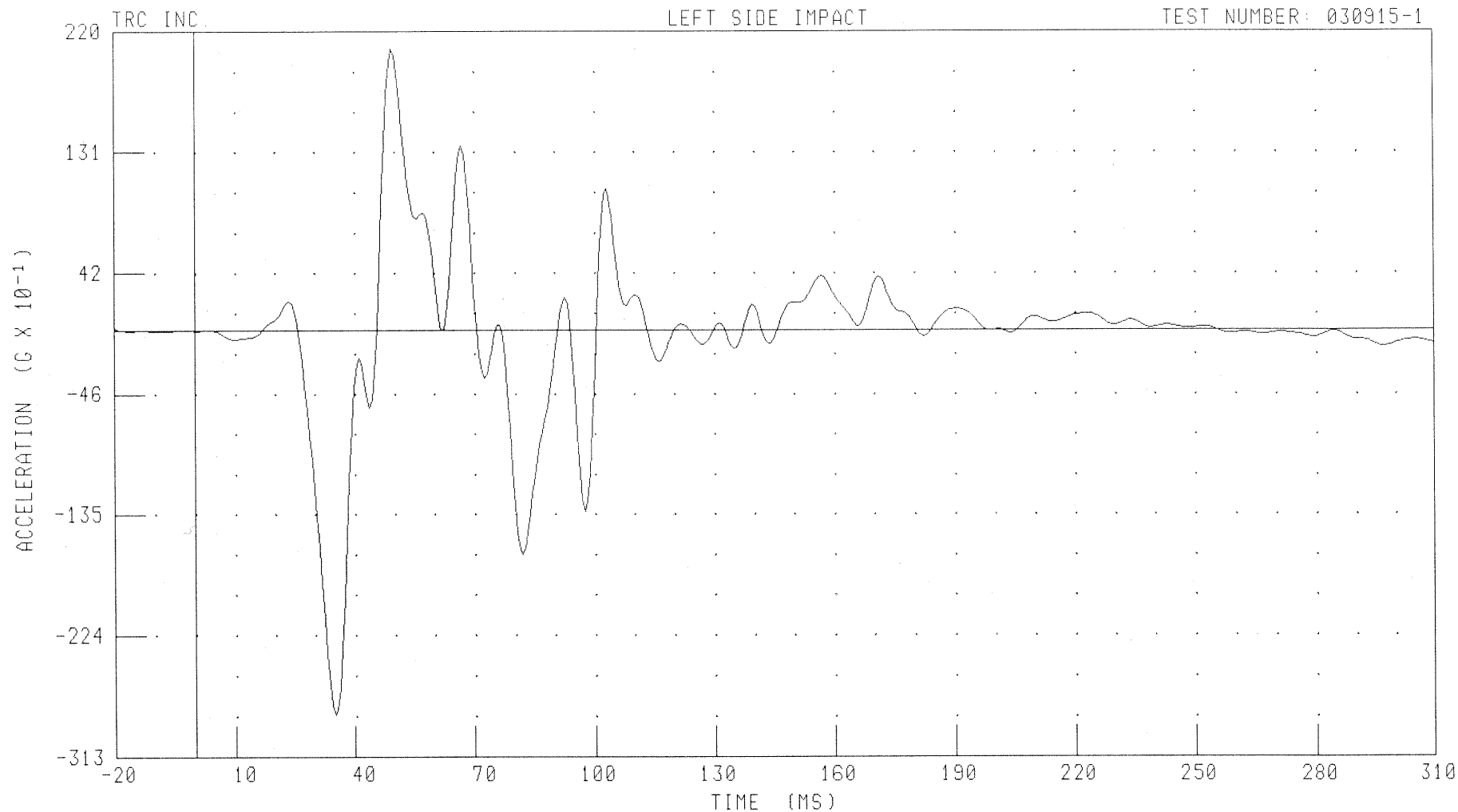
B-499

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 2 X-AXIS ACCELERATION

TEST NUMBER: 030915-1



CHANNEL: RB2XG4

FILTER: FIR 100

PEAK DATA: 20.70 G @ 49.37 MS; -28.35 G @ 35.00 MS

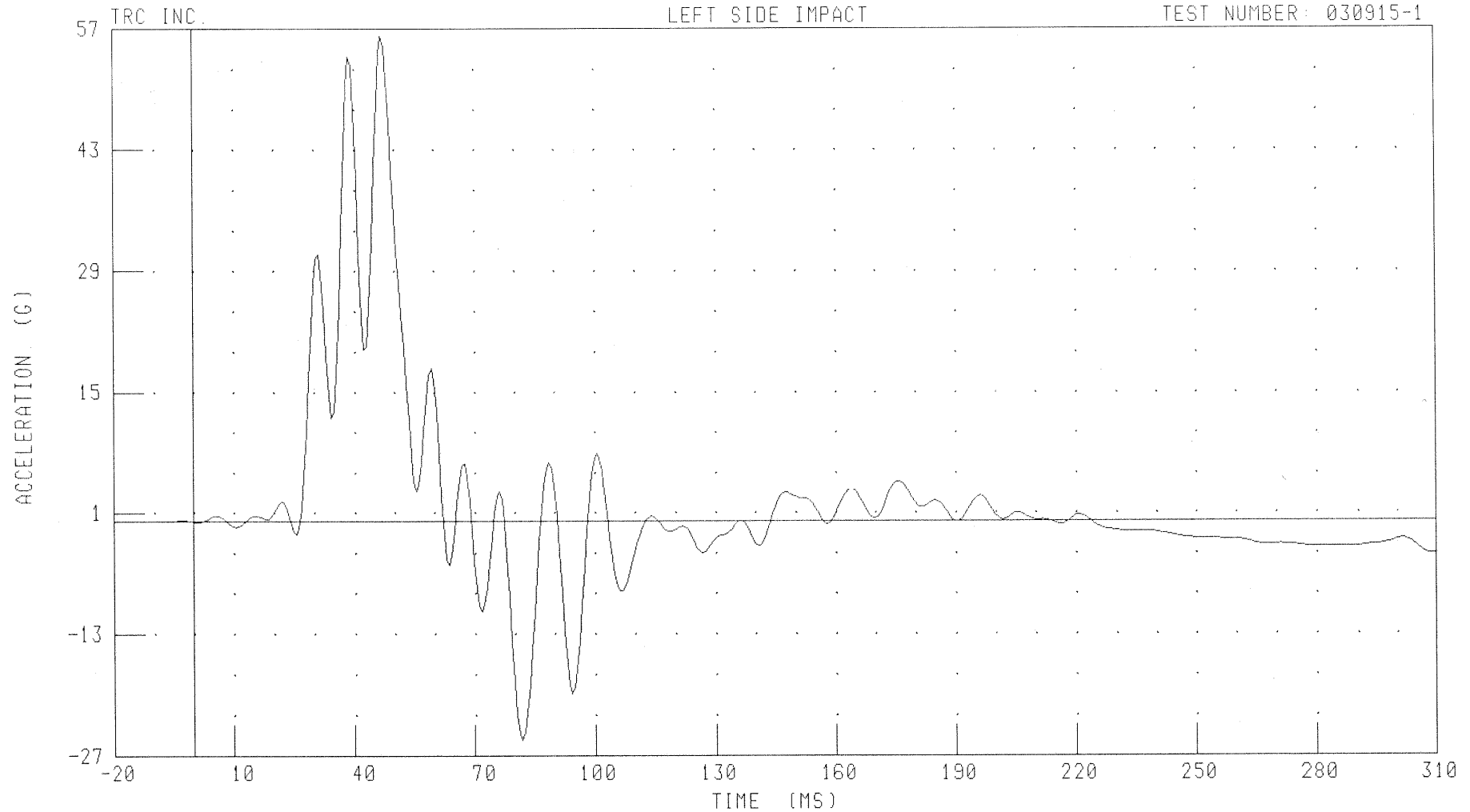
B-500

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 2 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2YG4 FILTER: FIR 100

PEAK DATA: 56.20 G @ 46.88 MS; -25.18 G @ 81.88 MS

B-501

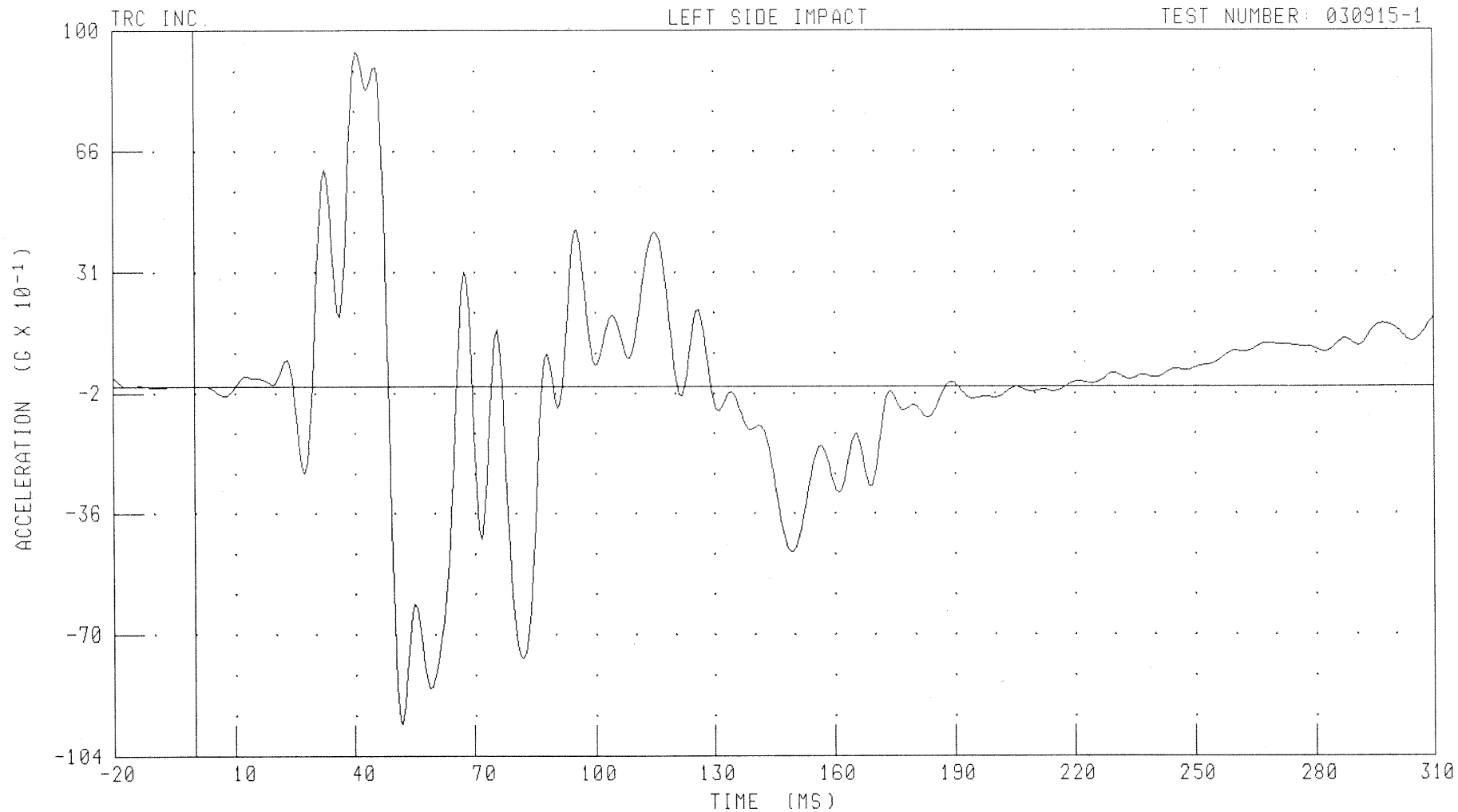
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER THORAX RIB 2 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB2ZG4 FILTER: FIR 100

PEAK DATA: 9.40 G @ 40.63 MS; -9.51 G @ 51.88 MS

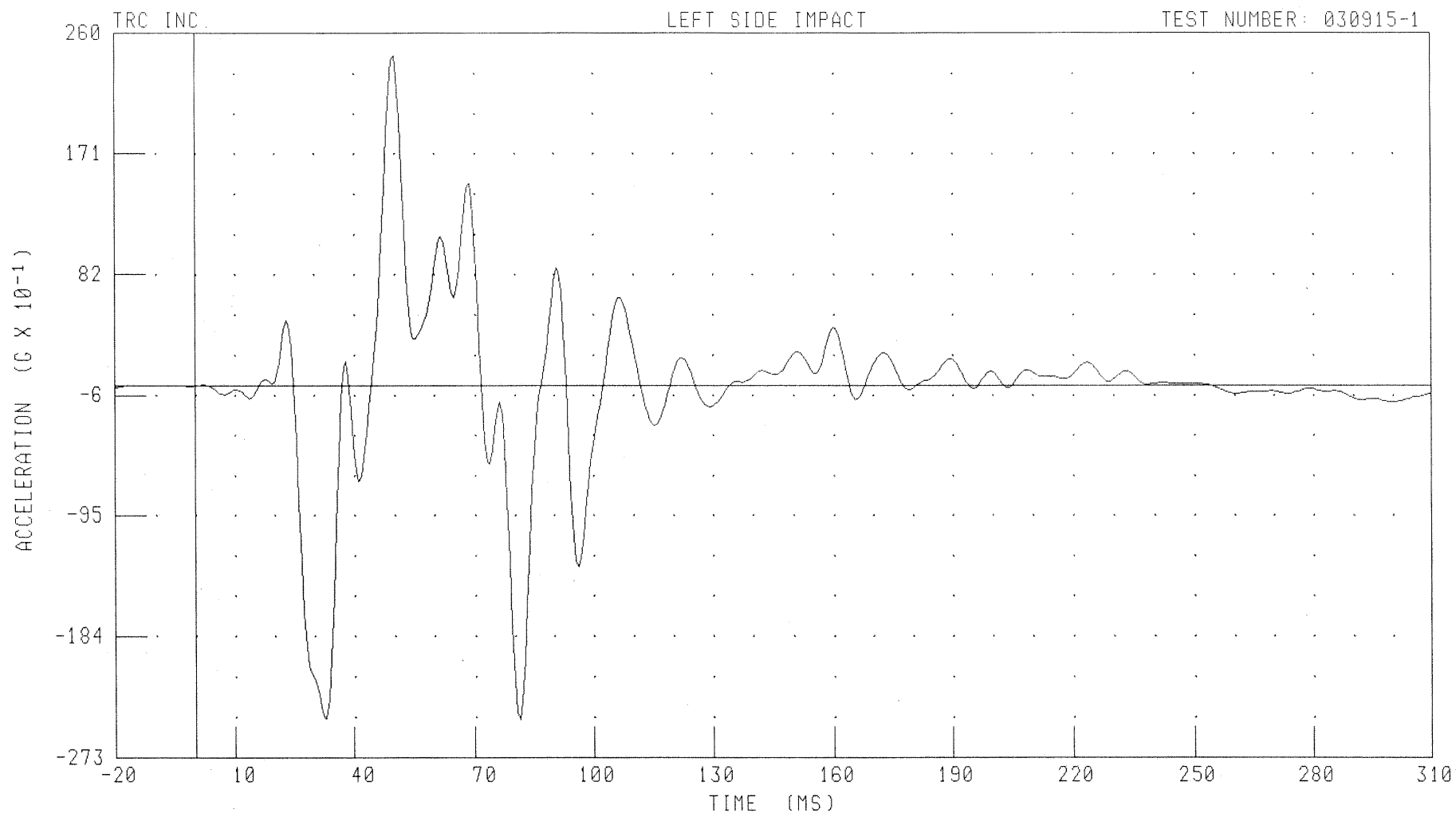
B-502

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3XG4

FILTER: FIR 100

PEAK DATA: 24.36 G @ 50.00 MS; -24.65 G @ 81.25 MS

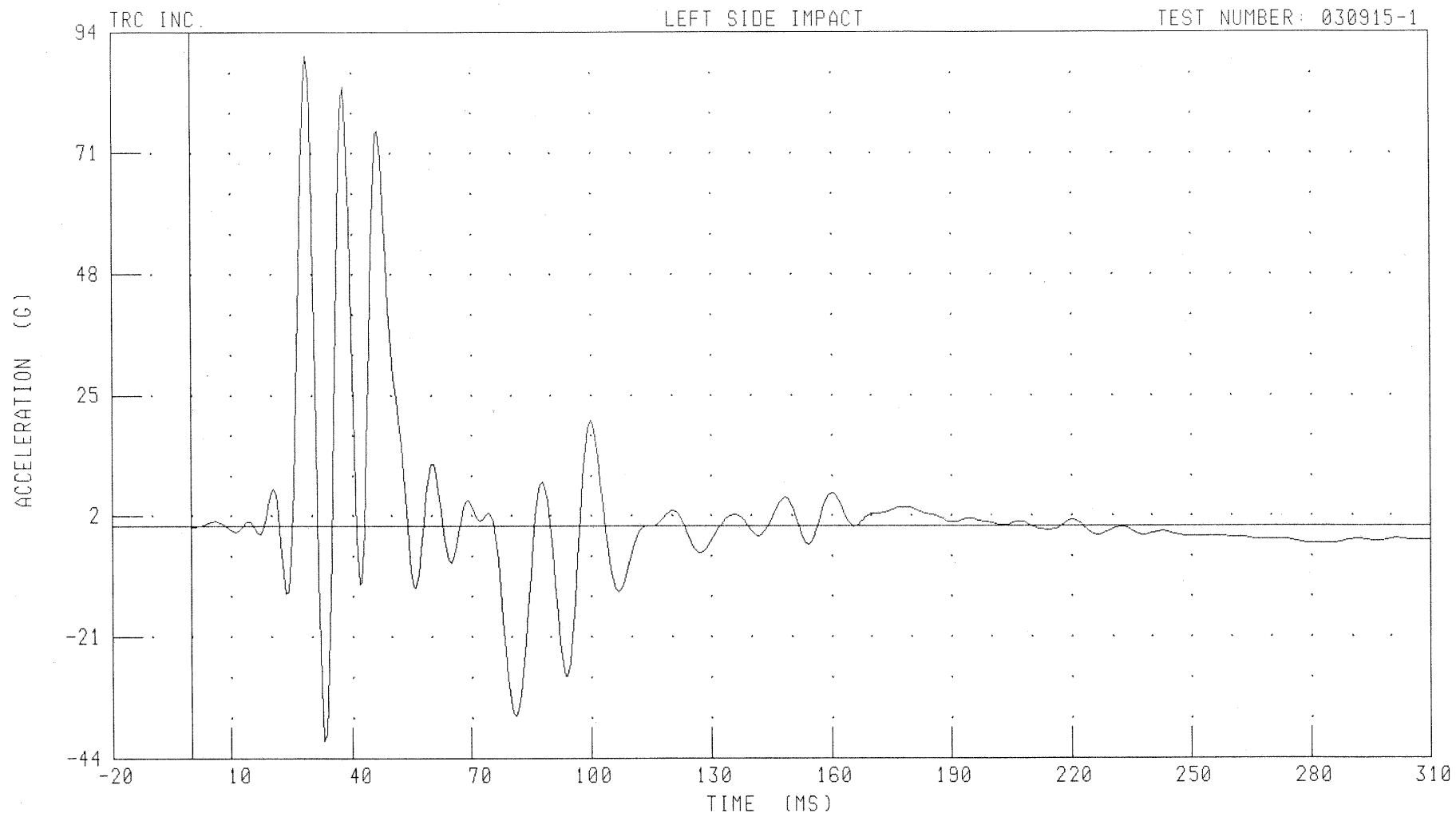
B-503

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THDRAX RIB 3 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3YG4

FILTER: FIR 100

PEAK DATA: 89.56 G @ 28.75 MS; -40.62 G @ 33.13 MS

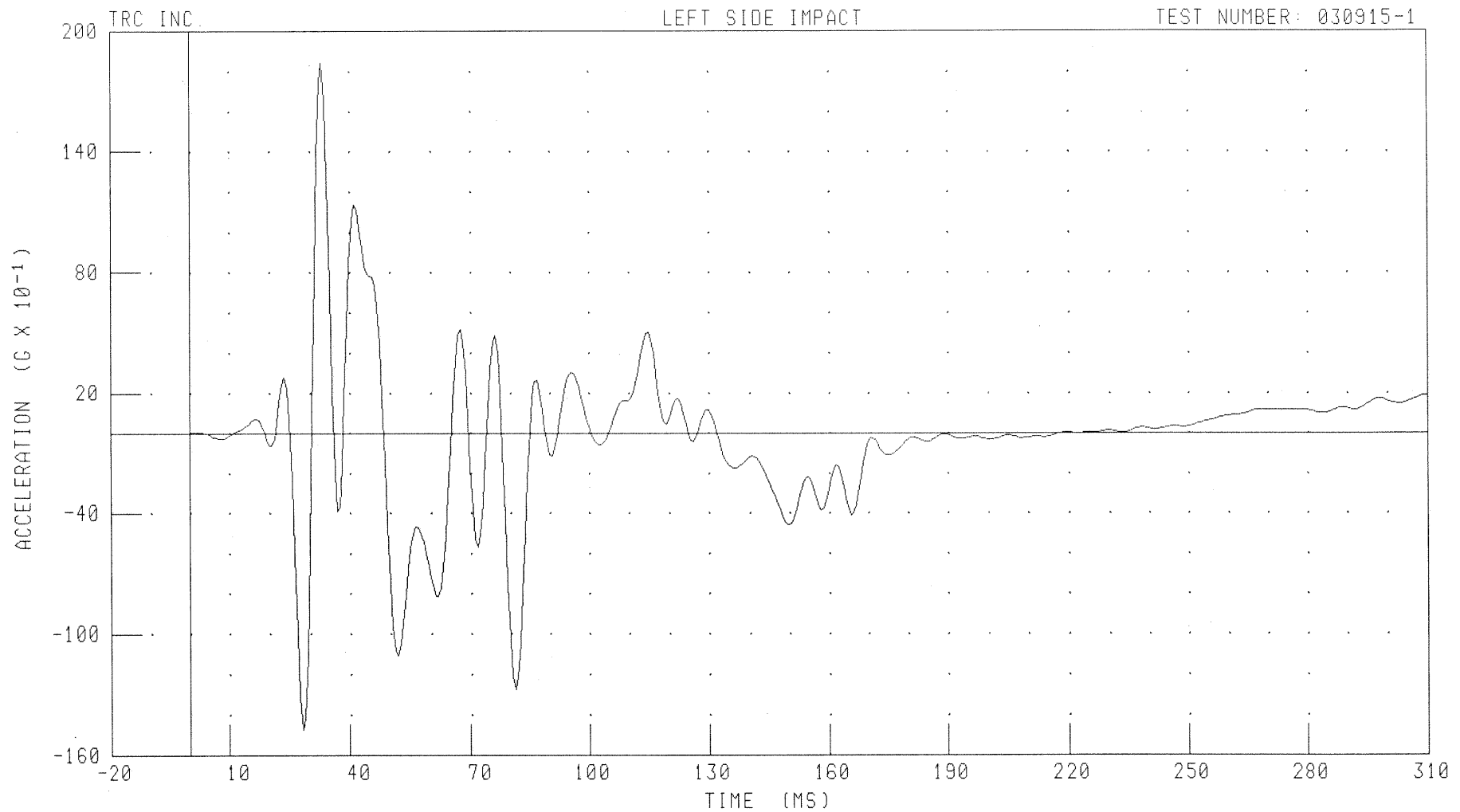
B-504

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER THORAX RIB 3 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB3ZC4 FILTER: FIR 100

PEAK DATA: 18.46 G @ 33.13 MS; -14.76 G @ 28.13 MS

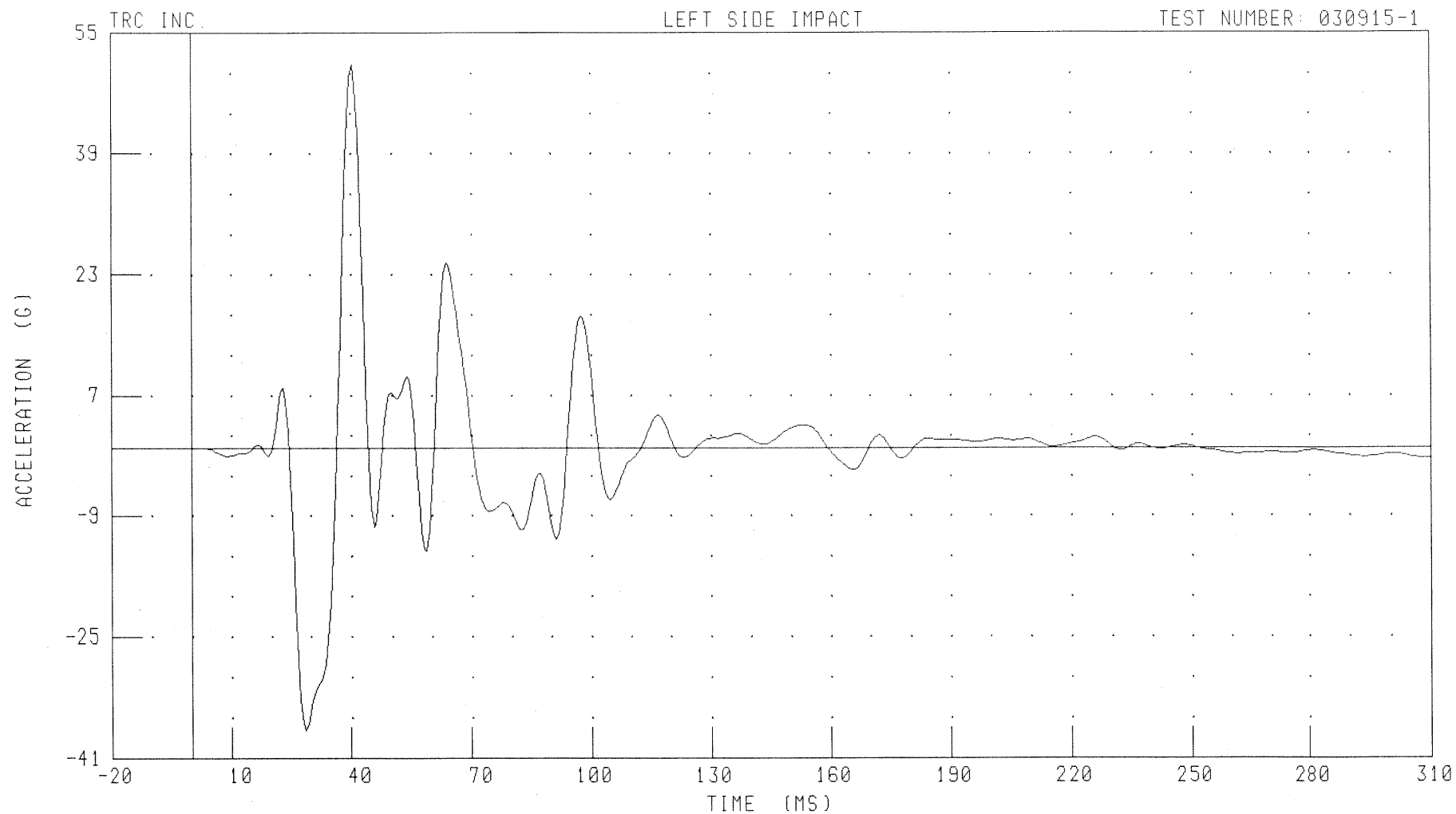
B-505

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMIN RIB 4 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4XC4 FILTER: FIR 100

PEAK DATA: 50.80 G @ 40.63 MS; -37.32 G @ 28.75 MS

B-506

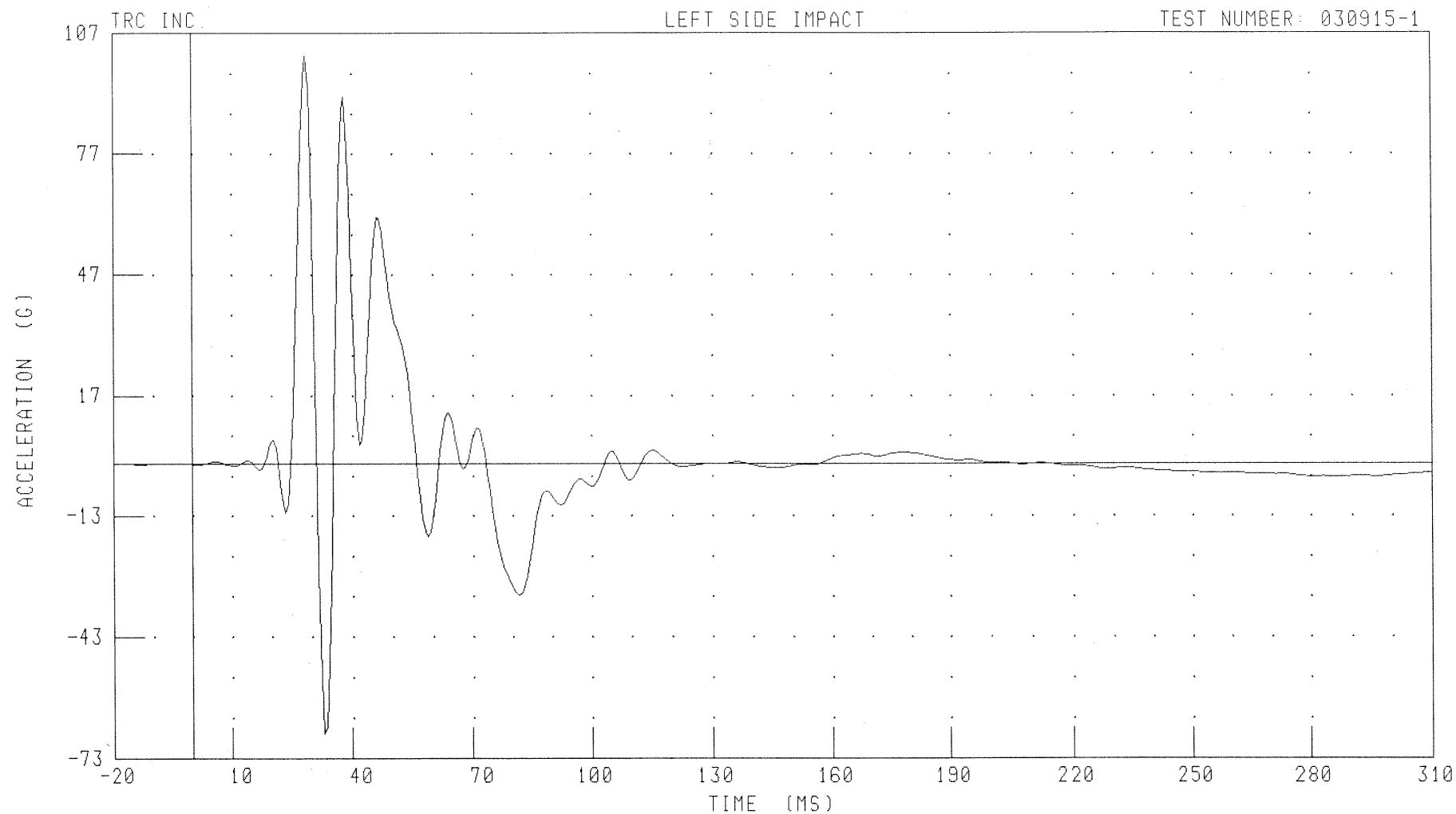
030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE

LEFT REAR PASSENGER ABDOMIN RIB 4 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4YG4 FILTER: FIR 100

PEAK DATA: 101.39 G @ 28.75 MS; -66.85 G @ 33.13 MS

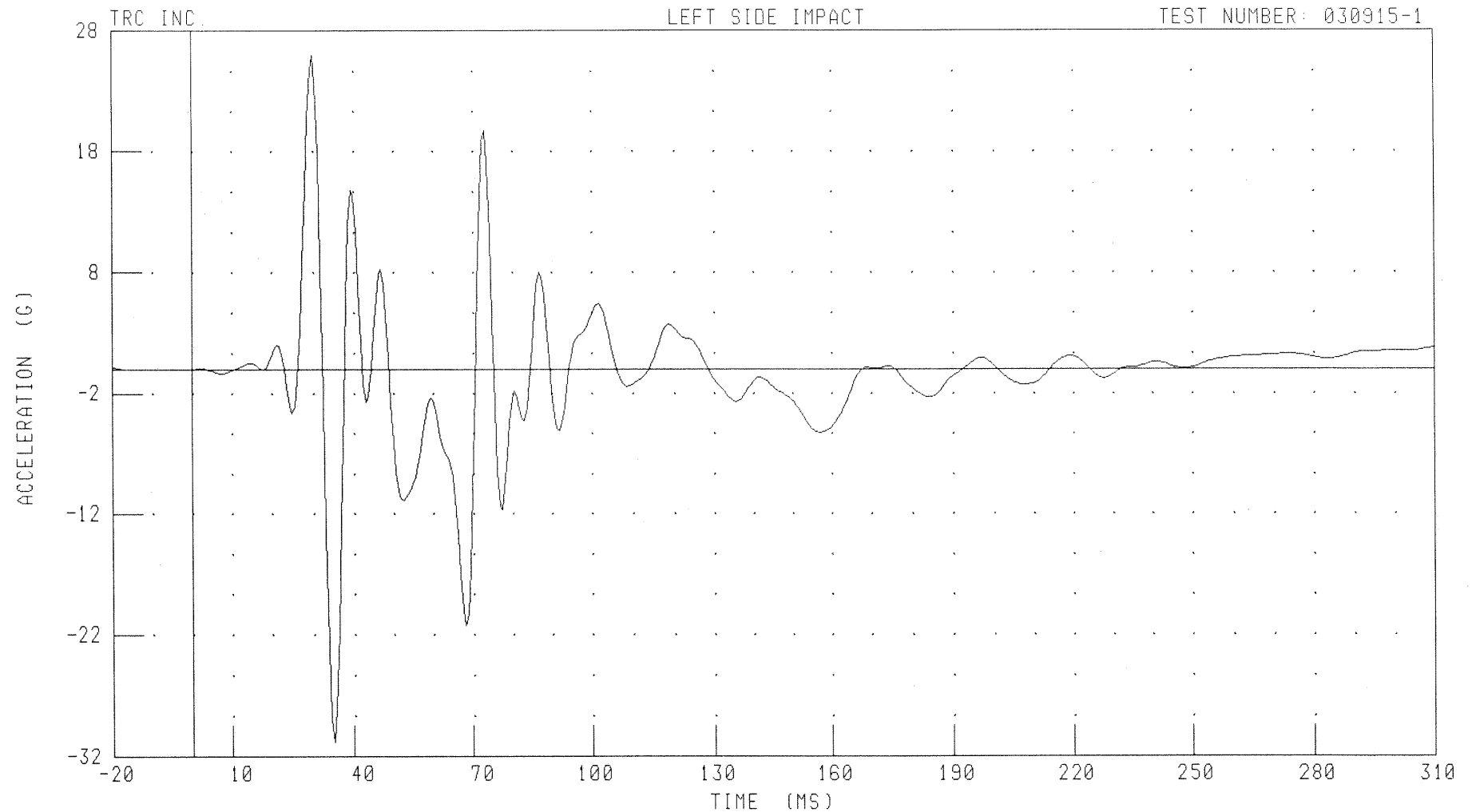
B-507

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMIN RIB 4 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB4ZG4

FILTER: FIR 100

PEAK DATA: 26.00 G @ 30.00 MS; -30.79 G @ 35.00 MS

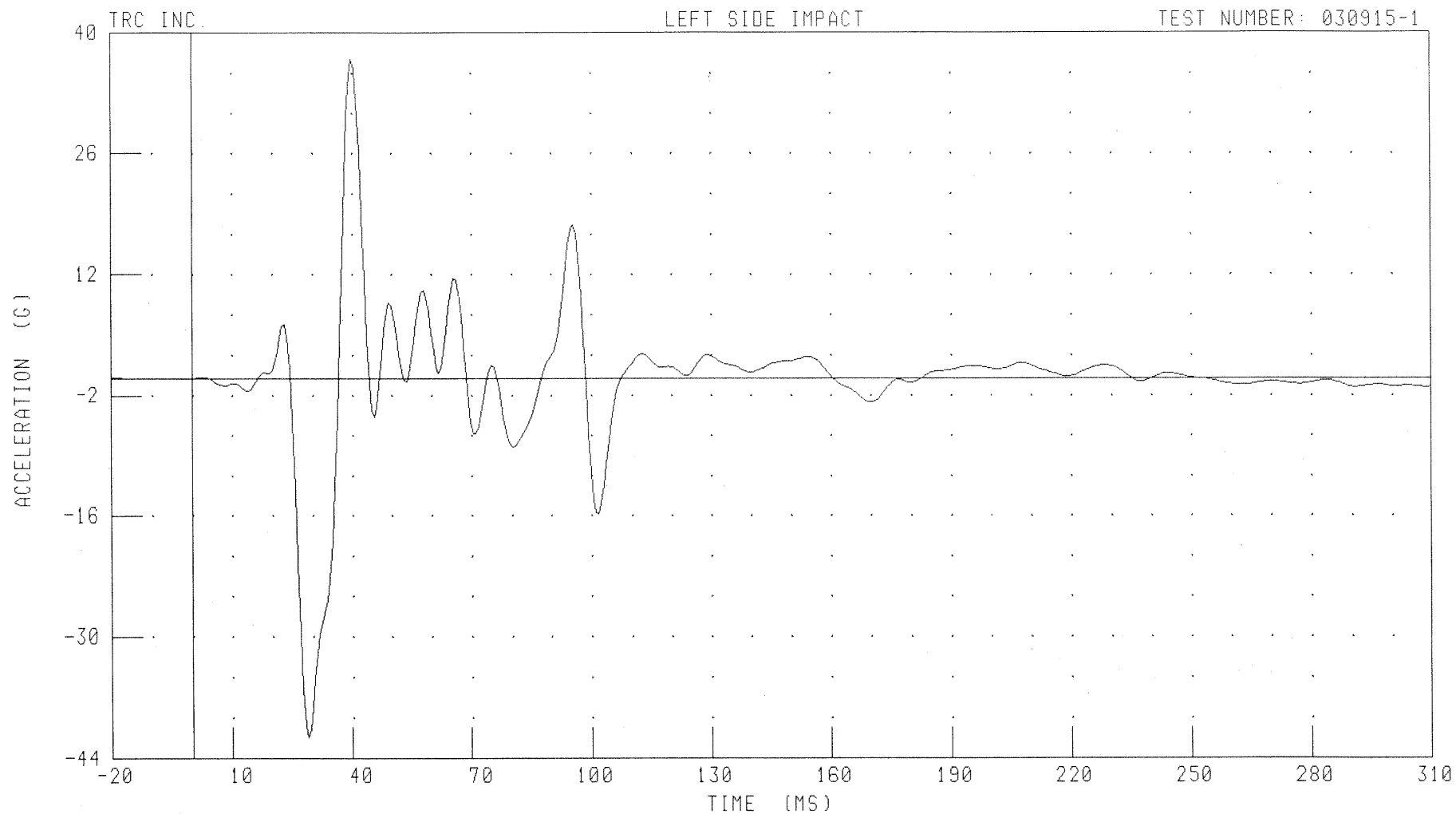
B-508

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMIN RIB 5 X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5XC4 FILTER: FIR 100

PEAK DATA: 36.99 G @ 40.00 MS; -41.60 G @ 28.75 MS

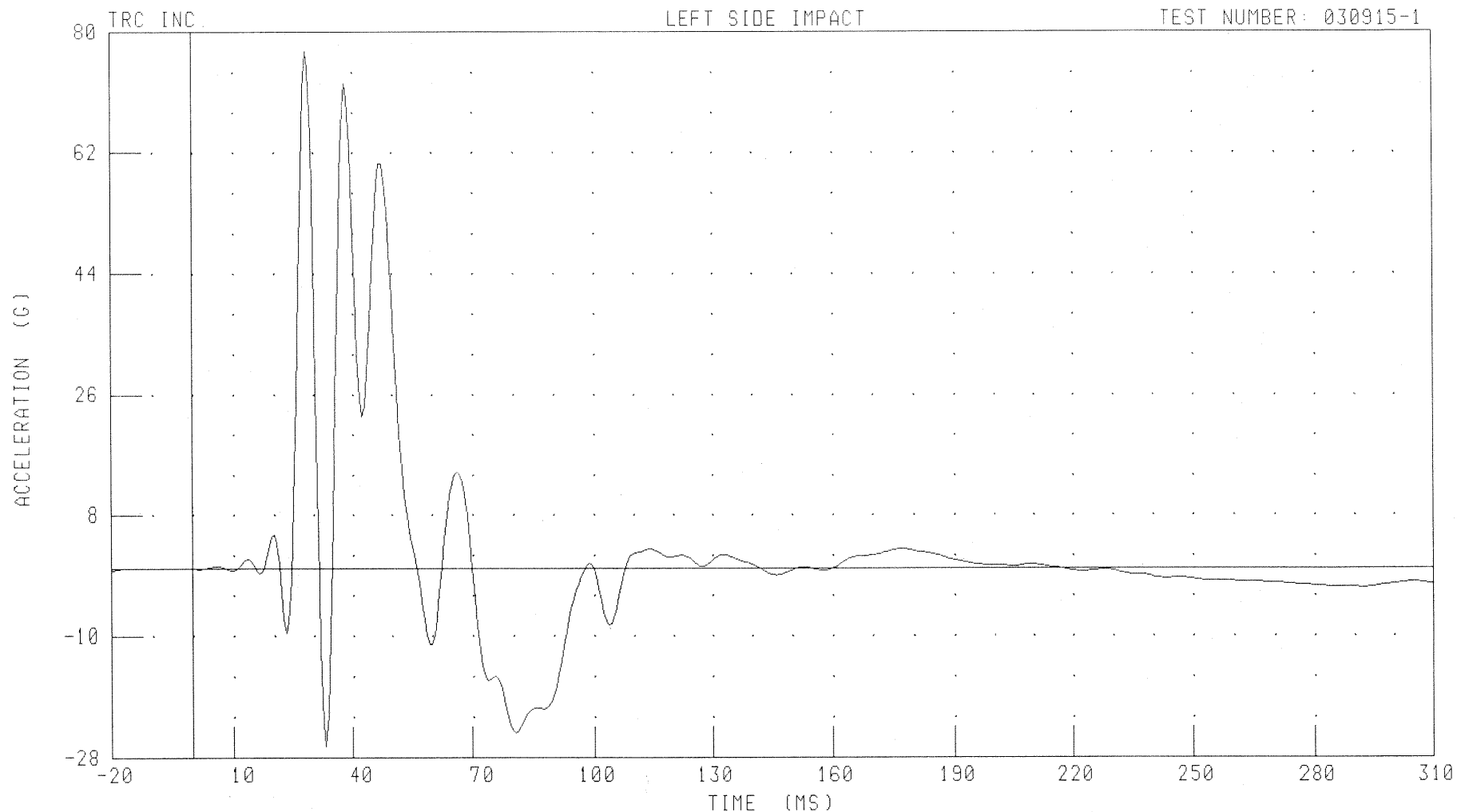
B-509

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMIN RIB 5 Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5YG4

FILTER: FIR 100

PEAK DATA: 77.08 G @ 28.13 MS, -26.31 G @ 33.13 MS

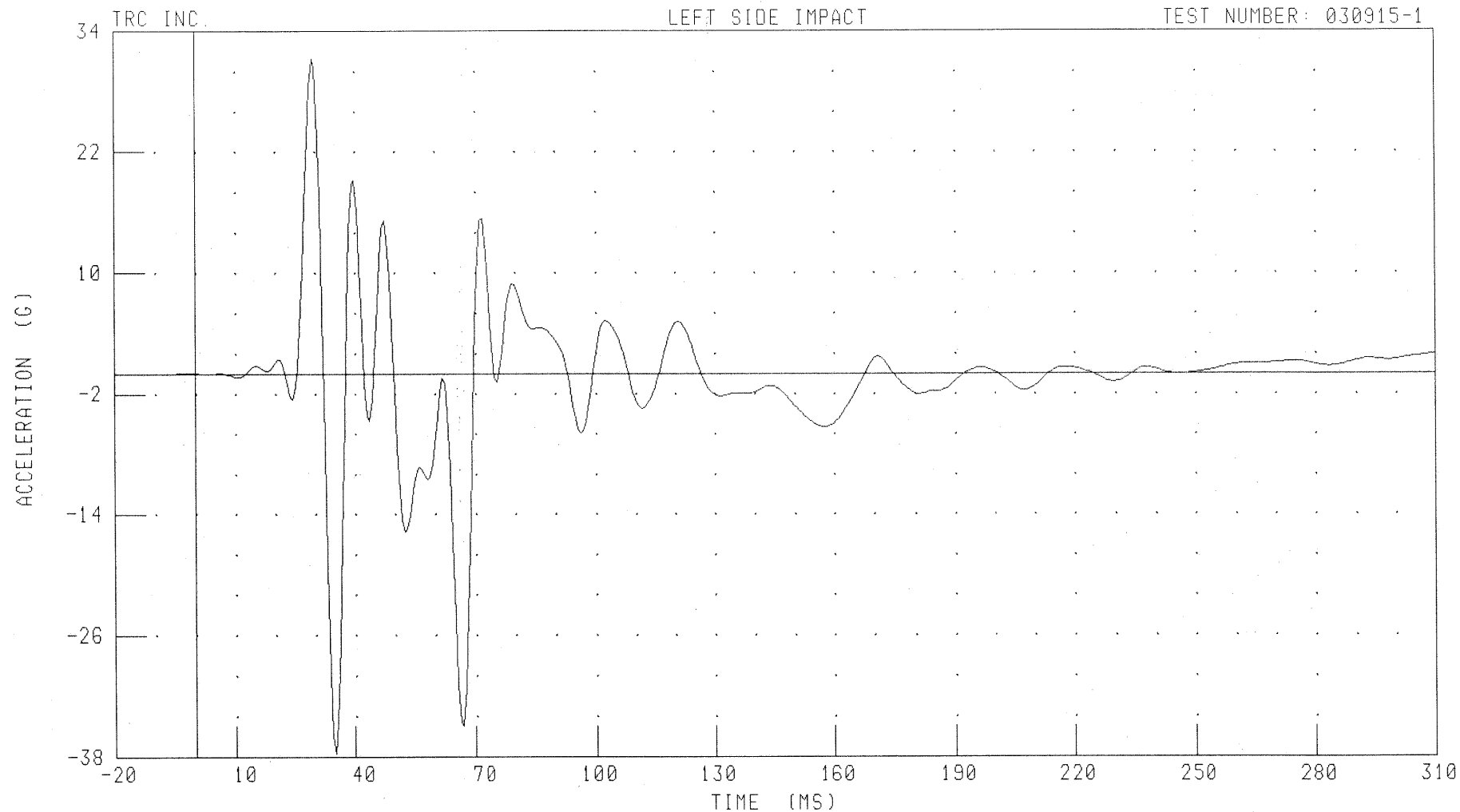
B-510

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER ABDOMIN RIB 5 Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: RB5ZG4

FILTER: FIR 100

PEAK DATA: 31.25 G @ 29.38 MS; -37.71 G @ 35.00 MS

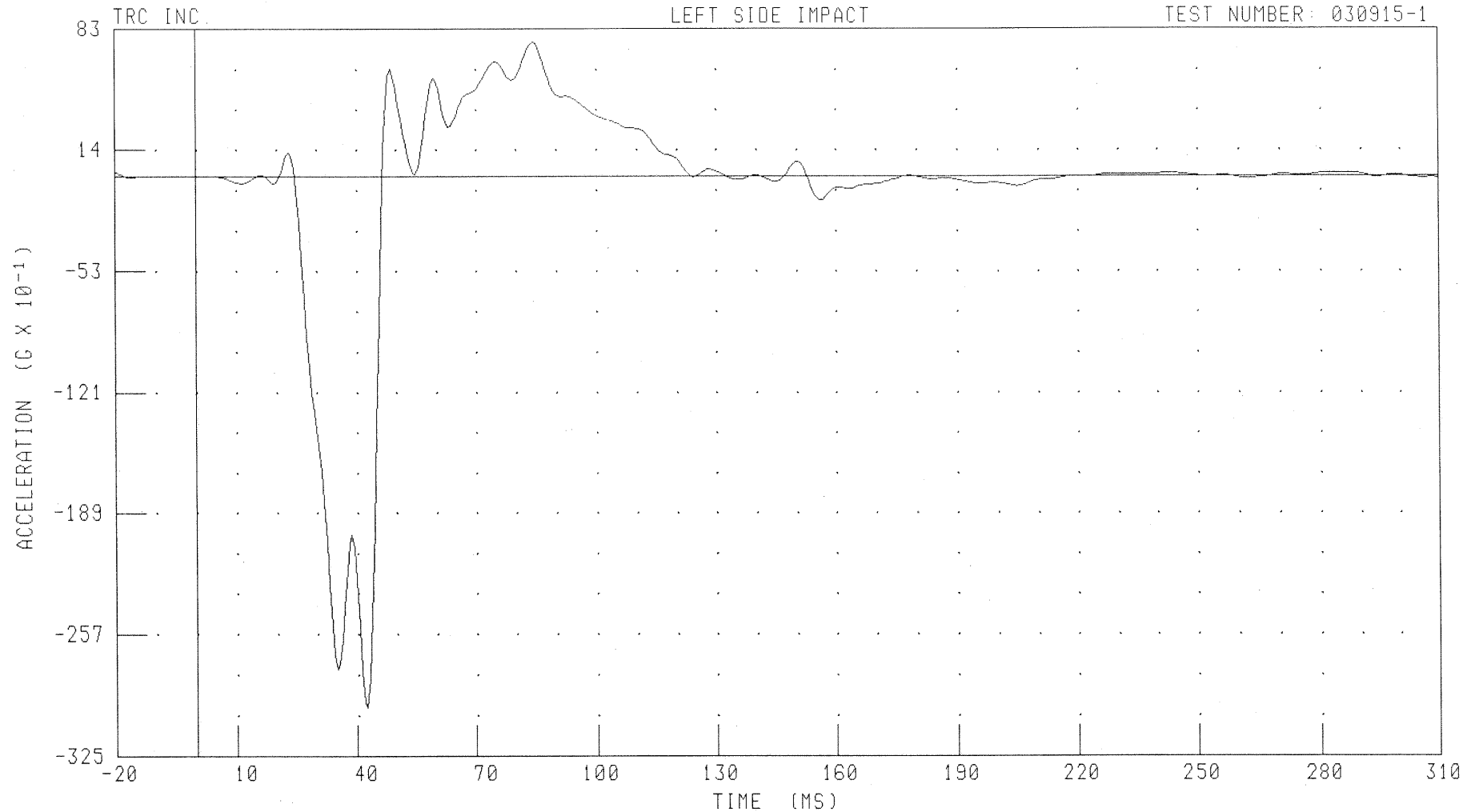
B-511

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS X-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVXG4 FILTER: FIR 100

PEAK DATA: 7.56 G @ 84.38 MS; -29.78 G @ 42.50 MS

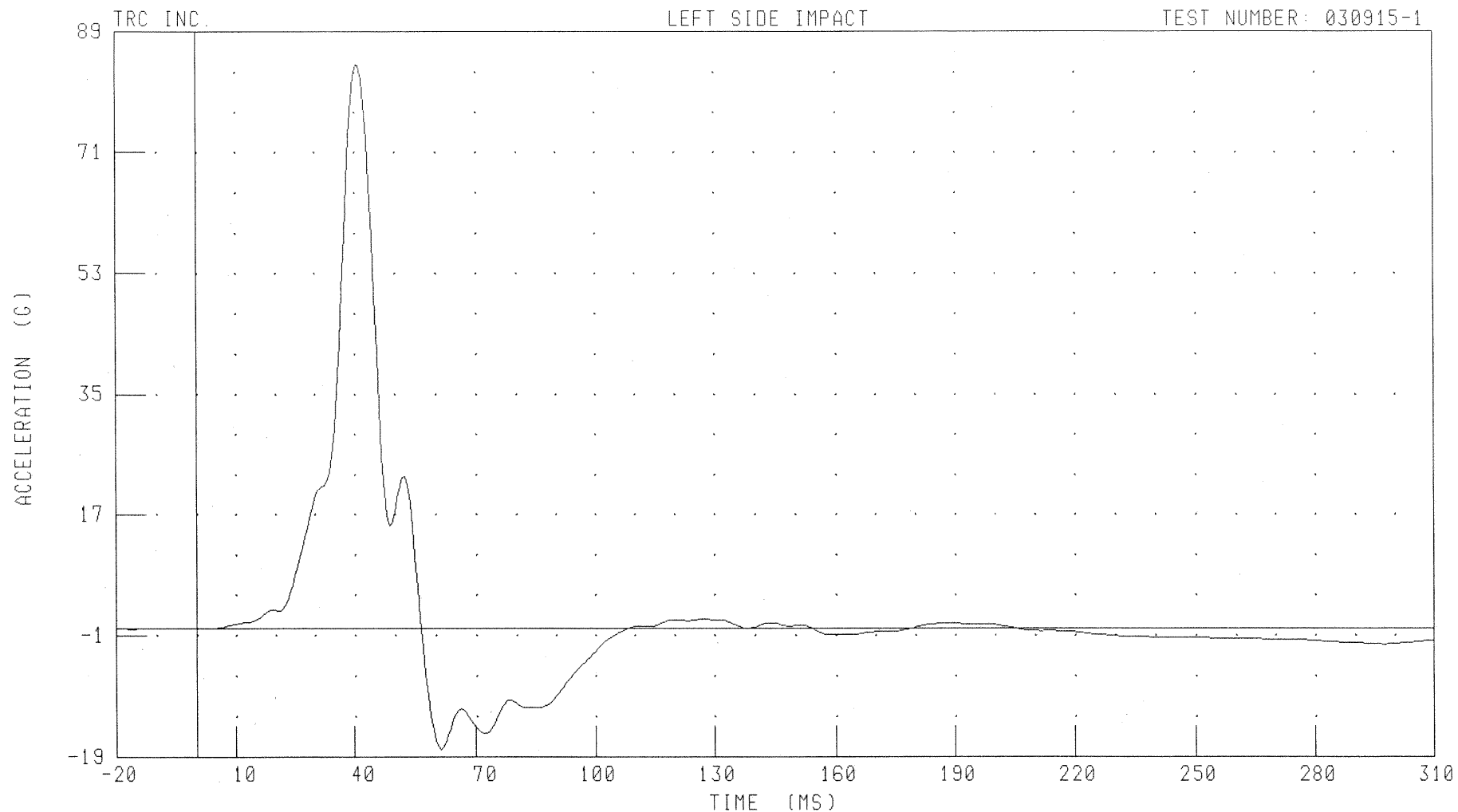
B-512

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVYG4 FILTER: FIR 100

PEAK DATA: 84.21 G @ 40.63 MS; -17.88 G @ 61.25 MS

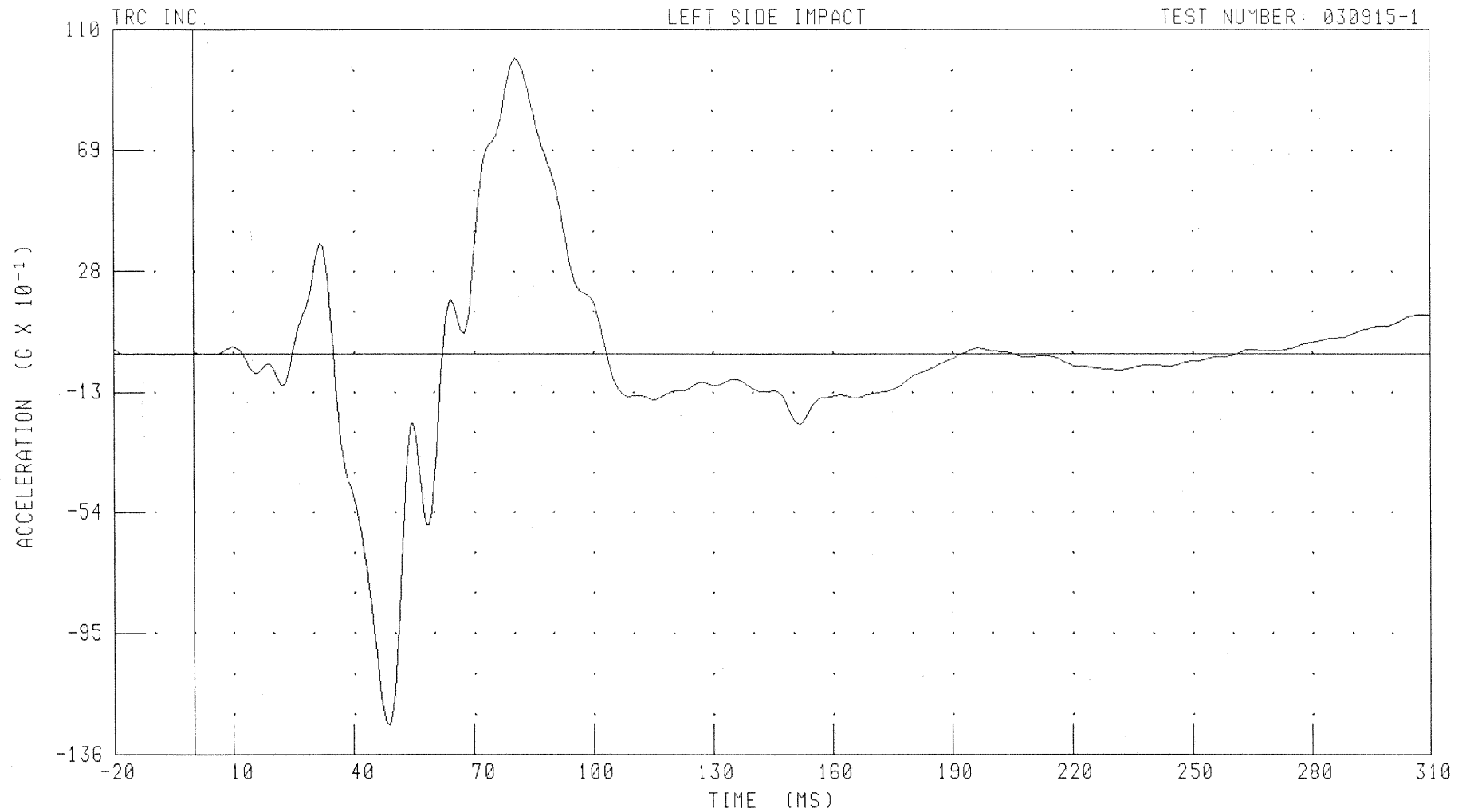
B-513

030915-1

48/24 KPH 90 DEGREE SIDE IMPACT (MOVING DEFORMABLE BARRIER) INTO LEFT SIDE OF 2001 BUICK LESABRE
LEFT REAR PASSENGER PELVIS Z-AXIS ACCELERATION

LEFT SIDE IMPACT

TEST NUMBER: 030915-1



CHANNEL: PEVZG4

FILTER: FIR 100

PEAK DATA: 10.02 G @ 80.63 MS, -12.61 G @ 48.75 MS

B-514

030915-1

Appendix C

Dummy Configuration and Performance Verification Data

Pre-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 020

Vehicle Research and Test Center

Left Lateral Head Test

SID-IIs Serial No. 020 Calibration No. 1 - 1

Test Date 09/04/2003

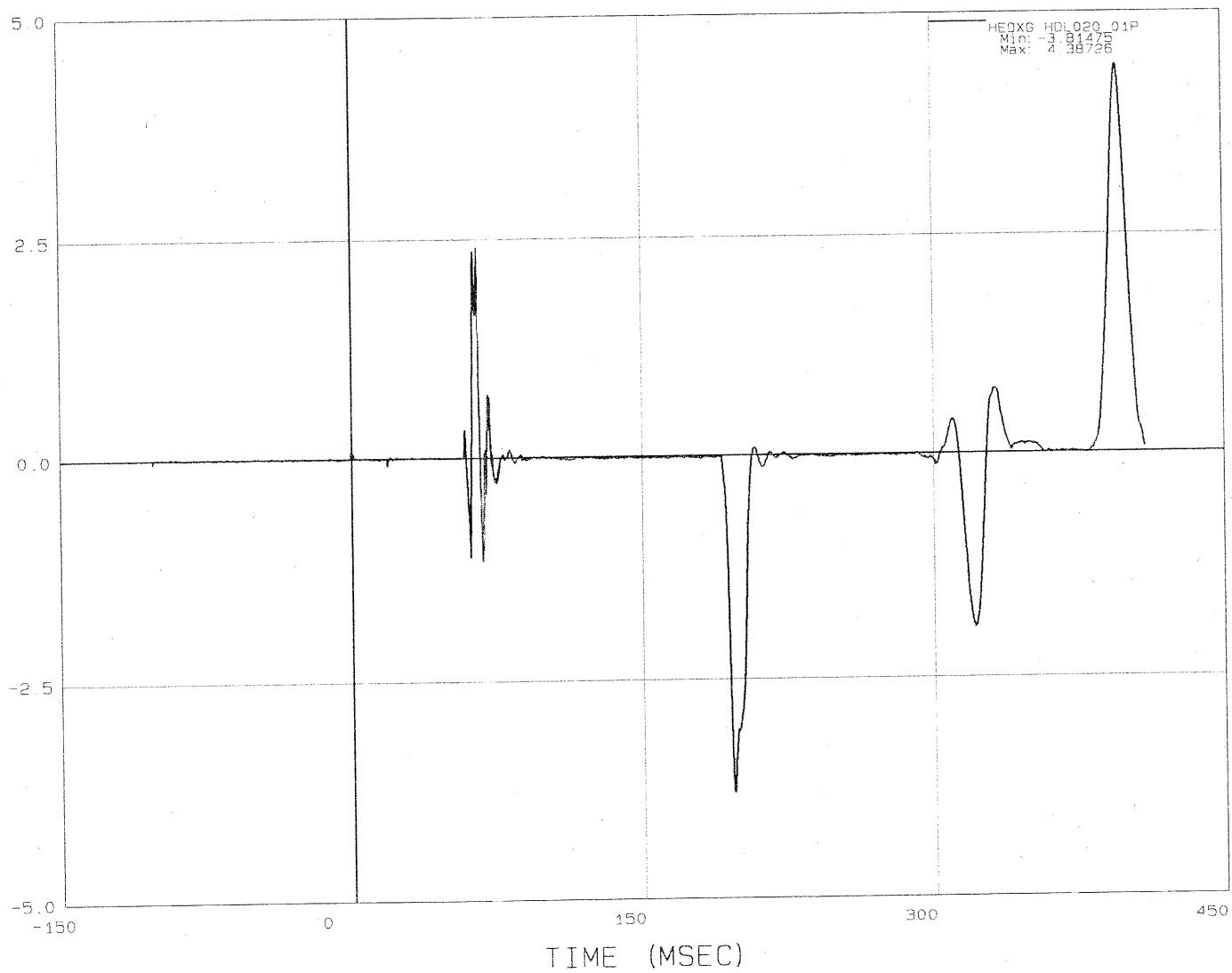
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Peak Resultant Acceleration	115 - 145 g	118.8	Yes
Peak Longitudinal Acceleration	15 g Max	2.4	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

C-4

030915-1

HEDXG (G)

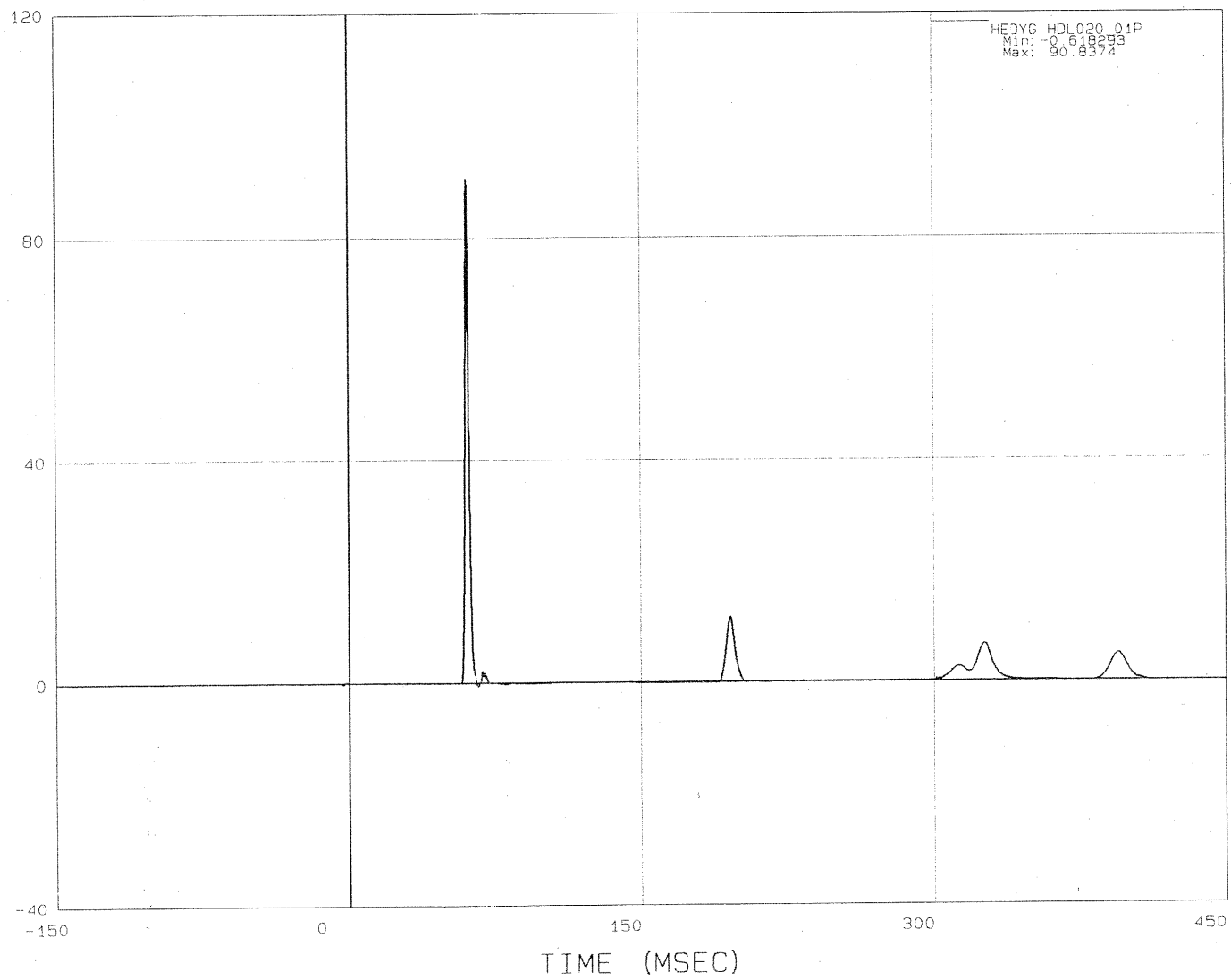


Sep 25, 2003 11:00:46AM

C-5

030915-1

HEDYG (G)

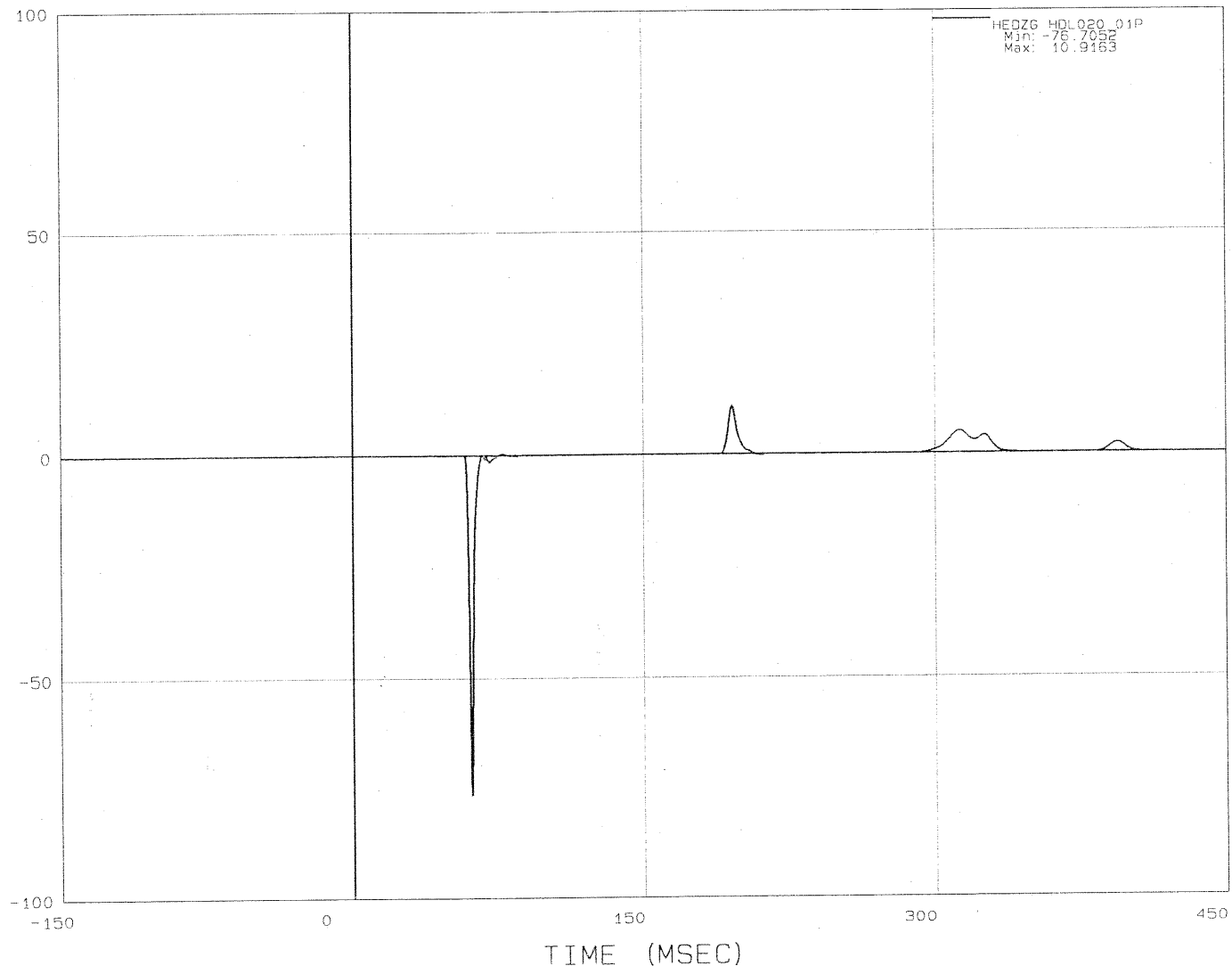


Sep 25, 2003 11:00:47AM

C-6

030915-1

HEDZG (G)

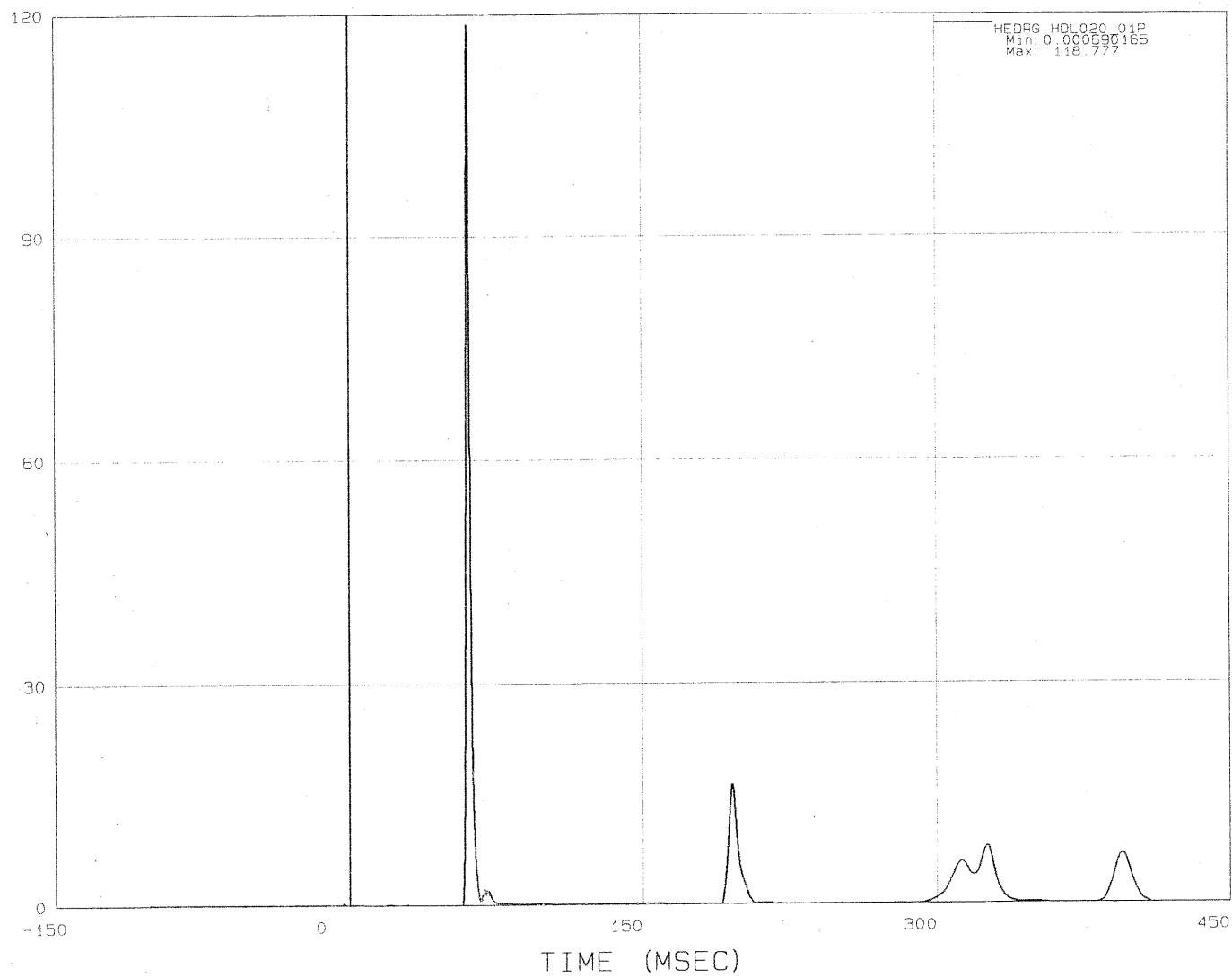


Sep 25, 2003 11:00:47AM

C-7

030915-1

HEDRG (G)



Sep 25, 2003 11:00:47AM

Vehicle Research and Test Center

Left Lateral Head Test

SID-IIs Serial No. 020 Calibration No. 1 - 2

Test Date 09/04/2003

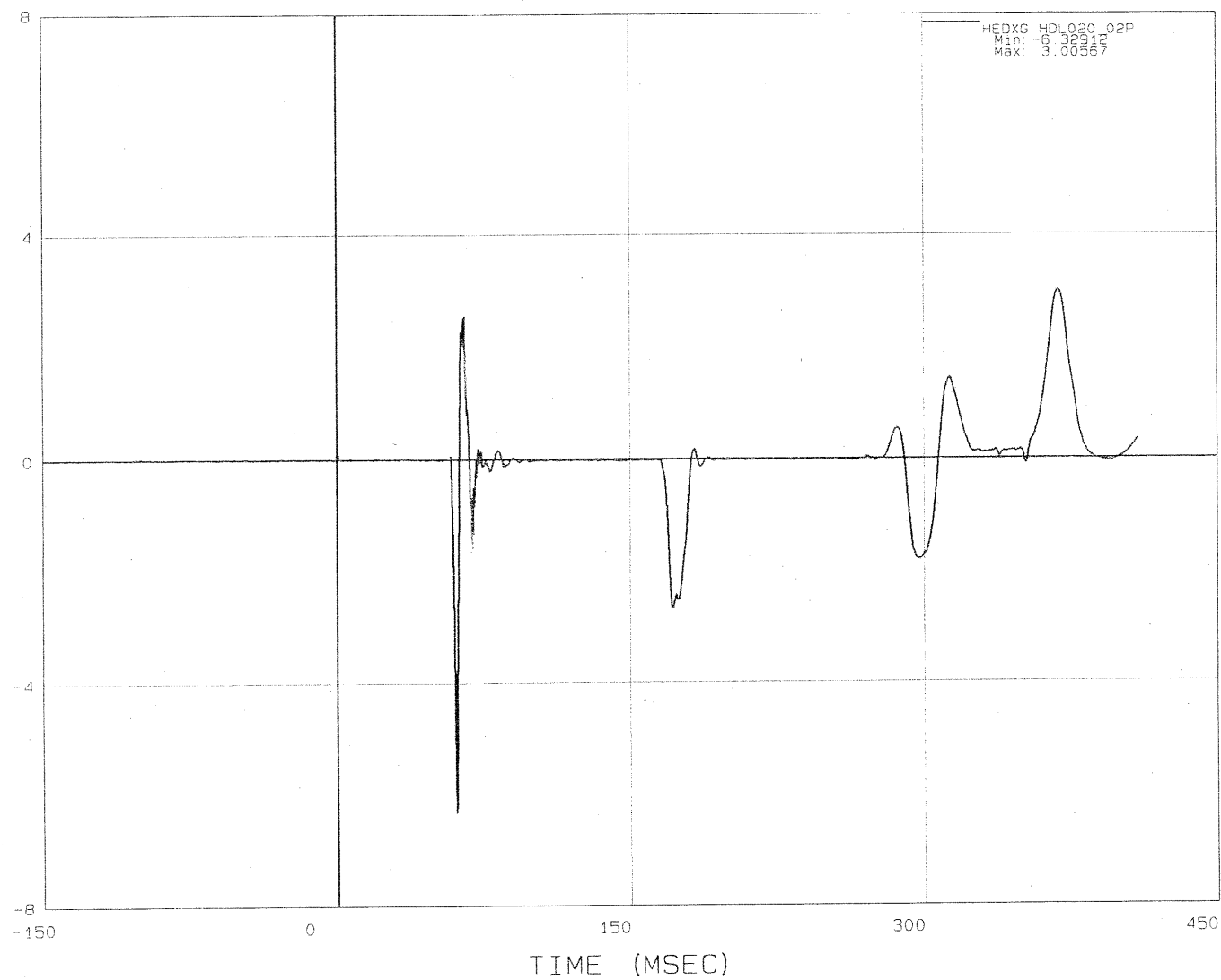
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Peak Resultant Acceleration	115 - 145 g	117.7	Yes
Peak Longitudinal Acceleration	15 g Max	-6.3	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

C-9

030915-1

HEDXG (G)

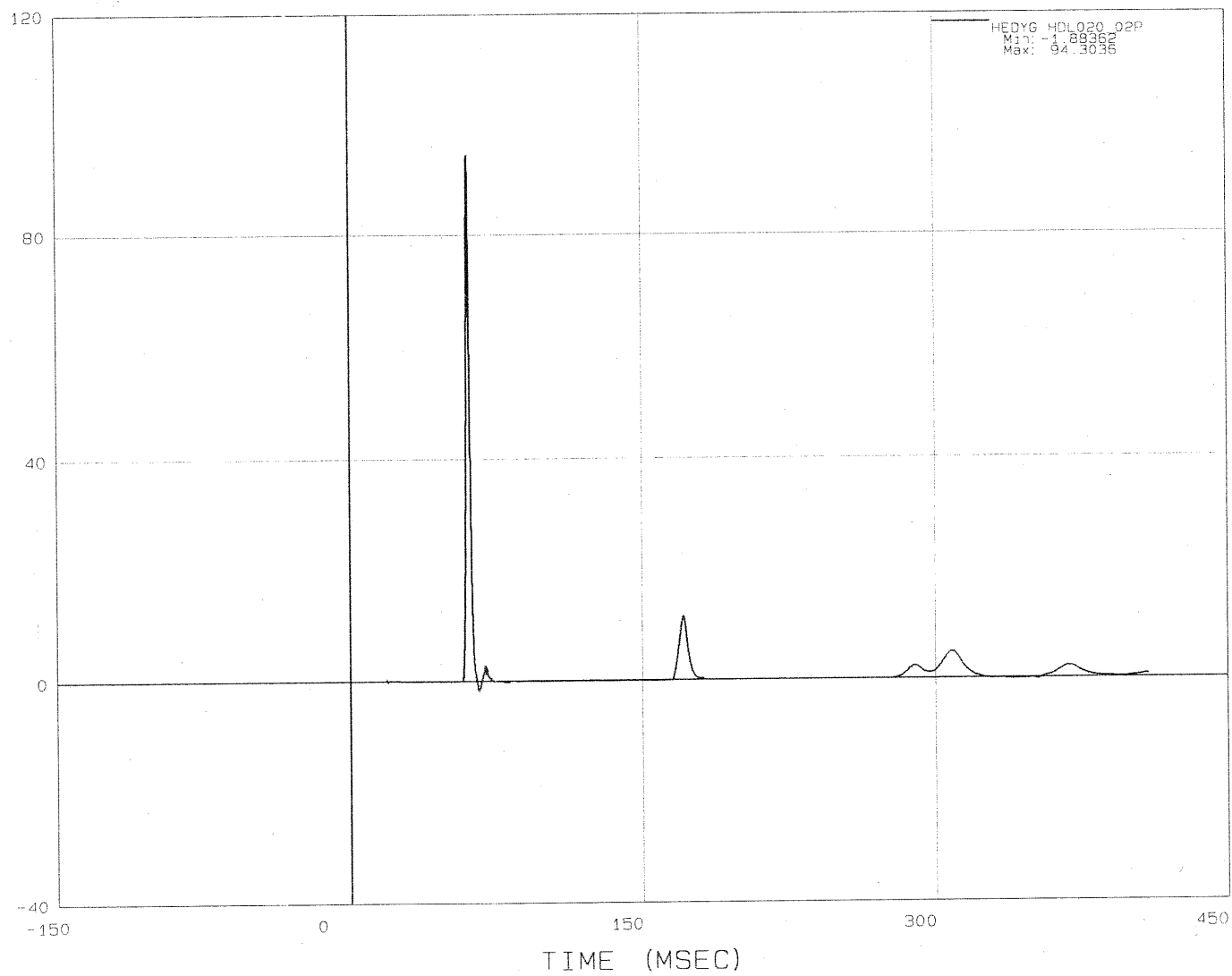


Sep 25, 2003 11:00:58AM

C-10

030915-1

HEDYG (G)

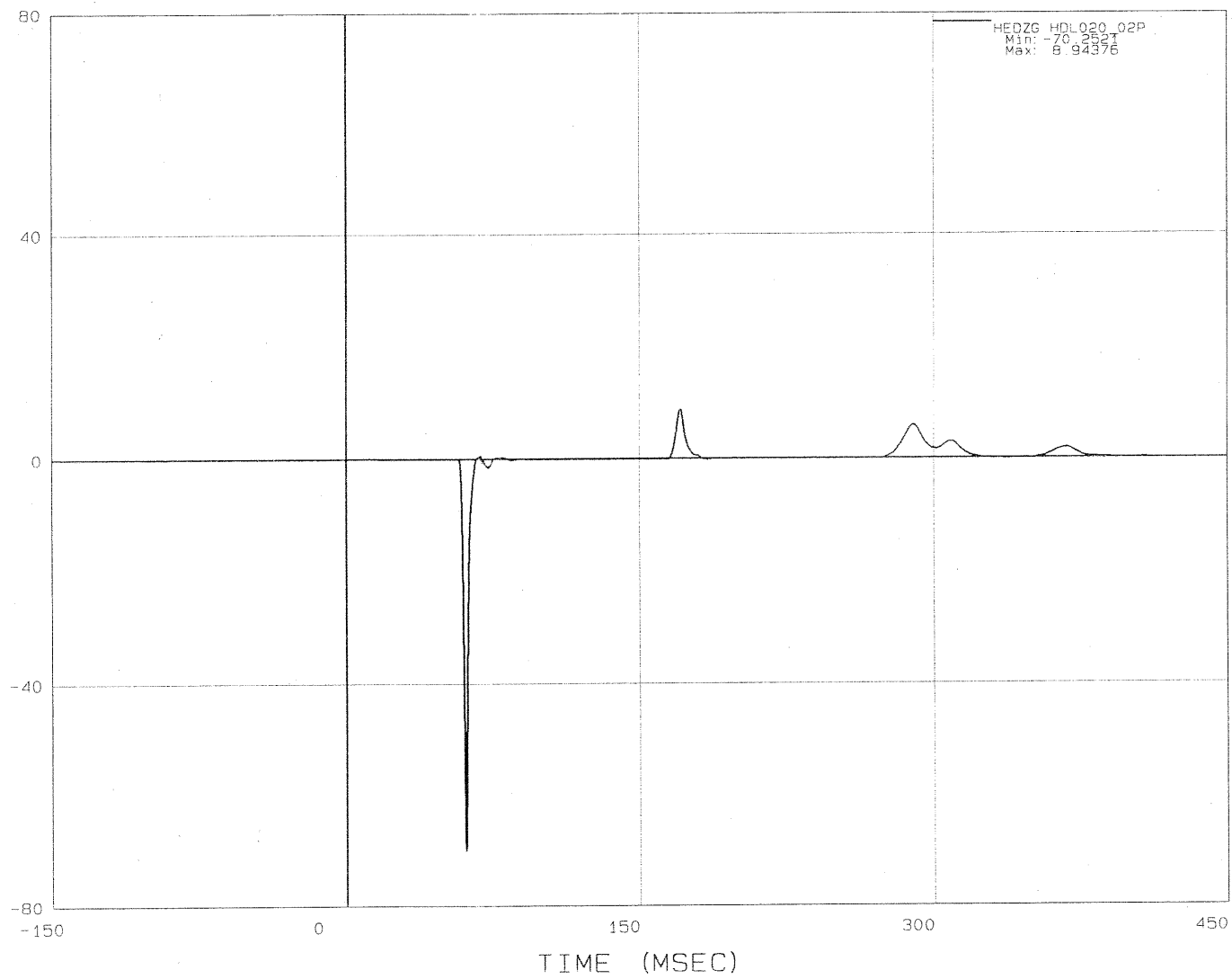


Sep 25, 2003 11:00:58AM

C-11

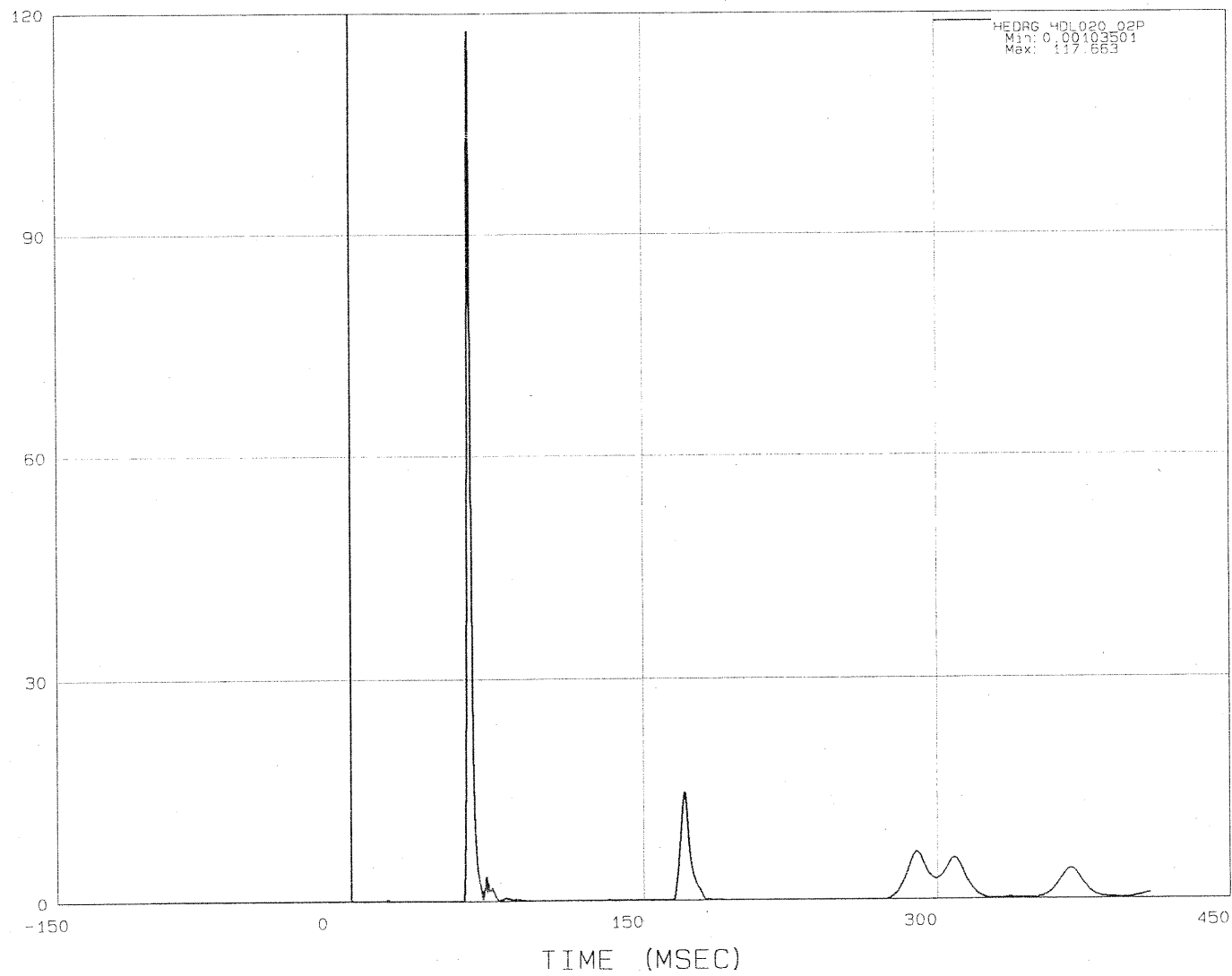
030915-1

HEDZG (G)



Sep 25, 2003 11:00:59AM

HEDRG (G)



Sep 25, 2003 11:00:59AM

C-12

030915-1

Vehicle Research and Test Center

Left Lateral Neck Test

SID-IIs Serial No. 020 Calibration No. 1 - 1

Test Date 09/05/2003

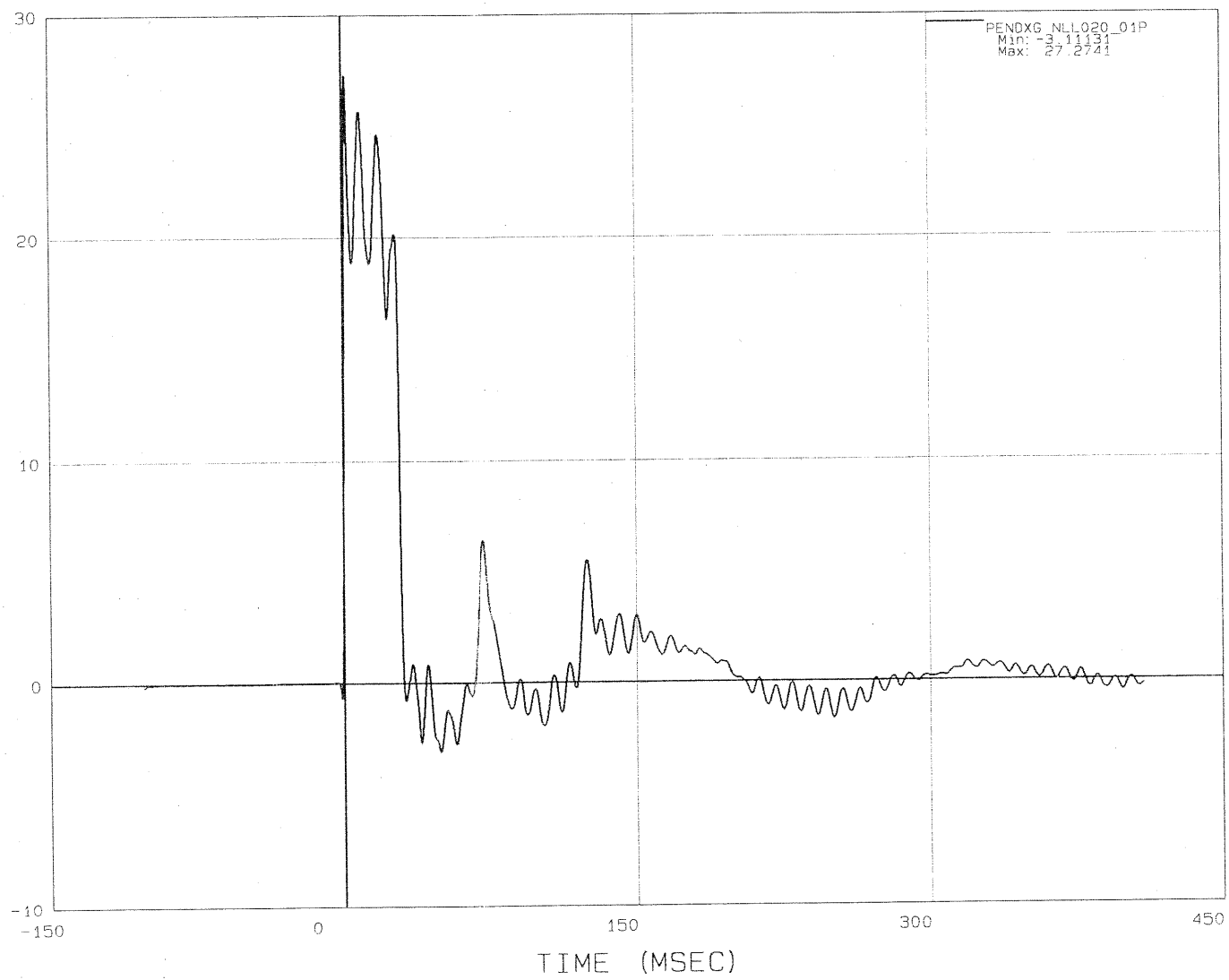
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.59 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	2.17 m/s	Yes
15 ms	3.00 - 3.80 m/s	3.17 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.30 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	5.96 m/s	Yes
Peak D Plane Rotation	72 - 82 °	74.4 °	Yes
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	65.9 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	44.0 N·m	No
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	91.6 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	7.86 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	50.1 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	59.7 ms	No
Peak Rotation of Rearward Pot	47 - 56 °	43.4 °	No
Time of Peak Rotation of Rearward Pot	62 - 73 ms	59.2 ms	No

Comments:

C-14

030915-1

PENDXG (G)

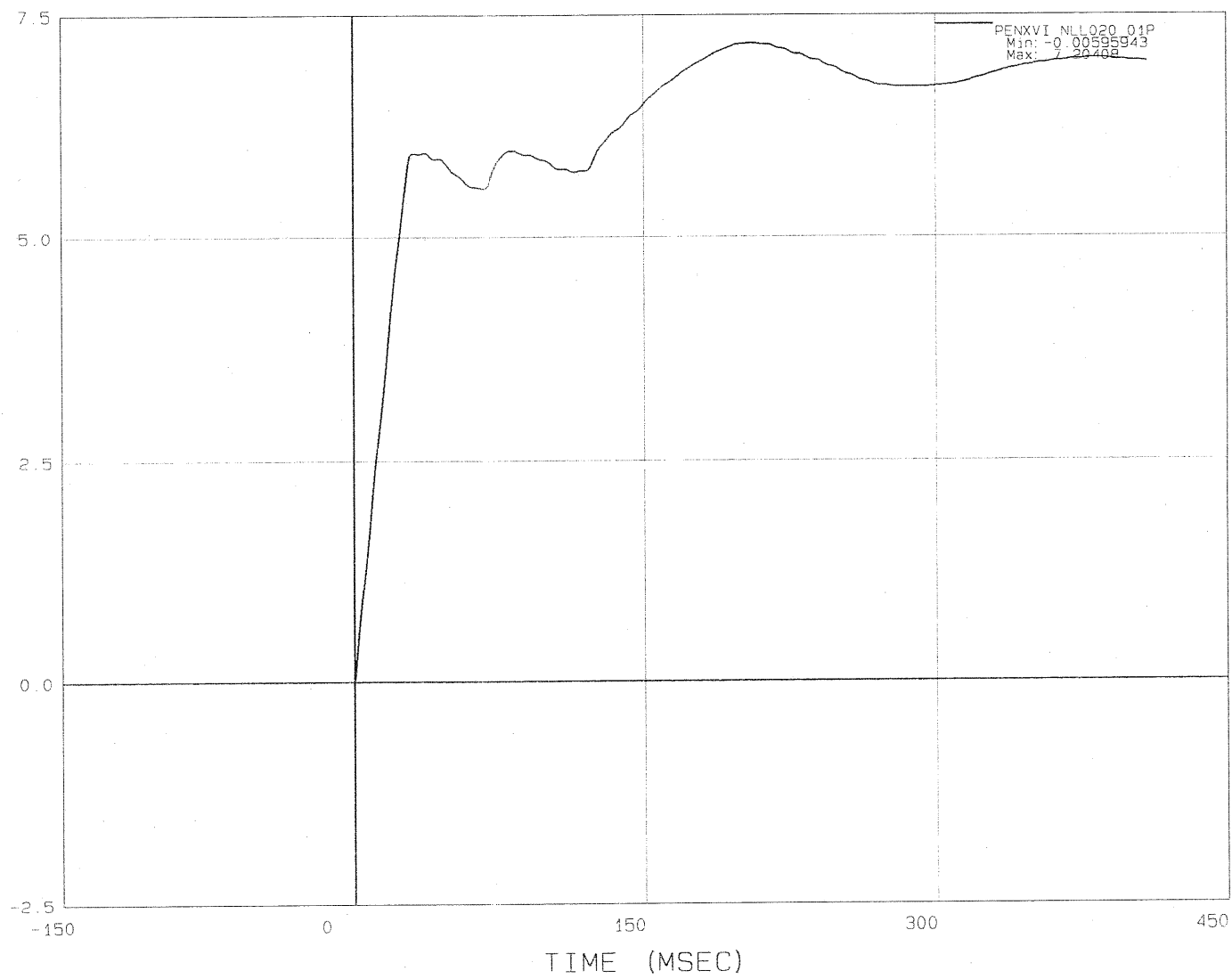


Sep 25, 2003 11:17:43AM

C-15

030915-1

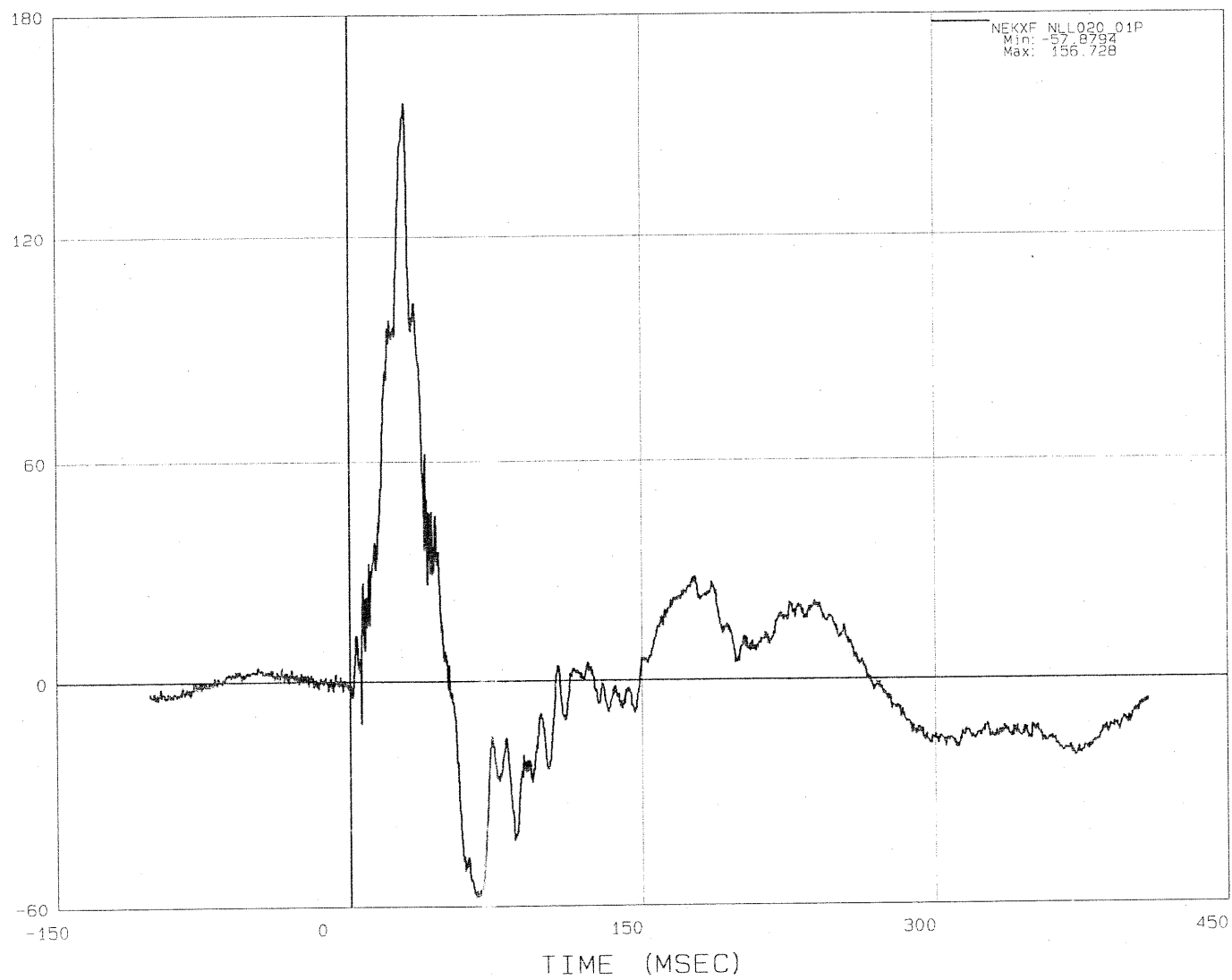
PENXVI (M/S)



C-16

030915-1

NEKXF (N)

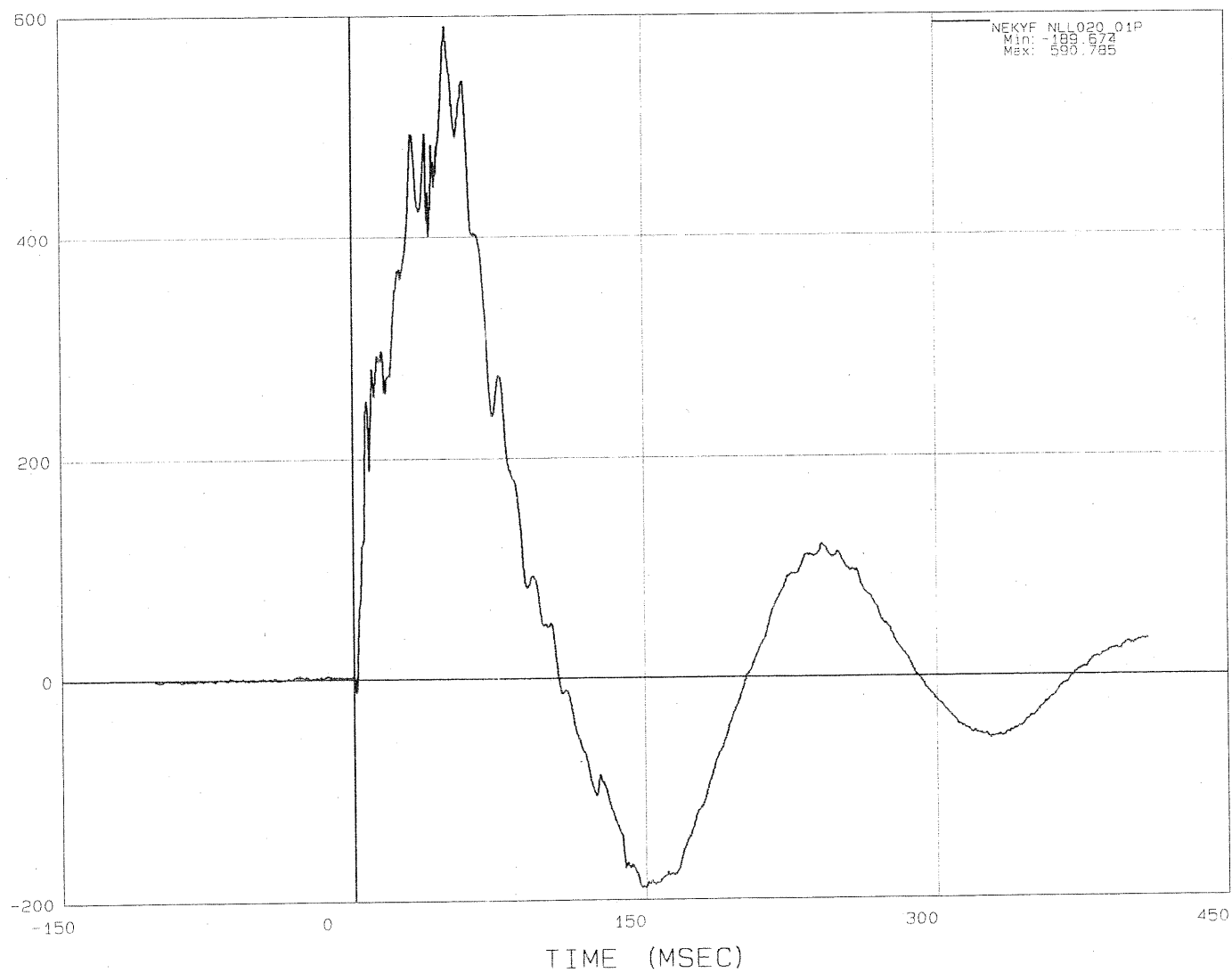


Sep 25, 2003 11:17:34AM

C-17

030915-1

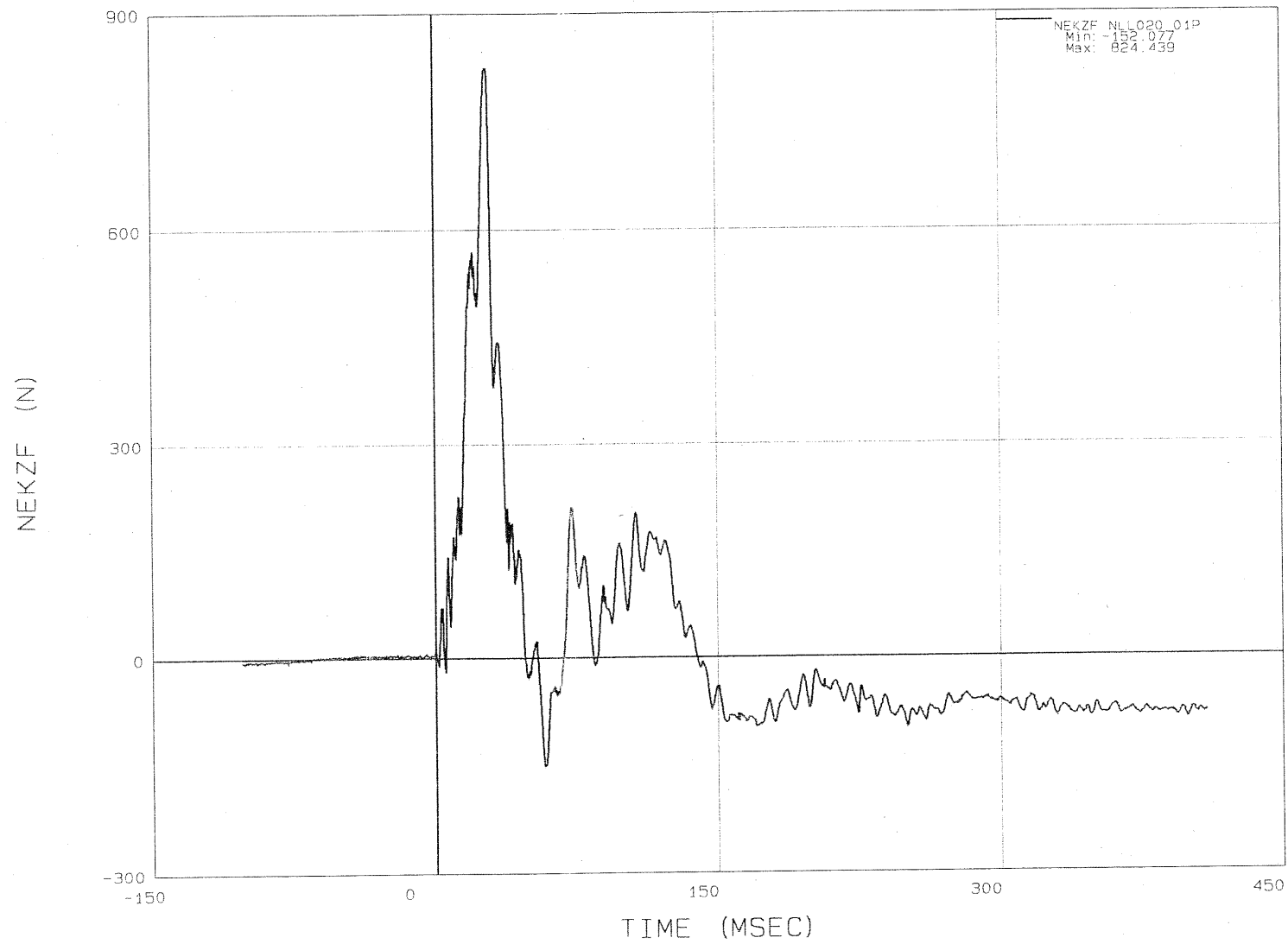
NEKYF (N)



