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REPORT NUMBER: 214-TRC-98-002

**SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION - PASSENGER CARS**

**1998 MAZDA 626
4-DOOR SEDAN**

NHTSA NUMBER: CW5400

**TRANSPORTATION RESEARCH CENTER INC.
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**November 4, 1997
FINAL REPORT**

**U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement**

**Office of Vehicle Compliance
400 Seventh Street, S. W.
Room No. 6115 (NSA-30)
Washington, DC 20590**

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16. Abstract This 48/24 kph 90° Impact (Moving Deformable Barrier) Compliance Test was conducted on the subject 1998 Mazda 626 4-door sedan in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-214D-04 to determine FMVSS 214 Side Impact Protection compliance. This test was conducted at Transportation Research Center Inc. in East Liberty, Ohio, on November 4, 1997. The impact velocity of the Moving Deformable Barrier (MDB) was 52.9 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21° C. The target vehicles post-test maximum crush was 392 mm at Level 3. The test or target vehicle's performance is given below: <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Front SID</u></th> <th></th> <th style="text-align: center;"><u>Rear SID</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;">52</td> <td>g's</td> <td style="text-align: center;">50</td> <td>g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;">59</td> <td>g's</td> <td style="text-align: center;">60</td> <td>g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;">55</td> <td>g's</td> <td style="text-align: center;">54</td> <td>g's</td> </tr> <tr> <td>Thoracic Trauma Index, (TTI):</td> <td style="text-align: center;">57</td> <td>g's</td> <td style="text-align: center;">57</td> <td>g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;">70</td> <td>g's</td> <td style="text-align: center;">71</td> <td>g's</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during side impact event.					<u>Front SID</u>		<u>Rear SID</u>		Left Upper Rib Acceleration:	52	g's	50	g's	Left Lower Rib Acceleration:	59	g's	60	g's	Lower Spine Acceleration:	55	g's	54	g's	Thoracic Trauma Index, (TTI):	57	g's	57	g's	Pelvis Acceleration (PEV):	70	g's	71	g's
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons	0.9	tonnes	t
	(2000 lb)			
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10-286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

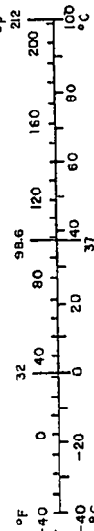


Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page No.</u>
1	PURPOSE AND TEST PROCEDURE	1-1
2	SUMMARY OF SIDE IMPACT TEST	2-1
3	VEHICLE TEST DATA	3-1
	Data Sheet 1 - General Vehicle Test Parameter Data	3-2
	Data Sheet 2 - Test Vehicle Summary of Results	3-5
	Data Sheet 3 - Moving Deformable Barrier (MDB) Summary	3-6
	Data Sheet 4 - Post-Test Observations	3-7
4	OCCUPANT AND VEHICLE INFORMATION	4-1
	Data Sheet 5 - SID Instrumentation Data	4-2
	Data Sheet 6 - Vehicle Pre- And Post-Test Measurements	4-4
	Data Sheet 7 - SID Longitudinal Clearance Dimensions	4-5
	Data Sheet 8 - SID Lateral Clearance Dimensions	4-6
	Data Sheet 9 - Vehicle Side Measurements	4-7
	Data Sheet 10 - Vehicle Exterior Crush Profiles - All Levels	4-8
	Data Sheet 11 - Vehicle Damage Profile Distances	4-14
	Data Sheet 12 - Exterior Static Crush For Impactor Face	4-15
	Data Sheet 13 - Test Vehicle Accelerometer Locations and Data Summary	4-17
	Data Sheet 14 - MDB Accelerometer Locations and Data Summary	4-21
	Data Sheet 15 - High-Speed Camera Locations and Data	4-22
5	VEHICLE FUEL SYSTEM INTEGRITY	5-1
	Data Sheet 16 - FMVSS 301 Fuel System Integrity Data	5-2
	Data Sheet 17 - FMVSS 301 Rollover Data	5-3
APPENDIX A	PHOTOGRAPHS	A-1
APPENDIX B	DATA PLOTS	B-1
APPENDIX C	SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA	C-1
APPENDIX D	TEST EQUIPMENT LIST AND CALIBRATION INFORMATION	D-1

SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-97-C-21033. The purpose of this test was to evaluate side impact protection in a 1998 Mazda 626 4-door sedan. The test was conducted in accordance with the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-04, dated September 1, 1995).

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 1998 Mazda 626 4-door sedan was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 52.9 kph (32.9 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on November 4, 1997. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SIDs) are included in appendix A.

Two restrained Side Impact Dummies (SIDs) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OVSC Side Impact Laboratory Test Procedure (TP-214D-04, dated September 1, 1995). Both SIDs were certified prior to this test. The side impact test was documented by one real-time camera and 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SIDs were instrumented with the following accelerometers:

1. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial and redundant accelerometer (Y-direction)

A summary of the side impact dummy (SID) configuration and verification test data can be found in Appendix C. A total of 41 channels of data were recorded. Appendix B contains the vehicle, MDB, and dummy response data traces.

The following table summarizes the results of the test.

Injury Criteria	Front SID	Rear SID
TTI (g)	57	57
PEV (g)	70	71

Data Acquisition Explanations

The vehicle's left upper A-post Y-axis acceleration, LMAYG1, recorded questionable data after approximately 20 milliseconds. The acceleration never returned to zero, which affected the velocity of the data channel.

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 1998 Mazda 626 4-door sedan
 Vehicle Body Color: Green VIN: 1YVGF22CXW5691107
 Vehicle NHTSA No.: CW5400 Month & Year of Manufacture: 09/97
 Engine Data: 4 Cylinders; - CID; 2.0 Liters; - cc
 Engine Placement: X Longitudinal; or - Lateral
 Transmission: 5 Speed; X Manual; - Automatic; - Overdrive
 Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four-Wheel
 Odometer Reading: 30 km
 Options: X A/C; X Power steering; X Pwr. brakes; X Pwr. windows

DATA FROM TIRE PLACARD

Tire Pressure* (at capacity): 220 kPa FRONT
180 kPa REAR
 Recommended Tire Size: P185/70R14
 Tires on Test Vehicle: P185/70R14 Manufacturer: Bridgestone
 Vehicle Capacity Data:
 Number of Occupants: 2 Front; 3 Rear; - 3rd seat; 5 Total
 Type of Front Seats: X Bucket; - Bench; - Split bench
 Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob
 Vehicle Max Capacity Loading = 385.0 kg (A)
 No. of Occupants x 68.04 kg. = 340.2 kg (B)
 Vehicle Cargo Capacity = 44.8 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front	=	<u>383.7</u>	kg	Left Rear	=	<u>246.3</u>	kg
Right Front	=	<u>387.8</u>	kg	Right Rear	=	<u>249.9</u>	kg
TOTAL FRONT	=	<u>771.5</u>	kg	TOTAL REAR	=	<u>496.2</u>	kg
% of Total Weight	=	<u>60.9</u>	%	% of Total Weight	=	<u>39.1</u>	%
TOTAL WEIGHT	=	<u>1,267.7</u>	kg				

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight With Max. Fluids = 1,267.7 kg (A)
 Maximum Cargo Carrying Capacity Of Test Vehicle = 45.4 kg (B)
 Weight Of Instrumented Side Impact Dummies (1 Or 2 X 79.0 kg) = 158.0 kg (C)
 TEST VEHICLE TARGET WEIGHT: = 1,471.1 kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDW + 1 OR 2 SID(s) + CARGO):

Left Front	=	<u>430.0</u>	kg	Left Rear	=	<u>287.6</u>	kg
Right Front	=	<u>374.2</u>	kg	Right Rear	=	<u>260.8</u>	kg
TOTAL FRONT	=	<u>804.2</u>	kg	TOTAL REAR	=	<u>548.4</u>	kg
% of Total Weight	=	<u>59.5</u>	%	% of Total Weight	=	<u>40.5</u>	%
TOTAL WEIGHT	=	<u>1,352.6</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (1 OR 2 SID(s) + CARGO + EQUIPMENT & INSTRUMENTATION)

Left Front	=	<u>427.0</u>	kg	Left Rear	=	<u>307.5</u>	kg
Right Front	=	<u>401.0</u>	kg	Right Rear	=	<u>327.5</u>	kg
TOTAL FRONT	=	<u>828.0</u>	kg	TOTAL REAR	=	<u>635.0</u>	kg
% of Total Weight	=	<u>56.6</u>	%	% of Total Weight	=	<u>43.4</u>	%
TOTAL WEIGHT	=	<u>1,463.0</u>	kg				

TEST VEHICLE ATTITUDE (ALL DIMENSIONS IN MILLIMETERS):

AS DELIVERED:

Left Front 680 Right Front 678 Left Rear 686 Right Rear 678

FULLY LOADED:

Left Front 662 Right Front 670 Left Rear 632 Right Rear 642

READY FOR TEST:

Left Front 665 Right Front 651 Left Rear 634 Right Rear 643

TEST VEHICLE WHEELBASE: 2670 millimeters

C.G. = 1,158.9 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = ----- millimeters
 Left Side = ----- millimeters
 Centerline = 4,745 millimeters

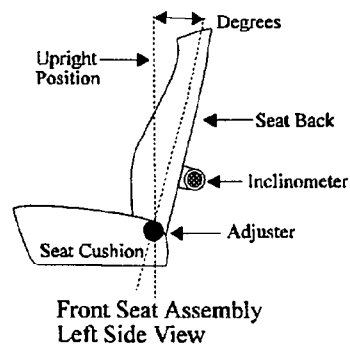
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



FRONT SEAT CUSHION PLACEMENT: Mid position

Total Length Of Adjustment Travel: ----- millimeters

Total Number Of Adjustment Positions Or Detents: 27

FRONT SEAT BACK ADJUSTMENT POSITION: Seat back angle is measured along rear edge of outer set back frame. Adjust seat back to 5th latch from 1st detent.

Seat Back Torso Angle: 19 degrees

SECOND POSITION SEAT:

Total Length Of Fore/Aft Adjustment Travel: N/A millimeters

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: Mid-position

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Open Right Rear: Open

Note: Windows will be in closed position on struck side of test vehicle and in open position on opposite side.

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

64.0 liters (fuel tank usable capacity)

59.5 liters used in test (92% - 94% of fuel tank usable capacity)

LOCATION OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:

Wheelbase = 2670 millimeters

Impact point is 395 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 390 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 1998 Mazda 626

Body Style: 4-door sedan

VIN: 1YVGF22CXW5691107

NHTSA No.: CW5400

Test Date: November 4, 1997

Overall Length = 4,745 millimeters; Overall Width = 1,760 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 427.0 kg Left Rear = 327.5 kg

Right Front = 401.0 kg Right Rear = 307.5 kg

TOTAL FRONT = 828.0 kg TOTAL REAR = 635.0 kg

TOTAL VEHICLE WEIGHT 1,463.0 kg

Wheelbase = 2,670 millimeters

Longitudinal C.G. From Center Of Front Axle = 1,158.9 millimeters

Impact Angle With Respect To Impactor = 90 degrees

ACTUAL IMPACT POINT:

Actual Impact Point is 5 mm forward of nominal impact ref. line (Lateral)

Actual Impact Point is 5 mm above nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (270 mm above ground) = 299 millimeters

2. LEVEL 2 (474 mm above ground) = 388 millimeters

3. LEVEL 3 (620 mm above ground) = 392 millimeters

4. LEVEL 4 (880 mm above ground) = 307 millimeters

5. LEVEL 5 (1,350 mm above ground) = 119 millimeters

Maximum Post-Test Intrusion = 392 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification 052

051

Restraints Used 3-point active seat belt

3-point active seat belt

INSTRUMENTATION:

Number Of Vehicle Data Channels: = 20

Number Of Cameras: Onboard = 3

Offboard = 6

TOTAL = 9

DATA SHEET 3

MOVING DEFORMABLE BARRIER(MDB) SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore, Inc.: 034C0897, 035C0897, 036C0897, 172B0597

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27° to the left

MDB DETAILS:

Overall Width of Framework Carriage	=	<u>1251</u>	millimeters
Overall Length of Mdb (Incl. honeycomb impact face)	=	<u>4115</u>	millimeters
Wheelbase of Framework Carriage	=	<u>2591</u>	millimeters
Tread of Framework Carriage (Front & Rear)	=	<u>1880</u>	millimeters
C.G. Location Rearward of Front Axle	=	<u>1112</u>	millimeters

MDB WEIGHT:

Left Front	=	<u>314.0</u>	kg	Left Rear	=	<u>380.5</u>	kg
Right Front	=	<u>465.0</u>	kg	Right Rear	=	<u>205.5</u>	kg
TOTAL FRONT	=	<u>779.0</u>	kg	TOTAL REAR	=	<u>586.0</u>	kg
TOTAL MDB WEIGHT	=	<u>1,365.0</u>	kg				
Impact Angle (MDB C/L to Target Vehicle C/L)	=	<u>90</u>	degrees				
Impact Speed	=	<u>52.9</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>153.7</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>130.9</u>	millimeters
3. Row C at Mid Level	=	<u>72.2</u>	millimeters
4. Row D at Top of Stack Level	=	<u>53.1</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels = 5

DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head:	<u>Side window</u>	<u>Side header</u>
Upper Torso:	<u>N/A</u>	<u>N/A</u>
Lower Torso:	<u>N/A</u>	<u>N/A</u>
Left Knee:	<u>Steering column</u>	<u>Seat back</u>
Right Knee:	<u>Steering column</u>	<u>Seat back</u>

DOOR OPENING:

	<u>LEFT DOOR</u>	<u>RIGHT DOOR</u>
Front:	<u>Tools</u>	<u>Easy</u>
Rear:	<u>Tools</u>	<u>Easy</u>

MDB DISTANCE FROM TARGET IMPACT POINT:

Vertical: 5 mm above target

Horizontal: 5 mm forward of target

ARM REST LOCATIONS:

Front: 220 mm below the bottom of the window

Rear: 255 mm below the bottom of the window

SEAT MOVEMENT:

Front: Seat was pushed against center console

Rear: None

GLAZING DAMAGE:

Windshield: Left edge of windshield cracked

Window: Left driver window and left rear passenger window shattered at impact

PILLAR PERFORMANCE:

No visible tears or separations

SILL SEPARATION:

None

OTHER NOTABLE IMPACT EFFECTS:

The driver and passenger frontal airbags did not deploy.

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID INSTRUMENTATION DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

TEST NUMBER: 971104

DRIVER DUMMY SERIAL NUMBER: 052

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

LEFT UPPER RIB ACCELERATION

LATERAL (P)	52.2 g	@ 30.6 ms	16.7 g	@ 76.3 ms
LATERAL (R)	53.9 g	@ 30.6 ms	16.8 g	@ 76.3 ms

LEFT LOWER RIB ACCELERATION

LATERAL (P)	59.1 g	@ 30.6 ms	14.5 g	@ 92.5 ms
LATERAL (R)	59.8 g	@ 30.6 ms	14.4 g	@ 92.5 ms
TTI d (P)	57.0			
TTI d (R)	57.4			

LOWER SPINE ACCELERATION

LATERAL (P)	54.9 g	@ 36.3 ms	15.3 g	@ 90.6 ms
LATERAL (R)	55.0 g	@ 36.3 ms	14.9 g	@ 90.6 ms

PELVIS ACCELERATION

LATERAL (P)	69.8 g	@ 36.3 ms	17.0 g	@ 87.5 ms
LATERAL (R)	69.0 g	@ 36.3 ms	17.1 g	@ 87.5 ms

POSITIVE DIRECTION

LONGITUDINAL: FORWARD
LATERAL: RIGHTWARD
VERTICAL: DOWNWARD

NEGATIVE DIRECTION

LONGITUDINAL: REARWARD
LATERAL: LEFTWARD
VERTICAL: UPWARD

DATA SHEET 5 (continued)

SID INSTRUMENTATION DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

TEST NUMBER: 971104

PASSENGER DUMMY SERIAL NUMBER: 051

POSITIVE
DIRECTION

NEGATIVE
DIRECTION

LEFT UPPER RIB ACCELERATION

LATERAL (P)	50.0 g	@ 50.0 ms	5.7 g	@ 152.5 ms
LATERAL (R)	50.1 g	@ 50.0 ms	5.7 g	@ 152.5 ms

LEFT LOWER RIB ACCELERATION

LATERAL (P)	59.6 g	@ 48.1 ms	8.5 g	@ 74.4 ms
LATERAL (R)	59.0 g	@ 48.1 ms	9.4 g	@ 74.4 ms
TTI d (P)	56.7			
TTI d (R)	56.7			

LOWER SPINE ACCELERATION

LATERAL (P)	53.8 g	@ 46.3 ms	23.4 g	@ 71.9 ms
LATERAL (R)	54.4 g	@ 46.3 ms	23.1 g	@ 71.9 ms

PELVIS ACCELERATION

LATERAL (P)	70.9 g	@ 42.5 ms	12.4 g	@ 80.0 ms
LATERAL (R)	69.6 g	@ 42.5 ms	13.1 g	@ 79.4 ms

POSITIVE DIRECTION

LONGITUDINAL: FORWARD
LATERAL: RIGHTWARD
VERTICAL: DOWNWARD

NEGATIVE DIRECTION

LONGITUDINAL: REARWARD
LATERAL: LEFTWARD
VERTICAL: UPWARD

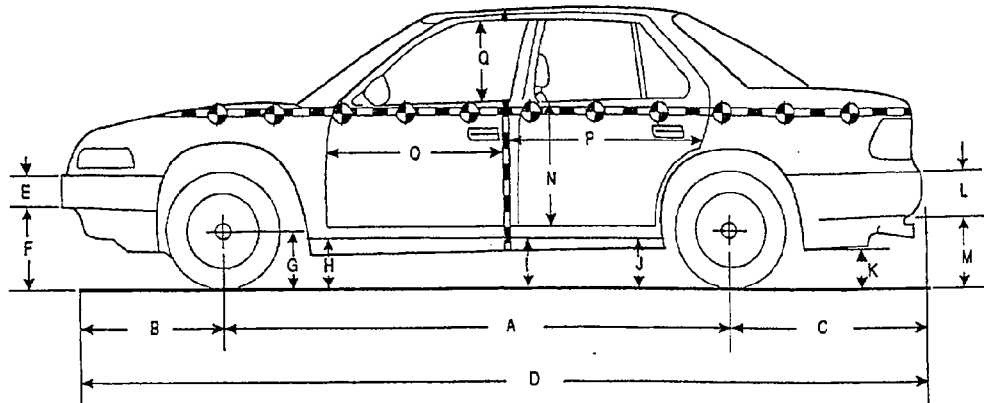
DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

Measurements were not taken.



LEFT SIDE VIEW

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

	Pre-Test (as delivered)	Pre-Test (as tested)	Post-Test (as tested)	Change
A	N/A	N/A	N/A	N/A
B	N/A	N/A	N/A	N/A
C	N/A	N/A	N/A	N/A
D	N/A	N/A	N/A	N/A
E	N/A	N/A	N/A	N/A
F	N/A	N/A	N/A	N/A
G	N/A	N/A	N/A	N/A
H	N/A	N/A	N/A	N/A
I	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A
J	N/A	N/A	N/A	N/A
K	N/A	N/A	N/A	N/A
L	N/A	N/A	N/A	N/A
M	N/A	N/A	N/A	N/A
N	N/A	N/A	N/A	N/A
O	N/A	N/A	N/A	N/A
P	N/A	N/A	N/A	N/A
Q	N/A	N/A	N/A	N/A
R	N/A	N/A	N/A	N/A
S	N/A	N/A	N/A	N/A
T	N/A	N/A	N/A	N/A

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

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

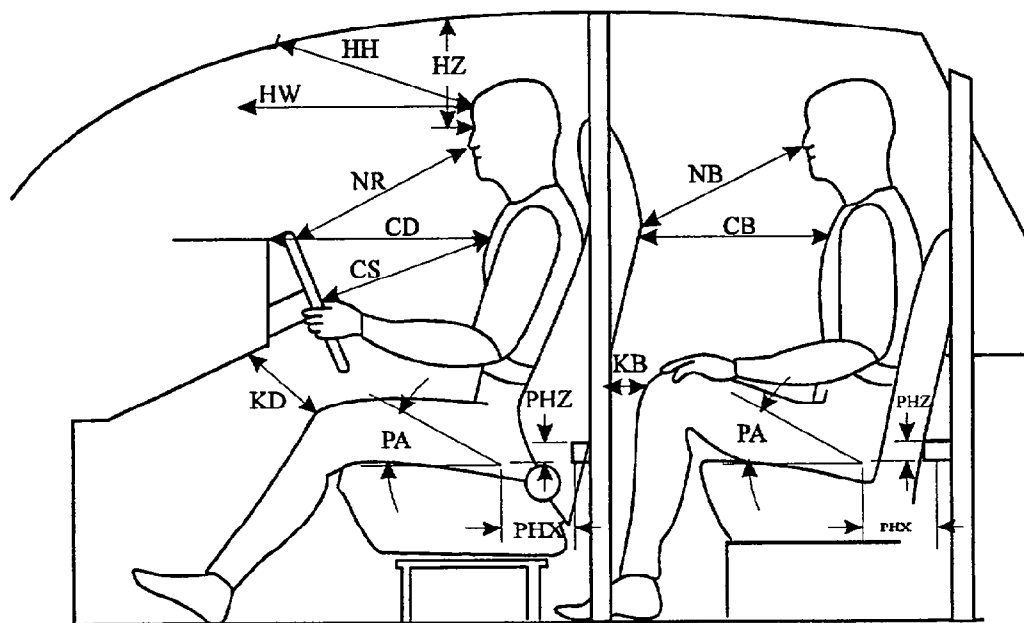
S = Left Side Length

DATA SHEET 7

SID LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



LEFT SIDE VIEW

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

	DRIVER ID #052	LEFT REAR PASS. ID#051
HH	386	N/A
HW	598	N/A
HZ	118	61
NR/NB	N/A	N/A
CD/CB	523	607
CS	313	N/A
KDL(KDA°)/KBL(KDA°)	74/N/A	185/N/A
KDR(KBA°)/KBR(KBA°)	87/N/A	184/N/A
PA°	24.3	24.8
PHX	198	185
PHZ	126	184

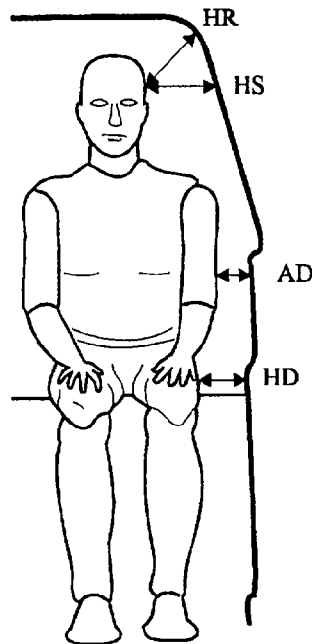
Note: 2-door vehicle shown. Rear dummy PHX and PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID LATERAL CLEARANCE DIMENSIONS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



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

	DRIVER ID #052	LEFT REAR PASS. ID #051
HR	169	180
HS	235	198
AD*	LOWER: 53 UPPER: N/A	LOWER: 112 UPPER: N/A
HD	241	181

* Lower measurement is taken laterally at center of the lower rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

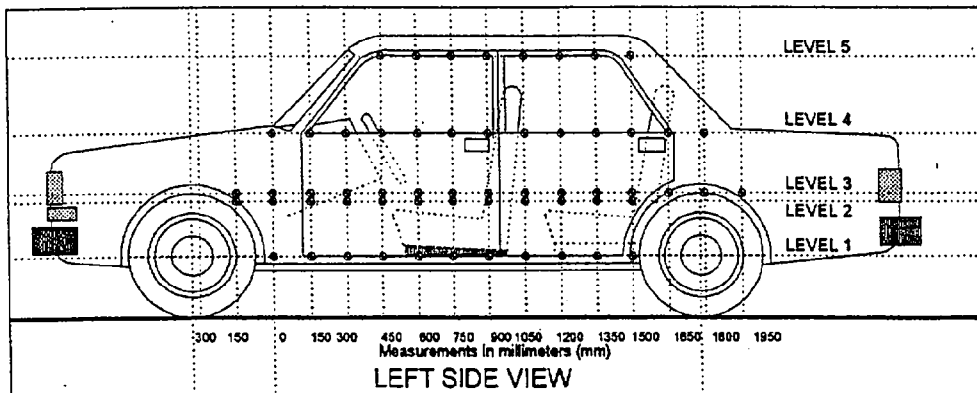
Upper measurement is taken laterally at center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



LEVEL 5 - WINDOW TOP
 LEVEL 4 - WINDOW SILL
 LEVEL 3 - MID-DOOR
 LEVEL 2 - OCCUPANT H-POINT
 LEVEL 1 - AXLE CENTERLINE HEIGHT OR SILL TOP HEIGHT

MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED" CONFIGURATION

Measurements along the vertical 750 mm line shown above:

Level 5 @ Window Top	=	<u>1350</u>	millimeters
Level 4 @ Window Sill	=	<u>880</u>	millimeters
Level 3 @ Mid Door	=	<u>620</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>474</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>270</u>	millimeters

Note: The measurements taken are off by 49 mm forward at each interval.

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

NHTSA No.: CW5400

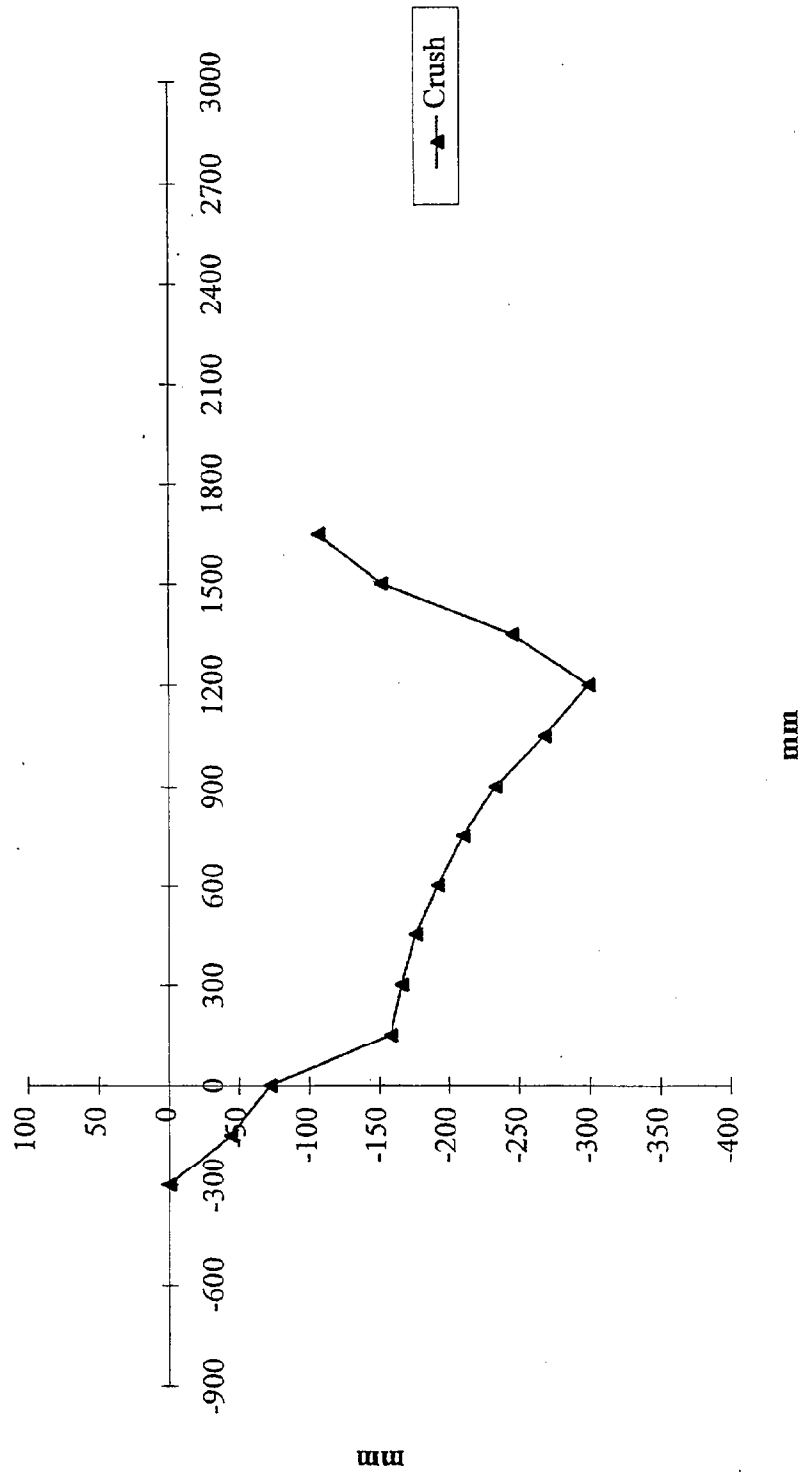
Vehicle: 1998 Mazda 626 4-door sedan

Location	Height	(mm) From Impact Point														
		-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800
Level 1 Side Sill	Pre	X	X	399	396	403	399	399	397	396	397	395	392	390	395	392
	Post	X	X	443	472	561	565	575	589	606	630	663	691	635	547	499
	Crush	X	X	-44	-72	-158	-166	-176	-192	-210	-233	-268	-299	-245	-152	-107
Level 2 H-Point	Pre	X	X	339	340	337	339	342	337	337	339	335	334	331	335	333
	Post	X	X	460	509	650	679	700	710	723	715	723	722	715	683	624
	Crush	X	X	-93	-169	-313	-340	-358	-373	-386	-376	-388	-388	-384	-348	-291
Level 3 Mid-Door	Pre	X	340	341	347	345	341	345	340	341	342	337	338	335	339	337
	Post	X	411	450	574	630	637	662	673	681	688	729	701	687	661	598
	Crush	X	-71	-109	-227	-285	-296	-317	-333	-340	-346	-392	-363	-352	-322	-261
Level 4 Window Sill	Pre	455	445	430	430	416	402	392	380	375	372	370	365	362	359	363
	Post	498	485	487	499	547	596	626	624	634	643	660	655	669	670	630
	Crush	-43	-40	-57	-69	-131	-194	-234	-244	-259	-271	-290	-290	-307	-311	-267
Level 5 Window Top	Pre	X	X	X	X	X	X	X	X	625	620	620	621	619	610	617
	Post	X	X	X	X	X	X	X	686	694	723	739	734	715	692	670
	Crush	X	X	X	X	X	X	X	-56	-69	-103	-119	-113	-96	-82	-53

DATA SHEET 10 (continued)
VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

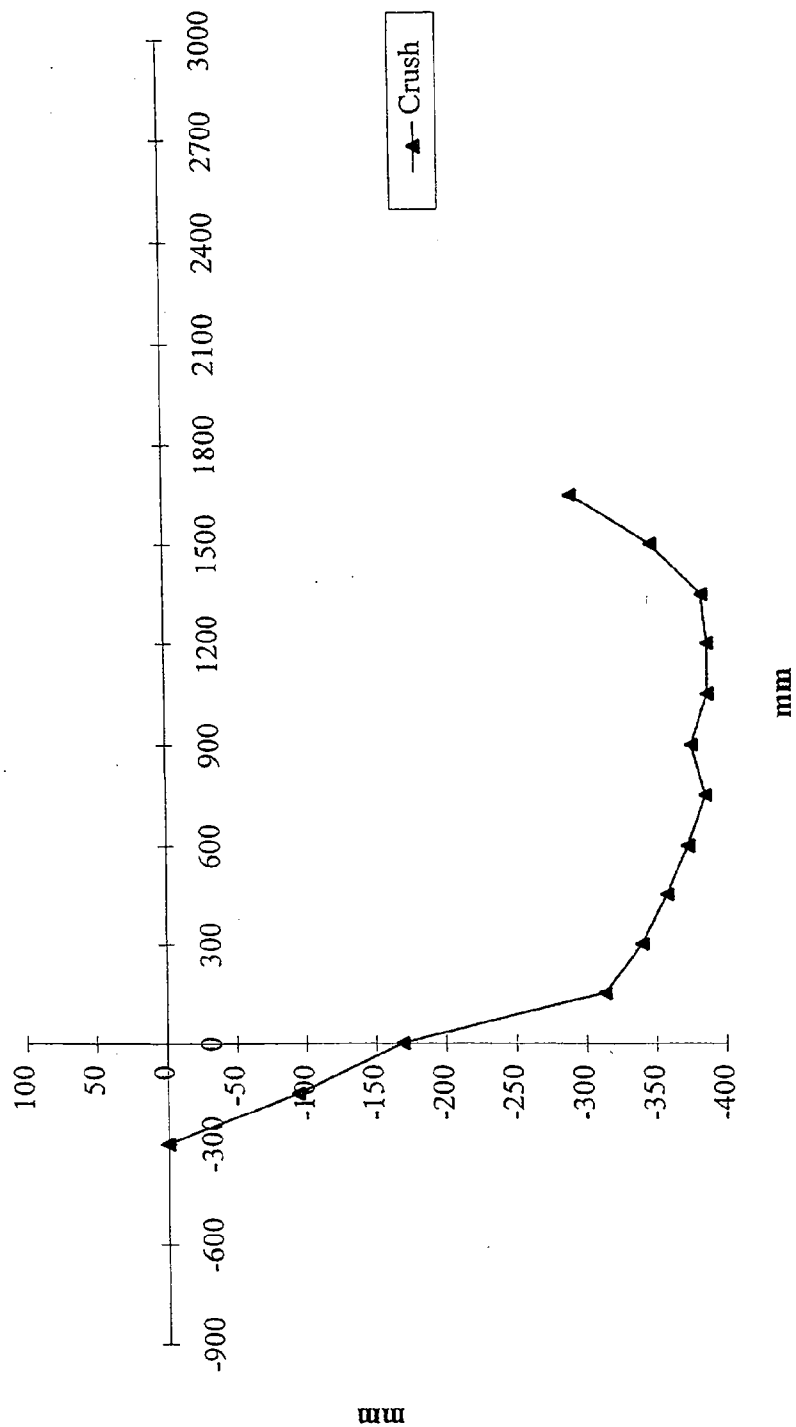
Side Profile Level 1
270 mm Above Ground



DATA SHEET 10 (continued)
VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

Side Profile Level 2
474 mm Above Ground



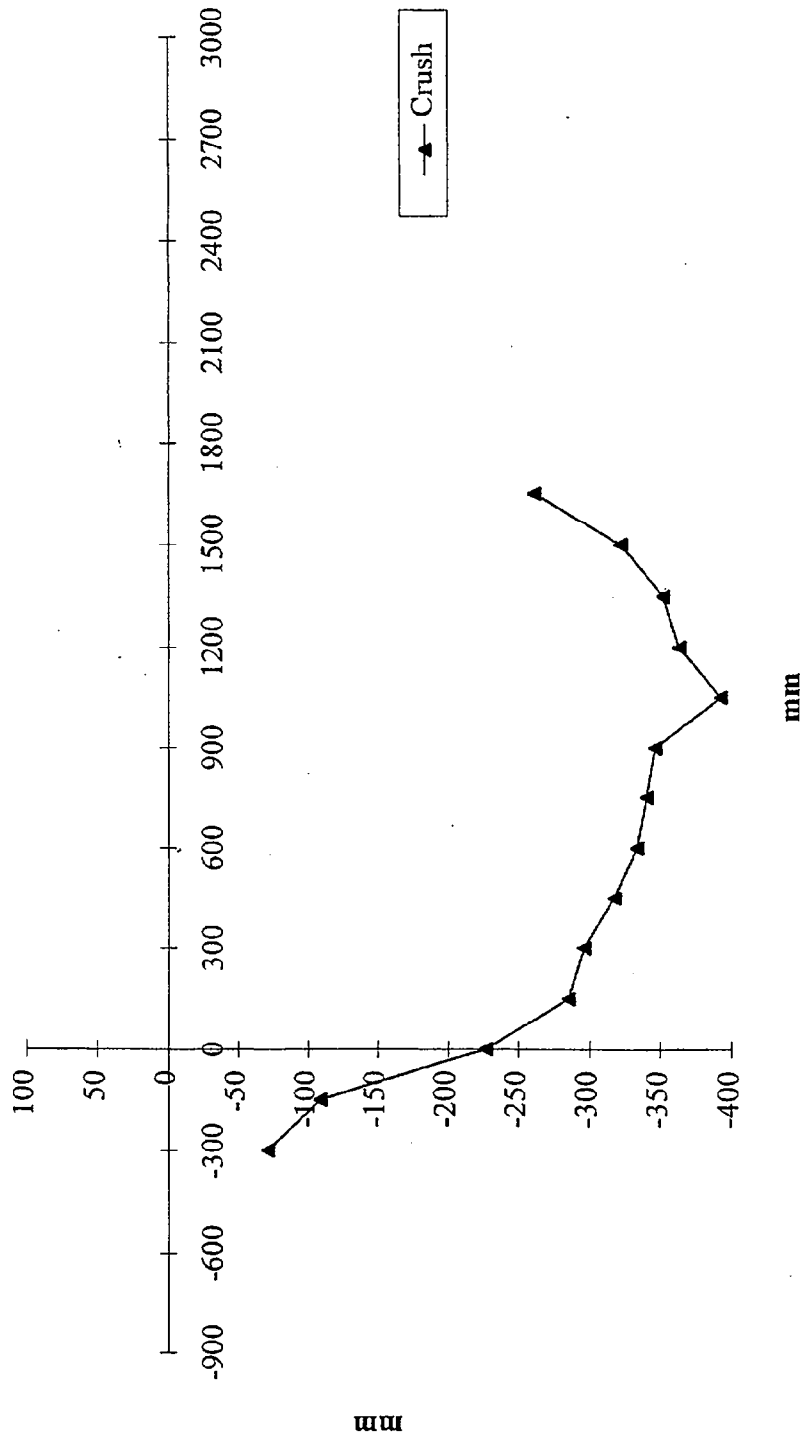
DATA SHEET 10 (continued)

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

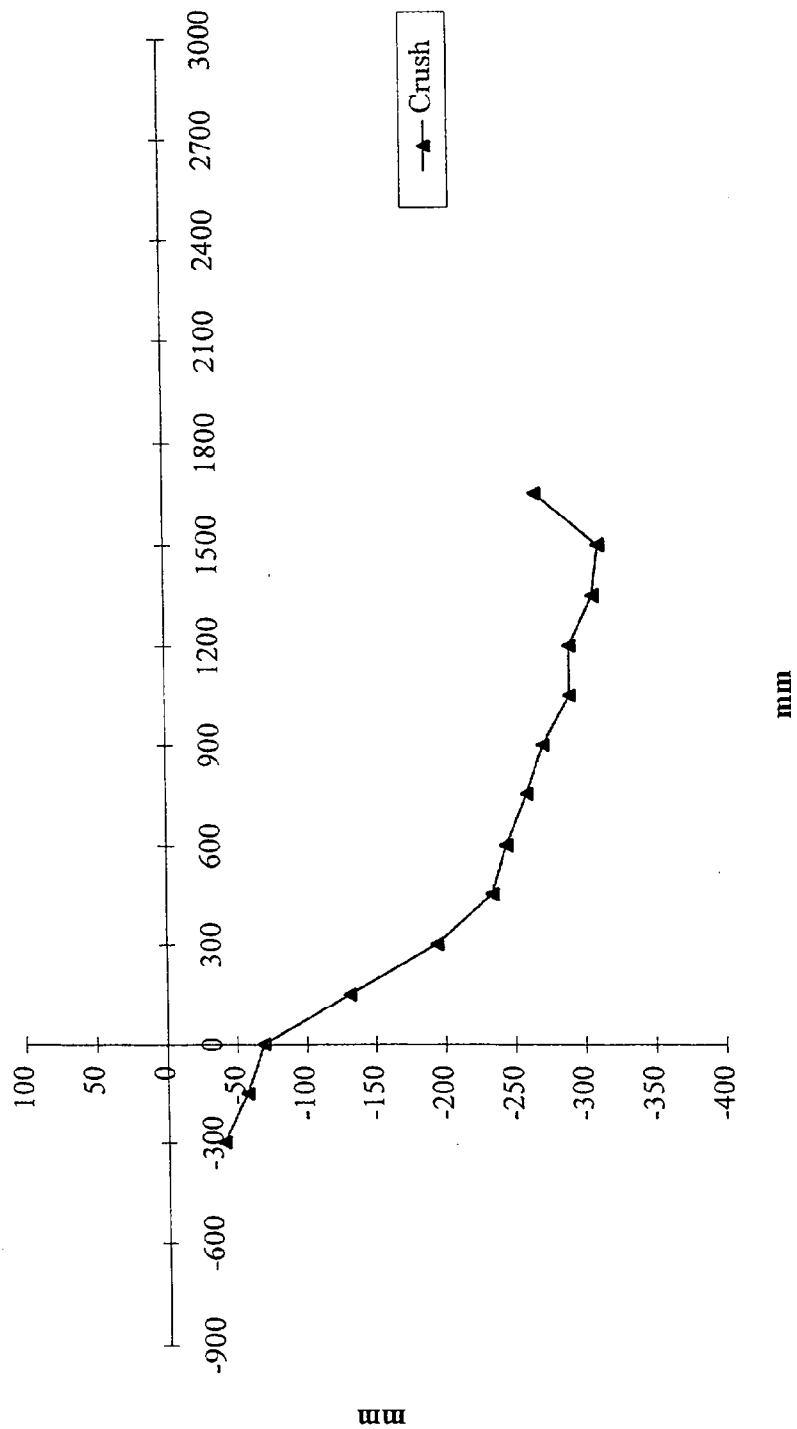
Side Profile Level 3
620 mm Above Ground



DATA SHEET 10 (continued)
VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

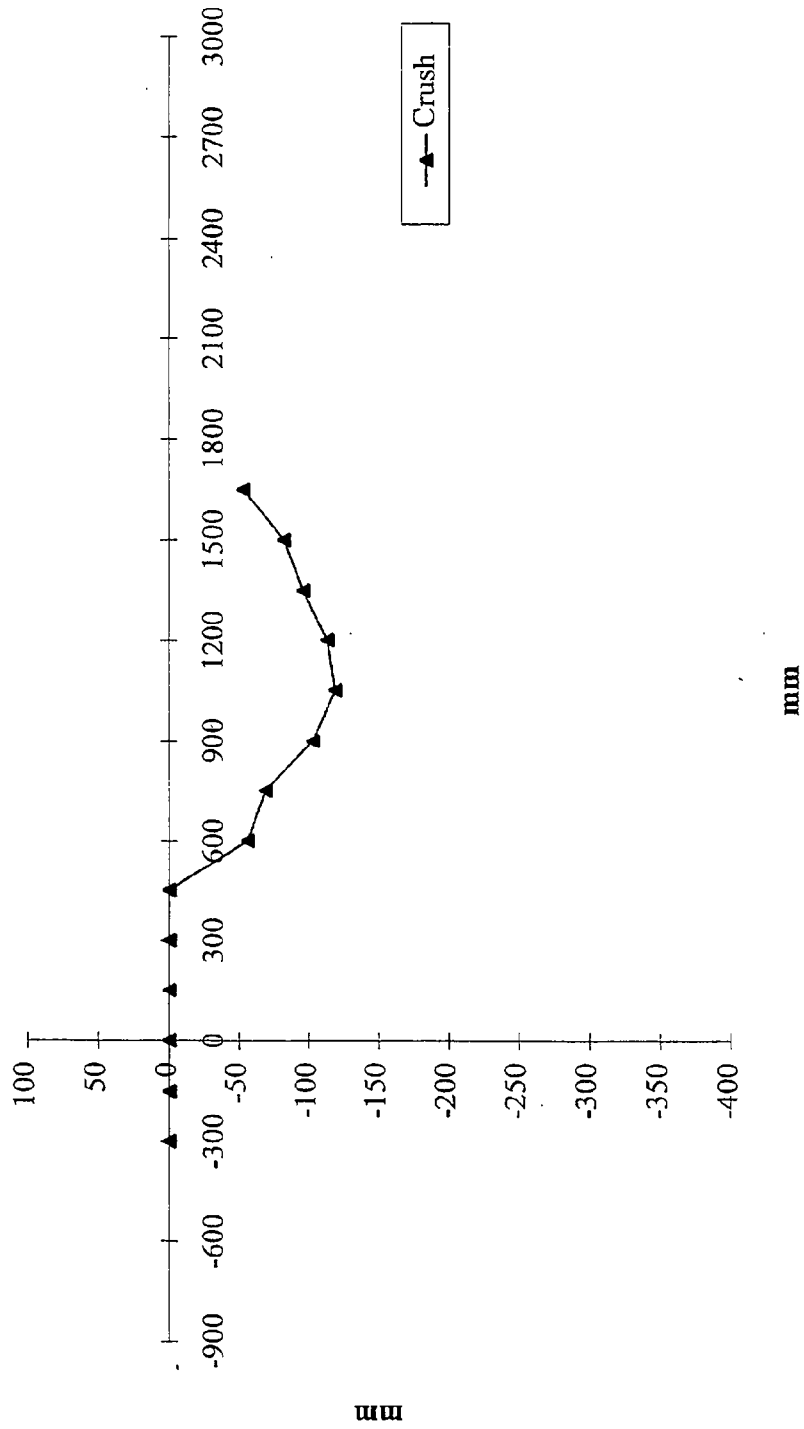
Side Profile Level 4
880 mm Above Ground



DATA SHEET 10 (continued)
 VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

Side Profile Level 5
 1350 mm Above Ground

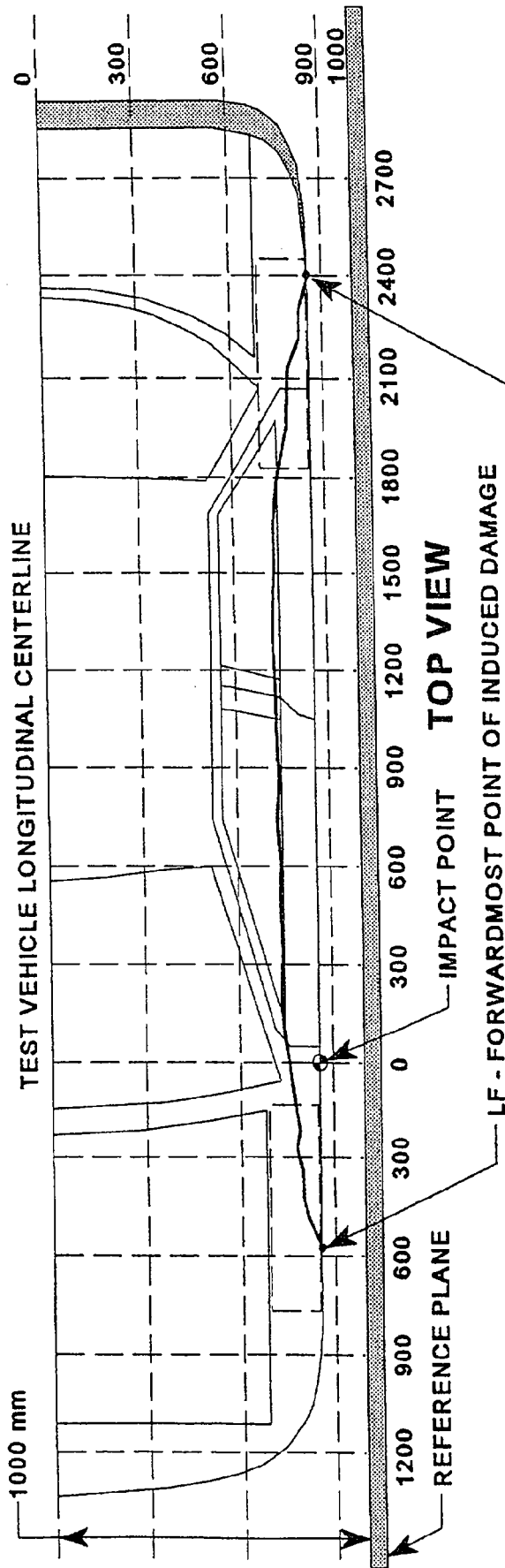


DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

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



MEASUREMENT CONVENTIONS: LR - REARWARDMOST POINT OF INDUCED DAMAGE
Forward of the impact point (towards front of vehicle) is considered negative (-).
Rearward of the impact point (toward rear of vehicle) is considered positive (+).

DPD Measurements	Post-Test (mm)	Pre-Test (mm)	Static Crush (mm)
1 (LF = -150 mm)	411.0	340.0	71.0
2 240	607.6	345.8	261.8
3 630	664.2	344.0	320.2
4 1020	686.6	341.8	344.8
5 1410	695.4	336.8	358.6
6 (LR = 1800 mm)	598.0	337.0	261.0

Note: Measurements were not taken on the entire vehicle side.

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

(Grid as looking at MDB from front)

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

		Distance Right of Center (mm)									Distance Left of Center (mm)								
		Height At CL	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
Location																			
Top Stack Level Level 4	810	-33.9	-4.3	2.0	1.7	0.9	0.0	-1.2	-2.4	-4.0	-5.9	-7.8	-10.2	-13.4	-27.4	-67.0	-106.8	-153.7	
Mid Level Level 3	685	-15.4	5.0	5.0	4.7	3.8	2.9	2.1	1.0	2.4	-0.1	-1.1	-1.6	-2.6	-3.9	-21.2	-70.0	-130.9	
Top Bumper Level																			
Level 2	560	-43.3	-25.9	-8.5	2.4	3.2	1.2	-1.1	-3.8	-4.0	-5.8	-8.4	-12.3	-16.3	-25.0	-38.1	-57.4	-72.2	
Mid Bumper Level																			
Level 1	432	18.6	16.5	7.6	-1.1	-5.2	-10.6	-11.3	-14.9	-16.4	-17.8	-21.1	-25.7	-31.2	-38.8	-45.5	-53.1	-43.8	

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

DATA SHEET 12 (continued)

Vehicle: 1998 Mazda 626 4-door sedan



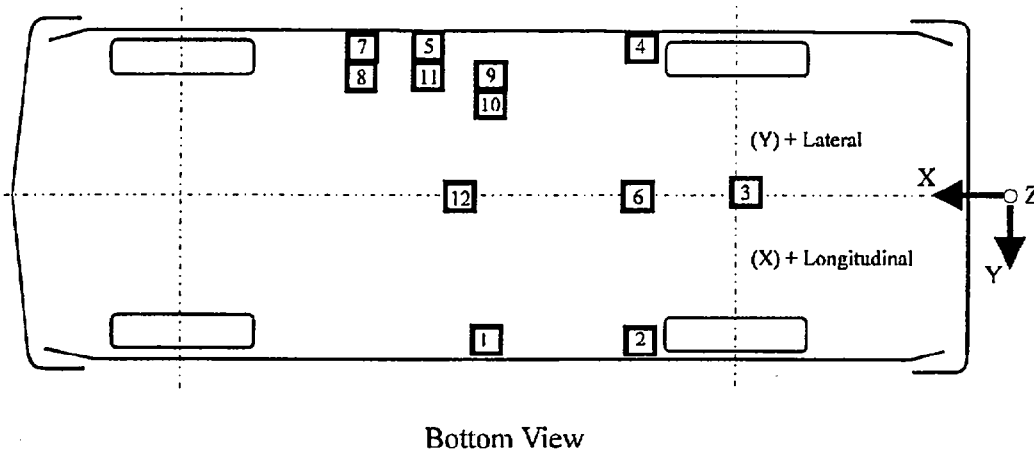
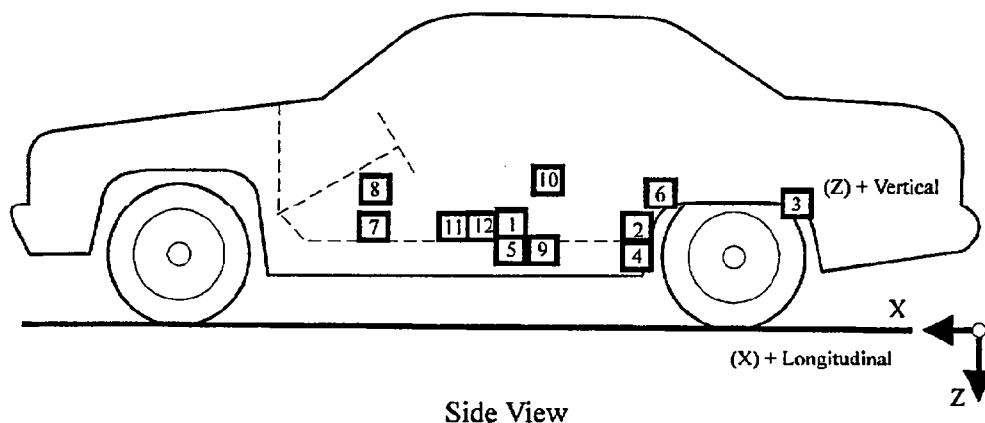
NOTE: Dimensions shown in millimeters, mm

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



- 1-Right Front Sill
- 2-Right Rear Sill
- 3-Rear Floorpan Sill
- 4-Left Rear Sill
- 5-Left Front Sill
- 6-Right Rear Seat

- 7-Left Side Lower A-pillar
- 8-Left Side Middle A-pillar
- 9-Left Side Lower B-pillar
- 10-Left Side Middle B-pillar
- 11-Left Side Front Seat Rack at H-point
- 12-Vehicle Center of Gravity

DATA SHEET 13 (continued)

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

TEST NUMBER: 971104				POSITIVE		NEGATIVE	
No. LOCATION	X	Y	Z	DIRECTION		DIRECTION	
1 RIGHT SIDE SILL AT FRONT SEAT LONGITUDINAL LATERAL VERTICAL RESULTANT	PRE 2885 in	655 in	242 in				
	POST 2905 in	662 in	280 in				
			2.1 g	@ 57.7 ms	4.0 g	@ 10.8 ms	
			18.2 g	@ 7.7 ms	2.1 g	@ 69.4 ms	
			4.7 g	@ 52.1 ms	4.3 g	@ 8.8 ms	
			18.7 g	@ 7.8 ms			
2 RIGHT SIDE SILL AT REAR SEAT LONGITUDINAL LATERAL VERTICAL RESULTANT	PRE 2080 in	676 in	225 in				
	POST 2060 in	650 in	270 in				
			2.9 g	@ 56.9 ms	3.8 g	@ 11.1 ms	
			16.6 g	@ 33.4 ms	1.8 g	@ 184.2 ms	
			2.9 g	@ 34.2 ms	4.1 g	@ 14.6 ms	
			16.8 g	@ 33.4 ms			
3 REAR FLOORPAN ABOVE AXLE LONGITUDINAL LATERAL VERTICAL RESULTANT	PRE 1070 in	0 in	462 in				
	POST 1070 in	0 in	506 in				
			4.1 g	@ 20.2 ms	10.0 g	@ 10.4 ms	
			21.4 g	@ 28.1 ms	2.8 g	@ 245.0 ms	
			10.3 g	@ 29.5 ms	5.9 g	@ 19.4 ms	
			24.0 g	@ 28.9 ms			
4 LEFT SIDE SILL AT FRONT SEAT LATERAL	PRE 2994 in	-660 in	235 in				
	POST 2487 in	-560 in	255 in				
			46.8 g	@ 5.1 ms	17.4 g	@ 27.0 ms	

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

TEST NUMBER: 971104											
No.	LOCATION	X	Y	Z	POSITIVE DIRECTION		NEGATIVE DIRECTION				
5	LEFT SIDE SILL AT REAR SEAT LATERAL	PRE 2239 in	-676 in	215 in							
		POST 2137 in	-530 in	255 in	66.3 g @ 7.8 ms	27.1 g @ 25.4 ms					
6	RIGHT REAR OCCUPANT COMPARTMENT LATERAL	PRE 1850 in	560 in	305 in							
		POST 1850 in	567 in	340 in	18.2 g @ 32.7 ms	2.0 g @ 184.1 ms					
7	LOWER A-POST LATERAL	PRE 3244 in	-710 in	542 in							
		POST 3140 in	-598 in	594 in	64.1 g @ 9.6 ms	60.2 g @ 35.1 ms					
8	UPPER A-POST LATERAL ¹	PRE 3221 in	-710 in	695 in							
		POST 3123 in	-610 in	685 in	43.0 g @ 3.8 ms	22.2 g @ 10.0 ms					
9	LOWER B-POST LATERAL	PRE 2224 in	-715 in	626 in							
		POST 2282 in	-458 in	666 in	196.9 g @ 4.7 ms	99.5 g @ 13.0 ms					

DATA SHEET 13 (continued)

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan NHTSA No.: CW5400

TEST NUMBER: 971104 No. LOCATION	X	Y	Z	POSITIVE DIRECTION	NEGATIVE DIRECTION
10 UPPER B-POST	PRE 2175 in	-720 in	927 in		
	POST 2242 in	-493 in	990 in		
LATERAL			159.6 g	@ 5.7 ms	@ 25.9 ms
11 FRONT SEAT TRACK	PRE 2524 in	-676 in	232 in		
	POST 2425 in	-510 in	277 in		
LATERAL			62.7 g	@ 5.8 ms	@ 25.8 ms
12 VEHICLE CENTER OF GRAVITY	PRE 2762 in	0 in	347 in		
LONGITUDINAL	POST 2816 in	35 in	347 in		
LATERAL			2.2 g	@ 3.8 ms	@ 25.2 ms
VERTICAL			35.6 g	@ 25.7 ms	@ 59.0 ms
RESULTANT			7.2 g	@ 54.6 ms	@ 32.6 ms
			36.6 g	@ 25.6 ms	

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

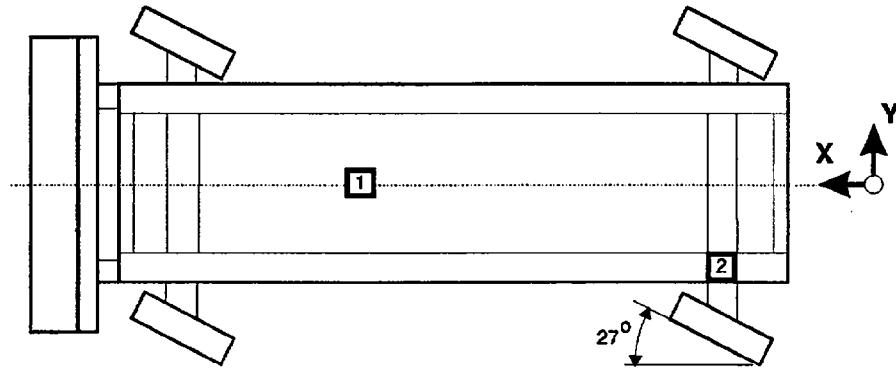
1 See DATA ACQUISITION EXPLANATIONS

DATA SHEET 14

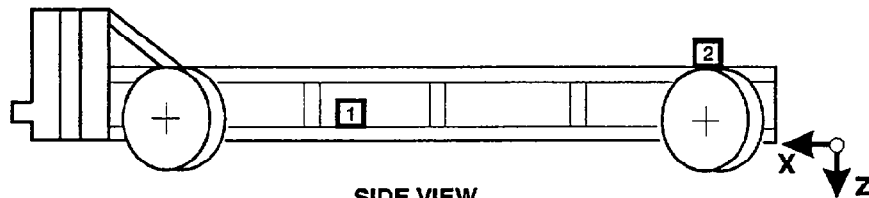
MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



TOP VIEW



SIDE VIEW

Accel. No.	Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity	1835	0	502				
	Longitudinal X				13.3	265.1	29.7	40.9
	Lateral Y				12.8	60.4	15.1	42.5
	Vertical Z				13.9	260.3	10.2	16.0
	Resultant R				31.6	41.1		
2	Rear Frame Member	385	-638	621				
	Longitudinal X				0.3	126.9	0.9	42.2
	Lateral Y				5.6	37.8	2.3	122.1

*Reference: X=Rear Bumper (+ Forward)
Y=Vehicle Centerline (+ To Right)
Z=Ground Level (+ Up)

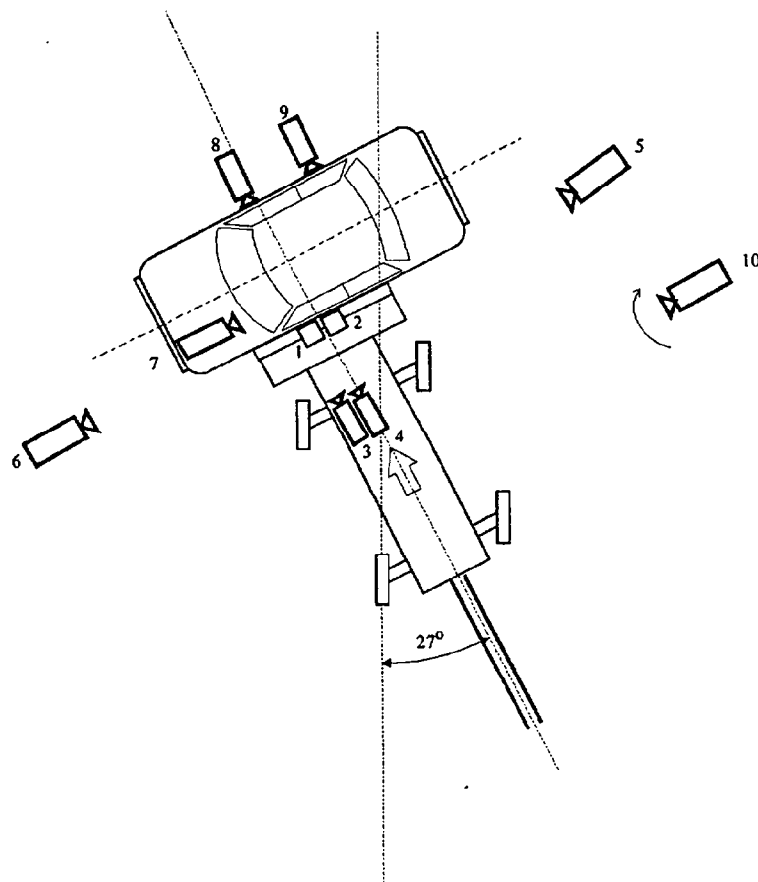
All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH-SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400



Camera Number	Location	Location, mm			Lens (mm)	Speed (fps)
		X	Y	Z		
1	Overhead wide	1,142	1,811	10,866	8	998
2	Overhead tight	1,142	1,378	10,866	25	995
3	Onboard MDB left side	-2,707	-29	1,185	25	1000
4	Onboard MDB center	-3,731	1,016	2,110	13	990
5	Right side	6,945	13,520	1,260	13	1002
6	Left side	-5,354	-2,835	1,260	13	990
7	Onboard vehicle front	NA	NA	NA	8	620
8	Onboard side front door	NA	NA	NA	8	690
9	Onboard side rear door	NA	NA	NA	8	708
10	Real-time Panning	NA	NA	NA	16	24

+X: Rearward from impact point

+Y: Toward right from impact point

+Z: Upward from ground level

SECTION 5

VEHICLE FUEL SYSTEM INTEGRITY

DATA SHEET 16

FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA NO.: CW5400 TEST DATE: November 4, 1997

Vehicle Mfg./Make/Model : 1998 Mazda 626 Coupe

TEST VEHICLE IMPACT TYPE : Frontal (48.28 kph)
 Oblique (48.28 kph) with ° barrier
face first contacting the (driver/passenger) side
 Rear Moving Barrier (48.28 kph)
 Lateral Moving Barrier (32.19 kph)
 X Side Impact Moving Deformable Barrier
(53.91 kph) contacting the driver side

FUEL SPILLAGE MEASUREMENT:

1. From impact until vehicle motion ceases
2. For five-minute period after vehicle motion ceases
3. For next 25 minutes.

ACTUAL	MAXIMUM ALLOWED
0 g	28 g
0 g	142 g
0 g	28 g/1 min.

SOLVENT SPILLAGE DETAILS :

None

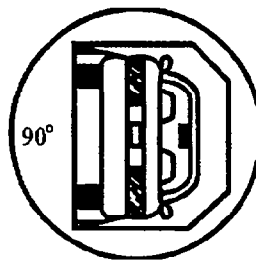
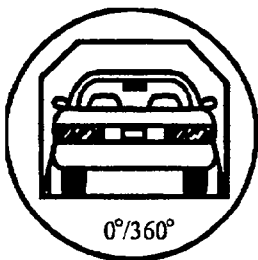
DATA SHEET 17

ROLLOVER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

0 - 90 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 2 seconds
 (Spec. Range = 1 to 3 minutes)
 FMVSS 301 Postion Hold Time + 5 minutes 0 seconds
 TOTAL 6 minutes 2 seconds
 Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

None

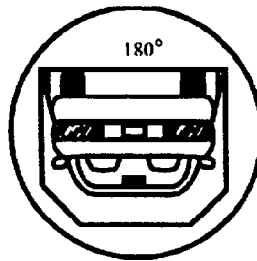
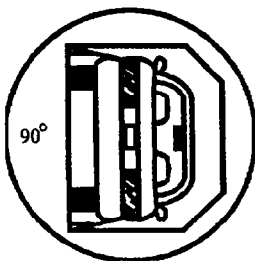
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

90 - 180 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 2 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Postion Hold Time + 5 minutes 0 seconds

TOTAL 6 minutes 2 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

None

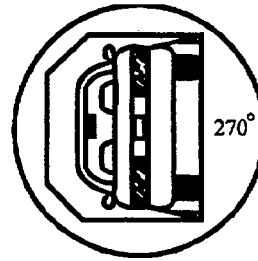
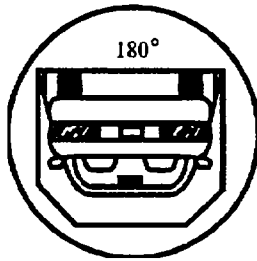
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

180 - 270 Degrees



1. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 2 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Postion Hold Time + 5 minutes 0 seconds

TOTAL 6 minutes 2 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

None

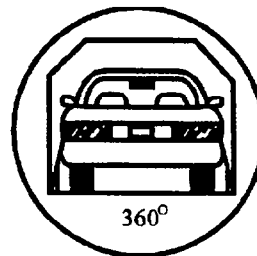
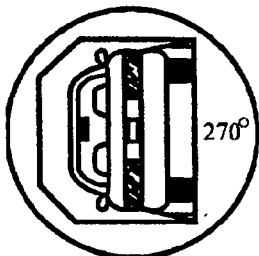
DATA SHEET 17 (continued)

ROLLOVER DATA

Vehicle: 1998 Mazda 626 4-door sedan

NHTSA No.: CW5400

270 - 360 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time 1 minutes 2 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 6 minutes 2 seconds

Next whole minute interval 7 minutes

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE :

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

None

Appendix A

Photographs

List of Photographs

<u>Figure</u>	<u>Description</u>	<u>Page</u>
Figure A-1	Pre-Test Front View Of Test Vehicle	A-3
Figure A-2	Post-Test Frontal View Of Test Vehicle	A-4
Figure A-3	Pre-Test Rear View Of Test Vehicle	A-5
Figure A-4	Post-Test Rear View Of Test Vehicle	A-6
Figure A-5	Pre-Test Impacted Side View Of Test Vehicle	A-7
Figure A-6	Post-Test Impacted Side View Of Test Vehicle	A-8
Figure A-7	Pre-Test Left Side View Of Impactor Face	A-9
Figure A-8	Post-Test Left Side View Of Impactor Face	A-10
Figure A-9	Pre-Test Right Side View Of Impactor Face	A-11
Figure A-10	Post-Test Right Side View Of Impactor Face	A-12
Figure A-11	Pre-Test Top View Of Impactor Face	A-13
Figure A-12	Post-Test Top View Of Impactor Face	A-14
Figure A-13	Pre-Test Overhead View Of Aligned Vehicle	A-15
Figure A-14	Post-Test Overhead View Of Vehicle and MDB	A-16
Figure A-15	Pre-Test Right Occupant Compartment View Of Front SID	A-17
Figure A-16	Post-Test Right Occupant Compartment View Of Front SID	A-18
Figure A-17	Pre-Test Right Occupant Compartment View Of Rear SID	A-19
Figure A-18	Post-Test Right Occupant Compartment View Of Rear SID	A-20
Figure A-19	Pre-Test Left Occupant Compartment View Of Front SID	A-21
Figure A-20	Post-Test Left Occupant Compartment View Of Front SID	A-22
Figure A-21	Pre-Test Left Occupant Compartment View Of Rear SID	A-23
Figure A-22	Post-Test Left Occupant Compartment View Of Rear SID	A-24
Figure A-23	Post-Test Interior Of Front Door Showing SID Impact Locations	A-25
Figure A-24	Post-Test Interior Of Rear Door Showing SID Impact Locations	A-26
Figure A-25	Pre-Test Vehicle Certification Label View	A-27
Figure A-26	Pre-Test Vehicle Recommended Tire Pressure Label View	A-28

