

V2360

Report Number TRC-96-N05

New Car Assessment Program (NCAP)

Frontal Barrier Impact Test

Ford Motor Company

1996 Ford Mustang

Convertible

NHTSA Number: MT0208

TRC Test Number: 951122

Prepared By:

Transportation Research Center Inc.

10820 State Route 347

East Liberty, Ohio 43319



December 20, 1995

Final Report

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Report prepared by:

Kevin W. Looker Date 01-16-96
Kevin W. Looker, Project Engineer
Transportation Research Center Inc.

Report approved by:

Jeffrey W. Sankey Date 1/16/96
Jeffrey W. Sankey, Manager, Project Operations
Transportation Research Center Inc.

Final report accepted by:

[Signature] Date _____
Manager, New Car Assessment Program
NHTSA, Office of Market Incentives

Hans Chan Date _____
Contracting Officer's Technical Representative (COTR),
NHTSA, Office of Market Incentives

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16. Abstract A 56 kph (35 mph) frontal load cell barrier impact test was conducted on a 1996 Ford Mustang convertible, NHTSA No. MT0208, at Transportation Research Center Inc. on November 22, 1995. This test was conducted to obtain new car assessment and research data indicant of FMVSS 208, 212, 219 (partial), and 301 performance. The barrier impact velocity was 56.3 kph. The vehicle's maximum static crush was 656 millimeters. The ambient temperature was 21° C. The driver's Head Injury Criteria (HIC) was 216. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 44.8 g. The driver's maximum chest deflection was 42 mm. The driver's left and right femur maximum axial forces were 4893 N and 5318 N, respectively. The passenger's HIC was 128. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 42.5 g. The passenger's maximum chest deflection was 31 mm. The passenger's left and right femur maximum axial forces were 5601 N and 3249 N, respectively.			
17. Key Words 56 kph (35 mph) Frontal Barrier Impact Test: New Car Assessment Program (NCAP) FMVSS 208, "Occupant Crash Protection" FMVSS 212, "Windshield Retention" FMVSS 219, "Windshield Zone Intrusion" FMVSS 301, "Fuel System Integrity"		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. Technical Reference Division Nassif Building, Room 5108 400 Seventh Street, S.W. Washington, DC 20590	
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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 (2000 lb)	0.9	tonnes	t
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 (exact). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10286.

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
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	1.05	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

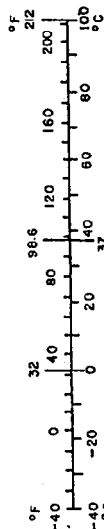


Table of Contents

<u>Section</u>	<u>Description</u>	<u>Page</u>
1.0	Purpose and Test Procedure	1-1
2.0	Frontal Barrier Impact Test Summary	2-1
3.0	FMVSS 212, 219 (partial), and 301 Data	3-1
4.0	Occupant, Camera, And Vehicle Information	4-1
Appendix A	Photographs	A-1
Appendix B	Data Plots	B-1
Appendix C	Dummy Certification Data	C-1
Appendix D	Miscellaneous Test Information	D-1
Appendix E	Restraint System Instructions From Owner's Manual	E-1

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Crash Test Summary	2-4
2	Test Vehicle Information	2-5
3	Post-Impact Data	2-8
4	Vehicle Accelerometer Locations and Data Summary	2-12
5	Post-Impact Dummy/Vehicle Data	2-13
6	FMVSS 208 Data Summary	2-14
7	Hybrid III Data Summary	2-15
8	Seat Belt Performance Assessment Test Data	2-18
9	Load Cell Barrier Data Summary	2-20
10	Fuel System Data	3-4
11	FMVSS 301 Post-Impact Test Data	3-5
12	Dummy Measurement Data for Front Seat Occupants	4-3
13	Motion Picture Camera Locations	4-7
14	Impacted Vehicle Measurements	4-10

List of Figures

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Impact Velocity Measurement System	2-9
2	Accident Investigation Division Data For 56 kph (35 mph) Frontal Barrier Impact	2-10
3	Vehicle Accelerometer Placement	2-11
4	Load Cell Barrier Configuration	2-19
5	FMVSS 212 Test Data	3-2
6	FMVSS 219 Test Data	3-3
7	FMVSS 301 Static Rollover Test Data	3-6
8	Dummy Measurement Locations For Front Seat Occupants	4-2
9	Seat Belt Positioning Data	4-4
10	Camera Positions	4-5
11	Vehicle Target Locations	4-8
12	Pre-Test and Post-Test Measurement Points	4-9
13	Static Footwell Deformation (Driver's Side)	4-11
14	Static Footwell Deformation (Passenger's Side)	4-12
15	Static Passenger Compartment Intrusion	4-13
16	Underbody Floorboard Deformation	4-14

List of Photographs

<u>Description</u>	<u>Figure</u>
Pre-Test Front View	A-1
Post-Test Front View	A-2
Pre-Test Left Side View	A-3
Post-Test Left Side View	A-4
Pre-Test Rear View	A-5
Post-Test Rear View	A-6
Pre-Test Right Side View	A-7
Post-Test Right Side View	A-8
Pre-Test Right Front Three-Quarter View	A-9
Post-Test Right Front Three-Quarter View	A-10
Pre-Test Left Rear Three-Quarter View	A-11
Post-Test Left Rear Three-Quarter View	A-12
Pre-Test Windshield View	A-13
Post-Test Windshield View	A-14
Pre-Test Engine Compartment View	A-15
Post-Test Engine Compartment View	A-16
Pre-Test Fuel Filler Cap View	A-17
Post-Test Fuel Filler Cap View	A-18
Pre-Test Fuel Filler Neck View	A-19
Post-Test Fuel Filler Neck View	A-20
Pre-Test Fuel Tank View	A-21
Post-Test Fuel Tank View	A-22
Pre-Test Front Underbody View	A-23
Post-Test Front Underbody View	A-24
Pre-Test Rear Underbody View	A-25
Post-Test Rear Underbody View	A-26
Pre-Test Driver Dummy Position View	A-27
Post-Test Driver Dummy Position View	A-28

List of Photographs, Cont'd.

<u>Description</u>	<u>Figure</u>
Pre-Test Passenger Dummy Position View	A-29
Post-Test Passenger Dummy Position View	A-30
Pre-Test Driver Dummy & Vehicle Interior - View 1	A-31
Post-Test Driver Dummy & Vehicle Interior - View 1	A-32
Pre-Test Driver Dummy & Vehicle Interior - View 2	A-33
Post-Test Driver Dummy & Vehicle Interior - View 2	A-34
Post-Test Passenger Dummy & Vehicle Interior - View 1	A-35
Post-Test Passenger Dummy & Vehicle Interior - View 2	A-36
Post-Test Driver Dummy Head Contact - View 1	A-37
Post-Test Driver Dummy Head Contact - View 2	A-38
Post-Test Driver Dummy Head Contact - View 3	A-39
Post-Test Driver Dummy Knee Contact - View 1	A-40
Post-Test Driver Dummy Knee Contact - View 2	A-41
Post-Test Passenger Dummy Head Contact - View 1	A-42
Post-Test Passenger Dummy Head Contact - View 2	A-43
Post-Test Passenger Dummy Head Contact - View 3	A-44
Post-Test Passenger Dummy Knee Contact - View 1	A-45
Post-Test Passenger Dummy Knee Contact - View 2	A-46
Pre-Test Vehicle Certification Label View	A-47
Pre-Test Vehicle Recommended Tire Pressure Label View	A-48
Post-Test Vehicle On Static Rollover Machine View	A-49

Section 1.0

Purpose and Test Procedure

Purpose

This 56 kph (35 mph) frontal barrier impact test is part of the New Car Assessment Program (NCAP) conducted for the National Highway Traffic Safety Administration's (NHTSA) Office of Market Incentives by Transportation Research Center Inc. (TRC) under Contract Number DTNH22-90-D-22121.

The purpose of this test was to obtain new car assessment and research data for vehicle crashworthiness and occupant restraint system performance for the subject vehicle, a 1996 Ford Mustang convertible, NHTSA Number MT0208, at an impact speed in excess of the current 48 kph (30 mph) FMVSS 208 requirements.

Test Procedure

This test was conducted in accordance with NHTSA's Laboratory Indicant Test Procedure, New Car Assessment Program, dated January 1, 1990. Data was obtained indicant of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Retention"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity," performance.

The test vehicle was instrumented with nine (9) accelerometers to measure longitudinal axis accelerations. The driver's and passenger's restraint systems were instrumented with load cells to measure lap and shoulder belt forces and potentiometers to measure shoulder belt stretch and spoolout. The vehicle impacted a frontal load cell barrier instrumented with thirty-six (36) barrier face load cells. The vehicle's specified impact velocity range was 55.5 to 57.1 kph.

The test vehicle contained two (2) Part 572E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard designated seating positions according to the dummy placement procedures specified in Appendices VII and VIII of the Laboratory Indicant Test Procedure. This test was the first use of the driver dummy and the passenger dummy.

Both dummies were instrumented with primary and redundant head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations, and with left and right femur load cells to measure axial forces. The dummies were also instrumented with neck moment and force load cells, chest deflection potentiometers, and foot accelerometers to measure longitudinal and vertical axis accelerations. In addition, the driver dummy's lower legs were instrumented with upper and lower tibia load cells to measure forces and moments.

The one-hundred-ten (110) data channels were digitally sampled and recorded at 12,500 samples per second and processed per section IP11 of the Laboratory Indicant Test Procedure.

The crash event was recorded by one (1) real-time panning motion picture camera and sixteen (16) high-speed motion picture cameras. The pre- and post-test conditions were recorded by one (1) real-time motion picture camera.

The vehicle, occupant, and load cell barrier data are presented in Section 2.0. The occupant, camera, and vehicle measurements are presented in Section 3.0. Appendix A contains the still photographic prints. Appendix B contains the dummy, vehicle, and load cell barrier data plots. Appendix C contains the dummy certification data. Appendix D contains miscellaneous test information. Appendix E contains the restraint system instructions from the owner's manual.

Section 2.0

Frontal Barrier Impact Test Summary

Test Results Summary

This frontal load cell barrier test was conducted at TRC on November 22, 1995.

The test vehicle, a 1996 Ford Mustang convertible, NHTSA Number MT0208, was equipped with a 3.8-liter inline engine, automatic transmission, power steering, and power brakes. The vehicle's test weight was 1700 kg. The vehicle's impact speed was 56.3 kph. The vehicle sustained 656 mm of static crush during the impact.

The driver's Head Injury Criteria (HIC) was 216. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 44.8 g. The driver's maximum chest deflection was 42 mm. The driver's left and right femur maximum axial forces were 4893 N and 5318 N, respectively.

The right front passenger's HIC was 128. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 42.5 g. The passenger's maximum chest deflection was 31 mm. The passenger's left and right femur maximum axial forces were 5601 N and 3249 N, respectively.

There was loss of windshield periphery retention along its lower edge from 147 to 423 mm and from 671 to 901 mm as measured from the left lower corner.

There was no penetration through the windshield.

Following the impact, no fluid spilled from the vehicle's fuel system prior to the static rollover test or during any portion of the static rollover test.

Data Acquisition Explanations

The vehicle's engine top X-axis acceleration data channel, ENGXG1, stopped recording data after approximately 65 milliseconds because the device's cable was cut by vehicle crush.

The vehicle's left brake caliper X-axis acceleration data channel, BCLXG1, stopped recording data after approximately 25 milliseconds because the device's cable was cut by vehicle crush.

Table 1 Crash Test Summary

NHTSA number:	MT0208	
Test type:	Frontal Load Cell Barrier	
Test date:	11/22/95	
Test time:	1539	
Ambient temperature:	21° C	
Vehicle year/make/ model/body style:	1996/Ford/Mustang/convertible	
Vehicle test weight:	1700 kg	
Impact angle ¹ :	0°	
Impact velocity ² :	Primary = 56.3 kph Secondary = 56.3 kph	
Maximum static crush:	656 mm	
Average rebound:	727 mm	
Dummies:	Driver #142	Passenger #192
Type:	Part 572 E	Part 572 E
Location:	Left front	Right front
Restraint:	Airbag/lap and shoulder belts	Airbag/lap and shoulder belts
Number of data channels:	110	
Number of cameras:	High-speed	16
	Real-time	2

¹ With respect to tow track centerline.

² Speed trap measurement ($\pm .08$ kph accuracy)

³ The secondary light trap failed.

Table 2 Test Vehicle Information

Vehicle year/make/
model/body style: 1996/Ford/Mustang/convertible

Color: Red

VIN: 1FALP4445TF101555

NHTSA number: MT0208

Engine data:

 Placement: inline

 Cylinders: 6

 Displacement 3.8 liters

Transmission data: 4 speed, __manual, X automatic, __overdrive
 __FWD, X RWD, __4WD

Date vehicle received: 11/16/95

Odometer reading: 243

Dealer's name
and address: Clovis Motor Co.
St. Marys, WV 26170

Accessories:

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

Certification data from vehicle's label:

Vehicle manufactured by: Ford Motor Co.

Date of manufacture: 08/95

VIN: 1FALP4445TF101555

GVWR: 1946 kg

GAWR: Front: 1050 kg

 Rear: 908 kg

Table 2 Test Vehicle Information, Cont'd.

Size of tires: P205/65R15

Tire pressure with maximum
capacity vehicle load:

Front: 300 kPa

Rear: 300 kPa

Spare tire: T125/90R15

Type of front seats: Bucket

Tire & capacity data from vehicle's label:

Recommended tire size: P205/65R15 92T

Recommended cold tire pressure:

Front: 240 kPa

Rear: 240 kPa

Designated seating capacity:

Front 2

Rear 2

Total 4

Vehicle capacity weight: 317 kg

Luggage weight: NA

Test vehicle attitude:

Delivered attitude: LF 715 mm; RF 729 mm; LR 717 mm; RR 725 mm

Pre-test attitude: LF 705 mm; RF 719 mm; LR 682 mm; RR 686 mm

Post-test attitude: LF 750 mm; RF 669 mm; LR 651 mm; RR 701 mm

Table 2 Test Vehicle Information Cont'd

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

Right front	423.0 kg	Right rear	321.0 kg
Left front	443.0 kg	Left rear	317.5 kg
Total front weight	866.0 kg	(57.6% of total vehicle weight)	
Total rear weight	638.5 kg	(42.4% of total vehicle weight)	
Total delivered weight	1504.5 kg		

Calculation of test vehicle's target test weight:

RCLW = Rated cargo and luggage weight

UDW = Unloaded delivered weight (1504.5 kg)

VCW¹ = Vehicle capacity weight (317 kg)

DSC = Designated seating capacity (4)

RCLW = VCW - 68 (DSC) = 45 kg

Target test weight = UDW + RCLW + (Number of Hybrid III dummies x 76 kg/dummy)

Target test weight = 1504.5 + 45 + 152

Target test weight = 1701.5 kg

Weight of test vehicle with required dummies and 44 kg of cargo weight:

Right front	448.0 kg	Right rear	393.5 kg
Left front	477.5 kg	Left rear	381.0 kg
Total front weight	925.5 kg	(54.4% of total vehicle weight)	
Total rear weight	774.5 kg	(45.6% of total vehicle weight)	
Total test weight	1700.0 kg	(0.1% under target test weight)	

Weight of ballast secured in vehicle: 0 kg

Components removed to meet target test weight Rear bumper and tail lights

CG rearward of front wheel centerline: 1173 mm

Vehicle wheelbase: 2575 mm

¹ From the vehicle's recommended tire pressure label.

Table 3 Post-Impact Data

Test number: 951122
NHTSA number: MT0208
Test date: 11/22/95
Test time: 1539
Test type: Frontal load cell barrier
Impact angle: 0°
Ambient temperature
at impact area: 21° C
Temperature in
occupant compartment: 21° C
Impact velocity:
Primary 56.3 kph
Secondary 56.3 kph
Specified range 56.2 to 57.1 kph

Distance from vehicle to barrier:

Entering velocity trap 356 mm
Exiting velocity trap 51 mm

Test vehicle static crush:

Overall length of test vehicle:

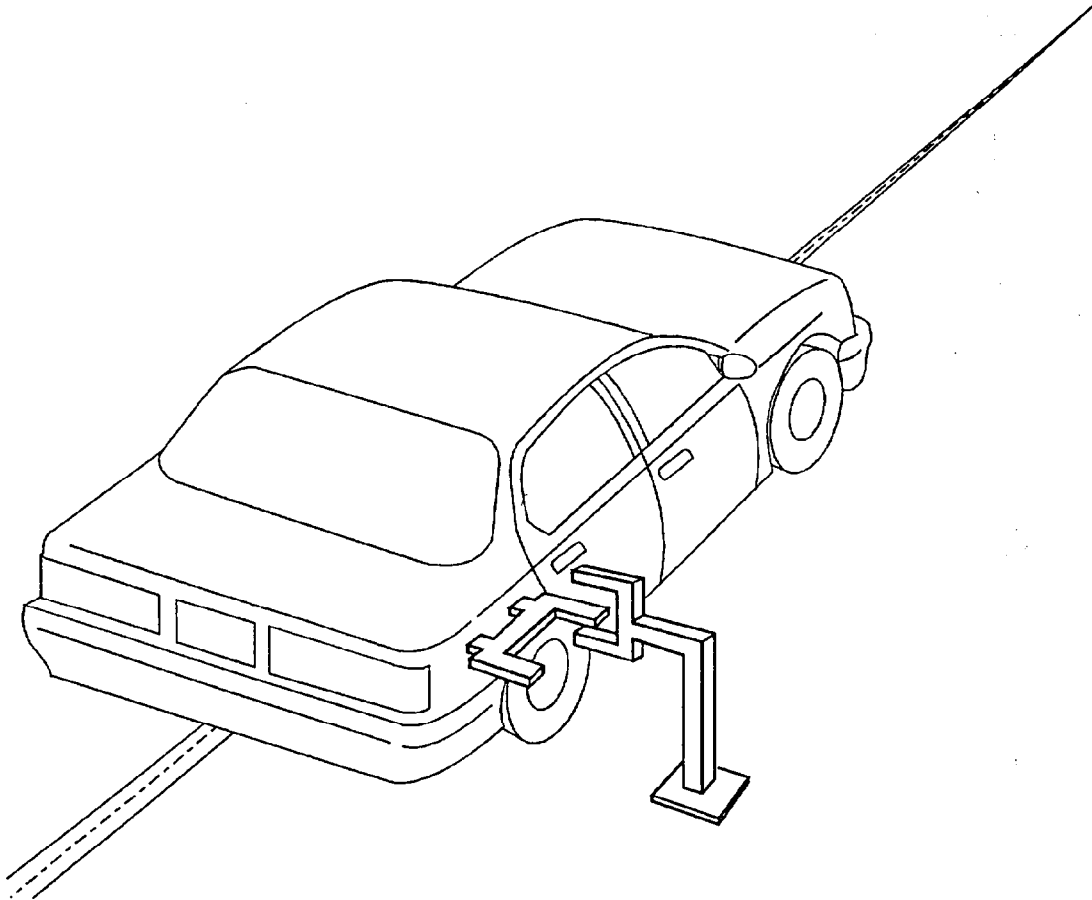
Pre-test:	L	4454 mm;	C	4595 mm;	R	4450 mm
Post-test:	L	3869 mm;	C	3943 mm;	R	3860 mm
Total crush:	L	585 mm;	C	652 mm;	R	590 mm
Average crush:	609 mm					

Test vehicle rebound from flat barrier:

Distance from test vehicle to barrier:

Post-test:	L	819 mm;	C	521 mm;	R	840 mm
Average rebound	727 mm					

Figure 1 Impact Velocity Measurement System



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

The vanes have 305-millimeter spacing.

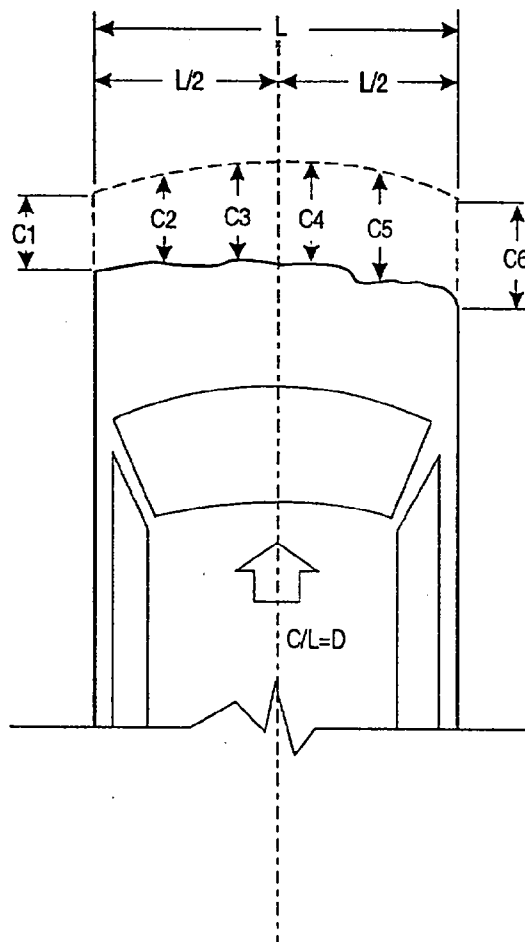
**Figure 2 Accident Investigation Division Data
for 56 kph (35 mph) Frontal Barrier Impact**

NHTSA number: MT0208
 Test date: 11/22/95
 Vehicle year/make/
 model/body style: 1996/Ford/Mustang/convertible
 Vehicle size category: Subcompact
 VIN: 1FALP4445TF101555
 Build date: 08/95
 Test weight: 1700 kg
 Vehicle wheelbase: 2575 mm
 Maximum width: 1826 mm
 Front overhang: 1020 mm

Collision Deformation
 Classification (CDC) code: 12FDEW3

Crush depth
 measurements:

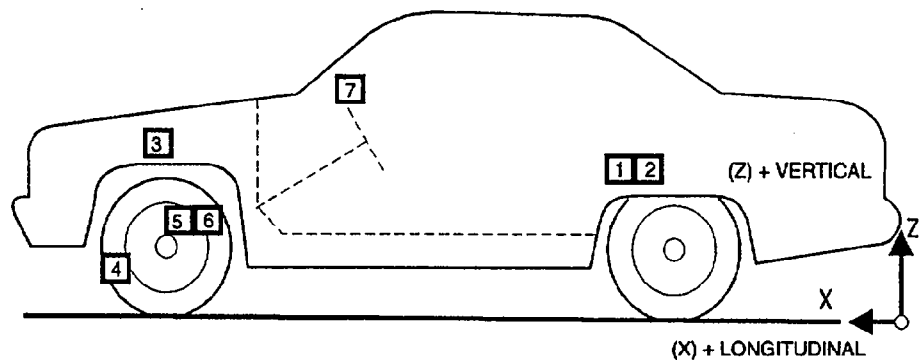
C1	=	585 mm
C2	=	622 mm
C3	=	643 mm
C4	=	656 mm
C5	=	604 mm
C6	=	590 mm



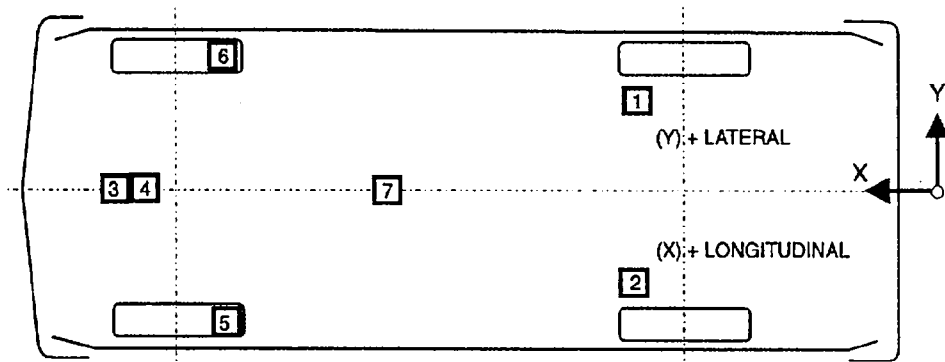
Midpoint of damage: D: Vehicle Longitudinal Centerline

Length of damaged region: L: 1525 mm

Figure 3 Vehicle Accelerometer Placement



SIDE VIEW



BOTTOM VIEW

Table 4 Vehicle Accelerometer Locations and Data Summary

TEST NUMBER: 951122 No. LOCATION	X	Y	Z	POSITIVE DIRECTION	NEGATIVE DIRECTION
1 LEFT REAR SEAT CROSSMEMBER LONGITUDINAL REDUNDANT	2870 mm	425 mm	389 mm	1.9 g @ 190.6 ms 1.8 g @ 190.6 ms	31.6 g @ 54.7 ms 31.3 g @ 54.6 ms
2 RIGHT REAR SEAT CROSSMEMBER LONGITUDINAL REDUNDANT	2870 mm	-410 mm	385 mm	1.8 g @ 190.3 ms 1.6 g @ 190.4 ms	38.2 g @ 56.6 ms 39.2 g @ 56.7 ms
3 ENGINE TOP LONGITUDINAL ¹	1115 mm	240 mm	730 mm	---	93.1 g @ 44.2 ms
4 ENGINE BOTTOM LONGITUDINAL	3175 mm	5 mm	208 mm	17.4 g @ 59.7 ms	75.1 g @ 45.0 ms
5 RIGHT BRAKE CALIPER LONGITUDINAL	3490 mm	-667 mm	345 mm	41.6 g @ 82.4 ms	61.2 g @ 62.2 ms
6 LEFT BRAKE CALIPER LONGITUDINAL ¹	3485 mm	667 mm	325 mm	--- g @ --- ms	--- g @ --- ms
7 INSTRUMENT PANEL CENTER LONGITUDINAL	1650 mm	0 mm	945 mm	39.6 g @ 49.4 ms	77.8 g @ 78.8 ms

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN MILLIMETERS. X-AXIS
LOCATIONS ARE MEASURED REARWARD FROM THE FRONT BUMPER.

REFERENCE: X: + FORWARD ACCELERATION

Y: + LEFT FROM VEHICLE CENTERLINE

Z: + UP FROM GROUND LEVEL

¹See DATA ACQUISITION EXPLANATIONS

Table 5 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver #142</u>	<u>Passenger #192</u>
Head	Airbag/visor	Airbag/visor
Chest	Airbag	Airbag
Abdomen	None	None
Left knee	Instrument panel	Instrument panel
Right knee	Instrument panel	Instrument panel

Door Opening:

	<u>Left</u>	<u>Right</u>
Front	Easy	Easy
Rear	NA	NA

Seat Movement:

	<u>Seat Back Failure</u>	<u>Seat Shift</u>
Front	None	None
Rear	NA	NA

Glazing Damage: The entire windshield cracked from the bottom edge.

Other Notable Impact Effects: None

Table 6 FMVSS 208 Data Summary

Vehicle year/make/
model/body style: 1996/Ford/Mustang/convertible
Vehicle NHTSA number: MT0208
Test date: 11/22/95

	Driver Dummy #142		Passenger Dummy #192	
<u>Maximum Accelerations:</u>				
Head X-axis	-39.9	g	-70.6	g
Head Y-axis	11.2	g	10.5	g
Head Z-axis	16.6	g	-28.8	g
Head resultant	40.0	g	73.5	g
Chest X-axis	-44.4	g	-42.8	g
Chest Y-axis	-4.5	g	5.6	g
Chest Z-axis	20.0	g	19.3	g
Chest resultant ¹	44.8	g	42.5	g
Chest resultant time interval ¹	.003	sec	.003	sec
<u>Head Injury Criteria (HIC) Values:</u>				
HIC ²	216		128	
HIC starting time	.0729	sec	.0370	sec
HIC ending time	.1089	sec	.0671	sec
Avg. head resultant accel. during HIC time interval	32.4	g	28.3	g
<u>Maximum Chest Deflections:</u>				
Chest X-axis	-41.8	mm	-31.0	mm
Maximum chest deflection time	.0906	sec	.0802	sec
<u>Maximum Compressive Femur Forces:</u>				
Left femur	4893	N	5601	N
Right femur	5318	N	3249	N
<u>Maximum Seat Belt Forces:</u>				
Lap belt	2252	N	4178	N
Shoulder belt	5639	N	5293	N

Note: All values listed must be occurring during primary impact event.
(Head accelerations listed must be during HIC time interval.)

¹ 0.003 Sec. Minimum duration.

² The maximum HIC time interval is 36 milliseconds.

Table 7 Hybrid III Data Summary

Vehicle year/make/
model/body style: 1996/Ford/Mustang/convertible
Vehicle NHTSA number: MT0208
Test date: 11/22/95

	Driver Dummy #142	Passenger Dummy #192
<u>Maximum Forces</u>		
Neck X-axis shear force	378 N	926 N
Neck Y-axis shear force	107 N	-268 N
Neck Z-axis axial force	1637 N	-2463 N
<u>Maximum Moments</u>		
Neck moment about X-axis	25.6 N·m	16.0 N·m
Neck moment about Y-axis	-38.8 N·m	-66.0 N·m
Neck moment about Z-axis	14.4 N·m	7.1 N·m
<u>Maximum Accelerations:</u>		
Pelvis X-axis	-44.8 g	-57.6 g
Pelvis Y-axis	-11.5 g	7.7 g
Pelvis Z-axis	23.6 g	15.7 g
Pelvis resultant	45.6 g	57.8 g

Table 7 Hybrid III Data Summary, Cont'd.

Vehicle year/make/
model/body style: 1996/Dodge/Grand Caravan SE/minivan
Vehicle NHTSA number: MT0304
Test date: 11/08/95

	Driver Dummy #142	Passenger Dummy #192
Left upper tibia moment about X-axis	34.0 N·m	NA
Left upper tibia moment about Y-axis	94.5 N·m	NA
Right upper tibia moment about X-axis	82.0 N·m	NA
Right upper tibia moment about Y-axis	-51.5 N·m	NA
Left lower tibia X-axis force	-794 N	NA
Left lower tibia Z-axis force	-1248 N	NA
Left lower tibia moment about Y-axis	-84.9 N·m	NA
Right lower tibia X-axis force	-466 N	NA
Right lower tibia Z-axis force	-1386 N	NA
Right lower tibia moment about Y-axis	-61.8 N·m	NA
Left foot X-axis acceleration	-45.6 g	-87.8 g
Left foot Z-axis acceleration at heel	-122.2 g	36.2 g
Left foot Z-axis acceleration at toe	-156.2 g	87.7 g
Right foot X-axis acceleration	-63.1 g	-61.9 g
Right foot Z-axis acceleration at heel	-114.8 g	55.3 g
Right foot Z-axis acceleration at toe	151.7 g	-56.1 g

Note: All values listed must be occurring during primary impact event

Dummy Kinematic Summary

Driver Dummy

Upon impact, the driver dummy translated forward on the seat and its head contacted the visor and both knees impacted the instrument panel. The dummy's head and chest then impacted the airbag. The dummy was restrained by the airbag, lap, and shoulder belts. The dummy rebounded rearward into the seat back and came to rest seated in the driver's seat, restrained by the lap and shoulder belts.

Right Front Passenger Dummy

Upon impact, the right front passenger dummy translated forward on the seat impacting both knees into the instrument panel. The dummy's head and chest impacted the airbag as the dummy's head rotated forward. The dummy was restrained by the passenger's airbag, lap, and shoulder belts. The dummy rebounded rearward into the seat back and its head contacted the visor. The right front passenger dummy came to rest in the right front passenger's seat restrained by the lap and shoulder belts.

Table 8 Seat Belt Performance Assessment Test Data

	Driver	Passenger
<u>Belt length data:</u>		
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	N/A ¹ mm	N/A ¹ mm
Shoulder belt length as measured on Part 572 dummy.	1202 mm	1267 mm
Lap belt length as measured on Part 572 dummy.	855 mm	899 mm
<u>Shoulder belt spool-off length:</u>		
As determined by film analysis	N/A ² mm	N/A ² mm
As determined mechanically	92 mm	91 mm
As determined electronically	93 mm	109 mm
<u>Belt stretch length:³</u>		
As measured mechanically	8 mm/m	6 mm/m
As measured electronically	15 mm/m	0 mm/m
<u>Retractor lock-up time:</u>		
As determined by shoulder belt spool-off	N/A ² msec	N/A ² msec

¹ Not a continuous webbing belt system.

² Onboard vehicle cameras were not used.

³ Belt stretch measurements taken on each dummy's shoulder belt.

Figure 4 Load Cell Barrier Configuration

36 LOAD CELLS
4 ROWS
9 COLUMNS
FRONT VIEW

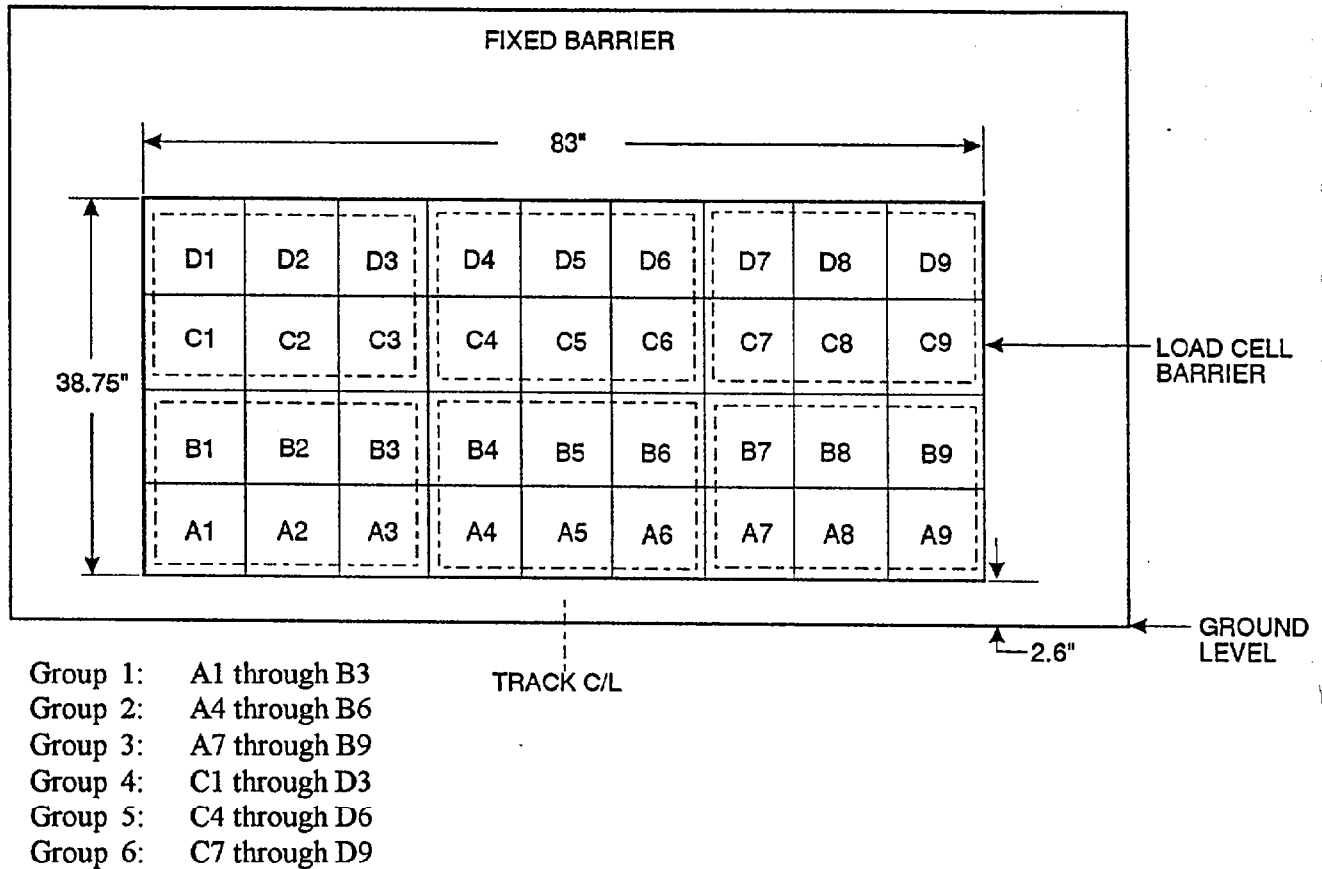


Table 9 Load Cell Barrier Data Summary

Location	Positive direction	Negative direction
Total group 1	1.3 kN @ 1.8 ms	62.5 kN @ 21.2 ms
Total group 2	0.0 kN @ 245.2 ms	131.3 kN @ 79.0 ms
Total group 3	0.6 kN @ 0.3 ms	45.9 kN @ 22.1 ms
Total group 4	0.6 kN @ 2.6 ms	113.3 kN @ 29.8 ms
Total group 5	0.0 kN @ 265.0 ms	168.7 kN @ 46.7 ms
Total group 6	0.2 kN @ 1.7 ms	90.8 kN @ 39.9 ms
Total load cell force	-0.1 kN @ 246.1 ms	441.8 kN @ 46.8 ms

Tension is positive
Compression is negative

Section 3.0

FMVSS 212, 219 (partial), and 301 Data

Figure 5 FMVSS 212 Test Data

Details of windshield mounting such as retention method, trim type, etc.:

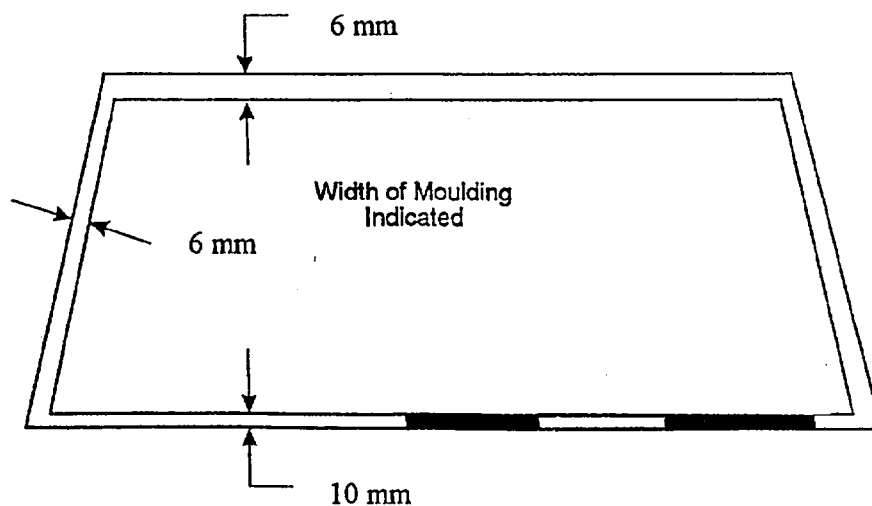
Plastic trim around outer perimeter, adhesive around inner perimeter.

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

Windshield periphery measurements:

	<u>Pre-test</u>	<u>Post-test</u>	<u>Percent retention</u>
Right side	2038 mm	1959 mm	96.1
Left side	2038 mm	1611 mm	79.0
Total	4076 mm	3570 mm	87.6

Pre-test windshield mounting material temperature: 21° C



Front view of windshield¹

Loss of windshield retention lengths: Retention was lost from 147 to 423 mm and from 671 to 901 mm across the lower edge of the windshield as measured from the left lower corner.

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

Figure 6 FMVSS 219 Test Data

Protected zone lower edge requirement:

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

Windshield measurements:

A = 1170 mm

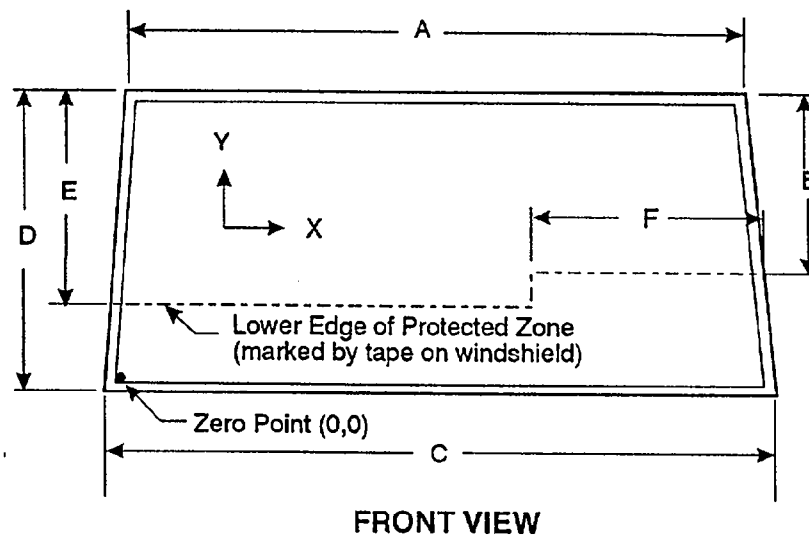
B = 365 mm

C = 1580 mm

D = 670 mm

E = 400 mm

F = 577 mm



Method of adhering protected zone template to windshield: NA

Areas of windshield template penetration greater than 6 mm: NA

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

Coordinates
X Y

- 1.
- 2.
- 3.

- 1.
- 2.
- 3.

Table 10 Fuel System Data

Vehicle year/make/ model/body style:	1996/Ford/Mustang/convertible
NHTSA number:	MT0208
Fuel system capacity:	58.3 liters (from owner's manual)
Usable capacity:	58.3 liters (furnished by COTR)
Test volume range:	53.6 liters to 54.8 liters (92-94% of usable)
Actual test volume:	54.2 liters (with entire fuel system filled)
Test fluid type:	Stoddard solvent
Specific gravity:	0.764
Kinematic viscosity:	0.99 centistoke
Test fluid color:	Purple
Did electric fuel pump operate with ignition switch "on" and the engine not operating.	No
Details of fuel system:	The fuel filler cap is located on the vehicle's right rear quarter panel. The filler neck enters the fuel tank on the right side. The fuel tank is located behind the rear axle. Fuel lines run along the center of the vehicle's underbody on the right side of the drive shaft. The fuel lines then cross to the right and follow the outside of the right front frame member to the engine compartment.

Table 11 FMVSS 301 Post-Impact Test Data

NHTSA number: MT0208
Test date: 11/22/95
Vehicle year/make/
model/body style: 1996/Ford/Mustang/convertible

Test requirements:

Test vehicle fuel tank filled to 92 to 94% of manufacturer's usable capacity and with electric fuel pump operating (if it will operate without engine operation). Part 572 test dummies located at each front designated seating position.

Test vehicle impact type:

- ☒ Frontal (56 kph)
☐ Oblique (48 kph) with ___ ° barrier face first contacting ___ (driver/pass.) side
☐ Rear moving barrier (48 kph)
☐ Lateral moving barrier (32 kph)

Fuel system fluid spillage measurements:

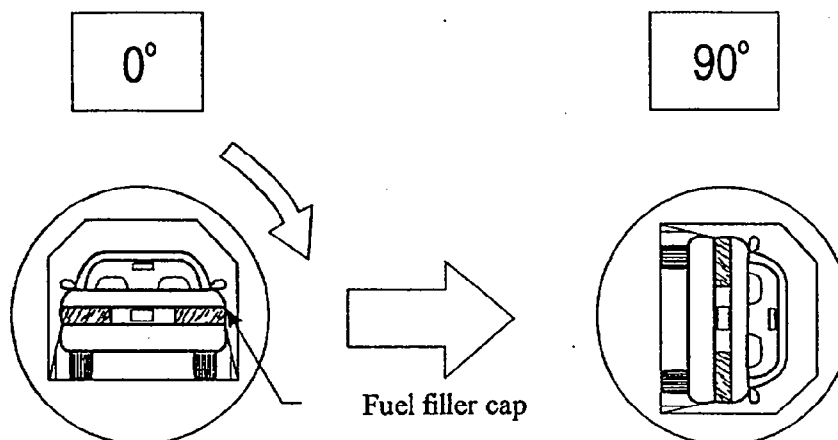
	Test Results	Maximum Allowable
1. From impact until vehicle motion ceases	0 g	28 g
2. 5-minute period after vehicle motion ceases	0 g	142 g
3. Next 25 minutes after 5-minute period	0 g	28 g/min

Fuel system fluid spillage location(s): None

Figure 7 FMVSS 301 Static Rollover Test Data

NHTSA number: MT0208

Test phase



Static rollover machine rotation time information: (specified range is 1-3 minutes)

Time required for machine to rotate 90° = 2 minutes, 0 seconds

FMVSS 301 position hold time = 5 minutes, 0 seconds

Total = 7 minutes, 0 seconds

Next whole minute interval = 7 minutes

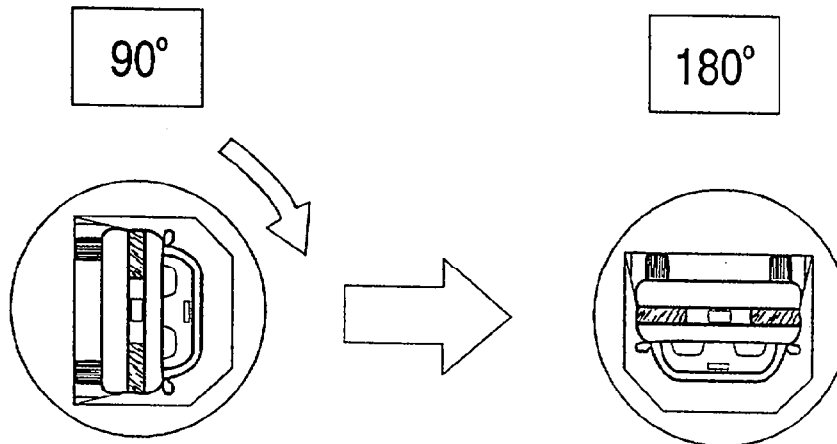
Fuel system fluid spillage measurements:

	Test Results	Maximum Allowable
<u>0° to 90° rotation (fuel filler cap down)</u>		
1. First five minutes from onset of rotation	0 g	142 g
2. Sixth minute from onset of rotation	0 g	28 g
3. Seventh minute from onset of rotation	0 g	28 g

Fuel system fluid spillage location(s): None

Figure 7 FMVSS 301 Static Rollover Test Data, Cont'd.

Test phase



Static rollover machine rotation time information: (specified range is 1-3 minutes)

Time required for machine to rotate 90° = 2 minutes, 0 seconds

FMVSS 301 position hold time = 5 minutes, 0 seconds

Total = 7 minutes, 0 seconds

Next whole minute interval = 14 minutes

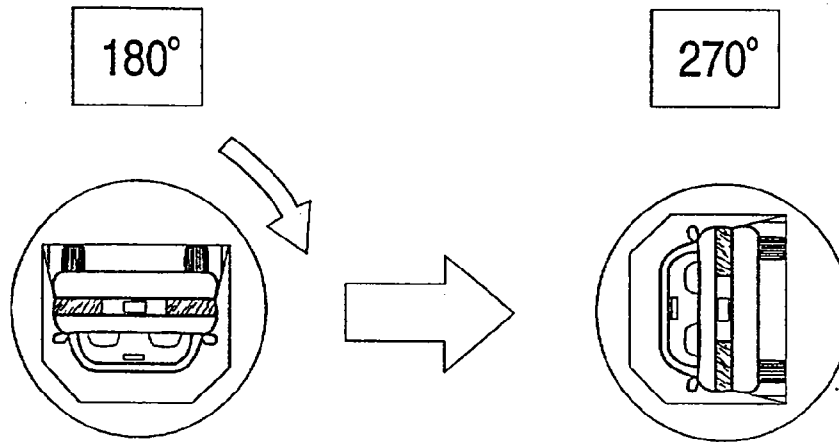
Fuel system fluid spillage measurements:

	Test Results	Maximum Allowable
<u>90° to 180° rotation</u>		
1. First five minutes from onset of rotation	0 g	142 g
2. Sixth minute from onset of rotation	0 g	28 g
3. Seventh minute from onset of rotation	0 g	28 g

Fuel system fluid spillage location(s): None

Figure 7 FMVSS 301 Static Rollover Test Data, Cont'd.

Test phase



Static rollover machine rotation time information: (specified range is 1-3 minutes)

Time required for machine to rotate 90°	=	2	minutes,	0	seconds
FMVSS 301 position hold time	=	5	minutes,	0	seconds
Total	=	7	minutes,	0	seconds
Next whole minute interval	=	21	minutes		

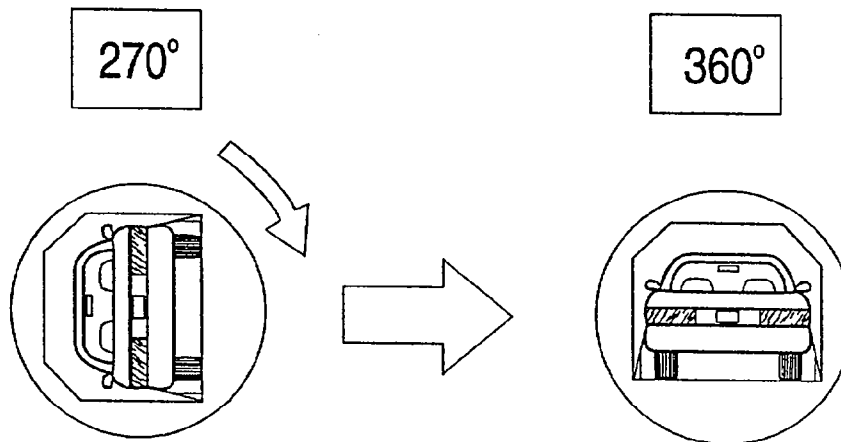
Fuel system fluid spillage measurements:

<u>180° to 270° rotation</u>		<u>Test Results</u>	<u>Maximum Allowable</u>
1.	First five minutes from onset of rotation	0 g	142 g
2.	Sixth minute from onset of rotation	0 g	28 g
3.	Seventh minute from onset of rotation	0 g	28 g

Fuel system fluid spillage location(s): None

Figure 7 FMVSS 301 Static Rollover Test Data, Cont'd.

Test phase



Static rollover machine rotation time information: (specified range is 1-3 minutes)

Time required for machine to rotate 90°	=	2	minutes,	0	seconds
FMVSS 301 position hold time	=	5	minutes,	0	seconds
Total	=	7	minutes,	0	seconds
Next whole minute interval	=	28	minutes		

Fuel system fluid spillage measurements:

<u>270° to 360° rotation</u>		<u>Test Results</u>	<u>Maximum Allowable</u>
1.	First five minutes from onset of rotation	0 g	142 g
2.	Sixth minute from onset of rotation	0 g	28 g
3.	Seventh minute from onset of rotation	0 g	28 g

Fuel system fluid spillage location(s): None

Section 4.0

Occupant, Camera, and Vehicle Information

Figure 8 Dummy Measurement Locations for Front Seat Occupants

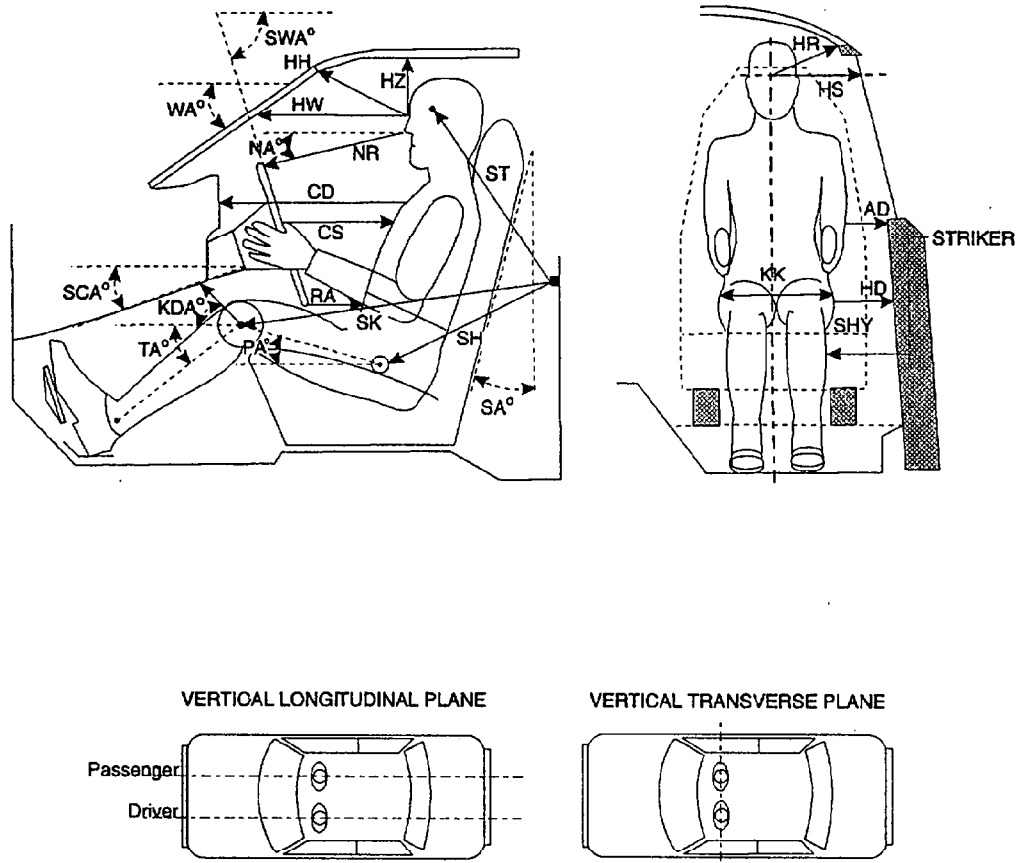


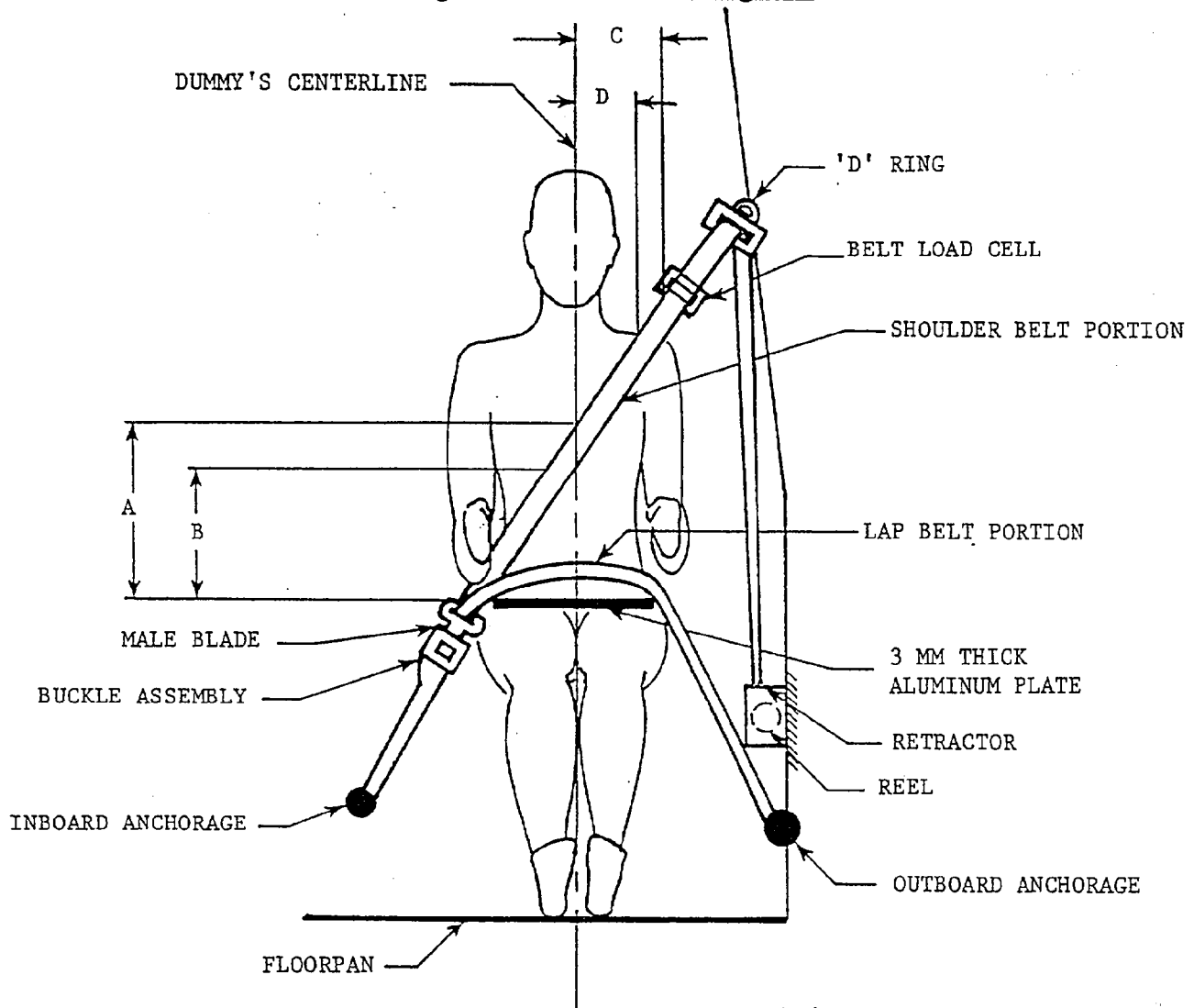
Table 12 Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial #142)	Passenger (Serial #192)
WA	Windshield angle	27°	NA
SWA	Steering wheel angle	71°	NA
SCA	Steering column angle	20°	NA
SA	Seat back angle	21°	21°
HZ	Head to roof	171 mm	155 mm
HH	Head to header	285 mm	255 mm
HW	Head to windshield	419 mm	426 mm
HR	Head to side header	154 mm	162 mm
NR	Nose to rim	340 mm	NA
NA	Nose to rim angle	14°	NA
CD	Chest to dash	521 mm	486 mm
CS	Steering wheel to chest	289 mm	NA
RA	Rim to abdomen	167 mm	NA
KDL	Left knee to dash	150 mm	144 mm
KDR	Right knee to dash	134 mm	155 mm
KDA	Outboard knee to dash angle	33°	32°
PA	Pelvic angle	24°	23°
TA	Tibial angle	42°	37°
KK	Knee to knee	320 mm	260 mm
ST ¹	Striker to head	640 mm	684 mm
	Striker to head angle	-53°	-50°
SK ¹	Striker to knee	902 mm	912 mm
	Striker to knee angle	-1°	-1°
SH ¹	Striker to H-point	544 mm	545 mm
	Striker to H-point angle	104°	103°
SHY	Striker to H-point (Y dir.)	225 mm	194 mm
HS	Head to side window	307 mm	275 mm
HD	H-point to door	131 mm	92 mm
AD	Arm to door	120 mm	99 mm

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

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

Figure 9 Seat Belt Positioning Data



	Driver	Passenger
A - Top surface of aluminum plate to belt upper edge	346 mm	304 mm
B - Top surface of aluminum plate to belt lower edge	265 mm	209 mm
C - Dummy centerline to outer edge of belt at chest flesh top	108 mm	143 mm
D - Dummy centerline to inner edge of belt at chest flesh top	44 mm	84 mm
Lap belt tension	9 N	9 N
Shoulder belt tension	9 N	9 N
Position of adjustable belt anchorage	NA	NA

Figure 10 Camera Positions

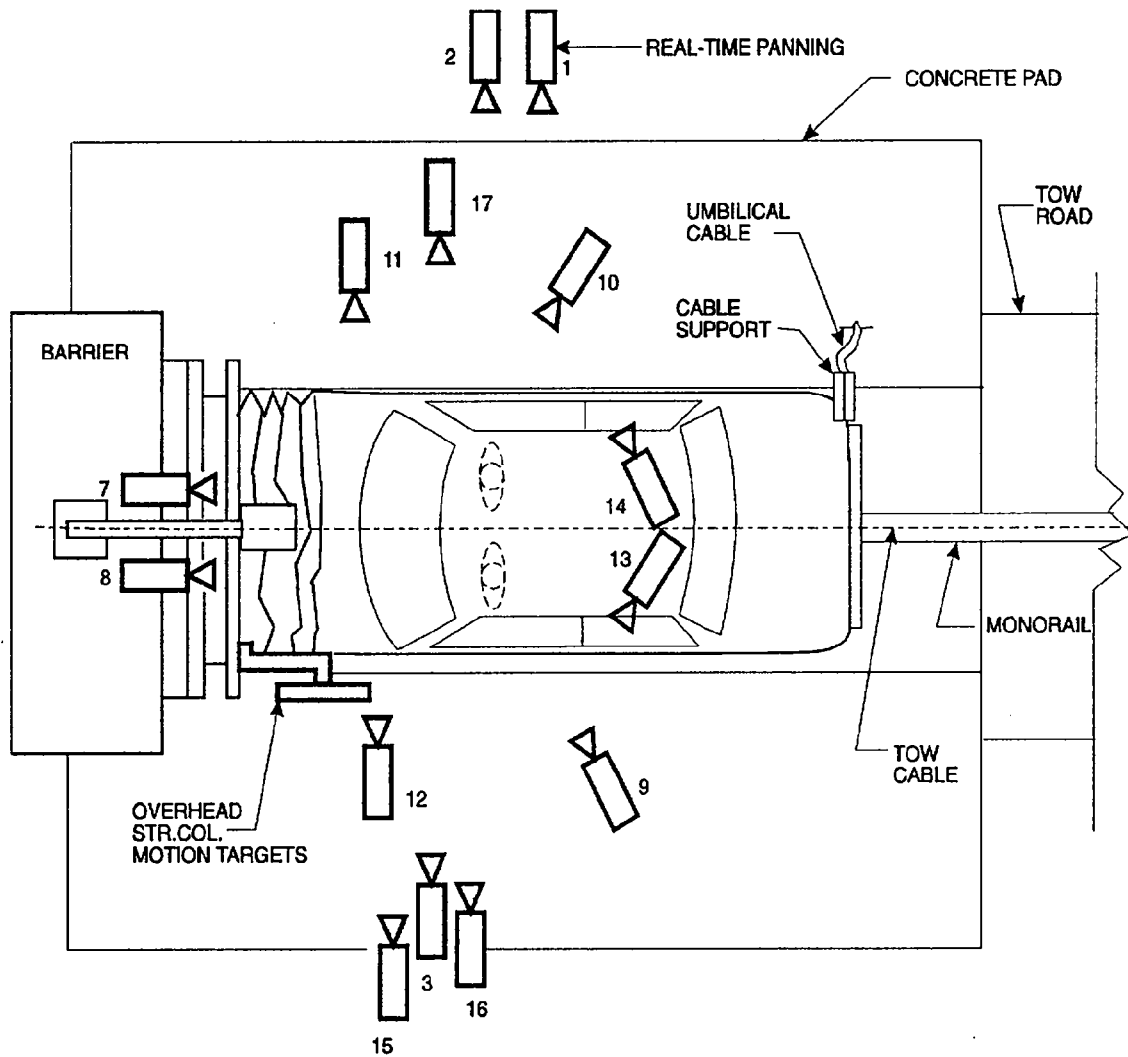


Figure 10 Camera Positions, Cont'd.