Sep 25, 2003 11:17:35AM

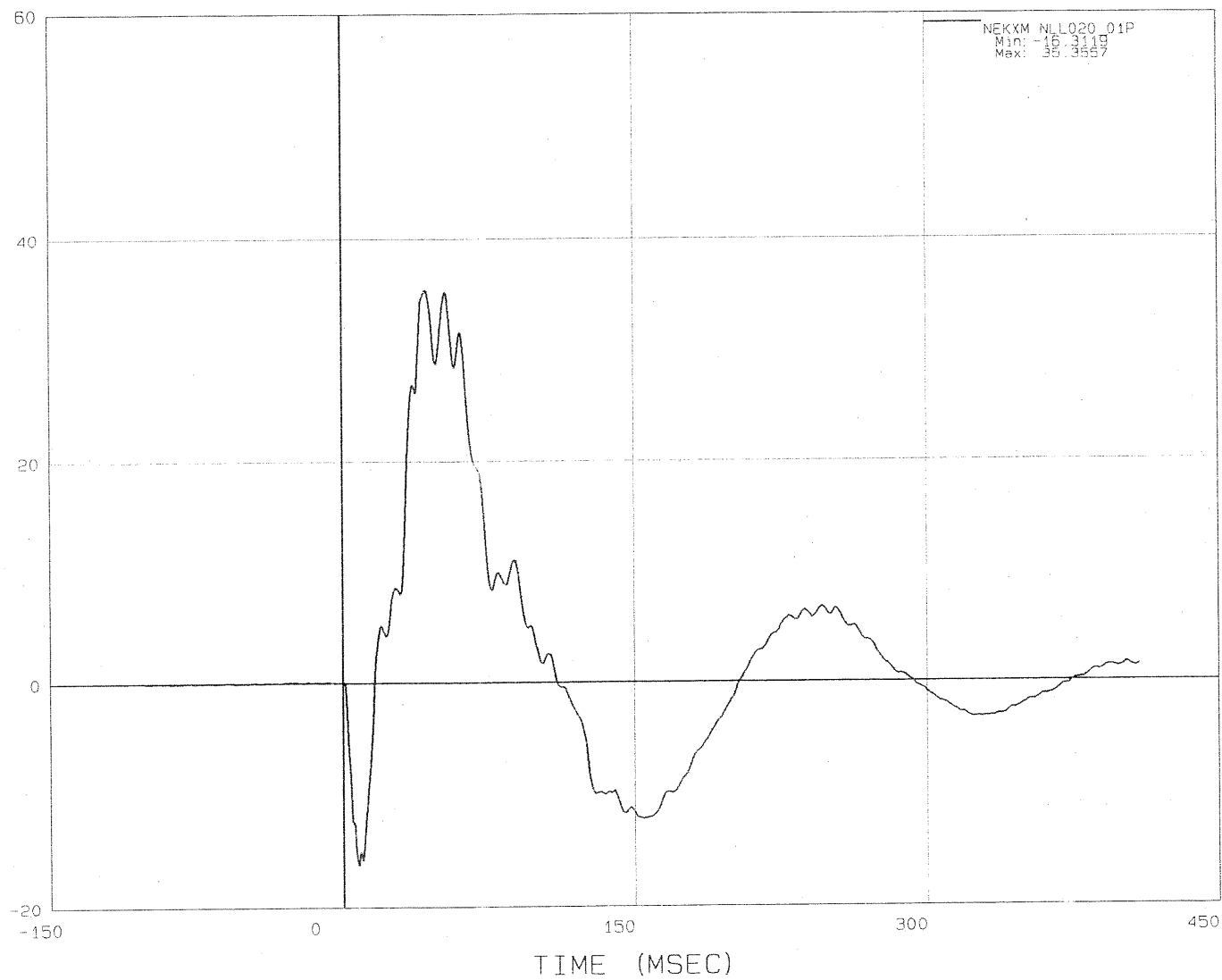
C-18

030915-1

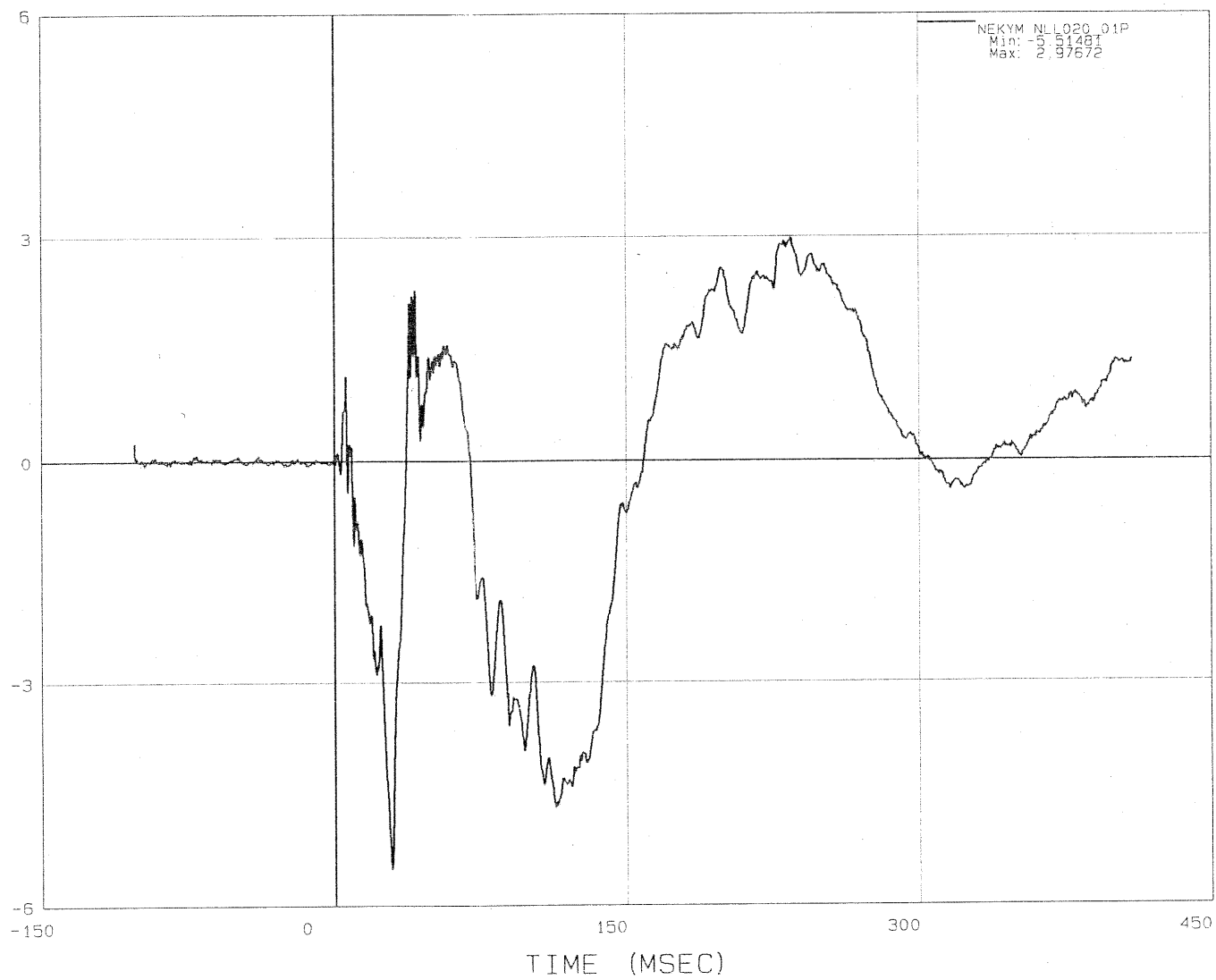


Sep 25, 2003 11:17:35AM

NEKXM (NM)

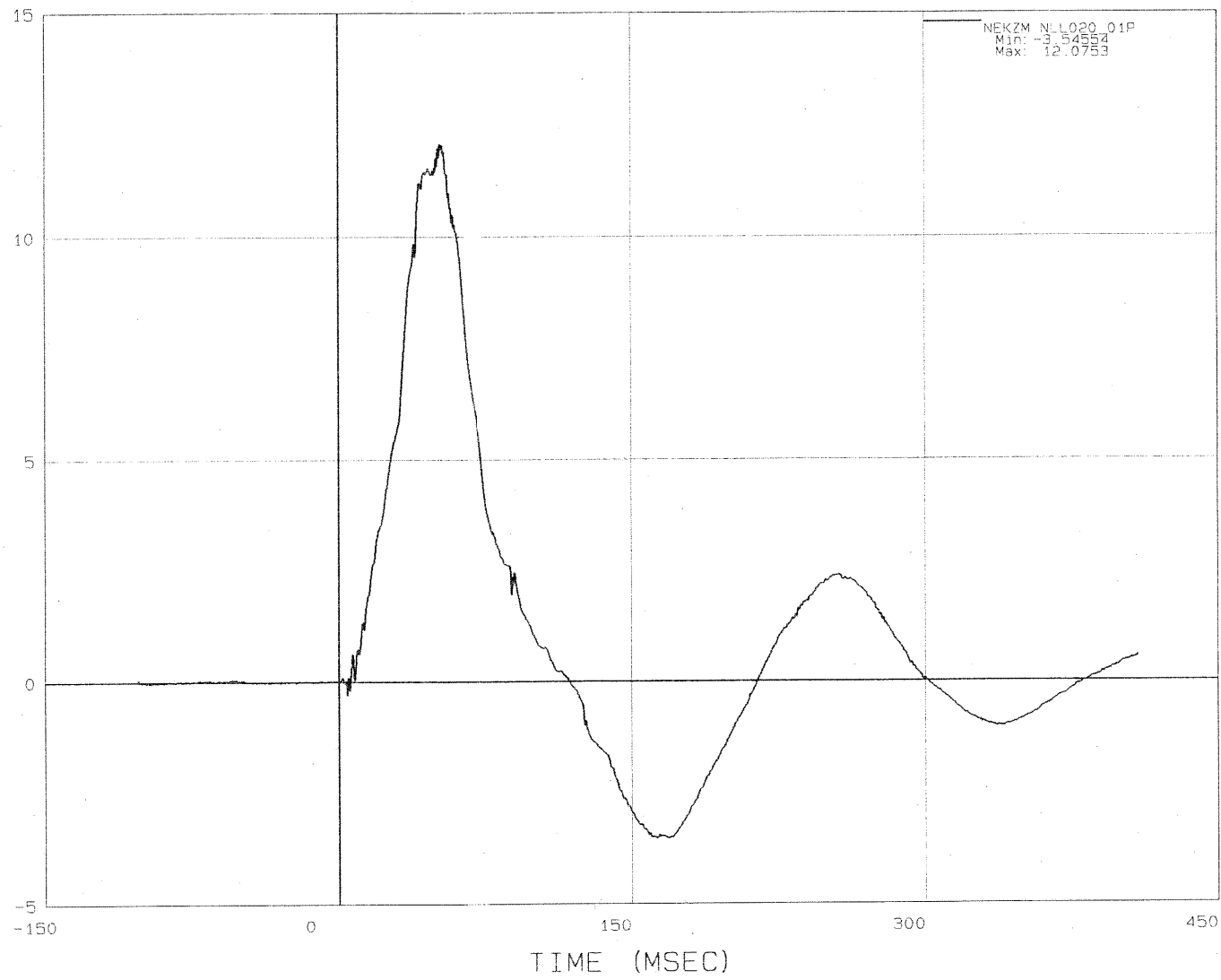


(NM) WAKEN



Sep 25, 2003 11:17:36AM

NEKZM (NM)

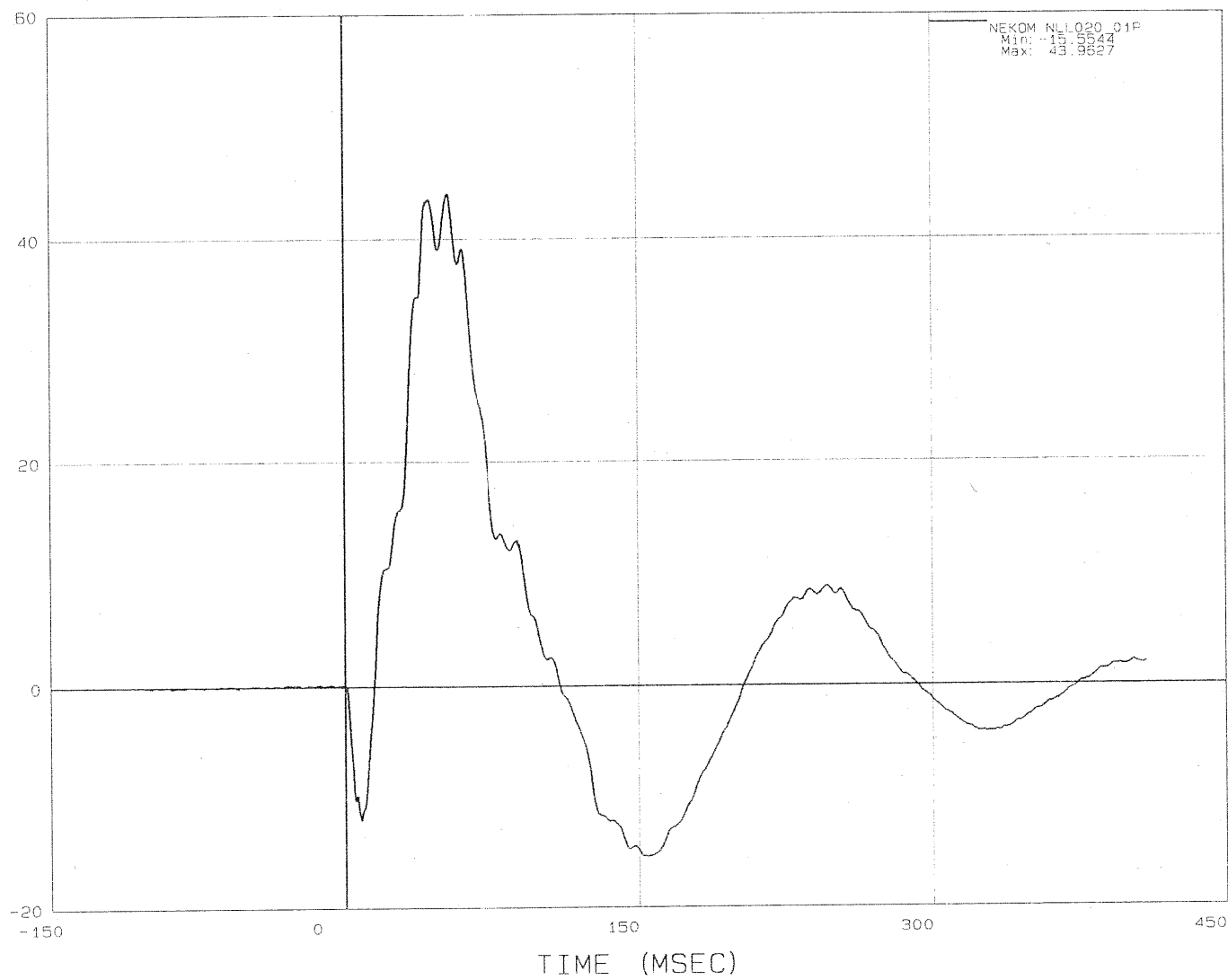


Sep 25, 2003 12:34:41PM

C-22

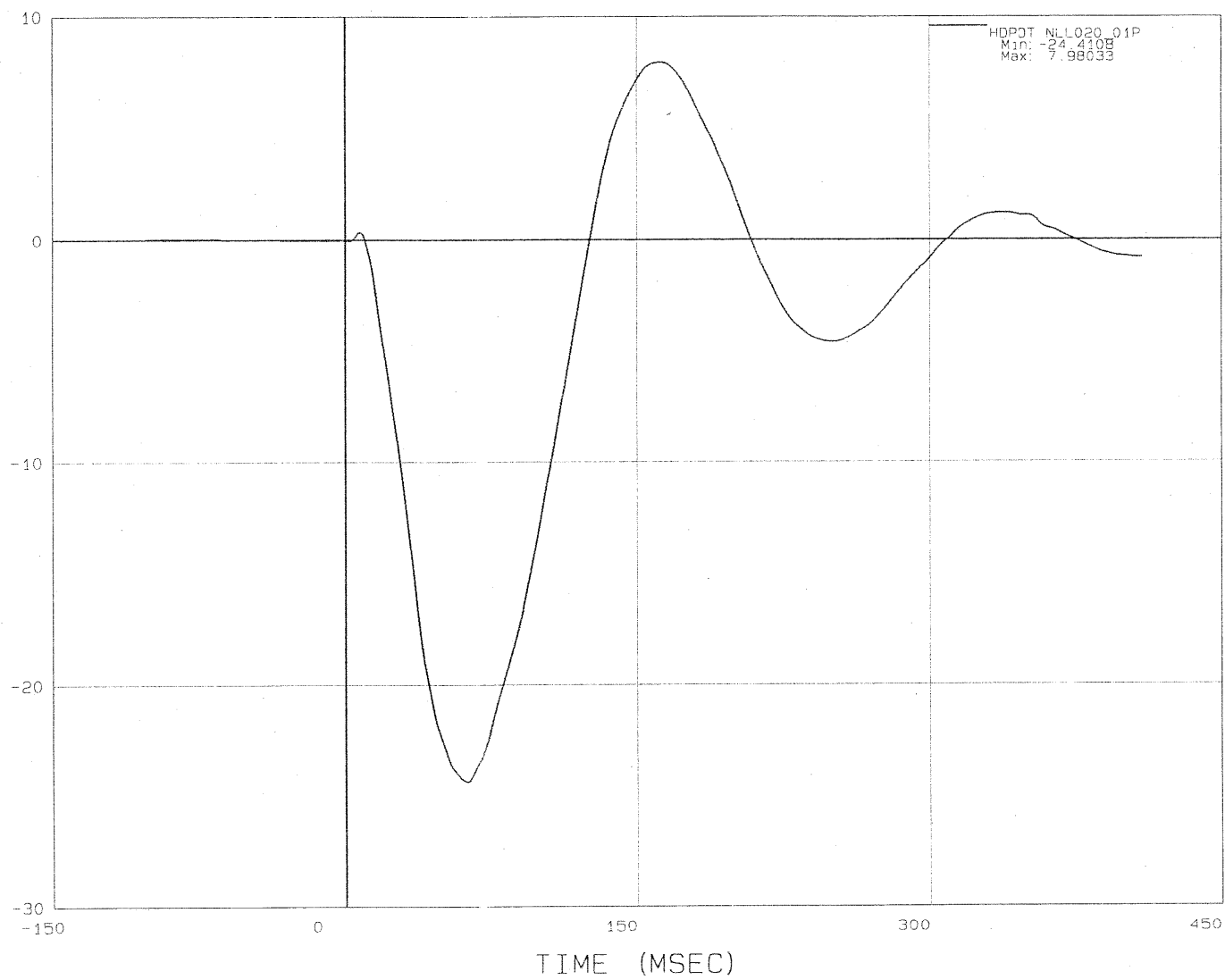
030915-1

NEKOM (NM)



Sep 25, 2003 11:17:51AM

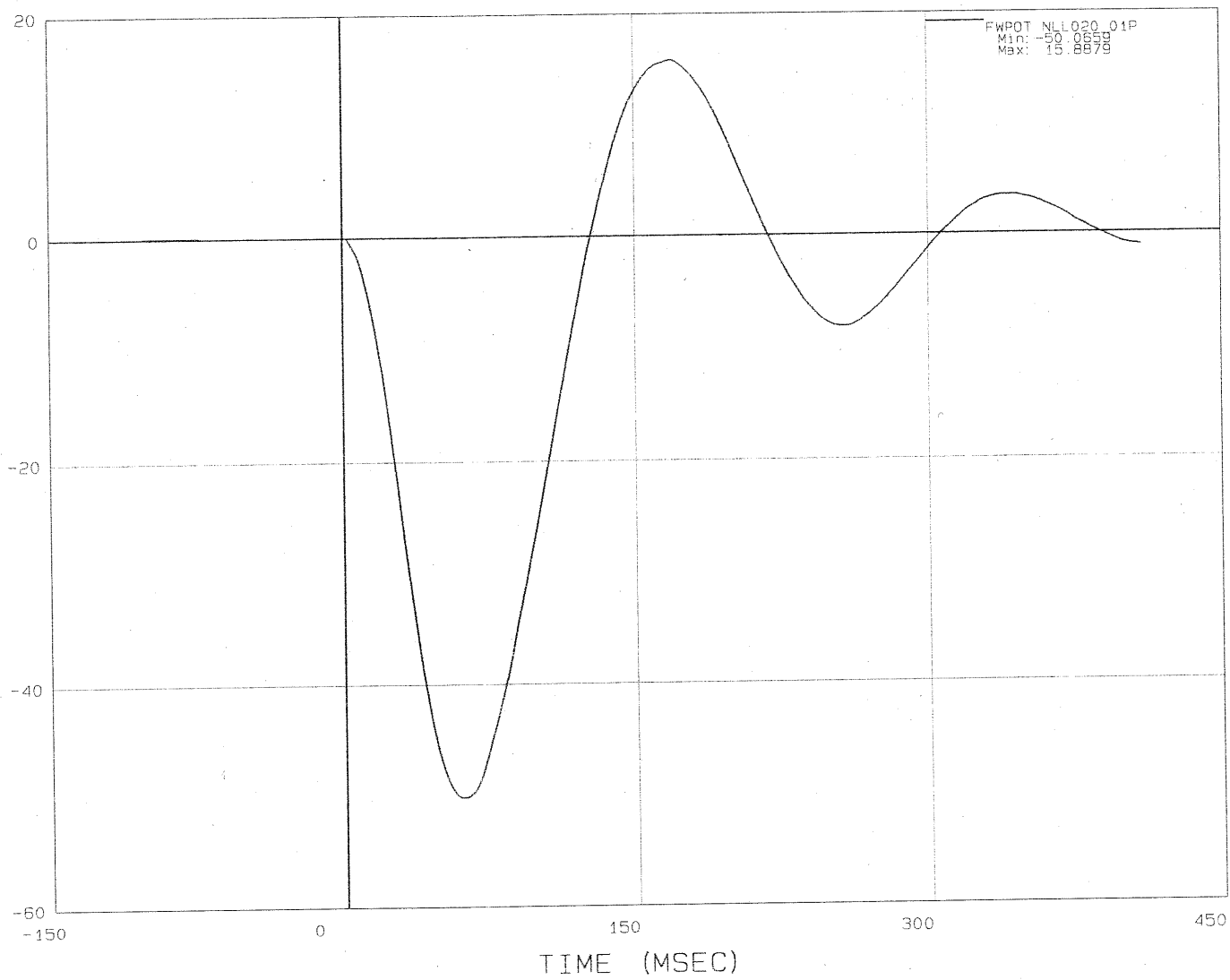
HDPOT (DEGREES)



C-24

030915-1

FWPOT (DEGREES)

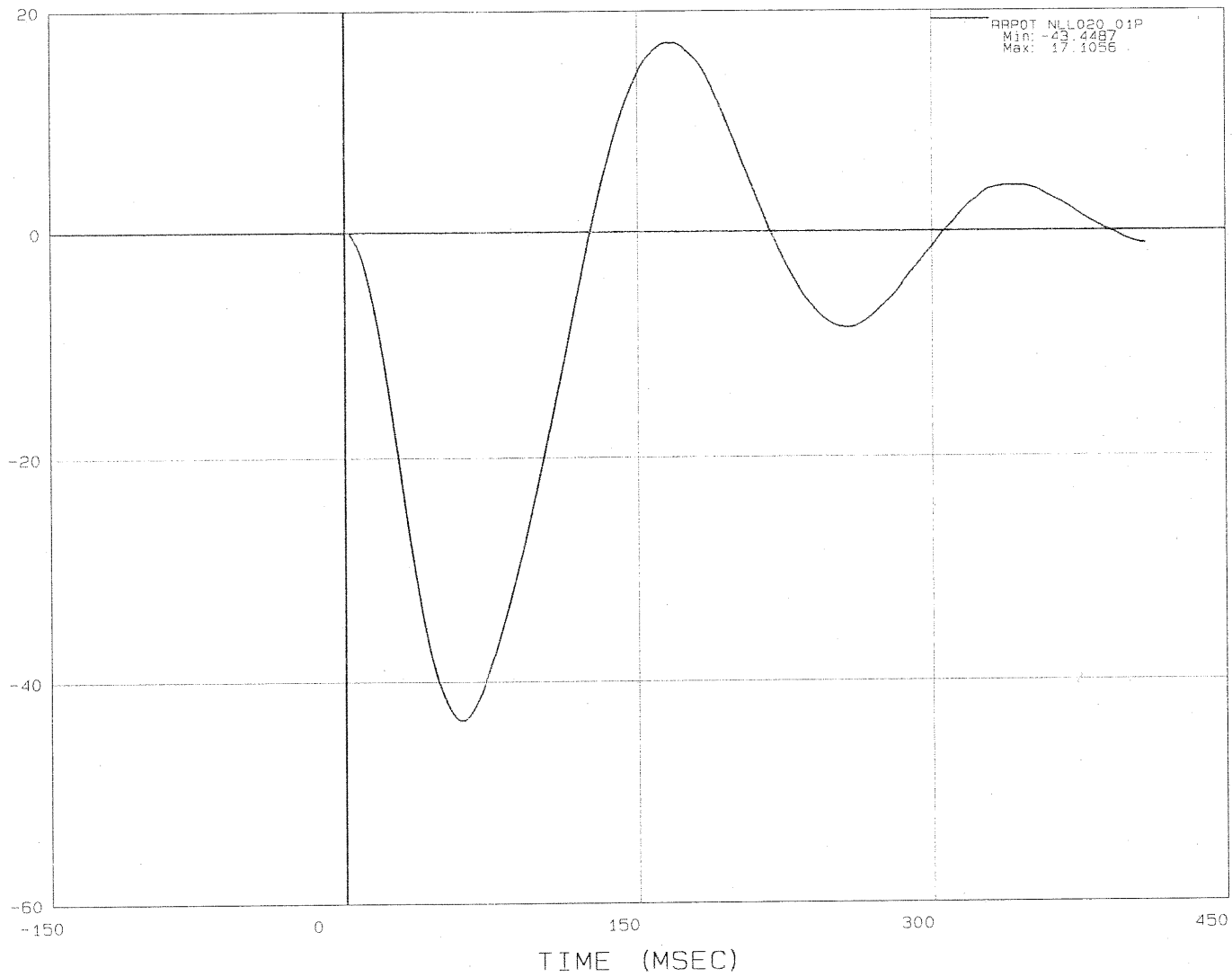


Sep 25, 2003 11:17:44AM

C-25

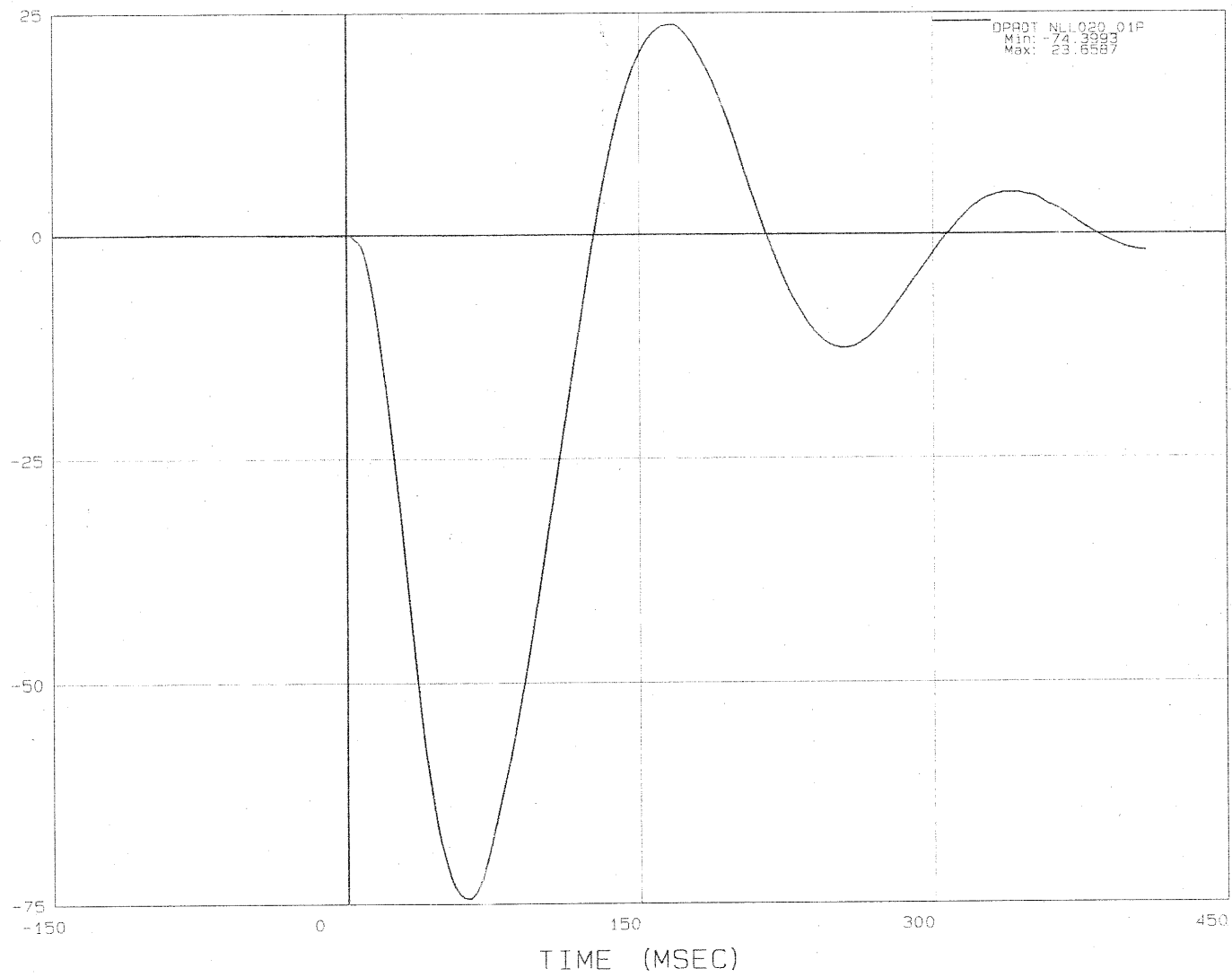
030915-1

RRPOT (DEGREES)



Sep 25, 2003 11:17:44AM

DPROT (DEGREES)



Sep 25, 2003 11:17:45AM

Vehicle Research and Test Center

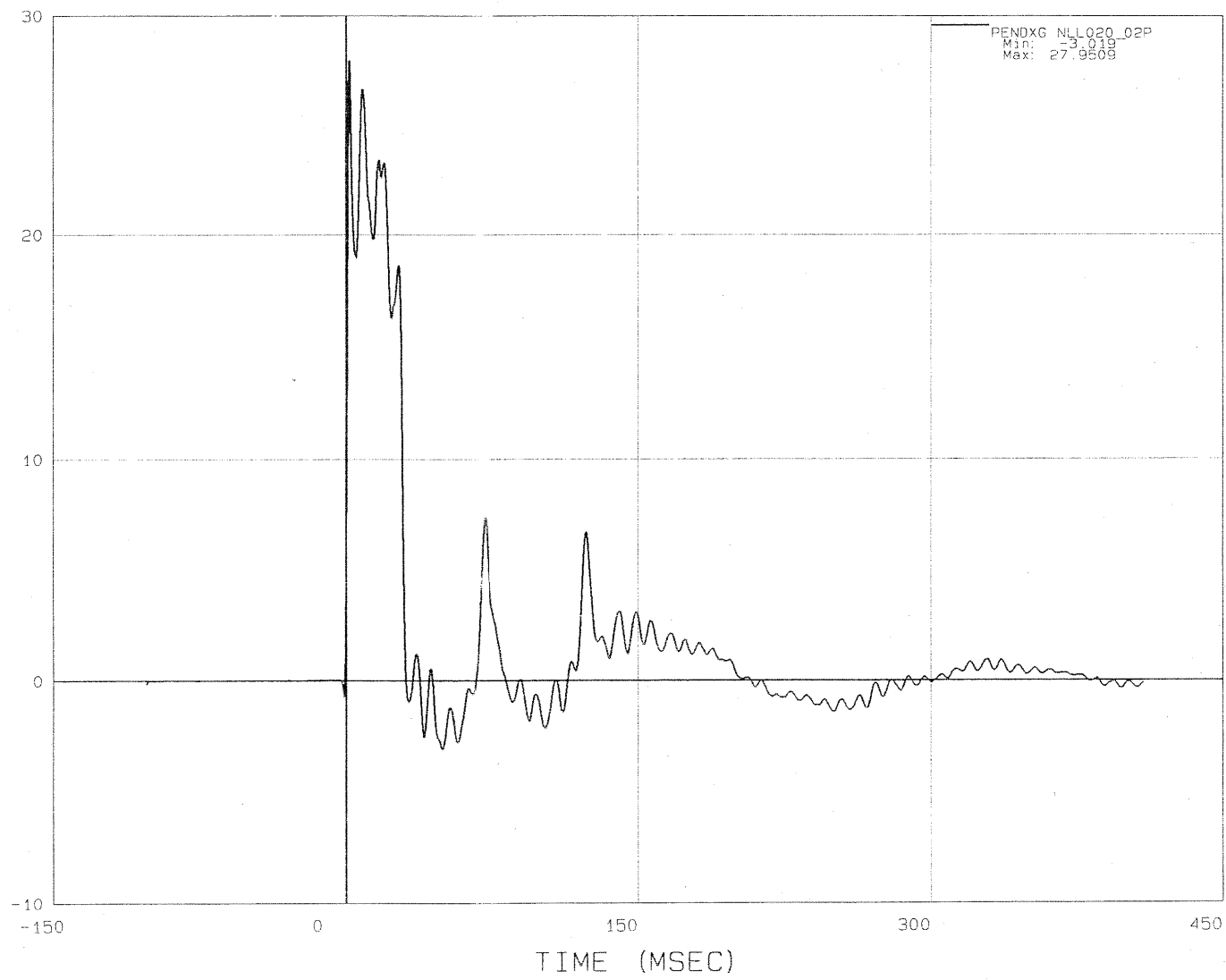
Left Lateral Neck Test
SID-IIs Serial No. 020 Calibration No. 1 - 2

Test Date 09/05/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.57 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	2.19 m/s	Yes
15 ms	3.00 - 3.80 m/s	3.23 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.34 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	5.96 m/s	Yes
Peak D Plane Rotation	72 - 82 °	77.0 °	Yes
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	65.1 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	44.9 N·m	No
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	92.0 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	7.52 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	52.5 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	60.6 ms	No
Peak Rotation of Rearward Pot	47 - 56 °	45.1 °	No
Time of Peak Rotation of Rearward Pot	62 - 73 ms	59.7 ms	No

Comments:

PENDXG (G)

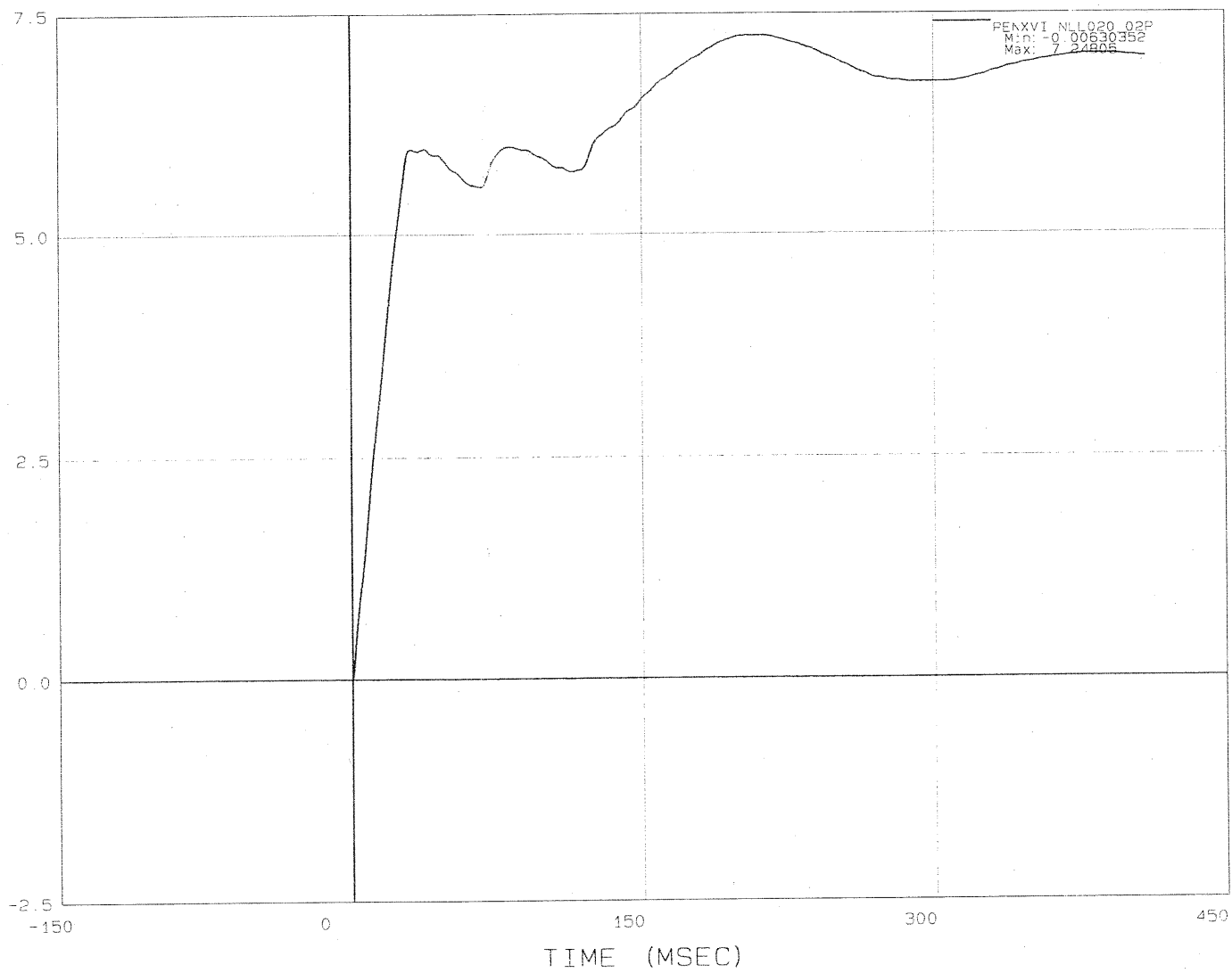


Sep 25, 2003 11:18:31AM

C-29

030915-1

PENXVI (S/M) IAXNED

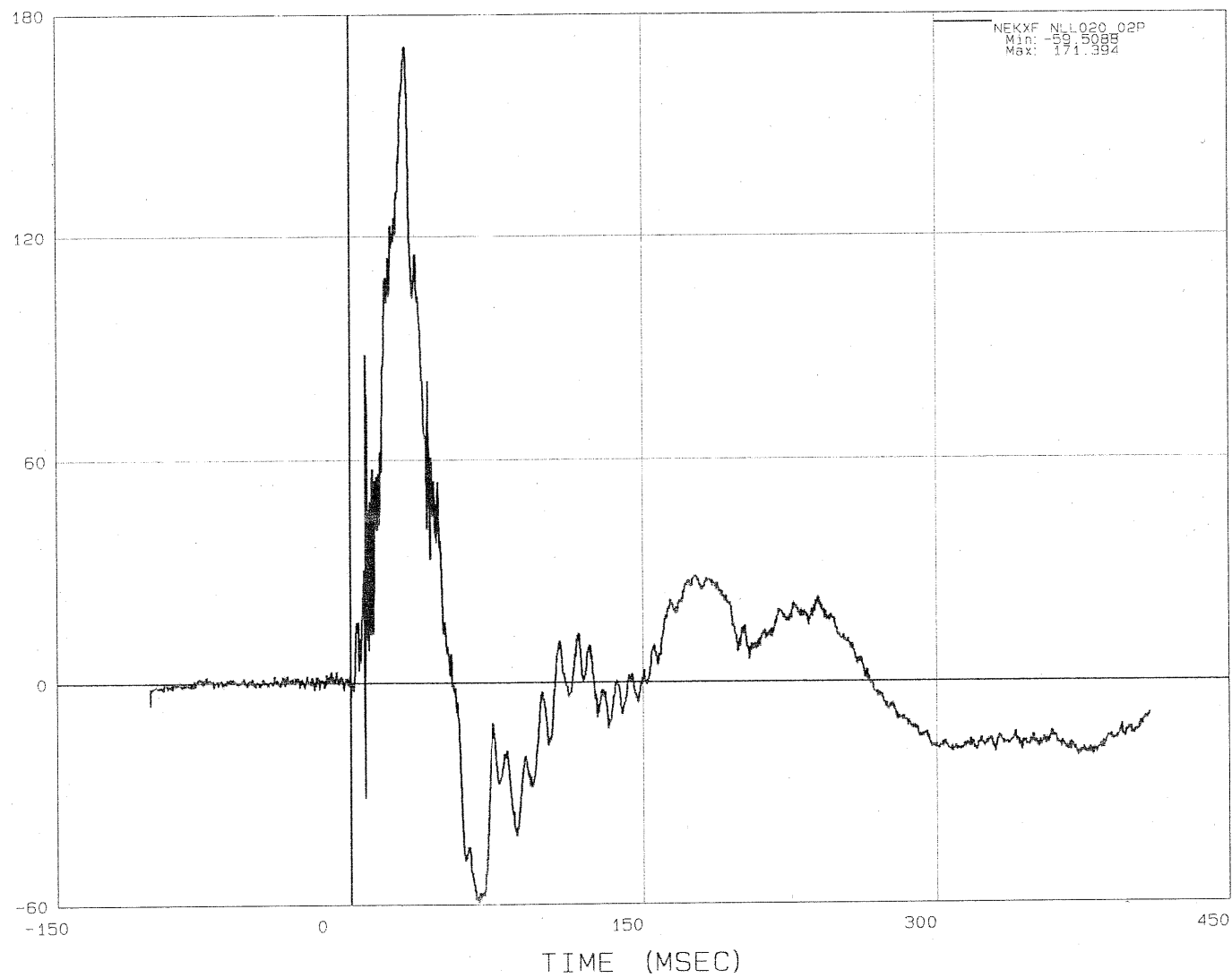


Sep 25, 2003 11:18:31AM

C-30

030915-1

NEKXF (N)

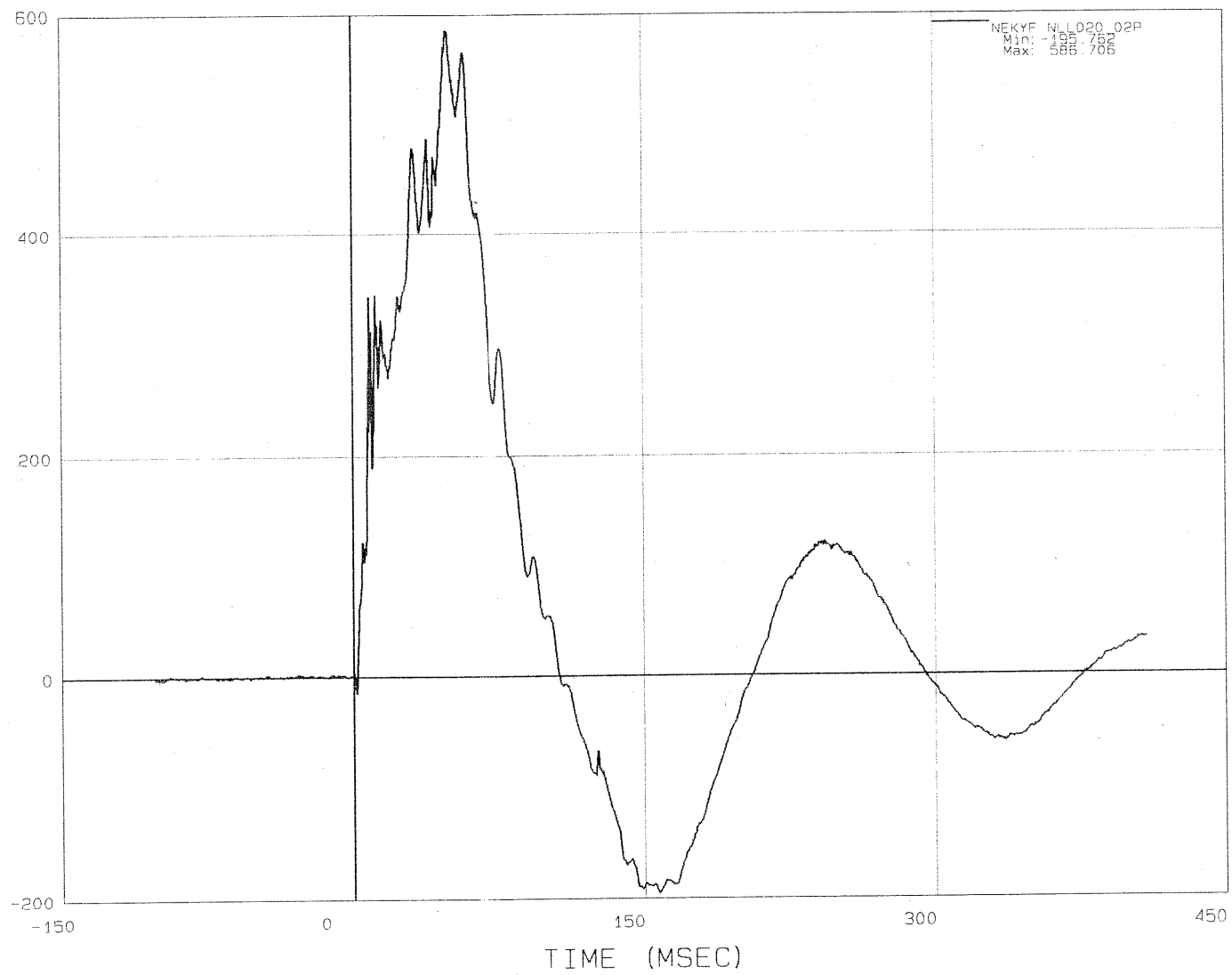


Sep 25, 2003 11:18:22AM

C-31

030915-1

NEKYF (N)

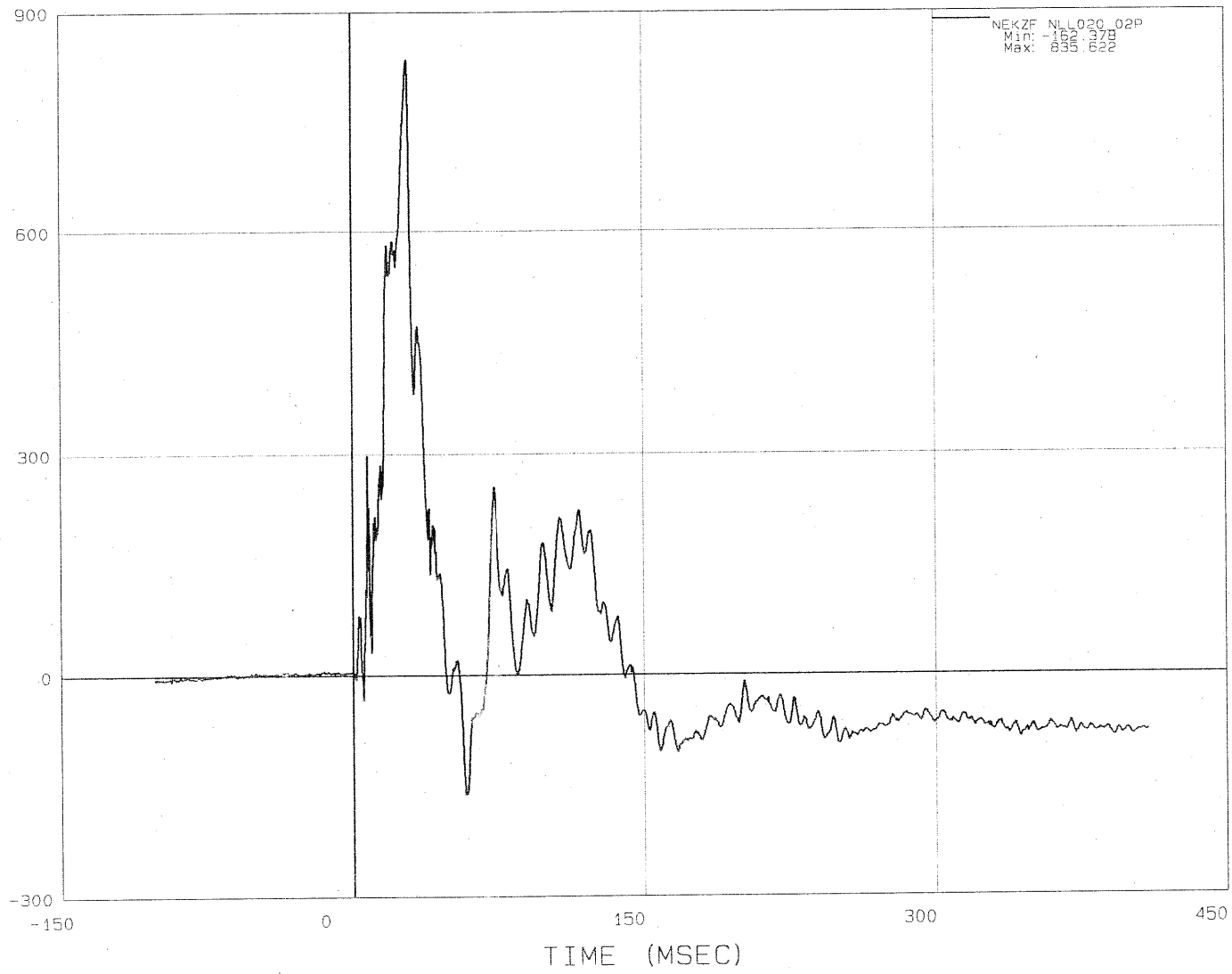


Sep 25, 2003 11:18:23AM

C-32

030915-1

NEKZF (N) FZKEN

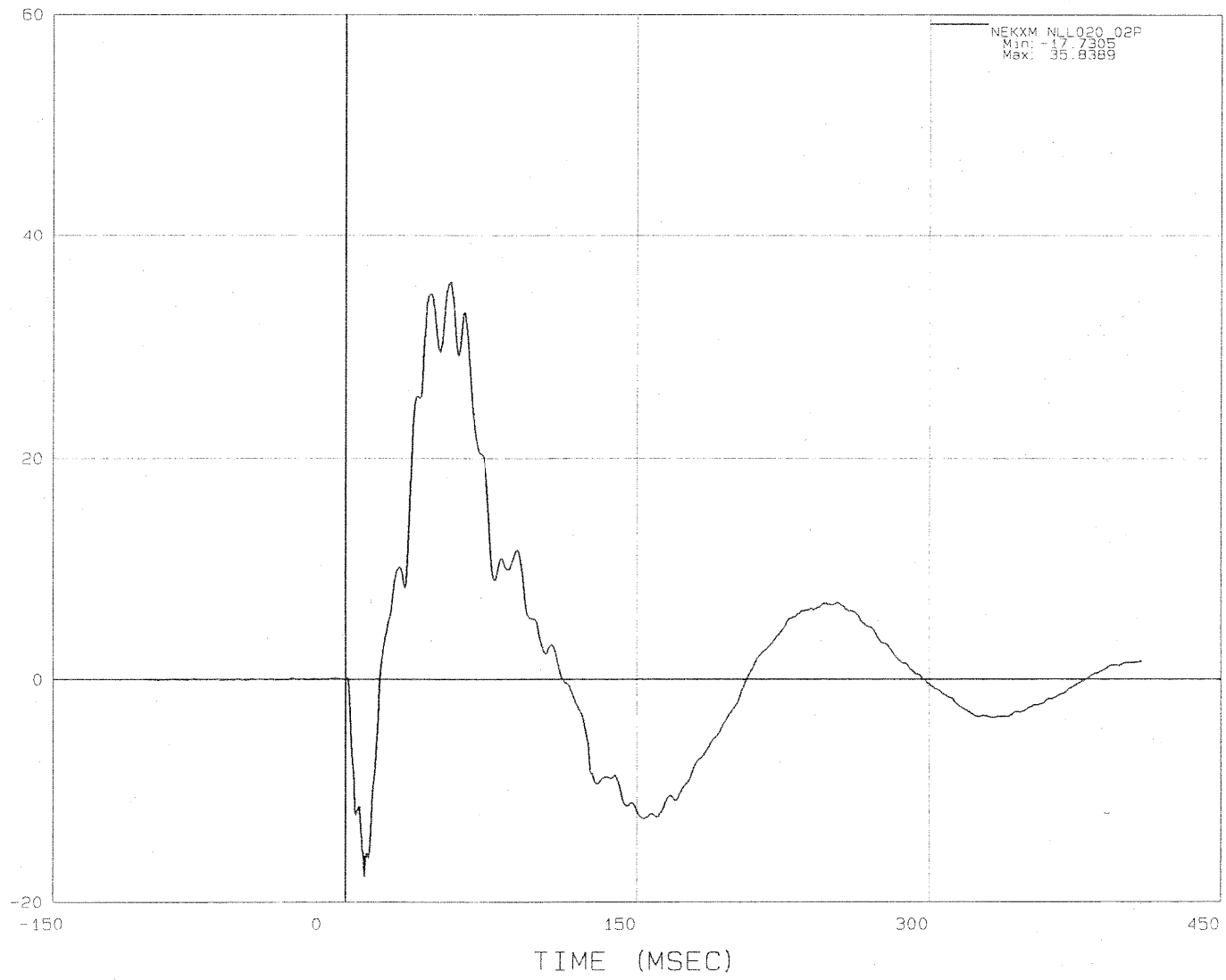


Sep 25, 2003 11:18:24AM

C-33

030915-1

NEKXM (NM)

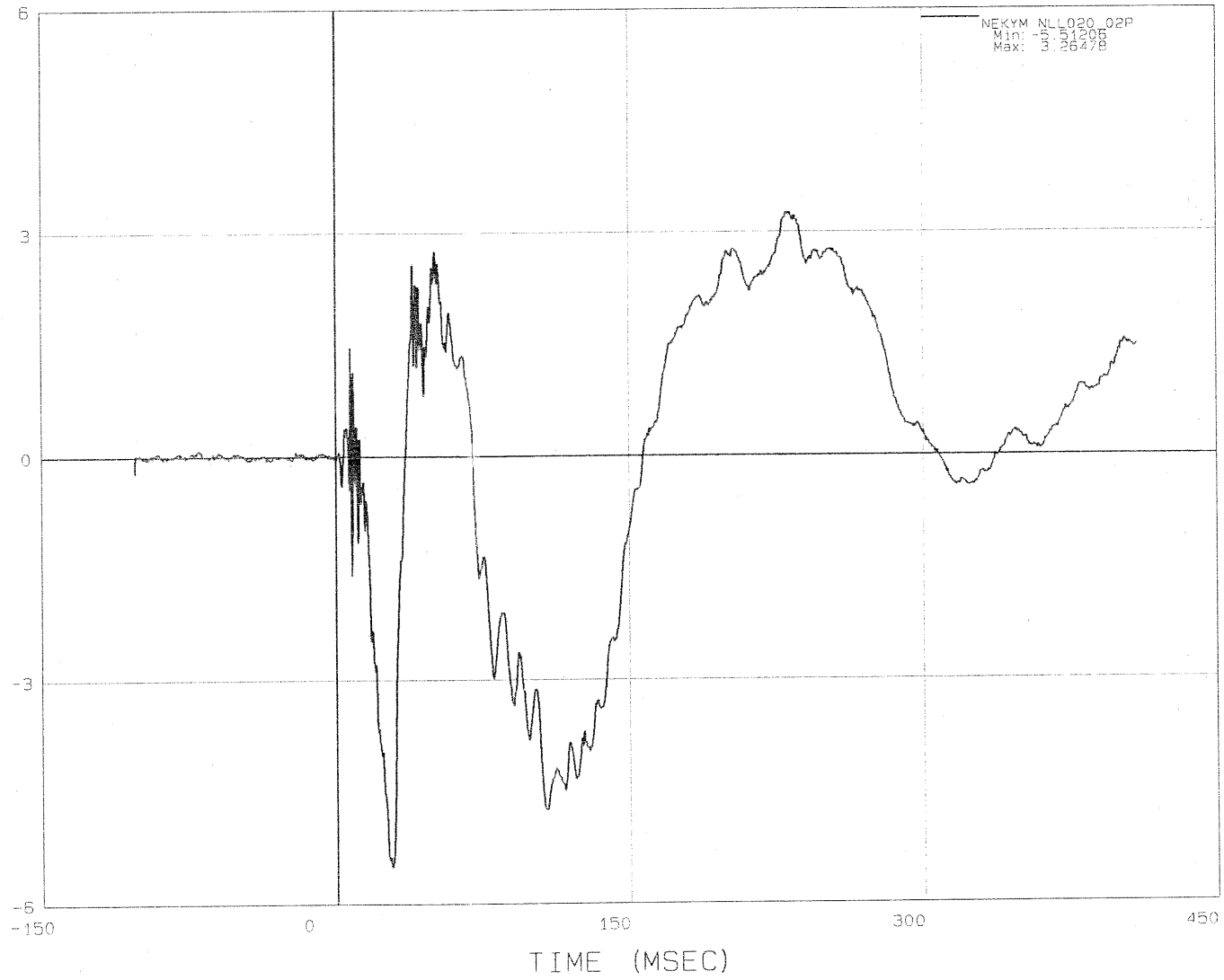


Sep 25, 2003 11:18:24AM

C-34

030915-1

NEKYM (NM) WYEN

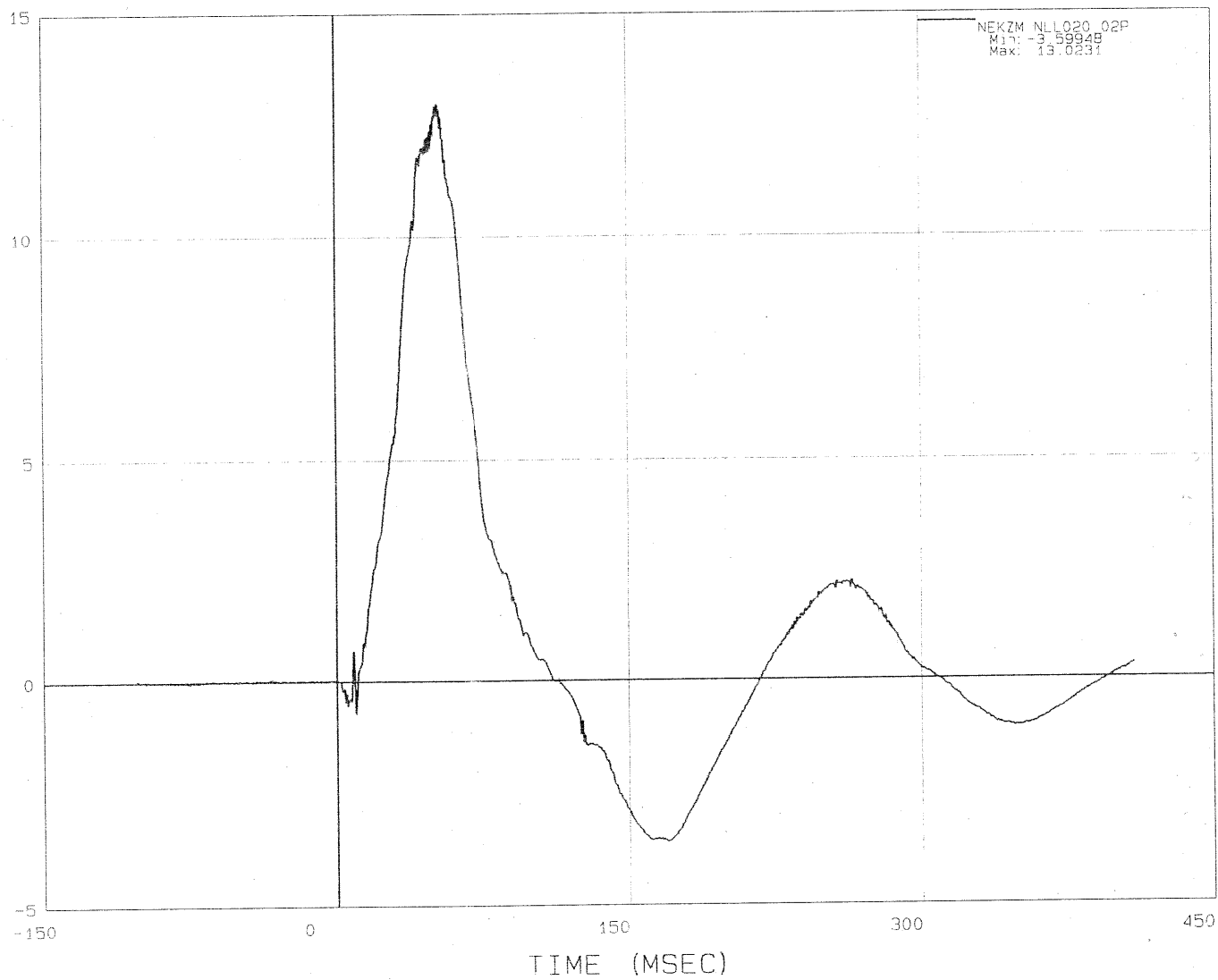


Sep 25, 2003 11:18:25AM

C-35

030915-1

NEKZM (NM)

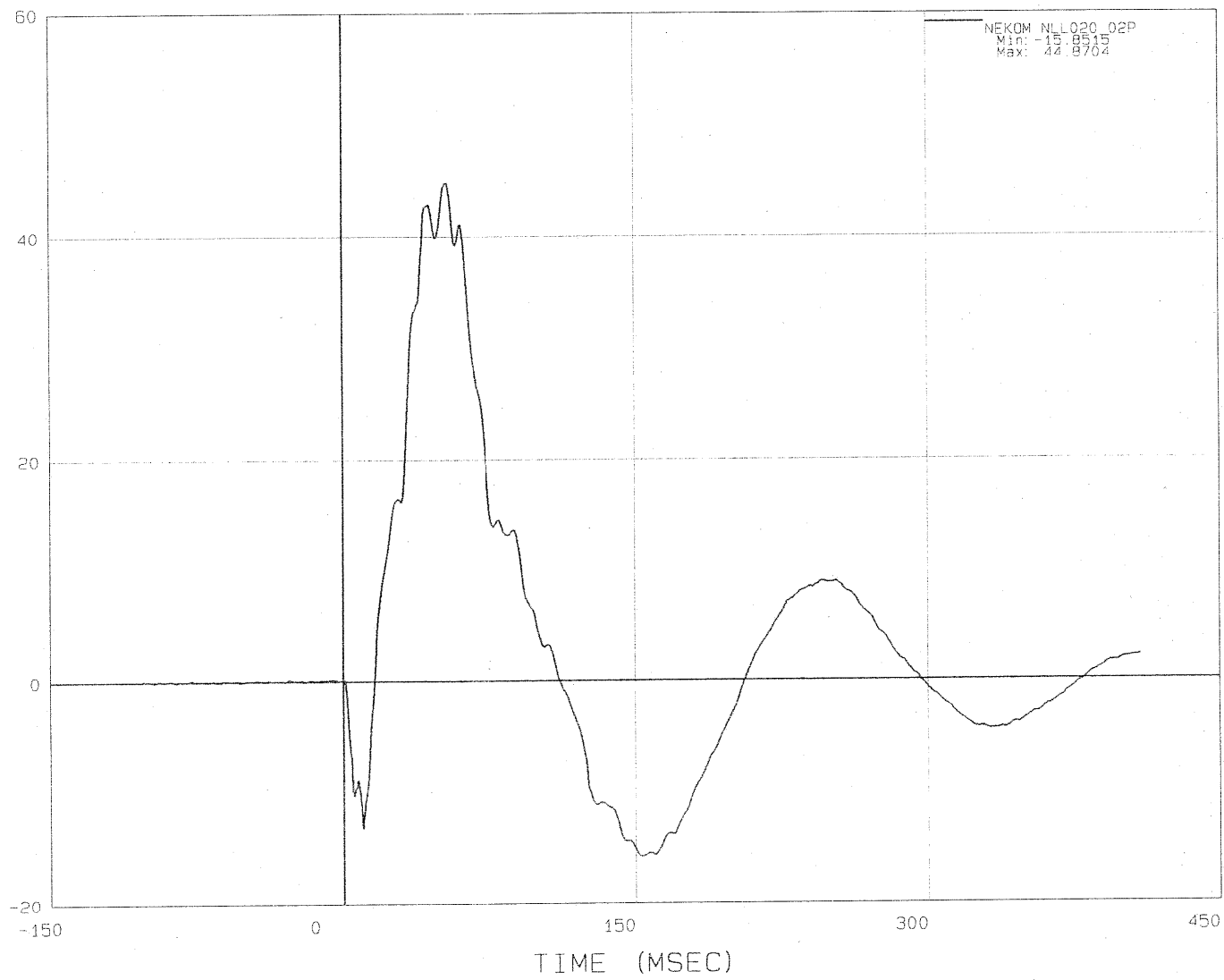


Sep 25, 2003 12:35:03PM

C-36

030915-1

NEKOM (NM)

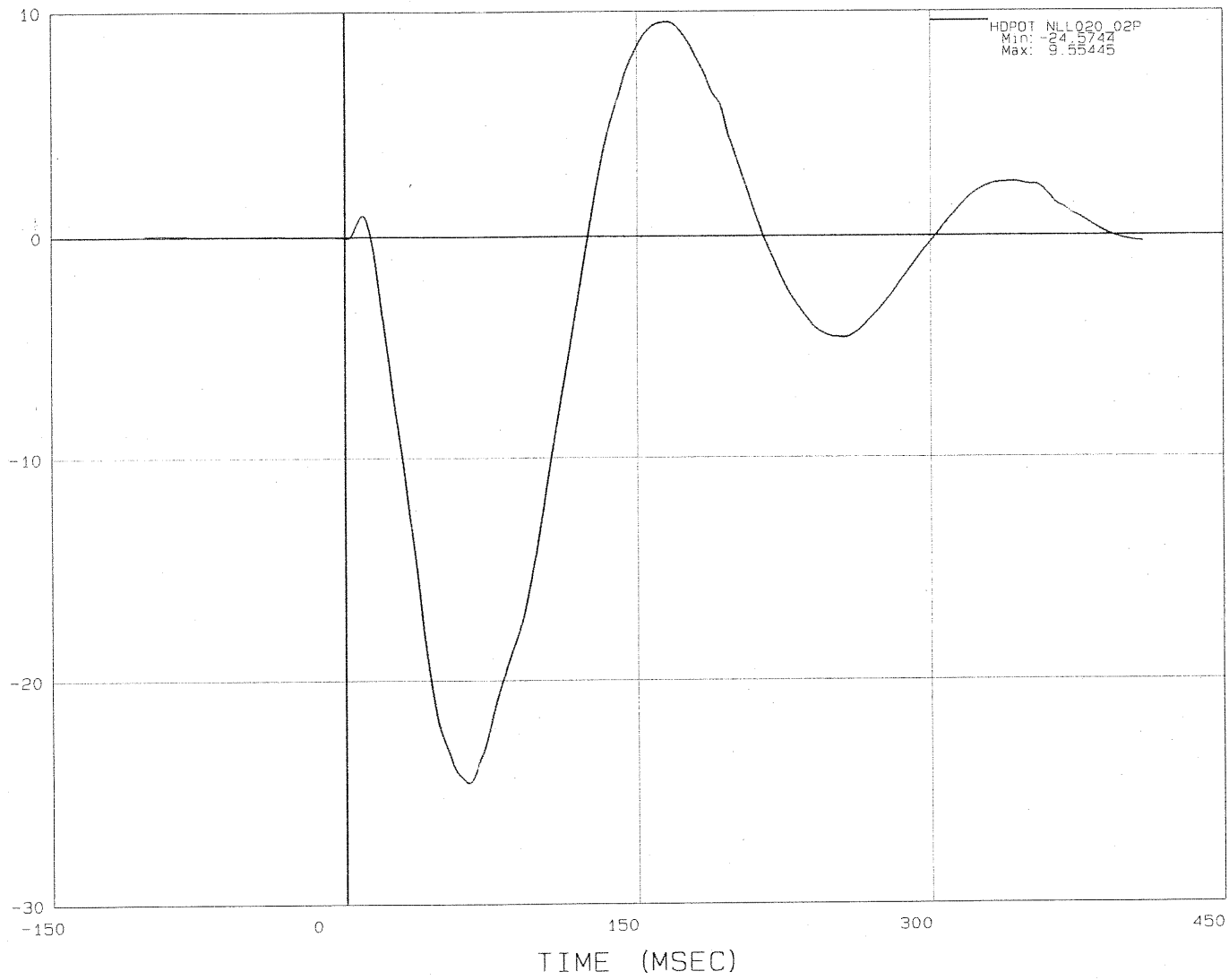


Sep 25, 2003 11:18:38AM

C-37

030915-1

HDPOT (DEGREES)

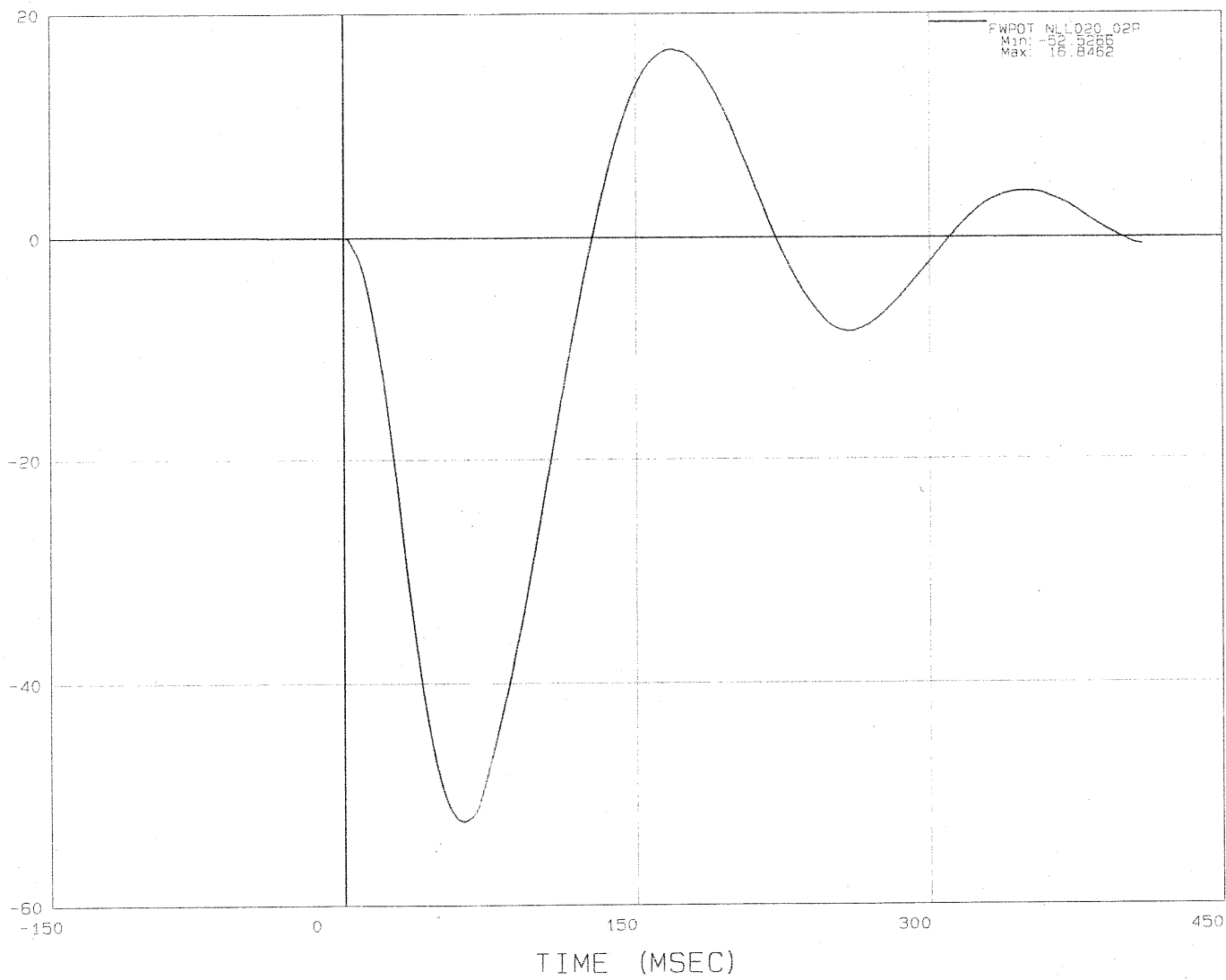


Sep 25, 2003 11:18:32AM

C-38

030915-1

FWPOT (DEGREES)

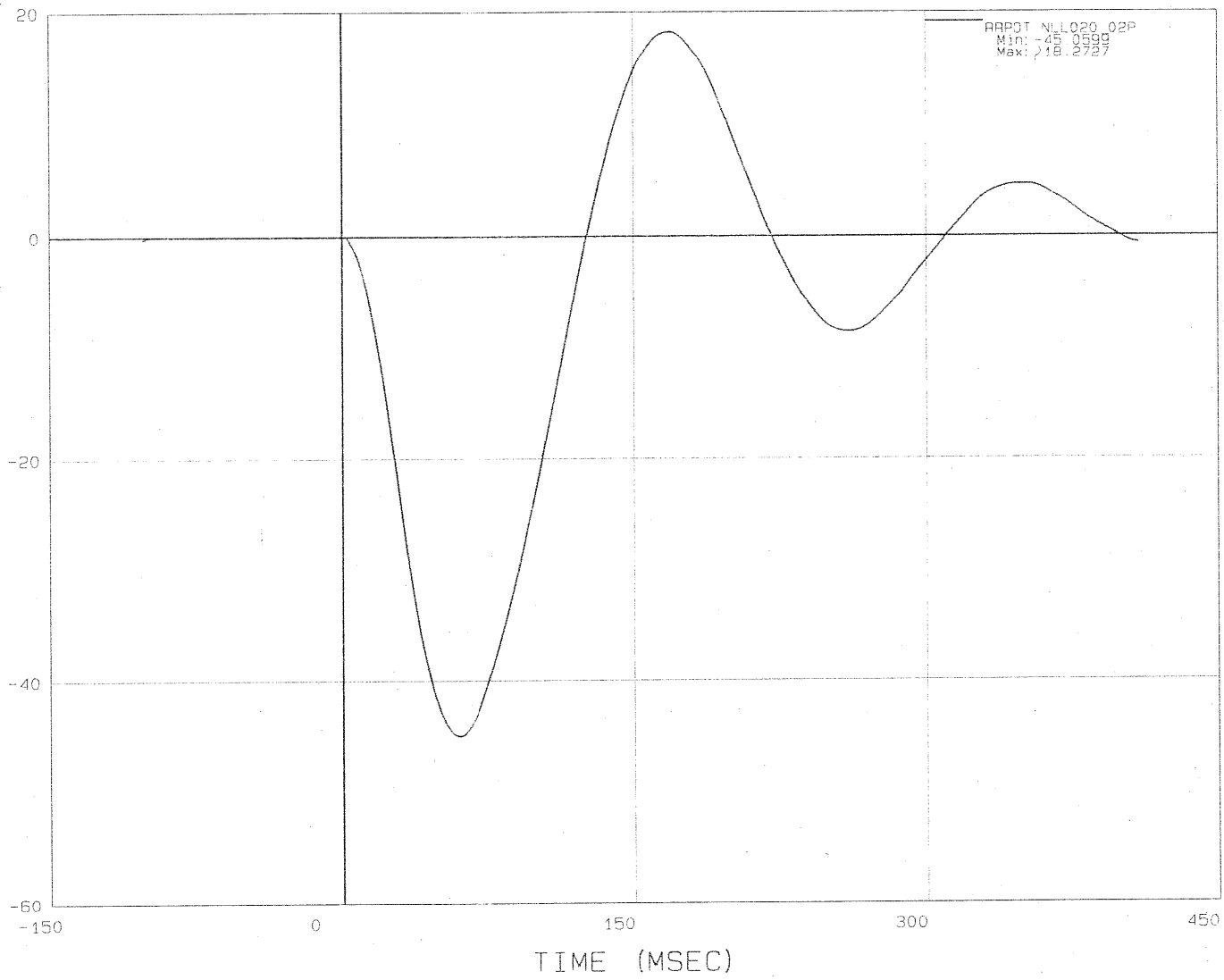


Sep 25, 2003 11:18:32AM

C-39

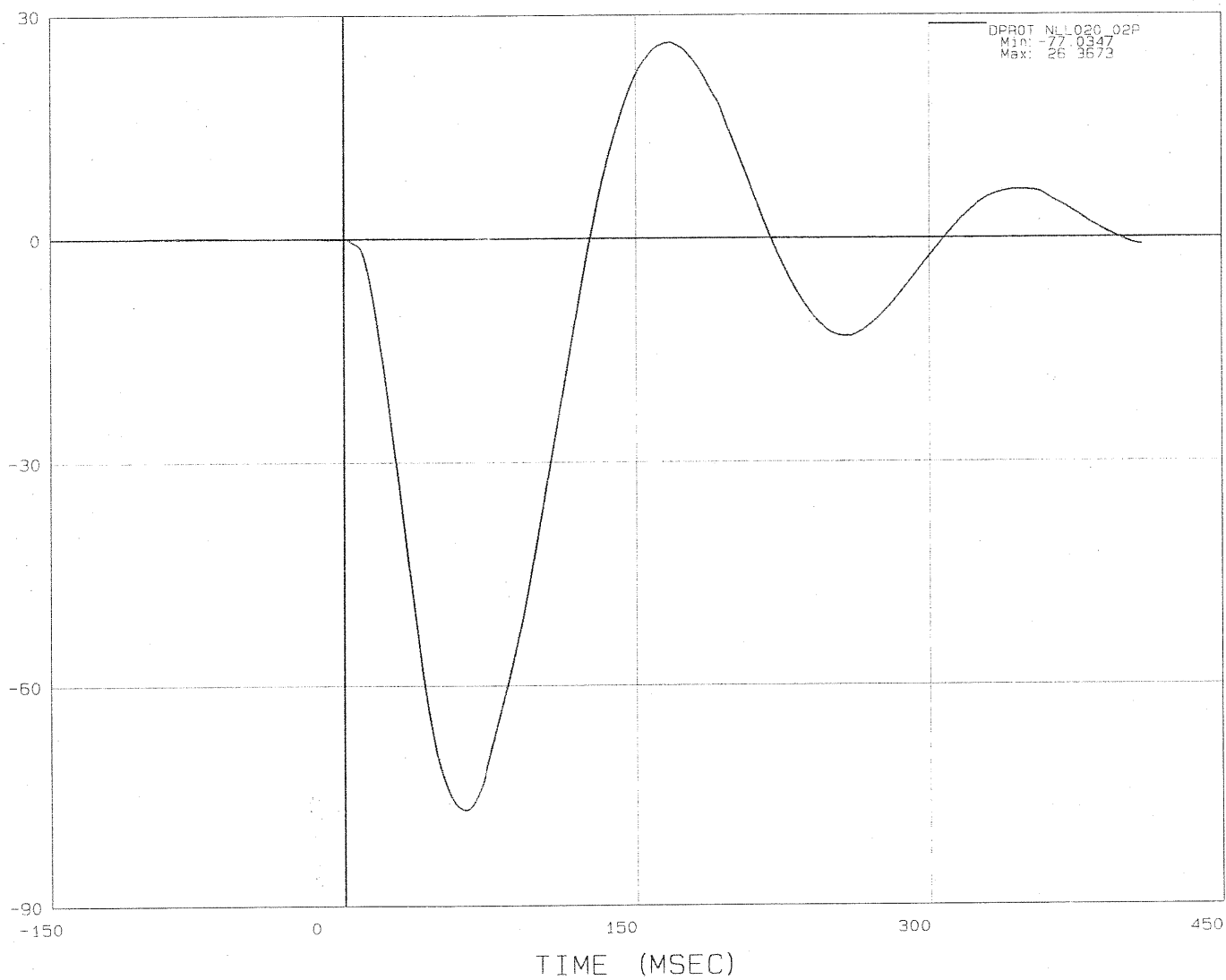
030915-1

ARPOT (DEGREES)



Sep 25, 2003 11:18:32AM

DPROT (DEGREES)



Sep 25, 2003 11:18:33AM

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

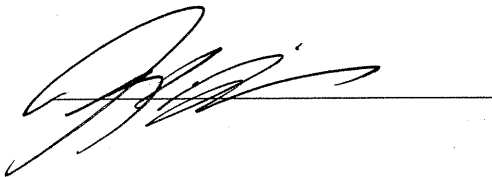
Test Date 09/09/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	58 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.43 m/sec	Yes
Probe Force	1600 - 2400 N	2307 N	Yes
Deflection	27 - 39 mm	28.0 mm	Yes

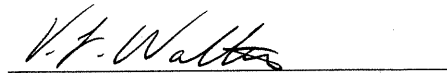
Comments:

Test Conditions -
Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.02.2003 15:13:37 1111



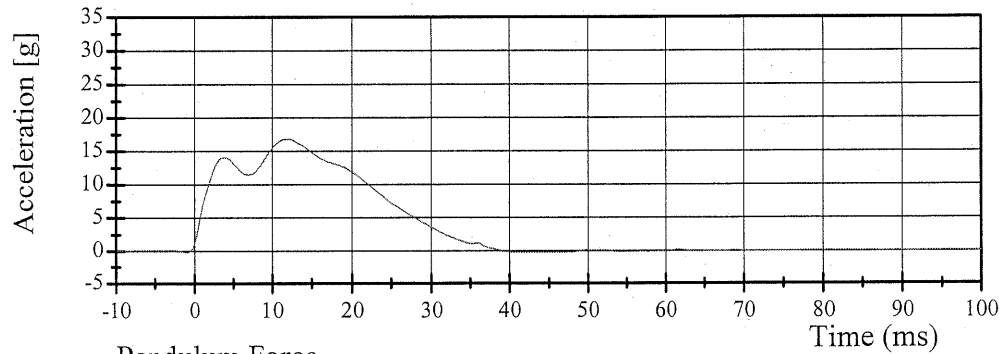
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/09/2003

Pendulum Deceleration

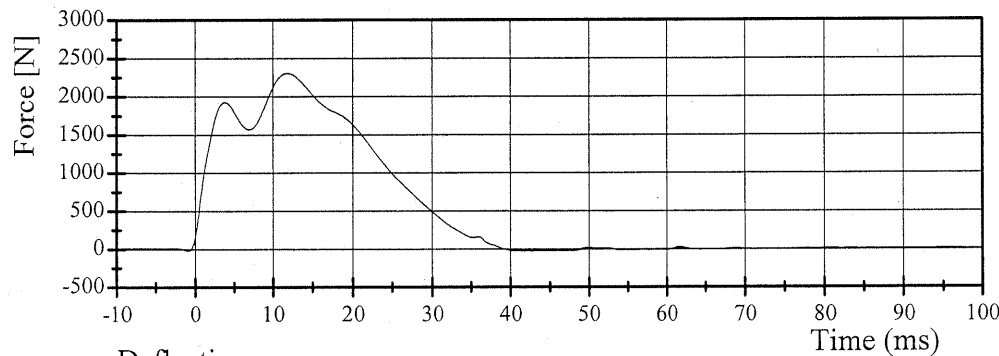


Filter Class: CFC 180

Max: 16.8 g at 11.4 ms

Min: -1.1 g at 37.6 ms

Pendulum Force

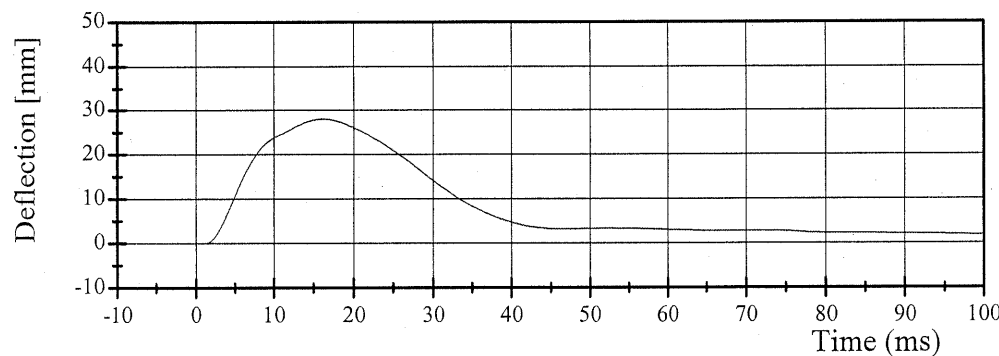


Filter Class: CFC 180

Max: 2307 N at 11.9 ms

Min: -25 N at 42.8 ms

Deflection



Filter Class: CFC 600

Max: 27.99 mm at 16.3 ms

Min: -0.01 mm at -23.2 ms

10.02.2003 15:14:17 1111



Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/09/2003

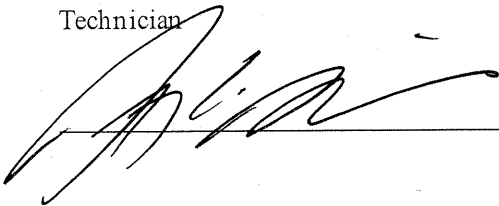
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.45 m/sec	Yes
Probe Force	1600 - 2400 N	2348 N	Yes
Deflection	27 - 39 mm	27.4 mm	Yes

Comments:

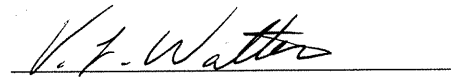
Test Conditions -

Thorax foam cable-tied in place; with jacket; with pants; no arm.

Technician



Approved



10.02.2003 15:17:55 1112



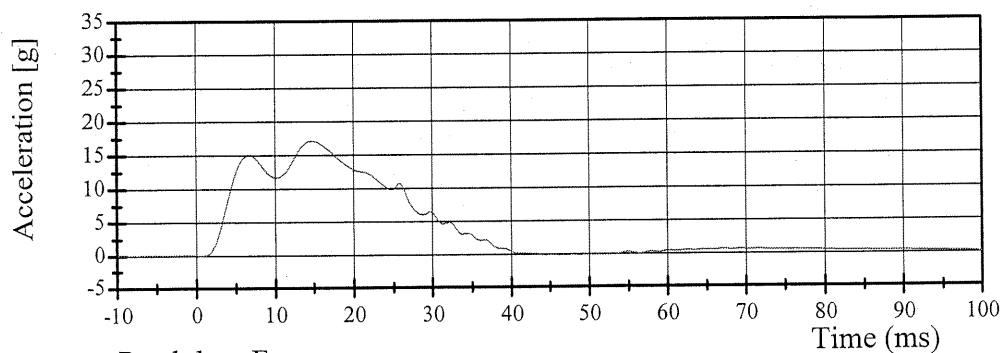
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/09/2003

Pendulum Deceleration

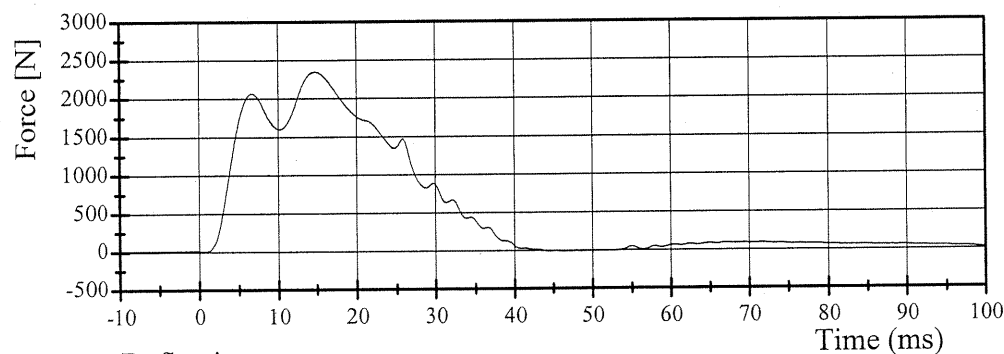


Filter Class: CFC 180

Max: 17.2 g at 15.0 ms

Min: -0.6 g at 44.3 ms

Pendulum Force

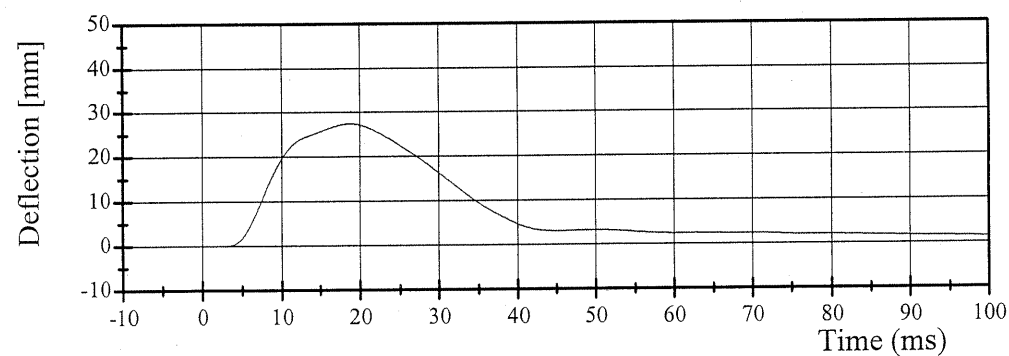


Filter Class: CFC 180

Max: 2348 N at 14.8 ms

Min: -13 N at 762.8 ms

Deflection



Filter Class: CFC 600

Max: 27.42 mm at 18.8 ms

Min: 0.00 mm at -57.0 ms

10.02.2003 15:18:34 1112



Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

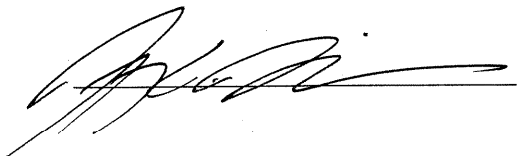
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	61 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.57 m/sec	Yes
Pendulum Force	4100 - 4700 N	4812 N	No
Upper Spine Peak Acceleration	34 - 48 g	46.4 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	38.5 g	No
Upper Rib Peak Deflection	23 - 35 mm	23.9 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	29.9 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	33.0 mm	No
Shoulder Peak Deflectionoin	30 - 42 mm	31.2 mm	Yes

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.02.2003 18:10:13 947



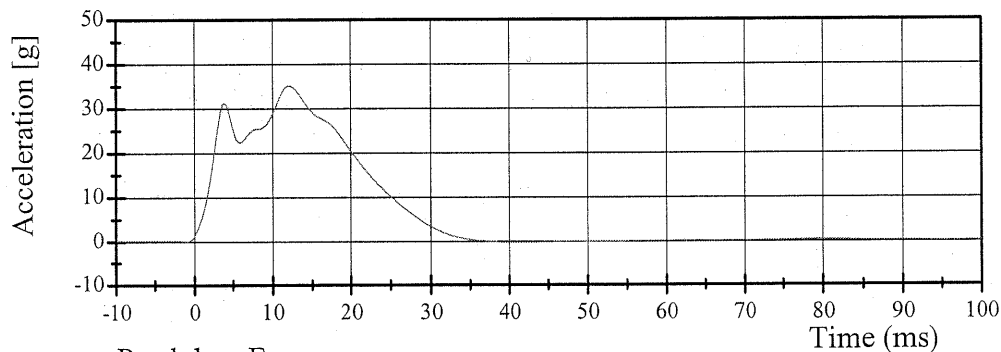
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Pendulum Deceleration

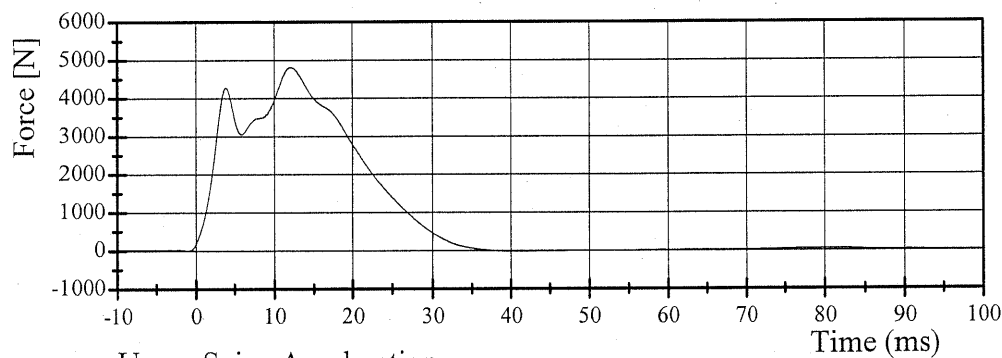


Filter Class: CFC 180

Max: 35.1 g at 12.1 ms

Min: -0.2 g at 40.3 ms

Pendulum Force

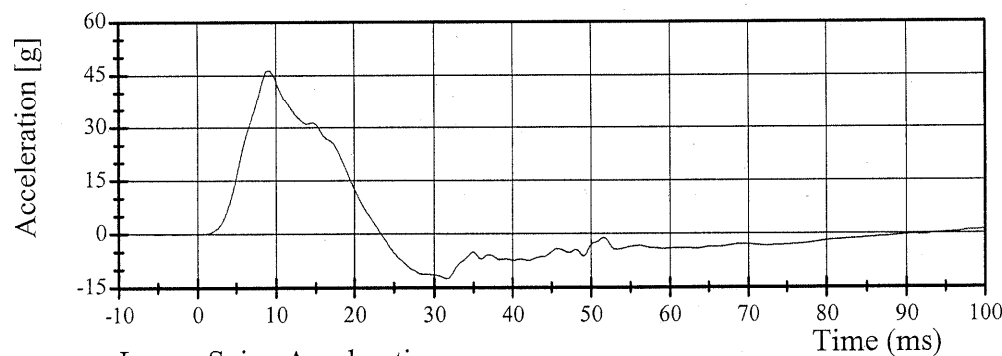


Filter Class: CFC 180

Max: 4812 N at 12 ms

Min: -24 N at 40 ms

Upper Spine Acceleration

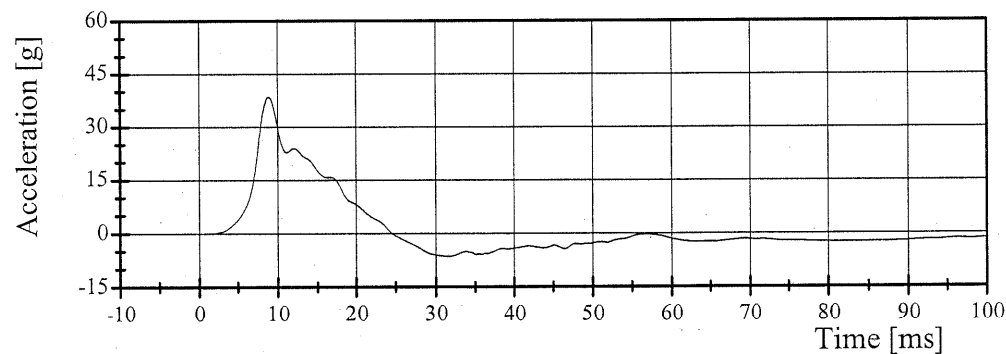


Filter Class: CFC 180

Max: 46.4 g at 9.1 ms

Min: -12.5 g at 31.6 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 38.5 g at 8.9 ms

Min: -6.4 g at 31.6 ms

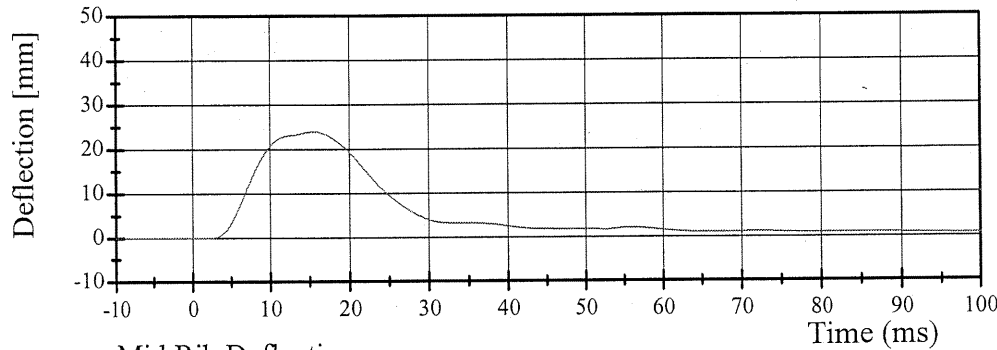
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Upper Rib Deflection

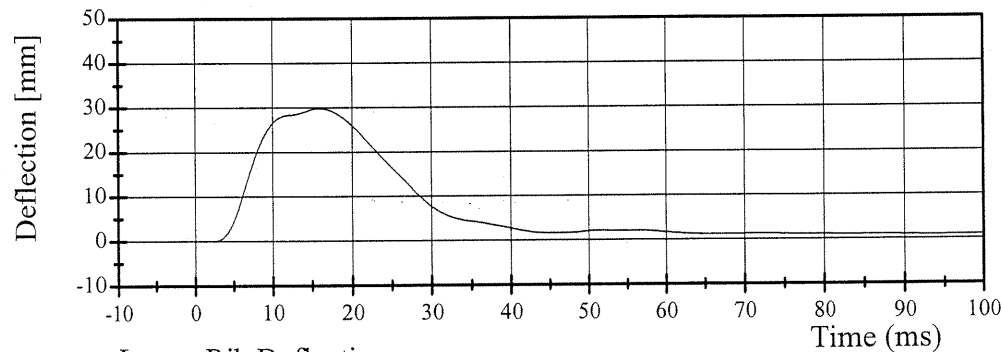


Filter Class: CFC 600

Max: 23.9 mm at 15.6 ms

Min: -0.0 mm at -75.8 ms

Mid Rib Deflection

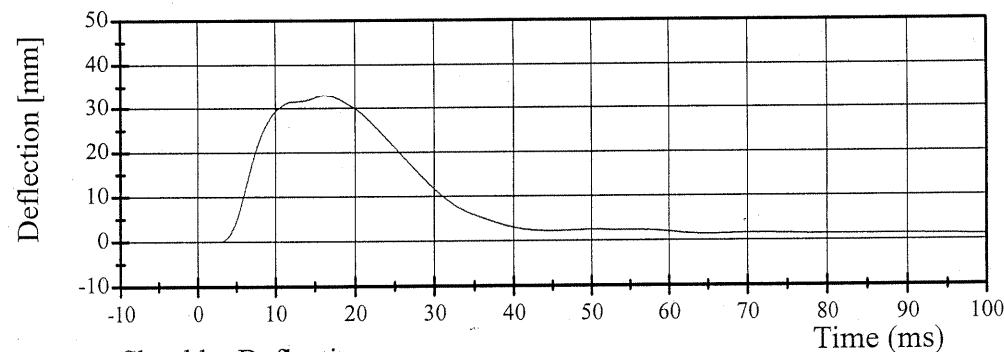


Filter Class: CFC 600

Max: 29.9 mm at 16.0 ms

Min: -0.0 mm at 2.5 ms

Lower Rib Deflection

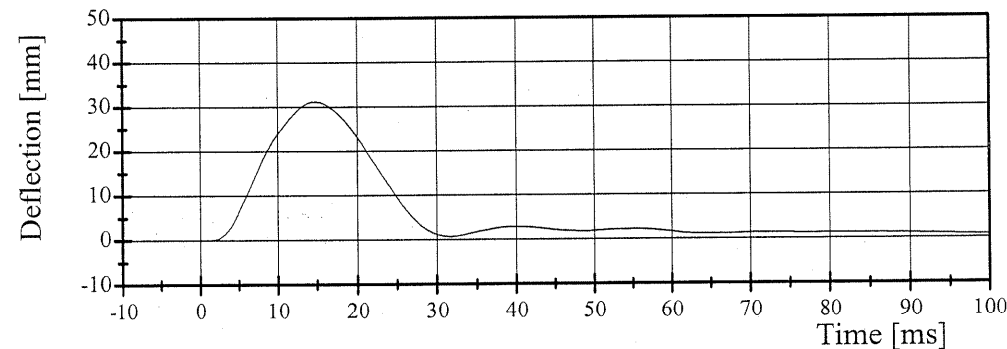


Filter Class: CFC 600

Max: 33.0 mm at 16.3 ms

Min: -0.0 mm at 2.9 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 31.2 mm at 14.7 ms

Min: -0.0 mm at -2.2 ms

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Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

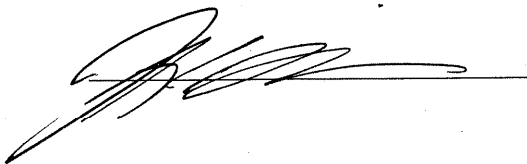
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	4100 - 4700 N	4826 N	No
Upper Spine Peak Acceleration	34 - 48 g	45.7 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	39.1 g	No
Upper Rib Peak Deflection	23 - 35 mm	24.2 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	30.5 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	33.3 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	31.4 mm	Yes

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.02.2003 18:22:18 955



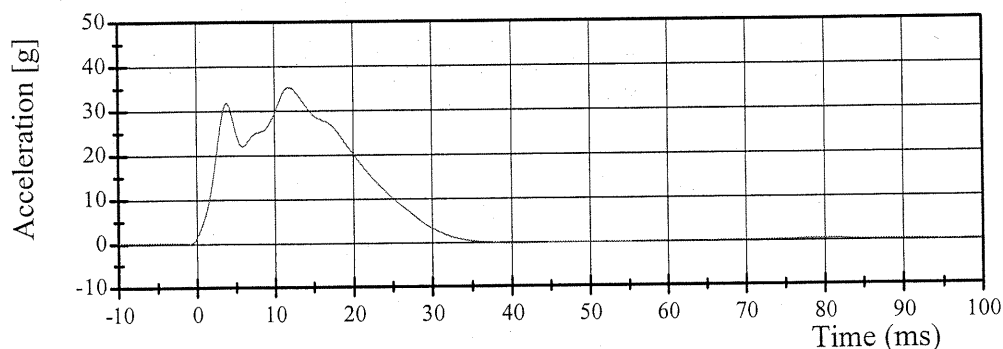
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

Pendulum Deceleration

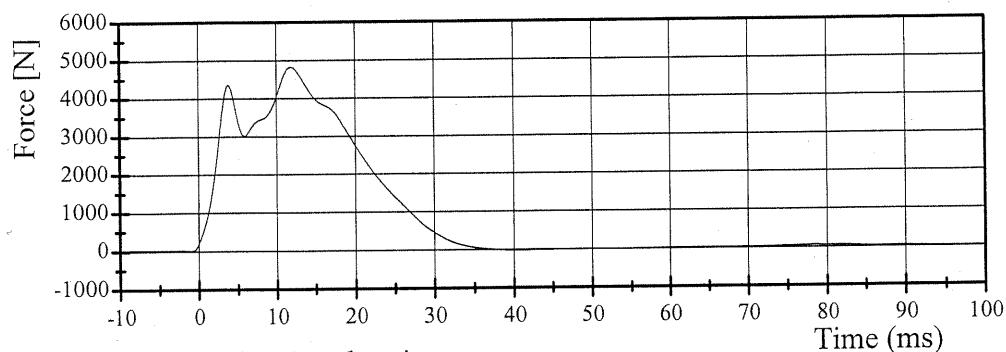


Filter Class: CFC 180

Max: 35.2 g at 11.9 ms

Min: -0.2 g at 40.2 ms

Pendulum Force

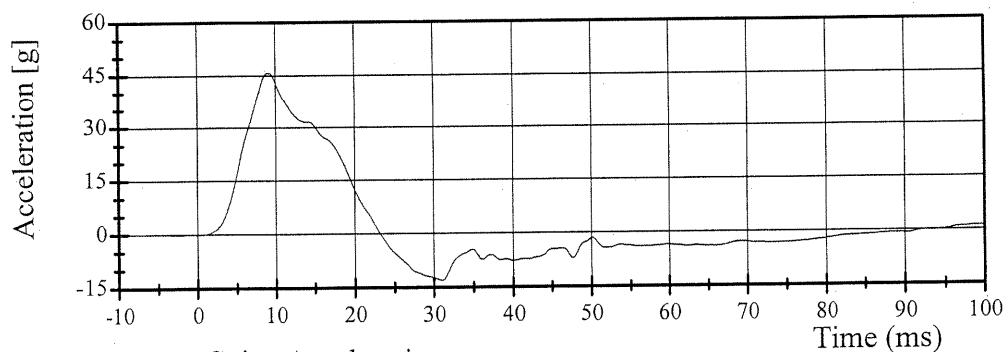


Filter Class: CFC 180

Max: 4826 N at 12 ms

Min: -21 N at 40 ms

Upper Spine Acceleration

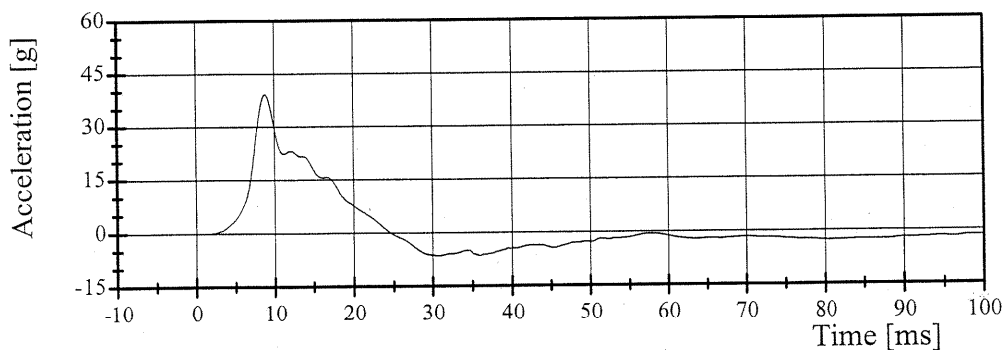


Filter Class: CFC 180

Max: 45.7 g at 9.0 ms

Min: -13.1 g at 31.0 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 39.1 g at 8.8 ms

Min: -6.6 g at 35.9 ms

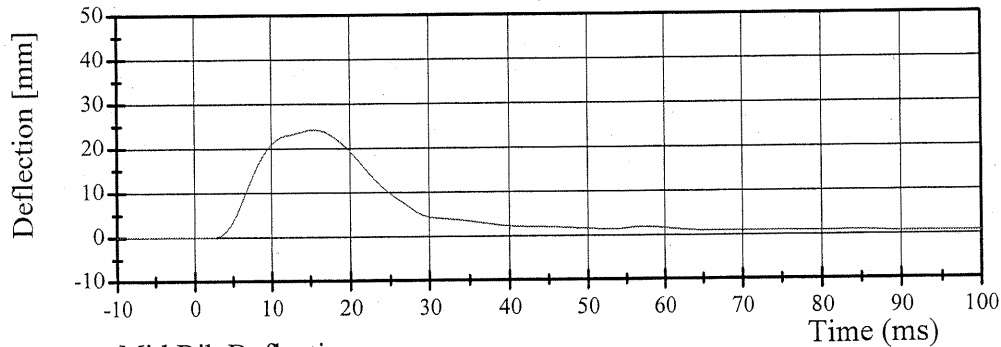
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 020 Calibration No. 01 - 3

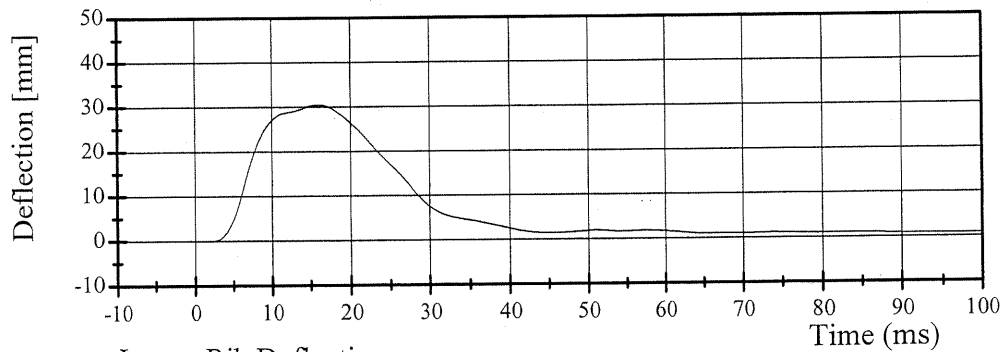
Test Date 09/10/2003

Upper Rib Deflection



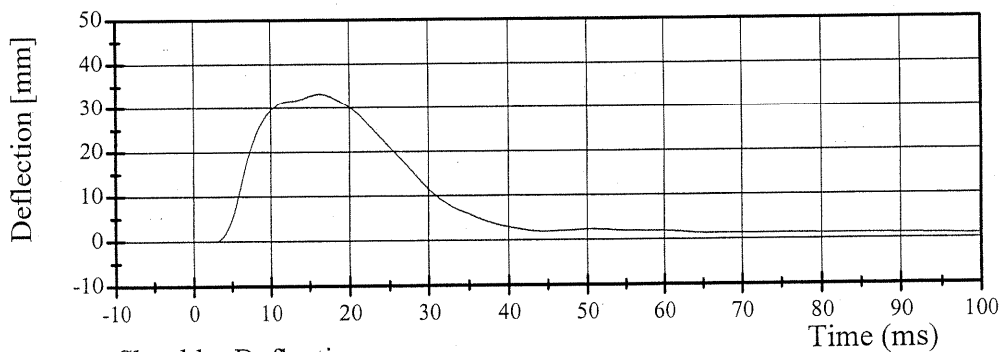
Filter Class: CFC 600
Max: 24.2 mm at 15.5 ms
Min: -0.0 mm at 2.4 ms

