

**Vehicle Research and Test Center
2003 Lincoln Navigator into
Fixed 40% Left Offset Deformable
Load Cell Barrier at 56.0 km/h
TRC Inc. Test Number: 020826-1**

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**Final Report
August - September 2002**

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Section 1.0

Purpose and Test Procedure

Purpose

This 56.0 km/h (34.8 mph) fixed 40% left offset deformable load cell barrier 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 frontal crash protection in a 40% offset frontal barrier impact test. The subject vehicle was a 2003 Lincoln Navigator MPV.

Test Procedure

This test was conducted in accordance with VRTC instructions for a vehicle into a fixed 40% left offset deformable load cell barrier test. Data was obtained relative to FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Retention"; and FMVSS 219, "Windshield Zone Intrusion", performance in an increased speed test mode using 50th percentile male anthropomorphic test devices (dummies).

The test vehicle, a 2003 Lincoln Navigator, was instrumented with five (5) triaxial sets of accelerometers to measure longitudinal, lateral and vertical axis accelerations, one (1) additional vertical accelerometer, one (1) displacement potentiometer, and four (4) seat belt load cells. The driver's and passenger's primary and secondary airbag signals were monitored with inductive pickups. The vehicle impacted a fixed offset deformable load cell barrier. The vehicle's specified impact velocity range was 55.2 to 56.8 km/h.

The deformable barrier face was offset to the left so that the right edge of the face was 200 millimeters left of the vehicle centerline. The bottom edge of the barrier face was 200 millimeters above the floor. The offset deformable barrier was instrumented with fifty (50) load cells to measure longitudinal forces.

The test vehicle contained two (2) Part 572E adult male Hybrid III dummies. The dummies were positioned in the front outboard designated seating positions according to FMVSS 208 (December 18, 2001). The driver dummy and the passenger dummy were both belted; airbags did not deploy.

Both dummies were instrumented with three (3) accelerometers in the head, three (3) in the chest, and three (3) in the pelvis to measure longitudinal, lateral, and vertical accelerations. In addition the driver dummy had redundant head and chest accelerometers. Both dummies were instrumented with upper neck moment and force load cells, left and right femur moment and force load cells, and chest deflection potentiometers. Both dummies were also equipped with THOR-LX legs, which included upper and lower tibia load cells to measure forces and moments, tibia accelerometers in two axes, foot accelerometers in three axes, a tibia to femur

displacement potentiometer at each knee, and three (3) rotary potentiometers at each ankle to measure foot rotations about three axes.

The 209 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 nine (9) high-speed motion picture cameras. The pre- and post-test conditions were recorded by one (1) real-time motion picture camera.

The barrier test summary data are presented in Section 2.0. The summary of FMVSS 208 data are presented in Section 3.0. The occupant, camera, and vehicle 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 miscellaneous test information. Appendix E contains INSIA Report Structural Measurements which documents the procedure for the measurements provided in Table 8. Appendix F contains the vehicle manufacturer's information.

Section 2.0

Fixed 40% Left Offset Deformable Load Cell Barrier Test Summary

Test Results Summary

This fixed 40% left offset load cell barrier test was conducted by TRC Inc. on August 26, 2002.

The test vehicle, a 2003 Lincoln Navigator MPV, was equipped with a 5.4-liter inline engine, automatic transmission, power steering, power brakes and dual stage front airbags. The vehicle's test weight was 3047.2 kg. The vehicle's impact speed was 56.0 km/h. The vehicle sustained 711 mm of static crush during the impact. The vehicle impacted 3 millimeters to the left of the 40% offset target line.

The driver's 36 millisecond Head Injury Criteria (HIC) was 733. The driver's 15 millisecond HIC was 732. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 31.7 g. The driver's maximum chest deflection was 20 mm. The driver's left and right femur maximum axial compressive forces were 3608 N and 2733 N, respectively. The driver dummy's neck injury calculations were as follows: NTF, 0.35; NTE, 0.18; NCF, 0.30; NCE, 0.01. The driver dummy's peak neck tension force was 1758 N and peak neck compression force was 234 N.

The right front passenger's 36 millisecond HIC was 246. The passenger's 15 millisecond HIC was 139. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 26.3 g. The passenger's maximum chest deflection was 27 mm. The passenger's left and right femur maximum axial compressive forces were 1118 N and 569 N, respectively. The right front passenger's neck injury calculations were as follows: NTF, 0.36; NTE, 0.15; NCF, 0.00; NCE, 0.02. The right front passenger dummy's peak neck tension force was 1408 N and peak neck compression force was 31 N.

There was 100 % windshield periphery retention. There was no penetration through the windshield.

Data Acquisition Explanations

The passenger dummy's right foot to ankle Y-axis displacement data channel, FTRYD2, recorded questionable data throughout the event. The data does not have typical foot rotation characteristics, and the peaks are questionably high. No cause was determined.

The offset barrier data channel for Row B Cell 6, LCB6XF, exceeded the data acquisition system full-scale of 222,000 N at approximately 46 to 50 milliseconds and did not return to zero.

The primary and redundant light traps did not function for this test. The test speed included in this report is the drive cable speed.

Table 1 Crash Test Summary

Test mode:	Fixed 40% left offset load cell barrier		
Test date:	08/26/02		
Test time:	13:20		
Ambient temperature:	21° C		
Vehicle year/make/ model/body style:	2003/Lincoln/Navigator/MPV		
Vehicle test weight:	3047.2 kg		
Impact angle ¹ :	0°		
Impact velocity ² :	56.0 km/h		
Maximum static crush:	711 mm		
Average rebound:	N/A		
Number of data channels:	209		
Number of cameras:	High-speed	9	Real-time 1
<u>Dummies:</u>	<u>Driver #168</u>		<u>Passenger #169</u>
Type:	Part 572E		Part 572E
Location:	Left front		Right front
Restraint:	Airbag ³ , seat belt with pretensioners		Airbag ³ , seat belt with pretensioner
<u>Seat track position for test:</u>			
Driver:	Mid		
Passenger:	Mid		
<u>Seat back position for test:</u>			
Driver:	16.7°		
Passenger:	16.7°		
<u>Head restraint position for test:</u>			
Driver:	Full up and full forward		
Passenger:	Full up and full forward		
Steering column position:	Mid: 68.4°		

¹ With respect to tow track centerline.

² Reported velocity is drive cable speed due to failure of light traps.

³ Airbags did not deploy.

Table 2 General Test and Vehicle Parameter Data

Vehicle year/make/ model/body style:	2003/Lincoln/Navigator/MPV
VIN:	5LMFU28R93LJ03684
Model year:	2003
Body style:	MPV
Color:	Autumn Red
Engine data:	
Cylinders:	8
Displacement	5.4 liters
Cylinder placement:	V
Engine placement:	Inline
Transmission data:	<u>4</u> speed, ___ manual, <u>X</u> automatic, <u>X</u> overdrive
Final drive:	___ FWD, ___ RWD, <u>X</u> 4WD
Date vehicle received:	08/21/2002
Odometer reading:	91
Dealer's name and address:	Supplied by VRTC

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	Yes
Tinted glass	Yes	Air conditioning	Yes
Radio	Yes	Anti-skid brake	Yes
Clock	Yes	Rear window defroster	Yes
Other	Side air curtains	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by:	Ford Motor Company, U.S.A.
Date of manufacture:	06/02
VIN:	5LMFU28R93LJ03684
GVWR:	7450 lbs. (3379 kg)
GAWR: Front:	3450 lbs. (1564 kg)
Rear:	4128 lbs. (1872 kg)

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

Tires on vehicle (mfr., line, size): Michelin, Cross Terrain, P255/70R18

Tire pressure with maximum capacity vehicle load:

Front: 44 psi (300 kPa)

Rear: 44 psi (300 kPa)

Spare tire (mfr., line, size): Michelin, Cross Terrain, P255/70R18

Type of seats:

Front Bucket

Mid Bucket

Rear Split Bench

Maximum width: 1996 mm

Wheelbase: 3025 mm

Location of "Recommended Tire Pressure" label:

The label was located on the driver B-pillar.

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

Recommended tire size: P255/70R18SL

Recommended cold tire pressure:

Front: 35 psi (241 kPa)

Rear: 35 psi (241 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):¹

Front 2

Mid 2

Rear 3

Total 7

Vehicle capacity weight:² 578.4 kg

Rated cargo/luggage weight:² 102.4 kg

Test vehicle attitude:

Delivered attitude: LF 857 mm; RF 861 mm; LR 869 mm; RR 874 mm

Fully loaded attitude: LF 852 mm; RF 862 mm; LR 857 mm; RR 857 mm

Pre-test attitude: LF 797 mm; RF 795 mm; LR 812 mm; RR 808 mm

Post-test attitude: LF 774 mm; RF 865 mm; LR 779 mm; RR 820 mm

¹ Designated seating derived from seat belt count.

² Information not provided on label; calculated using NHTSA procedure.

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

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

Right front	703.6 kg	Right rear	691.0 kg
Left front	730.0 kg	Left rear	676.0 kg
Total front weight	1433.6 kg	(51.2 % of total vehicle weight)	
Total rear weight	1367.0 kg	(48.8 % of total vehicle weight)	
Total delivered weight	2800.6 kg		

Calculation of test vehicle's target test weight:

Total Delivered Weight (UDW) =	2800.6 kg
Rated Cargo/Luggage Weight (RCLW) ¹ =	102.4 kg
Weight of 2 Part 572E Dummies @ 76 kg each =	152 kg
Target test weight =	3055.0 kg

Weight of test vehicle with required dummies and 94.6 kg of cargo weight:

Right front	769.4 kg	Right rear	764.8 kg
Left front	760.0 kg	Left rear	753.0 kg
Total front weight	1529.4 kg	(50.2% of total vehicle weight)	
Total rear weight	1517.8 kg	(49.8% of total vehicle weight)	
Total test weight	3047.2 kg	(0.3% under target test weight)	

Weight of ballast secured in vehicle: 79.4 kg steel plate behind passenger seat.

Components removed to meet target test weight: Right side second row seat, rear seat and interior

Location of Vehicle's CG: 1507 mm rearward of front wheel centerline

Fuel System Data:

Usable fuel system capacity	106 liters (from owner's manual)
Actual test volume:	98.6 liters (93% of usable)

¹ Cargo weight for multipurpose passenger vehicles, trucks, and buses is the vehicle's rated cargo and luggage weight from the vehicle's label or 136 kilograms, whichever is less.

Table 3 Post-Impact Data

Test number: 020826-1
Test date: 08/26/02
Test time: 13:20
Test type: Fixed 40% left offset deformable load cell barrier
Impact angle: 0°
Ambient temperature
at impact area: 21° C
Required impact velocity range: 55.2 to 56.8 km/h

Barrier impact velocity:

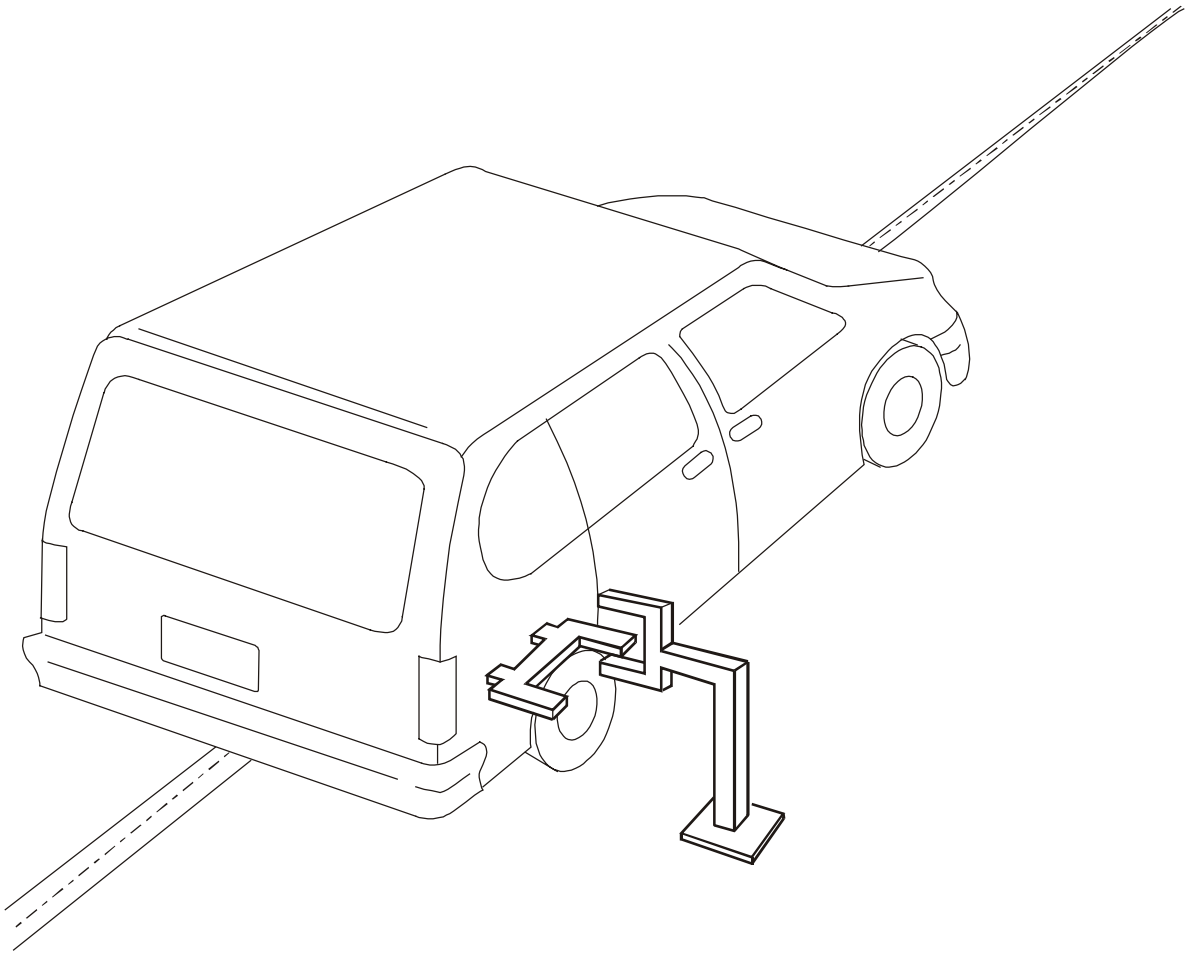
Primary: N/A
Secondary:¹ 56.0 km/h
Distance from vehicle to barrier:
Entering velocity trap: 661 mm
Exiting velocity trap: 51 mm

Barrier offset (at right edge of barrier):

Target offset: 200 mm left of vehicle centerline
Impact point variance: 3 mm left
Actual offset: 203 mm left of vehicle centerline

¹ Reported velocity is drive cable speed due to failure of light traps.

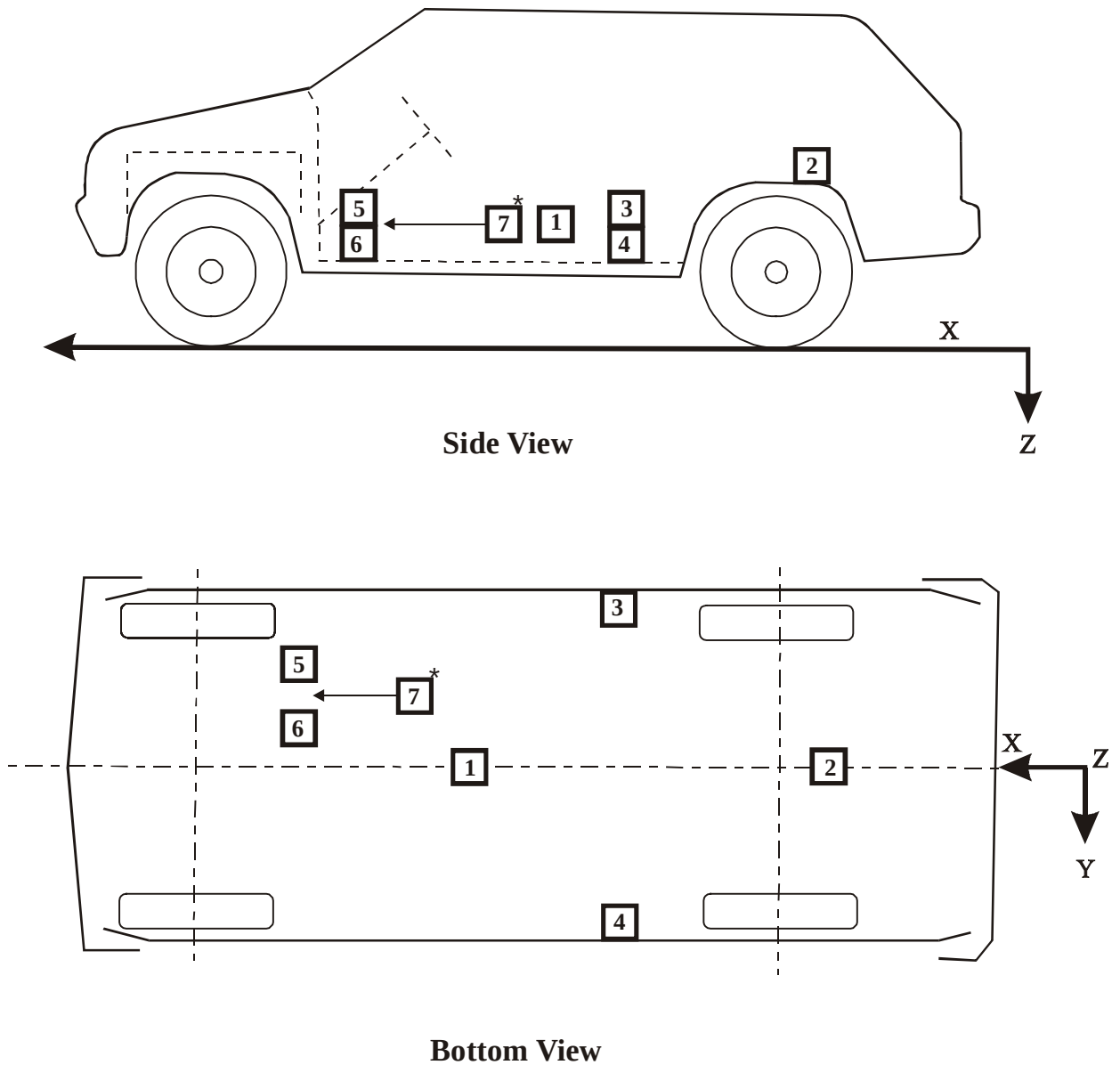
Figure 1 Impact Velocity Measurement System



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



* String potentiometer mounted under driver seat with string attached to toeboard to measure displacement.

Table 4 Vehicle Accelerometer Locations and Instrumentation Data Summary

TEST NUMBER: 020826-1 No. LOCATION	X	Y	Z	POSITIVE DIRECTION		NEGATIVE DIRECTION	
1 VEHICLE CENTER OF GRAVITY	1986 mm	0 mm	-749 mm				
LONGITUDINAL				11.7 g	@ 214.1 ms	24.7 g	@ 126.2 ms
LATERAL				14.5 g	@ 81.9 ms	5.5 g	@ 214.2 ms
VERTICAL				8.0 g	@ 108.1 ms	27.3 g	@ 81.1 ms
RESULTANT				32.8 g	@ 81.2 ms		
2 REAR DECK VERTICAL	NA	NA	NA	16.6 g	@ 55.7 ms	11.4 g	@ 57.8 ms
3 LEFT REAR SEAT CROSSMEMBER	1018 mm	-754 mm	-521 mm				
LONGITUDINAL				2.5 g	@ 200.4 ms	24.4 g	@ 103.9 ms
LATERAL				11.2 g	@ 83.3 ms	1.8 g	@ 91.1 ms
VERTICAL				10.9 g	@ 51.4 ms	8.2 g	@ 94.4 ms
RESULTANT				25.2 g	@ 103.7 ms		
4 RIGHT REAR SEAT CROSSMEMBER	1026 mm	754 mm	-520 mm				
LONGITUDINAL				1.8 g	@ 194.0 ms	19.4 g	@ 82.6 ms
LATERAL				10.8 g	@ 83.5 ms	2.7 g	@ 90.4 ms
VERTICAL				3.9 g	@ 53.0 ms	12.3 g	@ 88.1 ms
RESULTANT				22.2 g	@ 83.0 ms		
5 DRIVERS LEFT SIDE TOE PAN	2951 mm	-561 mm	-547 mm				
LONGITUDINAL				32.5 g	@ 85.8 ms	74.3 g	@ 73.4 ms
LATERAL				19.3 g	@ 88.9 ms	12.8 g	@ 57.9 ms
VERTICAL				38.4 g	@ 78.0 ms	43.5 g	@ 73.3 ms
RESULTANT				86.0 g	@ 73.4 ms		

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

TEST NUMBER: 020826-1 No. LOCATION	X	Y	Z	POSITIVE DIRECTION		NEGATIVE DIRECTION	
6 DRIVERS RIGHT SIDE TOE PAN	2952 mm	-329 mm	-537 mm				
LONGITUDINAL				21.2 g	@ 85.6 ms	78.6 g	@ 75.2 ms
LATERAL				28.4 g	@ 77.6 ms	16.9 g	@ 72.8 ms
VERTICAL				32.6 g	@ 77.7 ms	60.6 g	@ 74.1 ms
RESULTANT				98.2 g	@ 74.2 ms		
7 DRIVERS TOE PAN DISPLACEMENT	NA	NA	NA				
LONGITUDINAL				4.2 mm	@ 57.9 ms	49.9 mm	@ 108.3 ms
8 DRIVER SEAT BELT LOAD CELLS	NA	NA	NA				
LAP BELT				3298.9 N	@ 80.2 ms	3.3 N	@ 263.2 ms
SHOULDER BELT				4305.1 N	@ 118.8 ms	14.6 N	@ 258.1 ms
9 PASSENGER SEAT BELT LOAD CELLS	NA	NA	NA				
LAP BELT				4027.3 N	@ 91.0 ms	-4.7 N	@ 0.0 ms
SHOULDER BELT				4349.2 N	@ 96.9 ms	6.3 N	@ 5.8 ms

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

Section 3.0

Summary of FMVSS 208, 212 and 219 (partial) Data

Table 5 Dummy Injury Criteria Data

<u>Maximum Acceleration¹</u>								
	Head				Chest			
	X	Y	Z	R	X	Y	Z	R
Driver	-119.8 g	25.9 g	27.4 g	120.8 g	-30.4 g	8.7 g	9.1 g	31.9 g
Passenger	-22.4 g	-3.0 g	34.2 g	40.7 g	-26.5 g	6.0 g	9.1 g	27.2 g

<u>Maximum Femur Compressive Force</u>		
	Left Femur	Right Femur
Driver	3608 N	2733 N
Passenger	1118 N	569 N

<u>Head Injury Criteria²</u>			
36 millisecond			
	HIC	Time t ₁	Time t ₂
Driver	733	115.8 ms	131.6 ms
Passenger	246	122.9 ms	158.9 ms

15 millisecond			
	HIC	Time t ₁	Time t ₂
Driver	732	116.1 ms	131.1 ms
Passenger	139	127.0 ms	142.1 ms

<u>Chest Maximum Resultant Acceleration³</u>			
	Acceleration	Time t ₁	Time t ₂
Driver	31.7 g	124.8 ms	127.8 ms
Passenger	26.3 g	94.4 ms	97.4 ms

Table 5 Dummy Injury Criteria Data, Cont'd.

Maximum Chest Deflection

Driver	20 mm
Passenger	27 mm

Neck Injury Calculations (Nij)²

	NTF	NTE	NCF	NCE
Driver	0.35	0.18	0.30	0.01
Passenger	0.36	0.15	0.00	0.02

Neck Axial Force

	Neck Tension	Neck Compression
Driver	1758 N	234 N
Passenger	1408 N	31 N

Tibia Index

	Upper Tibia	Lower Tibia
Driver-left	0.25	0.44
Driver-right	0.23	0.32
Passenger-left	0.30	0.25
Passenger-right	0.28	0.10

¹ See Report Sign Convention in Appendix D.

² As defined in FMVSS No. 208.

³ Defined as equal to or exceeding 0.003 sec. duration.

Table 6 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Steering wheel rim and hub, head restraint	Head restraint
Chest	Steering wheel rim	None
Abdomen	None	None
Left knee	Knee bolster	Glove box
Right knee	Knee bolster	Glove box

Door opening:

	<u>Left</u>	<u>Right</u>
Front	N/A	N/A
Rear	N/A	N/A

Seat movement:

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

Glazing damage: Driver side lower A-pillar

Other notable impact effects: None

Figure 3 FMVSS 212 Test Data

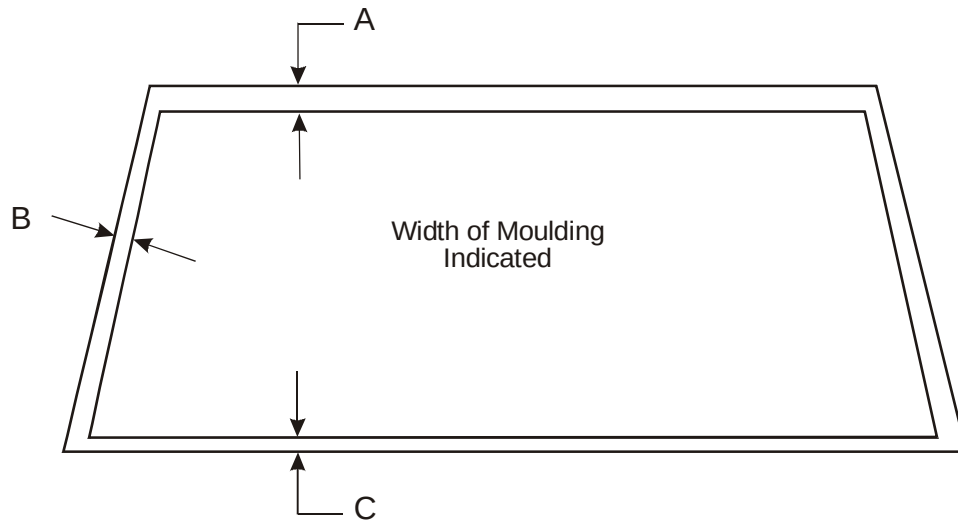
Details of windshield mounting such as retention method, trim type, etc.: Rubber trim around the perimeter.

FMVSS 212 requirements: The post-test periphery retention amount must be at least 75% of the pre-test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

Windshield periphery measurements:

	<u>Pre-test</u>	<u>Post-test</u>	<u>Percent retention</u>
Right side	2267 mm	2267 mm	100.0
Left side	2267 mm	2267 mm	100.0
Total	4534 mm	4534 mm	100.0

A = 27 mm
B = 23 mm
C = N/A mm



Front view of windshield¹

Loss of windshield retention lengths: None

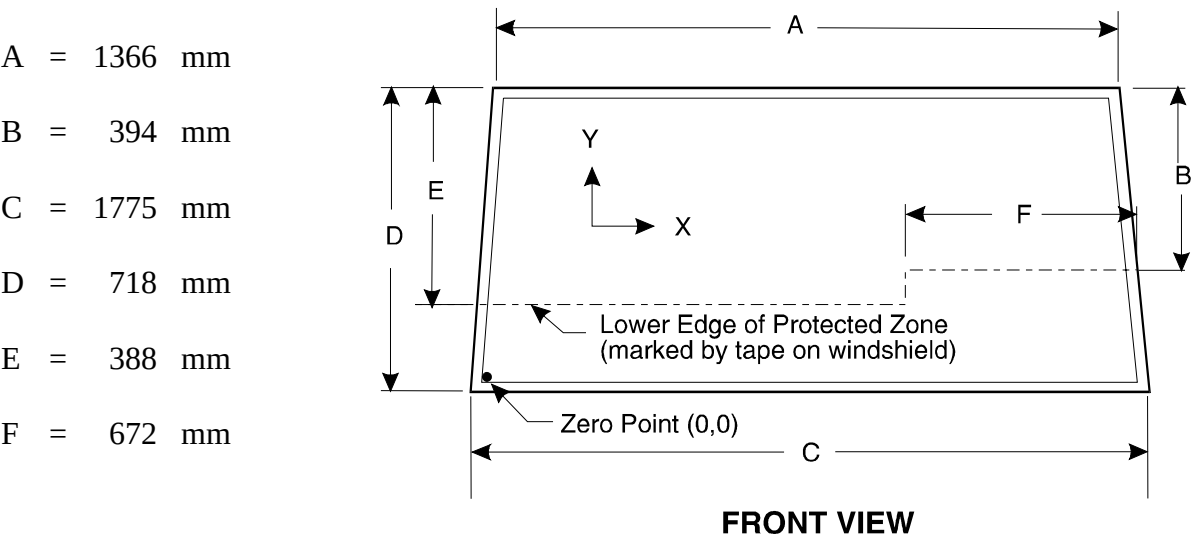
¹ Indicate areas of loss of retention, if any, on windshield diagram.

Figure 4 FMVSS 219 (partial) Test Data

Protected zone lower edge requirement:

The lower edge of the protected zone is determined by placing a 165-millimeter diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. Draw the locus of points on the inner surface of the windshield contactable by the sphere across the width of the instrument panel. From the outermost contactable points, extend the locus line horizontally to the edges of the windshield, and then draw a line on the inner surface of the windshield below and 13 millimeters from the locus line. The **lower edge of the protected zone** is the longitudinal projection onto the outer surface of the windshield of this line.

Windshield measurements:



Method of adhering protected zone template to windshield: NA

Areas of windshield template penetration greater than 6 mm: NA

Areas of windshield penetration, below the protected zone, through the inner surface of the windshield: None

Coordinates	
X	Y
1.	
2.	
3.	
1.	
2.	
3.	

Section 4.0

Occupant, Vehicle, Camera, and Barrier Information

Dummy Kinematic Summary

Driver Dummy

Upon impact, the driver dummy translated forward on the seat impacting both knees into the instrument panel. The dummy leaned forward and the neck flexed slightly forward. The dummy's head contacted the undeployed airbag cover and the upper steering wheel rim as the chest was restrained by the belt system. The dummy rebounded into the seat back with the head contacting the head restraint. The driver dummy came to rest seated upright in the driver's seat.

Right Front Passenger Dummy

Upon impact, the passenger dummy translated forward on the seat impacting both knees and the right tibia into the dash panel. The dummy leaned forward and the neck flexed forward. As the torso was restrained by the belt system, the neck continued to flex forward. The head did not appear to contact the undeployed airbag cover or dash. The dummy rebounded into the seat back with the head contacting the head restraint. The dummy came to rest seated upright in the passenger seat.

Figure 5 Dummy Measurement Locations for Front Seat Occupants

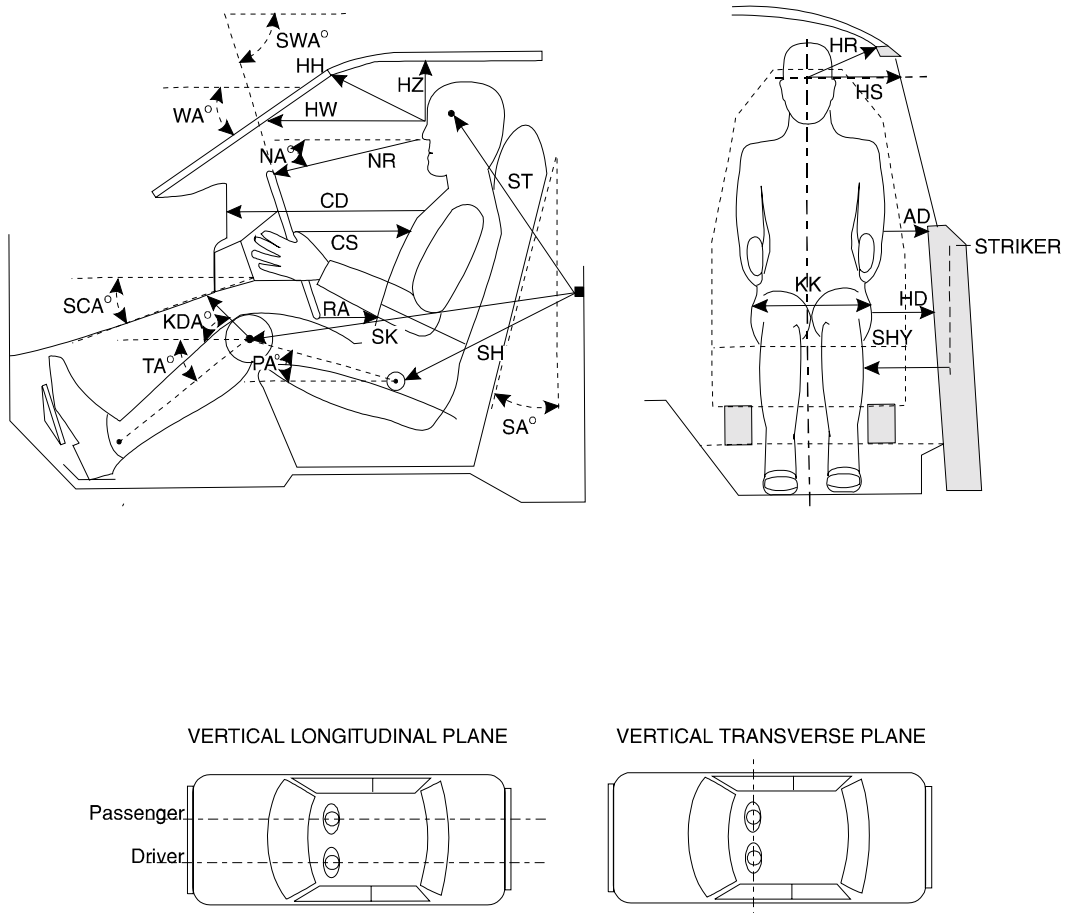


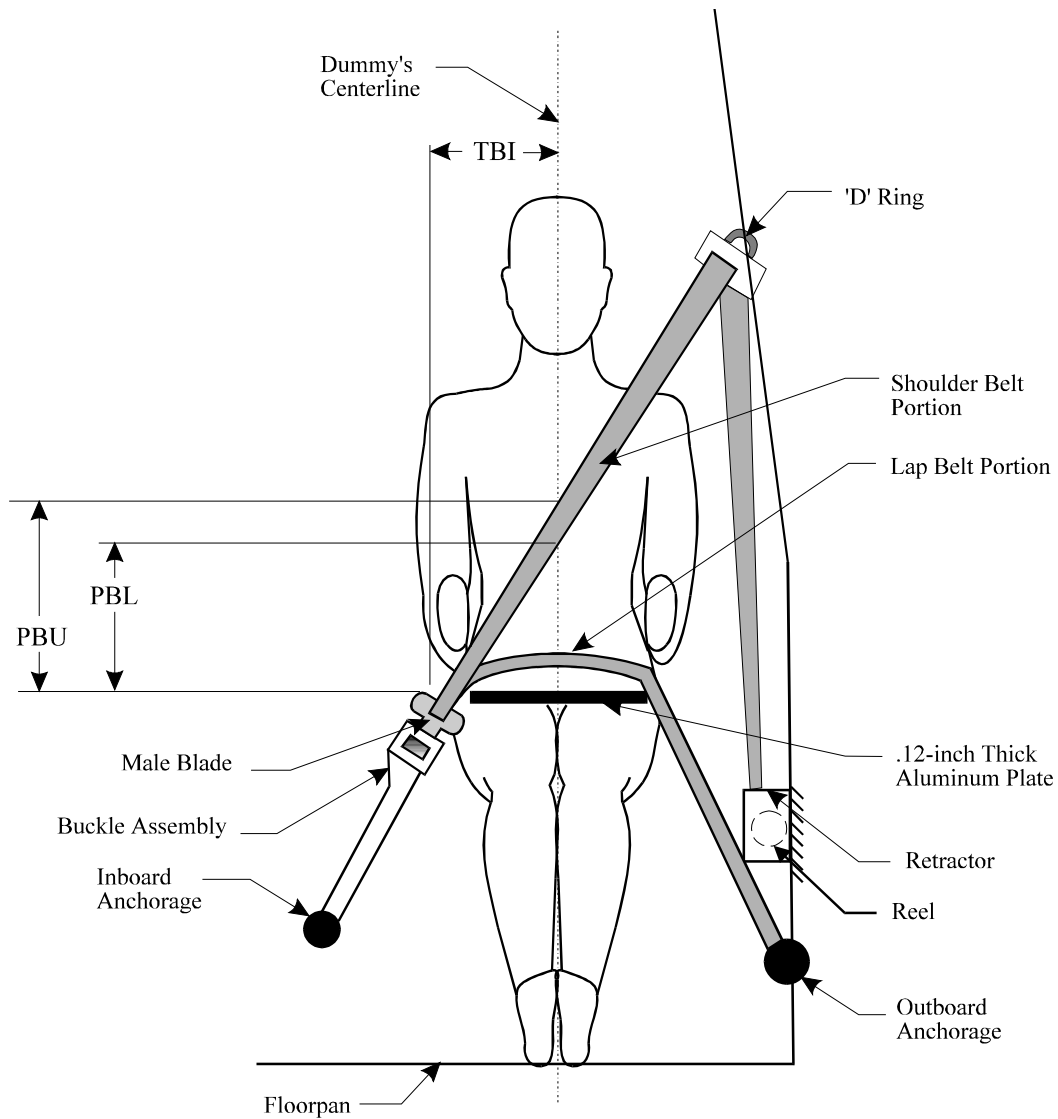
Table 7 Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial # 168)	Passenger (Serial # 169)
WA	Windshield angle	34.1°	34.1°
SWA	Steering wheel angle	68.4°	N/A
SCA	Steering column angle	21.6°	N/A
SA	Seat back angle	16.7°	16.7°
HZ	Head to roof	223 mm	270 mm
HH	Head to header	427 mm	428 mm
HW	Head to windshield	604 mm	601 mm
HR	Head to side header	223 mm	235 mm
NR	Nose to rim	390 mm	N/A
NA	Nose to rim angle	12.3°	N/A
CD	Chest to dash	563 mm	526 mm
CS	Steering wheel to chest	320 mm	N/A
RA	Rim to abdomen	209 mm	N/A
KDL	Left knee to dash	159 mm	132 mm
KDR	Right knee to dash	128 mm	140 mm
KDA	Outboard knee to dash angle	29.6°	21.9°
PA	Pelvic angle	24.6°	20.2°
TA	Tibia angle	60.5°	63.5°
KK	Knee to knee	270 mm	269 mm
ST ¹	Striker to head	636 mm	651 mm
	Striker to head angle	-83.9°	-78.2°
SK ¹	Striker to knee	608 mm	642 mm
	Striker to knee angle	-12.8°	-10.2°
SH ¹	Striker to H-point	230 mm	264 mm
	Striker to H-point angle	10.8°	8.1°
SHY	Striker to H-point (Y dir.)	245 mm	265 mm
HS	Head to side window	320 mm	351 mm
HD	H-point to door	118 mm	116 mm
AD	Arm to door	113 mm	114 mm

The seat back angle (SA°) is measured relative to vertical, all other angles are measured relative to horizontal.

¹ A negative angle indicates the measurement point was above the striker.

Figure 6 Seat Belt Positioning Data



	Driver Dummy	Passenger Dummy
PBU - Top surface of aluminum plate to belt upper edge	354 mm	340 mm
PBL - Top surface of aluminum plate to belt lower edge	270 mm	250 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	265 mm	215 mm

Table 8 Vehicle Structural Measurements^{1,2}

	Elements	Pre-Test
1	Total Length	5260
2	Total Width	1996
3	Bumper Top Height	-727
4	Bumper Bottom Height	-338
5	Longitudinal Member Top Height	-421
6	Longitudinal Member Bottom Height	-303
7	Distance Between Longitudinal Members	755
7'	Longitudinal Member Width	90
8	Engine Top Height	-1106
9	Engine Bottom Height	-203
10	Engine and Gearbox Width	782
11	Front Bumper - Engine Distance	777
12	Front Shock Absorber Fixing Height	-723
13	Bonnet Leading Edge Height	-1046
14	Front Shock Absorber Fixing Width	612
15	Front Bumper - Front Axle Distance	995
16	Front Axle - A Pillar Distance	706
17	A Pillar - B Pillar Distance	1062
18	B Pillar - Rear Axle Distance	1310
19	B Pillar - C Pillar Distance	1295
20	Roof Sill Bottom Height	-1601
21	Roof Sill Top Height	-1683
22	Floor Sill Bottom Height	-303
23	Floor Sill Top Height	-452

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 7 Pre-Test And Post-Test Measurement Points

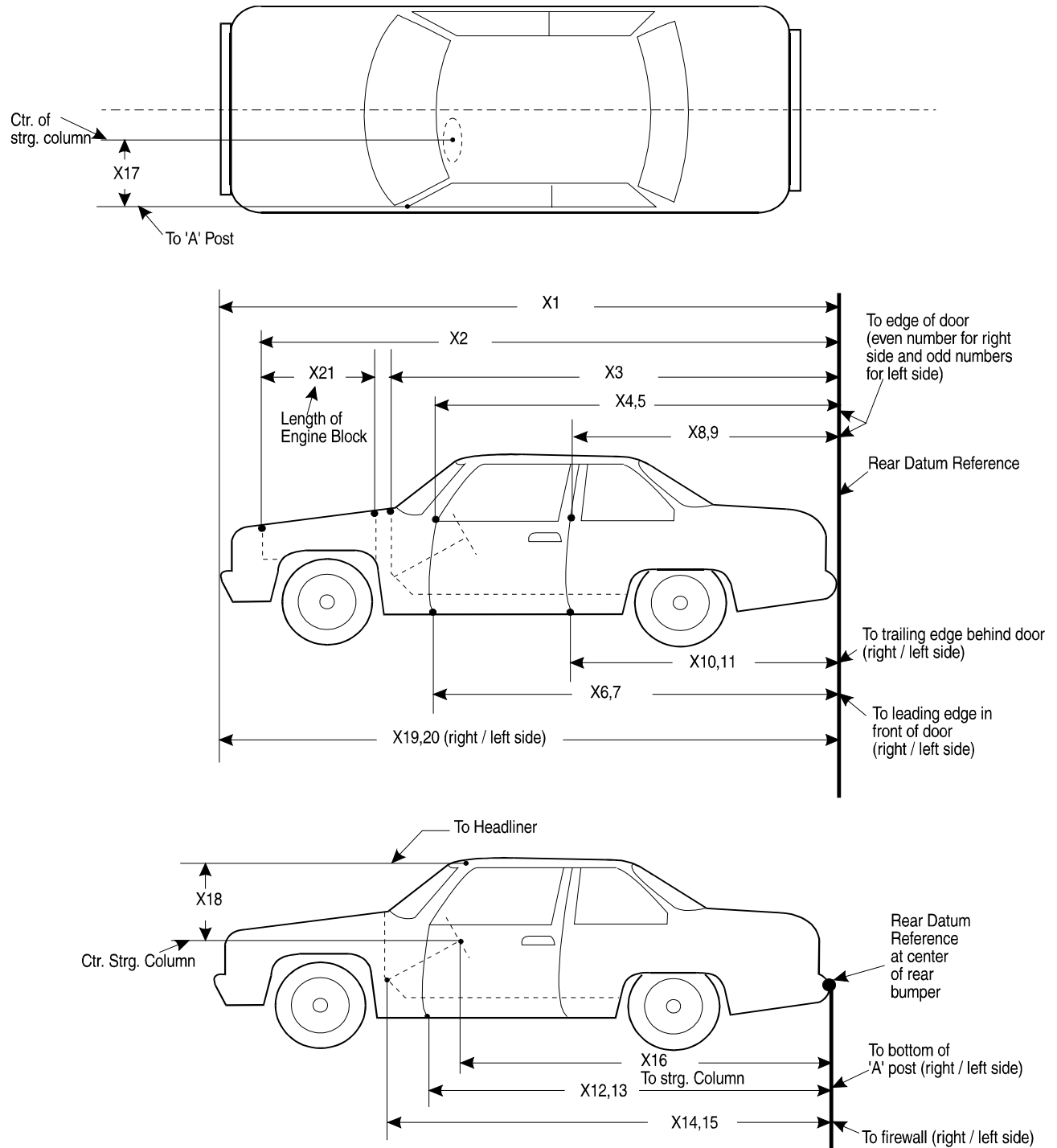


Table 9 Impacted Vehicle Measurements

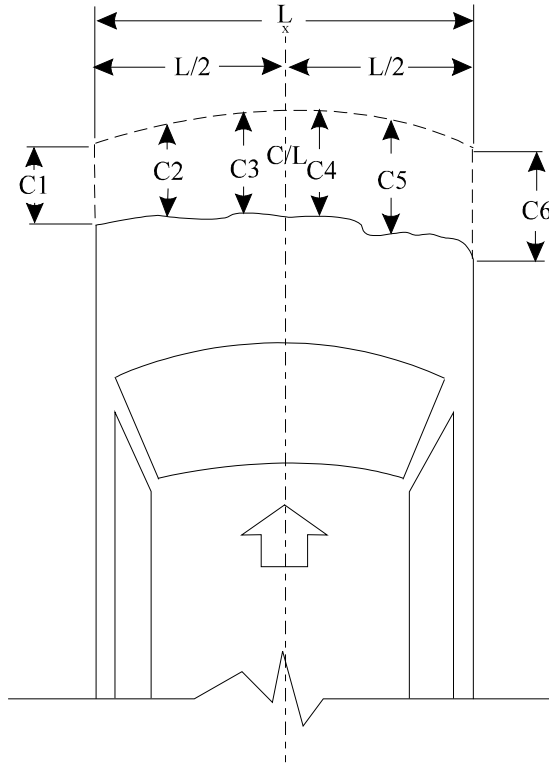
Test number: 020826-1

Vehicle year/make/model/body style: 2003/Lincoln/Navigator/MPV

No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5260	4718	542
X2	Rear Surface of Vehicle to Front of Engine Block	4600	4483	117
X3	Rear Surface of Vehicle to Firewall	4070	3968	102
X4	Rear Surface of Veh. to Upper Leading Edge of Right Door	3661	3671	-10
X5	Rear Surface of Veh. to Upper Leading Edge of Left Door	3664	3617	47
X6	Rear Surface of Veh. to Lower Leading Edge of Right Door	3586	3631	-45
X7	Rear Surface of Veh. to Lower Leading Edge of Left Door	3595	3600	-5
X8	Rear Surface of Veh. to Upper Trailing Edge of Right Door	2578	2587	-9
X9	Rear Surface of Veh. to Upper Trailing Edge of Left Door	2583	2549	34
X10	Rear Surface of Veh. to Lower Trailing Edge of Right Door	2560	2609	-49
X11	Rear Surface of Veh. to Lower Trailing Edge of Left Door	2570	2574	-4
X12	Rear Surface of Veh. to Bottom of " A " Post on Right Side	3597	3611	-14
X13	Rear Surface of Veh. to Bottom of " A " Post on Left Side	3600	3535	65
X14	Rear Surface of Vehicle to Firewall--Right Side	4054	3978	76
X15	Rear Surface of Vehicle to Firewall --Left Side	4052	3960	92
X16	Rear Surface of Vehicle to Steering Wheel Center	3197	3150	47
X17	Center of Steering Column to " A " Post	288	285	3
X18	Center of Steering Column to Headliner	430	487	-57
X19	Rear Surface of Vehicle to Right Side of Front Bumper	5109	5381	-272
X20	Rear Surface of Vehicle to Left Side of Front Bumper	5108	4641	467
X21	Length of Engine Block	520	520	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3433	3429	4
CD	Rear Surface of Vehicle to Center of Dash Panel	3445	3412	33
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3428	3360	68

All distance measurements are in millimeters.

Figure 8 Vehicle Crush

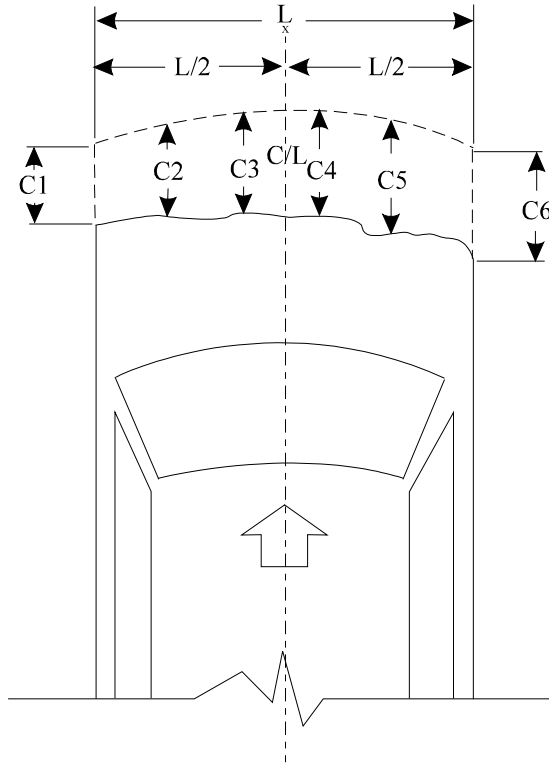


Notes: L is pre-test length of contact surface.
C1 through C6 are spaced equally apart.
CL is vehicle centerline.

Vehicle: 2003 Lincoln Navigator
Measured with bumper fascia:

Location	Pre-test	Post-test	Difference
L	1525 mm		
C1	5108 mm	4641 mm	467 mm
C2	5207 mm	4496 mm	711 mm
C3	5254 mm	4547 mm	707 mm
C4	5257 mm	4866 mm	391 mm
C5	5210 mm	5166 mm	44 mm
C6	5109 mm	5381 mm	-272 mm
CL	5260 mm	4718 mm	542 mm

Figure 8 Vehicle Crush, Cont'd.



Notes: L is pre-test length of contact surface.
C1 through C6 are spaced equally apart.
CL is vehicle centerline.

Vehicle: 2003 Lincoln Navigator

Measured to bumper front crossmember without bumper fascia:

Location	Pre-test	Post-test	Difference
L	1430 mm		
C1	5074 mm	4452 mm	622 mm
C2	5196 mm	4569 mm	627 mm
C3	5222 mm	4560 mm	662 mm
C4	5228 mm	4812 mm	416 mm
C5	5188 mm	5081 mm	107 mm
C6	5073 mm	5269 mm	-196 mm
CL	5225 mm	4685 mm	540 mm

Table 10 Test Vehicle Frontal Profile Data

Pre-Test Profile							
		Vehicle Left			Vehicle Right		
		Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Bottom of Front Bumper	X	4977 mm	5084 mm	5126 mm	5129 mm	5087 mm	4976 mm
	Y	-766 mm	-460 mm	-154 mm	155 mm	465 mm	775 mm
	Z	-210 mm	-215 mm	-210 mm	-210 mm	-215 mm	-220 mm
Top of Front Bumper	X	5103 mm	5204 mm	5251 mm	5254 mm	5208 mm	5104 mm
	Y	-768 mm	-457 mm	-152 mm	150 mm	452 mm	757 mm
	Z	-625 mm	-630 mm	-630 mm	-625 mm	-630 mm	-633 mm
Center of Grille	X	5003 mm	5117 mm	5170 mm	5171 mm	5122 mm	4999 mm
	Y	-754 mm	-442 mm	-149 mm	145 mm	442 mm	758 mm
	Z	-845 mm	-847 mm	-840 mm	-840 mm	-840 mm	-839 mm
Front of Hood	X	4951 mm	5070 mm	5104 mm	5109 mm	5074 mm	4960 mm
	Y	-655 mm	-455 mm	-152 mm	150 mm	456 mm	764 mm
	Z	-972 mm	-1012 mm	-1029 mm	-1029 mm	-1007 mm	-972 mm

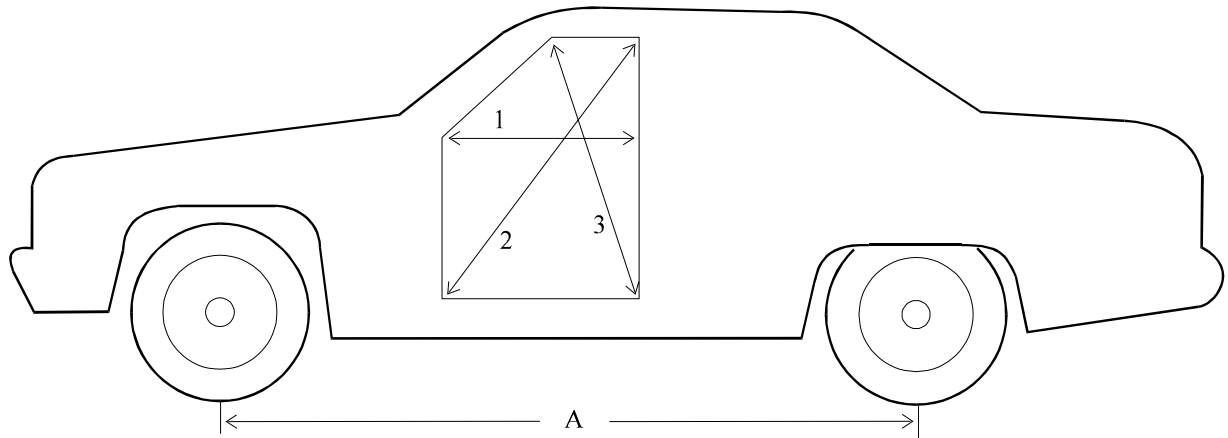
Post-Test Profile ¹							
		Vehicle Left			Vehicle Right		
		Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Bottom of Front Bumper	X	4662 mm	4615 mm	4661 mm	4831 mm	5148 mm	5299 mm
	Y	-702 mm	-410 mm	-126 mm	12 mm	155 mm	345 mm
	Z	-184 mm	-220 mm	-200 mm	-260 mm	-288 mm	-324 mm
Top of Front Bumper	X	4607 mm	4489 mm	N/A mm	4901 mm	5145 mm	5389 mm
	Y	-718 mm	-498 mm	N/A mm	390 mm	84 mm	219 mm
	Z	-455 mm	-560 mm	N/A mm	-597 mm	-657 mm	-719 mm
Center of Grille	X	N/A mm	N/A mm	N/A mm	5164 mm	5151 mm	N/A mm
	Y	N/A mm	N/A mm	N/A mm	53 mm	343 mm	N/A mm
	Z	N/A mm	N/A mm	N/A mm	-1232 mm	-1264 mm	N/A mm
Front of Hood	X	4762 mm	4824 mm	N/A mm	5025 mm	5038 mm	4962 mm
	Y	-816 mm	-549 mm	N/A mm	59 mm	364 mm	655 mm
	Z	-1152 mm	-1043 mm	N/A mm	-1372 mm	-1398 mm	-1365 mm

Difference ¹							
		Vehicle Left			Vehicle Right		
		Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Bottom of Front Bumper	X	315 mm	469 mm	465 mm	298 mm	-61 mm	-323 mm
	Y	-64 mm	-50 mm	-28 mm	143 mm	310 mm	430 mm
	Z	-26 mm	5 mm	-10 mm	50 mm	73 mm	104 mm
Top of Front Bumper	X	496 mm	715 mm	N/A mm	353 mm	63 mm	-285 mm
	Y	-50 mm	41 mm	N/A mm	-240 mm	368 mm	538 mm
	Z	-170 mm	-70 mm	N/A mm	-28 mm	27 mm	86 mm
Center of Grille	X	N/A mm	N/A mm	N/A mm	7 mm	-29 mm	N/A mm
	Y	N/A mm	N/A mm	N/A mm	92 mm	99 mm	N/A mm
	Z	N/A mm	N/A mm	N/A mm	392 mm	424 mm	N/A mm
Front of Hood	X	189 mm	246 mm	N/A mm	84 mm	36 mm	-2 mm
	Y	161 mm	94 mm	N/A mm	91 mm	92 mm	109 mm
	Z	180 mm	31 mm	N/A mm	343 mm	391 mm	393 mm

Note: Six points divide the width of the car. Pre- and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

¹ Several measurement points were obscured in vehicle crush.

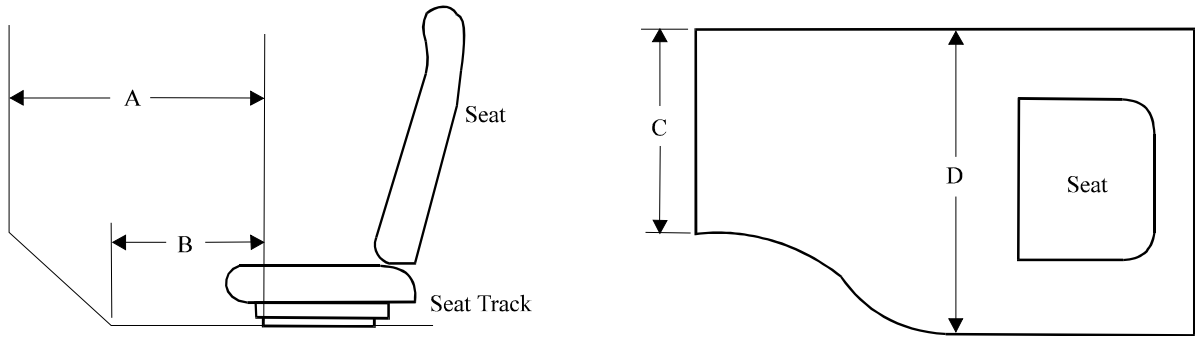
Figure 9 Vehicle Intrusion Measurements
Door Opening Width



Units (mm)	Left			Right		
Measurement	1	2	3	1	2	3
Pre-Test	968 mm	1556 mm	1255 mm	965 mm	1568 mm	1255 mm
Post-Test	918 mm	1520 mm	1339 mm	970 mm	1559 mm	1256 mm
Difference	50 mm	36 mm	-84 mm	-5 mm	9 mm	-1 mm

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	3025 mm	3025 mm
Post-Test	2780 mm	3090 mm
Difference	245 mm	-65 mm

Figure 10 Vehicle Intrusion Measurements
Static Footwell Deformation



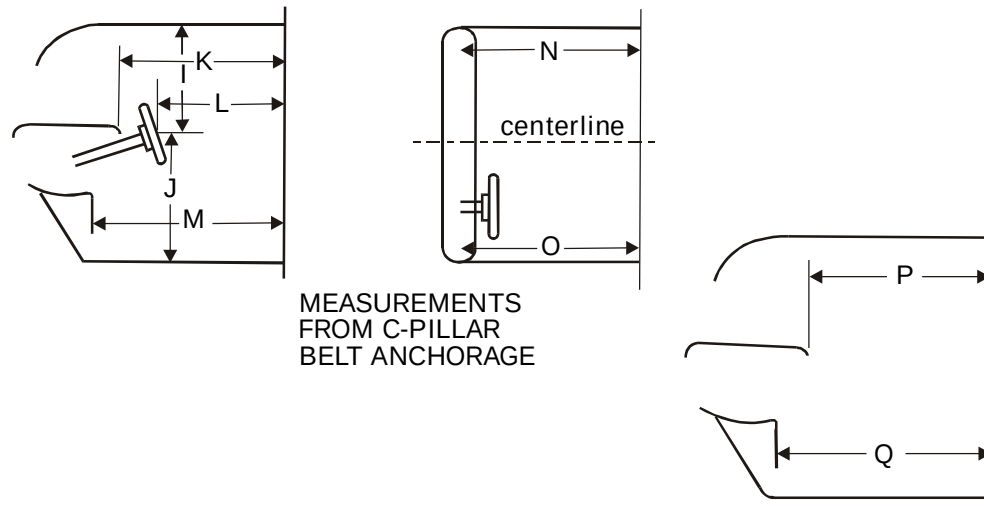
Driver's Side

Measurement	Pre-Test	Post-Test	Difference
A	880 mm	774 mm	106 mm
B	550 mm	488 mm	62 mm
C	485 mm	465 mm	20 mm
D	475 mm	469 mm	6 mm

Passenger's Side

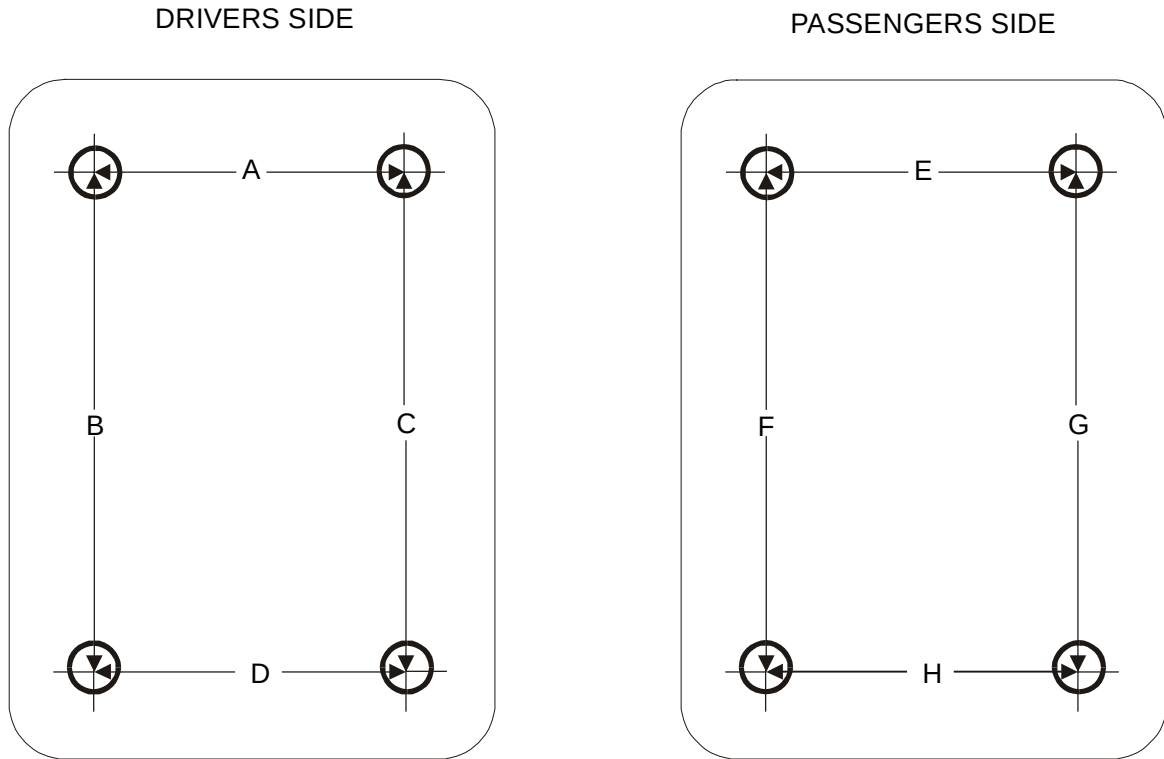
Measurement	Pre-Test	Post-Test	Difference
A	760 mm	751 mm	9 mm
B	535 mm	559 mm	-24 mm
C	395 mm	391 mm	4 mm
D	437 mm	437 mm	0 mm

Figure 11 Vehicle Intrusion Measurements
Static Passenger Compartment Intrusion



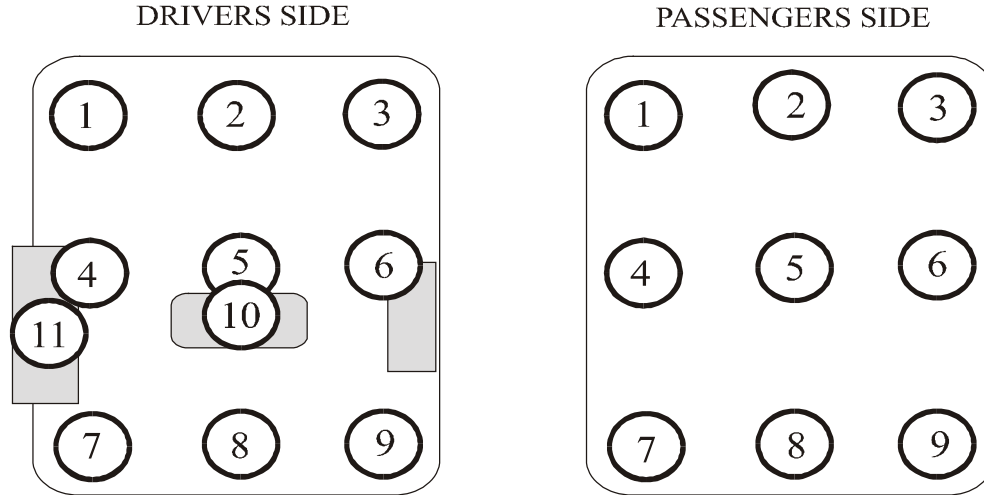
Measurement	Pre-Test	Post-Test	Difference
I	498 mm	480 mm	18 mm
J	706 mm	779 mm	-73 mm
K (driver's side)	1620 mm	1543 mm	77 mm
L	1364 mm	1373 mm	-9 mm
M (driver's side)	1685 mm	1588 mm	97 mm
N (passenger's side)	1580 mm	1564 mm	16 mm
O (driver's side)	1586 mm	1499 mm	87 mm
P (passenger's side)	1613 mm	1598 mm	15 mm
Q (passenger's side)	1693 mm	1687 mm	6 mm

Figure 12 Floorboard Deformation



Measurement	Pre-Test	Post-Test	Difference
A	485 mm	465 mm	20 mm
B	450 mm	403 mm	47 mm
C	402 mm	387 mm	15 mm
D	475 mm	469 mm	6 mm
E	395 mm	391 mm	4 mm
F	377 mm	374 mm	3 mm
G	455 mm	457 mm	-2 mm
H	437 mm	437 mm	0 mm

Figure 13 Toeboard Measurements



Driver's Side Toeboard Measurements in Millimeters

Toeboard Location	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3941	-620	-649	3799	-591	-754	142	-29	105
2	3949	-475	-649	3795	-479	-744	154	4	95
3	3861	-252	-690	3738	-234	-768	123	-18	78
4	3811	-620	-535	3692	-593	-592	119	-27	57
5	3803	-475	-535	3710	-479	-596	93	4	61
6	3791	-252	-519	3712	-234	-605	79	-18	86
7	3651	-620	-452	3587	-592	-493	64	-28	41
8	3654	-475	-442	3619	-462	-472	35	-13	30
9	3656	-252	-453	3600	-247	-521	56	-5	68
10	3651	-434	-650	3558	-447	-719	93	13	69
11	3871	-680	-655	3730	-646	-733	141	-34	78

Passenger's Side Toeboard Measurements in Millimeters

Toeboard Location	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3811	278	-586	3781	300	-648	30	-22	62
2	3851	460	-572	3831	463	-624	20	-3	52
3	3858	647	-572	3849	652	-625	9	-5	53
4	3768	278	-508	3746	300	-554	22	-22	46
5	3779	460	-516	3767	463	-559	12	-3	43
6	3791	647	-517	3782	652	-578	9	-5	61
7	3658	278	-458	3640	300	-506	18	-22	48
8	3667	460	-455	3660	463	-502	7	-3	47
9	3676	647	-452	3661	652	-507	15	-5	55

Pre- and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

Table 11 Intrusion of Upper Instrument Panel

Pre-Test	X	Y	Z
Driver Left Knee	3432	-604	-959
Driver Right Knee	3441	-250	-958
Passenger Left Knee	3422	294	-982
Passenger Right Knee	3428	567	-970

Post-Test	X	Y	Z
Driver Left Knee	3334	-610	-1040
Driver Right Knee	3350	-247	-1035
Passenger Left Knee	3371	291	-1025
Passenger Right Knee	3383	570	-1031

Difference	X	Y	Z
Driver Left Knee	98	6	81
Driver Right Knee	91	-3	77
Passenger Left Knee	51	3	43
Passenger Right Knee	45	-3	61

Knee intrusions are points measured pre and post, which are located just above where the four knees would be expected to contact the instrument panel.

Pre- and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

Table 12 Insurance Institute Measurement Locations and Floor Pan Deformation Data

IIHS Measurement Location Data (in millimeters)

Meas. Loc*	X-Axis Measurement			Y-Axis Measurement			Z-Axis Measurement		
	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference
1	3173	3281	-108	-430	-437	7	-1173	-1266	93
2	3478	3366	112	-580	-590	10	-901	-964	63
3	3496	3387	109	-280	-270	-10	-897	-962	65
4	3651	3558	93	-434	-447	13	-650	-719	69
5	3881	3749	132	-584	-596	12	-595	-674	79
6	3903	3790	113	-434	-472	38	-560	-640	80
7*	3832	3740	92	-184	-225	41	-622	-689	67
8	3866	3706	160	-710	-686	-24	-675	-719	44
17	3616	3545	71	-830	-866	-36	-1129	-1210	81
18	3556	3528	28	-853	-846	-7	-486	-553	67

Floor Pan Deformation Measurement Data (in millimeters)

Meas. Loc*	X-Axis Measurement			Y-Axis Measurement			Z-Axis Measurement		
	Pre	Post	Difference	Pre	Post	Difference	Pre	Post	Difference
P0	3101	3089	12	-612	-582	-30	-501	-488	-13
P1	3636	3550	86	-690	-692	2	-453	-454	1
P2	3619	3586	33	-489	-462	-27	-451	-442	-9
P3	3626	3583	43	-259	-238	-21	-438	-379	-59
P4	3416	3374	42	-690	-716	26	-421	-455	34
P5	3426	3398	28	-489	-472	-17	-451	-502	51
P6	3438	3421	17	-259	-245	-14	-452	-473	21
P7	3228	3191	37	-690	-717	27	-436	-474	38
P8	3218	3197	21	-489	-462	-27	-443	-457	14
P9	3225	3209	16	-259	-247	-12	-443	-454	11

Pre- and post-test measurement references: +X, forward of rear bumper; +Y, rightward from vehicle centerline; +Z, downward from ground level.

* Measurement Location Descriptions

P0 Front Outside Seat Anchor Bolt

- 1 Steering Column - Geometric center of the steering wheel on airbag door.
- 2 Lower Instrument Panel Left - Taken 45 cm above floorpan and 15 cm to the left of the steering wheel center.
- 3 Lower Instrument Panel Right - Taken 45 cm above floorpan and 15 cm to the right of the steering wheel center.
- 4 Brake Pedal - Geometric center of the brake pedal.
- 5 Toe pan Left - Taken 15 cm to the left of the brake pedal center on the same vertical plane on the vehicle toe pan.
- 6 Toe pan Center - Taken directly behind the brake pedal center on the same vertical plane on the vehicle.
- 7 Toe pan Right - Taken 15 cm to the right of the brake pedal center on the same vertical plane on the vehicle toe pan.
- 8 Left Footrest - Taken 25 cm to the left of the brake pedal center on the same vertical plane on the vehicle toe pan.
- 17 A-Pillar - Taken on the vehicle exterior at the same vertical coordinate as the base of the left front window.
- 18 B-Pillar - Taken on the vehicle exterior at the same vertical coordinate as the lower A-pillar mark.

** There is an equal spaced 3x3 floor pan matrix. Position 1 is floor pan left side forwardmost position; Position 9 is located on the right side rearmost position of the 3x3 grid.

Figure 14 Camera Positions

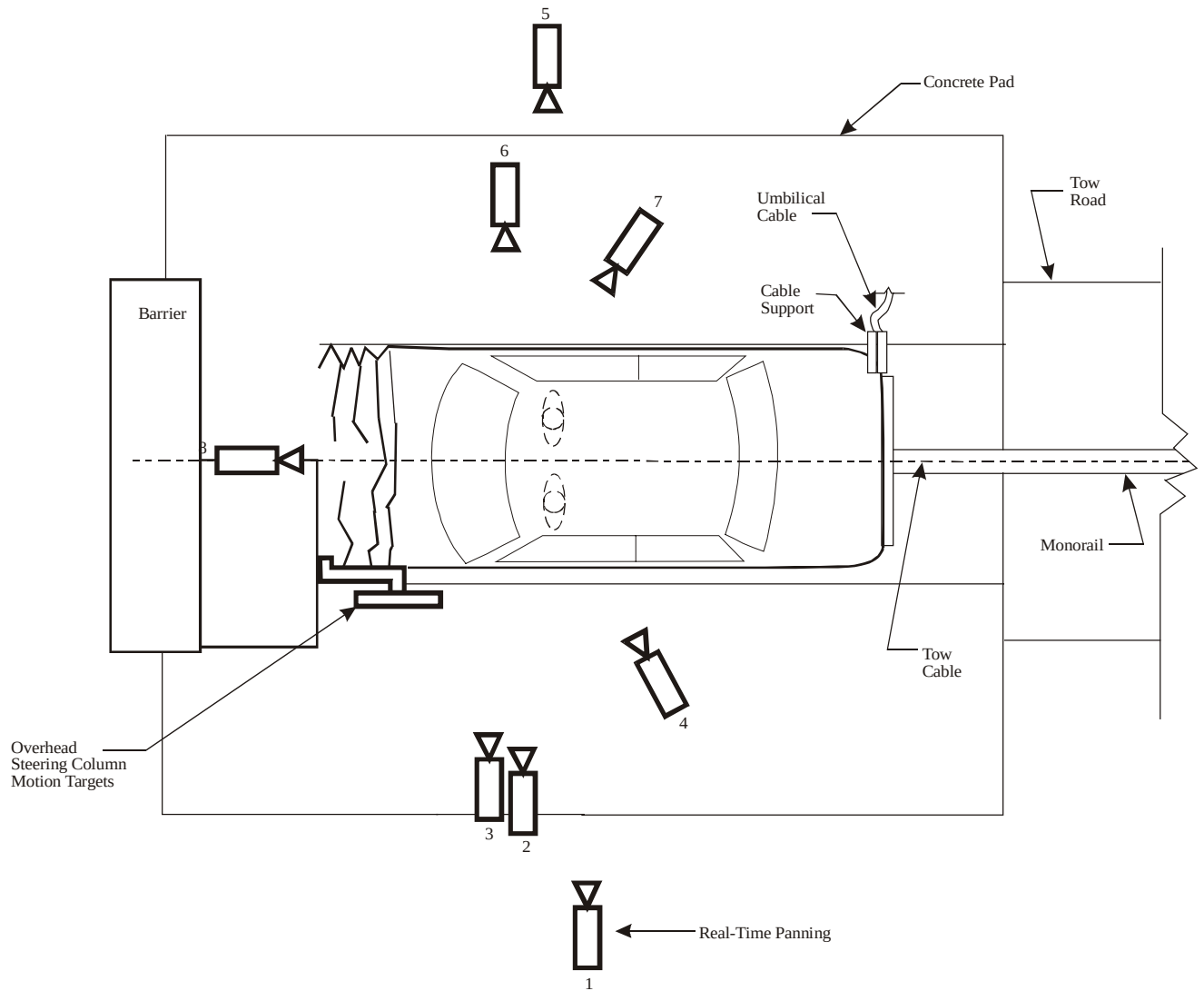


Figure 14 Camera Positions, Cont'd.

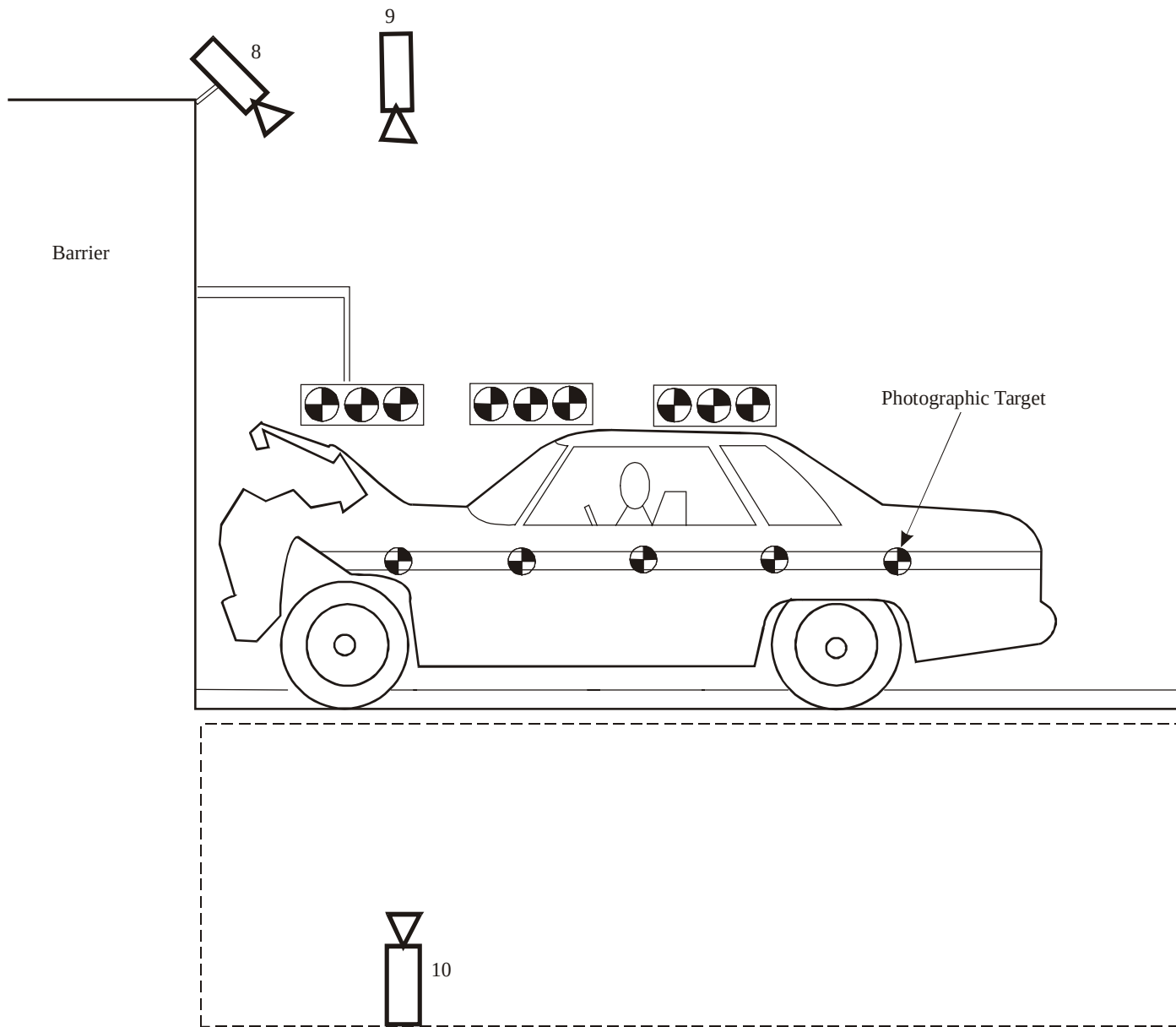
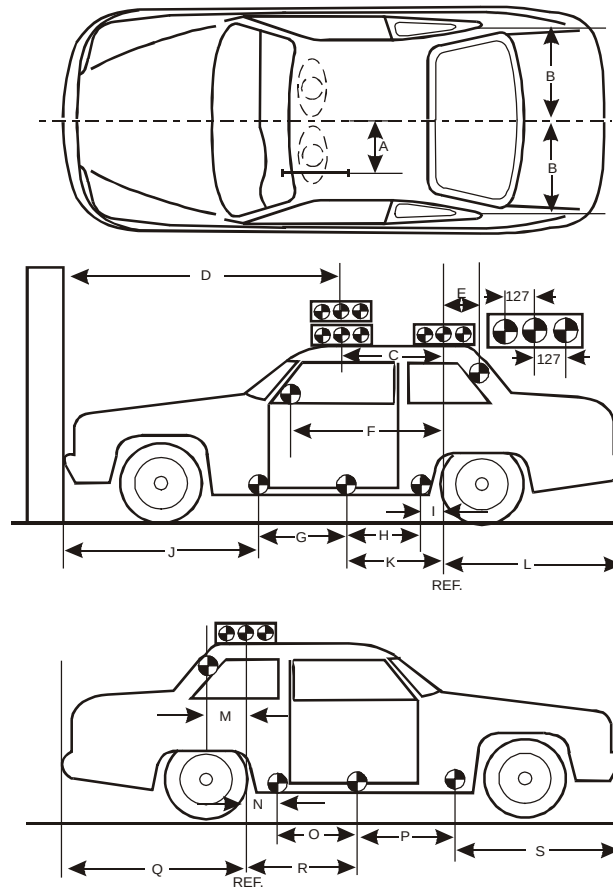


Table 13 Camera Information

Camera Number	Location	Type	Lens (mm)	Speed (fps)	Purpose of camera data
1	Panning	Bolex		24	Vehicle dynamics
2	Left perpendicular overall	Digital HG	13	1000	Vehicle crush
3	Left tight driver side	Digital HG	25	1000	Dummy kinematics
4	Left angled on driver	Digital HG	25	1000	Dummy and airbag
5	Right perpendicular overall	Digital HG	13	1000	Dummy kinematics
6	Right tight passenger side	Digital HG	25	1000	Dummy kinematics
7	Right angled on passenger	Digital HG	25	1000	Dummy and airbag
8	Driver and passenger from barrier	Digital HG	13	1000	Airbag deployment
9	Overhead	Digital HG	13	1002	Vehicle dynamics
10	Pit front	Digital HG	17	997	Vehicle crush

Figure 15 Vehicle Reference Photo Target Locations



Measurement	Pre-Test
A ¹	N/A
B	Left: 715 mm Right: 710 mm
C ¹	N/A
D	1628 mm
E ¹	N/A
F	1797 mm
G	961 mm
H	990 mm
I ¹	N/A
J	1374 mm
K ¹	N/A
L ¹	N/A
M ¹	N/A
N ¹	N/A
O	988 mm
P	960 mm
Q ¹	N/A
R ¹	N/A
S	1384 mm

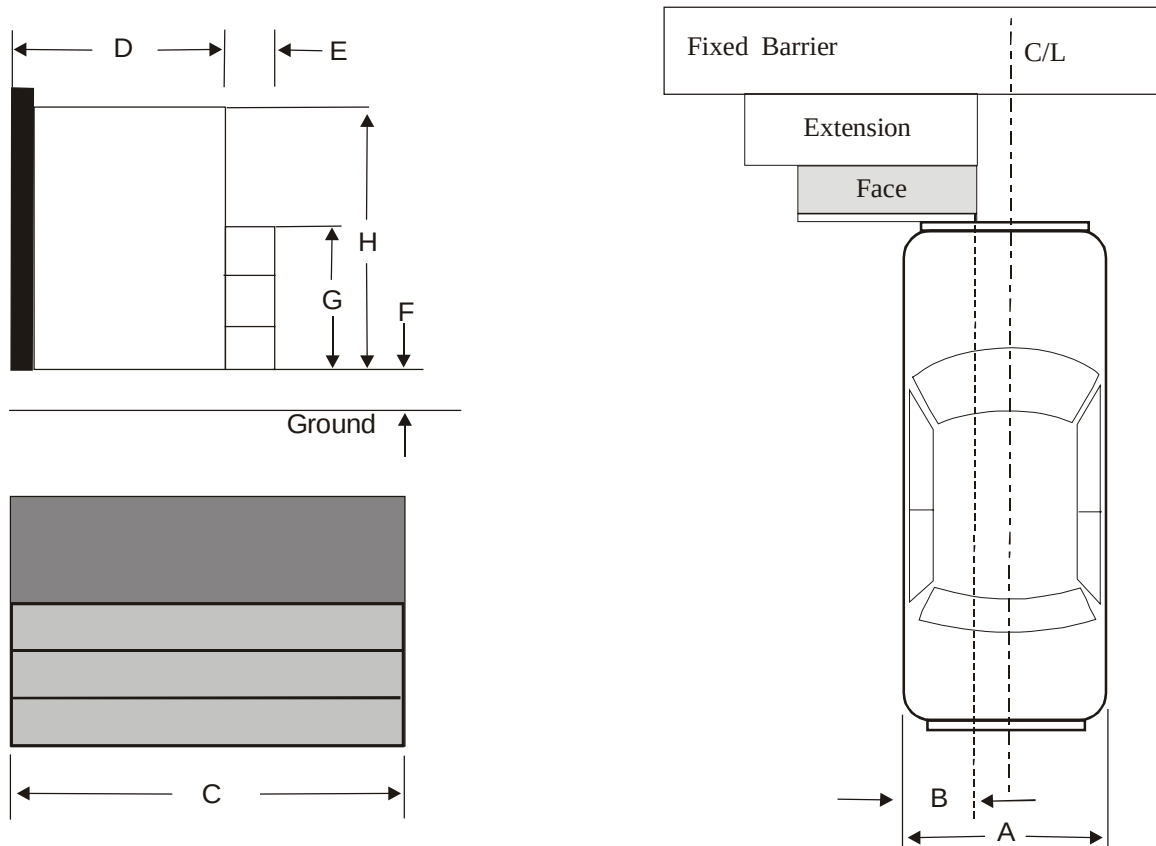
¹ No roof targets installed on this vehicle.

Figure 16 Offset Barrier and Vehicle Orientation

Vehicle: 2003 Lincoln Navigator

Barrier Manufacturer: Cellbond

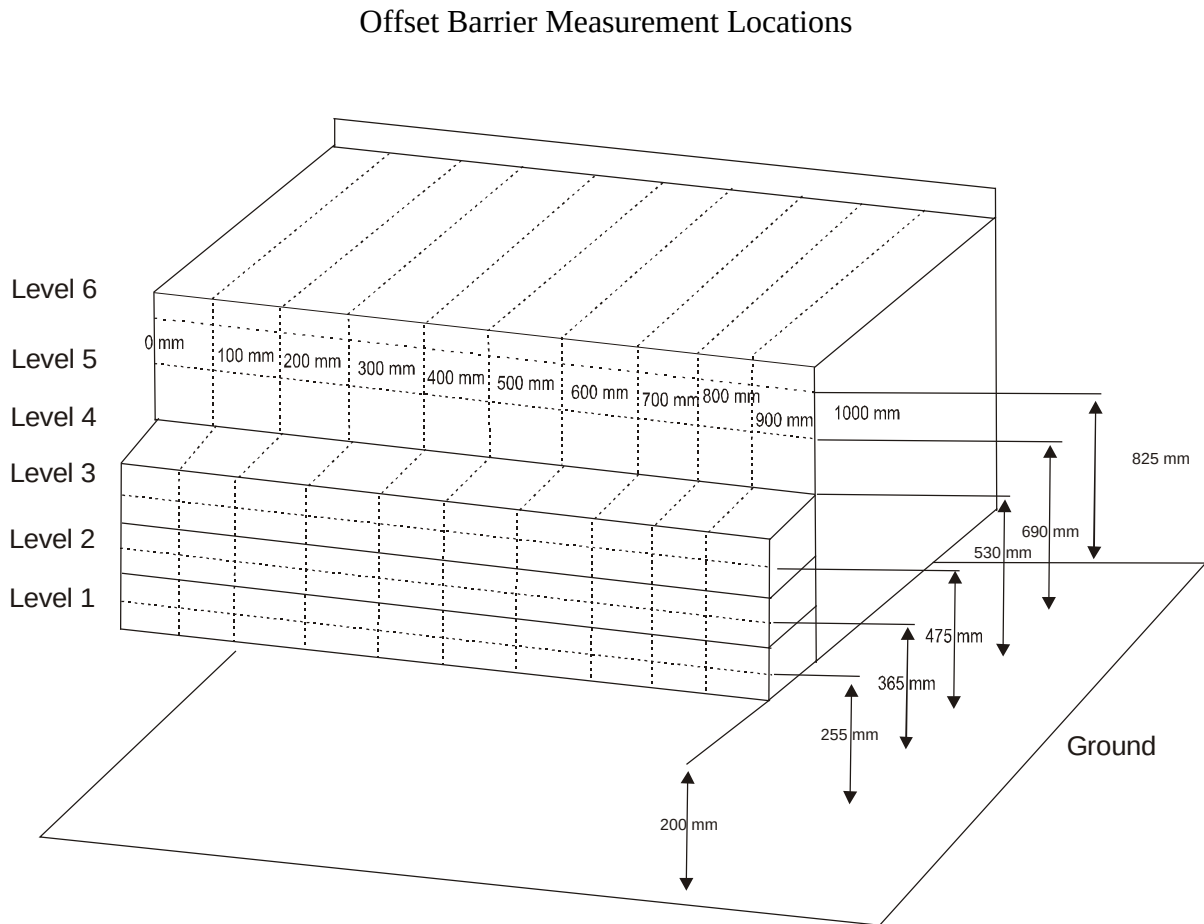
Serial Number: CB051



A	Total Vehicle Width	<u>1996.5</u>	mm
B	40% Overlap Distance	<u>798.4</u>	mm
C	Deformable Face Width	<u>1000</u>	mm
D	Single Stage Honeycomb Depth	<u>450</u>	mm
E	Bumper Element Depth	<u>90</u>	mm
F	Lower Edge Height From Ground	<u>200</u>	mm
G*	Bumper Element Height	<u>344</u>	mm
H	Deformable Barrier Honeycomb Height	<u>861</u>	mm

* The bumper element consists of three 110 mm height blocks of 1.723 MPa honeycomb.

Figure 18 Offset Barrier Deformation Measurement Locations



Height of levels at centerline:

Level 6 - Top stack	832 mm
Level 5 - Mid stack	696 mm
Level 4 - Stack at top of bumper	563 mm
Level 3 - Bumper top	474 mm
Level 2 - Bumper mid	363 mm
Level 1 - Bumper low	257 mm

Table 14 Deformable Barrier Face Profile

Level 6 Top Stack

Pre-Test			
Index	Xmm	Ymm	Zmm
1	452.9	-5.9	629.4
2	453.9	91.8	628.4
3	453.8	192.7	628.4
4	454.8	292.4	627.8
5	452.2	394.7	628.9
6	454.2	493.7	628.2
7	453.5	592.2	627.4
8	454.0	693.3	626.7
9	453.9	793.2	627.4
10	453.5	894.1	630.1
11	452.8	991.4	626.6

Post-Test			
Index	Xmm	Ymm	Zmm
1	355.5	-130.0	735.3
2	324.2	-73.1	804.3
3	370.5	168.7	473.7
4	328.7	259.5	480.5
5	276.0	345.0	467.6
6	252.0	434.1	463.5
7	271.1	526.8	493.1
8	258.7	620.9	506.0
9	210.0	708.7	505.6
10	178.5	802.1	503.4
11	148.1	893.2	502.5

Difference			
Index	Xmm	Ymm	Zmm
1	97.4	124.2	-106.0
2	129.7	164.9	-176.0
3	83.4	24.0	154.8
4	126.2	32.9	147.4
5	176.3	49.7	161.4
6	202.2	59.6	164.7
7	182.4	65.4	134.3
8	195.3	72.4	120.7
9	243.9	84.5	121.8
10	275.0	92.0	126.8
11	304.8	98.2	124.2

Level 5 Mid Stack

Pre-Test			
Index	Xmm	Ymm	Zmm
12	456.4	-6.4	491.0
13	455.2	93.2	492.8
14	459.3	190.3	490.7
15	454.4	292.9	492.0
16	456.7	390.5	489.8
17	453.0	496.7	492.9
18	455.1	595.7	492.0
19	455.4	694.5	492.1
20	455.0	794.7	491.7
21	453.8	893.8	490.8
22	456.5	992.5	491.7

Post-Test			
Index	Xmm	Ymm	Zmm
12	490.0	8.8	371.1
13	465.2	104.8	366.9
14	415.6	188.7	364.4
15	344.4	256.9	361.0
16	326.6	356.4	363.6
17	318.7	443.0	361.8
18	273.6	524.0	378.0
19	235.3	615.5	382.2
20	190.4	700.4	386.4
21	175.7	797.9	399.5
22	158.6	887.6	416.4

Difference			
Index	Xmm	Ymm	Zmm
12	-33.6	-15.2	119.9
13	-10.1	-11.7	125.9
14	43.7	1.6	126.4
15	110.0	36.0	131.1
16	130.2	34.1	126.2
17	134.4	53.7	131.2
18	181.6	71.7	114.0
19	220.2	79.1	109.9
20	264.6	94.3	105.4
21	278.1	95.9	91.3
22	297.9	105.0	75.4

Table 14 Deformable Barrier Face Profile Cont'd.

Level 4 Stack Top of Bumper

Pre-Test			
Index	Xmm	Ymm	Zmm
23	456.3	-3.9	351.2
24	455.8	93.7	350.0
25	456.0	193.6	350.7
26	456.4	292.2	350.5
27	455.3	392.2	352.4
28	456.3	495.8	349.9
29	456.2	593.0	351.7
30	459.1	697.6	349.1
31	456.5	794.7	352.3
32	456.3	892.8	352.0
33	456.6	991.6	351.7

Post-Test			
Index	Xmm	Ymm	Zmm
23	461.5	-0.7	233.7
24	445.9	93.1	228.1
25	413.5	185.6	224.2
26	373.0	272.1	225.1
27	341.4	366.4	226.5
28	291.2	453.2	235.5
29	225.9	519.3	250.3
30	214.0	609.4	245.2
31	256.0	733.8	269.8
32	240.7	824.9	295.2
33	199.2	912.1	315.6

Difference			
Index	Xmm	Ymm	Zmm
23	-5.2	-3.3	117.6
24	9.9	0.6	121.9
25	42.5	8.0	126.5
26	83.5	20.1	125.4
27	114.0	25.8	125.9
28	165.1	42.6	114.4
29	230.4	73.7	101.5
30	245.1	88.3	103.9
31	200.6	60.9	82.5
32	215.6	67.9	56.9
33	257.4	79.4	36.2

Level 3 Bumper Top

Pre-Test			
Index	Xmm	Ymm	Zmm
34	545.5	-10.6	274.1
35	547.4	89.5	273.2
36	547.6	190.2	272.9
37	548.1	291.7	270.7
38	548.6	389.5	274.0
39	548.7	489.7	272.8
40	547.0	586.3	274.9
41	547.6	690.0	272.2
42	548.5	790.3	271.1
43	548.3	890.0	271.0
44	548.1	988.6	270.9

Post-Test			
Index	Xmm	Ymm	Zmm
34	544.7	49.1	136.1
35	447.5	219.7	139.6
36	434.7	314.7	147.3
37	399.6	405.2	156.5
38	400.6	404.1	156.9
39	346.1	486.8	166.5
40	298.9	560.8	175.6
41	235.5	621.9	187.4
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A

Difference			
Index	Xmm	Ymm	Zmm
34	0.8	-59.7	138.1
35	100.0	-130.3	133.7
36	112.9	-124.5	125.7
37	148.5	-113.5	114.2
38	148.0	-14.6	117.1
39	202.7	2.8	106.3
40	248.1	25.5	99.4
41	312.1	68.1	84.8
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A

Table 14 Deformable Barrier Face Profile Cont'd.

Level 2 Bumper Top

Pre-Test			
Index	Xmm	Ymm	Zmm
45	549.1	-8.5	163.5
46	548.6	89.4	164.4
47	547.6	189.7	164.3
48	548.5	291.4	164.3
49	548.7	389.0	163.5
50	550.5	490.5	162.8
51	549.3	589.9	162.7
52	549.1	685.5	163.5
53	549.8	789.3	161.4
54	550.7	891.4	160.6
55	549.5	990.3	159.3

Post-Test			
Index	Xmm	Ymm	Zmm
45	536.8	45.6	25.1
46	494.5	134.7	29.7
47	453.9	226.9	33.9
48	432.2	323.1	40.4
49	395.1	412.3	49.2
50	367.9	498.8	64.6
51	282.3	547.7	59.7
52	200.8	602.1	48.2
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

Difference			
Index	Xmm	Ymm	Zmm
45	12.3	-54.1	138.4
46	54.1	-45.3	134.7
47	93.8	-37.2	130.4
48	116.4	-31.7	123.9
49	153.6	-23.4	114.4
50	182.6	-8.3	98.2
51	267.0	42.2	103.0
52	348.3	83.4	115.3
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

Level 1 Bumper Low

Pre-Test			
Index	Xmm	Ymm	Zmm
56	550.7	-8.1	53.3
57	549.6	87.8	52.9
58	551.1	192.1	52.8
59	547.7	289.7	53.8
60	547.9	390.8	53.4
61	549.8	491.5	54.1
62	548.8	591.8	52.0
63	550.4	691.1	51.8
64	549.3	789.3	52.7
65	550.2	888.2	51.5
66	551.4	986.5	49.8

Post-Test			
Index	Xmm	Ymm	Zmm
56	509.4	28.2	-96.2
57	481.9	122.6	-85.7
58	451.4	217.6	-76.7
59	428.2	316.0	-68.1
60	397.9	405.9	-58.3
61	349.9	496.6	-47.8
62	307.4	587.1	-35.3
63	262.7	669.8	-24.4
64	217.4	802.2	-84.8
65	244.4	881.3	-104.3
66	235.1	980.6	-118.5

Difference			
Index	Xmm	Ymm	Zmm
56	41.3	-36.2	149.4
57	67.7	-34.8	138.6
58	99.7	-25.5	129.5
59	119.5	-26.3	121.8
60	150.0	-15.1	111.6
61	199.9	-5.1	101.9
62	241.5	4.7	87.3
63	287.8	21.3	76.2
64	331.9	-12.9	137.4
65	305.8	6.9	155.8
66	316.3	6.0	168.3

Figure 19 Deformable Barrier Face Profile 1-11 Level 6

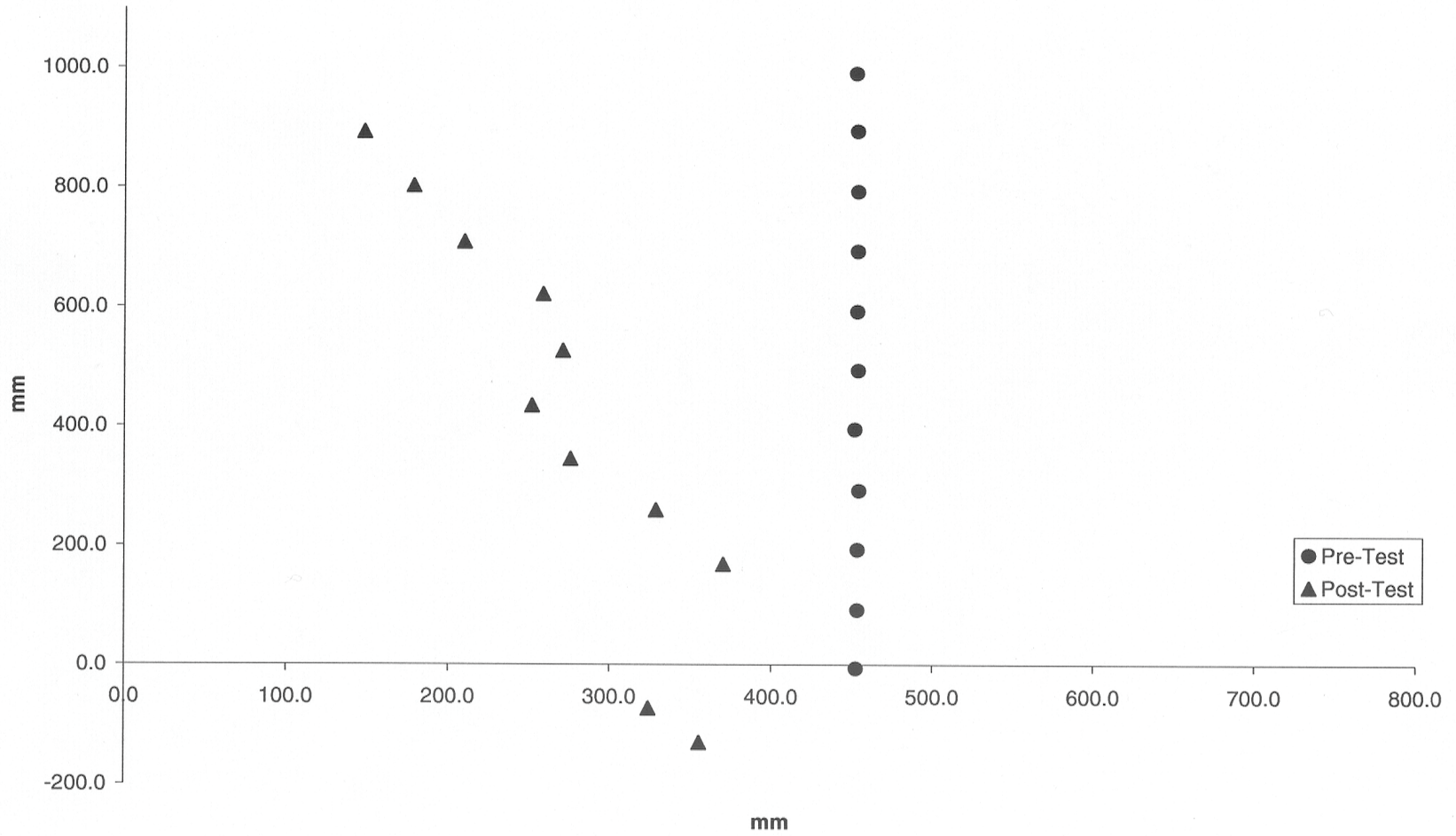


Figure 19 Deformable Barrier Face Profile 12-22 Level 5

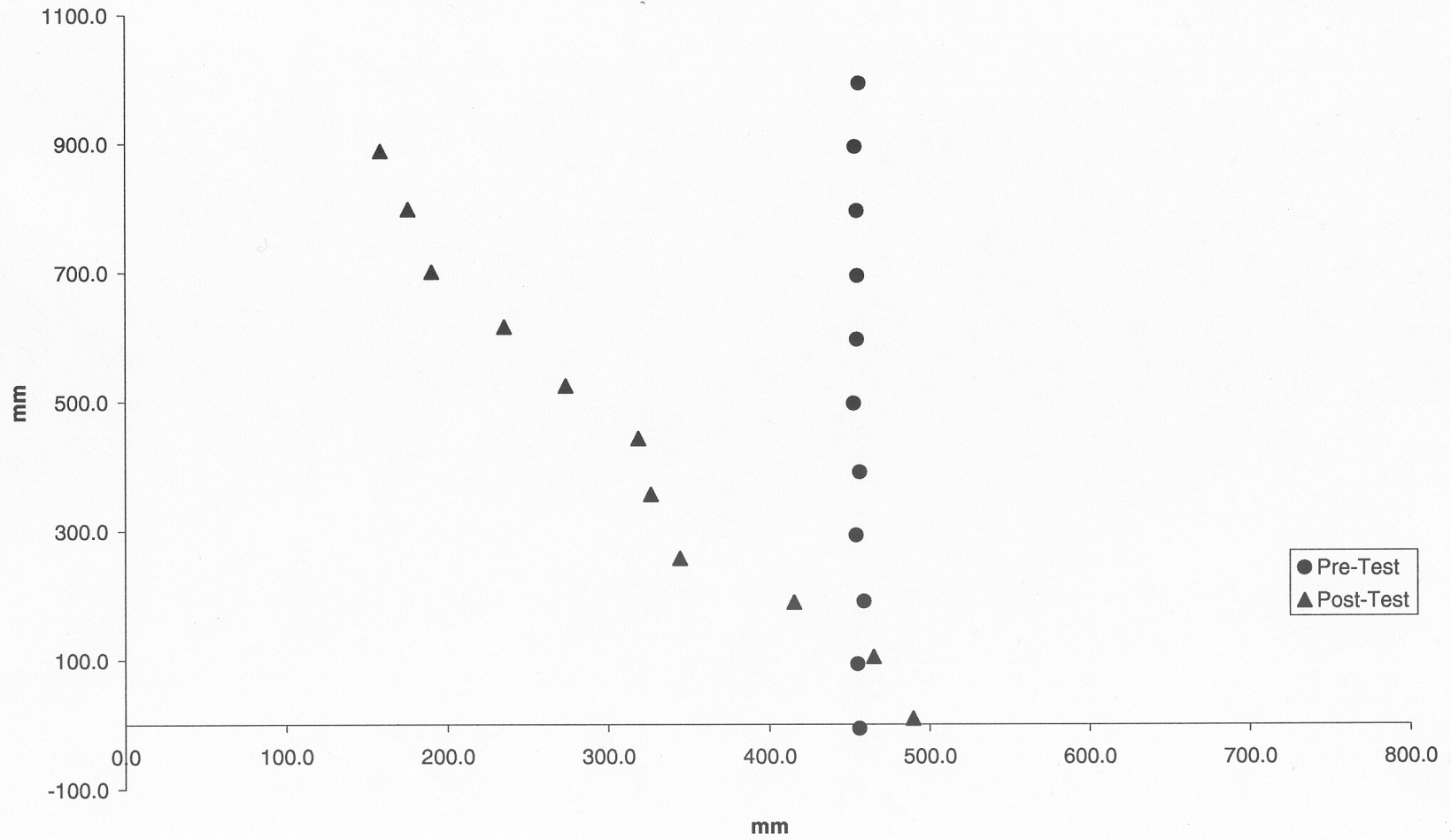


Figure 19 Deformable Barrier Face Profile 23-33 Level 4

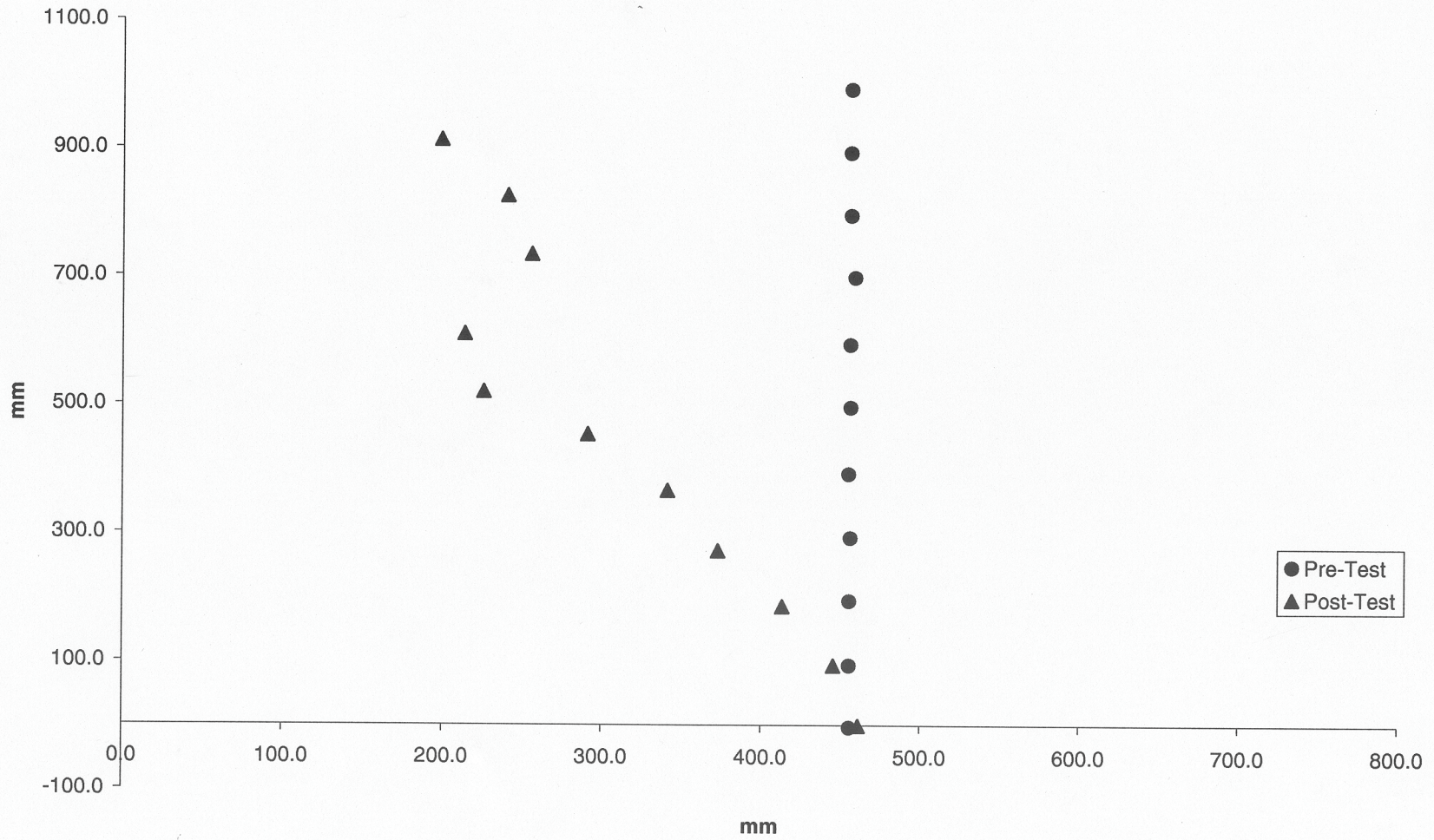


Figure 19 Deformable Barrier Face Profile 34-44 Level 3

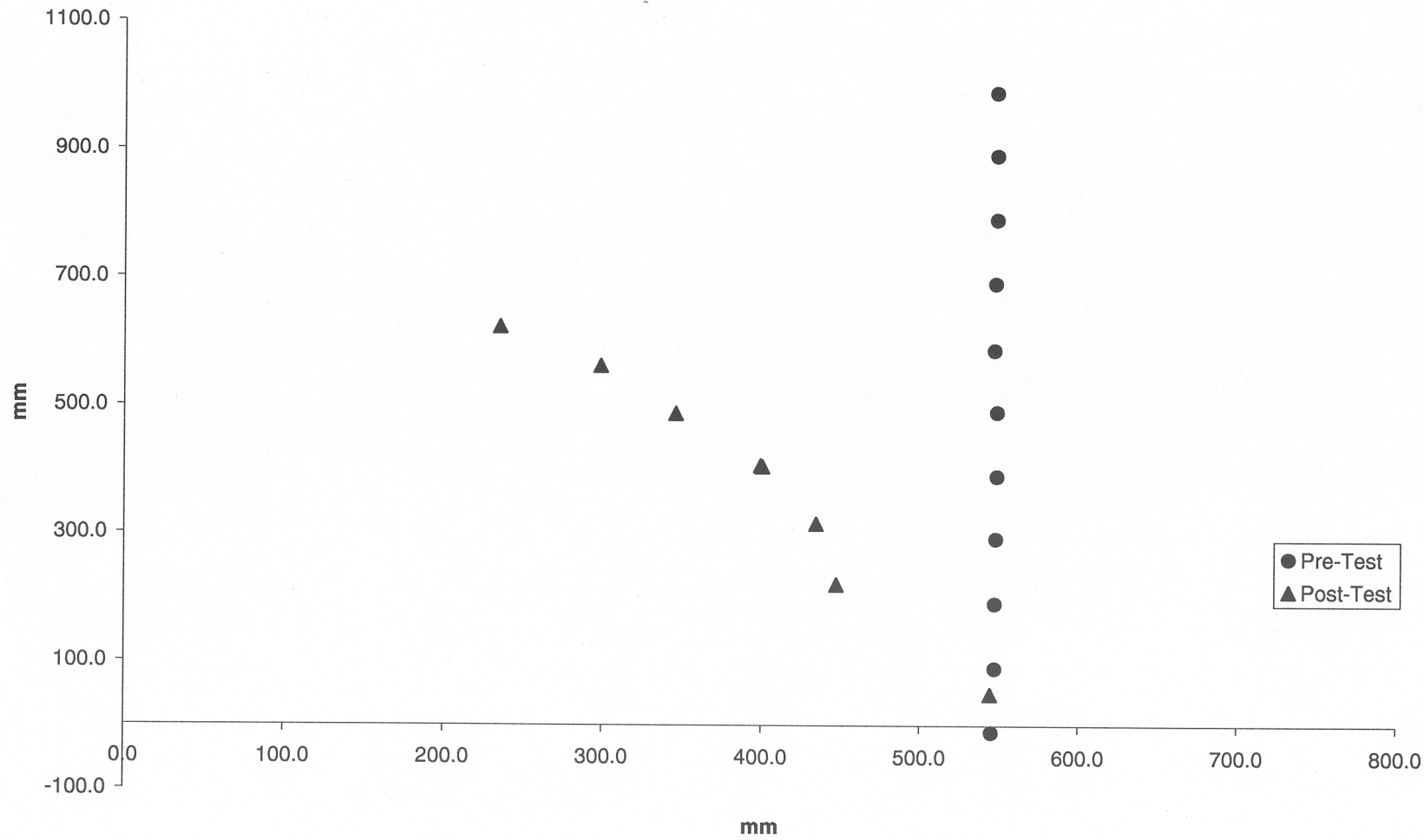


Figure 19 Deformable Barrier Face Profile 45-55 Level 2

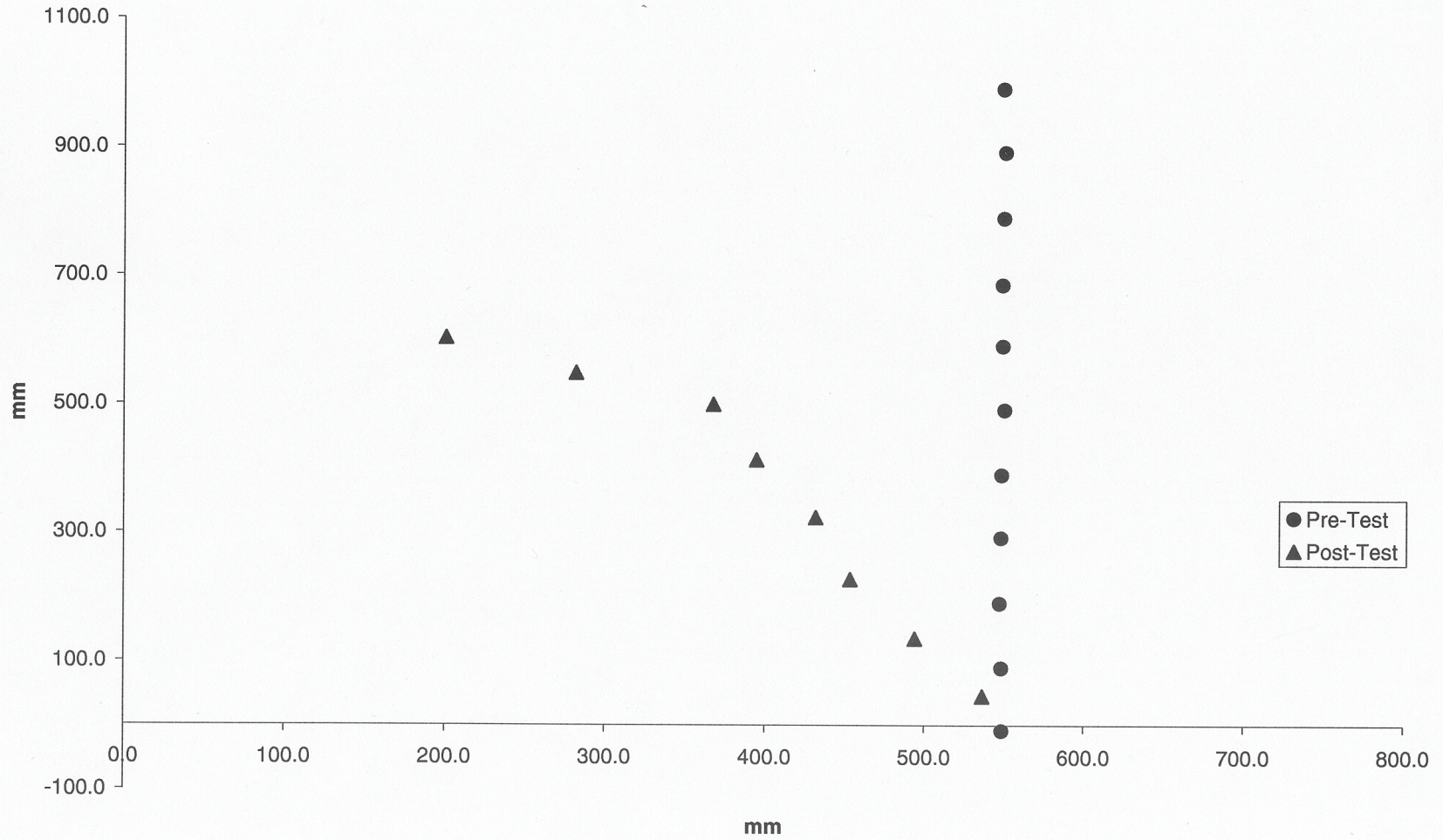
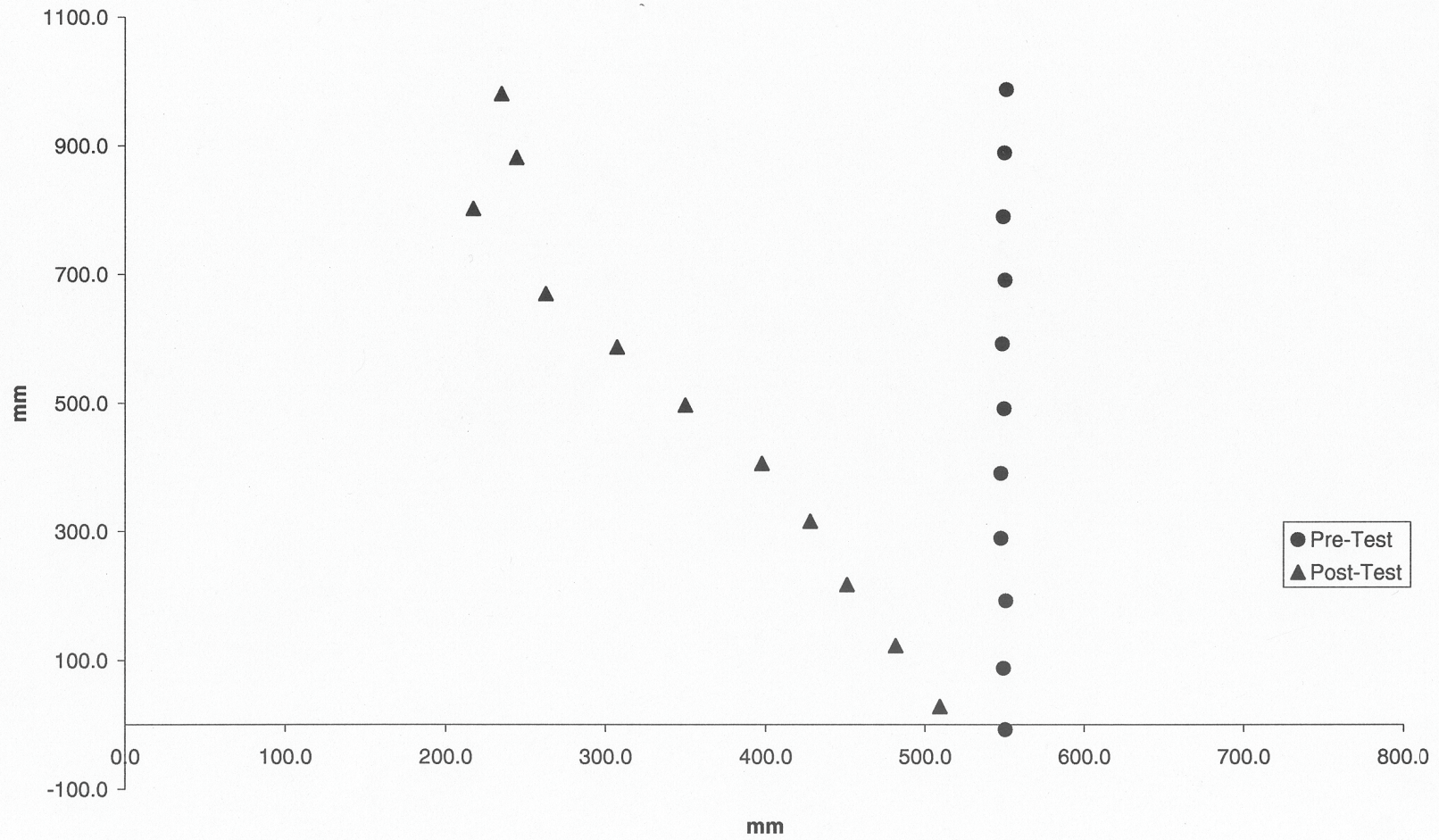


Figure 19 Deformable Barrier Face Profile 56-66 Level 1

Appendix A

Photographs



Figure A-1 Pre-Test Front View



Figure A-2 Post-Test Front View



Figure A-3 Pre-Test Left Front View



Figure A-4 Post-Test Left Front View



Figure A-5 Pre-Test Left Side View



Figure A-6 Post-Test Left Side View



Figure A-7 Pre-Test Left Rear View



Figure A-8 Post-Test Left Rear View



Figure A-9 Pre-Test Rear View



Figure A-10 Post-Test Rear View



Figure A-11 Pre-Test Right Rear View



Figure A-12 Post-Test Right Rear View



Figure A-13 Pre-Test Right Side View



Figure A-14 Post-Test Right Side View



Figure A-15 Pre-Test Right Front View



Figure A-16 Post-Test Right Front View



Figure A-17 Pre-Test Overhead View

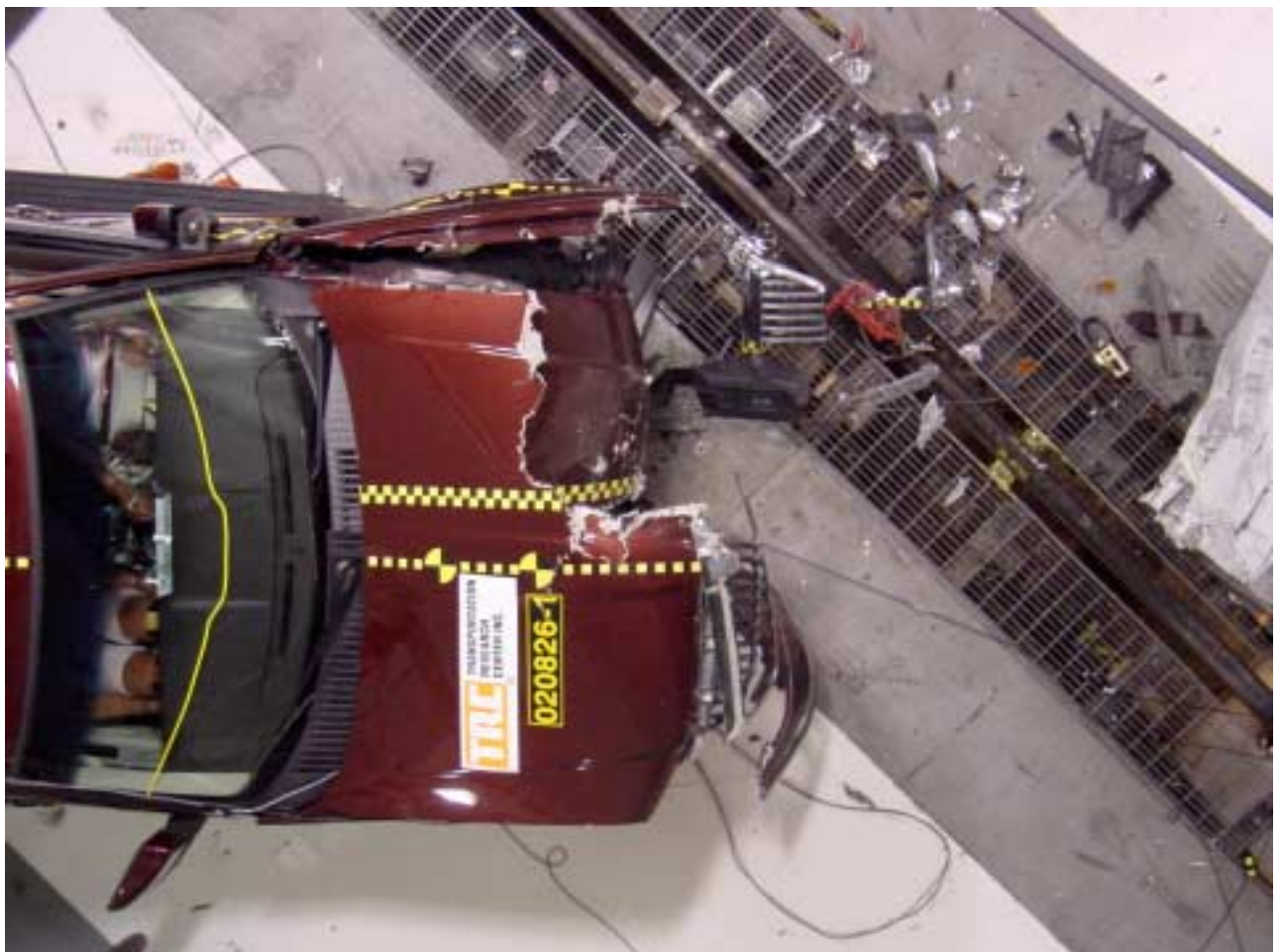


Figure A-18 Post-Test Overhead View



Figure A-19 Pre-Test Front Underbody View



Figure A-20 Post-Test Front Underbody View

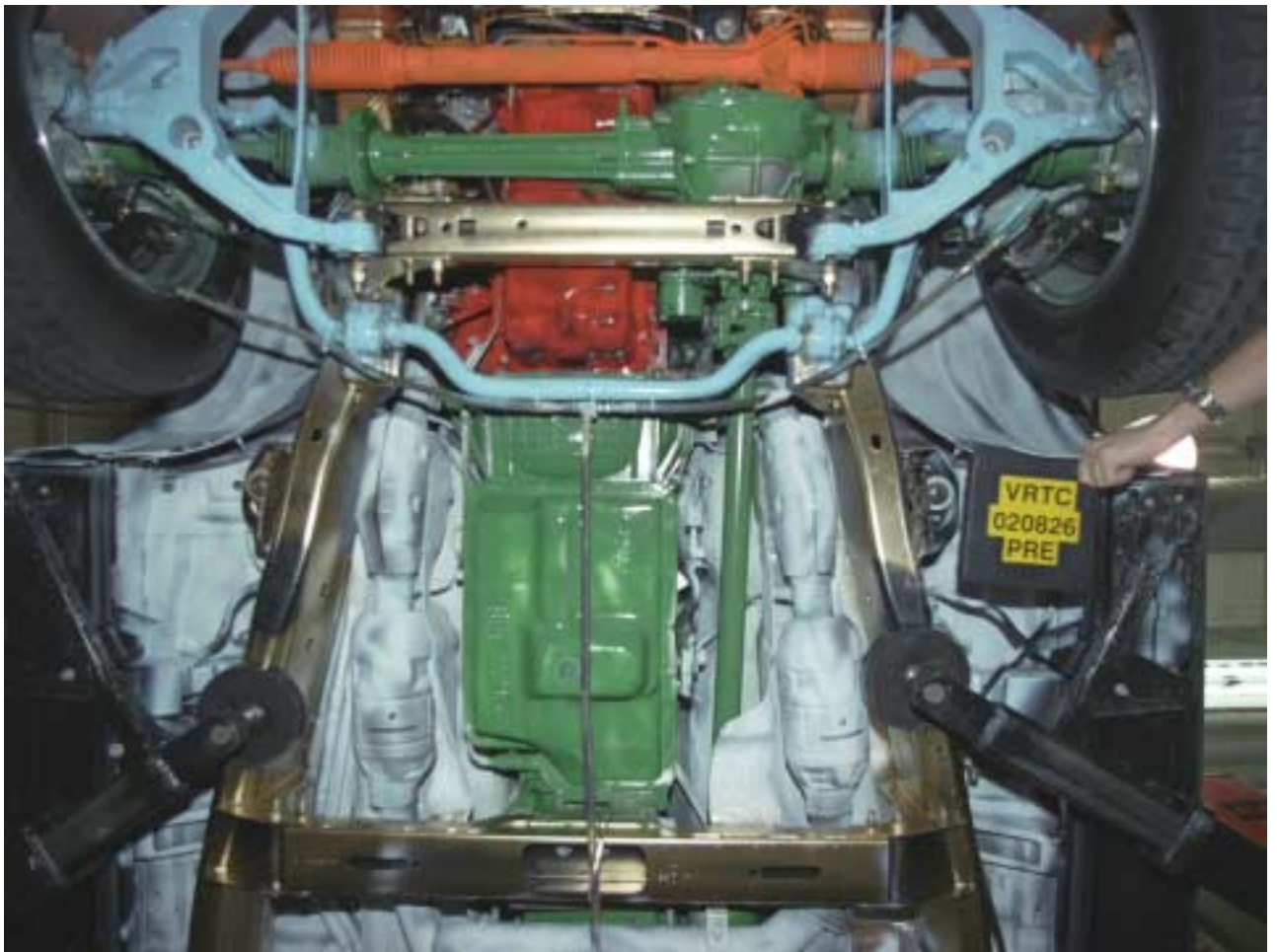


Figure A-21 Pre-Test Front Mid Underbody View



Figure A-22 Post-Test Front Mid Underbody View

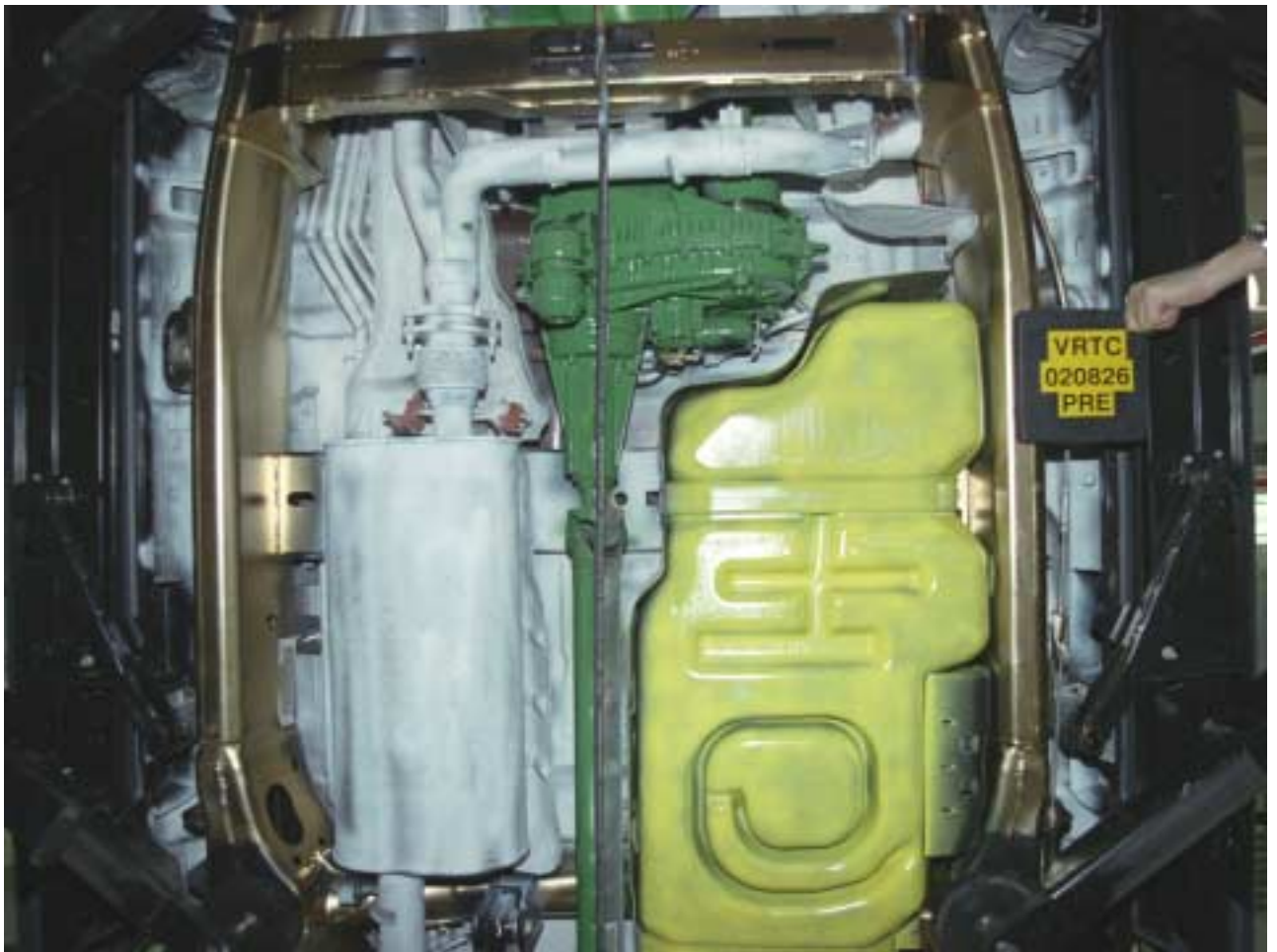


Figure A-23 Pre-Test Rear Mid Underbody View



Figure A-24 Post-Test Rear Mid Underbody View

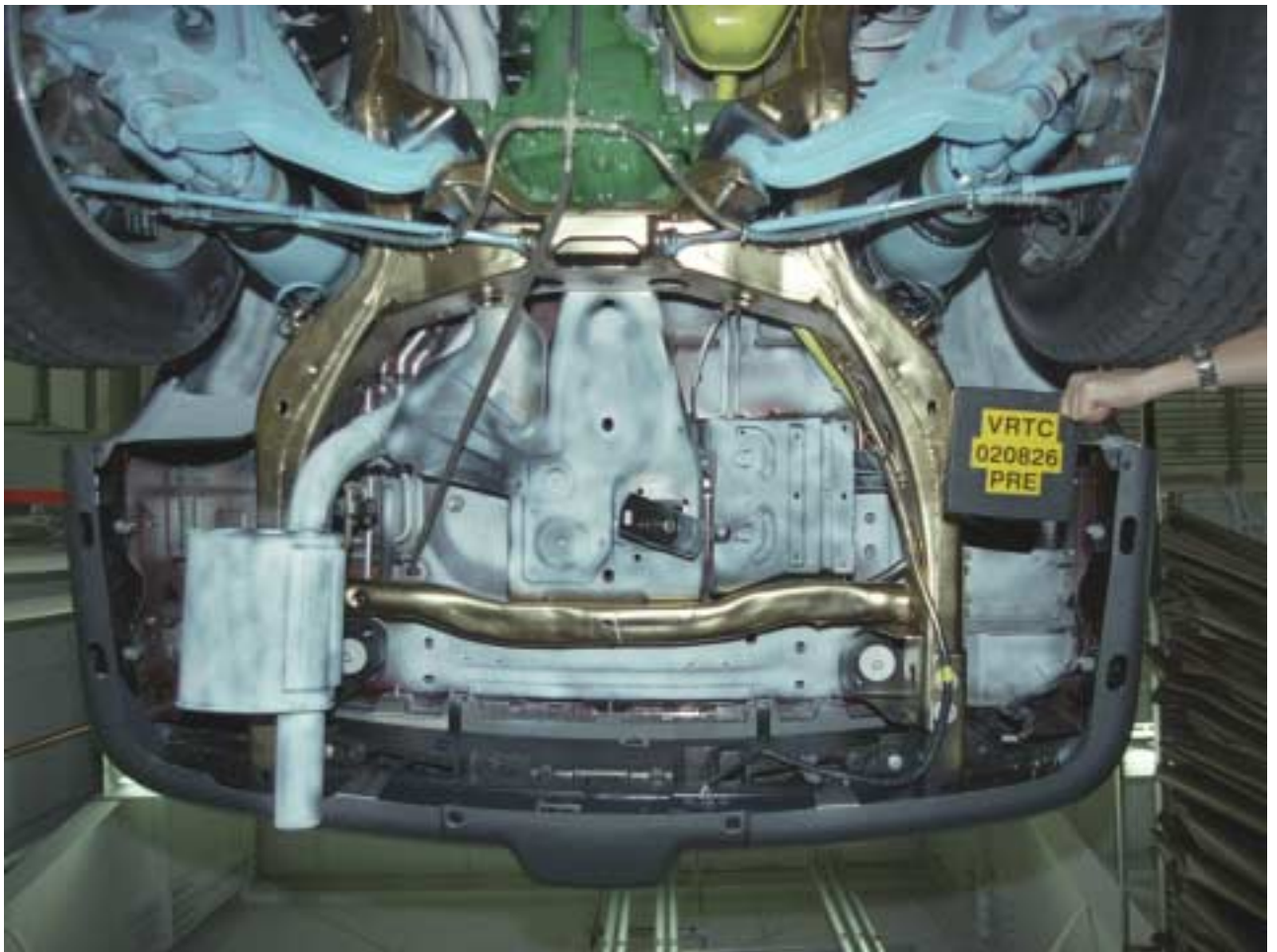


Figure A-25 Pre-Test Rear Underbody View



Figure A-26 Post-Test Rear Underbody View



Figure A-27 Pre-Test Engine Compartment View



Figure A-28 Post-Test Engine Compartment View



Figure A-29 Pre-Test Windshield View



Figure A-30 Post-Test Windshield View



Figure A-31 Pre-Test Left Side Angled Windshield View



Figure A-32 Post-Test Left Side Angled Windshield View



Figure A-33 Pre-Test Right Side Angled Windshield View



Figure A-34 Post-Test Right Side Angled Windshield View



Figure A-35 Pre-Test Front Barrier Face View



Figure A-36 Post-Test Front Barrier Face View

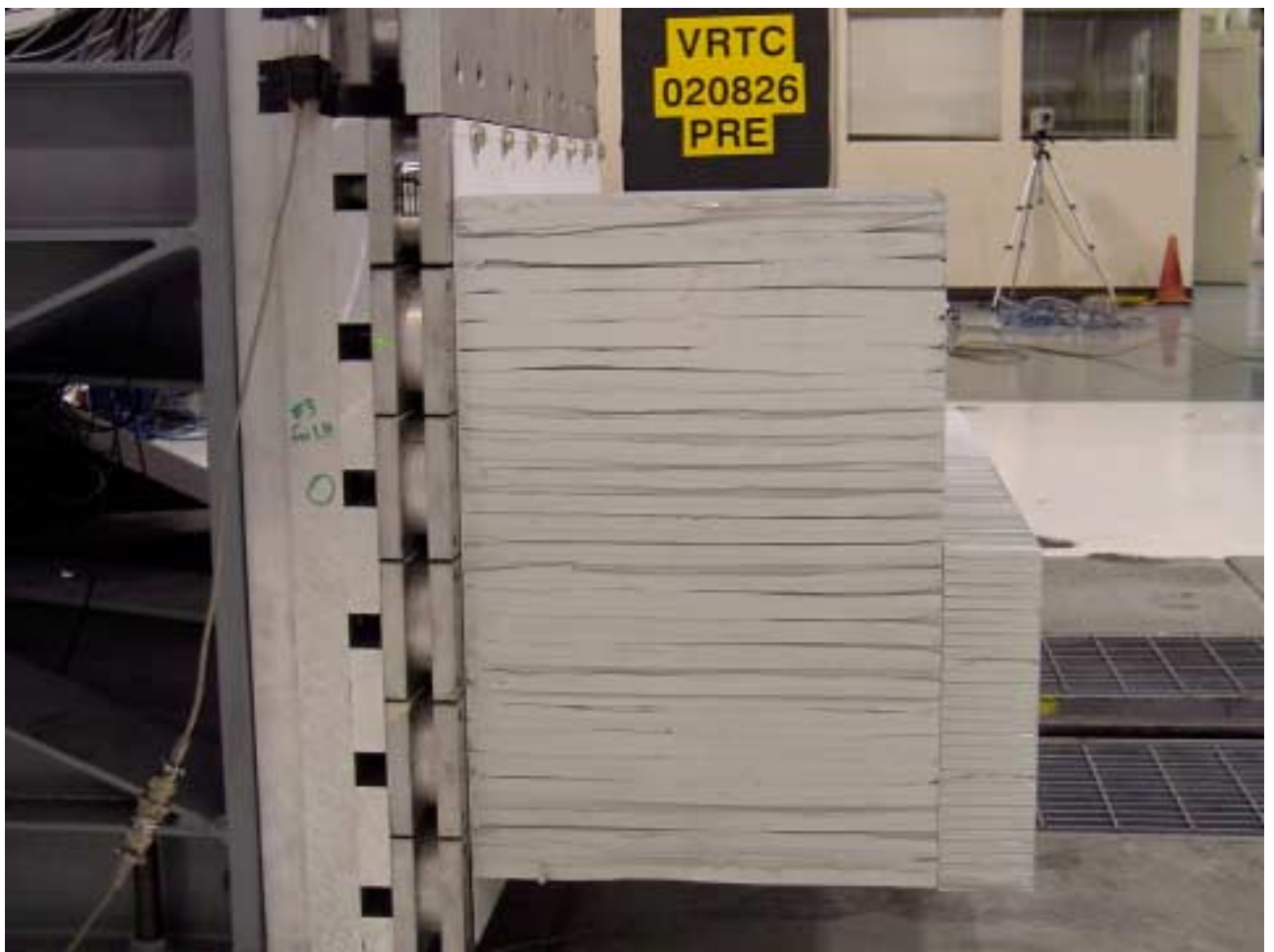


Figure A-37 Pre-Test Left Side Barrier Face View

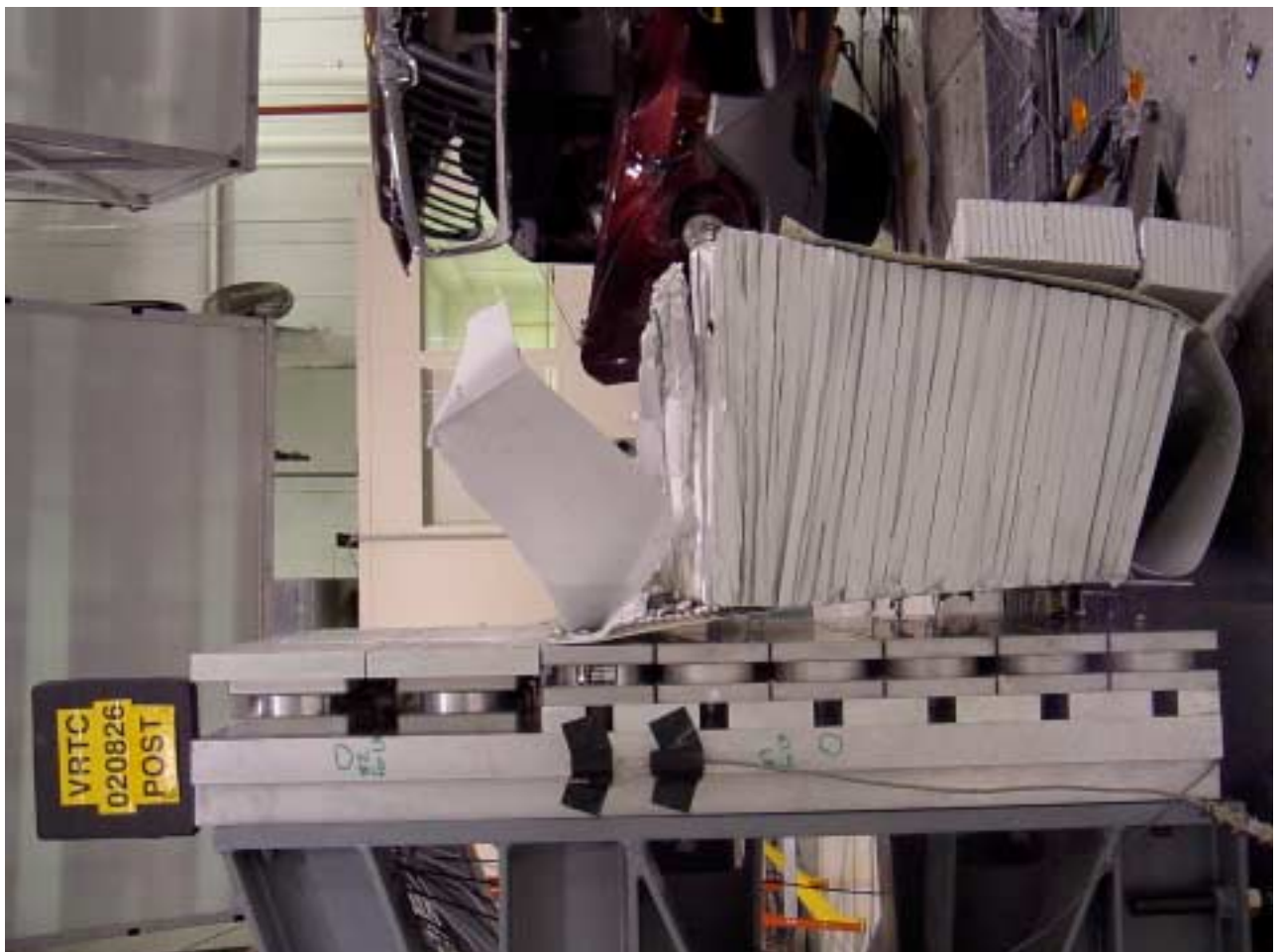


Figure A-38 Post-Test Left Side Barrier Face View



Figure A-39 Pre-Test Right Side Barrier Face View

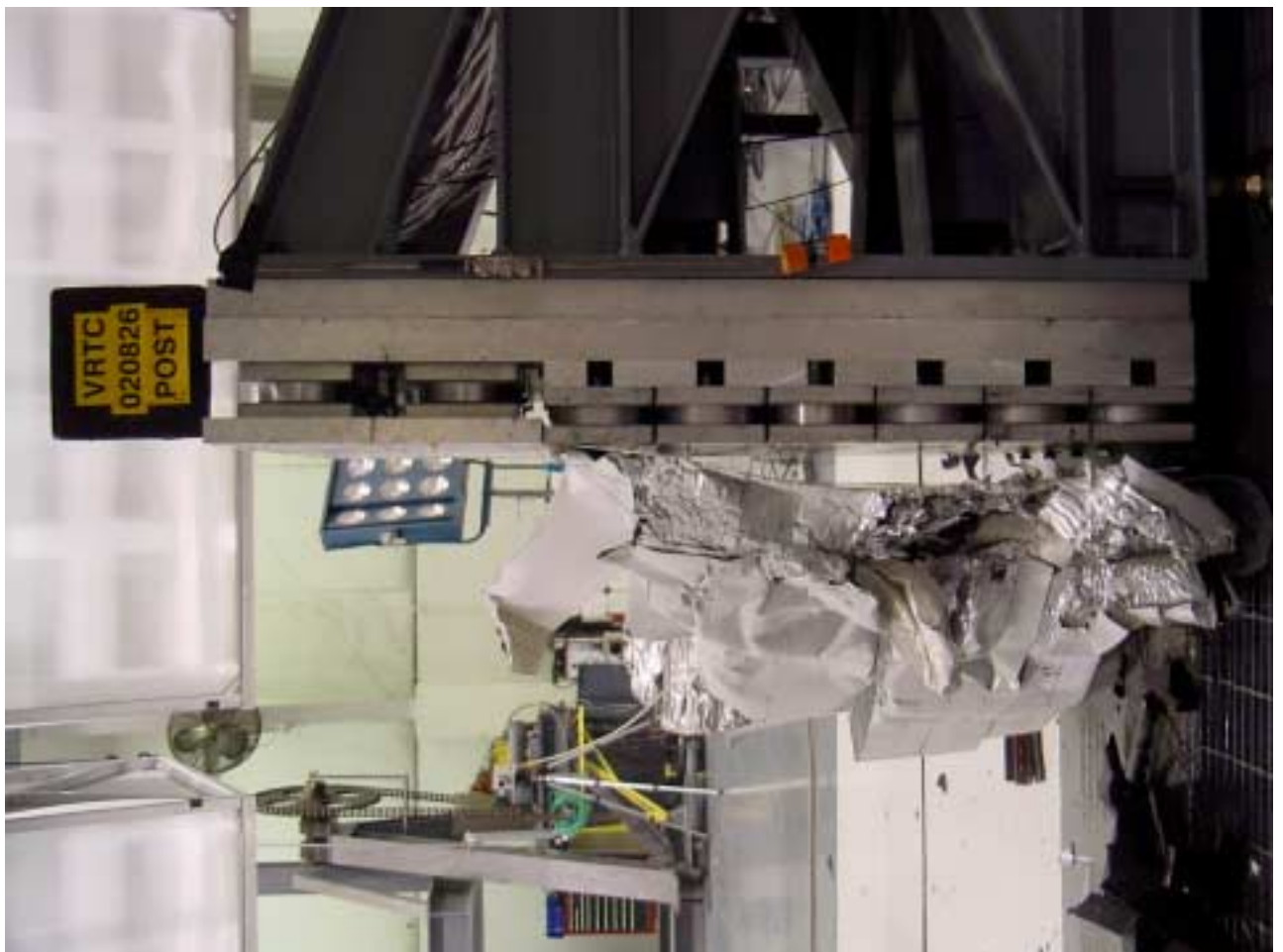


Figure A-40 Post-Test Right Side Barrier Face View



Figure A-41 Pre-Test Overhead Barrier Face View



Figure A-42 Post-Test Overhead Barrier Face View

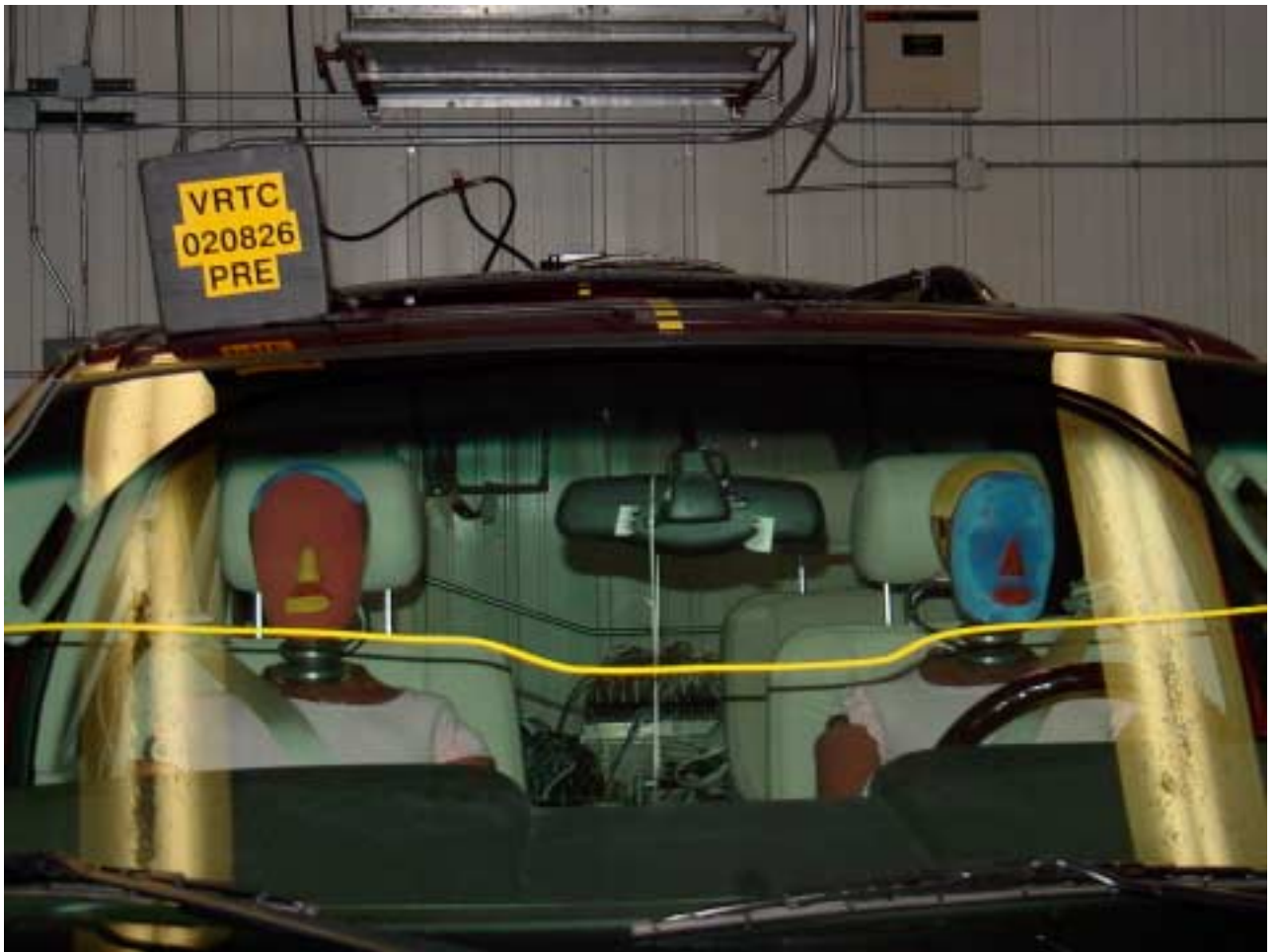


Figure A-43 Pre-Test Driver and Passenger Dummies Front View



Figure A-44 Post-Test Driver and Passenger Dummies Front View



Figure A-45 Pre-Test Driver Dummy Position - View 1



Figure A-46 Post-Test Driver Dummy Position - View 1



Figure A-47 Pre-Test Driver Dummy Position - View 2



Figure A-48 Post-Test Driver Dummy Position - View 2



Figure A-49 Pre-Test Driver Dummy & Vehicle Interior - View 1



Figure A-50 Pre-Test Driver Dummy & Vehicle Interior - View 2



Figure A-51 Pre-Test Passenger Dummy Position - View 1



Figure A-52 Post-Test Passenger Dummy Position - View 1



Figure A-53 Pre-Test Passenger Dummy Position - View 2



Figure A-54 Post-Test Passenger Dummy Position - View 2



Figure A-55 Pre-Test Passenger Dummy & Vehicle Interior - View 1



Figure A-56 Post-Test Passenger Dummy & Vehicle Interior - View 1



Figure A-57 Pre-Test Passenger Dummy & Vehicle Interior - View 2



Figure A-58 Post-Test Passenger Dummy & Vehicle Interior - View 2



Figure A-59 Post-Test Driver Dummy Overall View



Figure A-60 Post-Test Driver Dummy Head Contact - View 1



Figure A-61 Post-Test Driver Dummy Head Contact - View 2



Figure A-62 Post-Test Driver Dummy Head Contact - View 3



Figure A-63 Post-Test Driver Knee Contact - View 1



Figure A-64 Post-Test Driver Knee Contact - View 2



Figure A-65 Post-Test Driver Knee Contact - View 3



Figure A-66 Pre-Test Driver Feet Position and Toeboard View



Figure A-67 Post-Test Passenger Dummy Overall View



Figure A-68 Post-Test Passenger Dummy Head Contact - View 1



Figure A-69 Post-Test Passenger Dummy Head Contact - View 2



Figure A-70 Post-Test Passenger Dummy Knee Contact - View 1



Figure A-71 Post-Test Passenger Dummy Knee Contact - View 2

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Figure A-72 Pre-Test Passenger Feet Position and Toeboard View



Figure A-73 Post-Test Passenger Feet Position and Toeboard View

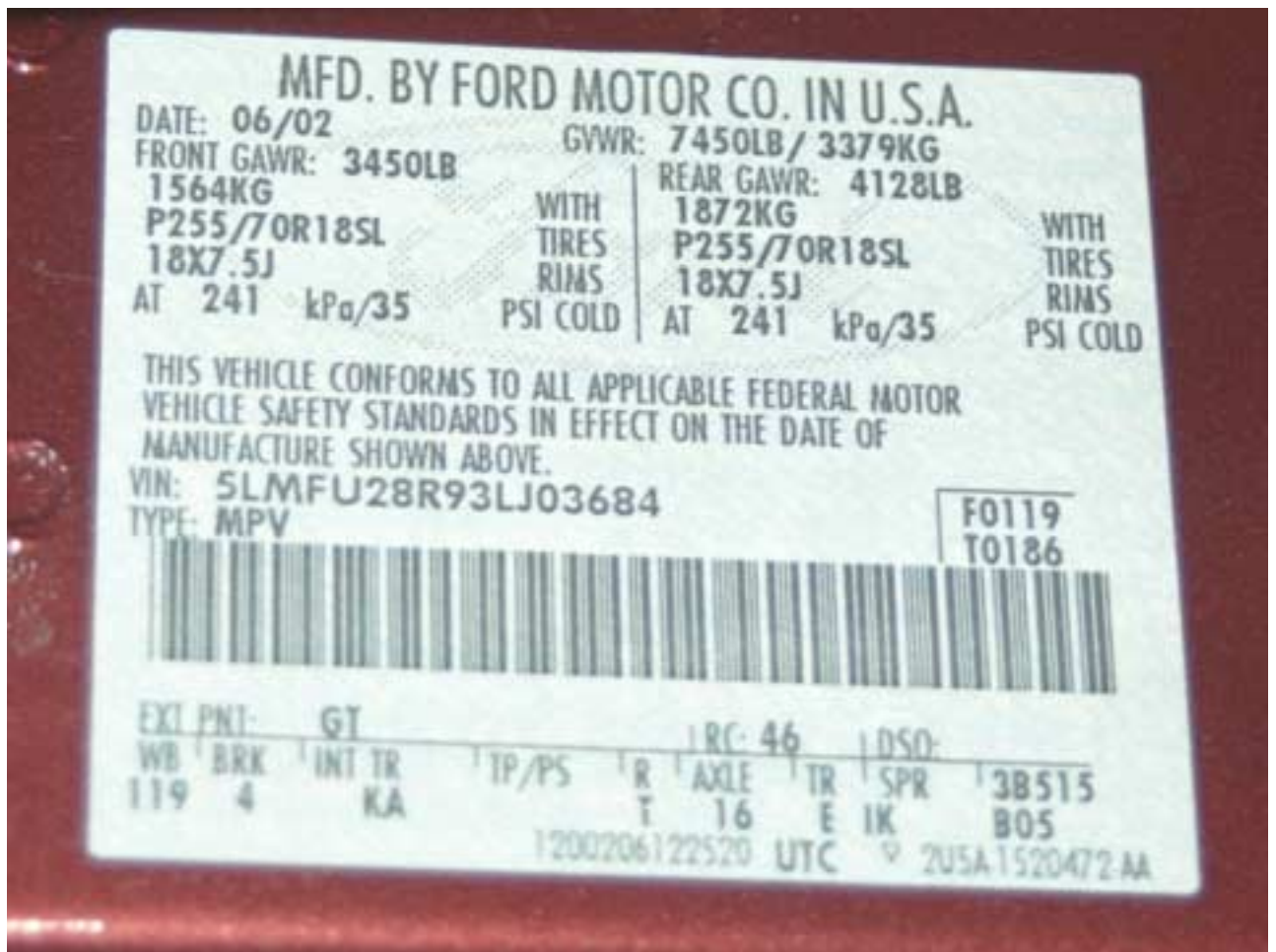


Figure A-74 Pre-Test Vehicle Certification/Tire Load Label View



Figure A-75 Ballast View

Appendix B

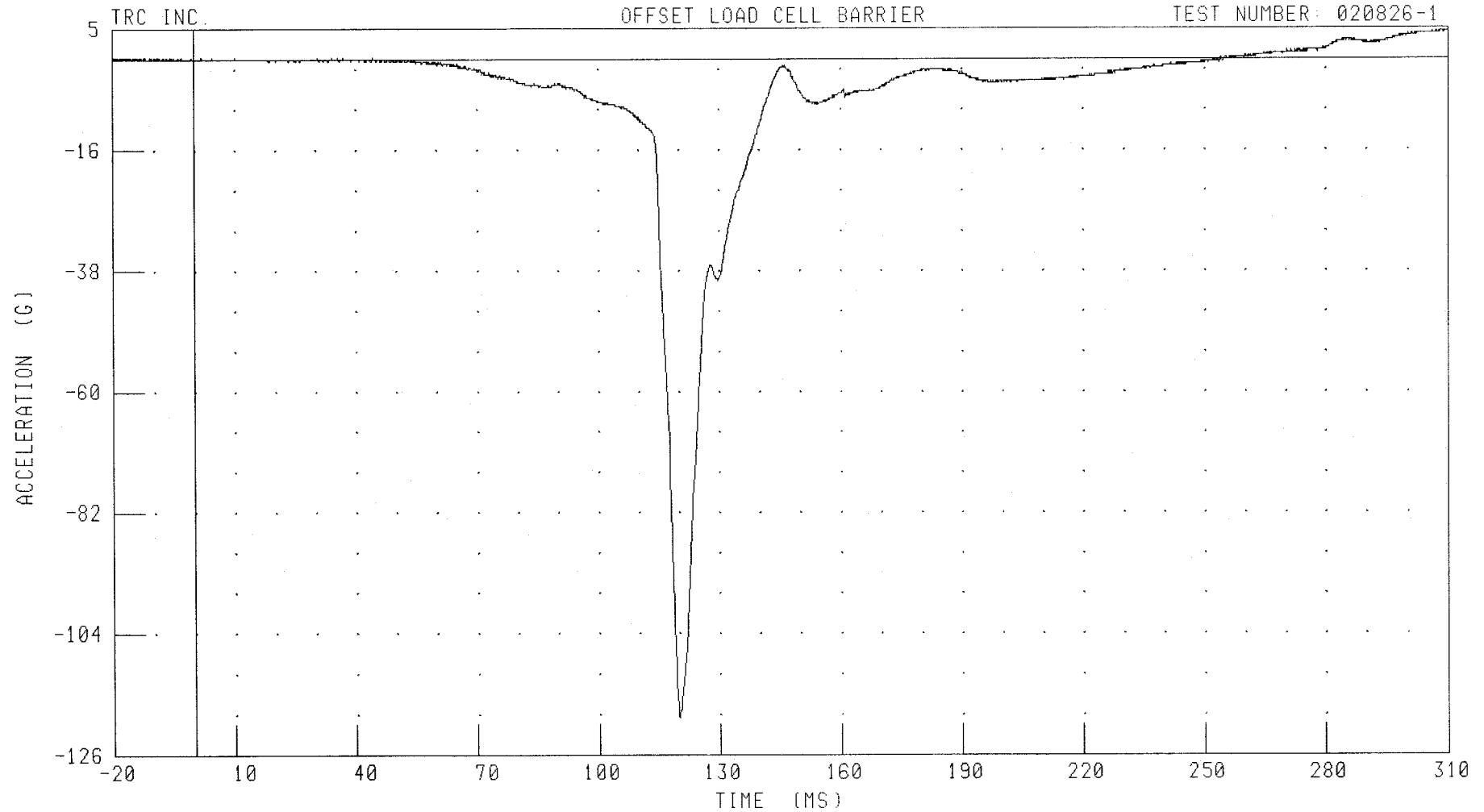
Data Plots

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDXC1 FILTER: CH. CLASS 1000

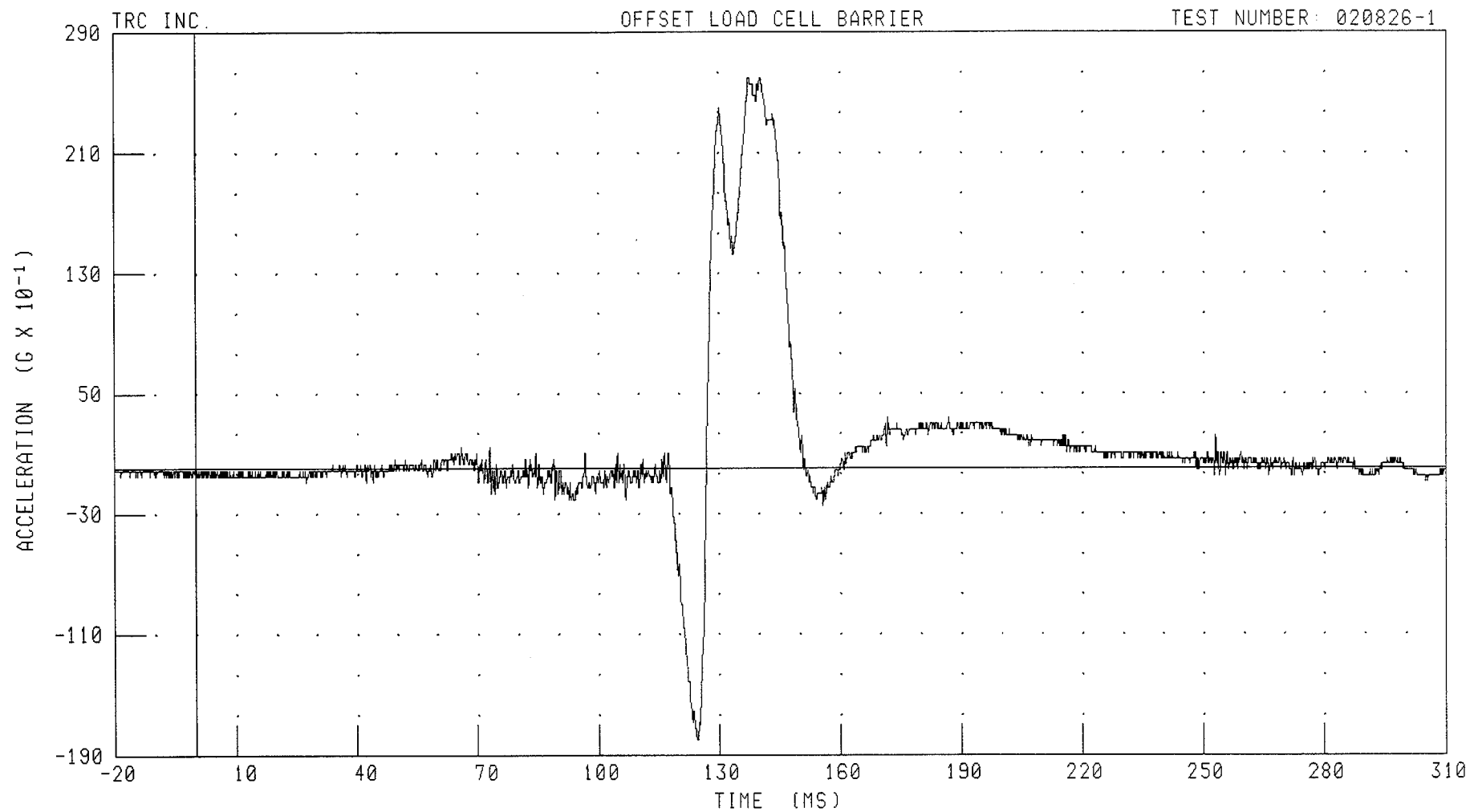
PEAK DATA: 5.05 G @ 310.00 MS, -119.83 G @ 120.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDYG1 FILTER: CH. CLASS 1000

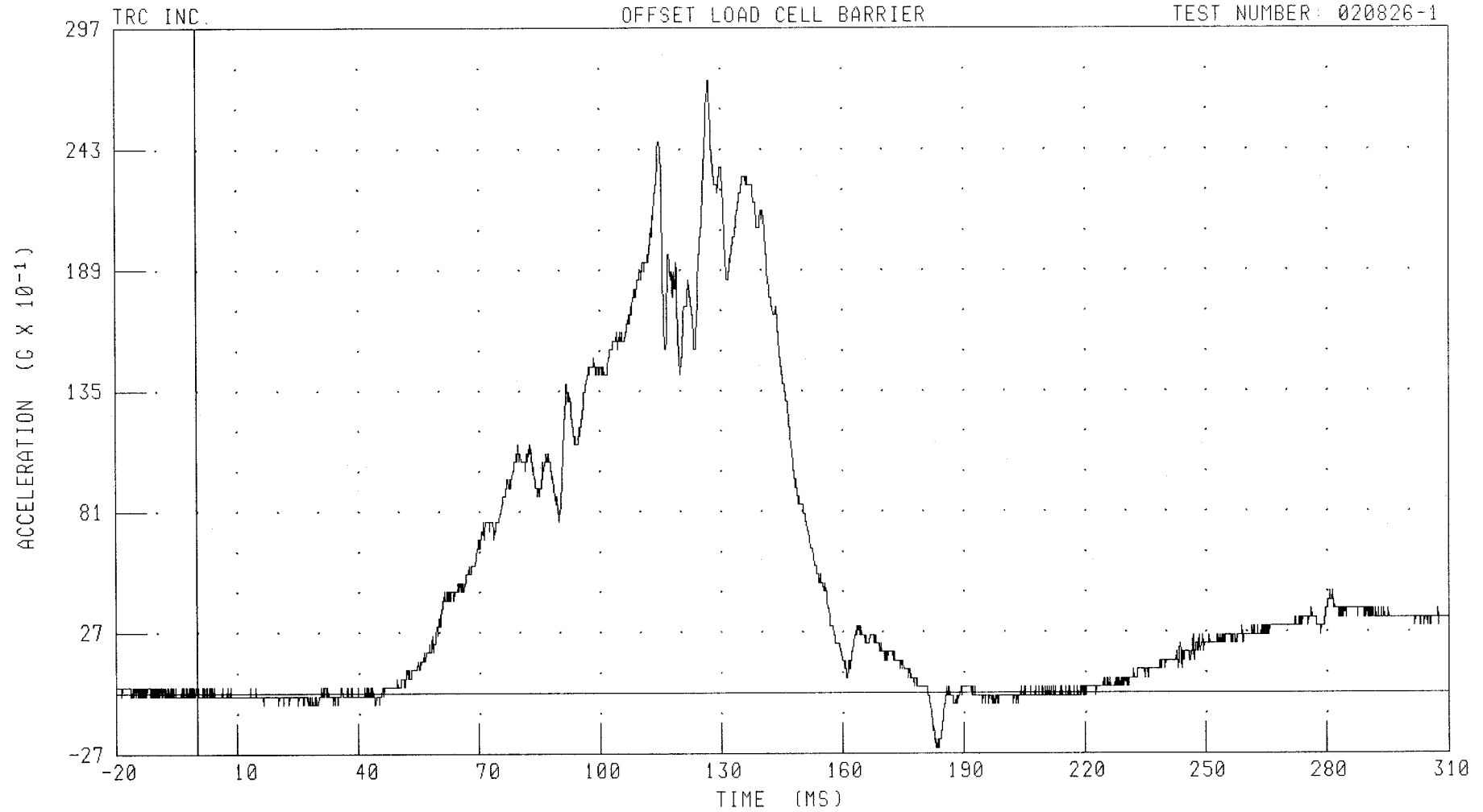
PEAK DATA: 25.95 G @ 137.52 MS; -18.01 G @ 124.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDZG1 FILTER: CH. CLASS 1000