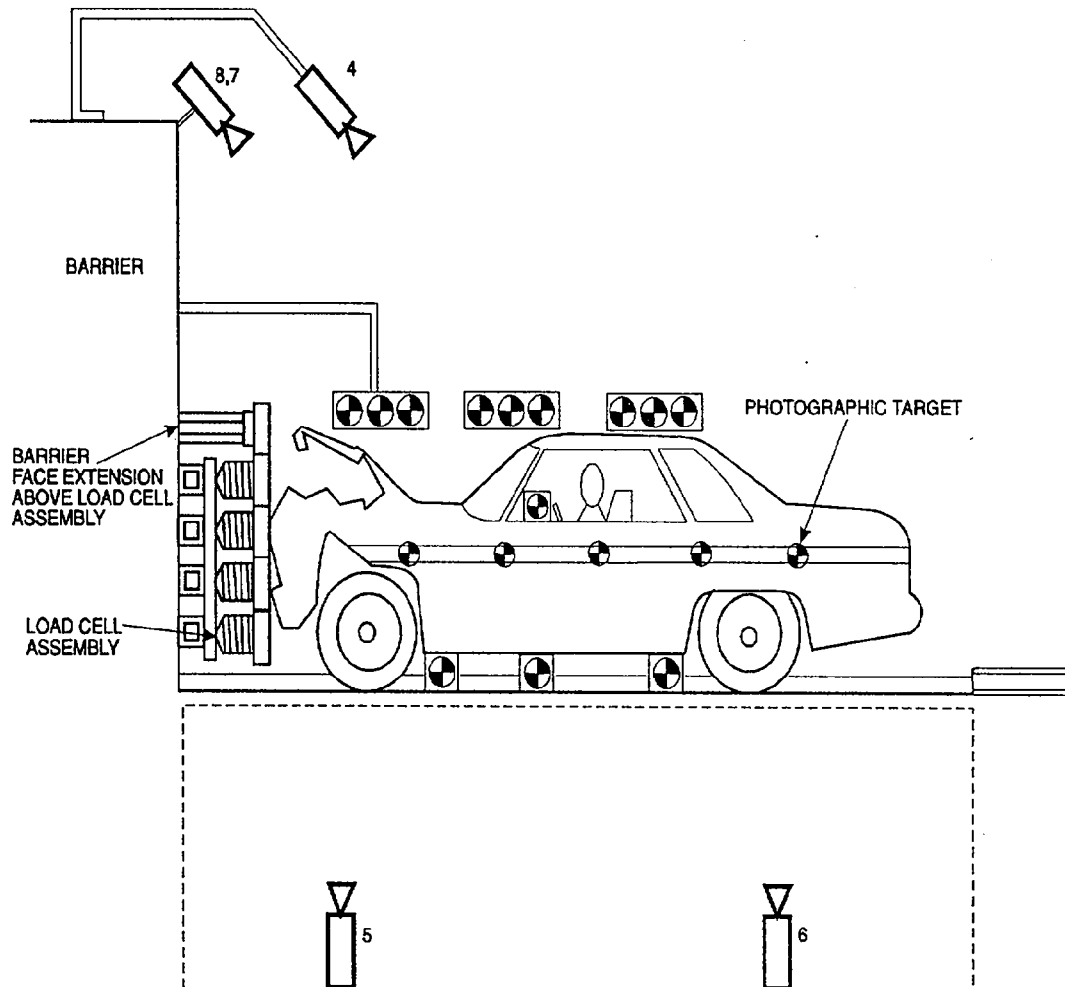


Table 13 Motion Picture Camera Locations

Test Number: 951122

Vehicle year/make/model/body style: 1996/Ford/Mustang/convertible

Camera Number	View	Camera Positions ¹			Angle ²	Film Plane to Head Target	Lens	Film Speed
		X	Y	Z				
1	Real-time panning	-3607 mm	-2802 mm	1549 mm	NA	NA mm	16 mm	24 frames/s
2	Vehicle crush	-2065 mm	-6767 mm	942 mm	-2°	NA mm	13 mm	478 frames/s
3	Dummy kinematics	-1054 mm	7493 mm	1118 mm	-12°	5842 mm	25 mm	983 frames/s
4	Windshield damage	-925 mm	0 mm	2489 mm	-40°	NA mm	13 mm	512 frames/s
5	Crush & fluid spillage	-1283 mm	0 mm	-2347 mm	90°	NA mm	13 mm	992 frames/s
6	Fluid spillage	-2522 mm	0 mm	-2515 mm	90°	NA mm	13 mm	1000 frames/s
7	Passenger kinematics	-114 mm	-351 mm	2159 mm	-40°	NA mm	17 mm	500 frames/s
8	Driver kinematics	-173 mm	368 mm	2159 mm	-41°	NA mm	17 mm	500 frames/s
9	Driver kinematics	-4572 mm	1854 mm	2591 mm	-27°	2464 mm	25 mm	468 frames/s
10	Passenger kinematics	-4674 mm	-1880 mm	2540 mm	-26°	2337 mm	25 mm	505 frames/s
11	Windshield intrusion	-968 mm	-7775 mm	1118 mm	0°	NA mm	50 mm	510 frames/s
12	Windshield intrusion	-1346 mm	7859 mm	1074 mm	0°	NA mm	50 mm	505 frames/s
13	Driver seat belt movement	-2032 mm	NA	NA	NA	NA mm	NA mm	--- frames/s ³
14	Passenger seat belt movement	-2032 mm	NA	NA	NA	NA mm	NA mm	--- frames/s ³
15	Column movement	-3073 mm	7264 mm	2616 mm	-14°	NA mm	25 mm	495 frames/s
16	Column movement	-3073 mm	7264 mm	1908 mm	-9°	NA mm	25 mm	492 frames/s
17	Passenger kinematics	-986 mm	-5354 mm	1151 mm	7°	6477 mm	25 mm	995 frames/s

¹ +X = Film plane forward of barrier face

+Y = Film plane to left of monorail centerline

+Z = Film plane above ground level

² +Angle = Film plane angled upward from horizontal plane

³ Onboard cameras were not used.

Figure 11 Vehicle Target Locations

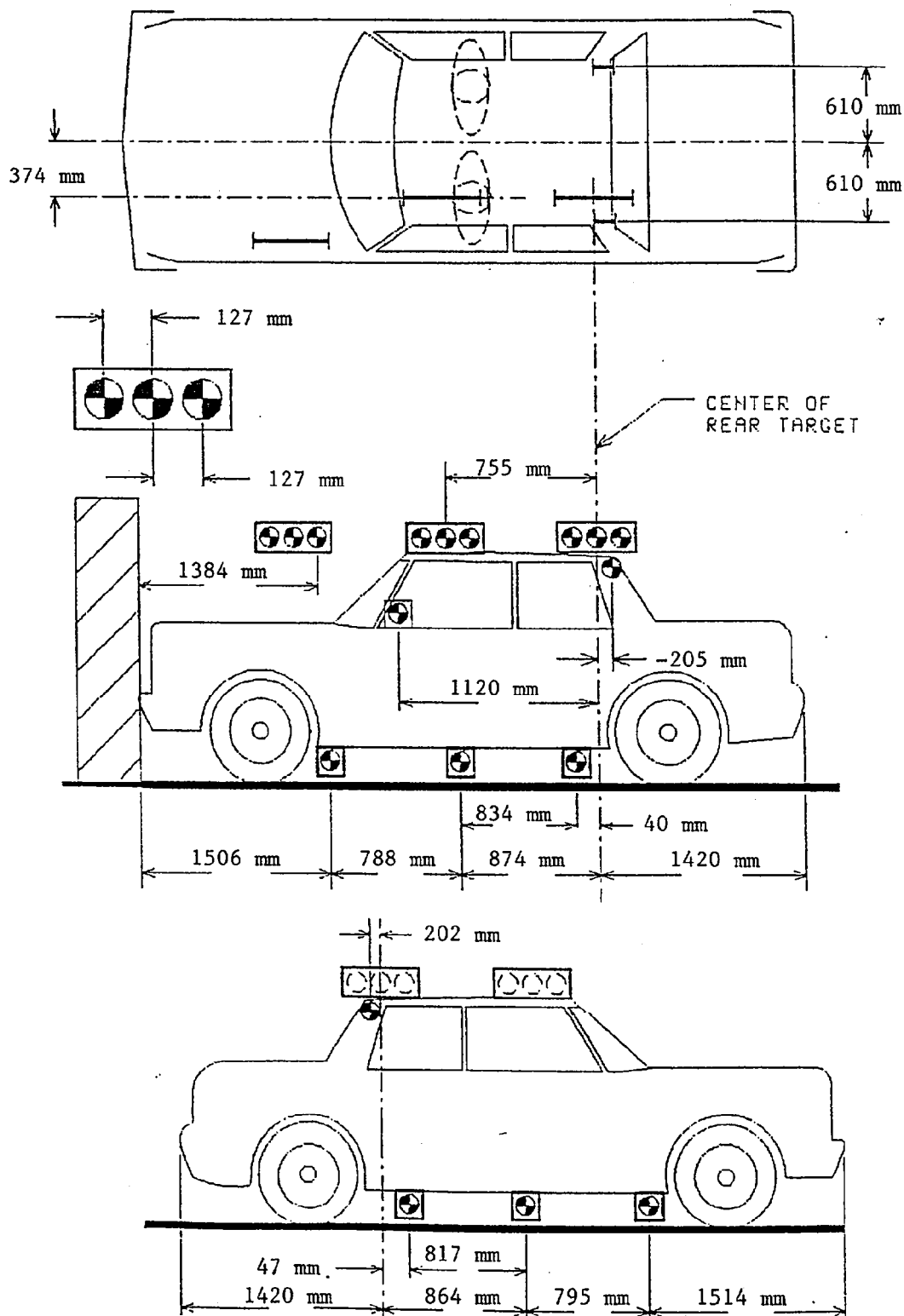


Figure 12 Pre-Test And Post-Test Measurement Points

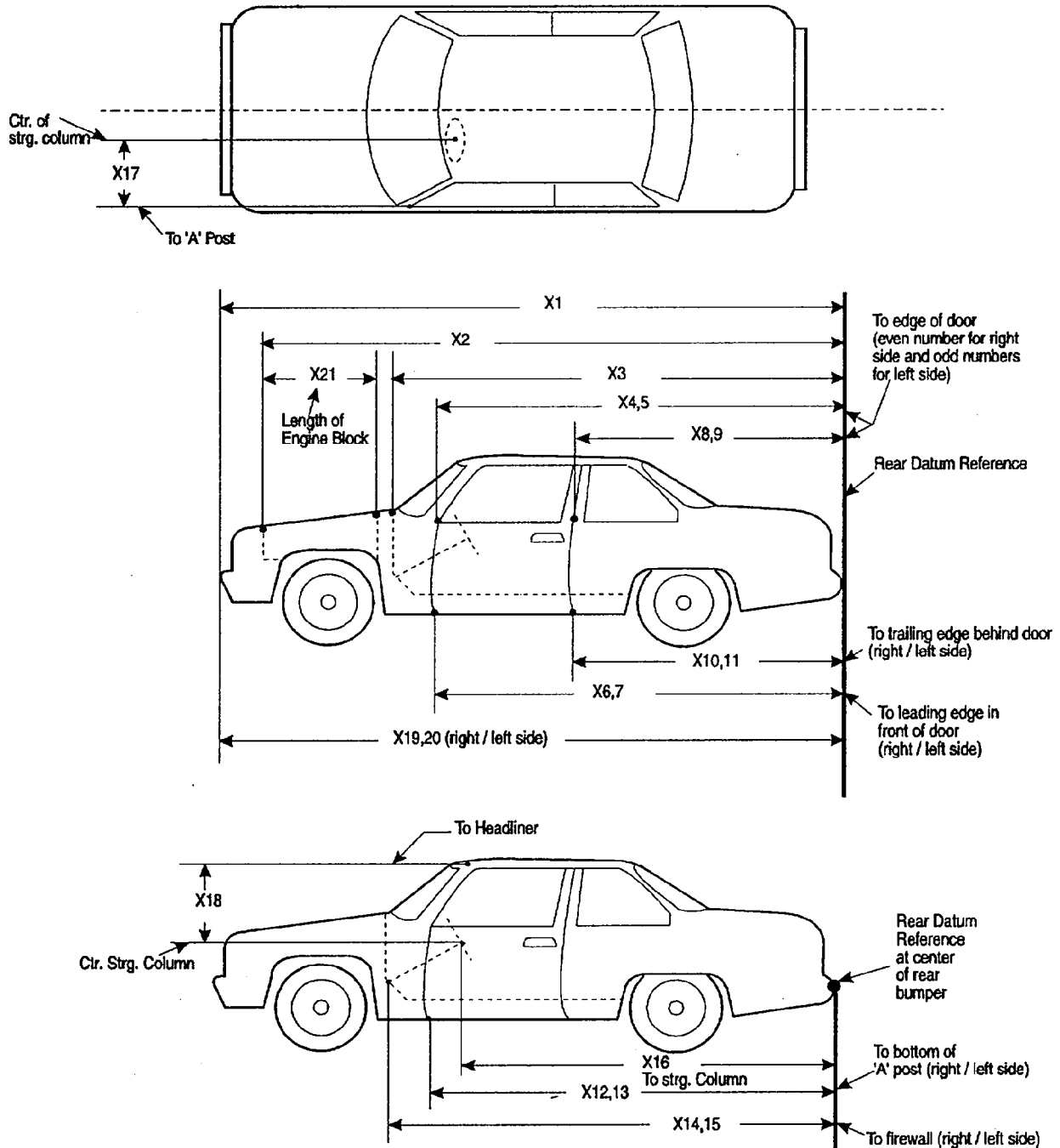
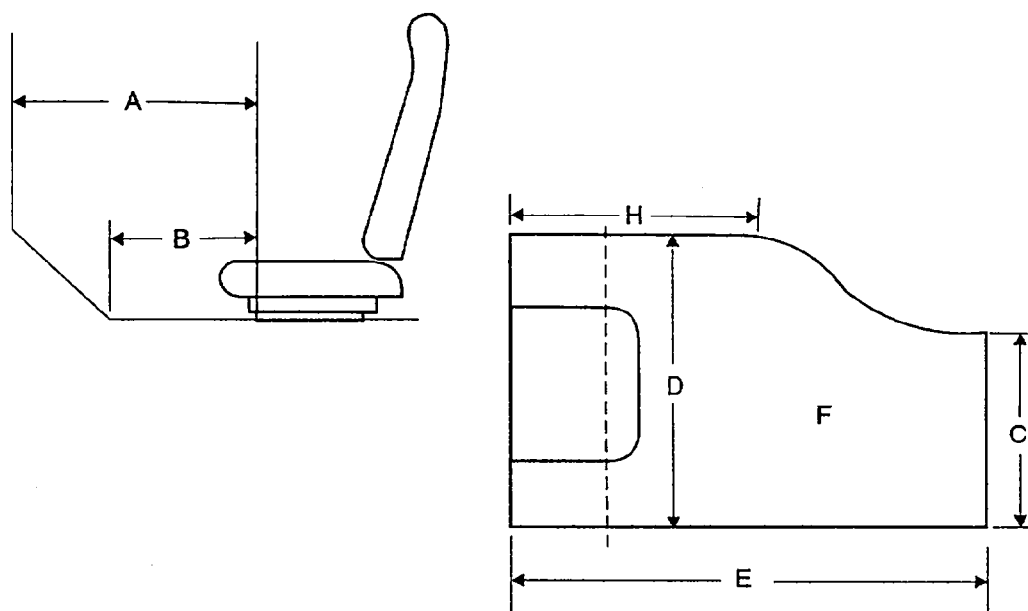


Table 14 Impacted Vehicle Measurements

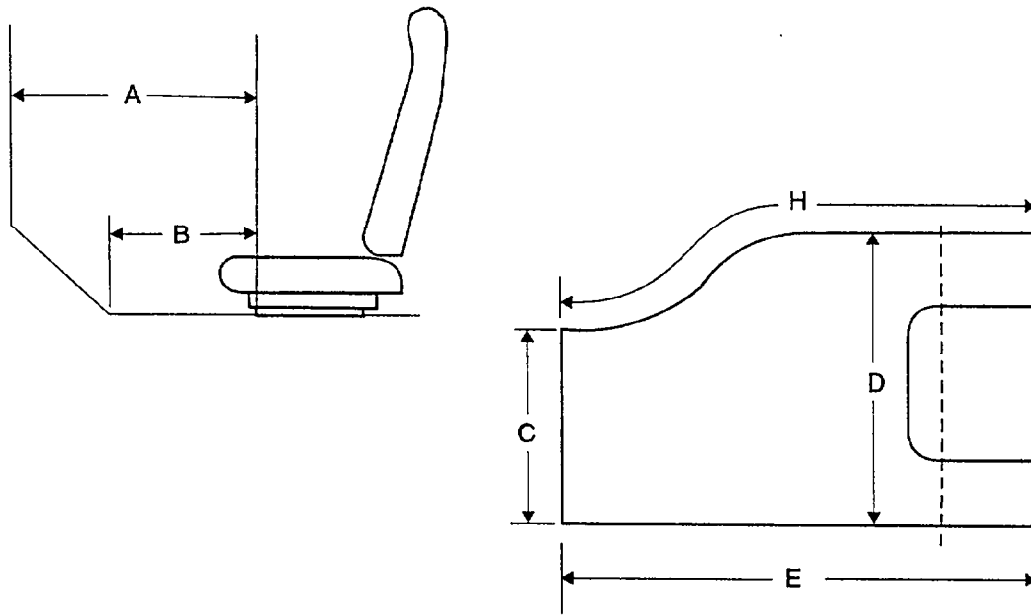
<u>Vehicle Make/Model:</u> Ford/Mustang		<u>Test Number:</u> 951122		
No.	Type of measurement	Pre-test	Post-test	Diff.
X1	Total length of vehicle at centerline	4595 mm	3943 mm	652 mm
X2	Rear surface of vehicle to front of engine block	3696 mm	3441 mm	255 mm
X3	Rear surface of vehicle to firewall	3265 mm	3031 mm	234 mm
X4	Rear surface of vehicle to upper leading edge of right door	2975 mm	2984 mm	-9 mm
X5	Rear surface of vehicle to upper leading edge of left door	2975 mm	2970 mm	5 mm
X6	Rear surface of vehicle to lower leading edge of right door	2995 mm	2981 mm	14 mm
X7	Rear surface of vehicle to lower leading edge of left door	2995 mm	2977 mm	18 mm
X8	Rear surface of vehicle to upper trailing edge of right door	1635 mm	1640 mm	-5 mm
X9	Rear surface of vehicle to upper trailing edge of left door	1640 mm	1635 mm	5 mm
X10	Rear surface of vehicle to lower trailing edge of right door	1678 mm	1667 mm	11 mm
X11	Rear surface of vehicle to lower trailing edge of left door	1672 mm	1658 mm	14 mm
X12	Rear surface of vehicle to bottom of "A" post on right side	2902 mm	2904 mm	-2 mm
X13	Rear surface of vehicle to bottom of "A" post on left side	2901 mm	2896 mm	5 mm
X14	Rear surface of vehicle to firewall - right side	3244 mm	3142 mm	102 mm
X15	Rear surface of vehicle to firewall - left side	3257 mm	3105 mm	152 mm
X16	Rear surface of vehicle to steering wheel center	2525 mm	2510 mm	15 mm
X17	Center of steering column to "A" post	331 mm	318 mm	13 mm
X18	Center of steering column to headliner	382 mm	375 mm	7 mm
X19	Rear surface of vehicle to right side of front bumper	4450 mm	3860 mm	590 mm
X20	Rear surface of vehicle to left side of front bumper	4454 mm	3869 mm	585 mm
X21	Length of engine block	365 mm	365 mm	0 mm

Figure 13 Static Footwell Deformation
(Driver's Side)



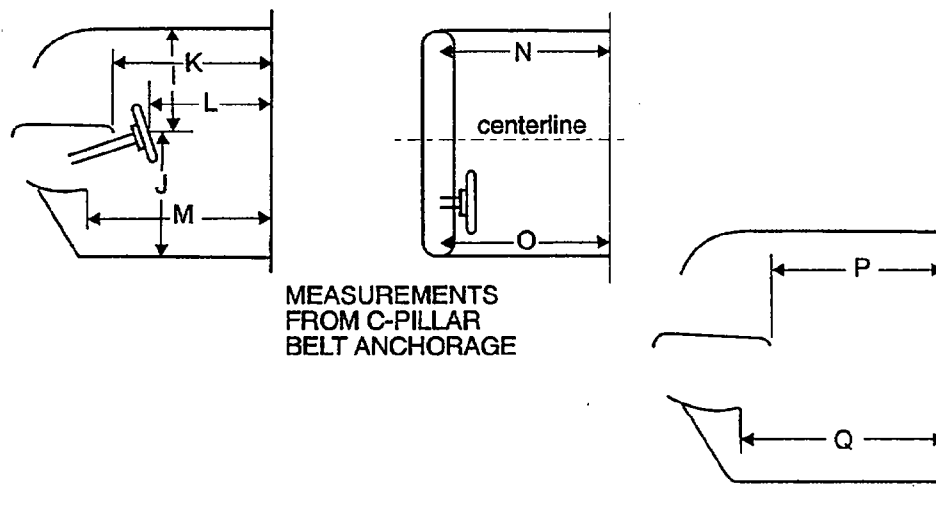
Measurement	Pre-Test	Post-Test	Difference
A	671 mm	600 mm	71 mm
B	550 mm	530 mm	20 mm
C	384 mm	360 mm	24 mm
D	570 mm	483 mm	87 mm
E	922 mm	920 mm	2 mm
H	895 mm	910 mm	-15 mm

Figure 14 Static Footwell Deformation
(Passenger's Side)



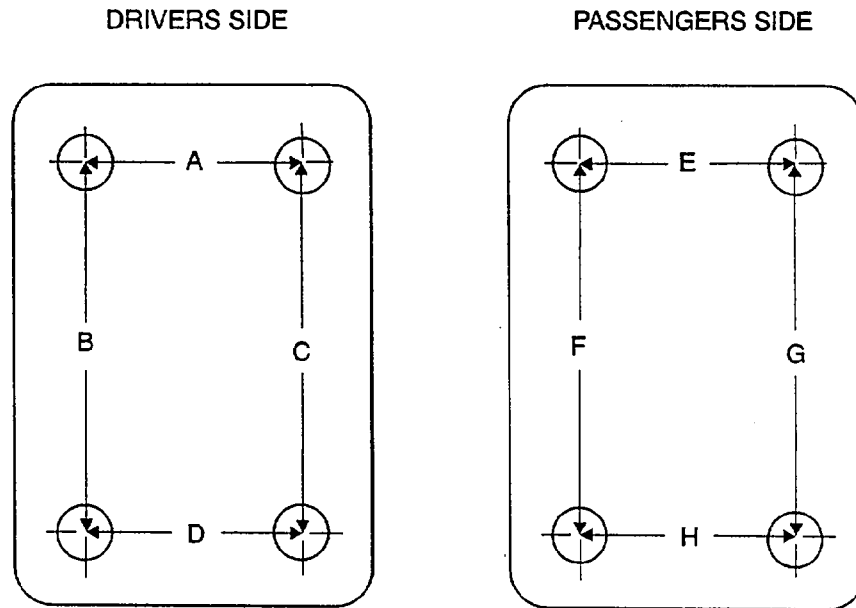
Measurement	Pre-Test	Post-Test	Difference
A	645 mm	583 mm	62 mm
B	560 mm	556 mm	4 mm
C	324 mm	312 mm	12 mm
D	248 mm	252 mm	-4 mm
E	943 mm	895 mm	48 mm
H	933 mm	915 mm	18 mm

Figure 15 Static Passenger Compartment Intrusion



Measurement	Pre-Test	Post-Test	Difference
I	382 mm	371 mm	11 mm
J	575 mm	640 mm	-65 mm
K	1200 mm	1164 mm	36 mm
L	1857 mm	1806 mm	51 mm
M	935 mm	909 mm	26 mm
N	1295 mm	1250 mm	45 mm
O	1344 mm	1302 mm	42 mm
P	1200 mm	1158 mm	42 mm
Q	945 mm	924 mm	21 mm

Figure 16 Underbody Floorboard Deformation



Measurement	Pre-Test	Post-Test	Difference
A	413 mm	420	-7
B	737 mm	740	-3
C	763 mm	765	-2
D	464 mm	460	4
E	328 mm	333	-5
F	772 mm	785	-13
G	756 mm	757	-1
H	462 mm	460	2

¹ Targets fell off of the vehicle during the impact event.