Mid Rib Deflection



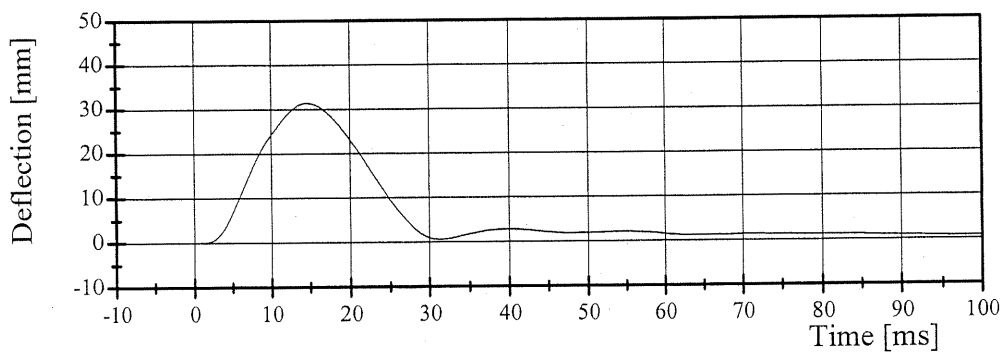
Filter Class: CFC 600
Max: 30.5 mm at 16.1 ms
Min: -0.0 mm at 298.6 ms

Lower Rib Deflection



Filter Class: CFC 600
Max: 33.3 mm at 16.2 ms
Min: -0.0 mm at 2.9 ms

Shoulder Deflection



Filter Class: CFC 600
Max: 31.4 mm at 14.6 ms
Min: -0.0 mm at -22.7 ms

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Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	66 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.28 m/sec	Yes
Pendulum Force	1800 - 2300 N	2212 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.5 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	10.5 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	35.9 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	42.6 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	40.4 mm	Yes

Comments:

Test Conditions -
Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.02.2003 15:38:50 1084



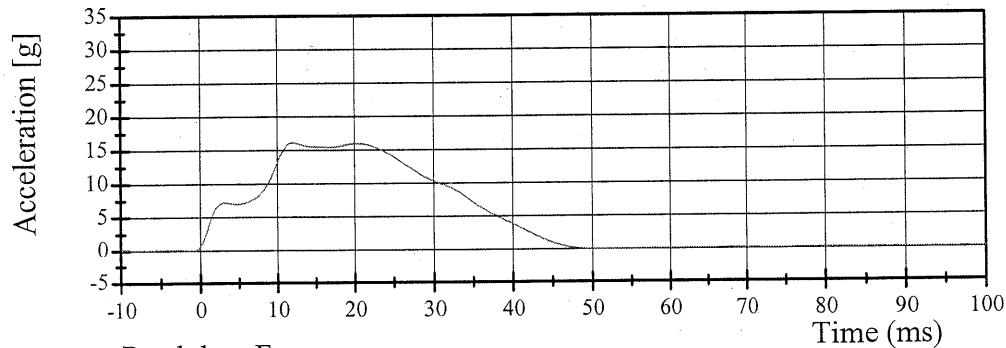
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Pendulum Deceleration

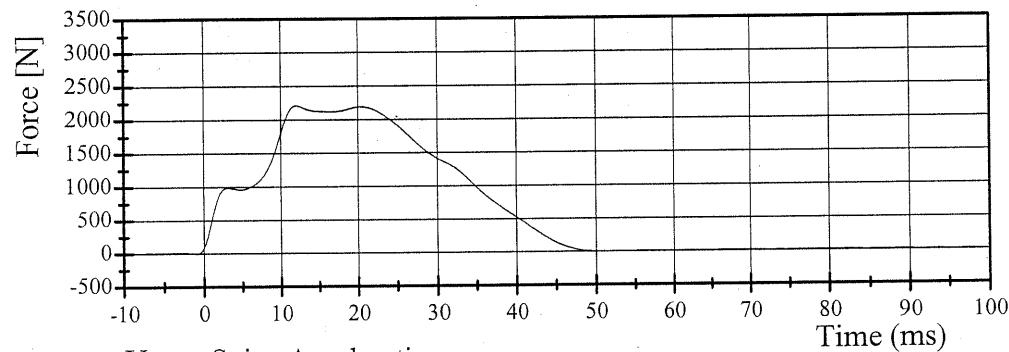


Filter Class: CFC 180

Max: 16.1 g at 12.0 ms

Min: -0.2 g at 131.4 ms

Pendulum Force

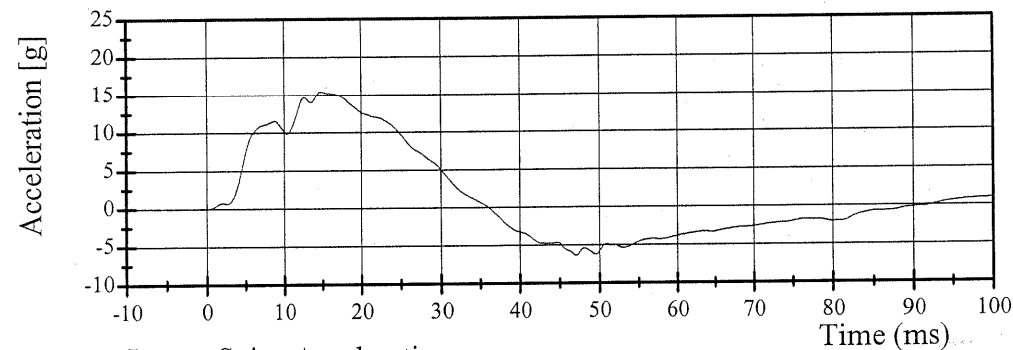


Filter Class: CFC 180

Max: 2212 N at 12.0 ms

Min: -23 N at 131.4 ms

Upper Spine Acceleration

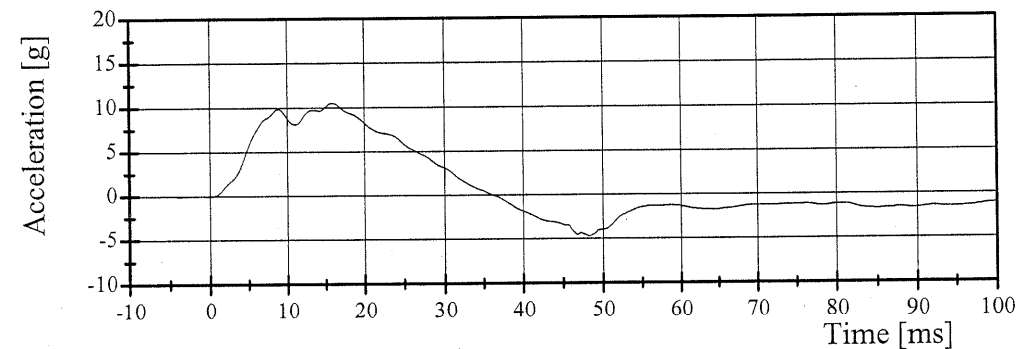


Filter Class: CFC 180

Max: 15.5 g at 14.8 ms

Min: -6.4 g at 47.0 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 10.5 g at 15.8 ms

Min: -4.7 g at 48.3 ms

10.02.2003 15:40:23 1084



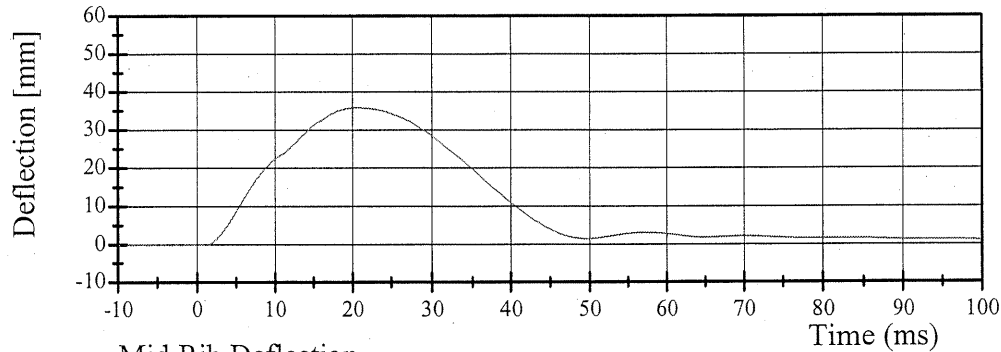
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Upper Rib Deflection

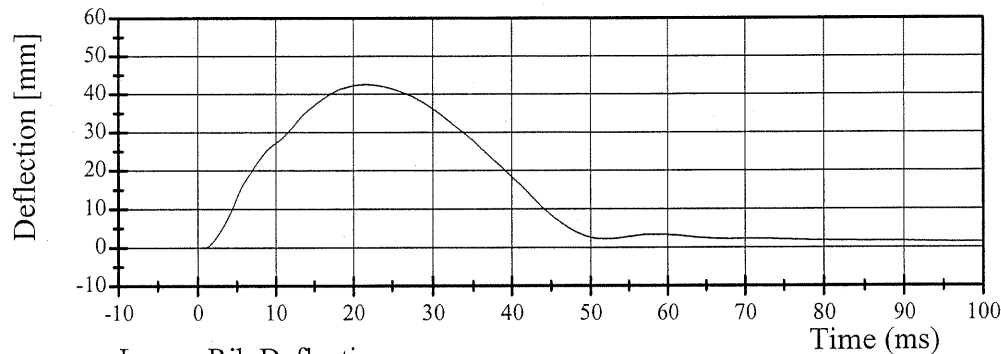


Filter Class: CFC 600

Max: 35.9 mm at 20.6 ms

Min: -0.0 mm at 1.2 ms

Mid Rib Deflection

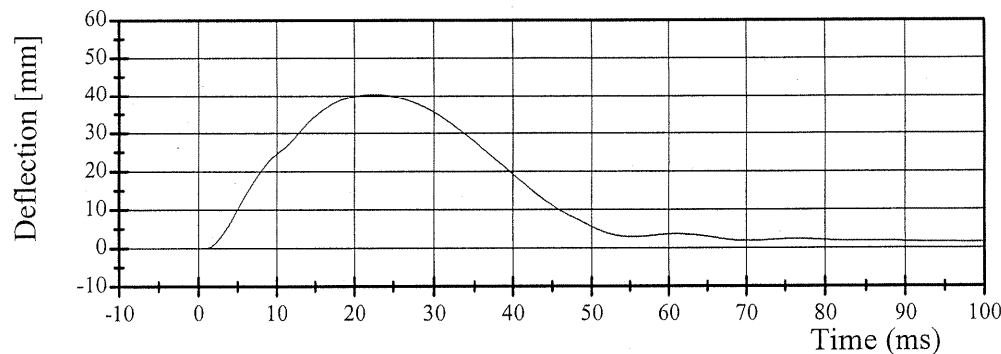


Filter Class: CFC 600

Max: 42.6 mm at 21.6 ms

Min: -0.0 mm at 0.8 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 40.4 mm at 22.7 ms

Min: -0.0 mm at 0.8 ms

Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

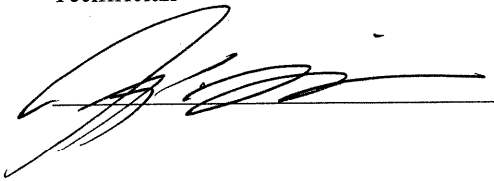
Test Date 09/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.28 m/sec	Yes
Pendulum Force	1800 - 2300 N	2220 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.2 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	10.3 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	36.1 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	42.2 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	40.0 mm	Yes

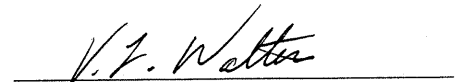
Comments:

Test Conditions -
Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.02.2003 15:42:50 1112



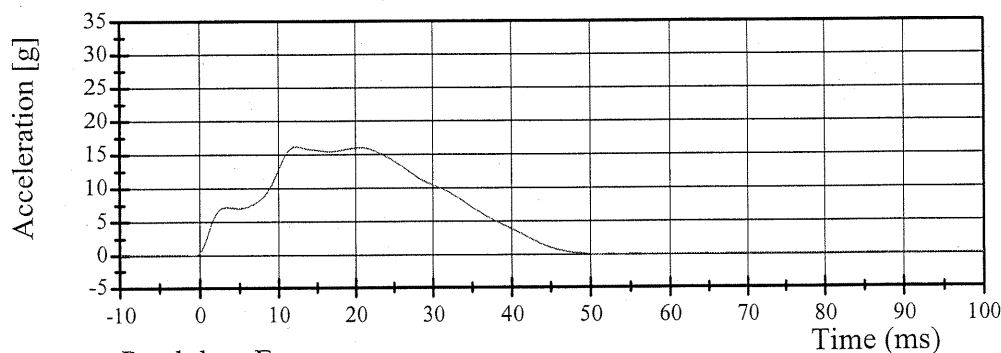
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

Pendulum Deceleration

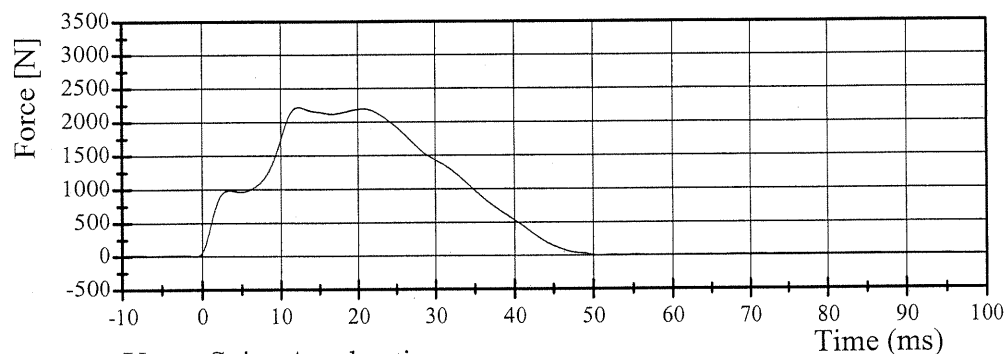


Filter Class: CFC 180

Max: 16.2 g at 12.3 ms

Min: -0.1 g at 133.9 ms

Pendulum Force

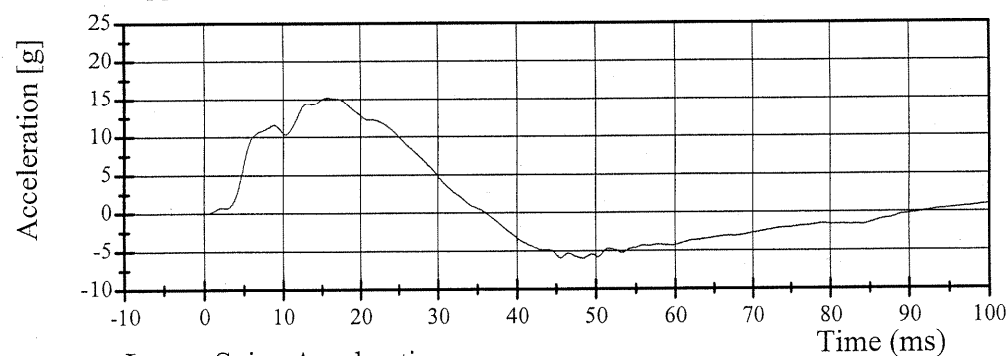


Filter Class: CFC 180

Max: 2220 N at 12.3 ms

Min: -17 N at 133.9 ms

Upper Spine Acceleration

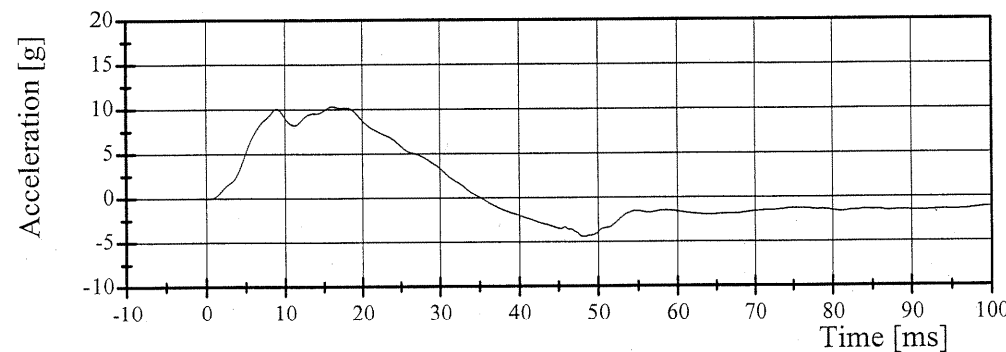


Filter Class: CFC 180

Max: 15.2 g at 15.7 ms

Min: -6.0 g at 48.4 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 10.3 g at 16.1 ms

Min: -4.4 g at 48.4 ms

10.02.2003 15:42:50 1112



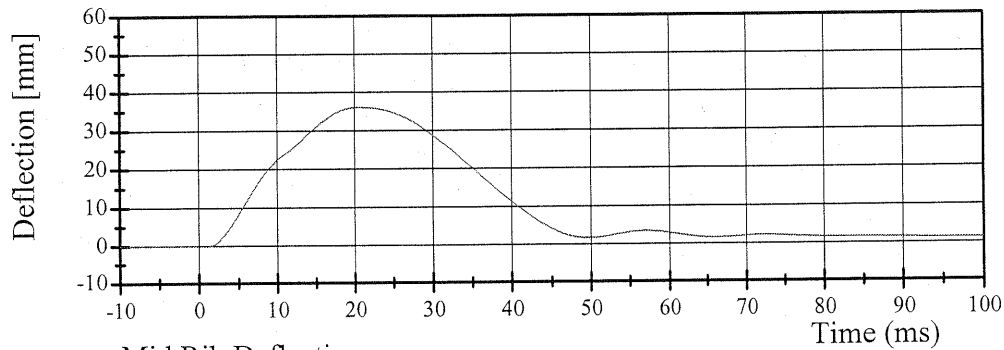
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

Upper Rib Deflection

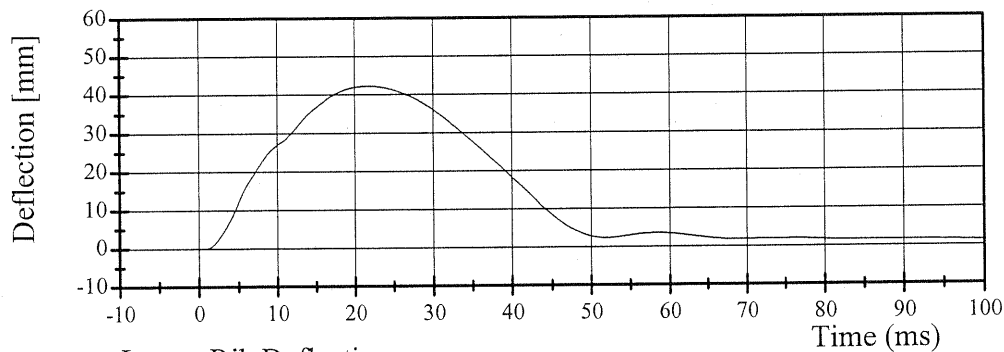


Filter Class: CFC 600

Max: 36.1 mm at 20.4 ms

Min: -0.0 mm at 1.2 ms

Mid Rib Deflection

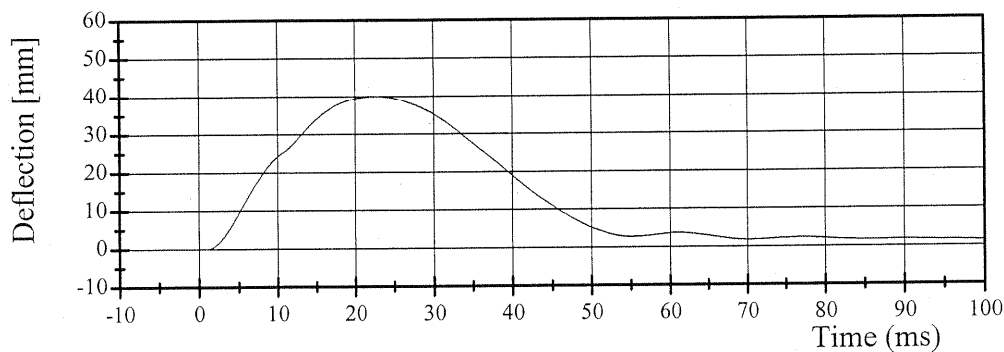


Filter Class: CFC 600

Max: 42.2 mm at 22.3 ms

Min: -0.0 mm at 0.8 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 40.0 mm at 22.6 ms

Min: -0.0 mm at 0.9 ms



Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/10/2003

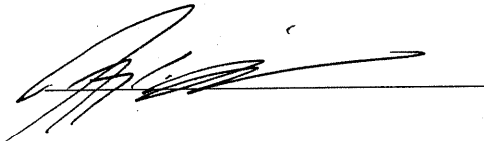
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1736 N	Yes
Upper Spine Peak Acceleration	5 - 9 g	7.3 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	17.4 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	49.8 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	47.3 mm	Yes

Comments:

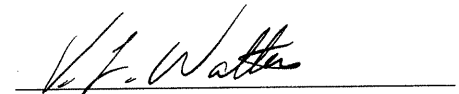
Test Conditions -

Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.02.2003 17:26:30 1122



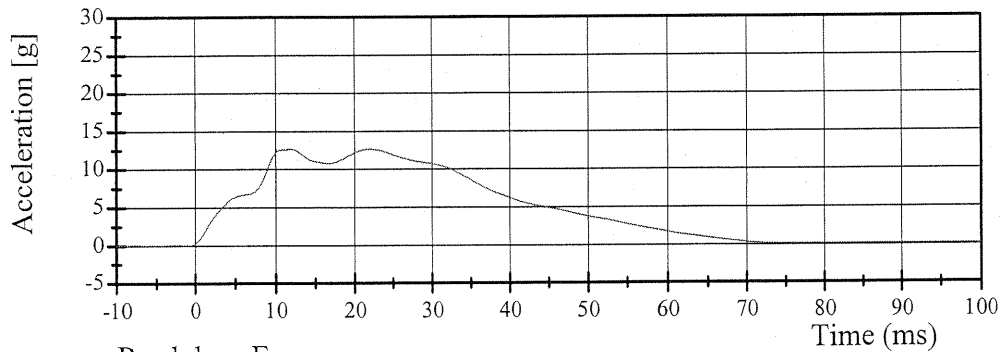
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/10/2003

Pendulum Deceleration

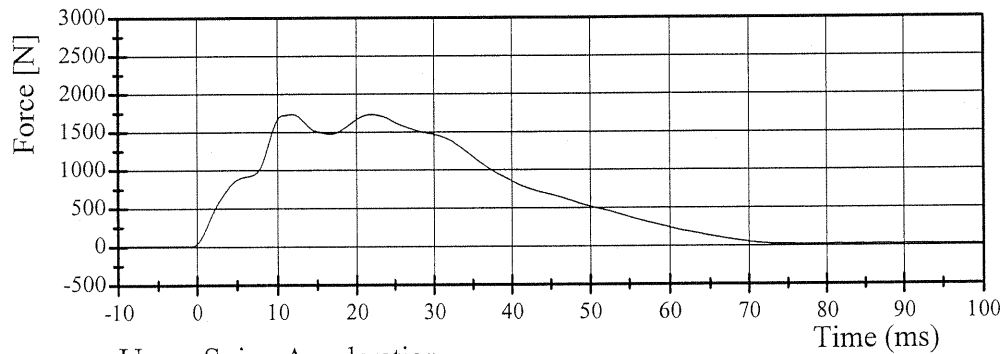


Filter Class: CFC 180

Max: 12.7 g at 11.8 ms

Min: -0.4 g at 133.1 ms

Pendulum Force

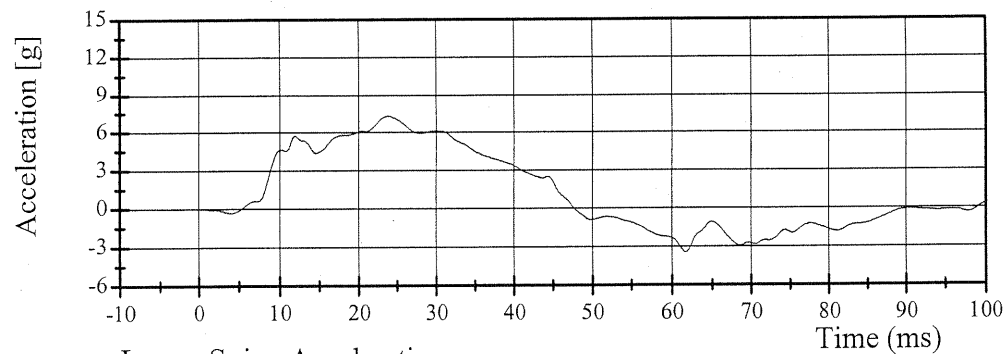


Filter Class: CFC 180

Max: 1736 N at 11.8 ms

Min: -53 N at 133.1 ms

Upper Spine Acceleration

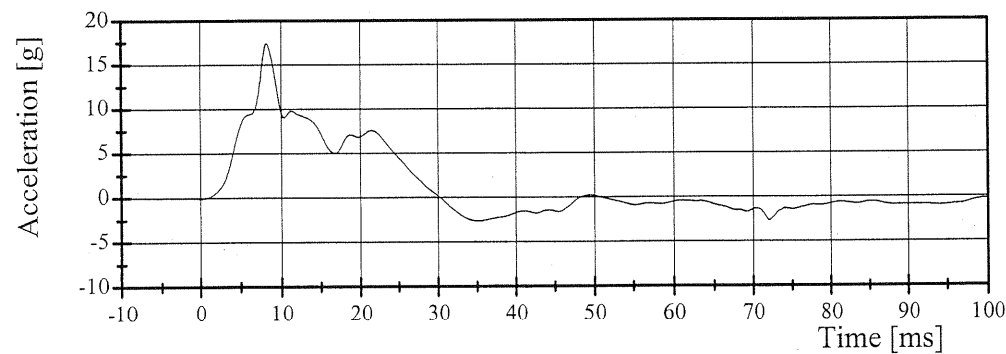


Filter Class: CFC 180

Max: 7.3 g at 23.8 ms

Min: -3.5 g at 61.7 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 17.4 g at 8.2 ms

Min: -2.7 g at 72.1 ms

10.02.2003 17:26:31 1122



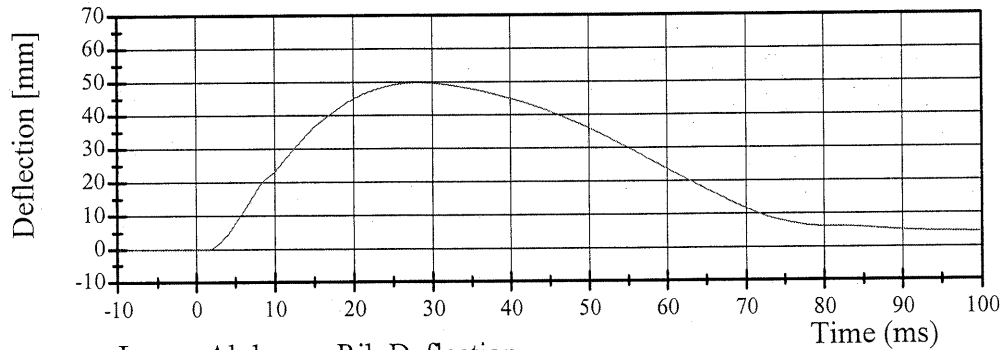
Transportation Research Center Inc.

Left Abdomen Test

SID-IIIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/10/2003

Upper Abdomen Rib Deflection

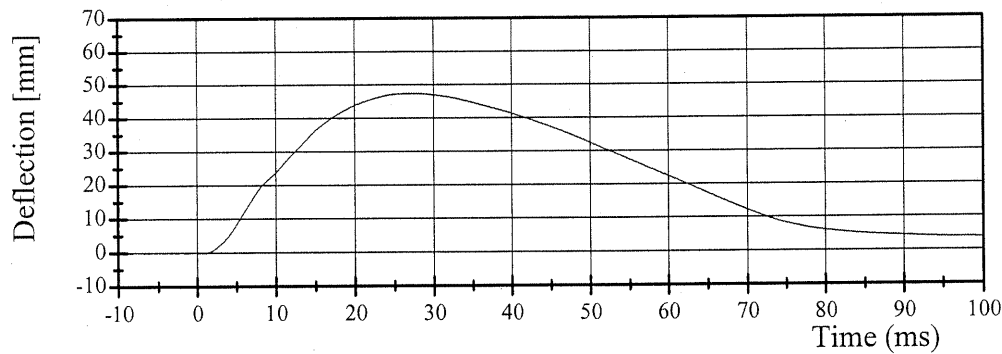


Filter Class: CFC 600

Max: 49.8 mm at 27.9 ms

Min: -0.0 mm at 1.4 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 47.3 mm at 27.1 ms

Min: -0.0 mm at 1.0 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

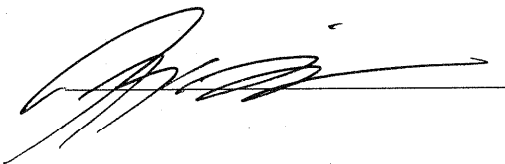
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1782 N	Yes
Upper Spine Peak Acceleration	5 - 9 g	6.6 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	17.4 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	49.2 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	48.7 mm	Yes

Comments:

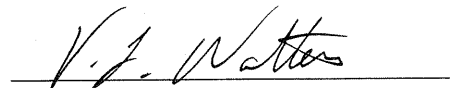
Test Conditions -

Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.02.2003 17:28:45 1133



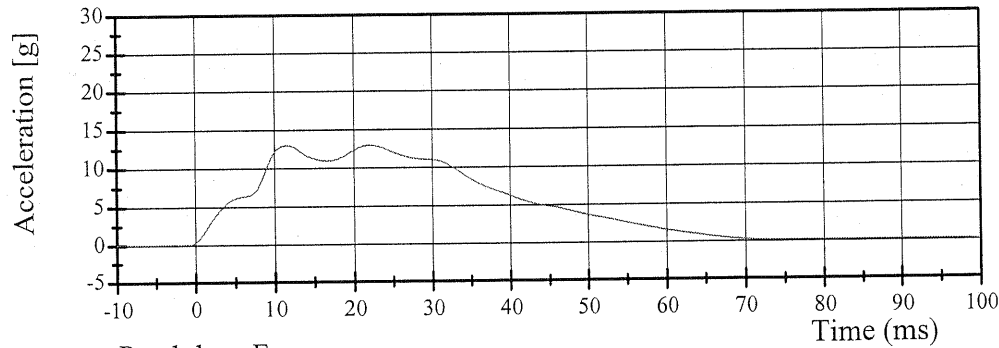
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Pendulum Deceleration

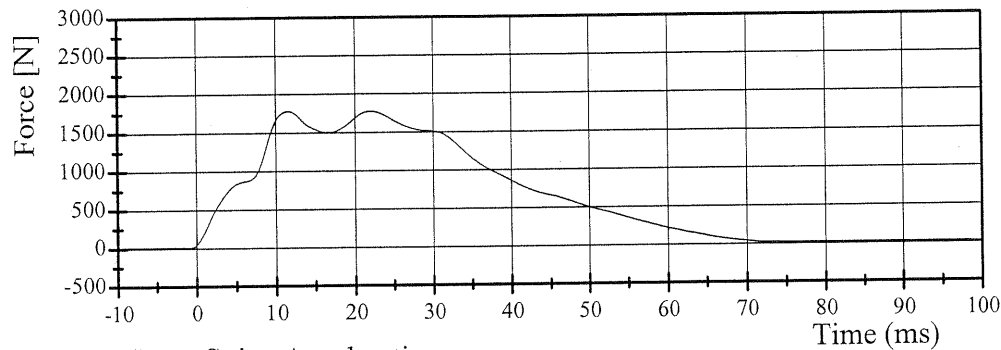


Filter Class: CFC 180

Max: 13.0 g at 11.5 ms

Min: -0.3 g at 135.1 ms

Pendulum Force

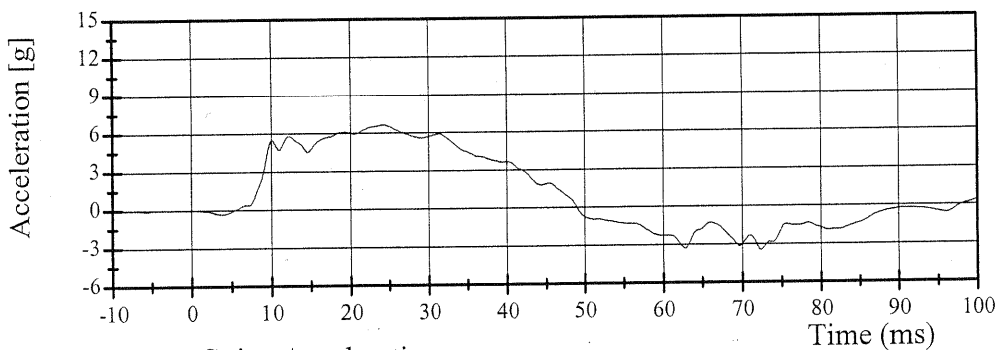


Filter Class: CFC 180

Max: 1782 N at 11.5 ms

Min: -47 N at 135.1 ms

Upper Spine Acceleration

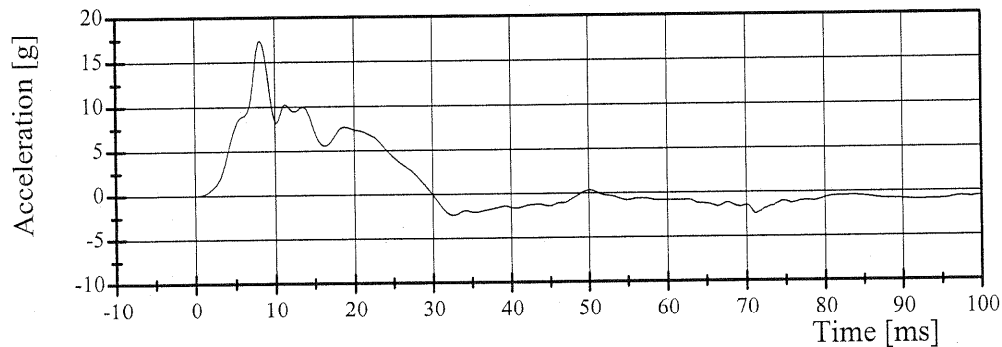


Filter Class: CFC 180

Max: 6.6 g at 24.2 ms

Min: -3.5 g at 72.3 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 17.4 g at 8.2 ms

Min: -2.4 g at 71.1 ms

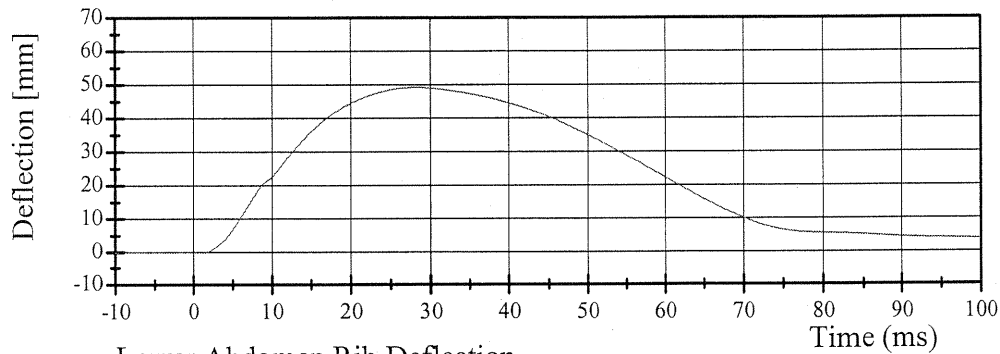
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 01 - 2

Test Date 09/10/2003

Upper Abdomen Rib Deflection

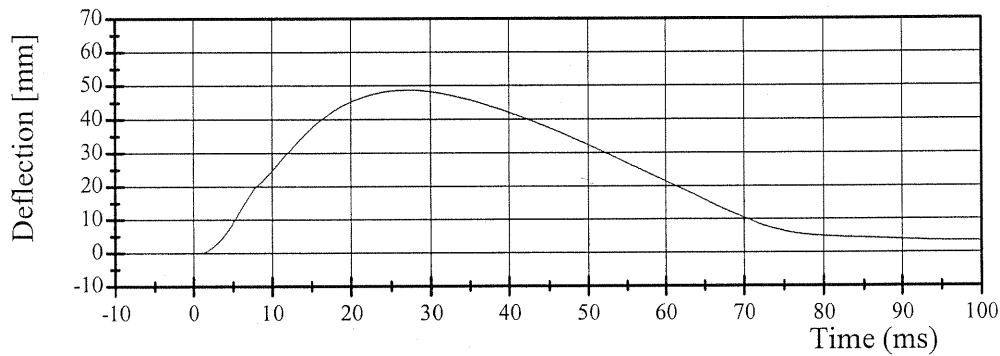


Filter Class: CFC 600

Max: 49.2 mm at 28.2 ms

Min: -0.0 mm at 1.4 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 48.7 mm at 27.8 ms

Min: -0.0 mm at -19.4 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/10/2003

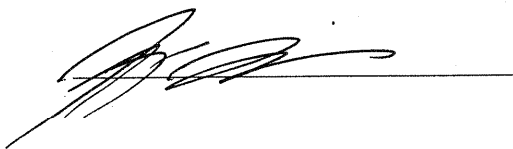
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	66 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	5928 N	Yes
Pelvis Peak Acceleration	46 - 60 g	64.6 g	No

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; with pants pulled down below plug, without arm.

Technician



Approved



10.02.2003 18:50:14 949



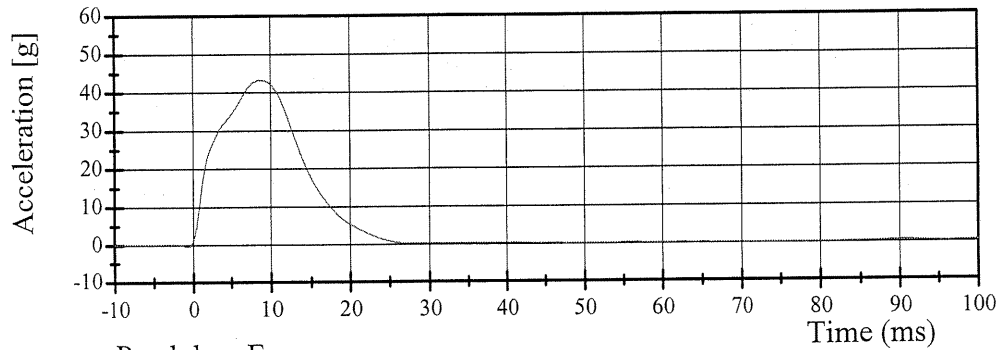
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 1

Test Date 09/10/2003

Pendulum Deceleration

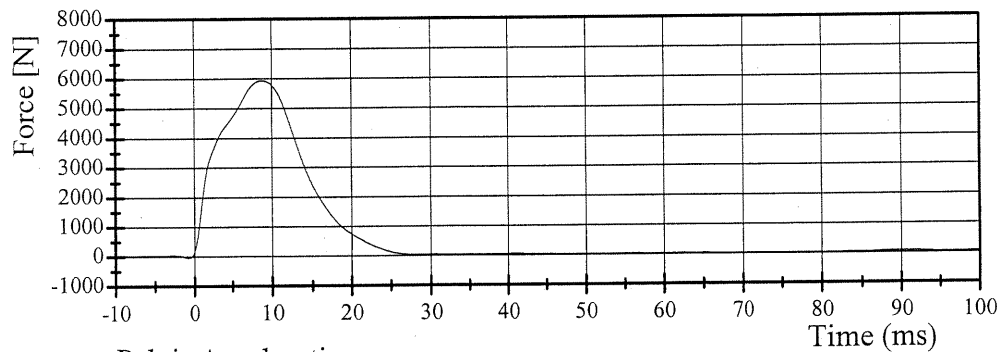


Filter Class: CFC 180

Max: 44.4 g at 8.6 ms

Min: -0.1 g at 105.4 ms

Pendulum Force

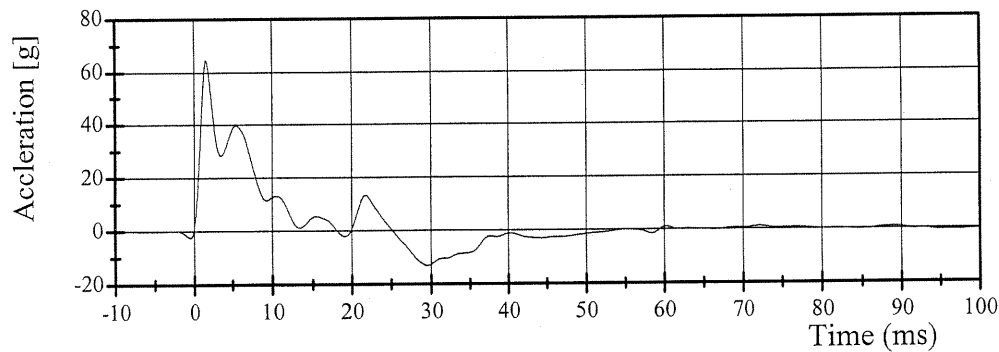


Filter Class: CFC 180

Max: 5928 N at 8.8 ms

Min: -45 N at -0.7 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 64.60 mm at 1.6 ms

Min: -13.07 mm at 29.5 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

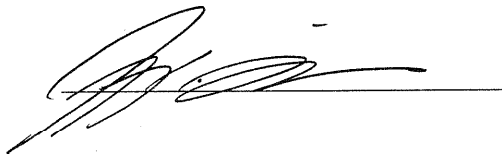
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	5785 N	Yes
Pelvis Peak Acceleration	46 - 60 g	53.8 g	Yes

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; without pants; without arm.

Technician



Approved



10.03.2003 08:08:01 974



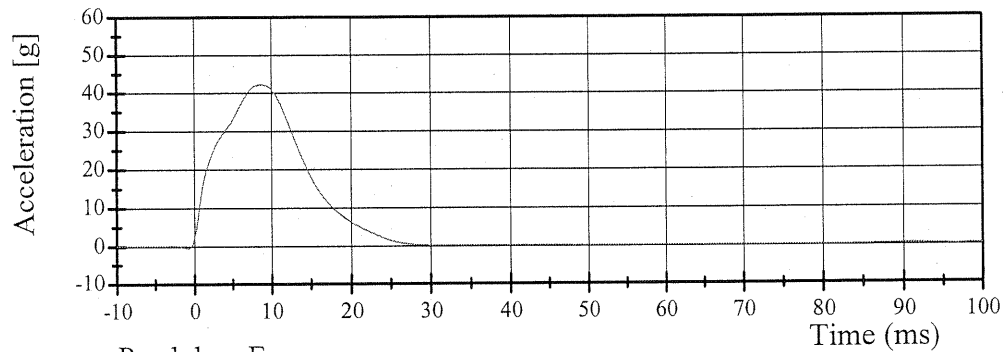
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 3

Test Date 09/10/2003

Pendulum Deceleration

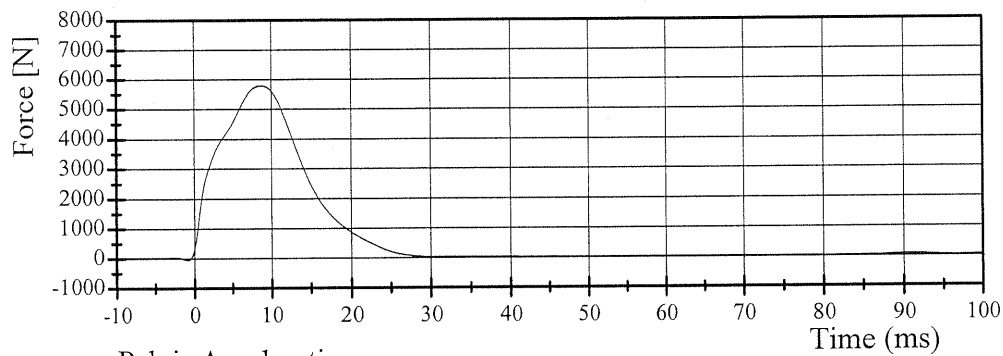


Filter Class: CFC 180

Max: 43.6 g at 8.1 ms

Min: -0.1 g at 106.4 ms

Pendulum Force

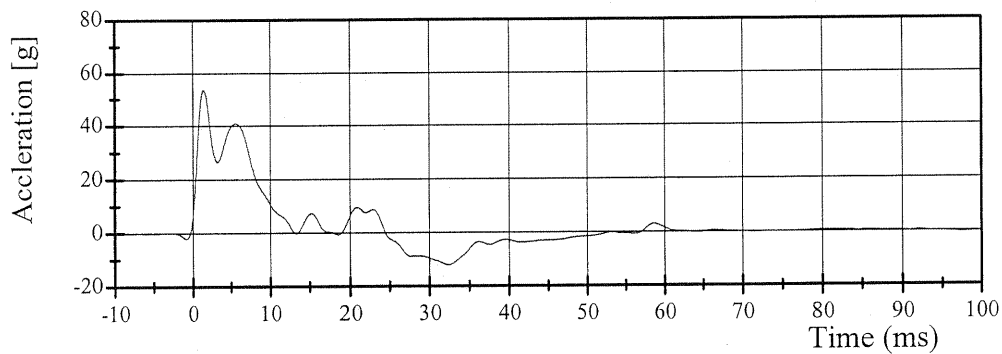


Filter Class: CFC 180

Max: 5785 N at 8.7 ms

Min: -52 N at -0.8 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 53.77 mm at 1.4 ms

Min: -12.08 mm at 32.3 ms



Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 4

Test Date 09/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	5683 N	Yes
Pelvis Peak Acceleration	46 - 60 g	69.8 g	No

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; with pants pulled down below plug; without arm.

Technician



Approved



10.03.2003 08:10:23 994



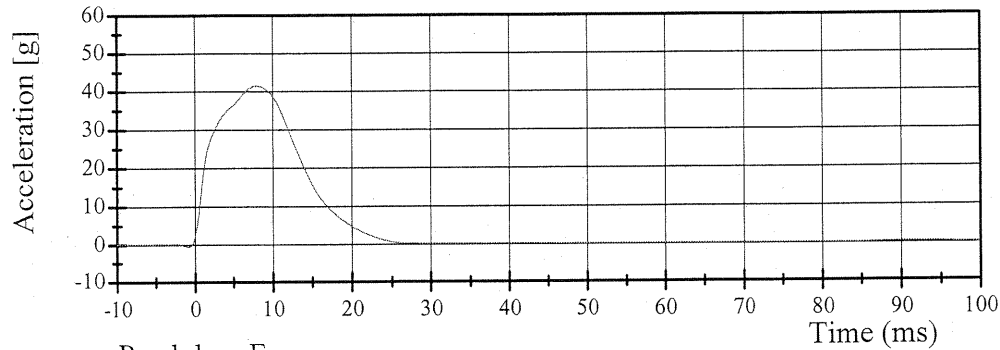
Transportation Research Center Inc.

Left Pelvis Test

SID-IIIs Serial No. 020 Calibration No. 01 - 4

Test Date 09/10/2003

Pendulum Deceleration

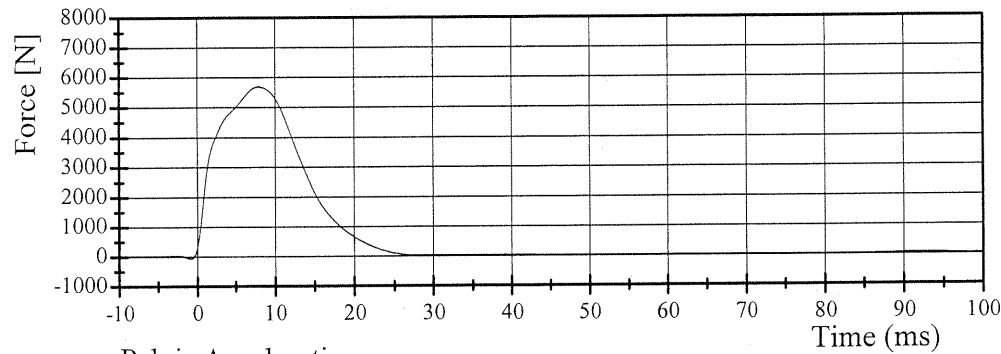


Filter Class: CFC 180

Max: 44.3 g at 7.7 ms

Min: -0.1 g at -63.1 ms

Pendulum Force

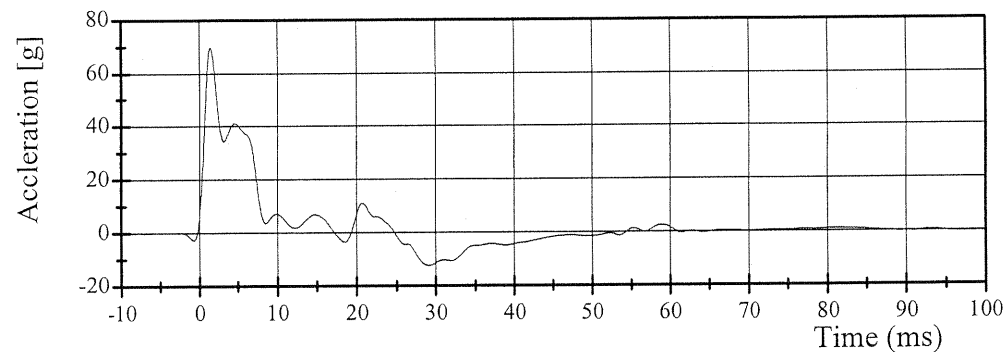


Filter Class: CFC 180

Max: 5683 N at 7.9 ms

Min: -67 N at -0.8 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 69.80 mm at 1.4 ms

Min: -12.36 mm at 29.2 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 5

Test Date 09/12/2003

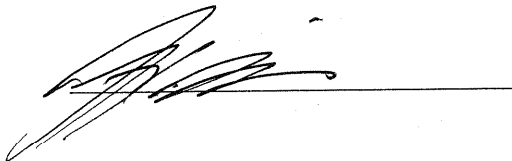
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.7 C	Yes
Relative Humidity	10 - 70 %	61 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	6737 N	Yes
Pelvis Peak Acceleration	46 - 60 g	50.9 g	Yes

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; without pants; without arm.

Technician



Approved



10.03.2003 08:12:03 934



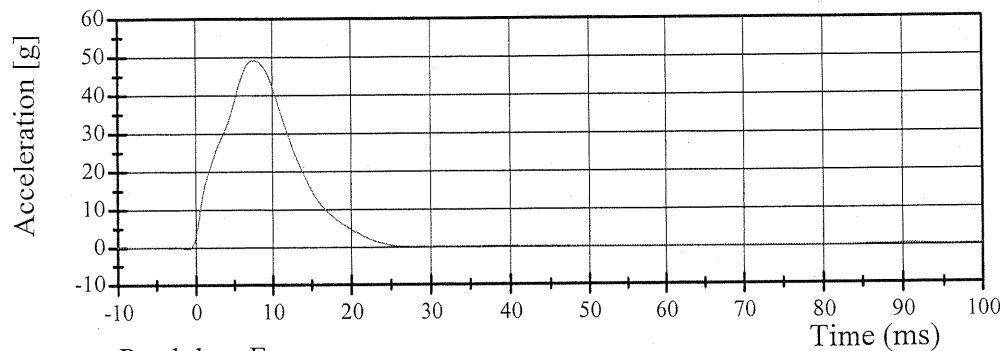
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 01 - 5

Test Date 09/12/2003

Pendulum Deceleration

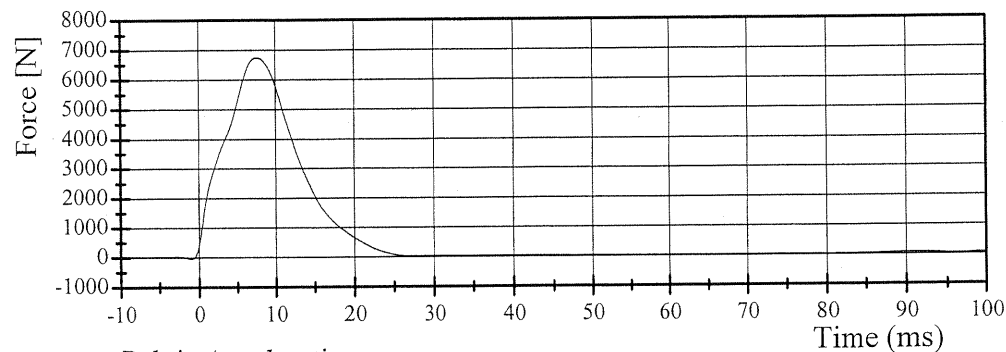


Filter Class: CFC 180

Max: 49.5 g at 7.2 ms

Min: -0.7 g at 219.8 ms

Pendulum Force

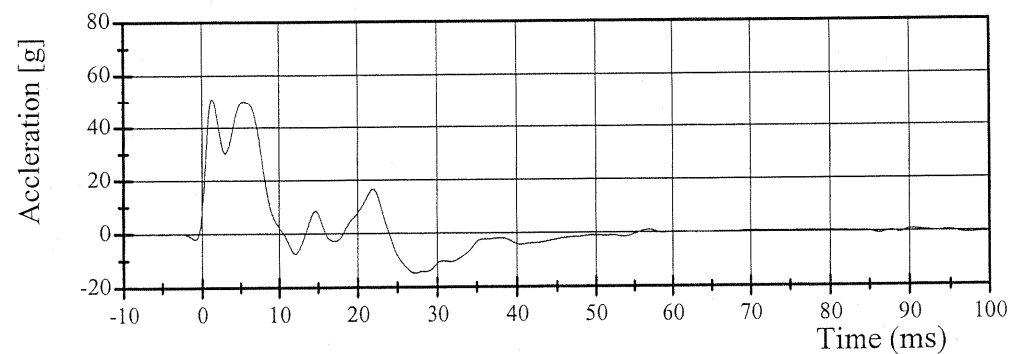


Filter Class: CFC 180

Max: 6737 N at 7.6 ms

Min: -89 N at 219.8 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 50.95 mm at 1.4 ms

Min: -14.78 mm at 27.1 ms



Pre-Test Dummy Configuration and Performance Verification Data

Passenger Dummy S/N: 033

Vehicle Research and Test Center

Left Lateral Head Test

SID-IIs Serial No. 033 Calibration No. 1 - 1

Test Date 09/06/2003

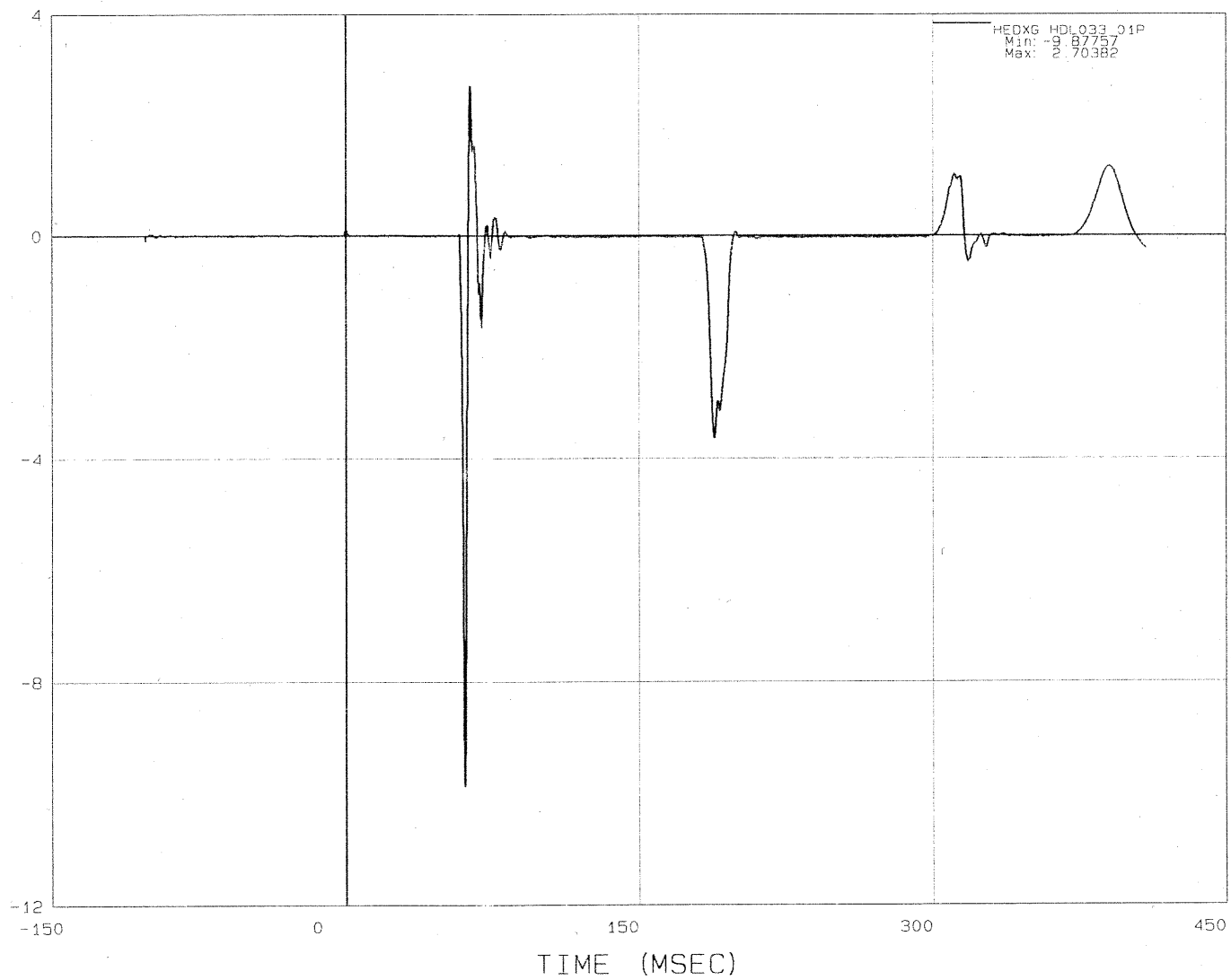
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Peak Resultant Acceleration	115 - 145 g	117.4	Yes
Peak Longitudinal Acceleration	15 g Max	-9.9	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

C-73

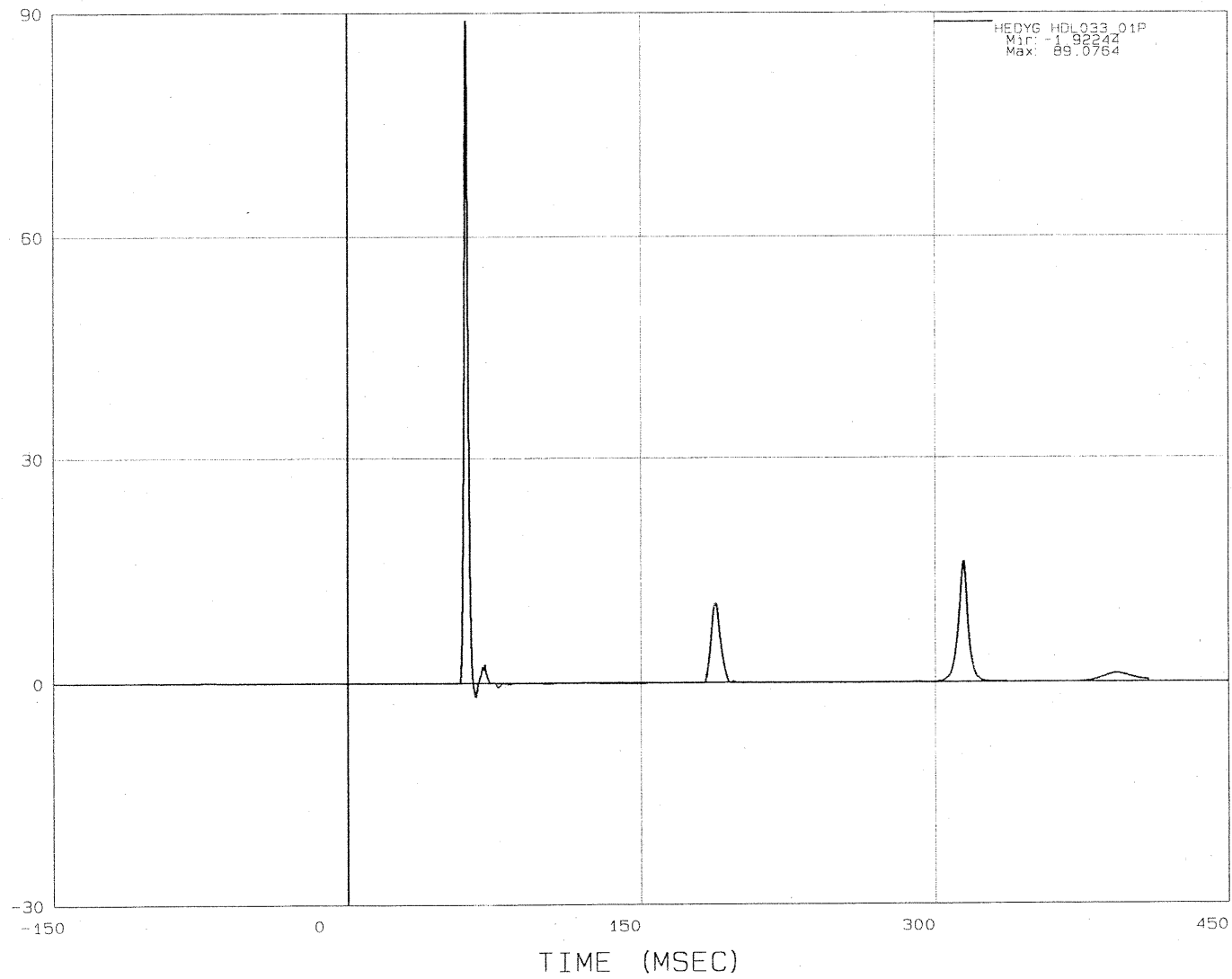
030915-1

HEDXG (G)



Sep 25, 2003 11:32:03AM

HEDYG (G)



Sep 25, 2003 11:32:03AM

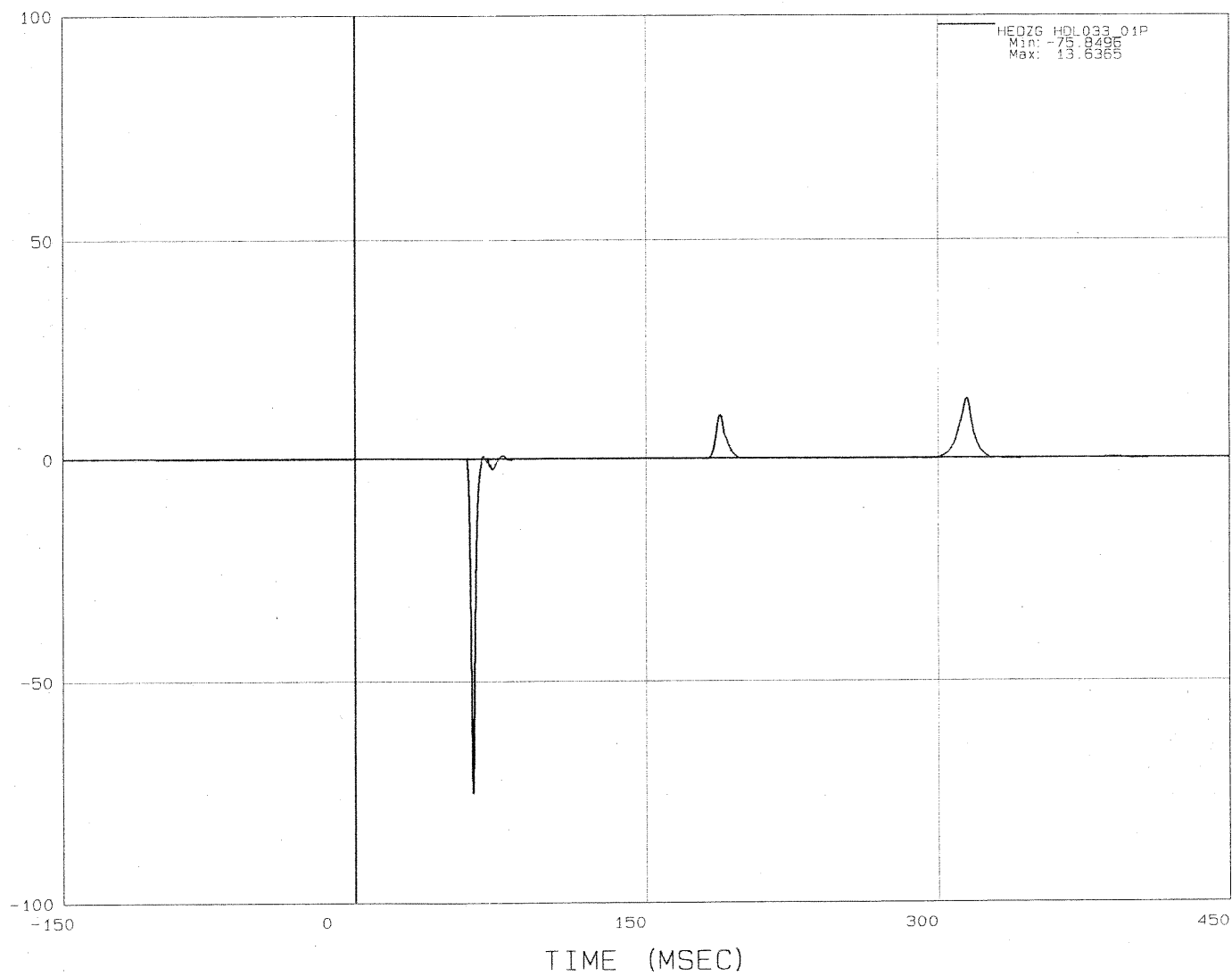
C-74

030915-1

C-75

030915-1

HEDZG (G)

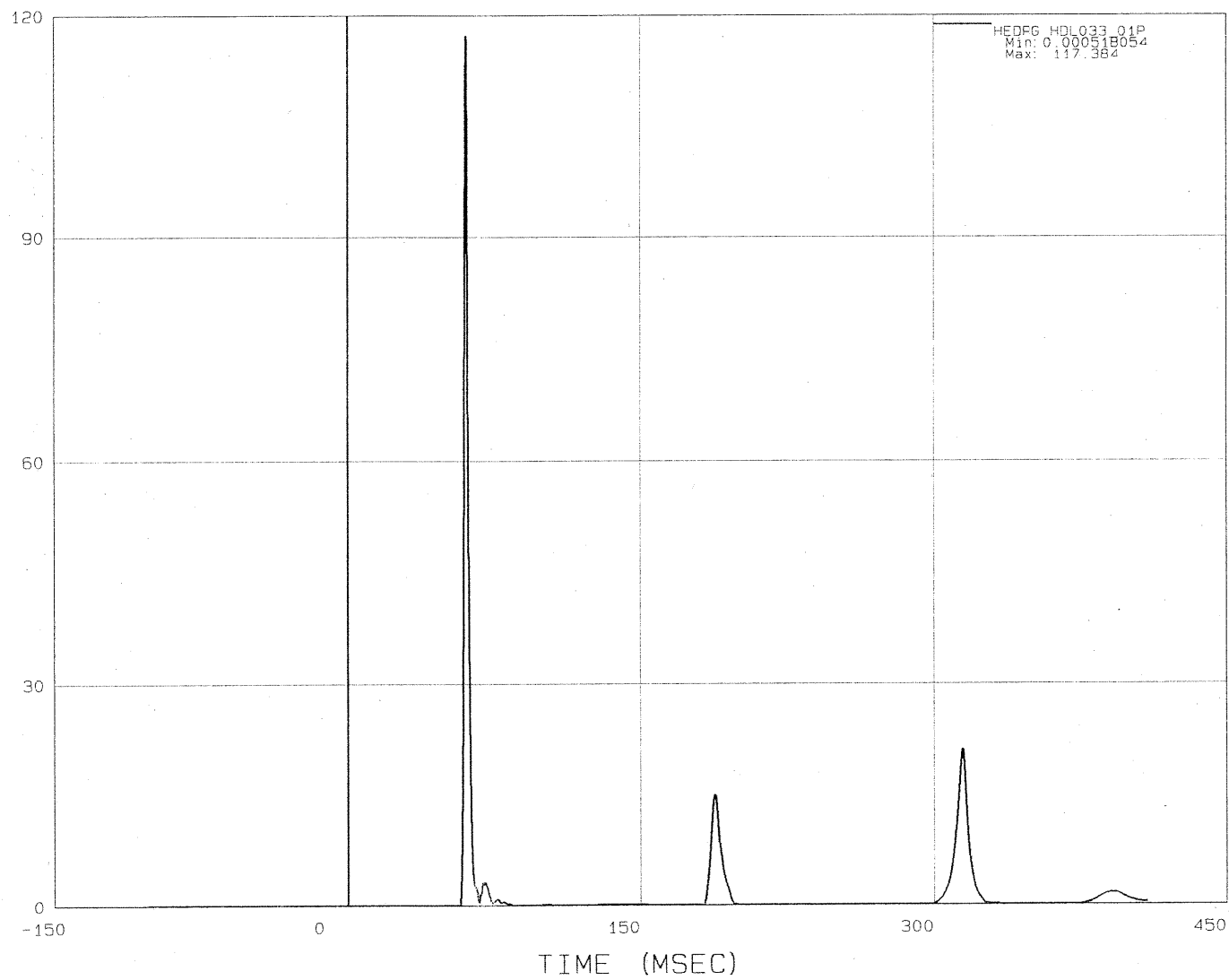


Sep 25, 2003 11:32:04AM

C-76

030915-1

HEDRG (G)



Sep 25, 2003 11:32:04AM

Vehicle Research and Test Center

Left Lateral Head Test

SID-IIs Serial No. 033 Calibration No. 1 - 2

Test Date 09/08/2003

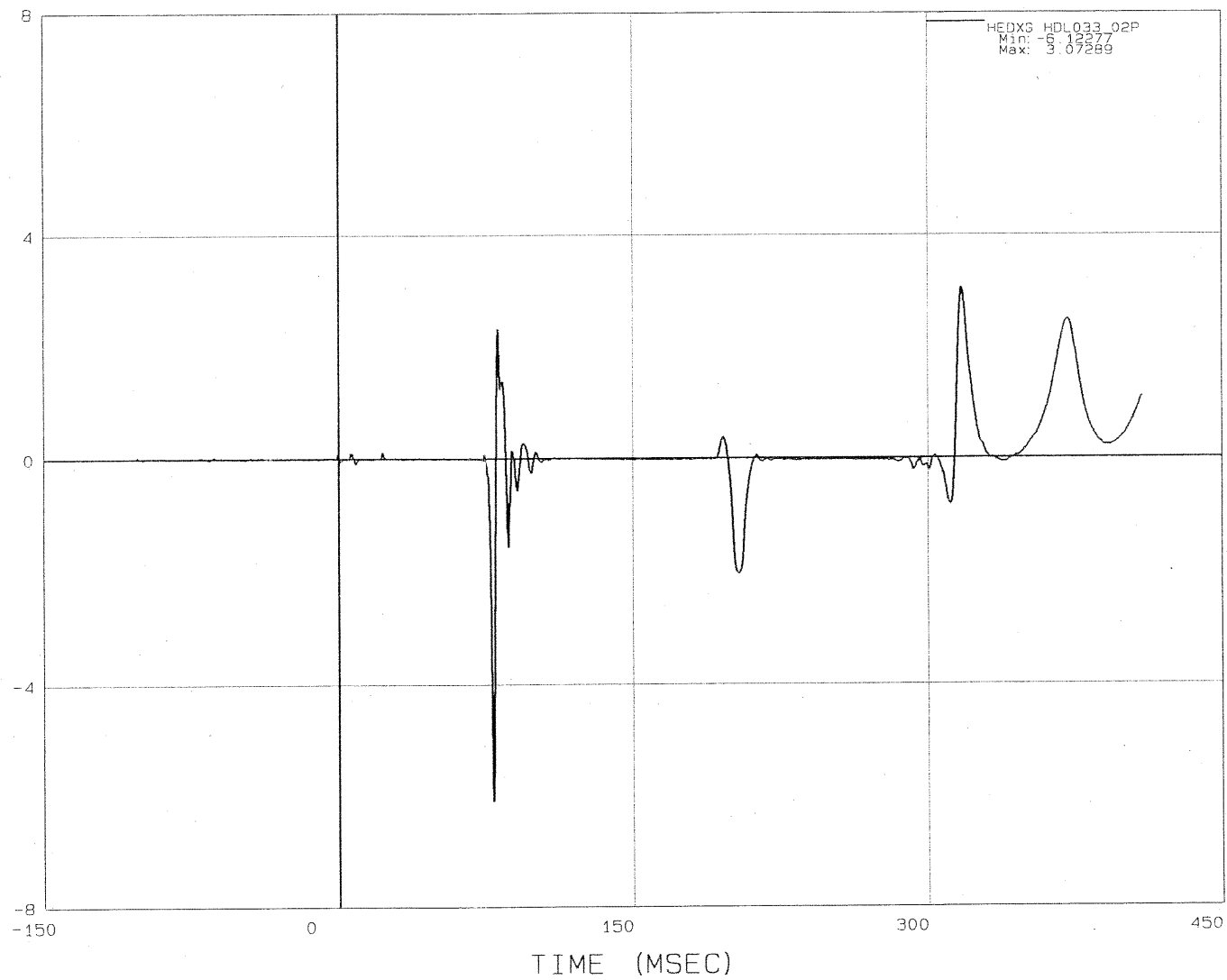
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Peak Resultant Acceleration	115 - 145 g	106.9	No
Peak Longitudinal Acceleration	15 g Max	-6.1	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

C-78

030915-1

HEDXS (G)

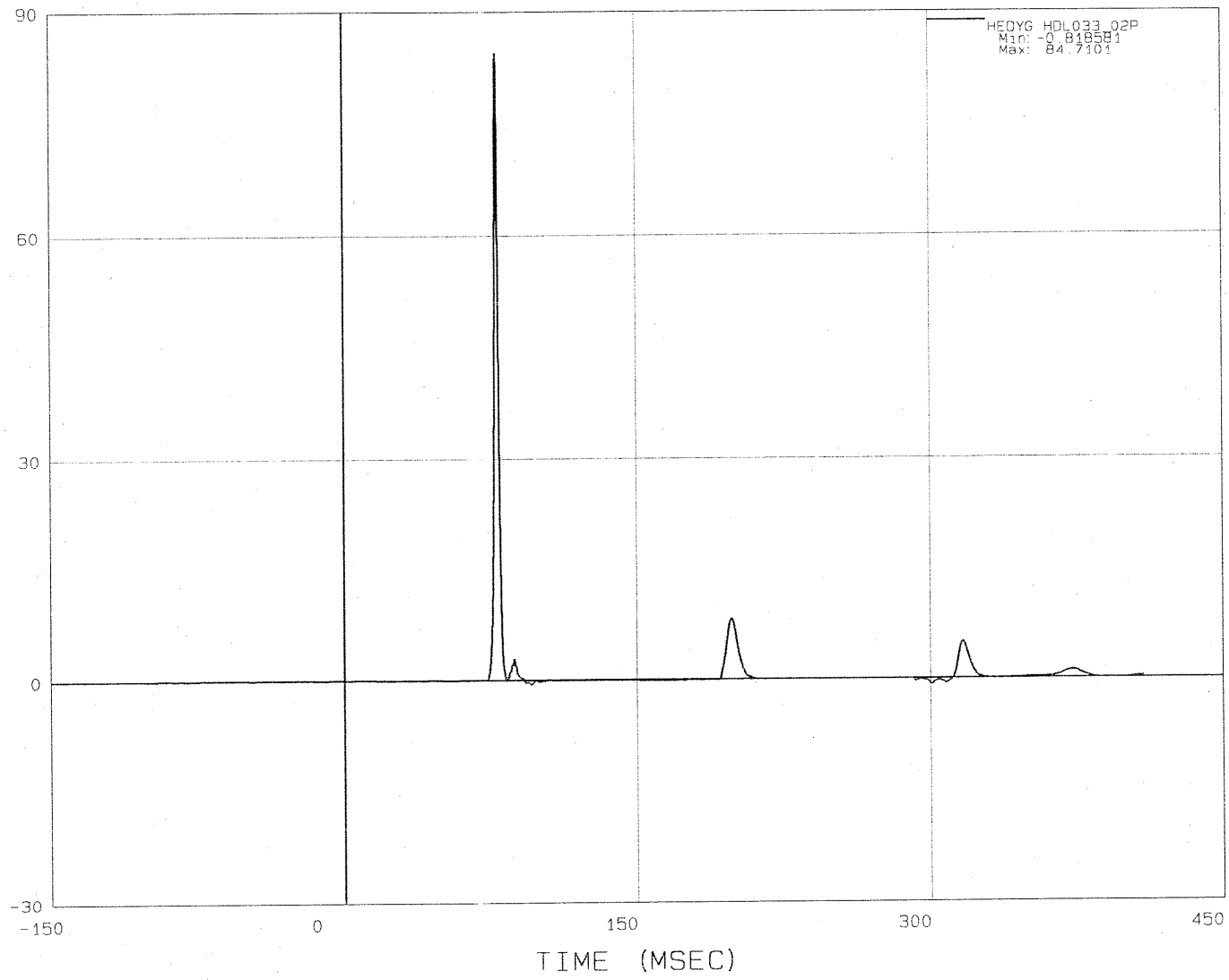


Sep 25, 2003 11:32:11AM

C-79

030915-1

HEDYG (G)

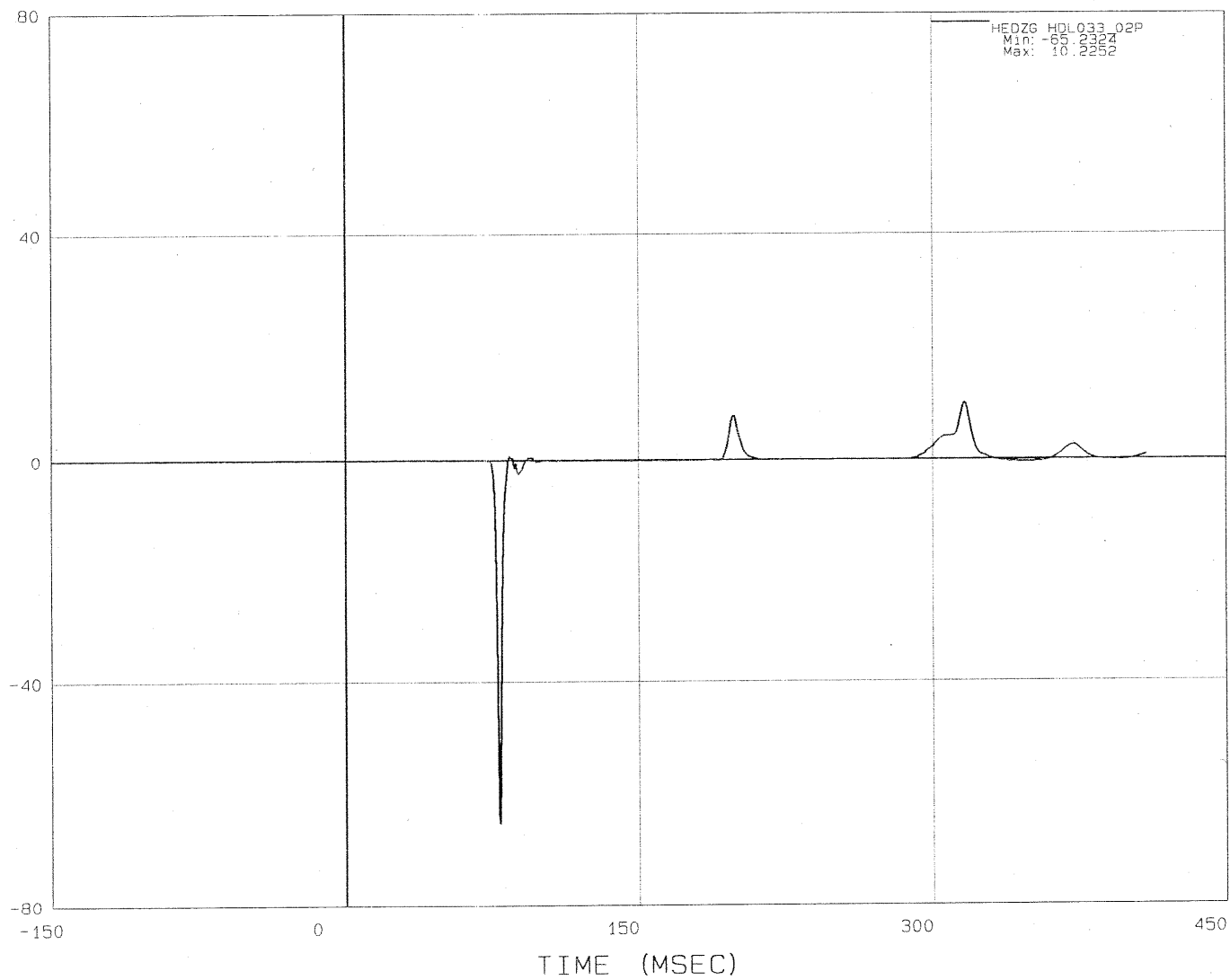


Sep 25, 2003 11:32:11AM

C-80

030915-1

HEDZG (G)

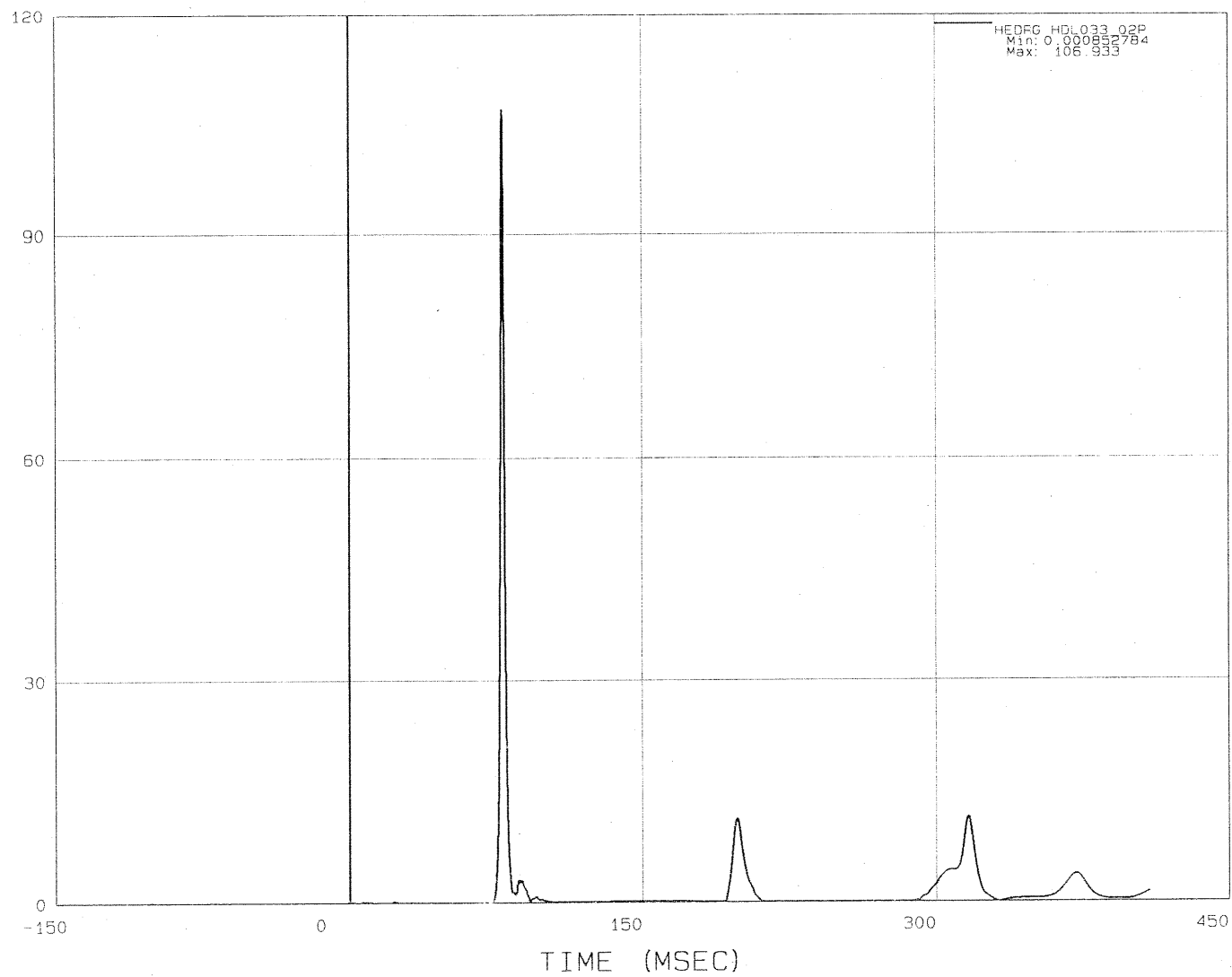


Sep 25, 2003 11:32:11AM

C-81

030915-1

HEDRG (G)



Sep 25, 2003 11:32:11AM

Vehicle Research and Test Center

Left Lateral Head Test

SID-IIIs Serial No. 033 Calibration No. 1 - 3

Test Date 09/08/2003

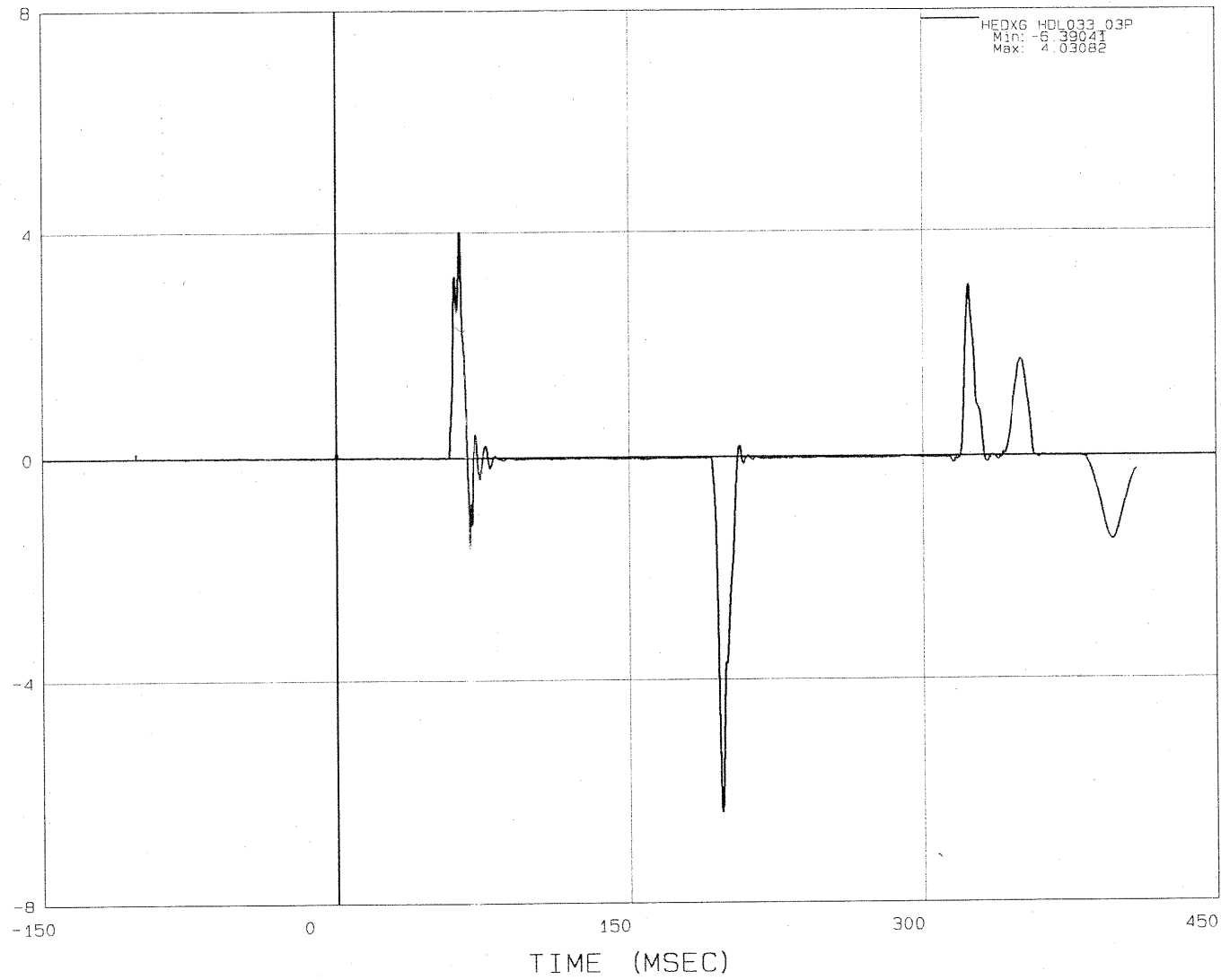
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Peak Resultant Acceleration	115 - 145 g	124.9	Yes
Peak Longitudinal Acceleration	15 g Max	4.0	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

C-83

030915-1

HEDXG (G)

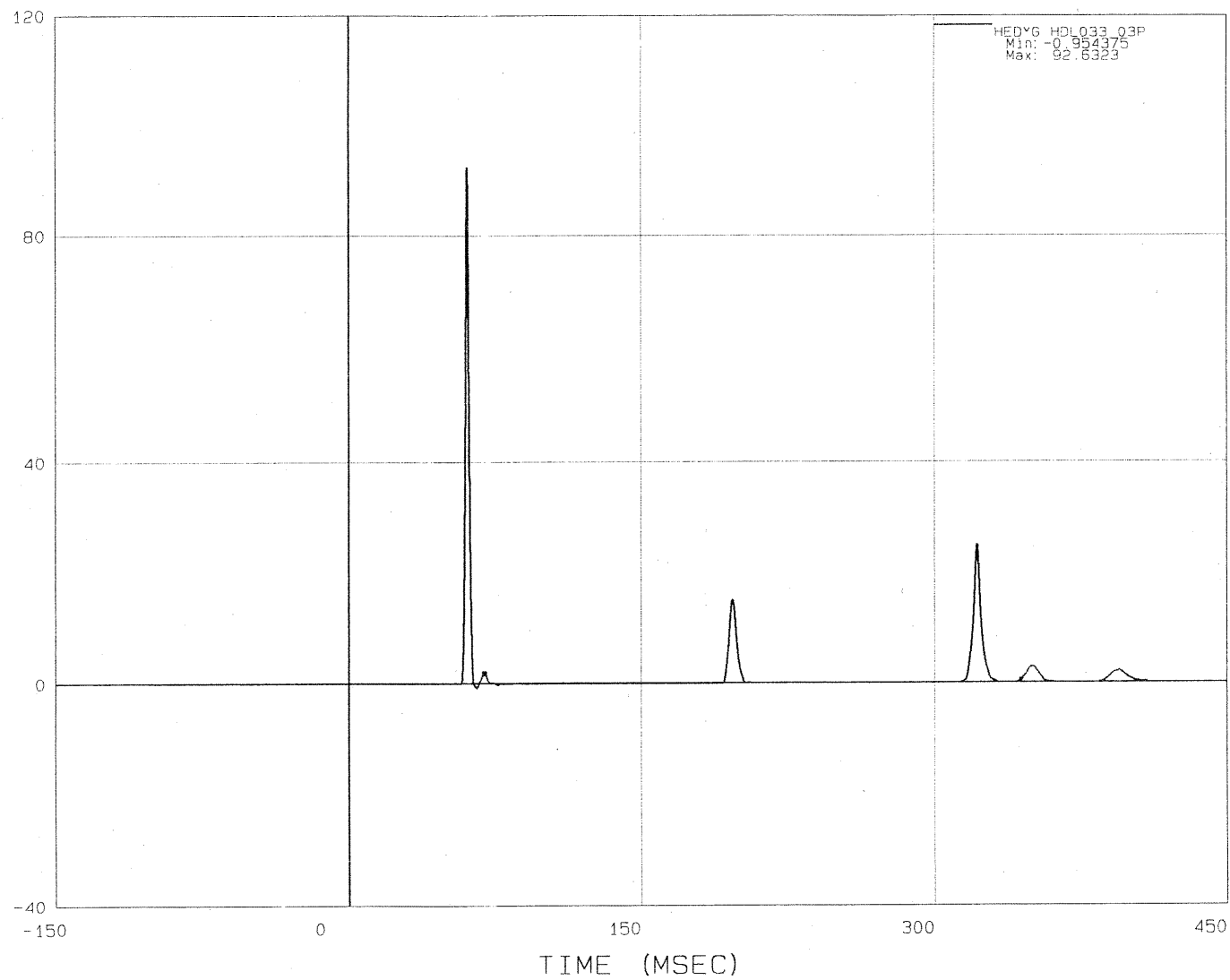


Sep 25, 2003 11:32:17AM

C-84

030915-1

HEDYG (G)

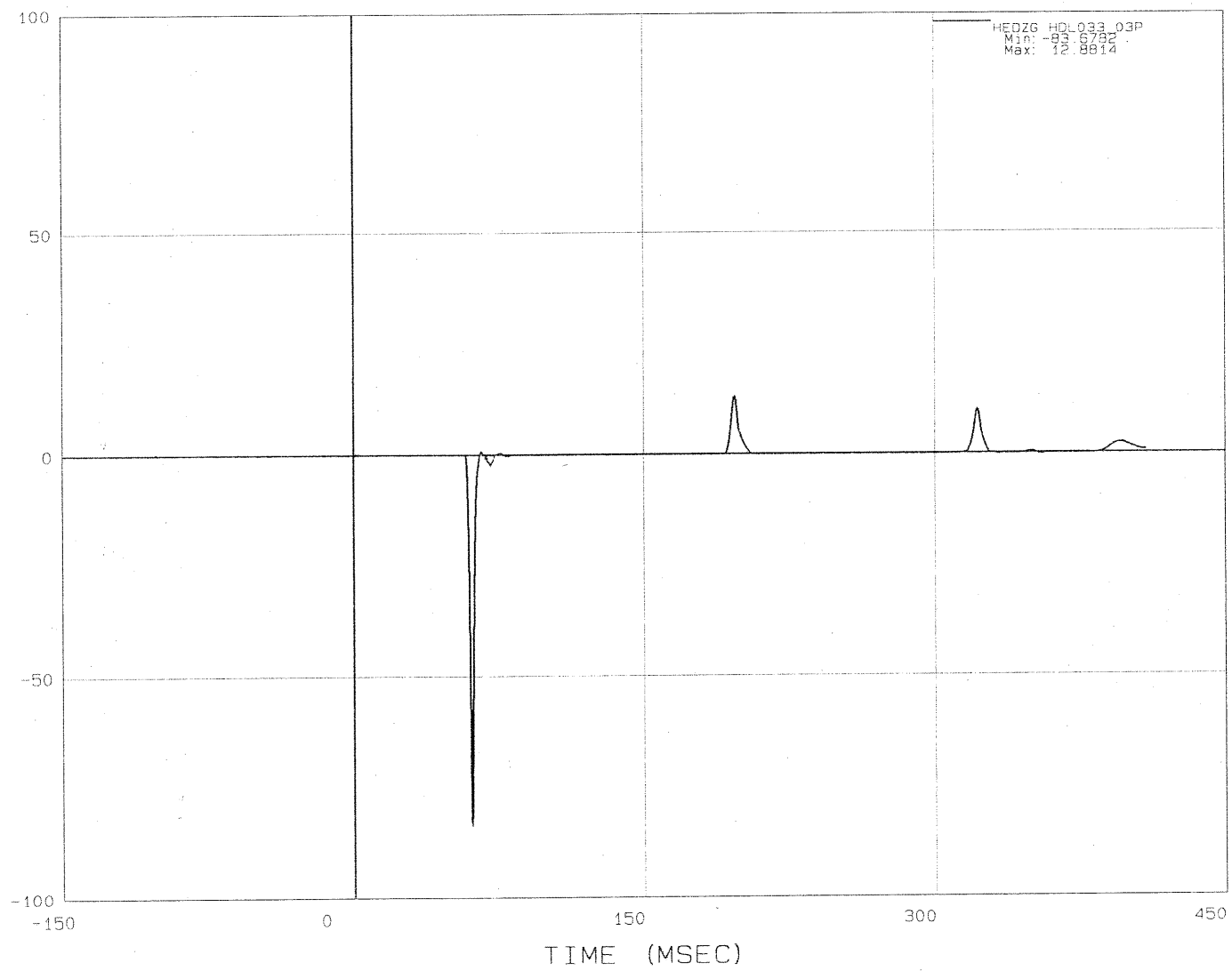


Sep 25, 2003 11:32:17AM

C-85

030915-1

HEDZG (G)

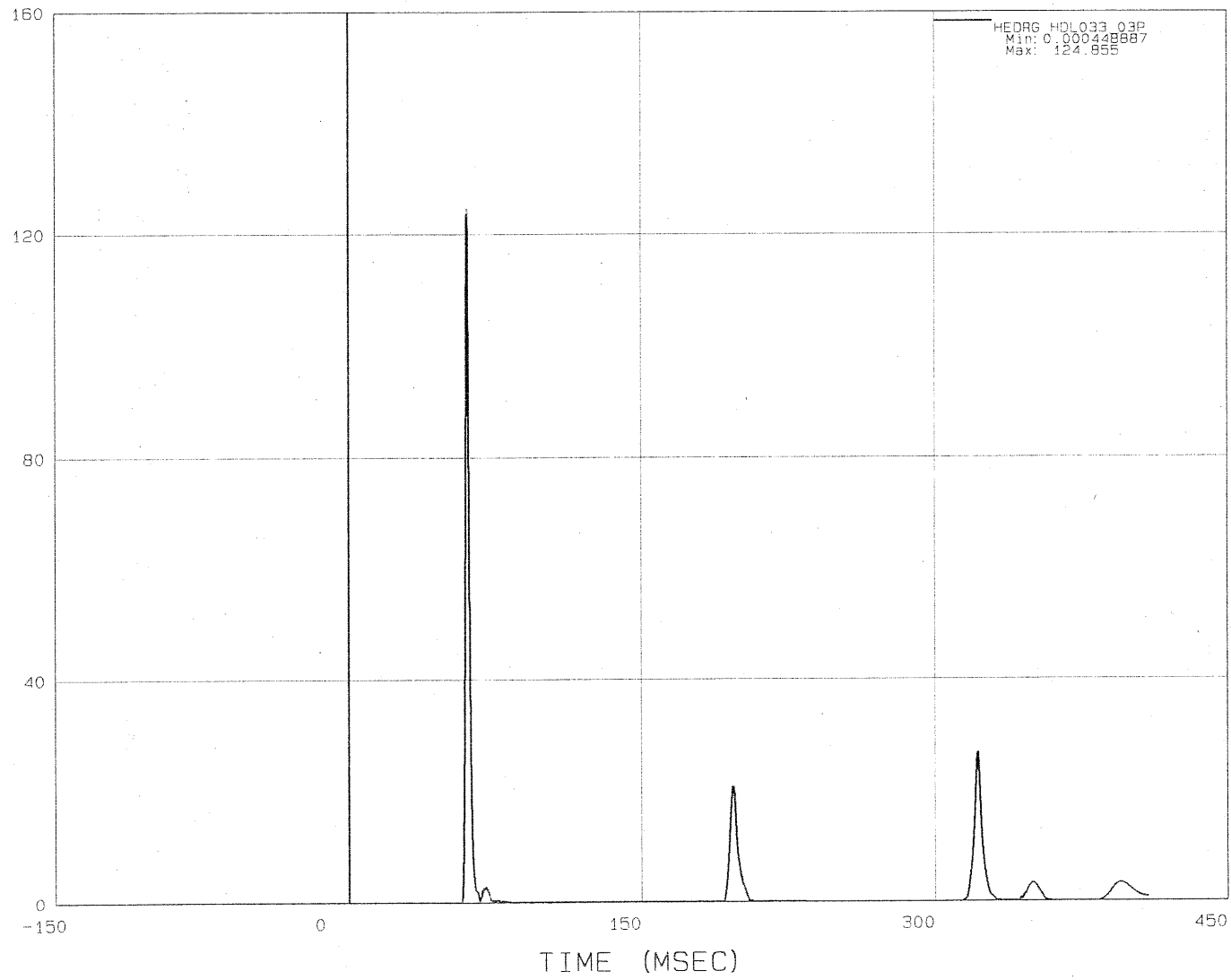


Sep 25, 2003 11:32:17AM

C-86

030915-1

HEDRG (G)



Sep 25, 2003 11:32:18AM

Vehicle Research and Test Center

Left Lateral Neck Test

SID-IIs Serial No. 033 Calibration No. 1 - 1

Test Date 09/08/2003

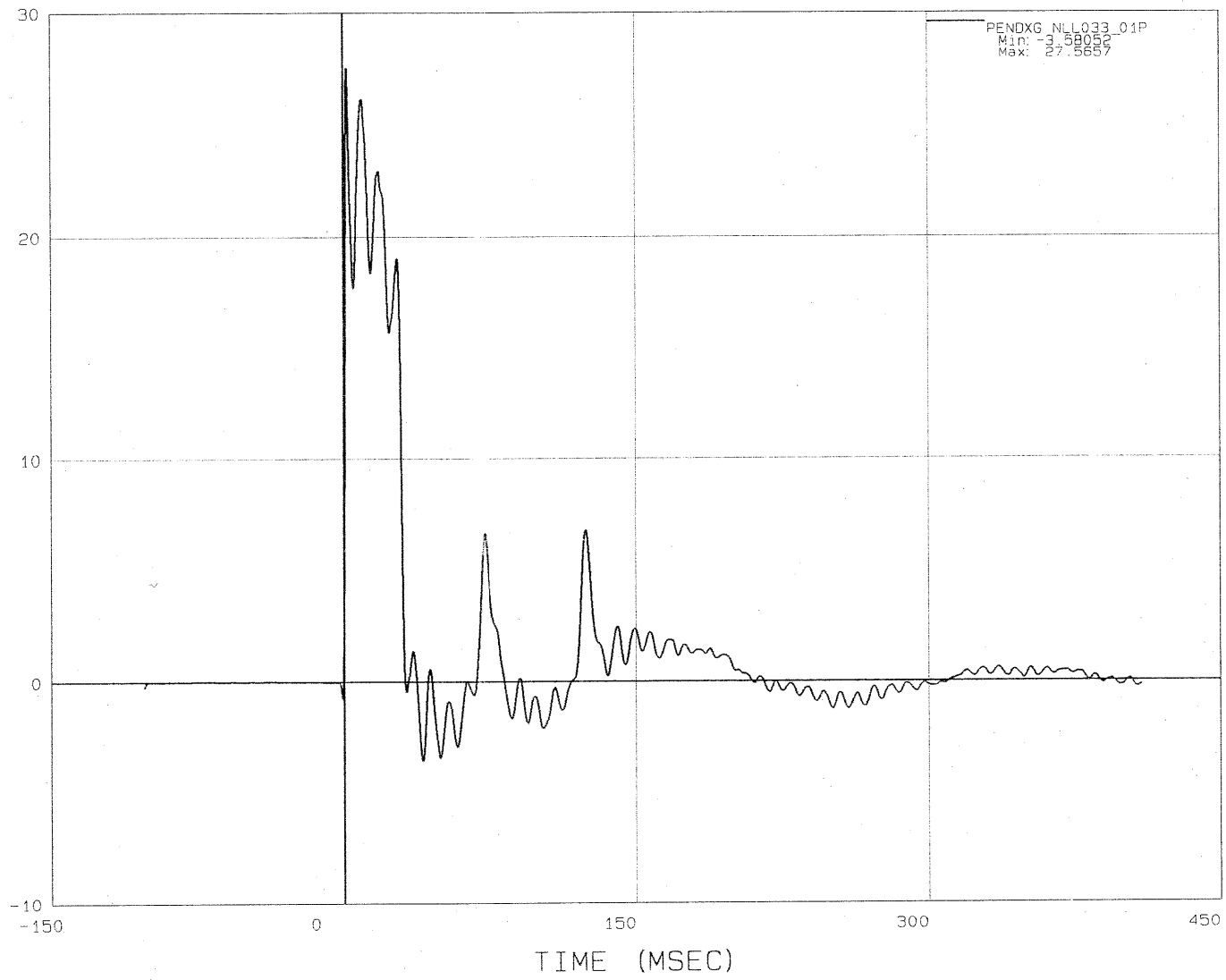
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.64 m/s	No
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	2.09 m/s	No
15 ms	3.00 - 3.80 m/s	3.14 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.22 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	5.95 m/s	Yes
Peak D Plane Rotation	72 - 82 °	71.1 °	No
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	67.0 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	41.1 N·m	Yes
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	93.0 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	11.36 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	47.3 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	63.7 ms	Yes
Peak Rotation of Rearward Pot	47 - 56 °	55.6 °	Yes
Time of Peak Rotation of Rearward Pot	62 - 73 ms	64.4 ms	Yes

Comments:

C-88

030915-1

PENDXG (G)

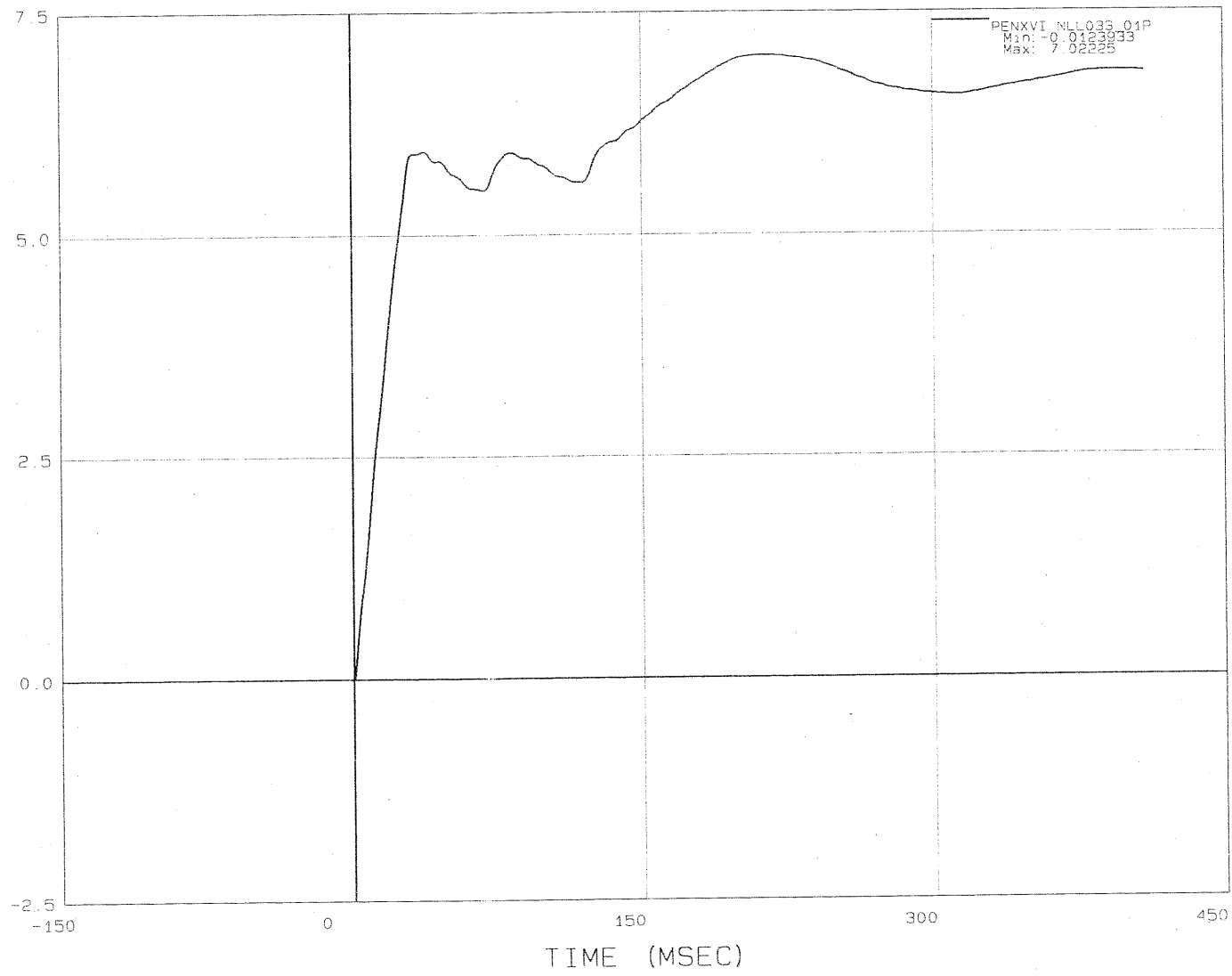


Sep 25, 2003 11:48:13AM

C-89

030915-1

PENXVI (M/S)