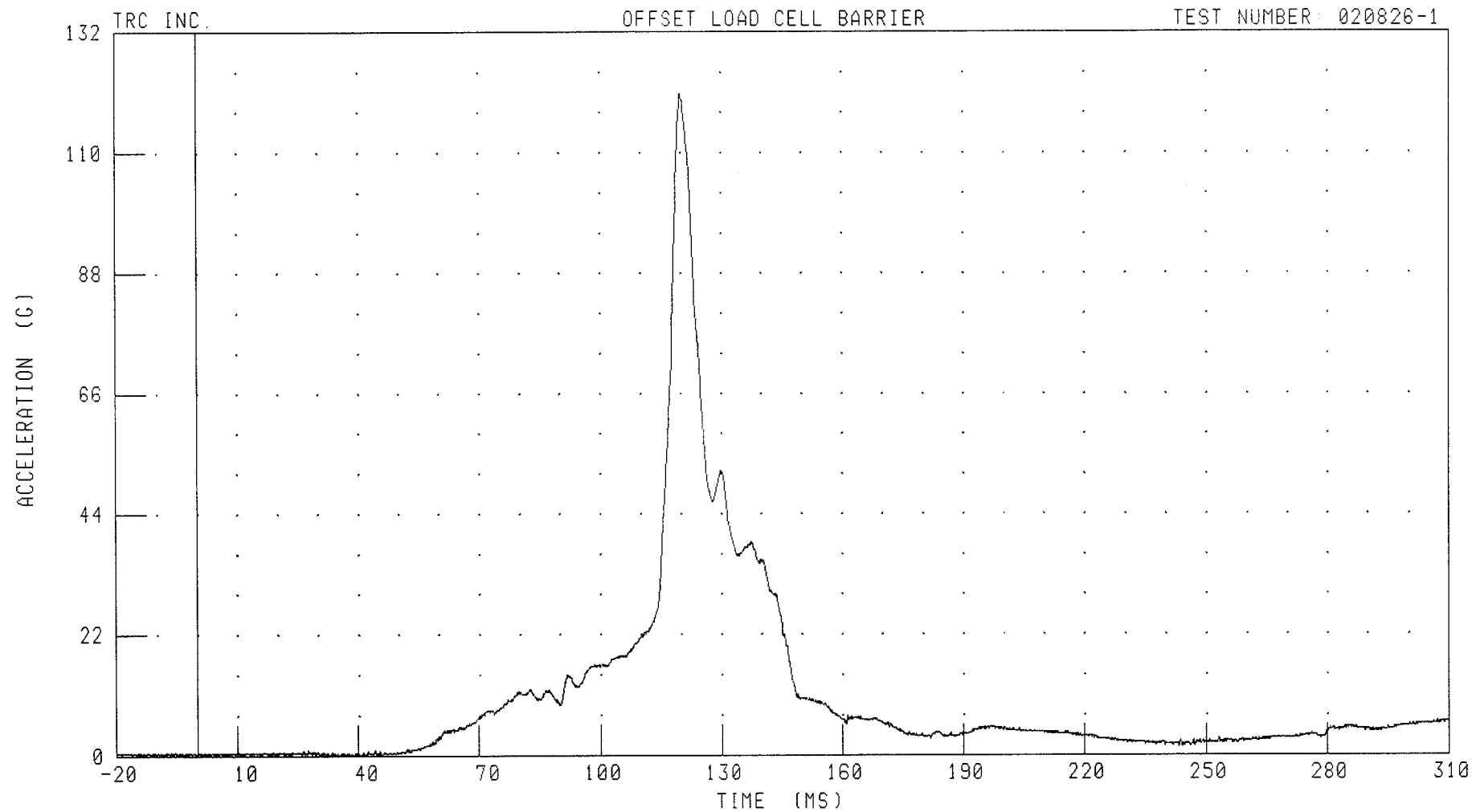
PEAK DATA: 273.6 G @ 127.12 MS; -2.46 G @ 183.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDRG1 FILTER: CH. CLASS 1000

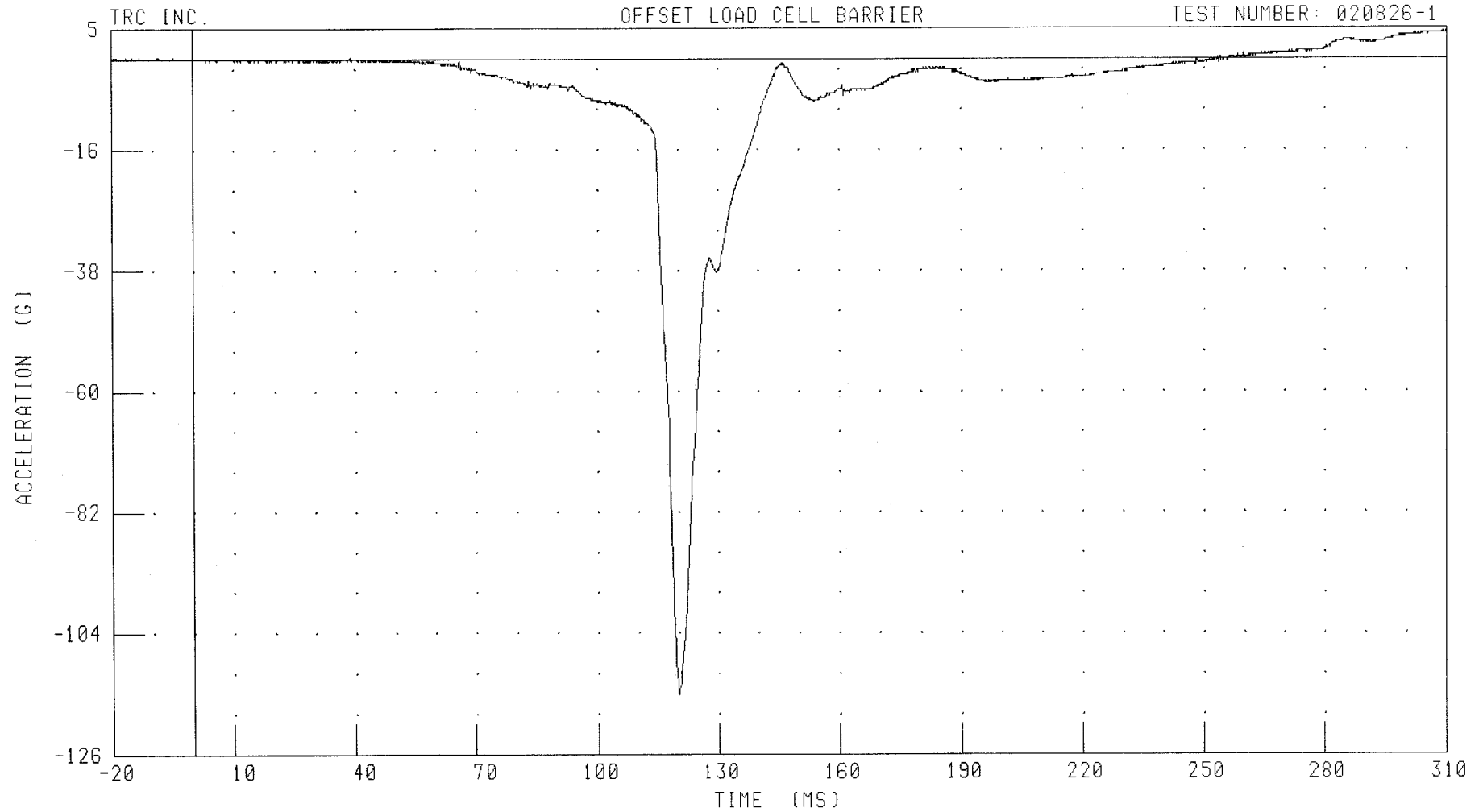
PEAK DATA: 120.84 G @ 120.08 MS; 0.18 G @ -18.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD X-AXIS ACCELERATION REDUNDANT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



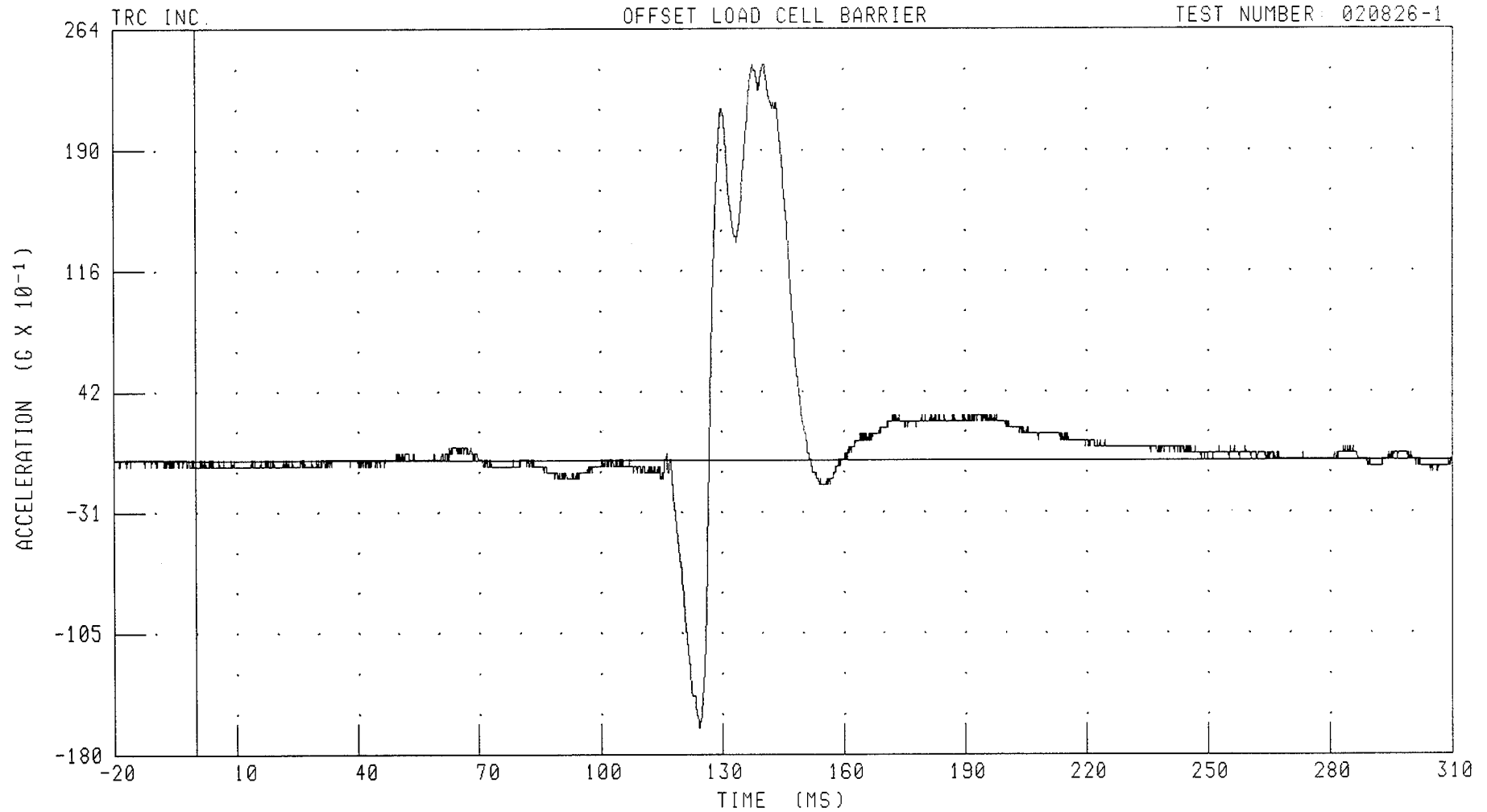
CHANNEL: HEDXR1 FILTER: CH. CLASS 1000

PEAK DATA: 5.12 G @ 310.00 MS, -115.65 G @ 120.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER HEAD Y-AXIS ACCELERATION REDUNDANT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDYR1 FILTER: CH. CLASS 1000

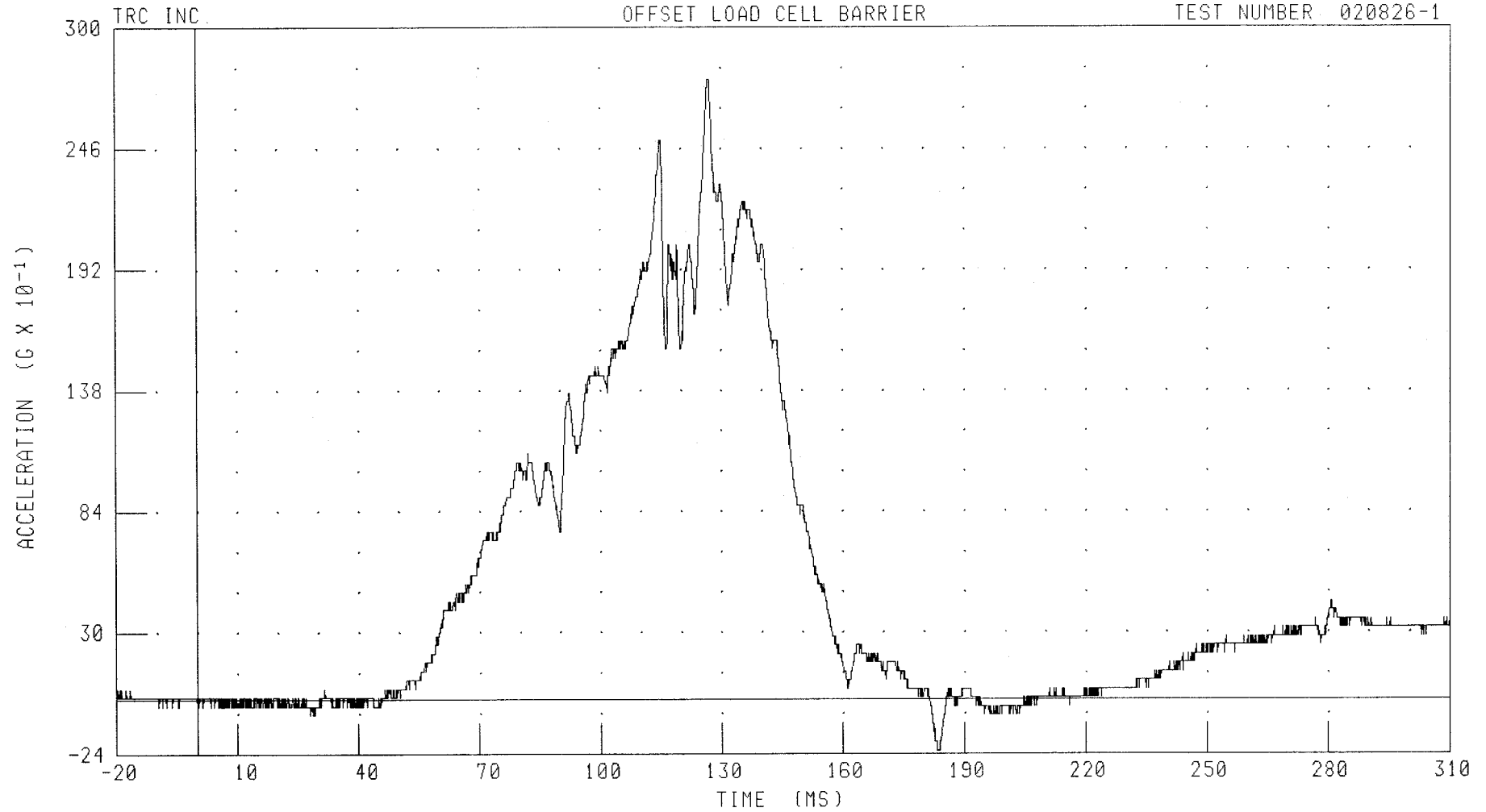
PEAK DATA: 24.24 G @ 137.84 MS; -16.40 G @ 124.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD Z-AXIS ACCELERATION REDUNDANT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDZR1 FILTER: CH. CLASS 1000

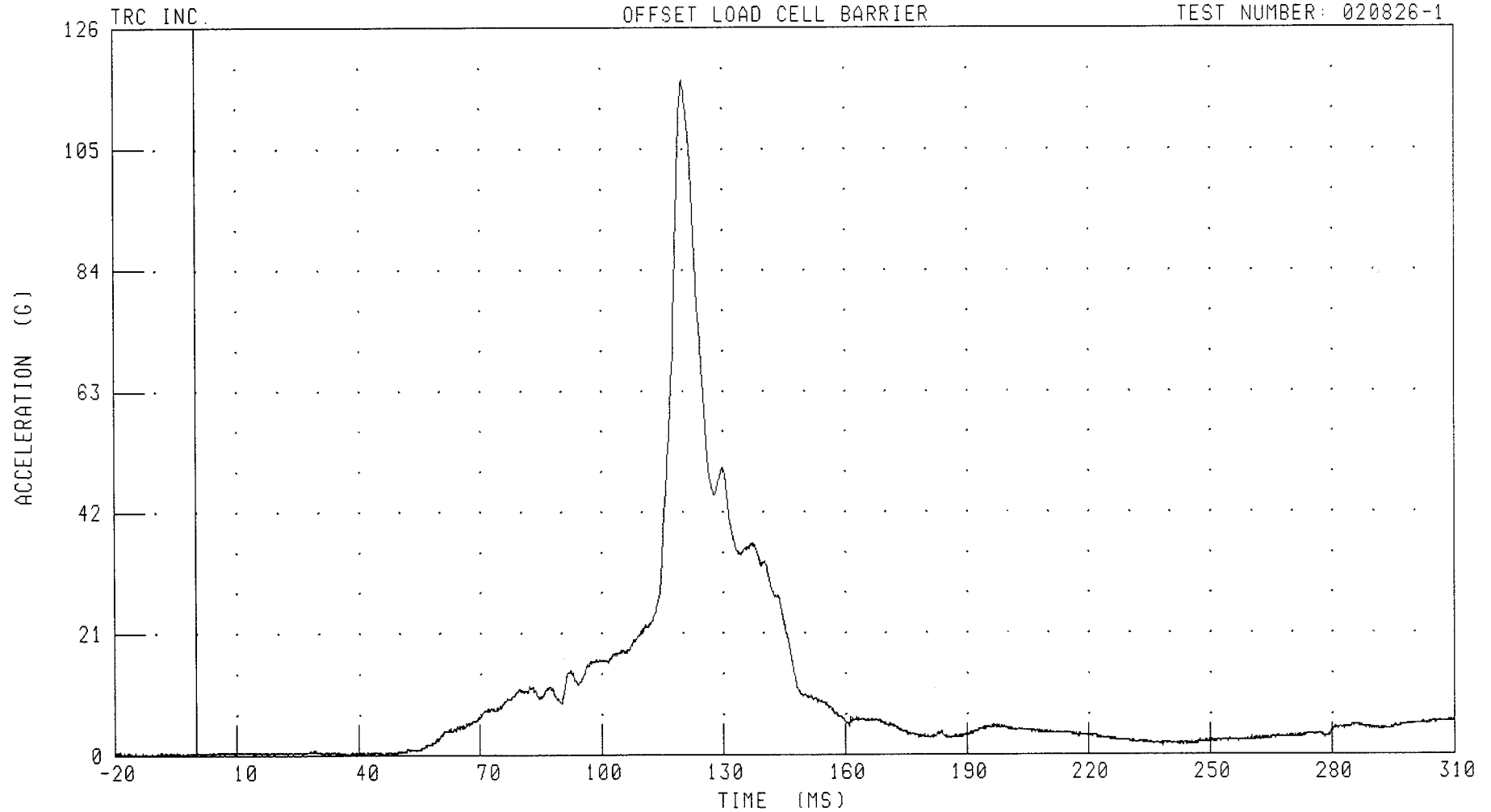
PEAK DATA: 27.70 G @ 126.88 MS; -2.25 G @ 183.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER HEAD RESULTANT ACCELERATION REDUNDANT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDRR1 FILTER: CH. CLASS 1000

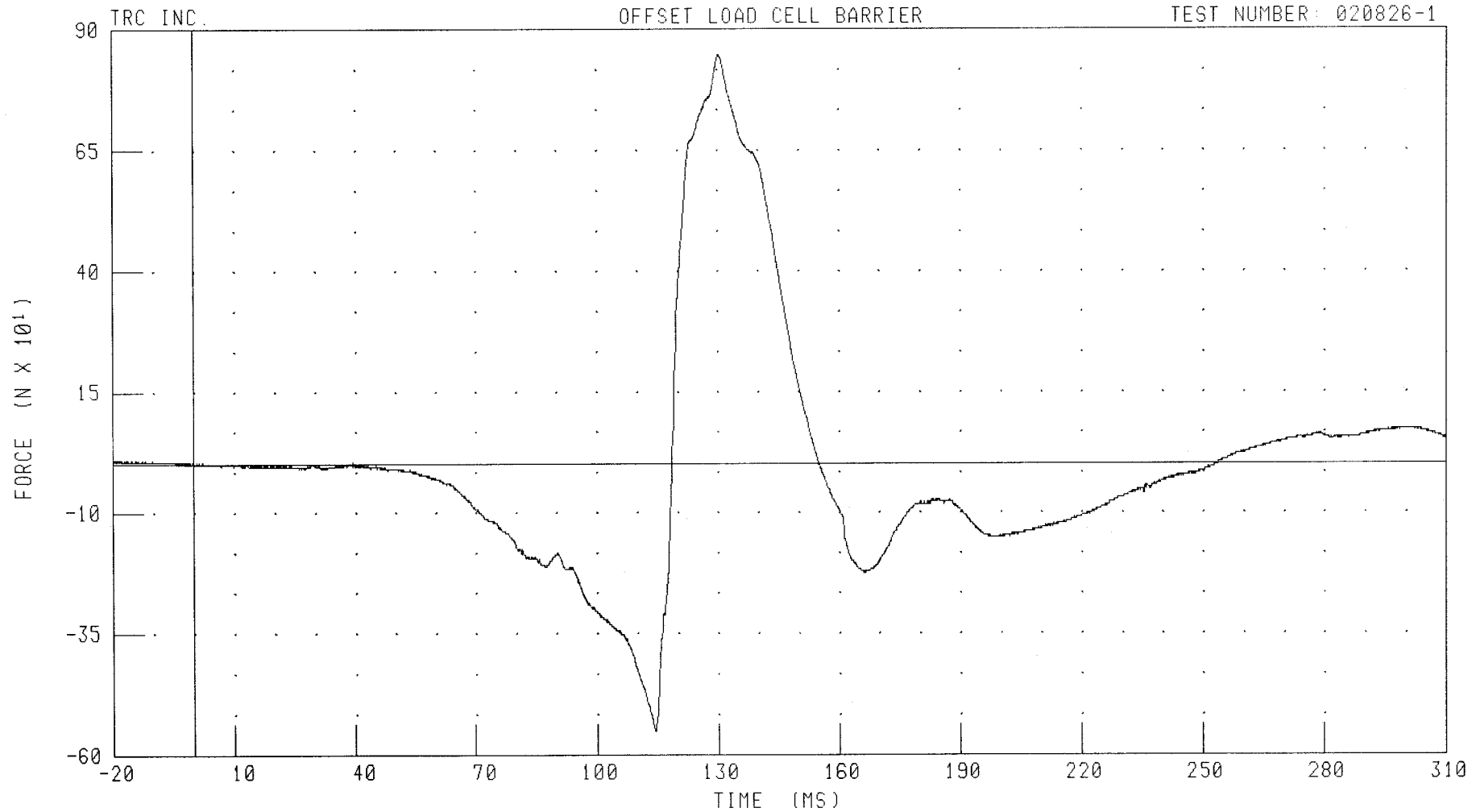
PEAK DATA: 116.89 G @ 120.08 MS; 0.10 G @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK X-AXIS SHEAR FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKXF1 FILTER: CH. CLASS 1000

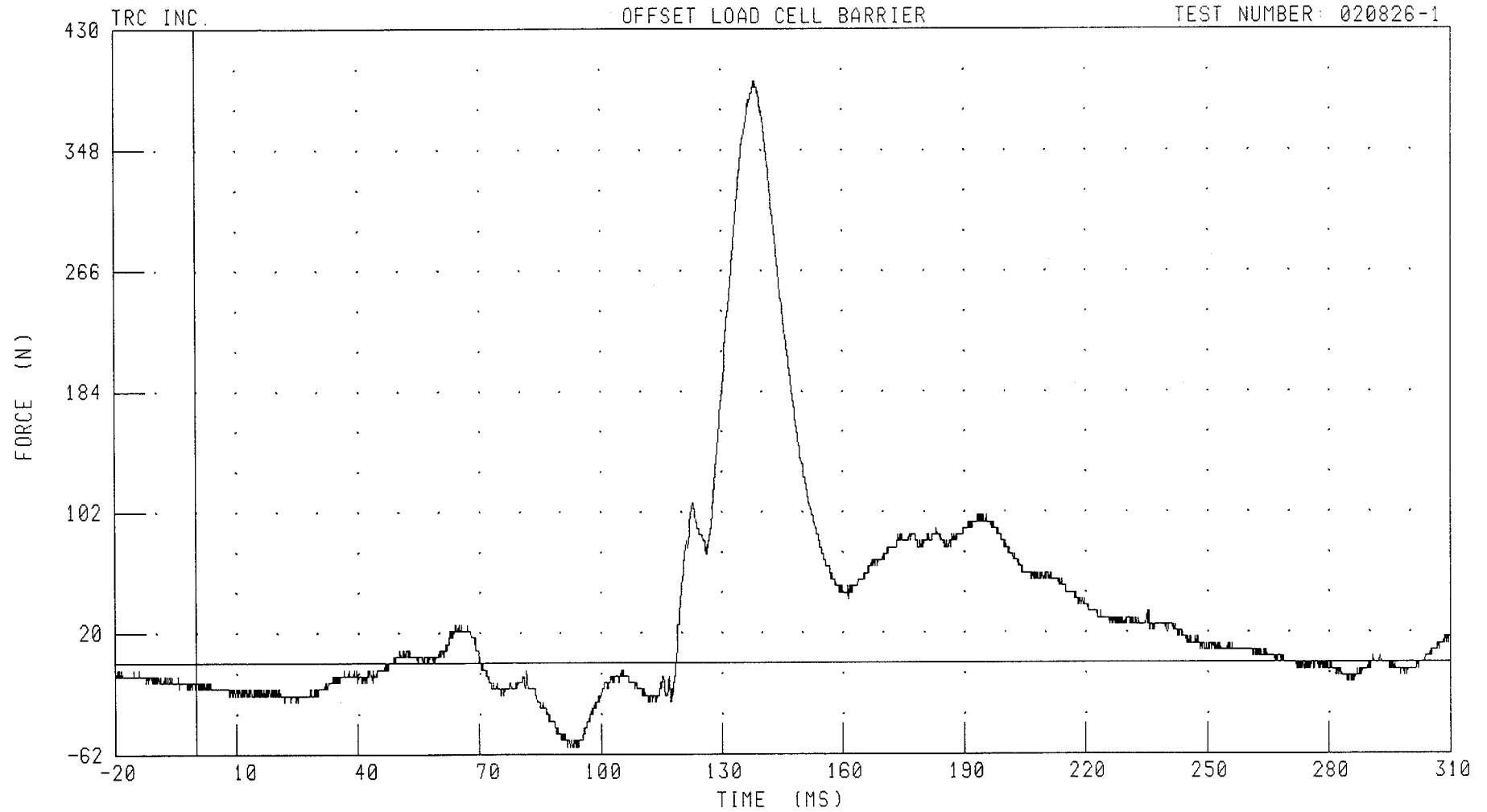
PEAK DATA: 847.32 N @ 130.40 MS; -552.17 N @ 114.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK Y-AXIS SHEAR FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKYF1 FILTER: CH. CLASS 1000

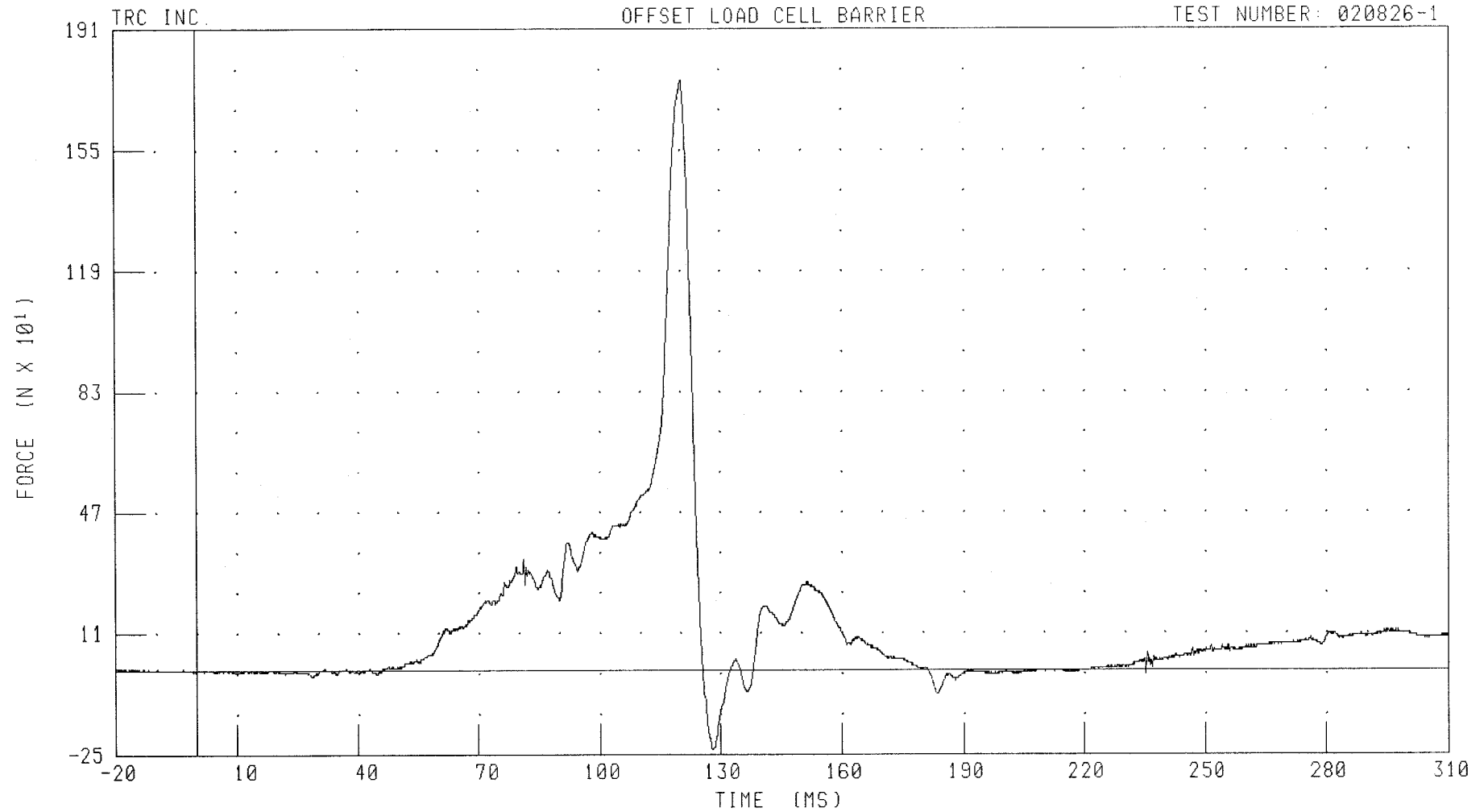
PEAK DATA: 394.96 N @ 138.24 MS; -57.04 N @ 91.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK Z-AXIS AXIAL FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKZF1 FILTER: CH. CLASS 1000

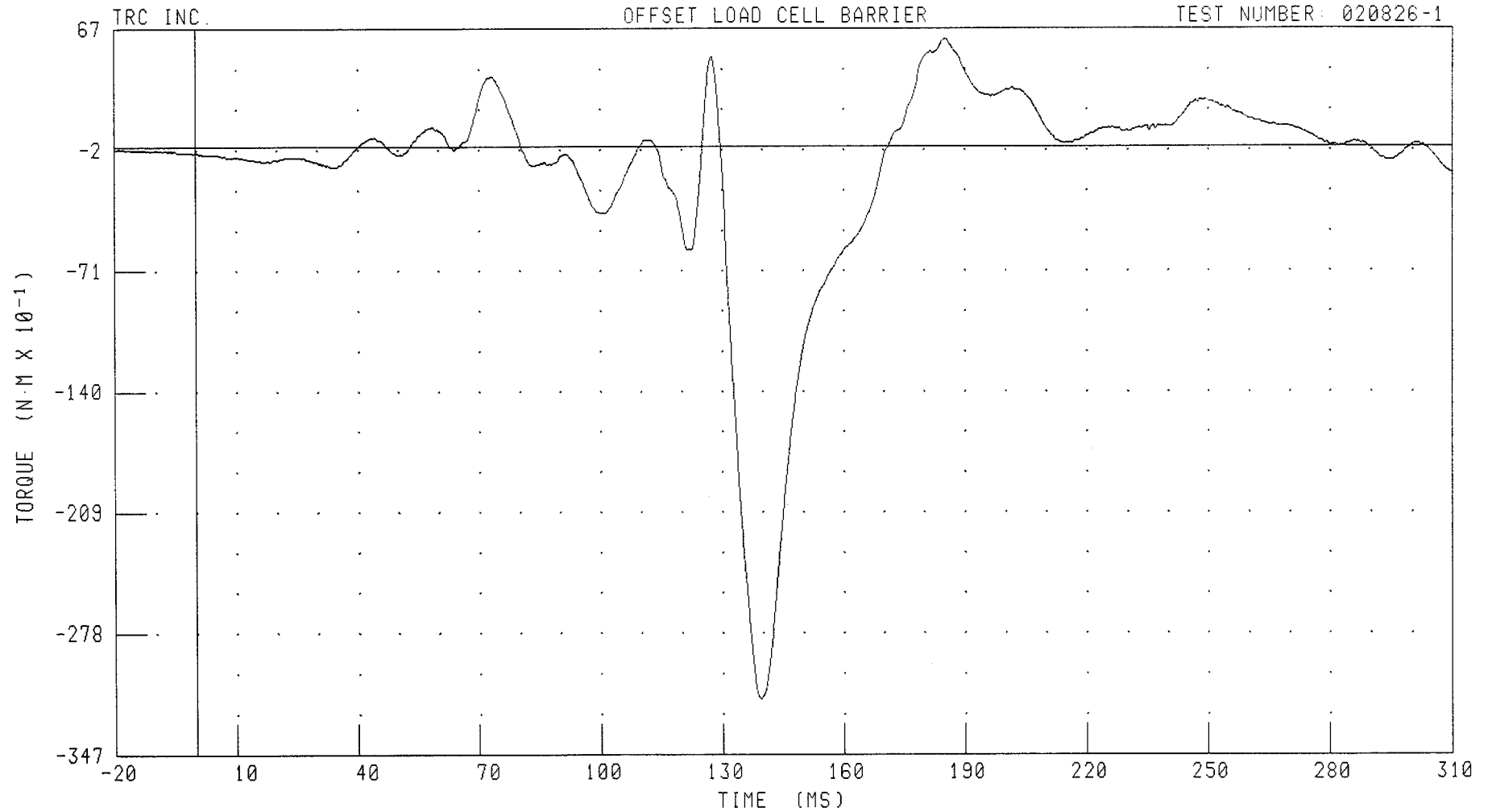
PEAK DATA: 1758.43 N @ 120.48 MS; -234.42 N @ 128.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKXM1 FILTER: CH. CLASS 600

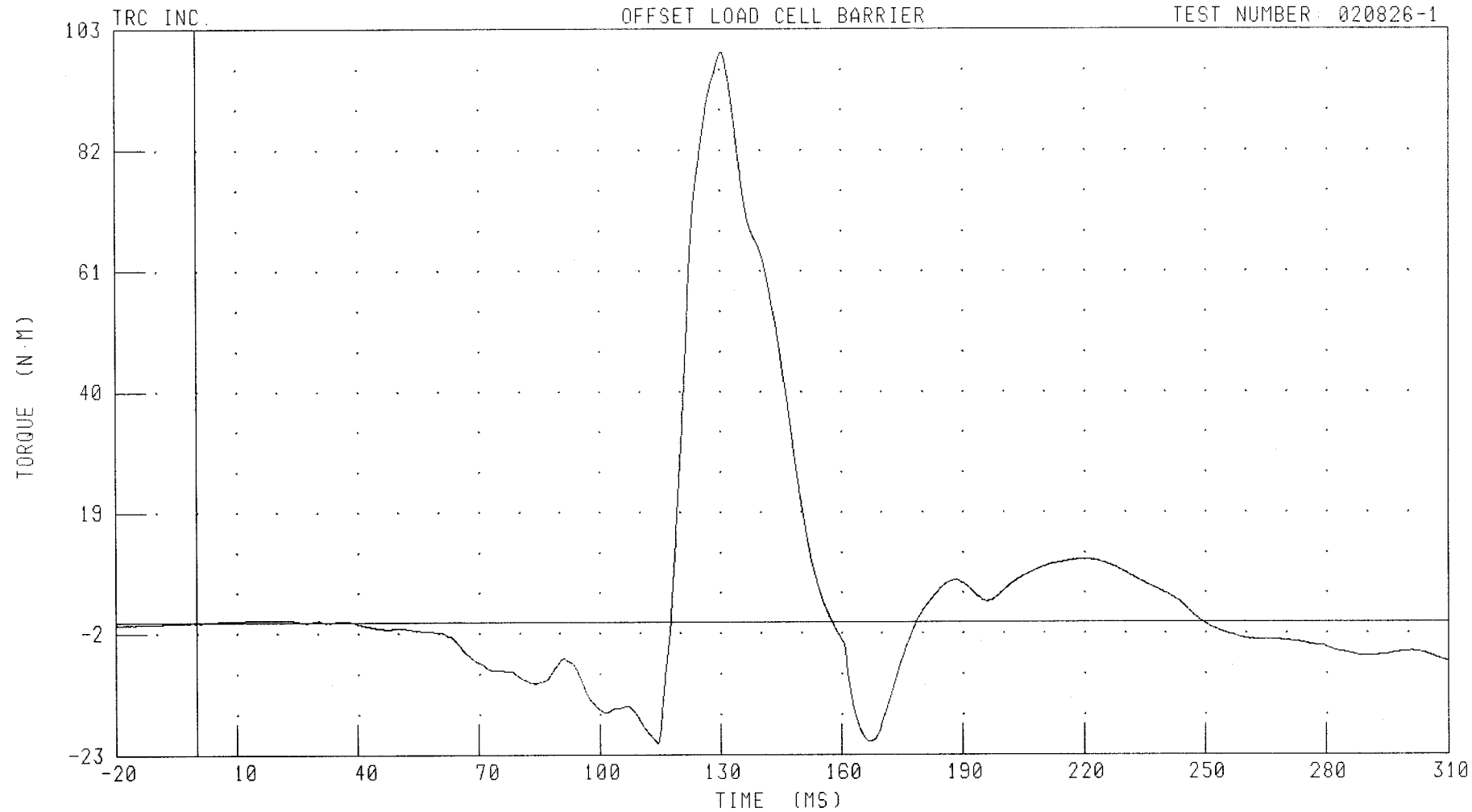
PEAK DATA: 6.11 N·M @ 185.36 MS; -31.55 N·M @ 139.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKYM1

FILTER: CH. CLASS 600

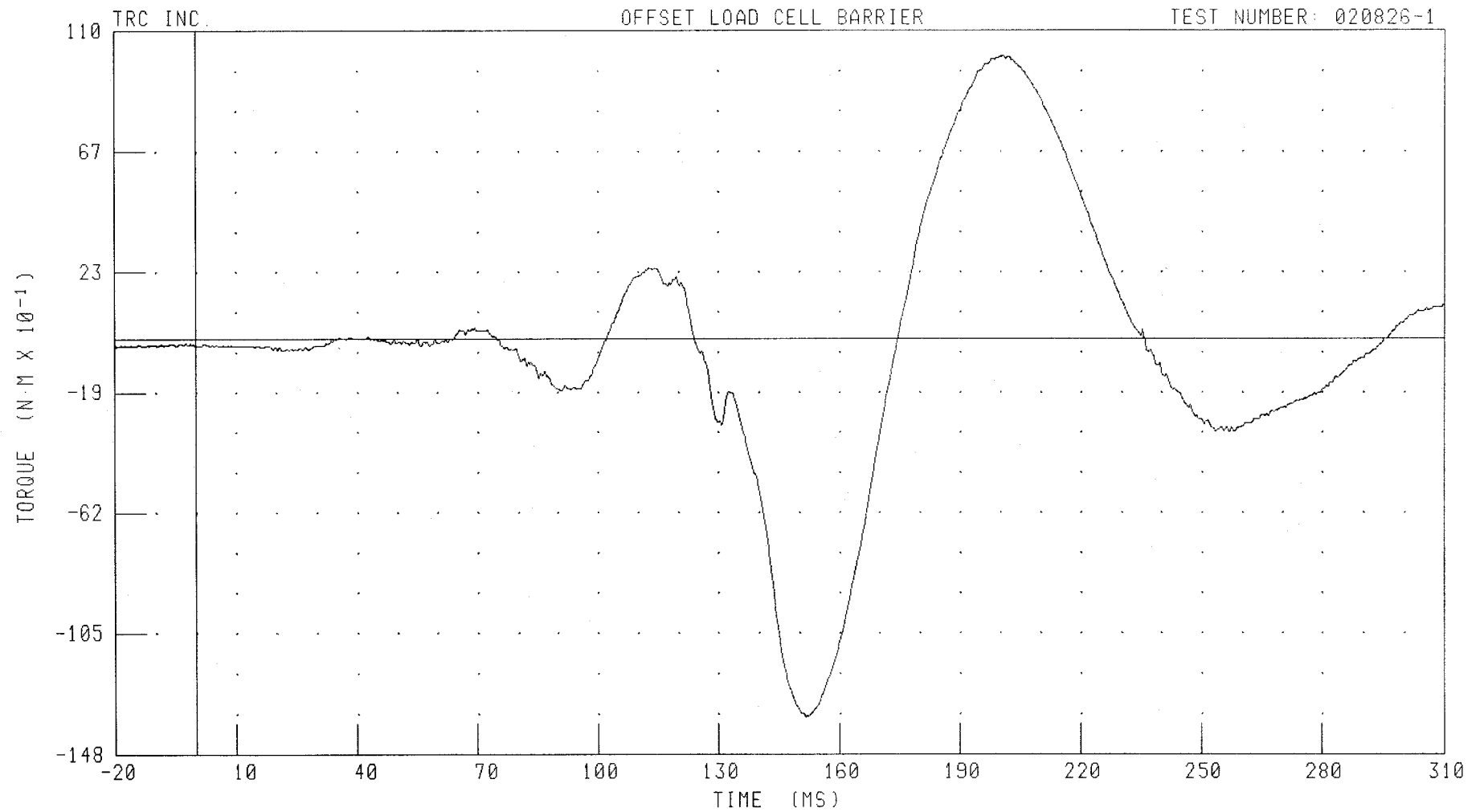
PEAK DATA: 98.97 N·M @ 130.48 MS; -21.02 N·M @ 114.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKZM1 FILTER: CH. CLASS 600

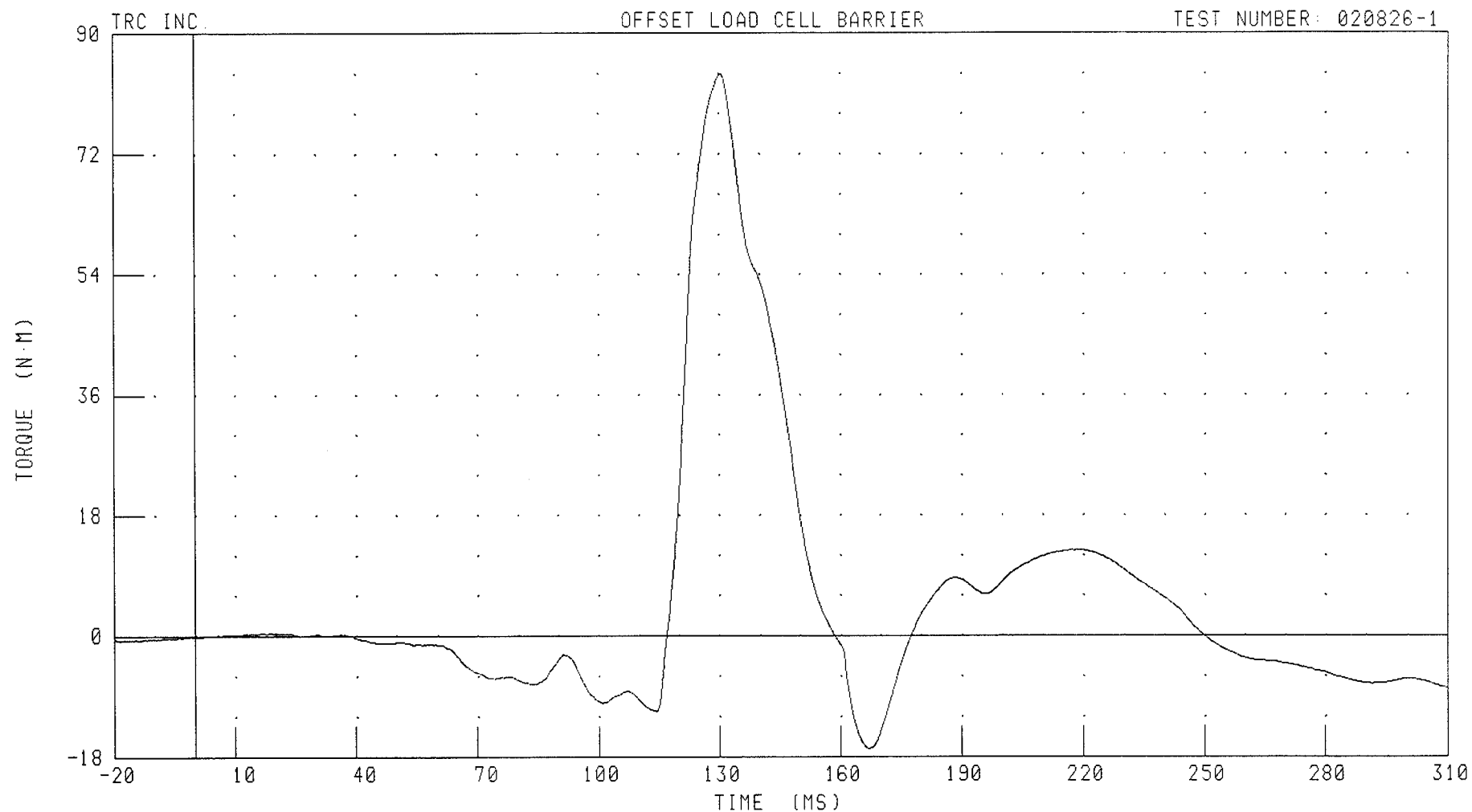
PEAK DATA: 10.10 N-M @ 200.80 MS; -13.47 N-M @ 151.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKOM1 FILTER: CH. CLASS 600

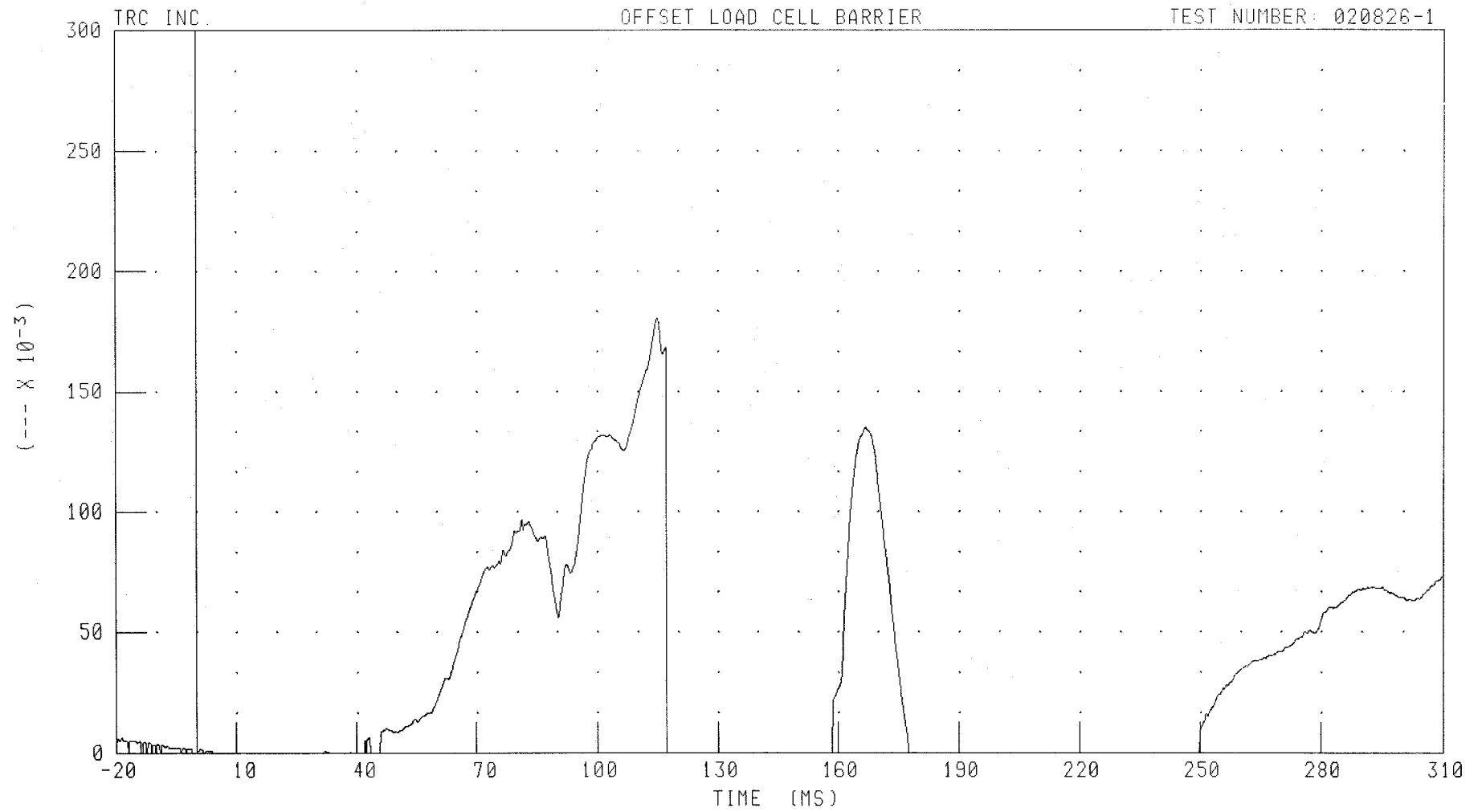
PEAK DATA: 83.95 N·M @ 130.56 MS; -16.81 N·M @ 167.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NIJ TENSION/EXTENSION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NTE1

FILTER: CH. CLASS 600

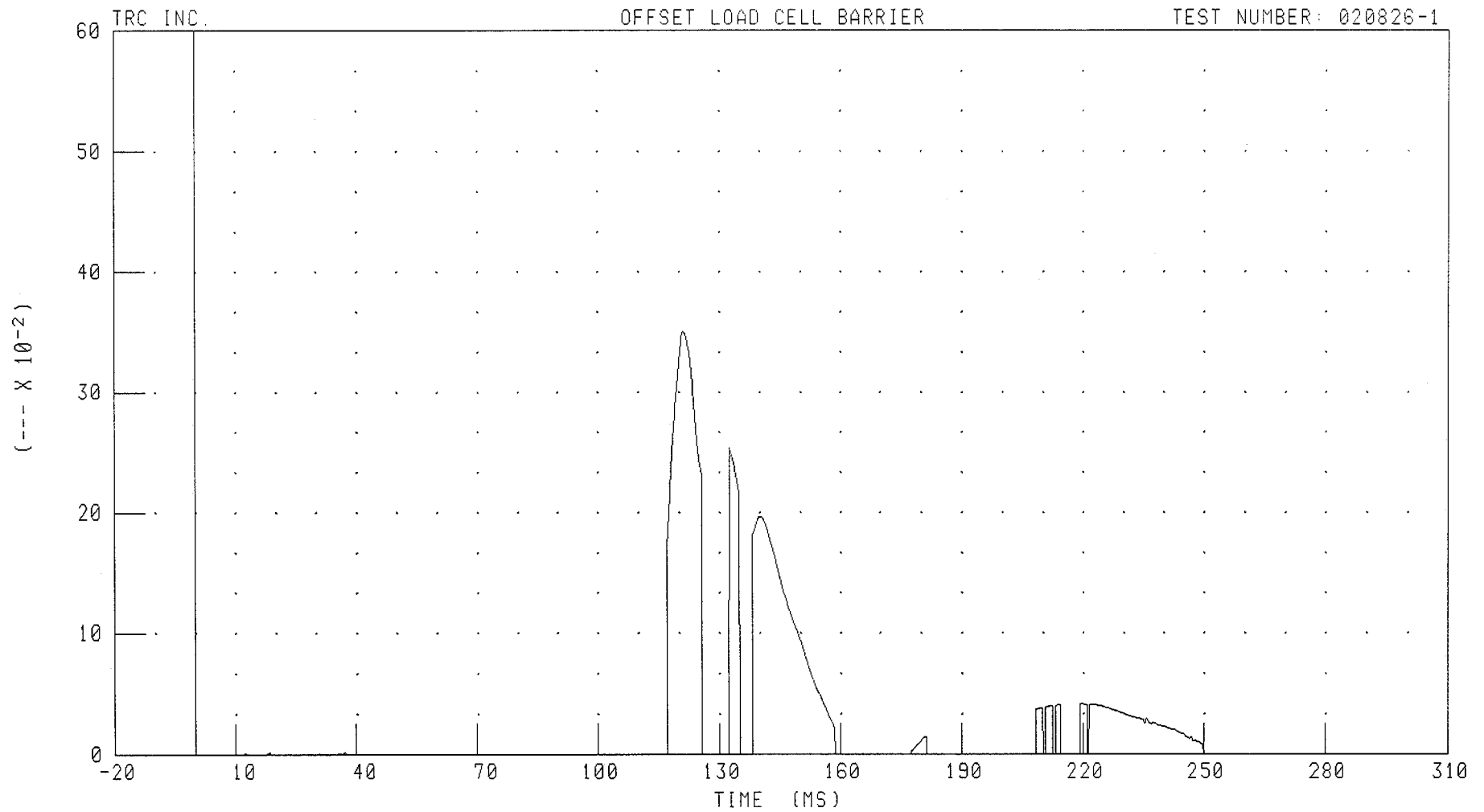
PEAK DATA: 0.18 --- @ 114.88 MS; 0.00 --- @ -17.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NIJ TENSION/FLEXION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NTF1

FILTER: CH. CLASS 600

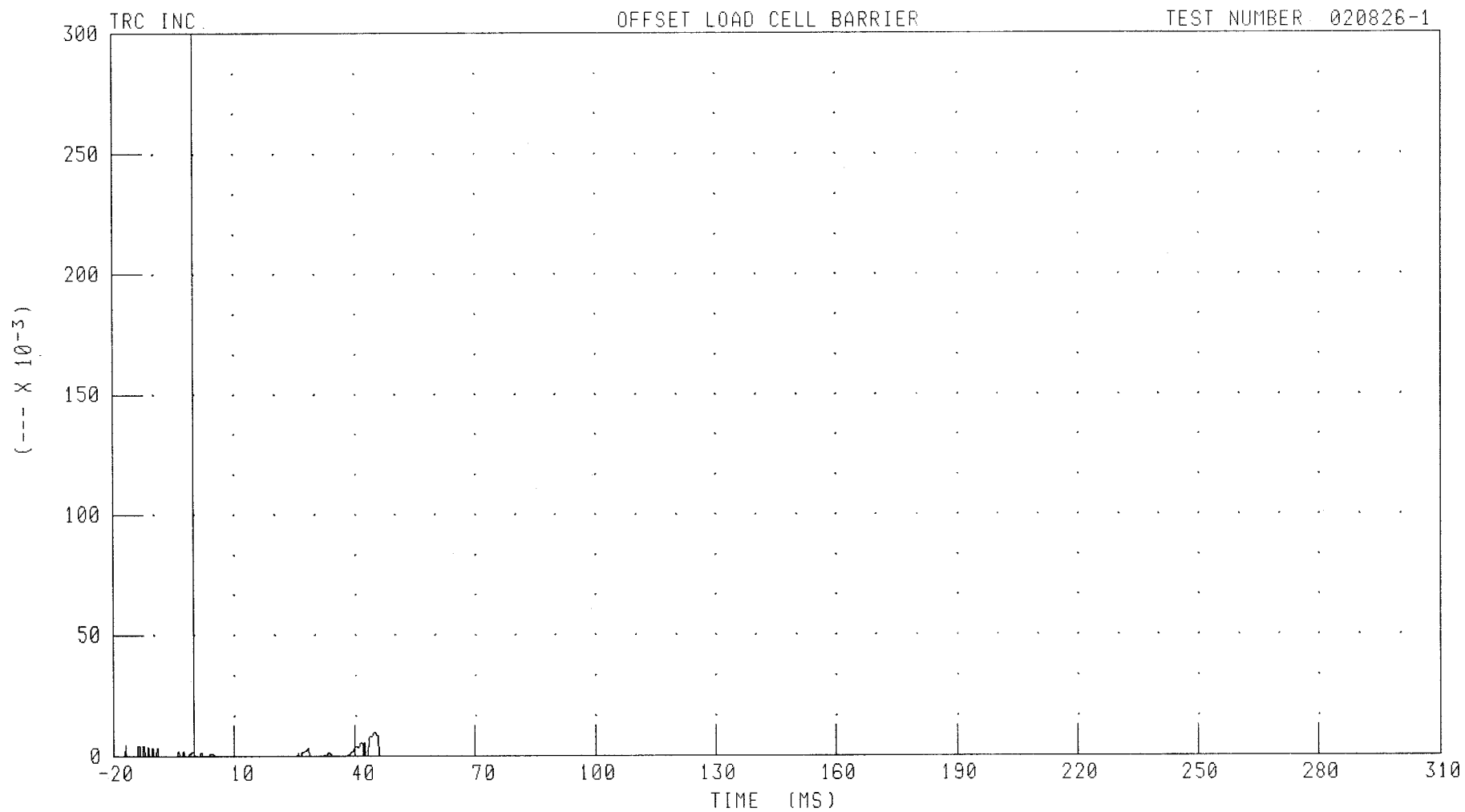
PEAK DATA: 0.35 --- @ 121.20 MS; 0.00 --- @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NIJ COMPRESSION/EXTENSION

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: NCE1

FILTER: CH. CLASS 600

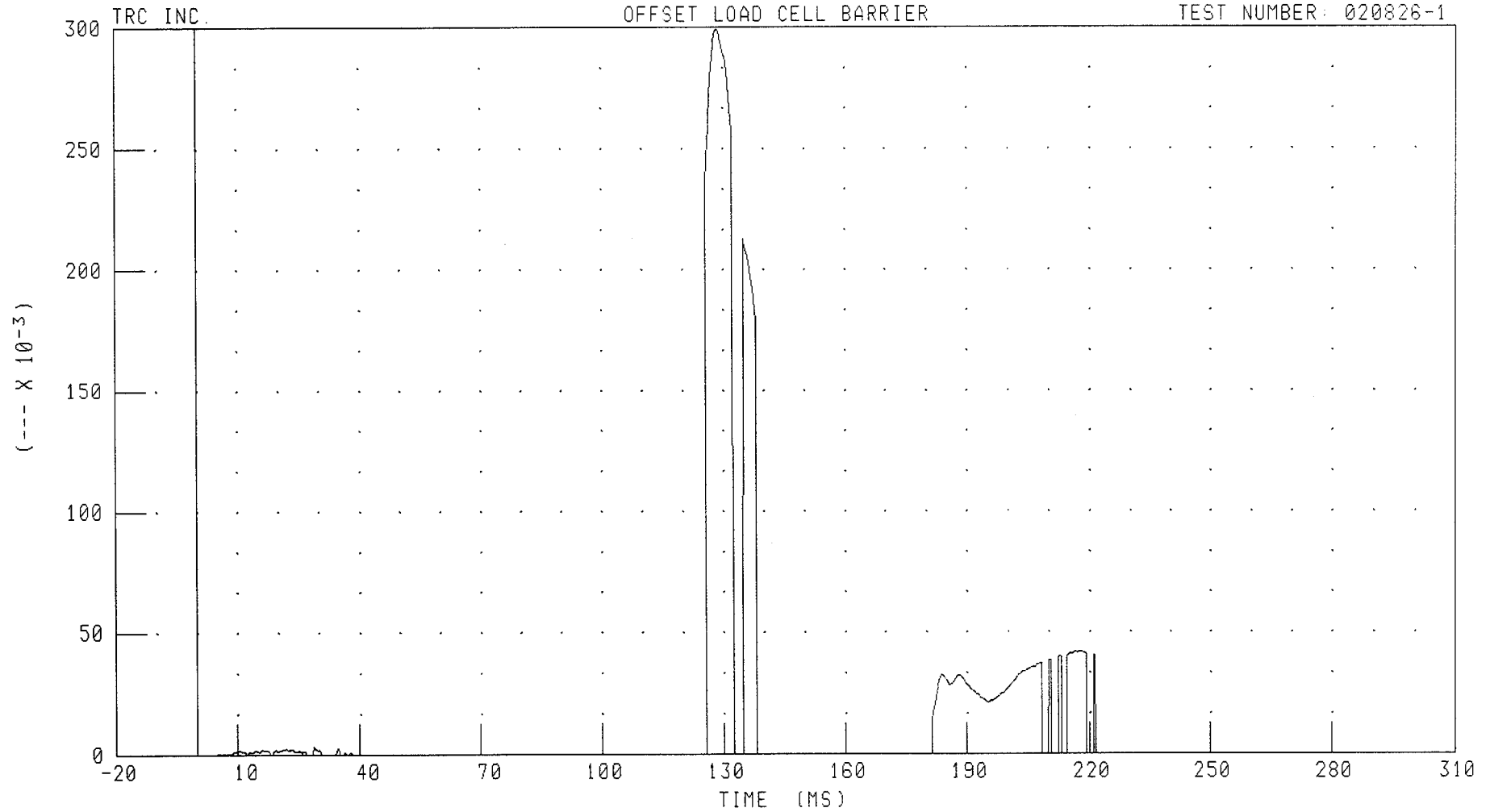
PEAK DATA: 0.01 --- @ 44.80 MS; 0.00 --- @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER NIJ COMPRESSION/FLEXION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NCF1

FILTER: CH. CLASS 600

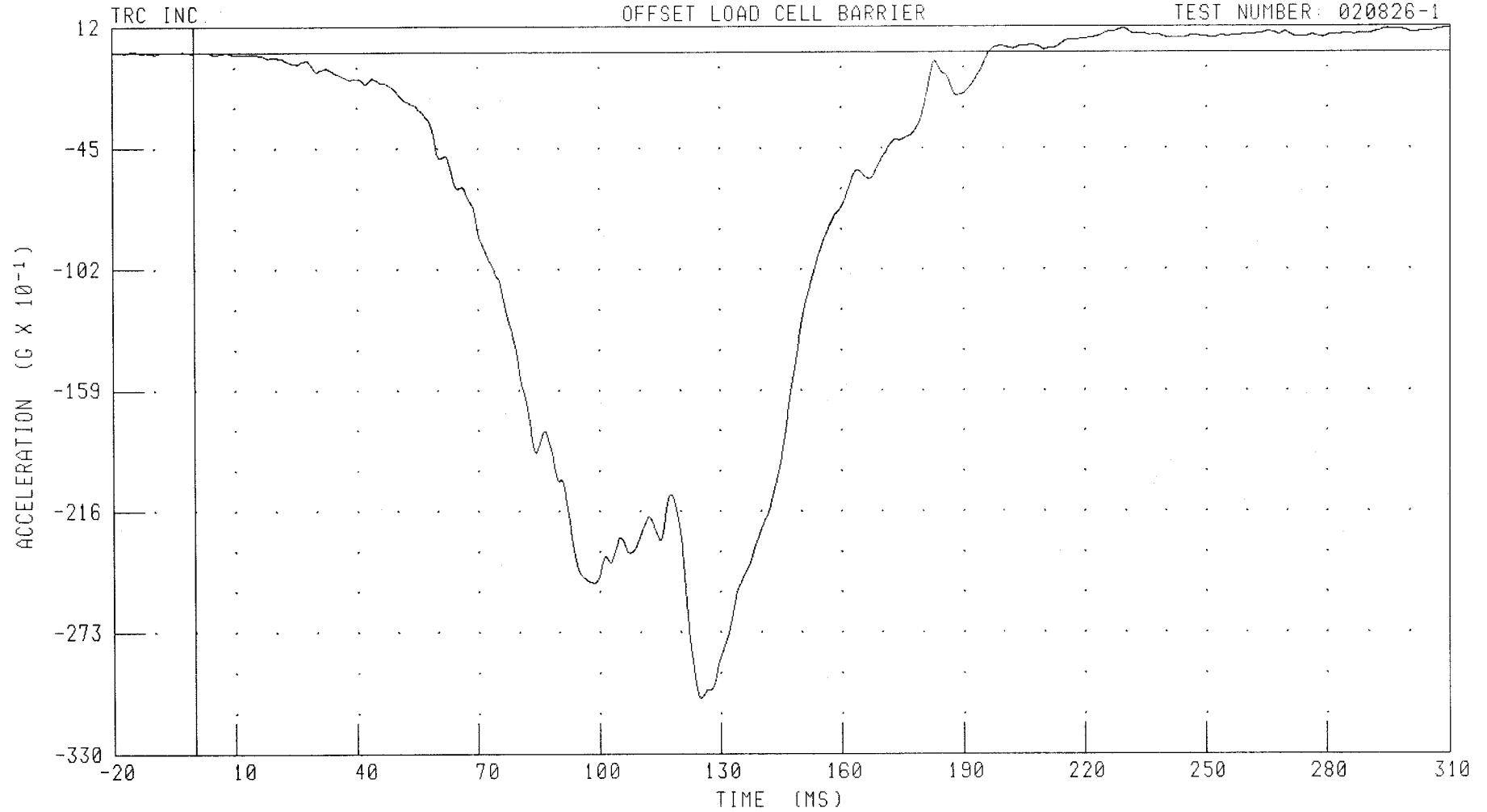
PEAK DATA: 0 30 --- @ 128.64 MS; 0.00 --- @ -20 00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTXG1 FILTER: CH. CLASS 180

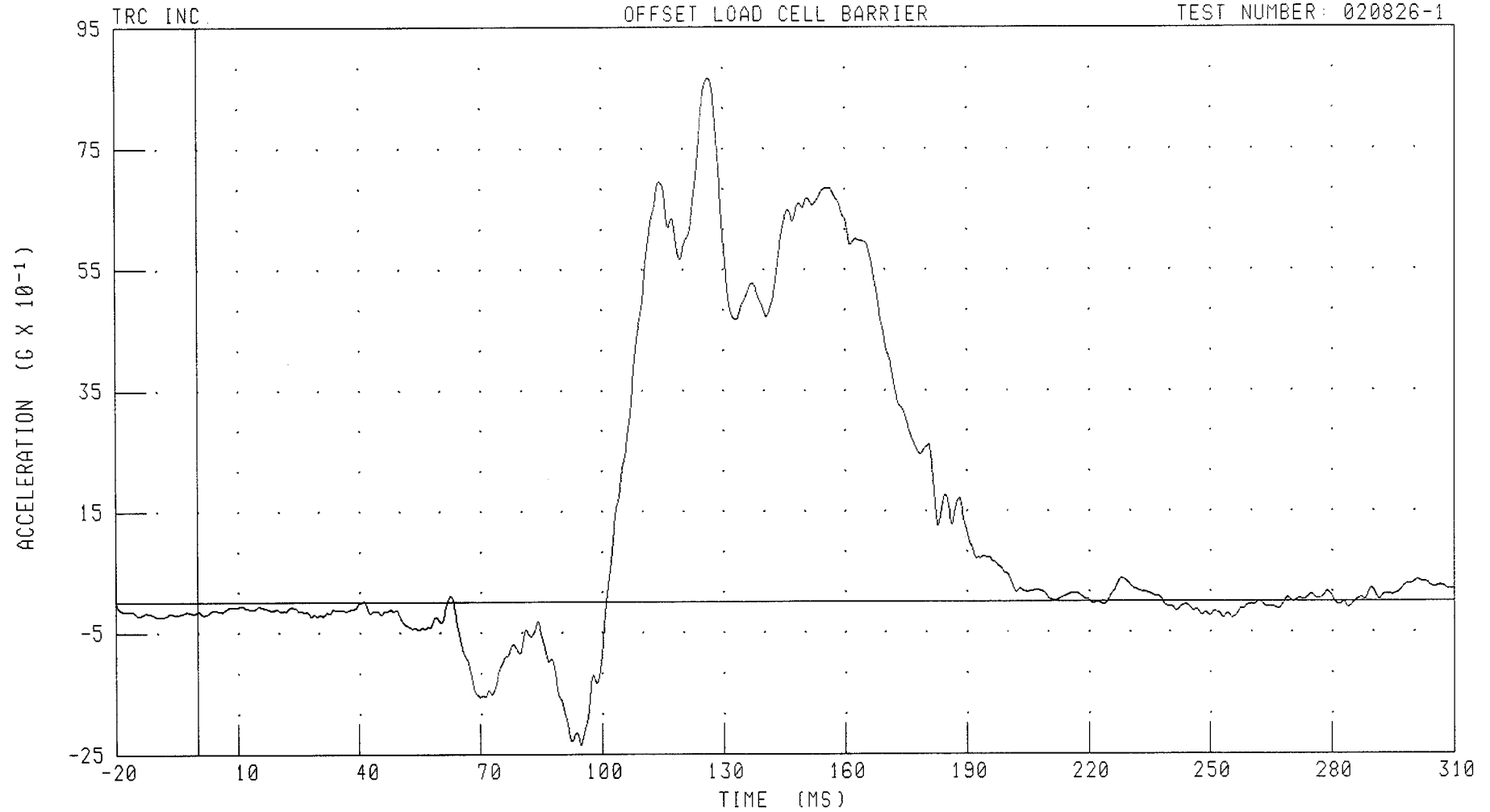
PEAK DATA: 1.14 G @ 309.44 MS; -30.40 G @ 125.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTYG1 FILTER: CH. CLASS 180

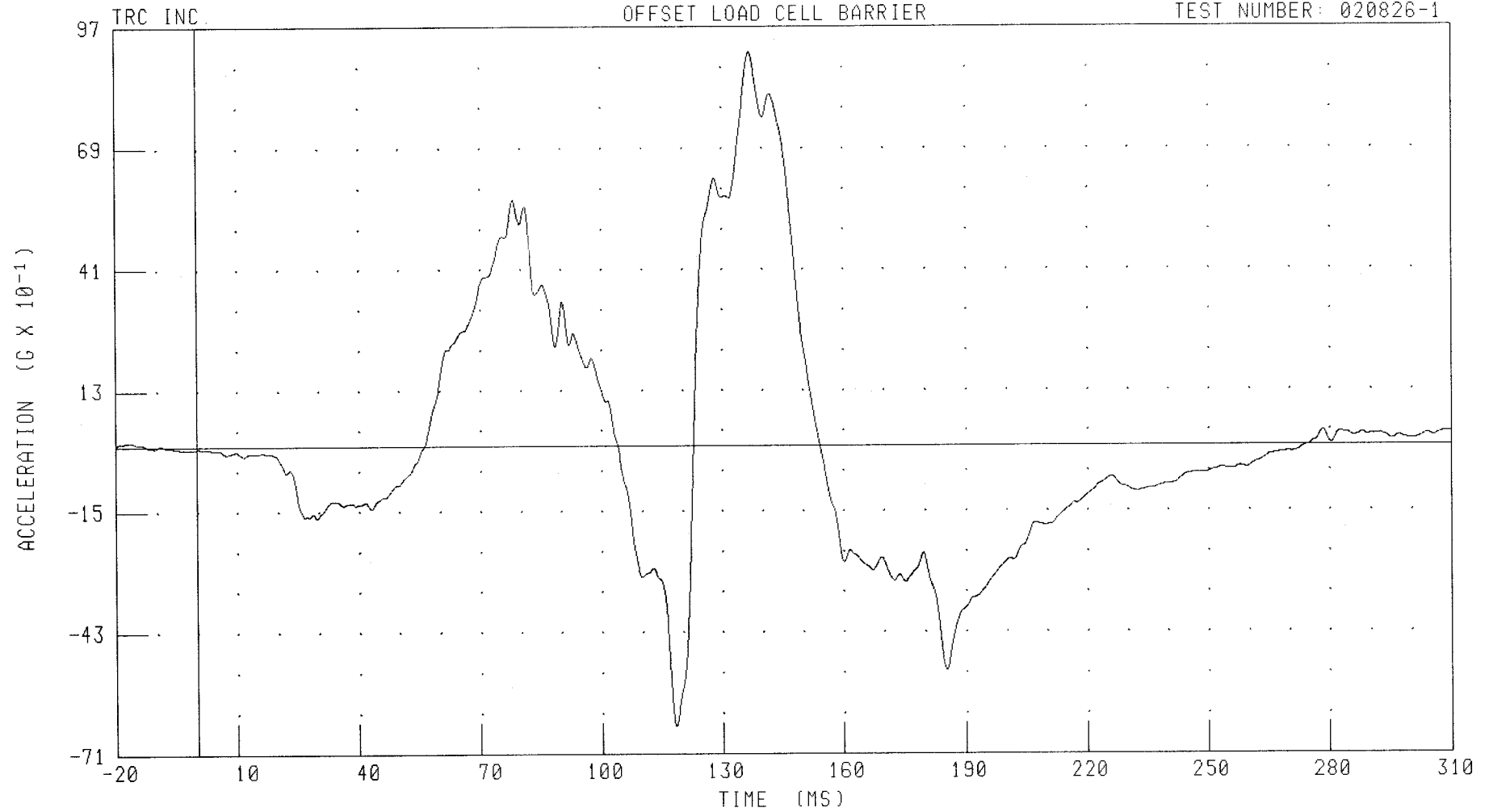
PEAK DATA: 8.66 G @ 126.56 MS; -2.35 G @ 94.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



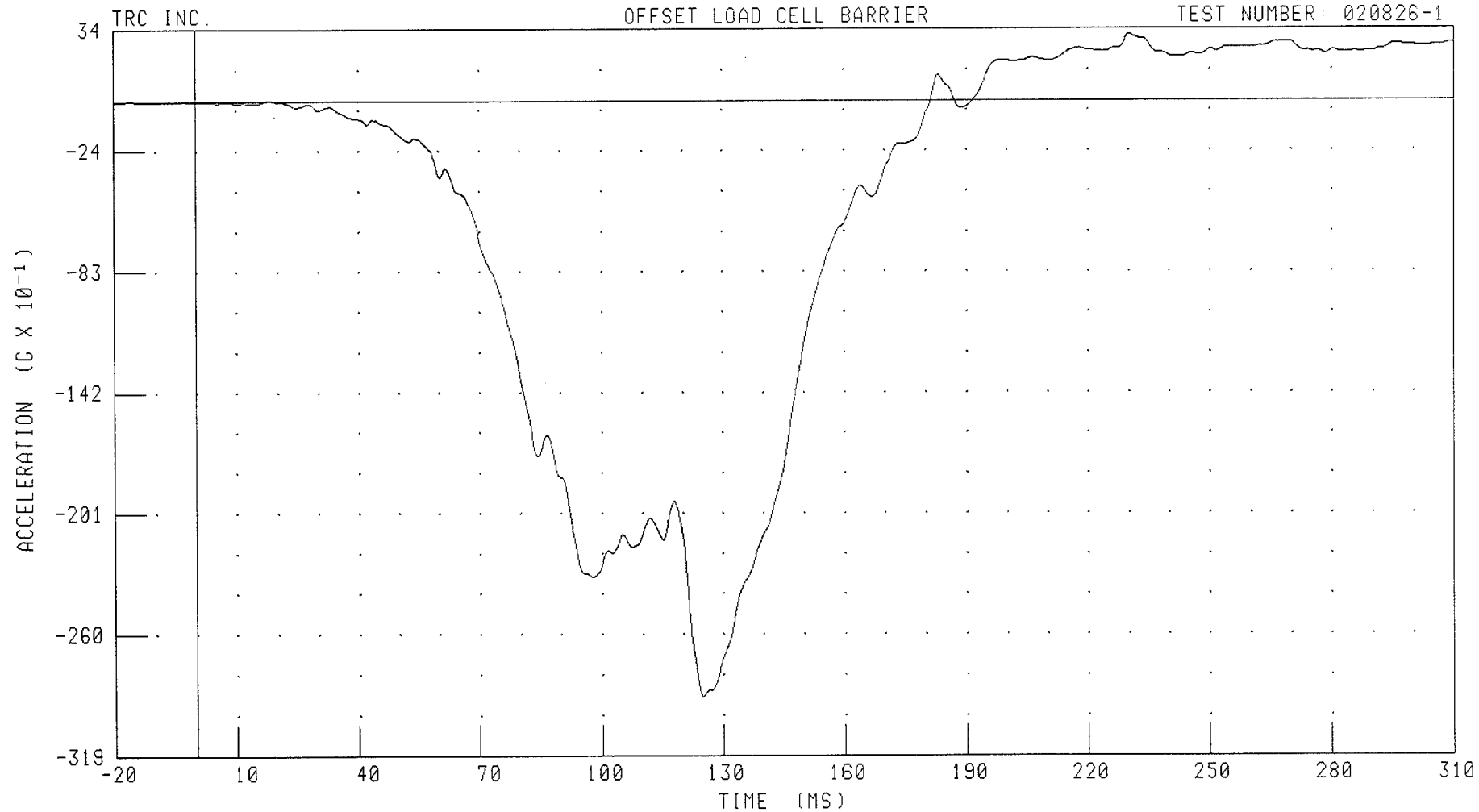
CHANNEL: CSTZG1 FILTER: CH. CLASS 180

PEAK DATA: 9.11 G @ 137.04 MS; -6.46 G @ 118.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER CHEST X-AXIS REDUNDANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



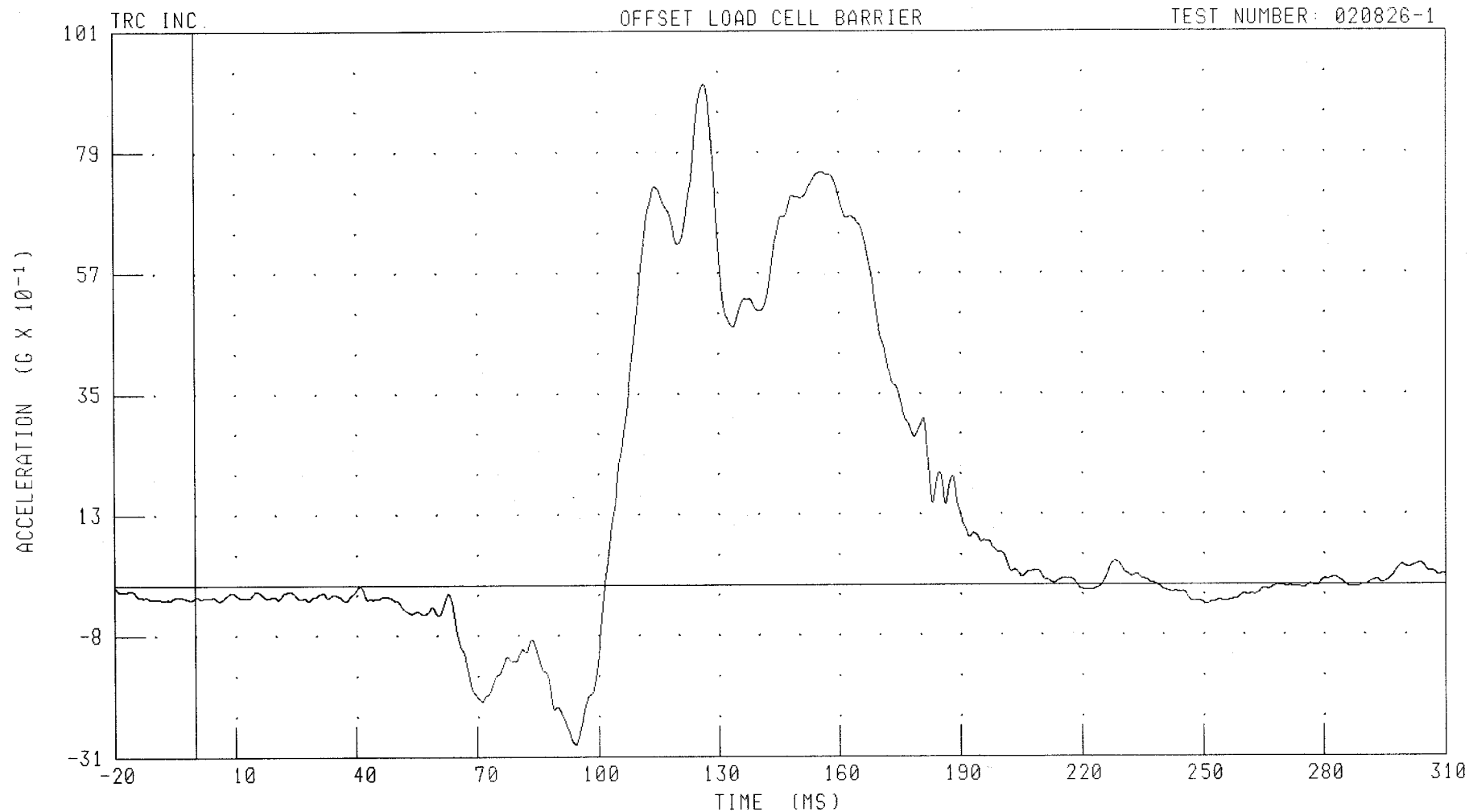
CHANNEL: CSTXR1 FILTER: CH. CLASS 180

PEAK DATA: 3.22 G @ 230.32 MS; -29.04 G @ 125.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER CHEST Y-AXIS REDUNDANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTYR1 FILTER: CH. CLASS 180

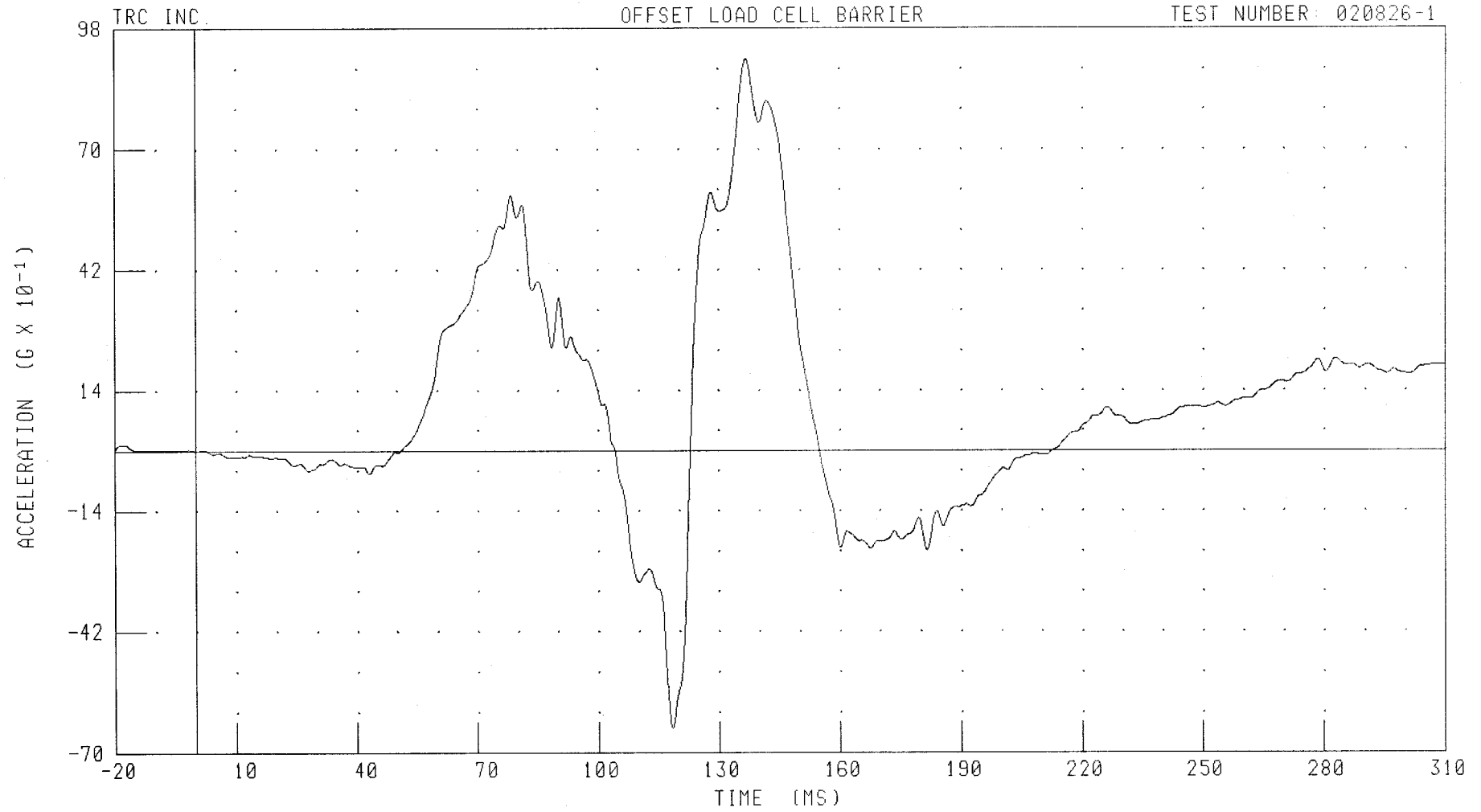
PEAK DATA: 9.14 G @ 126.72 MS; -2.88 G @ 94.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST Z-AXIS REDUNDANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTZR1 FILTER: CH. CLASS 180

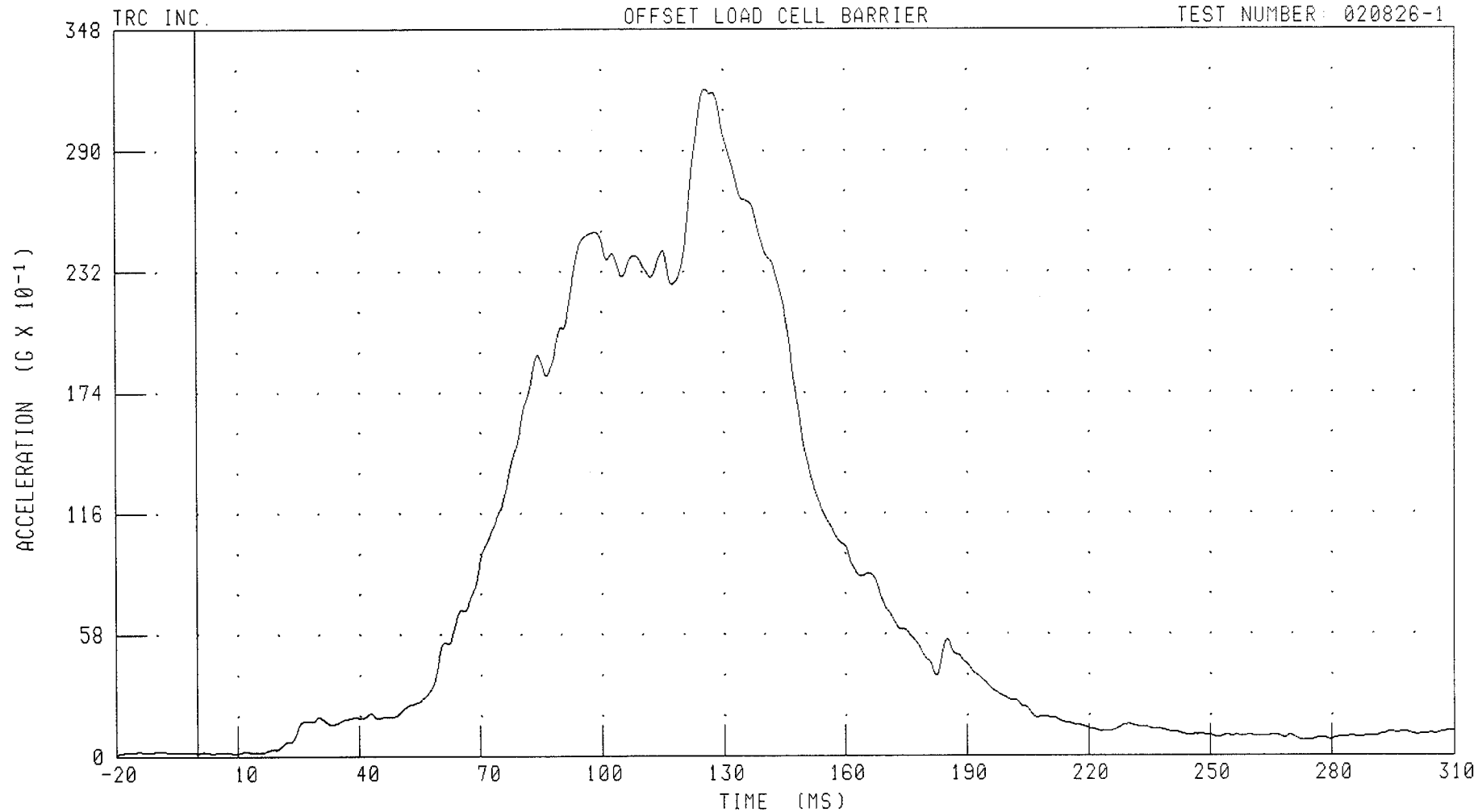
PEAK DATA: 9.09 G @ 137.04 MS; -6.43 G @ 118.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTRG1 FILTER: CH. CLASS 180

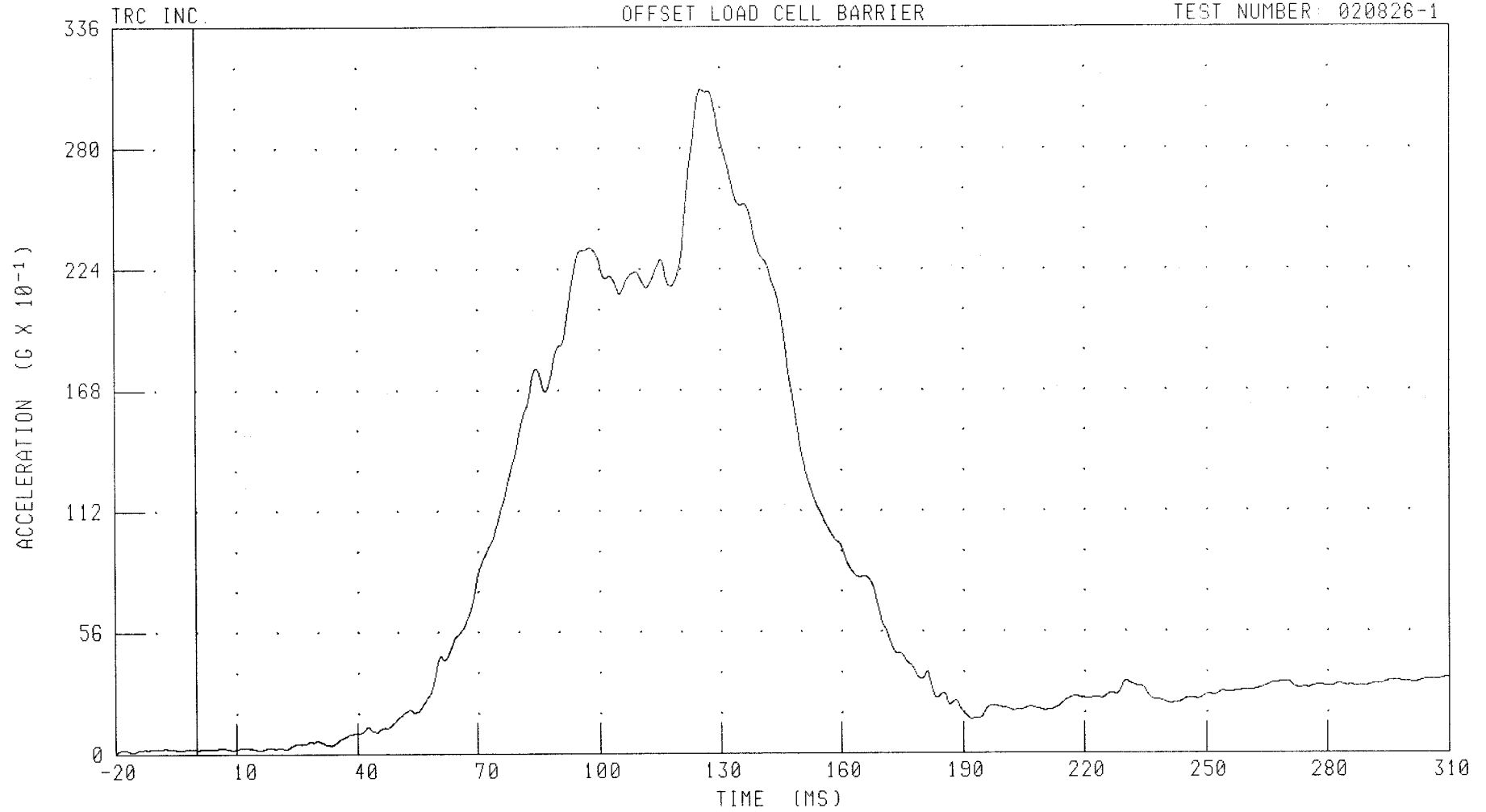
PEAK DATA: 31.93 G @ 125.60 MS; 0.01 G @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST REDUNDANT RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTR1 FILTER: CH. CLASS 180

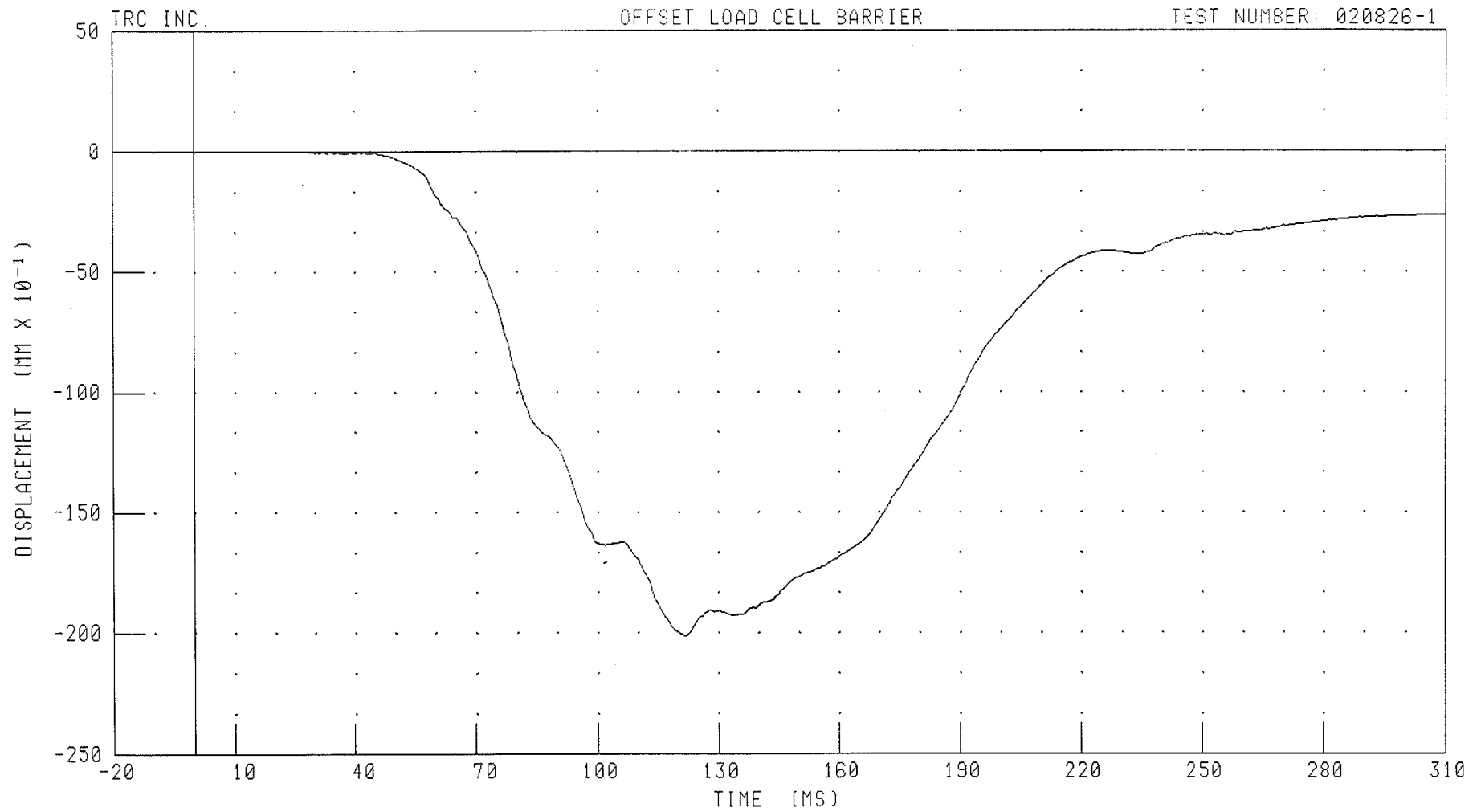
PEAK DATA: 30.70 G @ 125.52 MS; 0.01 G @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER CHEST DEFLECTION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTXD1 FILTER: CH. CLASS 600

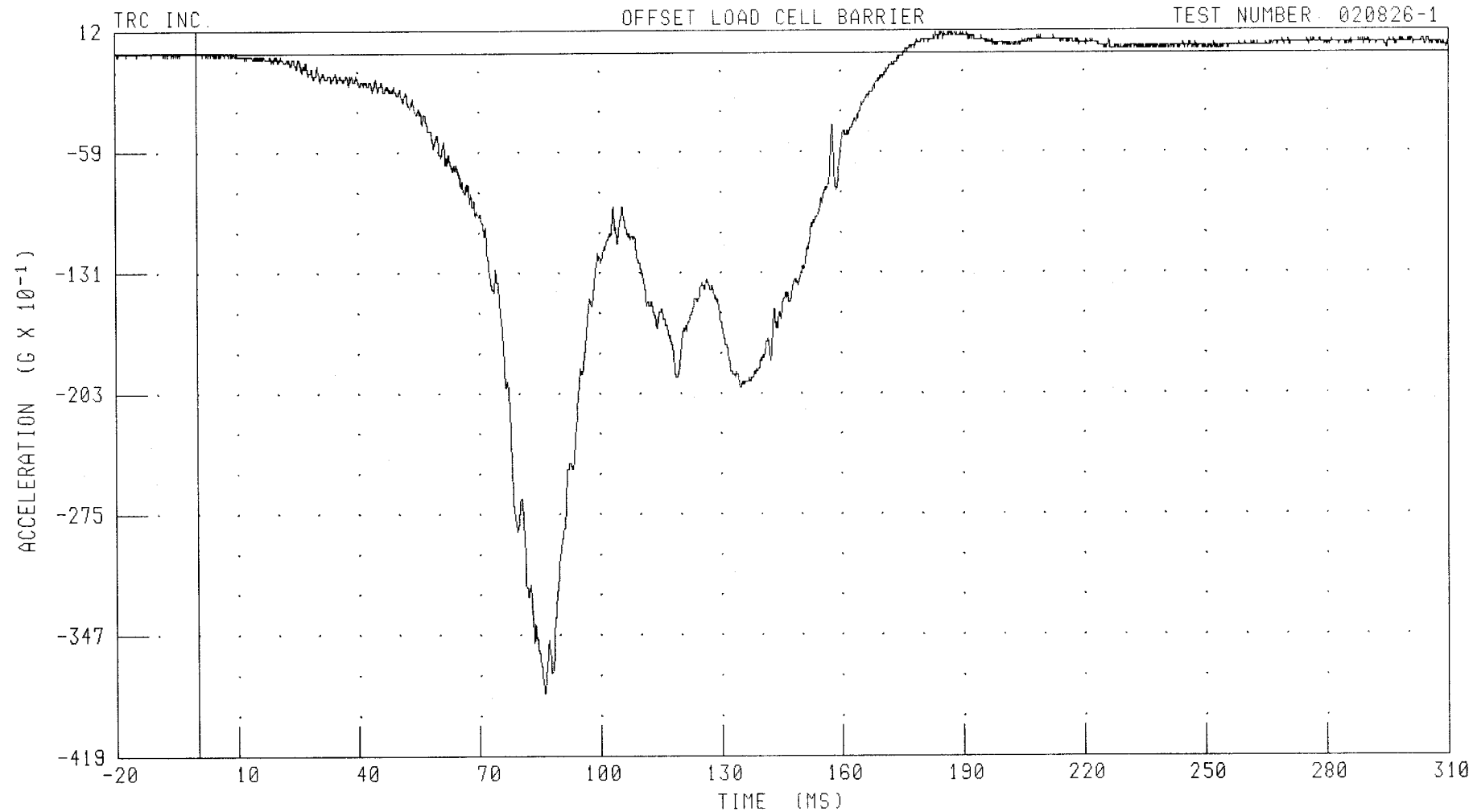
PEAK DATA: 0.01 MM @ -9.04 MS; -20.14 MM @ 121.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER PELVIS X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVXG1 FILTER: CH. CLASS 1000

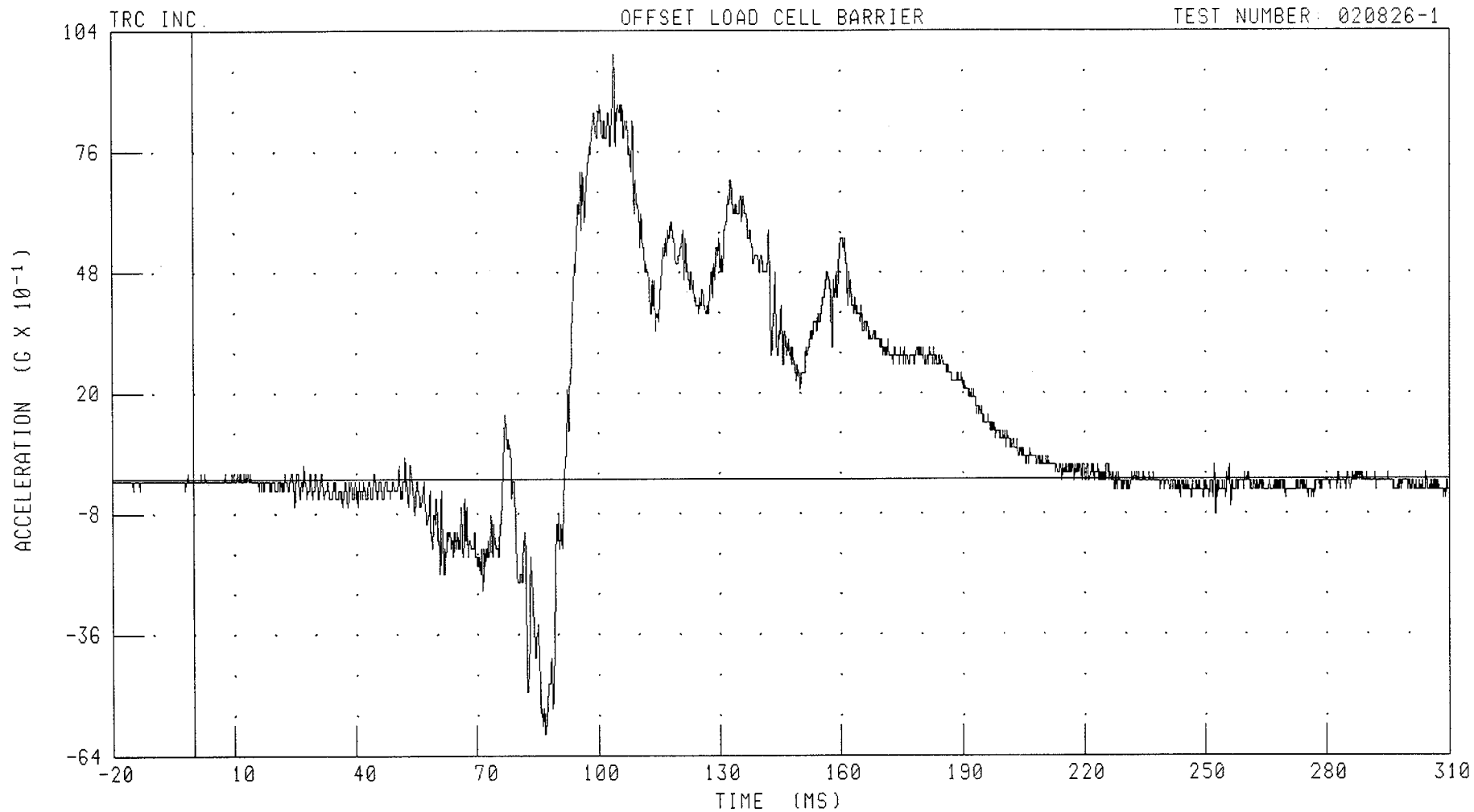
PEAK DATA: 1.18 G @ 183.68 MS; -38.16 G @ 86.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER PELVIS Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVYG1 FILTER: CH. CLASS 1000

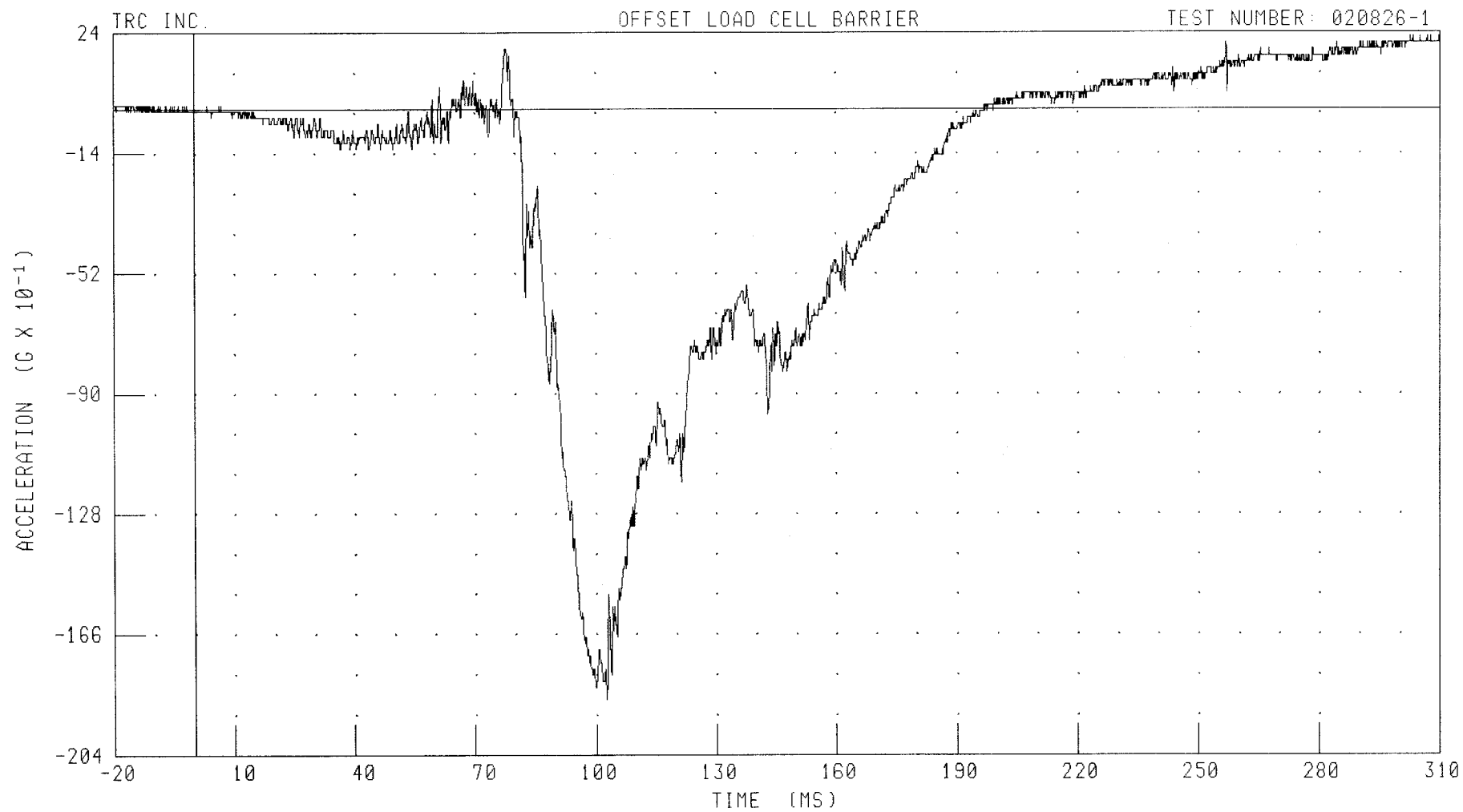
PEAK DATA: 9.87 G @ 104.16 MS; -5.90 G @ 86.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER PELVIS Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVZG1 FILTER: CH. CLASS 1000

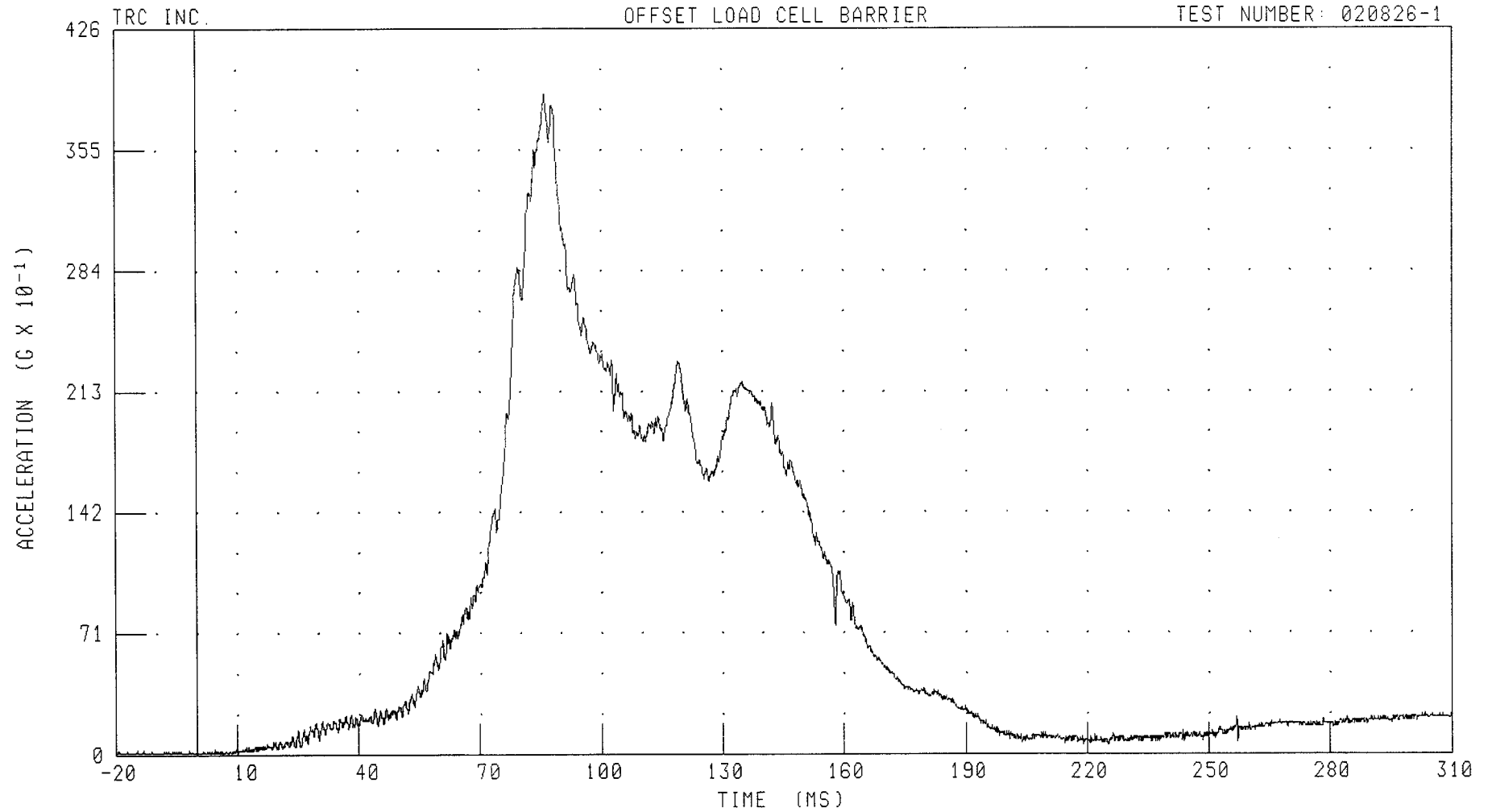
PEAK DATA: 2.27 G @ 302.56 MS; -18.67 G @ 102.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER PELVIS RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVRG1 FILTER: CH. CLASS 1000

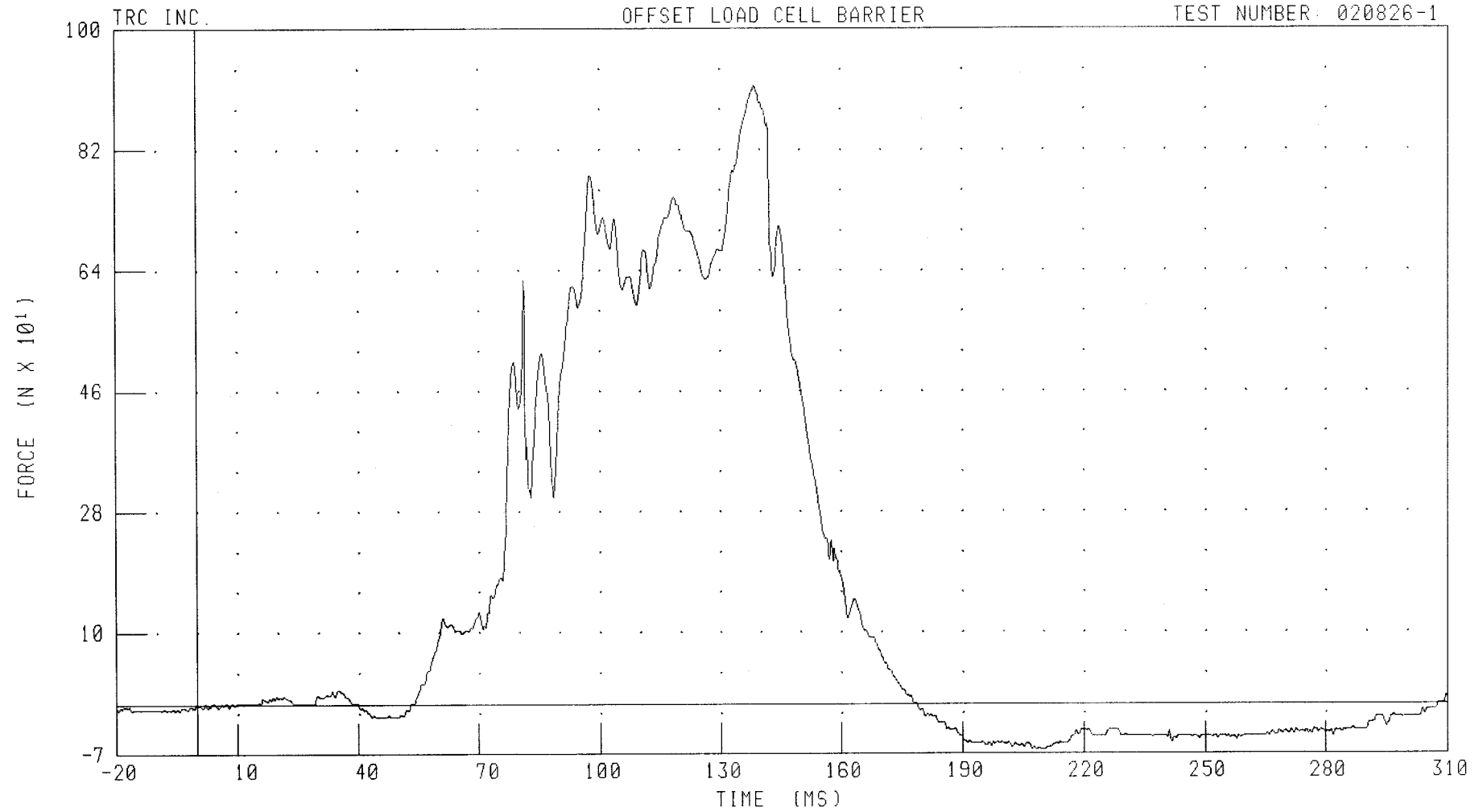
PEAK DATA: 38.79 G @ 86.24 MS; 0.10 G @ -16.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMXF1 FILTER: CH. CLASS 600

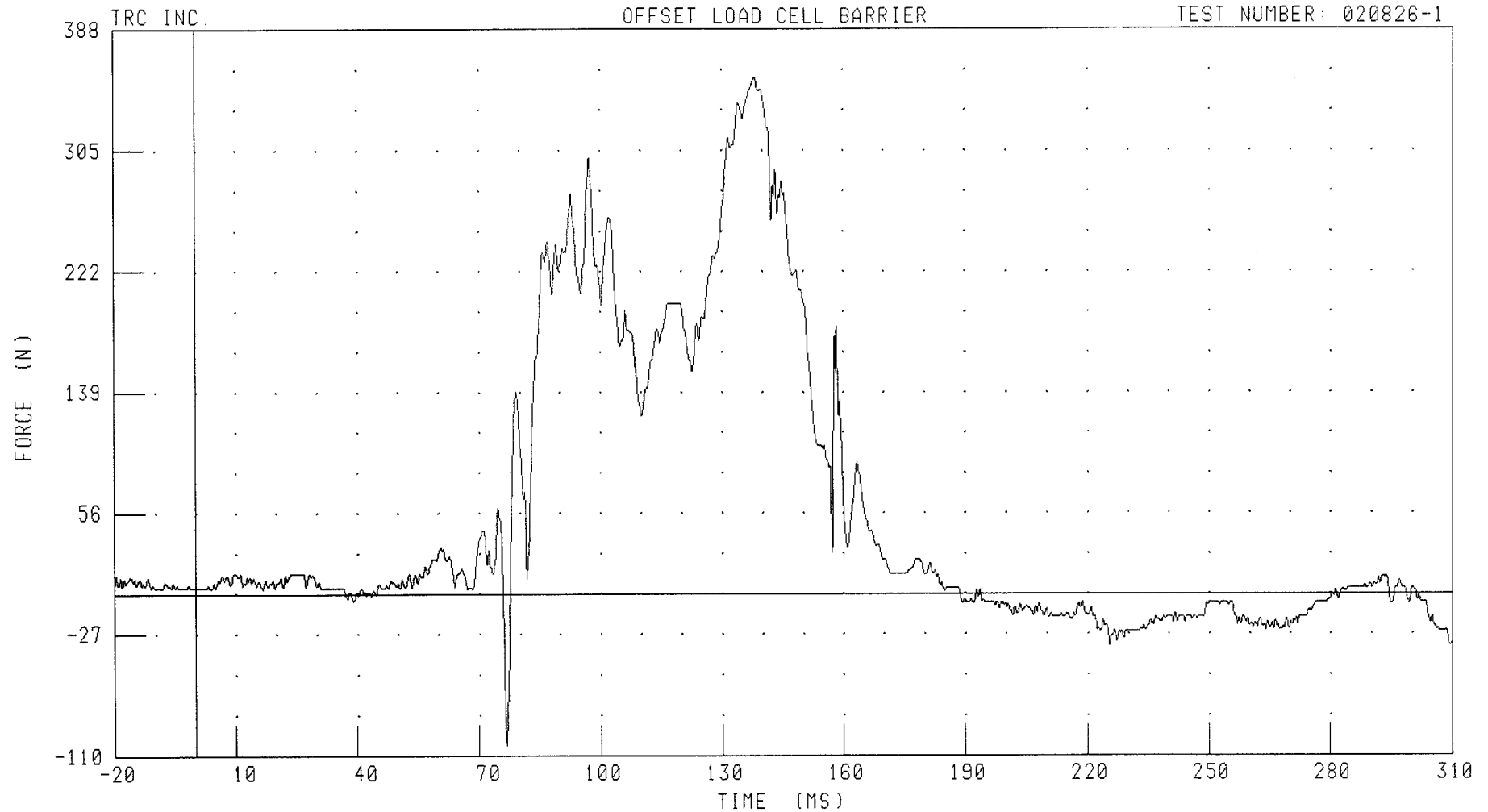
PEAK DATA: 921.36 N @ 138.72 MS; -67.20 N @ 208.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMF1 FILTER: CH. CLASS 600

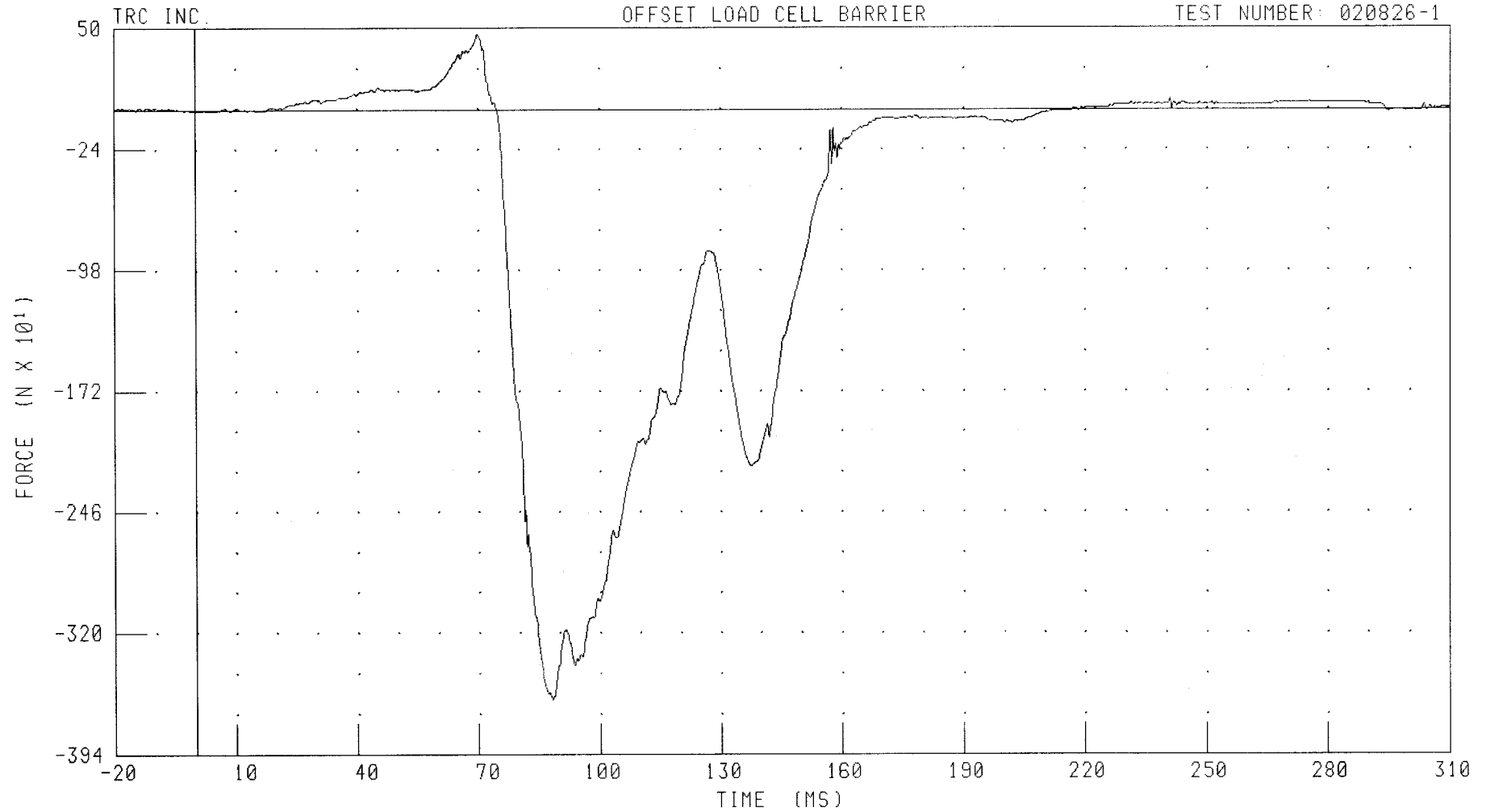
PEAK DATA: 355.03 N @ 138.40 MS; -102.99 N @ 76.64 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMZF1 FILTER: CH. CLASS 600

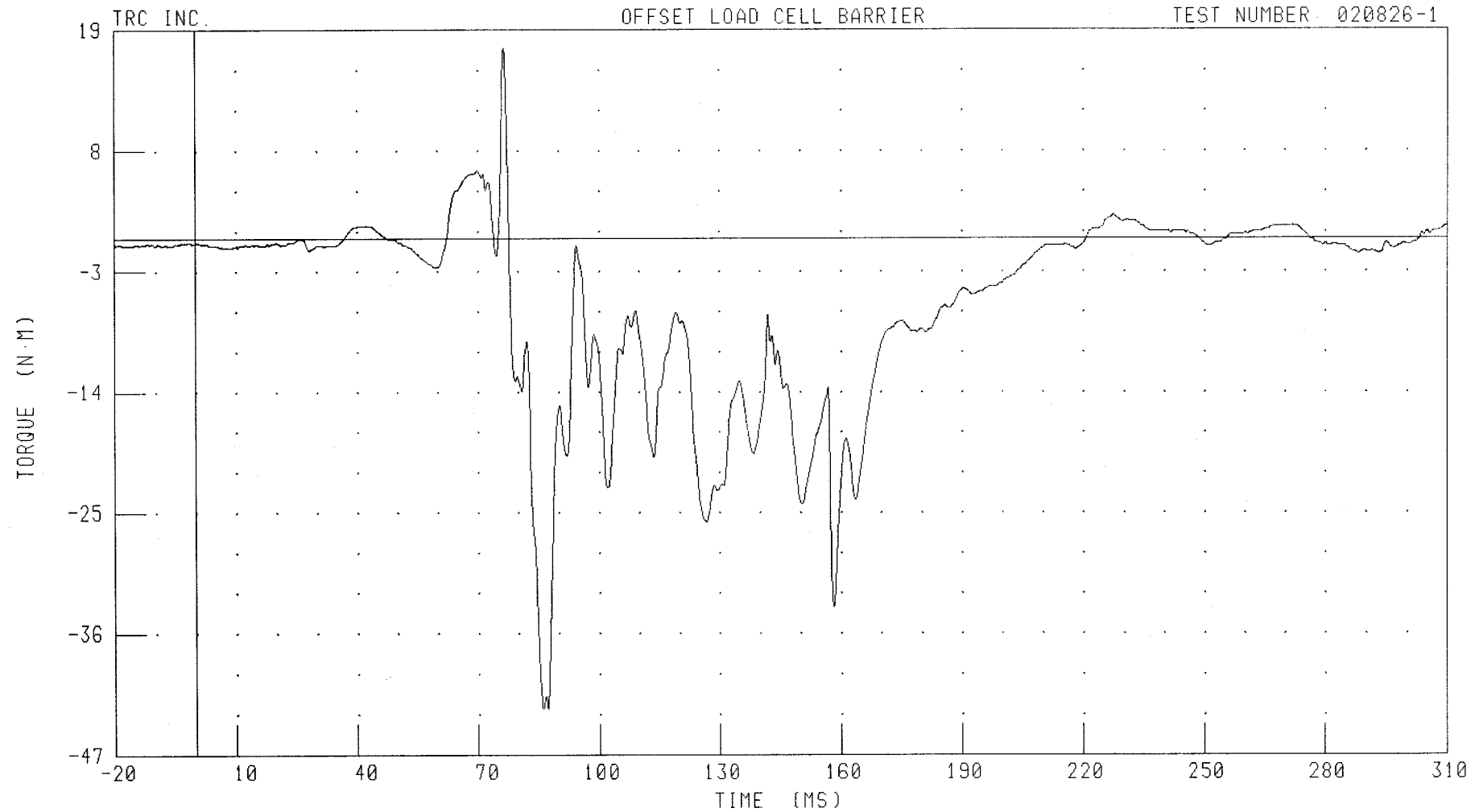
PEAK DATA: 462.07 N @ 70.16 MS; -3607.77 N @ 88.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMXM1 FILTER: CH. CLASS 600

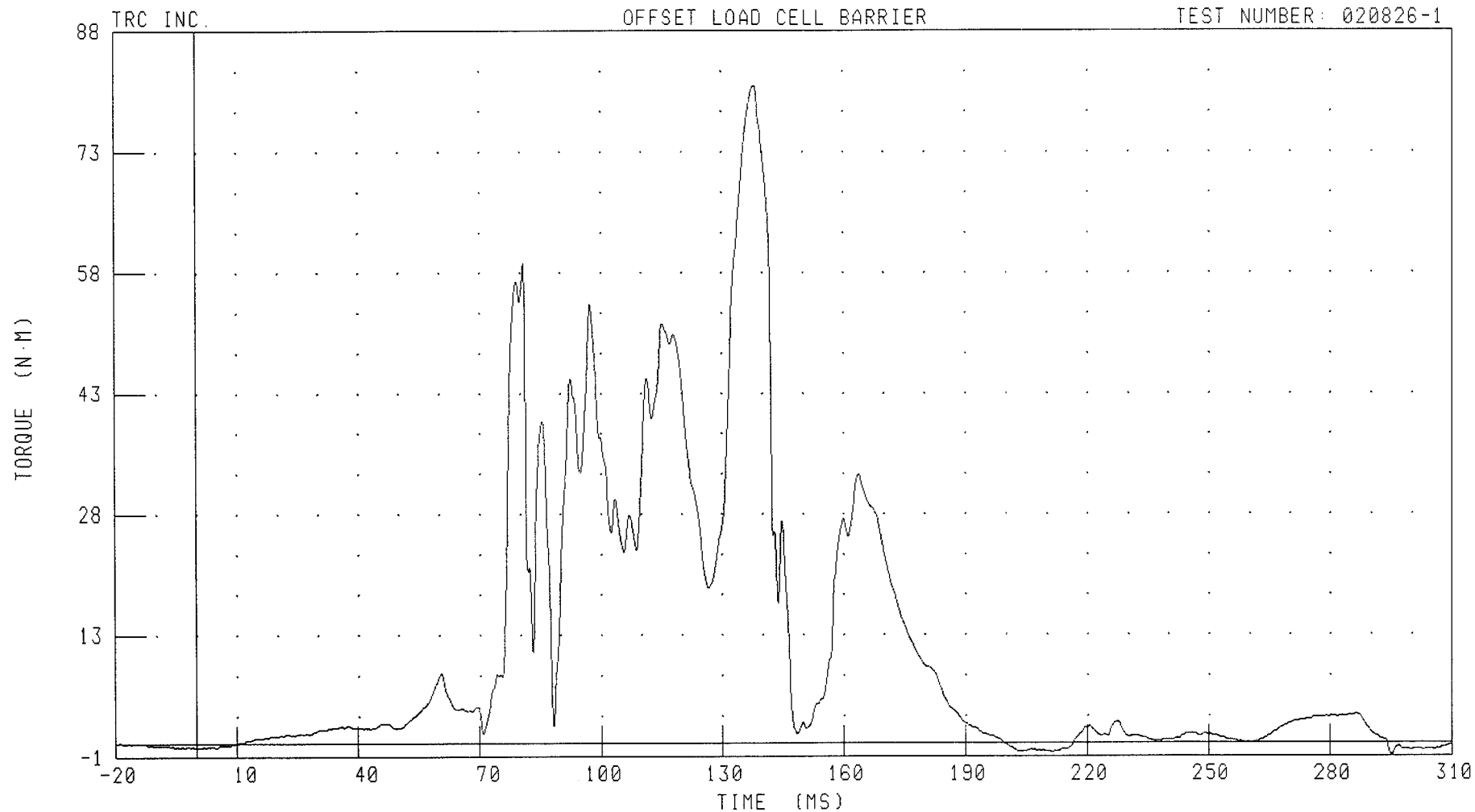
PEAK DATA: 17.33 N·M @ 76.72 MS; -42.85 N·M @ 86.16 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMYM1 FILTER: CH. CLASS 600

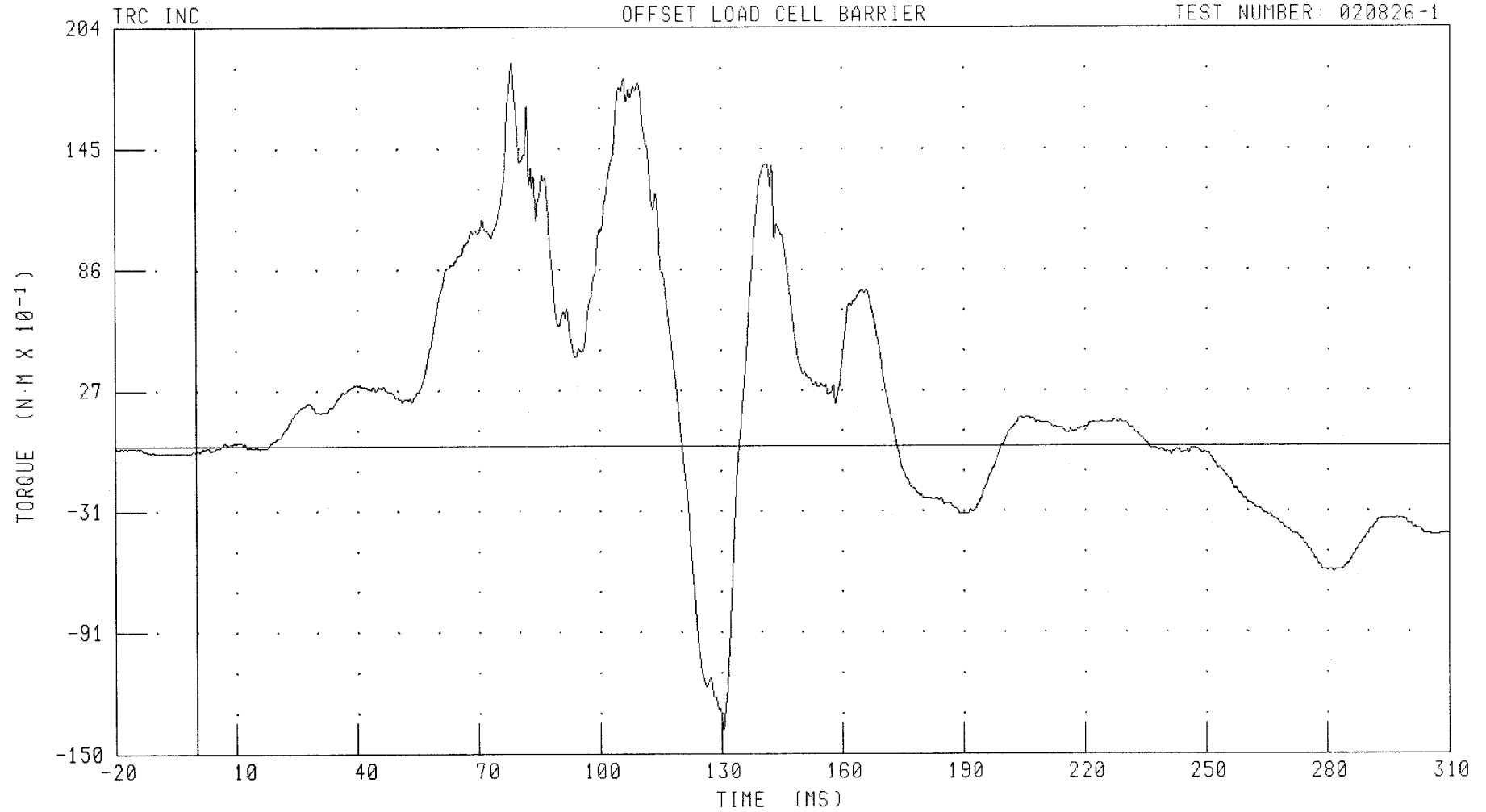
PEAK DATA: 81.51 N·m @ 138.24 MS; -1.58 N·m @ 295.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FEMUR MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMZM1 FILTER: CH. CLASS 600

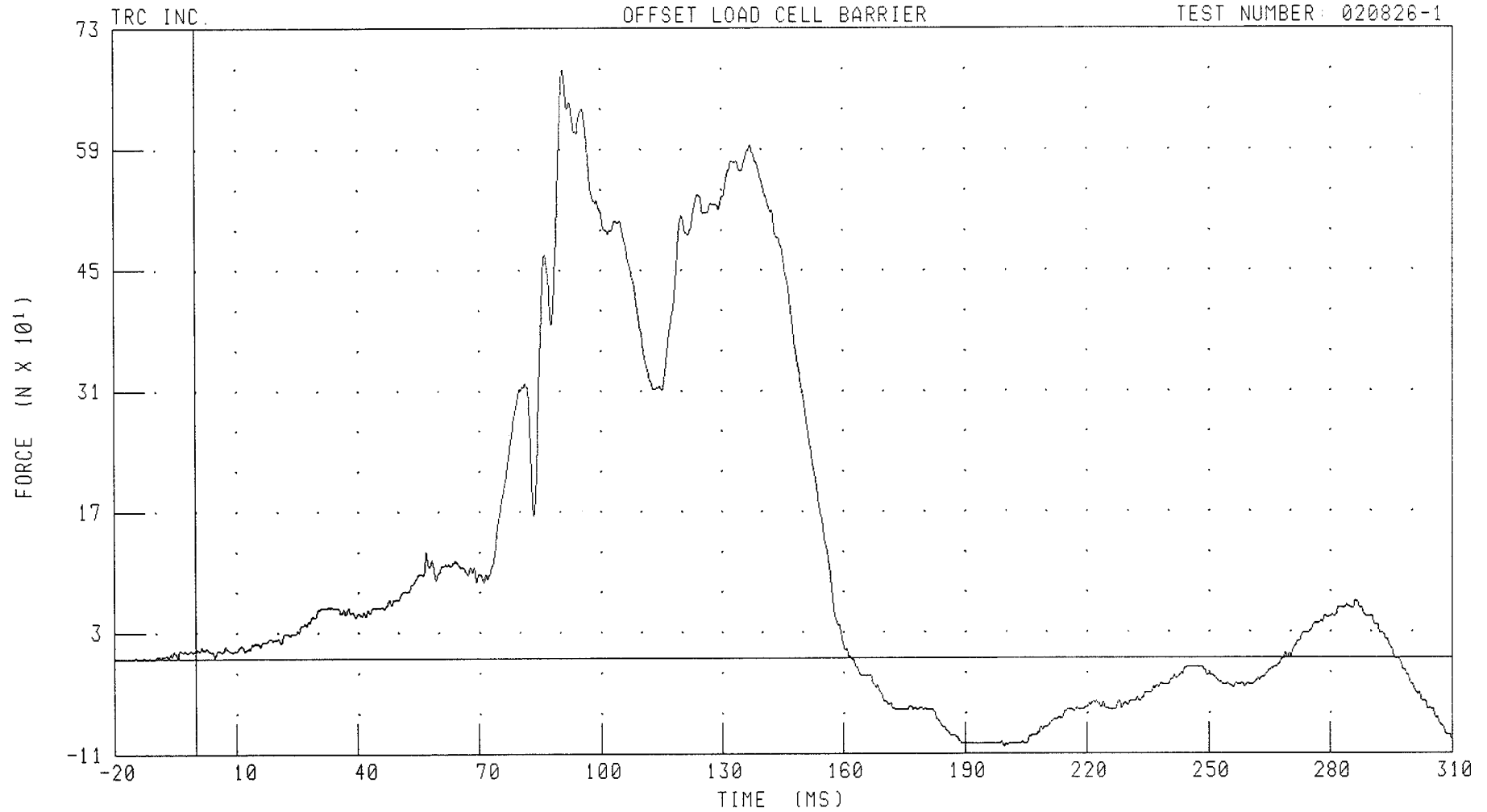
PEAK DATA: 18.69 N·M @ 78.40 MS; -13.84 N·M @ 130.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FEMUR X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMXF1 FILTER: CH. CLASS 600

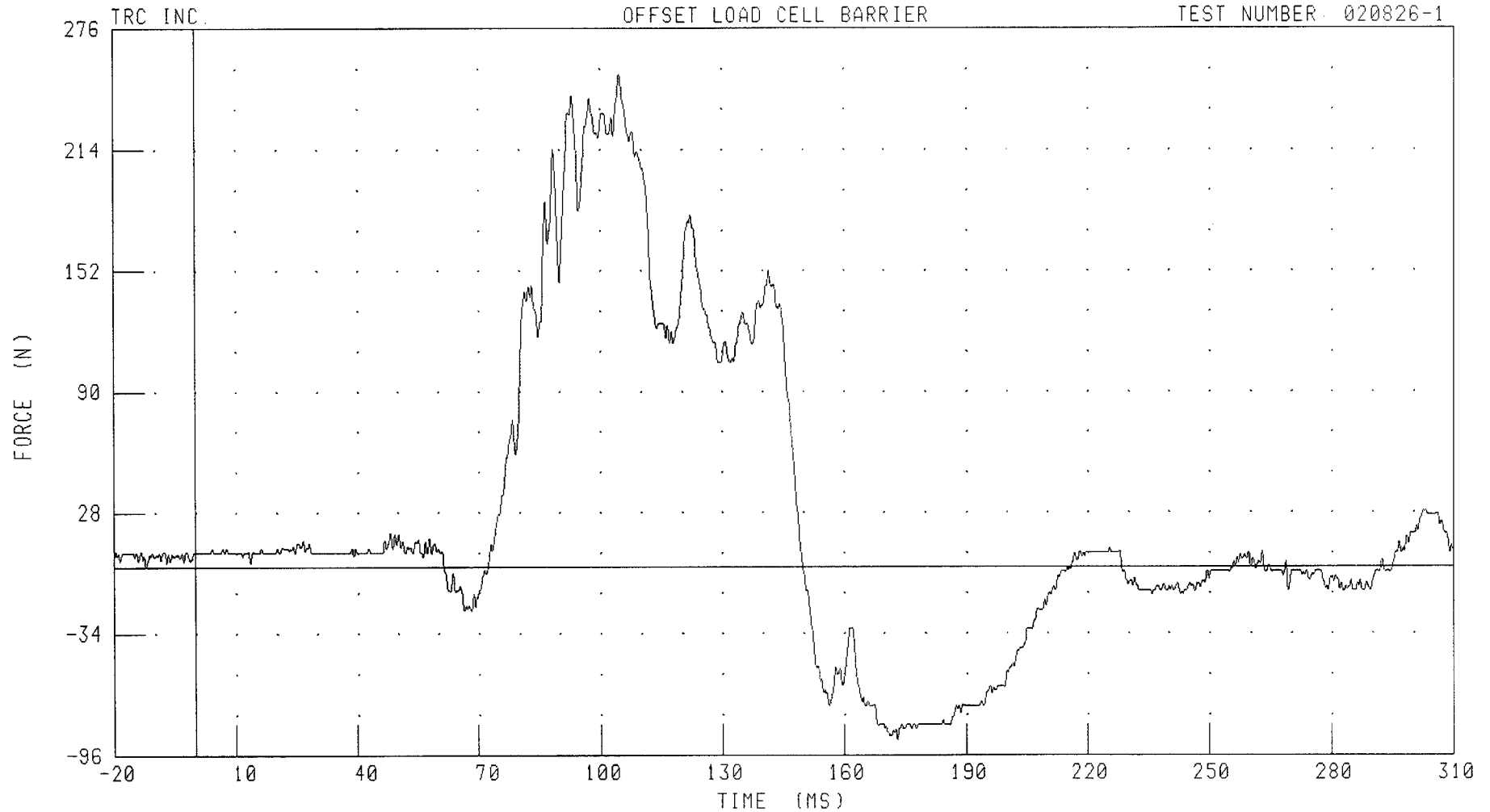
PEAK DATA: 681.88 N @ 90.80 MS; -102.27 N @ 199.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FEMUR Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMYF1 FILTER: CH. CLASS 600

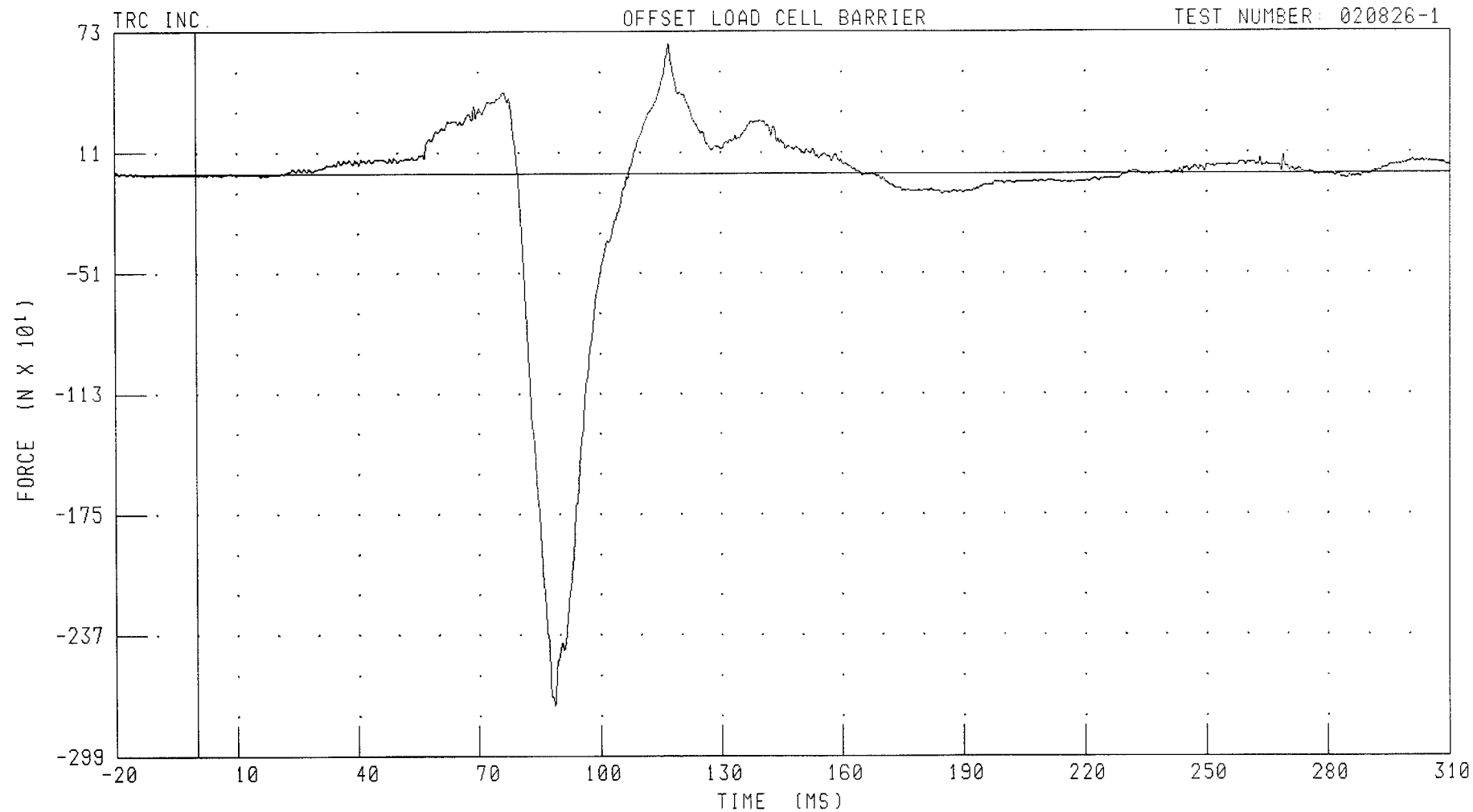
PEAK DATA: 252.45 N @ 104.96 MS; -88.03 N @ 173.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FEMUR Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMZFI FILTER: CH. CLASS 600

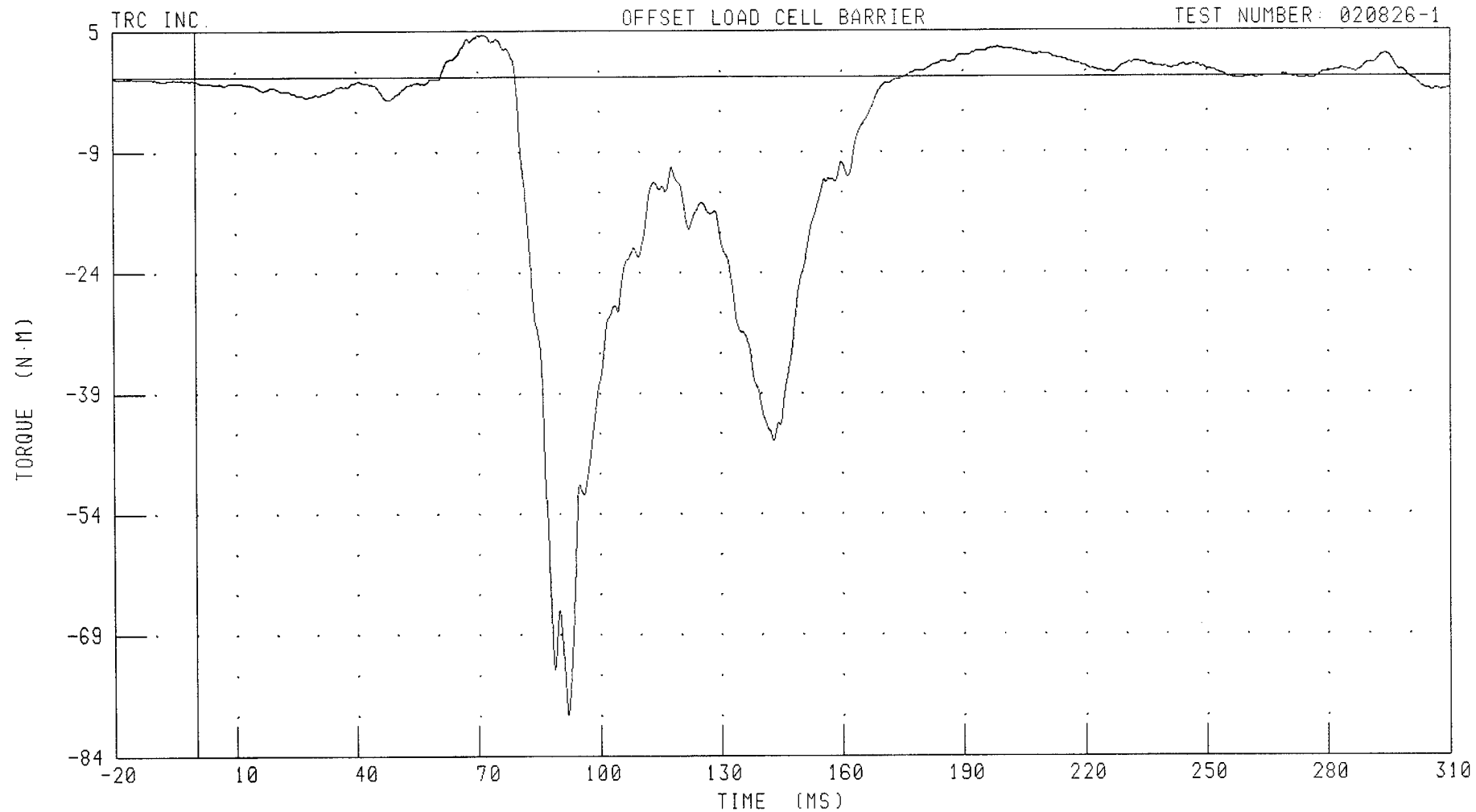
PEAK DATA: 667.99 N @ 117.20 MS; -2733.19 N @ 88.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FEMUR MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMXM1 FILTER: CH. CLASS 600

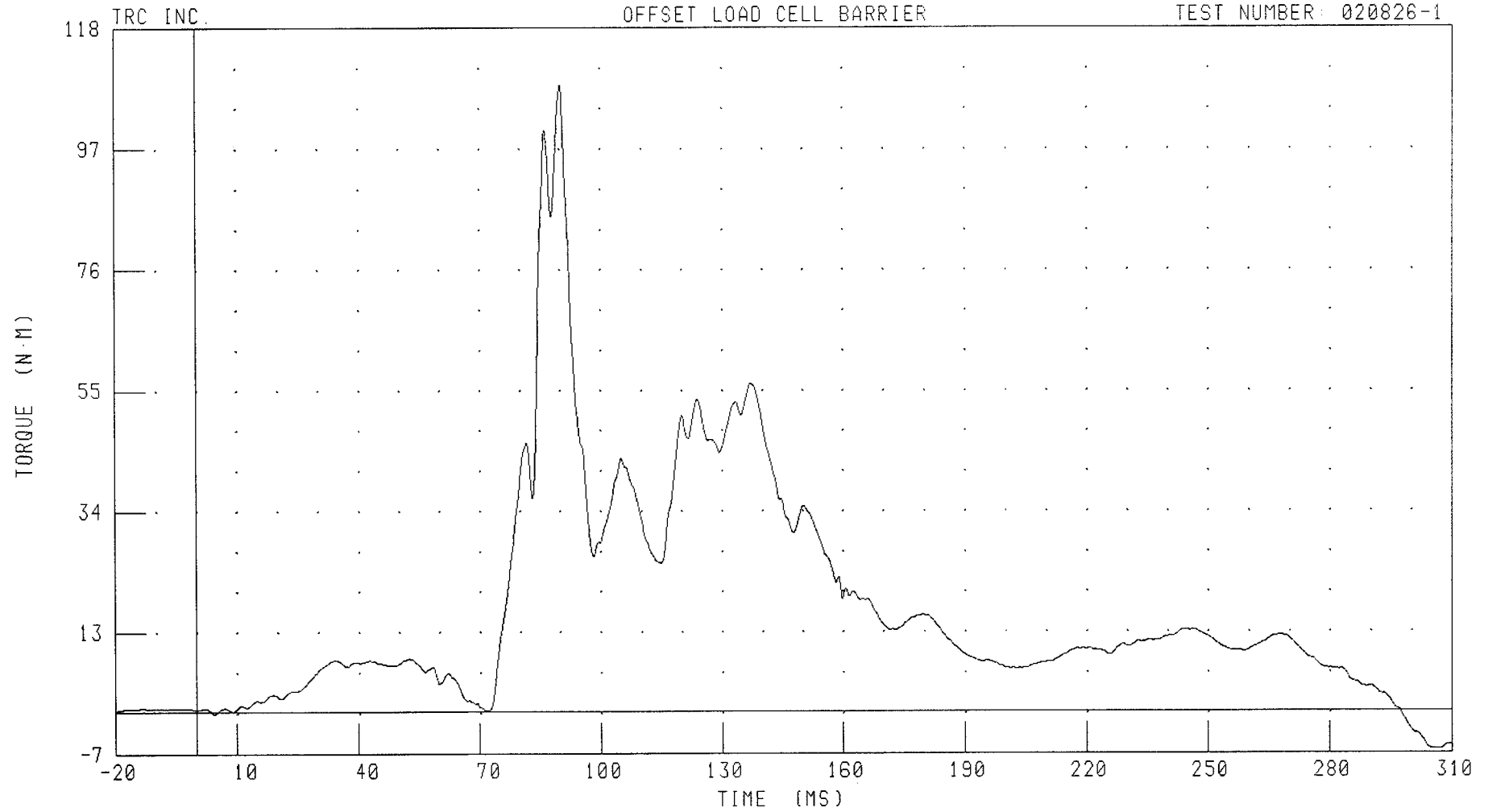
PEAK DATA: 5.22 N·m @ 70.16 MS; -79.26 N·m @ 91.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FEMUR MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



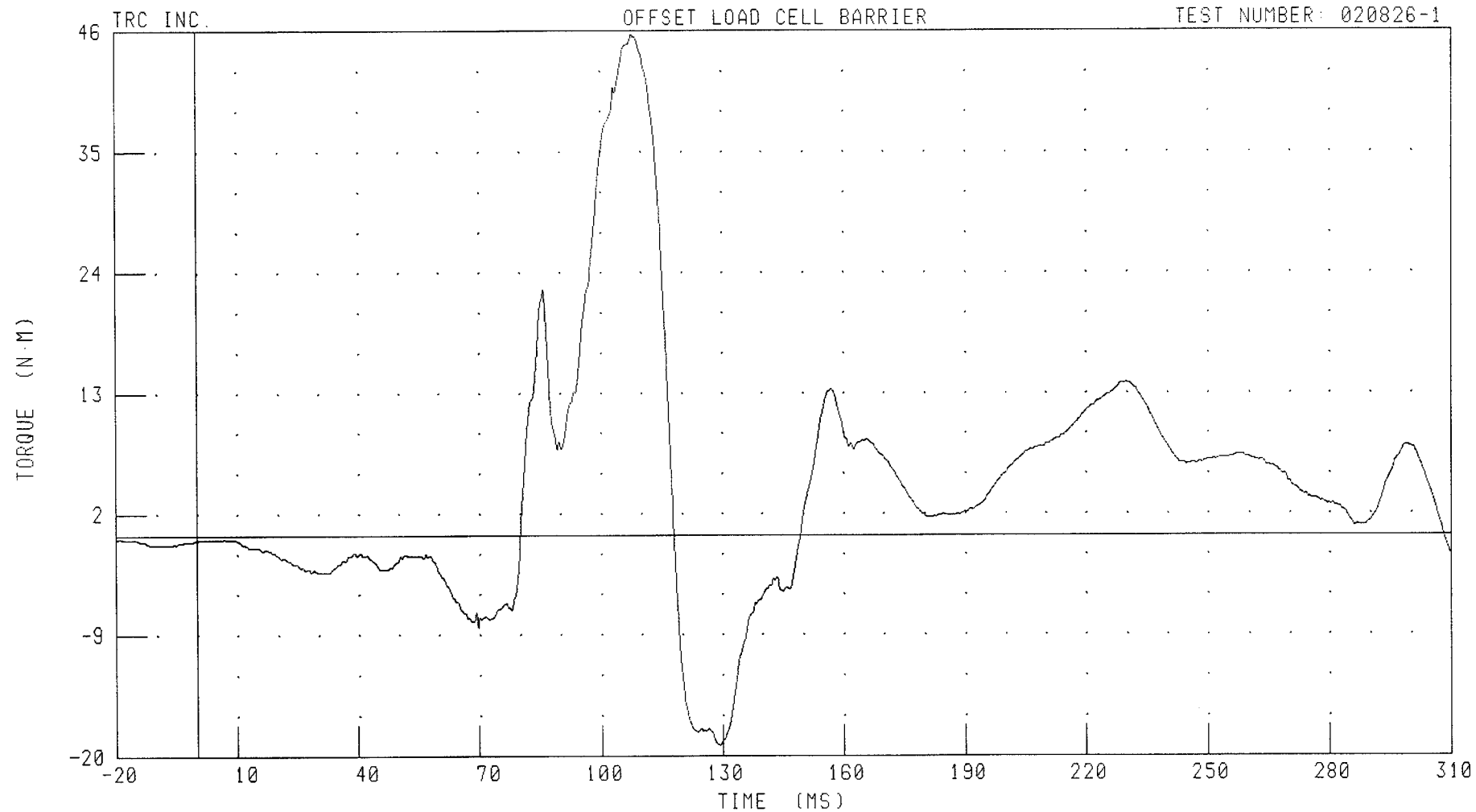
CHANNEL: RFMYM1 FILTER: CH. CLASS 600

PEAK DATA: 108.96 N·M @ 90.40 MS; -6.57 N·M @ 305.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT FEMUR MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMZM1 FILTER: CH. CLASS 600

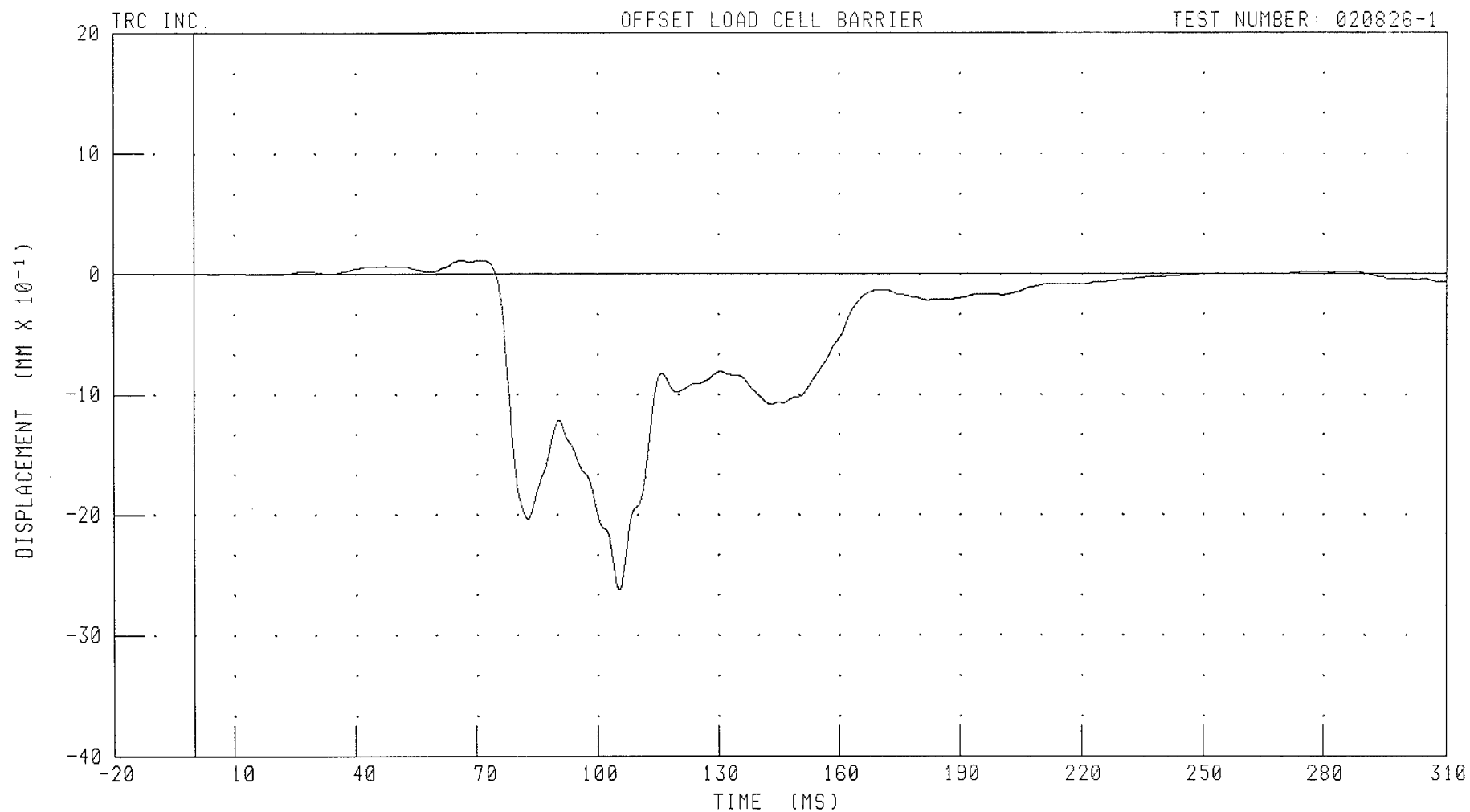
PEAK DATA: 45.64 N·M @ 107.92 MS; -19.06 N·M @ 129.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT TIBIA TO FEMUR DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: KNLXD1 FILTER: CH. CLASS 180

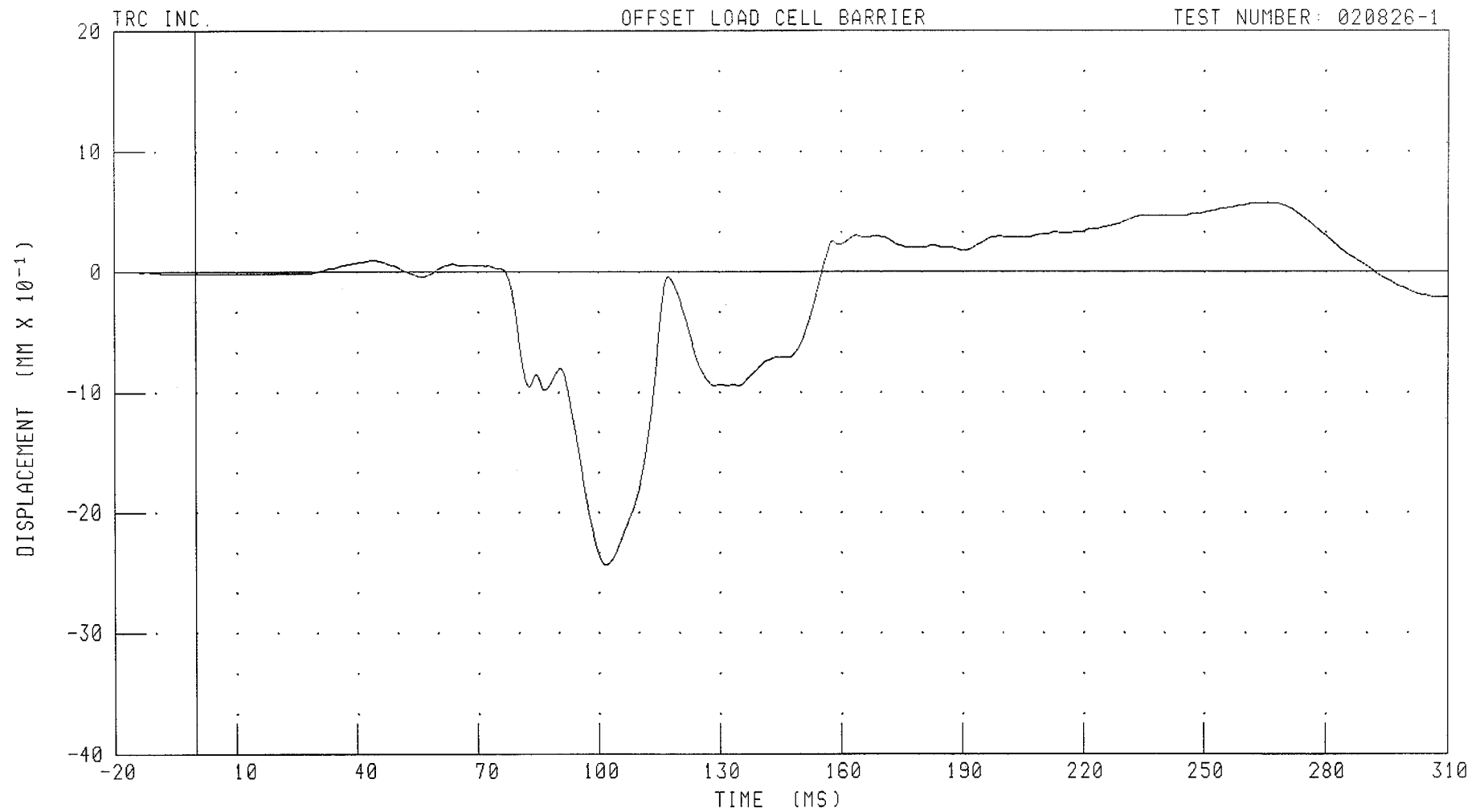
PEAK DATA: 0.11 MM @ 66.32 MS; -2.62 MM @ 105.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT TIBIA TO FEMUR DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: KNRXD1 FILTER: CH. CLASS 180

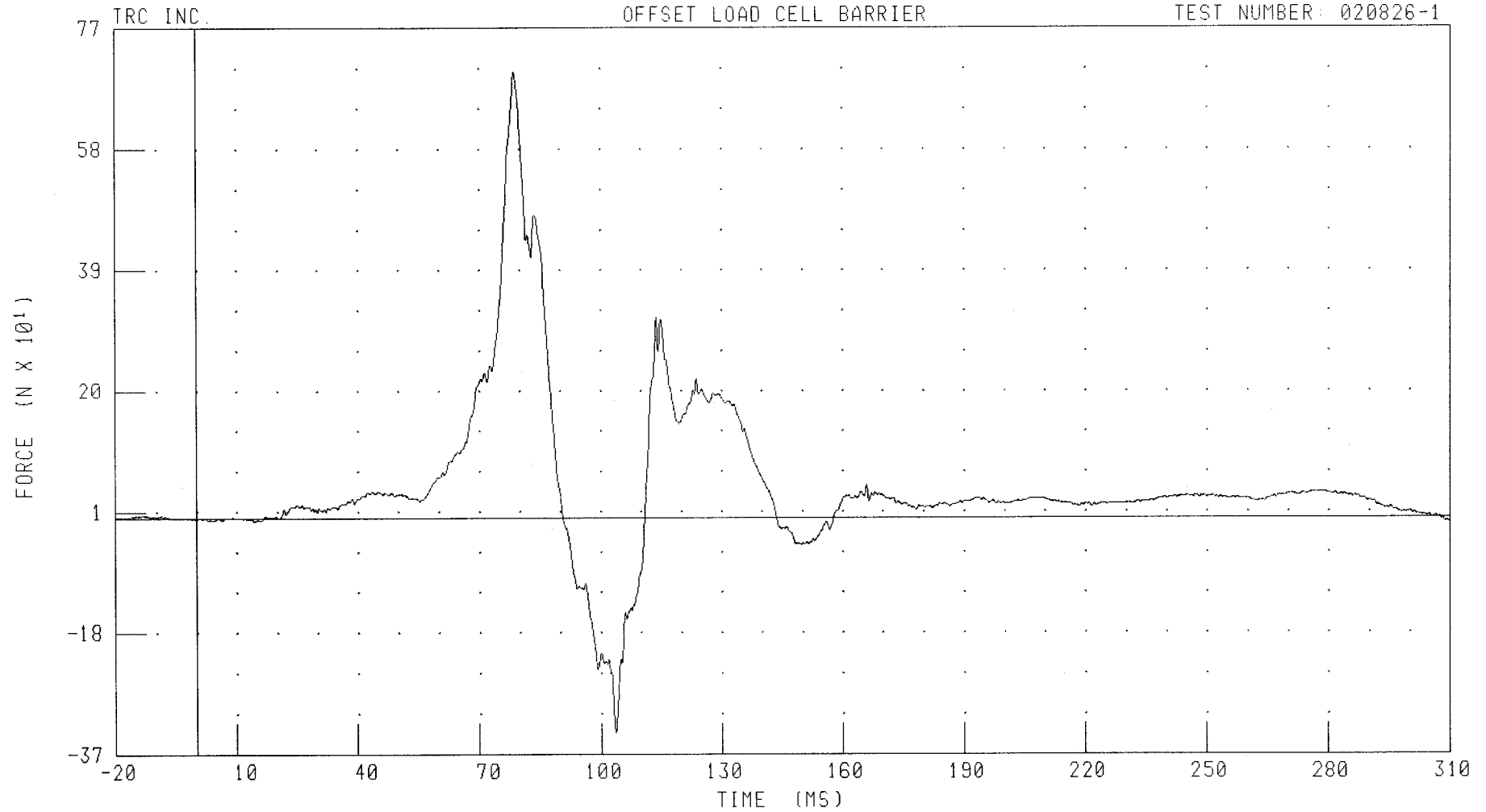
PEAK DATA: 0.58 MM @ 265.76 MS; -2.43 MM @ 101.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT UPPER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