Appendix A

Photographs

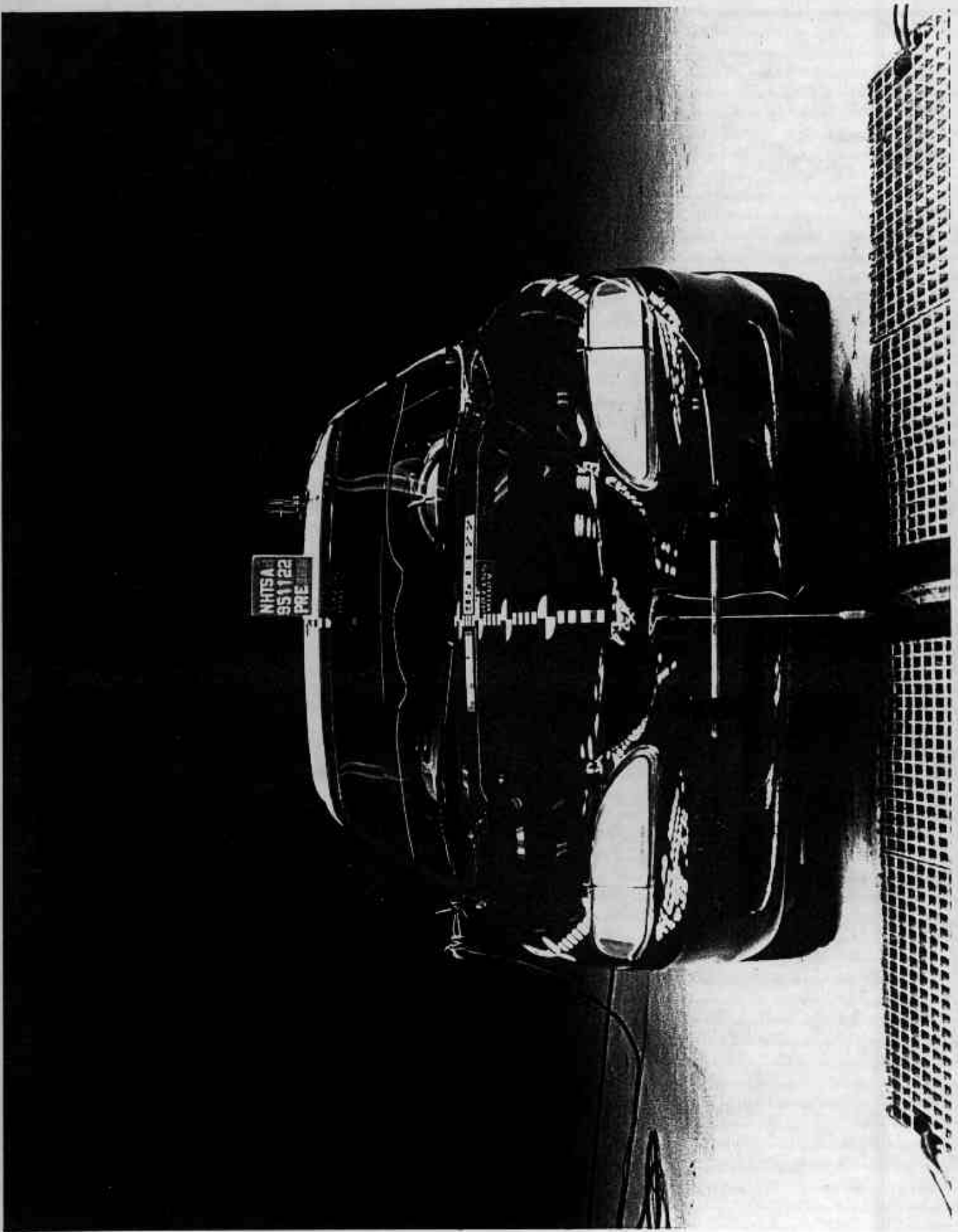


Figure A-1. Pre-Test Front View
A-2

951122

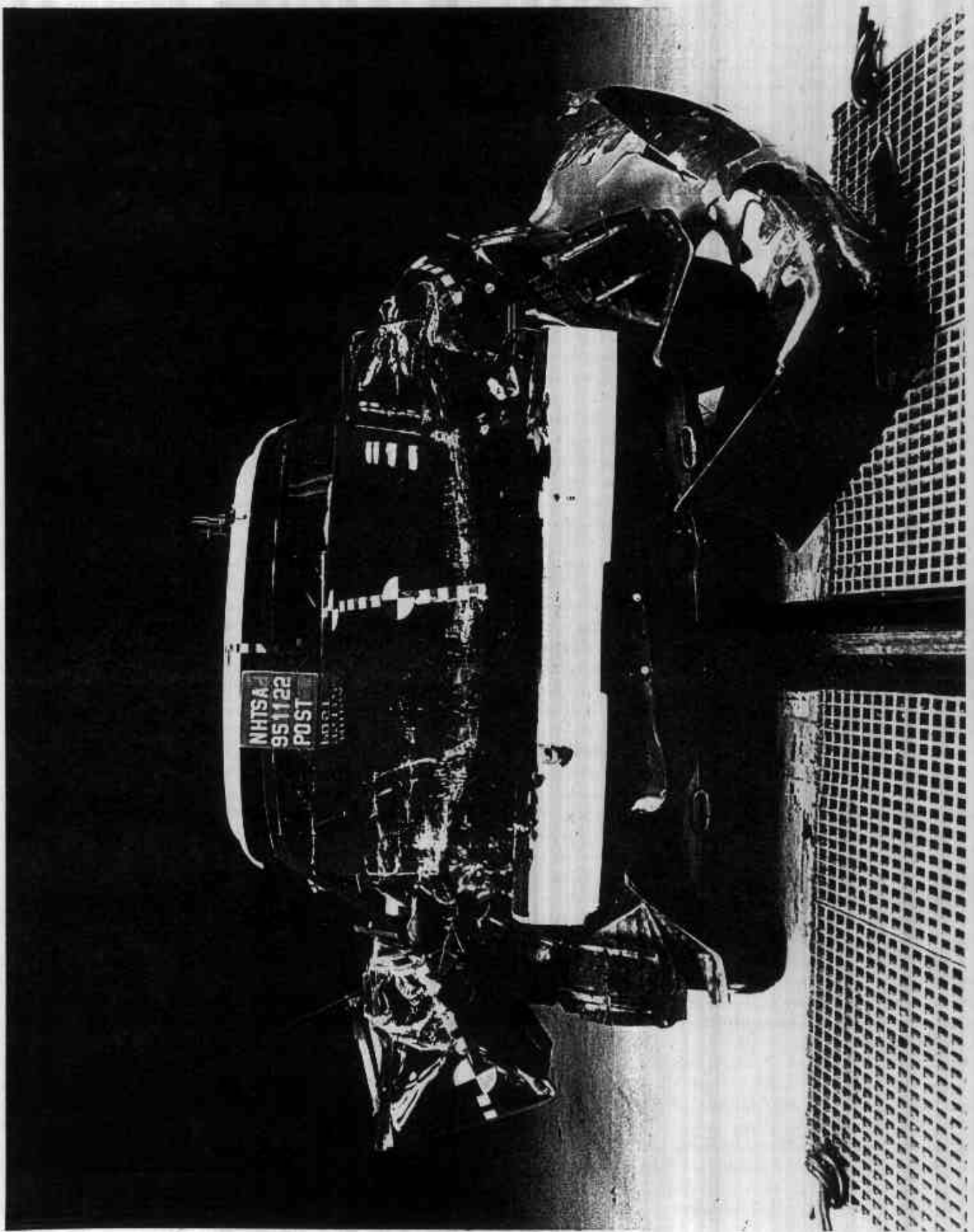


Figure A-2. Post-Test Front View
A-3

951122

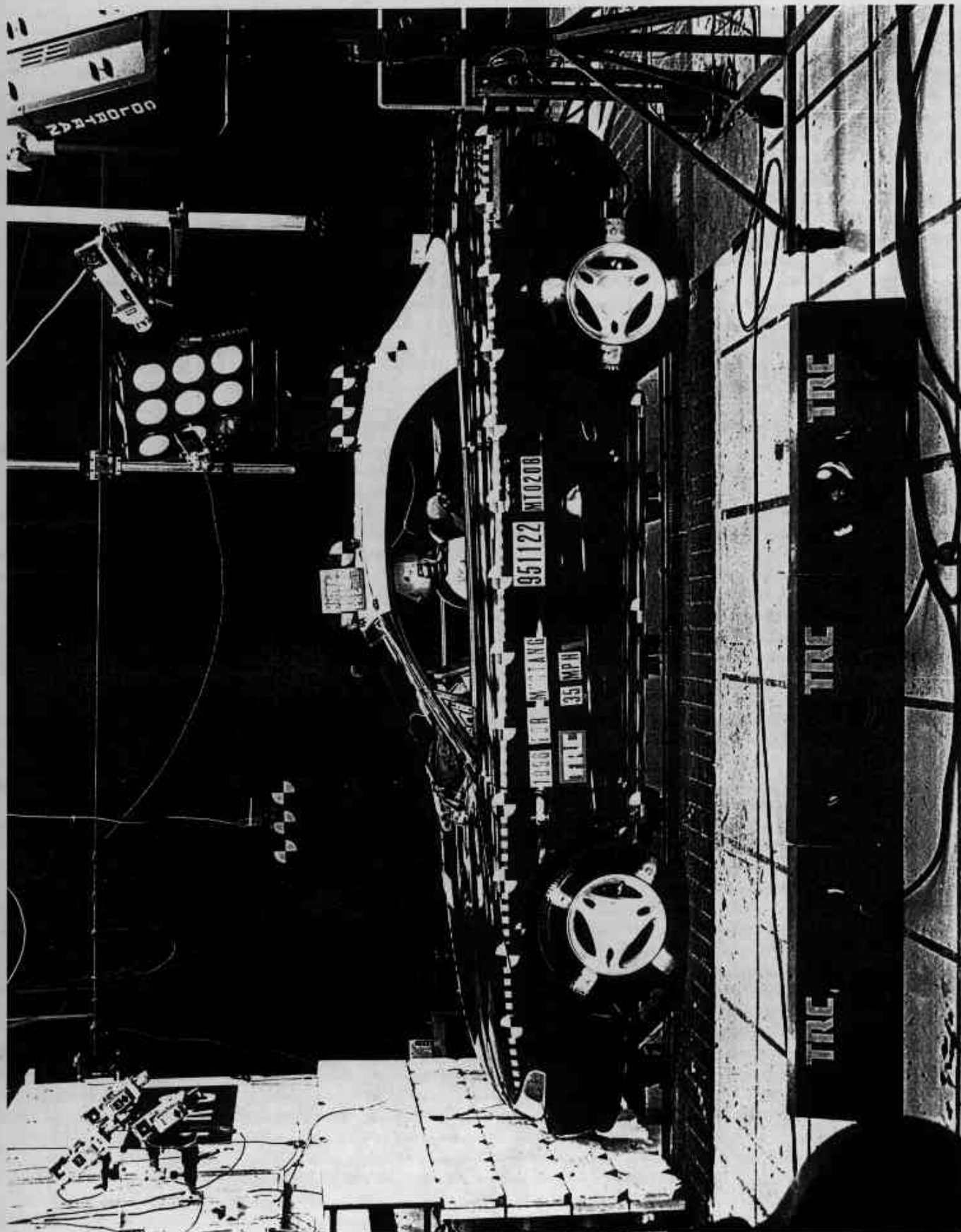


Figure A-3. Pre-Test Left Side View

A-4

951122

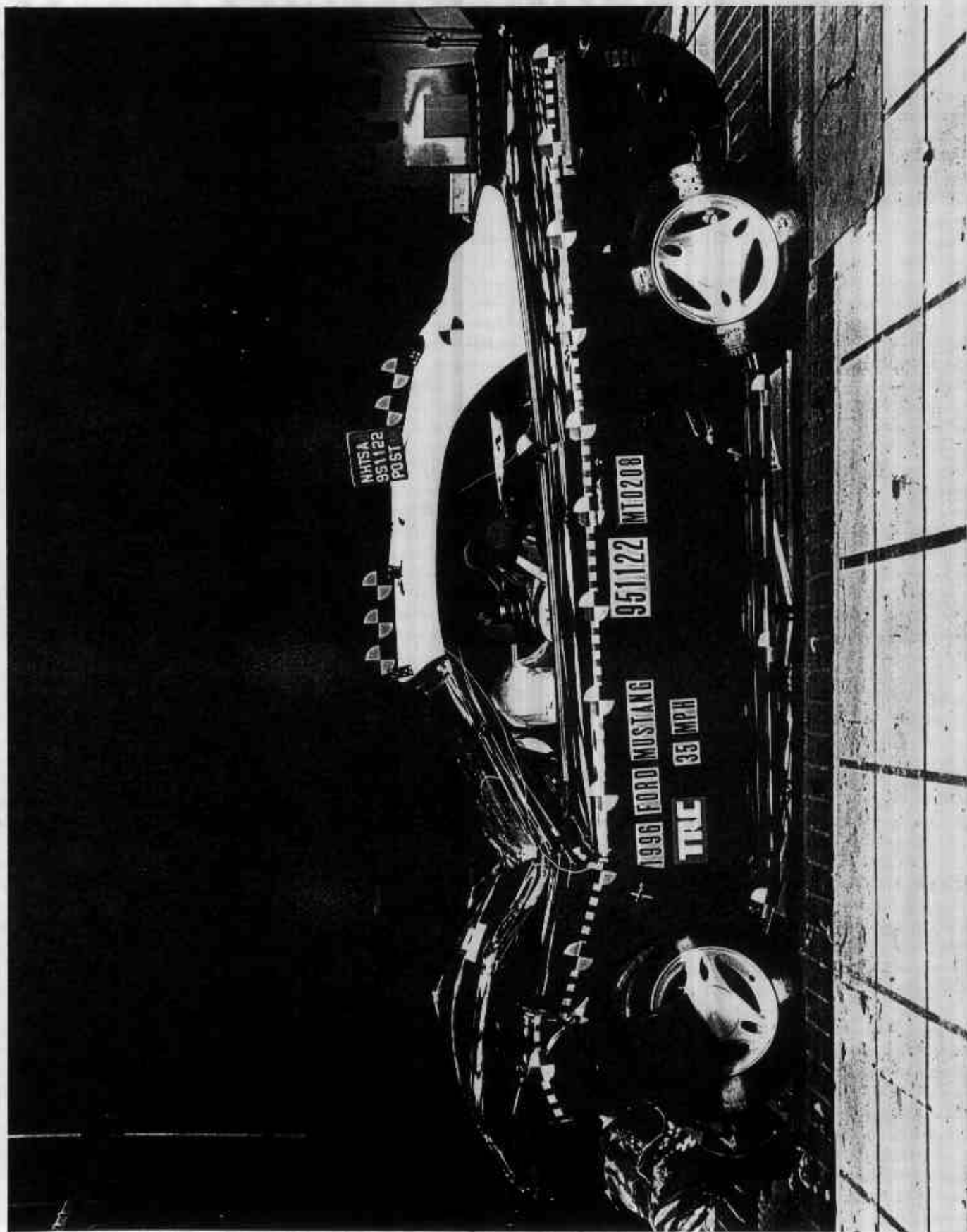


Figure A-4. Post-Test Left Side View
A-5

951122

TRC

TRC

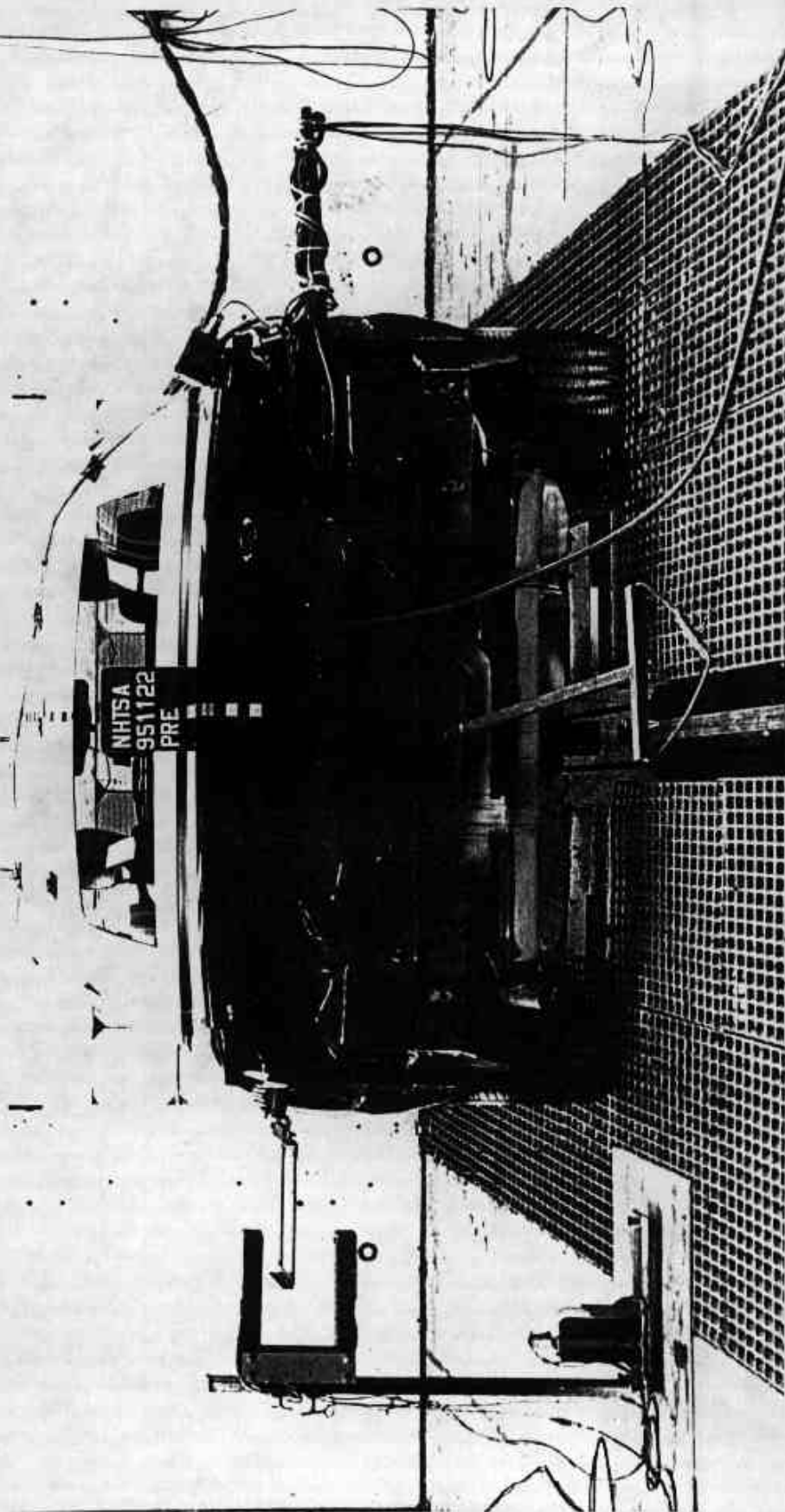


Figure A-5. Pre-Test Rear View

A-6

951122

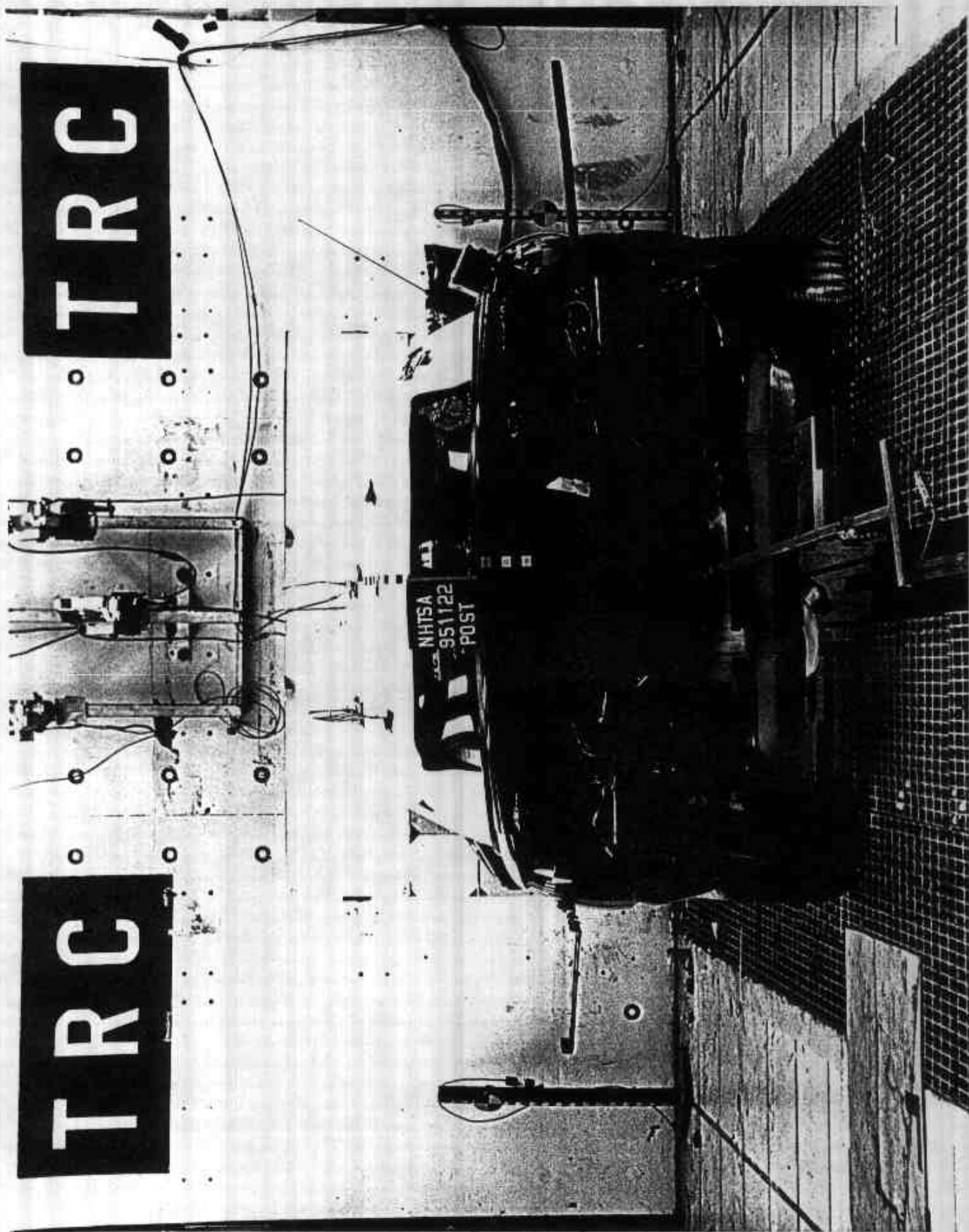


Figure A-6. Post-Test Rear View
A-7

951122

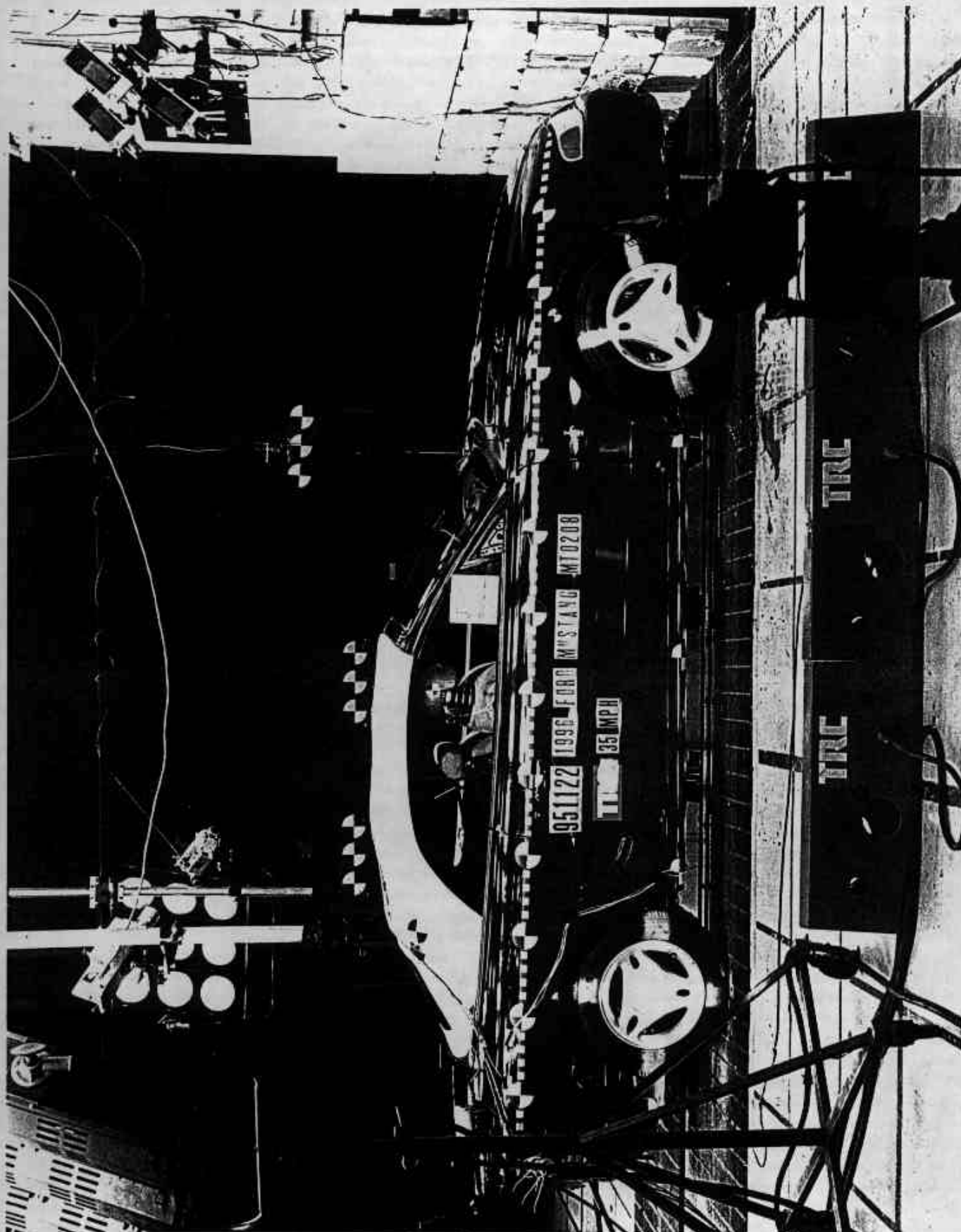


Figure A-7. Pre-Test Right Side View
A-8

951122

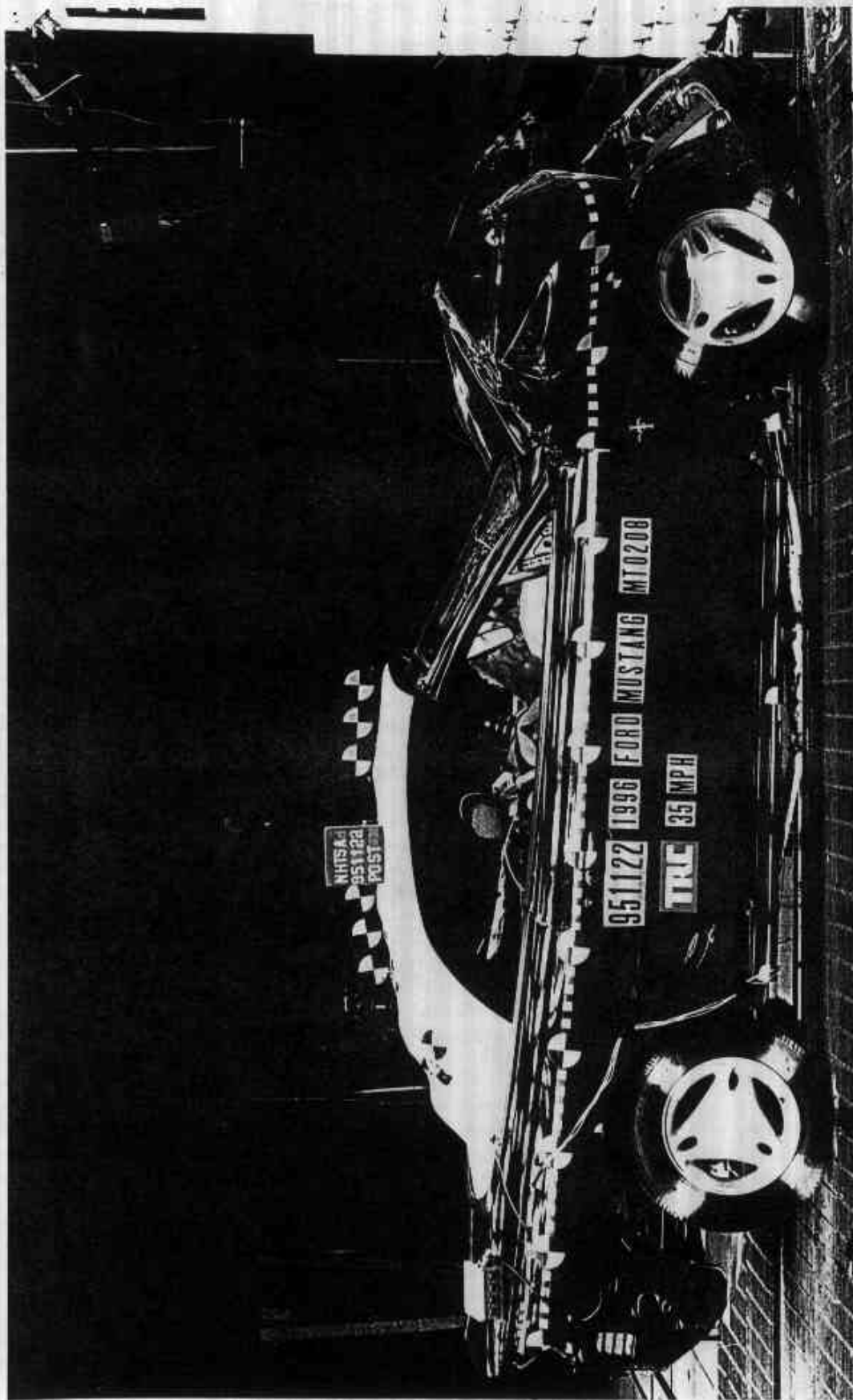


Figure A-8. Post-Test Right Side View
A-9

951122

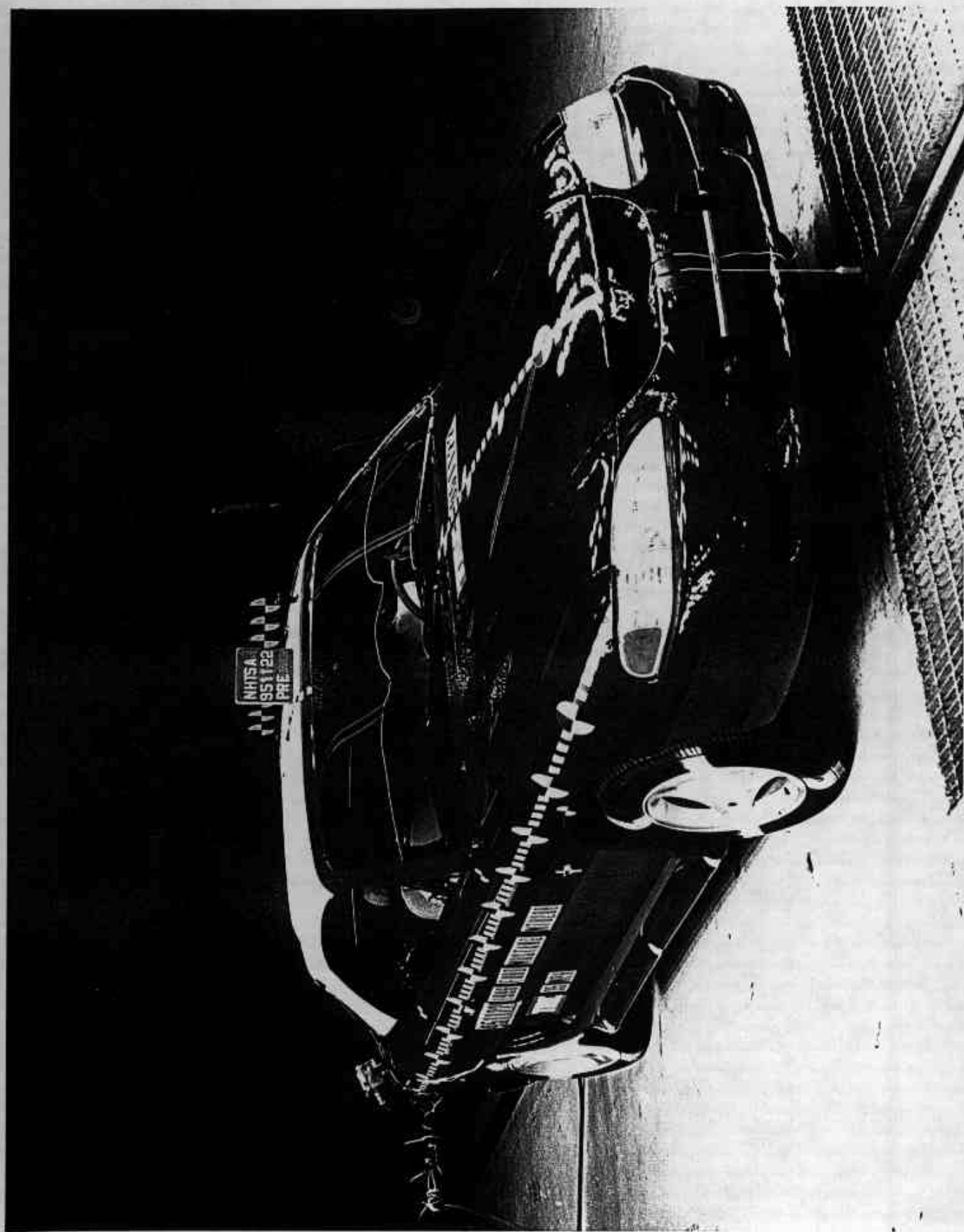


Figure A-9. Pre-Test Right Front Three-Quarter View
A-10

951122

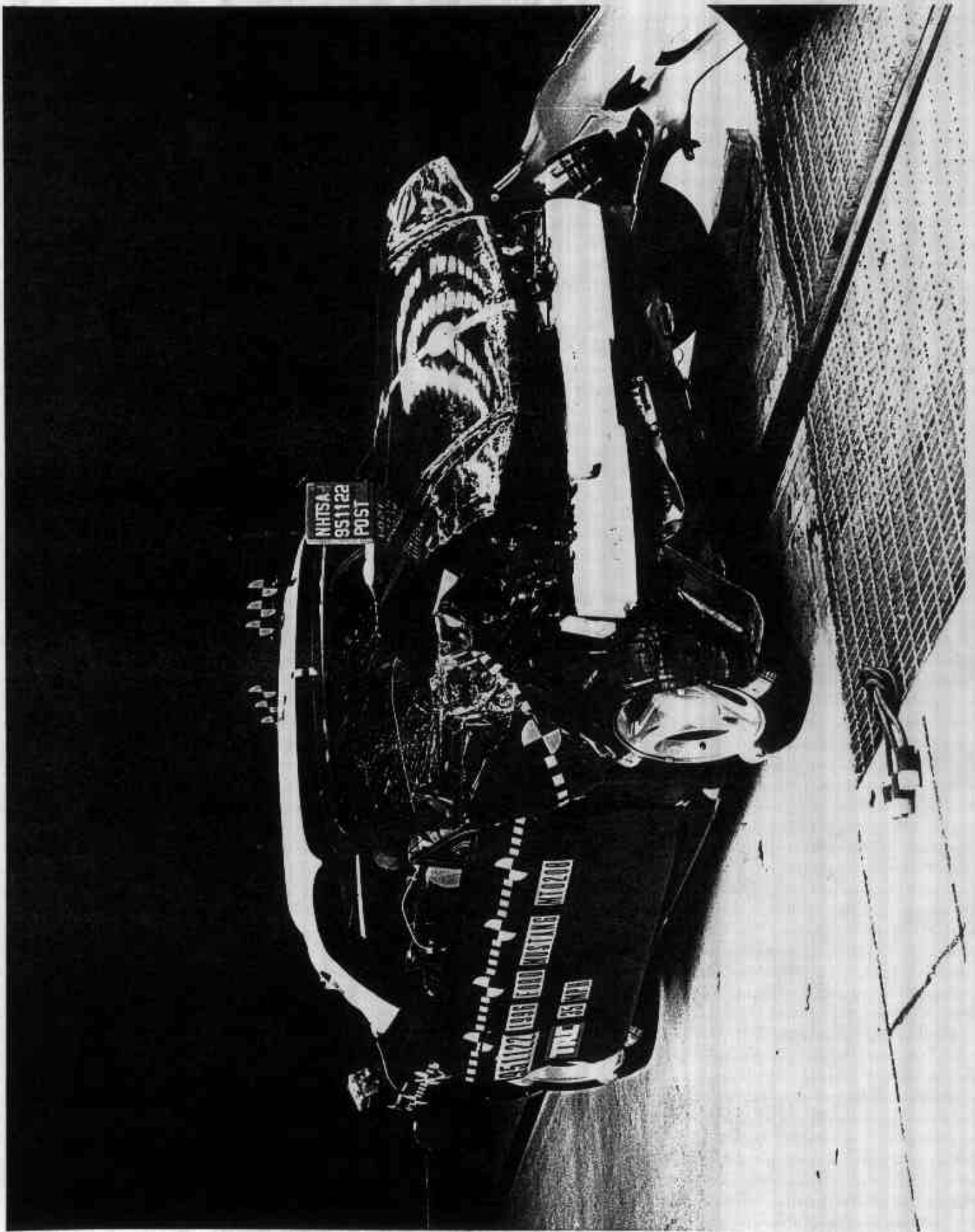


Figure A-10. Post-Test Right Front Three-Quarter View
A-11

951122

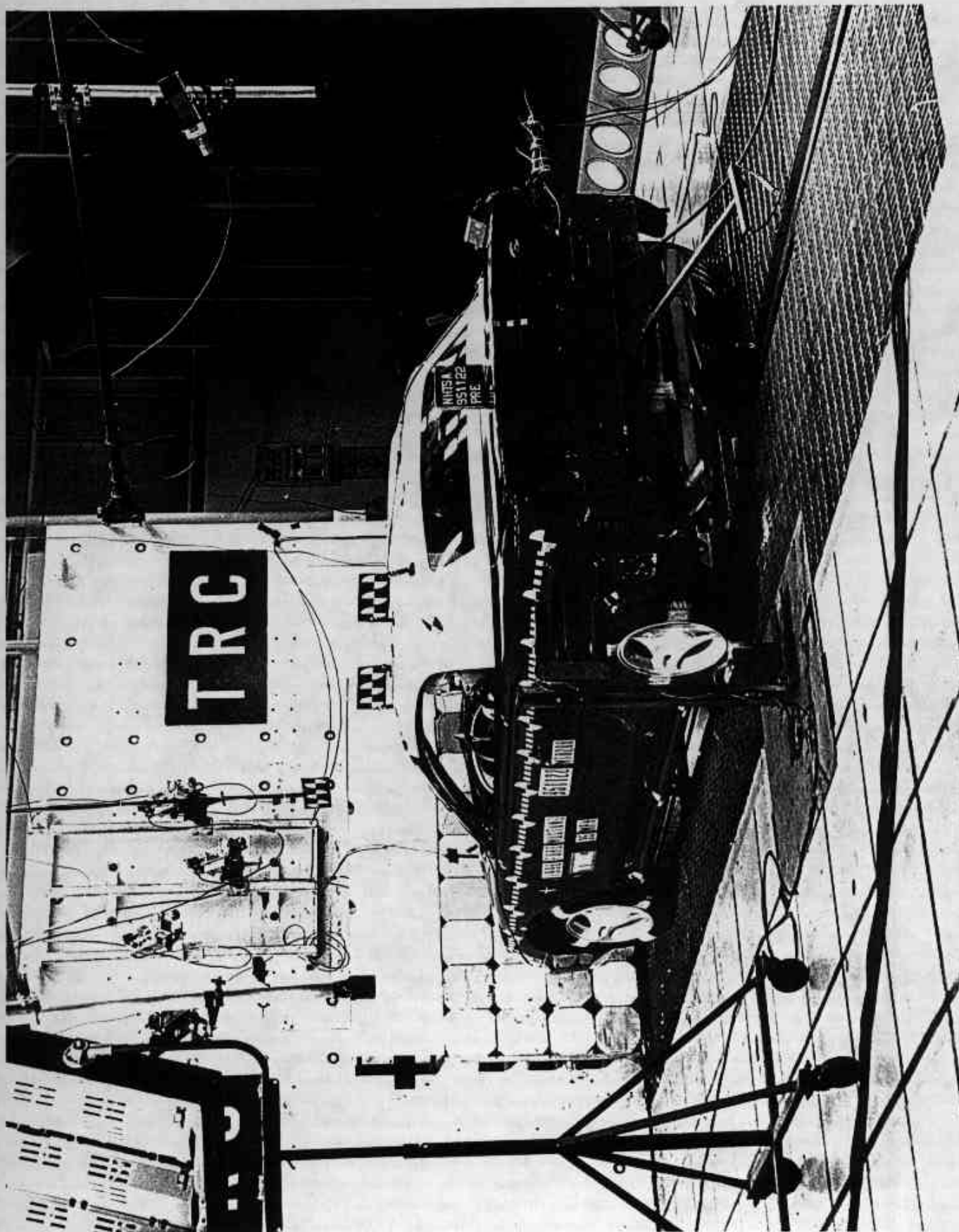


Figure A-11. Pre-Test Left Rear Three-Quarter View
A-12

951122

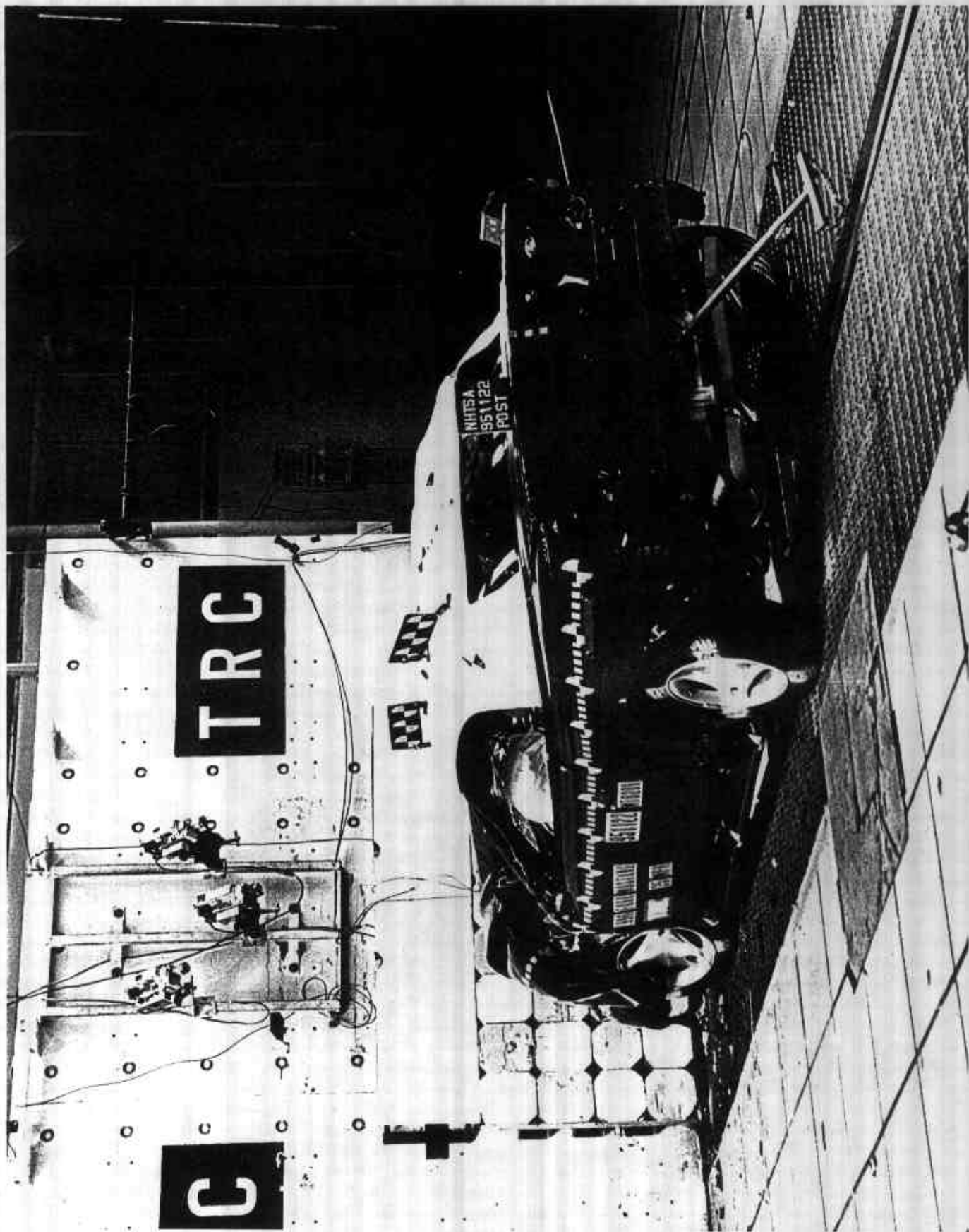


Figure A-12. Post-Test Left Rear Three-Quarter View
A-13

951122

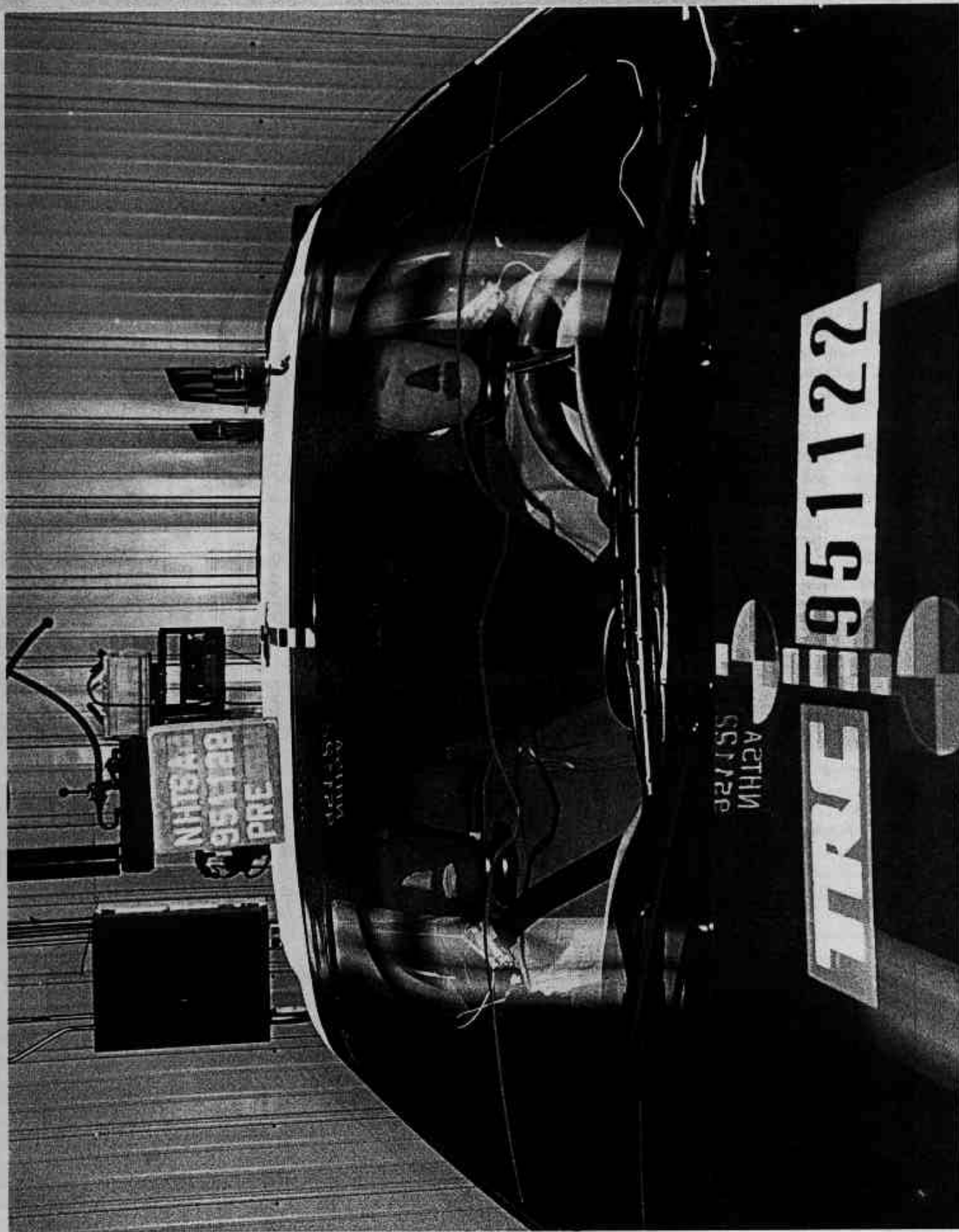


Figure A-13. Pre-Test Windshield View
A-14

951122

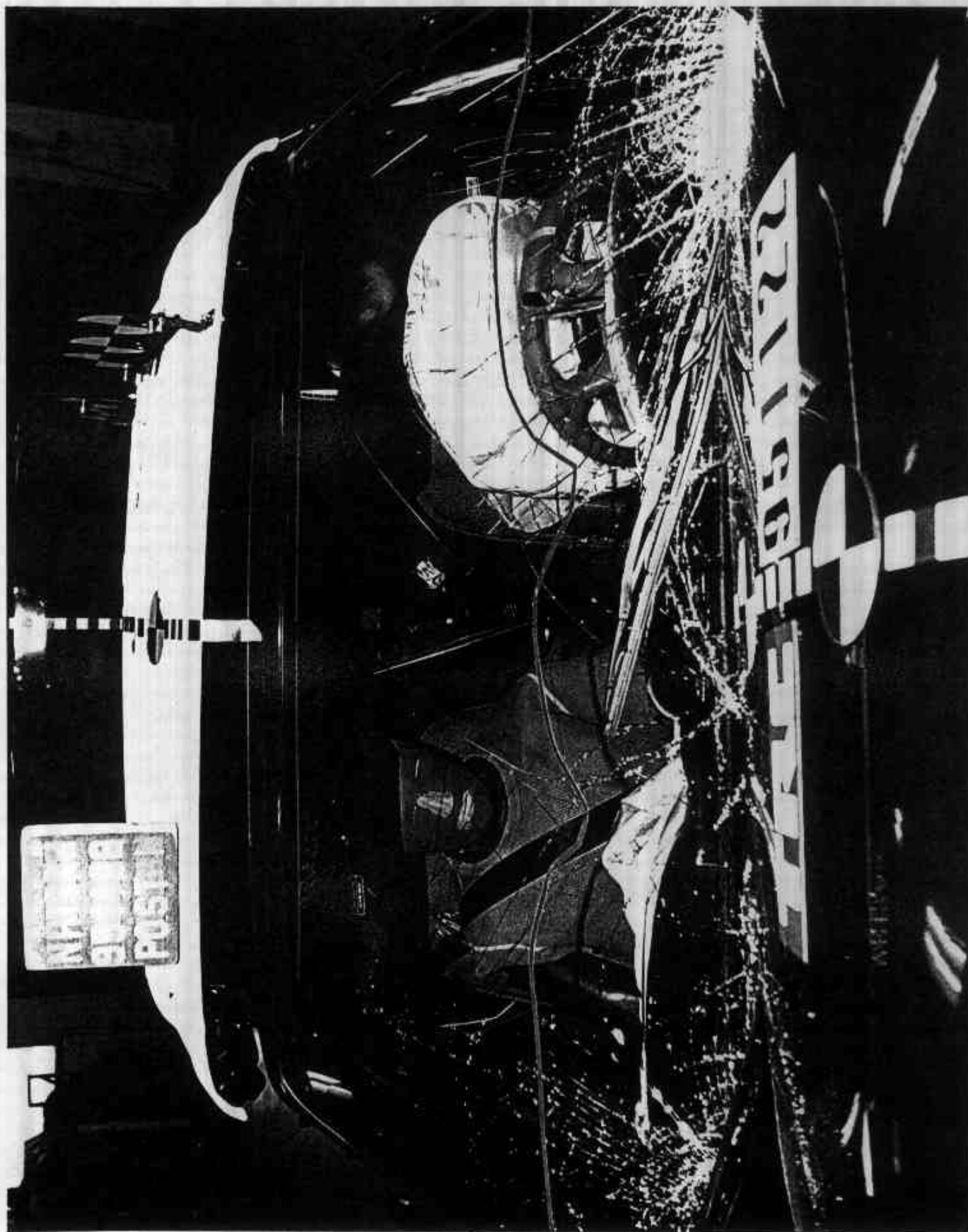


Figure A-14. Post-Test Windshield View
A-15

951122

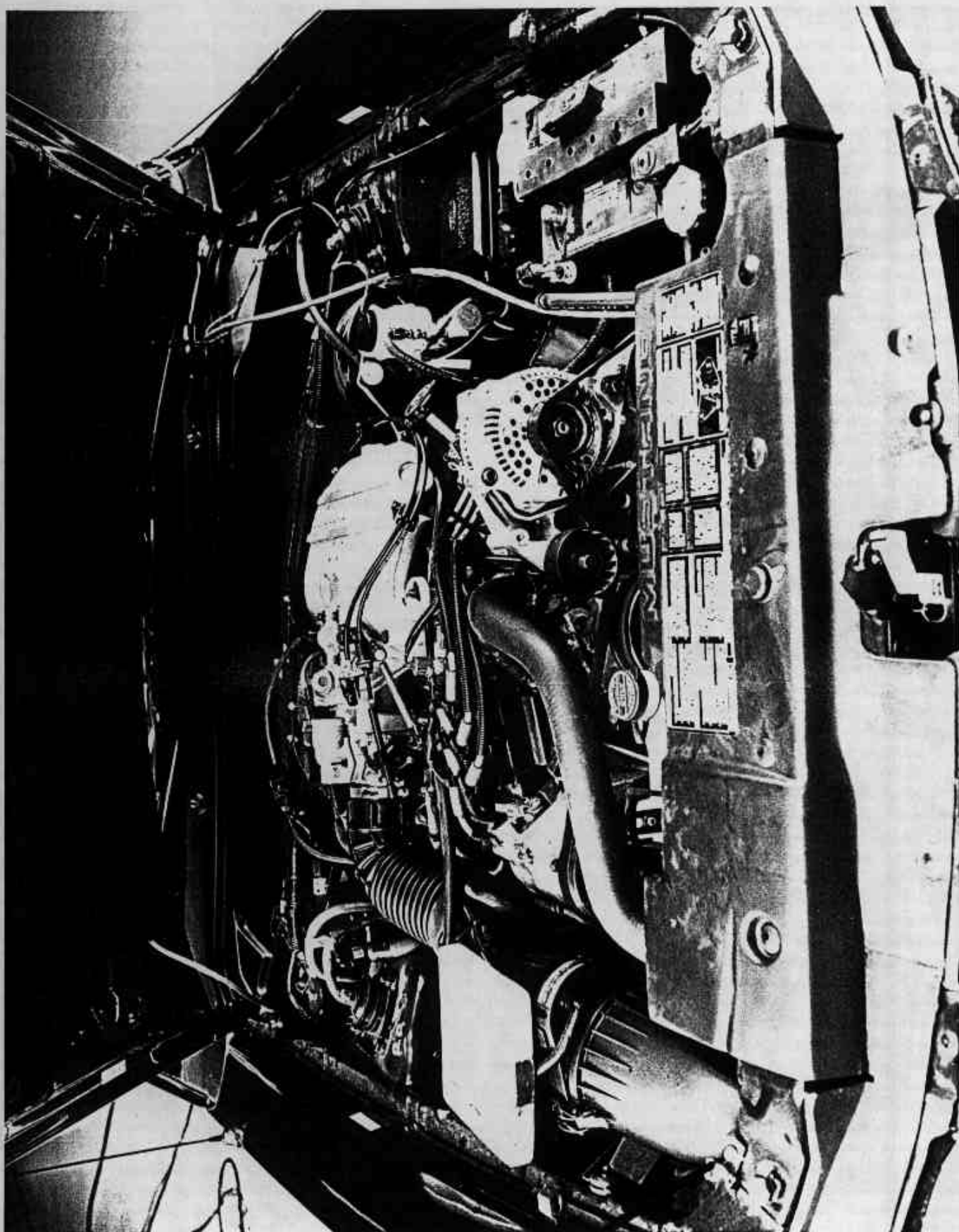


Figure A-15. Pre-Test Engine Compartment View
A-16

951122

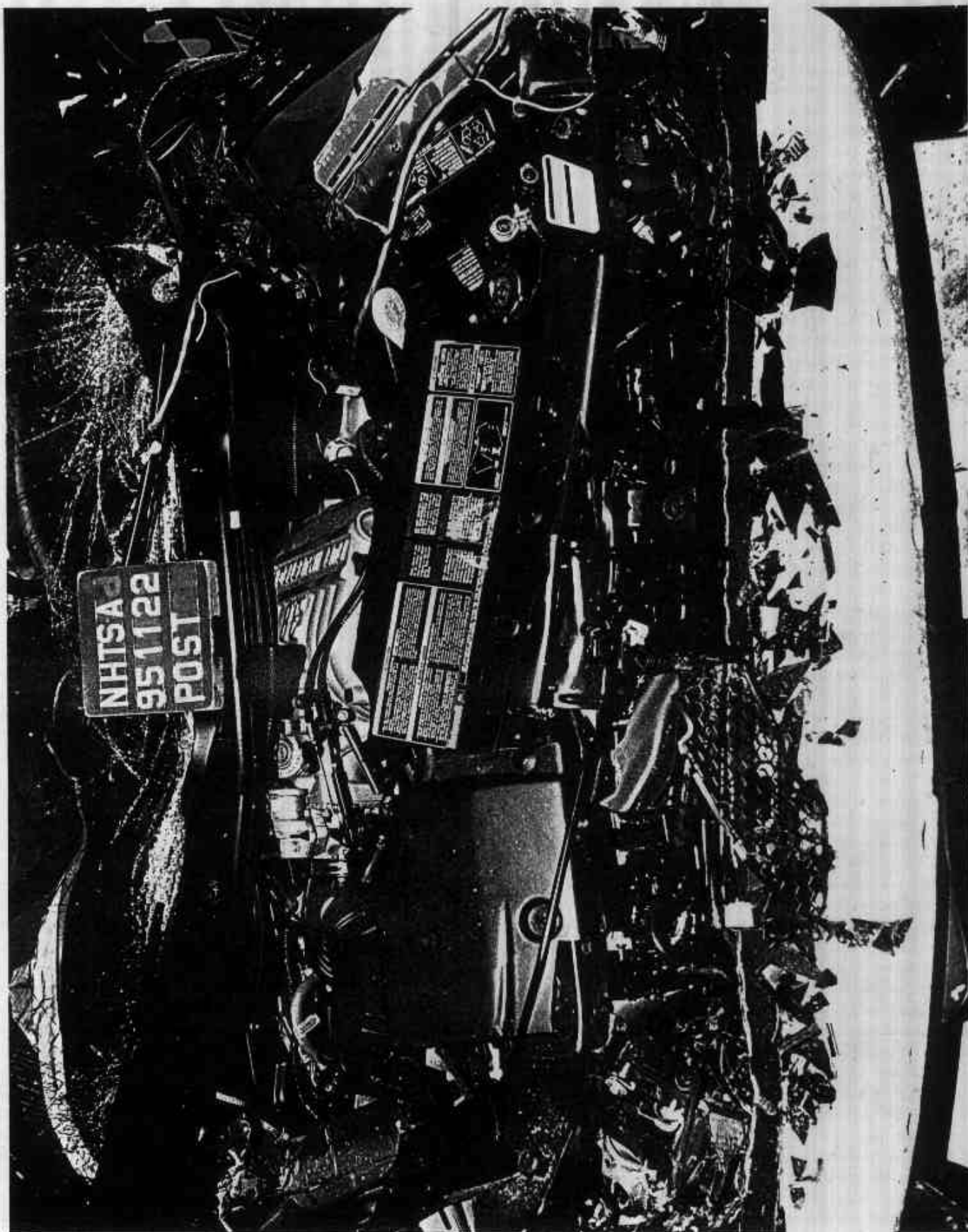


Figure A-16. Post-Test Engine Compartment View
A-17

951122

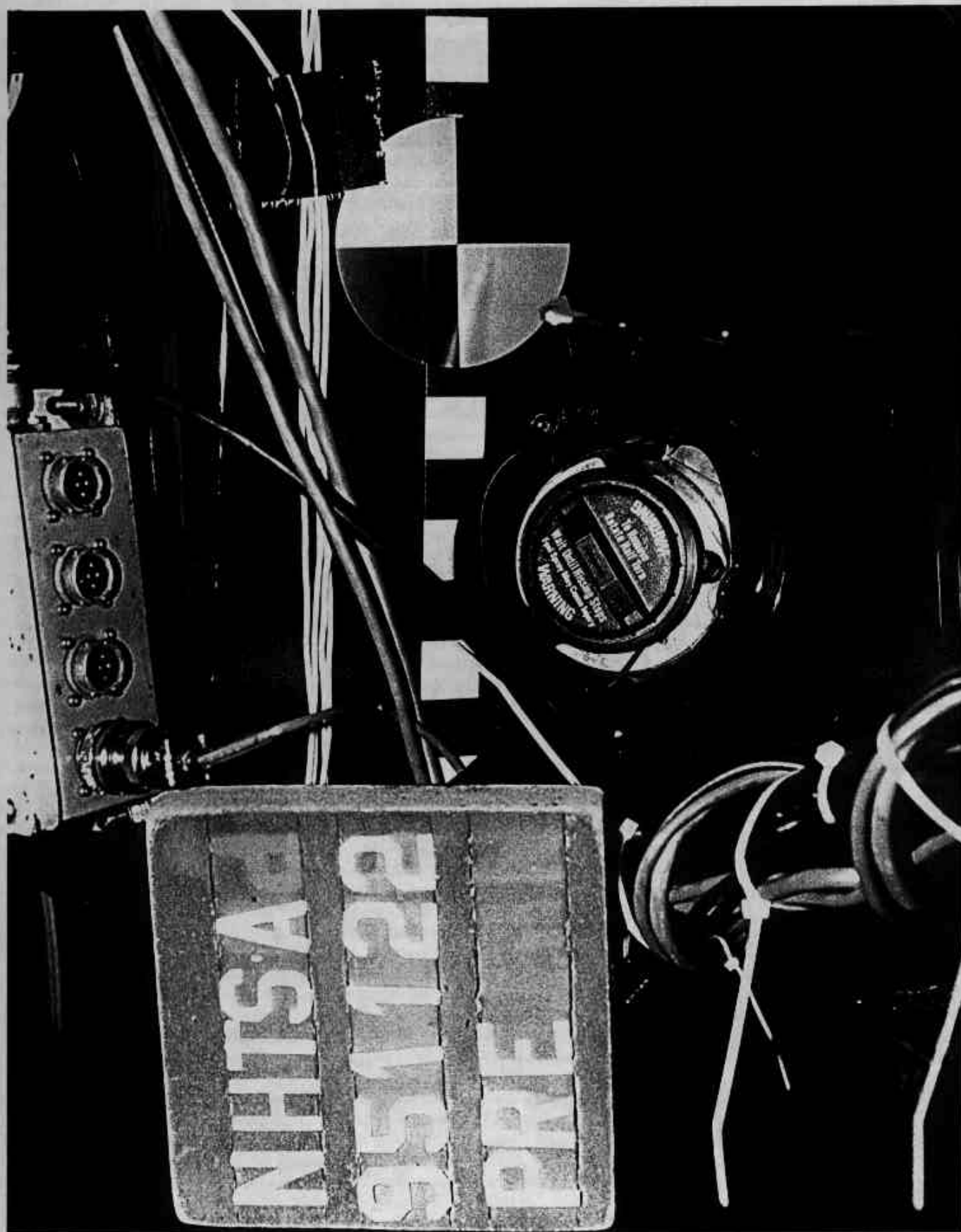


Figure A-17. Pre-Test Fuel Filler Cap View
A-18

951122



Figure A-18. Post-Test Fuel Filler Cap View
A-19

951122

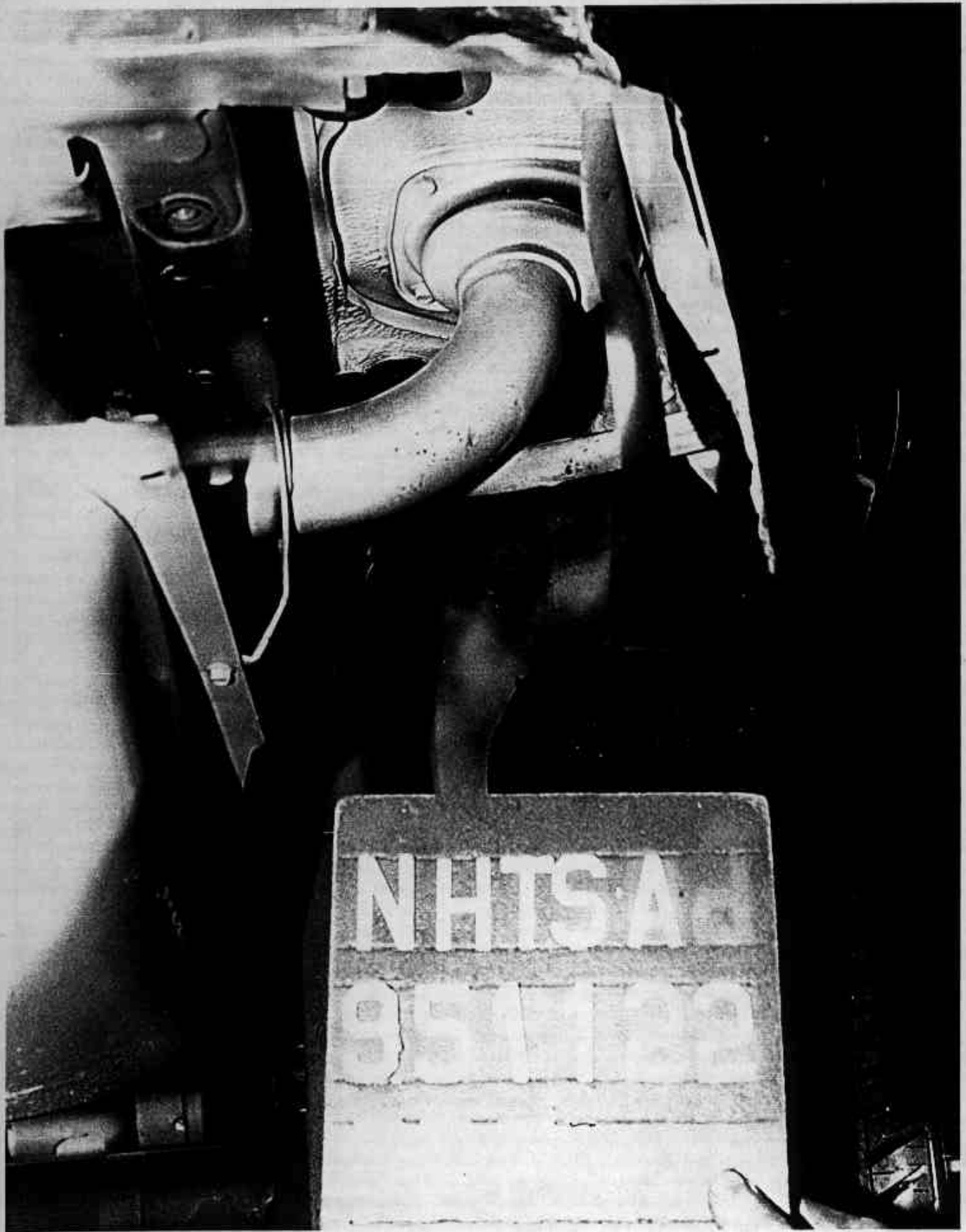


Figure A-19. Pre-Test Fuel Filler Neck View
A-20

951122

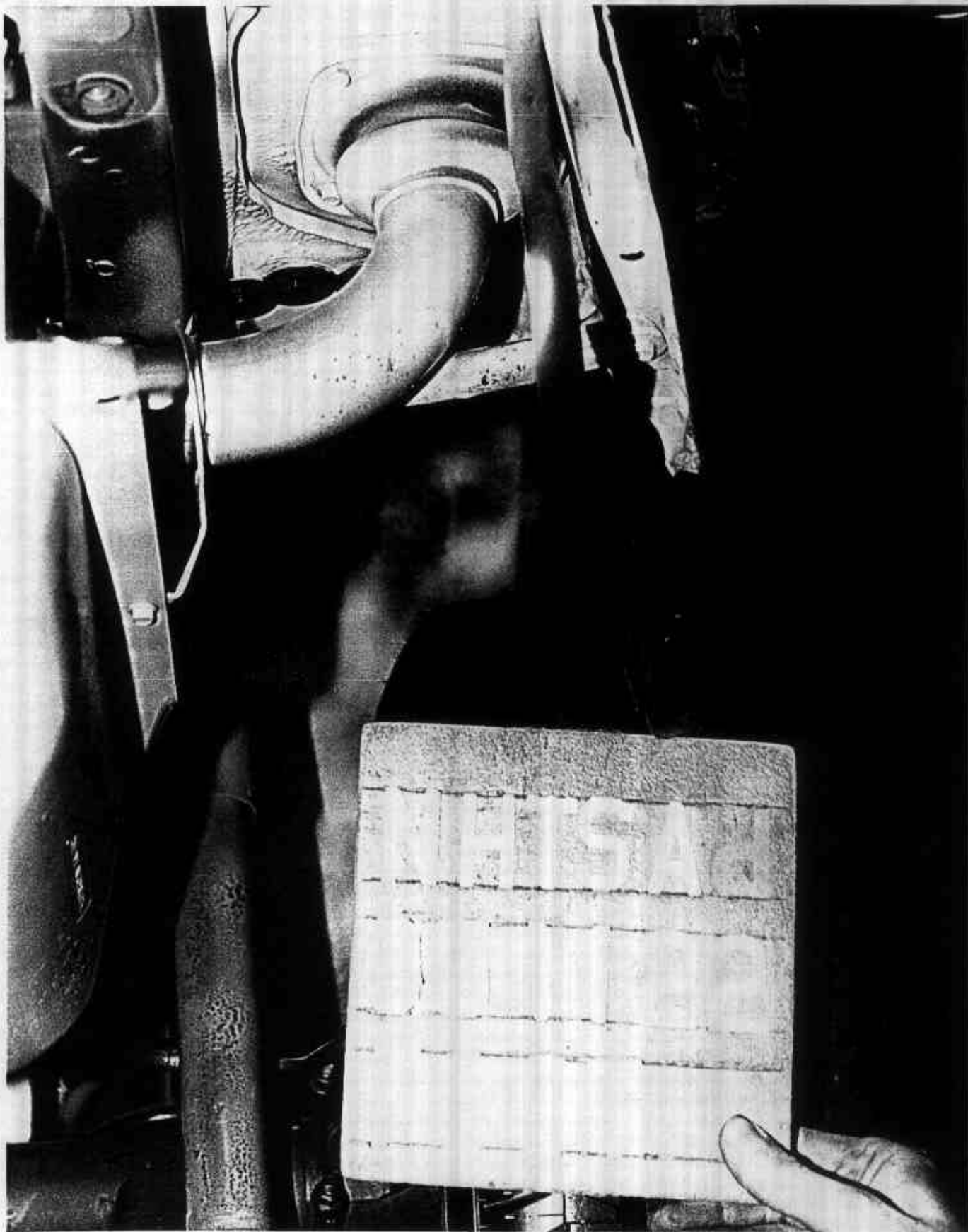


Figure A-20. Post-Test Fuel Filler Neck View
A-21

951122

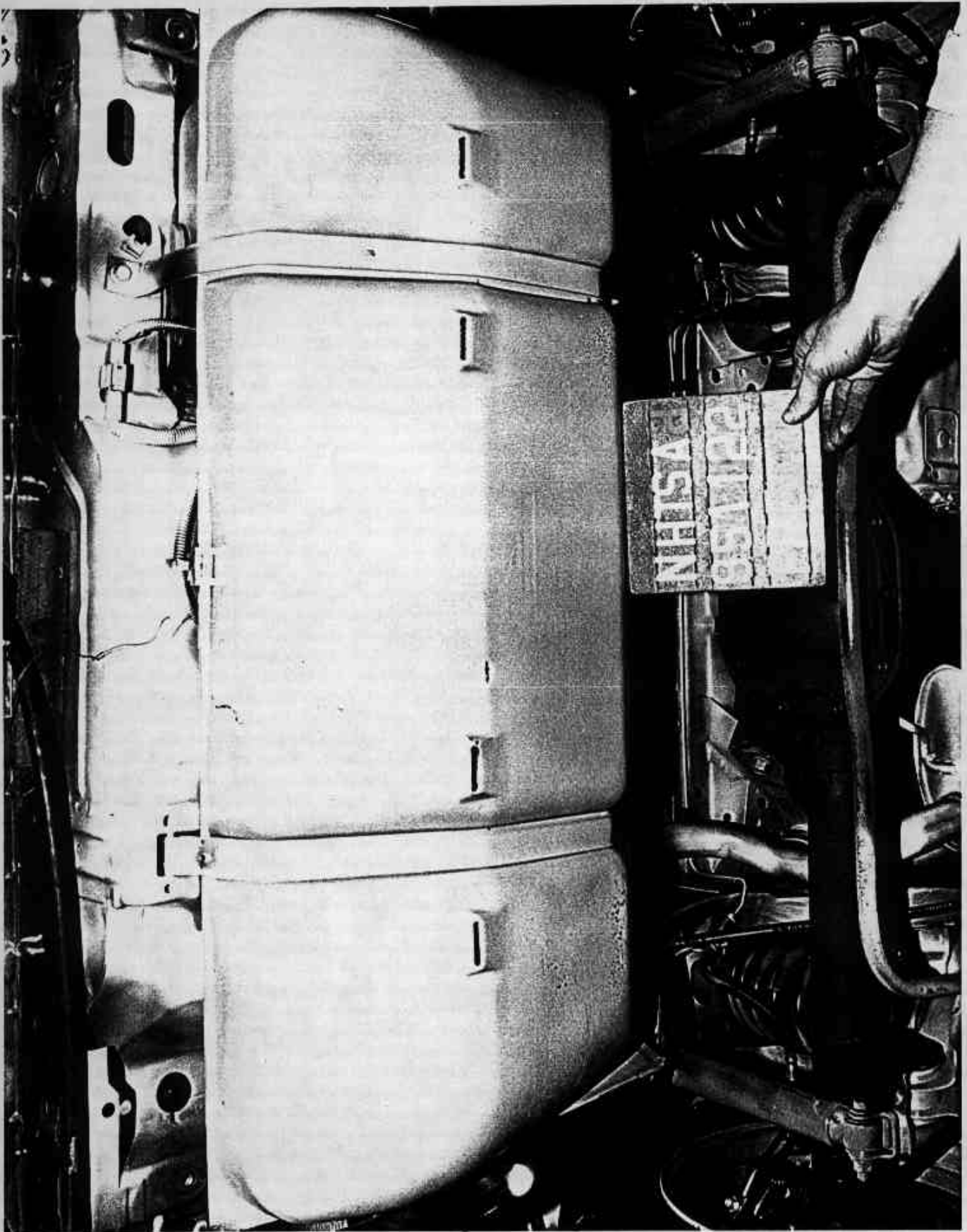


Figure A-21. Pre-Test Fuel Tank View
A-22

951122

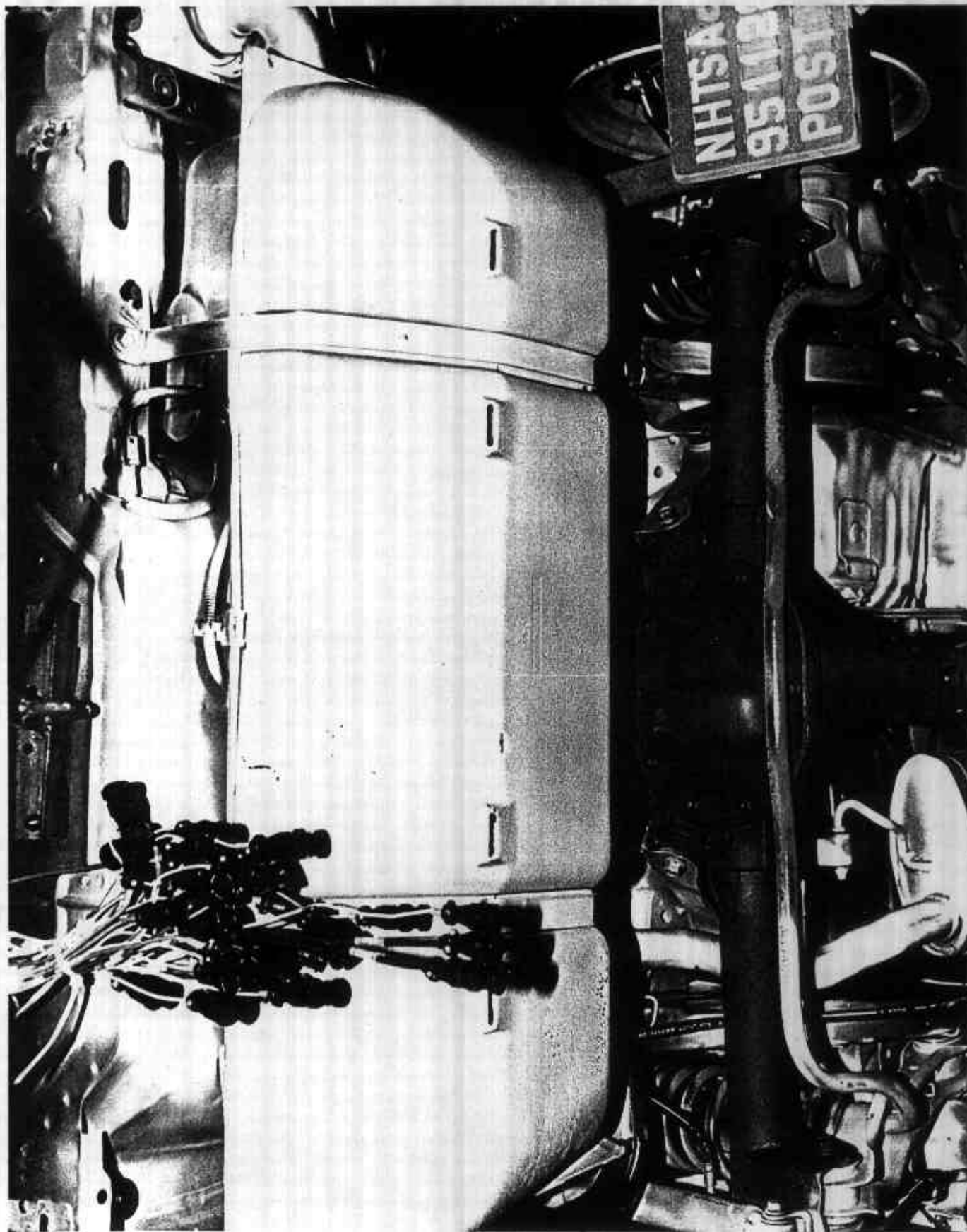


Figure A-22. Post-Test Fuel Tank View
A-23

951122

951122

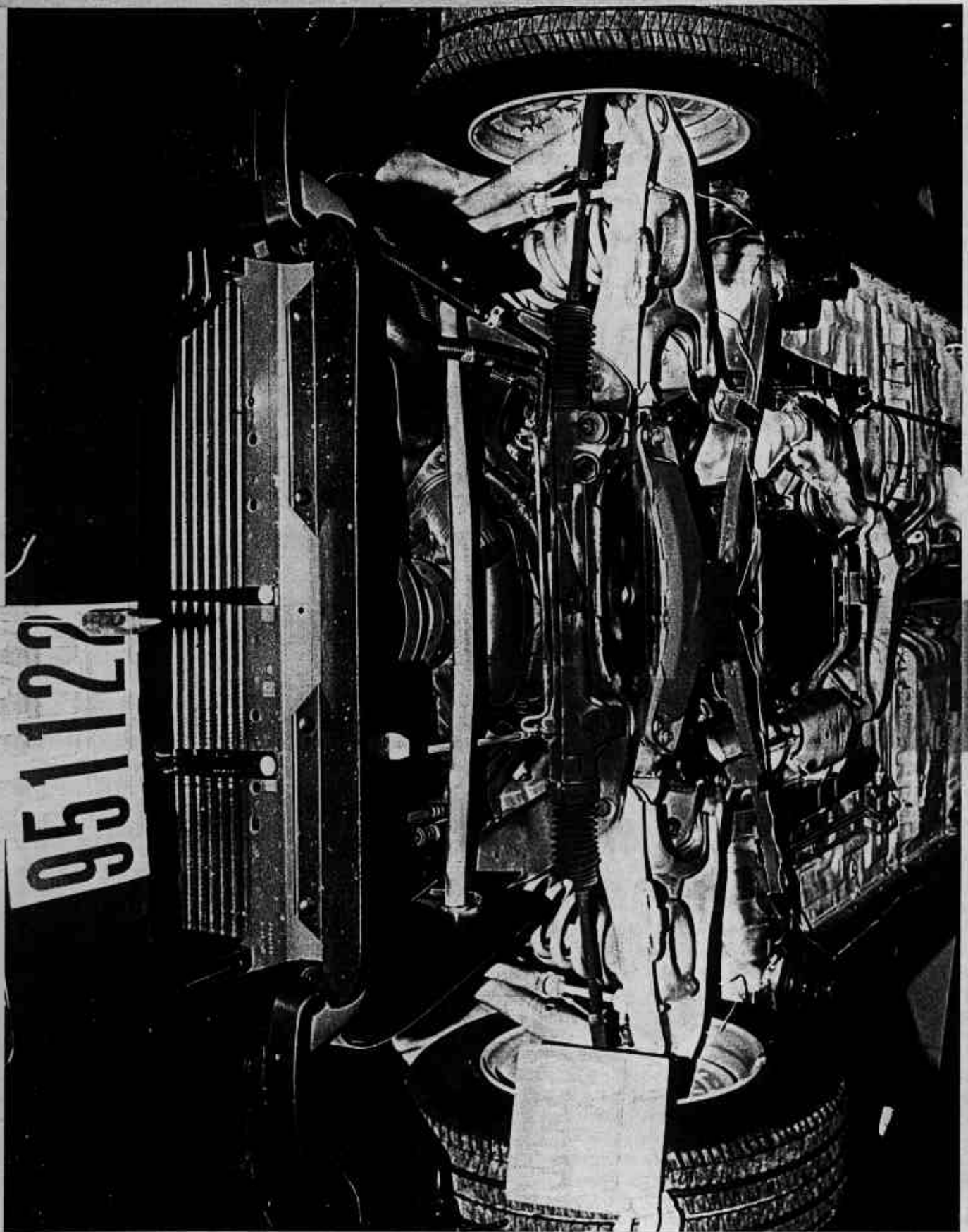


Figure A-23. Pre-Test Front Underbody View

A-24

951122

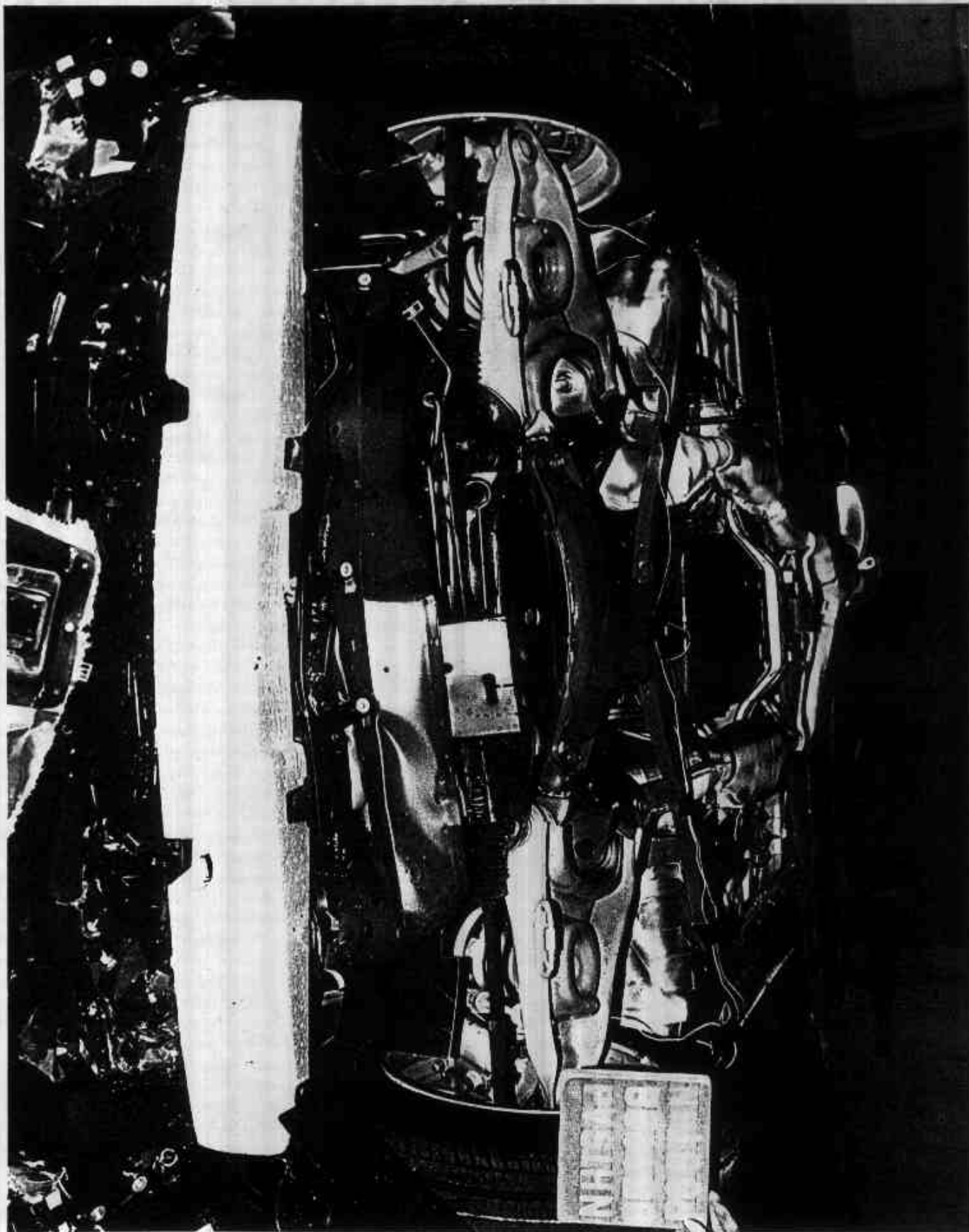


Figure A-24. Post-Test Front Underbody View
A-25

951122

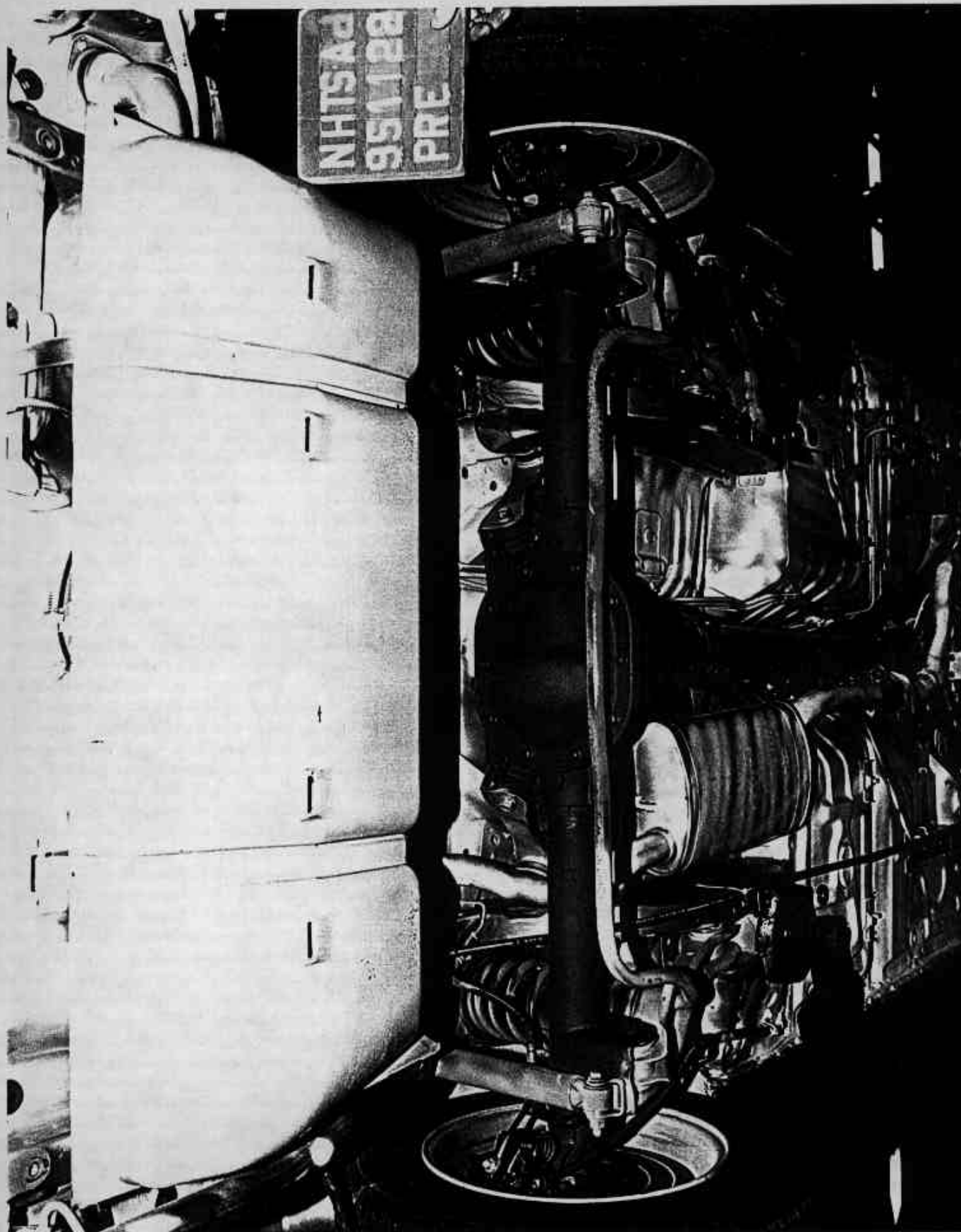


Figure A-25. Pre-Test Rear Underbody View
A-26

951122

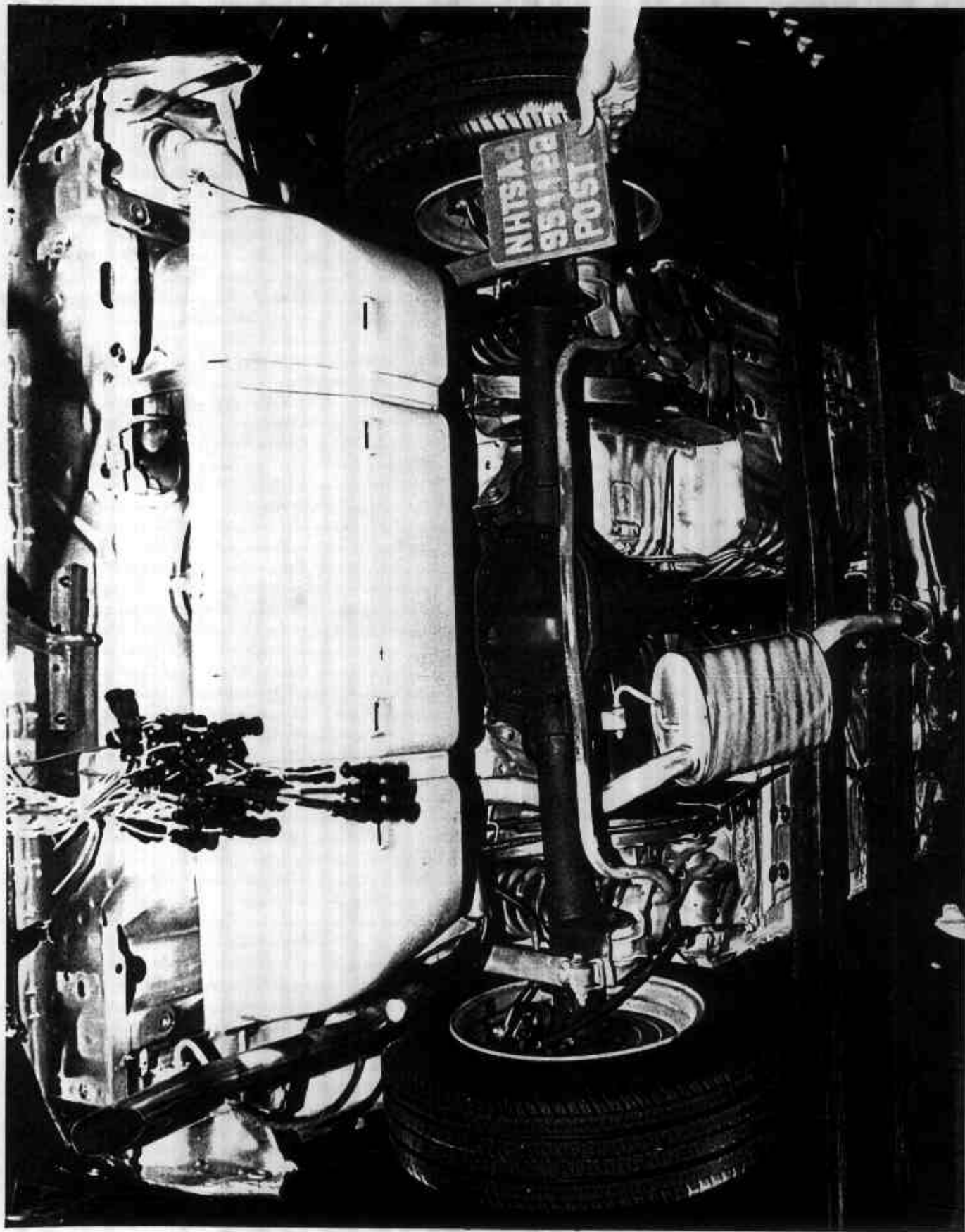


Figure A-26. Post-Test Rear Underbody View

A-27

951122

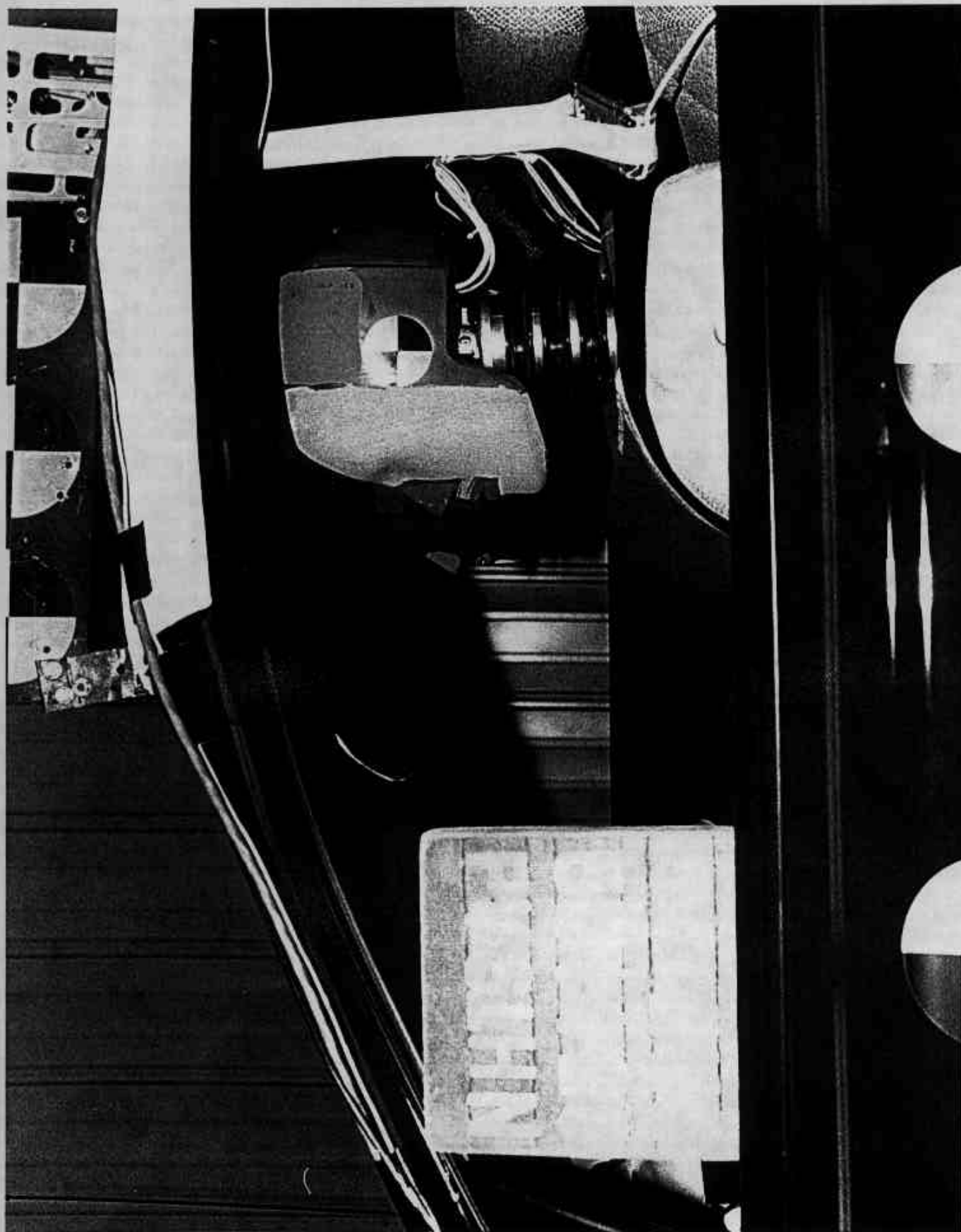


Figure A-27. Pre-Test Driver Dummy Position View
A-28

951122

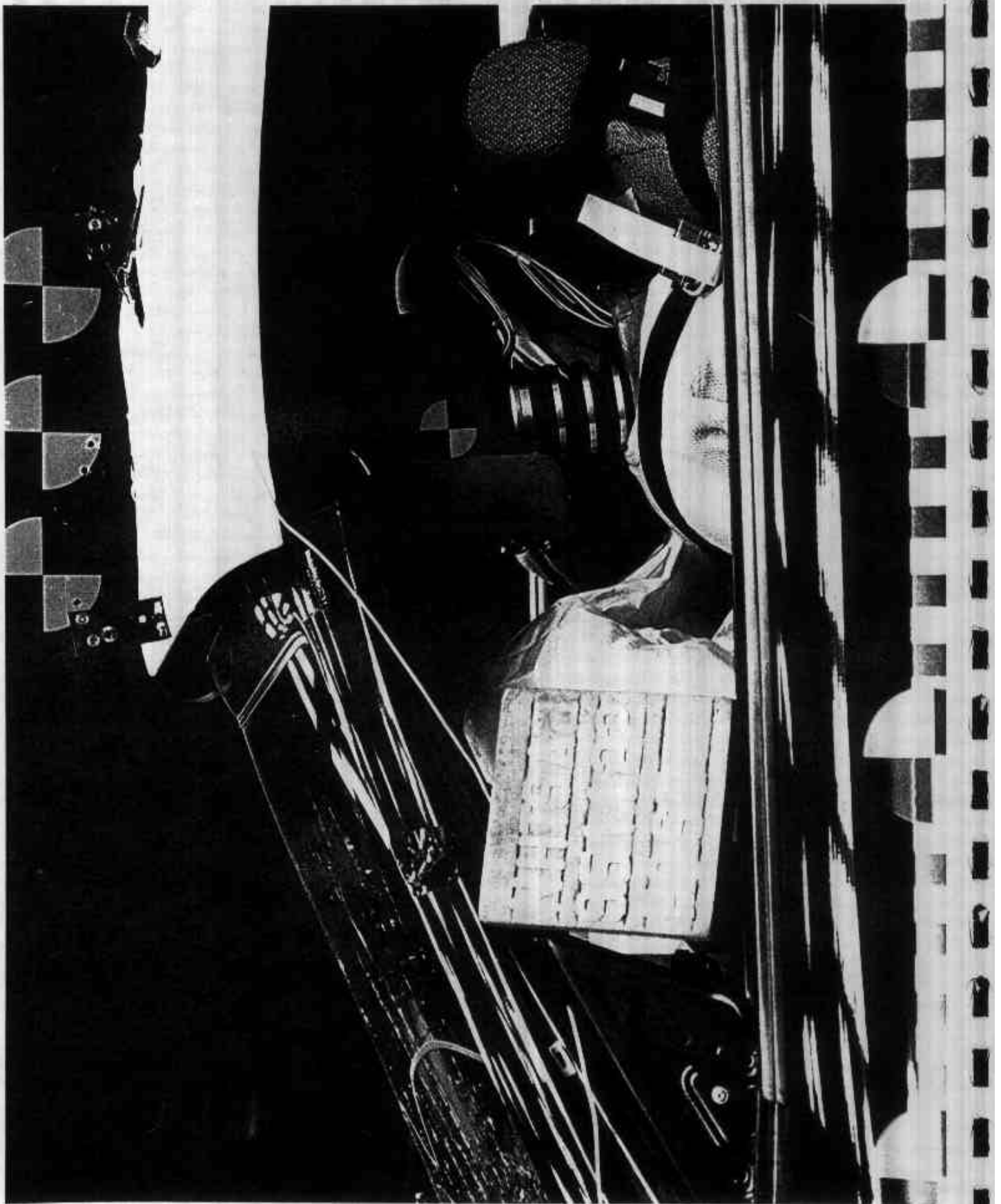


Figure A-28. Post-Test Driver Dummy Position View
A-29

951122



Figure A-29. Pre-Test Passenger Dummy Position View
A-30

951122

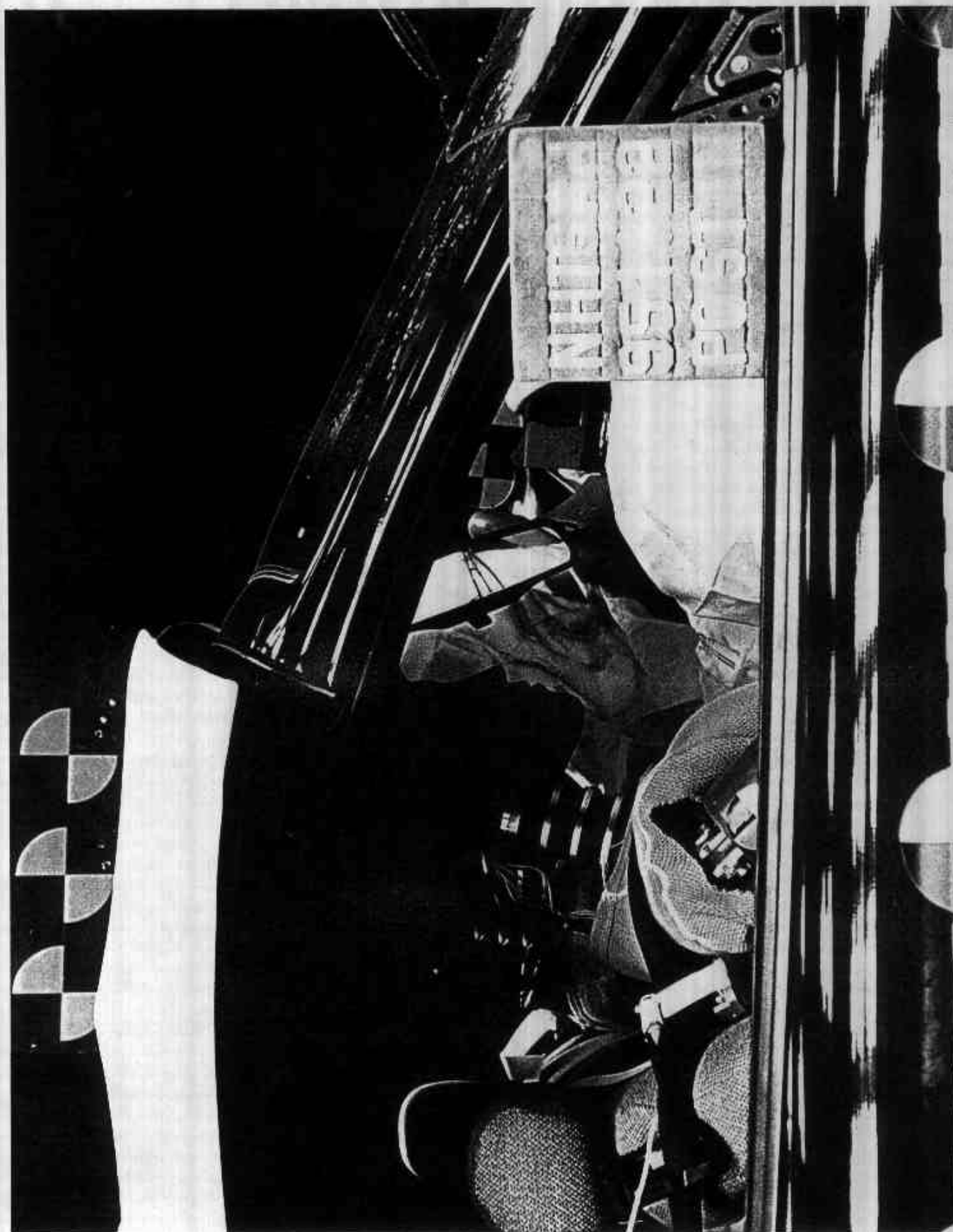


Figure A-30. Post-Test Passenger Dummy Position View
A-31

951122



Figure A-31. Pre-Test Driver Dummy & Vehicle Interior - View 1

A-32

951122

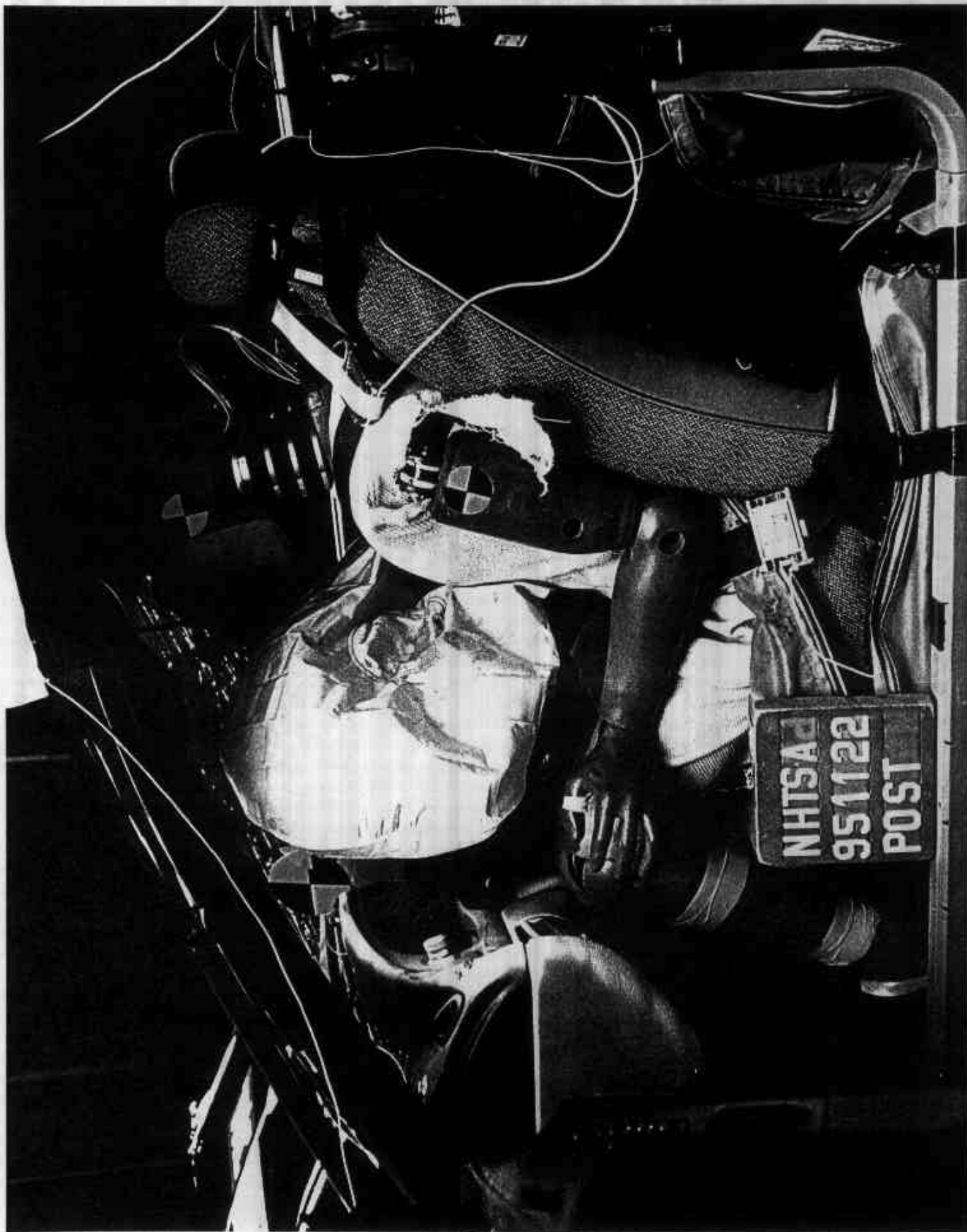


Figure A-32. Post-Test Driver Dummy & Vehicle Interior - View 1

A-33

951122



Figure A-33. Pre-Test Driver Dummy & Vehicle Interior - View 2

A-34

951122



Figure A-34. Post-Test Driver Dummy & Vehicle Interior - View 2

A-35

951122



Figure A-35. Post-Test Passenger Dummy & Vehicle Interior - View 1
A-36

951122



Figure A-36. Post-Test Passenger Dummy & Vehicle Interior - View 2

A-37

951122



Figure A-37. Post-Test Driver Dummy Head Contact - View 1
A-38

951122

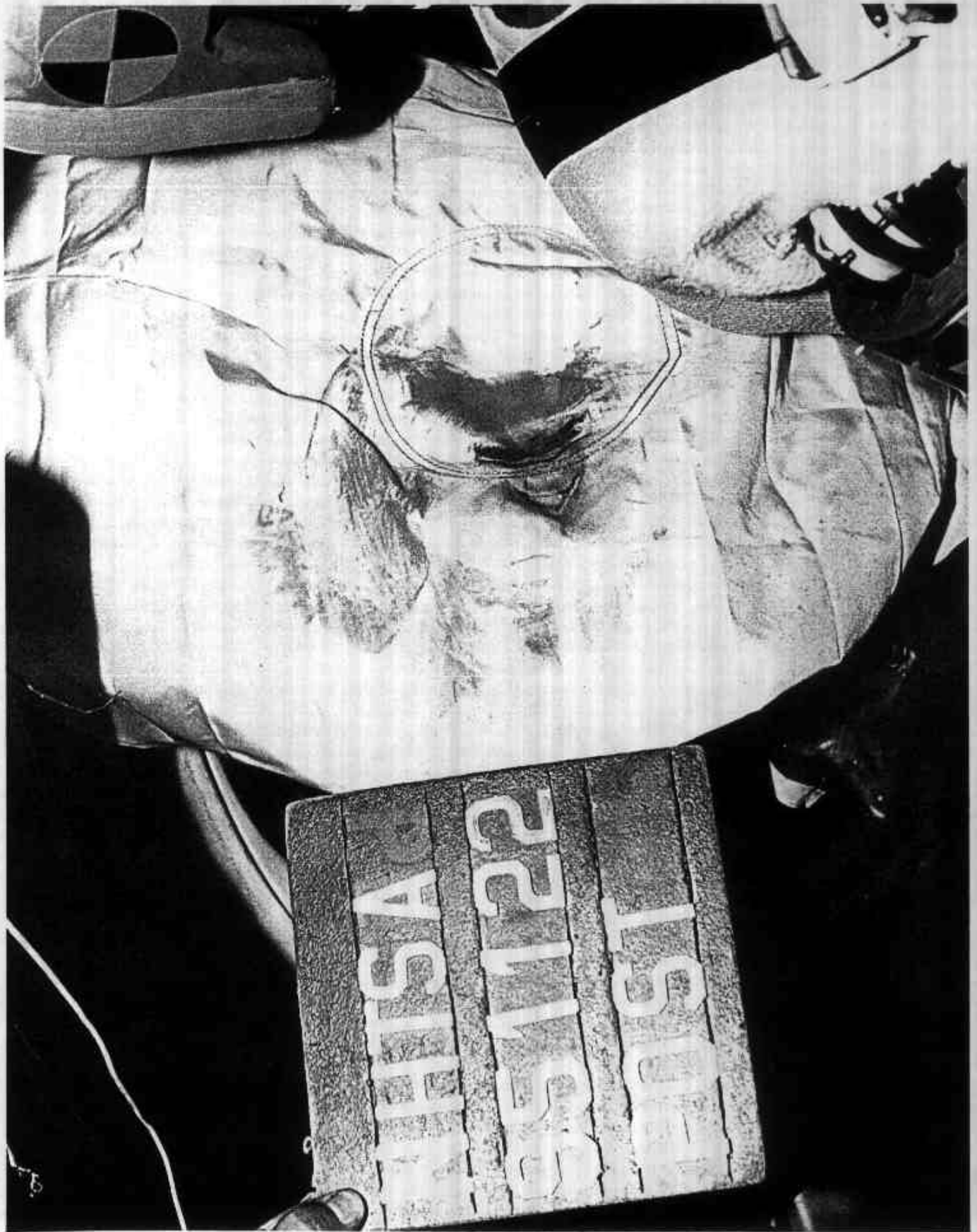


Figure A-38. Post-Test Driver Dummy Head Contact - View 2

A-39

951122



Figure A-39. Post-Test Driver Dummy Head Contact - View 3
A-40

951122



Figure A-40. Post-Test Driver Dummy Knee Contact - View 1