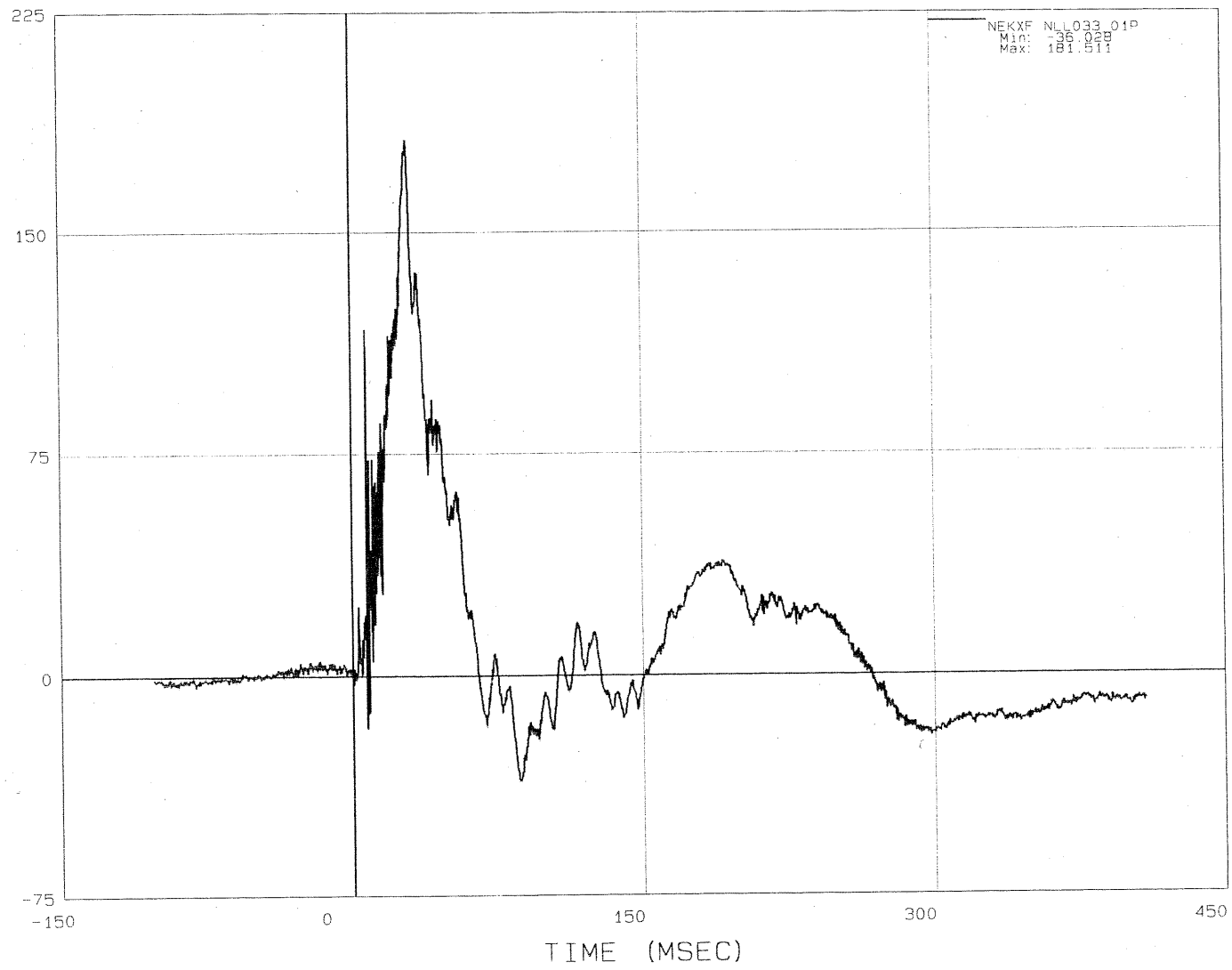


Sep 25, 2003 11:48:13AM

C-90

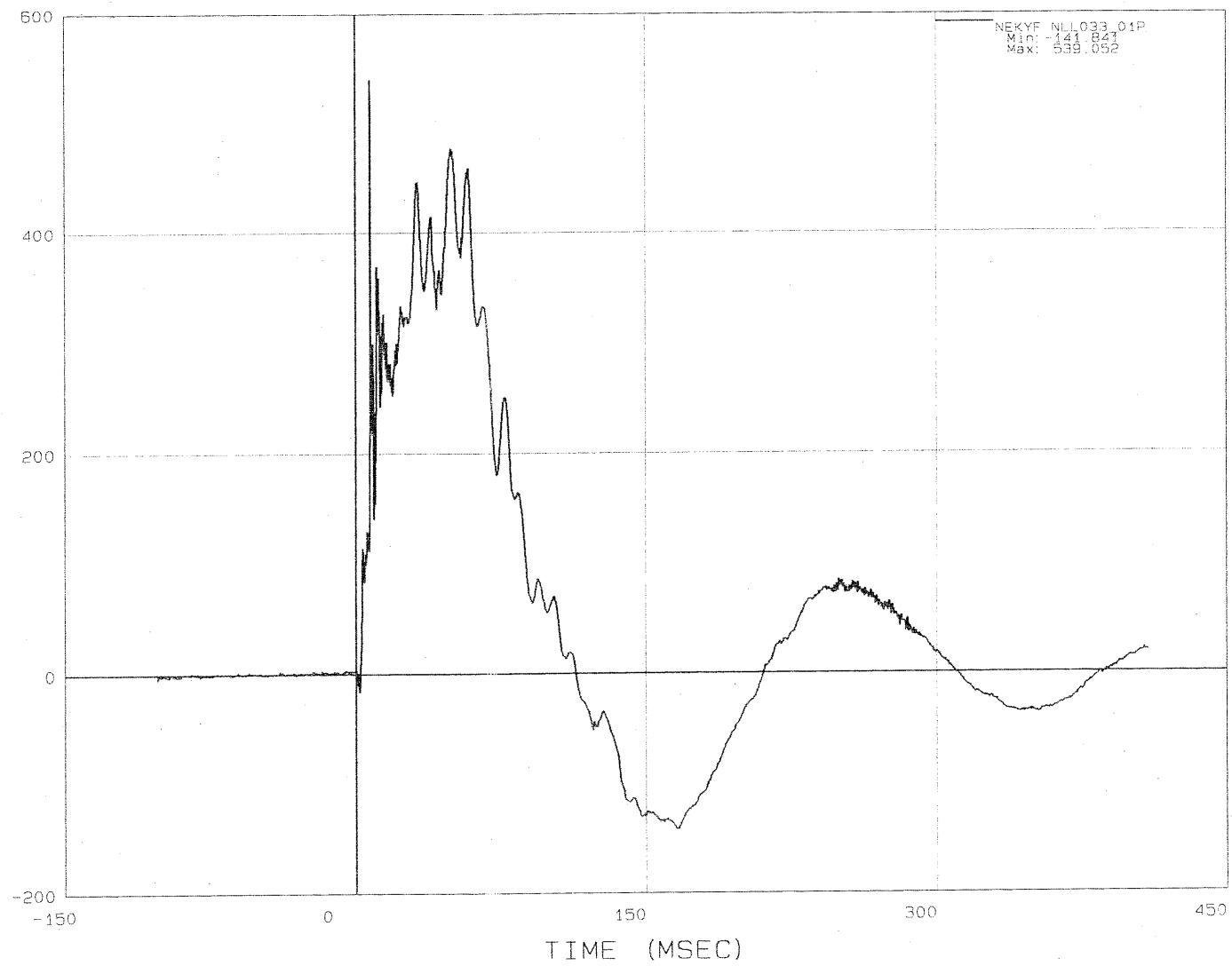
030915-1

NEKXF (N)



Sep 25, 2003 11:48:05AM

NEKYF (N)

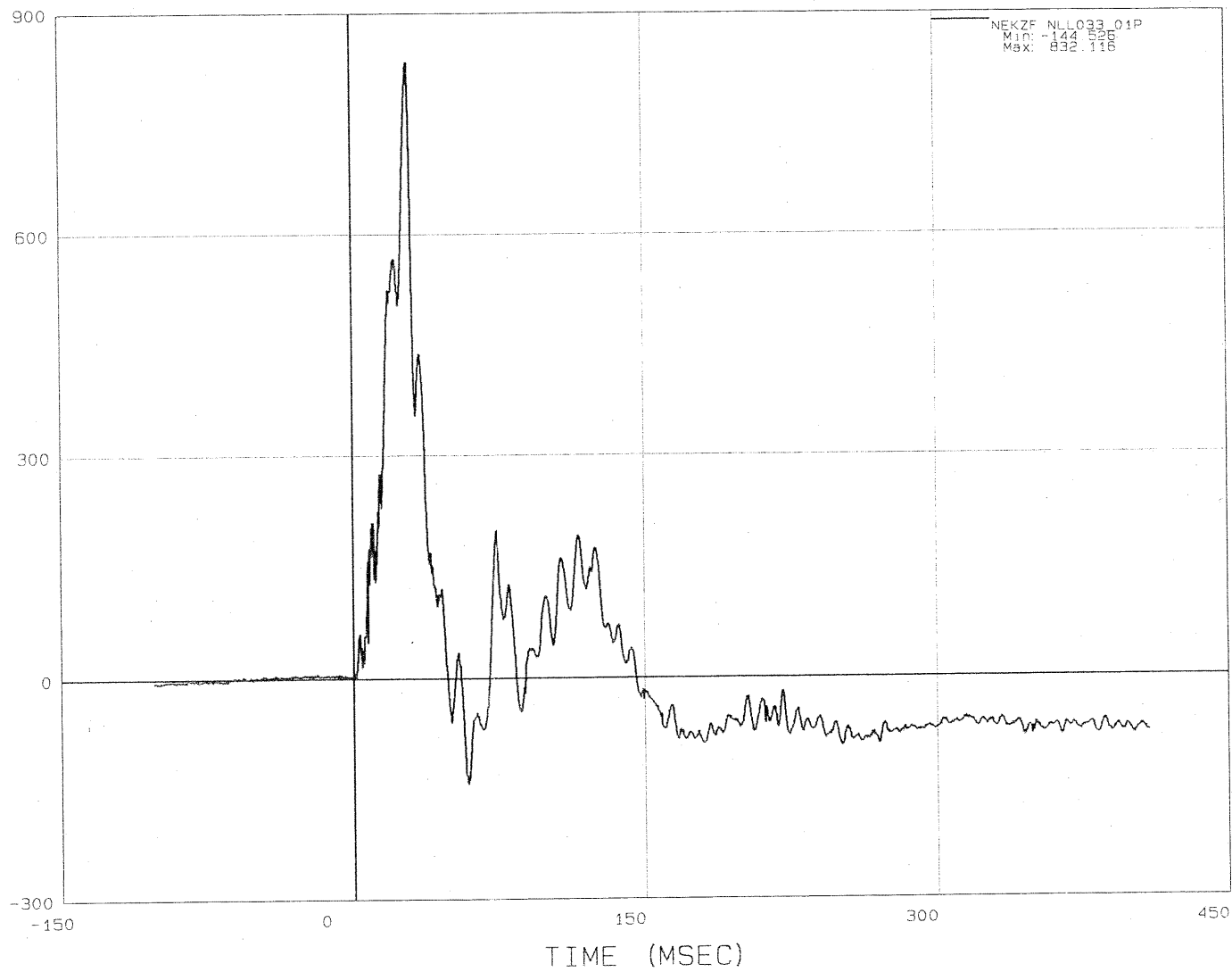


Sep 25, 2003 11:48:06AM

C-92

030915-1

NEKZF (N)

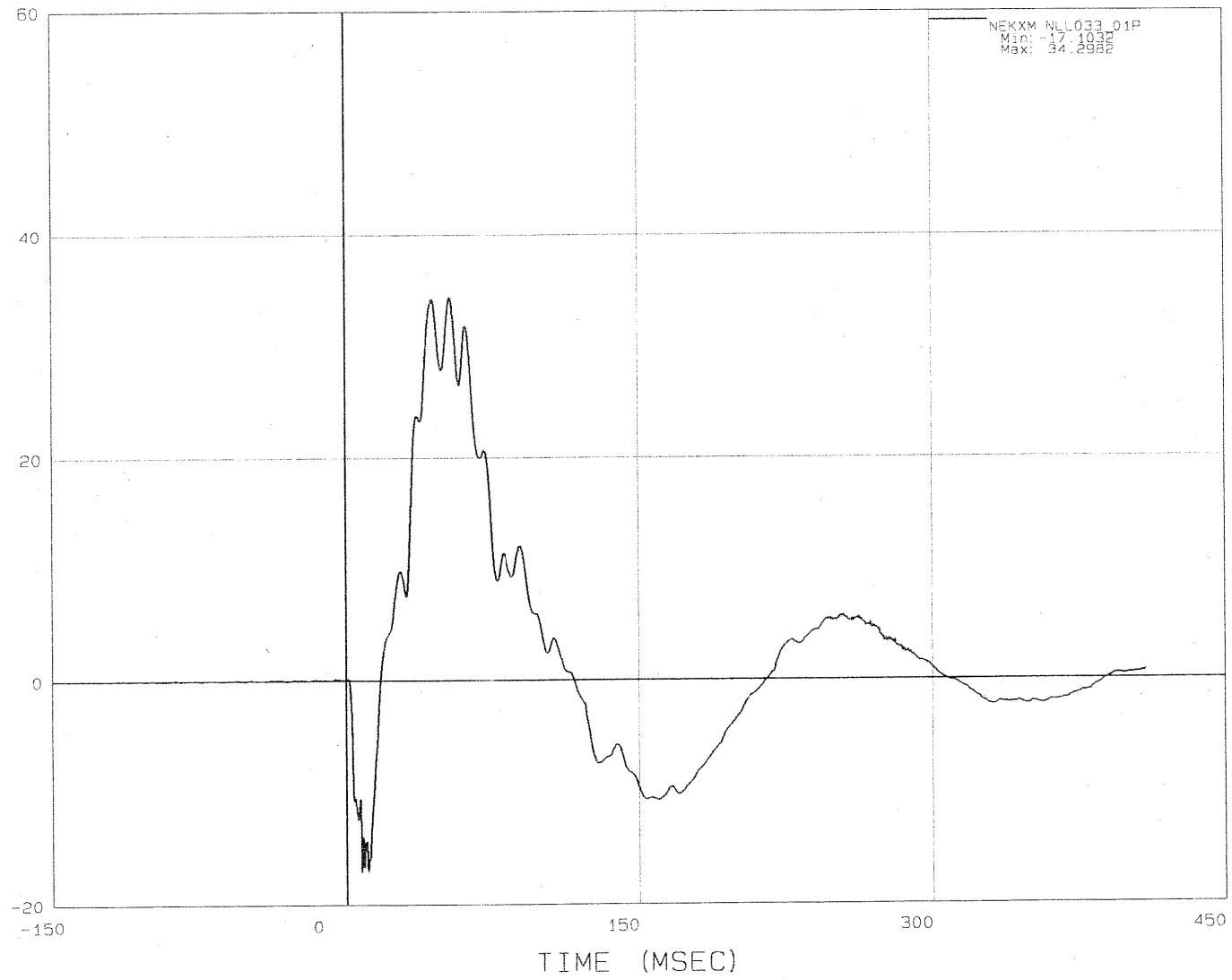


Sep 25, 2003 11:48:06AM

C-93

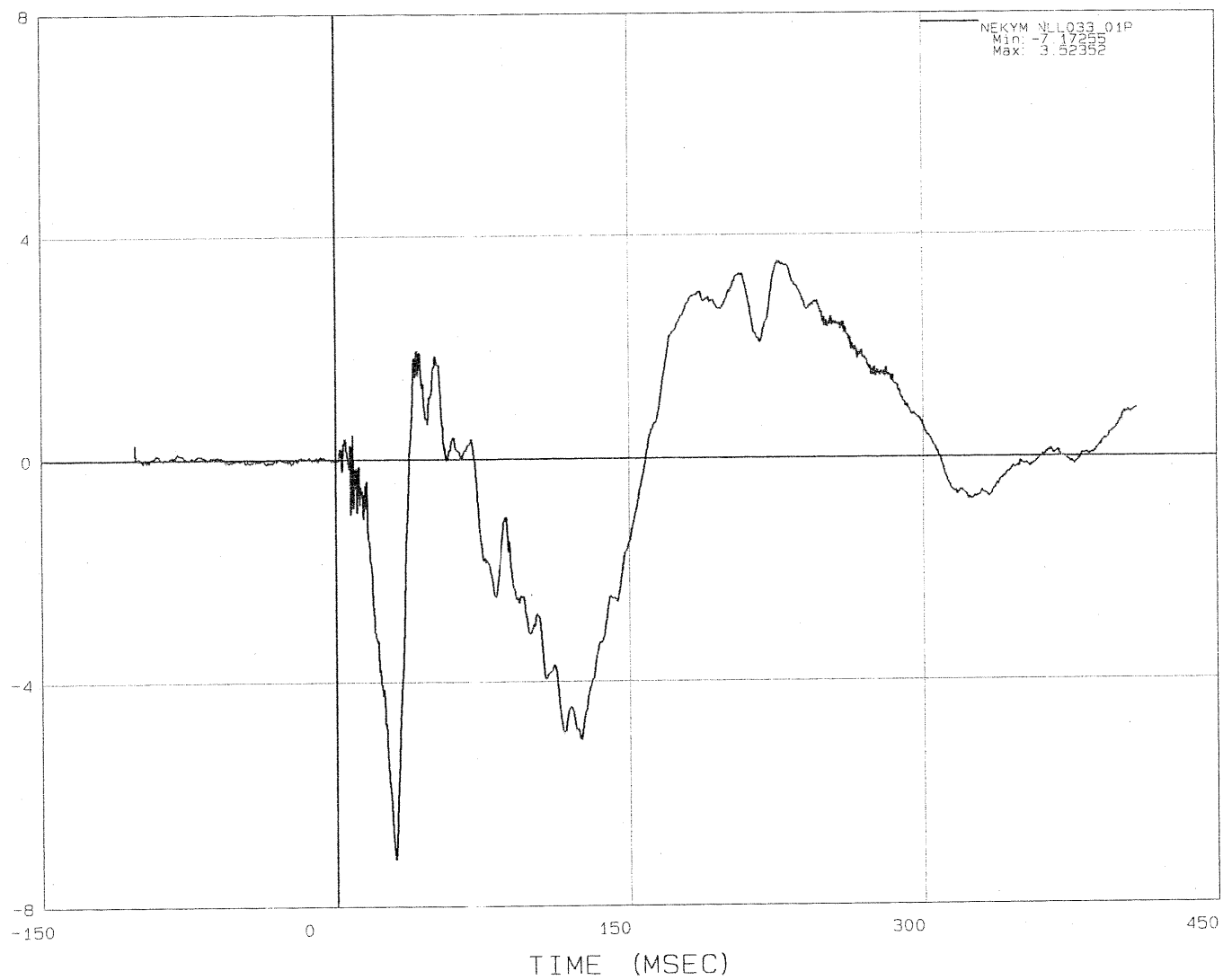
030915-1

NEKXM (NM)



Sep 25, 2003 11:48:07AM

NEKYM (NM)

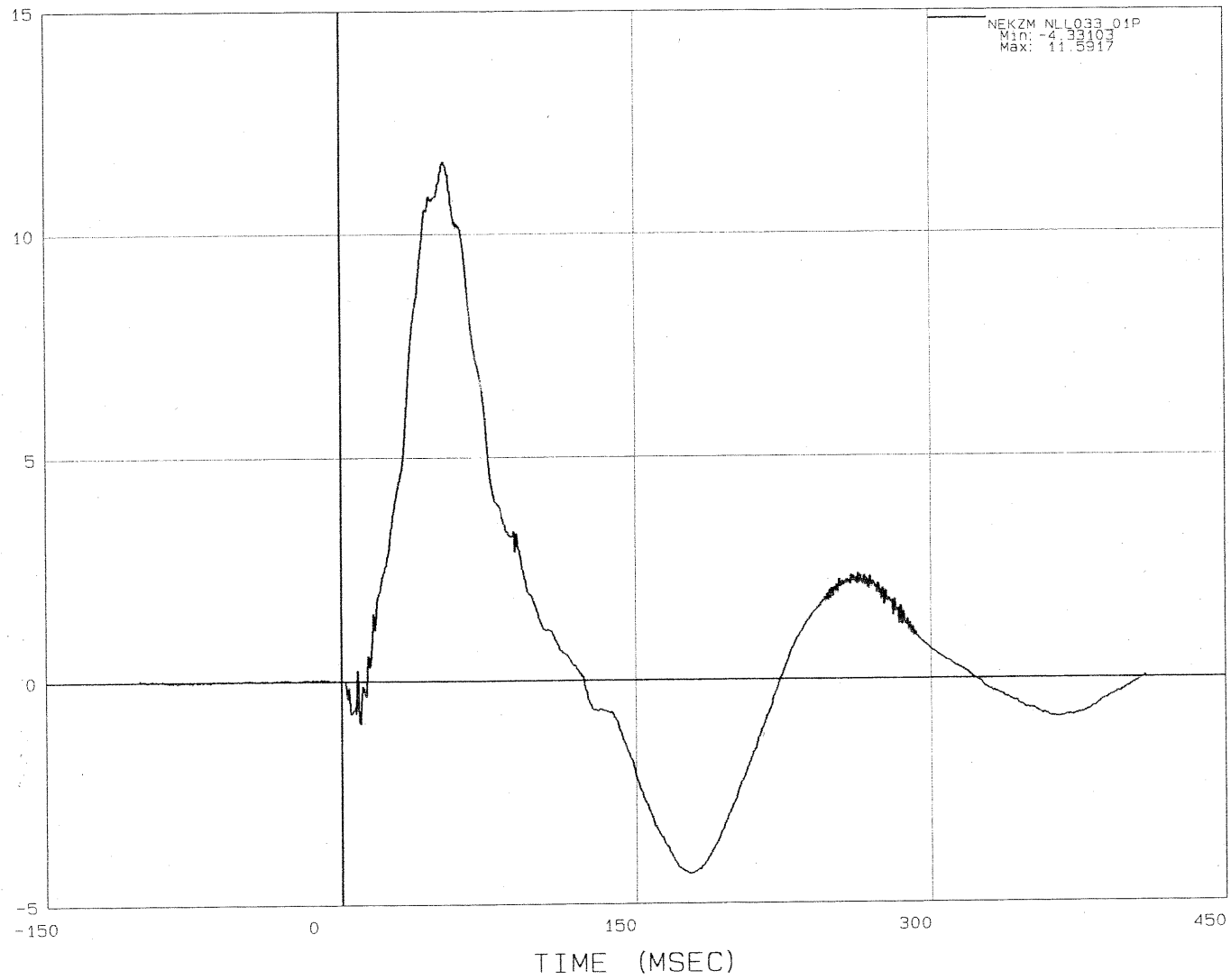


Sep 25, 2003 11:48:07AM

C-95

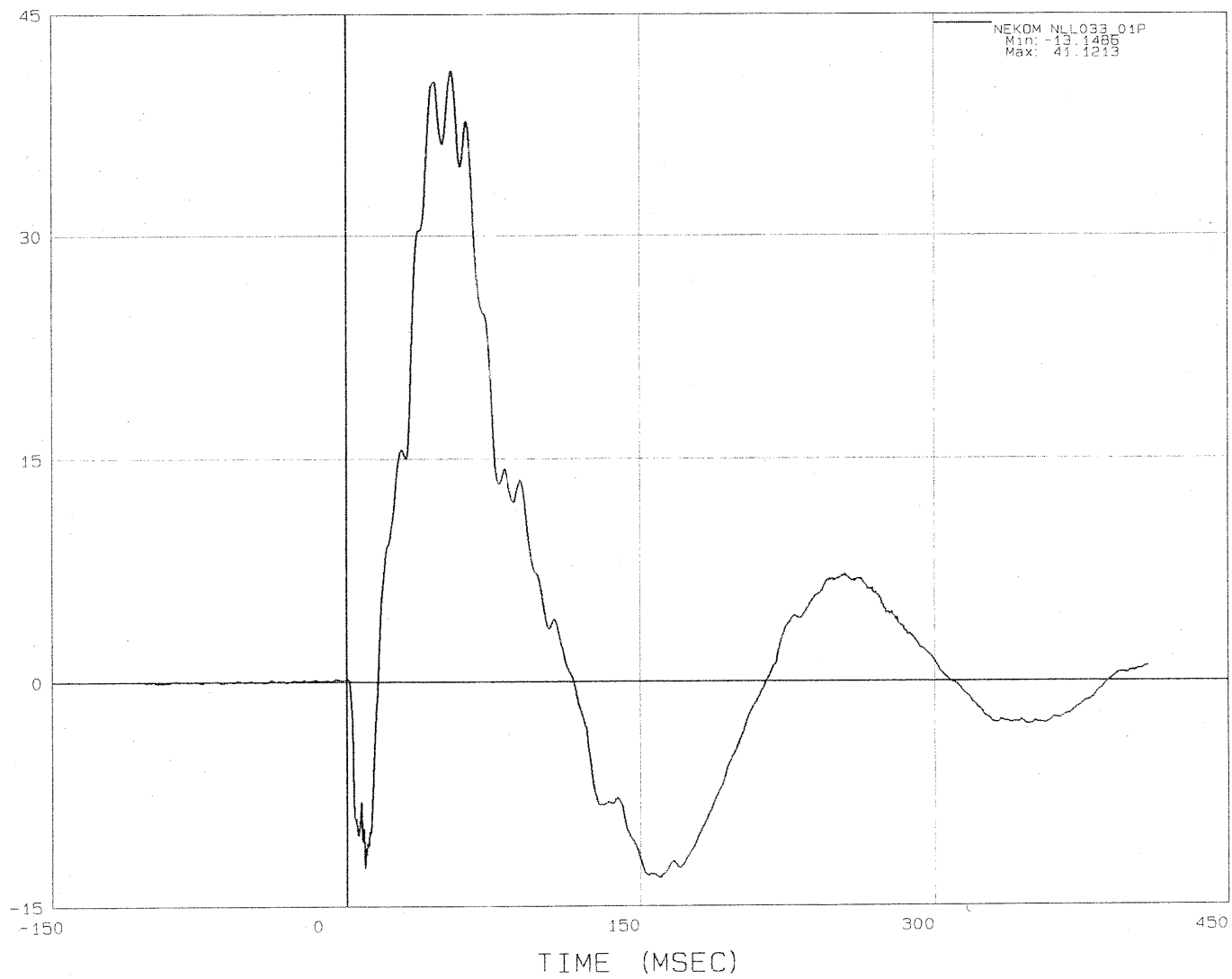
030915-1

NEKZM (NM)



Sep 25, 2003 12:36:32PM

NEKOM (NM)

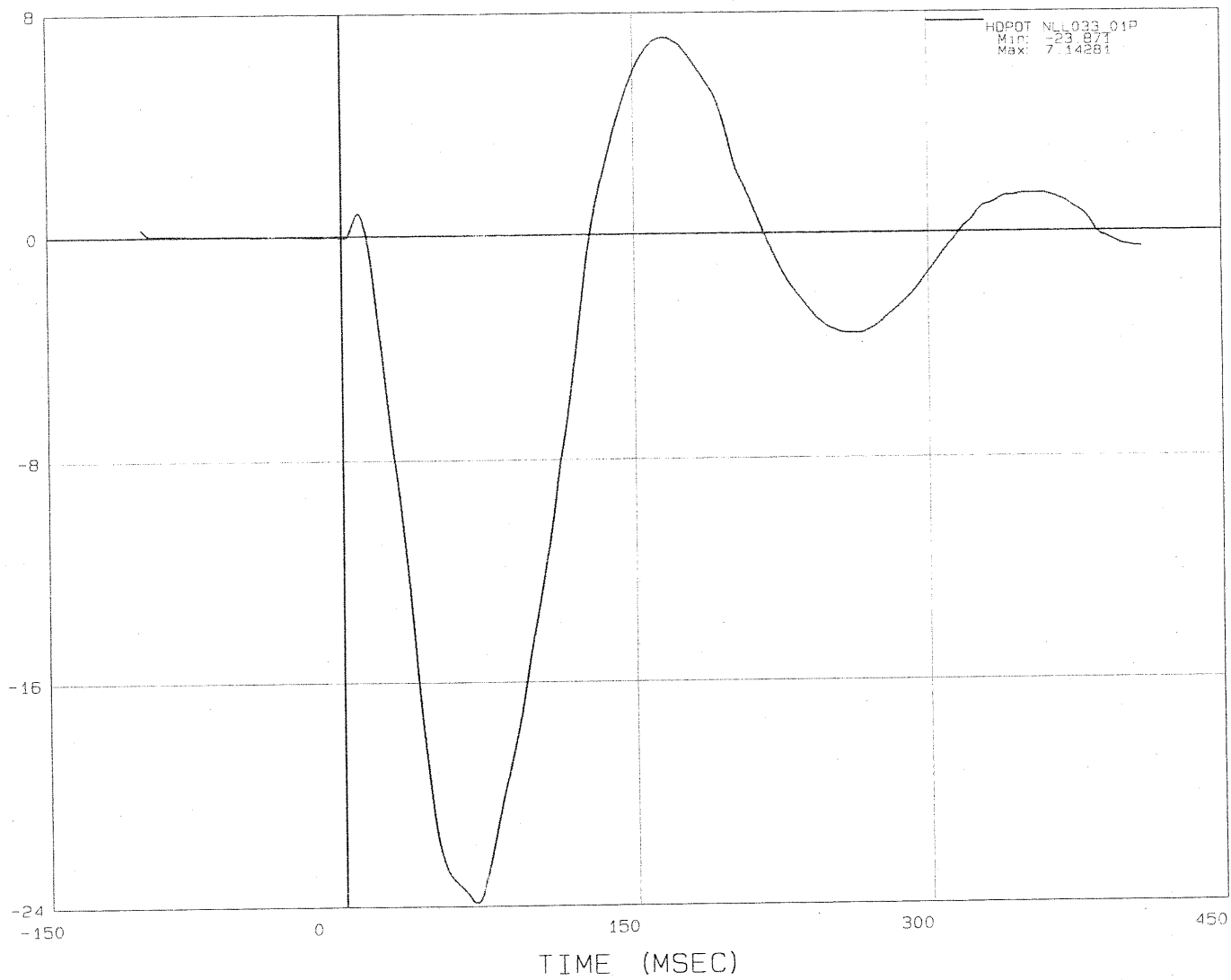


Sep 25, 2003 11:48:21AM

C-97

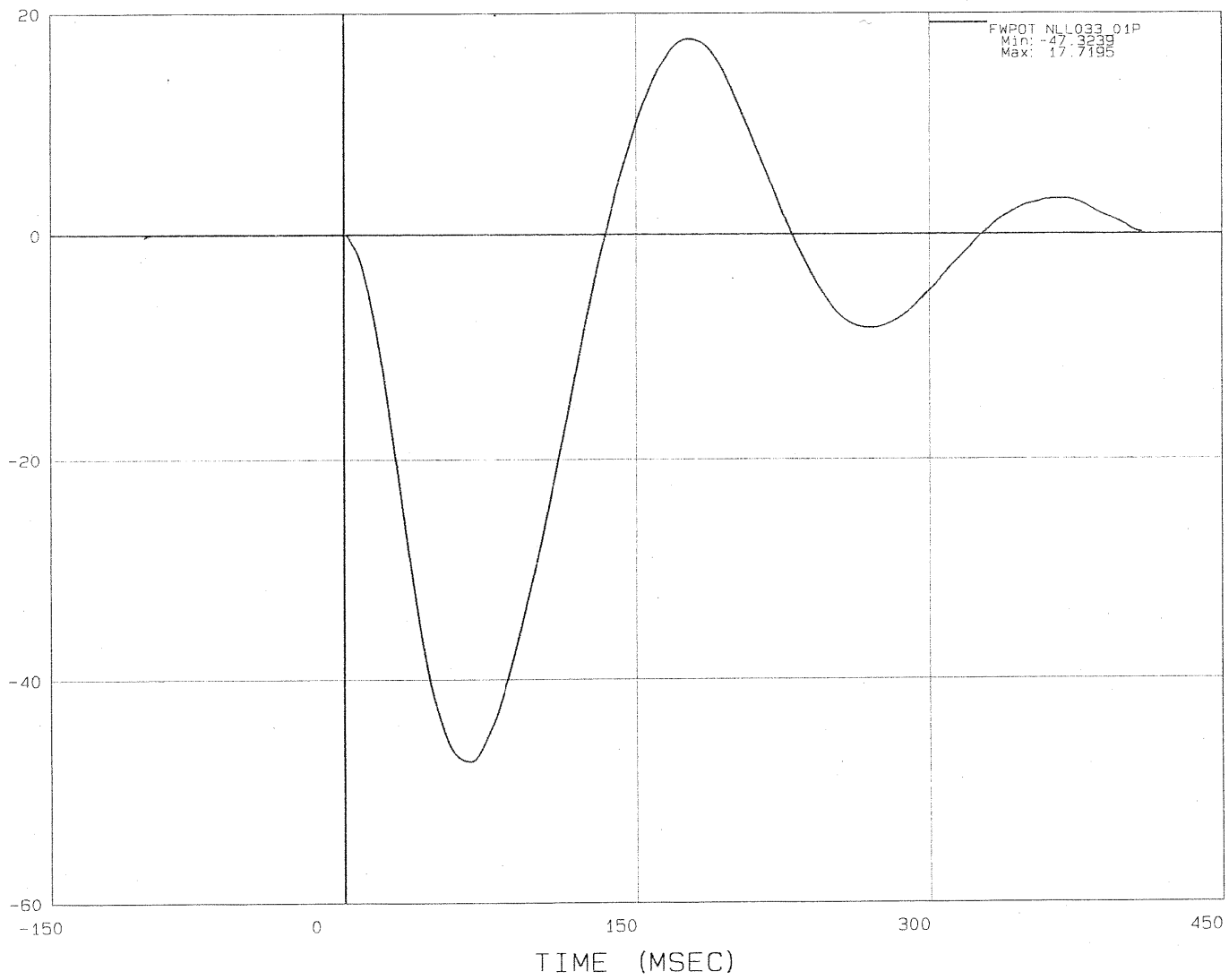
030915-1

HDROT (DEGREES)



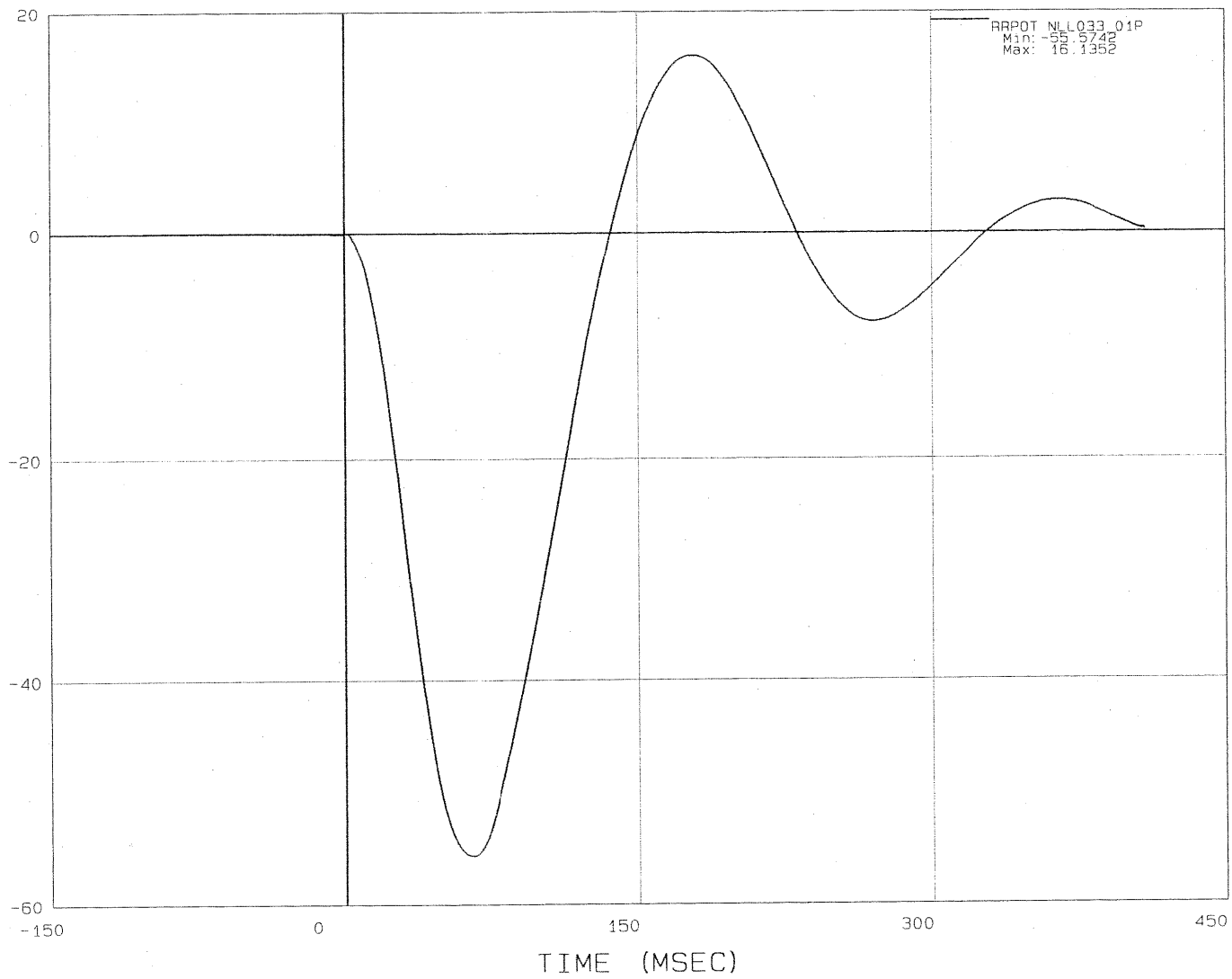
Sep 25, 2003 11:48.14AM

FWPOT (DEGREES)



Sep 25, 2003 11:48:14AM

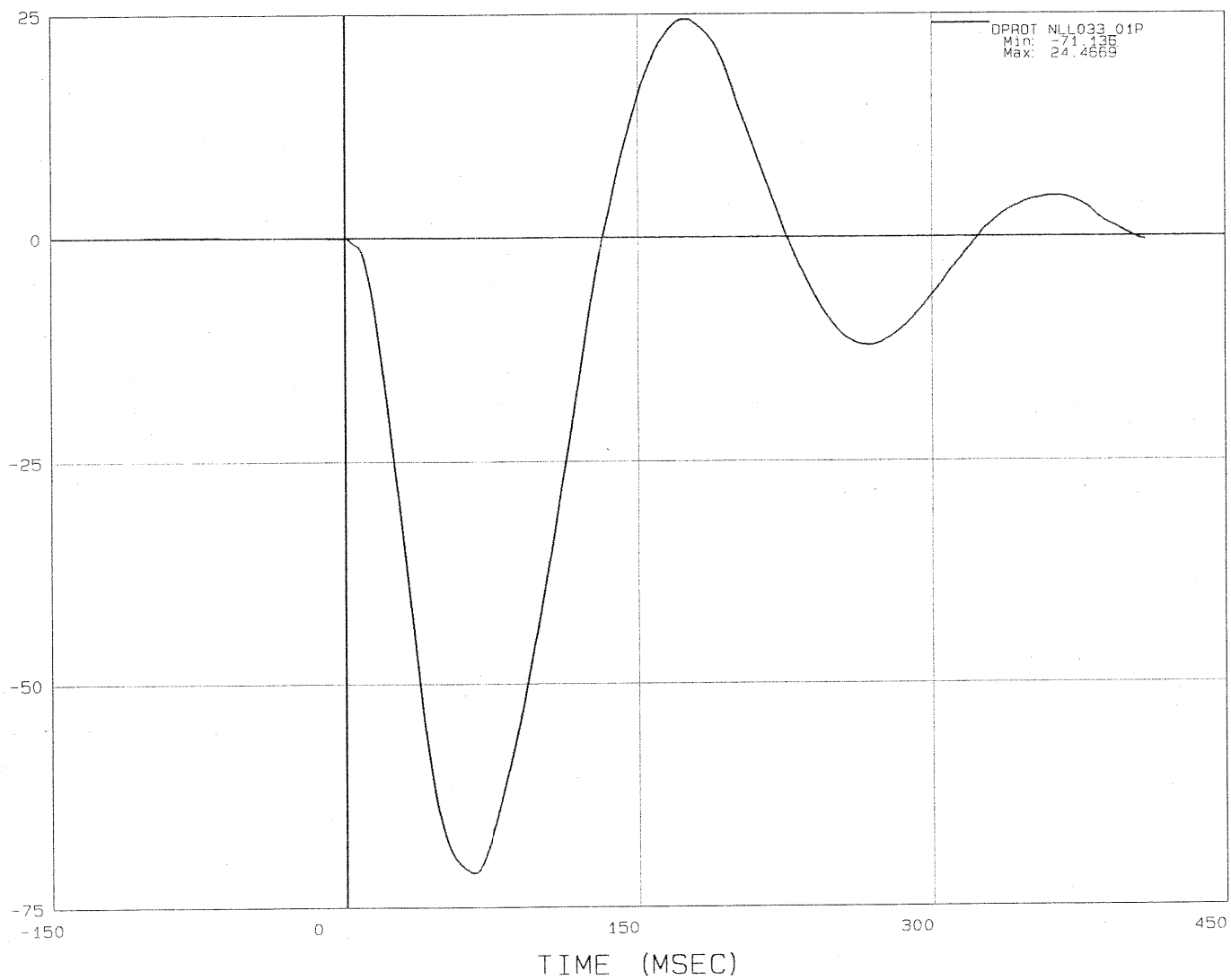
RRPOT (DEGREES)



C-100

030915-1

DPROT (DEGREES)



Sep 25, 2003 11:48:14AM

Vehicle Research and Test Center

Left Lateral Neck Test

SID-IIs Serial No. 033 Calibration No. 1 - 2

Test Date 09/08/2003

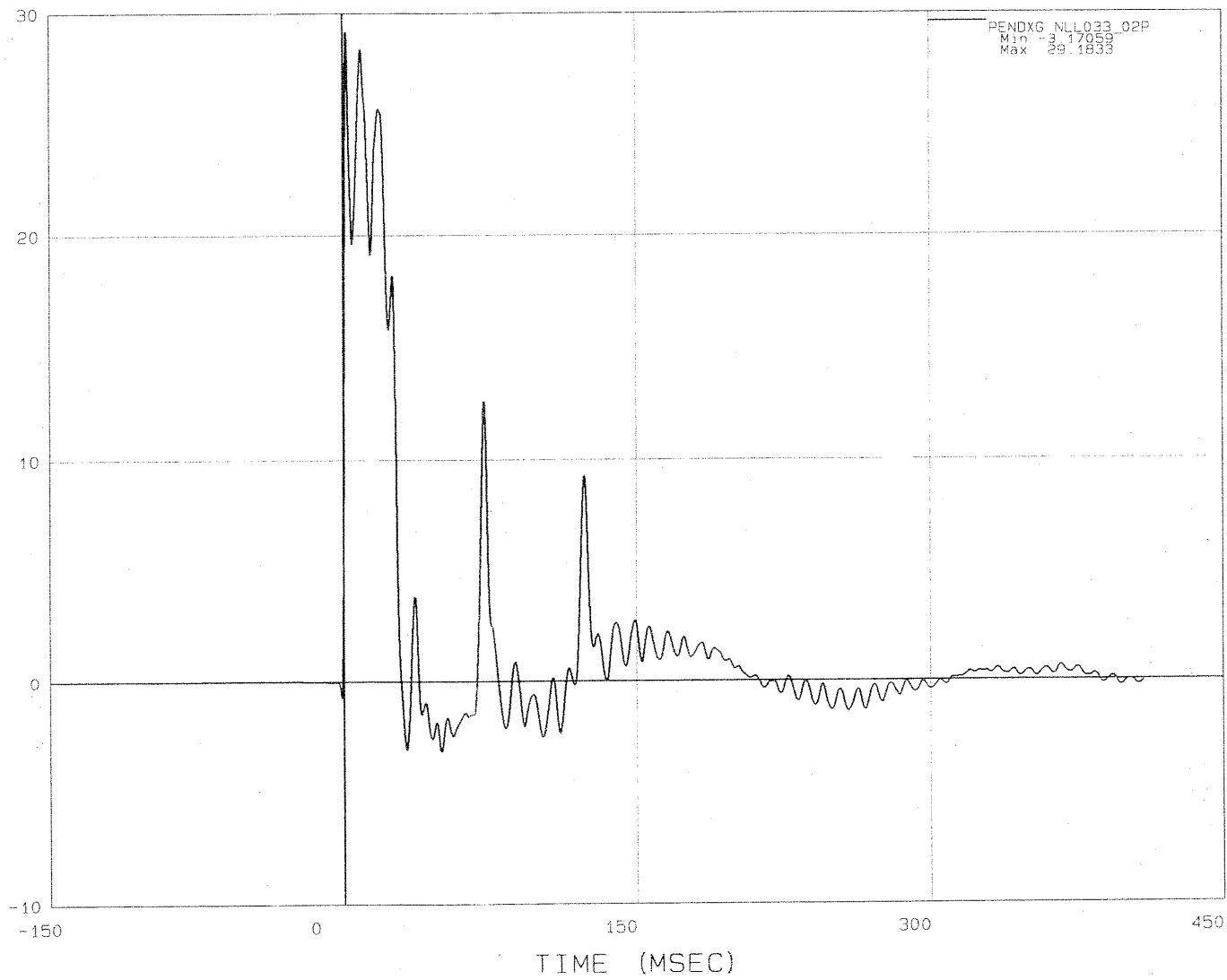
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.57 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	2.30 m/s	Yes
15 ms	3.00 - 3.80 m/s	3.42 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.62 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	5.92 m/s	Yes
Peak D Plane Rotation	72 - 82 °	73.3 °	Yes
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	66.6 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	41.8 N·m	Yes
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	91.8 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	10.06 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	48.2 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	62.6 ms	Yes
Peak Rotation of Rearward Pot	47 - 56 °	57.6 °	No
Time of Peak Rotation of Rearward Pot	62 - 73 ms	63.5 ms	Yes

Comments:

C-102

030915-1

PENDXG (G)

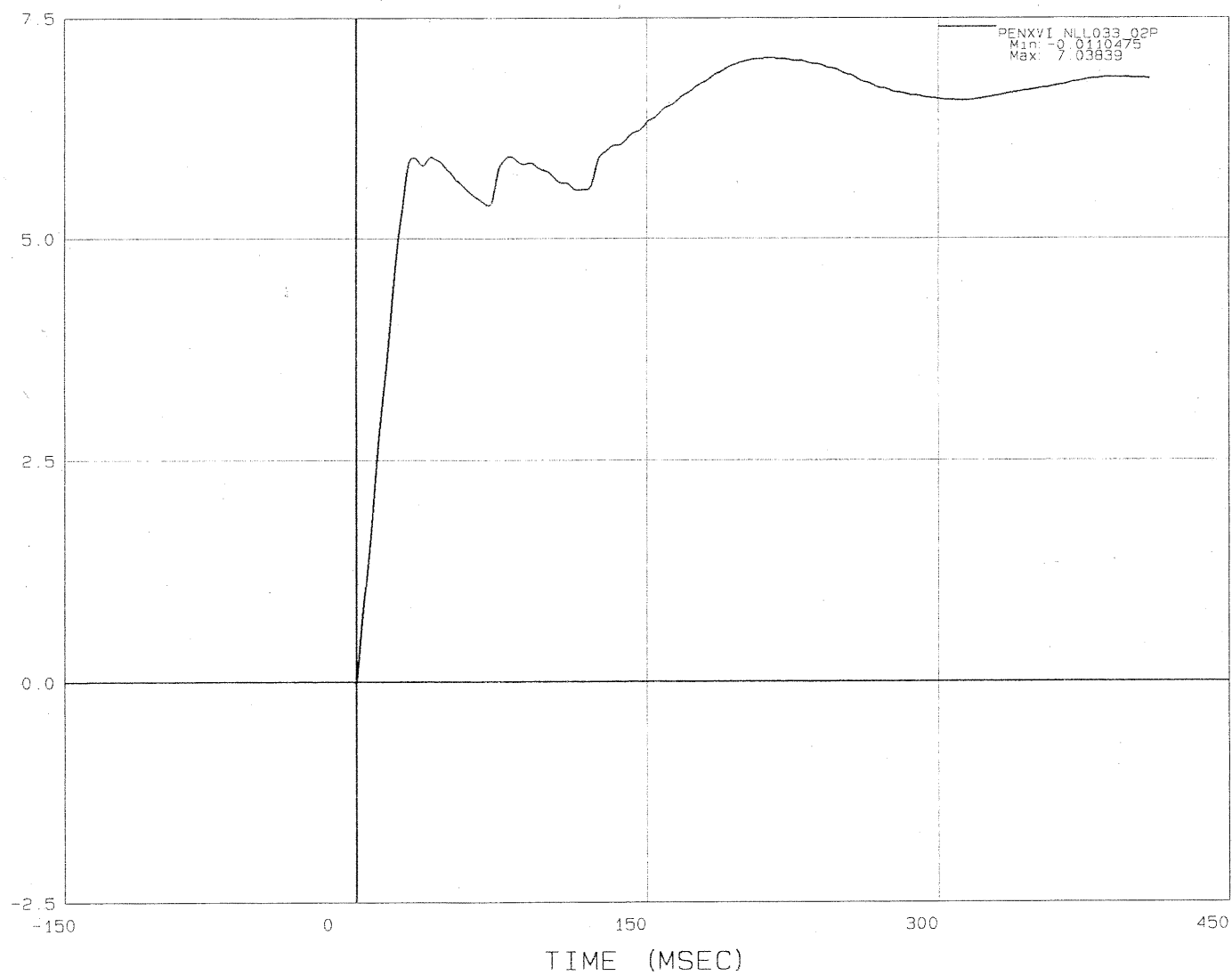


Sep 25, 2003 11:49:00AM

C-103

030915-1

PENXVI (M/S)

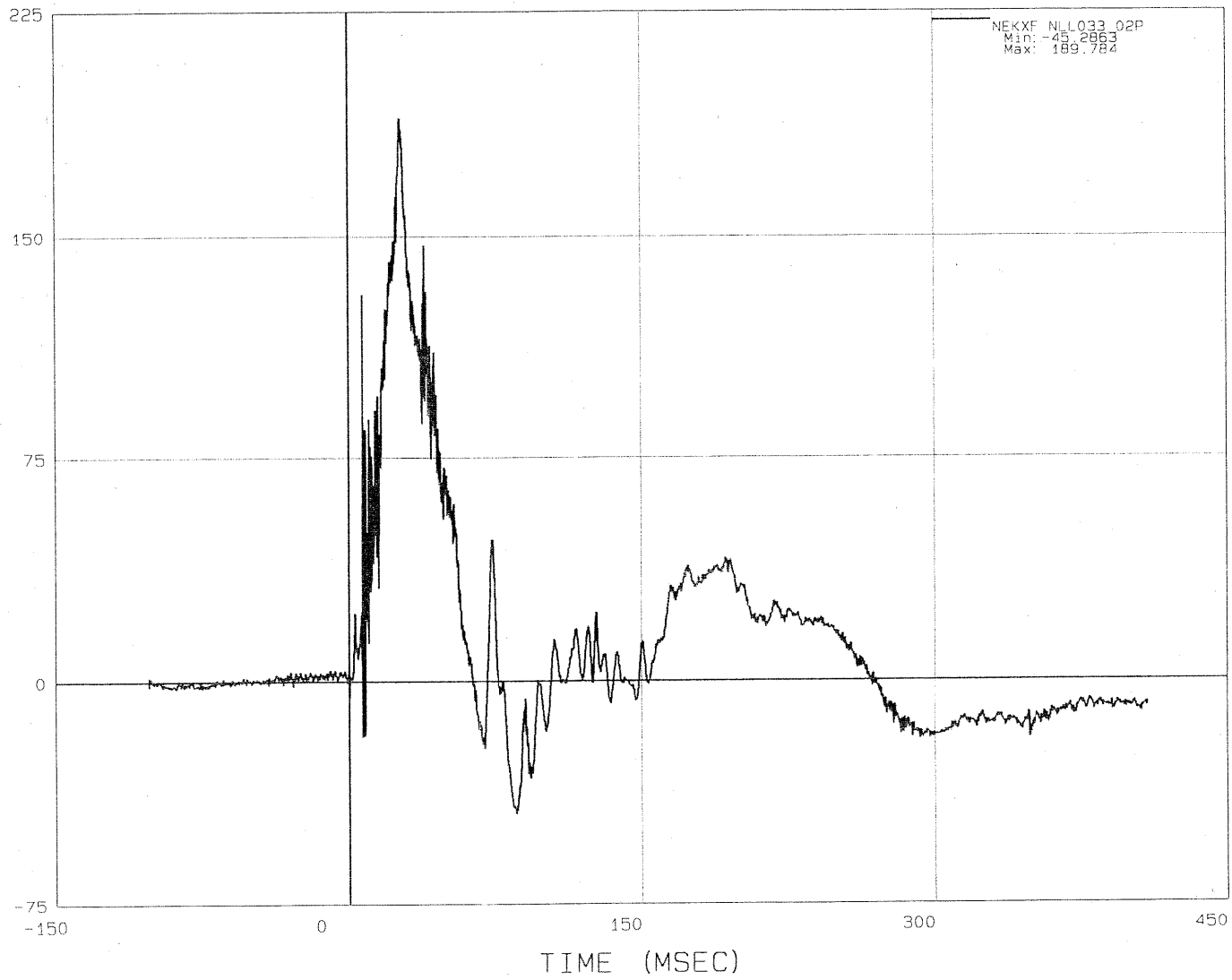


Sep 25, 2003 11:49:01AM

C-104

030915-1

NEKXF (N)

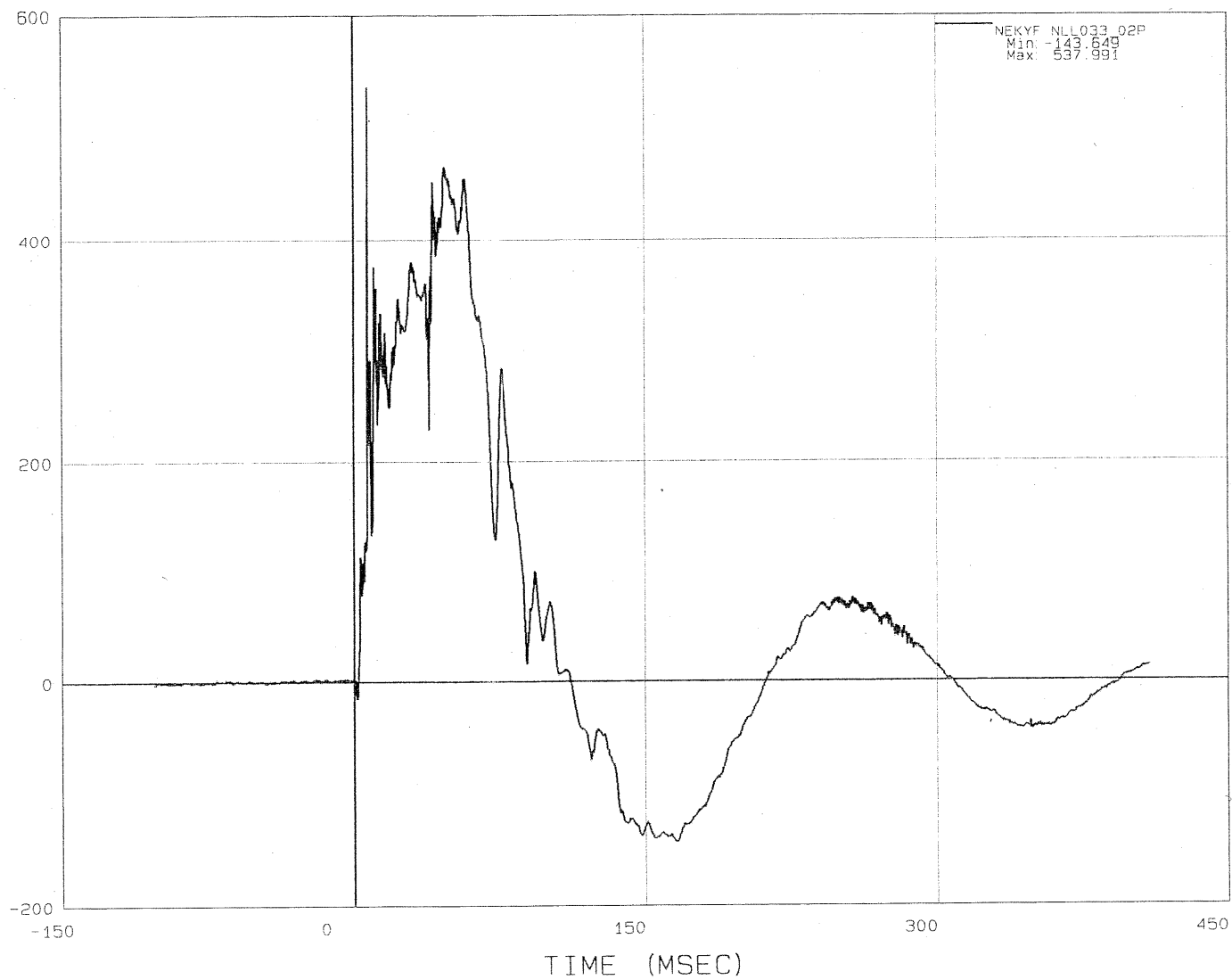


Sep 25, 2003 11:48:52AM

C-105

030915-1

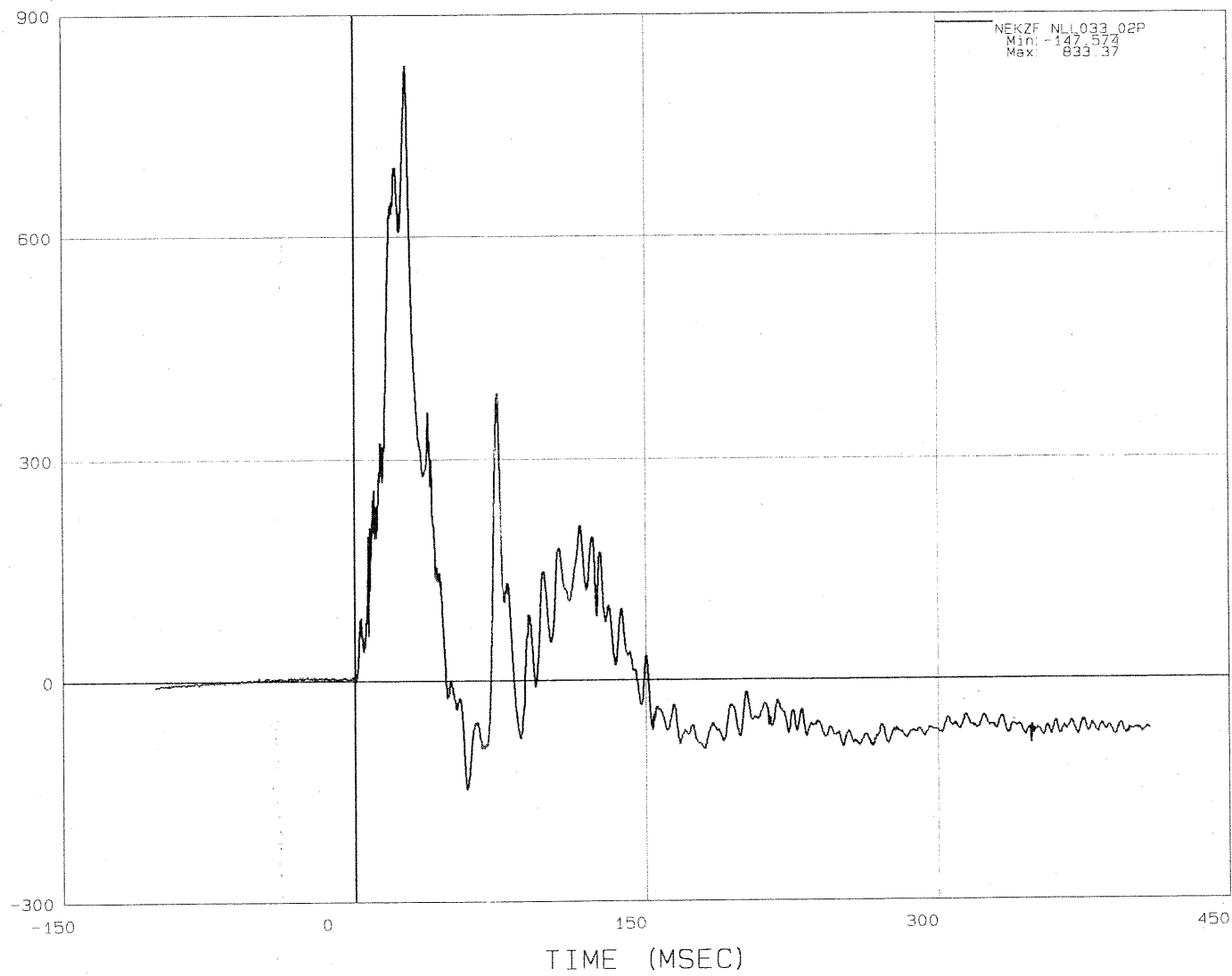
NEKYF (N)



C-106

030915-1

NEKZF (N)

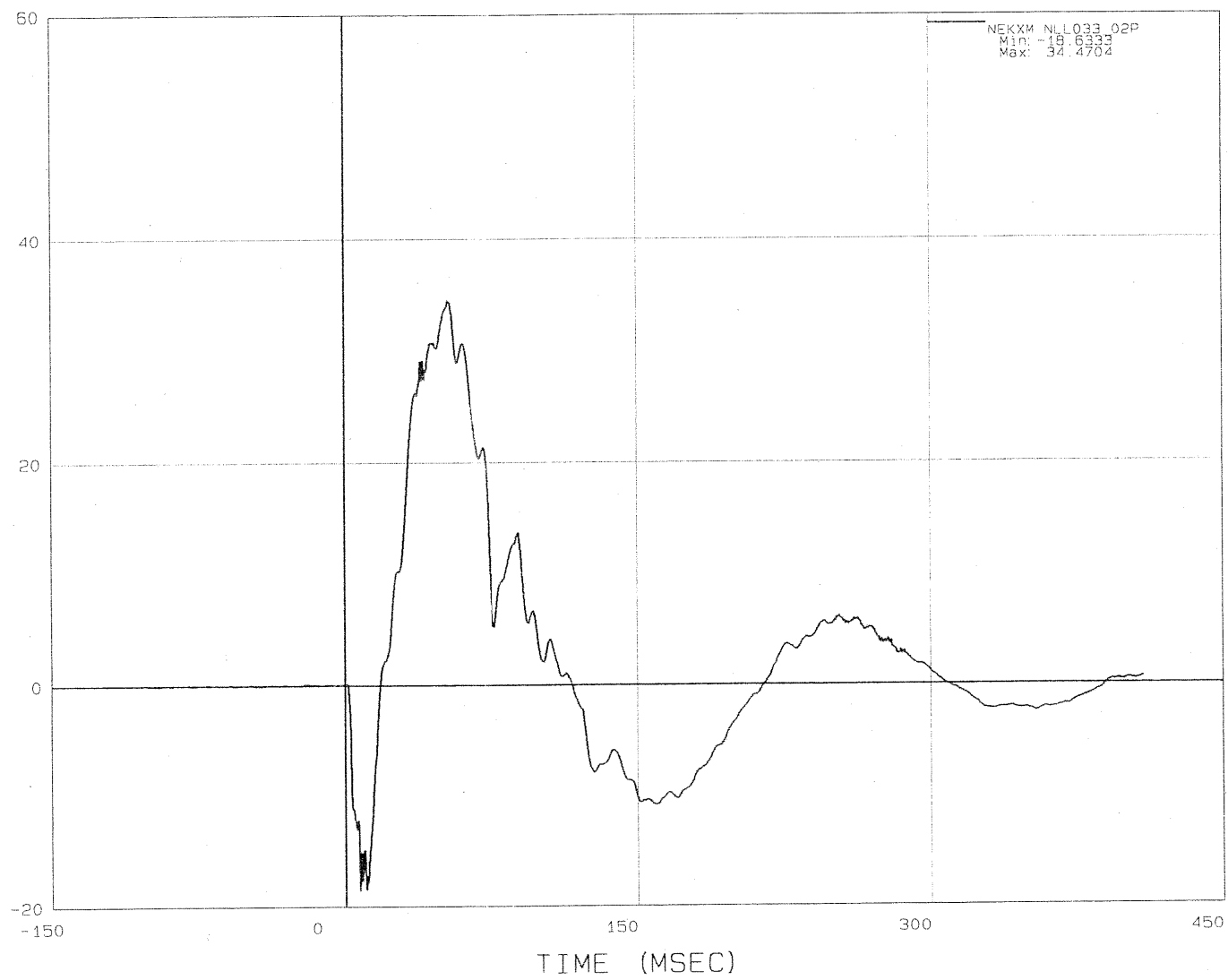


Sep 25, 2003 11:48:53AM

C-107

030915-1

NEKXM (NM)

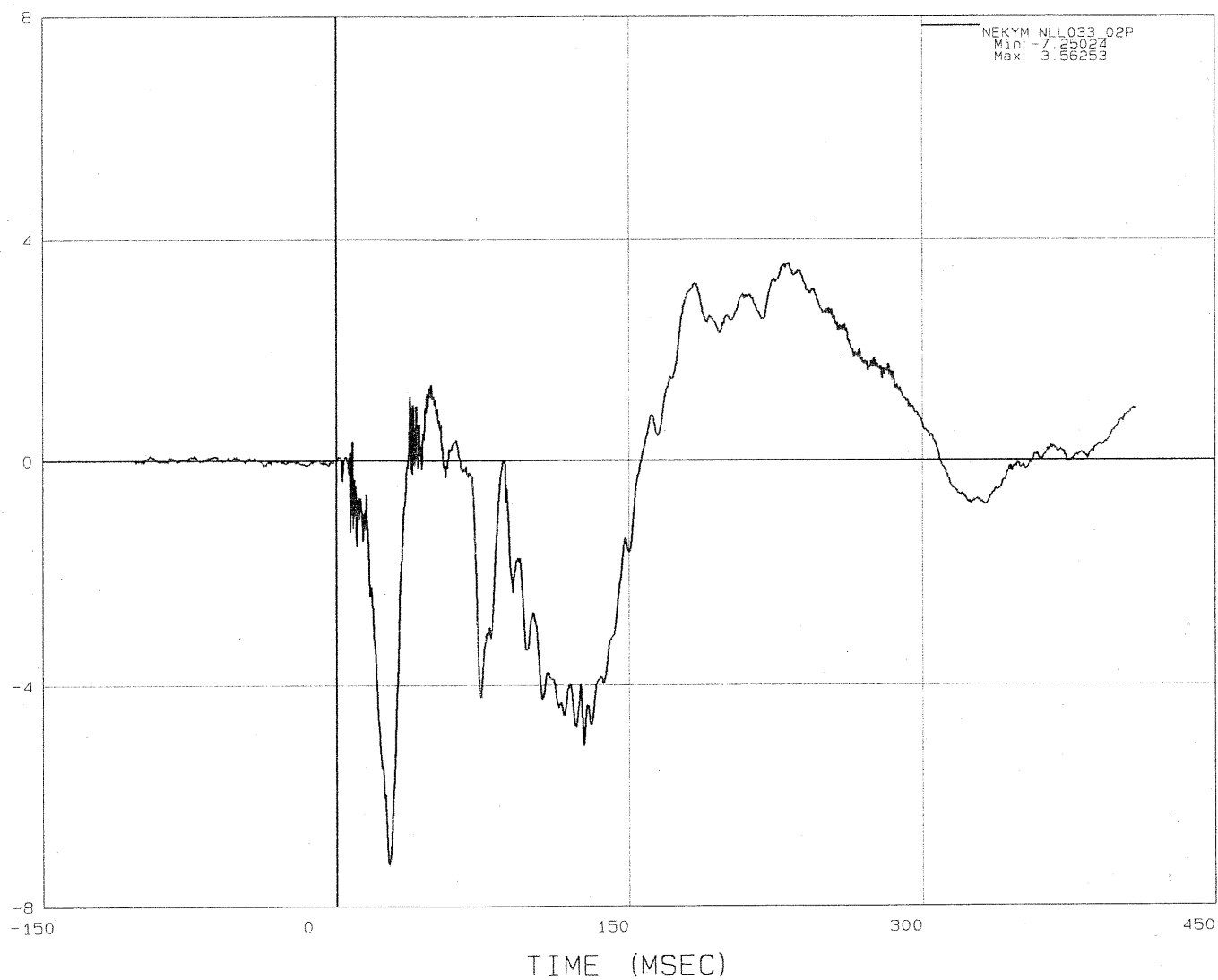


Sep 25, 2003 11:48:54AM

C-108

030915-1

NEKYM (NM)

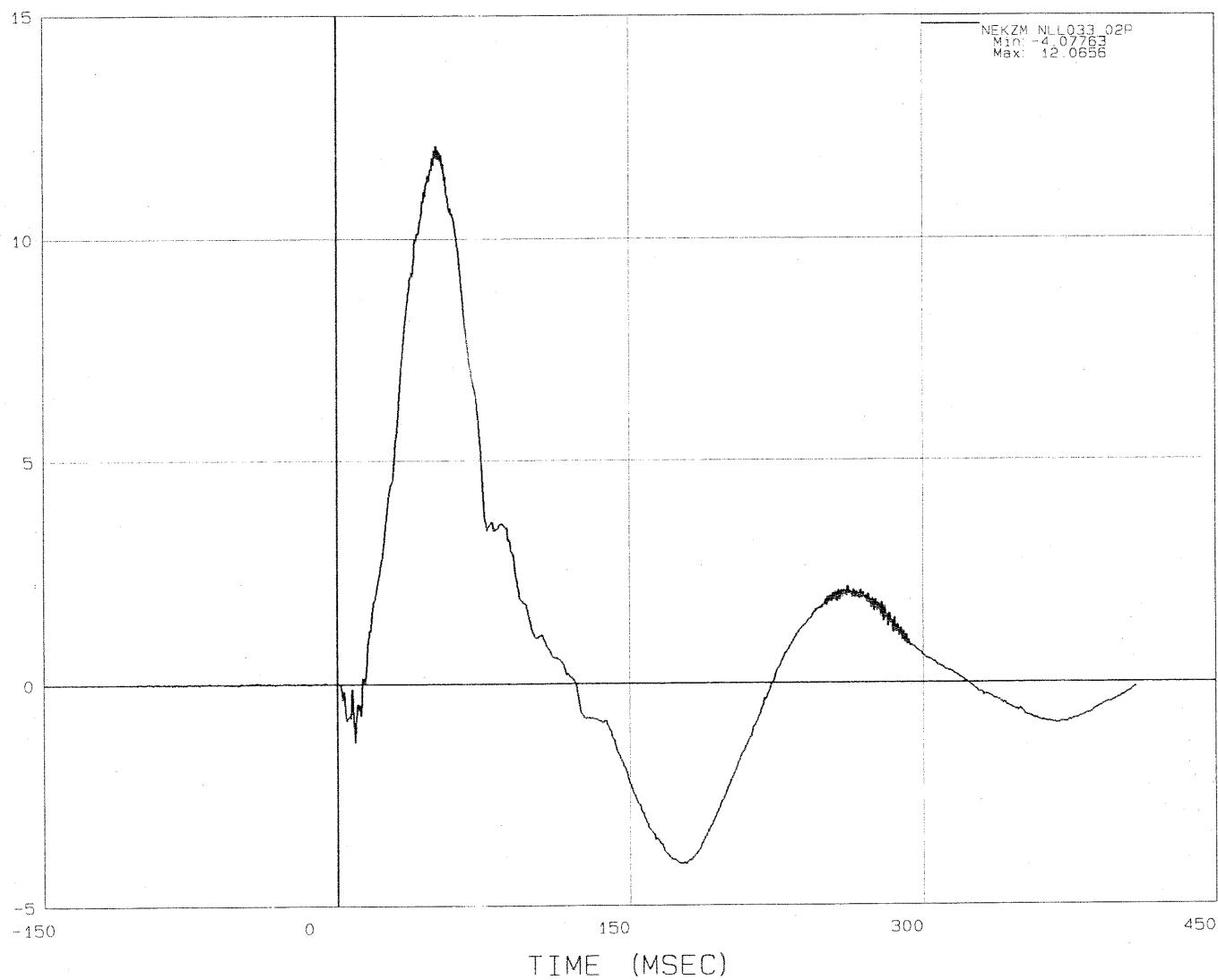


Sep 25, 2003 11:48:54AM

C-109

030915-1

NEKZM (NM)

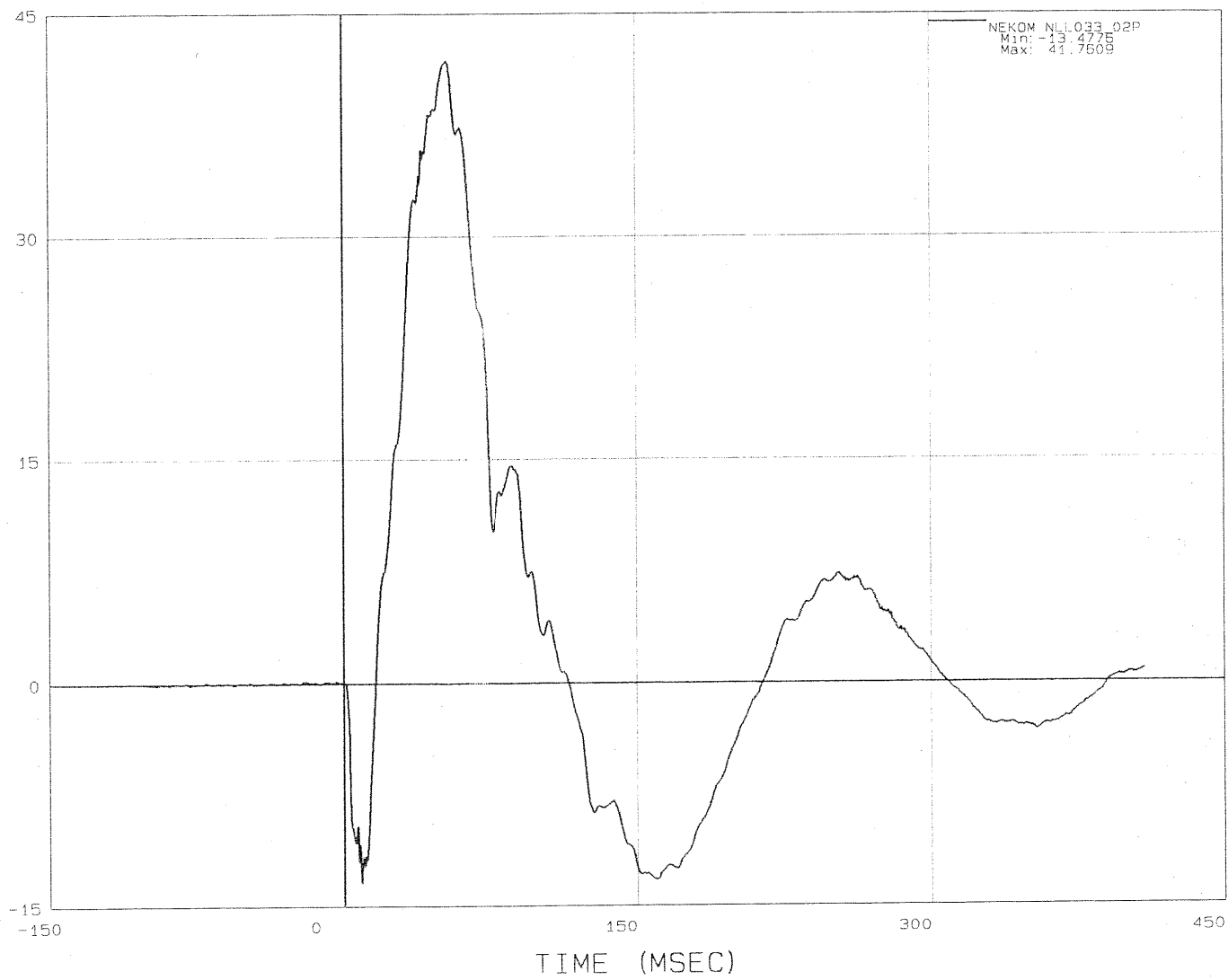


Sep 25, 2003 12:36:48PM

C-110

030915-1

NEKOM (NM)

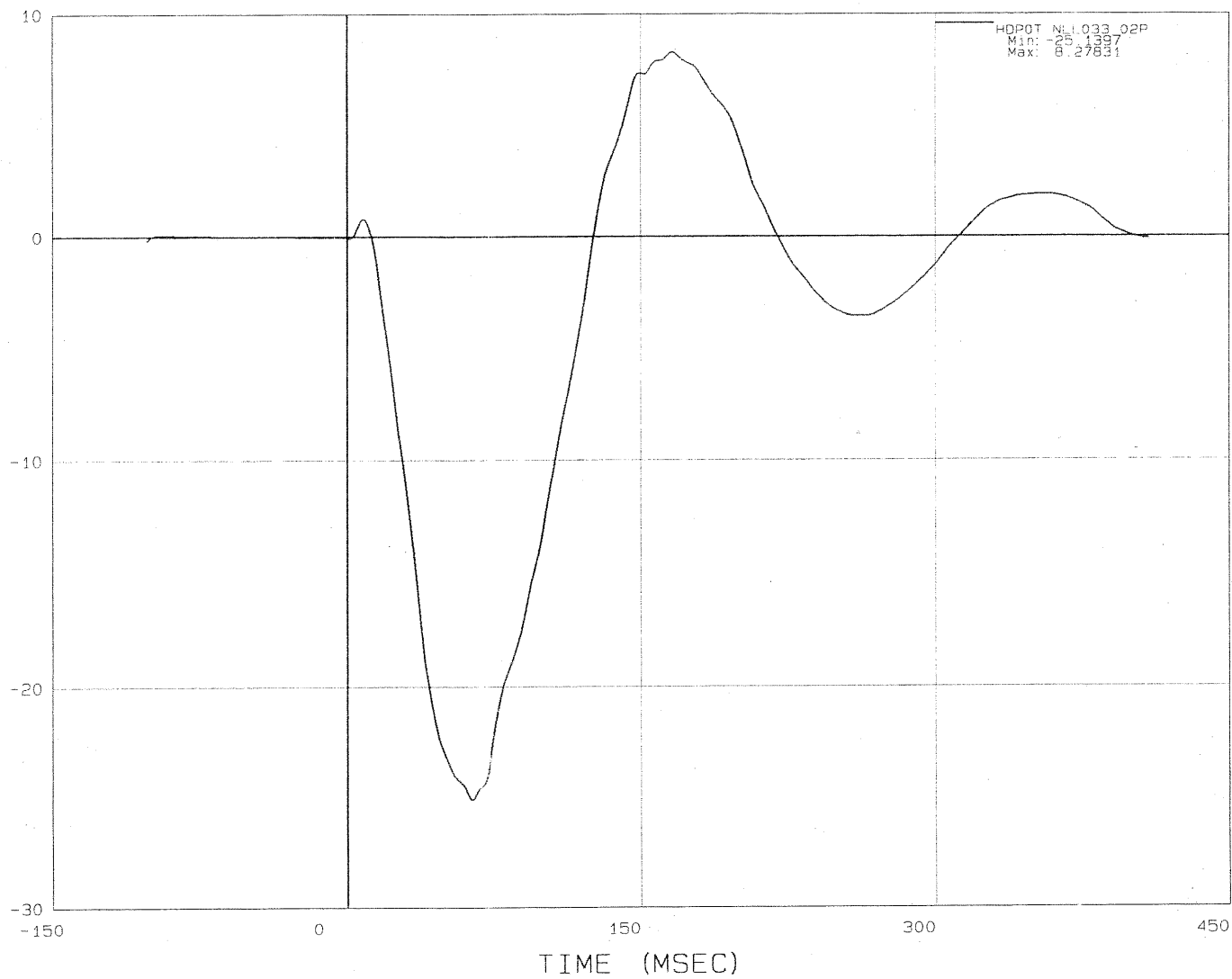


Sep 25, 2003 11:49:09AM

C-111

030915-1

HDROT (DEGREES)

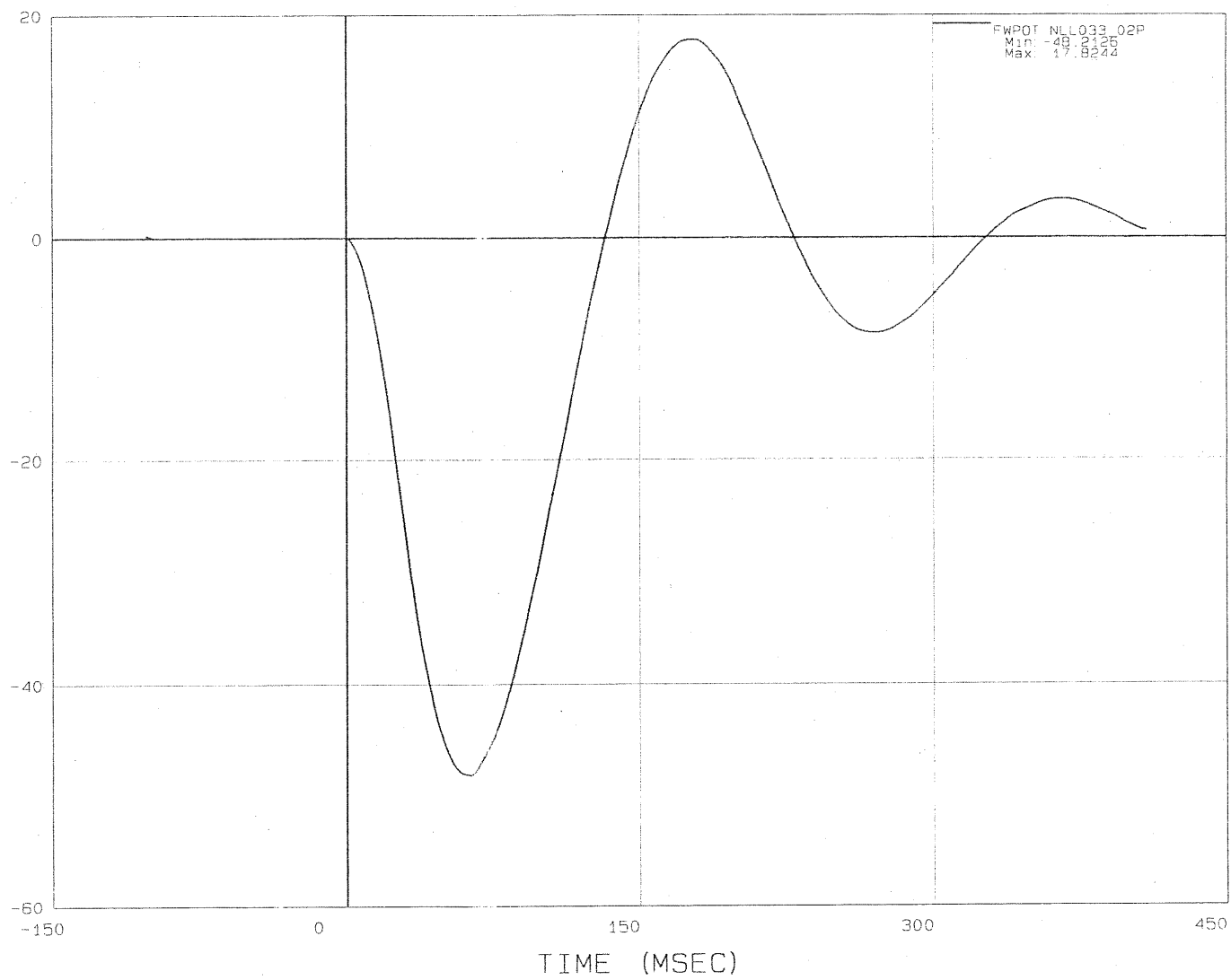


Sep 25, 2003 11:49:01AM

C-112

030915-1

FWPOT (DEGREES)

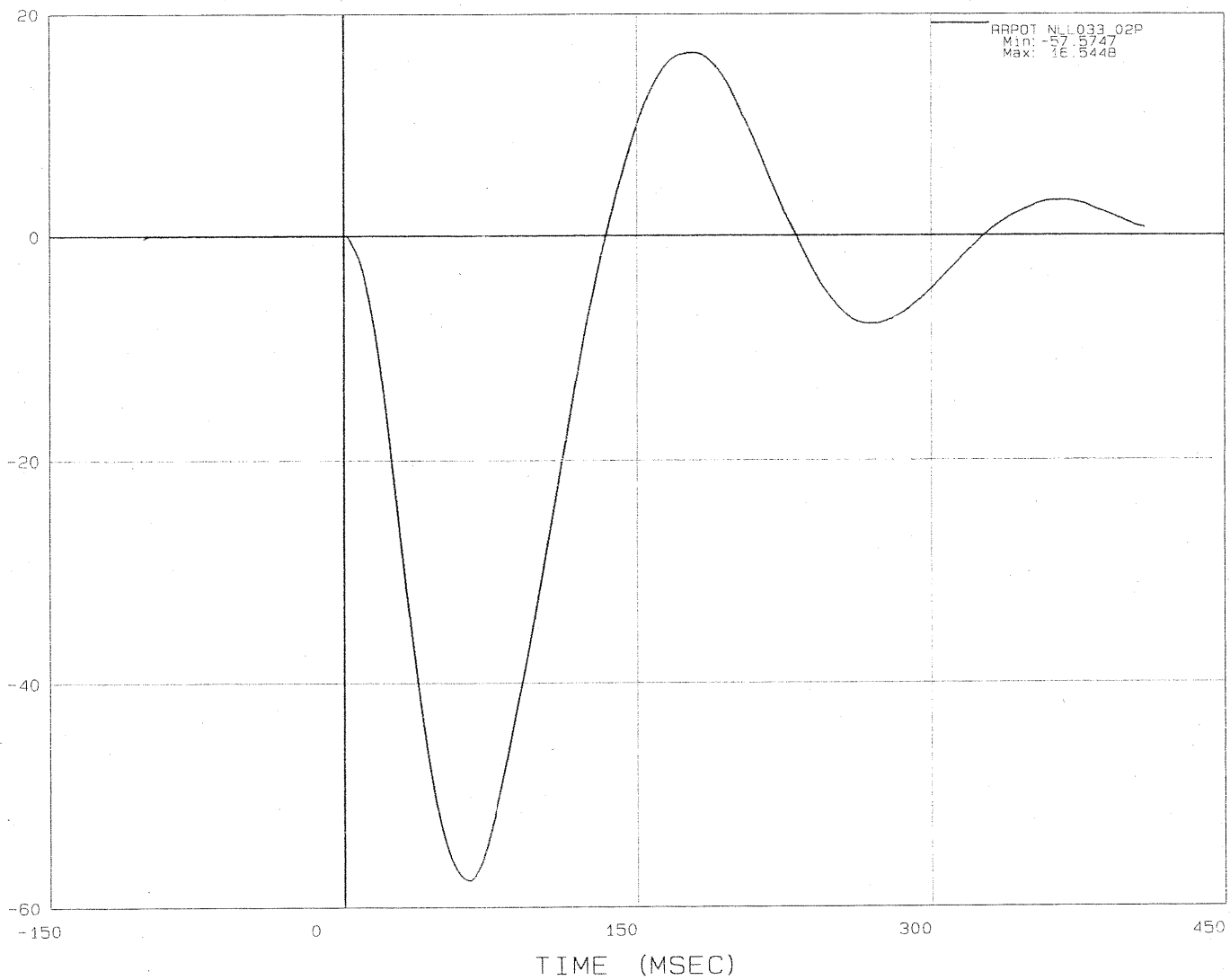


Sep 25, 2003 11:49:01AM

C-113

030915-1

RRPOT (DEGREES)

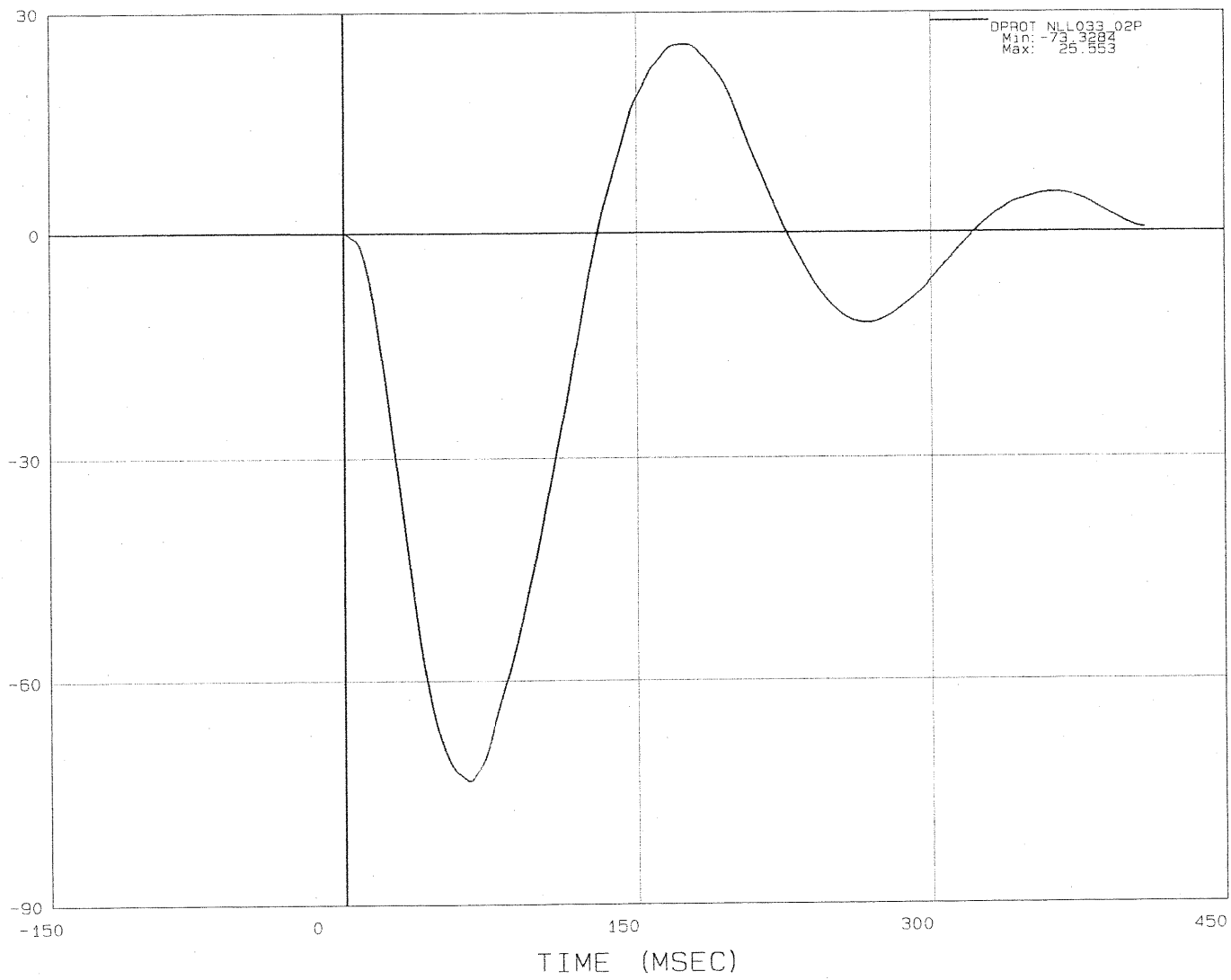


Sep 25, 2003 11:49:01AM

C-114

030915-1

DPROT (DEGREES)



Sep 25, 2003 11:49:02AM

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

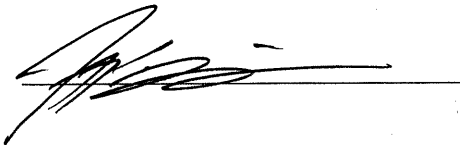
Test Date 09/11/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	60 %	No
Pendulum Velocity	4.41 - 4.59 m/sec	4.47 m/sec	Yes
Probe Force	1600 - 2400 N	2364 N	Yes
Deflection	27 - 39 mm	34.6 mm	Yes

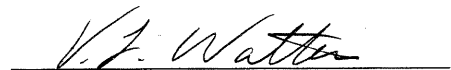
Comments:

Test conditions -
Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.03.2003 13:18:28 1108



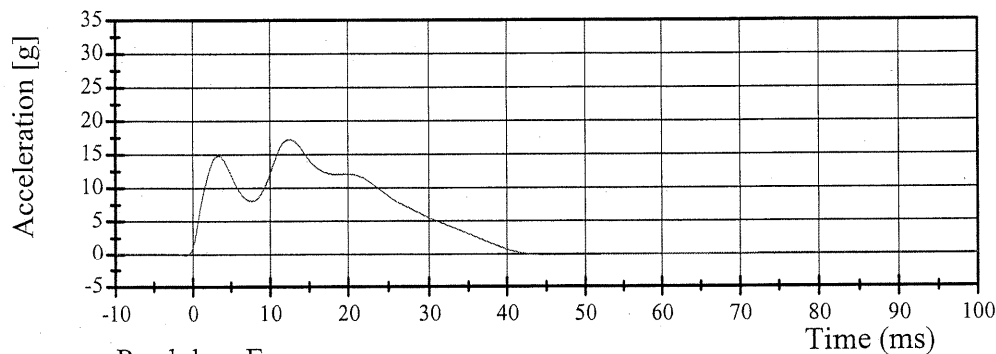
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

Test Date 09/11/2003

Pendulum Deceleration

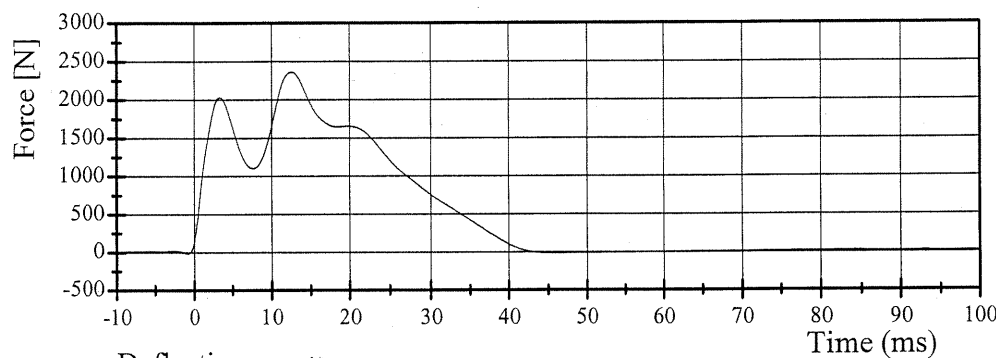


Filter Class: CFC 180

Max: 17.4 g at 12.4 ms

Min: -0.2 g at 46.2 ms

Pendulum Force

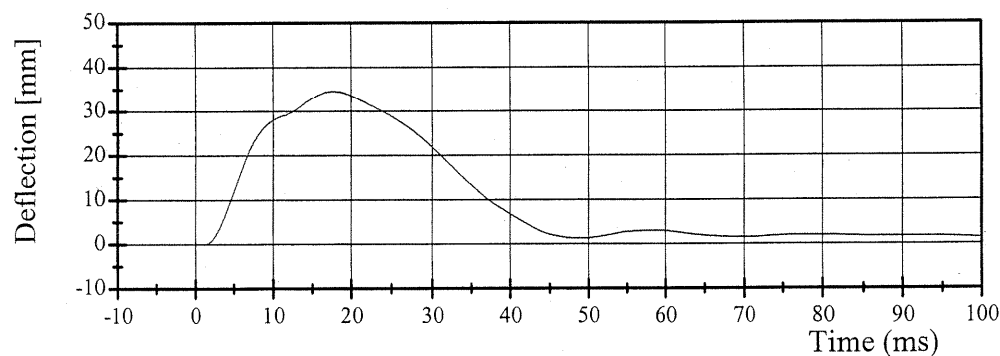


Filter Class: CFC 180

Max: 2364 N at 12.5 ms

Min: -15 N at -0.9 ms

Deflection



Filter Class: CFC 600

Max: 34.6 mm at 17.4 ms

Min: -0.0 mm at -77.0 ms

10.03.2003 13:18:29 1108



Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

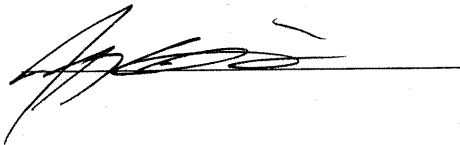
Test Date 09/11/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.47 m/sec	Yes
Probe Force	1600 - 2400 N	2364 N	Yes
Deflection	27 - 39 mm	34.6 mm	Yes

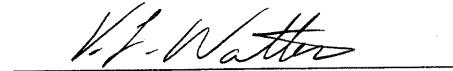
Comments:

Test conditions -
Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.03.2003 13:16:29 1142



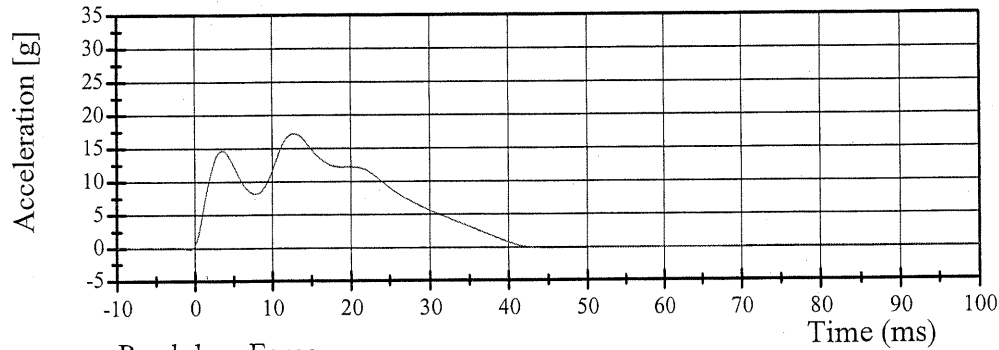
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Pendulum Deceleration

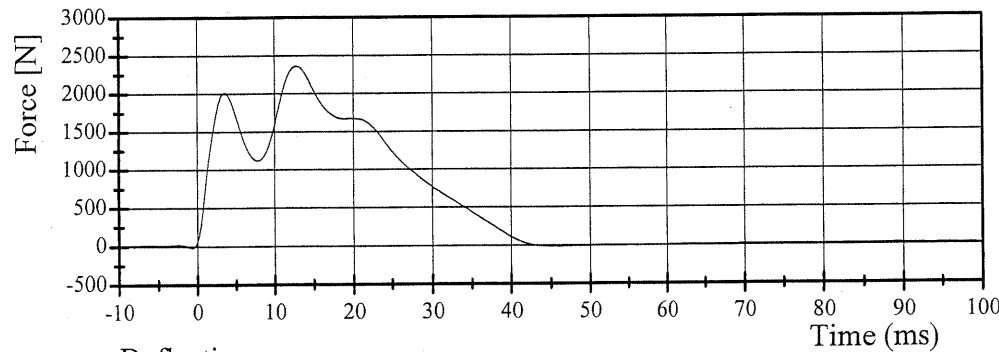


Filter Class: CFC 180

Max: 17.4 g at 12.8 ms

Min: -0.1 g at 45.1 ms

Pendulum Force

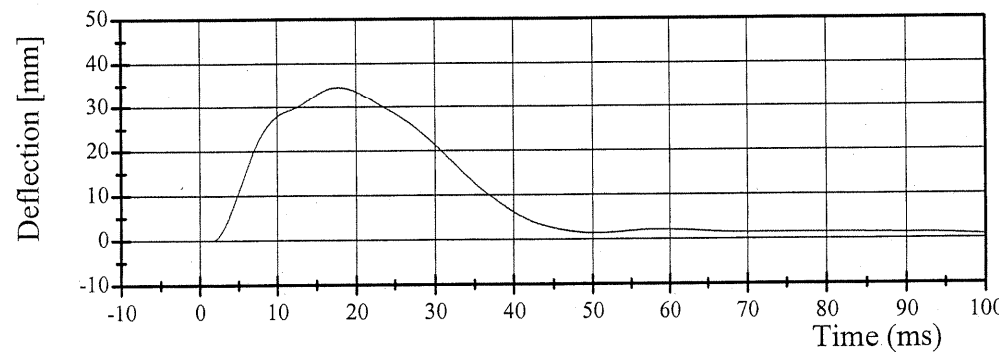


Filter Class: CFC 180

Max: 2364 N at 12.8 ms

Min: -16 N at -0.6 ms

Deflection



Filter Class: CFC 600

Max: 34.6 mm at 17.8 ms

Min: -0.1 mm at 160.8 ms

10.03.2003 13:16:30 1142



Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

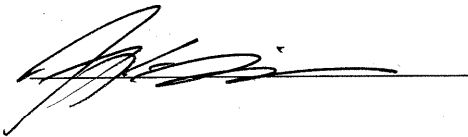
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.58 m/sec	Yes
Pendulum Force	4100 - 4700 N	4700 N	No
Upper Spine Peak Acceleration	34 - 48 g	43.1 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	36.2 g	No
Upper Rib Peak Deflection	23 - 35 mm	28.4 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	34.9 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	33.6 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	38.2 mm	Yes

Comments:

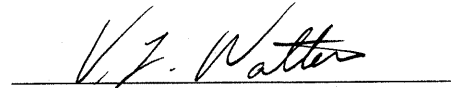
Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.03.2003 13:26:23 949



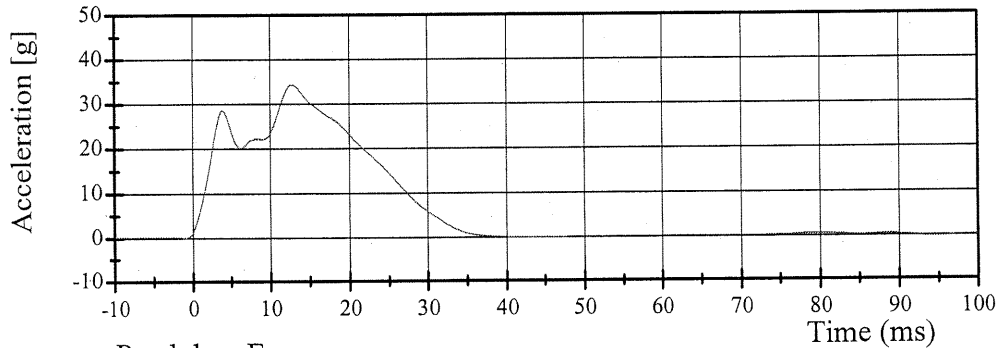
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Pendulum Deceleration

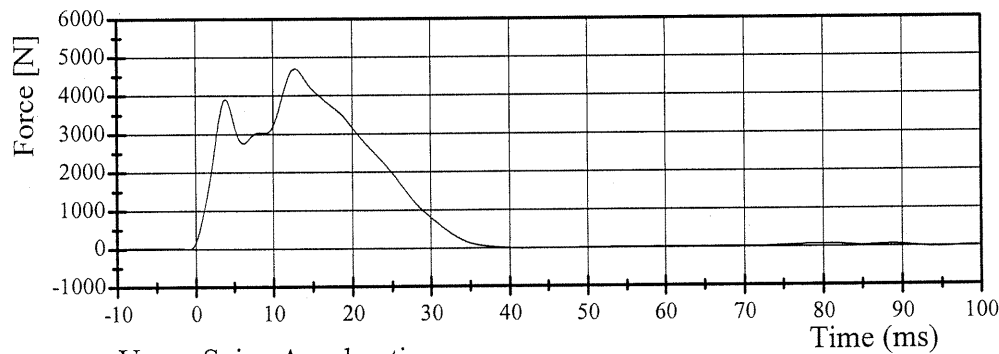


Filter Class: CFC 180

Max: 34.3 g at 12.8 ms

Min: -0.2 g at 94.6 ms

Pendulum Force

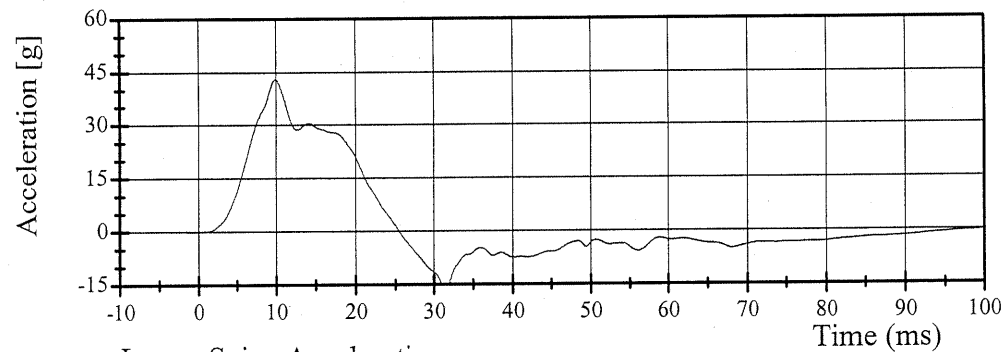


Filter Class: CFC 180

Max: 4700 N at 12.8 ms

Min: -25 N at 94.6 ms

Upper Spine Acceleration

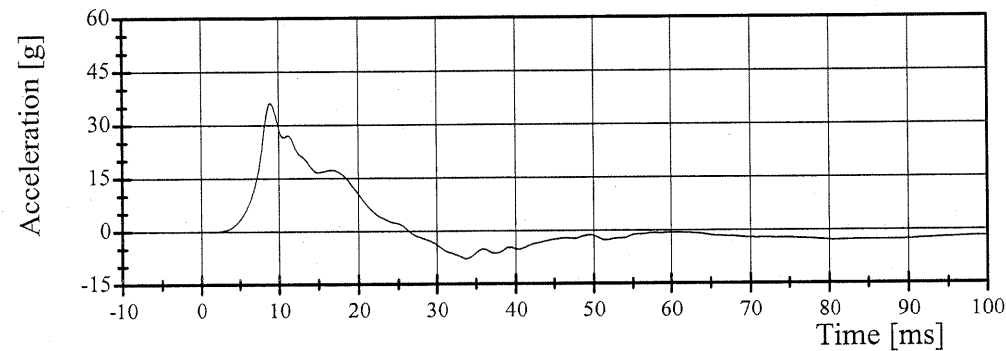


Filter Class: CFC 180

Max: 43.1 g at 9.9 ms

Min: -16.8 g at 31.4 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 36.2 g at 8.9 ms

Min: -7.9 g at 33.8 ms

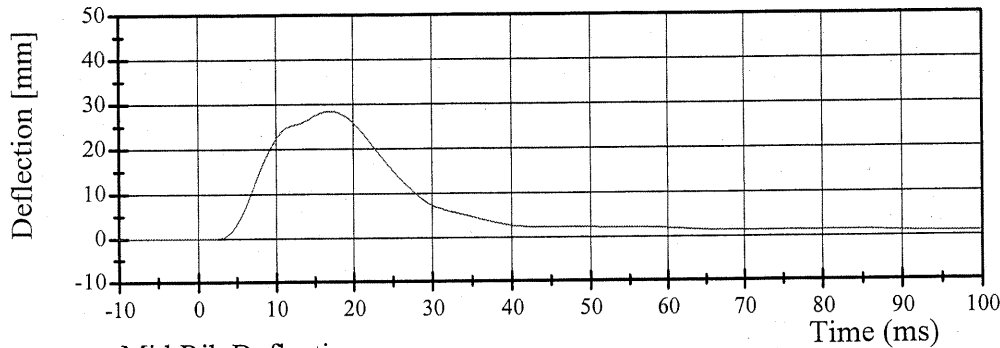
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Upper Rib Deflection

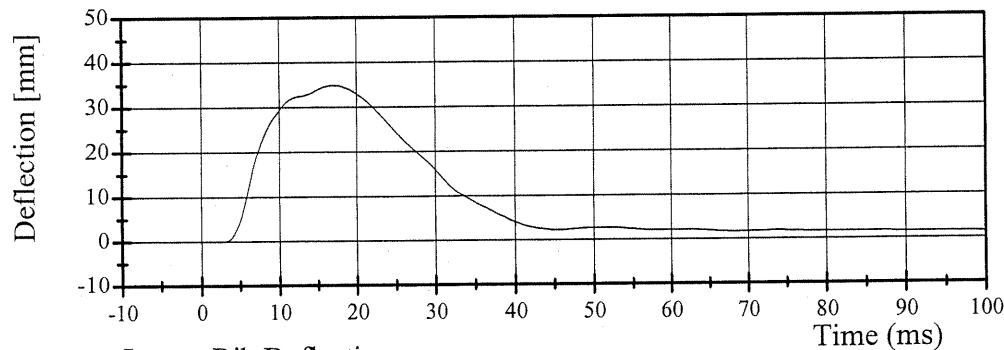


Filter Class: CFC 600

Max: 28.4 mm at 17.0 ms

Min: -0.0 mm at -23.5 ms

Mid Rib Deflection

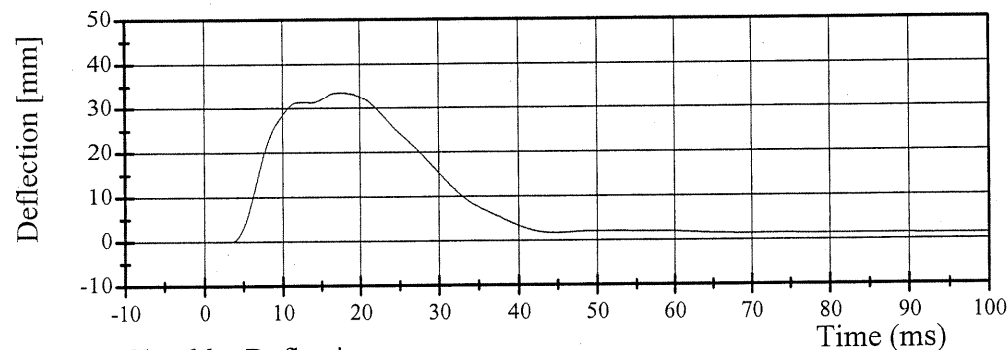


Filter Class: CFC 600

Max: 34.9 mm at 17.1 ms

Min: -0.0 mm at 2.9 ms

Lower Rib Deflection

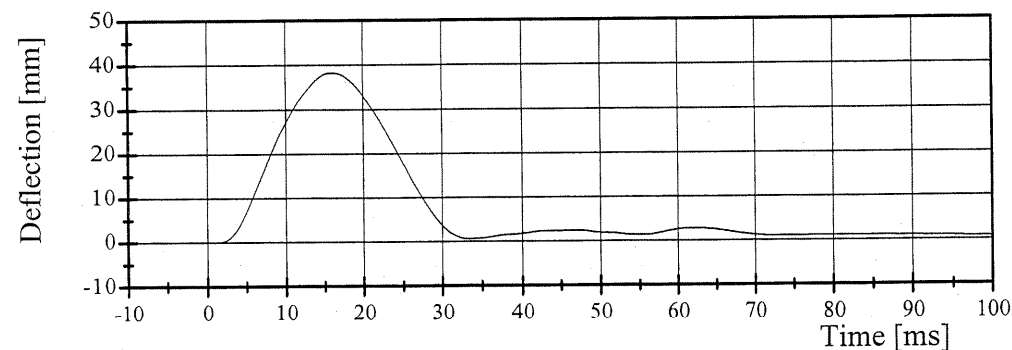


Filter Class: CFC 600

Max: 33.6 mm at 17.7 ms

Min: -0.0 mm at 3.3 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 38.2 mm at 16.3 ms

Min: -0.3 mm at 577.3 ms

Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 3

Test Date 09/11/2003

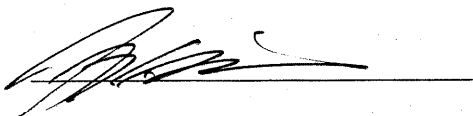
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	4100 - 4700 N	4624 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	42.7 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	34.8 g	Yes
Upper Rib Peak Deflection	23 - 35 mm	28.2 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	35.0 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	33.7 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	36.9 mm	Yes

Comments:

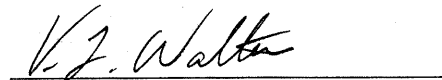
Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; with arm.