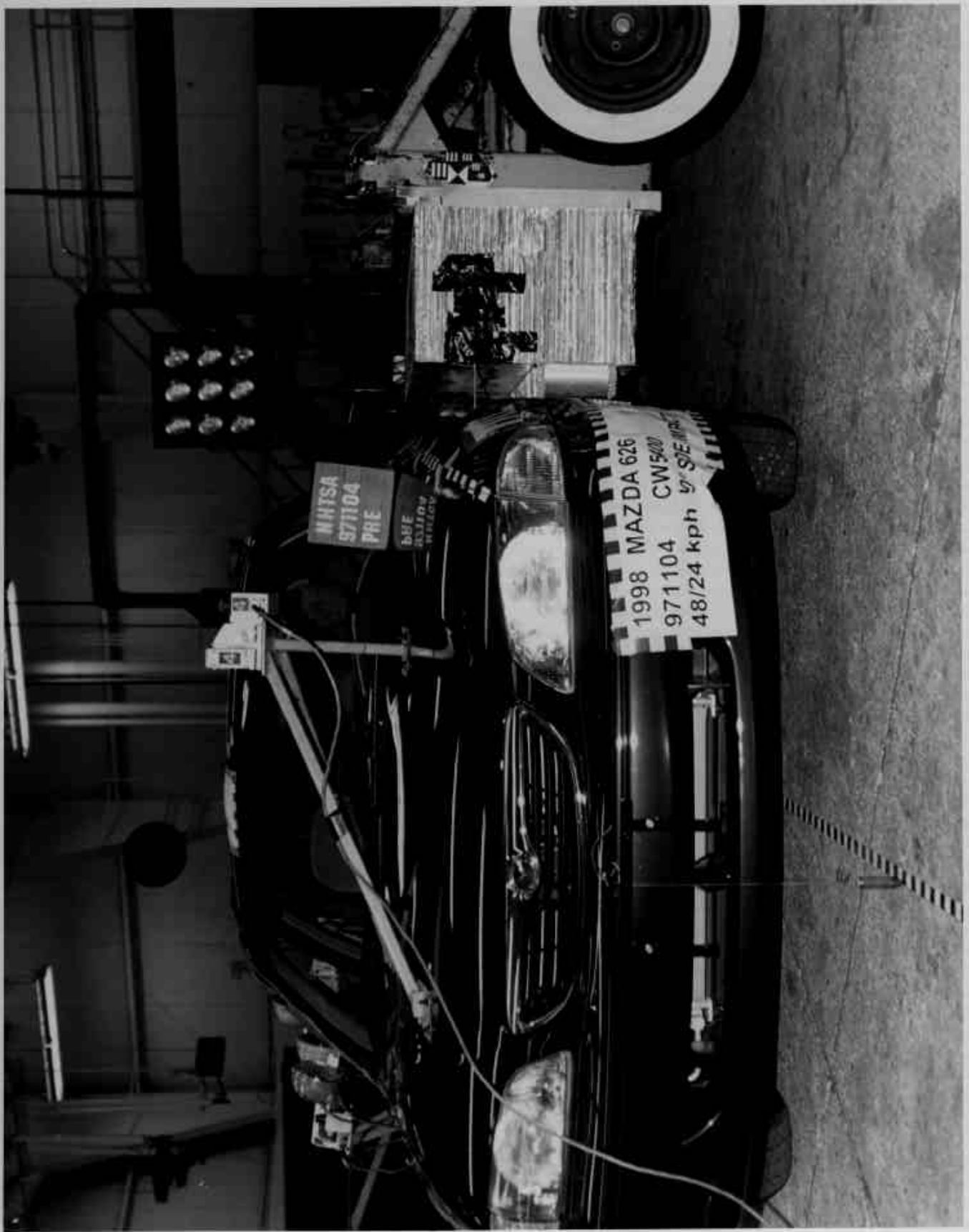


Figure A-1 Pre-Test Front View of Test Vehicle
A-3

971104

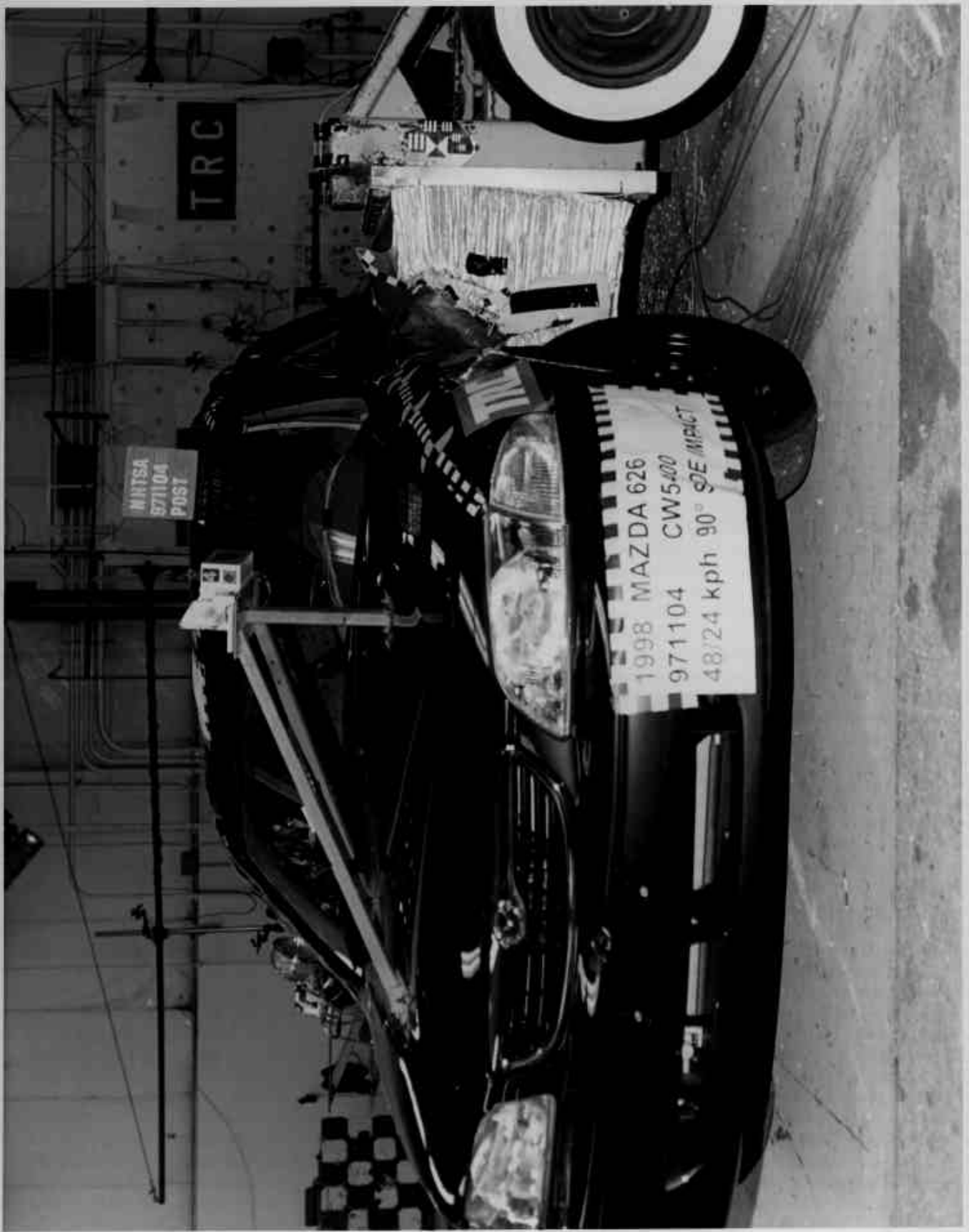


Figure A-2 Post-Test Front View of Test Vehicle
A-4

971104



Figure A-3 Pre-Test Rear View of Test Vehicle
A-5

971104

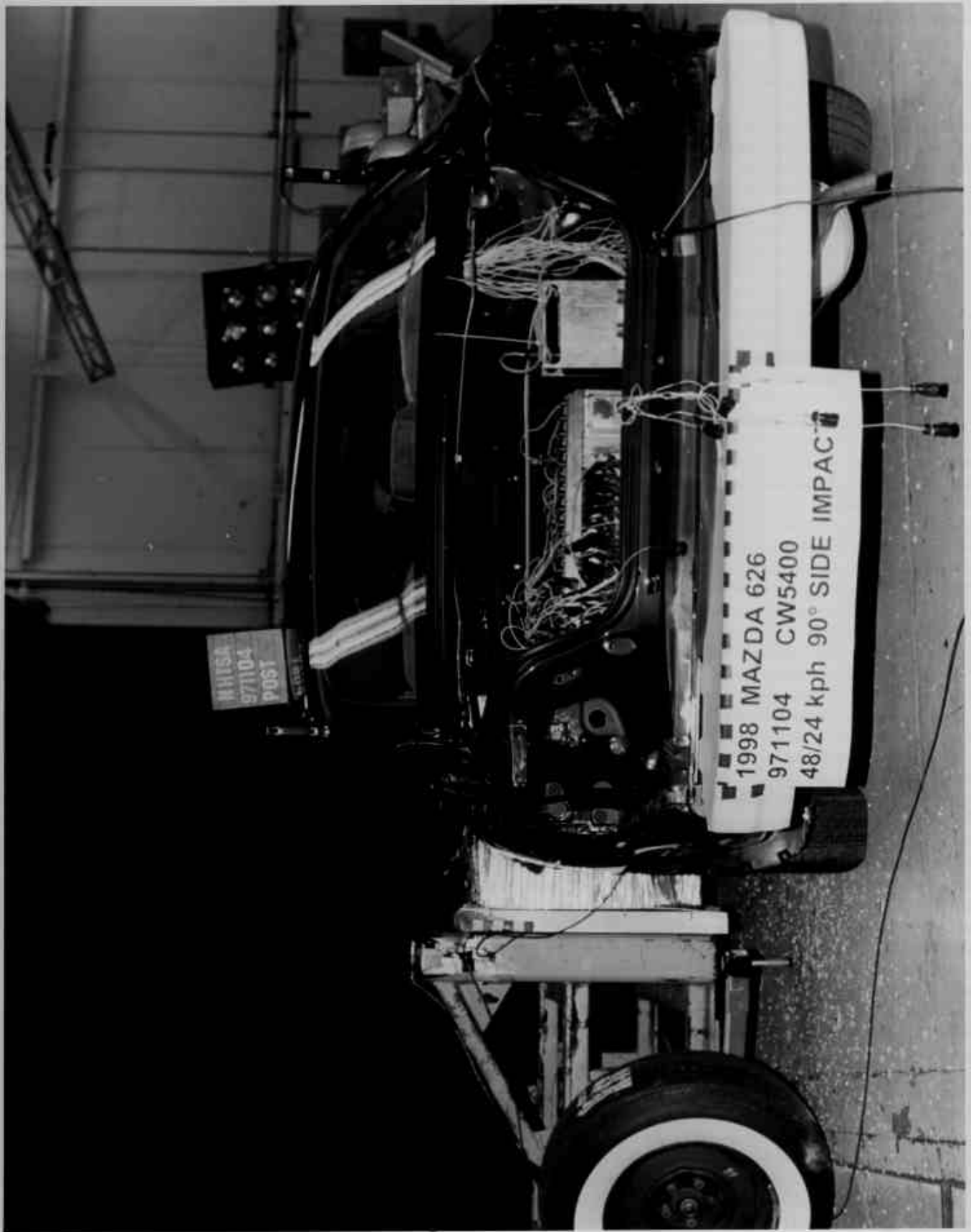


Figure A-4 Post-Test Rear View of Test Vehicle
A-6

971104

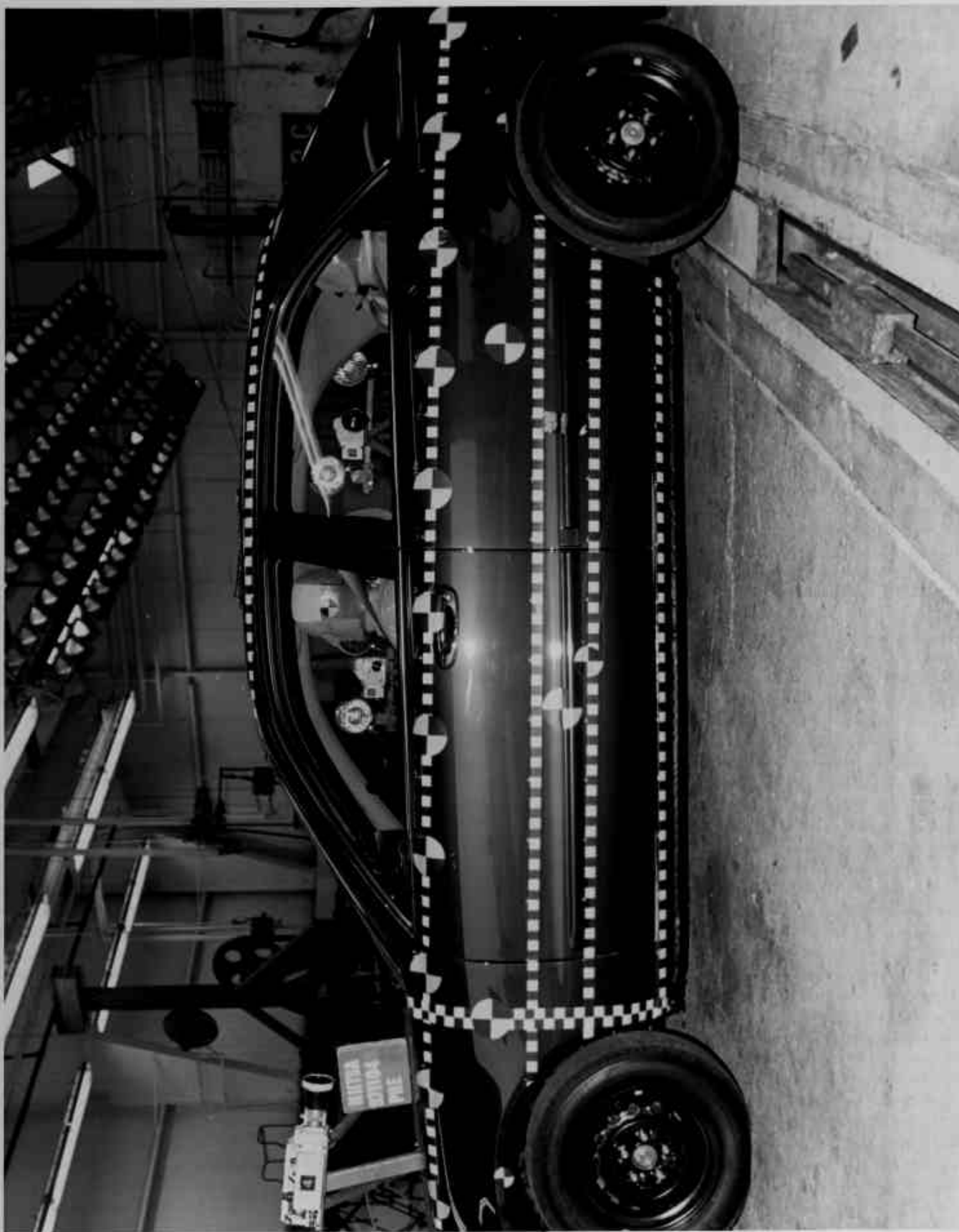


Figure A-5 Pre-Test Impacted Side View of Test Vehicle
A-7

971104

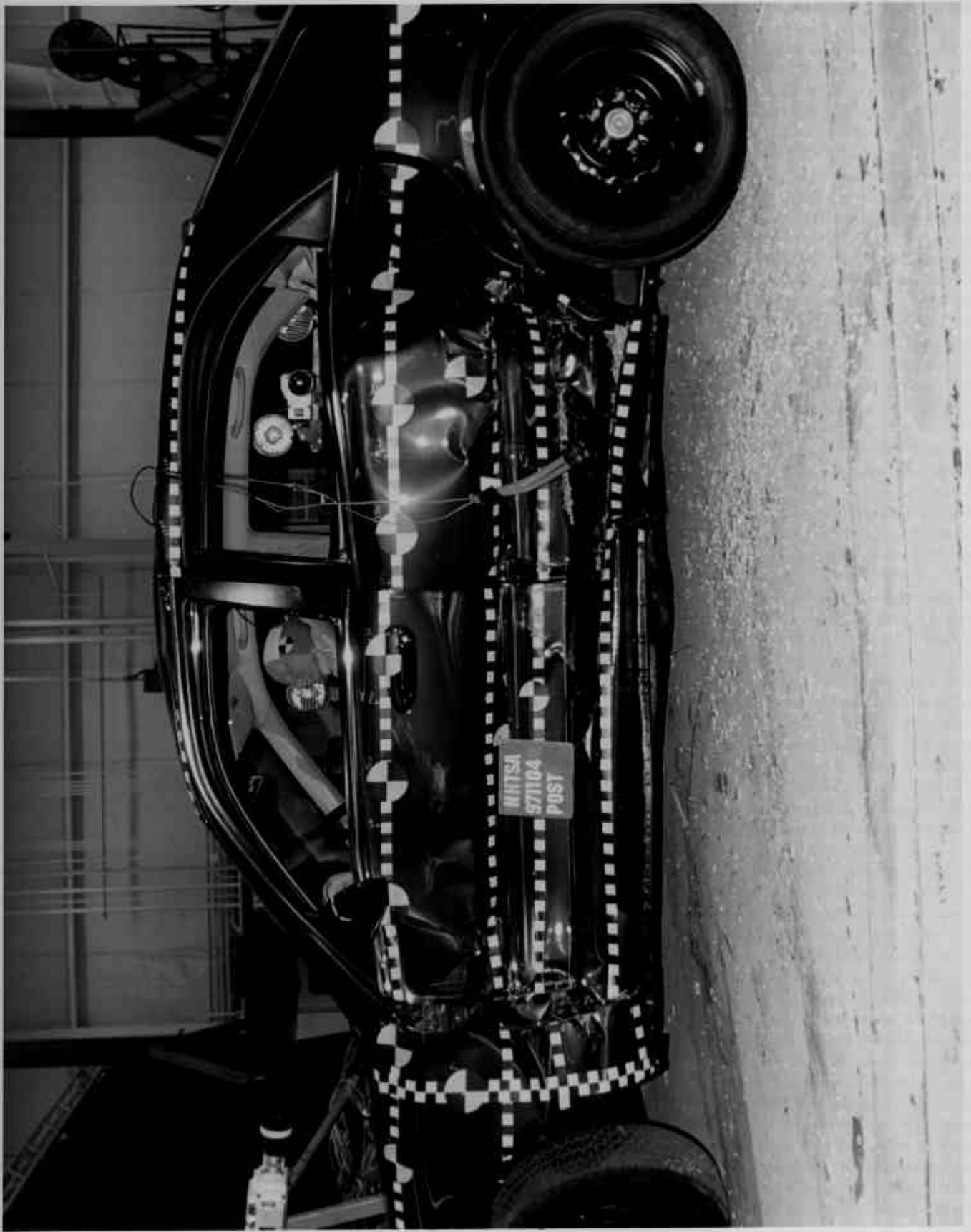


Figure A-6 Post-Test Impacted Side View of Test Vehicle
A-8

971104

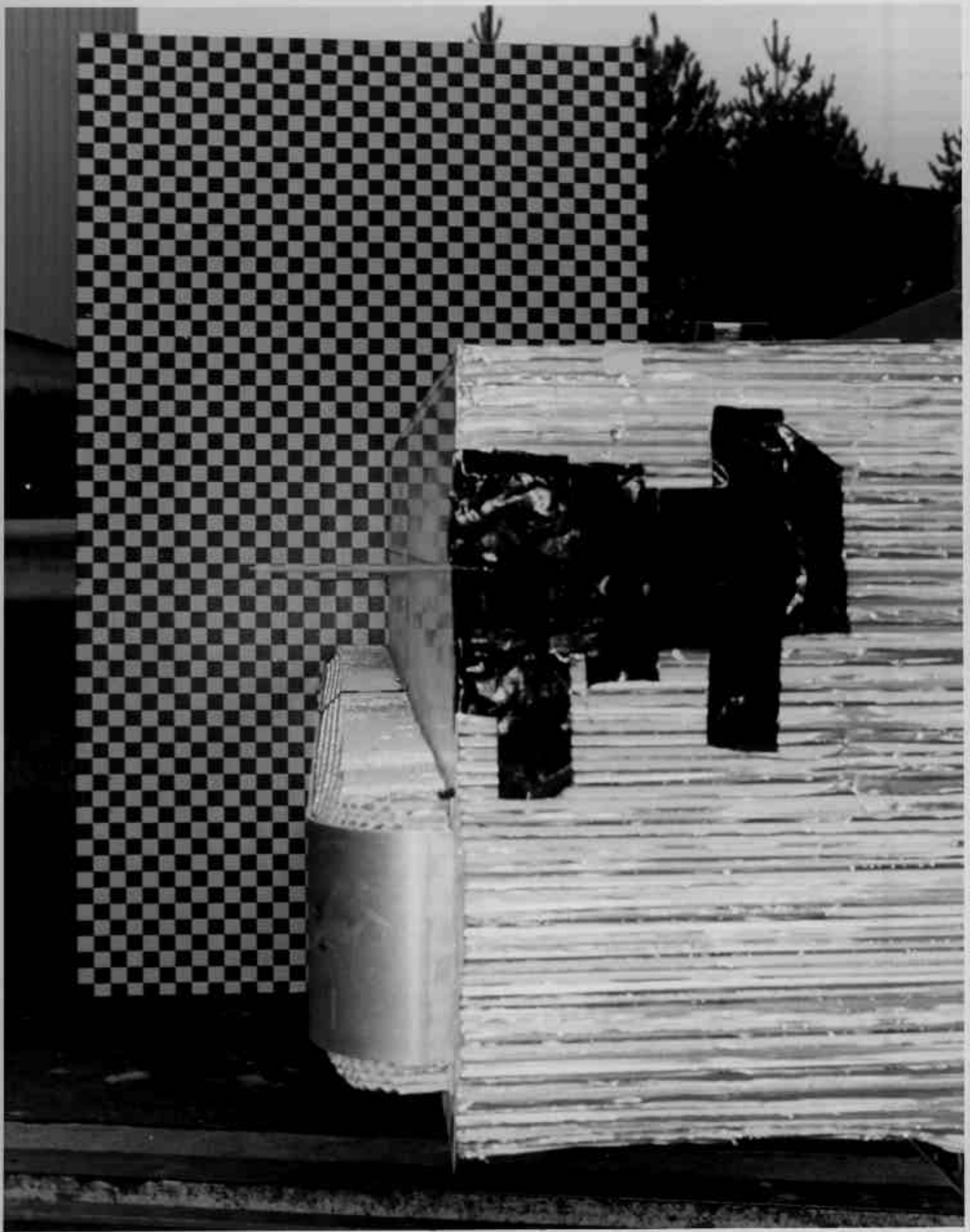


Figure A-7 Pre-Test Left Side View of Impactor Face
A-9

971104



Figure A-8 Post-Test Left Side View of Impactor Face
A-10

971104

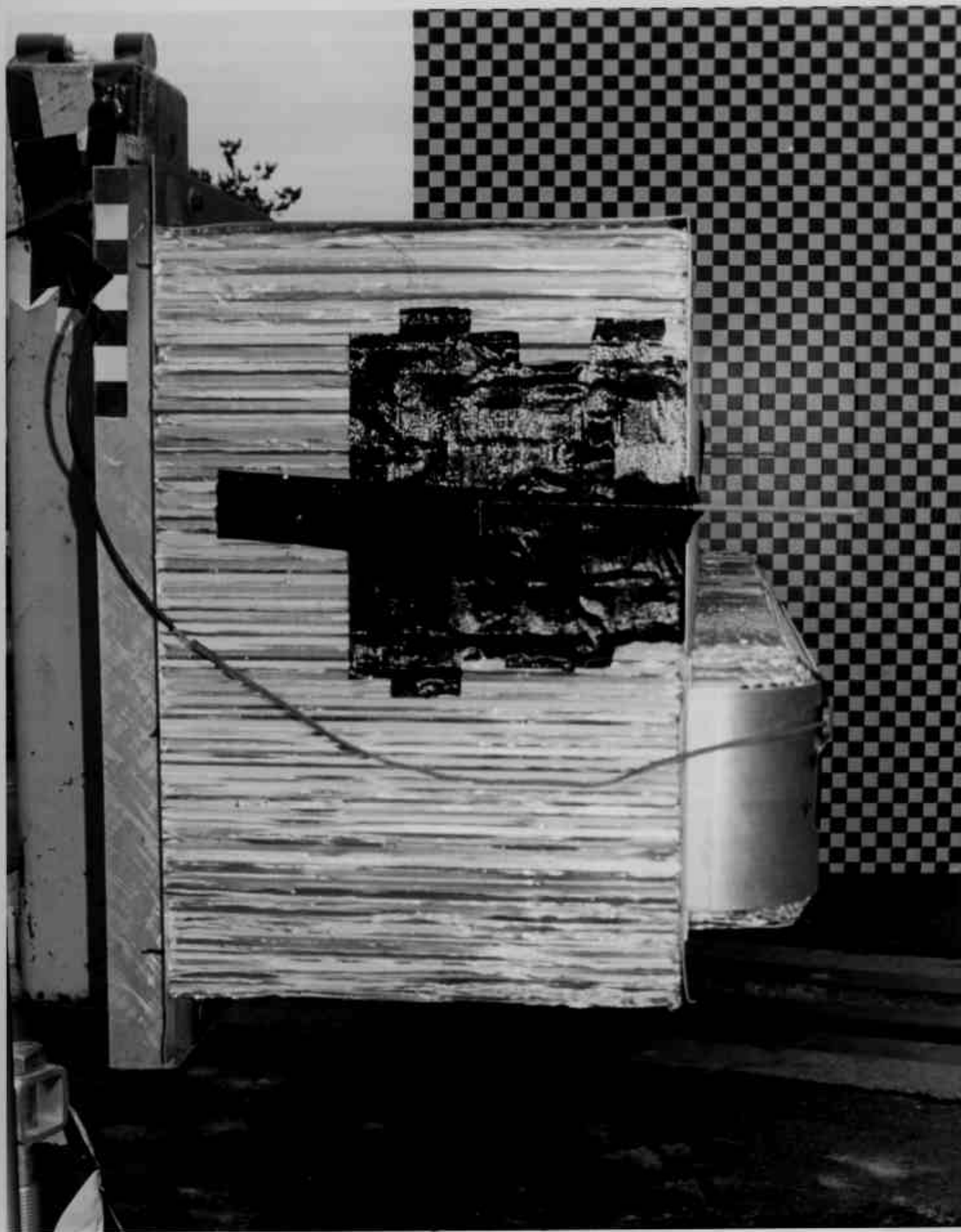


Figure A-9 Pre-Test Right Side View of Impactor Face
A-11

971104



Figure A-10 Post-Test Right Side View of Impactor Face
A-12

971104

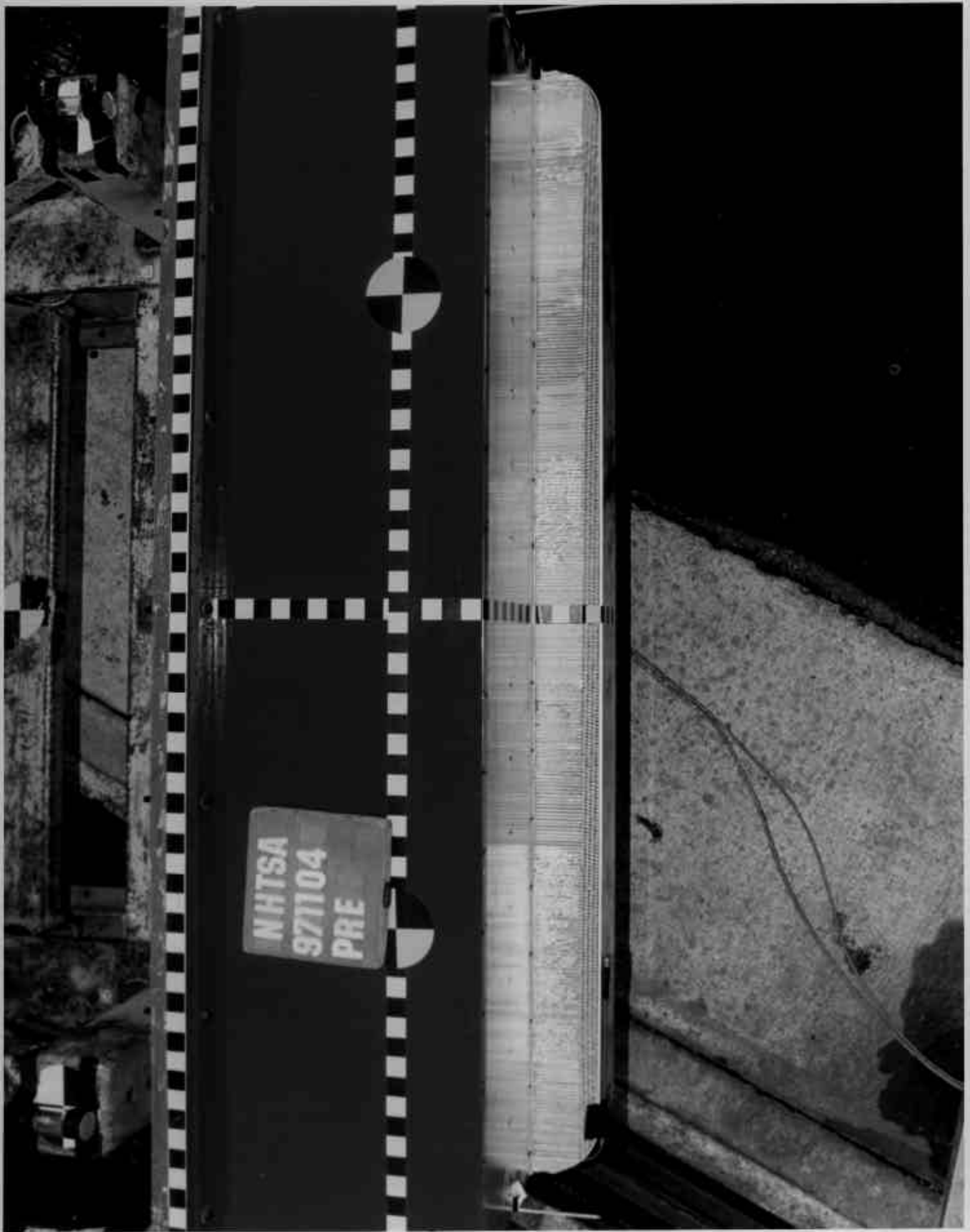


Figure A-11 Pre-Test Top View of Impactor Face
A-13

971104

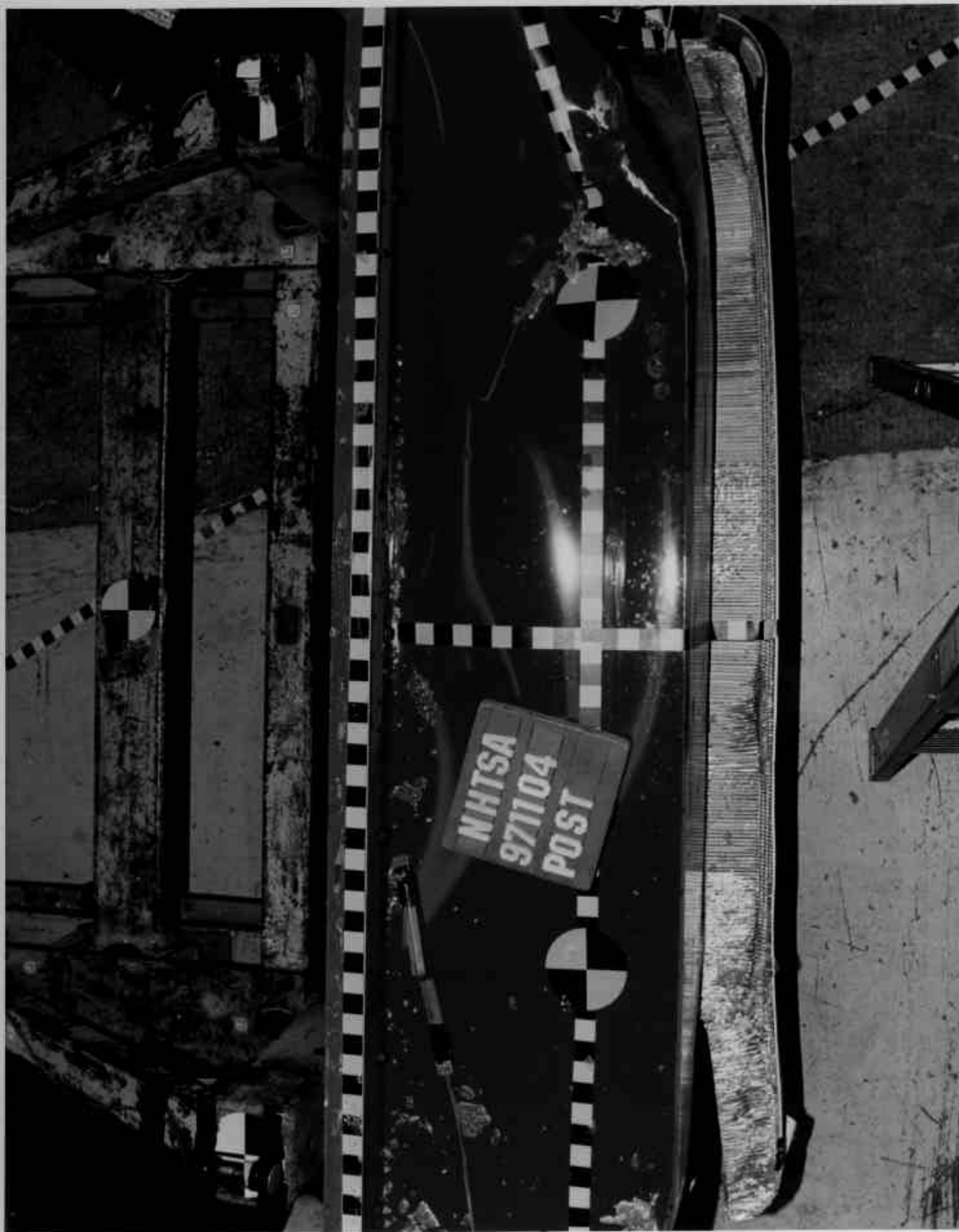


Figure A-12 Post-Test Top View of Impactor Face
A-14

971104

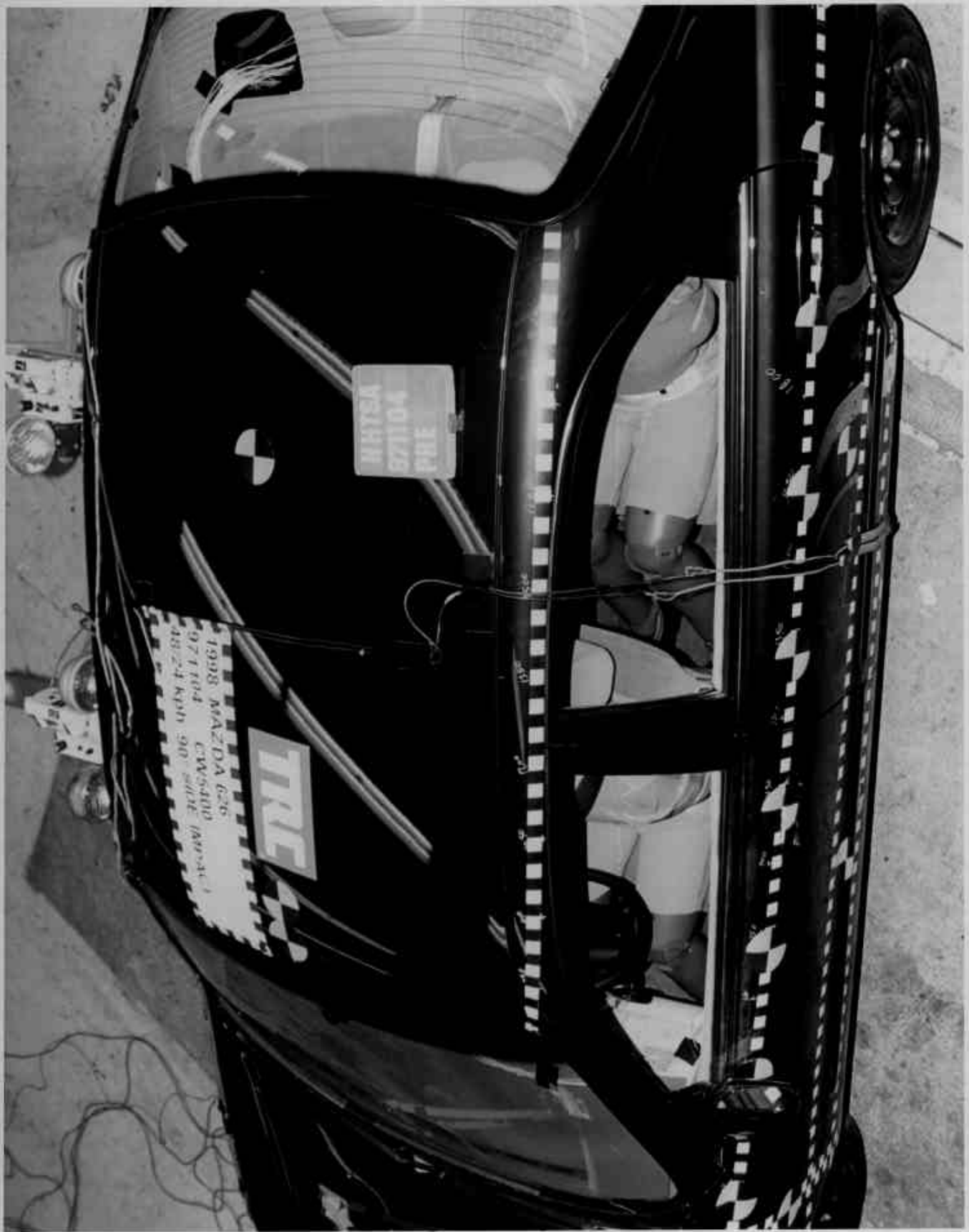


Figure A-13 Post-Test Overhead View of Aligned Vehicle
A-15

971104



Figure A-14 Post-Test Overhead View of Vehicle And MDB
A-16

971104



Figure A-15 Pre-Test Right Occupant Compartment View of Front SID
A-17 971104

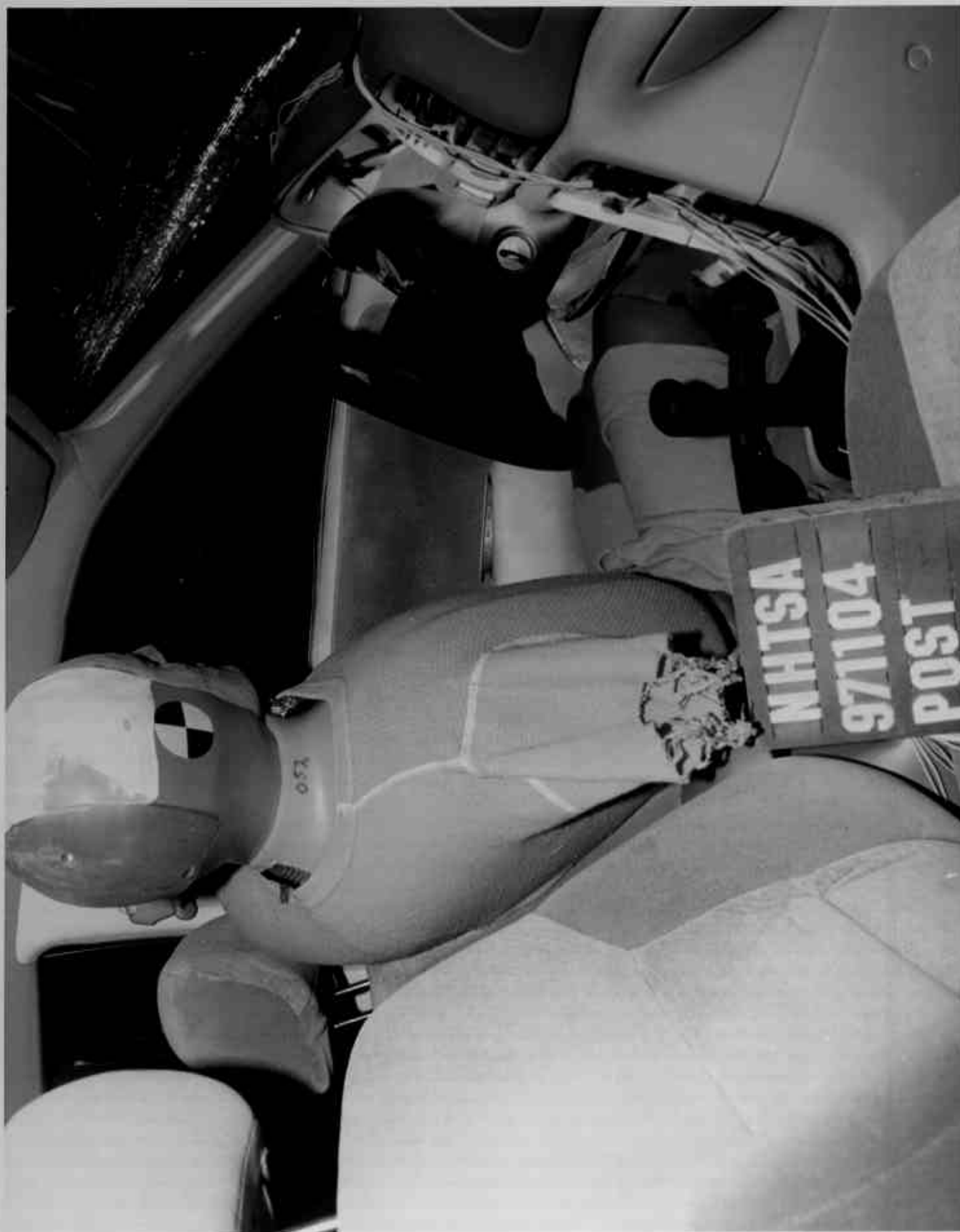


Figure A-16 Post-Test Right Occupant Compartment View of Front SID
A-18 971104



Figure A-17 Pre-Test Right Occupant Compartment View of Rear SID
A-19

971104



Figure A-18 Post-Test Right Occupant Compartment View of Rear SID
A-20 971104



Figure A-19 Pre-Test Left Occupant Compartment View of Front SID
A-21 971104



Figure A-20 Post-Test Left Occupant Compartment View of Front SID
A-22

971104

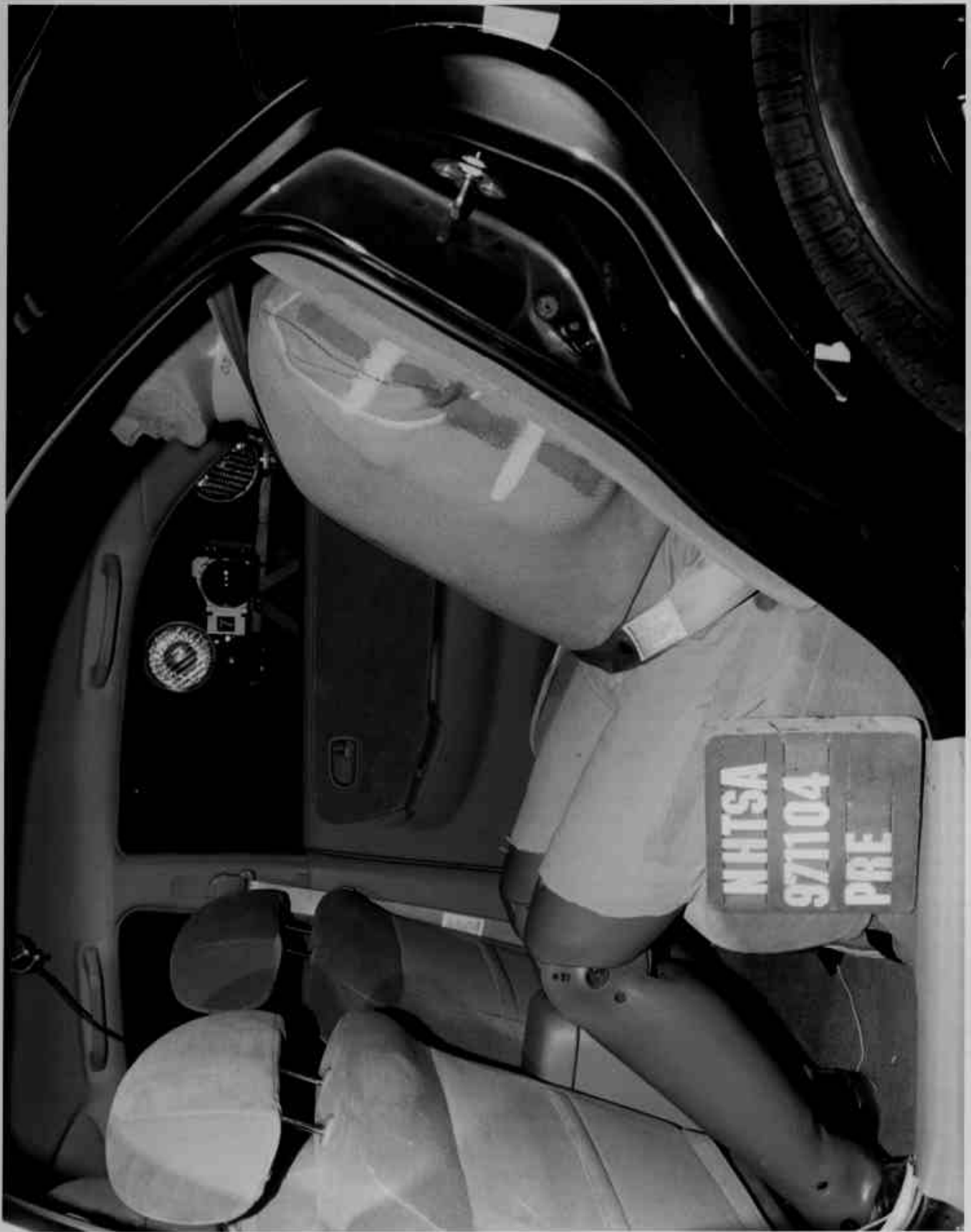


Figure A-21 Pre-Test Left Occupant Compartment View of Rear SID
A-23

971104



Figure A-22 Post-Test Left Occupant Compartment View of Rear SID
A-24

971104

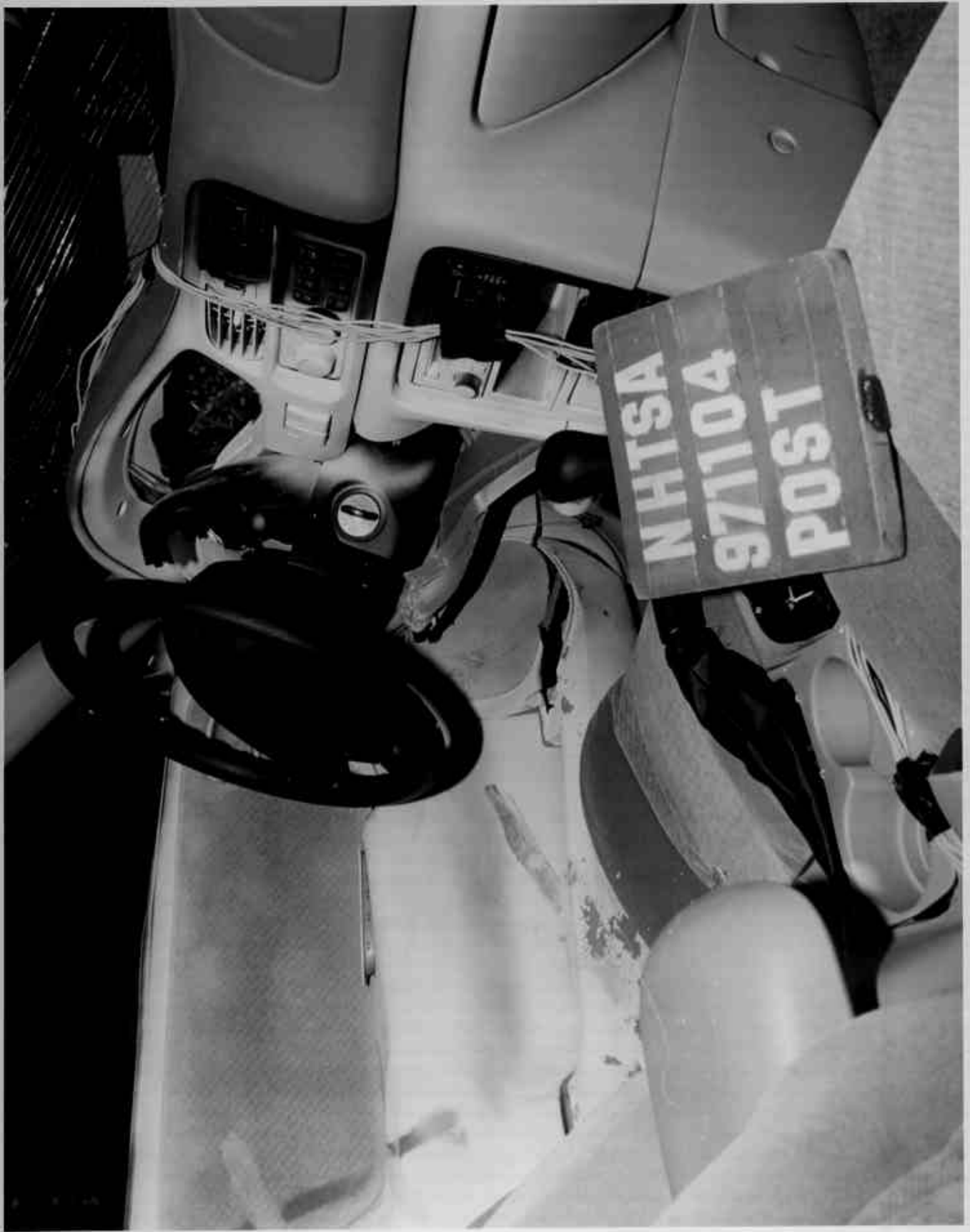


Figure A-23 Post-Test Interior of Front Door Showing SID Impact Locations

A-25

971104



Figure A-24 Post-Test Interior Of Rear Door Showing SID Impact Locations

A-26

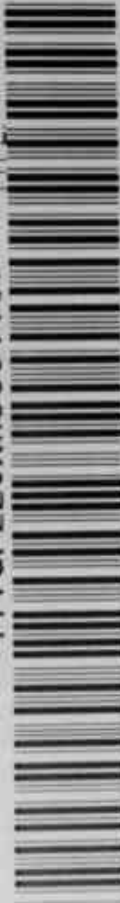
971104

MFD. BY AUTOALLIANCE
INTERNATIONAL, INC.

DATE	GVWR/PNBA	GAWR/PNBE FRT	GAWR/PNBE RR
09/18/97	3962 LB	2123 LB	1839 LB
	1797 KG	963 KG	834 KG

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY
, BUMPER, AND THEFT PREVENTION
STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

1YVGF22CXW5691107 TYPE: PASSENGER



BODY COLOR CODE; 11J

MADE IN U.S.A.

Figure A-25 Pre-Test Vehicle Certification Label View

A-27

971104



Figure A-26 Pre-Test Vehicle Recommended Tire Pressure Label View

Appendix B

Data Plots

Table of Data Plots

Driver and Passenger Dummy Instrumentation Plots

Acceleration Data - Filter Class 1000

Integration Data - Filter Class 1000

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
1	DRIVER UPPER RIB Y-AXIS ACCELERATION	B-7
2	DRIVER UPPER RIB Y-AXIS VELOCITY	B-8
3	DRIVER LOWER RIB Y-AXIS ACCELERATION	B-9
4	DRIVER LOWER RIB Y-AXIS VELOCITY	B-10
5	DRIVER LOWER SPINE Y-AXIS ACCELERATION	B-11
6	DRIVER LOWER SPINE Y-AXIS VELOCITY	B-12
7	DRIVER PELVIS Y-AXIS ACCELERATION	B-13
8	DRIVER PELVIS Y-AXIS VELOCITY	B-14
9	LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION	B-15
10	LEFT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY	B-16
11	LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION	B-17
12	LEFT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY	B-18
13	LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION	B-19
14	LEFT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY	B-20
15	LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION	B-21
16	LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY	B-22

Test Vehicle Instrumentation Plots

Acceleration Data - Filter Class 60

Integration Data - Filter Class 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
17	RIGHT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION	B-24
18	RIGHT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY	B-25
19	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	B-26
20	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	B-27
21	RIGHT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION	B-28
22	RIGHT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY	B-29
23	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION	B-30
24	RIGHT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION	B-31
25	RIGHT SIDE SILL AT REAR SEAT X-AXIS VELOCITY	B-32
26	RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	B-33

27	RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	B-34
28	RIGHT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION	B-35
29	RIGHT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY	B-36
30	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION	B-37
31	REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION	B-38
32	REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY	B-39
33	REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION	B-40
34	REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY	B-41
35	REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION	B-42
36	REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY	B-43
37	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION	B-44
38	LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	B-45
39	LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	B-46
40	LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	B-47
41	LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	B-48
44	RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION	B-51
45	RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY	B-52
54	LOWER A-POST Y-AXIS ACCELERATION	B-61
55	LOWER A-POST Y-AXIS VELOCITY	B-62
56	UPPER A-POST Y-AXIS ACCELERATION	B-63
57	UPPER A-POST Y-AXIS VELOCITY	B-64
58	LOWER B-POST Y-AXIS ACCELERATION	B-65
59	LOWER B-POST Y-AXIS VELOCITY	B-66
60	UPPER B-POST Y-AXIS ACCELERATION	B-67
61	UPPER B-POST Y-AXIS VELOCITY	B-68
62	FRONT SEAT TRACK Y-AXIS ACCELERATION	B-69
63	FRONT SEAT TRACK Y-AXIS VELOCITY	B-70
64	VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION	B-73
65	VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY	B-74
66	VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION	B-75
67	VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY	B-76
68	VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION	B-77
69	VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY	B-78
70	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION	B-79

MDB Instrumentation Plots
Acceleration Data - Filter Class 60
Integration Data - Filter Class 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
71	MDB CENTER OF GRAVITY X-AXIS ACCELERATION	B-81
72	MDB CENTER OF GRAVITY X-AXIS VELOCITY	B-82
73	MDB CENTER OF GRAVITY Y-AXIS ACCELERATION	B-83
74	MDB CENTER OF GRAVITY Y-AXIS VELOCITY	B-84
75	MDB CENTER OF GRAVITY Z-AXIS ACCELERATION	B-85
76	MDB CENTER OF GRAVITY Z-AXIS VELOCITY	B-86
77	MDB CENTER OF GRAVITY RESULTANT ACCELERATION	B-87
78	MDB REAR X-AXIS ACCELERATION	B-88
79	MDB REAR X-AXIS VELOCITY	B-89
80	MDB REAR Y-AXIS ACCELERATION	B-90
81	MDB REAR Y-AXIS VELOCITY	B-91

Driver and Passenger Dummy Instrumentation Plots
Acceleration Data - FIR Filtered

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
82	DRIVER UPPER RIB Y-AXIS ACCELERATION	B-93
83	DRIVER UPPER RIB Y-AXIS VELOCITY	B-94
84	DRIVER LOWER RIB Y-AXIS ACCELERATION	B-95
85	DRIVER LOWER RIB Y-AXIS VELOCITY	B-96
86	DRIVER LOWER SPINE Y-AXIS ACCELERATION	B-97
87	DRIVER LOWER SPINE Y-AXIS VELOCITY	B-98
88	DRIVER PELVIS Y-AXIS ACCELERATION	B-99
89	DRIVER PELVIS Y-AXIS VELOCITY	B-100
90	PASSENGER UPPER RIB Y-AXIS ACCELERATION	B-101
91	PASSENGER UPPER RIB Y-AXIS VELOCITY	B-102
92	PASSENGER LOWER RIB Y-AXIS ACCELERATION	B-103
93	PASSENGER LOWER RIB Y-AXIS VELOCITY	B-104
94	PASSENGER LOWER SPINE Y-AXIS ACCELERATION	B-105
95	PASSENGER LOWER SPINE Y-AXIS VELOCITY	B-106
96	PASSENGER PELVIS Y-AXIS ACCELERATION	B-107
97	PASSENGER PELVIS Y-AXIS VELOCITY	B-108

Driver and Passenger Dummy Instrumentation Plots
Acceleration Data - FIR Filtered - Redundant

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
98	DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	B-110
99	DRIVER UPPER RIB Y-AXIS REDUNDANT VELOCITY	B-111
100	DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	B-112
101	DRIVER LOWER RIB Y-AXIS REDUNDANT VELOCITY	B-113
102	DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	B-114
103	DRIVER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	B-115
104	DRIVER PELVIS Y-AXIS REDUNDANT ACCELERATION	B-116
105	DRIVER PELVIS Y-AXIS REDUNDANT VELOCITY	B-117
106	PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	B-118
107	PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY	B-119
108	PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	B-120
109	PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY	B-121
110	PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	B-122
111	PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	B-123
112	PASSENGER PELVIS Y-AXIS REDUNDANT ACCELERATION	B-124
113	PASSENGER PELVIS Y-AXIS REDUNDANT VELOCITY	B-125

Driver and Passenger Dummy Instrumentation Plots

Acceleration Data - Filter Class 1000

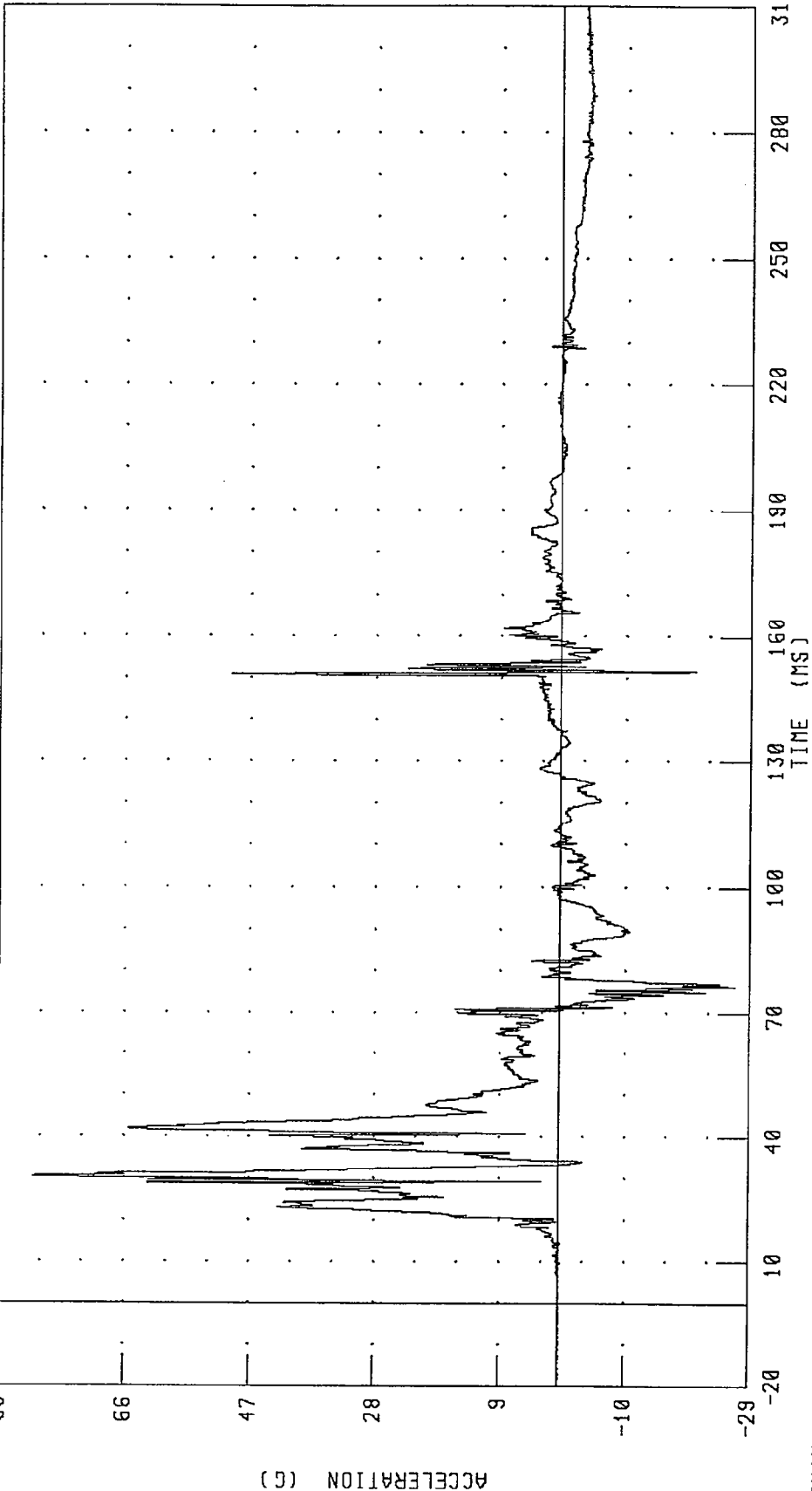
Integration Data - Filter Class 1000

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER UPPER RIB Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



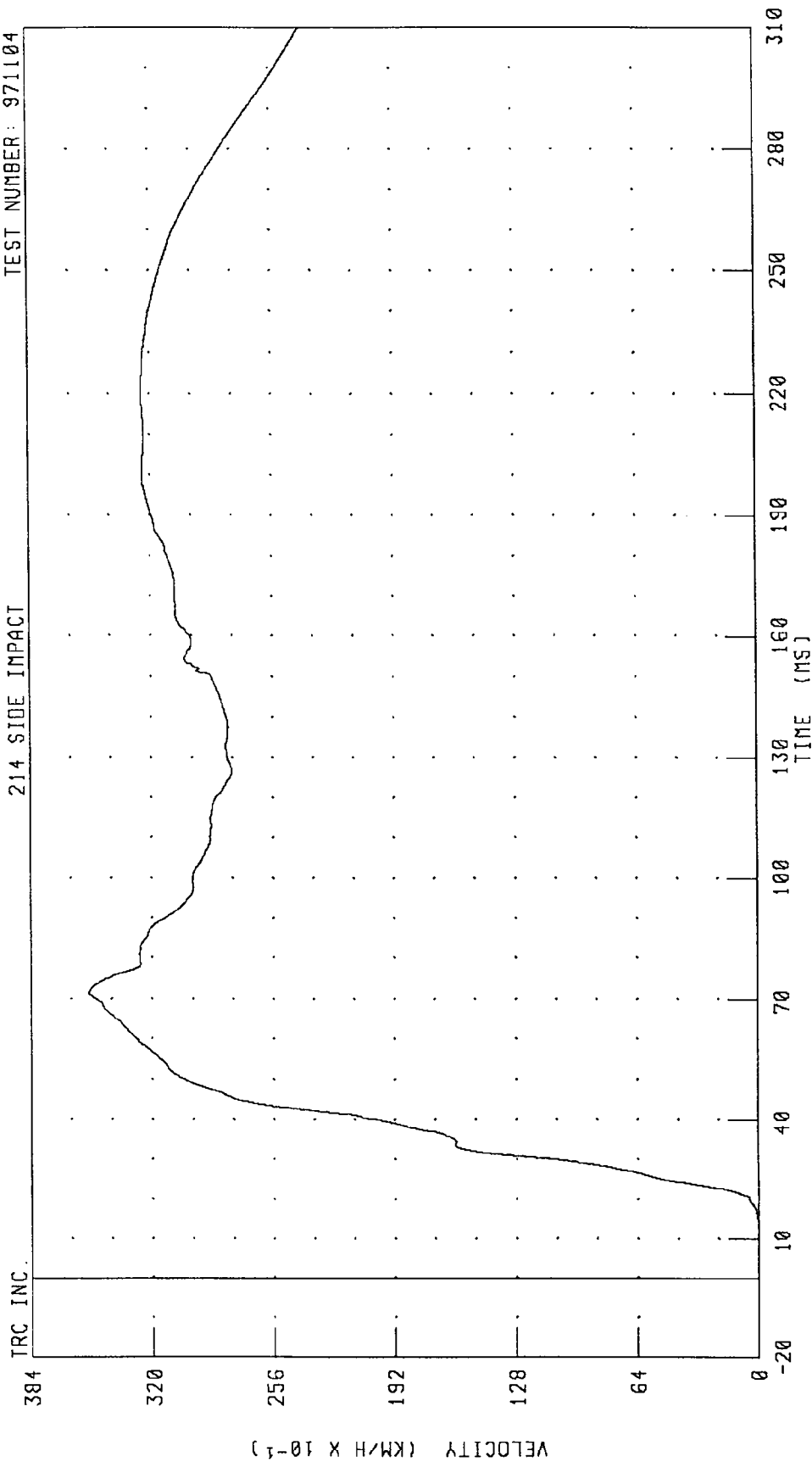
CHANNEL: LURYG1 FILTER: CH. CLASS 1000

PEAK DATA: 79.71 G @ 30.40 MS, -26.74 G @ 76.40 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER UPPER RIB Y-AXIS VELOCITY

TEST NUMBER: 971104

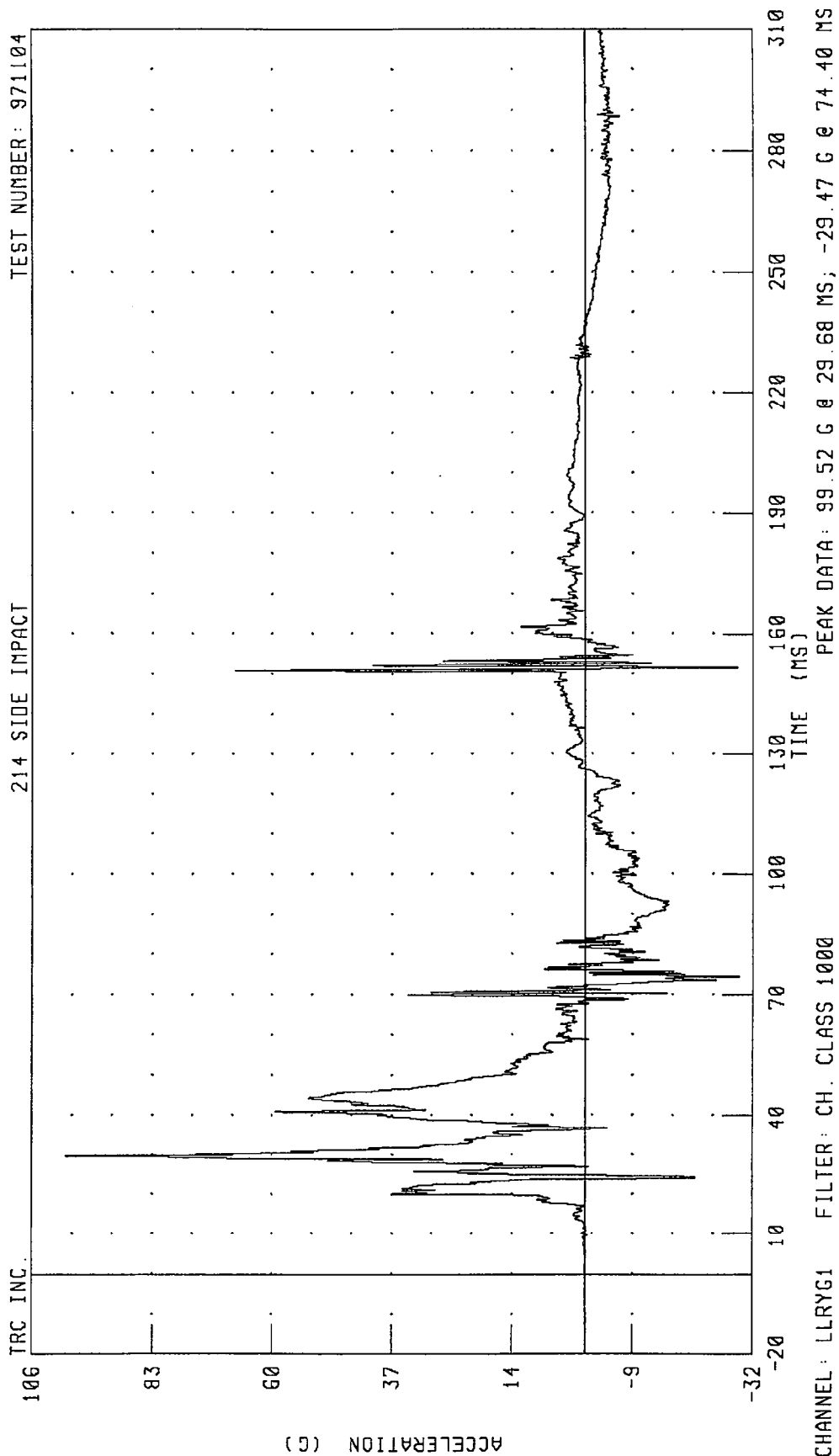
214 SIDE IMPACT



CHANNEL: LURYU1 FILTER: CH. CLASS 1000

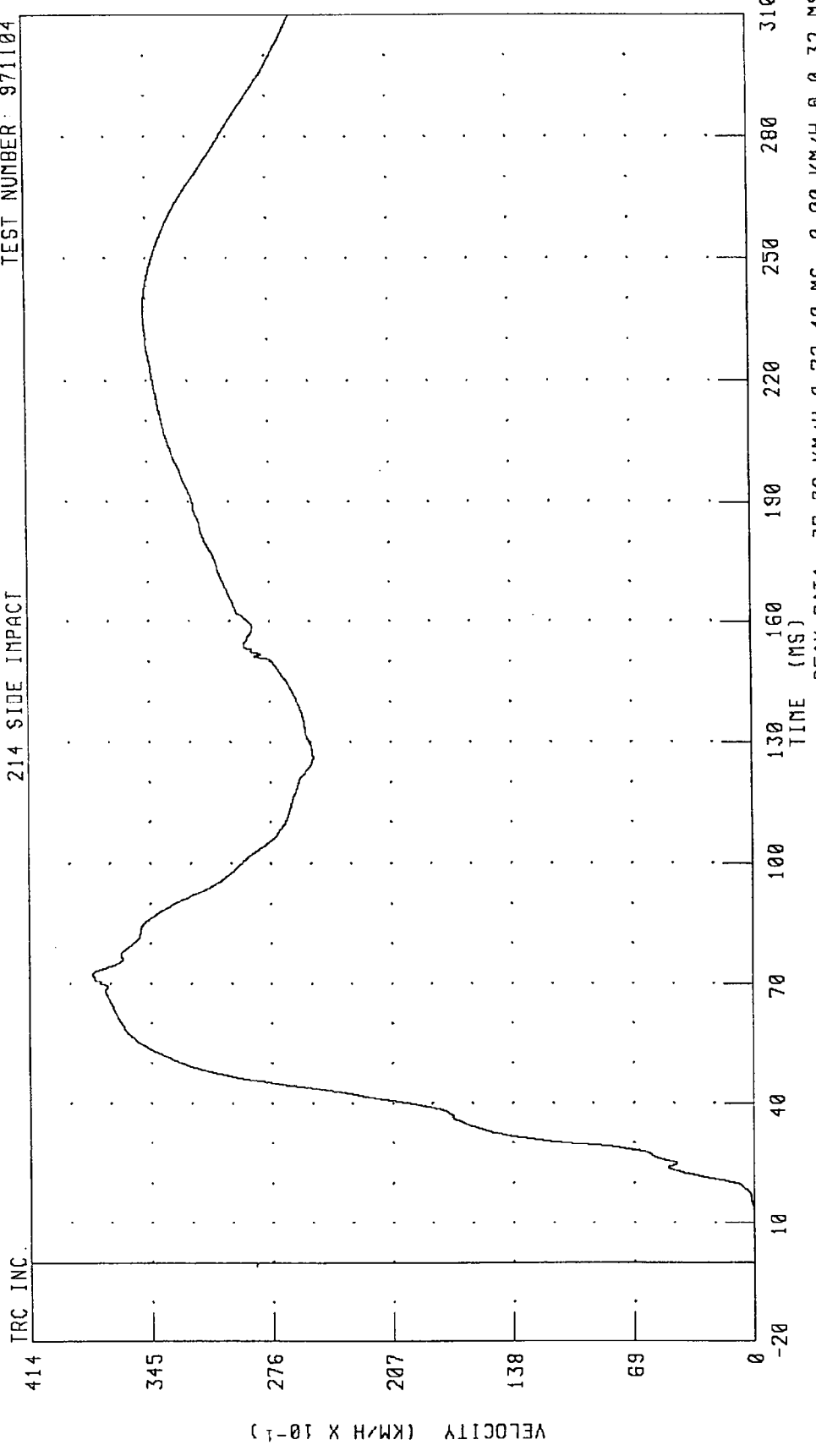
PEAK DATA: 35.34 KM/H @ 71.28 MS; 0.00 KM/H @ 2.56 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER RIB Y-AXIS ACCELERATION



MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER RIB Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



PEAK DATA: 37.79 KM/H @ 72.40 MS; 0.00 KM/H @ 0.32 MS

CHANNEL: LLRYU1 FILTER: CH. CLASS 1000

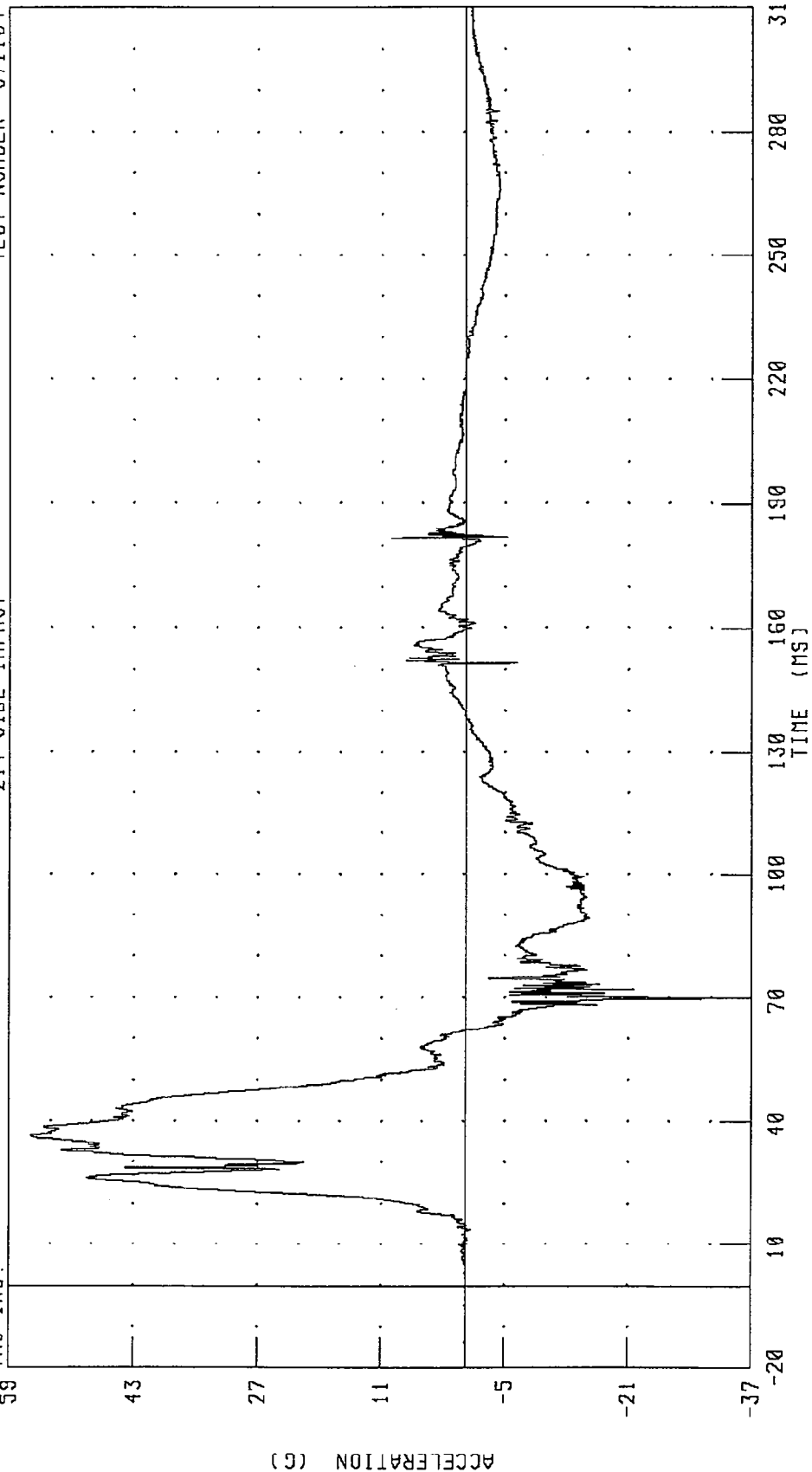
TRC INC.

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER SPINE Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



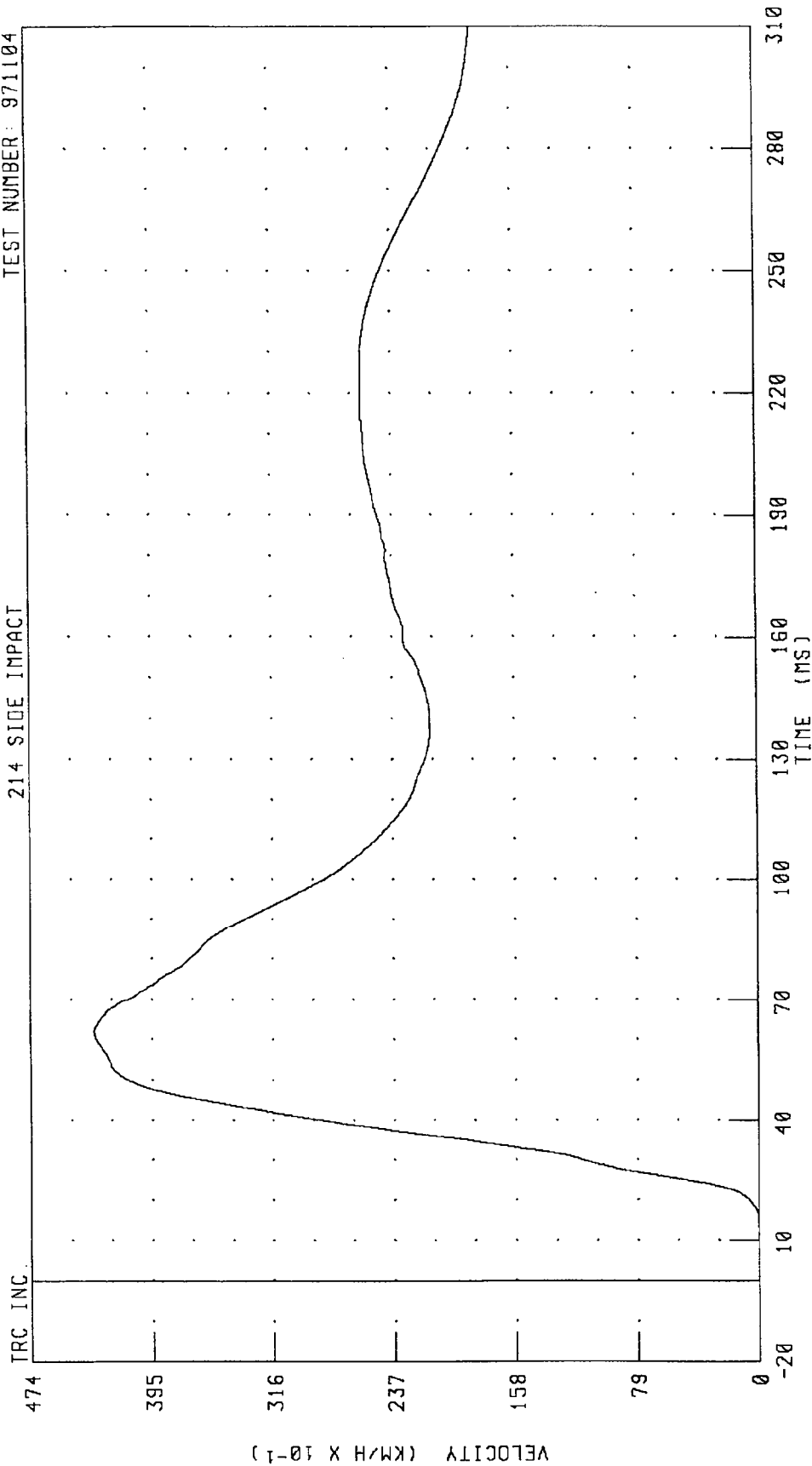
CHANNEL: T12YG1 FILTER: CH. CLASS 1000

PEAK DATA: 56.29 G @ 36.40 MS; -34.52 G @ 69.92 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER SPINE Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

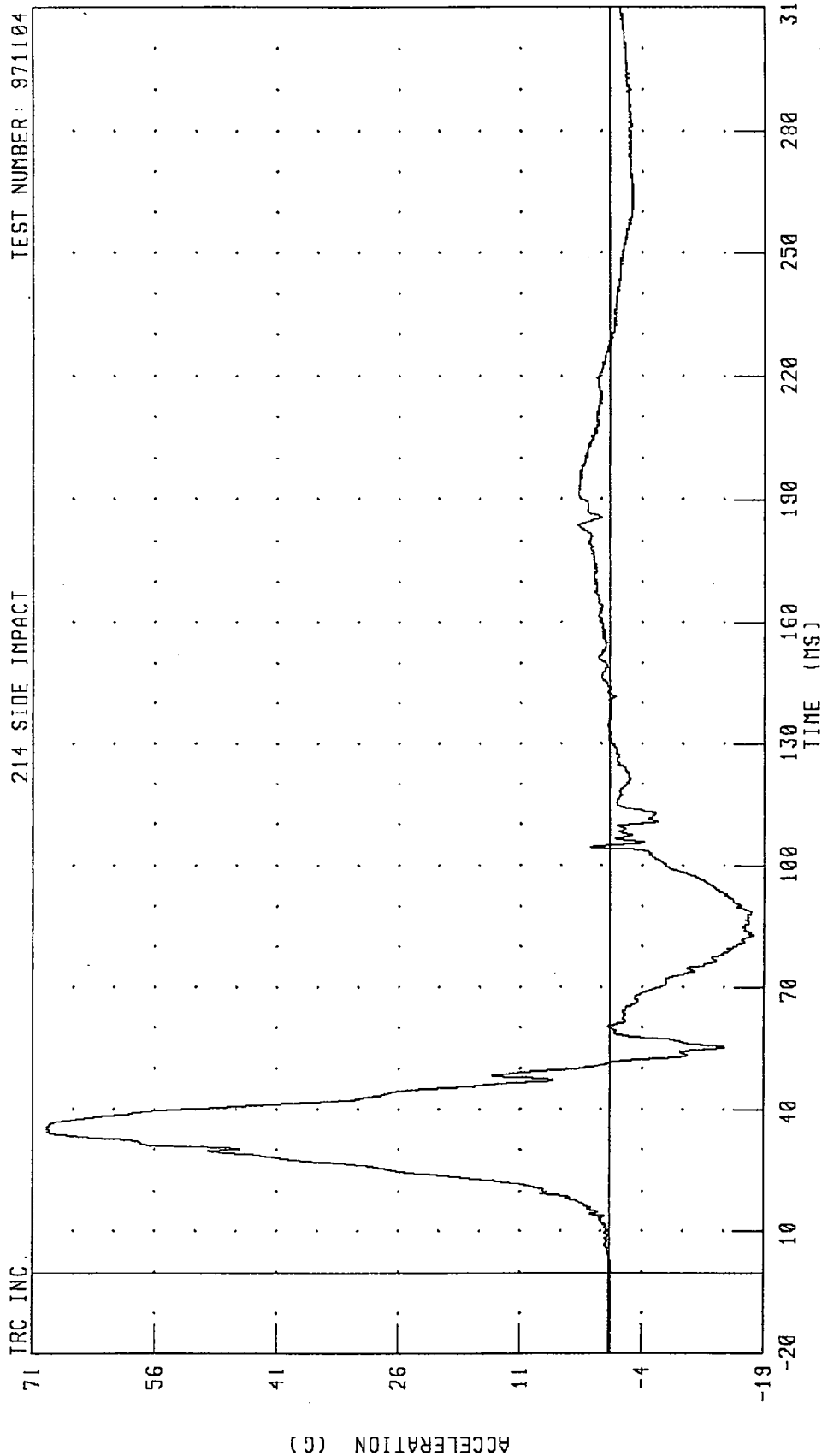


CHANNEL: T12YU1 FILTER: CH. CLASS 1000

PEAK DATA: 43.27 KM/H @ 62.24 MS; 0.00 KM/H @ 2.80 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER PELVIS Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104



CHANNEL: PEVYG1 FILTER: CH. CLASS 1000

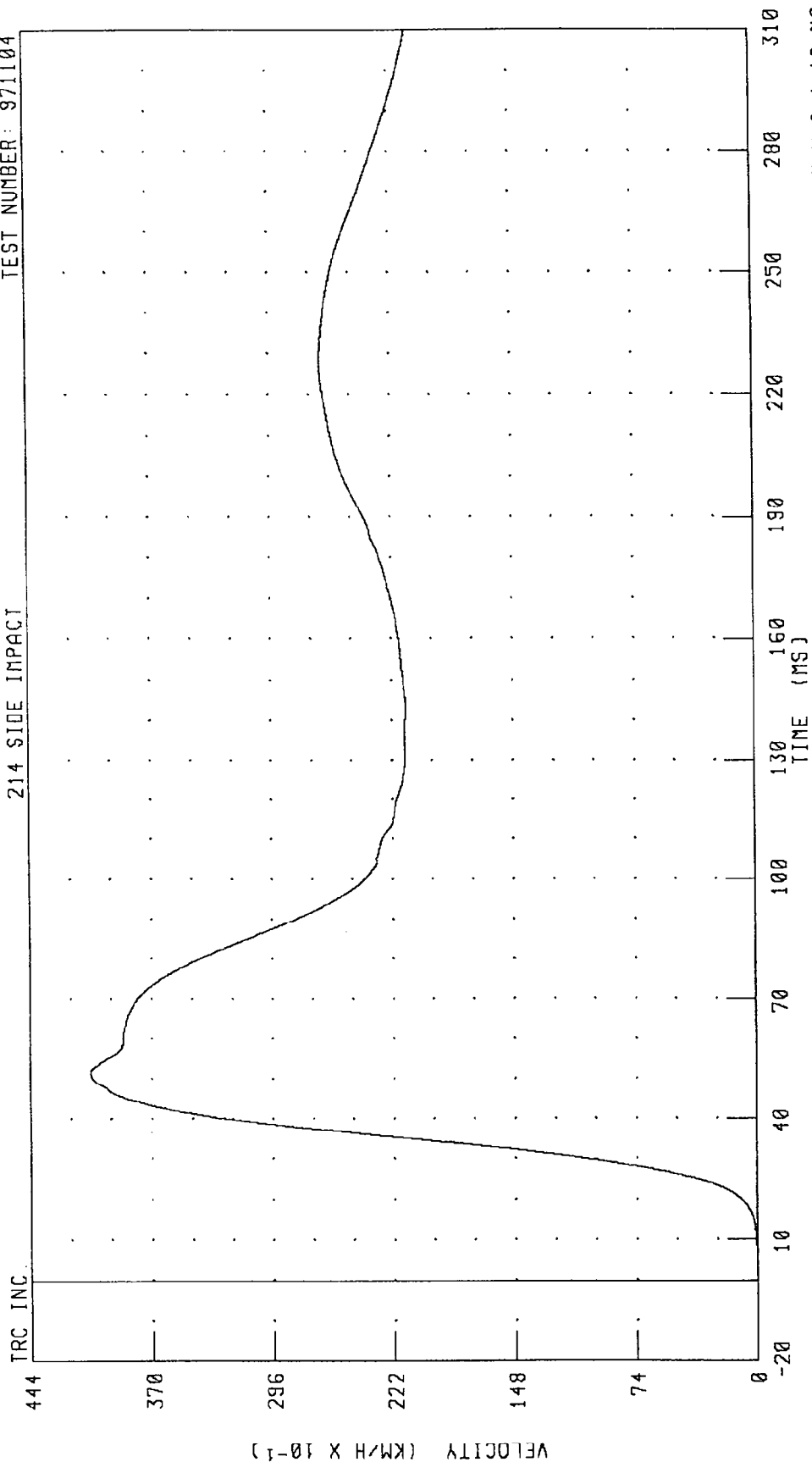
PEAK DATA: 69.19 G @ 34.40 MS; -17.67 G @ 82.80 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626

DRIVER PELVIS Y-AXIS VELOCITY

214 SIDE IMPACT

TEST NUMBER: 971104

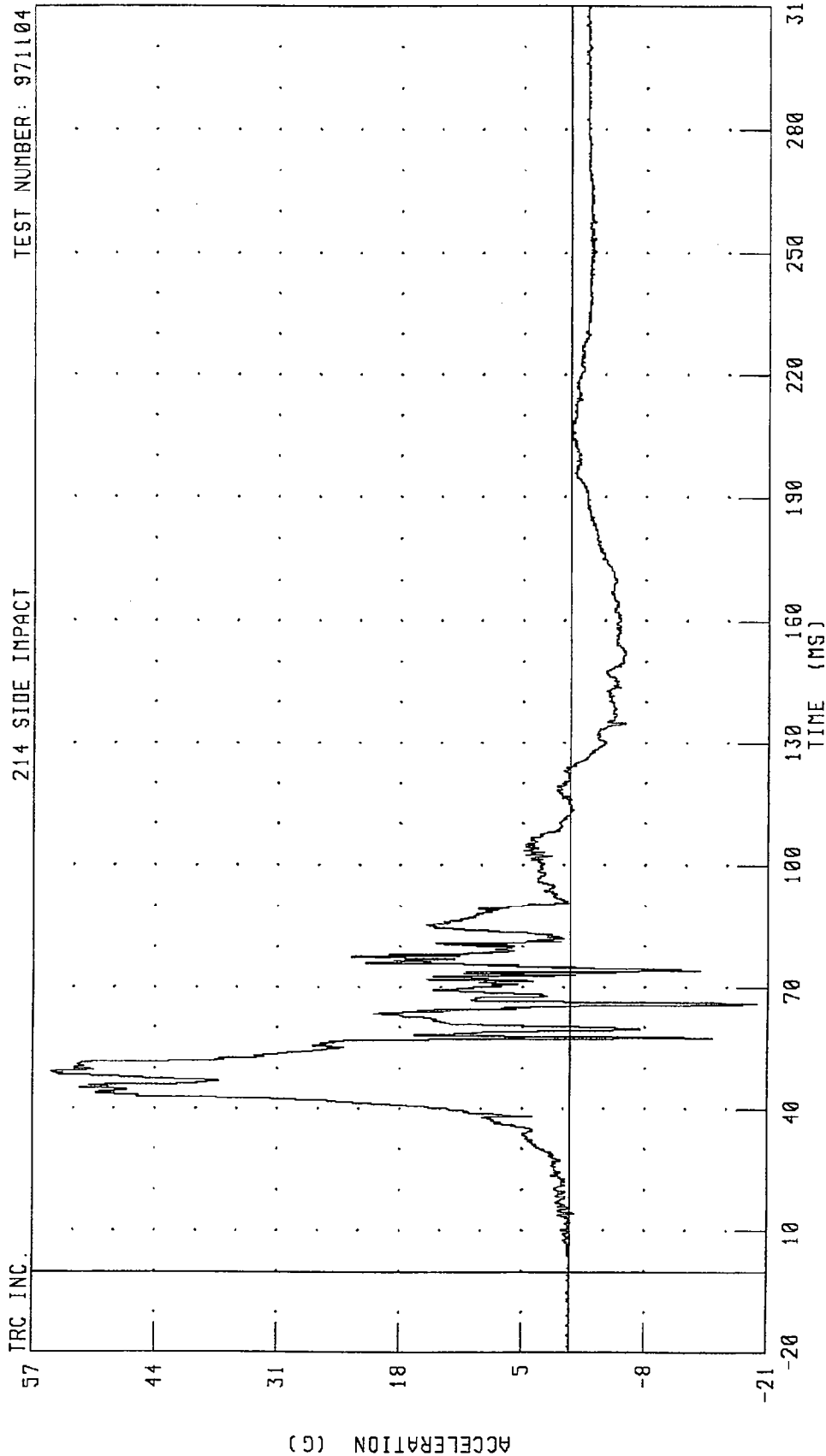


CHANNEL: PEVYU1 FILTER: CH. CLASS 1000

PEAK DATA: 40.69 KM/H @ 51.44 MS; 0.00 KM/H @ 1.12 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104



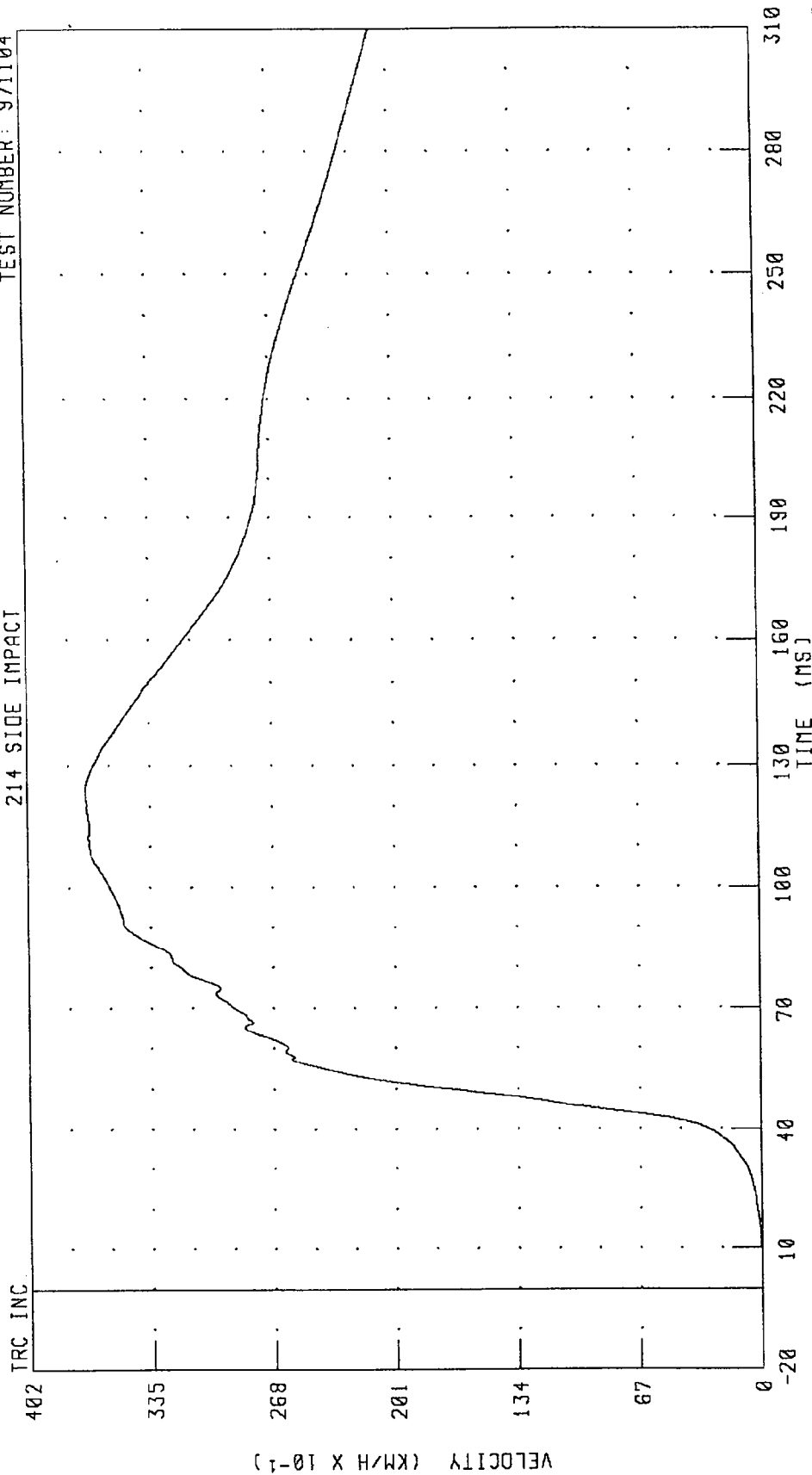
CHANNEL: LURYC4 FILTER: CH. CLASS 1000

PEAK DATA: 54.98 G @ 49.12 MS; -19.84 G @ 66.16 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



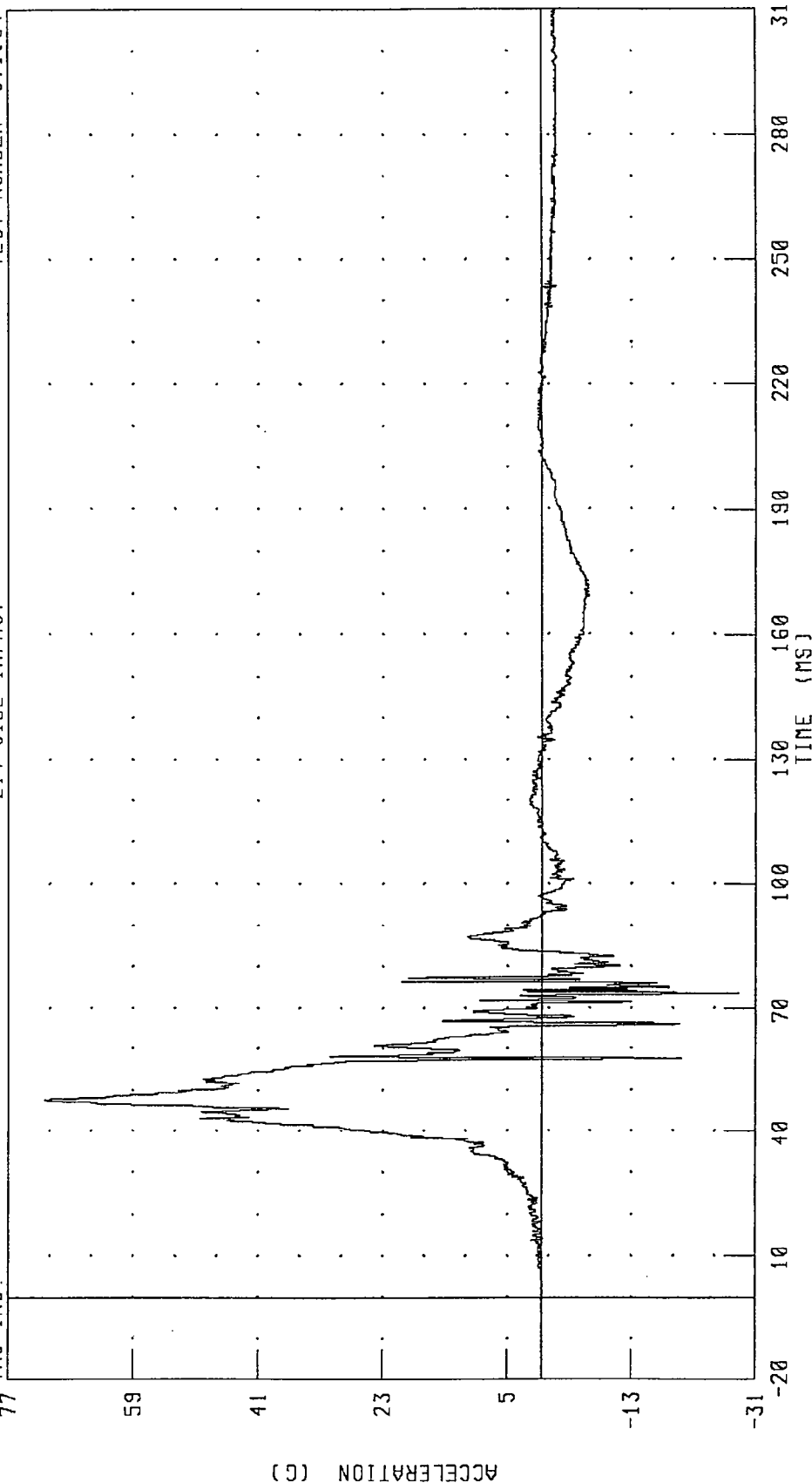
PEAK DATA: 37.00 KM/H @ 124.00 MS; 0.00 KM/H @ 3.92 MS

CHANNEL: LURYU4 FILTER: CH. CLASS 1000

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104

TRC INC.