A-41

951122

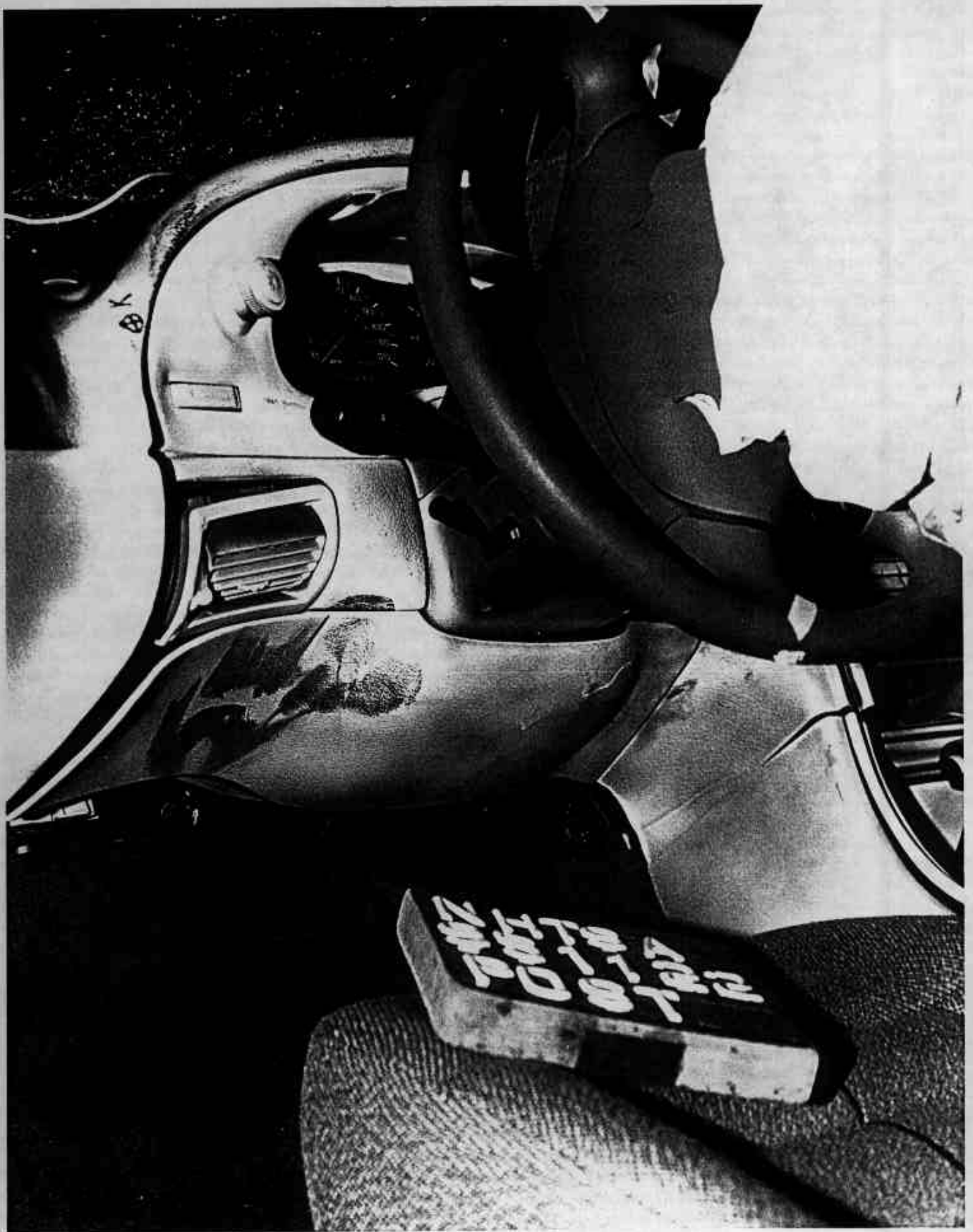


Figure A-41. Post-Test Driver Dummy Knee Contact - View 2

A-42

951122

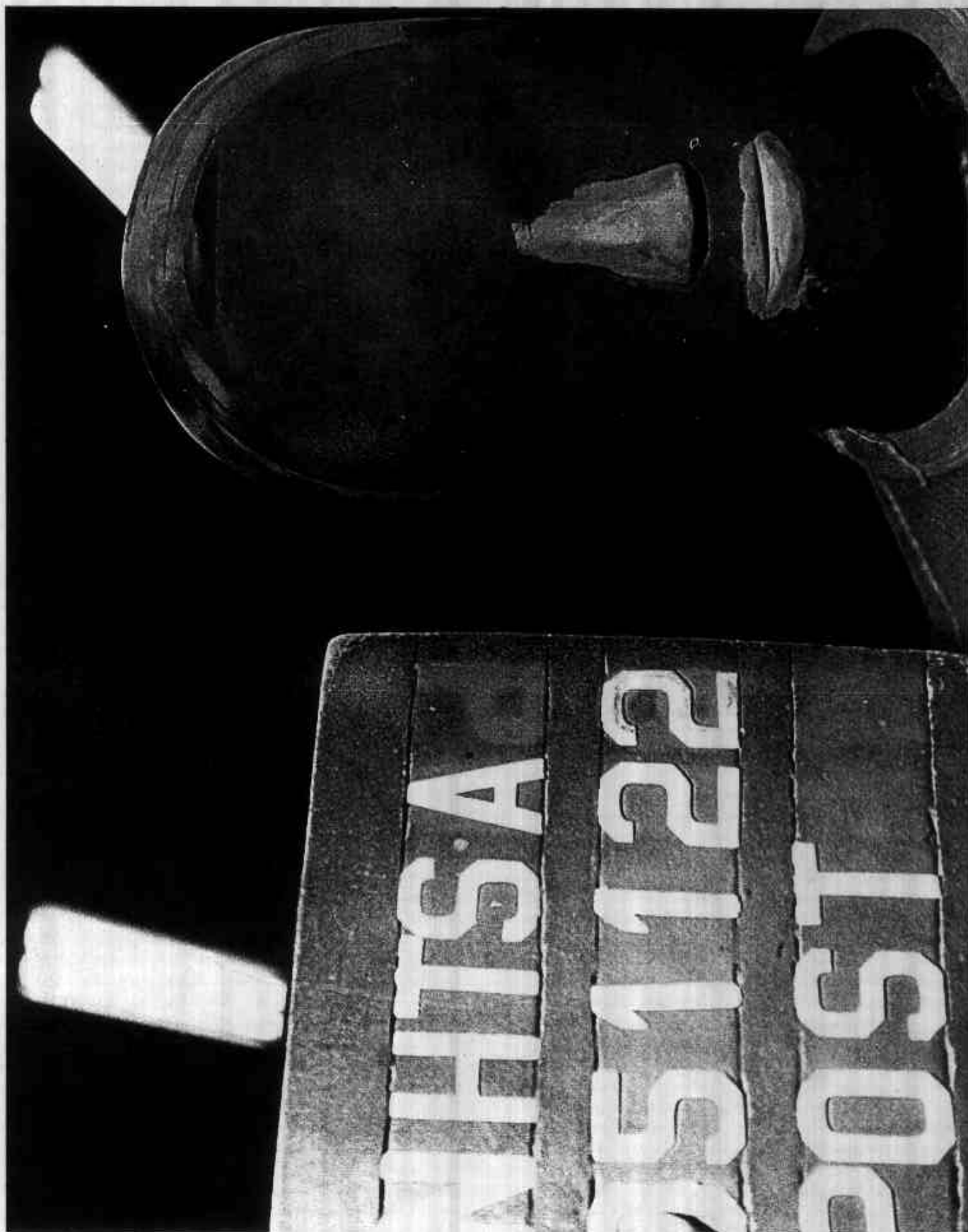


Figure A-42. Post-Test Passenger Dummy Head Contact - View 1
A-43

951122



Figure A-43. Post-Test Passenger Dummy Head Contact - View 2

A-44

951122

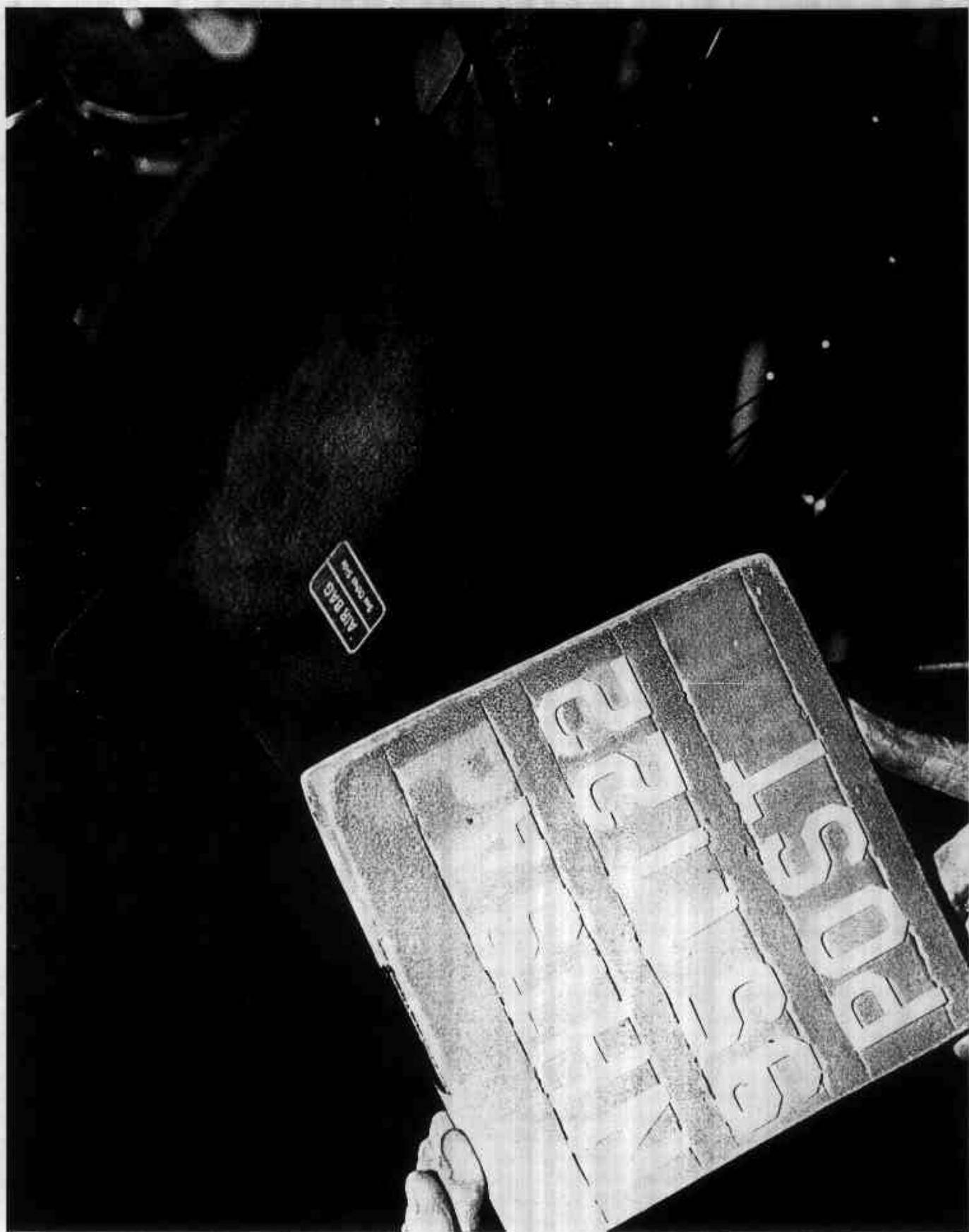


Figure A-44. Post-Test Passenger Dummy Head Contact - View 3

A-45

951122



Figure A-45. Post-Test Passenger Dummy Knee Contact - View 1
A-46

951122



Figure A-46. Post-Test Passenger Dummy Knee Contact - View 2

A-47

951122

WED. BY FORD MOTOR CO. IN U.S.A.
GWR: 4291LB/1946KG

DATE: 08/95

FRONT GWR: 2315LB

1050KG

REAR GWR: 2002LB

908KG

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

VIN: 1FALP4445TF101555

TYPE: PASSENGER

F0200
R0027



E8

EXTERIOR PAINT COLORS

BODY | BRK | MLDG.

BAC 1 CC

INT TRIM

Z2

TAPE

R | S

AX

DSO

TR

8 U3366

VF0EB-58204A10-AB

Figure A-47. Pre-Test Vehicle Certification Label View



Figure A-48. Pre-Test Vehicle Recommended Tire Pressure Label View

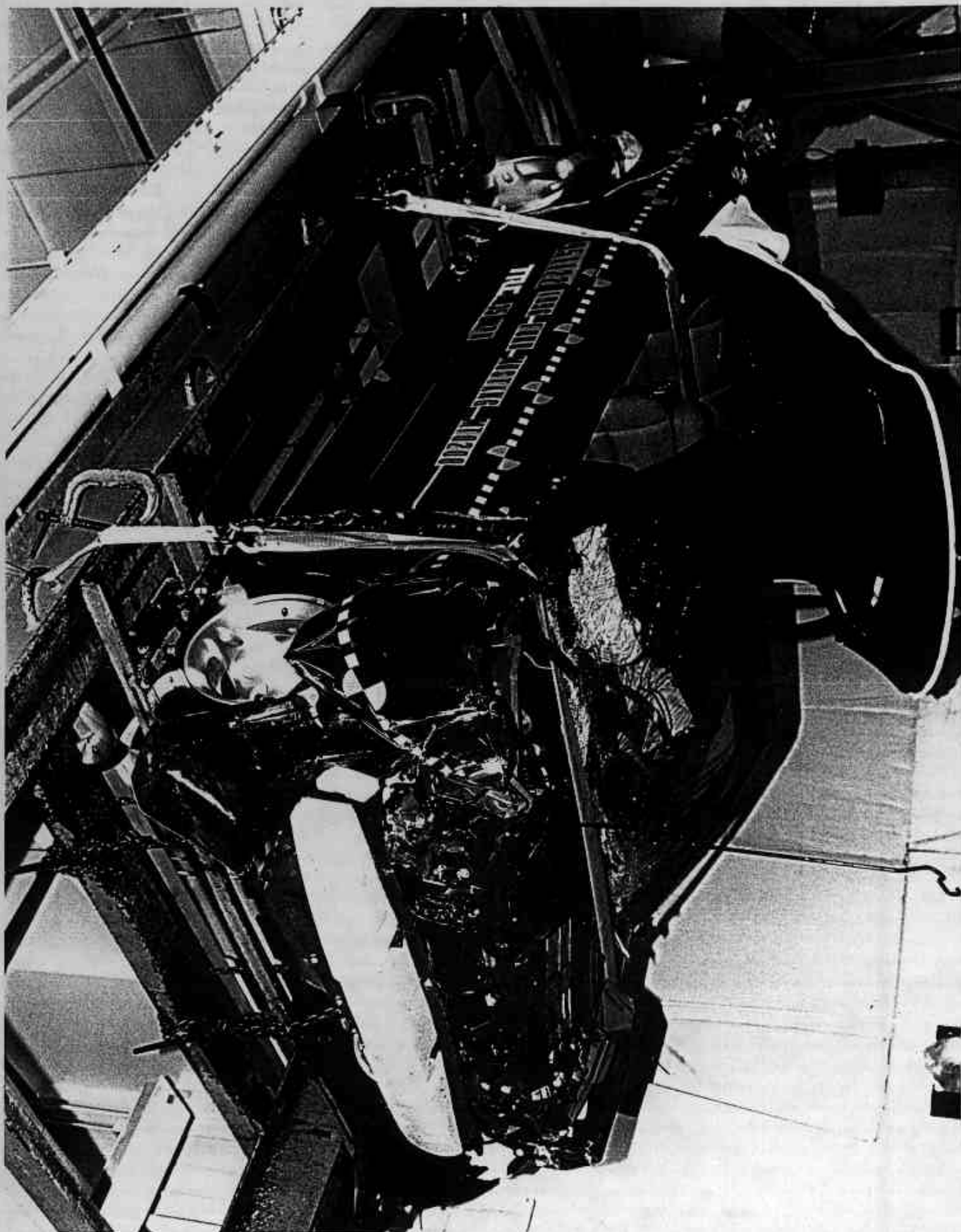


Figure A-49. Post-Test Vehicle on Static Rollover Machine View
A-50

951122

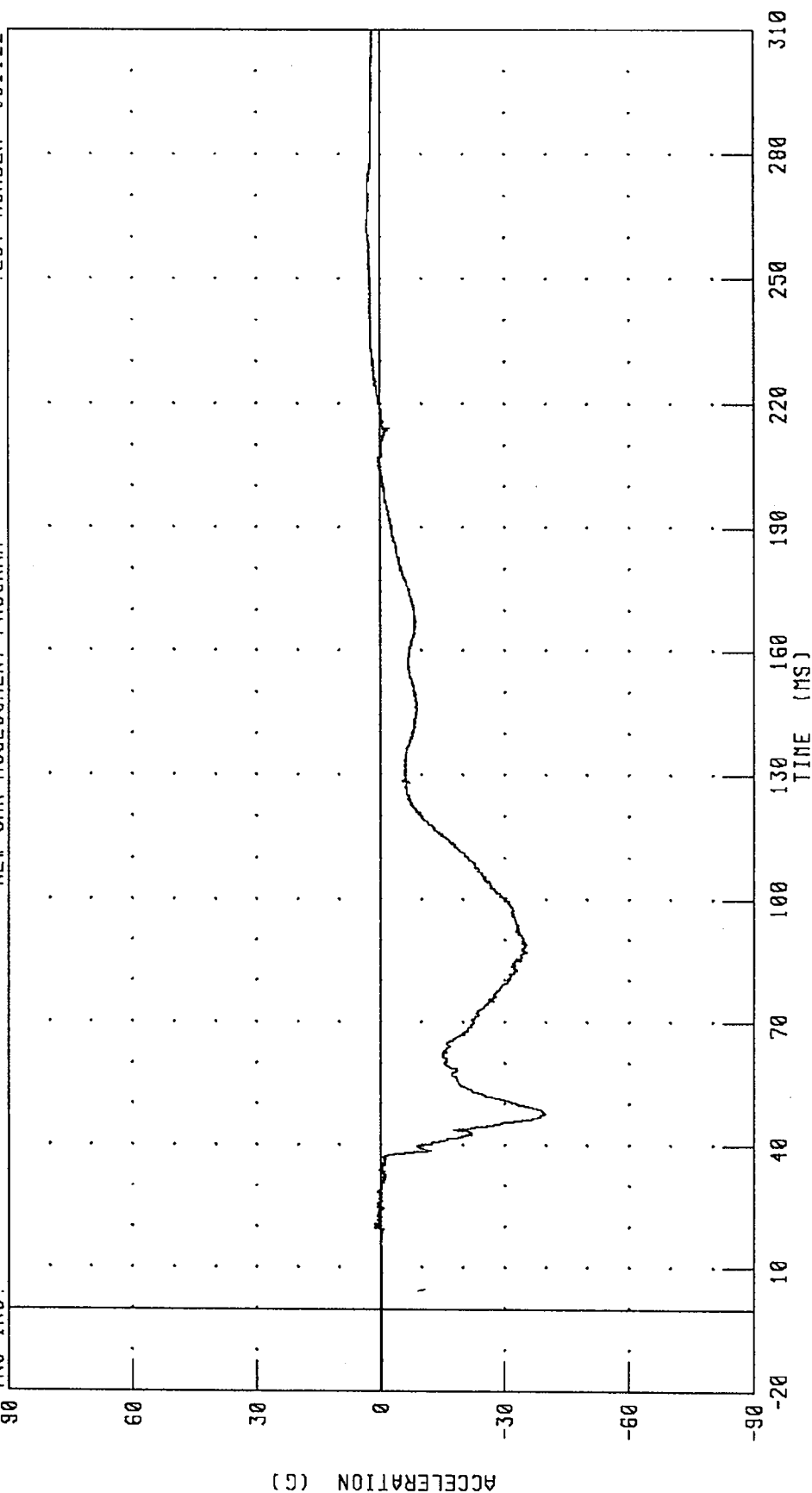
Appendix B

Data Plots

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: HEDXG1 FILTER: CH. CLASS 1000

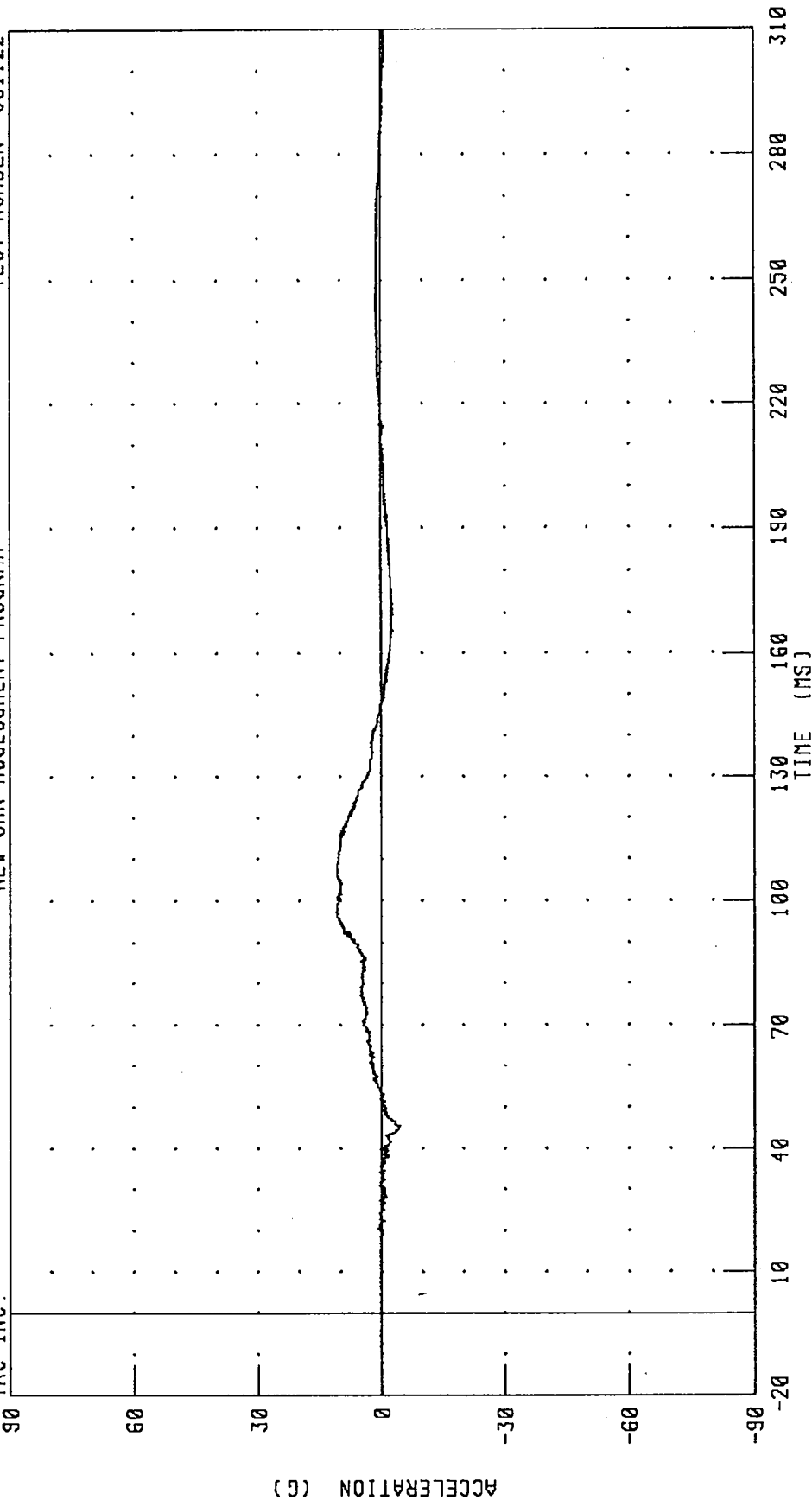
PEAK DATA: 3.21 G @ 261.36 MS; -39.86 G @ 47.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER HEAD Y-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



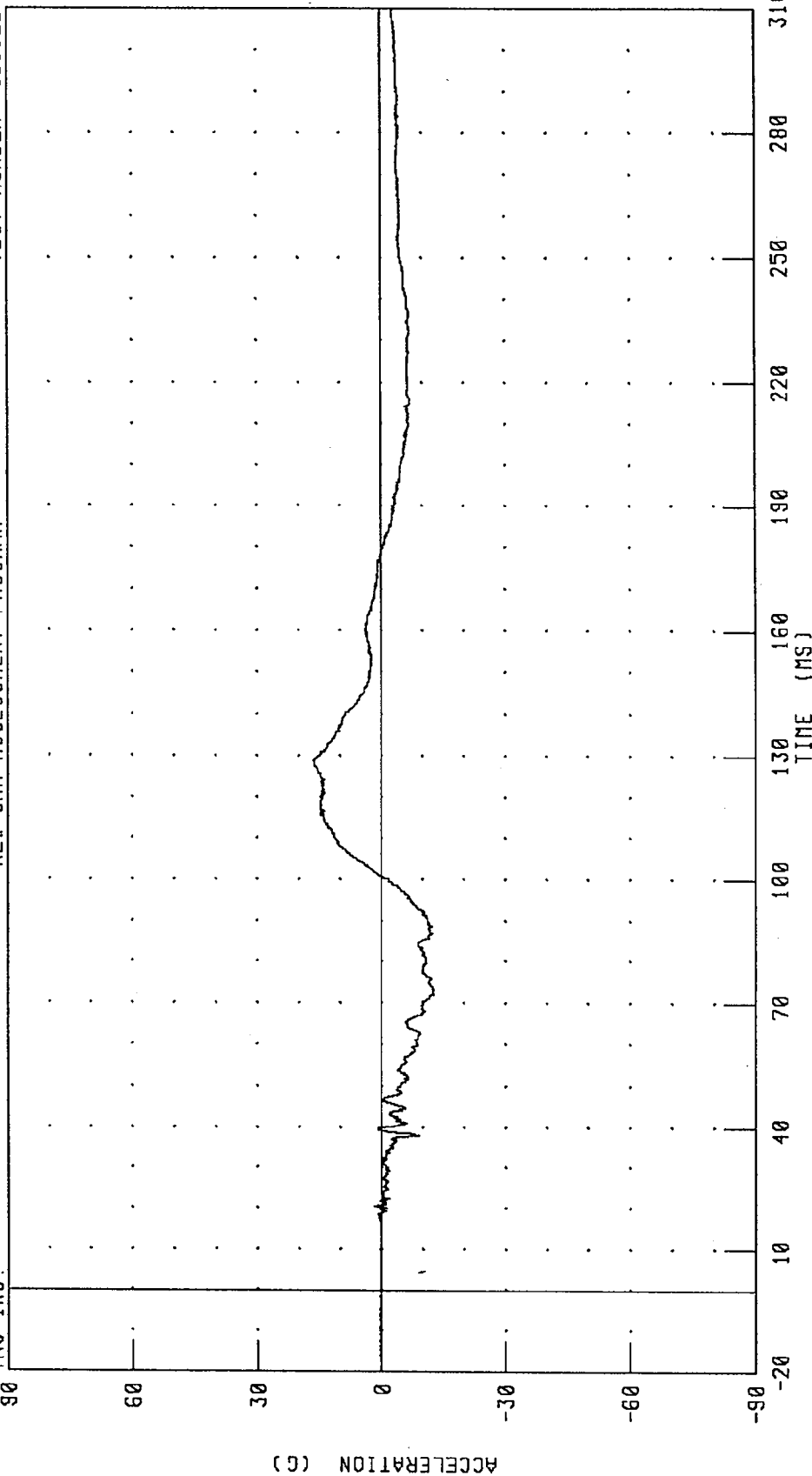
PEAK DATA: 11.21 G @ 97.44 MS; -4.56 G @ 45.52 MS

CHANNEL: HEDYG1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER HEAD Z-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: HEDZG1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER HEAD RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

120

100

80

60

40

20

0

ACCELERATION (G)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

-20

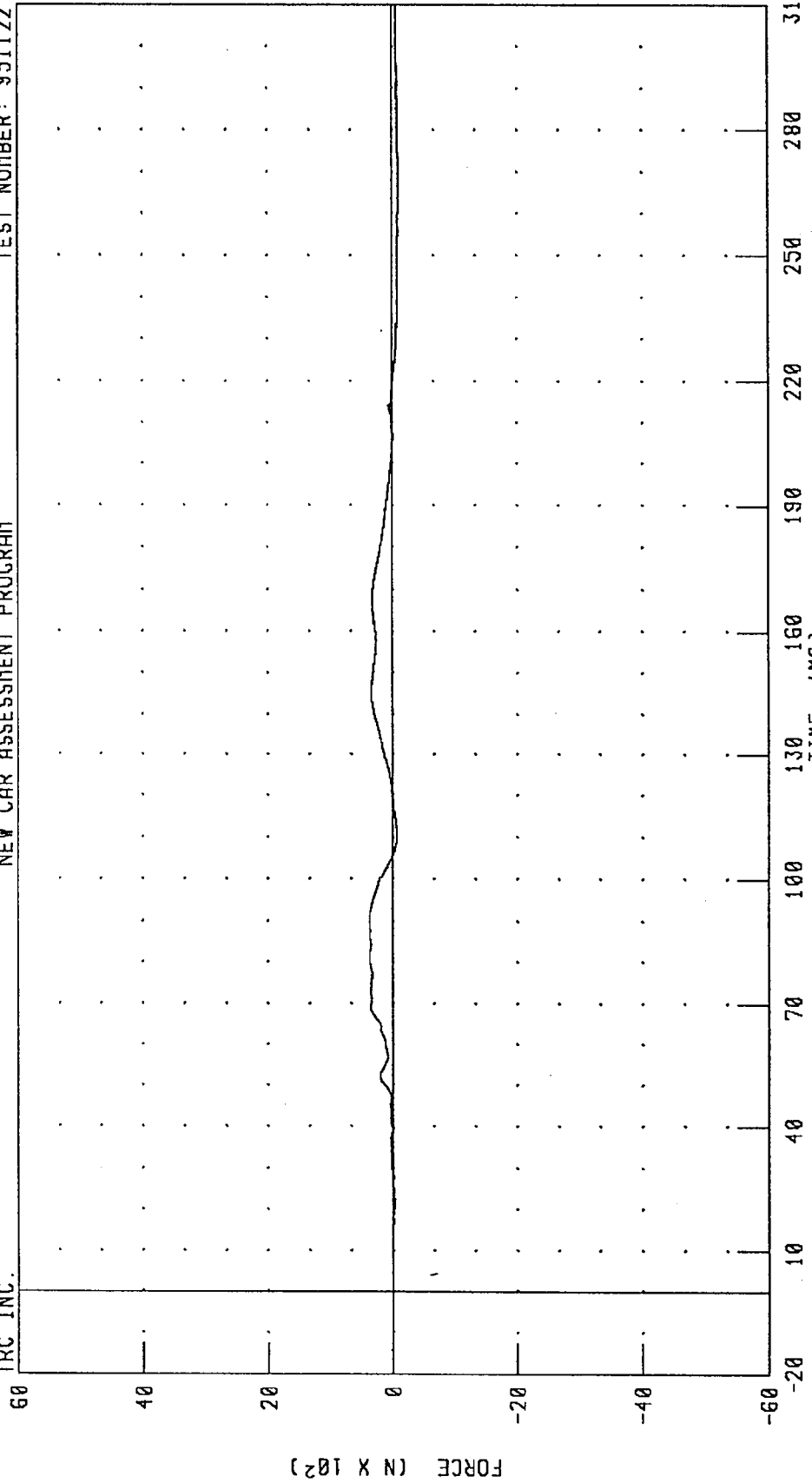
CHANNEL: HEDRG1 FILTER: CH. CLASS 1000

PEAK DATA: 39.95 G @ 47.68 MS; 0.10 G @ 7.52 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER NECK X-AXIS SHEAR FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



PEAK DATA: 378.36 N @ 81.04 MS; -108.52 N @ 265.60 MS

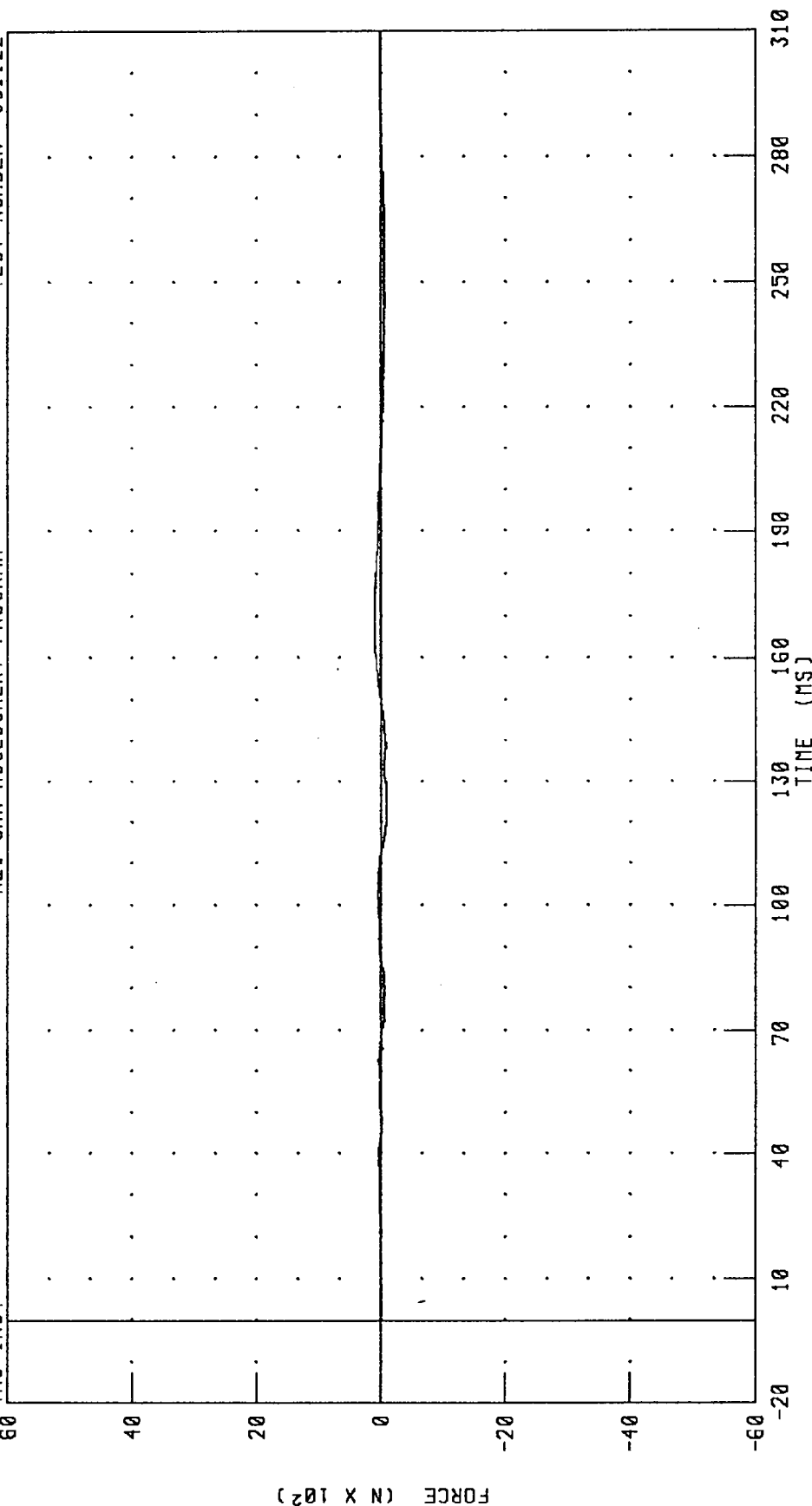
CHANNEL: NEKXF1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK Y-AXIS SHEAR FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



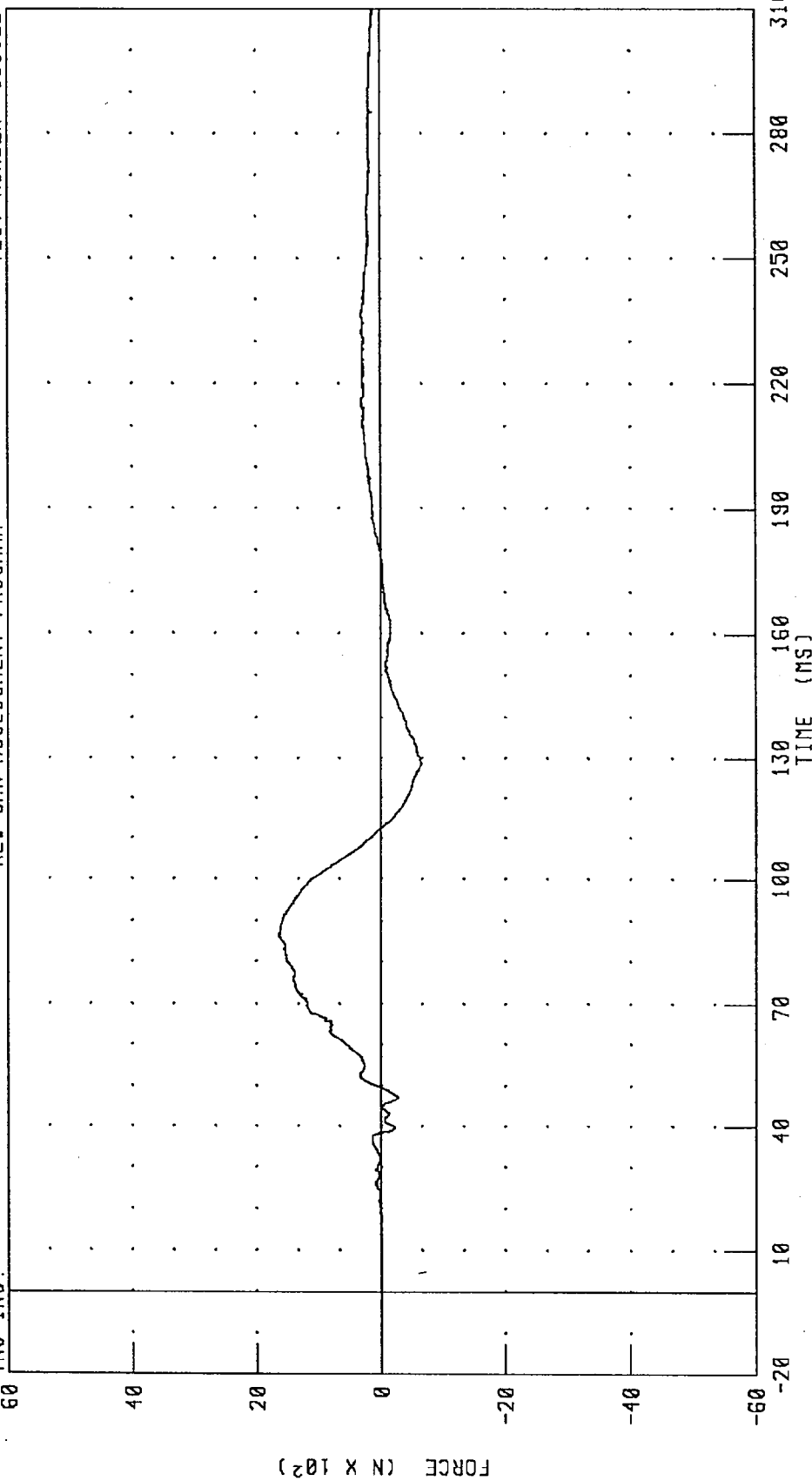
PEAK DATA: 107.21 N @ 167.36 MS; -88.53 N @ 121.44 MS

CHANNEL: NEKYF1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER NECK Z-AXIS AXIAL FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



PEAK DATA: 1636.54 N @ 86.08 MS; -652.59 N @ 128.56 MS

CHANNEL: NEKZF1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK MOMENT ABOUT X AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

IRC INC.

180

120

60

0

-60

-120

-180

TORQUE (N.M)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

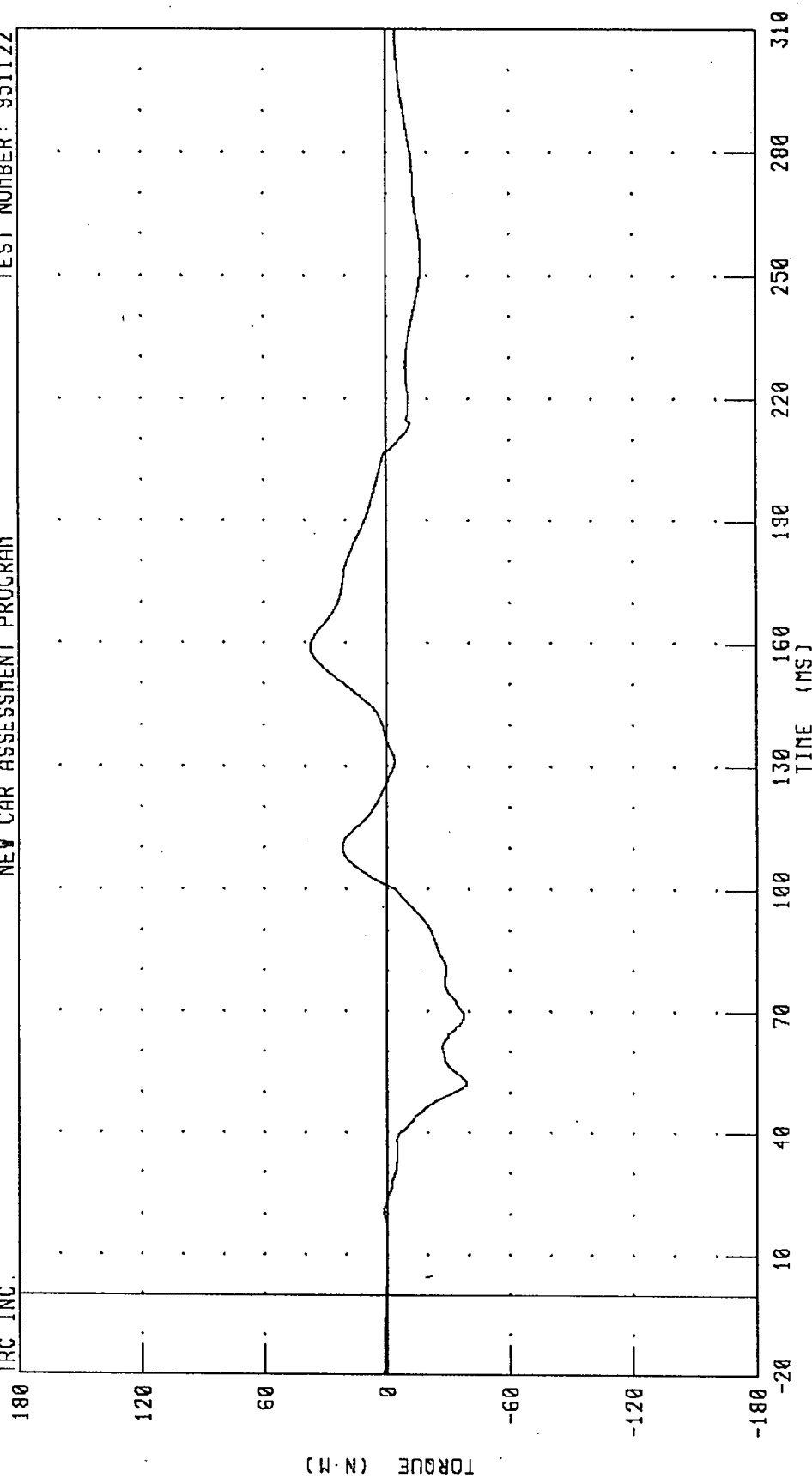
PEAK DATA: 25.62 N.M @ 110.64 MS; -11.38 N.M @ 174.80 MS

CHANNEL: NEKX01 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER NECK MOMENT ABOUT Y AXIS
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



PEAK DATA: 37.26 N-M @ 158.88 MS; -38.75 N-M @ 52.32 MS

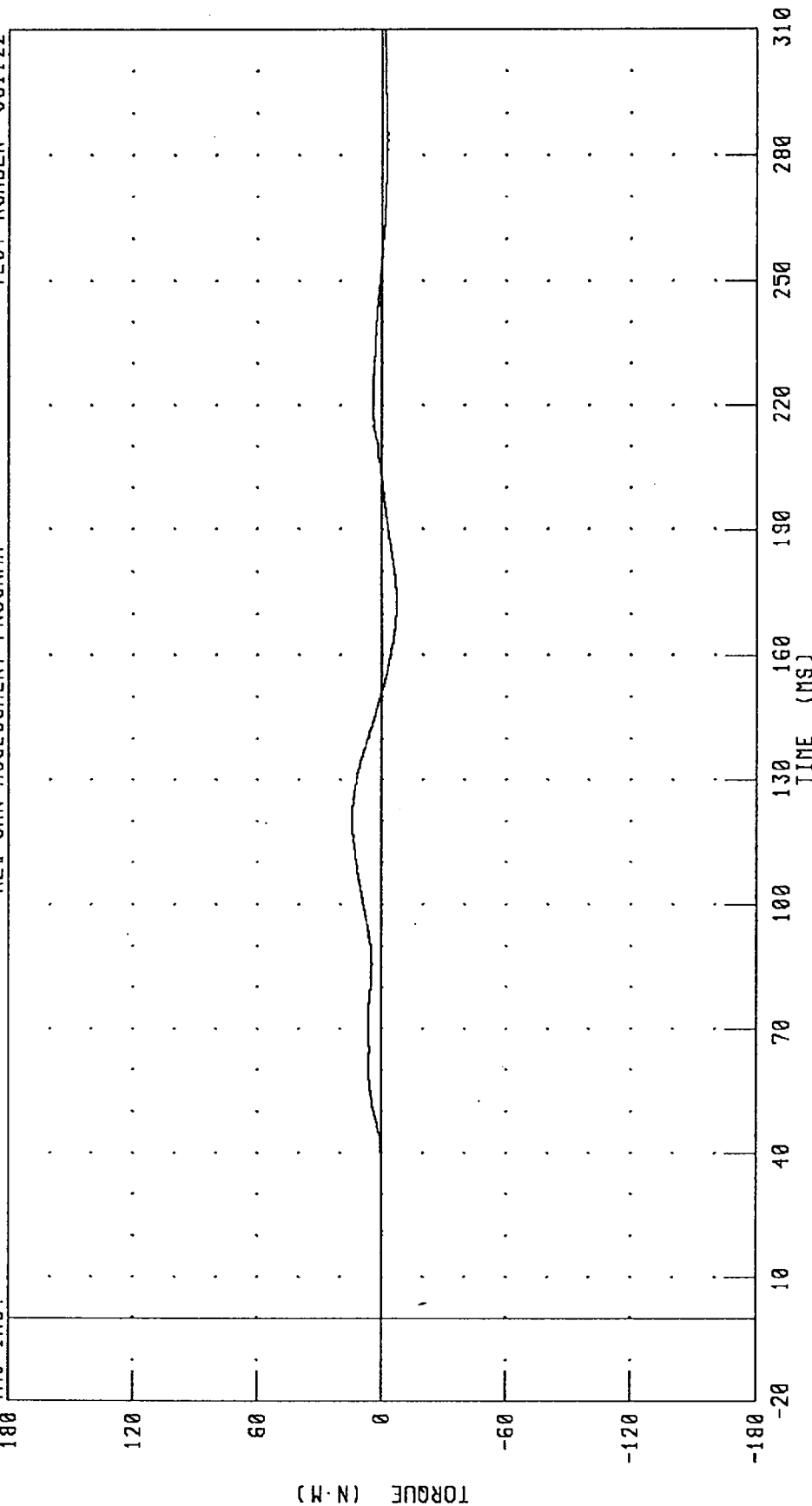
CHANNEL: NEKYM1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER NECK MOMENT ABOUT Z AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



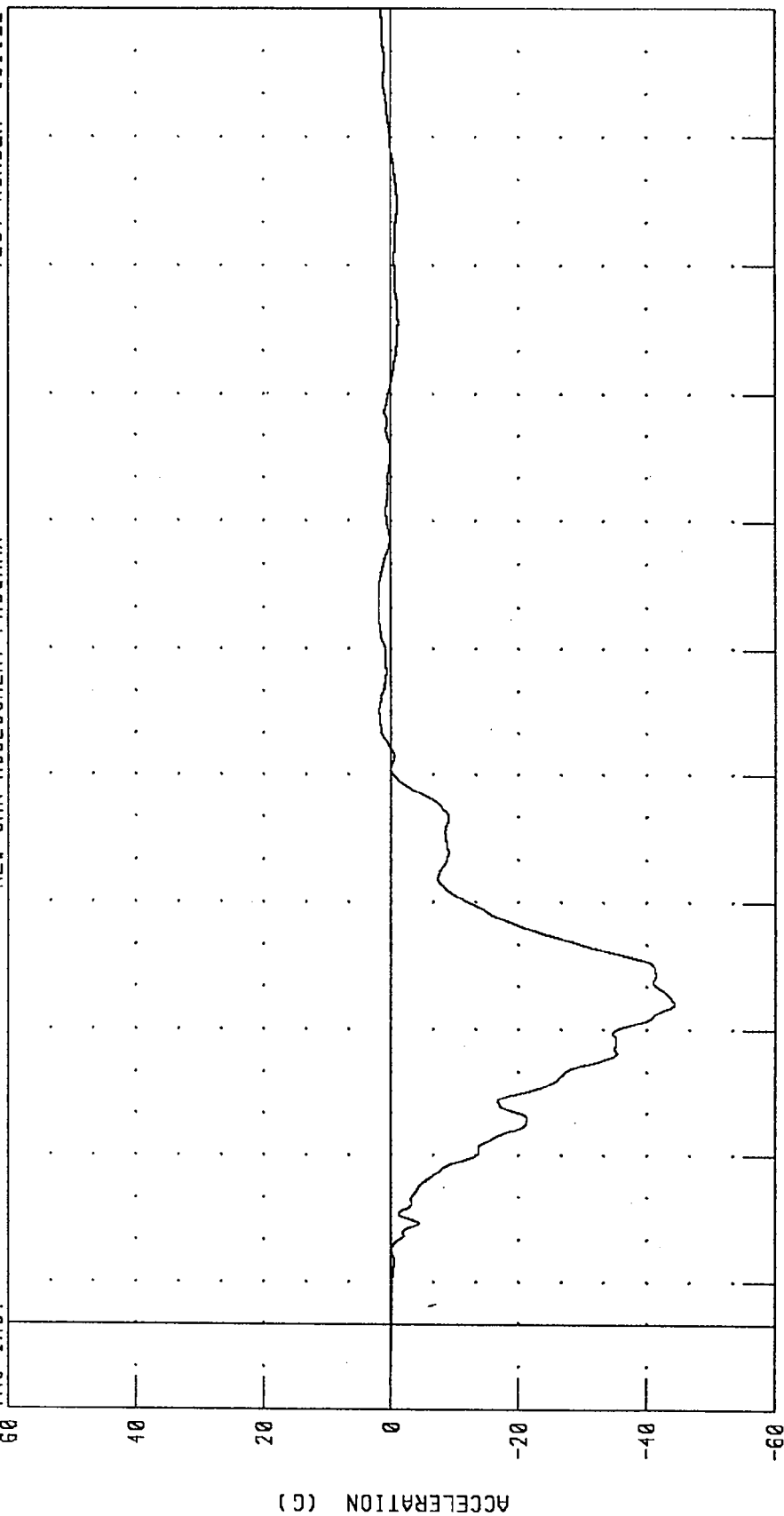
PEAK DATA: 14.36 N·M @ 119.44 MS; -7.06 N·M @ 173.12 MS

CHANNEL: NEKZM1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER CHEST X-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

IRC INC.