Technician



Approved



10.03.2003 13:28:33 937



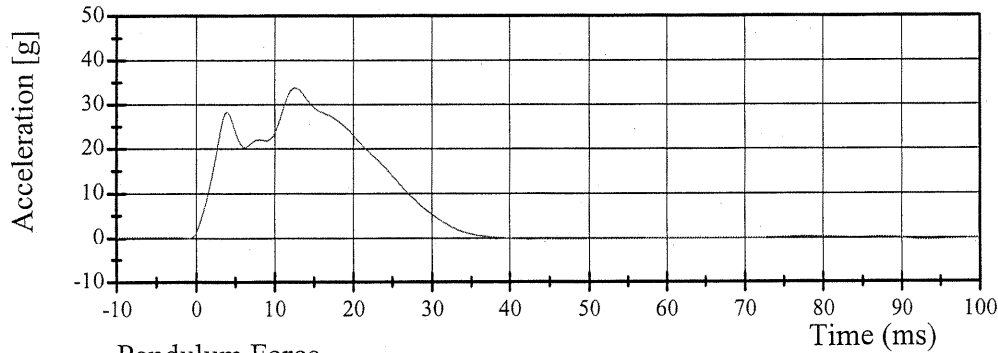
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 3

Test Date 09/11/2003

Pendulum Deceleration

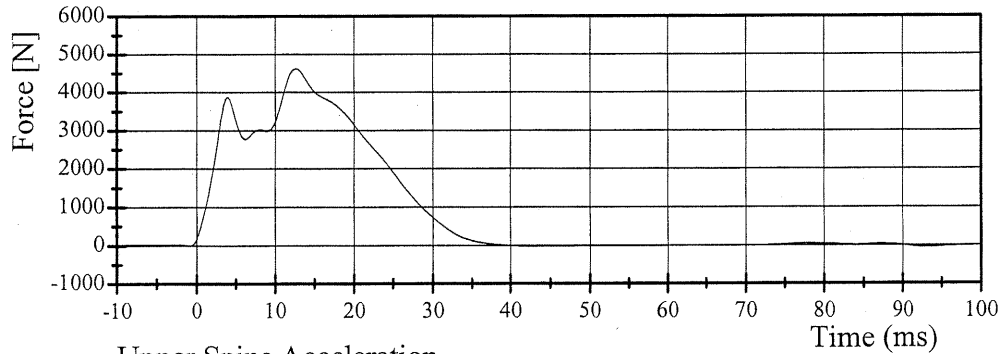


Filter Class: CFC 180

Max: 33.8 g at 12.6 ms

Min: -0.4 g at 93.3 ms

Pendulum Force

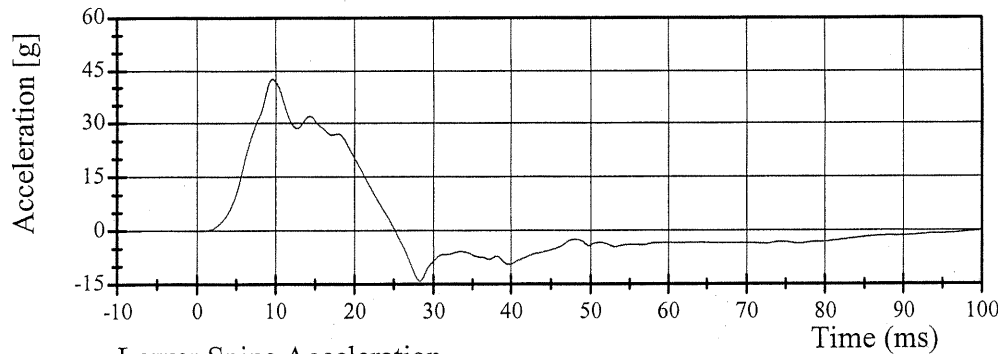


Filter Class: CFC 180

Max: 4624 N at 12.6 ms

Min: -50 N at 93.3 ms

Upper Spine Acceleration

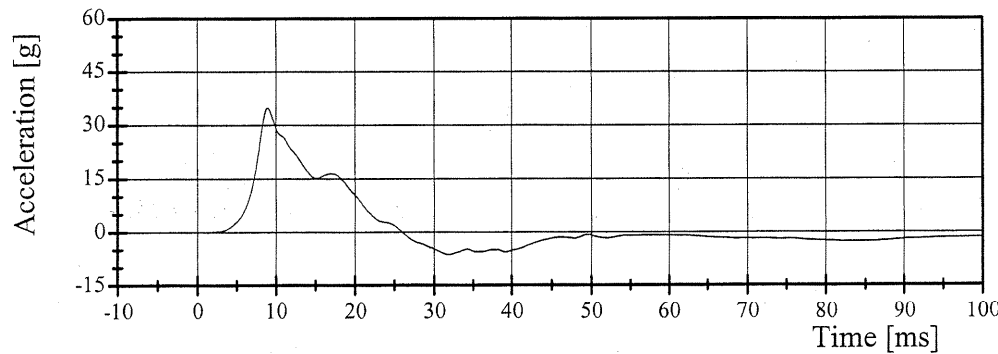


Filter Class: CFC 180

Max: 42.7 g at 9.6 ms

Min: -14.2 g at 28.2 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 34.8 g at 9.0 ms

Min: -6.4 g at 31.8 ms

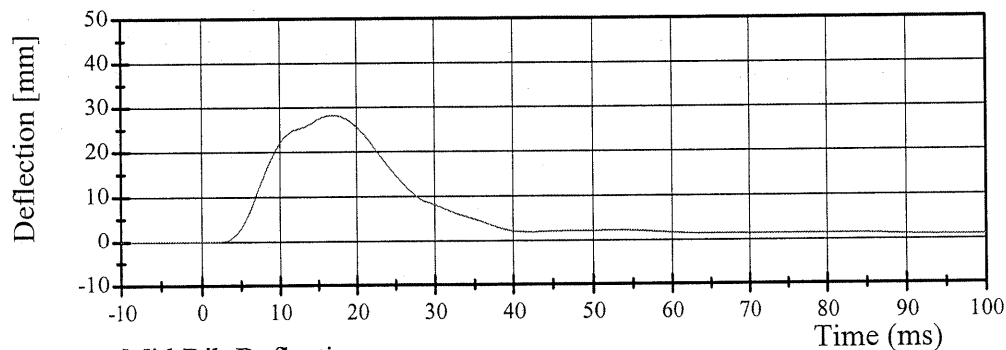
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 3

Test Date 09/11/2003

Upper Rib Deflection

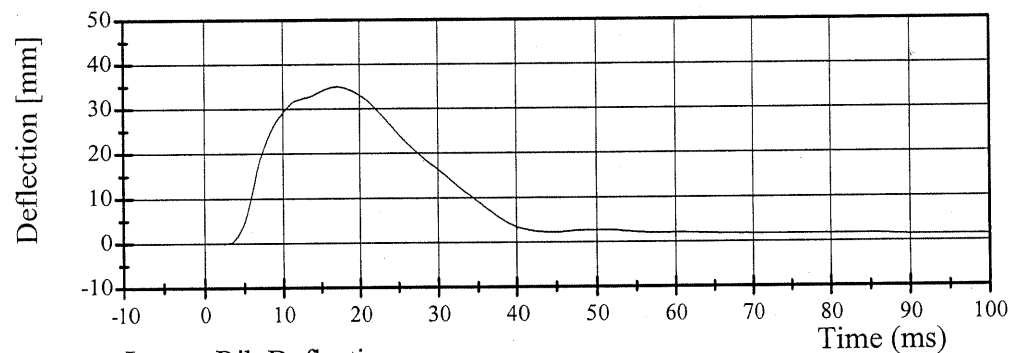


Filter Class: CFC 600

Max: 28.2 mm at 16.7 ms

Min: -0.0 mm at -8.2 ms

Mid Rib Deflection

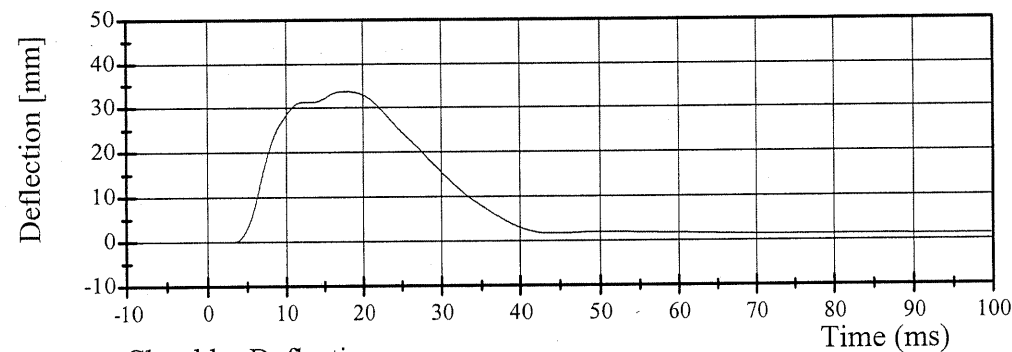


Filter Class: CFC 600

Max: 35.0 mm at 17.0 ms

Min: -0.0 mm at 2.8 ms

Lower Rib Deflection

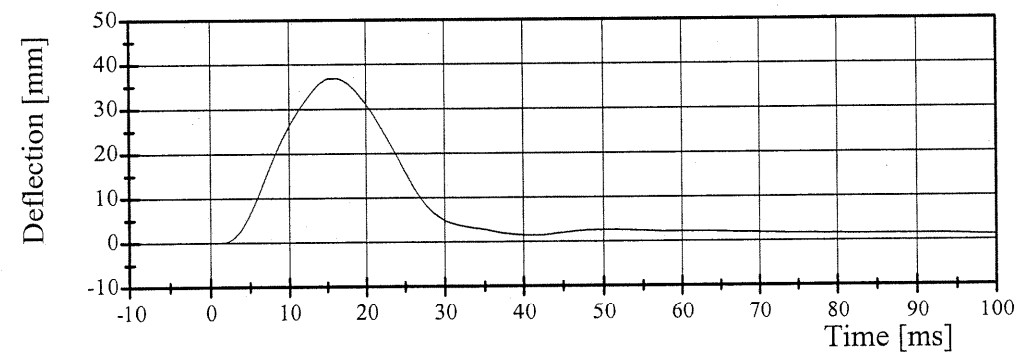


Filter Class: CFC 600

Max: 33.7 mm at 17.8 ms

Min: -0.0 mm at 3.3 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 36.9 mm at 16.0 ms

Min: -0.0 mm at 1.4 ms

Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

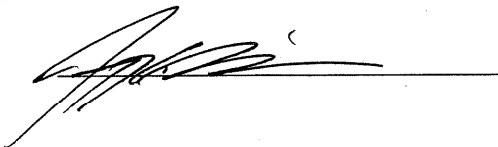
Test Date 09/11/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	63 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.28 m/sec	Yes
Pendulum Force	1800 - 2300 N	2122 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.6 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	9.5 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	39.2 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	45.9 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	40.6 mm	Yes

Comments:

Test conditions -
Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.03.2003 13:30:00 1104



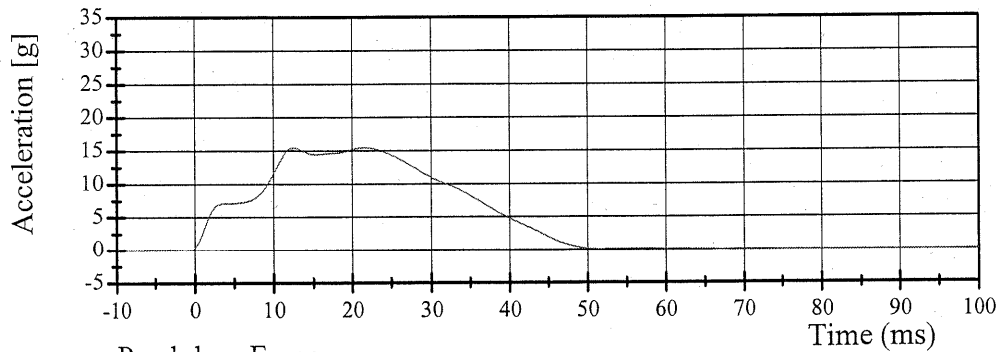
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

Test Date 09/11/2003

Pendulum Deceleration

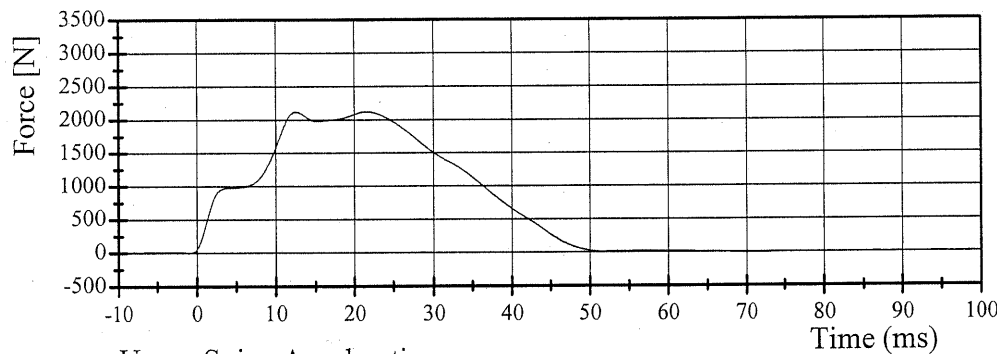


Filter Class: CFC 180

Max: 15.5 g at 21.6 ms

Min: -0.1 g at 202.5 ms

Pendulum Force

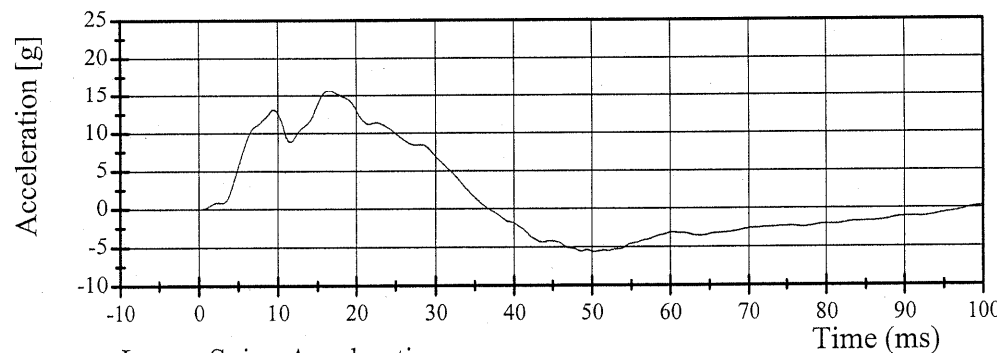


Filter Class: CFC 180

Max: 2122 N at 21.6 ms

Min: -10 N at 202.5 ms

Upper Spine Acceleration

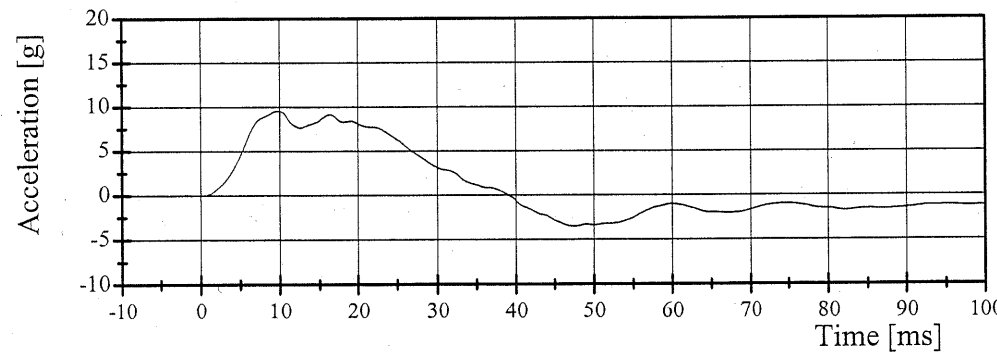


Filter Class: CFC 180

Max: 15.6 g at 16.3 ms

Min: -5.6 g at 50.2 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 9.5 g at 9.8 ms

Min: -3.5 g at 47.6 ms

10.03.2003 13:30:01 1104



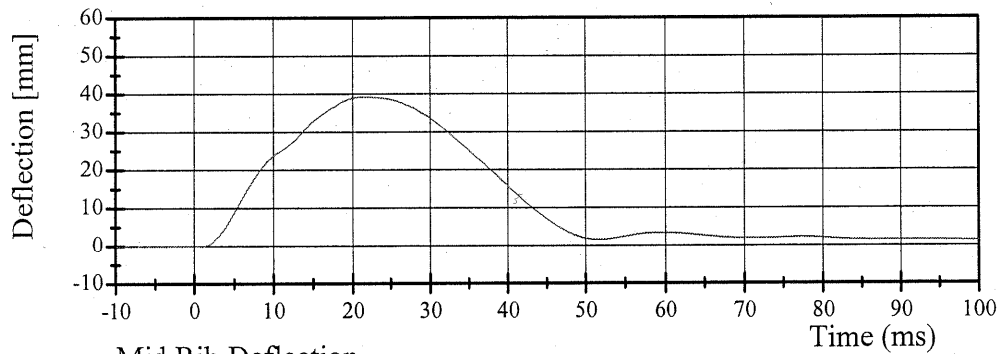
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

Test Date 09/11/2003

Upper Rib Deflection

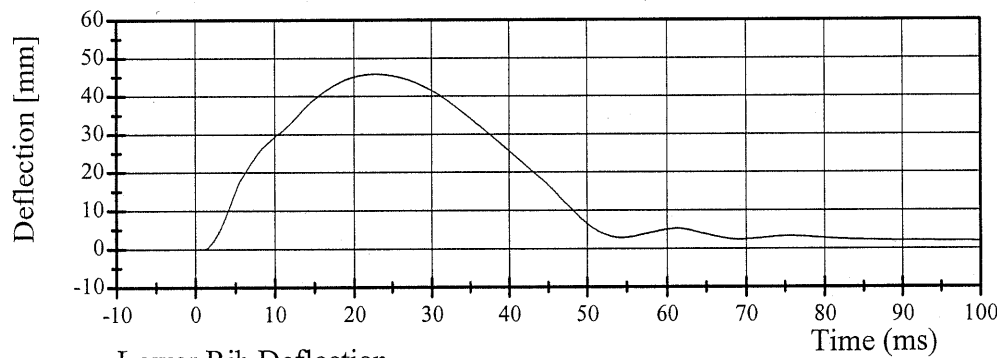


Filter Class: CFC 600

Max: 39.2 mm at 21.3 ms

Min: -0.0 mm at -81.4 ms

Mid Rib Deflection

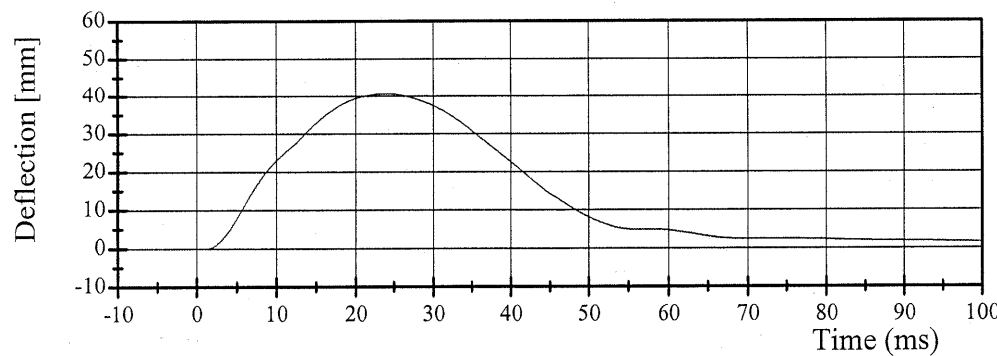


Filter Class: CFC 600

Max: 45.9 mm at 22.7 ms

Min: -0.0 mm at 1.0 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 40.6 mm at 24.2 ms

Min: -0.0 mm at 1.2 ms

Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

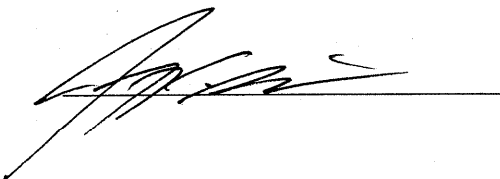
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.29 m/sec	Yes
Pendulum Force	1800 - 2300 N	2136 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.8 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	9.9 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	38.8 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	45.7 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	41.3 mm	Yes

Comments:

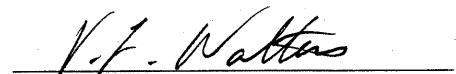
Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.03.2003 13:31:15 1122



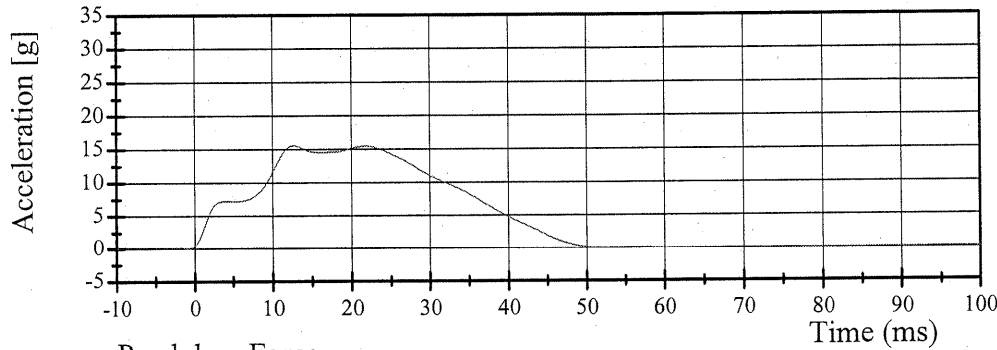
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Pendulum Deceleration

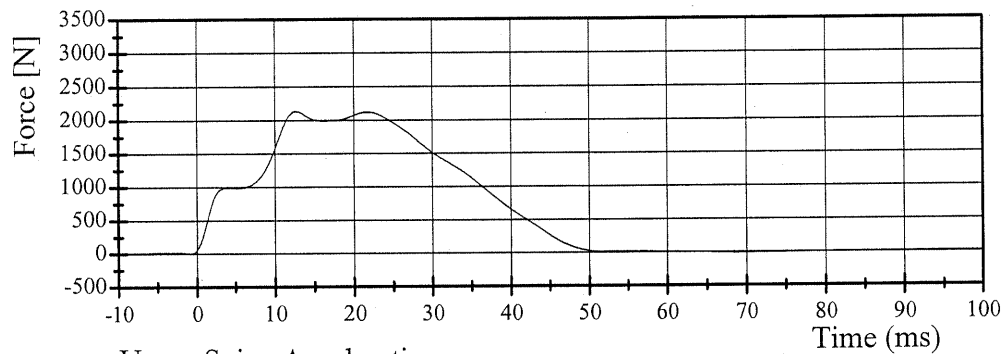


Filter Class: CFC 180

Max: 15.6 g at 12.6 ms

Min: -0.1 g at 69.6 ms

Pendulum Force

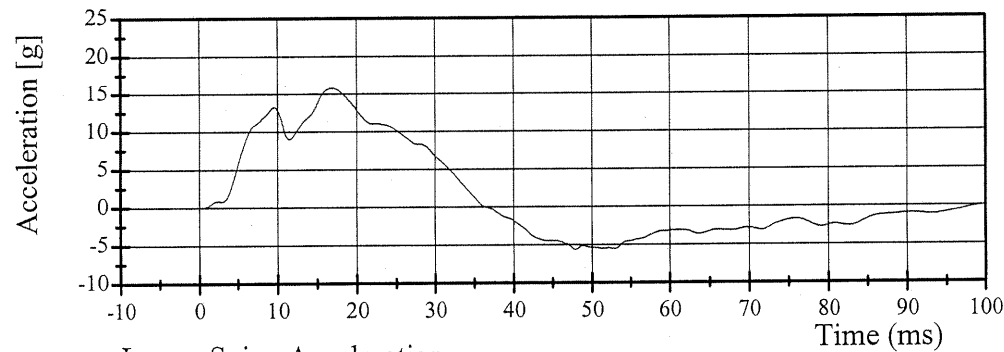


Filter Class: CFC 180

Max: 2136 N at 12.6 ms

Min: -12 N at 69.6 ms

Upper Spine Acceleration

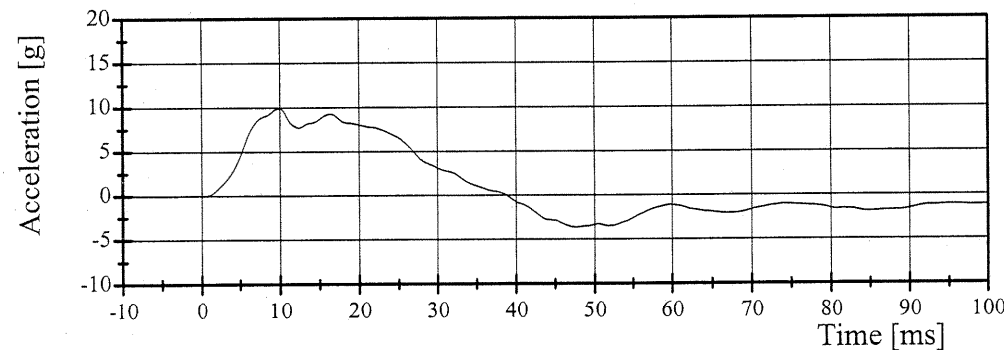


Filter Class: CFC 180

Max: 15.8 g at 16.8 ms

Min: -5.6 g at 47.8 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 9.9 g at 9.9 ms

Min: -3.6 g at 47.6 ms

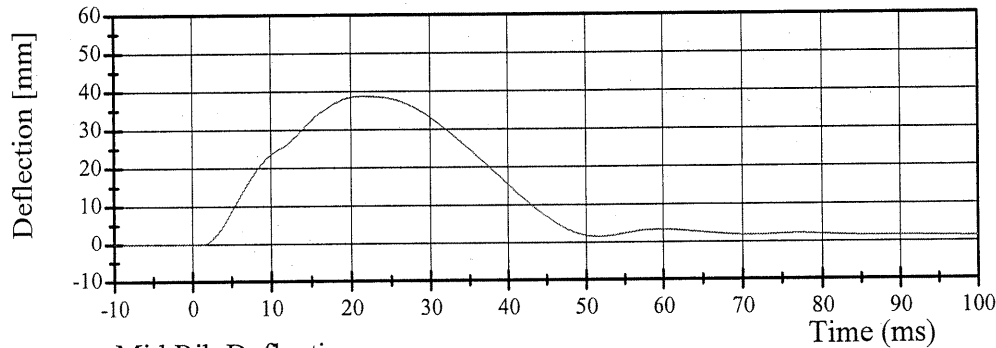
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Upper Rib Deflection

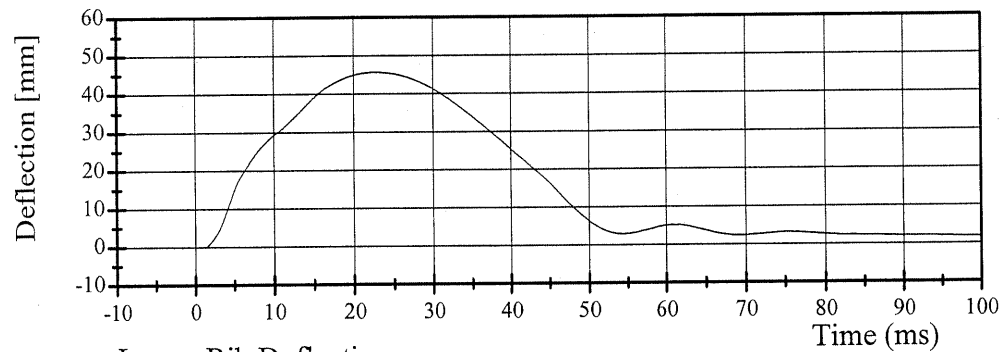


Filter Class: CFC 600

Max: 38.8 mm at 21.5 ms

Min: -0.0 mm at 1.1 ms

Mid Rib Deflection

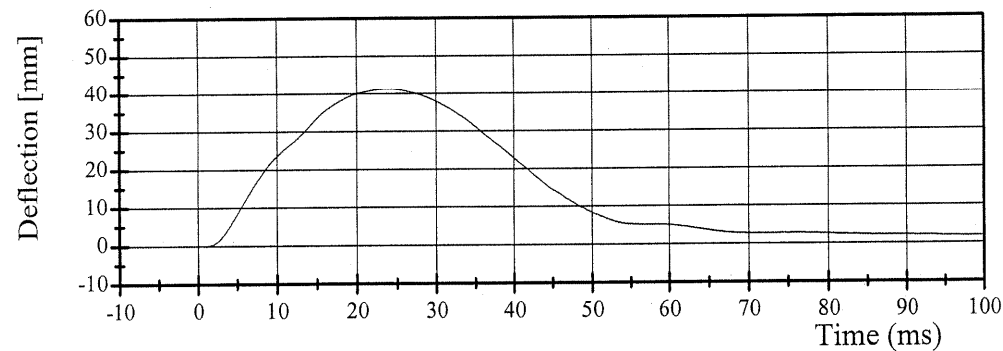


Filter Class: CFC 600

Max: 45.7 mm at 22.7 ms

Min: -0.0 mm at 1.1 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 41.3 mm at 23.8 ms

Min: -0.0 mm at -79.7 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

Test Date 09/11/2003

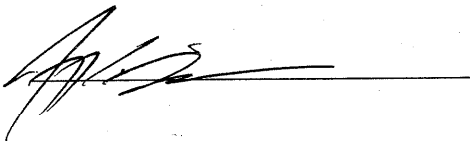
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	64 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1976 N	No
Upper Spine Peak Acceleration	5 - 9 g	7.2 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	15.6 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	45.5 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	41.2 mm	No

Comments:

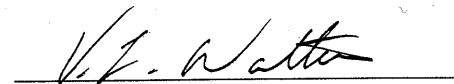
Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.03.2003 13:48:26 1087



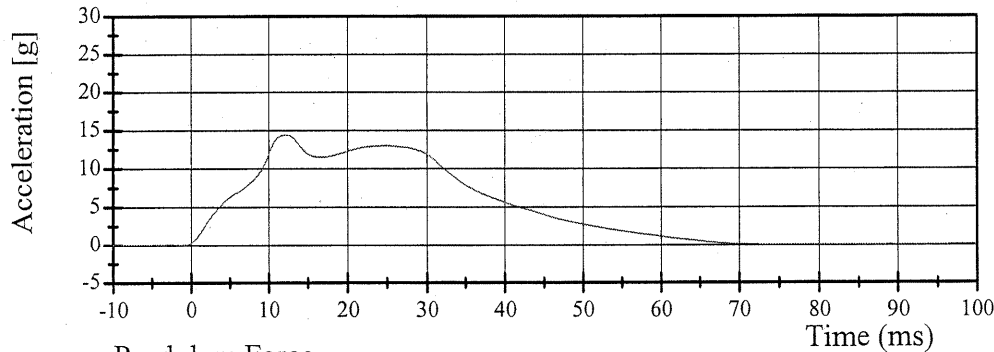
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

Test Date 09/11/2003

Pendulum Deceleration

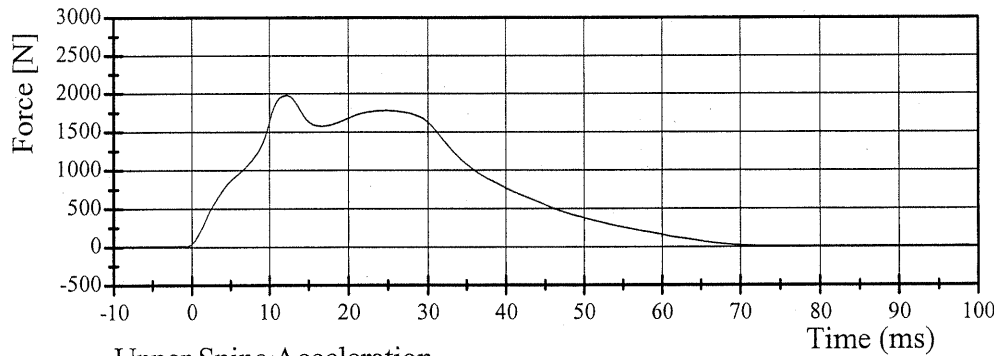


Filter Class: CFC 180

Max: 14.4 g at 12.2 ms

Min: -0.0 g at -85.7 ms

Pendulum Force

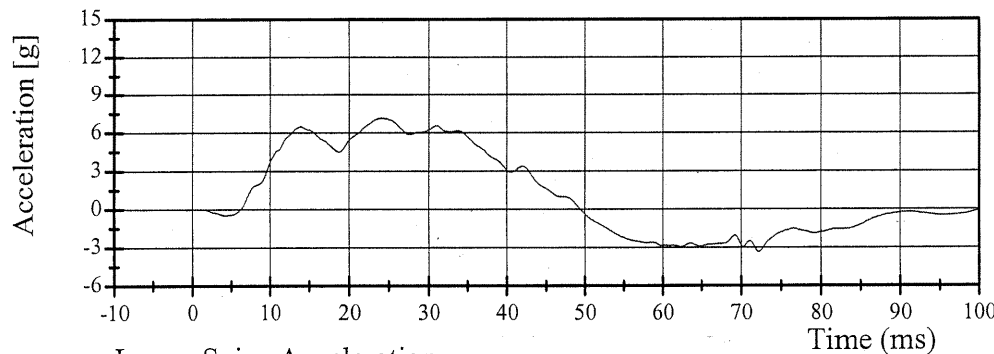


Filter Class: CFC 180

Max: 1976 N at 12.2 ms

Min: -2 N at -85.7 ms

Upper Spine Acceleration

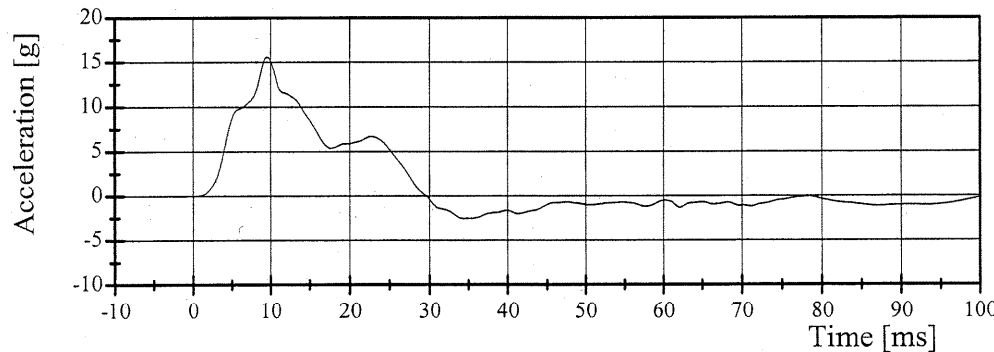


Filter Class: CFC 180

Max: 7.2 g at 24.1 ms

Min: -3.4 g at 72.2 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 15.6 g at 9.5 ms

Min: -2.5 g at 34.5 ms

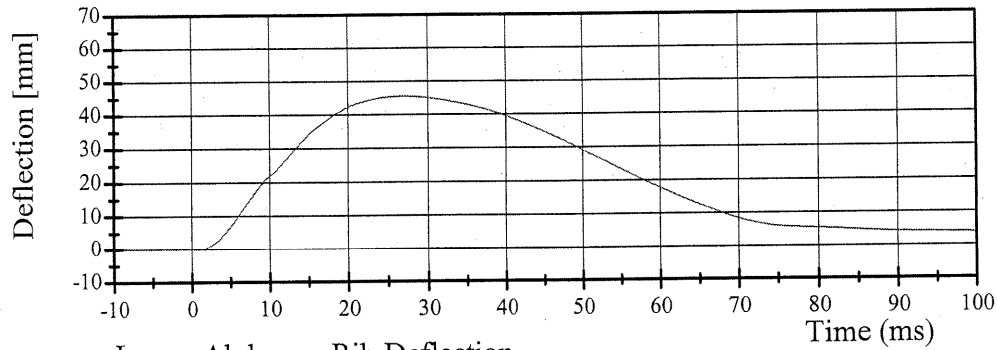
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 1

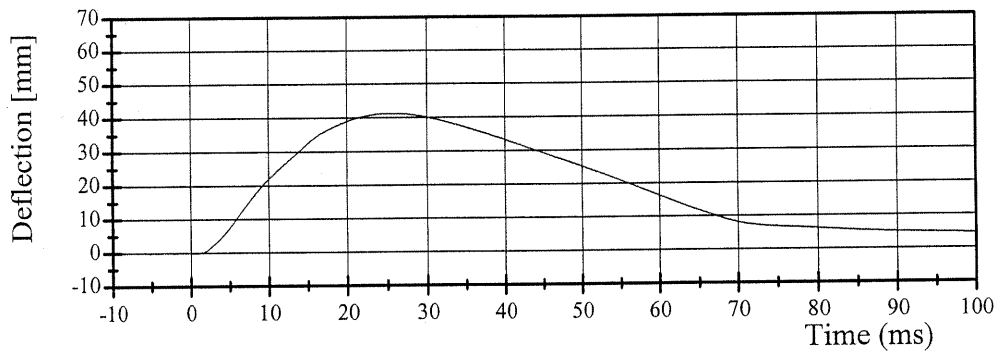
Test Date 09/11/2003

Upper Abdomen Rib Deflection



Filter Class: CFC 600
Max: 45.5 mm at 26.9 ms
Min: -0.0 mm at 1.0 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600
Max: 41.2 mm at 25.5 ms
Min: -0.0 mm at 0.9 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

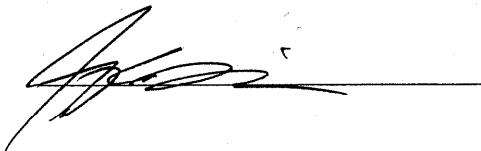
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	65 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.46 m/sec	Yes
Pendulum Force	1300 - 1900 N	1960 N	No
Upper Spine Peak Acceleration	5 - 9 g	7.2 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	15.9 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	45.6 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	40.7 mm	No

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; with pants; without arm.

Technician



Approved



10.03.2003 13:50:27 1085



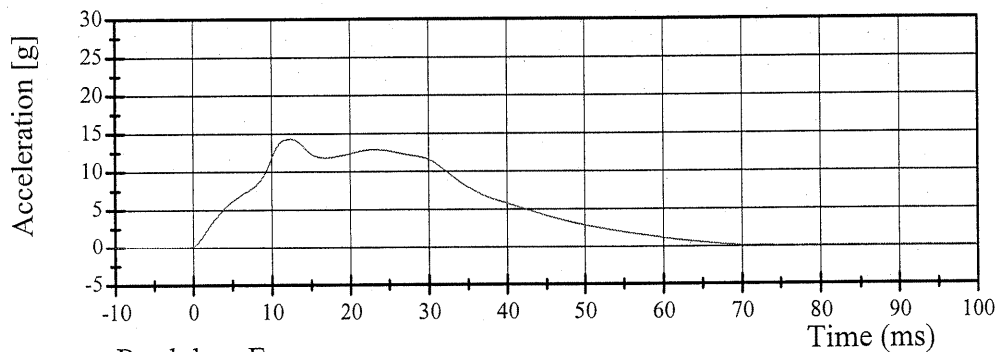
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Pendulum Deceleration

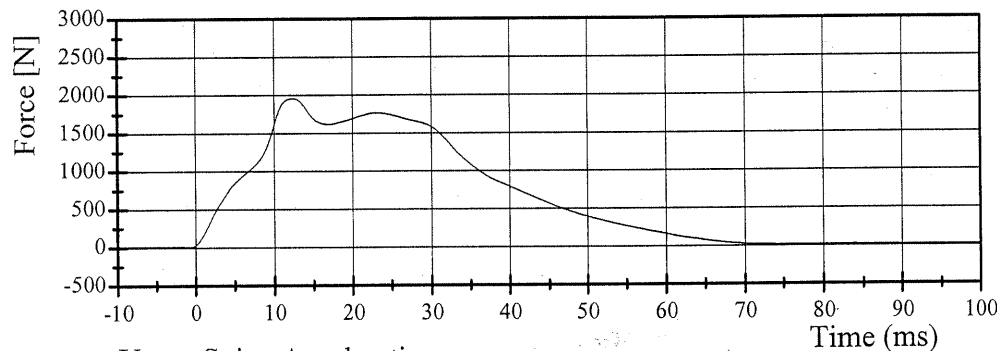


Filter Class: CFC 180

Max: 14.3 g at 12.4 ms

Min: -0.0 g at -81.4 ms

Pendulum Force

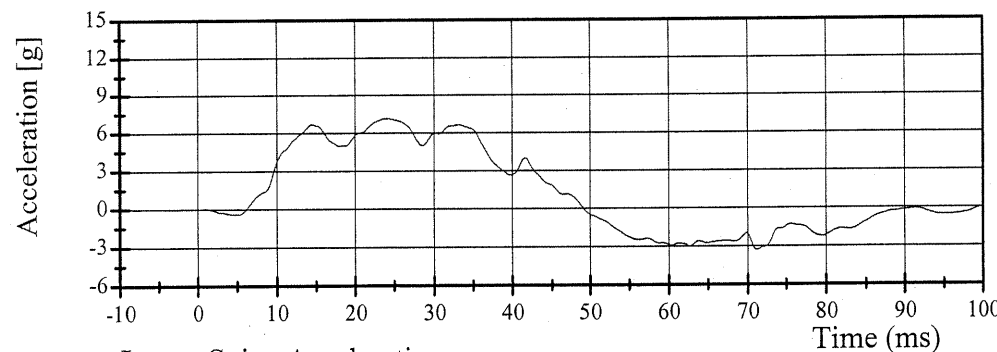


Filter Class: CFC 180

Max: 1960 N at 12.4 ms

Min: -3 N at -81.4 ms

Upper Spine Acceleration

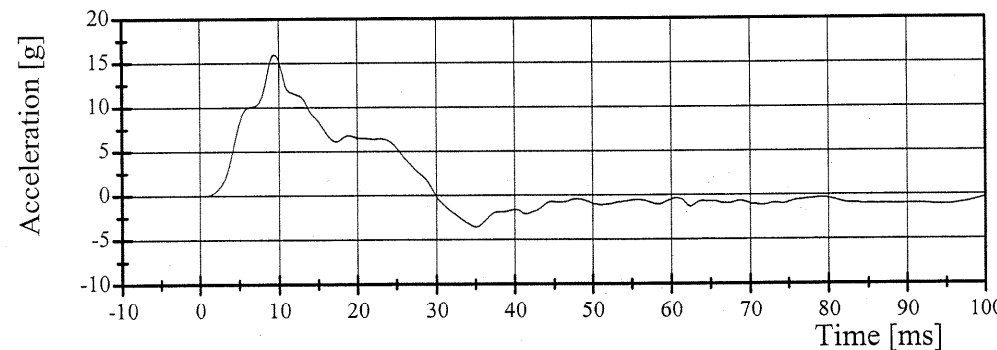


Filter Class: CFC 180

Max: 7.2 g at 24.0 ms

Min: -3.3 g at 71.1 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 15.9 g at 9.4 ms

Min: -3.6 g at 35.0 ms

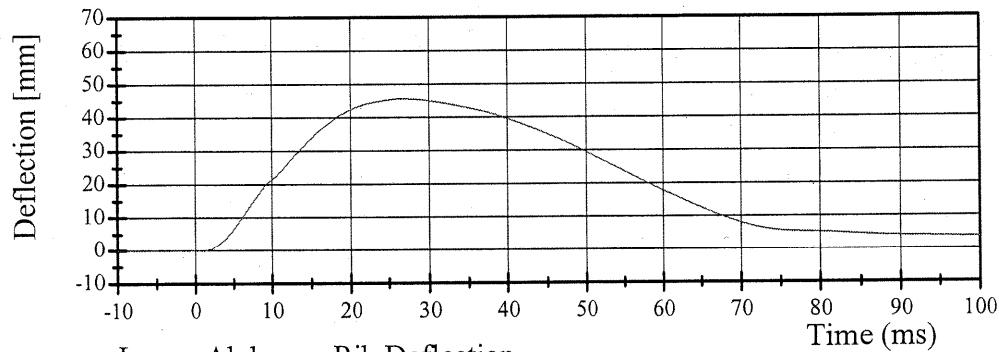
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 01 - 2

Test Date 09/11/2003

Upper Abdomen Rib Deflection

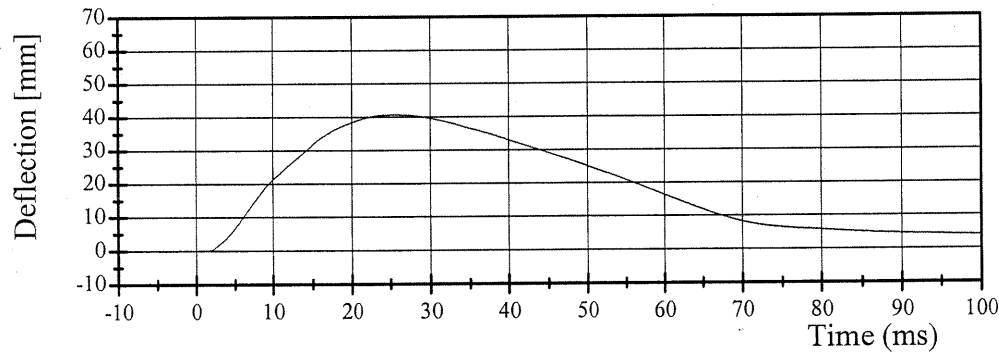


Filter Class: CFC 600

Max: 45.6 mm at 26.4 ms

Min: -0.0 mm at 1.1 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 40.7 mm at 25.4 ms

Min: -0.0 mm at -26.9 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 01 - 3

Test Date 09/12/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.55 m/sec	No
Pendulum Force	5000 - 7200 N	5634 N	Yes
Pelvis Peak Acceleration	46 - 60 g	53.3 g	Yes

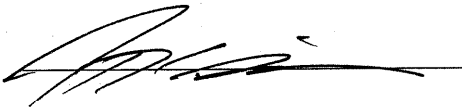
Comments:

Test conditions -

Pelvis accelerometer replaced.

Thorax foam cable-tied in place; with jacket; without pants; without arm.

Technician



Approved



10.03.2003 14:00:34 941



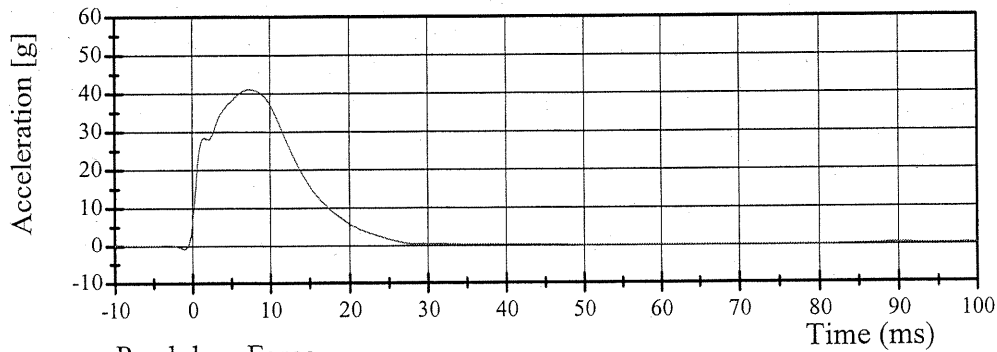
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 01 - 3

Test Date 09/12/2003

Pendulum Deceleration

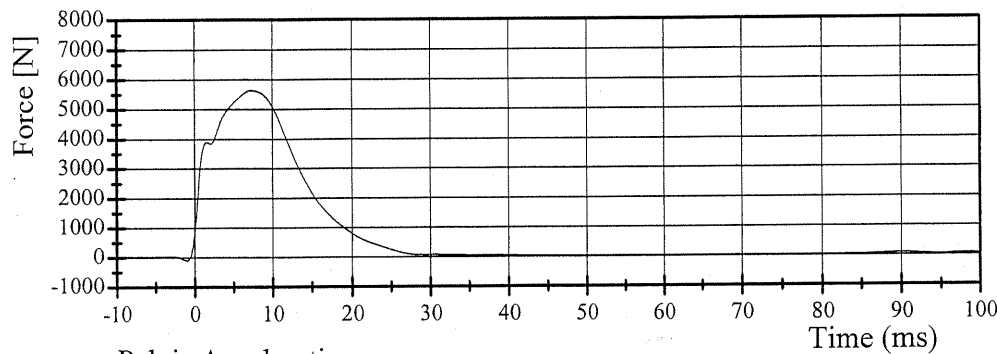


Filter Class: CFC 180

Max: 44.6 g at 7.2 ms

Min: -0.2 g at 104.1 ms

Pendulum Force

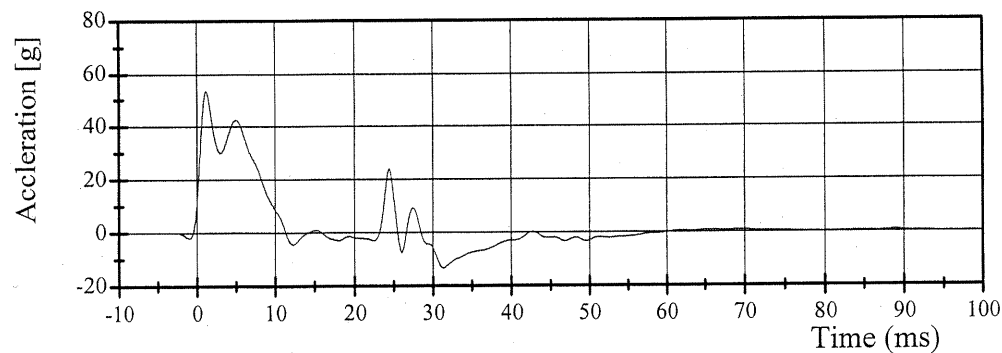


Filter Class: CFC 180

Max: 5634 N at 7.3 ms

Min: -104 N at -1.0 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 53.31 mm at 1.2 ms

Min: -13.39 mm at 31.3 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 01 - 4

Test Date 09/12/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	6001 N	Yes
Pelvis Peak Acceleration	46 - 60 g	63.1 g	No

Comments:

Test conditions -

Thorax foam cable-tied in place; with jacket; without pants; without arm.

Technician



Approved



10.03.2003 14:03:08 938



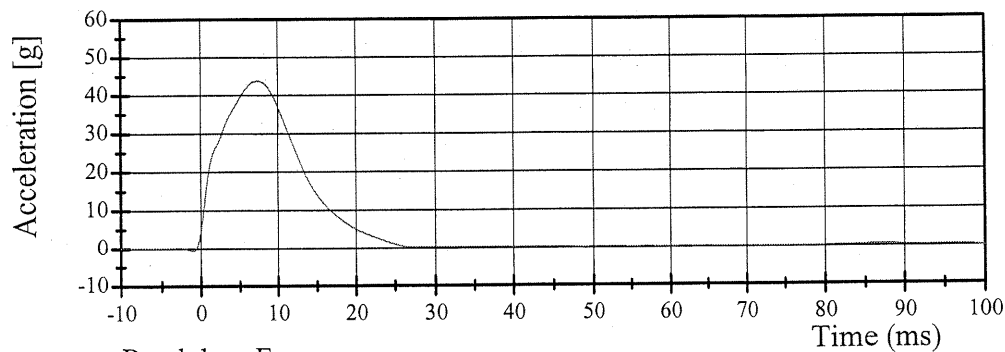
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 01 - 4

Test Date 09/12/2003

Pendulum Deceleration

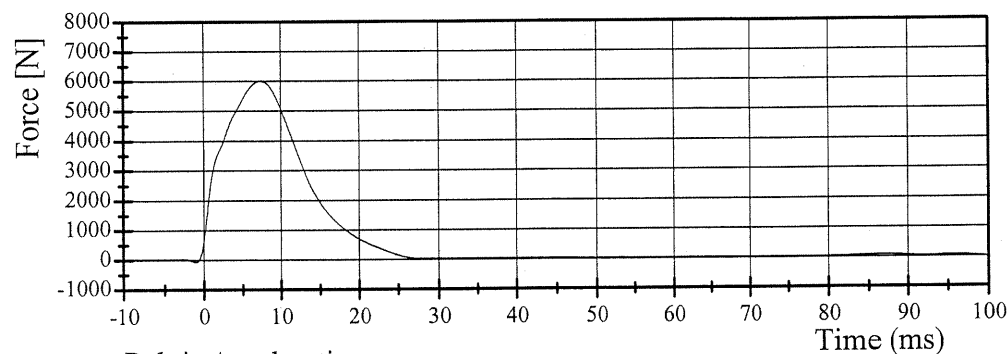


Filter Class: CFC 180

Max: 50.0 g at 6.5 ms

Min: -0.4 g at 27.2 ms

Pendulum Force

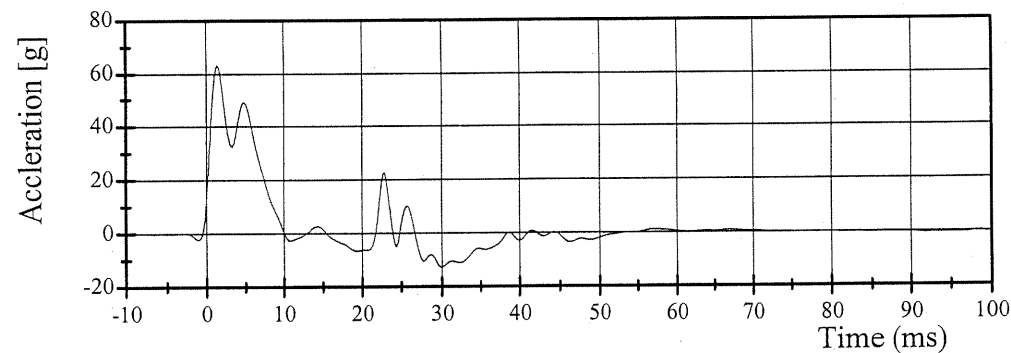


Filter Class: CFC 180

Max: 6001 N at 7.3 ms

Min: -68 N at -1.0 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 63.11 mm at 1.4 ms

Min: -12.82 mm at 29.9 ms

10.03.2003 14:03:09 938



Post-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 020

Transportation Research Center Inc.

Left Lateral Head Drop Test

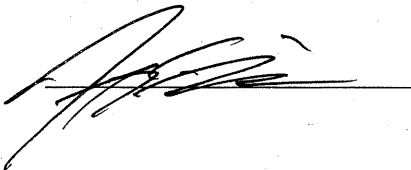
SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/16/2003

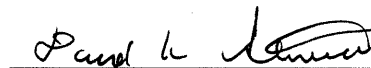
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	33 %	Yes
Peak Resultant Acceleration	115 - 145 g	118.5	Yes
Peak Longitudinal Acceleration	15 g Max	6.3	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

Technician



Approved



10.16.2003 08:44:51 601

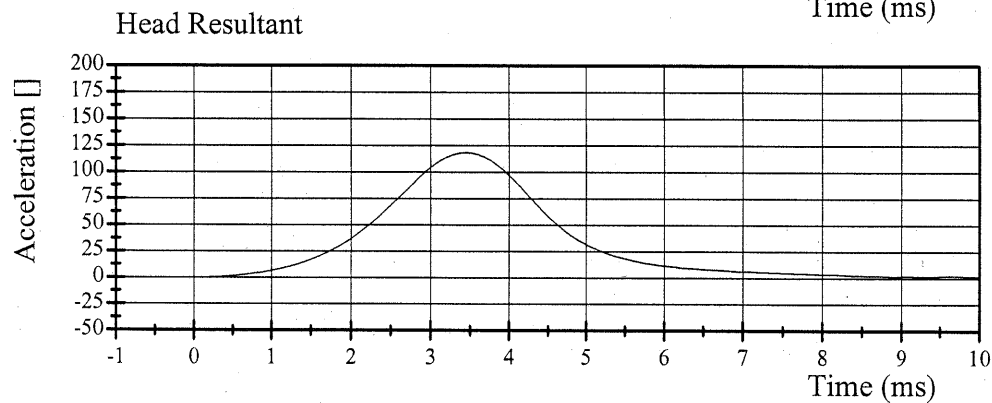
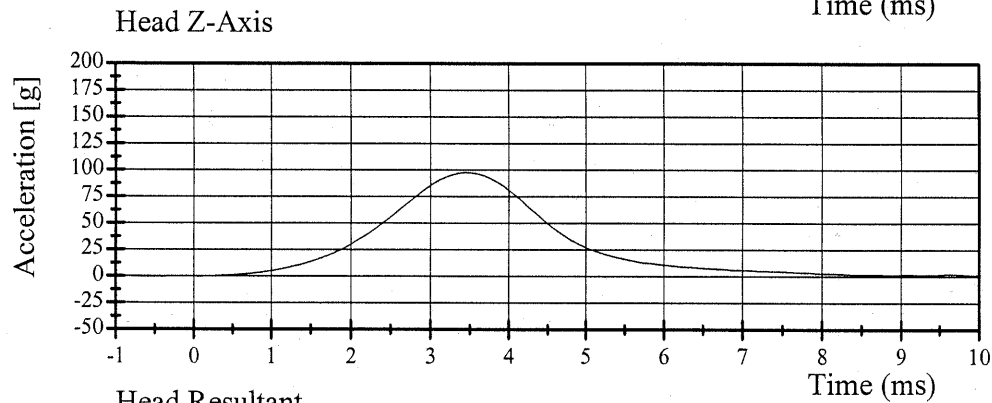
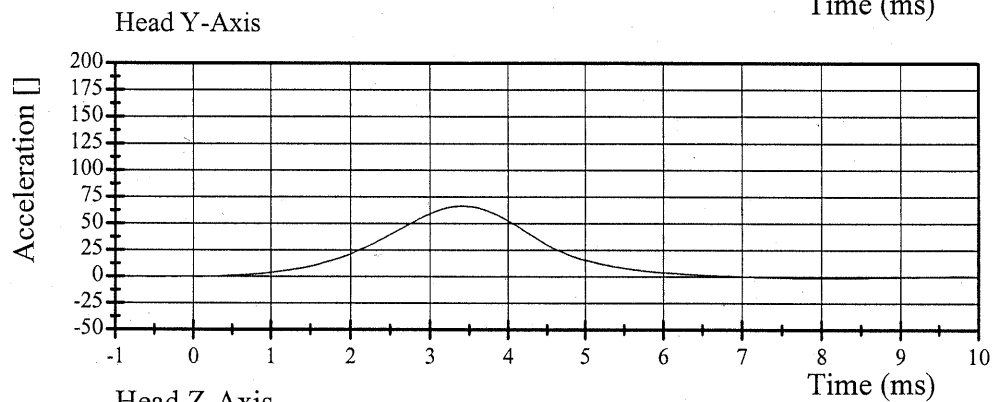
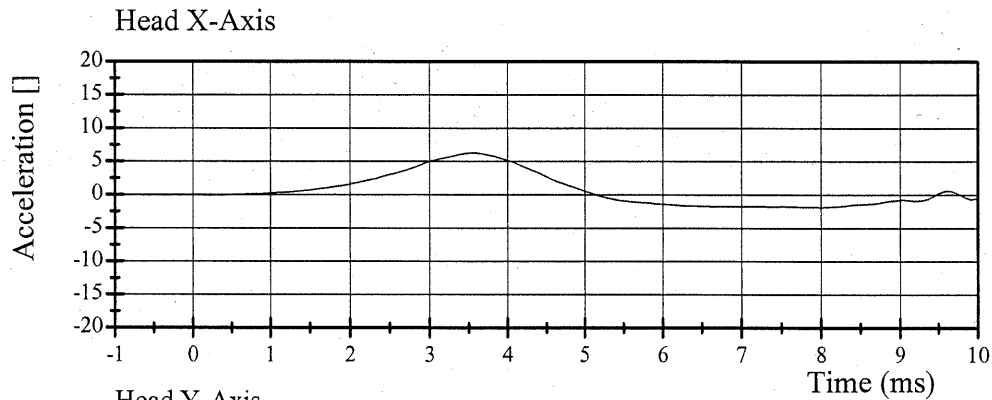


Transportation Research Center Inc.

Left Lateral Head Drop Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/16/2003



10.16.2003 08:44:52 601



Transportation Research Center Inc.

Left Lateral Head Drop Test

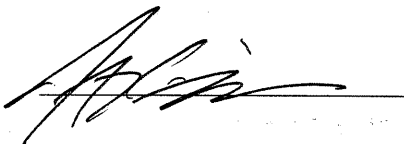
SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/16/2003

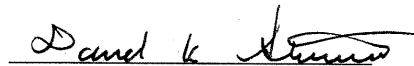
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Peak Resultant Acceleration	115 - 145 g	123.7 g	Yes
Peak Longitudinal Acceleration	15 g Max	8.8 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

Technician



Approved



10.16.2003 10:48:41 603

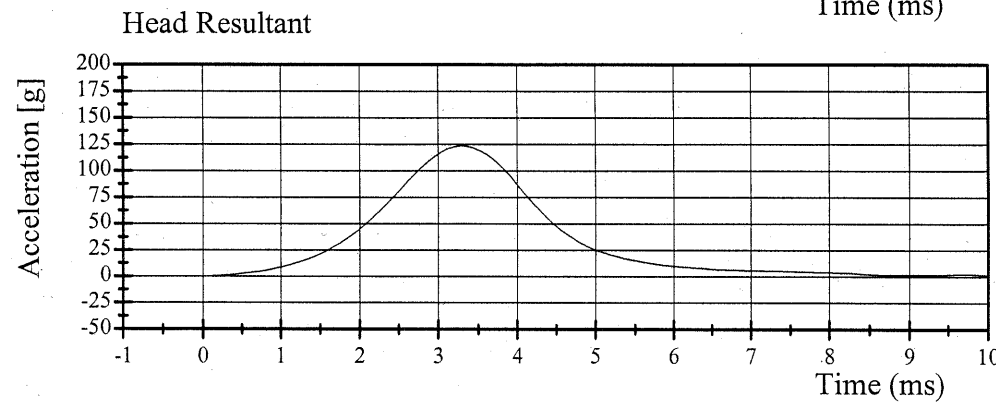
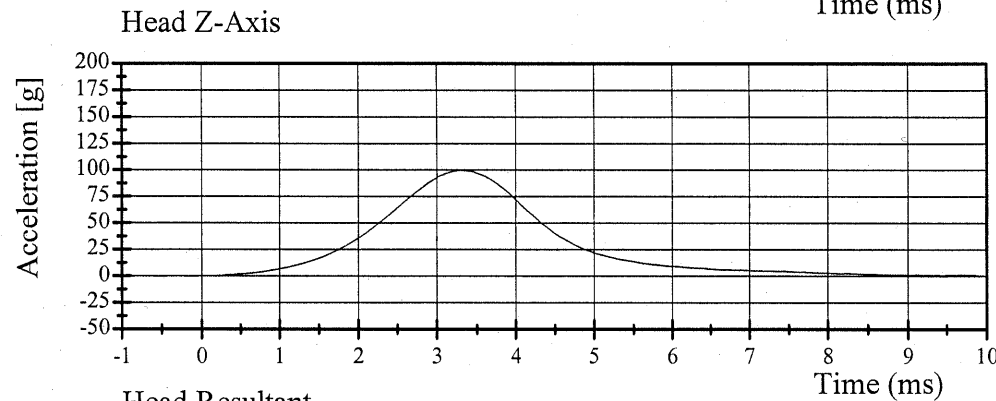
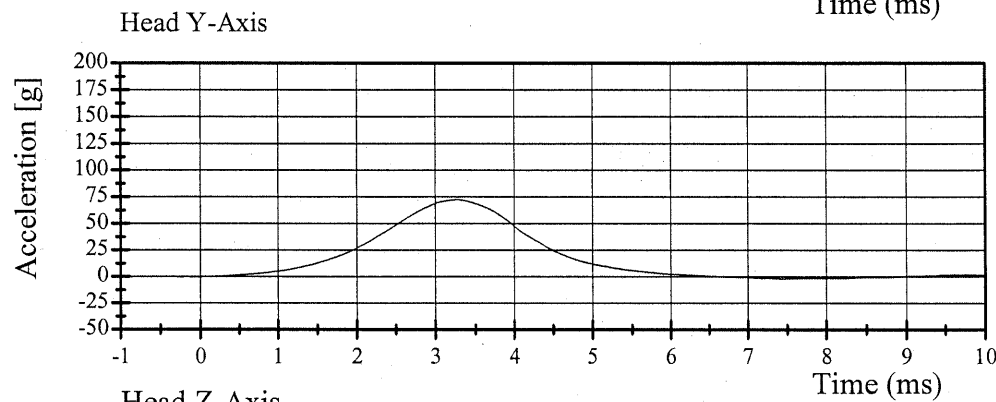
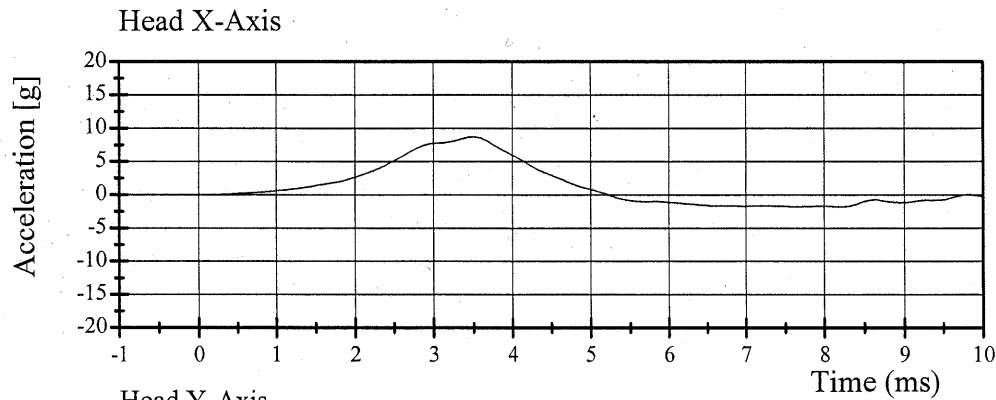


Transportation Research Center Inc.

Left Lateral Head Drop Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/16/2003



10.16.2003 10:48:42 603



Vehicle Research and Test Center

Left Lateral Neck Test

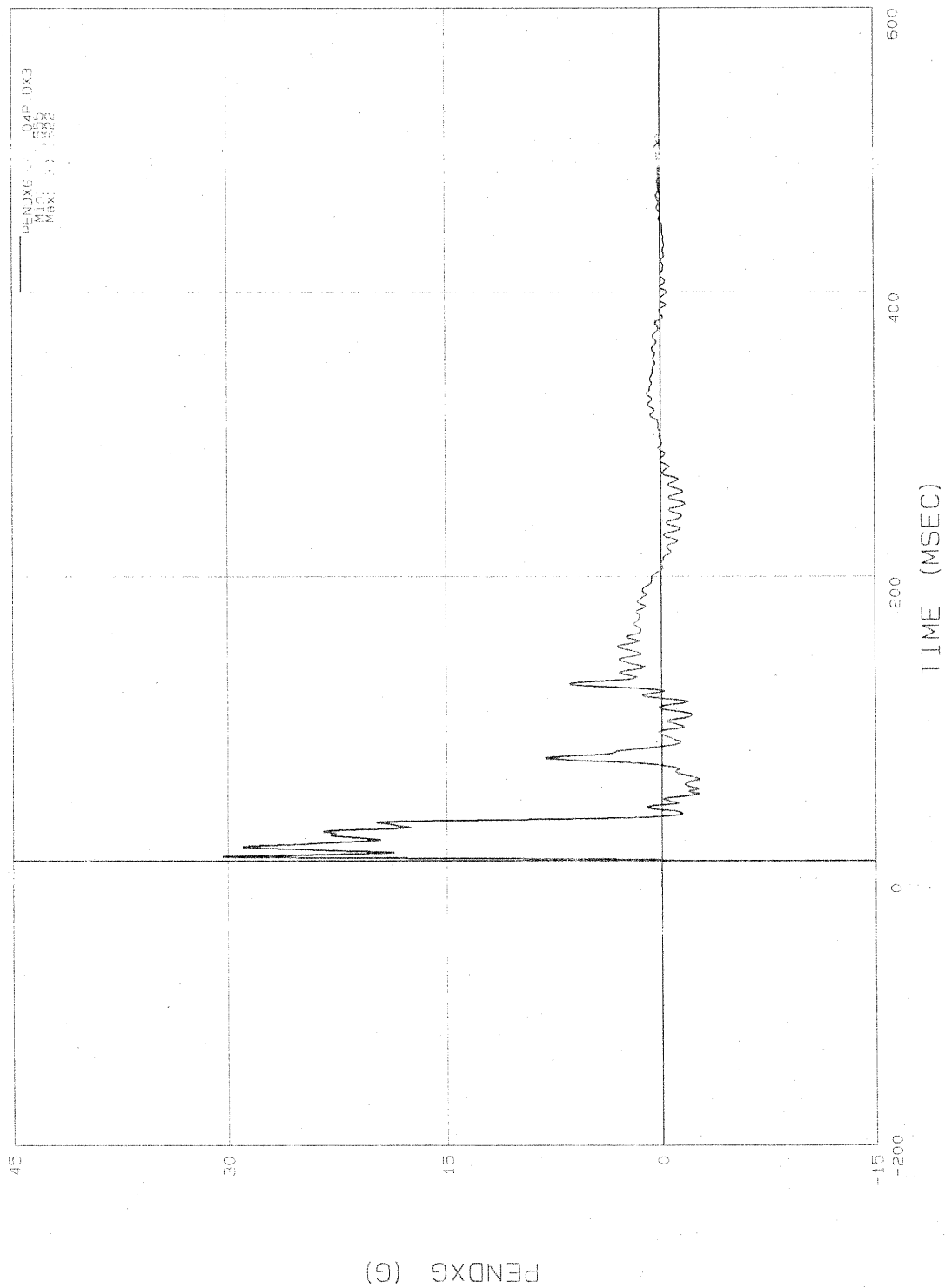
SID-IIIs Serial No. 020 Calibration No. 2 - 1

Test Date 10/28/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.59 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	1.98 m/s	No
15 ms	3.00 - 3.80 m/s	3.15 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.22 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	6.01 m/s	Yes
Peak D Plane Rotation	72 - 82 °	79.7 °	Yes
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	66.0 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	43.2 N·m	No
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	91.7 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	6.6 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	54.5 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	61.5 ms	Yes
Peak Rotation of Rearward Pot	47 - 56 °	45.5 °	No
Time of Peak Rotation of Rearward Pot	62 - 73 ms	60.3 ms	No

Comments:

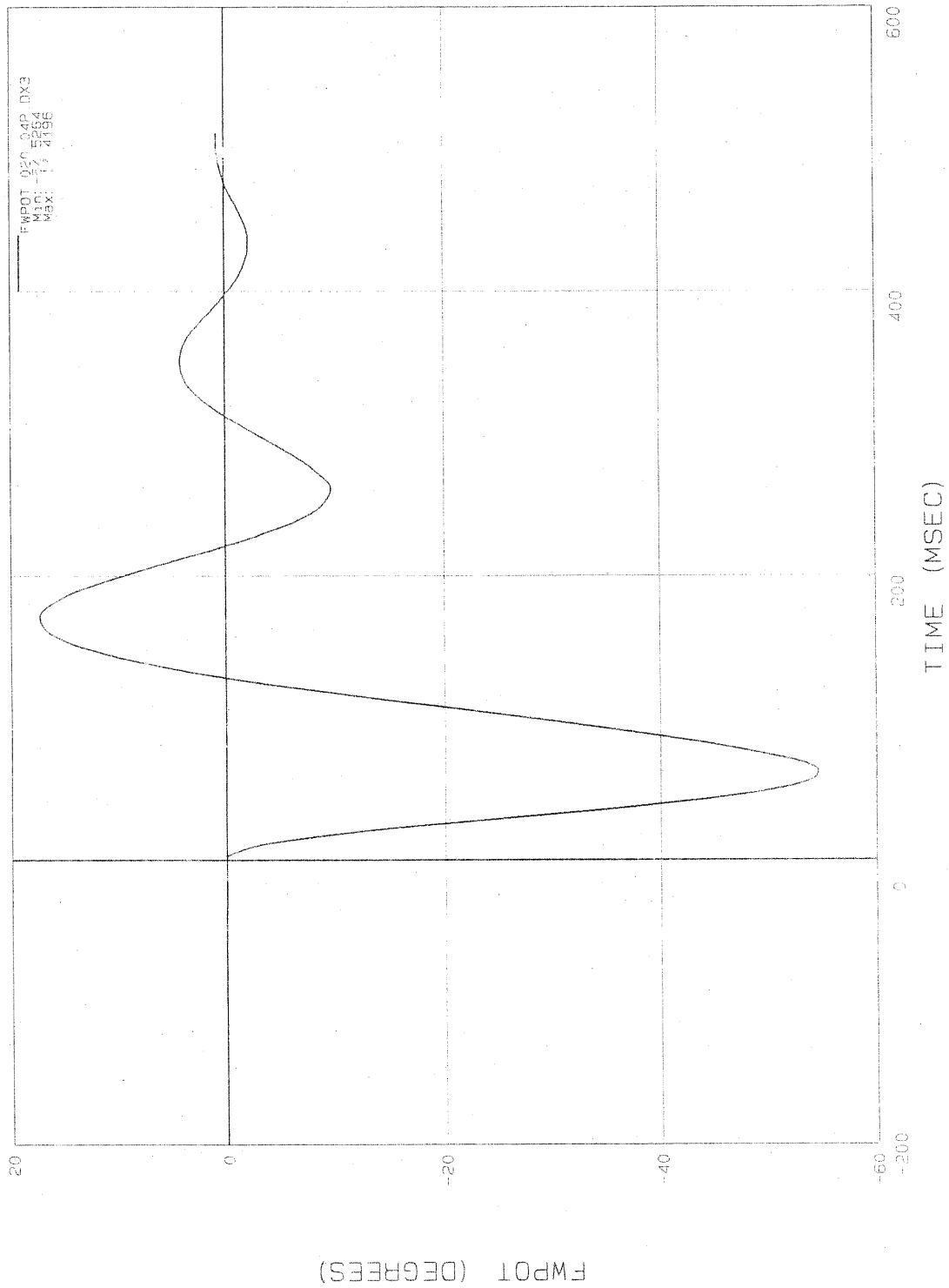
VRTC Test Number 020_04



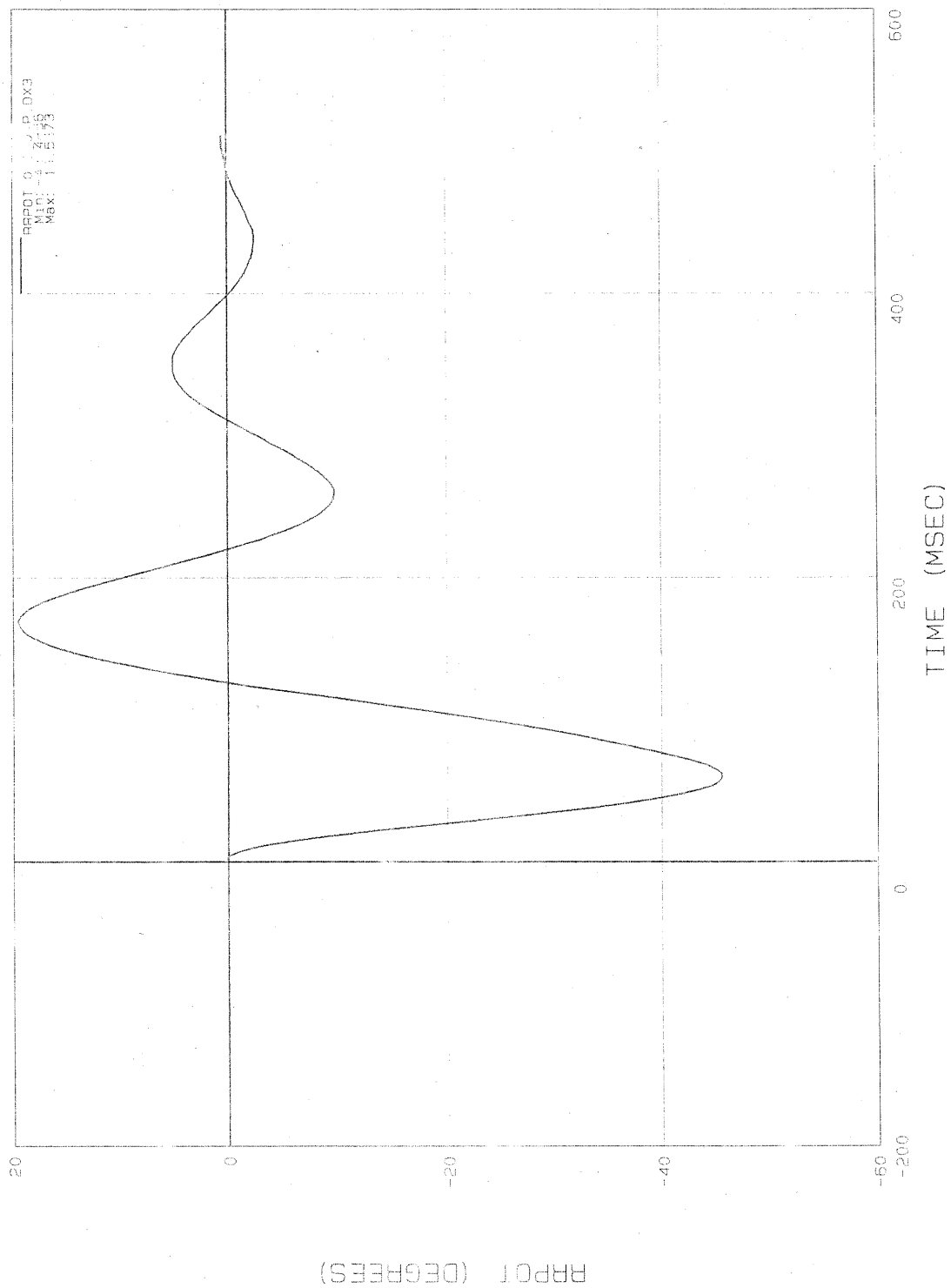
NOV 24, 2003 06:42:19AM



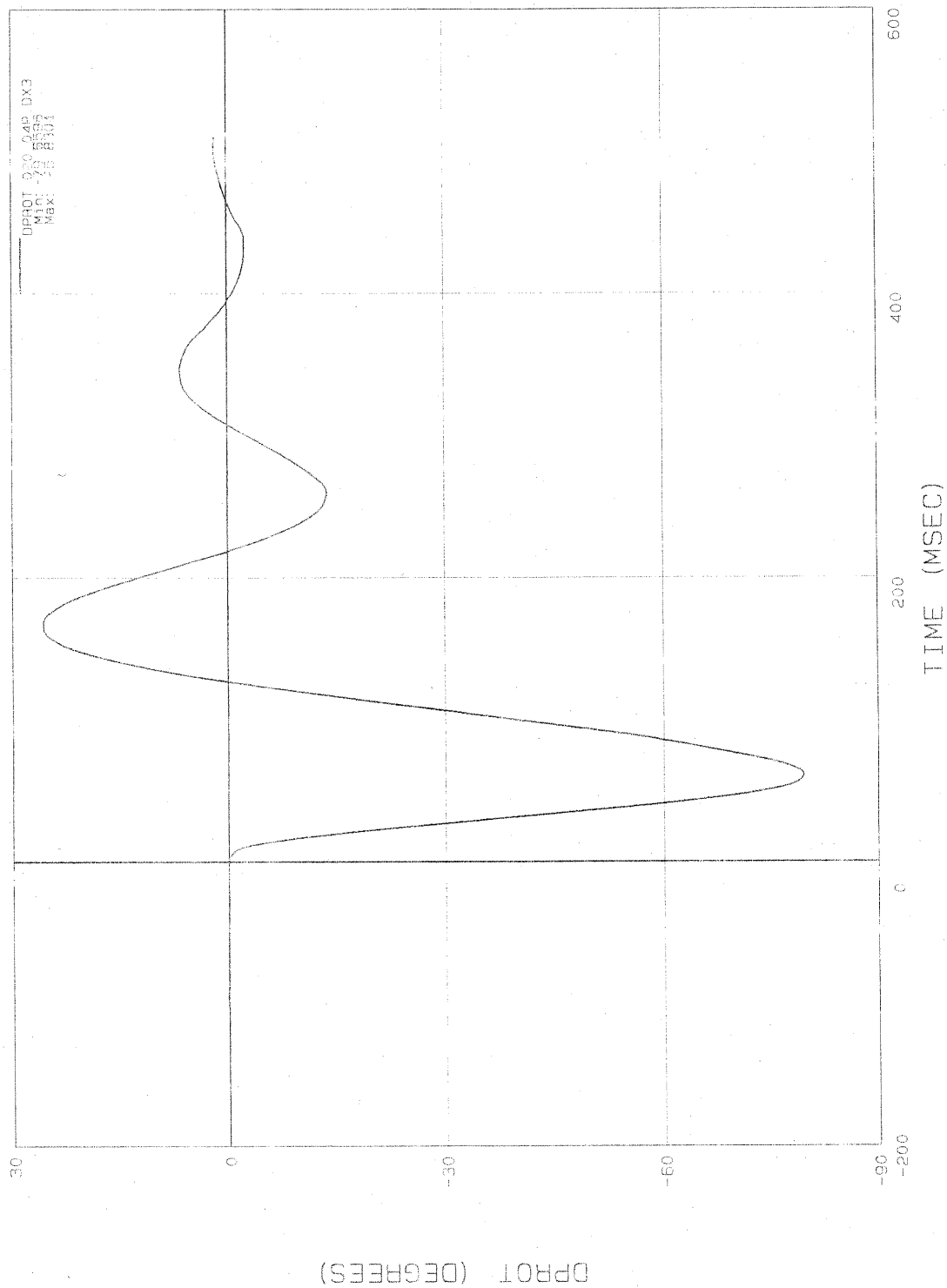
NOV 24, 2003 05:42:20AM



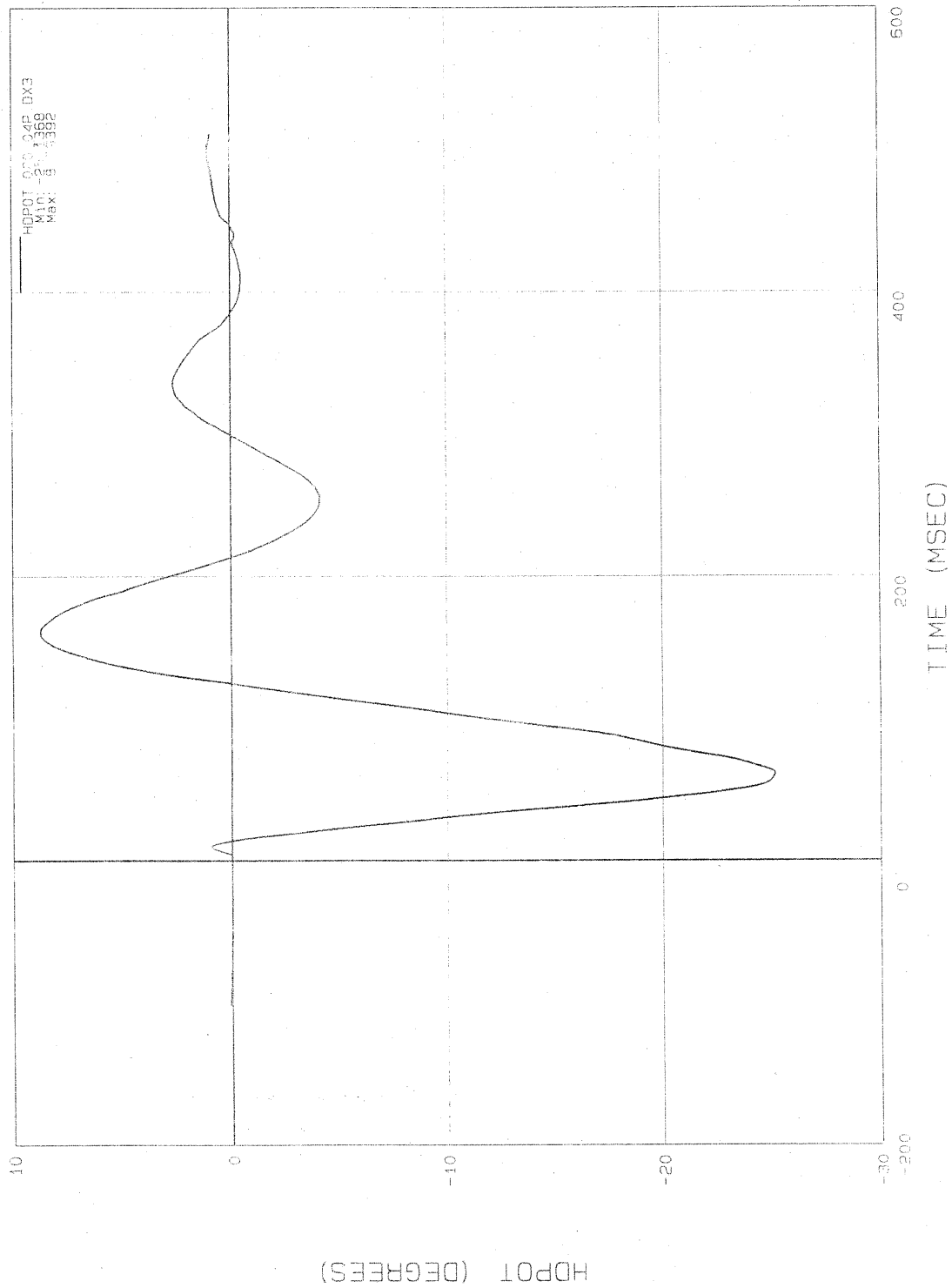
NOV 24, 2003 06:42:39AM



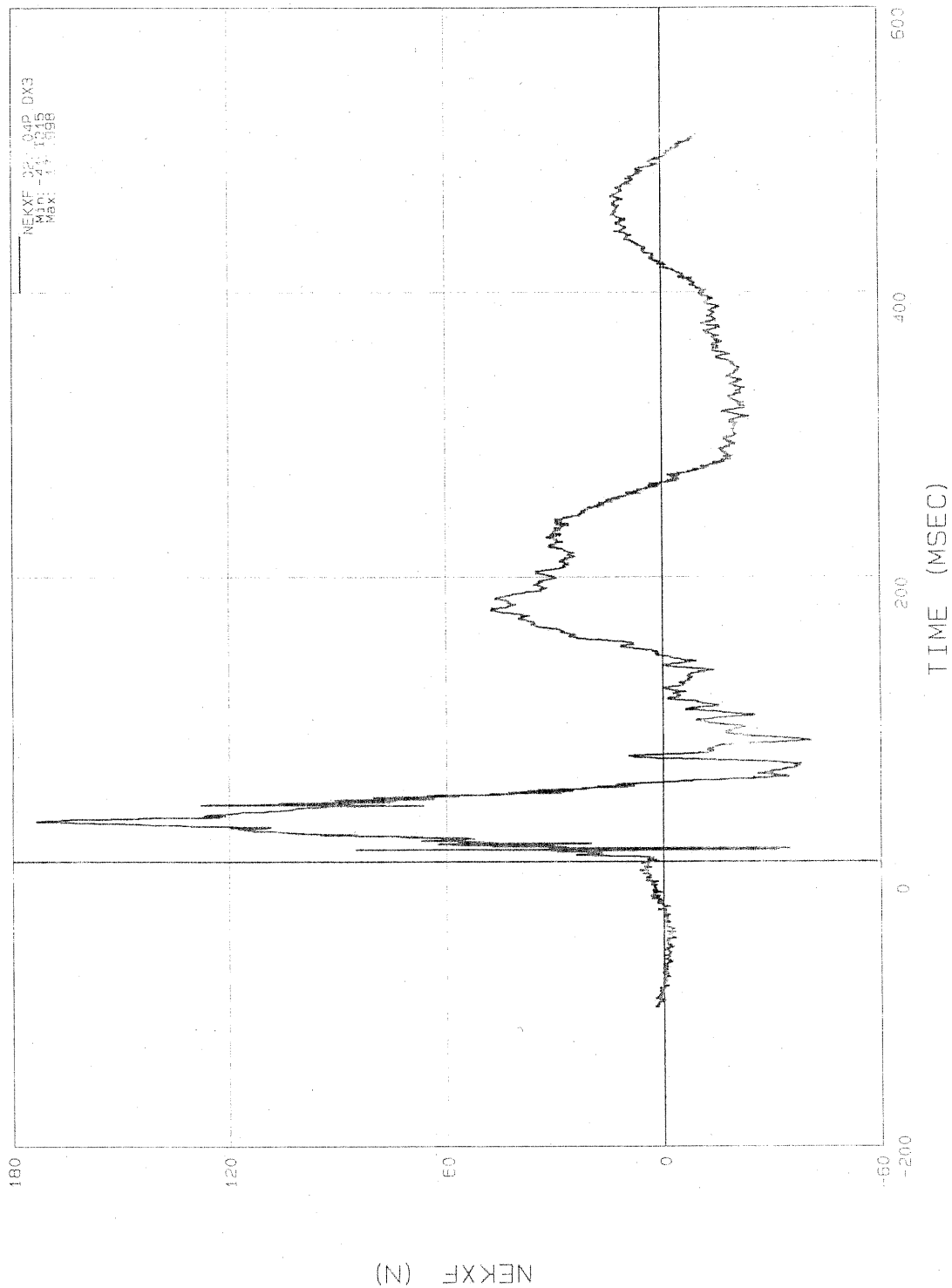
NOV 24, 2003 05:42:39AM



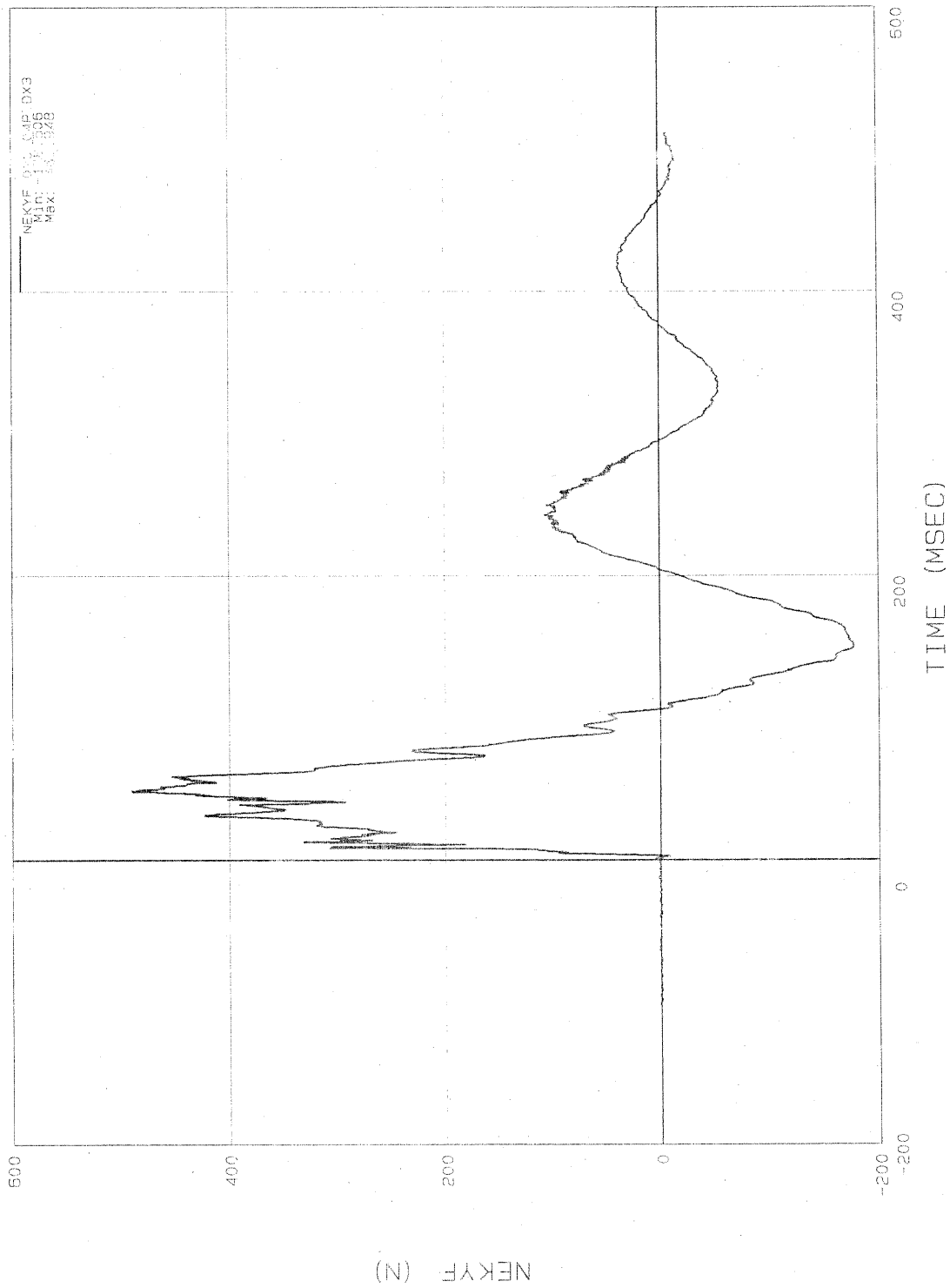
Nov 24, 2003 06:42:55AM



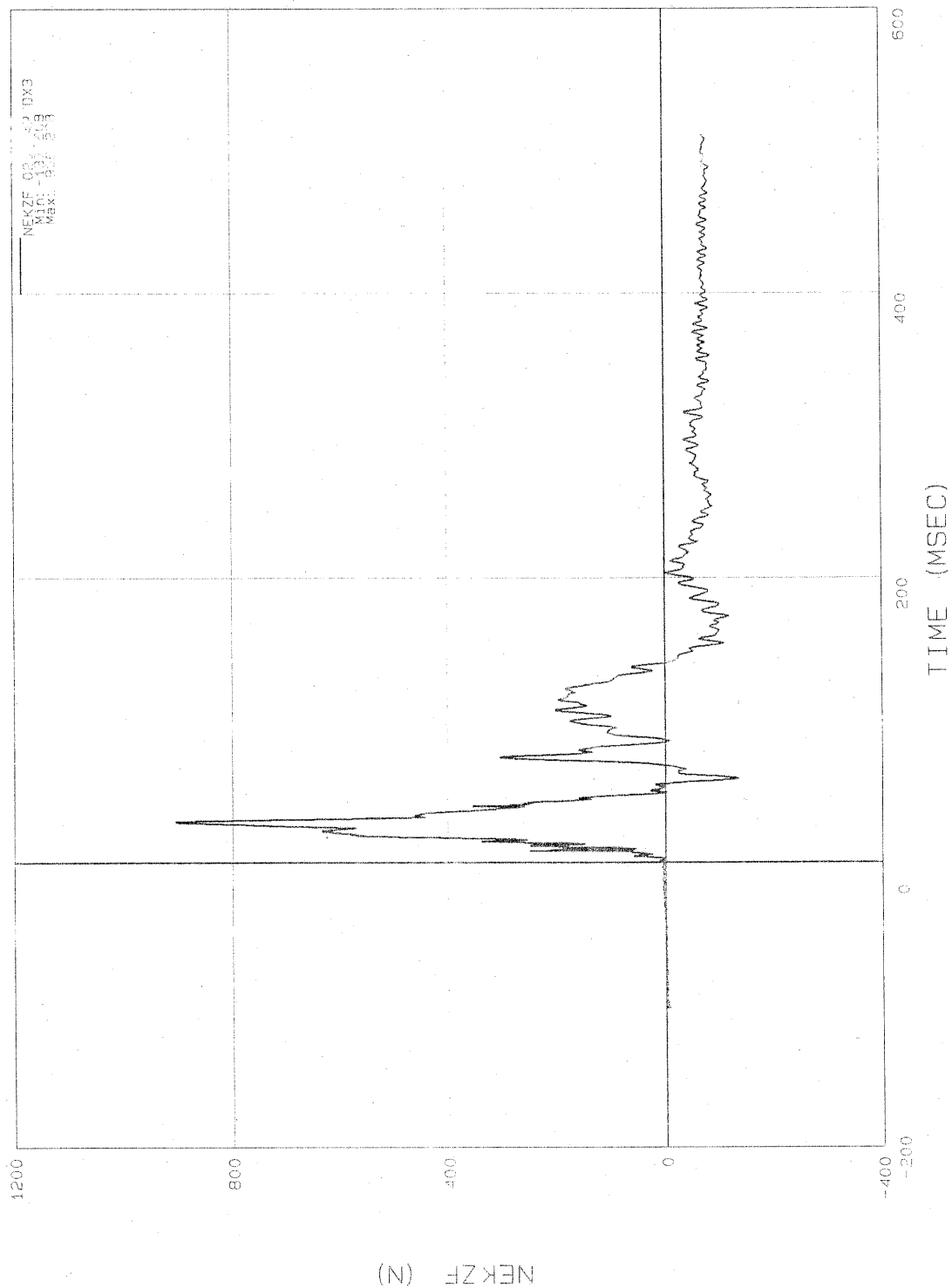
NOV 24, 2003 06:42:54AM



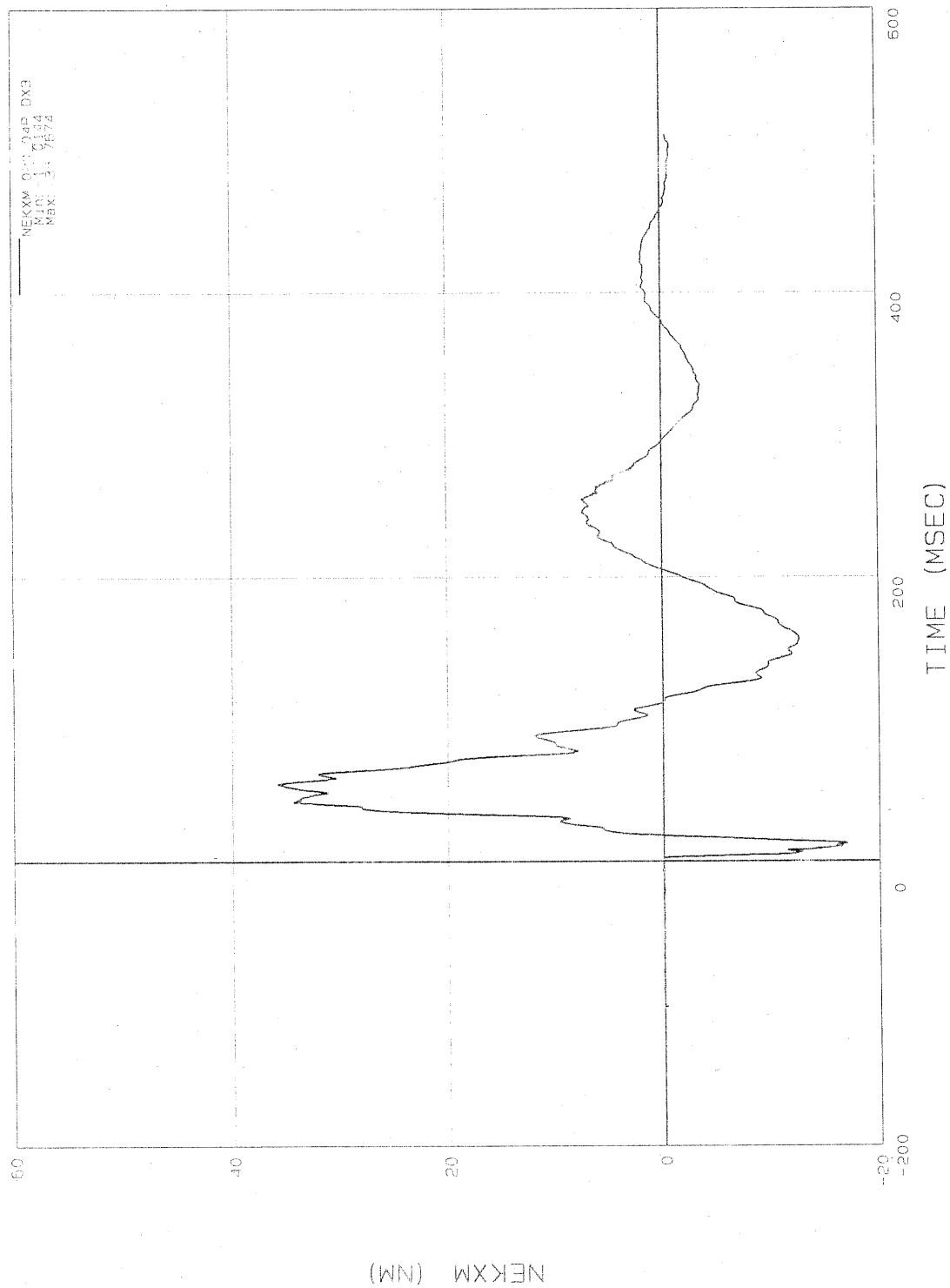
NOV 24, 2003 06:42:21AM



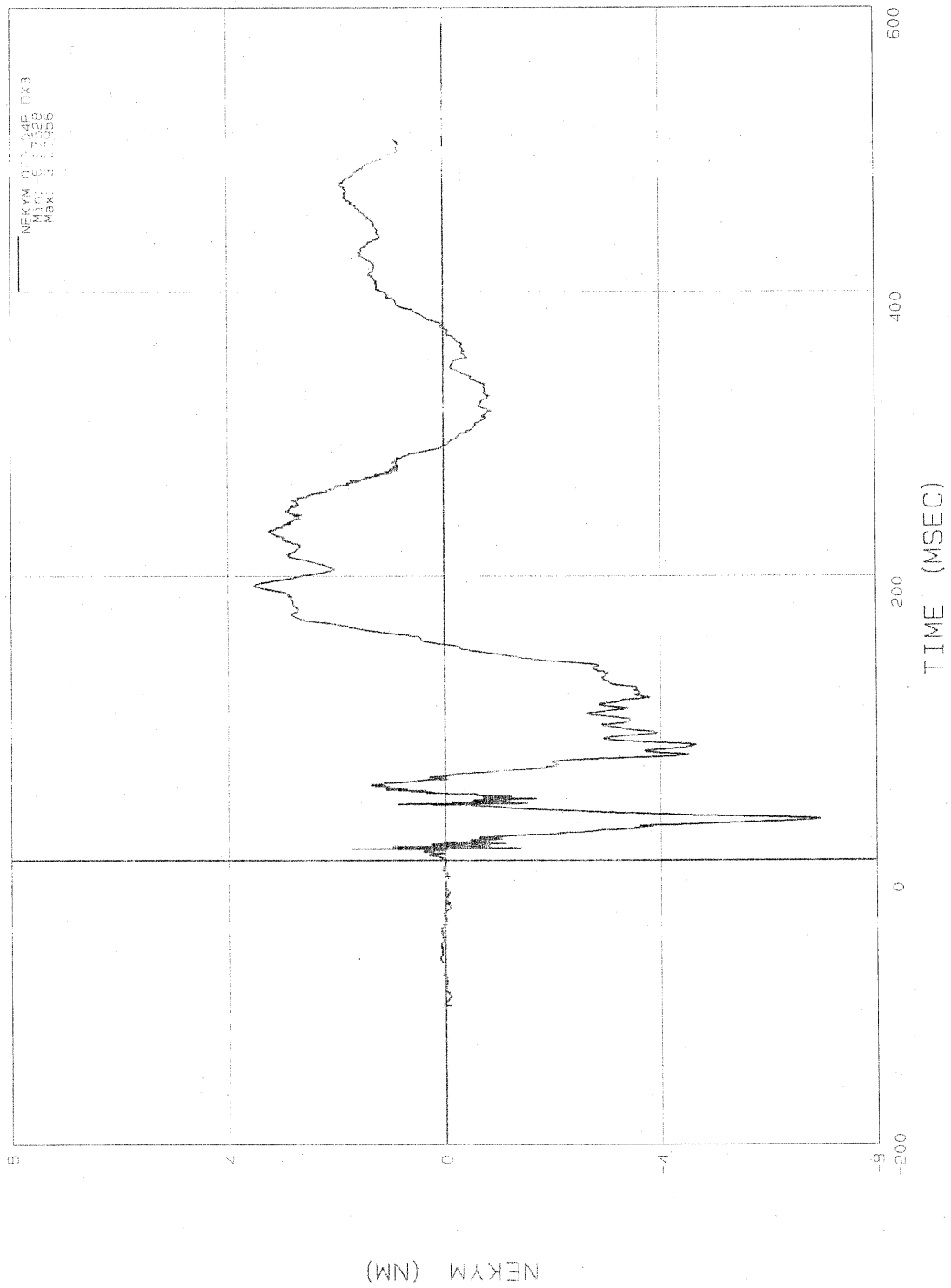
Nov 24, 2003 06:42:21AM



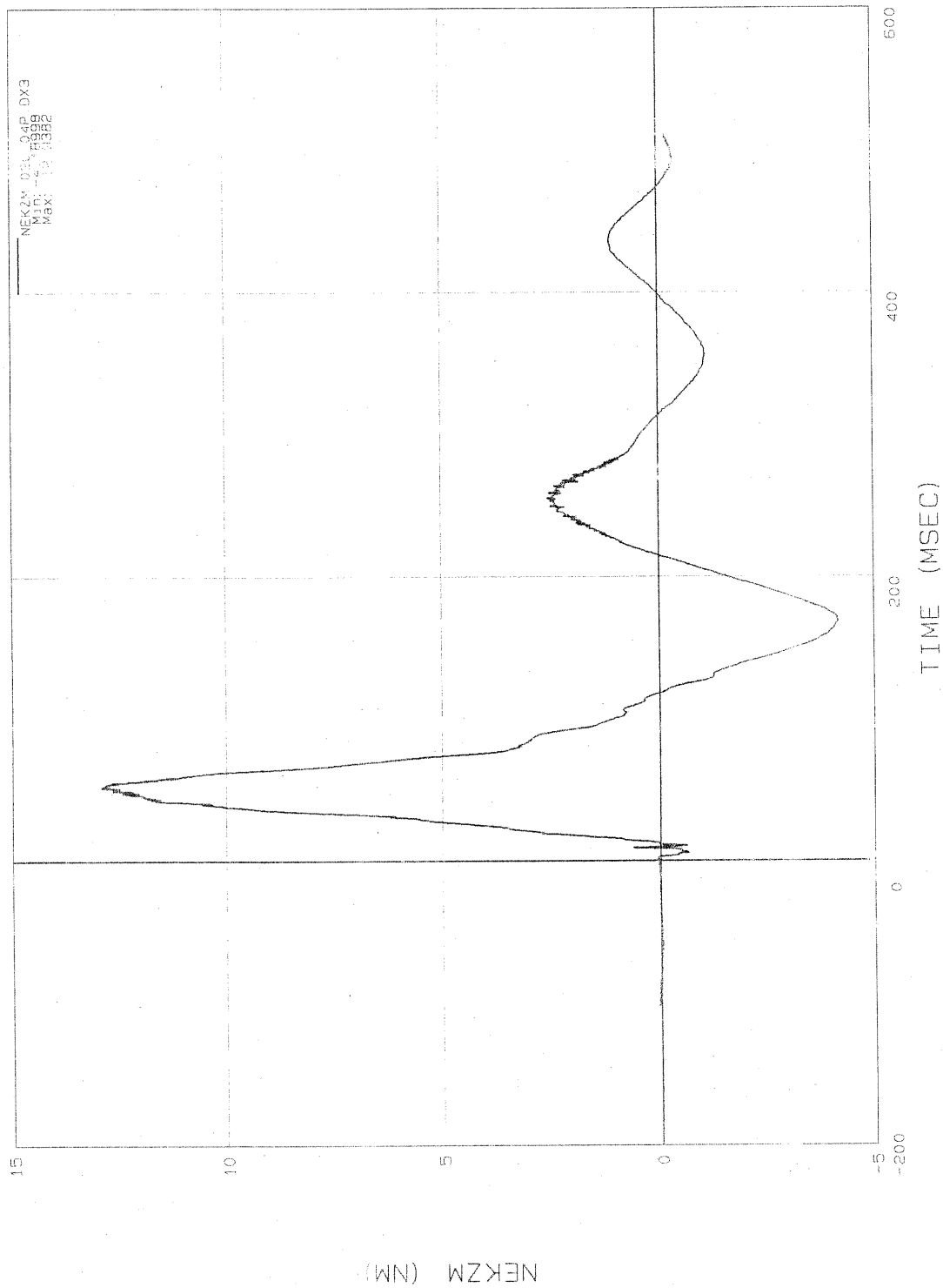
Nov 24, 2003 06:42:37AM



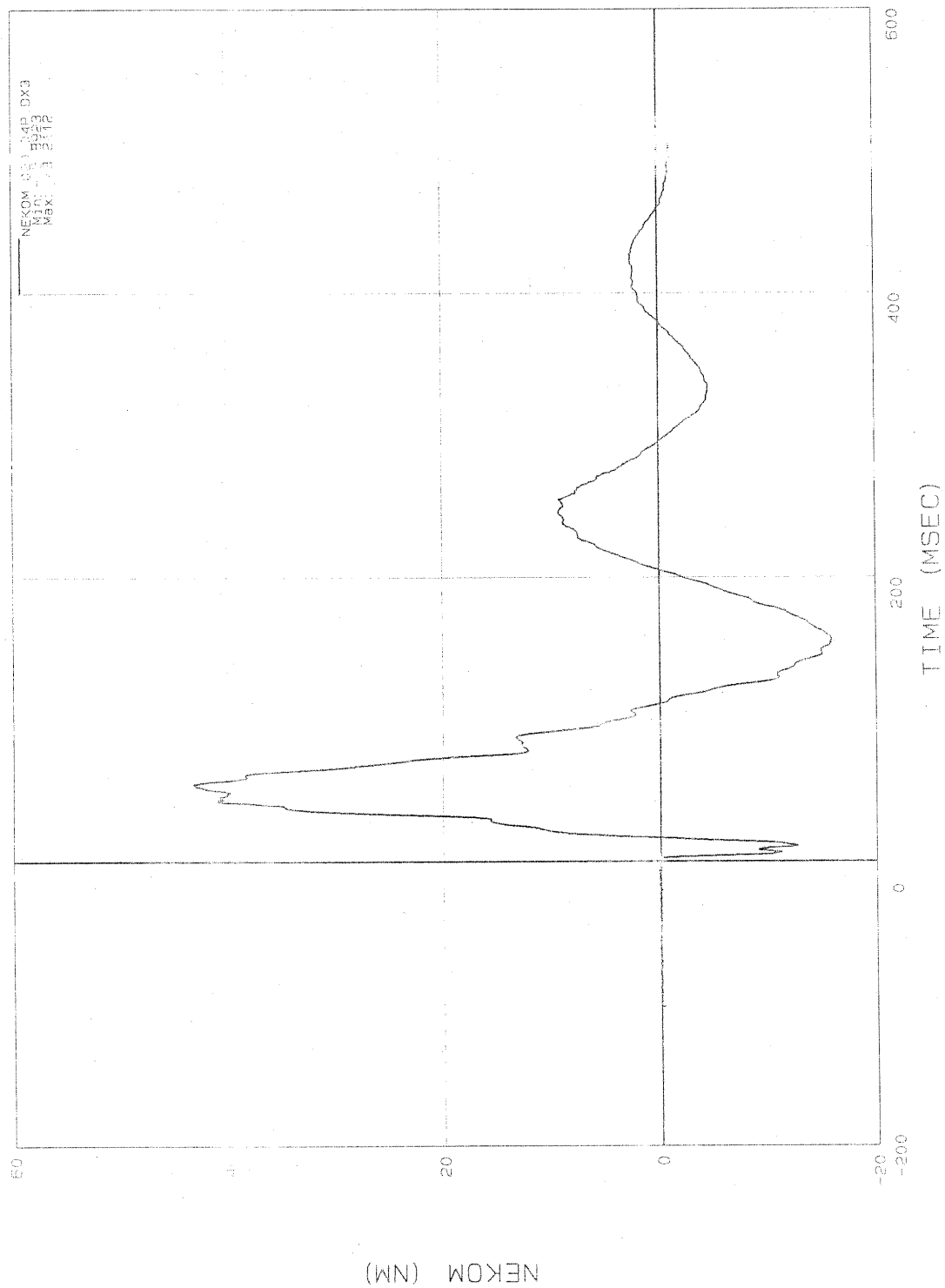
Nov 24, 2003 06:42:37AM



Nov 24, 2003 06:42:38AM



NOV 24, 2003 06:42:38AM



NOV 24, 2003 08:42:55AM

Vehicle Research and Test Center

Left Lateral Neck Test

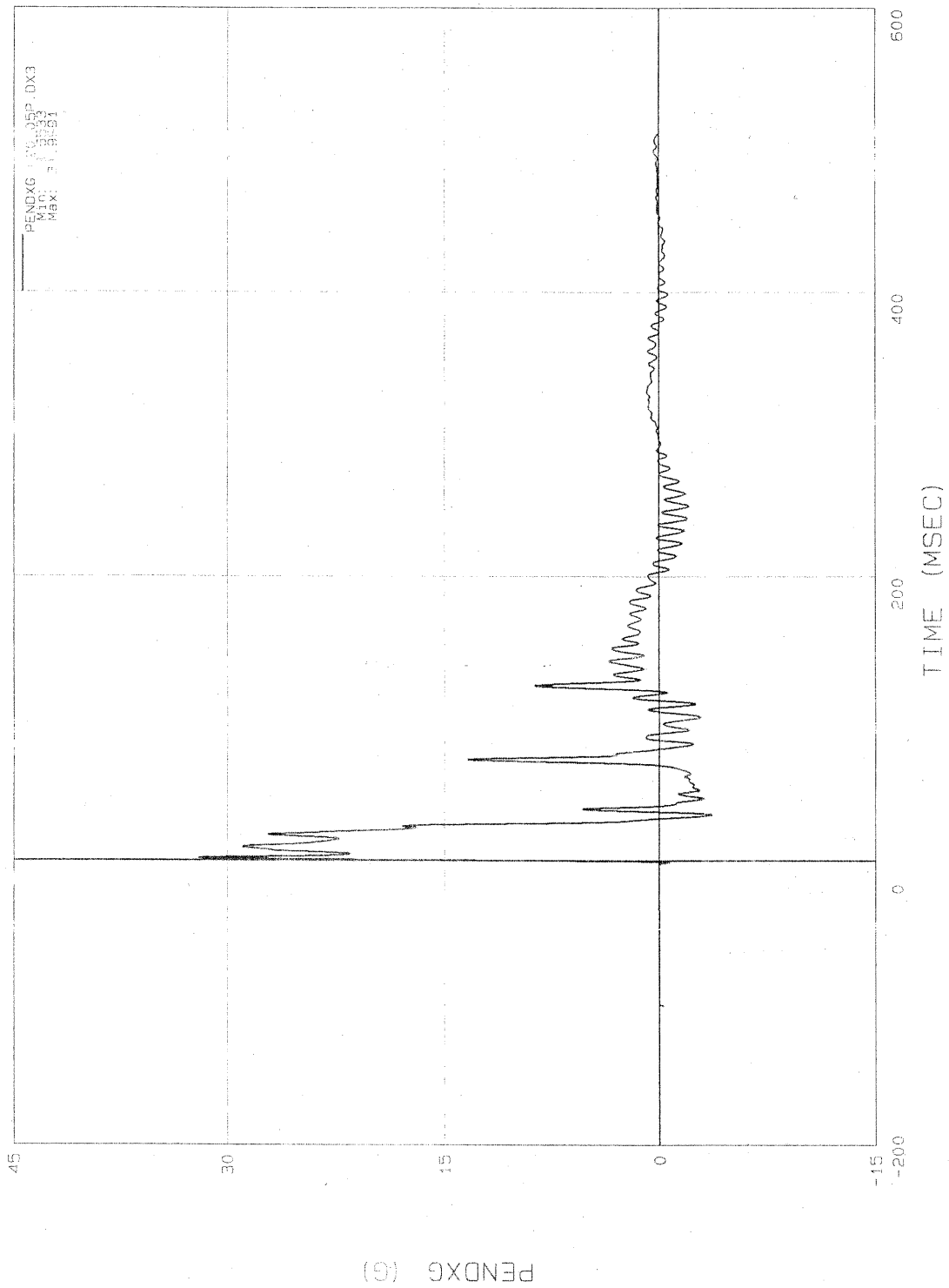
SID-IIs Serial No. 020 Calibration No. 2 - 2