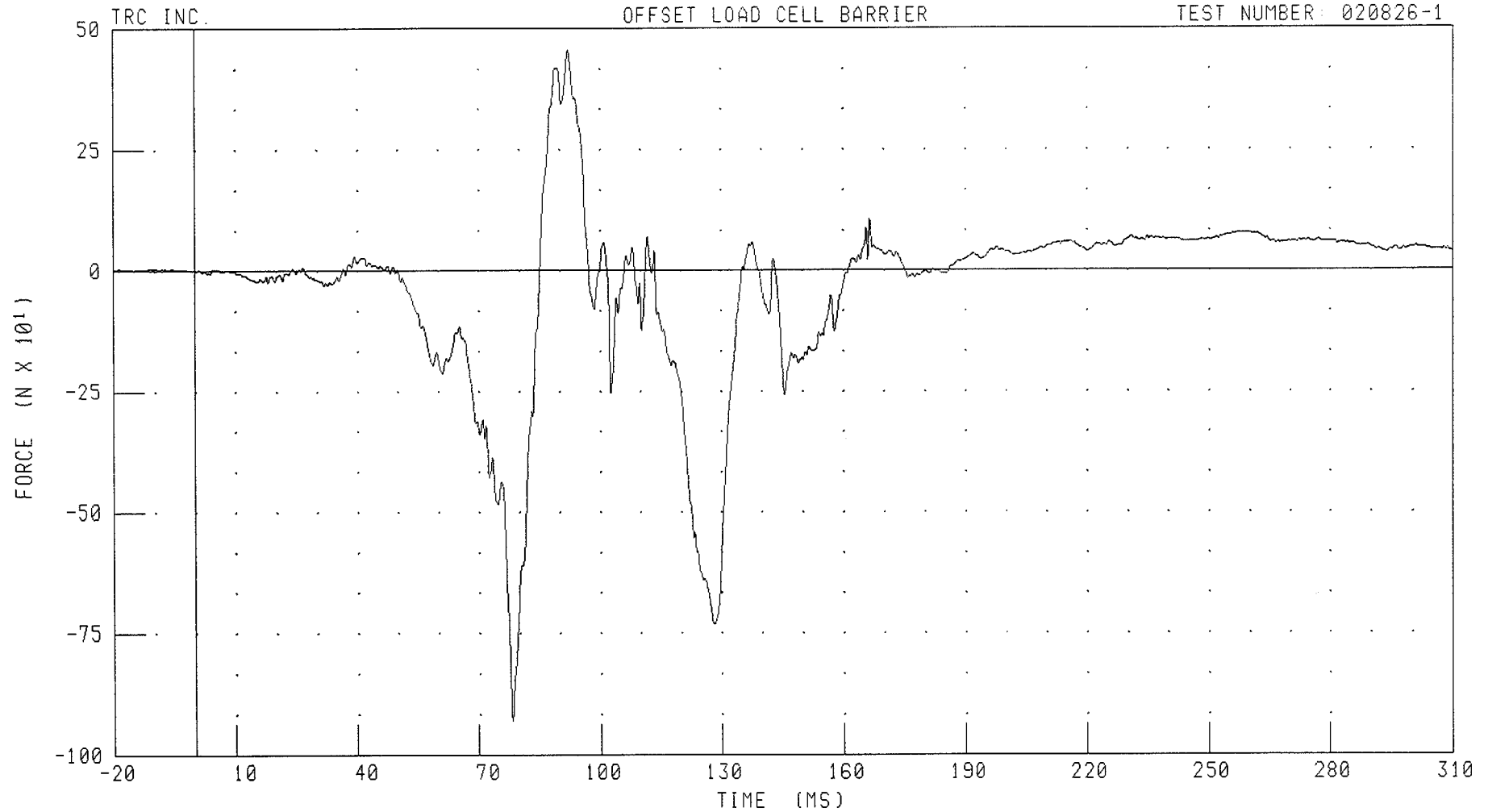
CHANNEL: TBLXF1 FILTER: CH. CLASS 600

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT UPPER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLZF1 FILTER: CH. CLASS 600

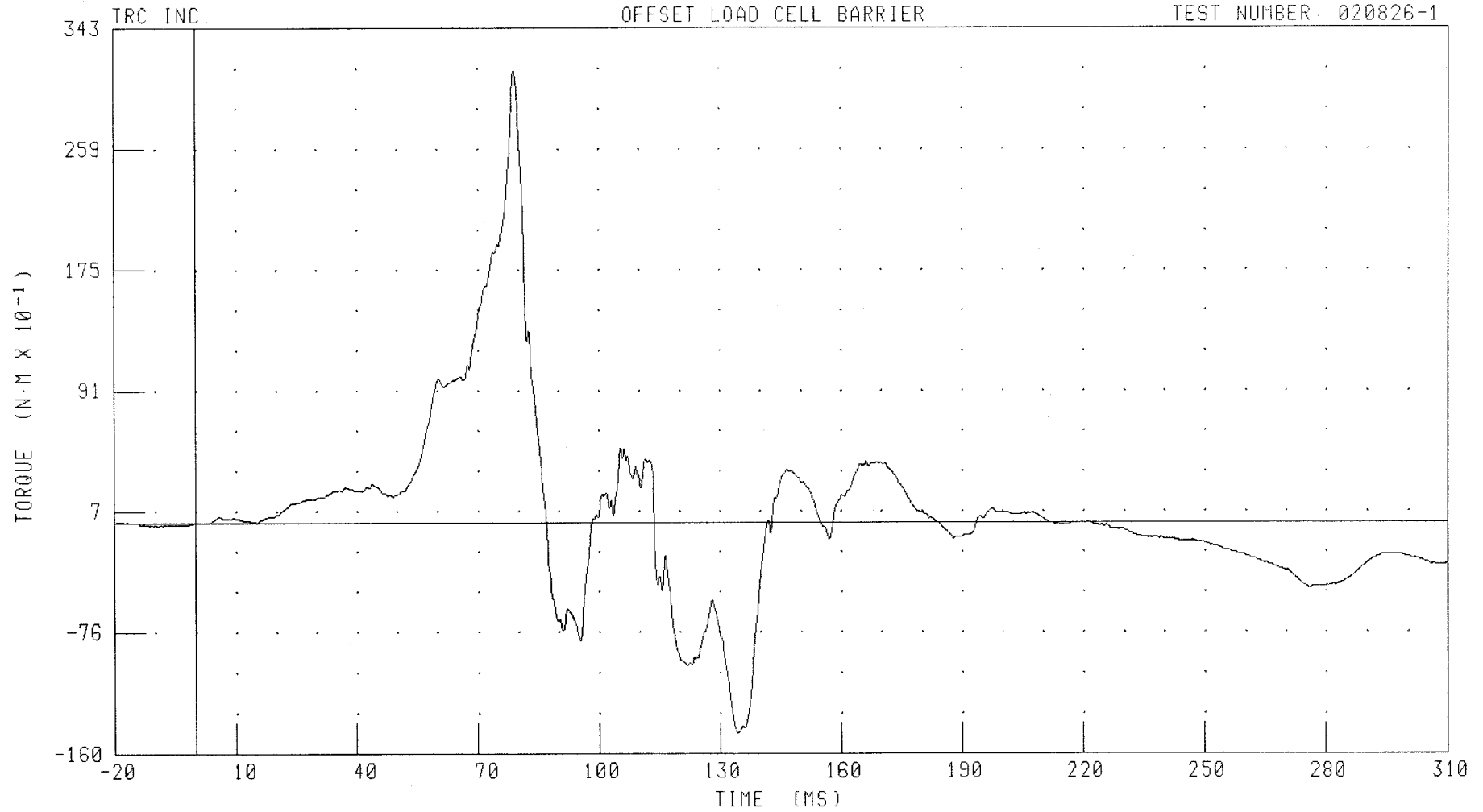
PEAK DATA: 455.17 N @ 92.24 MS; -930.80 N @ 78.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT UPPER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



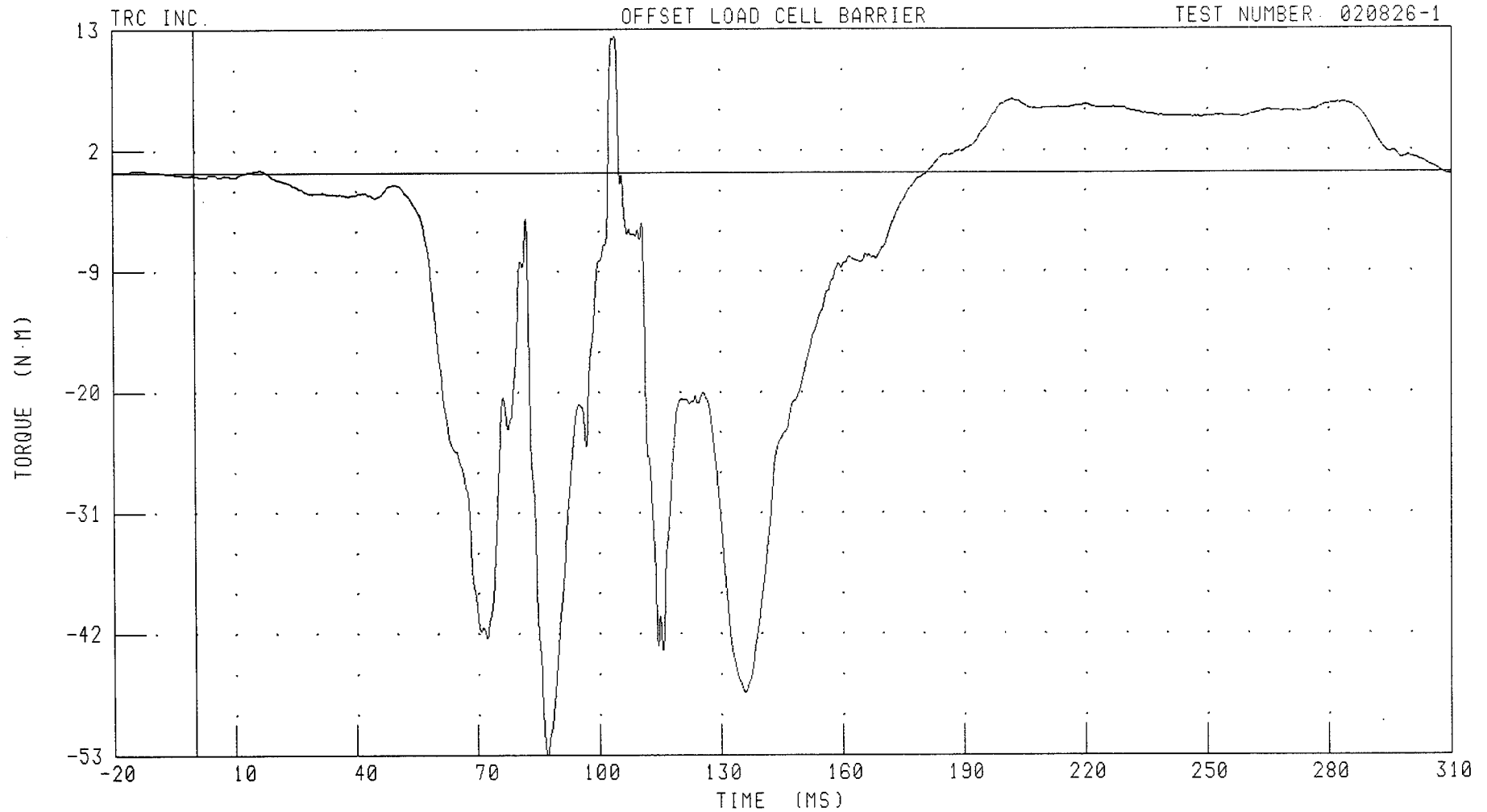
CHANNEL: TBLXM1 FILTER: CH. CLASS 600

PEAK DATA: 31.44 N·M @ 79.12 MS; -14.60 N·M @ 134.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



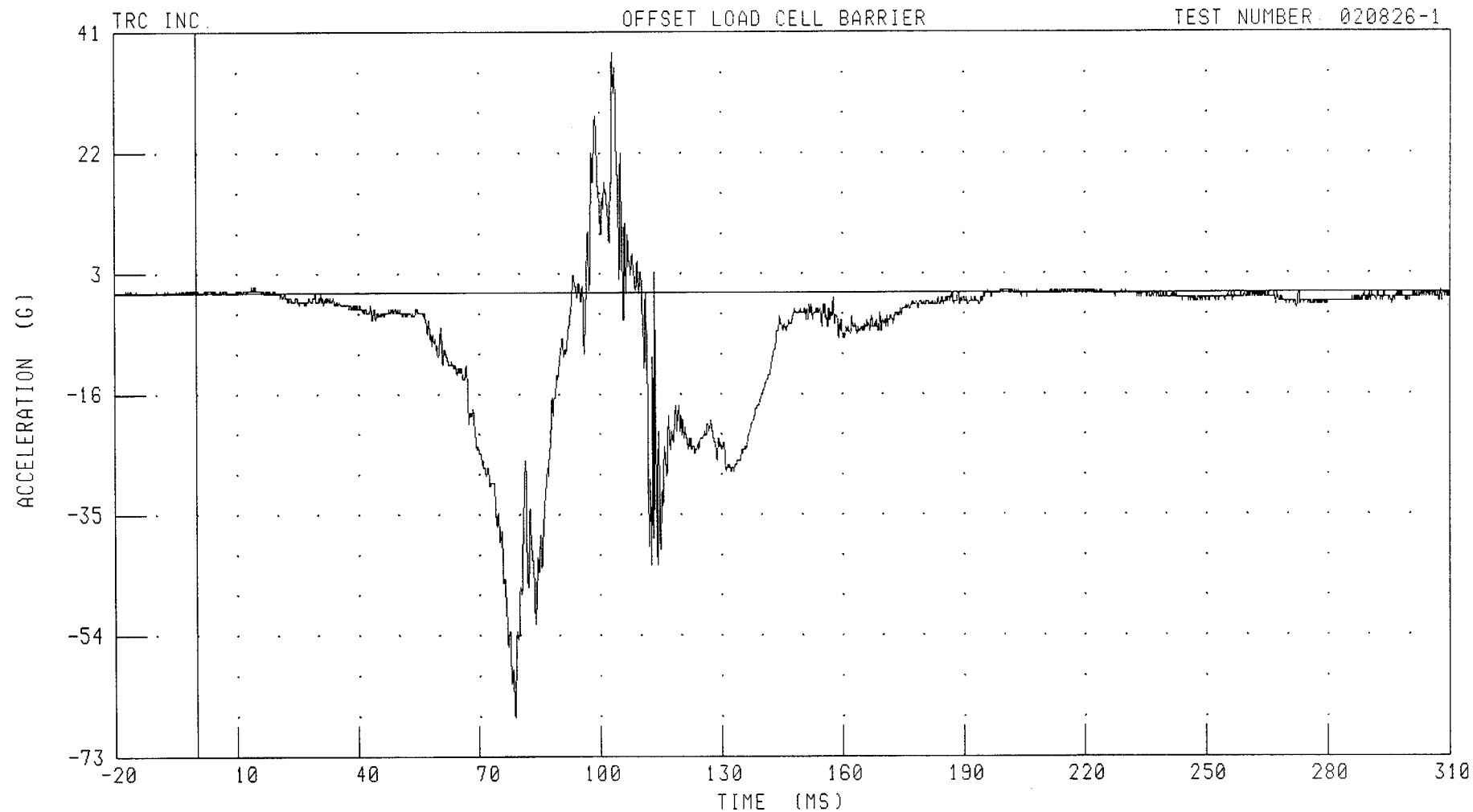
CHANNEL: TBLYM1 FILTER: CH. CLASS 600

PEAK DATA: 12.37 N·M @ 104.16 MS; -53.01 N·M @ 87.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT TIBIA X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLXG1 FILTER: CH. CLASS 1000

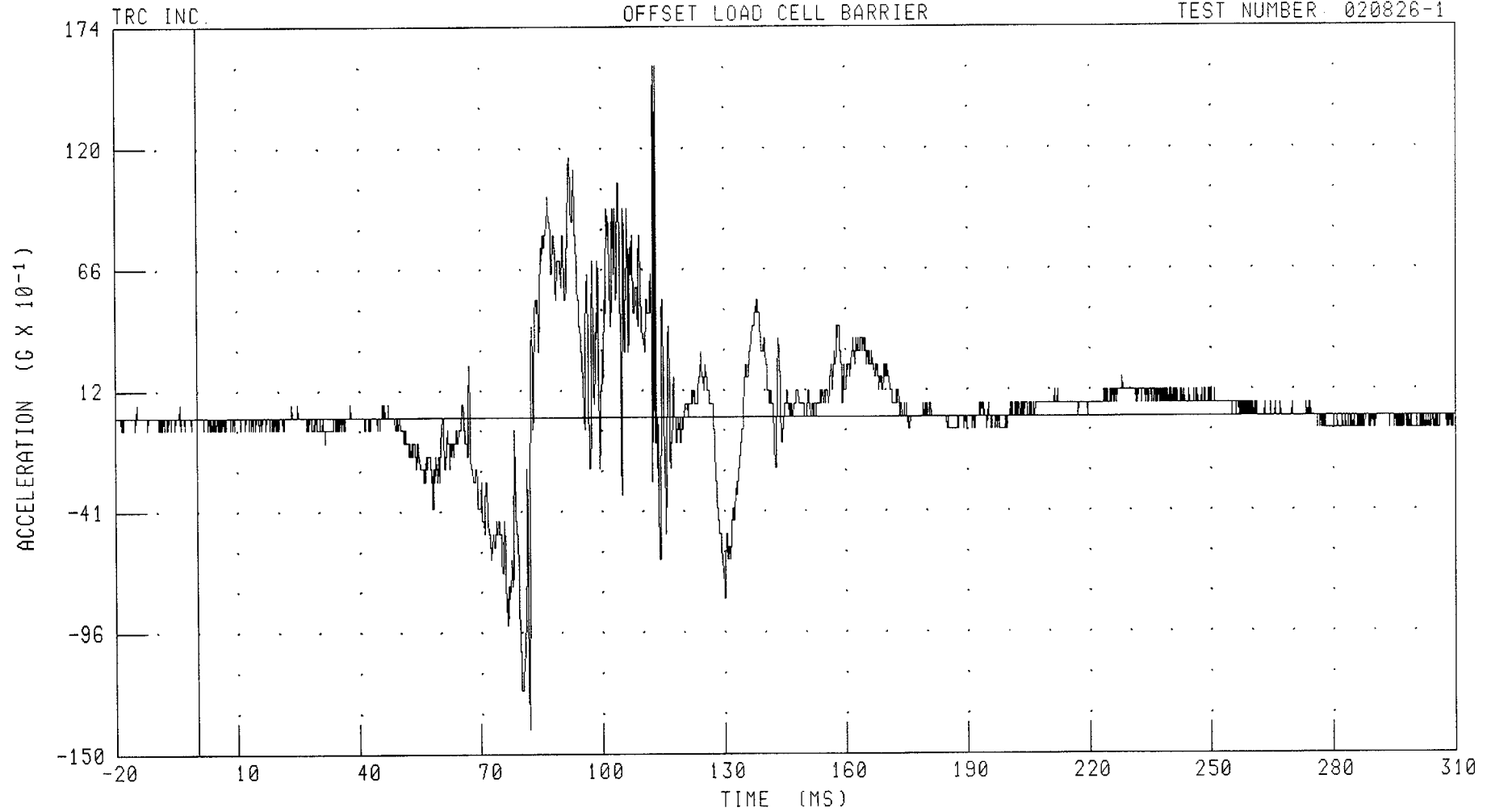
PEAK DATA: 37.78 G @ 103.36 MS; -66.88 G @ 78.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT TIBIA Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLYG1 FILTER: CH. CLASS 1000

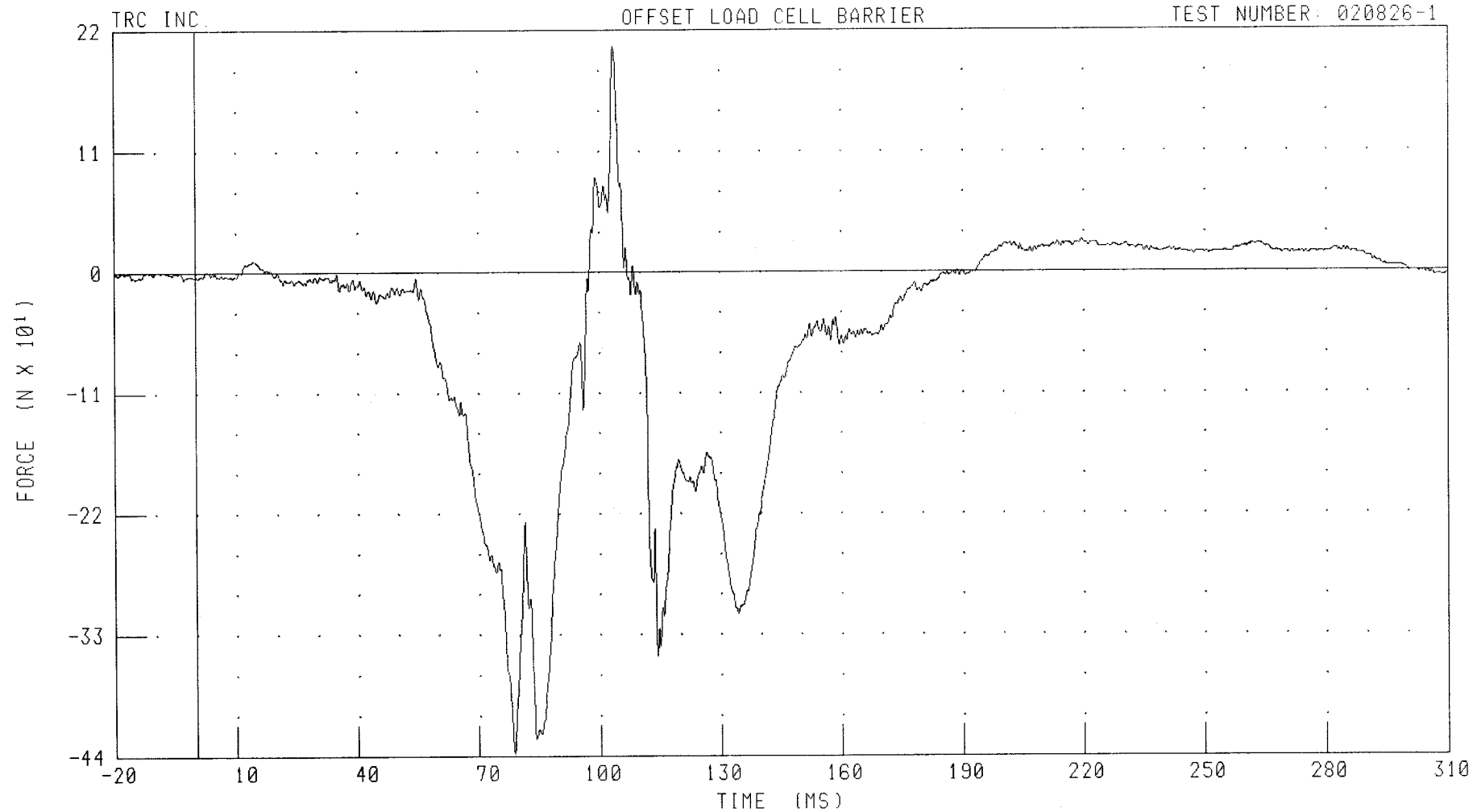
PEAK DATA: 15.69 G @ 112.96 MS; -13.93 G @ 82.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT LOWER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANLXF1 FILTER: CH. CLASS 600

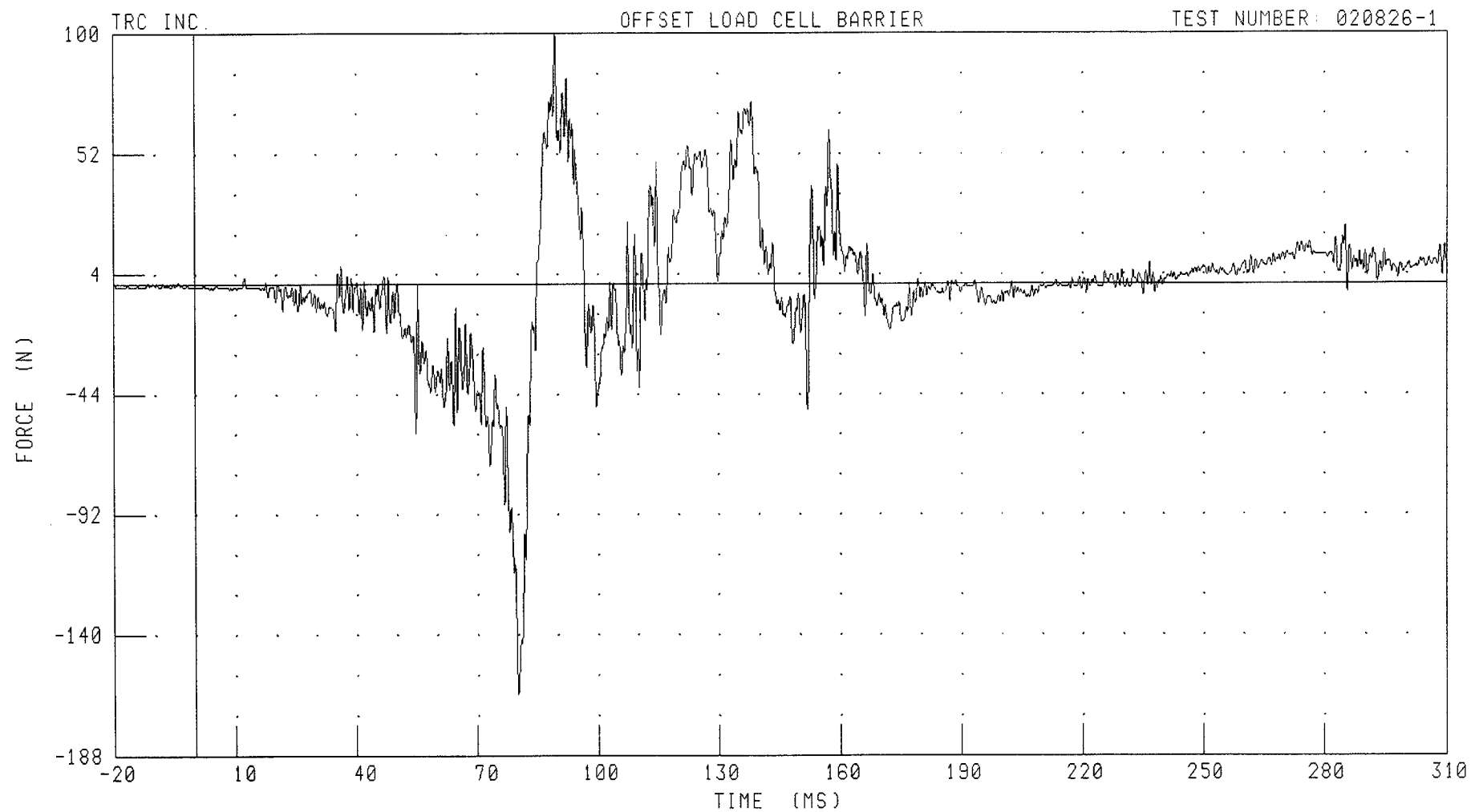
PEAK DATA: 205.00 N @ 103.68 MS; -437.49 N @ 78.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT LOWER TIBIA Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANLYF1 FILTER: CH. CLASS 600

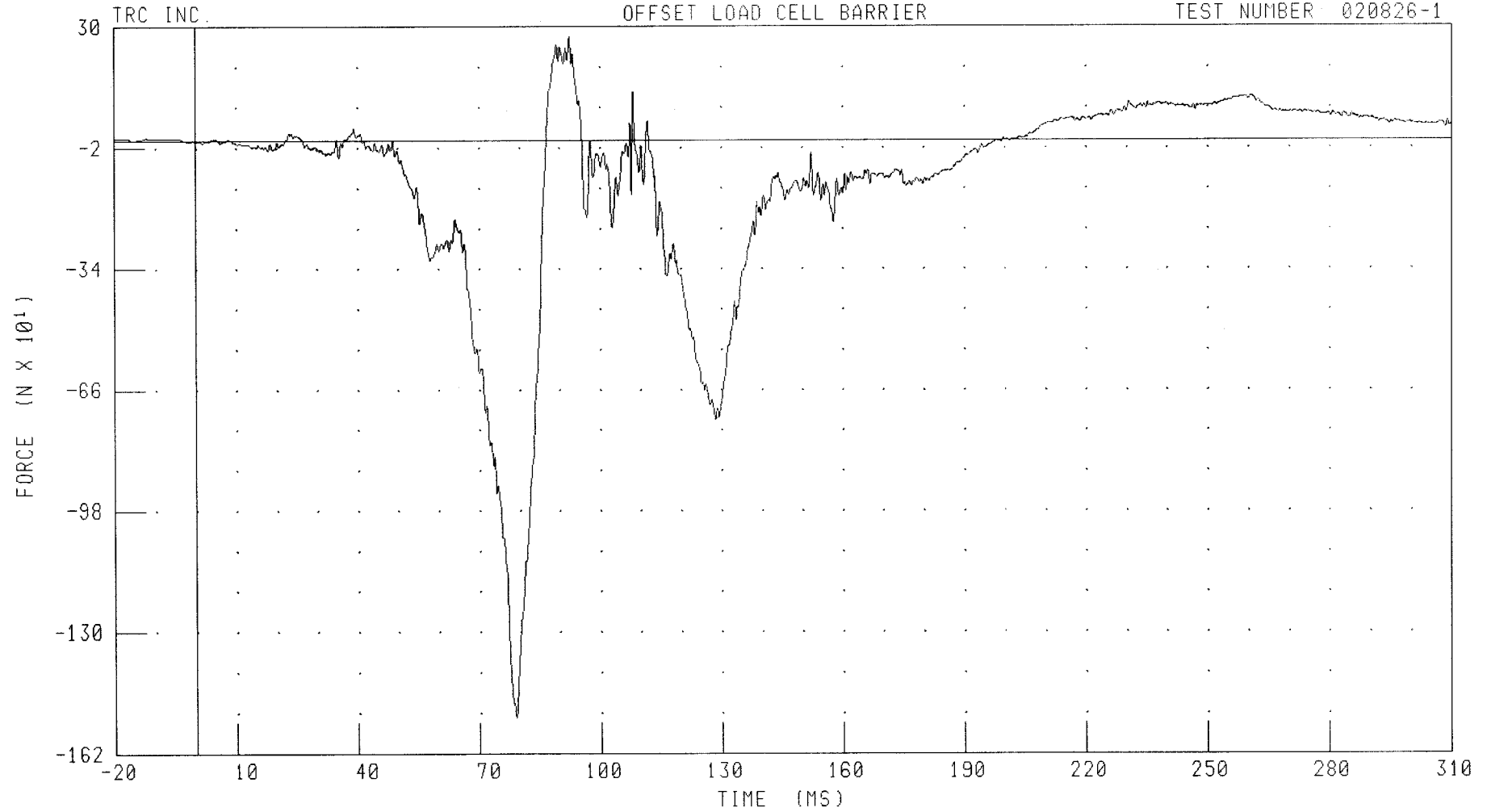
PEAK DATA: 99.85 N @ 89.52 MS; -163.69 N @ 80.16 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT LOWER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



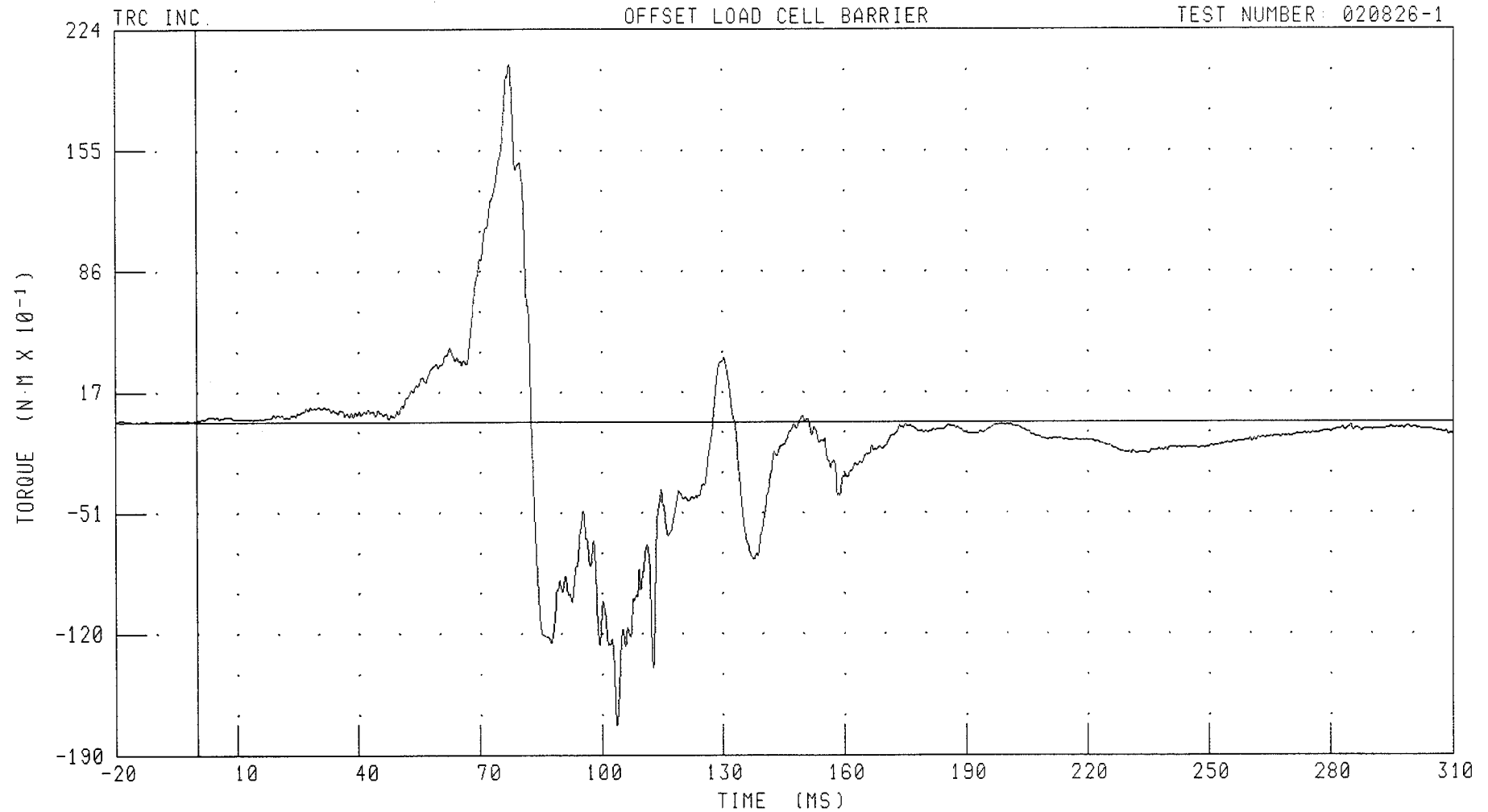
CHANNEL: ANLZF1 FILTER: CH. CLASS 600

PEAK DATA: 273.69 N @ 92.64 MS; -1524.65 N @ 79.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT LOWER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANLXM1 FILTER: CH. CLASS 600

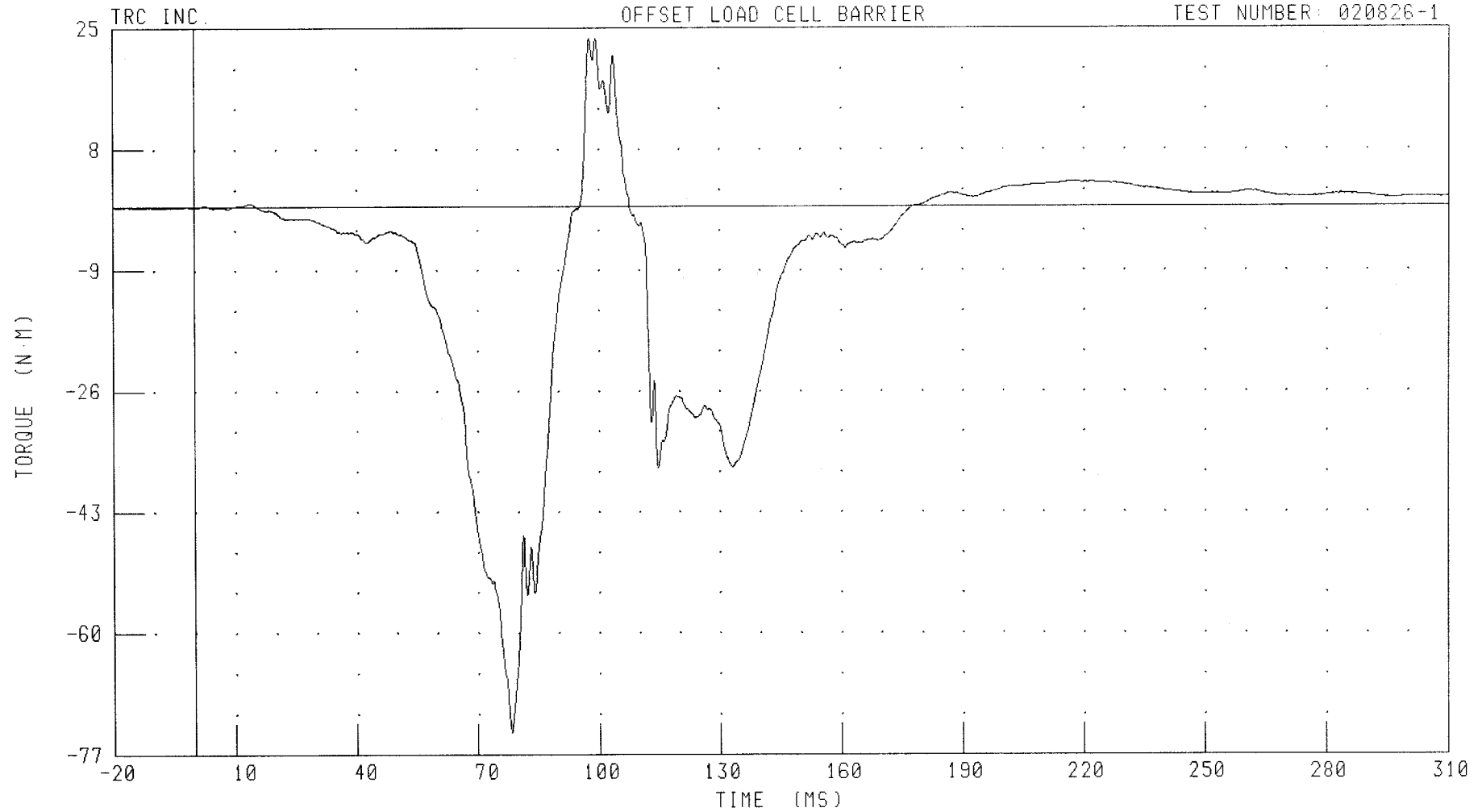
PEAK DATA: 20.44 N·M @ 77.52 MS; -17.29 N·M @ 103.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



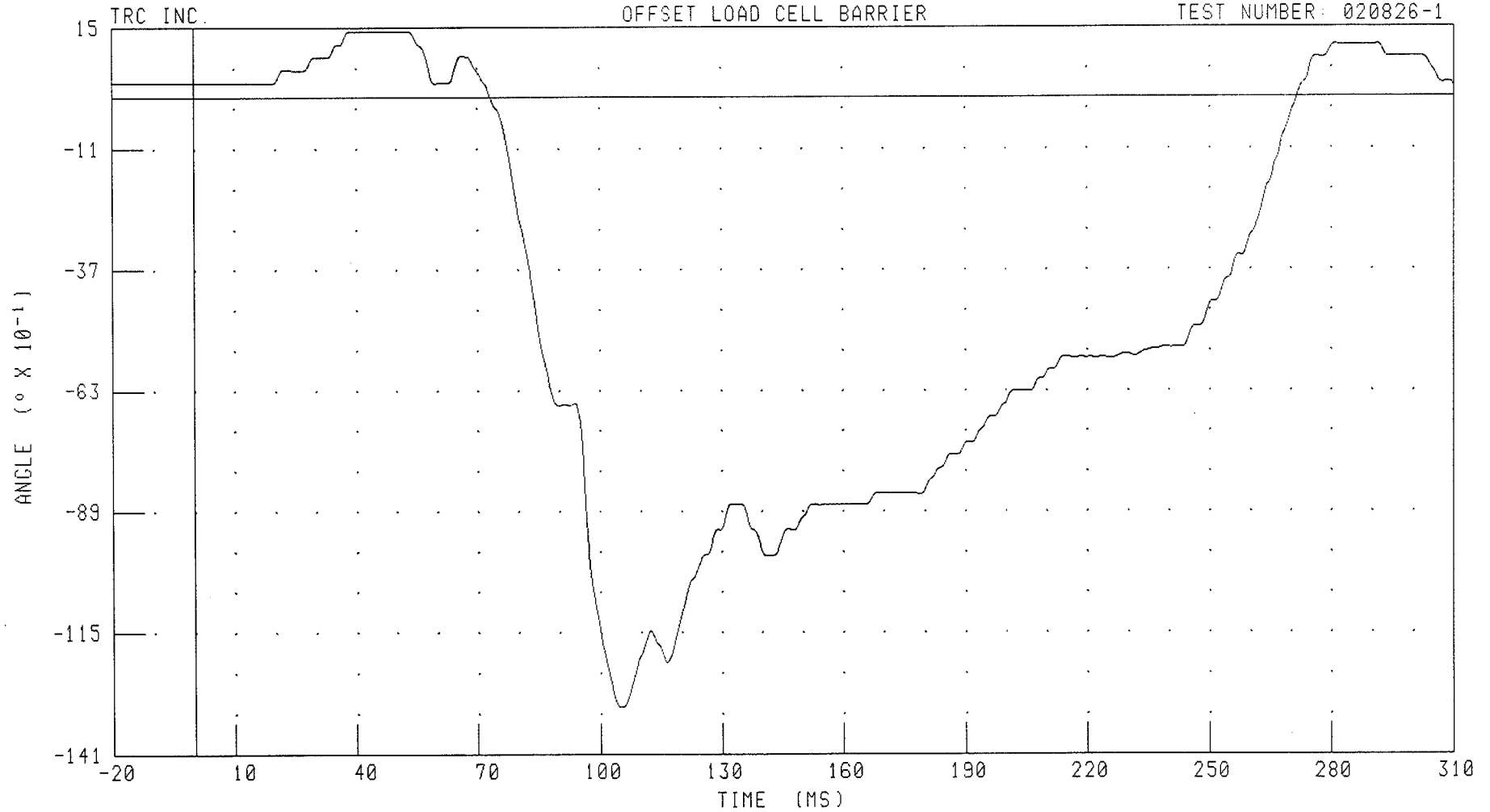
CHANNEL: ANLYM1 FILTER: CH. CLASS 600

PEAK DATA: 23.62 N·M @ 97.84 MS; -73.95 N·M @ 78.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT FOOT TO ANKLE X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLXD1 FILTER: CH. CLASS 180

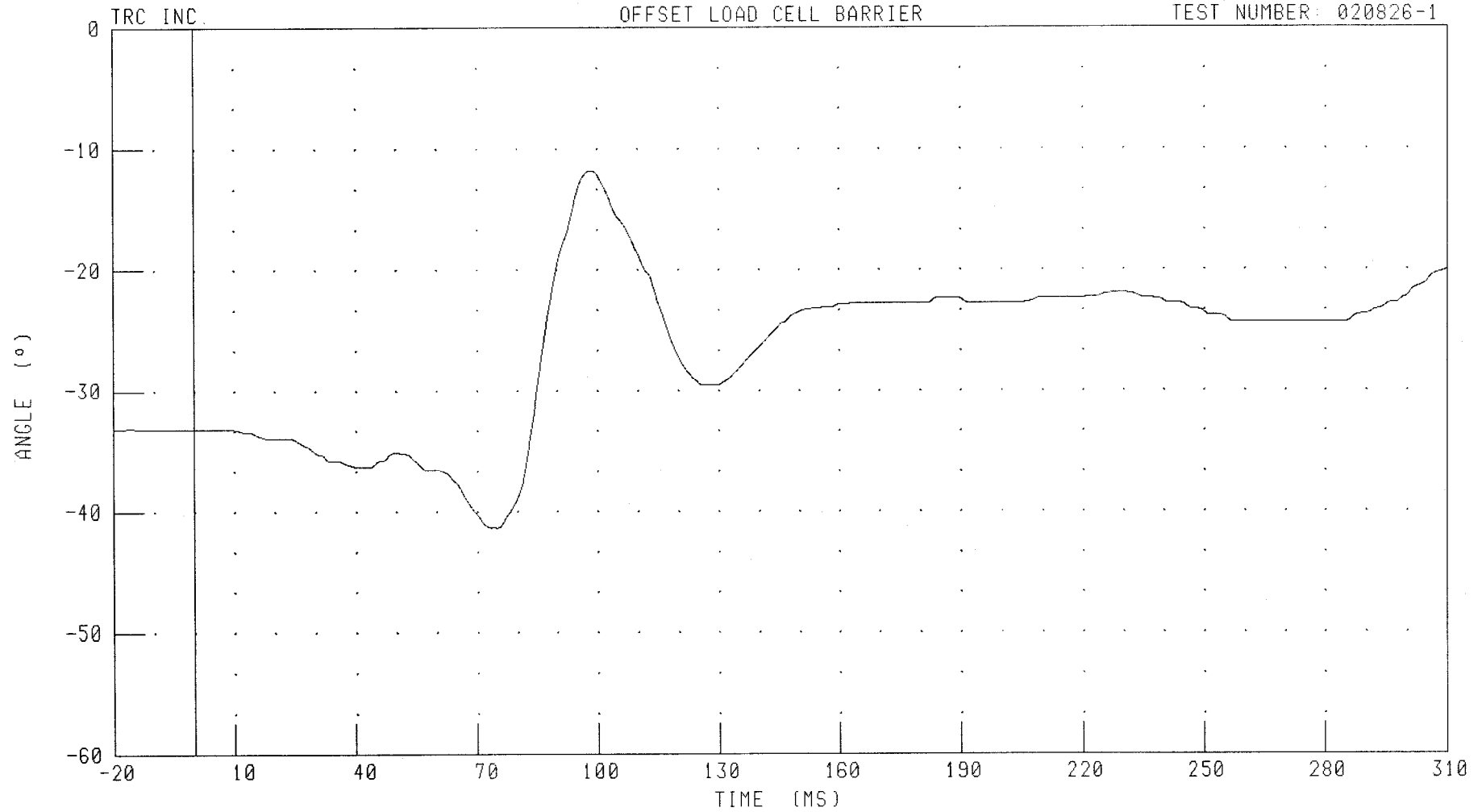
PEAK DATA: 1.42 $^{\circ}$ @ 38.64 MS; -13.10 $^{\circ}$ @ 105.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FOOT TO ANKLE Y-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



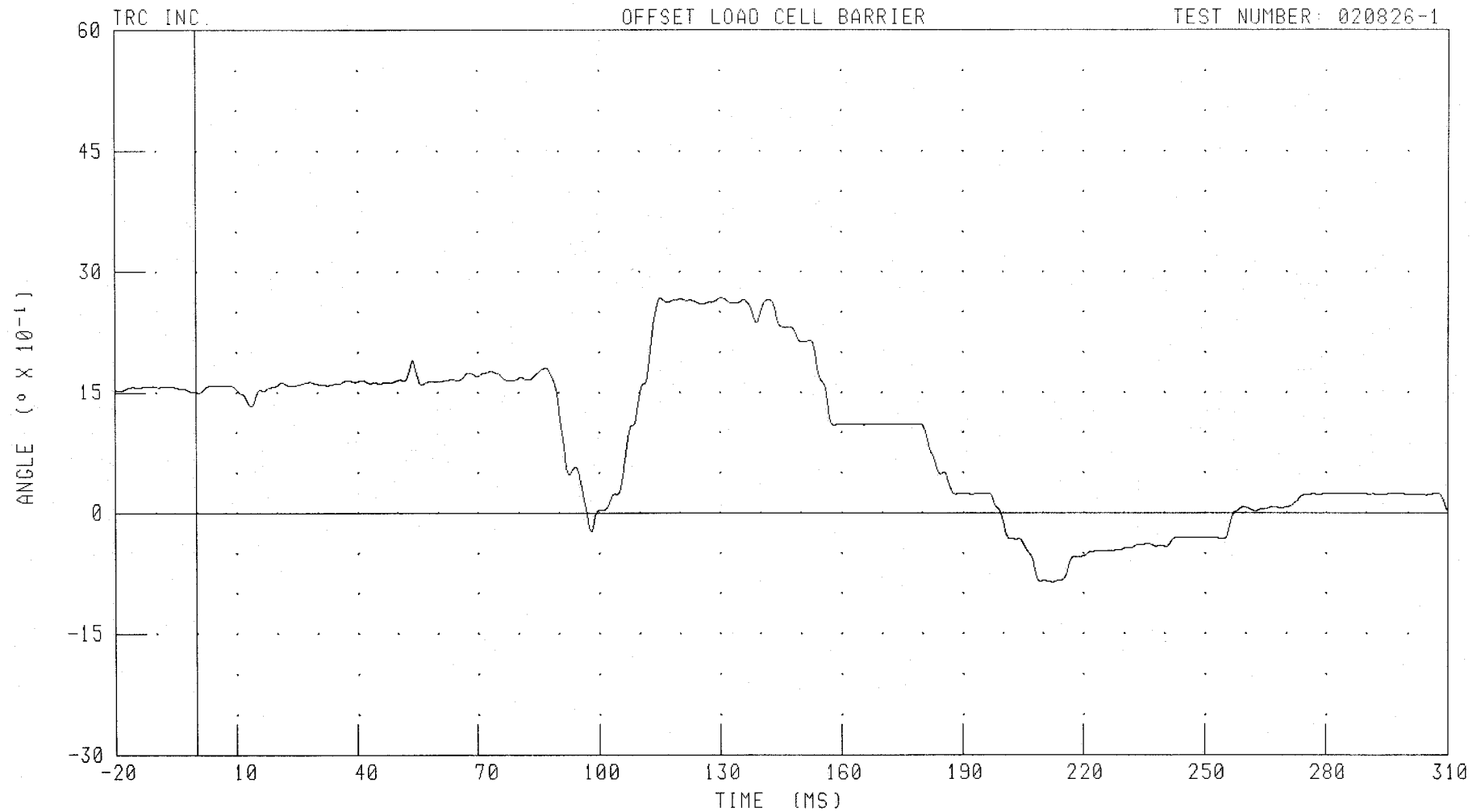
CHANNEL: FTLYD1 FILTER: CH. CLASS 180

PEAK DATA: -11.83 ° @ 98.64 MS; -41.35 ° @ 75.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT FOOT TO ANKLE Z-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLZD1 FILTER: CH. CLASS 180

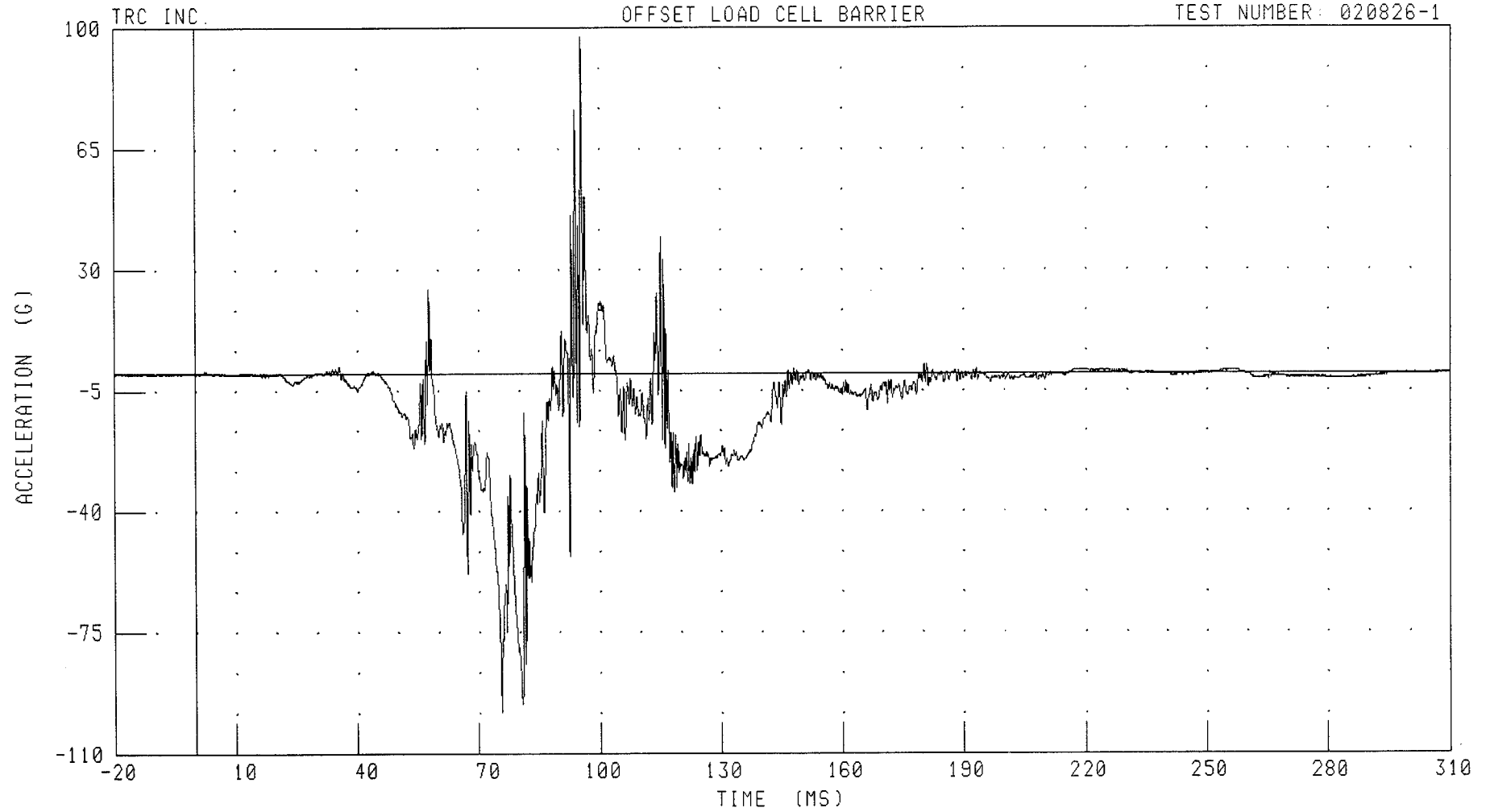
PEAK DATA: 2.67 $^{\circ}$ @ 130.40 MS; -0.86 $^{\circ}$ @ 212.56 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FOOT X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLXG1 FILTER: CH. CLASS 1000

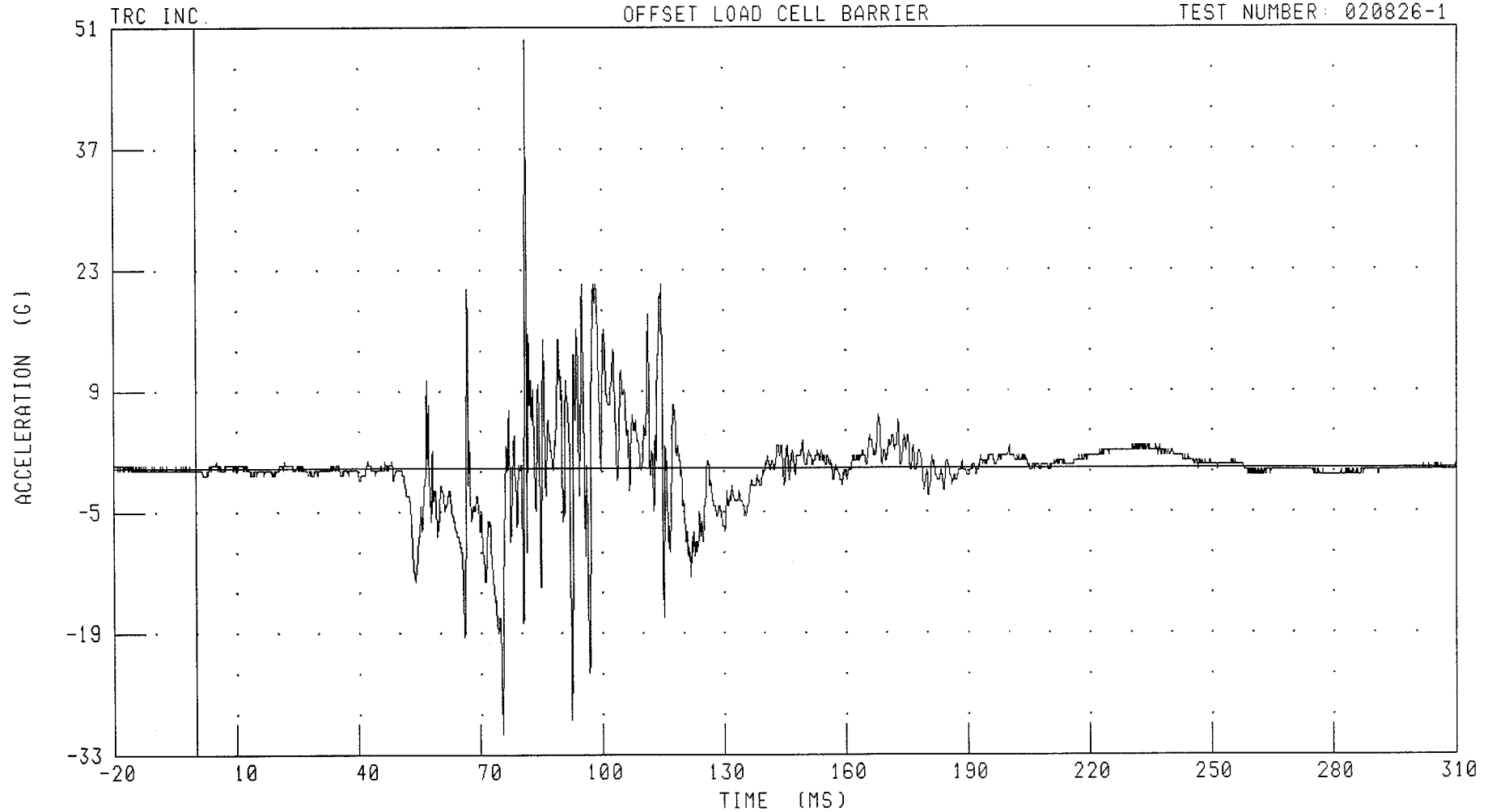
PEAK DATA: 97.28 G @ 95.60 MS; -98.11 G @ 75.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FOOT Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLYG1 FILTER: CH. CLASS 1000

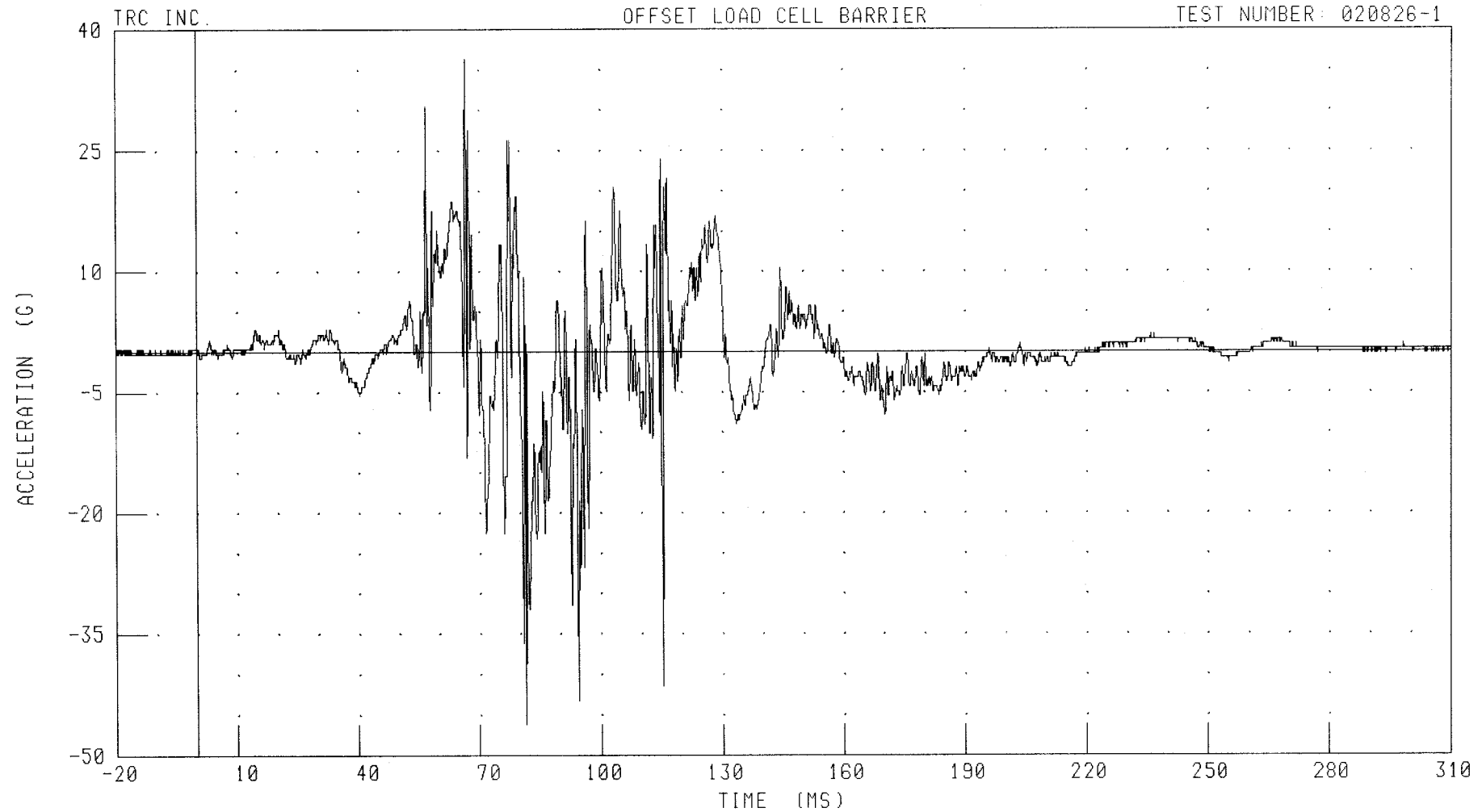
PEAK DATA: 49.55 G @ 81.28 MS; -30.68 G @ 75.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LEFT FOOT Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



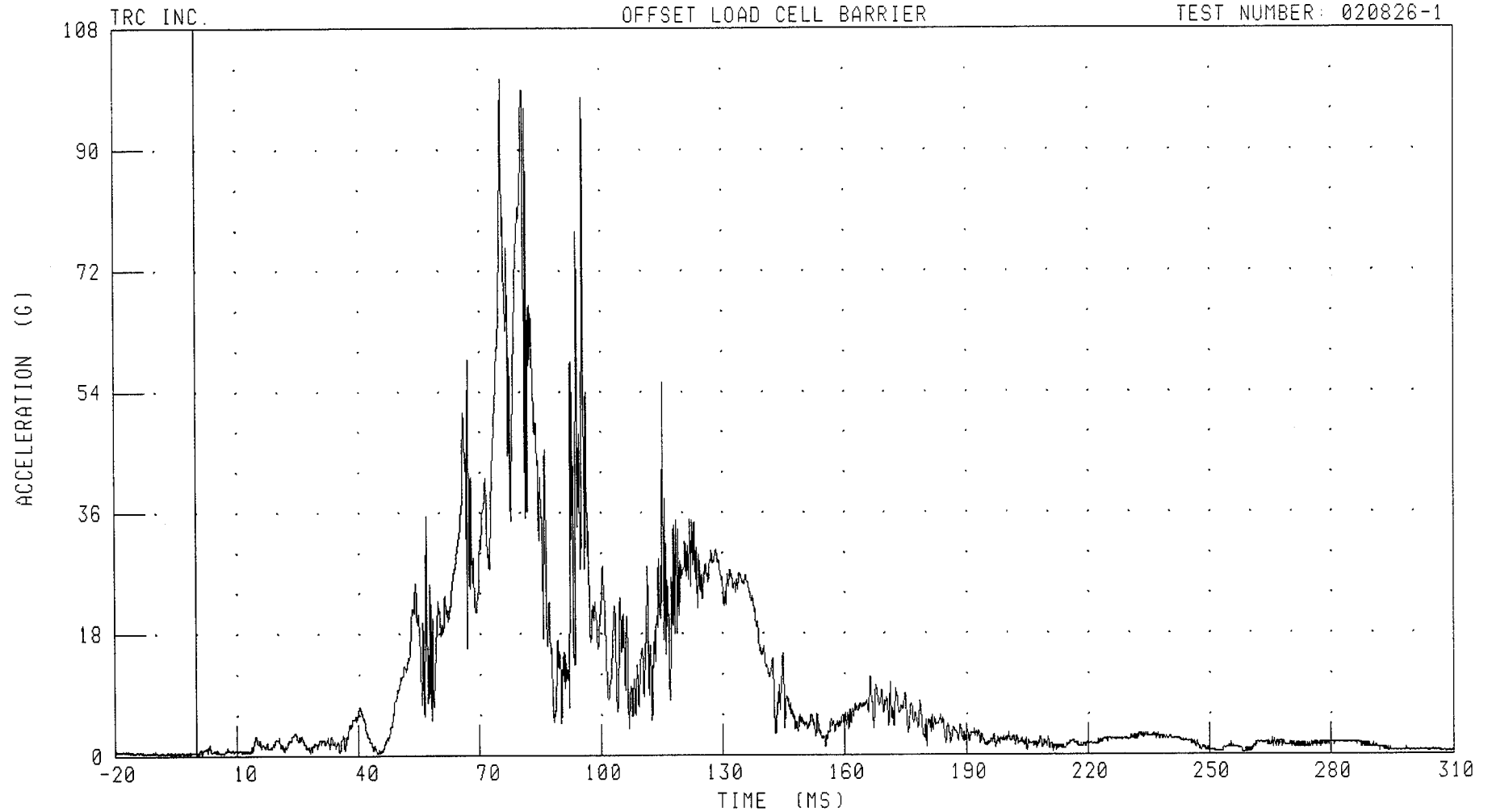
CHANNEL: FTLZG1 FILTER: CH. CLASS 1000

PEAK DATA: 36.39 G @ 66.80 MS; -46.17 G @ 81.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER LEFT FOOT RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLRG1 FILTER: CH. CLASS 1000

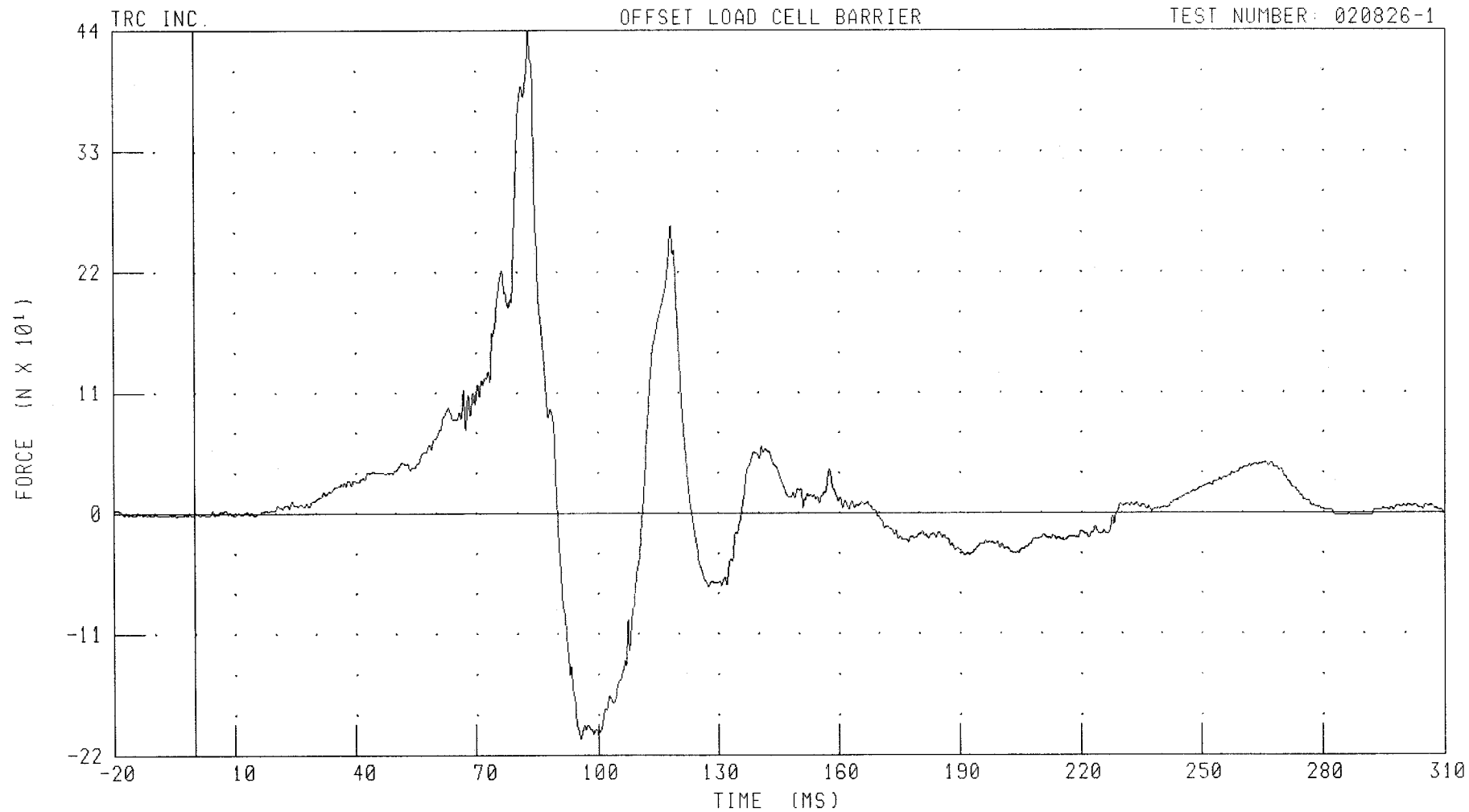
PEAK DATA: 100.50 G @ 75.68 MS; 0.33 G @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT UPPER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRXF1 FILTER: CH. CLASS 600

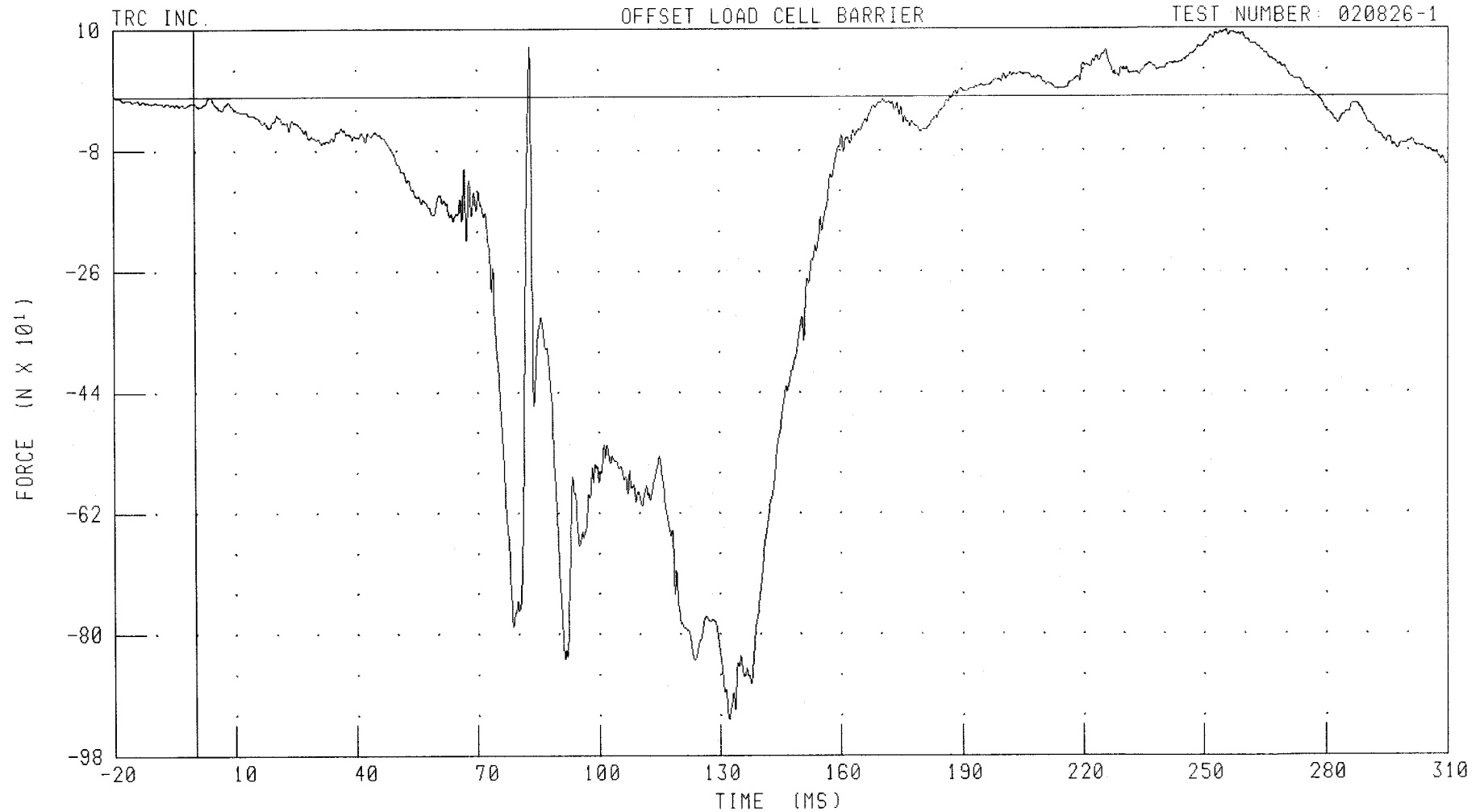
PEAK DATA: 442.63 N @ 83.04 MS; -205.04 N @ 95.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT UPPER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



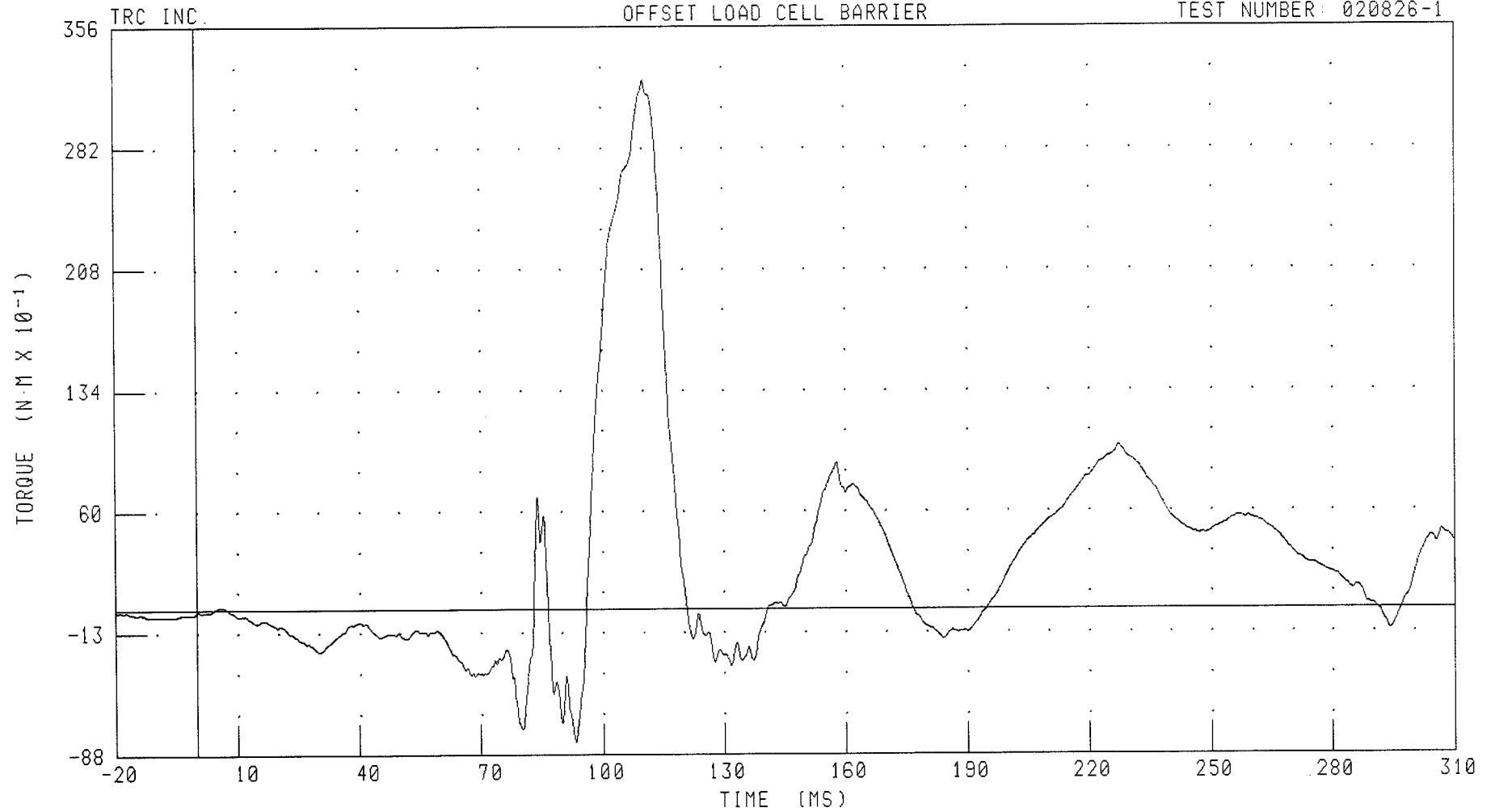
CHANNEL: TBRZF1 FILTER: CH. CLASS 600

PEAK DATA: 97.18 N @ 255.68 MS; -926.21 N @ 132.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



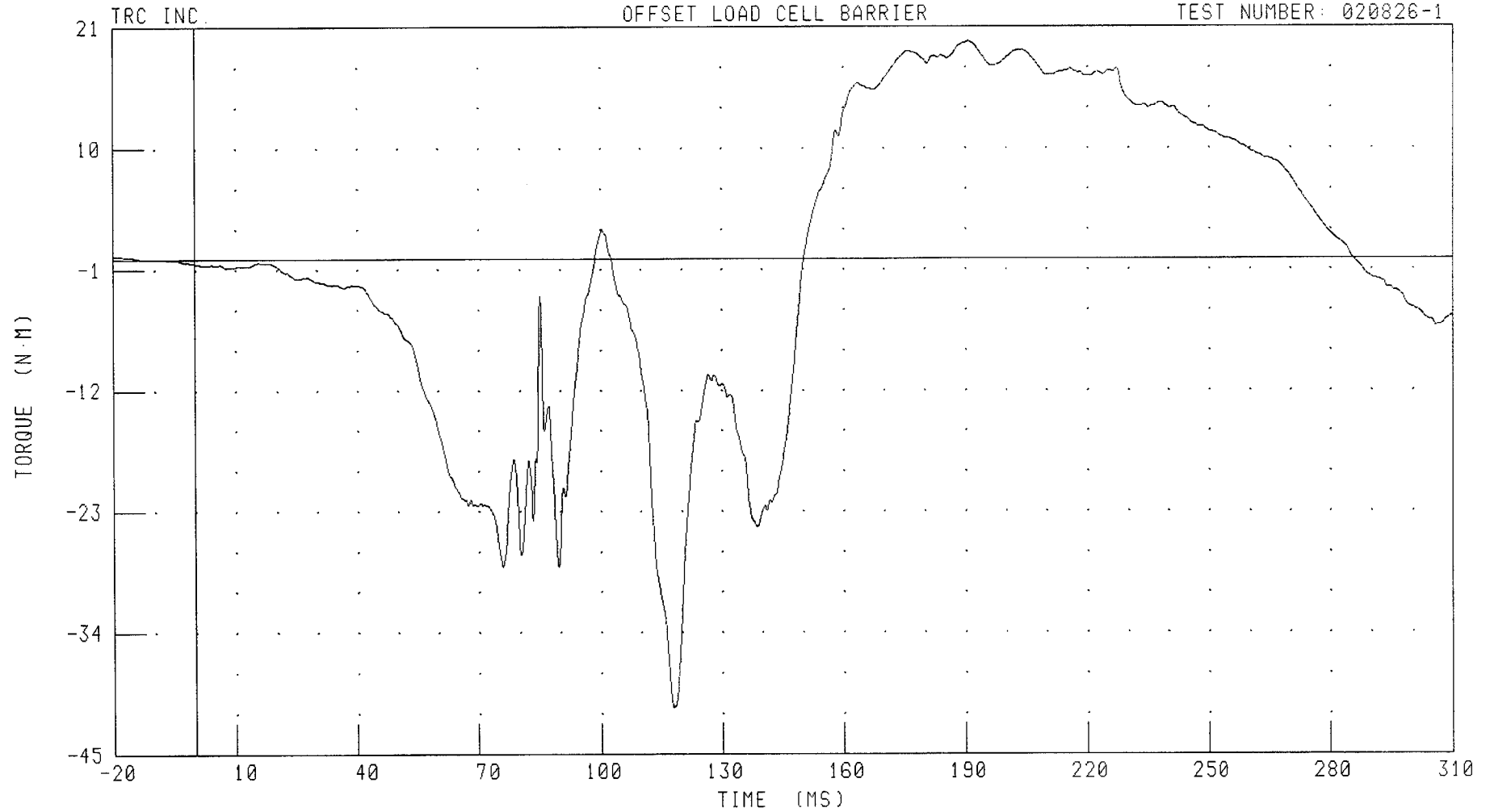
CHANNEL: TBRXM1 FILTER: CH. CLASS 600

PEAK DATA: 32.34 N·M @ 110.48 MS; -8.03 N·M @ 93.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRYM1 FILTER: CH. CLASS 600

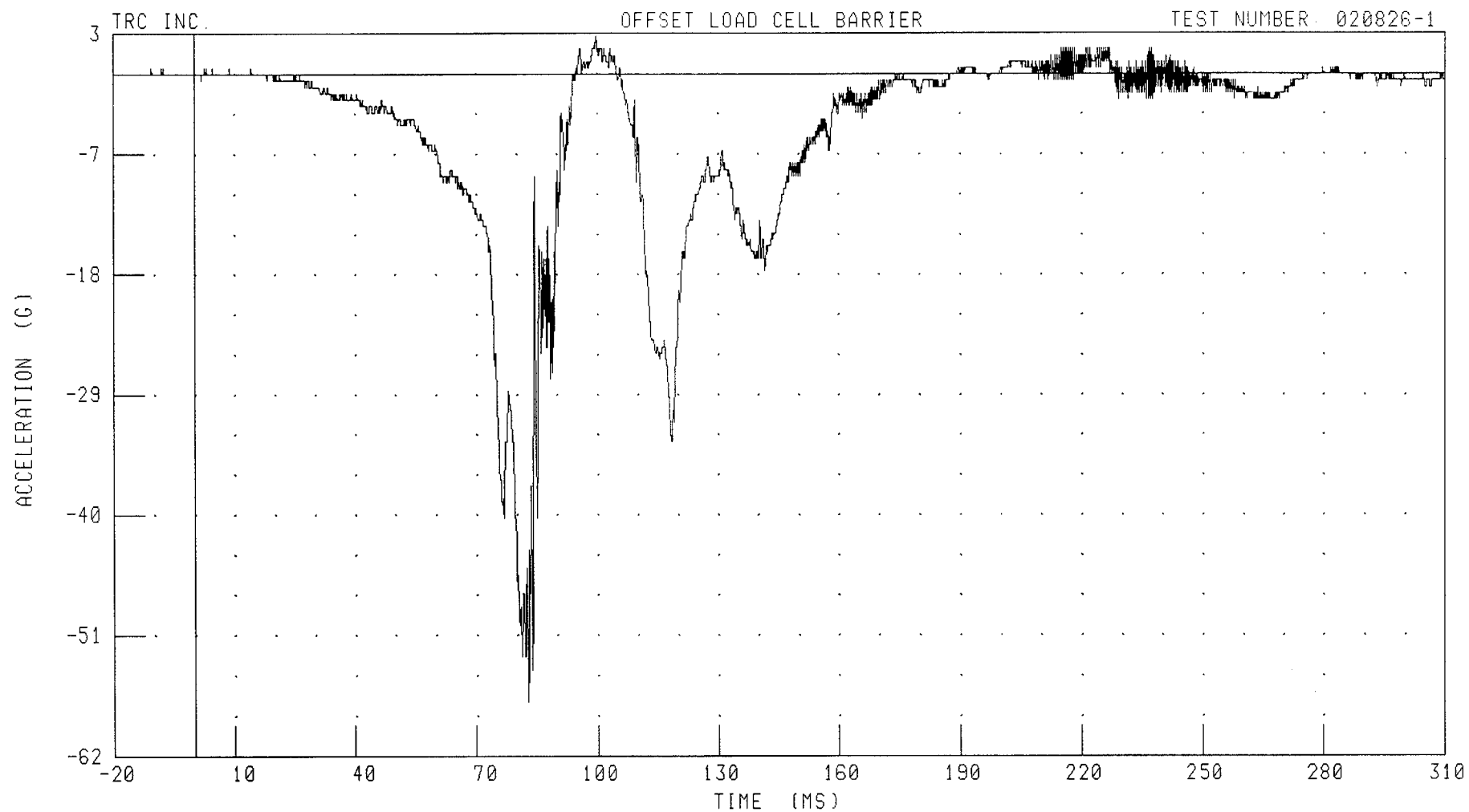
PEAK DATA: 19.70 N·m @ 190.96 ms; -40.83 N·m @ 118.08 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT TIBIA X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRXC1 FILTER: CH. CLASS 1000

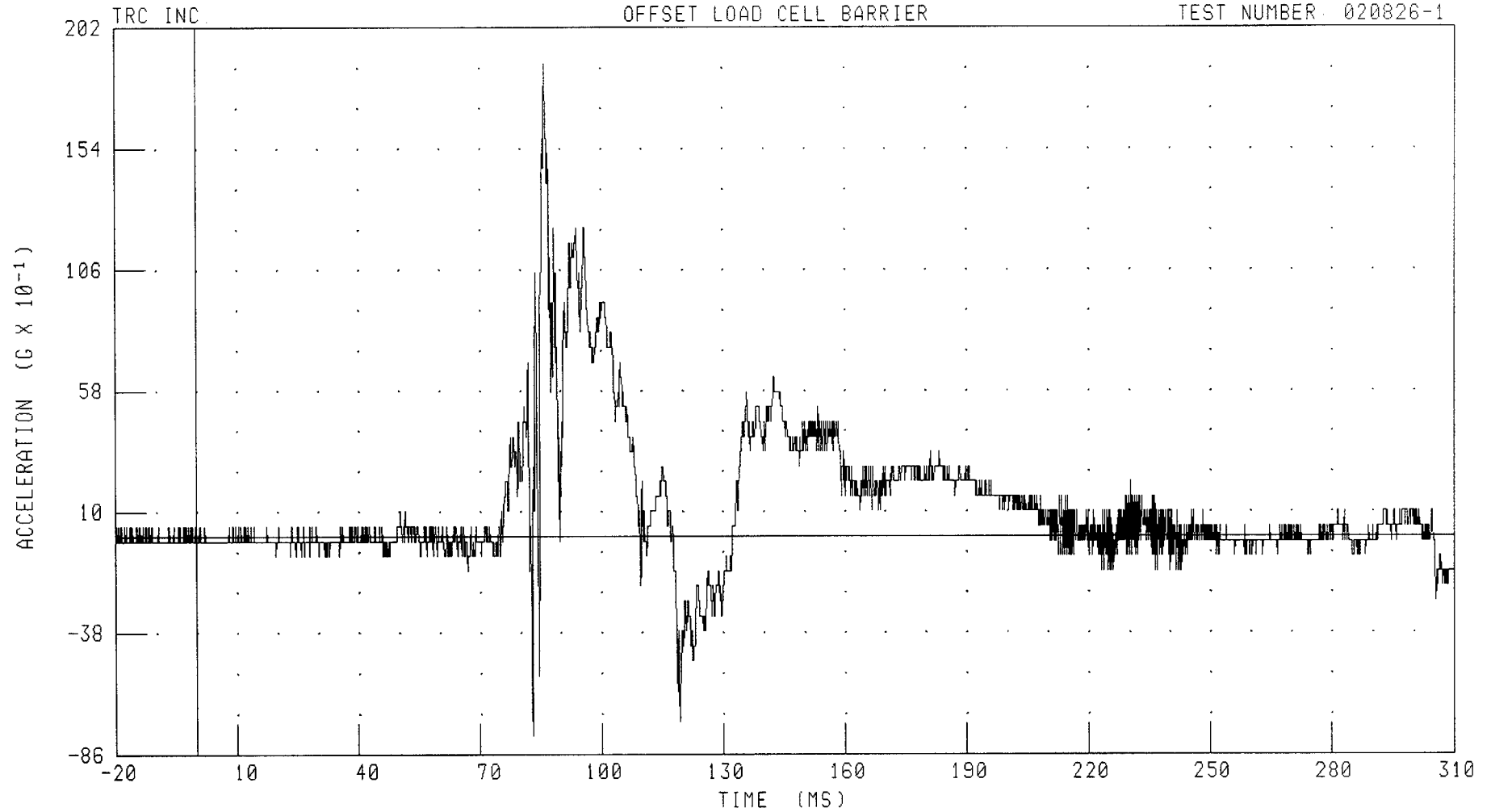
PEAK DATA: 3.45 G @ 99.92 MS; -57.37 G @ 82.88 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT TIBIA Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



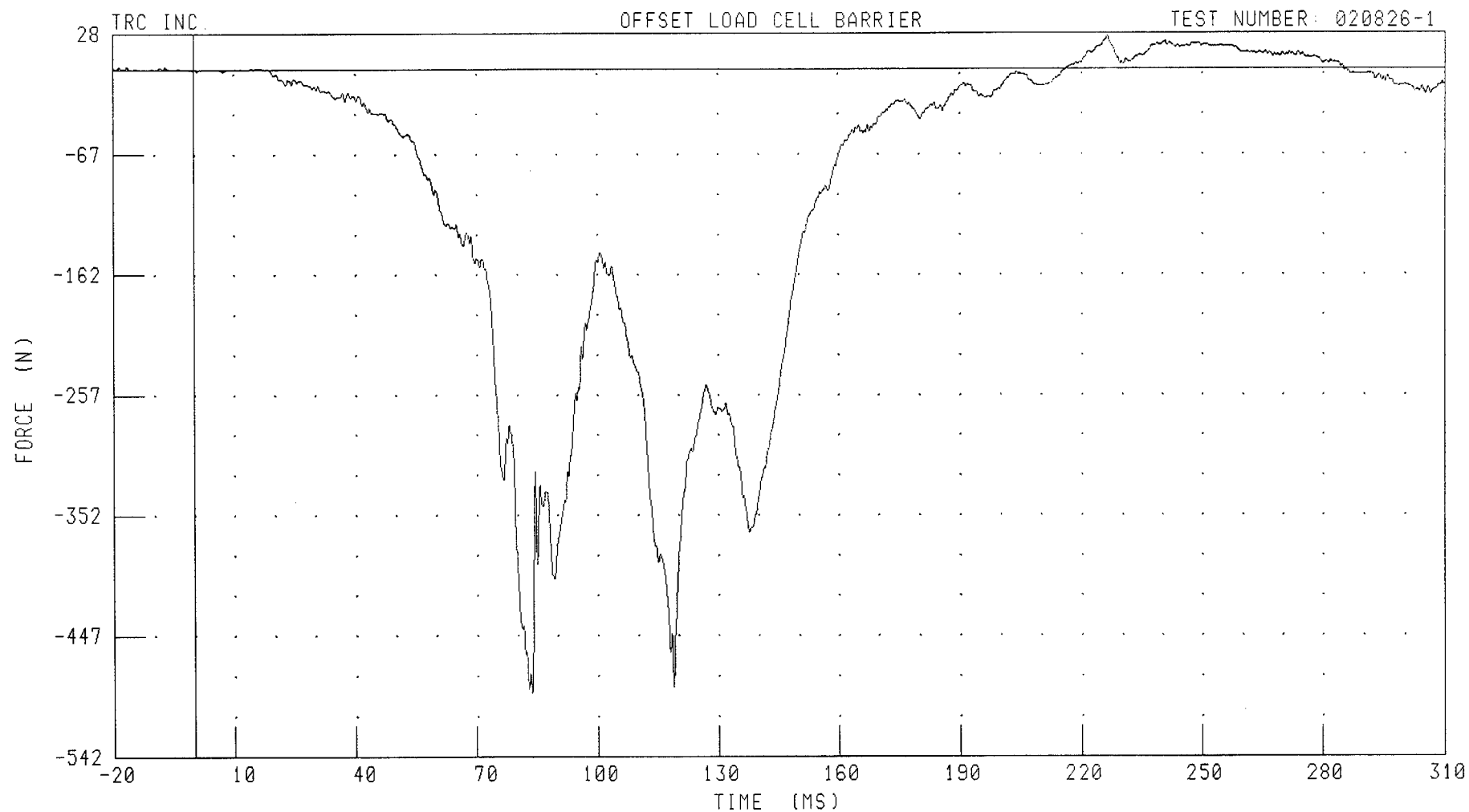
CHANNEL: TBRYG1 FILTER: CH. CLASS 1000

PEAK DATA: 18.79 G @ 86.16 MS; -7.88 G @ 82.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT LOWER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRXF1 FILTER: CH. CLASS 600

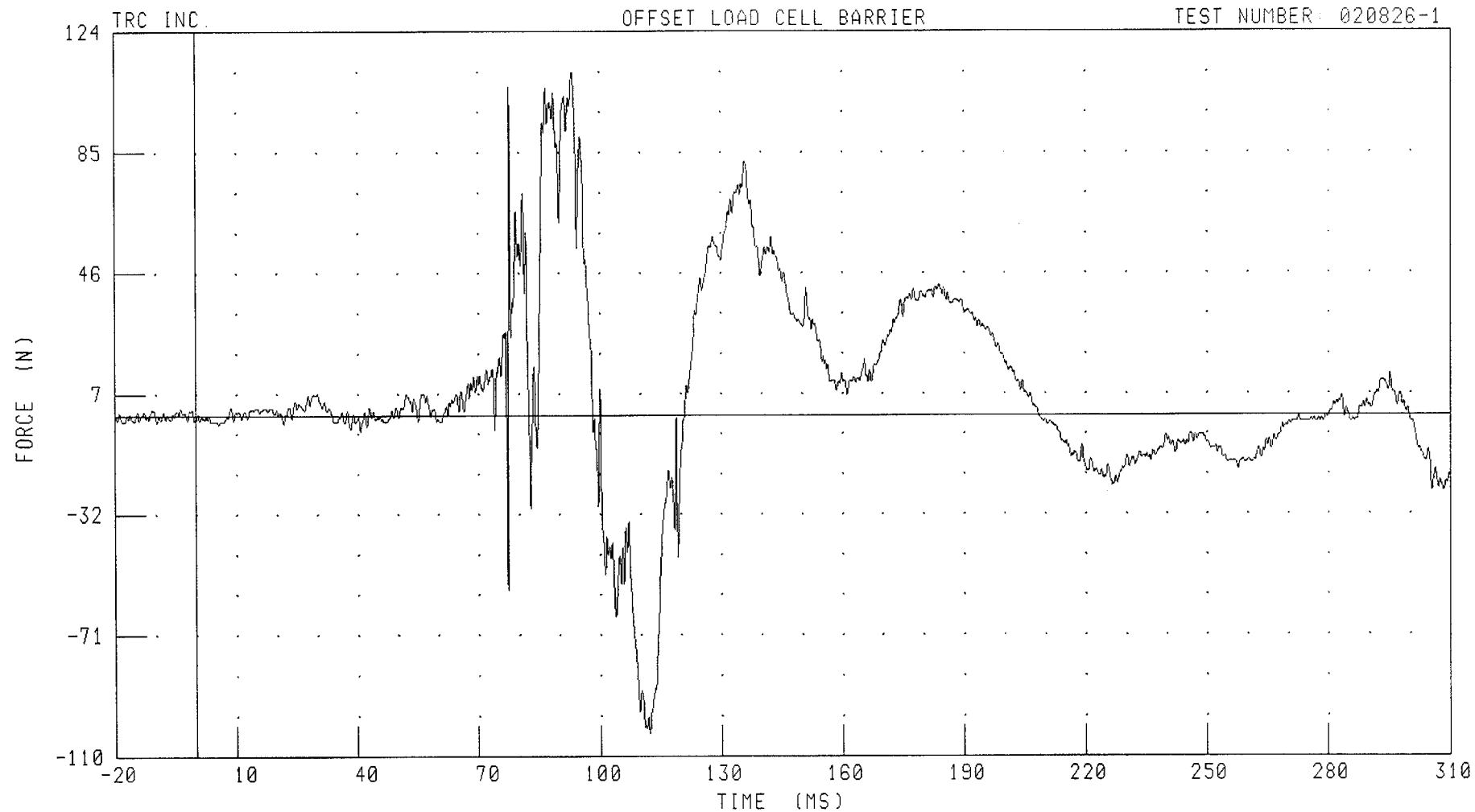
PEAK DATA: 26.01 N @ 226.56 MS; -492.21 N @ 83.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT LOWER TIBIA Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRYF1 FILTER: CH. CLASS 600

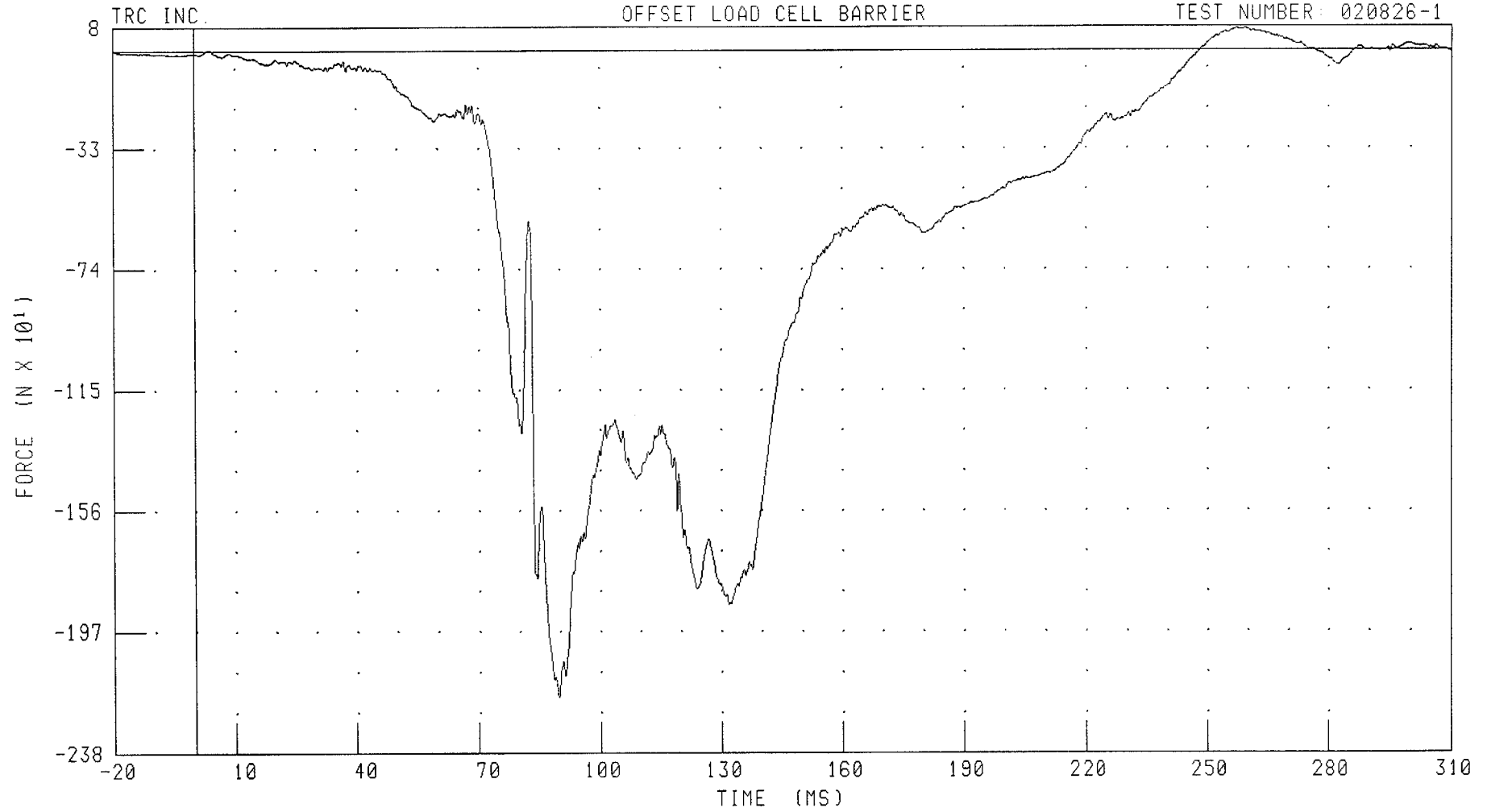
PEAK DATA: 111.01 N @ 93.36 MS; -102.81 N @ 112.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT LOWER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



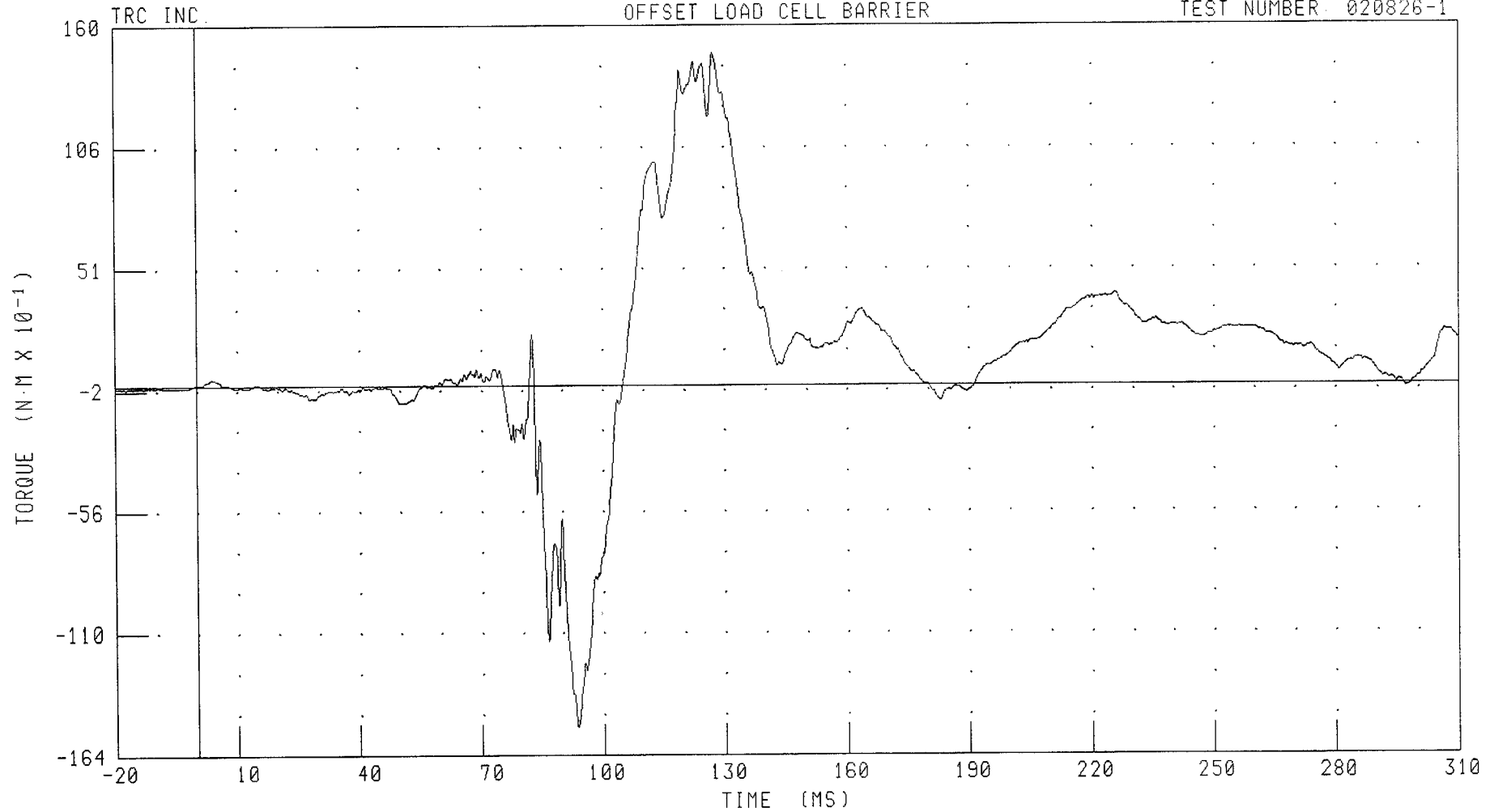
CHANNEL: ANRZF1 FILTER: CH. CLASS 600

PEAK DATA: 73.51 N @ 259.52 MS; -2191.63 N @ 89.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT LOWER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRXM1 FILTER: CH. CLASS 600

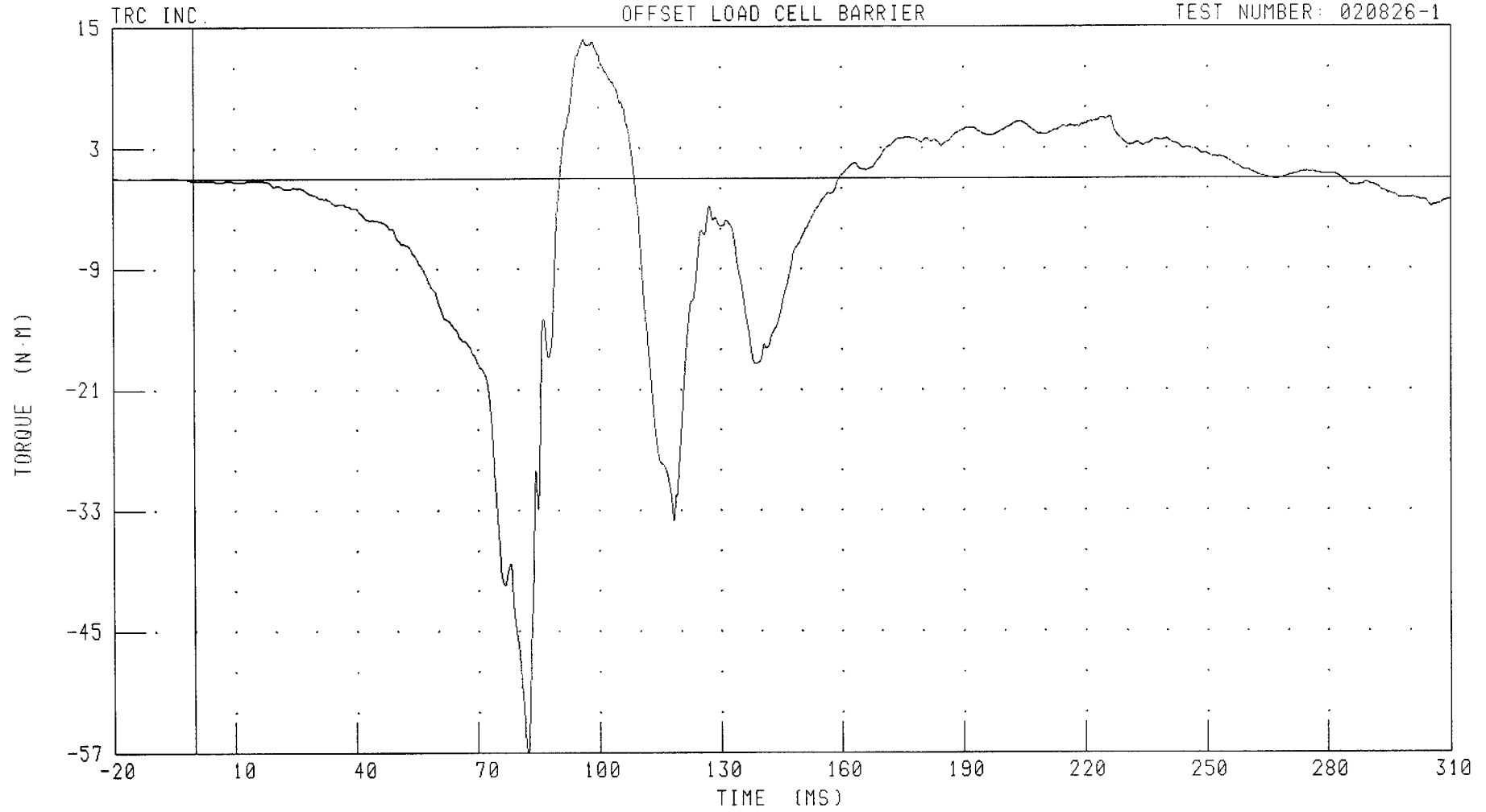
PEAK DATA: 14.77 N·M @ 127.52 MS; -15.15 N·M @ 93.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRYM1 FILTER: CH. CLASS 600

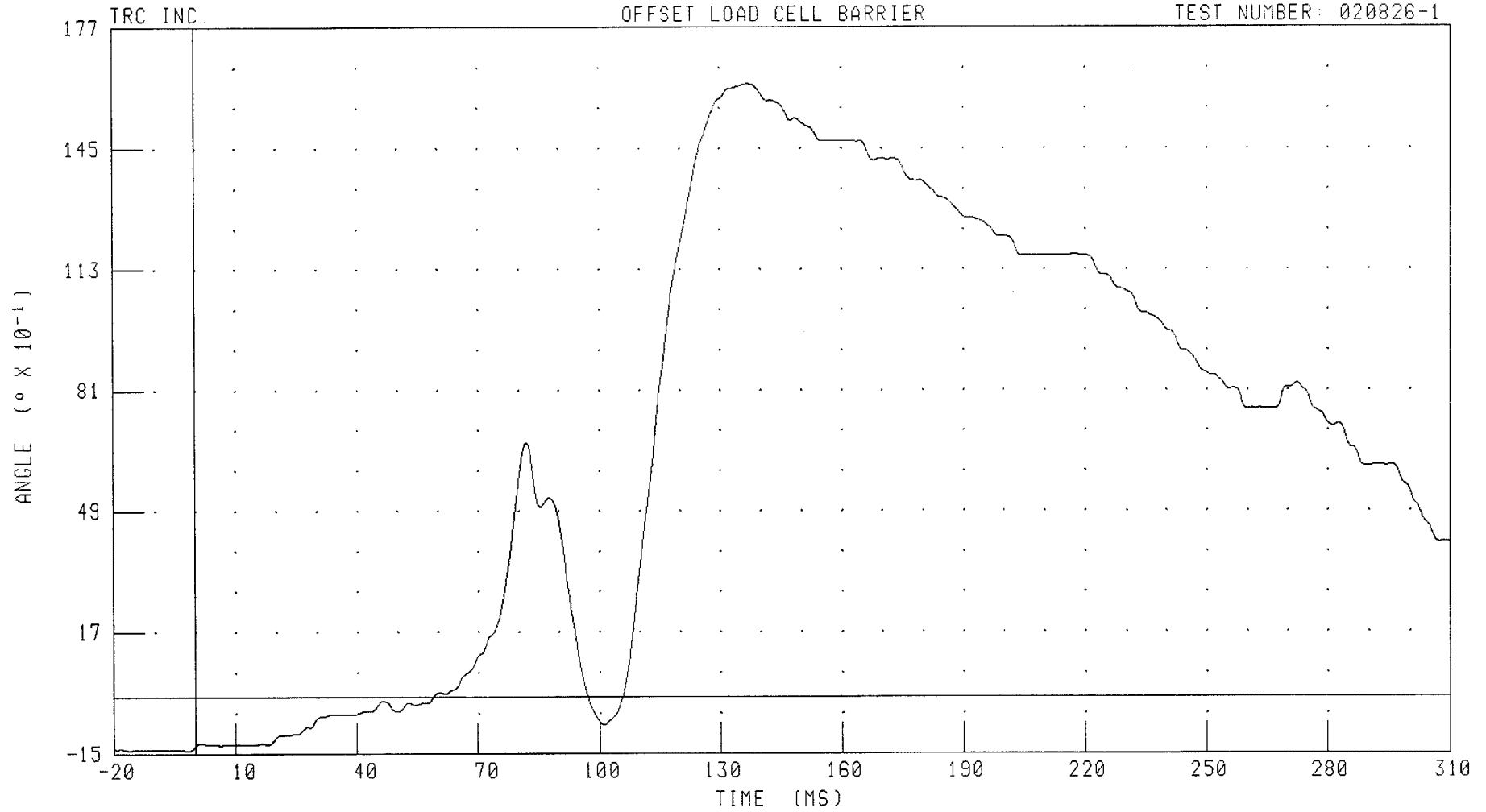
PEAK DATA: 13.76 N·M @ 96.48 MS; -57.06 N·M @ 82.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FOOT TO ANKLE X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



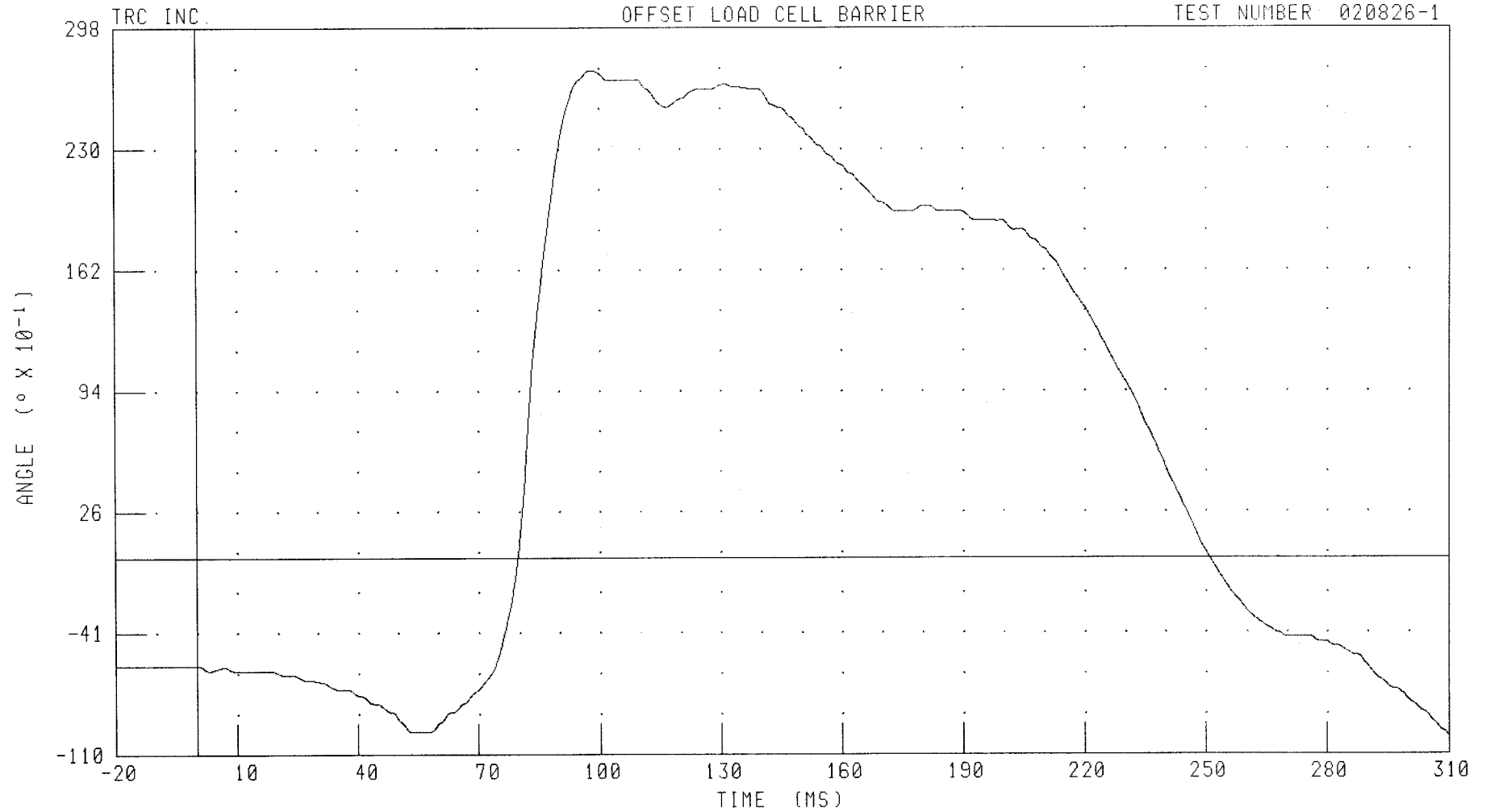
CHANNEL: FTRXD1 FILTER: CH. CLASS 180

PEAK DATA: 16.21 $^{\circ}$ @ 136.88 MS; -1.41 $^{\circ}$ @ -1.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT FOOT TO ANKLE Y-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



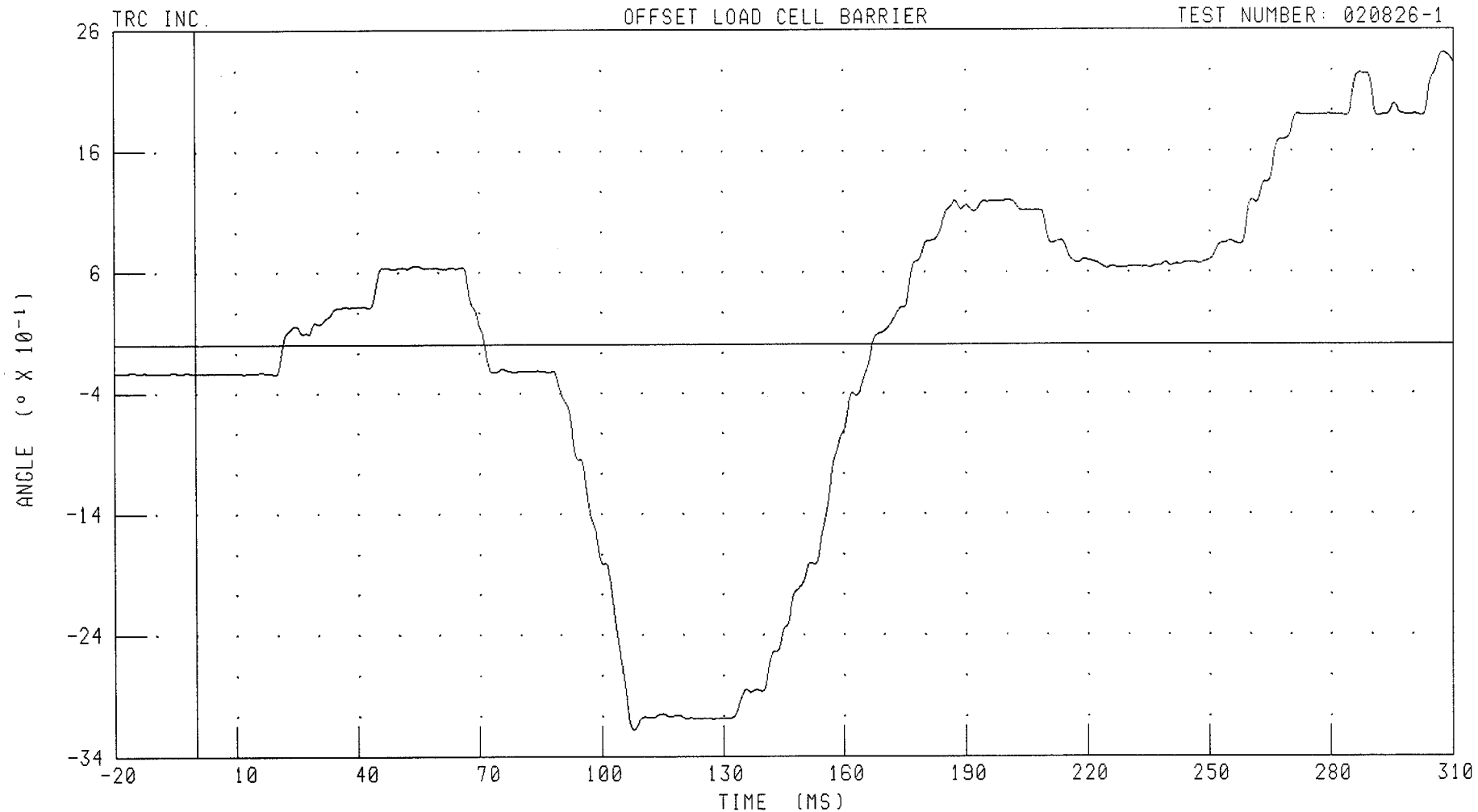
CHANNEL: FTRYD1 FILTER: CH. CLASS 180

PEAK DATA: 27.42 ° @ 98.16 MS; -10.08 ° @ 310.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT FOOT TO ANKLE Z-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRZD1 FILTER: CH. CLASS 180

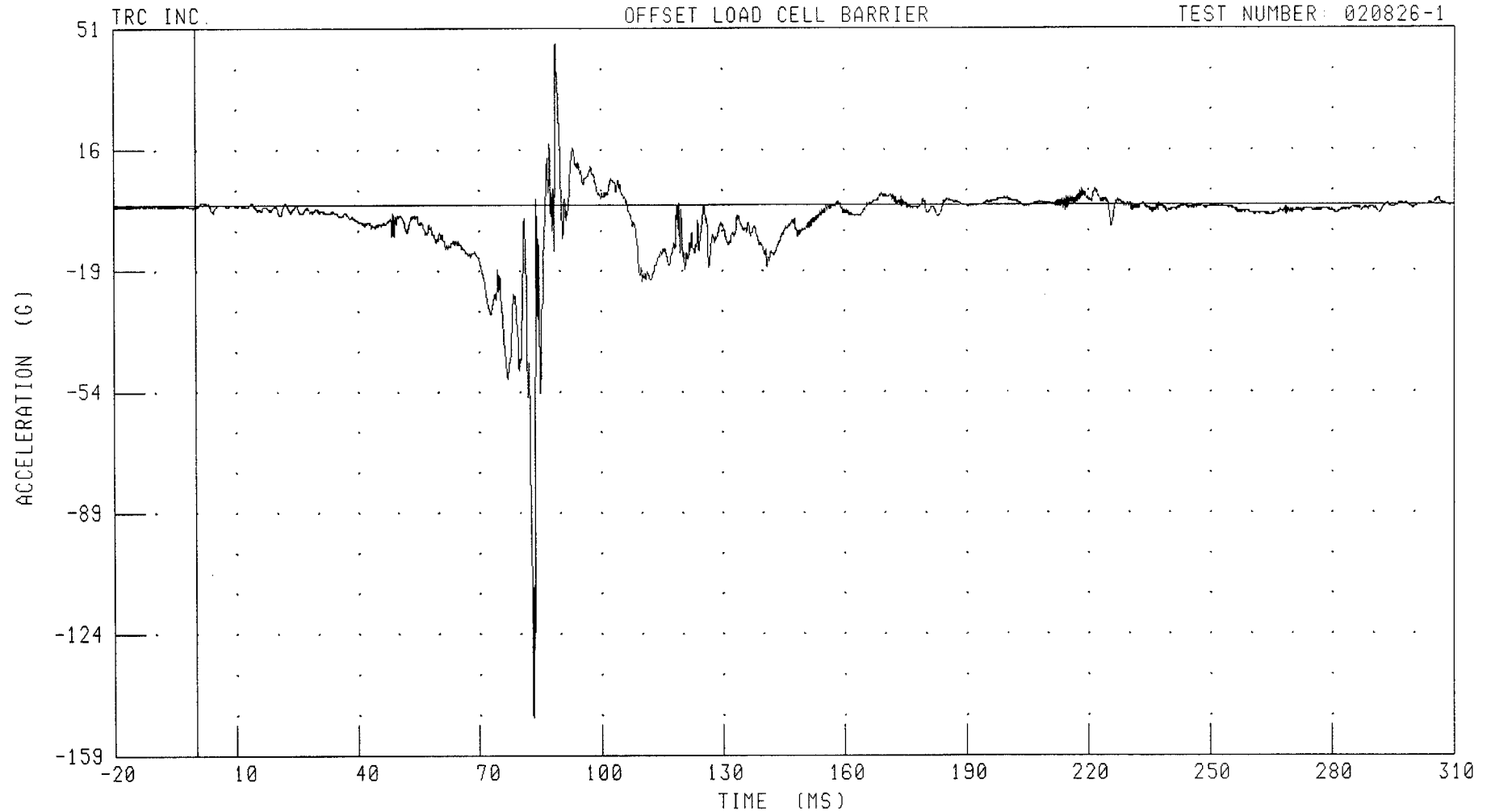
PEAK DATA: 2.41 $^{\circ}$ @ 307.44 MS; -3.18 $^{\circ}$ @ 108.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FOOT X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRXG1 FILTER: CH. CLASS 1000

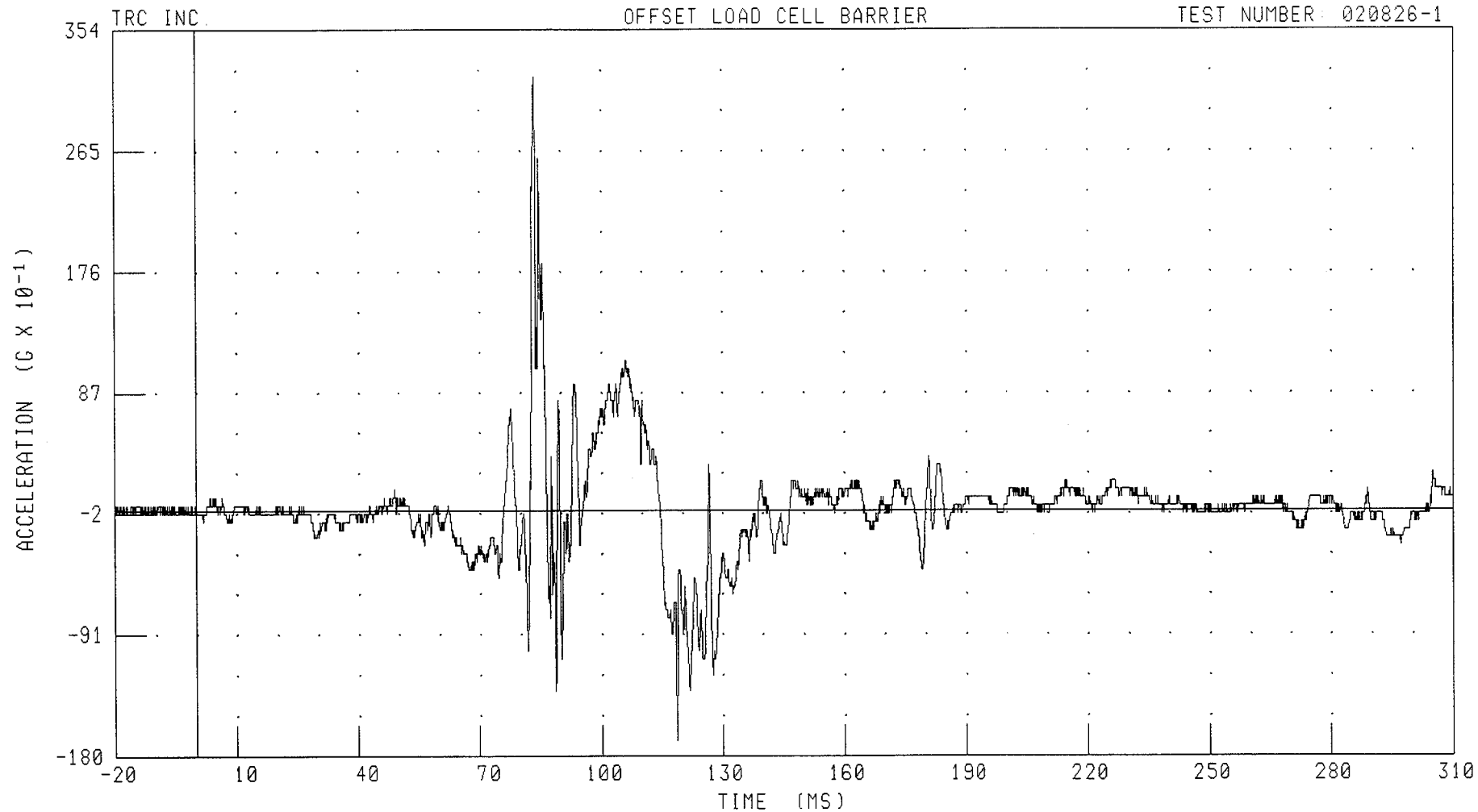
PEAK DATA: 46.67 G @ 89.12 MS; -147.94 G @ 83.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER RIGHT FOOT Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



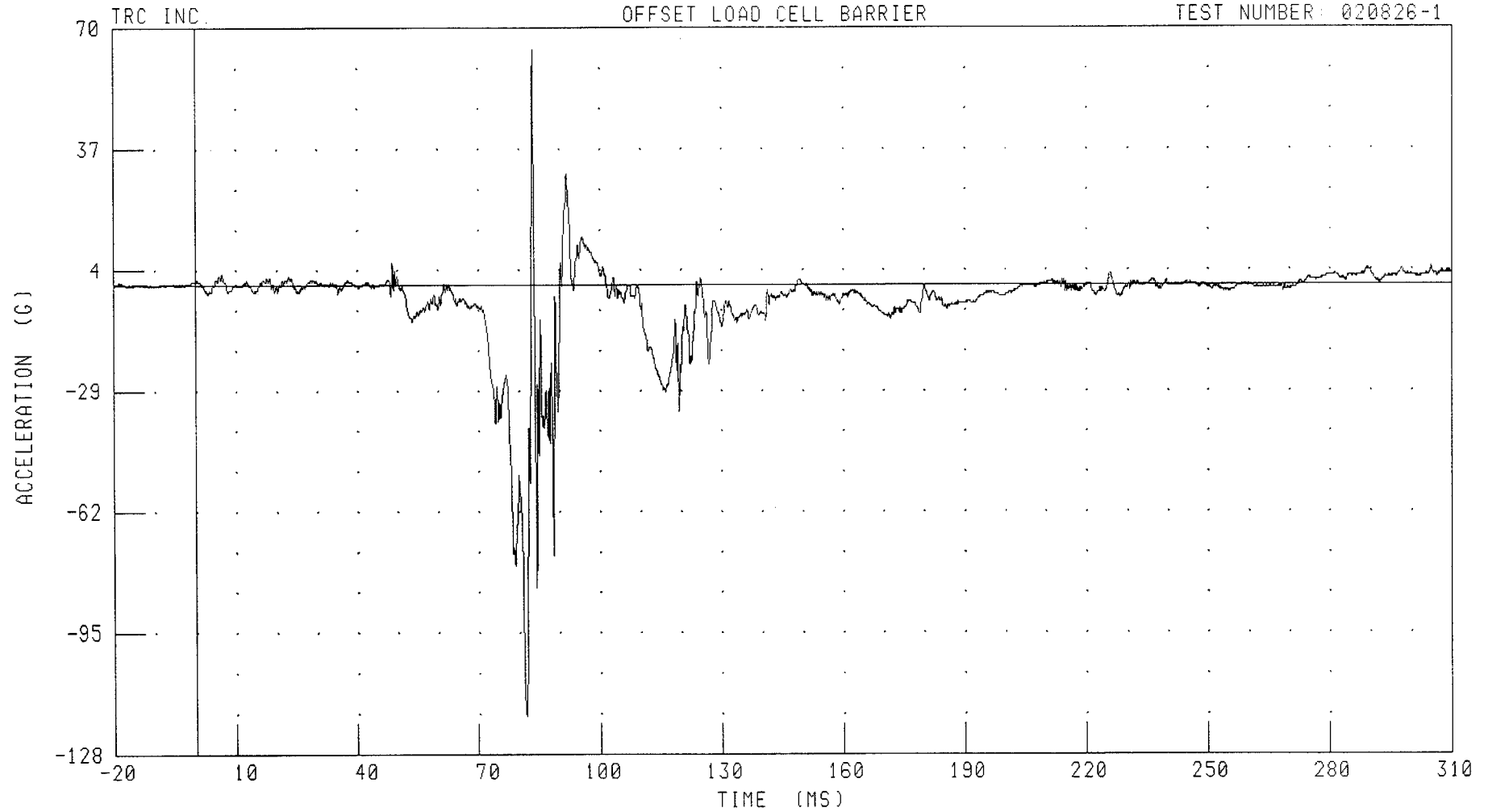
CHANNEL: FTRYG1 FILTER: CH. CLASS 1000

PEAK DATA: 31.92 G @ 83.60 MS; -16.86 G @ 118.64 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT FOOT Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



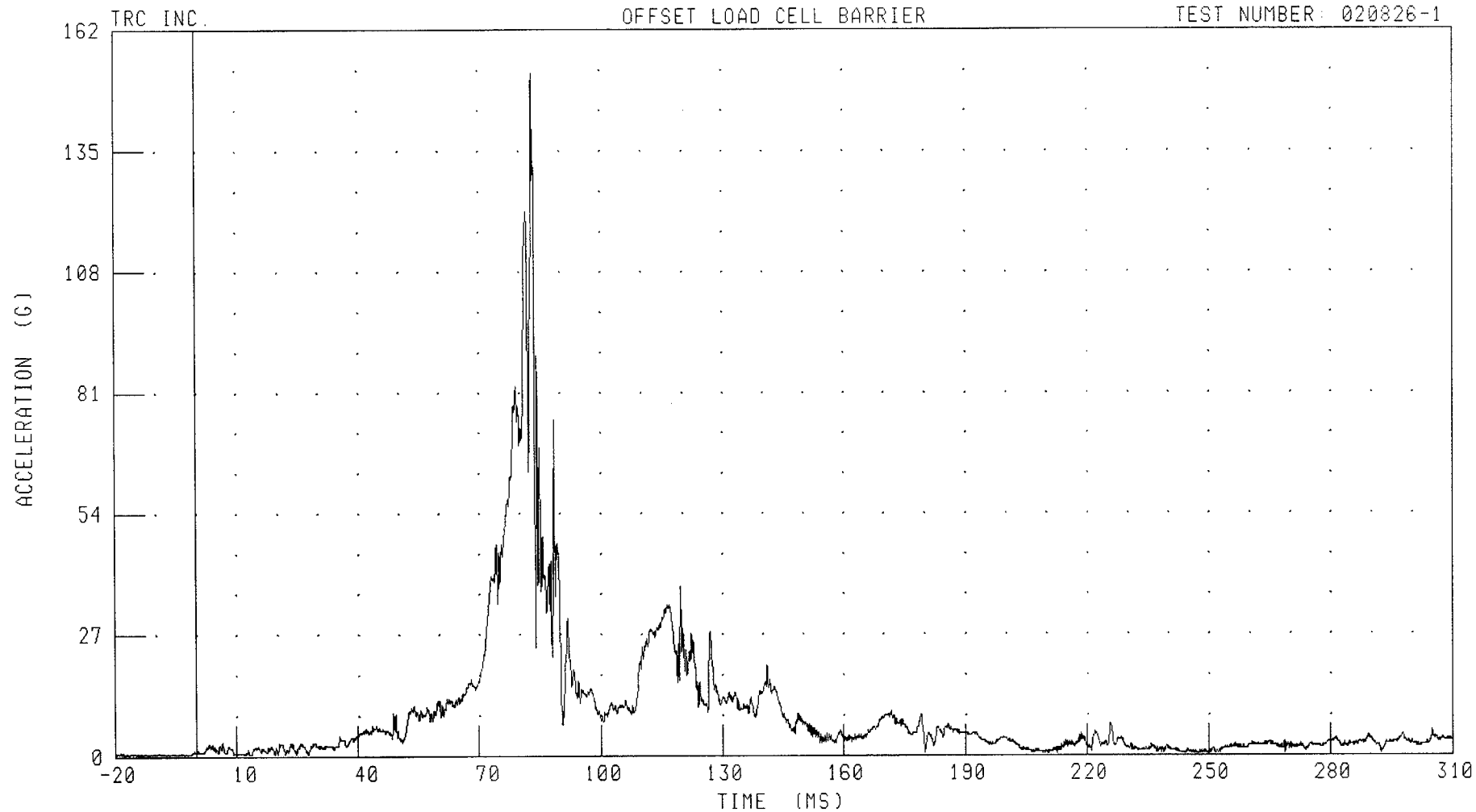
CHANNEL: FTRZG1 FILTER: CH. CLASS 1000

PEAK DATA: 64.11 G @ 83.52 MS; -117.63 G @ 81.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVER RIGHT FOOT RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTTRG1 FILTER: CH. CLASS 1000

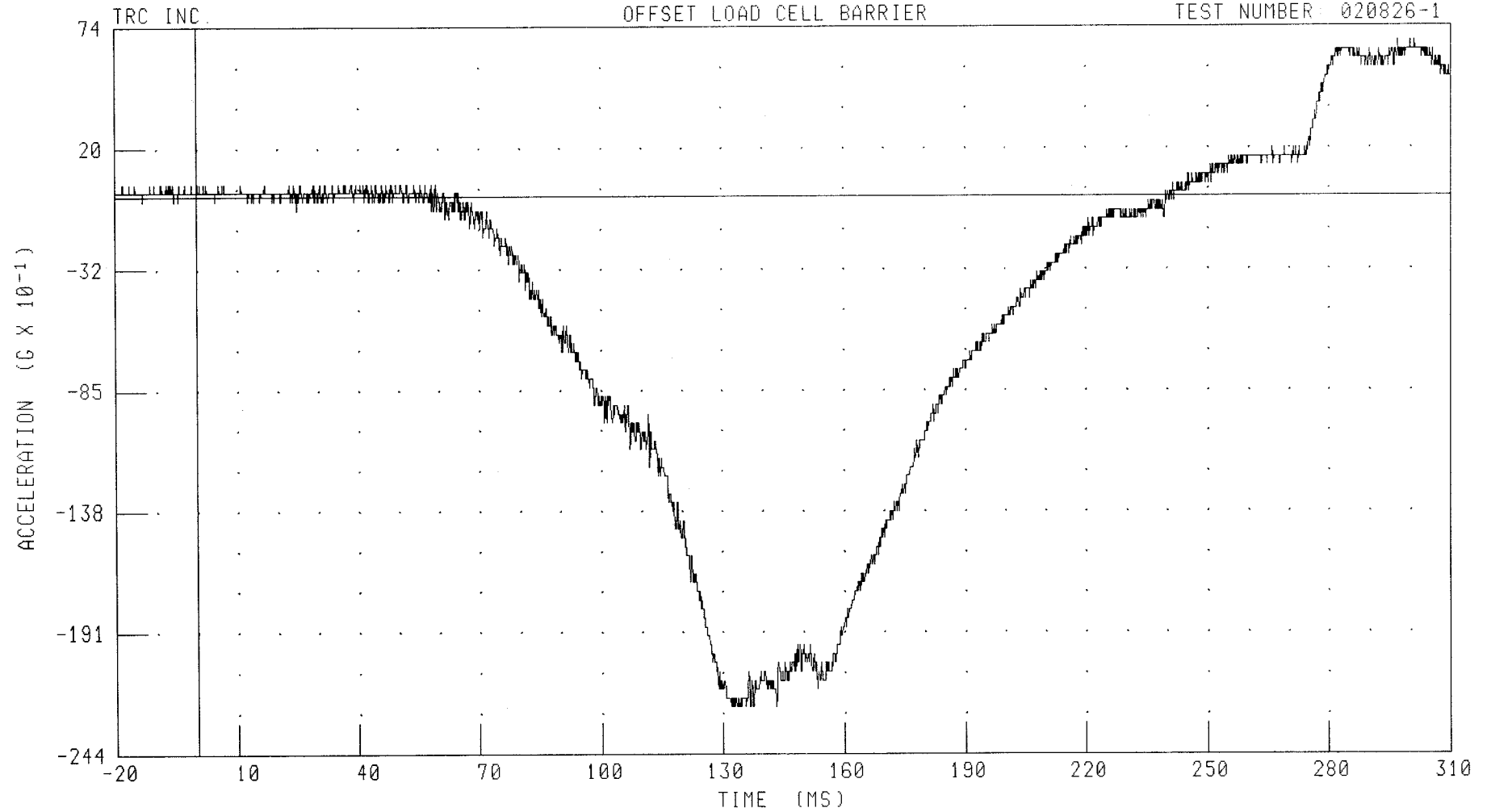
PEAK DATA: 152.36 G @ 83.28 MS; 0.39 G @ -17.84 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER HEAD X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDXC2 FILTER: CH. CLASS 1000

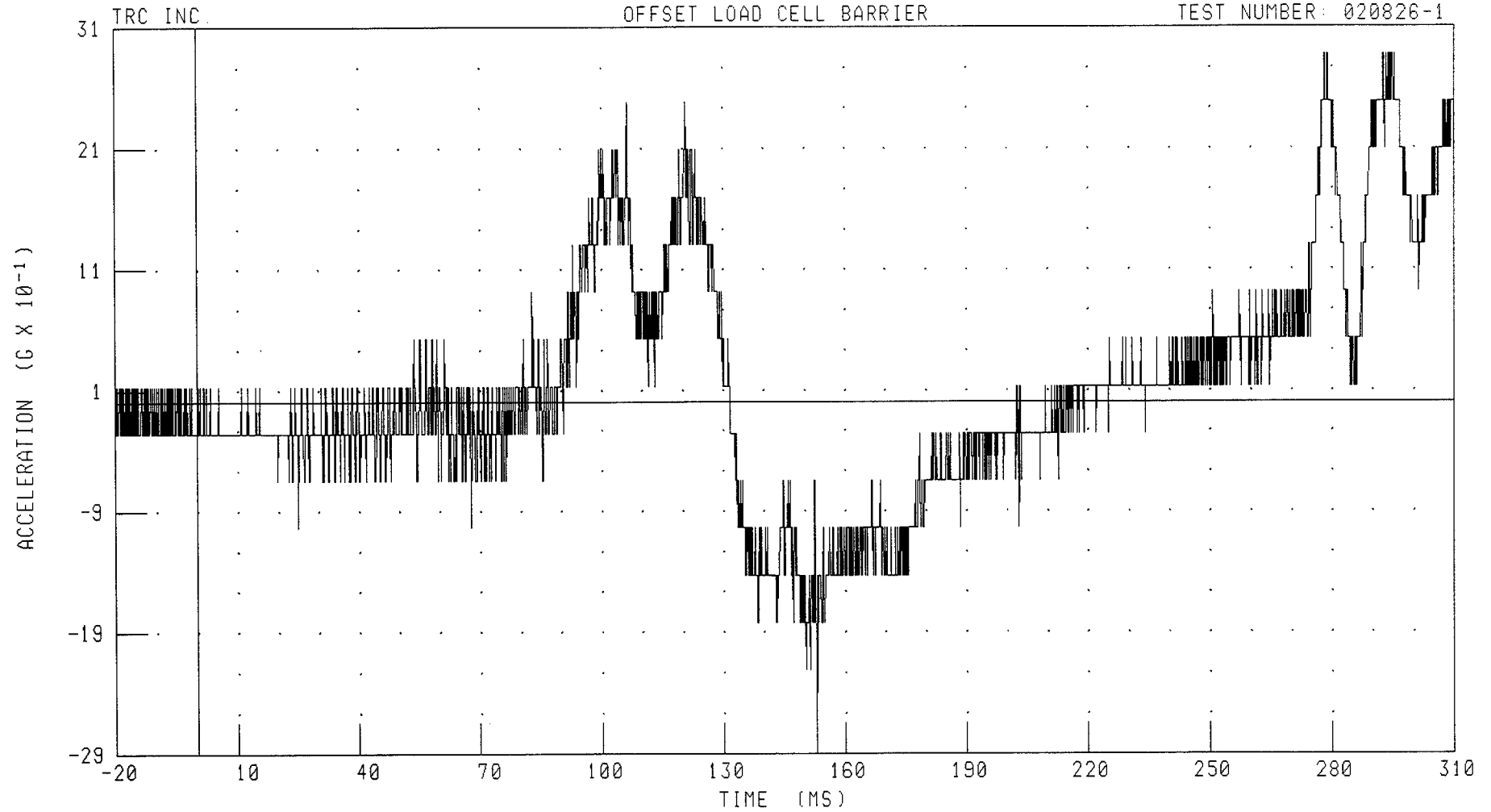
PEAK DATA: 6.78 G @ 296.96 MS; -22.36 G @ 132.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER HEAD Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDYG2 FILTER: CH. CLASS 1000

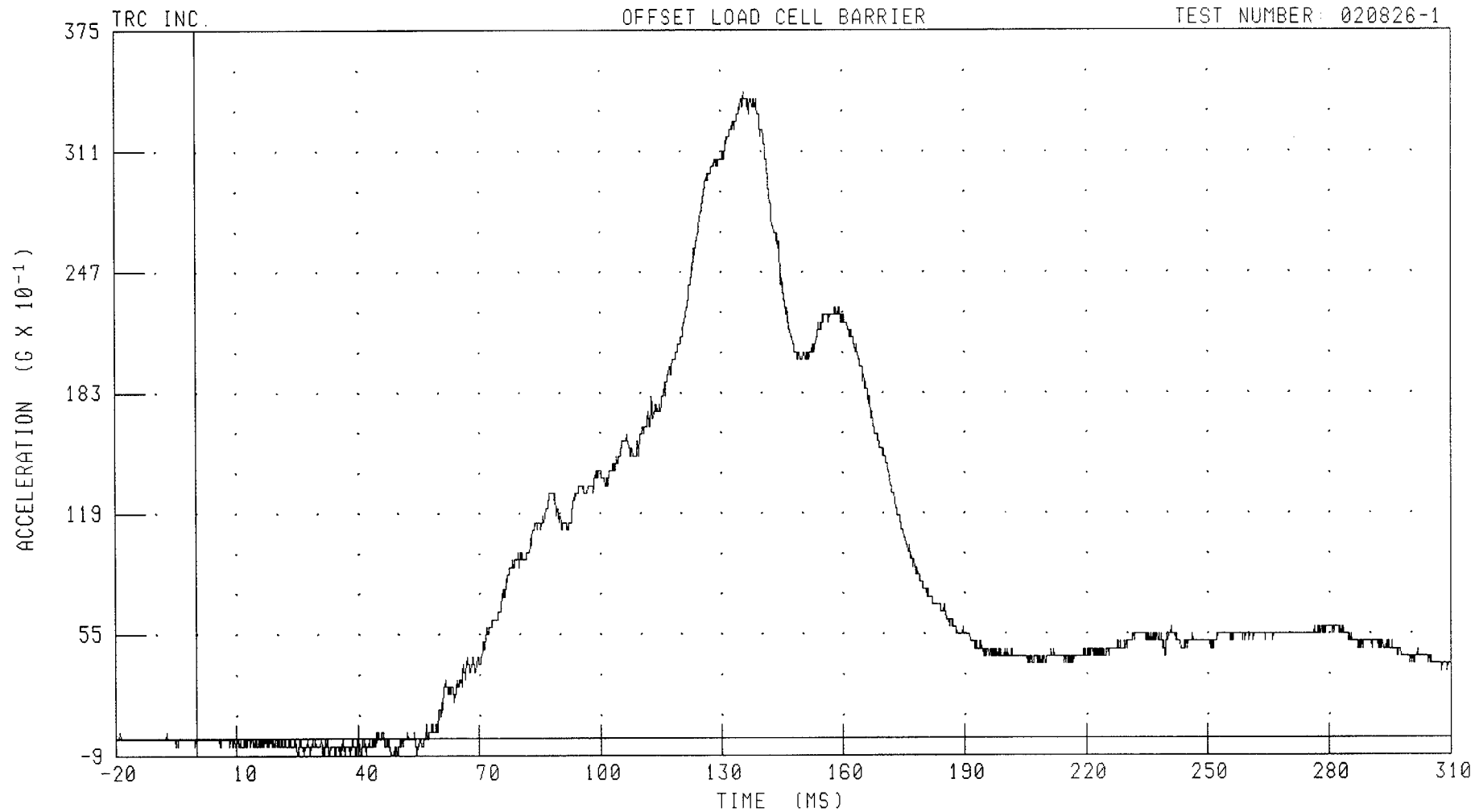
PEAK DATA: 2.87 G @ 278.24 MS; -3.00 G @ 152.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER HEAD Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDZG2 FILTER: CH. CLASS 1000

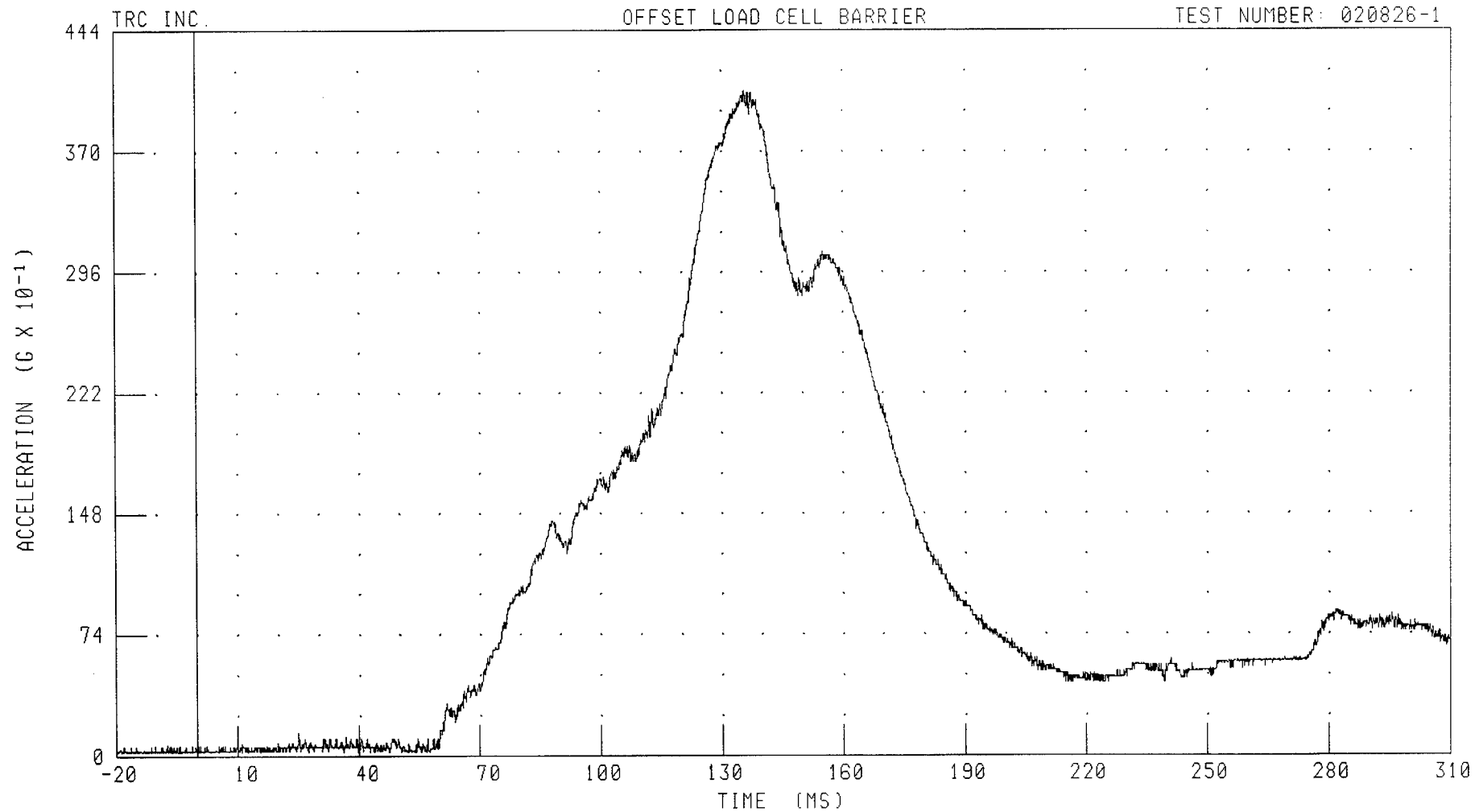
PEAK DATA: 34.25 G @ 135.84 MS; -0.83 G @ 24.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER HEAD RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: HEDRG2 FILTER: CH. CLASS 1000

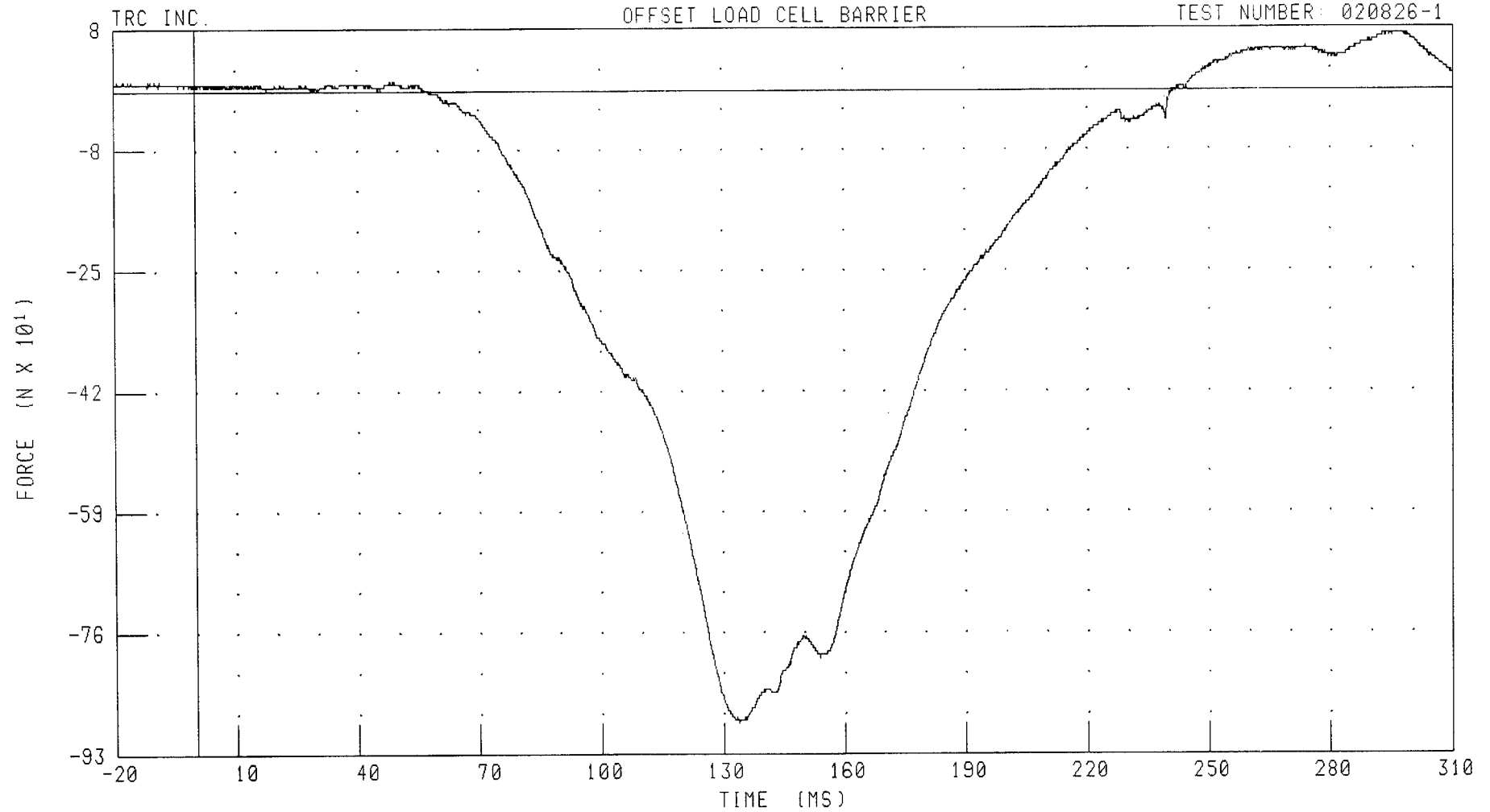
PEAK DATA: 40.71 G @ 135.84 MS; 0.22 G @ -19.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK X-AXIS SHEAR FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKXF2 FILTER: CH. CLASS 1000

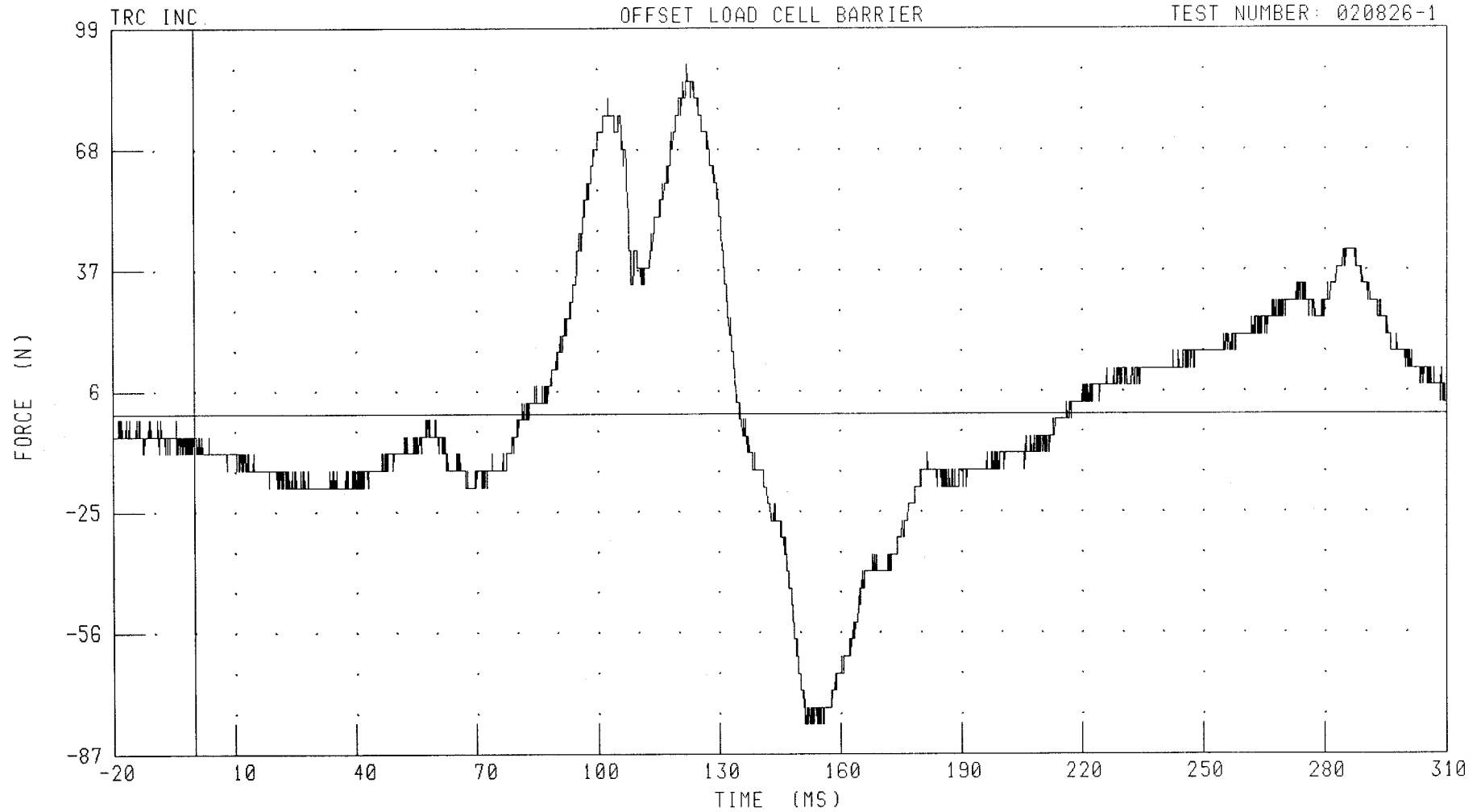
PEAK DATA: 79.16 N @ 292.88 MS; -889.86 N @ 134.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK Y-AXIS SHEAR FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKYF2 FILTER: CH. CLASS 1000

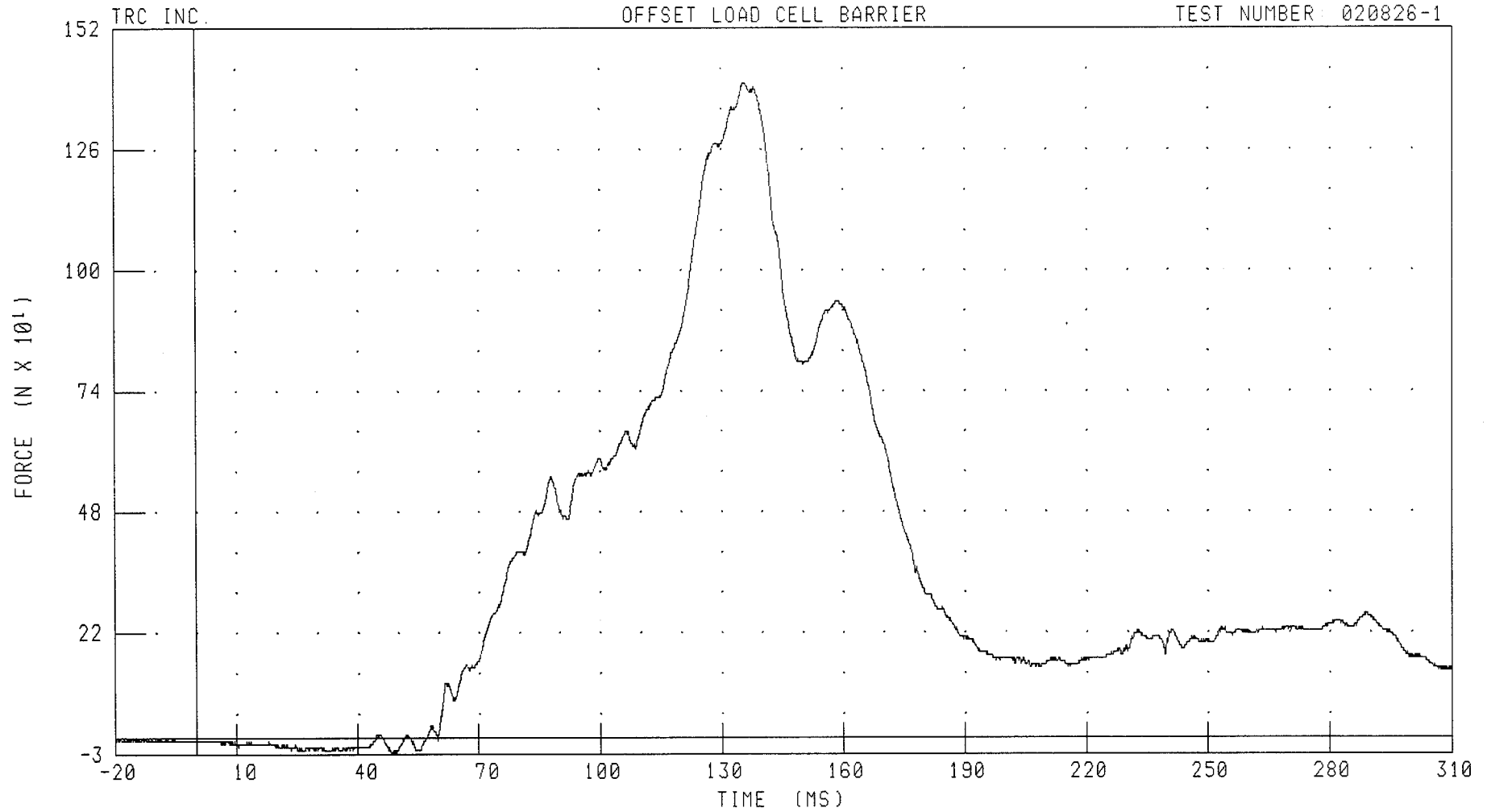
PEAK DATA: 89.87 N @ 122.56 MS; -79.45 N @ 151.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK Z-AXIS AXIAL FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKZF2 FILTER: CH. CLASS 1000

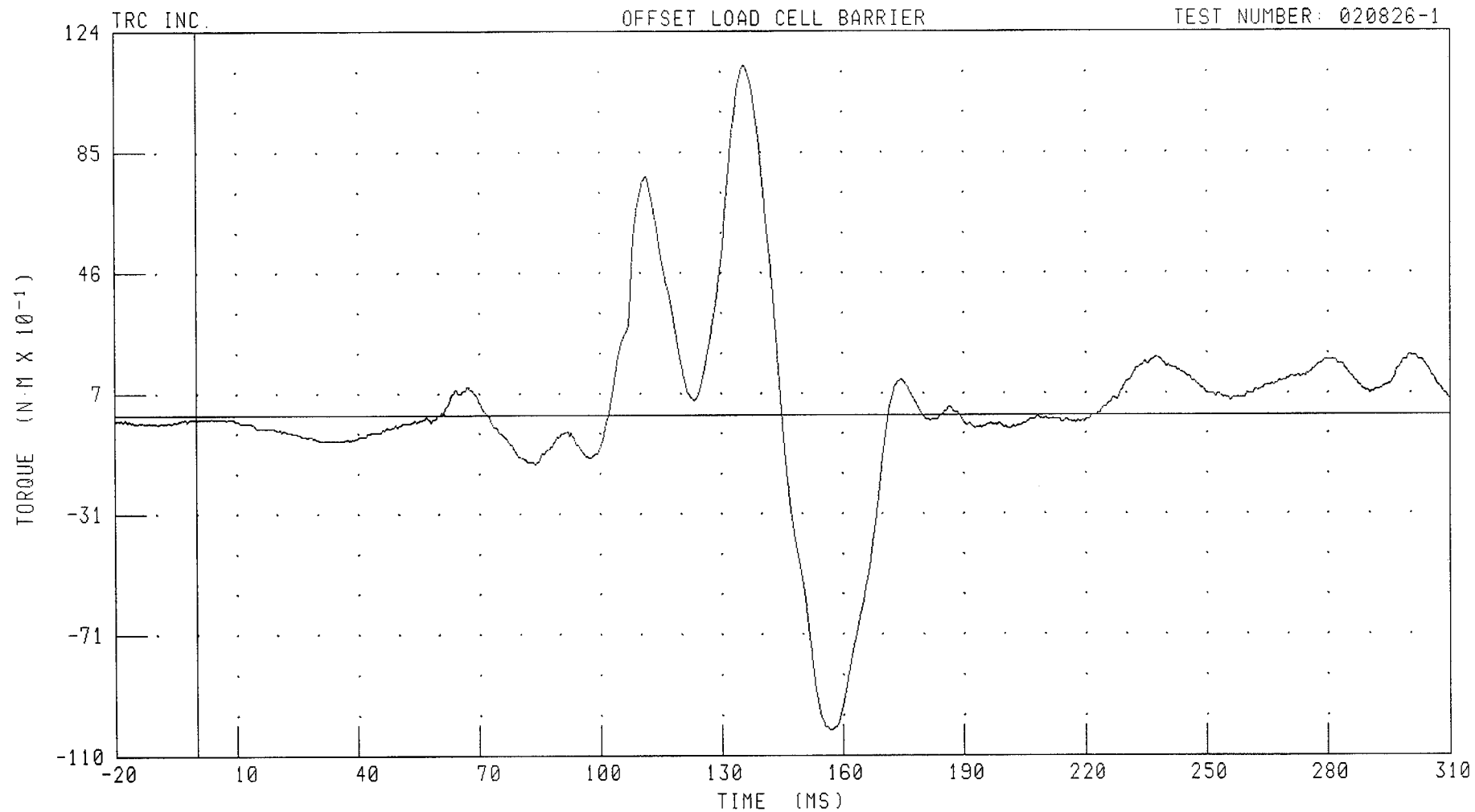
PEAK DATA: 1408.32 N @ 135.36 MS; -31.31 N @ 48.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKXM2 FILTER: CH. CLASS 600