PEAK DATA: 1.95 G @ 174.64 MS; -44.35 G @ 76.16 MS

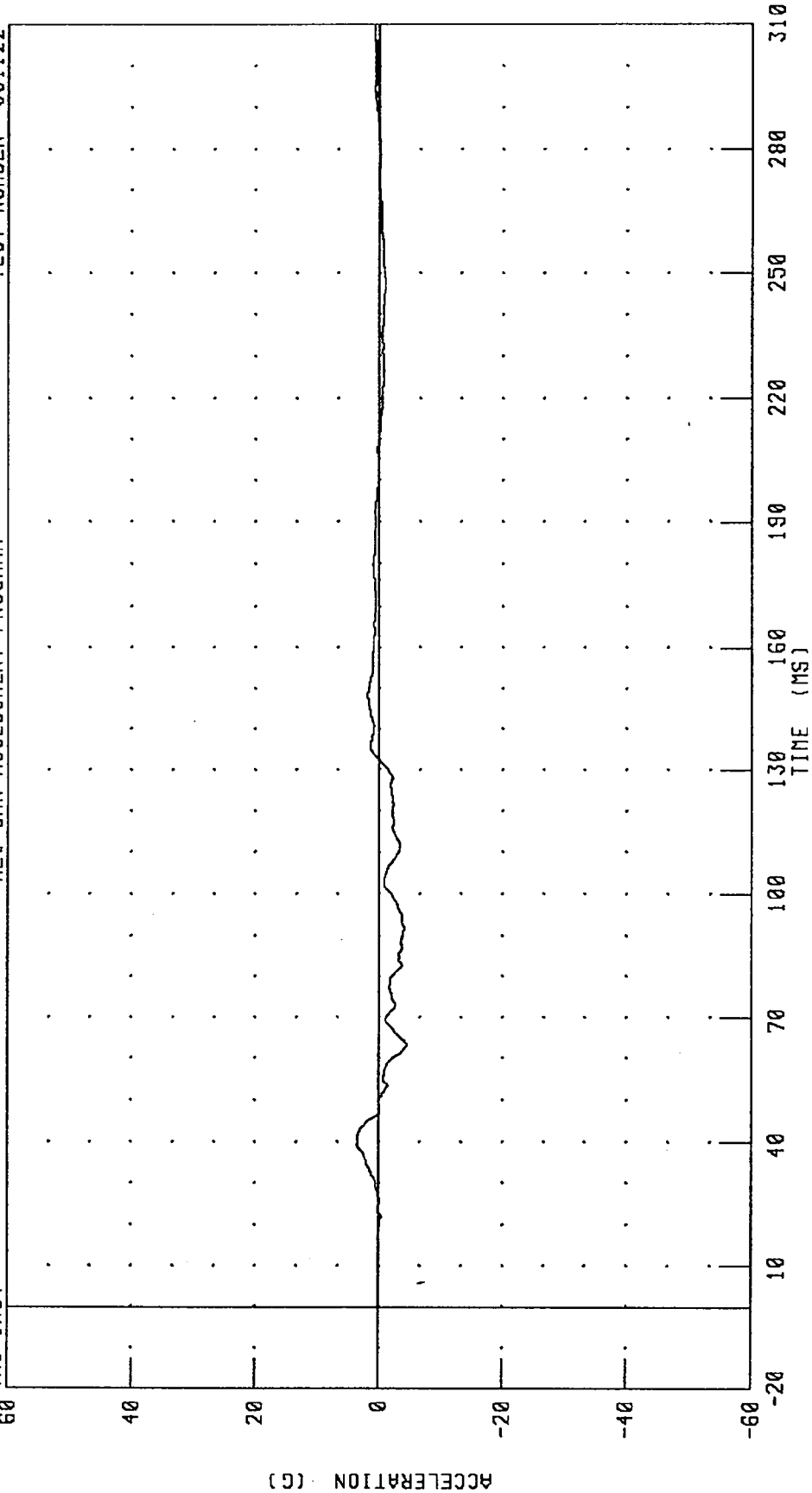
CHANNEL: CSTXG1 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST Y-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



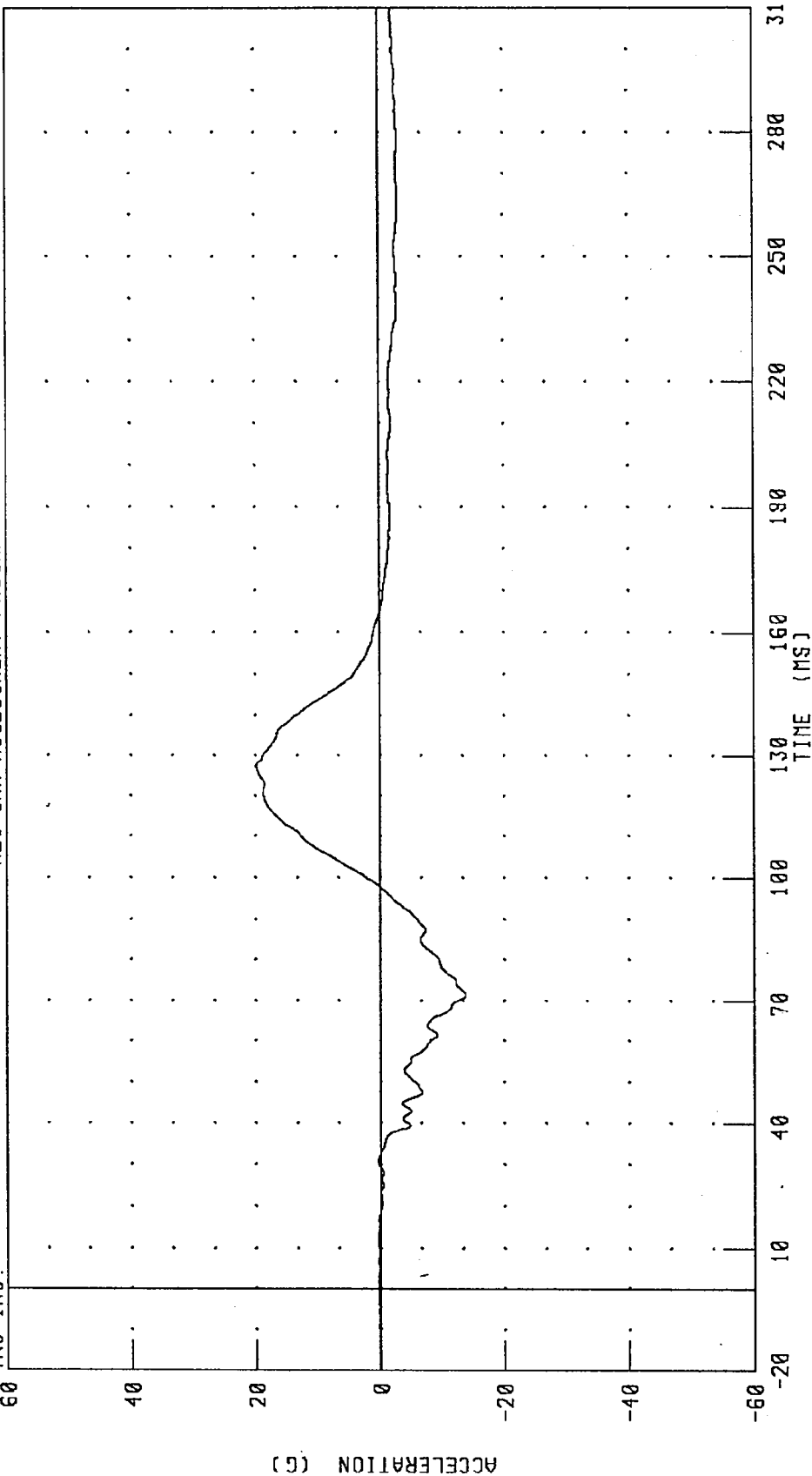
CHANNEL: CSTYG1 FILTER: CH. CLASS 180

PEAK DATA: 3.50 G @ 39.28 MS, -4.51 G @ 63.44 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER CHEST Z-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: CSTZG1 FILTER: CH. CLASS 180

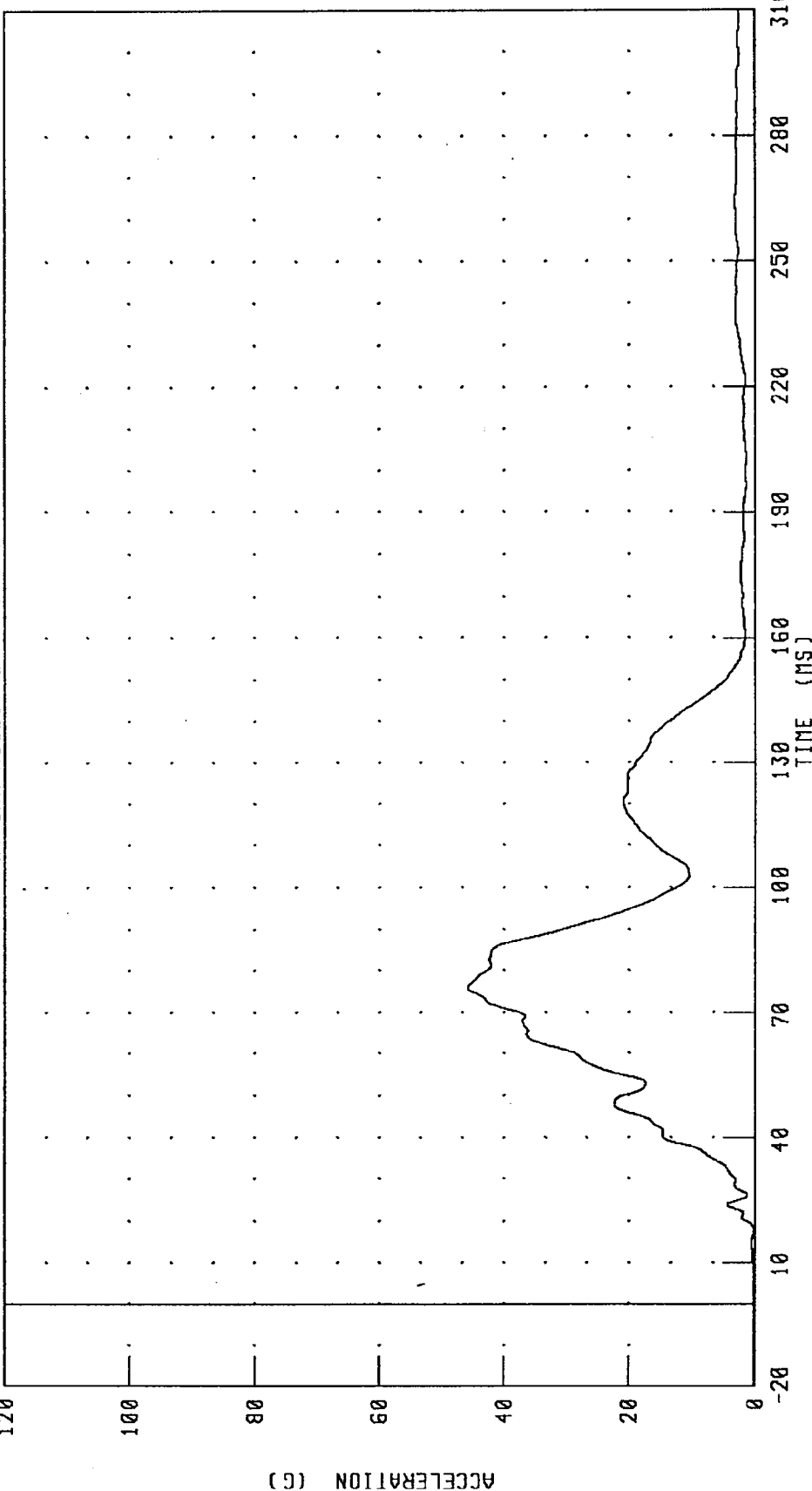
PEAK DATA: 19.95 G @ 127.44 MS, -13.75 G @ 71.52 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER CHEST RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: CSTRG1 FILTER: CH. CLASS 180

PEAK DATA: 45.82 G @ 76.00 MS; 0.01 G @ -20.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER

DRIVER CHEST DEFLECTION

NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

30

10

DISPLACEMENT (MM)

-10

-30

-50

-70

-90

TIME (MS)

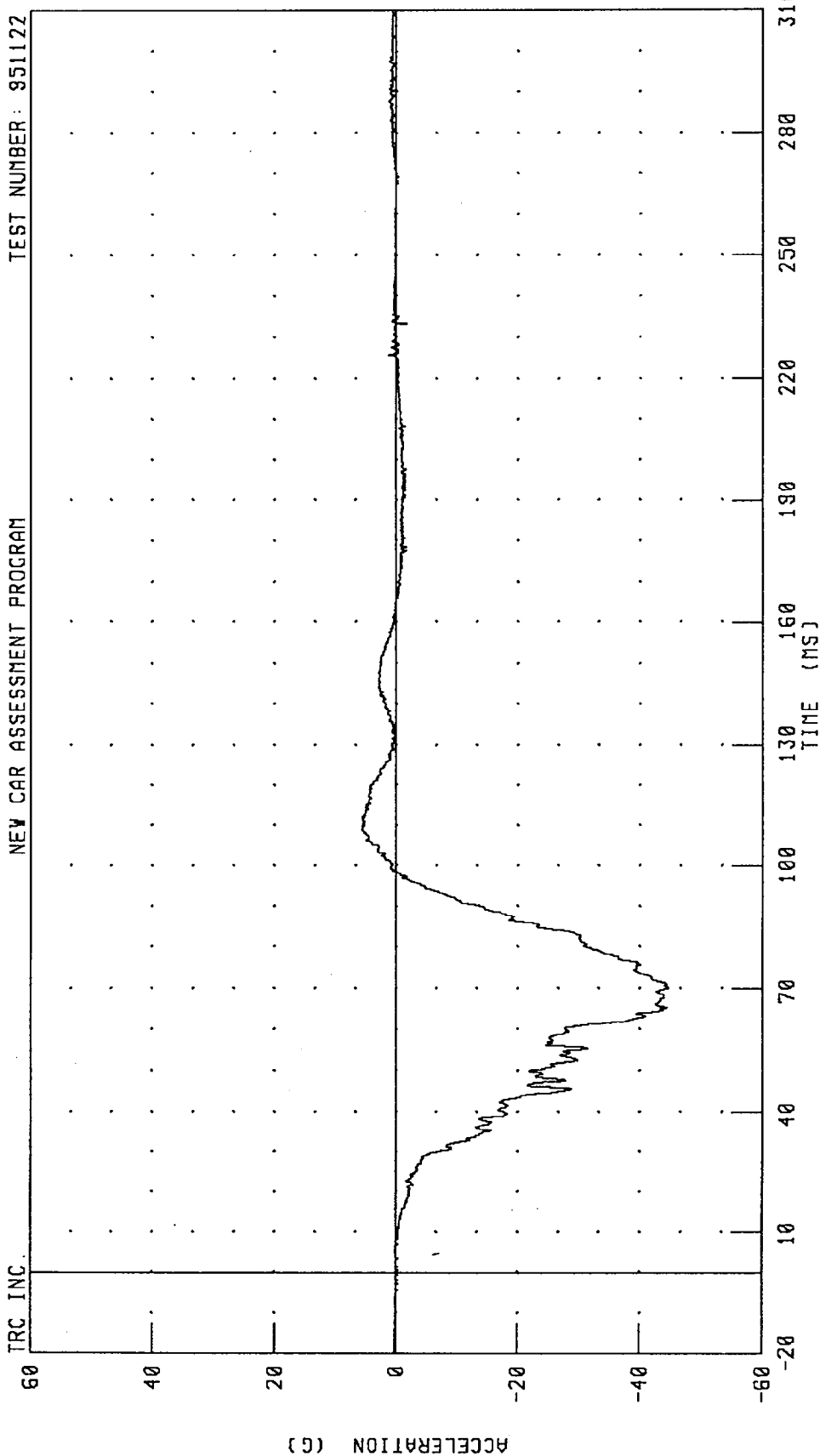
20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320

PEAK DATA: 0.03 MM @ 11.12 MS; -41.80 MM @ 90.56 MS

CHANNEL: CSTXD1 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER PELVIS X-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



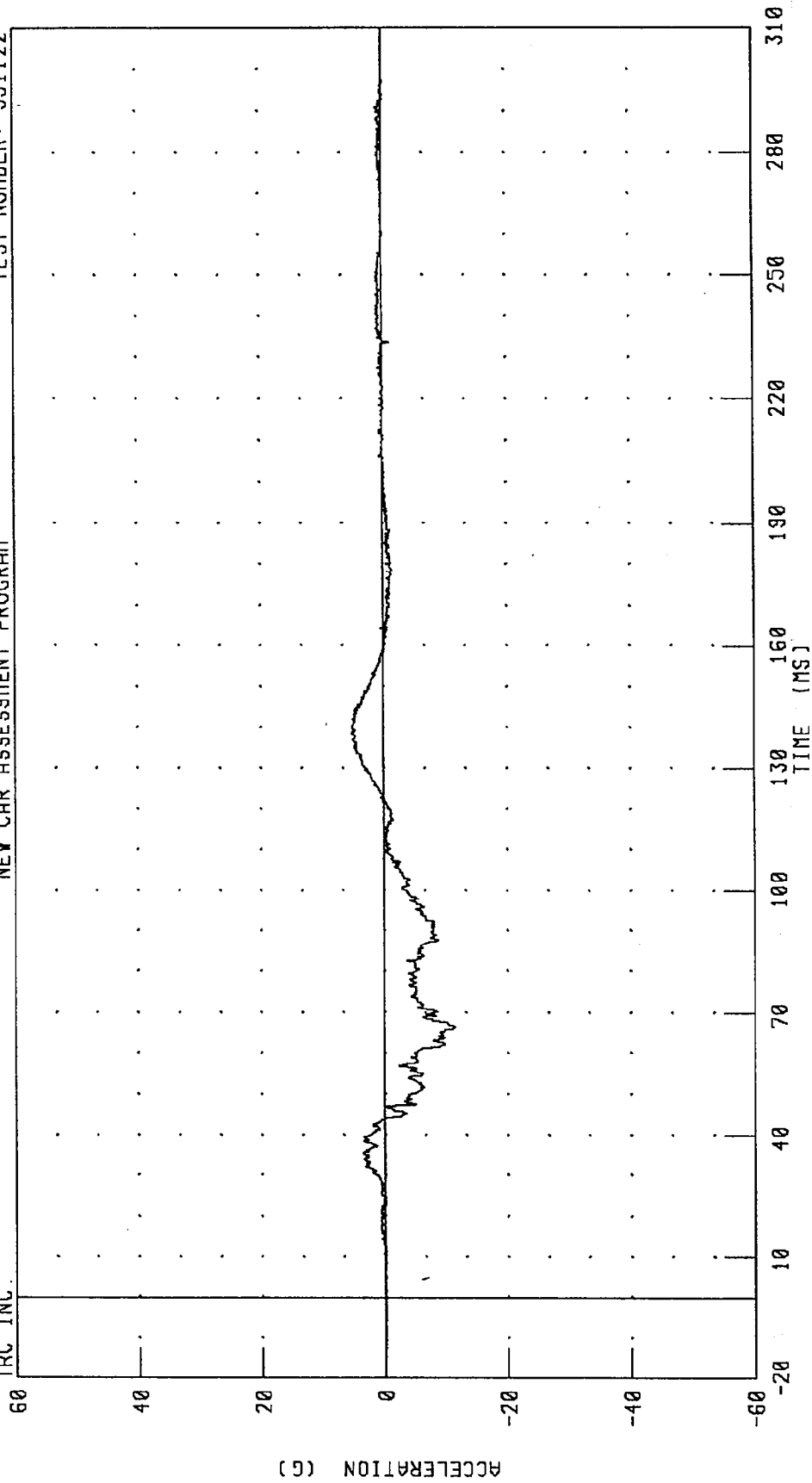
PEAK DATA: 5.63 G @ 108.88 MS; -44.76 G @ 70.00 MS

CHANNEL: PEVXC1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER PELVIS Y-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

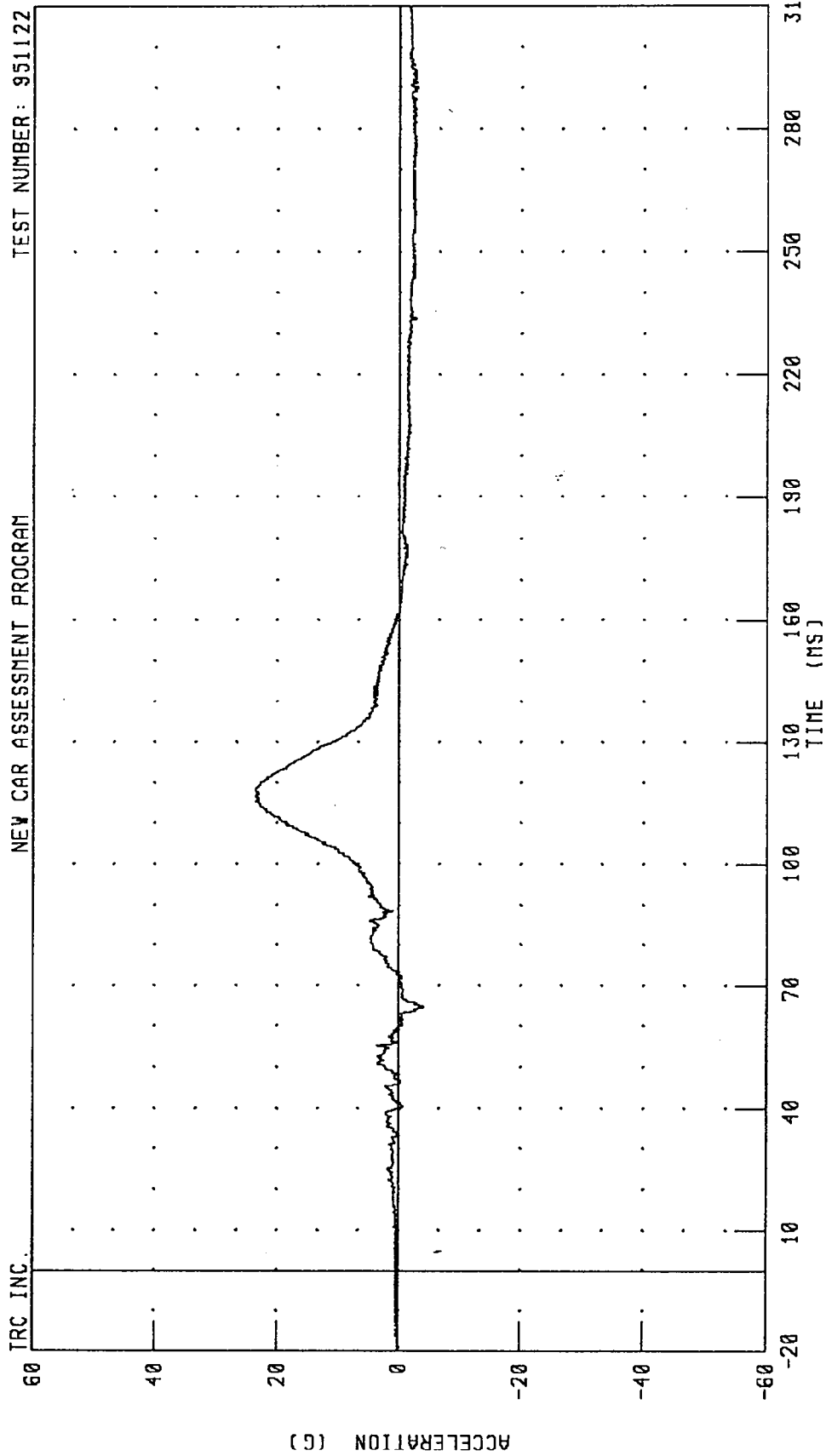


CHANNEL: PEVYG1 FILTER: CH. CLASS 1000

PEAK DATA: 5.34 G @ 138.24 MS; -11.52 G @ 66.56 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER PELVIS Z-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



PEAK DATA: 23.60 G @ 115.60 MS; -4.22 G @ 64.88 MS

CHANNEL: PEVZG1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER PELVIS RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

120

100

80

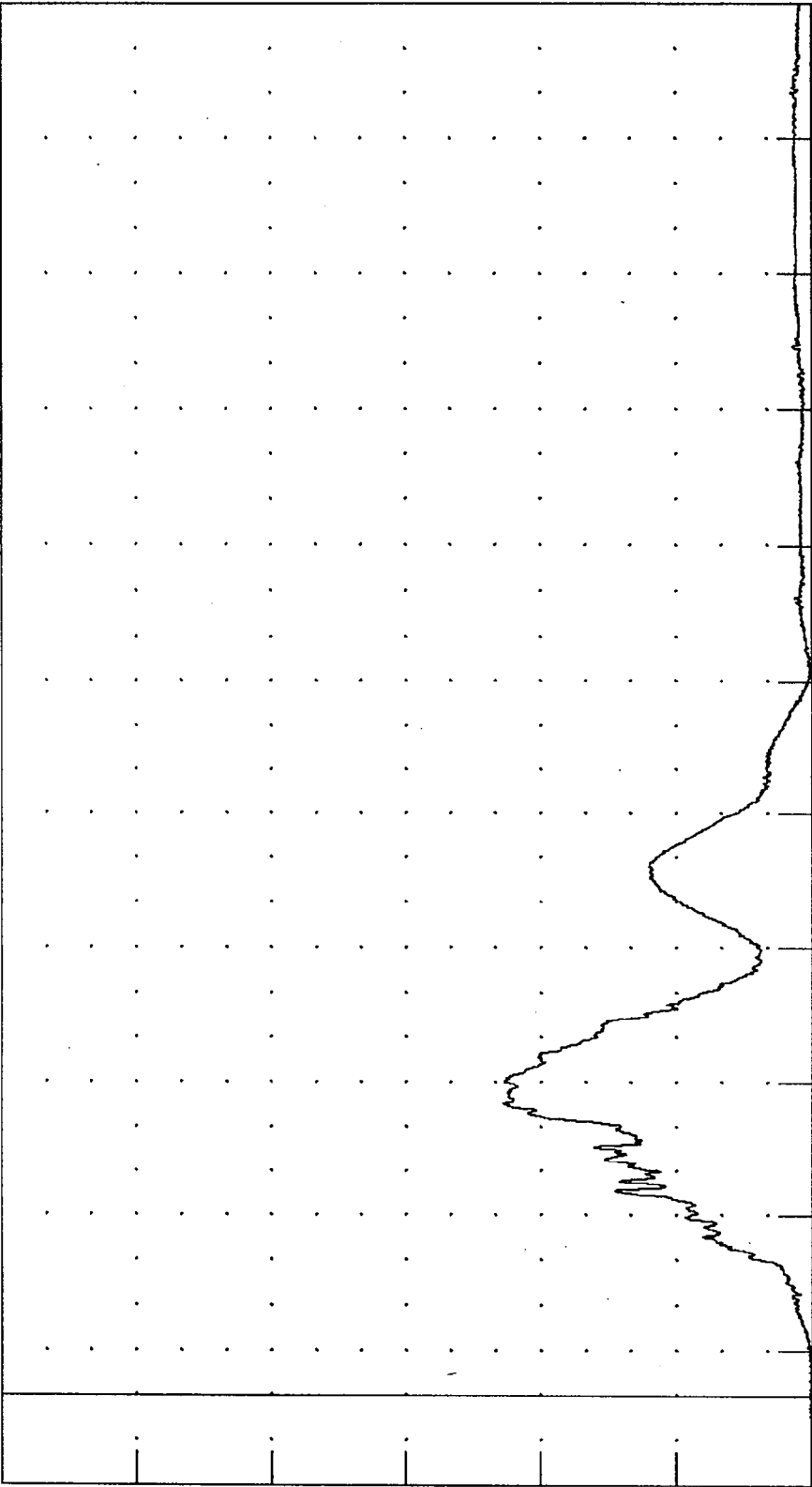
60

40

20

0

ACCELERATION (G)



TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

-20

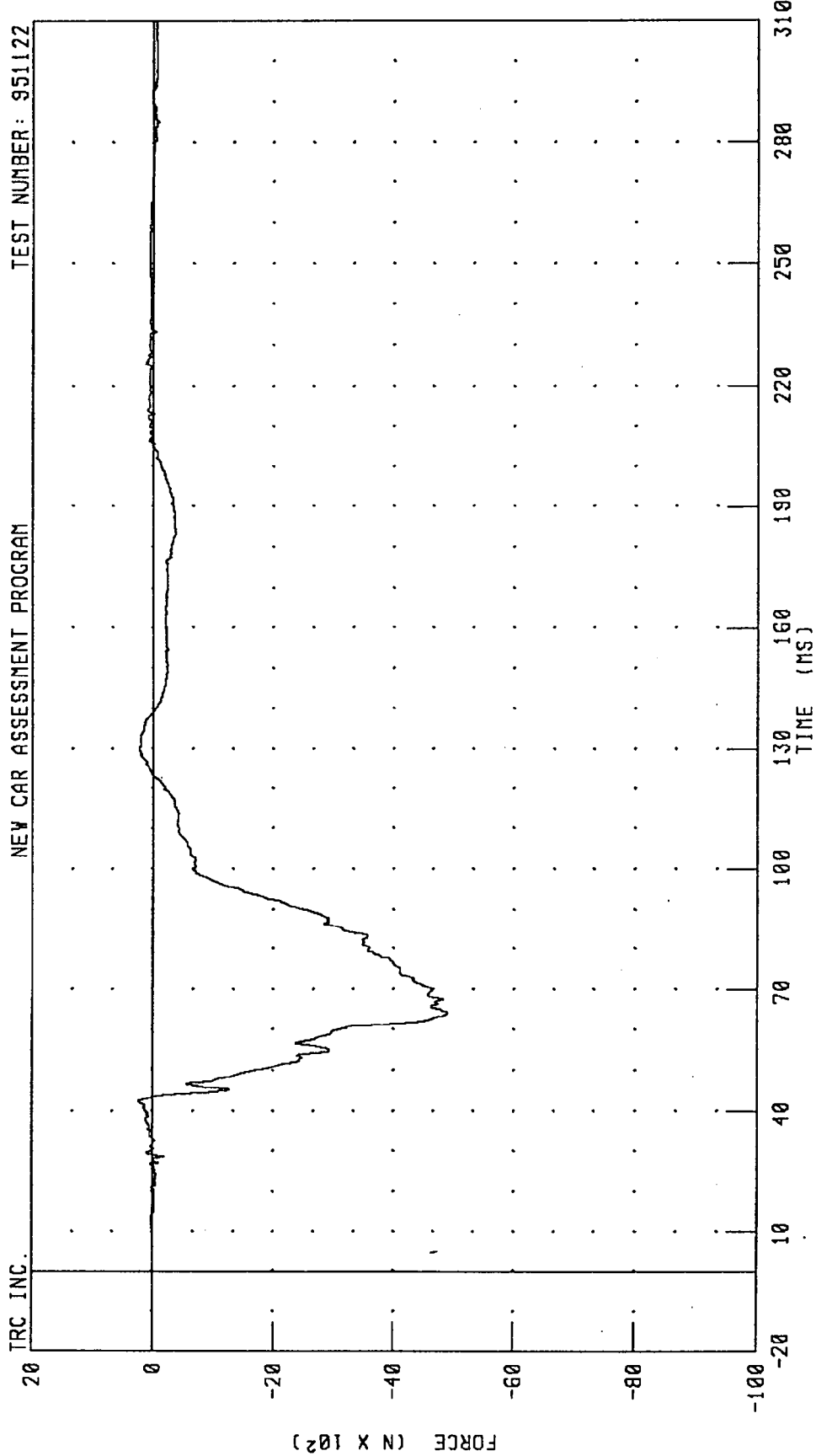
CHANNEL: PEVRG1 FILTER: CH. CLASS 1000

PEAK DATA: 45.64 G @ 65.36 MS; 0.11 G @ -19.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FEMUR FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



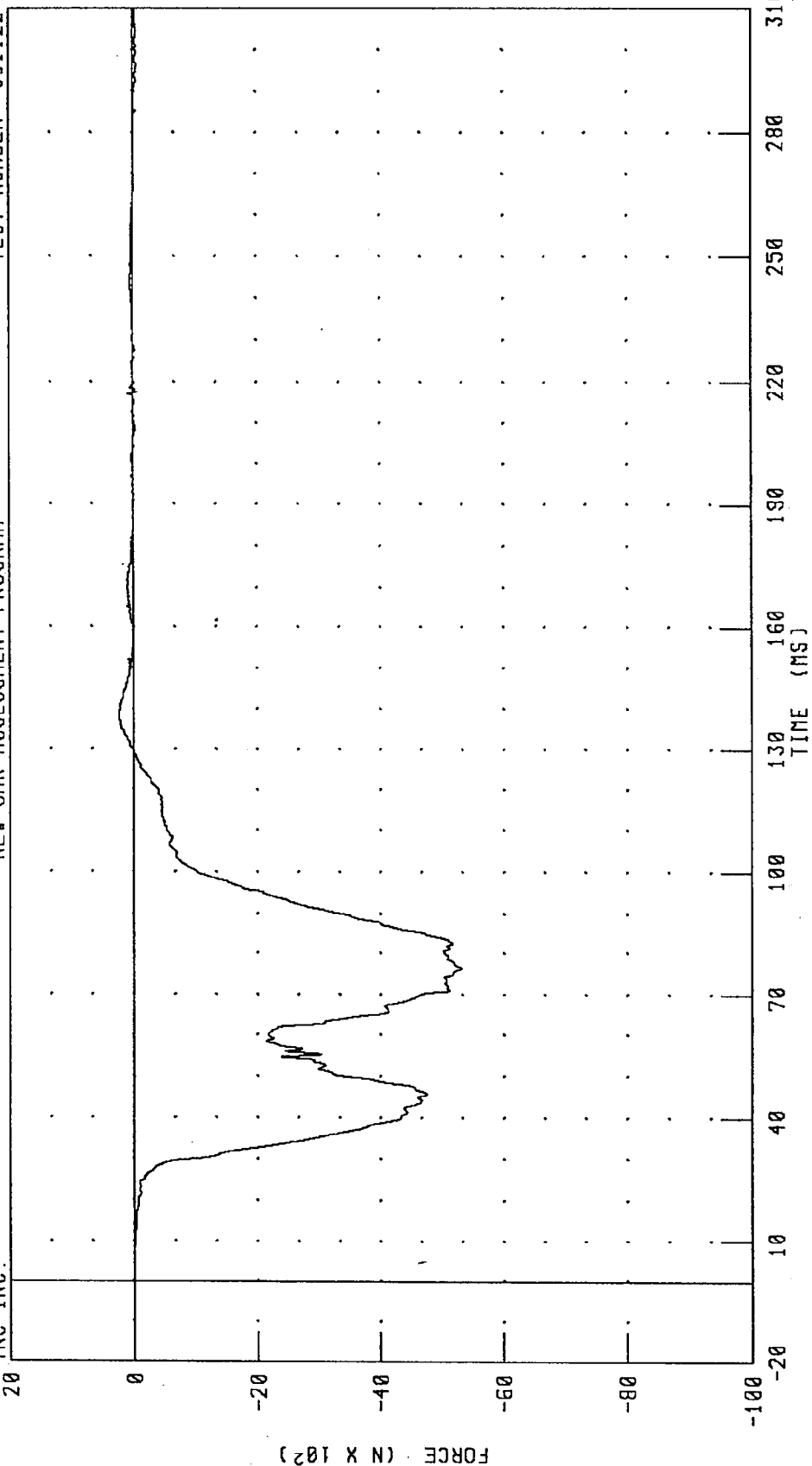
PEAK DATA: 237.72 N @ 42.48 MS; -4893.09 N @ 64.24 MS

CHANNEL: LFMF1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT FEMUR FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



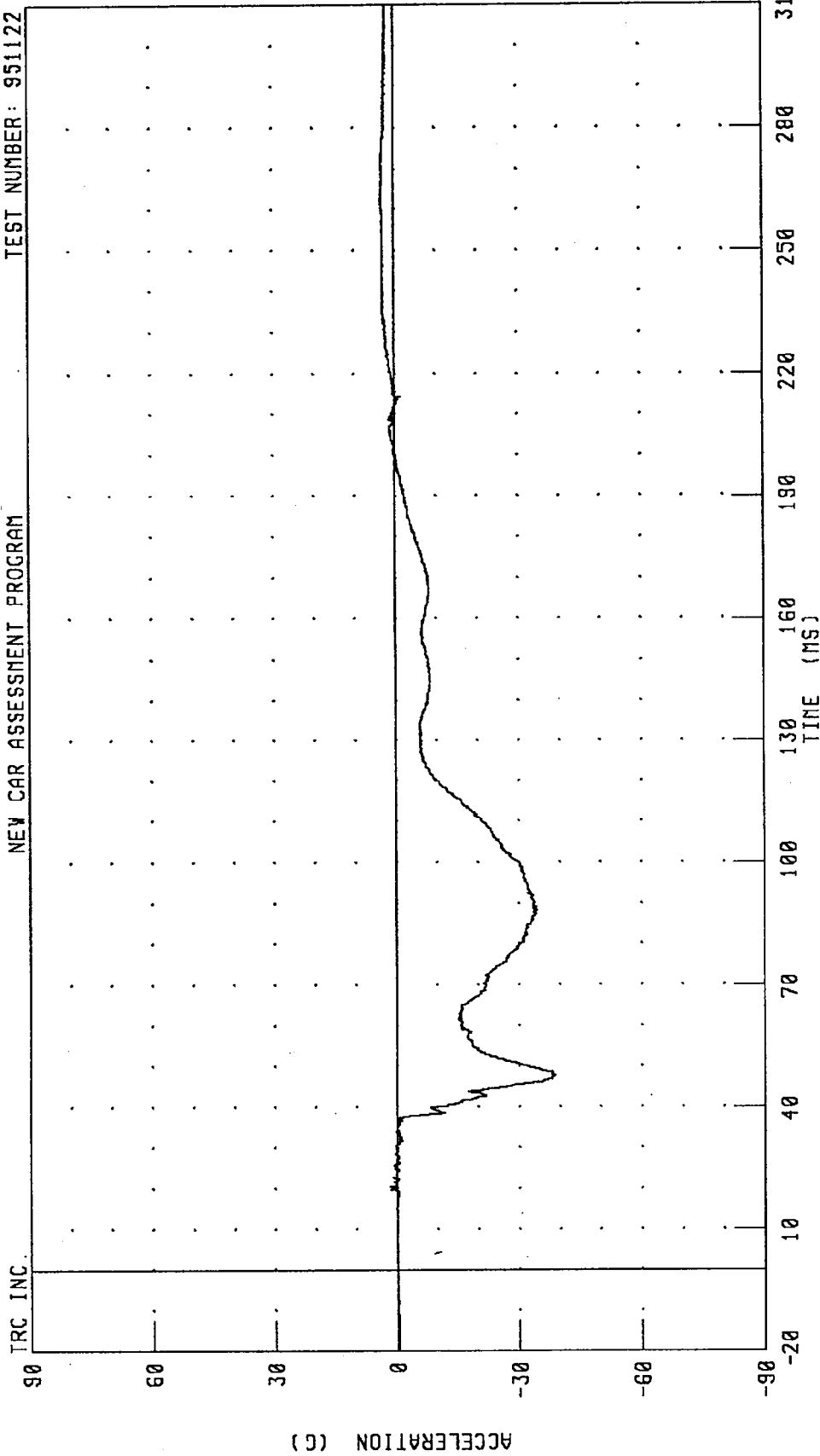
CHANNEL: RFMF1 FILTER: CH. CLASS 600

PEAK DATA: 241.16 N @ 138.96 MS; -5317.92 N @ 76.48 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER HEAD X-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDXR1 FILTER: CH. CLASS 1000

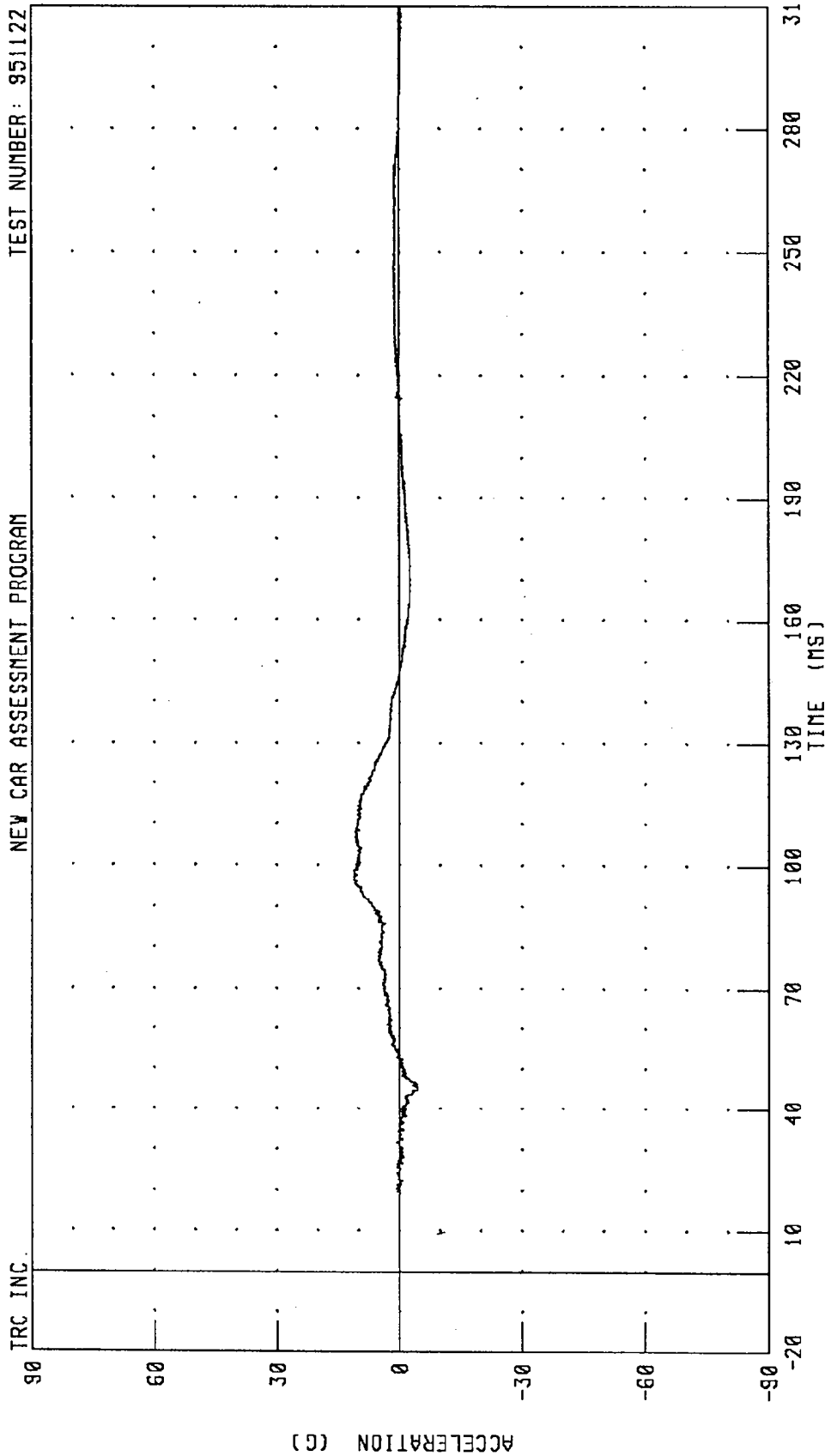
PEAK DATA: 3.32 G @ 261.36 MS; -38.77 G @ 47.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER HEAD Y-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 11.27 G @ 98.00 MS; -4.37 G @ 44.88 MS

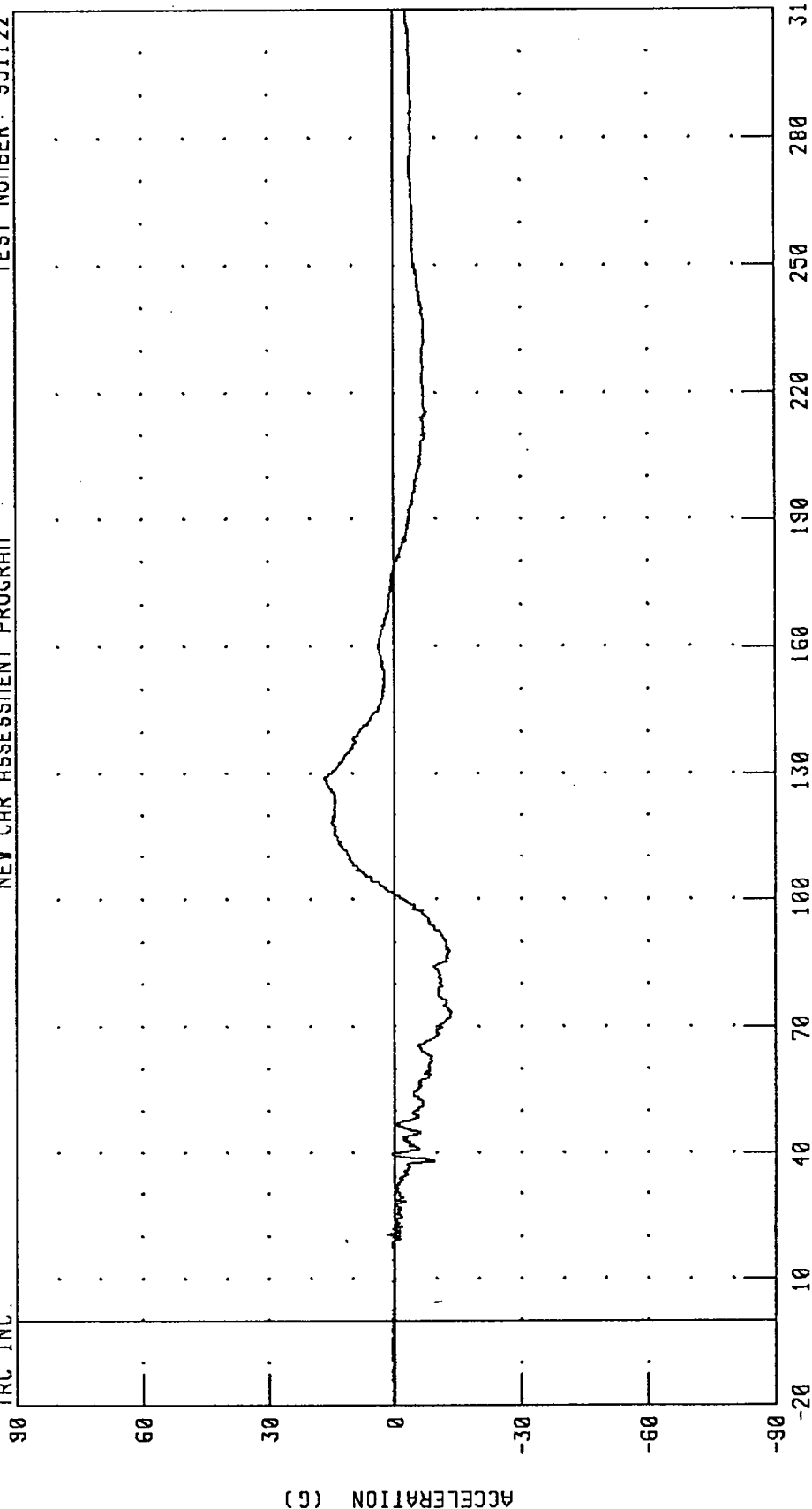
CHANNEL: HEDYR1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD Z-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 16.66 G @ 128.80 MS; -13.47 G @ 73.20 MS

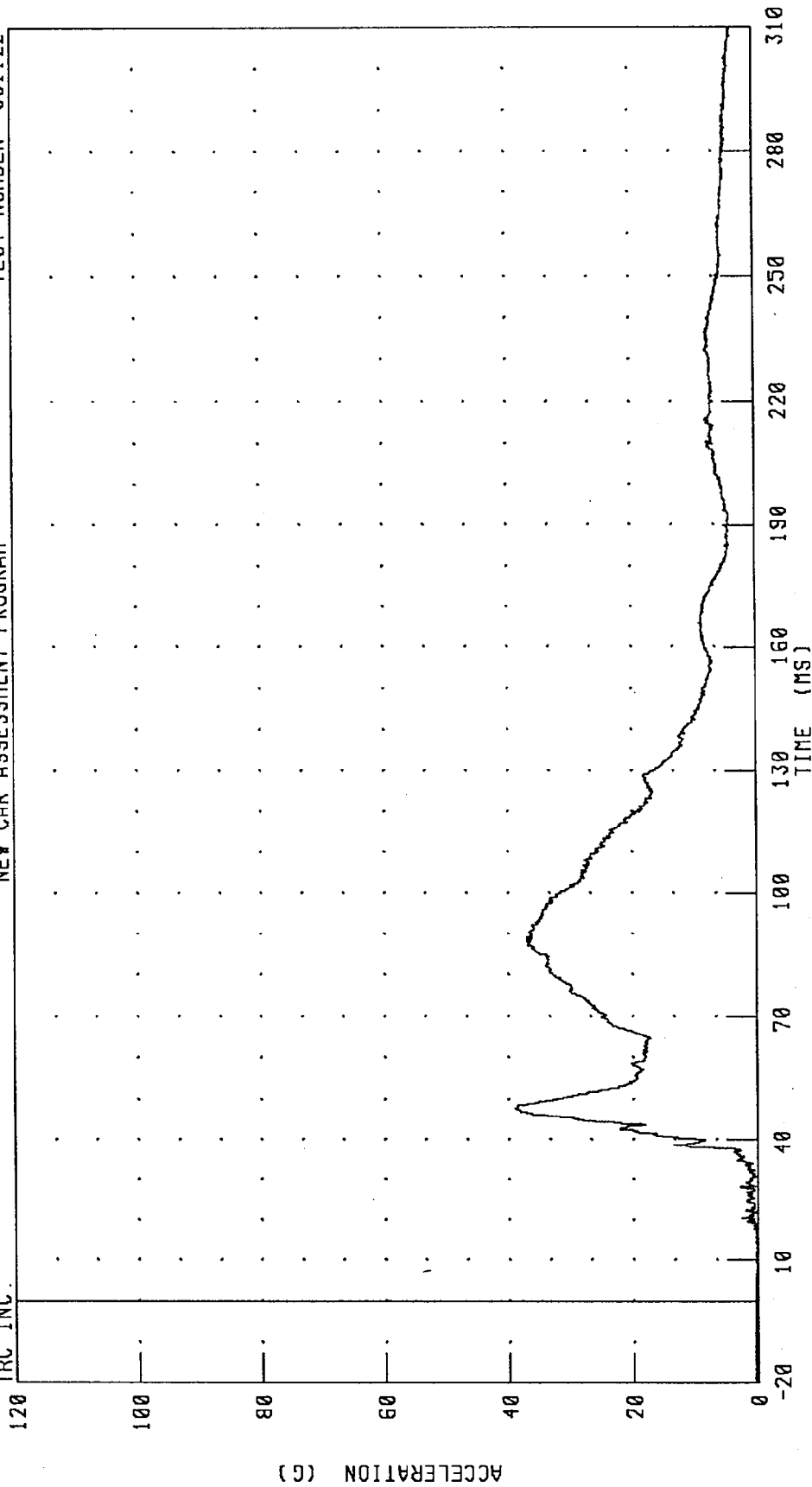
CHANNEL: HEDZR1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD RESULTANT ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 38.97 G @ 47.76 MS; 0.08 G @ 12.16 MS

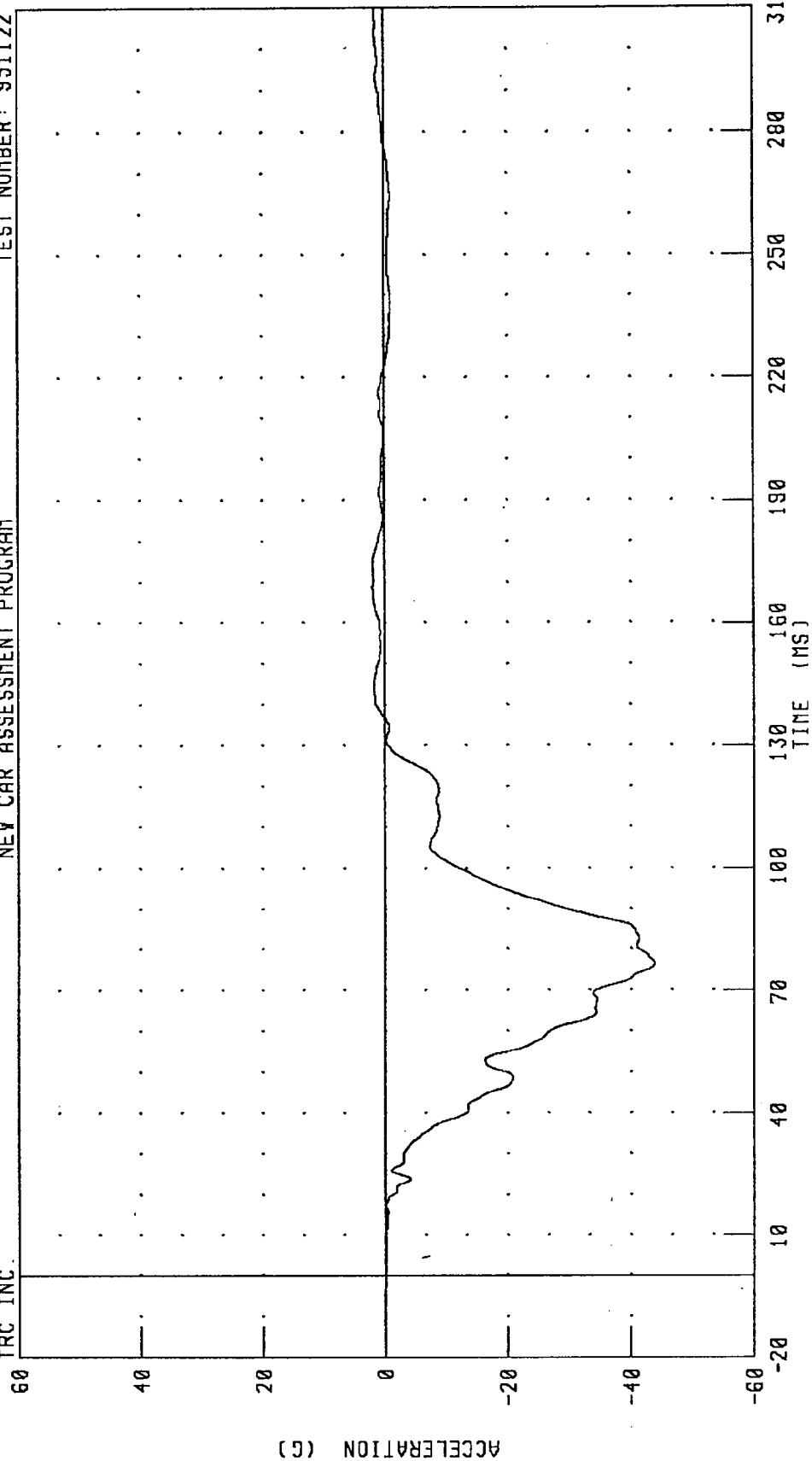
CHANNEL: HEDRR1 FILTER: CH CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST X-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: CSTXR1 FILTER: CH. CLASS 180

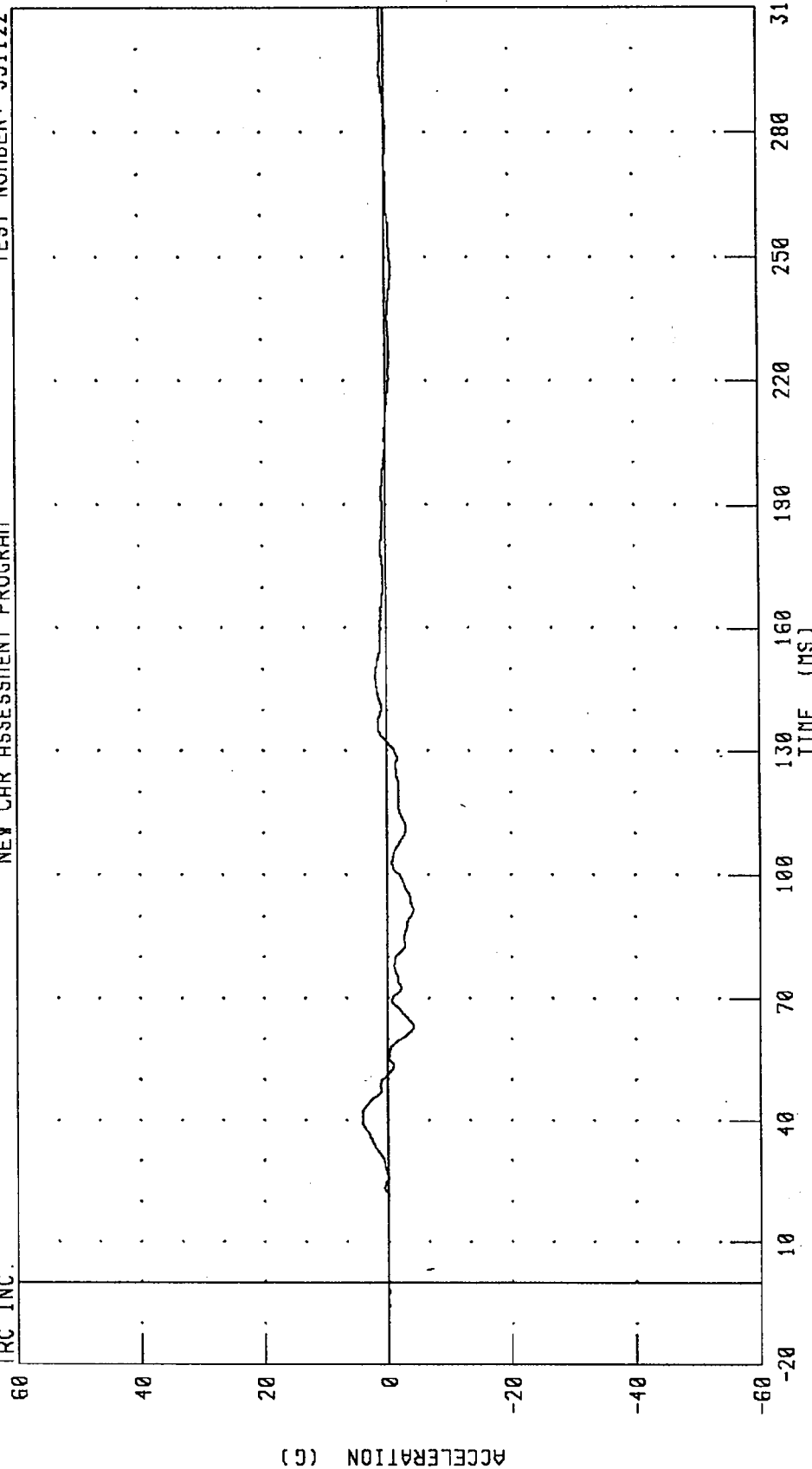
PEAK DATA: 1.97 G @ 168.72 MS; -43.82 G @ 76.40 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER CHEST Y-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 4.08 G @ 40.64 MS; -4.24 G @ 91.60 MS

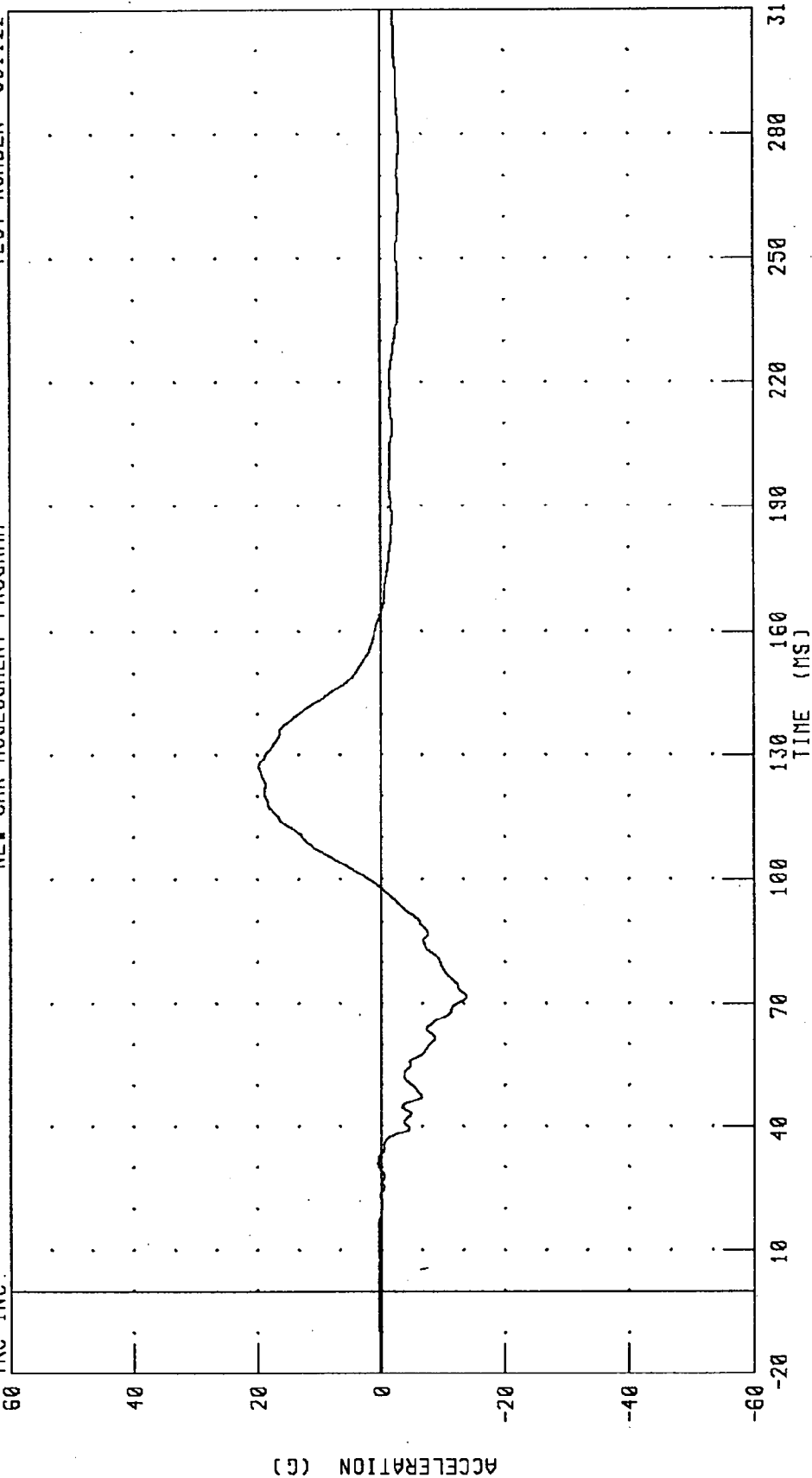
CHANNEL: CSTYR1 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER CHEST Z-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: CSTZR1 FILTER: CH. CLASS 180

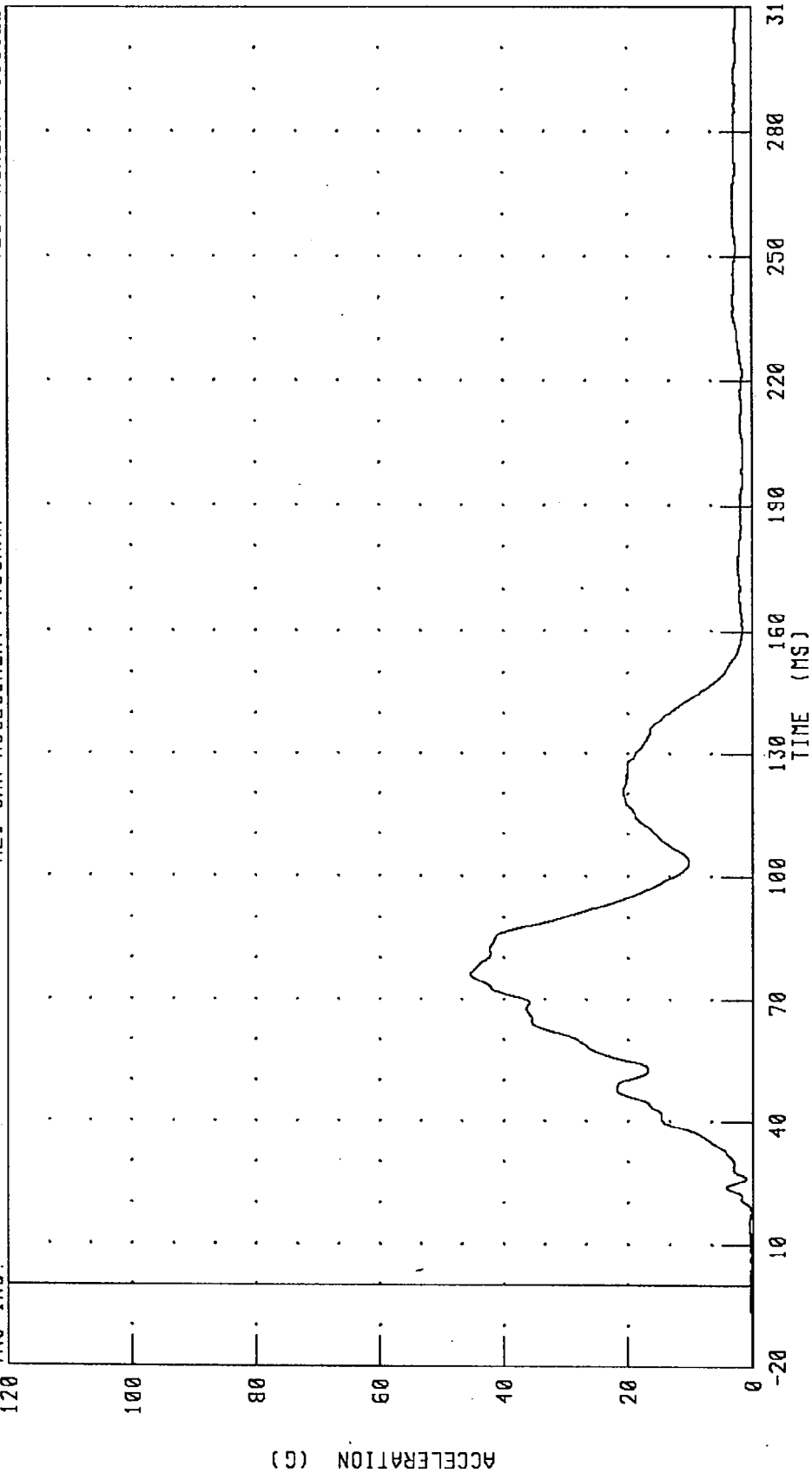
PEAK DATA: 19.84 G @ 127.52 MS; -13.80 G @ 71.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST RESULTANT ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