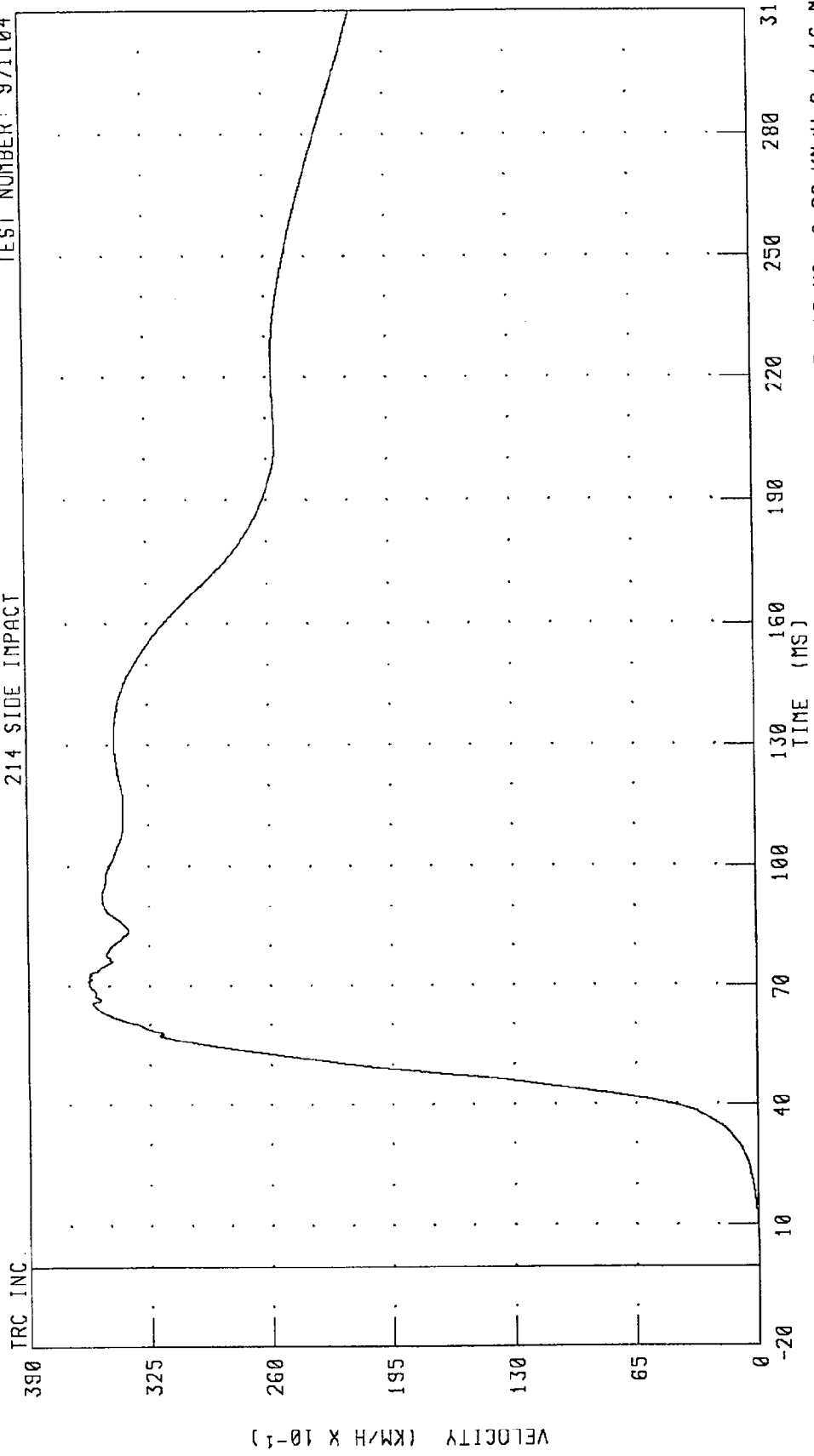


CHANNEL: LLRYG4 FILTER: CH. CLASS 1000

PEAK DATA: 71.71 G @ 47.60 MS; -28.54 G @ 73.52 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



PEAK DATA: 35.77 KM/H @ 71.12 MS; 0.00 KM/H @ 4.16 MS

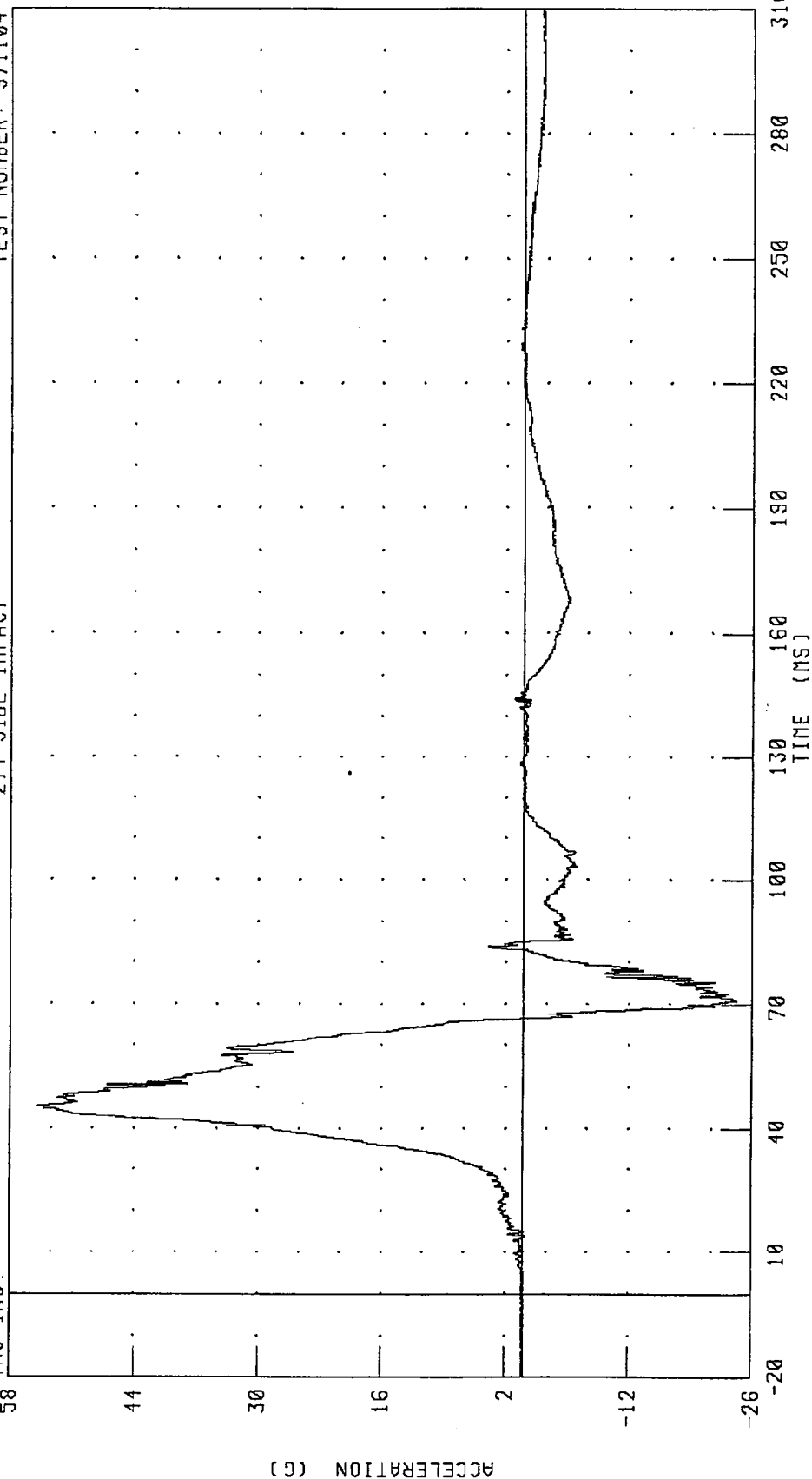
CHANNEL: LLRYU4 FILTER: CH. CLASS 1000

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: T12YG4 FILTER: CH. CLASS 1000

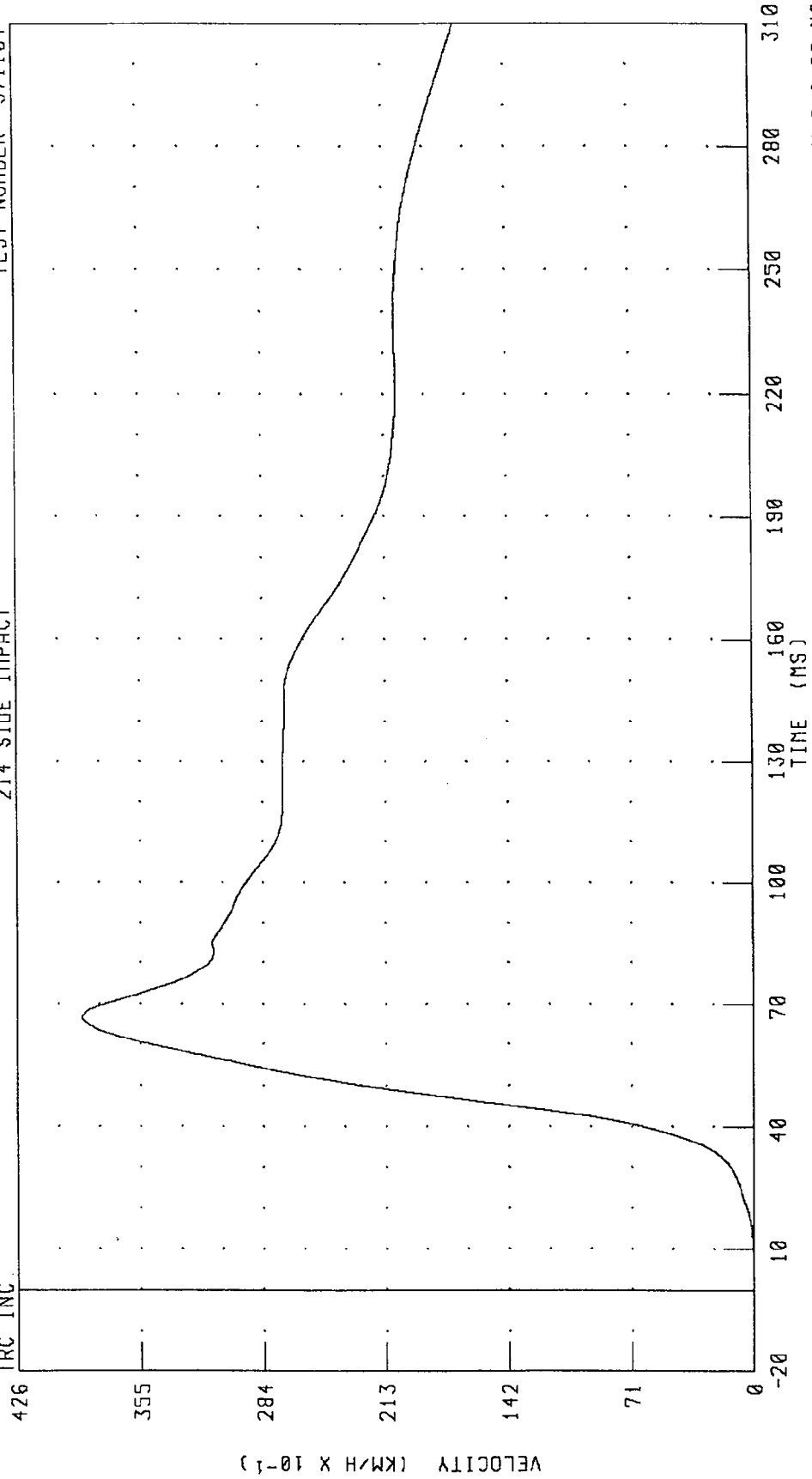
PEAK DATA: 54.90 G @ 45.44 MS, -24.21 G @ 70.88 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



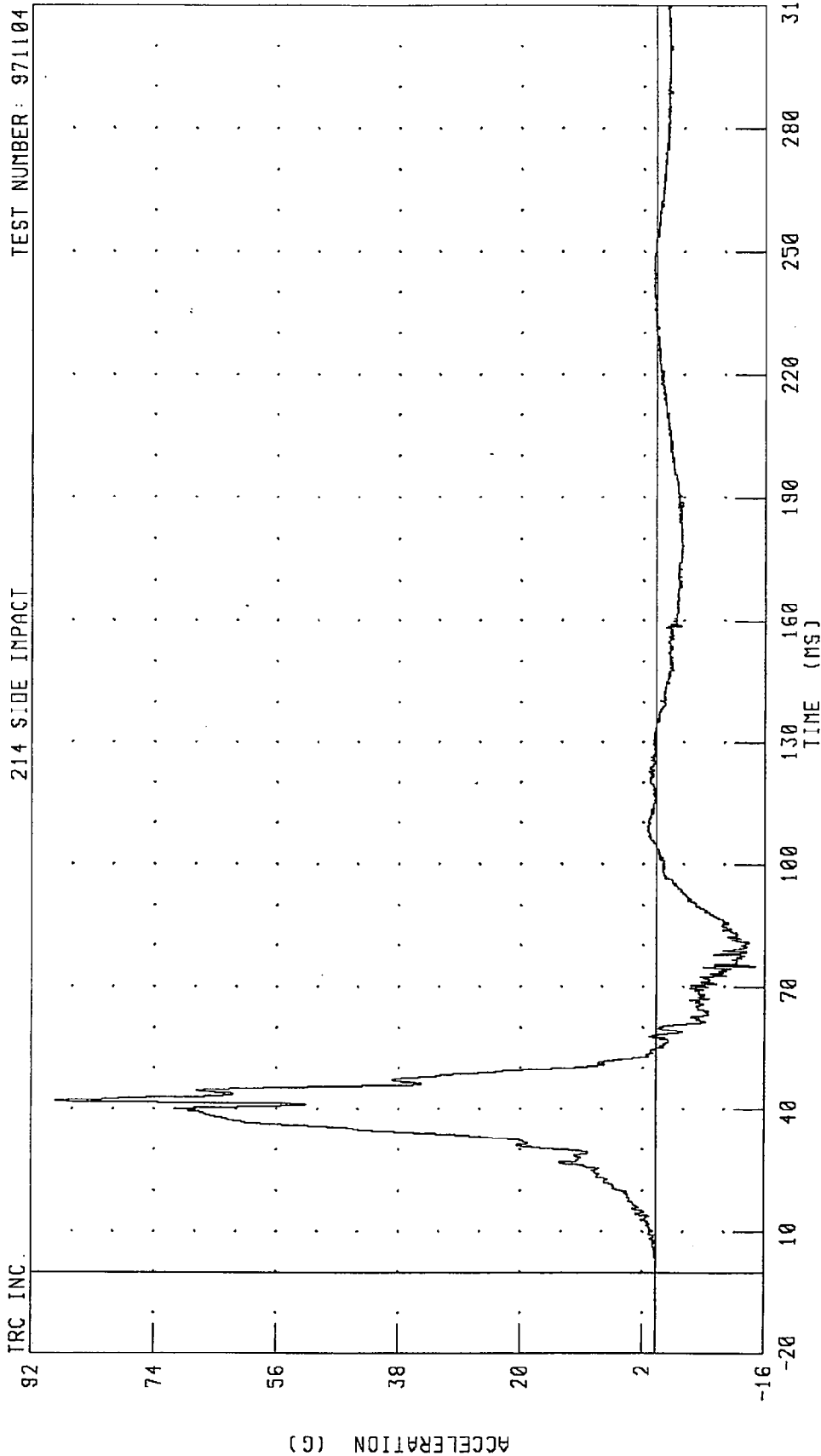
CHANNEL: T12YU4 FILTER: CH. CLASS 1000

PEAK DATA: 38.88 KM/H @ 66.56 MS; 0.00 KM/H @ 0.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



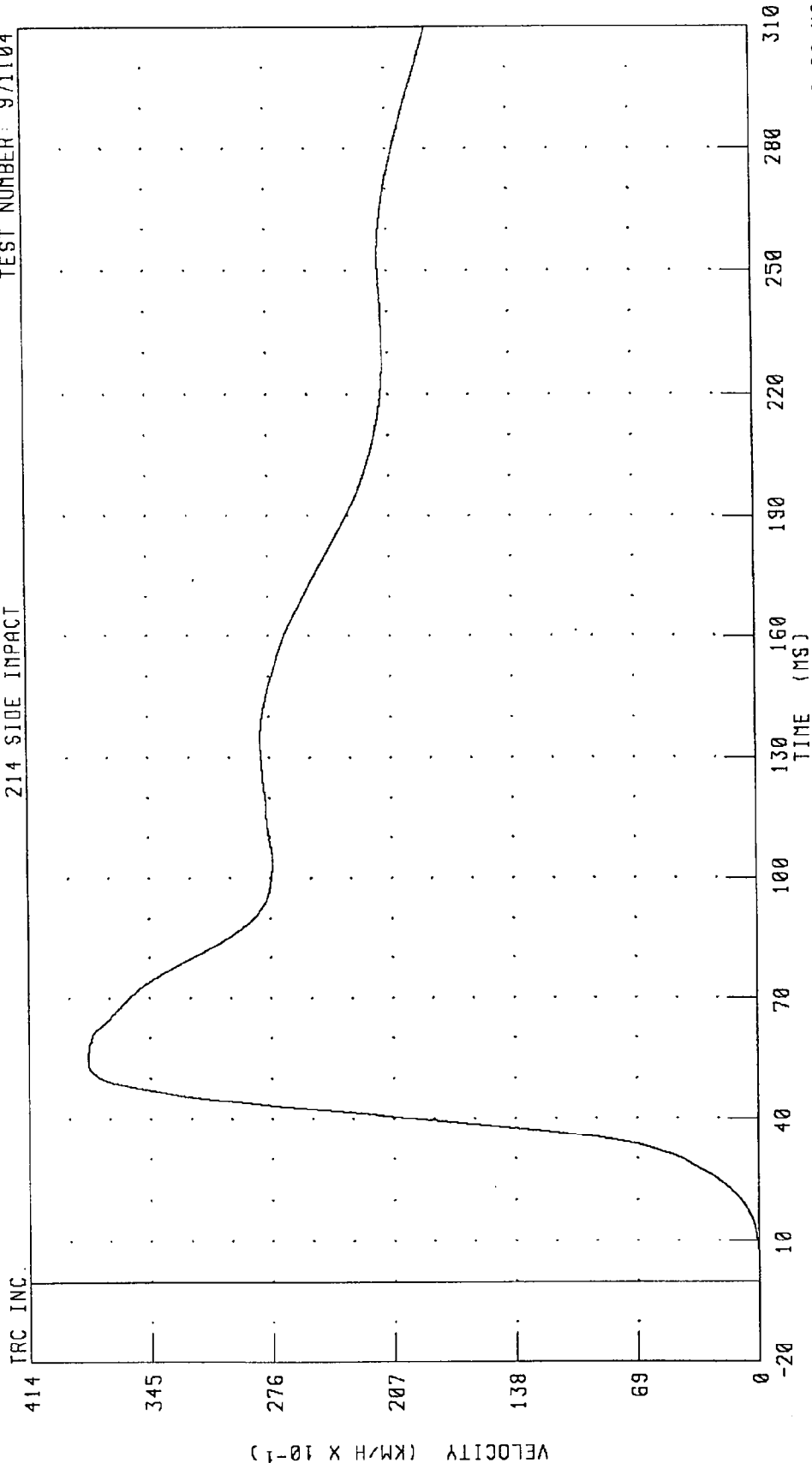
CHANNEL: PEVYG4 FILTER: CH. CLASS 1000

PEAK DATA: 88.38 G @ 42.00 MS; -14.60 G @ 75.12 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 38.03 KM/H @ 54.88 MS; 0.00 KM/H @ 0.00 MS

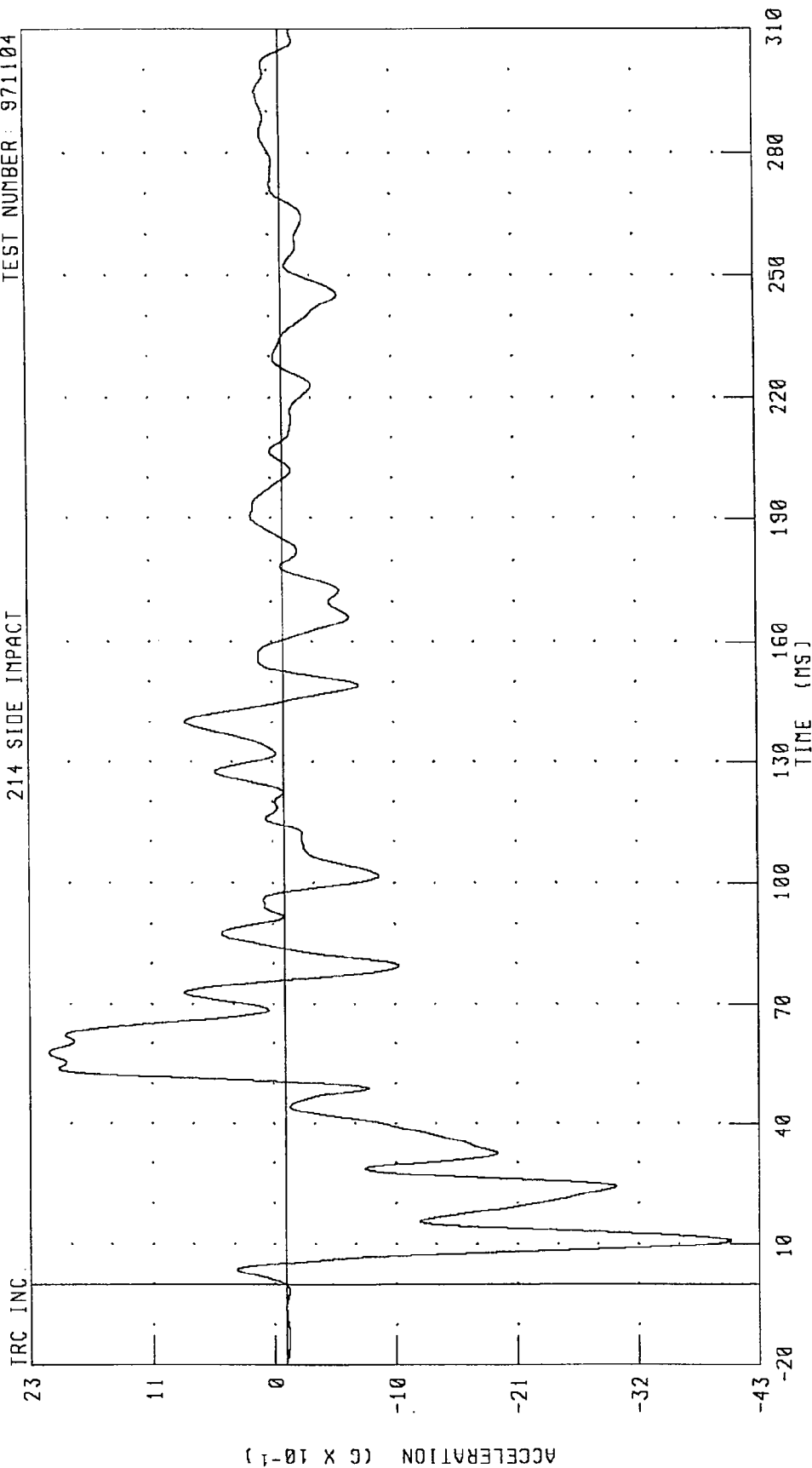
CHANNEL: PEVYU4 FILTER: CH. CLASS 1000

Test Vehicle Instrumentation Plots
Acceleration Data - Filter Class 60
Integration Data - Filter Class 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



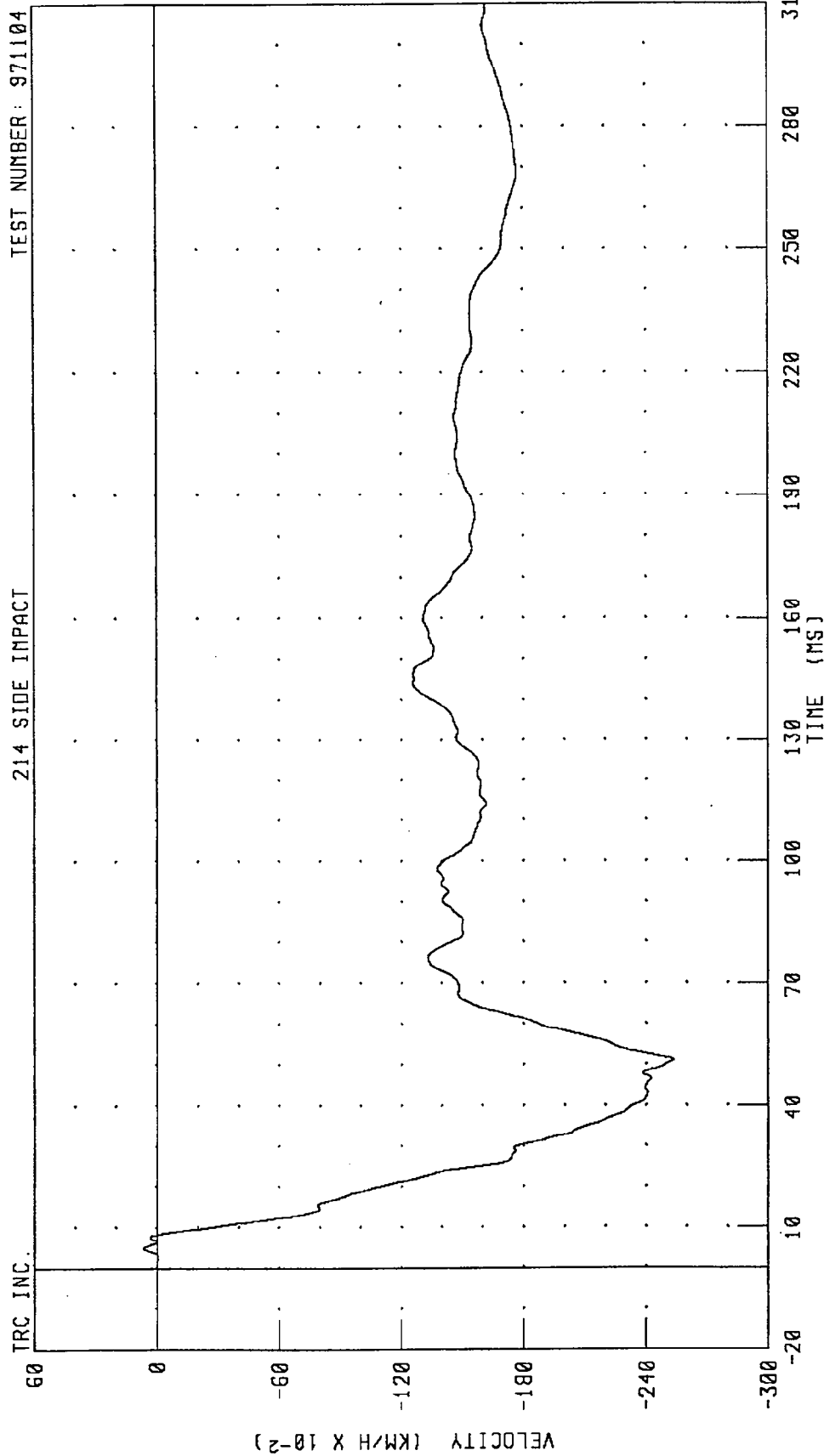
PEAK DATA: 2.13 G @ 57.68 MS; -4.04 G @ 10.80 MS

CHANNEL: RFSXG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



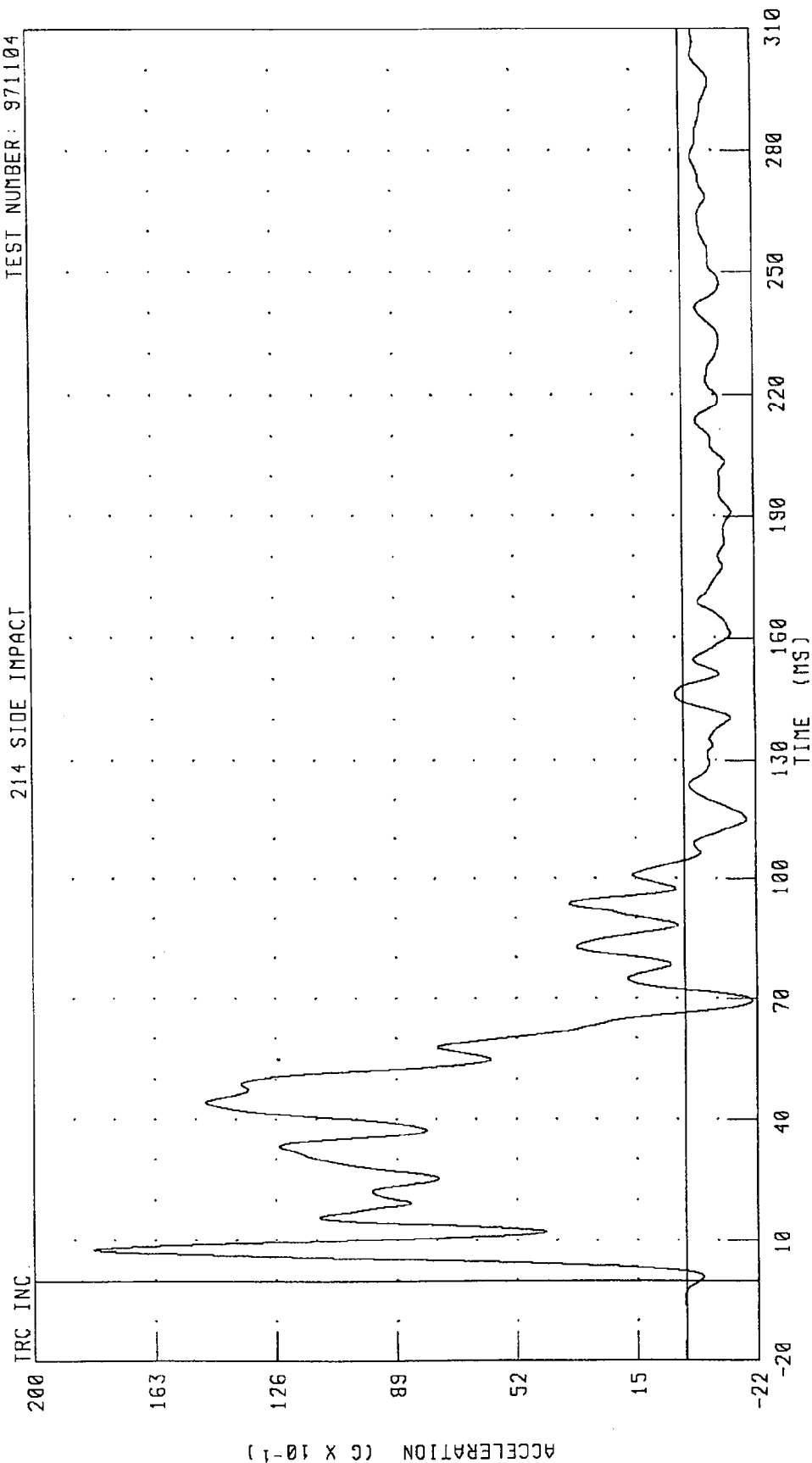
CHANNEL: RFSXV1 FILTER: CH. CLASS 180

PEAK DATA: 0.06 KM/H @ 4.80 MS; -2.53 KM/H @ 51.12 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



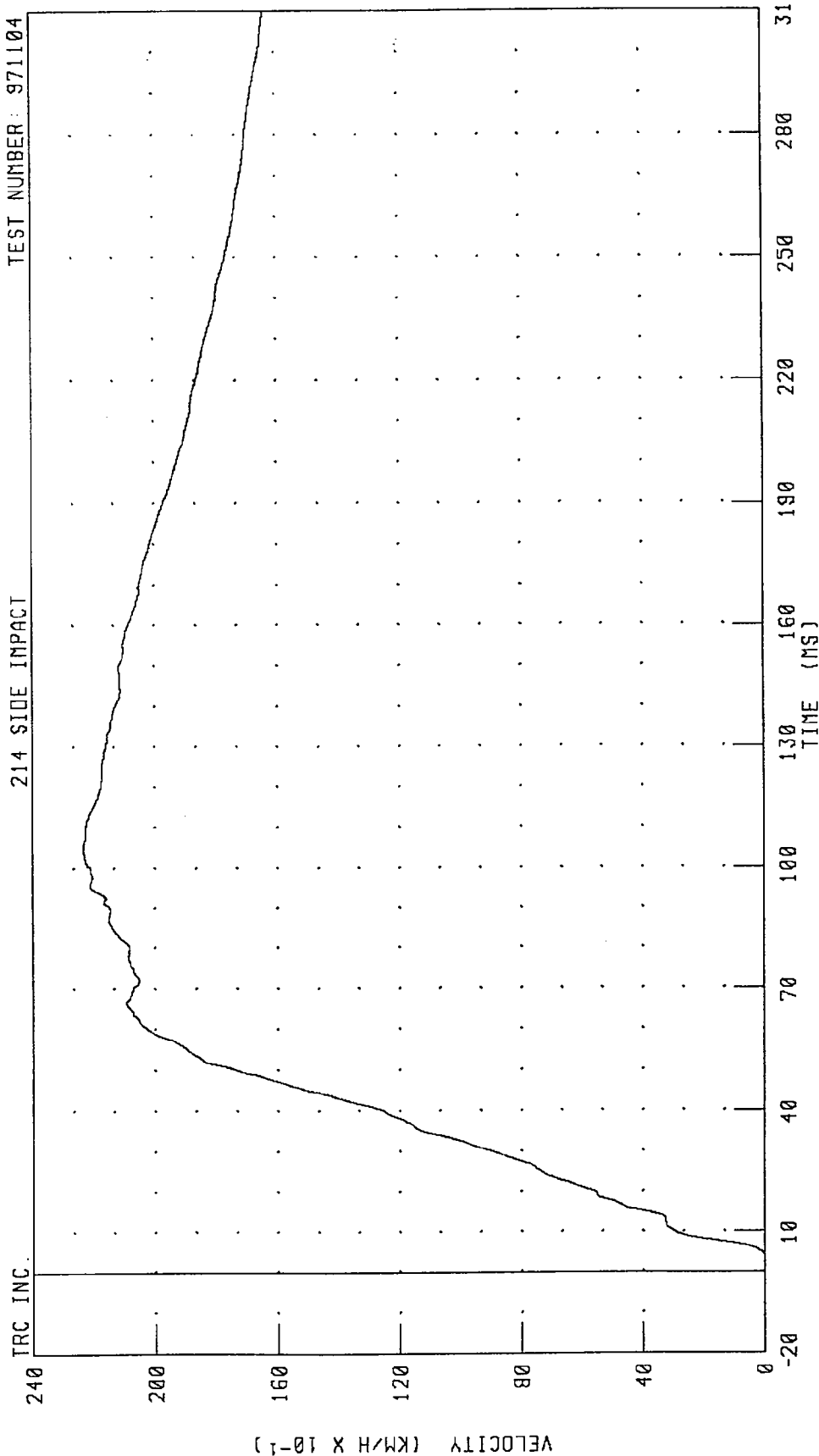
PEAK DATA: 18.19 G @ 7.68 MS; -2.06 G @ 69.36 MS

CHANNEL: RFSYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 22.34 KM/H @ 104.40 MS; 0.00 KM/H @ 0.00 MS

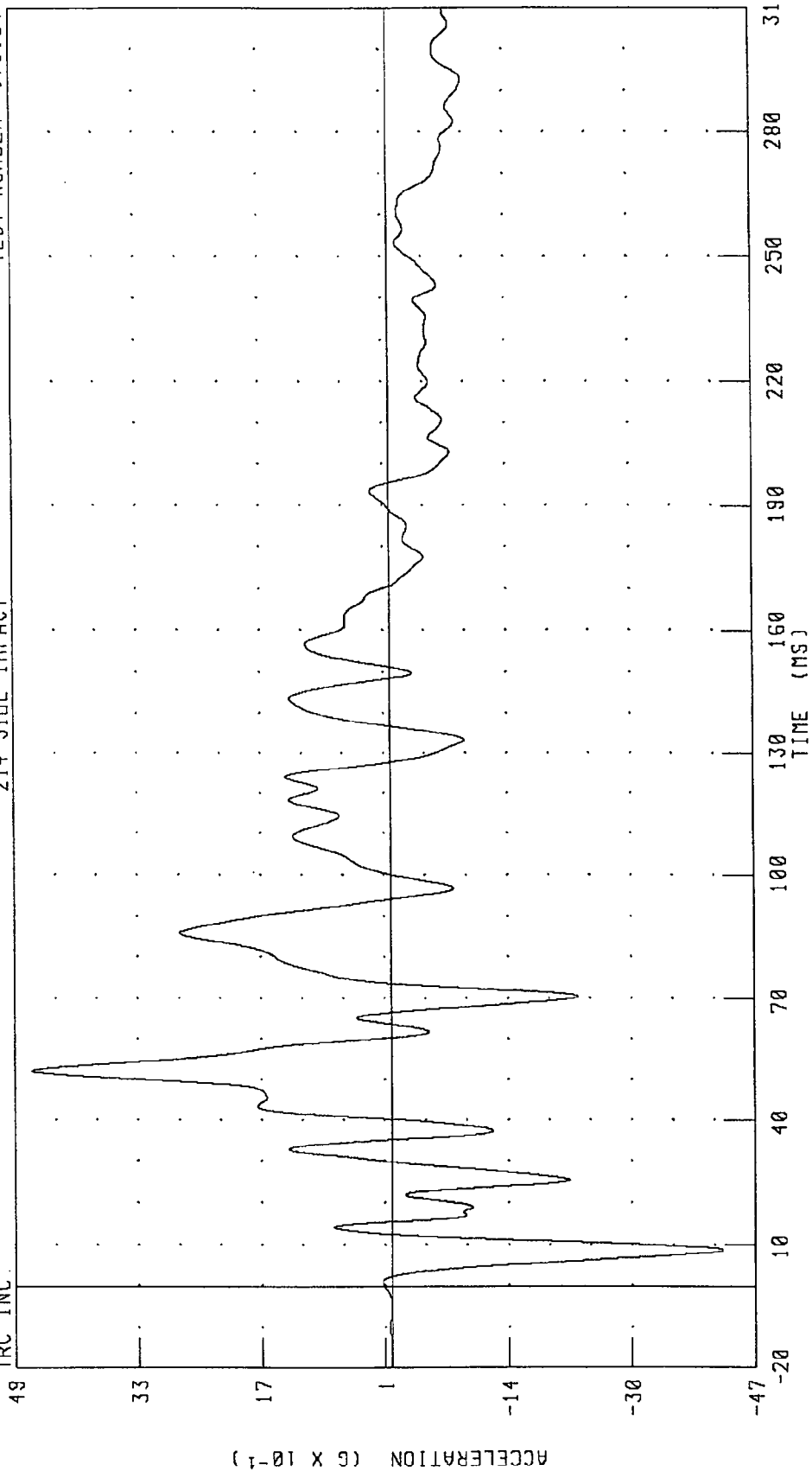
CHANNEL: RFSYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION

TEST NUMBER 971104

214 SIDE IMPACT

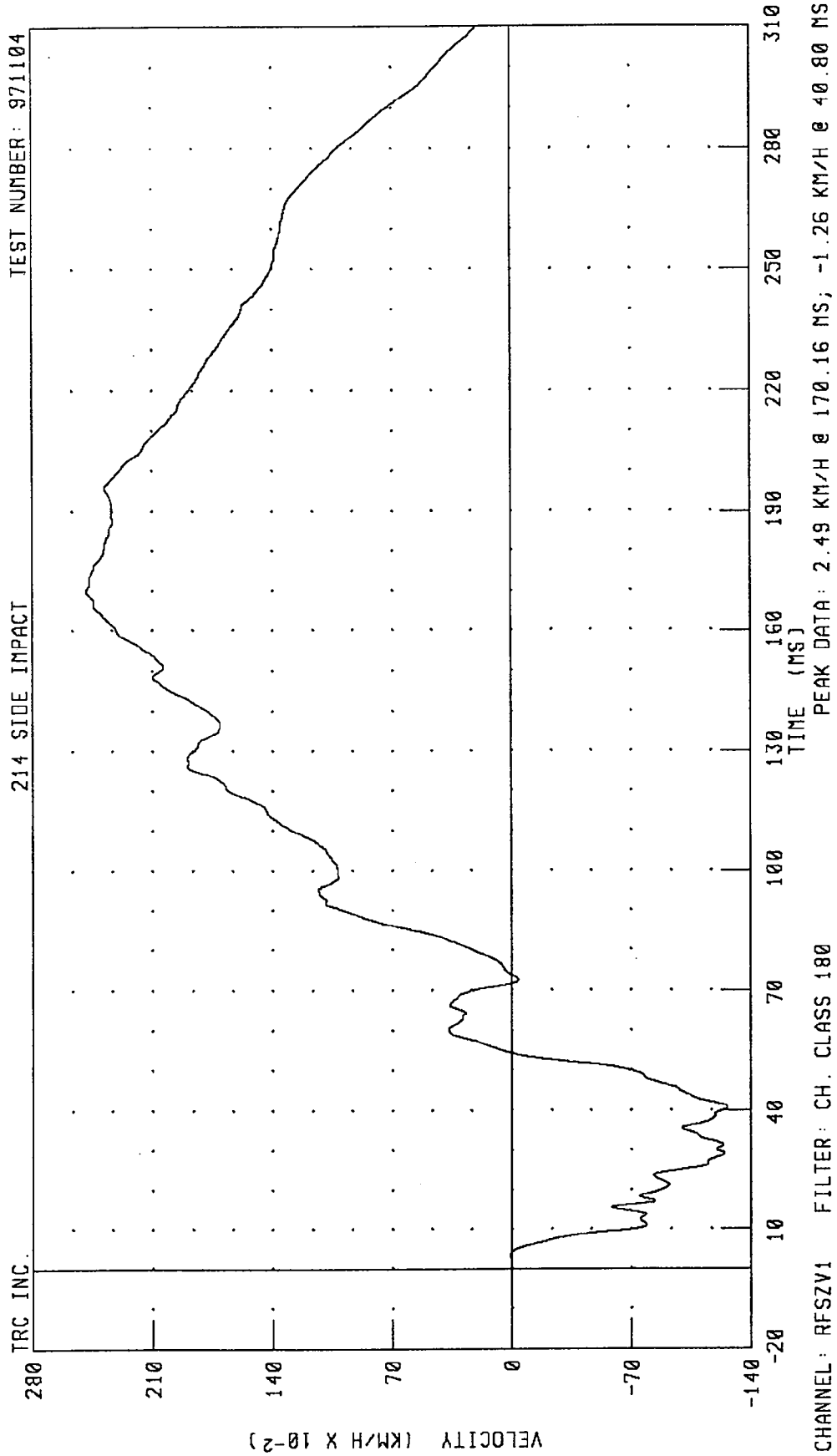
TRC INC.



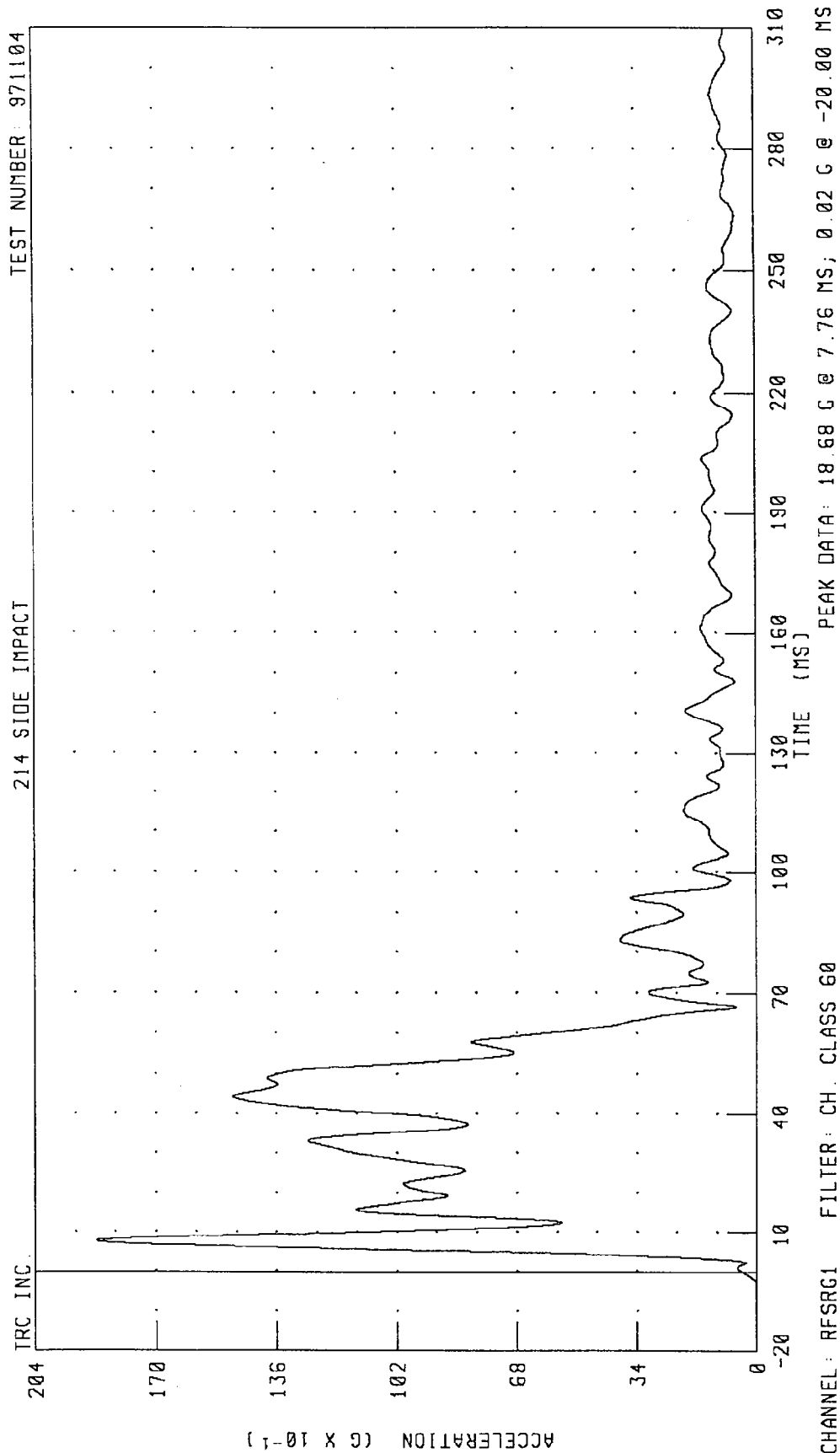
CHANNEL: RFSZG1 FILTER: CH. CLASS 60

PEAK DATA: 4.67 G @ 52.08 MS; -4.28 G @ 8.80 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY



MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

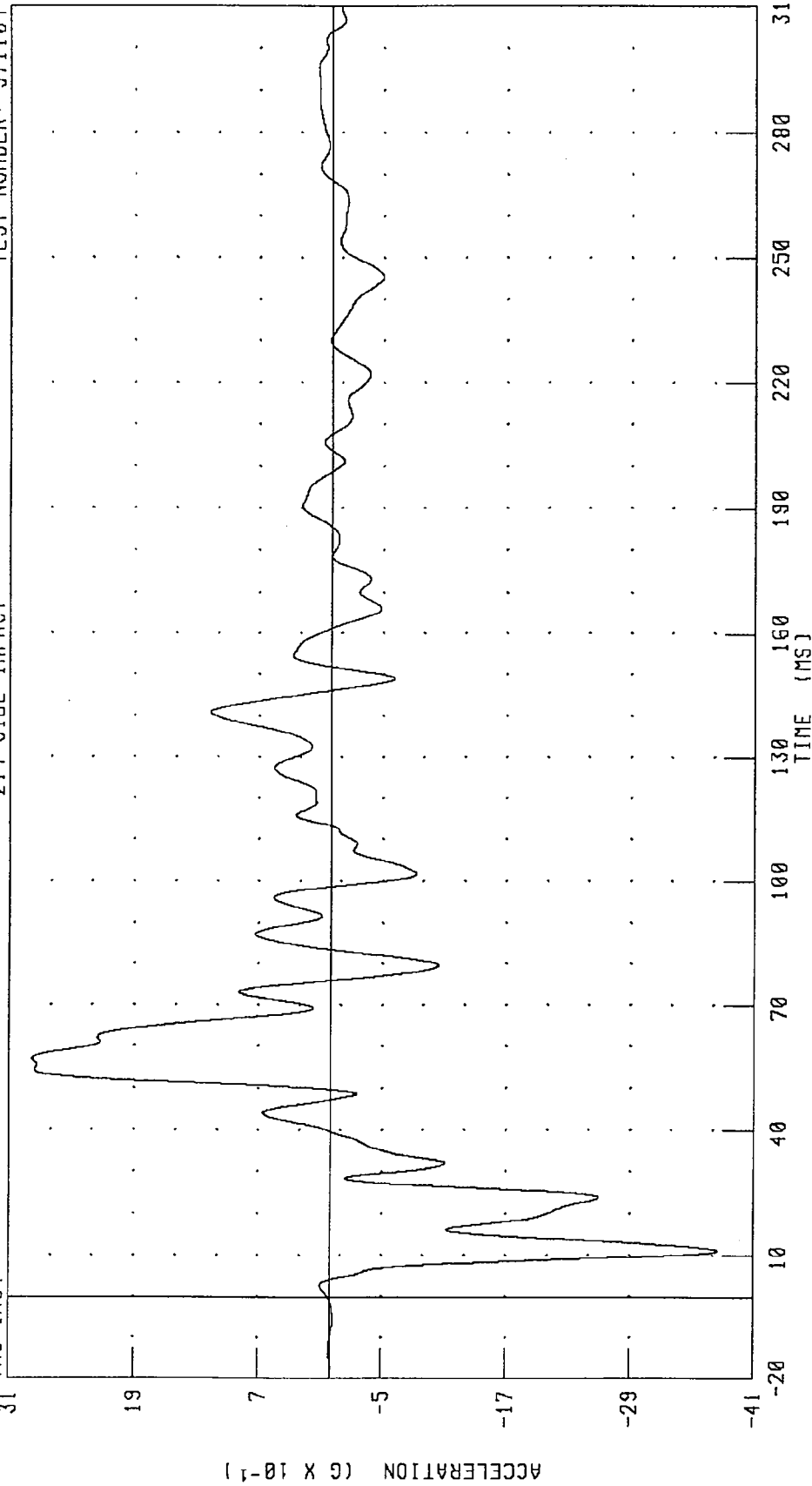


MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

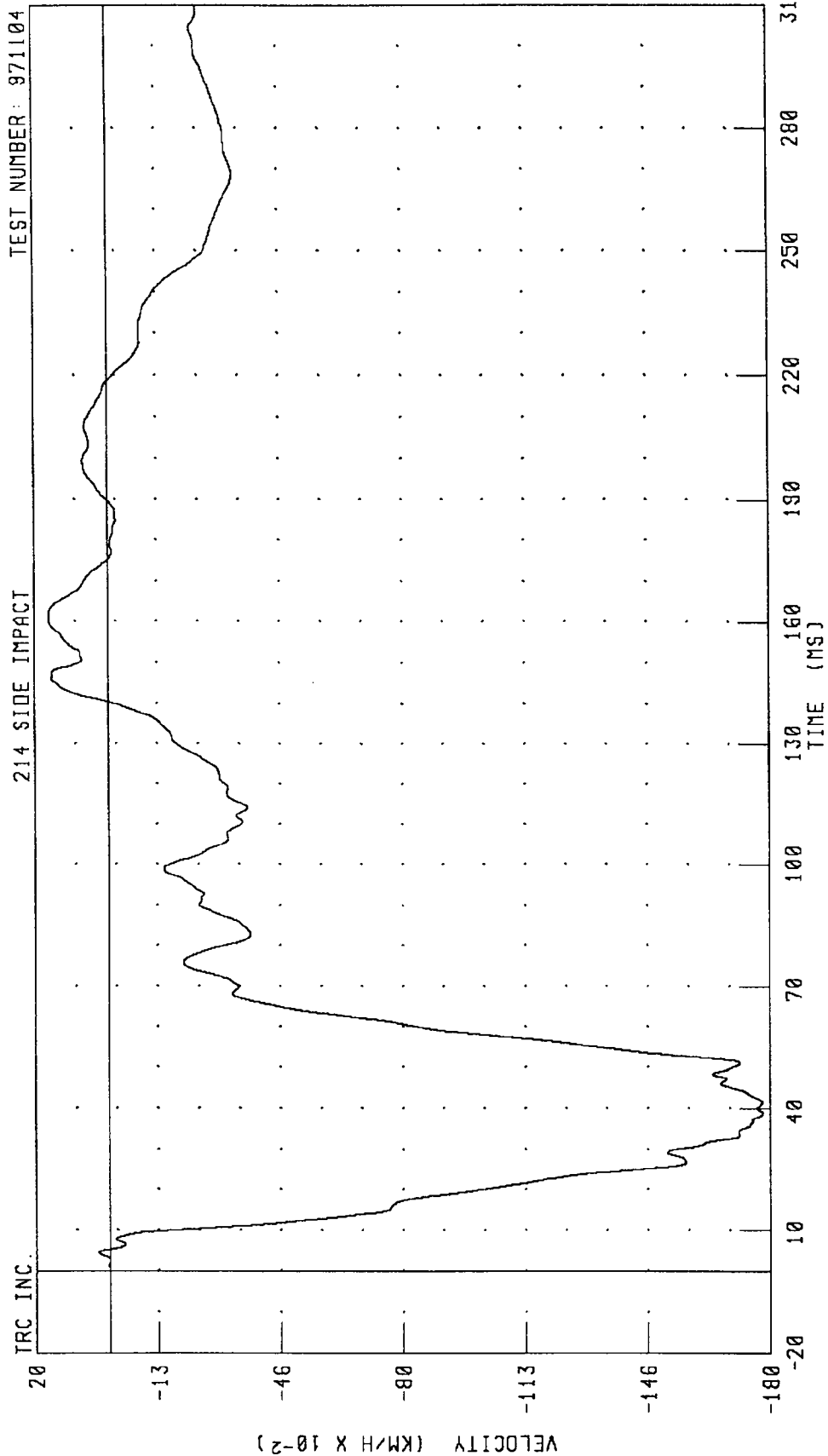
TRC INC.



CHANNEL: RRSXG1 FILTER: CH. CLASS 60

PEAK DATA: 2.88 G @ 56.88 MS; -3.75 G @ 11.12 MS

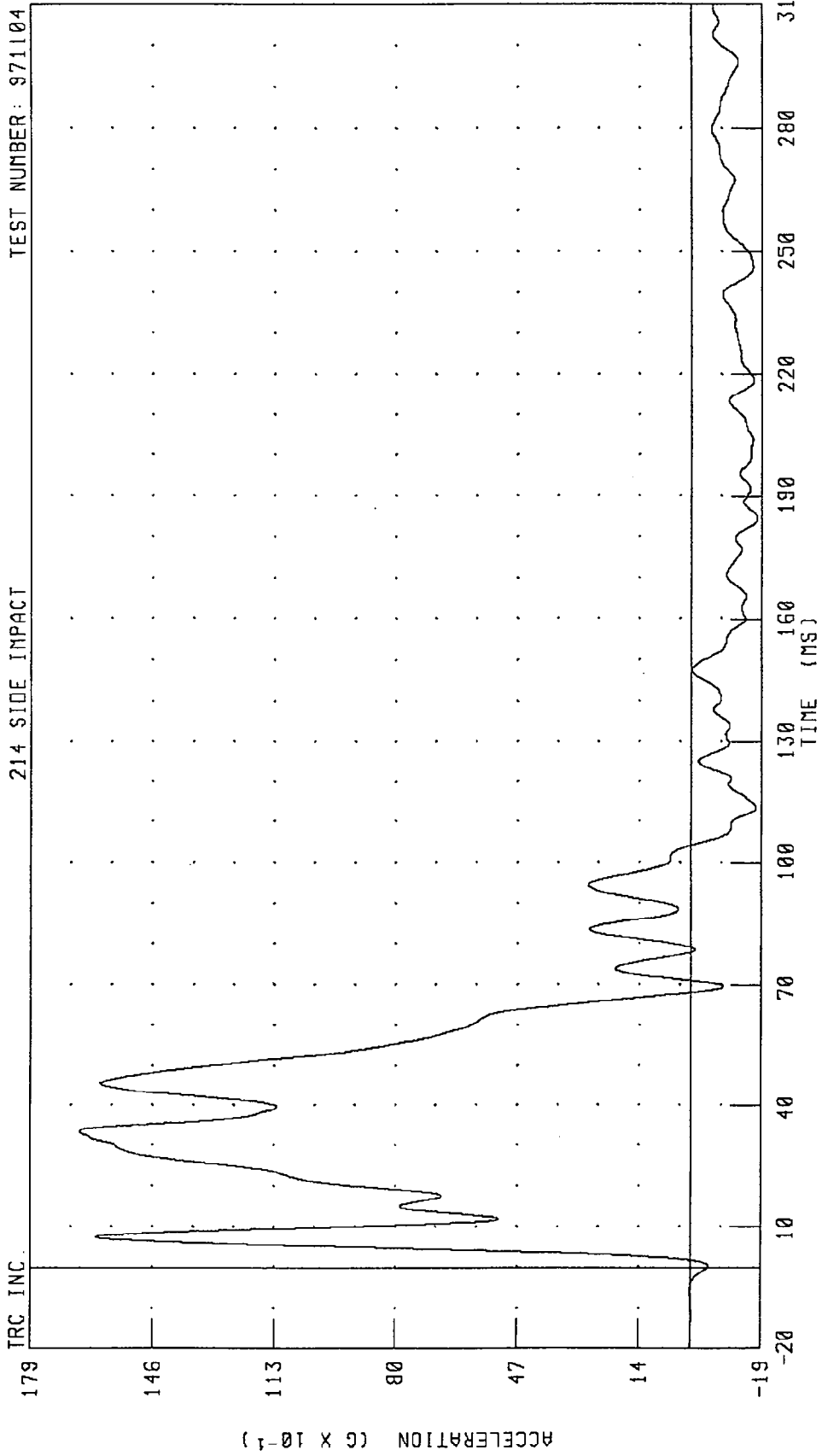
MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT REAR SEAT X-AXIS VELOCITY



MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: RRSYGI FILTER: CH. CLASS 60

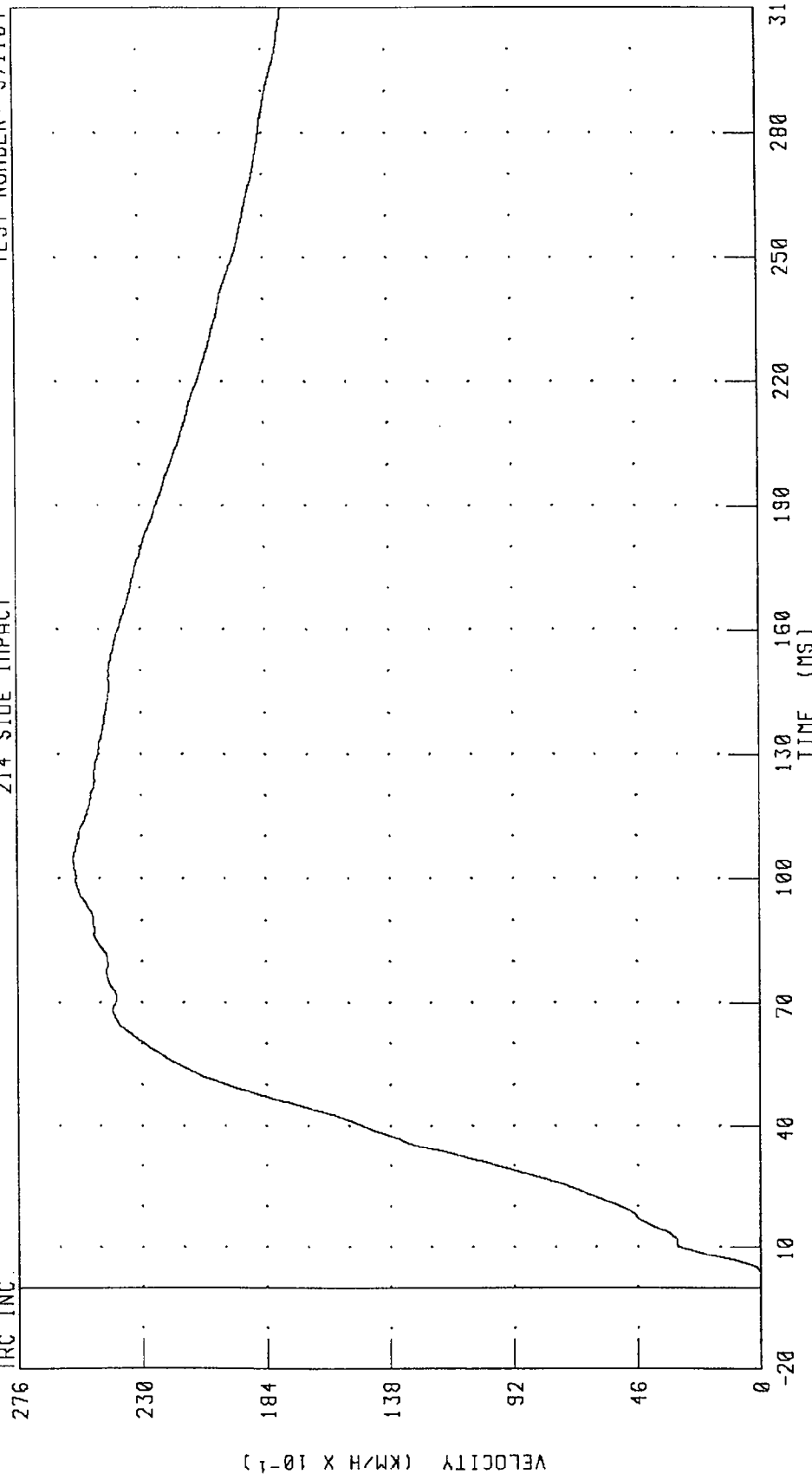
PEAK DATA: 16.56 G @ 33.36 MS; -1.79 G @ 184.24 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



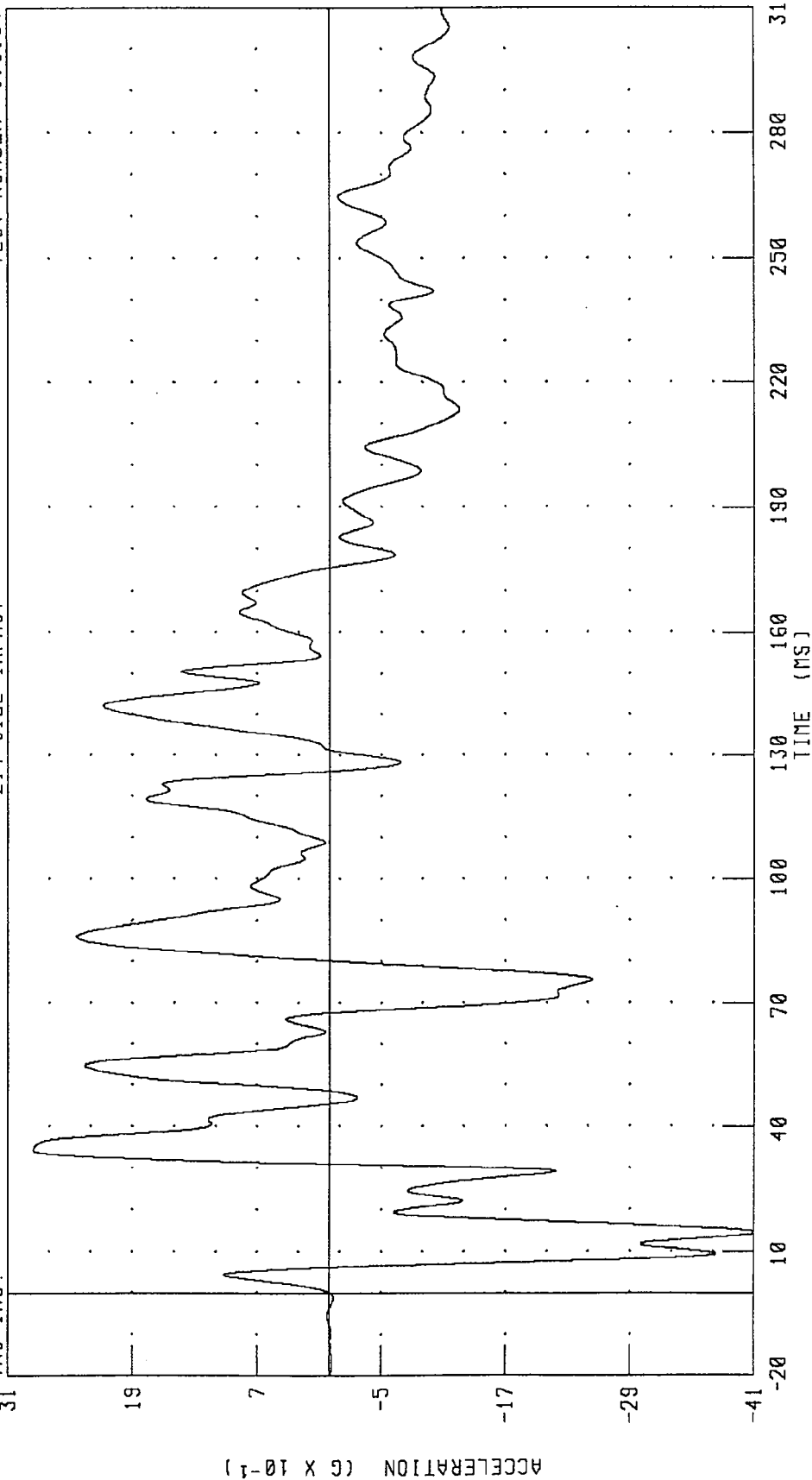
PEAK DATA: 25.52 KM/H @ 104.08 MS, 0.00 KM/H @ 0.00 MS

CHANNEL: RRSYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 RIGHT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104

TRC INC.



CHANNEL: RRSZG1 FILTER: CH. CLASS 60

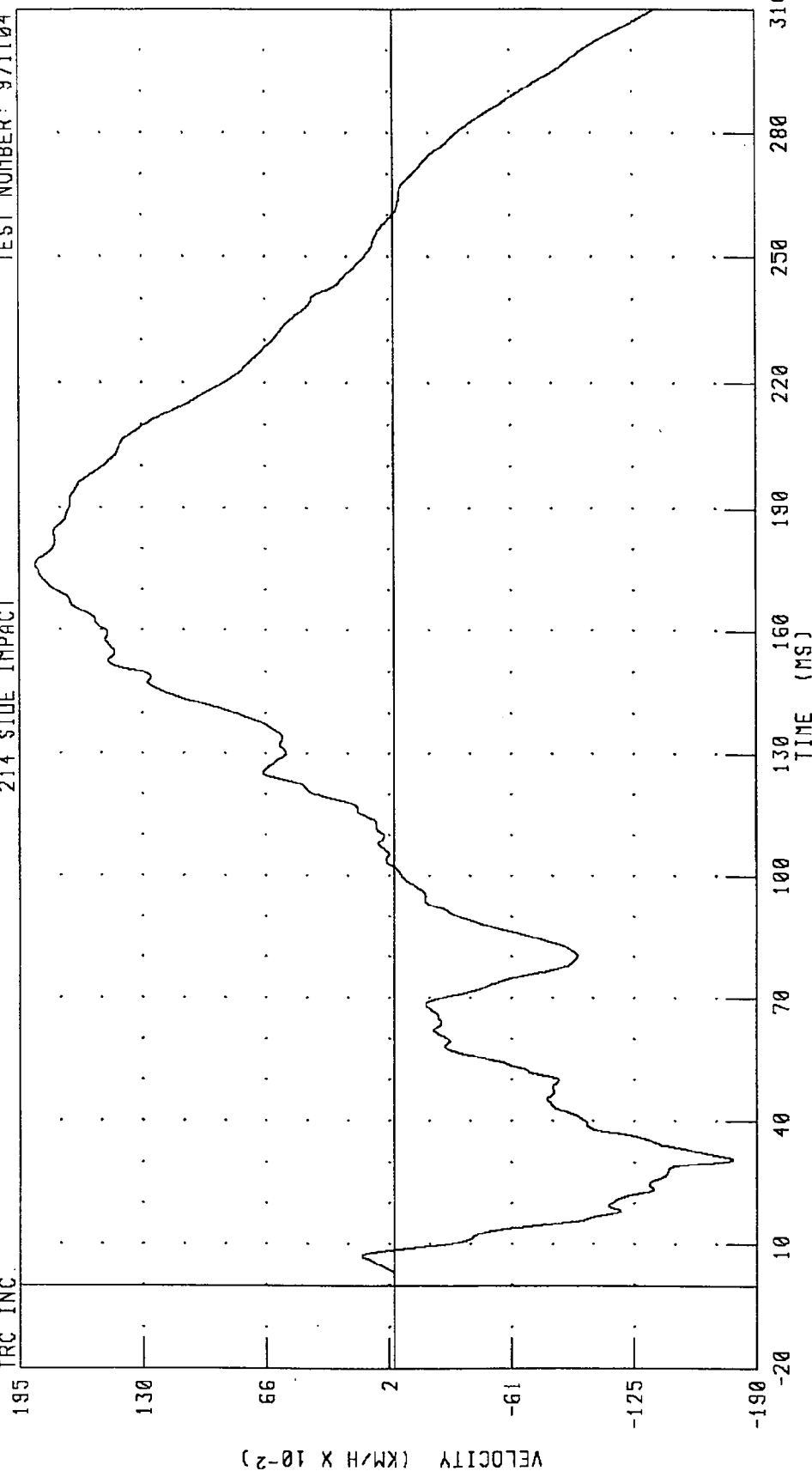
PEAK DATA: 2.86 G @ 34.24 MS; -4.12 G @ 14.64 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

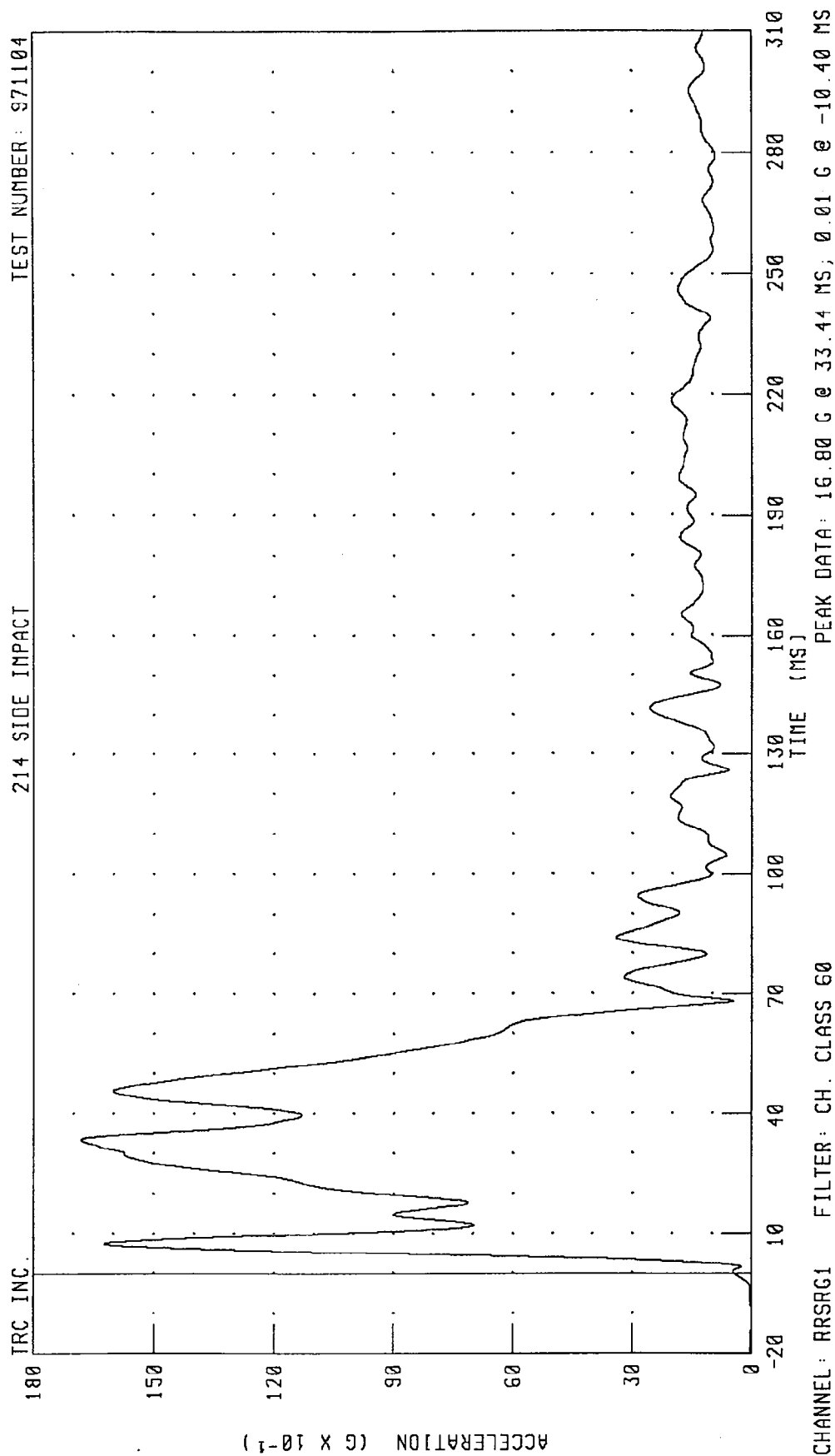
TRC INC.



CHANNEL: RRSZV1 FILTER: CH. CLASS 180

PEAK DATA: 1.87 KM/H @ 176.24 MS; -1.77 KM/H @ 30.80 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

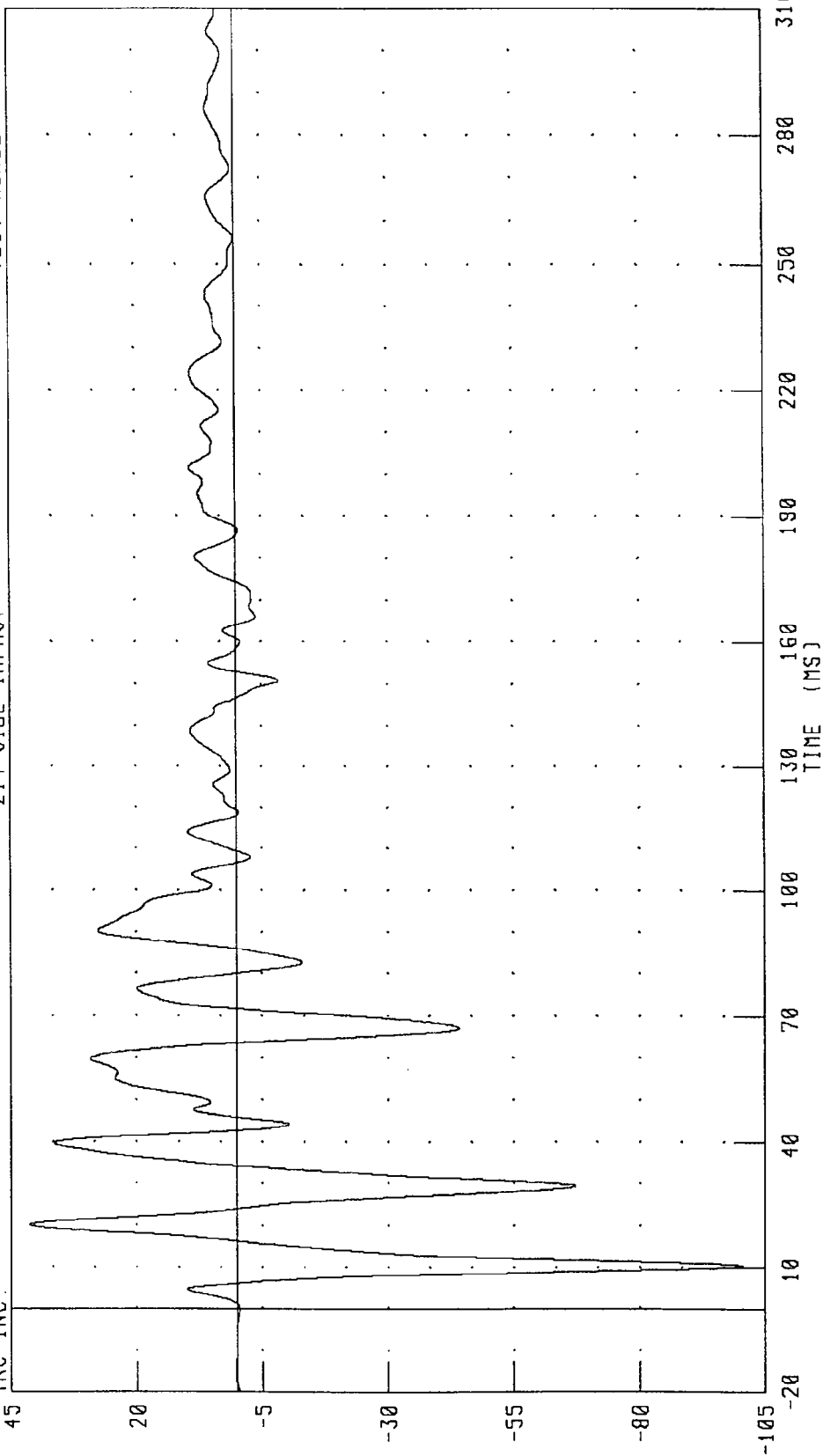


MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



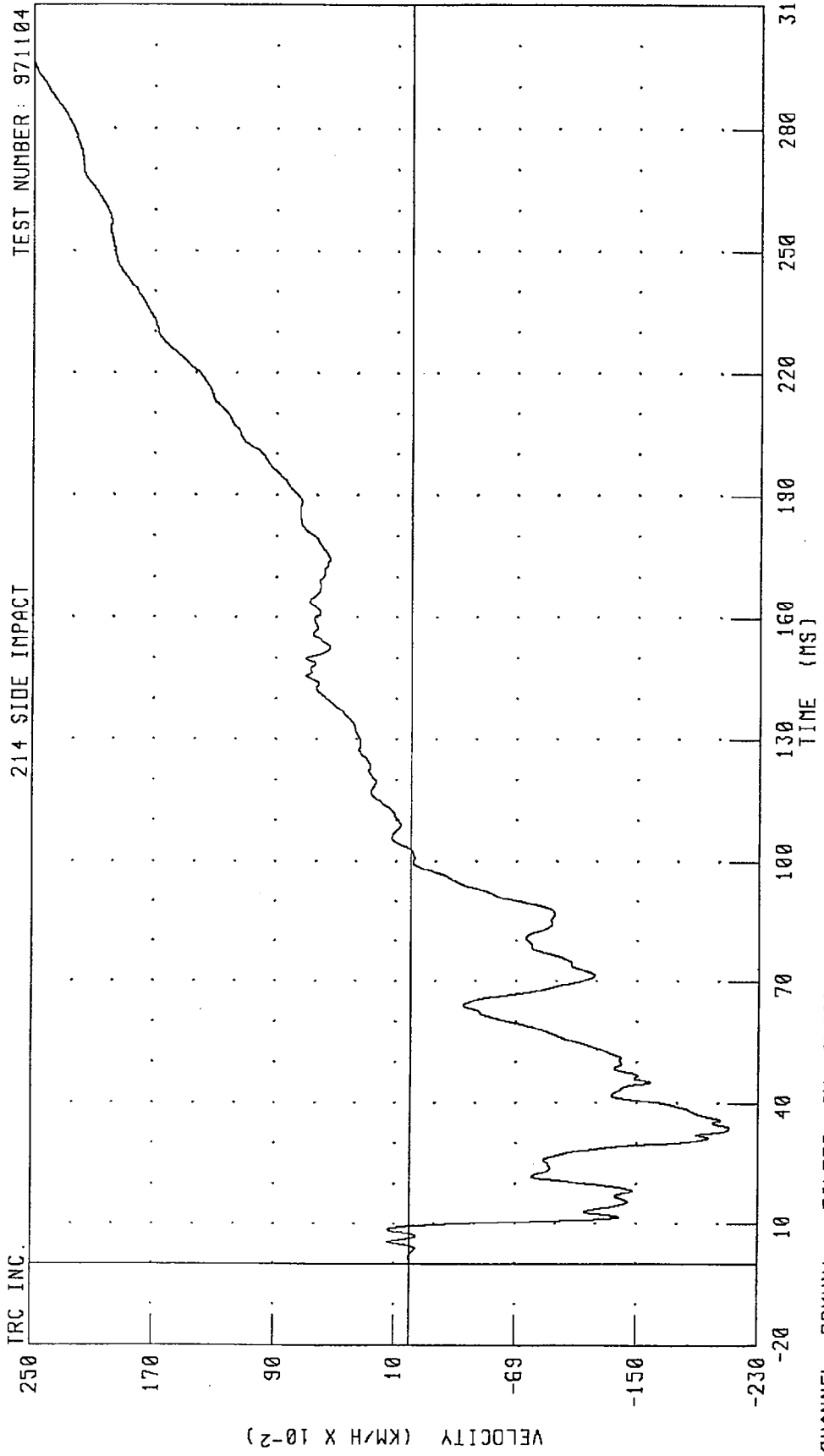
CHANNEL: RDKXG1 FILTER: CH. CLASS 60

PEAK DATA: 4.13 G @ 20.16 MS; -10.05 G @ 10.40 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: RDKXV1 FILTER: CH. CLASS 180

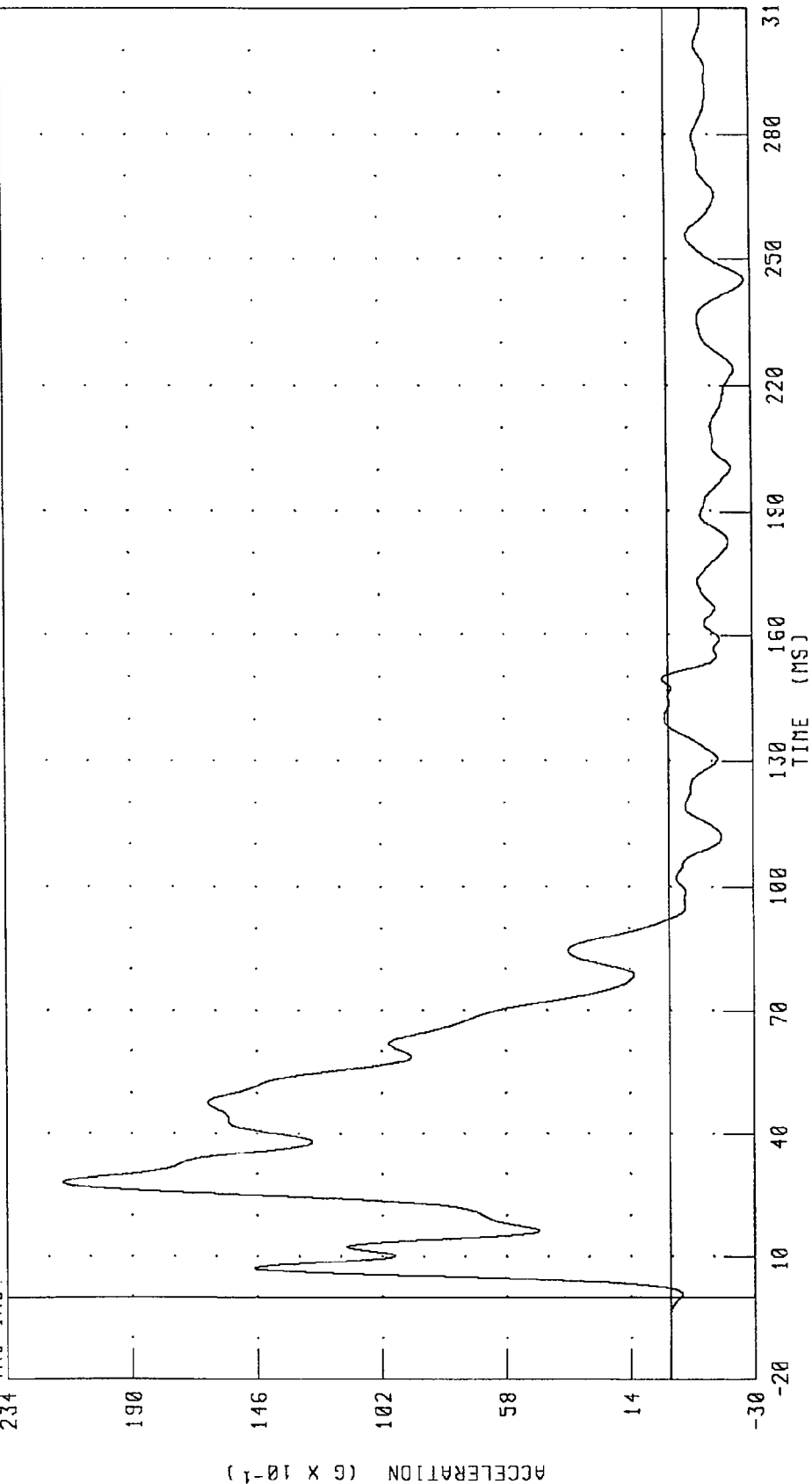
PEAK DATA: 2.68 KM/H @ 310.00 MS; -2.10 KM/H @ 34.08 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: RDKYG1 FILTER: CH. CLASS 60

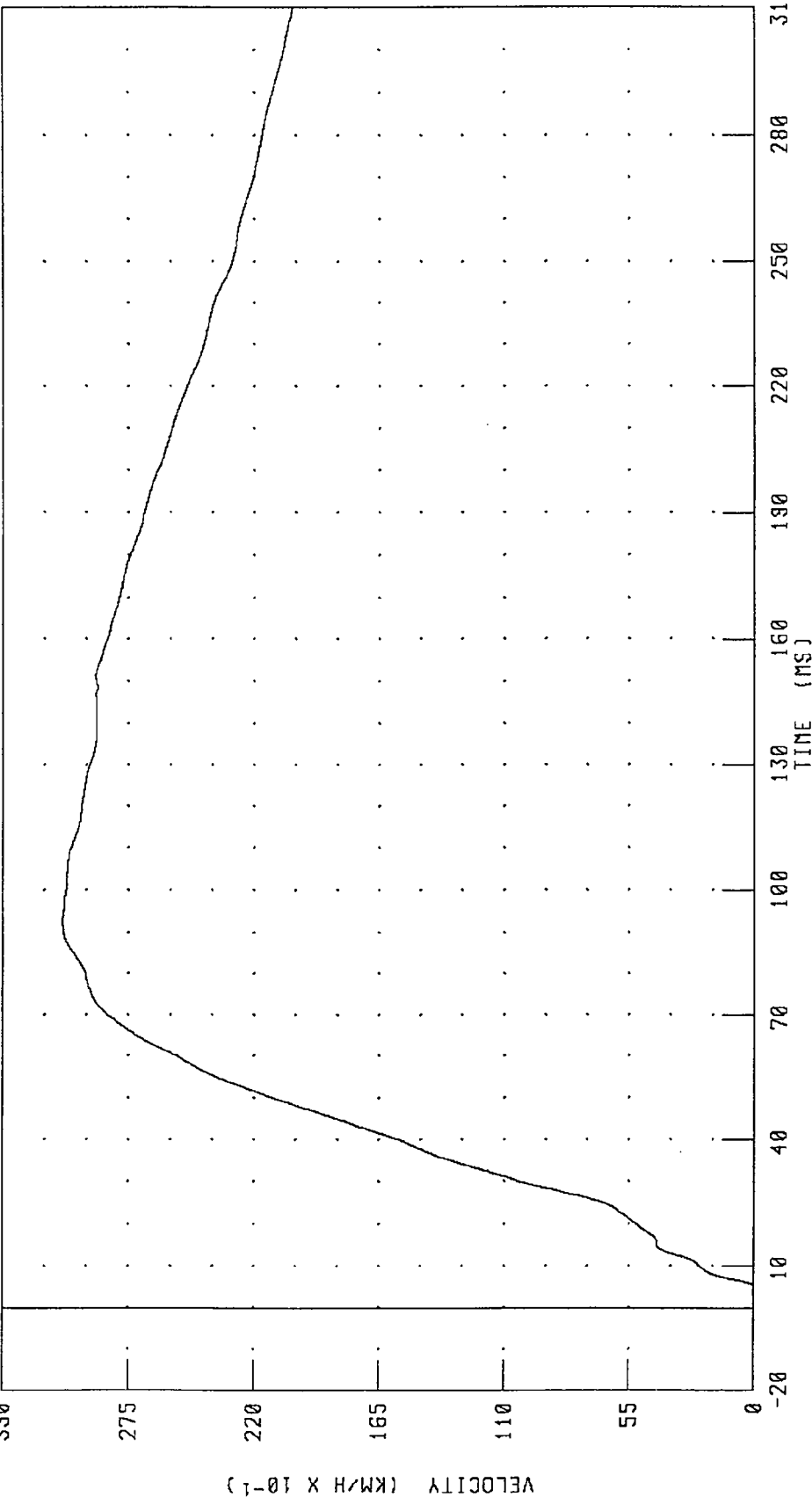
PEAK DATA: 21.42 G @ 28.08 MS; -2.76 G @ 245.04 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



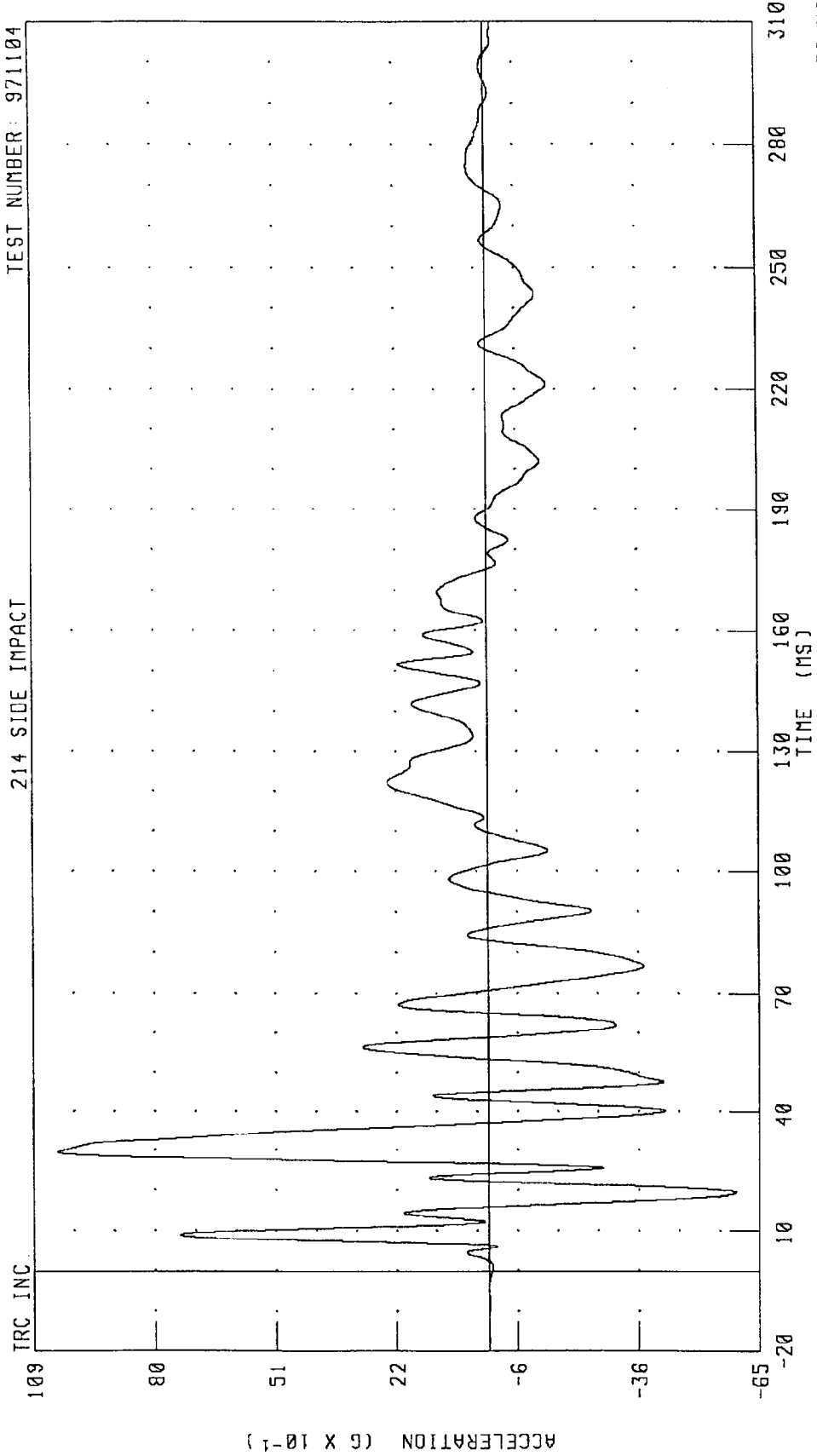
CHANNEL: RDKYV1 FILTER: CH. CLASS 180

PEAK DATA: 30.37 KM/H @ 92.48 MS; -0.02 KM/H @ 4.96 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 10.32 G @ 29.52 MS; -5.93 G @ 19.36 MS

CHANNEL: RDKZG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

260

210

VELOCITY (KM/H X 10⁻²)

160

110

60

10

-40

-20

TIME (MS)

130

160

190

220

250

280

310

CHANNEL: RDKZV1

FILTER: CH. CLASS 180

PEAK DATA: 2.52 KM/H @ 37.84 MS; -0.44 KM/H @ 7.28 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104

TRC INC.