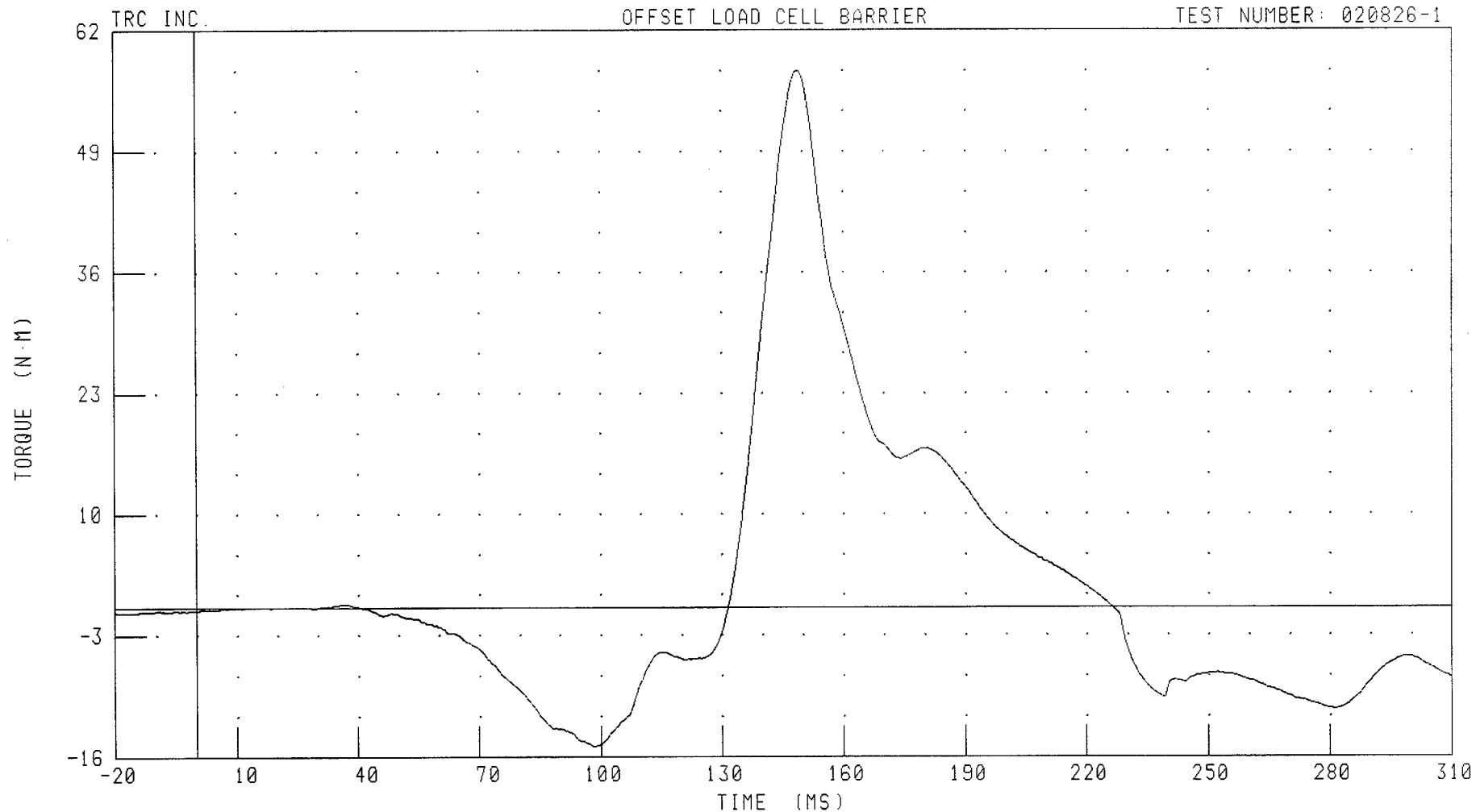
PEAK DATA: 11.30 N·M @ 135.92 MS; -10.19 N·M @ 156.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKYM2 FILTER: CH. CLASS 600

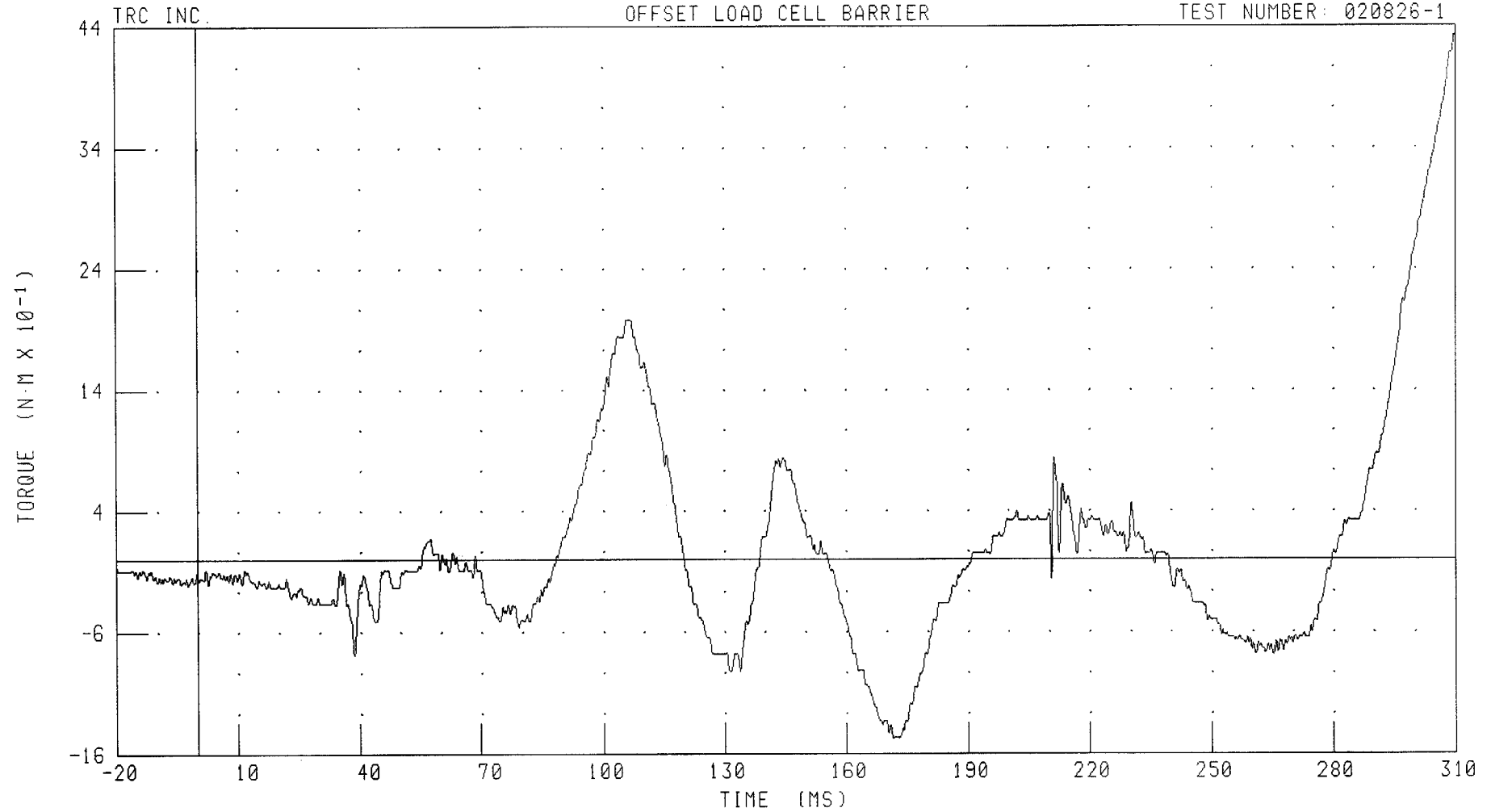
PEAK DATA: 57.65 N·m @ 149.04 ms; -14.92 N·m @ 98.32 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKZM2 FILTER: CH. CLASS 600

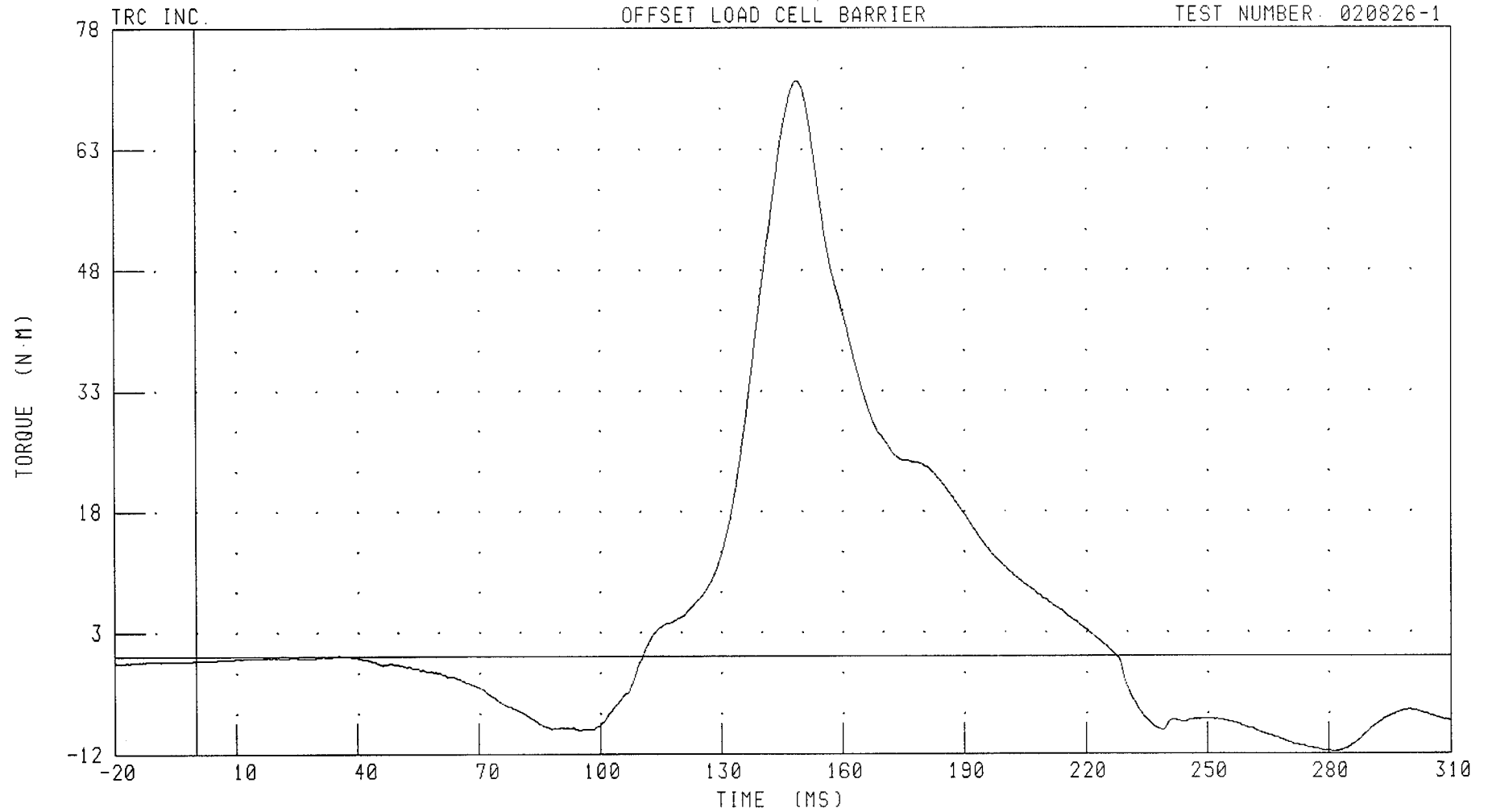
PEAK DATA: 4.33 N·M @ 309.60 MS; -1.47 N·M @ 171.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NEKOM2 FILTER: CH. CLASS 600

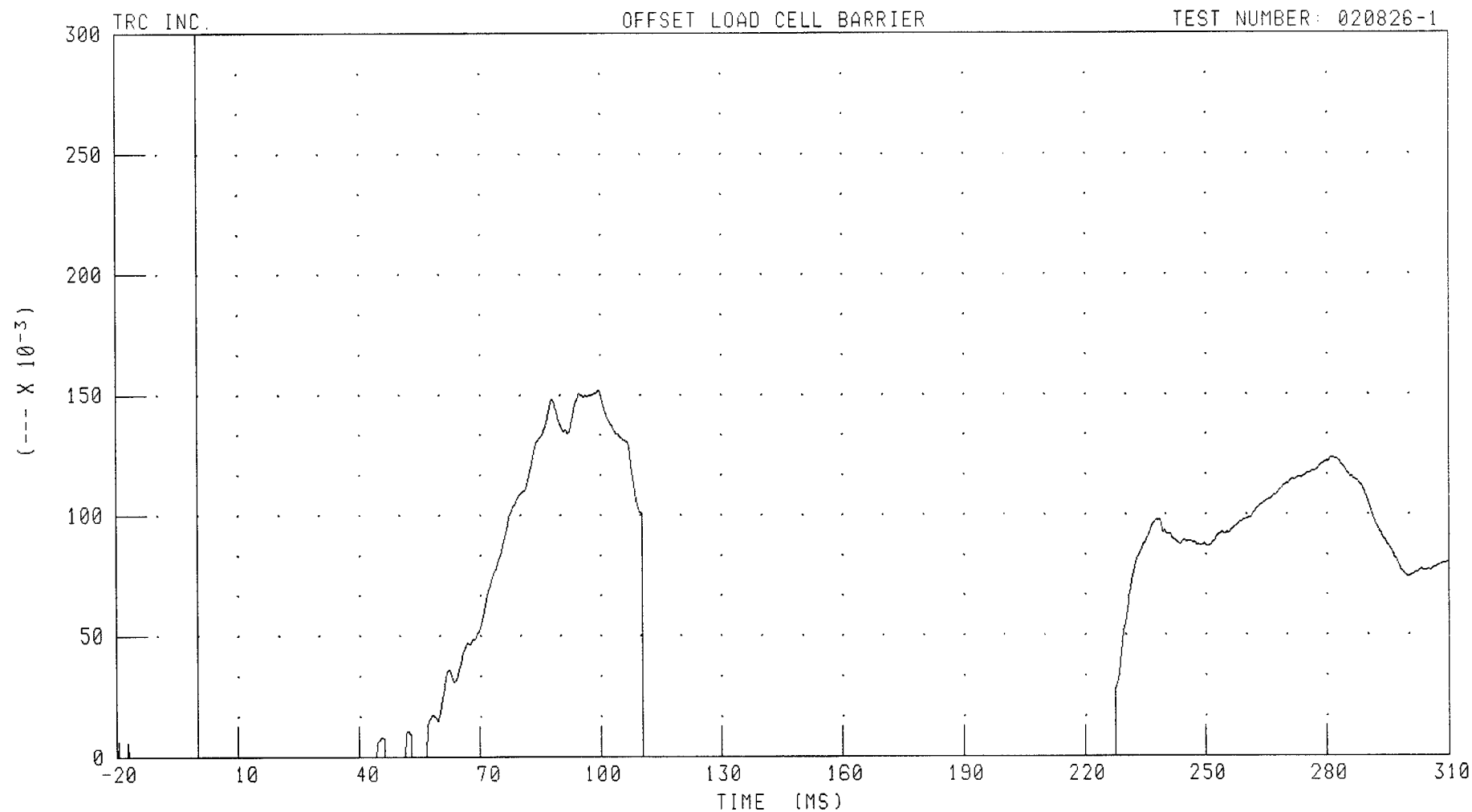
PEAK DATA: 71.46 N·m @ 148.88 MS; -11.78 N·m @ 280.88 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NIJ TENSION/EXTENSION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NTE2

FILTER: CH. CLASS 600

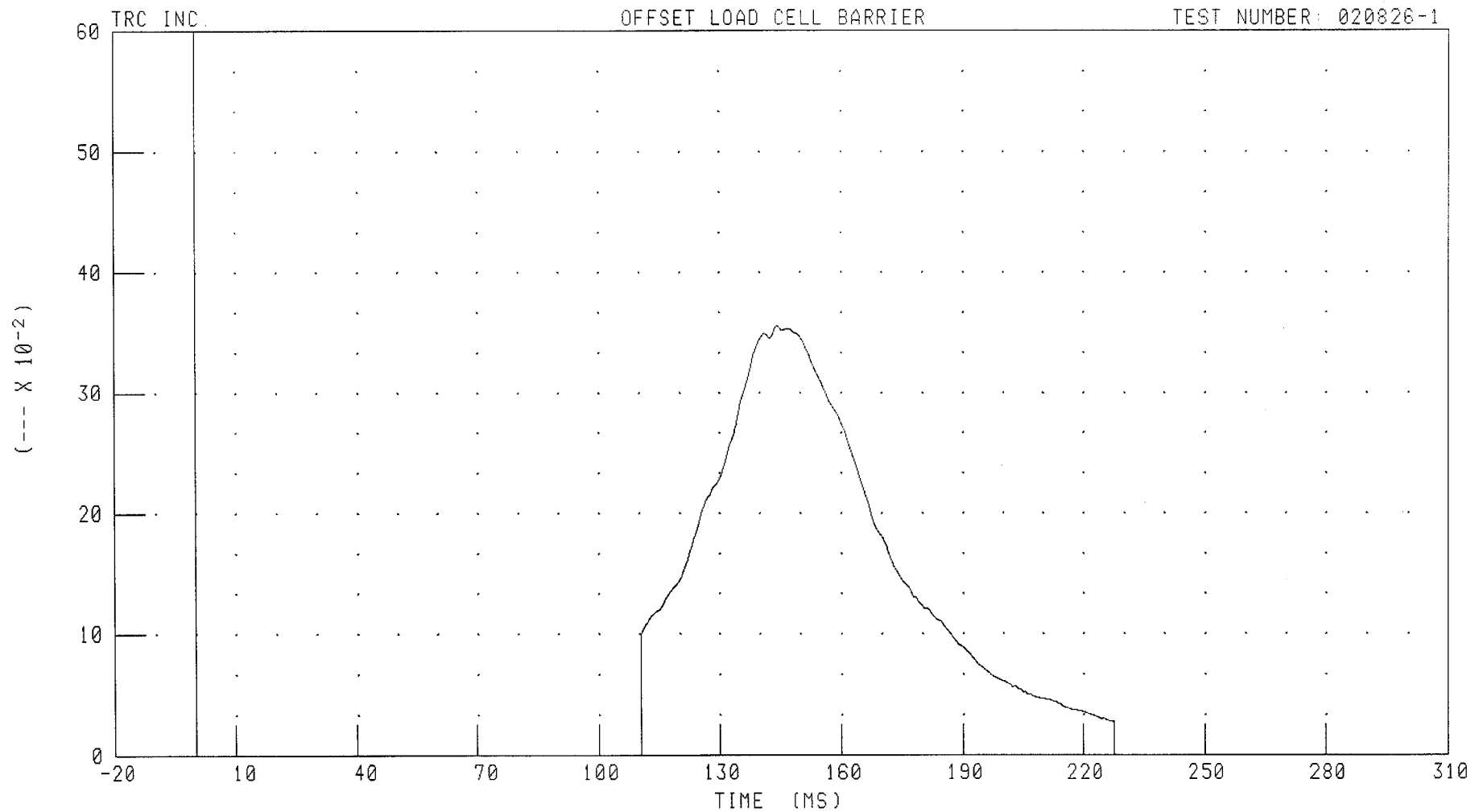
PEAK DATA: 0.15 --- @ 99.68 MS; 0.00 --- @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NIJ TENSION/FLEXION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NTF2

FILTER: CH. CLASS 600

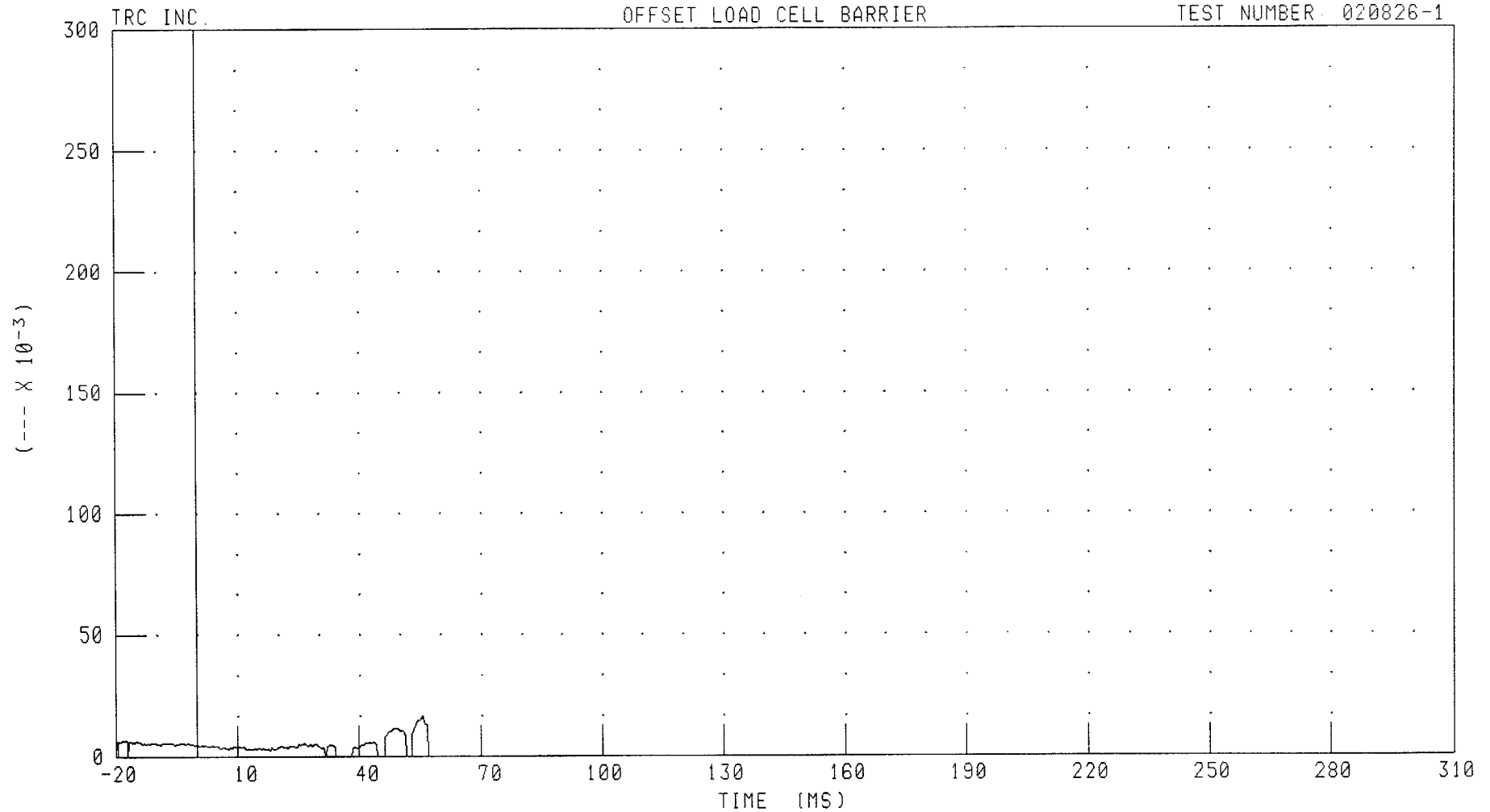
PEAK DATA: 0.36 --- @ 144.48 MS; 0.00 --- @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NIJ COMPRESSION/EXTENSION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NCE2

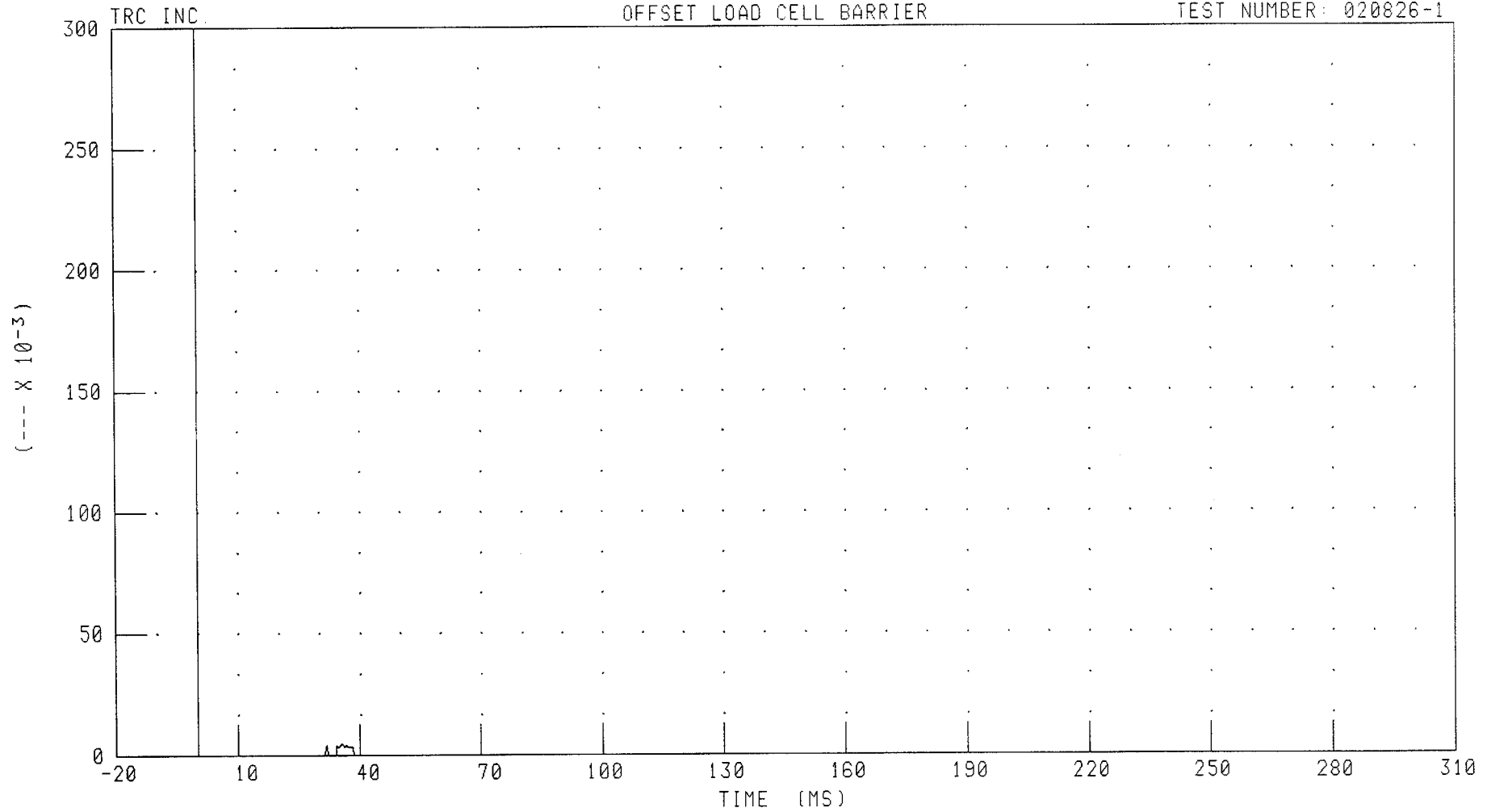
FILTER: CH. CLASS 600

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER NIJ COMPRESSION/FLEXION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: NCF2

FILTER: CH. CLASS 600

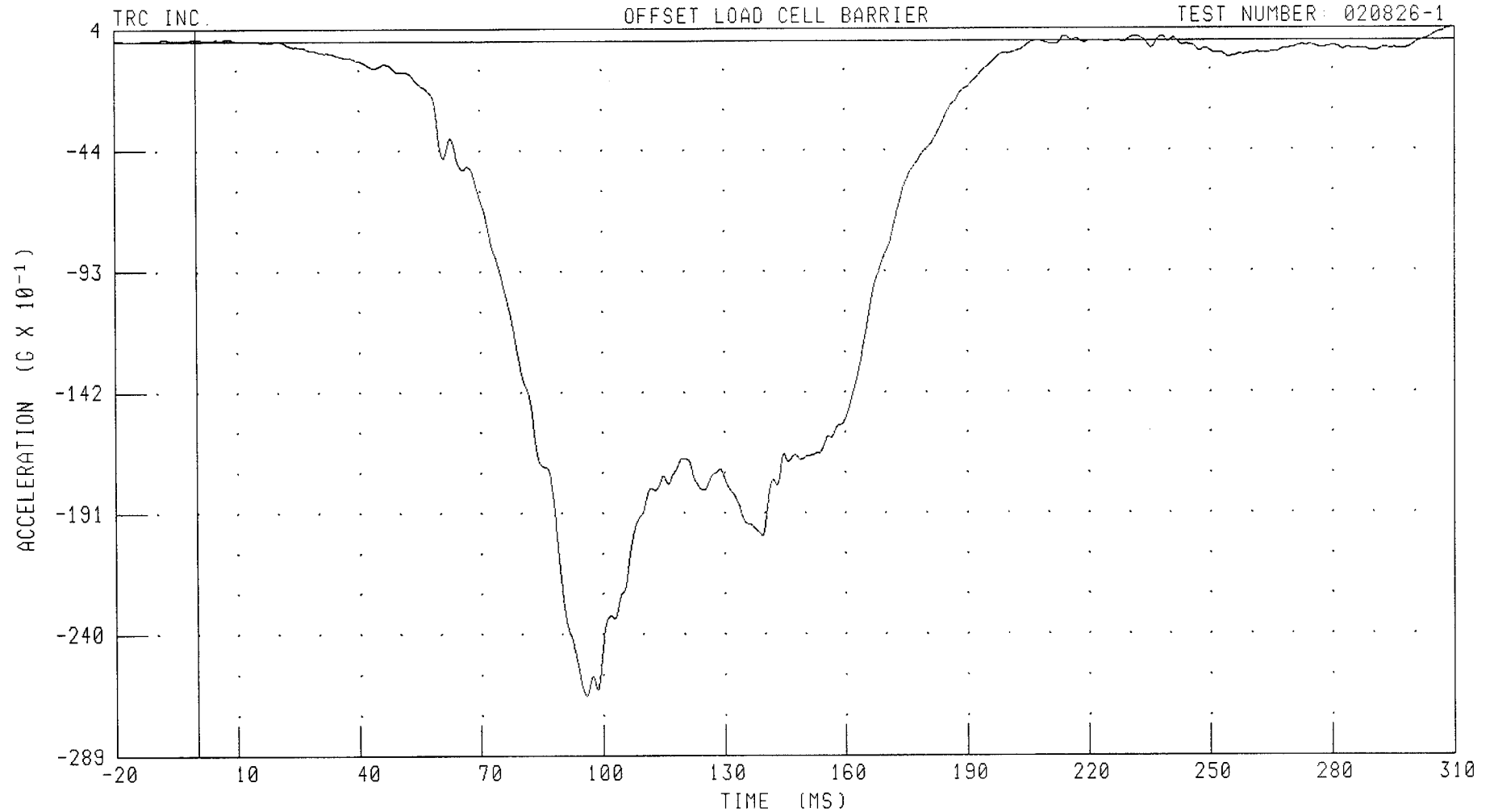
PEAK DATA: 0 00 --- @ 35.52 MS; 0.00 --- @ -20 00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER CHEST X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTXG2 FILTER: CH. CLASS 180

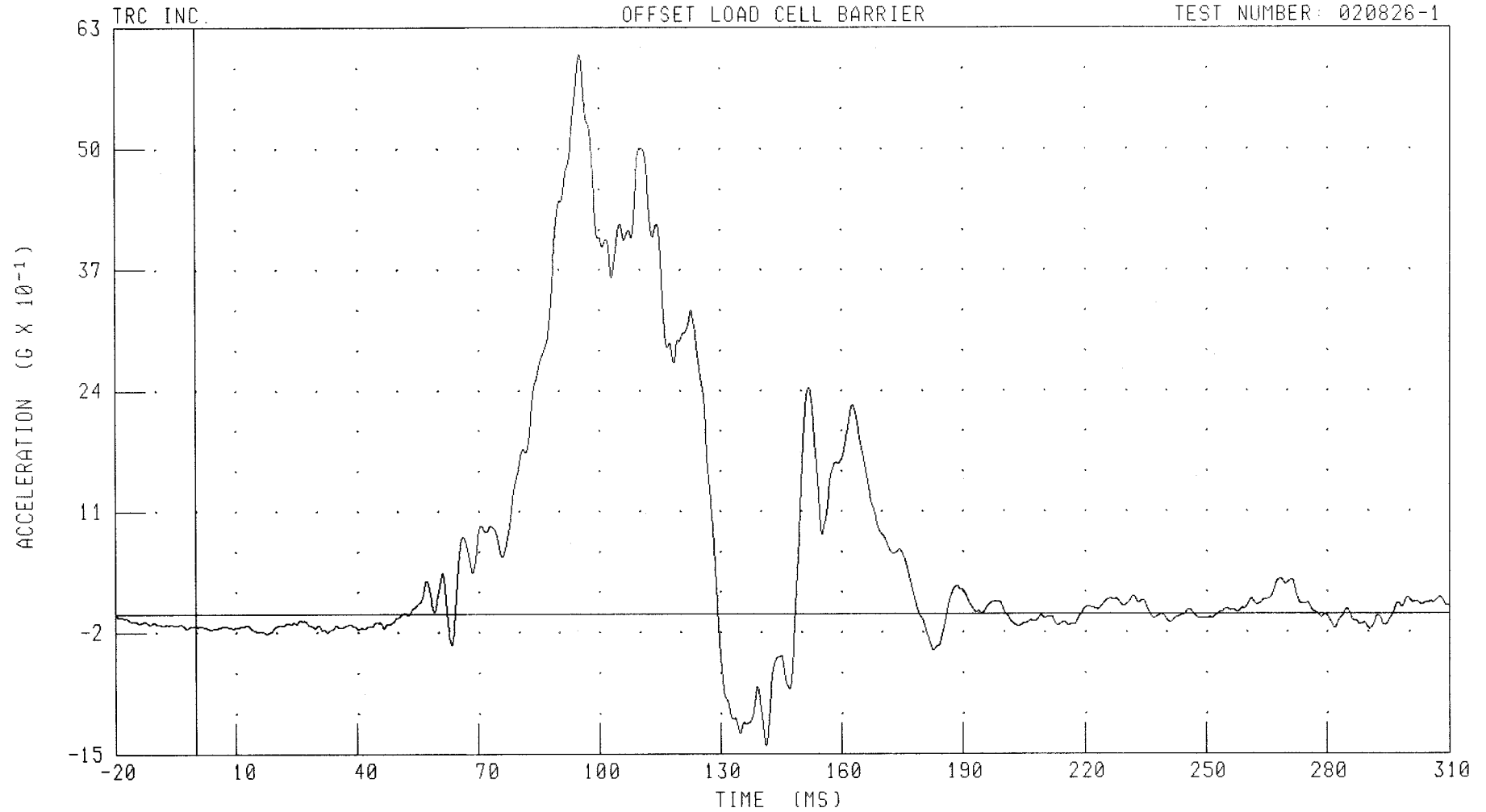
PEAK DATA: 0.54 G @ 309.36 MS; -26.49 G @ 96.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER CHEST Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



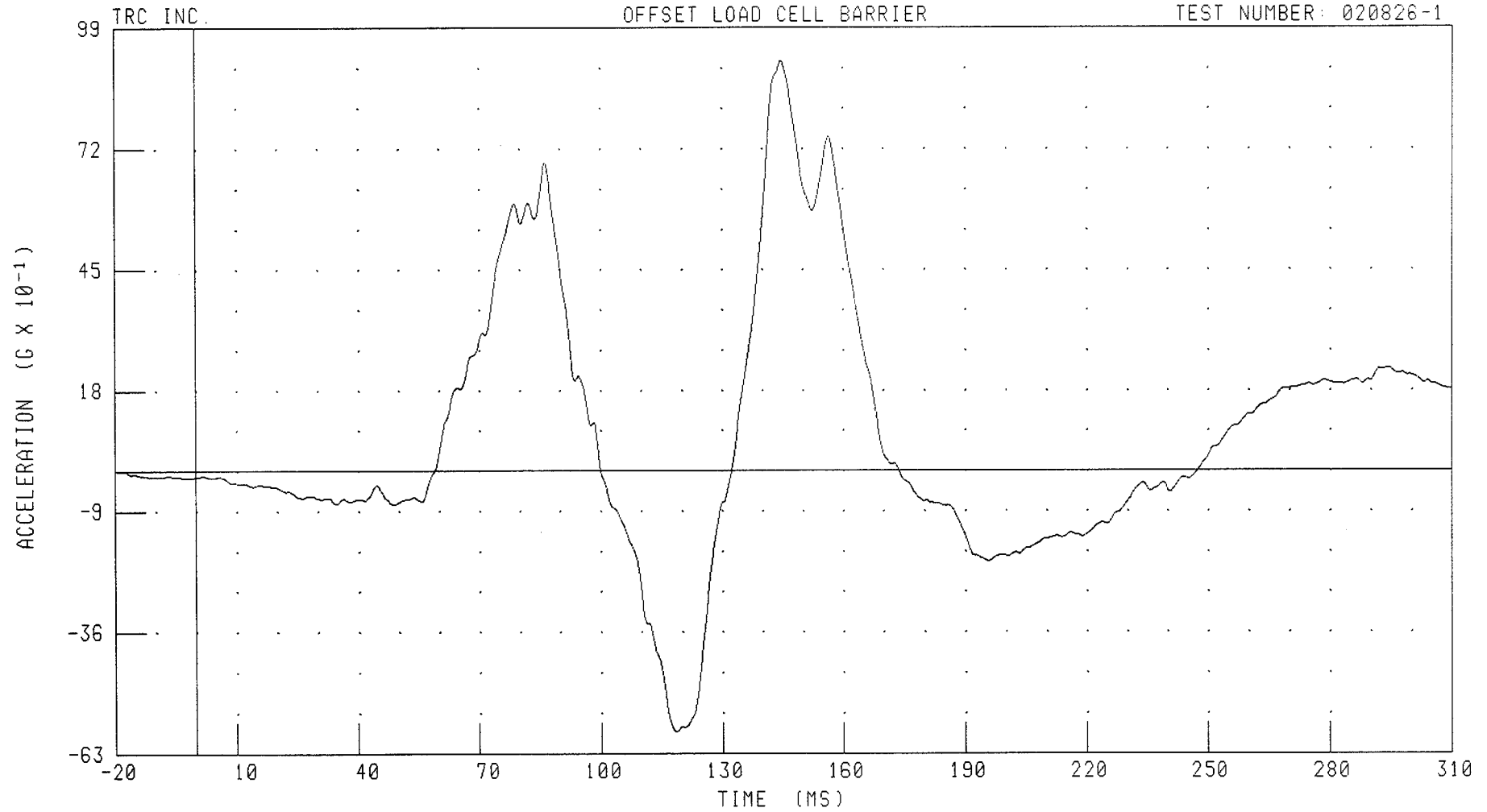
CHANNEL: CSTYG2 FILTER: CH. CLASS 180

PEAK DATA: 6.01 G @ 95.36 MS; -1.41 G @ 141.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER CHEST Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTZG2 FILTER: CH. CLASS 180

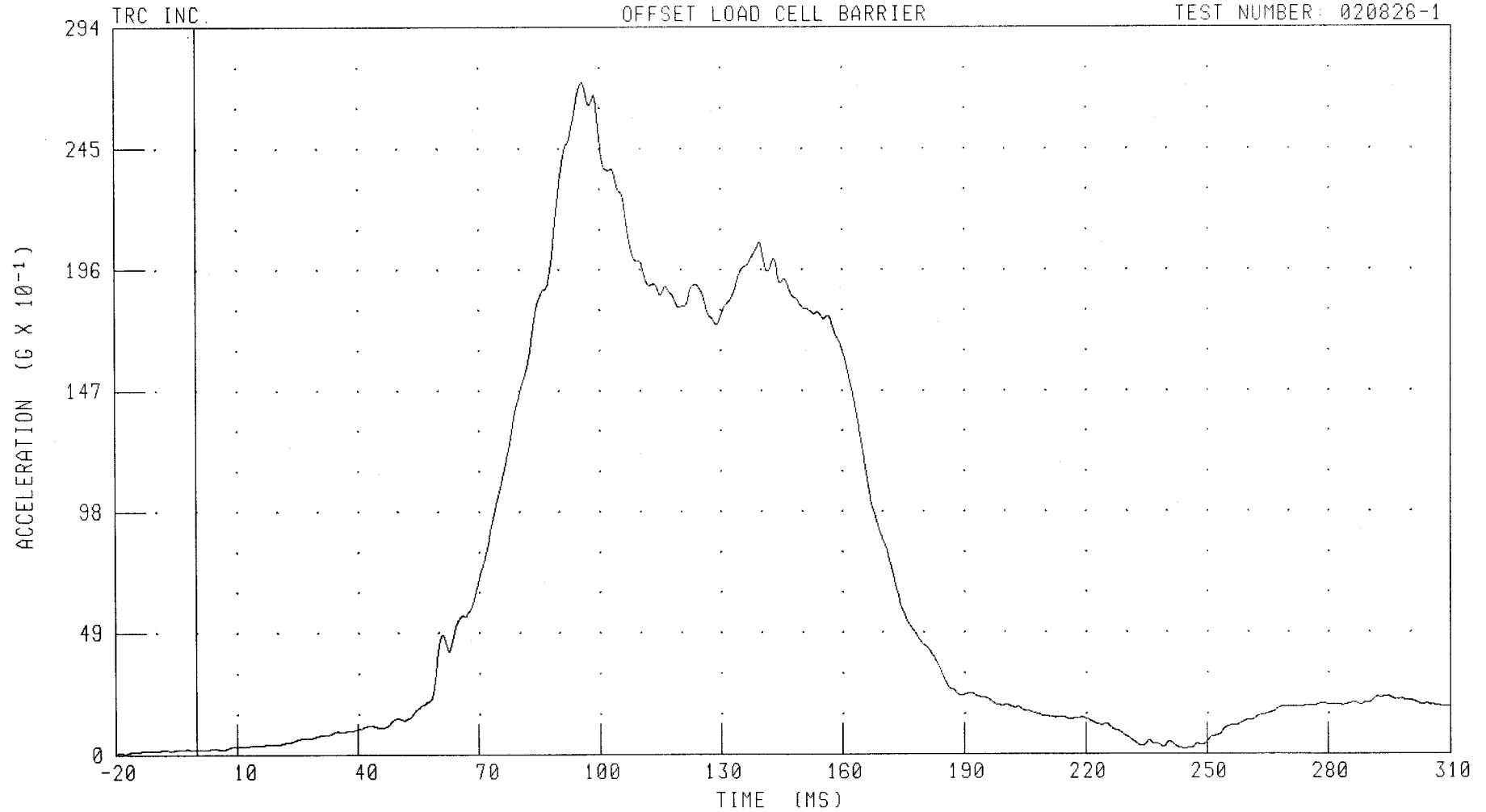
PEAK DATA: 9.16 G @ 144.88 MS; -5.81 G @ 118.56 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER CHEST RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTRG2 FILTER: CH. CLASS 180

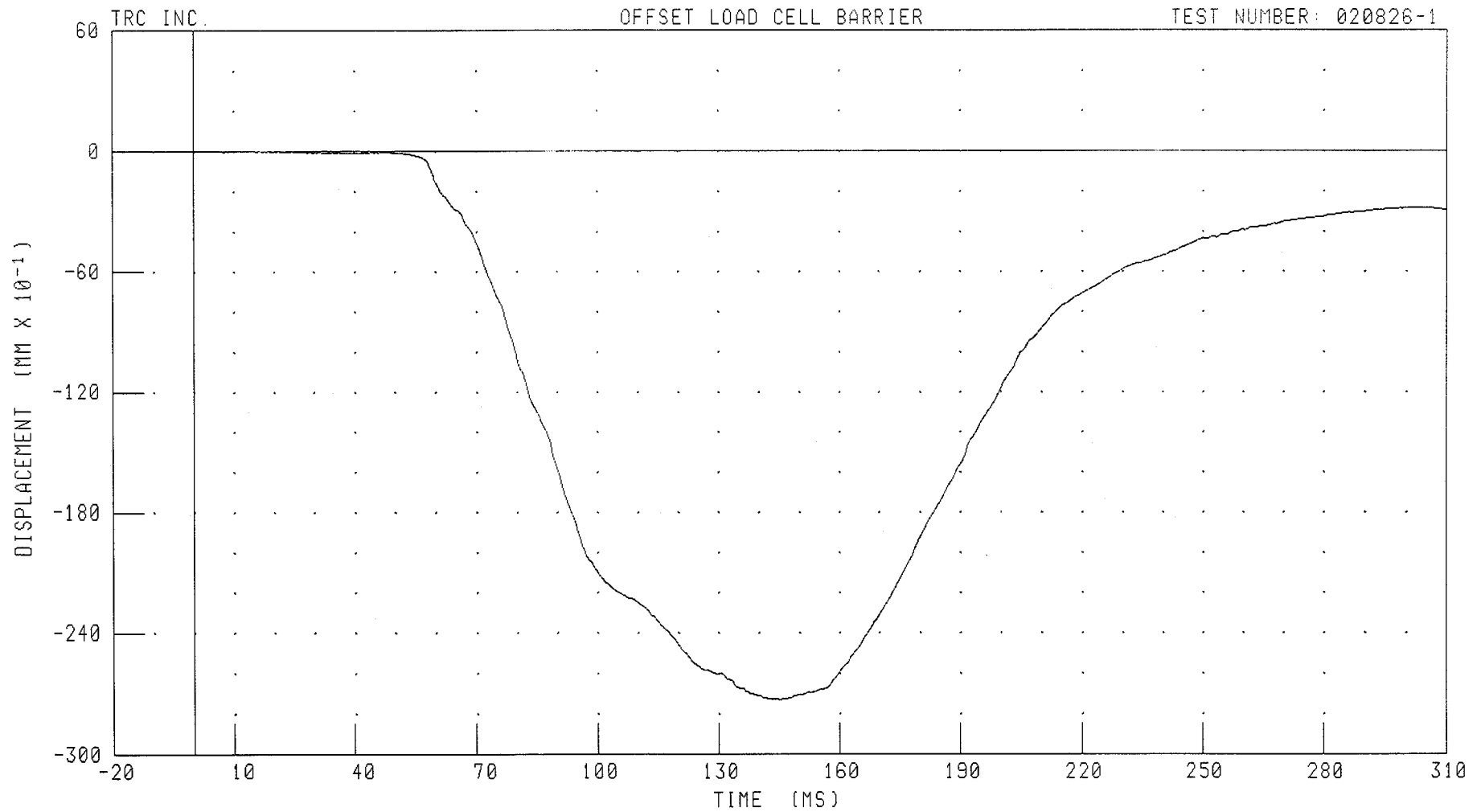
PEAK DATA: 27.17 G @ 95.92 MS, 0.01 G @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER CHEST DEFLECTION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: CSTXD2

FILTER: CH. CLASS 600

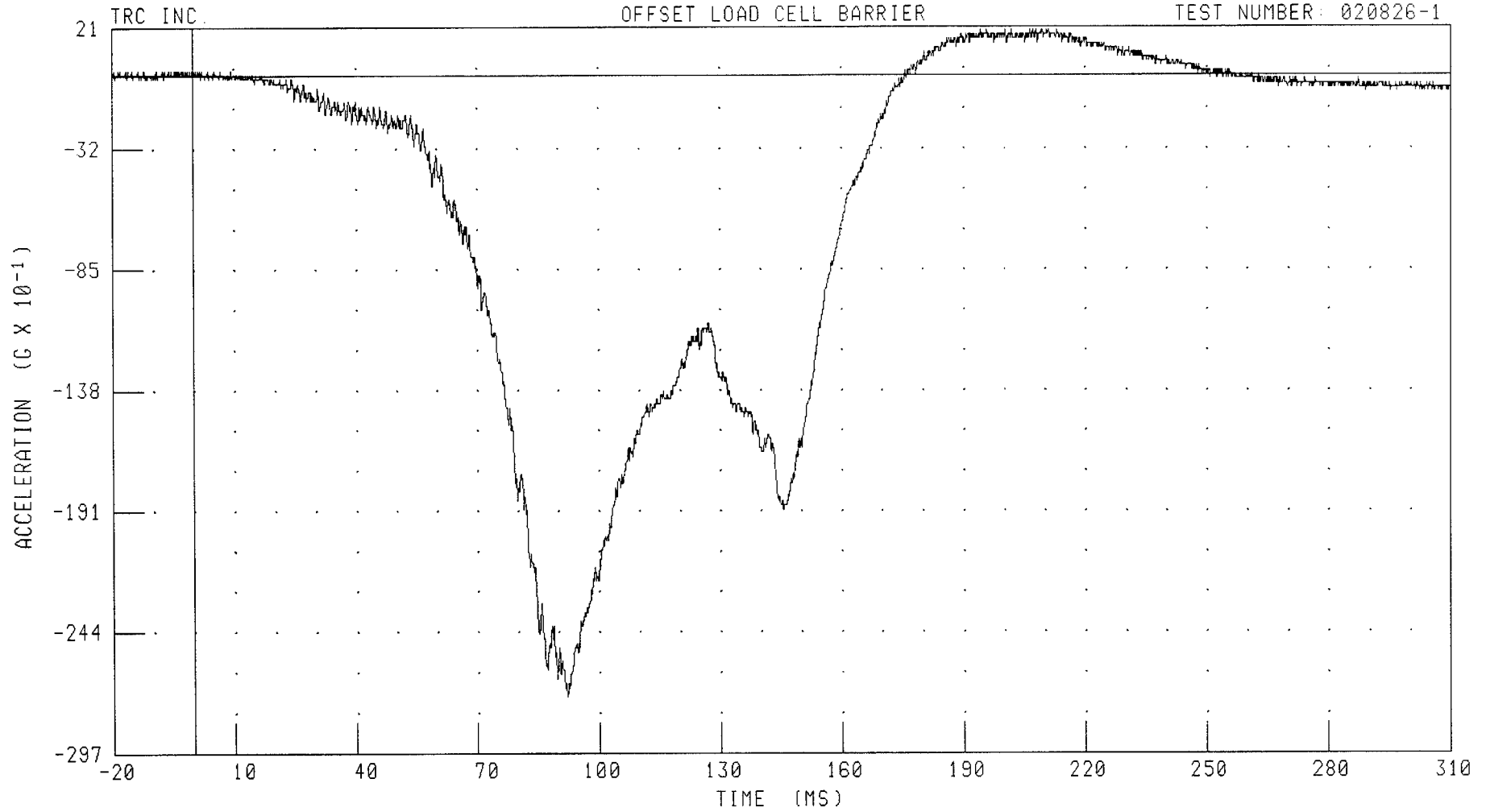
PEAK DATA: 0.01 MM @ -16.16 MS; -27.32 MM @ 145.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER PELVIS X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVX62 FILTER: CH. CLASS 1000

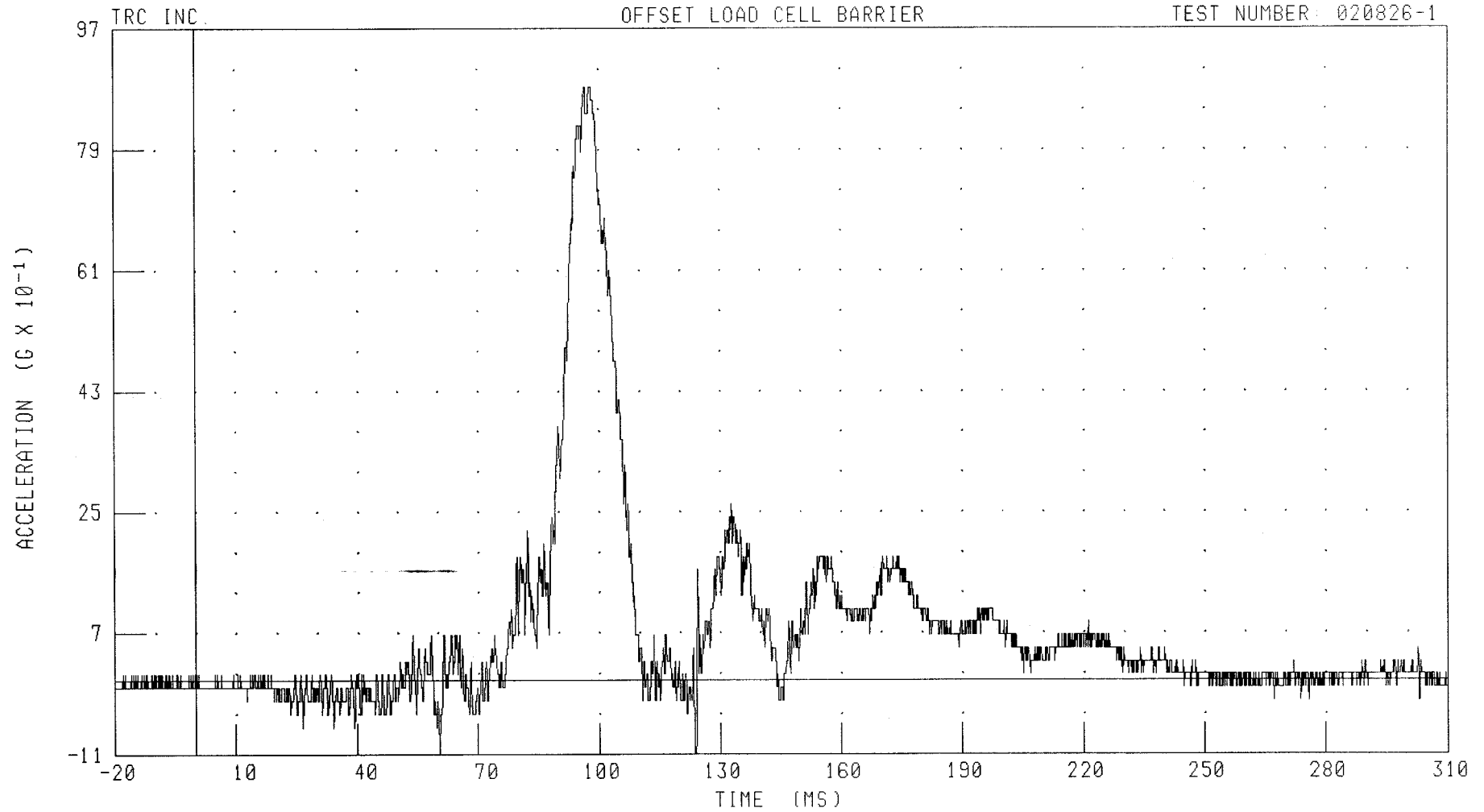
PEAK DATA: 1.99 G @ 194.40 MS; -27.25 G @ 92.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER PELVIS Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVYG2 FILTER: CH. CLASS 1000

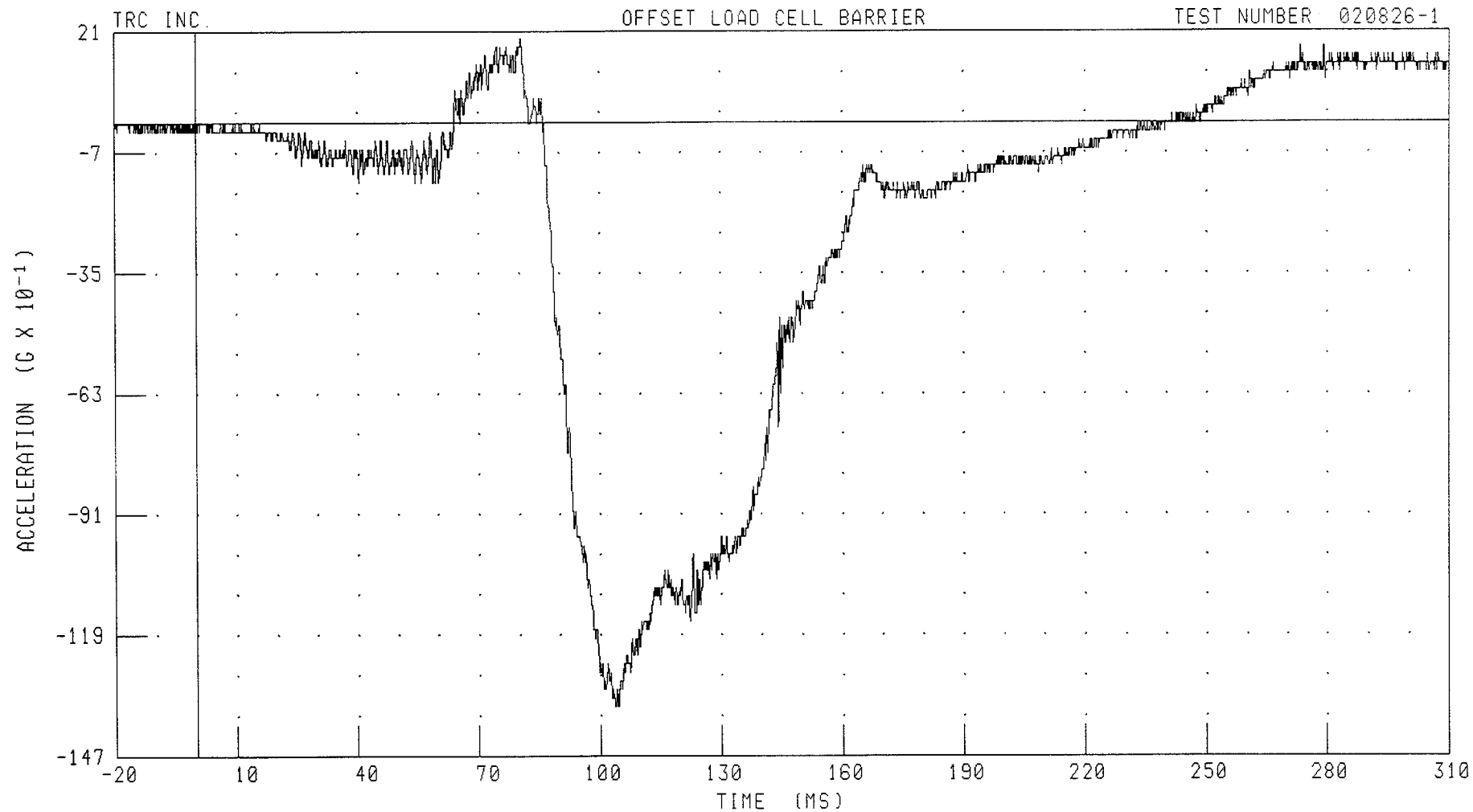
PEAK DATA: 8.84 G @ 96.48 MS; -1.09 G @ 60.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER PELVIS Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: PEVZG2 FILTER: CH. CLASS 1000

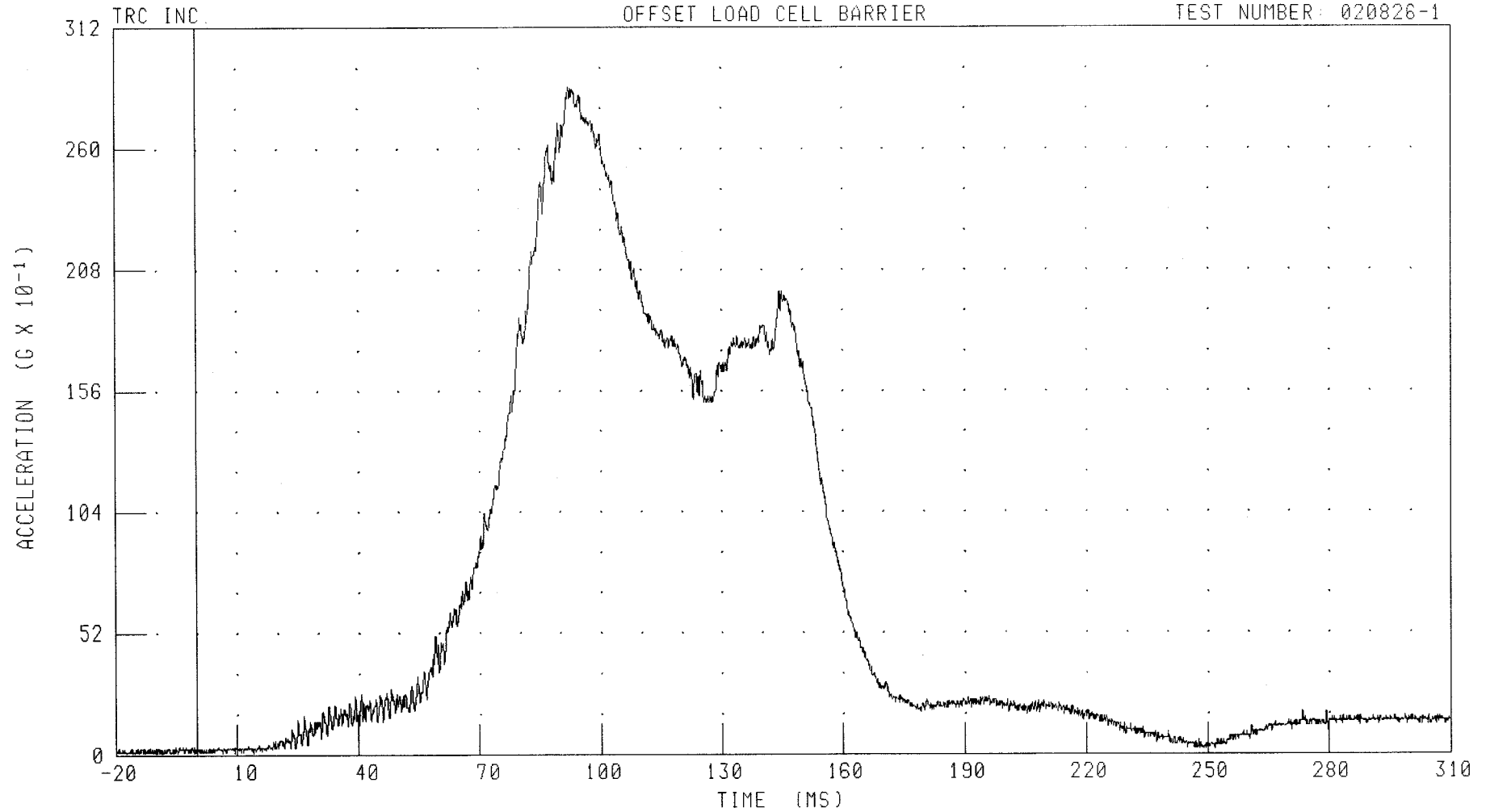
PEAK DATA: 1.94 G @ 80.64 MS; -13.56 G @ 103.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER PELVIS RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PEVRG2 FILTER: CH. CLASS 1000

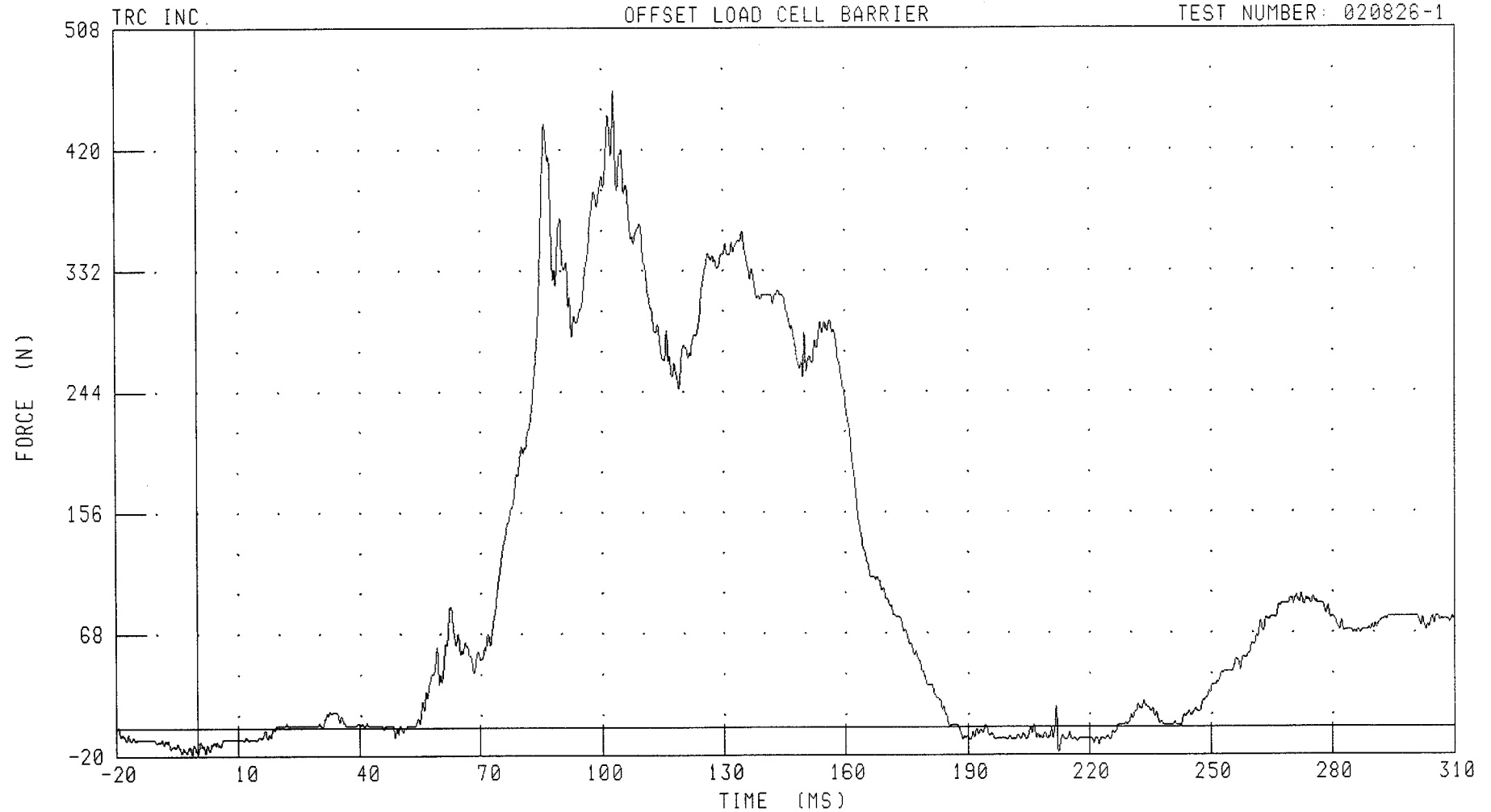
PEAK DATA: 28.65 G @ 92.24 MS; 0.09 G @ -17.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FEMUR X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMXF2 FILTER: CH. CLASS 600

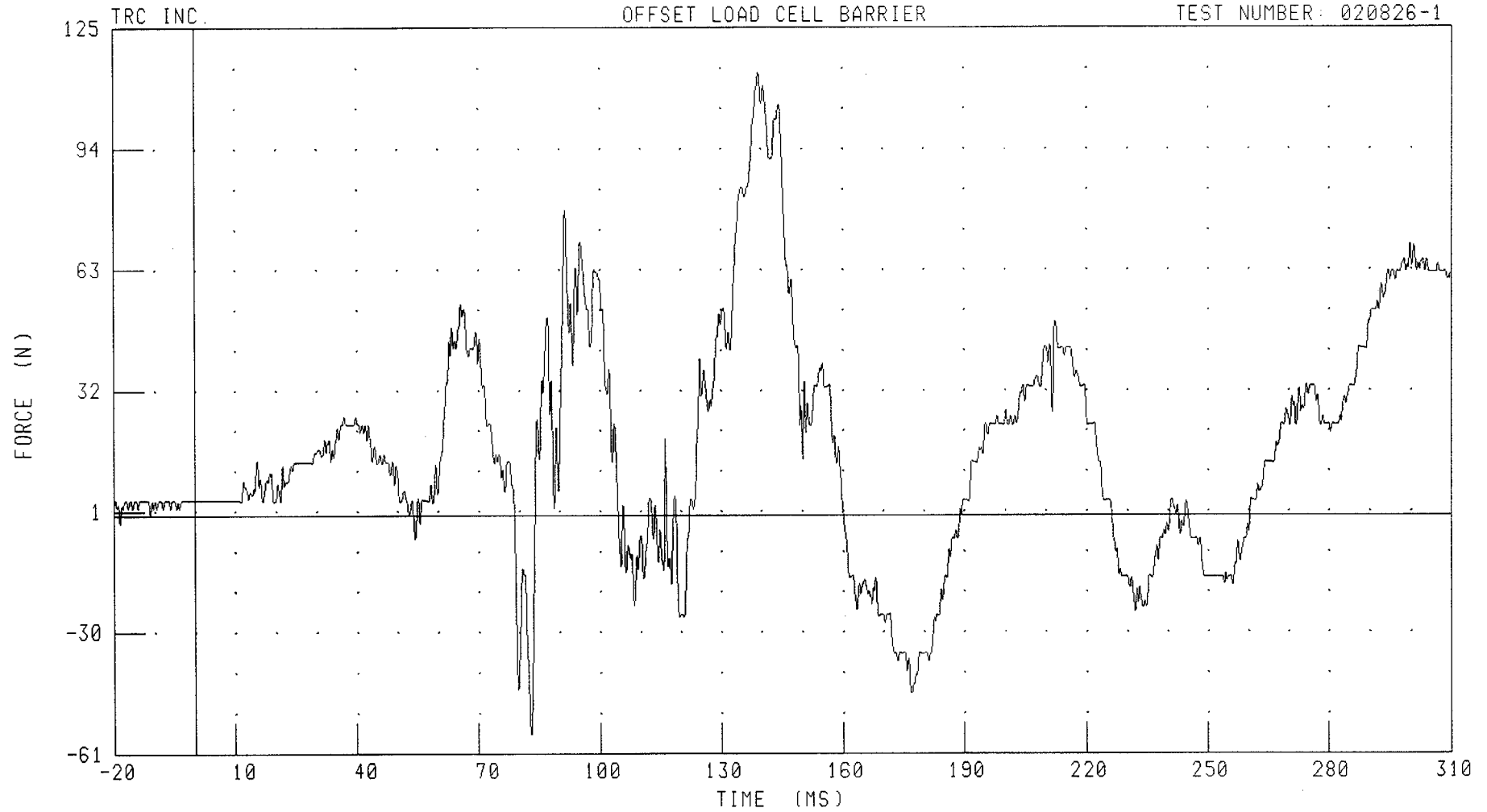
PEAK DATA: 462.50 N @ 103.04 MS; -18.38 N @ -1.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FEMUR Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMF2 FILTER: CH. CLASS 600

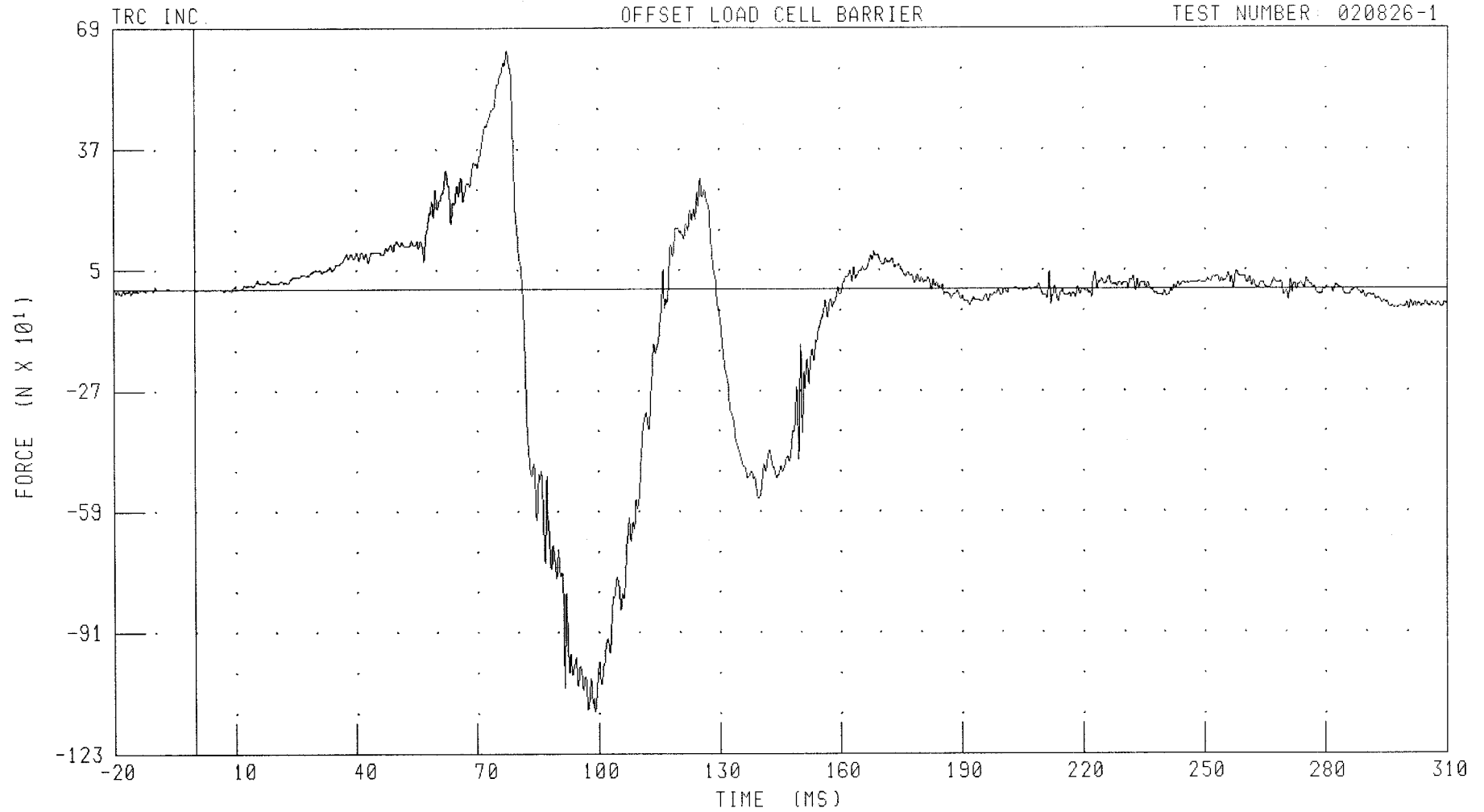
PEAK DATA: 113.56 N @ 139.44 MS; -56.10 N @ 82.88 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FEMUR Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMZF2 FILTER: CH. CLASS 600

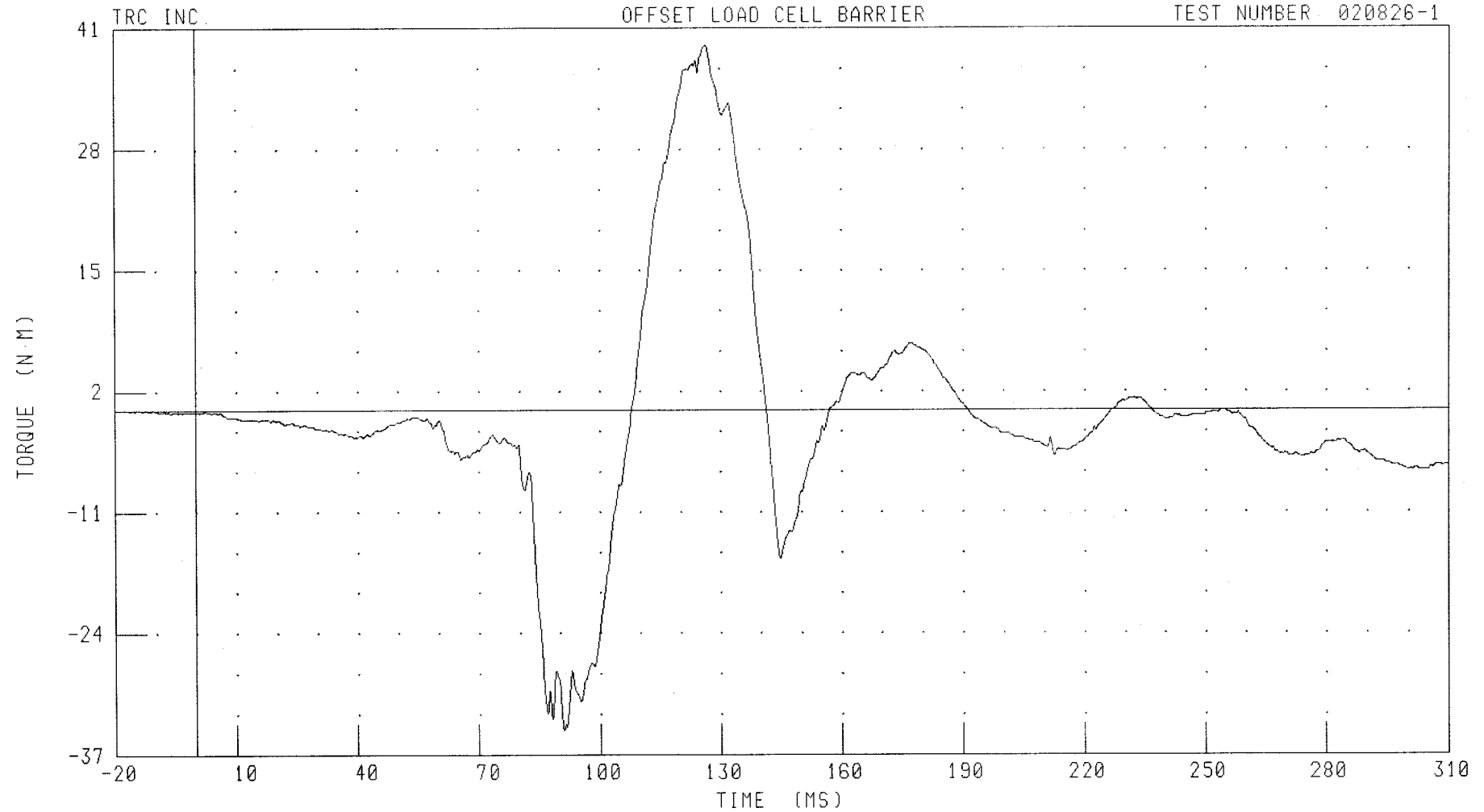
PEAK DATA: 631.94 N @ 77.68 MS; -1117.91 N @ 99.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FEMUR MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMXM2 FILTER: CH. CLASS 600

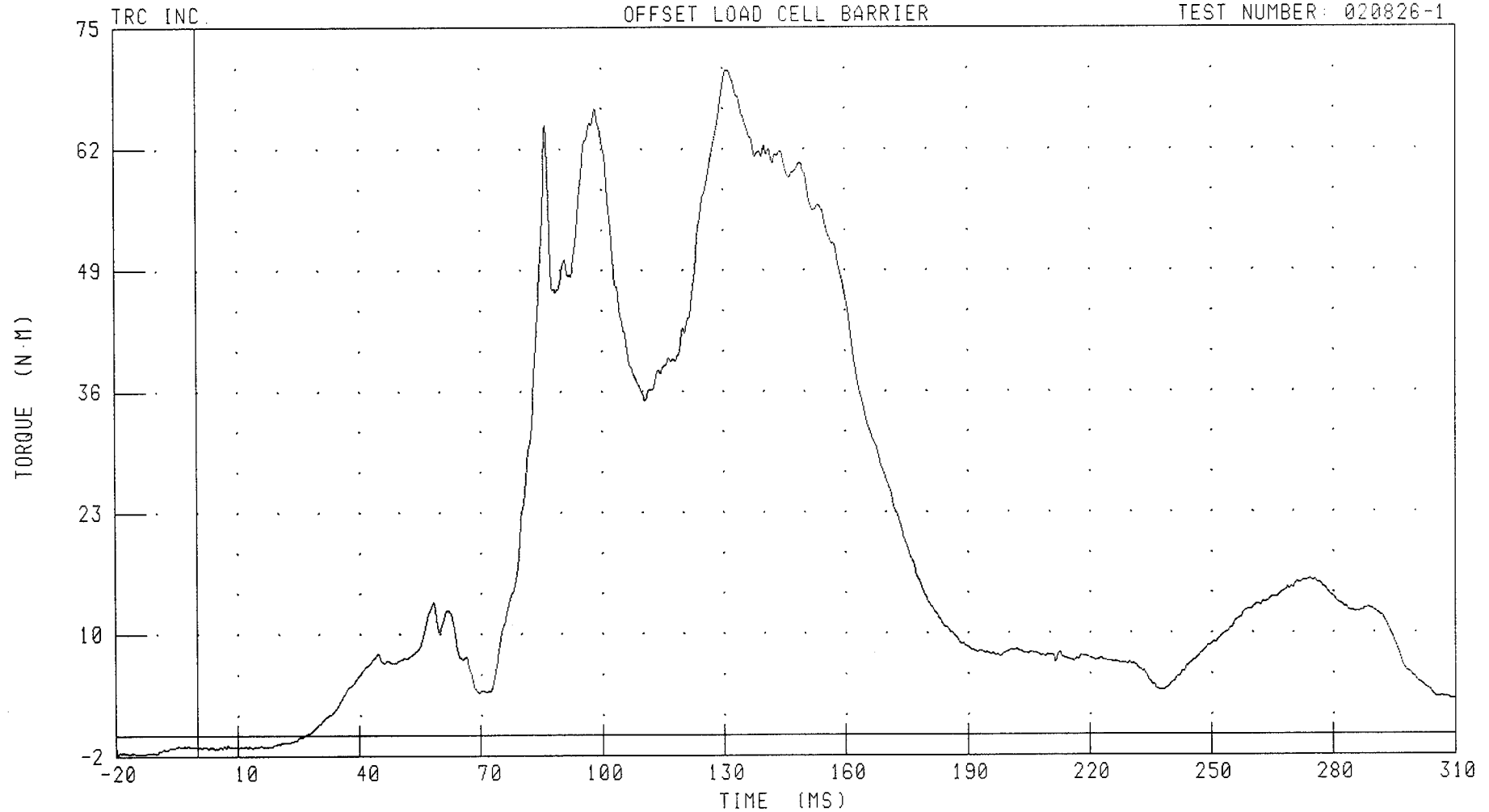
PEAK DATA: 39.20 N·M @ 126.64 MS; -34.42 N·M @ 90.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FEMUR MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



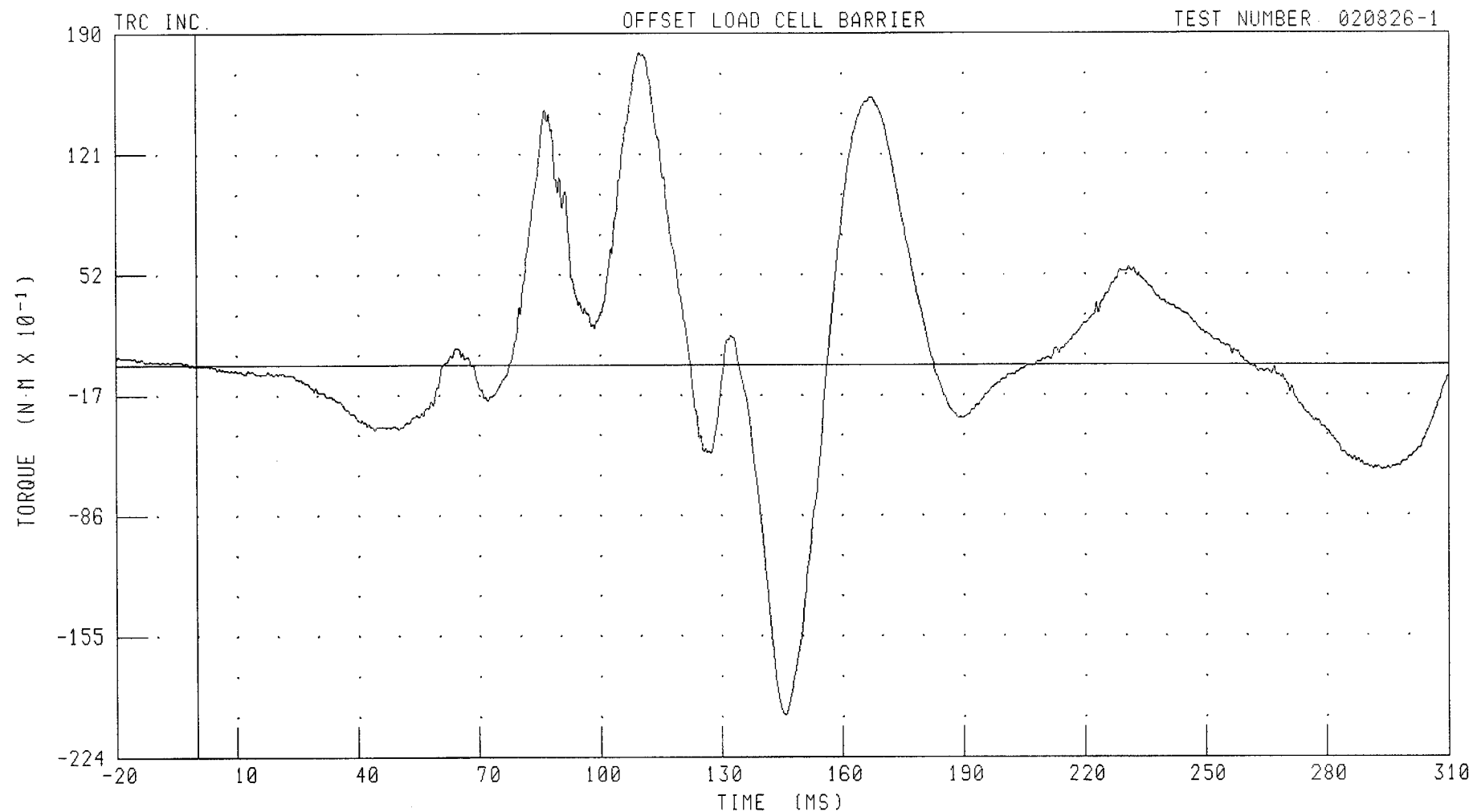
CHANNEL: LFMYM2 FILTER: CH. CLASS 600

PEAK DATA: 71.25 N·m @ 130.96 ms; -2.07 N·m @ -19.60 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT FEMUR MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LFMZM2 FILTER: CH. CLASS 600

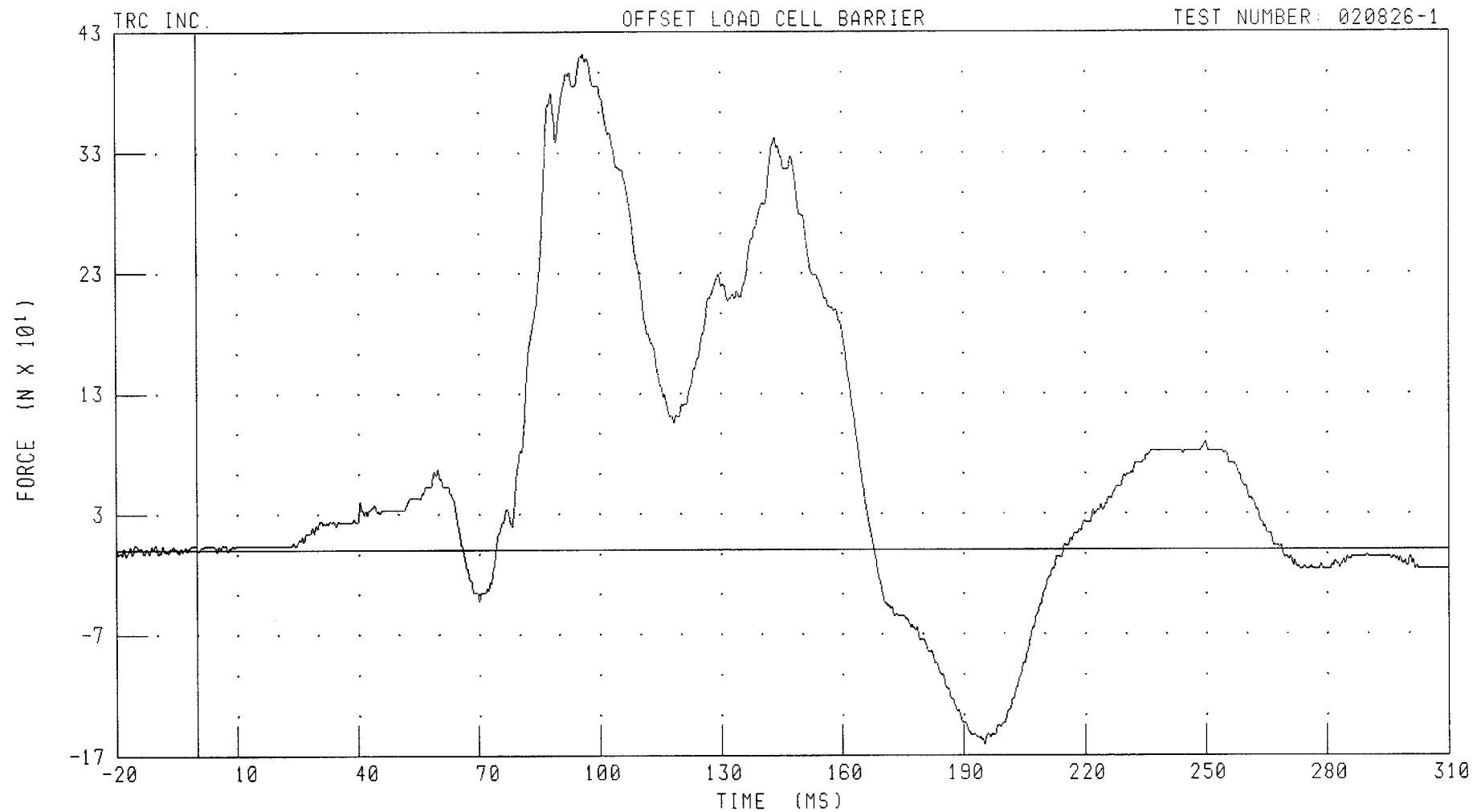
PEAK DATA: 17.88 N·M @ 110.00 MS; -20.03 N·M @ 146.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FEMUR X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMXF2 FILTER: CH. CLASS 600

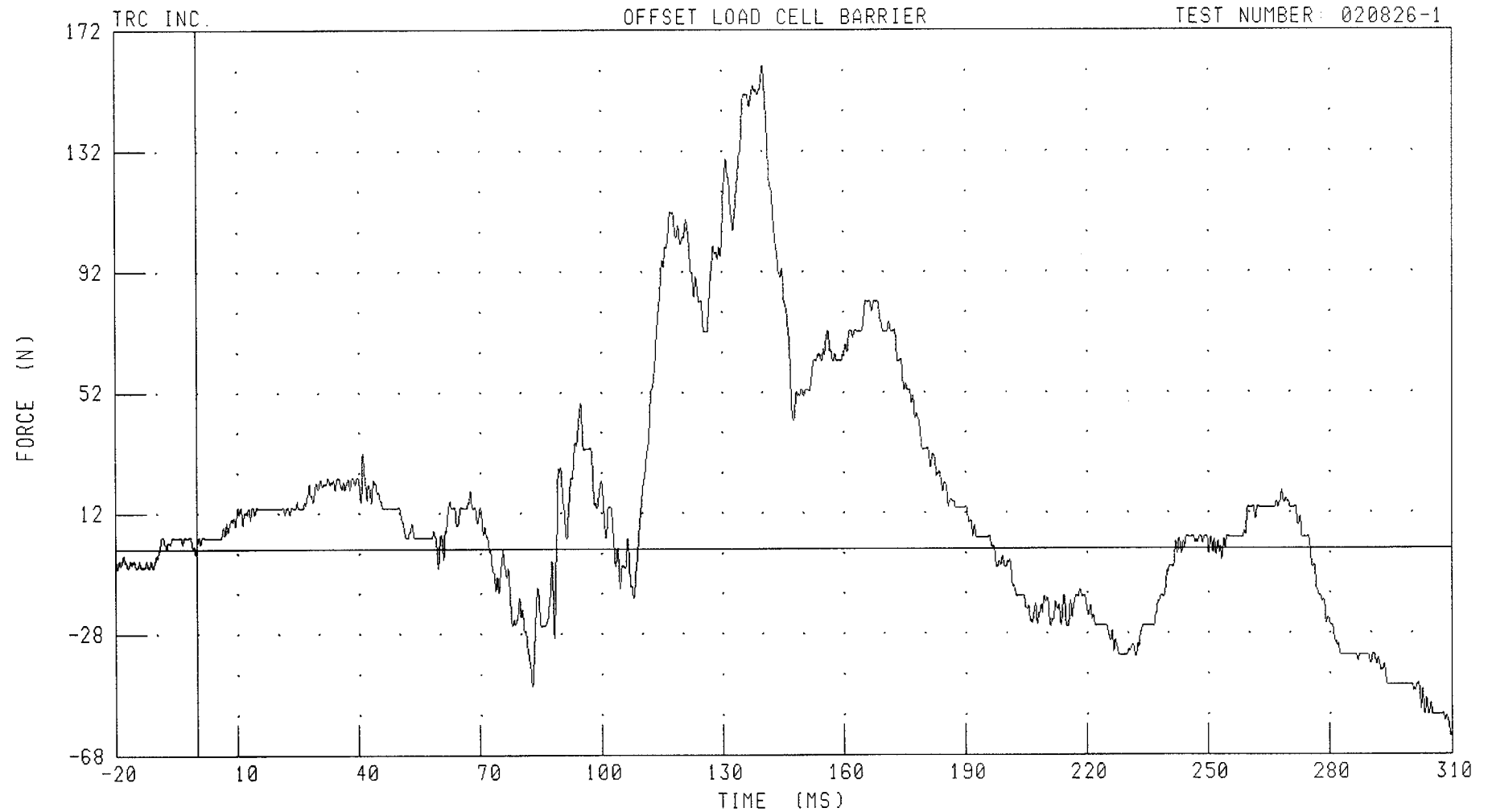
PEAK DATA: 411.81 N @ 96.16 MS; -161.06 N @ 195.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FEMUR Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMYF2 FILTER: CH. CLASS 600

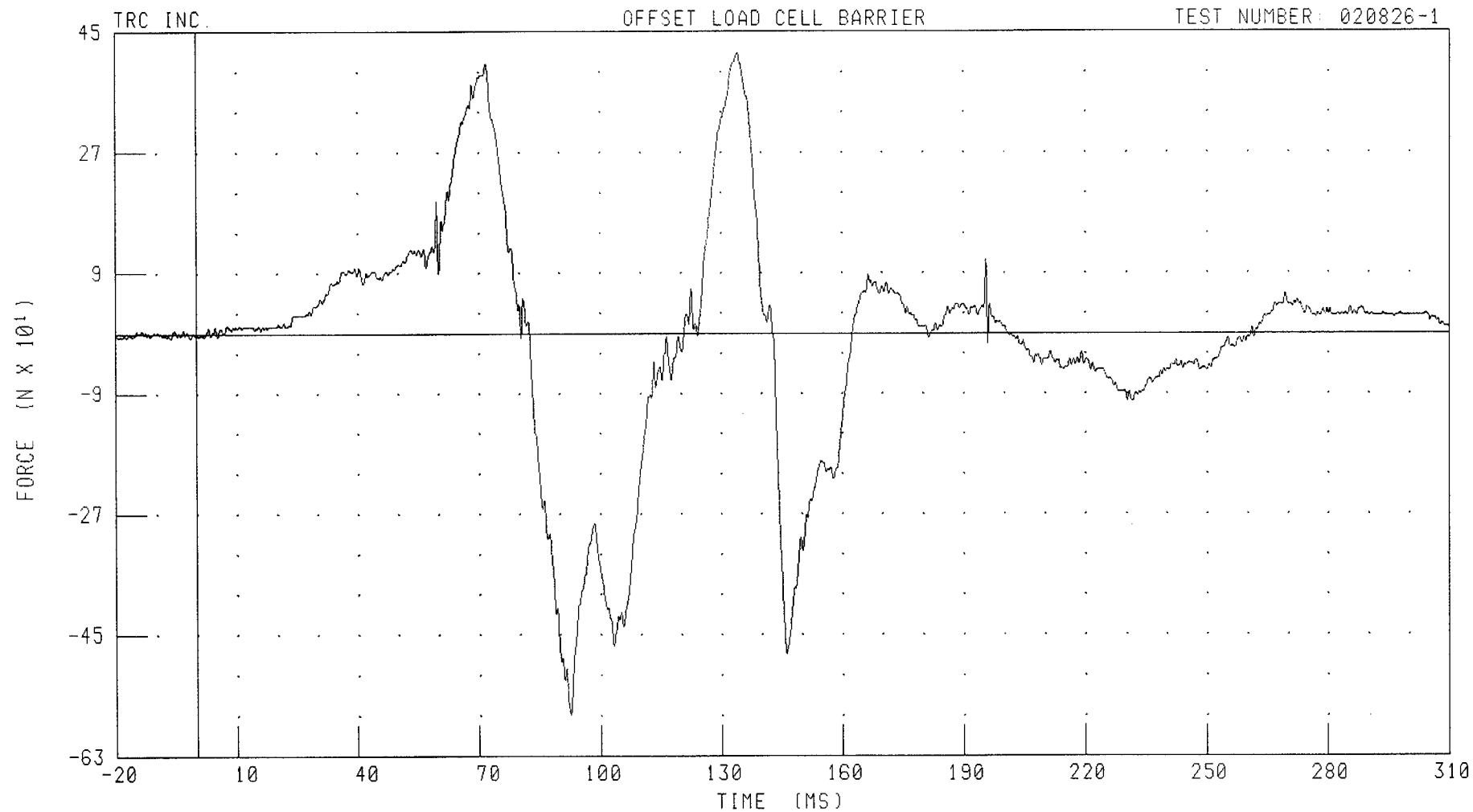
PEAK DATA: 160.32 N @ 140.40 MS; -62.01 N @ 309.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FEMUR Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



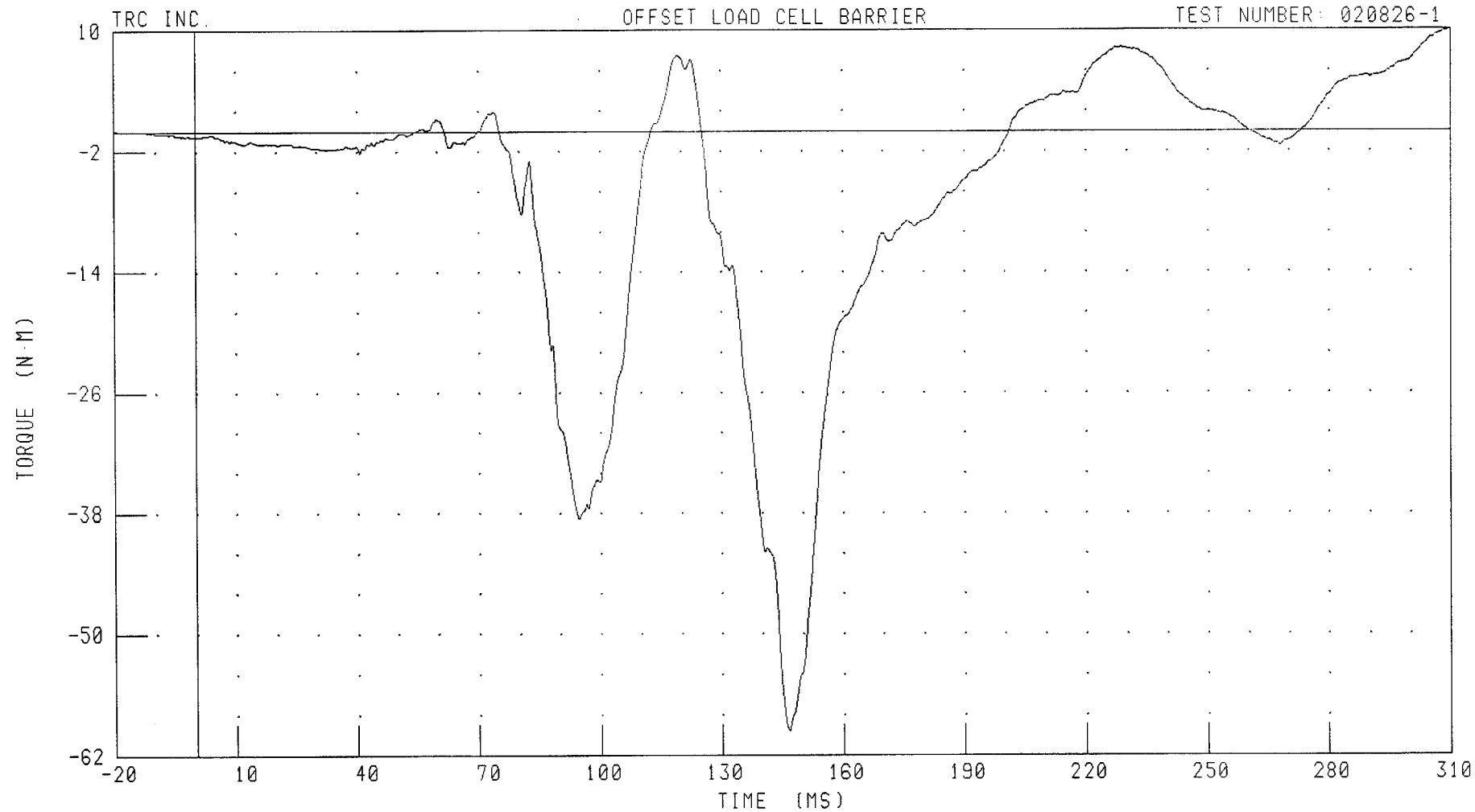
CHANNEL: RFMZ F2 FILTER: CH. CLASS 600

PEAK DATA: 418.01 N @ 134.32 MS; -568.67 N @ 92.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT FEMUR MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



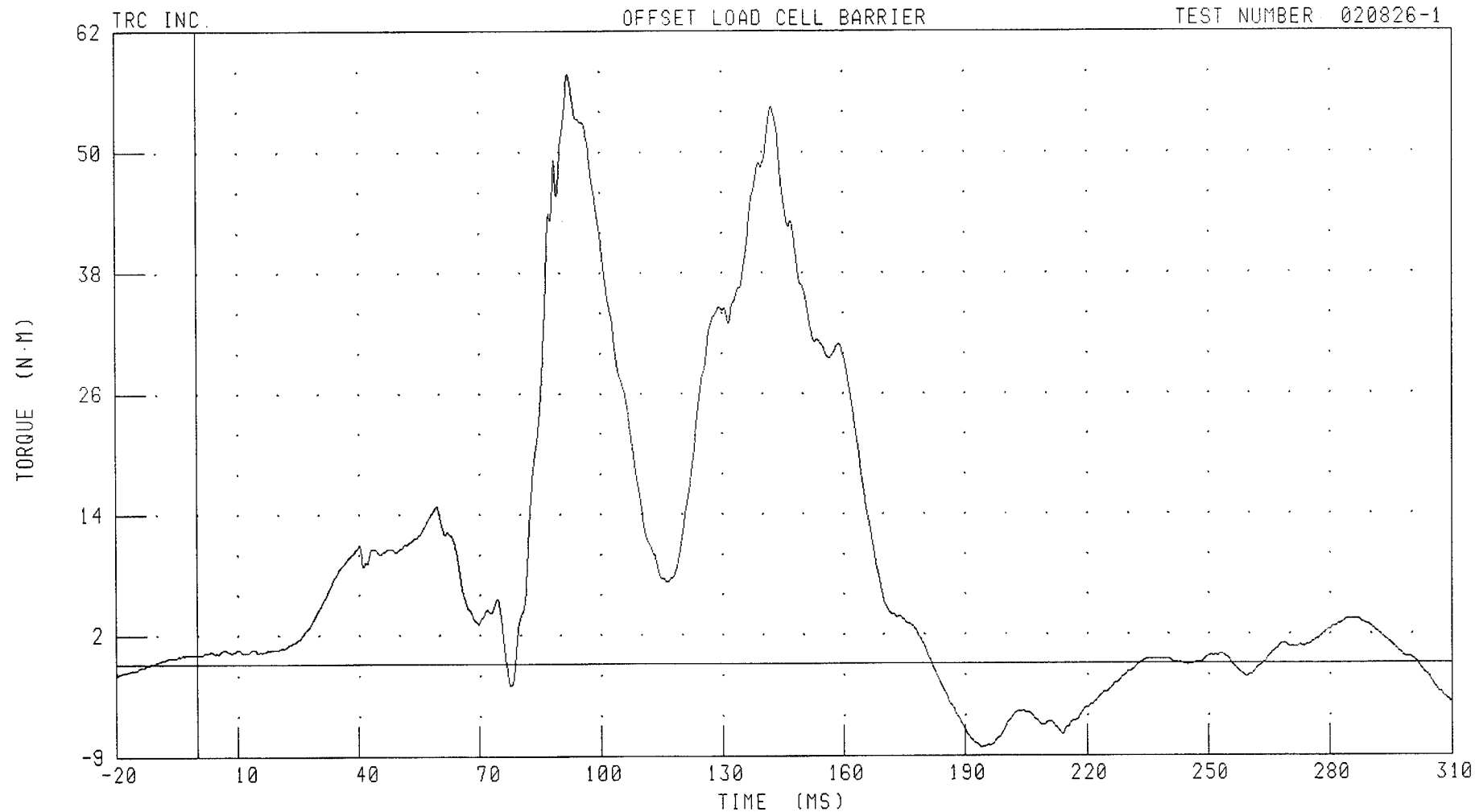
CHANNEL: RFMXM2 FILTER: CH. CLASS 600

PEAK DATA: 9.95 N·M @ 309.84 MS; -59.57 N·M @ 146.64 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT FEMUR MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



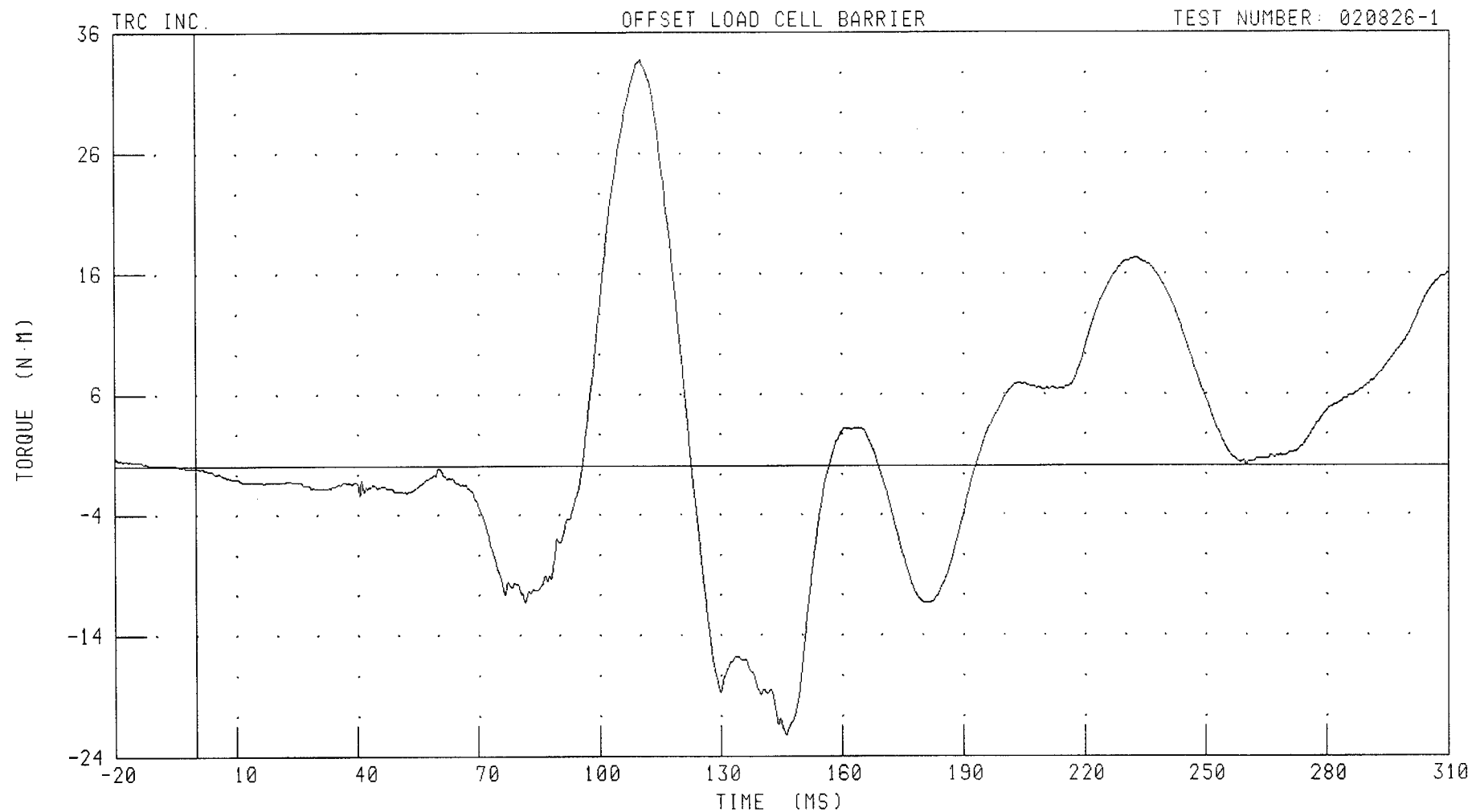
CHANNEL: RFMYM2 FILTER: CH. CLASS 600

PEAK DATA: 58.65 N·m @ 92.16 ms; -8.28 N·m @ 194.16 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT FEMUR MOMENT ABOUT Z AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RFMZM2 FILTER: CH. CLASS 600

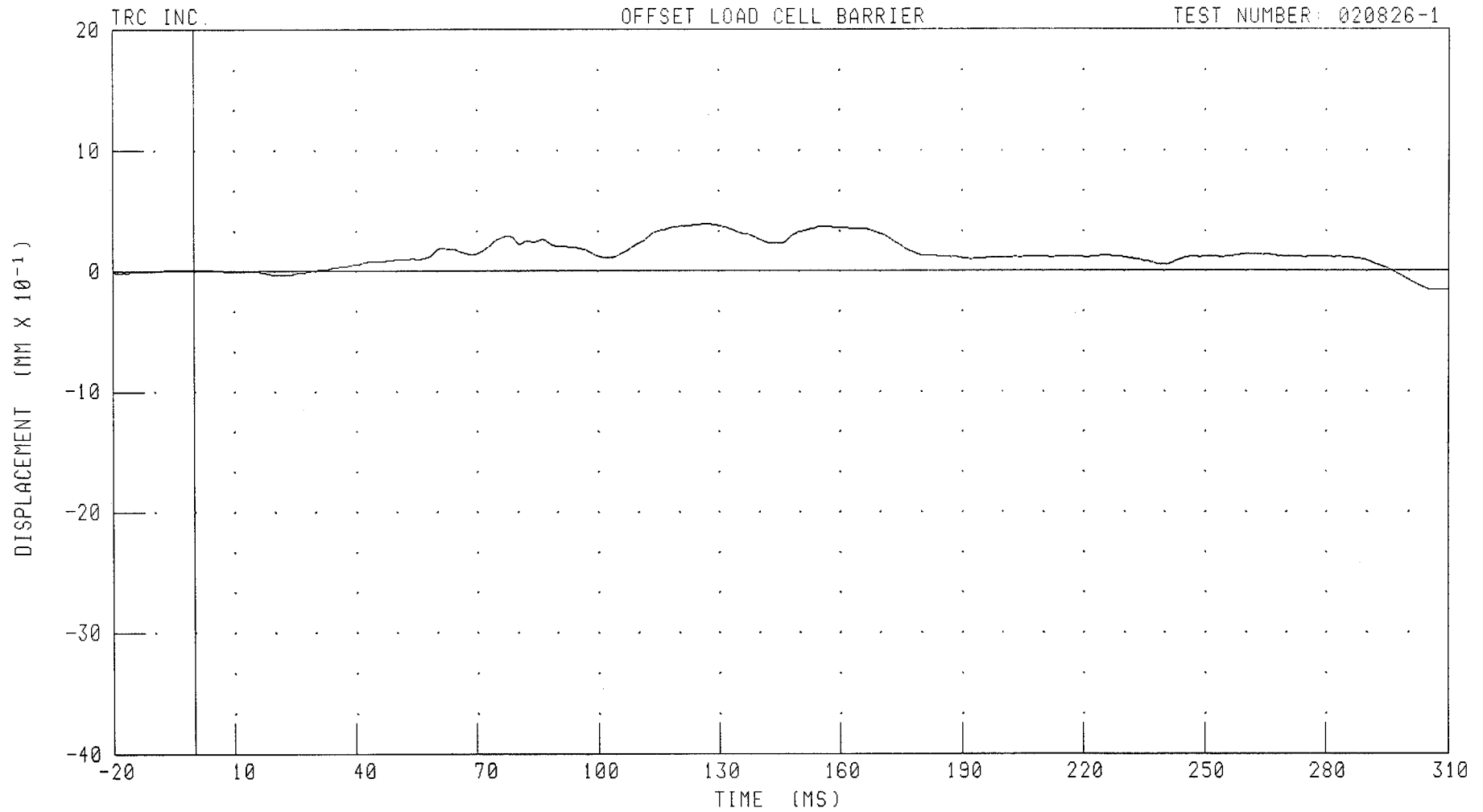
PEAK DATA: 33.74 N·m @ 110.32 ms; -22.23 N·m @ 146.16 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT TIBIA TO FEMUR DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: KNLXD2 FILTER: CH. CLASS 180

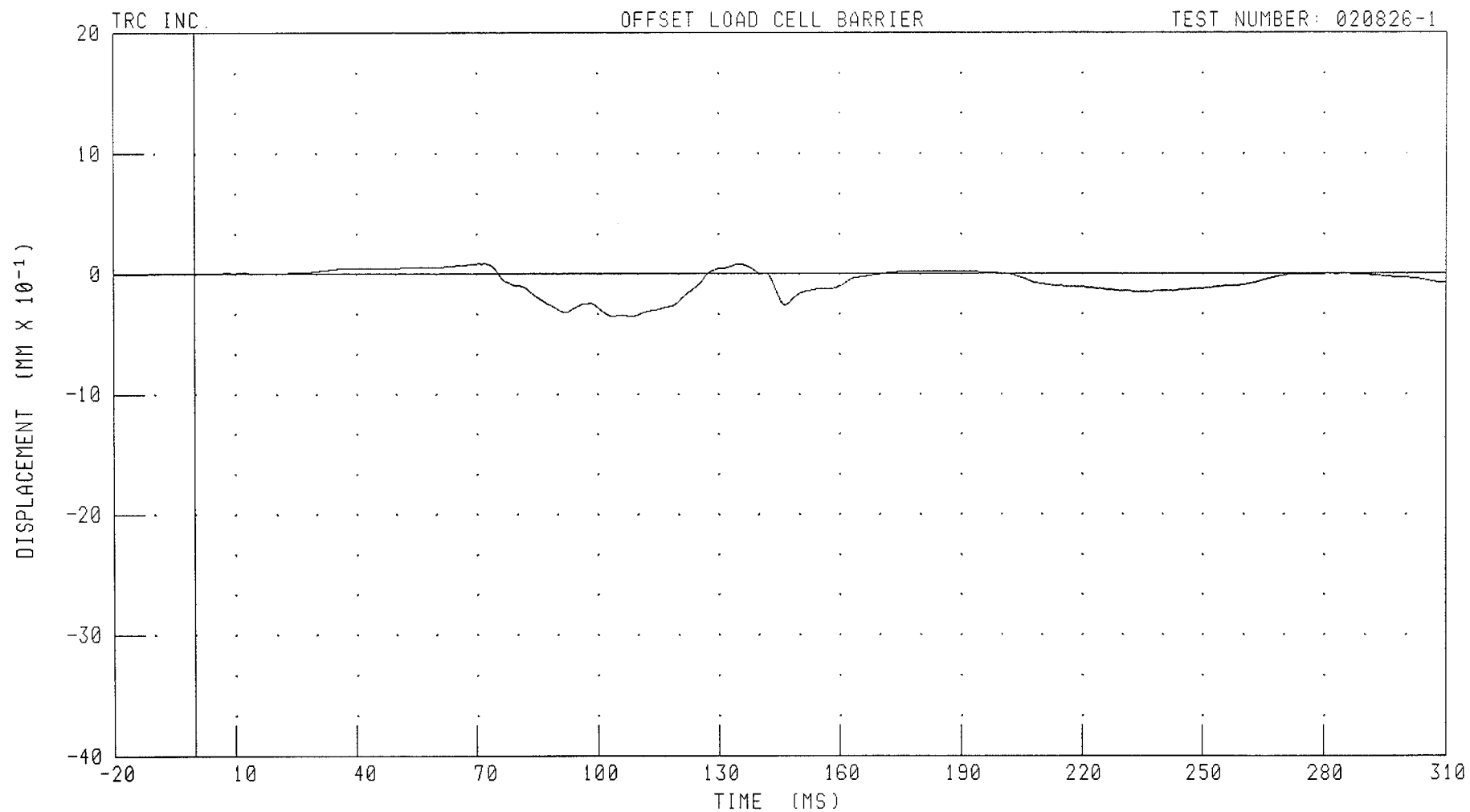
PEAK DATA: 0.39 MM @ 127.68 MS; -0.16 MM @ 305.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT TIBIA TO FEMUR DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: KNRXD2 FILTER: CH. CLASS 180

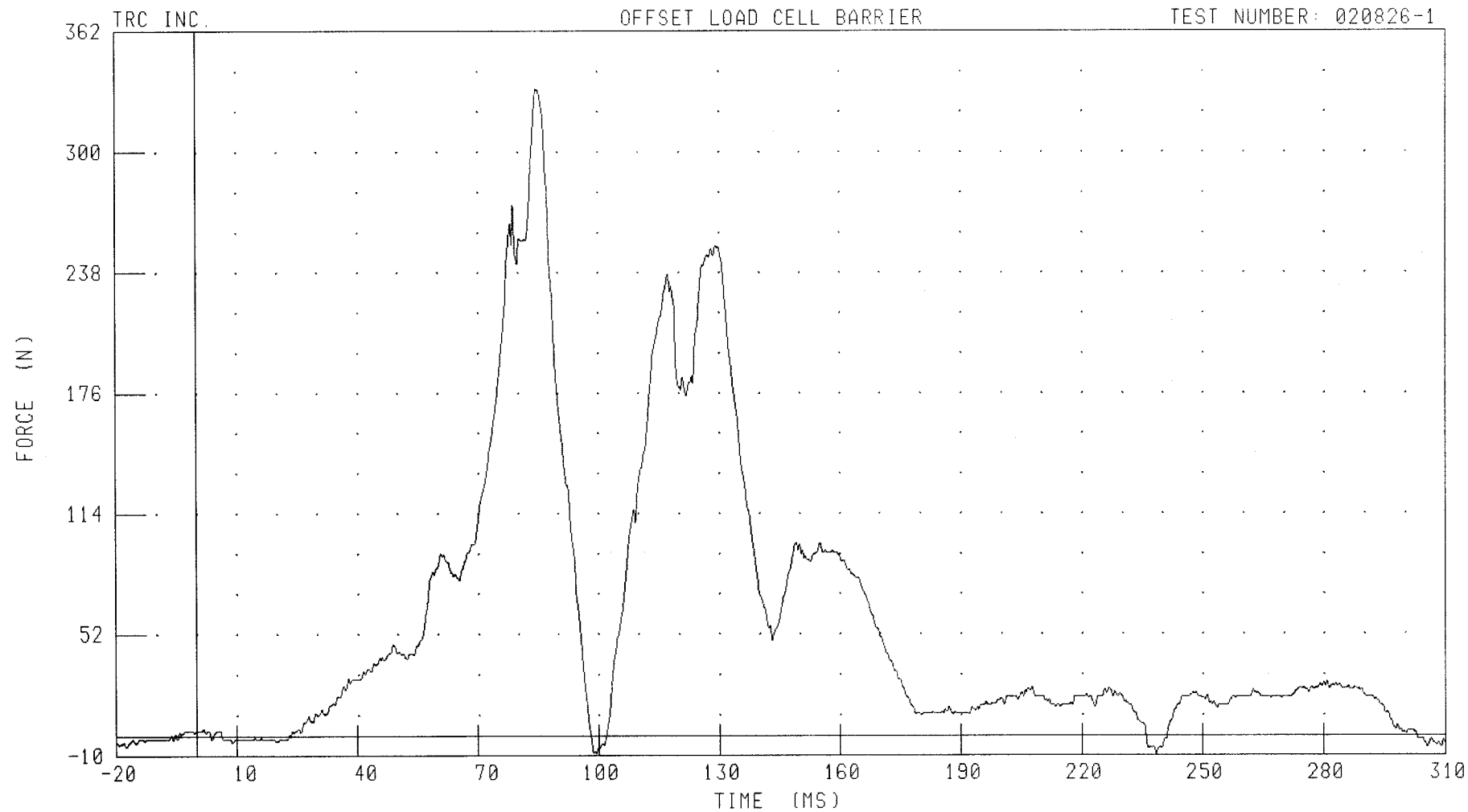
PEAK DATA: 0.09 MM @ 72.24 MS; -0.35 MM @ 103.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT UPPER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLXF2 FILTER: CH. CLASS 600

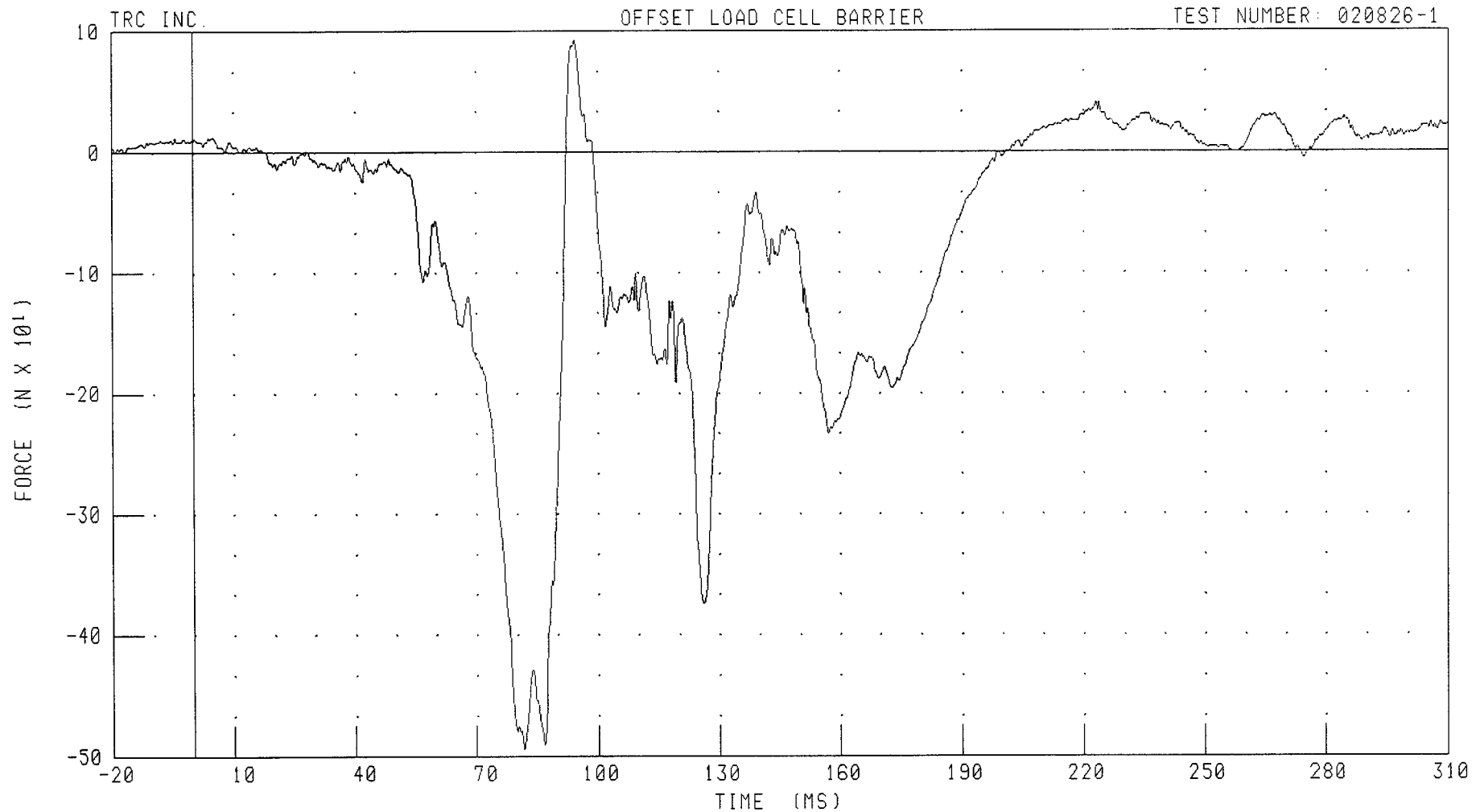
PEAK DATA: 332.90 N @ 84.72 MS; -9.29 N @ 238.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT UPPER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



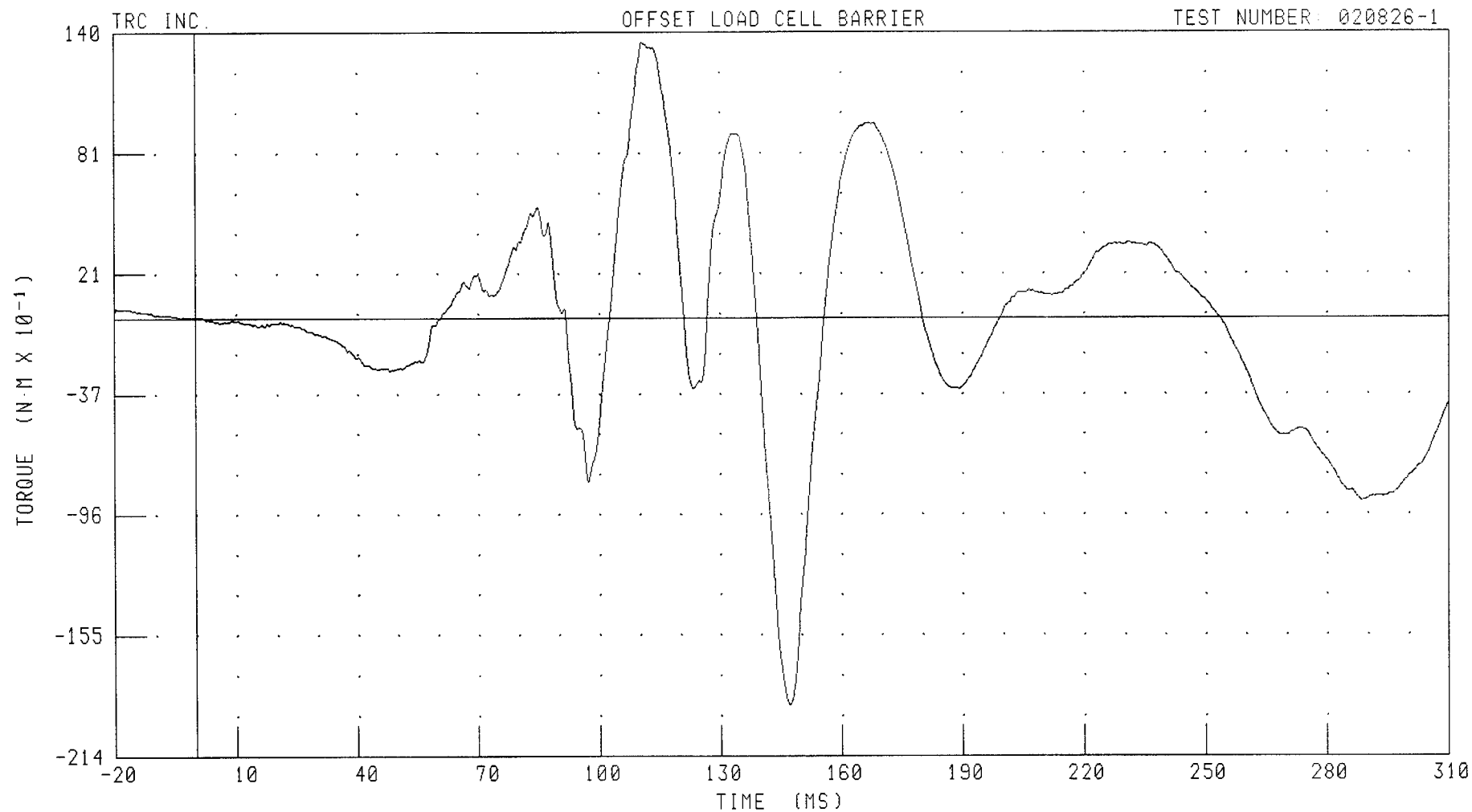
CHANNEL: TBLZF2 FILTER: CH. CLASS 600

PEAK DATA: 92.81 N @ 94.48 MS; -494.32 N @ 81.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT UPPER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLXM2 FILTER: CH. CLASS 600

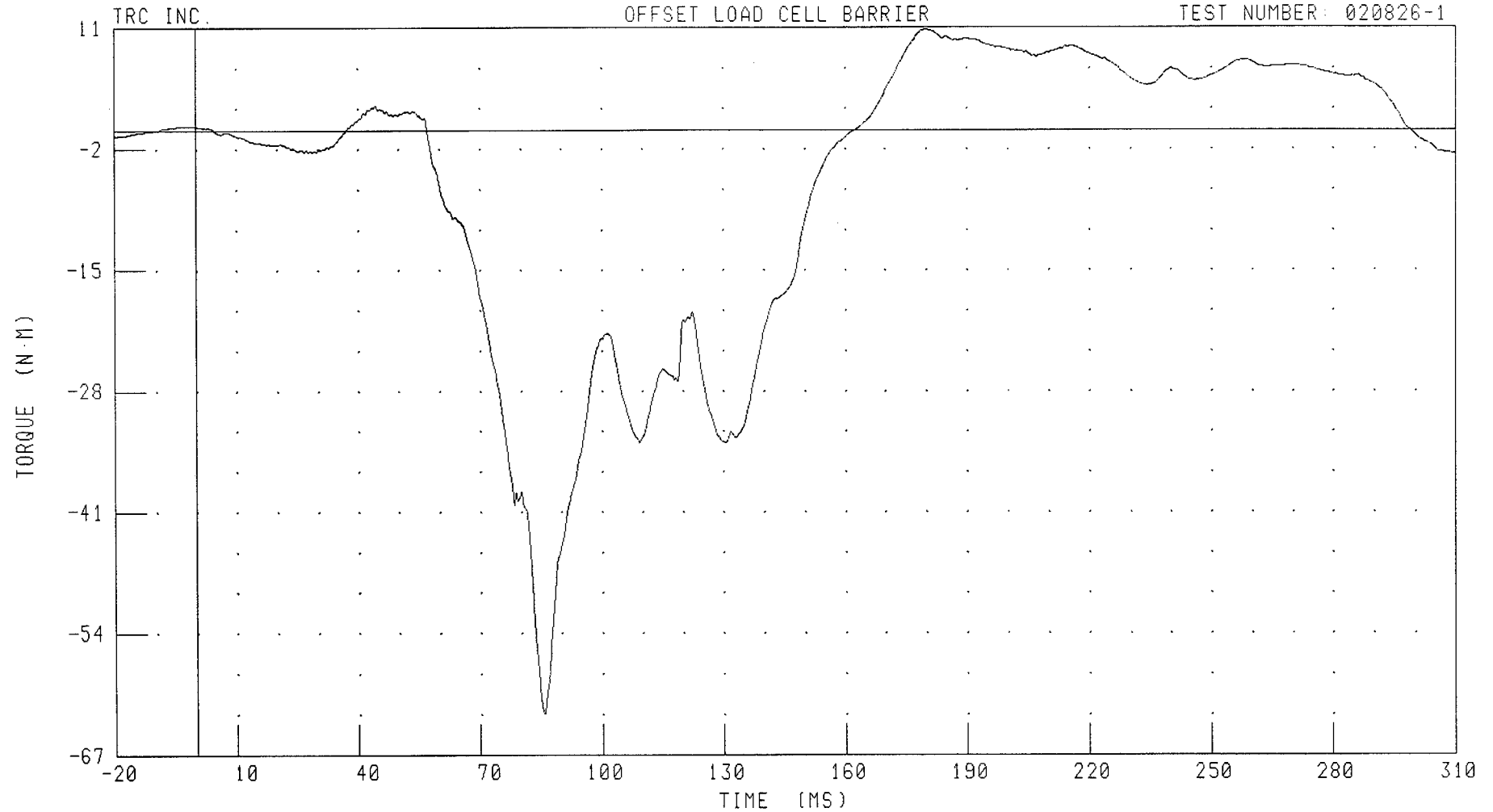
PEAK DATA: 13.49 N·M @ 110.80 MS; -18.92 N·M @ 147.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLYM2 FILTER: CH. CLASS 600

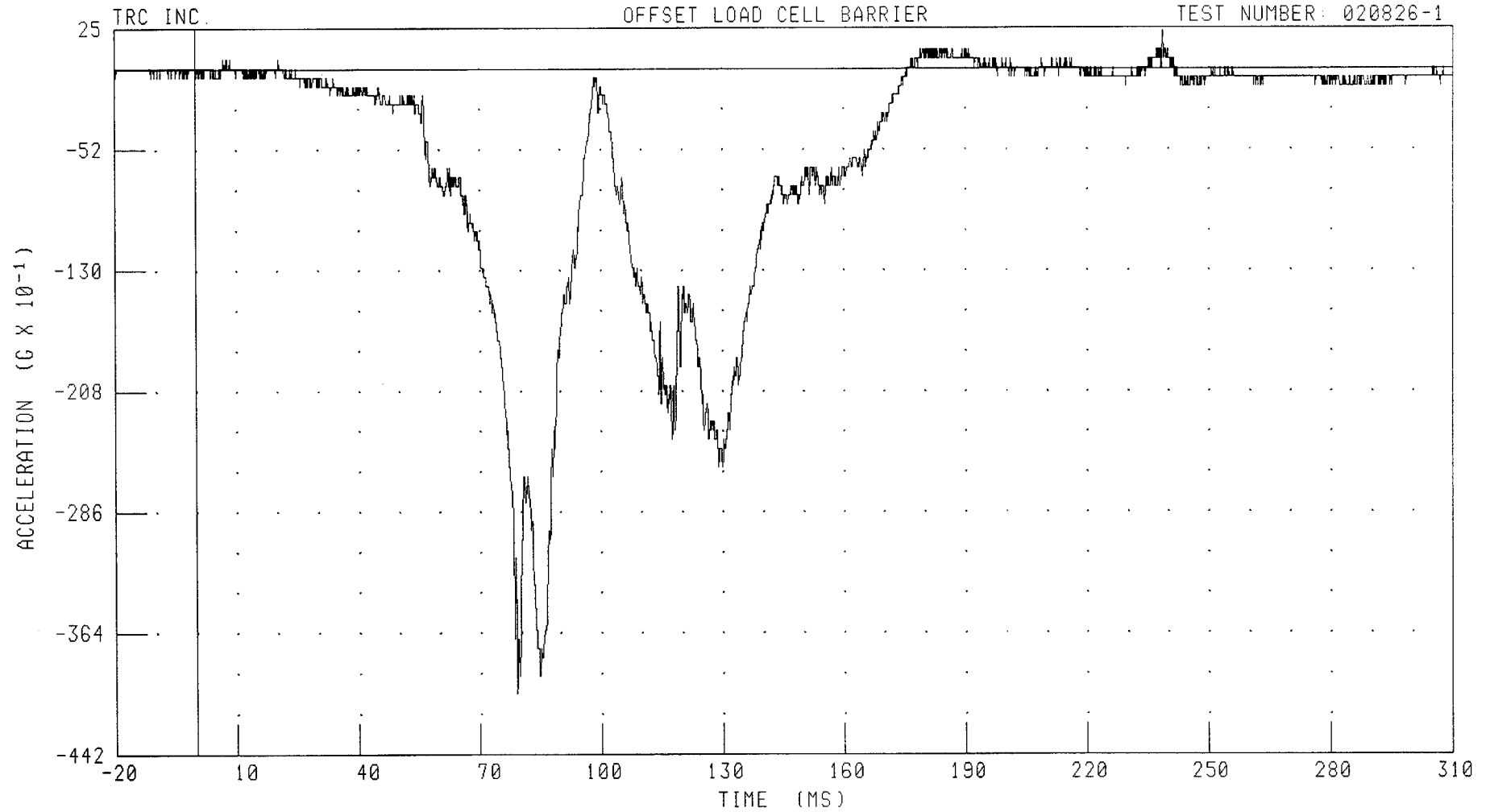
PEAK DATA: 10.82 N·M @ 180.08 MS; -62.63 N·M @ 85.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT TIBIA X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



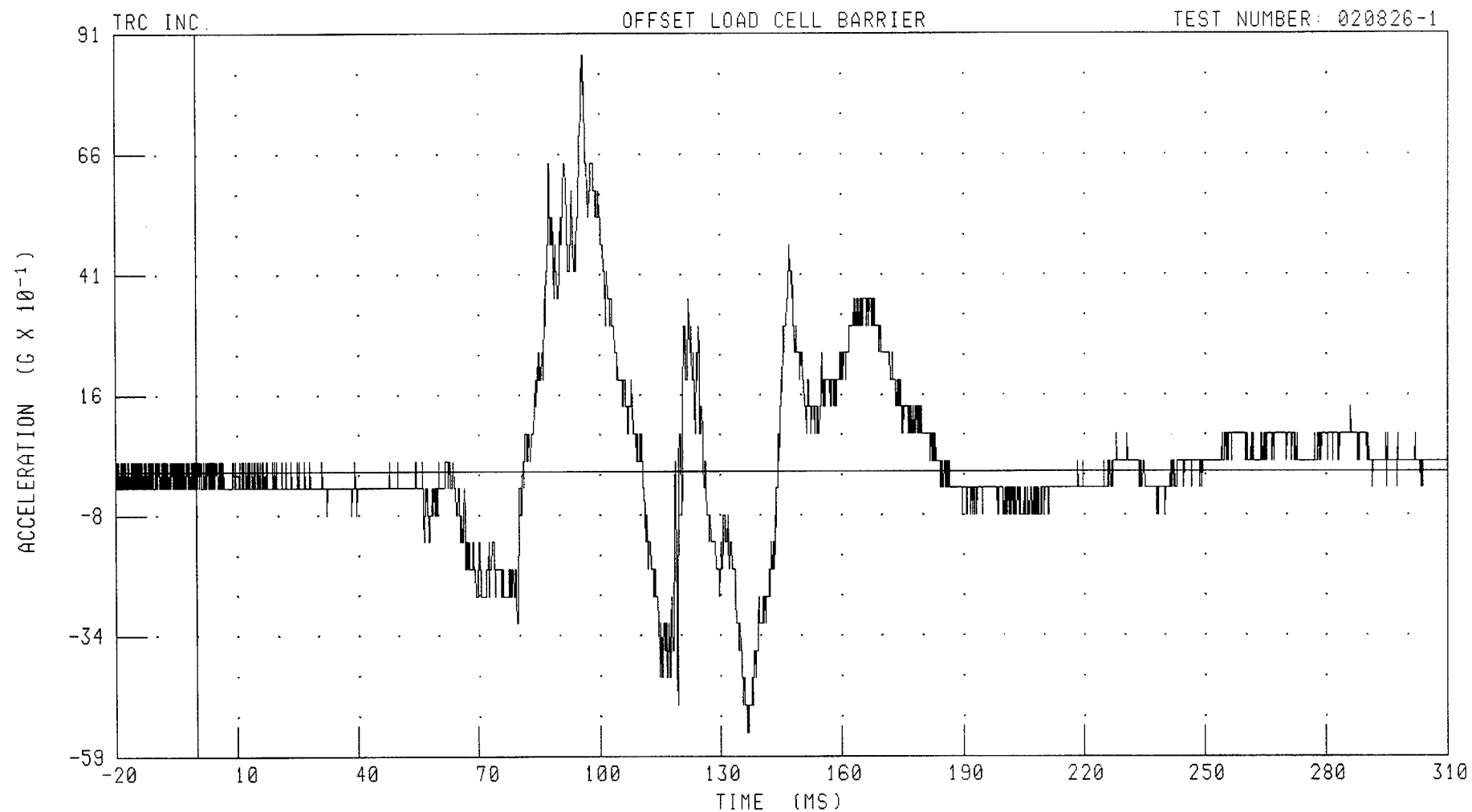
CHANNEL: TBLXG2 FILTER: CH. CLASS 1000

PEAK DATA: 2.39 G @ 238.80 MS; -40.33 G @ 79.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT TIBIA Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBLYG2 FILTER: CH. CLASS 1000

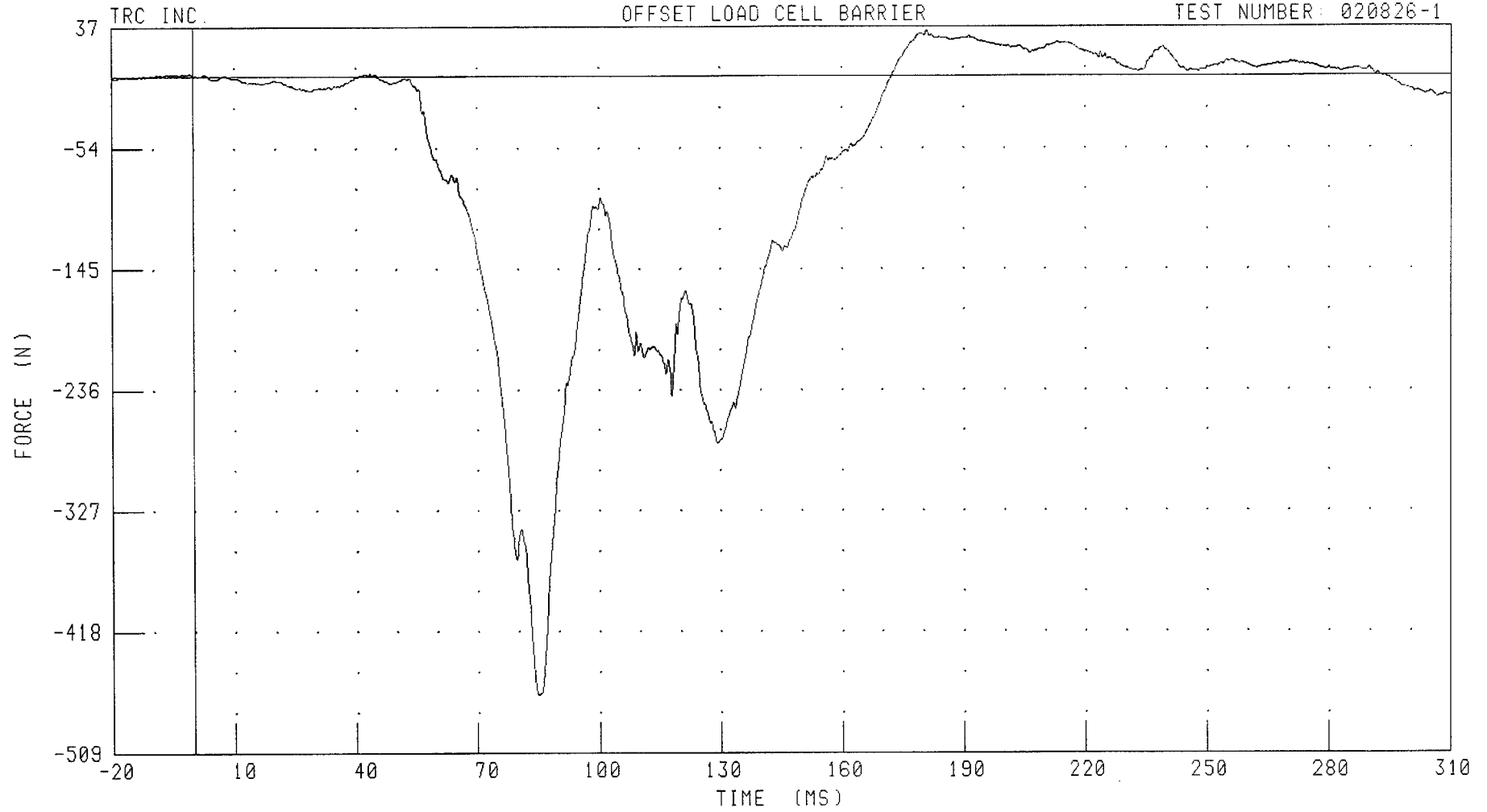
PEAK DATA: 8.67 G @ 95.68 MS; -5.41 G @ 136.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT LOWER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANLXF2 FILTER: CH. CLASS 600

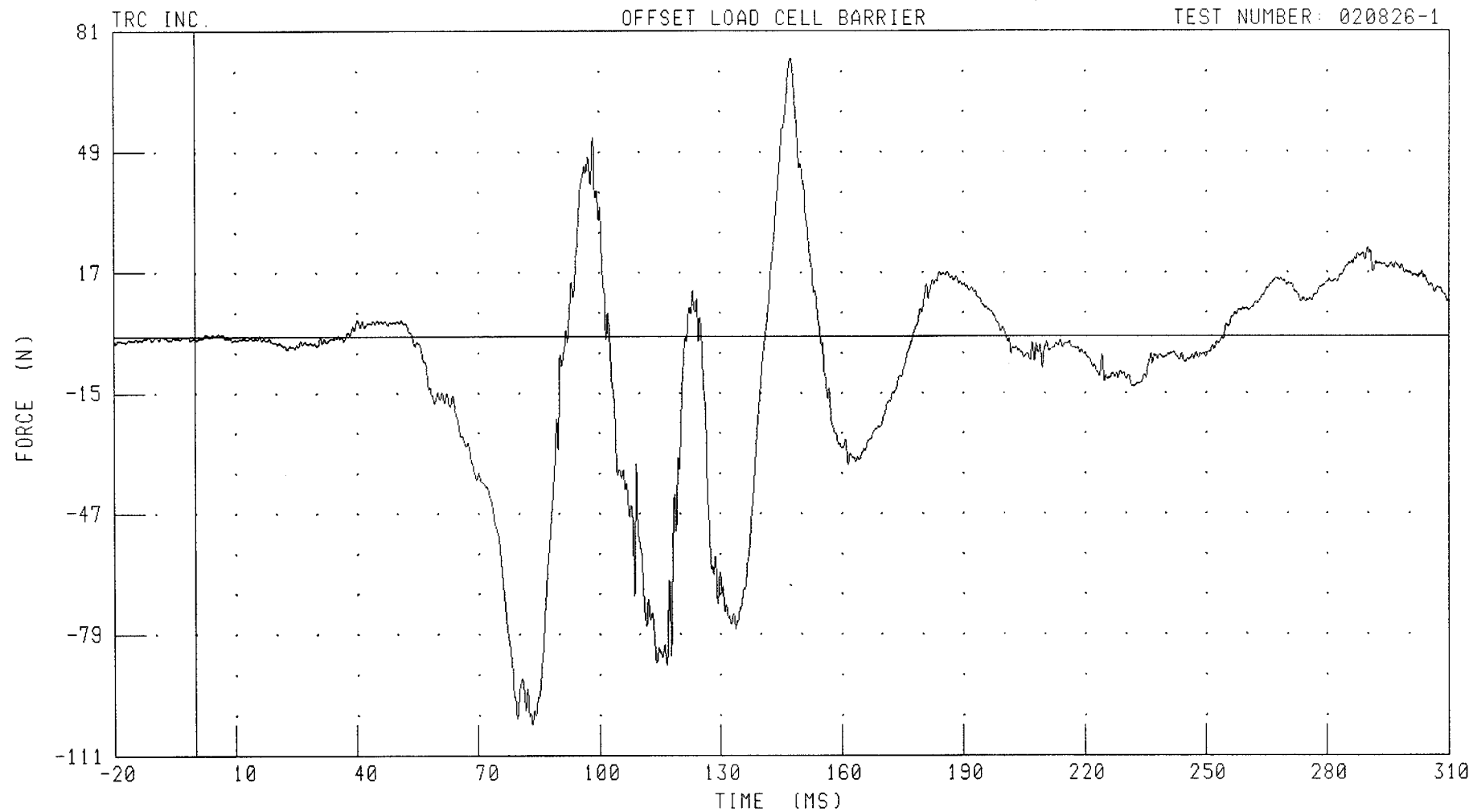
PEAK DATA: 34.14 N @ 181.20 MS; -465.71 N @ 84.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT LOWER TIBIA Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



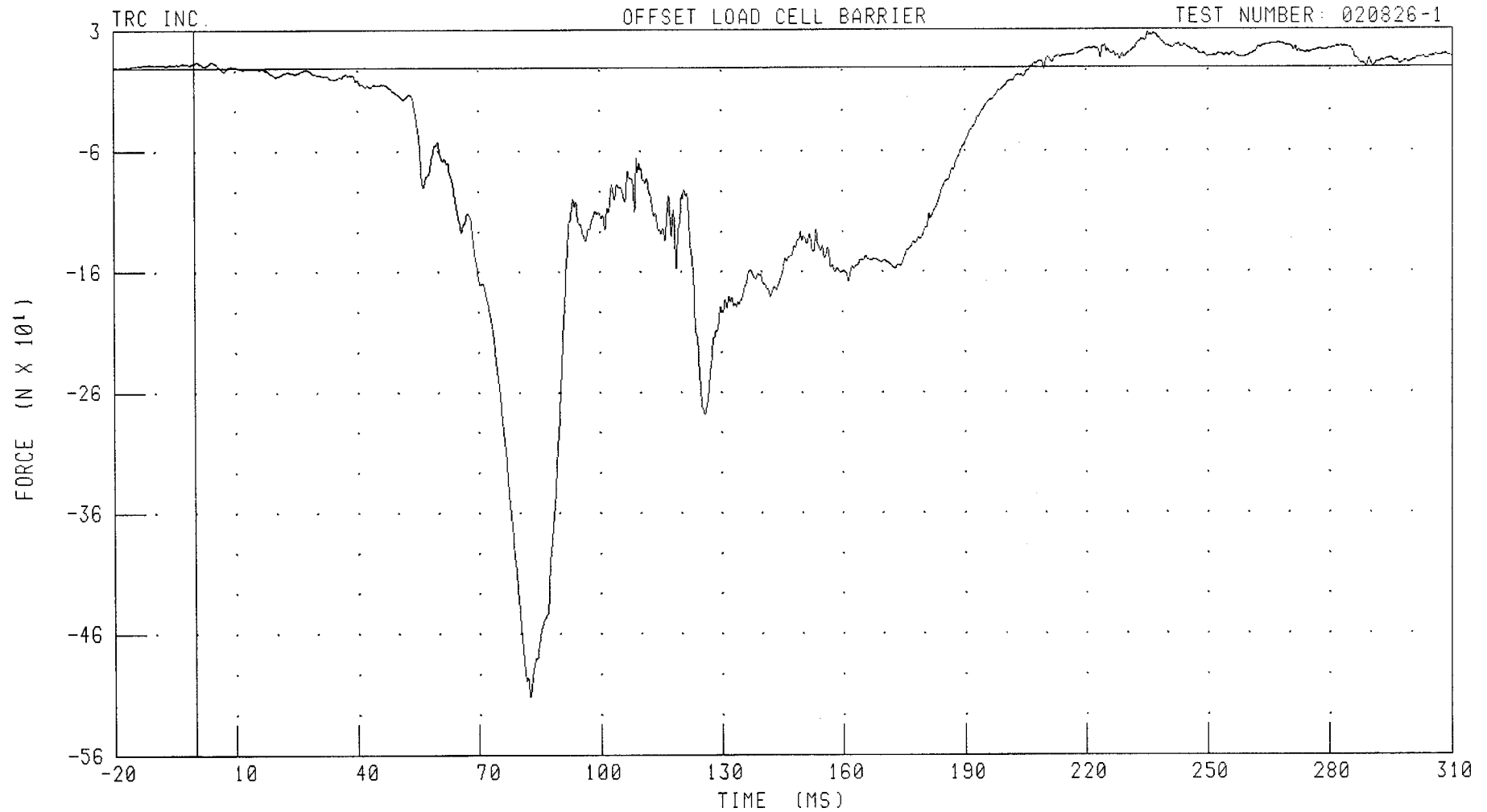
CHANNEL: ANLYF2 FILTER: CH. CLASS 600

PEAK DATA: 73.80 N @ 147.68 MS; -102.90 N @ 83.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT LOWER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



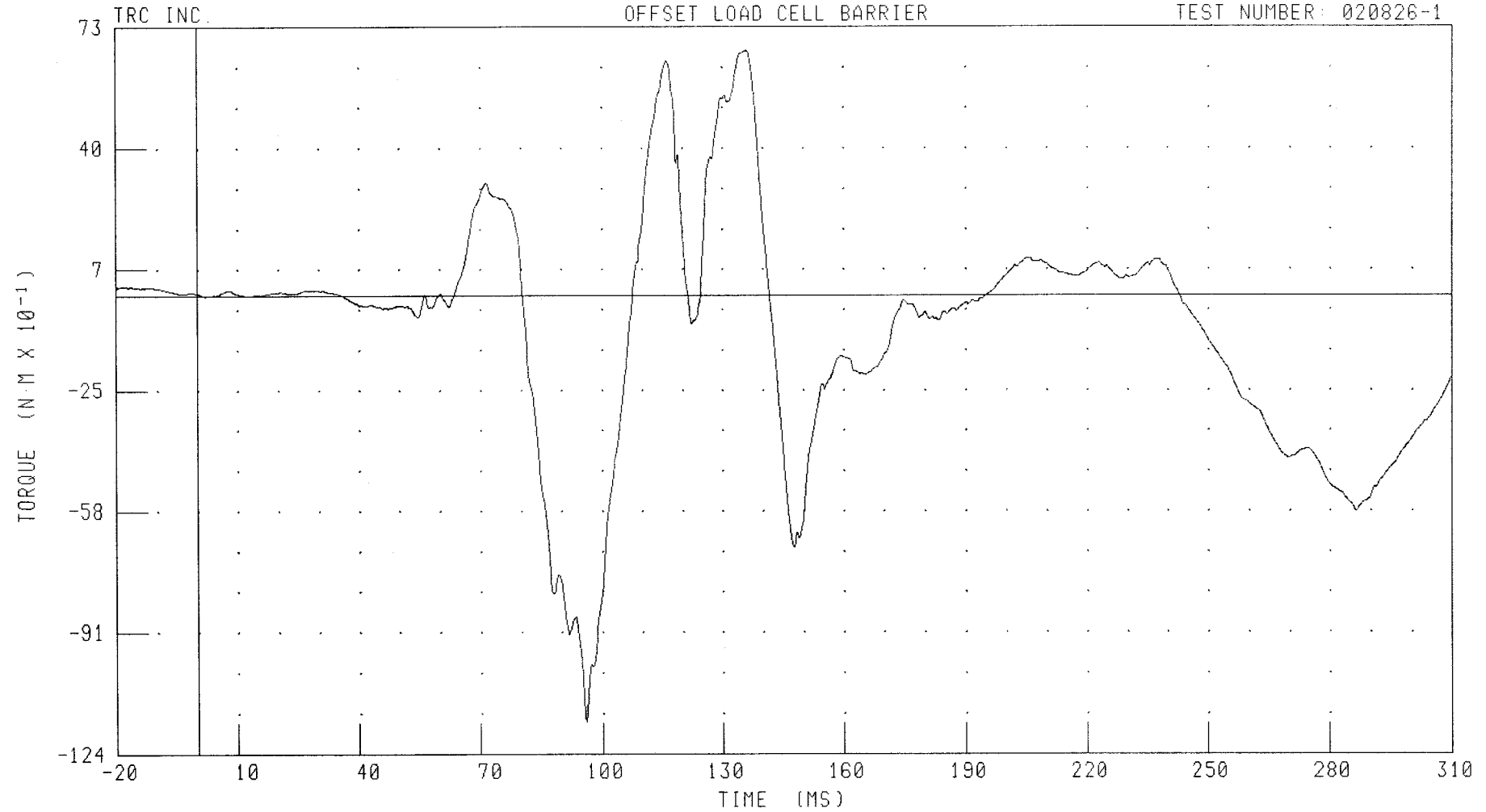
CHANNEL: ANLZF2 FILTER: CH. CLASS 600

PEAK DATA: 28.38 N @ 235.44 MS; -520.81 N @ 82.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT LOWER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



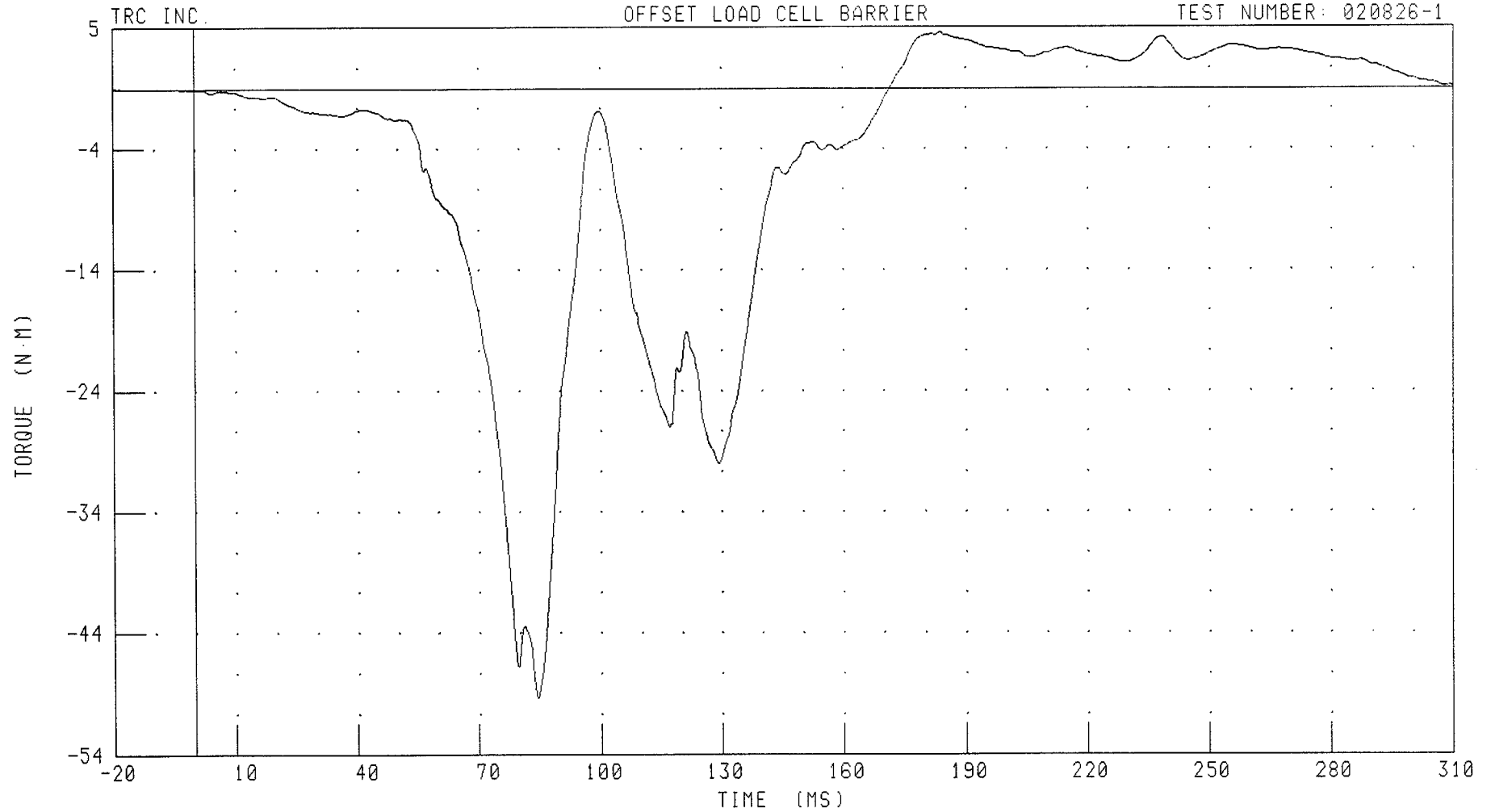
CHANNEL: ANLXM2 FILTER: CH. CLASS 600

PEAK DATA: 6.65 N·M @ 136.08 MS; -11.63 N·M @ 96.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



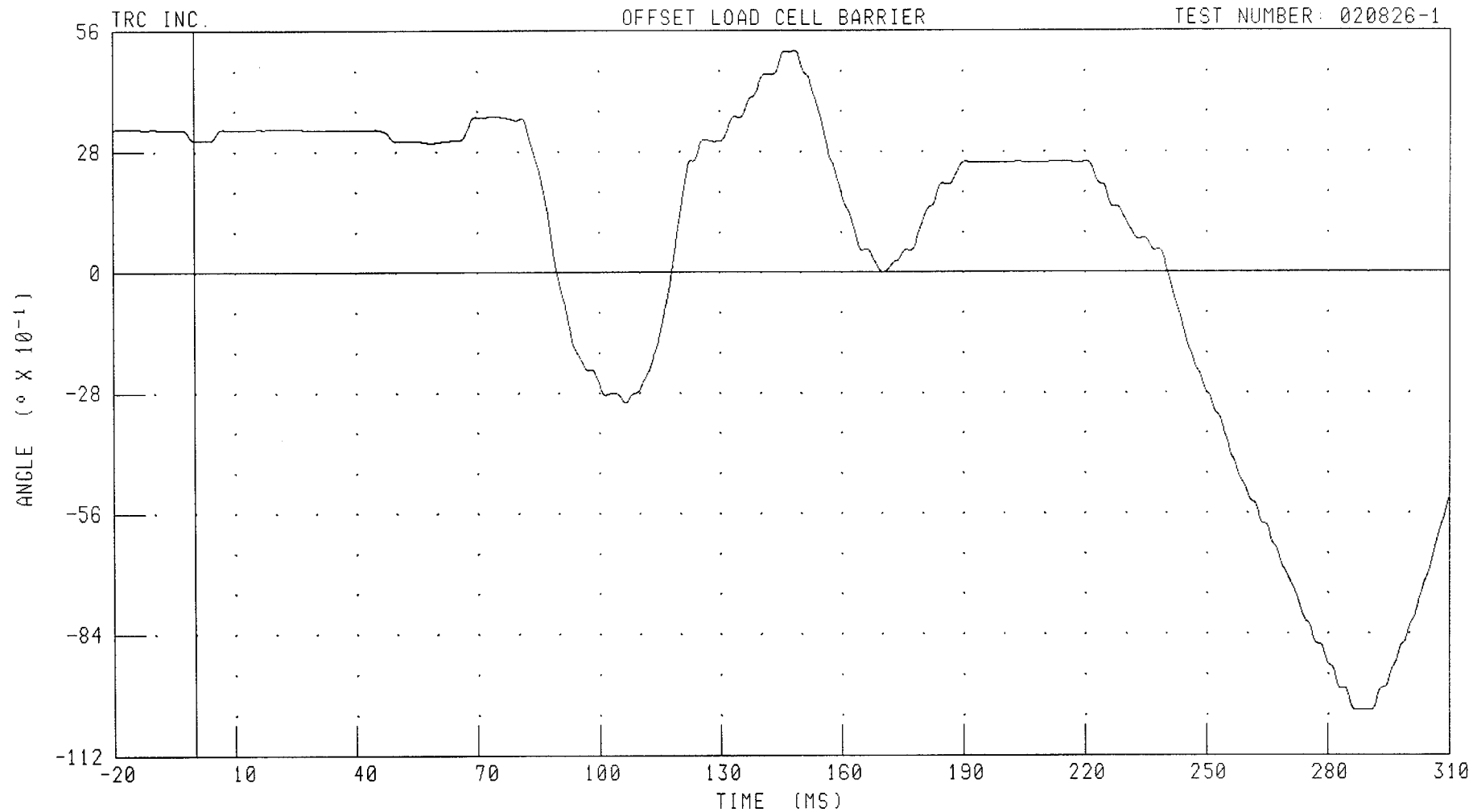
CHANNEL: ANLYM2 FILTER: CH. CLASS 600

PEAK DATA: 4.68 N·m @ 183.92 ms; -50.29 N·m @ 84.48 ms

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT FOOT TO ANKLE X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLXD2 FILTER: CH. CLASS 180

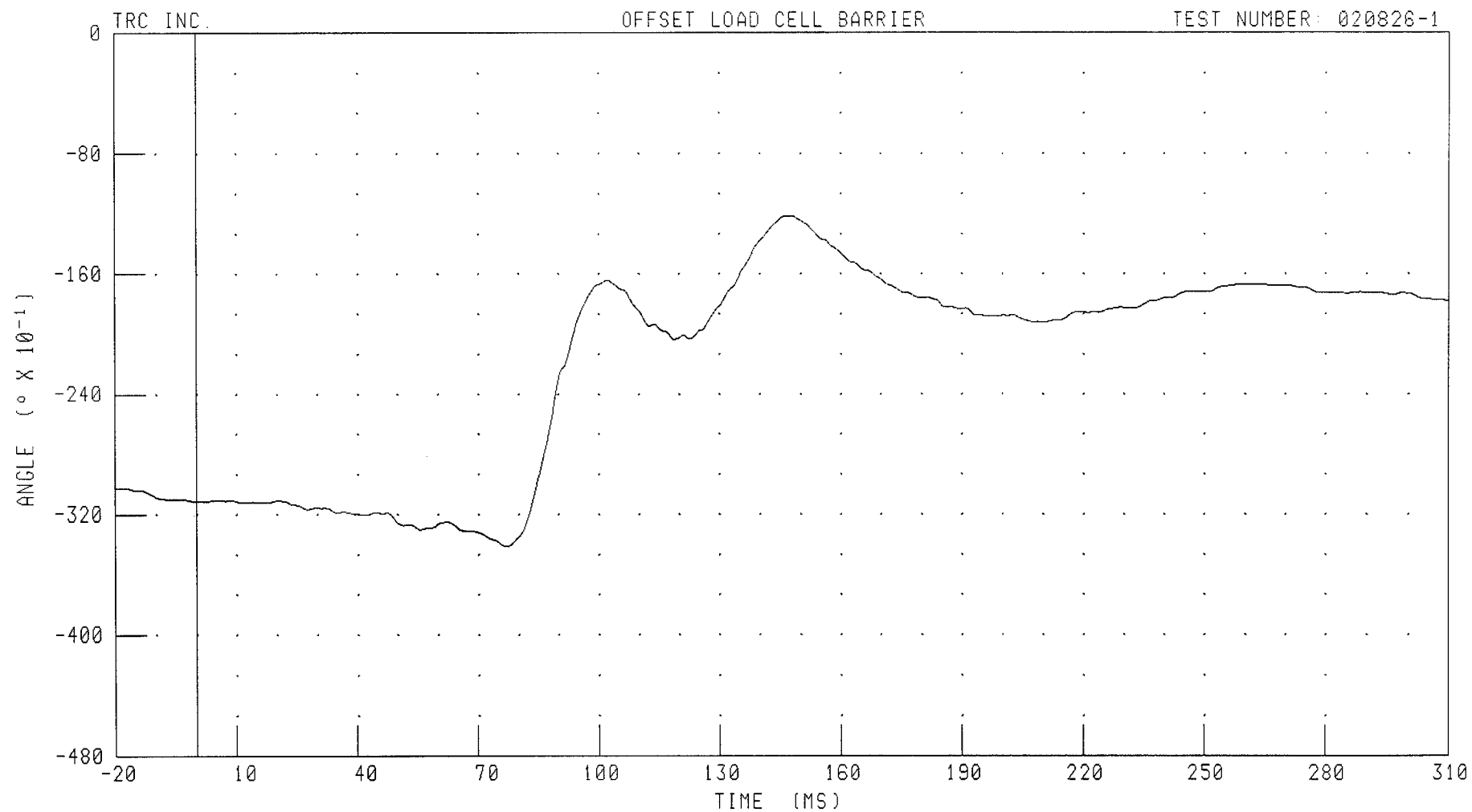
PEAK DATA: 5.13 ° @ 148.80 MS; -10.17 ° @ 286.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FOOT TO ANKLE Y-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