Test Date 10/28/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	N/A	
Relative Humidity	10 - 70 %	N/A	
Impact Velocity	5.51 - 5.63 m/s	5.64 m/s	No
Integrated Pendulum Velocity			
10 ms	2.10 - 2.70 m/s	2.46 m/s	Yes
15 ms	3.00 - 3.80 m/s	3.68 m/s	Yes
20 ms	4.20 - 5.20 m/s	4.89 m/s	Yes
25-60 ms	5.00 - 6.40 m/s	6.08 m/s	Yes
Peak D Plane Rotation	72 - 82 °	83.2 °	No
Rotation Decay Time To 0° From Peak Angle	60 - 83 ms	65.4 ms	Yes
Peak Moment About Occipital Condyles	36 - 43 N·m	44.8 N·m	No
Moment Decay Time To 0 N·m From Peak Moment	90 - 98 ms	90.0 ms	Yes
Time Between Peak Rotation and Last Moment Peak	< 14 ms	6.3 ms	Yes
Peak Rotation of Forward Pot	59 - 72 °	56.7 °	No
Time of Peak Rotation of Forward Pot	61 - 73 ms	60.2 ms	No
Peak Rotation of Rearward Pot	47 - 56 °	47.2 °	Yes
Time of Peak Rotation of Rearward Pot	62 - 73 ms	57.7 ms	No

Comments:

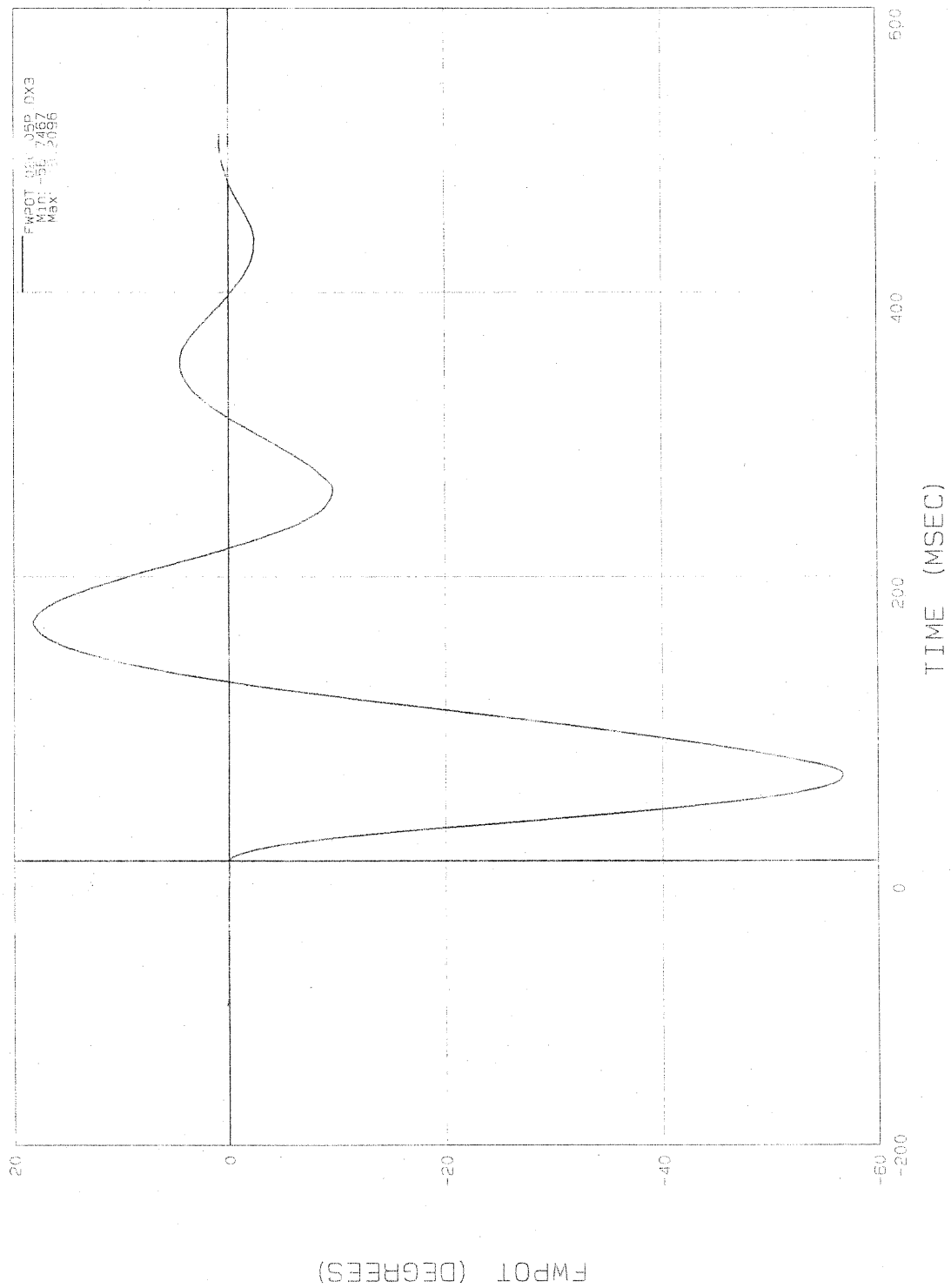
VRTC Test Number 020_05



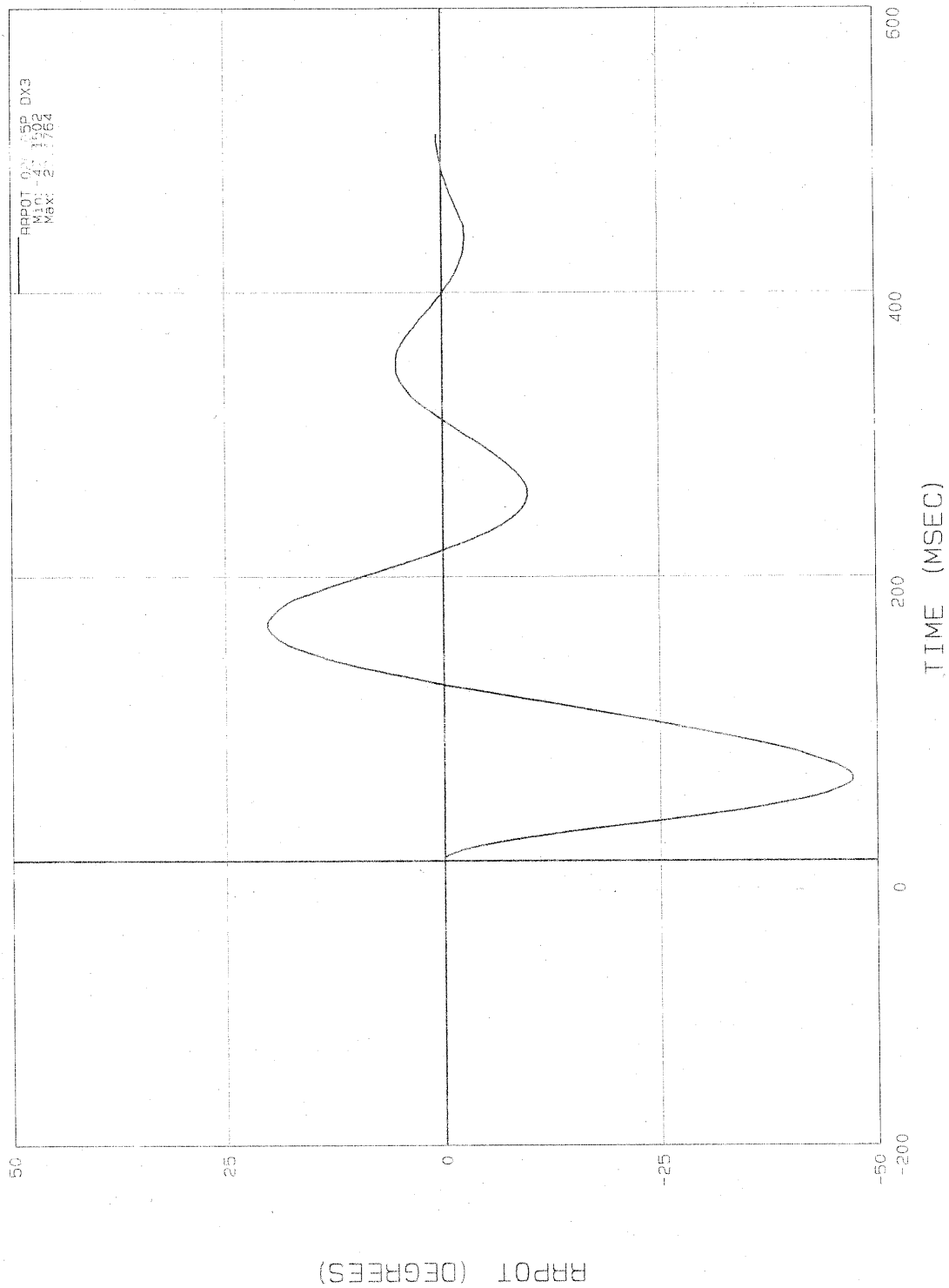
NOV 24, 2003 05:42:28AM



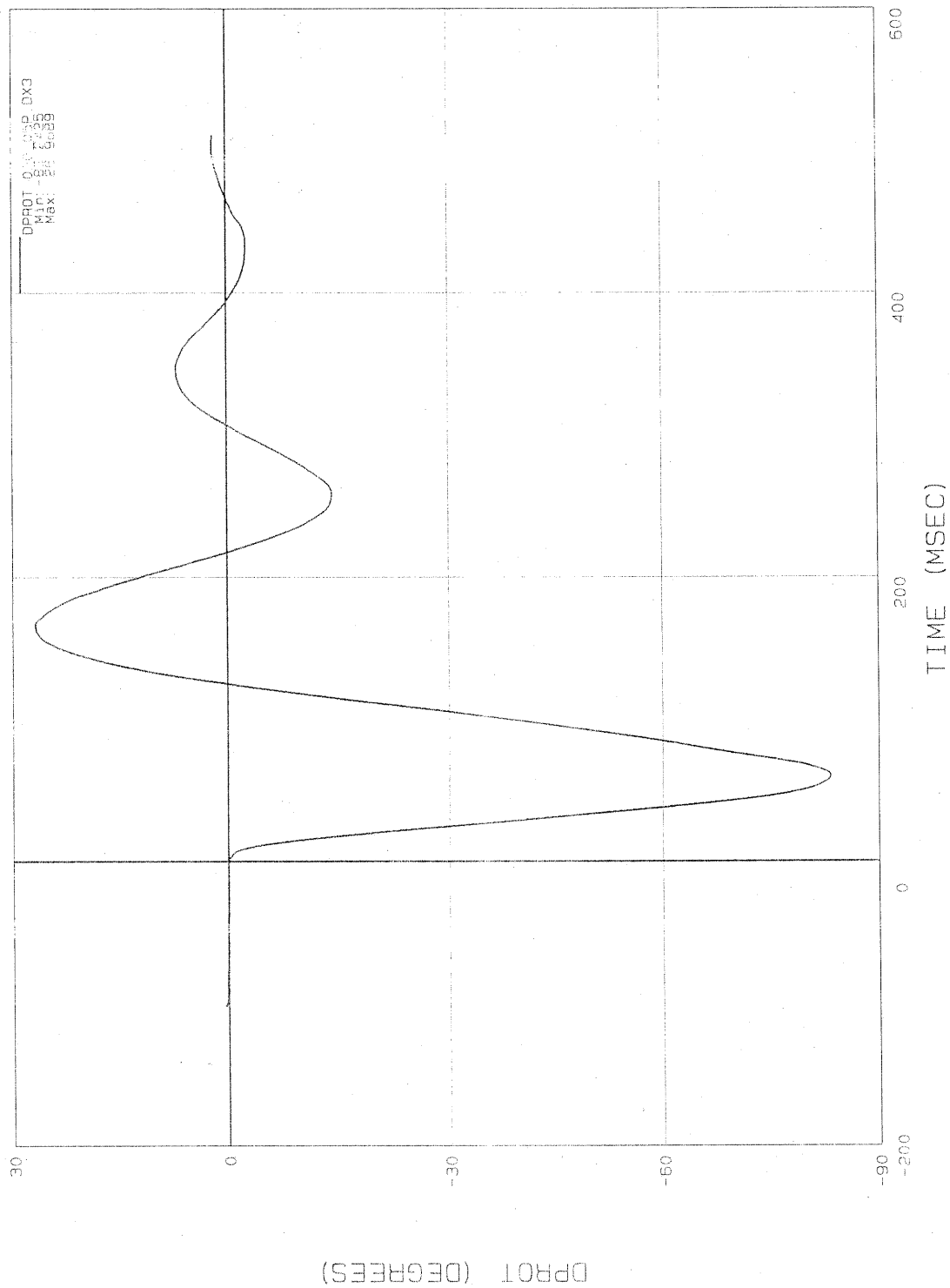
NOV 24 2003 16:42:28AM



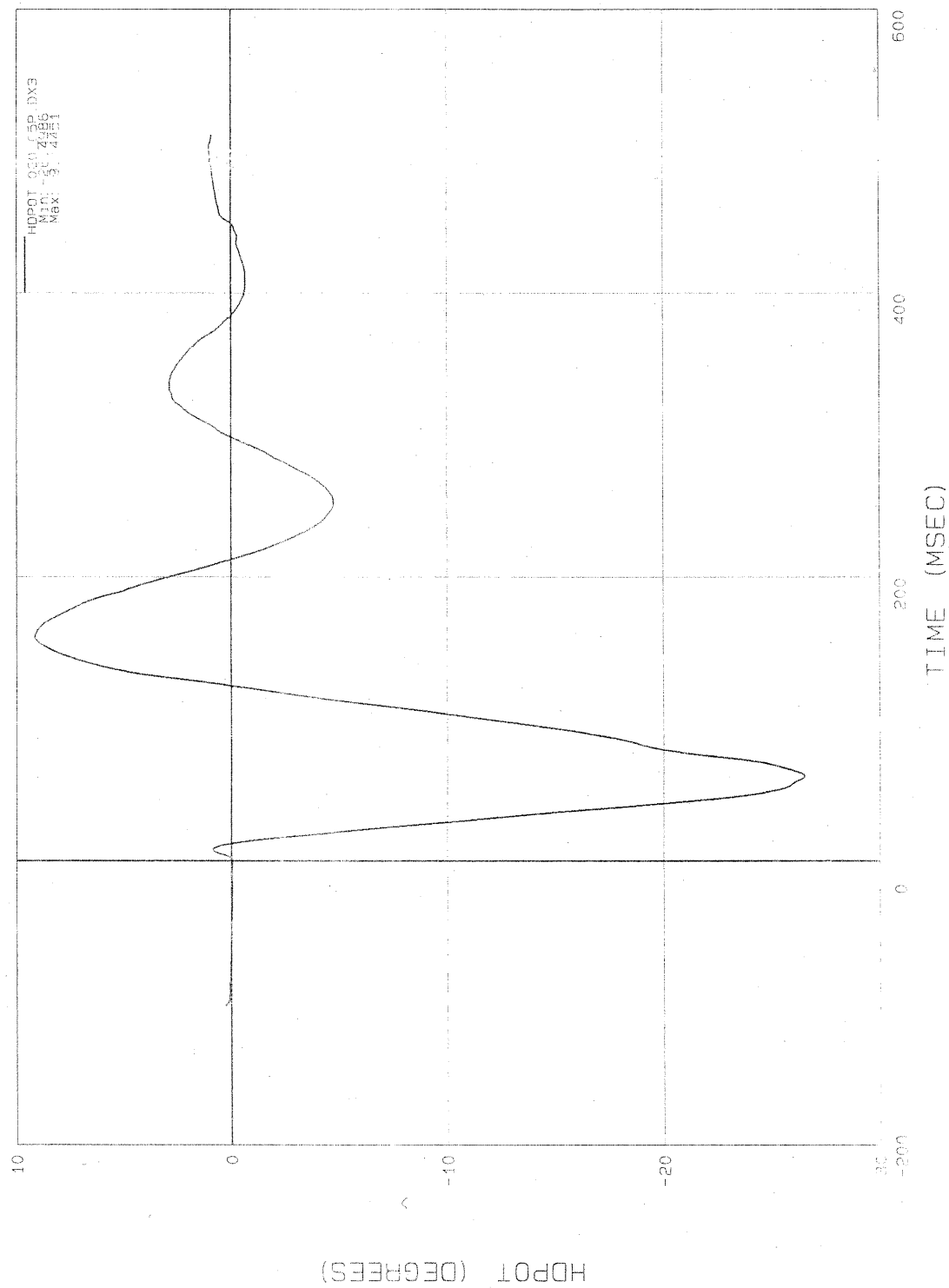
NOV 24, 2003 05:42:48AM



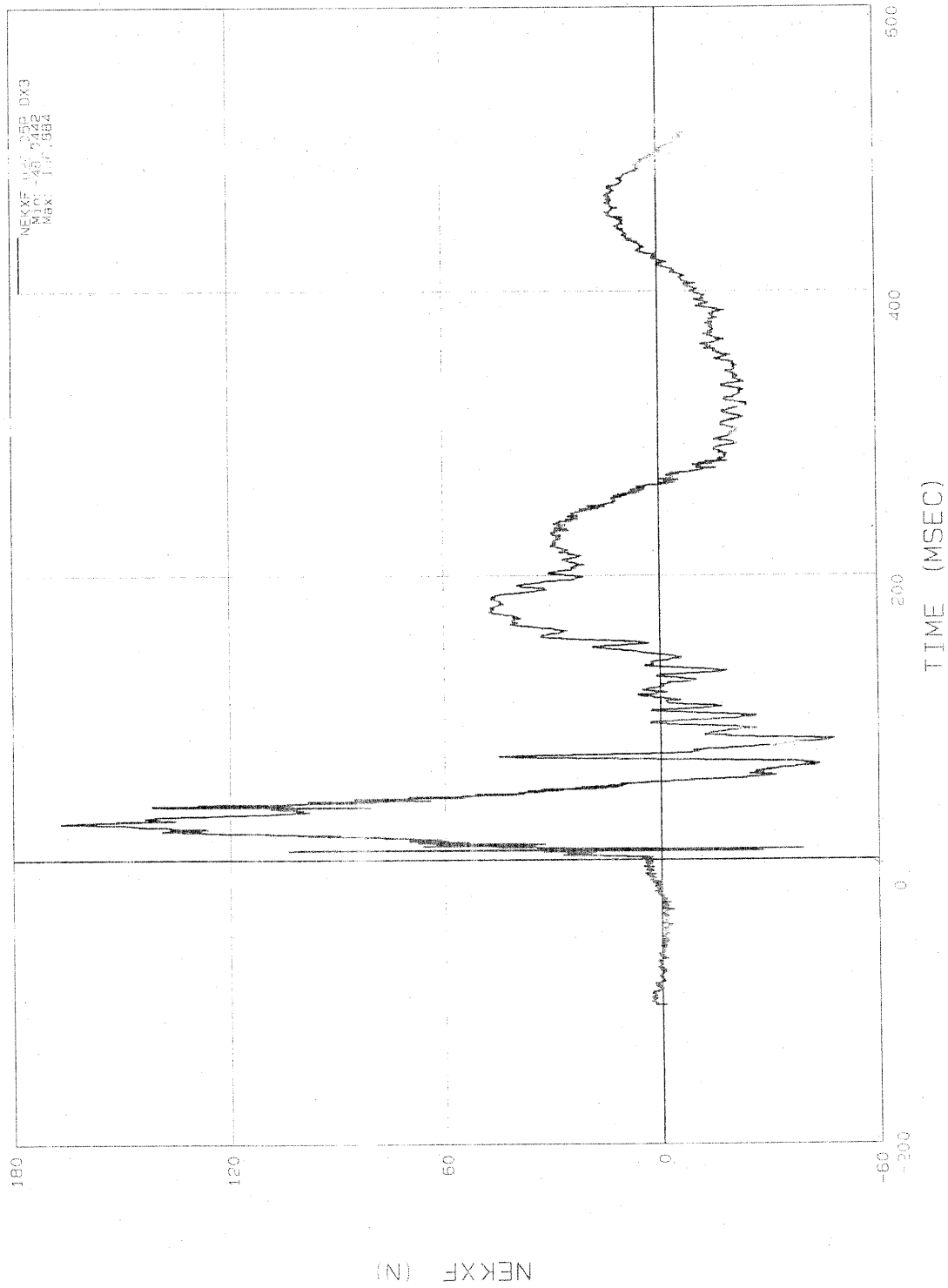
Nov 24, 2003 05:42:47AM



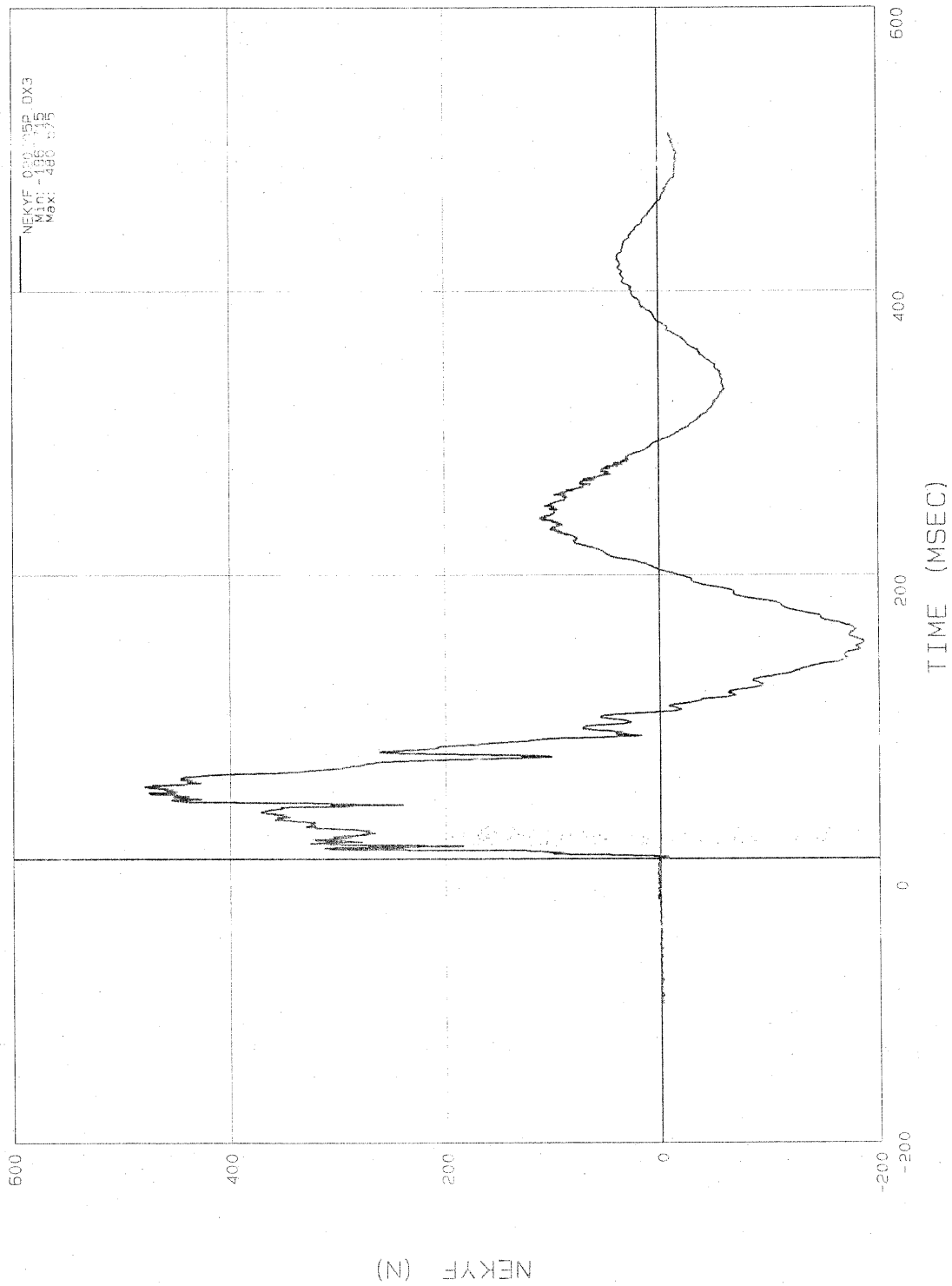
NOV 24, 2003 05:43:01AM



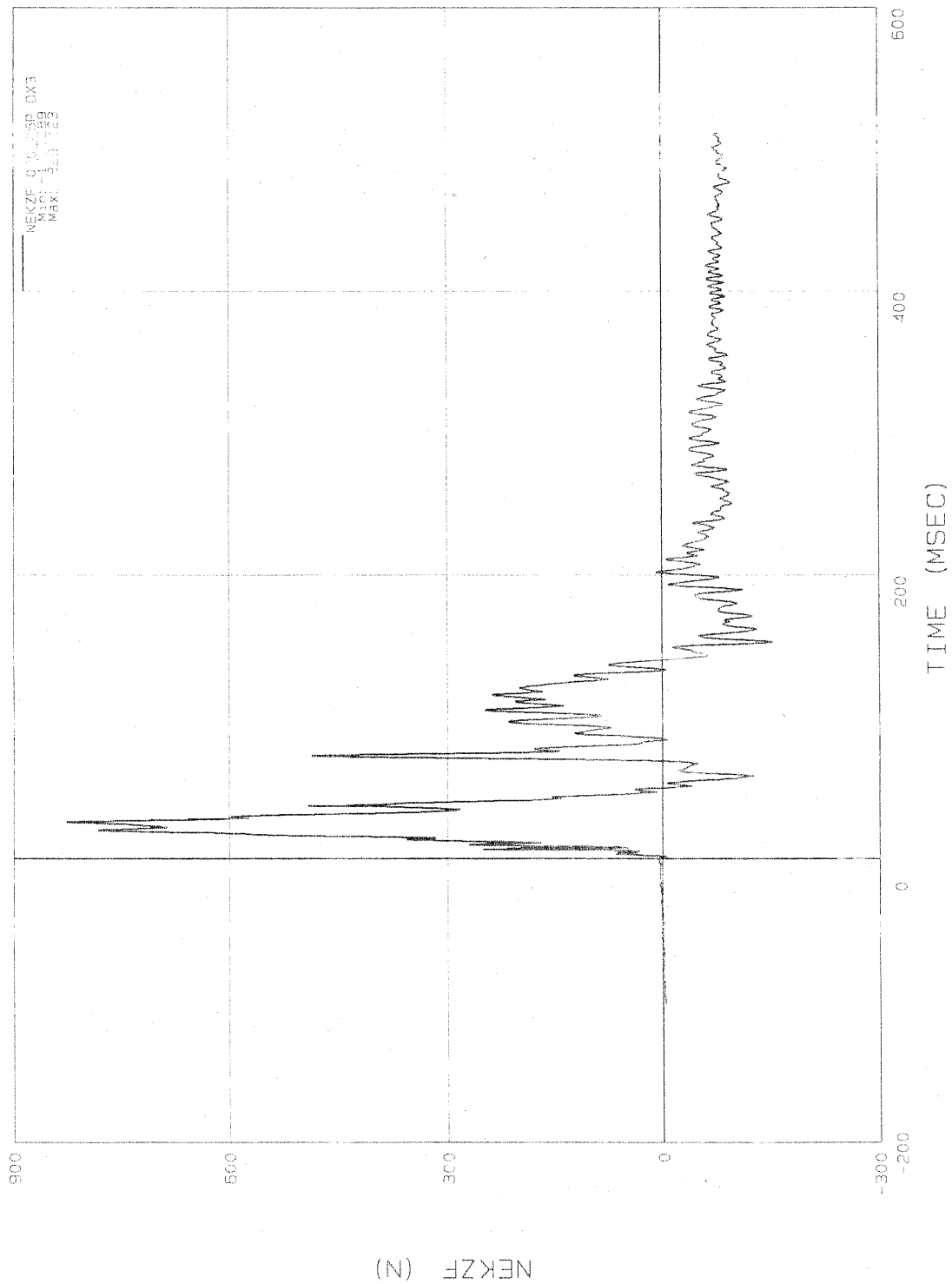
Nov 24, 2003 05:43:00AM



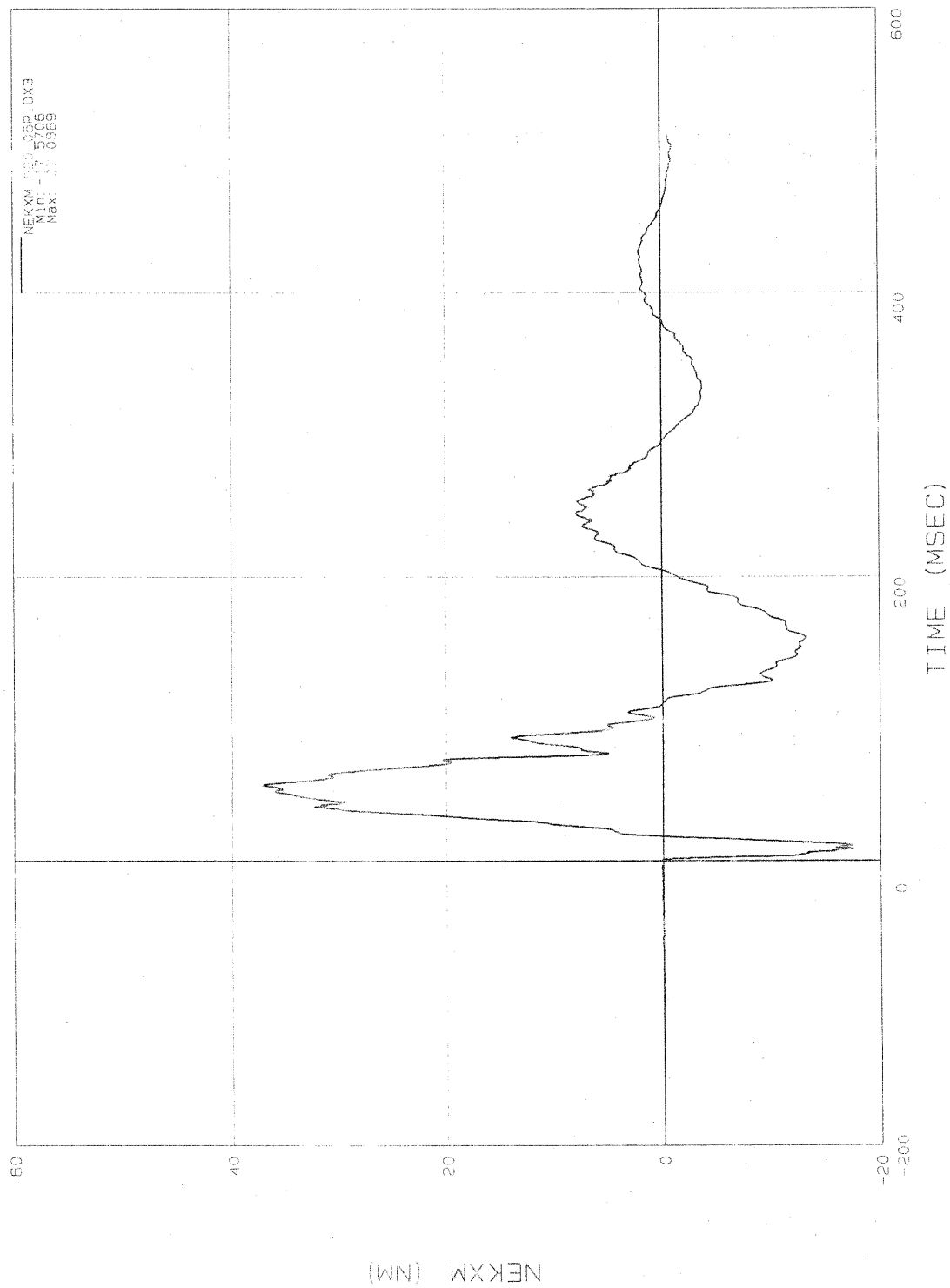
NOV 24, 2003 05:42:29AM



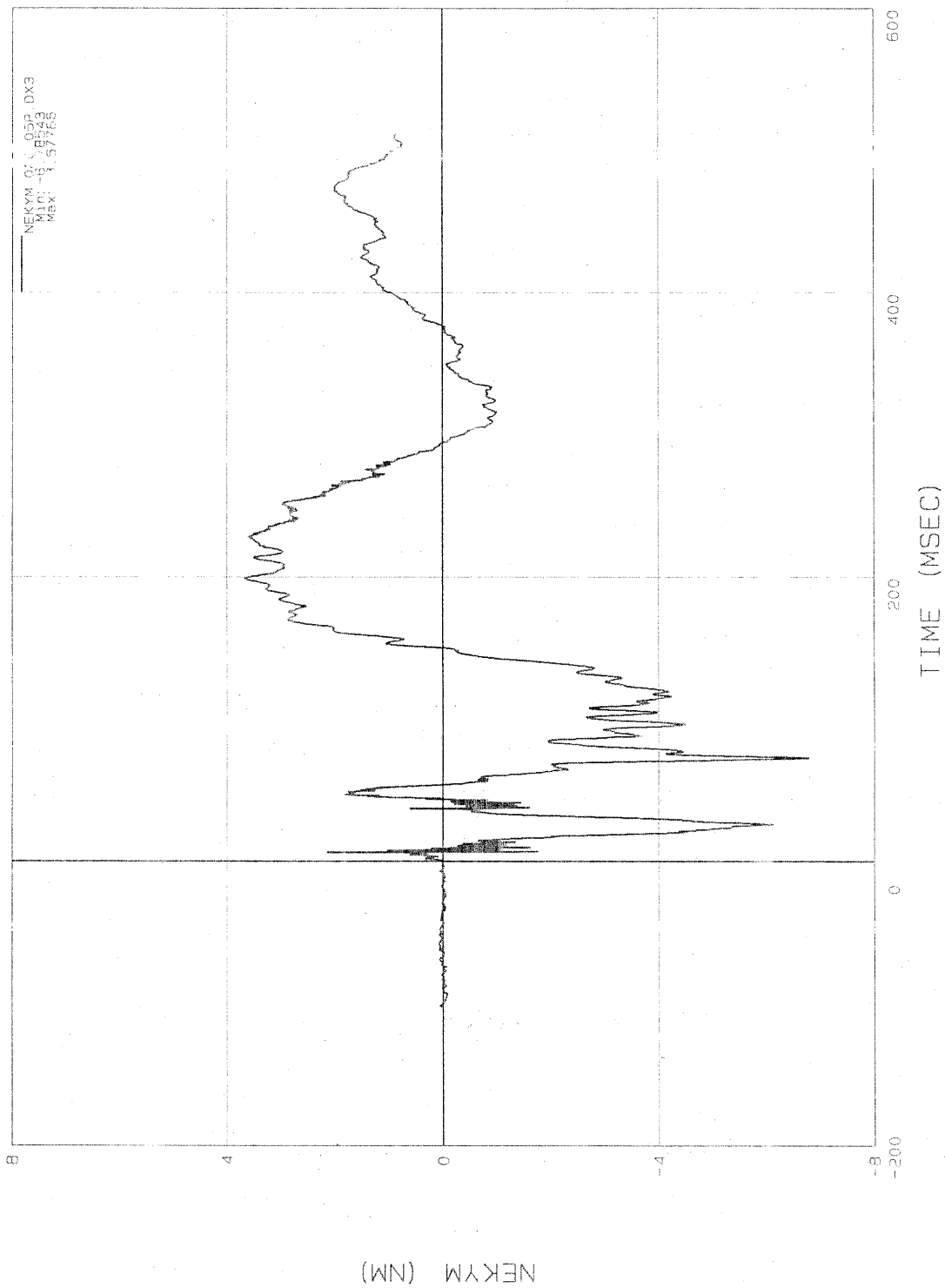
REV 24, 2003 - 05:42:30AM



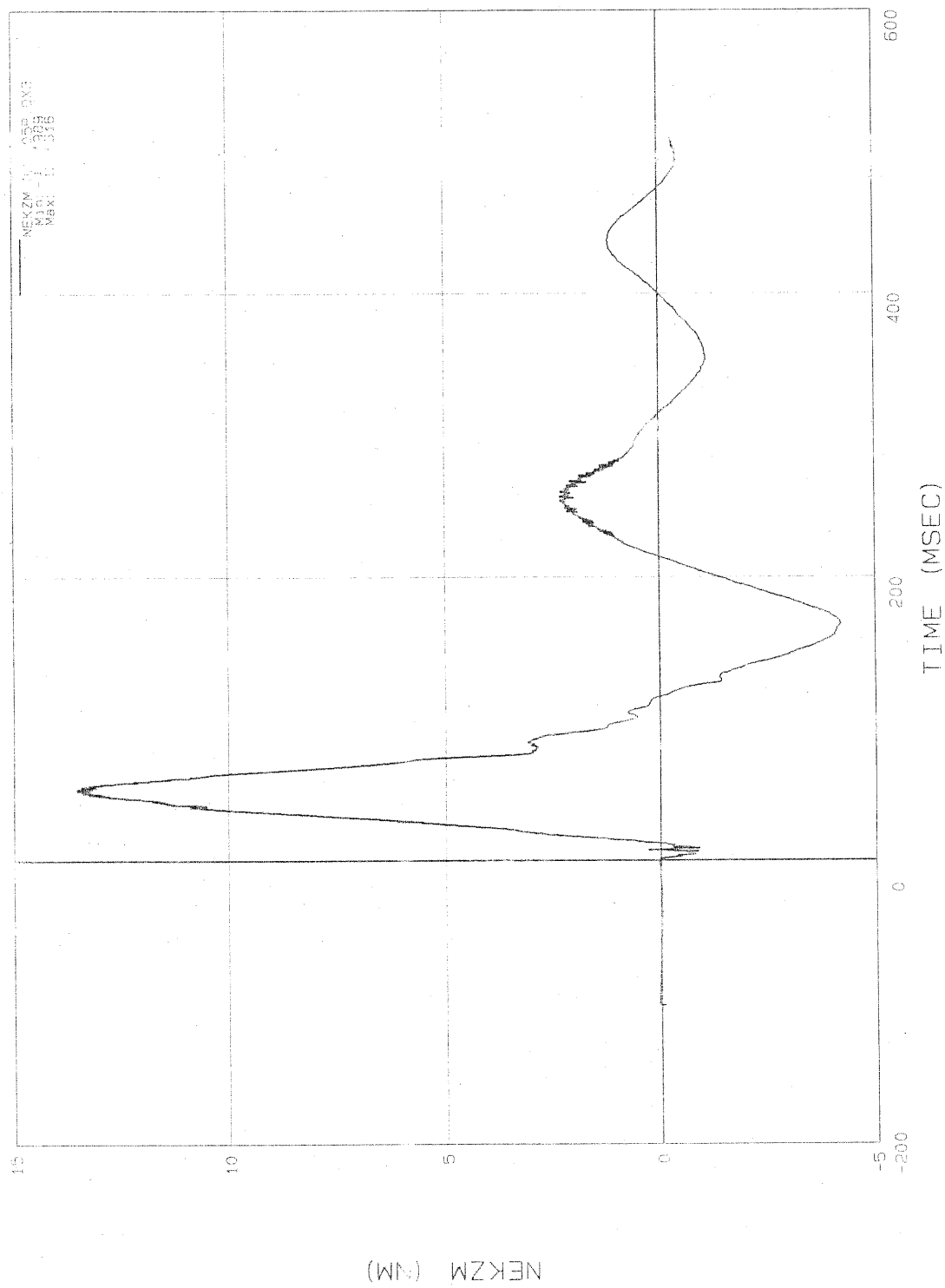
NOV 24, 2003 06:42:45AM



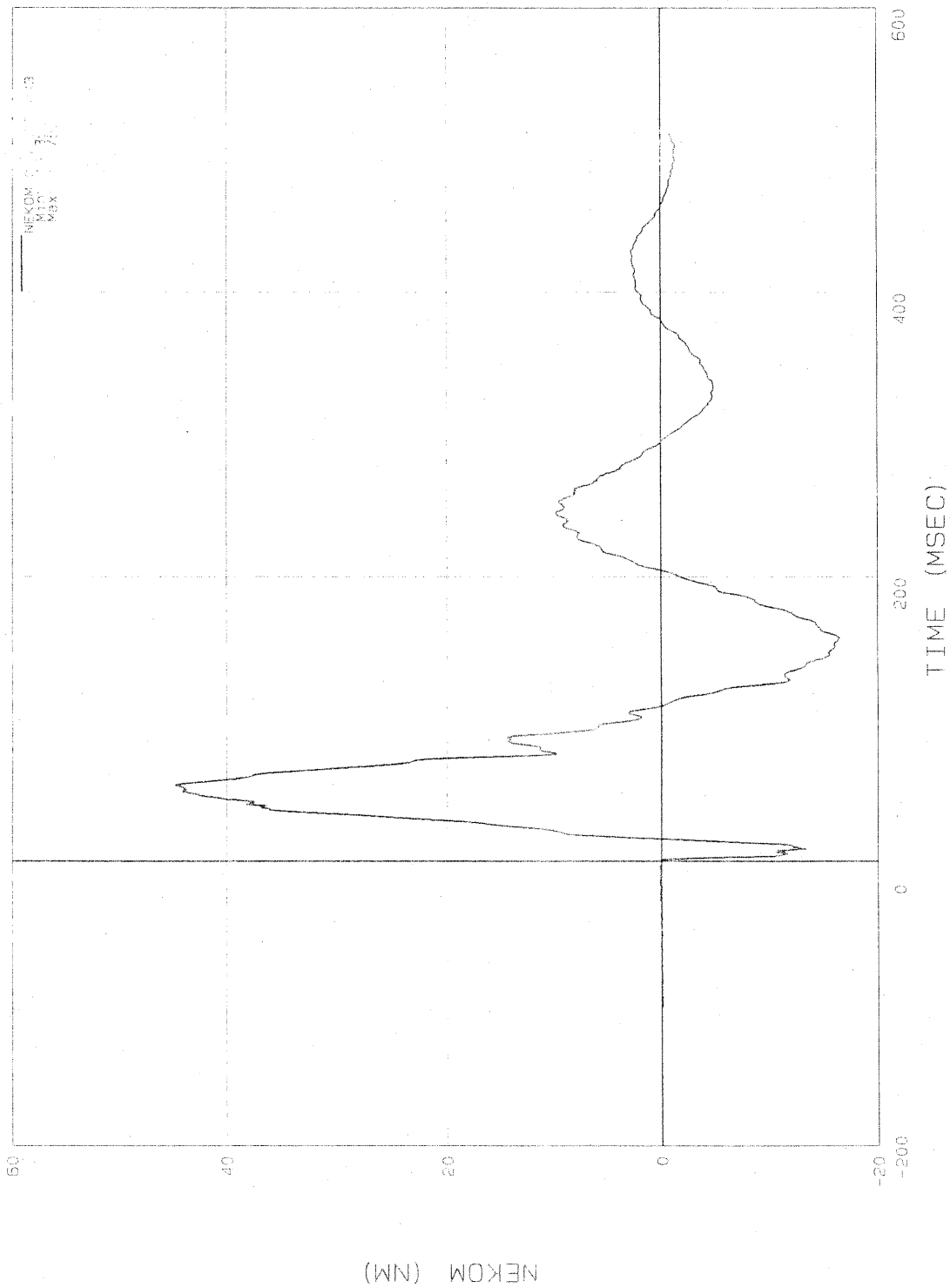
Nov 24, 2003 06:42:45AM



NOV 24, 2003 05:42:45AM



Nov 24, 2003 06:42:47AM



NOV 24, 2003 06:43:01AM

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

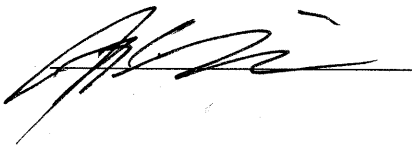
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.47 m/sec	Yes
Probe Force	1600 - 2400 N	2341 N	Yes
Deflection	27 - 39 mm	28.6 mm	Yes

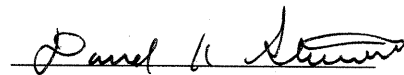
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On; With Arm On.

Technician



Approved



10.10.2003 13:31:20 1071



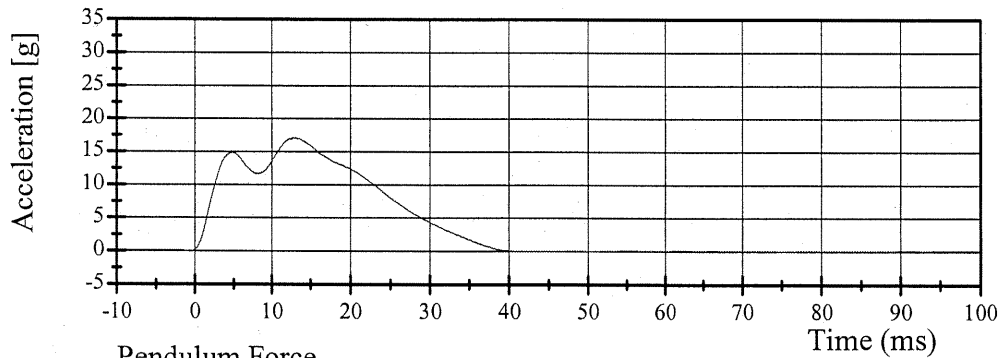
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

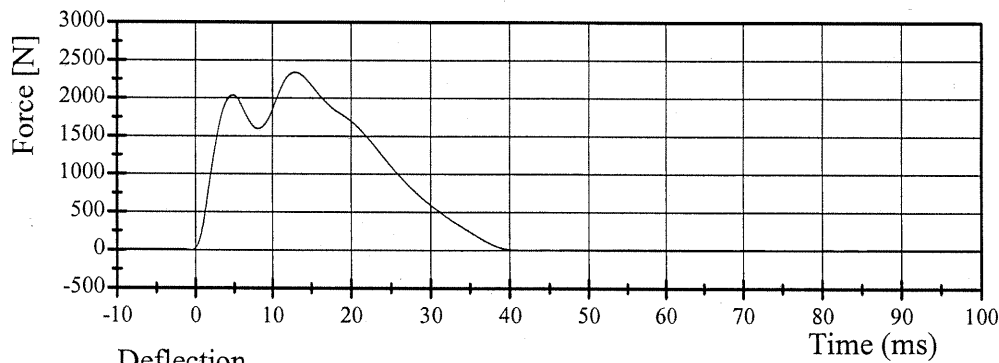


Filter Class: CFC 180

Max: 17.2 g at 13.0 ms

Min: -0.1 g at -85.4 ms

Pendulum Force

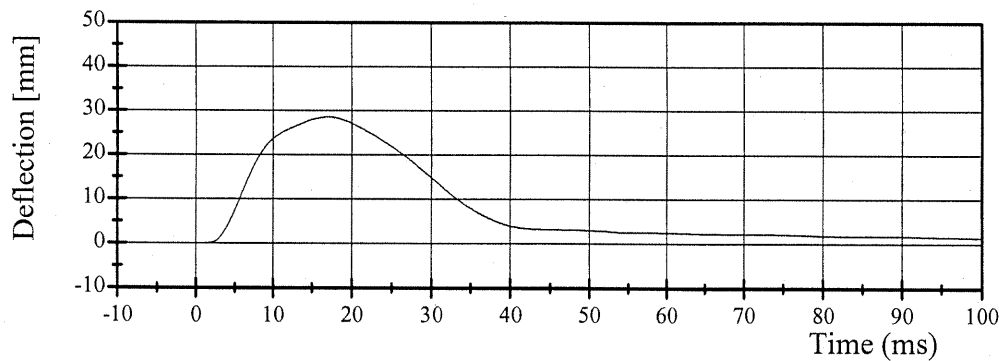


Filter Class: CFC 180

Max: 2341 N at 13.0 ms

Min: -4 N at -85.6 ms

Deflection



Filter Class: CFC 600

Max: 28.6 mm at 17.2 ms

Min: -0.0 mm at -76.1 ms

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

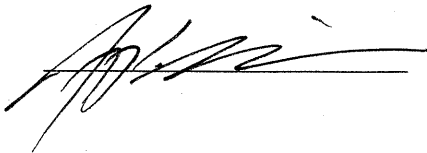
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.44 m/sec	Yes
Probe Force	1600 - 2400 N	2413 N	No
Deflection	27 - 39 mm	29.0 mm	Yes

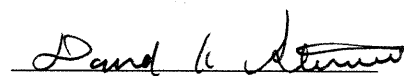
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket; With Arm; With Pants.

Technician



Approved



10.10.2003 14:06:46 1101



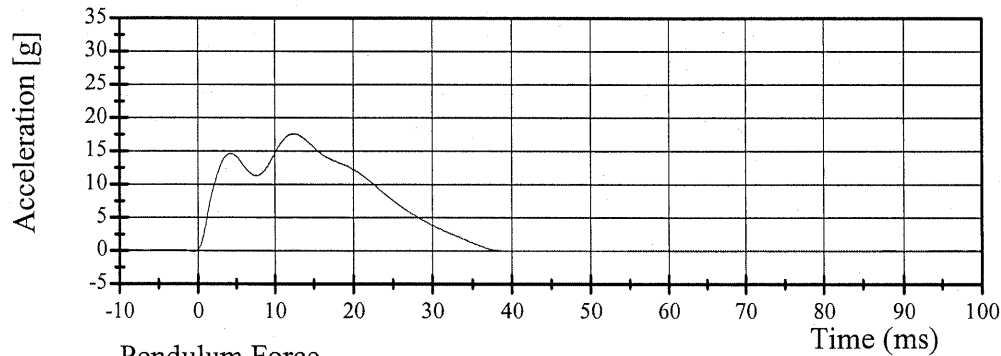
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

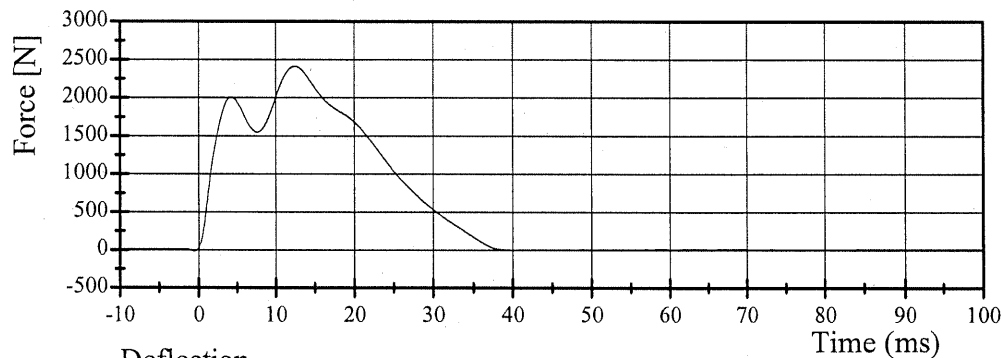


Filter Class: CFC 180

Max: 17.9 g at 12.7 ms

Min: -0.1 g at -86.5 ms

Pendulum Force

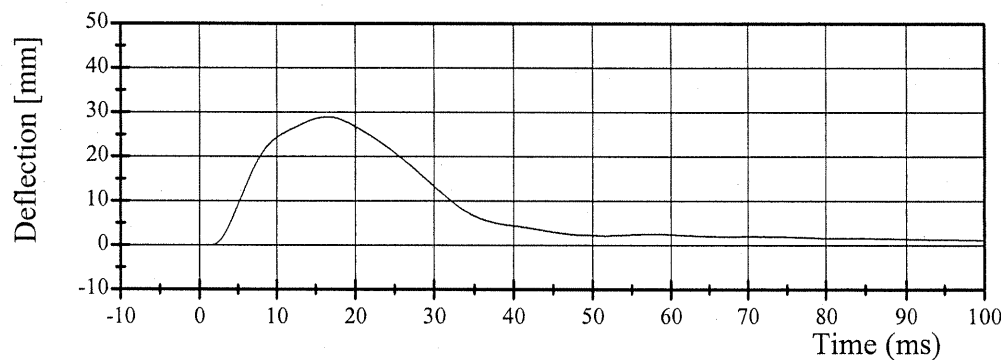


Filter Class: CFC 180

Max: 2413 N at 12.5 ms

Min: -14 N at -0.5 ms

Deflection



Filter Class: CFC 600

Max: 29.0 mm at 16.6 ms

Min: -0.0 mm at -88.0 ms

Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

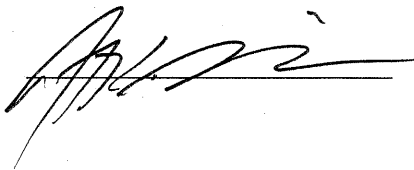
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	4100 - 4700 N	4728 N	No
Upper Spine Peak Acceleration	34 - 48 g	39.3 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	37.0 g	No
Upper Rib Peak Deflection	23 - 35 mm	24.9 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	29.0 mm	No
Lower Rib Peak Deflection	33 - 40 mm	29.2 mm	No
Shoulder Peak Deflectioin	30 - 42 mm	33.1 mm	Yes

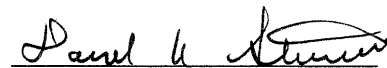
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On, With Pants On;
With Arm.

Technician



Approved



10.10.2003 15:15:28 943

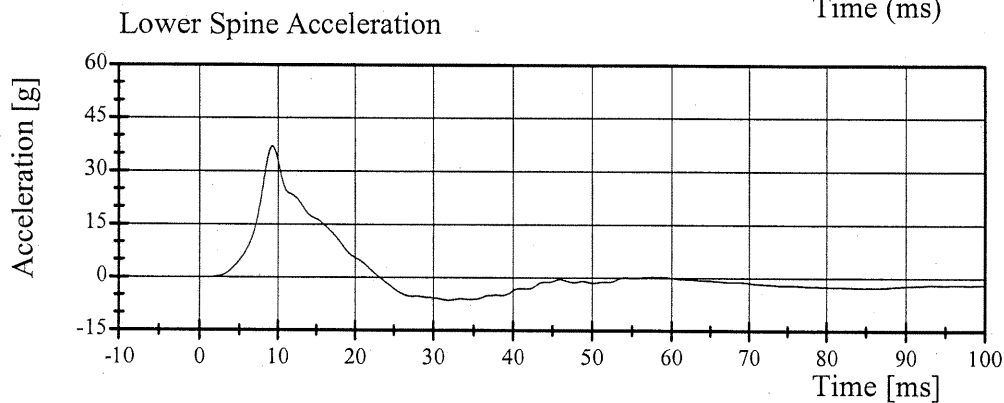
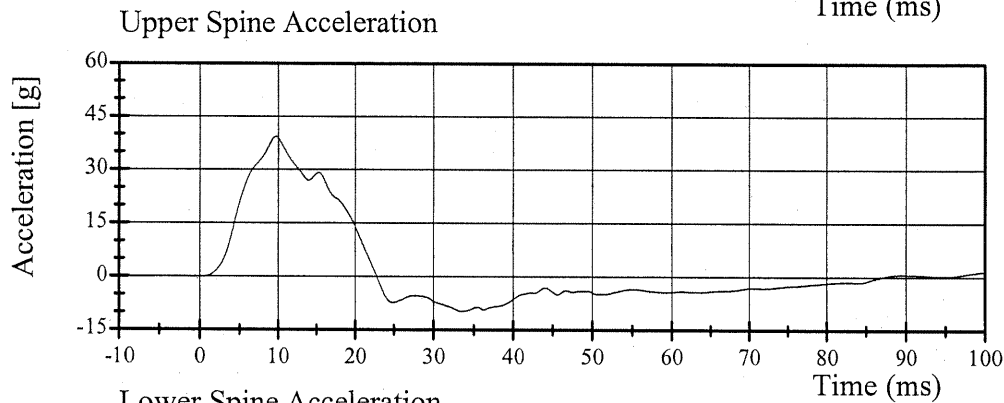
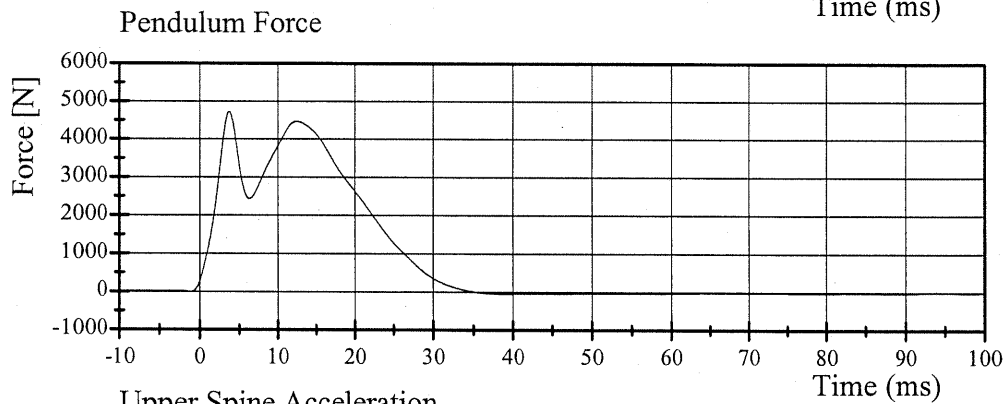
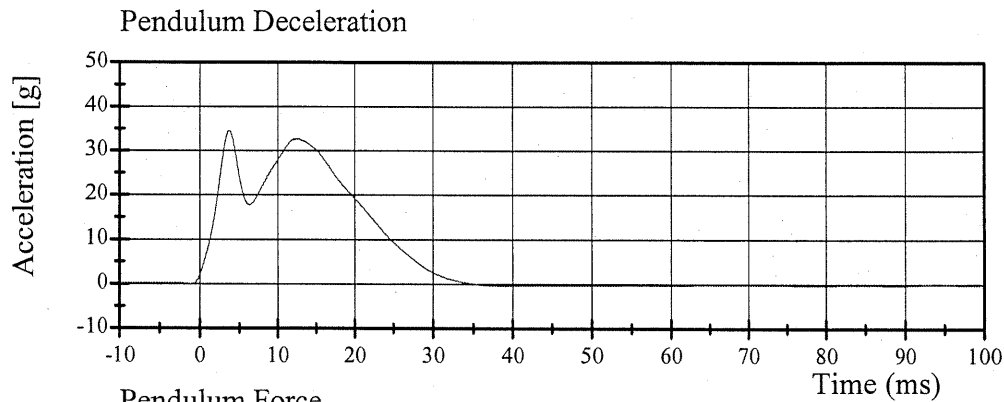


Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/10/2003



10.10.2003 15:15:29 943



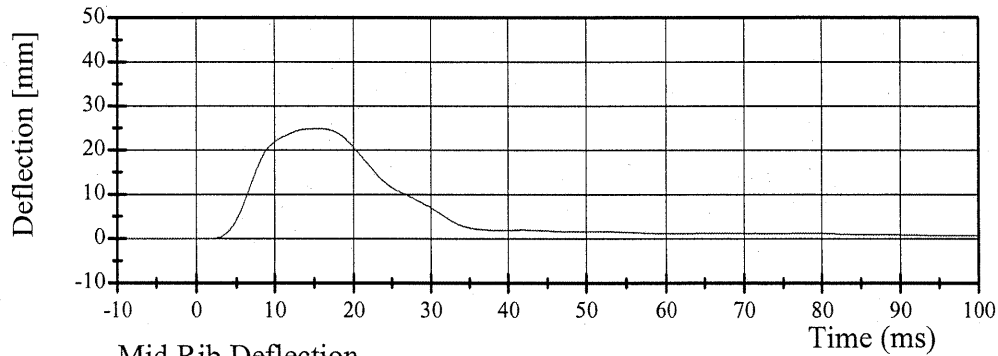
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/10/2003

Upper Rib Deflection

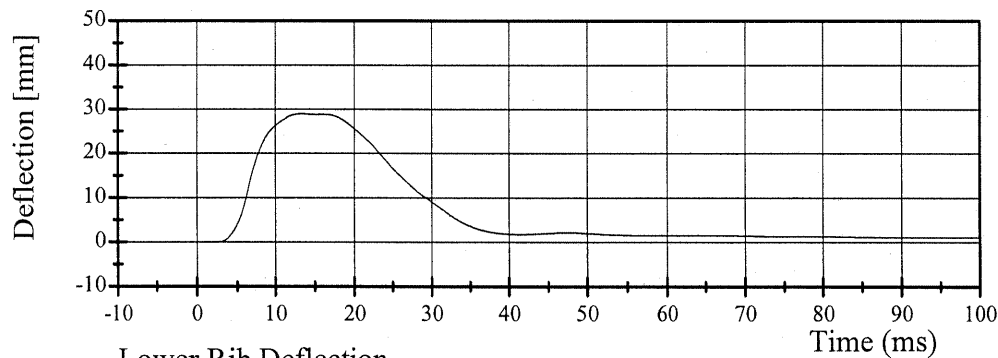


Filter Class: CFC 600

Max: 24.9 mm at 15.6 ms

Min: -0.0 mm at -10.4 ms

Mid Rib Deflection

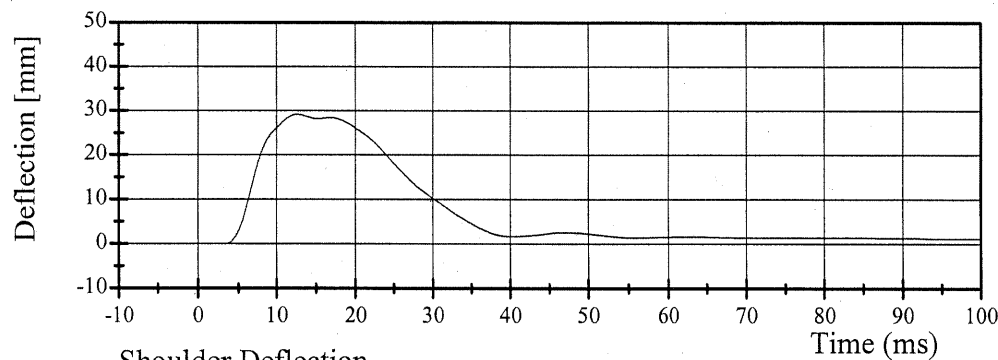


Filter Class: CFC 600

Max: 29.0 mm at 13.3 ms

Min: -0.0 mm at -4.6 ms

Lower Rib Deflection

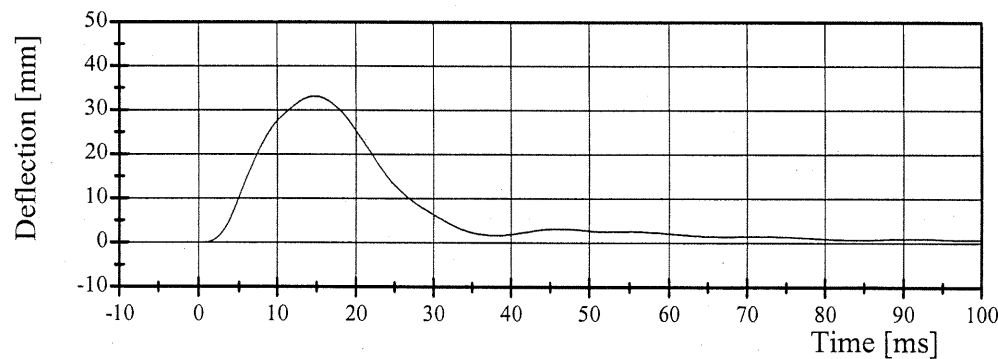


Filter Class: CFC 600

Max: 29.2 mm at 12.6 ms

Min: -0.0 mm at 3.3 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 33.1 mm at 14.9 ms

Min: -0.0 mm at -20.7 ms

10.10.2003 15:15:30 943



Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 020 Calibration No. 02 - 2

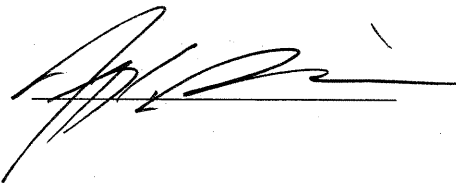
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	58 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	4100 - 4700 N	4674 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	41.7 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	40.8 g	No
Upper Rib Peak Deflection	23 - 35 mm	25.9 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	30.1 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	30.1 mm	No
Shoulder Peak Deflectioin	30 - 42 mm	35.4 mm	Yes

Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On, With Pants On;
With Arm.

Technician



Approved



10.10.2003 15:16:59 943



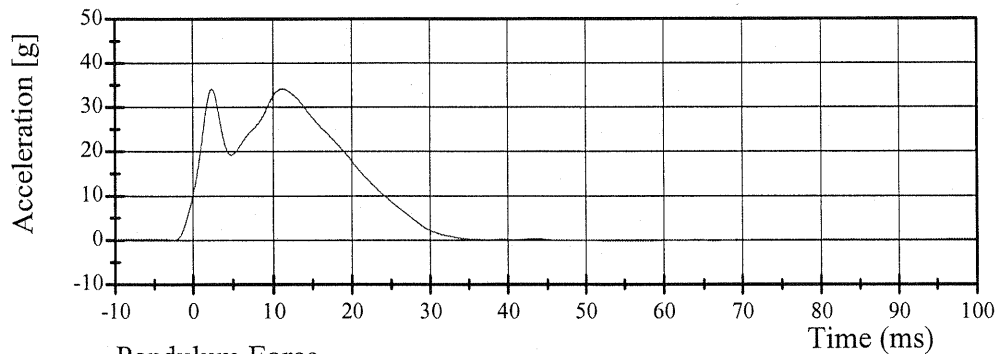
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

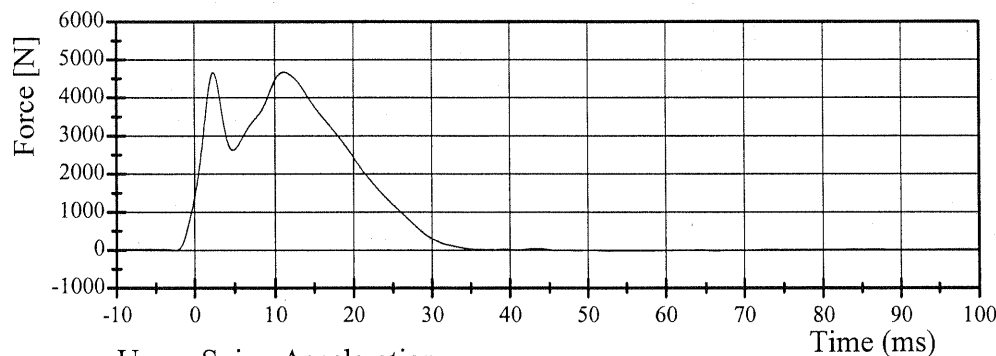


Filter Class: CFC 180

Max: 34.1 g at 11.1 ms

Min: -1.0 g at 272.6 ms

Pendulum Force

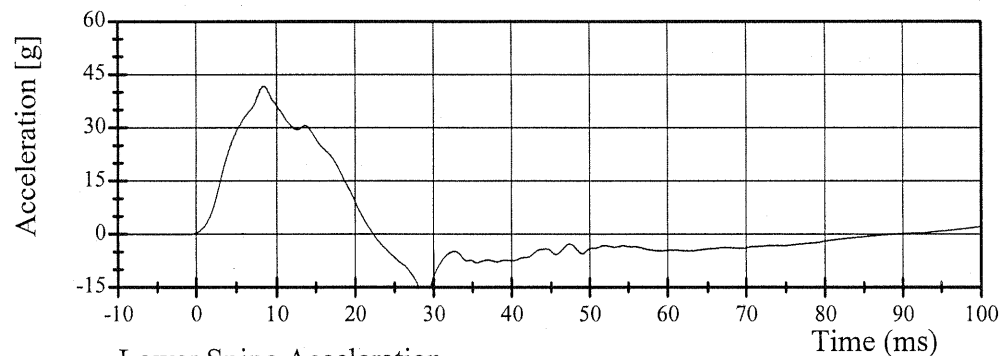


Filter Class: CFC 180

Max: 4674 N at 11.1 ms

Min: -142 N at 272.6 ms

Upper Spine Acceleration

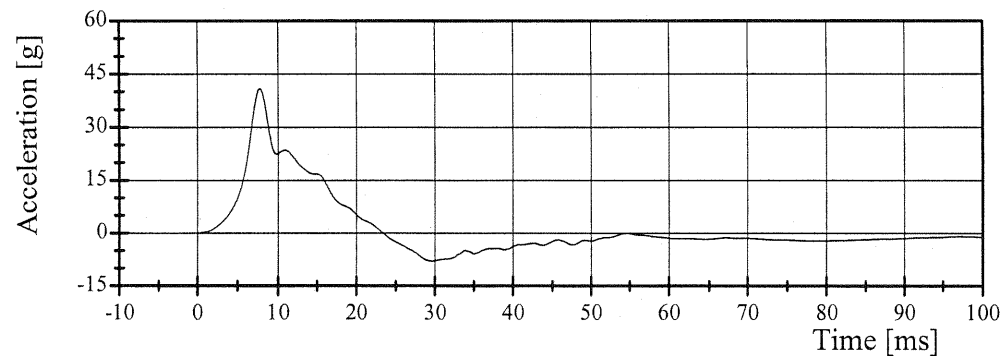


Filter Class: CFC 180

Max: 41.7 g at 8.4 ms

Min: -17.6 g at 28.9 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 40.8 g at 7.8 ms

Min: -7.9 g at 29.6 ms

10.10.2003 15:17:00 943



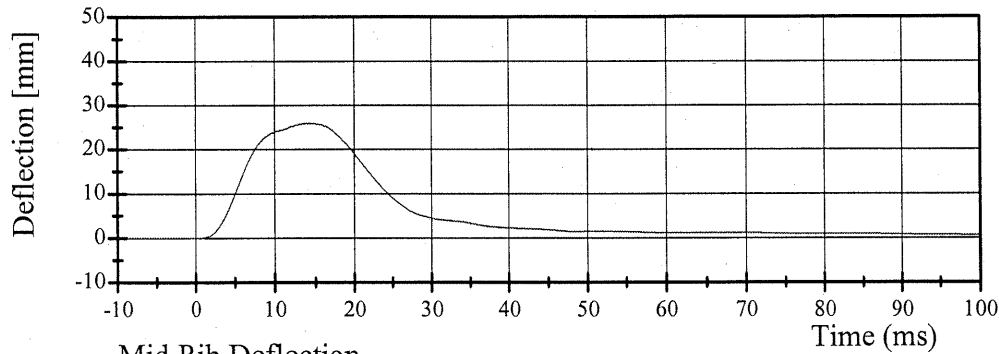
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/10/2003

Upper Rib Deflection

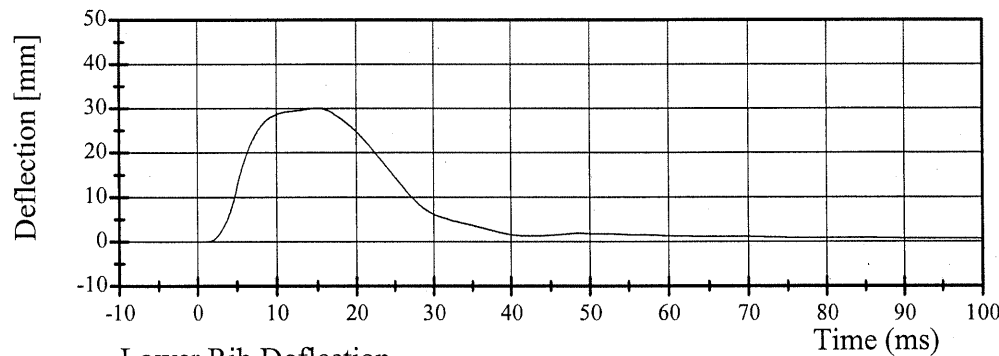


Filter Class: CFC 600

Max: 25.9 mm at 13.9 ms

Min: -0.0 mm at 0.6 ms

Mid Rib Deflection

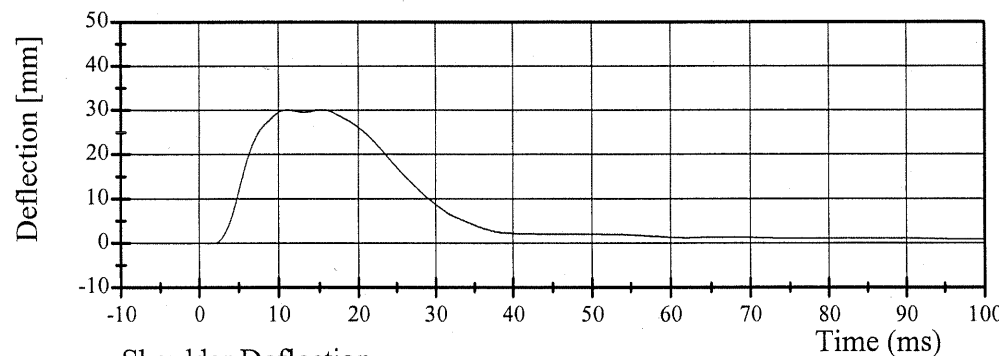


Filter Class: CFC 600

Max: 30.1 mm at 15.1 ms

Min: -0.0 mm at 1.1 ms

Lower Rib Deflection

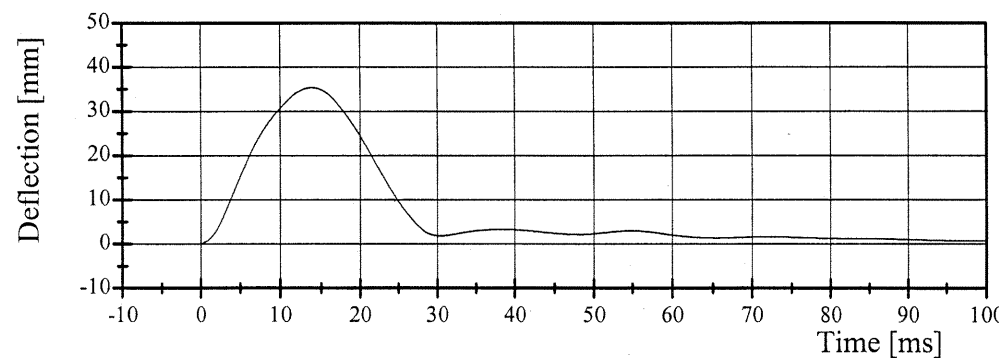


Filter Class: CFC 600

Max: 30.1 mm at 11.0 ms

Min: -0.0 mm at 1.9 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 35.4 mm at 13.9 ms

Min: -0.0 mm at -75.4 ms

10.10.2003 15:17:01 943



Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

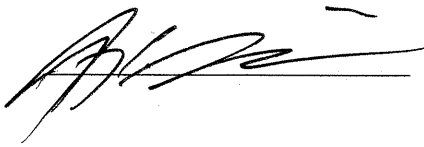
Test Date 10/13/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	36 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.29 m/sec	Yes
Pendulum Force	1800 - 2300 N	2211 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.8 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	9.6 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	38.7 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	42.8 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	36.6 mm	Yes

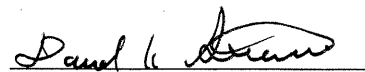
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jack On; With Pants On; Without Arm.

Technician



Approved



10.13.2003 06:04:29 1125



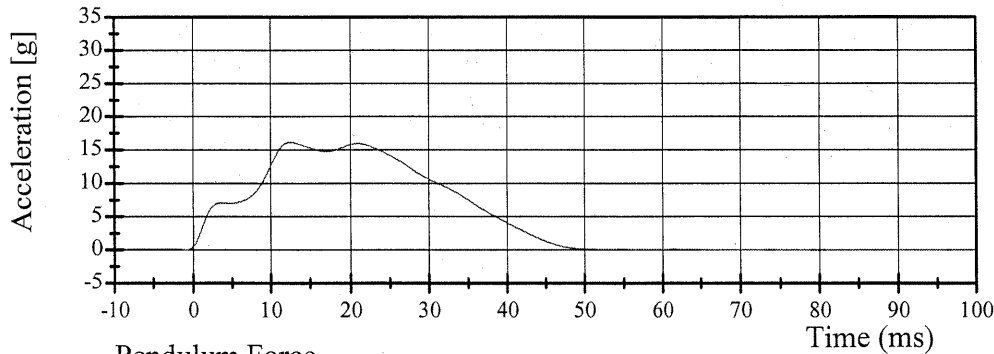
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/13/2003

Pendulum Deceleration

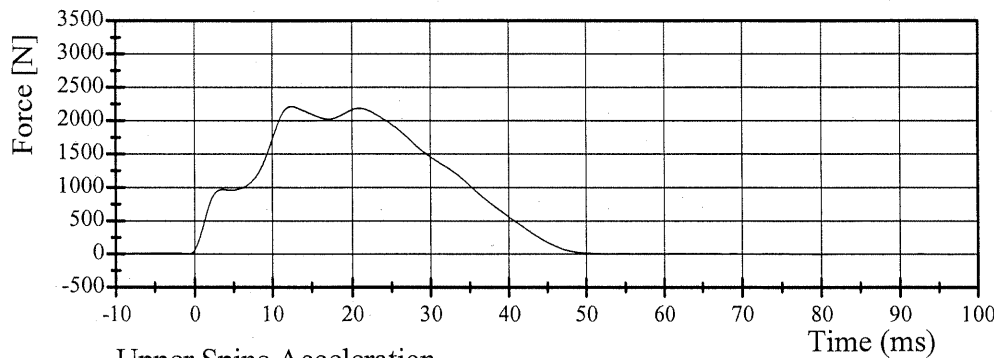


Filter Class: CFC 180

Max: 16.1 g at 12.5 ms

Min: -0.0 g at 136.2 ms

Pendulum Force

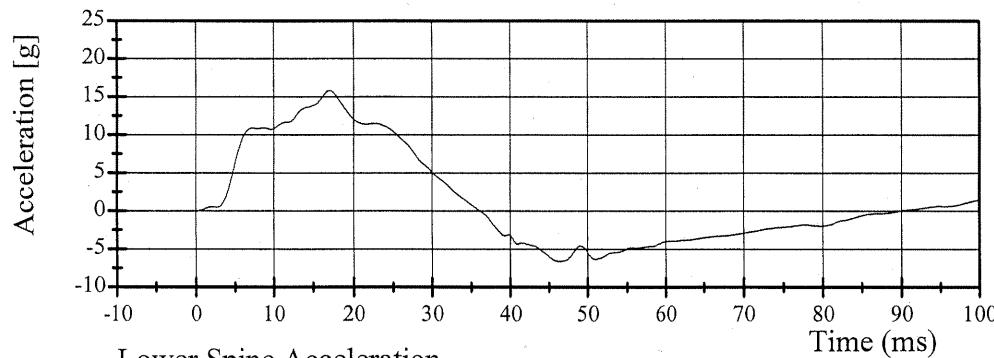


Filter Class: CFC 180

Max: 2211 N at 12.5 ms

Min: -4 N at 136.2 ms

Upper Spine Acceleration

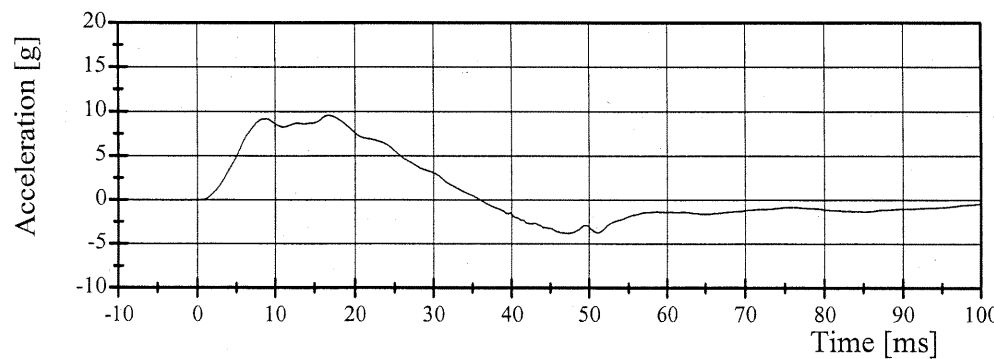


Filter Class: CFC 180

Max: 15.8 g at 17.0 ms

Min: -6.6 g at 46.3 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 9.6 g at 16.8 ms

Min: -6.3 g at 350.5 ms

10.13.2003 06:04:30 1125



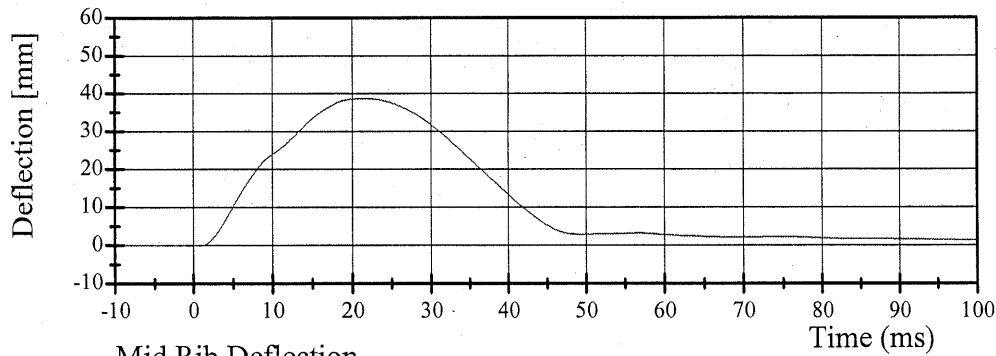
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/13/2003

Upper Rib Deflection

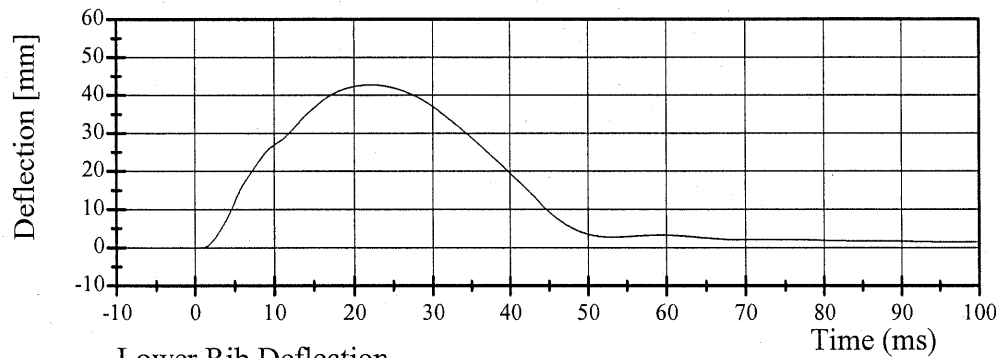


Filter Class: CFC 600

Max: 38.7 mm at 21.4 ms

Min: -0.0 mm at 1.0 ms

Mid Rib Deflection

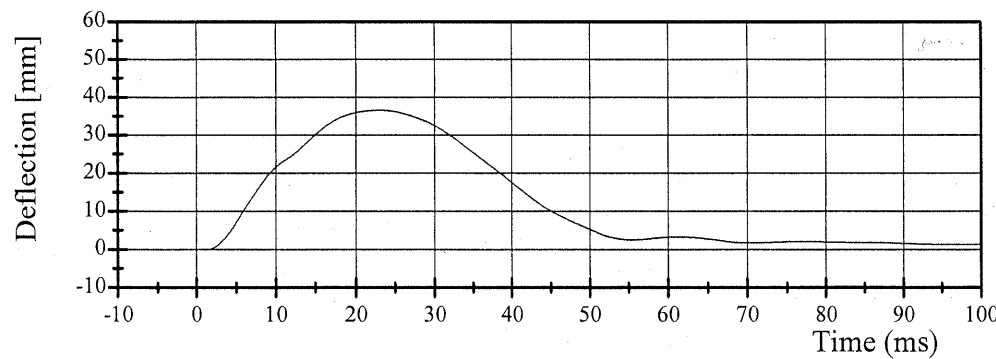


Filter Class: CFC 600

Max: 42.8 mm at 22.1 ms

Min: -0.0 mm at 0.9 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 36.6 mm at 23.1 ms

Min: -0.0 mm at 1.4 ms

10.13.2003 06:04:31 1125



Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/13/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.31 m/sec	Yes
Pendulum Force	1800 - 2300 N	2236 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.7 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	10.0 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	36.9 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	42.7 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	38.9 mm	Yes

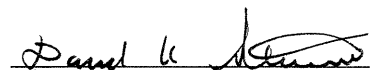
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On; Without Arm On.

Technician



Approved



10.13.2003 06:57:17 1779



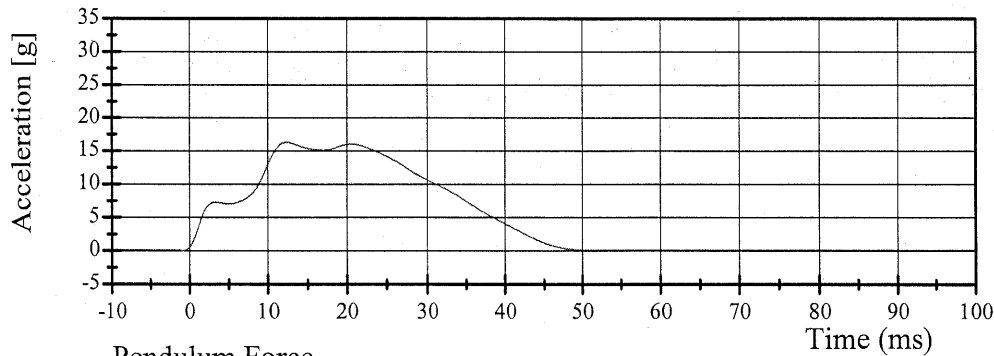
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

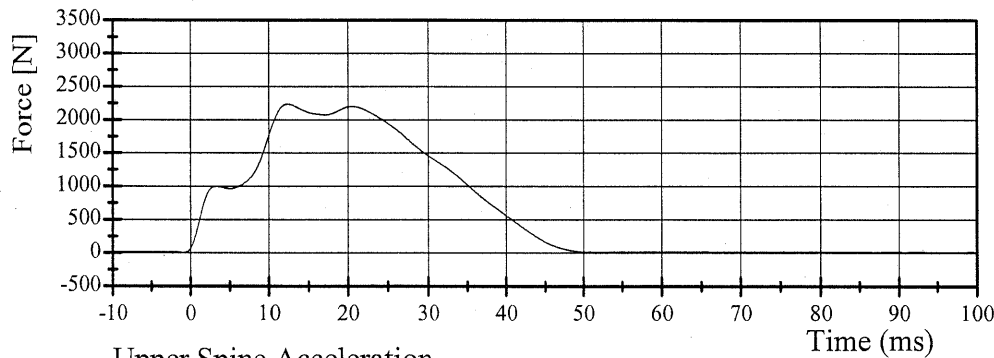
Test Date 10/13/2003

Pendulum Deceleration



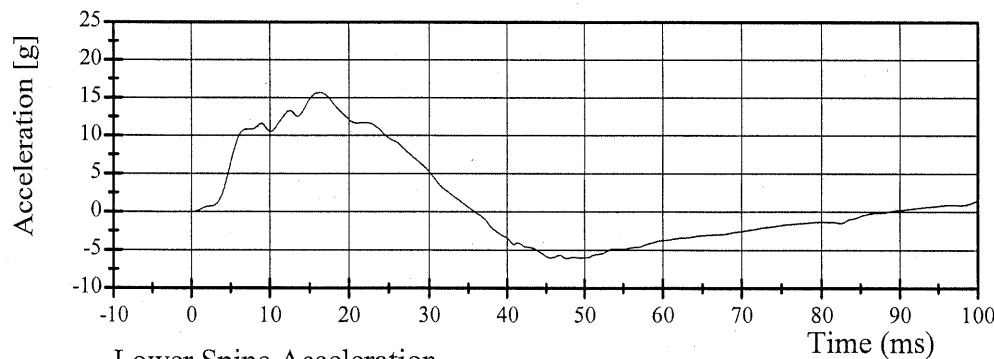
Filter Class: CFC 180
Max: 16.3 g at 12.3 ms
Min: -0.1 g at 158.5 ms

Pendulum Force



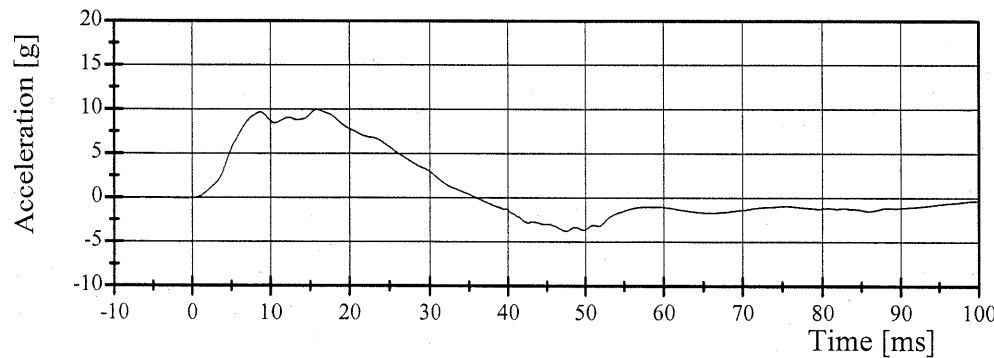
Filter Class: CFC 180
Max: 2236 N at 12.3 ms
Min: -11 N at 158.5 ms

Upper Spine Acceleration



Filter Class: CFC 180
Max: 15.7 g at 16.4 ms
Min: -6.1 g at 47.7 ms

Lower Spine Acceleration



Filter Class: CFC 180
Max: 10.0 g at 15.9 ms
Min: -6.4 g at 377.0 ms

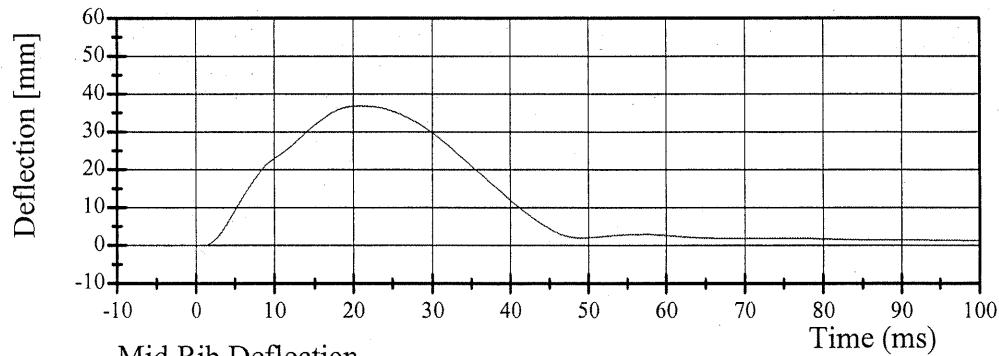
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/13/2003

Upper Rib Deflection

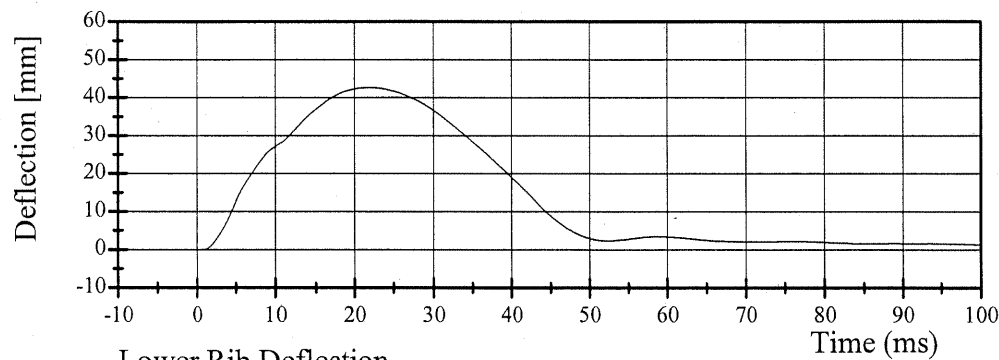


Filter Class: CFC 600

Max: 36.9 mm at 20.9 ms

Min: -0.0 mm at 1.1 ms

Mid Rib Deflection

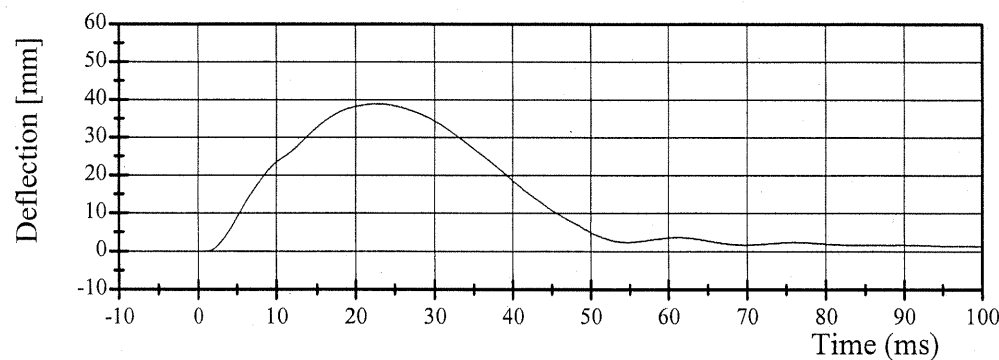


Filter Class: CFC 600

Max: 42.7 mm at 21.8 ms

Min: -0.0 mm at 0.9 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 38.9 mm at 22.8 ms

Min: -0.0 mm at -52.4 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/13/2003

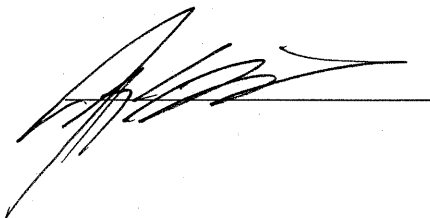
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.48 m/sec	Yes
Pendulum Force	1300 - 1900 N	1836 N	Yes
Upper Spine Peak Acceleration	5 - 9 g	7.1 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	15.2 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	48.3 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	46.9 mm	Yes

Comments:

Test conditions: thorax foam cable-tied in place, with jacket on, with pants on, and without the arm attached.

Test results reported above are the peak values between 0 ms and 100 ms. Data spikes after the time frame of interest may appear as maximum values with the attached plots.

Technician



Approved



11.21.2003 08:37:52 1726



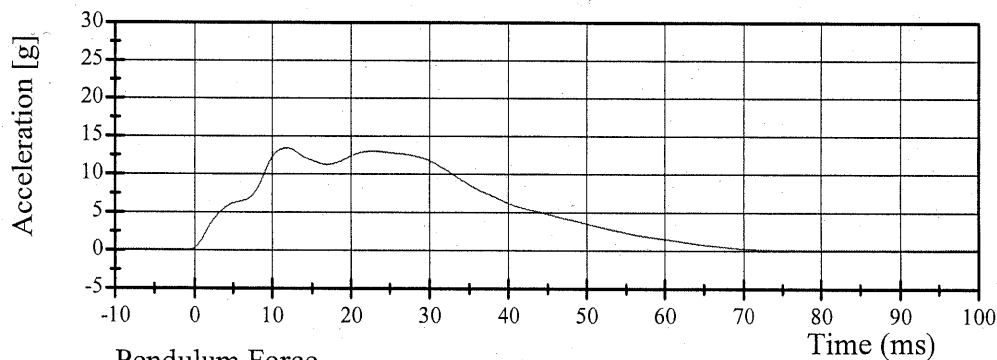
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/13/2003

Pendulum Deceleration

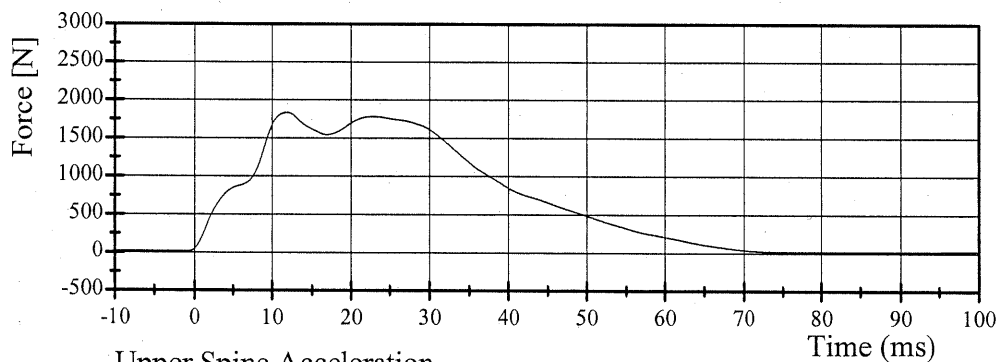


Filter Class: CFC 180

Max: 13.4 g at 11.8 ms

Min: -0.2 g at 149.1 ms

Pendulum Force

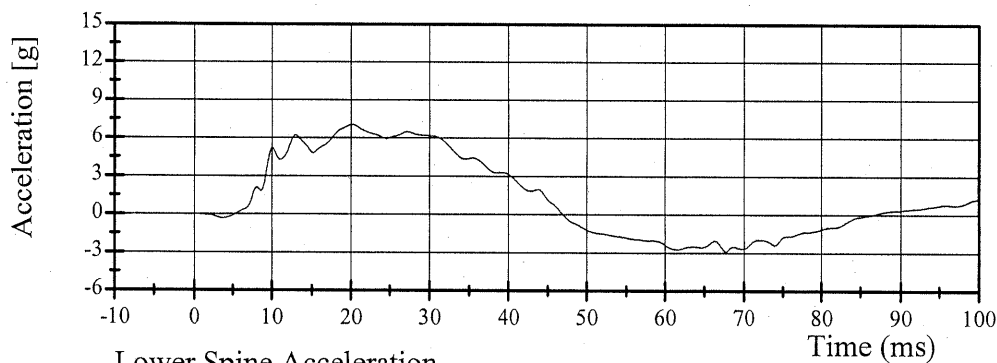


Filter Class: CFC 180

Max: 1836 N at 11.8 ms

Min: -29 N at 149.1 ms

Upper Spine Acceleration

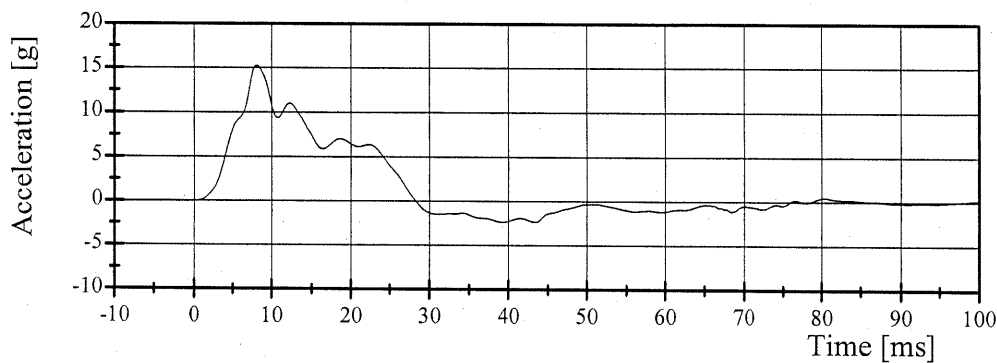


Filter Class: CFC 180

Max: 48.7 g at 571.0 ms

Min: -20.7 g at 573.4 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 15.2 g at 8.1 ms

Min: -5.9 g at 571.0 ms

10.13.2003 07:38:31 1726



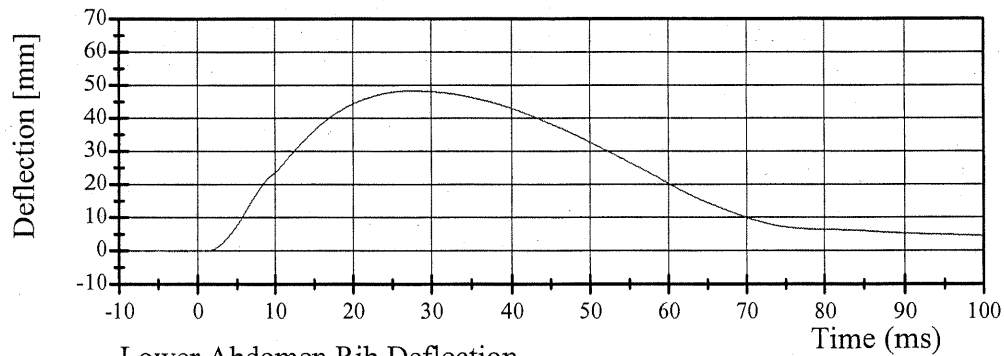
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/13/2003

Upper Abdomen Rib Deflection

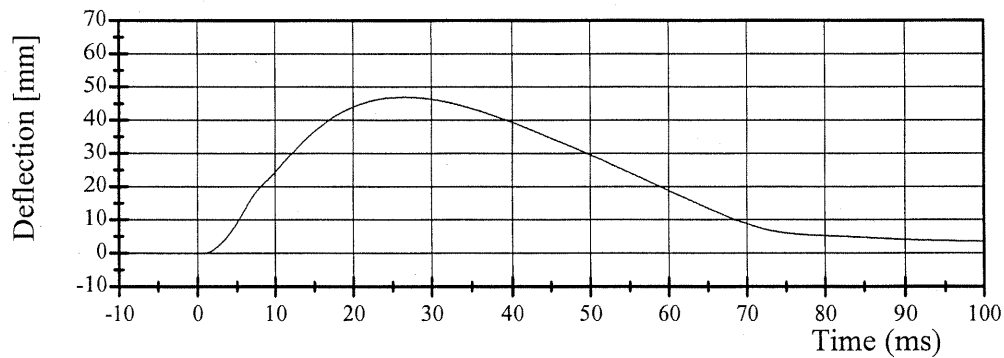


Filter Class: CFC 600

Max: 48.3 mm at 27.3 ms

Min: -0.0 mm at 1.3 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 46.9 mm at 26.4 ms

Min: -0.0 mm at 0.8 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/13/2003

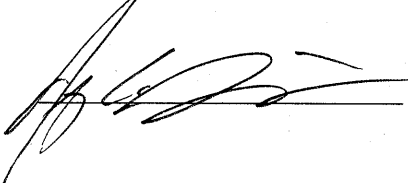
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1706 N	Yes
Upper Spine Peak Acceleration	5 - 9 g	7.0 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	15.0 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	48.1 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	45.3 mm	Yes

Comments:

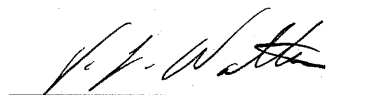
Test conditions: thorax foam cable-tied in place, with jacket on, with pants on, and without the arm attached.