264

ACCELERATION (G X 10⁻¹)

220

176

132

88

44

0

-20

10

40

70

100

130

160

190

220

250

280

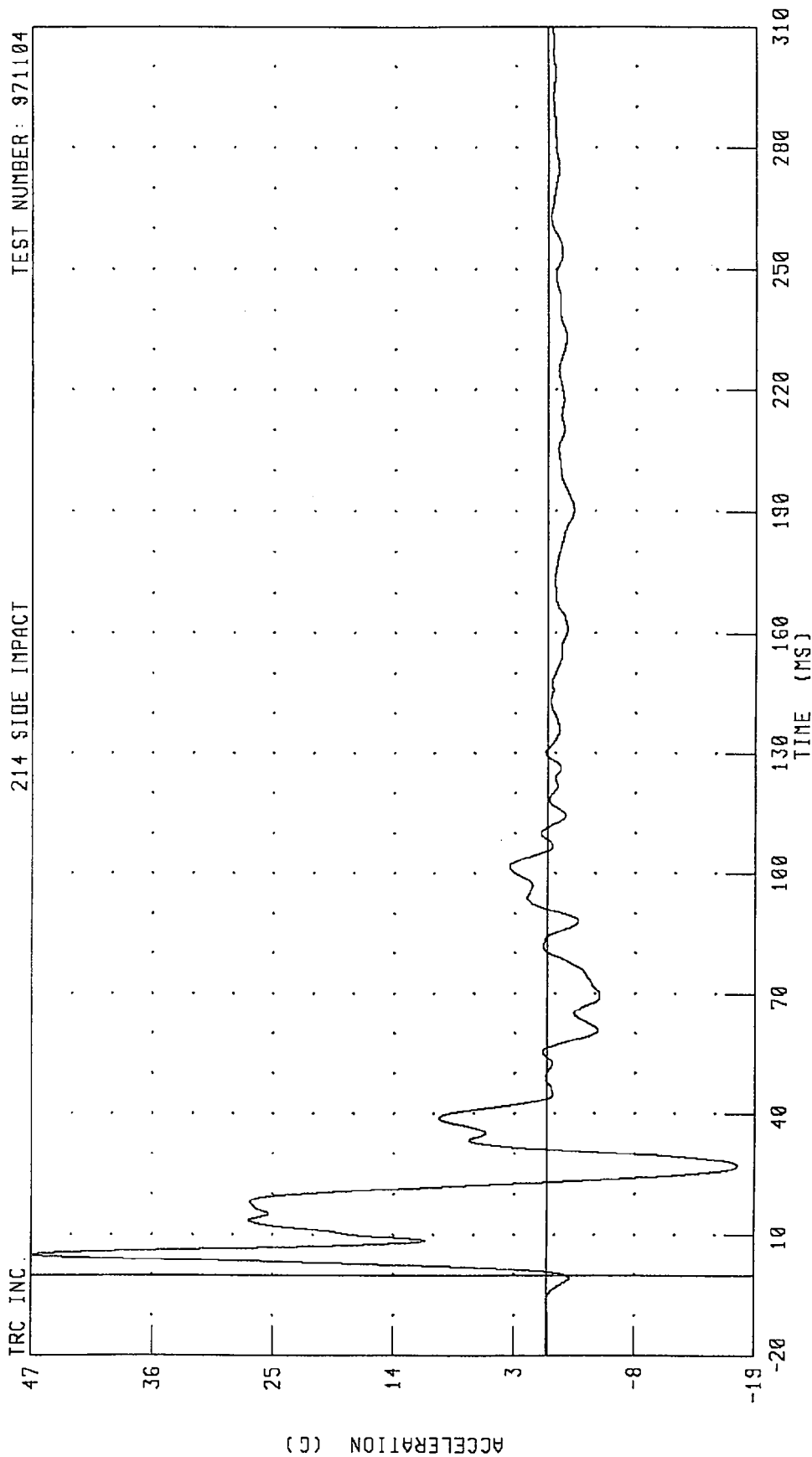
310

TIME (MS)

CHANNEL: RDKRG1 FILTER: CH. CLASS 60

PEAK DATA: 24.00 G @ 28.88 MS; 0.01 G @ -4.16 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION



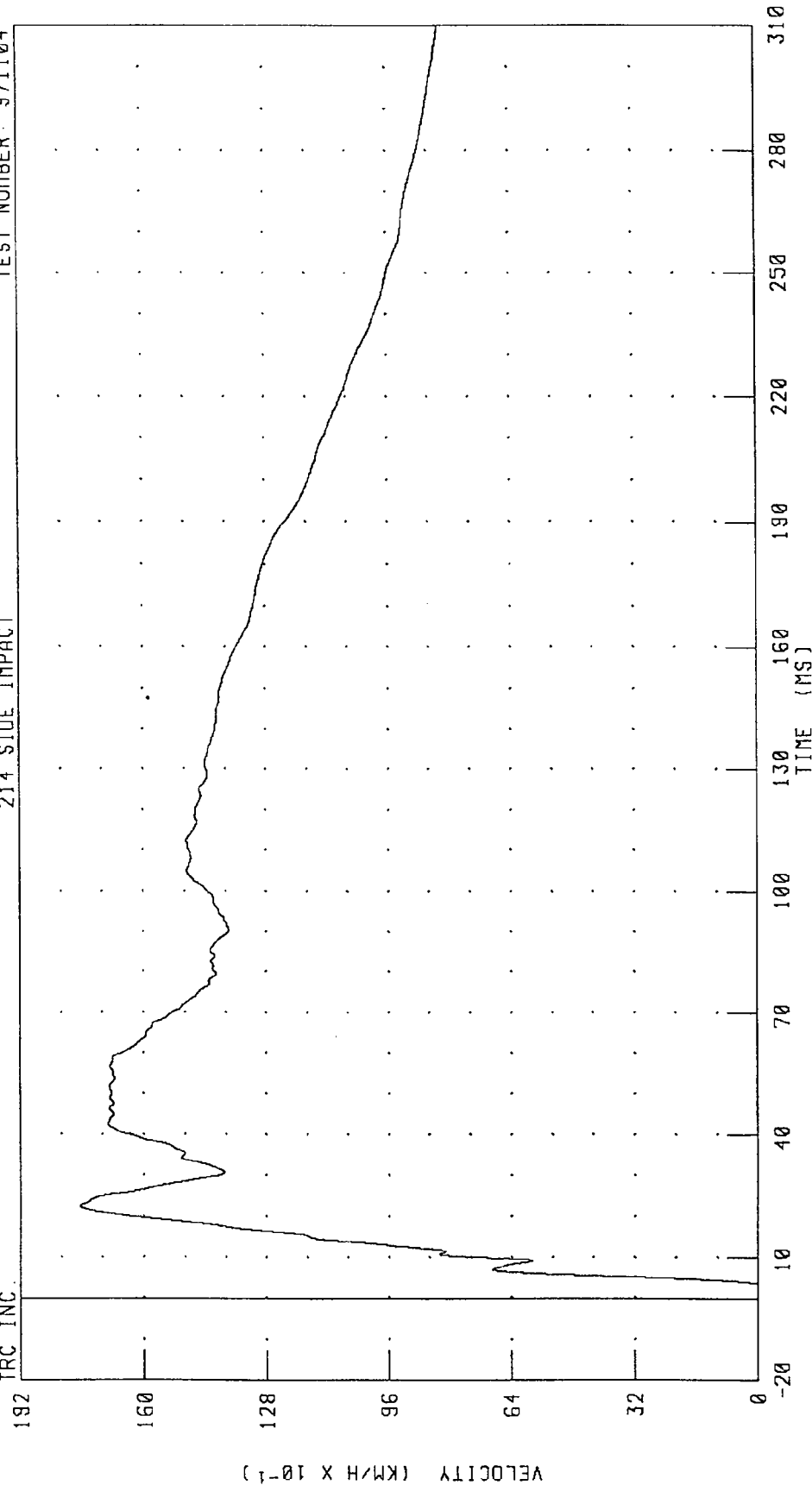
CHANNEL: LFSYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



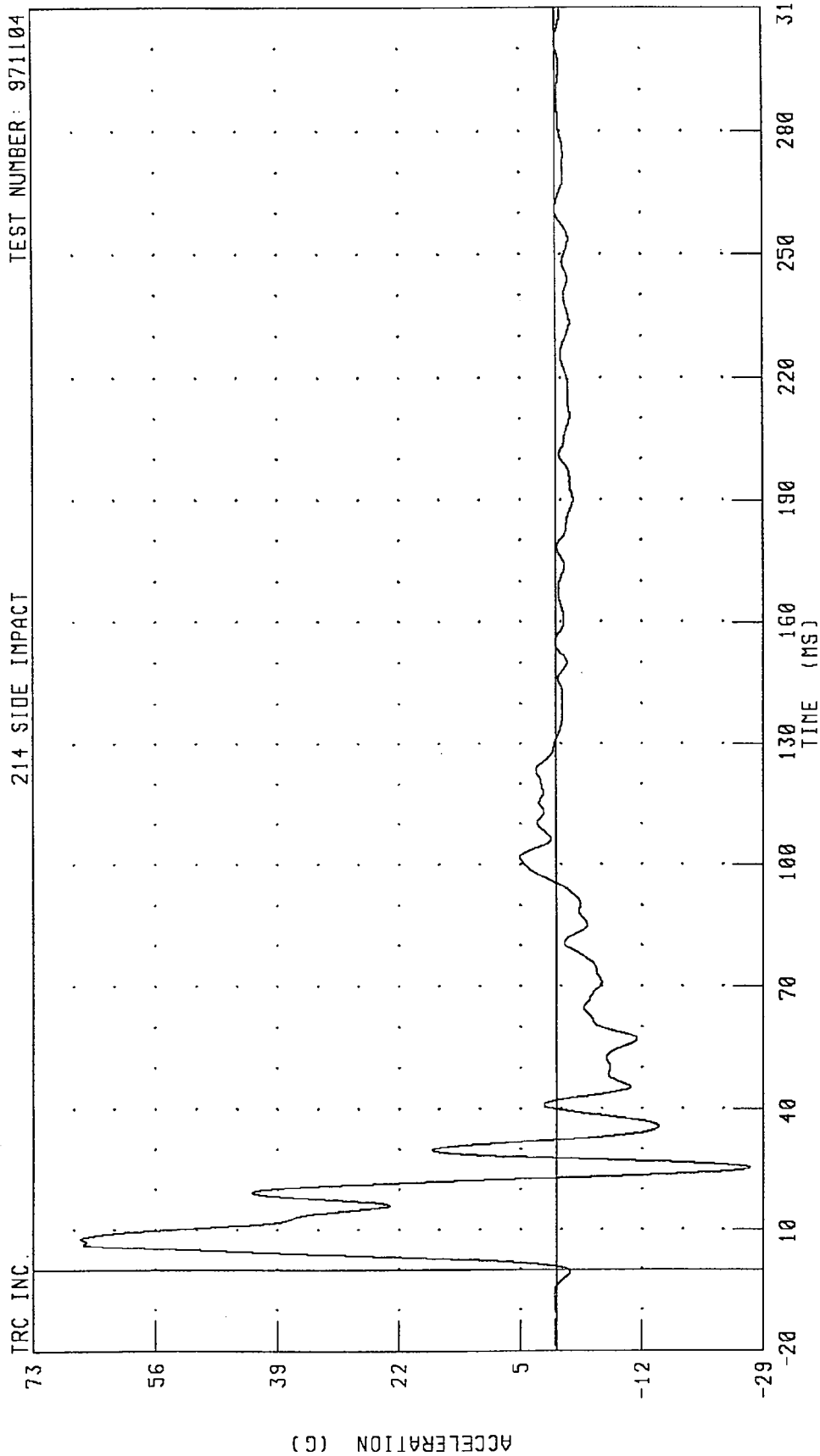
PEAK DATA: 17.66 KM/H @ 22.48 MS; -0.08 KM/H @ 2.96 MS

CHANNEL: LFSYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION.

TEST NUMBER: 971104

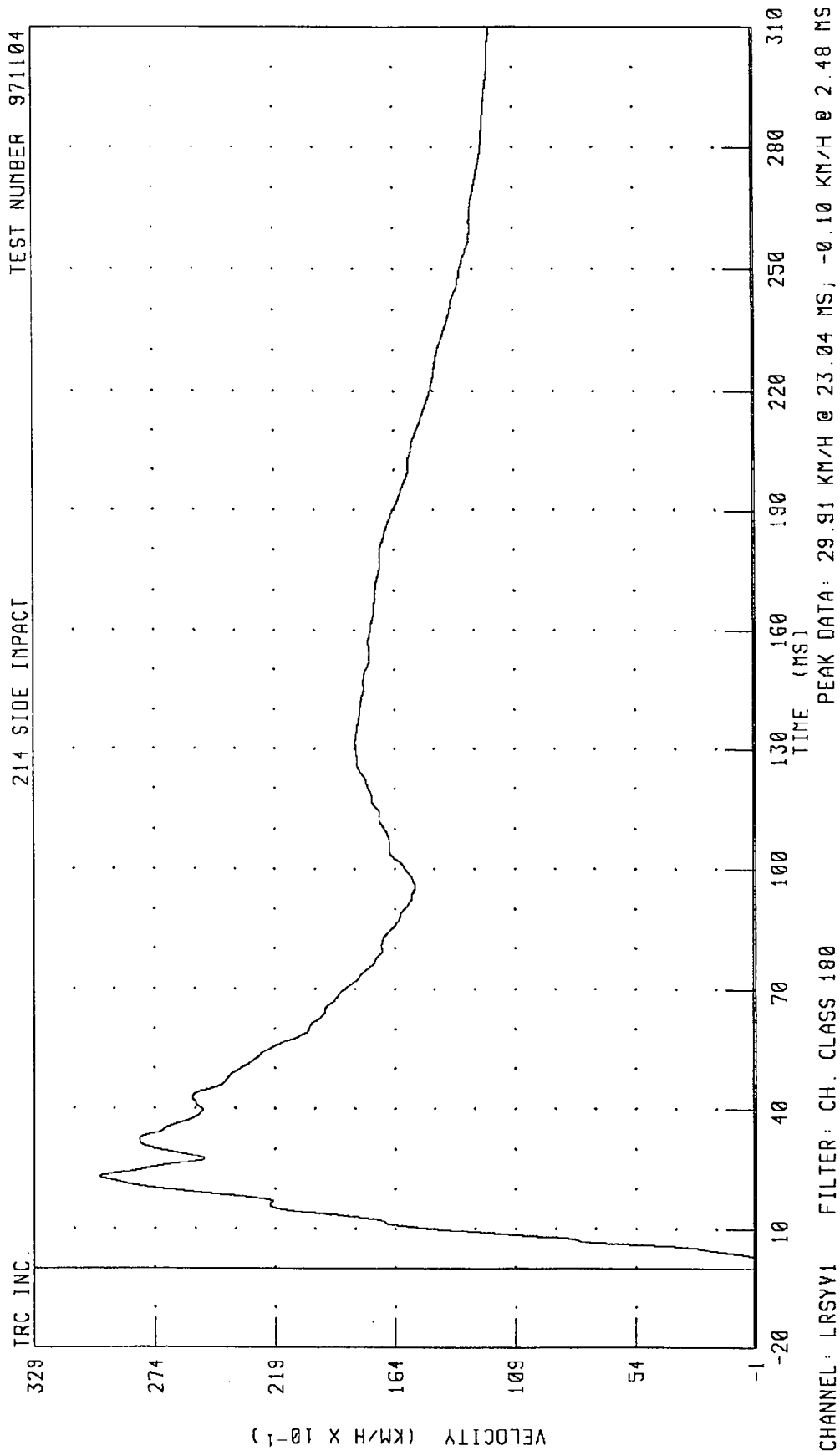
214 SIDE IMPACT



PEAK DATA: 66.34 G @ 7.84 MS; -27.12 G @ 25.36 MS

CHANNEL: LRSYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY



Left Front Door On Centerline Accelerometer #6 Was Not Installed
(no accessible mounting location)

Left Front Door On Centerline Accelerometer #6 Was Not Installed
(no accessible mounting location)

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

195

159

123

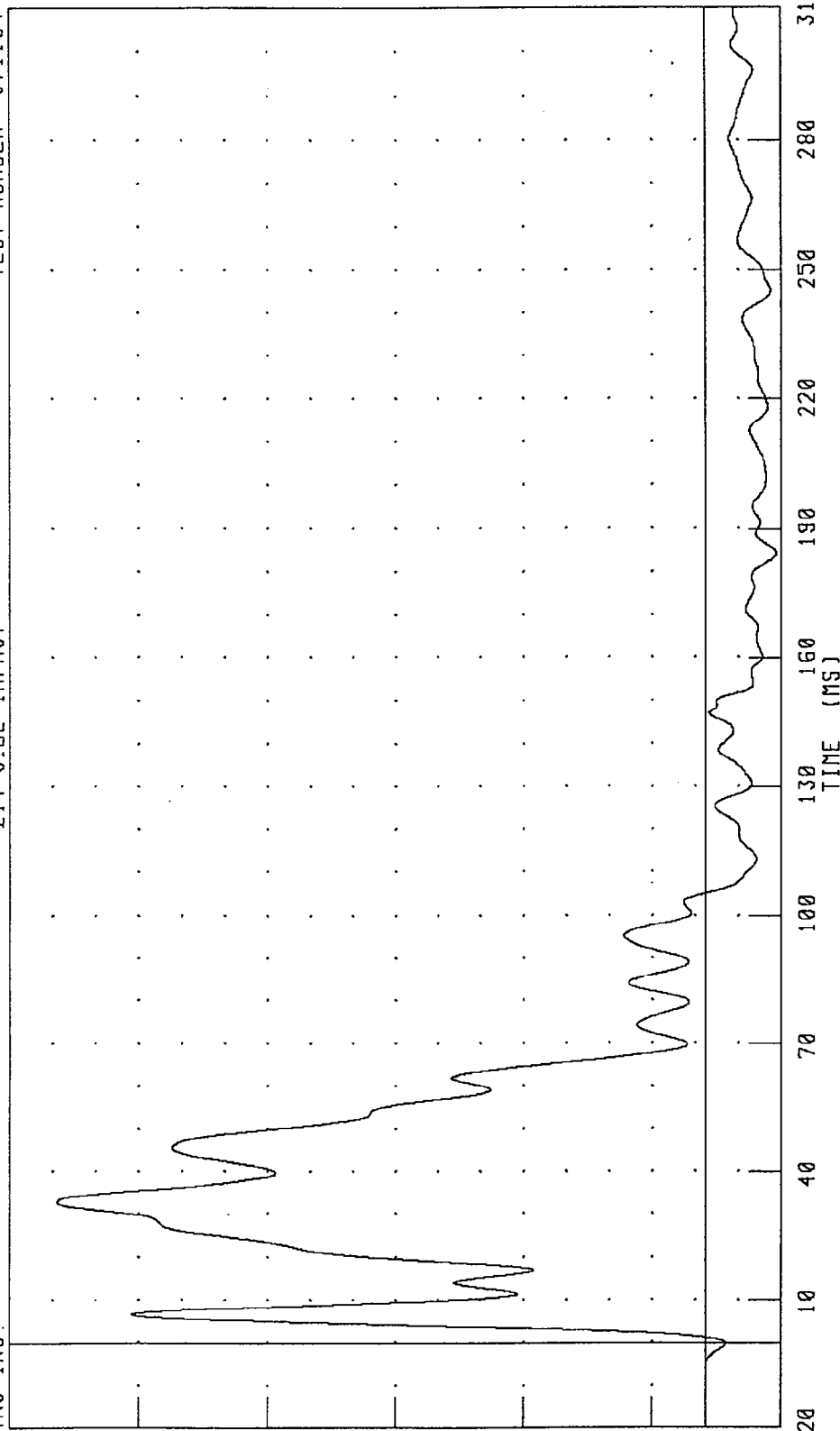
87

51

15

-21

ACCELERATION (G X 10⁻¹)



CHANNEL: RRTYG1 FILTER: CH. CLASS 60

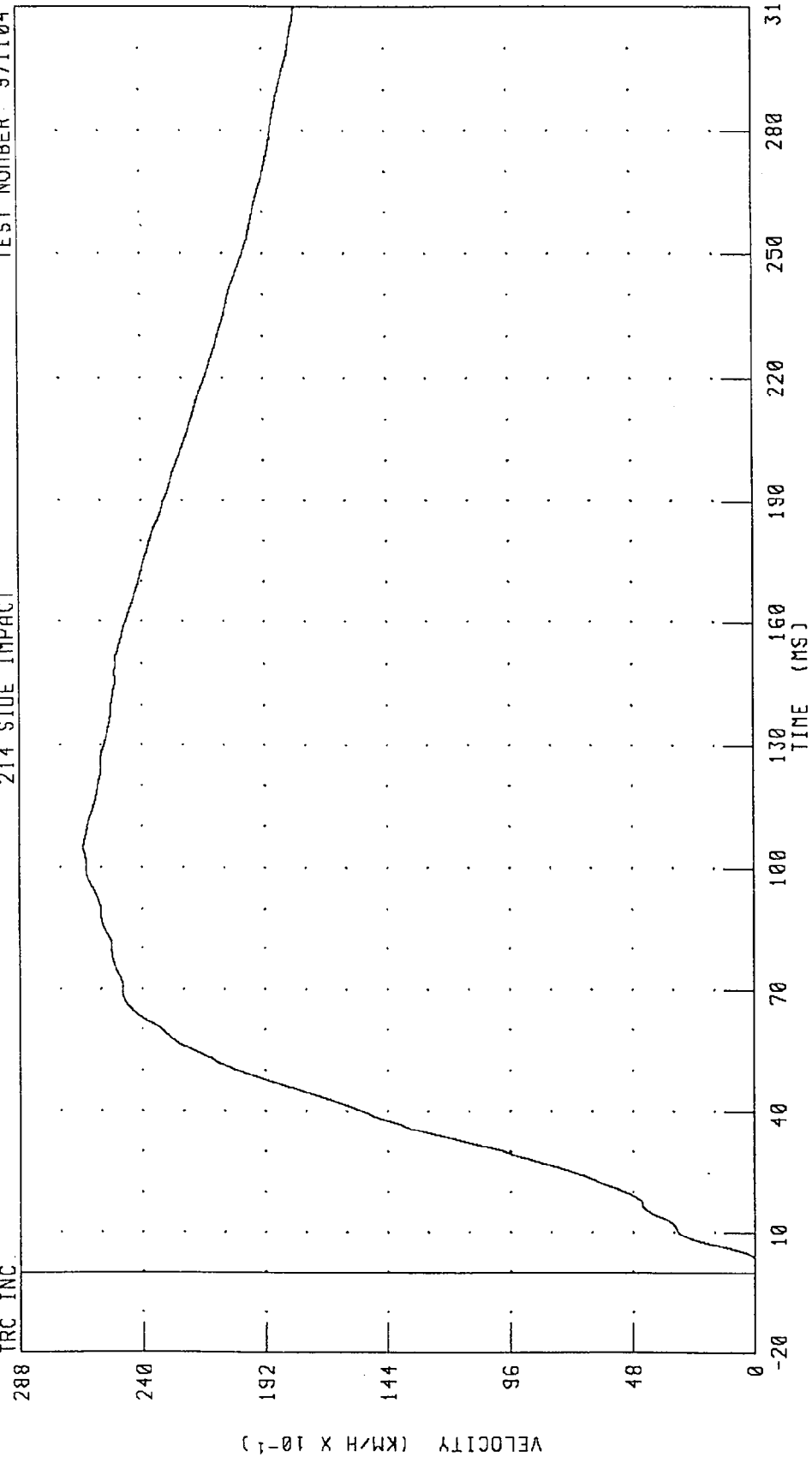
PEAK DATA: 18.18 G @ 32.72 MS; -1.96 G @ 184.08 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
RIGHT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: RRTYV1 FILTER: CH. CLASS 180

PEAK DATA: 26.30 KM/H @ 104.88 MS; 0.00 KM/H @ 2.40 MS

Mid Rear Of Left Front Door Accelerometer #8 Was Not Installed
(no accessible mounting location)

Mid Rear Of Left Front Door Accelerometer #8 Was Not Installed
(no accessible mounting location)

Left Front Door Upper Centerline Accelerometer #9 Was Not Installed
(no accessible mounting location)

Left Front Door Upper Centerline Accelerometer #9 Was Not Installed
(no accessible mounting location)

Mid Rear Of Left Rear Door Accelerometer #10 Was Not Installed
(no accessible mounting location)

Mid Rear Of Left Rear Door Accelerometer #10 Was Not Installed
(no accessible mounting location)

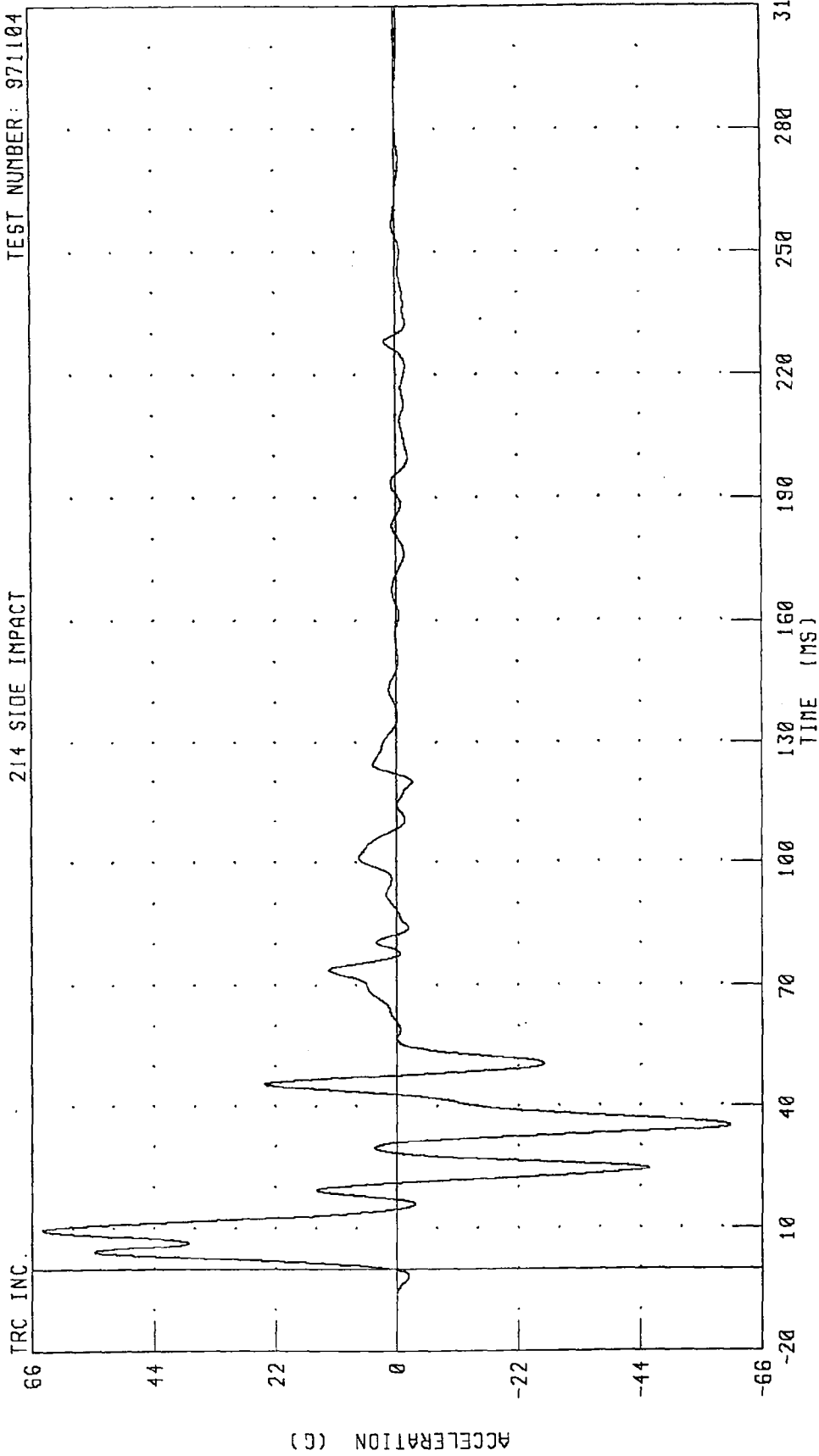
Left Rear Door Upper Centerline Accelerometer #11 Was Not Installed
(no accessible mounting location)

Left Rear Door Upper Centerline Accelerometer #11 Was Not Installed
(no accessible mounting location)

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LOWER A-POST Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 64.10 G @ 9.60 MS; -60.20 G @ 35.12 MS

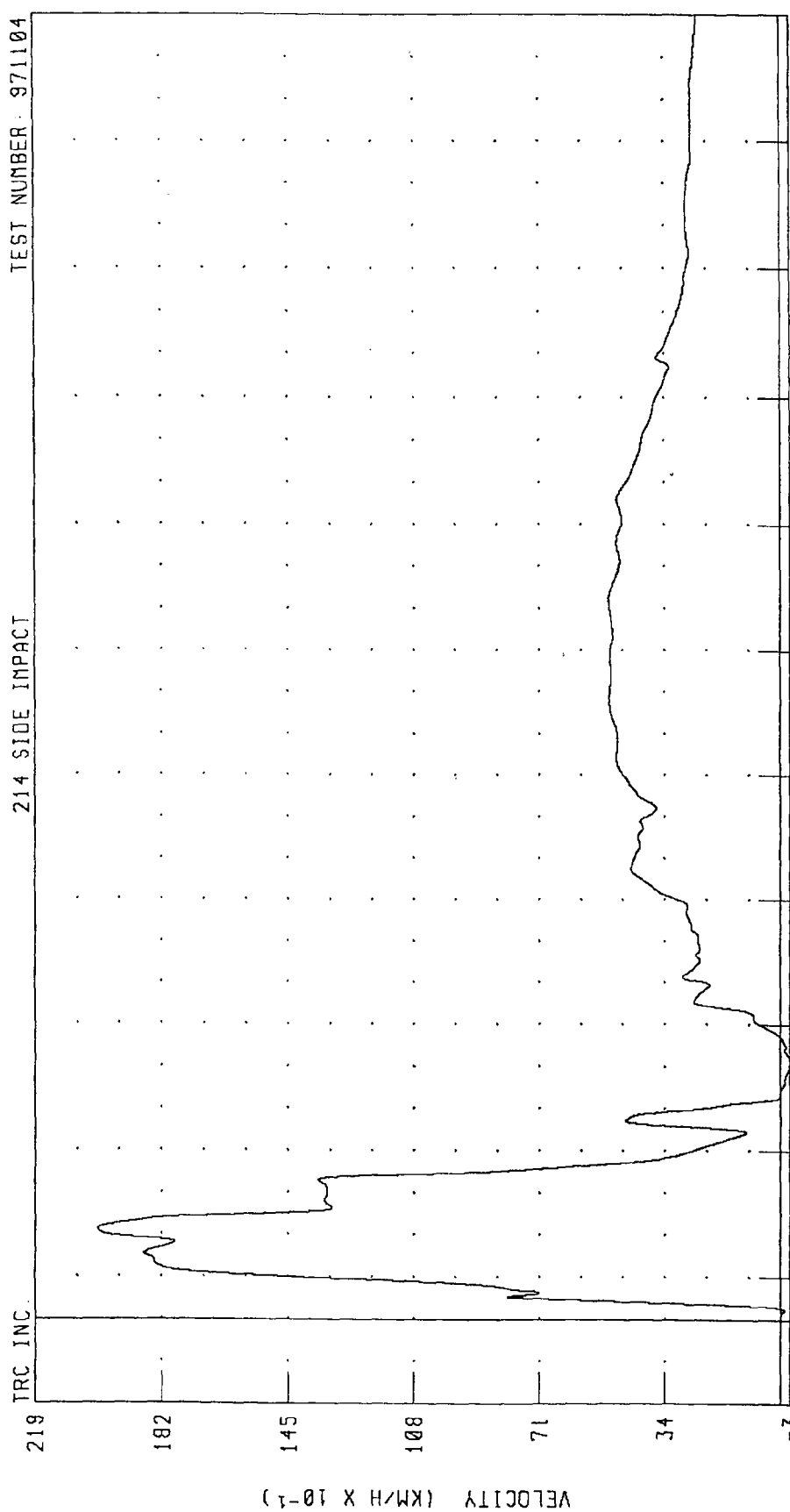
CHANNEL: L LAYGI FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626

LOWER A-POST Y-AXIS VELOCITY

214 SIDE IMPACT

TEST NUMBER: 971104



CHANNEL: LAYV1 FILTER: CH. CLASS 180

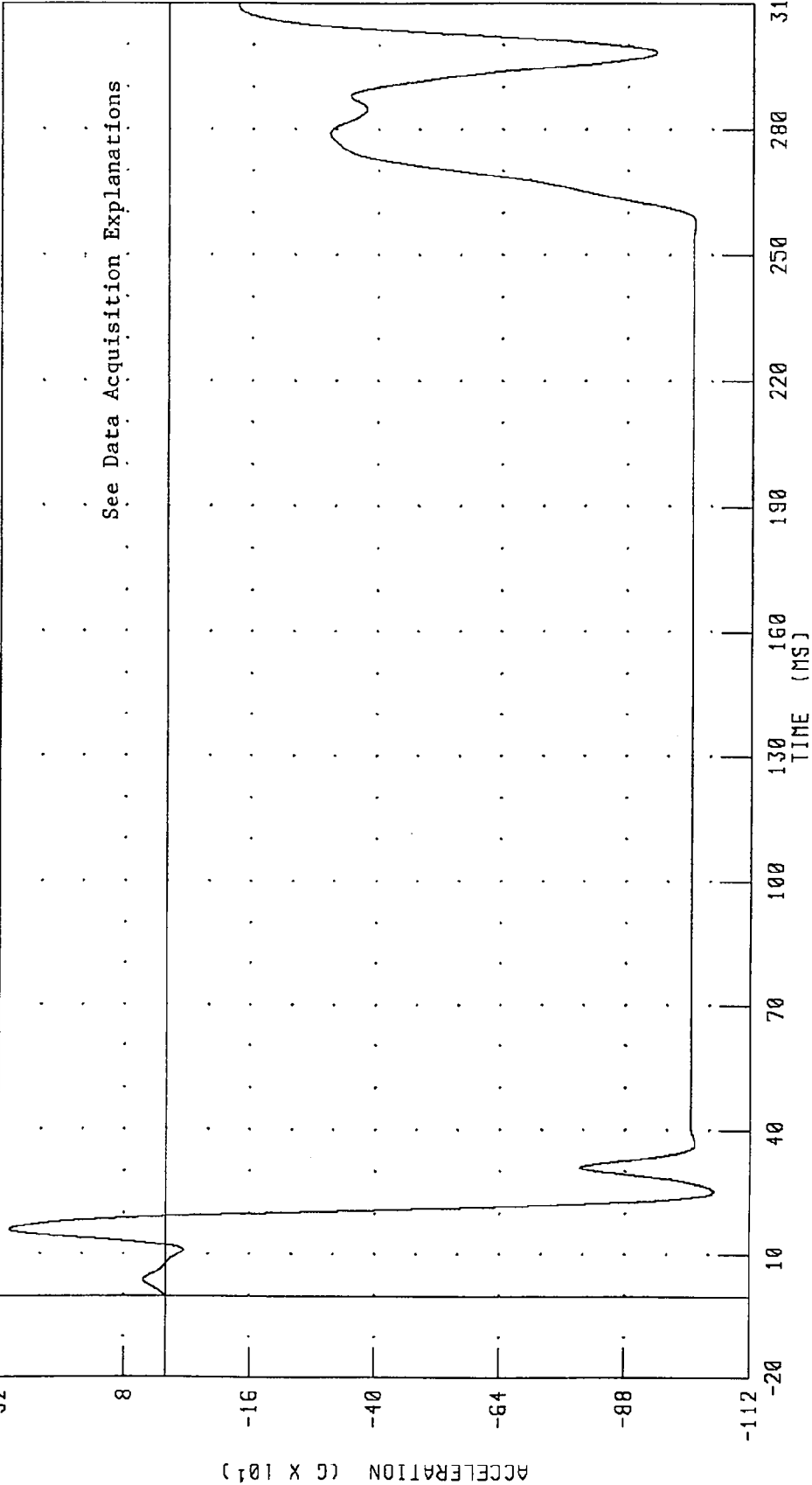
PEAK DATA: 20.06 KM/H @ 21.20 MS; -0.30 KM/H @ 61.68 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
UPPER A-POST Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



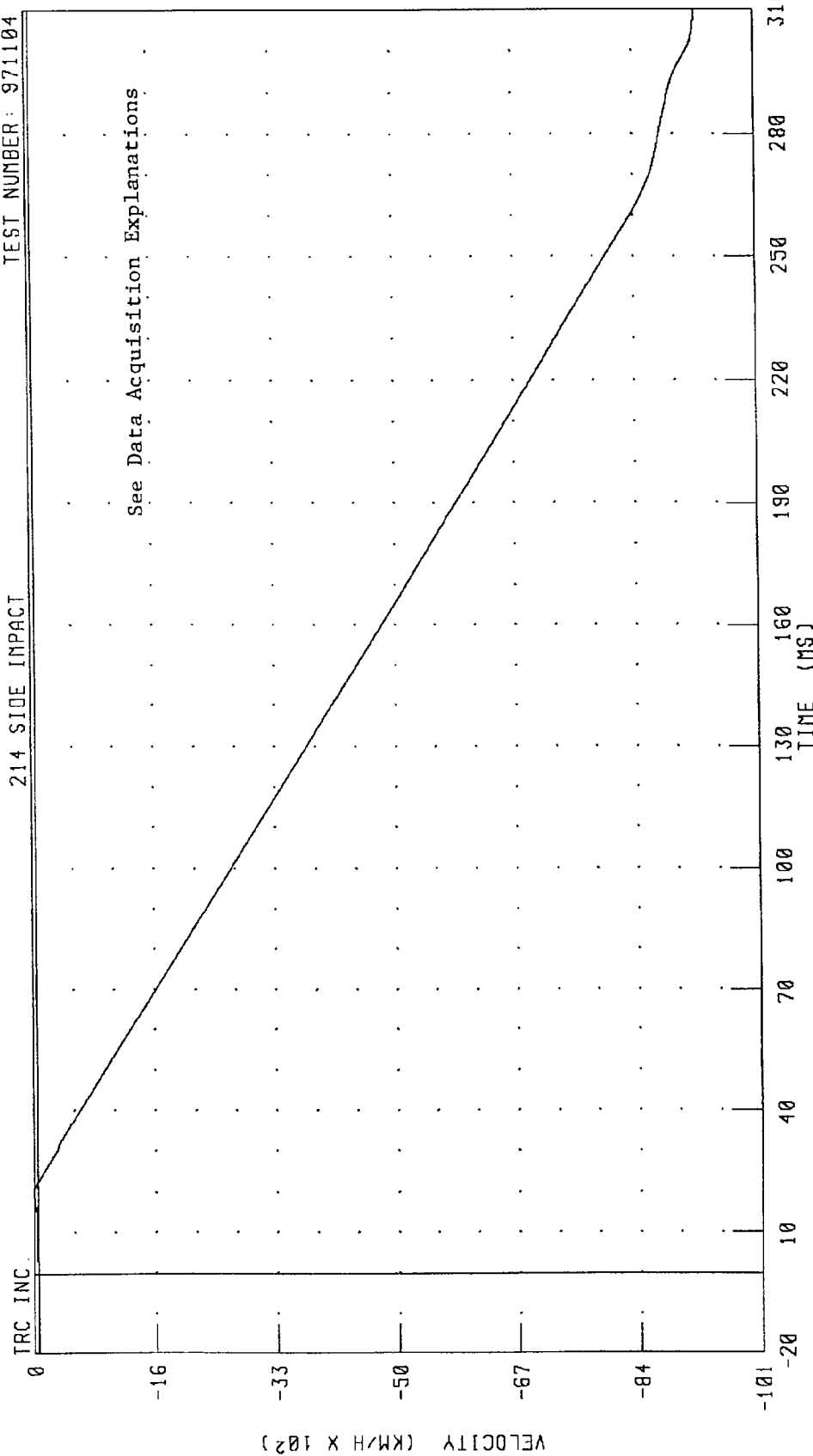
CHANNEL: L MAYG1 FILTER: CH. CLASS 60

PEAK DATA: 298.57 G @ 16.00 MS; -1049.30 G @ 25.36 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
UPPER A-POST Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

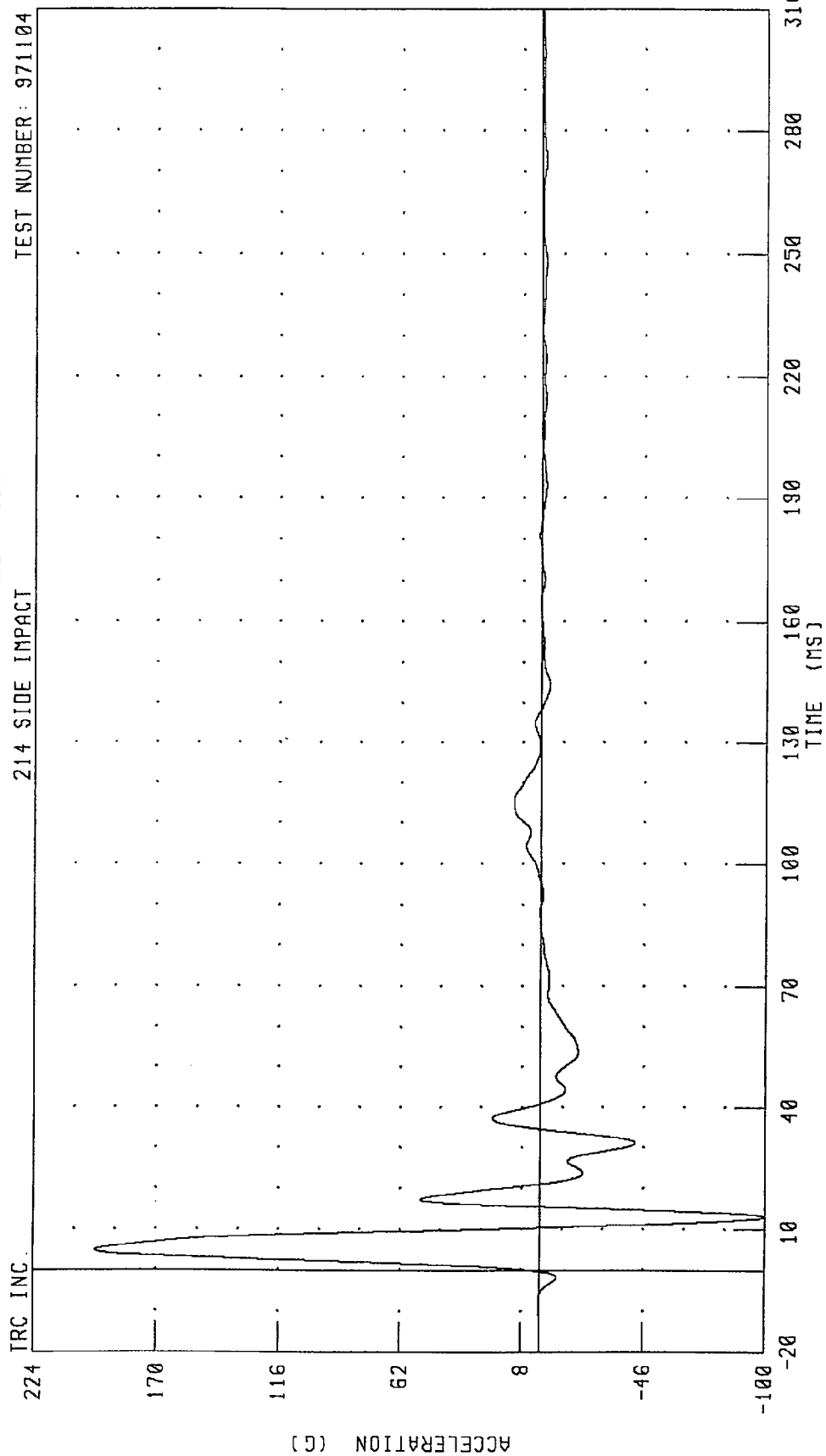


PEAK DATA: 50.83 KM/H @ 20.00 MS; -9323.73 KM/H @ 310.00 MS

CHANNEL: LMAYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LOWER B-POST Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104



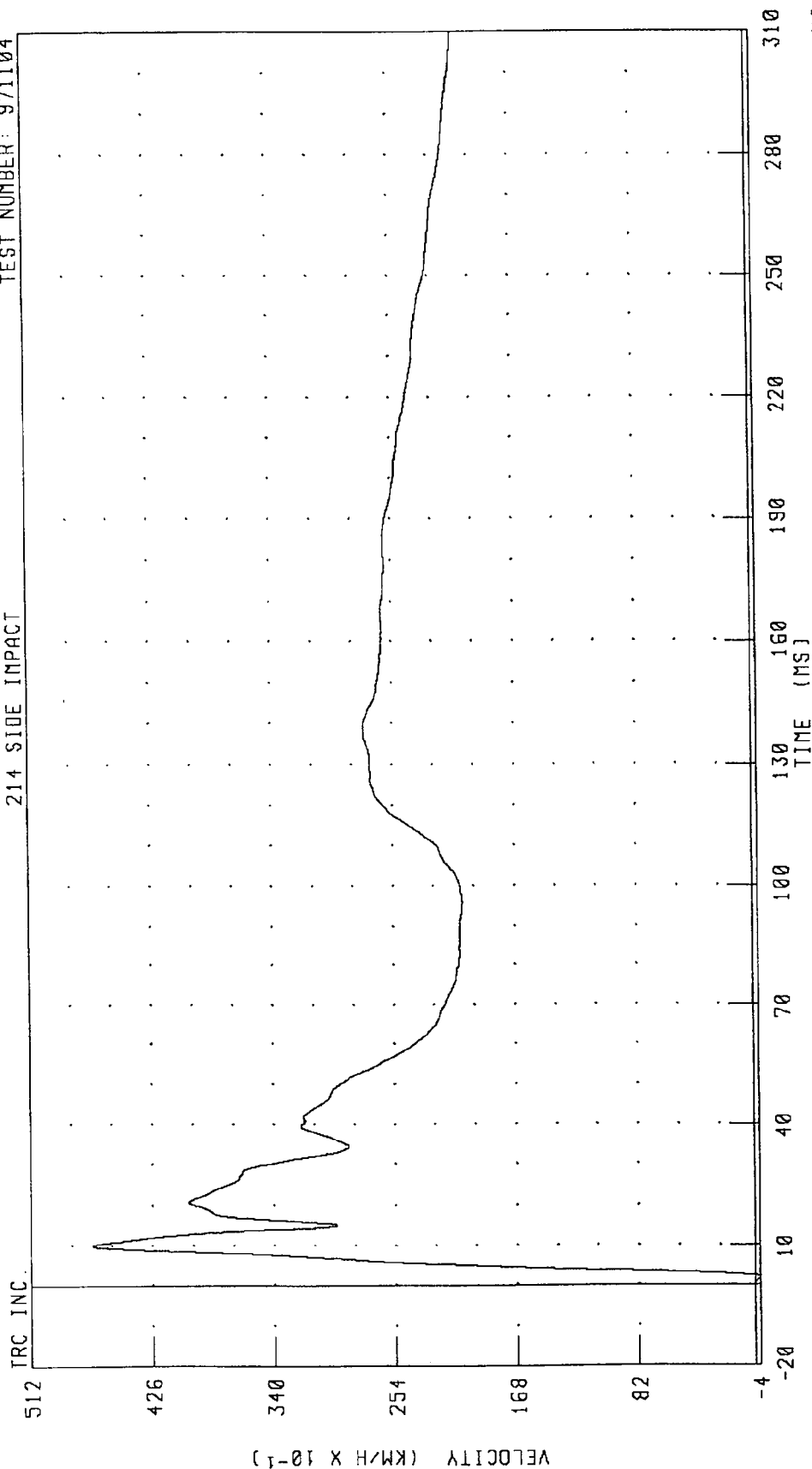
PEAK DATA: 196.92 G @ 4.72 MS; -99.46 G @ 13.04 MS

CHANNEL: LLBYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LOWER B-POST Y-AXIS VELOCITY

TEST NUMBER: 971104

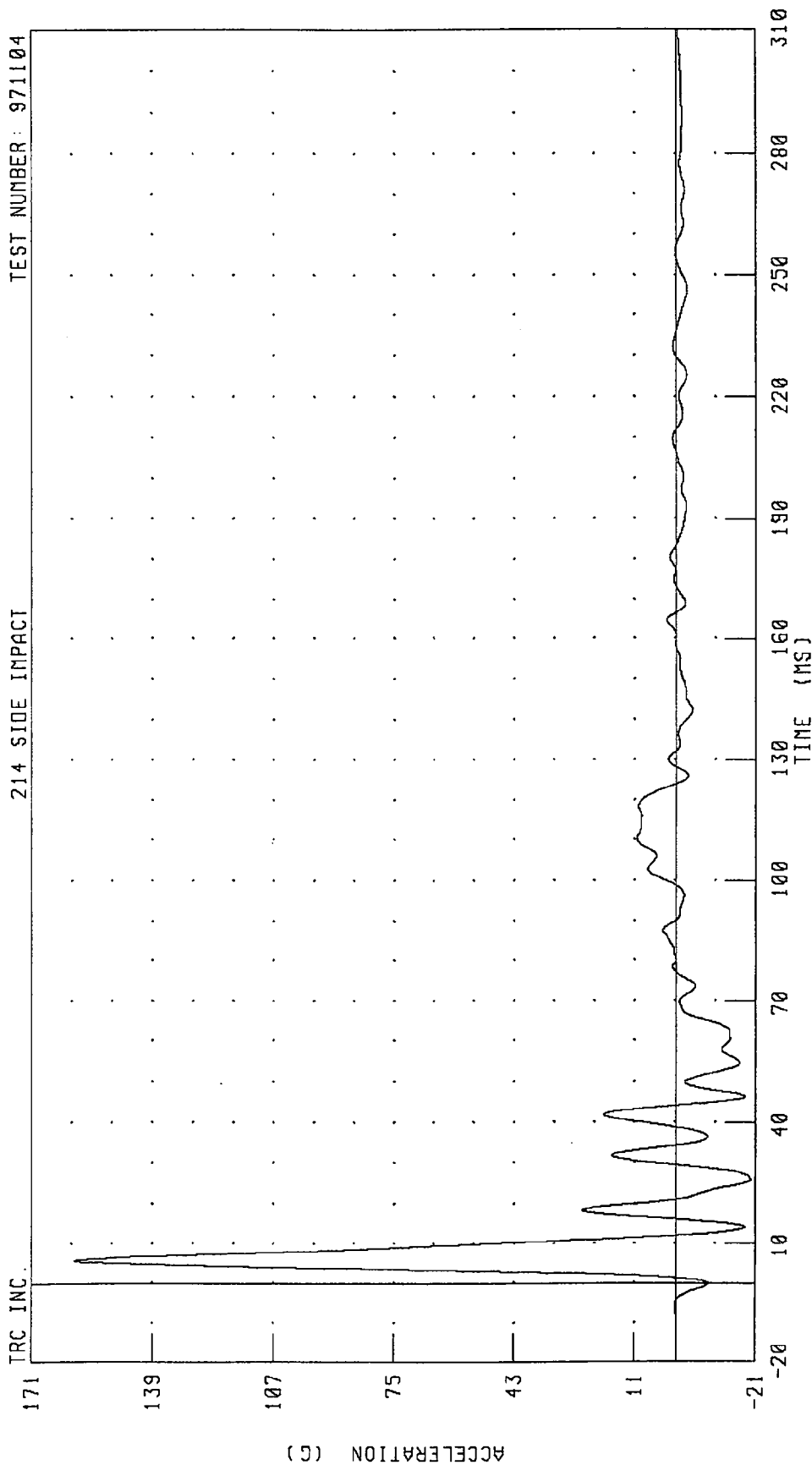
214 SIDE IMPACT



PEAK DATA: 46.85 KM/H @ 10.08 MS, -0.43 KM/H @ 1.84 MS

CHANNEL: LLBYV1 FILTER: CH. CLASS 180

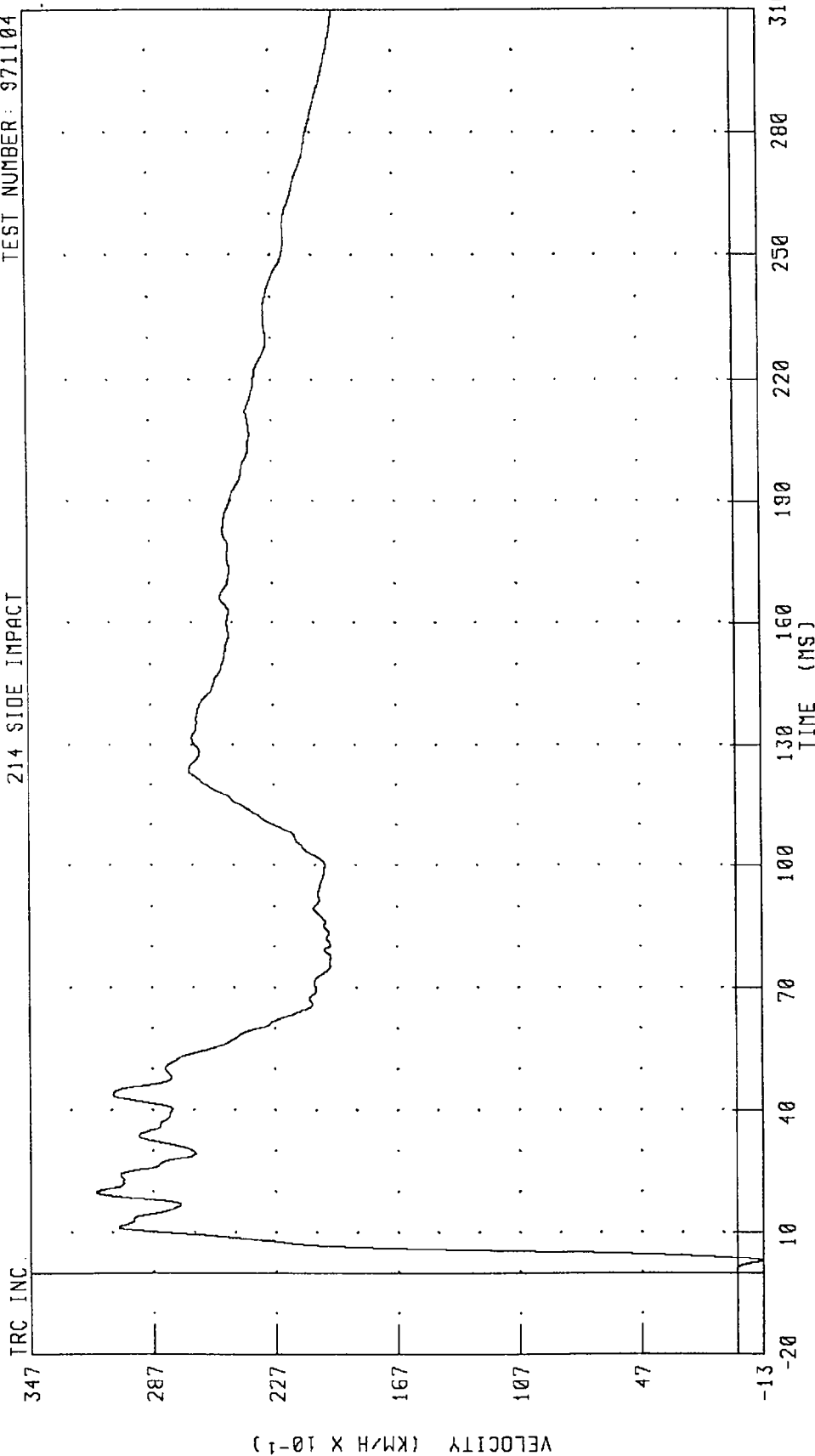
MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 UPPER B-POST Y-AXIS ACCELERATION
 214 SIDE IMPACT



CHANNEL: LMBYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 UPPER 8-POST Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



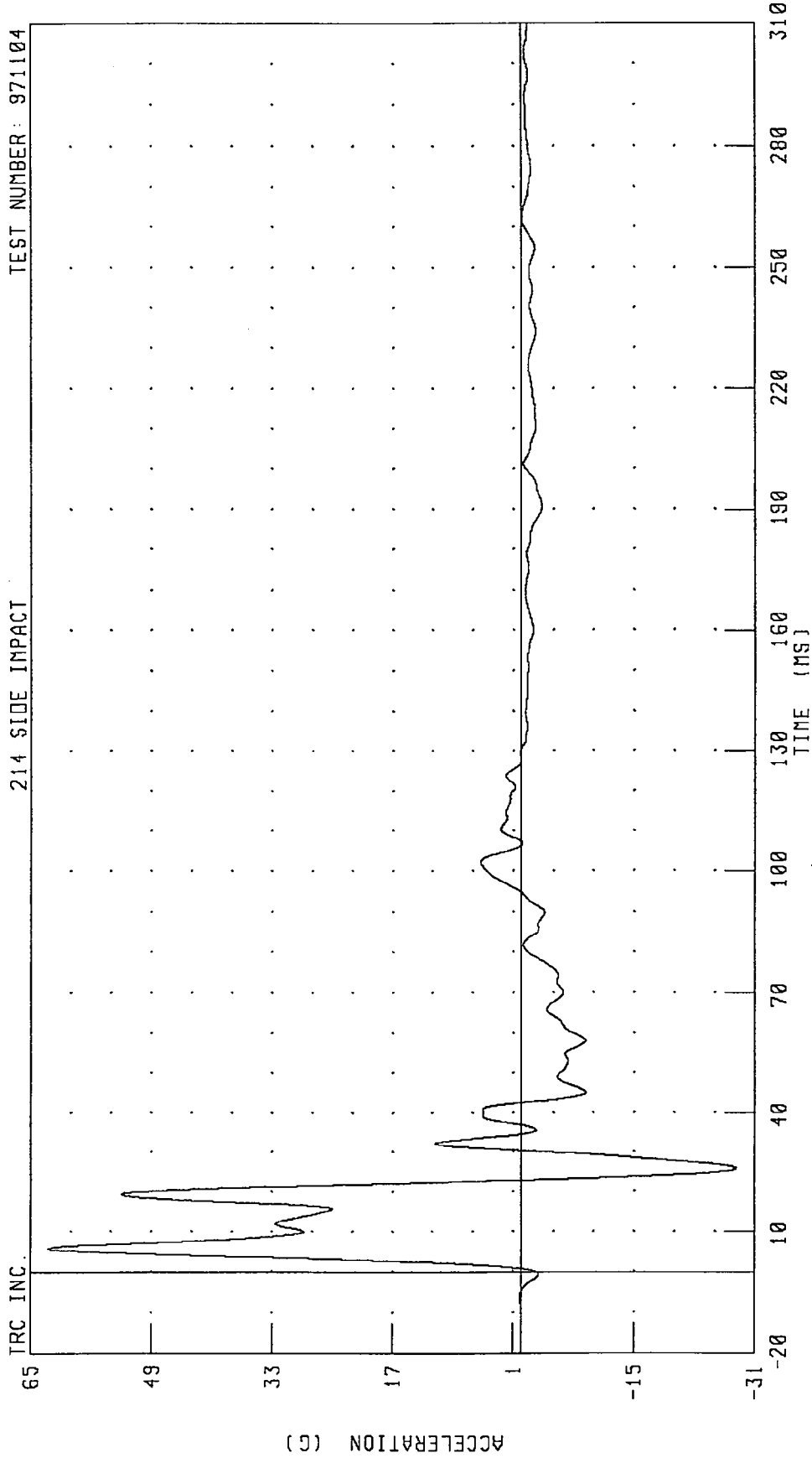
PEAK DATA: 31.49 KM/H @ 19.92 MS; -1.25 KM/H @ 2.96 MS

CHANNEL: LMBYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
FRONT SEAT TRACK Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 62.68 G @ 5.84 MS, -28.55 G @ 25.76 MS

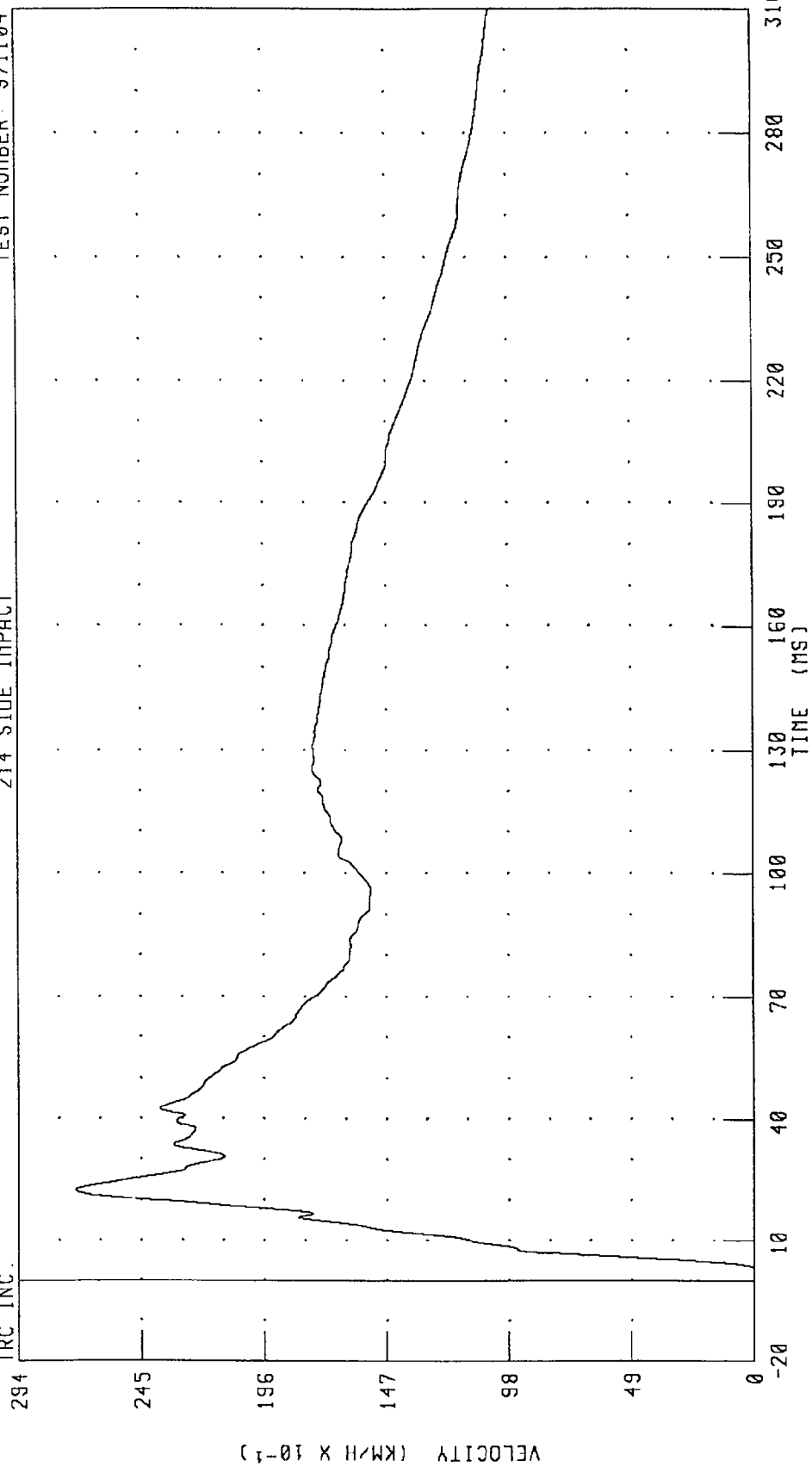
CHANNEL: LFTY61 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
FRONT SEAT TRACK Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: LFTYV1 FILTER: CH. CLASS 180

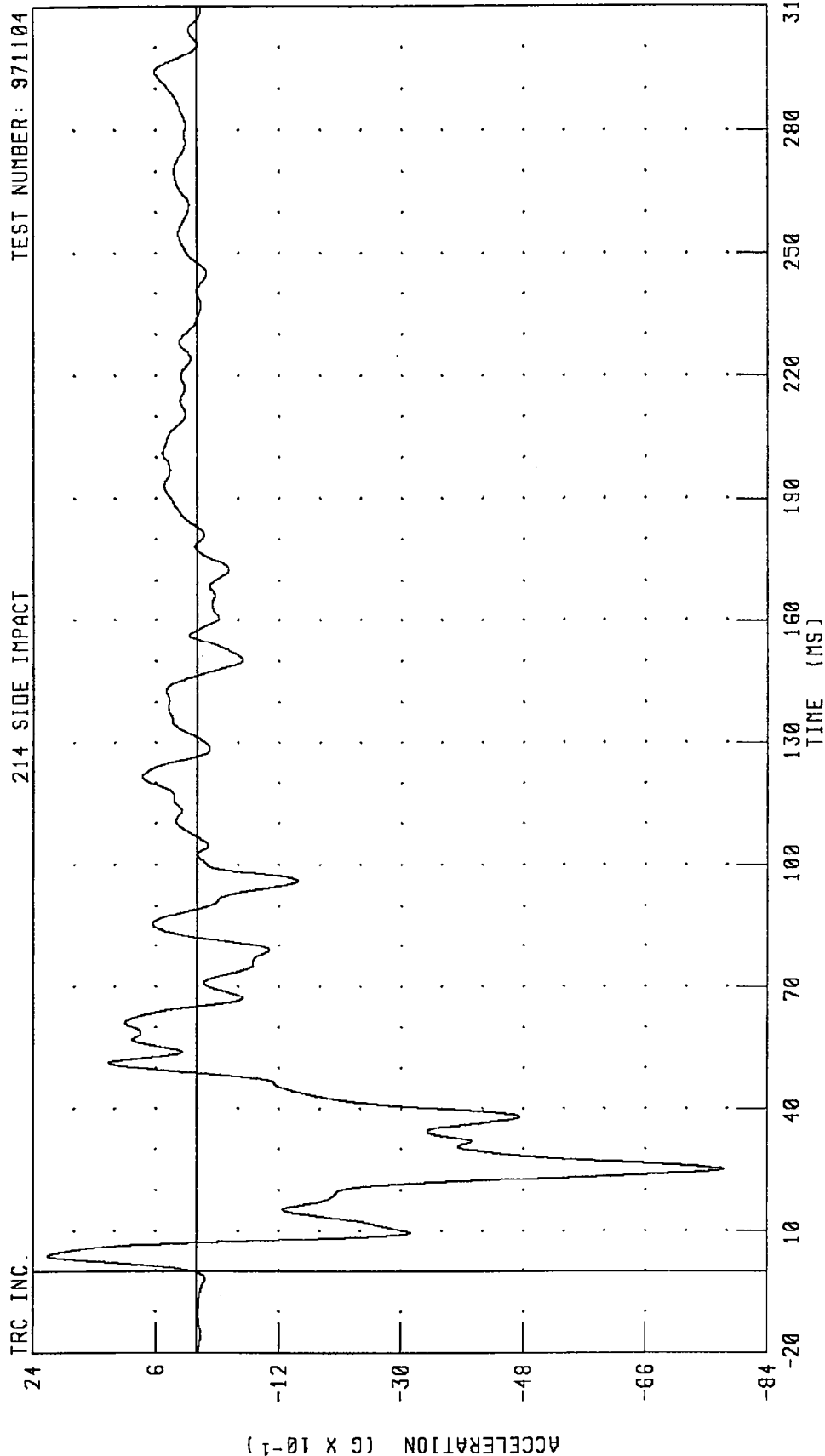
Vehicle Channel Rear Seat Track Y-Axis Accelerometer #17 Was Not Installed
(no accessible mounting location)

Vehicle Channel Rear Seat Track Y-Axis Accelerometer #17 Was Not Installed
(no accessible mounting location)

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

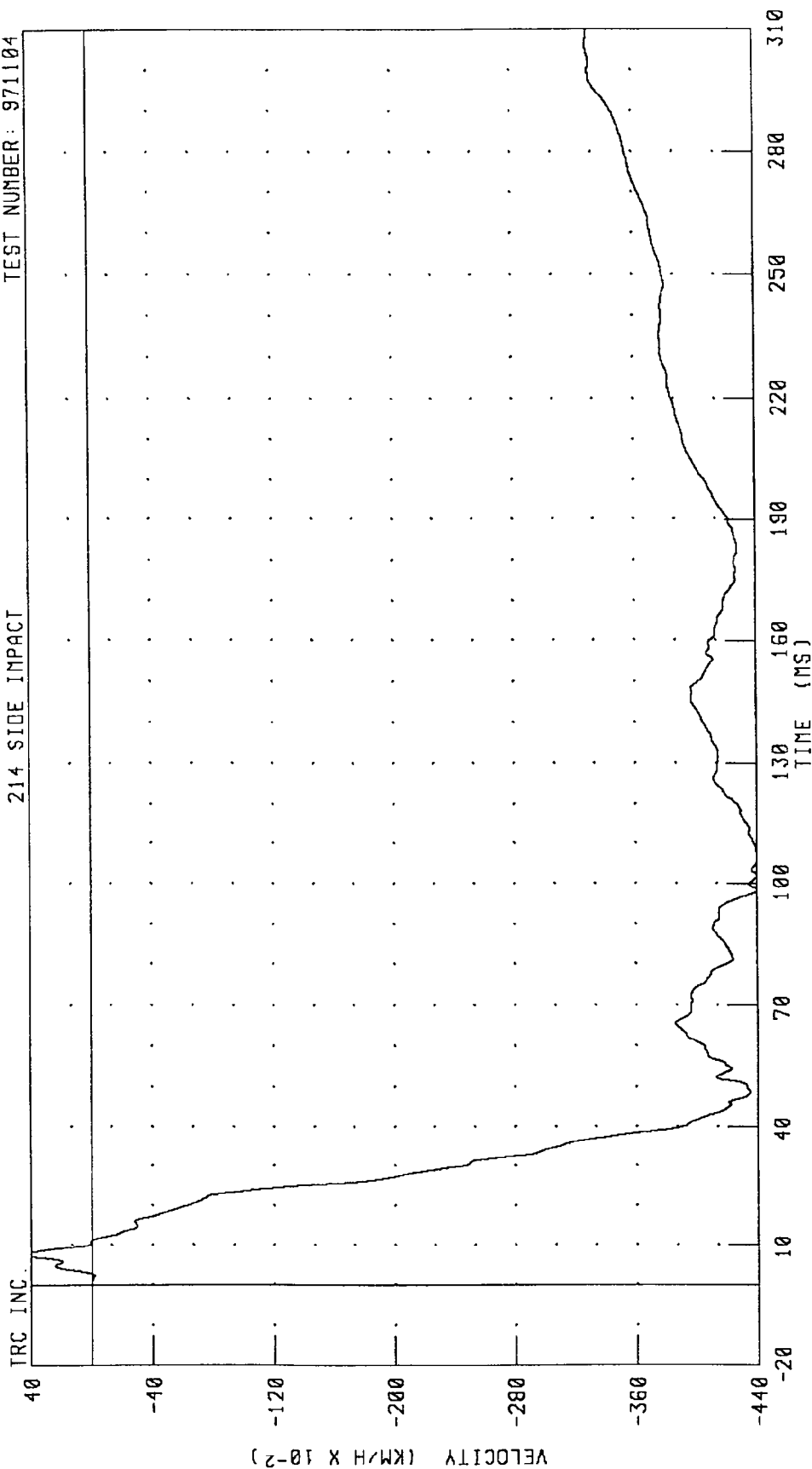


PEAK DATA: 2.18 G @ 3.84 MS; -7.75 G @ 25.20 MS

CHANNEL: VCGXG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



PEAK DATA: 0.44 KM/H @ 7.60 MS; -4.41 KM/H @ 98.32 MS

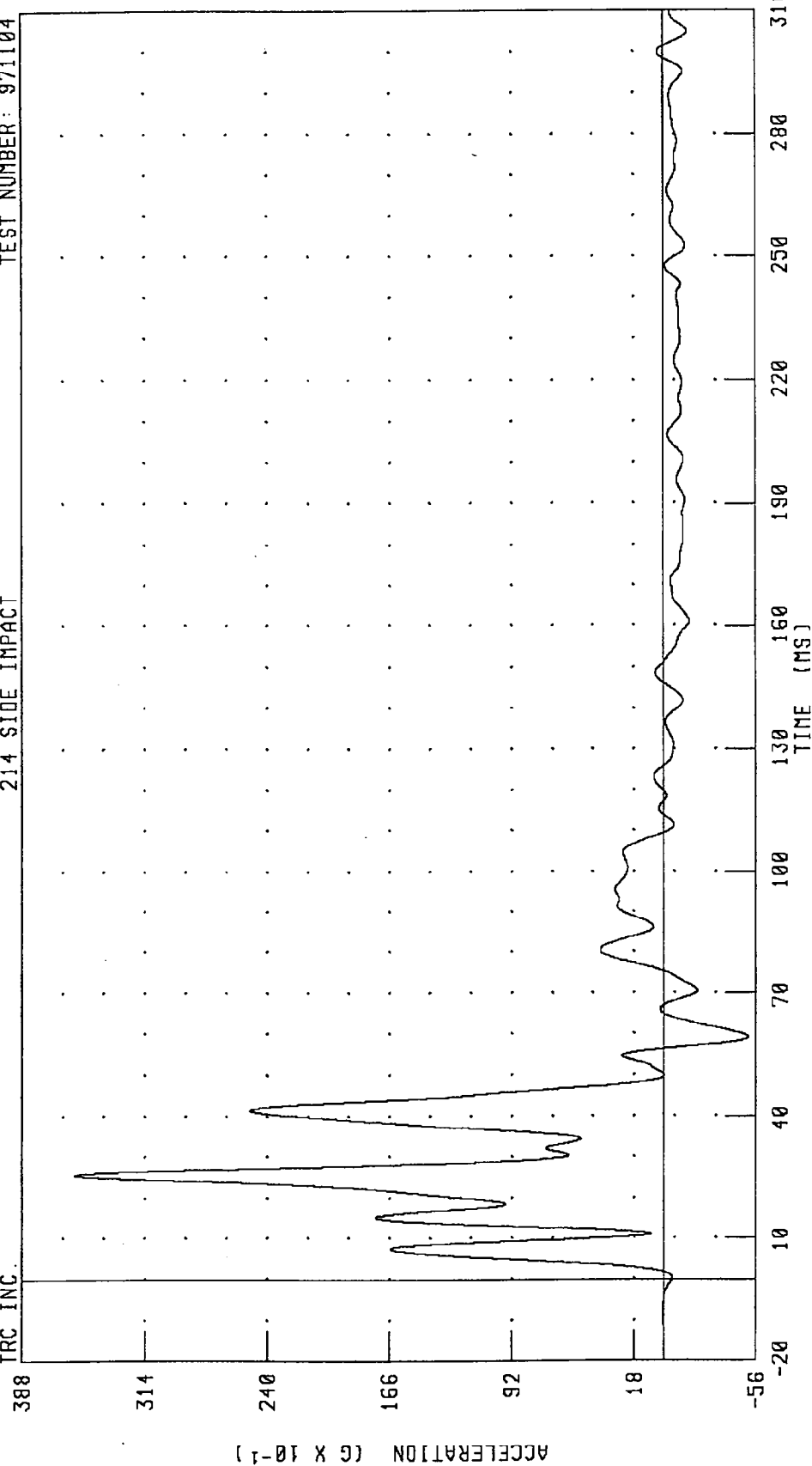
CHANNEL: VCGXV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

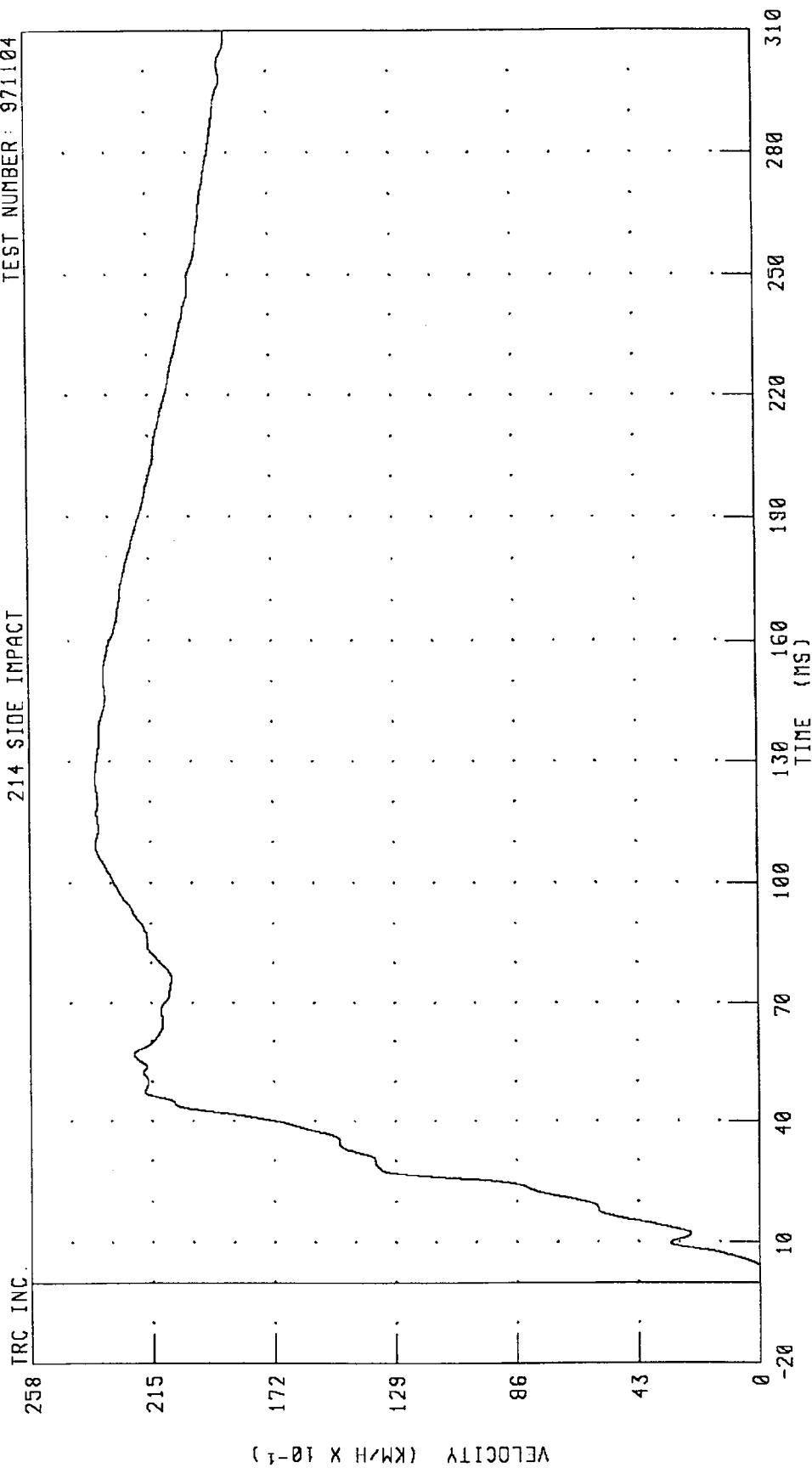


PEAK DATA: 35.56 G @ 25.68 MS; -5.14 G @ 59.04 MS

CHANNEL: VCGYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



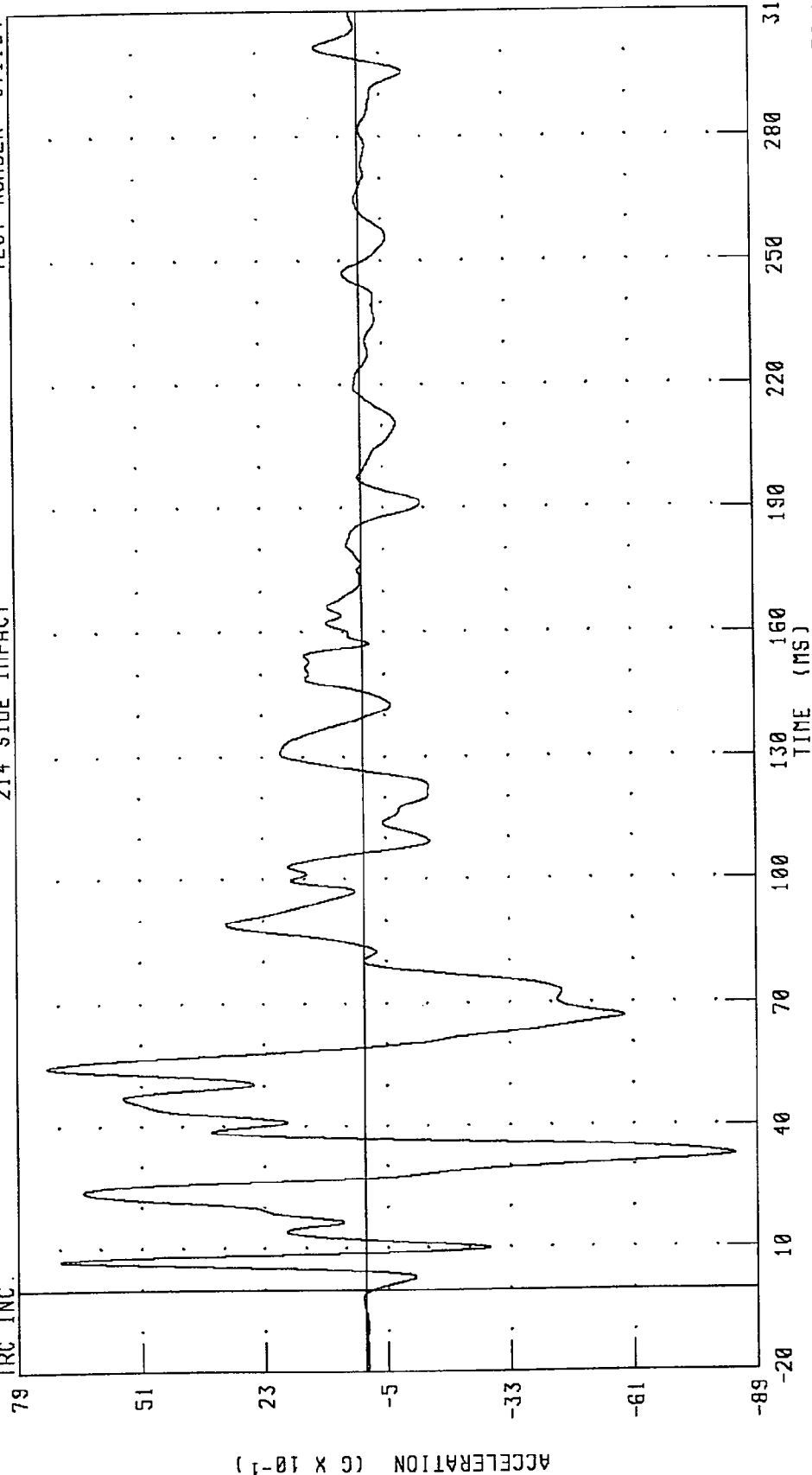
CHANNEL: VCGYV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