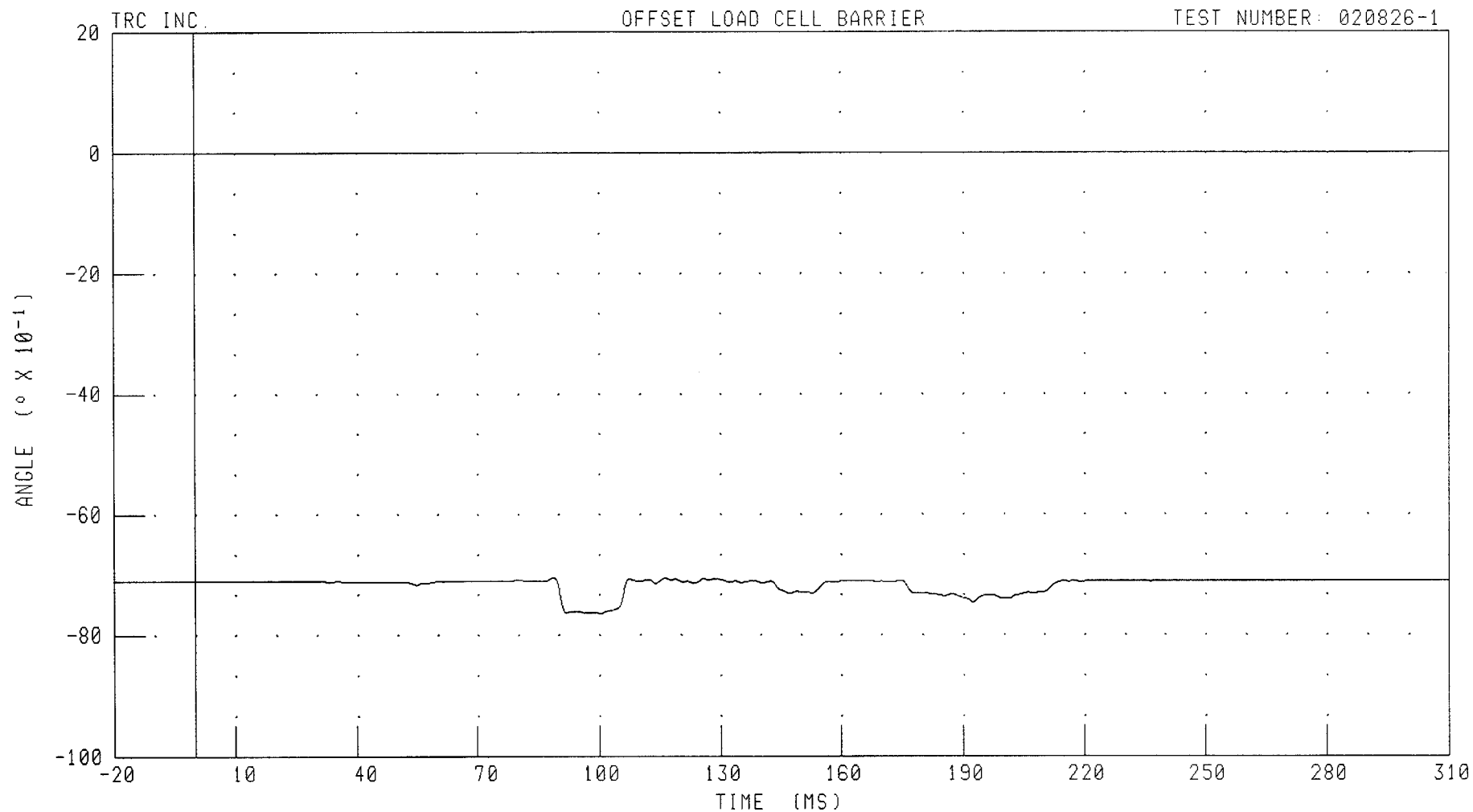
CHANNEL: FTLYD2 FILTER: CH. CLASS 180

PEAK DATA: -12.14 ° @ 147.52 MS; -34.13 ° @ 77.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT FOOT TO ANKLE Z-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



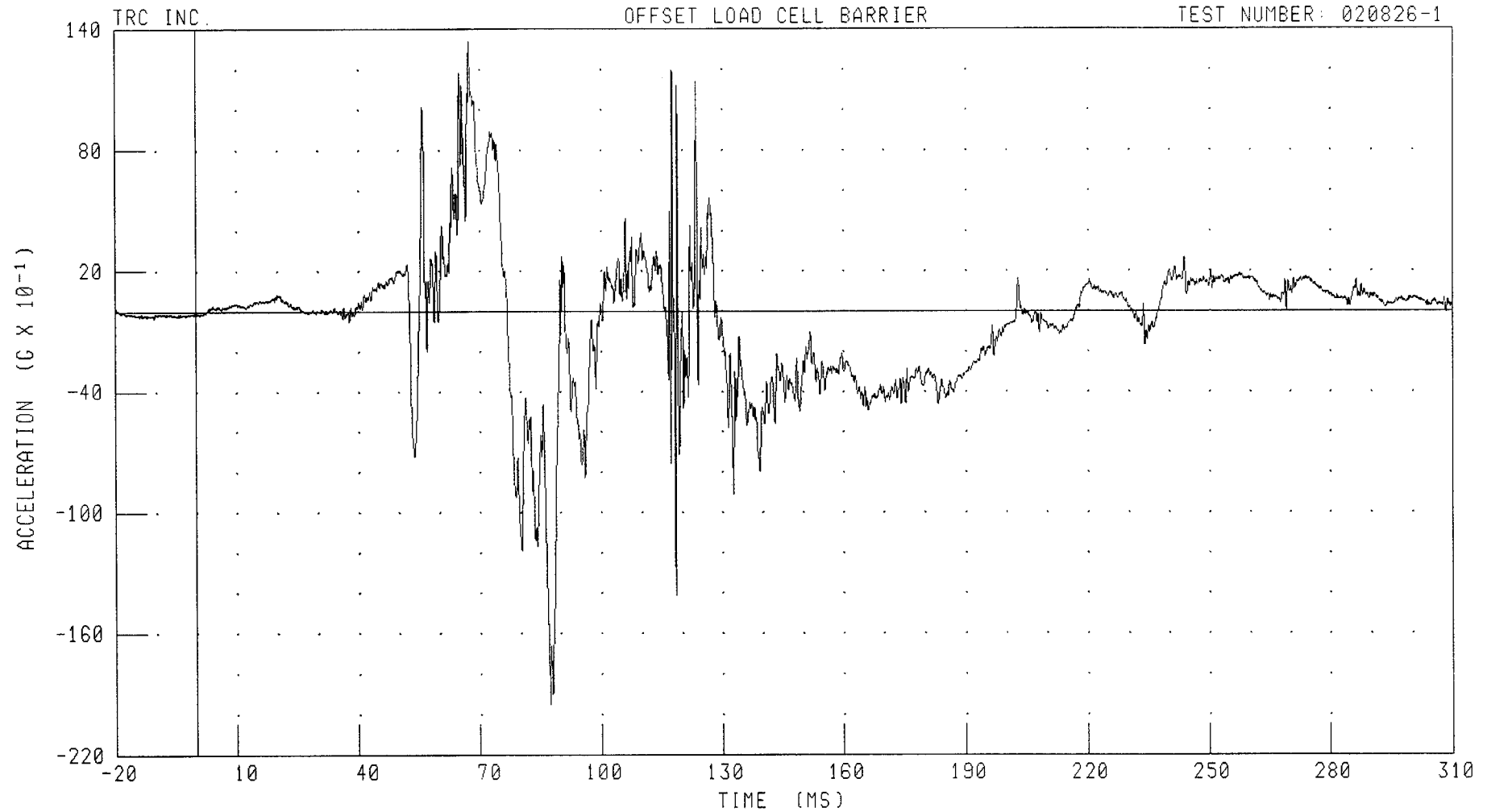
CHANNEL: FTLZD2 FILTER: CH CLASS 180

PEAK DATA: -7.05 $^{\circ}$ @ 88.72 MS, -7.65 $^{\circ}$ @ 100.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER LEFT FOOT X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLXC2 FILTER: CH. CLASS 1000

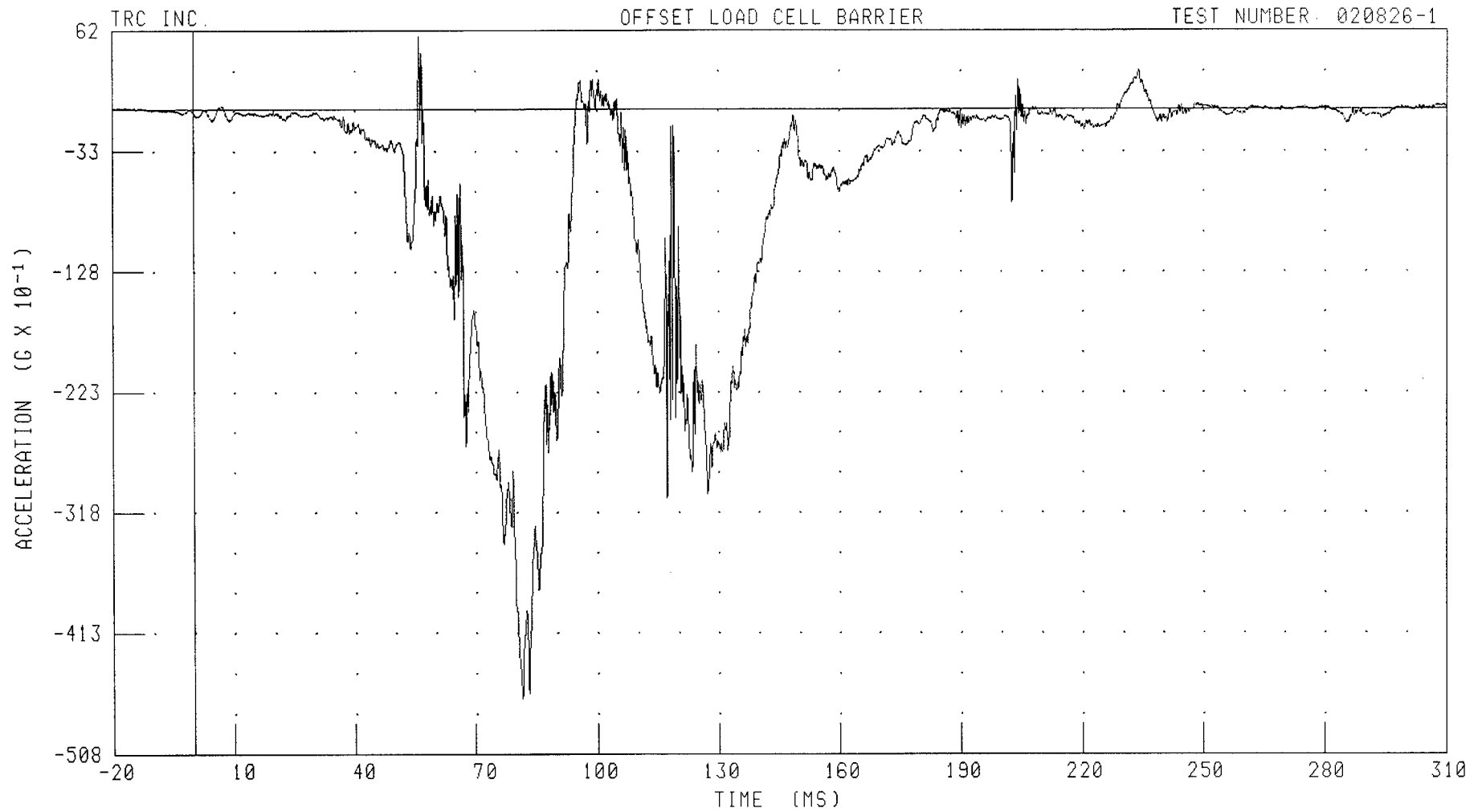
PEAK DATA: 13.39 G @ 67.60 MS; -19.51 G @ 87.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FOOT Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLYG2 FILTER: CH. CLASS 1000

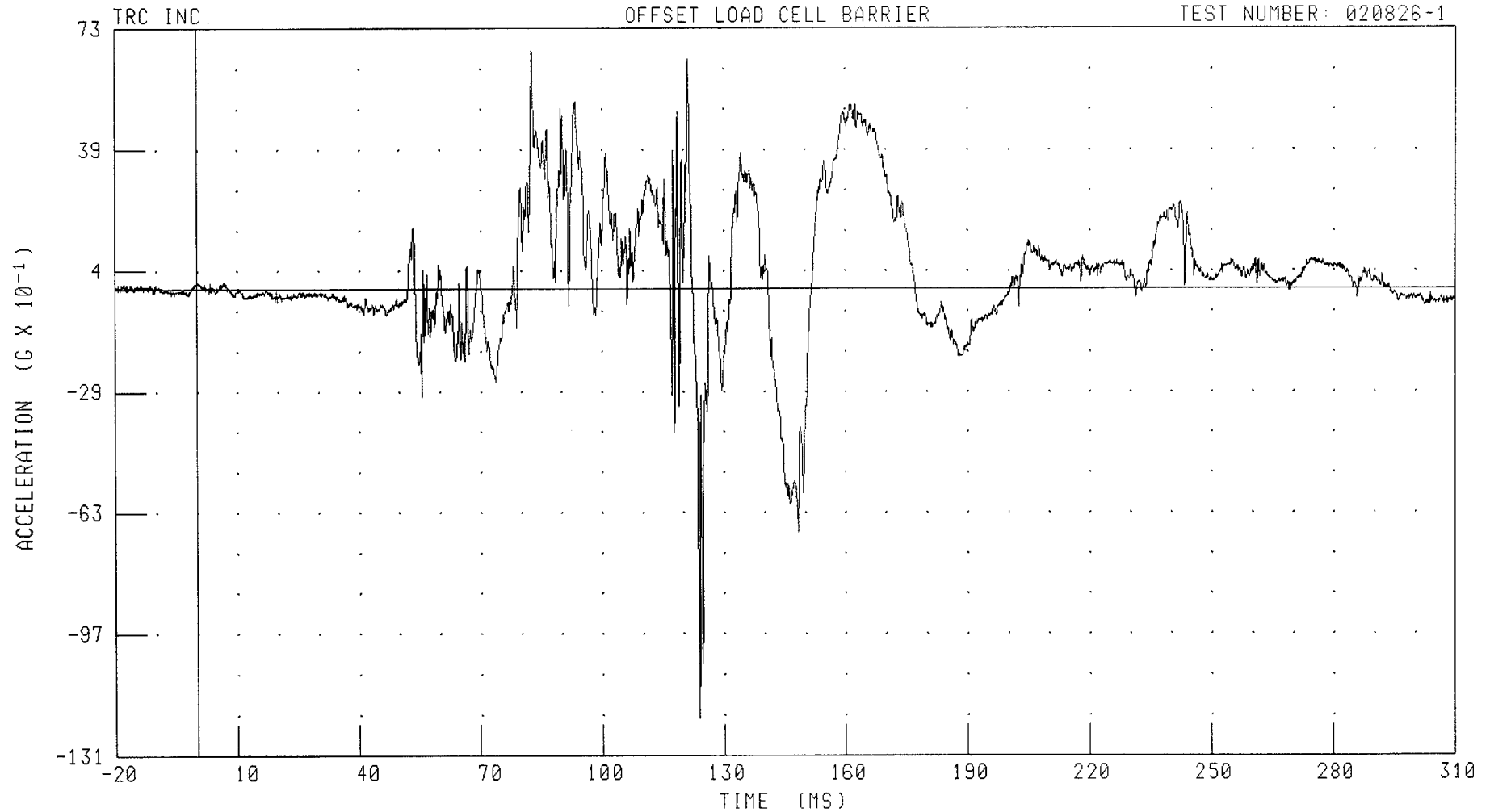
PEAK DATA: 5.70 G @ 56.16 MS; -46.49 G @ 81.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FOOT Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLZG2 FILTER: CH. CLASS 1000

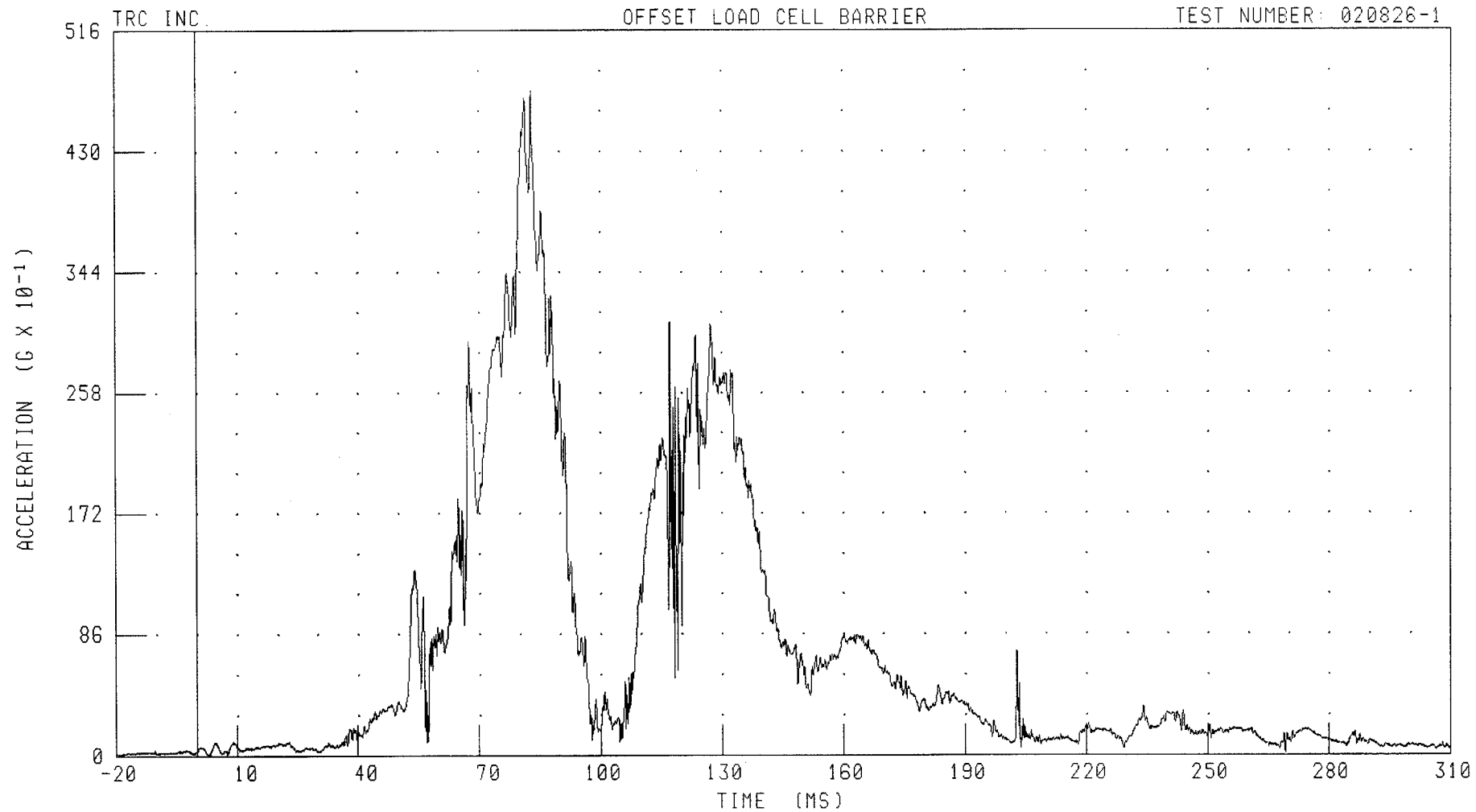
PEAK DATA: 6.67 G @ 82.88 MS; -12.06 G @ 124.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LEFT FOOT RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTLRG2 FILTER: CH. CLASS 1000

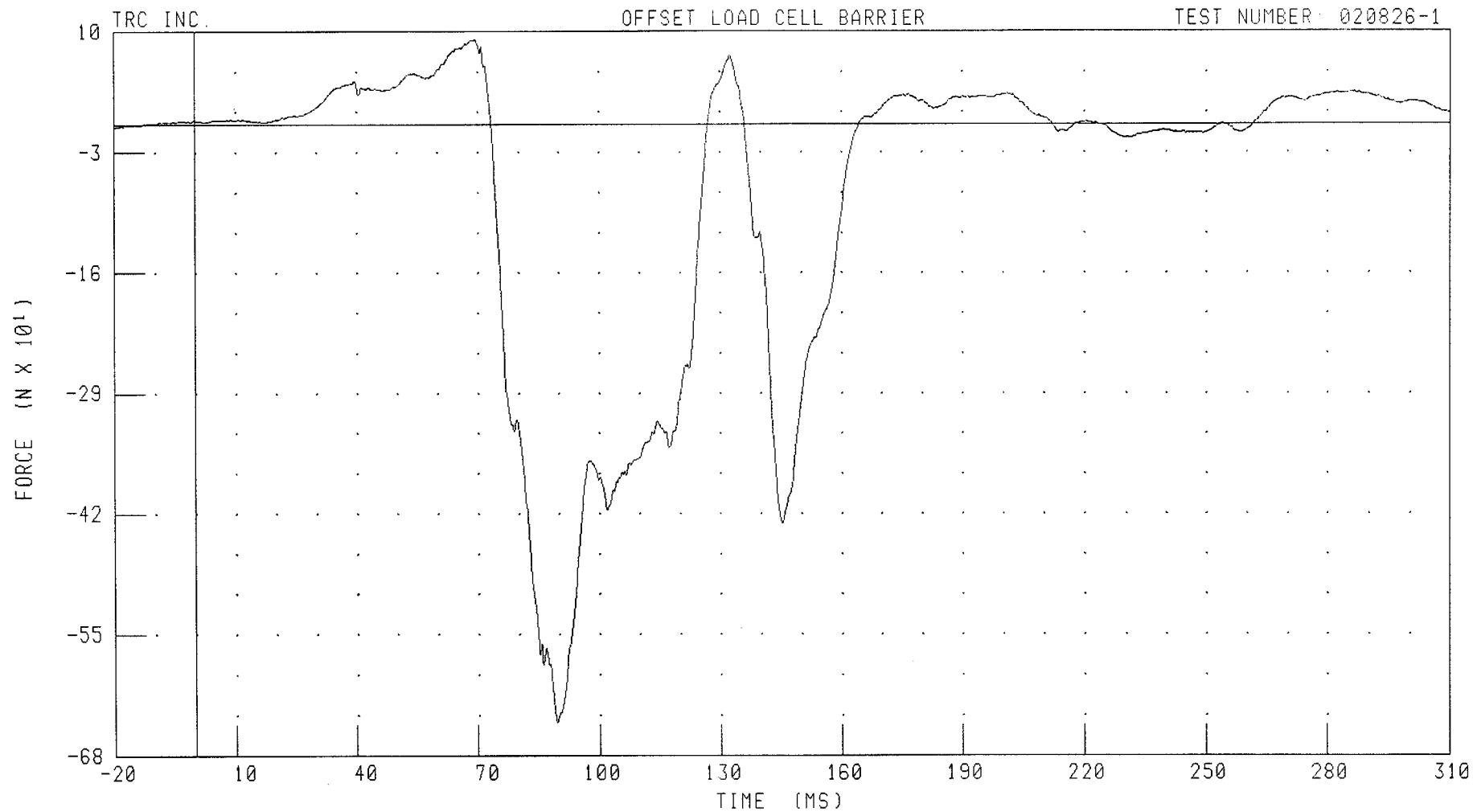
PEAK DATA: 47.29 G @ 82.96 MS; 0.02 G @ 2.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT UPPER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRXF2 FILTER: CH. CLASS 600

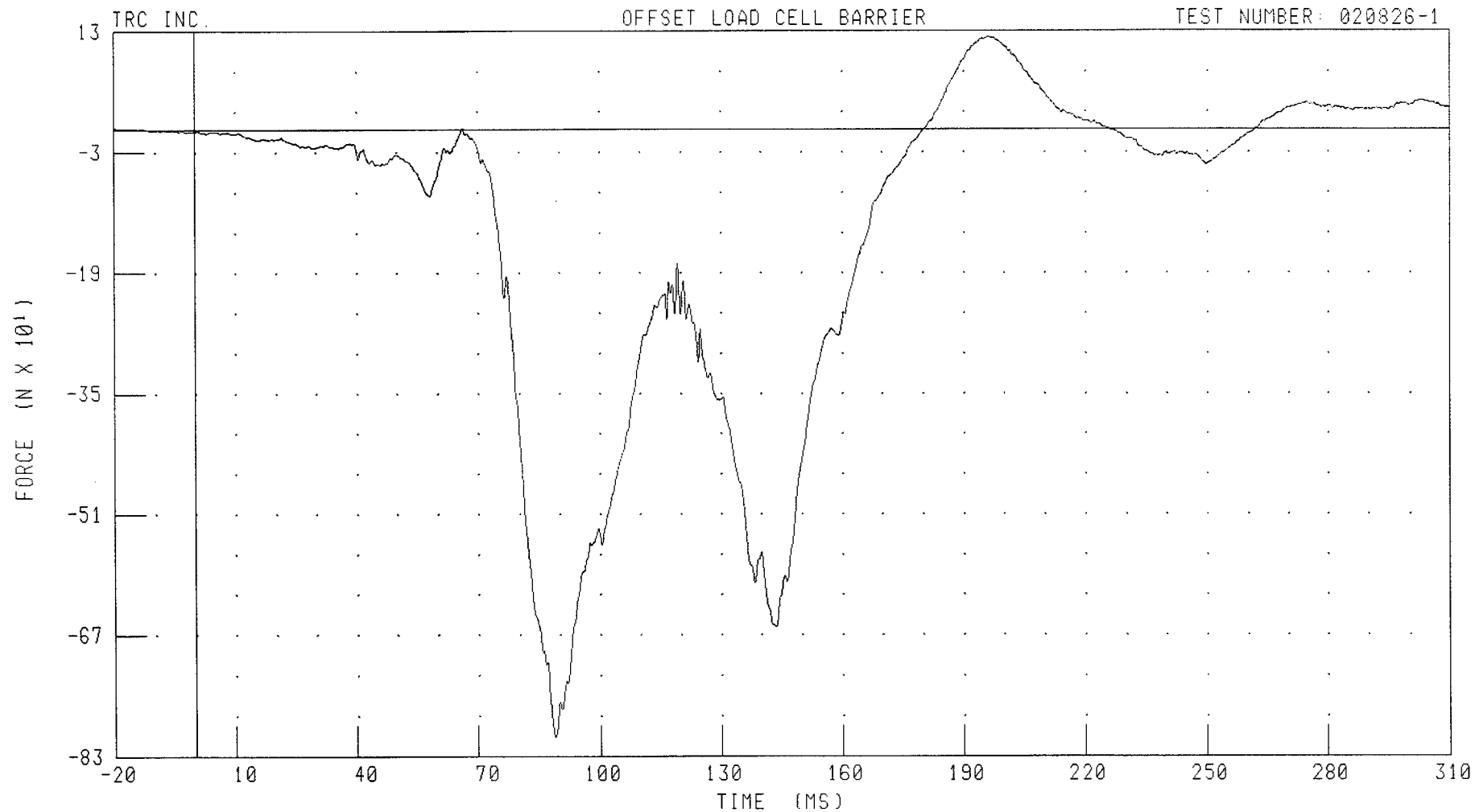
PEAK DATA: 91.27 N @ 69.52 MS; -644.98 N @ 89.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT UPPER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRZF2 FILTER: CH. CLASS 600

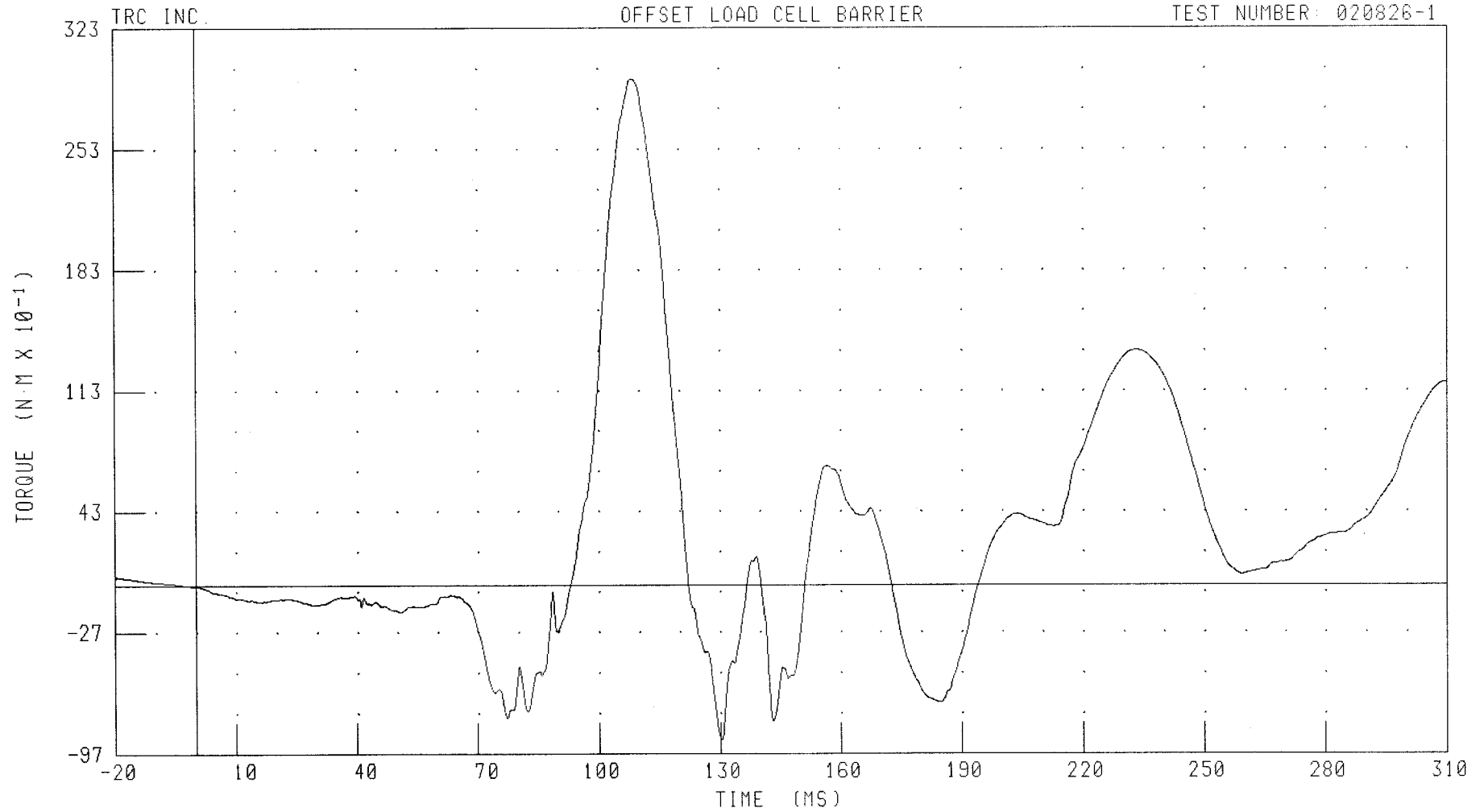
PEAK DATA: 122.69 N @ 196.32 MS; -804.55 N @ 88.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRXM2 FILTER: CH. CLASS 600

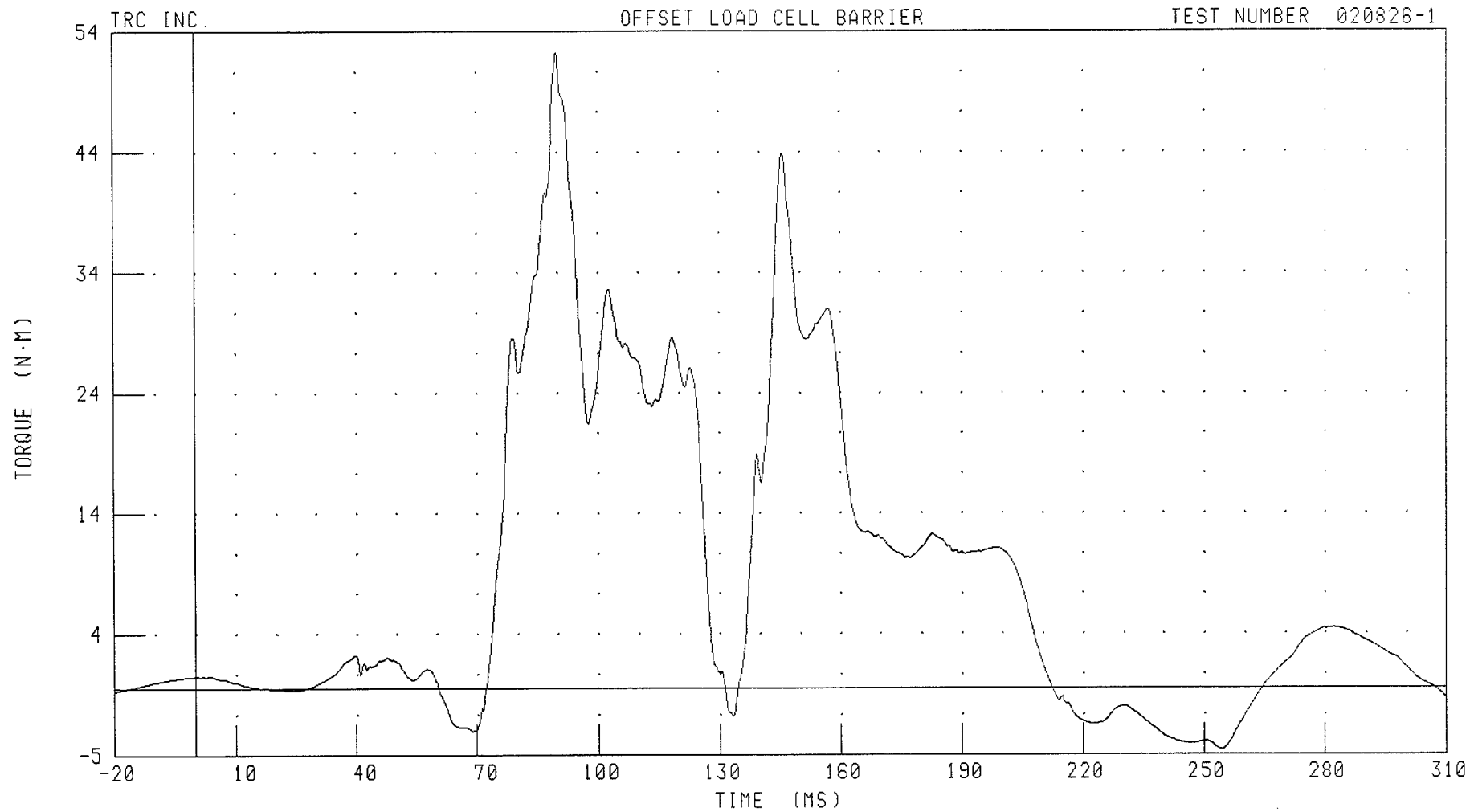
PEAK DATA: 29.37 N·M @ 108.56 MS; -8.90 N·M @ 130.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



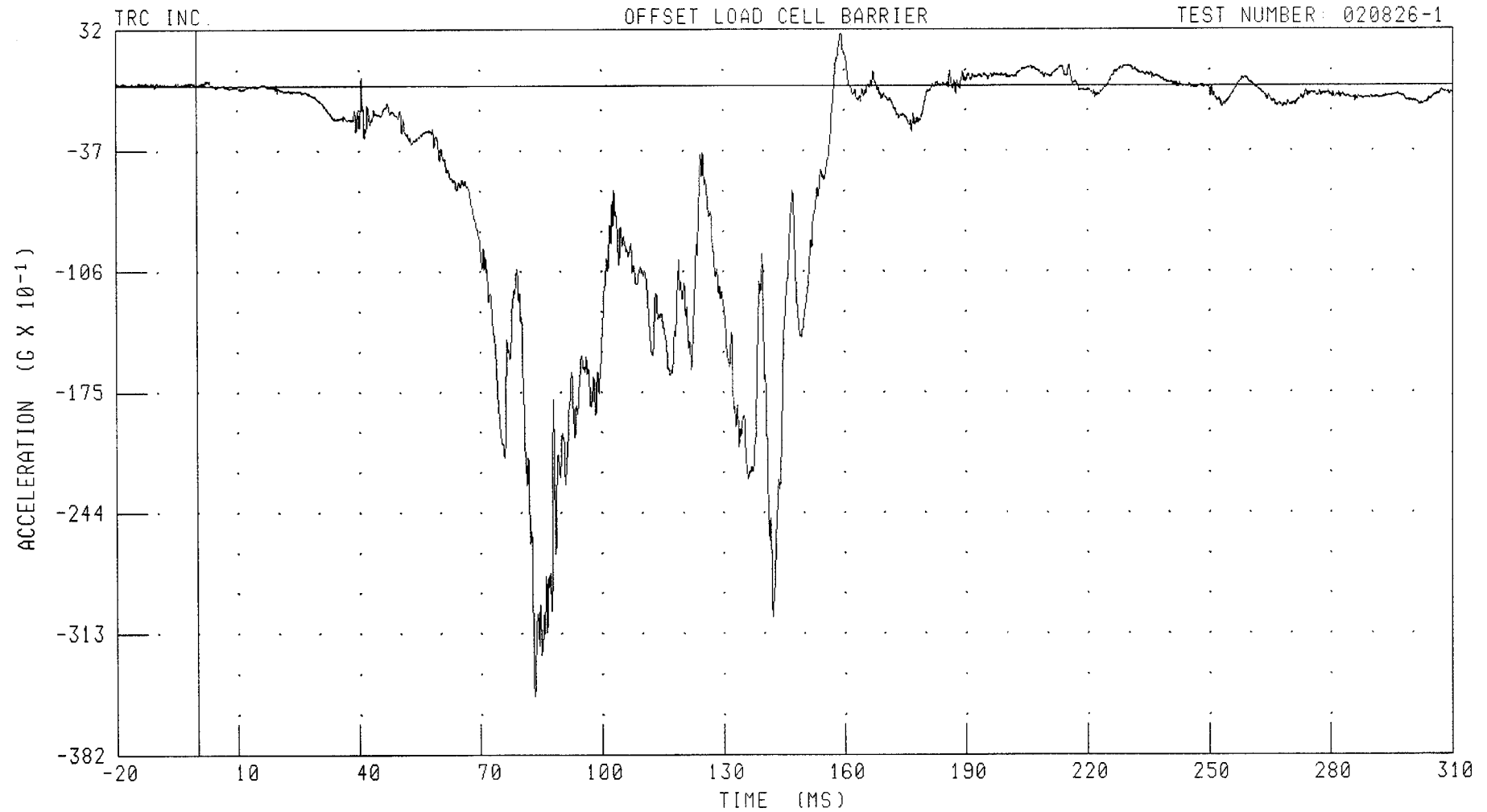
CHANNEL: TBRYM2 FILTER: CH. CLASS 600

PEAK DATA: 52.76 N·M @ 89.92 MS; -5.08 N·M @ 254.16 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT TIBIA X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



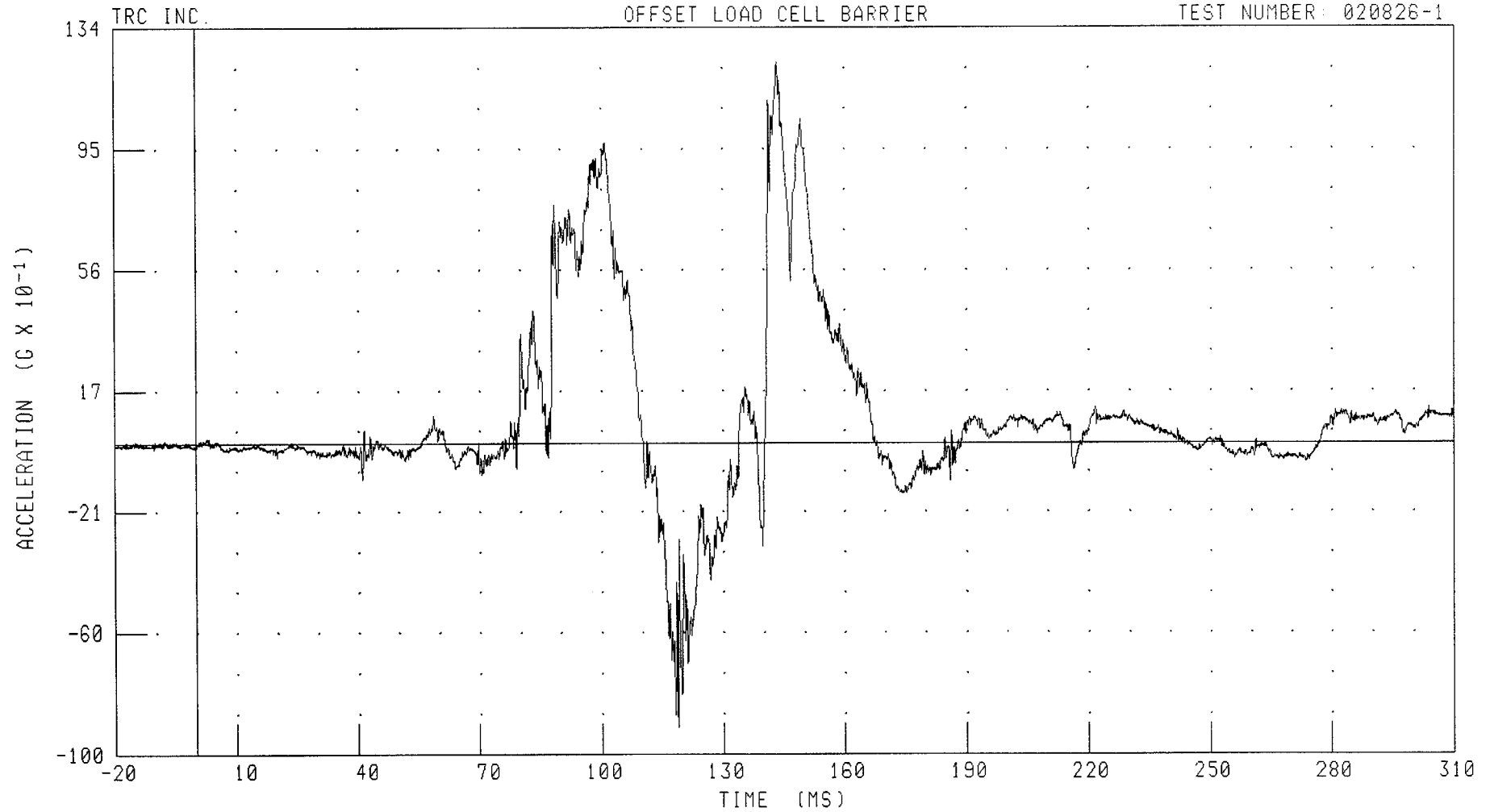
CHANNEL: TBRXG2 FILTER: CH. CLASS 1000

PEAK DATA: 3.00 G @ 159.44 MS; -34.88 G @ 83.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT TIBIA Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TBRYG2 FILTER: CH. CLASS 1000

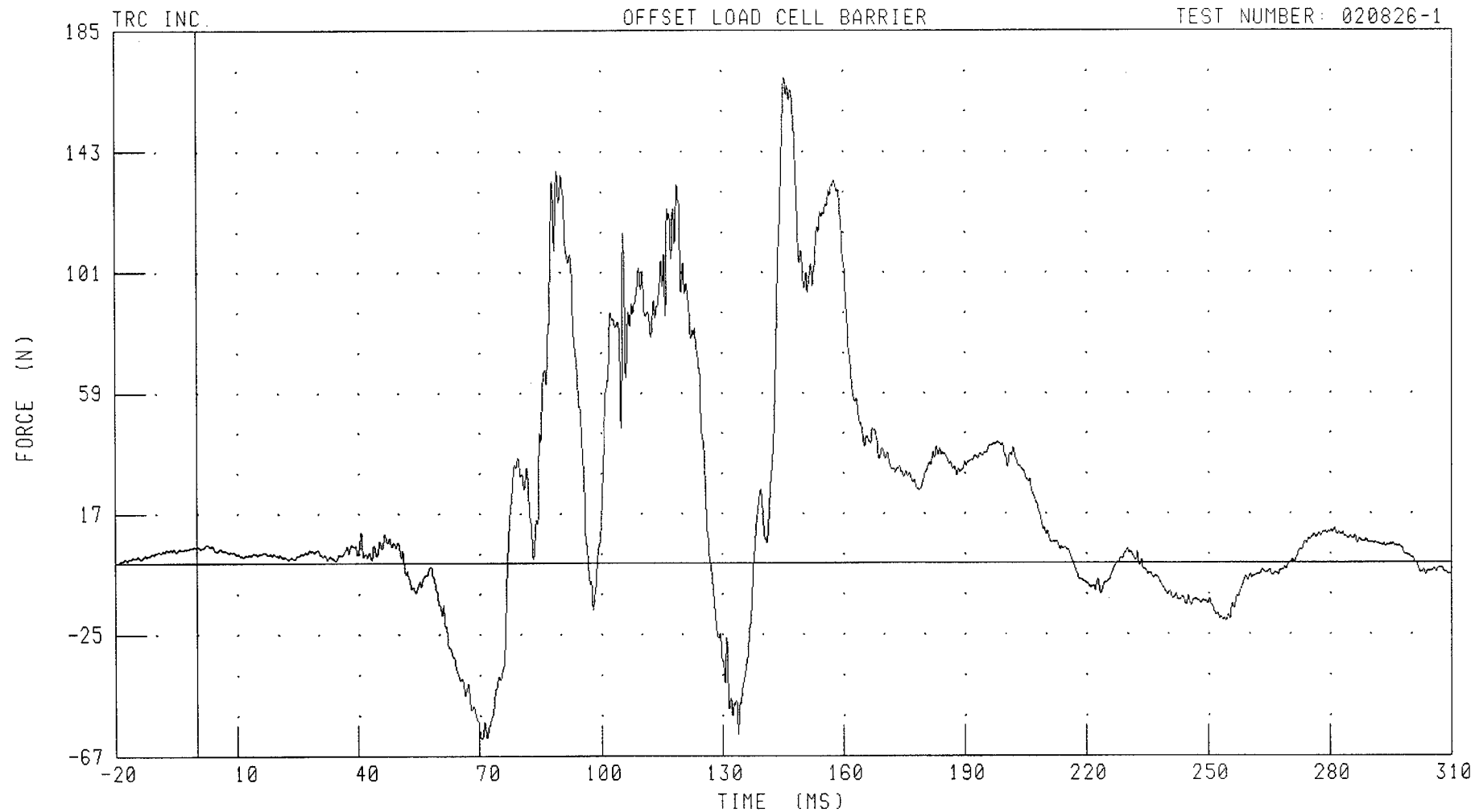
PEAK DATA: 12.27 G @ 143.44 MS; -9.13 G @ 118.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT LOWER TIBIA X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRXF2 FILTER: CH. CLASS 600

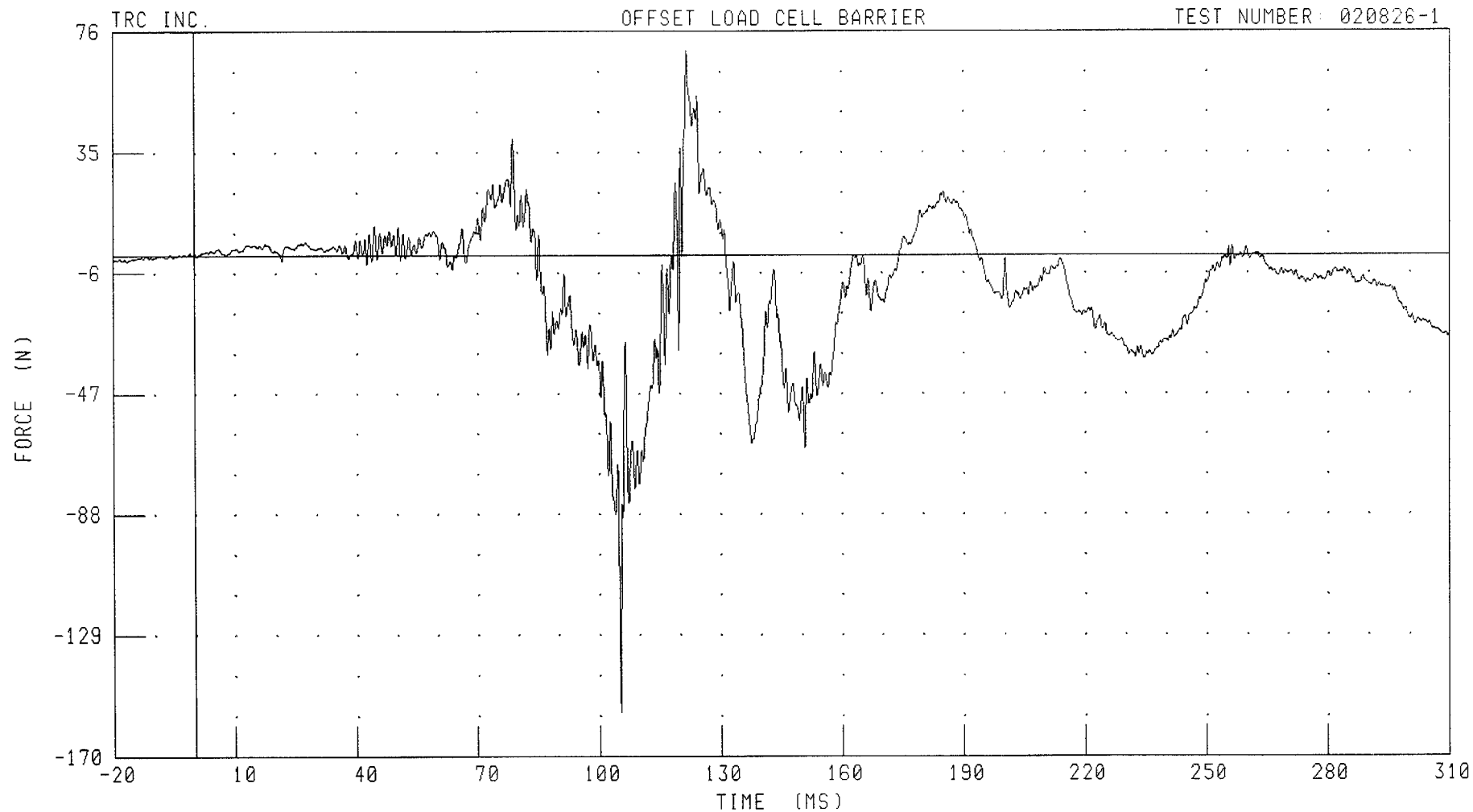
PEAK DATA: 168.89 N @ 145.68 MS; -61.16 N @ 70.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT LOWER TIBIA Y-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRYF2 FILTER: CH. CLASS 600

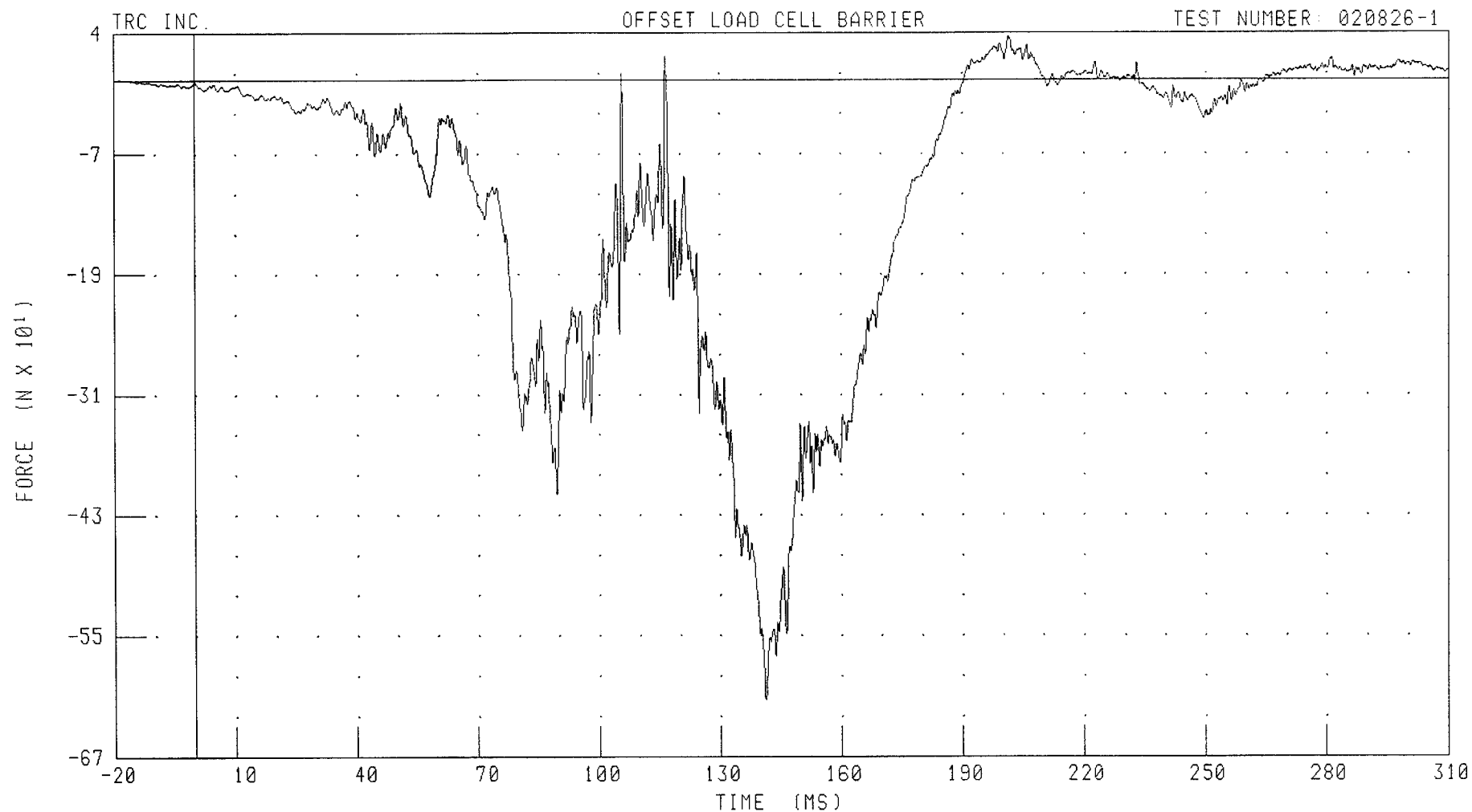
PEAK DATA: 69.36 N @ 122.00 MS; -155.11 N @ 105.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT LOWER TIBIA Z-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



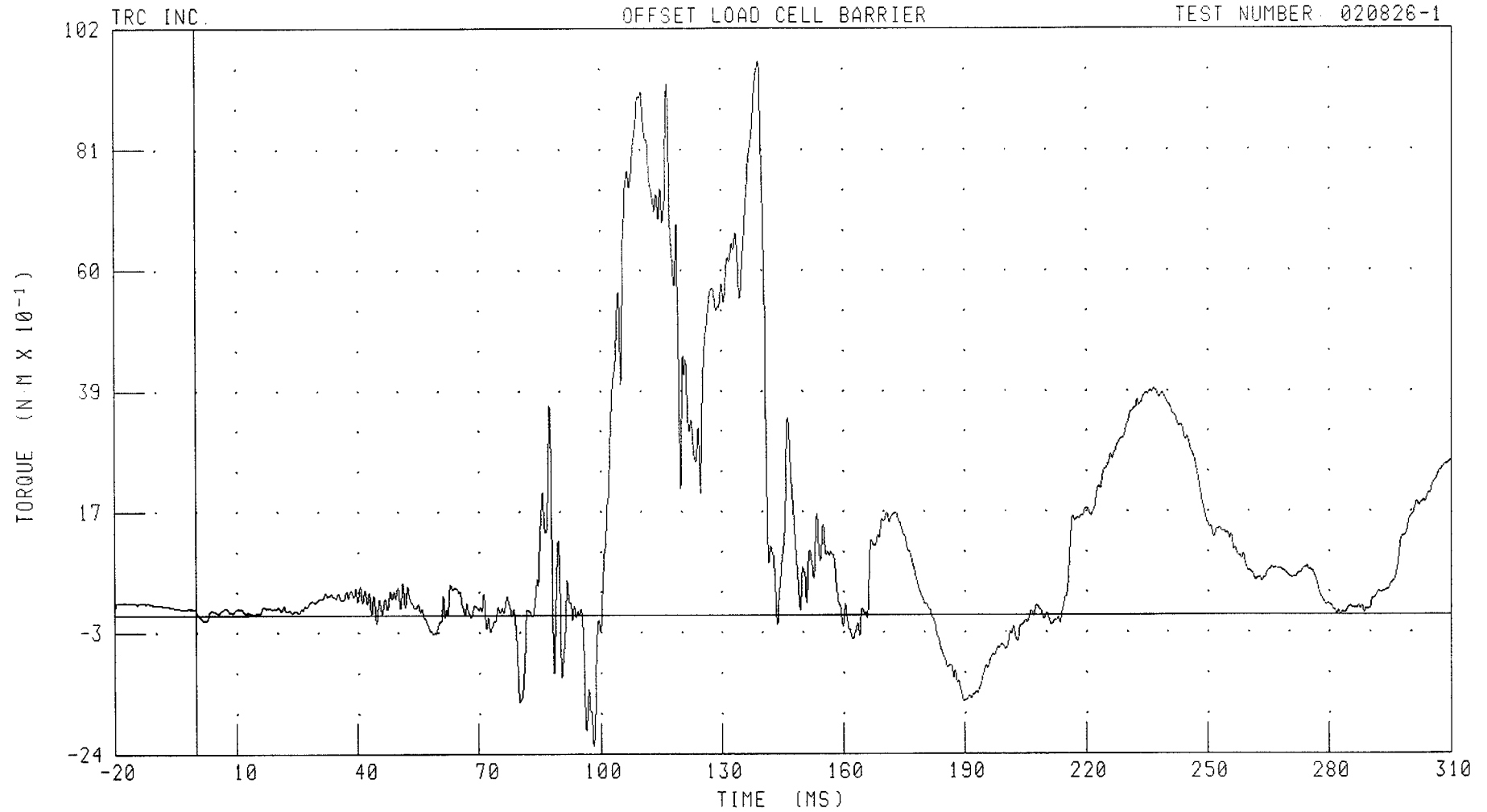
CHANNEL: ANRZF2 FILTER: CH. CLASS 600

PEAK DATA: 43.12 N @ 201.52 MS; -617.55 N @ 141.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT LOWER TIBIA MOMENT ABOUT X AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRXM2 FILTER: CH. CLASS 600

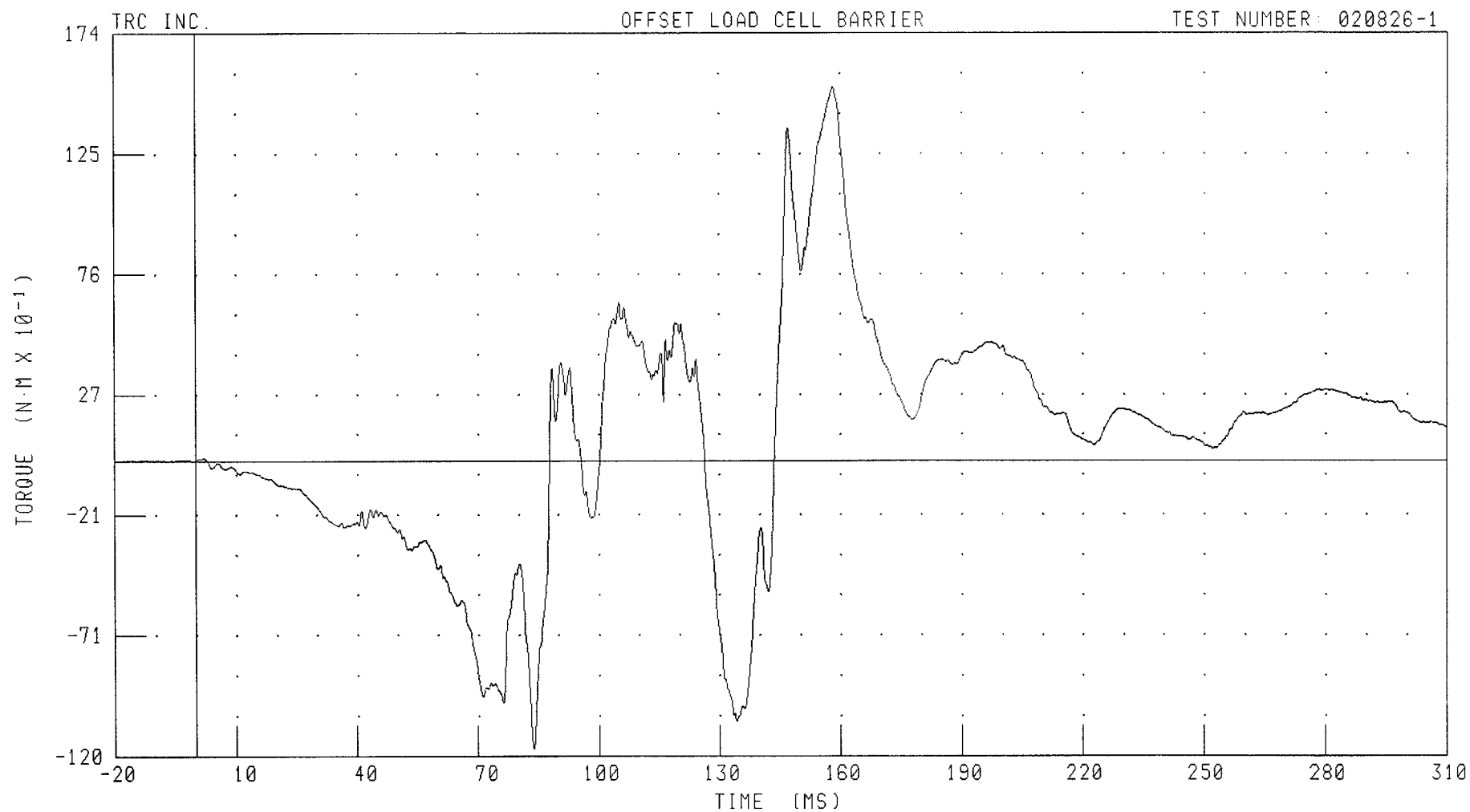
PEAK DATA: 9.64 N·M @ 139.36 MS; -2.26 N·M @ 98.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: ANRYM2 FILTER: CH. CLASS 600

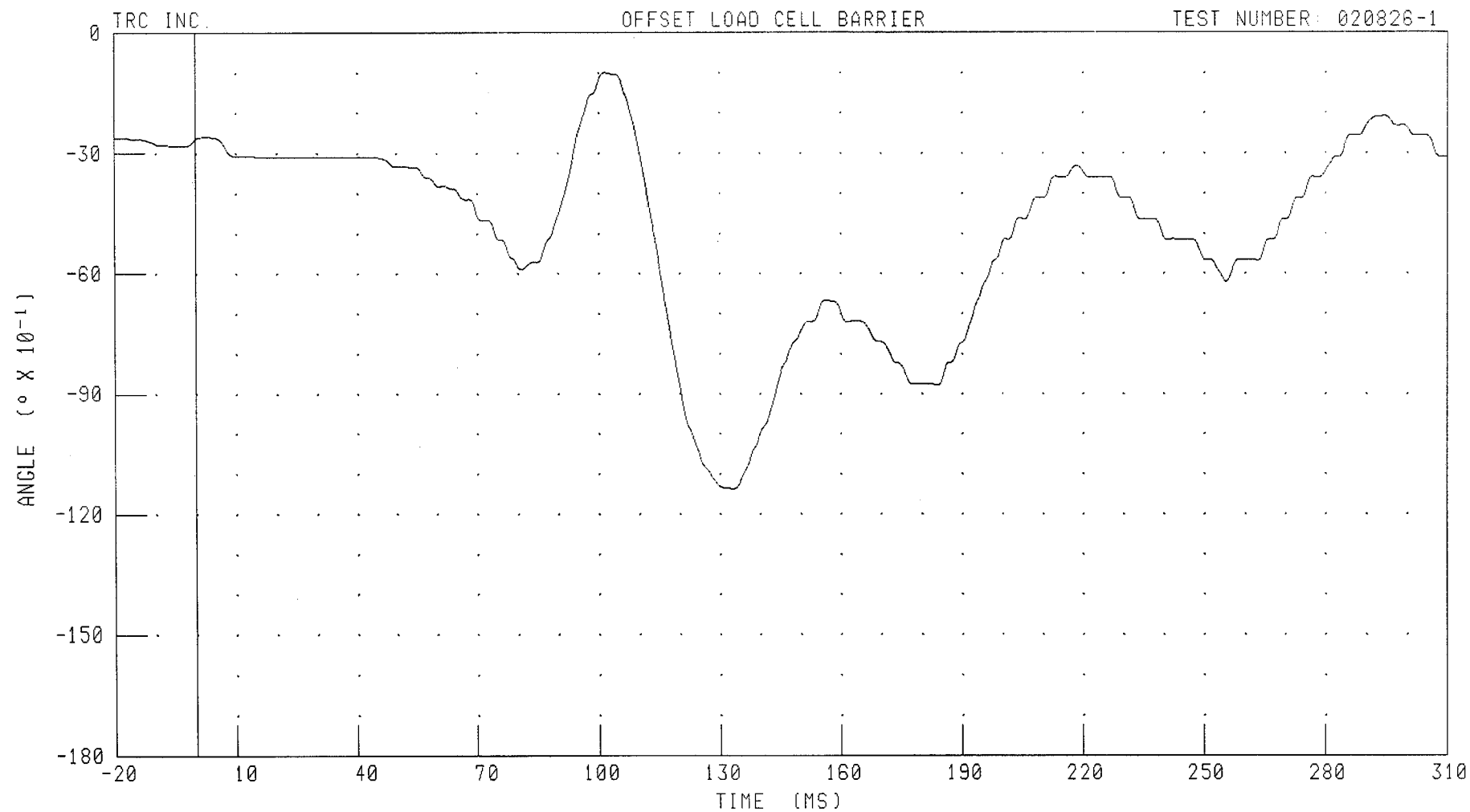
PEAK DATA: 15.22 N·M @ 158.48 MS; -11.70 N·M @ 83.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FOOT TO ANKLE X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRXD2 FILTER: CH. CLASS 180

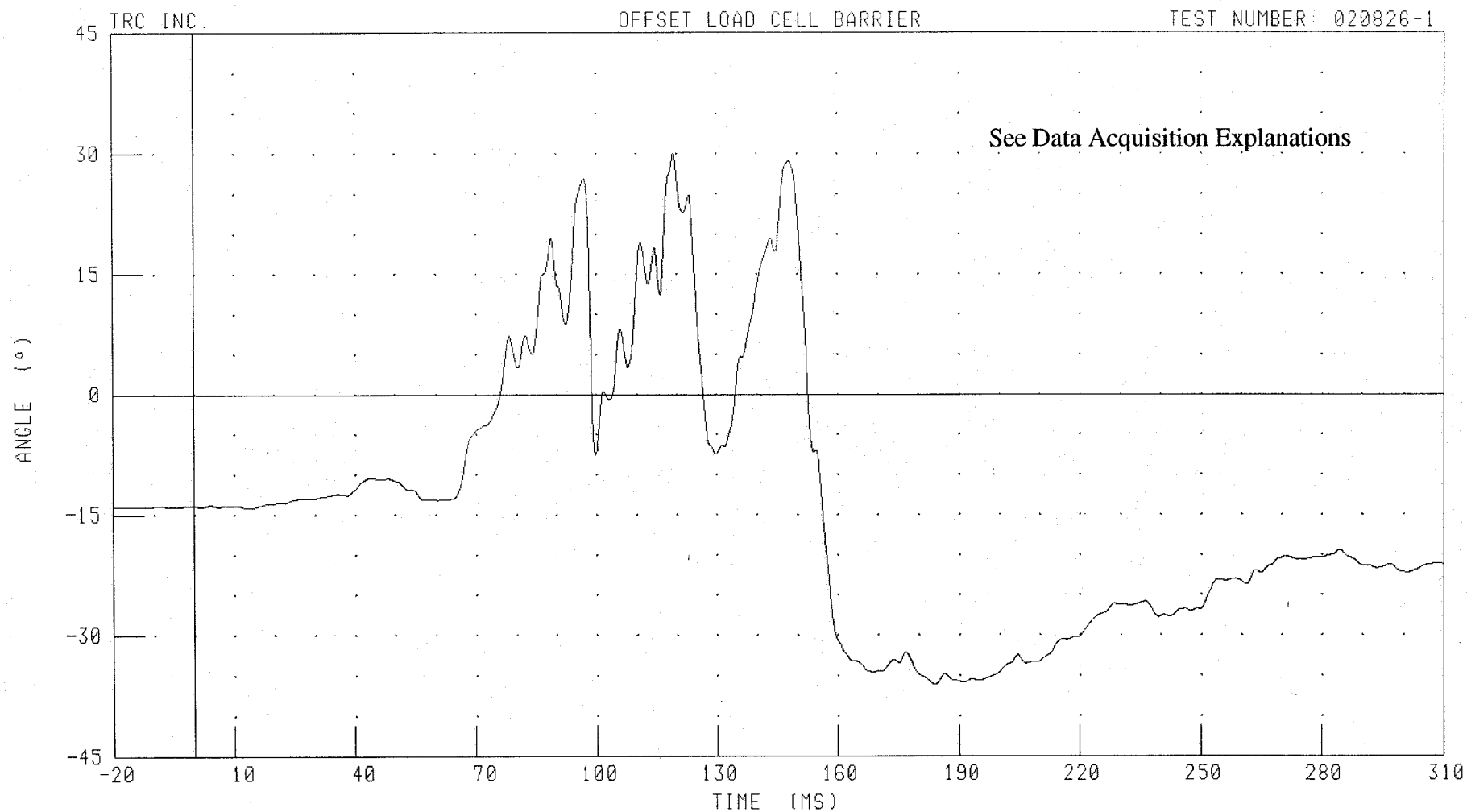
PEAK DATA: -0.99° @ 101.68 MS; -11.37° @ 133.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FOOT TO ANKLE Y-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRYD2 FILTER: CH. CLASS 180

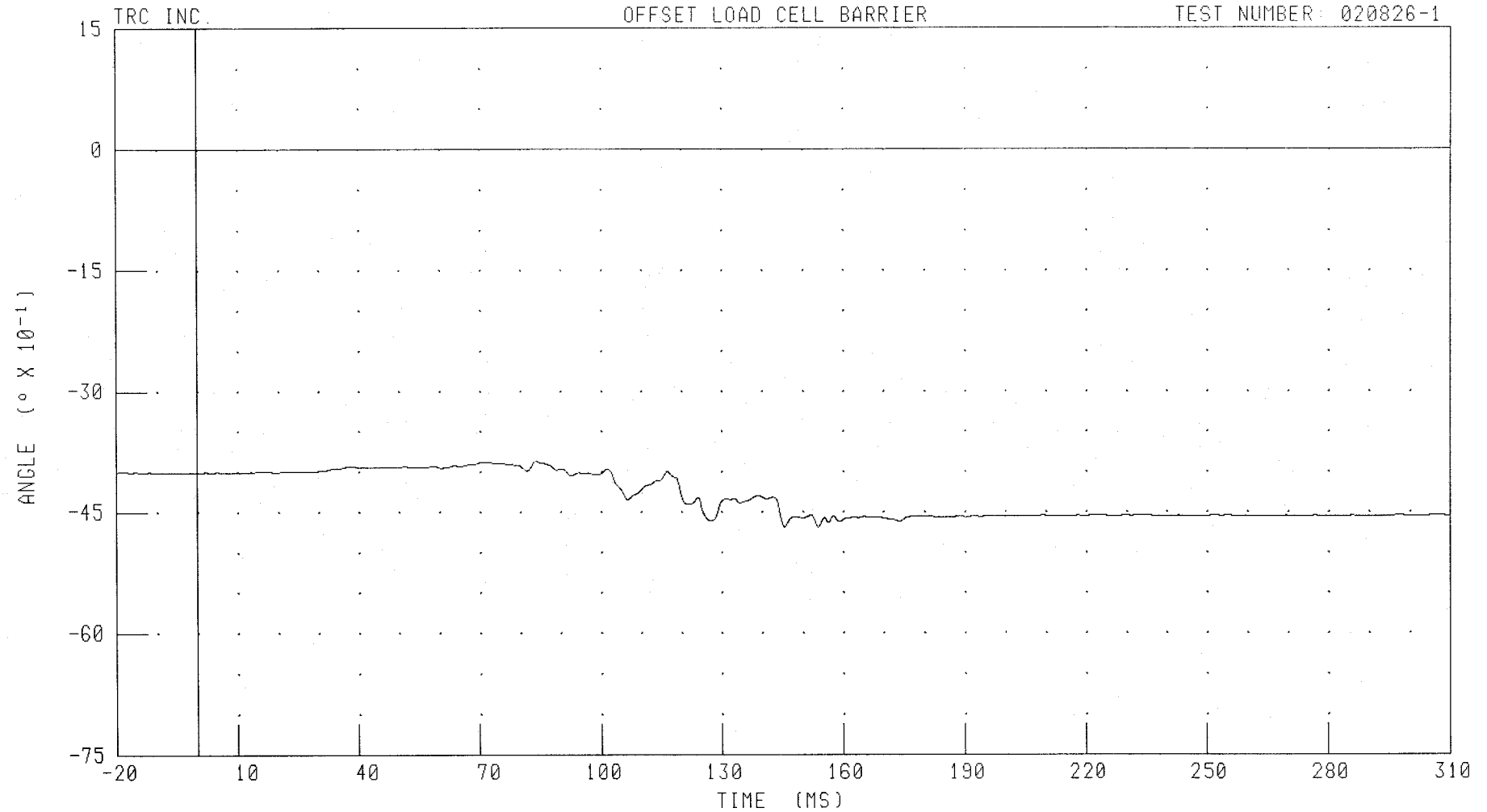
PEAK DATA: 30.06 ° @ 119.44 MS; -36.15 ° @ 184.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FOOT TO ANKLE Z-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRZD2 FILTER: CH. CLASS 180

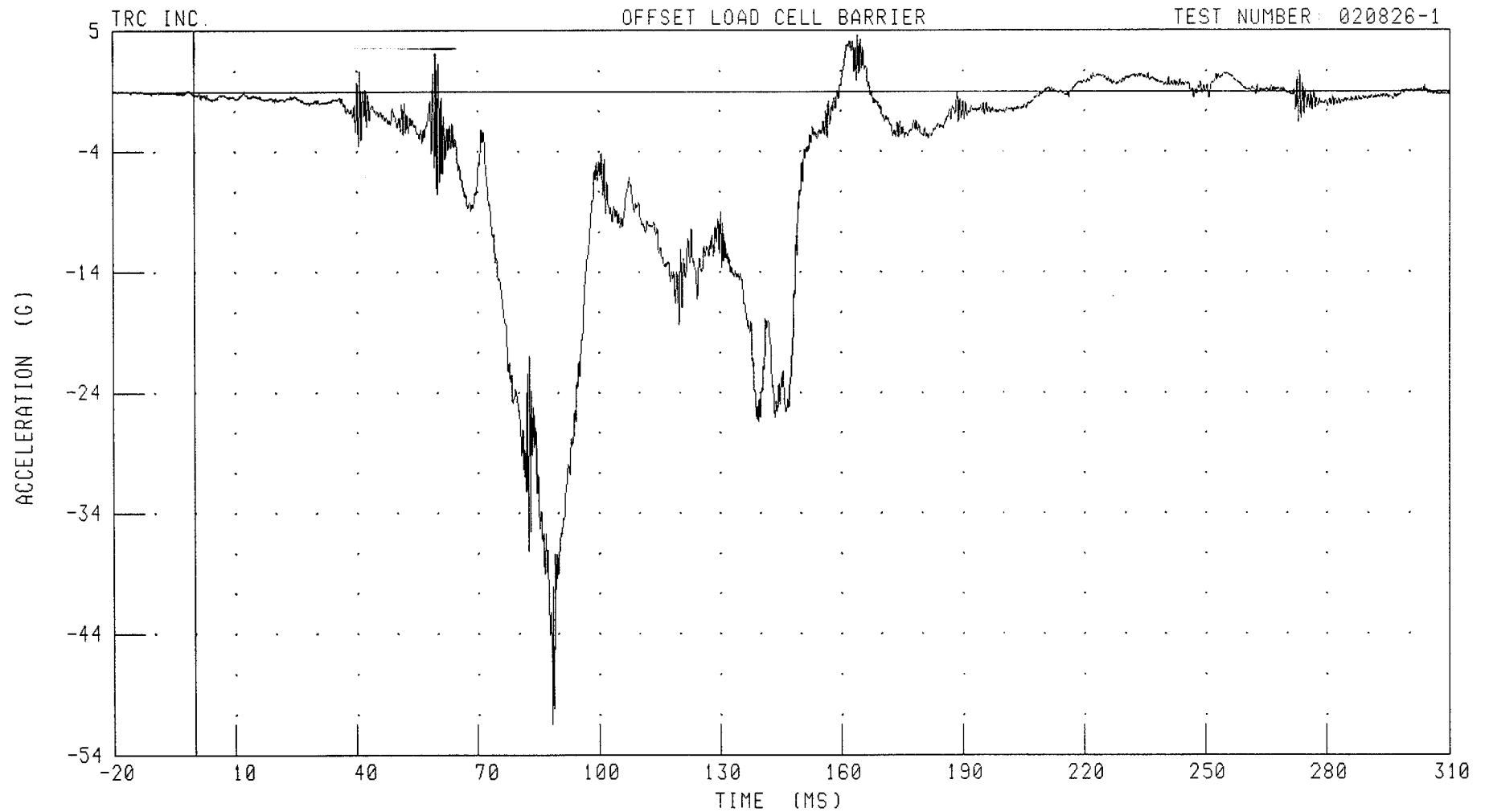
PEAK DATA: -3.87 ° @ 84.00 MS; -4.69 ° @ 153.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FOOT X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTRXG2 FILTER: CH. CLASS 1000

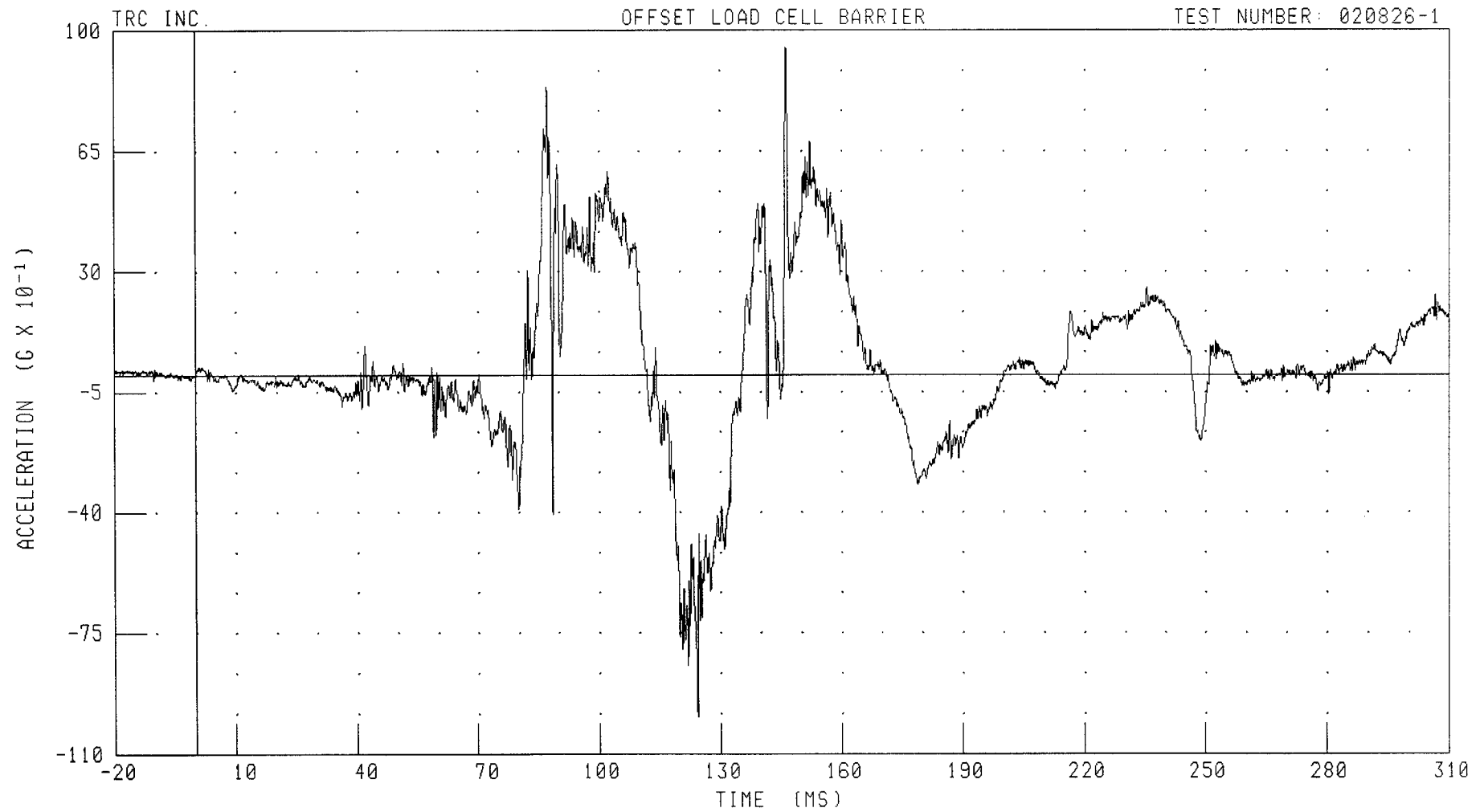
PEAK DATA: 4.70 G @ 164.40 MS; -52.35 G @ 88.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER RIGHT FOOT Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



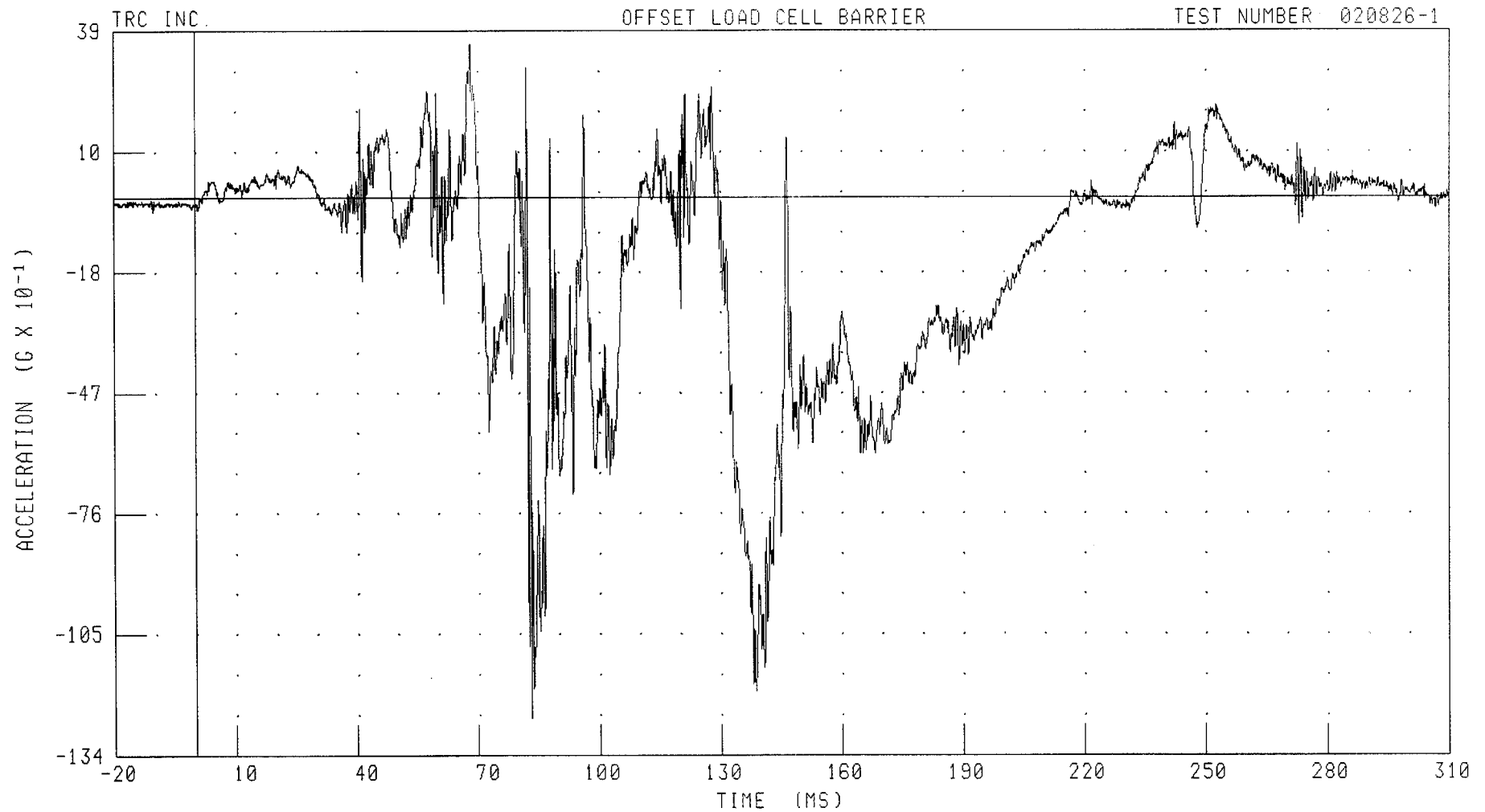
CHANNEL: FTRYG2 FILTER: CH. CLASS 1000

PEAK DATA: 9.51 G @ 146.40 MS; -9.92 G @ 124.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



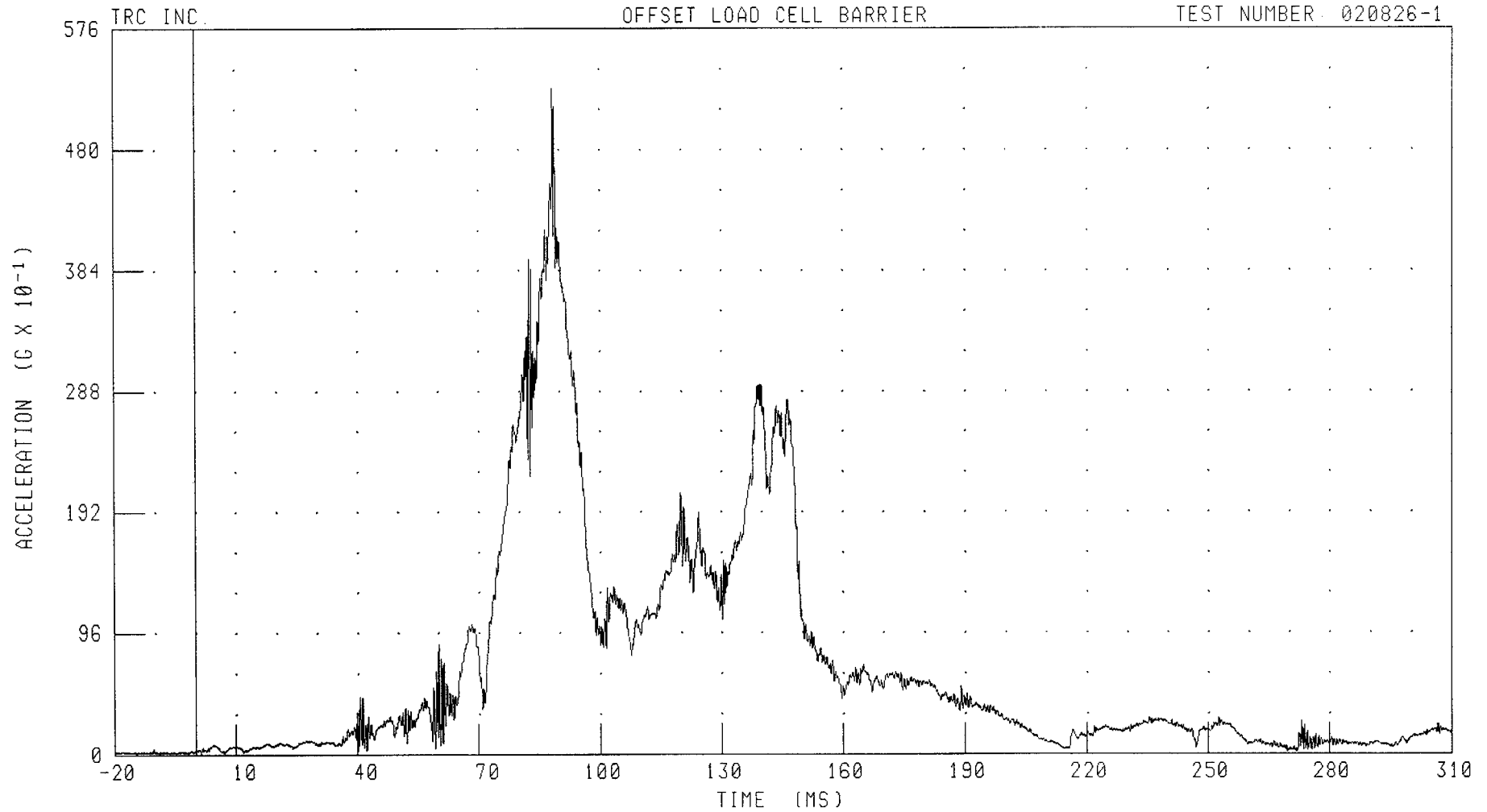
CHANNEL: FTRZG2 FILTER: CH. CLASS 1000

PEAK DATA: 3.68 G @ 68.16 MS; -12.51 G @ 83.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
PASSENGER RIGHT FOOT RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: FTTRG2 FILTER: CH. CLASS 1000

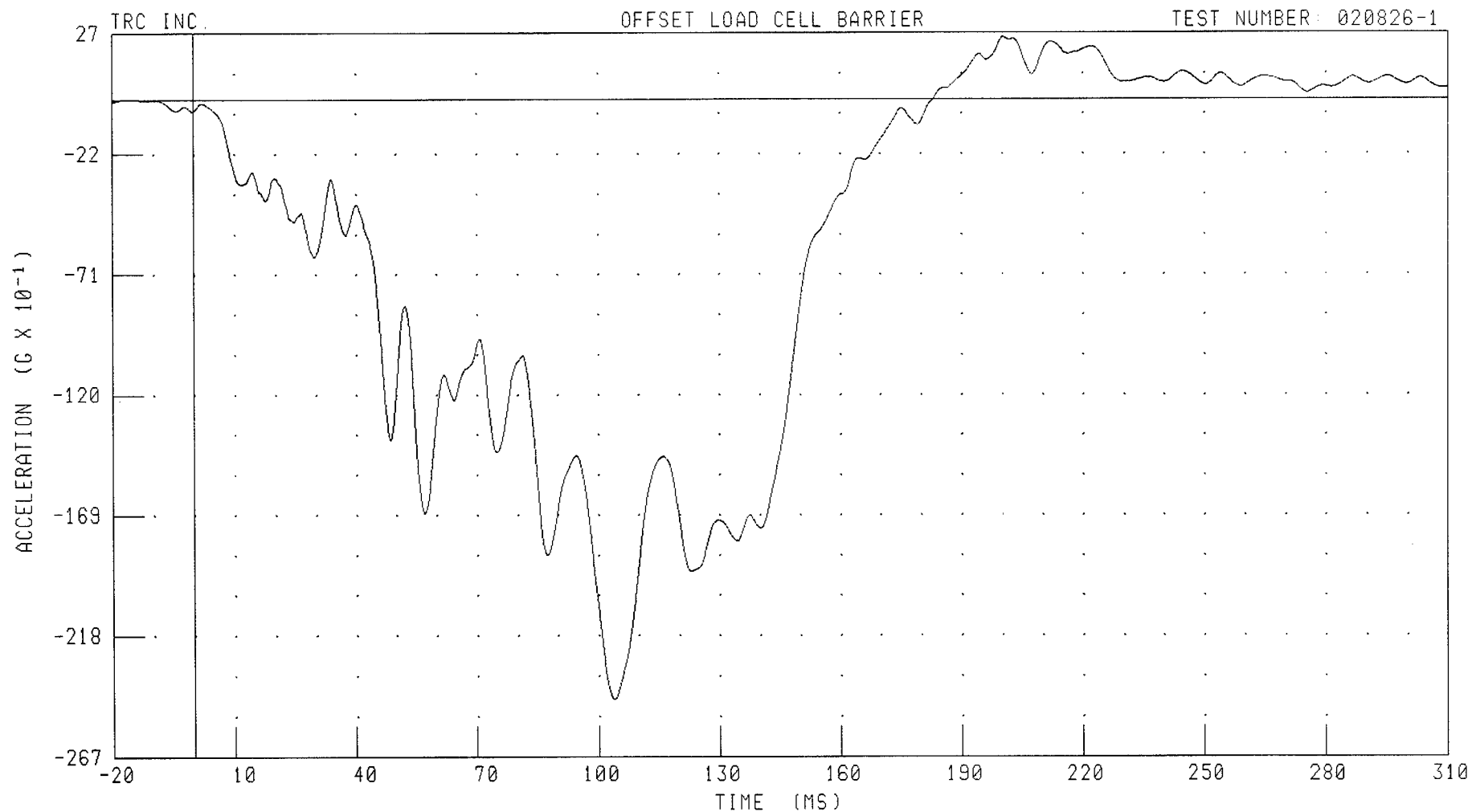
PEAK DATA: 52.90 G @ 88.48 MS; 0.10 G @ -14.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

LEFT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LRXXG1 FILTER: CH. CLASS 60

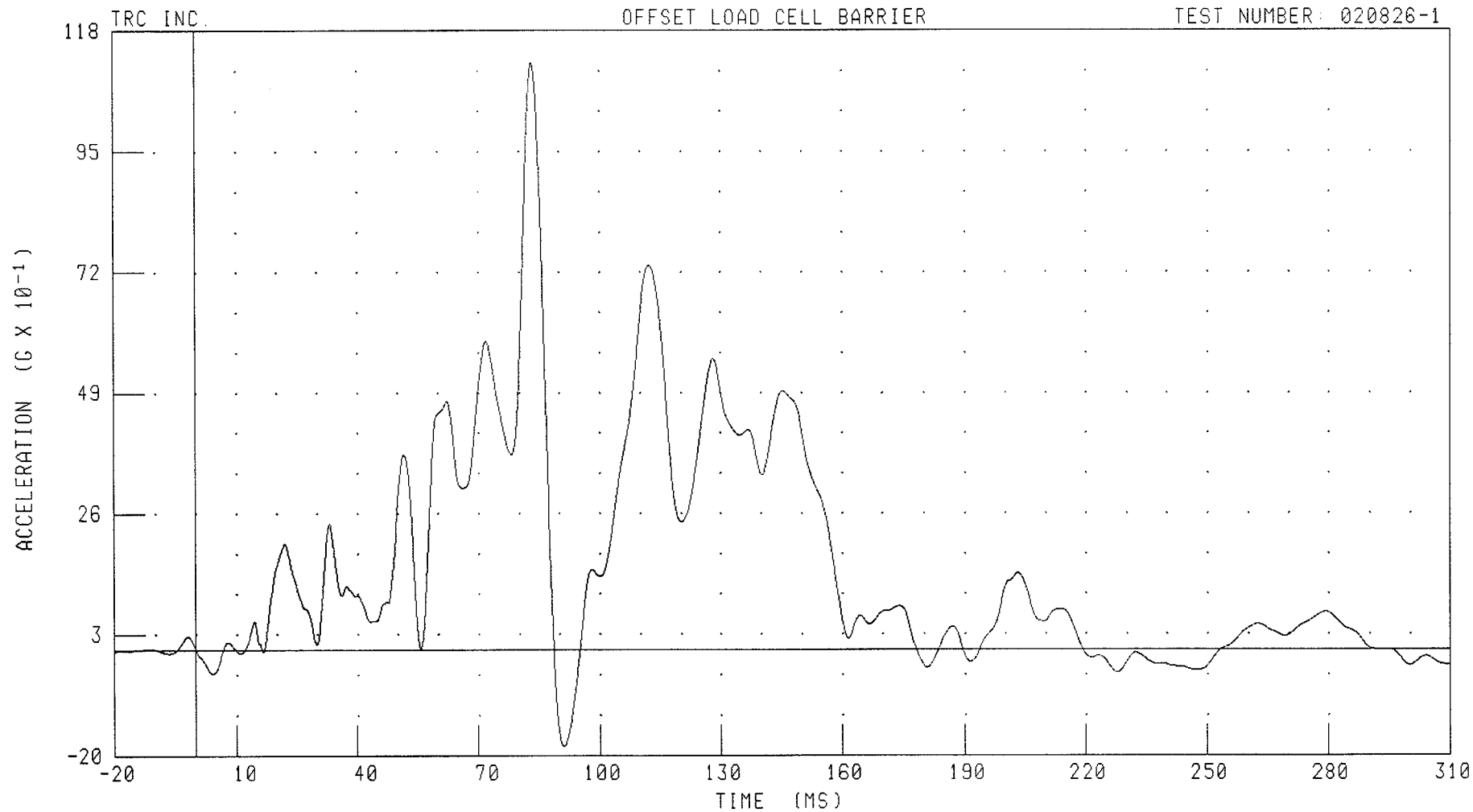
PEAK DATA: 2.53 G @ 200.40 MS; -24.38 G @ 103.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

LEFT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LRXYG1 FILTER: CH. CLASS 60

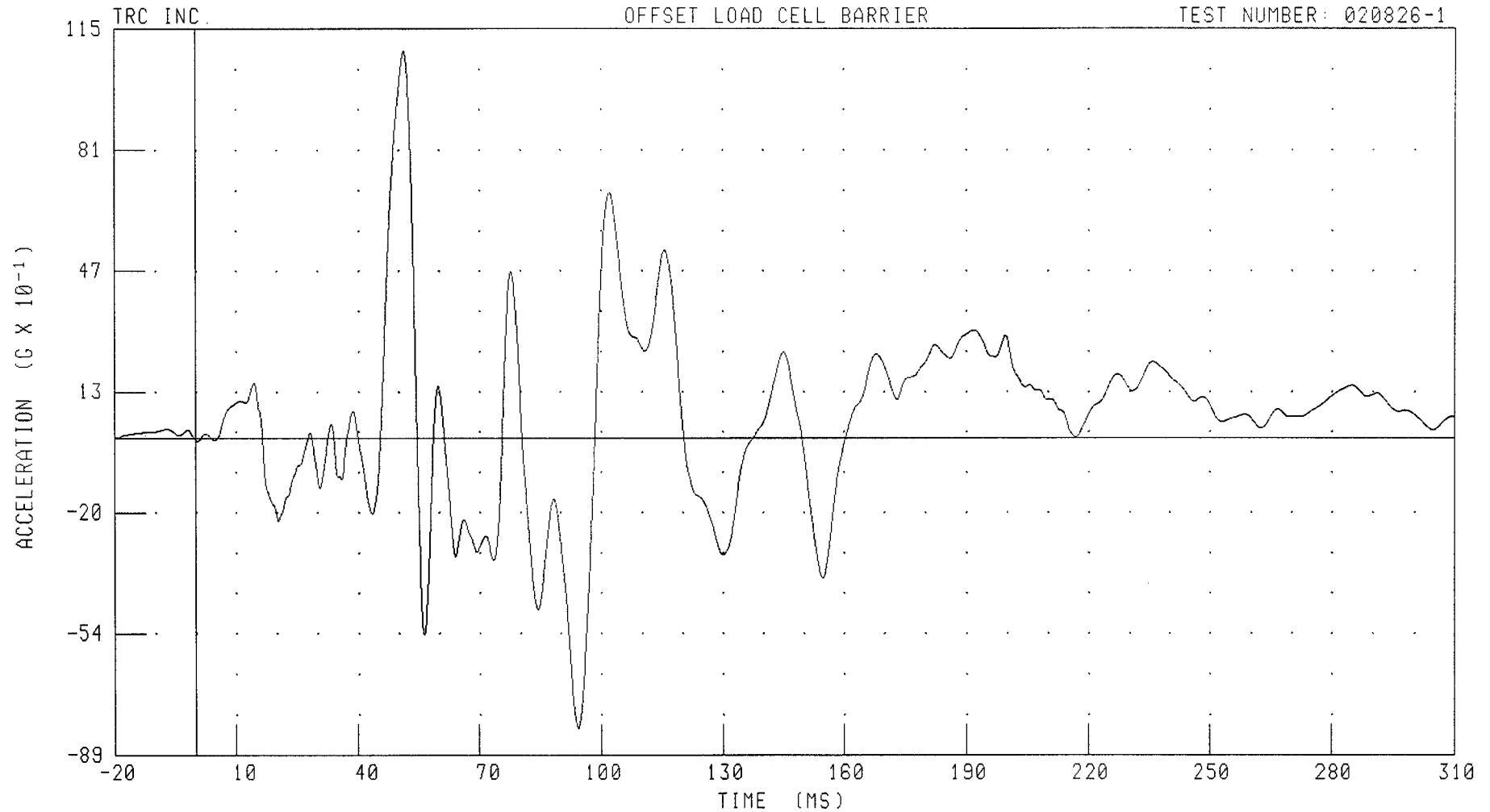
PEAK DATA: 11.18 G @ 83.28 MS, -1.82 G @ 91.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

LEFT REAR SEAT CROSSMEMBER Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LRXZG1 FILTER: CH. CLASS 60

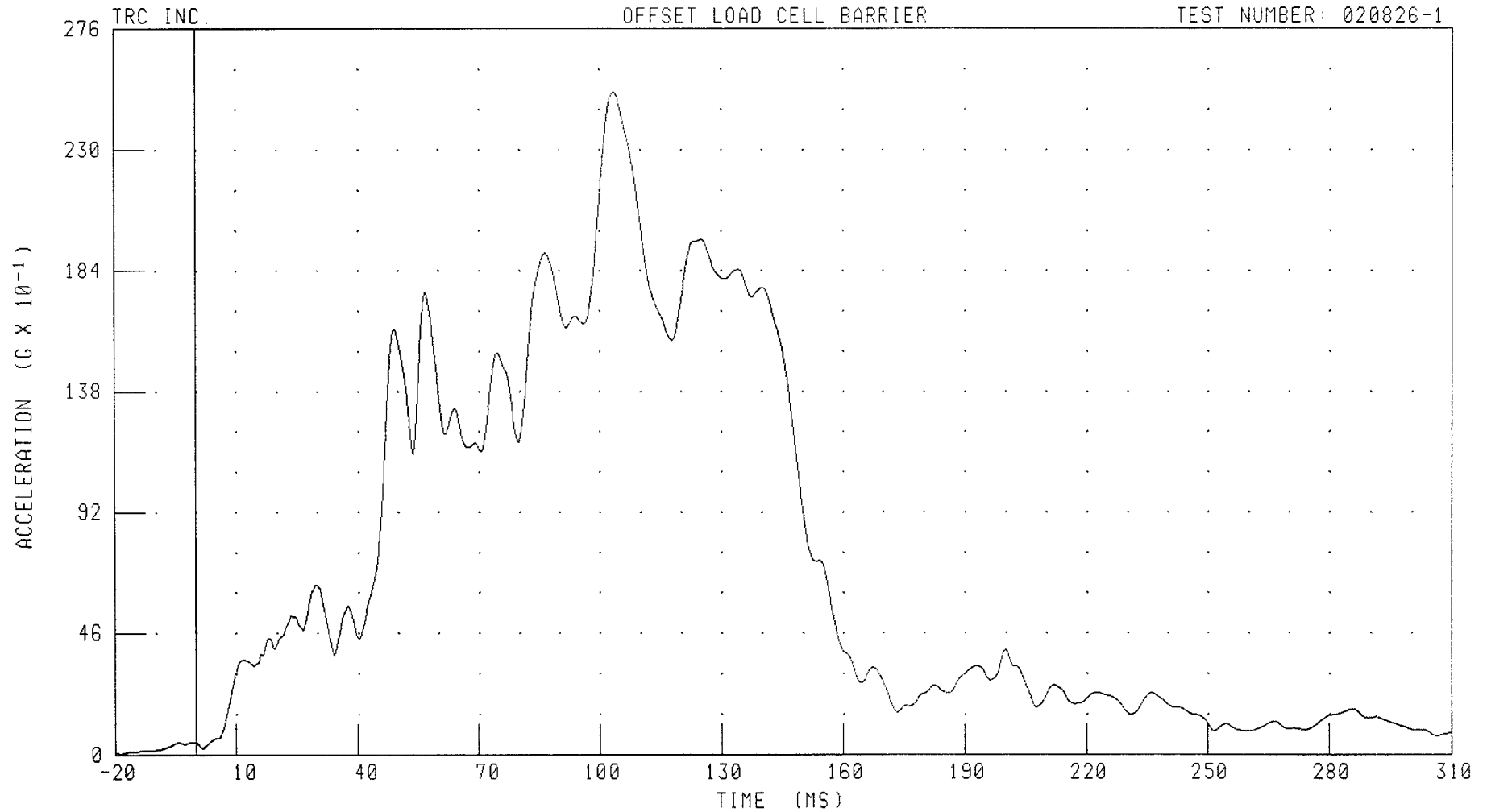
PEAK DATA: 10.88 G @ 51.44 MS; -8.17 G @ 94.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

LEFT REAR SEAT CROSSMEMBER RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LRXRG1 FILTER: CH. CLASS 60

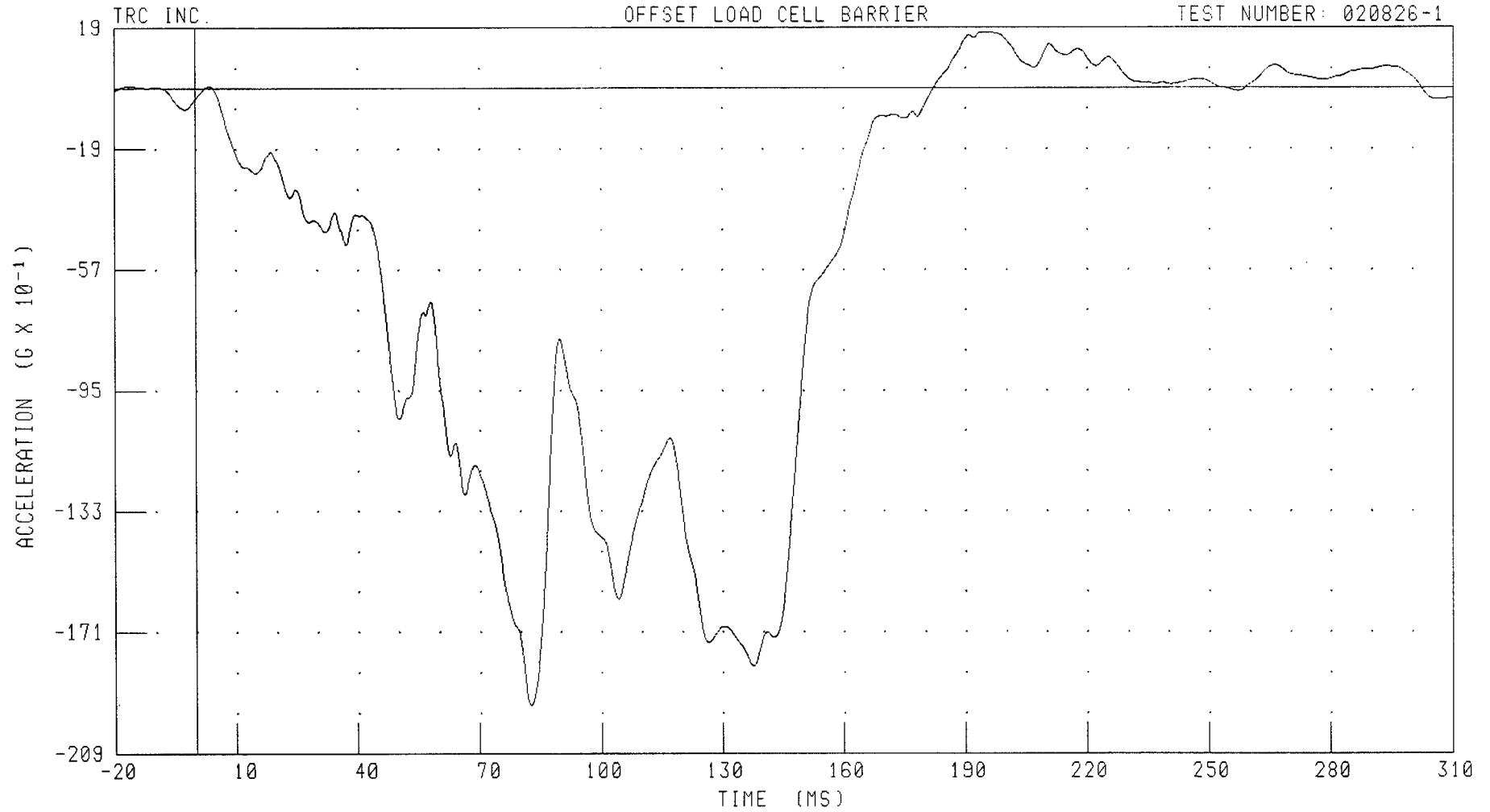
PEAK DATA: 25.20 G @ 103.68 MS; 0.04 G @ -18.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

RIGHT REAR SEAT CROSSMEMBER X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



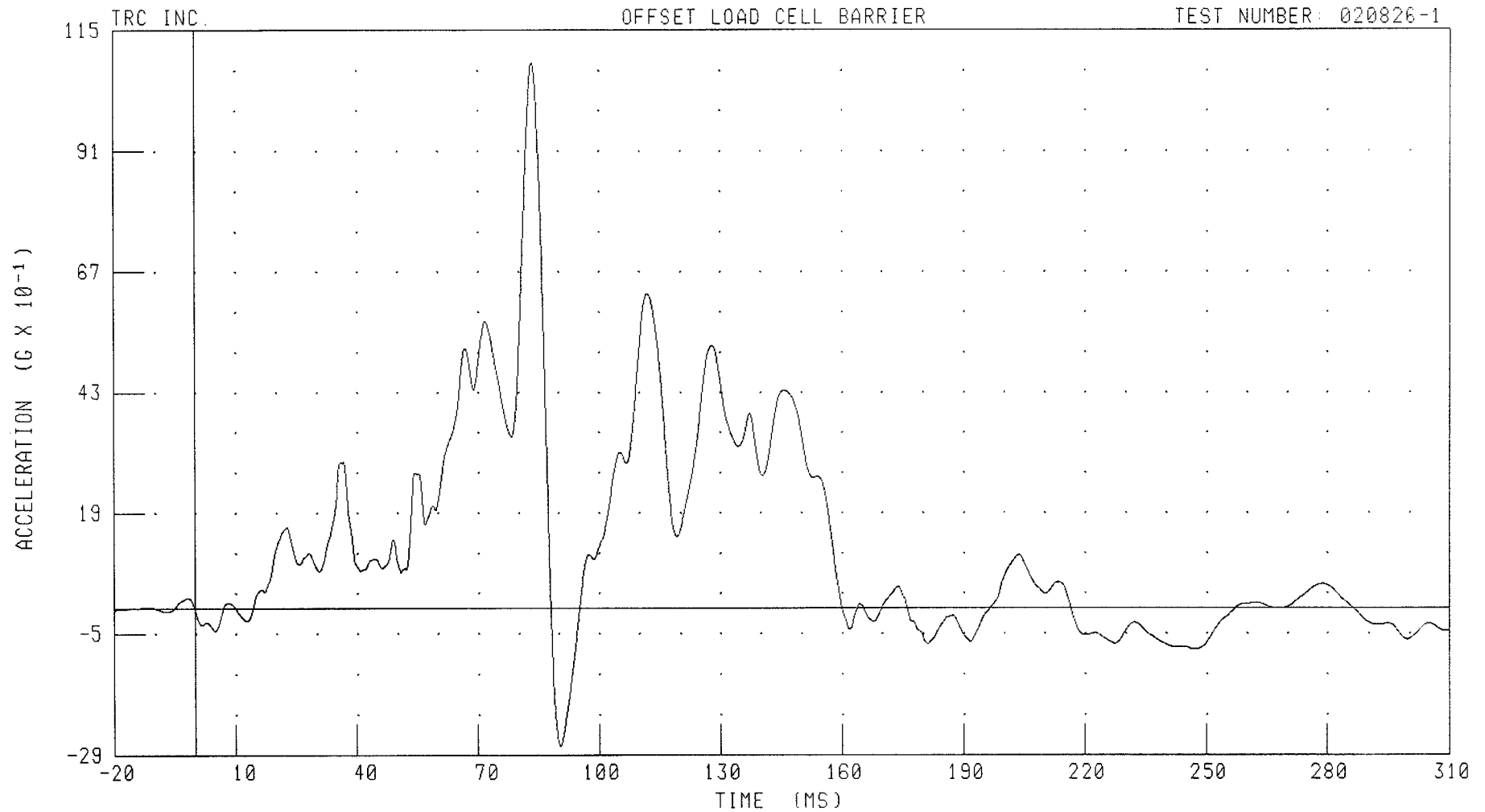
CHANNEL: RRXXG1 FILTER: CH. CLASS 60

PEAK DATA: 1.75 G @ 194.00 MS; -19.39 G @ 82.64 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
RIGHT REAR SEAT CROSSMEMBER Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RRXYG1 FILTER: CH. CLASS 60

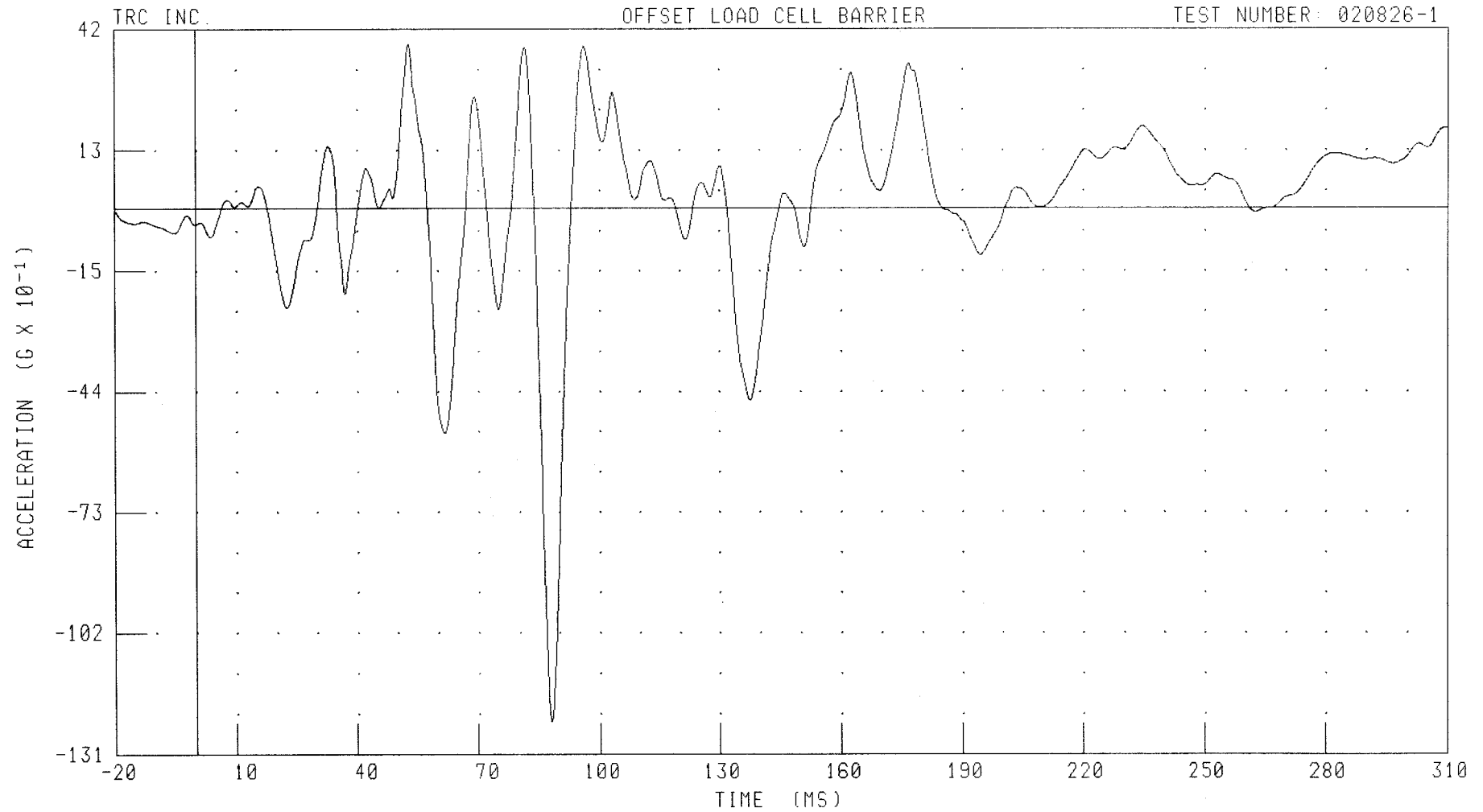
PEAK DATA: 10.84 G @ 83.52 MS; -2.72 G @ 90.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

RIGHT REAR SEAT CROSSMEMBER Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RRXZG1 FILTER: CH. CLASS 60

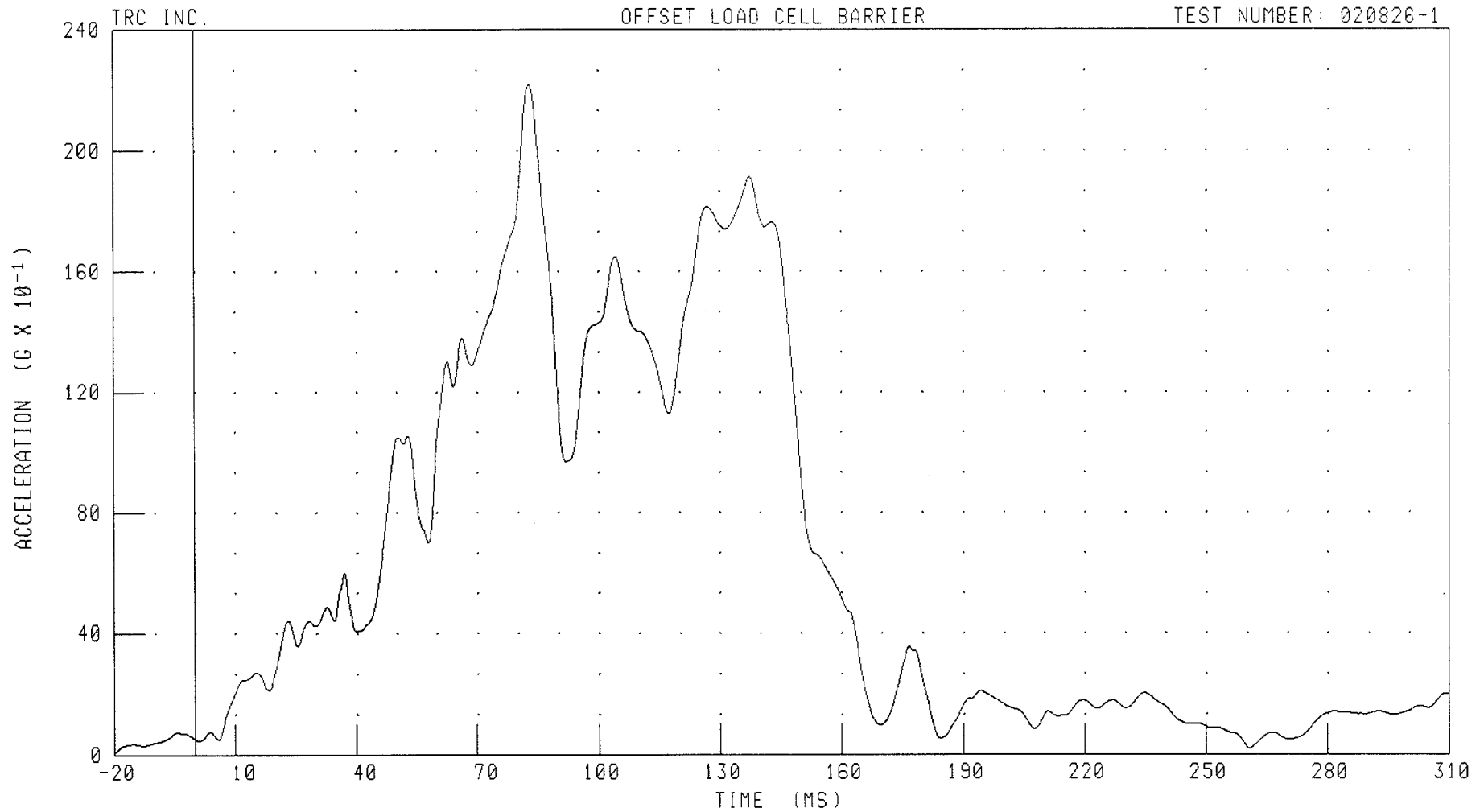
PEAK DATA: 3.94 G @ 52.96 MS; -12.32 G @ 88.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

RIGHT REAR SEAT CROSSMEMBER RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RRXRC1 FILTER: CH. CLASS 60

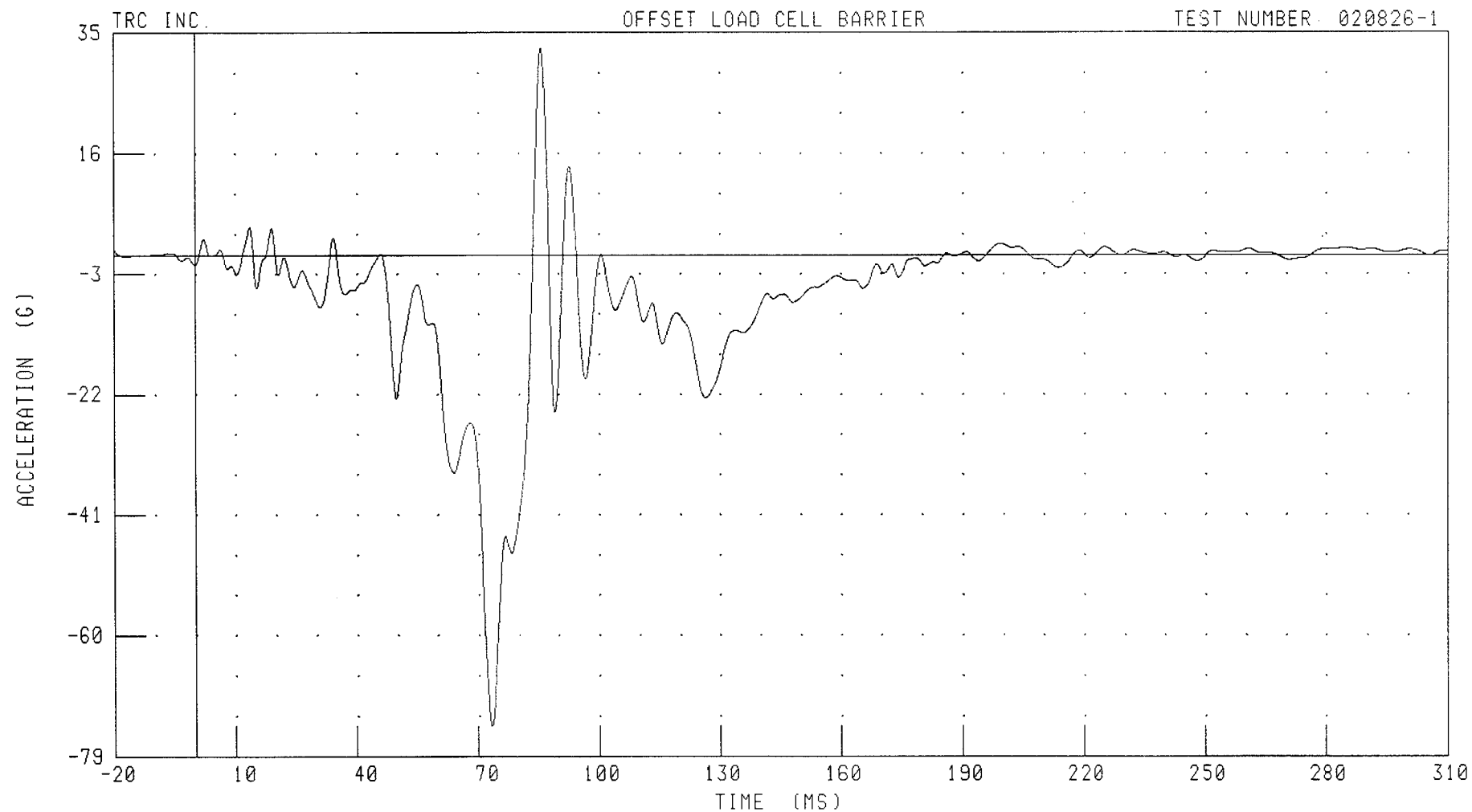
PEAK DATA: 22.20 G @ 83.04 MS; 0.09 G @ -19.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS LEFT SIDE TOE PAN X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LTPXG1 FILTER: CH. CLASS 60

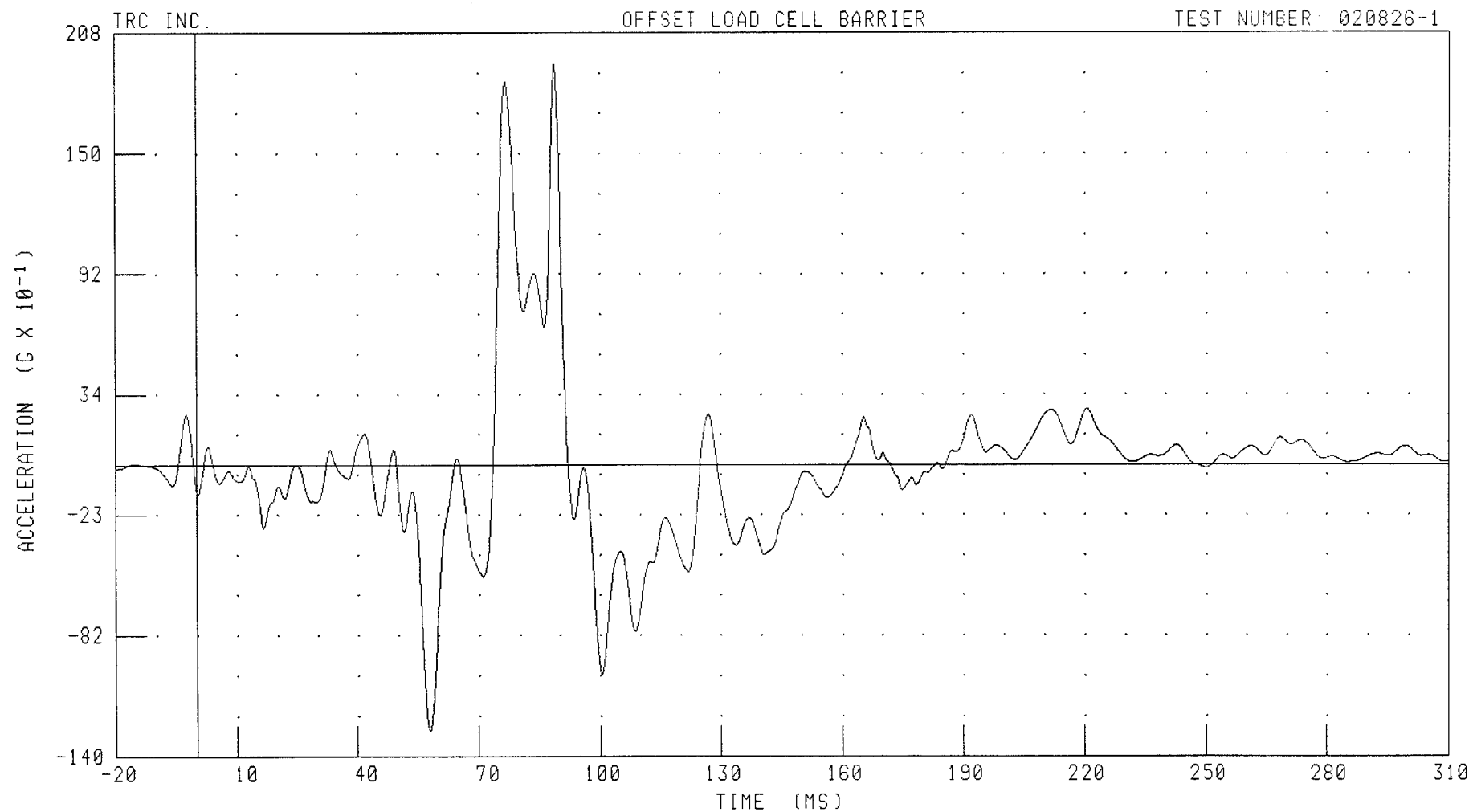
PEAK DATA: 32.54 G @ 85.76 MS; -74.26 G @ 73.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS LEFT SIDE TOE PAN Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LTPYG1 FILTER: CH. CLASS 60

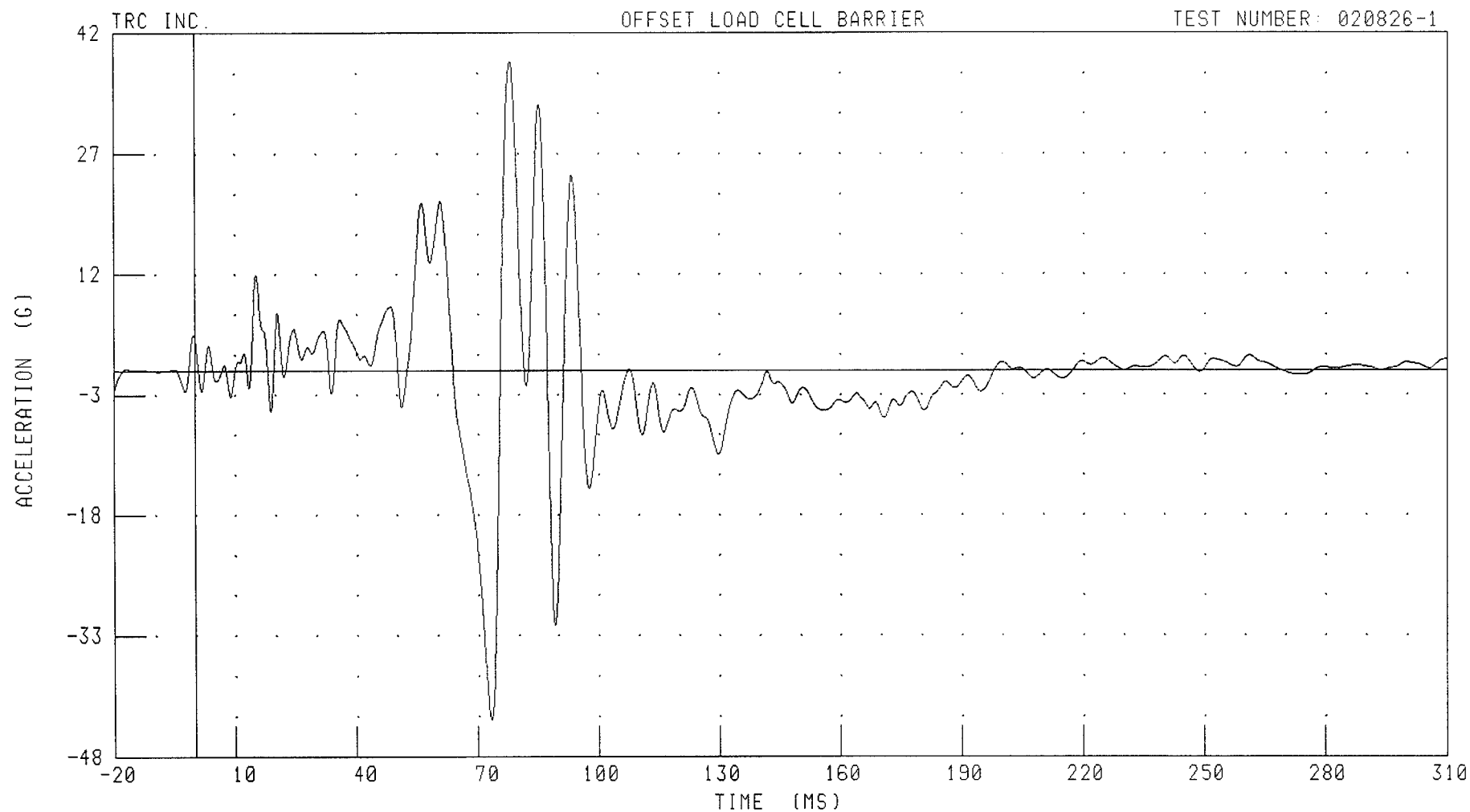
PEAK DATA: 19.28 G @ 88.88 MS; -12.77 G @ 57.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS LEFT SIDE TOE PAN Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LTPZG1 FILTER: CH. CLASS 60

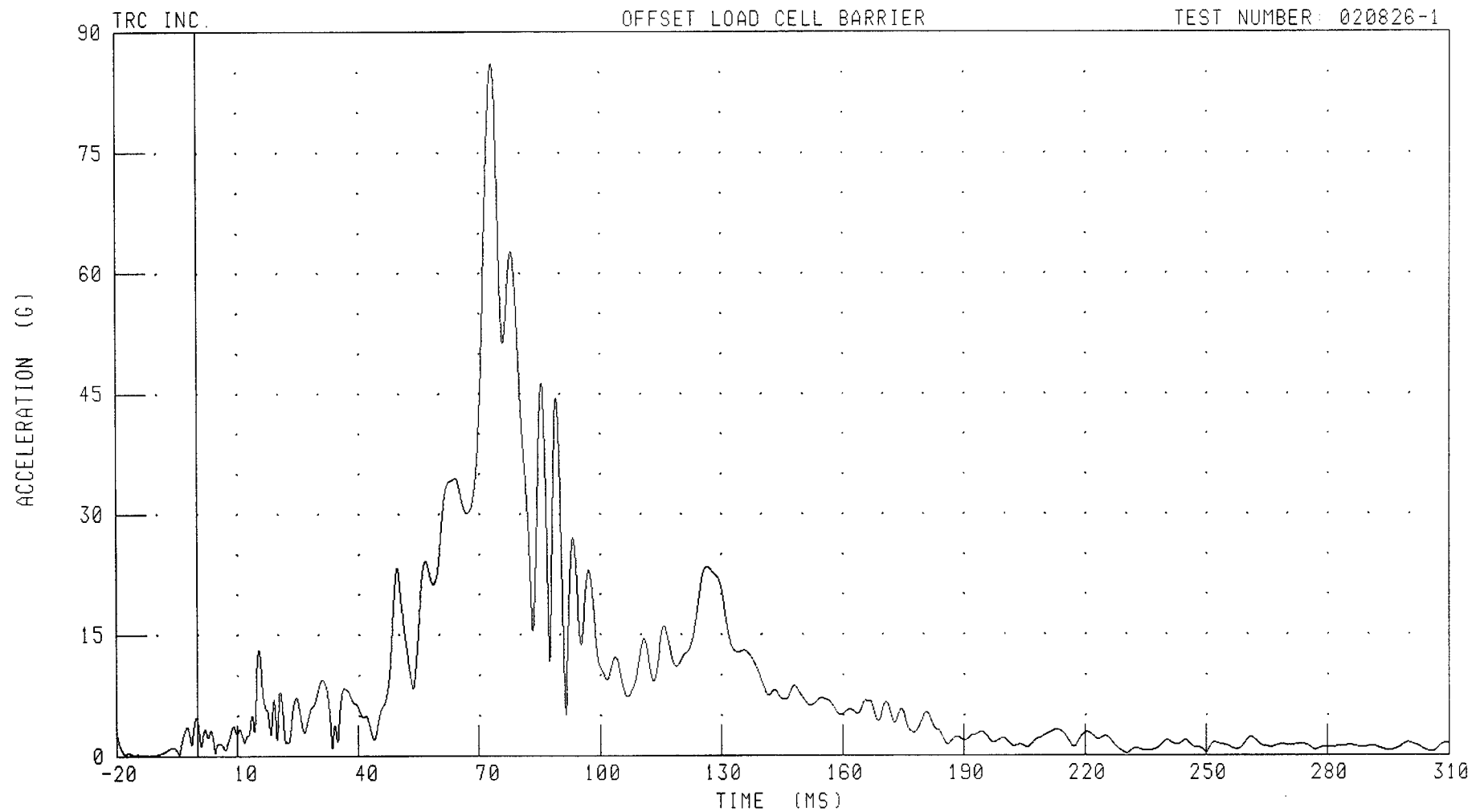
PEAK DATA: 38.41 G @ 78.00 MS; -43.46 G @ 73.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS LEFT SIDE TOE PAN RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LTPRG1 FILTER: CH. CLASS 60

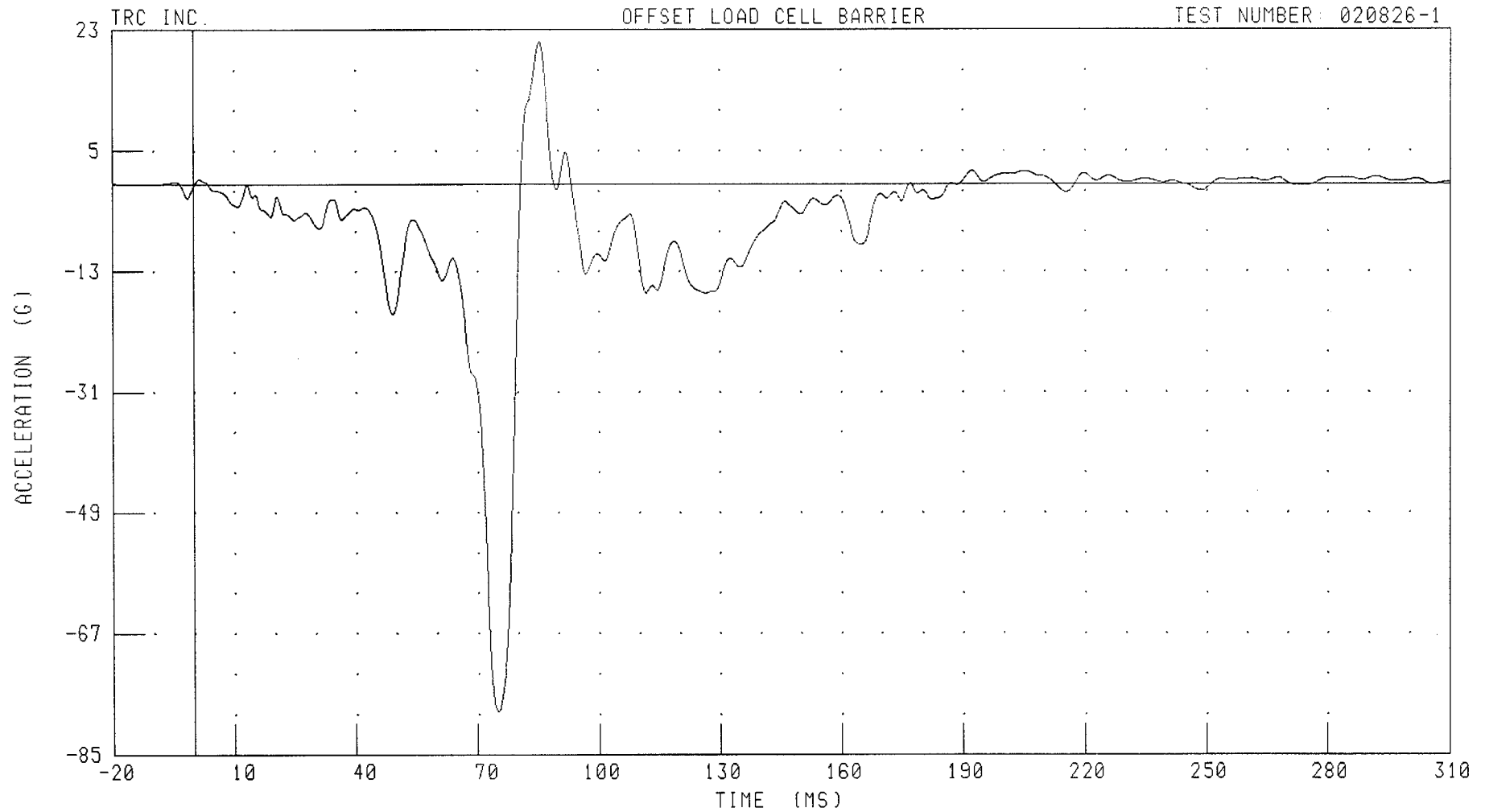
PEAK DATA: 86.03 G @ 73.36 MS; 0.04 G @ -11.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS RIGHT SIDE TOE PAN X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RTPXC1 FILTER: CH. CLASS 60

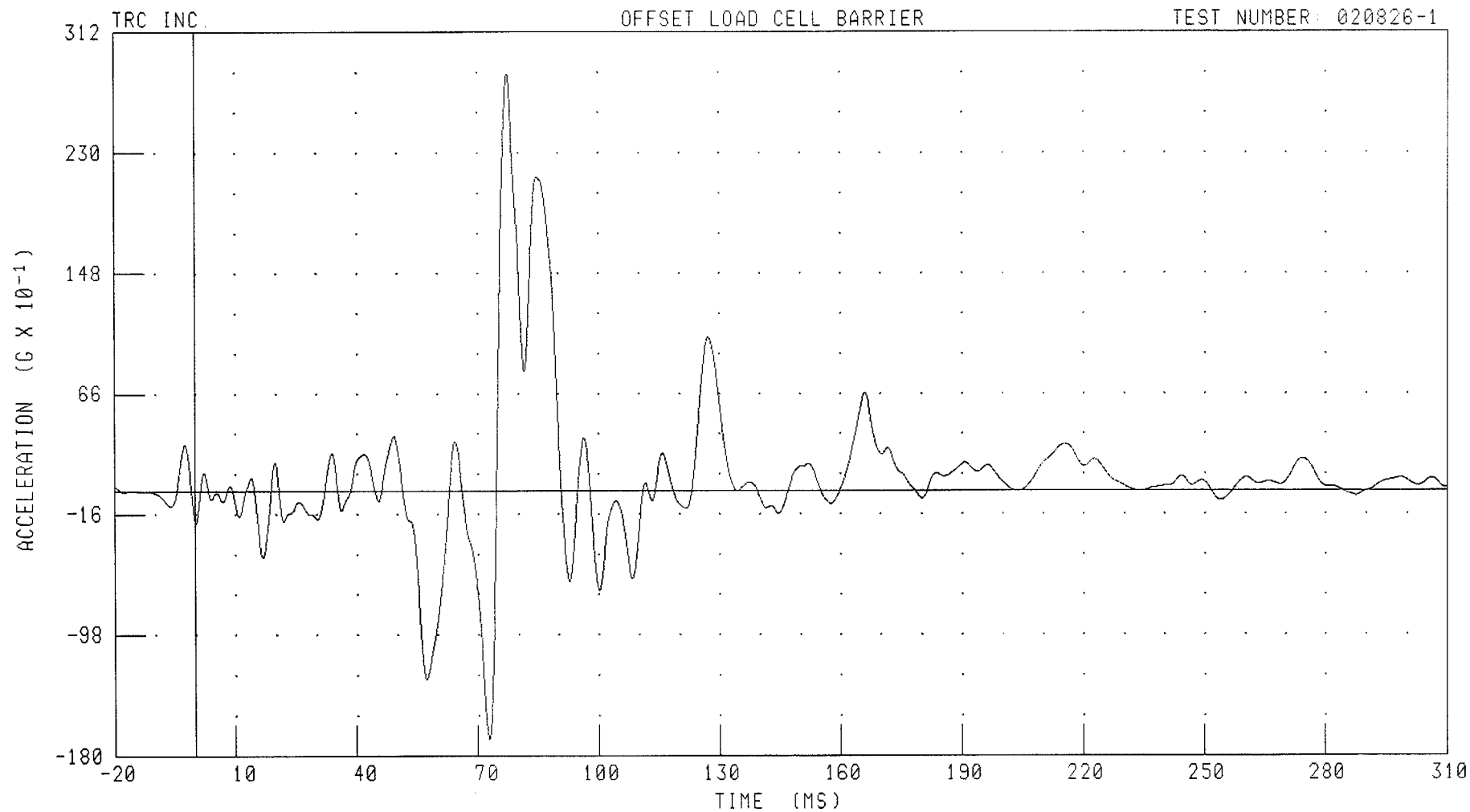
PEAK DATA: 21.20 G @ 85.60 MS, -78.57 G @ 75.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS RIGHT SIDE TOE PAN Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



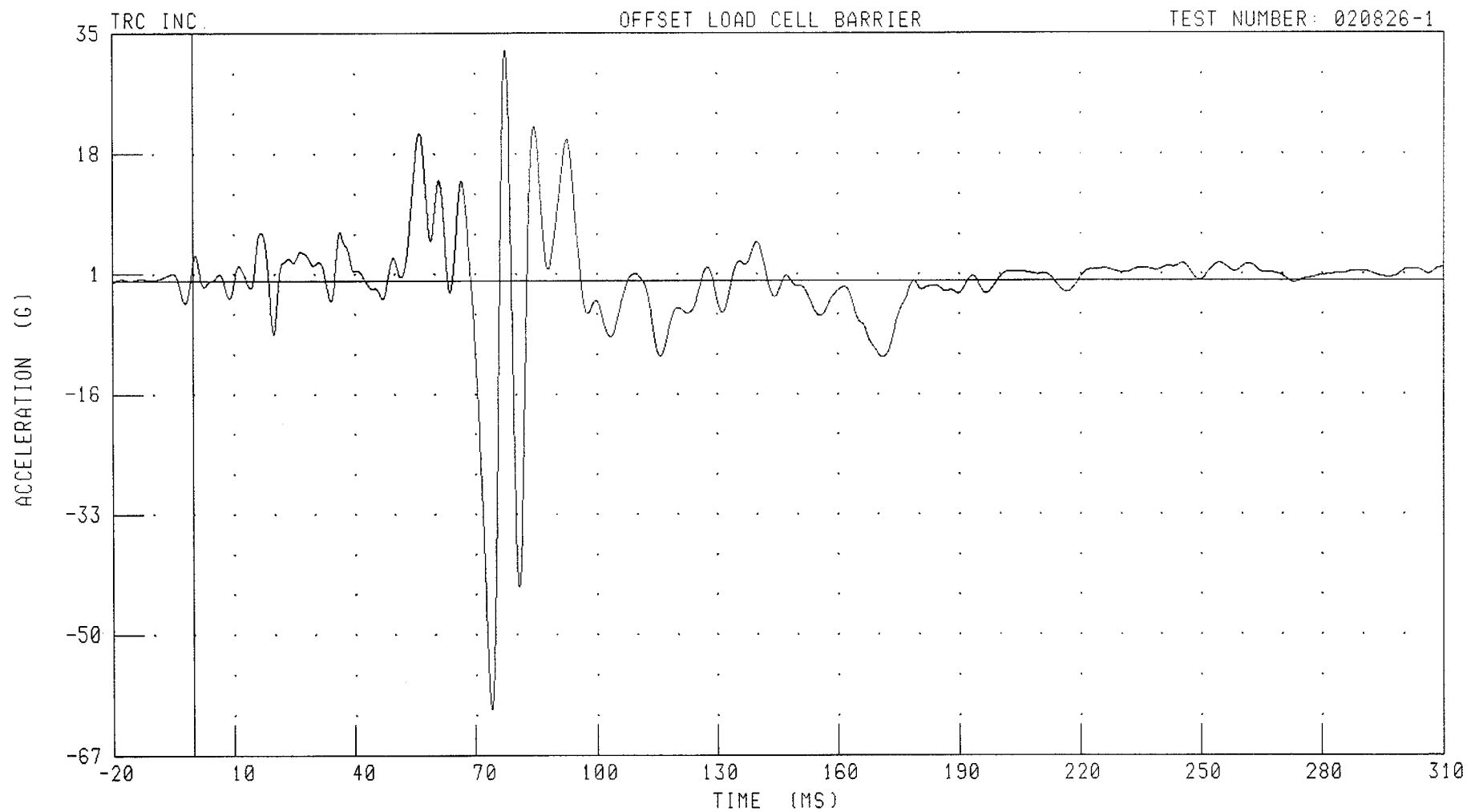
CHANNEL: RTPYG1 FILTER: CH. CLASS 60

PEAK DATA: 28.36 G @ 77.60 MS; -16.86 G @ 72.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
DRIVERS RIGHT SIDE TOE PAN Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RTPZG1 FILTER: CH. CLASS 60

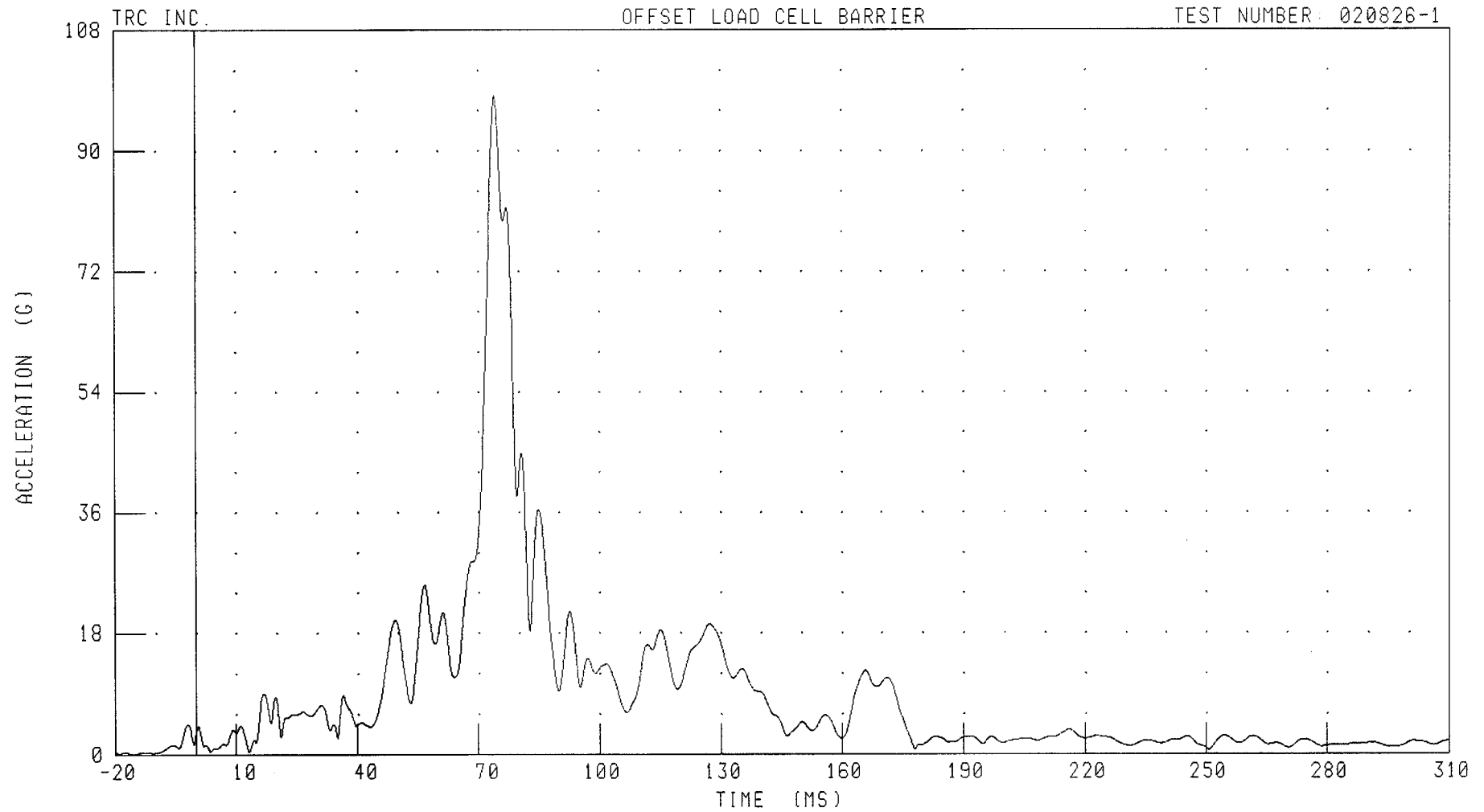
PEAK DATA: 32.64 G @ 77.68 MS, -60.59 G @ 74.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVERS RIGHT SIDE TOE PAN RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RTPRG1 FILTER: CH. CLASS 60

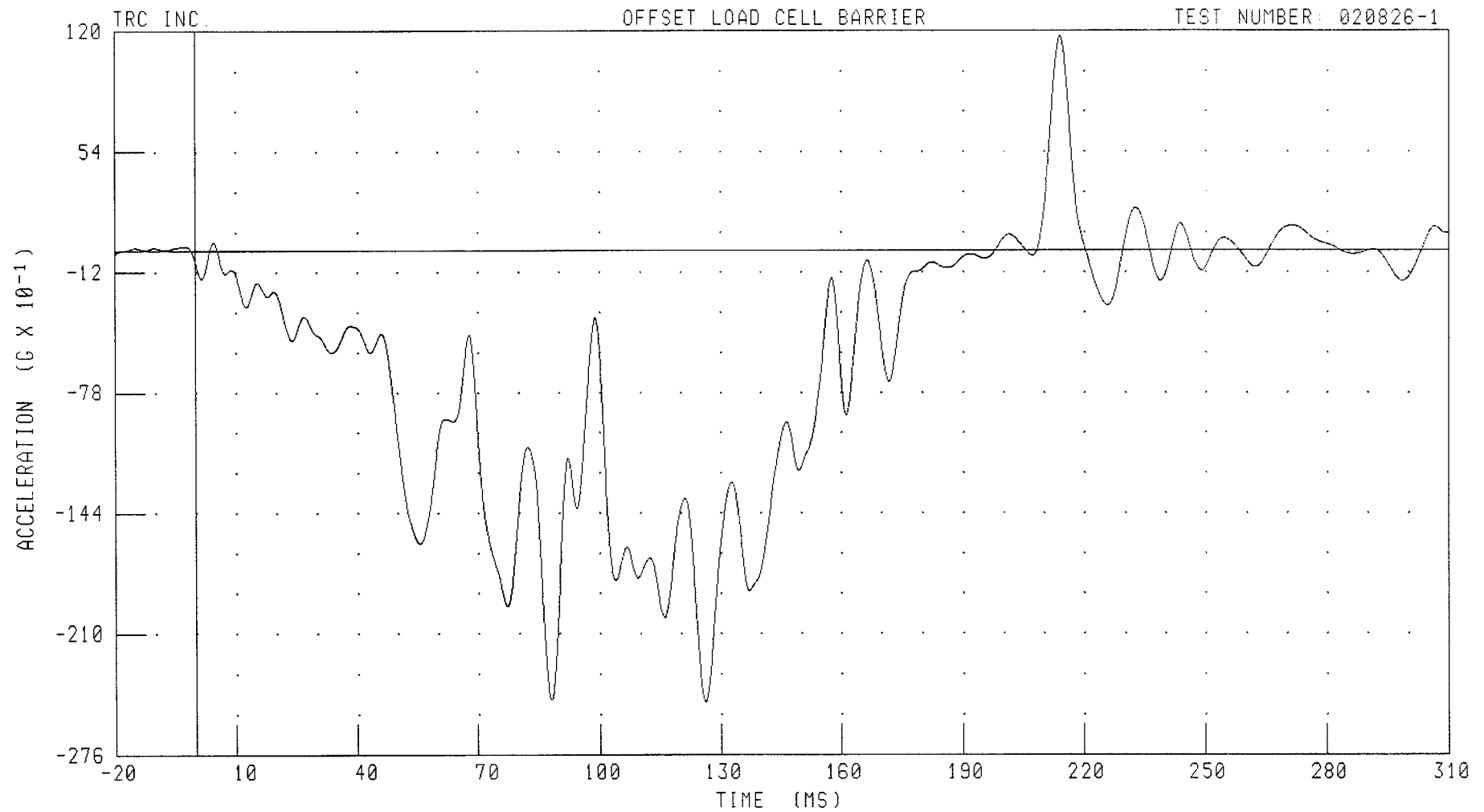
PEAK DATA: 98.24 G @ 74.16 MS; 0.05 G @ -15.44 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGXG1 FILTER: CH. CLASS 60

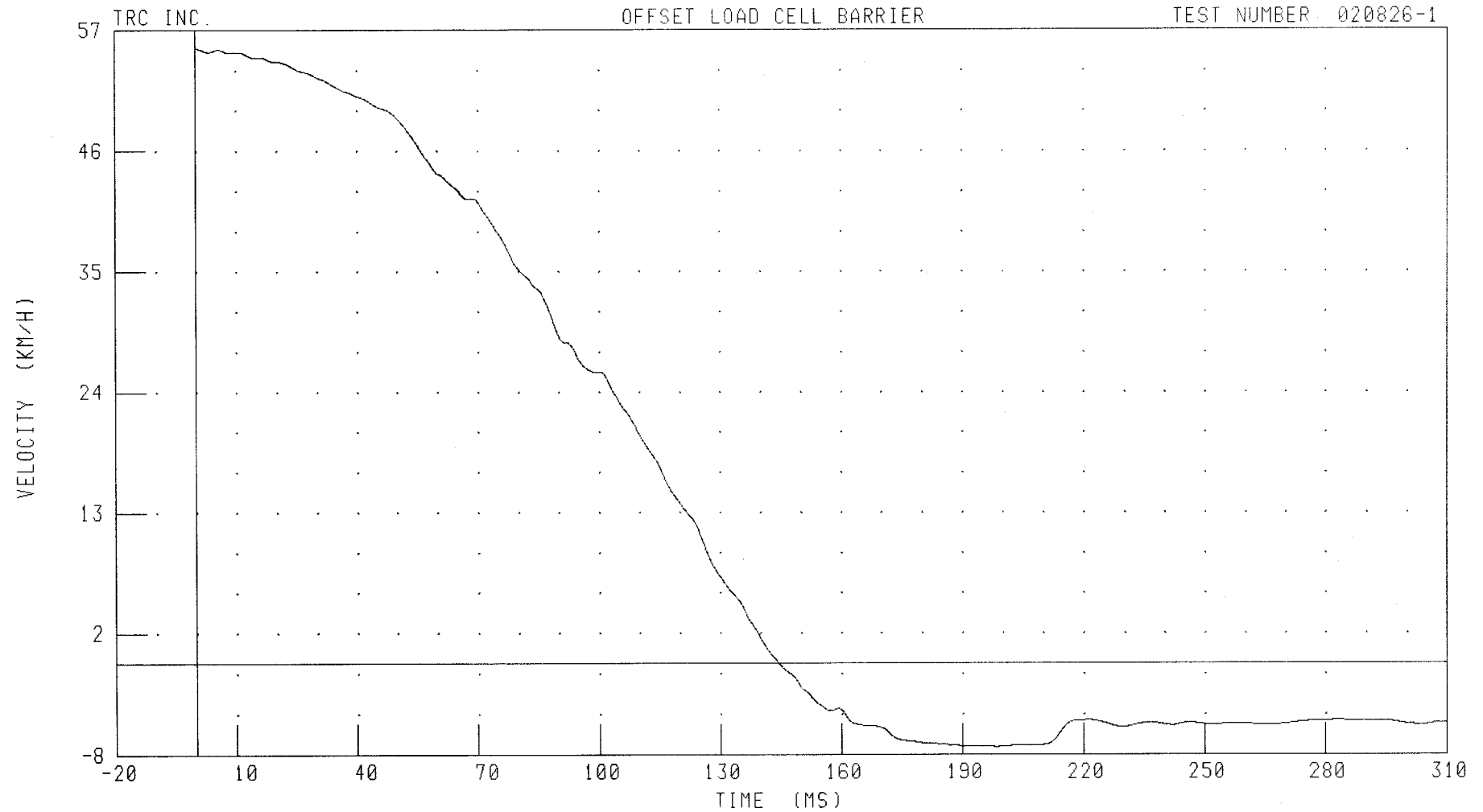
PEAK DATA: 11.71 G @ 214.08 MS; -24.73 G @ 126.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGXV1 FILTER: CH. CLASS 180

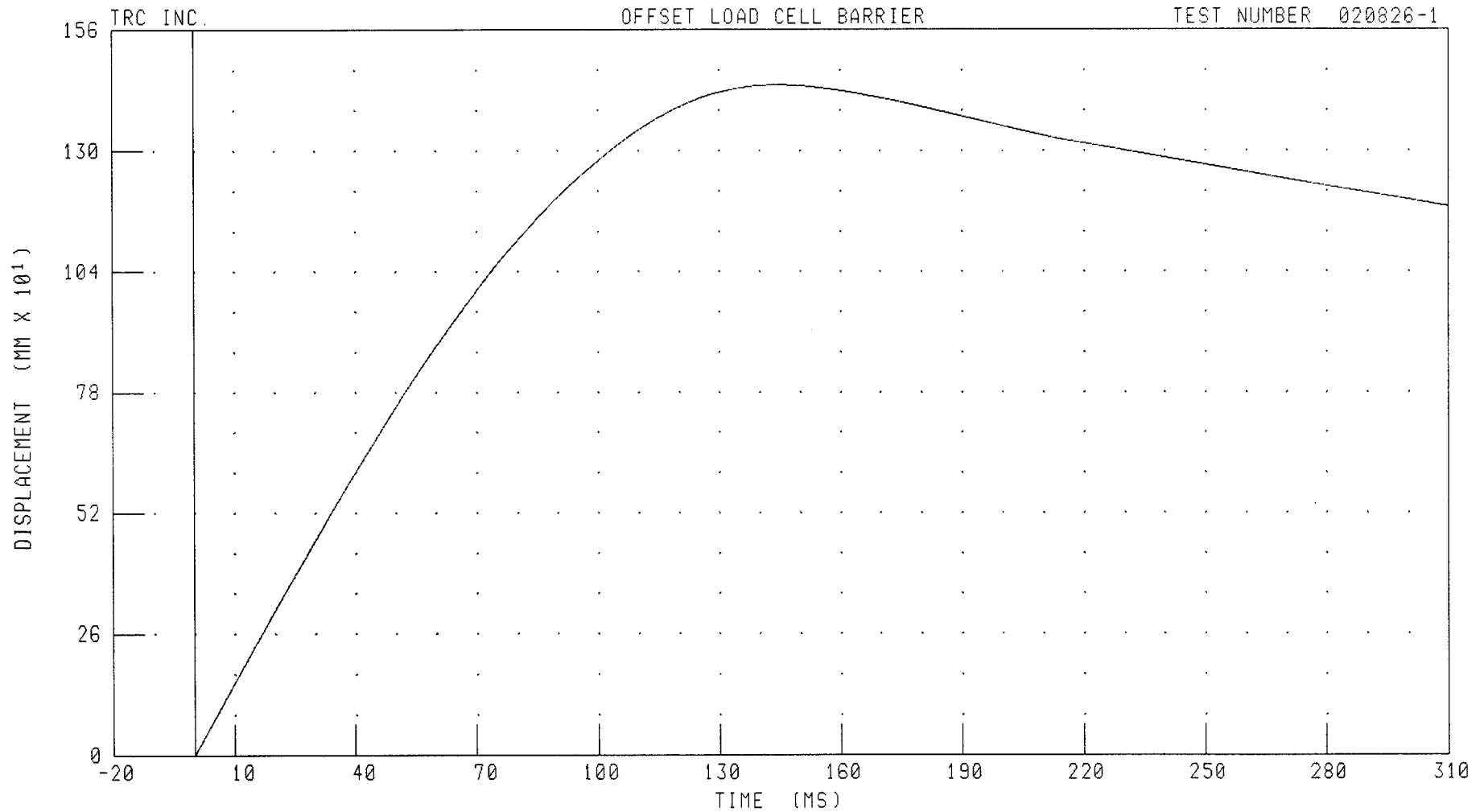
PEAK DATA: 56.01 KM/H @ 0.32 MS; -7.61 KM/H @ 198.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



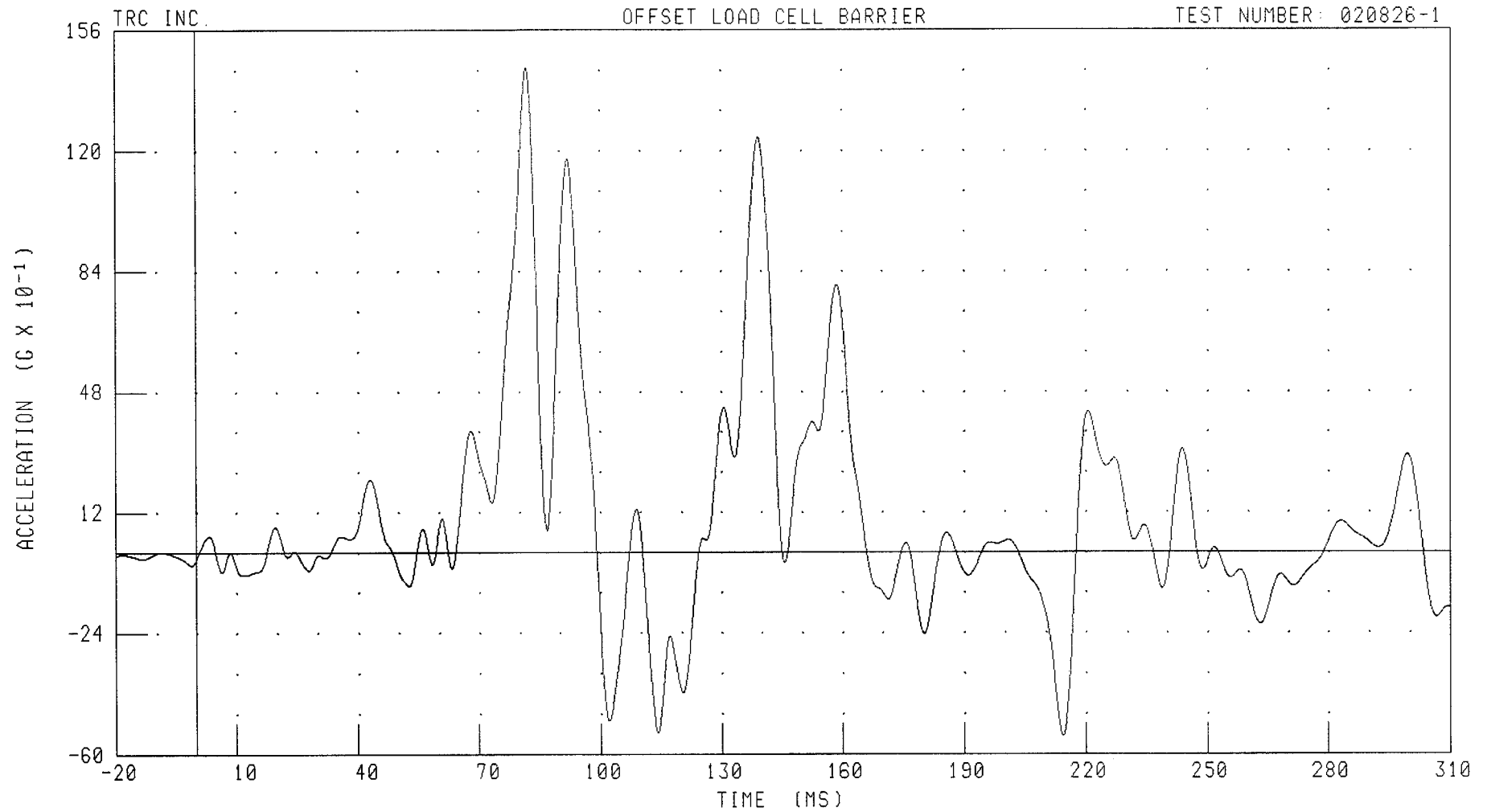
CHANNEL: VCGXD1 FILTER: CH. CLASS 180

PEAK DATA: 1440.90 MM @ 144.40 MS, 0.00 MM @ 0.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGYG1 FILTER: CH. CLASS 60

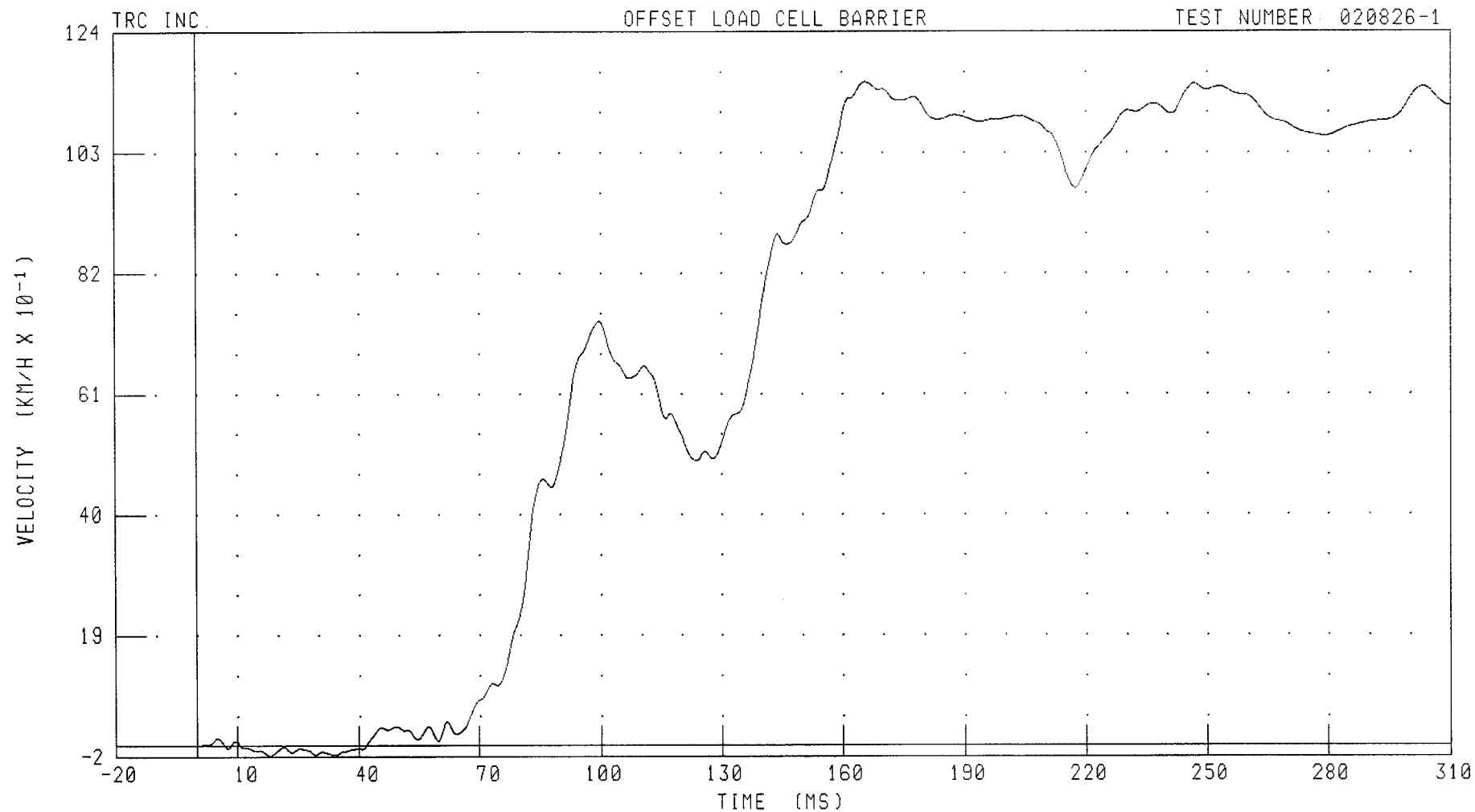
PEAK DATA: 14.48 G @ 81.92 MS; -5.47 G @ 214.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGYV1 FILTER: CH. CLASS 180