Test results reported above are the peak values between 0 ms and 100 ms. Data spikes after the time frame of interest may appear as maximum values with the attached plots.

Technician



Approved



11.21.2003 08:39:43 1078



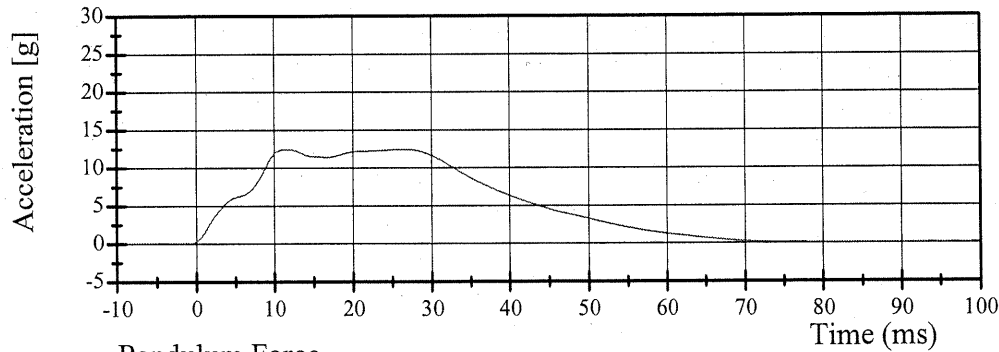
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/13/2003

Pendulum Deceleration

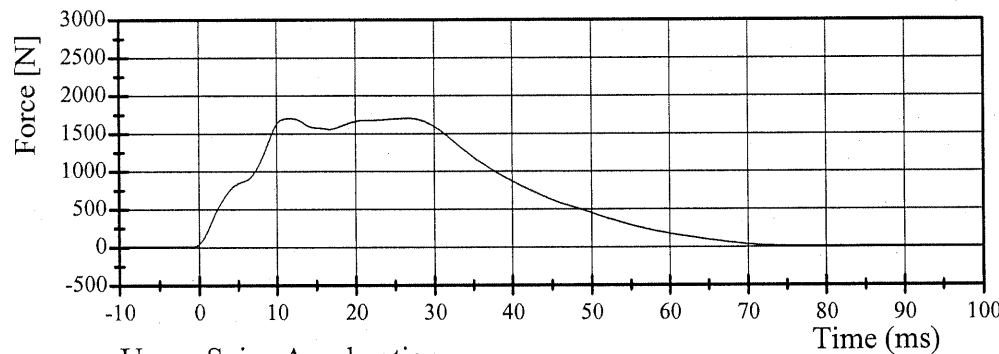


Filter Class: CFC 180

Max: 12.4 g at 26.8 ms

Min: -0.2 g at 151.4 ms

Pendulum Force

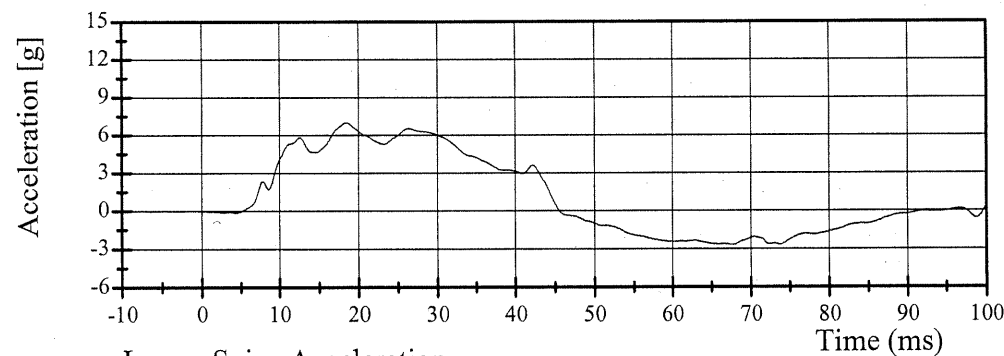


Filter Class: CFC 180

Max: 1706 N at 26.8 ms

Min: -26 N at 151.4 ms

Upper Spine Acceleration

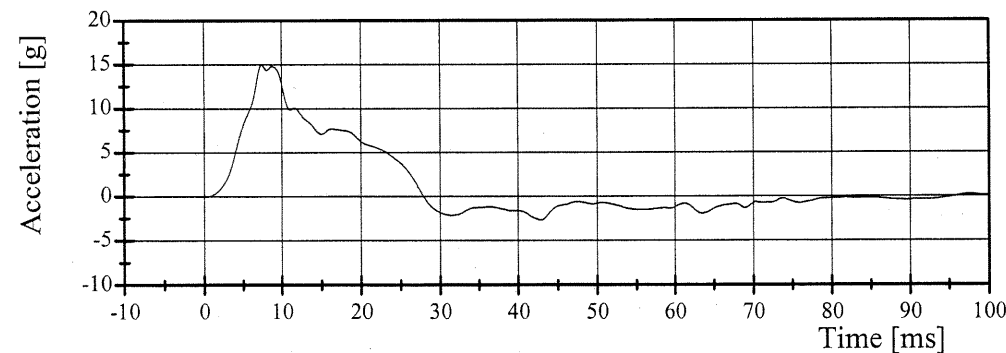


Filter Class: CFC 180

Max: 18.2 g at 892.3 ms

Min: -2.7 g at 73.8 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 15.0 g at 7.4 ms

Min: -2.7 g at 42.9 ms

10.13.2003 08:10:02 1078



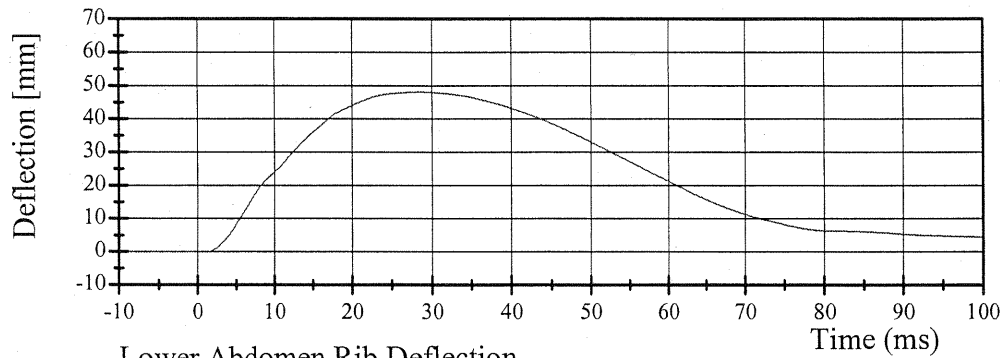
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

Test Date 10/13/2003

Upper Abdomen Rib Deflection

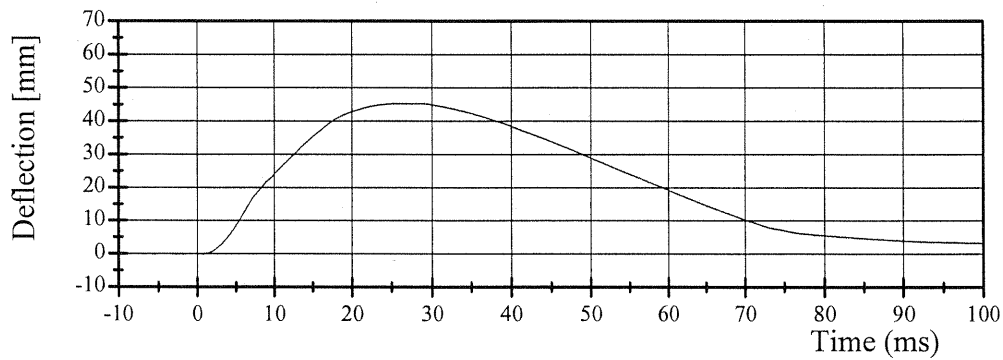


Filter Class: CFC 600

Max: 48.1 mm at 28.4 ms

Min: -0.0 mm at 1.4 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 45.3 mm at 26.6 ms

Min: -0.0 mm at 0.8 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

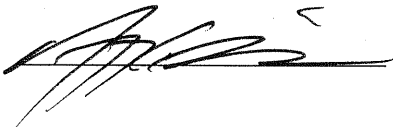
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	5795 N	Yes
Pelvis Peak Acceleration	46 - 60 g	47.7 g	Yes

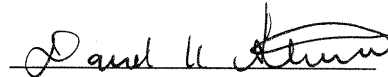
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; Without Jacket; Without Arm; Without Pants.

Technician



Approved



10.10.2003 13:51:07 885



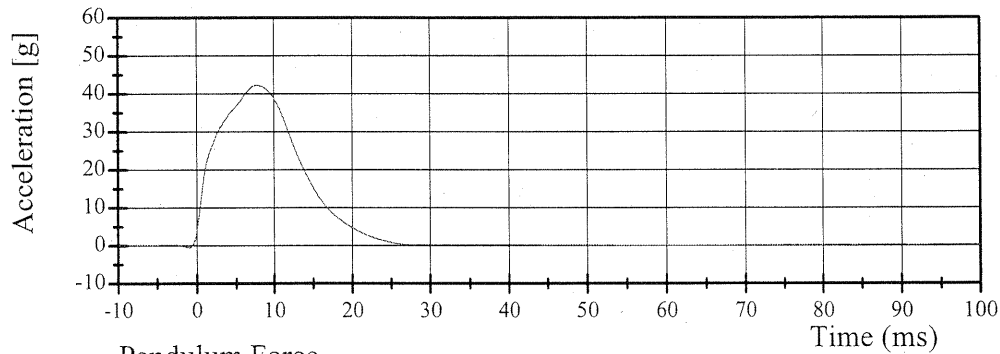
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

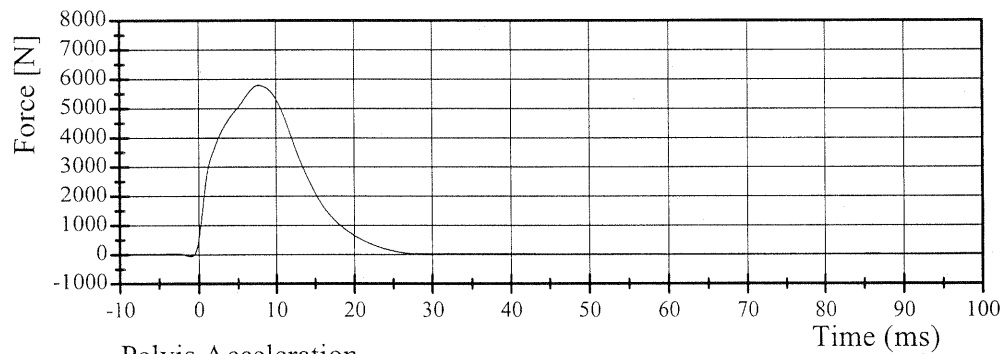


Filter Class: CFC 180

Max: 44.2 g at 7.8 ms

Min: -0.2 g at 28.2 ms

Pendulum Force

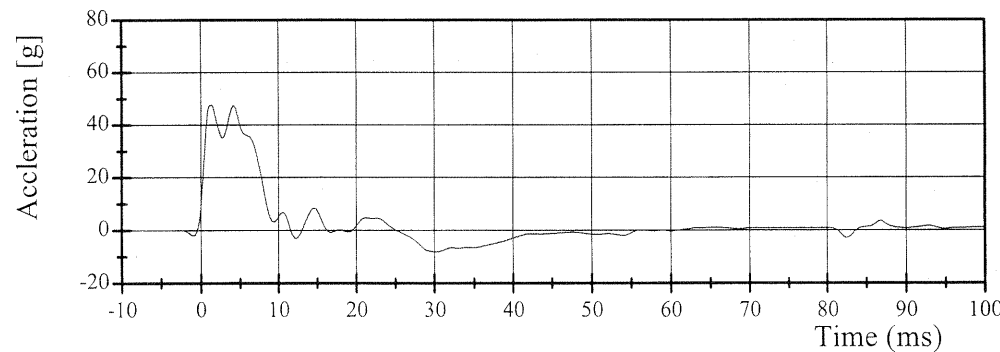


Filter Class: CFC 180

Max: 5795 N at 7.8 ms

Min: -71 N at -1.0 ms

Pelvis Acceleration



Filter Class: CFC 180

Max: 47.7 g at 1.4 ms

Min: -8.2 g at 30.2 ms

11.17.2003 13:37:00 885



Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 02 - 2

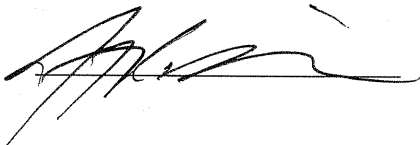
Test Date 10/13/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.58 m/sec	Yes
Pendulum Force	5000 - 7200 N	5783 N	Yes
Pelvis Peak Acceleration	46 - 60 g	60.6 g	No

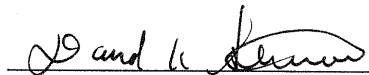
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; Without Jacket On; Without Pants On; Without Arm On.

Technician



Approved



10.13.2003 06:10:27 936



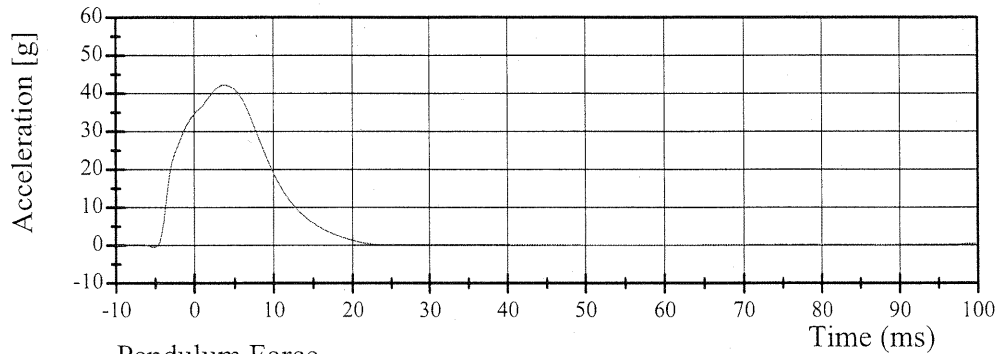
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

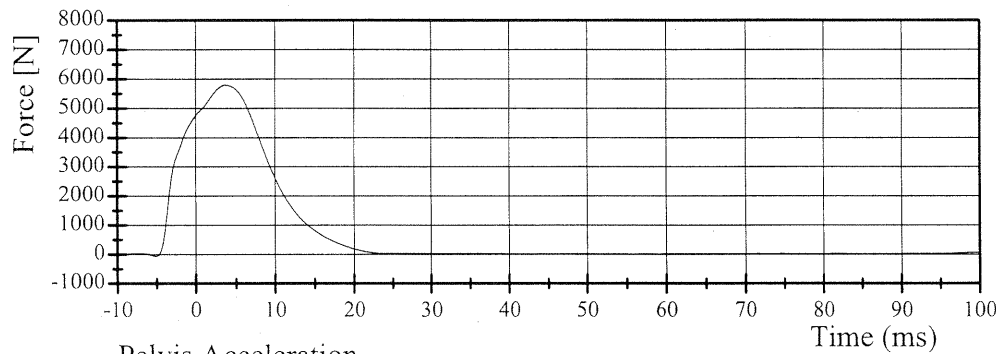


Filter Class: CFC 180

Max: 44.2 g at 3.8 ms

Min: -0.2 g at 24.2 ms

Pendulum Force

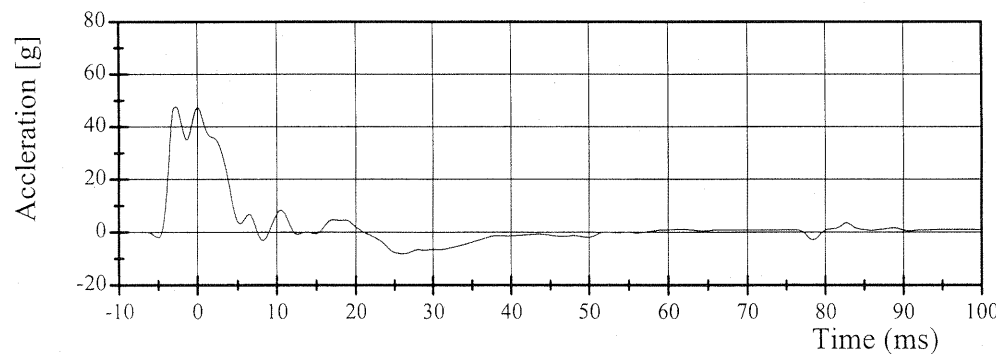


Filter Class: CFC 180

Max: 5795 N at 3.7 ms

Min: -71 N at -5.0 ms

Pelvis Acceleration



Filter Class: CFC 180

Max: 47.7 g at -2.7 ms

Min: -8.2 g at 26.2 ms



Post-Test Dummy Configuration and Performance Verification Data

Passenger Dummy S/N: 033

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

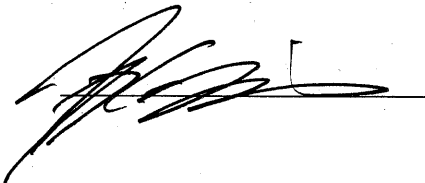
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.46 m/sec	Yes
Probe Force	1600 - 2400 N	2350 N	Yes
Deflection	27 - 39 mm	33.3 mm	Yes

Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Arm On; With Pants On.

Technician



Approved



10.10.2003 08:00:37 1102



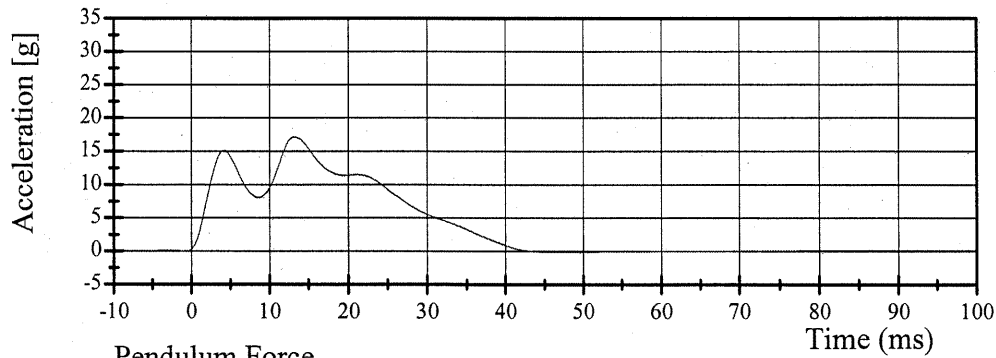
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

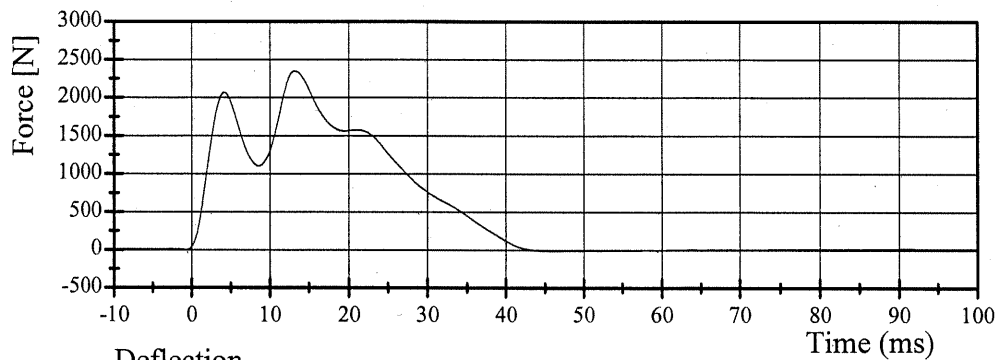


Filter Class: CFC 180

Max: 17.2 g at 13.2 ms

Min: -0.2 g at 46.1 ms

Pendulum Force

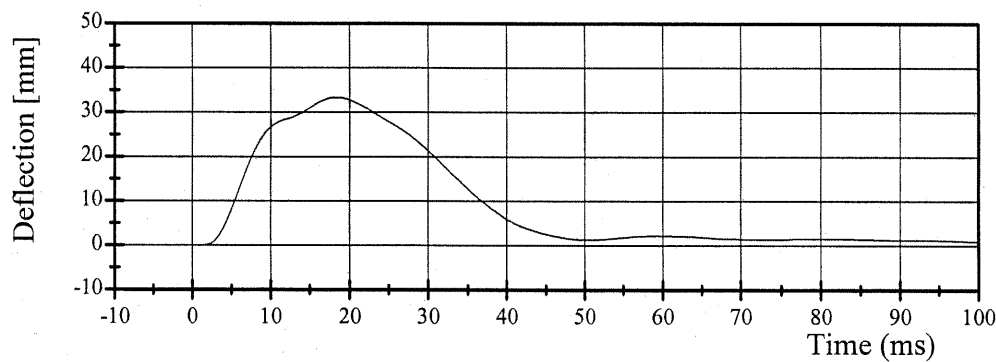


Filter Class: CFC 180

Max: 2350 N at 13.3 ms

Min: -14 N at 46.2 ms

Deflection



Filter Class: CFC 600

Max: 33.3 mm at 18.3 ms

Min: -0.0 mm at -13.7 ms

Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

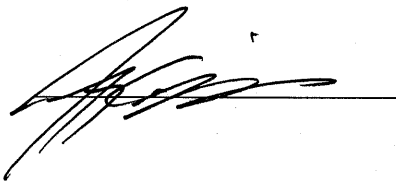
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	62 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.46 m/sec	Yes
Probe Force	1600 - 2400 N	2351 N	Yes
Deflection	27 - 39 mm	34.6 mm	Yes

Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On; With Arm.

Technician



Approved



10.10.2003 10:21:53 1119



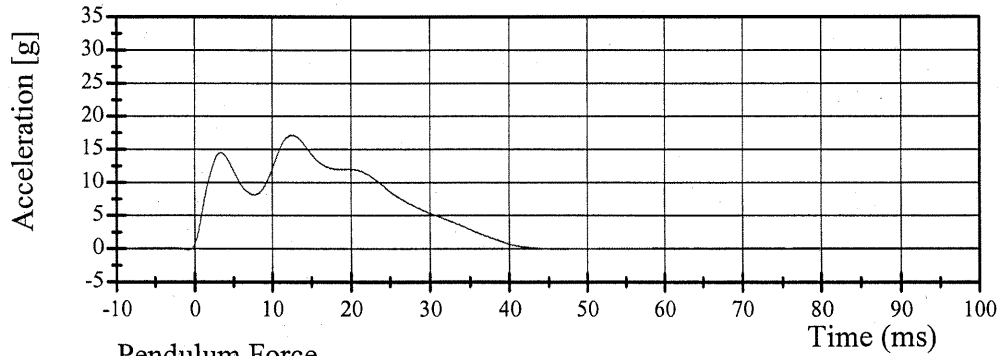
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

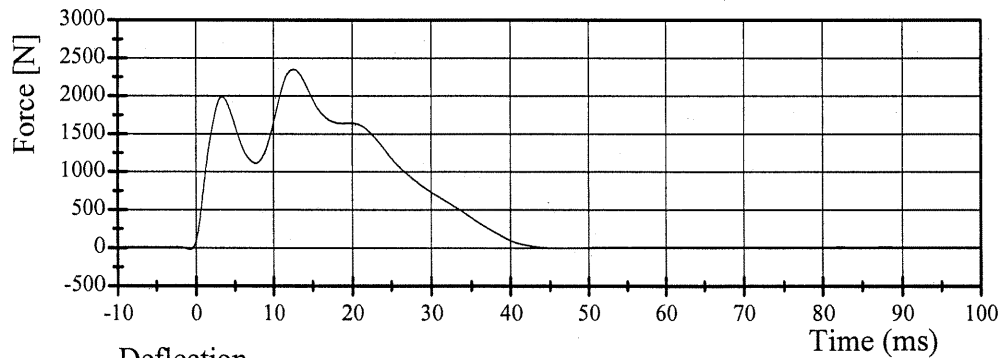


Filter Class: CFC 180

Max: 17.2 g at 12.7 ms

Min: -0.1 g at -88.4 ms

Pendulum Force

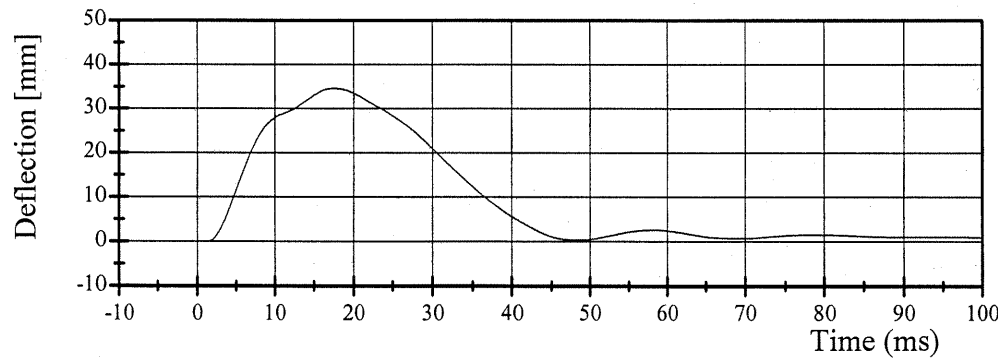


Filter Class: CFC 180

Max: 2351 N at 12.6 ms

Min: -17 N at -0.8 ms

Deflection



Filter Class: CFC 600

Max: 34.6 mm at 17.5 ms

Min: -0.0 mm at 694.7 ms

Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/09/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.29 m/sec	Yes
Pendulum Force	1800 - 2300 N	2426 N	No
Upper Spine Peak Acceleration	13 - 18 g	16.3 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	13.0 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	30.1 mm	No
Mid Rib Peak Deflection	40 - 51 mm	41.5 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	39.1 mm	Yes

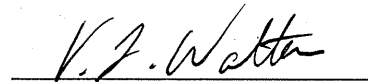
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On; Without The Arm.

Technician



Approved



10.10.2003 07:03:54 1145



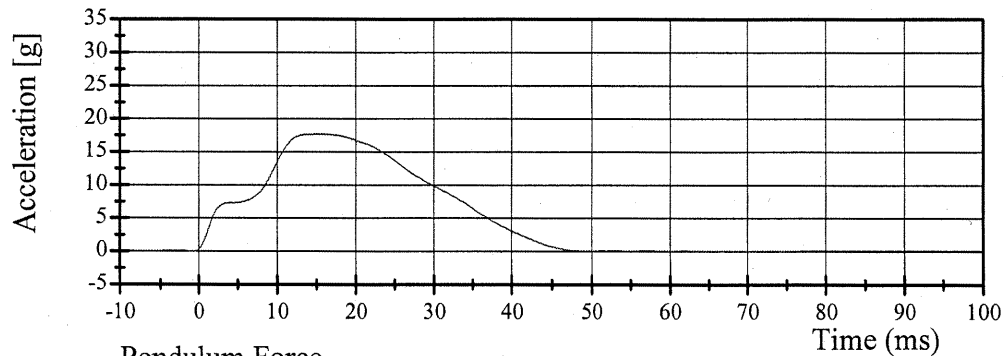
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/09/2003

Pendulum Deceleration

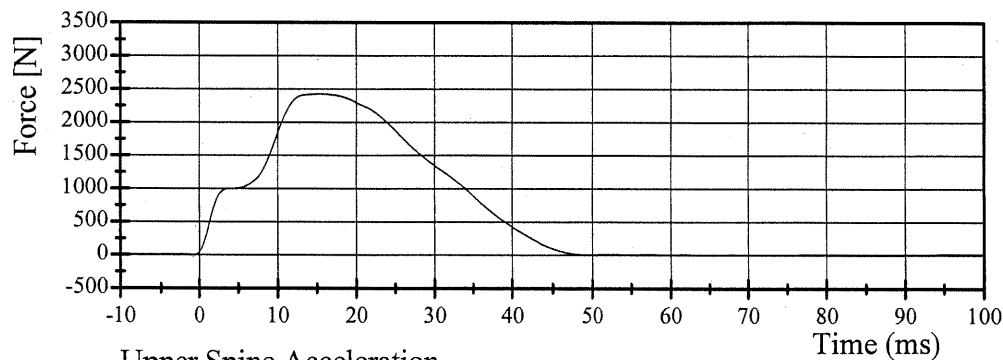


Filter Class: CFC 180

Max: 17.7 g at 15.3 ms

Min: -0.1 g at 145.4 ms

Pendulum Force

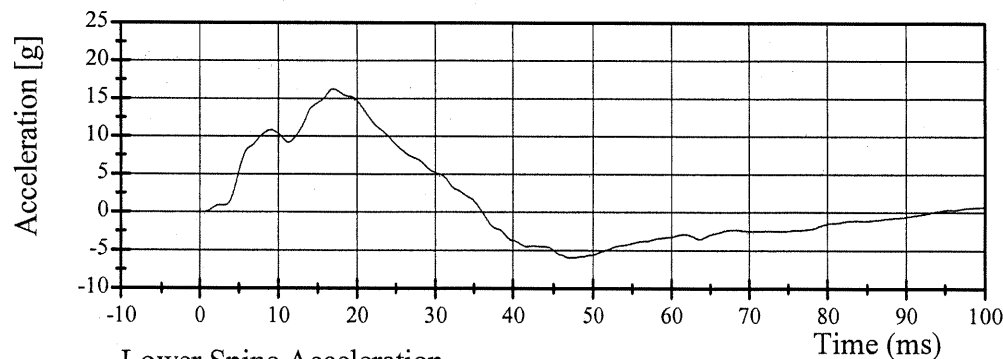


Filter Class: CFC 180

Max: 2426 N at 15.3 ms

Min: -18 N at 145.4 ms

Upper Spine Acceleration

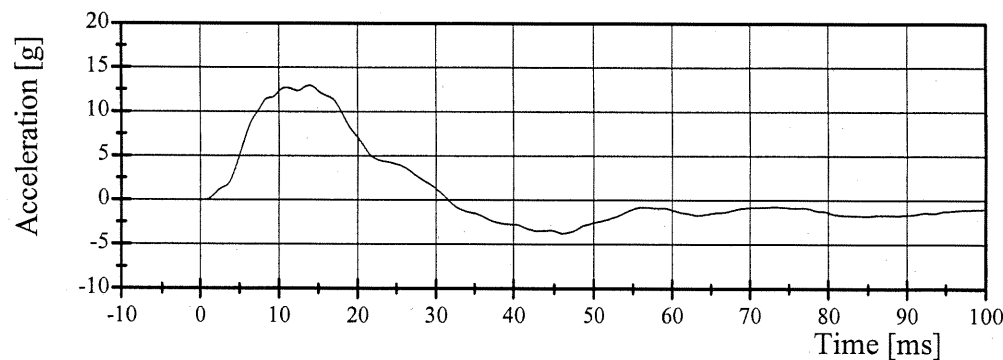


Filter Class: CFC 180

Max: 16.3 g at 16.9 ms

Min: -6.0 g at 47.0 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 13.0 g at 13.9 ms

Min: -3.8 g at 46.0 ms

10.09.2003 15:01:23 1145



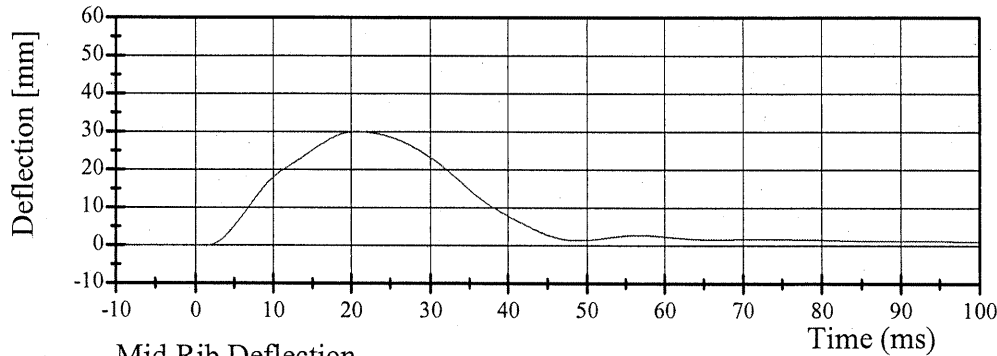
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/09/2003

Upper Rib Deflection

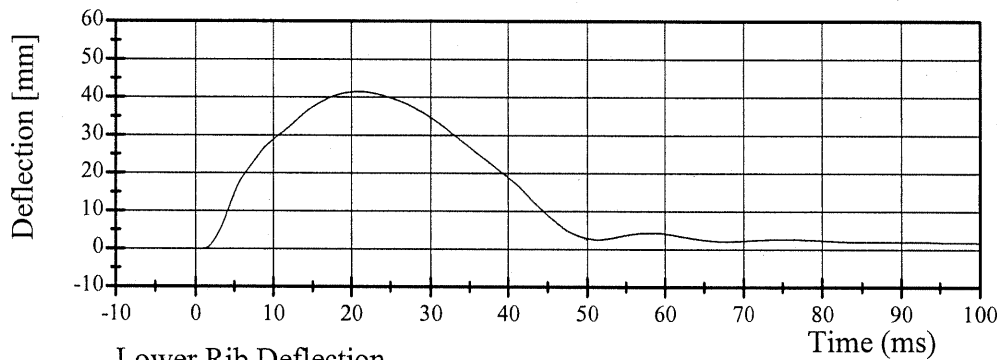


Filter Class: CFC 600

Max: 30.1 mm at 20.9 ms

Min: -0.0 mm at 1.4 ms

Mid Rib Deflection

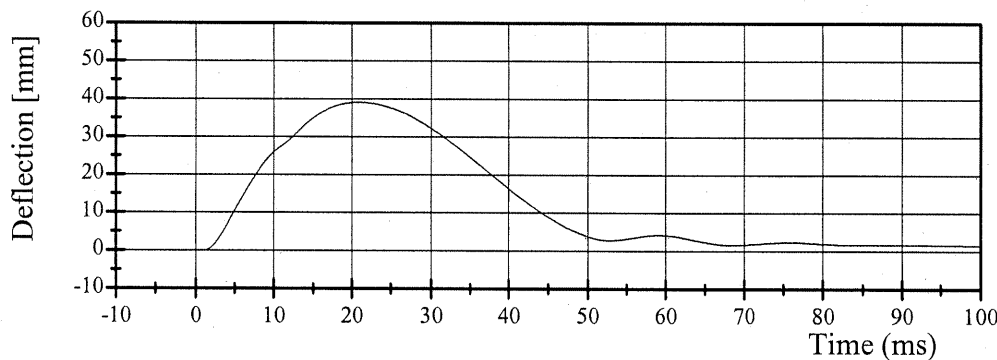


Filter Class: CFC 600

Max: 41.5 mm at 20.6 ms

Min: -0.0 mm at 1.0 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 39.1 mm at 20.8 ms

Min: -0.0 mm at 1.0 ms

Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.7 C	Yes
Relative Humidity	10 - 70 %	62 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.29 m/sec	Yes
Pendulum Force	1800 - 2300 N	2409 N	No
Upper Spine Peak Acceleration	13 - 18 g	16.7 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	13.4 g	No
Upper Rib Peak Deflection	32 - 41 mm	31.2 mm	No
Mid Rib Peak Deflection	40 - 51 mm	42.0 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	39.5 mm	Yes

Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On; Without The Arm.

Technician



Approved



10.10.2003 07:03:33 1124



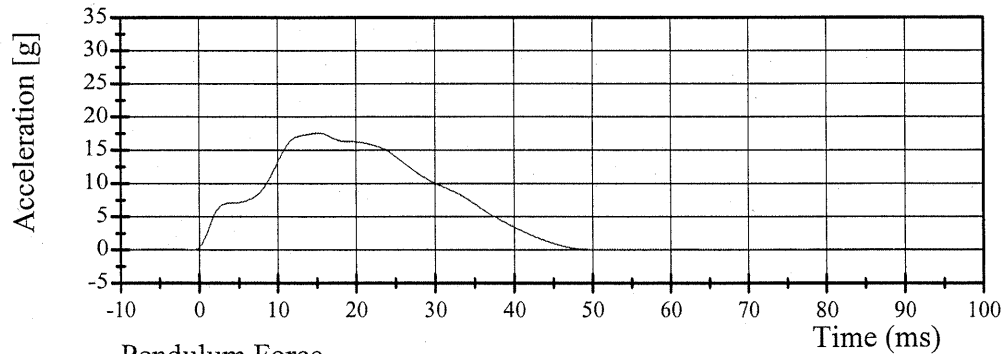
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-II's Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

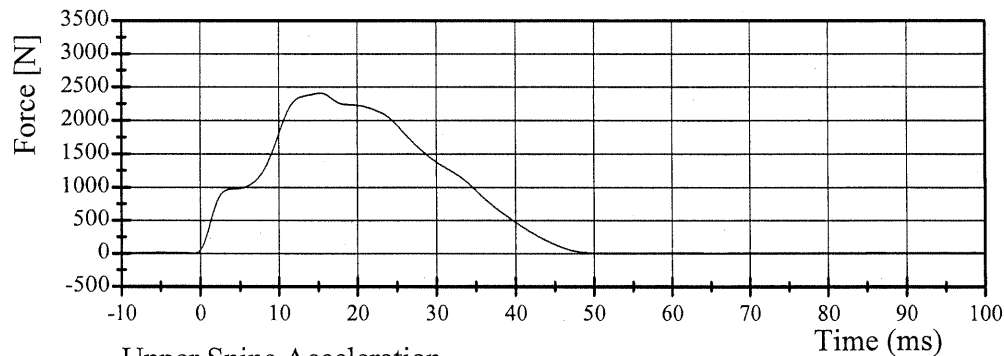


Filter Class: CFC 180

Max: 17.6 g at 15.3 ms

Min: -0.3 g at 147.4 ms

Pendulum Force

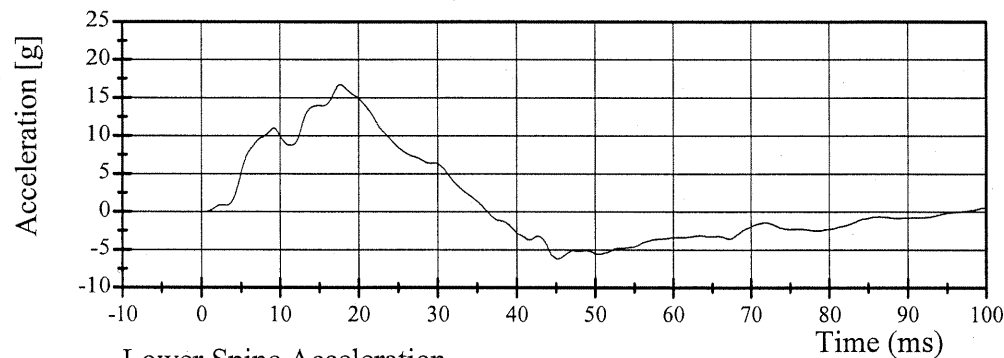


Filter Class: CFC 180

Max: 2409 N at 15.3 ms

Min: -34 N at 147.4 ms

Upper Spine Acceleration

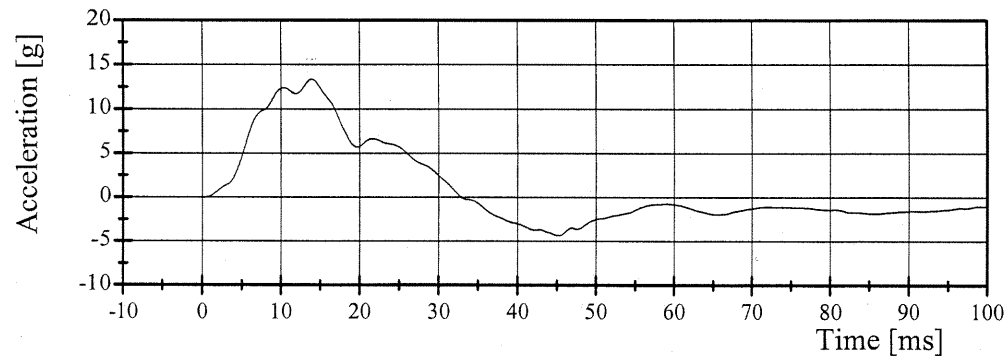


Filter Class: CFC 180

Max: 16.7 g at 17.7 ms

Min: -6.2 g at 45.2 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 13.4 g at 13.9 ms

Min: -4.3 g at 45.1 ms

10.10.2003 05:47:30 1124



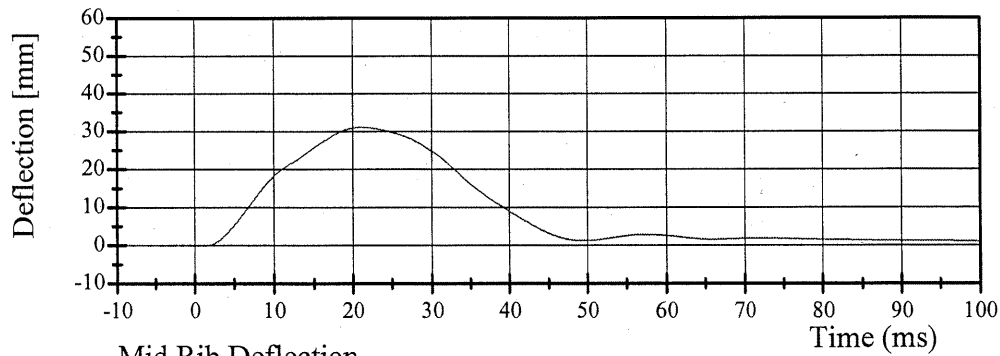
Transportation Research Center Inc.

Left Thorax Without Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

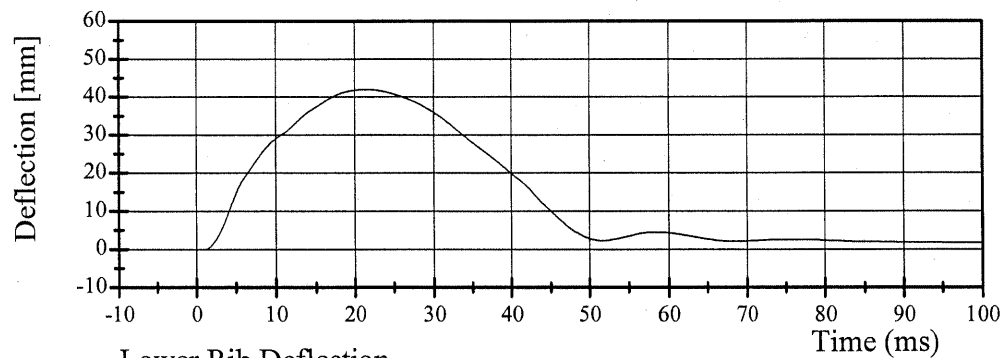
Test Date 10/10/2003

Upper Rib Deflection



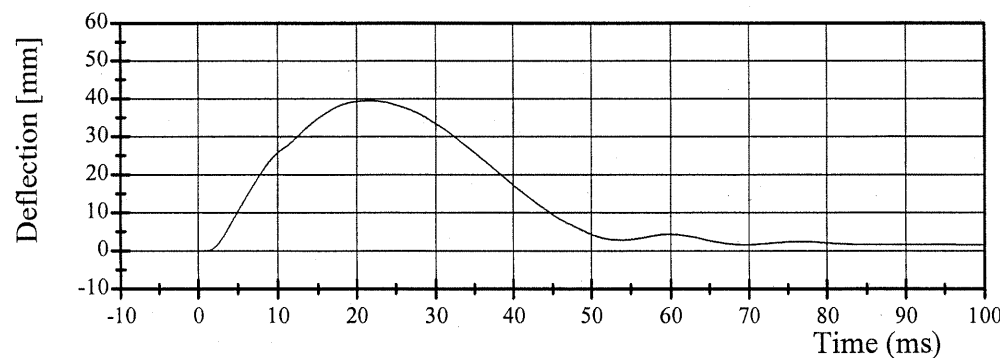
Filter Class: CFC 600
Max: 31.2 mm at 21.1 ms
Min: -0.0 mm at 1.4 ms

Mid Rib Deflection



Filter Class: CFC 600
Max: 42.0 mm at 21.7 ms
Min: -0.0 mm at 1.0 ms

Lower Rib Deflection



Filter Class: CFC 600
Max: 39.5 mm at 21.5 ms
Min: -0.0 mm at -31.8 ms

Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

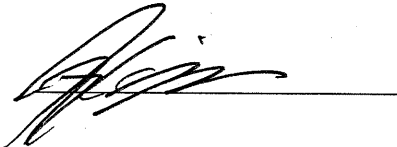
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.58 m/sec	Yes
Pendulum Force	4100 - 4700 N	4662 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	40.7 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	33.0 g	Yes
Upper Rib Peak Deflection	23 - 35 mm	27.0 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	36.1 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	37.3 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	31.4 mm	Yes

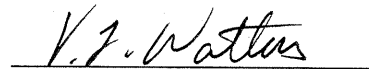
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On;
With The Arm On.

Technician



Approved



10.10.2003 07:02:01 948



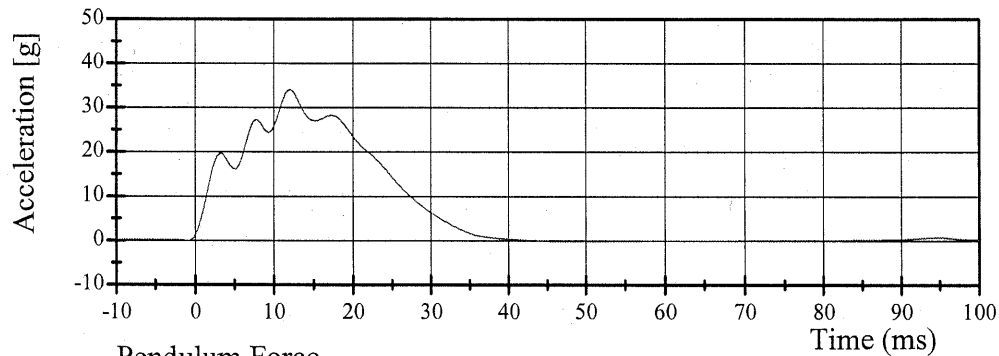
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

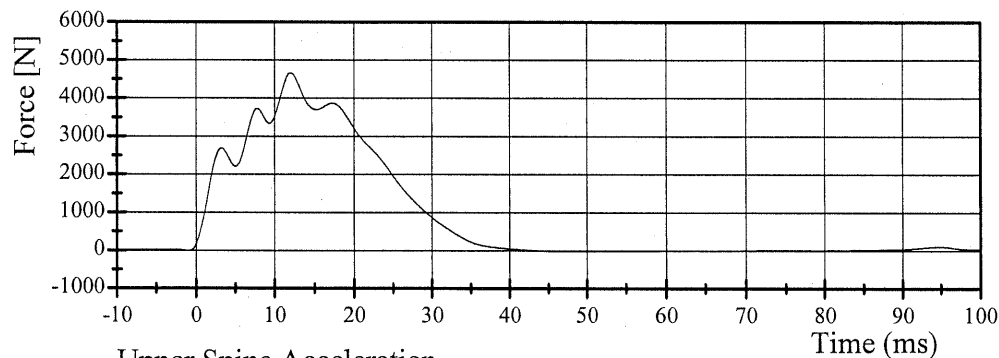


Filter Class: CFC 180

Max: 34.0 g at 12.0 ms

Min: -0.3 g at 108.6 ms

Pendulum Force

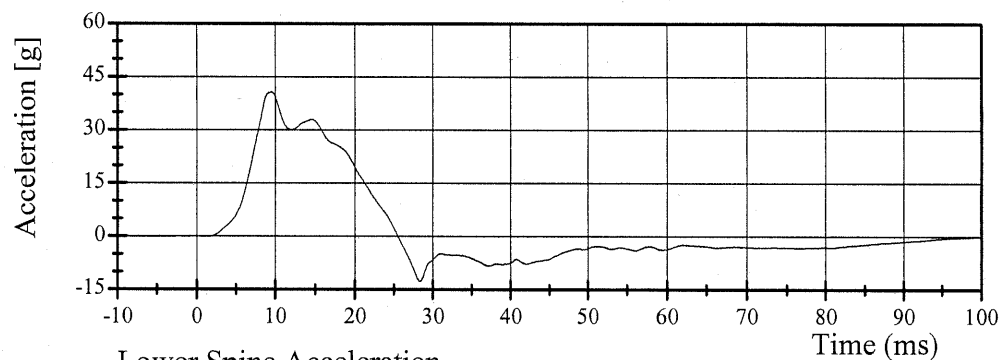


Filter Class: CFC 180

Max: 4662 N at 12.0 ms

Min: -38 N at 108.6 ms

Upper Spine Acceleration

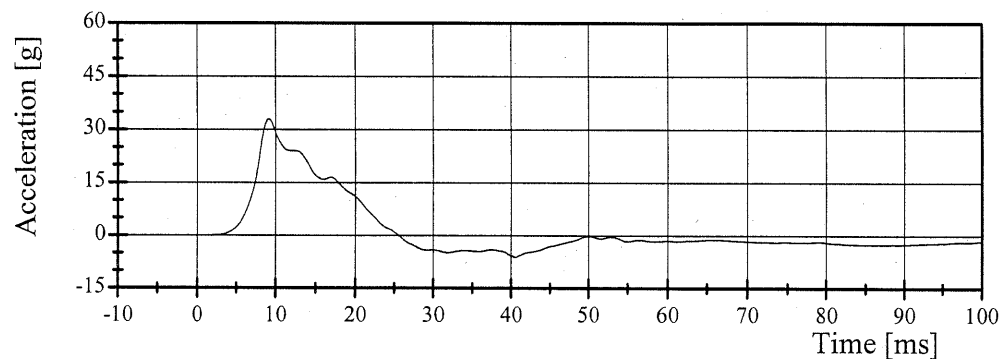


Filter Class: CFC 180

Max: 40.7 g at 9.5 ms

Min: -12.7 g at 28.3 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 33.0 g at 9.1 ms

Min: -6.1 g at 40.6 ms

10.10.2003 07:02:02 948



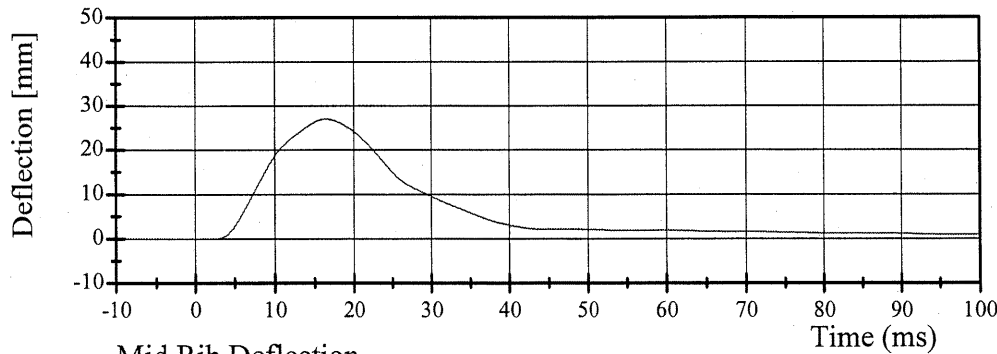
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/10/2003

Upper Rib Deflection

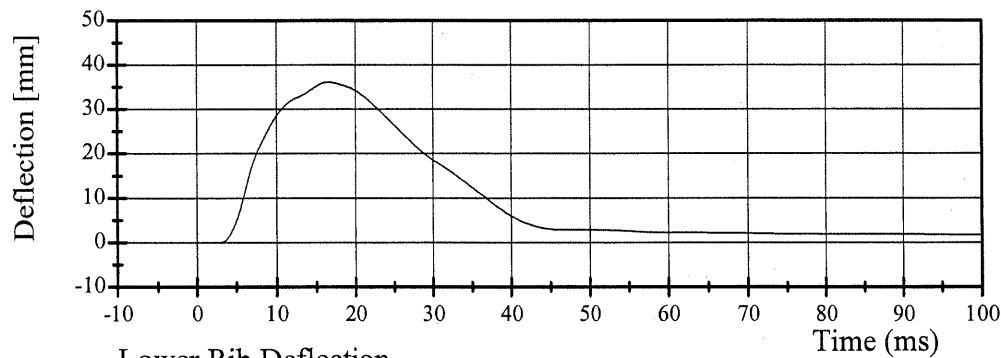


Filter Class: CFC 600

Max: 27.0 mm at 16.4 ms

Min: -0.0 mm at -52.2 ms

Mid Rib Deflection

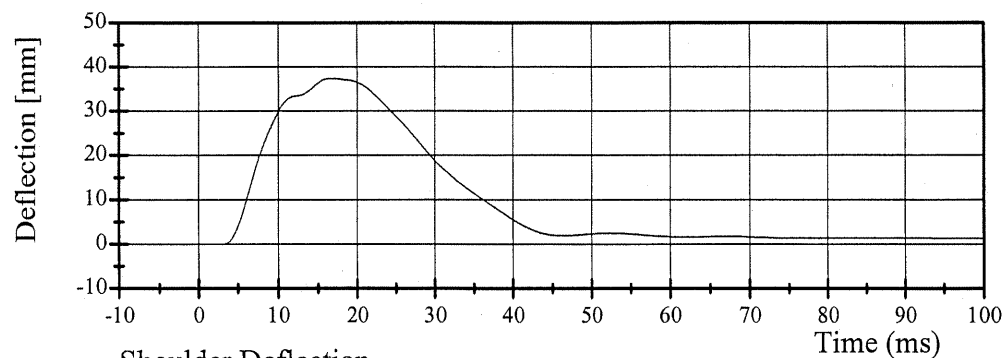


Filter Class: CFC 600

Max: 36.1 mm at 16.5 ms

Min: -0.0 mm at 2.7 ms

Lower Rib Deflection

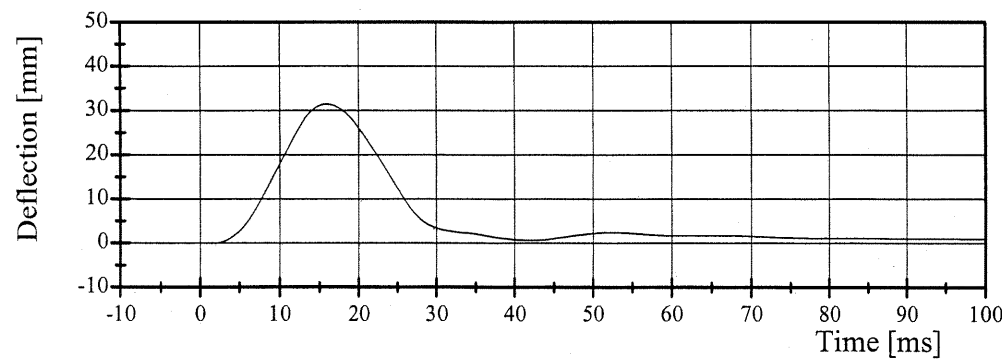


Filter Class: CFC 600

Max: 37.3 mm at 16.6 ms

Min: -0.0 mm at -52.1 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 31.4 mm at 15.8 ms

Min: -0.2 mm at 671.8 ms

10.10.2003 07:02:03 948



Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	61 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.58 m/sec	Yes
Pendulum Force	4100 - 4700 N	4681 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	41.2 g	Yes
Lower Spine Peak Acceleration	31 - 36 g	33.2 g	Yes
Upper Rib Peak Deflection	23 - 35 mm	27.4 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	36.2 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	37.6 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	32.4 mm	Yes

Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; With Pants On;
With The Arm On.

Technician



Approved



10.10.2003 07:01:25 950



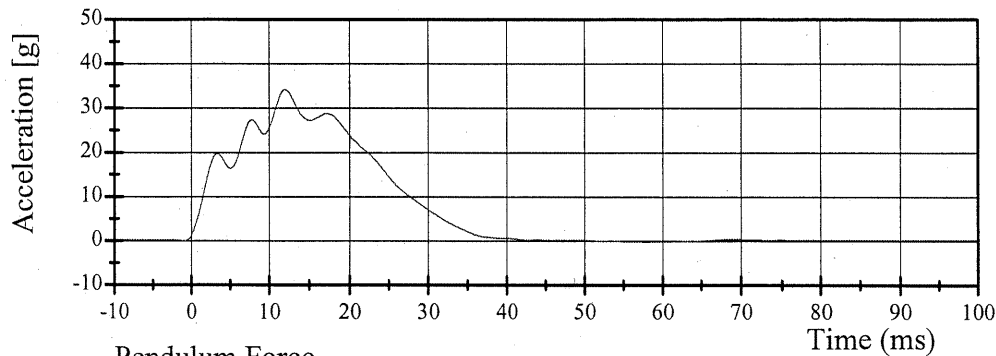
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

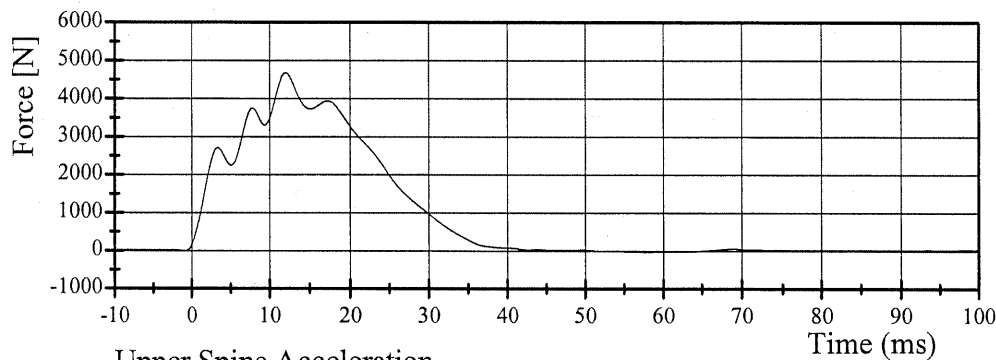


Filter Class: CFC 180

Max: 34.2 g at 12.0 ms

Min: -1.4 g at 472.6 ms

Pendulum Force

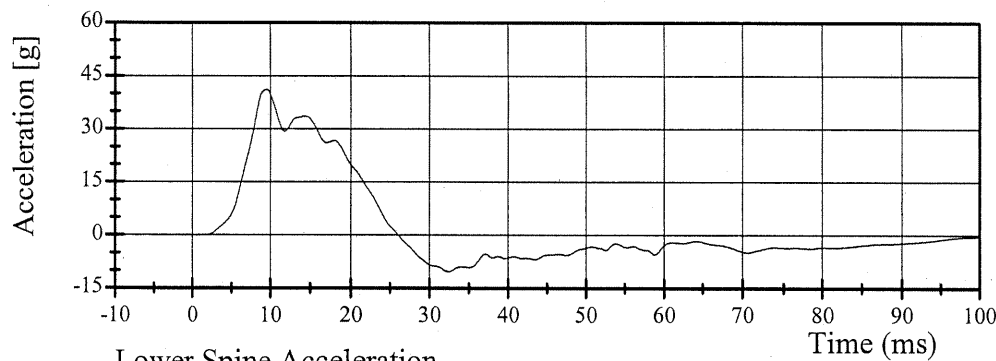


Filter Class: CFC 180

Max: 4681 N at 12.0 ms

Min: -192 N at 472.6 ms

Upper Spine Acceleration

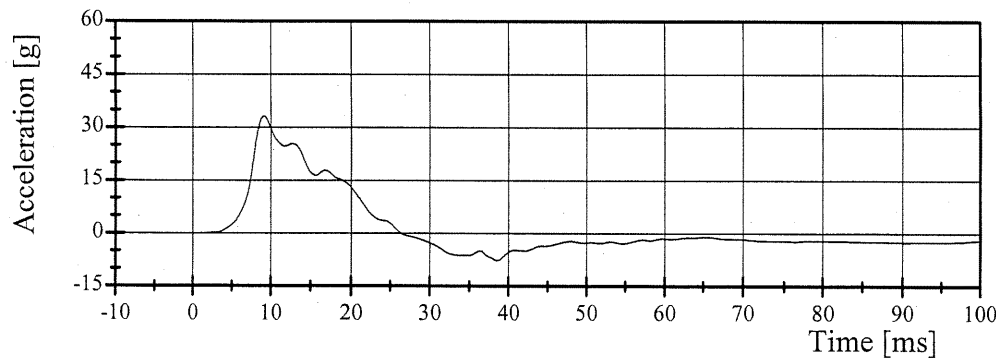


Filter Class: CFC 180

Max: 41.2 g at 9.5 ms

Min: -10.3 g at 32.5 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 33.2 g at 9.1 ms

Min: -7.8 g at 38.5 ms

10.10.2003 07:01:26 950



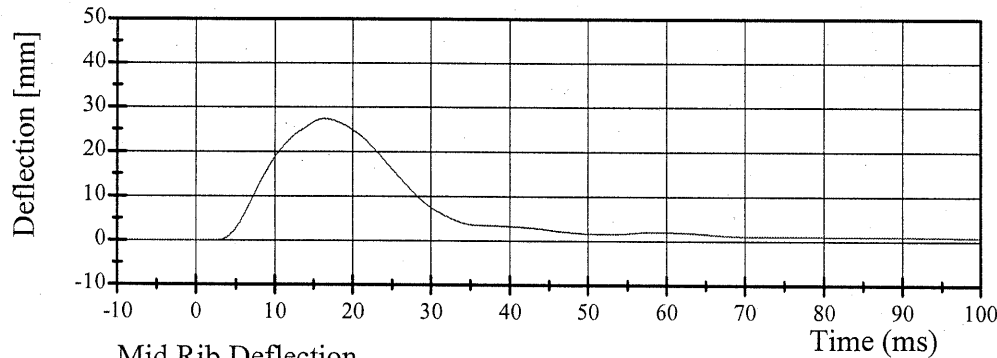
Transportation Research Center Inc.

Left Thorax With Arm Test

SID-IIIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Upper Rib Deflection

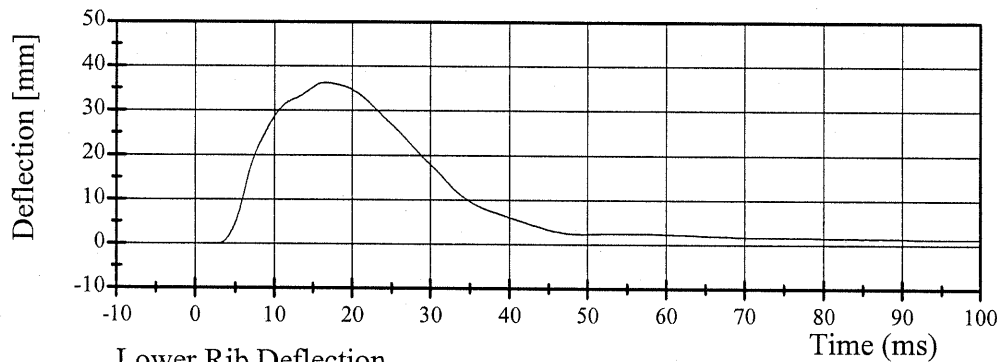


Filter Class: CFC 600

Max: 27.4 mm at 16.3 ms

Min: -0.2 mm at 157.5 ms

Mid Rib Deflection

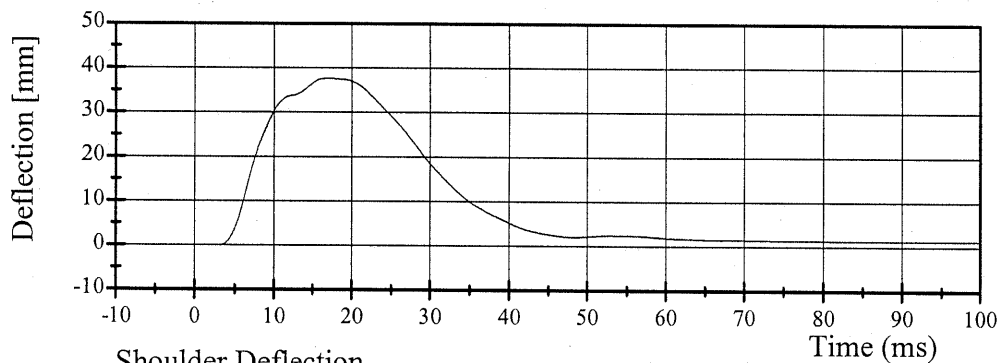


Filter Class: CFC 600

Max: 36.2 mm at 16.7 ms

Min: -0.0 mm at 2.8 ms

Lower Rib Deflection

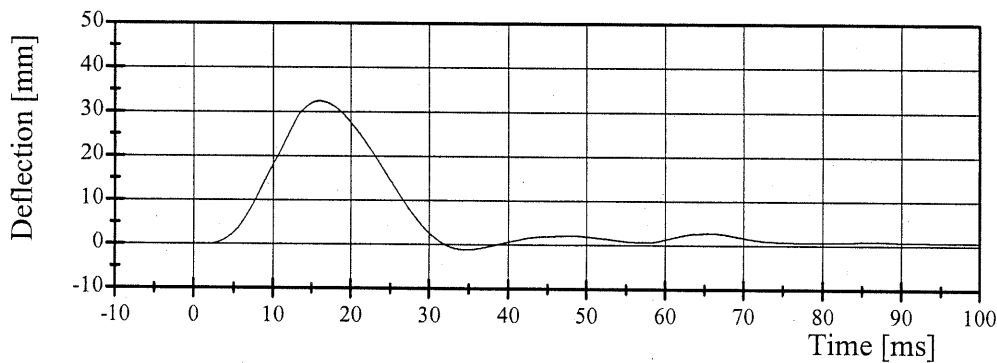


Filter Class: CFC 600

Max: 37.6 mm at 17.0 ms

Min: -0.0 mm at 3.0 ms

Shoulder Deflection



Filter Class: CFC 600

Max: 32.4 mm at 16.0 ms

Min: -1.1 mm at 34.8 ms

10.10.2003 07:01:27 950



Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

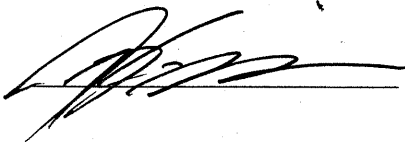
Test Date 10/10/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1980 N	No
Upper Spine Peak Acceleration	5 - 9 g	7.1 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	15.6 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	45.6 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	41.6 mm	No

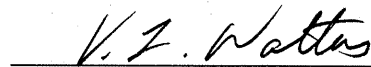
Comments:

Test Conditions: Abdomen Foam Cable Tied In Place; With Jacket; Without Arm; With Pants On.

Technician



Approved



10.10.2003 09:31:27 1110



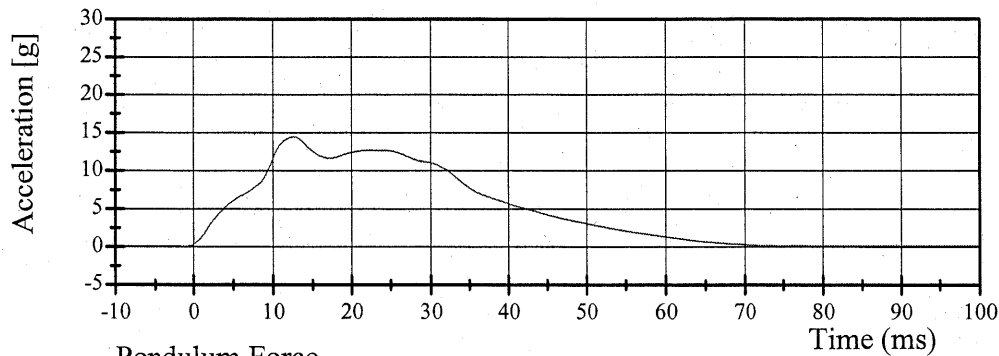
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/10/2003

Pendulum Deceleration

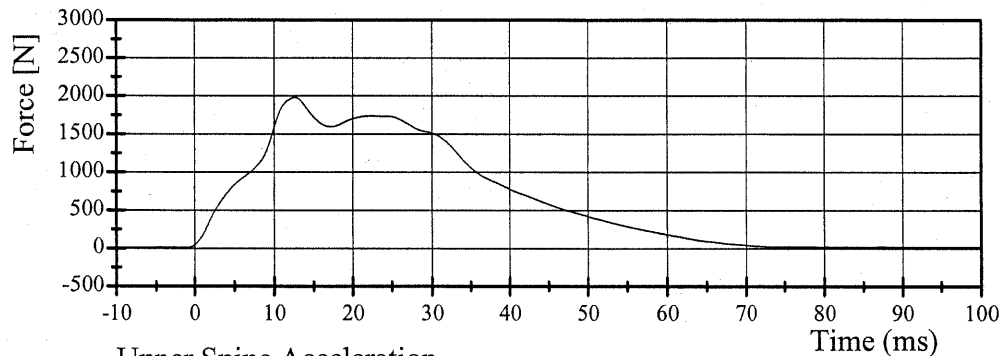


Filter Class: CFC 180

Max: 14.5 g at 12.6 ms

Min: -0.2 g at 147.9 ms

Pendulum Force

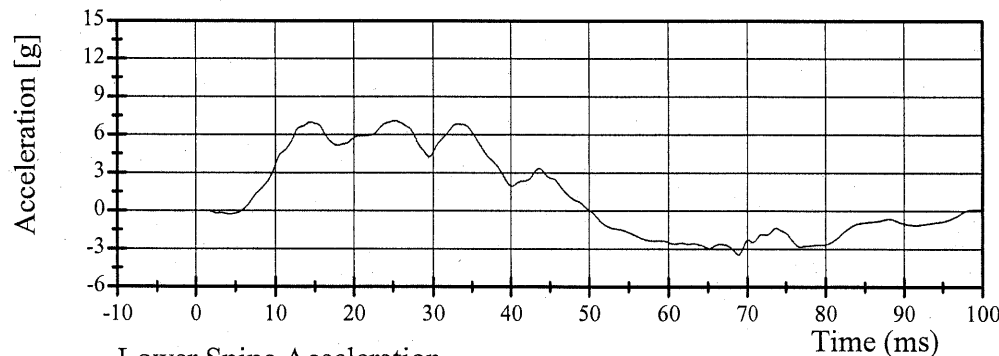


Filter Class: CFC 180

Max: 1980 N at 12.6 ms

Min: -23 N at 147.9 ms

Upper Spine Acceleration

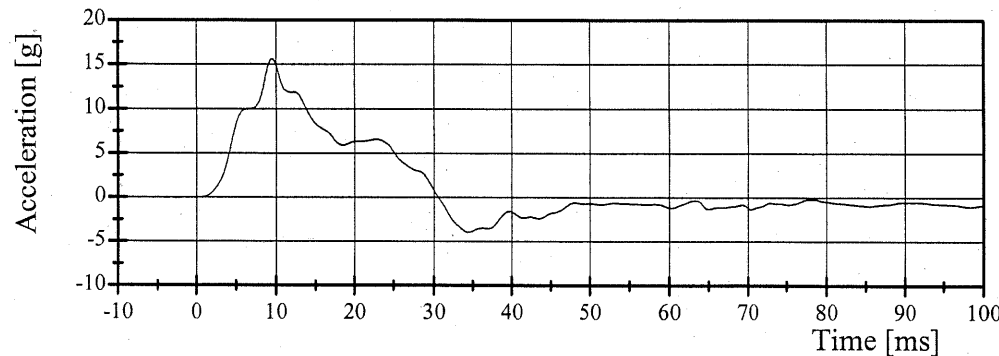


Filter Class: CFC 180

Max: 7.1 g at 25.2 ms

Min: -3.5 g at 68.9 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 15.6 g at 9.5 ms

Min: -4.0 g at 34.4 ms

10.10.2003 09:31:28 1110



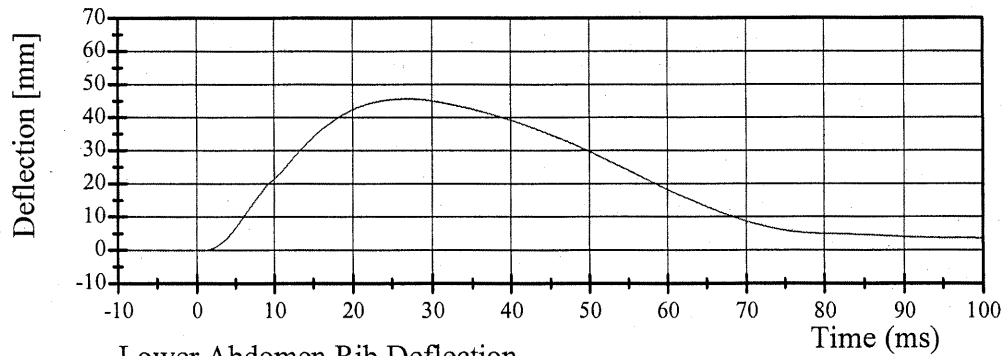
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/10/2003

Upper Abdomen Rib Deflection

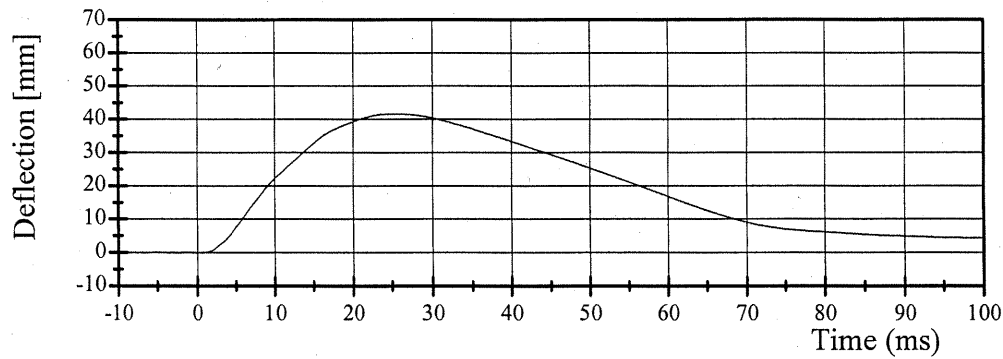


Filter Class: CFC 600

Max: 45.6 mm at 26.7 ms

Min: -0.0 mm at 1.0 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 41.6 mm at 25.2 ms

Min: -0.0 mm at -53.3 ms

Transportation Research Center Inc.

Left Abdomen Test

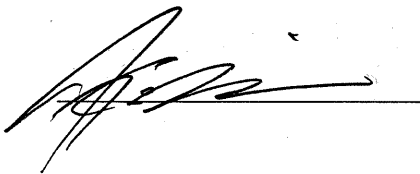
SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

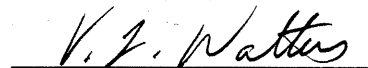
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	58 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.49 m/sec	Yes
Pendulum Force	1300 - 1900 N	1900 N	No
Upper Spine Peak Acceleration	5 - 9 g	7.8 g	Yes
Lower Spine Peak Acceleration	10 - 12 g	16.1 g	No
Upper Abdomen Rib Peak Deflection	44 - 55 mm	45.1 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	39.5 mm	No

Comments:

Technician



Approved



10.10.2003 10:11:00 1101



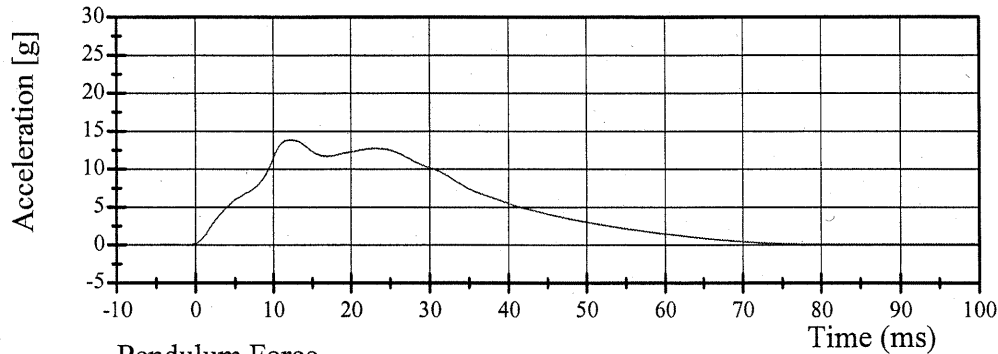
Transportation Research Center Inc.

Left Abdomen Test

SID-II's Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Pendulum Deceleration

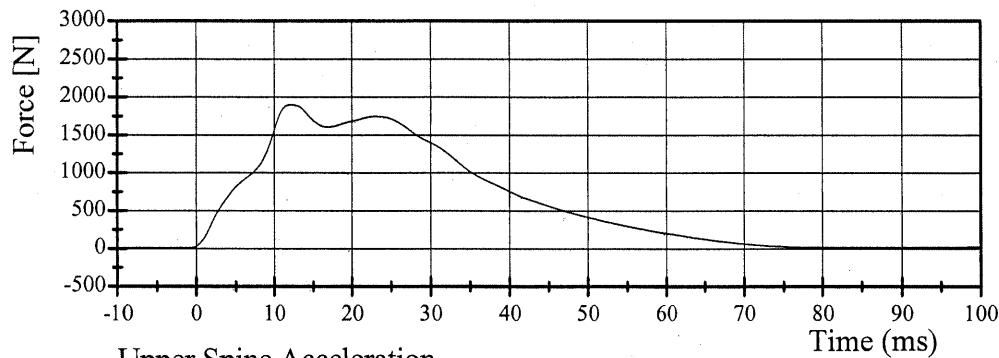


Filter Class: CFC 180

Max: 13.9 g at 12.2 ms

Min: -0.0 g at 933.4 ms

Pendulum Force

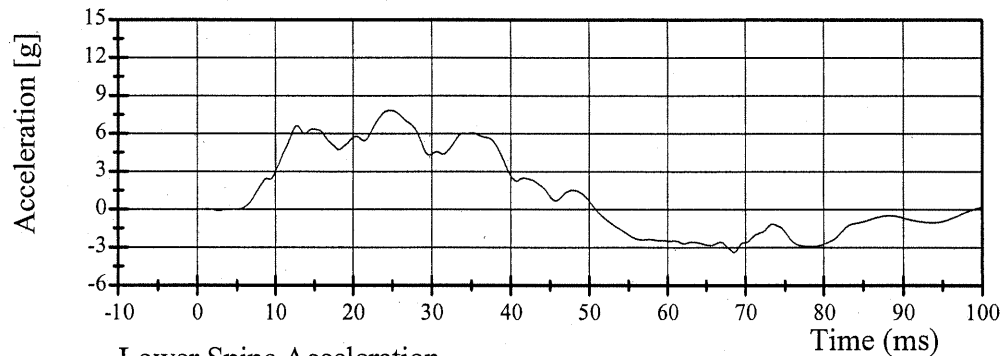


Filter Class: CFC 180

Max: 1900 N at 12.2 ms

Min: -6 N at 933.4 ms

Upper Spine Acceleration

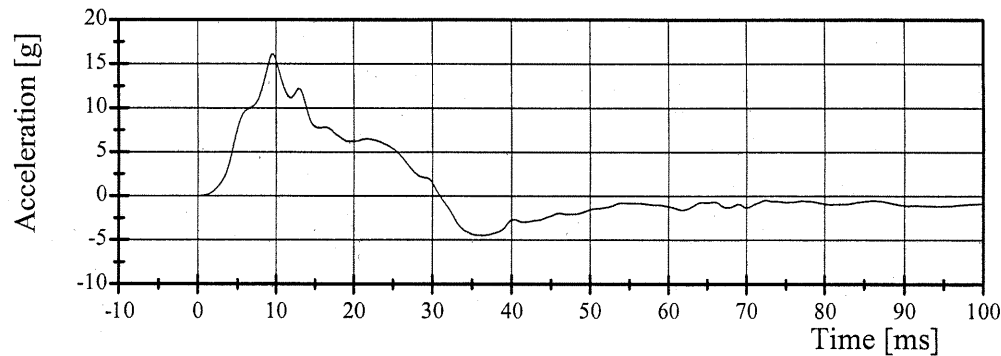


Filter Class: CFC 180

Max: 7.8 g at 24.8 ms

Min: -3.4 g at 68.6 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 16.1 g at 9.6 ms

Min: -4.5 g at 36.5 ms

10.10.2003 10:11:01 1101



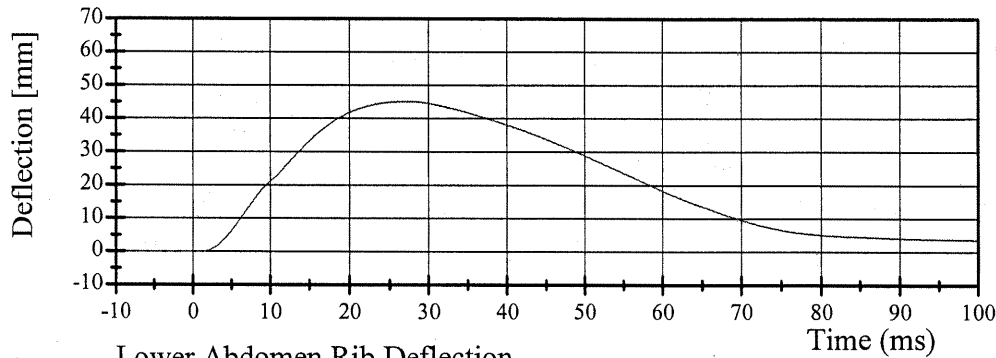
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/10/2003

Upper Abdomen Rib Deflection

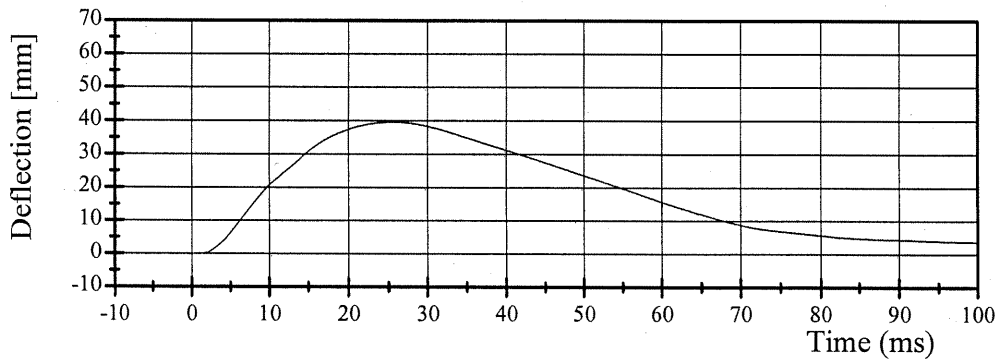


Filter Class: CFC 600

Max: 45.1 mm at 26.9 ms

Min: -0.0 mm at -64.9 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 39.5 mm at 26.0 ms

Min: -0.0 mm at -16.6 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

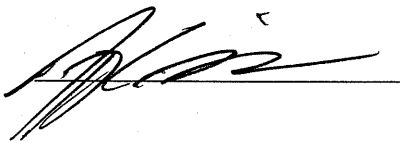
Test Date 10/09/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.58 m/sec	Yes
Pendulum Force	5000 - 7200 N	5940 N	Yes
Pelvis Peak Acceleration	46 - 60 g	59.7 g	Yes

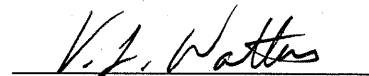
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; Without Arm; Without Pants.

Technician



Approved



10.10.2003 08:03:31 943



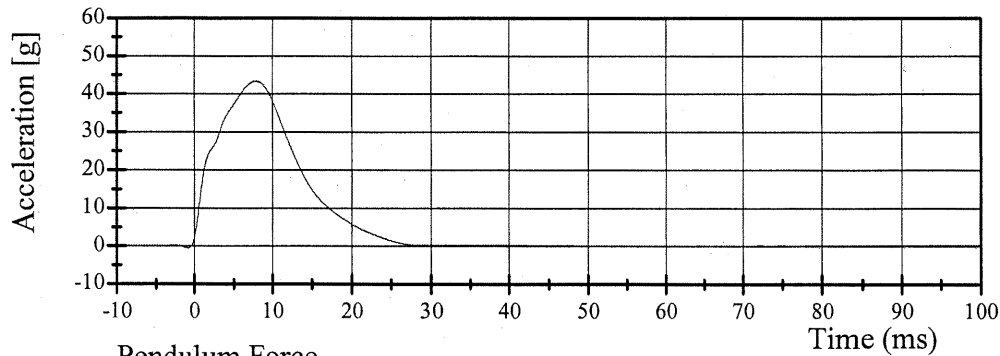
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 02 - 1

Test Date 10/09/2003

Pendulum Deceleration

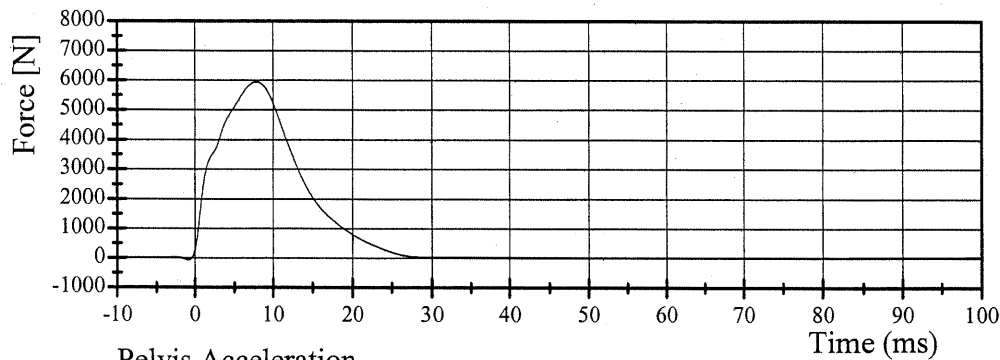


Filter Class: CFC 180

Max: 45.5 g at 7.8 ms

Min: -0.1 g at -75.0 ms

Pendulum Force

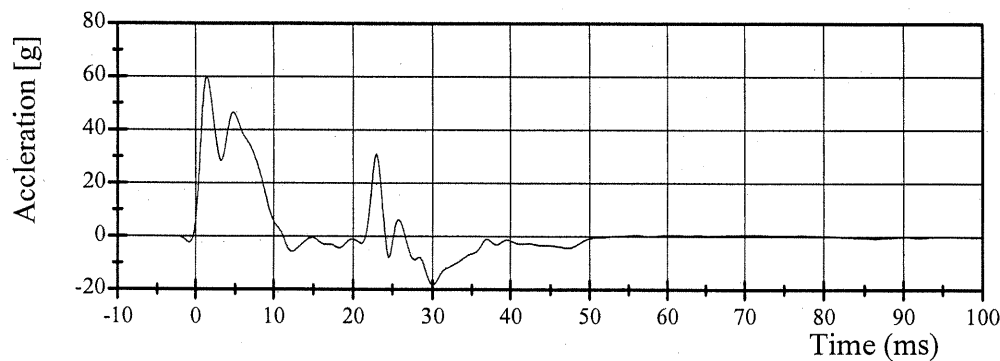


Filter Class: CFC 180

Max: 5940 N at 7.8 ms

Min: -71 N at -0.8 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 59.71 mm at 1.4 ms

Min: -18.35 mm at 30.0 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/09/2003

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Pendulum Velocity	6.57 - 6.84 m/sec	6.61 m/sec	Yes
Pendulum Force	5000 - 7200 N	5939 N	Yes
Pelvis Peak Acceleration	46 - 60 g	61.4 g	No

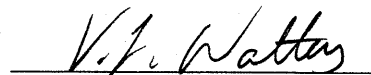
Comments:

Test Conditions: Thorax Foam Cable Tied In Place; With Jacket On; Without Arm; Without Pants .

Technician



Approved



10.10.2003 08:02:50 957



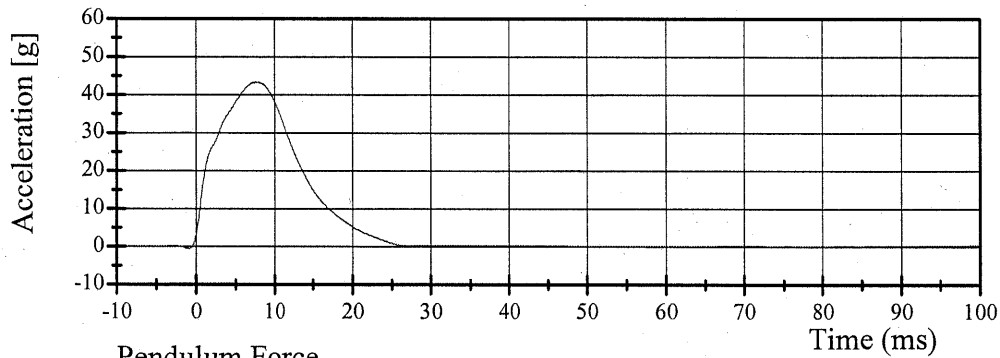
Transportation Research Center Inc.

Left Pelvis Test

SID-IIIs Serial No. 033 Calibration No. 02 - 2

Test Date 10/09/2003

Pendulum Deceleration

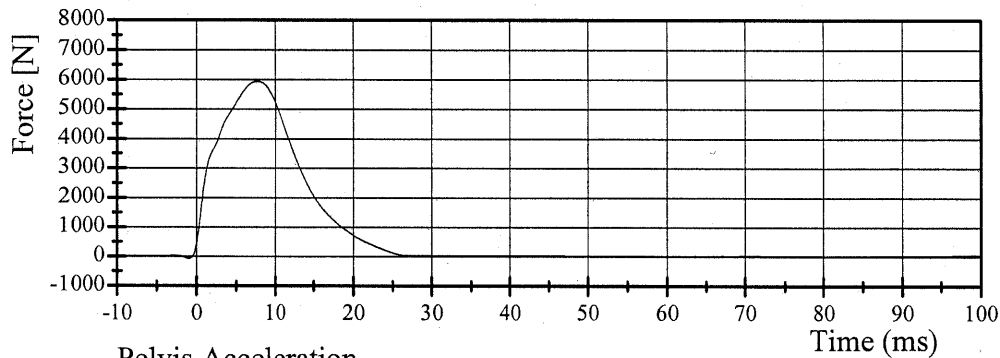


Filter Class: CFC 180

Max: 44.2 g at 7.3 ms

Min: -0.1 g at -75.0 ms

Pendulum Force

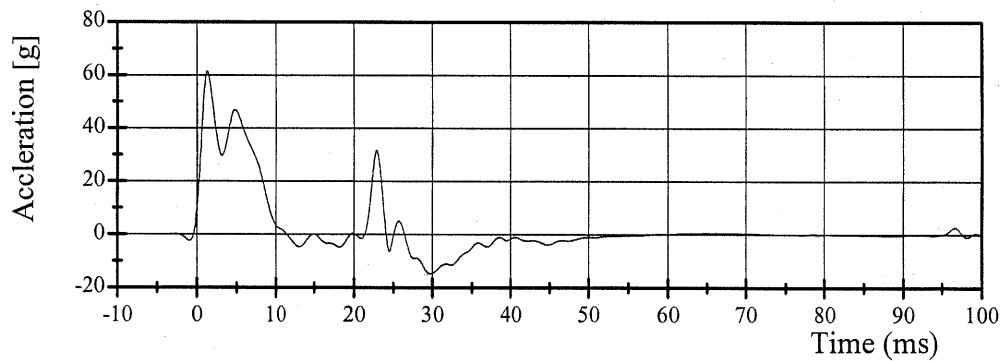


Filter Class: CFC 180

Max: 5939 N at 7.7 ms

Min: -72 N at -0.9 ms

Pelvis Acceleration



Filter Class: CFC 600

Max: 61.43 mm at 1.3 ms

Min: -14.65 mm at 29.8 ms

Appendix D

Miscellaneous Test Information

Sign Convention
SAE J211 MAR95

Accelerometers:

+X: Forward
+Y: Rightward
+Z: Downward

Potentiometers:

+Chest longitudinal deflection: Outward
+Chest lateral deflection: Rightward
+Seat belt displacement: Outward
+Seat belt extension: Elongation
+Knee slider displacement: Distance between femur and tibia
increased (in relation to a seated
dummy)

Rotation potentiometers:

+About the X-axis: Left foot-eversion
Right foot-inversion
+About the Y-axis: Left/right foot-dorsiflexion
+About the Z-axis: Left foot-internal
Right foot-external

Load cells:

+Femur force: Tension
+Seat belt force: Tension
+Barrier force: Tension

Neck load cells:

+X force: Head pushed rearward
+Y force: Head pushed leftward
+Z force: Head pulled upward (tension on neck)
+X moment: Left ear rotating toward left shoulder
+Y moment: Chin rotating toward chest
+Z moment: Chin rotating toward left shoulder

Tibia load cells:

+X force: Ankle forward, knee rearward
+Y force: Ankle rightward, knee leftward
+Z force: Tension
+X moment: Bottom of tibia moving leftward
+Y moment: Bottom of tibia moving rearward

Sign Convention, Cont'd.
SAE J211 MAR95

Lumbar load cells:

+X force:	Chest rearward, pelvis forward
+Y force:	Chest leftward, pelvis rightward
+Z force:	Chest upward, pelvis downward
+X moment:	Left shoulder toward left hip
+Y moment:	Sternum toward front of legs
+Z moment:	Right shoulder forward, left shoulder rearward

Frequency Response Classes
SAE J211 MAR95

<u>Typical Test Measurements</u>	<u>Channel Class</u>
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Collision simulation input	60
Component analysis	600
Integration for velocity or displacement	180
Barrier Face Forces	60
Belt Restraint System Loads	60
Anthropomorphic Test Device	
Head accelerations (linear and angular)	1000
Neck	
Forces	1000
Moments	600
Thorax	
Spine accelerations	180
Rib accelerations	1000
Sternum accelerations	1000
Deflections	180
Lumbar	
Forces	1000
Moments	1000
Pelvis	
Accelerations	1000
Forces	1000
Moments	1000
Femur/Knee/Tibia/Ankle	
Forces	600
Moments	600
Displacements	180
Sled Accelerations	60
Steering Column Loads	600
Head form Accelerations	1000

Description Of Timing Marks On TRC High-Speed Film

All TRC high-speed cameras are equipped with red LEDs which put timing marks on the right edge of the film. TRC uses a single timing generator to generate the timing for all cameras. This allows the timing marks to be common to all cameras. The timing marks can be used to measure camera speed (frames per second) or to locate a point in time before or after the time-zero event.

The timing marks appear on the film as small red marks on the right edge of the film. Round marks are left by the Photosonic cameras.

The timing generator puts out a pulse for every millisecond plus it generates additional pulses for hundredths and tenths of seconds. To explain this further, we can use an example of a camera running at 1000 frames per second.

1. Every frame will have **one** LED appear in it. This indicates a *millisecond* pulse.
2. Every ten frames will have **two** LEDs appear in it. These indicate a *millisecond* pulse plus a *hundredth of a second* pulse.
3. Every one hundred frames will have **three** LEDs appear in it. These indicate a *millisecond* pulse, a *hundredth of a second* pulse, and a *tenth of a second* pulse.

To locate time-zero, observe the continuous LED that is visible on the left side of the frame at the beginning of each view. Locate the frame where the left side LED is fully extinguished and reverse 4 frames for the Photosonic cameras; reverse 5 frames for Hycam cameras; reverse 2 frames for Stalex cameras. This frame is time-zero.