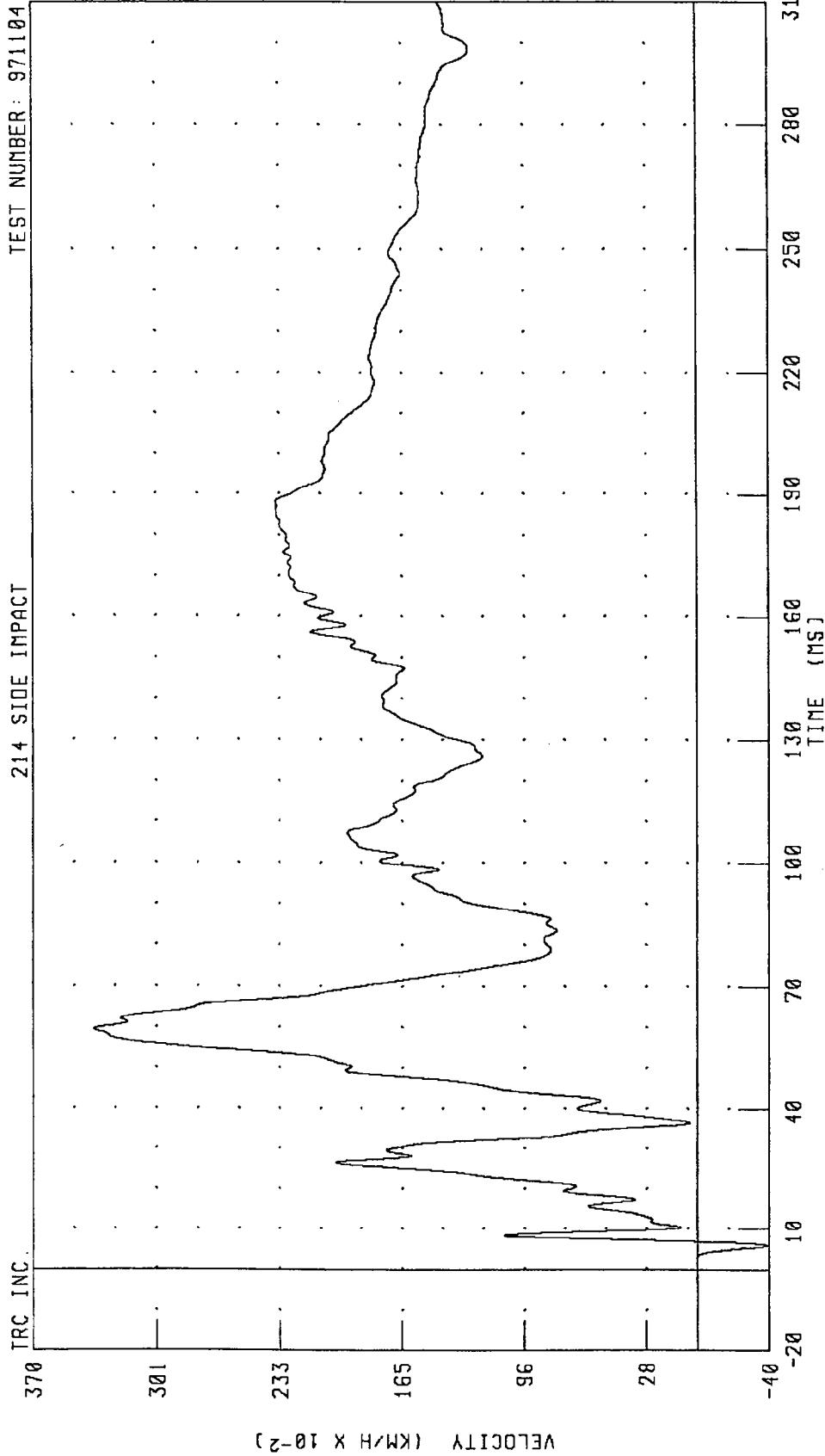
PEAK DATA: 7.22 G @ 54.56 MS; -8.39 G @ 32.56 MS

CHANNEL: VCGZG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



PEAK DATA: 3.36 KM/H @ 59.52 MS; -0.39 KM/H @ 5.92 MS

CHANNEL: VCGZV1 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

402

335

ACCELERATION (G X 10⁻¹)

268

201

134

67

0

-20

10

40

70

100

130

160

190

220

250

280

310

TIME (MS)

CHANNEL: VCGRG1 FILTER: CH. CLASS 60

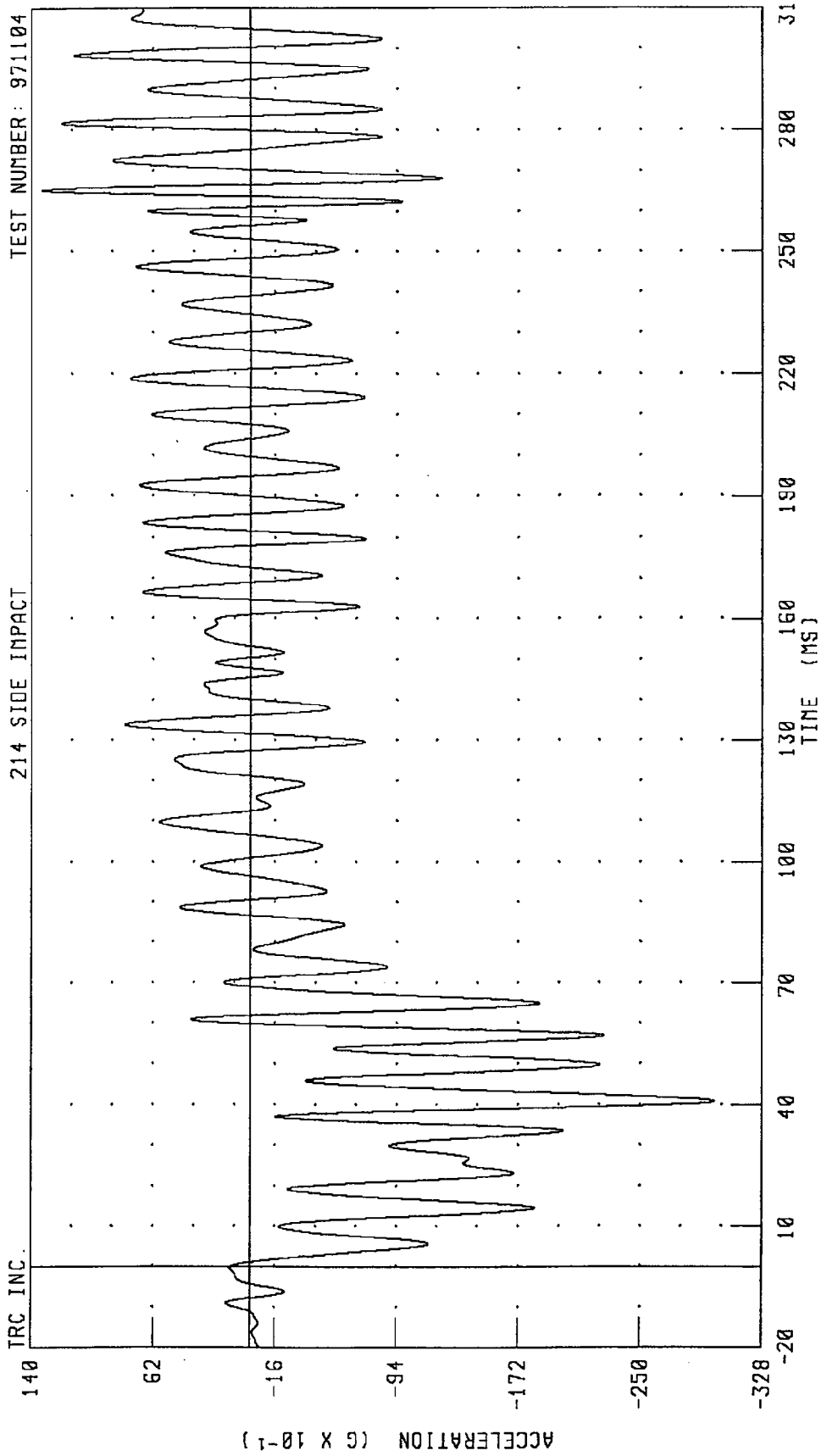
PEAK DATA: 36.59 G @ 25.60 MS; 0.03 G @ -20.00 MS

MDB Instrumentation Plots
Acceleration Data - Filter Class 60
Integration Data - Filter Class 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 MOVING DEFORMABLE BARRIER CENTER OF GRAVITY X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



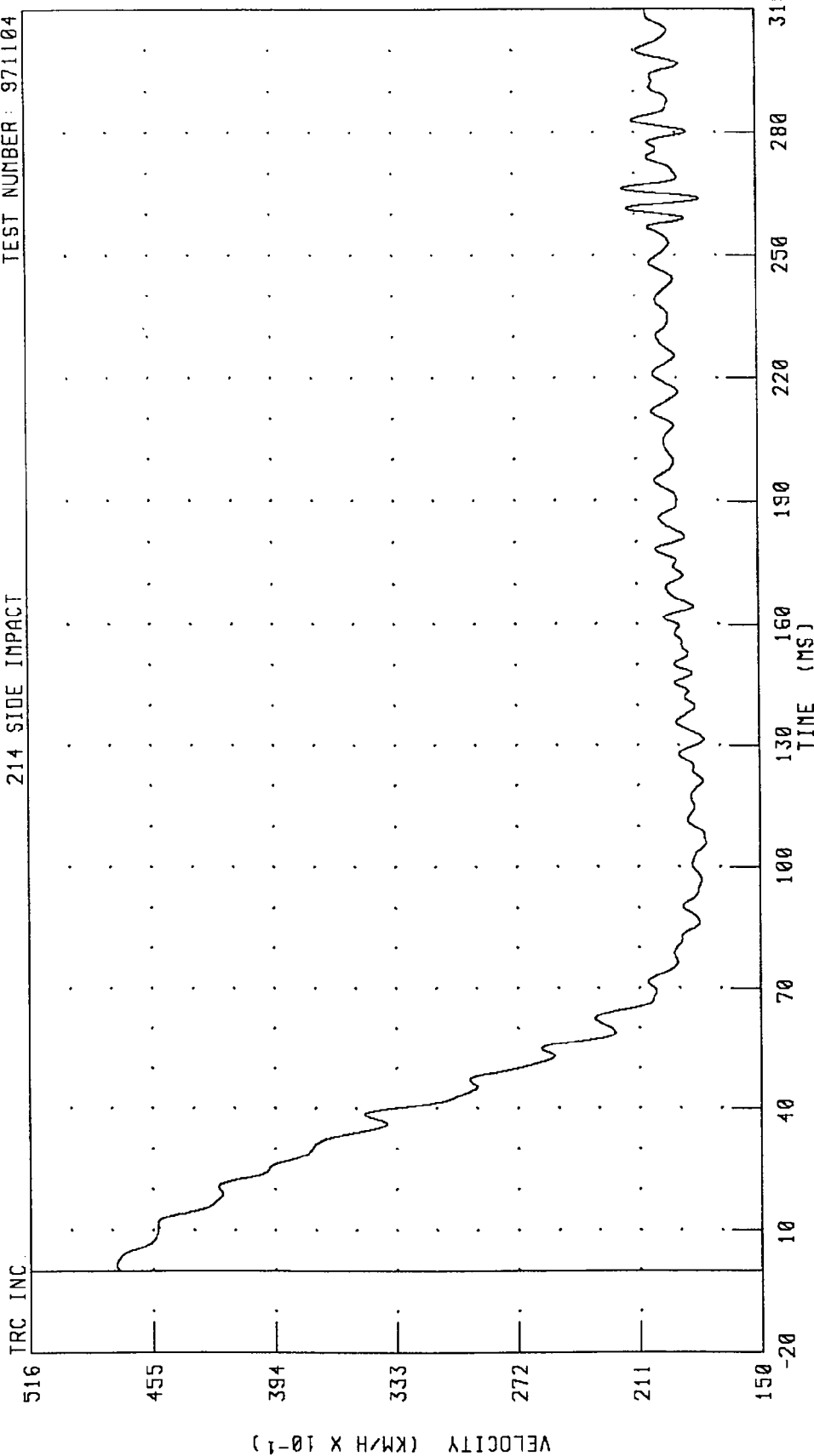
CHANNEL: BCGXG1 FILTER: CH. CLASS 60

PEAK DATA: 13.31 G @ 265.12 MS; -29.72 G @ 40.88 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 MOVING DEFORMABLE BARRIER CENTER OF GRAVITY X-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: BCGXV1 FILTER: CH. CLASS 180

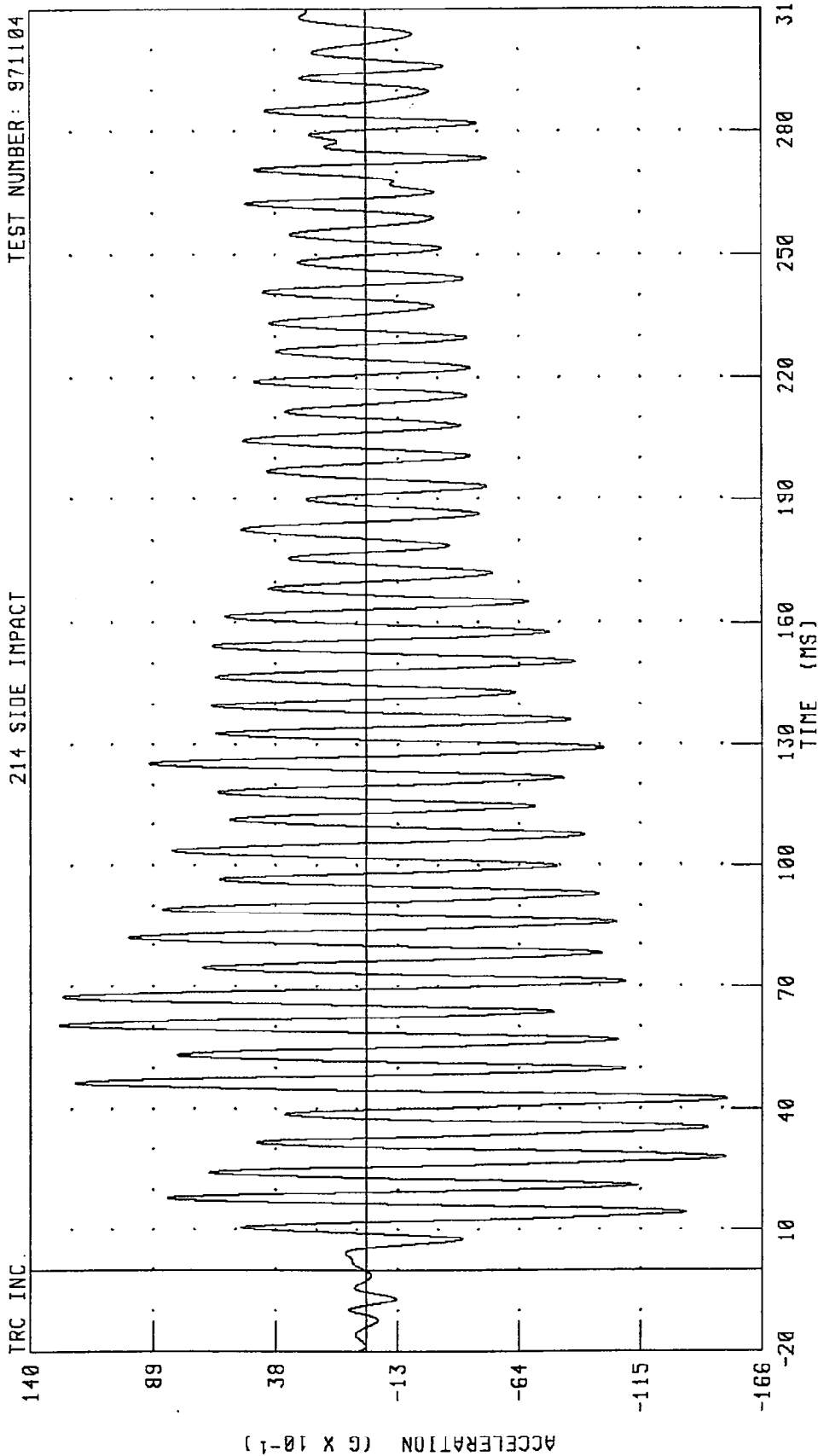
PEAK DATA: 47.33 KM/H @ 1.20 MS; 17.71 KM/H @ 105.92 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 MOVING DEFORMABLE BARRIER CENTER OF GRAVITY Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: BCGYG1 FILTER: CH. CLASS 60

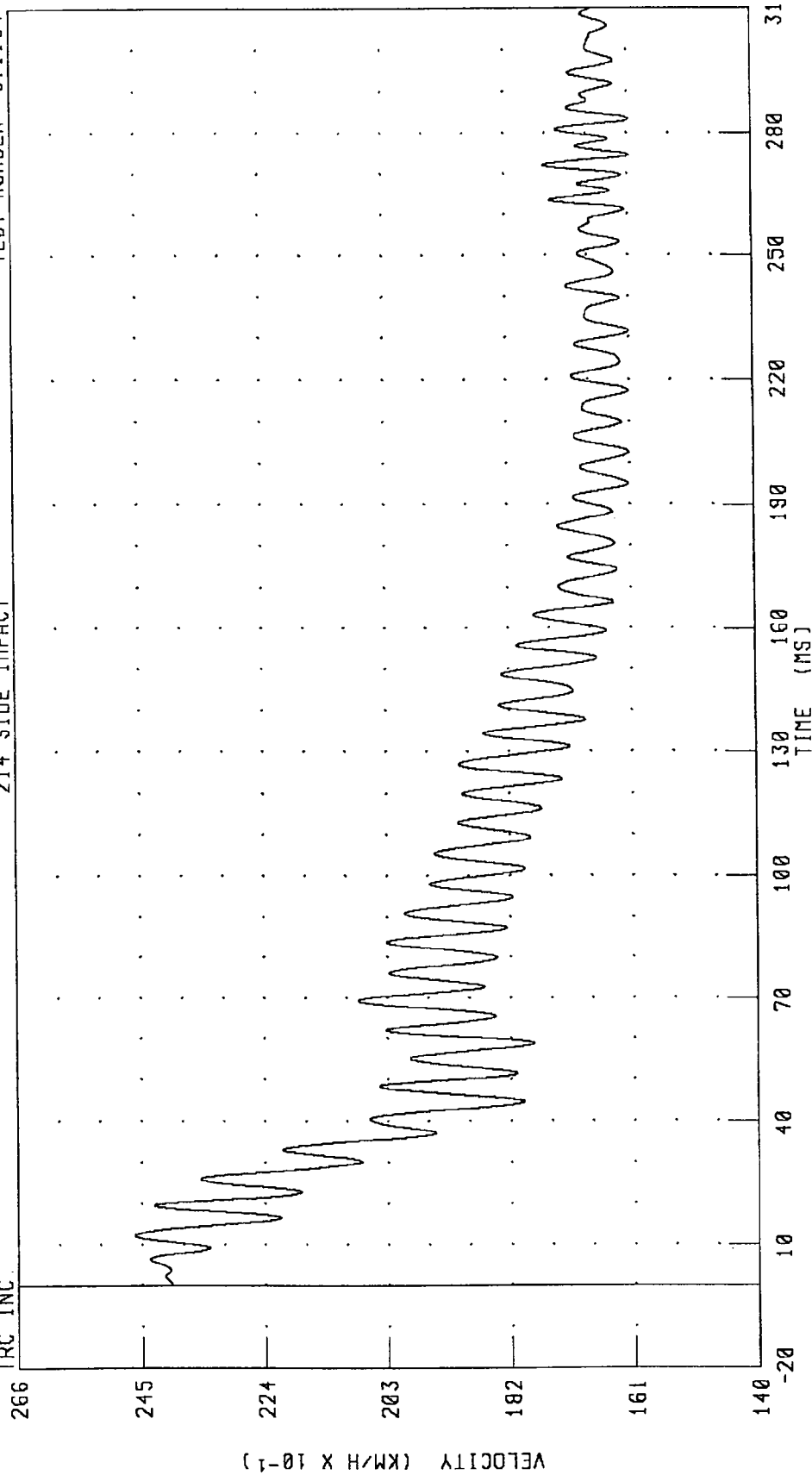
PEAK DATA: 12.78 G @ 60.40 MS; -15.13 G @ 42.48 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER CENTER OF GRAVITY Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



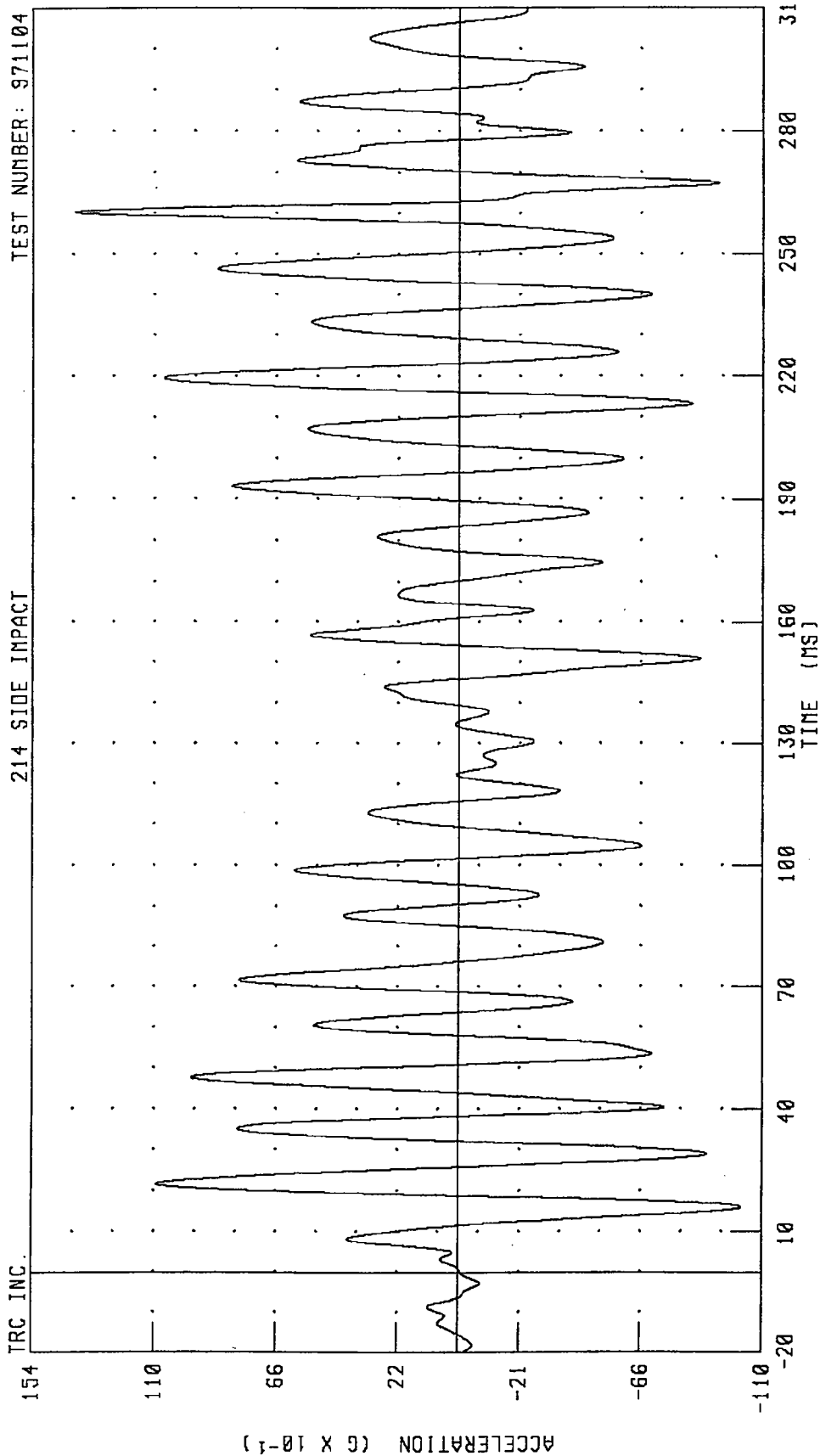
CHANNEL: BCGYV1 FILTER: CH. CLASS 180

PEAK DATA: 24.62 KM/H @ 12.32 MS, 16.07 KM/H @ 274.56 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER CENTER OF GRAVITY Z-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



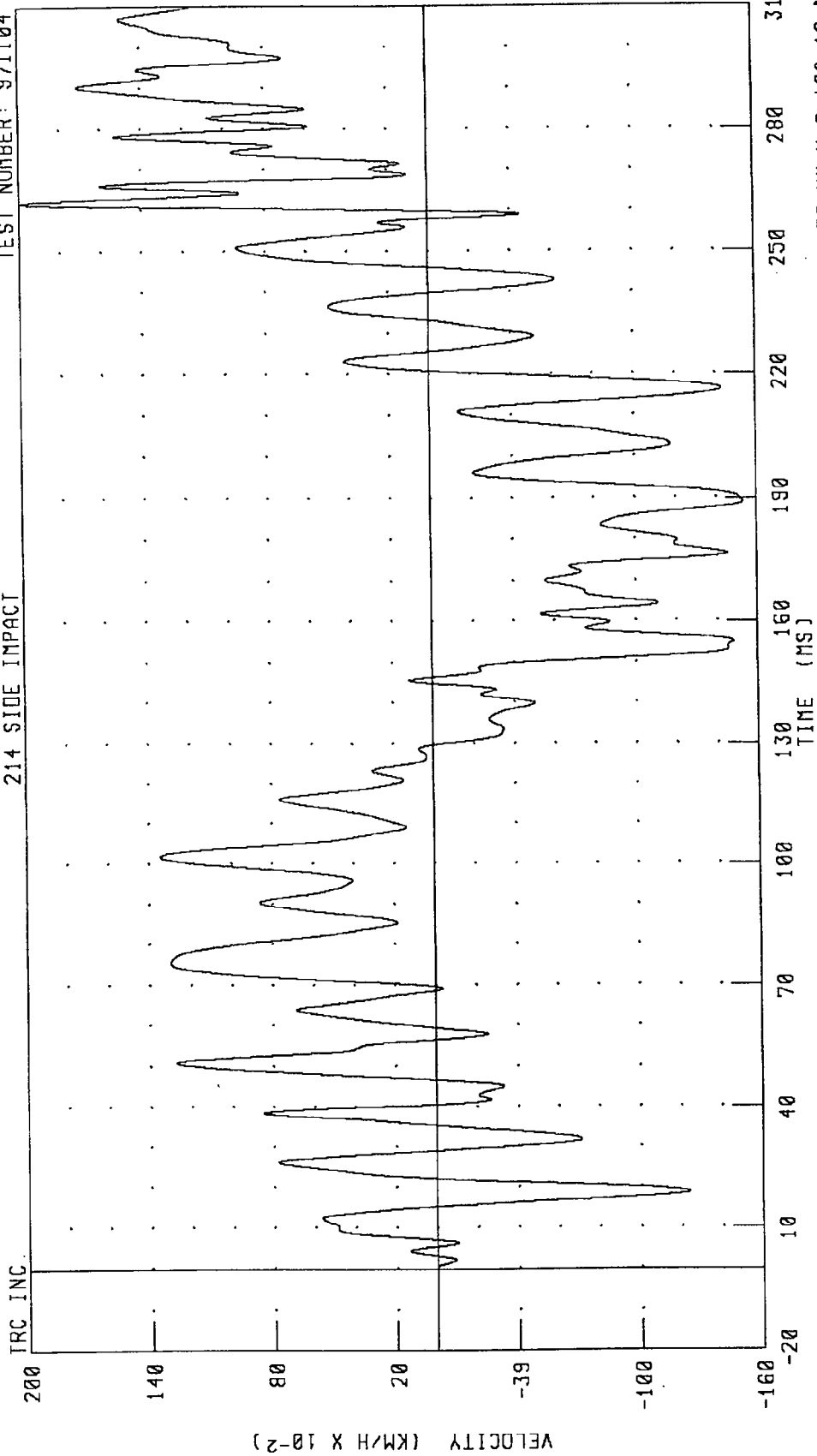
CHANNEL: BCGZG1 FILTER: CH. CLASS 60

PEAK DATA: 13.87 G @ 260.32 MS; -10.24 G @ 16.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER CENTER OF GRAVITY Z-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: BCGZV1 FILTER: CH. CLASS 180

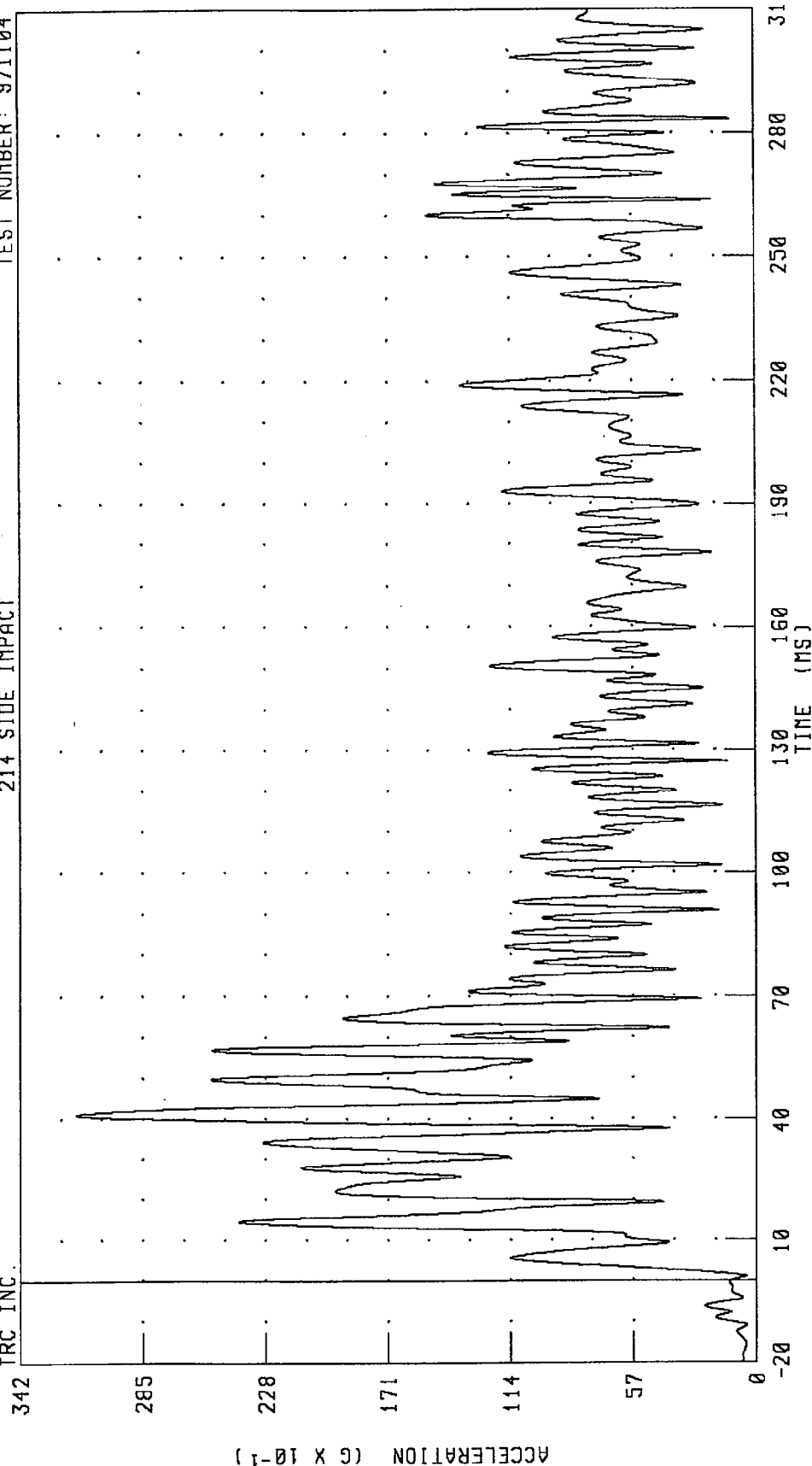
PEAK DATA: 1.99 KM/H @ 261.84 MS; -1.53 KM/H @ 189.12 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 MOVING DEFORMABLE BARRIER CENTER OF GRAVITY RESULTANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: BCGRG1 FILTER: CH. CLASS 60

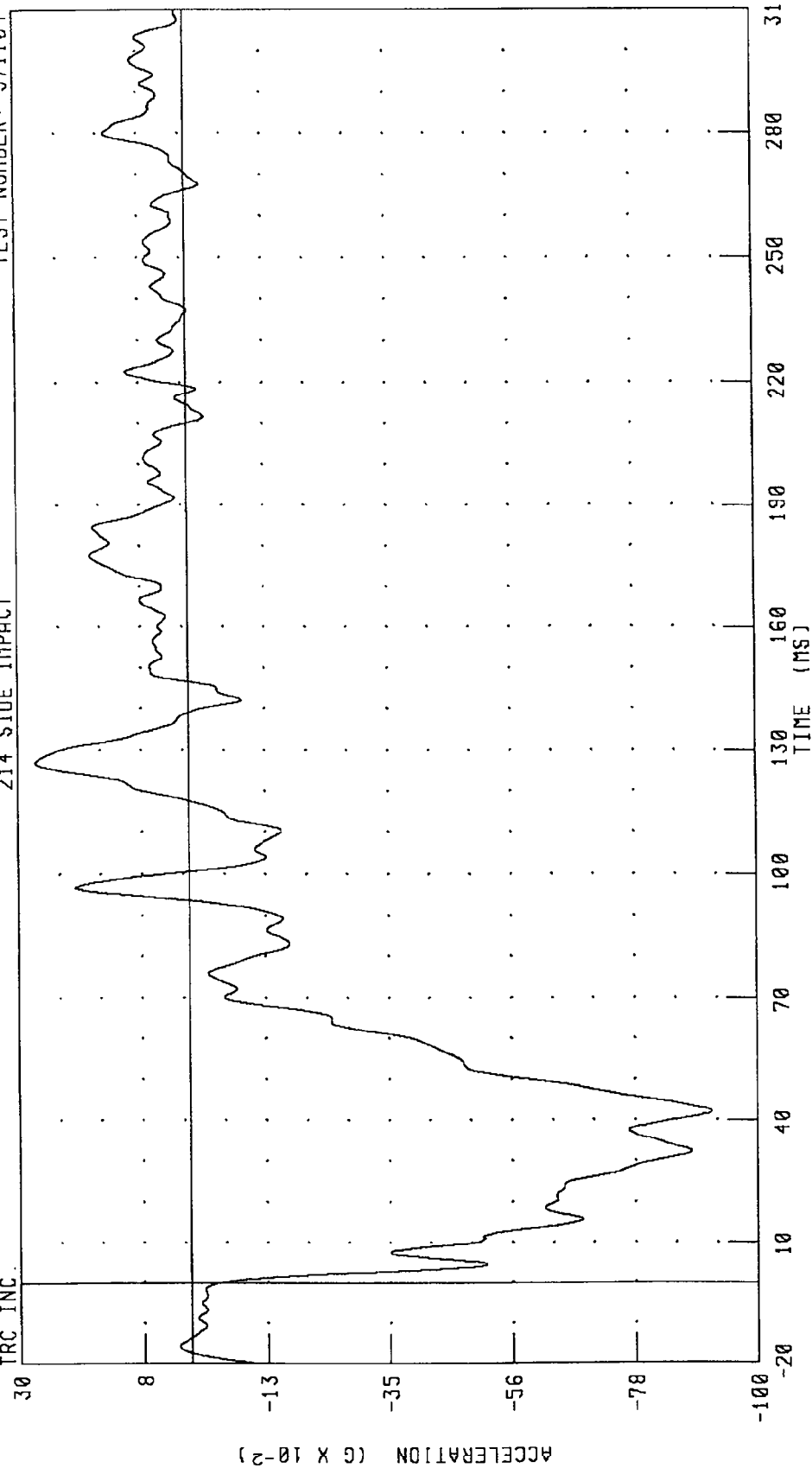
PEAK DATA: 31.58 G @ 41.12 MS; 0.45 G @ 0.88 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER REAR X-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

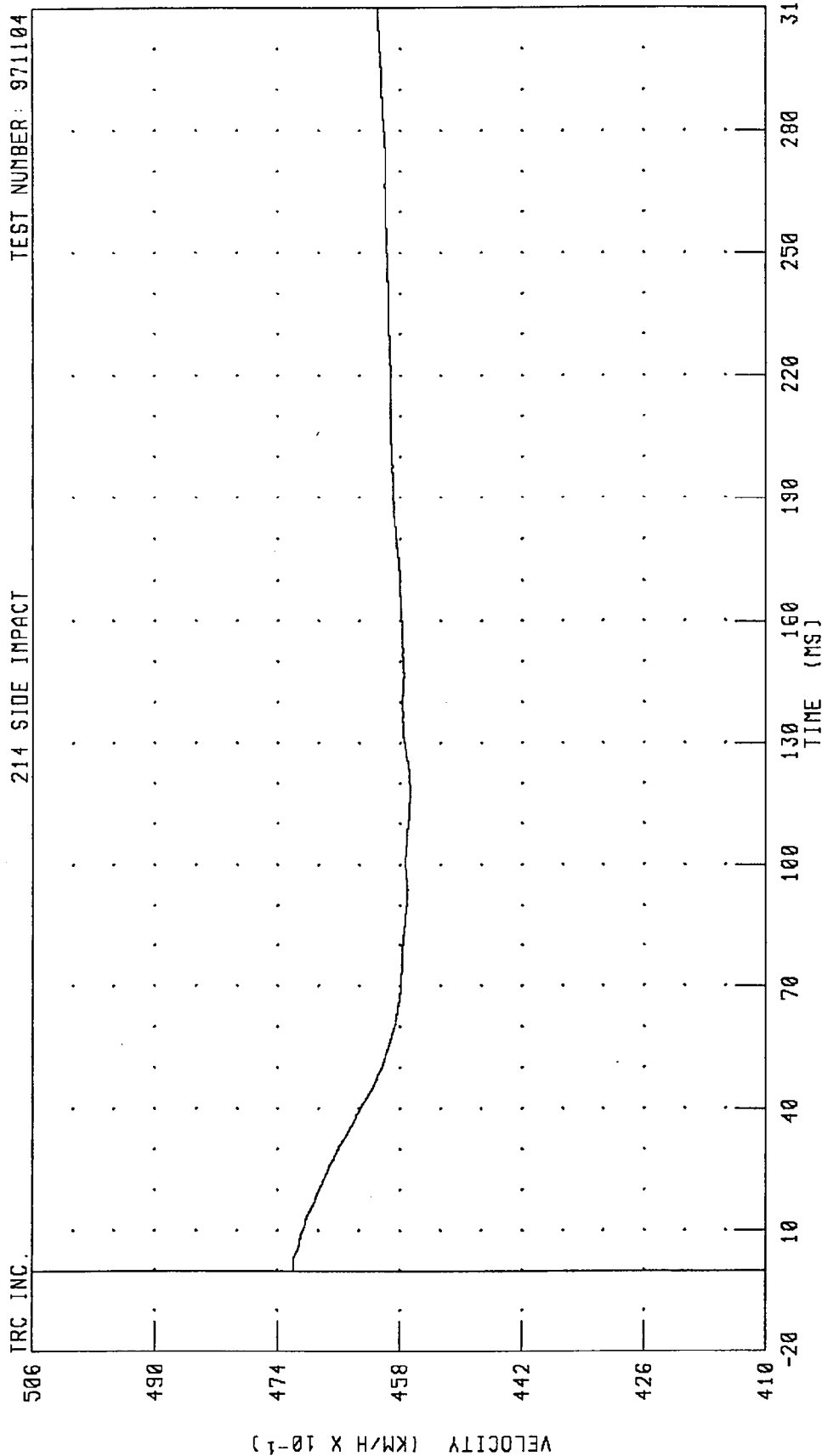


CHANNEL: LRRXG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER REAR X-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



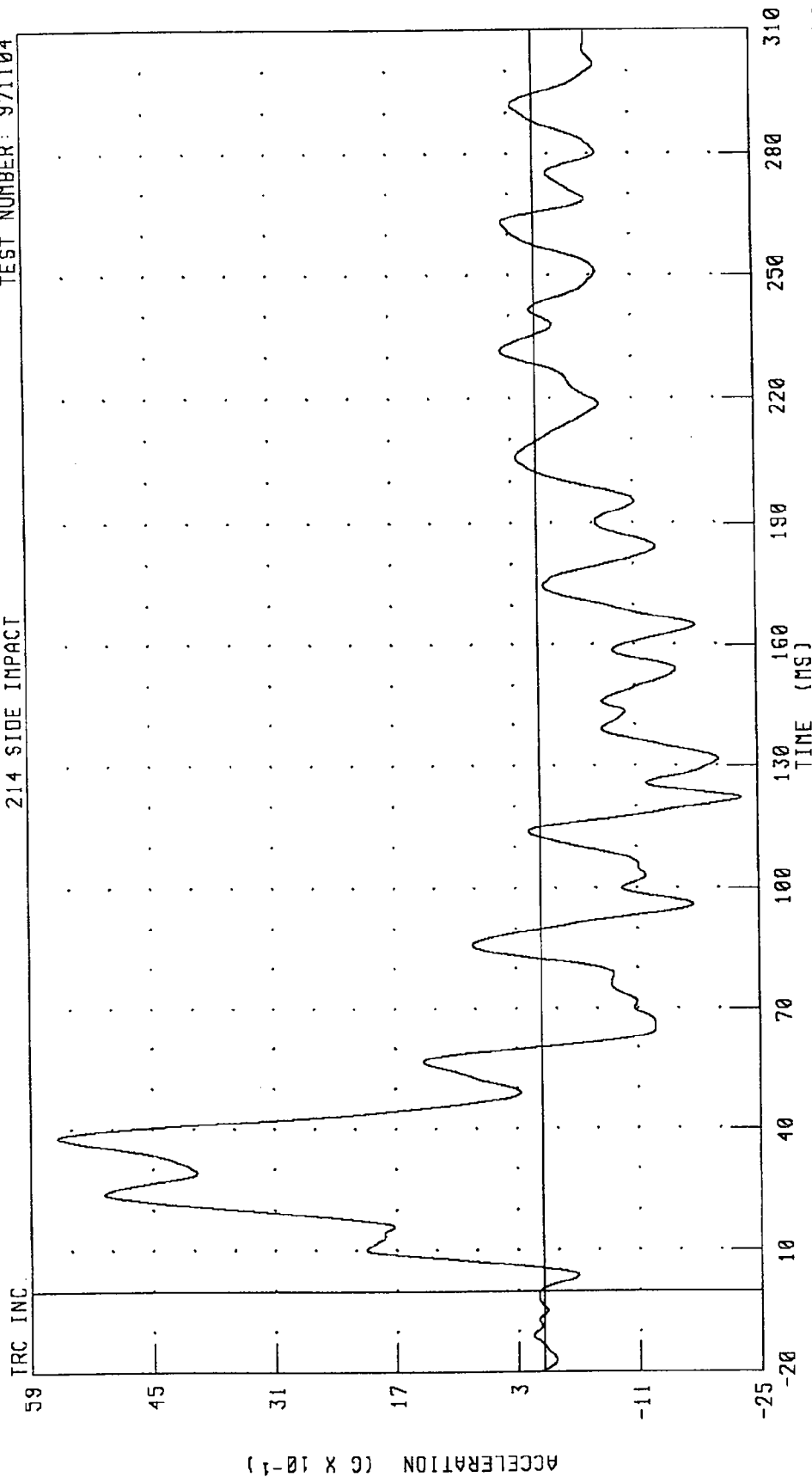
CHANNEL: LRRXV1 FILTER: CH. CLASS 180

PEAK DATA: 47.20 KM/H @ 0.00 MS; 45.67 KM/H @ 119.04 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER REAR Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



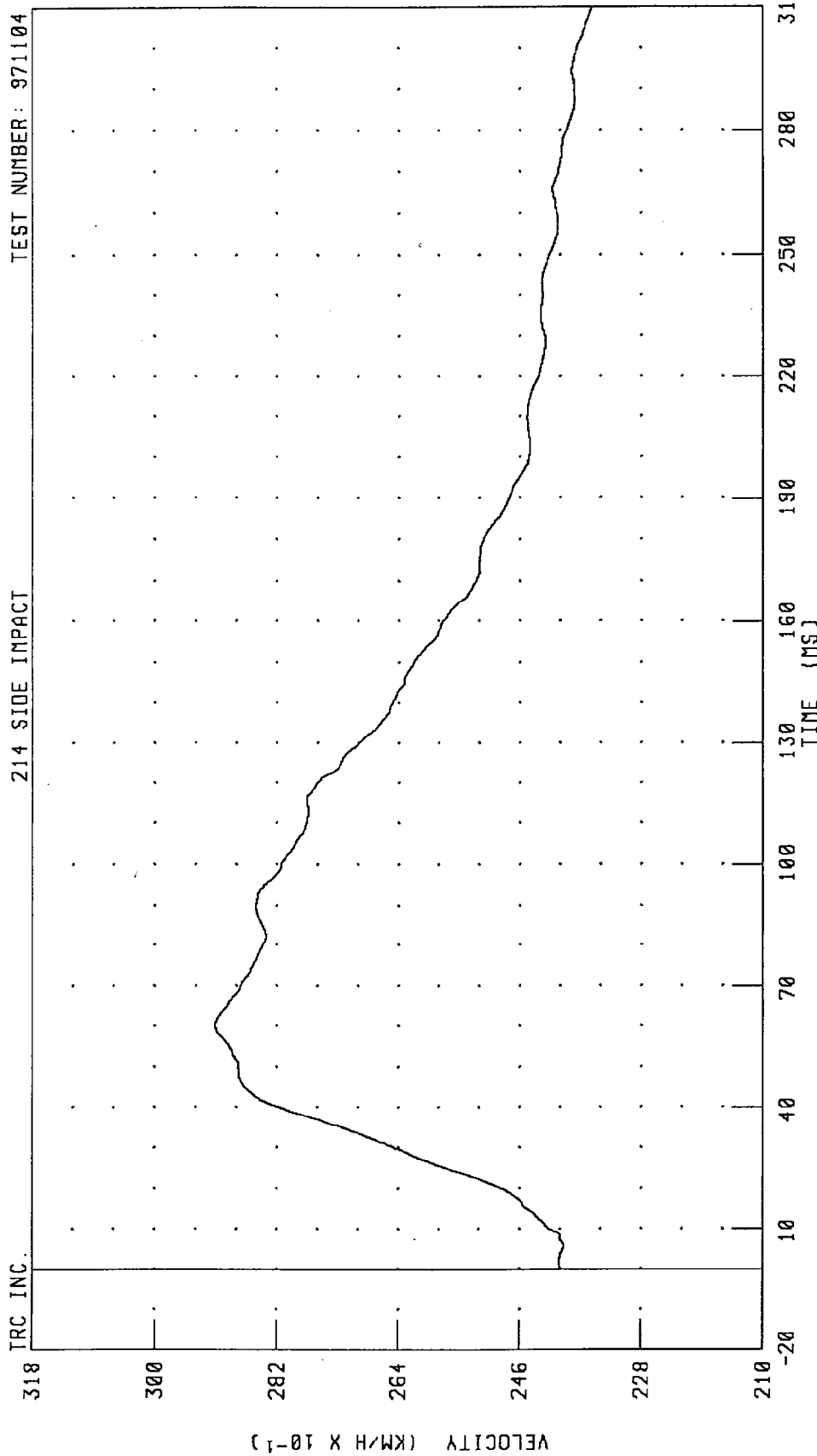
PEAK DATA: 5.59 G @ 37.76 MS; -2.31 G @ 122.08 MS

CHANNEL: LRRYG1 FILTER: CH. CLASS 60

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
MOVING DEFORMABLE BARRIER REAR Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: LRRYV1 FILTER: CH. CLASS 180

PEAK DATA: 29.11 KM/H @ 60.24 MS; 23.53 KM/H @ 310.00 MS

Driver and Passenger Dummy Instrumentation Plots
Acceleration Data - FIR Filtered - Primary

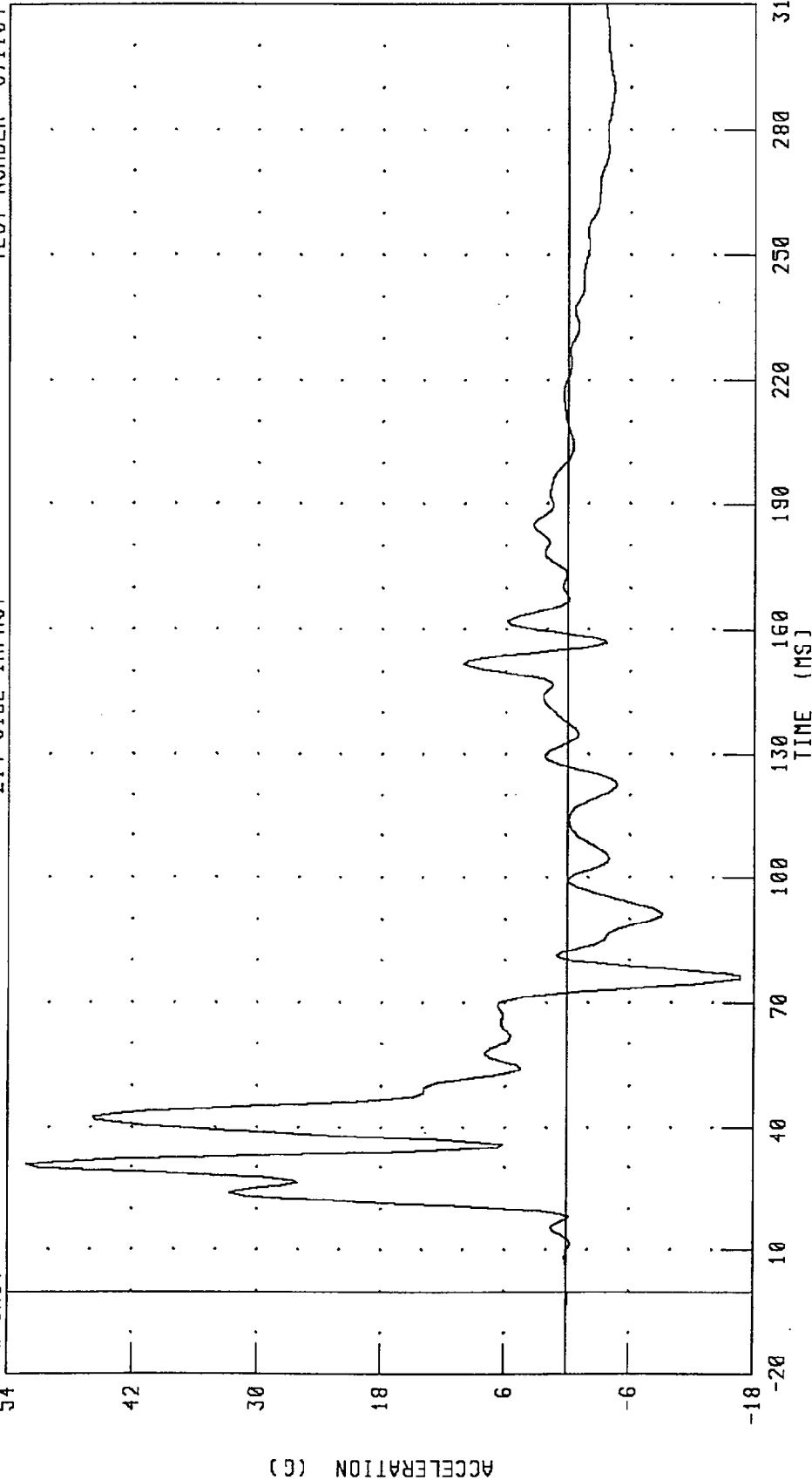
MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER UPPER RIB Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

54



CHANNEL: LURYGI FILTER: FIR 100

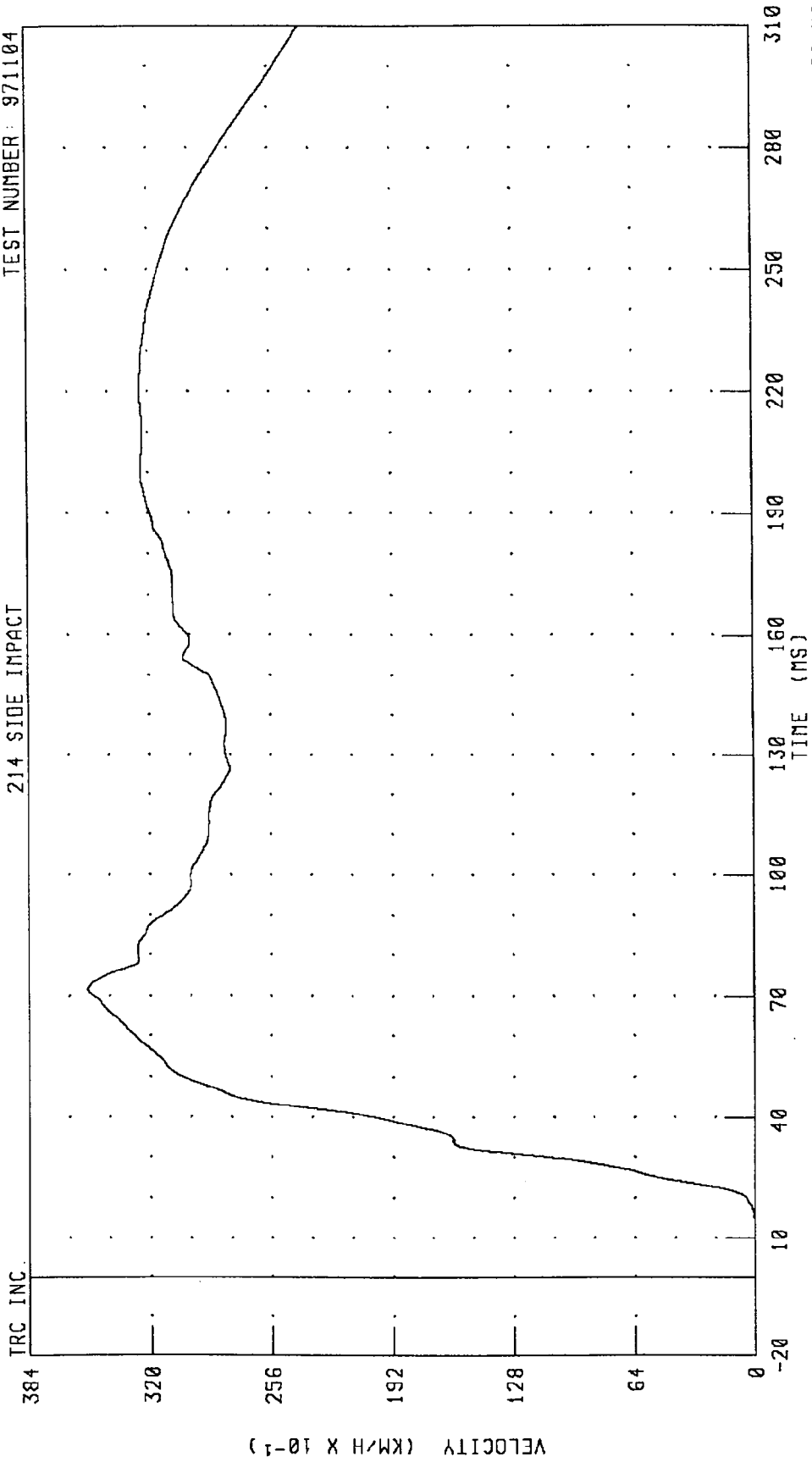
PEAK DATA: 52.18 G @ 30.62 MS; -16.69 G @ 76.25 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1988 MAZDA 626

DRIVER UPPER RIB Y-AXIS VELOCITY

214 SIDE IMPACT

TEST NUMBER: 971104



PEAK DATA: 35.30 KM/H @ 71.60 MS; 0.00 KM/H @ 3.20 MS

CHANNEL: LURYV1 FILTER: CH. CLASS 180

TRC INC.

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER RIB Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

IRC INC.

63

50

37

24

11

-2

-15

ACCELERATION (G)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

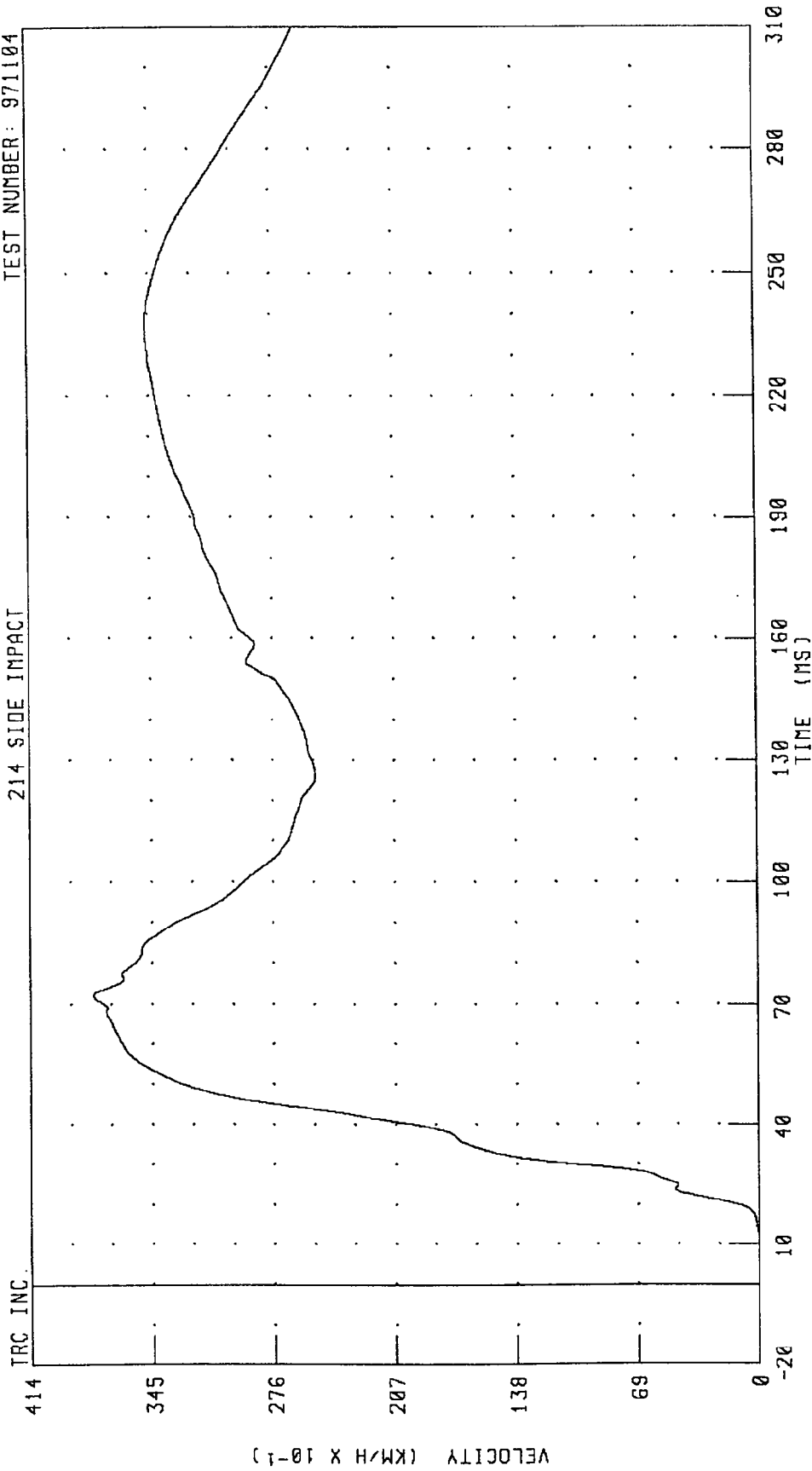
10

CHANNEL: LLRYG1 FILTER: FIR 100

PEAK DATA: 59.13 G @ 30.62 MS; -14.46 G @ 92.50 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER RIB Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



CHANNEL: LLRYV1 FILTER: CH. CLASS 180

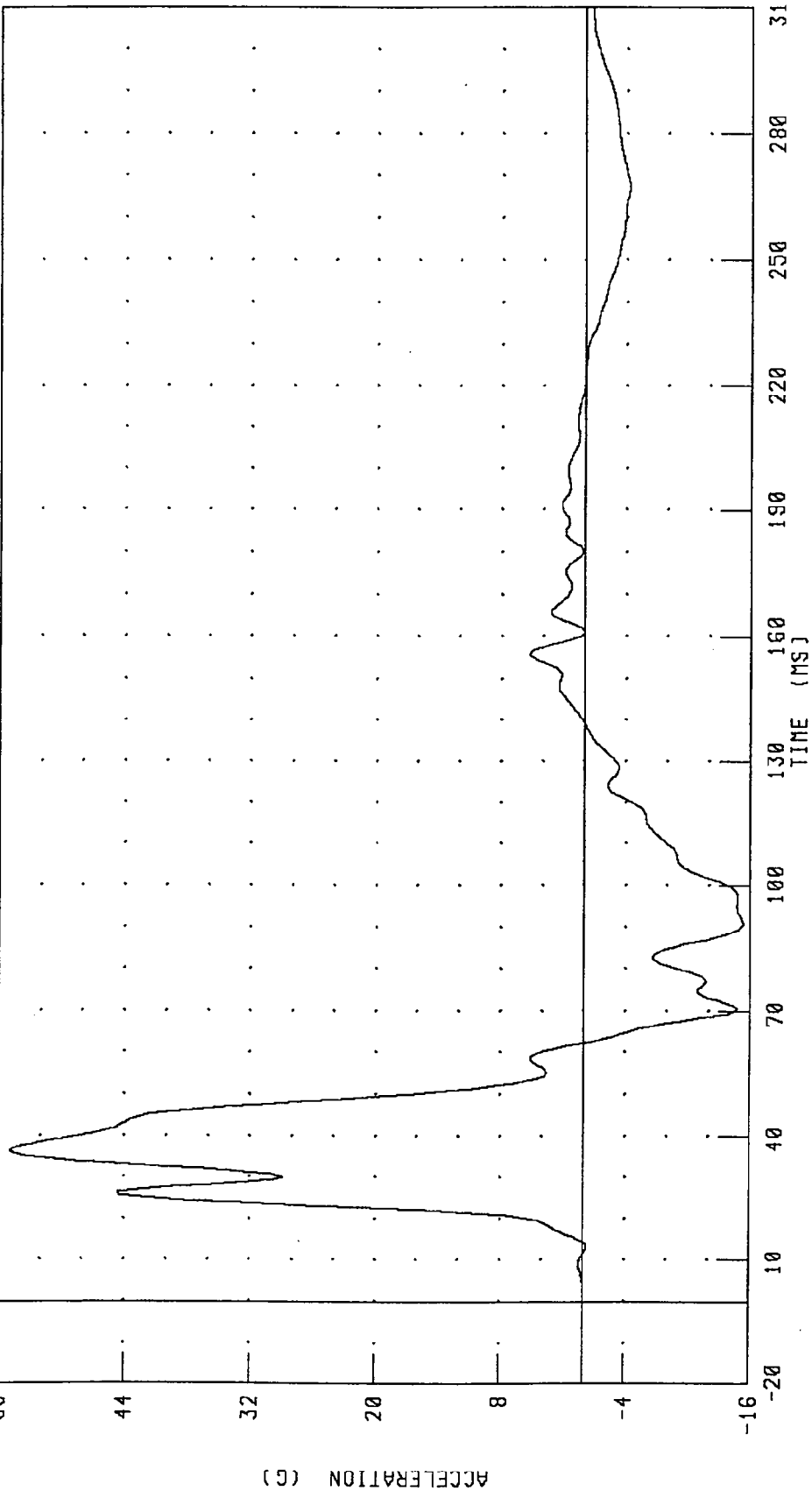
PEAK DATA: 37.80 KM/H @ 72.16 MS; 0.00 KM/H @ 0.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER SPINE Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

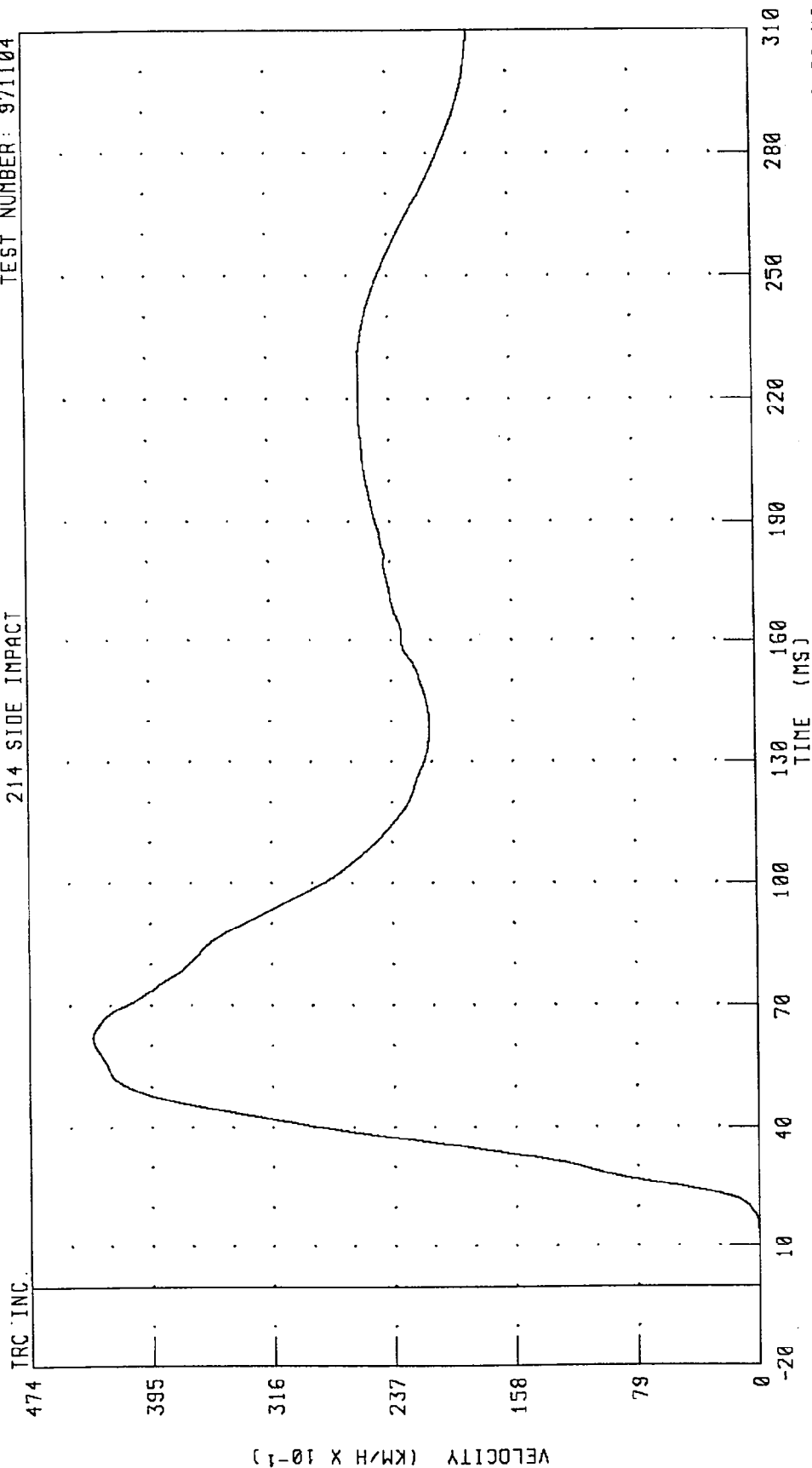


CHANNEL: T12YG1 FILTER: FIR 100

PEAK DATA: 54.85 G @ 36.25 MS; -15.30 G @ 90.62 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER SPINE Y-AXIS VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



CHANNEL: T12YV1 FILTER: CH. CLASS 180

PEAK DATA: 43.27 KM/H @ 62.08 MS; 0.00 KM/H @ 0.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER PELVIS Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

72

57

42

27

12

-3

-18

ACCELERATION (G)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

-20

CHANNEL: PEVYG1 FILTER: FIR 100

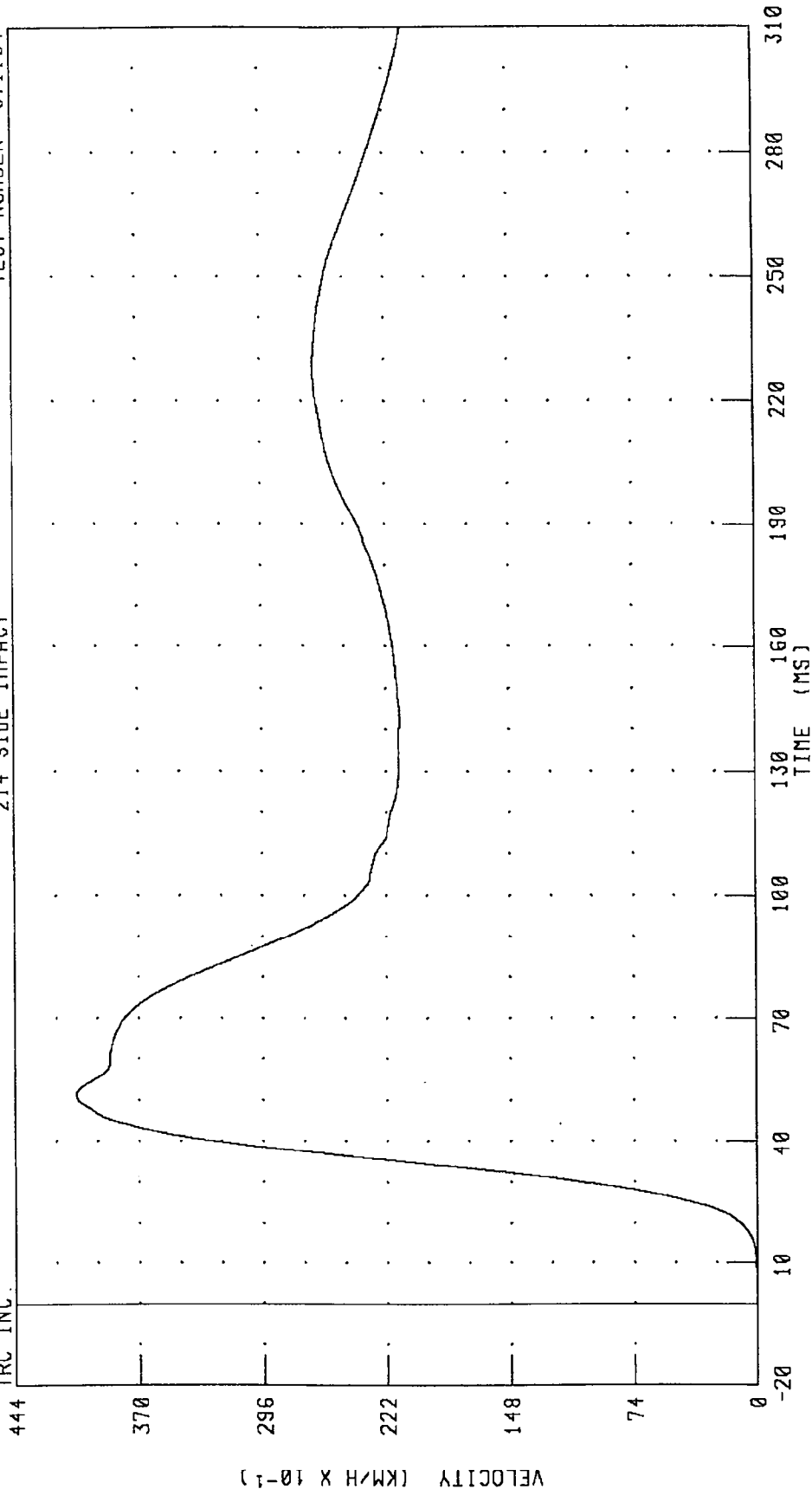
PEAK DATA: 69.78 G @ 36.25 MS; -16.99 G @ 87.50 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER PELVIS Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



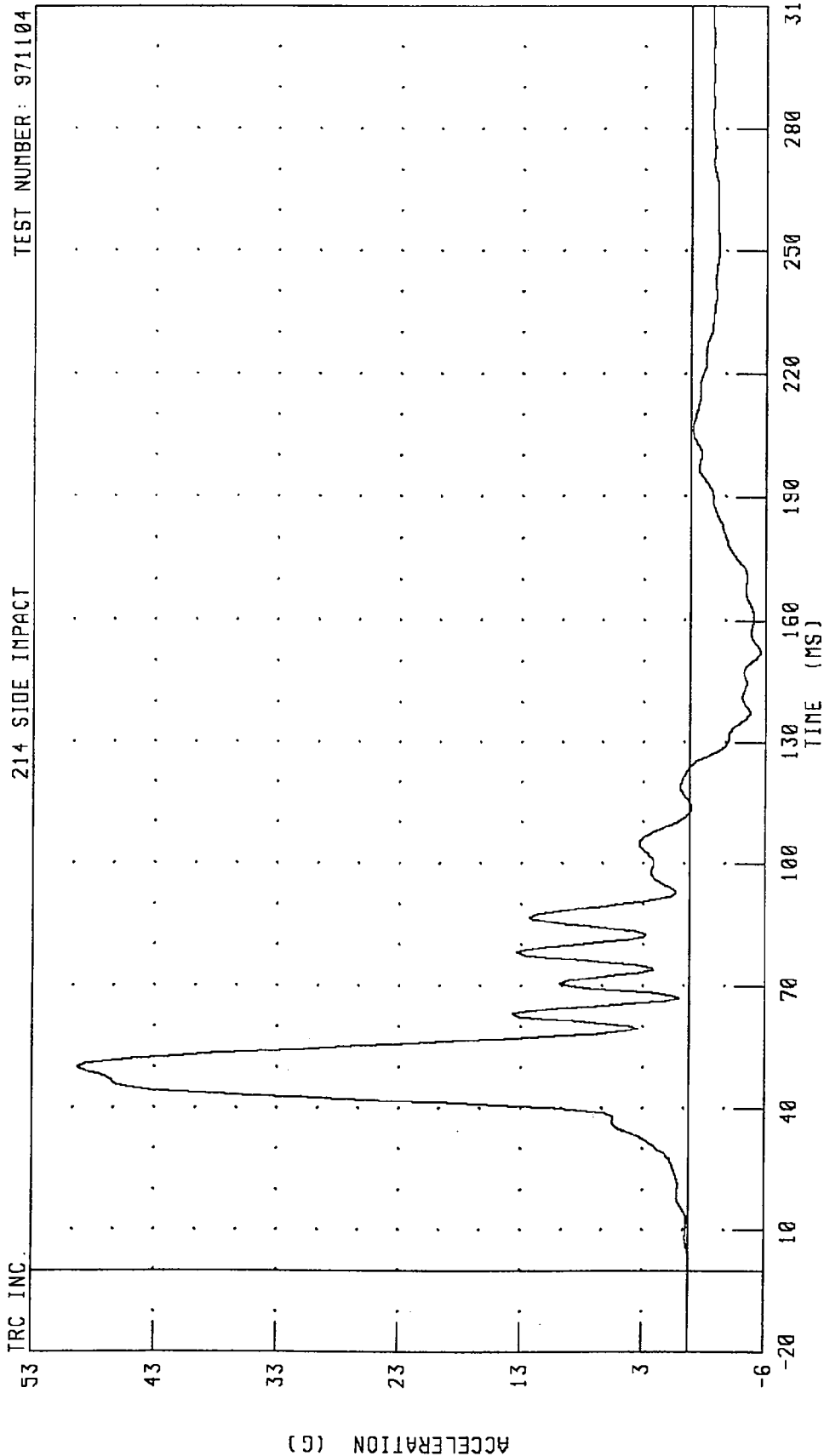
CHANNEL: PEVYV1 FILTER: CH. CLASS 180

PEAK DATA: 40.70 KM/H @ 51.28 MS, 0.00 KM/H @ 2.16 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



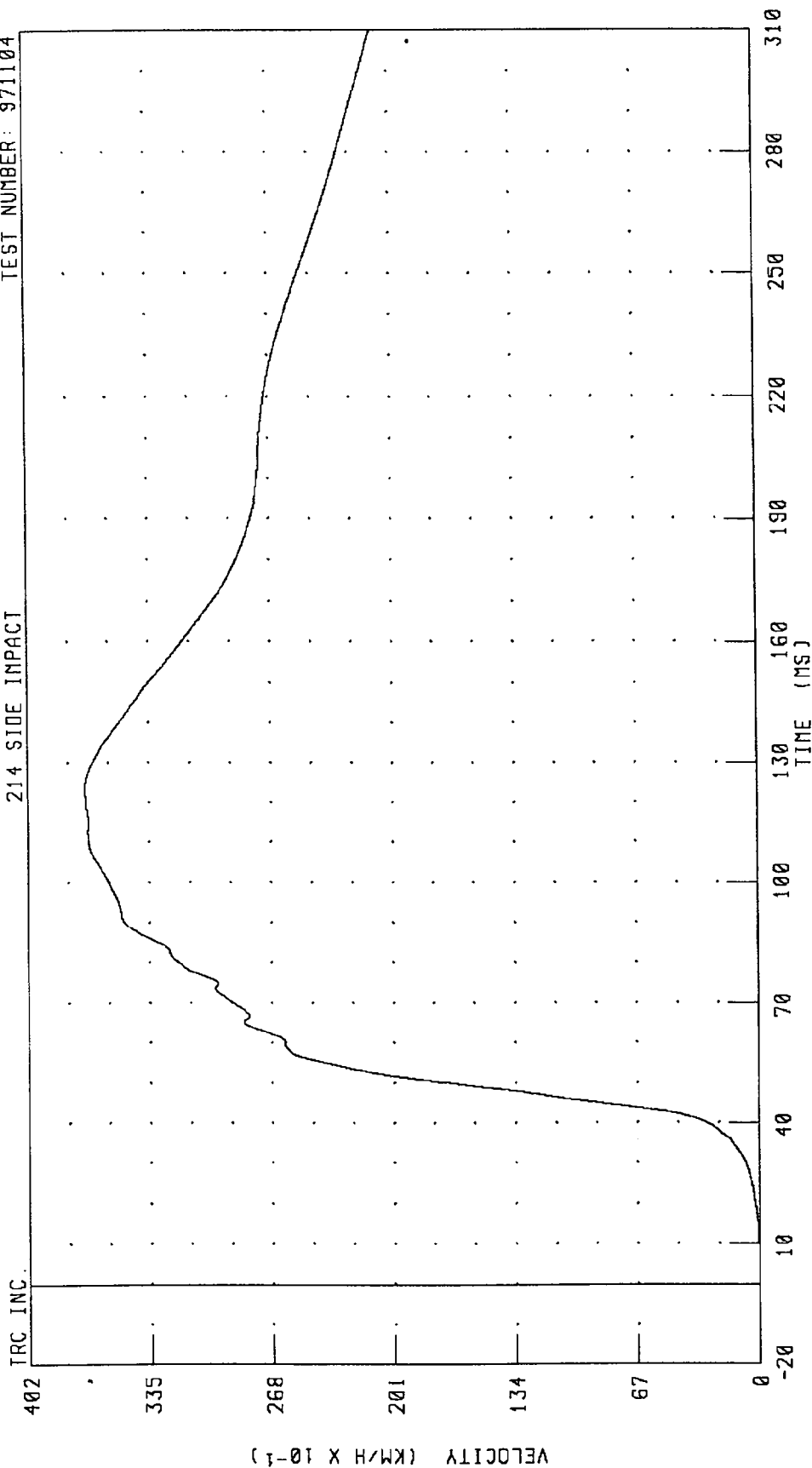
CHANNEL: LURYG4 FILTER: FIR 100

PEAK DATA: 50.04 G @ 50.00 MS; -5.73 G @ 152.50 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



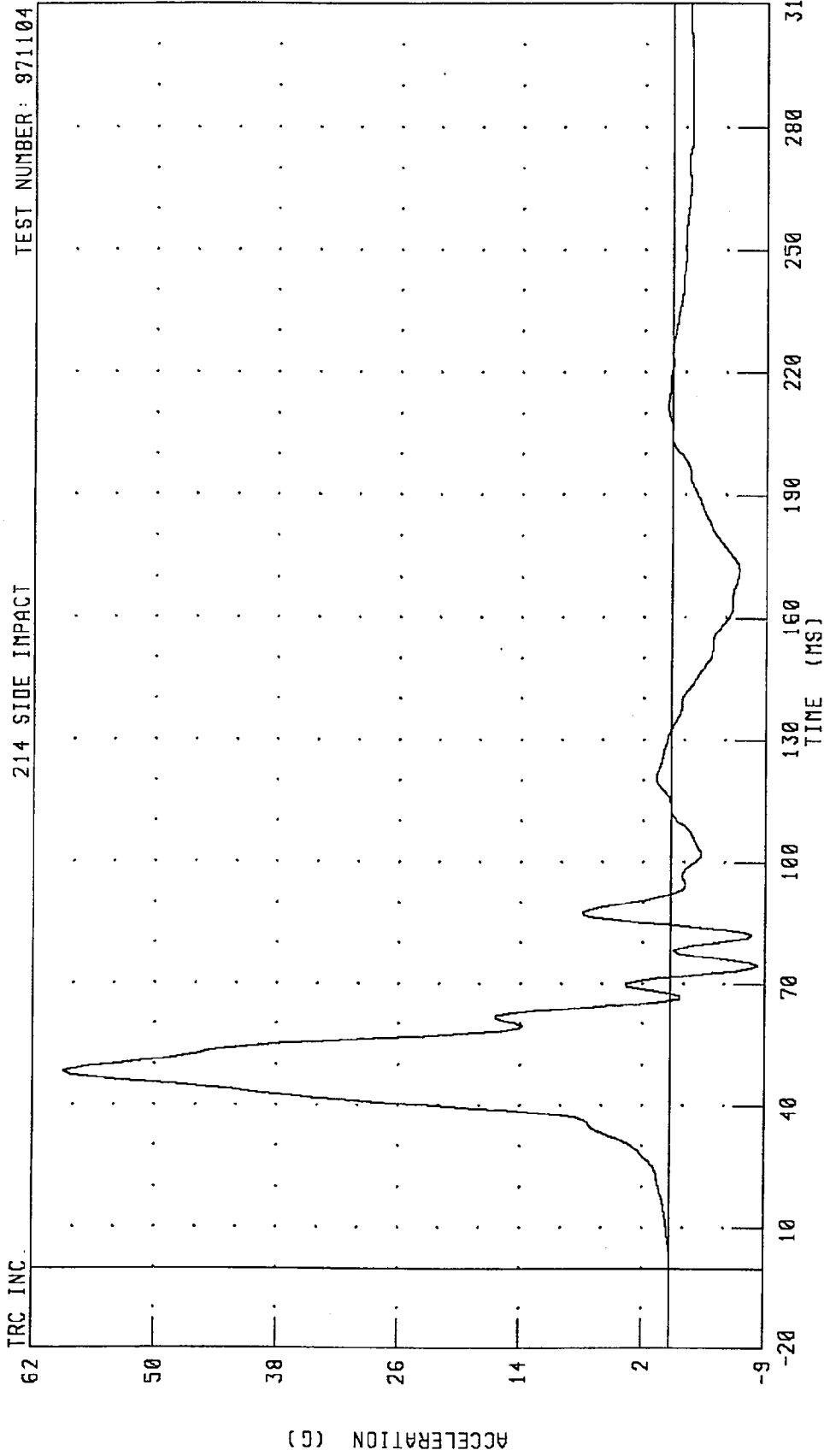
CHANNEL: LURYV4 FILTER: CH. CLASS 180

PEAK DATA: 37.00 KM/H @ 124.00 MS; 0.00 KM/H @ 3.20 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT