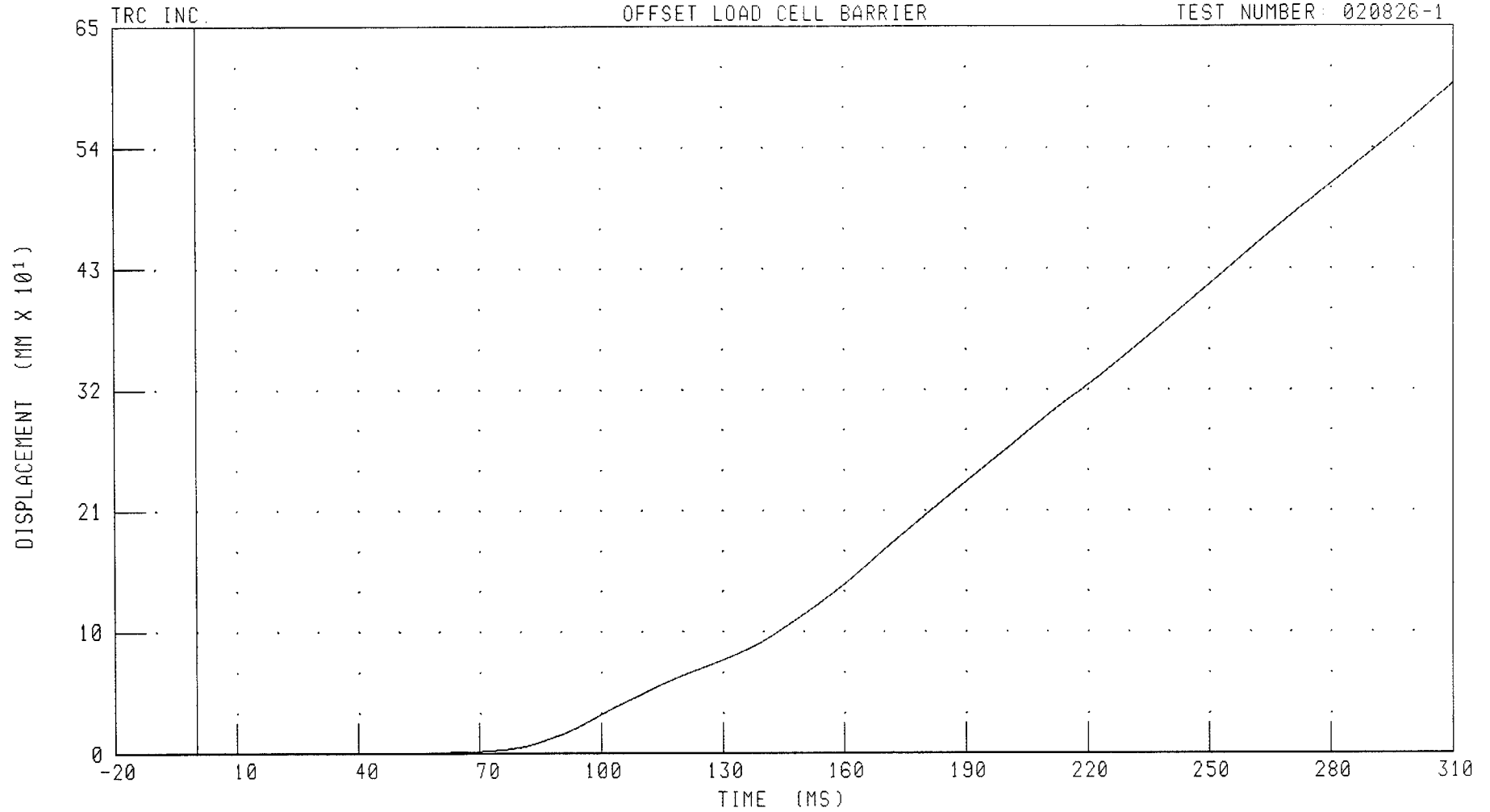
PEAK DATA: 11.52 KM/H @ 165.84 MS; -0.18 KM/H @ 18.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY Y-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

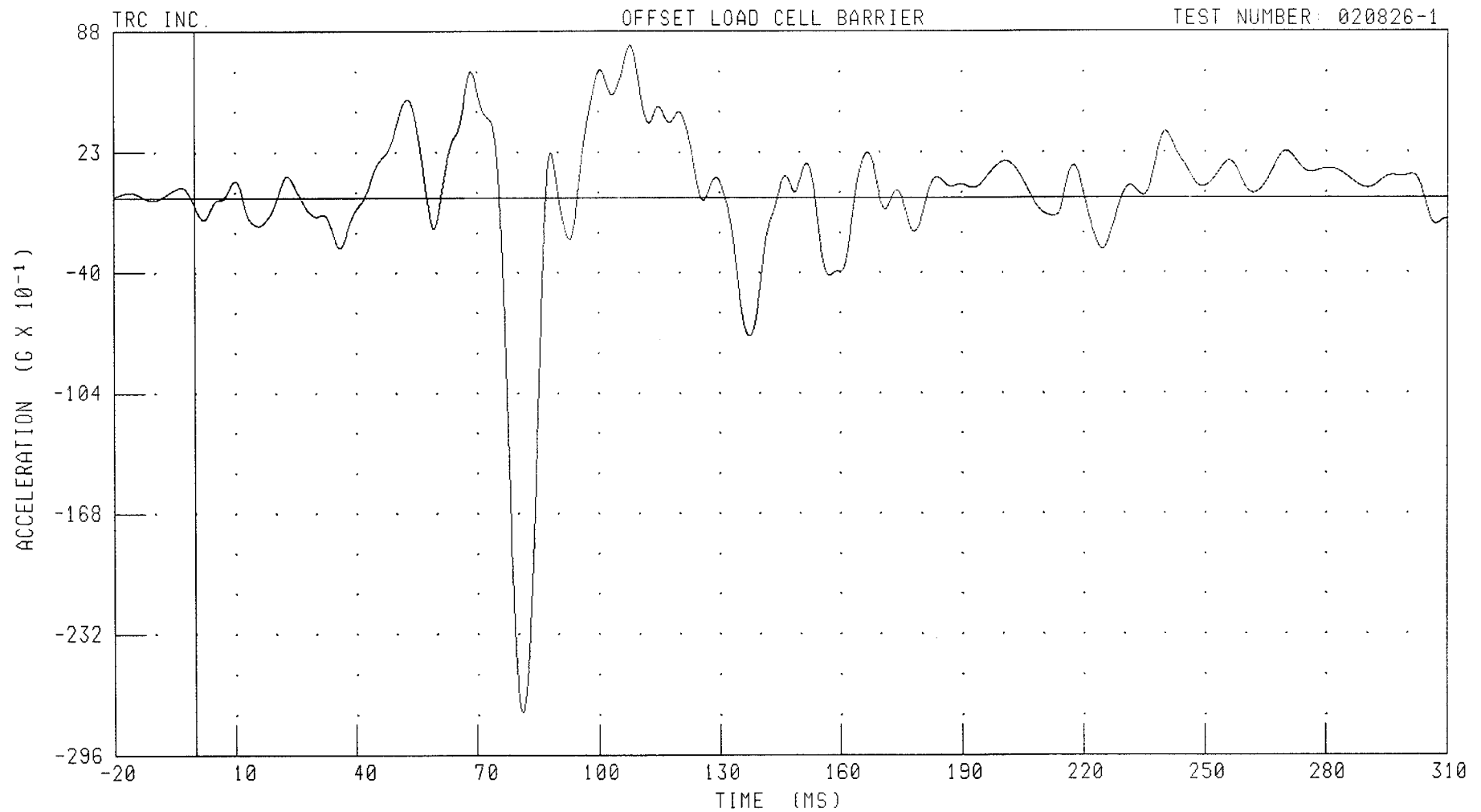
TEST NUMBER: 020826-1



CHANNEL: VCCYD1 FILTER: CH. CLASS 180

PEAK DATA: 607.88 MM @ 310.00 MS; -0.80 MM @ 41.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION



CHANNEL: VCGZG1 FILTER: CH. CLASS 60

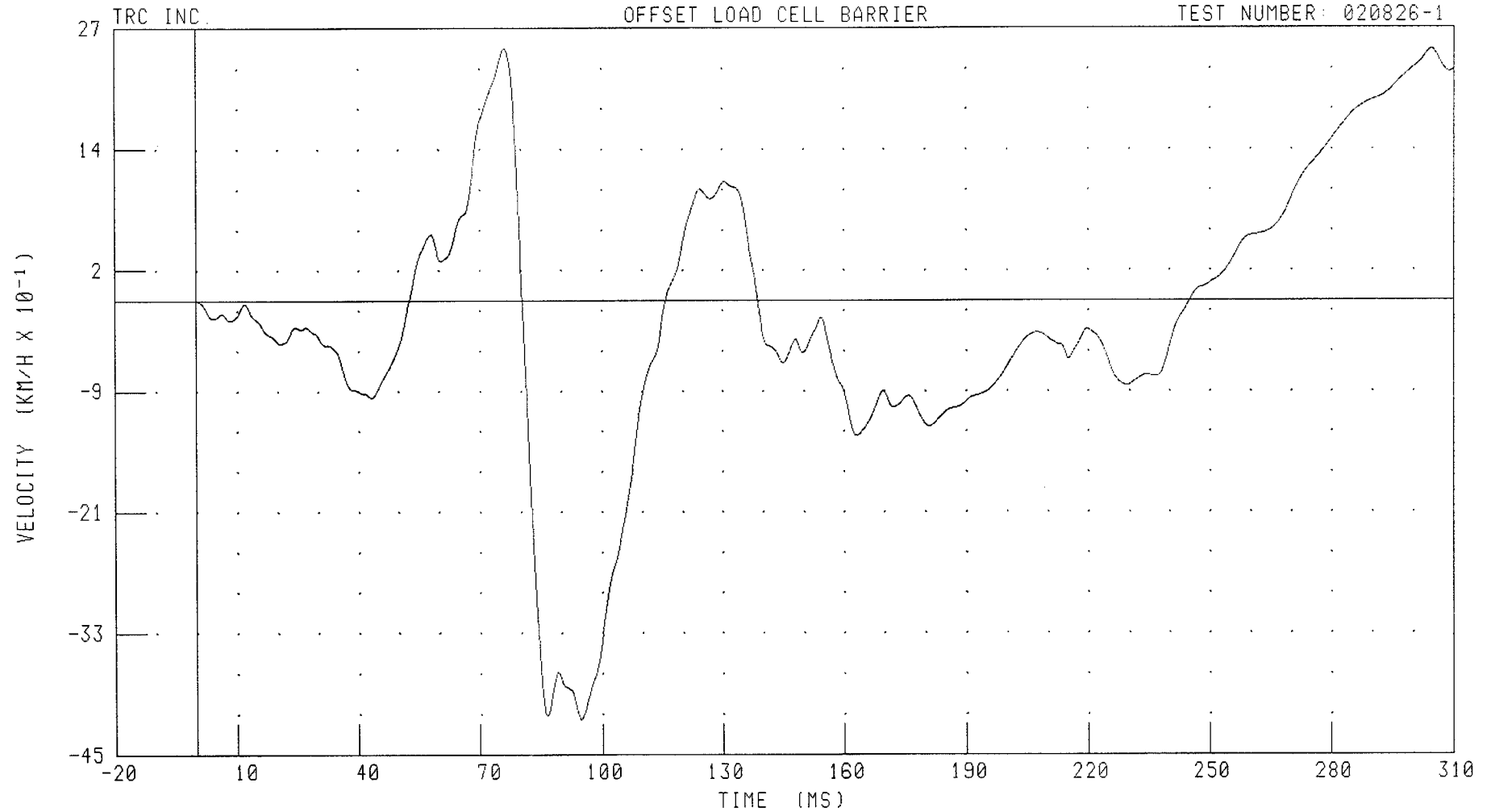
PEAK DATA: 8.04 G @ 108.08 MS; -27.34 G @ 81.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGZV1 FILTER: CH. CLASS 180

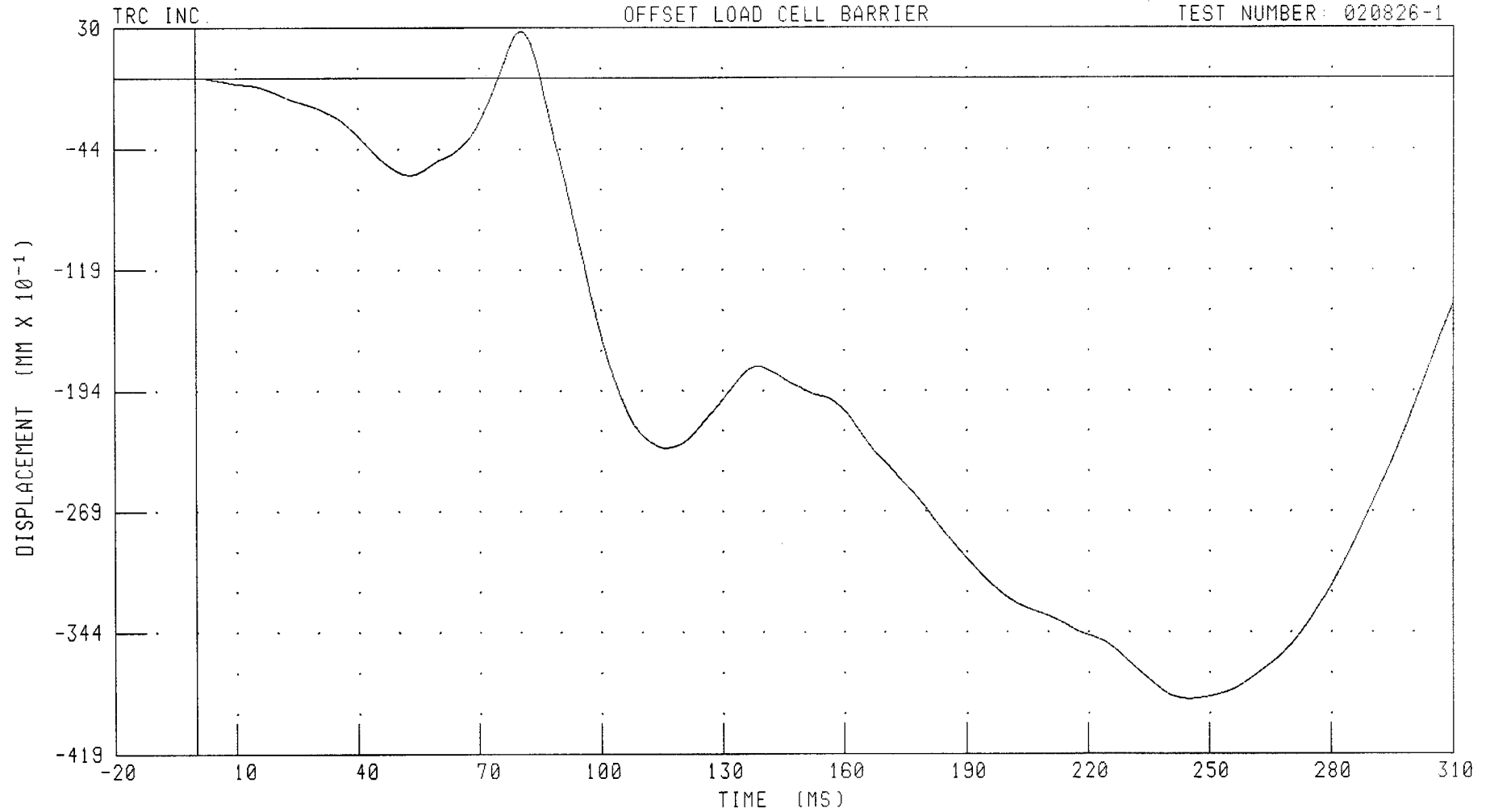
PEAK DATA: 2.50 KM/H @ 76.24 MS; -4.15 KM/H @ 94.72 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY Z-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGZD1 FILTER: CH. CLASS 180

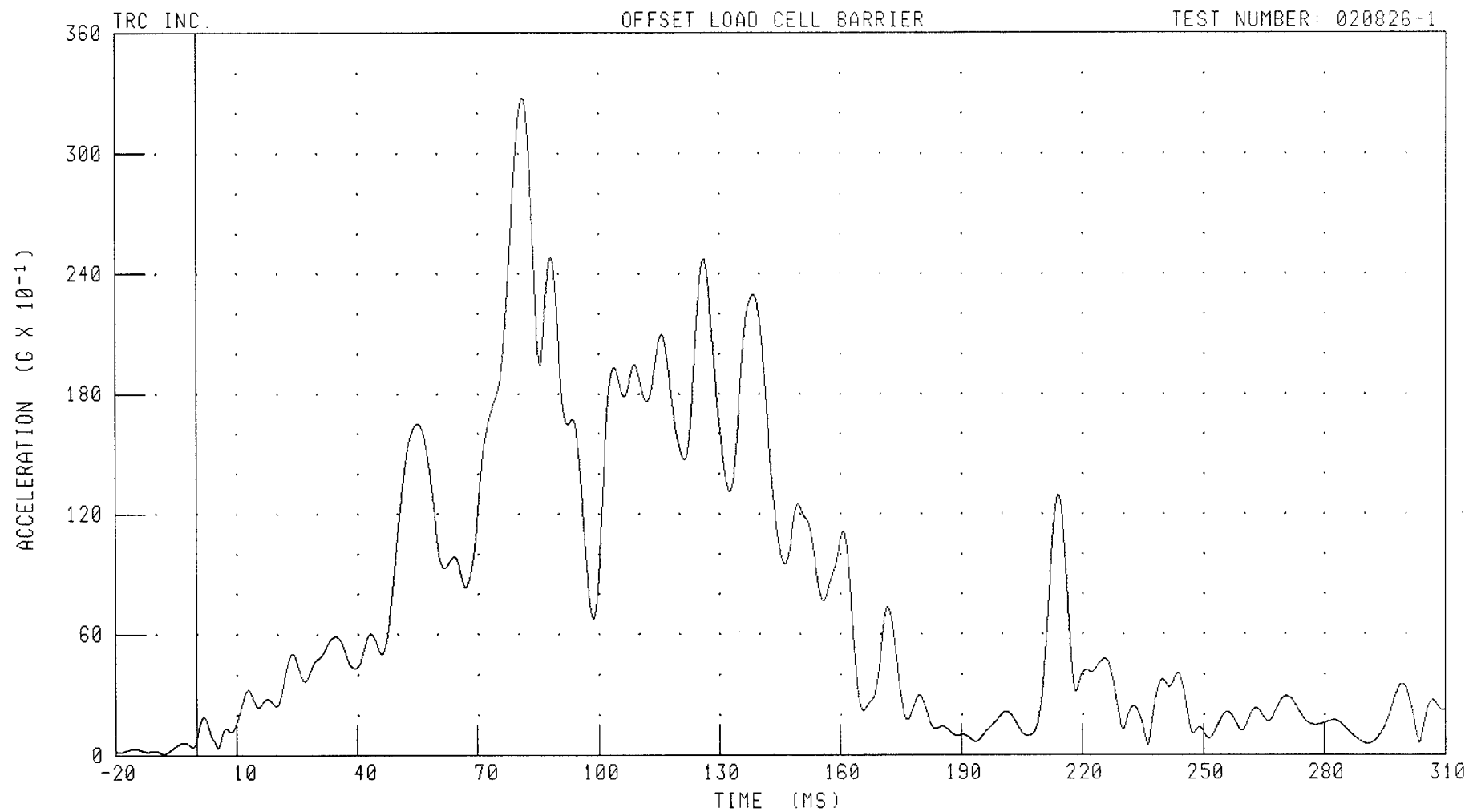
PEAK DATA: 2.87 MM @ 80.48 MS; -38.52 MM @ 245.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: VCGRG1 FILTER: CH. CLASS 60

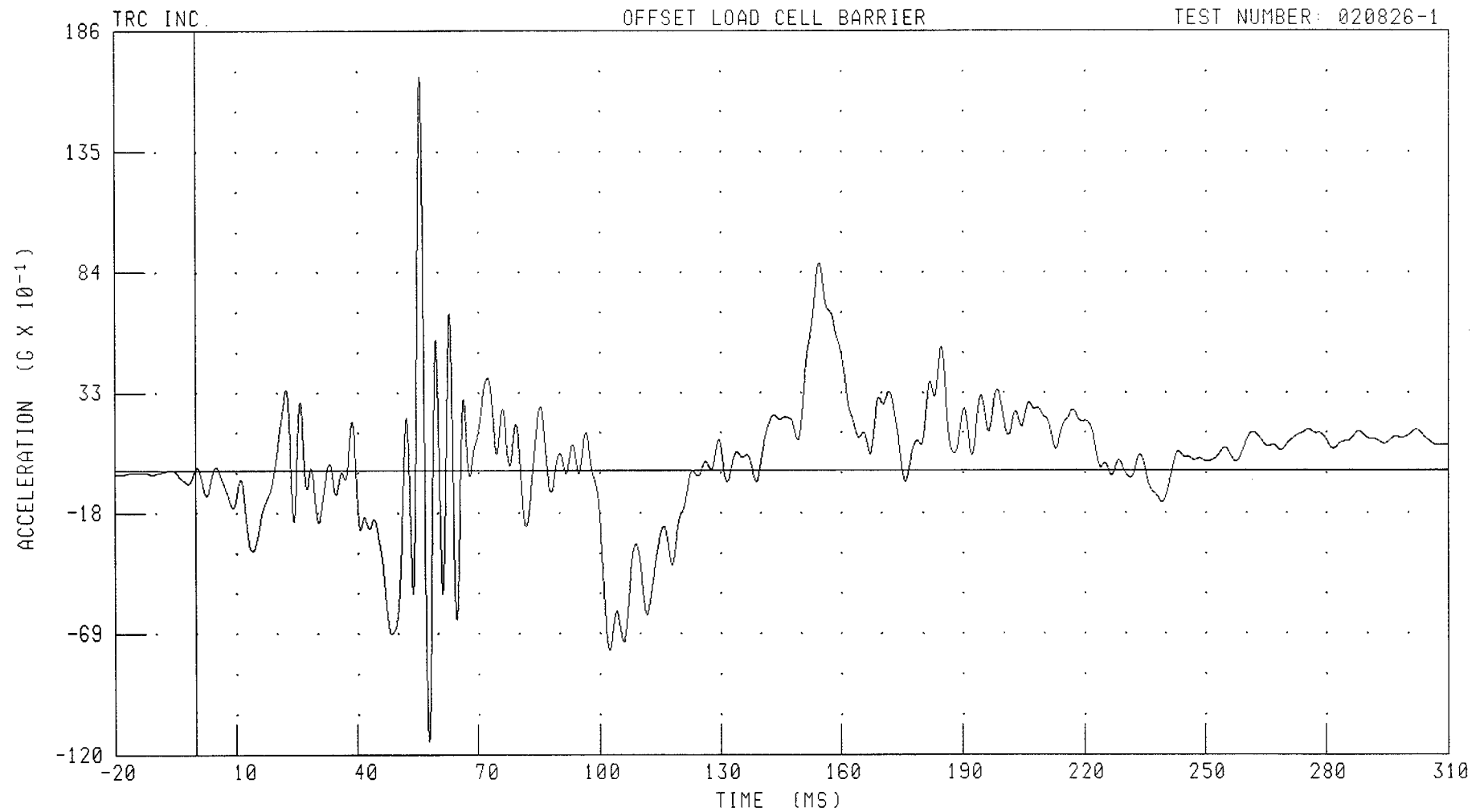
PEAK DATA: 32.76 G @ 81.20 MS; 0.05 G @ -8.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

REAR DECK Z-AXIS ACCELERATION

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: RDKZG1 FILTER: CH. CLASS 60

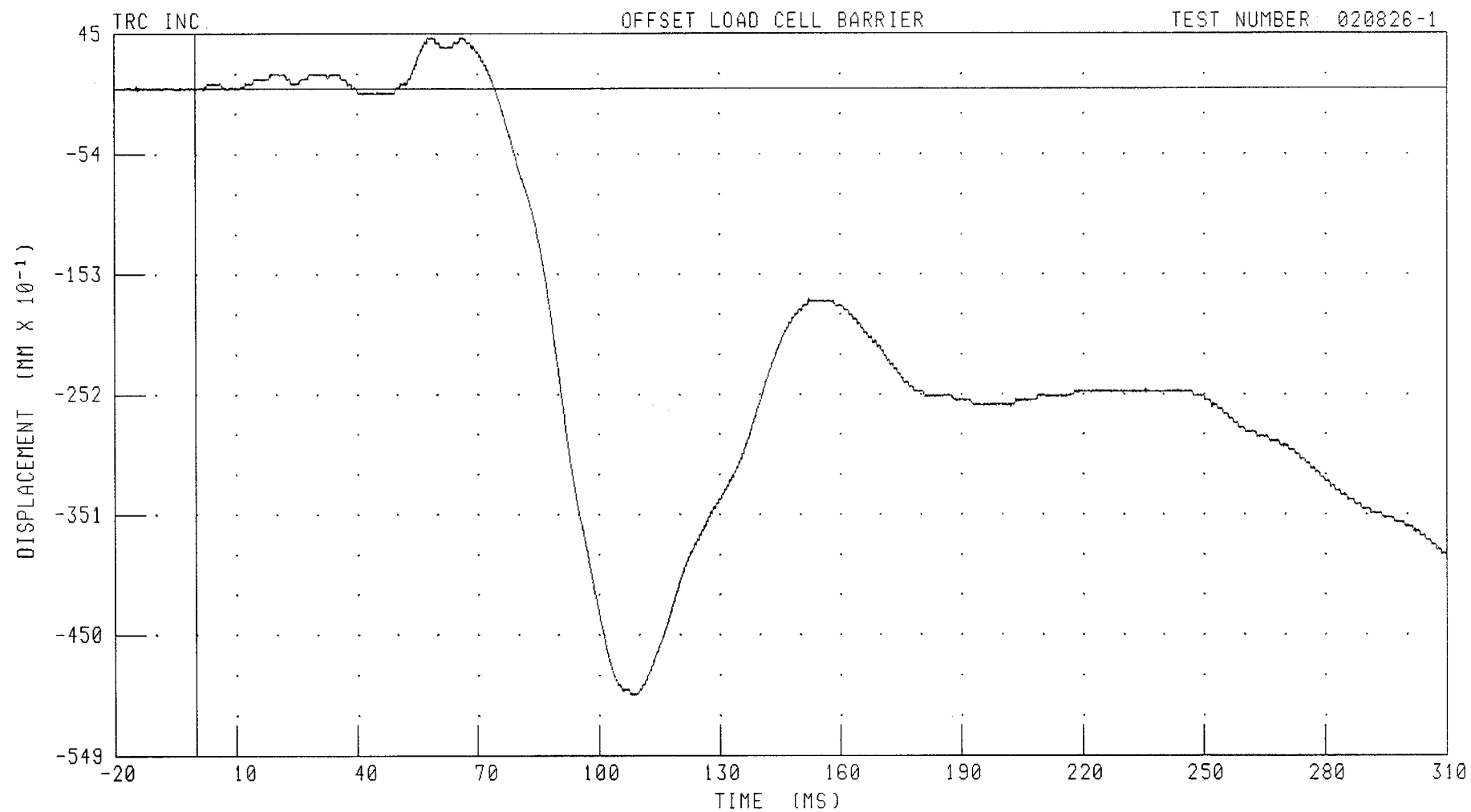
PEAK DATA: 16.65 G @ 55.68 MS; -11.44 G @ 57.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

TOE PAN X-AXIS DISPLACEMENT

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: TPDxD1 FILTER: CH. CLASS 1000

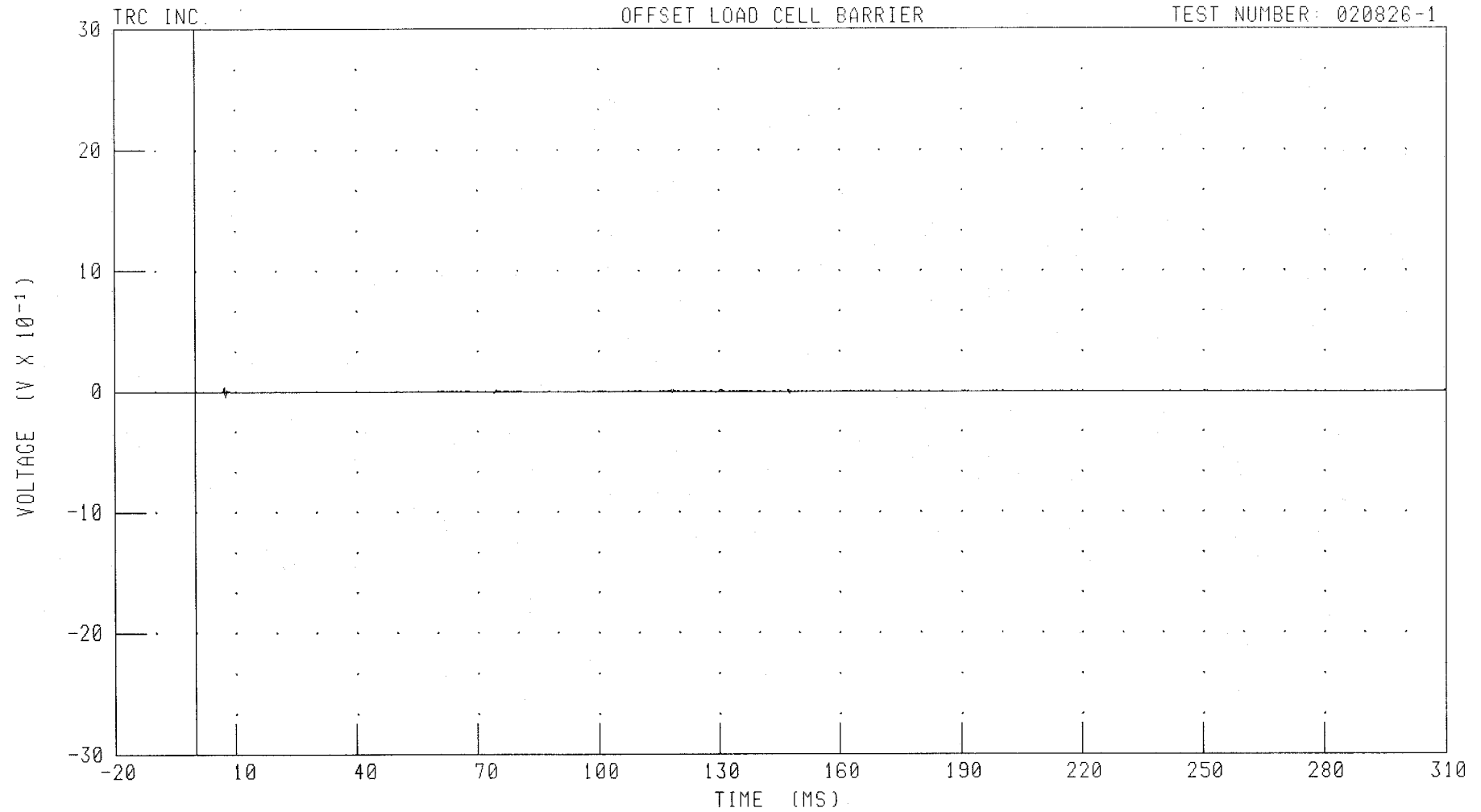
PEAK DATA: 4.18 MM @ 57.92 MS; -49.94 MM @ 108.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER AIRBAG EVENT - WIRE A

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: DABETA FILTER: CH. CLASS 1000

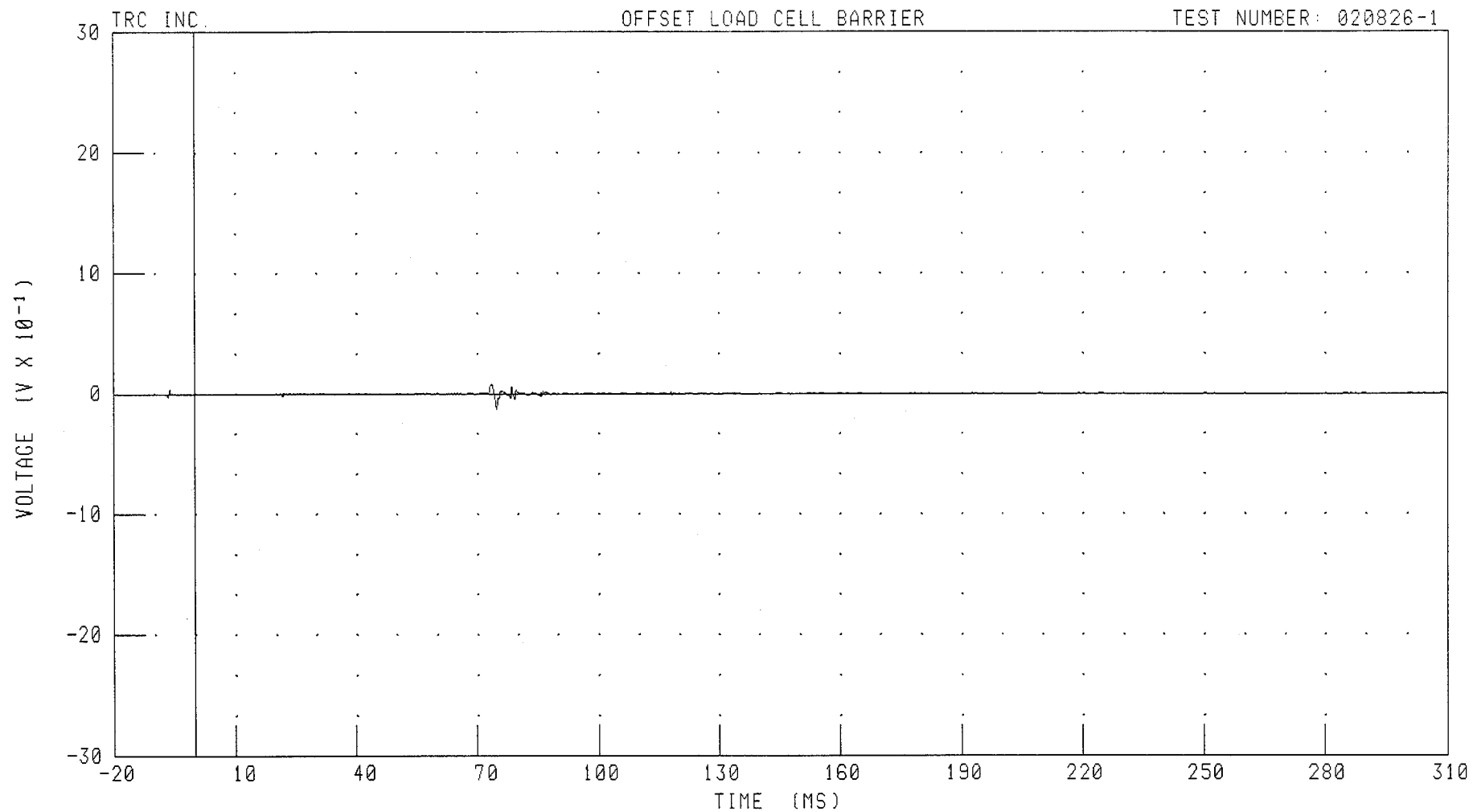
PEAK DATA: 0.04 V @ 7.28 MS; -0.05 V @ 7.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER AIRBAG EVENT - WIRE B

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: DABETB FILTER: CH. CLASS 1000

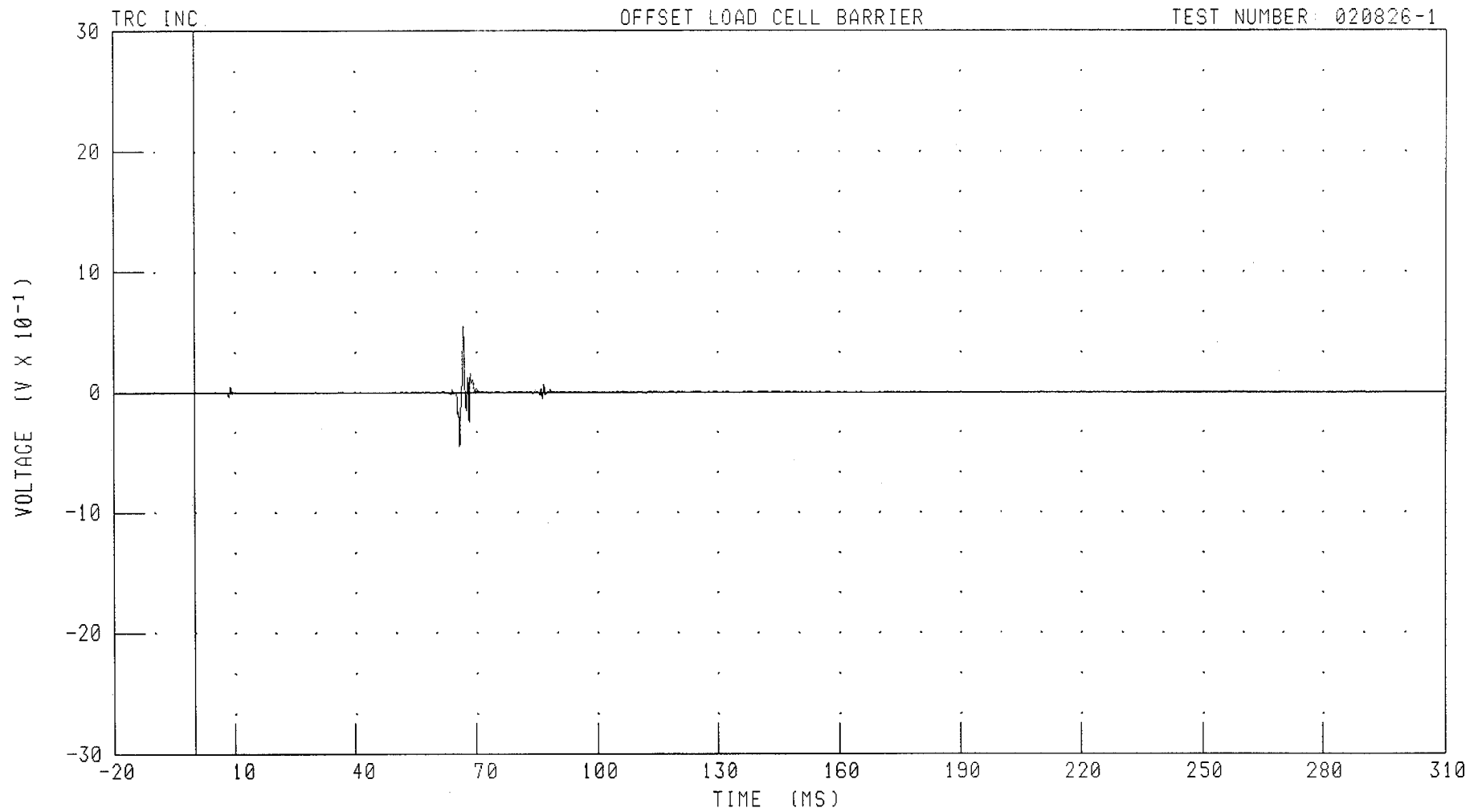
PEAK DATA: 0.08 V @ 73.76 MS; -0.13 V @ 74.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER AIRBAG EVENT - WIRE A

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PABETA FILTER: CH. CLASS 1000

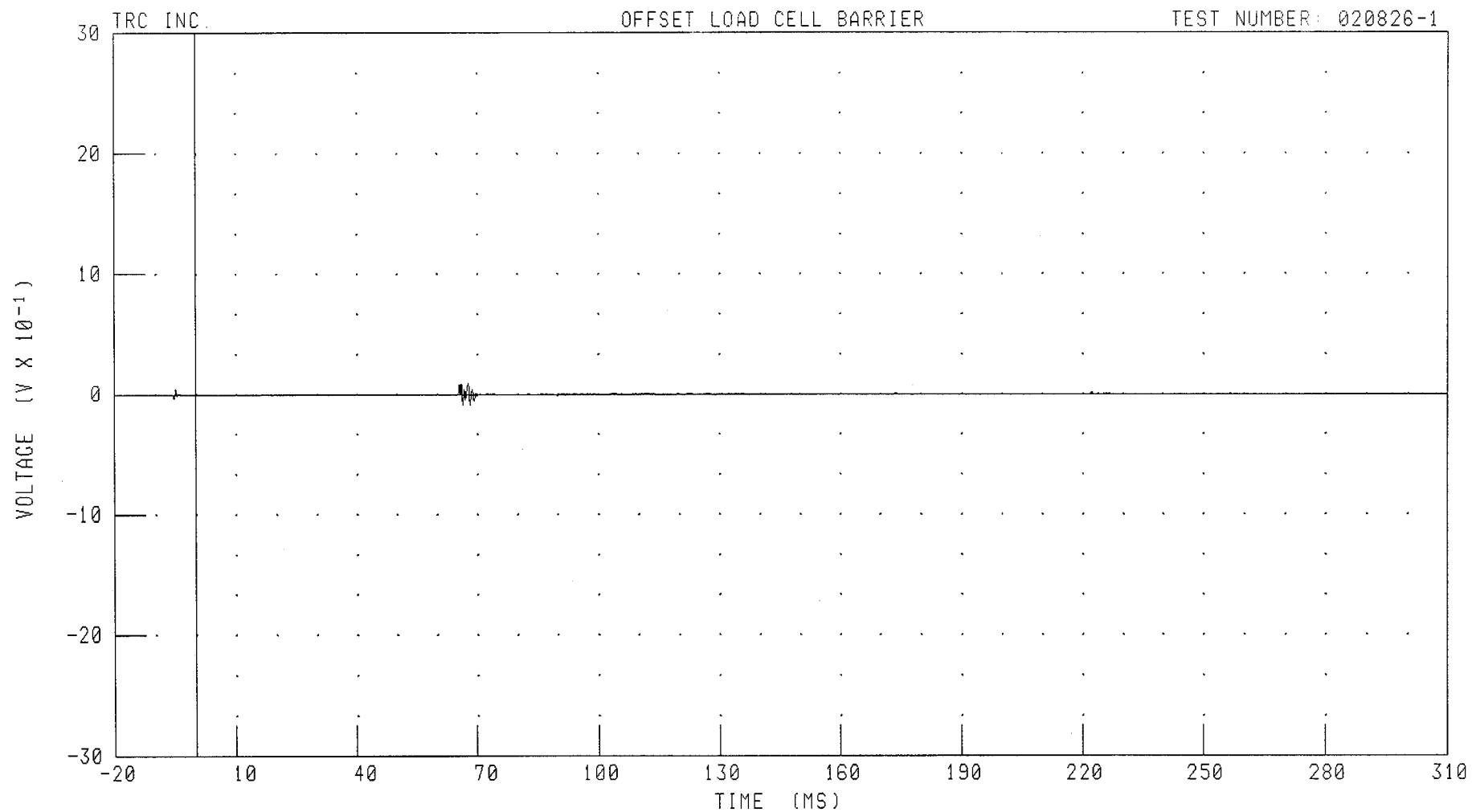
PEAK DATA: 0.54 V @ 66.80 MS; -0.45 V @ 65.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER AIRBAG EVENT - WIRE B

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: PABETB FILTER: CH. CLASS 1000

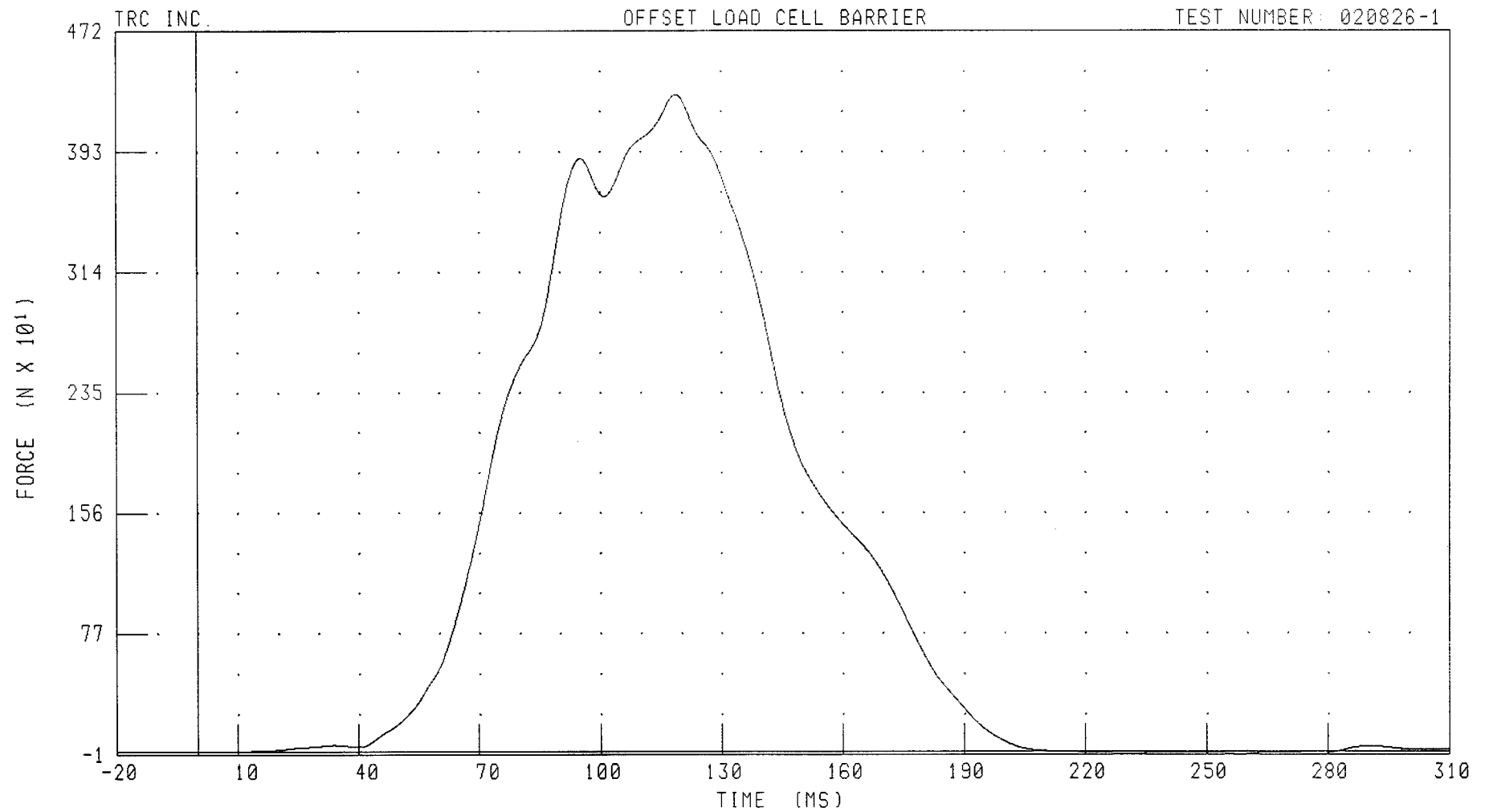
PEAK DATA: 0.09 V @ 67.84 MS; -0.09 V @ 66.56 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER SHOULDER BELT FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: SHBF1

FILTER: CH. CLASS 60

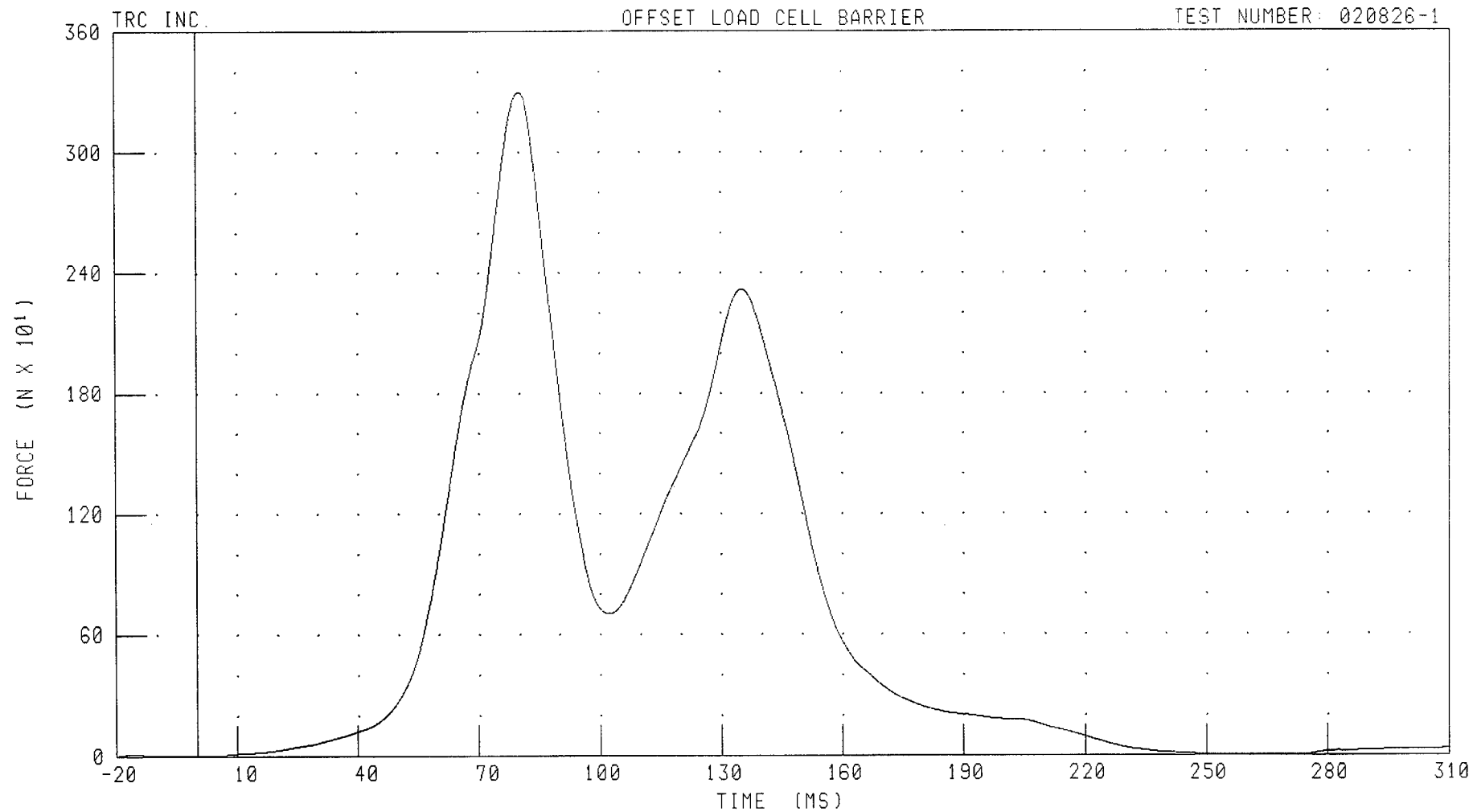
PEAK DATA: 4305.14 N @ 118.80 MS; -14.60 N @ 258.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

DRIVER LAP BELT FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LPBF1

FILTER: CH. CLASS 60

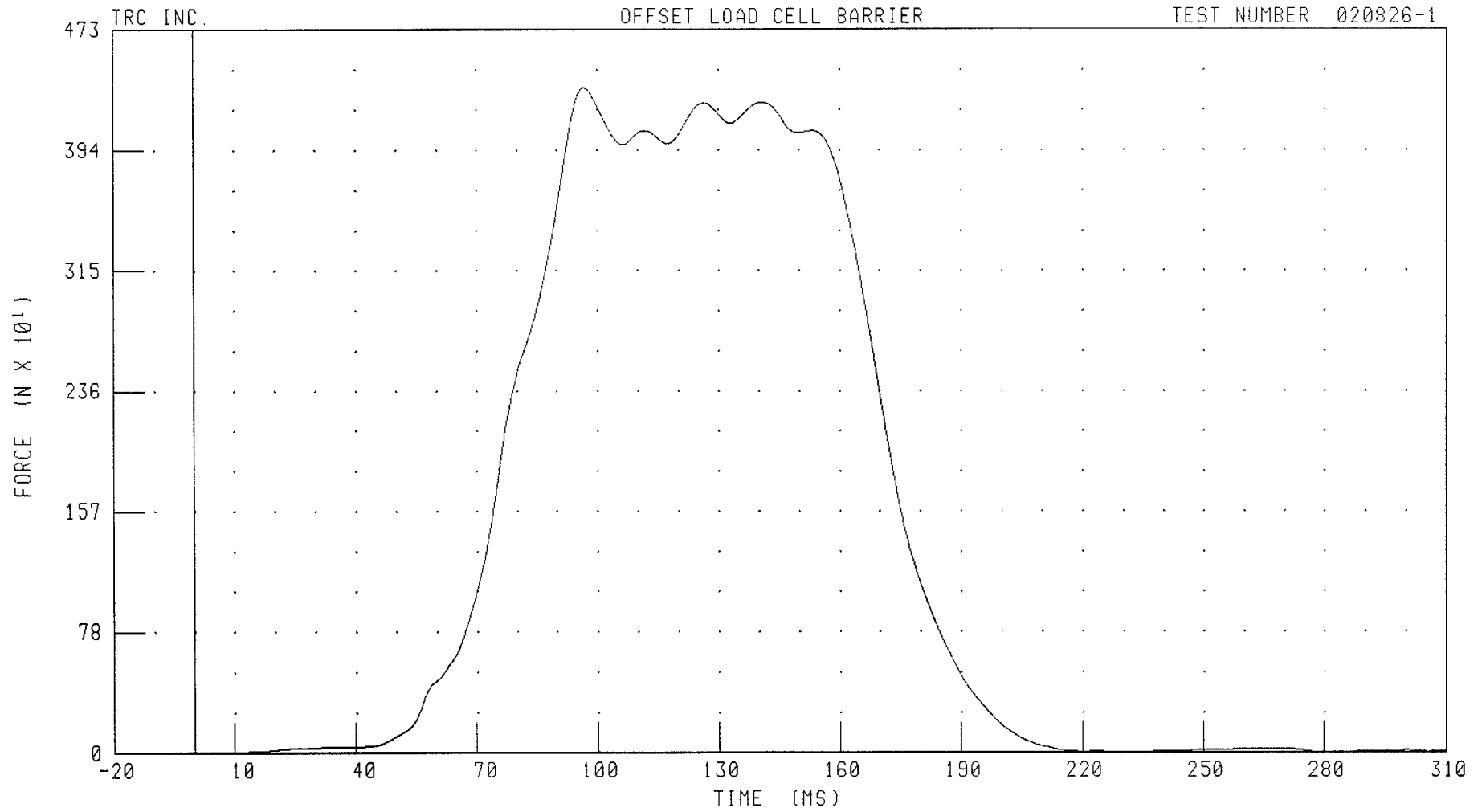
PEAK DATA: 3298.94 N @ 80.16 MS; 0.31 N @ -20.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER SHOULDER BELT FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: SHBF2

FILTER: CH. CLASS 60

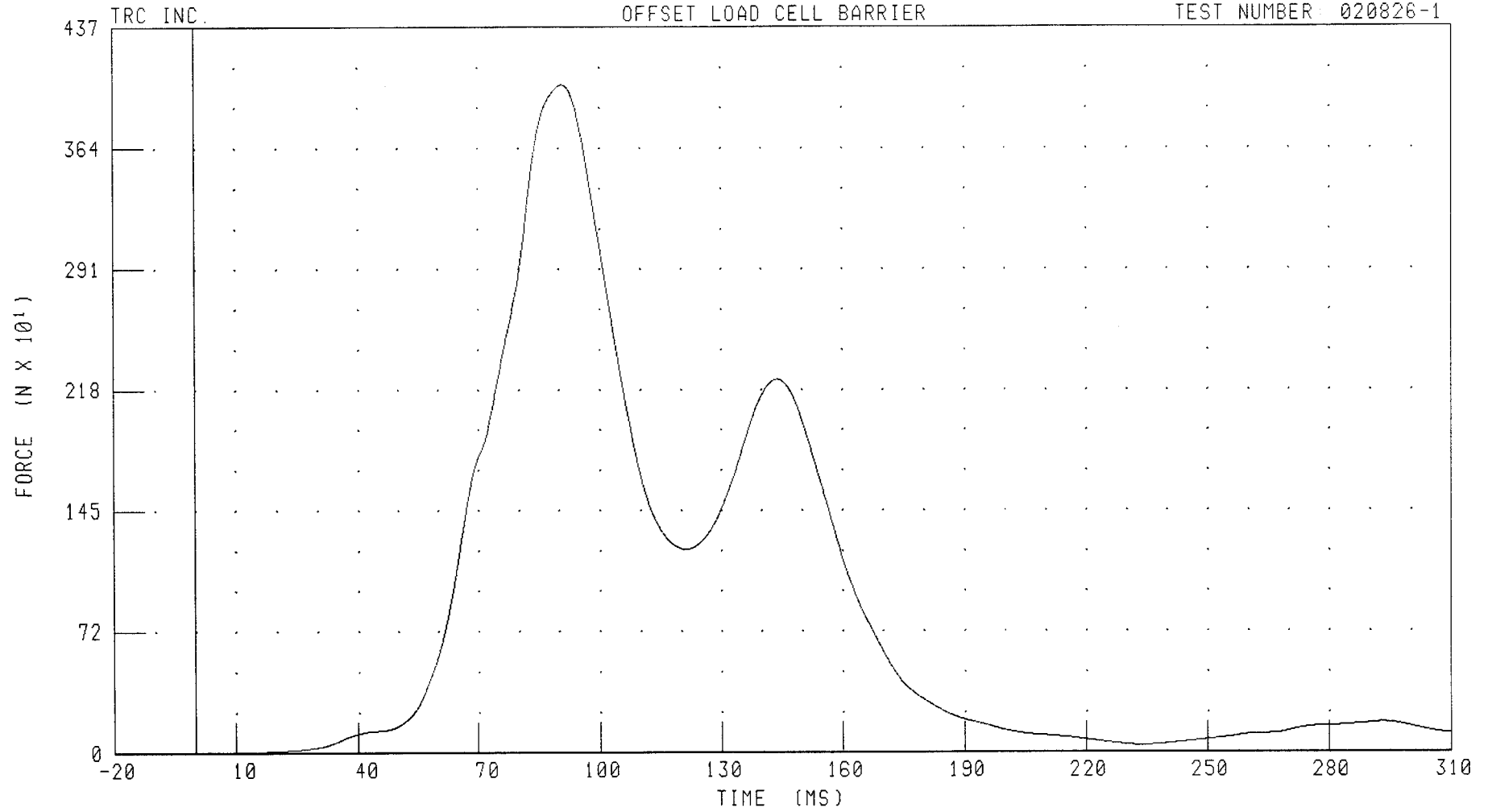
PEAK DATA: 4349.21 N @ 96.88 MS; -7.73 N @ -6.64 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

PASSENGER LAP BELT FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LPBF2 FILTER: CH. CLASS 60

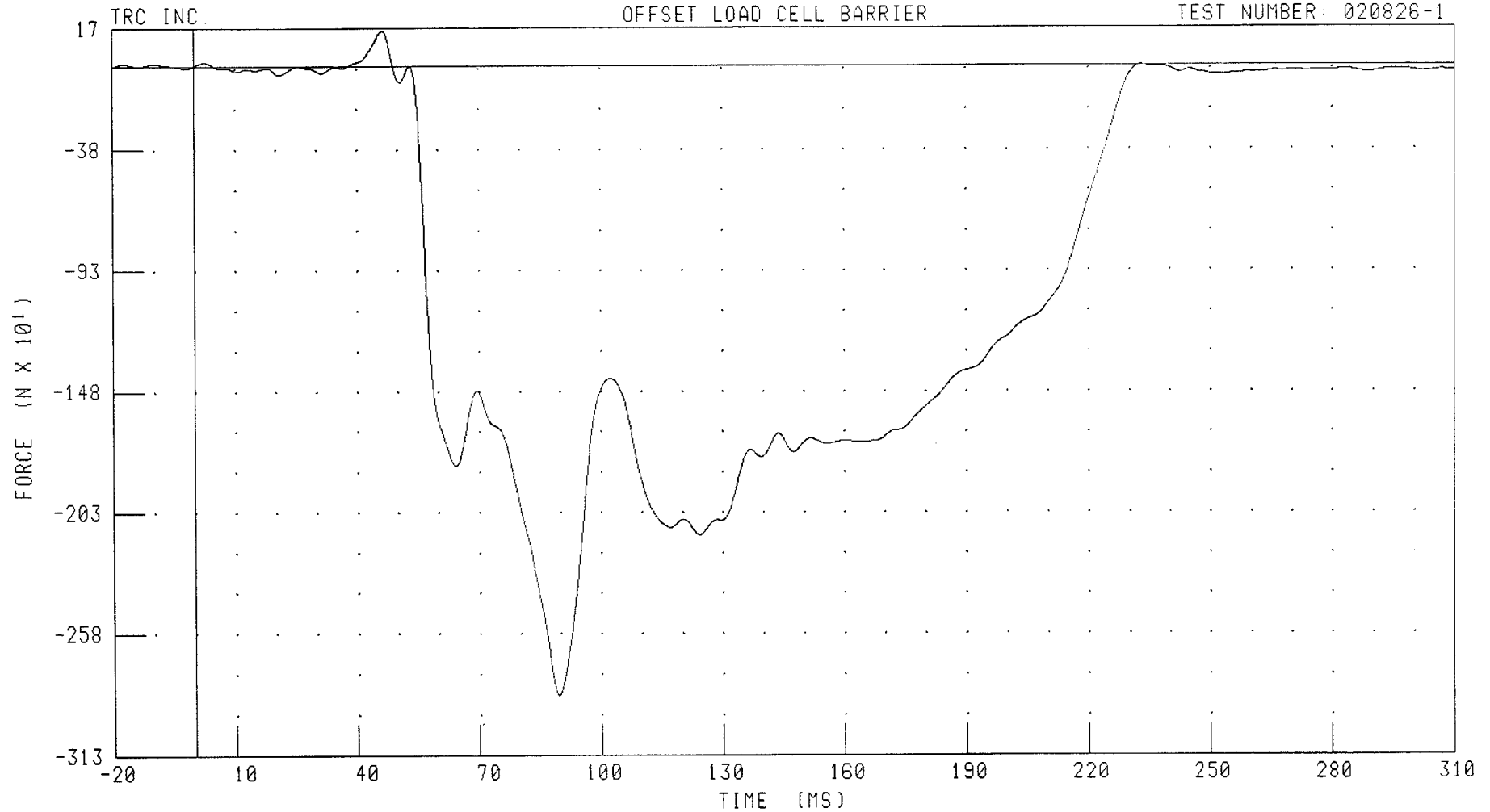
PEAK DATA: 4027.31 N @ 90.96 MS; -4.95 N @ -6.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA1XF FILTER: CH. CLASS 60

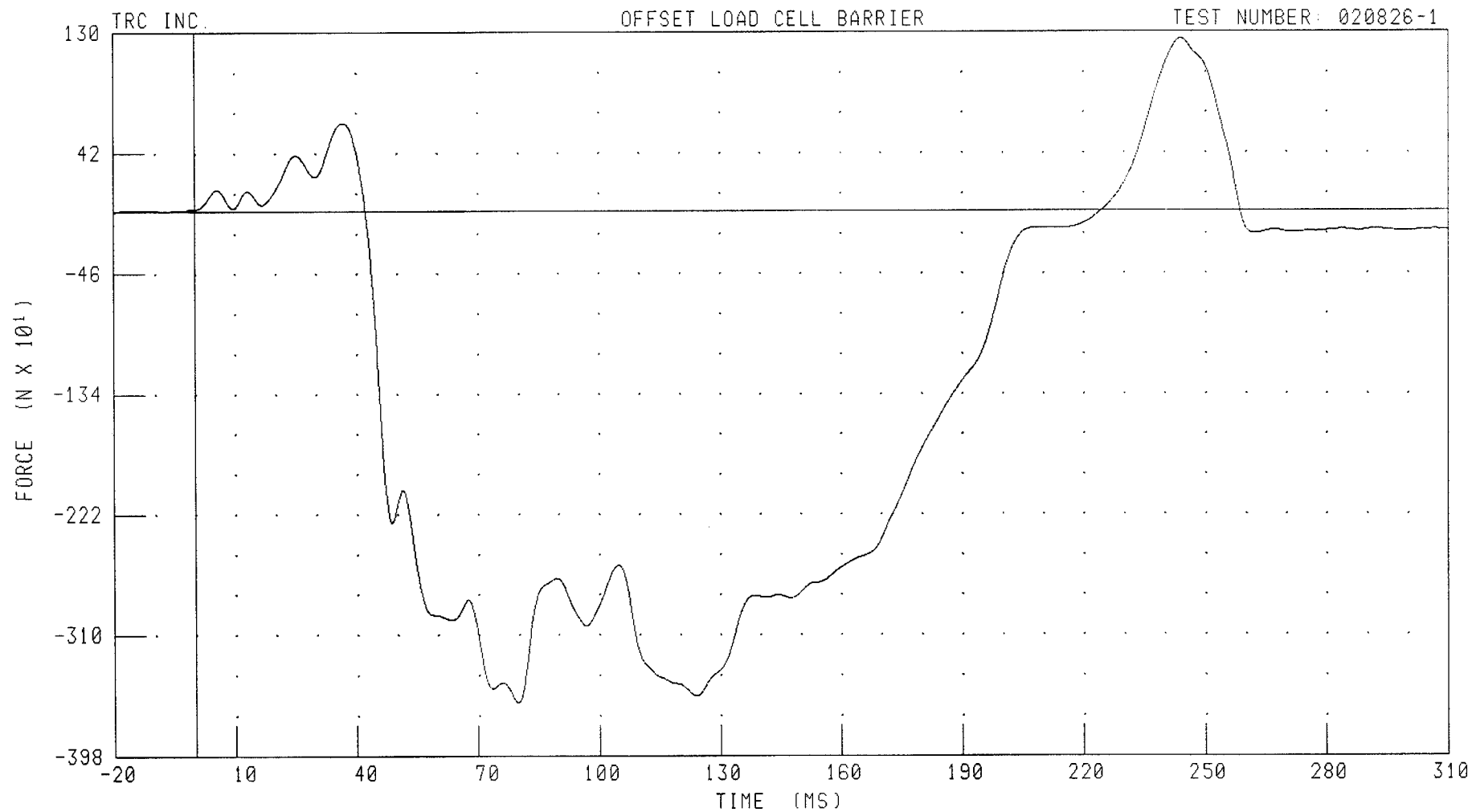
PEAK DATA: 158.55 N @ 46.64 MS; -2858.48 N @ 89.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA2XF FILTER: CH. CLASS 60

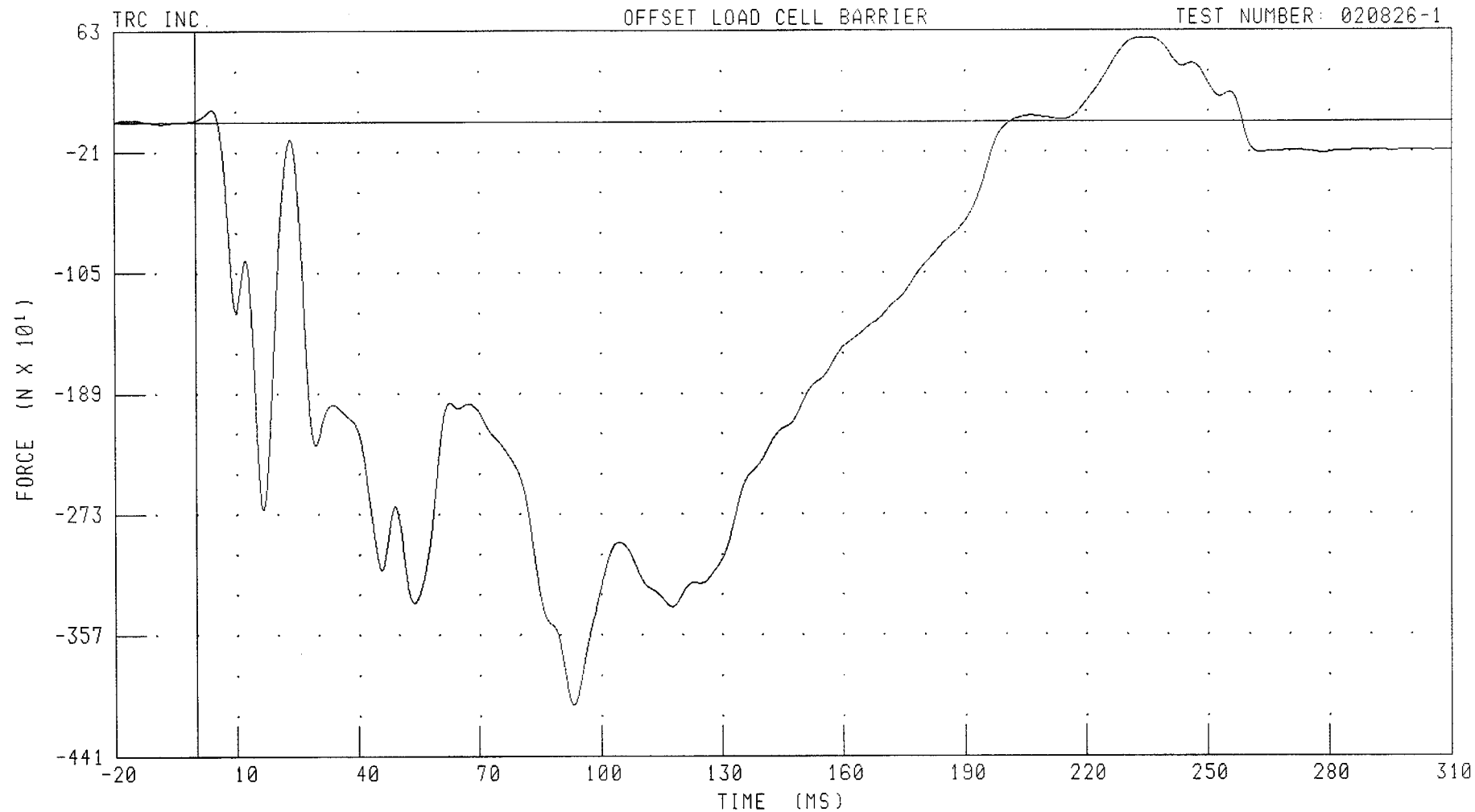
PEAK DATA: 1252.13 N @ 244.16 MS; -3592.84 N @ 79.84 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA3XF FILTER: CH. CLASS 60

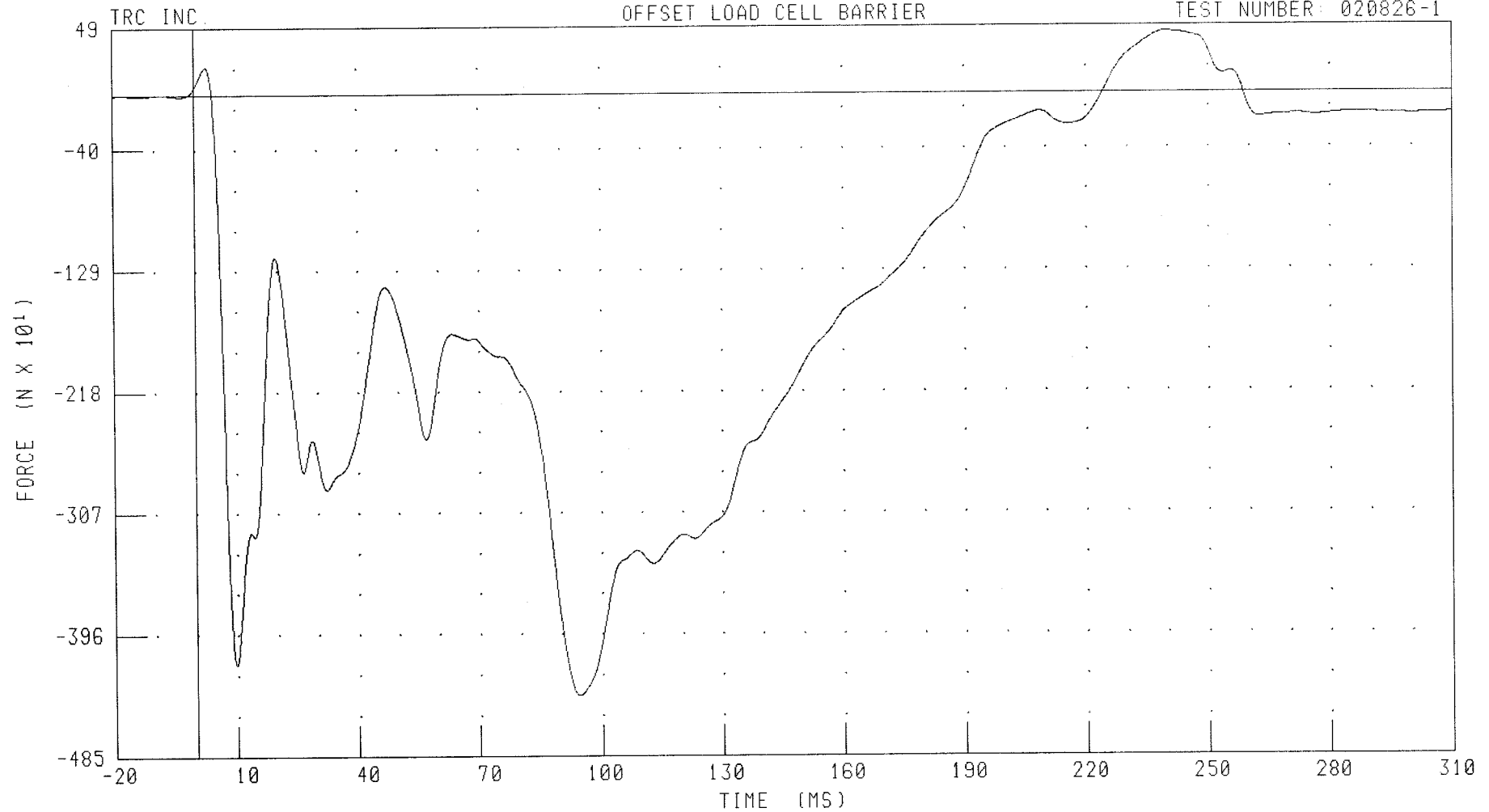
PEAK DATA: 577.45 N @ 235.28 MS; -4057.66 N @ 93.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA4XF FILTER: CH. CLASS 60

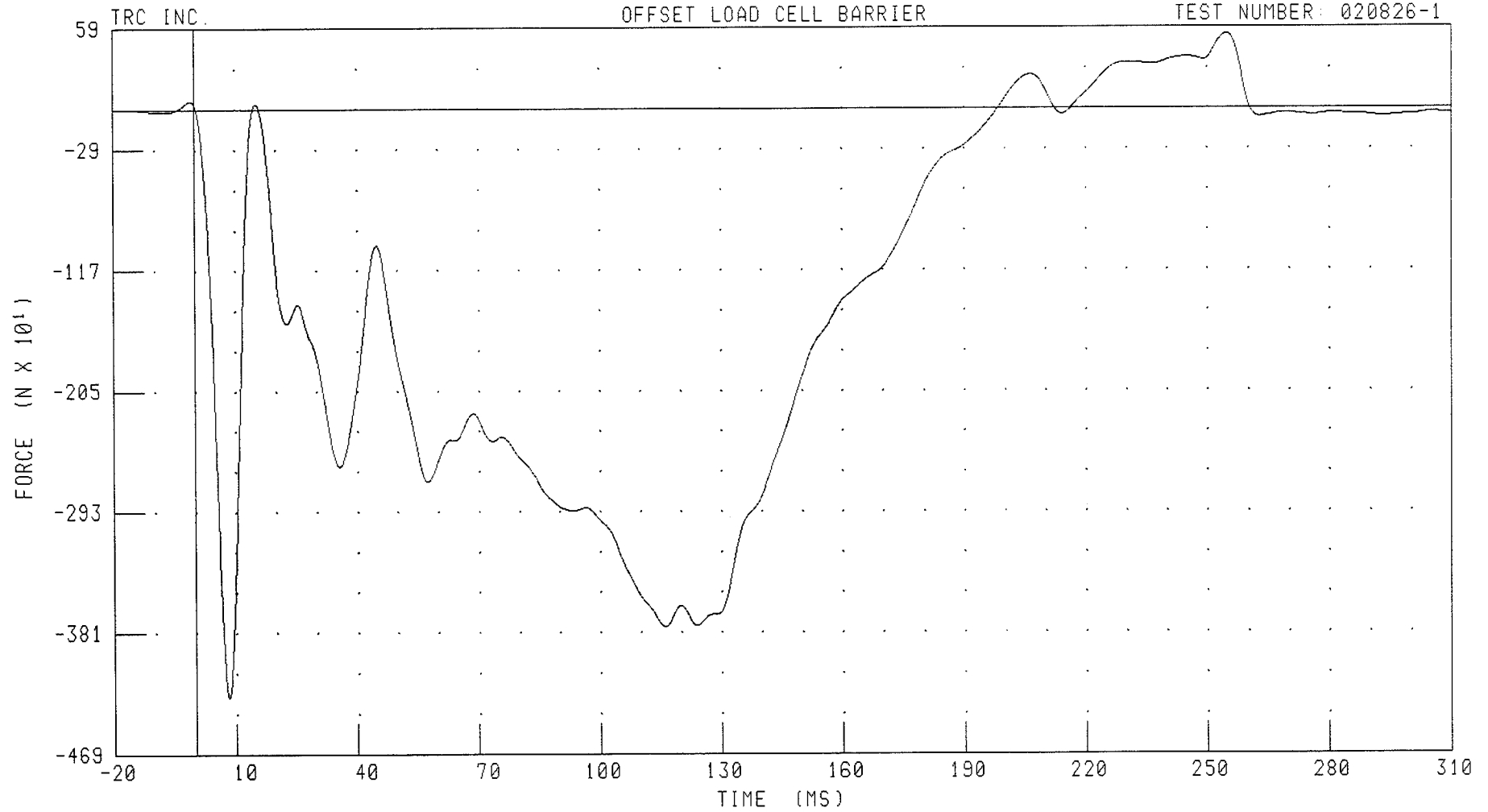
PEAK DATA: 448.41 N @ 239.76 MS; -4409.73 N @ 94.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL AS X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA5XF FILTER: CH. CLASS 60

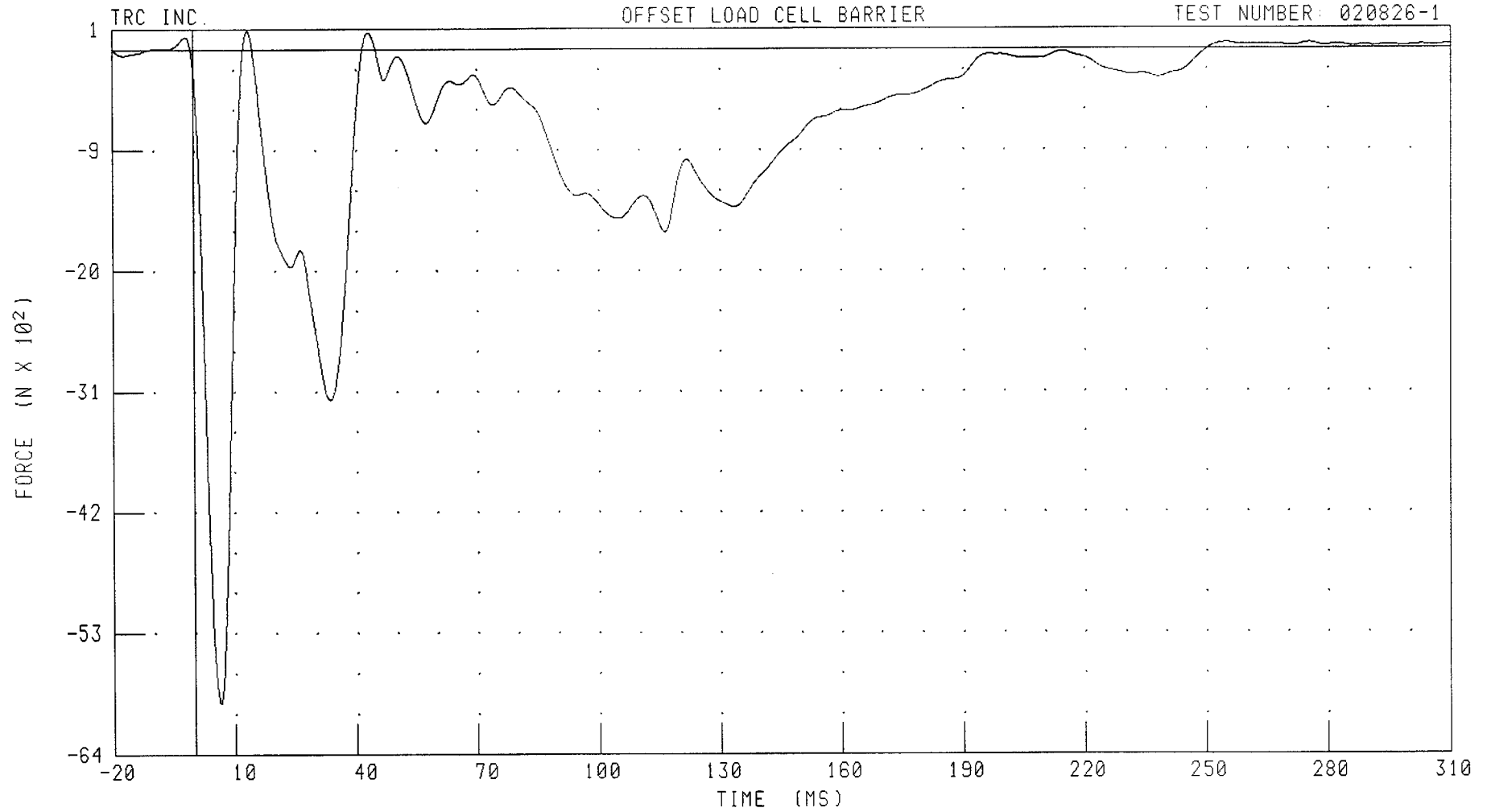
PEAK DATA: 541.62 N @ 254.88 MS; -4278.75 N @ 8.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA6XF FILTER: CH. CLASS 60

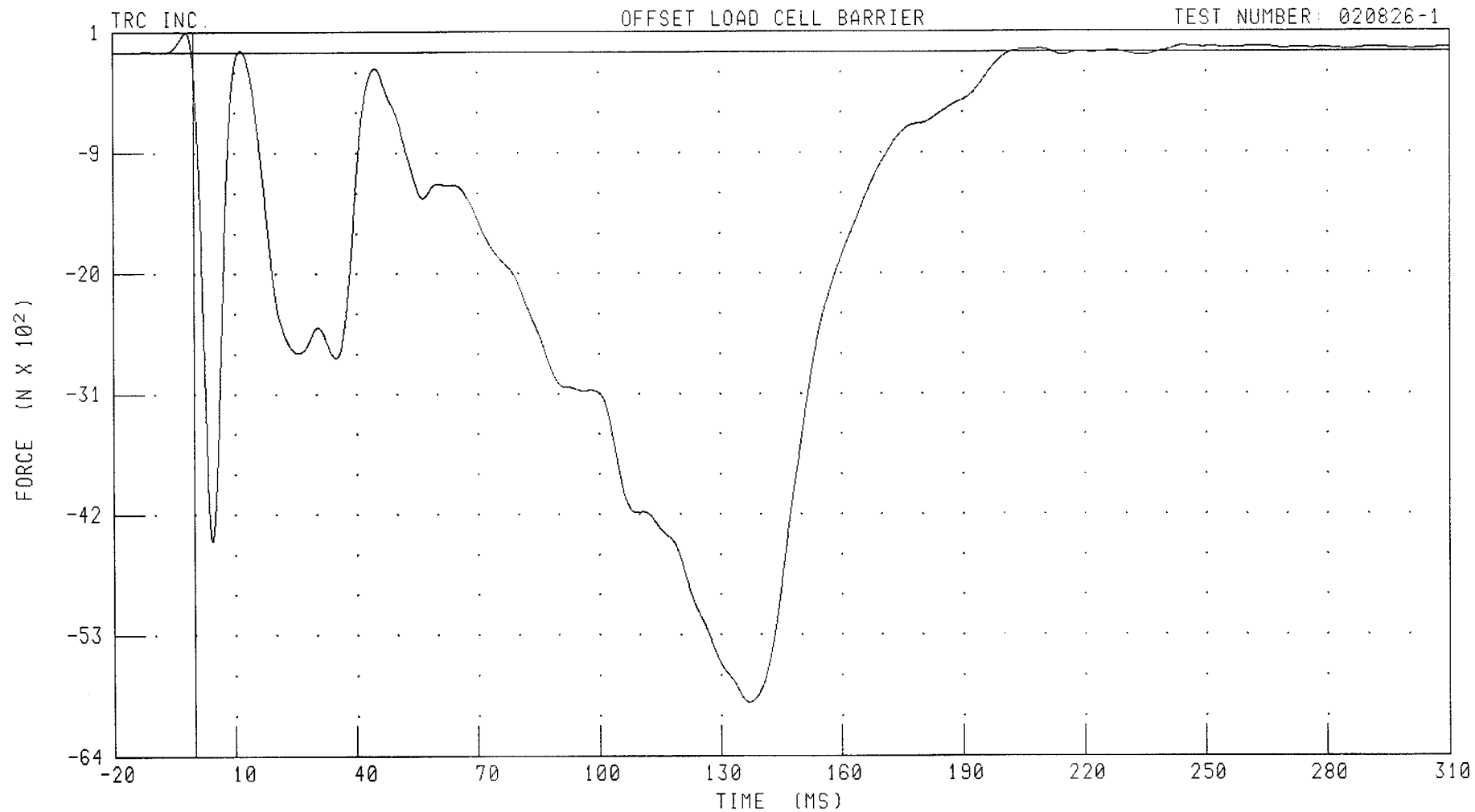
PEAK DATA: 168.77 N @ 13.44 MS; -5957.80 N @ 6.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL A7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCA7XF FILTER: CH. CLASS 60

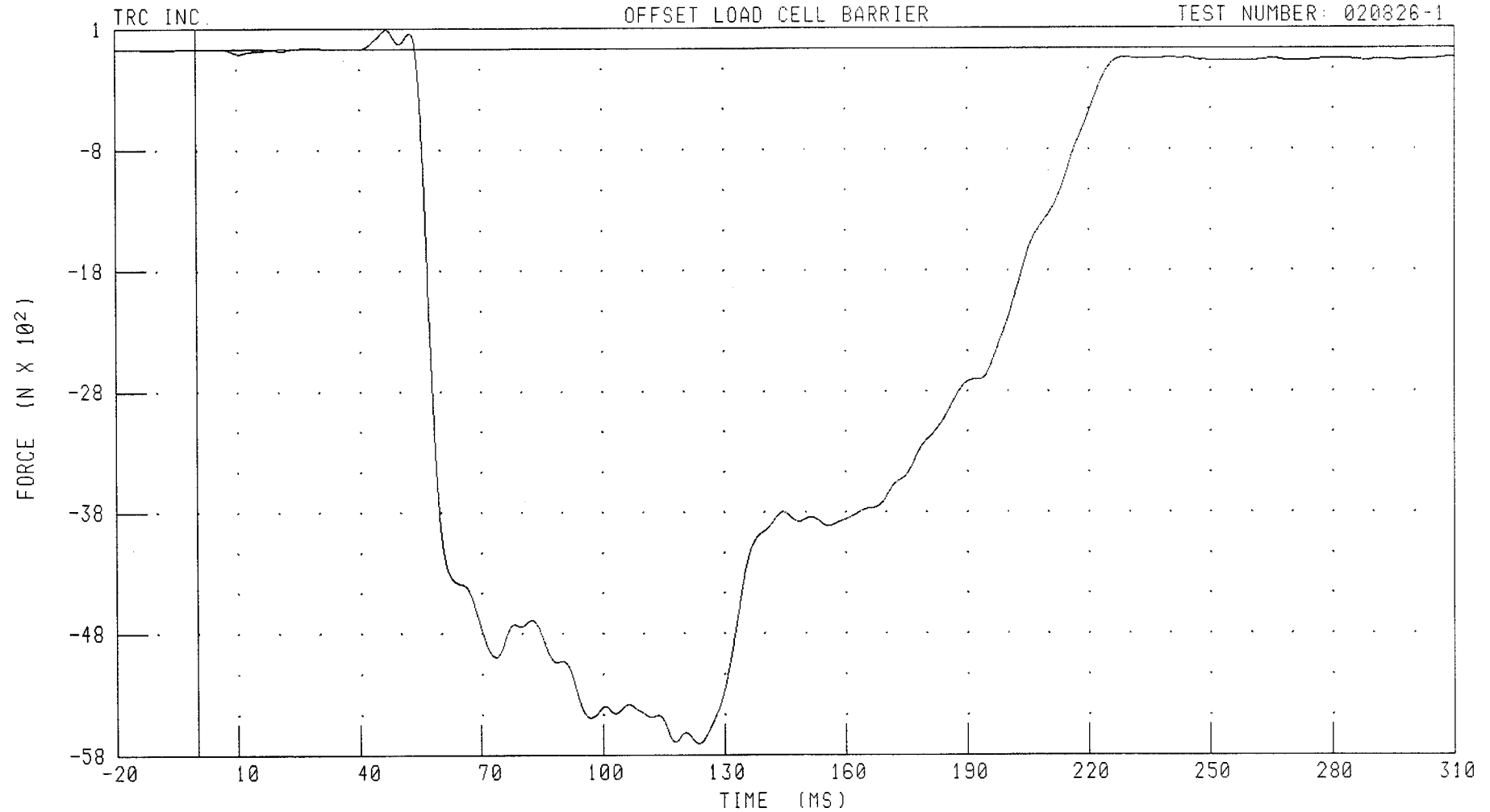
PEAK DATA: 172.51 N @ -1.92 MS; -5935.20 N @ 137.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCB1XF FILTER: CH. CLASS 60

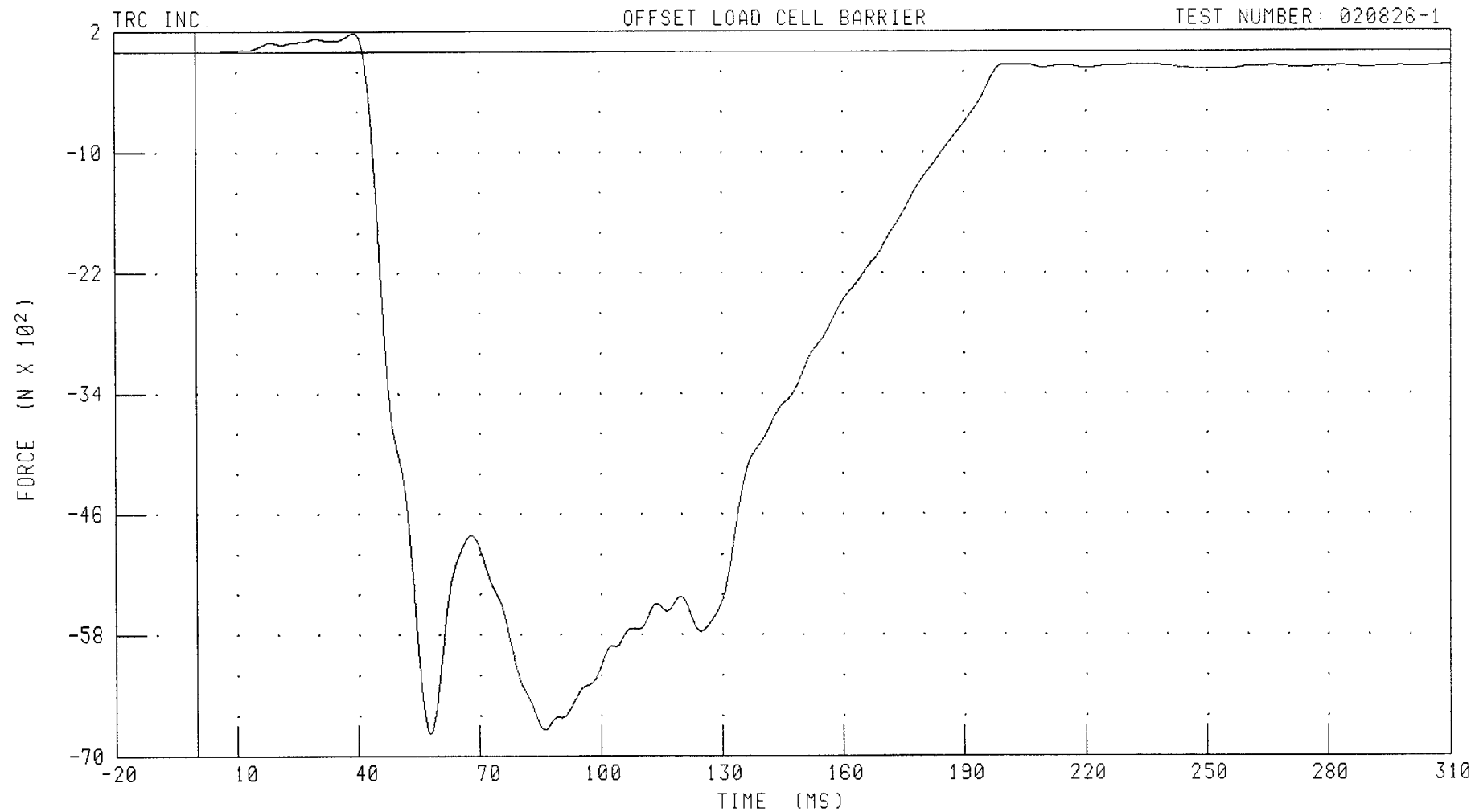
PEAK DATA: 161.68 N @ 46.88 MS; -5736.91 N @ 123.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCB2XF FILTER: CH. CLASS 60

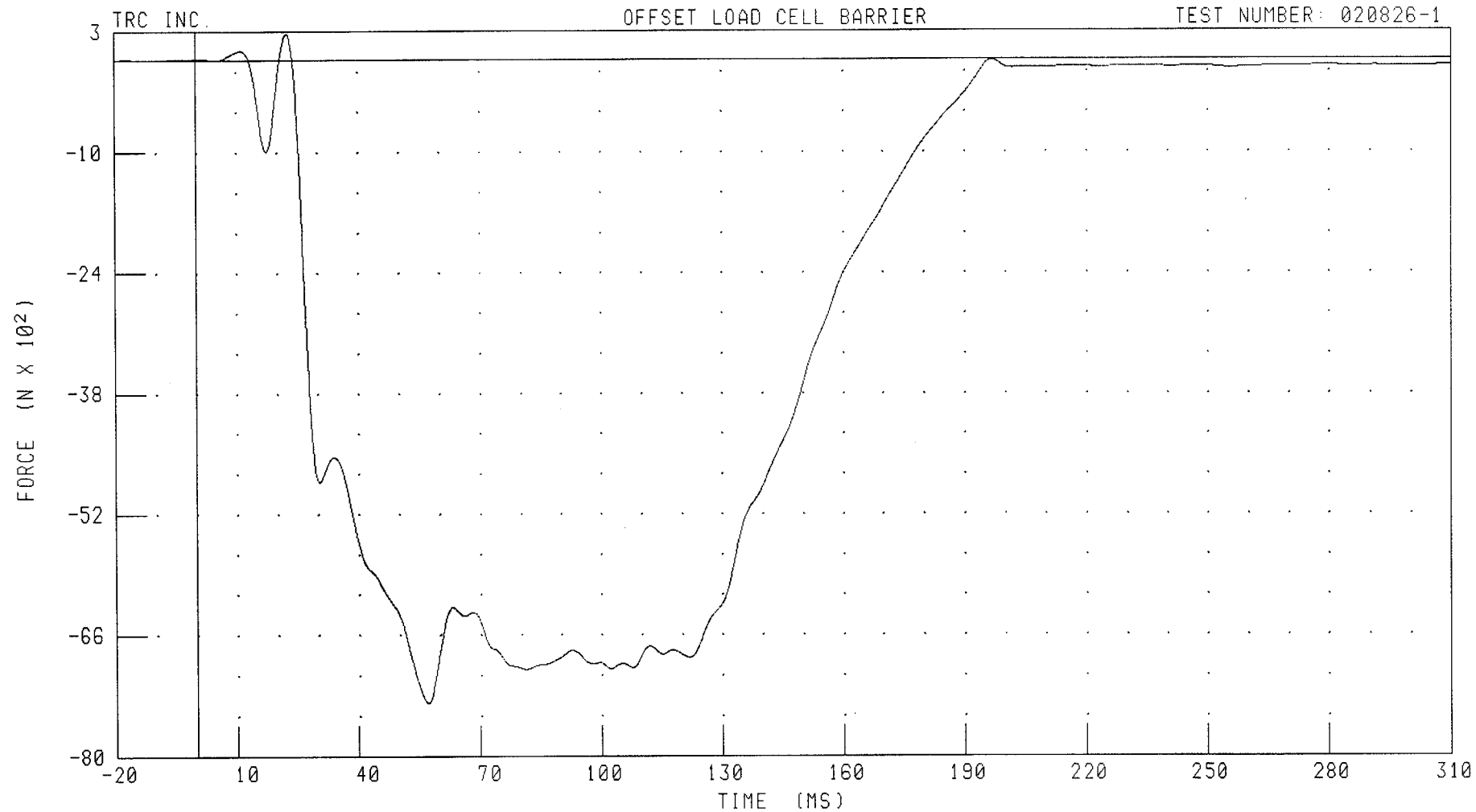
PEAK DATA: 185.55 N @ 39.28 MS; -6780.09 N @ 57.84 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCB3XF FILTER: CH. CLASS 60

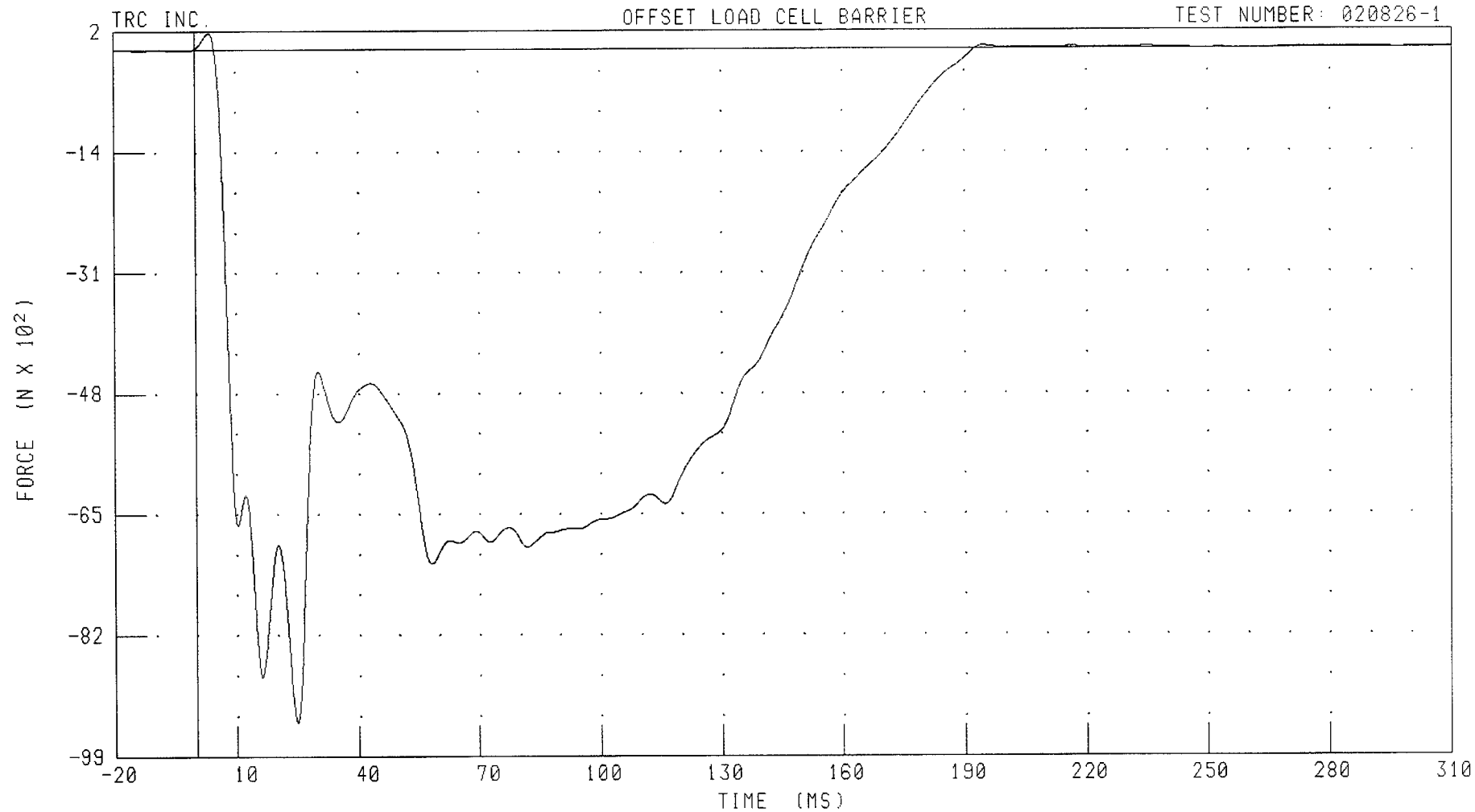
PEAK DATA: 303.64 N @ 22.64 MS, -7459.40 N @ 57.04 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCB4XF FILTER: CH. CLASS 60

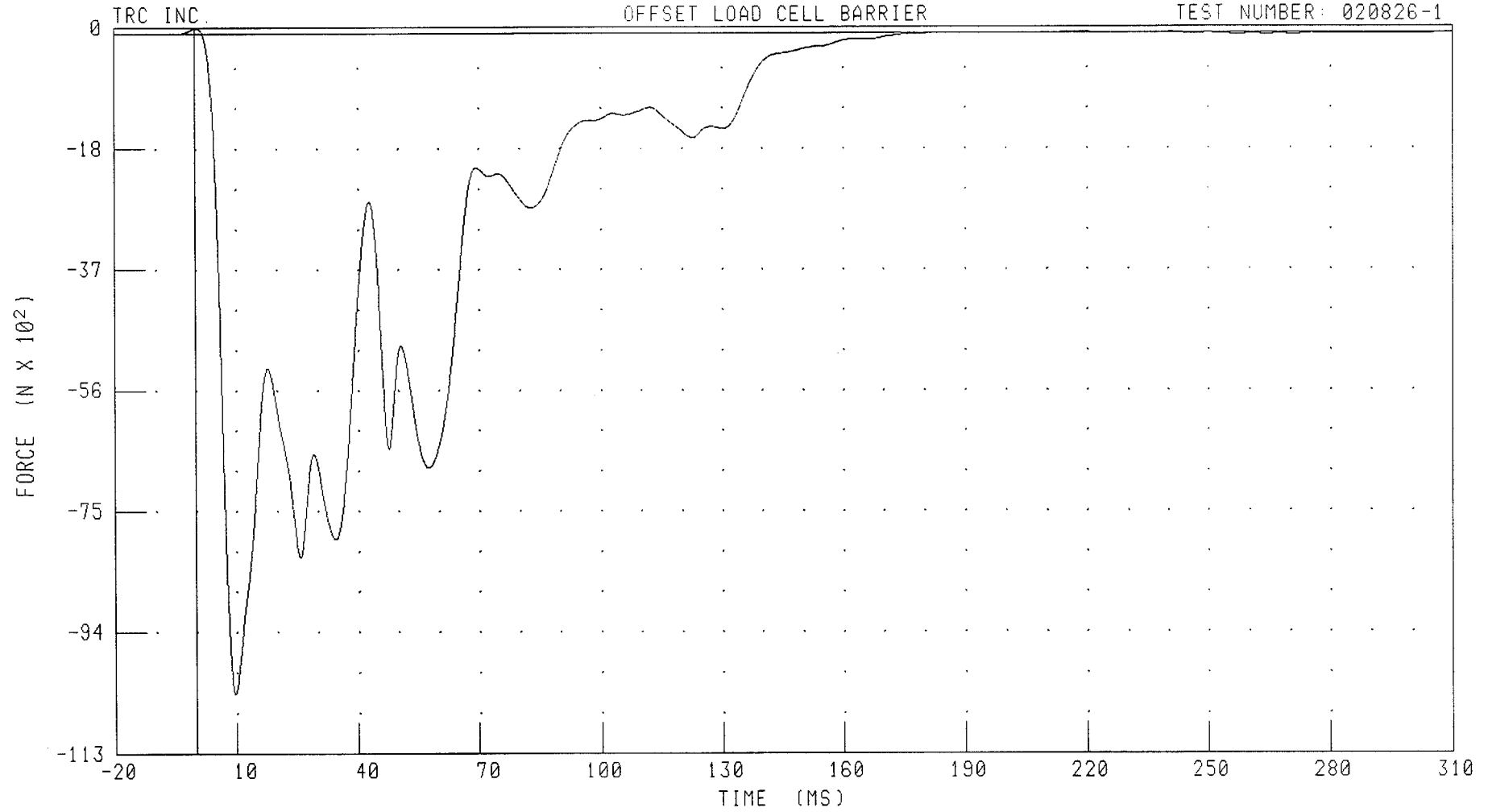
PEAK DATA: 236.67 N @ 3.44 MS; -9470.70 N @ 24.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B5 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCB5XF FILTER: CH. CLASS 60

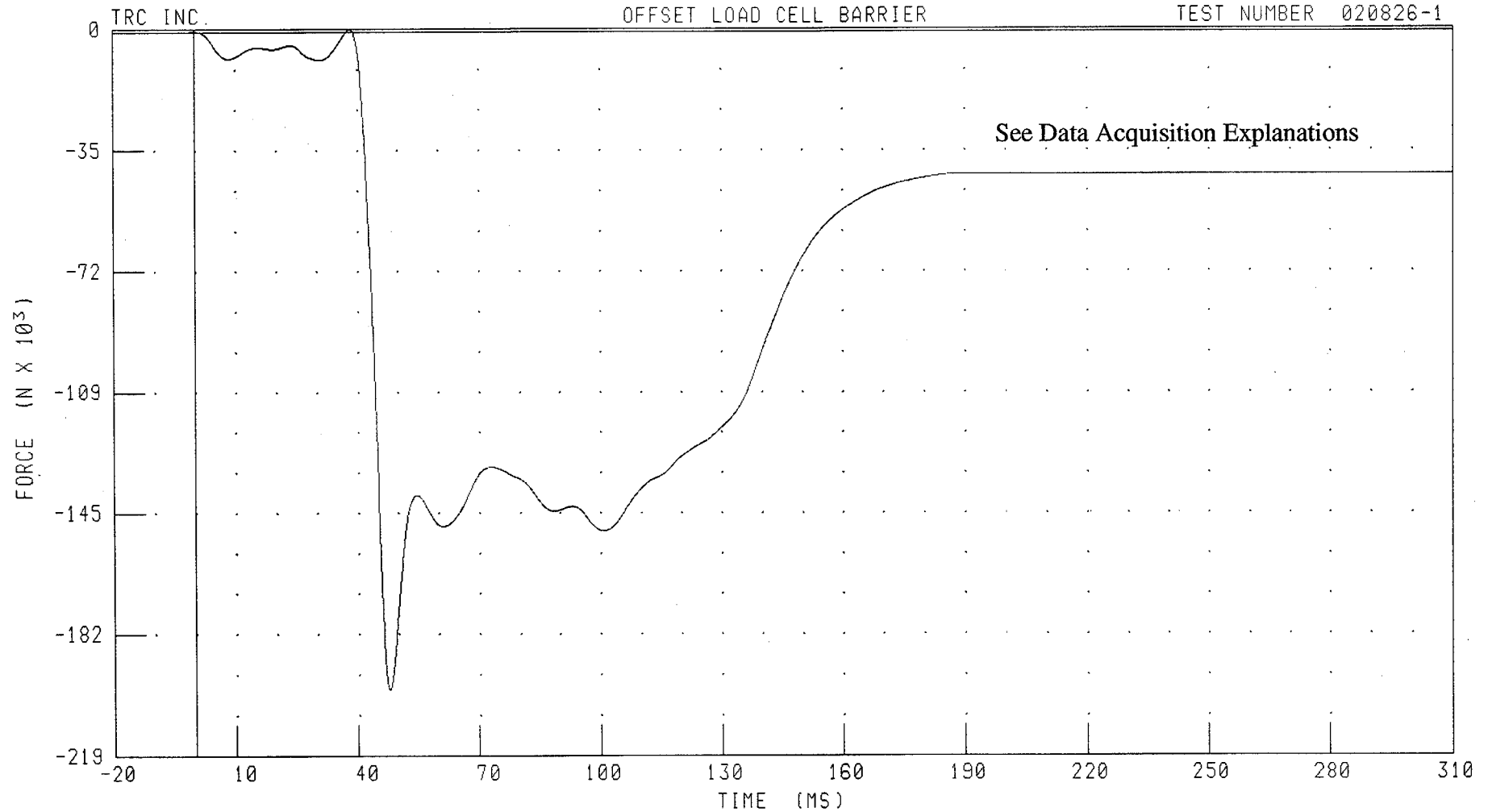
PEAK DATA: 81.59 N @ 0.32 MS; -10381.71 N @ 9.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: LCB6XF FILTER: CH. CLASS 60

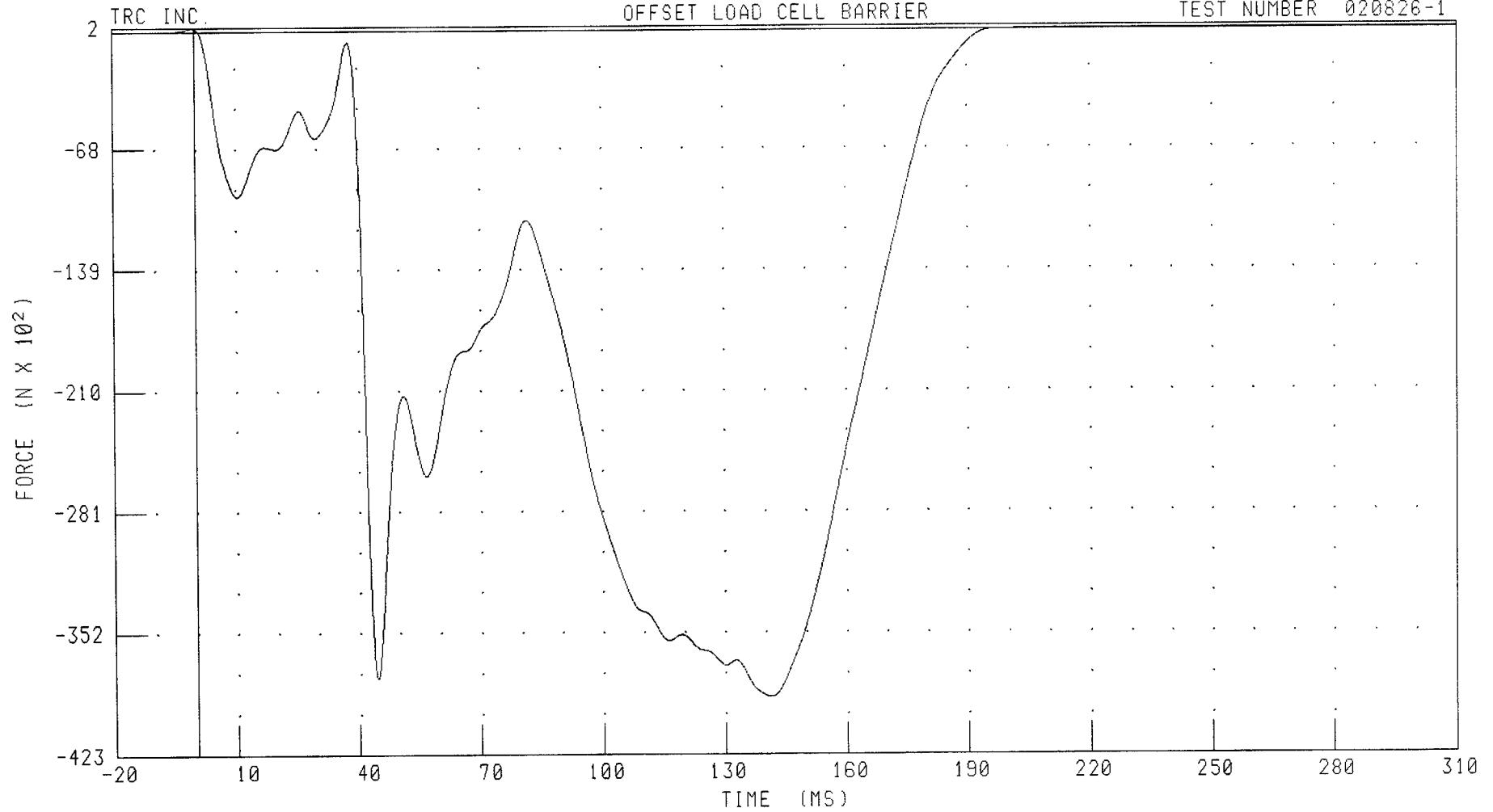
PEAK DATA: 798.94 N @ 38.48 MS; -19581.63 N @ 47.84 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL B7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: LCB7XF FILTER: CH. CLASS 60

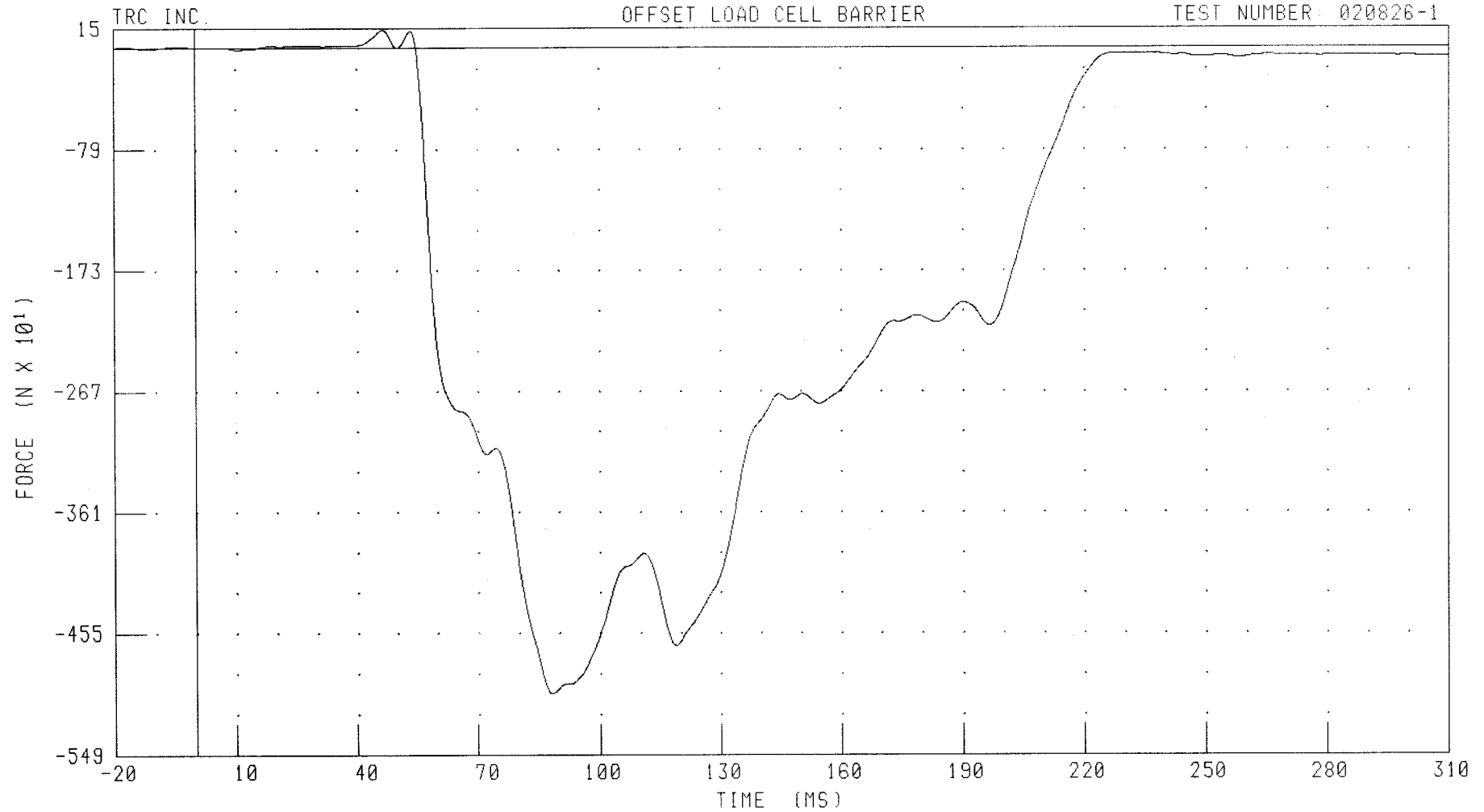
PEAK DATA: 199.99 N @ -0.56 MS; -39059.89 N @ 141.28 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC1XF FILTER: CH. CLASS 60

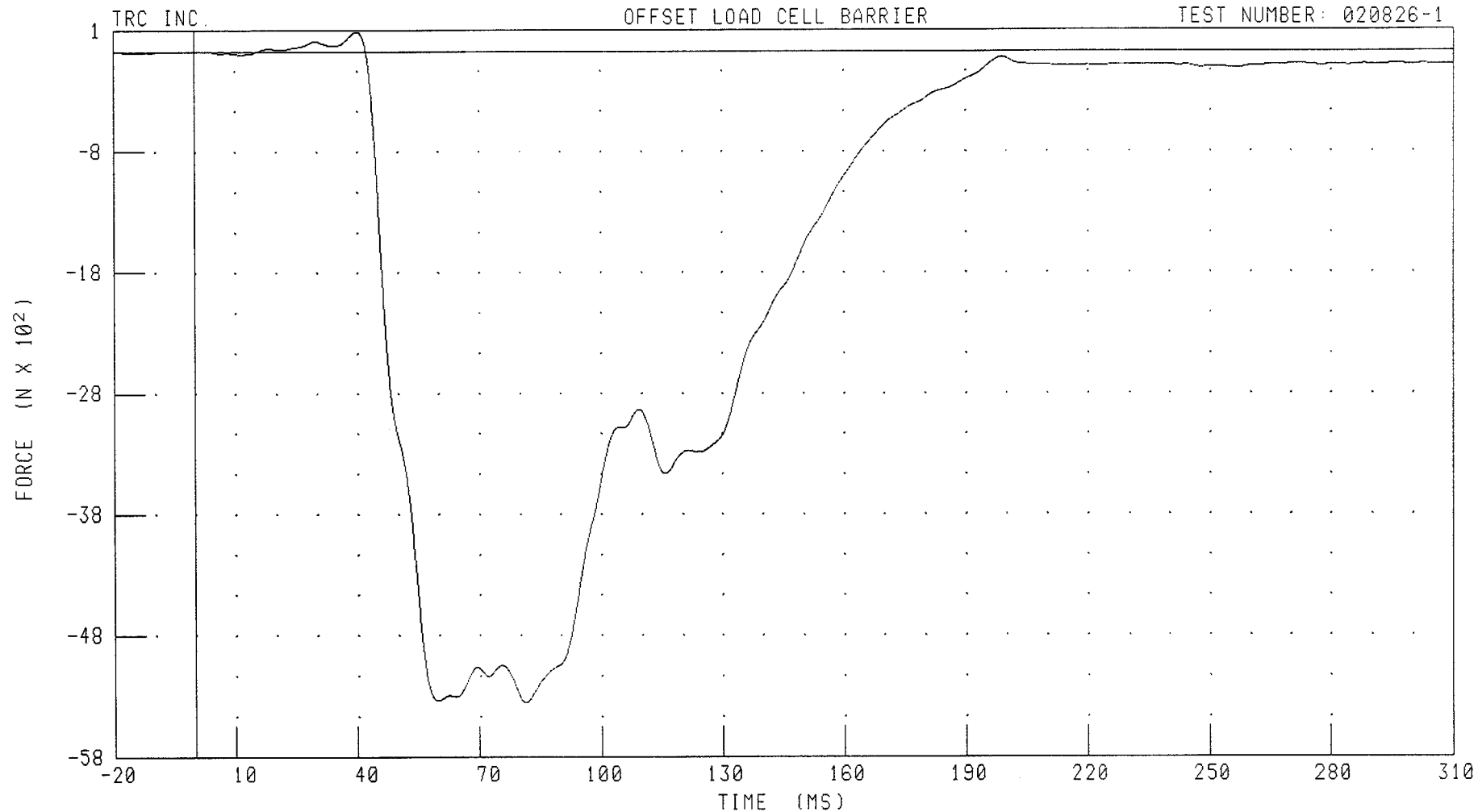
PEAK DATA: 140.00 N @ 46.80 MS, -5017.07 N @ 88.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC2XF FILTER: CH. CLASS 60

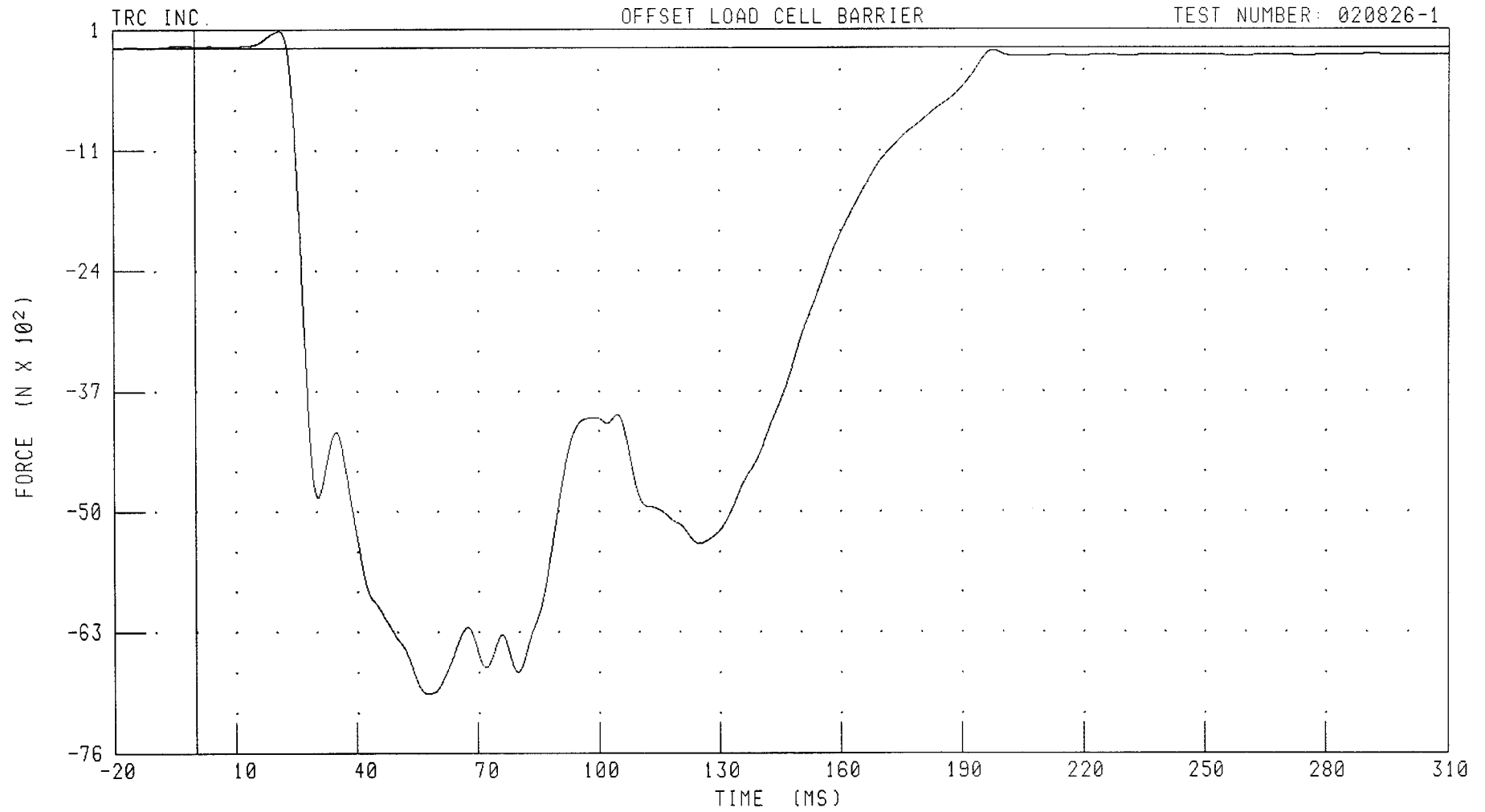
PEAK DATA: 168.72 N @ 40.24 MS; -5374.01 N @ 81.36 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC3XF FILTER: CH. CLASS 60

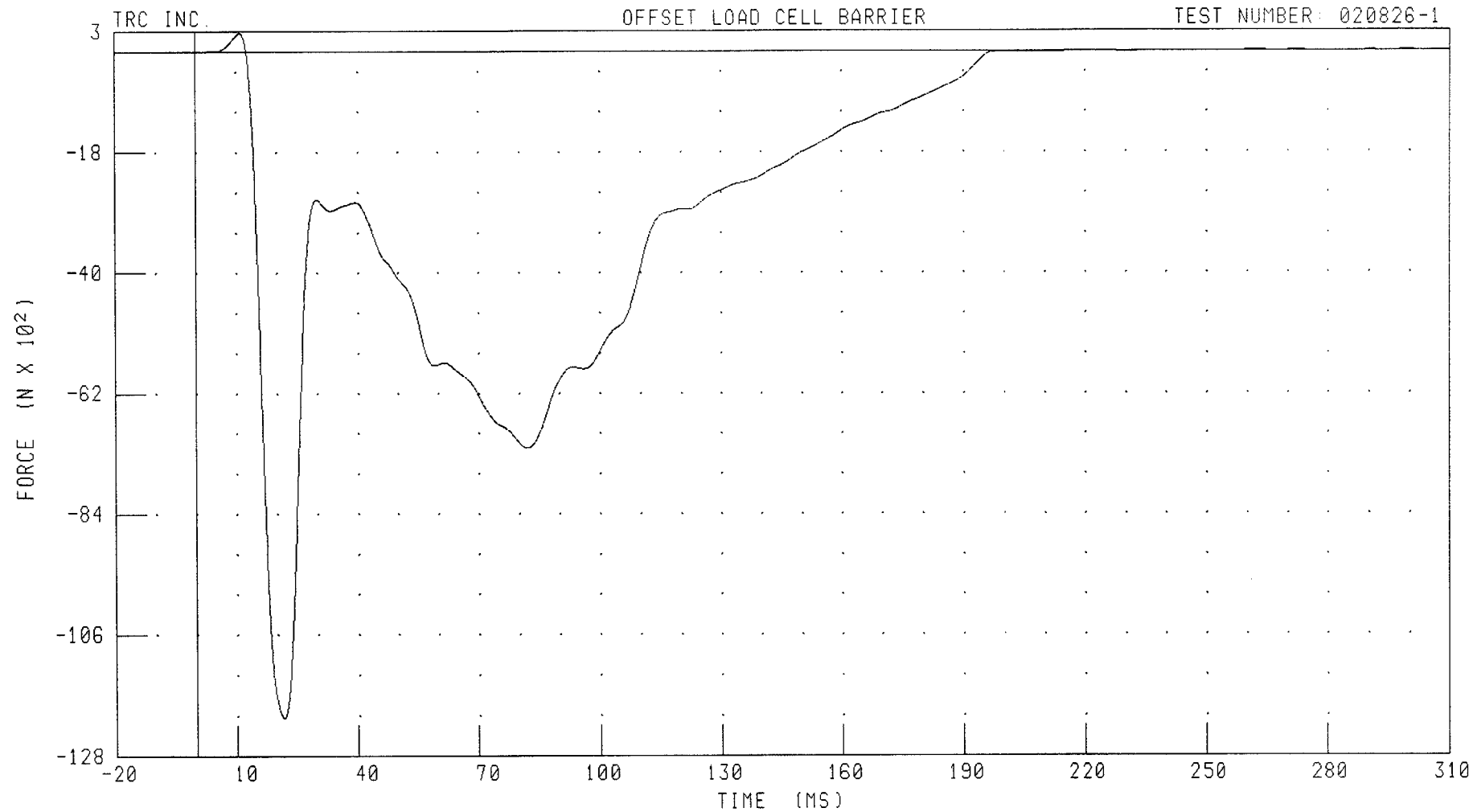
PEAK DATA: 176.73 N @ 21.04 MS; -6972.90 N @ 57.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC4XF FILTER: CH. CLASS 60

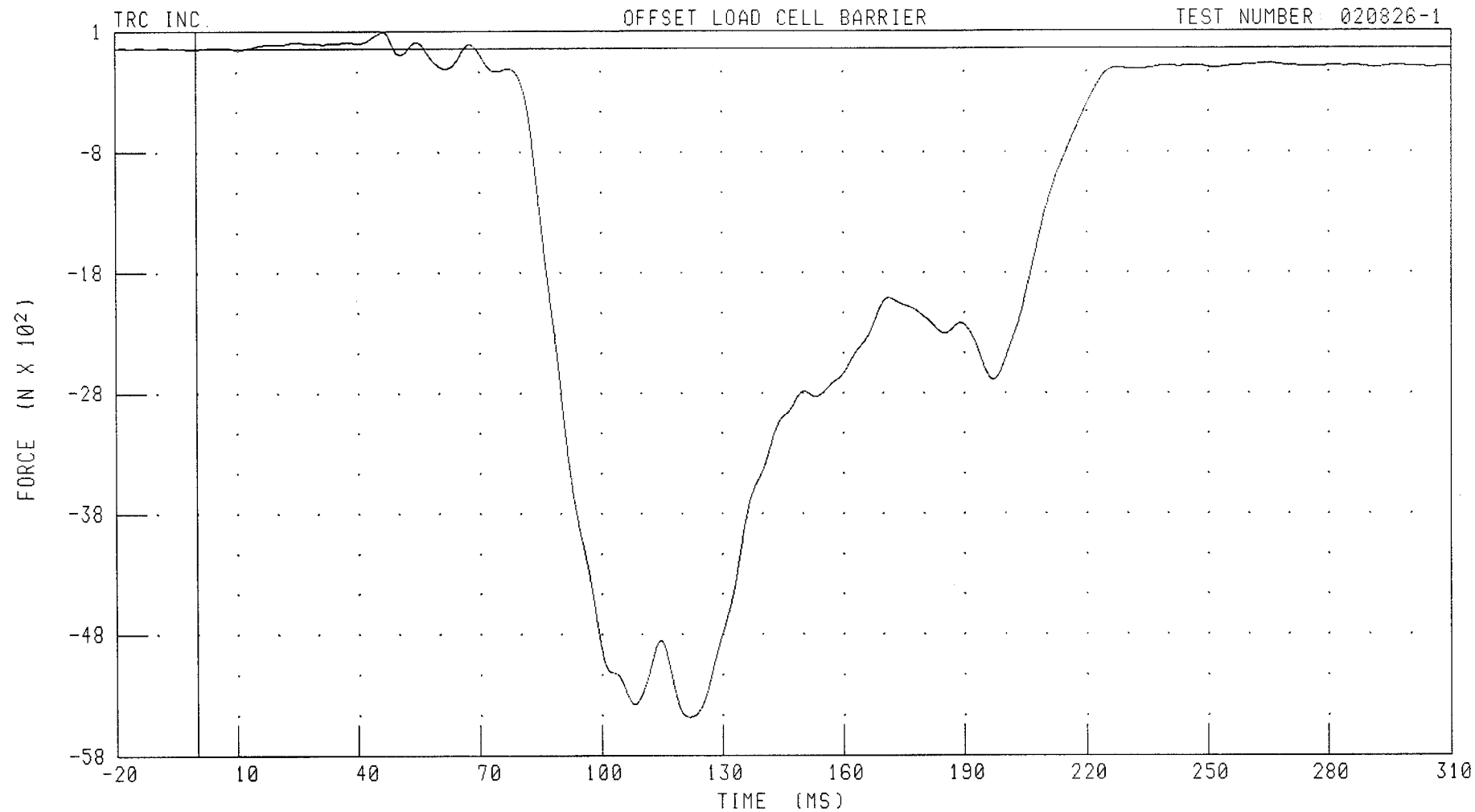
PEAK DATA: 339.08 N @ 11.12 MS; -12146.96 N @ 21.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C5 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC5XF FILTER: CH. CLASS 60

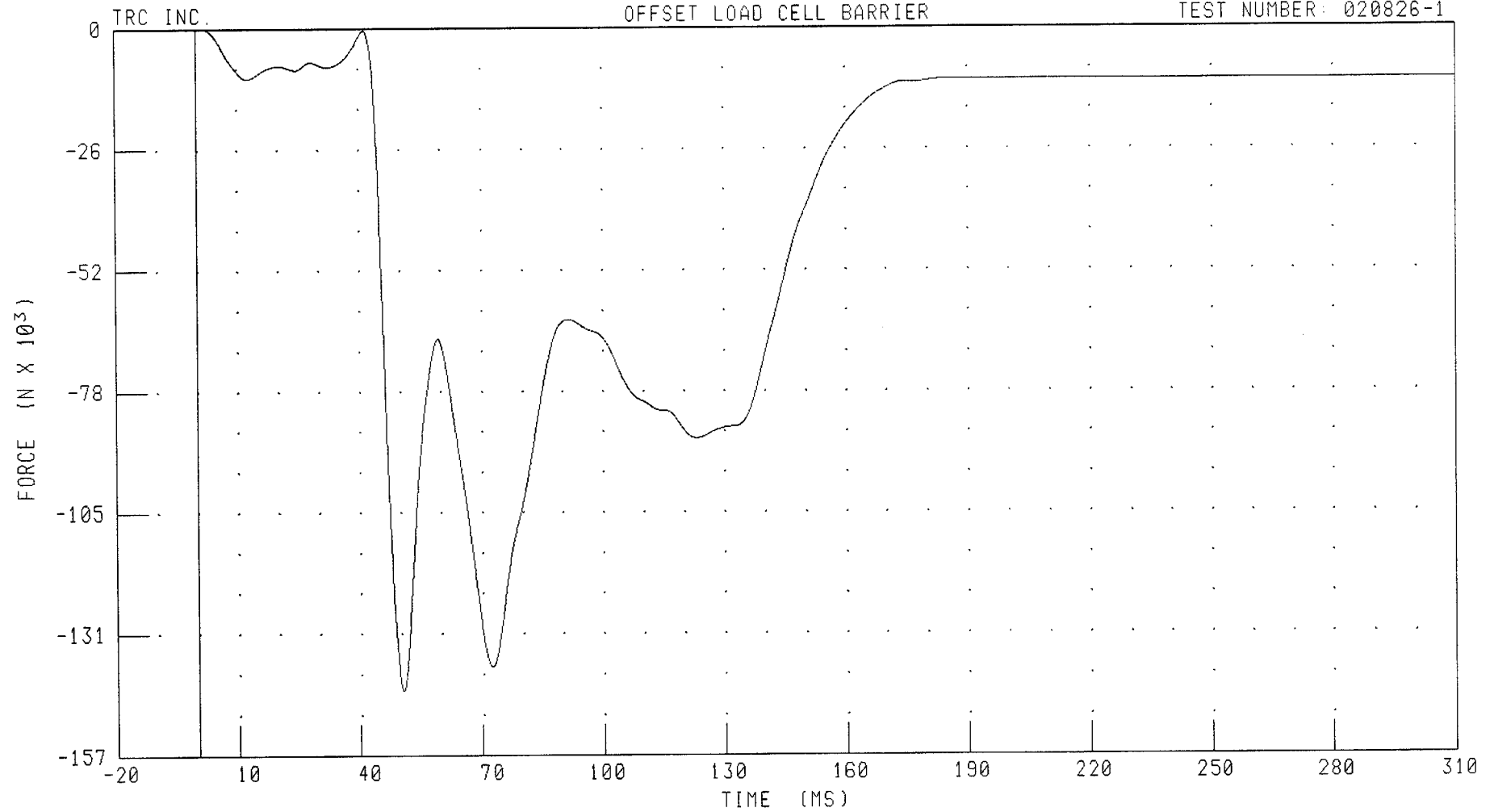
PEAK DATA: 135.43 N @ 46.48 MS; -5544.17 N @ 121.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC6XF FILTER: CH. CLASS 60

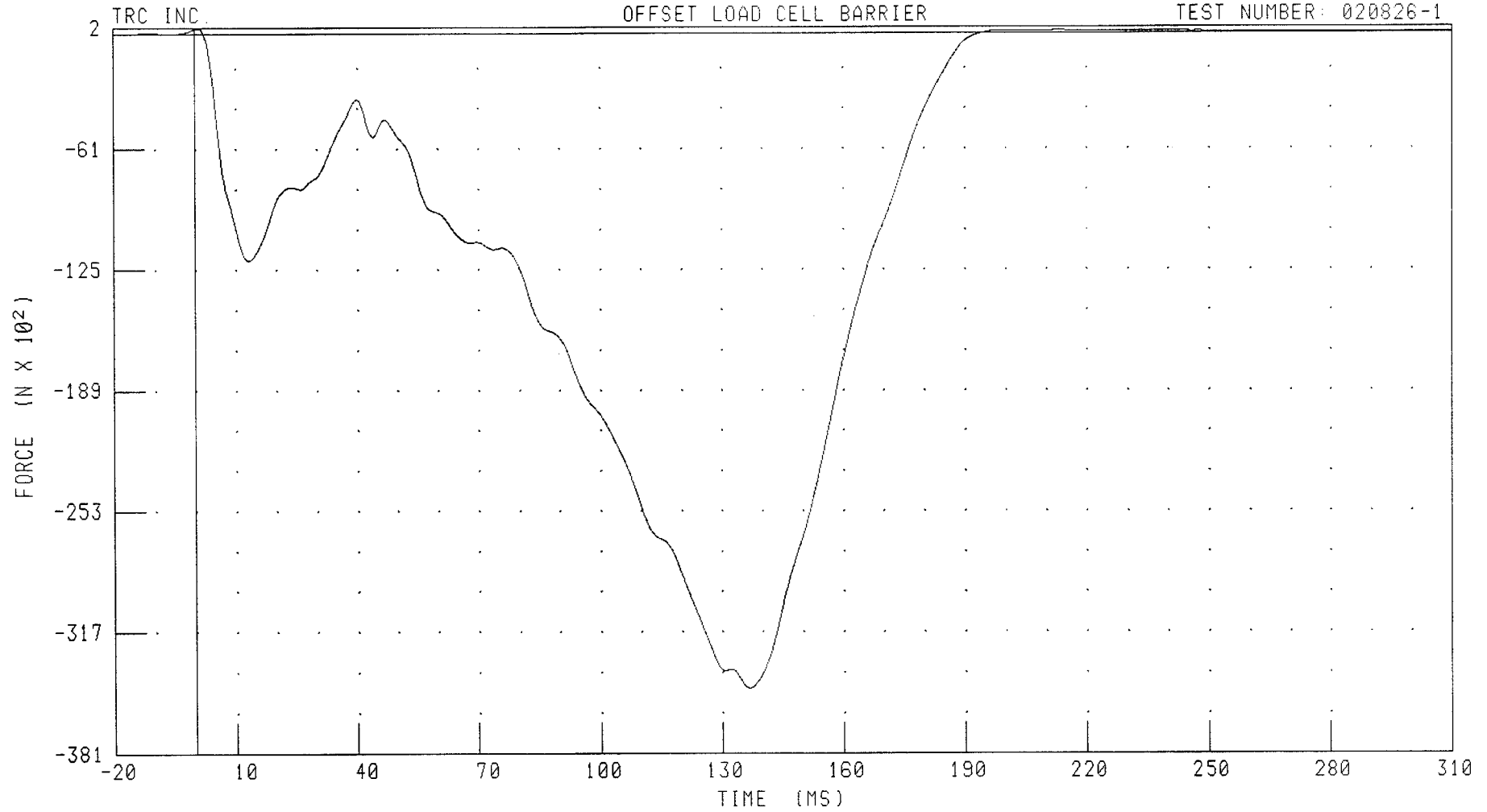
PEAK DATA: 129.11 N @ 0 72 MS; -143689.73 N @ 50.56 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL C7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCC7XF FILTER: CH. CLASS 60

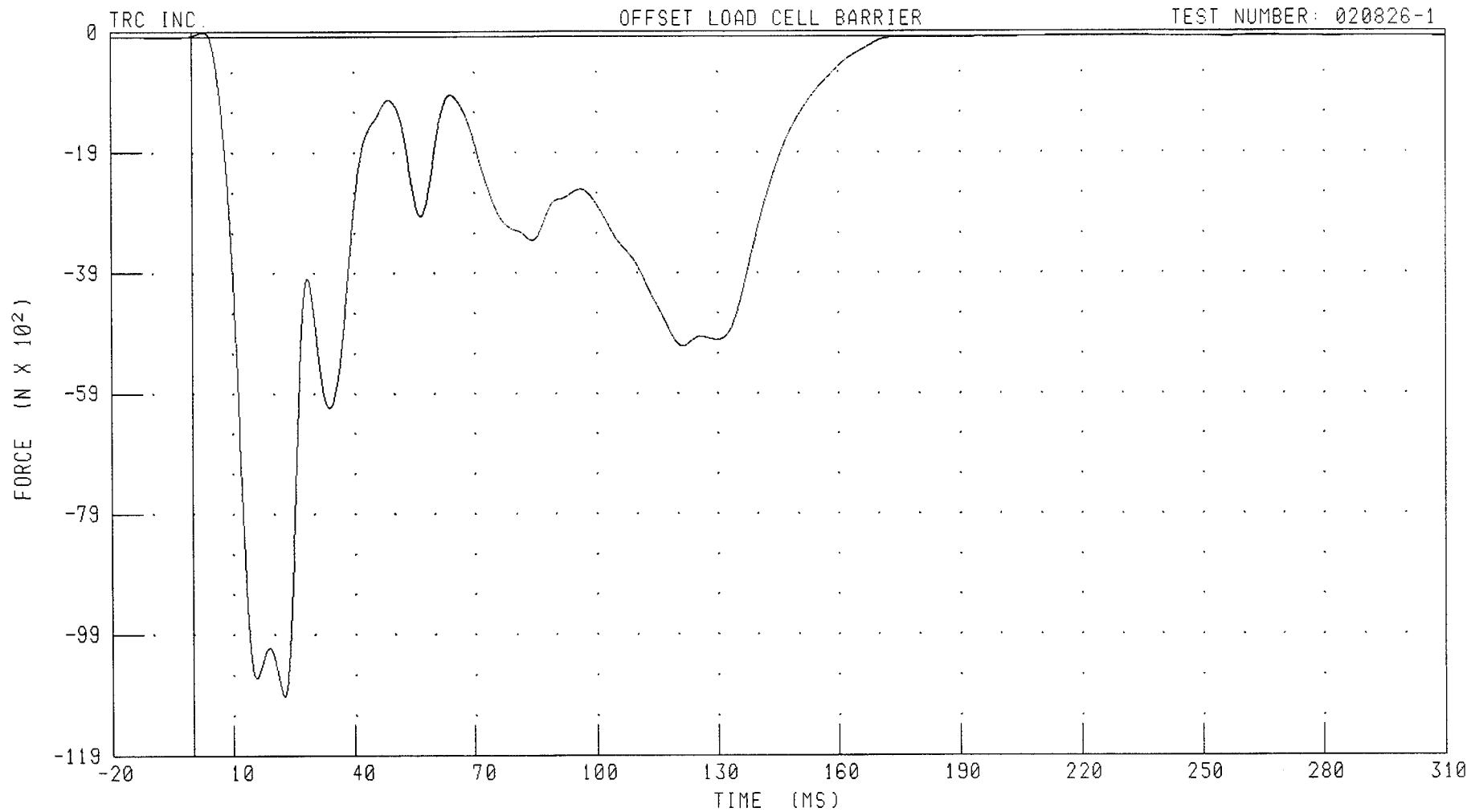
PEAK DATA: 272.57 N @ 0.72 MS; -34696.23 N @ 136.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD1XF FILTER: CH. CLASS 60

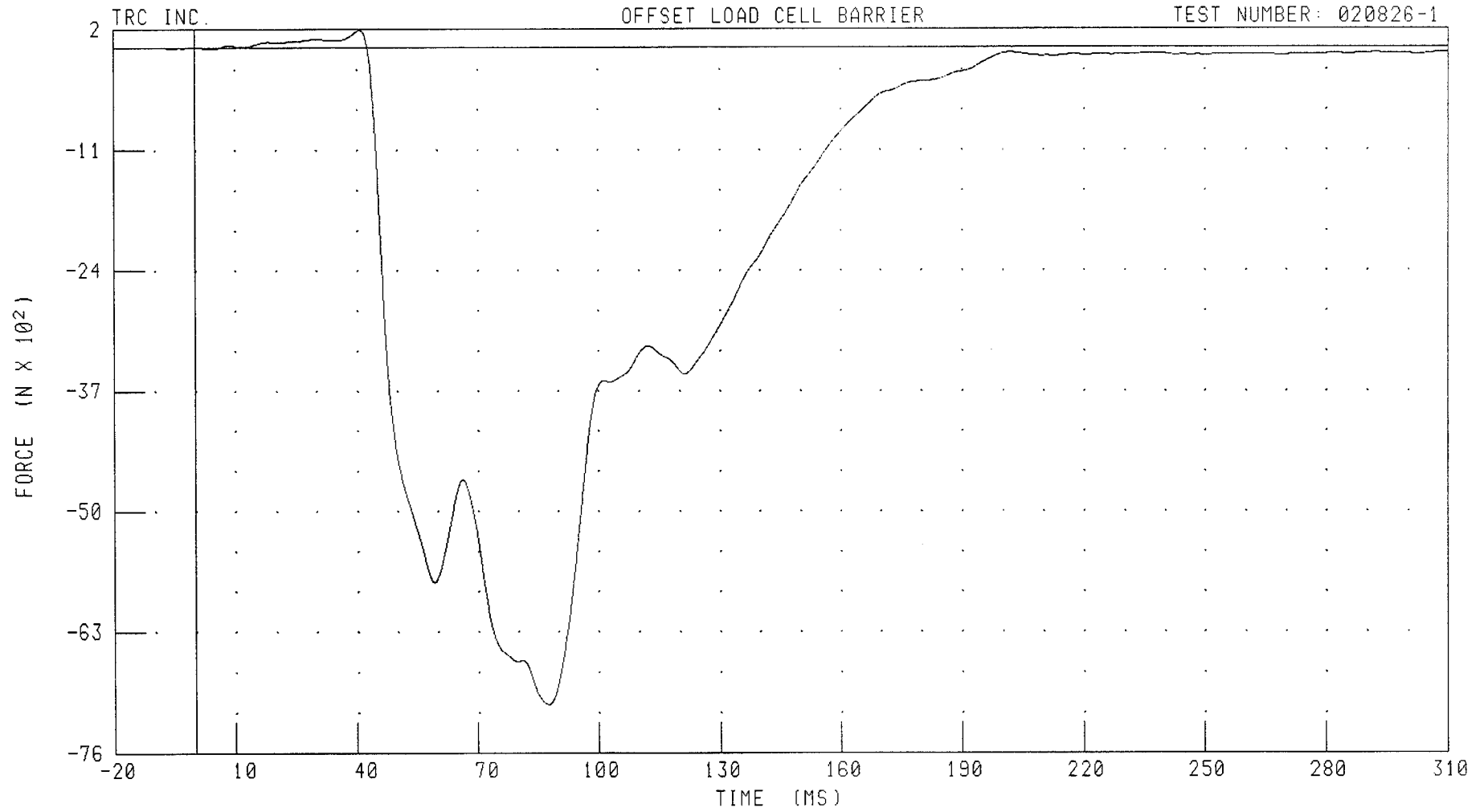
PEAK DATA: 79.93 N @ 2.88 MS, -10933.94 N @ 22.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD2XF FILTER: CH. CLASS 60

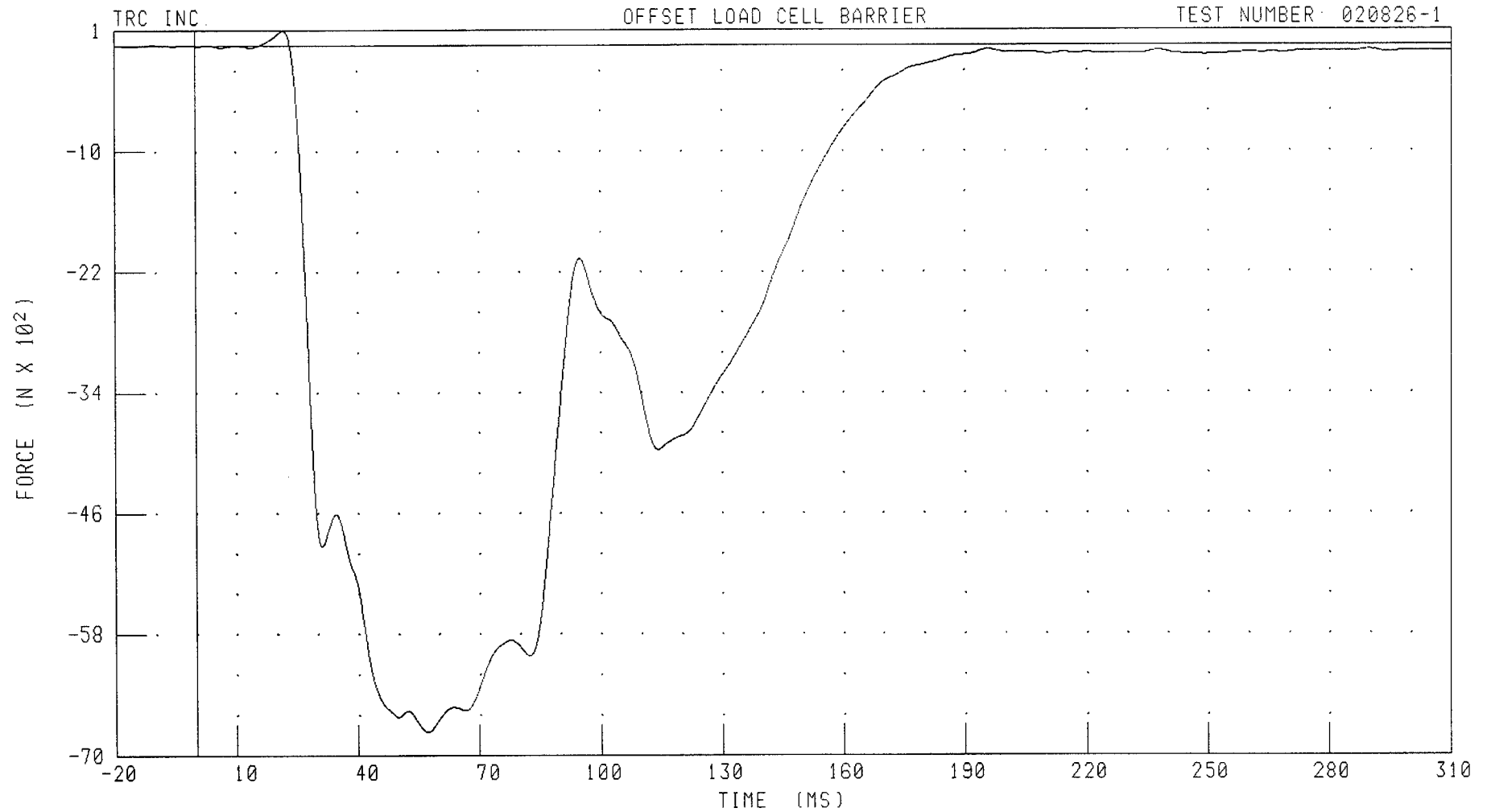
PEAK DATA: 189.26 N @ 40.88 MS, -7080.82 N @ 87.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD3XF FILTER: CH. CLASS 60

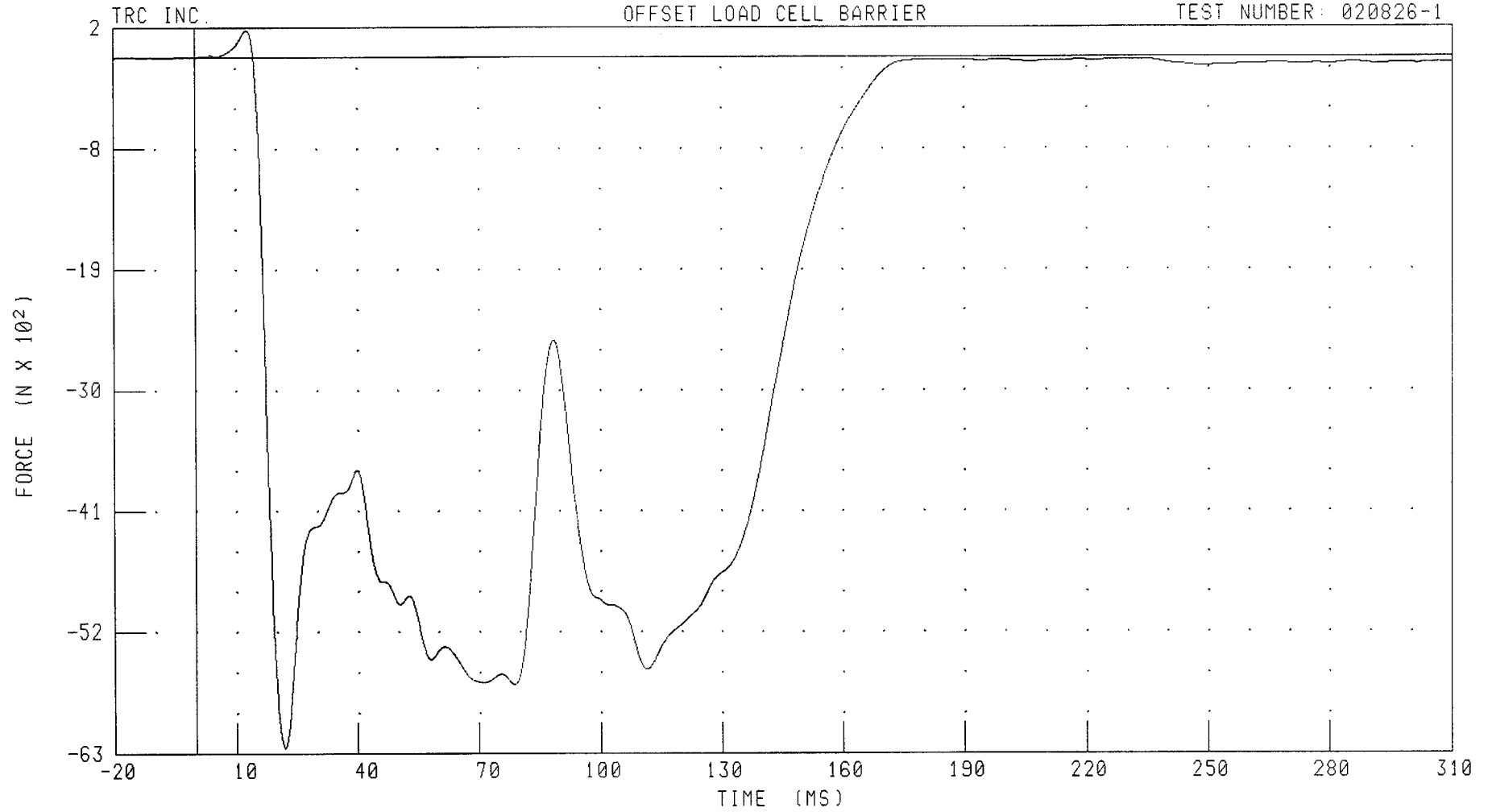
PEAK DATA: 143.83 N @ 21.92 MS; -6821.80 N @ 57.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD4XF FILTER: CH. CLASS 60

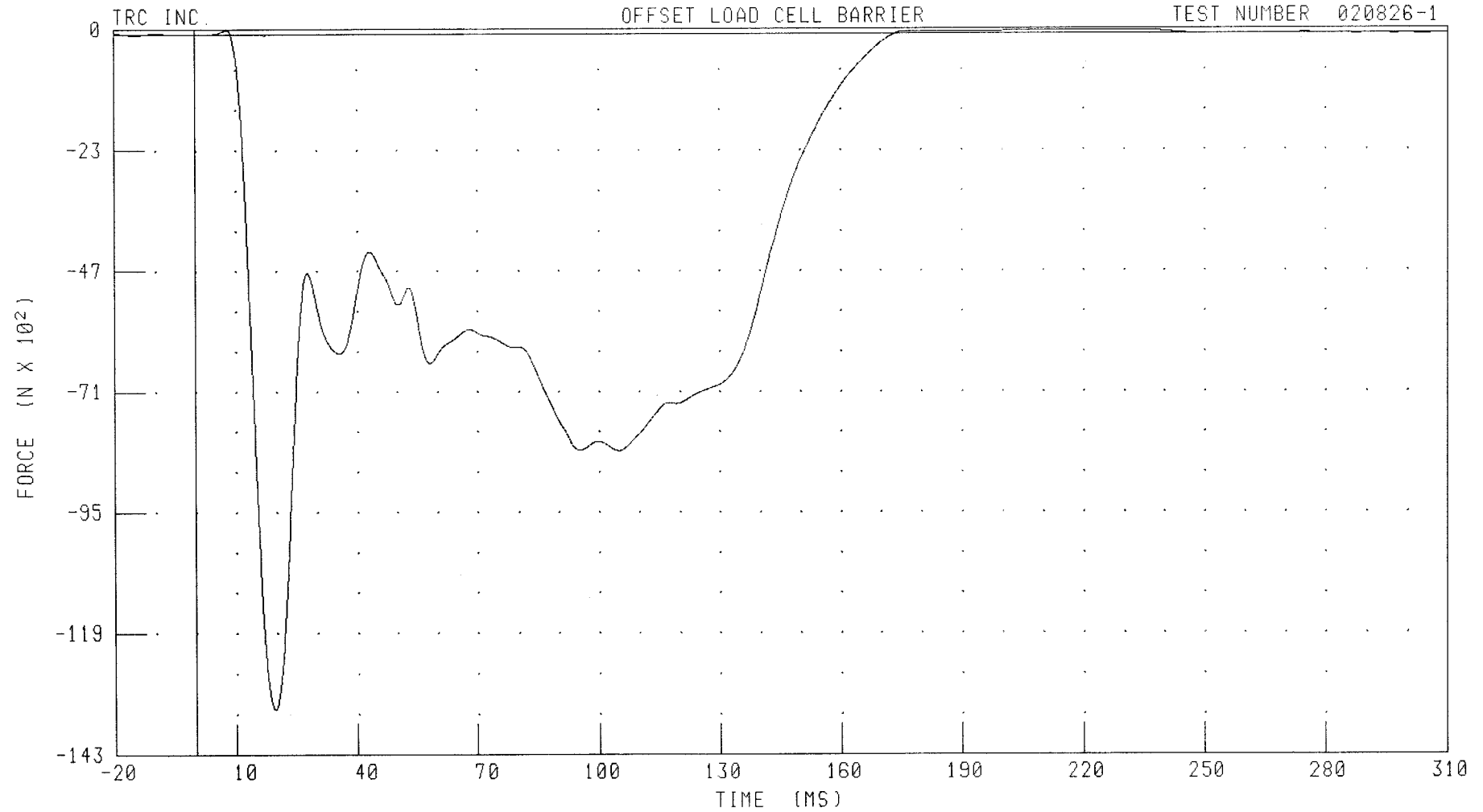
PEAK DATA: 247.97 N @ 12.88 MS; -6280.34 N @ 21.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D5 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: LCD5XF FILTER: CH. CLASS 60

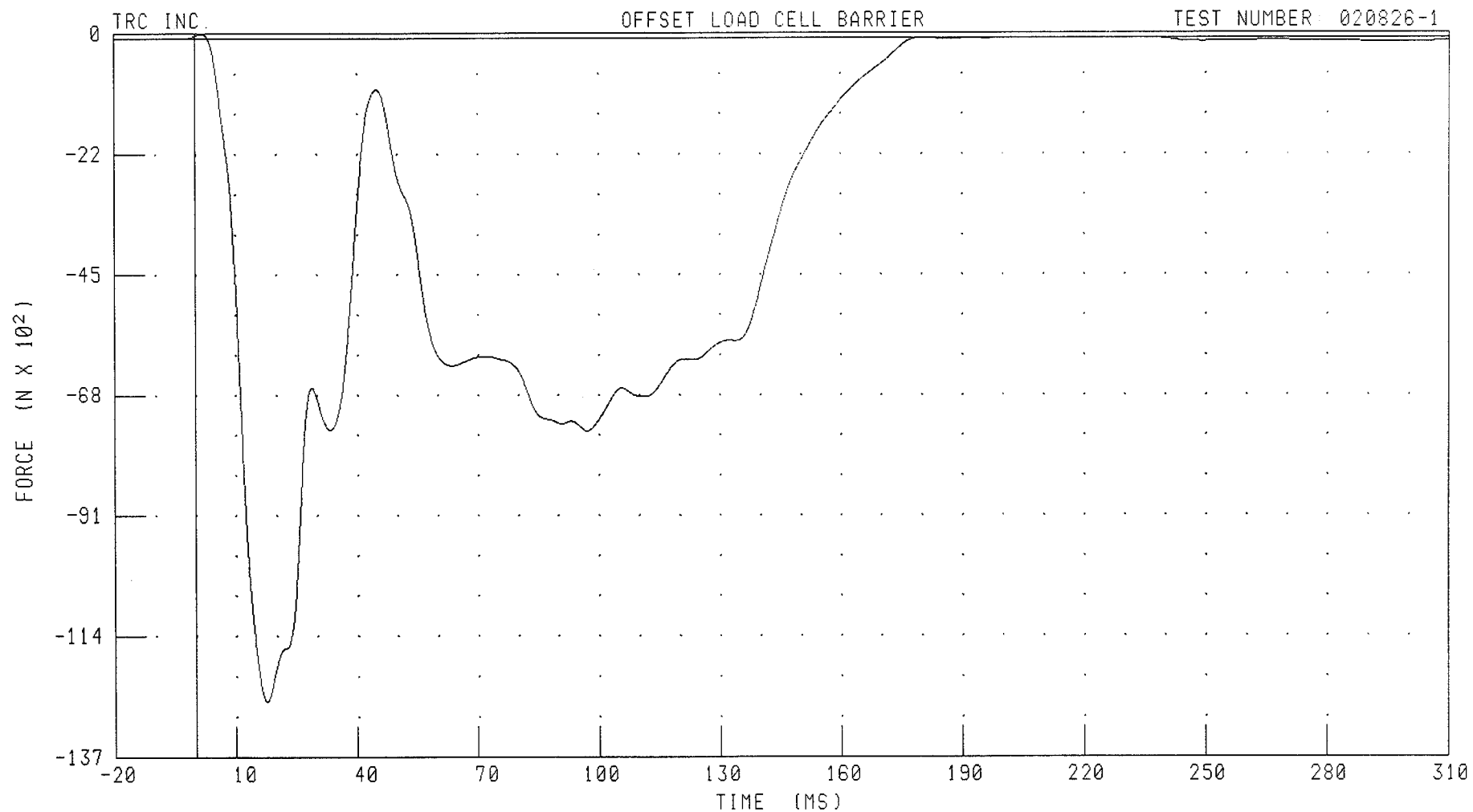
PEAK DATA: 82.44 N @ 7.84 MS; -13418.92 N @ 19.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD6XF FILTER: CH. CLASS 60

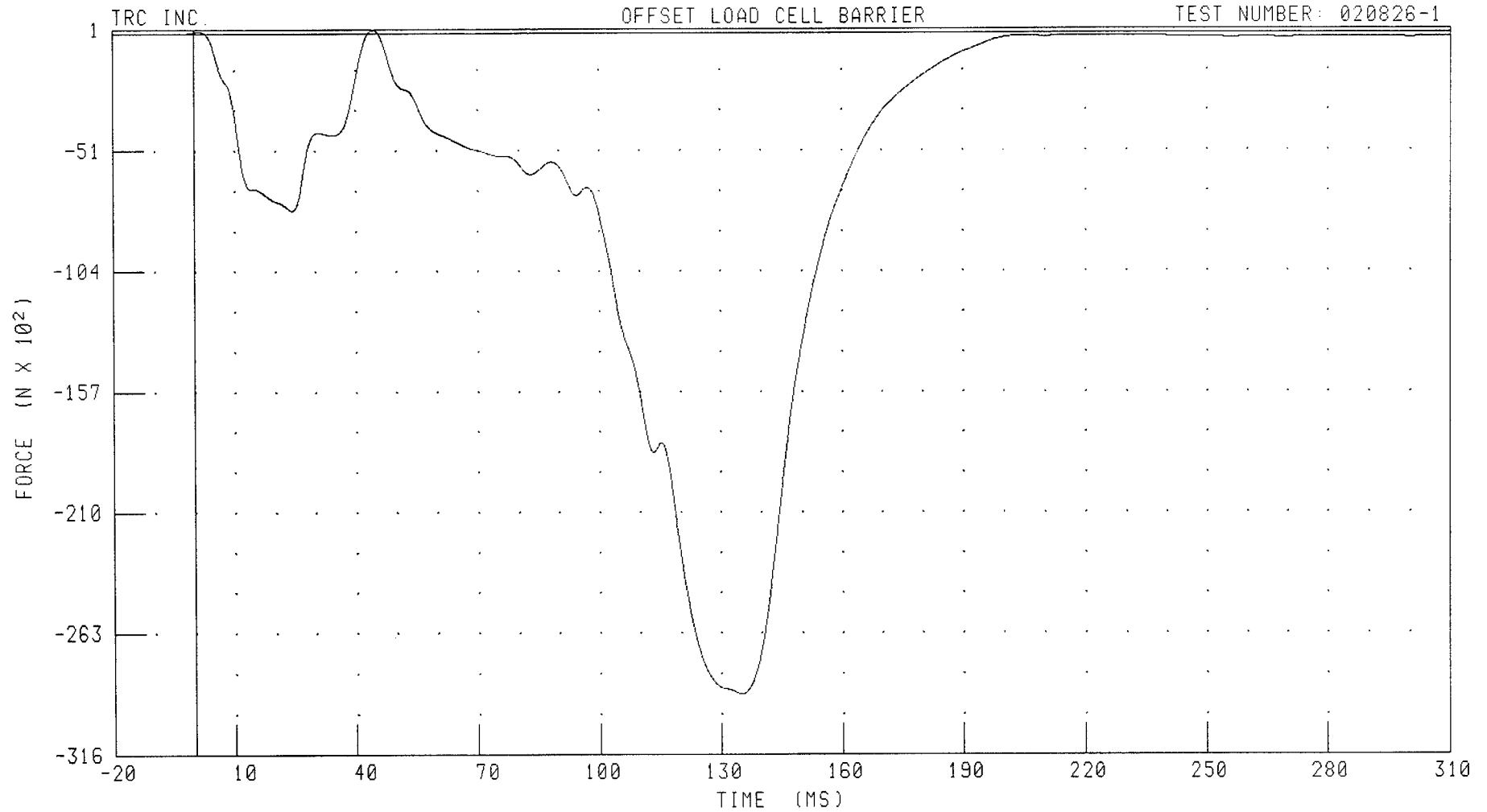
PEAK DATA: 79.69 N @ 1.76 MS; -12670.35 N @ 17.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL D7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCD7XF FILTER: CH. CLASS 60