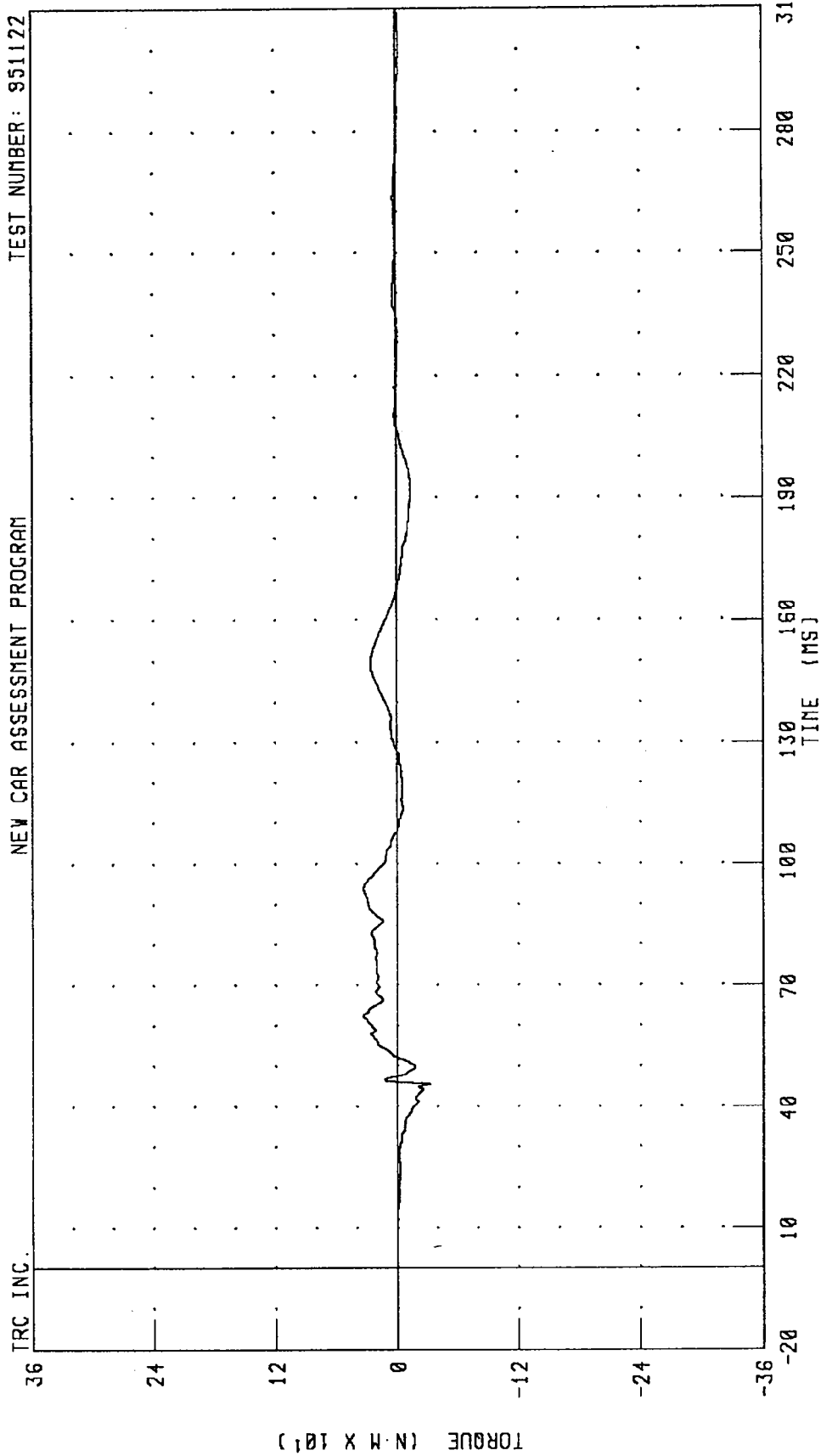
CHANNEL: CSTRRI FILTER: CH. CLASS 180

PEAK DATA: 45.25 G @ 76.24 MS; 0.02 G @ -20.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT UPPER TIBIA MOMENT ABOUT X AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



CHANNEL: TBLXM1 FILTER: CH. CLASS 600

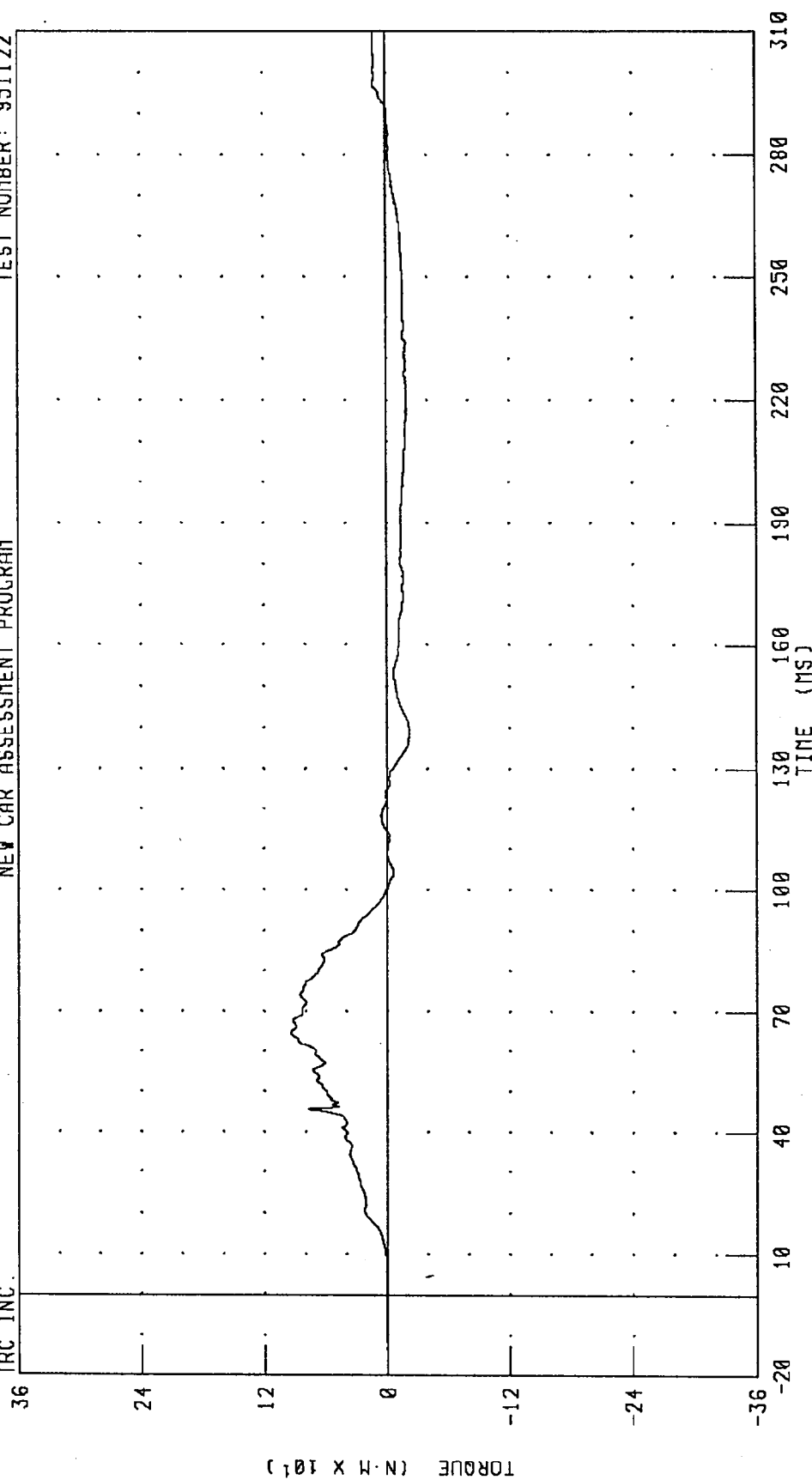
PEAK DATA: 33.97 N.M @ 62.40 MS; -32.19 N.M @ 45.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 94.52 N·m @ 64.64 ms; -22.26 N·m @ 139.52 ms

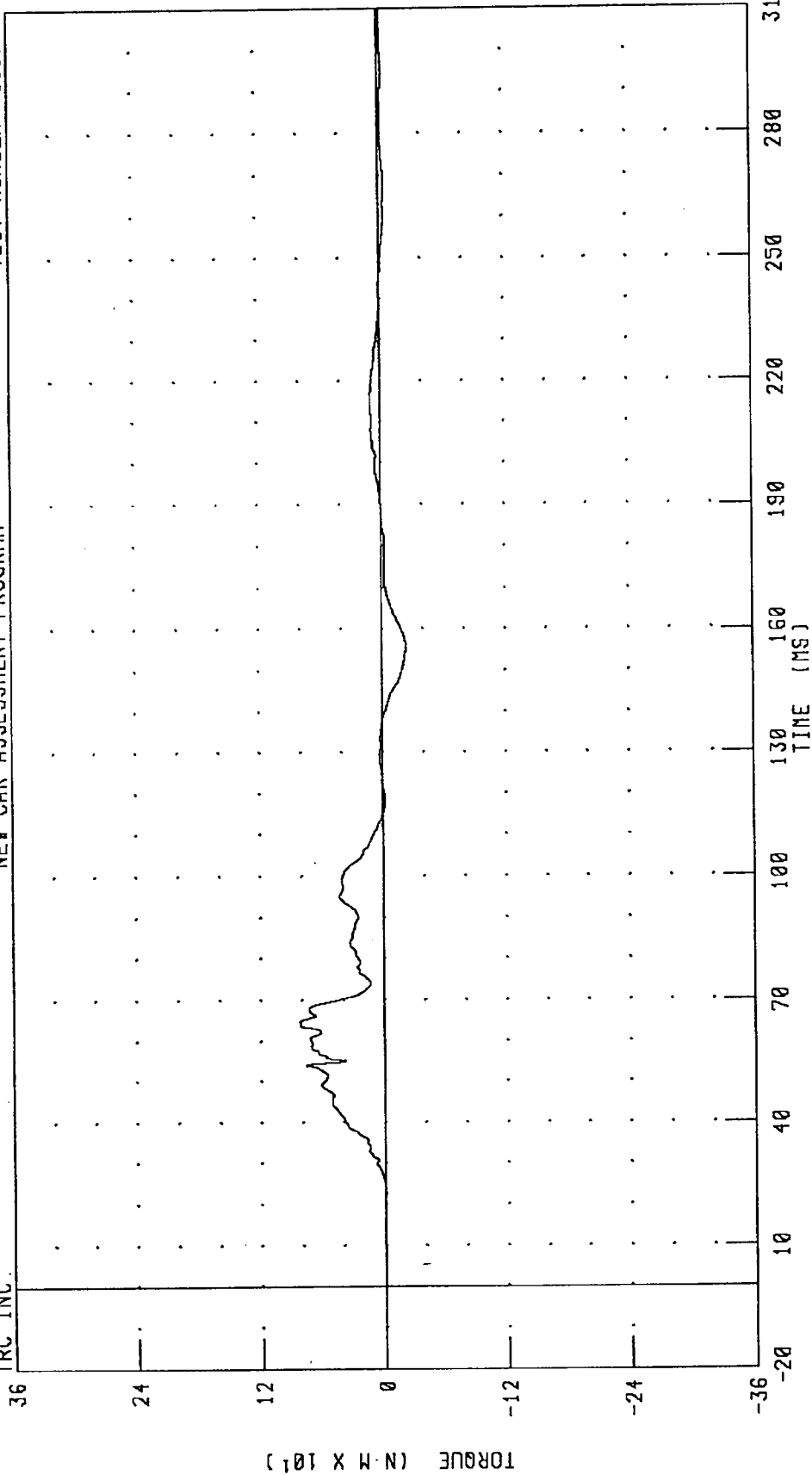
CHANNEL: TBLYM1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



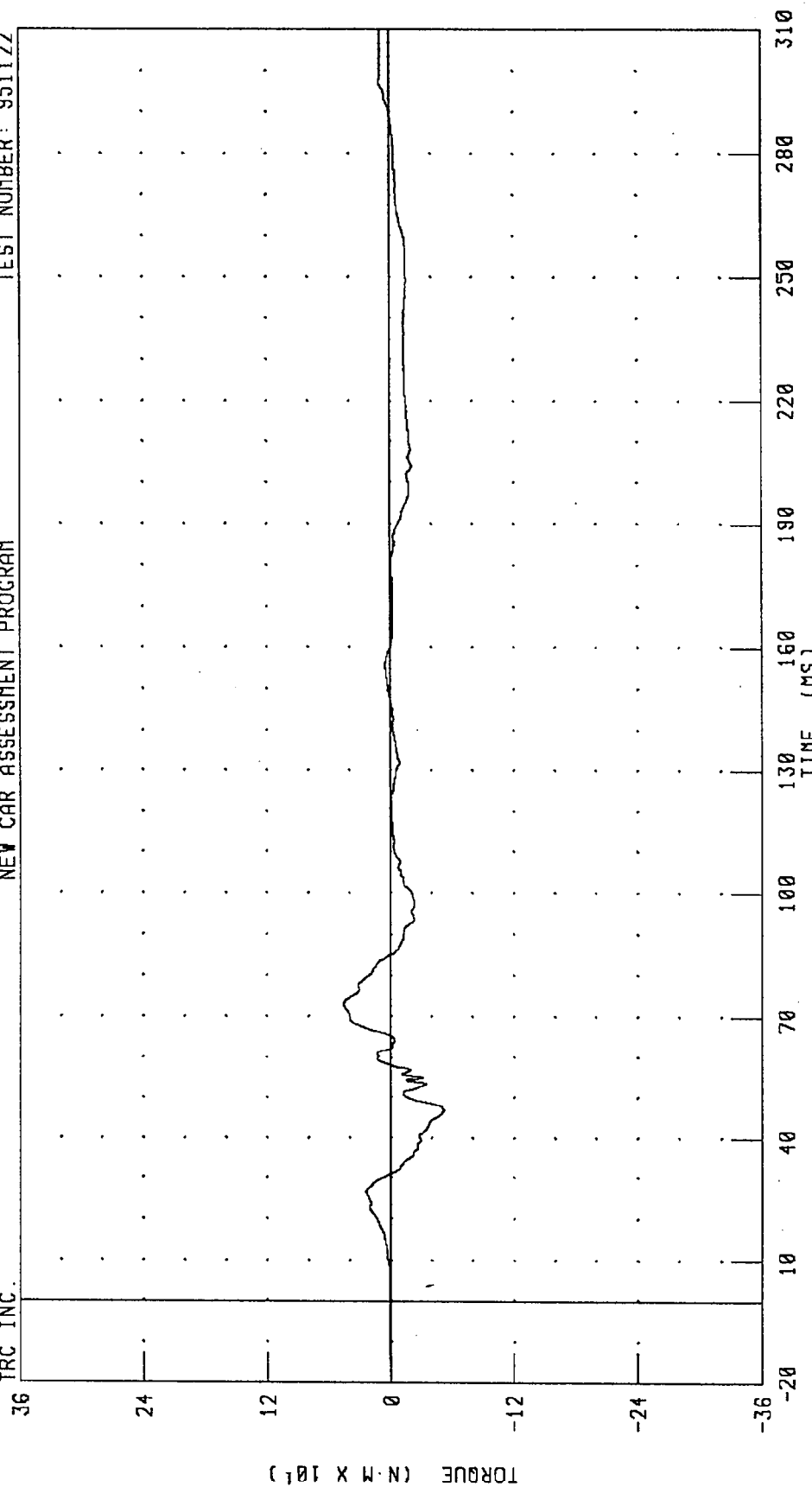
CHANNEL: TBRXMI FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

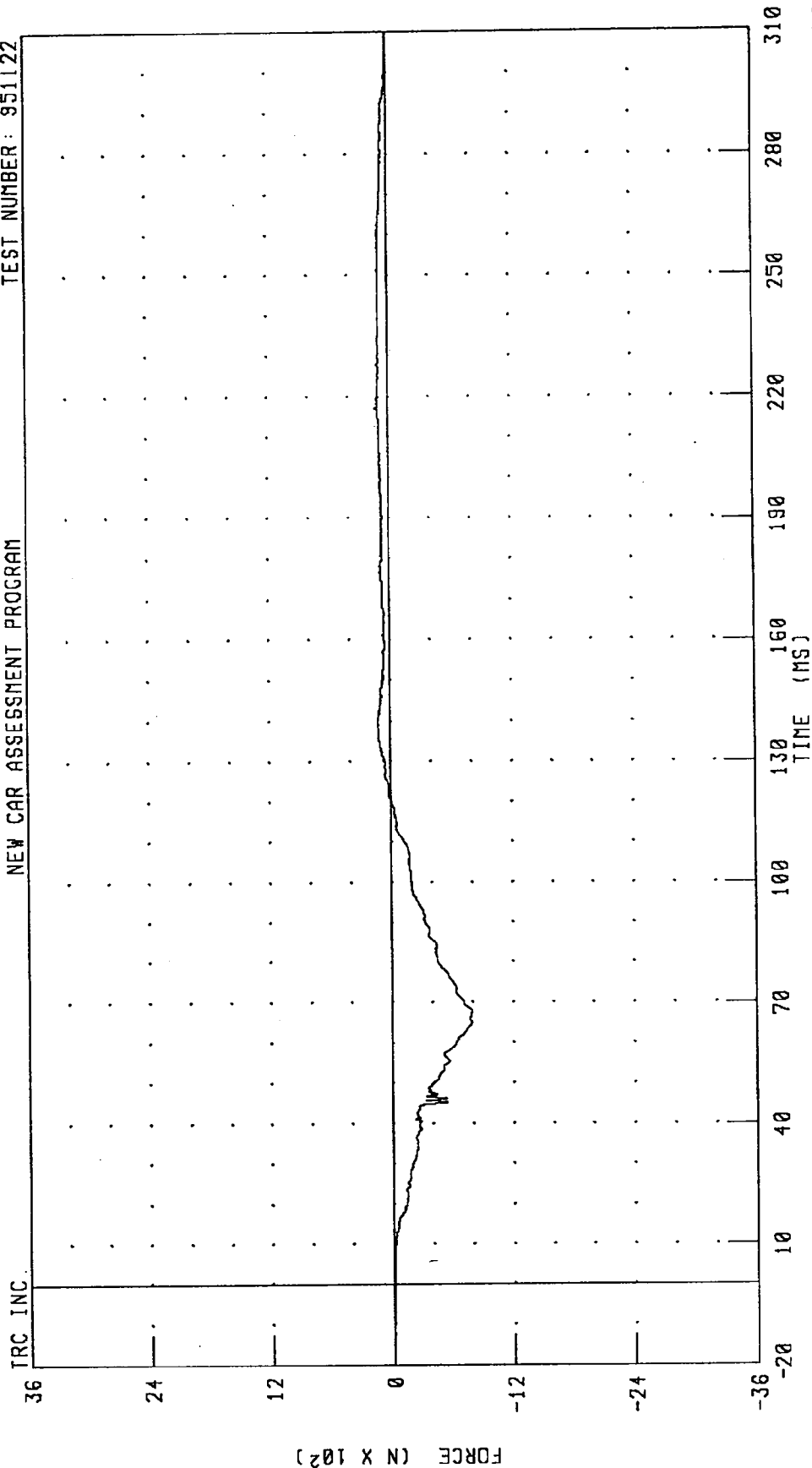


PEAK DATA: 45.90 N·m @ 73.36 ms; -51.54 N·m @ 46.80 ms

CHANNEL: TBRYM1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER LEFT LOWER TIBIA X-AXIS FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



PEAK DATA: 129.29 N @ 217.20 MS; -794.33 N @ 67.76 MS

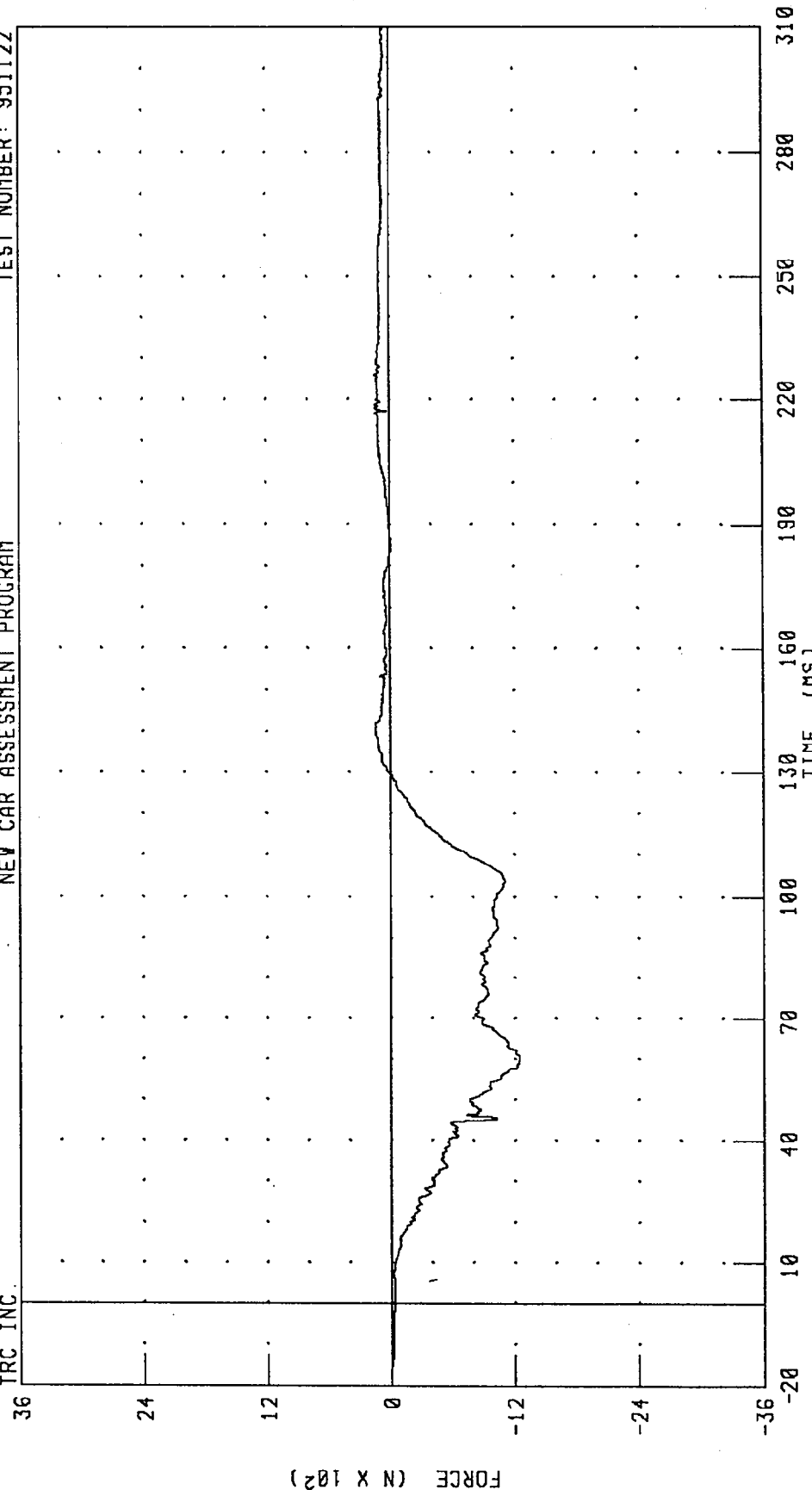
CHANNEL: ANLXF1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER LEFT LOWER TIBIA Z-AXIS FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 145.92 N @ 139.52 MS; -1248.29 N @ 60.32 MS

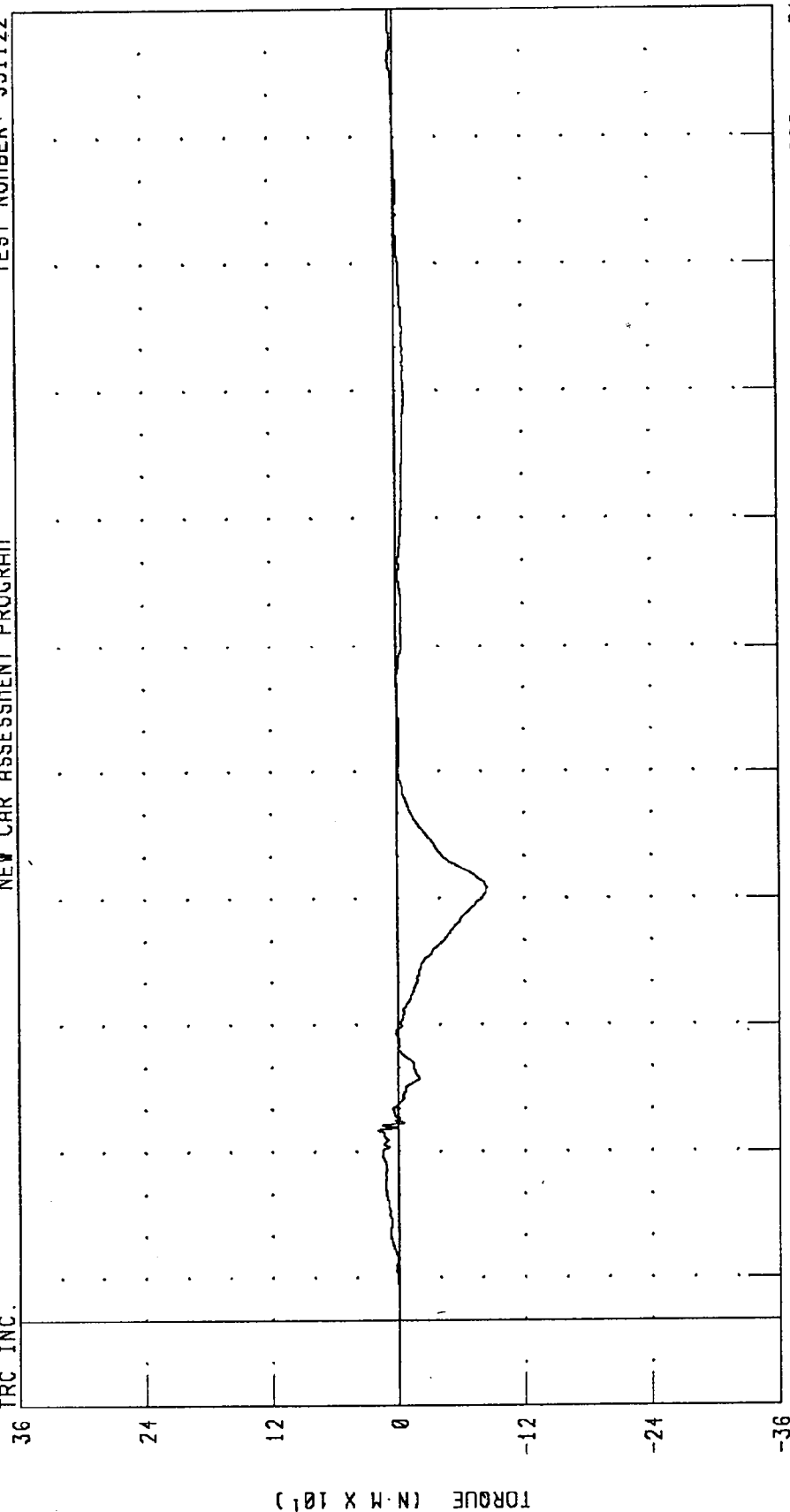
CHANNEL: ANLZF1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: ANLYM1 FILTER: CH. CLASS 600

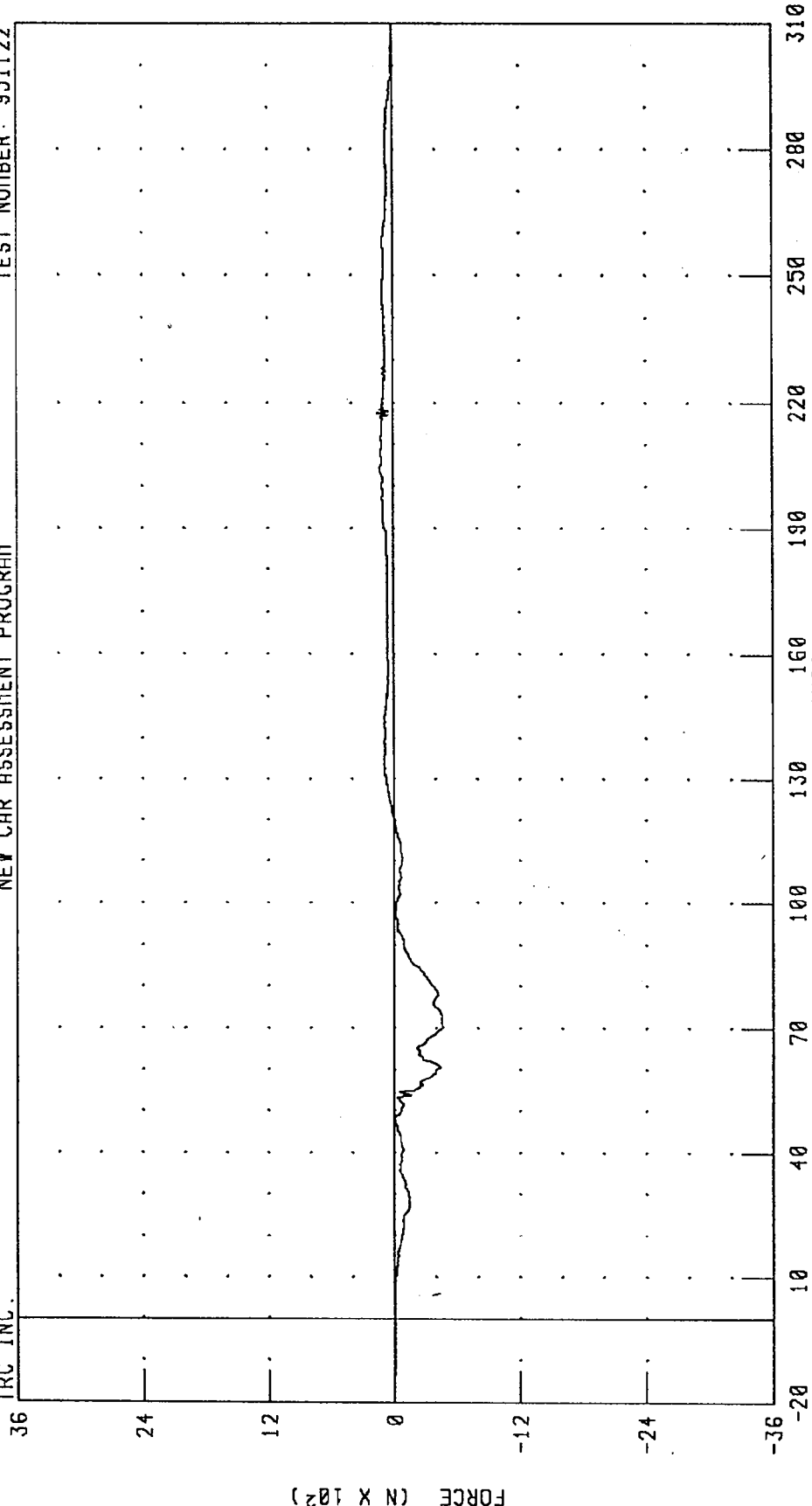
PEAK DATA: 19.22 N-M @ 45.04 MS; -84.91 N-M @ 102.56 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT LOWER TIBIA X-AXIS FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



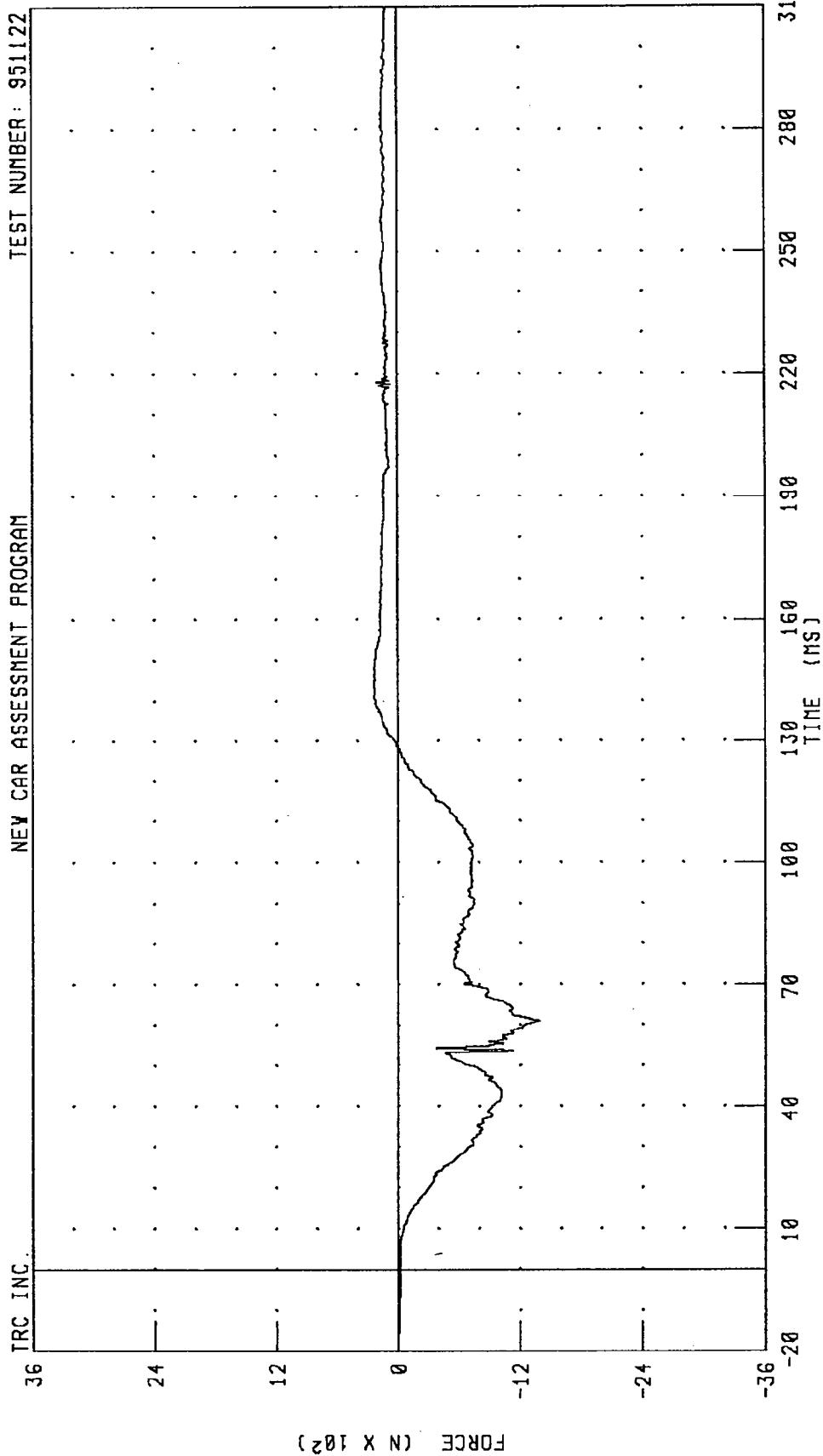
PEAK DATA: 151.05 N @ 217.76 ms; -465.52 N @ 70.32 ms

CHANNEL: ANRXF1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT LOWER TIBIA Z-AXIS FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



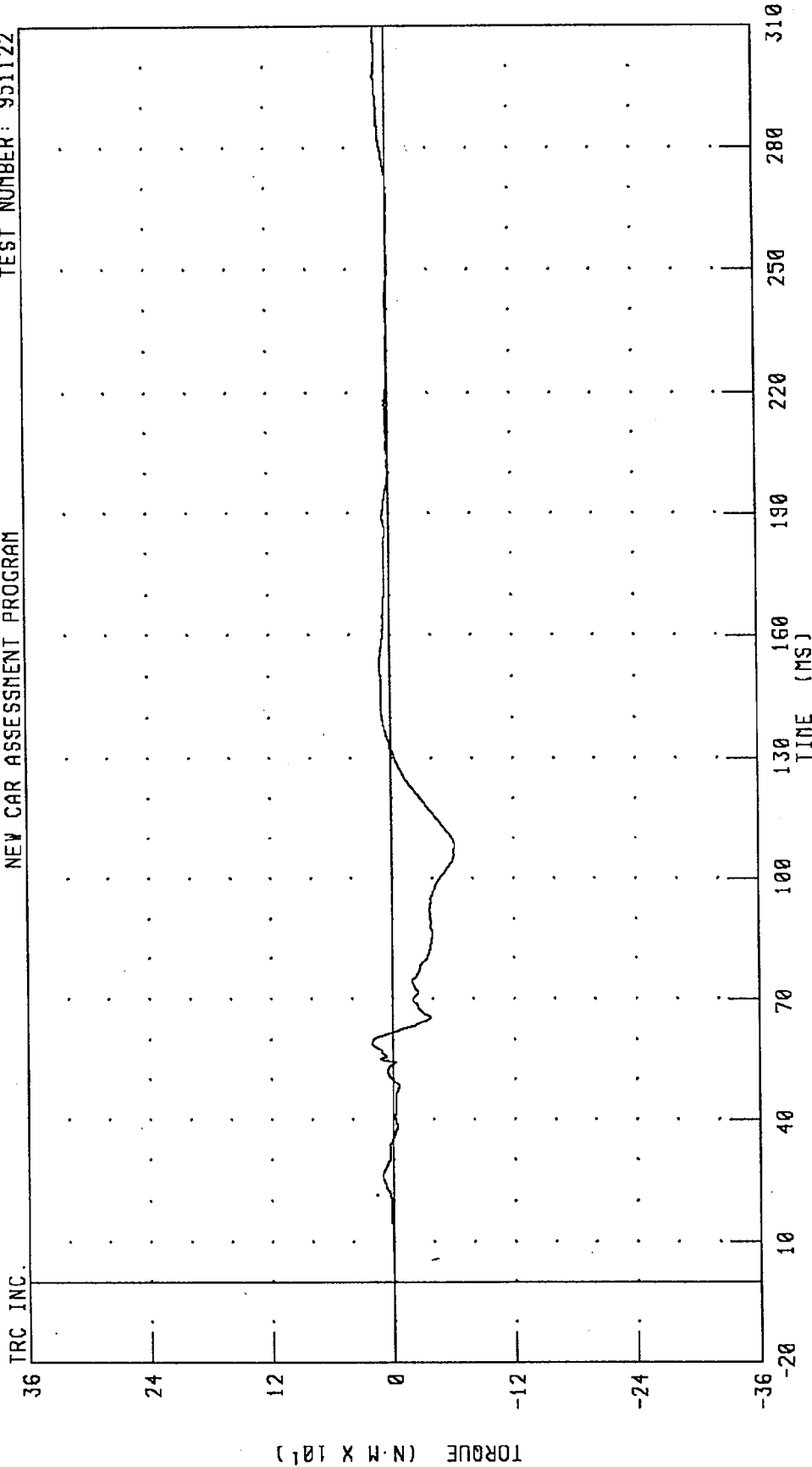
PEAK DATA: 239.18 N @ 141.36 MS; -1386.30 N @ 61.12 MS

CHANNEL: ANRZF1 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



PEAK DATA: 20.50 N-M @ 59.12 MS; -61.83 N-M @ 108.40 MS

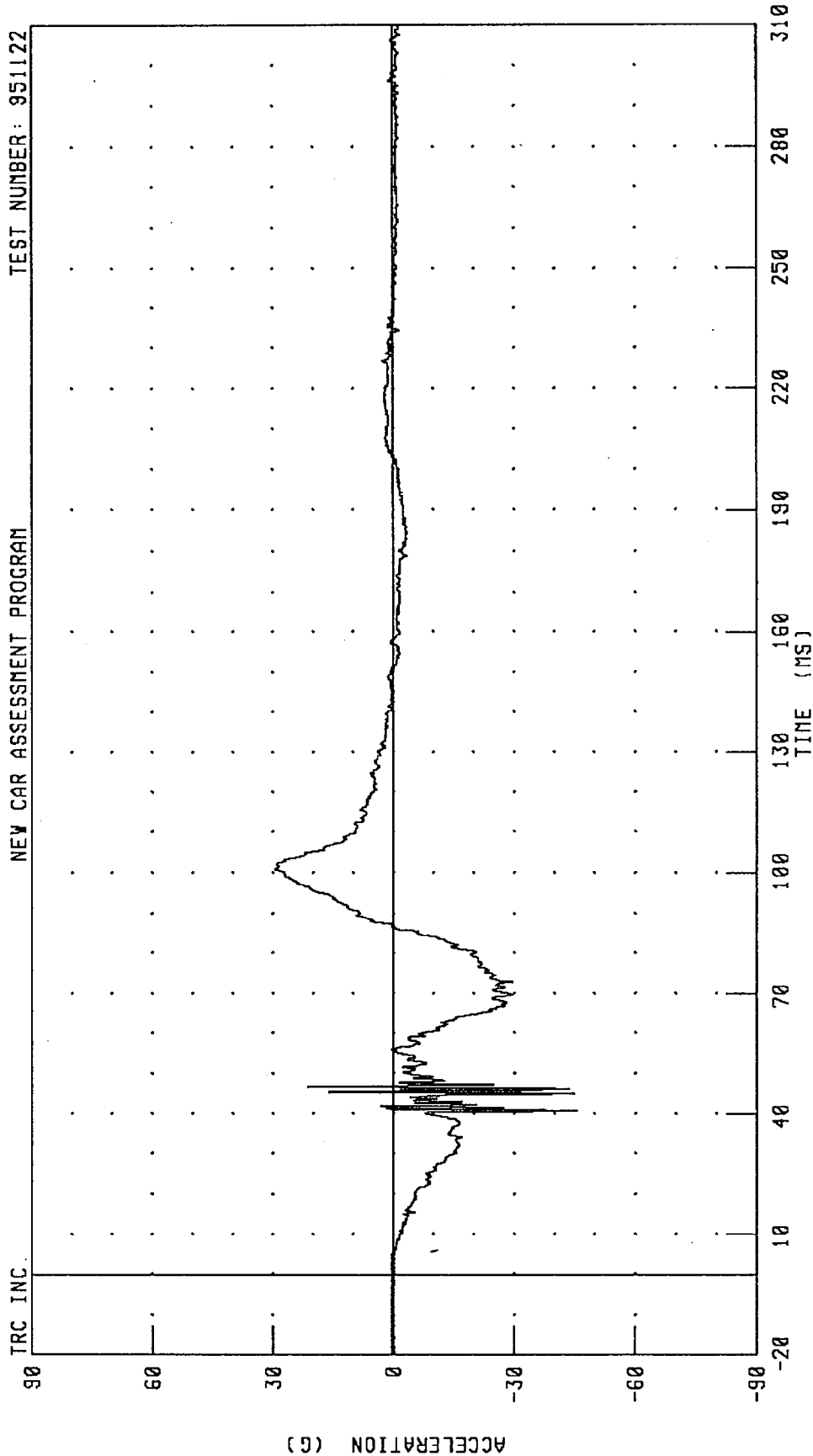
CHANNEL: ANRYM1 FILTER: CH. CLASS 600

TRC INC.

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



CHANNEL: FTLXG1 FILTER: CH. CLASS 1000

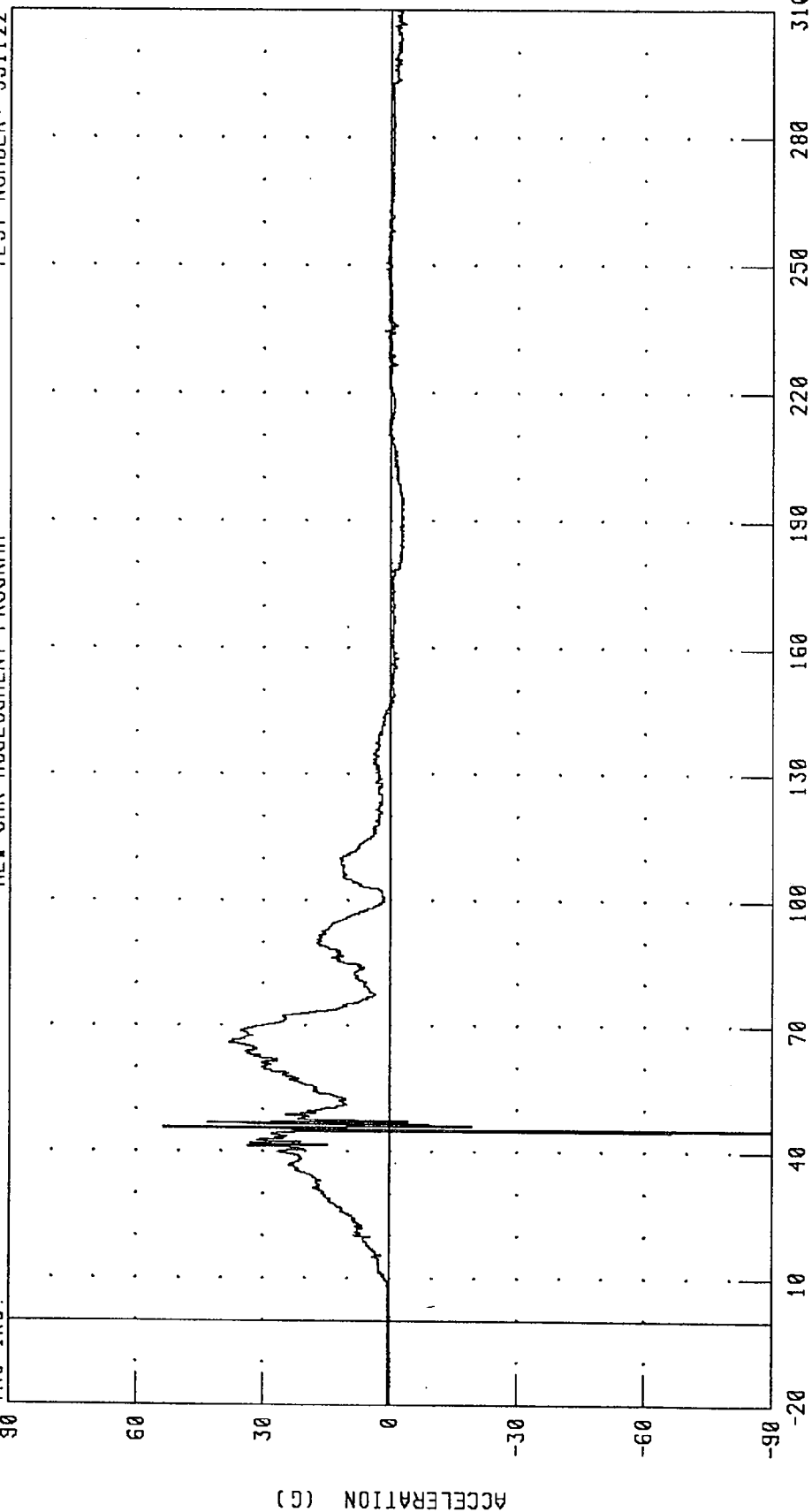
PEAK DATA: 29.60 G @ 100.80 MS; -45.62 G @ 40.80 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT Z-AXIS ACCELERATION AT HEEL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



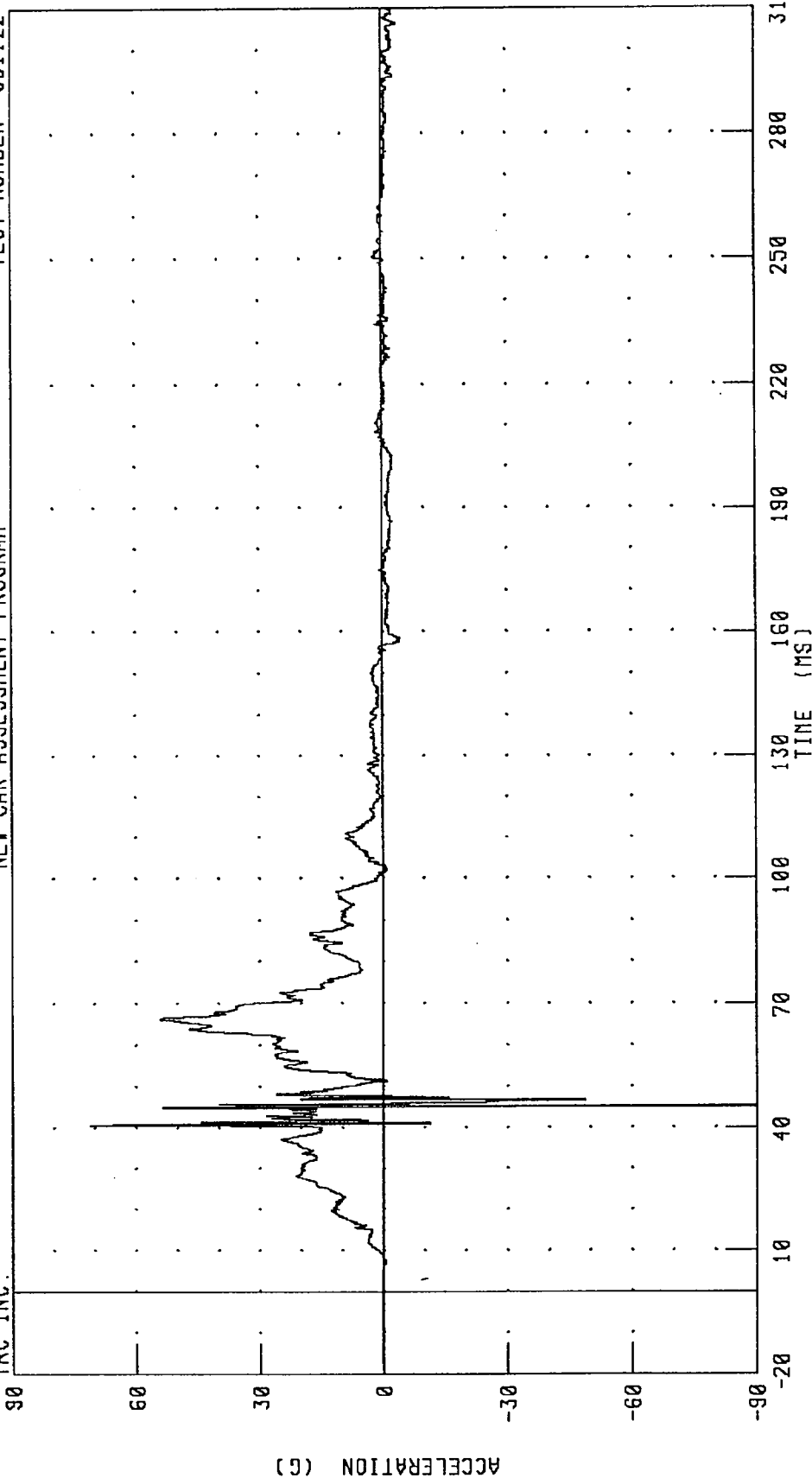
CHANNEL: FTLZH1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT Z-AXIS ACCELERATION AT TOE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

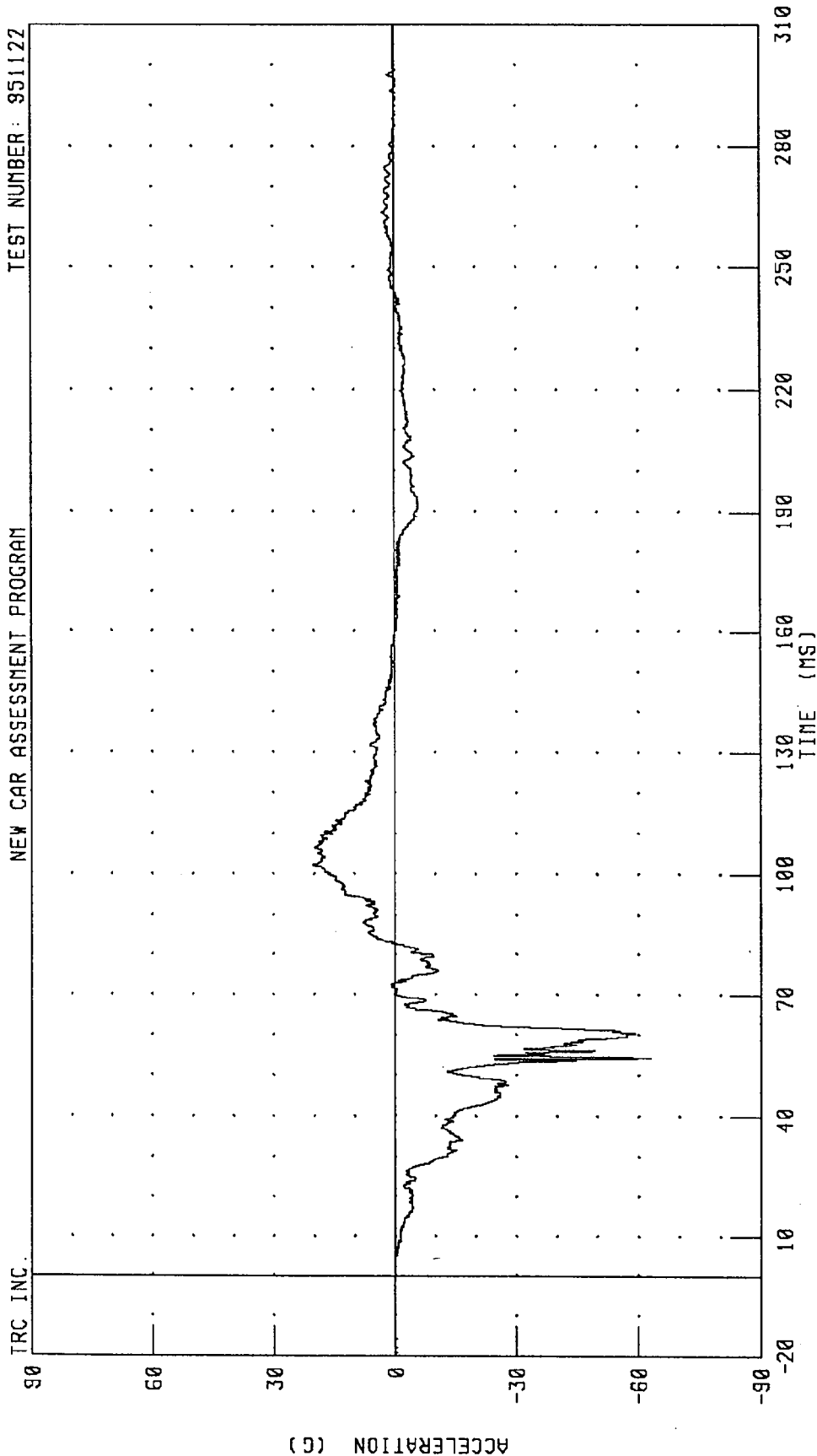


PEAK DATA: 71.09 G @ 40.80 MS; -156.16 G @ 45.20 MS

CHANNEL: FTLZT1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT FOOT X-AXIS ACCELERATION
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

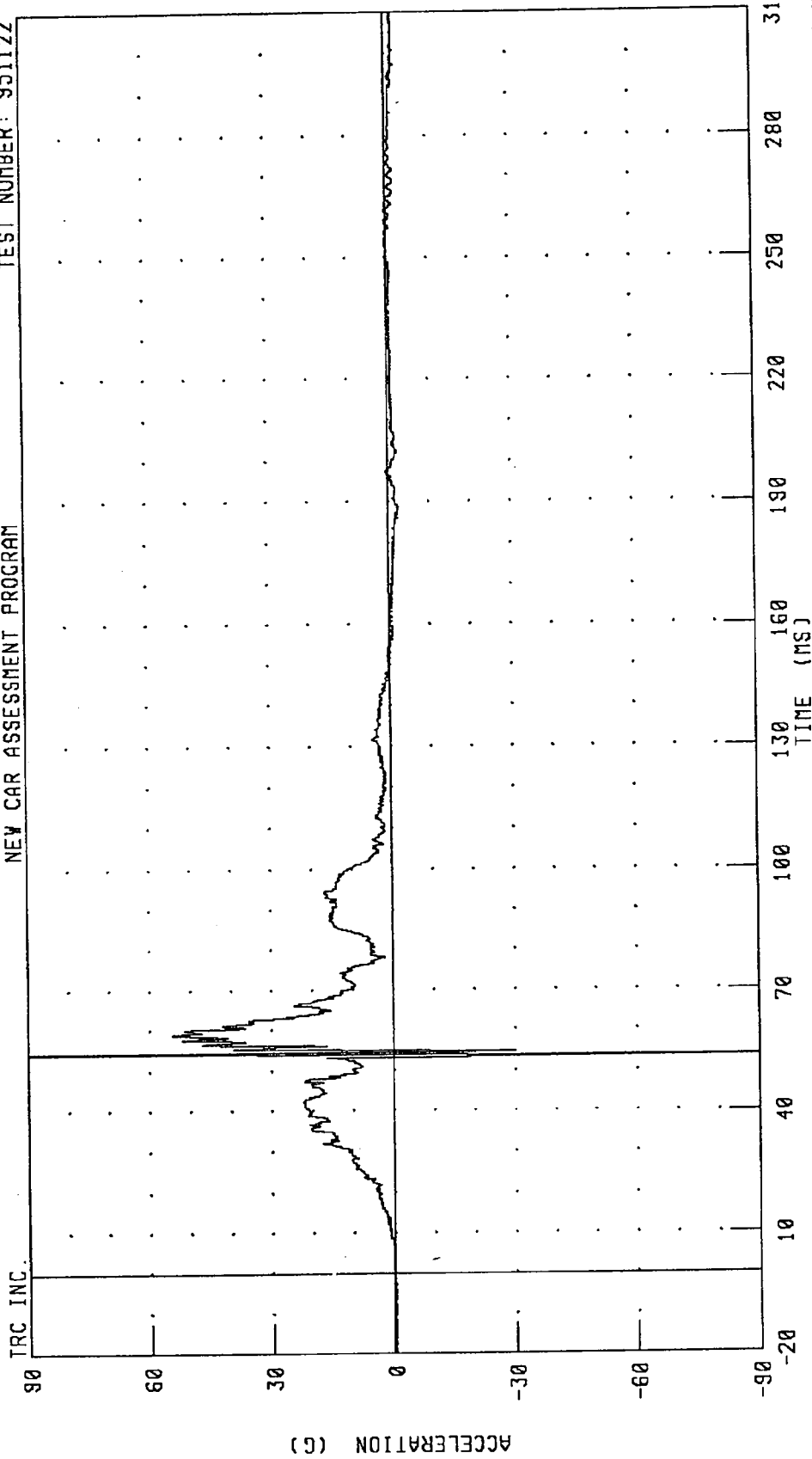


CHANNEL: FTRXG1 FILTER: CH. CLASS 1000 PEAK DATA: 20.34 G @ 102.32 MS; -63.09 G @ 54.16 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT FOOT Z-AXIS ACCELERATION AT HEEL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



PEAK DATA: 111.20 G @ 54.32 MS, -114.82 G @ 53.60 MS

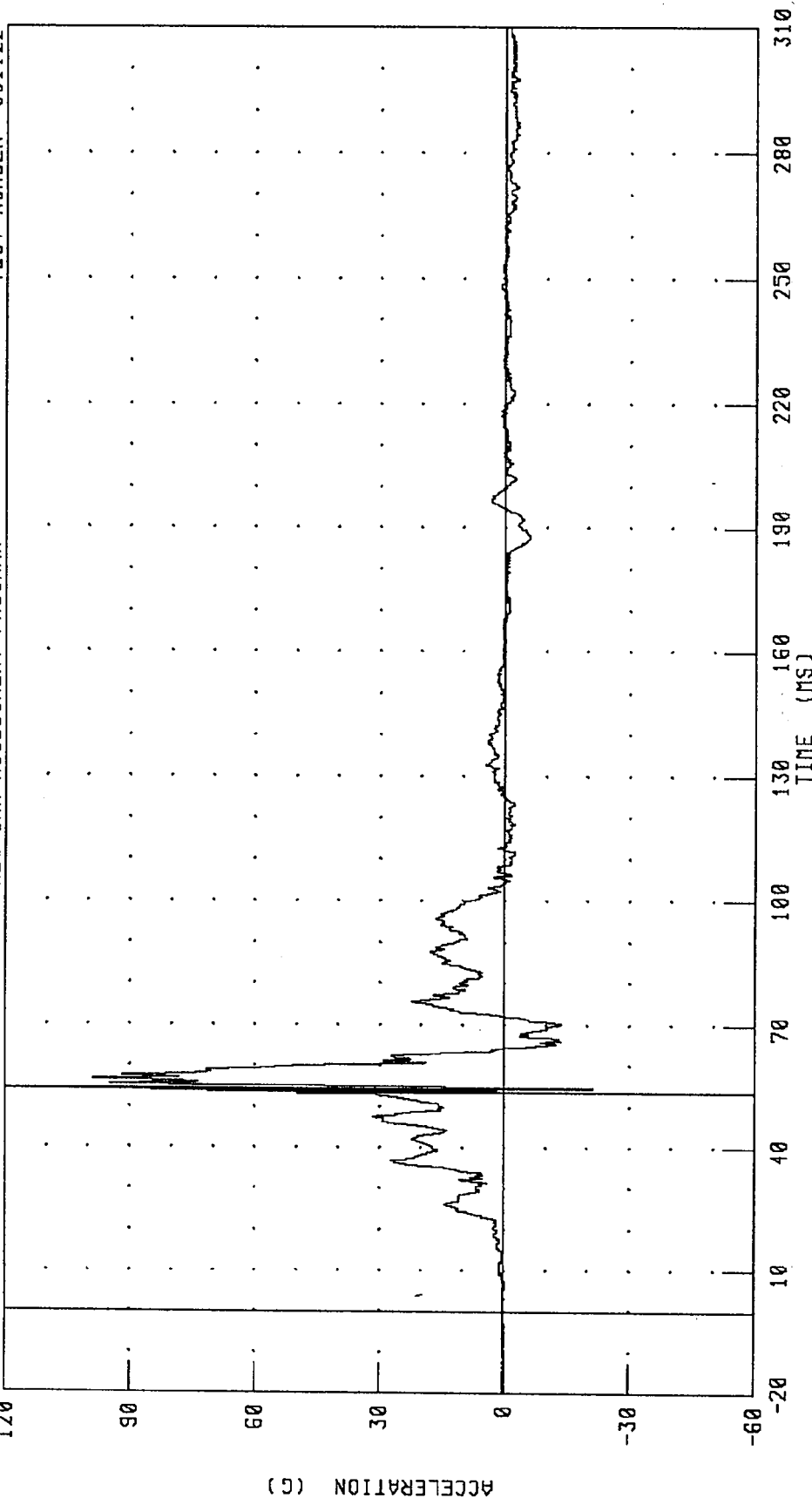
CHANNEL: FTRZH1 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER RIGHT FOOT Z-AXIS ACCELERATION AT TOE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