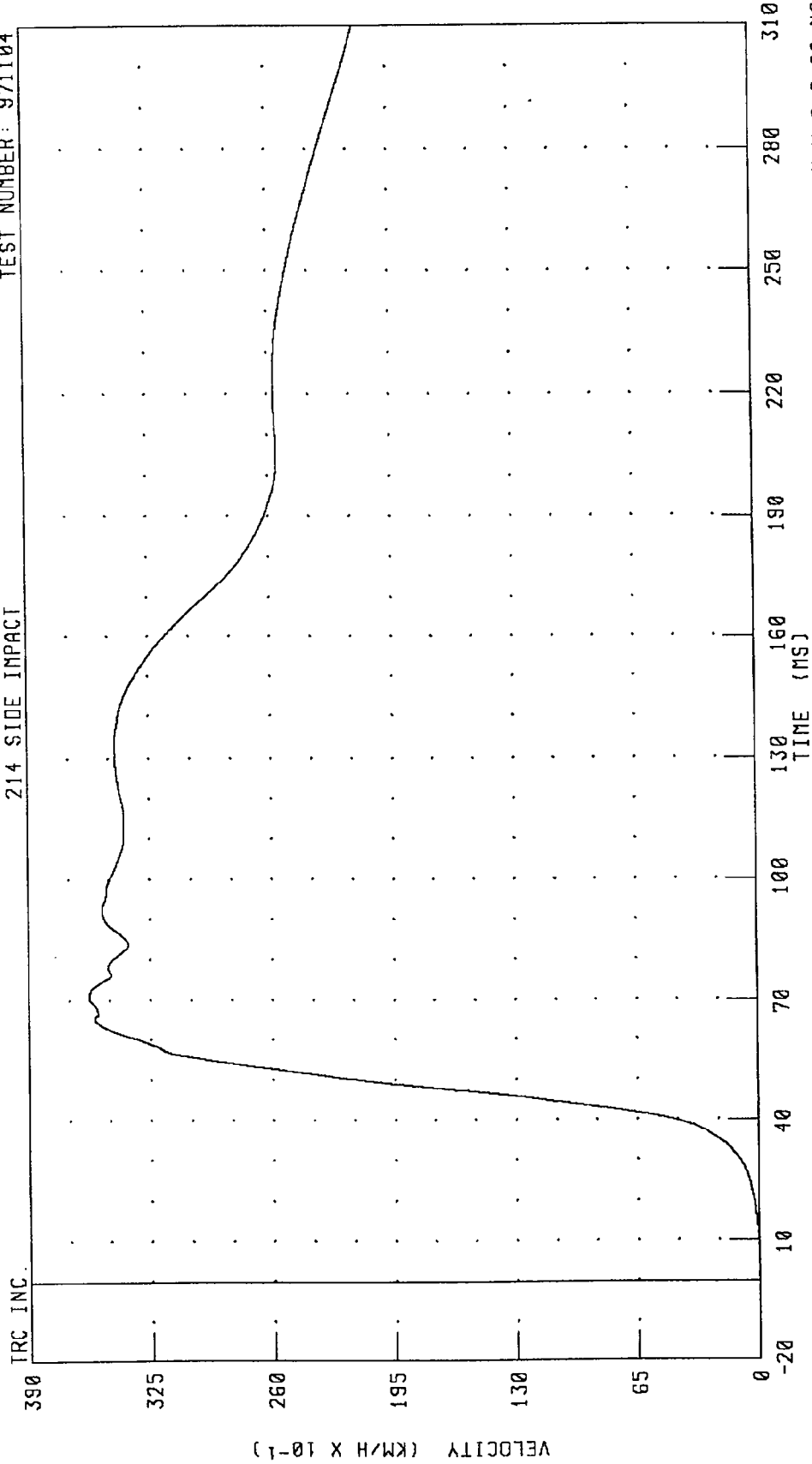
CHANNEL: LLRYG4 FILTER: FIR 100

PEAK DATA: 59.61 G @ 48.13 MS; -8.54 G @ 74.37 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

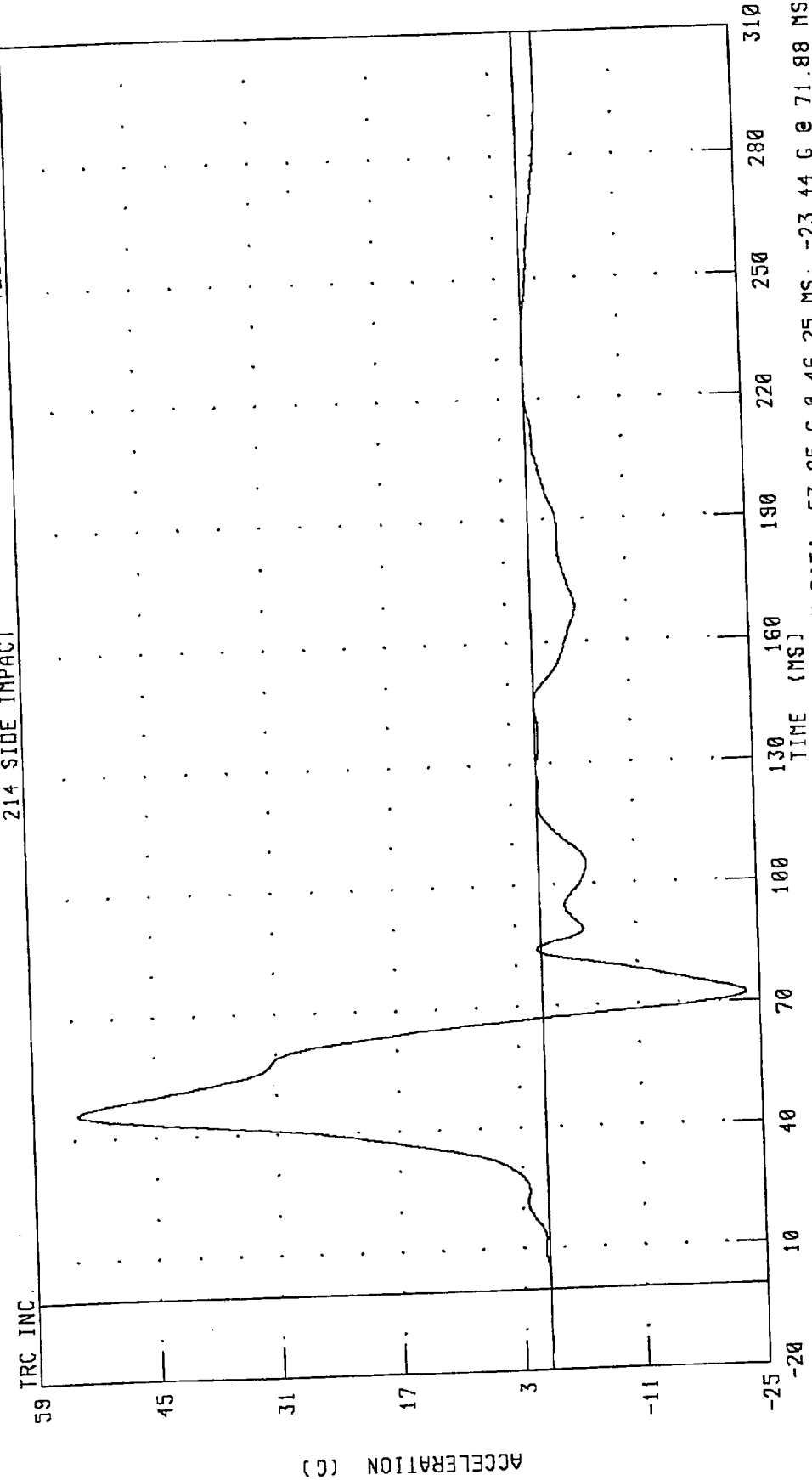


CHANNEL: LLRYV4 FILTER: CH. CLASS 180

PEAK DATA: 35.75 KM/H @ 70.72 MS; 0.00 KM/H @ 3.60 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104



CHANNEL: T12YG4 FILTER: FIR 100

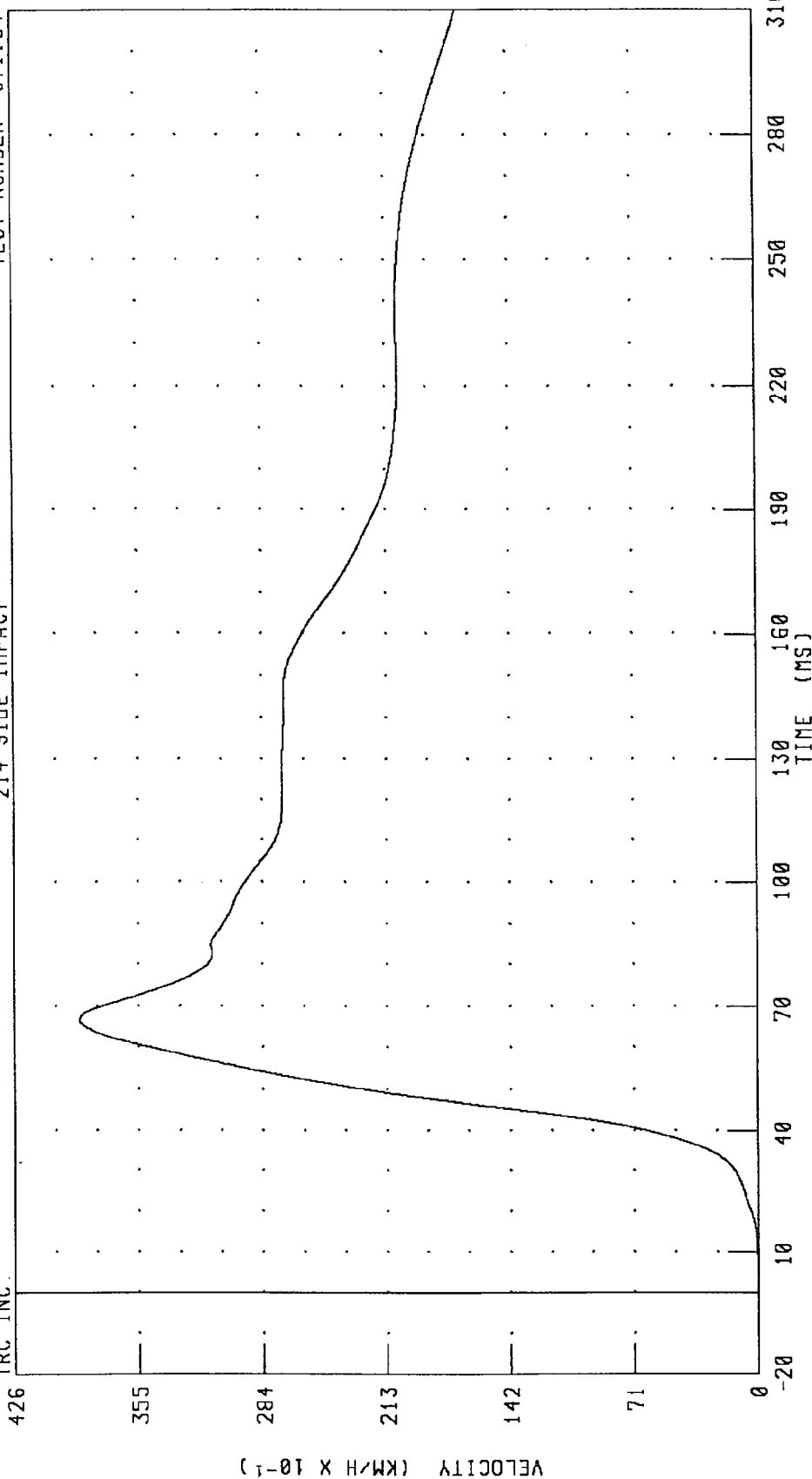
PEAK DATA: 53.85 G @ 46.25 MS; -23.44 G @ 71.88 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

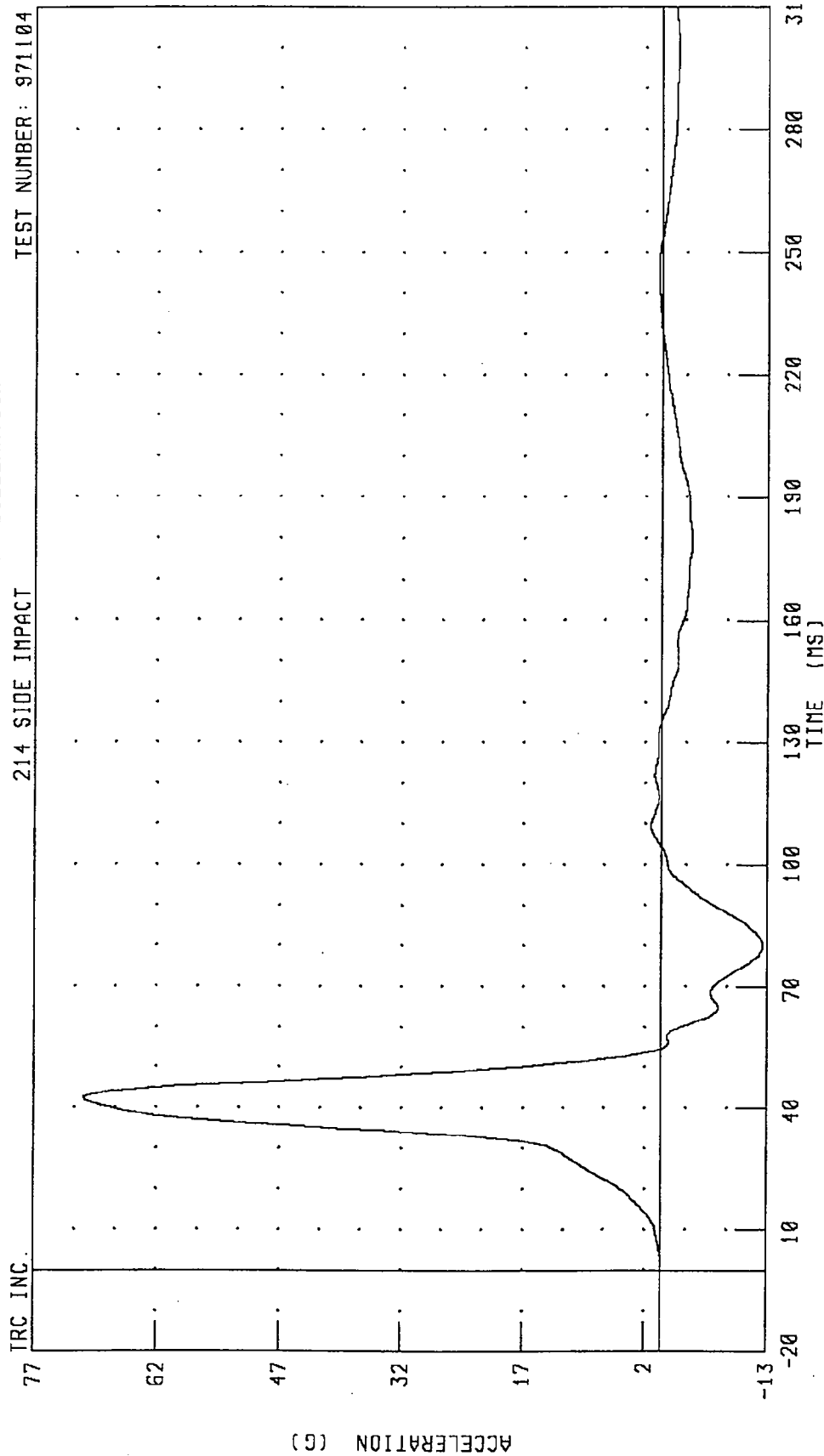


PEAK DATA: 38.86 KM/H @ 66.64 MS; 0.00 KM/H @ 0.00 MS

CHANNEL: T12YV4 FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER PELVIS Y-AXIS ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104



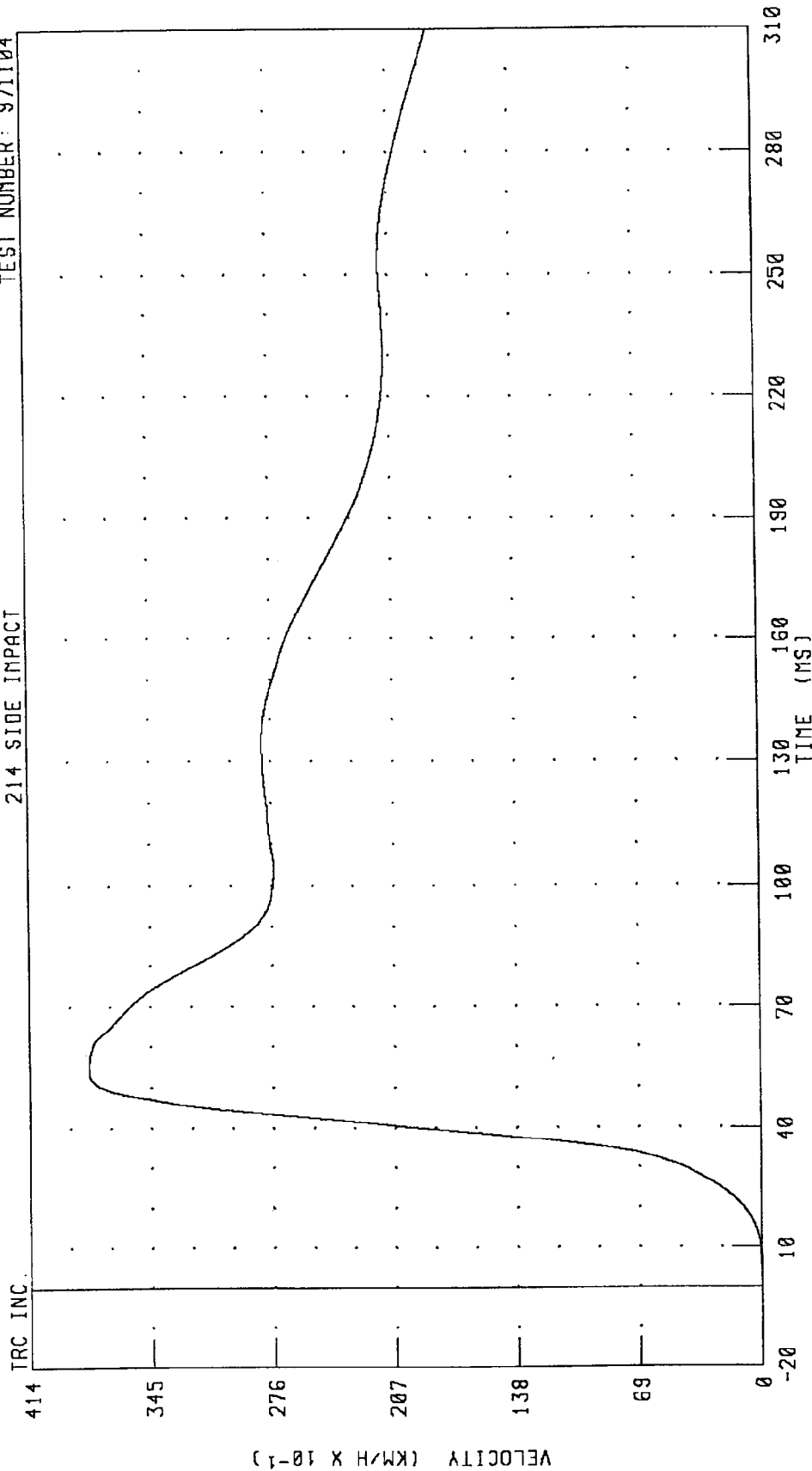
CHANNEL: PEVYG4 FILTER: FIR 100

PEAK DATA: 70.88 G @ 42.50 MS; -12.44 G @ 80.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER PELVIS Y-AXIS VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT



CHANNEL: PEVYV4 FILTER: CH. CLASS 180

PEAK DATA: 38.02 KM/H @ 54.80 MS; 0.00 KM/H @ 2.48 MS

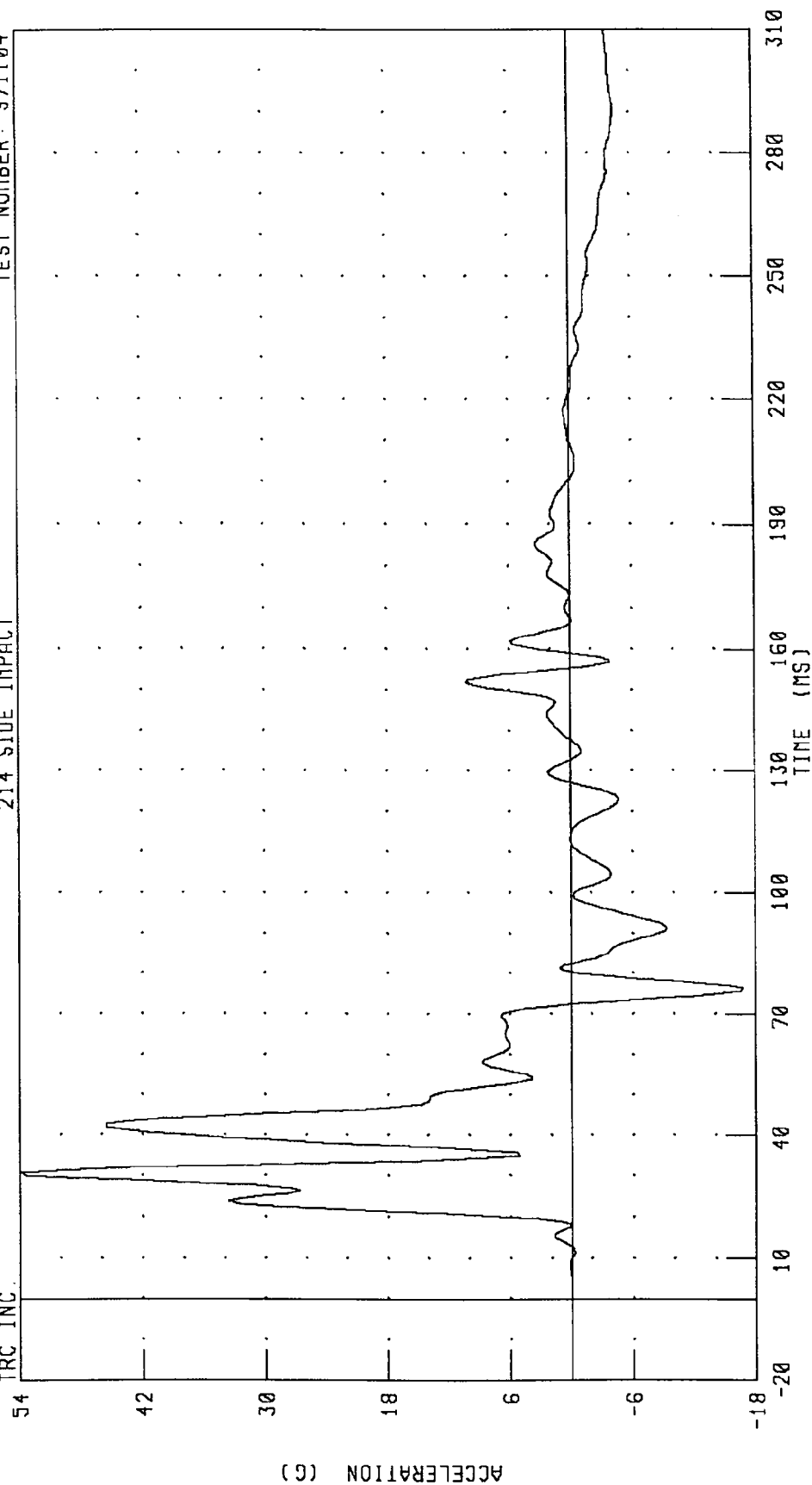
Driver and Passenger Dummy Instrumentation Plots
Acceleration Data - FIR Filtered - Redundant

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

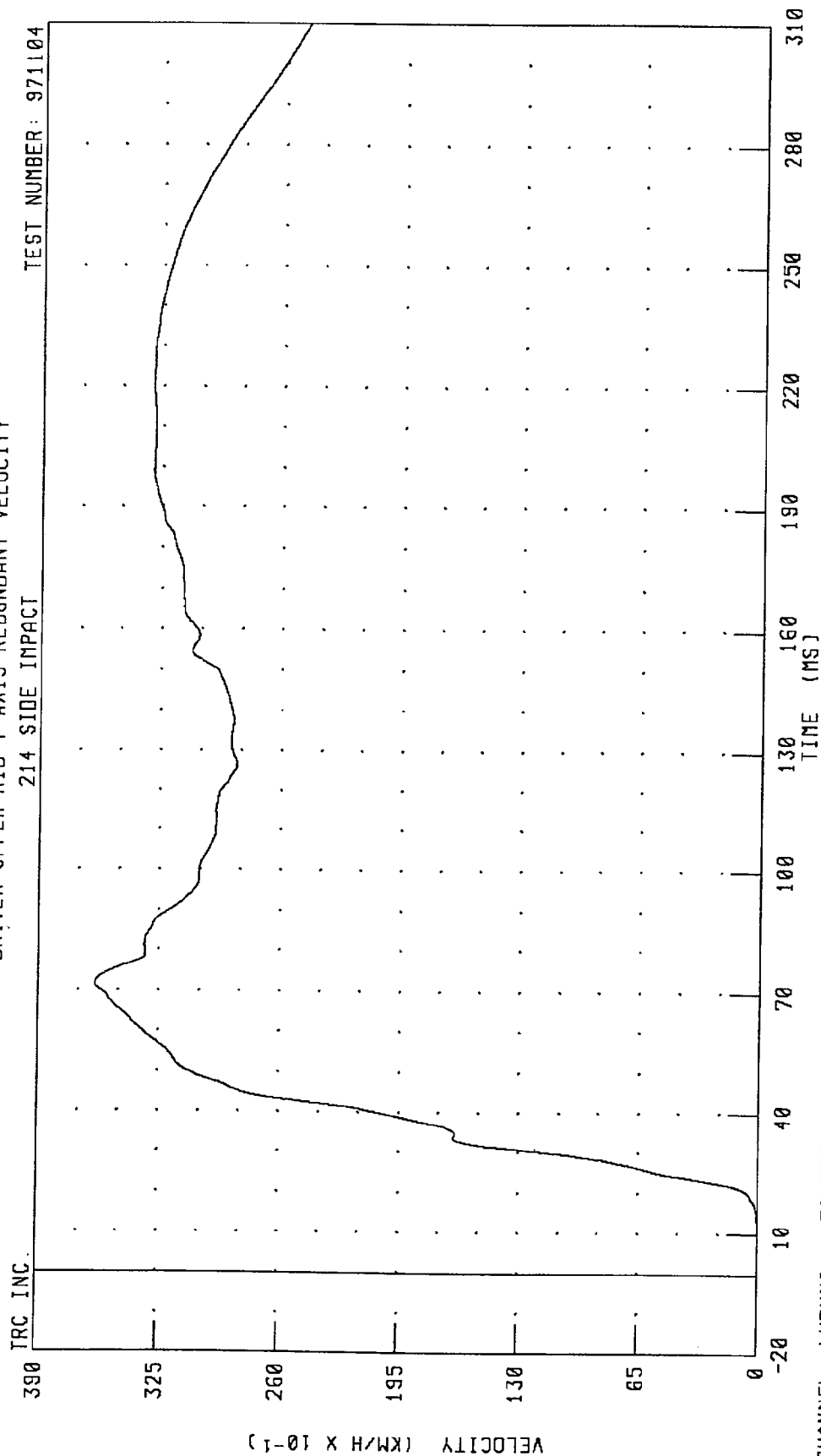
TRC INC.



CHANNEL: LURYR1 FILTER: FIR 100

PEAK DATA: 53.90 G @ 30.62 MS, -16.77 G @ 76.25 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER UPPER RIB Y-AXIS REDUNDANT VELOCITY



PEAK DATA: 35.93 KM/H @ 71.68 MS, 0.00 KM/H @ 0.00 MS

CHANNEL: LURYVI FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

63

50

37

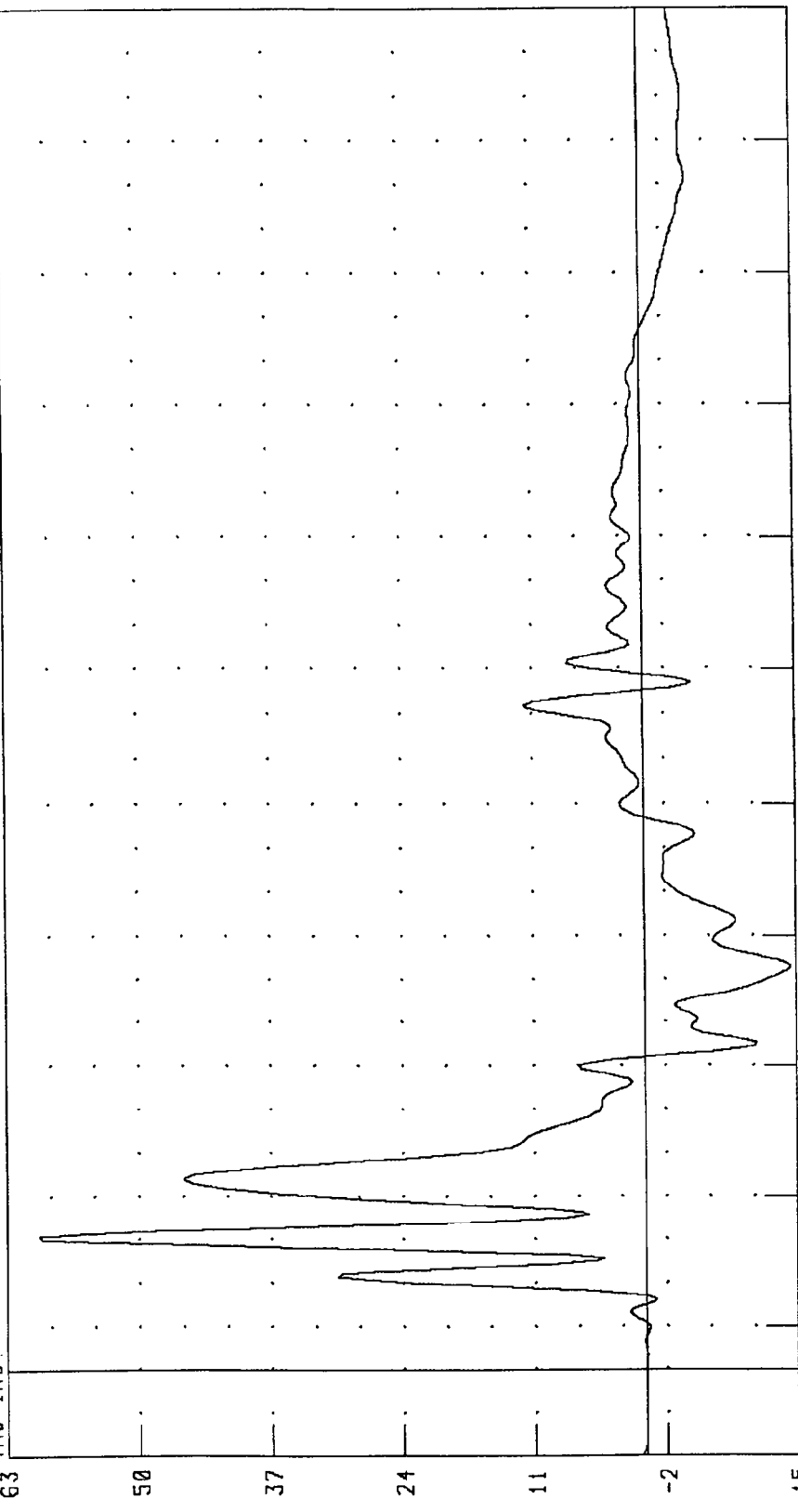
24

11

-2

-15

ACCELERATION (G)



PEAK DATA: 59.81 G @ 30.62 MS; -14.42 G @ 92.50 MS

CHANNEL: LLRYR1 FILTER: FIR 100

TIME (MS)

310

280

250

220

190

160

130

100

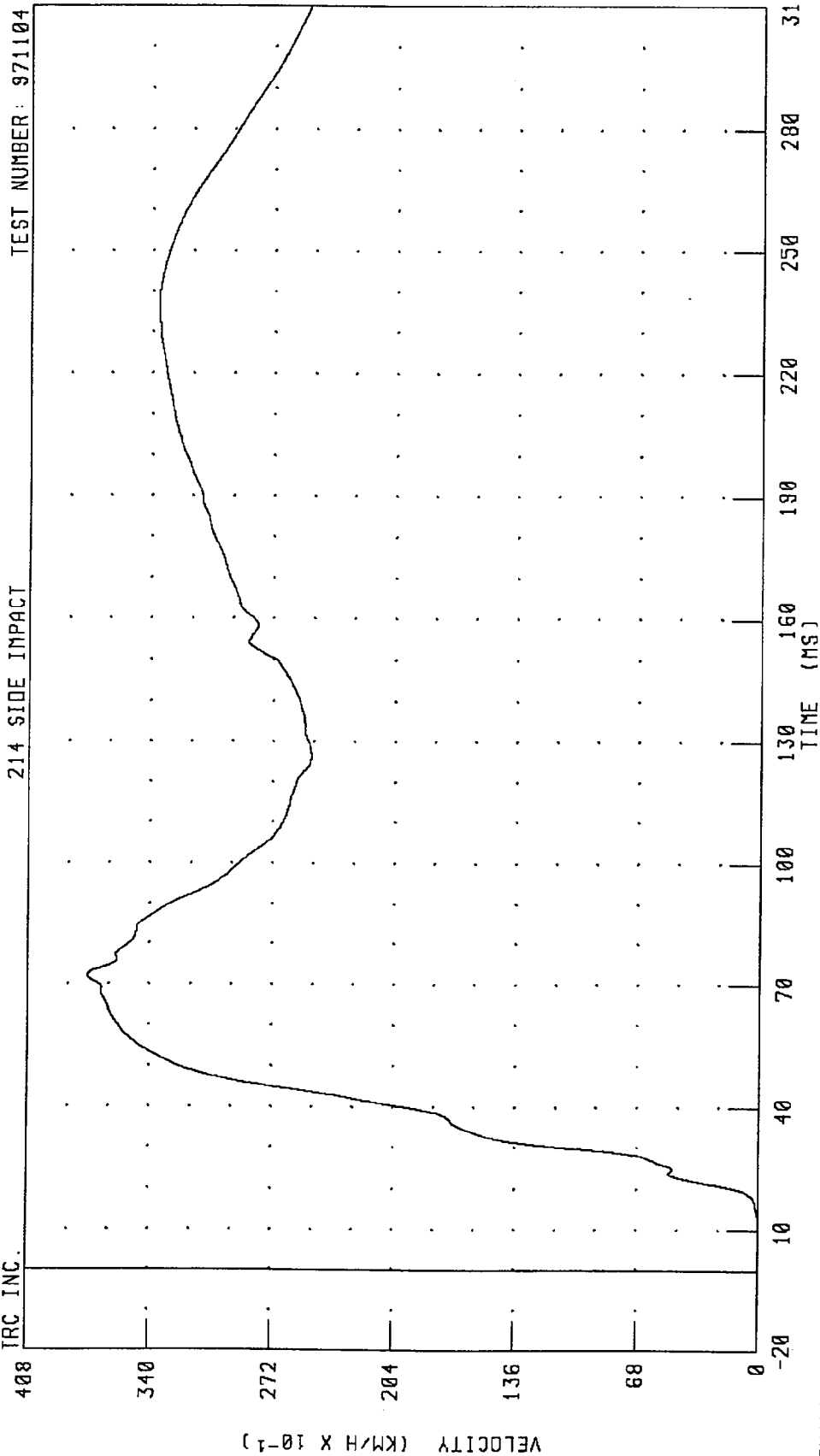
70

40

10

-20

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER RIB Y-AXIS REDUNDANT VELOCITY



PEAK DATA: 37.44 KM/H @ 72.24 MS; 0.00 KM/H @ 5.52 MS

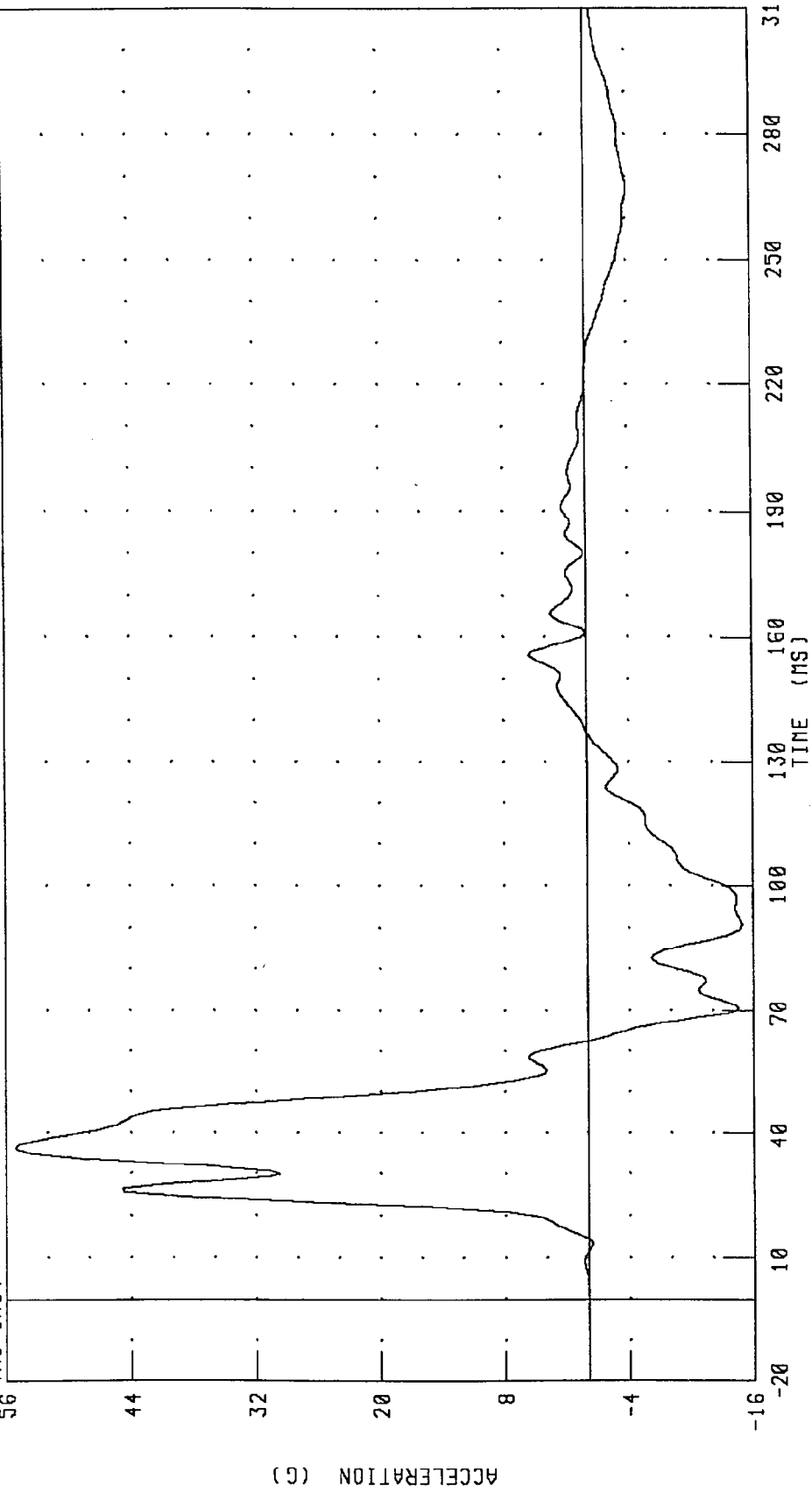
CHANNEL: LLRYVI FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: T12YR1 FILTER: FIR 100

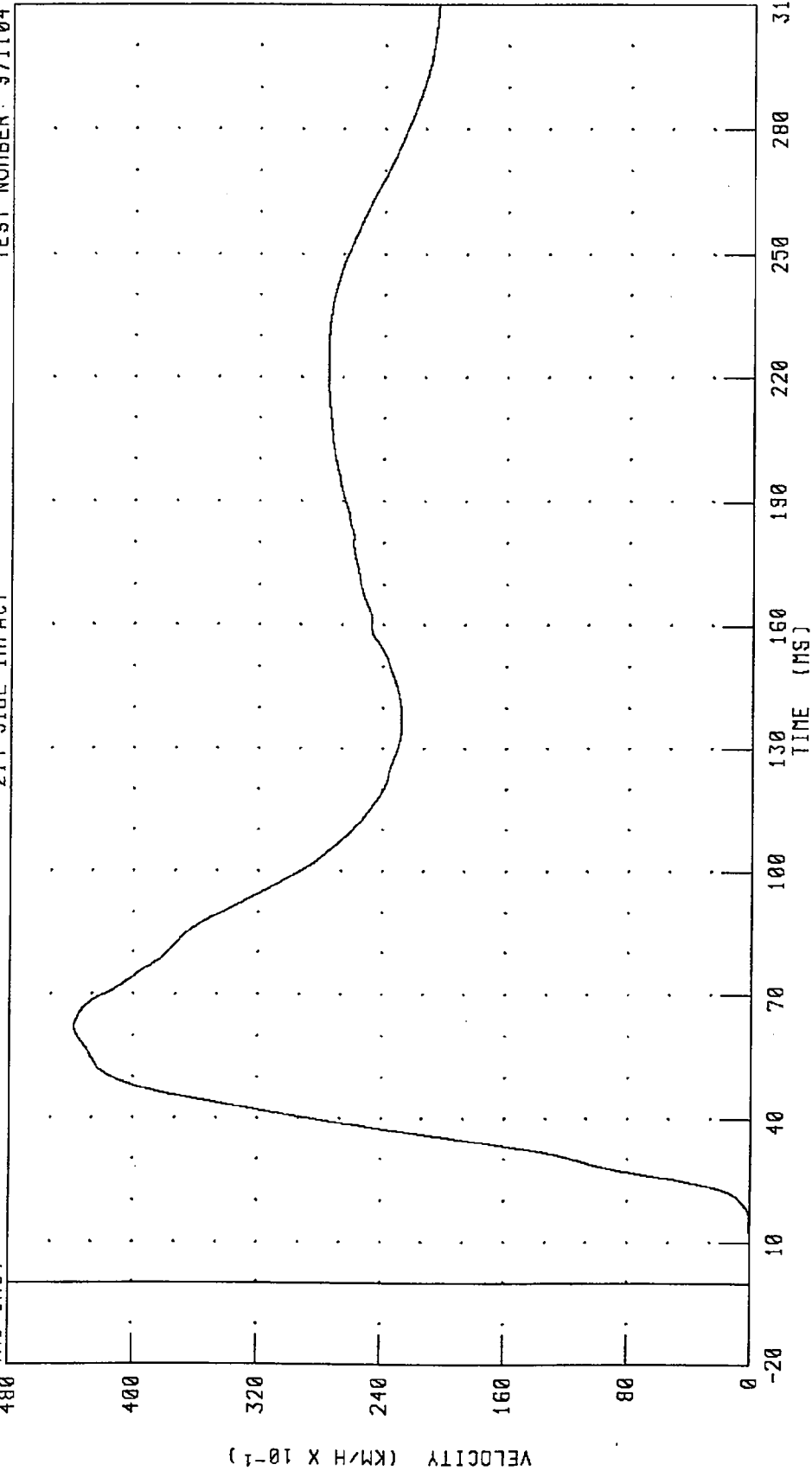
PEAK DATA: 55.04 G @ 36.25 MS; -14.94 G @ 90.62 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER LOWER SPINE Y-AXIS REDUNDANT VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



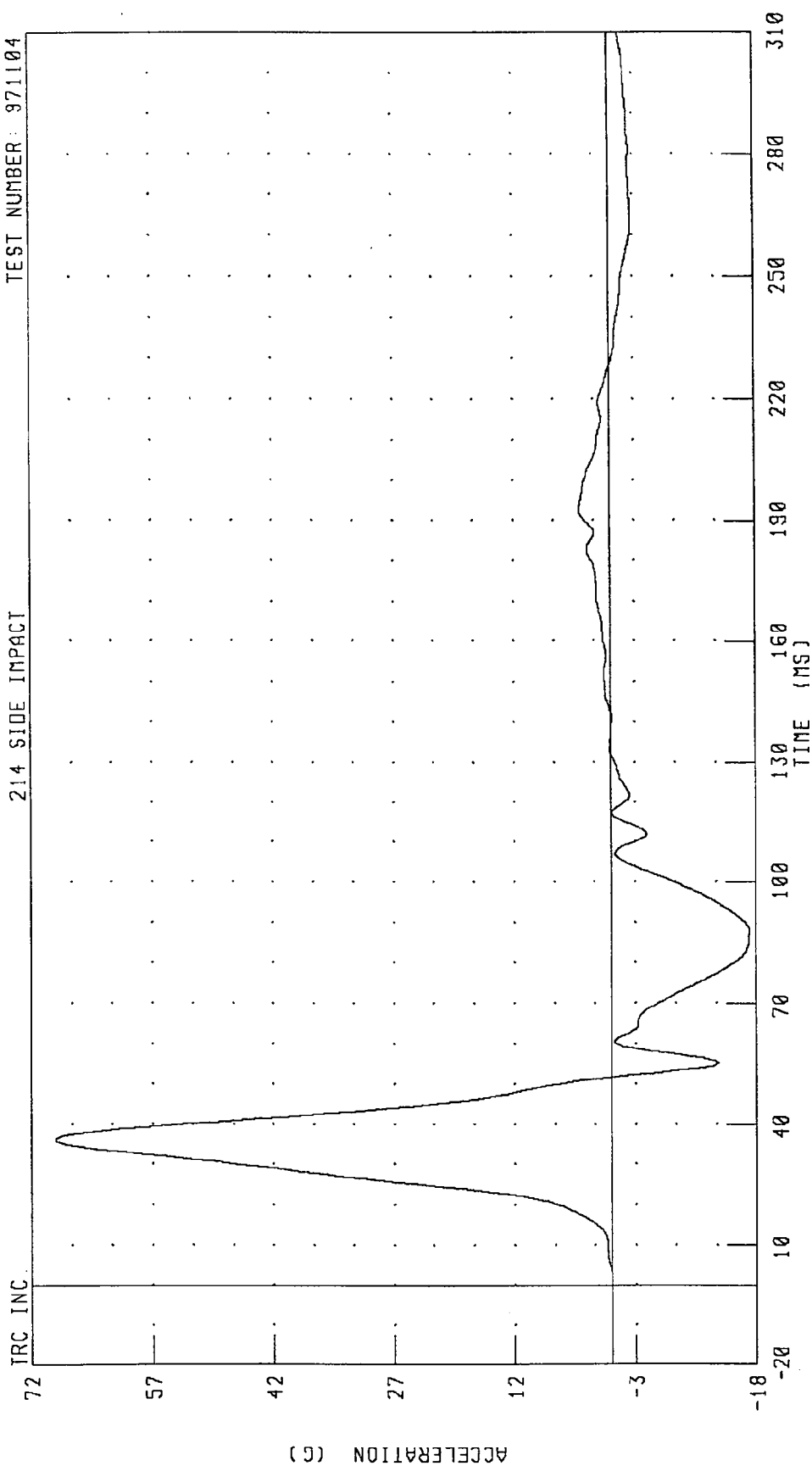
CHANNEL: T12YVI FILTER: CH. CLASS 180

PEAK DATA: 43.84 KM/H @ 62.32 MS, 0.00 KM/H @ 0.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 DRIVER PELVIS Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

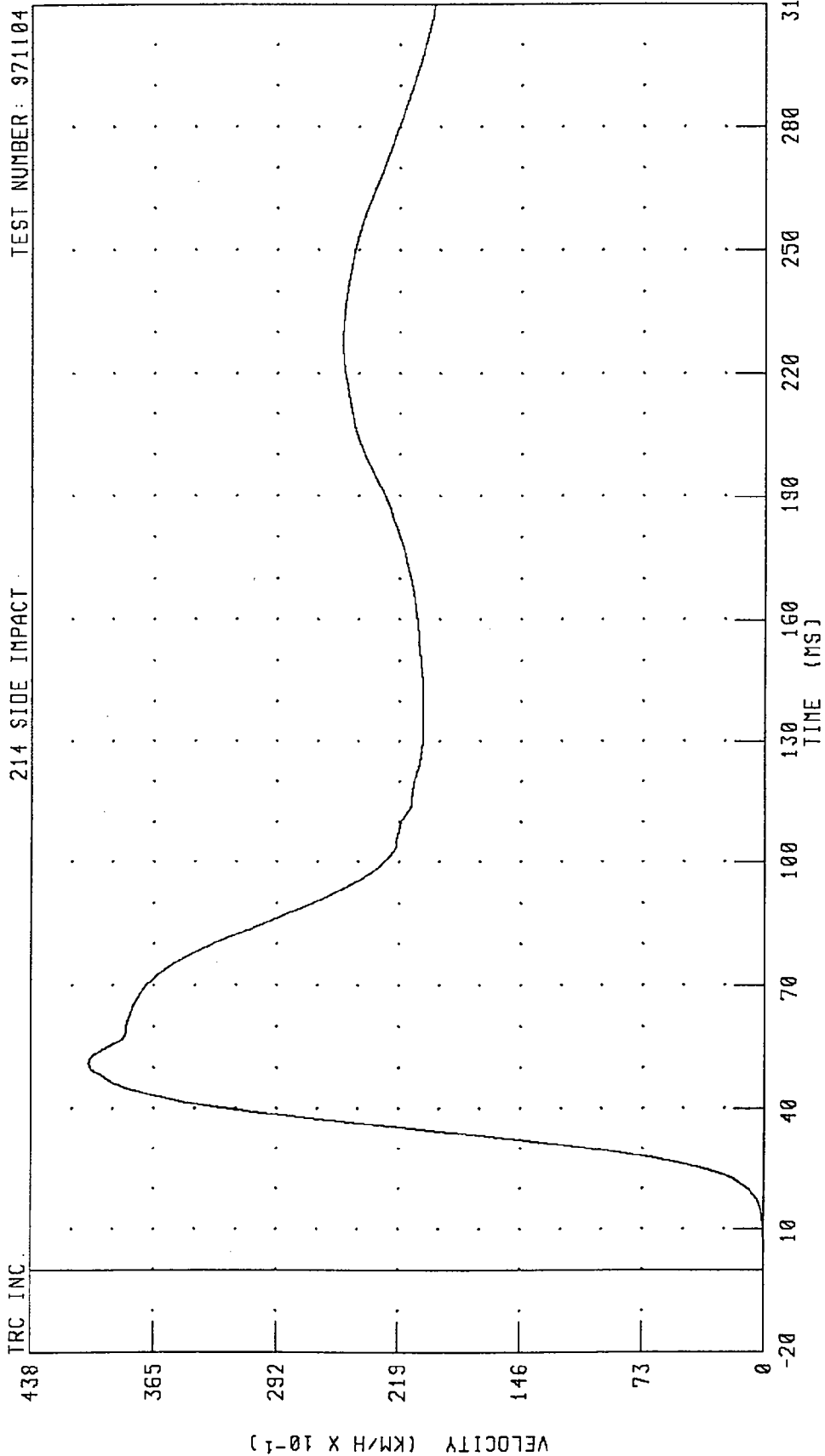
214 SIDE IMPACT



CHANNEL: PEVYR1 FILTER: FIR 100

PEAK DATA: 69.03 G @ 36.25 MS; -17.14 G @ 87.50 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
DRIVER PELVIS Y-AXIS REDUNDANT VELOCITY



CHANNEL: PEVYVI FILTER: CH. CLASS 180

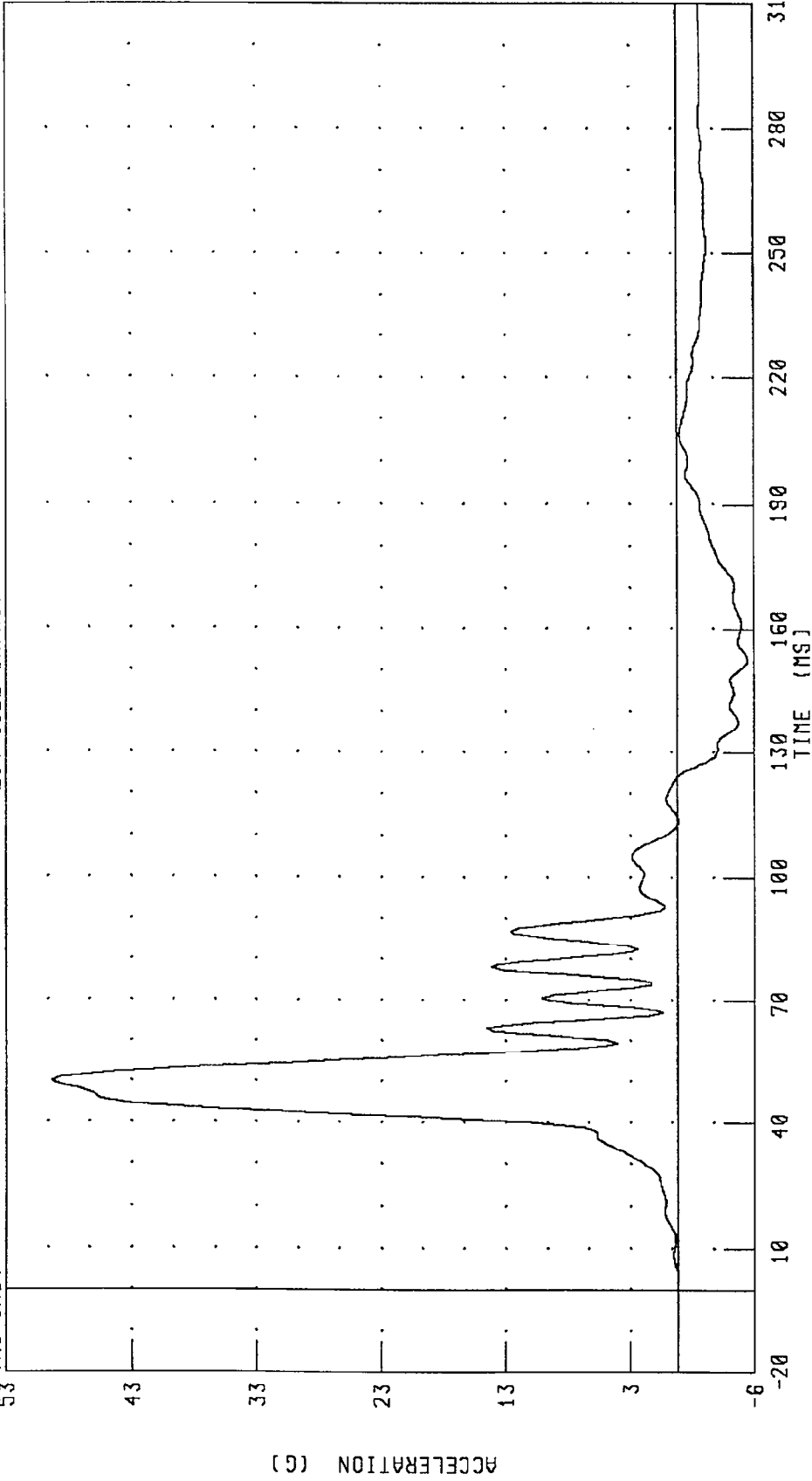
PEAK DATA: 40.36 KM/H @ 51.12 MS; 0.00 KM/H @ 3.44 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

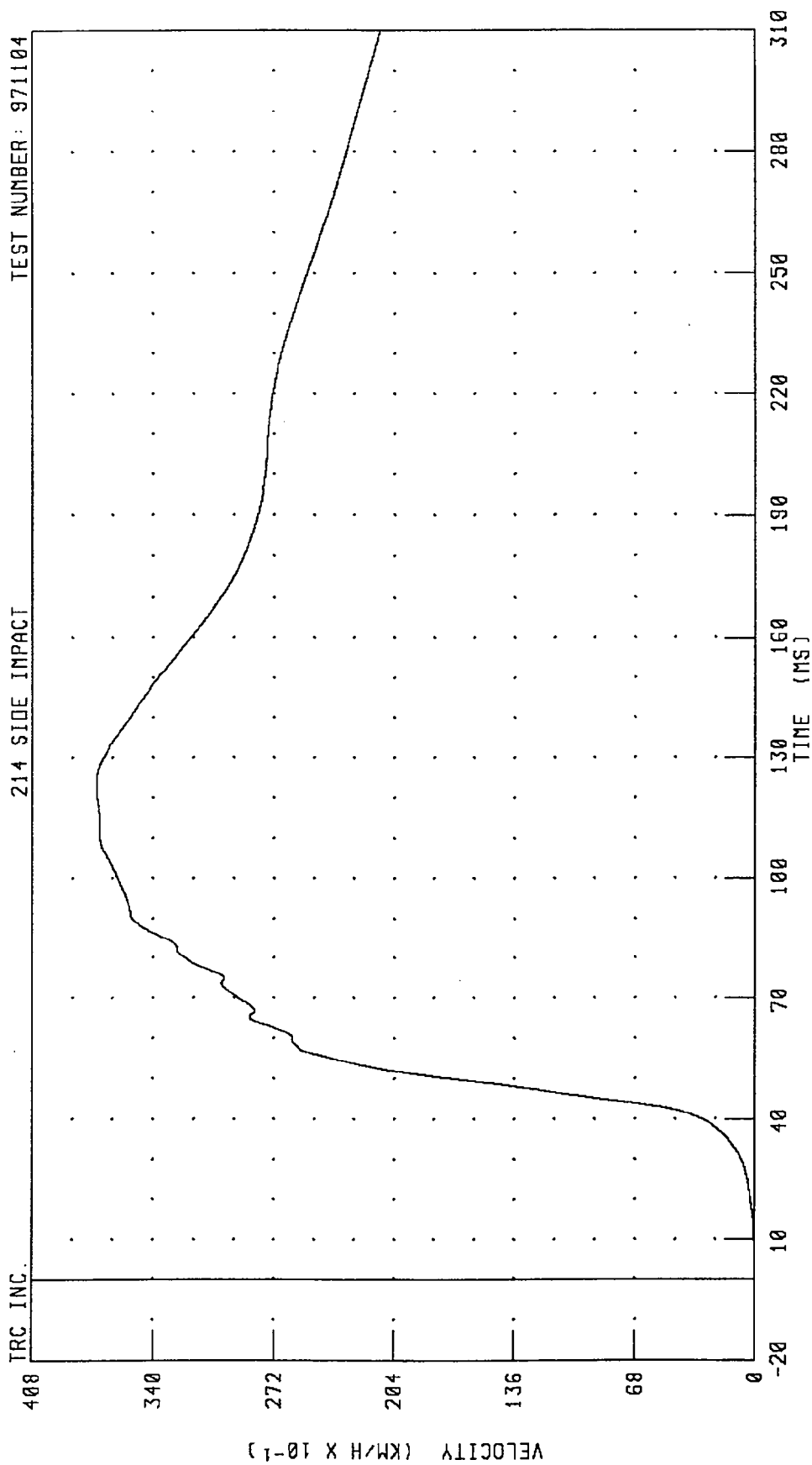


CHANNEL: LURYR4 FILTER: FIR 100

PEAK DATA: 50.09 G @ 50.00 MS; -5.66 G @ 152.50 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY
 214 SIDE IMPACT

TEST NUMBER: 971104



PEAK DATA: 37.18 KM/H @ 124.00 MS; 0.00 KM/H @ 0.00 MS

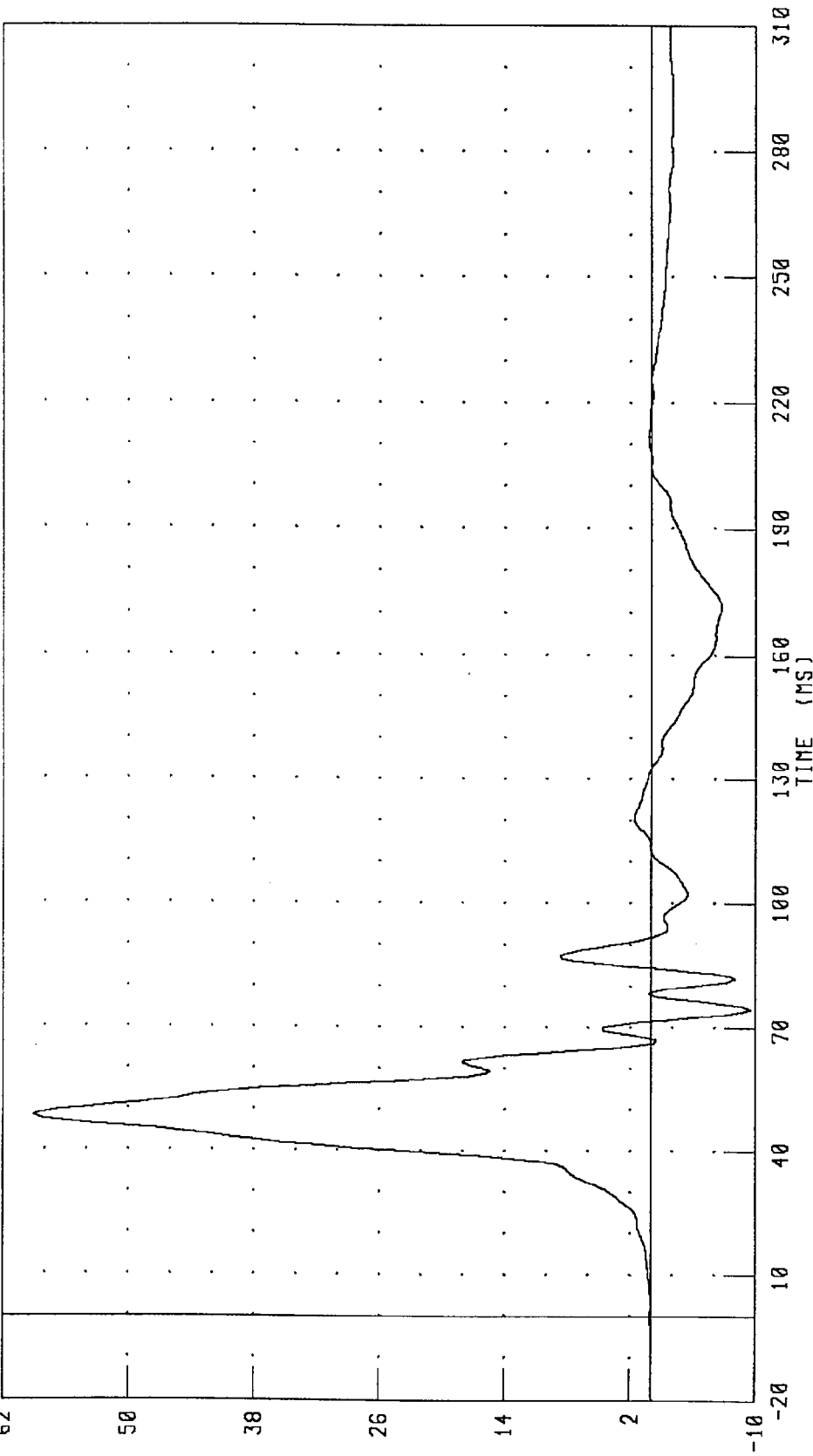
CHANNEL: LURYVJ FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: LLRYR4 FILTER: FIR 100

PEAK DATA: 59.02 G @ 48.13 MS; -9.41 G @ 74.37 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.

390

325

VELOCITY (KM/H X 10⁻¹)

260

195

130

65

0

-20

10

40

70

100

130

160

190

220

250

280

310

TIME (MS)

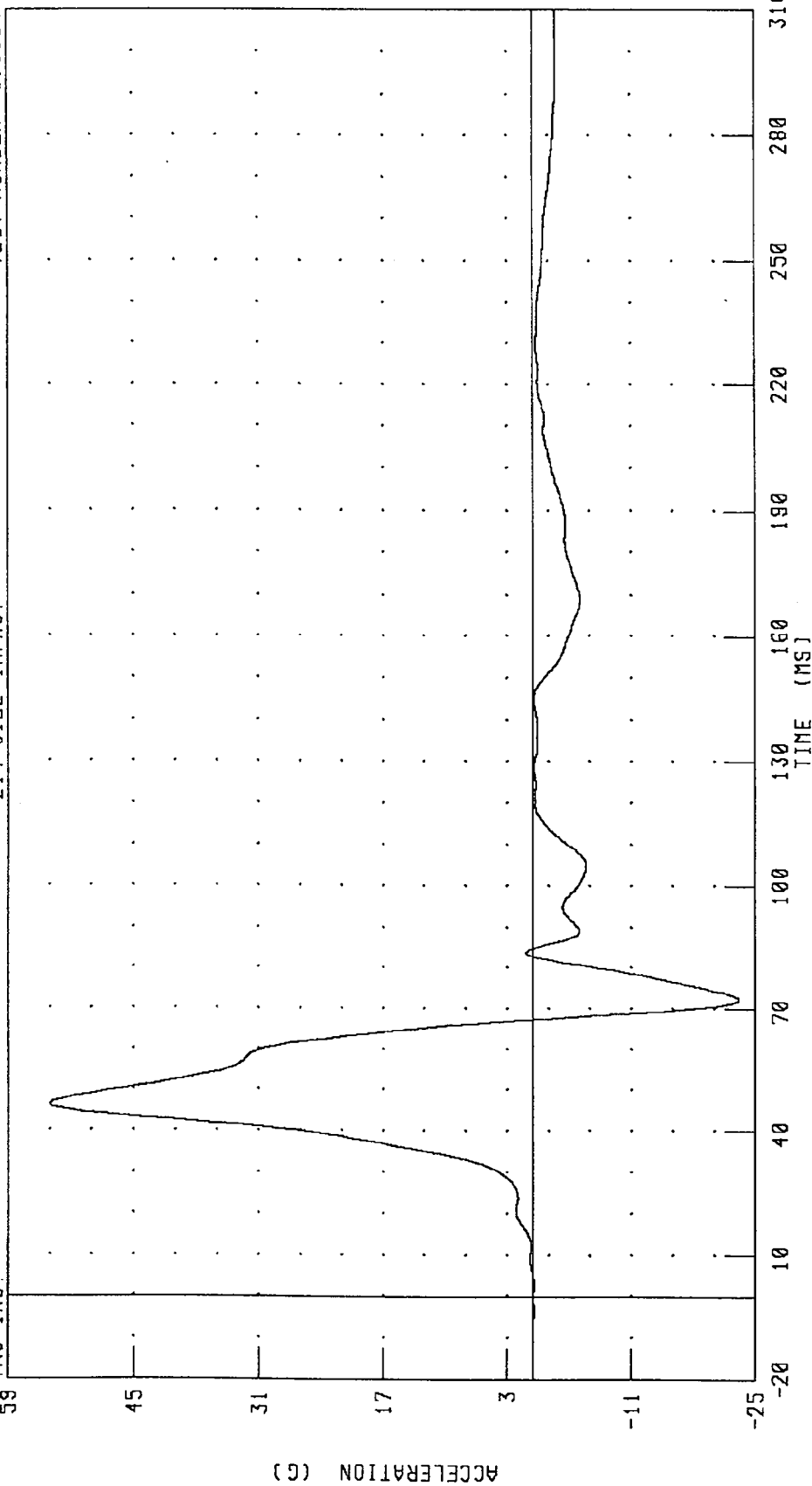
CHANNEL: LLRYVJ FILTER: CH. CLASS 180

PEAK DATA: 35.78 KM/H @ 70.80 MS; 0.00 KM/H @ 0.00 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION
 214 SIDE IMPACT

TEST NUMBER: 971104

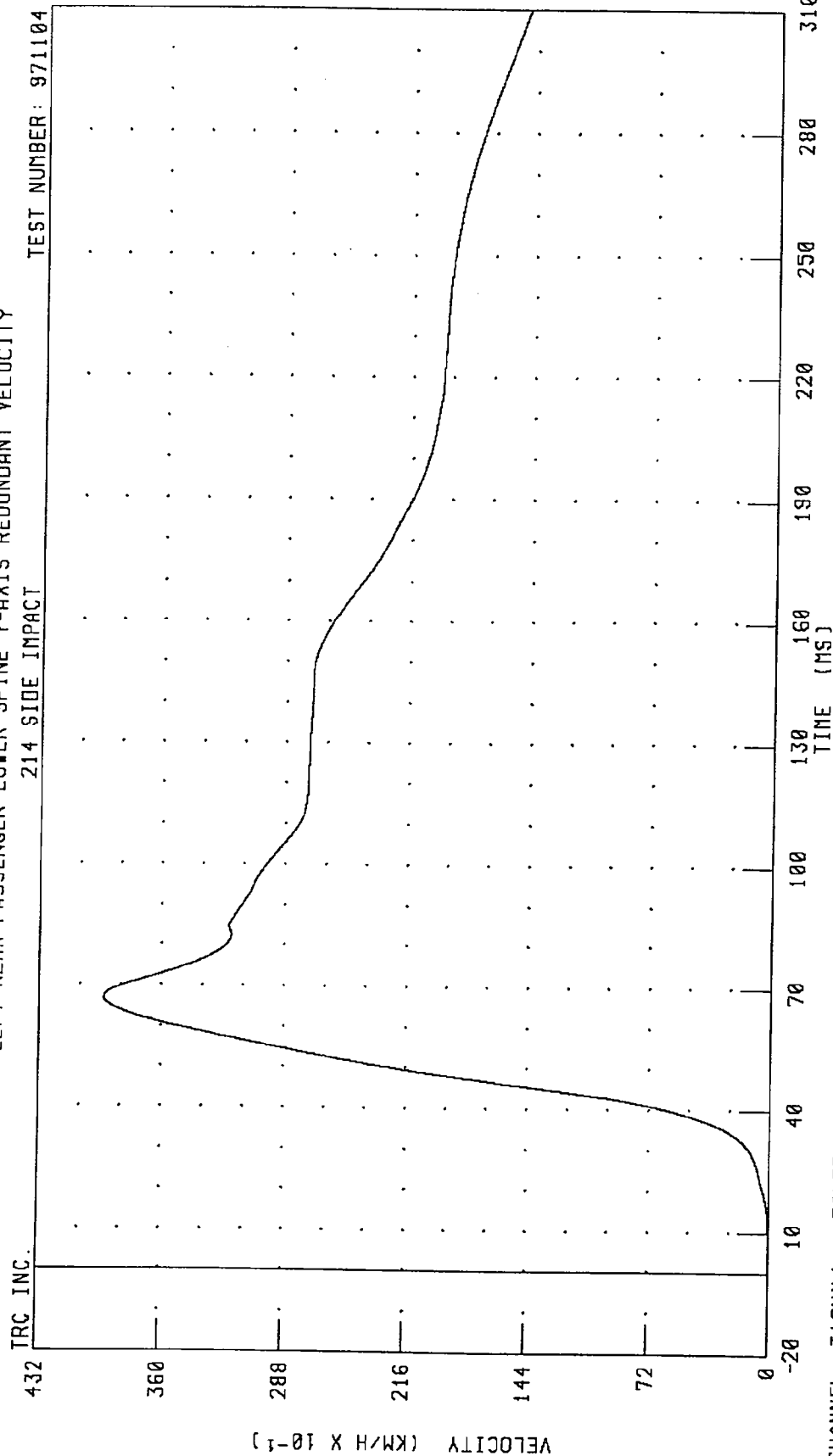
TRC INC.



CHANNEL: T12VR4 FILTER: FIR 100

PEAK DATA: 54.40 G @ 46.25 MS; -23.12 G @ 71.88 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY



PEAK DATA: 39.38 KM/H @ 66.80 MS; 0.00 KM/H @ 0.00 MS

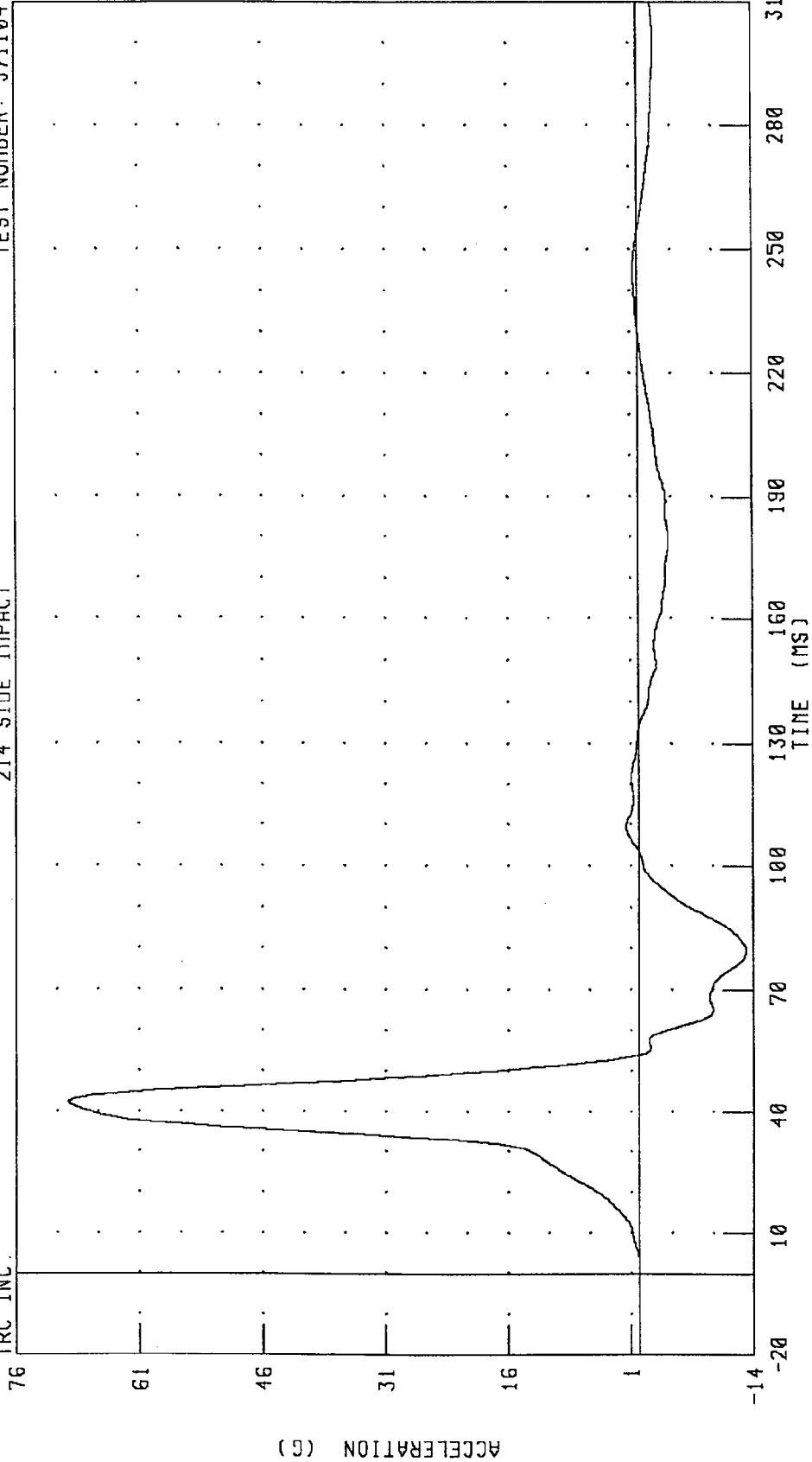
CHANNEL: T12YVJ FILTER: CH. CLASS 180

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
 LEFT REAR PASSENGER PELVIS Y-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 971104

214 SIDE IMPACT

IRC INC.



CHANNEL: PEVYR4 FILTER: FIR 100

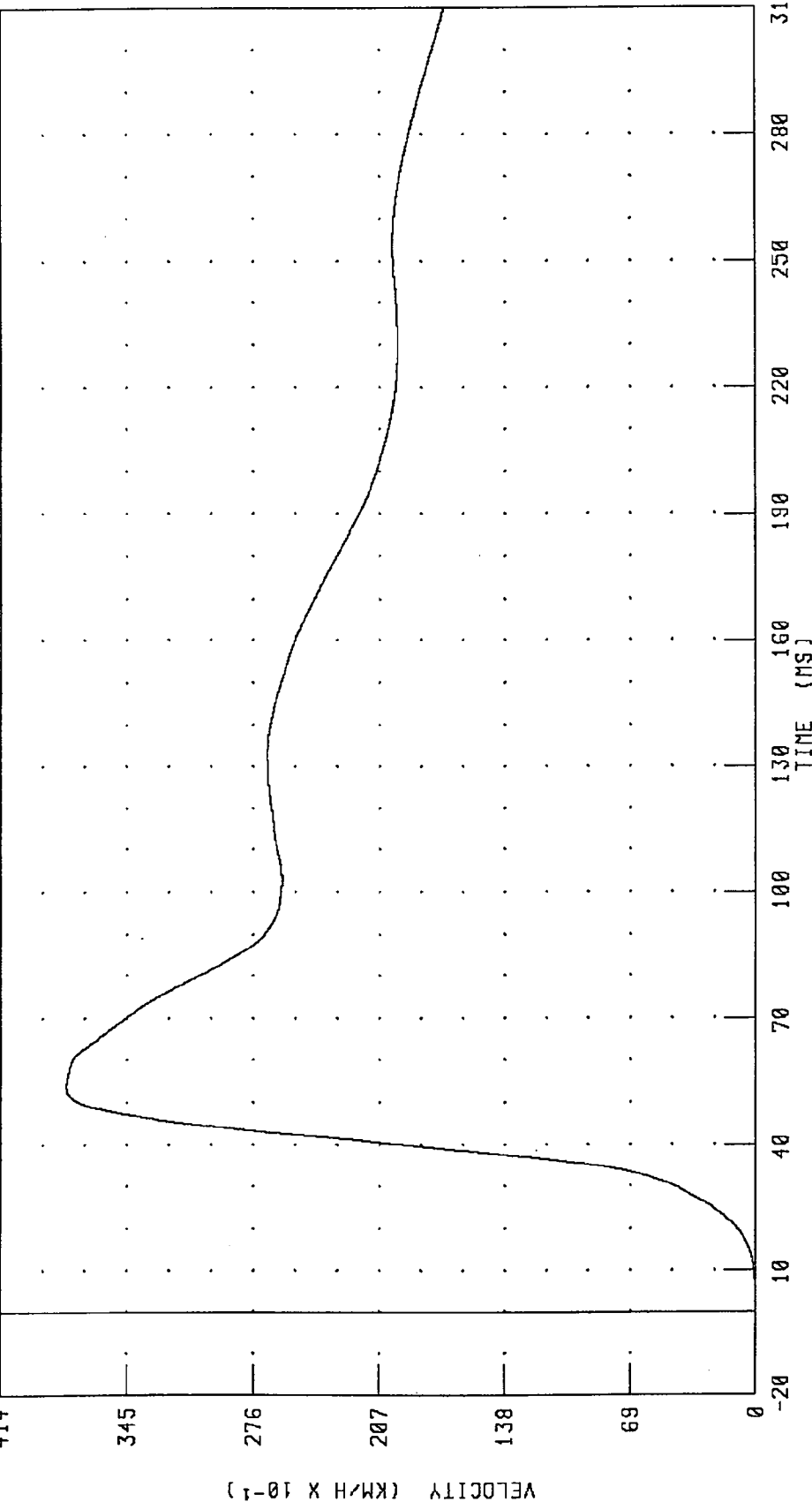
PEAK DATA: 69.63 G @ 42.50 MS; -13.08 G @ 79.38 MS

MOVING DEFORMABLE BARRIER INTO LEFT SIDE OF 1998 MAZDA 626
LEFT REAR PASSENGER PELVIS Y-AXIS REDUNDANT VELOCITY

TEST NUMBER: 971104

214 SIDE IMPACT

TRC INC.



CHANNEL: PEVYVJ FILTER: CH. CLASS 180

PEAK DATA: 37.79 KM/H @ 54.08 MS; 0.00 KM/H @ 2.80 MS

APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID PRE-TEST AND POST-TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 11/03/97, 11/26/97 TRC sequential test number: ED5102

Laboratory Technician: S. Ericksen, B. Crabtree

Test Parameter	Specification	SID 052		SID 051	
		Pre-	Post-	Pre-	Post-
		Test	Test	Test	Test
SH - seated height (mm)	889-900	894.1	894.1	894.1	894.1
RH - Rib Height (mm)	501-520	508.0	508.0	515.6	515.6
HP - Hip Pivot Height (mm)	99 ref	99.1	99.1	99.1	99.1
RD - Rib from Back Line (mm)	229-241	236.2	236.2	241.3	241.3
KV - Knee Pivot from Back Line (mm)	511-526	525.8	525.8	525.8	525.8
SW - Knee Pivot to Floor (mm)	490-506	490.2	490.2	492.8	492.8
HW - Hip Width (mm)	356-391	373.4	373.4	370.8	370.8
THORAX IMPACTS					
Temperature (°C)	18.9-25.5	21.1	21.1	21.1	21.1
Relative Humidity (%)	10-70	30	28	30	28
Probe Speed (m/s)	4.27-4.33	4.31	4.31	4.32	4.31
Upper Rib (g's)	37-46	45.3	42.7	39.1	37.3
Lower Rib (g's)	37-46	43.1	41.1	37.3	38.7
Lower Spine (g's)	15-22	17.9	16.0	16.1	16.4
PELVIS IMPACTS					
Temperature (°C)	18.9-25.5	21.1	21.1	21.1	21.1
Relative Humidity (%)	10-70	30	28	30	28
Probe Speed (m/s)*	4.27-4.33	4.22	4.23	4.23	4.23
Pelvis (g's)*	40-60	52.5	47.2	42.4	46.3

*Remarks: The pelvis probe speed was not within specification.

Calibration Test Results

Pre-Test

SID: 052

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Thorax Impact Test:	The lateral thorax passed all impact test requirements.
Pelvis Impact Tests:	The lateral pelvis passed all impact test requirements.
Thorax Shock Absorbers:	The thorax passed all shock absorber requirements.

TRANSPORTATION RESEARCH CENTER INC.
SIDE IMPACT DUMMY
EXTERNAL DIMENSIONS
LEFT SIDE CONFIGURATION
SN SN52 VECTOR

03-NOV-97

TRC INC. TEST NO: ED5202 572F SN52 EXT.DIMENSION CAL02

DIMENSIONS WITH CHEST JACKET INSTALLED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
	TEMPERATURE		21.1 DEG. C
	RELATIVE HUMIDITY		60.0 %
SH	SEATED HEIGHT	889 - 909 MM	894.1 MM
HP	HIP PIVOT HEIGHT	99 MM REF.	99.1 MM
KH	KNEE PIVOT FROM BACKLINE	511 - 526 MM	525.8 MM
KV	KNEE PIVOT FROM FLOOR	490 - 506 MM	490.2 MM
HW	HIP WIDTH	356 - 391 MM	373.4 MM
DIMENSIONS WITH CHEST JACKET REMOVED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
RH	RIB HEIGHT	501 - 520 MM	508.0 MM
RD	RIB FROM BACKLINE	229 - 241 MM	236.2 MM
RW-1	TOP RIB WIDTH FROM C/L	165. - 180 MM	180.3 MM
RW-2	BOTTOM RIB WIDTH FROM C/L	165 - 180 MM	180.3 MM
	DIFFERENCE BETWEEN TOP & BOTTOM RIB WIDTH FROM C/L	≤ 2.5 MM	0.0 MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN

Scott Tucker

RUN NUMBER: 111997.1313

TRANSPORTATION RESEARCH CENTER INC.