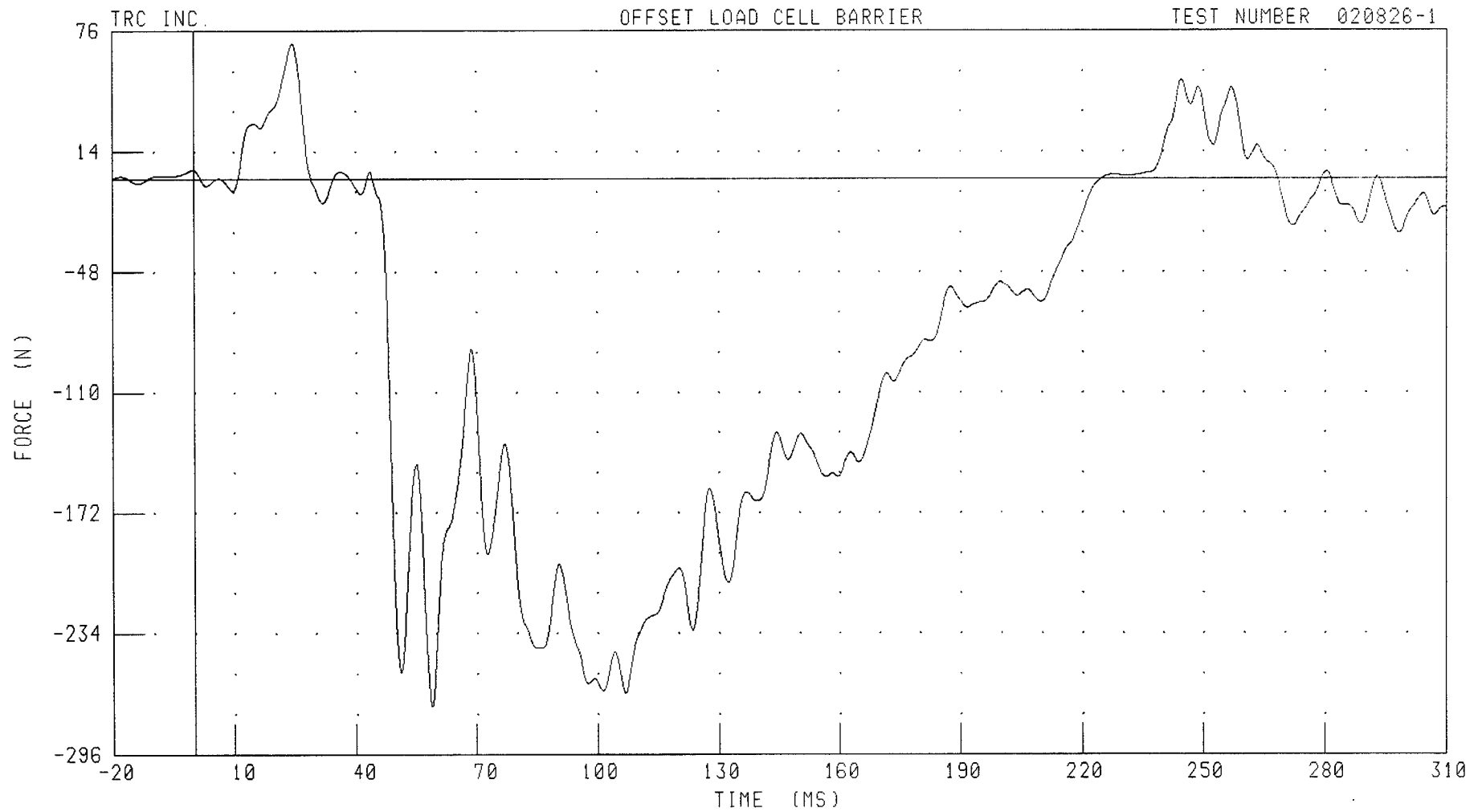
PEAK DATA: 150.04 N @ 44.56 MS; -29007.36 N @ 135.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: LCE1XF FILTER: CH. CLASS 60

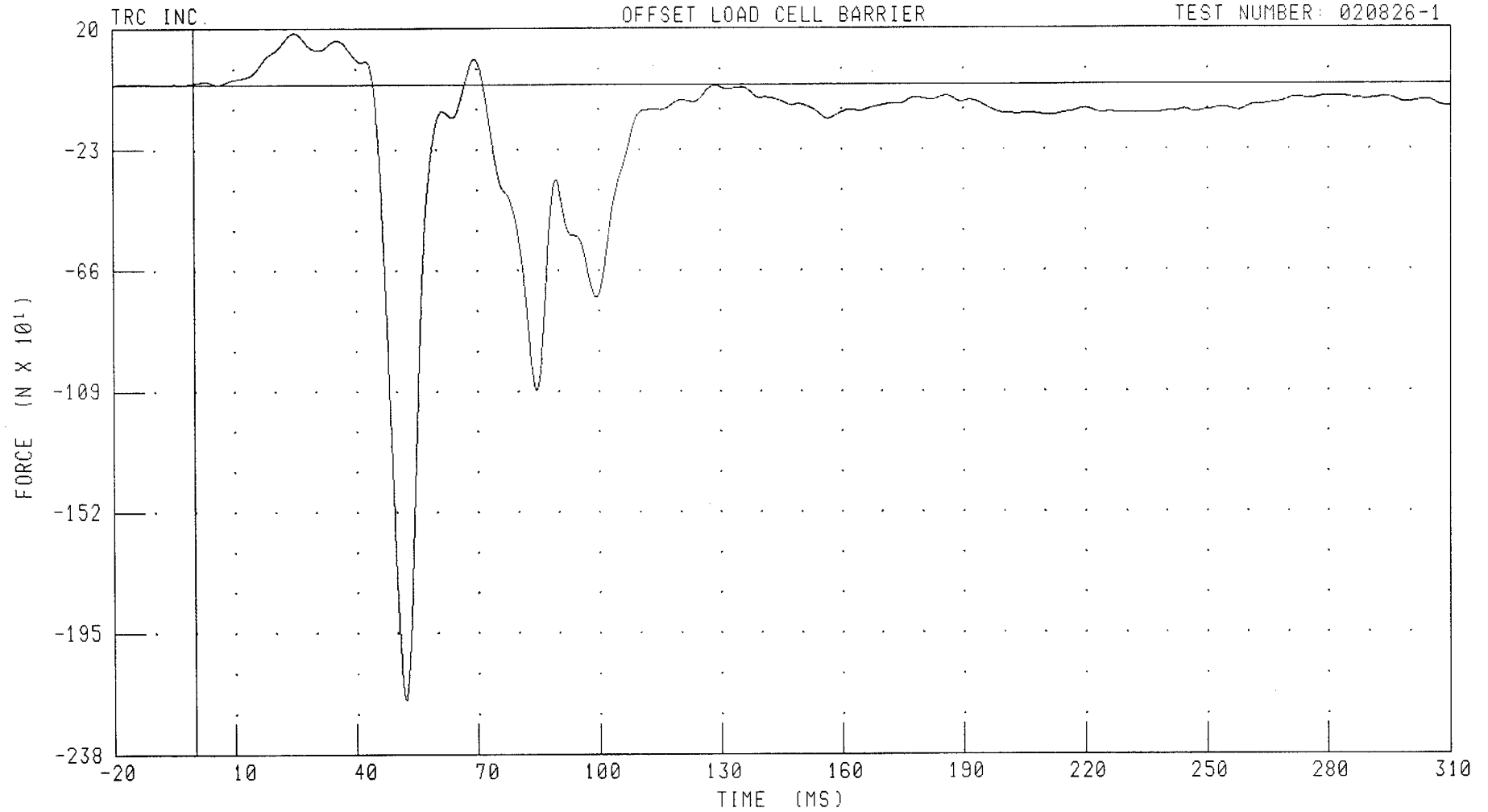
PEAK DATA: 69.56 N @ 24.56 MS; -271.53 N @ 58.96 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE2XF FILTER: CH. CLASS 60

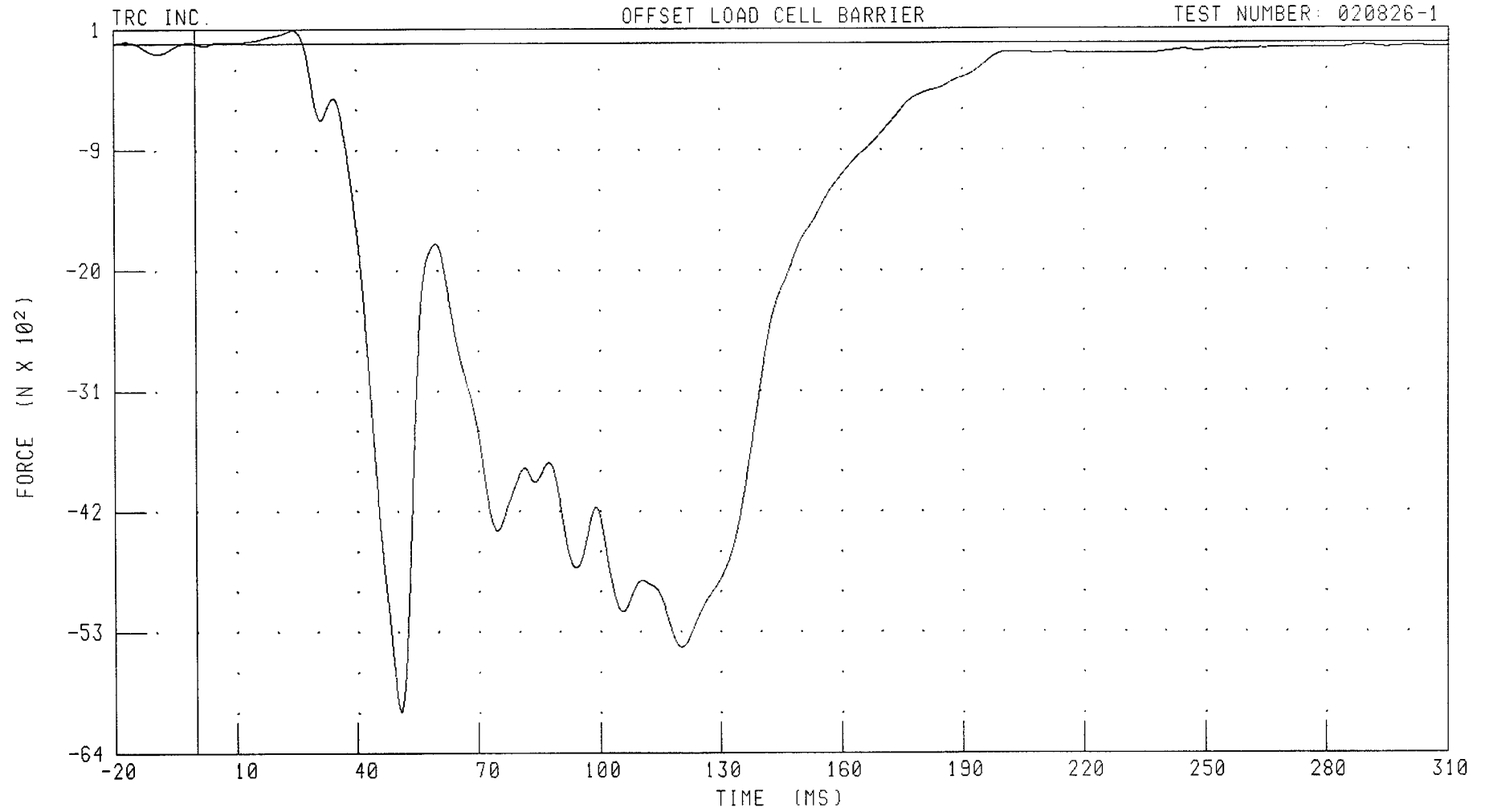
PEAK DATA: 184.54 N @ 25.12 MS; -2188.63 N @ 52.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE3XF FILTER: CH. CLASS 60

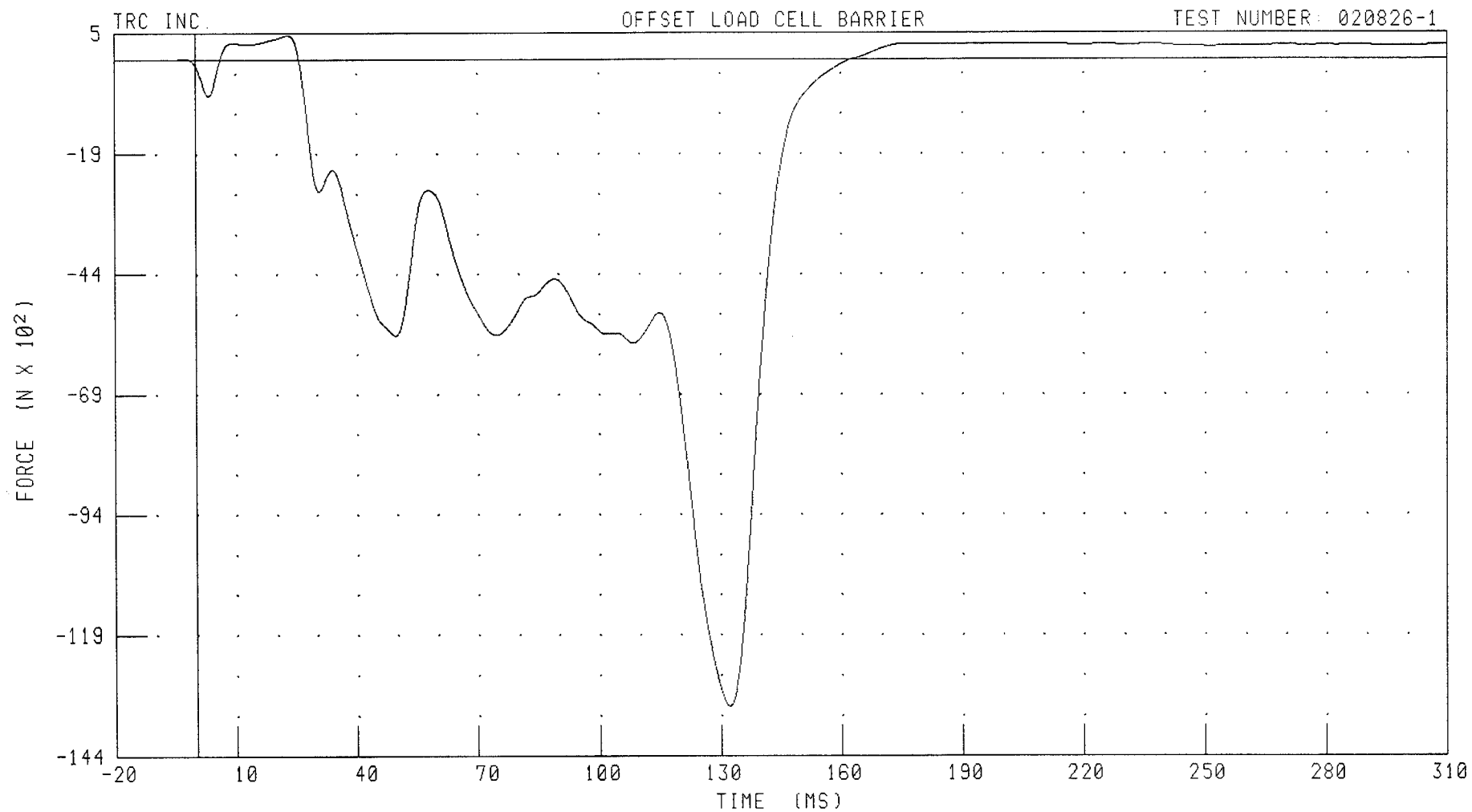
PEAK DATA: 121.69 N @ 24.32 MS; -6093.87 N @ 50.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE4XF FILTER: CH. CLASS 60

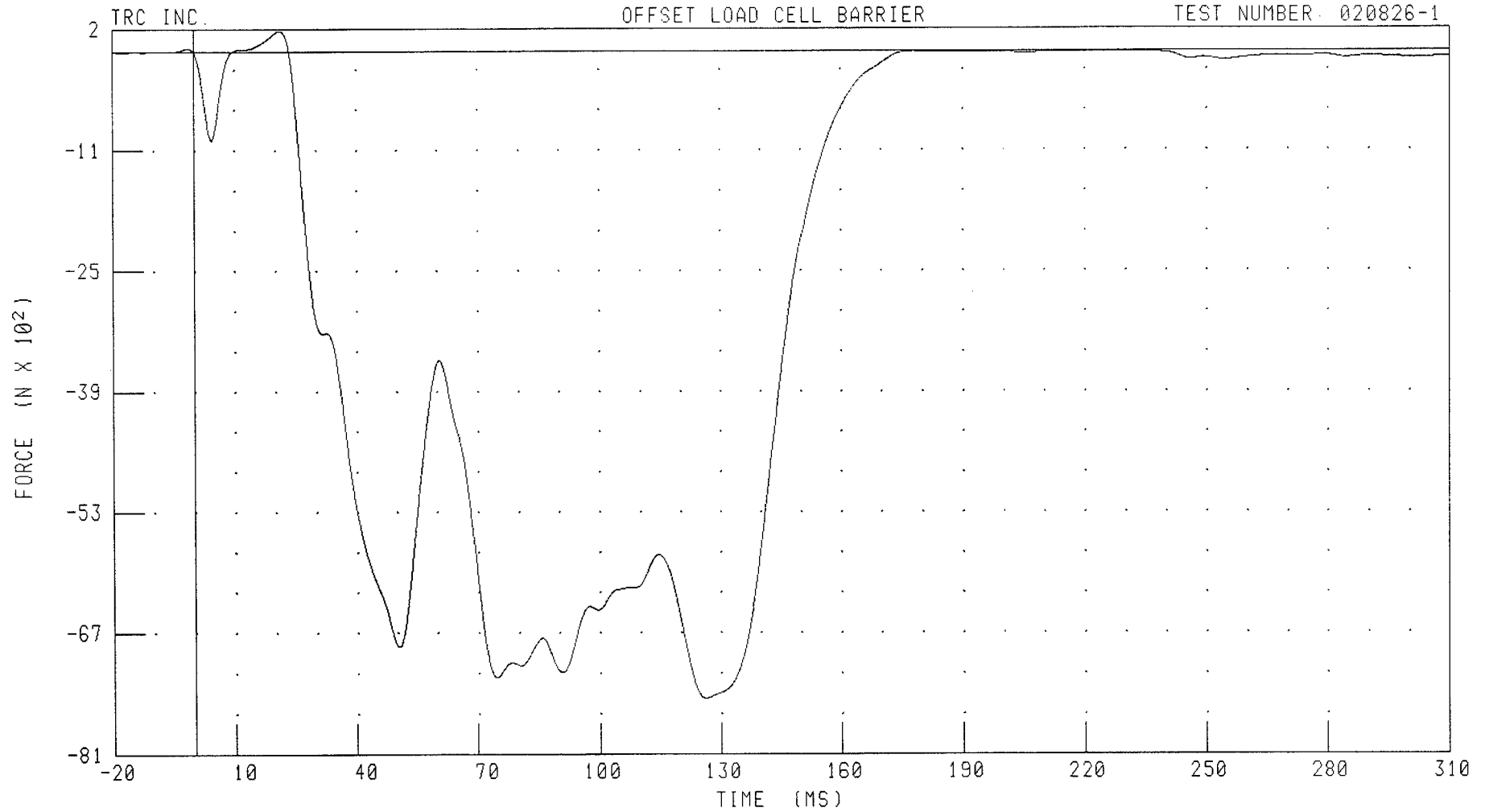
PEAK DATA: 507.73 N @ 23.04 MS; -13431.95 N @ 132.16 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E5 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE5XF FILTER: CH. CLASS 60

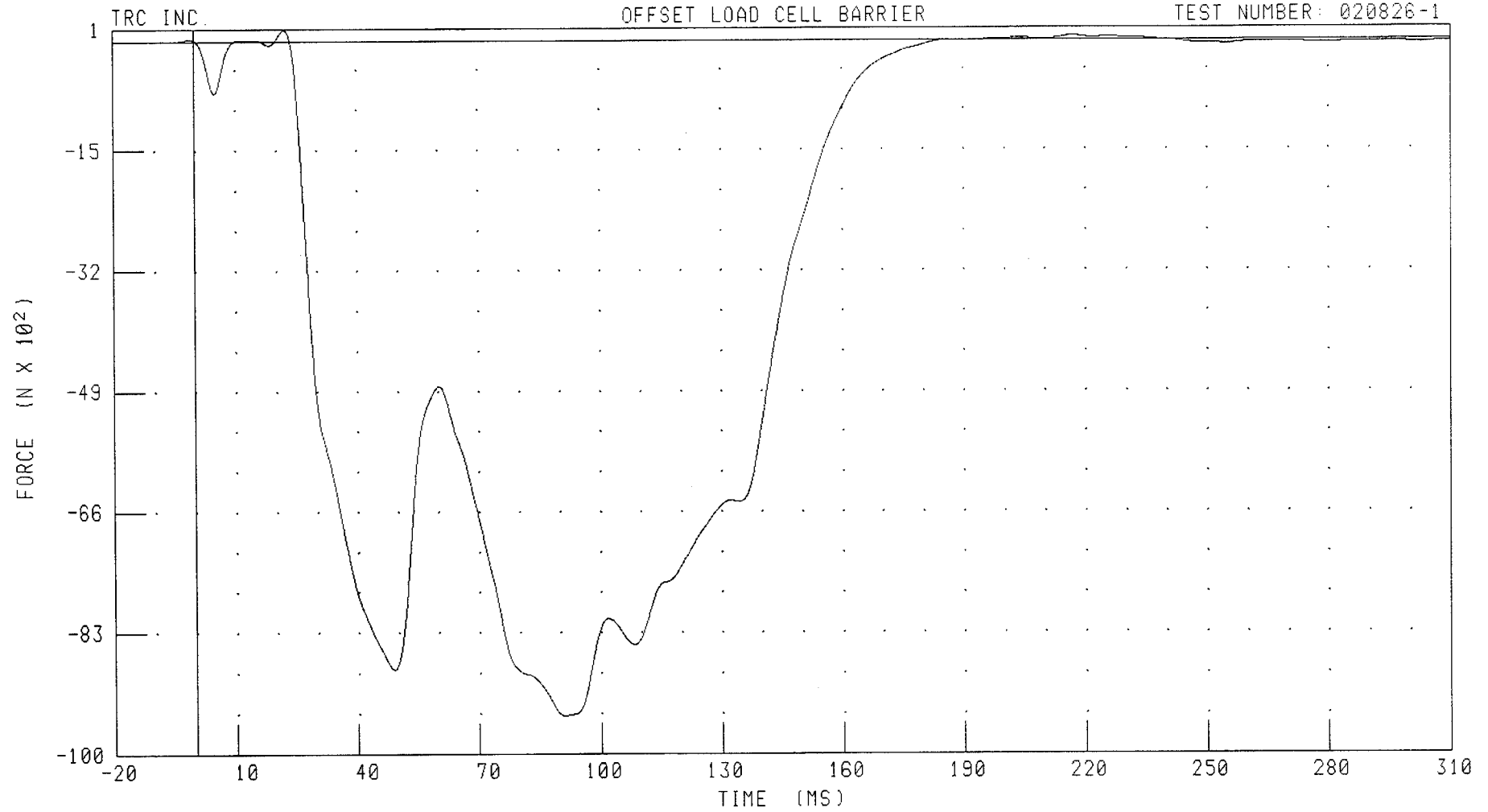
PEAK DATA: 241.21 N @ 21.36 MS; -7500.59 N @ 126.24 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE6XF FILTER: CH. CLASS 60

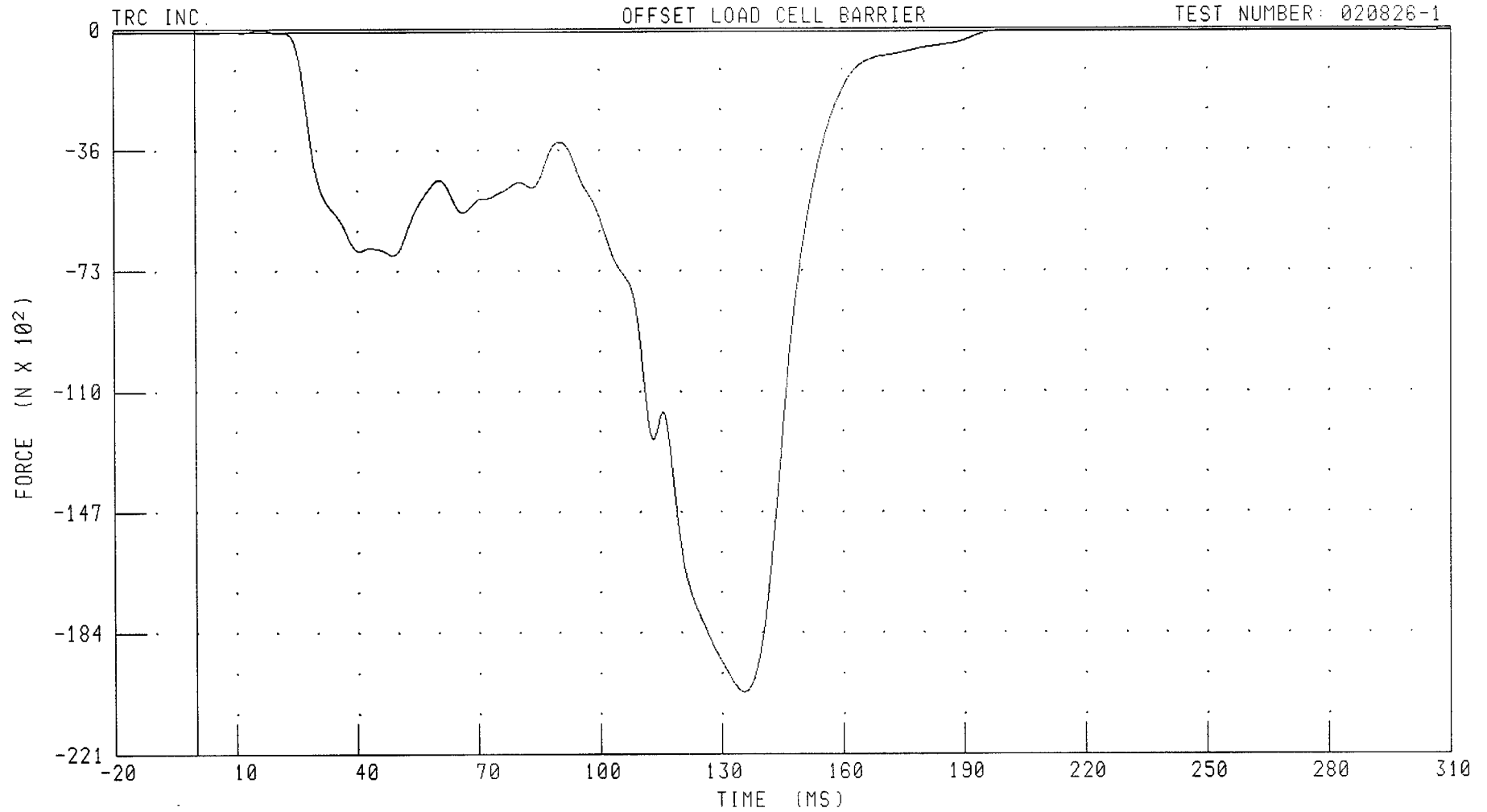
PEAK DATA: 156.04 N @ 22.32 MS, -9498.00 N @ 91.12 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL E7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCE7XF FILTER: CH. CLASS 60

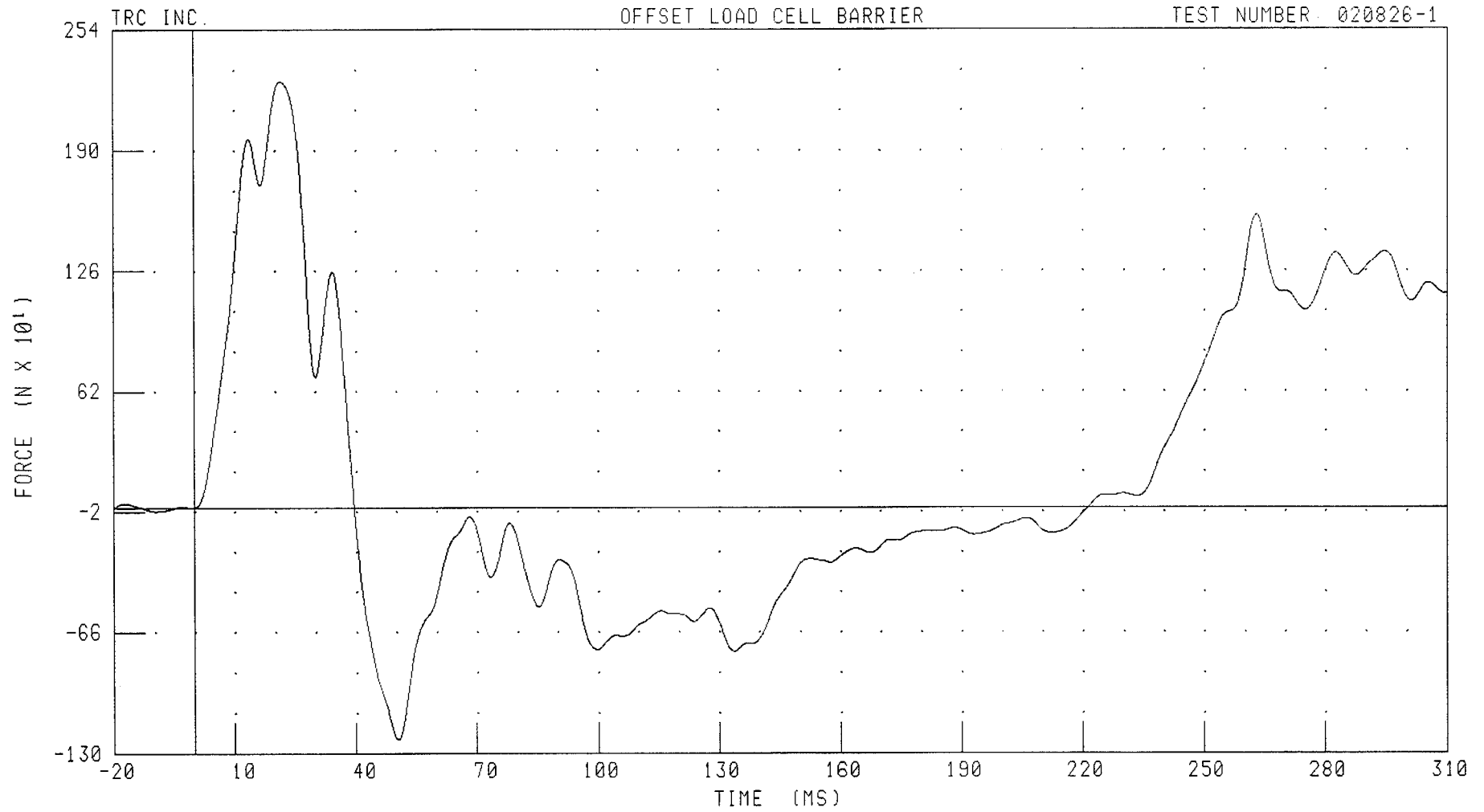
PEAK DATA: 81.05 N @ 16.56 MS; -20222.42 N @ 135.60 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCF1XF FILTER: CH. CLASS 60

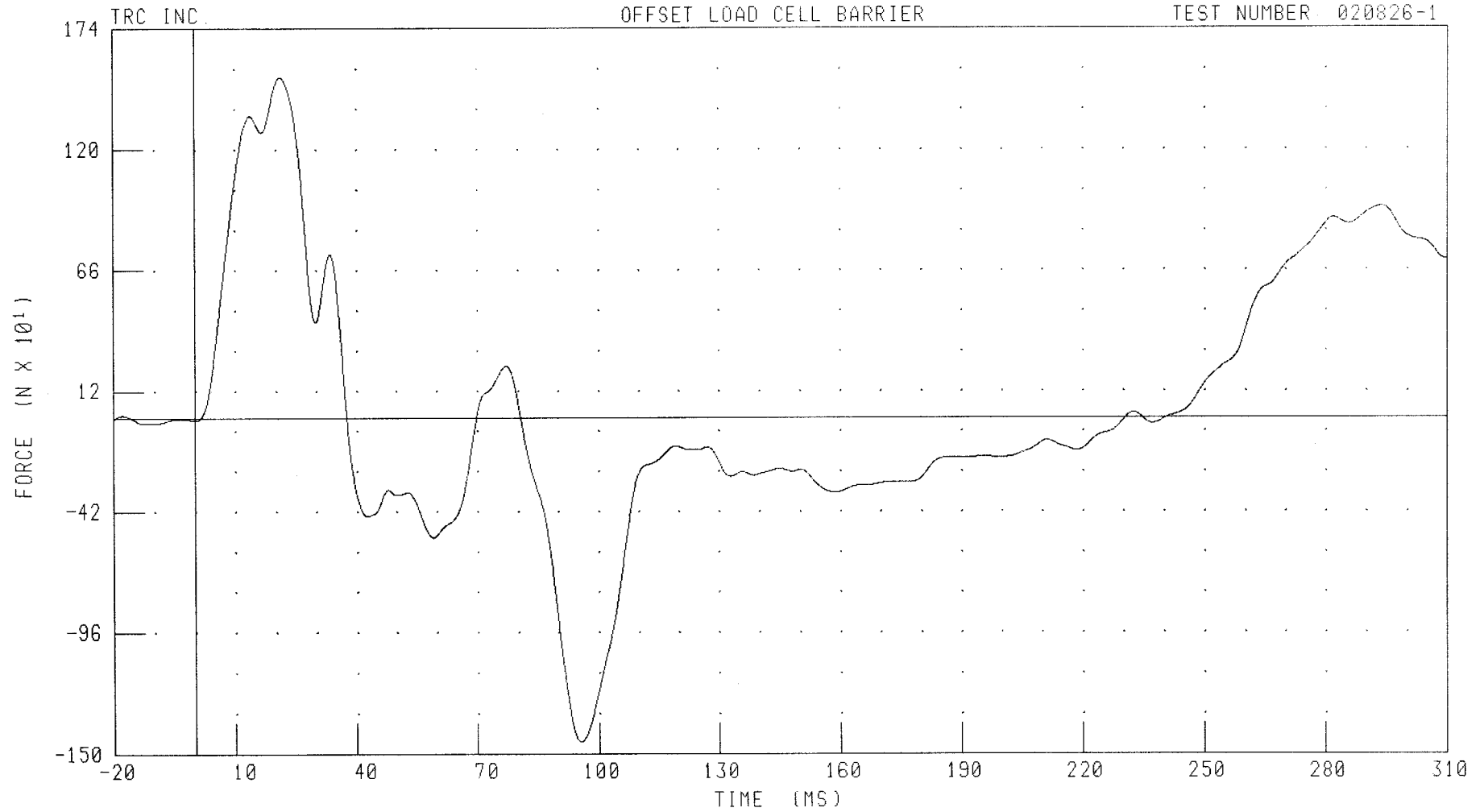
PEAK DATA: 2266.92 N @ 21.52 MS; -1225.90 N @ 50.40 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCF2XF FILTER: CH. CLASS 60

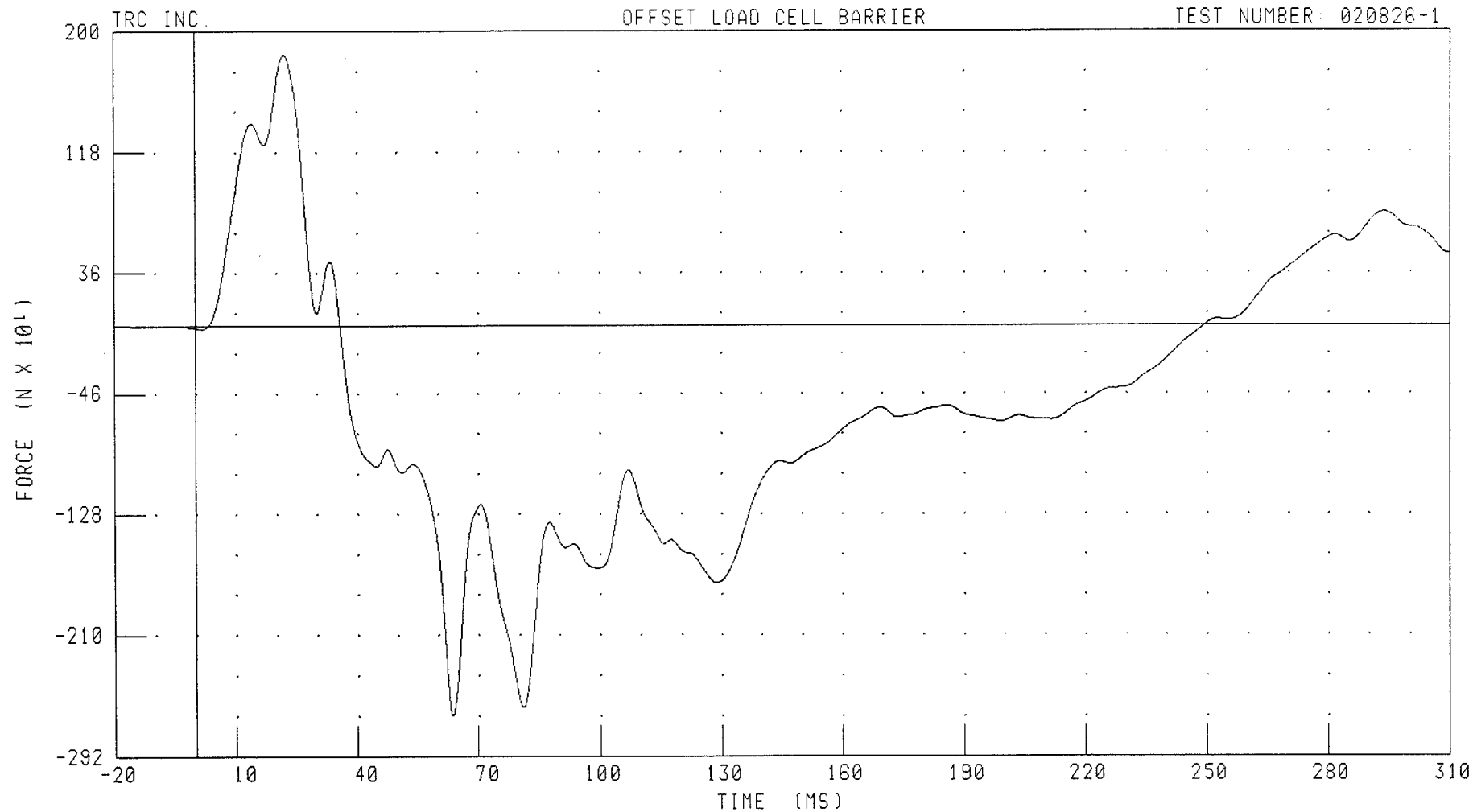
PEAK DATA: 1521.10 N @ 21.20 MS; -1445.57 N @ 95.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCF3XF

FILTER: CH. CLASS 60

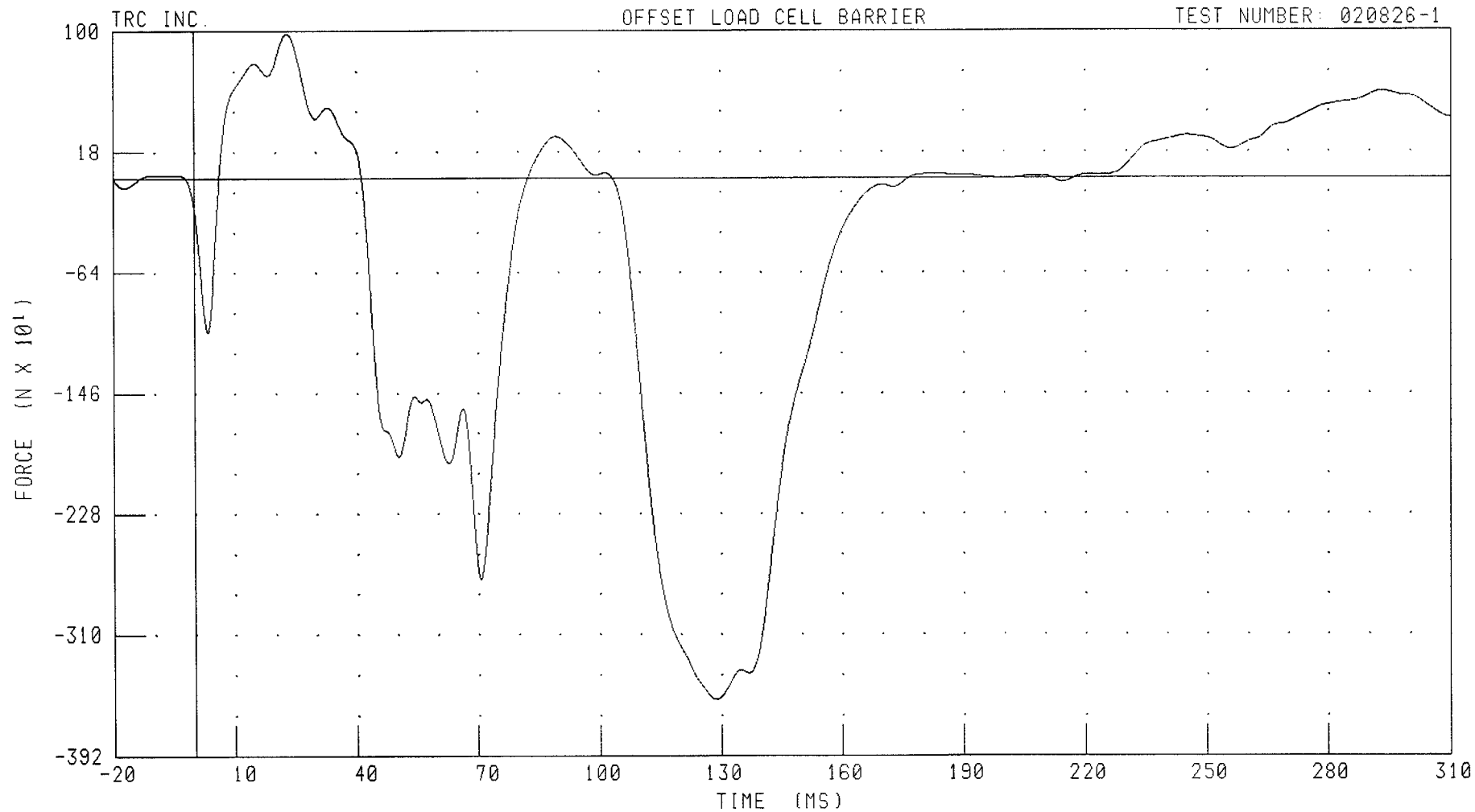
PEAK DATA: 1841.78 N @ 22.16 MS, -2642.89 N @ 63.68 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



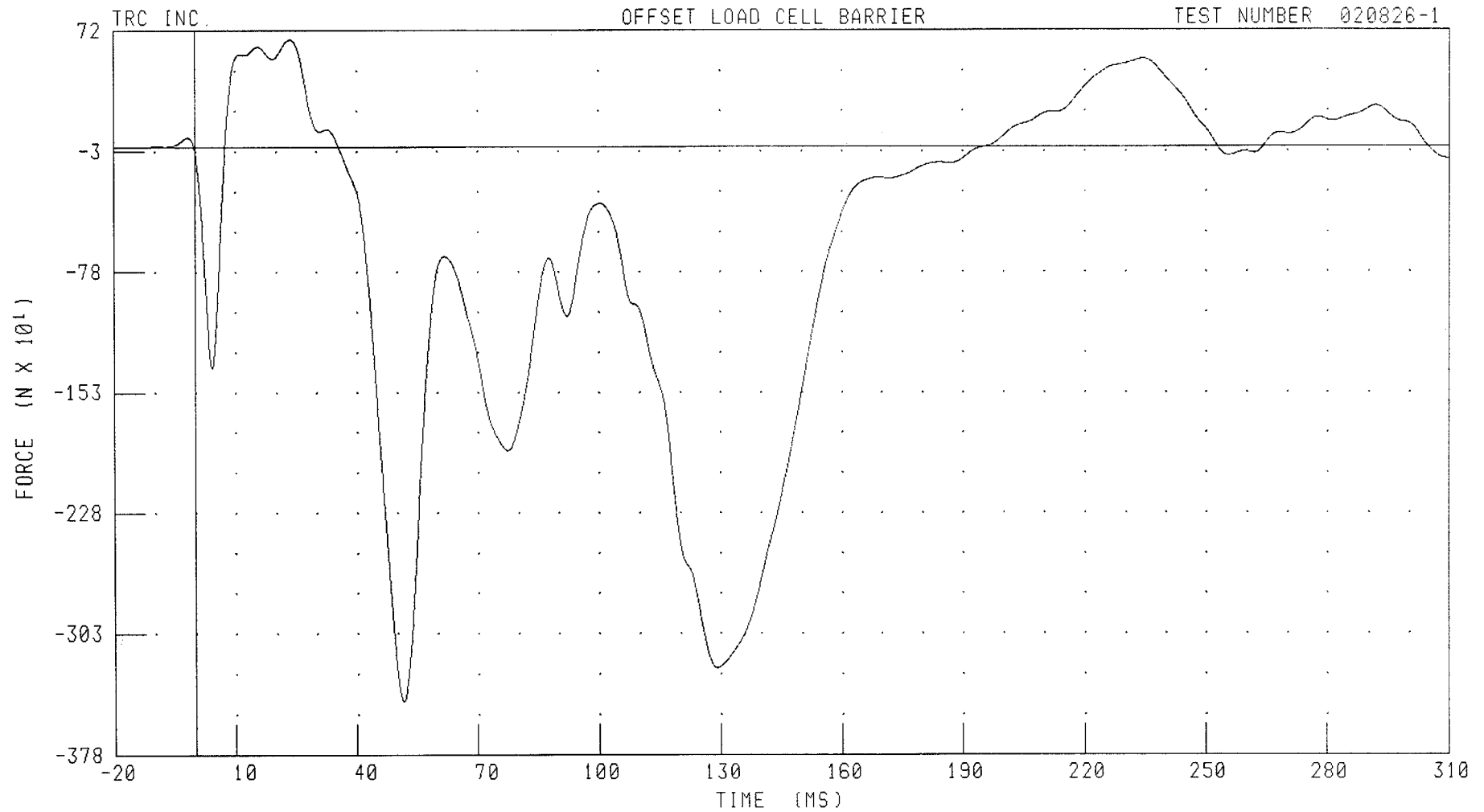
CHANNEL: LCF4XF FILTER: CH. CLASS 60

PEAK DATA: 982.84 N @ 23.04 MS; -3540.98 N @ 128.80 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H
BARRIER LOAD CELL F5 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER 020826-1



CHANNEL: LCF5XF FILTER: CH. CLASS 60

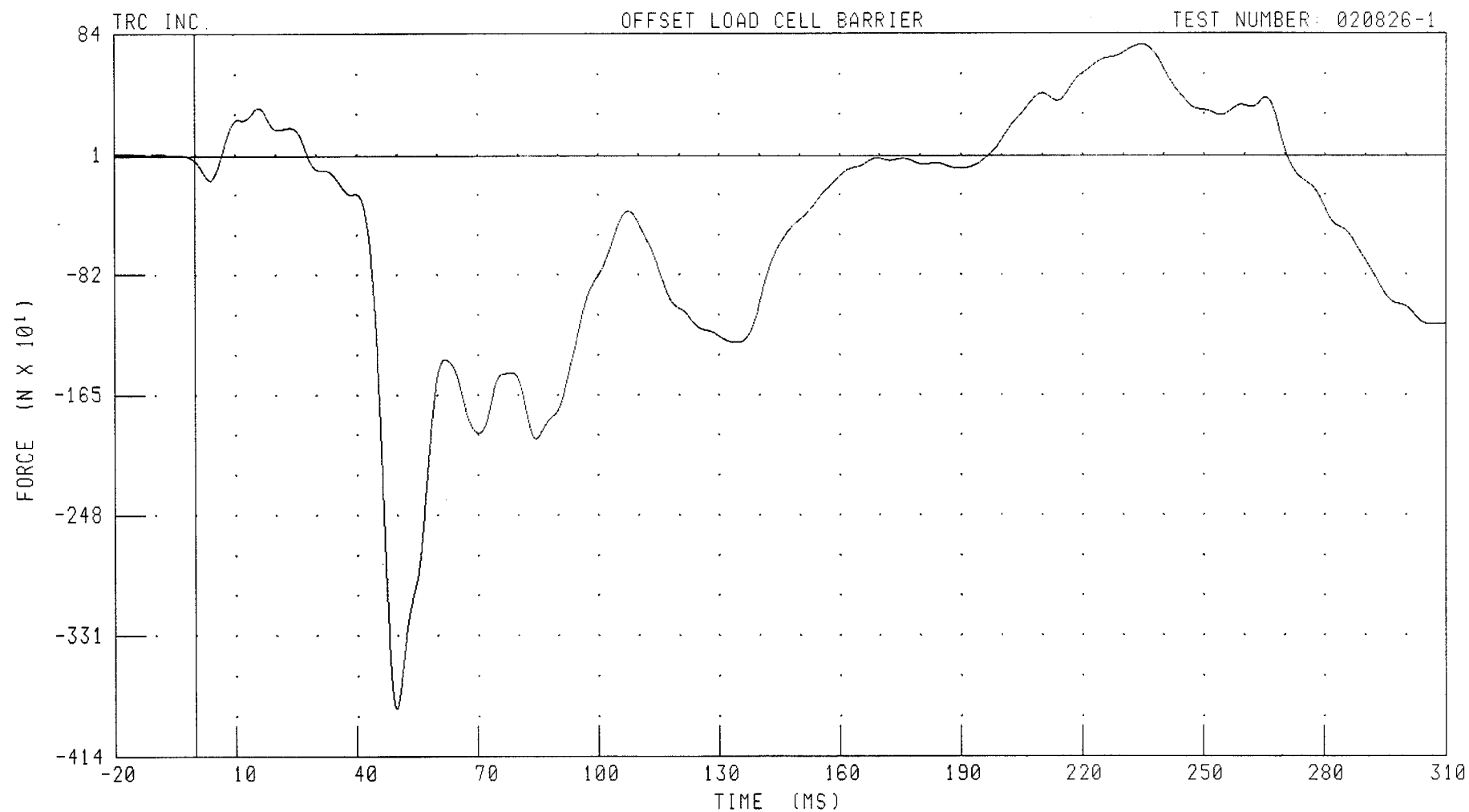
PEAK DATA: 663.50 N @ 23.76 MS; -3451.06 N @ 51.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F6 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCF6XF FILTER: CH. CLASS 60

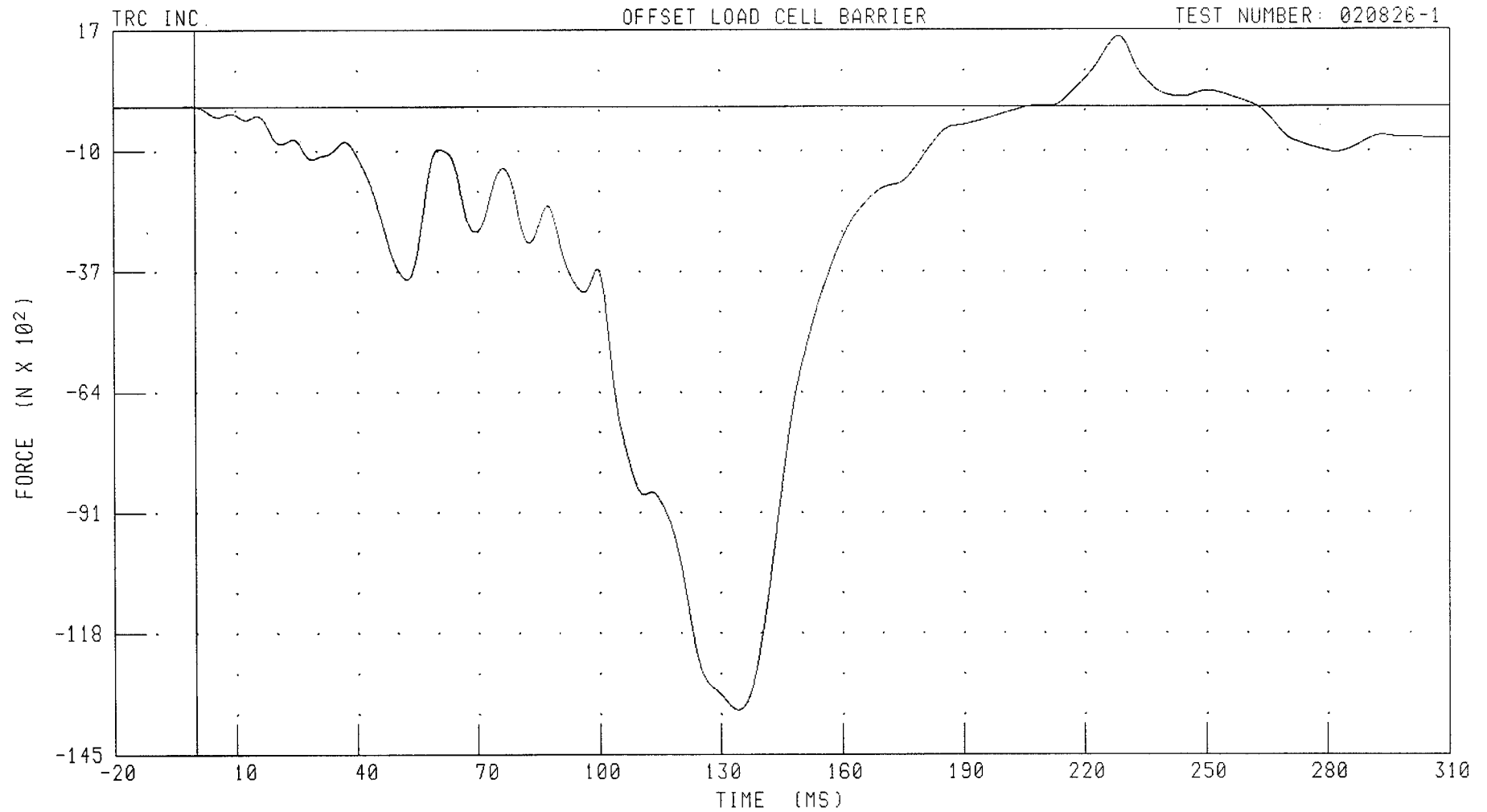
PEAK DATA: 765.09 N @ 234.64 MS; -3813.58 N @ 49.76 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL F7 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCF7XF FILTER: CH. CLASS 60

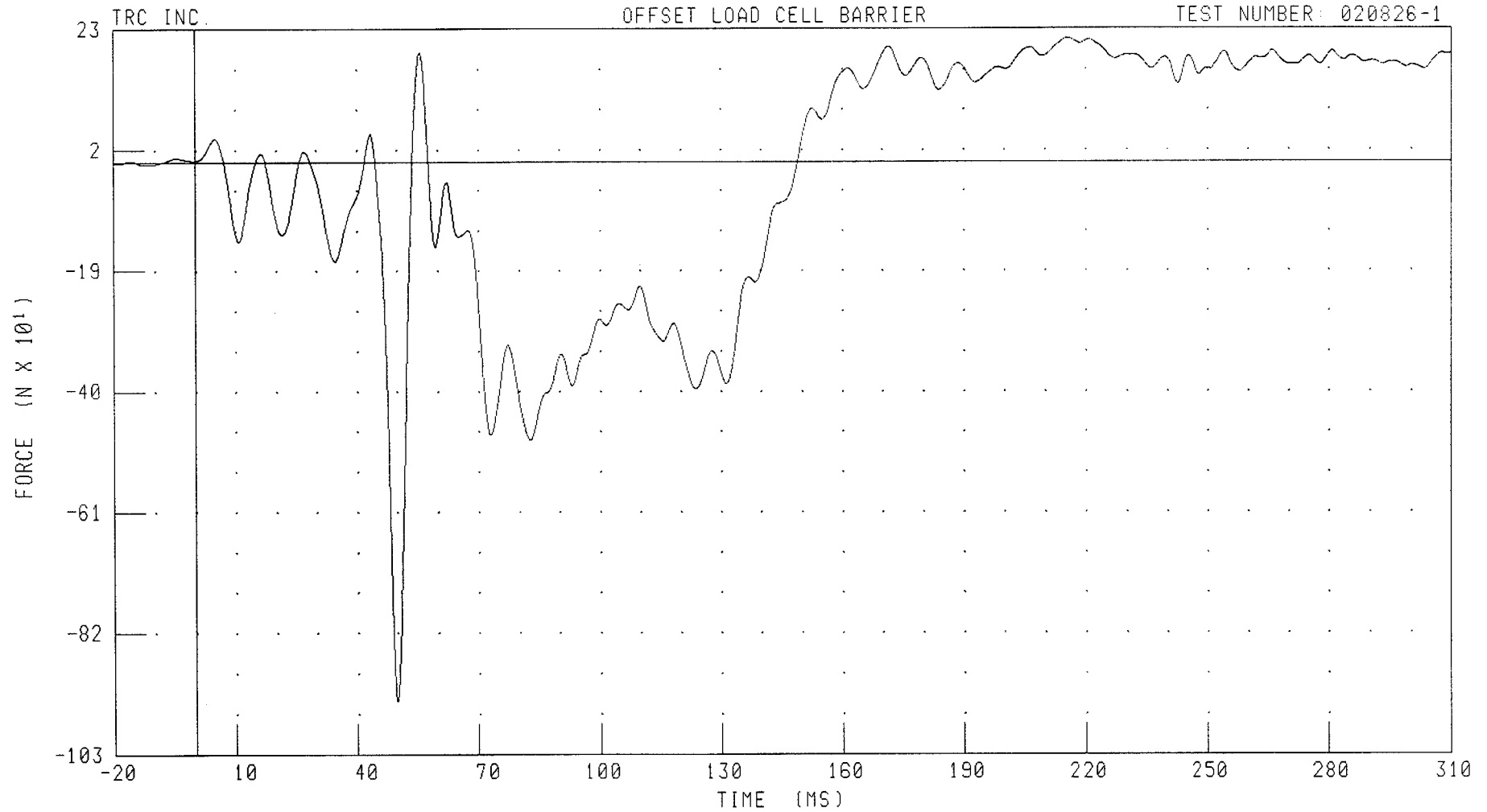
PEAK DATA: 1552.85 N @ 228.40 MS; -13510.78 N @ 134.32 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL G1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



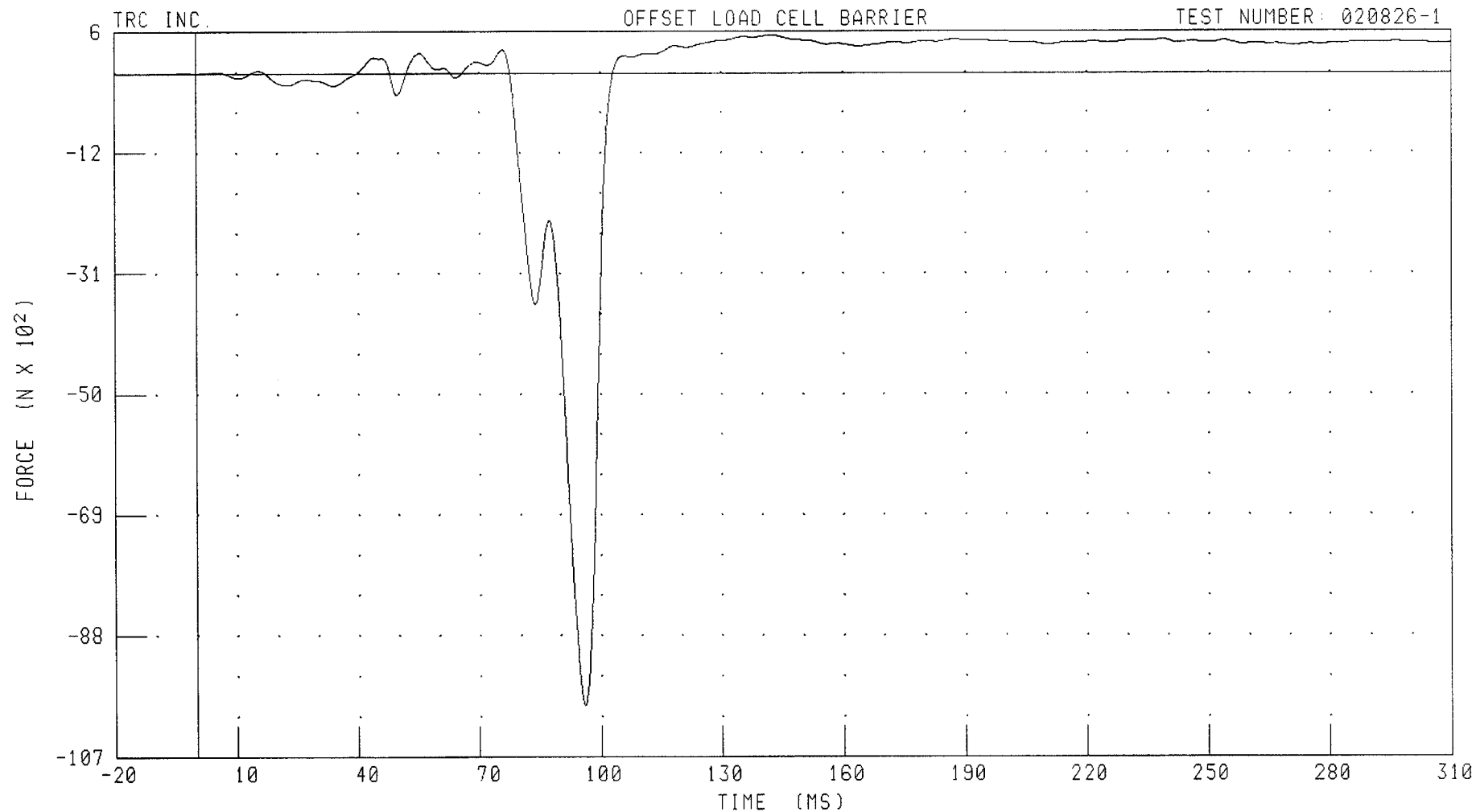
CHANNEL: LCG1XF FILTER: CH. CLASS 60

PEAK DATA: 213.17 N @ 215.76 MS; -938.23 N @ 50.00 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL G2 X-AXIS FORCE

TEST NUMBER: 020826-1



CHANNEL: LCG2XF FILTER: CH. CLASS 60

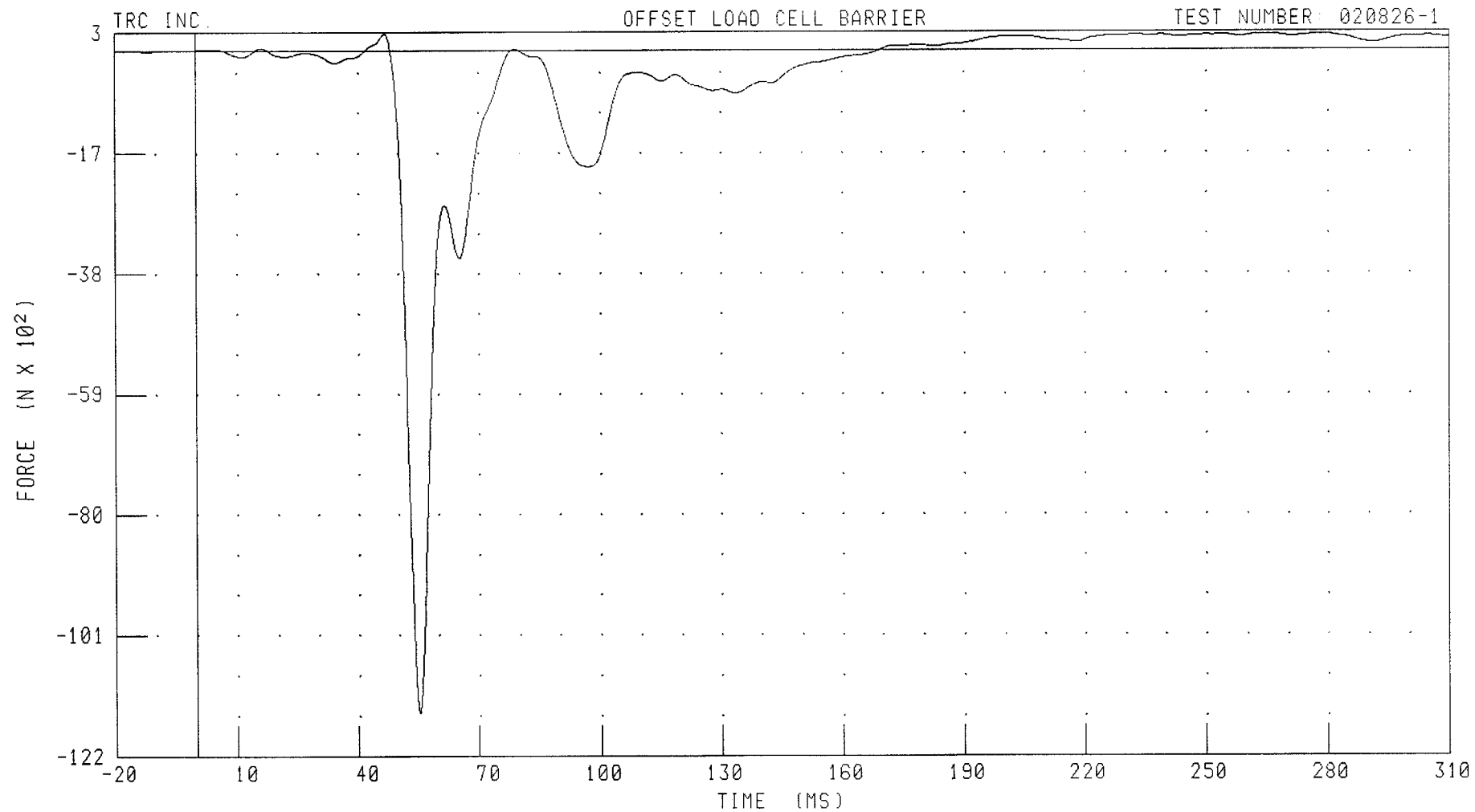
PEAK DATA: 592.37 N @ 142.48 MS, -9955.03 N @ 96.08 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL G3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCG3XF FILTER: CH. CLASS 60

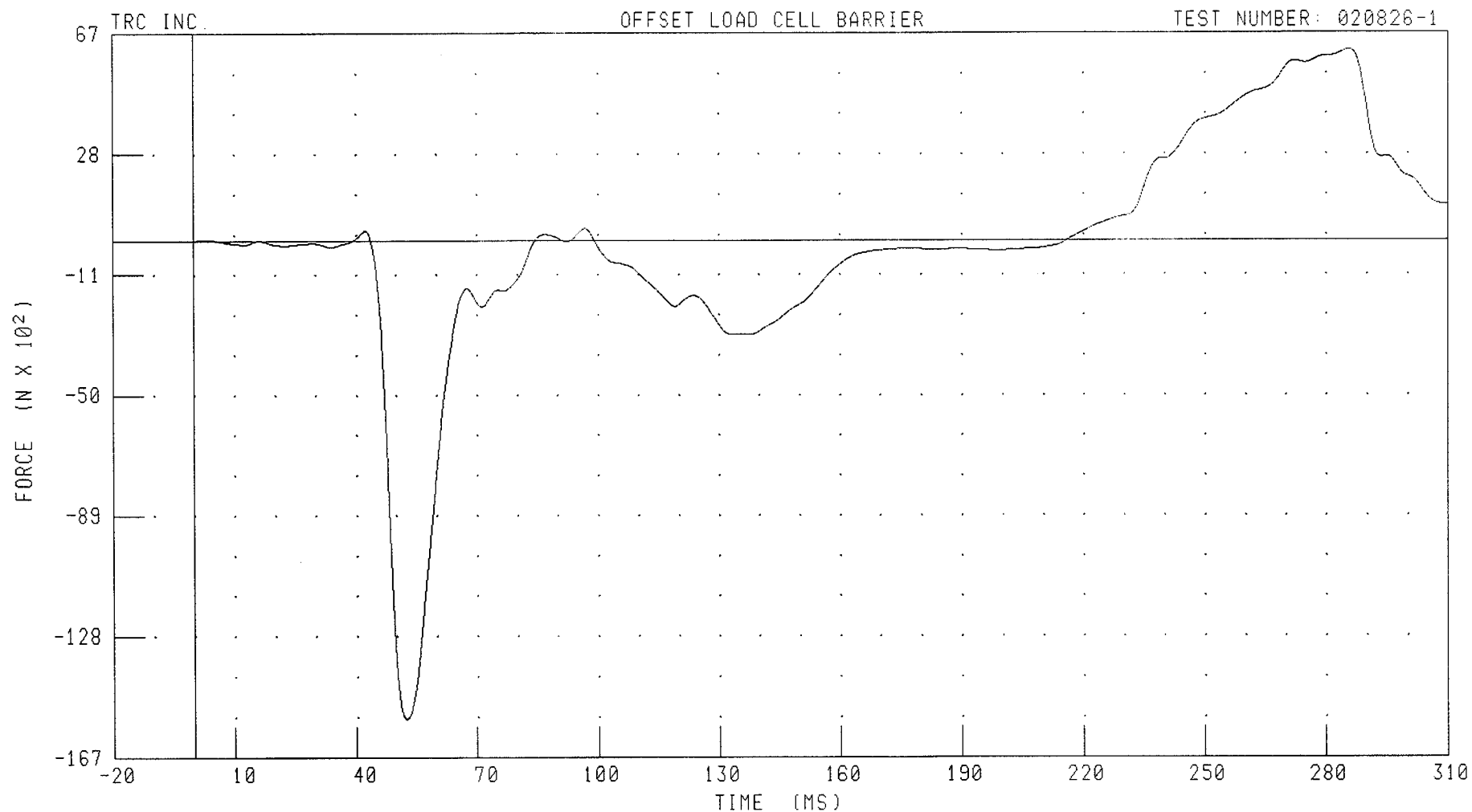
PEAK DATA: 298.32 N @ 46.88 MS; -11539.89 N @ 55.20 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL G4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCG4XF FILTER: CH. CLASS 60

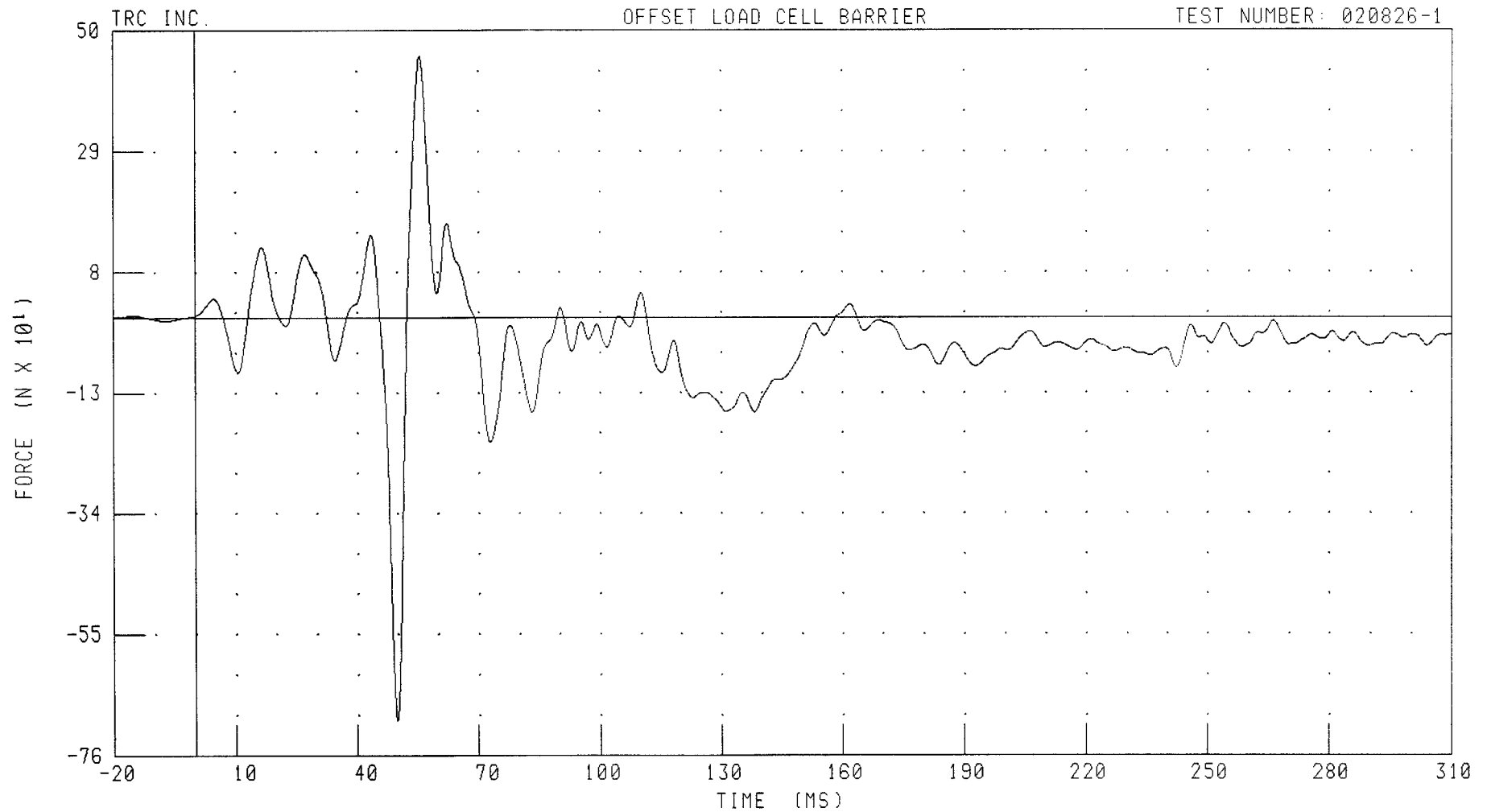
PEAK DATA: 6151.16 N @ 285.76 MS; -15474.54 N @ 52.48 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL H1 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCH1XF FILTER: CH. CLASS 60

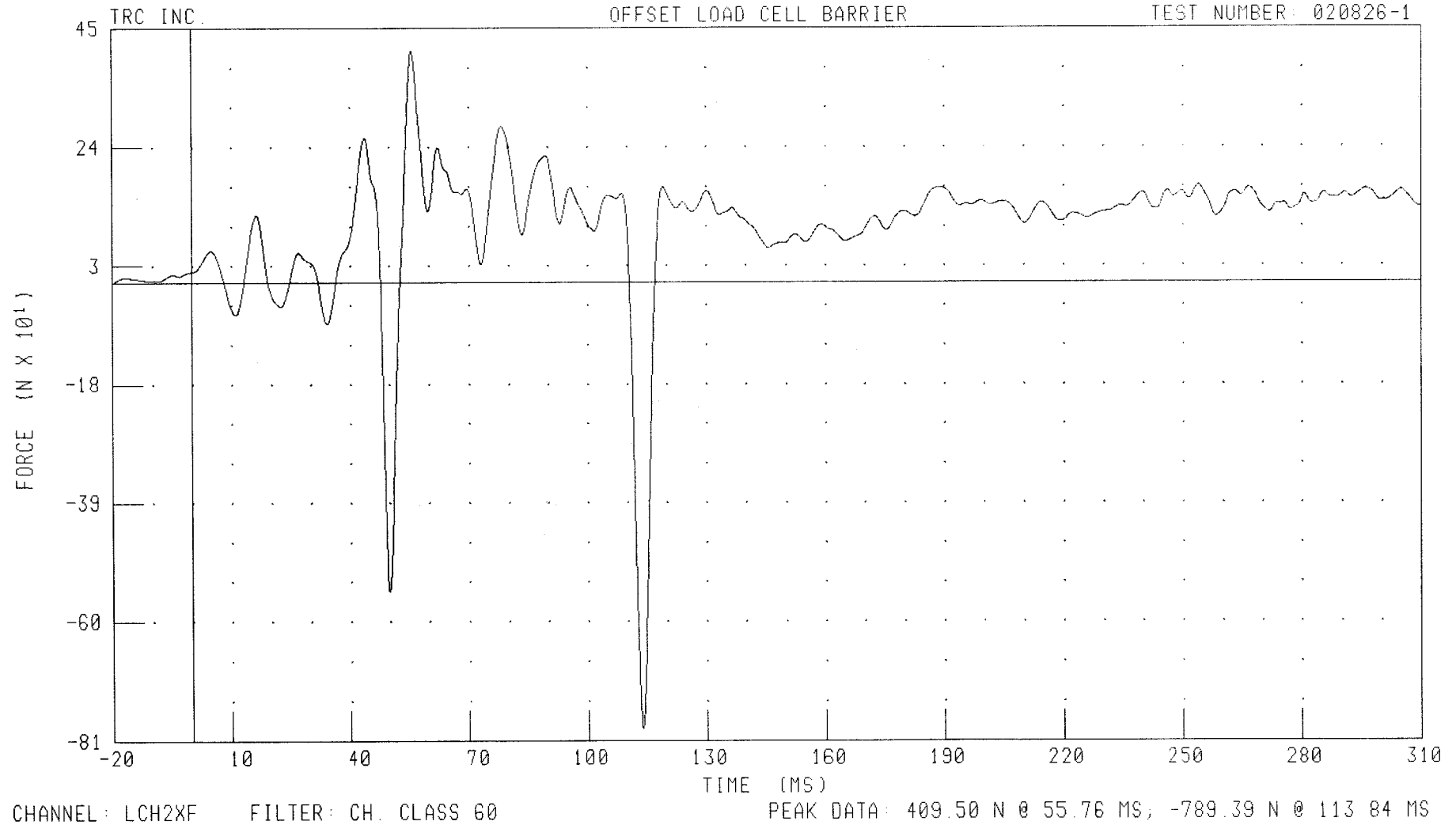
PEAK DATA: 455.15 N @ 55.84 MS, -699.21 N @ 49.92 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL H2 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1

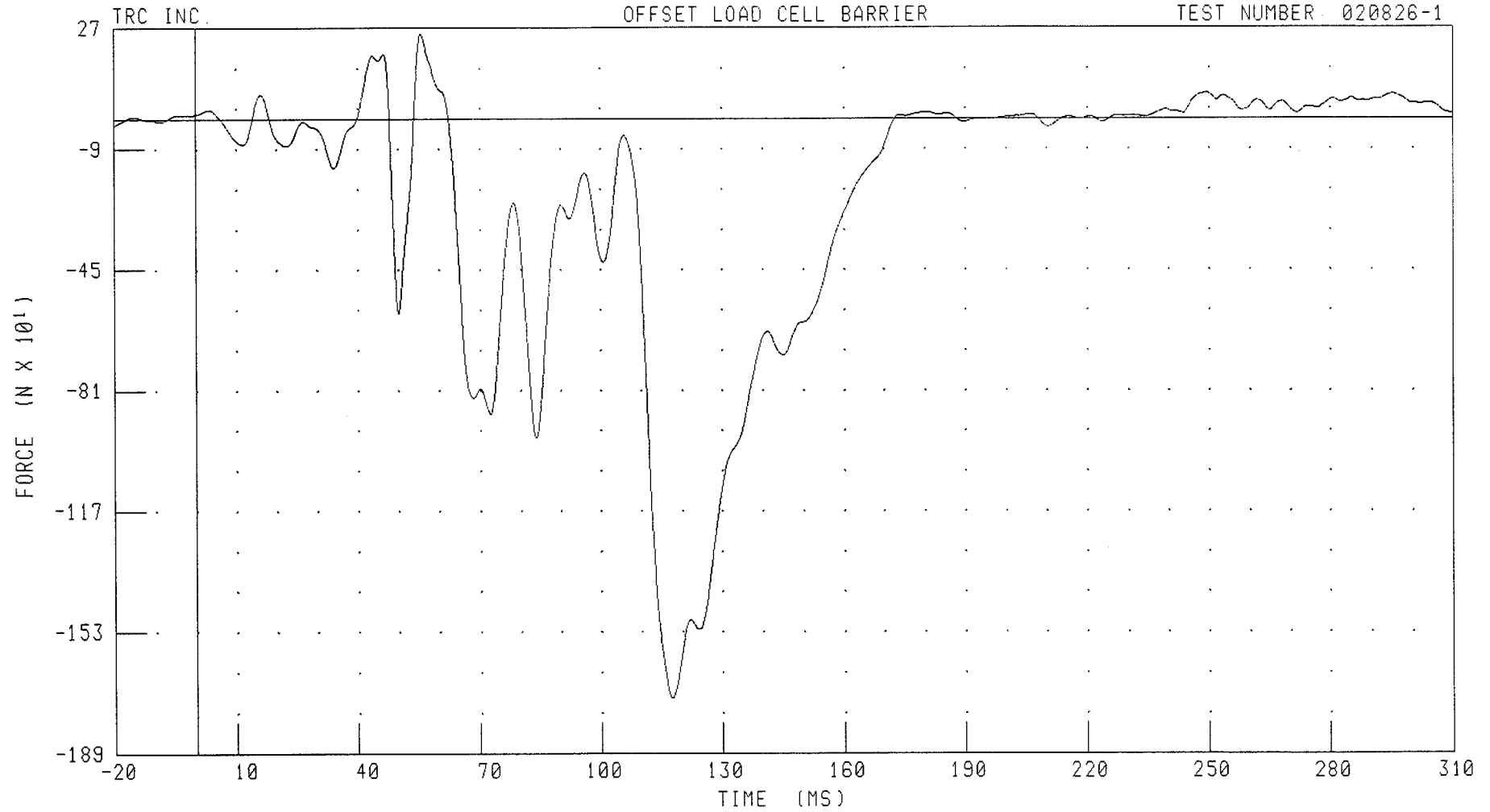


2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL H3 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCH3XF FILTER: CH. CLASS 60

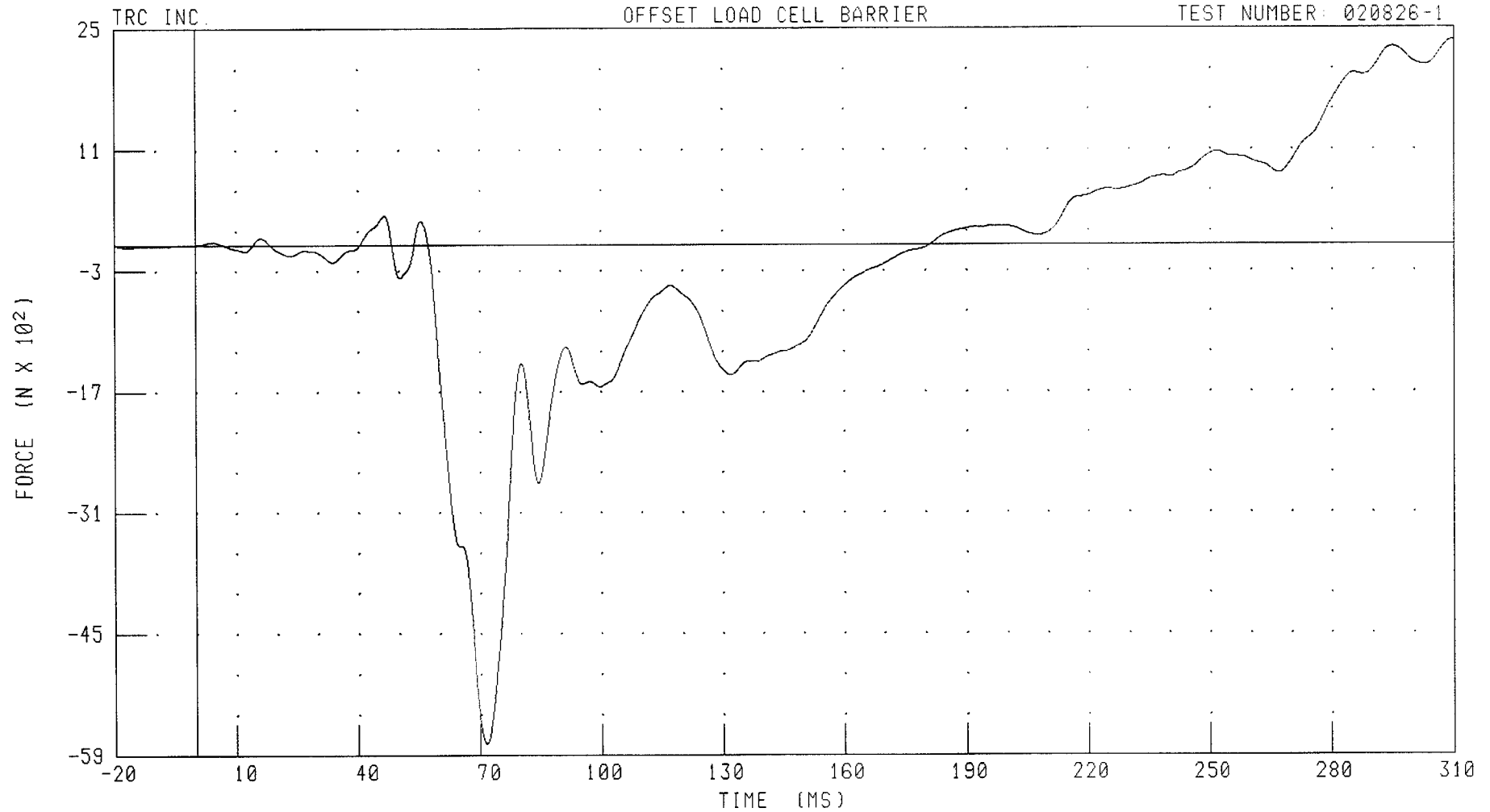
PEAK DATA: 251.47 N @ 55.84 MS; -1726.49 N @ 117.52 MS

2003 LINCOLN NAVIGATOR INTO 40% LEFT OFFSET LOAD CELL BARRIER AT 56 KM/H

BARRIER LOAD CELL H4 X-AXIS FORCE

OFFSET LOAD CELL BARRIER

TEST NUMBER: 020826-1



CHANNEL: LCH4XF FILTER: CH. CLASS 60

PEAK DATA: 2356.51 N @ 309.36 MS; -5767.23 N @ 71.52 MS

Appendix C

Dummy Configuration and Performance Verification Data

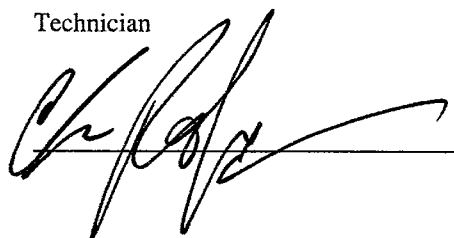
Pre-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 168

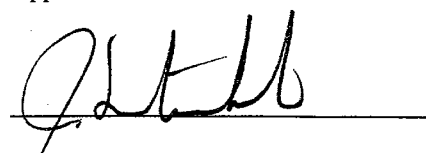
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 168 Calibration No. 16

Test Parameter	Dimension	Specification	Results	Pass
Location For Chest Circumference	AA	429 - 434 mm	432 mm	Yes
Location For Waist Circumference	BB	226 - 231 mm	229 mm	Yes
Chest Circumference	Y	970 - 1001 mm	980 mm	Yes
Waist Circumference	Z	836 - 866 mm	854 mm	Yes
Chest Depth	O	213 - 229 mm	226 mm	Yes
H-Point Height	C	84 - 89 mm	87 mm	Yes
H-Point From Seatback	D	135 - 140 mm	136 mm	Yes
Skull Cap To Backline	H	41 - 46 mm	45 mm	Yes
Total Sitting Height	A	879 - 889 mm	885 mm	Yes
Thigh Clearance	F	140 - 155 mm	151 mm	Yes
Buttock Knee Length	K	579 - 605 mm	599 mm	Yes
Buttock Popliteal Length	N	452 - 478 mm	475 mm	Yes
Popliteal Height	L	429 - 455 mm	446 mm	Yes
Knee Pivot Height	M	485 - 500 mm	491 mm	Yes
Foot Length	P	252 - 267 mm	260 mm	Yes
Foot Breadth	W	91 - 107 mm	96 mm	Yes
Shoulder Pivot From Backline	E	84 - 94 mm	92 mm	Yes
Shoulder Breadth	V	422 - 437 mm	428 mm	Yes
Shoulder Pivot Height	B	506 - 521 mm	519 mm	Yes
Elbow Rest Height	J	191 - 211 mm	208 mm	Yes
Shoulder-Elbow Length	I	330 - 345 mm	338 mm	Yes
Back Of Elbow To Wrist Pivot	G	290 - 305 mm	296 mm	Yes

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

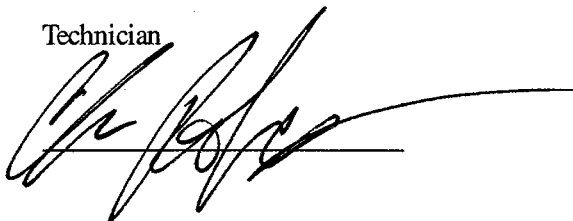
HHH 50th Male Serial No. 168 Calibration No. 16 - 3

Test Date 07/19/2002

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Peak Resultant Acceleration	225 - 275 g	259.9 g	Yes
Peak Lateral Acceleration	15 g Max	-7.5 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

Technician



Approved

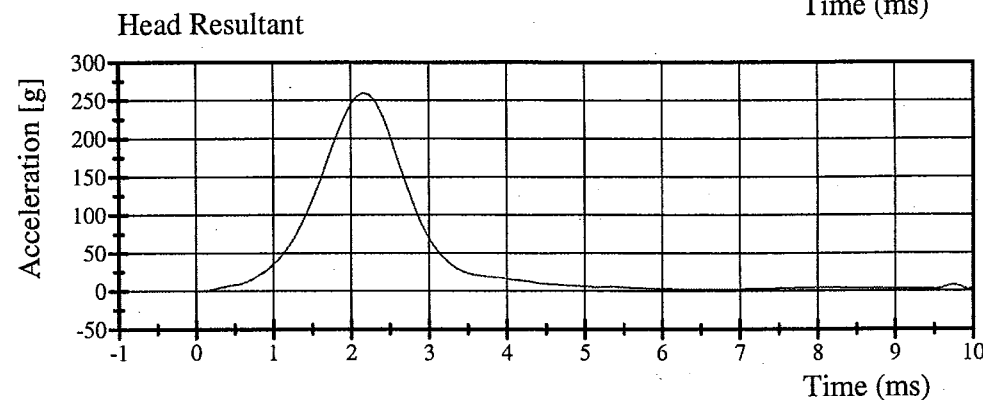
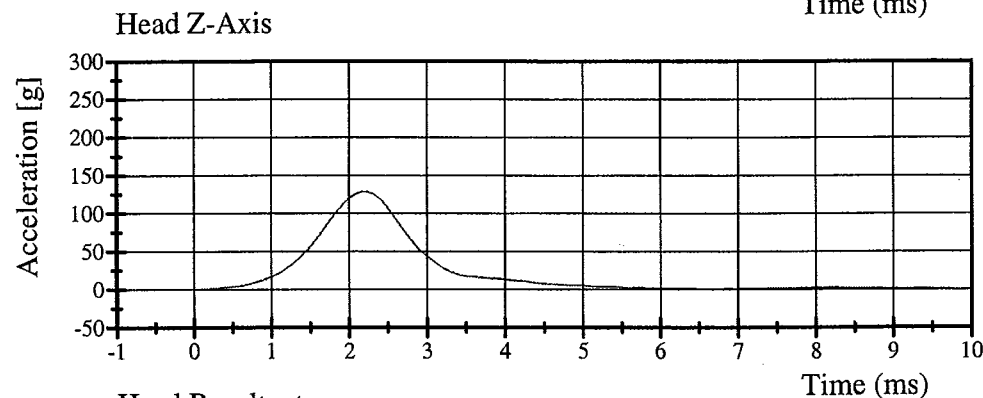
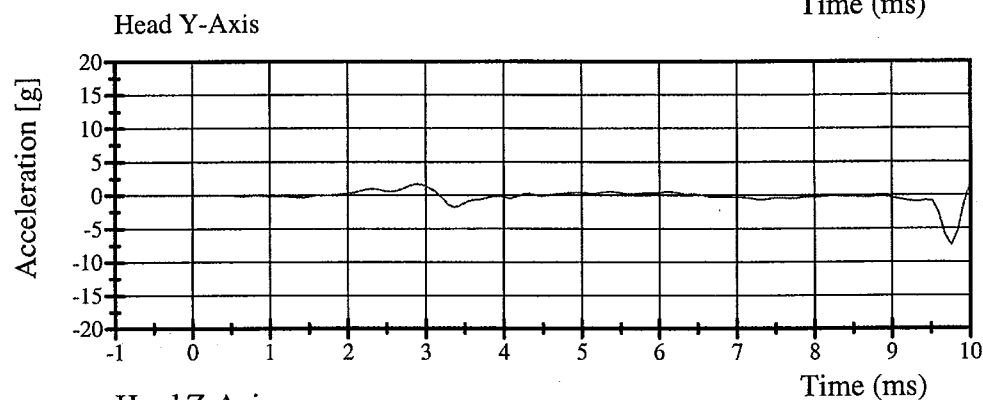
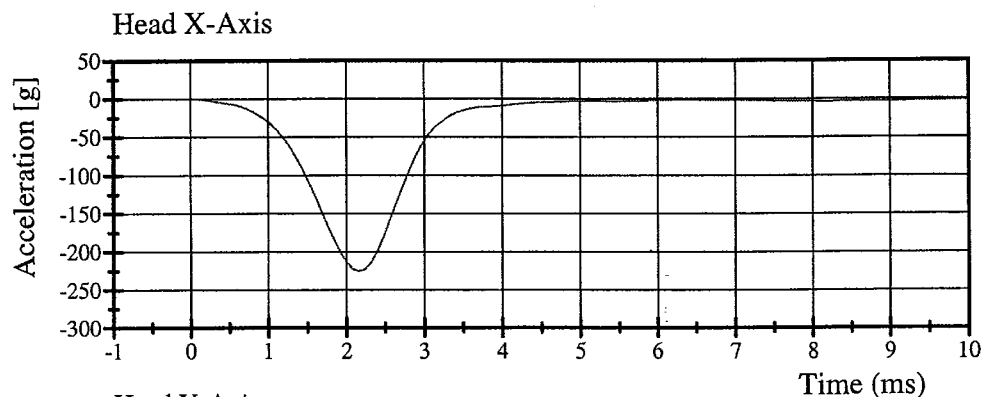


Transportation Research Center Inc.

572E Head Drop Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 3

Test Date 07/19/2002



Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

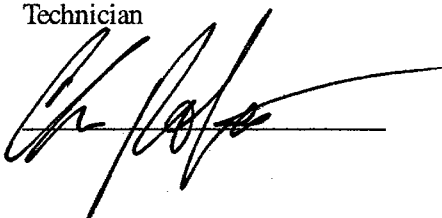
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

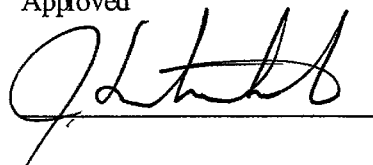
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Impact Velocity	6.89 - 7.13 m/s	7.06 m/s	Yes
Pendulum Deceleration			
10 ms	22.50 - 27.50 g	25.40 g	Yes
20 ms	17.60 - 22.60 g	22.05 g	Yes
30 ms	12.50 - 18.50 g	17.75 g	Yes
Max Pendulum Deceleration	29.00 g	26.01 g	Yes
Max Pendulum Deceleration After 30 ms	29.00 g	17.65 g	Yes
Deceleration-Time Curve Decay Time To 5g	34 - 42 ms	37.04 ms	Yes
D Plane Rotation			
Max	64 - 78 °	65.75 °	Yes
Time	57 - 64 ms	58.96 ms	Yes
Moment About Occipital Condyle			
Max	88.2 - 108.4 N·m	96.59 N·m	Yes
Time	47 - 58 ms	50.40 ms	Yes
Rotation Angle-Time Curve Decay Time To Zero	113 - 128 ms	116.24 ms	Yes
Positive Moment-Time Curve Decay Time To Zero	97 - 107 ms	100.48 ms	Yes

Comments:

Technician



Approved



07.18.2002 13:12:12 480



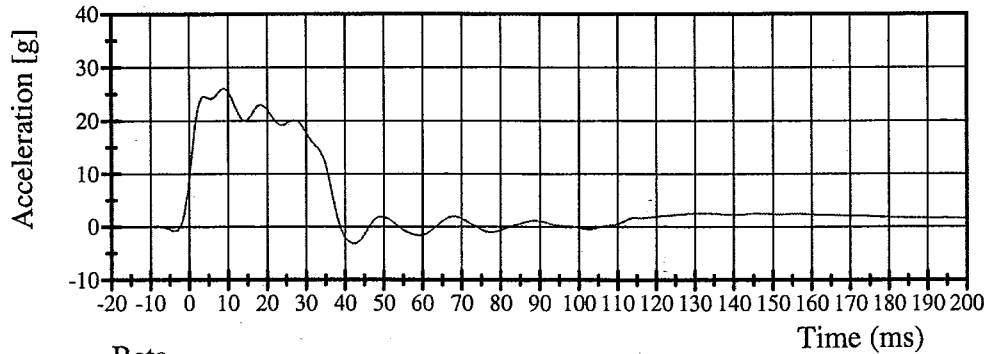
Transportation Research Center Inc.

572E Neck Flexion Test

HIH 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

Pendulum Deceleration

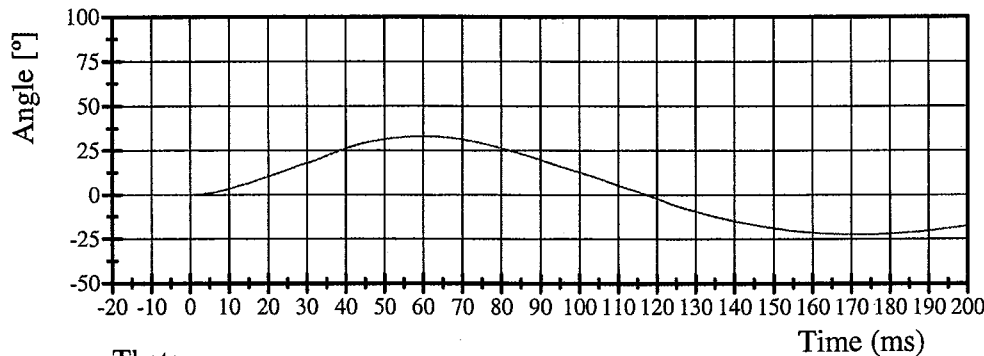


Filter Class: 60

Max: 26.0 g at 8.9 ms

Min: -3.1 g at 42.3 ms

Beta

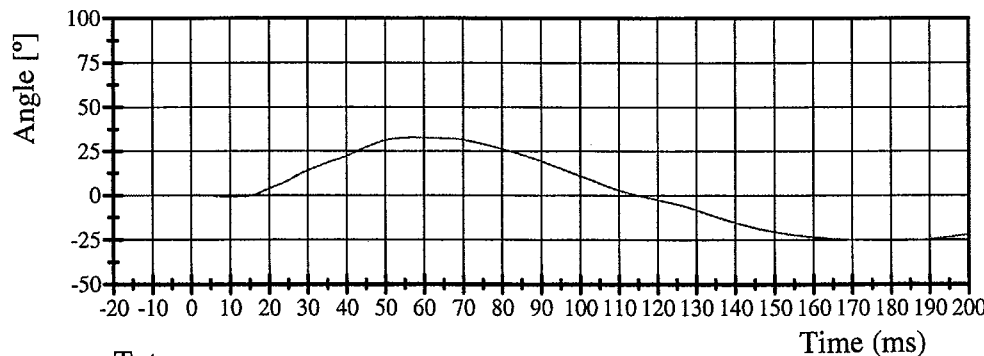


Filter Class: 60

Max: 33.0 ° at 60.3 ms

Min: -22.3 ° at 171.1 ms

Theta

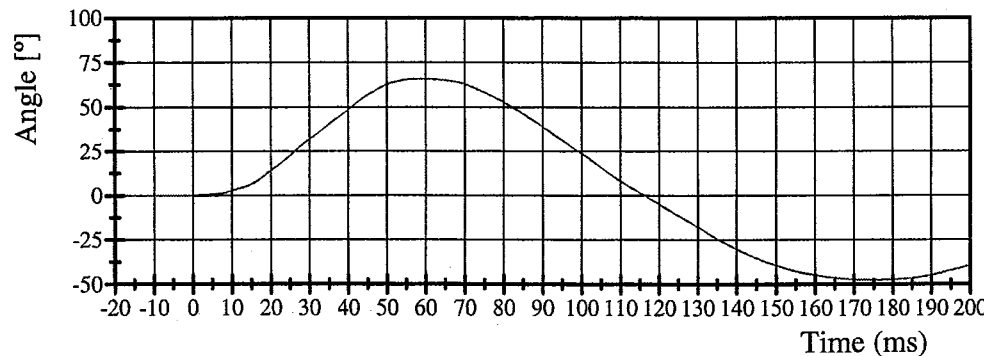


Filter Class: 60

Max: 32.8 ° at 57.0 ms

Min: -25.3 ° at 179.4 ms

Totan



Filter Class: 60

Max: 65.8 ° at 59.0 ms

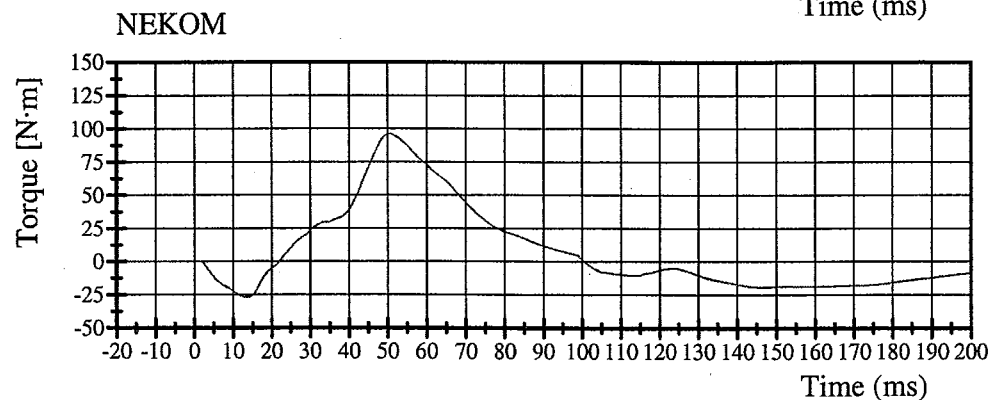
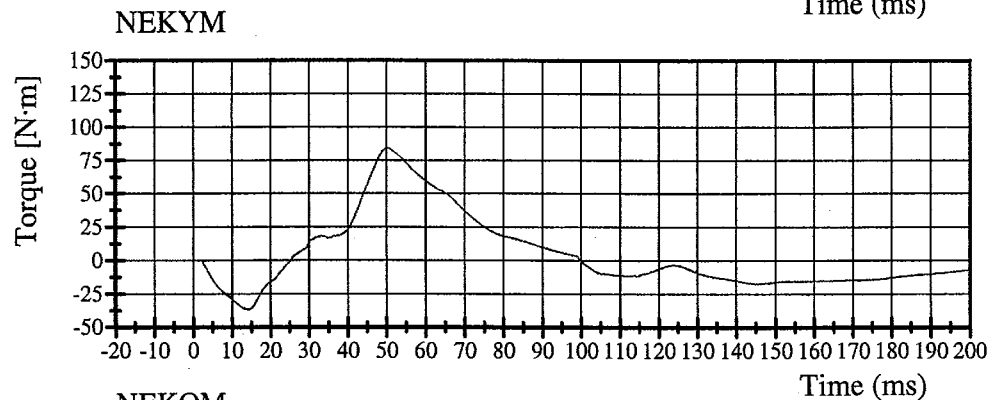
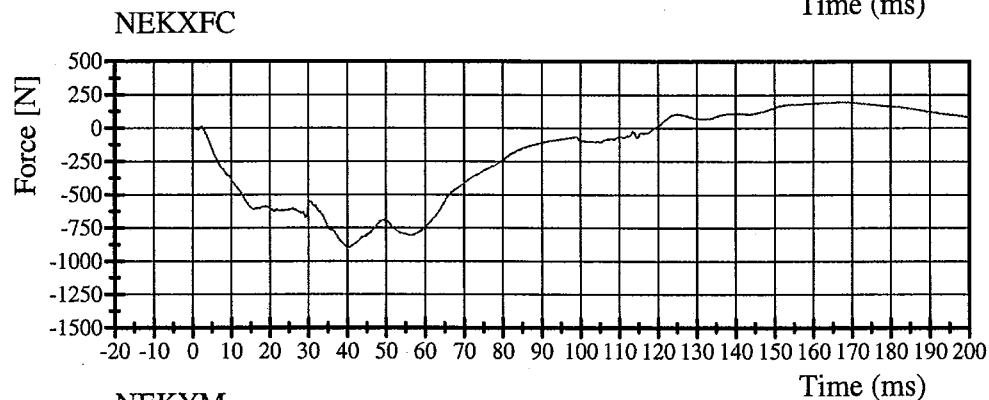
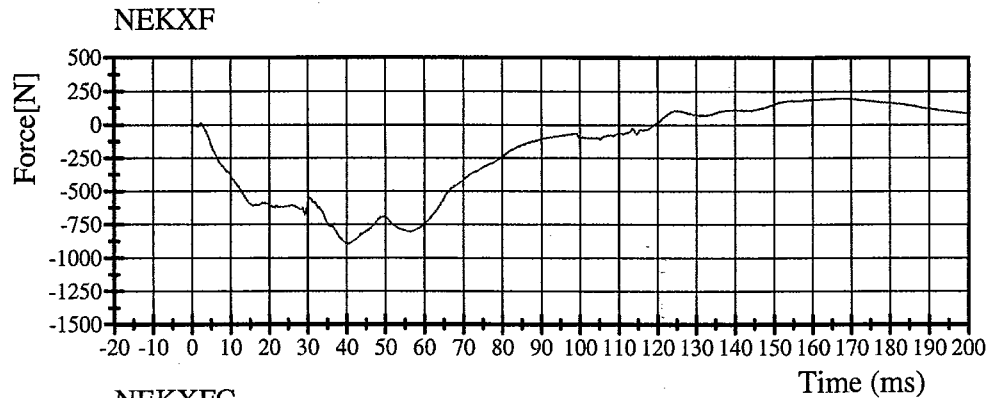
Min: -47.6 ° at 175.7 ms

Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002



Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

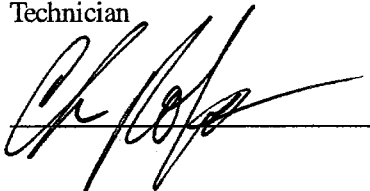
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

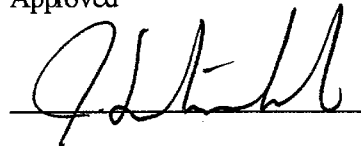
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Impact Velocity	5.95 - 6.19 m/s	6.11 m/s	Yes
Pendulum Deceleration			
10 ms	17.20 - 21.20 g	20.82 g	Yes
20 ms	14.00 - 19.00 g	18.90 g	Yes
30 ms	11.00 - 16.00 g	14.99 g	Yes
Max Pendulum Deceleration	22.00 g	21.01 g	Yes
Max Pendulum Deceleration After 30 ms	22.00 g	14.91 g	Yes
Deceleration-Time Curve Decay Time To 5g	38 - 46 ms	39.60 ms	Yes
D Plane Rotation			
Max	81 - 106 °	94.61 °	Yes
Time	72 - 82 ms	76.40 ms	Yes
Moment About Occipital Condyle			
Min	-80.0 - (-52.9) N·m	-65.45 N·m	Yes
Time	65 - 79 ms	71.76 ms	Yes
Rotation Angle-Time Curve Decay Time To Zero	147 - 174 ms	154.72 ms	Yes
Positive Moment-Time Curve Decay Time To Zero	120 - 148 ms	142.08 ms	Yes

Comments:

Technician



Approved



07.18.2002 13:45:41 552



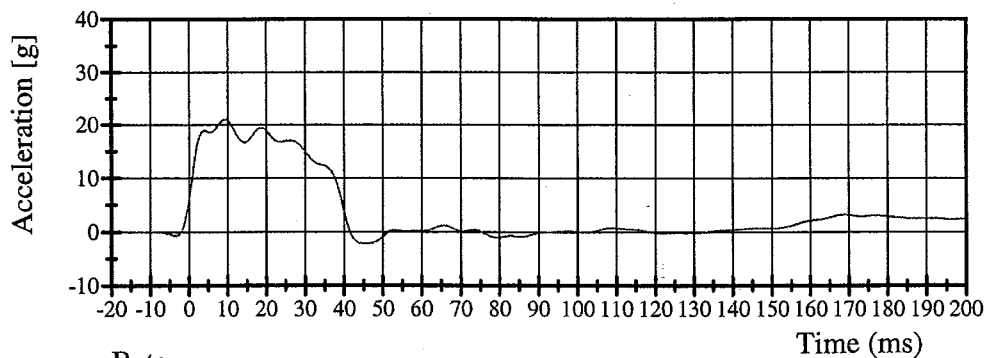
Transportation Research Center Inc.

572E Neck Extension Test

HHH 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

Pendulum Deceleration

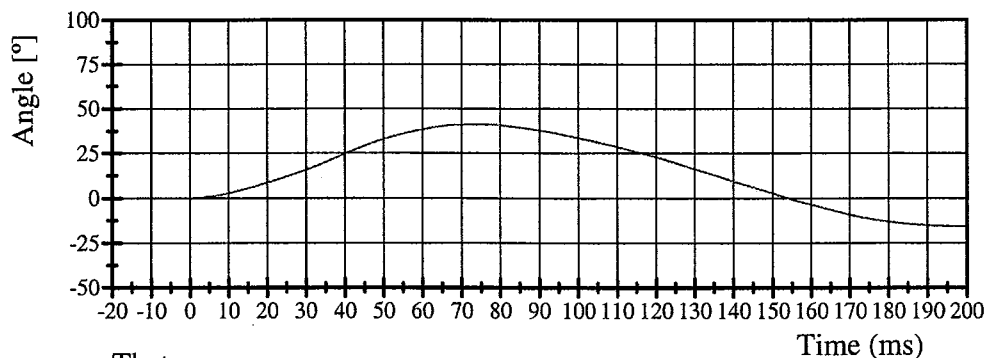


Filter Class: 60

Max: 21.0 g at 9.4 ms

Min: -2.1 g at 45.3 ms

Beta

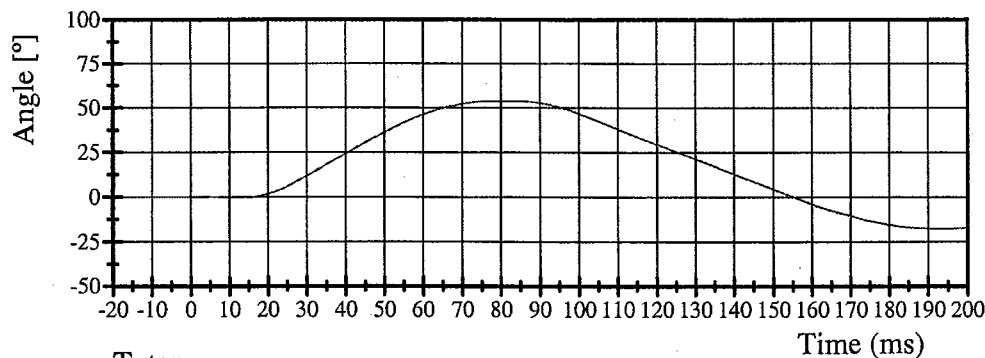


Filter Class: 60

Max: 41.1 ° at 73.7 ms

Min: -15.5 ° at 197.4 ms

Theta

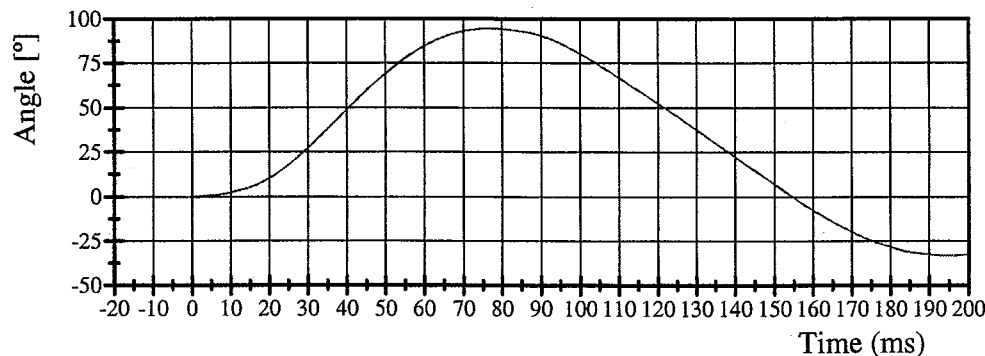


Filter Class: 60

Max: 53.7 ° at 78.6 ms

Min: -17.6 ° at 192.8 ms

Totan



Filter Class: 60

Max: 94.6 ° at 76.4 ms

Min: -33.0 ° at 194.4 ms

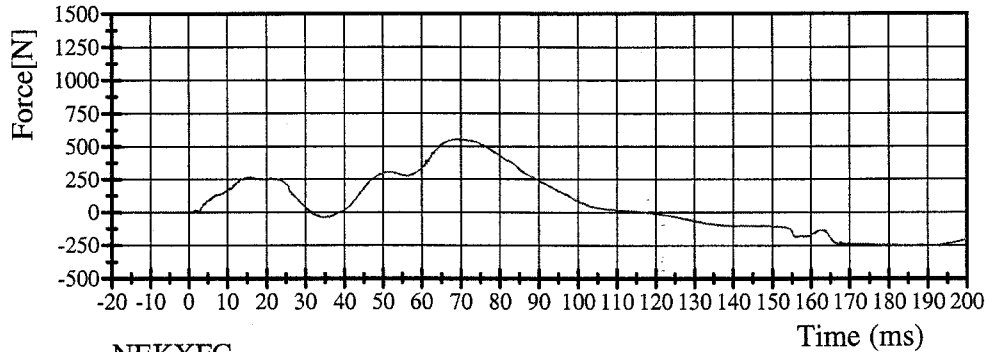
Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/18/2002

NEKXF

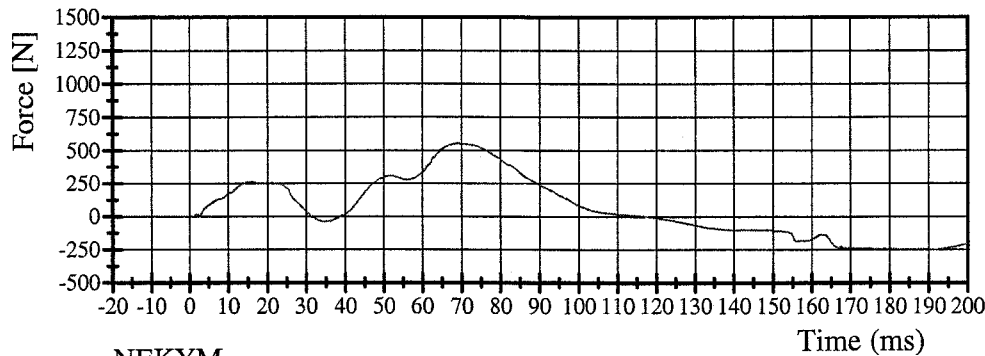


Filter Class: 1000

Max: 555.4 N at 69.3 ms

Min: -251.6 N at 190.9 ms

NEKXFC

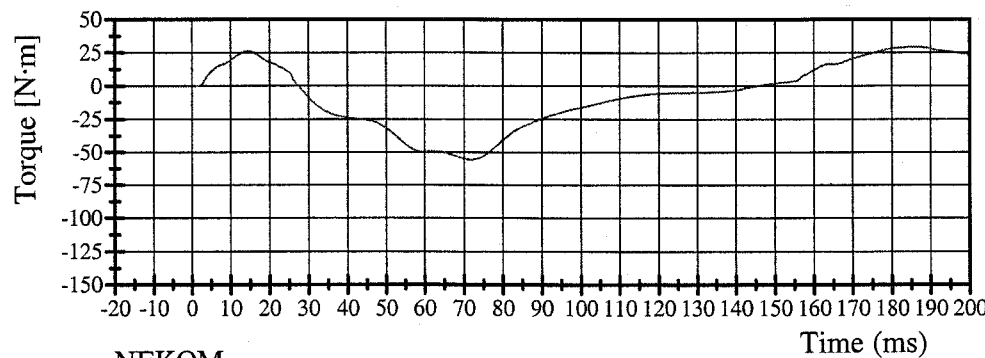


Filter Class: 600

Max: 554.6 N at 69.2 ms

Min: -251.5 N at 191.6 ms

NEKYM

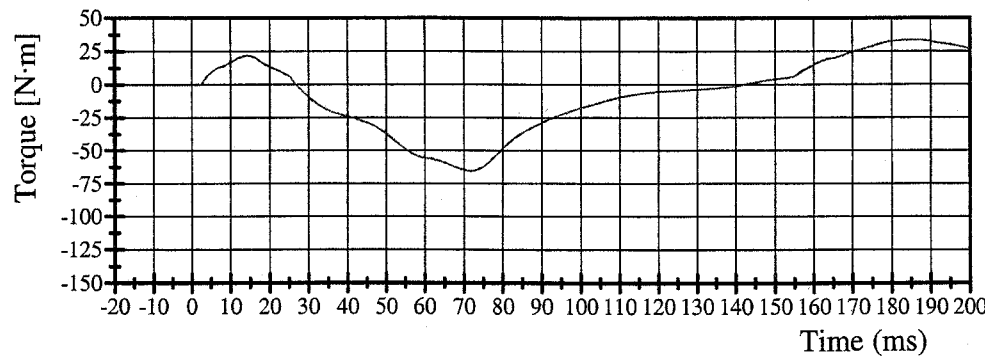


Filter Class: 600

Max: 29.2 N·m at 186.4 ms

Min: -55.8 N·m at 72.0 ms

NEKOM



Filter Class: 600

Max: 33.6 N·m at 186.4 ms

Min: -65.5 N·m at 71.8 ms

Transportation Research Center Inc.

572E Thorax Test

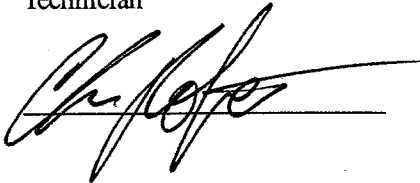
HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/22/2002

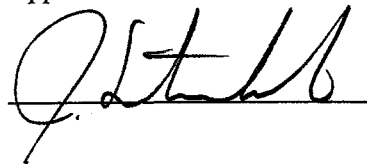
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Pendulum Velocity	6.59 - 6.83 m/s	6.66 m/s	Yes
Maximum Chest Deflection	-72.6 - (-63.5) mm	-65.4 mm	Yes
Maximum Resistive Force	5159 - 5894 N	5756 N	Yes
Internal Hysteresis	69 - 85 %	73 %	Yes

Comments:

Technician



Approved



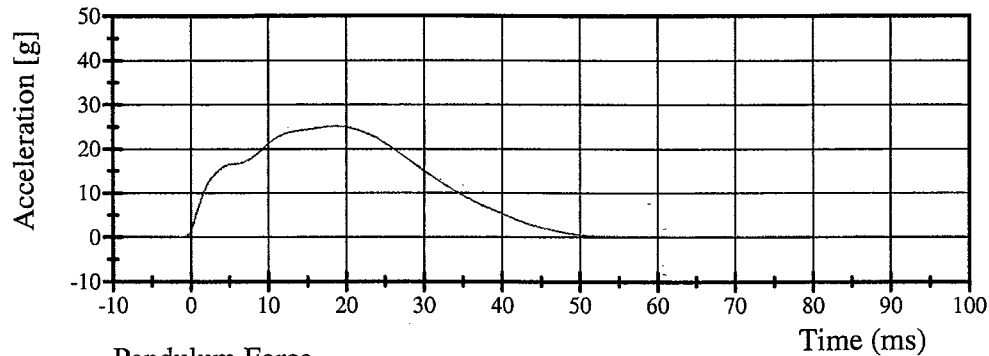
Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/22/2002

Pendulum Deceleration

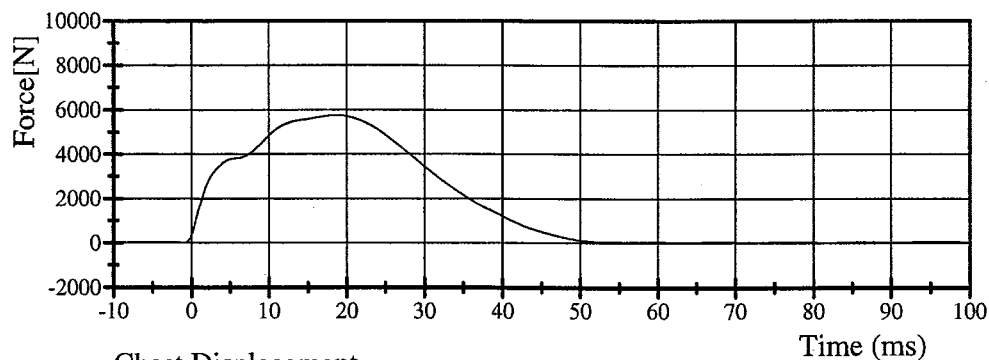


Filter Class: 180

Max: 25.1 g at 18.6 ms

Min: -0.0 g at -77.0 ms

Pendulum Force

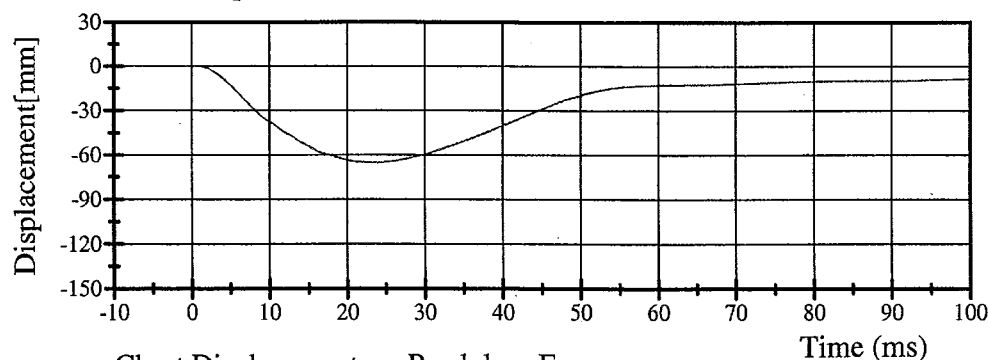


Filter Class: 180

Max: 5756.2 N at 18.6 ms

Min: -9.1 N at -77.0 ms

Chest Displacement

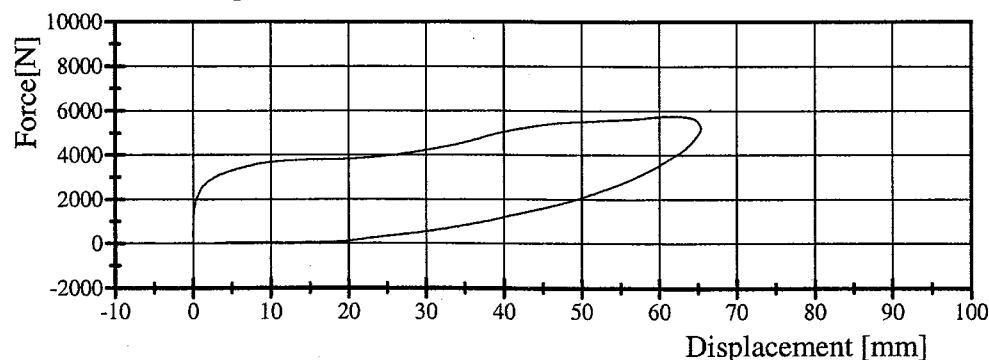


Filter Class: 180

Max: 0.0 mm at 0.2 ms

Min: -65.4 mm at 23.6 ms

Chest Displacement vs. Pendulum Force



Transportation Research Center Inc

Hybrid III Hip Range of Motion

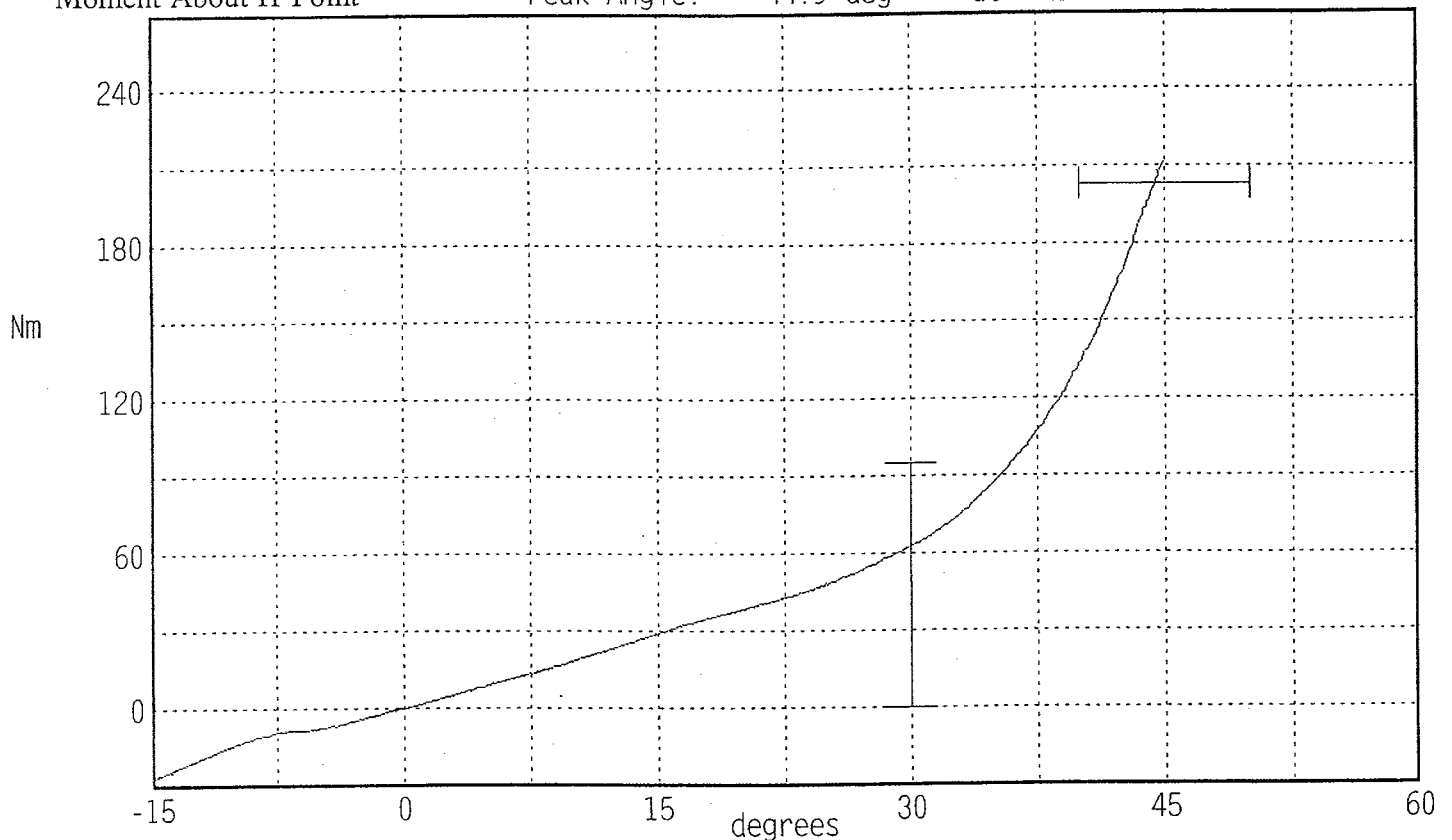
Serial Number: 168L
Test Number: 168C16
Comments:

Date: 07/18/2002
Time: 12:26

TEST PARAMETER	SPECIFICATION	TEST RESULTS	
Temperature	18.9 - 25.6	21.7 °C	Pass
Humidity	10 - 70	55 %	Pass
Moment at 30 deg	<= 94.9	62.9 Nm	Pass
Angle at 203 Nm	40.0 - 50.0	44.5 deg	Pass
Average Velocity	5.0 - 10.0	7.4 deg/sec	Pass

Peak Moment: 211.1 Nm at 44.9 deg
Peak Angle: 44.9 deg at 211.1 Nm

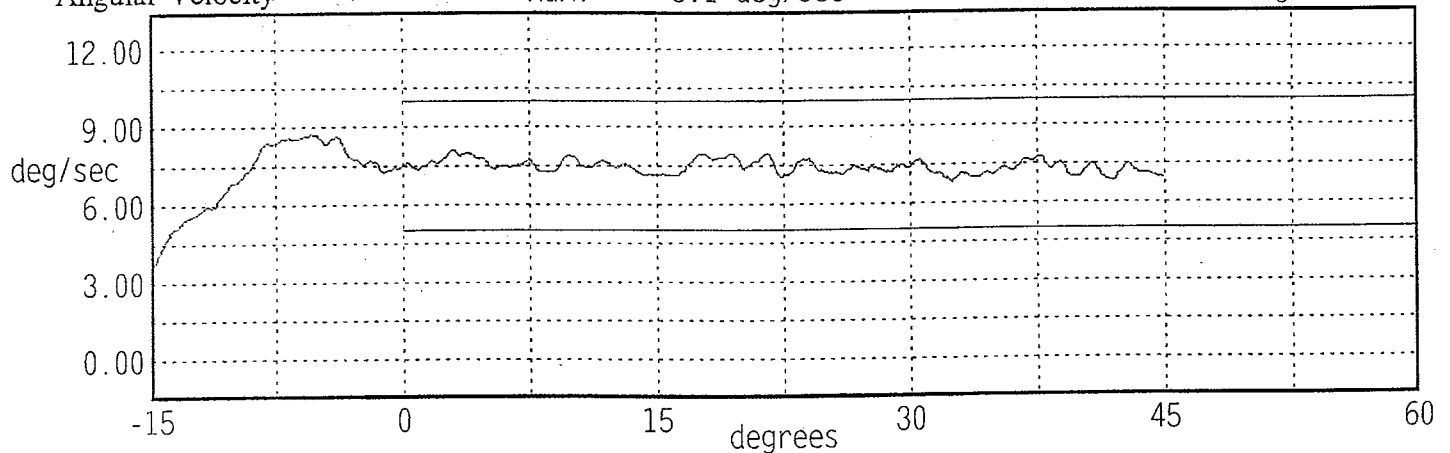
Moment About H-Point



Angular Velocity

Max: 8.1 deg/sec

Min: 6.8 deg/sec



Transportation Research Center Inc

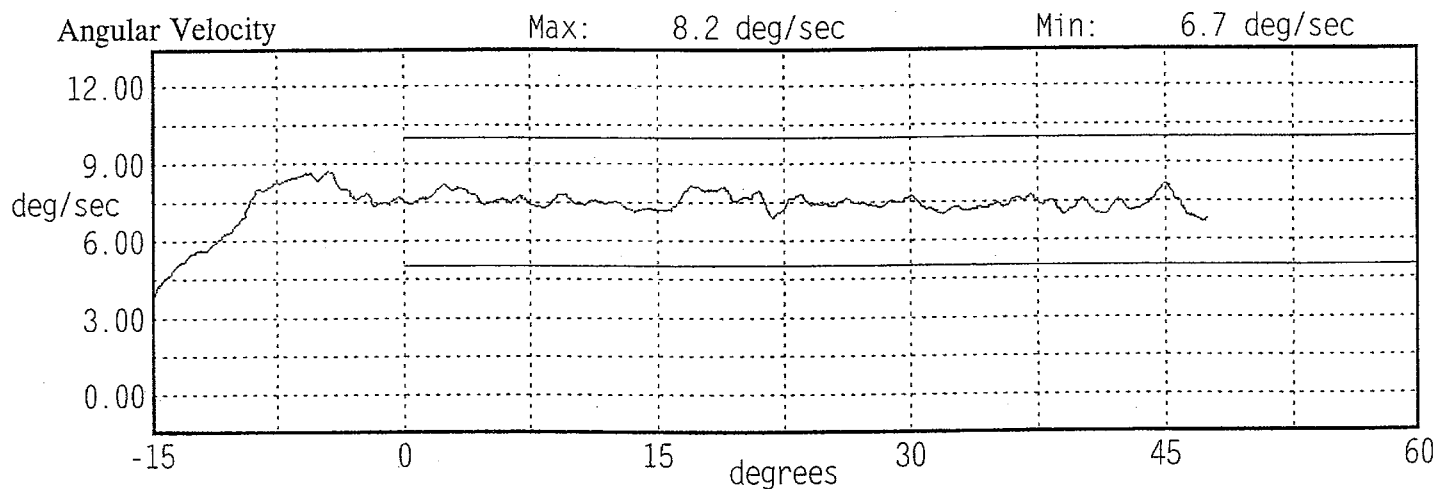
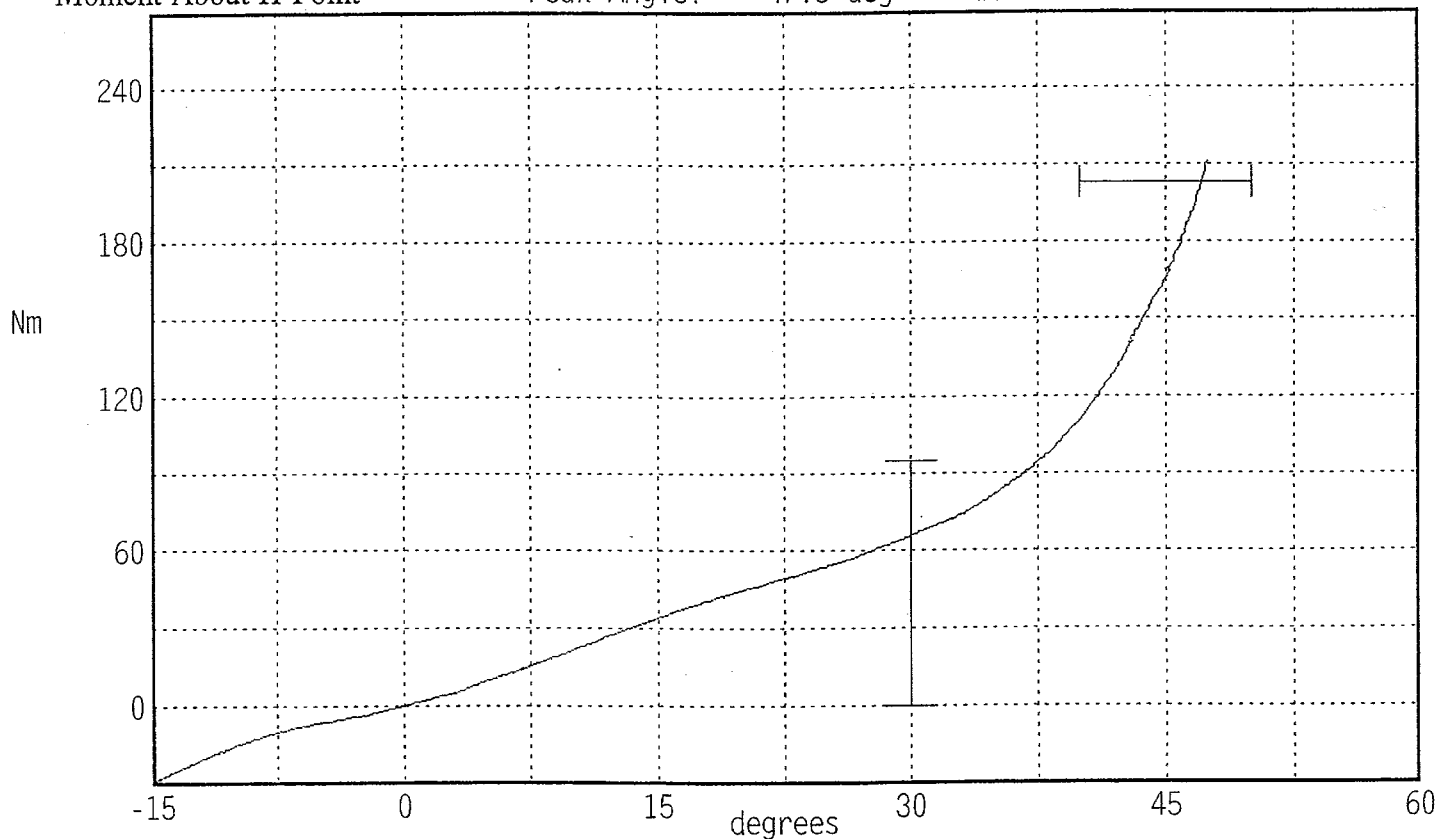
Hybrid III Hip Range of Motion

Serial Number: 168R
Test Number: 168C16
Comments:

Date: 07/18/2002
Time: 12:20

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.7 °C Pass
Humidity	10 - 70	55 % Pass
Moment at 30 deg	<= 94.9	65.8 Nm Pass
Angle at 203 Nm	40.0 - 50.0	47.1 deg Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec Pass

Moment About H-Point
Peak Moment: 211.1 Nm at 47.5 deg
Peak Angle: 47.5 deg at 211.1 Nm



Transportation Research Center Inc.

572E Left Knee Slider Test

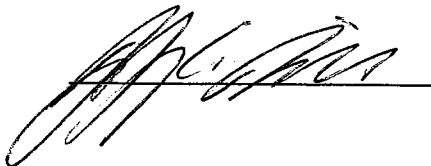
HIII 50th Male Serial No. 168 Calibration No. 16 - 8

Test Date 08/22/2002

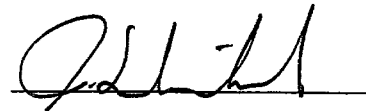
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.77 m/s	Yes
Force At 10 mm Displacement	-1259 - (-1721) N	-1424 N	Yes
Force At 18 mm Displacement	-2268 - (-3096) N	-2973 N	Yes

Comments:

Technician



Approved

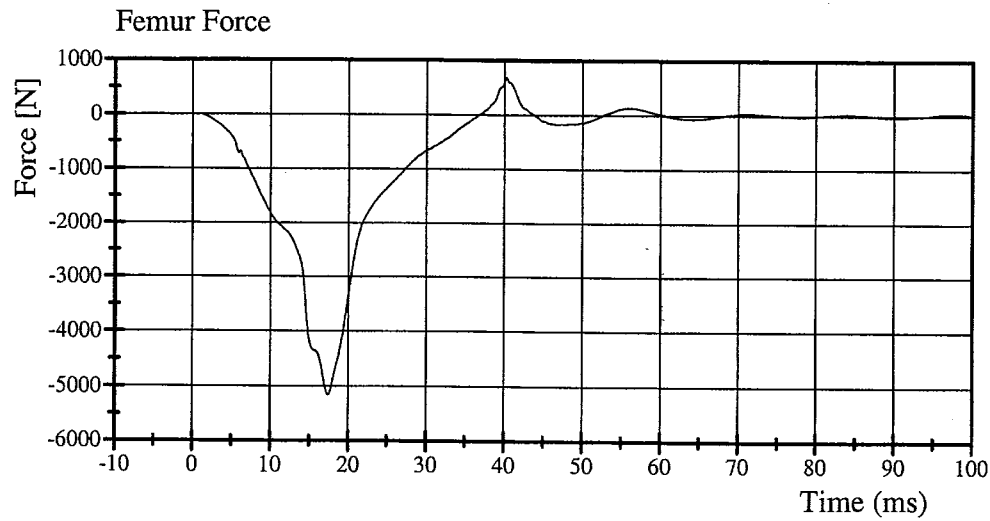


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 8

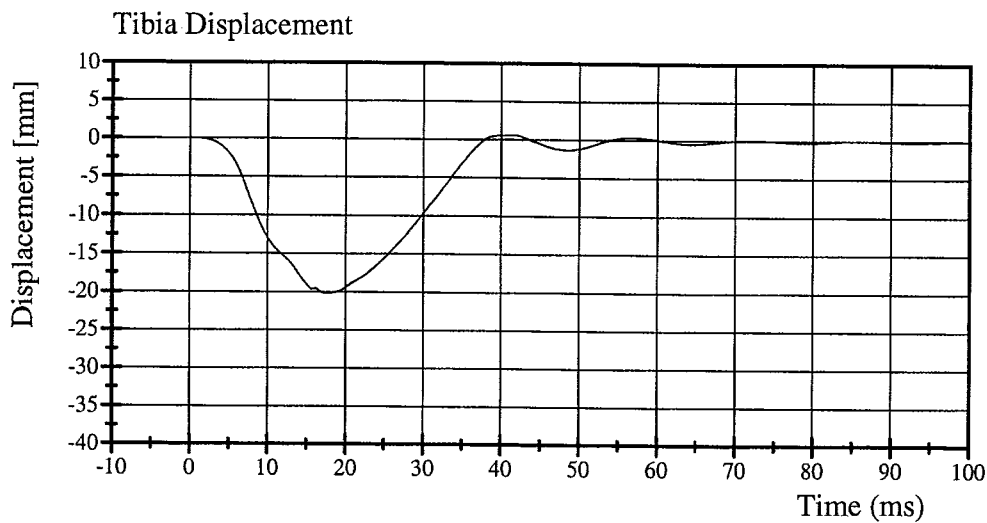
Test Date 08/22/2002



Filter Class: 600

Max: 687.9 N at 40.2 ms

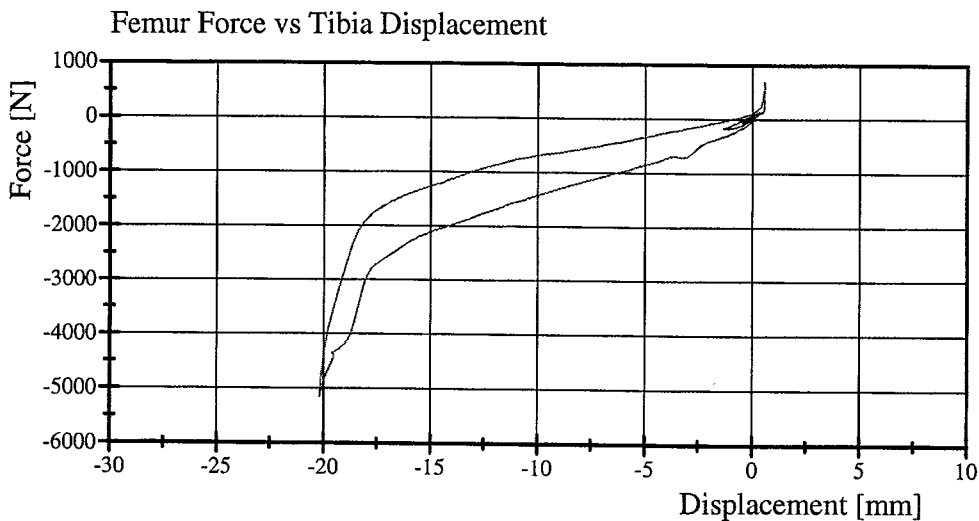
Min: -5158.8 N at 17.4 ms



Filter Class: 600

Max: 0.6 mm at 40.7 ms

Min: -20.2 mm at 17.5 ms



Transportation Research Center Inc.

572E Right Knee Slider Test

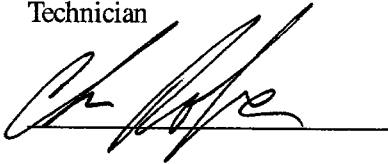
HHH 50th Male Serial No. 168 Calibration No. 16 - 2

Test Date 08/22/2002

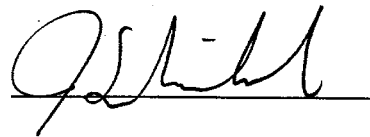
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.71 m/s	Yes
Force At 10 mm Displacement	-1259 - (-1721) N	-1372 N	Yes
Force At 18 mm Displacement	-2268 - (-3096) N	-2531 N	Yes

Comments:

Technician



Approved



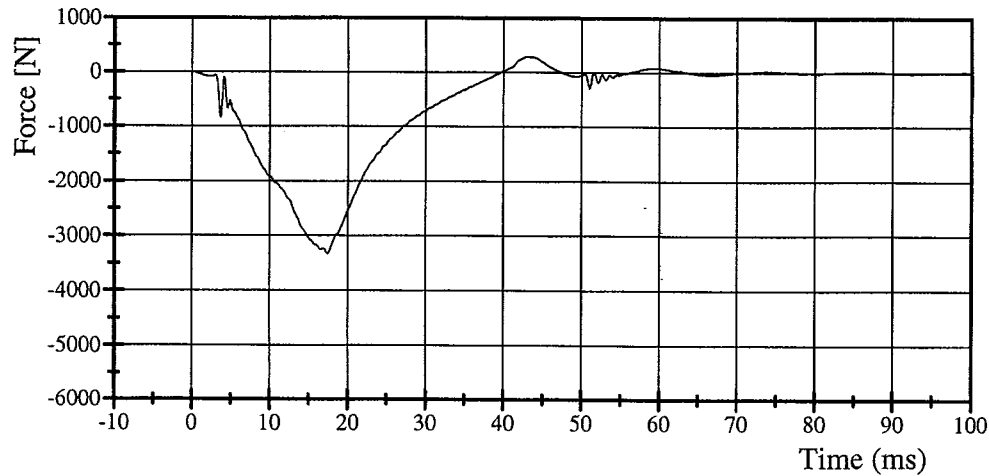
Transportation Research Center Inc.

572E Right Knee Slider Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

Test Date 08/22/2002

Femur Force

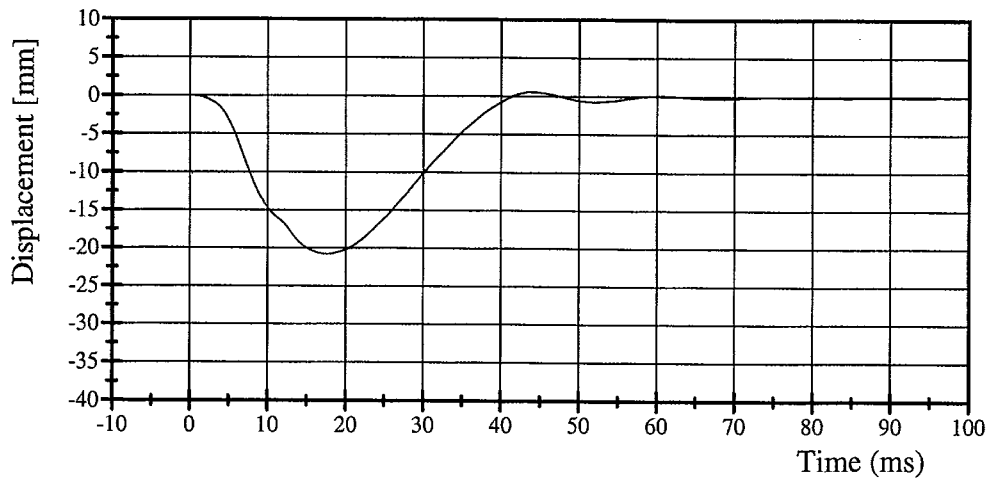


Filter Class: 600

Max: 288.2 N at 43.0 ms

Min: -3329.8 N at 17.4 ms

Tibia Displacement

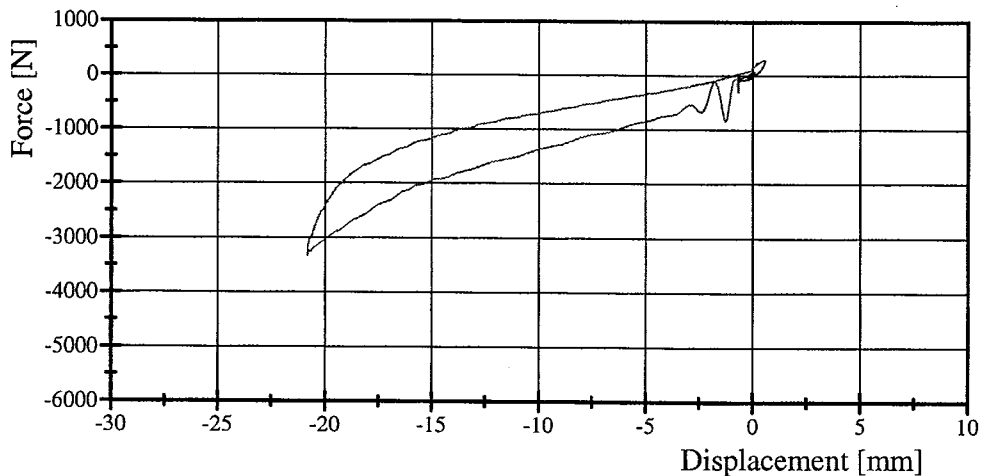


Filter Class: 600

Max: 0.6 mm at 44.1 ms

Min: -20.8 mm at 17.6 ms

Femur Force vs Tibia Displacement



Transportation Research Center Inc.

572E Left Knee Test

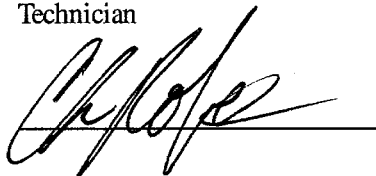
IIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/09/2002

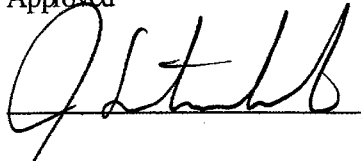
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	2.08 - 2.13 m/s	2.08 m/s	Yes
Maximum Pendulum Force	4716 - 5782 N	5306 N	Yes

Comments:

Technician



Approved



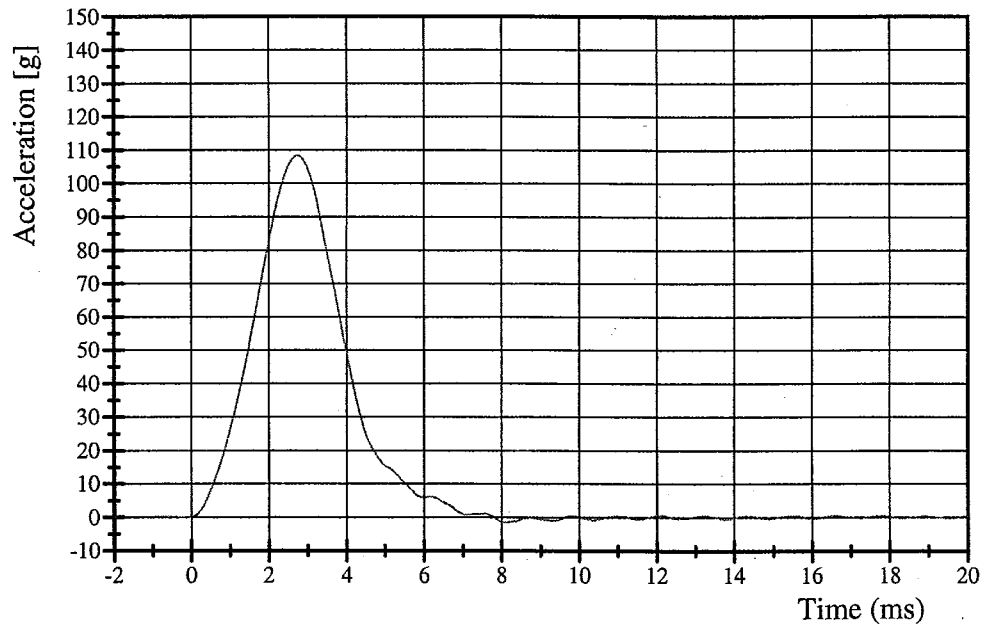
Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 1

Test Date 07/09/2002

Pendulum Deceleration

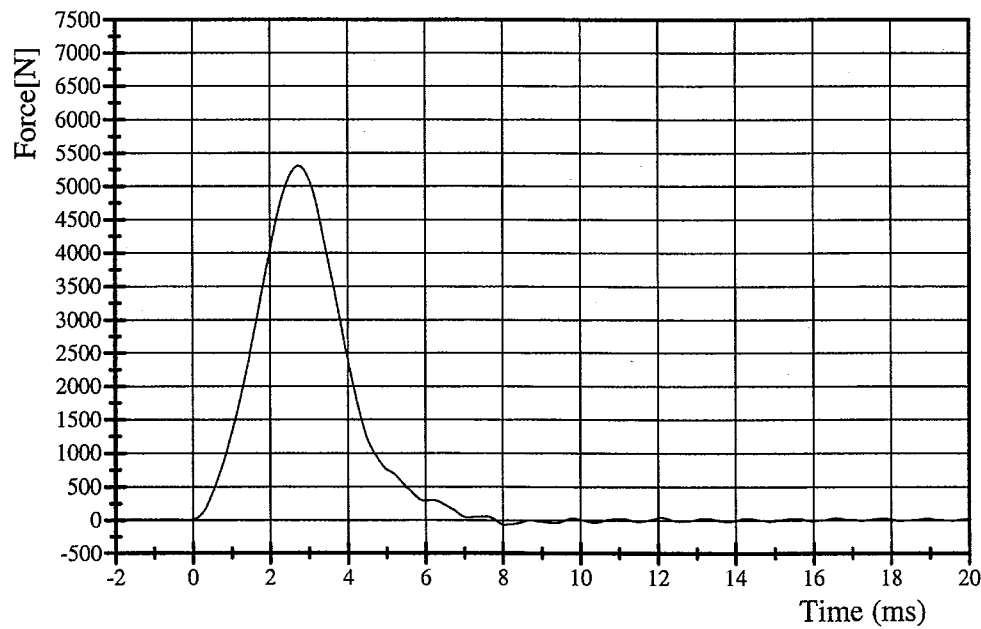


Filter Class: 600

Max: 108.4 g at 2.7 ms

Min: -1.5 g at 8.1 ms

Pendulum Force



Filter Class: 600

Max: 5305.7 N at 2.7 ms

Min: -73.0 N at 8.1 ms

Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

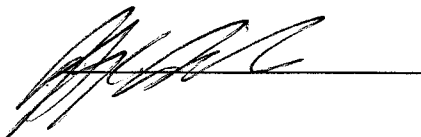
Test Date 08/22/2002

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	2.08 - 2.13 m/s	2.09 m/s	Yes
Maximum Pendulum Force	4716 - 5782 N	4970 N	Yes

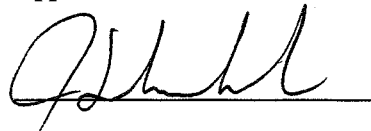
Comments:

Replaced Old Knee Skin and Knee Insert Due To Damaga Done To Knee During 020703's Crash Test.

Technician



Approved



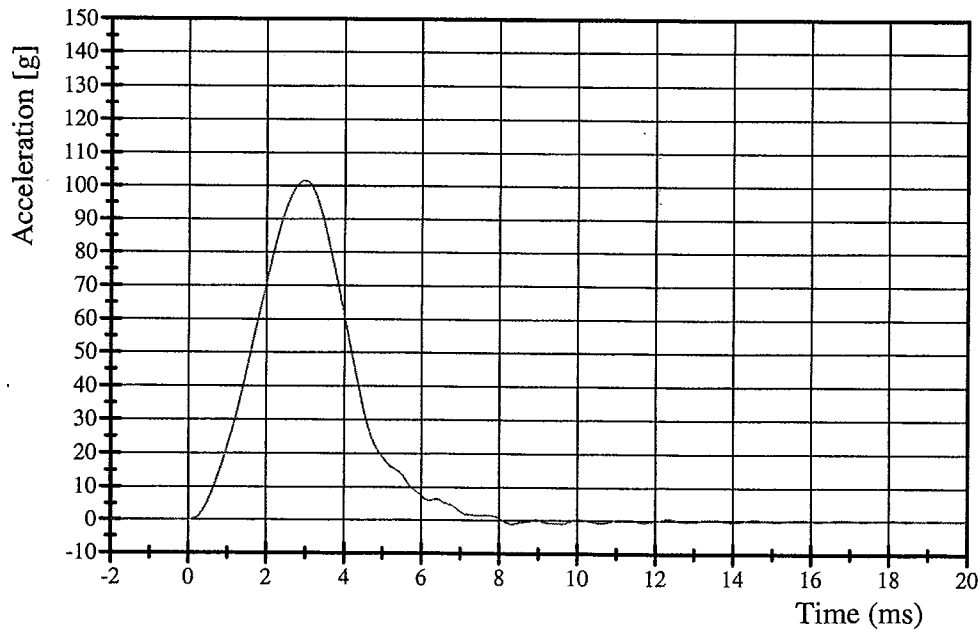
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 168 Calibration No. 16 - 2

Test Date 08/22/2002

Pendulum Deceleration

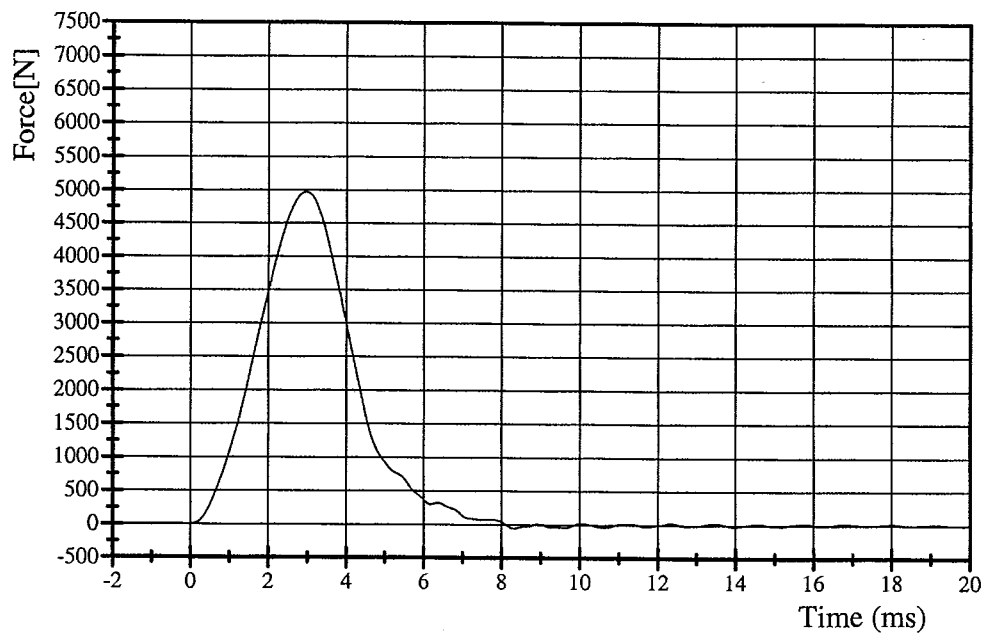


Filter Class: 600

Max: 101.6 g at 3.0 ms

Min: -1.2 g at 8.3 ms

Pendulum Force



Filter Class: 600

Max: 4969.9 N at 3.0 ms

Min: -56.8 N at 8.3 ms

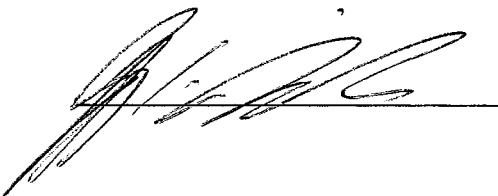
Pre-Test Dummy Configuration and Performance Verification Data

Passenger Dummy S/N: 169

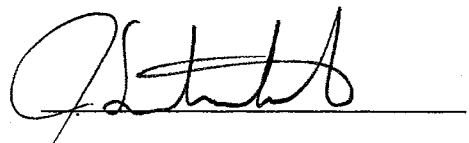
Transportation Research Center Inc.
572E HIII 50th Dummy
External Dimensions
Serial No. 169 Calibration No. 14

Test Parameter	Dimension	Specification	Results	Pass
Location For Chest Circumference	AA	429 - 434 mm	432 mm	Yes
Location For Waist Circumference	BB	226 - 231 mm	229 mm	Yes
Chest Circumference	Y	970 - 1001 mm	995 mm	Yes
Waist Circumference	Z	836 - 866 mm	859 mm	Yes
Chest Depth	O	213 - 229 mm	225 mm	Yes
H-Point Height	C	84 - 89 mm	85 mm	Yes
H-Point From Seatback	D	135 - 140 mm	137 mm	Yes
Skull Cap To Backline	H	41 - 46 mm	43 mm	Yes
Total Sitting Height	A	879 - 889 mm	880 mm	Yes
Thigh Clearance	F	140 - 155 mm	146 mm	Yes
Buttock Knee Length	K	579 - 605 mm	594 mm	Yes
Buttock Popliteal Length	N	452 - 478 mm	473 mm	Yes
Popliteal Height	L	429 - 455 mm	436 mm	Yes
Knee Pivot Height	M	485 - 500 mm	489 mm	Yes
Foot Length	P	252 - 267 mm	260 mm	Yes
Foot Breadth	W	91 - 107 mm	96 mm	Yes
Shoulder Pivot From Backline	E	84 - 94 mm	89 mm	Yes
Shoulder Breadth	V	422 - 437 mm	429 mm	Yes
Shoulder Pivot Height	B	506 - 521 mm	519 mm	Yes
Elbow Rest Height	J	191 - 211 mm	205 mm	Yes
Shoulder-Elbow Length	I	330 - 345 mm	343 mm	Yes
Back Of Elbow To Wrist Pivot	G	290 - 305 mm	297 mm	Yes

Technician



Approved




Transportation Research Center Inc.

572E Head Drop Test

HHH 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/19/2002

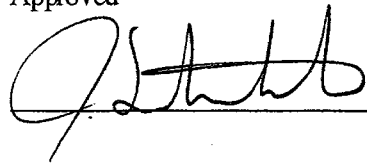
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Peak Resultant Acceleration	225 - 275 g	239.0 g	Yes
Peak Lateral Acceleration	15 g Max	-4.6 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

Technician



Approved

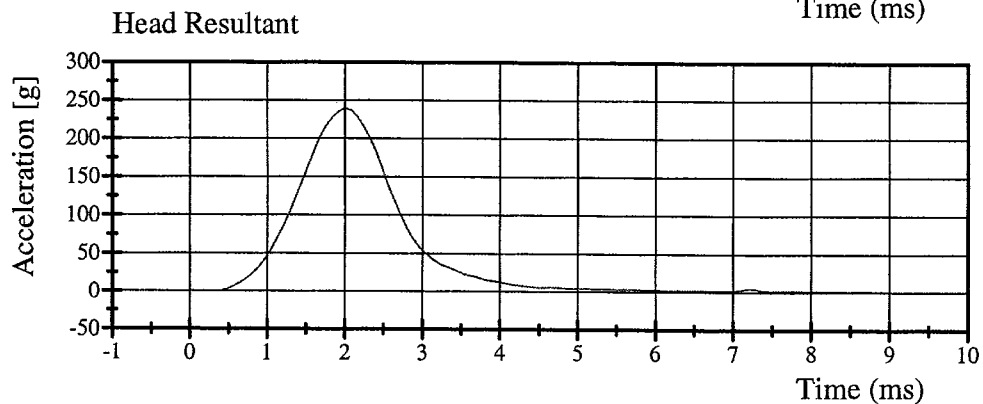
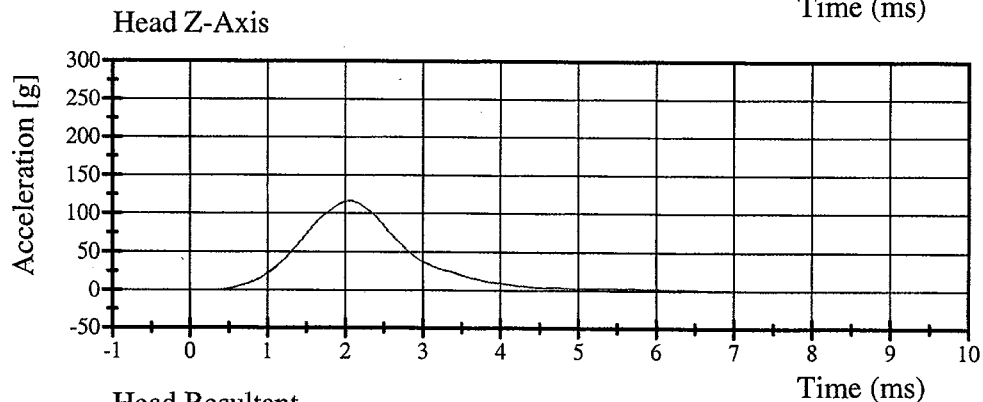
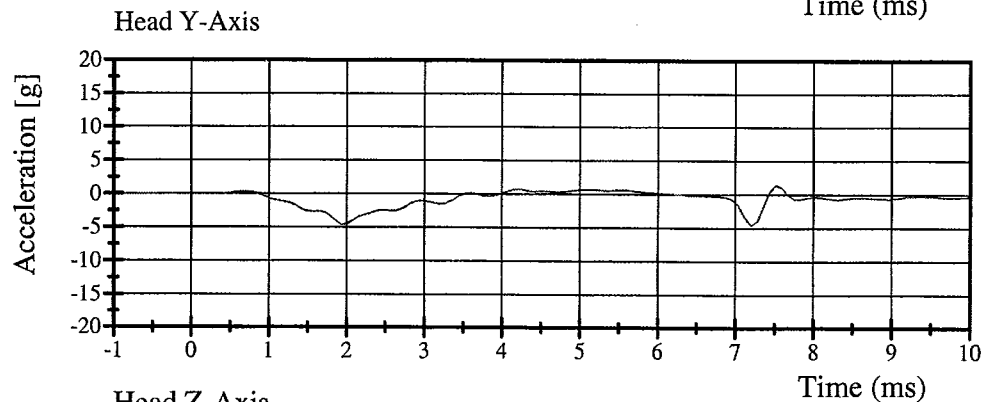
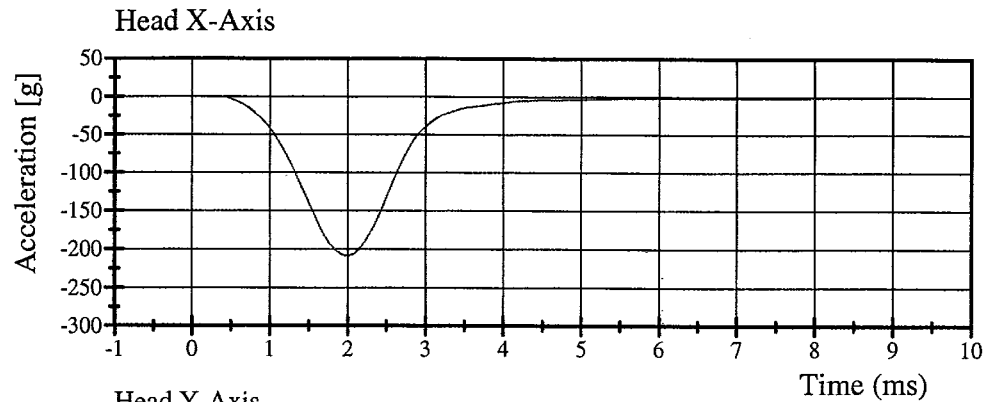


Transportation Research Center Inc.

572E Head Drop Test

HIH 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/19/2002



Transportation Research Center Inc.