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report

9/15/2003 9:47:01 AM

Name of Test 030915-1

System K3600

Name of DAU DAU0

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
0000	EVENT	SYNC0	SYNC0		10.24	V	+ 10/15/2002	OK -1	TRC	Event
0001	P28620	BCGXG1	MDB CG X	FWD	600.37523	g	+ 6/20/2003	OK -1	Endevco	7264C-2K-2-180
0002	P28251	BCGYG1	MDB CG Y	LT	597.88637	g	- 6/19/2003	OK -1	Endevco	7264C-2K-2-180
0003	P25042	BCGZG1	MDB CG Z	UP	600.86139	g	- 6/17/2003	OK -1	Endevco	7264C-2K-2-180
0004	P27385	LRRXG1	MDB LT RR X	FWD	599.33511	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0005	P27371	LRRYG1	MDB LT RR Y	LT	602.95589	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180

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Channel Report

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Name of Test 030915-1

System MINIDAU

Name of DAU DAU6

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
6001	01G25-N08	HEDXG1	Head Accel X	Fwd	1987.4233 g	+	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6002	98H10-F01	HEDYG1	Head Accel Y	Rgt	2032.2298 g	+	8/29/2003	OK 020v	Entran	EGE-73BQ-2000
6003	01G18-F06	HEDZG1	Head Accel Z	Up	2070.5273 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6004	01G18-F16	HD1XG1	Head (LT) Accel X	Fwd	2008.3944 g	+	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6005	01J02-F08	HD1ZG1	Head (LT) Accel Z	Up	1987.1148 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6006	J36721	HD2YG1	Head (FT) Accel Y	Rgt	1994.8414 g	+	8/29/2003	OK 020v	Endevco	7264-2000TZ
6007	01J02-F18	HD2ZG1	Head (FT) Accel Z	Up	1973.4813 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6008	00L13-F72	HD3XG1	Head (TP) Accel X	Rr	2058.2087 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6009	02A09-F12	HD3YG1	Head (TP) Accel Y	Lft	2050.2142 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6010	1716A-777-FX	NEKXF1	Neck Force X	Hd	8899.0017 N	-	8/29/2003	OK 020v	Denton	1716A
6011	1716A-777-FY	NEKYF1	Neck Force Y	Hd	8895.9908 N	+	8/29/2003	OK 020v	Denton	1716A
6012	1716A-777-FZ	NEKZF1	Neck Force Z	Hd	13348.738 N	+	8/29/2003	OK 020v	Denton	1716A
6013	1716A-777-MX	NEKXM1	Neck Moment X	Rt Ear	282.40726 N·m	-	8/29/2003	OK 020v	Denton	1716A
6014	1716A-777-MY	NEKYM1	Neck Moment Y	Chn	282.17771 N·m	+	8/29/2003	OK 020v	Denton	1716A
6015	1716A-777-MZ	NEKZM1	Neck Moment Z	Chn	282.02945 N·m	+	8/29/2003	OK 020v	Denton	1716A
6016	3166-130-FX	NKLXF1	Neck Lower Force X	Hd	13332.866 N	-	4/22/2003	OK 020v	Denton	3166
6017	3166-130-FY	NKLYF1	Neck Lower Force Y	Hd	13373.403 N	+	4/22/2003	OK 020v	Denton	3166
6018	3166-130-FZ	NKLZF1	Neck Lower Force Z	Hd	13329.621 N	+	4/22/2003	OK 020v	Denton	3166
6019	3166-130-MX	NKLXM1	Neck Lower Moment X	Rt Ear	452.35257 N·m	-	4/22/2003	OK 020v	Denton	3166
6020	3166-130-MY	NKLYM1	Neck Lower Moment Y	Chn	452.66800 N·m	+	4/22/2003	OK 020v	Denton	3166
6021	3166-130-MZ	NKLZM1	Neck Lower Moment Z	Chn	338.45839 N·m	+	4/22/2003	OK 020v	Denton	3166
6022	3860-020SHD	SHLYD1	Shoulder Disp. Y	Shld	77.922987 mm	-	8/27/2003	OK 020v	FTSS(Hone	180-3860
6024	00L20-A14	SHLYG1	Shoulder Accel Y	Lft	2013.8451 g	-	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6025	02A16-A25	SHLZG1	Shoulder Accel Z	Dwn	1943.0002 g	+	9/2/2003	OK 020v	Entran	EGE-73B6Q-200
6026	3167-142-FX	SHLXF1	Shoulder Force X	Shd	4457.1413 N	+	4/23/2003	OK 020v	Denton	3167
6027	3167-142-FY	SHLYF1	Shoulder Force Y	Shld	4450.2118 N	+	4/23/2003	OK 020v	Denton	3167
6028	3167-142-FZ	SHLZF1	Shoulder Force Z	Shld	4451.1550 N	-	4/23/2003	OK 020v	Denton	3167
6029	03D03D16-F10	T01XG1	Upper Spine (T01) Accel X	Rwd	2085.3698 g	-	7/11/2003	OK 020v	Entran	EGE-73B6Q-200
6030	03D03D16-F06	T01YG1	Upper Spine (T01) Accel Y	Lft	1962.5881 g	-	7/11/2003	OK 020v	Entran	EGE-73B6Q-200
6031	03D03D16-F04	T01ZG1	Upper Spine (T01) Accel Z	Up	1960.7843 g	-	7/11/2003	OK 020v	Entran	EGE-73B6Q-200
6032	03E03E21-M09	SR1XG1	Spine Rib 1 Accel X	Rwd	1991.9078 g	-	7/21/2003	OK 020v	Entran	EGE-73B6Q-200

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Channel Report

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Name of Test 030915-1

System MINIDAU

Name of DAU DAU7

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
7001	03E03E21-M21	SR1YG1	Spine Rib 1 Accel Y	Lft	1932.1483	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7002	03E03E18-F07	SR1ZG1	Spine Rib 1 Accel Z	Up	2065.2656	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7003	03F03E29-N02	SR2XG1	Spine Rib 2 Accel X	Rwd	2054.9869	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7004	03E03E21-M15	SR2YG1	Spine Rib 2 Accel Y	Lft	2003.1298	g	- 7/16/2003	OK 020v	Entran	EGE-73B6Q-200
7005	03F03E29-N14	SR2ZG1	Spine Rib 2 Accel Z	Up	2052.2687	g	- 7/17/2003	OK 020v	Entran	EGE-73B6Q-200
7006	03E03E20-N05	SR3XG1	Spine Rib 3 Accel X	Rwd	2043.4227	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7007	03F03E29-N01	SR3YG1	Spine Rib 3 Accel Y	Lft	1990.1271	g	- 7/19/2003	OK 020v	Entran	EGE-73B6Q-200
7008	03E03E20-N17	SR3ZG1	Spine Rib 3 Accel Z	Up	2077.9220	g	- 7/22/2003	OK 020v	Entran	EGE-73B6Q-200
7009	03E03E21-M18	SR4XG1	Spine Rib 4 Accel X	Fwd	1965.1493	g	+ 7/16/2003	OK 020v	Entran	EGE-73B6Q-200
7010	03E03E20-N04	SR4YG1	Spine Rib 4 Accel Y	Lft	2069.6066	g	- 7/22/2003	OK 020v	Entran	EGE-73B6Q-200
7011	03F03E29-N21	SR4ZG1	Spine Rib 4 Accel Z	Dwn	1943.0002	g	+ 7/16/2003	OK 020v	Entran	EGE-73B6Q-200
7012	03E03E21-M03	SR5XG1	Spine Rib 5 Accel X	Rwd	1949.7334	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7013	03E03E18-F05	SR5YG1	Spine Rib 5 Accel Y	Lft	2068.1854	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7014	03E03E18-F09	SR5ZG1	Spine Rib 5 Accel Z	Up	1996.1791	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7015	03D03D16-F02	RB1XG1	Thorax Rib 1 Accel X	Rr	1919.3282	g	- 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7016	03D03D16-F16	RB1YG1	Thorax Rib 1 Accel Y	Rgt	2047.7542	g	+ 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7017	03D03D16-F12	RB1ZG1	Thorax Rib 1 Accel Z	Up	2025.4766	g	- 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7018	03D03D16-F14	RB2XG1	Thorax Rib 2 Accel X	Rr	2027.8833	g	- 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7019	03E03E21-M20	RB2YG1	Thorax Rib 2 Accel Y	Rgt	1950.9221	g	+ 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7020	03D03D16-F17	RB2ZG1	Thorax Rib 2 Accel Z	Up	1922.7880	g	- 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7021	03D03D16-F20	RB3XG1	Thorax Rib 3 Accel X	Rr	2070.1924	g	- 7/10/2003	OK 020v	Entran	EGE-73B6Q-200
7022	03D03D16-F21	RB3YG1	Thorax Rib 3 Accel Y	Rgt	1954.8699	g	+ 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7023	03E03E20-N02	RB3ZG1	Thorax Rib 3 Accel Z	Up	2051.2820	g	- 7/22/2003	OK 020v	Entran	EGE-73B6Q-200
7024	03D03D16-F07	RB4XG1	Abdomin Rib 4 Accel X	Rr	2070.5273	g	- 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7025	03E03E18-F08	RB4YG1	Abdomin Rib 4 Accel Y	Rgt	1982.1145	g	+ 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7026	03F03F09-N20	RB4ZG1	Abdomin Rib 4 Accel Z	Up	1969.2307	g	- 6/30/2003	OK 020v	Entran	EGE-73B6Q-200
7027	03E03E21-M02	RB5XG1	Abdomin Rib 5 Accel X	Rr	1953.6019	g	- 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7028	03D03D16-F13	RB5YG1	Abdomin Rib 5 Accel Y	Rgt	2037.8920	g	+ 7/11/2003	OK 020v	Entran	EGE-73B6Q-200
7029	03E03E21-M04	RB5ZG1	Abdomin Rib 5 Accel Z	Dn	2051.2820	g	+ 7/21/2003	OK 020v	Entran	EGE-73B6Q-200
7030	3861-020RB1	RB1YD1	Thorax Rib 1 Disp. Y	Rib	78.001575	mm	- 8/27/2003	OK 020v	FTSS(Hone	180-3861
7031	3861-020RB2	RB2YD1	Thorax Rib 2 Disp. Y	Rib	77.775026	mm	- 8/27/2003	OK 020v	FTSS(Hone	180-3861
7032	3861-020RB3	RB3YD1	Thorax Rib 3 Disp. Y	Rib	78.036527	mm	- 8/27/2003	OK 020v	FTSS(Hone	180-3861

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Channel Report

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System MINIDAU

Name of DAU DAU8

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
8001	3861-020RB4	RB4YD1	Abdomin Rib 4 Disp. Y	Rib	77.696953	mm	- 8/27/2003	OK 020v	FTSS(Hone	180-3861
8002	3861-020RB5	RB5YD1	Abdomin Rib 5 Disp. Y	Rib	77.783711	mm	- 8/27/2003	OK 020v	FTSS(Hone	180-3861
8003	3229-135-FX	LMBXF1	Lumbar Force X	Cst	13357.098	N	- 4/11/2003	OK 020v	Denton	3229
8004	3229-135-FY	LMBYF1	Lumbar Force Y	Cst	13351.824	N	+ 4/11/2003	OK 020v	Denton	3229
8005	3229-135-FZ	LMBZF1	Lumbar Force Z	Cst	13337.302	N	+ 4/11/2003	OK 020v	Denton	3229
8006	3229-135-MX	LMBXM1	Lumbar Moment X	Rt Shl	452.05400	N·m	- 4/11/2003	OK 020v	Denton	3229
8007	3229-135-MY	LMBYM1	Lumbar Moment Y	Strn	450.89798	N·m	+ 4/11/2003	OK 020v	Denton	3229
8008	3229-135-MZ	LMBZM1	Lumbar Moment Z	Rt Shl	225.50845	N·m	+ 4/11/2003	OK 020v	Denton	3229
8009	03E03E20-N18	PEVXG1	Pelvis Accel X	Fwd	1955.3926	g	+ 7/17/2003	OK 020v	Entran	EGE-73B6Q-200
8010	03F03E29-N16	PEVYG1	Pelvis Accel Y	Rgt	2004.0707	g	+ 7/16/2003	OK 020v	Entran	EGE-73B6Q-200
8011	03E03E21-M17	PEVZG1	Pelvis Accel Z	Dn	1999.3751	g	+ 7/16/2003	OK 020v	Entran	EGE-73B6Q-200
8012	IF-520-110-FY	LACYF1	Left Acetabulum Force Y	Lt	8875.8253	N	+ 9/13/2000	--- 020v	FTSS	IF-520
8013	IF-507-113-FY	LIWYF1	Left Illiac Wing Force Y	Lt Ill	13339.779	N	+ 5/19/2003	OK 020v	FTSS	IF-507
8014	IF-625-111-FX	LFMXF1	Left Femur Force X	Knee	13353.302	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8015	IF-625-111-FY	LFMYF1	Left Femur Force Y	Knee	13328.776	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8016	IF-625-111-FZ	LFMZF1	Left Femur Force Z	Knee	22262.882	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8017	IF-625-111-MX	LFMXM1	Left Femur Moment X	Knee	338.81156	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8018	IF-625-111-MY	LFMYM1	Left Femur Moment Y	Knee	339.35977	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8019	IF-625-111-MZ	LFMZM1	Left Femur Moment Z	Tib	338.82130	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8020	IF-625-110-FX	RFMXF1	Right Femur Force X	Knee	13337.180	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8021	IF-625-110-FY	RFMYF1	Right Femur Force Y	Knee	13342.169	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8022	IF-625-110-FZ	RFMZF1	Right Femur Force Z	Knee	22234.242	N	+ 8/29/2003	OK 020v	FTSS	IF-625
8023	IF-625-110-MX	RFMXM1	Right Femur Moment X	Knee	339.10465	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8024	IF-625-110-MY	RFMYM1	Right Femur Moment Y	Knee	339.24380	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8025	IF-625-110-MZ	RFMZM1	Right Femur Moment Z	Tib	339.13326	N·m	+ 8/29/2003	OK 020v	FTSS	IF-625
8026	99H12-F25	HEDXG4	Head Accel X	Fwd	2025.7171	g	+ 9/3/2003	OK 033v	Entran	EGE-73BQE0-20
8027	99H30-Z09	HEDYG4	Head Accel Y	Rgt	2038.5411	g	+ 9/2/2003	OK 033v	Entran	EGE-73BQE0-20
8028	01G18-F07	HEDZG4	Head Accel Z	Up	2064.0999	g	- 9/2/2003	OK 033v	Entran	EGE-73B6Q-200
8029	P15638	HD1XG4	Head (LT) Accel X	Rwd	2052.2687	g	- 8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
8030	P17858	HD1ZG4	Head (LT) Accel Z	Dn	1957.1865	g	+ 8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
8031	03D03D16-F18	HD2YG4	Head (FT) Accel Y	Lft	1938.5127	g	- 7/11/2003	OK 033v	Entran	EGE-73B6Q-200
8032	99H30-Z01	HD2ZG4	Head (FT) Accel Z	Dn	1932.9507	g	+ 9/2/2003	OK 033v	Entran	EGE-73BQE0-20

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Channel Report

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Name of Test 030915-1

System MINIDAU

Name of DAU DAU9

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
9001	03D03D16-F05	HD3XG4	Head (TP) Accel X	Rr	1966.2058 g	-	7/11/2003	OK 033v	Entran	EGE-73B6Q-200
9002	03D03D16-F03	HD3YG4	Head (TP) Accel Y	Lft	2022.1169 g	-	7/11/2003	OK 033v	Entran	EGE-73B6Q-200
9003	IF-205-304-FX	NEKXF4	Neck Force X	Hd	8895.6679 N	-	8/28/2003	OK 033v	FTSS	IF-205
9004	IF-205-304-FY	NEKYF4	Neck Force Y	Hd	8900.2589 N	+	8/28/2003	OK 033v	FTSS	IF-205
9005	IF-205-304-FZ	NEKZF4	Neck Force Z	Hd	13359.865 N	+	8/28/2003	OK 033v	FTSS	IF-205
9006	IF-205-304-MX	NEKXM4	Neck Moment X	Rt Ear	282.75093 N·m	-	8/28/2003	OK 033v	FTSS	IF-205
9007	IF-205-304-MY	NEKYM4	Neck Moment Y	Chn	282.50560 N·m	+	8/28/2003	OK 033v	FTSS	IF-205
9008	IF-205-304-MZ	NEKZM4	Neck Moment Z	Chn	282.34803 N·m	+	8/28/2003	OK 033v	FTSS	IF-205
9009	IF-255-108-FX	NKLXF4	Neck Lower Force X	Hd	13327.690 N	+	3/7/2003	OK 033v	FTSS	IF-255
9010	IF-255-108-FY	NKLYF4	Neck Lower Force Y	Hd	13322.471 N	+	3/7/2003	OK 033v	FTSS	IF-255
9011	IF-255-108-FZ	NKLZF4	Neck Lower Force Z	Hd	13340.051 N	+	3/7/2003	OK 033v	FTSS	IF-255
9012	IF-255-108-MX	NKLXM4	Neck Lower Moment X	Lt Ear	450.90429 N·m	+	3/7/2003	OK 033v	FTSS	IF-255
9013	IF-255-108-MY	NKLYM4	Neck Lower Moment Y	Chn	451.52924 N·m	+	3/7/2003	OK 033v	FTSS	IF-255
9014	IF-255-108-MZ	NKLZM4	Neck Lower Moment Z	Chn	338.32702 N·m	+	3/7/2003	OK 033v	FTSS	IF-255
9015	3860-033SHLD	SHLYD4	Shoulder Disp. Y	Shld	78.268014 mm	-	8/28/2003	OK 033v	FTSS(Hone	180-3860
9016	P17848	SHLXG4	Shoulder Accel X	Rr	2029.1693 g	-	8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
9017	P16336	SHLYG4	Shoulder Accel Y	Rgt	2037.5676 g	+	8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
9018	P16225	SHLZG4	Shoulder Accel Z	Dwn	2007.3708 g	+	8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
9019	IF-344-101-FX	SHLXF4	Shoulder Force X	Shd	4445.9375 N	-	9/2/2003	OK 033v	FTSS	IF-344
9020	IF-344-101-FY	SHLYF4	Shoulder Force Y	Shld	4450.2008 N	-	9/2/2003	OK 033v	FTSS	IF-344
9021	IF-344-101-FZ	SHLZF4	Shoulder Force Z	Shld	4448.4999 N	-	9/2/2003	OK 033v	FTSS	IF-344
9022	01J02-F07	T01XG4	Upper Spine (T01) Accel X	Rwd	1978.1323 g	-	8/29/2003	OK 033v	Entran	EGE-73B6Q-200
9023	P15951	T01YG4	Upper Spine (T01) Accel Y	Lft	1985.8045 g	-	8/29/2003	OK 033v	Endevco	7264C-2KLC-2-
9024	99H30-Z07	T01ZG4	Upper Spine (T01) Accel Z	Up	2007.3708 g	-	8/29/2003	OK 033v	Entran	EGE-73BQE0-20
9025	00L20-A08	SR1XG4	Spine Rib 1 Accel X	Rwd	2027.0002 g	-	9/2/2003	OK 033v	Entran	EGE-73B6Q-200
9026	00L13-F71	SR1YG4	Spine Rib 1 Accel Y	Lft	2058.2087 g	-	9/2/2003	OK 033v	Entran	EGE-73B6Q-200
9027	01G18-F08	SR1ZG4	Spine Rib 1 Accel Z	Up	2002.1898 g	-	8/29/2003	OK 033v	Entran	EGE-73B6Q-200
9028	99H12-F03	SR2XG4	Spine Rib 2 Accel X	Rwd	1961.9865 g	-	9/3/2003	OK 033v	Entran	EGE-73BQE0-20
9029	99H30-Z11	SR2YG4	Spine Rib 2 Accel Y	Lft	1936.3134 g	-	9/2/2003	OK 033v	Entran	EGE-73BQE0-20
9030	99H30-Z13	SR2ZG4	Spine Rib 2 Accel Z	Up	1973.1771 g	-	9/2/2003	OK 033v	Entran	EGE-73BQE0-20
9031	01G18-F02	SR3XG4	Spine Rib 3 Accel X	Rwd	1978.9734 g	-	9/2/2003	OK 033v	Entran	EGE-73B6Q-200
9032	01G25-N16	SR3YG4	Spine Rib 3 Accel Y	Lft	1936.0205 g	-	9/2/2003	OK 033v	Entran	EGE-73B6Q-200

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Channel Report

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Name of Test 030915-1

System MINIDAU

Name of DAU DAUA

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range		Pol.	Cal.		Group	Mfg.	Model
0001	00L13-F39	SR3ZG4	Spine Rib 3 Accel Z	Up	2056.2248	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0002	00L20-A13	SR4XG4	Spine Rib 4 Accel X	Fwd	2058.7880	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0003	99H30-Z03	SR4YG4	Spine Rib 4 Accel Y	Lft	1998.2047	g	-	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0004	00L13-F37	SR4ZG4	Spine Rib 4 Accel Z	Dwn	1927.7834	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0005	99H12-F19	SR5XG4	Spine Rib 5 Accel X	Rwd	2006.3482	g	-	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0006	99H12-F09	SR5YG4	Spine Rib 5 Accel Y	Lft	2008.3156	g	-	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0007	99H12-F08	SR5ZG4	Spine Rib 5 Accel Z	Up	2062.6863	g	-	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0008	01G25-N18	RB1XG4	Thorax Rib 1 Accel X	Rr	1950.4761	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0009	02A16-A12	RB1YG4	Thorax Rib 1 Accel Y	Rgt	1921.0565	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0010	B02A09-F04	RB1ZG4	Thorax Rib 1 Accel Z	Up	1925.8980	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0011	B02A18-N14	RB2XG4	Thorax Rib 2 Accel X	Rr	2051.2820	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0012	02A16-A03	RB2YG4	Thorax Rib 2 Accel Y	Rgt	2027.2410	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0013	02A04-A24	RB2ZG4	Thorax Rib 2 Accel Z	Up	2067.4338	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0014	B02A25-N05	RB3XG4	Thorax Rib 3 Accel X	Rr	1939.1735	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0015	01G18-F18	RB3YG4	Thorax Rib 3 Accel Y	Rgt	1942.1895	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0016	B02A18-N13	RB3ZG4	Thorax Rib 3 Accel Z	Up	2000.2344	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0017	99H12-F30	RB4XG4	Abdomin Rib 4 Accel X	Rr	1952.5589	g	-	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0018	98H10-F10	RB4YG4	Abdomin Rib 4 Accel Y	Rgt	1994.0800	g	+	9/2/2003	OK	033v	Entran	EGE-73BQ-2000
0019	01G18-F13	RB4ZG4	Abdomin Rib 4 Accel Z	Up	2000.3125	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0020	01J02-F16	RB5XG4	Abdomin Rib 5 Accel X	Rr	1981.7309	g	-	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0021	99H12-F18	RB5YG4	Abdomin Rib 5 Accel Y	Rgt	2027.2410	g	+	9/2/2003	OK	033v	Entran	EGE-73BQE0-20
0022	01G18-F12	RB5ZG4	Abdomin Rib 5 Accel Z	Dn	2063.1019	g	+	9/2/2003	OK	033v	Entran	EGE-73B6Q-200
0023	3861-033RB1YD	RB1YD4	Thorax Rib 1 Disp. Y	Rib	77.722960	mm	-	8/28/2003	OK	033v	FTSS(Hone	180-3861
0024	3861-033RB2YD	RB2YD4	Thorax Rib 2 Disp. Y	Rib	77.317330	mm	-	8/28/2003	OK	033v	FTSS(Hone	180-3861
0025	3861-033RB3YD	RB3YD4	Thorax Rib 3 Disp. Y	Rib	77.992842	mm	-	8/28/2003	OK	033v	FTSS(Hone	180-3861
0026	3861-033RB4YD	RB4YD4	Abdomin Rib 4 Disp. Y	Rib	78.194262	mm	-	8/29/2003	OK	033v	FTSS(Hone	180-3861
0027	3861-033RB5YD	RB5YD4	Abdomin Rib 5 Disp. Y	Rib	77.670963	mm	-	8/28/2003	OK	033v	FTSS(Hone	180-3861
0028	ASC-33RBF1	RF1V4	Rib 1 to Frt Stop	Switch	5.12	V	+	9/9/2003	OK	033v	TRC	ASC
0029	ASC-33RBF2	RF2V4	Rib 2 to Frt Stop	Switch	5.12	V	+	9/9/2003	OK	033v	TRC	ASC
0030	ASC-33RBF3	RF3V4	Rib 3 to Frt Stop	Switch	5.12	V	+	9/9/2003	OK	033v	TRC	ASC
0031	ASC-33RBF4	RF4V4	Rib 4 to Frt Stop	Switch	5.12	V	+	9/9/2003	OK	033v	TRC	ASC
0032	ASC-33RBF5	RF5V4	Rib 5 to Frt Stop	Switch	5.12	V	+	9/9/2003	OK	033v	TRC	ASC

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Channel Report

9/15/2003 9:47:03 AM

Name of Test 030915-1

System MINIDAU

Name of DAU DAUB

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
0001	ASC-33RBB1	RB1V4	Rib 1 to Rear Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0003	ASC-33RBB3	RB3V4	Rib 3 to Rear Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0004	ASC-33RBB4	RB4V4	Rib 4 to Rear Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0005	ASC-33RBB5	RB5V4	Rib 5 to Rear Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0006	ASC-33RBGF1	RFG1V4	Rib 1 to Frt Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0007	ASC-33RBGF2	RFG2V4	Rib 2 to Frt Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0008	ASC-33RBGF3	RFG3V4	Rib 3 to Frt Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0009	ASC-33RBGF4	RFG4V4	Rib 4 to Frt Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0010	ASC-33RBGF5	RFG5V4	Rib 5 to Frt Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0011	ASC-33RBGB1	RBG1V4	Rib 1 to Rear Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0012	ASC-33RBGB2	RBG2V4	Rib 2 to Rear Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0013	ASC-33RBGB3	RBG3V4	Rib 3 to Rear Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0014	ASC-33RBGB4	RBG4V4	Rib 4 to Rear Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0015	ASC-33RBGB5	RBG5V4	Rib 5 to Rear Guide Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0016	IF-414-101-FX	LMBXF4	Lumbar Force X	Cst	13305.557	N	+ 1/17/2003	OK 033v	FTSS	IF-414
0017	IF-414-101-FY	LMBYF4	Lumbar Force Y	Cst	13304.689	N	+ 1/17/2003	OK 033v	FTSS	IF-414
0018	IF-414-101-FZ	LMBZF4	Lumbar Force Z	Cst	13331.744	N	+ 1/17/2003	OK 033v	FTSS	IF-414
0020	IF-414-101-MY	LMBYM4	Lumbar Moment Y	Strn	451.72124	N·m	+ 1/17/2003	OK 033v	FTSS	IF-414
0021	IF-414-101-MZ	LMBZM4	Lumbar Moment Z	Rt Shl	225.43185	N·m	+ 1/17/2003	OK 033v	FTSS	IF-414
0022	00L13-F14	PEVXG4	Pelvis Accel X	Fwd	2045.9540	g	+ 9/3/2003	OK 033v	Entran	EGE-73B6Q-200
0023	P12566	PEVYG4	Pelvis Accel Y	Rgt	2027.0002	g	+ 8/28/2003	OK 033v	Endevco	7264C-2K-2-180
0024	99H30-Z12	PEVZG4	Pelvis Accel Z	Dn	1968.2466	g	+ 9/2/2003	OK 033v	Entran	EGE-73BQE0-20
0025	IF-520-102-FY	LACYF4	Left Acetabulum Force Y	Lt	8900.4852	N	+ 1/17/2003	OK 033v	FTSS	IF-520
0026	IF-507-102-FY	LIWYF4	Left Illiac Wing Force Y	Lt Ill	13337.247	N	+ 1/17/2003	OK 033v	FTSS	IF-507
0027	IF-625-109-FX	LFMXF4	Left Femur Force X	Knee	13330.041	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0028	IF-625-109-FY	LFMYF4	Left Femur Force Y	Knee	13354.408	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0029	IF-625-109-FZ	LFMZF4	Left Femur Force Z	Knee	22268.853	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0030	IF-625-109-MX	LFMXM4	Left Femur Moment X	Knee	339.00102	N·m	+ 9/2/2003	OK 033v	FTSS	IF-625
0031	IF-625-109-MY	LFMYM4	Left Femur Moment Y	Knee	338.85110	N·m	+ 9/2/2003	OK 033v	FTSS	IF-625
0032	IF-625-109-MZ	LFMZM4	Left Femur Moment Z	Tib	339.73986	N·m	+ 9/2/2003	OK 033v	FTSS	IF-625

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Channel Report

9/15/2003 9:47:04 AM

Name of Test 030915-1

System MINIDAU

Name of DAU DAUC

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
0001	IF-625-107-FX	RFMXF4	Right Femur Force X	Knee	13341.730	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0002	IF-625-107-FY	RFMYF4	Right Femur Force Y	Knee	13358.562	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0003	IF-625-107-FZ	RFMZF4	Right Femur Force Z	Knee	22249.615	N	+ 9/2/2003	OK 033v	FTSS	IF-625
0004	IF-625-107-MX	RFMXM4	Right Femur Moment X	Knee	339.15038	N-m	+ 9/2/2003	OK 033v	FTSS	IF-625
0005	IF-625-107-MY	RFMYM4	Right Femur Moment Y	Knee	339.13704	N-m	+ 9/2/2003	OK 033v	FTSS	IF-625
0006	IF-625-107-MZ	RFMZM4	Right Femur Moment Z	Tib	339.21695	N-m	+ 9/2/2003	OK 033v	FTSS	IF-625
0007	P28091	RFSXG1	RGT SIDE SILL FRNT ST X	FWD	397.28727	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0008	P27513	RFSYG1	RGT SIDE SILL FRNT ST Y	LT	1009.8619	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0009	P27907	RFSZG1	RGT SIDE SILL FRNT ST Z	UP	399.50062	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0010	P26813	RRSXG1	RGT SIDE SILL RR ST X	FWD	400.09377	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0011	P27373	RRSYG1	RGT SIDE SILL RR ST Y	LT	1004.8673	g	- 5/14/2003	OK -1	Endevco	7264C-2K-2-180
0012	P27383	RRSZG1	RGT SIDE SILL RR ST Z	UP	397.08391	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0013	P27926	RDKXG1	RR FLRPAN ABV AXLE X	FWD	994.40646	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0014	P28098	RDKYG1	RR FLRPAN ABV AXLE Y	LT	980.84291	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0015	P27337	RDKZG1	RR FLRPAN ABV AXLE Z	LT	1017.8117	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0016	P27216	LRSYG1	LFT SIDE SILL RR ST Y	RT	974.94097	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0017	P27387	LFSYG1	LFT SIDE SILL FRNT ST Y	RT	1002.0353	g	+ 7/18/2003	OK -1	Endevco	7264C-2K-2-180
0018	P27525	LFCYG1	LFT FRNT DOOR CTRLN Y	RT	1478.7430	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0019	P26773	RRTYG1	RGT RR OCP COMP Y	RT	1461.1872	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0020	P27420	LFMYG1	LFT FRNT DOOR MIDRR Y	RT	1503.6710	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0021	P27937	LFUYG1	LFT FRNT DOOR UPPER C/L	RT	1462.4393	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0022	P25879	LRMYG1	LFT RR DOOR MIDREAR Y	RT	1473.1693	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0023	P27933	LRUYG1	LT RR DR UPPER CL Y	RT	1511.3944	g	+ 7/18/2003	OK -1	Endevco	7264C-2K-2-180
0024	P27960	LLBYG1	LFT LOWER B-POST Y	RT	1513.4048	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0025	P27938	LUBYG1	LFT MID B-POST Y	RT	1489.2379	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0026	P27942	LLAYG1	LFT LOWER A-POST Y	LT	1534.2662	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0027	P25843	LUAYG1	LFT MID A-POST Y	LT	1469.9127	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0028	P24396	LFTYG1	LFT FRNT ST TRK Y	RT	1468.3950	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0029	P27453	LRTYG1	LFT RR ST TR Y	LT	1482.8544	g	- 8/1/2003	OK -1	Endevco	7264C-2K-2-180
0030	P27953	VCGXG1	VEH C/G X	FWD	1011.7577	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0031	P27963	VCGYG1	VEH C/G Y	LT	995.14091	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0032	P27950	VCGZG1	VEH C/G Z	UP	1001.5649	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180

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Channel Report

9/15/2003 9:47:04 AM

Name of Test 030915-1

System MINIDAU

Name of DAU DAUD

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal.	Group	Mfg.	Model
0001	P27532	RDXG1	VEHICLE RR DECK X-AXIS	FWD	1005.7358	g	+ 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0002	P25920	RDYG1	VEHICLE RR DECK Y-AXIS	LT	993.17194	g	- 7/19/2003	OK -1	Endevco	7264C-2K-2-180
0003	ASC-33RBB2	RB2V4	Rib 2 to Rear Stop	Switch	5.12	V	+ 9/9/2003	OK 033v	TRC	ASC
0004	IF-414-101-MX	LMBXM4	Lumbar Moment X	Lt Shl	451.99472	N·m	+ 1/17/2003	OK 033v	FTSS	IF-414
0005	02I02I05-F17	SHLXG1	Shoulder Accel X	Rr	2072.3710	g	- 9/2/2003	OK 020v	Entran	EGE-73B6Q-200

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Digital and System Channel Report

2003-09-15 10:11:58

Name of Test	030915-1	System	K3600	Name of DAU	DAU0	descriptio
enable	Channel	Short Name	Type	Data File	Module Type	
Yes	0500	DIG0	dig0	DAT00500	KM3650 Sequencer	

bit position	bit	short	long	descriptio
MSB = bit 15	1	EVENT	EVENT	
bit 14	1	MDBR1	MDB RT SIDE CONTACT SWITCH	
bit 13	1	MDBL1	MDB LT SIDE CONTACT SWITCH	
bit 12	0			
bit 11	0			
bit 10	0			
bit 09	0			
bit 08	0			
bit 07	0			
bit 06	0			
bit 05	0			
bit 04	0			
bit 03	0			
bit 02	0			
bit 01	0			
LSB = bit 00	0			

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030915-1

Digital and System Channel Report

2003-09-15 10:11:59

Name of Test 030915-1

System MINIDAU

Name of DAU DAU6 descriptio

enable Channel Short Name
Yes 6501 DIG6

Type
dig0

Data File Module Type
DAT66501 KM3710 Controller

bit position	bit	short	long	descriptio
MSB = bit 15	1	RF1V1	RIB 1 TO FRT STOP	
bit 14	1	RF2V1	RIB 2 TO FRT STOP	
bit 13	1	RF3V1	RIB 3 TO FRT STOP	
bit 12	1	RF4V1	RIB 4 TO FRT STOP	
bit 11	1	RF5V1	RIB 5 TO FRT STOP	
bit 10	1	RB1V1	RIB 1 TO RR STOP	
bit 09	1	RB2V1	RIB 2 TO RR STOP	
bit 08	1	RB3V1	RIB 3 TO RR STOP	
bit 07	1	RB4V1	RIB 4 TO RR STOP	
bit 06	1	RB5V1	RIB 5 TO RR STOP	
bit 05	1	RFG1V1	RIB 1 TO FRT GUIDE STOP	
bit 04	1	RFG2V1	RIB 2 TO FRT GUIDE STOP	
bit 03	1	RFG3V1	RIB 3 TO FRT GUIDE STOP	
bit 02	1	RFG4V1	RIB 4 TO FRT GUIDE STOP	
bit 01	1	RFG5V1	RIB 5 TO FRT GUIDE STOP	
LSB = bit 00	1	RBG1V1	RIB 1 TO RR GUIDE STOP	

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030915-1

Digital and System Channel Report

2003-09-15 10:11:59

Name of Test 030915-1

System MINIDAU

Name of DAU DAU7 descriptio

enable Channel

Short Name

Type

Data File

Module Type

Yes 7501

DIG7

dig0

DAT77501

KM3710 Controller

bit position	bit	short	long	descriptio
MSB = bit 15	1	RBG2V1	RIB 2 TO RR GUIDE STOP	
bit 14	1	RBG3V1	RIB 3 TO RR GUIDE STOP	
bit 13	1	RBG4V1	RIB 4 TO RR GUIDE STOP	
bit 12	1	RBG5V1	RIB 5 TO RR GUIDE STOP	
bit 11	1	CSTC1	DRIV. SHOULDER	
bit 10	1	PEVC1	DRIV. PELVIS	
bit 09	1	CSTC4	RR/L. SHOULDER	
bit 08	1	PEVC4	RR/L. PELVIS	
bit 07	0			
bit 06	0			
bit 05	0			
bit 04	0			
bit 03	0			
bit 02	0			
bit 01	0			
LSB = bit 00	0			

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030915-1

Dummy	020v	Type	SID IIs	Description	VRTC - 020v SID IIs ICAL'd 4-11-03 (9-9-03 DKS)J211						
Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/		Fullscal	Caldat	Pos Output	Flip	
HEDXG	Head Accel X	EGE-73B6Q-20	01G25-N08	Entran	0.02342	g	2000	9/2/2003	Fwd	0	
HEDYG	Head Accel Y	EGE-73BQ-200	98H10-F01	Entran	0.01938	g	2000	8/29/2003	Rgt	0	
HEDZG	Head Accel Z	EGE-73B6Q-20	01G18-F06	Entran	0.02248	g	2000	9/2/2003	Up	1	
HD1XG	Head (LT) Accel X	EGE-73B6Q-20	01G18-F16	Entran	0.01961	g	2000	9/2/2003	Fwd	0	
HD1ZG	Head (LT) Accel Z	EGE-73B6Q-20	01J02-F08	Entran	0.01982	g	2000	9/2/2003	Up	1	
HD2YG	Head (FT) Accel Y	7264-2000TZ	J36721	Endevco	0.02646	g	2000	8/29/2003	Rgt	0	
HD2ZG	Head (FT) Accel Z	EGE-73B6Q-20	01J02-F18	Entran	0.02162	g	2000	9/2/2003	Up	1	
HD3XG	Head (TP) Accel X	EGE-73B6Q-20	00L13-F72	Entran	0.02073	g	2000	9/2/2003	Rr	1	
HD3YG	Head (TP) Accel Y	EGE-73B6Q-20	02A16-A20	Entran	0.0225	g	2000	9/3/2003	Lft	1	
NEKXF	Neck Force X	1716A	1716A-777-FX	Denton	0.000193719	N	8896.4	8/29/2003	Hd Fd,Cst Rr	1	
NEKYF	Neck Force Y	1716A	1716A-777-FY	Denton	0.000184468	N	8896.4	8/29/2003	Hd Lt,Cst Rt	0	
NEKZF	Neck Force Z	1716A	1716A-777-FZ	Denton	0.000097103	N	13344.6	8/29/2003	Hd Up,Cst Dn	0	
NEKXM	Neck Moment X	1716A	1716A-777-MX	Denton	0.005905487	N	282.5	8/29/2003	Rt Ear to Rt Shld	1	
NEKYM	Neck Moment Y	1716A	1716A-777-MY	Denton	0.005815575	N	282.5	8/29/2003	Chn to Strnm	0	
NEKZM	Neck Moment Z	1716A	1716A-777-MZ	Denton	0.008289558	N	282.5	8/29/2003	Chn to Lt Shld	0	
NKLXF	Neck Lower Force X	3166	3166-130-FX	Denton	0.000180288	N	13344.2	4/22/2003	Hd Fd,Cst Rr	1	
NKLYF	Neck Lower Force Y	3166	3166-130-FY	Denton	0.000178901	N	13344.2	4/22/2003	Hd Lt,Cst Rt	0	
NKLZF	Neck Lower Force Z	3166	3166-130-FZ	Denton	0.000096026	N	13344.2	4/22/2003	Hd Up,Cst Dn	0	
NKLXM	Neck Lower Moment X	3166	3166-130-MX	Denton	0.00442133	N	451.9	4/22/2003	Rt Ear to Rt Shld	1	
NKLYM	Neck Lower Moment Y	3166	3166-130-MY	Denton	0.00448838	N	451.9	4/22/2003	Chn to Strnm	0	
NKLZM	Neck Lower Moment Z	3166	3166-130-MZ	Denton	0.0058407	N	339	4/22/2003	Chn to Lt Shld	0	
SHLYD	Shoulder Disp. Y	180-3860	3860-020SHD	FTSS(Honeywell)	13.14118	m	75	8/27/2003	Shld Lt,Hld Spn	1	
SHLXG	Shoulder Accel X	EGE-73B6Q-20	02I02I05-F17	Entran	0.02246	g	2000	9/2/2003	Rr	1	
SHLYG	Shoulder Accel Y	EGE-73B6Q-20	00L20-A14	Entran	0.01816	g	2000	9/2/2003	Lft	1	
SHLZG	Shoulder Accel Z	EGE-73B6Q-20	02A16-A25	Entran	0.02027	g	2000	9/2/2003	Dwn	0	
SHLXF	Shoulder Force X	3167	3167-142-FX	Denton	0.000522144	N	4448.2	4/23/2003	Shd Fd,Cst Rr(Cb.Up)	0	

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
SHLYF	Shoulder Force Y	3167	3167-142-FY	Denton	0.000247954 N	4448.2	4/23/2003	Shld Lt,Cst Rt	0
SHLZF	Shoulder Force Z	3167	3167-142-FZ	Denton	0.000520481 N	4448.2	4/23/2003	Shld Up,Cst Dn	1
T01XG	Upper Spine (T01) Accel X	EGE-73B6Q-20	03D03D16-F10	Entran	0.02232 g	2000	7/11/2003	Rwd	1
T01YG	Upper Spine (T01) Accel Y	EGE-73B6Q-20	03D03D16-F06	Entran	0.02174 g	2000	7/11/2003	Lft	1
T01ZG	Upper Spine (T01) Accel Z	EGE-73B6Q-20	03D03D16-F04	Entran	0.02176 g	2000	7/11/2003	Up	1
!UARXG	Upper Arm Accel X	TEMP	TEMP34	TRC	0.02036 g	750	11/5/1998	Rwd	1
!UARYG	Upper Arm Accel Y	TEMP	TEMP35	TRC	0.02036 g	750	11/5/1998	Lft	1
!UARZG	Upper Arm Accel Z	TEMP	TEMP36	TRC	0.02036 g	750	11/5/1998	Up	1
!LARXG	Lower Arm Accel X	TEMP	TEMP17	TRC	0.02036 g	750	11/5/1998	Rwd	1
!LARYG	Lower Arm Accel Y	TEMP	TEMP16	TRC	0.02036 g	750	11/5/1998	Lft	1
!LARZG	Lower Arm Accel Z	TEMP	TEMP15	TRC	0.02036 g	750	11/5/1998	Up	1
!SSHDYG	Spine Shoulder Accel X	7264-2000LC	ACB45	Endevco	0.02679 g	2000	9/10/2003	Fwd	0
!SSHDYG	Spine Shoulder Accel Y	7264-2000LC	AMR49	Endevco	0.02027 g	2000	4/21/2003	Lft	1
!SSHDZG	Spine Shoulder Accel Z	7264-2KM5T	J14688	Endevco	0.04092 g	2000	9/11/2003	Dwn	0
SR1XG	Spine Rib 1 Accel X	EGE-73B6Q-20	03E03E21-M09	Entran	0.02142 g	2000	7/21/2003	Rwd	1
SR1YG	Spine Rib 1 Accel Y	EGE-73B6Q-20	03E03E21-M21	Entran	0.02409 g	2000	7/21/2003	Lft	1
SR1ZG	Spine Rib 1 Accel Z	EGE-73B6Q-20	03E03E18-F07	Entran	0.01907 g	2000	7/21/2003	Up	1
SR2XG	Spine Rib 2 Accel X	EGE-73B6Q-20	03F03E29-N02	Entran	0.02265 g	2000	7/21/2003	Rwd	1
SR2YG	Spine Rib 2 Accel Y	EGE-73B6Q-20	03E03E21-M15	Entran	0.0213 g	2000	7/16/2003	Lft	1
SR2ZG	Spine Rib 2 Accel Z	EGE-73B6Q-20	03F03E29-N14	Entran	0.02268 g	2000	7/17/2003	Up	1
SR3XG	Spine Rib 3 Accel X	EGE-73B6Q-20	03E03E20-N05	Entran	0.02088 g	2000	7/21/2003	Rwd	1
SR3YG	Spine Rib 3 Accel Y	EGE-73B6Q-20	03F03E29-N01	Entran	0.01979 g	2000	7/19/2003	Lft	1
SR3ZG	Spine Rib 3 Accel Z	EGE-73B6Q-20	03E03E20-N17	Entran	0.0224 g	2000	7/22/2003	Up	1
SR4XG	Spine Rib 4 Accel X	EGE-73B6Q-20	03E03E21-M18	Entran	0.01861 g	2000	7/16/2003	Fwd	0
SR4YG	Spine Rib 4 Accel Y	EGE-73B6Q-20	03E03E20-N04	Entran	0.01903 g	2000	7/22/2003	Lft	1
SR4ZG	Spine Rib 4 Accel Z	EGE-73B6Q-20	03F03E29-N21	Entran	0.02027 g	2000	7/16/2003	Dwn	0
SR5XG	Spine Rib 5 Accel X	EGE-73B6Q-20	03E03E21-M03	Entran	0.0202 g	2000	7/21/2003	Rwd	1
SR5YG	Spine Rib 5 Accel Y	EGE-73B6Q-20	03E03E18-F05	Entran	0.02063 g	2000	7/21/2003	Lft	1

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
SR5ZG	Spine Rib 5 Accel Z	EGE-73B6Q-20	03E03E18-F09	Entran	0.01973 g	2000	7/21/2003	Up	1
!RB1XF	Thorax Rib 1 Force X	3676	3676-108-FX	Denton	0.000275157 N	4448	3/14/2001	Rib into Cst	0
!RB2XF	Thorax Rib 2 Force X	3676	3676-109-FX	Denton	0.00027455 N	4448	3/14/2001	Rib into Cst	0
!RB3XF	Thorax Rib 3 Force X	3676	3676-110-FX	Denton	0.000267491 N	4448	3/14/2001	Rib into Cst	0
!RB4XF	Abdomin Rib 4 Force X	3676	3676-111-FX	Denton	0.000276528 N	4448	3/14/2001	Rib into Cst	0
RB1XG	Thorax Rib 1 Accel X	EGE-73B6Q-20	03D03D16-F02	Entran	0.02223 g	2000	7/11/2003	Rr	1
RB1YG	Thorax Rib 1 Accel Y	EGE-73B6Q-20	03D03D16-F16	Entran	0.02273 g	2000	7/11/2003	Rgt	0
RB1ZG	Thorax Rib 1 Accel Z	EGE-73B6Q-20	03D03D16-F12	Entran	0.02298 g	2000	7/11/2003	Up	1
RB2XG	Thorax Rib 2 Accel X	EGE-73B6Q-20	03D03D16-F14	Entran	0.02104 g	2000	7/11/2003	Rr	1
RB2YG	Thorax Rib 2 Accel Y	EGE-73B6Q-20	03E03E21-M20	Entran	0.02187 g	2000	7/21/2003	Rgt	0
RB2ZG	Thorax Rib 2 Accel Z	EGE-73B6Q-20	03D03D16-F17	Entran	0.02219 g	2000	7/11/2003	Up	1
RB3XG	Thorax Rib 3 Accel X	EGE-73B6Q-20	03D03D16-F20	Entran	0.02061 g	2000	7/10/2003	Rr	1
RB3YG	Thorax Rib 3 Accel Y	EGE-73B6Q-20	03D03D16-F21	Entran	0.02381 g	2000	7/11/2003	Rgt	0
RB3ZG	Thorax Rib 3 Accel Z	EGE-73B6Q-20	03E03E20-N02	Entran	0.0208 g	2000	7/22/2003	Up	1
RB4XG	Abdomin Rib 4 Accel X	EGE-73B6Q-20	03D03D16-F07	Entran	0.02248 g	2000	7/11/2003	Rr	1
RB4YG	Abdomin Rib 4 Accel Y	EGE-73B6Q-20	03E03E18-F08	Entran	0.01987 g	2000	7/21/2003	Rgt	0
RB4ZG	Abdomin Rib 4 Accel Z	EGE-73B6Q-20	03F03F09-N20	Entran	0.02 g	2000	6/30/2003	Up	1
RB5XG	Abdomin Rib 5 Accel X	EGE-73B6Q-20	03E03E21-M02	Entran	0.02184 g	2000	7/21/2003	Rr	1
RB5YG	Abdomin Rib 5 Accel Y	EGE-73B6Q-20	03D03D16-F13	Entran	0.02284 g	2000	7/11/2003	Rgt	0
RB5ZG	Abdomin Rib 5 Accel Z	EGE-73B6Q-20	03E03E21-M04	Entran	0.0192 g	2000	7/21/2003	Dn	0
RB1YD	Thorax Rib 1 Disp. Y	180-3861	3861-020RB1	FTSS(Honeywell)	13.12794 m	75	8/27/2003	Rib Lt,Hld Spn	1
RB2YD	Thorax Rib 2 Disp. Y	180-3861	3861-020RB2	FTSS(Honeywell)	13.16618 m	75	8/27/2003	Rib Lt,Hld Spn	1
RB3YD	Thorax Rib 3 Disp. Y	180-3861	3861-020RB3	FTSS(Honeywell)	13.12206 m	75	8/27/2003	Rib Lt,Hld Spn	1
RB4YD	Abdomin Rib 4 Disp. Y	180-3861	3861-020RB4	FTSS(Honeywell)	13.17941 m	75	8/27/2003	Rib Lt,Hld Spn	1
RB5YD	Abdomin Rib 5 Disp. Y	180-3861	3861-020RB5	FTSS(Honeywell)	13.16471 m	75	8/27/2003	Rib Lt,Hld Spn	1
RF1V	Rib 1 to Frt Stop	ASC	ASC-20RBF1	TRC	100 V	5	9/9/2003	Switch	0
RF2V	Rib 2 to Frt Stop	ASC	ASC-20RBF2	TRC	100 V	5	9/9/2003	Switch	0
RF3V	Rib 3 to Frt Stop	ASC	ASC-20RBF3	TRC	100 V	5	9/9/2003	Switch	0

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
RF4V	Rib 4 to Frt Stop	ASC	ASC-20RBF4	TRC	100 V	5	9/9/2003	Switch	0
RF5V	Rib 5 to Frt Stop	ASC	ASC-20RBF5	TRC	100 V	5	9/9/2003	Switch	0
RB1V	Rib 1 to Rear Stop	ASC	ASC-20RBB1	TRC	100 V	5	9/9/2003	Switch	0
RB2V	Rib 2 to Rear Stop	ASC	ASC-20RBB2	TRC	100 V	5	9/9/2003	Switch	0
RB3V	Rib 3 to Rear Stop	ASC	ASC-20RBB3	TRC	100 V	5	9/9/2003	Switch	0
RB4V	Rib 4 to Rear Stop	ASC	ASC-20RBB4	TRC	100 V	5	9/9/2003	Switch	0
RB5V	Rib 5 to Rear Stop	ASC	ASC-20RBB5	TRC	100 V	5	9/9/2003	Switch	0
RFG1V	Rib 1 to Frt Guide Stop	ASC	ASC-20RBGF1	TRC	100 V	5	9/9/2003	Switch	0
RFG2V	Rib 2 to Frt Guide Stop	ASC	ASC-20RBGF2	TRC	100 V	5	9/9/2003	Switch	0
RFG3V	Rib 3 to Frt Guide Stop	ASC	ASC-20RBGF3	TRC	100 V	5	9/9/2003	Switch	0
RFG4V	Rib 4 to Frt Guide Stop	ASC	ASC-20RBGF4	TRC	100 V	5	9/9/2003	Switch	0
RFG5V	Rib 5 to Frt Guide Stop	ASC	ASC-20RBGF5	TRC	100 V	5	9/9/2003	Switch	0
RBG1V	Rib 1 to Rear Guide Stop	ASC	ASC-20RBGB1	TRC	100 V	5	9/9/2003	Switch	0
RBG2V	Rib 2 to Rear Guide Stop	ASC	ASC-20RBGB2	TRC	100 V	5	9/9/2003	Switch	0
RBG3V	Rib 3 to Rear Guide Stop	ASC	ASC-20RBGB3	TRC	100 V	5	9/9/2003	Switch	0
RBG4V	Rib 4 to Rear Guide Stop	ASC	ASC-20RBGB4	TRC	100 V	5	9/9/2003	Switch	0
RBG5V	Rib 5 to Rear Guide Stop	ASC	ASC-20RBGB5	TRC	100 V	5	9/9/2003	Switch	0
!T12XG	Lower Spine (T12) Accel X	TEMP	TEMP40	TRC	0.02036 g	750	11/5/1998	Fwd	0
!T12YG	Lower Spine (T12) Accel Y	TEMP	TEMP41	TRC	0.02036 g	750	11/5/1998	Lft	1
!T12ZG	Lower Spine (T12) Accel Z	TEMP	TEMP19	TRC	0.02036 g	750	11/5/1998	Dwn	0
LMBXF	Lumbar Force X	3229	3229-135-FX	Denton	0.000165938 N	13344.7	4/11/2003	Cst Fd,Pel Rr	1
LMBYF	Lumbar Force Y	3229	3229-135-FY	Denton	0.000166725 N	13344.7	4/11/2003	Cst Lt,Pel Rt	0
LMBZF	Lumbar Force Z	3229	3229-135-FZ	Denton	0.000094786 N	13344.7	4/11/2003	Cst Up,Pel Dn	0
LMBXM	Lumbar Moment X	3229	3229-135-MX	Denton	0.006435273 N	451.9	4/11/2003	Rt Shl to Rt Hip	1
LMBYM	Lumbar Moment Y	3229	3229-135-MY	Denton	0.00637928 N	451.9	4/11/2003	Strn to Leg	0
LMBZM	Lumbar Moment Z	3229	3229-135-MZ	Denton	0.01201283 N	226	4/11/2003	Rt Shl Fd,Lt Shl Rr	0
PEVXG	Pelvis Accel X	EGE-73B6Q-20	03E03E20-N18	Entran	0.02182 g	2000	7/17/2003	Fwd	0
PEVYG	Pelvis Accel Y	EGE-73B6Q-20	03F03E29-N16	Entran	0.02129 g	2000	7/16/2003	Rgt	0

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
PEVZG	Pelvis Accel Z	EGE-73B6Q-20	03E03E21-M17	Entran	0.02134 g	2000	7/16/2003	Dn	0
!PPSYF	Pubic Psympashis Force Y	IF-529	IF-529-102-FY	FTSS	0.00013805 N	8896	3/14/2001	Rt pd Rt,Lt pd Lt	0
LACYF	Left Acetabulum Force Y	IF-520	IF-520-111-FY	FTSS	0.000258666 N	8896.4	5/19/2003	Lt Act Rt	0
LIWYF	Left Illiac Wing Force Y	IF-507	IF-507-113-FY	FTSS	0.000131895 N	13344.6	5/19/2003	Lt Ill Rt	0
!RIWYF	Right Illiac Wing Force Y	IF-507	IF-507-101-FY	FTSS	0.000126343 N	13344	3/15/2001	Rt Ill Lt	1
LFMXF	Left Femur Force X	IF-625	IF-625-111-FX	FTSS	0.000124086 N	13344.6	8/29/2003	Knee Up,Fem Dn	0
LFMYF	Left Femur Force Y	IF-625	IF-625-111-FY	FTSS	0.000123119 N	13344.6	8/29/2003	Knee Rt,Fem Lt	0
LFMZf	Left Femur Force Z	IF-625	IF-625-111-FZ	FTSS	0.000063008 N	22241	8/29/2003	Knee Fd,Pel Rr	0
LFMXM	Left Femur Moment X	IF-625	IF-625-111-MX	FTSS	0.00439292 N	339	8/29/2003	Knee Lt,Hld Fem	0
LFMYM	Left Femur Moment Y	IF-625	IF-625-111-MY	FTSS	0.004360472 N	339	8/29/2003	Knee Up,Hld Fem	0
LFMZM	Left Femur Moment Z	IF-625	IF-625-111-MZ	FTSS	0.006868732 N	339	8/29/2003	Tib Lt,Hld Pel	0
RFMXF	Right Femur Force X	IF-625	IF-625-110-FX	FTSS	0.000124236 N	13344.6	8/29/2003	Knee Up,Fem Dn	0
RFMYF	Right Femur Force Y	IF-625	IF-625-110-FY	FTSS	0.000122212 N	13344.6	8/29/2003	Knee Rt,Fem Lt	0
RFMZf	Right Femur Force Z	IF-625	IF-625-110-FZ	FTSS	0.000061902 N	22241	8/29/2003	Knee Fd,Pel Rr	0
RFMXM	Right Femur Moment X	IF-625	IF-625-110-MX	FTSS	0.004376401 N	339	8/29/2003	Knee Lt,Hld Fem	0
RFMYM	Right Femur Moment Y	IF-625	IF-625-110-MY	FTSS	0.004287611 N	339	8/29/2003	Knee Up,Hld Fem	0
RFMZM	Right Femur Moment Z	IF-625	IF-625-110-MZ	FTSS	0.00680059 N	339	8/29/2003	Tib Lt,Hld Pel	0

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030915-1

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Dummy	033v	Type	SID IIs	Description	VRTC - 033v SID IIs Left Config. ICAL'd 3-7-03 (DKS 9-12-03)J211(RBXF's?)						
Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/		Fullscal	Caldat	Pos Output	Flip	
HEDXG	Head Accel X	EGE-73BQE0-	99H12-F25	Entran	0.01685	g	2000	9/3/2003	Fwd	0	
HEDYG	Head Accel Y	EGE-73BQE0-	99H30-Z09	Entran	0.01932	g	2000	9/2/2003	Rgt	0	
HEDZG	Head Accel Z	EGE-73B6Q-20	01G18-F07	Entran	0.02255	g	2000	9/2/2003	Up	1	
HD1XG	Head (LT) Accel X	7264C-2KLC-2	P15638	Endevco	0.01386	g	2000	8/29/2003	Rwd	1	
HD1ZG	Head (LT) Accel Z	7264C-2KLC-2	P17858	Endevco	0.01308	g	2000	8/29/2003	Dn	0	
HD2YG	Head (FT) Accel Y	EGE-73B6Q-20	03D03D16-F18	Entran	0.02201	g	2000	7/11/2003	Lft	1	
HD2ZG	Head (FT) Accel Z	EGE-73BQE0-	99H30-Z01	Entran	0.01892	g	2000	9/2/2003	Dn	0	
HD3XG	Head (TP) Accel X	EGE-73B6Q-20	03D03D16-F05	Entran	0.0186	g	2000	7/11/2003	Rr	1	
HD3YG	Head (TP) Accel Y	EGE-73B6Q-20	03D03D16-F03	Entran	0.02532	g	2000	7/11/2003	Lft	1	
NEKXF	Neck Force X	IF-205	IF-205-304-FX	FTSS	0.000181565	N	8896	8/28/2003	Hd Fd,Cst Rr	1	
NEKYF	Neck Force Y	IF-205	IF-205-304-FY	FTSS	0.000172752	N	8896	8/28/2003	Hd Lt,Cst Rt	0	
NEKZF	Neck Force Z	IF-205	IF-205-304-FZ	FTSS	0.000091247	N	13344	8/28/2003	Hd Up,Cst Dn	0	
NEKXM	Neck Moment X	IF-205	IF-205-304-MX	FTSS	0.005641062	N	282.5	8/28/2003	Rt Ear to Rt Shld	1	
NEKYM	Neck Moment Y	IF-205	IF-205-304-MY	FTSS	0.005508673	N	282.5	8/28/2003	Chn to Strnm	0	
NEKZM	Neck Moment Z	IF-205	IF-205-304-MZ	FTSS	0.008131681	N	282.5	8/28/2003	Chn to Lt Shld	0	
NKLXF	Neck Lower Force X	IF-255	IF-255-108-FX	FTSS	0.000222059	N	11120.6	3/7/2003	Hd Rr,Cst Fd	0	
NKLYF	Neck Lower Force Y	IF-255	IF-255-108-FY	FTSS	0.000222146	N	11120.6	3/7/2003	Hd Lt,Cst Rt	0	
NKLZF	Neck Lower Force Z	IF-255	IF-255-108-FZ	FTSS	0.000098411	N	11120.6	3/7/2003	Hd Up,Cst Dn	0	
NKLXM	Neck Lower Moment X	IF-255	IF-255-108-MX	FTSS	0.00767227	N	339	3/7/2003	Lt Ear to Lt Shld	0	
NKLYM	Neck Lower Moment Y	IF-255	IF-255-108-MY	FTSS	0.007661651	N	339	3/7/2003	Chn to Strnm	0	
NKLZM	Neck Lower Moment Z	IF-255	IF-255-108-MZ	FTSS	0.015601327	N	225.9	3/7/2003	Chn to Lt Shld	0	
SHLYD	Shoulder Disp. Y	180-3860	3860-033SHLD	FTSS(Honeywell)	13.08325	m	75	8/28/2003	Shld Lt,Hld Spn	1	
SHLXG	Shoulder Accel X	7264C-2KLC-2	P17848	Endevco	0.01328	g	2000	8/29/2003	Rr	1	
SHLYG	Shoulder Accel Y	7264C-2KLC-2	P16336	Endevco	0.01396	g	2000	8/29/2003	Rgt	0	
SHLZG	Shoulder Accel Z	7264C-2KLC-2	P16225	Endevco	0.01417	g	2000	8/29/2003	Dwn	0	
SHLXF	Shoulder Force X	IF-344	IF-344-101-FX	FTSS	0.000625876	N	4448	9/2/2003	Shd Rr,Cst Fd(Cb.Up)	1	

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
SHLYF	Shoulder Force Y	IF-344	IF-344-101-FY	FTSS	0.000240692 N	4448	9/2/2003	Shld Lt,Cst Rt	1
SHLZF	Shoulder Force Z	IF-344	IF-344-101-FZ	FTSS	0.000628934 N	4448	9/2/2003	Shld Up,Cst Dn	1
T01XG	Upper Spine (T01) Accel X	EGE-73B6Q-20	01J02-F07	Entran	0.01991 g	2000	8/29/2003	Rwd	1
T01YG	Upper Spine (T01) Accel Y	7264C-2KLC-2	P15951	Endevco	0.01357 g	2000	8/29/2003	Lft	1
T01ZG	Upper Spine (T01) Accel Z	EGE-73BQE0-	99H30-Z07	Entran	0.01962 g	2000	8/29/2003	Up	1
!UARXG	Upper Arm Accel X	TEMP	TEMP34	TRC	0.02036 g	750	11/5/1998	Rwd	0
!UARYG	Upper Arm Accel Y	TEMP	TEMP35	TRC	0.02036 g	750	11/5/1998	Lft	0
!UARZG	Upper Arm Accel Z	TEMP	TEMP36	TRC	0.02036 g	750	11/5/1998	Up	0
!LARXG	Lower Arm Accel X	TEMP	TEMP17	TRC	0.02036 g	750	11/5/1998	Rwd	0
!LARYG	Lower Arm Accel Y	TEMP	TEMP16	TRC	0.02036 g	750	11/5/1998	Lft	0
!LARZG	Lower Arm Accel Z	TEMP	TEMP15	TRC	0.02036 g	750	11/5/1998	Up	0
!SSHDXG	Spine Shoulder Accel X	7264-2000LC	ACB45	Endevco	0.02679 g	2000	9/10/2003	Fwd	0
!SSHDYG	Spine Shoulder Accel Y	7264-2000LC	AMR49	Endevco	0.02027 g	2000	4/21/2003	Lft	0
!SSHDZG	Spine Shoulder Accel Z	7264-2KM5T	J14688	Endevco	0.04092 g	2000	9/11/2003	Dwn	0
SR1XG	Spine Rib 1 Accel X	EGE-73B6Q-20	00L20-A08	Entran	0.01943 g	2000	9/2/2003	Rwd	1
SR1YG	Spine Rib 1 Accel Y	EGE-73B6Q-20	00L13-F71	Entran	0.02073 g	2000	9/2/2003	Lft	1
SR1ZG	Spine Rib 1 Accel Z	EGE-73B6Q-20	01G18-F08	Entran	0.02131 g	2000	8/29/2003	Up	1
SR2XG	Spine Rib 2 Accel X	EGE-73BQE0-	99H12-F03	Entran	0.01864 g	2000	9/3/2003	Rwd	1
SR2YG	Spine Rib 2 Accel Y	EGE-73BQE0-	99H30-Z11	Entran	0.02034 g	2000	9/2/2003	Lft	1
SR2ZG	Spine Rib 2 Accel Z	EGE-73BQE0-	99H30-Z13	Entran	0.01996 g	2000	9/2/2003	Up	1
SR3XG	Spine Rib 3 Accel X	EGE-73B6Q-20	01G18-F02	Entran	0.02156 g	2000	9/2/2003	Rwd	1
SR3YG	Spine Rib 3 Accel Y	EGE-73B6Q-20	01G25-N16	Entran	0.01889 g	2000	9/2/2003	Lft	1
SR3ZG	Spine Rib 3 Accel Z	EGE-73B6Q-20	00L13-F39	Entran	0.02075 g	2000	9/2/2003	Up	1
SR4XG	Spine Rib 4 Accel X	EGE-73B6Q-20	00L20-A13	Entran	0.01913 g	2000	9/2/2003	Fwd	0
SR4YG	Spine Rib 4 Accel Y	EGE-73BQE0-	99H30-Z03	Entran	0.01971 g	2000	9/2/2003	Lft	1
SR4ZG	Spine Rib 4 Accel Z	EGE-73B6Q-20	00L13-F37	Entran	0.02043 g	2000	9/2/2003	Dwn	0
SR5XG	Spine Rib 5 Accel X	EGE-73BQE0-	99H12-F19	Entran	0.01963 g	2000	9/2/2003	Rwd	1
SR5YG	Spine Rib 5 Accel Y	EGE-73BQE0-	99H12-F09	Entran	0.01821 g	2000	9/2/2003	Lft	1

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
SR5ZG	Spine Rib 5 Accel Z	EGE-73BQE0-	99H12-F08	Entran	0.01773 g	2000	9/2/2003	Up	1
IRB1XF	Thorax Rib 1 Force X	3676	3676-108-FX	Denton	0.000275157 N	4448	3/14/2001	Rib into Cst	0
IRB2XF	Thorax Rib 2 Force X	3676	3676-109-FX	Denton	0.00027455 N	4448	3/14/2001	Rib into Cst	0
IRB3XF	Thorax Rib 3 Force X	3676	3676-110-FX	Denton	0.000267491 N	4448	3/14/2001	Rib into Cst	0
IRB4XF	Abdomin Rib 4 Force X	3676	3676-111-FX	Denton	0.000276528 N	4448	3/14/2001	Rib into Cst	0
RB1XG	Thorax Rib 1 Accel X	EGE-73B6Q-20	01G25-N18	Entran	0.01875 g	2000	9/2/2003	Rr	1
RB1YG	Thorax Rib 1 Accel Y	EGE-73B6Q-20	02A16-A12	Entran	0.02221 g	2000	9/2/2003	Rgt	0
RB1ZG	Thorax Rib 1 Accel Z	EGE-73B6Q-20	B02A09-F04	Entran	0.02045 g	2000	9/2/2003	Up	1
RB2XG	Thorax Rib 2 Accel X	EGE-73B6Q-20	B02A18-N14	Entran	0.0192 g	2000	9/2/2003	Rr	1
RB2YG	Thorax Rib 2 Accel Y	EGE-73B6Q-20	02A16-A03	Entran	0.02296 g	2000	9/2/2003	Rgt	0
RB2ZG	Thorax Rib 2 Accel Z	EGE-73B6Q-20	02A04-A24	Entran	0.01905 g	2000	9/2/2003	Up	1
RB3XG	Thorax Rib 3 Accel X	EGE-73B6Q-20	B02A25-N05	Entran	0.02031 g	2000	9/2/2003	Rr	1
RB3YG	Thorax Rib 3 Accel Y	EGE-73B6Q-20	01G18-F18	Entran	0.01883 g	2000	9/2/2003	Rgt	0
RB3ZG	Thorax Rib 3 Accel Z	EGE-73B6Q-20	B02A18-N13	Entran	0.01969 g	2000	9/2/2003	Up	1
RB4XG	Abdomin Rib 4 Accel X	EGE-73BQE0-	99H12-F30	Entran	0.01873 g	2000	9/2/2003	Rr	1
RB4YG	Abdomin Rib 4 Accel Y	EGE-73BQ-200	98H10-F10	Entran	0.01834 g	2000	9/2/2003	Rgt	0
RB4ZG	Abdomin Rib 4 Accel Z	EGE-73B6Q-20	01G18-F13	Entran	0.02133 g	2000	9/2/2003	Up	1
RB5XG	Abdomin Rib 5 Accel X	EGE-73B6Q-20	01J02-F16	Entran	0.02153 g	2000	9/2/2003	Rr	1
RB5YG	Abdomin Rib 5 Accel Y	EGE-73BQE0-	99H12-F18	Entran	0.01804 g	2000	9/2/2003	Rgt	0
RB5ZG	Abdomin Rib 5 Accel Z	EGE-73B6Q-20	01G18-F12	Entran	0.01909 g	2000	9/2/2003	Dn	0
RB1YD	Thorax Rib 1 Disp. Y	180-3861	3861-033RB1YD	FTSS(Honeywell)	13.175 m	75	8/28/2003	Rib Lt,Hld Spn	1
RB2YD	Thorax Rib 2 Disp. Y	180-3861	3861-033RB2YD	FTSS(Honeywell)	13.24412 m	75	8/28/2003	Rib Lt,Hld Spn	1
RB3YD	Thorax Rib 3 Disp. Y	180-3861	3861-033RB3YD	FTSS(Honeywell)	13.12941 m	75	8/28/2003	Rib Lt,Hld Spn	1
RB4YD	Abdomin Rib 4 Disp. Y	180-3861	3861-033RB4YD	FTSS(Honeywell)	13.09559 m	75	8/29/2003	Rib Lt,Hld Spn	1
RB5YD	Abdomin Rib 5 Disp. Y	180-3861	3861-033RB5YD	FTSS(Honeywell)	13.18382 m	75	8/28/2003	Rib Lt,Hld Spn	1
RF1V	Rib 1 to Frt Stop	ASC	ASC-33RBF1	TRC	100 V	5	9/9/2003	Switch	0
RF2V	Rib 2 to Frt Stop	ASC	ASC-33RBF2	TRC	100 V	5	9/9/2003	Switch	0
RF3V	Rib 3 to Frt Stop	ASC	ASC-33RBF3	TRC	100 V	5	9/9/2003	Switch	0

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
RF4V	Rib 4 to Frt Stop	ASC	ASC-33RBF4	TRC	100 V	5	9/9/2003	Switch	0
RF5V	Rib 5 to Frt Stop	ASC	ASC-33RBF5	TRC	100 V	5	9/9/2003	Switch	0
RB1V	Rib 1 to Rear Stop	ASC	ASC-33RBB1	TRC	100 V	5	9/9/2003	Switch	0
RB2V	Rib 2 to Rear Stop	ASC	ASC-33RBB2	TRC	100 V	5	9/9/2003	Switch	0
RB3V	Rib 3 to Rear Stop	ASC	ASC-33RBB3	TRC	100 V	5	9/9/2003	Switch	0
RB4V	Rib 4 to Rear Stop	ASC	ASC-33RBB4	TRC	100 V	5	9/9/2003	Switch	0
RB5V	Rib 5 to Rear Stop	ASC	ASC-33RBB5	TRC	100 V	5	9/9/2003	Switch	0
RFG1V	Rib 1 to Frt Guide Stop	ASC	ASC-33RBGF1	TRC	100 V	5	9/9/2003	Switch	0
RFG2V	Rib 2 to Frt Guide Stop	ASC	ASC-33RBGF2	TRC	100 V	5	9/9/2003	Switch	0
RFG3V	Rib 3 to Frt Guide Stop	ASC	ASC-33RBGF3	TRC	100 V	5	9/9/2003	Switch	0
RFG4V	Rib 4 to Frt Guide Stop	ASC	ASC-33RBGF4	TRC	100 V	5	9/9/2003	Switch	0
RFG5V	Rib 5 to Frt Guide Stop	ASC	ASC-33RBGF5	TRC	100 V	5	9/9/2003	Switch	0
RBG1V	Rib 1 to Rear Guide Stop	ASC	ASC-33RBGB1	TRC	100 V	5	9/9/2003	Switch	0
RBG2V	Rib 2 to Rear Guide Stop	ASC	ASC-33RBGB2	TRC	100 V	5	9/9/2003	Switch	0
RBG3V	Rib 3 to Rear Guide Stop	ASC	ASC-33RBGB3	TRC	100 V	5	9/9/2003	Switch	0
RBG4V	Rib 4 to Rear Guide Stop	ASC	ASC-33RBGB4	TRC	100 V	5	9/9/2003	Switch	0
RBG5V	Rib 5 to Rear Guide Stop	ASC	ASC-33RBGB5	TRC	100 V	5	9/9/2003	Switch	0
!T12XG	Lower Spine (T12) Accel X	TEMP	TEMP40	TRC	0.02036 g	750	11/5/1998	Fwd	0
!T12YG	Lower Spine (T12) Accel Y	TEMP	TEMP41	TRC	0.02036 g	750	11/5/1998	Lft	0
!T12ZG	Lower Spine (T12) Accel Z	TEMP	TEMP19	TRC	0.02036 g	750	11/5/1998	Dwn	0
LMBXF	Lumbar Force X	IF-414	IF-414-101-FX	FTSS	0.000240501 N	13344	1/17/2003	Cst Rr,Pel Fd	0
LMBYF	Lumbar Force Y	IF-414	IF-414-101-FY	FTSS	0.000240516 N	13344	1/17/2003	Cst Lt,Pel Rt	0
LMBZF	Lumbar Force Z	IF-414	IF-414-101-FZ	FTSS	0.000101868 N	13344	1/17/2003	Cst Dn,Pel Up	0
LMBXM	Lumbar Moment X	IF-414	IF-414-101-MX	FTSS	0.006663274 N	452	1/17/2003	Lt Shl to Lt Hip	0
LMBYM	Lumbar Moment Y	IF-414	IF-414-101-MY	FTSS	0.006628318 N	452	1/17/2003	Strn to Leg	0
LMBZM	Lumbar Moment Z	IF-414	IF-414-101-MZ	FTSS	0.013519026 N	226	1/17/2003	Rt Shl Fd,Lt Shl Rr	0
PEVXG	Pelvis Accel X	EGE-73B6Q-20	00L13-F14	Entran	0.01925 g	2000	9/3/2003	Fwd	0
PEVYG	Pelvis Accel Y	7264C-2K-2-18	P12566	Endevco	0.01943 g	2000	8/28/2003	Rgt	0

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Chsnam	Location	Model	Name	Manufacturer	Sens./mV/V/	Fullscal	Caldat	Pos Output	Flip
PEVZG	Pelvis Accel Z	EGE-73BQE0-	99H30-Z12	Entran	0.02001 g	2000	9/2/2003	Dn	0
!PPSYF	Pubic Psymphashis Force Y	IF-529	IF-529-102-FY	FTSS	0.00013805 N	8896	3/14/2001	Rt pd Rt,Lt pd Lt	0
LACYF	Left Acetabulum Force Y	IF-520	IF-520-102-FY	FTSS	0.000261477 N	8896	1/17/2003	Lt Act Rt	0
LIWYF	Left Illiac Wing Force Y	IF-507	IF-507-102-FY	FTSS	0.000127115 N	13344	1/17/2003	Lt Ill Rt	0
!RIWYF	Right Illiac Wing Force Y	IF-507	IF-507-101-FY	FTSS	0.000126343 N	13344	3/15/2001	Rt Ill Lt	1
LFMXF	Left Femur Force X	IF-625	IF-625-109-FX	FTSS	0.000122714 N	13344.6	9/2/2003	Knee Up,Fem Dn	0
LFMYF	Left Femur Force Y	IF-625	IF-625-109-FY	FTSS	0.0001221 N	13344.6	9/2/2003	Knee Rt,Fem Lt	0
LFMZF	Left Femur Force Z	IF-625	IF-625-109-FZ	FTSS	0.000062819 N	22241	9/2/2003	Knee Fd,Pel Rr	0
LFMXM	Left Femur Moment X	IF-625	IF-625-109-MX	FTSS	0.004352507 N	339	9/2/2003	Knee Lt,Hld Fem	0
LFMYM	Left Femur Moment Y	IF-625	IF-625-109-MY	FTSS	0.004317109 N	339	9/2/2003	Knee Up,Hld Fem	0
LFMZM	Left Femur Moment Z	IF-625	IF-625-109-MZ	FTSS	0.006697935 N	339	9/2/2003	Tib Lt,Hld Pel	0
RFMXF	Right Femur Force X	IF-625	IF-625-107-FX	FTSS	0.000123793 N	13344	9/2/2003	Knee Up,Fem Dn	0
RFMYF	Right Femur Force Y	IF-625	IF-625-107-FY	FTSS	0.000122452 N	13344	9/2/2003	Knee Rt,Fem Lt	0
RFMZF	Right Femur Force Z	IF-625	IF-625-107-FZ	FTSS	0.000062702 N	22240	9/2/2003	Knee Fd,Pel Rr	0
RFMXM	Right Femur Moment X	IF-625	IF-625-107-MX	FTSS	0.004375811 N	339	9/2/2003	Knee Lt,Hld Fem	0
RFMYM	Right Femur Moment Y	IF-625	IF-625-107-MY	FTSS	0.00430118 N	339	9/2/2003	Knee Up,Hld Fem	0
RFMZM	Right Femur Moment Z	IF-625	IF-625-107-MZ	FTSS	0.00670826 N	339	9/2/2003	Tib Lt,Hld Pel	0

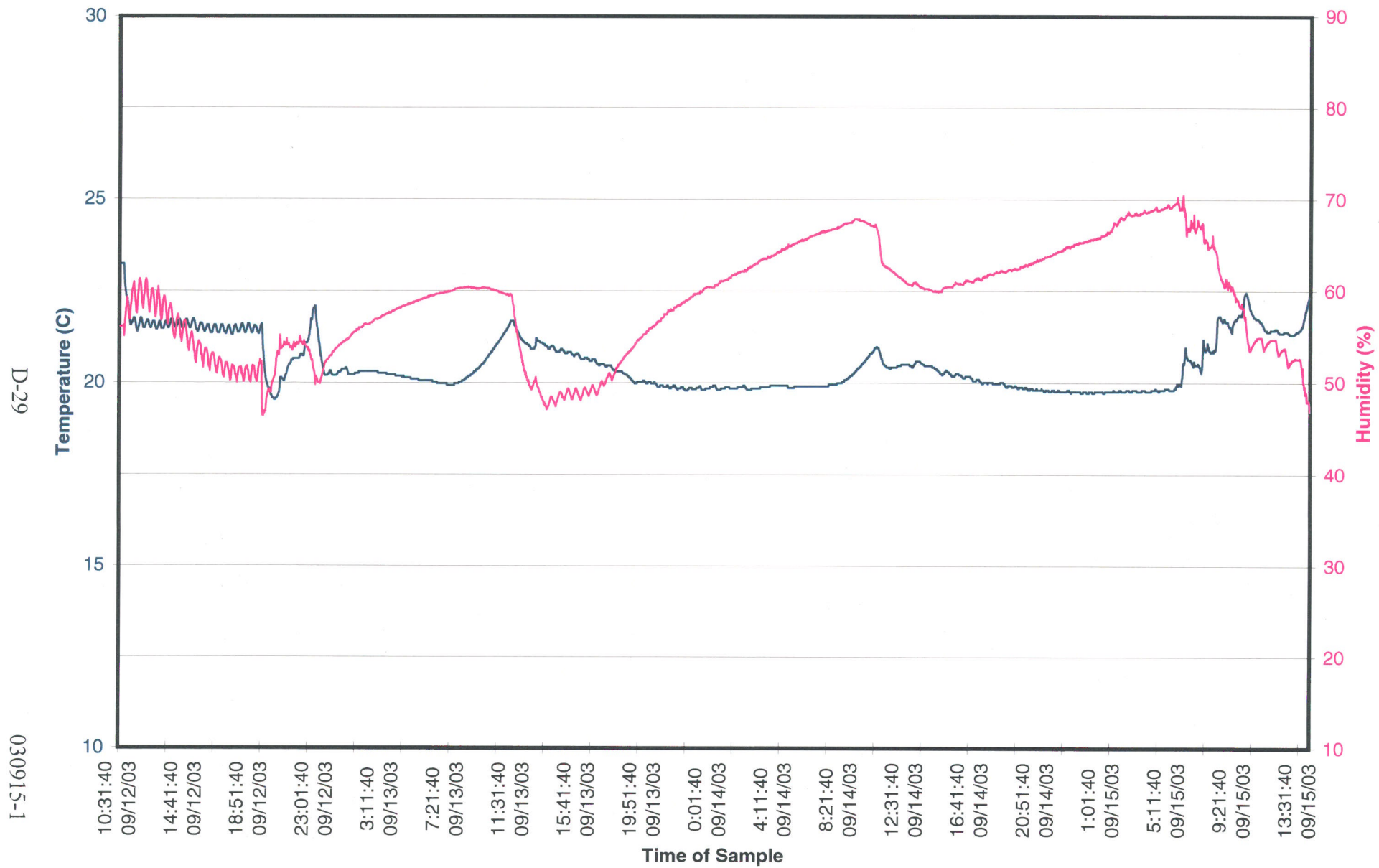
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MDB SIDE IMPACT / 030915-1





SIDE IMPACTOR BARRIER CERTIFICATION

Date: May 13, 2003

To: Transportation Research
Ship & Rec Bldg 50
10820 St. Route 347
East Liberty, OH 43319-0367

PURCHASE ORDER INFORMATION

Customer P.O. Number: 23413
Work Order Number: 16765
Quantity: 01 piece

CORE INFORMATION

Core Type: PCGA-1/4-5.2-P-3003-T
Measured Cell Size: 0.250 inches
Measured Density: 5.2 pcf

Unit Number: 033A0303

This is to certify that the aluminum honeycomb core supplied, under the unit number provided, meets the crush requirements of 232 – 250 psi as per DWG# DSL-1285.


Quality Control Representative
Karl D. Zwaanstra

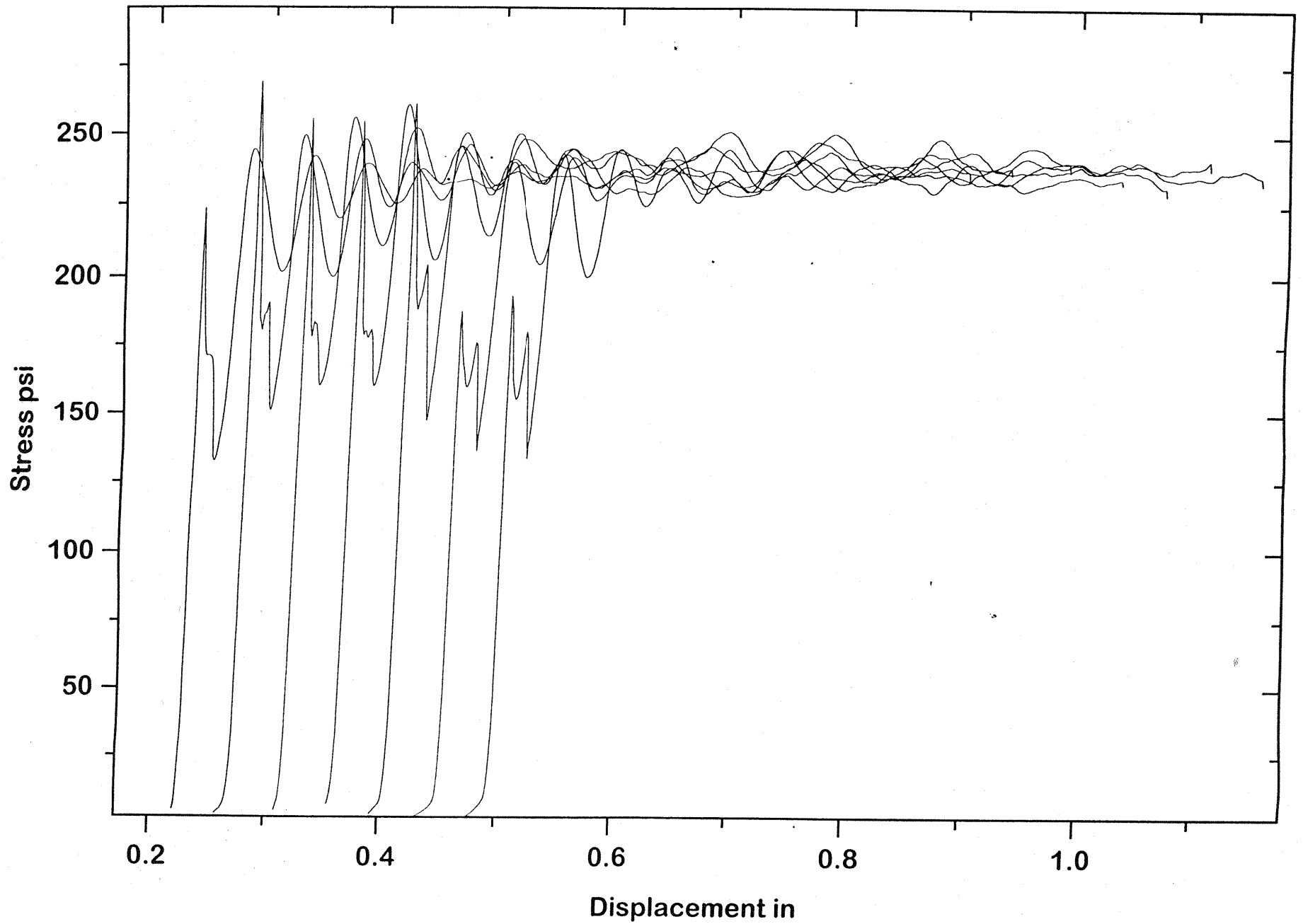


Crush Data
232 - 250 psi per DWG # DSL-1285

Block Number: 033A0303

<u>Specimen Number</u>	<u>Zone 1</u>	<u>Zone 2</u>	<u>Zone 3</u>
1	233.68	234.43	234.32
2	234.84	233.99	234.70
3	241.15	240.58	242.00
4	235.55	234.70	234.32
5	243.22	239.09	237.67
6	236.93	237.02	238.13
7	237.94	240.08	237.33

BLOCK # 033A0303 Sample ID: IN267010



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SIDE IMPACTOR BARRIER CERTIFICATION

Date: May 13, 2003

To: Transportation Research
Ship & Rec Bldg 50
10820 St. Route 347
East Liberty, OH 43319-0367

PURCHASE ORDER INFORMATION

Customer P.O. Number: 23413
Work Order Number: 16765
Quantity: 01 piece

CORE INFORMATION

Core Type: PAMG-3/8-1.6-001-P-5052-T
Measured Cell Size: 0.375 inches
Measured Density: 1.6 pcf

Unit Number: 024A0403

This is to certify that the aluminum honeycomb core supplied, under the unit number provided, meets the crush requirements of 45 psi +/- 2.5 psi as per DWG# DSL-1285.


Quality Control Representative
Karl D. Zwaanstra

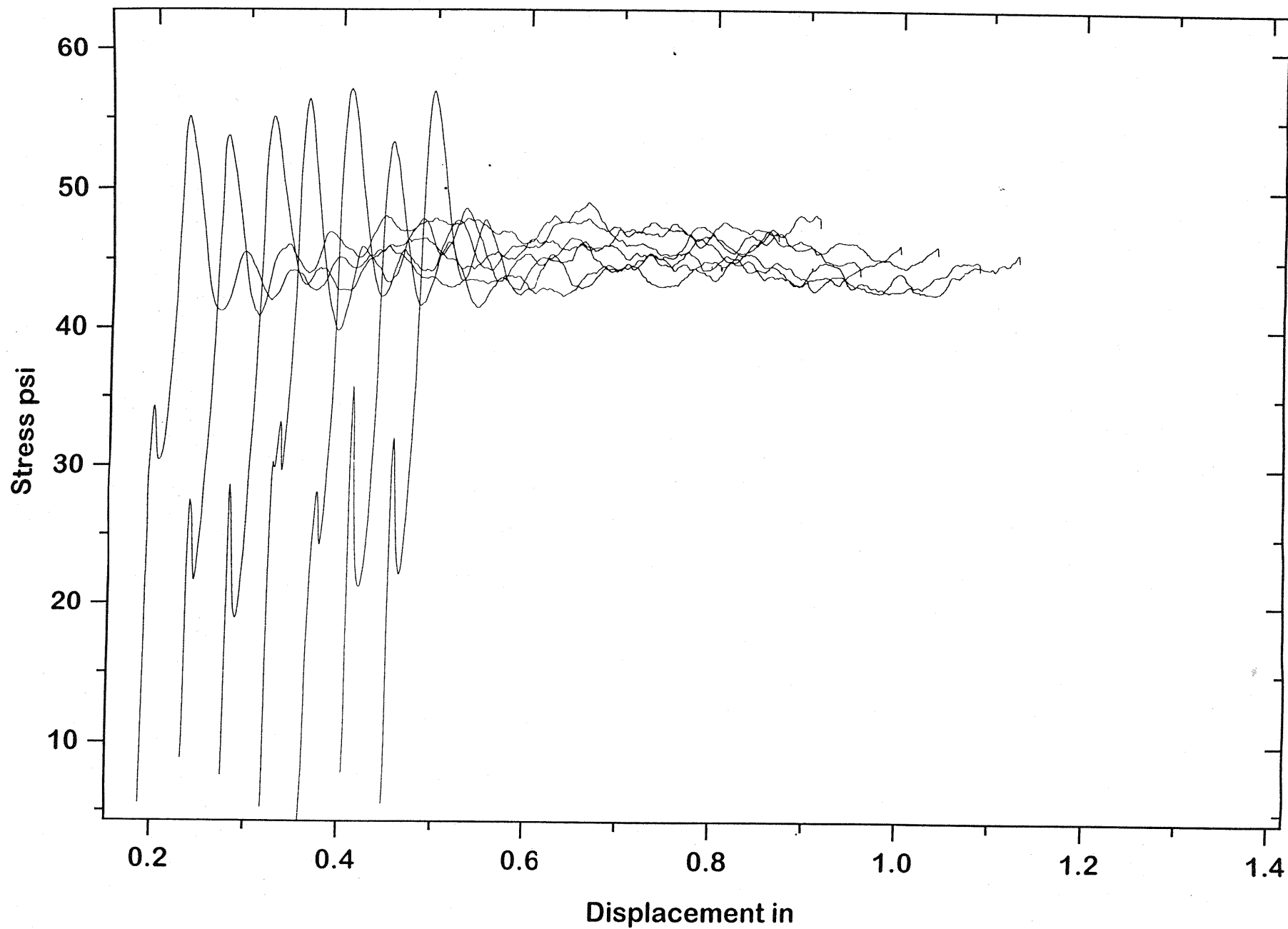


Crush Data
45 psi +/- 2.5 psi per DWG # DSL-1285

Block Number: **024A0403**

<u>Specimen Number</u>	<u>Zone 1</u>	<u>Zone 2</u>	<u>Zone 3</u>
1	44.04	43.50	44.74
2	47.22	47.11	46.31
3	45.50	45.66	45.35
4	45.47	46.98	46.34
5	47.25	46.24	45.37
6	44.54	44.24	43.37
7	44.12	43.94	42.84

BLOCK # 024A0403 Sample ID: IN227200



Appendix E

INSIA Report on Structural Measurements

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

APARICIO IZQUIERDO, FRANCISCO
PÁEZ AYUSO, FRANCISCO JAVIER

INSIA
Carretera de Valencia, km. 7
Campus Sur de la Universidad Politécnica de Madrid
28031 – MADRID – (SPAIN)

March, 1999

REPORT DOCUMENTATION PAGE
Title: <i>STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY</i>
Author(s): Aparicio Izquierdo, Francisco Páez Ayuso, Francisco Javier
Performing Organisation name and address: INSIA – University Institute for Automobile Research Carretera de Valencia, Km. 7 – Campus Sur de la Universidad Politécnica de Madrid 28031 – Madrid – Spain
Supplementary notes: Under contract to: THE EUROPEAN COMMUNITY Project: “Improvement of Crash Compatibility between Cars” Contract N°: RO – 97 – SC.1064
Abstract: The main aim of this working package -<i>Structural Survey of Cars</i>- is the reduction of incompatibilities, both structural and geometric, between passenger vehicles and their potential collision partners. The understanding of these incompatibilities needs a previous step for the knowledge of the existing car fleet. Firstly, it is necessary to select the main resistant elements in the car body. These elements have to be chosen from the point of view of the sort of collision that we want to study, that is to say, frontal and side impacts. Detailed measurements have been taken from exterior and interior elements, spread to a total number of 74 models selected from the main vehicle manufacturers at Spain. All of them are being sold this year. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars will be defined. This report shows the methodology followed to get these measurements.
Subject terms: Crash compatibility, geometric compatibility, resistant elements, measure methodology
Date: March, 1999

1.- METHODOLOGY.

Detailed measurements have been taken from exterior and interior elements. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars have been defined. These elements are presented in the following figures, and have been divided in two main groups according to the vehicle zones studied in this project.

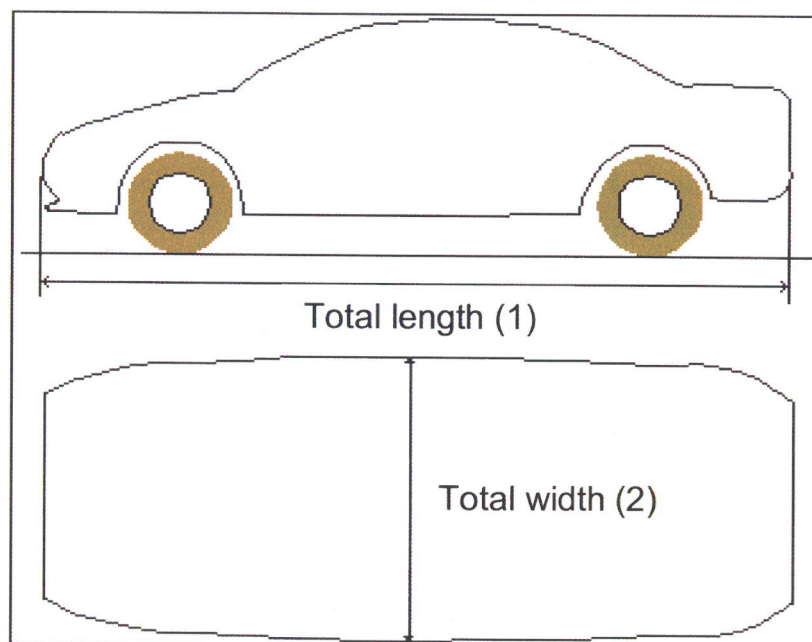


Figure 1.- Definition of the main resistant elements. General dimensions.

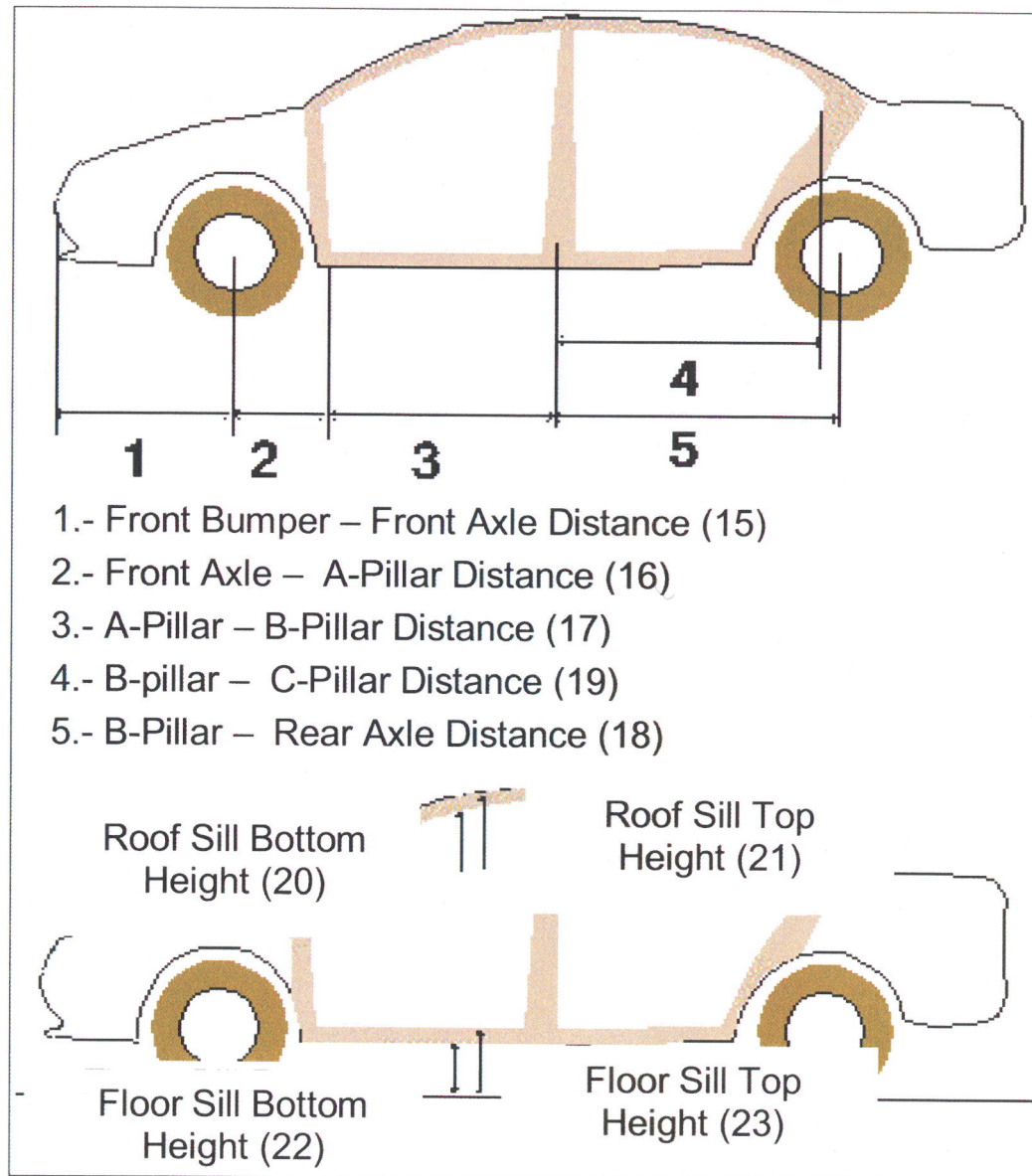


Figure 2.- Definition of the main resistant elements. Side elements.

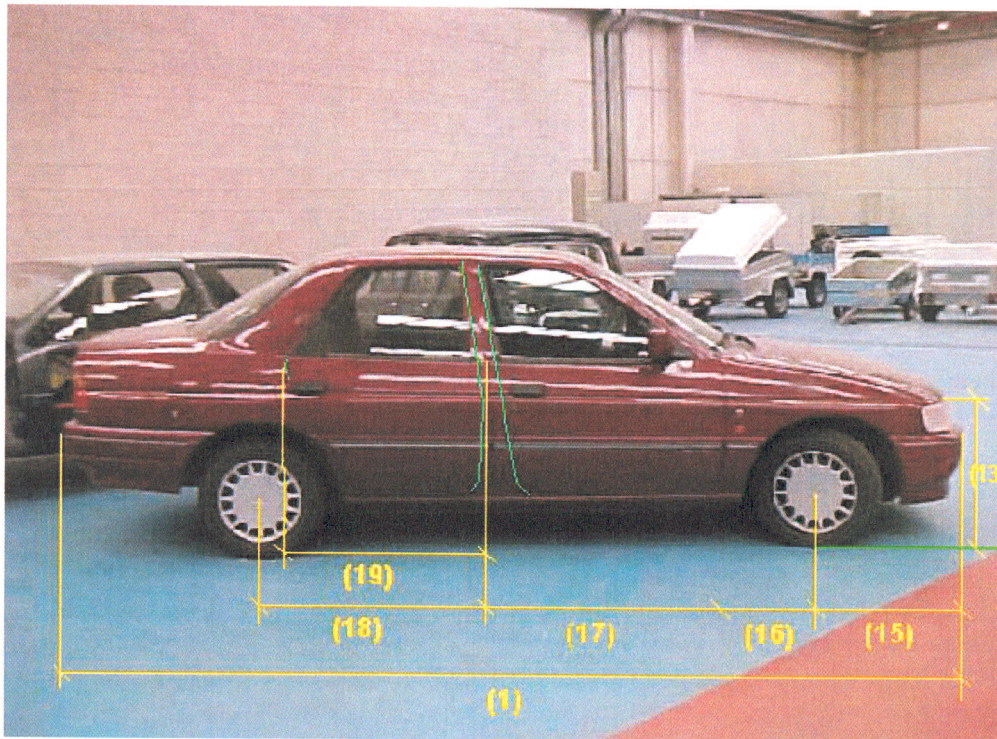
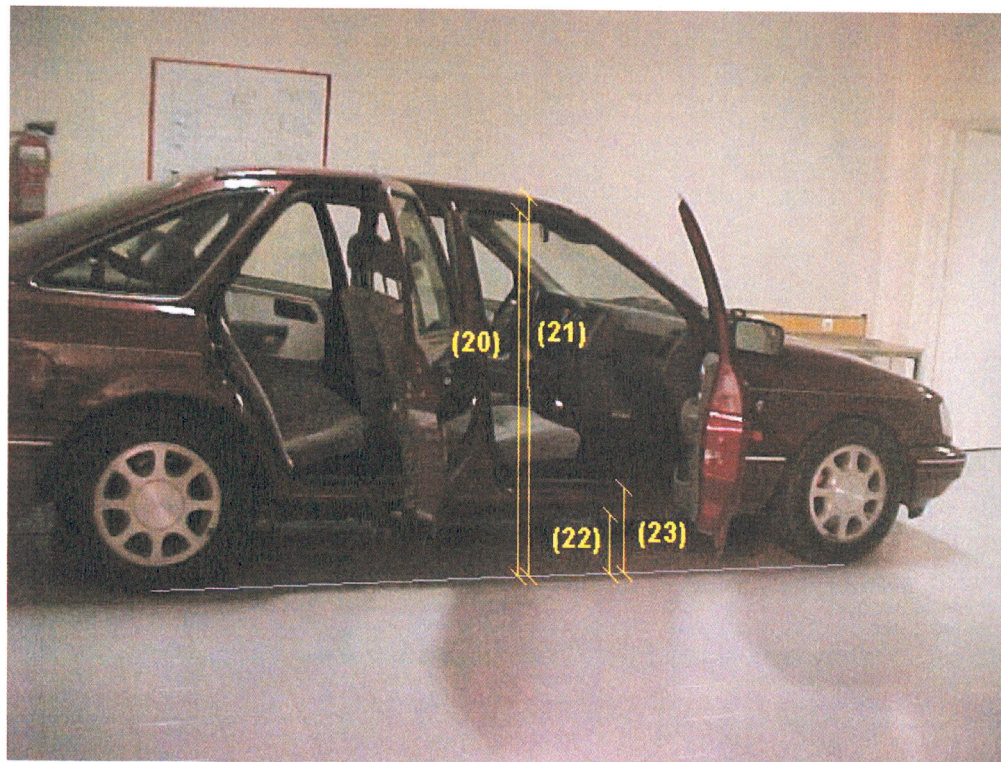


Figure 3.-
Measurements of
the side resistant
elements (outer).

Figure 4.- Measurements
of the side resistant
elements (inner).



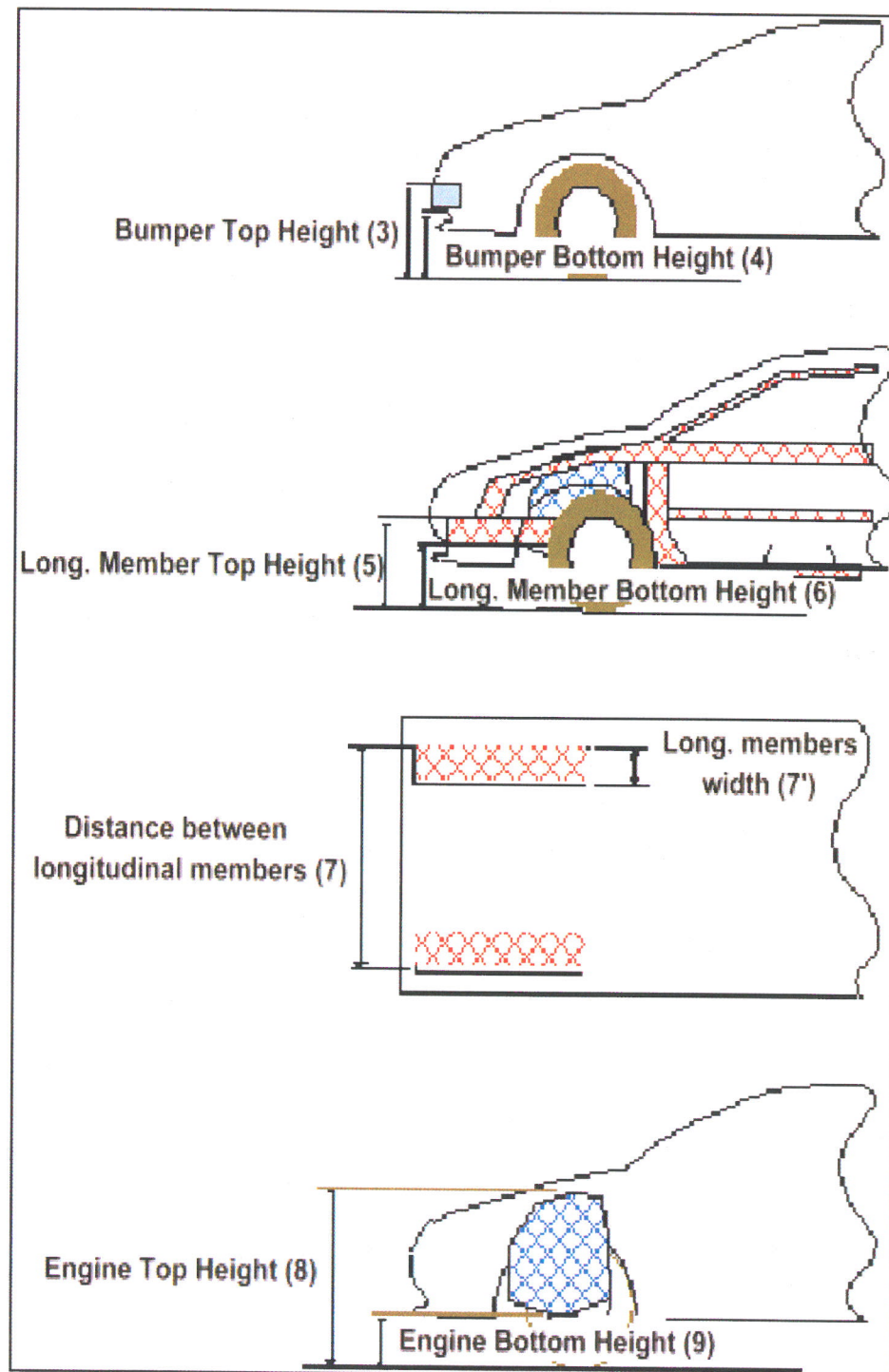


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

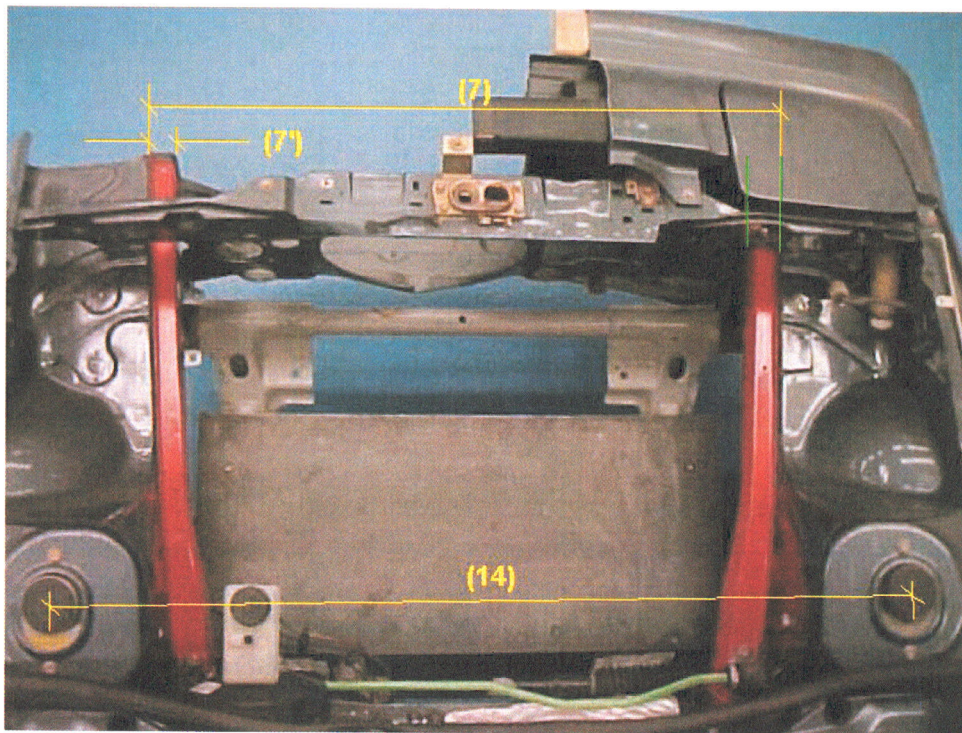
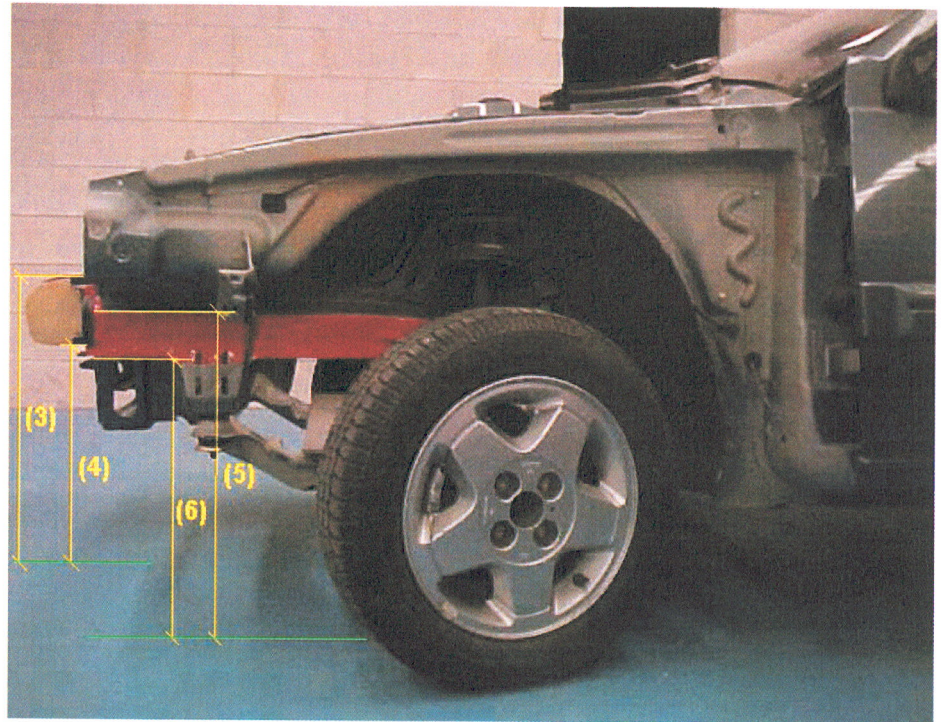


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.

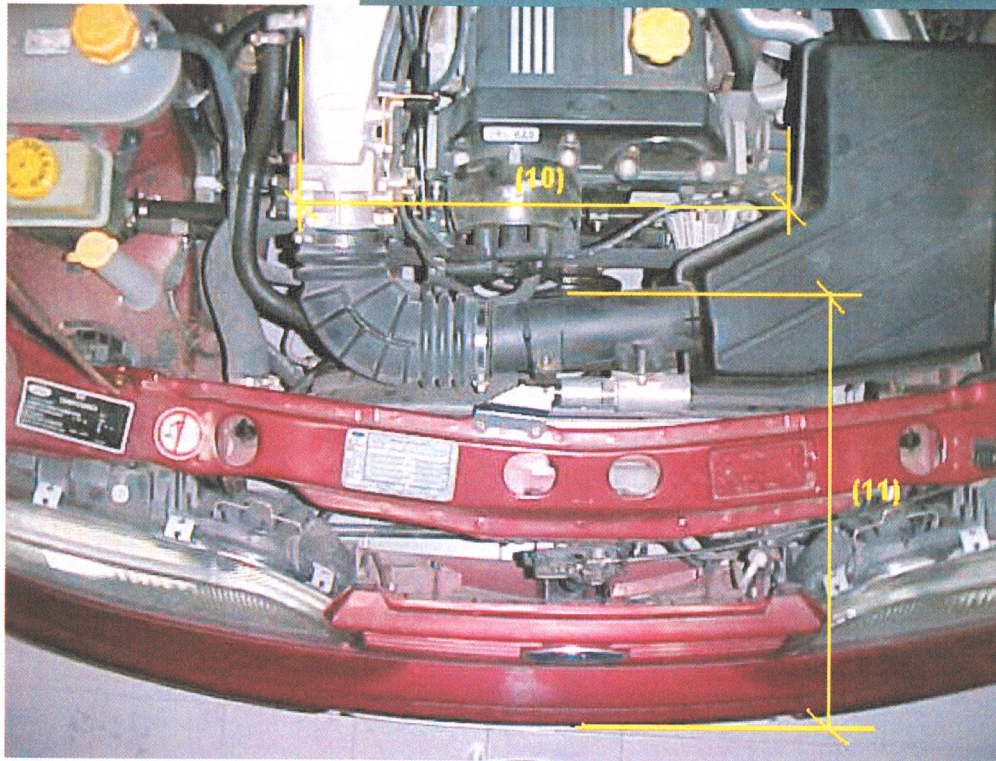
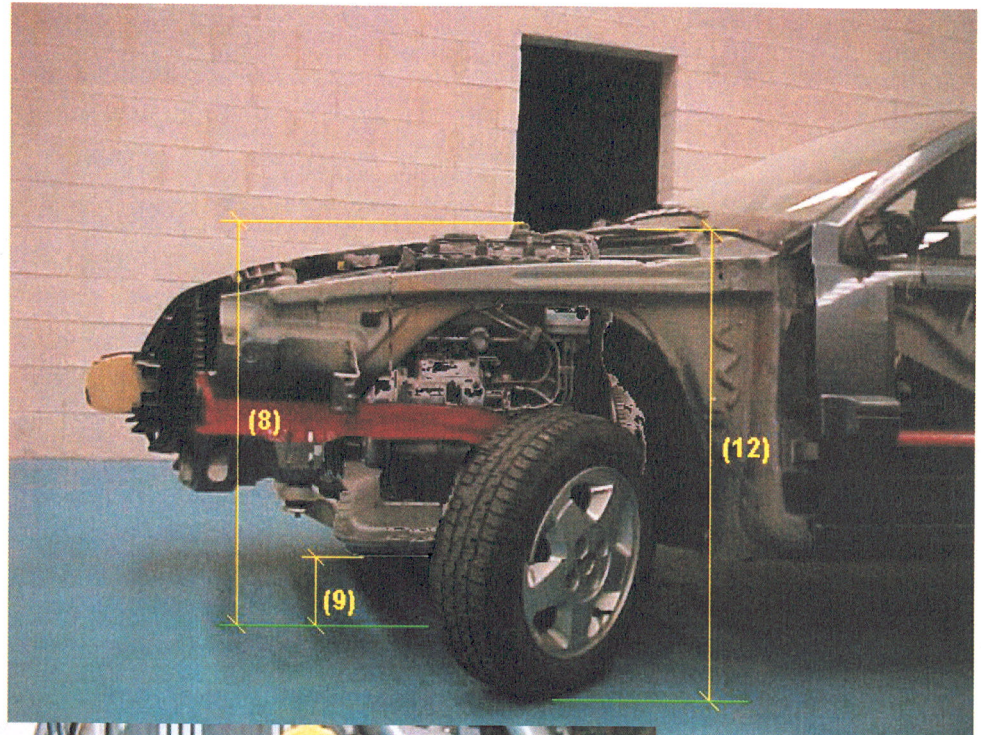


Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).

The procedure considered to measure these elements is described as follows, where it is indicated the location of these ones in the Excel Sheet (SURVEY.XLS) into brackets:

FRONT ELEMENTS

- **Total Length –(1)- (Side & Front Sheets - C column):** distance between the point in the front bumper further on and the point in the rear bumper further back.
- **Weight (Side & Front Sheets - D column):** mass, including an average driver weight (70 kg), and the fuel tank mass (at half-capacity).
- **Total Width –(2)- (Side & Front Sheets - E column):** distance between the outer side points in a transverse plane of the vehicle (middle plane between the front and rear axles).
- **Bumper bottom height –(4)- (Front Sheet G column):** distance between the ground and the lowest point on the front bumper, being a resistant member (aerodynamic elements under the front bumper are not considered).
- **Bumper top height –(3)- (Front Sheet H column):** distance between the ground and the highest point on the front bumper, being a resistant member (aerodynamic elements are not considered).
- **Longitudinal member top height –(5)- (Front Sheet I column):** distance between the ground and the highest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint (when accessible).
- **Longitudinal member bottom height –(6)- (Front Sheet J column):** distance between the ground and the lowest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint.
- **Distance between longitudinal members (Front Sheet K column):** transverse distance between extreme points in longitudinal members, measured approximately in the front bumper-longitudinal member joint.

Depending on the accessibility of these members, the extreme points are the inner points (I) or the outer points (O).

- **Longitudinal member width -7'- (Front Sheet L column):** width of one of the longitudinal members, measured approximately in the front bumper-longitudinal member joint.

- **Engine top height (8) (Front Sheet N column):** distance between the ground and the highest point on the engine that can be a resistant member in case of accident (usually, the highest point on the head, or the highest point of the inlet or exhaust manifolds).
- **Engine bottom height (9) (Front Sheet M column):** distance between the ground and the lowest point on the engine (usually, the lowest point on the crankcase).
- **Engine and Gearbox width (10) (Front Sheet O & P columns):**
 - *Transverse configuration engine:* distance between extreme points in the gearbox-cylinder block unit or others resistant members attached to the cylinder block unit, i.e. fan belts (from a front point of view).
 - *Longitudinal configuration engine:* distance between extreme points in the cylinder block unit (from a front point of view).
- **Front bumper - Engine distance (11) (Front Sheet Q column):** distance between the point in the front bumper further on and the point in the engine further on that is a resistant element, i.e. the further on point of the exhaust manifold placed in the front of the engine.
- **Front shock absorber fixing width (14) (Front Sheet R column):** transverse distance between the front shock absorber - body car joints.
- **Front shock absorber fixing height (12) (Front Sheet S column):** distance between the ground and the front shock absorber-body car joint.
- **Bonnet leading edge height (Front Sheet T column):** distance between the ground and the bonnet edge further on.

SIDE ELEMENTS

- **Front bumper - Front axle distance (15) (Side Sheet G column):** distance between the point in the front bumper further on and the middle point in the front tyre-road contact patch.
- **Front axle - A Pillar distance (16) (Side Sheet H column):** distance between the middle point in the front tyre-road contact patch and the point in the A-pillar further back.
- **A Pillar - B Pillar distance (17) (Side Sheet I column):** distance between the point in the A-pillar further back and the middle point in the B-pillar.
- **B Pillar - C Pillar distance (19) (Side Sheet J column):** distance between the middle point in the B-pillar and the point in the C-pillar further back (only 4/5-door vehicles).
- **B Pillar - Rear axle distance (18) (Side Sheet K column):** distance between the middle point in the B-pillar and the middle point in the rear tyre-road contact patch.
- **Roof sill bottom height (20) (Side Sheet L column):** distance between the ground and the lowest point on the roof sill, measured in the front door middle point.
- **Roof sill top height (21) (Side Sheet M column):** distance between the ground and the highest point on the roof sill (usually located in the sill-roof joint), measured in the front door middle point.
- **Floor sill bottom height (22) (Side Sheet N column):** distance between the ground and the lowest point on the floor sill, measured in the front door middle point.
- **Floor sill top height (23) (Side Sheet O column):** distance between the ground and the highest point on the floor sill, measured in the front door middle point.

NOTE

- N/A: dimension not available.