LATERAL THORAX IMPACT TEST

SIDE IMPACT DUMMY

03-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: STL5202

572F SN52 LEFT THORAX CAL02

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	30.0 %
PENDULUM VELOCITY	4.21 - 4.32 M/S	4.31 M/S
PEAK ACCELERATION: UPPER RIB BAR	37 - 46 G	-45.3 G
PEAK ACCELERATION: LOWER RIB BAR	37 - 46 G	-43.1 G
PEAK ACCELERATION: LOWER THORACIC SPINE	15 - 22 G	-17.9 G

TEST MEETS SPECIFICATIONS

TECHNICIAN

B. C. H.

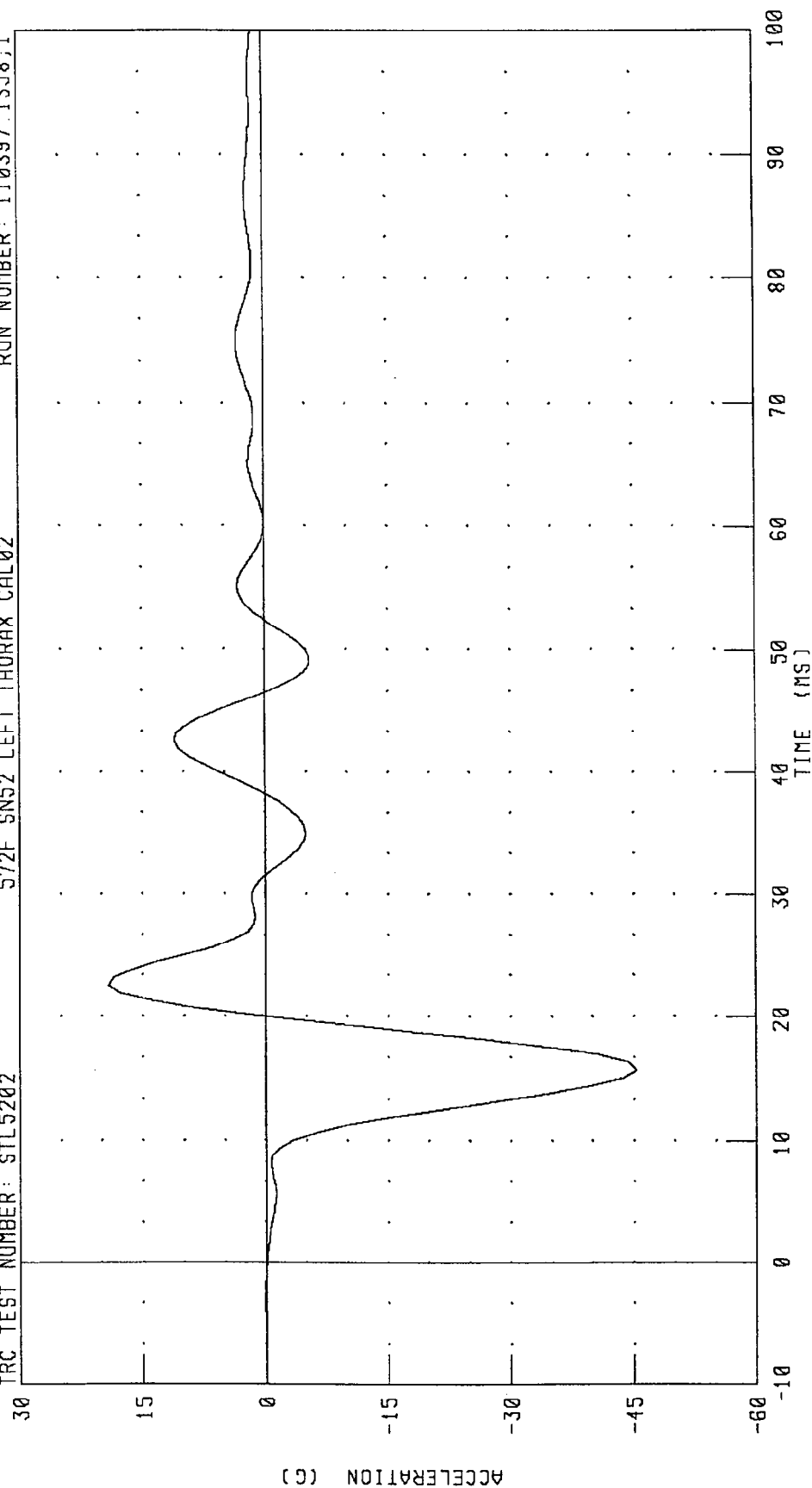
RUN NUMBER: 110397.1357;1

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
LEFT UPPER RIB ACCELERATION Y AXIS

TRC TEST NUMBER: STL5202

572F SN52 LEFT THORAX CAL02

RUN NUMBER: 110397.1358;1

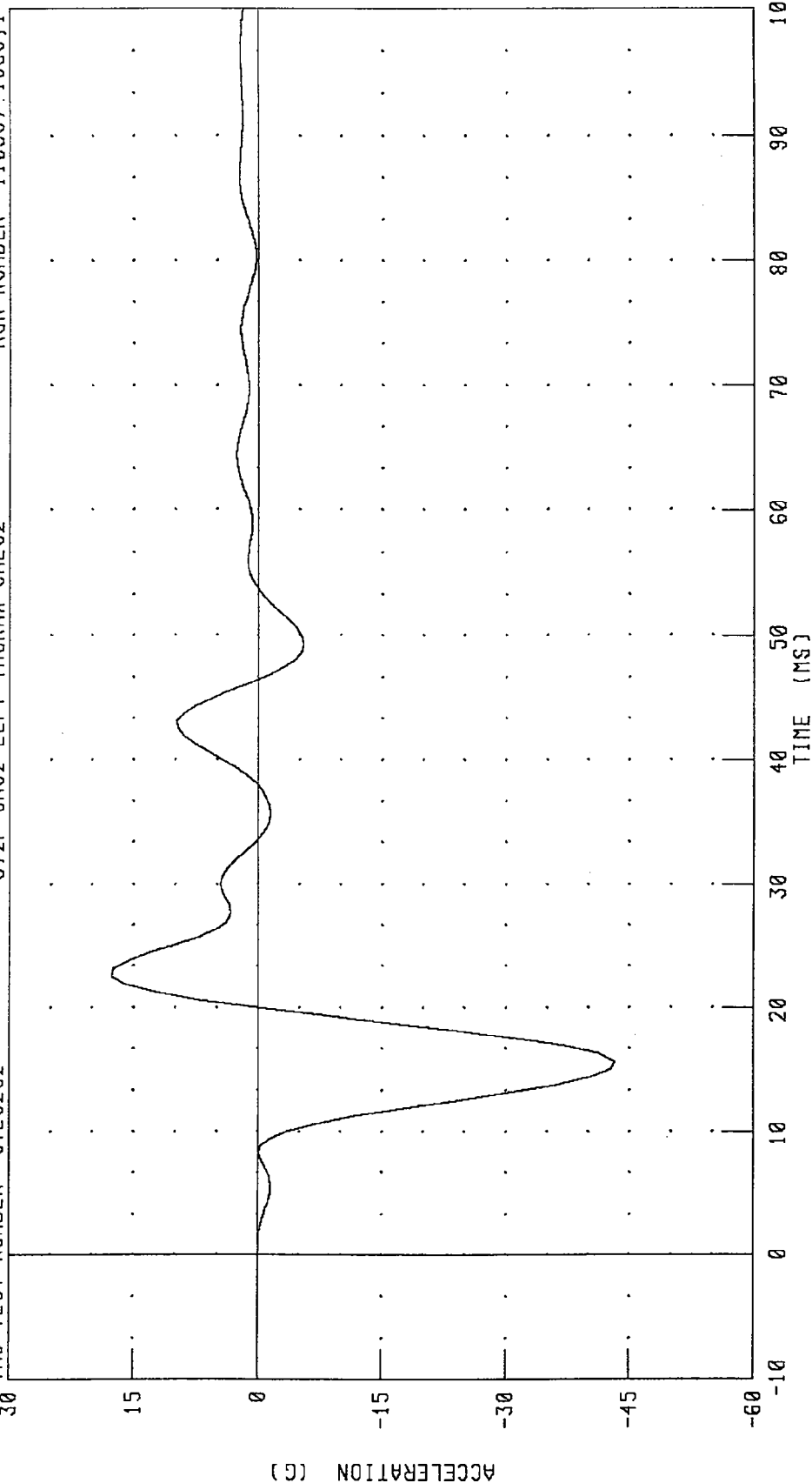


PEAK DATA: 19.17 G @ 22.50 MS; -45.35 G @ 15.63 MS

CHANNEL: LURYG FILTER: FIR 100

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
LEFT LOWER RIB ACCELERATION Y AXIS

TRC TEST NUMBER: STL5202 572F SN52 LEFT THORAX CAL02 RUN NUMBER: 110397.1358;1

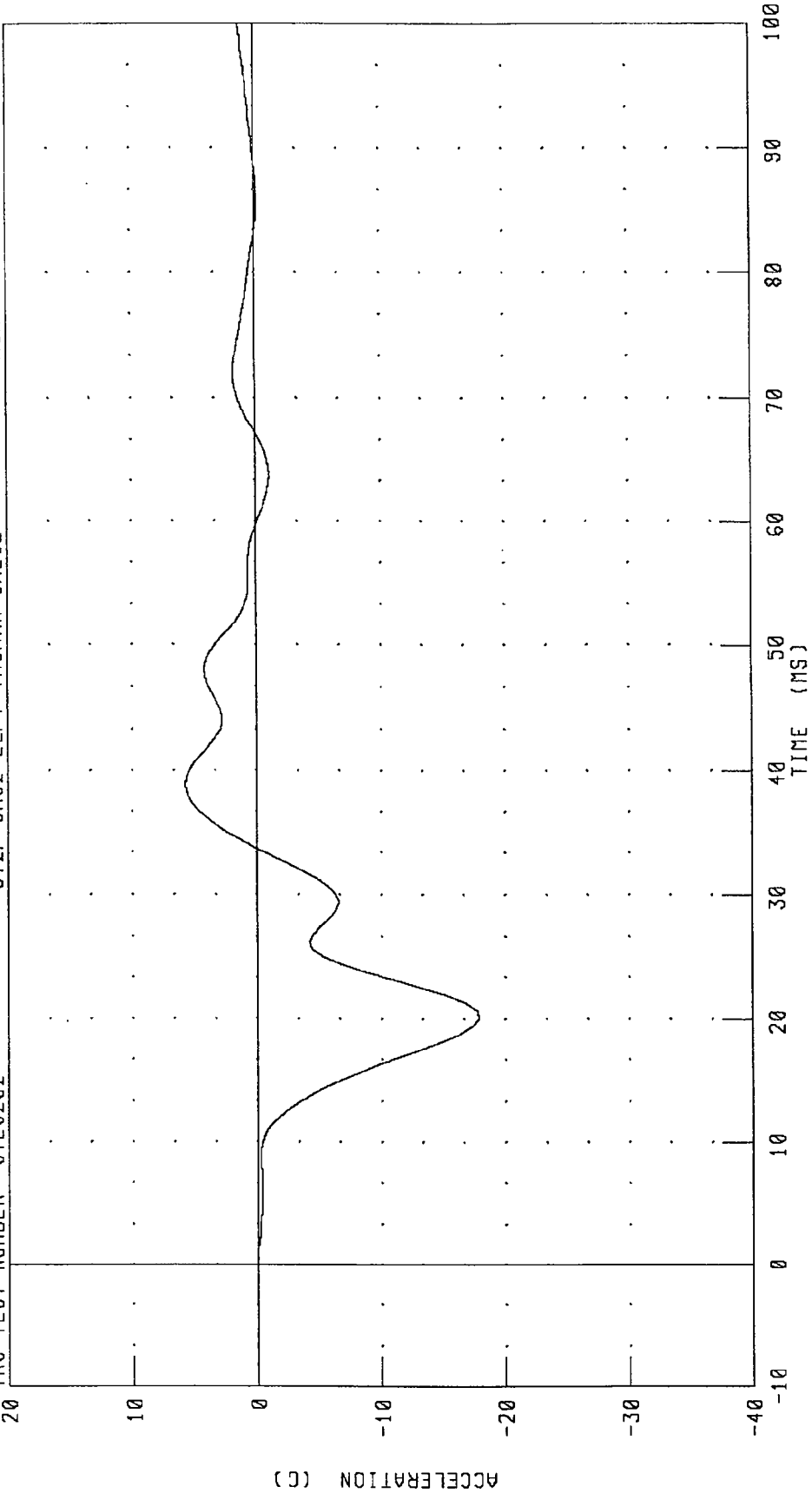


PEAK DATA: 17.59 G @ 22.50 MS; -43.14 G @ 15.63 MS

CHANNEL: LLRYG FILTER: FIR 100

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
 LOWER SPINE ACCELERATION Y AXIS

TRC TEST NUMBER: STL5202 572F SN52 LEFT THORAX CAL02 RUN NUMBER: 110397.1358;1



CHANNEL: T12YG FILTER: FIR 100 PEAK DATA: 5.75 G @ 38.75 MS; -17.91 G @ 20.00 MS

TRANSPORTATION RESEARCH CENTER INC.

LATERAL PELVIS IMPACT TEST

SIDE IMPACT DUMMY

03-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: SPL5202

572F SN52 LEFT PELVIS CAL02

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	30.0 %
PENDULUM VELOCITY	4.27 - 4.33 M/S	4.22 M/S *
PEAK PELVIC ACCELERATION	40 - 60 G	-52.5 G
TIME ABOVE 20 G LEVEL	3 - 7 MS	5.7 MS
IS ACCELERATION CURVE UNIMODAL?	YES	YES

* TEST DOES NOT MEET SPECIFICATIONS

TECHNICIAN

V. J. W. H. H.

RUN NUMBER: 110397.1404;1

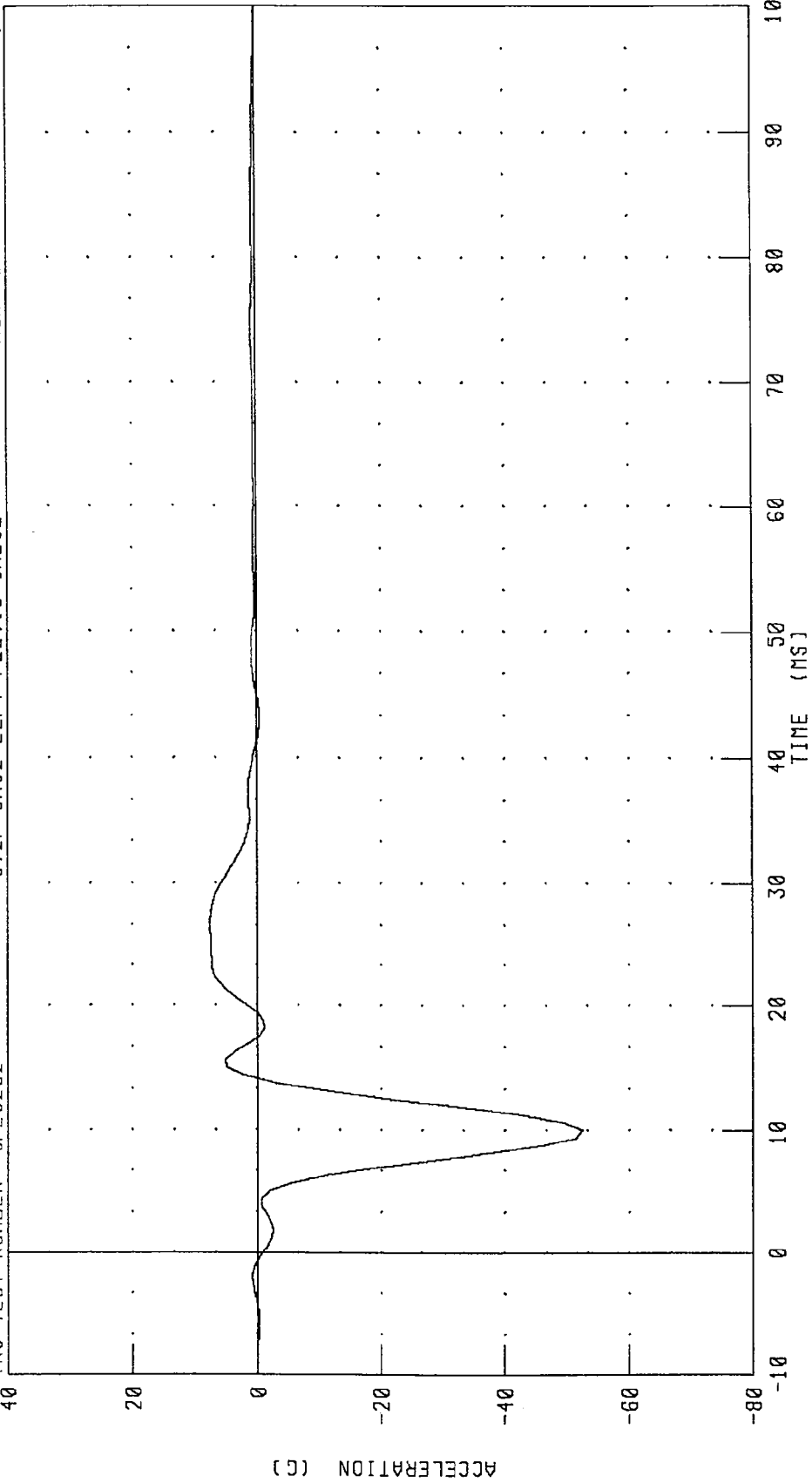
PART 572-F S.I.D. PELVIS CALIBRATION - (LEFT SIDE IMPACT)

PELVIS ACCELERATION Y AXIS

572F SN52 LEFT PELVIS CAL02

TRC TEST NUMBER: SPL5202

RUN NUMBER: 110397 1405;1



CHANNEL: PEVYG FILTER: FIR 100

TRANSPORTATION RESEARCH CENTER INC.

THORACIC SHOCK ABSORBER TESTS

SIDE IMPACT DUMMY

03-NOV-97

TRC INC.

572F SN52 DAMPER TEST CAL02

TEST NUMBER: DP5202A

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	30.0 %
VELOCITY	FORCE	838 - 1125 N	865 N
3.05 M/S	DISPLACEMENT	30.2 - 35.2 MM	32.8 MM
VELOCITY	FORCE	1733 - 2100 N	1791 N
4.28 M/S	DISPLACEMENT	31.6 - 37.2 MM	35.8 MM
VELOCITY	FORCE	3824 - 4542 N	4134 N
6.14 M/S	DISPLACEMENT	33.3 - 39.6 MM	38.2 MM

DAMPER SETTING = 6.0

TEST MEETS SPECIFICATIONS

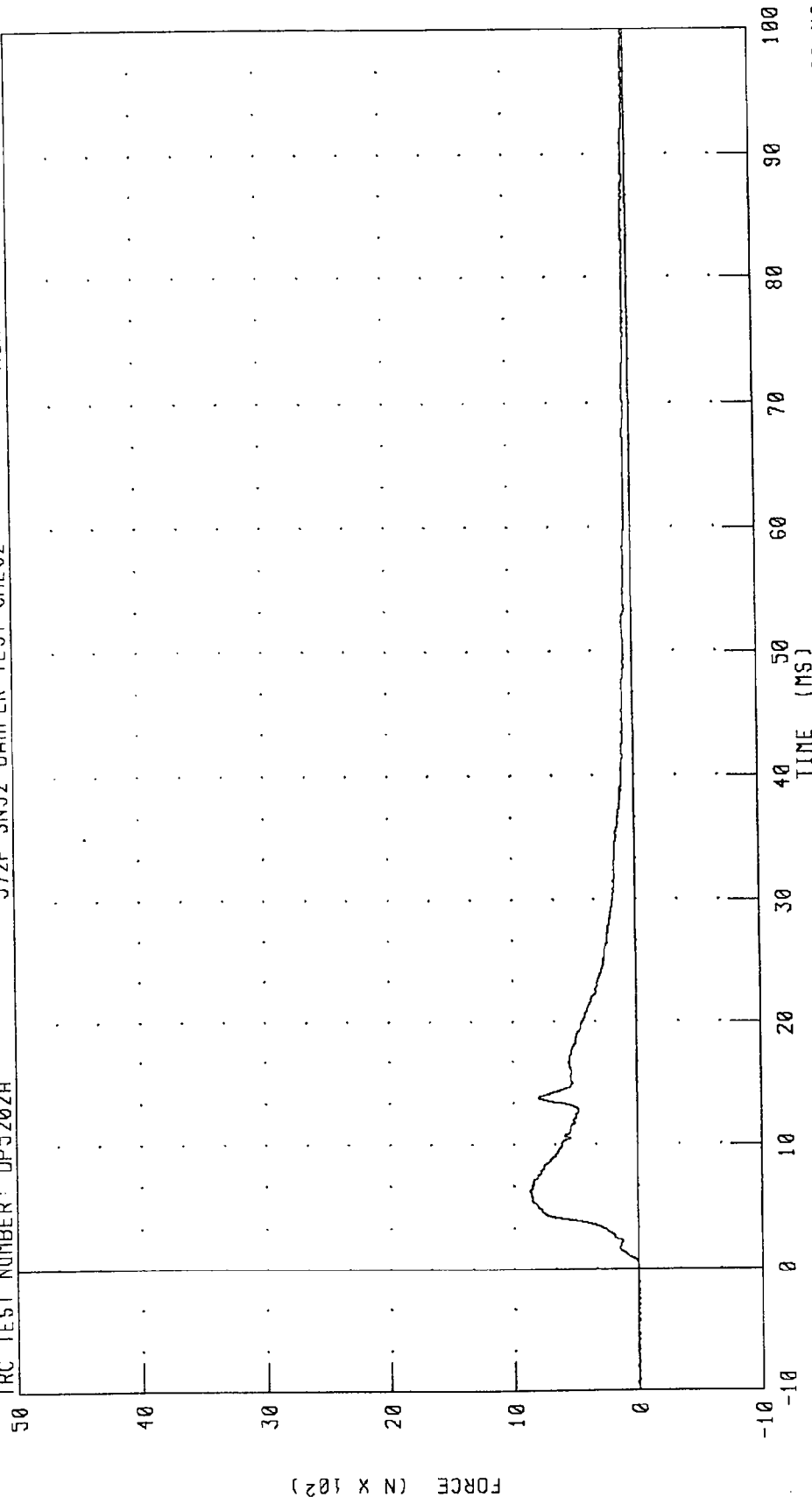
TECHNICIAN

Kevin Watkins

RUN NUMBER: 110397.1252;1

PART 572-F S I D THORACIC SHOCK ABSORBER CALIBRATION (3 0 M/SEC)
 SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5202A 572F SN52 DAMPER TEST CAL02 RUN NUMBER: 122297.1532.1

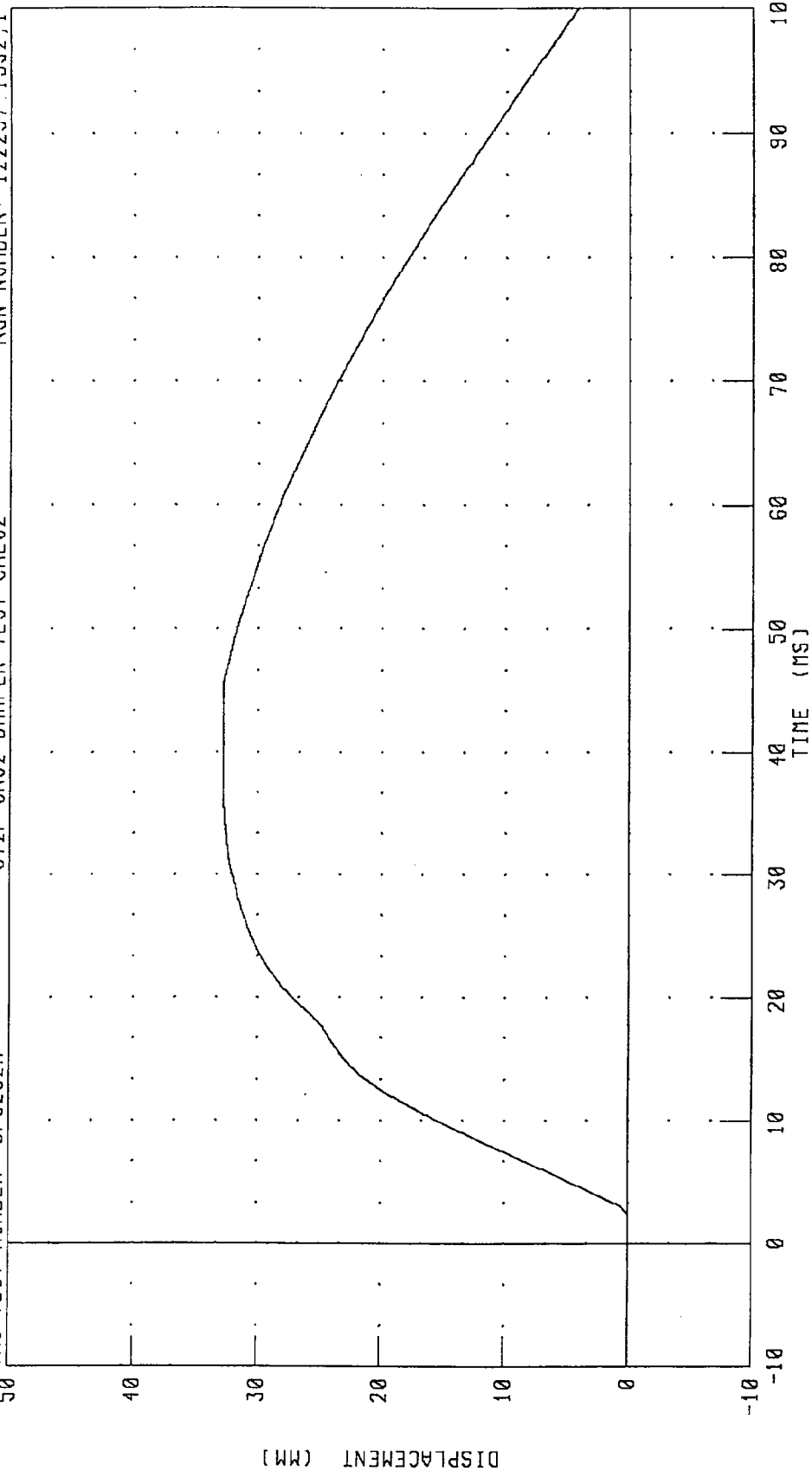


CHANNEL: DAMPF FILTER: CH. CLASS 1000 PEAK DATA: 864.70 N @ 6.24 MS; -2.63 N @ -2.56 MS

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)

SHOCK ABSORBER DISPLACEMENT

IRC TEST NUMBER: DP5202A 572F SN52 DAMPER TEST CAL02 RUN NUMBER: 122297.1532,1



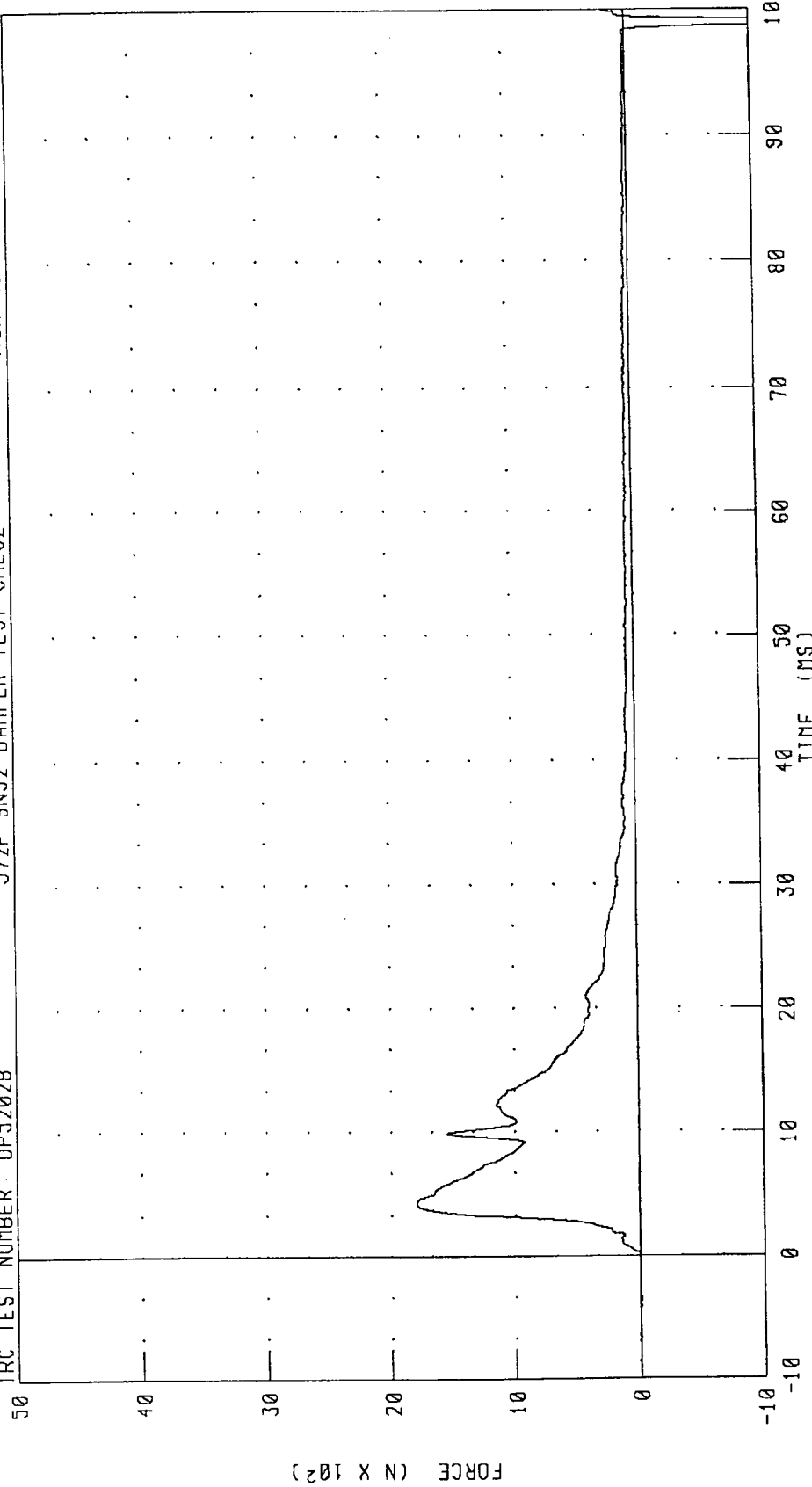
PEAK DATA: 32.79 MM @ 38.00 MS; -0.02 MM @ -2.72 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

PART 572-F S.I.D THORACIC SHOCK ABSORBER CALIBRATION (4 3 M/SEC)
 SHOCK ABSORBER RESISTIVE FORCE
 572F SN52 DAMPER TEST CAL02

RUN NUMBER 122297 1543.6

TRC TEST NUMBER DP52028



PEAK DATA: 1791.30 N @ 4.32 MS; -1672.24 N @ 98.96 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

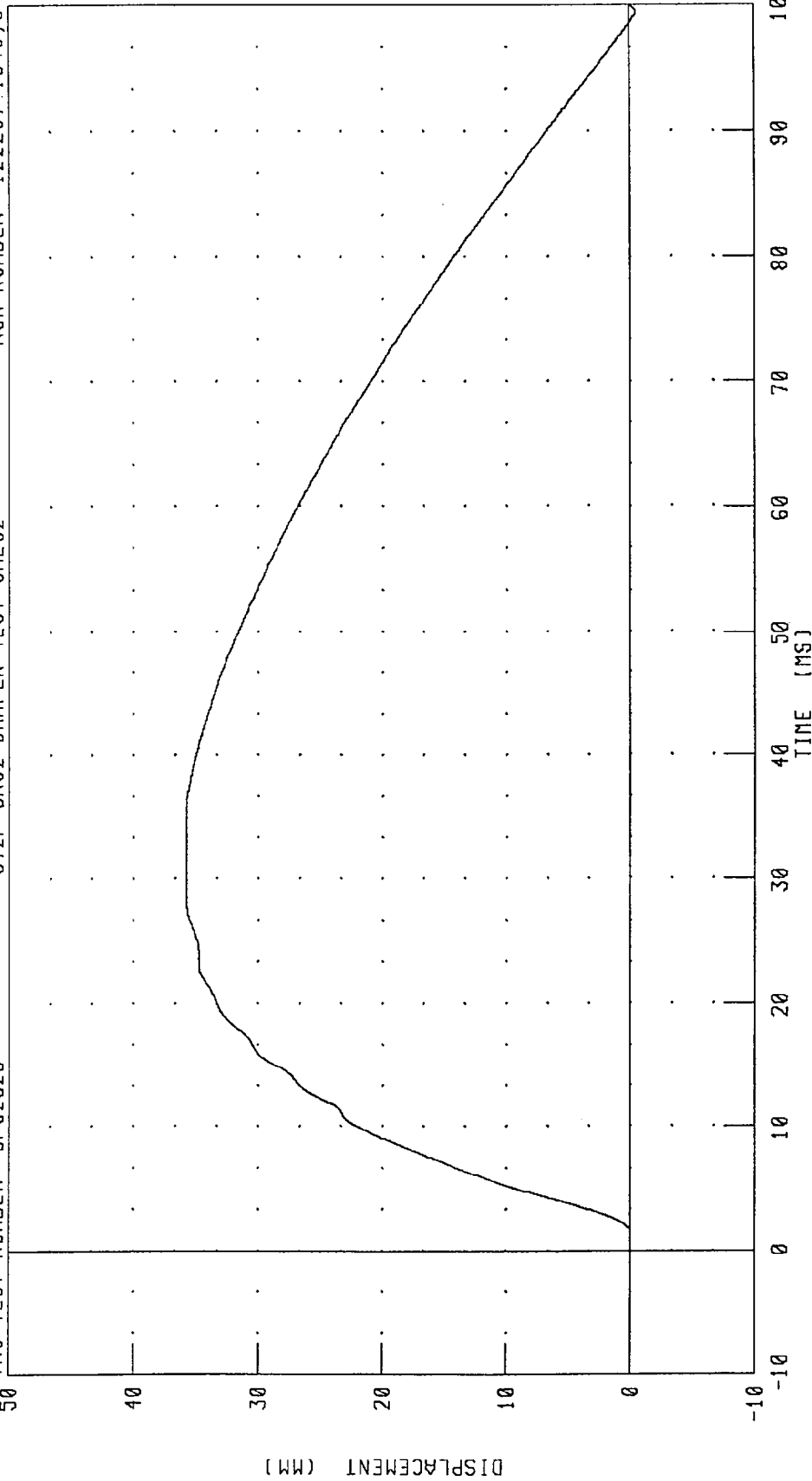
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP52028

572F SN52 DAMPER TEST CAL02

RUN NUMBER: 122297.1543;6

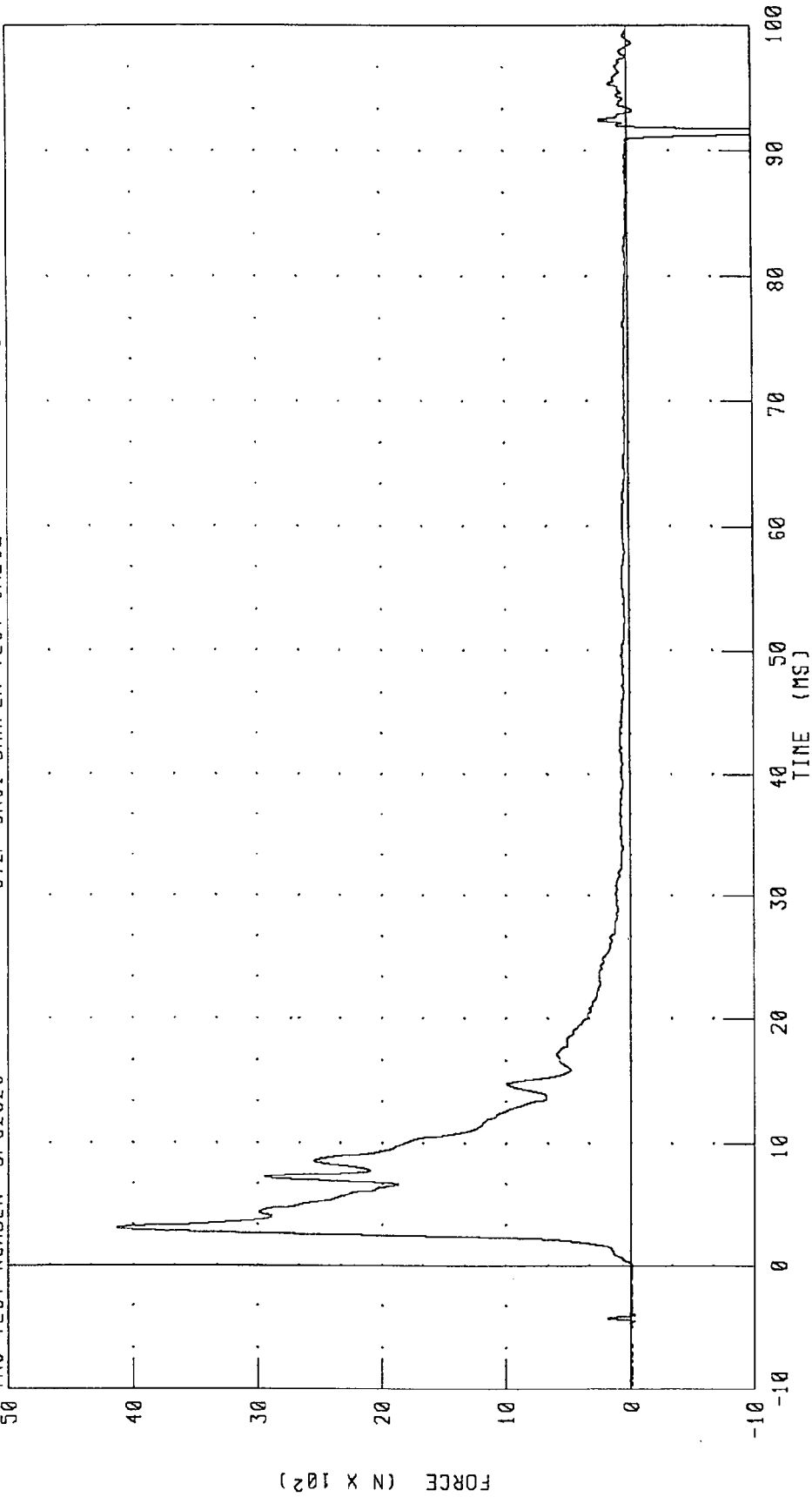


PEAK DATA: 35.77 MM @ 35.60 MS; -0.48 MM @ 99.44 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)
 SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5202C 572F SN51 DAMPER TEST CAL02 RUN NUMBER: 122297.1545.1



PEAK DATA: 4133.94 N @ 3.04 MS; -1811.42 N @ 91.52 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

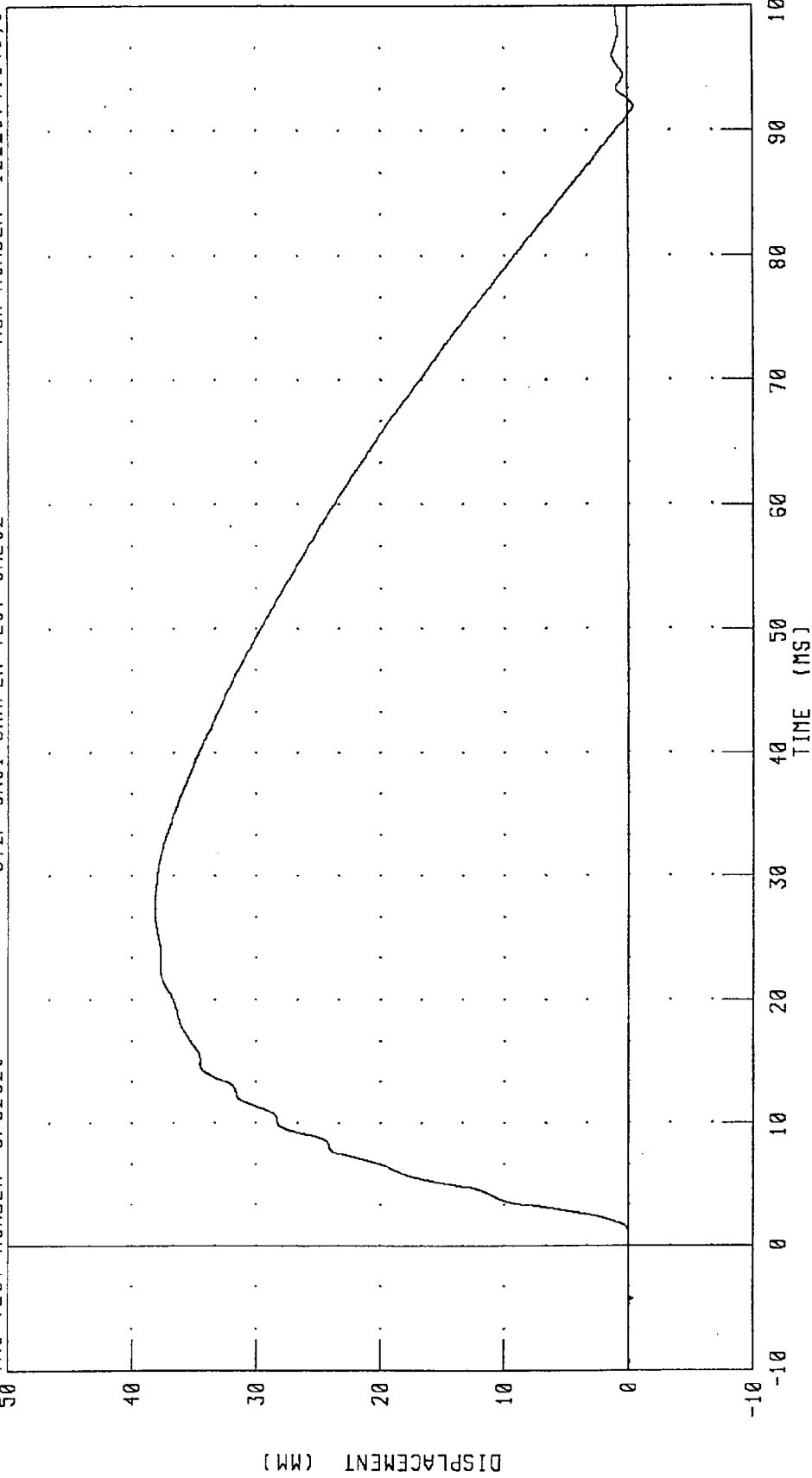
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: 0P5202C

572F SN51 DAMPER TEST CAL02

RUN NUMBER: 122297.1545;1



PEAK DATA: 38.16 MM @ 27.36 MS; -0.39 MM @ 91.92 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

Calibration Test Results

Pre-Test

SID: 051

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Thorax Impact Test:	The lateral thorax passed all impact test requirements.
Pelvis Impact Tests:	The lateral pelvis passed all impact test requirements.
Thorax Shock Absorbers:	The thorax passed all shock absorber requirements.

TRANSPORTATION RESEARCH CENTER INC.
SIDE IMPACT DUMMY
EXTERNAL DIMENSIONS
LEFT SIDE CONFIGURATION
SN SN51 VECTOR

03-NOV-97

TRC INC. TEST NO: ED5102 572F SN51 EXT.DIMENSION CAL02

DIMENSIONS WITH CHEST JACKET INSTALLED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
	TEMPERATURE		21.1 DEG. C
	RELATIVE HUMIDITY		60.0 %
SH	SEATED HEIGHT	889 - 909 MM	894.1 MM
HP	HIP PIVOT HEIGHT	99 MM REF.	99.1 MM
KH	KNEE PIVOT FROM BACKLINE	511 - 526 MM	525.8 MM
KV	KNEE PIVOT FROM FLOOR	490 - 506 MM	492.8 MM
HW	HIP WIDTH	356 - 391 MM	370.8 MM
DIMENSIONS WITH CHEST JACKET REMOVED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
RH	RIB HEIGHT	501 - 520 MM	515.6 MM
RD	RIB FROM BACKLINE	229 - 241 MM	241.3 MM
RW-1	TOP RIB WIDTH FROM C/L	165. - 180 MM	175.3 MM
RW-2	BOTTOM RIB WIDTH FROM C/L	165 - 180 MM	175.3 MM
	DIFFERENCE BETWEEN TOP & BOTTOM RIB WIDTH FROM C/L	≤ 2.5 MM	0.0 MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN

Scott P. Fisher

RUN NUMBER: 111997.1307

TRANSPORTATION RESEARCH CENTER INC.

LATERAL THORAX IMPACT TEST

SIDE IMPACT DUMMY

03-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: STL5102D

572F SN51 LEFT THORAX CAL02

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	30.0 %
PENDULUM VELOCITY	4.21 - 4.32 M/S	4.32 M/S
PEAK ACCELERATION: UPPER RIB BAR	37 - 46 G	-39.1 G
PEAK ACCELERATION: LOWER RIB BAR	37 - 46 G	-37.3 G
PEAK ACCELERATION: LOWER THORACIC SPINE	15 - 22 G	-16.1 G

TEST MEETS SPECIFICATIONS

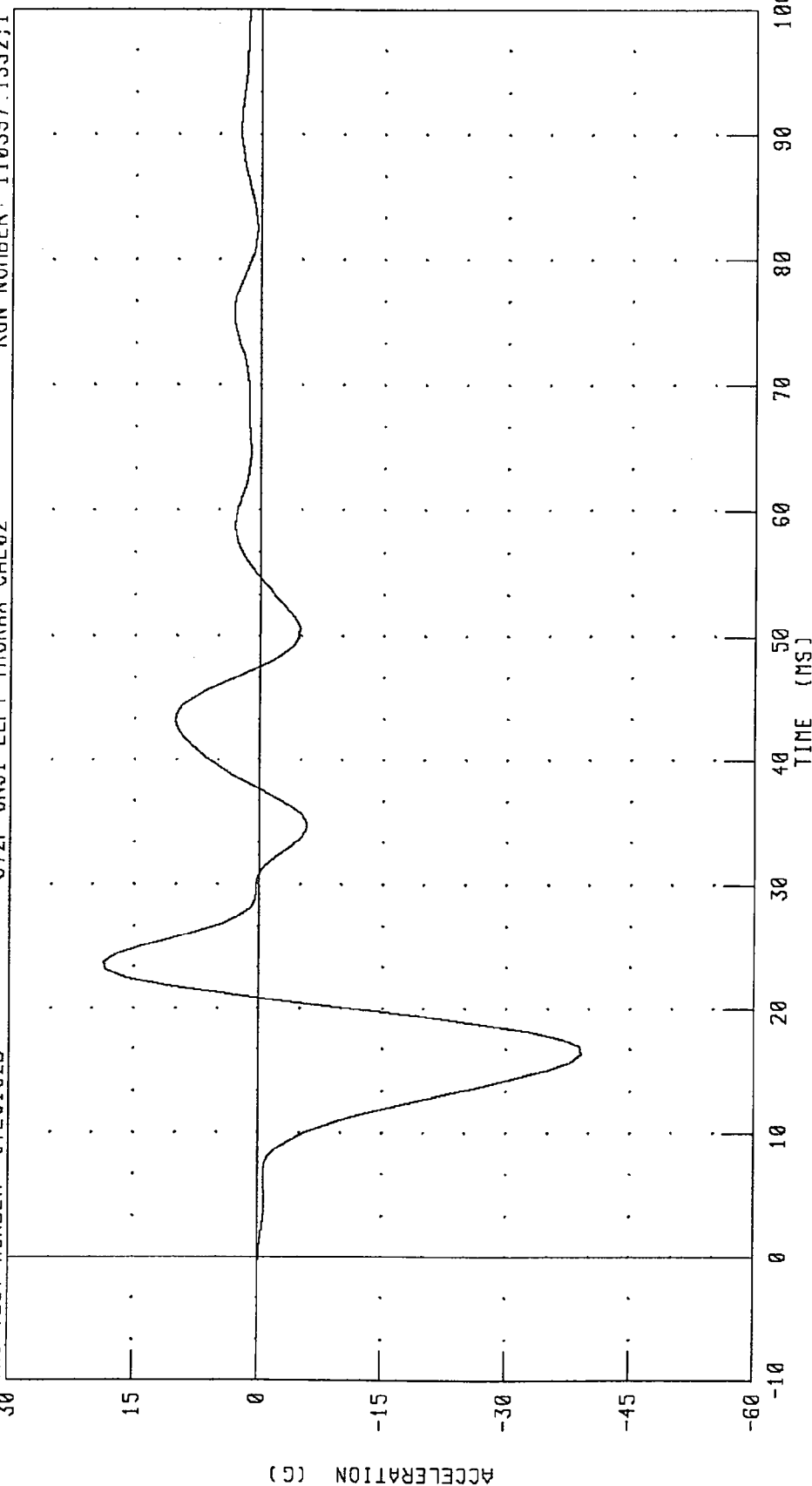
TECHNICIAN

By Cult

RUN NUMBER: 110397.1330;1

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
LEFT UPPER RIB ACCELERATION Y AXIS

TRC TEST NUMBER: STL5102D 572F SN51 LEFT THORAX CAL02 RUN NUMBER: 110397.1332.1



CHANNEL: LURYG FILTER: FIR 100

PEAK DATA: 18.63 G @ 23.75 MS; -39.09 G @ 16.25 MS

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)

LEFT LOWER RIB ACCELERATION Y AXIS

572F SN51 LEFT THORAX CAL02

TRC TEST NUMBER: STL5102D

30

15

0

-15

-30

-45

-60

ACCELERATION (G)

TIME (MS)

100

90

80

70

60

50

40

30

20

10

0

PEAK DATA: 17.82 G @ 23.75 MS; -37.35 G @ 16.25 MS

CHANNEL: LLRYG

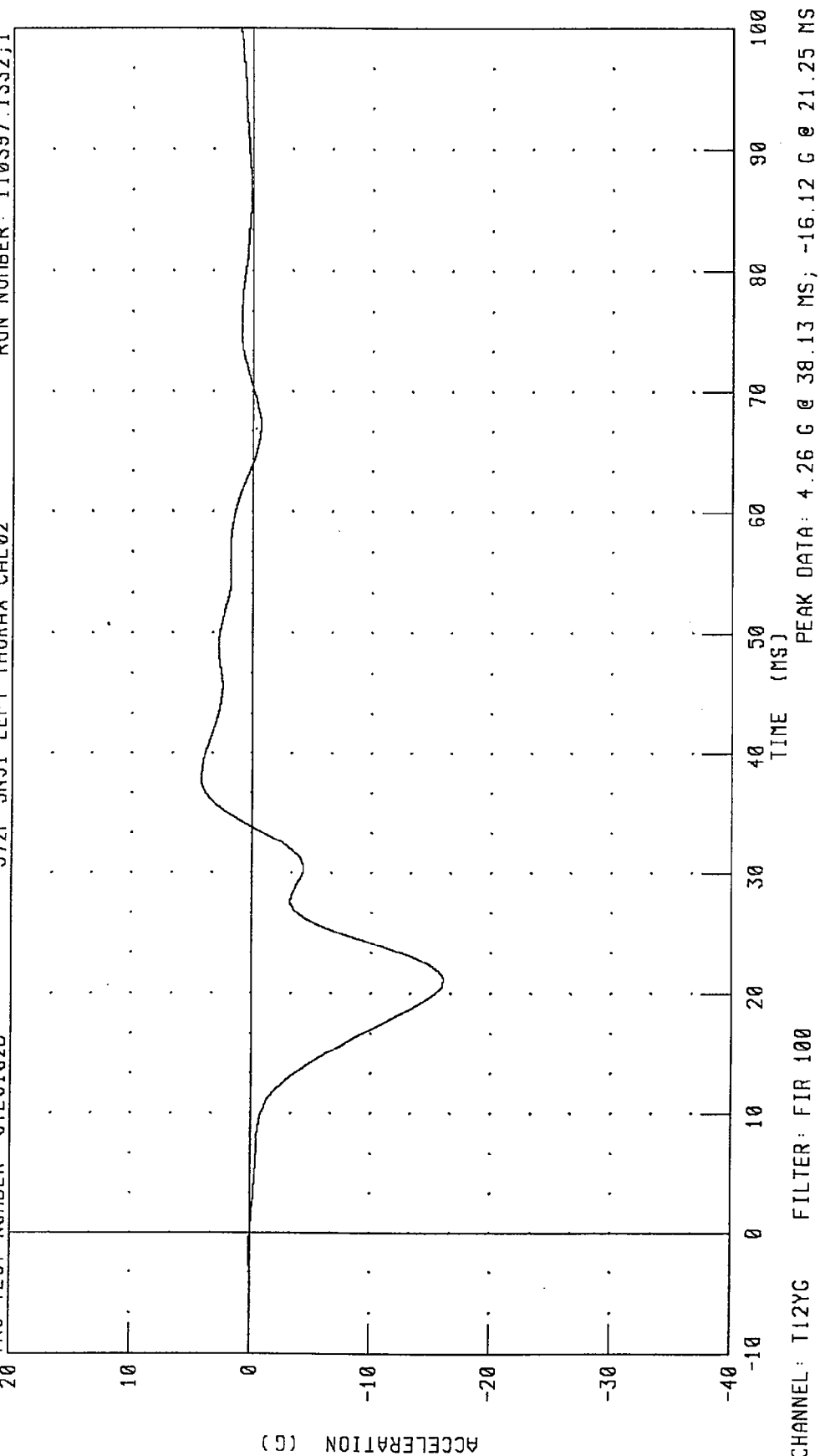
FILTER: FIR 100

971104

C-22

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
 LOWER SPINE ACCELERATION Y AXIS

TRC TEST NUMBER: STL5102D 572F SN51 LEFT THORAX CAL02 RUN NUMBER: 110397.1332;1



CHANNEL: T12YG FILTER: FIR 100

TRANSPORTATION RESEARCH CENTER INC.

LATERAL PELVIS IMPACT TEST

SIDE IMPACT DUMMY

03-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: SPL5102

572F SN51 LEFT PELVIS CAL02

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	30.0 %
PENDULUM VELOCITY	4.27 - 4.33 M/S	4.23 M/S *
PEAK PELVIC ACCELERATION	40 - 60 G	-42.4 G
TIME ABOVE 20 G LEVEL	3 - 7 MS	5.7 MS
IS ACCELERATION CURVE UNIMODAL?	YES	YES

* TEST DOES NOT MEET SPECIFICATIONS

TECHNICIAN

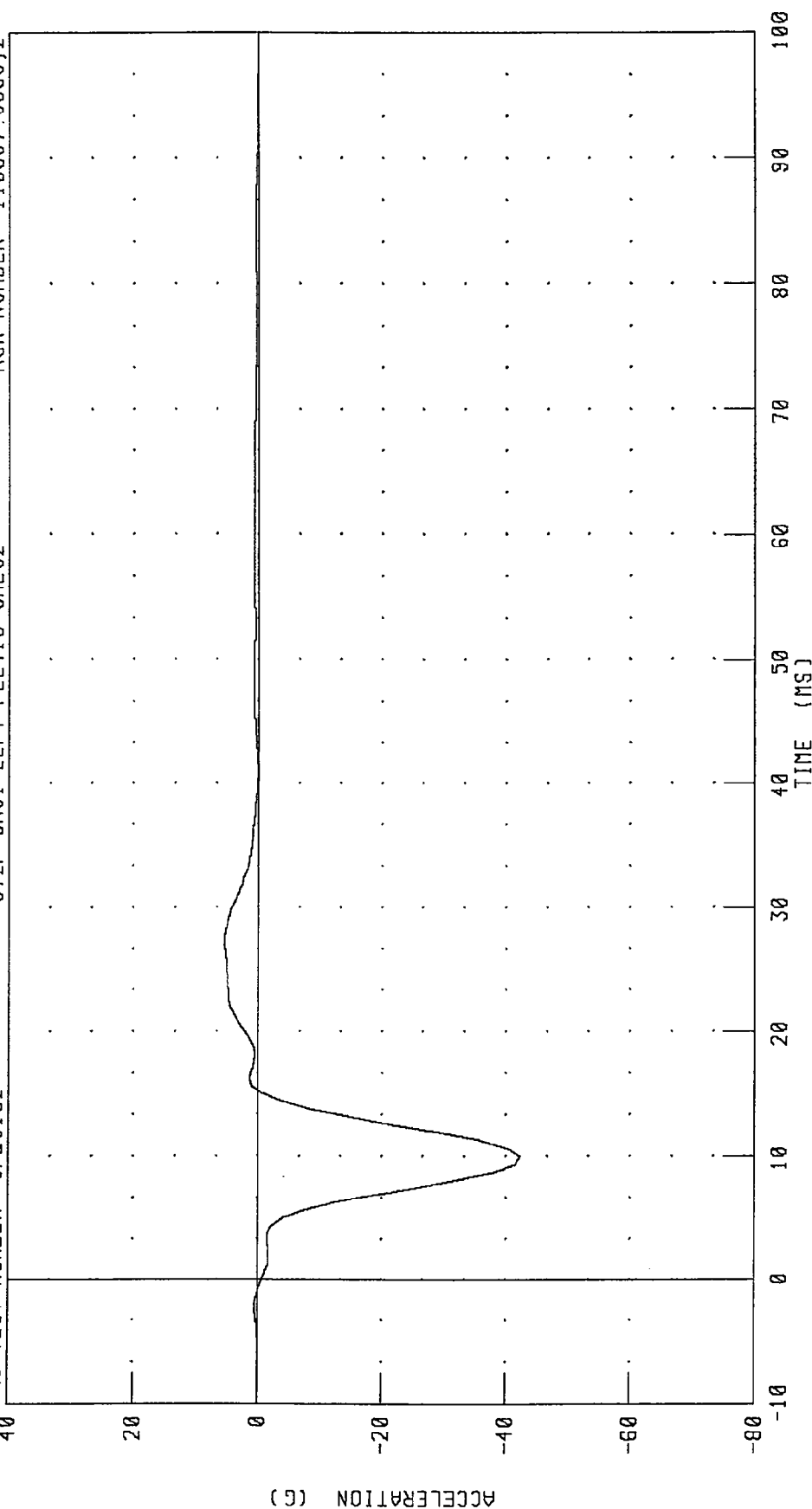
V. J. Watter

RUN NUMBER: 110397.0935;2

PART 572-F S.I.D. PELVIS CALIBRATION - (LEFT SIDE IMPACT)

PELVIS ACCELERATION Y AXIS

IRC TEST NUMBER: SPL5102 572F SN51 LEFT PELVIS CAL02 RUN NUMBER: 110397.0936;2



PEAK DATA: 5.34 G @ 26.87 MS, -42.43 G @ 10.00 MS

CHANNEL: PEVYG FILTER: FIR 100

TRANSPORTATION RESEARCH CENTER INC.

THORACIC SHOCK ABSORBER TESTS

SIDE IMPACT DUMMY

03-NOV-97

TRC INC.

572F SN51 DAMPER TEST CAL02

TEST NUMBER: DP5102A

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	30.0 %
VELOCITY	FORCE	856 - 1146 N	902 N
3.07 M/S	DISPLACEMENT	30.2 - 35.2 MM	31.3 MM
VELOCITY	FORCE	1759 - 2131 N	1812 N
4.29 M/S	DISPLACEMENT	31.7 - 37.3 MM	34.4 MM
VELOCITY	FORCE	3743 - 4448 N	4322 N
6.10 M/S	DISPLACEMENT	33.3 - 39.5 MM	37.5 MM

DAMPER SETTING = 5.8

TEST MEETS SPECIFICATIONS

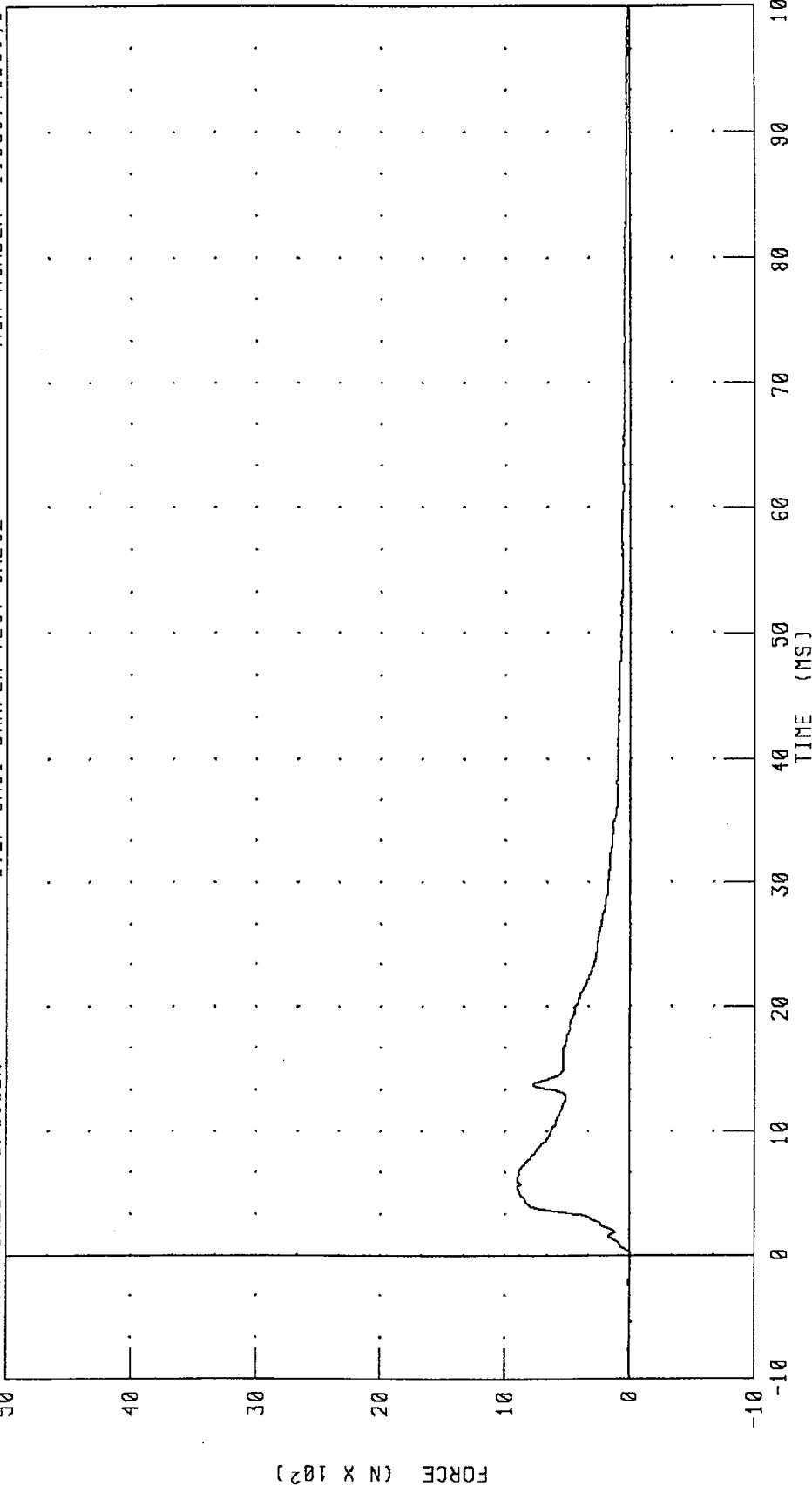
TECHNICIAN

B. C. H.

RUN NUMBER: 110397.0850;1

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)
SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5102A 572F SN51 DAMPER TEST CAL02 RUN NUMBER: 110397.0851;1



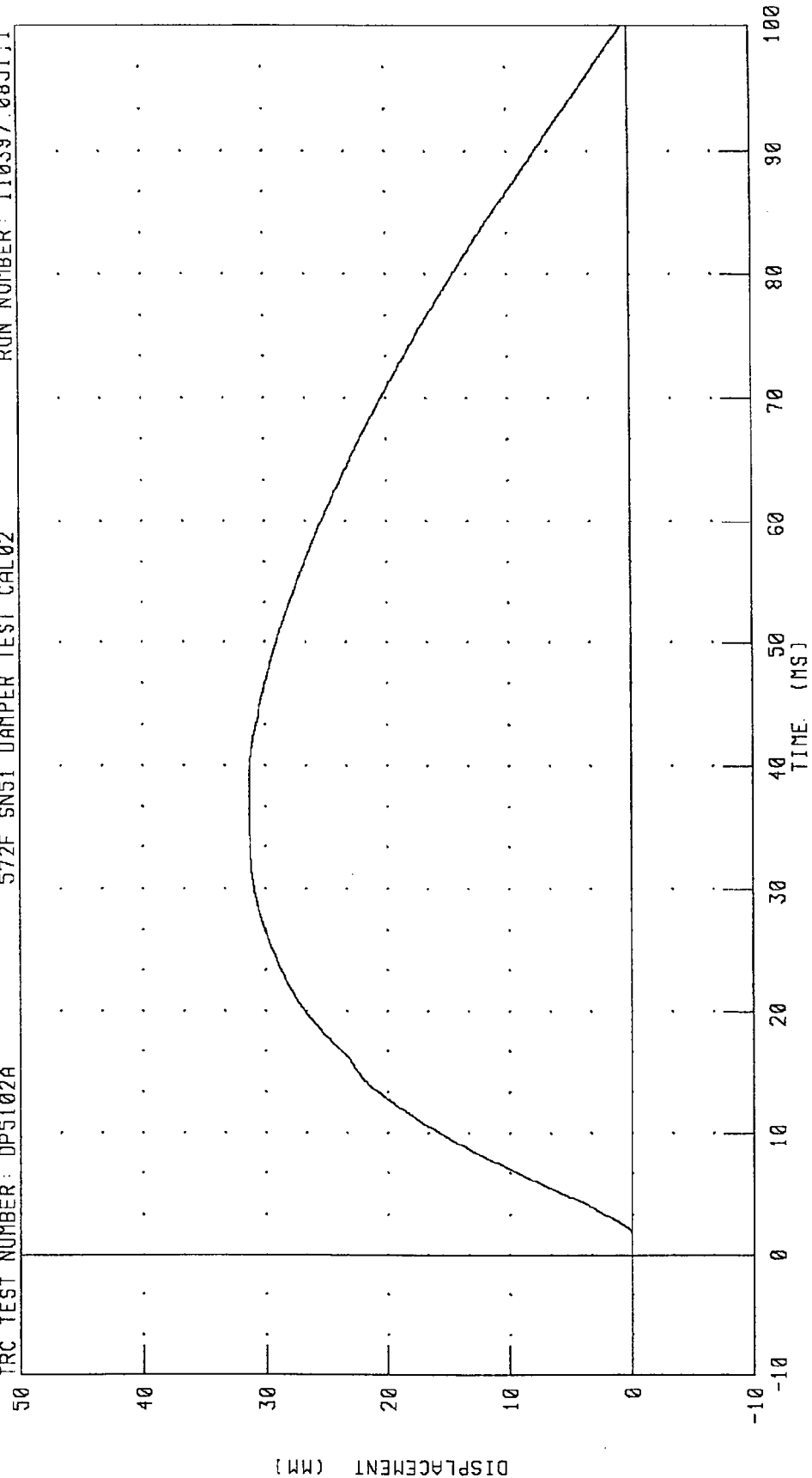
CHANNEL: DAMPF FILTER: CH. CLASS 1000

PEAK DATA: 902.49 N @ 5.44 MS; -11.17 N @ -5.36 MS

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP5102A 572F SN51 DAMPER TEST CAL02 RUN NUMBER: 110397.0851,1

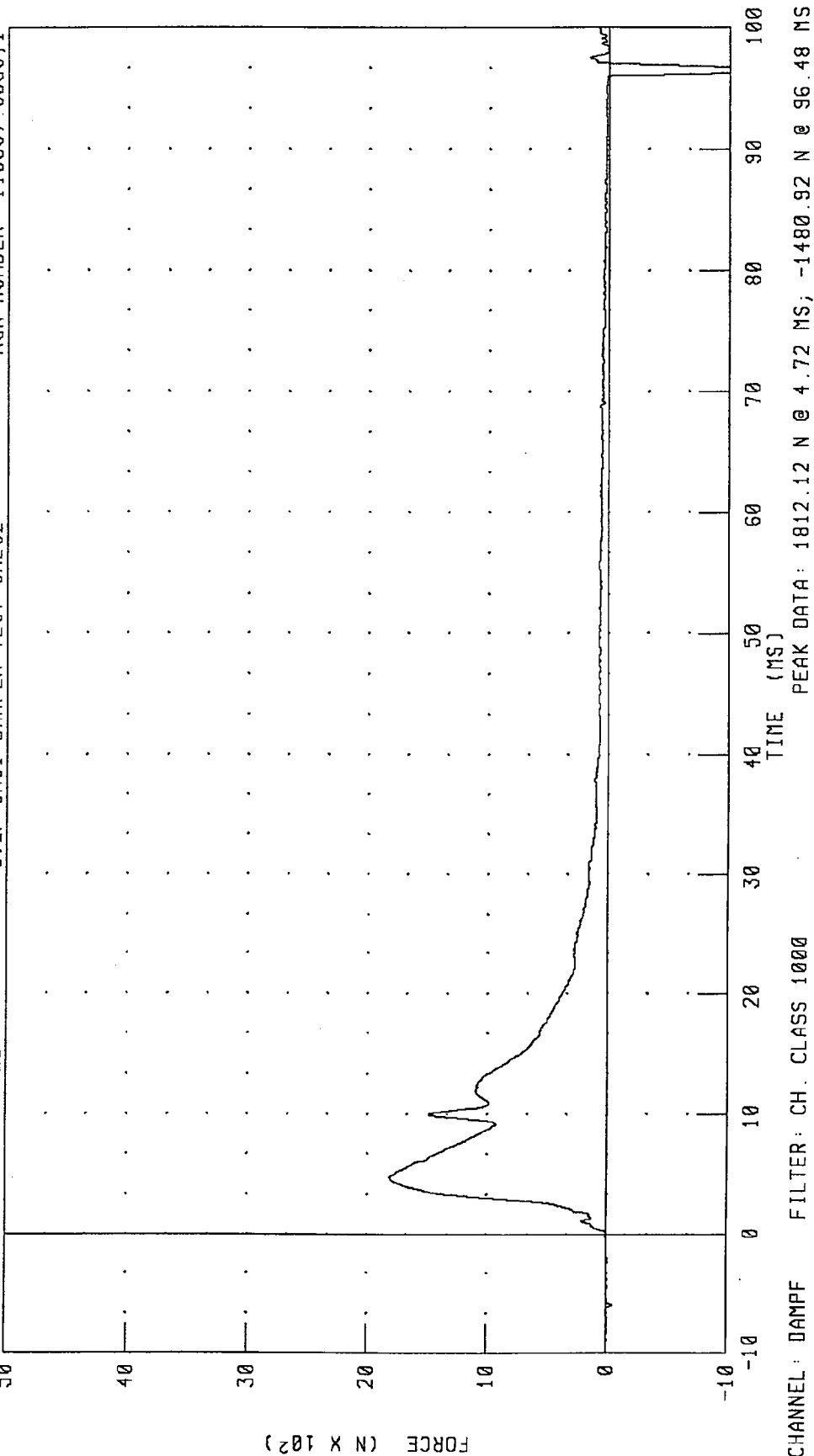


PEAK DATA: 31.31 MM @ 39.76 MS, -0.01 MM @ -5.60 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)
SHOCK ABSORBER RESISTIVE FORCE

IRC TEST NUMBER: DP5102B 572F SN51 DAMPER TEST CAL02 RUN NUMBER: 110397 0853;1



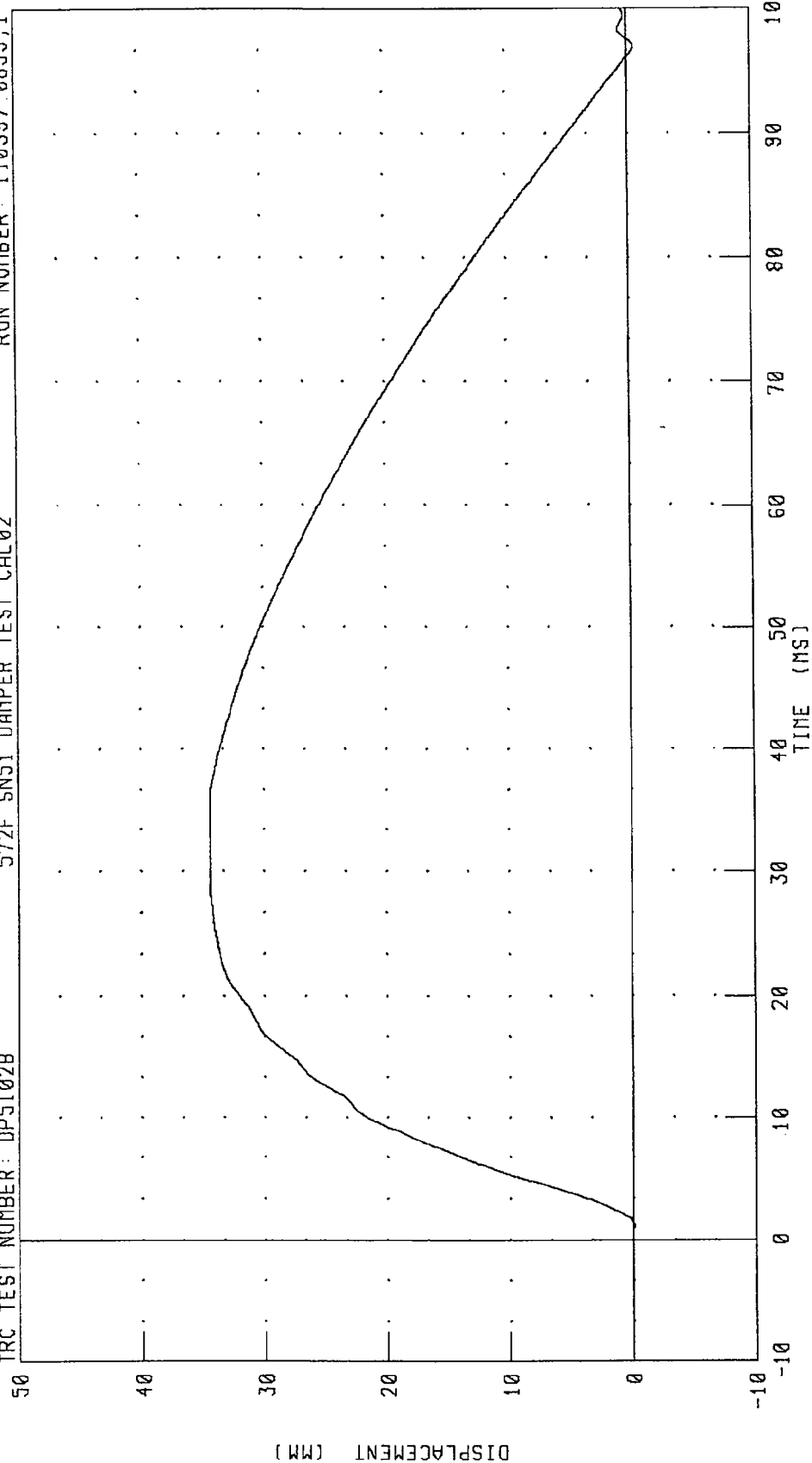
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER DISPLACEMENT

572F SN51 DAMPER TEST CAL02

TRC TEST NUMBER: DP5102B

RUN NUMBER: 110397.0853,1



PEAK DATA: 34.42 MM @ 29.68 MS; -0.49 MM @ 96.96 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

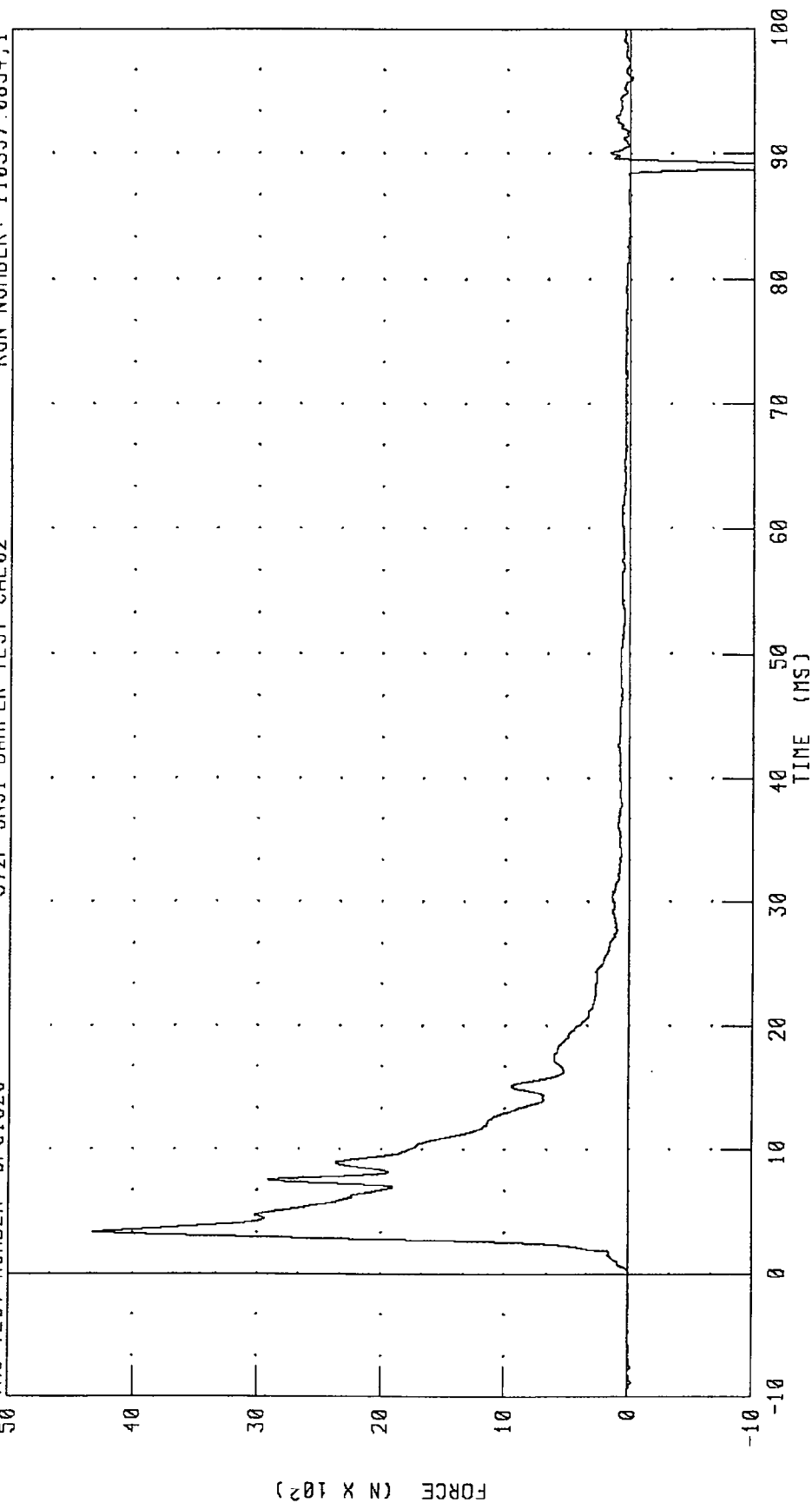
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5102C

572F SN51 DAMPER TEST CAL02

RUN NUMBER: 110397.0854;1



PEAK DATA: 4321.71 N @ 3.36 MS; -1574.85 N @ 88.96 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

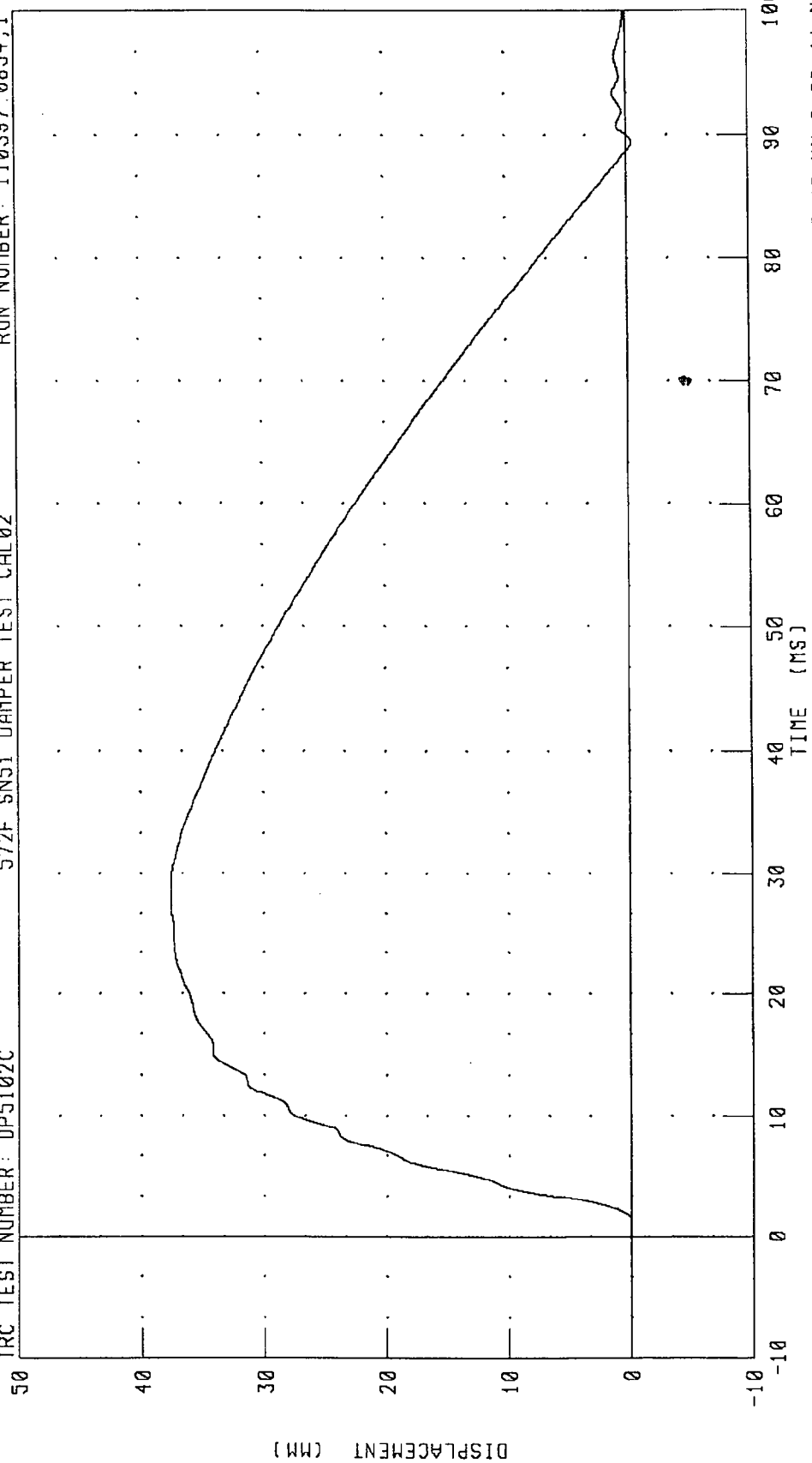
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER DISPLACEMENT

572F SN51 DAMPER TEST CAL02

TRC TEST NUMBER: DP5102C

RUN NUMBER: 110397.0854;1



CHANNEL: CSTYD FILTER: CH. CLASS 1000

PEAK DATA: 37.51 MM @ 28.48 MS; -0.43 MM @ 89.44 MS

Calibration Test Results

Post-Test

SID: 052

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Thorax Impact Test:	The lateral thorax passed all impact test requirements.
Pelvis Impact Tests:	The lateral pelvis passed all impact test requirements.
Thorax Shock Absorbers:	The thorax passed all shock absorber requirements.

TRANSPORTATION RESEARCH CENTER INC.
SIDE IMPACT DUMMY
EXTERNAL DIMENSIONS
LEFT SIDE CONFIGURATION
SN SN52 VECTOR

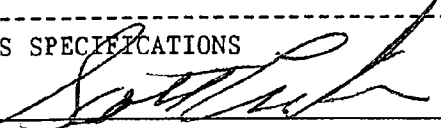
26-NOV-97

TRC INC. TEST NO: ED5203 572F SN52 EXT.DIMENSION CAL03

DIMENSIONS WITH CHEST JACKET INSTALLED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
	TEMPERATURE		21.1 DEG. C
	RELATIVE HUMIDITY		60.0 %
SH	SEATED HEIGHT	889 - 909 MM	894.1 MM
HP	HIP PIVOT HEIGHT	99 MM REF.	99.1 MM
KH	KNEE PIVOT FROM BACKLINE	511 - 526 MM	525.8 MM
KV	KNEE PIVOT FROM FLOOR	490 - 506 MM	490.2 MM
HW	HIP WIDTH	356 - 391 MM	373.4 MM

DIMENSIONS WITH CHEST JACKET REMOVED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
RH	RIB HEIGHT	501 - 520 MM	508.0 MM
RD	RIB FROM BACKLINE	229 - 241 MM	236.2 MM
RW-1	TOP RIB WIDTH FROM C/L	165. - 180 MM	180.3 MM
RW-2	BOTTOM RIB WIDTH FROM C/L	165 - 180 MM	180.3 MM
	DIFFERENCE BETWEEN TOP & BOTTOM RIB WIDTH FROM C/L	≤ 2.5 MM	0.0 MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN 

RUN NUMBER: 111997.1313

TRANSPORTATION RESEARCH CENTER INC.