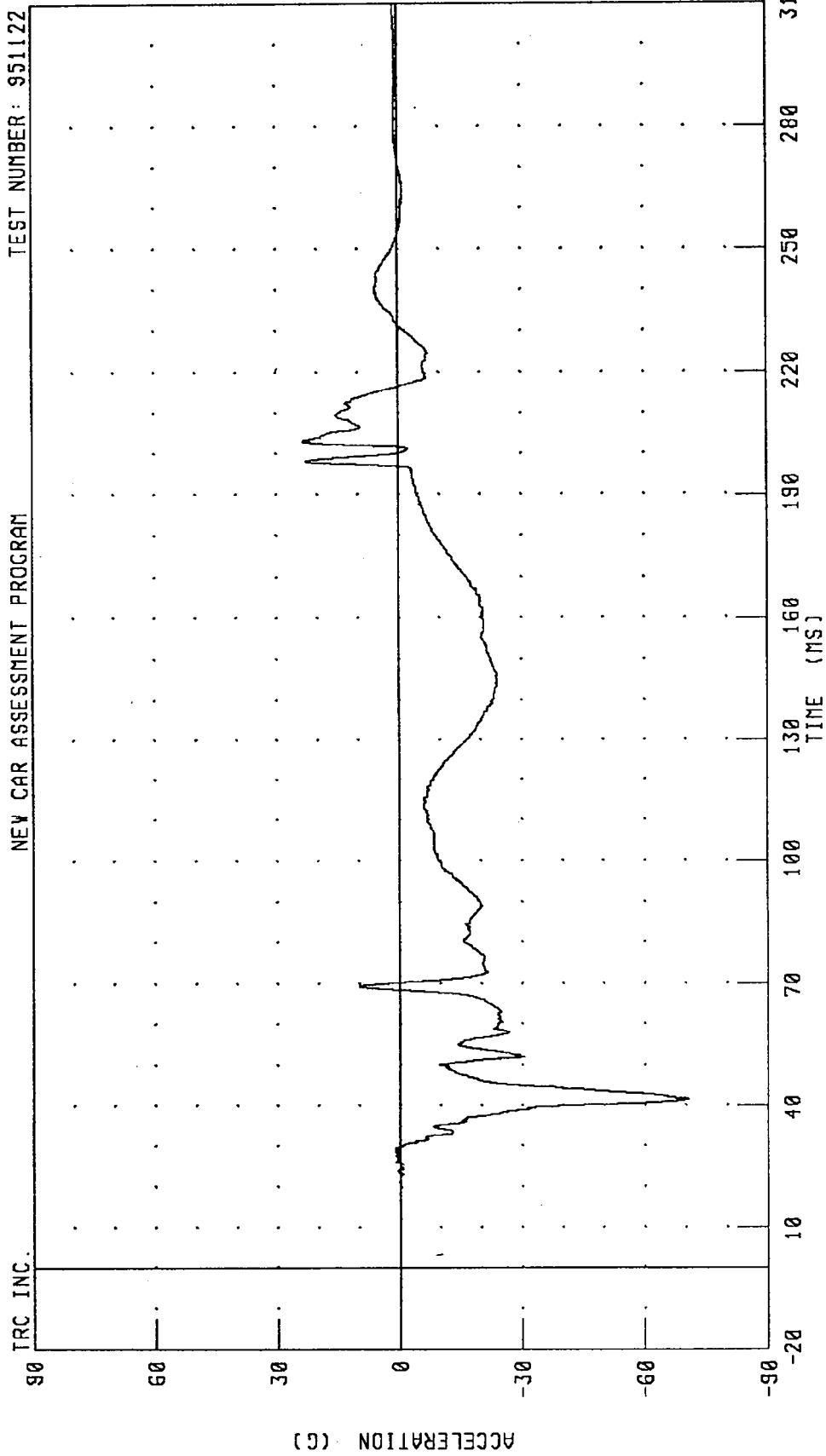
CHANNEL: FTRZ11 FILTER: CH. CLASS 1000

PEAK DATA: 151.69 G @ 54.32 MS; -137.26 G @ 53.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

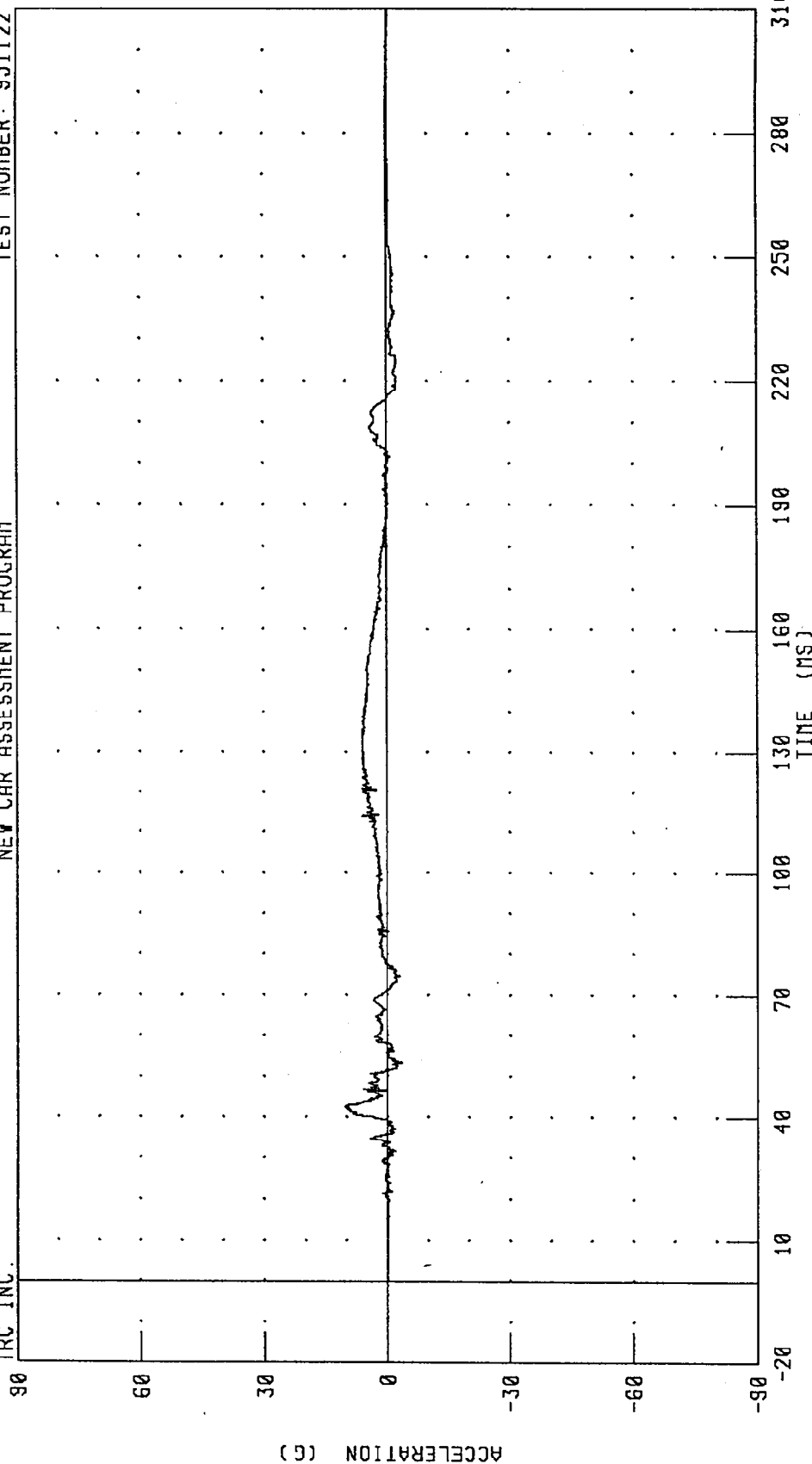


CHANNEL: HEDXG2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



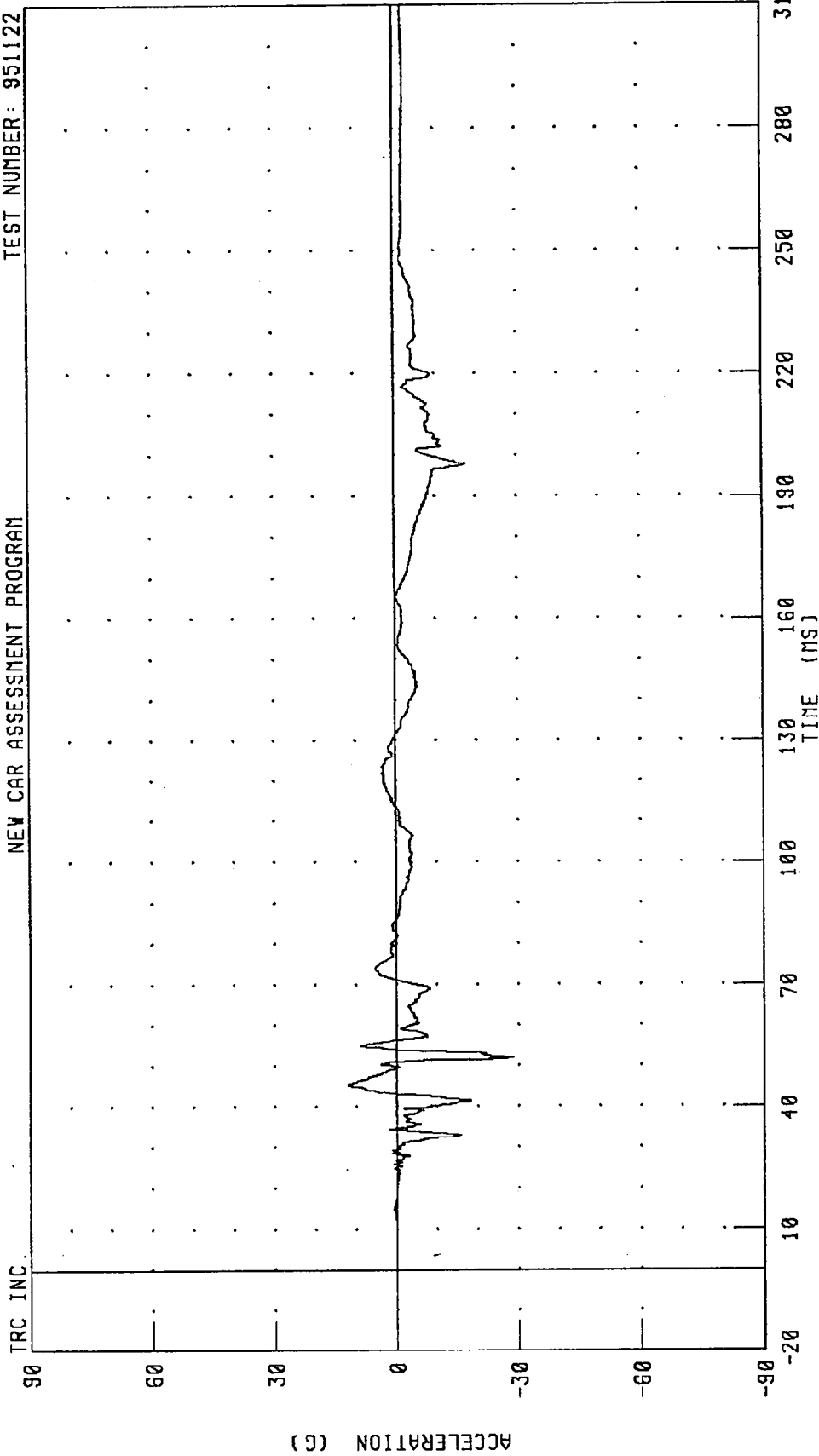
PEAK DATA: 10.46 G @ 42.48 MS; -3.53 G @ 53.36 MS

CHANNEL: HEDYG2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Z-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDZG2 FILTER: CH. CLASS 1000

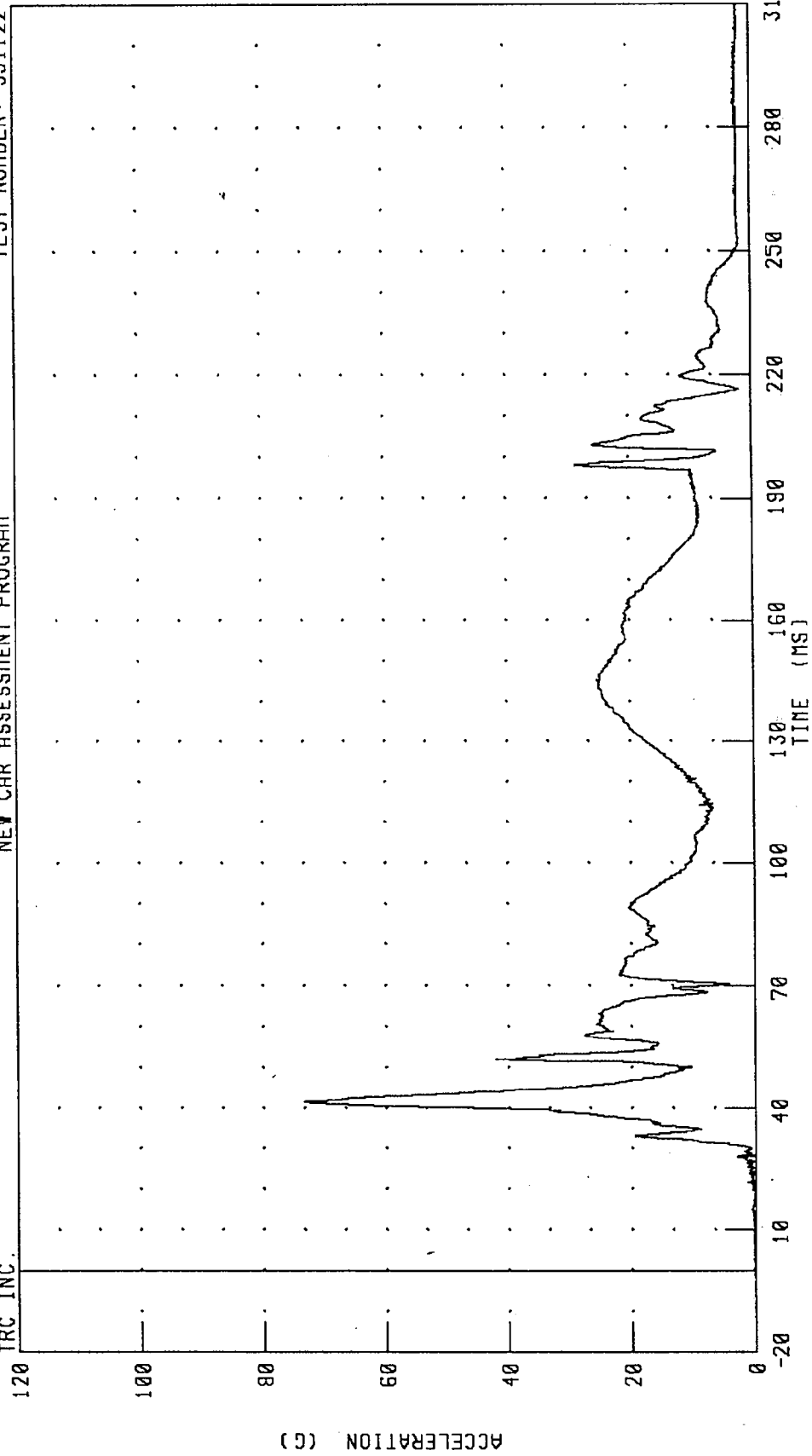
PEAK DATA: 12.05 G @ 45.28 MS; -28.81 G @ 51.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

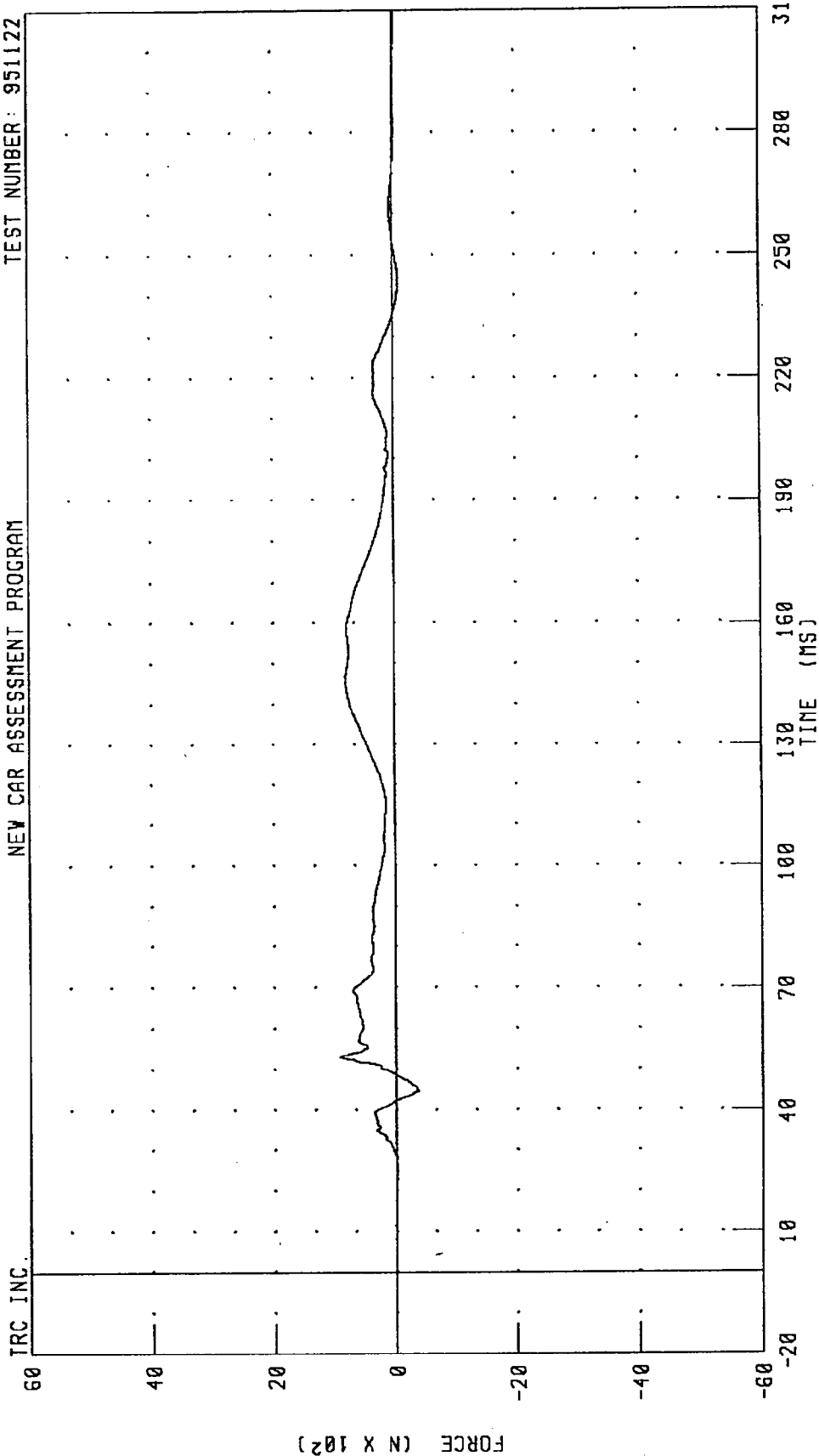


CHANNEL: HEDRG2 FILTER: CH. CLASS 1000

PEAK DATA: 73.45 G @ 41.60 MS; 0.10 G @ -19.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK X-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



PEAK DATA: 926.42 N @ 52.96 MS; -365.09 N @ 44.72 MS

CHANNEL: NEKXF2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK Y-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

60

40

20

0

-20

-40

-60

FORCE (N X 10²)

TIME (MS)

100

70

40

10

-20

-40

-60

310

280

250

220

190

160

130

100

70

40

10

-20

-40

-60

310

280

250

220

190

160

130

100

70

40

10

-20

-40

-60

310

280

250

220

190

160

130

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10

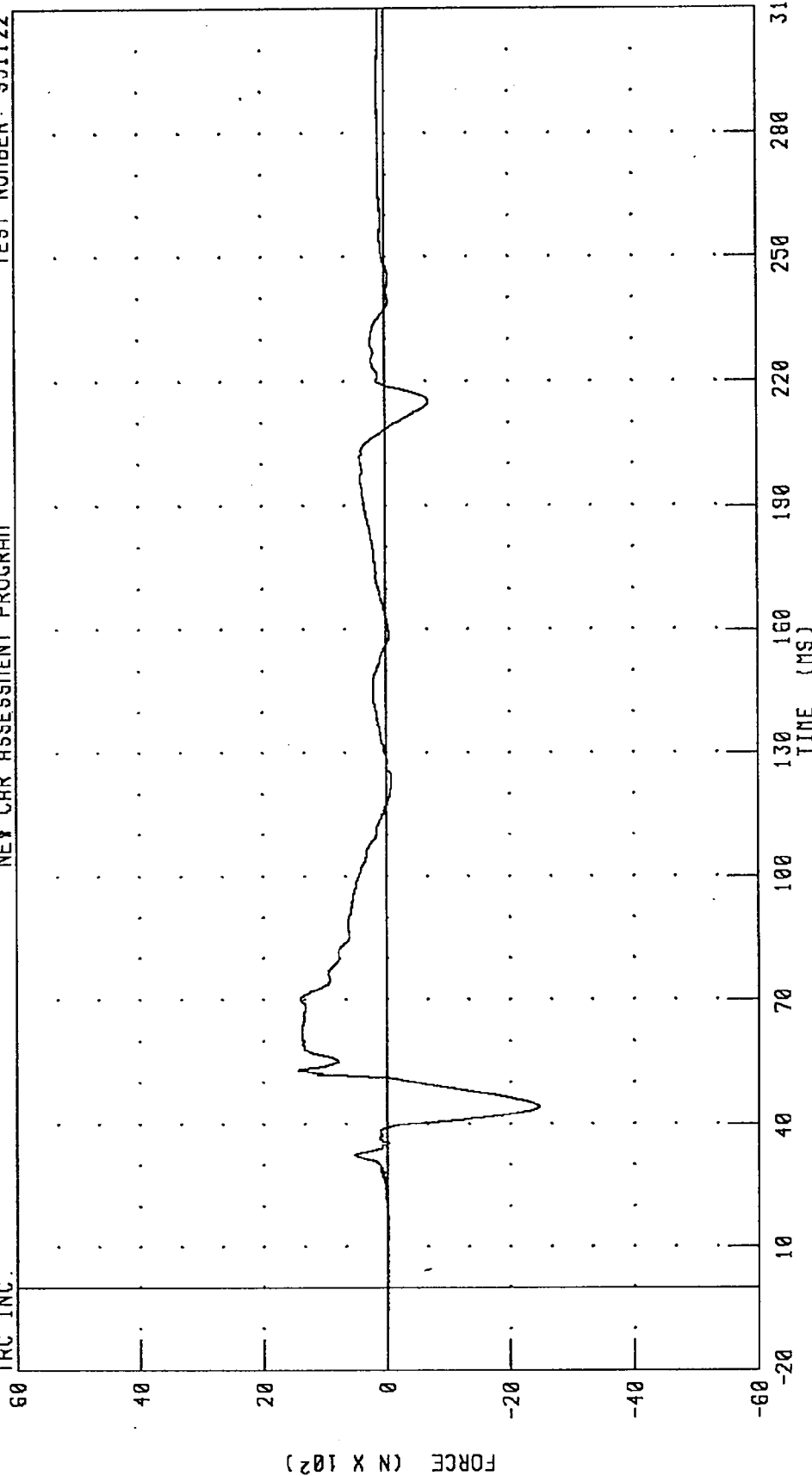
-20

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK Z-AXIS AXIAL FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 1443.97 N @ 52.80 MS; -2462.86 N @ 43.84 MS

CHANNEL: NEKZF2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT X AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

180

120

60

0

-60

-120

-180

TORQUE (N·M)

-20

10

40

70

100

130

160

190

220

250

280

310

TIME (MS)

CHANNEL: NEKX12 FILTER: CH. CLASS 600

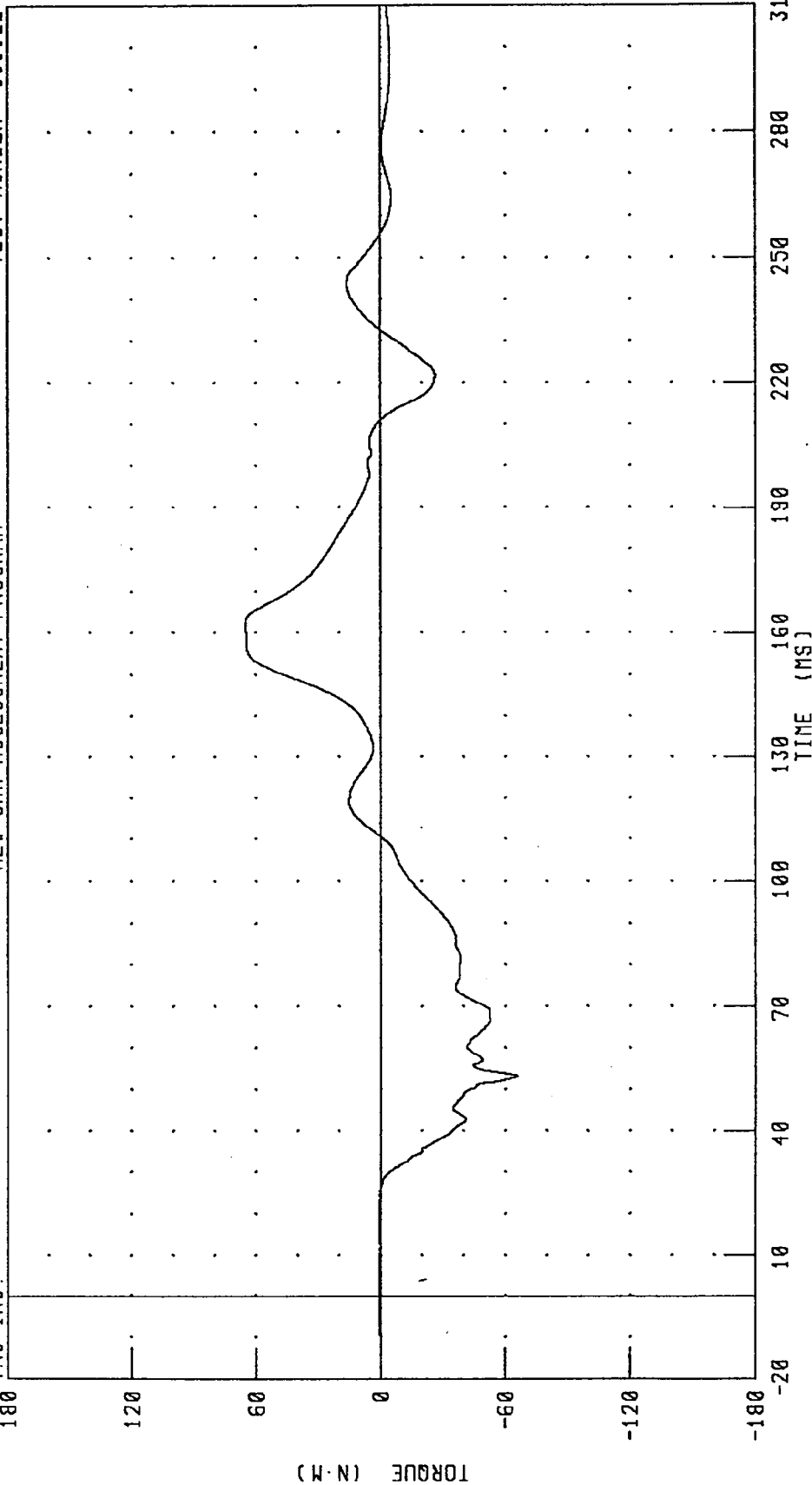
PEAK DATA: 16.02 N·M @ 46.32 MS; -9.14 N·M @ 230.40 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT Y AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 65.30 N.M @ 162.96 MS; -65.98 N.M @ 53.12 MS

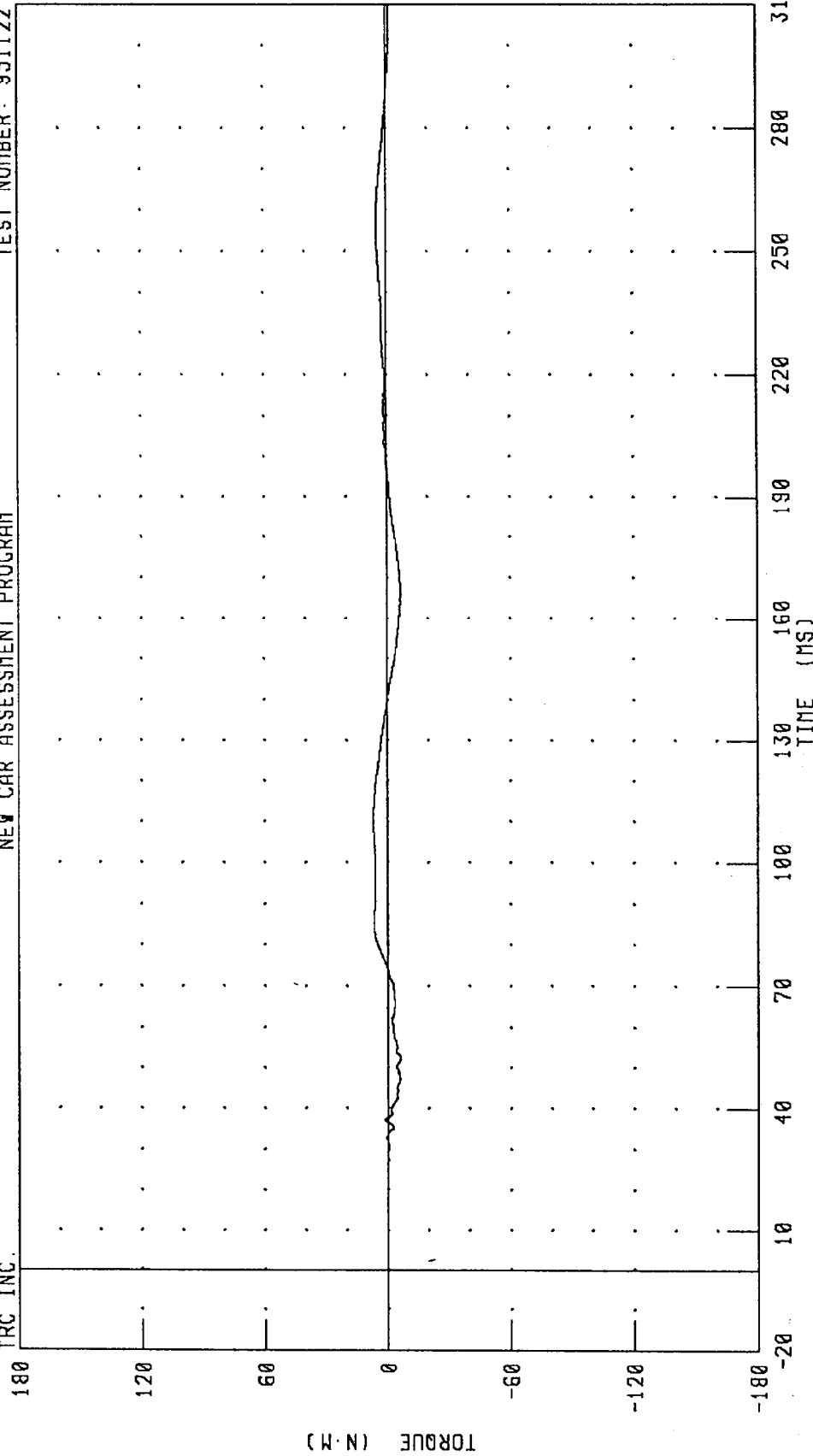
CHANNEL: NEKYM2 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT Z AXIS

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



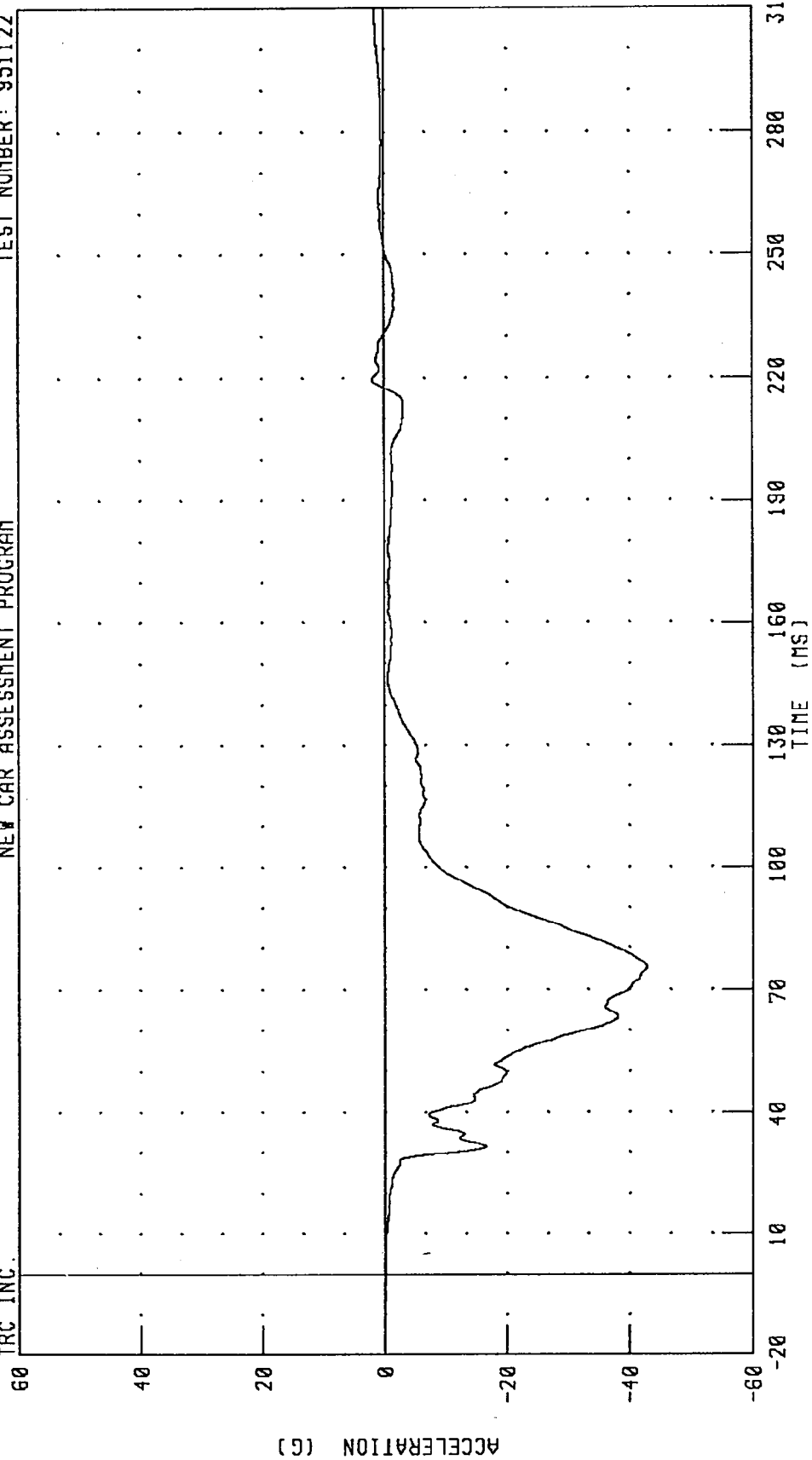
PEAK DATA: 7.08 N·M @ 109.92 MS; -6.58 N·M @ 166.24 MS

CHANNEL: NEKZM2 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



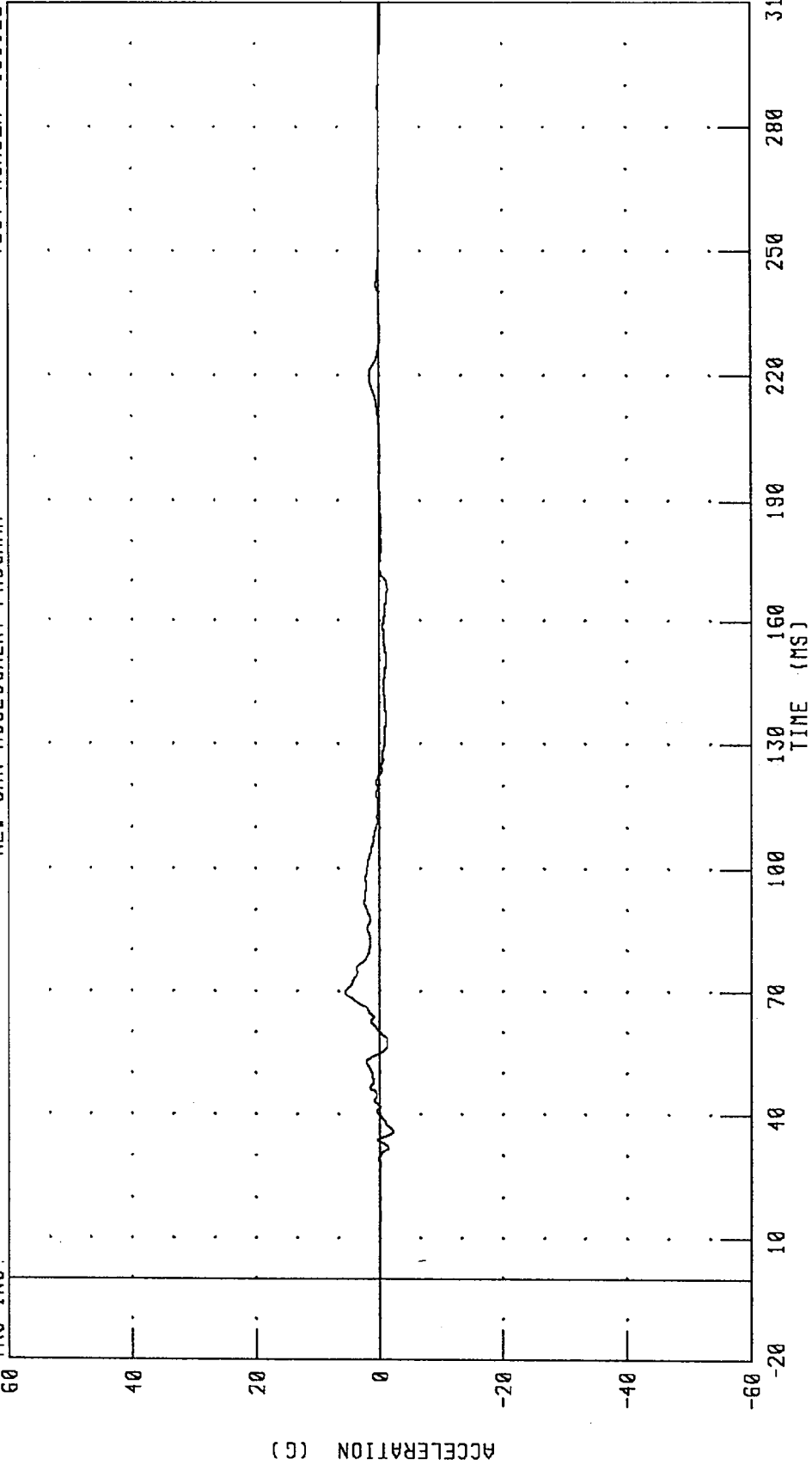
PEAK DATA: 1.92 G @ 219.68 MS; -42.84 G @ 75.36 MS

CHANNEL: CSTXG2 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: CSTYG2 FILTER: CH. CLASS 180

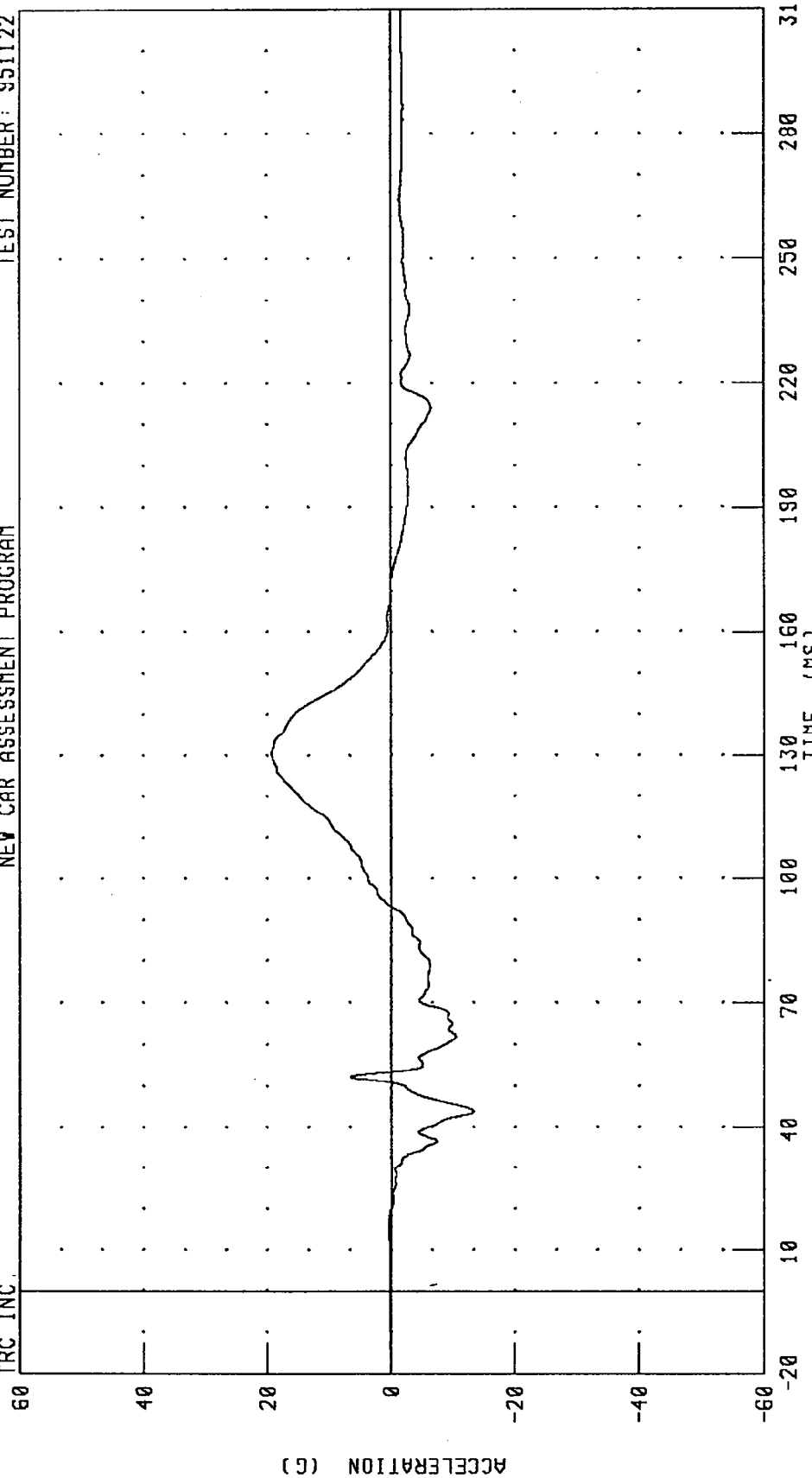
PEAK DATA: 5.63 G @ 69.76 MS; -2.22 G @ 35.92 MS

1986 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Z-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: CSTZG2 FILTER: CH. CLASS 180

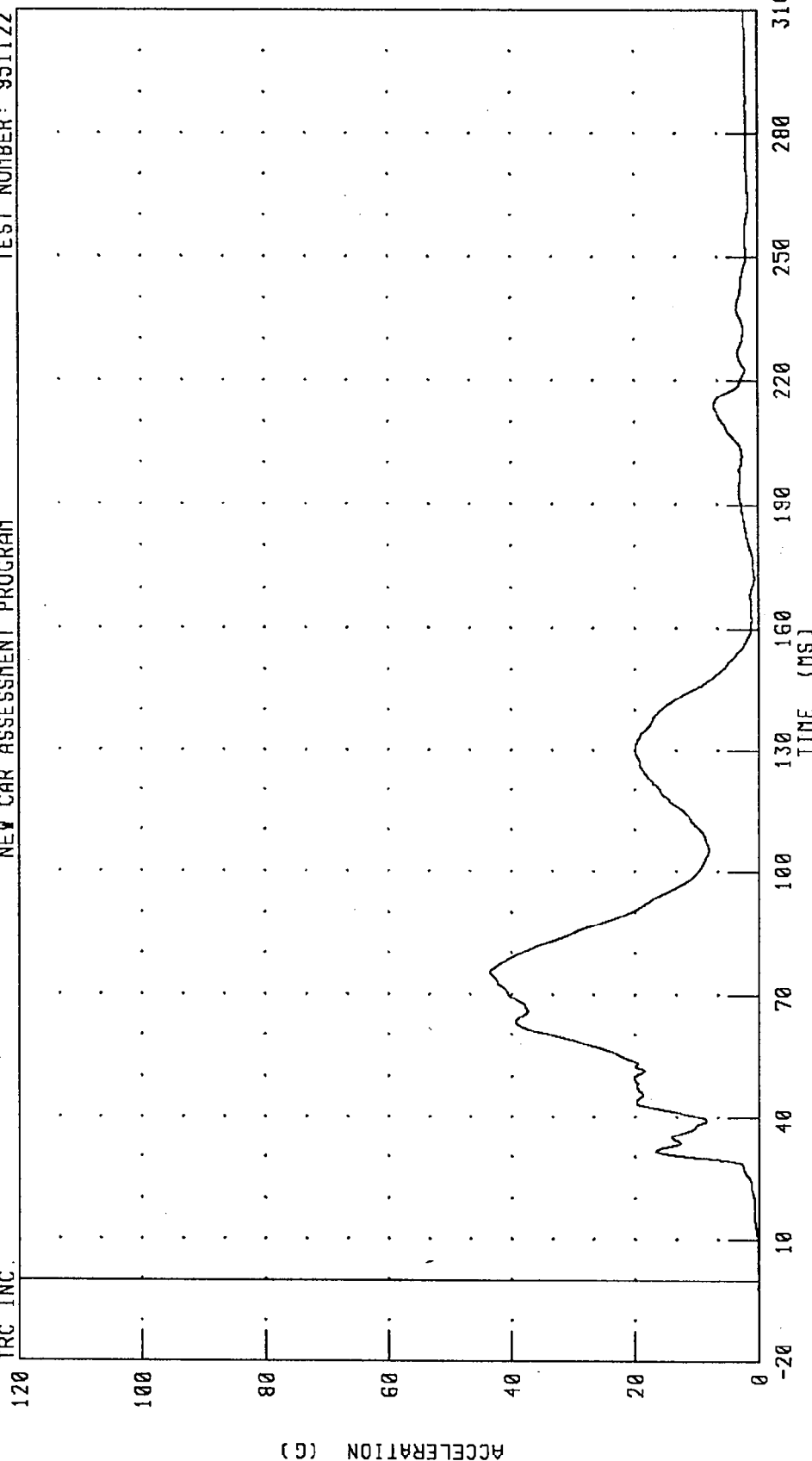
PEAK DATA: 19.30 G @ 130.64 MS; -13.32 G @ 43.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

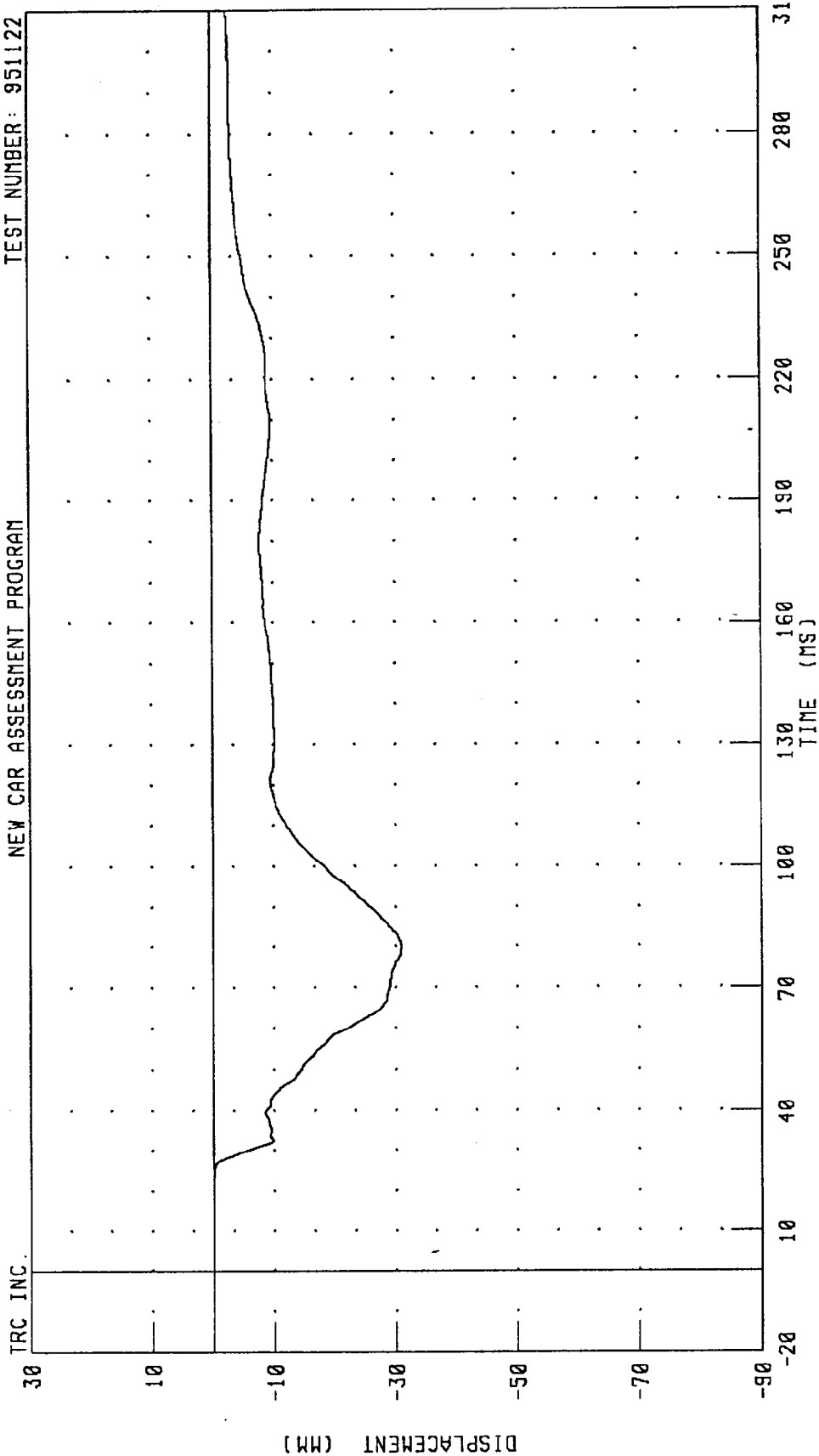


PEAK DATA: 43.41 G @ 75.36 MS; 0.00 G @ -20.00 MS

CHANNEL: CSTRG2 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST DEFLECTION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



PEAK DATA: 0.01 MM @ -8.32 MS; -30.96 MM @ 80.16 MS

CHANNEL: CSTXD2 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

60

40

20

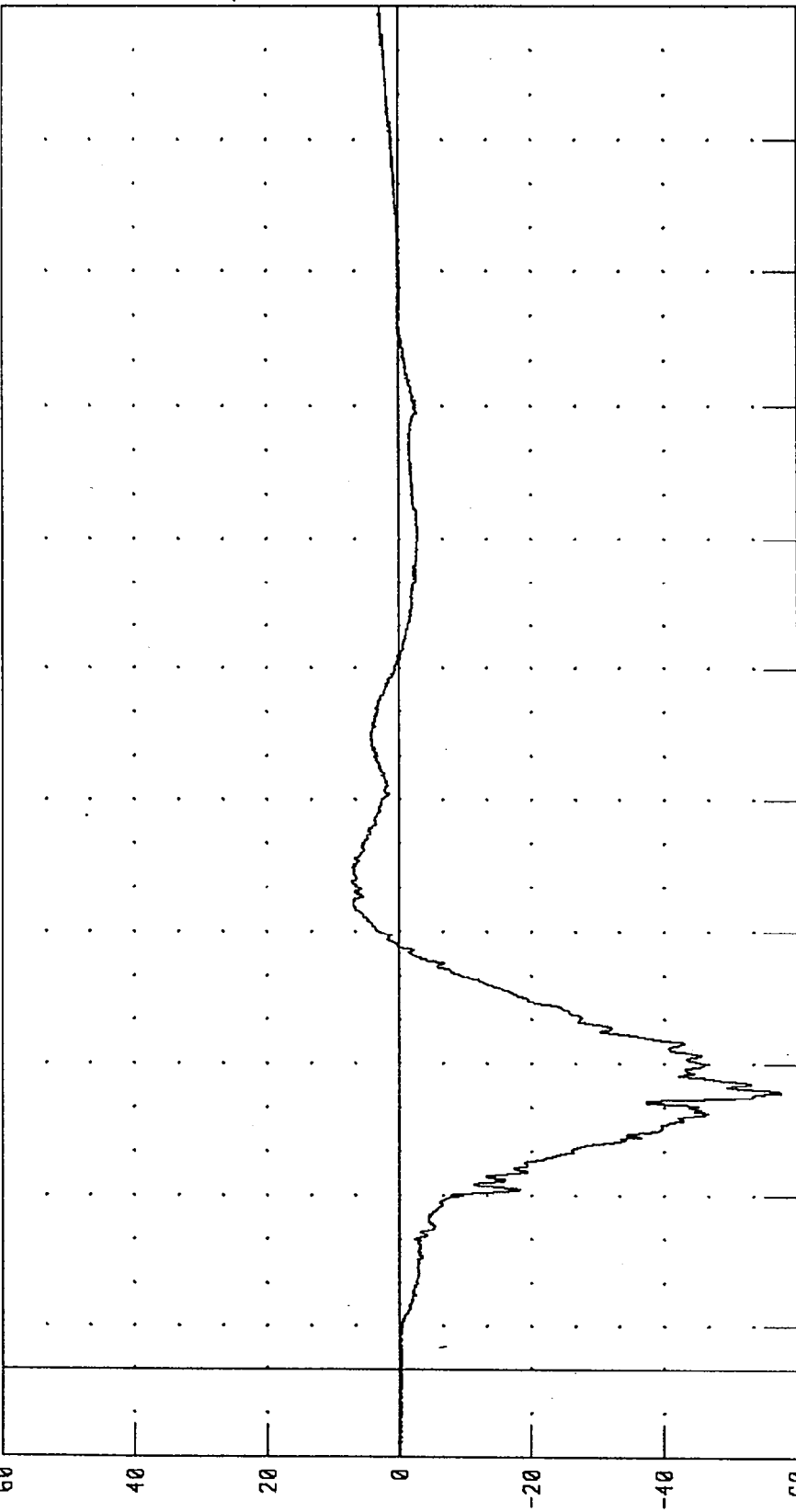
ACCELERATION (G)

B-62

-20

-40

-60



PEAK DATA: 7.34 G @ 111.36 MS; -57.63 G @ 63.52 MS

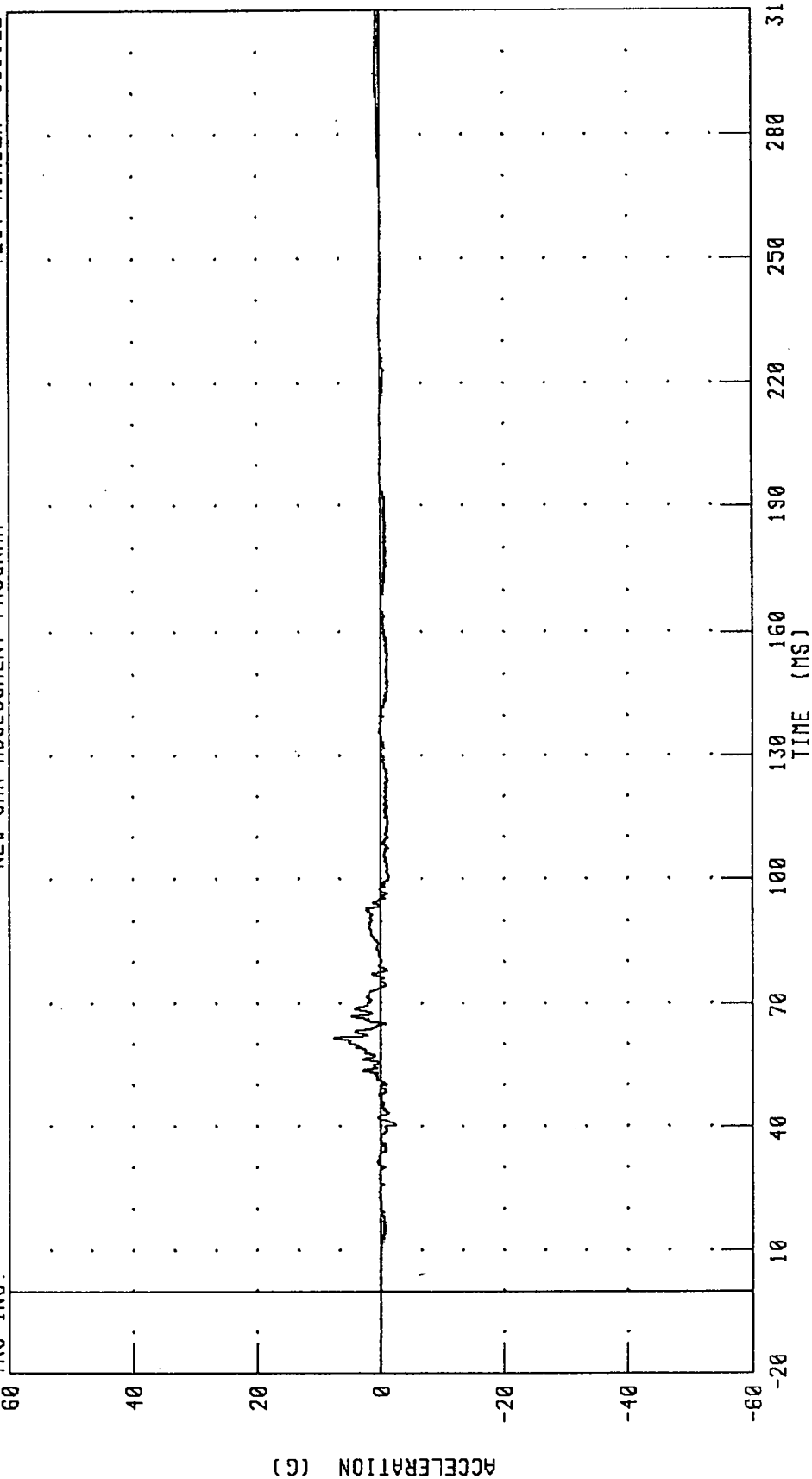
CHANNEL: PEVXG2 FILTER: CH. CLASS 1000

951122

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: PEVYG2 FILTER: CH. CLASS 1000

PEAK DATA: 7.67 G @ 61.44 MS; -2.41 G @ 40.40 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

60

40

20

ACCELERATION (G)

-20

-40

-60

TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

CHANNEL: PEVZG2 FILTER: CH. CLASS 1000

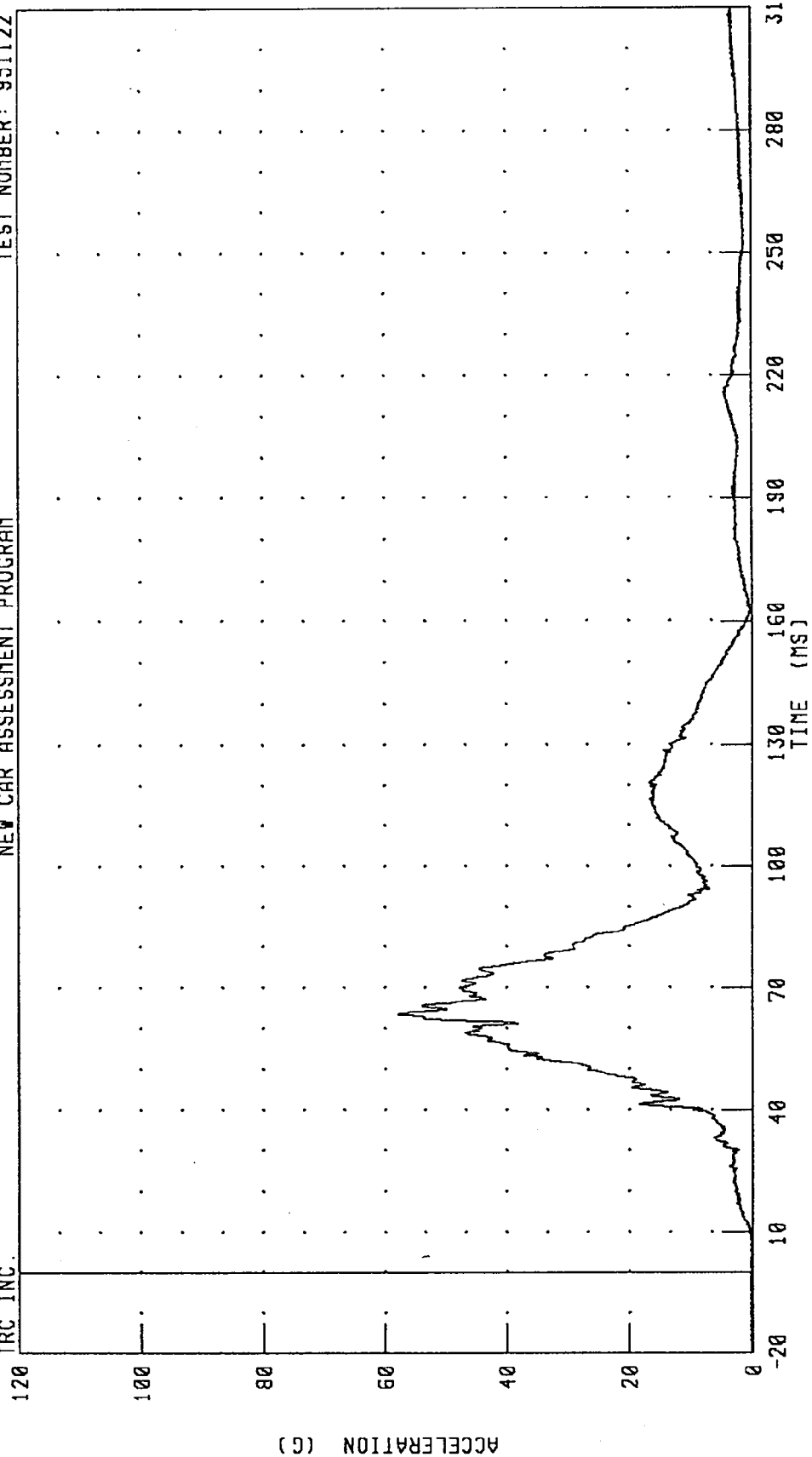
PEAK DATA: 15.73 G @ 120.56 MS; -4.15 G @ 42.48 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS RESULTANT ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