572E Neck Flexion Test - 6 Channel Transducer

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

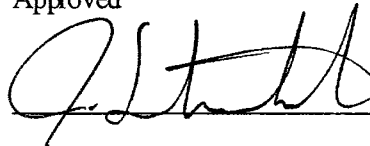
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Impact Velocity	6.89 - 7.13 m/s	7.01 m/s	Yes
Pendulum Deceleration			
10 ms	22.50 - 27.50 g	25.57 g	Yes
20 ms	17.60 - 22.60 g	22.32 g	Yes
30 ms	12.50 - 18.50 g	16.24 g	Yes
Max Pendulum Deceleration	29.00 g	26.01 g	Yes
Max Pendulum Deceleration After 30 ms	29.00 g	16.21 g	Yes
Deceleration-Time Curve Decay Time To 5g	34 - 42 ms	37.52 ms	Yes
D Plane Rotation			
Max	64 - 78 °	73.52 °	Yes
Time	57 - 64 ms	60.08 ms	Yes
Moment About Occipital Condyle			
Max	88.2 - 108.4 N·m	94.76 N·m	Yes
Time	47 - 58 ms	51.12 ms	Yes
Rotation Angle-Time Curve Decay Time To Zero	113 - 128 ms	115.84 ms	Yes
Positive Moment-Time Curve Decay Time To Zero	97 - 107 ms	100.96 ms	Yes

Comments:

Technician



Approved



07.22.2002 08:53:50 462



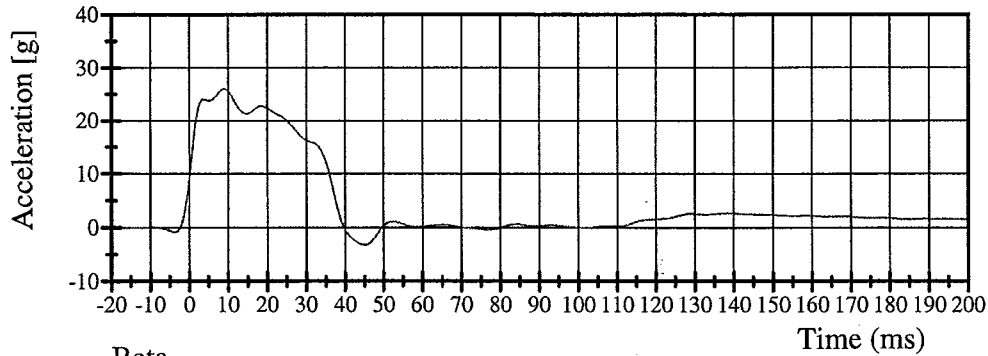
Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

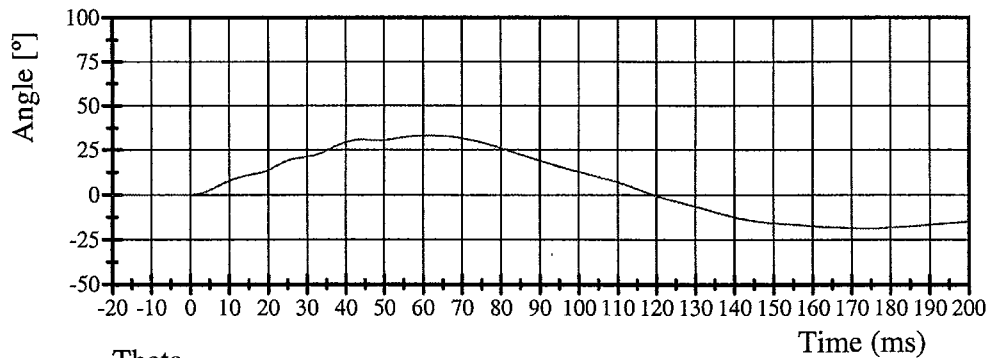


Filter Class: 60

Max: 26.0 g at 9.0 ms

Min: -3.2 g at 45.0 ms

Beta

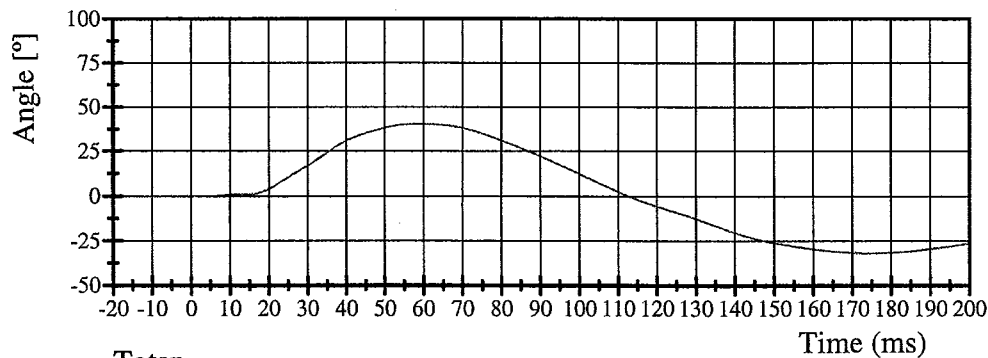


Filter Class: 60

Max: 33.1 ° at 61.4 ms

Min: -18.7 ° at 174.6 ms

Theta

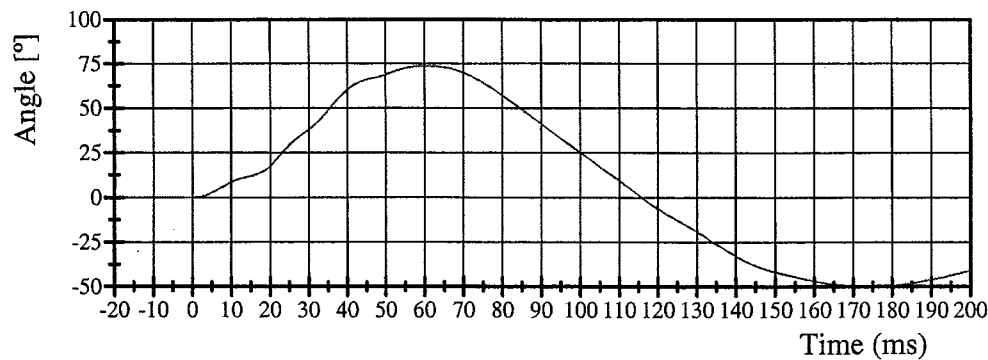


Filter Class: 60

Max: 40.5 ° at 58.9 ms

Min: -31.8 ° at 174.8 ms

Totan



Filter Class: 60

Max: 73.5 ° at 60.1 ms

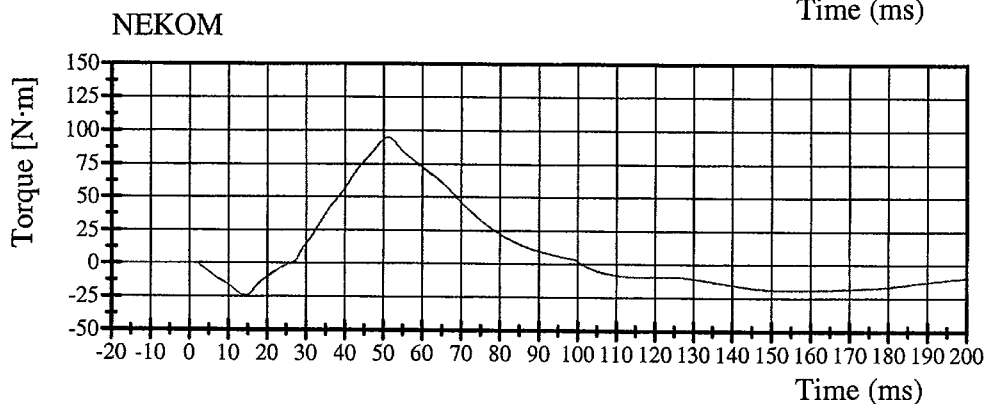
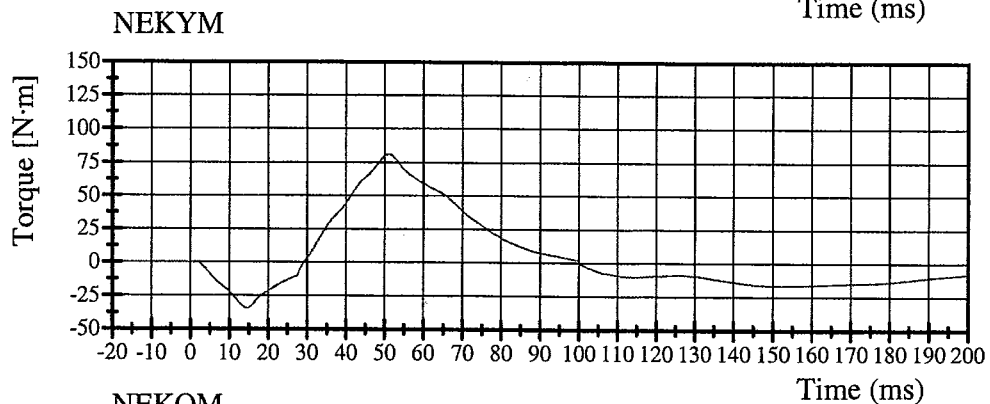
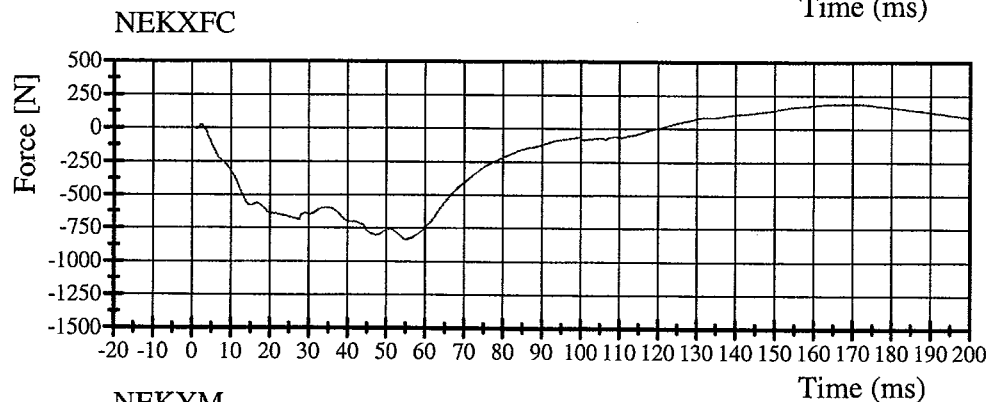
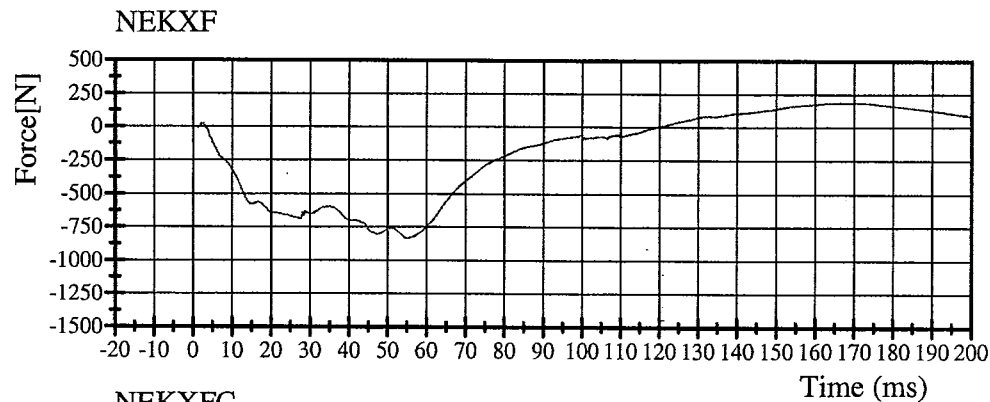
Min: -50.5 ° at 174.7 ms

Transportation Research Center Inc.

572E Neck Flexion Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002



Transportation Research Center Inc.

572E Neck Extension Test - 6 Channel Transducer

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

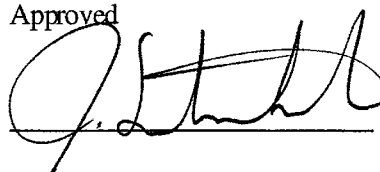
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Impact Velocity	5.95 - 6.19 m/s	6.11 m/s	Yes
Pendulum Deceleration			
10 ms	17.20 - 21.20 g	19.13 g	Yes
20 ms	14.00 - 19.00 g	17.36 g	Yes
30 ms	11.00 - 16.00 g	13.68 g	Yes
Max Pendulum Deceleration	22.00 g	19.51 g	Yes
Max Pendulum Deceleration After 30 ms	22.00 g	13.64 g	Yes
Deceleration-Time Curve			
Decay Time To 5g	38 - 46 ms	44.00 ms	Yes
D Plane Rotation			
Max	81 - 106 °	105.32 °	Yes
Time	72 - 82 ms	77.04 ms	Yes
Moment About Occipital Condyle			
Min	-80.0 - (-52.9) N·m	-64.67 N·m	Yes
Time	65 - 79 ms	71.52 ms	Yes
Rotation Angle-Time Curve			
Decay Time To Zero	147 - 174 ms	157.76 ms	Yes
Positive Moment-Time Curve			
Decay Time To Zero	120 - 148 ms	146.00 ms	Yes

Comments:

Technician



Approved



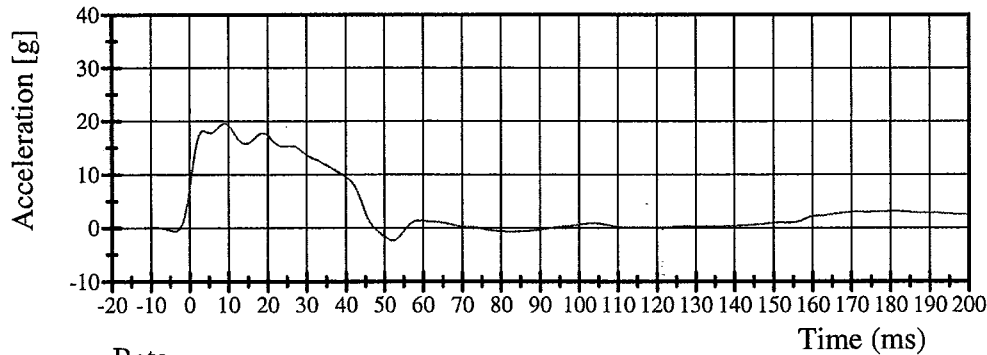
Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

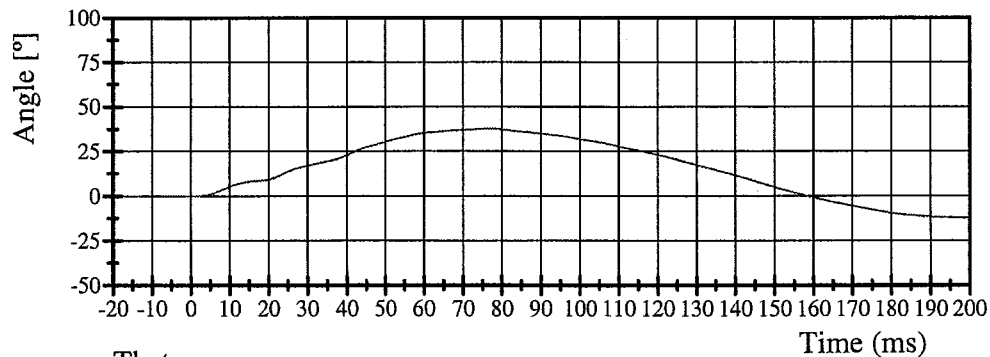


Filter Class: 60

Max: 19.5 g at 9.0 ms

Min: -2.3 g at 52.1 ms

Beta

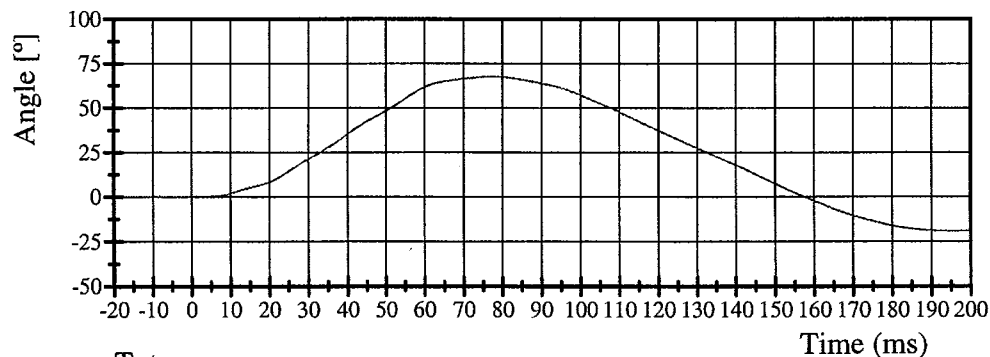


Filter Class: 60

Max: 37.7 ° at 76.6 ms

Min: -12.3 ° at 198.6 ms

Theta

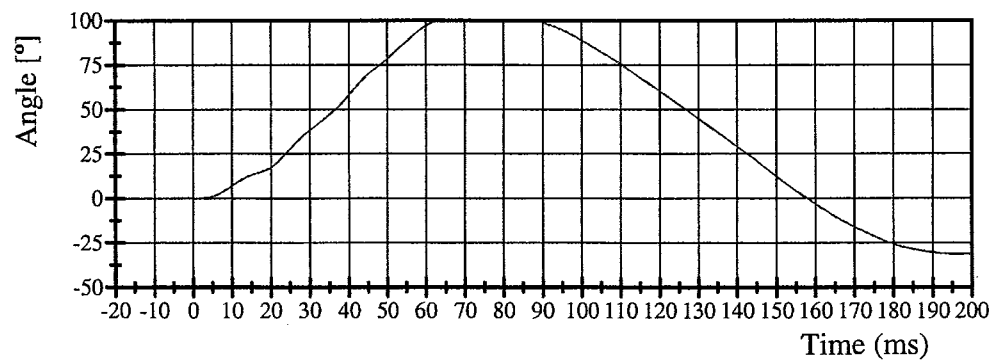


Filter Class: 60

Max: 67.6 ° at 77.6 ms

Min: -19.0 ° at 195.3 ms

Totan



Filter Class: 60

Max: 105.3 ° at 77.0 ms

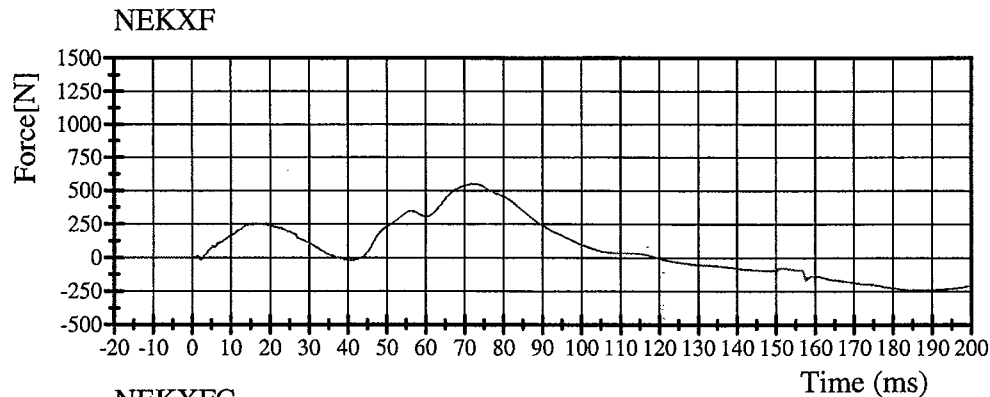
Min: -31.3 ° at 196.9 ms

Transportation Research Center Inc.

572E Neck Extension Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

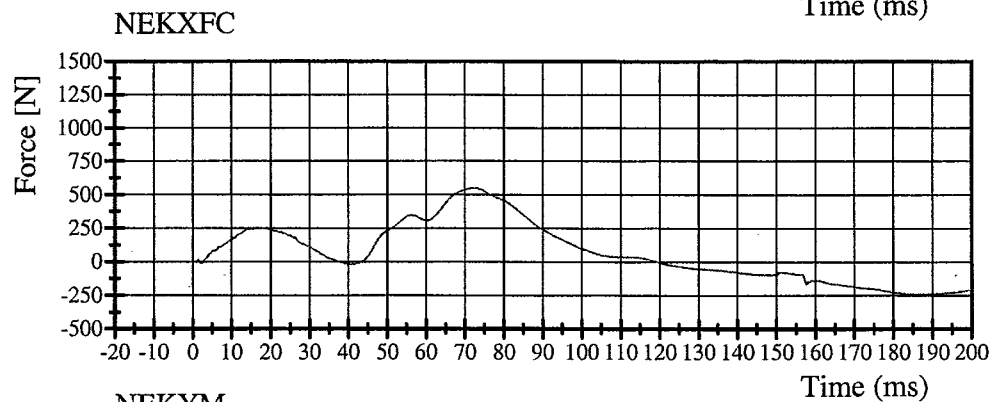
Test Date 07/22/2002



Filter Class: 1000

Max: 549.2 N at 71.9 ms

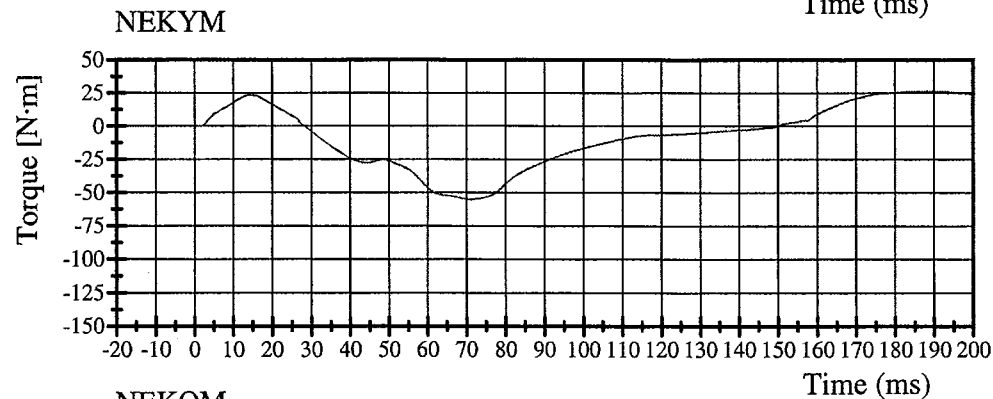
Min: -240.8 N at 186.9 ms



Filter Class: 600

Max: 549.0 N at 72.0 ms

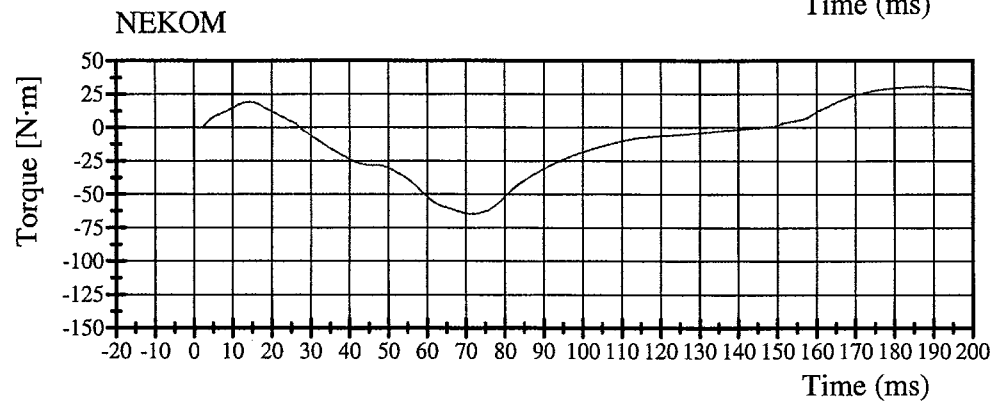
Min: -240.6 N at 188.1 ms



Filter Class: 600

Max: 26.4 N·m at 187.9 ms

Min: -55.0 N·m at 71.2 ms



Filter Class: 600

Max: 30.6 N·m at 187.9 ms

Min: -64.7 N·m at 71.5 ms

Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

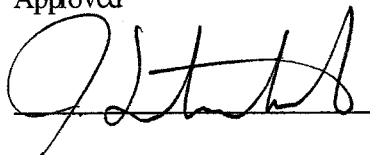
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	6.59 - 6.83 m/s	6.68 m/s	Yes
Maximum Chest Deflection	-72.6 - (-63.5) mm	-72.1 mm	Yes
Maximum Resistive Force	5159 - 5894 N	5394 N	Yes
Internal Hysteresis	69 - 85 %	71 %	Yes

Comments:

Technician



Approved



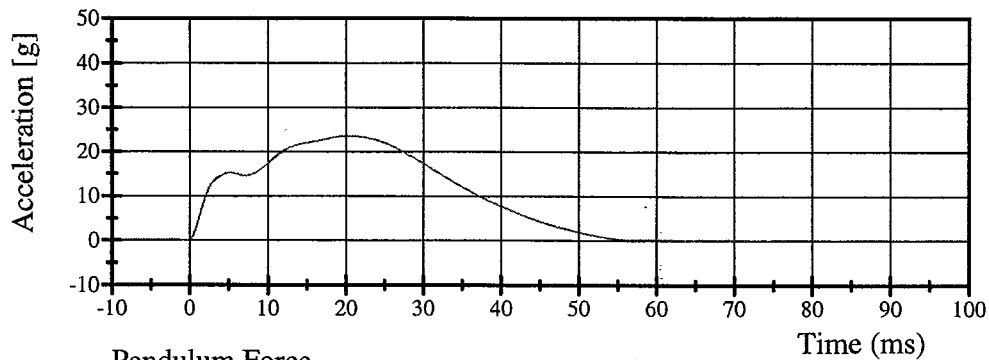
Transportation Research Center Inc.

572E Thorax Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/22/2002

Pendulum Deceleration

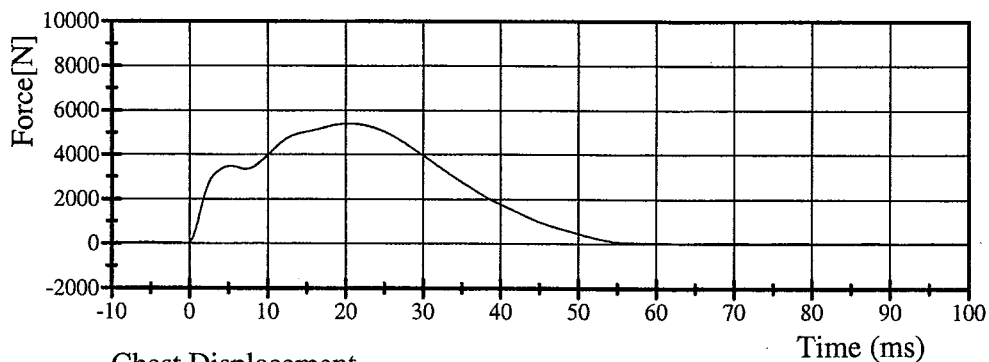


Filter Class: 180

Max: 23.5 g at 20.3 ms

Min: -0.0 g at -75.8 ms

Pendulum Force

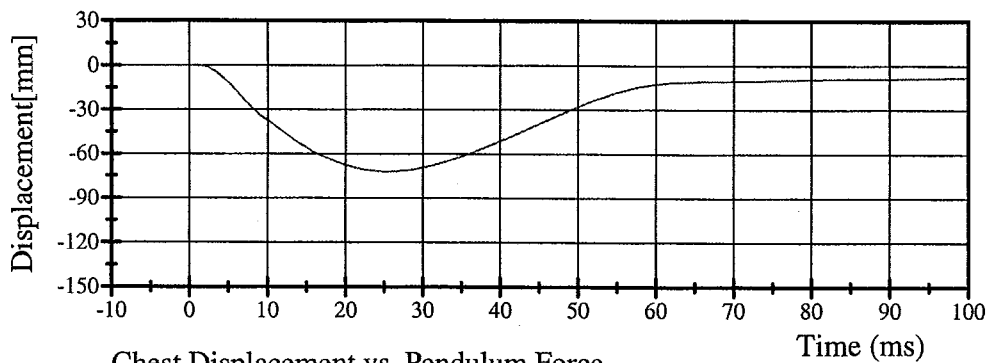


Filter Class: 180

Max: 5394.3 N at 20.3 ms

Min: -8.2 N at -75.8 ms

Chest Displacement

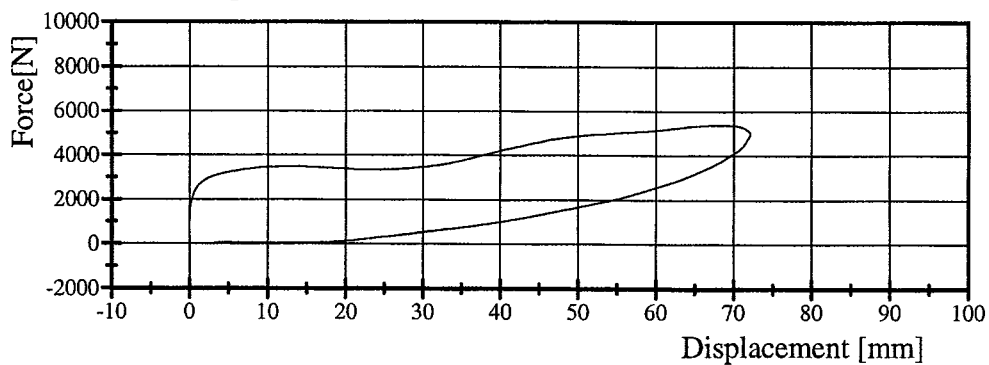


Filter Class: 180

Max: 0.1 mm at 0.9 ms

Min: -72.1 mm at 25.3 ms

Chest Displacement vs. Pendulum Force



Transportation Research Center Inc

Hybrid III Hip Range of Motion

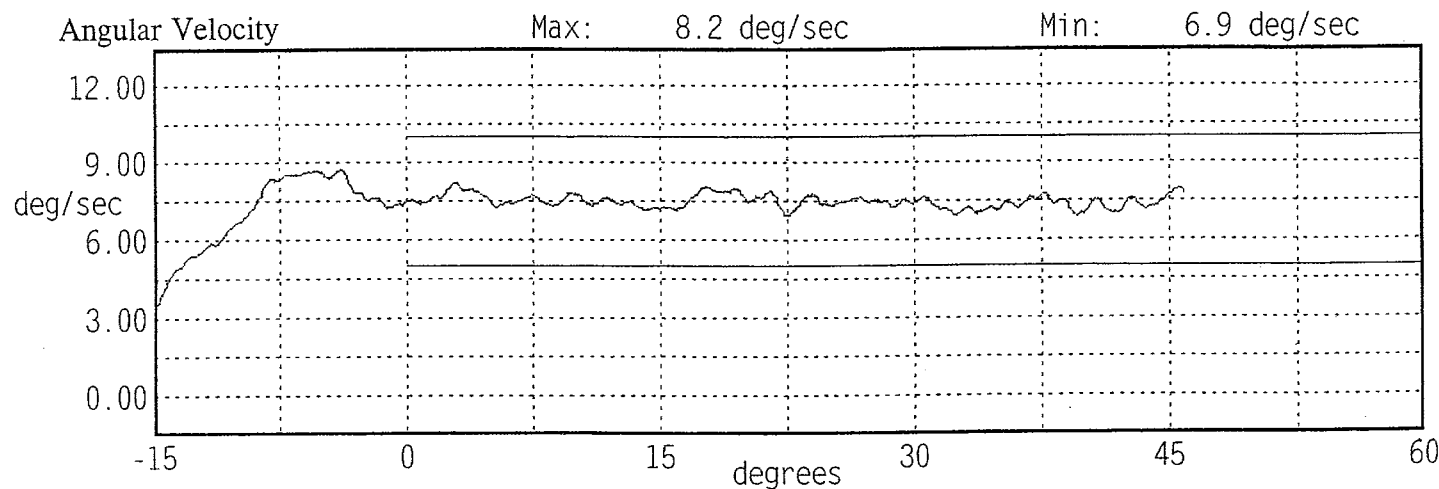
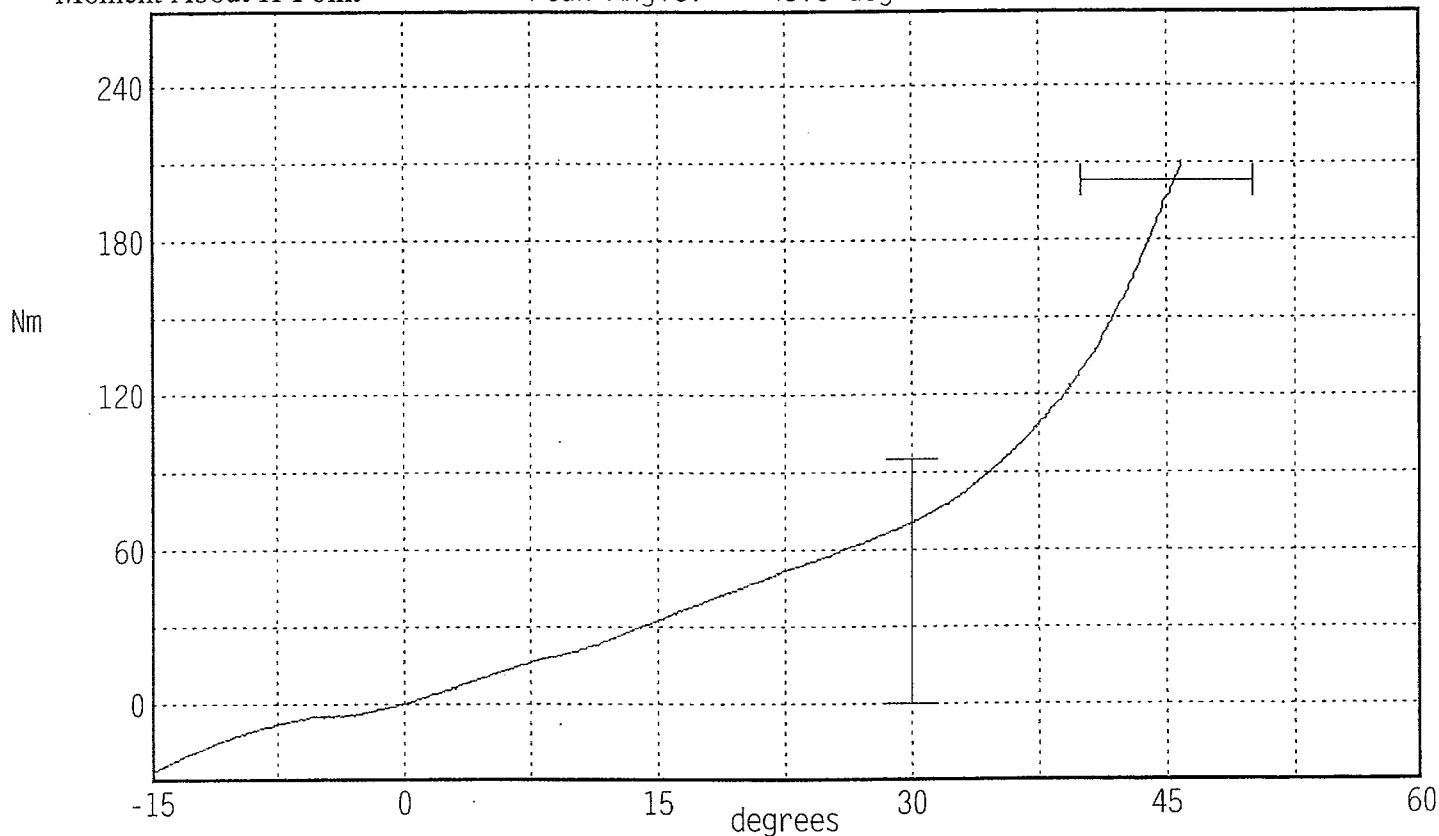
Serial Number: 169L
Test Number: 169C14

Date: 07/22/2002
Time: 08:52

Comments:

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9 - 25.6	21.7 °C Pass
Humidity	10 - 70	57 % Pass
Moment at 30 deg	<= 94.9	70.7 Nm Pass
Angle at 203 Nm	40.0 - 50.0	45.6 deg Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec Pass

Moment About H-Point
Peak Moment: 210.3 Nm at 45.8 deg
Peak Angle: 45.8 deg at 209.5 Nm



Transportation Research Center Inc

Hybrid III Hip Range of Motion

Serial Number: 169R

Date: 07/22/2002

Test Number: 169C14

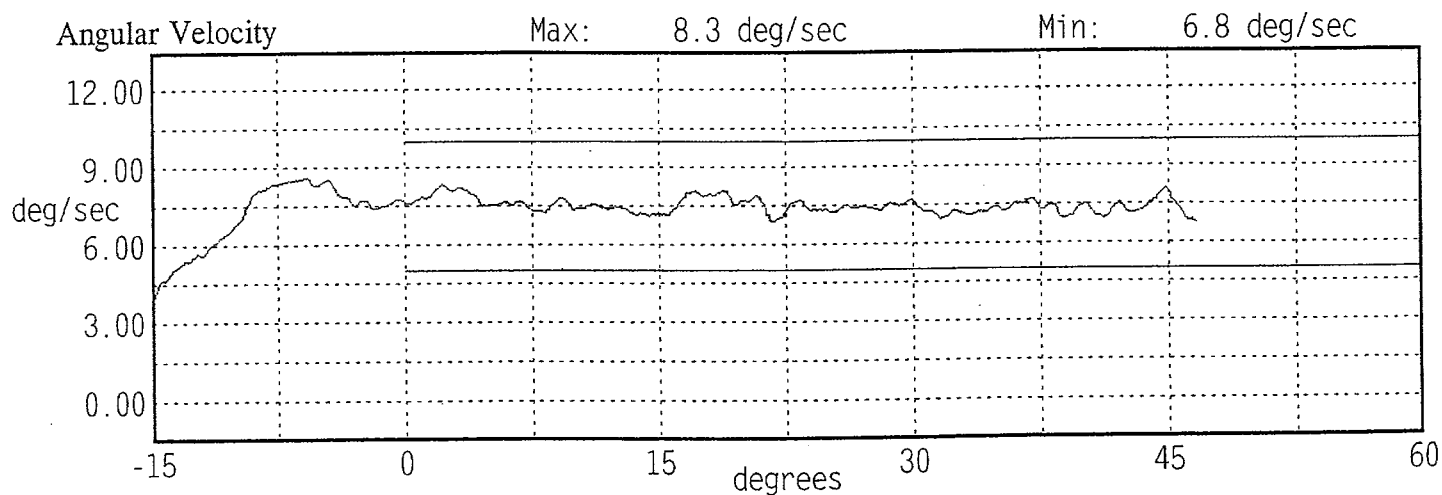
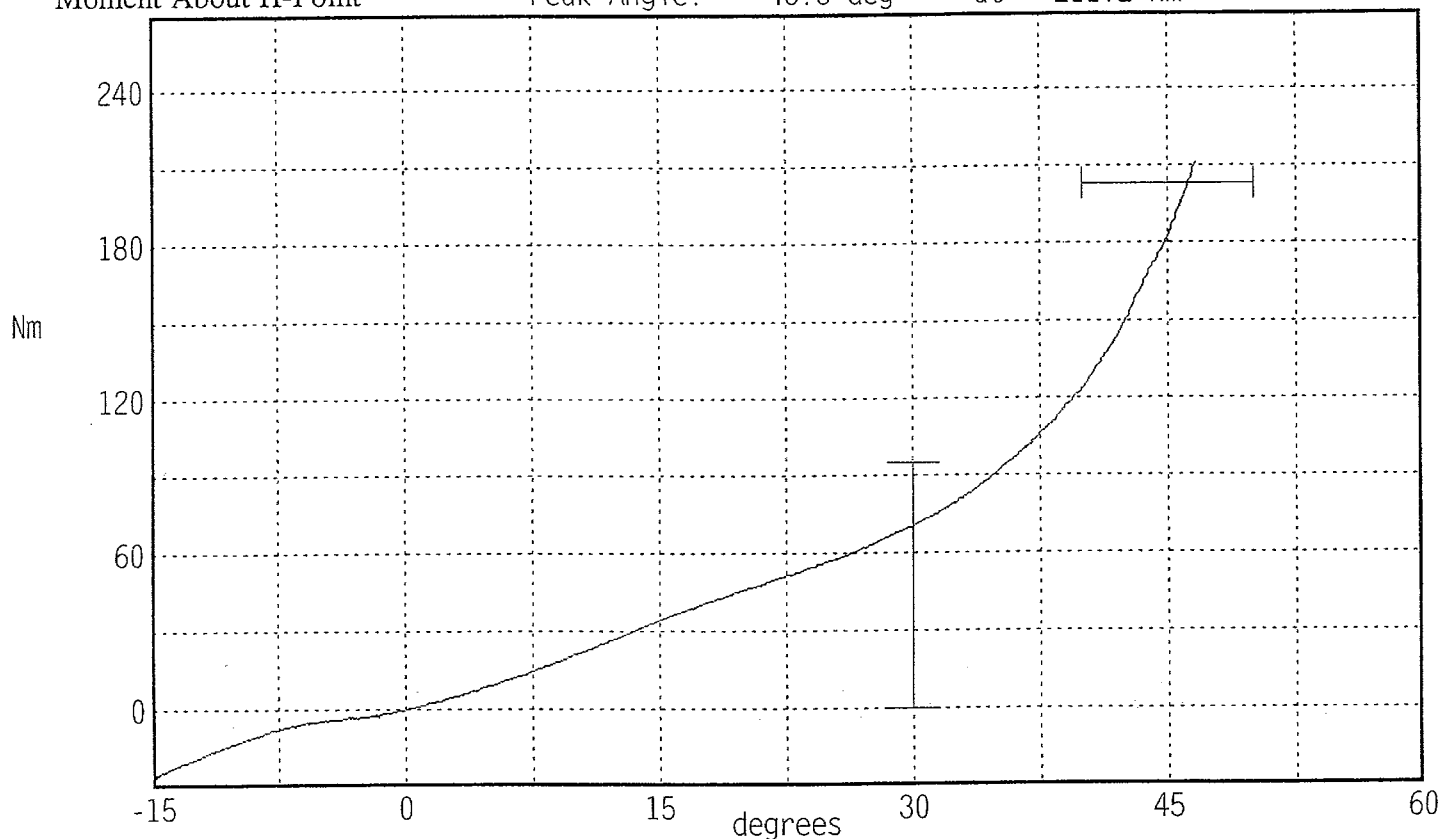
Time: 09:12

Comments:

TEST PARAMETER	SPECIFICATION	TEST RESULTS	
Temperature	18.9 - 25.6	21.7 °C	Pass
Humidity	10 - 70	57 %	Pass
Moment at 30 deg	<= 94.9	70.7 Nm	Pass
Angle at 203 Nm	40.0 - 50.0	46.2 deg	Pass
Average Velocity	5.0 - 10.0	7.5 deg/sec	Pass

Moment About H-Point

Peak Moment: 211.2 Nm at 46.6 deg
Peak Angle: 46.6 deg at 211.2 Nm



Transportation Research Center Inc.

572E Left Knee Slider Test

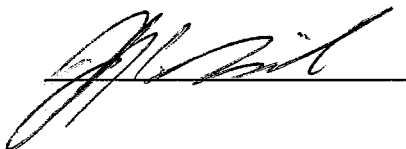
HHH 50th Male Serial No. 169 Calibration No. 14 - 2

Test Date 07/09/2002

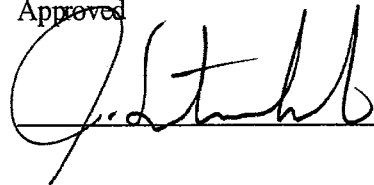
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.73 m/s	Yes
Force At 10 mm Displacement	-1259 - (-1721) N	-1309 N	Yes
Force At 18 mm Displacement	-2268 - (-3096) N	-3070 N	Yes

Comments:

Technician



Approved

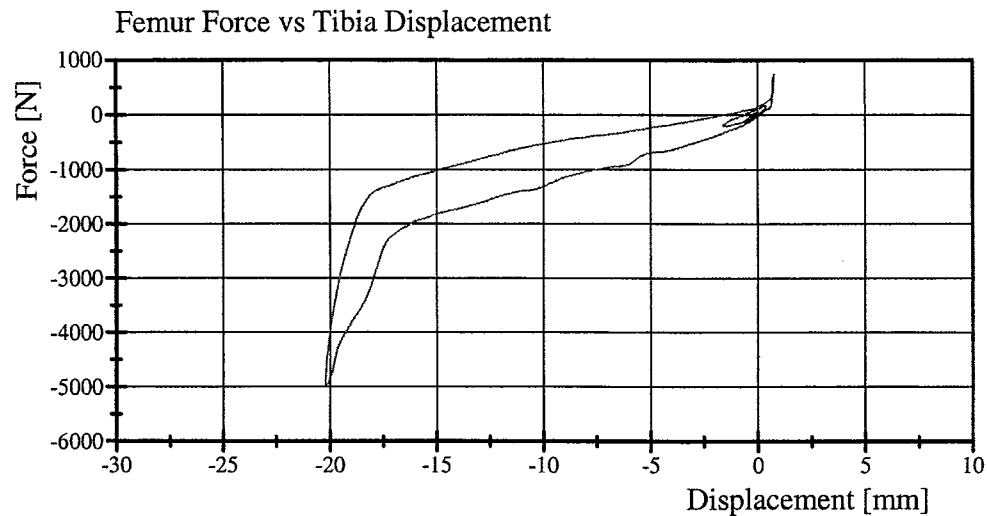
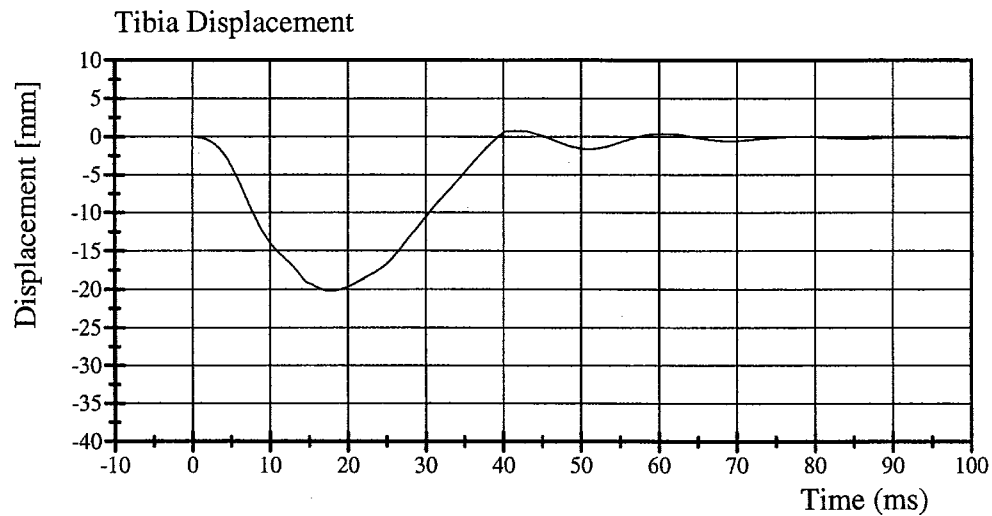
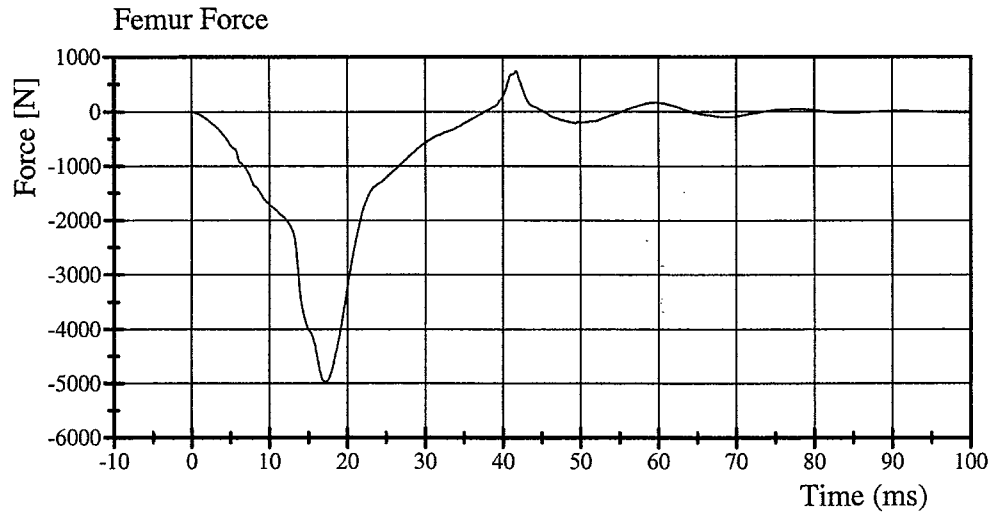


Transportation Research Center Inc.

572E Left Knee Slider Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 2

Test Date 07/09/2002



Transportation Research Center Inc.

572E Right Knee Slider Test

HIH 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

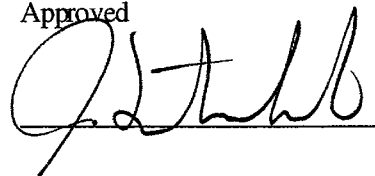
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	57 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.74 m/s	Yes
Force At 10 mm Displacement	-1259 - (-1721) N	-1361 N	Yes
Force At 18 mm Displacement	-2268 - (-3096) N	-2429 N	Yes

Comments:

Technician



Approved

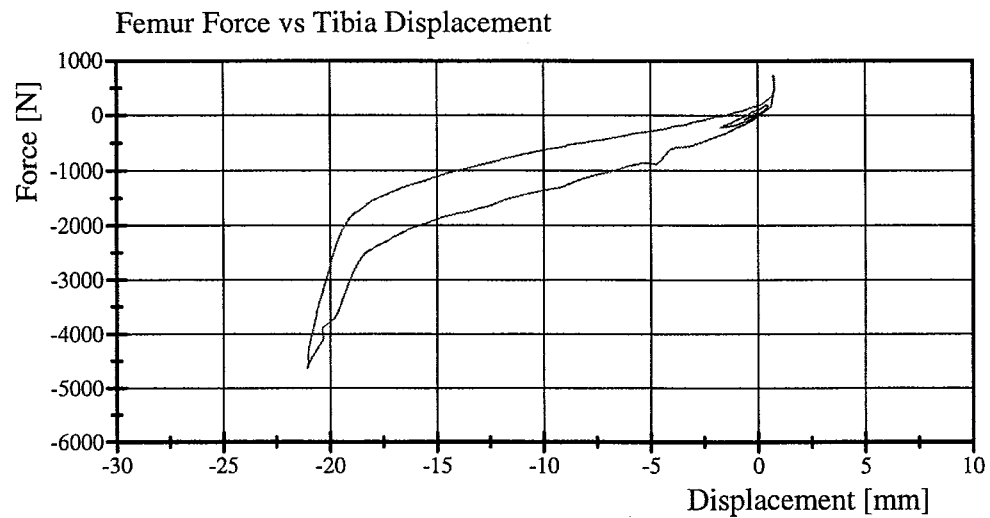
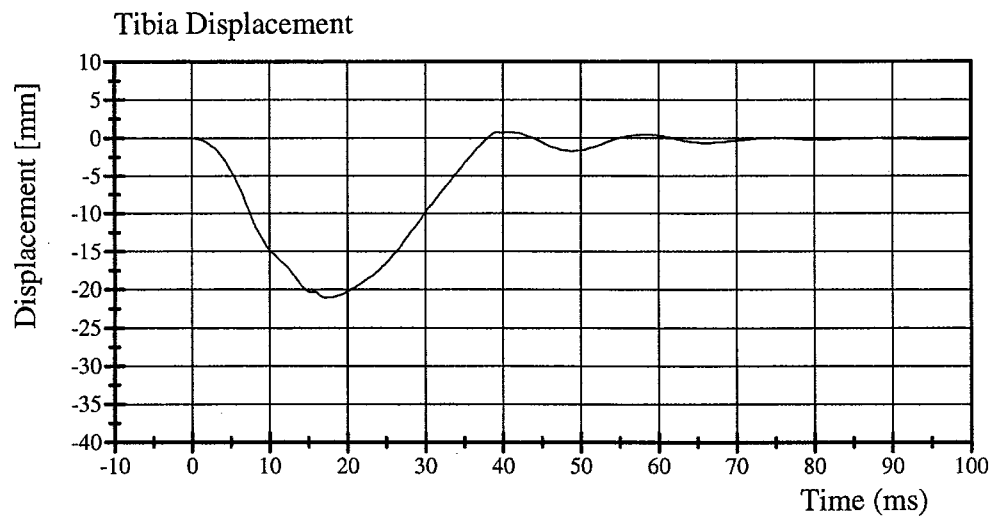
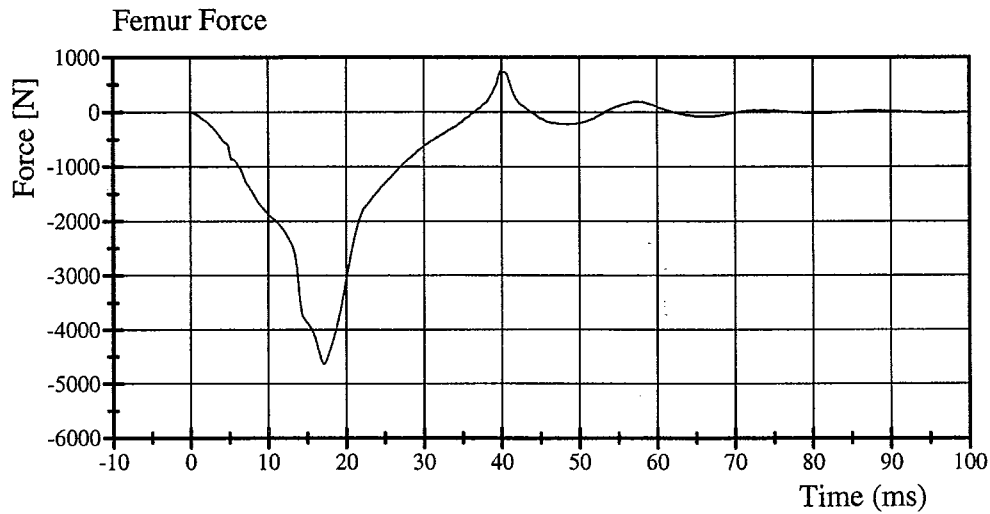


Transportation Research Center Inc.

572E Right Knee Slider Test

HIH 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002



Transportation Research Center Inc.

572E Left Knee Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

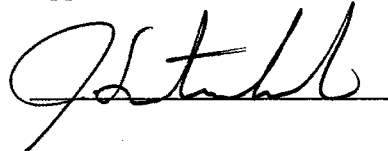
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Pendulum Velocity	2.08 - 2.13 m/s	2.09 m/s	Yes
Maximum Pendulum Force	4716 - 5782 N	5018 N	Yes

Comments:

Technician



Approved



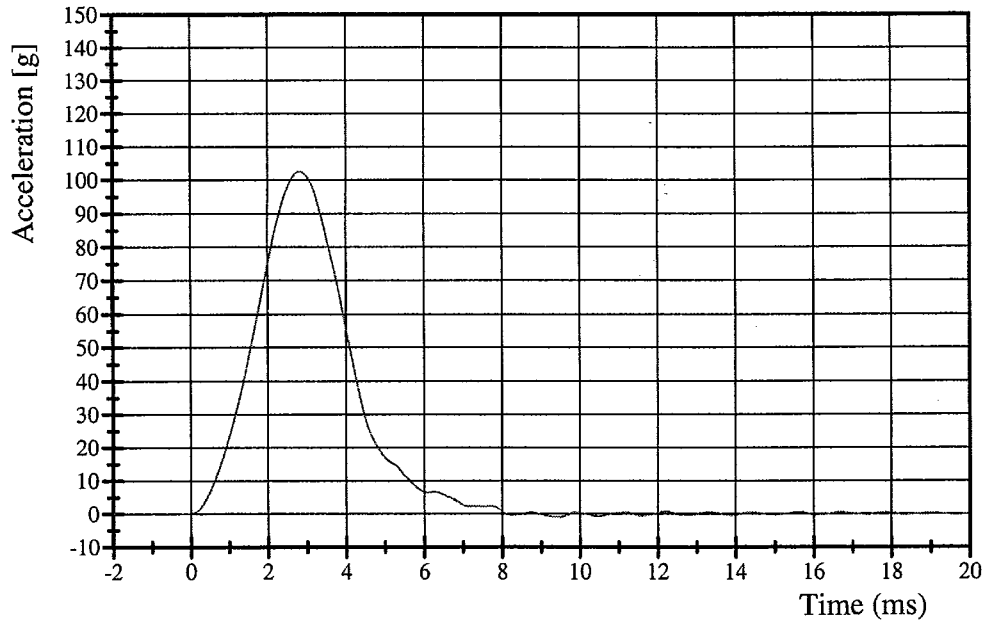
Transportation Research Center Inc.

572E Left Knee Test

HIH 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

Pendulum Deceleration

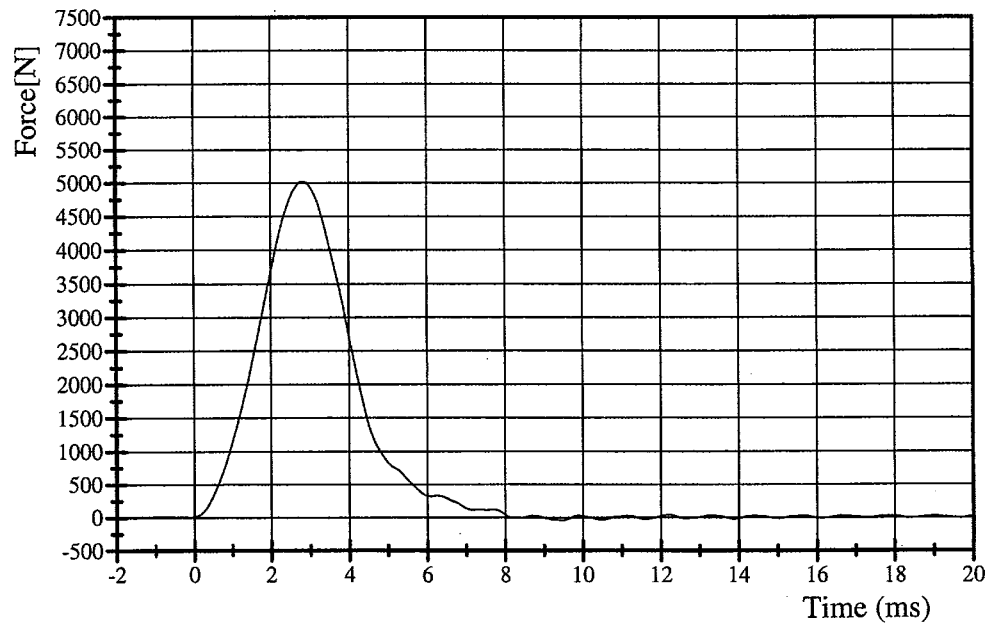


Filter Class: 600

Max: 102.5 g at 2.8 ms

Min: -1.0 g at 9.4 ms

Pendulum Force



Filter Class: 600

Max: 5017.8 N at 2.8 ms

Min: -47.2 N at 9.4 ms

Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

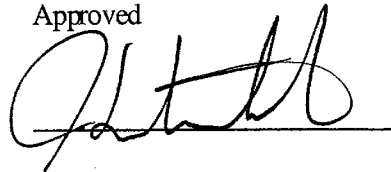
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Pendulum Velocity	2.08 - 2.13 m/s	2.09 m/s	Yes
Maximum Pendulum Force	4716 - 5782 N	5506 N	Yes

Comments:

Technician



Approved



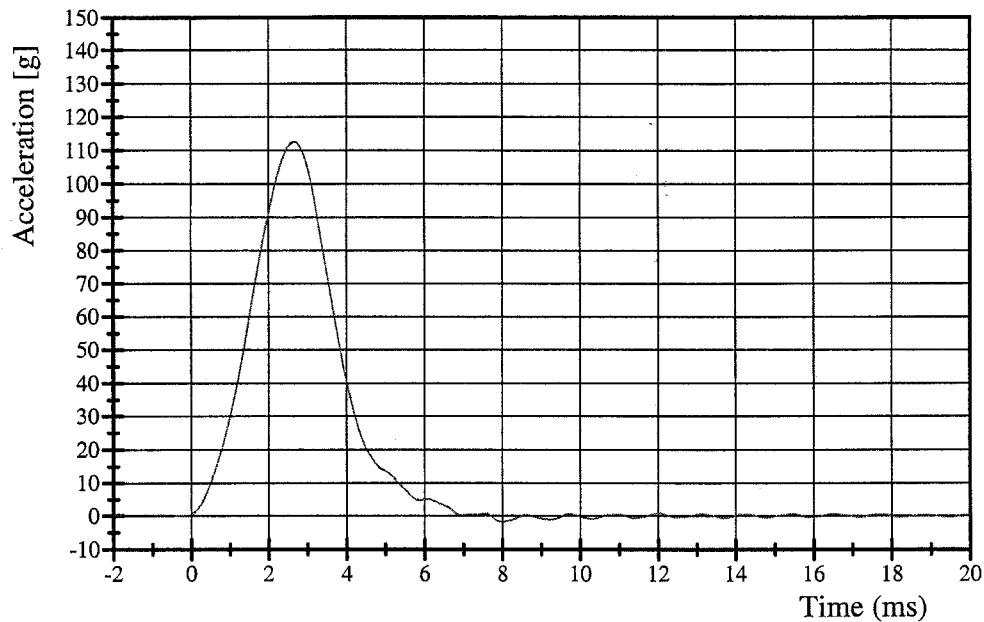
Transportation Research Center Inc.

572E Right Knee Test

HIII 50th Male Serial No. 169 Calibration No. 14 - 1

Test Date 07/09/2002

Pendulum Deceleration

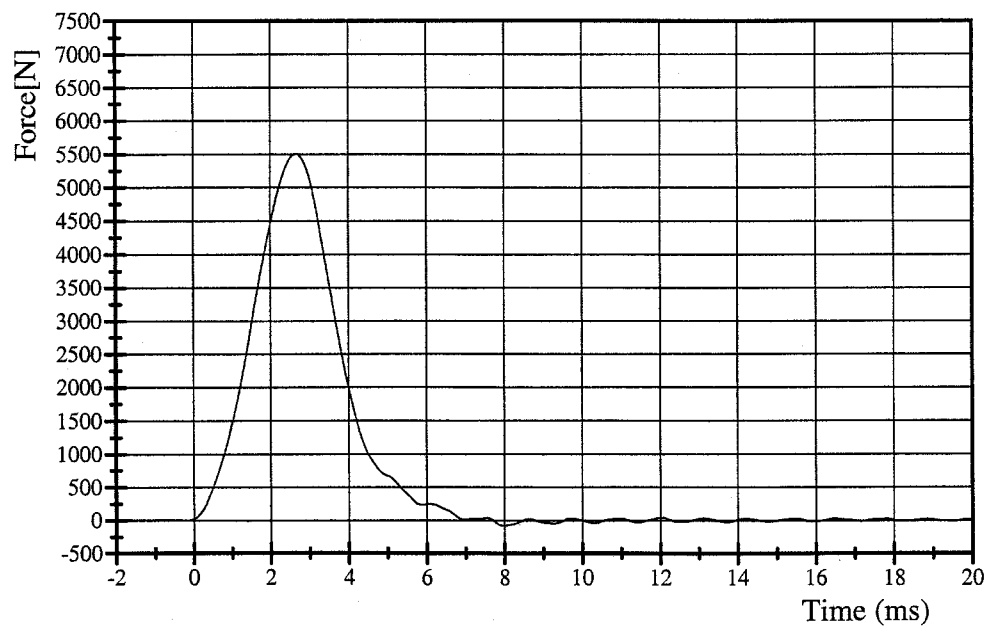


Filter Class: 600

Max: 112.5 g at 2.6 ms

Min: -1.7 g at 8.0 ms

Pendulum Force



Filter Class: 600

Max: 5506.1 N at 2.6 ms

Min: -84.1 N at 8.0 ms

Post-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 168

Head Only

Passenger Dummy S/N: 169

No post-test calibration

Transportation Research Center Inc.

572E Head Drop Test

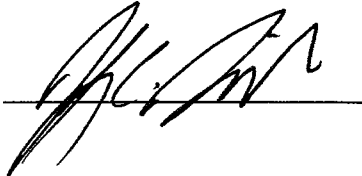
HIII 50th Male Serial No. 168 Calibration No. 16 - 4

Test Date 09/13/2002

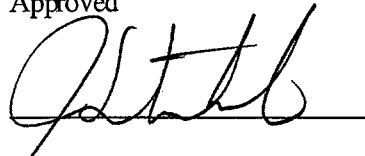
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	43 %	Yes
Peak Resultant Acceleration	225 - 275 g	265.7 g	Yes
Peak Lateral Acceleration	15 g Max	5.4 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Comments:

Technician



Approved

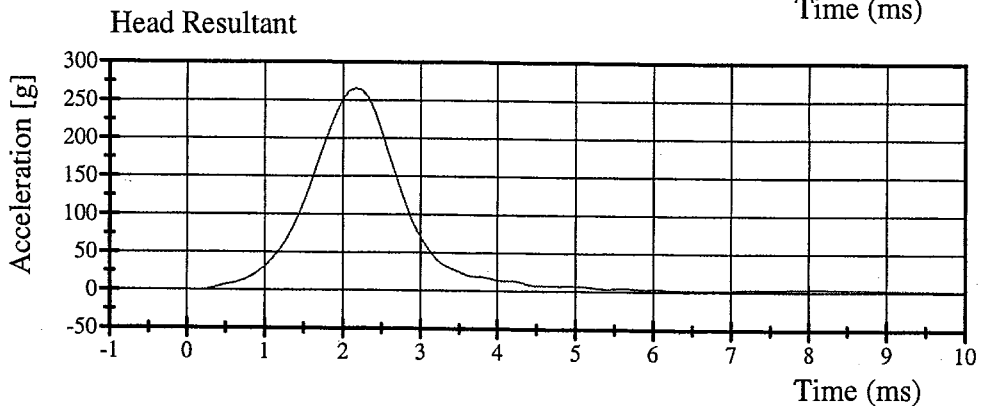
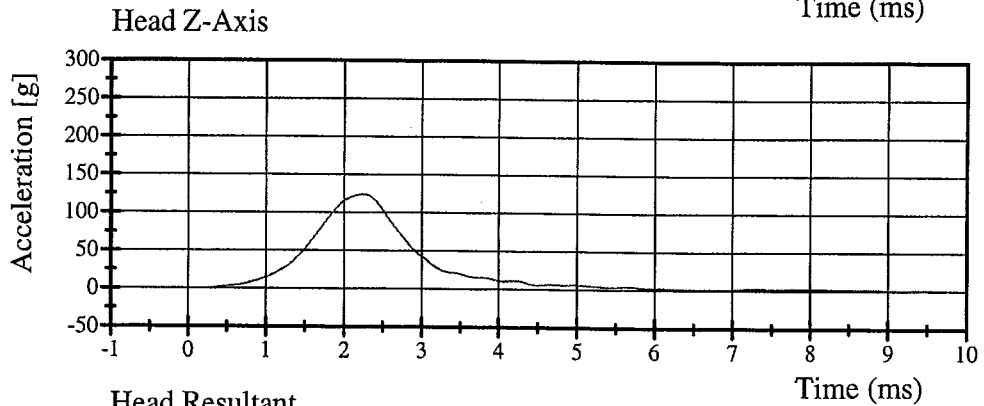
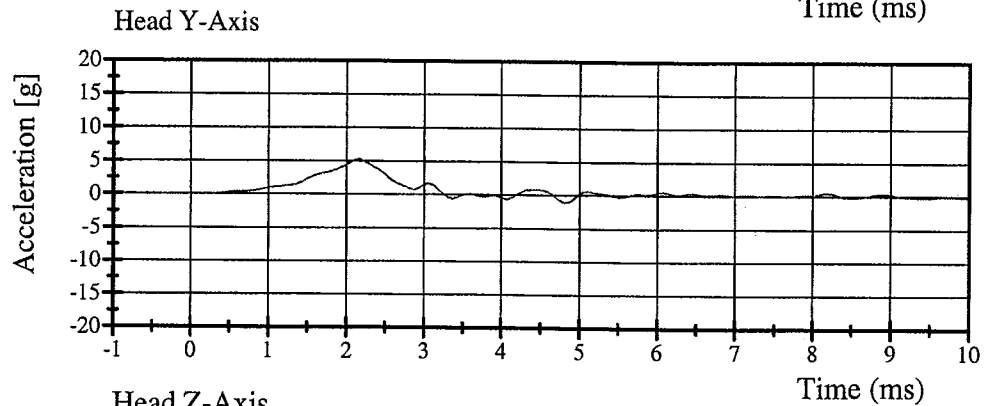
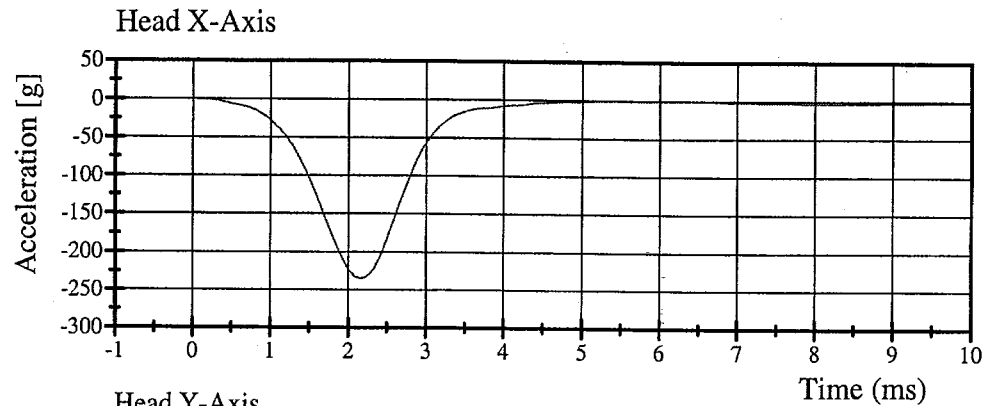


Transportation Research Center Inc.

572E Head Drop Test

III 50th Male Serial No. 168 Calibration No. 16 - 4

Test Date 09/13/2002



Appendix D

Test Equipment and Instrumentation Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:

+X: Forward
+Y: Rightward
+Z: Downward

Potentiometers:

+Chest longitudinal deflection: Outward
+Chest lateral deflection: Leftward
+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

Dual Stage Airbag Event Information

Inductive pick-ups to monitor airbag fire times were labeled “A” and “B” rather than primary and secondary, because wiring information to distinguish primary and secondary was not available.

The following set-up information was recorded for test 020826-1:

Driver A, DABETA, inductive pick-up D, was placed on the red and orange airbag plug wire.

Driver B, DABETB, inductive pick-up C, was placed on the gray and orange airbag plug wire.

Passenger A, PABETA, inductive pick-up A3, was placed on the red with white airbag plug wire.

Passenger B, PABETB, inductive pick-up P, was placed on the pink with black airbag plug wire.

Description Of Timing Marks On TRC Inc. High-Speed Film

All TRC Inc. high-speed cameras are equipped with red LEDs which put timing marks on the right edge of the film. TRC Inc. 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 and Stalex cameras while horizontal bars are left by the Hycam, Locam, and Fastax II 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.



CERTIFICATE OF CONFORMITY

Certificate No. 10302
Serial No. CB 051

Product Description	EEVC Frontal Impact Barrier
Cellbond Part No.	70EEVCFI

	Test Results	GR No.	Blk No.
1	15982-89	PO62765-01	N/A
2	15852-59	PO58715-01	N/A

Declaration.

The above moving deformable barriers have been manufacture in accordance with the provisions of the European Parliament and Council No 96/79/EC Directive (ECE R94)

Additional Information...

For and on behalf of Cellbond Composites Ltd

Signed
Quality Manager



Cellbond Composites Ltd
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website
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company registration
England 1944904

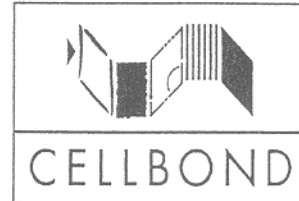
registered office
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF

Cellbond offices
United Kingdom
Germany
United States of America



ISO 9002
QS 9000





EEVC DEFORMABLE FRONTAL BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

MAIN BLOCK
Core: 1.8 3/4 3003

Required Crush Strength
0.308 MPa to 0.342 MPa

Test No: 15982-89

GR No: PO62765-01

Block No: N/A

	Crush Strength (MPa)			RESULT
	6.4 to 9.7 mm	9.7 to 13.2 mm	13.2 to 16.5 mm	
Sample* 1	0.3224	0.3254	0.3208	PASS
Sample 2	0.3232	0.3203	0.3276	PASS
Sample 3	0.3159	0.3104	0.3219	PASS
Sample 4	0.3362	0.3323	0.3332	PASS
Sample 5	0.3269	0.3340	0.3313	PASS
Sample 6	0.3243	0.3340	0.3295	PASS
Sample 7	0.3364	0.3369	0.3323	PASS
Sample 8	0.3183	0.3281	0.3128	PASS

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

EEVC DEFORMABLE FRONTAL BARRIER MAIN BLOCK

Honeycomb Type: 1.8 3/4 3003

Higher Acceptable Crush Strength Limit: 0.342 MPa

Lower Acceptable Crush Strength Limit: 0.308 MPa

Section 1: 6.4 - 9.7mm

Section 2: 9.7 - 13.2mm

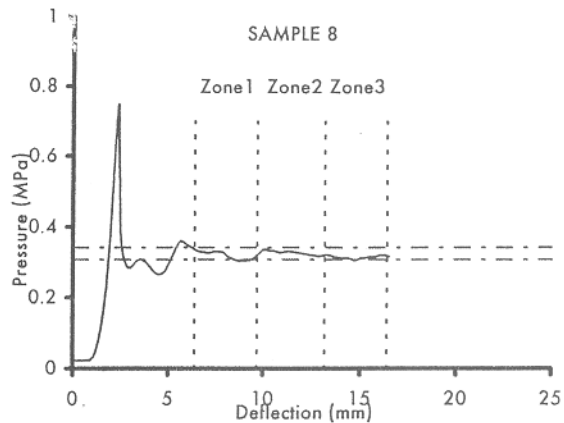
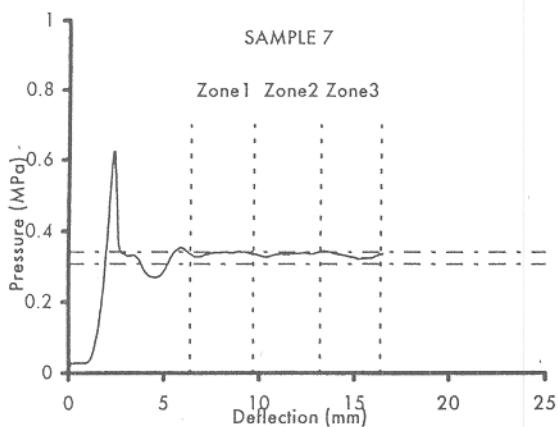
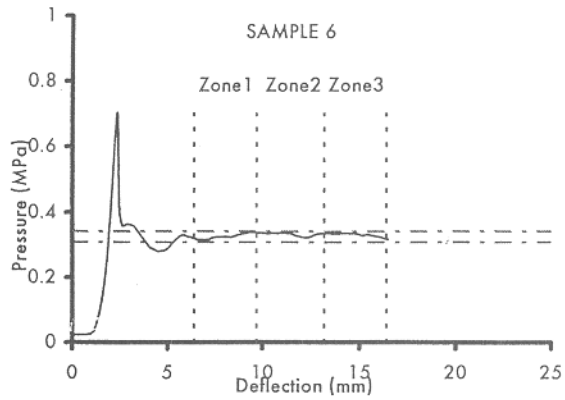
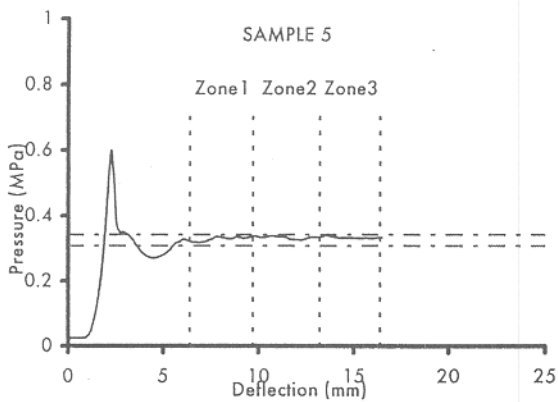
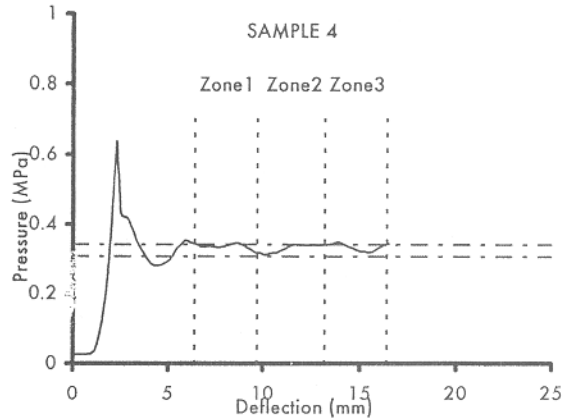
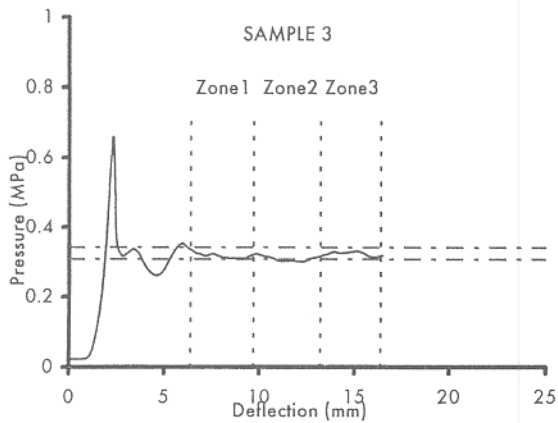
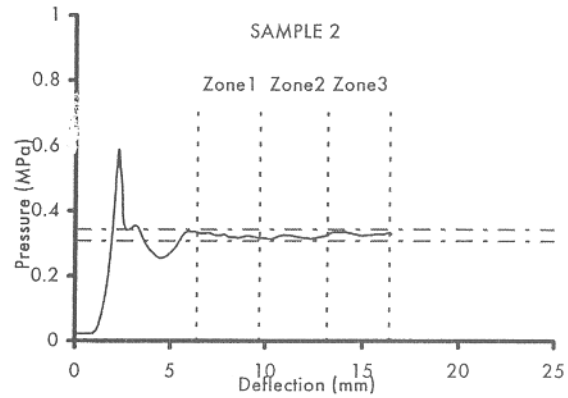
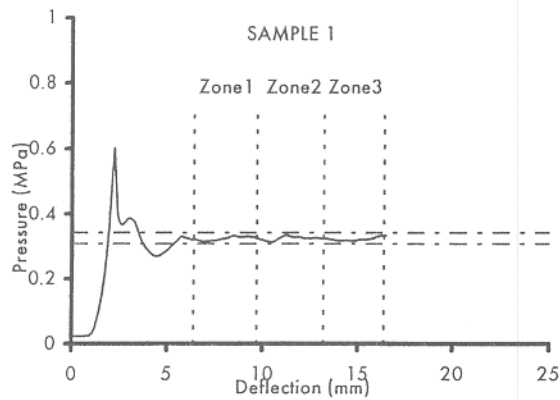
Section 3: 13.2 - 16.5mm

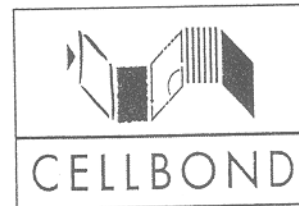
Speed: 6.35 mm/min

Test No: 15982-89

GR No: PO62765-01

Block No: N/A





EEVC DEFORMABLE FRONTAL BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

BUMPER

Core: 5.2 1/4 3003

Required Crush Strength
1.540 MPa to 1.711 MPa

Test No: 15852-59

GR No: PO58715-01

Block No: NA

	Crush Strength (MPa)			RESULT
	6.4 to 9.7 mm	9.7 to 13.2 mm	13.2 to 16.5 mm	
Sample* 1	1.628	1.630	1.644	PASS
Sample 2	1.656	1.646	1.640	PASS
Sample 3	1.643	1.646	1.649	PASS
Sample 4	1.685	1.674	1.677	PASS
Sample 5	1.692	1.693	1.684	PASS
Sample 6	1.681	1.659	1.669	PASS
Sample 7	1.653	1.650	1.651	PASS
Sample 8	1.621	1.633	1.623	PASS

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

EEVC DEFORMABLE FRONTAL BARRIER BUMPER

Honeycomb Type: 5.2 1/4 3003

Higher Acceptable Crush Strength Limit: 1.711 MPa

Lower Acceptable Crush Strength Limit: 1.540 MPa

Section 1: 6.4 - 9.7mm

Section 2: 9.7 - 13.2mm

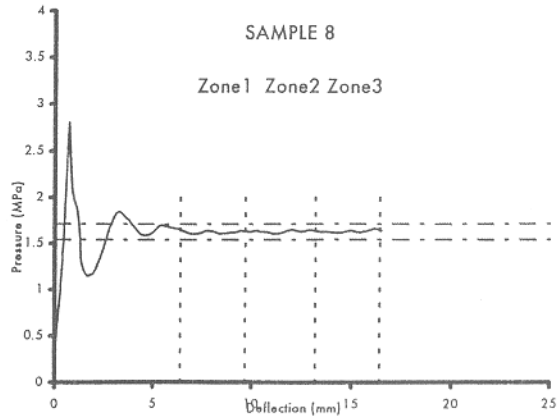
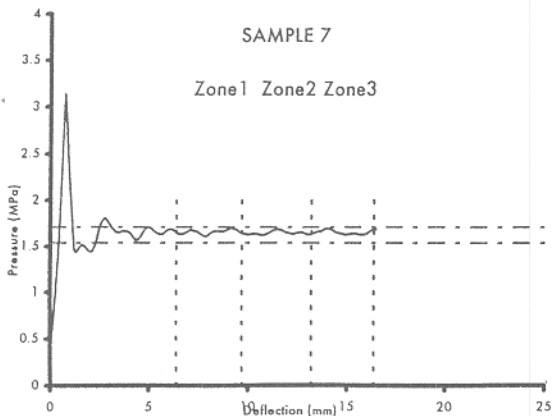
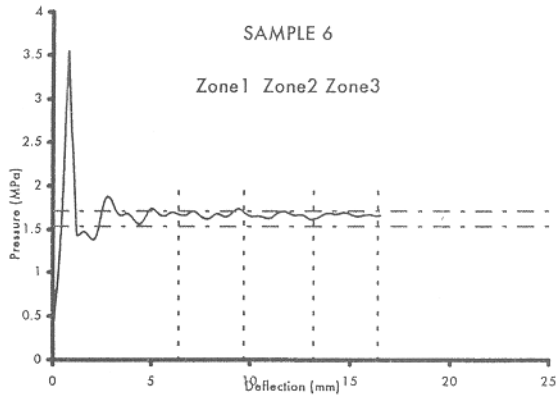
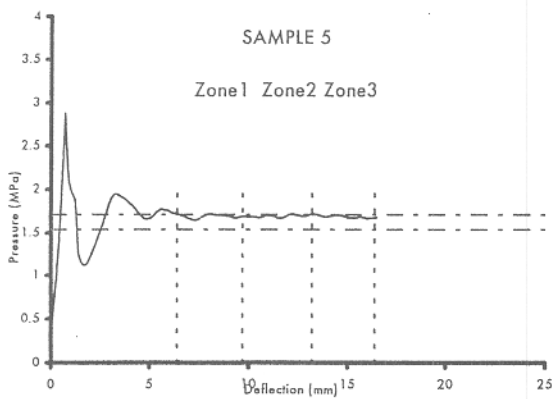
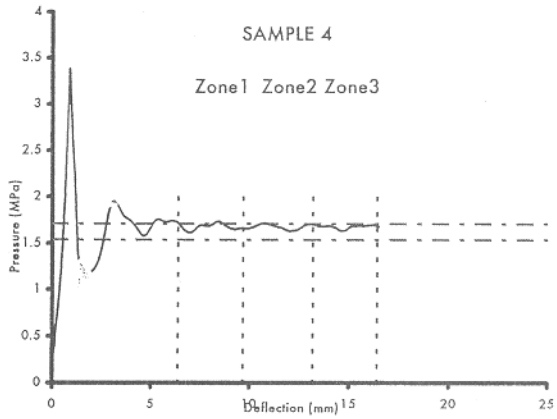
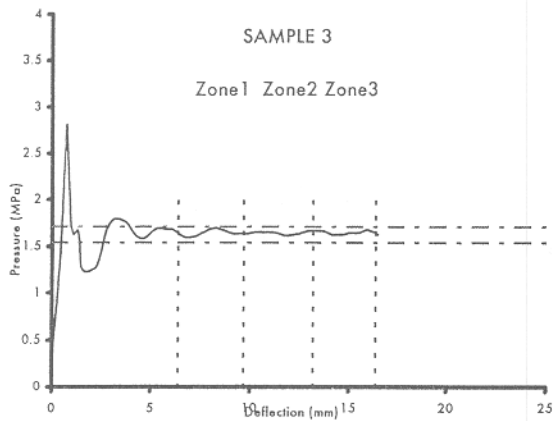
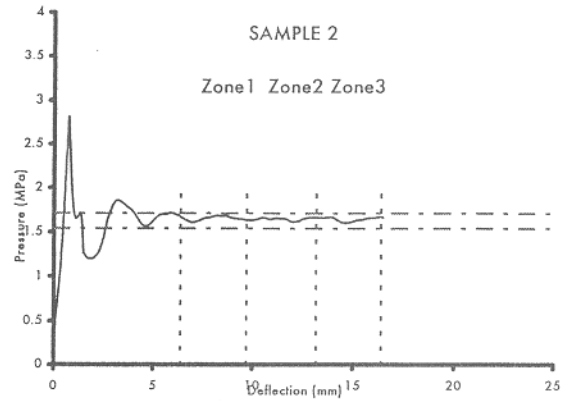
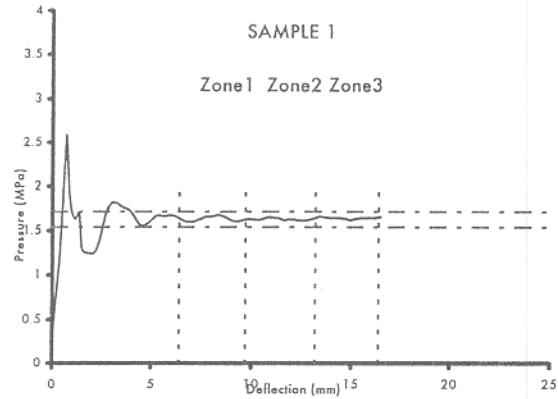
Section 3: 13.2 - 16.5mm

Speed: 6.35 mm/min

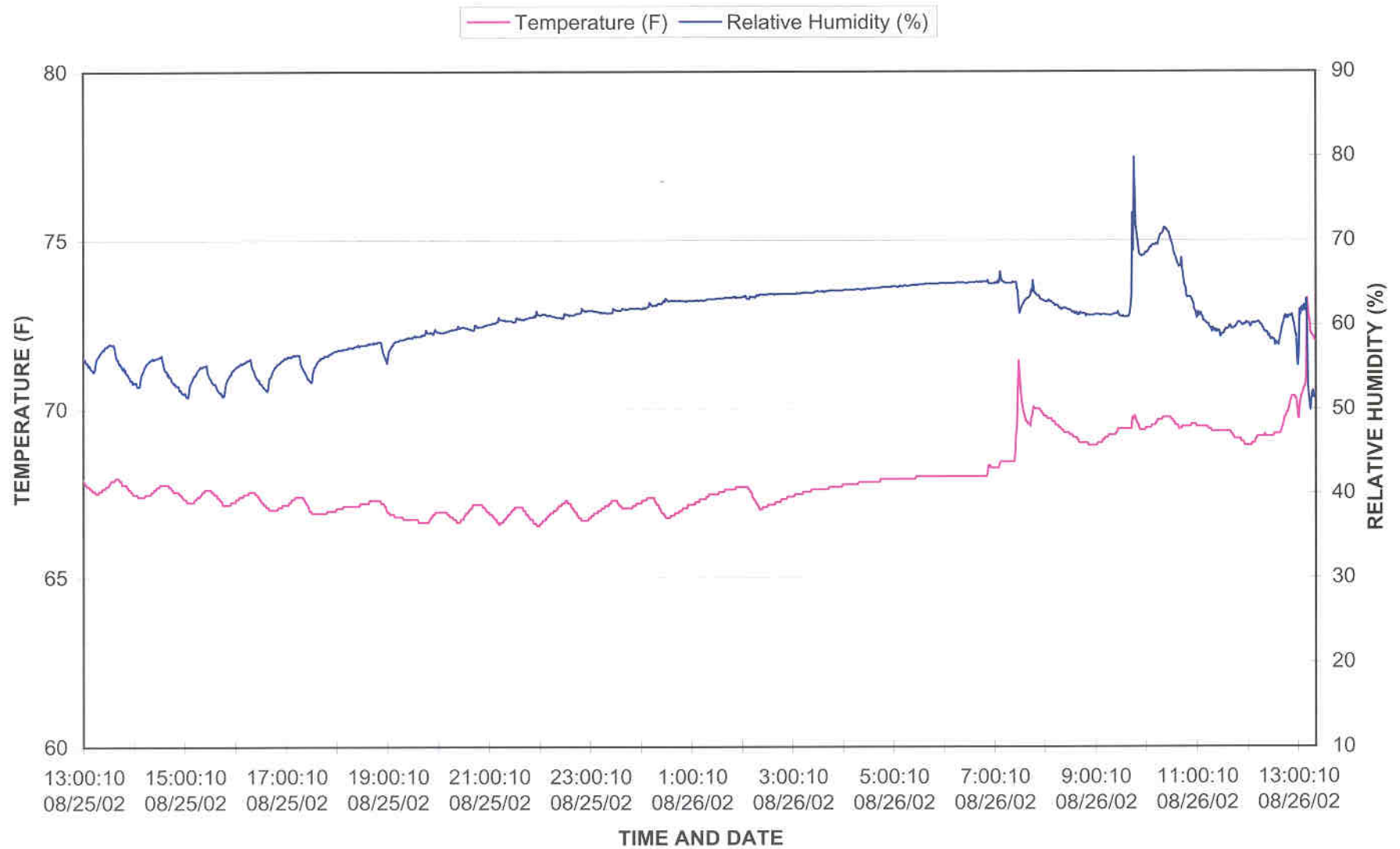
Test No: 15852-59

GR No: PO58715-01

Block No: NA



TEMPERATURE AND RELATIVE HUMIDITY CHART 020826-1



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

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Name of Test 020826-1

System K3600

Name of DAU DAU0

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal. Date/Status	Group	Mfg.	Model
0000	EVENT	SYNCO	SYNCO		10.24	V	+ 4/15/2002 ---	-1	TRC	Event
0001	6244-02-144-FZ	LCA1XF	Barr. L.C. A1 X-Axis Force		222193.05	N	- 2/20/2002 ---	VRTC Of	Key	6244-02
0002	6244-02-125-FZ	LCA2XF	Barr. L.C. A2 X-Axis Force		222158.68	N	- 2/19/2002 ---	VRTC Of	Key	6244-02
0003	6244-02-131-FZ	LCA3XF	Barr. L.C. A3 X-Axis Force		222270.84	N	- 2/5/2002 ---	VRTC Of	Key	6244-02
0004	6244-02-106-FZ	LCA4XF	Barr. L.C. A4 X-Axis Force		222193.05	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0005	6244-02-115-FZ	LCA5XF	Barr. L.C. A5 X-Axis Force		222229.7	N	- 2/5/2002 ---	VRTC Of	Key	6244-02
0006	6244-02-122-FZ	LCA6XF	Barr. L.C. A6 X-Axis Force		222193.05	N	- 2/21/2002 ---	VRTC Of	Key	6244-02
0007	6244-02-143-FZ	LCA7XF	Barr. L.C. A7 X-Axis Force		222193.05	N	- 2/5/2002 ---	VRTC Of	Key	6244-02
0008	6244-02-119-FZ	LCB1XF	Barr. L.C. B1 X-Axis Force		222392.15	N	- 2/22/2002 ---	VRTC Of	Key	6244-02
0009	6244-02-132-FZ	LCB2XF	Barr. L.C. B2 X-Axis Force		222557.12	N	- 2/20/2002 ---	VRTC Of	Key	6244-02
0010	6244-02-113-FZ	LCB3XF	Barr. L.C. B3 X-Axis Force		222270.84	N	- 2/22/2002 ---	VRTC Of	Key	6244-02
0011	6244-02-129-FZ	LCB4XF	Barr. L.C. B4 X-Axis Force		222193.05	N	- 2/21/2002 ---	VRTC Of	Key	6244-02
0012	6244-02-123-FZ	LCB5XF	Barr. L.C. B5 X-Axis Force		222167.69	N	- 2/11/2002 ---	VRTC Of	Key	6244-02
0013	6244-02-136-FZ	LCB6XF	Barr. L.C. B6 X-Axis Force		222167.69	N	- 1/24/2002 ---	VRTC Of	Key	6244-02
0014	6244-02-116-FZ	LCB7XF	Barr. L.C. B7 X-Axis Force		222392.15	N	- 2/22/2002 ---	VRTC Of	Key	6244-02
0015	6244-02-147-FZ	LCC1XF	Barr. L.C. C1 X-Axis Force		222392.15	N	- 2/22/2002 ---	VRTC Of	Key	6244-02
0016	6244-02-137-FZ	LCC2XF	Barr. L.C. C2 X-Axis Force		222158.68	N	- 2/21/2002 ---	VRTC Of	Key	6244-02
0017	6244-02-107-FZ	LCC3XF	Barr. L.C. C3 X-Axis Force		222055.97	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0018	6244-02-126-FZ	LCC4XF	Barr. L.C. C4 X-Axis Force		222167.69	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0019	6244-02-148-FZ	LCC5XF	Barr. L.C. C5 X-Axis Force		222193.05	N	- 2/19/2002 ---	VRTC Of	Key	6244-02
0020	6244-02-124-FZ	LCC6XF	Barr. L.C. C6 X-Axis Force		222193.05	N	- 2/19/2002 ---	VRTC Of	Key	6244-02
0021	6244-02-104-FZ	LCC7XF	Barr. L.C. C7 X-Axis Force		222193.05	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0022	6244-02-138-FZ	LCD1XF	Barr. L.C. D1 X-Axis Force		222158.68	N	- 2/21/2002 ---	VRTC Of	Key	6244-02
0023	6244-02-128-FZ	LCD2XF	Barr. L.C. D2 X-Axis Force		222392.15	N	- 1/7/2002 ---	VRTC Of	Key	6244-02
0024	6244-02-102-FZ	LCD3XF	Barr. L.C. D3 X-Axis Force		222270.84	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0025	6244-02-117-FZ	LCD4XF	Barr. L.C. D4 X-Axis Force		222158.68	N	- 2/19/2002 ---	VRTC Of	Key	6244-02
0026	6244-02-127-FZ	LCD5XF	Barr. L.C. D5 X-Axis Force		222270.84	N	- 2/22/2002 ---	VRTC Of	Key	6244-02
0027	6244-02-109-FZ	LCD6XF	Barr. L.C. D6 X-Axis Force		222167.69	N	- 2/12/2002 ---	VRTC Of	Key	6244-02
0028	6244-02-162-FZ	LCD7XF	Barr. L.C. D7 X-Axis Force		222325.47	N	- 1/7/2002 ---	VRTC Of	Key	6244-02
0029	6244-02-114-FZ	LCE1XF	Barr. L.C. E1 X-Axis Force		222158.68	N	- 2/19/2002 ---	VRTC Of	Key	6244-02

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0030	6244-02-145-FZ	LCE2XF	Barr. L.C. E2 X-Axis Force	222459.02	N	-	2/20/2002	---	VRTC Of Key	6244-02
0031	6244-02-118-FZ	LCE3XF	Barr. L.C. E3 X-Axis Force	222270.84	N	-	2/19/2002	---	VRTC Of Key	6244-02
0032	6244-02-120-FZ	LCE4XF	Barr. L.C. E4 X-Axis Force	222158.68	N	-	1/7/2002	---	VRTC Of Key	6244-02
0033	6244-02-101-FZ	LCE5XF	Barr. L.C. E5 X-Axis Force	222167.69	N	-	2/12/2002	---	VRTC Of Key	6244-02
0034	6244-02-112-FZ	LCE6XF	Barr. L.C. E6 X-Axis Force	222557.12	N	-	2/19/2002	---	VRTC Of Key	6244-02
0035	6244-02-108-FZ	LCE7XF	Barr. L.C. E7 X-Axis Force	222193.05	N	-	2/12/2002	---	VRTC Of Key	6244-02
0036	6244-02-164-FZ	LCF1XF	Barr. L.C. F1 X-Axis Force	222828.81	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0037	6244-02-135-FZ	LCF2XF	Barr. L.C. F2 X-Axis Force	222077.64	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0038	6244-02-165-FZ	LCF3XF	Barr. L.C. F3 X-Axis Force	222116.66	N	-	3/18/2002	---	VRTC Of Key	6244-02
0039	6244-02-141-FZ	LCF4XF	Barr. L.C. F4 X-Axis Force	222392.15	N	-	2/19/2002	---	VRTC Of Key	6244-02
0040	6244-02-130-FZ	LCF5XF	Barr. L.C. F5 X-Axis Force	222193.05	N	-	2/20/2002	---	VRTC Of Key	6244-02
0041	6244-02-168-FZ	LCF6XF	Barr. L.C. F6 X-Axis Force	222229.7	N	-	1/7/2002	---	VRTC Of Key	6244-02
0042	6244-02-149-FZ	LCF7XF	Barr. L.C. F7 X-Axis Force	222158.68	N	-	2/20/2002	---	VRTC Of Key	6244-02
0043	6244-02-159-FZ	LCG1XF	Barr. L.C. G1 X-Axis Force	222340.00	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0044	6244-02-160-FZ	LCG2XF	Barr. L.C. G2 X-Axis Force	222500.35	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0045	6244-02-161-FZ	LCG3XF	Barr. L.C. G3 X-Axis Force	222431.09	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0046	6244-02-166-FZ	LCG4XF	Barr. L.C. G4 X-Axis Force	222074.17	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0047	6244-02-157-FZ	LCH1XF	Barr. L.C. H1 X-Axis Force	222887.79	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0048	6244-02-169-FZ	LCH2XF	Barr. L.C. H2 X-Axis Force	222806.85	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0049	6244-02-163-FZ	LCH3XF	Barr. L.C. H3 X-Axis Force	222440.32	N	-	8/2/2002	OK	VRTC Of Key	6244-02
0050	6244-02-167-FZ	LCH4XF	Barr. L.C. H4 X-Axis Force	221940.94	N	-	8/2/2002	OK	VRTC Of Key	6244-02

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Name of Test 020826-1

System K3600

Name of DAU DAU1

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal. Date/Status	Group	Mfg.	Model
1000	EVENT1	SYNC1	SYNC1		10.24 V	+	4/15/2002 OK	-1	TRC	Event
1001	J17649	HEDXG1	Head Accel X	Rwd	799.25070 g	-	5/24/2002 OK	168v	Endevco	7264-2KM5T
1002	AJ454	HEDYG1	Head Accel Y	Lft	796.76315 g	-	5/24/2002 OK	168v	Endevco	7264-2000T
1003	J14189	HEDZG1	Head Accel Z	Up	793.24502 g	-	5/24/2002 OK	168v	Endevco	7264-2000T
1004	P17196	HEDXR1	Head Accel Red X S39	Rwd	797.85576 g	-	1/25/2002 ---	168v	Endevco	7264C-2KLC-2-2
1005	B02A25-N05	HEDYR1	Head Accel Red Y	Lft	800.20005 g	-	2/8/2002 OK	168v	Entran	EGE-73B6Q-200
1006	01G25-N09	HEDZR1	Head Accel Red Z	Up	796.43471 g	-	1/24/2002 OK	168v	Entran	EGE-73B6Q-200
1007	1716A-851-FX	NEKXF1	Neck Force X	Hd Fd	8901.1429 N	-	5/29/2002 OK	168v	Denton	1716A
1008	1716A-851-FY	NEKYF1	Neck Force Y	Hd Lt	8900.8975 N	+	5/29/2002 OK	168v	Denton	1716A
1009	1716A-851-FZ	NEKZF1	Neck Force Z	Hd U	13337.786 N	+	5/29/2002 OK	168v	Denton	1716A
1010	1716A-851-MX	NEKXM1	Neck Moment X	Rt Ear	282.57713 N·m	-	5/29/2002 OK	168v	Denton	1716A
1011	1716A-851-MY	NEKYM1	Neck Moment Y	Chn t	282.47809 N·m	+	5/29/2002 OK	168v	Denton	1716A
1012	1716A-851-MZ	NEKZM1	Neck Moment Z	Chn t	282.53544 N·m	+	5/29/2002 OK	168v	Denton	1716A
1013	J35921	CSTXG1	Chest Accel X	Fwd	401.13446 g	+	5/24/2002 OK	168v	Endevco	7264-2000TZ
1014	AJ7F7	CSTYG1	Chest Accel Y	Lft	398.05637 g	-	5/24/2002 OK	168v	Endevco	7264-2000T
1015	J36723	CSTZG1	Chest Accel Z	Up	398.06565 g	-	5/24/2002 OK	168v	Endevco	7264-2000TZ
1016	99H30-Z14	CSTXR1	Chest Accel Red X	Rwd	401.60170 g	-	4/25/2002 OK	168v	Entran	EGE-73BQE0-20
1017	98H14-K05	CSTYR1	Chest Accel Red Y	Lft	399.65499 g	-	4/25/2002 OK	168v	Entran	EGE-73BQ-2000
1018	98H13-F03	CSTZR1	Chest Accel Red Z	Up	400.05782 g	-	4/25/2002 OK	168v	Entran	EGE-73BQ-2000
1019	14CB1-2847-168	CSTXD1	Chest Deflection X	Strnm	101.85558 mm	+	6/5/2002 OK	168v	Servo	14CB1-2847
1020	ACCY2	PEVXG1	Pelvis Accel X	Rwd	400.90831 g	-	5/24/2002 OK	168v	Endevco	7264-2000T
1021	J27490	PEVYG1	Pelvis Accel Y	Lft	398.71663 g	-	5/24/2002 OK	168v	Endevco	7264-2KM5T
1022	J21963	PEVZG1	Pelvis Accel Z	Up	400.73573 g	-	5/24/2002 OK	168v	Endevco	7264-2KM5T
1023	1914A-362-FX	LFMXF1	Left Femur Force X	Knee	20035.751 N	-	5/24/2002 OK	168v	Denton	1914A
1024	1914A-362-FY	LFMYF1	Left Femur Force Y	Knee	20015.190 N	+	5/24/2002 OK	168v	Denton	1914A
1025	1914A-362-FZ	LFMZF1	Left Femur Force Z	Knee	33334.983 N	+	5/24/2002 OK	168v	Denton	1914A
1026	1914A-362-MX	LFMXM1	Left Femur Moment X	Knee	508.62542 N·m	-	5/24/2002 OK	168v	Denton	1914A
1027	1914A-362-MY	LFMYM1	Left Femur Moment Y	Knee	509.30828 N·m	+	5/24/2002 OK	168v	Denton	1914A
1028	1914A-362-MZ	LFMZM1	Left Femur Moment Z	Tib Lt	508.04912 N·m	+	5/24/2002 OK	168v	Denton	1914A
1029	1914A-376-FX	RFMXF1	Right Femur Force X	Knee	20005.301 N	-	5/24/2002 OK	168v	Denton	1914A

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1030	1914A-376-FY	RFMYF1	Right Femur Force Y	Knee	20010.349	N	+	5/24/2002	OK	168v	Denton	1914A
1031	1914A-376-FZ	RFMZF1	Right Femur Force Z	Knee	33337.253	N	+	5/24/2002	OK	168v	Denton	1914A
1032	1914A-376-MX	RFMXM1	Right Femur Moment X	Knee	508.76684	N·m	-	5/24/2002	OK	168v	Denton	1914A
1033	1914A-376-MY	RFMYM1	Right Femur Moment Y	Knee	508.69127	N·m	+	5/24/2002	OK	168v	Denton	1914A
1034	1914A-376-MZ	RFMZM1	Right Femur Moment Z	Tib Lt	509.68328	N·m	+	5/24/2002	OK	168v	Denton	1914A
1035	150-0121VR-1802	KNLXD1	Left Knee Displacement	Tib Rr	43.559639	mm	-	6/13/2002	OK	168v	SpaceAge	150-0121VR
1036	4353J-79-FX	TBLXF1	Left Upper Tibia Force X	Tib Rr	8898.2596	N	-	7/16/2002	OK	168v	Denton	4353J
1037	4353J-79-FZ	TBLZF1	Left Upper Tibia Force Z	Tib D	8898.3465	N	+	7/16/2002	OK	168v	Denton	4353J
1038	4353J-79-MX	TBLXM1	Left Upper Tibia Moment X	Tib Rt	281.76543	N·m	-	7/16/2002	OK	168v	Denton	4353J
1039	4353J-79-MY	TBLYM1	Left Upper Tibia Moment Y	Tib Rr	281.73853	N·m	-	7/16/2002	OK	168v	Denton	4353J
1040	AMR49	TBLXG1	Left Tibia Accel X	Fwd	1197.4927	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1041	AAJ29	TBLYG1	Left Tibia Accel Y	Rt	1189.1490	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1042	4929J-77-FX	ANLXF1	Left Lower Tibia Force X	Ank F	8900.2981	N	+	7/16/2002	OK	168v	Denton	4929J
1043	4929J-77-FY	ANLYF1	Left Lower Tibia Force Y	Ank R	8899.2802	N	+	7/16/2002	OK	168v	Denton	4929J
1044	4929J-77-FZ	ANLZF1	Left Lower Tibia Force Z	Ank D	8892.7873	N	+	7/16/2002	OK	168v	Denton	4929J
1045	4929J-77-MX	ANLXM1	Left Lower Tibia Moment X	Ank L	282.19834	N·m	+	7/16/2002	OK	168v	Denton	4929J
1046	4929J-77-MY	ANLYM1	Left Lower Tibia Moment Y	Ank F	281.82270	N·m	+	7/16/2002	OK	168v	Denton	4929J
1047	LX104X	FTLXD1	Left Foot Disp. X	Eversi	161.56516	°	+	7/17/2002	OK	168v	Contelec	PD210-4B
1048	LX104Y	FTLYD1	Left Foot Disp. Y	Dorsif	160.90509	°	+	7/17/2002	OK	168v	Contelec	PD210-4B
1049	LX104Z	FTLZD1	Left Foot Disp. Z	Extern	161.50910	°	-	7/17/2002	OK	168v	Contelec	PD210-4B
1050	AAKB1	FTLXG1	Left Foot Accel X	Fwd	1183.8698	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1051	AAKD0	FTLYG1	Left Foot Accel Y	Rt	1199.4284	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1052	J23759	FTLZG1	Left Foot Accel Z	Dn	1207.7608	g	+	8/6/2002	OK	168v	Endevco	7264-2KM5T
1053	150-0121VL-1812	KNRXD1	Right Knee Displacement	Tib Rr	44.603188	mm	-	6/13/2002	OK	168v	SpaceAge	150-0121VL
1054	4353J-75-FX	TBRXF1	Right Upper Tibia Force X	Tib F	8902.5567	N	+	8/2/2002	OK	168v	Denton	4353J
1055	4353J-75-FZ	TBRZF1	Right Upper Tibia Force Z	Tib D	8900.2563	N	+	8/2/2002	OK	168v	Denton	4353J
1056	4353J-75-MX	TBRXM1	Right Upper Tibia Moment X	Tib Lt	282.08211	N·m	+	8/2/2002	OK	168v	Denton	4353J
1057	4353J-75-MY	TBRYM1	Right Upper Tibia Moment Y	Tib F	282.18701	N·m	+	8/2/2002	OK	168v	Denton	4353J
1058	J36726	TBRXG1	Right Tibia Accel X	Fwd	1186.1737	g	+	8/7/2002	OK	168v	Endevco	7264-2000TZ
1059	AGWB1	TBRYG1	Right Tibia Accel Y	Rt	1214.1909	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1060	4929J-76-FX	ANRXF1	Right Lower Tibia Force X	Ank F	8893.1394	N	+	7/16/2002	OK	168v	Denton	4929J
1061	4929J-76-FY	ANRYF1	Right Lower Tibia Force Y	Ank R	8901.0800	N	+	7/16/2002	OK	168v	Denton	4929J
1062	4929J-76-FZ	ANRZF1	Right Lower Tibia Force Z	Ank D	8893.2457	N	+	7/16/2002	OK	168v	Denton	4929J
1063	4929J-76-MX	ANRXM1	Right Lower Tibia Moment X	Ank L	281.92254	N·m	+	7/16/2002	OK	168v	Denton	4929J
1064	4929J-76-MY	ANRYM1	Right Lower Tibia Moment Y	Ank F	282.26397	N·m	+	7/16/2002	OK	168v	Denton	4929J

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1065	PD210-4B-AK-03	FTRXD1	Right Foot Disp. X	Eversi	160.05002	°	-	7/18/2002	OK	168v	Contelec	PD210-4B
1066	PD210-4B-0225	FTRYD1	Right Foot Disp. Y	Dorsif	162.23581	°	+	7/18/2002	OK	168v	Contelec	PD210-4B
1067	PD210-4B-AK-03	FTRZD1	Right Foot Disp. Z	Intern	162.09713	°	-	7/18/2002	OK	168v	Contelec	PD210-4B
1068	AALD5	FTRXG1	Right Foot Accel X	Fwd	1204.1251	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1069	AAK48	FTRYG1	Right Foot Accel Y	Rt	1218.1775	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1070	ACB45	FTRZG1	Right Foot Accel Z	Dn	1189.1490	g	+	8/6/2002	OK	168v	Endevco	7264-2000LC
1071	J20083	HEDXG2	Head Accel X	Rwd	795.77864	g	-	5/24/2002	OK	169v	Endevco	7264-2000T
1072	J19843	HEDYG2	Head Accel Y	Lft	802.00501	g	-	5/24/2002	OK	169v	Endevco	7264-2000T
1073	J20027	HEDZG2	Head Accel Z	Up	807.18266	g	-	5/24/2002	OK	169v	Endevco	7264-2KM5T
1074	1716A-782-FX	NEKXF2	Neck Force X	Hd Fd	8899.3629	N	-	5/30/2002	OK	169v	Denton	1716A
1075	1716A-782-FY	NEKYF2	Neck Force Y	Hd Lt	8891.4986	N	+	5/30/2002	OK	169v	Denton	1716A
1076	1716A-782-FZ	NEKZF2	Neck Force Z	Hd U	13341.036	N	+	5/30/2002	OK	169v	Denton	1716A
1077	1716A-782-MX	NEKXM2	Neck Moment X	Rt Ear	282.33238	N·m	-	5/30/2002	OK	169v	Denton	1716A
1078	1716A-782-MY	NEKYM2	Neck Moment Y	Chn t	282.59624	N·m	+	5/30/2002	OK	169v	Denton	1716A
1079	1716A-782-MZ	NEKZM2	Neck Moment Z	Chn t	282.34137	N·m	+	5/30/2002	OK	169v	Denton	1716A
1080	J23757	CSTXG2	Chest Accel X	Fwd	401.74035	g	+	5/24/2002	OK	169v	Endevco	7264-2000T
1081	J21989	CSTYG2	Chest Accel Y	Lft	399.01804	g	-	5/24/2002	OK	169v	Endevco	7264-2KM5T
1082	J35747	CSTZG2	Chest Accel Z	Up	401.75769	g	-	5/24/2002	OK	169v	Endevco	7264-2000TZ
1083	14CB1-2847-169	CSTXD2	Chest Deflection X	Strnm	102.03095	mm	+	6/6/2002	OK	169v	Servo	14CB1-2847
1084	J36741	PEVXG2	Pelvis Accel X	Rwd	399.18759	g	-	5/24/2002	OK	169v	Endevco	7264-2000TZ
1085	J36605	PEVYG2	Pelvis Accel Y	Lft	398.45598	g	-	5/24/2002	OK	169v	Endevco	7264-2000TZ
1086	AAMD7	PEVZG2	Pelvis Accel Z	Up	401.89960	g	-	5/24/2002	OK	169v	Endevco	7264-2000LC
1087	1914-0261-FX	LFMXF2	Left Femur Force X	Knee	20043.875	N	-	5/24/2002	OK	169v	Denton	1914
1088	1914-0261-FY	LFMYF2	Left Femur Force Y	Knee	20037.545	N	+	5/24/2002	OK	169v	Denton	1914
1089	1914-0261-FZ	LFMZF2	Left Femur Force Z	Knee	33361.065	N	+	5/24/2002	OK	169v	Denton	1914
1090	1914-0261-MX	LFMXM2	Left Femur Moment X	Knee	508.75256	N·m	-	5/24/2002	OK	169v	Denton	1914
1091	1914-0261-MY	LFMYM2	Left Femur Moment Y	Knee	508.52406	N·m	+	5/24/2002	OK	169v	Denton	1914
1092	1914-0261-MZ	LFMZM2	Left Femur Moment Z	Tib Lt	509.01555	N·m	+	5/24/2002	OK	169v	Denton	1914
1093	150-0121VR-1716	KNLXD2	Left Knee Displacement	Tib Rr	43.137585	mm	-	6/13/2002	OK	169v	SpaceAge	150-0121VR
1094	1914A-383-FX	RFMXF2	Right Femur Force X	Knee	20039.527	N	-	5/24/2002	OK	169v	Denton	1914A
1095	1914A-383-FY	RFMYF2	Right Femur Force Y	Knee	20017.163	N	+	5/24/2002	OK	169v	Denton	1914A
1096	1914A-383-FZ	RFMZF2	Right Femur Force Z	Knee	33365.2	N	+	5/24/2002	OK	169v	Denton	1914A
1097	1914A-383-MX	RFMXM2	Right Femur Moment X	Knee	508.55789	N·m	-	5/24/2002	OK	169v	Denton	1914A
1098	1914A-383-MY	RFMYM2	Right Femur Moment Y	Knee	509.40946	N·m	+	5/24/2002	OK	169v	Denton	1914A
1099	1914A-383-MZ	RFMZM2	Right Femur Moment Z	Tib Lt	509.04462	N·m	+	5/24/2002	OK	169v	Denton	1914A

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1100	4353J-78-FX	TBLXF2	Left Upper Tibia Force X	Tib Rr	8902.4648	N	-	7/17/2002	OK	169v	Denton	4353J
1101	4353J-78-FZ	TBLZF2	Left Upper Tibia Force Z	Tib D	8892.4095	N	+	7/17/2002	OK	169v	Denton	4353J
1102	4353J-78-MX	TBLXM2	Left Upper Tibia Moment X	Tib Rt	282.04464	N·m	-	7/17/2002	OK	169v	Denton	4353J
1103	4353J-78-MY	TBLYM2	Left Upper Tibia Moment Y	Tib Rr	282.22691	N·m	-	7/17/2002	OK	169v	Denton	4353J
1104	J27464	TBLXG2	Left Tibia Accel X	Fwd	1198.5019	g	+	8/6/2002	OK	169v	Endevco	7264-2KM5T
1105	J36743	TBLYG2	Left Tibia Accel Y	Rt	1153.0752	g	+	8/7/2002	OK	169v	Endevco	7264-2000TZ
1106	J27948	VCGXG1	VEHICLE CG X-AXIS	FWD	1004.9857	g	+	9/20/2002	OK	-1	Endevco	7264-2000TZ
1107	J34438	VCGYG1	VEHICLE CG Y-AXIS	RT	984.56805	g	+	8/1/2002	OK	-1	Endevco	7264-2000TZ

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Name of Test		System		Name of DAU		DAU6					
020826-1		MINIDAU									
Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal. Date/Status	Group	Mfg.	Model	
6001	J14387	VCGZG1	VEHICLE CG Z-AXIS	UP	1013.7008 g	-	8/15/2002 OK	-1	Endevco	7264-2000TZ	
6004	LX0019X	FTLXD2	Left Foot Disp. X	Invers	161.65285 °	-	7/23/2002 OK	169v	Contelec	PD210-4B	
6005	LX0019Y	FTLYD2	Left Foot Disp. Y	Dorsif	161.76485 °	+	7/23/2002 OK	169v	Contelec	PD210-4B	
6006	LX0019Z	FTLZD2	Left Foot Disp. Z	Intern	160.40718 °	+	7/23/2002 OK	169v	Contelec	PD210-4B	
6007	J35987	FTLXG2	Left Foot Accel X	Fwd	1165.4375 g	+	8/7/2002 OK	169v	Endevco	7264-2000TZ	
6008	J19865	FTLYG2	Left Foot Accel Y	Rt	1186.8336 g	+	8/7/2002 OK	169v	Endevco	7264-2KM5T	
6009	J19338	FTLZG2	Left Foot Accel Z	Dn	1217.6560 g	+	8/6/2002 OK	169v	Endevco	7264-2KM5T	
6010	150-0121VL-2103	KNRXD2	Right Knee Displacement	Tib Rr	40.937075 mm	-	6/13/2002 OK	169v	SpaceAge	150-0121VL	
6011	4353J-77-FX	TBRXF2	Right Upper Tibia Force X	Tib Rr	8907.8549 N	-	7/17/2002 OK	169v	Denton	4353J	
6012	4353J-77-FZ	TBRZF2	Right Upper Tibia Force Z	Tib D	8896.6113 N	+	7/17/2002 OK	169v	Denton	4353J	
6013	4353J-77-MX	TBRXM2	Right Upper Tibia Moment X	Tib Rt	281.81211 N·m	-	7/17/2002 OK	169v	Denton	4353J	
6014	4353J-77-MY	TBRYM2	Right Upper Tibia Moment Y	Tib Rr	282.37839 N·m	-	7/17/2002 OK	169v	Denton	4353J	
6015	J36611	TBRXG2	Right Tibia Accel X	Fwd	1206.1817 g	+	8/7/2002 OK	169v	Endevco	7264-2000TZ	
6016	J19227	TBRYG2	Right Tibia Accel Y	Rt	1209.3726 g	+	8/7/2002 OK	169v	Endevco	7264-2000T	
6017	4929J-75-FX	ANRXF2	Right Lower Tibia Force X	Ank F	8889.6425 N	+	7/17/2002 OK	169v	Denton	4929J	
6018	4929J-75-FY	ANRYF2	Right Lower Tibia Force Y	Ank R	8888.6114 N	+	7/17/2002 OK	169v	Denton	4929J	
6019	4929J-75-FZ	ANRZF2	Right Lower Tibia Force Z	Ank D	8893.3040 N	+	7/17/2002 OK	169v	Denton	4929J	
6020	4929J-75-MX	ANRXM2	Right Lower Tibia Moment X	Ank L	282.34979 N·m	+	7/17/2002 OK	169v	Denton	4929J	
6021	4929J-75-MY	ANRYM2	Right Lower Tibia Moment Y	Ank F	281.56381 N·m	+	7/17/2002 OK	169v	Denton	4929J	
6022	LX0018X	FTRXD2	Right Foot Disp. X	Invers	163.4061 °	-	7/23/2002 OK	169v	Contelec	PD210-4B	
6023	LX0018Y	FTRYD2	Right Foot Disp. Y	Dorsif	162.23699 °	+	7/23/2002 OK	169v	Contelec	PD210-4B	
6024	LX0018Z	FTRZD2	Right Foot Disp. Z	Extern	161.72990 °	+	7/23/2002 OK	169v	Contelec	PD210-4B	
6025	AAKB4	FTRXG2	Right Foot Accel X	Fwd	1239.7094 g	+	8/6/2002 OK	169v	Endevco	7264-2000LC	
6026	AHRW5	FTRYG2	Right Foot Accel Y	Rt	1222.1029 g	+	8/6/2002 OK	169v	Endevco	7264-2000LC	
6027	ACCT1	FTRZG2	Right Foot Accel Z	Dn	1194.6985 g	+	8/6/2002 OK	169v	Endevco	7264-2000LC	
6028	J40525	LRXXG1	REAR SEAT X-MEMBER LEF	FWD	995.83771 g	+	3/25/2002 OK	-1	Endevco	7264-2000TZ	
6029	J39062	LRXYG1	REAR SEAT Y-MEMBER LEF	LT	1015.4499 g	-	7/15/2002 OK	-1	Endevco	7264-2000TZ	
6030	J39618	LRXZG1	REAR SEAT Z-MEMBER LEF	UP	999.25836 g	-	5/9/2002 OK	-1	Endevco	7264-2000TZ	
6031	J36154	RRXXG1	REAR SEAT X-MEMBER RIG	FWD	1016.2763 g	+	5/1/2002 OK	-1	Endevco	7264-2000TZ	
6032	J39913	RRXYG1	REAR SEAT Y-MEMBER RIG	LT	1005.4988 g	-	6/5/2002 OK	-1	Endevco	7264-2000TZ	

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Name of Test 020826-1

System MINIDAU

Name of DAU DAU7

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol.	Cal. Date/Status	Group	Mfg.	Model
7001	J35701	RRXZG1	REAR SEAT Z-MEMBER RIG	UP	1012.2578 g	-	4/17/2002 OK	-1	Endevco	7264-2000TZ
7002	J27117	LTPXG1	DRIVERS LT. SIDE TOE PAN	RR	1011.8577 g	-	8/1/2002 OK	-1	Endevco	7264-2000TZ
7003	J40971	LTPYG1	DRIVERS LT. SIDE TOE PAN	LT	1004.1578 g	-	6/6/2002 OK	-1	Endevco	7264-2000TZ
7004	J40970	LTPZG1	DRIVERS LT. SIDE TOE PAN	UP	987.31150 g	-	6/6/2002 OK	-1	Endevco	7264-2000TZ
7005	J38530	RTPXG1	DRIVERS RT. SIDE TOE PAN	RR	981.55746 g	-	9/19/2002 OK	-1	Endevco	7264-2000TZ
7006	J40730	RTPYG1	DRIVERS RT. SIDE TOE PAN	LT	1011.8577 g	-	9/19/2002 ---	-1	Endevco	7264-2000TZ
7007	J41131	RTPZG1	DRIVERS RT. SIDE TOE PAN	UP	980.61748 g	-	4/3/2002 OK	-1	Endevco	7264-2000TZ
7011	J27906	RDKZG1	REAR DECK Z-AXIS	UP	1013.3397 g	-	8/15/2002 OK	-1	Endevco	7264-2000TZ
7012	A51808	TPDXD1	TOE PAN DISPLACEMENT	SP08	1247.9787 mm	+	7/10/2002 OK	-1	Celesco	PT-101-0050-111
7013	IP1	DABETA	DRIVER AIRBAG EVENT - WI	D	1.0039216 V	+	6/15/2000 ---	VRTC O	FLUKE	Y8101A
7014	IP2	DABETB	DRIVER AIRBAG EVENT- WI	C	1.0039216 V	+	6/15/2000 ---	VRTC O	FLUKE	Y8101A
7015	IP3	PABETA	PASSENGER AIRBAG EVENT	A	1.0039216 V	+	6/15/2000 ---	VRTC O	FLUKE	Y8101A
7016	IP4	PABETB	PASSENGER AIRBAG EVENT	P	1.0039216 V	+	6/15/2000 ---	VRTC O	FLUKE	Y8101A
7017	808	SHBF1	DRIVER SHOULDER FORCE	P12	13330.079 N	+	4/3/2002 OK	-1	Lebow	3419T
7018	615	LPBF1	DRIVER LAP FORCE		13364.728 N	+	4/3/2002 OK	-1	Lebow	3419T
7019	807	SHBF2	PASSENGER SHOULDER FOR	2008	13330.167 N	+	4/3/2002 OK	-1	Lebow	3419T
7020	610	LPBF2	PASSENGER LAP FORCE		13337.946 N	+	4/3/2002 OK	-1	Lebow	3419T
7021	4929J-78-FX	ANLXF2	Left Lower Tibia Force X	Ank F	8906.4128 N	+	7/16/2002 OK	169v	Denton	4929J
7022	4929J-78-FY	ANLYF2	Left Lower Tibia Force Y	Ank R	8887.8233 N	+	7/16/2002 OK	169v	Denton	4929J
7023	4929J-78-FZ	ANLZF2	Left Lower Tibia Force Z	Ank D	8889.0721 N	+	7/16/2002 OK	169v	Denton	4929J
7024	4929J-78-MX	ANLXM2	Left Lower Tibia Moment X	Ank L	282.55101 N·m	+	7/16/2002 OK	169v	Denton	4929J
7025	4929J-78-MY	ANLYM2	Left Lower Tibia Moment Y	Ank F	281.77504 N·m	+	7/16/2002 OK	169v	Denton	4929J

Dummy 168v Type HIII 50TH Description VRTC - 168v HIII 50TH CAL'd 1-24-02 (DKS 8-22-02) J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head Accel X	7264-2KM5T	J17649	Endevco	0.03203 g	2000	5/24/02	Rwd	1
HEDYG	Head Accel Y	7264-2000T	AJ454	Endevco	0.02856 g	2000	5/24/02	Lft	1
HEDZG	Head Accel Z	7264-2000T	J14189	Endevco	0.0331 g	2000	5/24/02	Up	1
HEDXR	Head Accel Red X S39	7264C-2KLC-2-	P17196	Endevco	0.02104 g	2000	1/25/02	Rwd	1
HEDYR	Head Accel Red Y	EGE-73B6Q-20	B02A25-N05	Entran	0.02064 g	2000	2/8/02	Lft	1
HEDZR	Head Accel Red Z	EGE-73B6Q-20	01G25-N09	Entran	0.01919 g	2000	1/24/02	Up	1
NEKXF	Neck Force X	1716A	1716A-851-FX	Denton	0.000193999 N	8896.4	5/29/02	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	1716A	1716A-851-FY	Denton	0.000188289 N	8896.4	5/29/02	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	1716A	1716A-851-FZ	Denton	0.000147643 N	13344.6	5/29/02	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716A	1716A-851-MX	Denton	0.005989735 N·m	282.5	5/29/02	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716A	1716A-851-MY	Denton	0.005981947 N·m	282.5	5/29/02	Chn to Strnm	0
NEKZM	Neck Moment Z	1716A	1716A-851-MZ	Denton	0.008568142 N·m	282.5	5/29/02	Chn to Lt Shld	0
CSTXG	Chest Accel X	7264-2000TZ	J35921	Endevco	0.03039 g	2000	5/24/02	Fwd	0
CSTYG	Chest Accel Y	7264-2000T	AJ7F7	Endevco	0.0343 g	2000	5/24/02	Lft	1
CSTZG	Chest Accel Z	7264-2000TZ	J36723	Endevco	0.02522 g	2000	5/24/02	Up	1
CSTXR	Chest Accel Red X	EGE-73BQE0-2	99H30-Z14	Entran	0.02073 g	2000	4/25/02	Rwd	1
CSTYR	Chest Accel Red Y	EGE-73BQ-200	98H14-K05	Entran	0.01743 g	2000	4/25/02	Lft	1
CSTZR	Chest Accel Red Z	EGE-73BQ-200	98H13-F03	Entran	0.02081 g	2000	4/25/02	Up	1
CSTXD	Chest Deflection X	14CB1-2847	14CB1-2847-168	Servo	1.11705 mm	100	6/5/02	Strnm Away Frm Spn	0
PEVXG	Pelvis Accel X	7264-2000T	ACCY2	Endevco	0.02365 g	2000	5/24/02	Rwd	1
PEVYG	Pelvis Accel Y	7264-2KM5T	J27490	Endevco	0.02214 g	2000	5/24/02	Lft	1
PEVZG	Pelvis Accel Z	7264-2KM5T	J21963	Endevco	0.0253 g	2000	5/24/02	Up	1
LFMXF	Left Femur Force X	1914A	1914A-362-FX	Denton	0.000143968 N	13344	5/24/02	Knee Dn,Fem Up	1
LFMYF	Left Femur Force Y	1914A	1914A-362-FY	Denton	0.000144523 N	13344	5/24/02	Knee Rt,Fem Lt	0
LFMZf	Left Femur Force Z	1914A	1914A-362-FZ	Denton	0.000059074 N	22240	5/24/02	Knee Fd,Pel Rr	0
LFMXM	Left Femur Moment X	1914A	1914A-362-MX	Denton	0.004464012 N·m	339	5/24/02	Knee Rt,Hld Fem	1

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
LFMYM	Left Femur Moment Y	1914A	1914A-362-MY	Denton	0.004409145 N·m	339	5/24/02	Knee Up,Hld Fem	0
LFMZM	Left Femur Moment Z	1914A	1914A-362-MZ	Denton	0.00790413 N·m	339	5/24/02	Tib Lt,Hld Pel	0
RFMXF	Right Femur Force X	1914A	1914A-376-FX	Denton	0.000146666 N	13344	5/24/02	Knee Dn,Fem Up	1
RFMYF	Right Femur Force Y	1914A	1914A-376-FY	Denton	0.000146629 N	13344	5/24/02	Knee Rt,Fem Lt	0
RFMZF	Right Femur Force Z	1914A	1914A-376-FZ	Denton	0.000059876 N	22240	5/24/02	Knee Fd,Pel Rr	0
RFMXM	Right Femur Moment X	1914A	1914A-376-MX	Denton	0.004443068 N·m	339	5/24/02	Knee Rt,Hld Fem	1
RFMYM	Right Femur Moment Y	1914A	1914A-376-MY	Denton	0.003790977 N·m	339	5/24/02	Knee Up,Hld Fem	0
RFMZM	Right Femur Moment Z	1914A	1914A-376-MZ	Denton	0.006787469 N·m	339	5/24/02	Tib Lt,Hld Pel	0
KNLXD	Left Knee Displacement	150-0121VR	150-0121VR-18026	SpaceAge	23.508 mm	40	6/13/02	Tib Rr,Hld Fem	1
TBLXF	Left Upper Tibia Force X	4353J	4353J-79-FX	Denton	0.000170487 N	11120.5	7/16/02	Tib Rr,Knee Fd	1
TBLZF	Left Upper Tibia Force Z	4353J	4353J-79-FZ	Denton	9.62187E-05 N	11120.5	7/16/02	Tib Dn,Knee Up	0
TBLXM	Left Upper Tibia Moment X	4353J	4353J-79-MX	Denton	0.007416793 N·m	395.4	7/16/02	Tib Rt,Hld Knee	1
TBLYM	Left Upper Tibia Moment Y	4353J	4353J-79-MY	Denton	0.007447901 N·m	395.4	7/16/02	Tib Rr,Hld Knee	1
TBLXG	Left Tibia Accel X	7264-2000LC	AMR49	Endevco	0.02036 g	2000	8/6/02	Fwd	0
TBLYG	Left Tibia Accel Y	7264-2000LC	AAJ29	Endevco	0.02691 g	2000	8/6/02	Rt	0
ANLXF	Left Lower Tibia Force X	4929J	4929J-77-FX	Denton	0.000172492 N	11120.5	7/16/02	Ank Fd,Knee Rr	0
ANLYF	Left Lower Tibia Force Y	4929J	4929J-77-FY	Denton	0.000172771 N	11120.5	7/16/02	Ank Rt,Knee Lt	0
ANLZF	Left Lower Tibia Force Z	4929J	4929J-77-FZ	Denton	9.59579E-05 N	11120.5	7/16/02	Ank Dn,Knee Up	0
ANLXM	Left Lower Tibia Moment X	4929J	4929J-77-MX	Denton	0.007497218 N·m	395.4	7/16/02	Ank Lt,Hld Knee	0
ANLYM	Left Lower Tibia Moment Y	4929J	4929J-77-MY	Denton	0.007430450 N·m	395.4	7/16/02	Ank Fd,Hld Knee	0
FTLXD	Left Foot Disp. X	PD210-4B	LX104X	Contelec	3.169 °	318	7/17/02	Eversion	0
FTLYD	Left Foot Disp. Y	PD210-4B	LX104Y	Contelec	3.182 °	318	7/17/02	Dorsiflexion	0
FTLZD	Left Foot Disp. Z	PD210-4B	LX104Z	Contelec	3.1701 °	318	7/17/02	External Rotation	1
FTLXG	Left Foot Accel X	7264-2000LC	AAKB1	Endevco	0.02703 g	2000	8/6/02	Fwd	0
FTLYG	Left Foot Accel Y	7264-2000LC	AAKD0	Endevco	0.02511 g	2000	8/6/02	Rt	0
FTLZG	Left Foot Accel Z	7264-2KM5T	J23759	Endevco	0.02735 g	2000	8/6/02	Dn	0
KNRXD	Right Knee Displacement	150-0121VL	150-0121VL-18123	SpaceAge	22.958 mm	40	6/13/02	Tib Rr,Hld Fem	1
TBRXF	Right Upper Tibia Force X	4353J	4353J-75-FX	Denton	0.000169651 N	11120.5	8/2/02	Tib Fd,Knee Rr	0

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
TBRZF	Right Upper Tibia Force Z	4353J	4353J-75-FZ	Denton	9.54004E-05 N	11120.5	8/2/02	Tib Dn,Knee Up	0
TBRXM	Right Upper Tibia Moment X	4353J	4353J-75-MX	Denton	0.007378351 N·m	395.4	8/2/02	Tib Lt,Hld Knee	0
TBRYM	Right Upper Tibia Moment Y	4353J	4353J-75-MY	Denton	0.007360647 N·m	395.4	8/2/02	Tib Fd,Hld Knee	0
TBRXG	Right Tibia Accel X	7264-2000TZ	J36726	Endevco	0.02398 g	2000	8/7/02	Fwd	0
TBRYG	Right Tibia Accel Y	7264-2000LC	AGWB1	Endevco	0.02008 g	2000	8/6/02	Rt	0
ANRXF	Right Lower Tibia Force X	4929J	4929J-76-FX	Denton	0.000171602 N	11120.5	7/16/02	Ank Fd,Knee Rr	0
ANRYF	Right Lower Tibia Force Y	4929J	4929J-76-FY	Denton	0.000172996 N	11120.5	7/16/02	Ank Rt,Knee Lt	0
ANRZF	Right Lower Tibia Force Z	4929J	4929J-76-FZ	Denton	9.56342E-05 N	11120.5	7/16/02	Ank Dn,Knee Up	0
ANRXM	Right Lower Tibia Moment X	4929J	4929J-76-MX	Denton	0.007504552 N·m	395.4	7/16/02	Ank Lt,Hld Knee	0
ANRYM	Right Lower Tibia Moment Y	4929J	4929J-76-MY	Denton	0.007480020 N·m	395.4	7/16/02	Ank Fd,Hld Knee	0
FTRXD	Right Foot Disp. X	PD210-4B	PD210-4B-AK-037	Contelec	3.199 °	318	7/18/02	Eversion	1
FTRYD	Right Foot Disp. Y	PD210-4B	PD210-4B-0225	Contelec	3.1559 °	318	7/18/02	Dorsiflexion	0
FTRZD	Right Foot Disp. Z	PD210-4B	PD210-4B-AK-039	Contelec	3.1586 °	318	7/18/02	Internal Rotation	1
FTRXG	Right Foot Accel X	7264-2000LC	AALD5	Endevco	0.02577 g	2000	8/6/02	Fwd	0
FTRYG	Right Foot Accel Y	7264-2000LC	AAK48	Endevco	0.02802 g	2000	8/6/02	Rt	0
FTRZG	Right Foot Accel Z	7264-2000LC	ACB45	Endevco	0.02691 g	2000	8/6/02	Dn	0

Dummy 169v Type HIII 50TH Description VRTC - 169v HIII 50TH CAL'd 5-24-02 (DKS 8-22-02) J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head Accel X	7264-2000T	J20083	Endevco	0.02181 g	2000	5/24/02	Rwd	1
HEDYG	Head Accel Y	7264-2000T	J19843	Endevco	0.0224 g	2000	5/24/02	Lft	1
HEDZG	Head Accel Z	7264-2KM5T	J20027	Endevco	0.02589 g	2000	5/24/02	Up	1
NEKXF	Neck Force X	1716A	1716A-782-FX	Denton	0.000190504 N	8896	5/30/02	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	1716A	1716A-782-FY	Denton	0.000186052 N	8896	5/30/02	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	1716A	1716A-782-FZ	Denton	0.000096548 N	13344	5/30/02	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	1716A	1716A-782-MX	Denton	0.005812389 N·m	282.5	5/30/02	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	1716A	1716A-782-MY	Denton	0.005816283 N·m	282.5	5/30/02	Chn to Strnm	0
NEKZM	Neck Moment Z	1716A	1716A-782-MZ	Denton	0.008224071 N·m	282.5	5/30/02	Chn to Lt Shld	0
CSTXG	Chest Accel X	7264-2000T	J23757	Endevco	0.02801 g	2000	5/24/02	Fwd	0
CSTYG	Chest Accel Y	7264-2KM5T	J21989	Endevco	0.02333 g	2000	5/24/02	Lft	1
CSTZG	Chest Accel Z	7264-2000TZ	J35747	Endevco	0.02832 g	2000	5/24/02	Up	1
CSTXD	Chest Deflection X	14CB1-2847	14CB1-2847-169	Servo	1.11513 mm	100	6/6/02	Strnm Away Frm Spn	0
PEVXG	Pelvis Accel X	7264-2000TZ	J36741	Endevco	0.02311 g	2000	5/24/02	Rwd	1
PEVYG	Pelvis Accel Y	7264-2000TZ	J36605	Endevco	0.02677 g	2000	5/24/02	Lft	1
PEVZG	Pelvis Accel Z	7264-2000LC	AAMD7	Endevco	0.02682 g	2000	5/24/02	Up	1
LFMXF	Left Femur Force X	1914	1914-0261-FX	Denton	0.000144725 N	13344	5/24/02	Knee Dn,Fem Up	1
LFMYF	Left Femur Force Y	1914	1914-0261-FY	Denton	0.000145182 N	13344	5/24/02	Knee Rt,Fem Lt	0
LFMZf	Left Femur Force Z	1914	1914-0261-FZ	Denton	0.000053289 N	22240	5/24/02	Knee Fd,Pel Rr	0
LFMXM	Left Femur Moment X	1914	1914-0261-MX	Denton	0.004356637 N·m	339	5/24/02	Knee Rt,Hld Fem	1
LFMYM	Left Femur Moment Y	1914	1914-0261-MY	Denton	0.004435398 N·m	339	5/24/02	Knee Up,Hld Fem	0
LFMZM	Left Femur Moment Z	1914	1914-0261-MZ	Denton	0.007827729 N·m	339	5/24/02	Tib Lt,Hld Pel	0
RFMXF	Right Femur Force X	1914A	1914A-383-FX	Denton	0.000147685 N	13344	5/24/02	Knee Dn,Fem Up	1
RFMYF	Right Femur Force Y	1914A	1914A-383-FY	Denton	0.00014785 N	13344	5/24/02	Knee Rt,Fem Lt	0
RFMZF	Right Femur Force Z	1914A	1914A-383-FZ	Denton	0.00006006 N	22240	5/24/02	Knee Fd,Pel Rr	0
RFMXM	Right Femur Moment X	1914A	1914A-383-MX	Denton	0.004435103 N·m	339	5/24/02	Knee Rt,Hld Fem	1

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
RFBYM	Right Femur Moment Y	1914A	1914A-383-MY	Denton	0.004437463 N·m	339	5/24/02	Knee Up,Hld Fem	0
RFBZM	Right Femur Moment Z	1914A	1914A-383-MZ	Denton	0.008078761 N·m	339	5/24/02	Tib Lt,Hld Pel	0
KNLXD	Left Knee Displacement	150-0121VR	150-0121VR-17169	SpaceAge	23.738 mm	40	6/13/02	Tib Rr,Hld Fem	1
TBLXF	Left Upper Tibia Force X	4353J	4353J-78-FX	Denton	0.000171935 N	11120.5	7/17/02	Tib Rr,Knee Fd	1
TBLZF	Left Upper Tibia Force Z	4353J	4353J-78-FZ	Denton	9.56432E-05 N	11120.5	7/17/02	Tib Dn,Knee Up	0
TBLXM	Left Upper Tibia Moment X	4353J	4353J-78-MX	Denton	0.007485837 N·m	395.4	7/17/02	Tib Rt,Hld Knee	1
TBLYM	Left Upper Tibia Moment Y	4353J	4353J-78-MY	Denton	0.007496459 N·m	395.4	7/17/02	Tib Rr,Hld Knee	1
TBLXG	Left Tibia Accel X	7264-2KM5T	J27464	Endevco	0.02848 g	2000	8/6/02	Fwd	0
TBLYG	Left Tibia Accel Y	7264-2000TZ	J36743	Endevco	0.02337 g	2000	8/7/02	Rt	0
ANLXF	Left Lower Tibia Force X	4929J	4929J-78-FX	Denton	0.000171602 N	11120.5	7/16/02	Ank Fd,Knee Rr	0
ANLYF	Left Lower Tibia Force Y	4929J	4929J-78-FY	Denton	0.000171449 N	11120.5	7/16/02	Ank Rt,Knee Lt	0
ANLZF	Left Lower Tibia Force Z	4929J	4929J-78-FZ	Denton	0.000173490 N	11120.5	7/16/02	Ank Dn,Knee Up	0
ANLXM	Left Lower Tibia Moment X	4929J	4929J-78-MX	Denton	0.007487860 N·m	395.4	7/16/02	Ank Lt,Hld Knee	0
ANLYM	Left Lower Tibia Moment Y	4929J	4929J-78-MY	Denton	0.007416540 N·m	395.4	7/16/02	Ank Fd,Hld Knee	0
FTLXD	Left Foot Disp. X	PD210-4B	LX0019X	Contelec	3.167281 °	318	7/23/02	Inversion	1
FTLYD	Left Foot Disp. Y	PD210-4B	LX0019Y	Contelec	3.165088 °	318	7/23/02	Dorsiflexion	0
FTLZD	Left Foot Disp. Z	PD210-4B	LX0019Z	Contelec	3.191877 °	318	7/23/02	Internal Rotation	0
FTLYG	Left Foot Accel Y	7264-2KM5T	J19865	Endevco	0.02157 g	2000	8/7/02	Rt	0
FTLZG	Left Foot Accel Z	7264-2KM5T	J19338	Endevco	0.02336 g	2000	8/6/02	Dn	0
FTLXG	Left Foot Accel X	7264-2000TZ	J35987	Endevco	0.03661 g	2000	8/7/02	Fwd	0
KNRXD	Right Knee Displacement	150-0121VL	150-0121VL-21033	SpaceAge	22.74 mm	40	6/13/02	Tib Rr,Hld Fem	1
TBRXF	Right Upper Tibia Force X	4353J	4353J-77-FX	Denton	0.000174174 N	11120.5	7/17/02	Tib Rr,Knee Fd	1
TBRZF	Right Upper Tibia Force Z	4353J	4353J-77-FZ	Denton	9.65604E-05 N	11120.5	7/17/02	Tib Dn,Knee Up	0
TBRXM	Right Upper Tibia Moment X	4353J	4353J-77-MX	Denton	0.007570056 N·m	395.4	7/17/02	Tib Rt,Hld Knee	1
TBRYM	Right Upper Tibia Moment Y	4353J	4353J-77-MY	Denton	0.007618361 N·m	395.4	7/17/02	Tib Rr,Hld Knee	1
TBRXG	Right Tibia Accel X	7264-2000TZ	J36611	Endevco	0.02653 g	2000	8/7/02	Fwd	0
TBRYG	Right Tibia Accel Y	7264-2000T	J19227	Endevco	0.02352 g	2000	8/7/02	Rt	0
ANRXF	Right Lower Tibia Force X	4929J	4929J-75-FX	Denton	0.000171926 N	11120.5	7/17/02	Ank Fd,Knee Rr	0

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
ANRYF	Right Lower Tibia Force Y	4929J	4929J-75-FY	Denton	0.000173499 N	11120.5	7/17/02	Ank Rt,Knee Lt	0
ANRZF	Right Lower Tibia Force Z	4929J	4929J-75-FZ	Denton	9.64345E-05 N	11120.5	7/17/02	Ank Dn,Knee Up	0
ANRXM	Right Lower Tibia Moment X	4929J	4929J-75-MX	Denton	0.00755564 N·m	395.4	7/17/02	Ank Lt,Hld Knee	0
ANRYM	Right Lower Tibia Moment Y	4929J	4929J-75-MY	Denton	0.007422104 N·m	395.4	7/17/02	Ank Fd,Hld Knee	0
FTRXD	Right Foot Disp. X	PD210-4B	LX0018X	Contelec	3.133298 °	318	7/23/02	Inversion	1
FTRYD	Right Foot Disp. Y	PD210-4B	LX0018Y	Contelec	3.155877 °	318	7/23/02	Dorsiflexion	0
FTRZD	Right Foot Disp. Z	PD210-4B	LX0018Z	Contelec	3.165772 °	318	7/23/02	External Rotation	0
FTRXG	Right Foot Accel X	7264-2000LC	AAKB4	Endevco	0.0295 g	2000	8/6/02	Fwd	0
FTRYG	Right Foot Accel Y	7264-2000LC	AHRW5	Endevco	0.01995 g	2000	8/6/02	Rt	0
FTRZG	Right Foot Accel Z	7264-2000LC	ACCT1	Endevco	0.01948 g	2000	8/6/02	Dn	0

Appendix E

INSIA Report on Structural Measurements



UPM



INSIA

Compatibility Project
EEVC - WG15

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

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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.

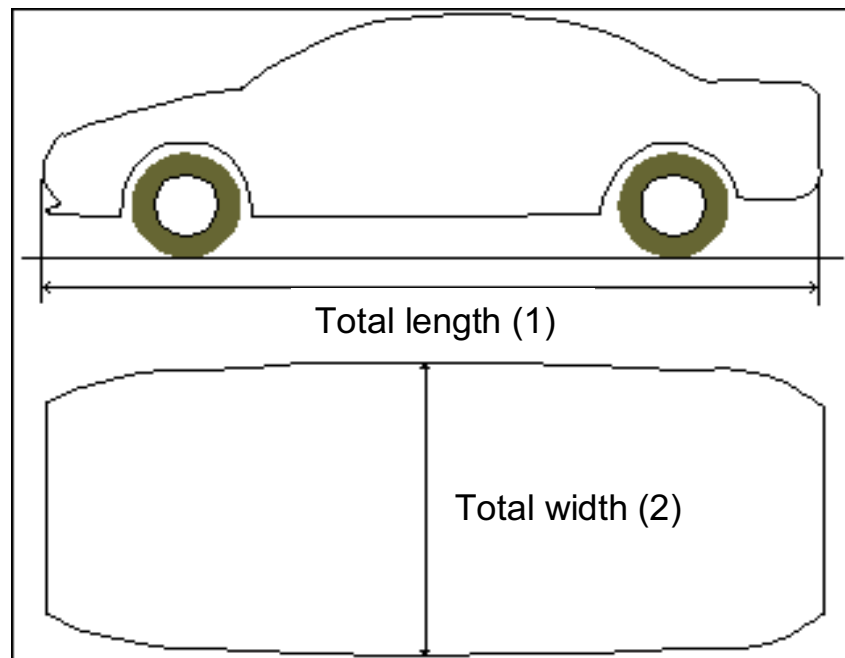


Figure 1.- Definition of the main resistant elements. General dimensions.

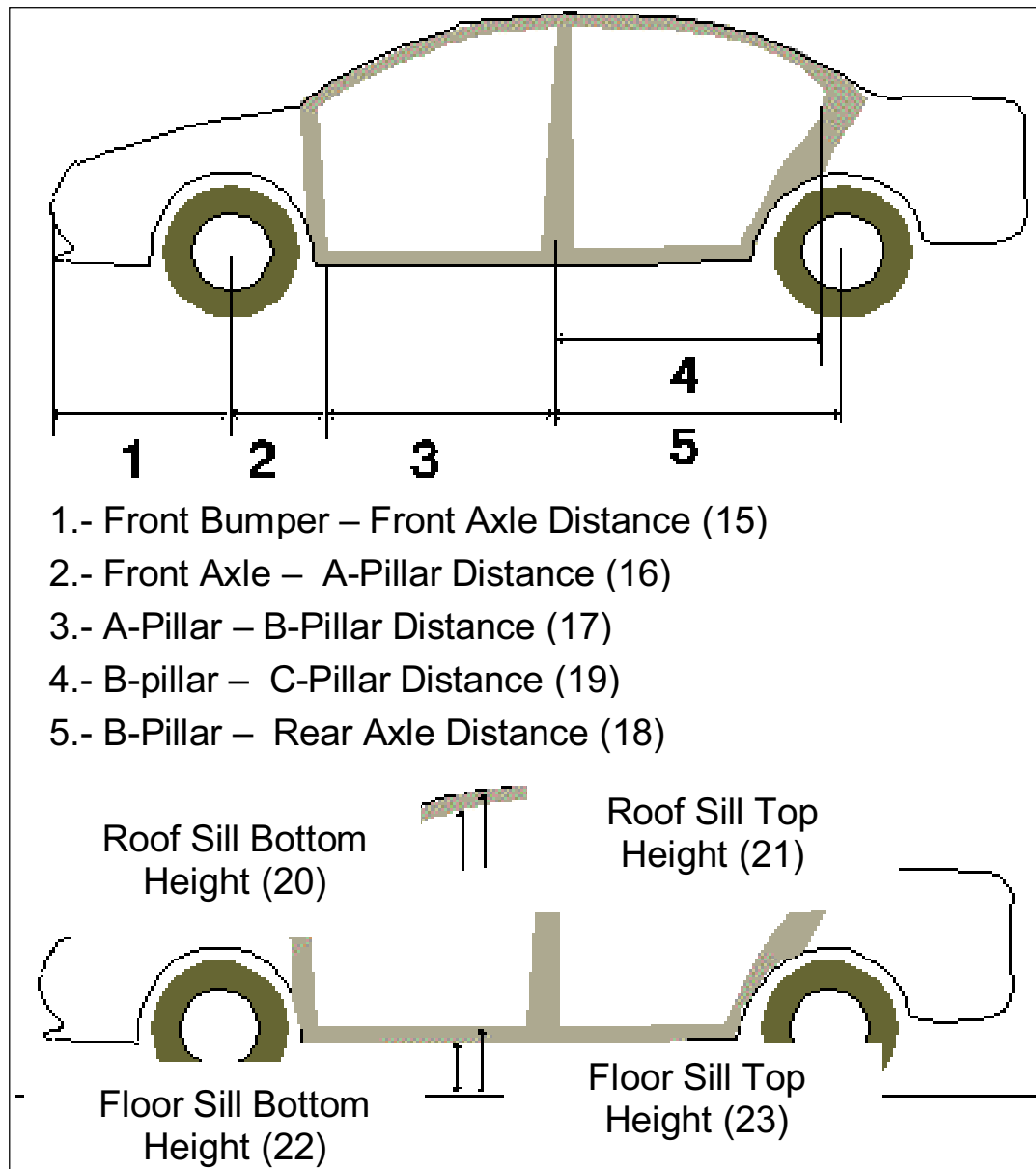


Figure 2.- Definition of the main resistant elements. Side elements.

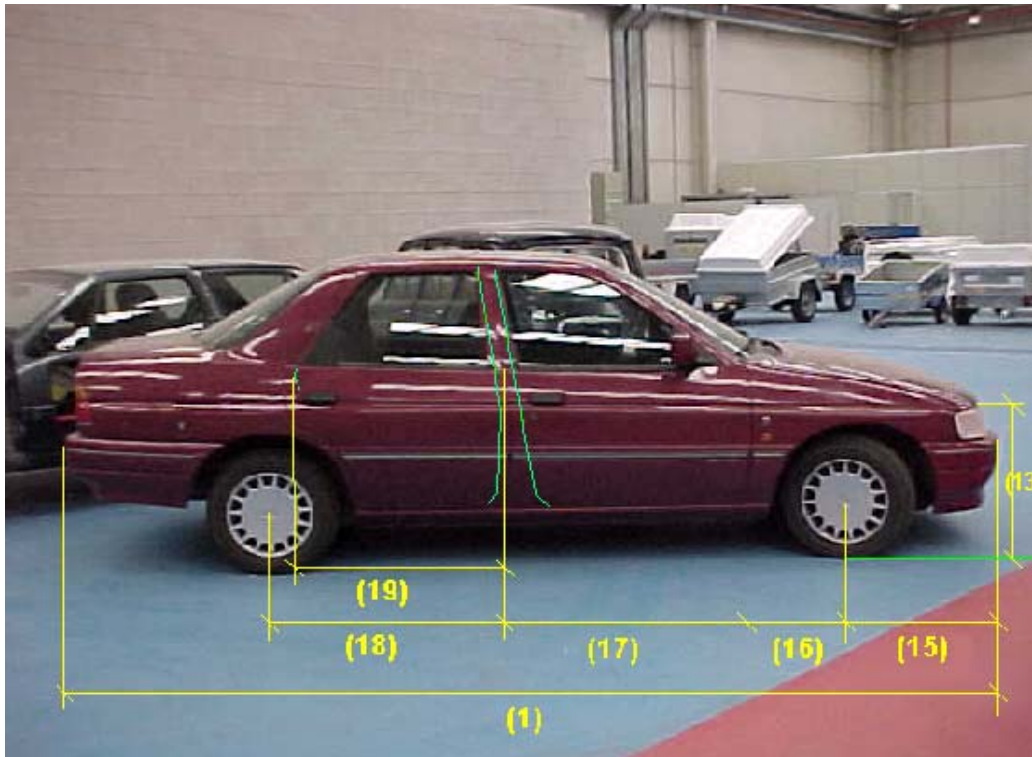


Figure 3.-
Measurements of
the side resistant
elements (outer).

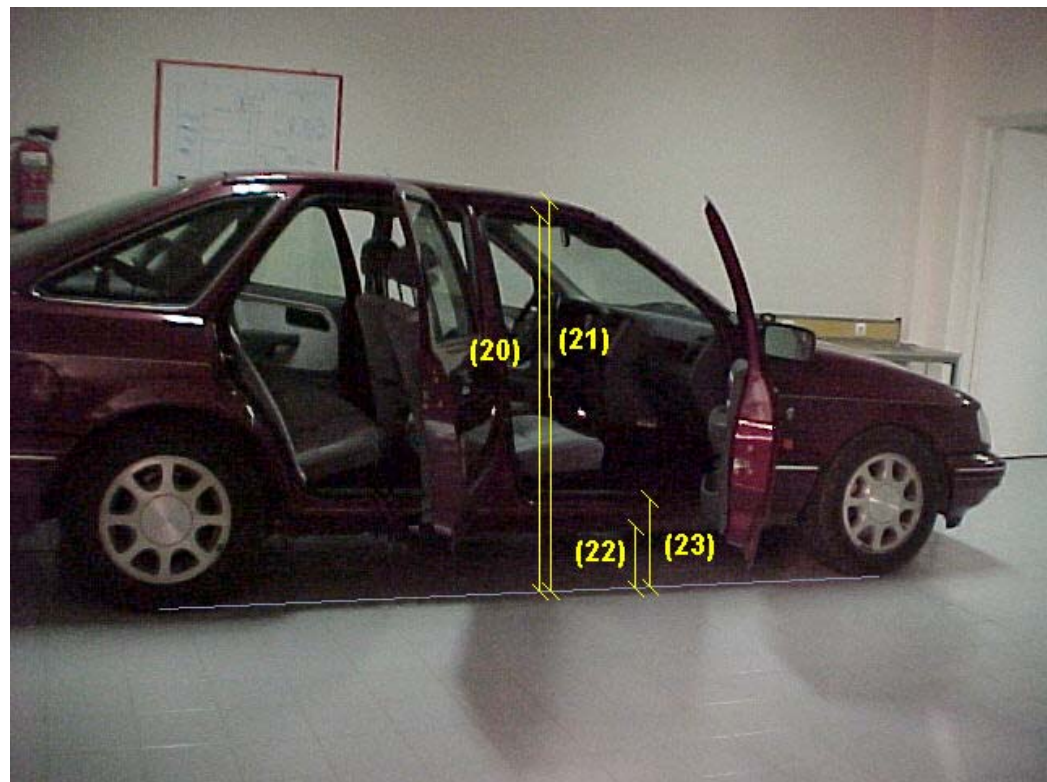


Figure 4.- Measurements
of the side resistant
elements (inner).

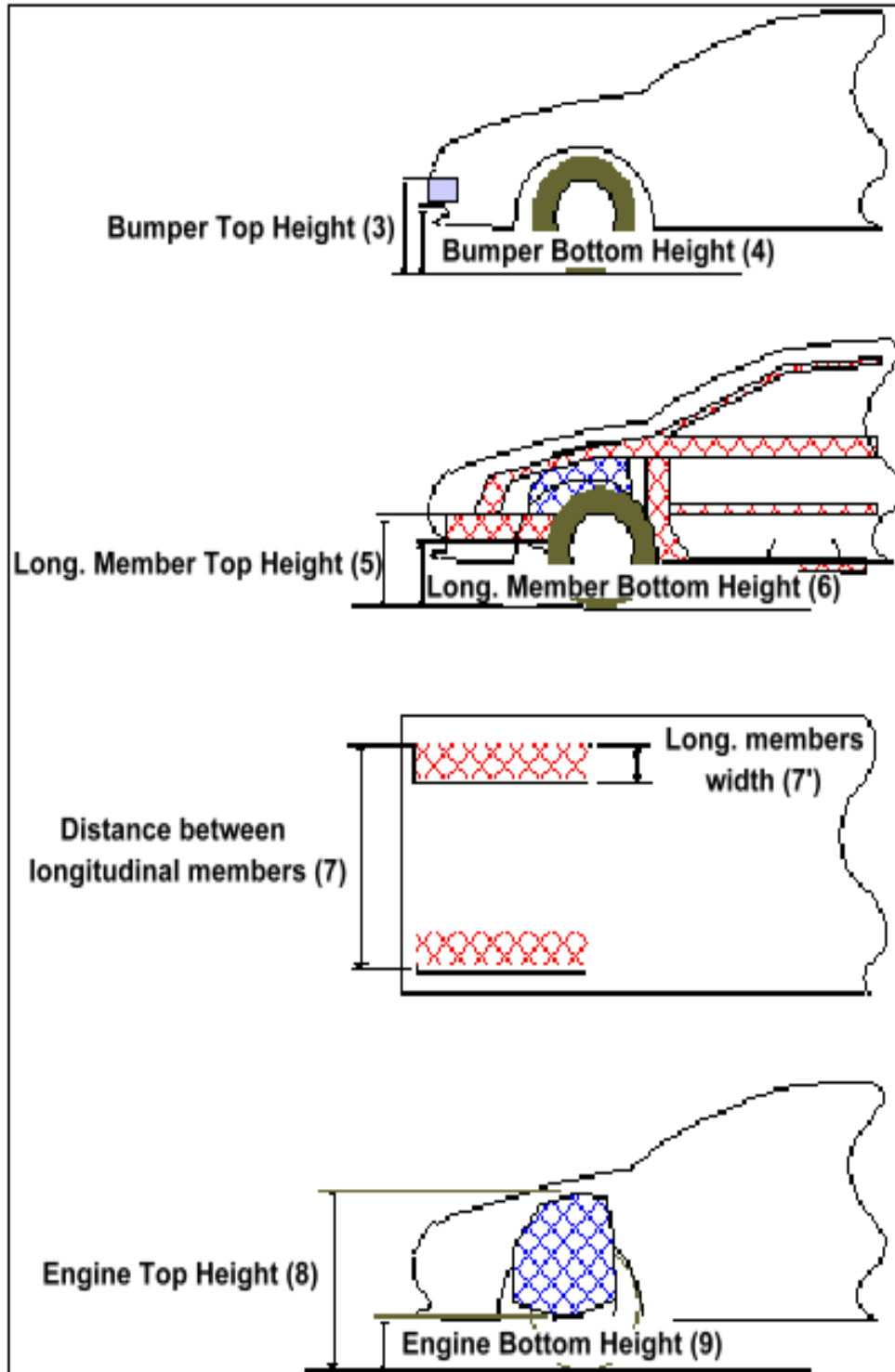


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

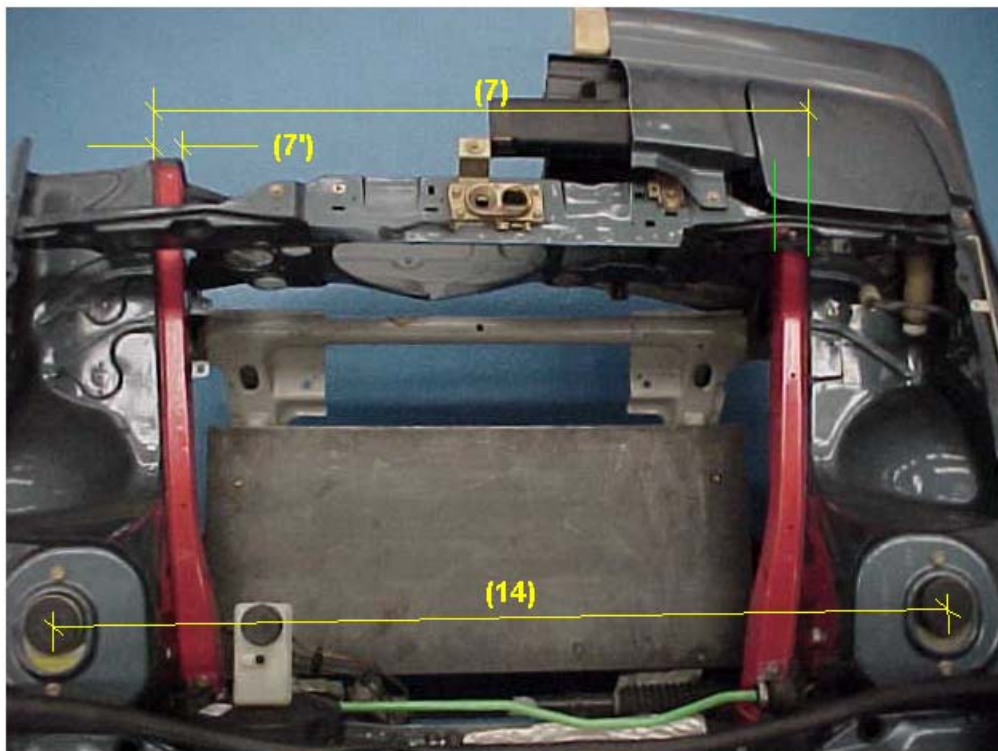
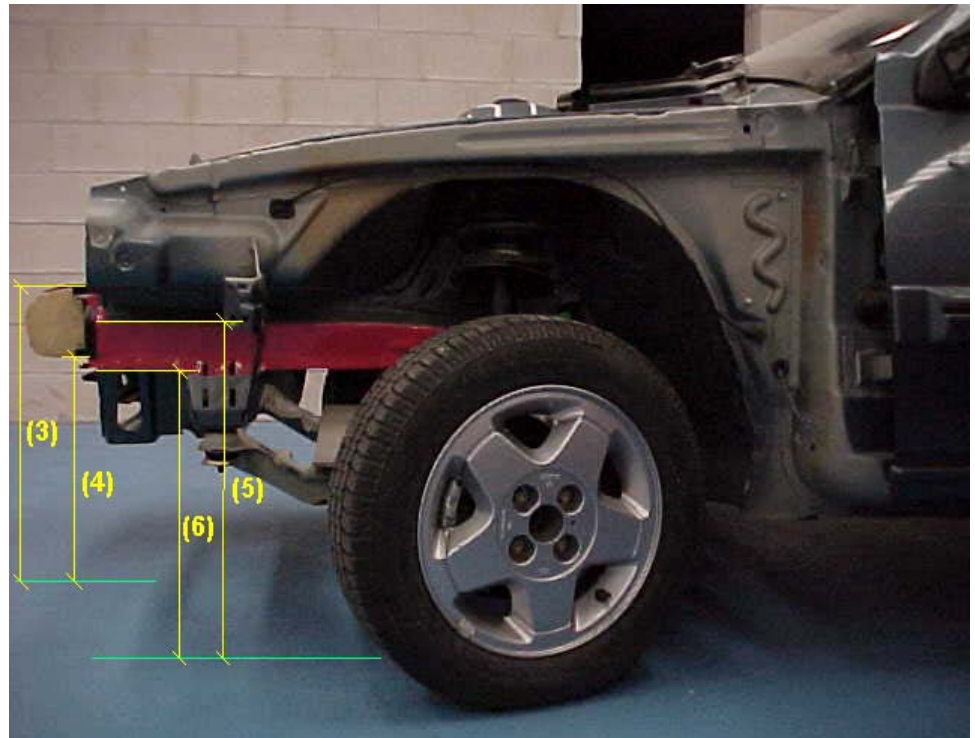


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.

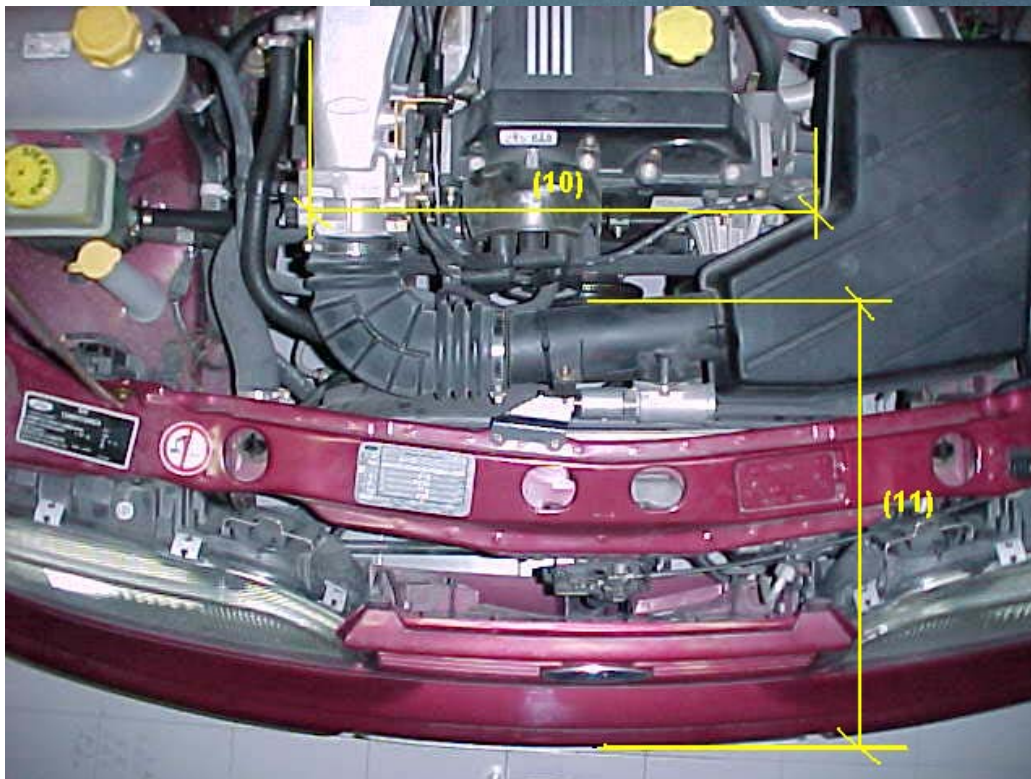
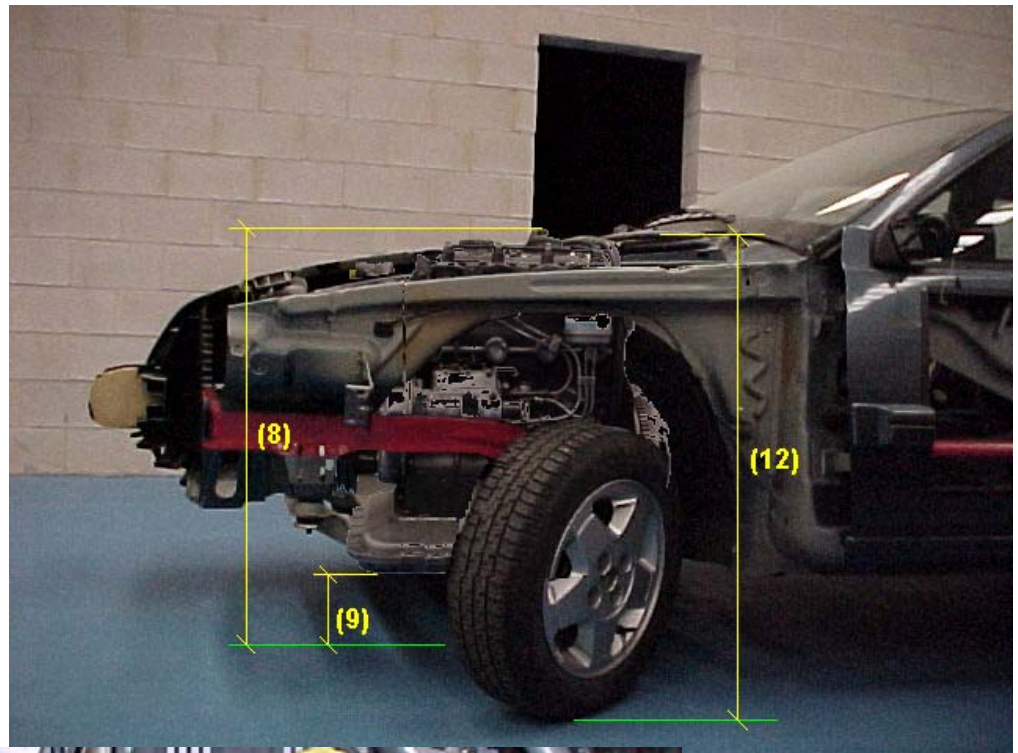


Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).



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.

Appendix F

Vehicle Manufacturer's Information

Aloke:

Following are the UN93/173 info for 208 set-up with 50% HYBRID III ATD:

1. Seatback angle (at Mid-track & full down): 22 degree
2. Column/Tilt: Mid-point
3. D-ring: Mid-point

Attachment file is the detailed info seat for seating position.

Per your question:

U222 = MY2003 Expedition

U228 = MY2003 Navigator

UN93 = MY2002 & below Expedition

UN173 = MY2002 & below Navigator

Let me know if you have any more question!

Regards,

Echung Su

Amazon Program

NAT-Impact Safety

Ford Motor Company

2CE48, PDC

TEL: (313-322-1099)

FAX: (248-248-6053)

DATE	MODEL	YEAR	CARLINE	WORK ORDER NO.
8/19/2002	U222	2003	Expedition	R06
ENGINEER	PHONE	DEPT#	WORK TASK	
Esu1	32-21099	#REF!	#REF!	
COORDINATOR	PHONE	TEST MODE		
DATTARD	84-53376	NCAP		
VIN NUMBER	VEHICLE NO.	TAG NUMBER		
1FMFU16L43LA00278	NA	308H654		
TYPE OF SEAT	TA NUMBER	DATE CLOSED		
Bucket / Power	JB7492			
SEAT POSITION				
SGRP	MID POINT	X	FULL REAR	
SEATS TO BE CHECKED				
LH FRT	X	CENTER FRT	RH FRT	X
LH REAR		CENTER REAR	RH REAR	
VEHICLE DELIVERED TO	D/A	BARRIER	BUILD SITE	
ANY QUESTIONS CONTACT:				
Derek Attard PHONE: (313) 84-53376				
DESCRIPTION OF JOB TO BE PERFORMED:				
(1) See "U222/8 SEAT INFORMATION FOR VEHICLE SAFETY PACKAGE LAB WORK ORDER" on next page.				
(2) Set Steering Column Adjustable Tilt and Telescope to mid position and lock/scribe in place				
(3) Set Adjustable Pedal Package to full forward if equipped on vehicle				

U222/8 SEAT INFORMATION FOR VEHICLE SAFETY PACKAGE LAB WORK ORDER

Description		Fiducial Point			Seat frame angle (deg)	location to measure frame angle	H-point SGRP			Power Seat Track Envelope				H-point Test position (midtrack full down)			FMVSS Drawing Note
		x (mm)	y (mm)	z (mm)			x (mm)	y (mm)	z (mm)	Full Down FF		Full Down FR		x (mm)	y (mm)	z (mm)	
U222	Driver Power Bucket	3105.00	829.07	554.97	16.7	13" up from pivot point	3103.16	-440.00	1058.50	2935.92	1063.25	3134.82	1042.34	3035.37	-440.00	1052.80	A
	Passenger Power Bucket	3105.00	829.07	554.97	16.7	13" up from pivot point	3103.16	440.00	1058.50	2935.92	1063.25	3134.82	1042.34	3035.37	440.00	1052.80	A
	Passenger Manual Bucket	3105.00	829.07	554.97	16.7	13" up from pivot point	3103.16	440.00	1058.50					3033.56	440.00	1065.81	A
	Passenger Manual 60% Bench	3105.00	829.07	554.97	21.7	13" up from pivot point	3103.16	440.00	1058.50					3033.56	440.00	1065.94	B
U228	Driver Power Bucket	3105.00	829.07	554.97	16.7	13" up from pivot point	3103.16	-440.00	1058.50	2935.92	1063.25	3134.82	1042.34	3035.37	-440.00	1052.80	C
	Passenger Power Bucket	3105.00	829.07	554.97	16.7	13" up from pivot point	3103.16	440.00	1058.50	2935.92	1063.25	3134.82	1042.34	3035.37	440.00	1052.80	C

FMVSS DRAWING NOTES:

A: SK-2L14-011000-78563-AC (SIGNED OFF 5/08/2001)
B: SK-2L14-011000-78563-BD (SIGNED OFF 5/08/2001)
C: SK-2L74-011000-78563-AB (SIGNED OFF 4/19/2001)