LATERAL THORAX IMPACT TEST

SIDE IMPACT DUMMY

26-NOV-97

LEFT SIDE CONFIGURATION

TRC INC. TEST NO: STL5203

572F SN52 LEFT THORAX CAL03

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	28.0 %
PENDULUM VELOCITY	4.21 - 4.32 M/S	4.31 M/S
PEAK ACCELERATION: UPPER RIB BAR	37 - 46 G	-42.7 G
PEAK ACCELERATION: LOWER RIB BAR	37 - 46 G	-41.1 G
PEAK ACCELERATION: LOWER THORACIC SPINE	15 - 22 G	-16.0 G

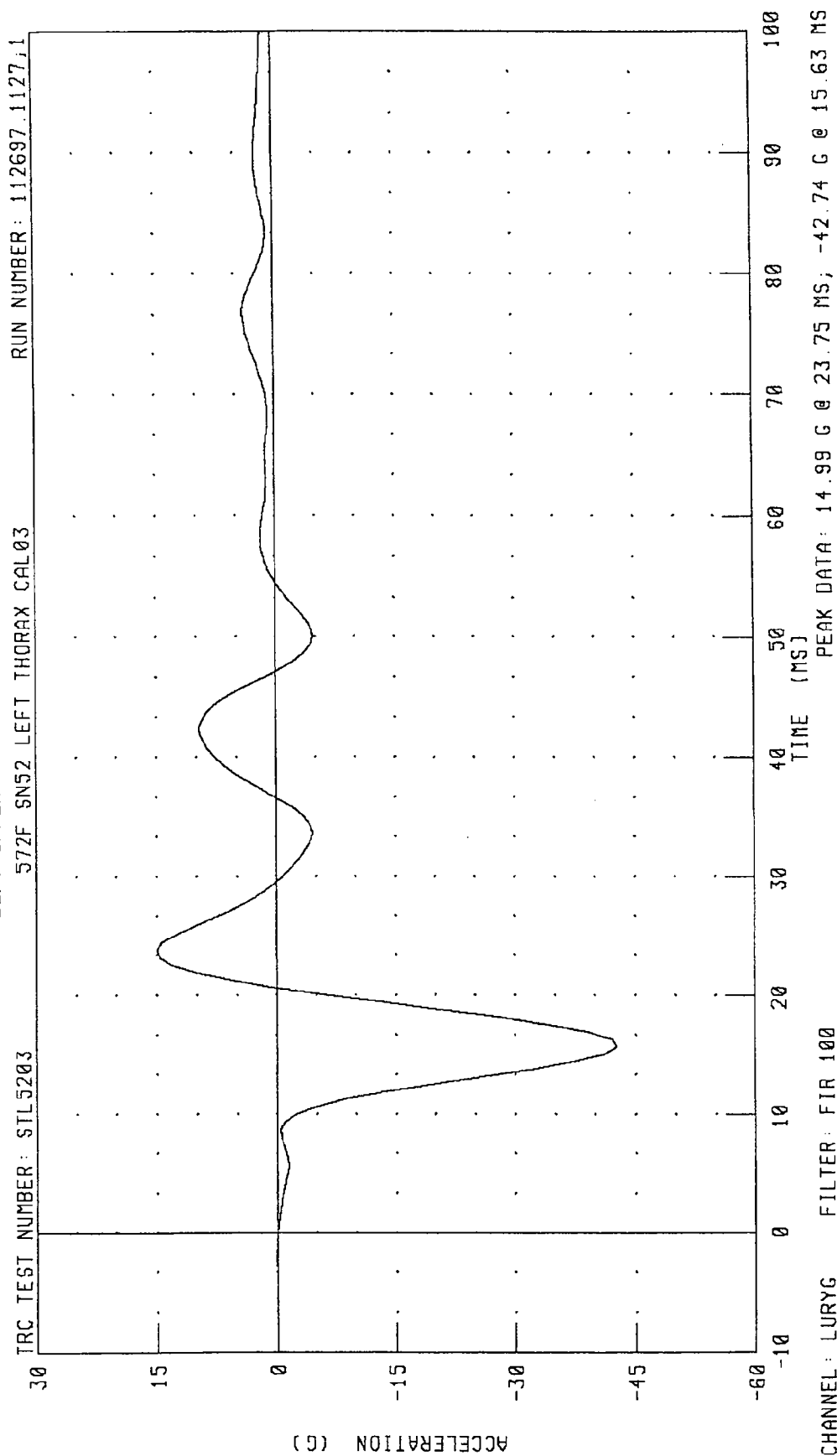
TEST MEETS SPECIFICATIONS

TECHNICIAN

By C. H. T.

RUN NUMBER: 112697.1126;1

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
 LEFT UPPER RIB ACCELERATION Y AXIS

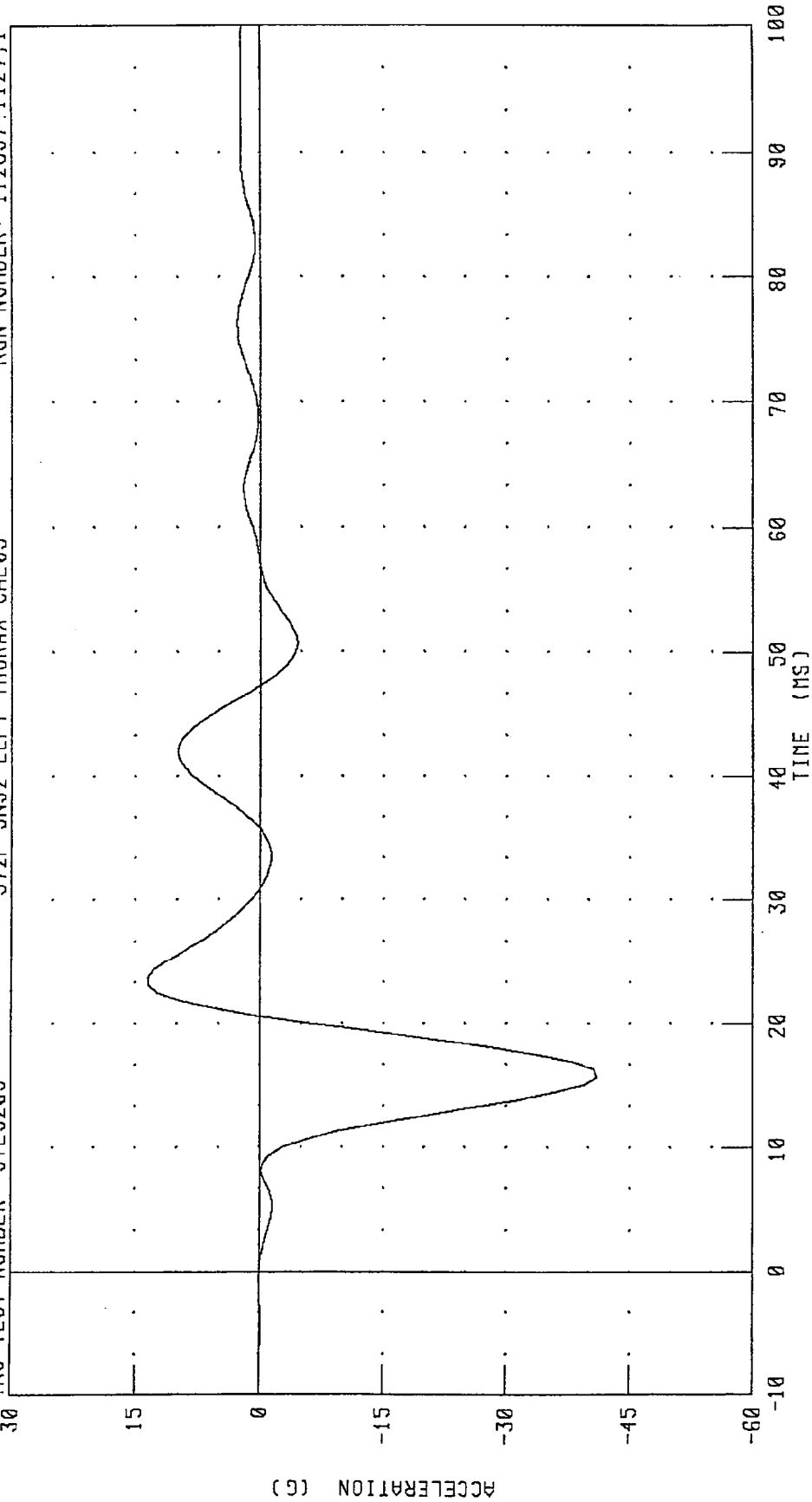


PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
LEFT LOWER RIB ACCELERATION Y AXIS

TRC TEST NUMBER: STL5203

572F SN52 LEFT THORAX CAL03

RUN NUMBER: 112697.1127,1



PEAK DATA: 13.47 G @ 23.75 MS; -41.08 G @ 15.63 MS

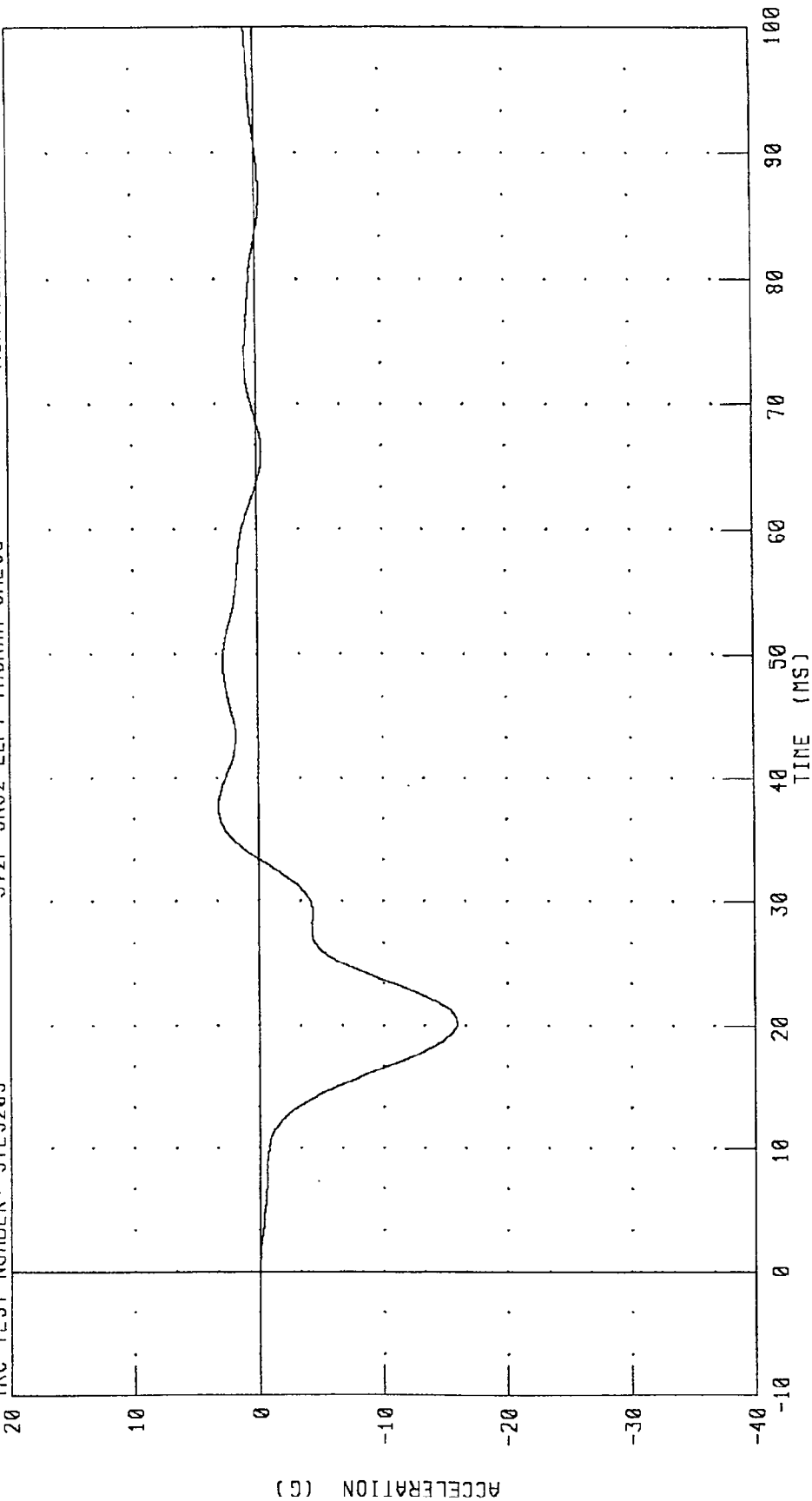
CHANNEL: LLRYG FILTER: FIR 100

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)

LOWER SPINE ACCELERATION Y AXIS

572F SN52 LEFT THORAX CAL03 RUN NUMBER: 112697.1127;1

TRC TEST NUMBER: STL5203



PEAK DATA: 3.23 G @ 37.50 MS; -16.02 G @ 20.00 MS

CHANNEL: T12YC FILTER: FIR 100

TRANSPORTATION RESEARCH CENTER INC.

LATERAL PELVIS IMPACT TEST

SIDE IMPACT DUMMY

26-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: SPL5203

572F SN52 LEFT PELVIS CAL03

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	28.0 %
PENDULUM VELOCITY	4.27 - 4.33 M/S	4.23 M/S *
PEAK PELVIC ACCELERATION	40 - 60 G	-47.2 G
TIME ABOVE 20 G LEVEL	3 - 7 MS	5.9 MS
IS ACCELERATION CURVE UNIMODAL?	YES	YES

* TEST DOES NOT MEET SPECIFICATIONS

TECHNICIAN

K. J. Watter

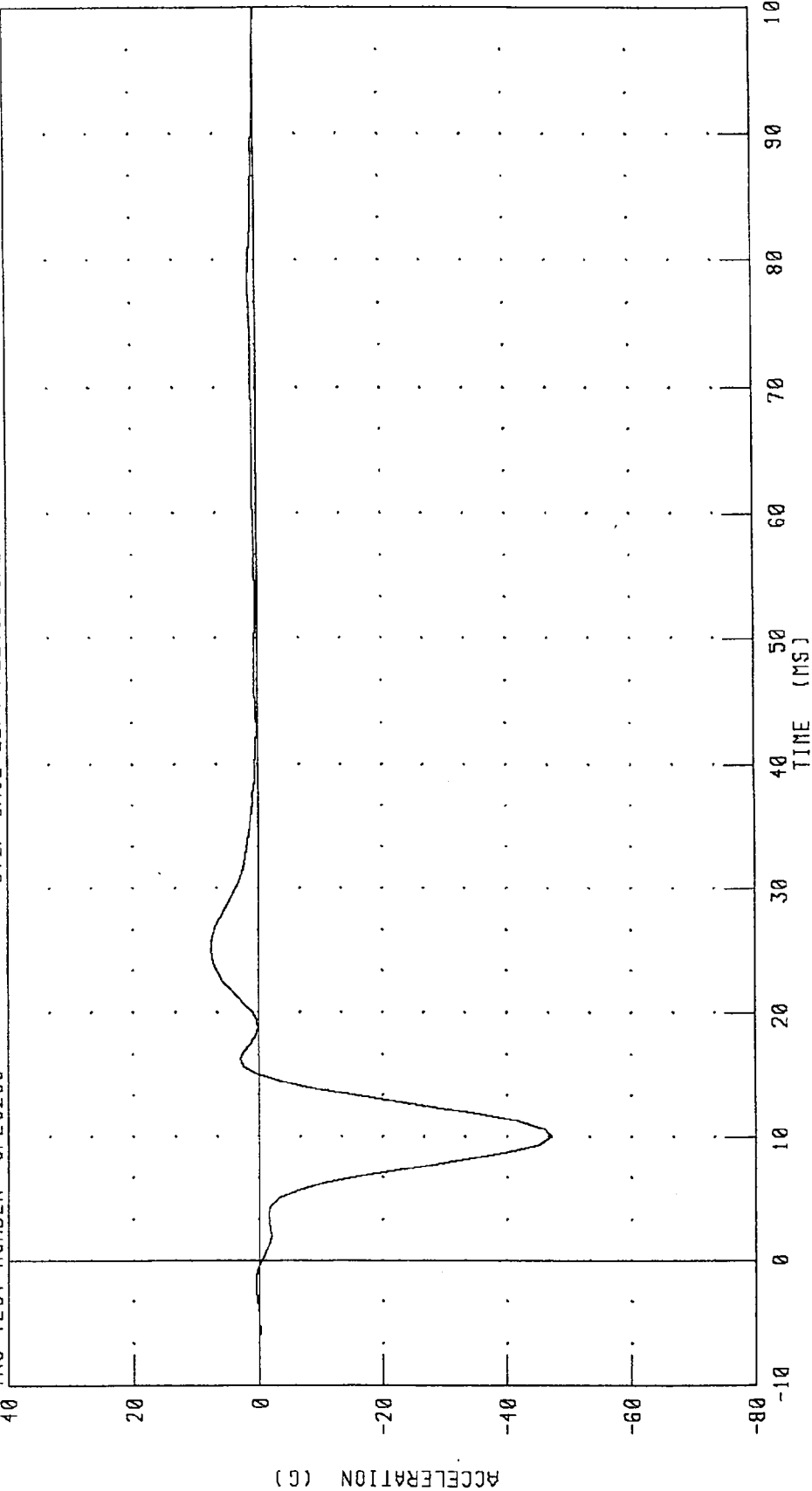
RUN NUMBER: 112697.1111;1

PART 572-F S.I.D. PELVIS CALIBRATION - (LEFT SIDE IMPACT)

PELVIS ACCELERATION Y AXIS

572F SN52 LEFT PELVIS CAL03 RUN NUMBER: 112697.1112;1

TRC TEST NUMBER: SPL5203



CHANNEL: PEVYG FILTER: FIR 100

PEAK DATA: 7.59 G @ 25.00 MS; -47.19 G @ 10.00 MS

TRANSPORTATION RESEARCH CENTER INC.

THORACIC SHOCK ABSORBER TESTS

SIDE IMPACT DUMMY

26-NOV-97

TRC INC.

572F SN52 DAMPER TEST CAL03

TEST NUMBER: DP5203A

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	28.0 %
VELOCITY	FORCE	856 - 1146 N	894 N
3.08 M/S	DISPLACEMENT	30.2 - 35.2 MM	33.3 MM
VELOCITY	FORCE	1733 - 2100 N	1745 N
4.28 M/S	DISPLACEMENT	31.6 - 37.2 MM	35.8 MM
VELOCITY	FORCE	3824 - 4542 N	4127 N
6.14 M/S	DISPLACEMENT	33.3 - 39.6 MM	37.6 MM

DAMPER SETTING = 6.0

TEST MEETS SPECIFICATIONS

TECHNICIAN

V. J. Watter

RUN NUMBER: 112697.0905;2

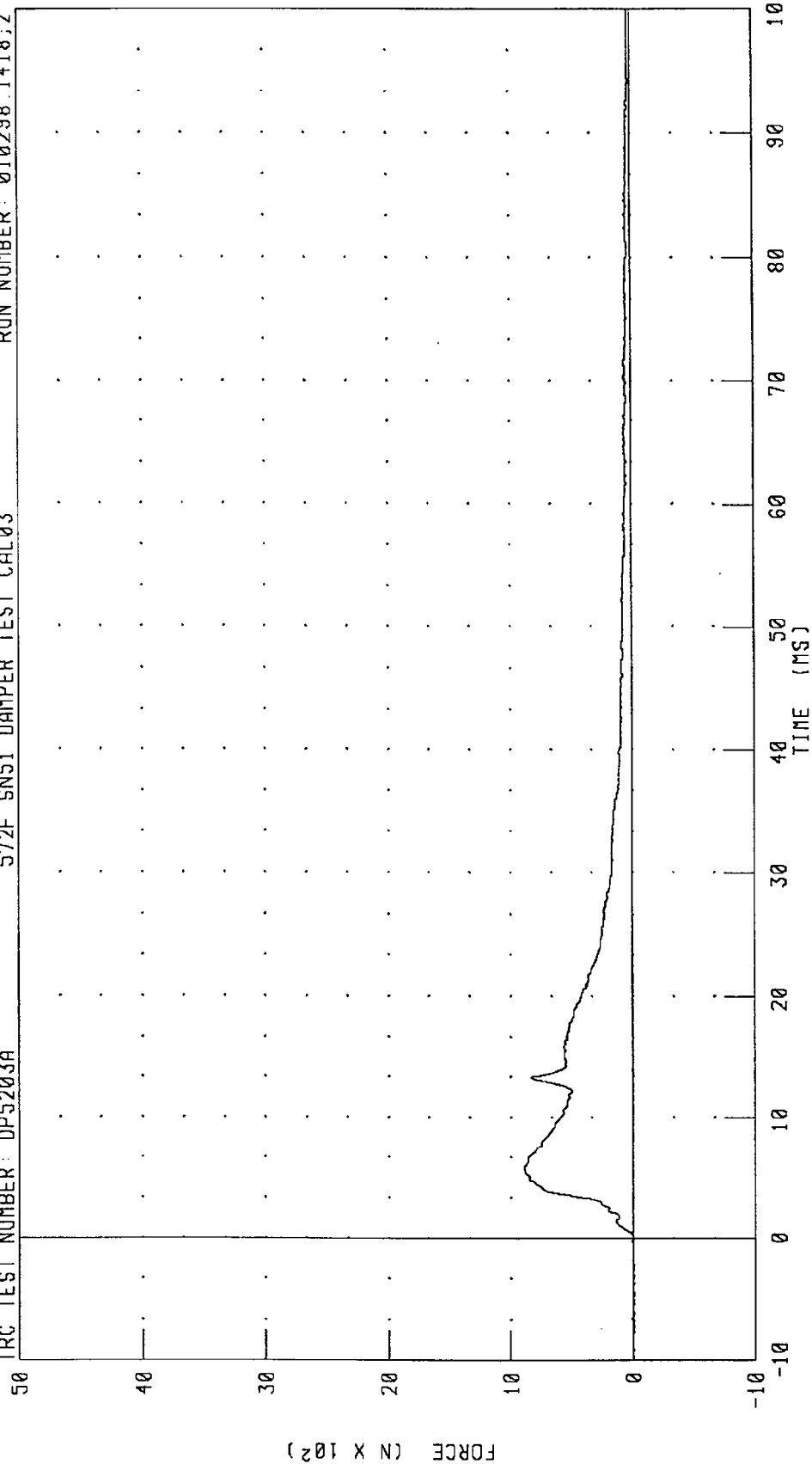
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

572F SN51 DAMPER TEST CAL03

TRC TEST NUMBER: DP5203A

RUN NUMBER: 010298.1418.2



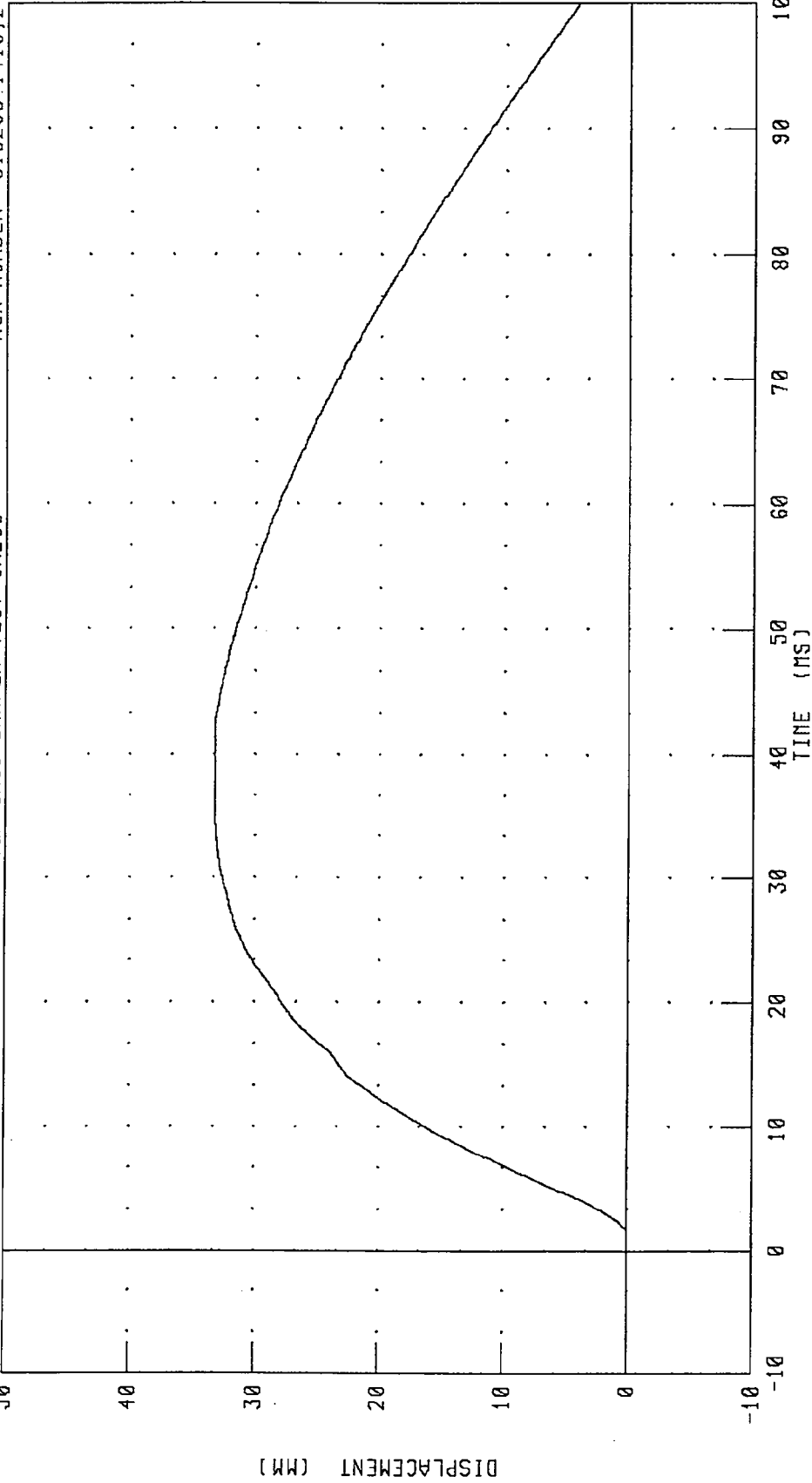
PEAK DATA: 893.83 N @ 5.76 MS; -8.31 N @ -6.80 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP5203A 572F SN51 DAMPER TEST CAL03 RUN NUMBER: 010298.1418;2



CHANNEL: CSTYD FILTER: CH. CLASS 1000

PEAK DATA: 33.25 MM @ 35.92 MS; -0.01 MM @ -6.80 MS

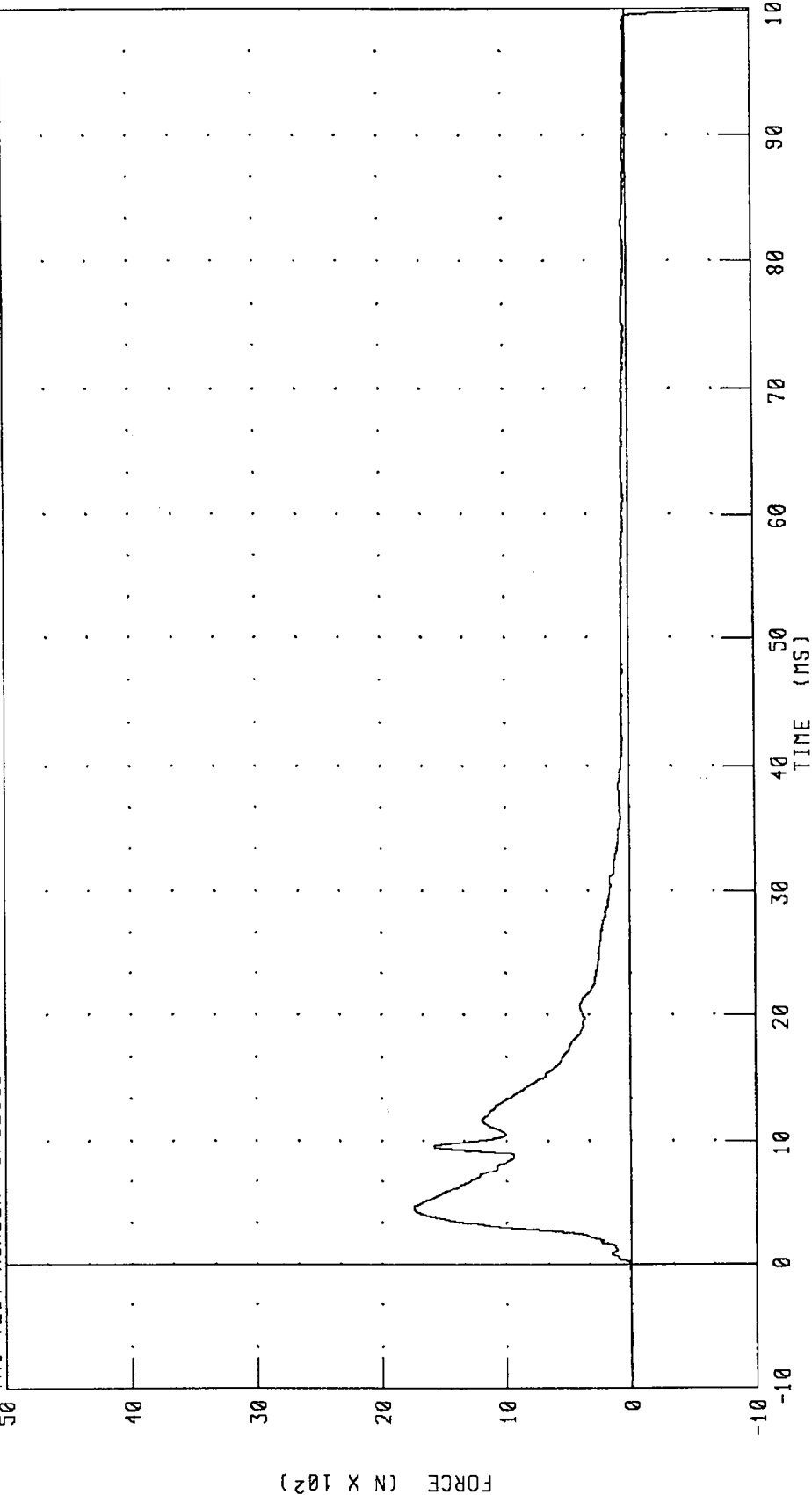
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

572F SN52 DAMPER TEST CAL03

TRC TEST NUMBER: DP5203B

RUN NUMBER: 010298.1418,1



PEAK DATA: 1745.16 N @ 4.56 MS; -1256.99 N @ 100.00 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

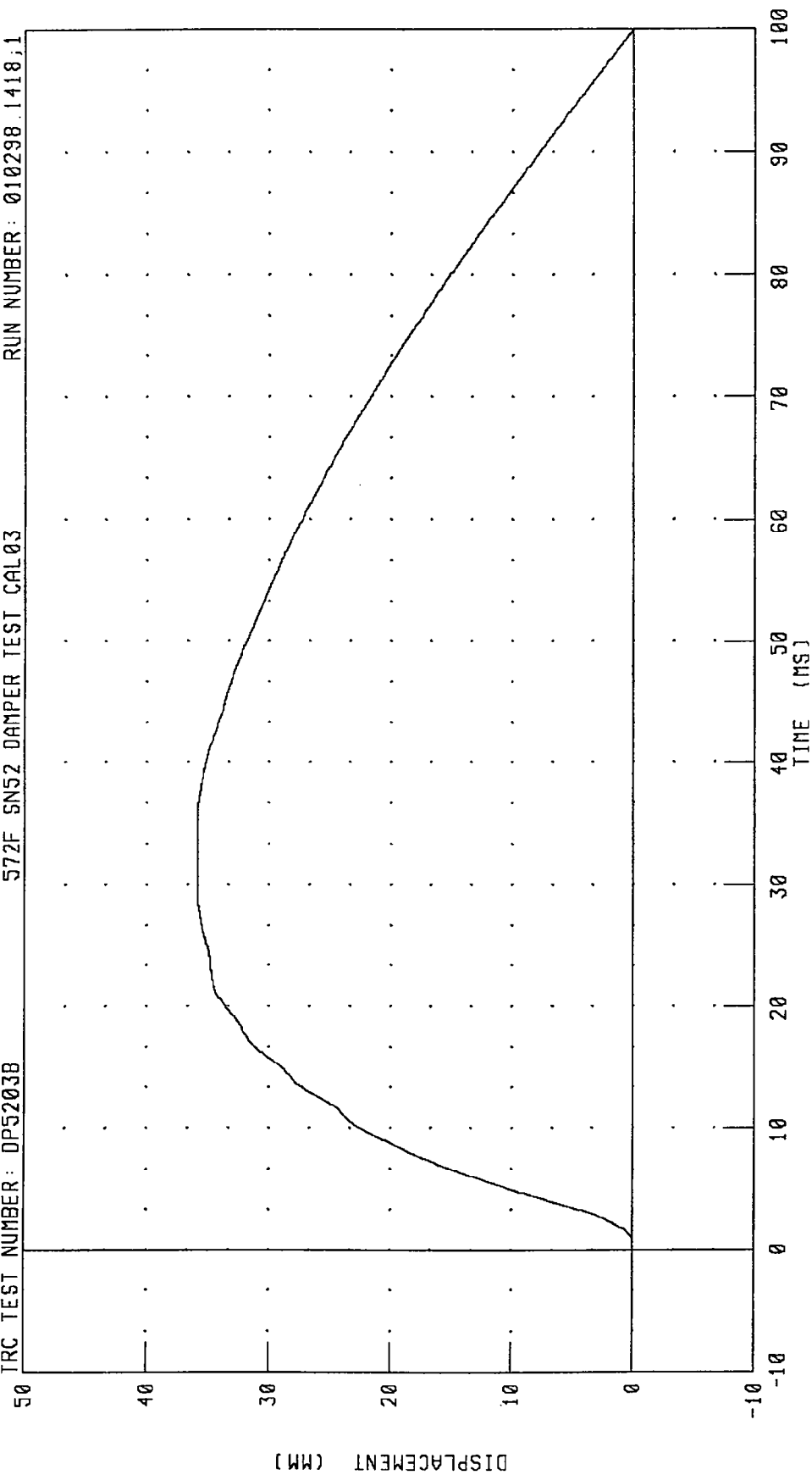
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP5203B

572F SN52 DAMPER TEST CAL03

RUN NUMBER: 010298.1418,1



CHANNEL: CSTYD FILTER: CH. CLASS 1000

PEAK DATA: 35.84 MM @ 31.92 MS; -0.04 MM @ 100.00 MS

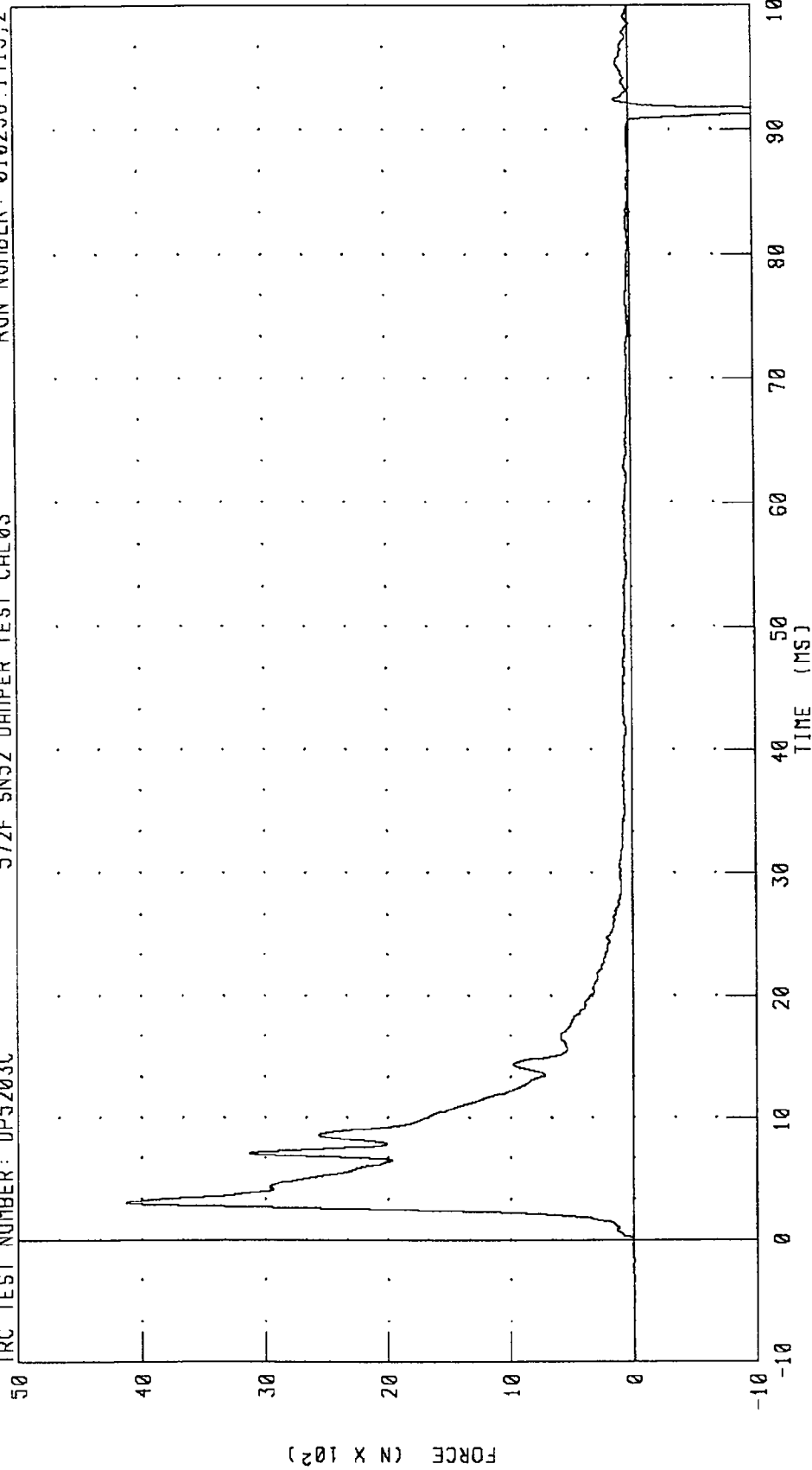
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

572F SN52 DAMPER TEST CAL03

TRC TEST NUMBER: DP5203C

RUN NUMBER: 010298.1419,2



CHANNEL: DAMPF FILTER: CH. CLASS 1000

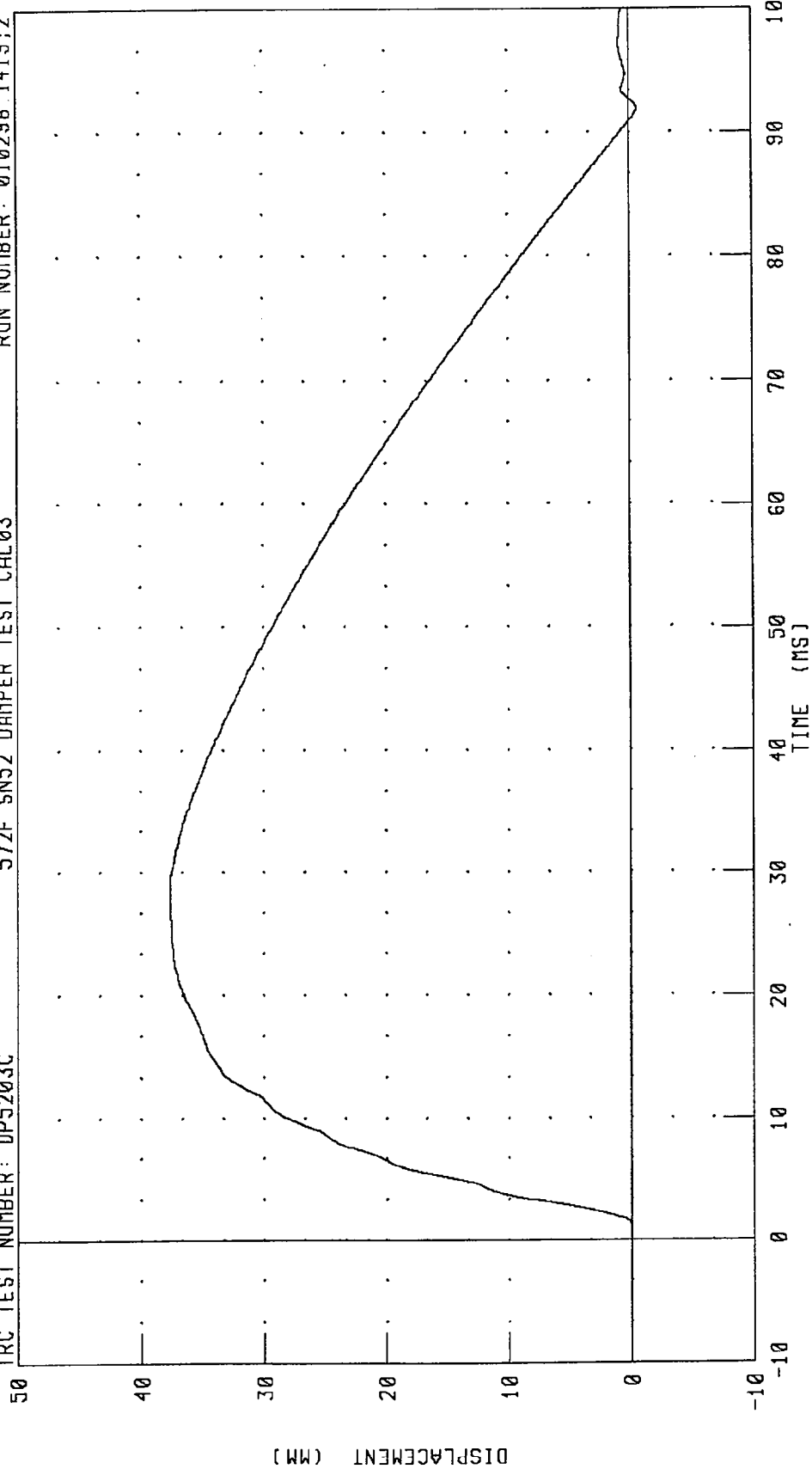
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER DISPLACEMENT

572F SN52 DAMPER TEST CAL03

TRC TEST NUMBER: DP5203C

RUN NUMBER: 010298.1419;2



CHANNEL: CSTYD FILTER: CH. CLASS 1000

PEAK DATA: 37.60 NM @ 27.92 MS; -0.59 NM @ 91.92 MS

Calibration Test Results

Post-Test

SID: 051

Configured for Left Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Thorax Impact Test:	The lateral thorax passed all impact test requirements.
Pelvis Impact Tests:	The lateral pelvis passed all impact test requirements.
Thorax Shock Absorbers:	The thorax passed all shock absorber requirements.

TRANSPORTATION RESEARCH CENTER INC.

LATERAL THORAX IMPACT TEST

SIDE IMPACT DUMMY

26-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: STL5103

572F SN51 LEFT THORAX CAL03

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	28.0 %
PENDULUM VELOCITY	4.21 - 4.32 M/S	4.31 M/S
PEAK ACCELERATION: UPPER RIB BAR	37 - 46 G	-37.3 G
PEAK ACCELERATION: LOWER RIB BAR	37 - 46 G	-38.7 G
PEAK ACCELERATION: LOWER THORACIC SPINE	15 - 22 G	-16.4 G

TEST MEETS SPECIFICATIONS

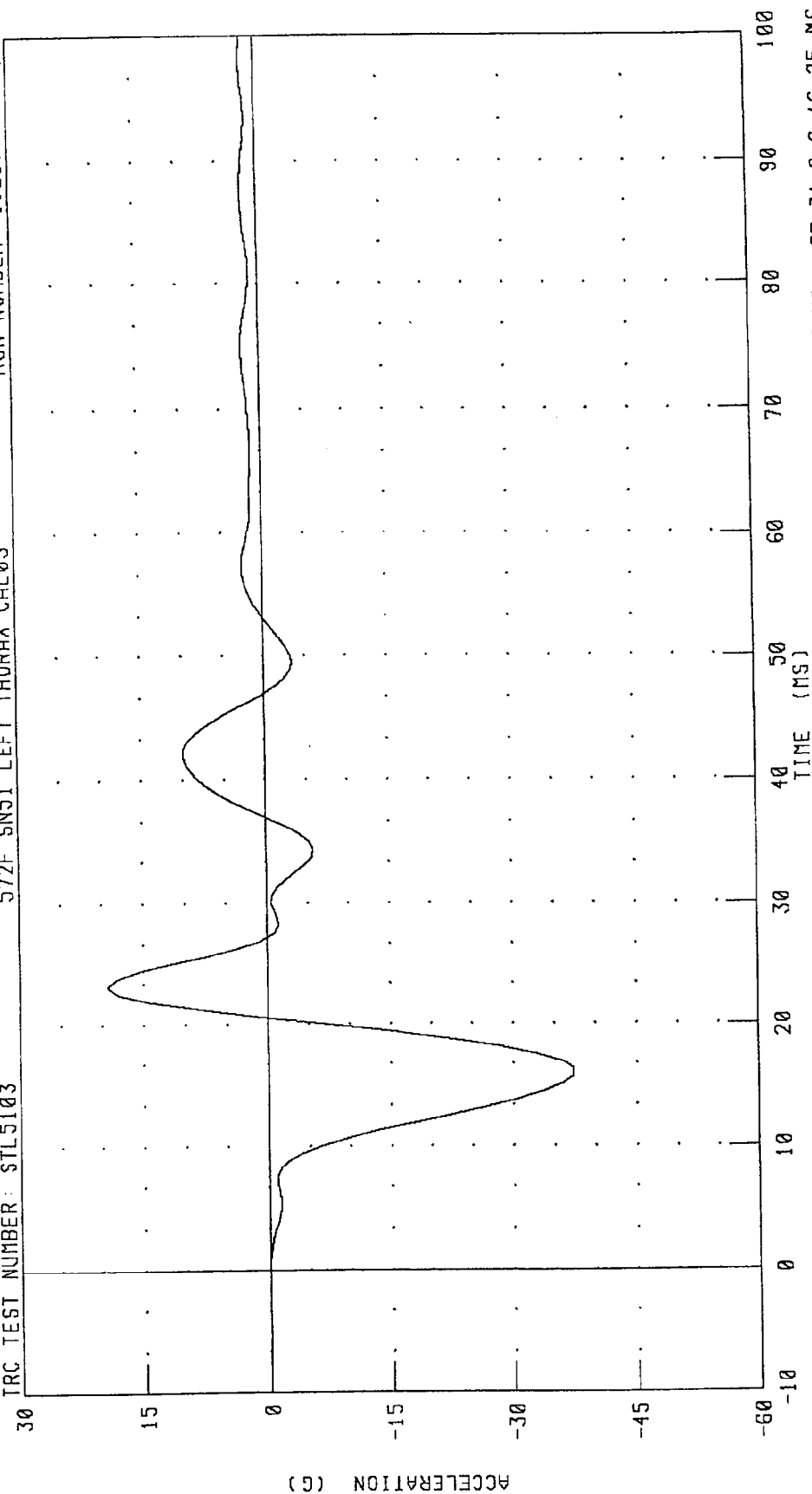
TECHNICIAN

By Carht

RUN NUMBER: 112697.1302;1

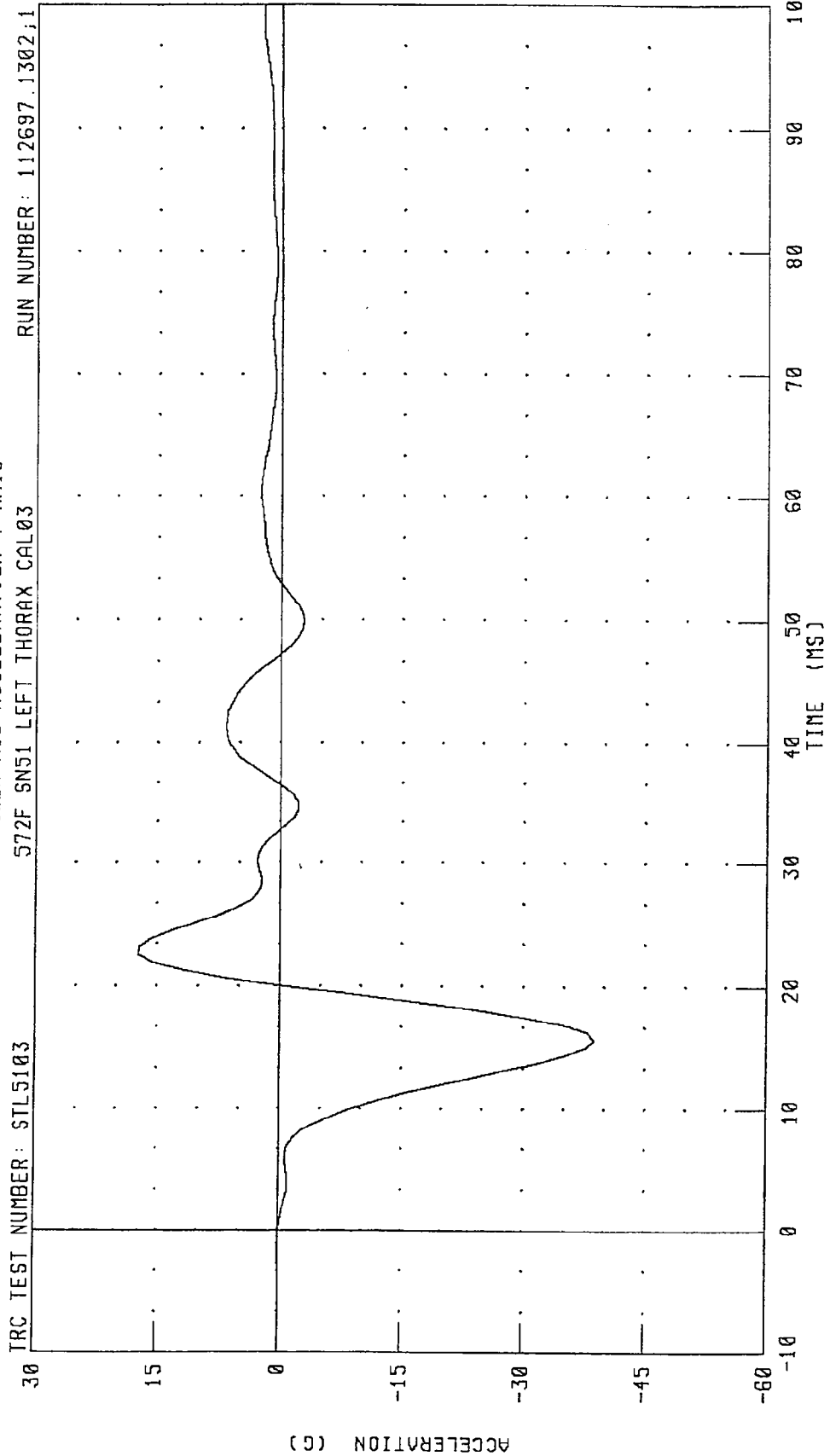
PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
 LEFT UPPER RIB ACCELERATION Y AXIS

TRC TEST NUMBER: STL5103 572F SN51 LEFT THORAX CAL03 RUN NUMBER: 112697.1302.1



CHANNEL: LURYG FILTER: FIR 100

PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)
 LEFT LOWER RIB ACCELERATION Y AXIS



CHANNEL: LLRYG FILTER: FIR 100

PEAK DATA: 17.22 G @ 22.50 MS; -38.70 G @ 15.63 MS

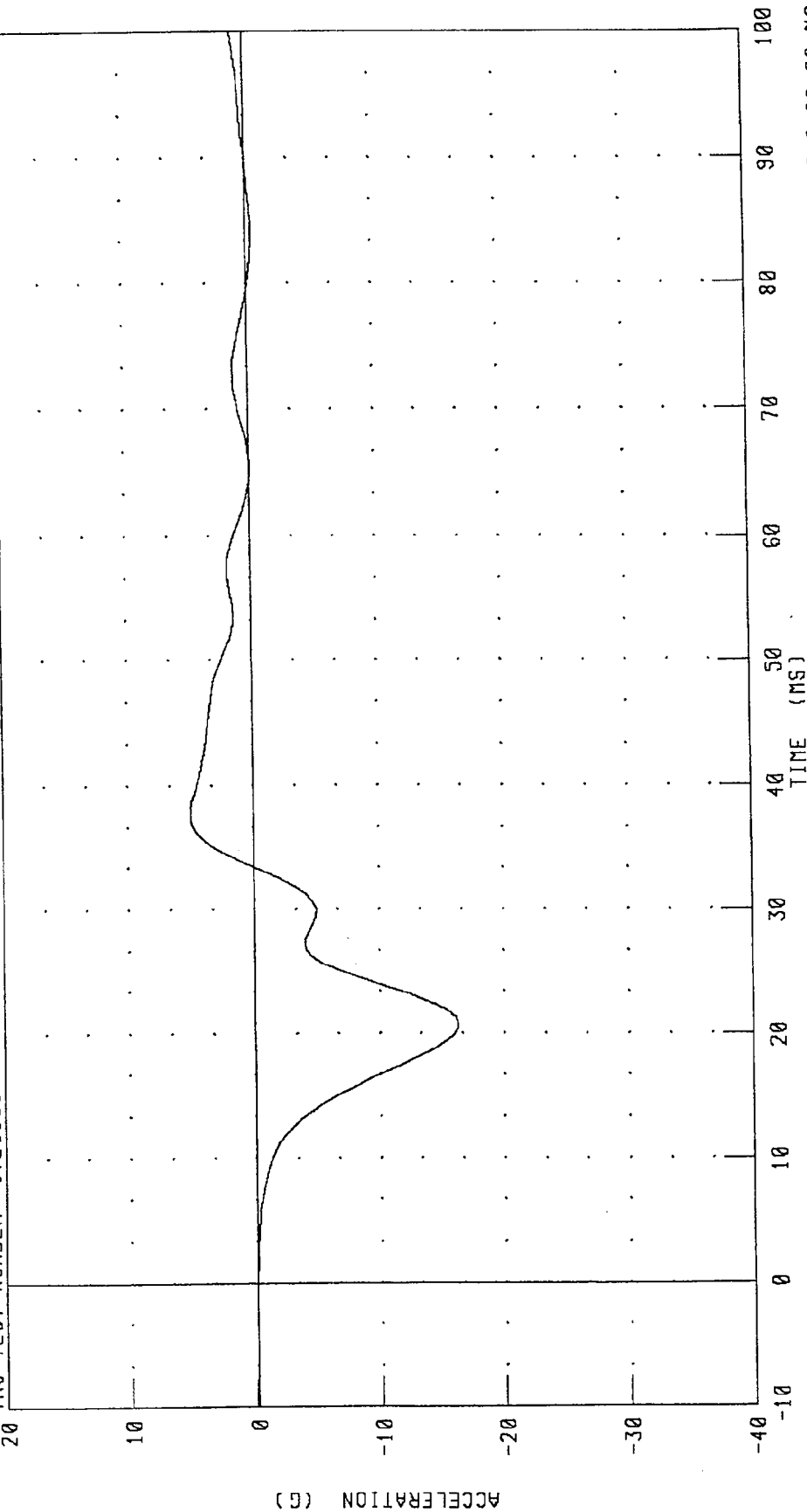
PART 572-F S.I.D. THORAX CALIBRATION - (LEFT SIDE IMPACT)

LOWER SPINE ACCELERATION Y AXIS

572F SN51 LEFT THORAX CAL03

TRC TEST NUMBER: STL5103

RUN NUMBER: 112697.1302;1



CHANNEL: T12YC FILTER: FIR 100

PEAK DATA: 5.02 G @ 37.50 MS; -16.38 G @ 20.62 MS

TRANSPORTATION RESEARCH CENTER INC.

LATERAL PELVIS IMPACT TEST

SIDE IMPACT DUMMY

26-NOV-97

LEFT SIDE CONFIGURATION

TRC INC.

TEST NO: SPL5103

572F SN51 LEFT PELVIS CAL03

TEST PARAMETER	SPECIFICATION (ABSOLUTE VALUE)	TEST RESULTS
TEMPERATURE	18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	28.0 %
PENDULUM VELOCITY	4.27 - 4.33 M/S	4.23 M/S *
PEAK PELVIC ACCELERATION	40 - 60 G	-46.3 G
TIME ABOVE 20 G LEVEL	3 - 7 MS	5.5 MS
IS ACCELERATION CURVE UNIMODAL?	YES	YES

* TEST DOES NOT MEET SPECIFICATIONS

TECHNICIAN

V. J. Watter

RUN NUMBER: 112697.1242;1

PART 572-F S.I.D. PELVIS CALIBRATION - (LEFT SIDE IMPACT)

PELVIS ACCELERATION Y AXIS

572F SN51 LEFT PELVIS CAL03

RUN NUMBER: 112697.1243.1

IRC TEST NUMBER: SPL5103

40

20

0

-20

-40

-60

-80

ACCELERATION (G)

-10

0

10

20

30

40

50

60

70

80

90

100

TIME (MS)

CHANNEL: PEVYG FILTER: FIR 100

PEAK DATA: 6.48 G @ 23.13 MS; -46.27 G @ 10.00 MS

TRANSPORTATION RESEARCH CENTER INC.
 SIDE IMPACT DUMMY
 EXTERNAL DIMENSIONS
 LEFT SIDE CONFIGURATION
 SN SN51 VECTOR

26-NOV-97

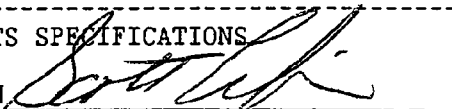
TRC INC. TEST NO: ED5103 572F SN51 EXT.DIMENSION CAL03

DIMENSIONS WITH CHEST JACKET INSTALLED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
	TEMPERATURE		21.1 DEG. C
	RELATIVE HUMIDITY		60.0 %
SH	SEATED HEIGHT	889 - 909 MM	894.1 MM
HP	HIP PIVOT HEIGHT	99 MM REF.	99.1 MM
KH	KNEE PIVOT FROM BACKLINE	511 - 526 MM	525.8 MM
KV	KNEE PIVOT FROM FLOOR	490 - 506 MM	492.8 MM
HW	HIP WIDTH	356 - 391 MM	370.8 MM

DIMENSIONS WITH CHEST JACKET REMOVED			
SYMB	DESCRIPTION	SPECIFICATION	TEST RESULTS
RH	RIB HEIGHT	501 - 520 MM	515.6 MM
RD	RIB FROM BACKLINE	229 - 241 MM	241.3 MM
RW-1	TOP RIB WIDTH FROM C/L	165. - 180 MM	175.3 MM
RW-2	BOTTOM RIB WIDTH FROM C/L	165 - 180 MM	175.3 MM
	DIFFERENCE BETWEEN TOP & BOTTOM RIB WIDTH FROM C/L	≤ 2.5 MM	0.0 MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN



RUN NUMBER: 111997.1307

TRANSPORTATION RESEARCH CENTER INC.

THORACIC SHOCK ABSORBER TESTS

SIDE IMPACT DUMMY

25-NOV-97

TRC INC.

572F SN51 DAMPER TEST CAL03

TEST NUMBER: DP5103A

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		18.9 - 25.5 C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	23.0 %
VELOCITY	FORCE	856 - 1146 N	945 N
3.07 M/S	DISPLACEMENT	30.2 - 35.2 MM	31.4 MM
VELOCITY	FORCE	1759 - 2131 N	1798 N
4.29 M/S	DISPLACEMENT	31.7 - 37.3 MM	34.4 MM
VELOCITY	FORCE	3743 - 4448 N	3824 N
6.10 M/S	DISPLACEMENT	33.3 - 39.5 MM	37.0 MM

DAMPER SETTING = 5.8

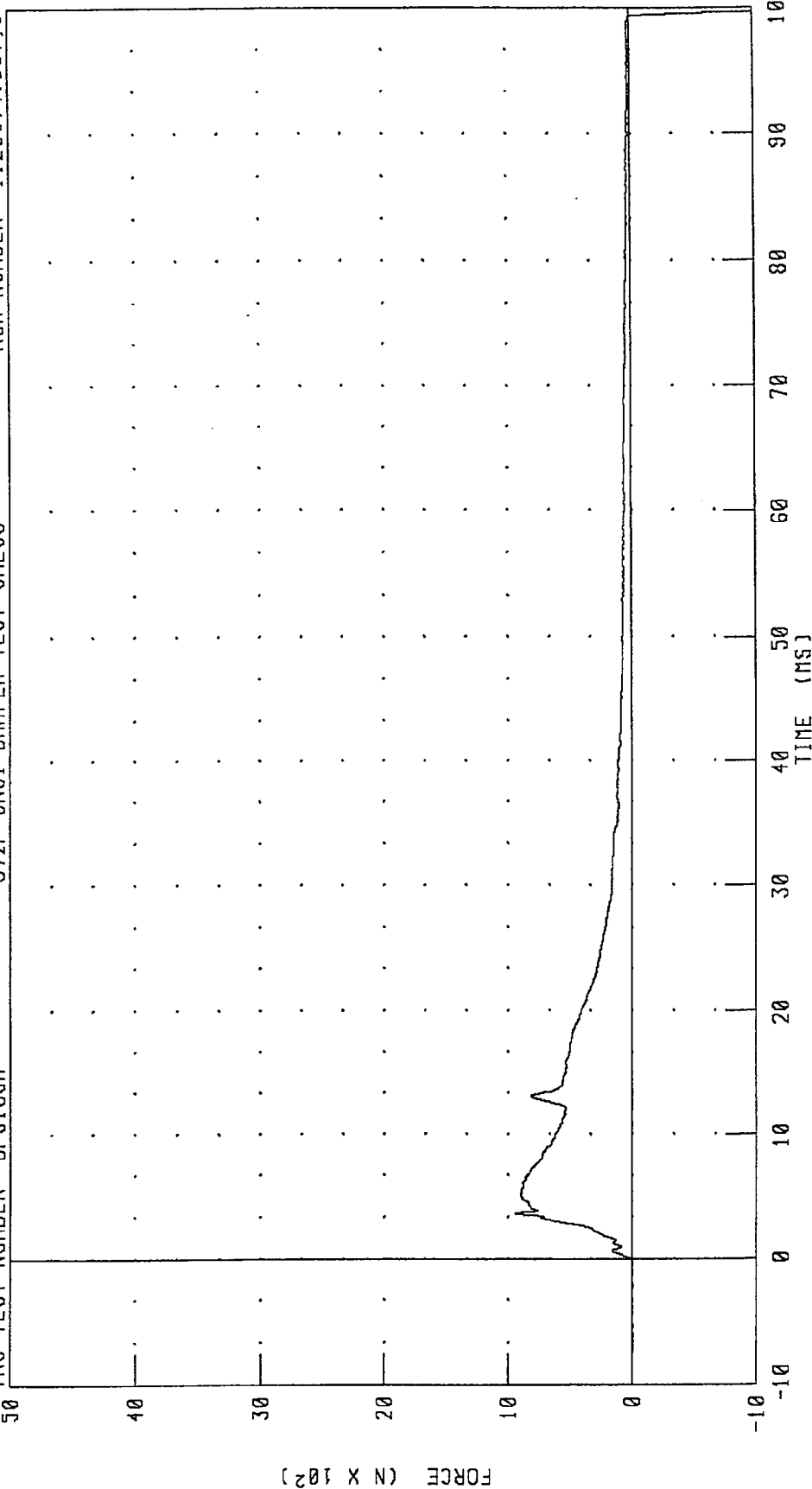
TEST MEETS SPECIFICATIONS

TECHNICIAN By clt

RUN NUMBER: 112597.1356;1

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)
SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5103A 572F SN51 DAMPER TEST CAL03 RUN NUMBER: 112597.1357.1



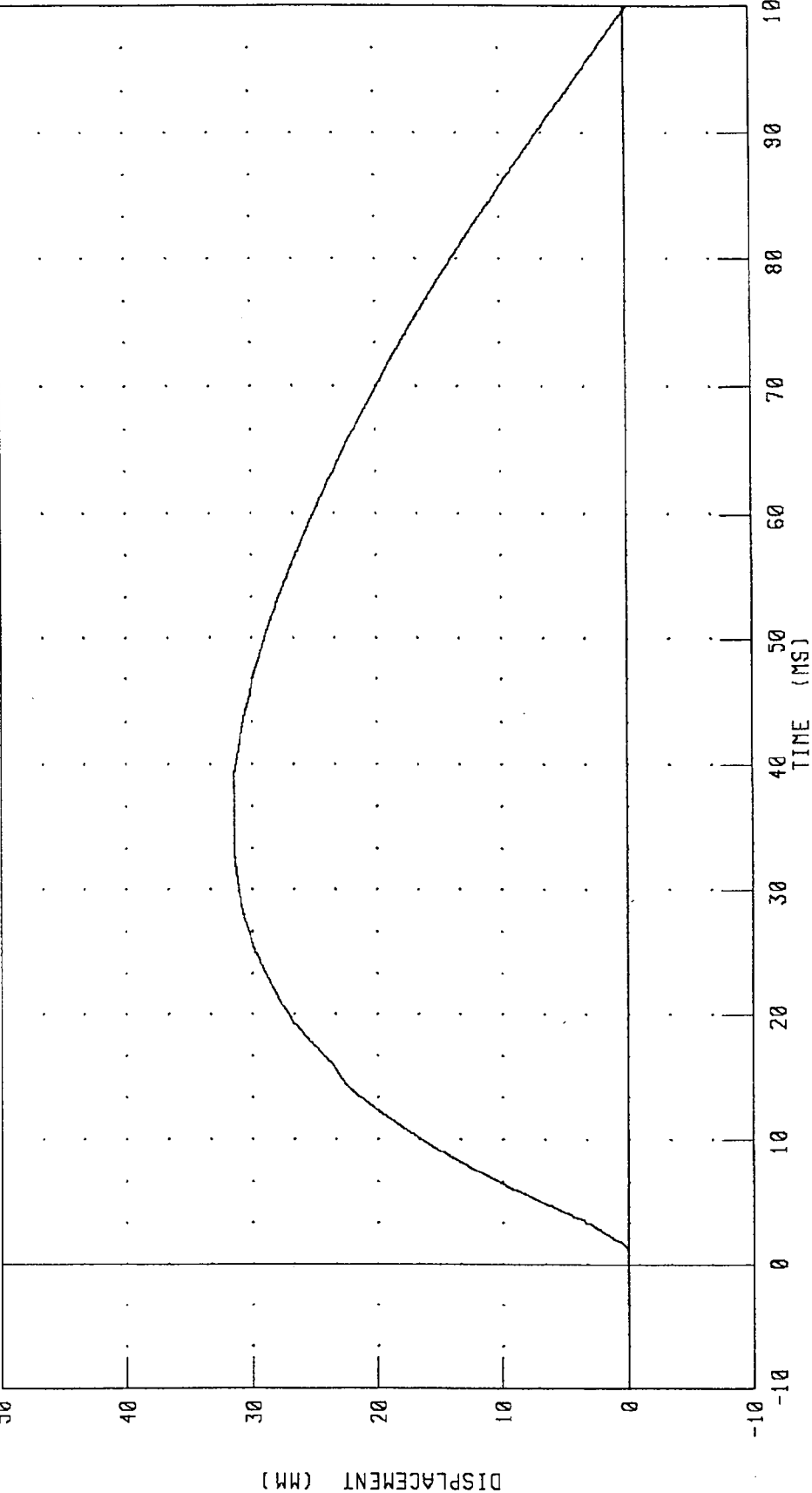
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (3.0 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP5103A

572F SN51 DAMPER TEST CAL03

RUN NUMBER: 112597.1357,1



PEAK DATA: 31.44 MM @ 35.60 MS, -0.24 MM @ 100.00 MS

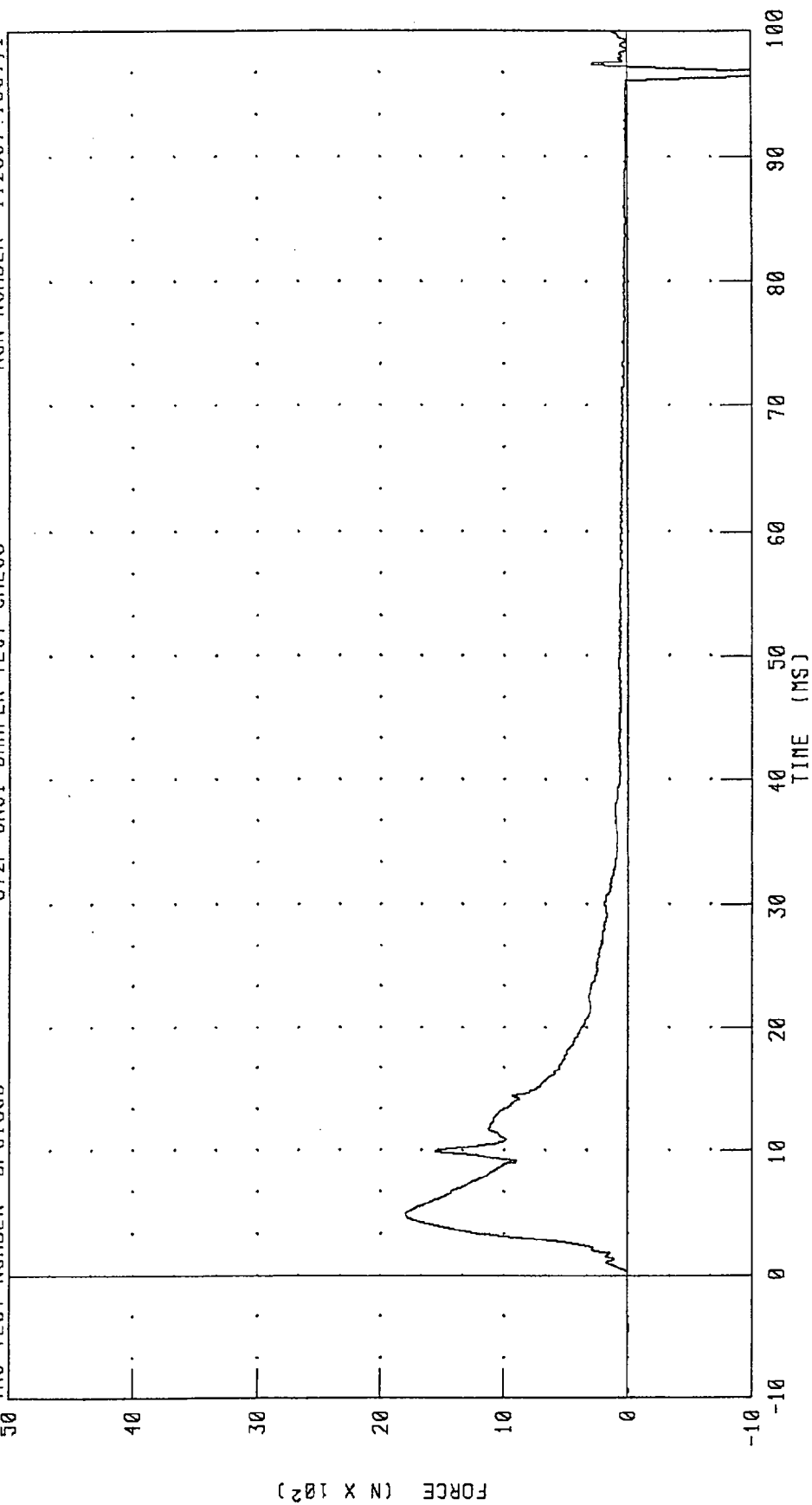
FILTER: CH. CLASS 1000

CHANNEL: CSTYD

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

TRC TEST NUMBER: DP5103B 572F SN51 DAMPER TEST CAL03 RUN NUMBER: 112597 1357;1



PEAK DATA: 1798.03 N @ 4.88 MS; -1731.66 N @ 96.56 MS

CHANNEL: DAMPF FILTER: CH. CLASS 1000

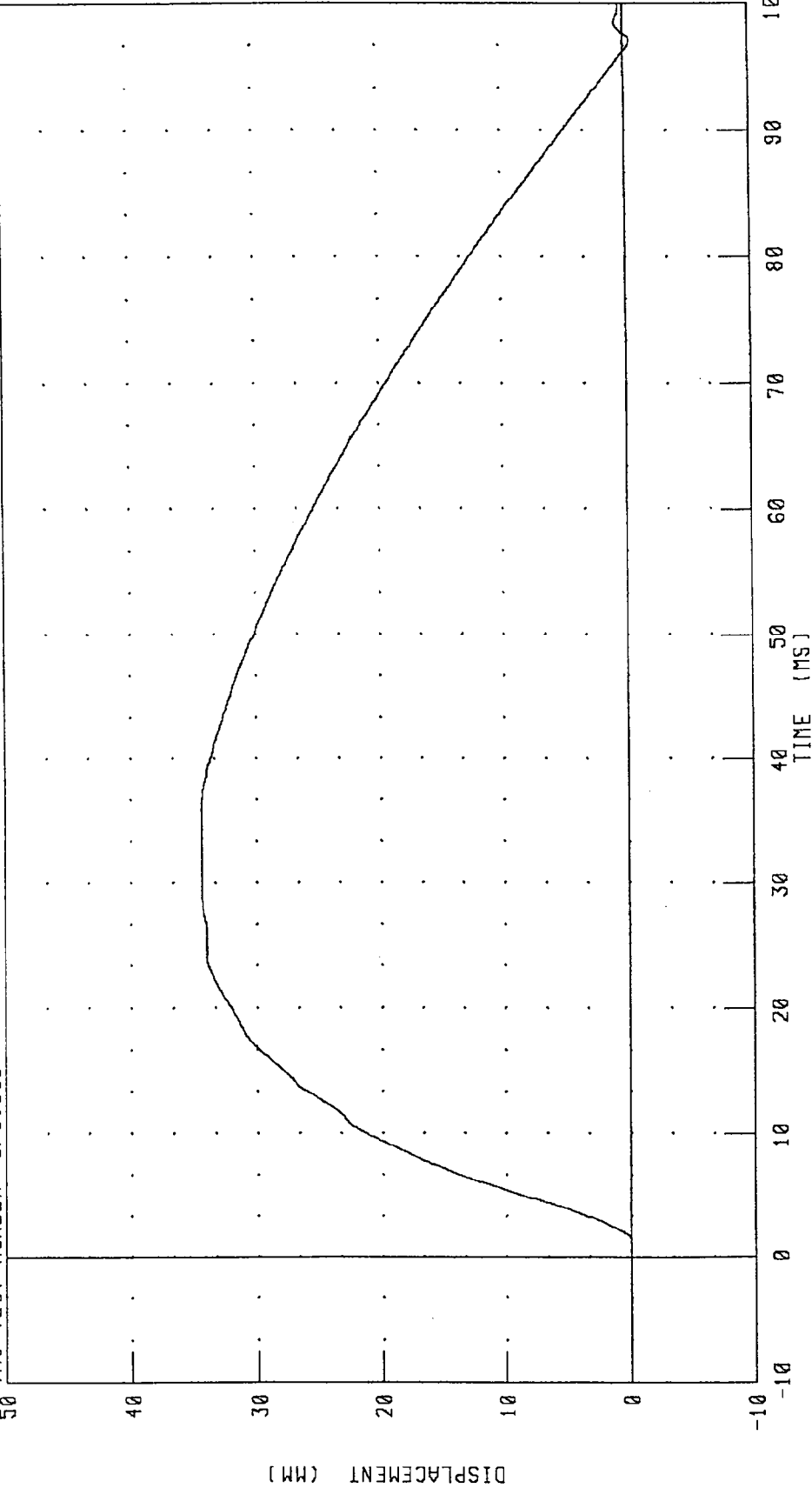
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (4.3 M/SEC)

SHOCK ABSORBER DISPLACEMENT

TRC TEST NUMBER: DP51038

572F SN51 DAMPER TEST CAL03

RUN NUMBER: 112597.1357.1



CHANNEL: CSTYD FILTER: CH. CLASS 1000

PEAK DATA: 34.39 MM @ 29.68 MS; -0.45 MM @ 97.04 MS

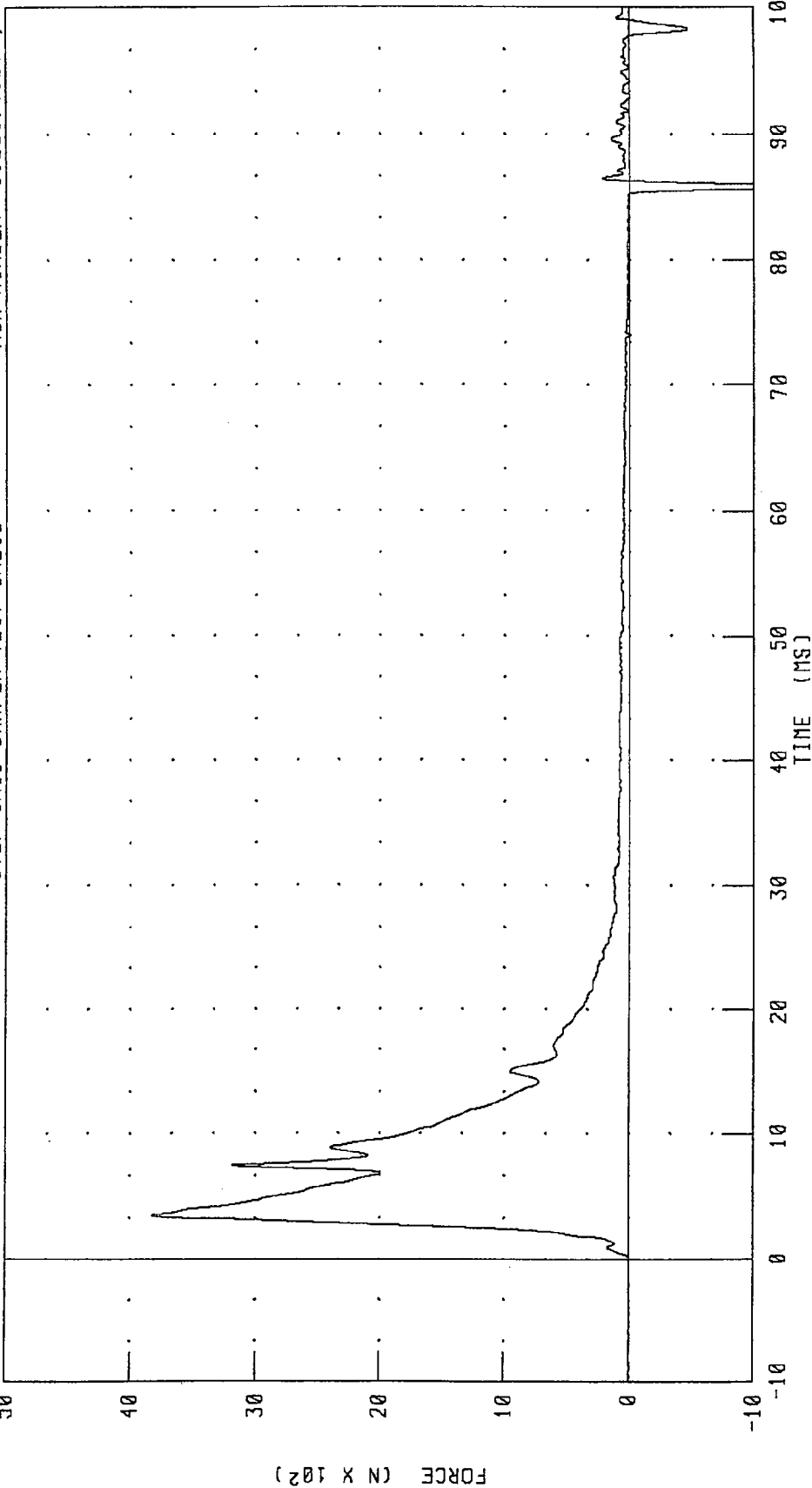
PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER RESISTIVE FORCE

IRC TEST NUMBER: DP5103C

572F SN51 DAMPER TEST CAL03

RUN NUMBER: 112597.1358;2



CHANNEL: DAMPF FILTER: CH. CLASS 1000

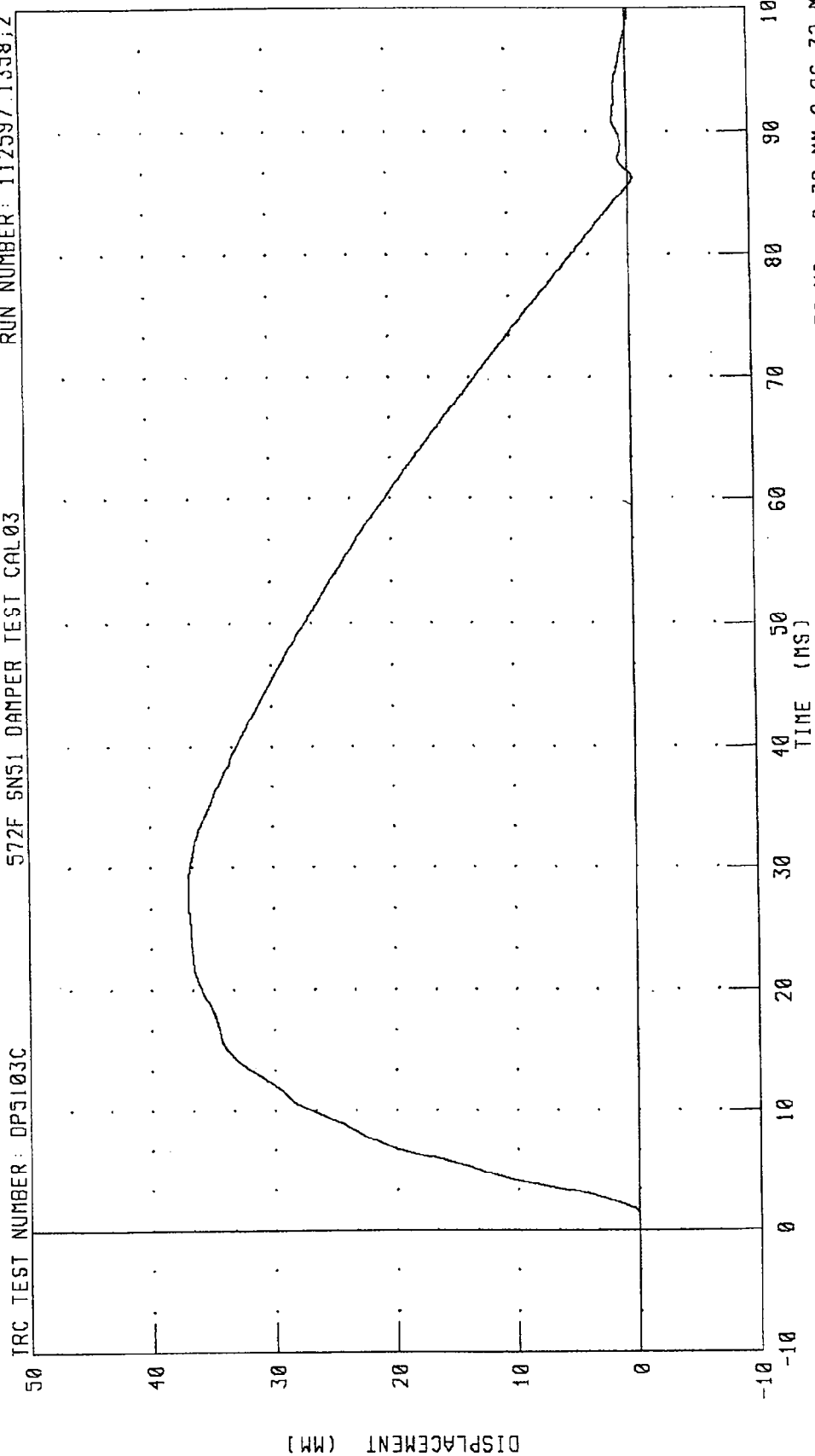
PEAK DATA: 3823.79 N @ 3.52 MS; -1862.87 N @ 85.84 MS

PART 572-F S.I.D. THORACIC SHOCK ABSORBER CALIBRATION (6.1 M/SEC)

SHOCK ABSORBER DISPLACEMENT

572F SN51 DAMPER TEST CAL03 RUN NUMBER: 112597.1358;2

TRC TEST NUMBER: DP5103C



PEAK DATA: 36.96 MM @ 28.32 MS; -0.36 MM @ 86.32 MS

CHANNEL: CSTYD FILTER: CH. CLASS 1000

APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID INSTRUMENTATION

FRONT SID NO.: 052			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
Upper Rib	J20148	Endevco	10/97
Lower Rib	J18811	Endevco	10/97
Lower Spine	J19303	Endevco	10/97
Pelvis	J20243	Endevco	10/97
Upper Rib Redundant	J20005	Endevco	10/97
Lower Rib Redundant	J20561	Endevco	10/97
Lower Spine Redundant	J20025	Endevco	10/97
Pelvis Redundant	J20462	Endevco	10/97

REAR SID NO.: 051			
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
Upper Rib	J22075	Endevco	10/97
Lower Rib	J22047	Endevco	10/97
Lower Spine	J19577	Endevco	10/97
Pelvis	J22197	Endevco	10/97
Upper Rib Redundant	J20184	Endevco	10/97
Lower Rib Redundant	J22046	Endevco	10/97
Lower Spine Redundant	J20024	Endevco	10/97
Pelvis Redundant	J20387	Endevco	10/97

VEHICLE AND MDB INSTRUMENTATION

	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
Right Front Sill (X)	10189	Endevco	10/97
Right Front Sill (Y)	J19954	Endevco	08/97
Right Front Sill (Z)	J13237	Endevco	09/97
Right Rear Sill (X)	J20268	Endevco	10/97
Right Rear Sill (Y)	J20348	Endevco	10/97
Right Rear Sill (Z)	J10997	Endevco	06/97
Rear Floorpan Above Axle (X)	AJ8J9	Endevco	05/97
Rear Floorpan Above Axle (Y)	AC701	Endevco	07/97
Rear Floorpan Above Axle (Z)	J20252	Endevco	08/97
Left Rear Sill (Y)	J20009	Endevco	08/97
Left Front Sill (Y)	J14167	Endevco	06/97
Right Rear Seat Occupant Comp. (Y)	J19951	Endevco	08/97
Lower Left B-Pillar (Y)	A29DJ	Endevco	10/97
Middle Left B-Pillar (Y)	CD74H	Endevco	10/97
Lower Left A-Pillar (Y)	J15388	Endevco	10/97
Middle Left A-Pillar (Y)	10081	Endevco	10/97
Front Seat Track (Y)	J19629	Endevco	08/97
Rear Seat Track (Y)	N/A	N/A	N/A
Vehicle CG (X)	J20037	Endevco	08/97
Vehicle CG (Y)	J15389	Endevco	08/97
Vehicle CG (Z)	J18841	Endevco	10/97
Mdb CG (X)	J18895	Endevco	08/97
Mdb CG (Y)	J19967	Endevco	08/97
Mdb CG (Z)	J18894	Endevco	05/97
MDB Rear Frame Member (X)	J19942	Endevco	08/97
MDB Rear Frame Member (Y)	J14177	Endevco	06/97