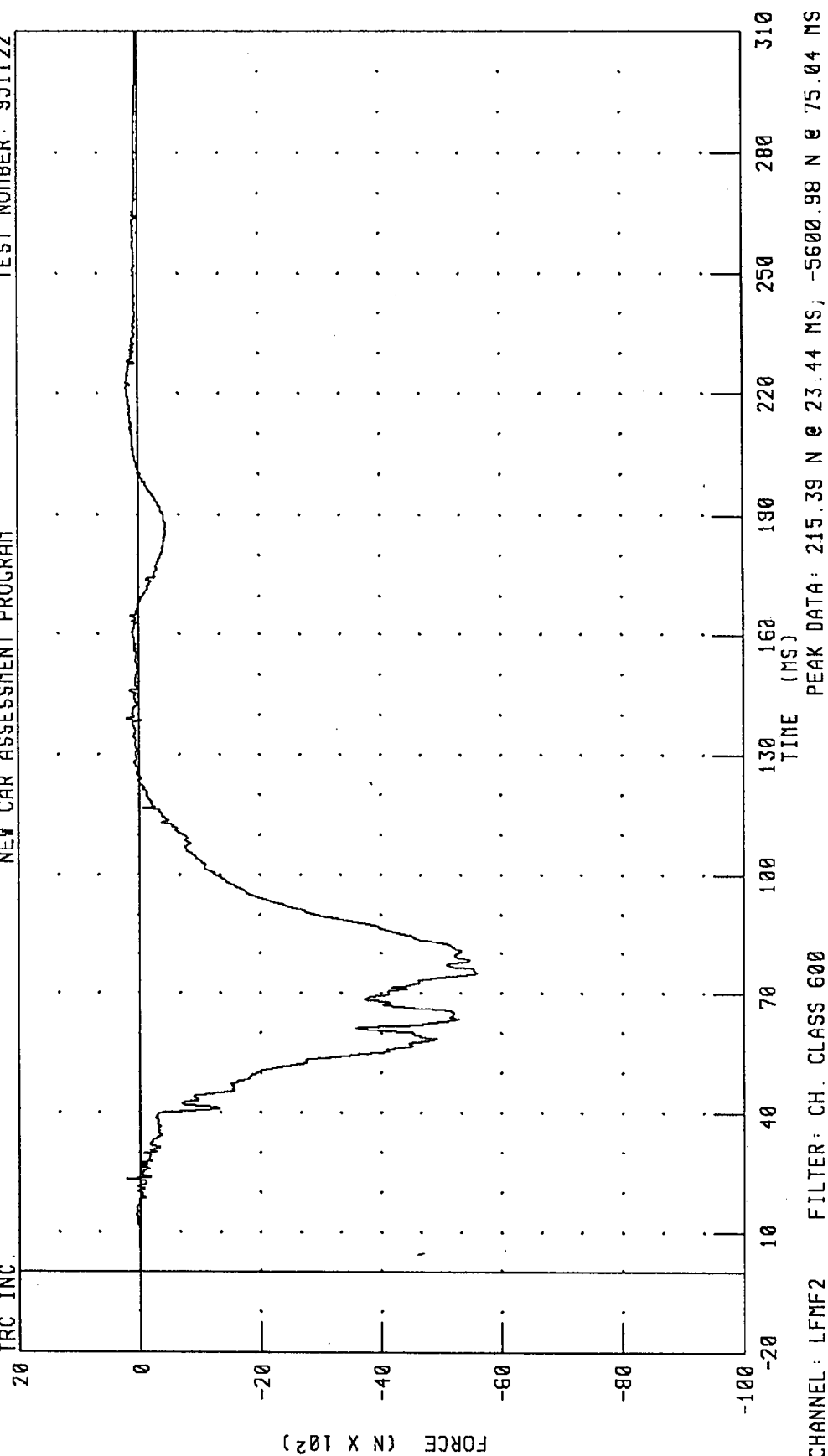
CHANNEL: PEVRG2 FILTER: CH. CLASS 1000

PEAK DATA: 57.80 G @ 63.52 MS; 0.11 G @ -19.84 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



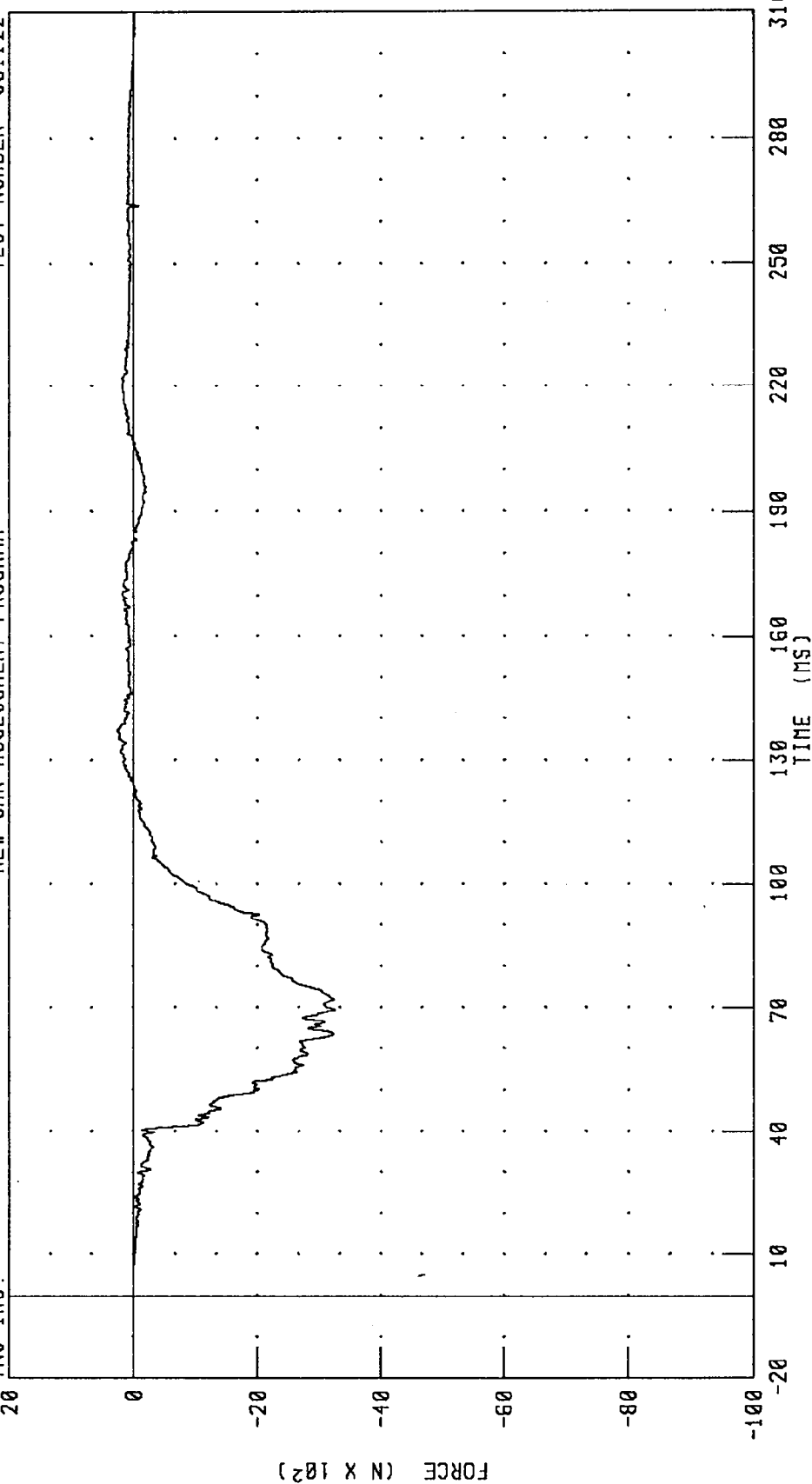
CHANNEL: LFMF2 FILTER: CH. CLASS 600

PEAK DATA: 215.39 N @ 23.44 MS; -5600.98 N @ 75.04 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



PEAK DATA: 244.44 N @ 137.04 MS; -3248.63 N @ 69.52 MS

CHANNEL: RFMF2 FILTER: CH. CLASS 600

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD X-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

90

60

30

0

-30

-60

-90

ACCELERATION (G)

TIME (MS)
310
280
250
220
190
160
130
100
70
40
10
-20

CHANNEL: HEDXR2 FILTER: CH. CLASS 1000

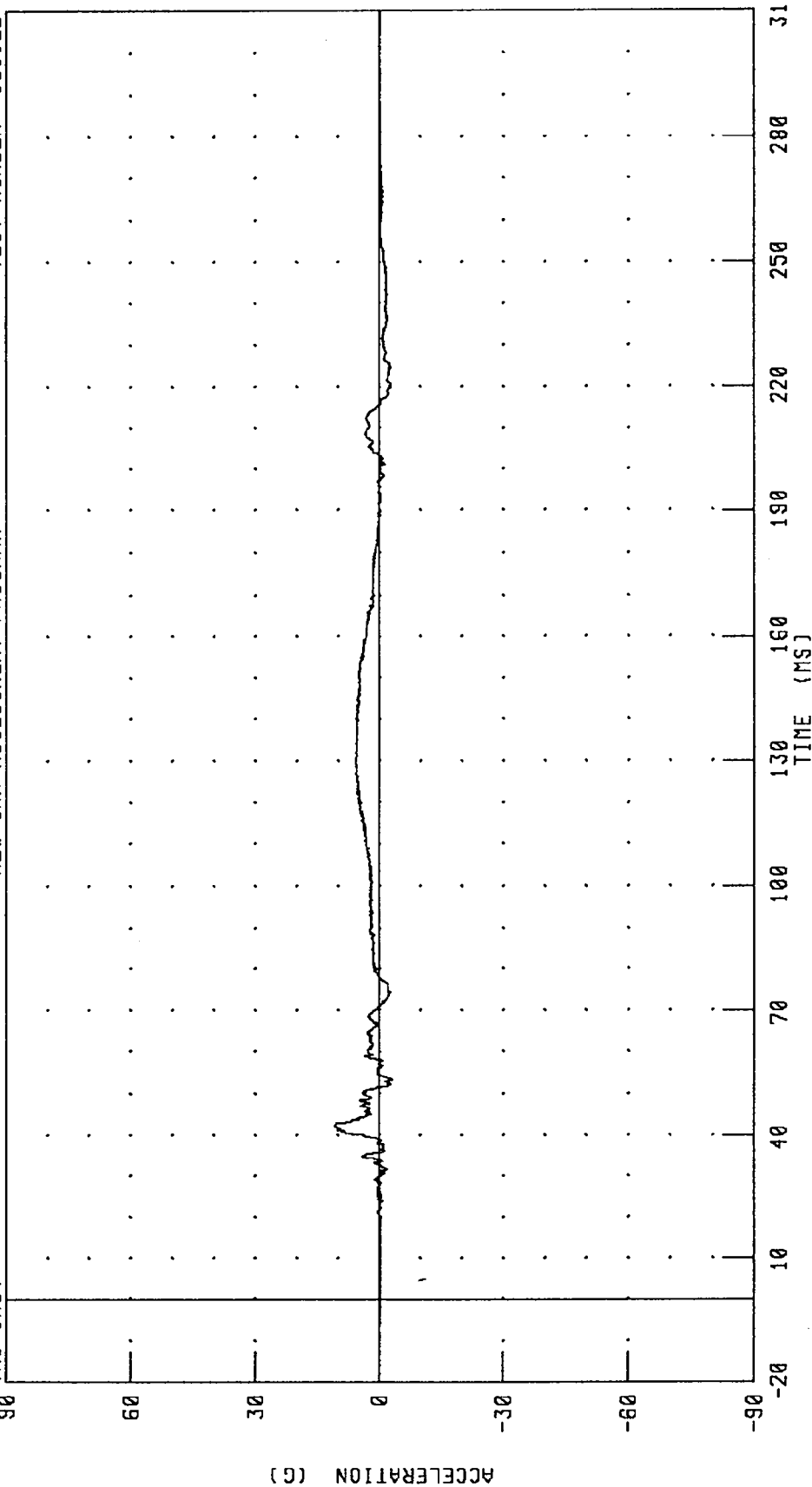
PEAK DATA: 24.20 G @ 198.08 MS; -69.54 G @ 41.68 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Y-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: HEDYR2 FILTER: CH. CLASS 1000

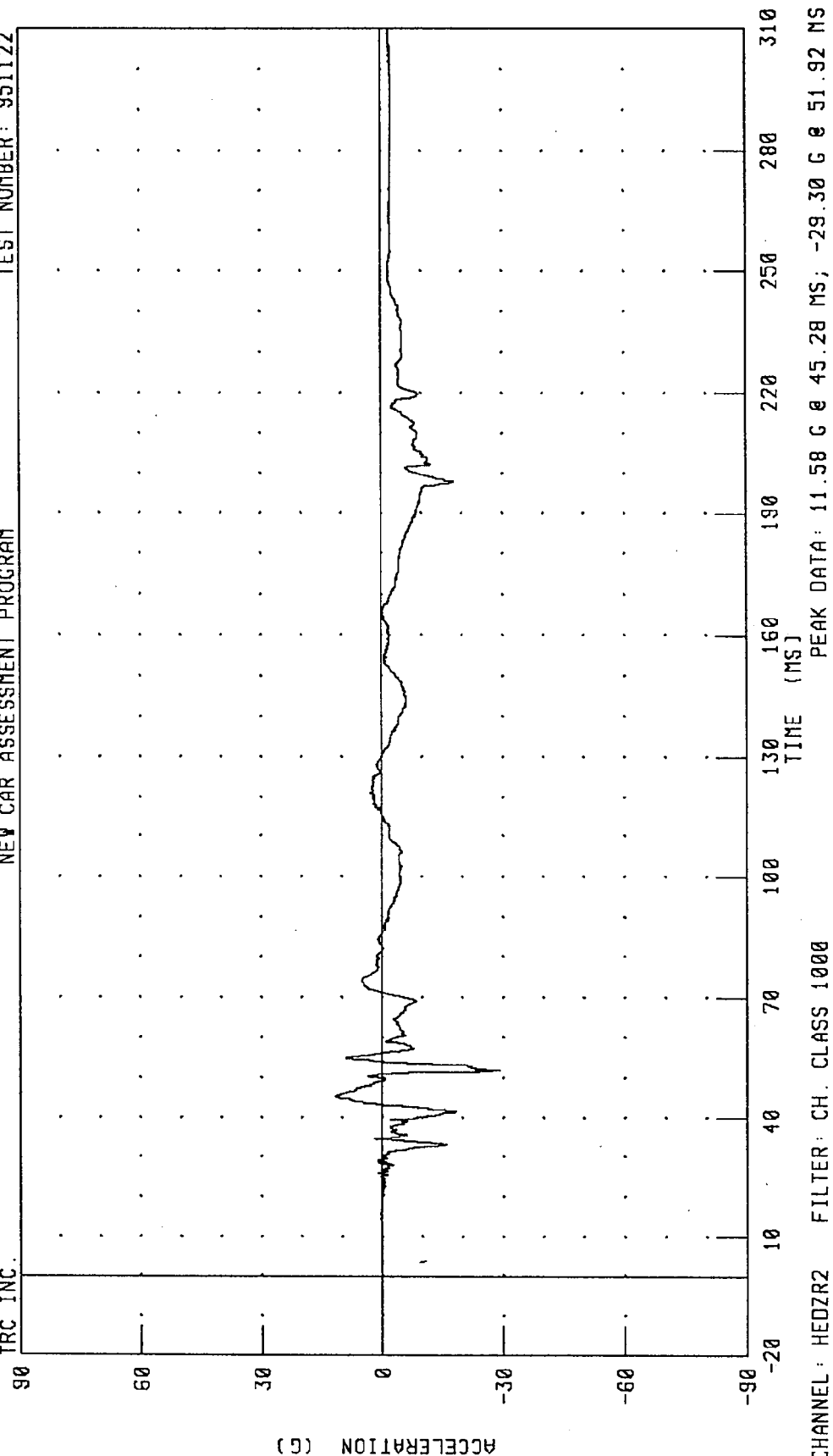
PEAK DATA: 10.99 G @ 42.40 MS; -3.08 G @ 53.36 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Z-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: HEDZR2 FILTER: CH. CLASS 1000

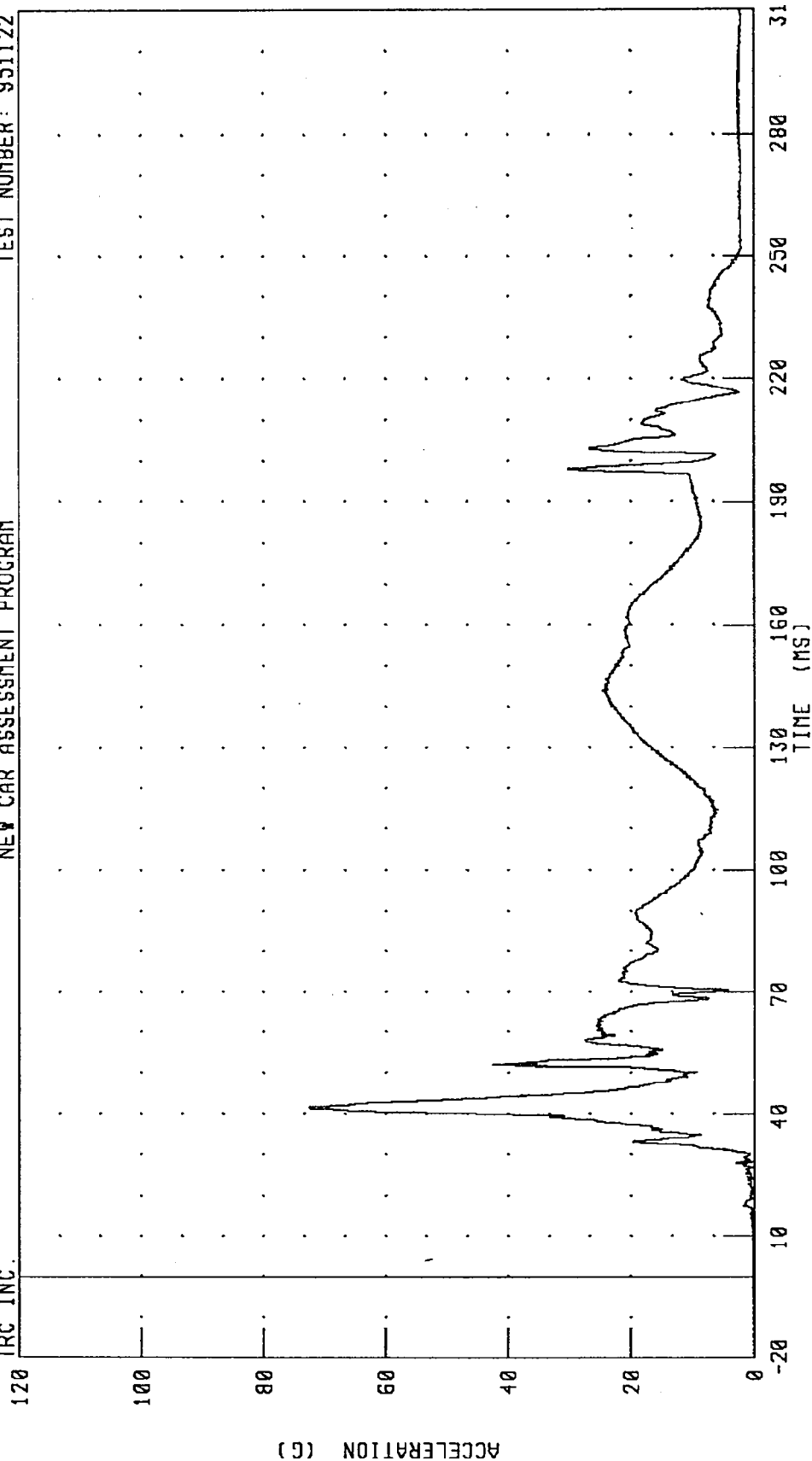
PEAK DATA: 11.58 G @ 45.28 MS; -29.30 G @ 51.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD RESULTANT ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 72.54 G @ 41.68 MS; 0.09 G @ -19.92 MS

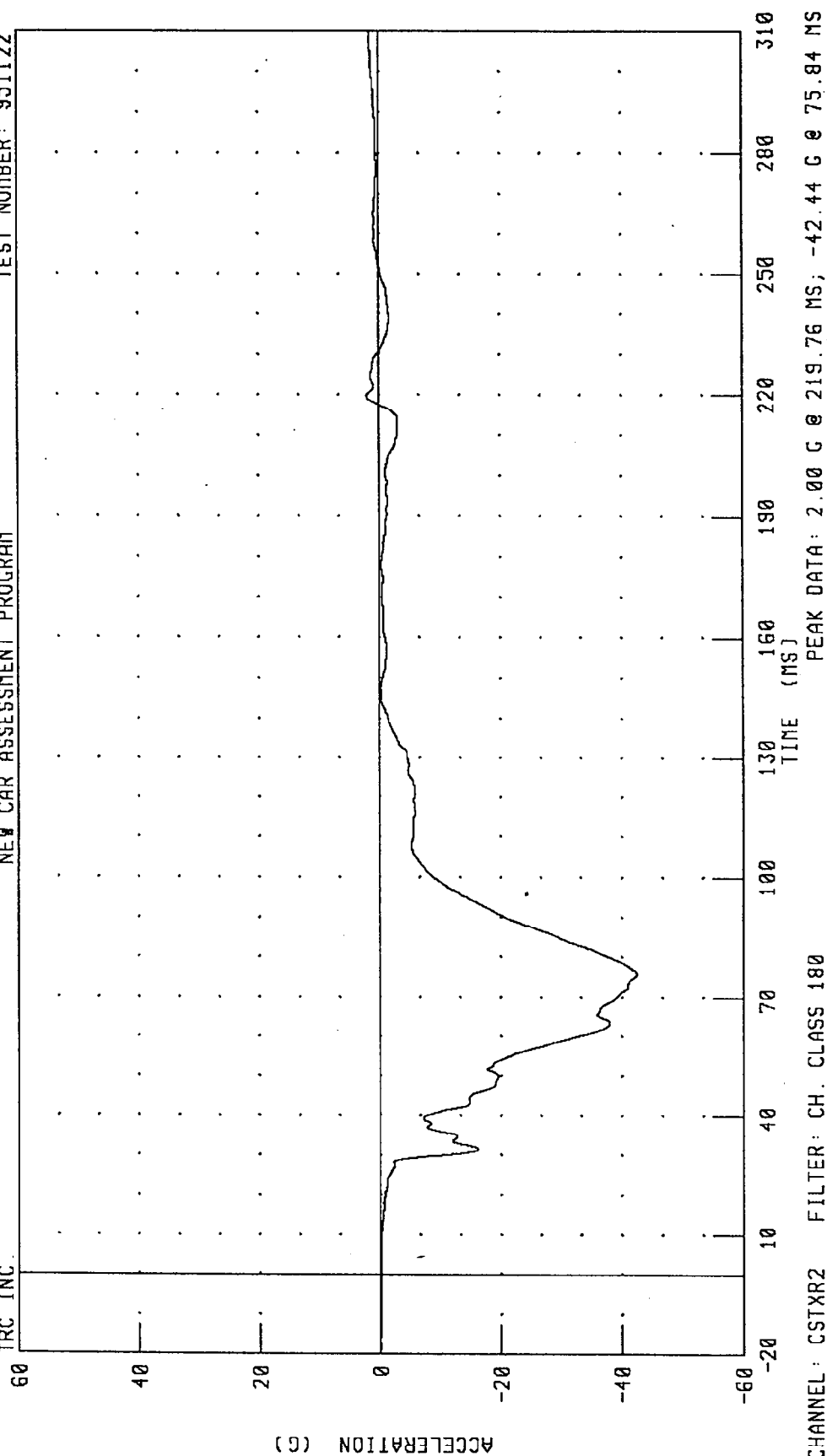
CHANNEL: HEDRR2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST X-AXIS ACCELERATION - REDUNDANT

NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: CSTXR2 FILTER: CH. CLASS 180

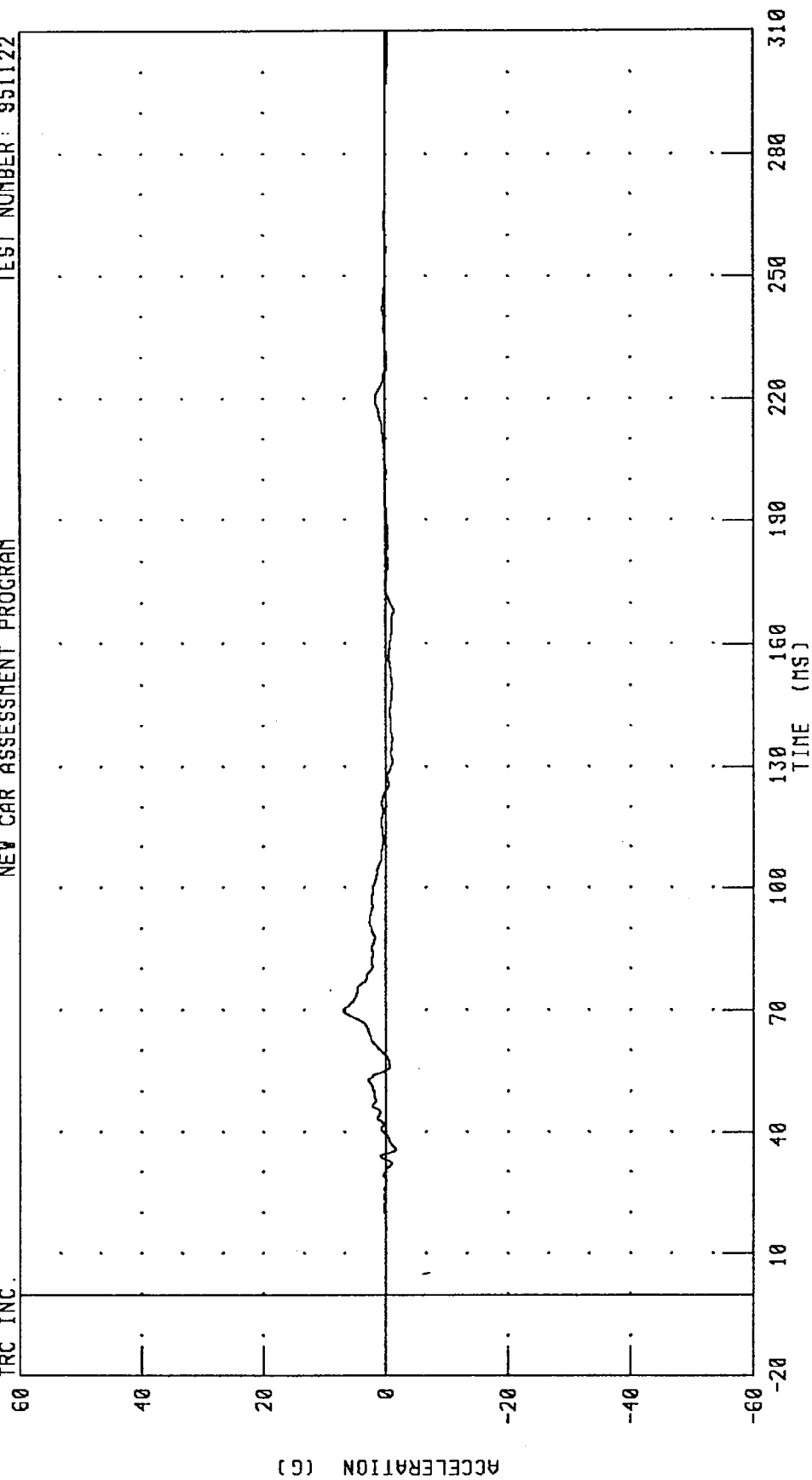
PEAK DATA: 2.00 G @ 219.76 MS; -42.44 G @ 75.84 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Y-AXIS ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: CSTYR2 FILTER: CH. CLASS 180

PEAK DATA: 6.93 G @ 70.00 MS; -1.74 G @ 35.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Z-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.

60

40

20

ACCELERATION (G)

0

-20

-40

-60

310

280

250

220

190

160

130

100

70

40

10

TIME (MS)

PEAK DATA: 19.42 G @ 130.16 MS; -13.18 G @ 43.92 MS

CHANNEL: CSTZR2 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST RESULTANT ACCELERATION - REDUNDANT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

120

100

80

60

40

20

0

ACCELERATION (G)

TIME (MS)

160

180

200

220

240

280

300

310

320

330

CHANNEL: CSTR2 FILTER: CH. CLASS 180

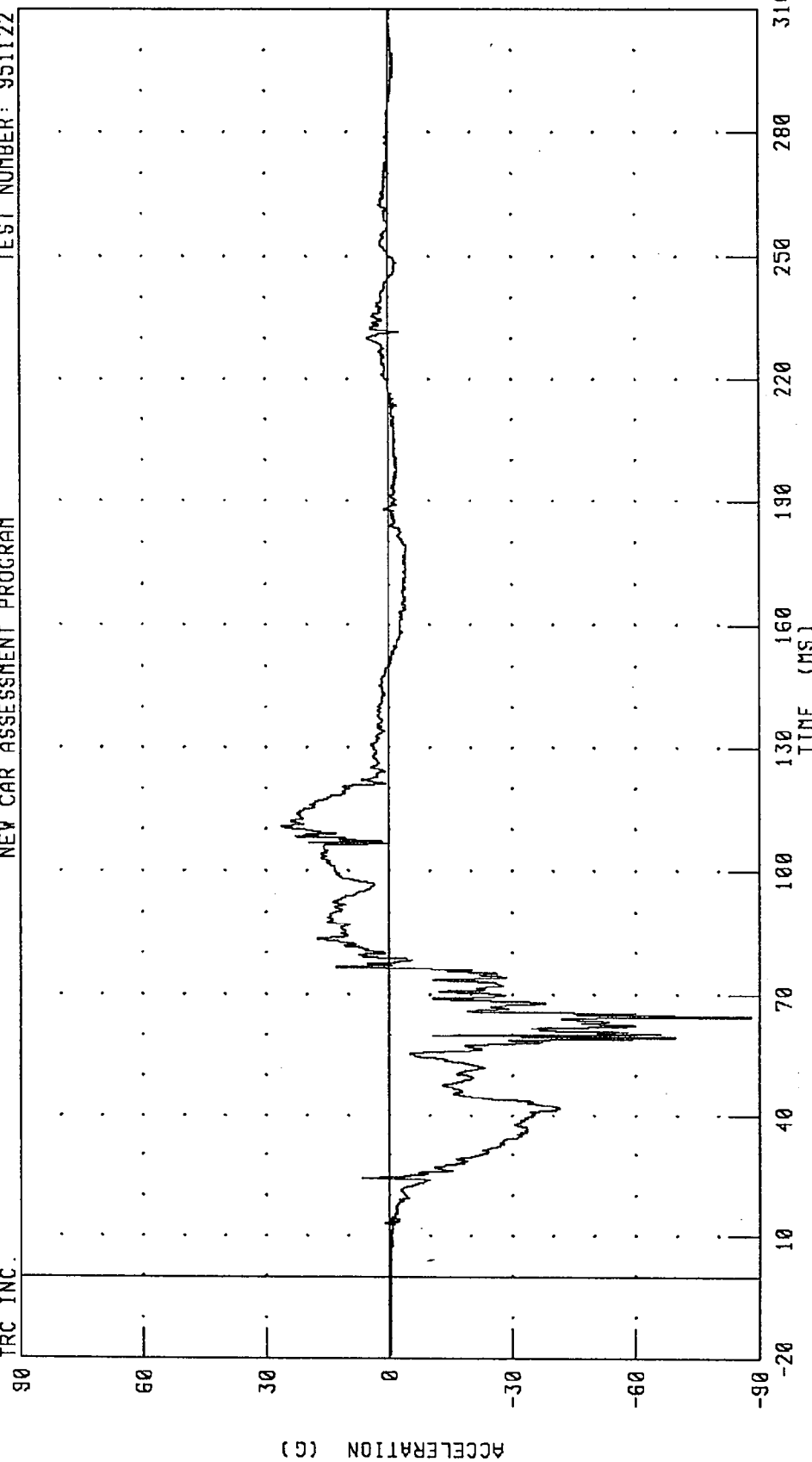
PEAK DATA: 43.06 G @ 75.76 MS, 0.01 G @ -20.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



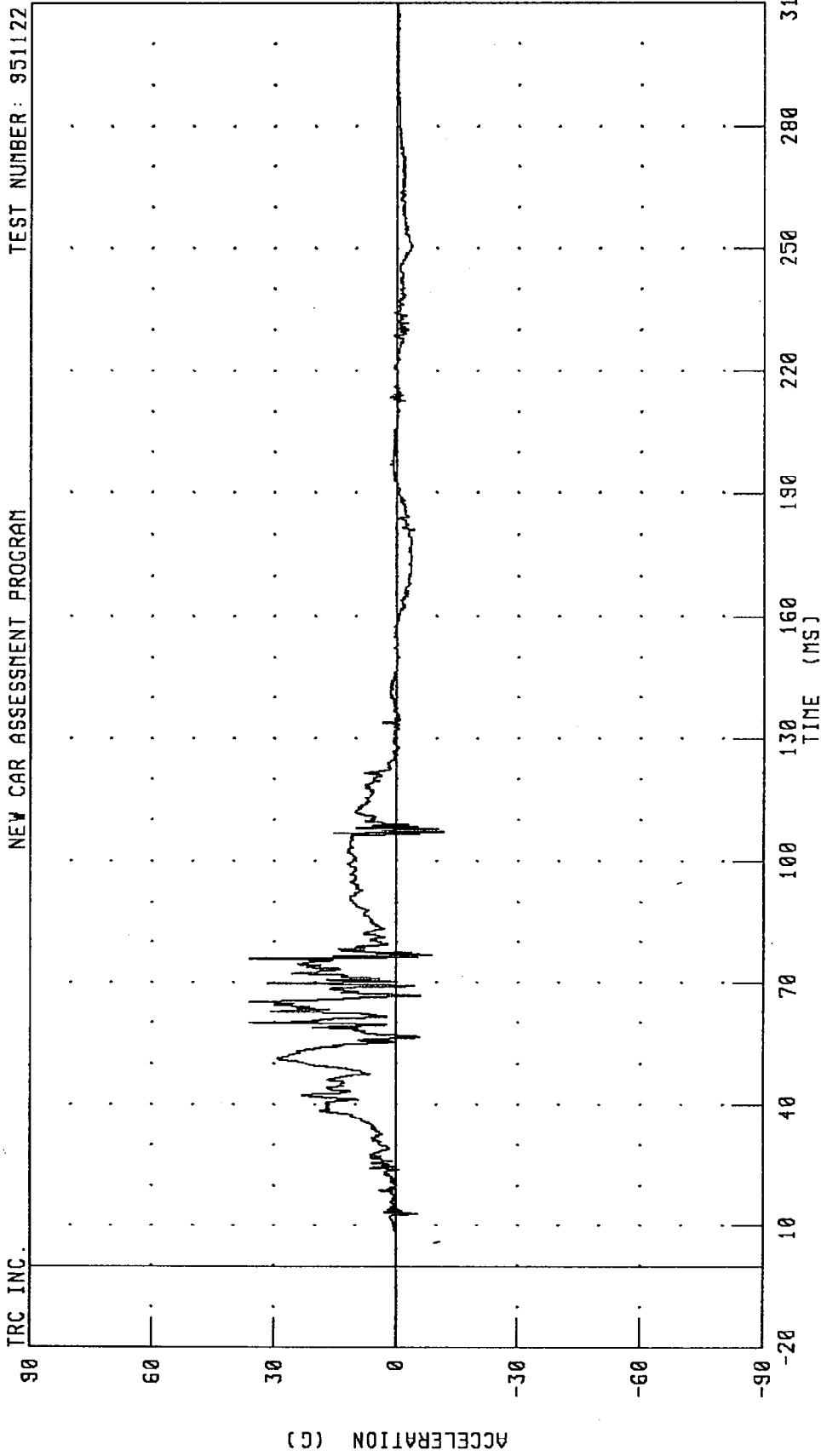
CHANNEL: FTLXG2 FILTER: CH. CLASS 1000

PEAK DATA: 26.30 G @ 110.56 MS; -87.77 G @ 64.80 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT Z-AXIS ACCELERATION AT HEEL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



CHANNEL: FTLZH2 FILTER: CH. CLASS 1000

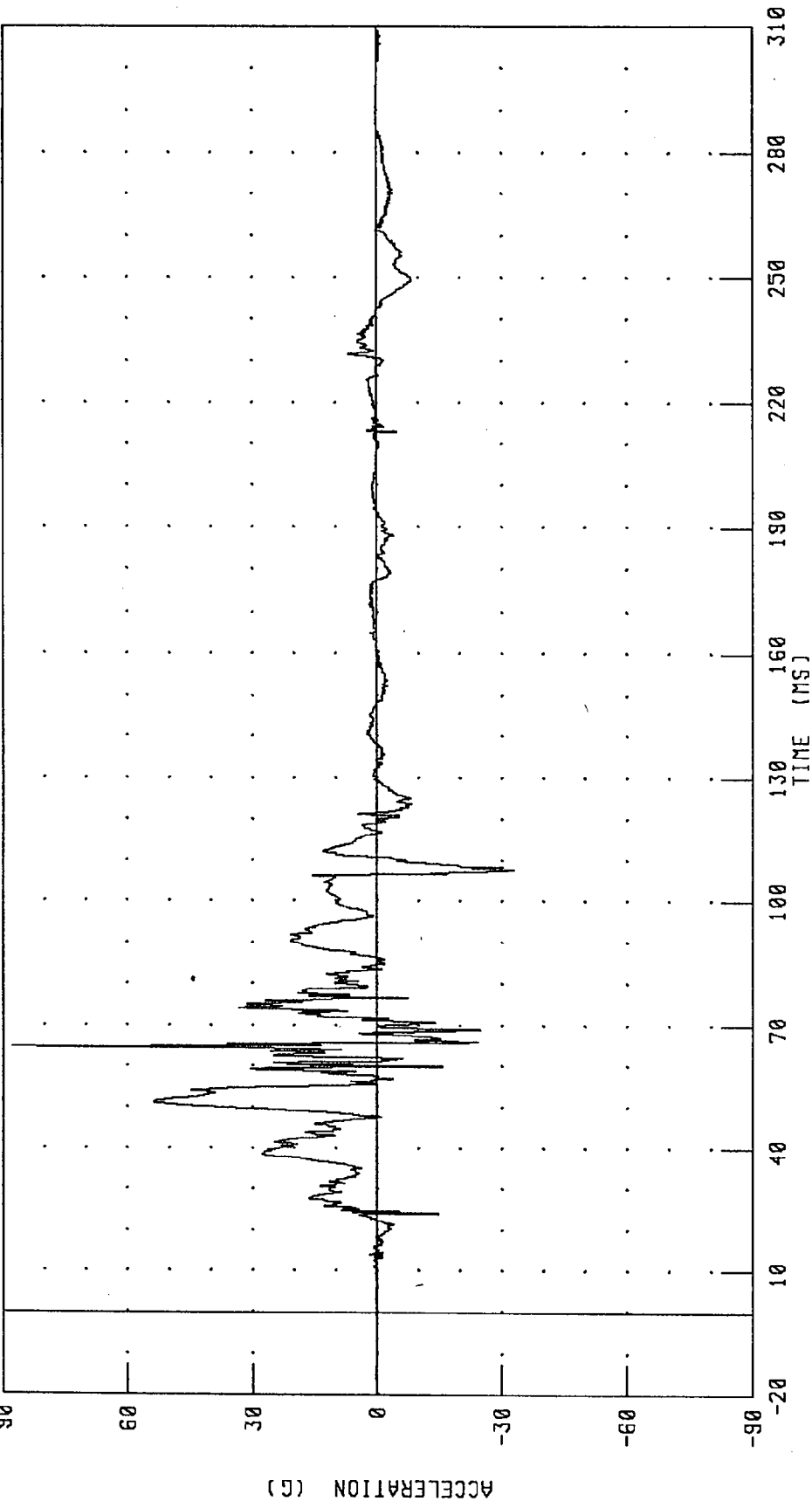
PEAK DATA: 36.19 G @ 60.00 MS, -11.71 G @ 107.20 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT Z-AXIS ACCELERATION AT T0E

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 87.73 G @ 54.88 MS; -33.10 G @ 107.76 MS

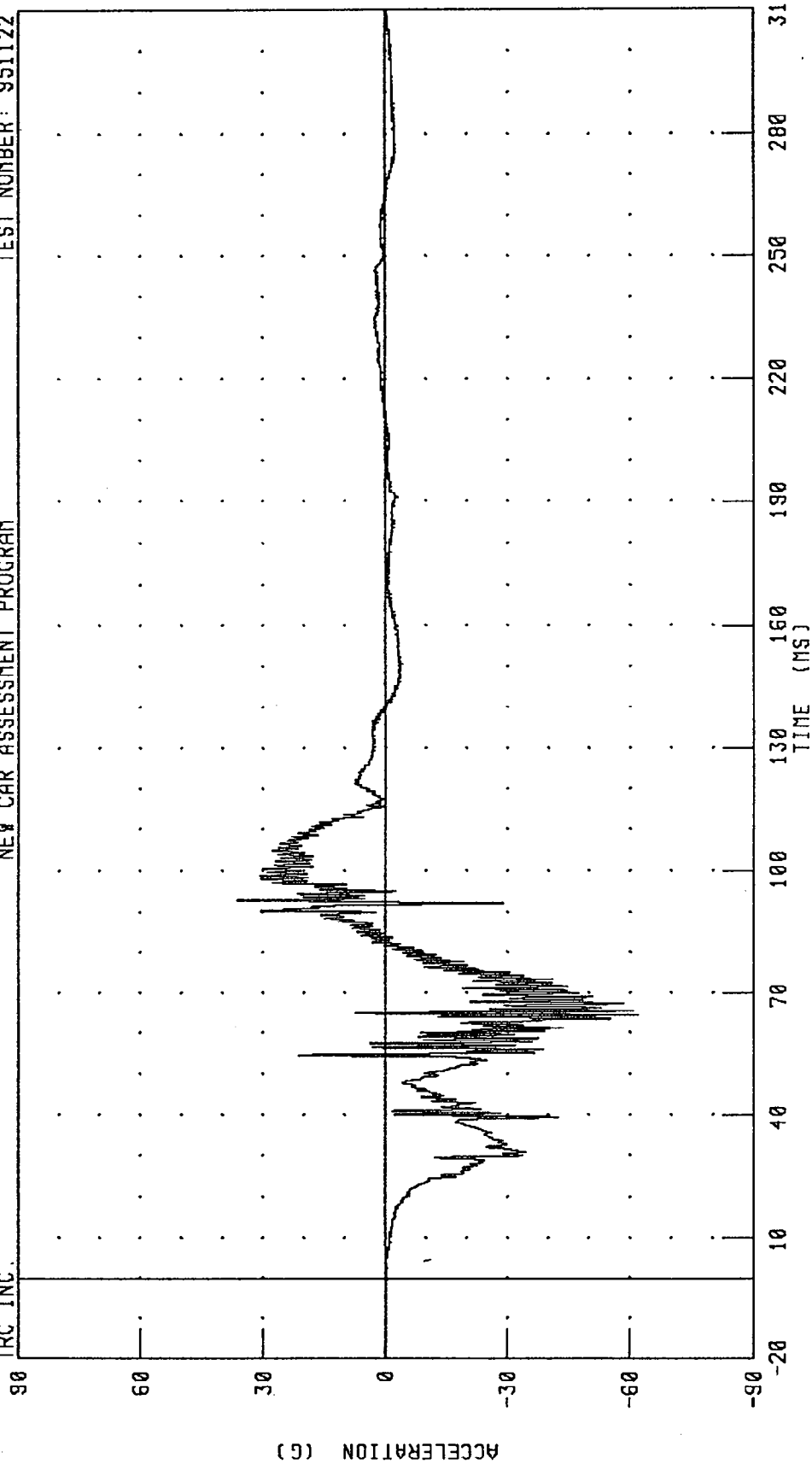
CHANNEL: FTLZT2 FILTER: CH. CLASS 1000

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: FTRXG2 FILTER: CH. CLASS 1000

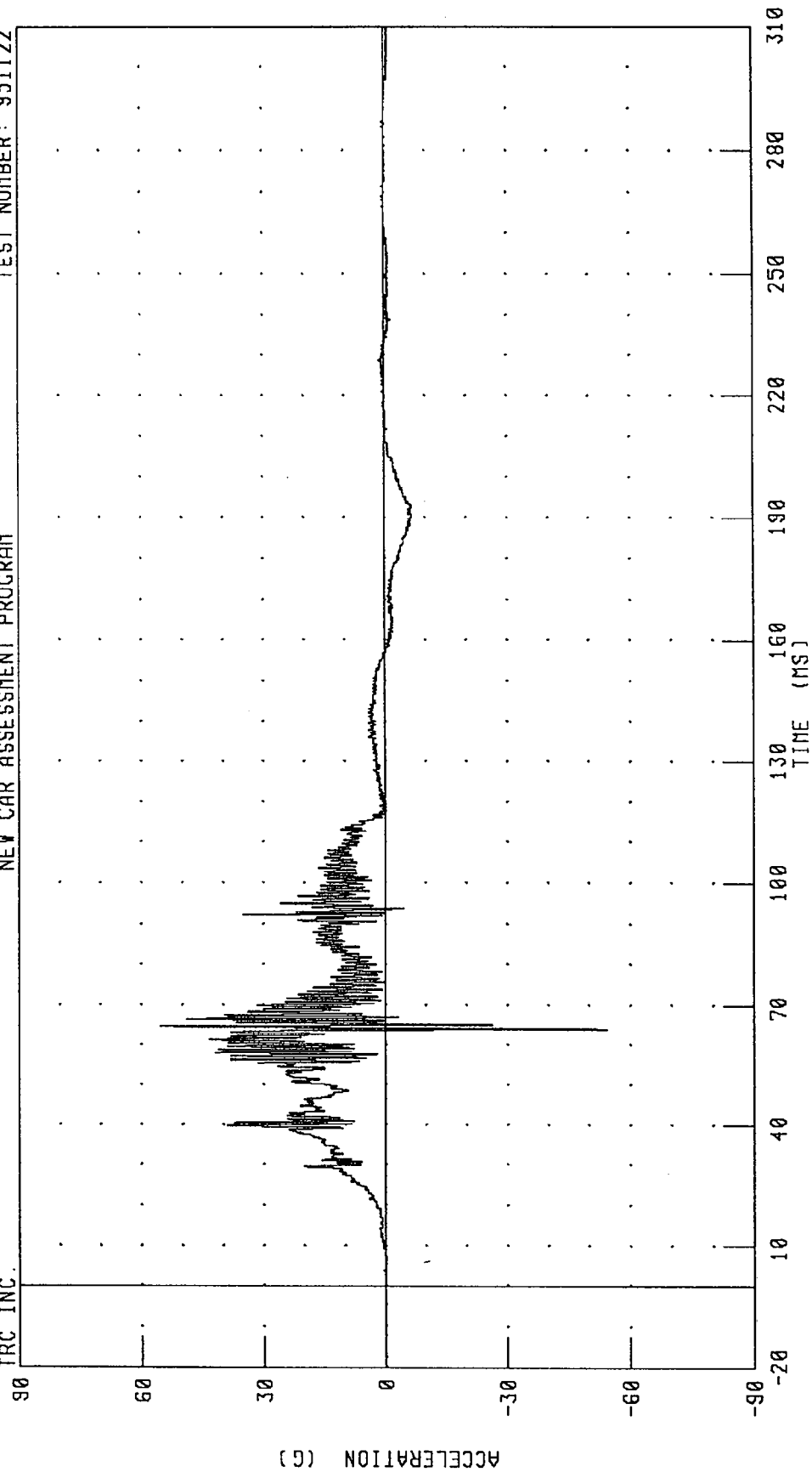
PEAK DATA: 36.42 G @ 92.88 MS; -61.91 G @ 64.64 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION AT HEEL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: FTRZH2 FILTER: CH. CLASS 1000

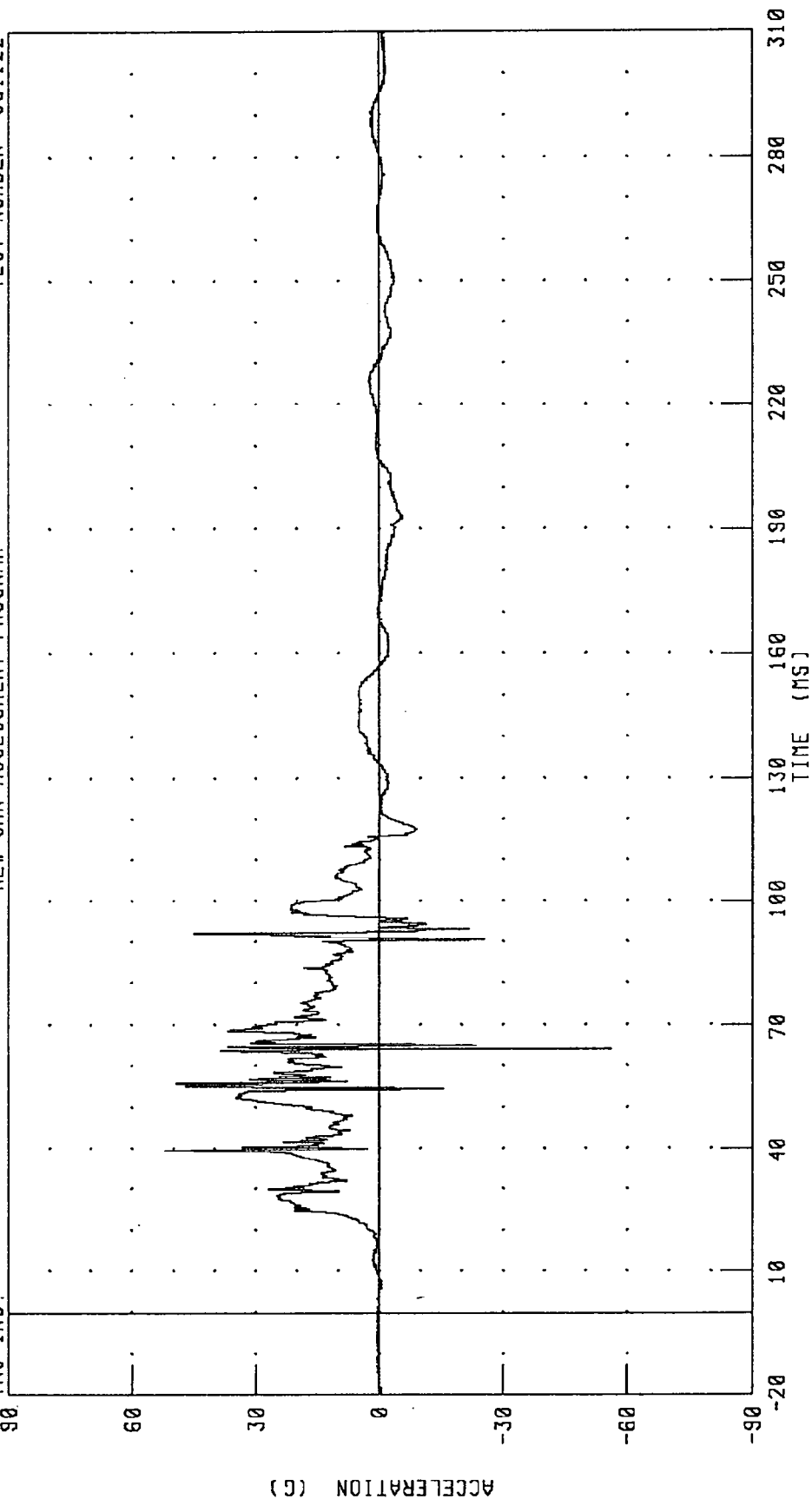
PEAK DATA: 55.32 G @ 64.56 MS; -54.44 G @ 63.92 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION AT TOE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

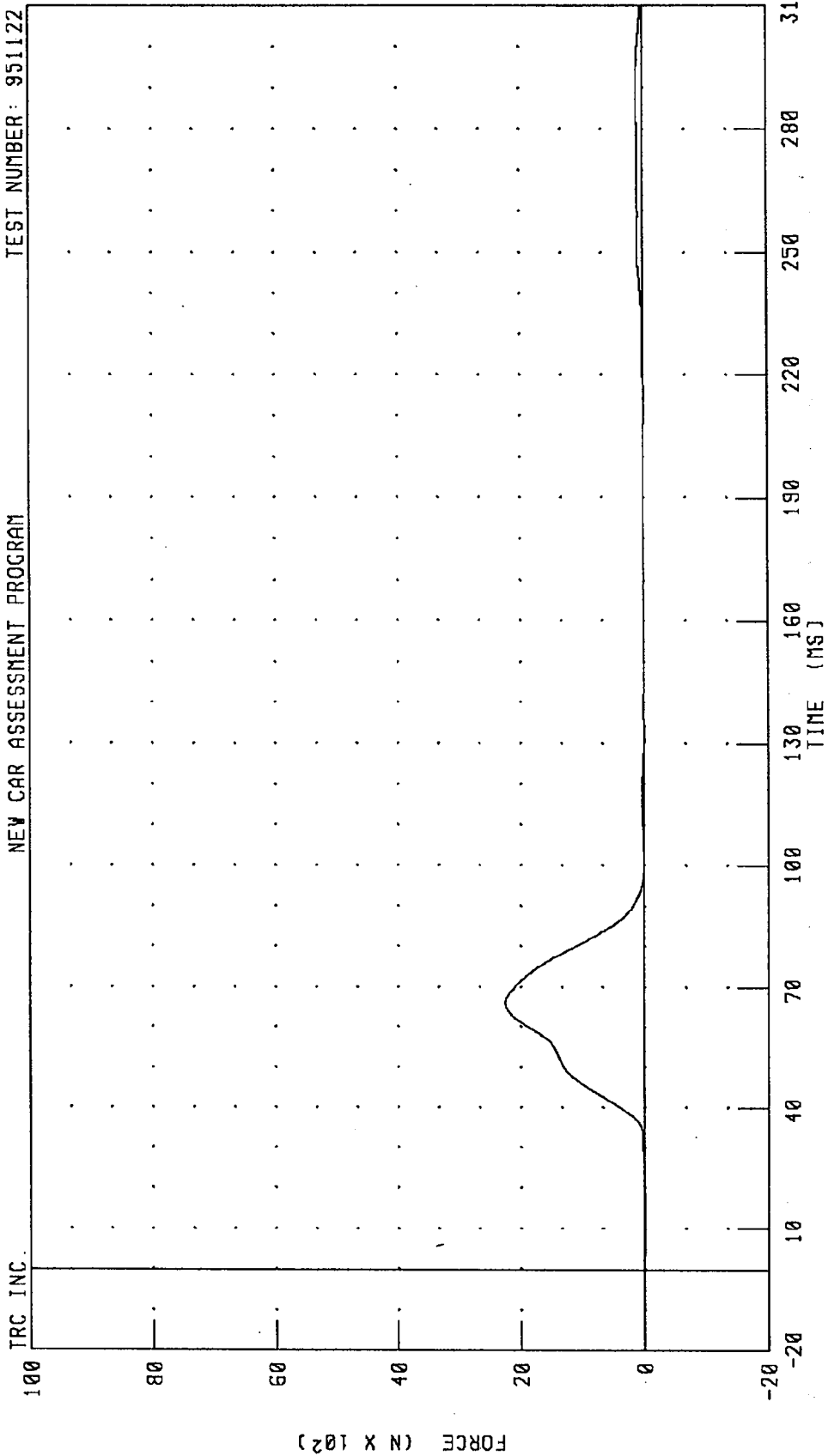


CHANNEL: FTRZ12 FILTER: CH. CLASS 1000

PEAK DATA: 52.16 G @ 39.52 MS; -56.11 G @ 64.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER LAP BELT OUTBOARD FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

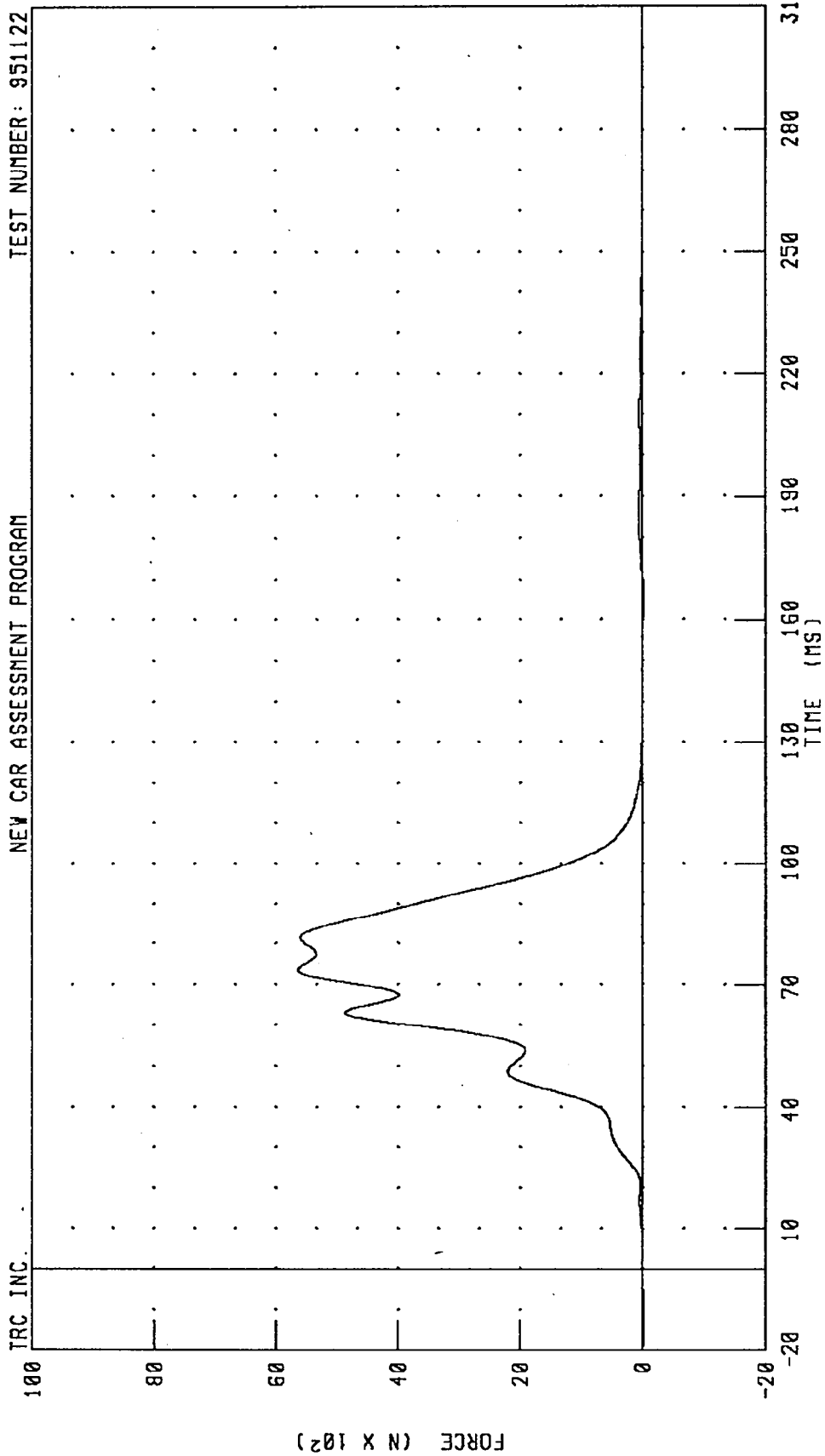


PEAK DATA: 2251.88 N @ 66.08 MS; -19.86 N @ 213.52 MS

CHANNEL: LBOFI FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER SHOULDER BELT FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



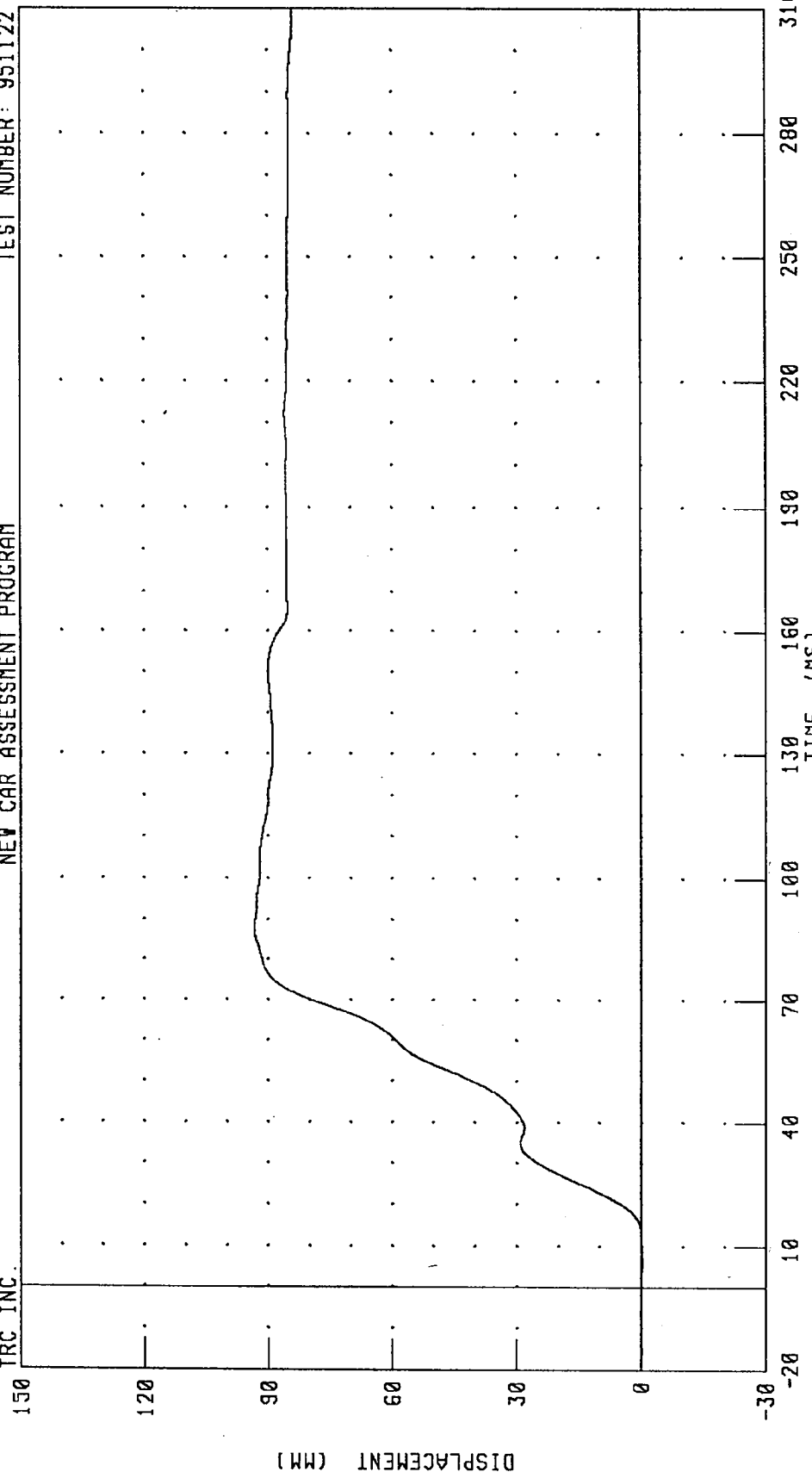
CHANNEL: SHBF1 FILTER: CH. CLASS 60

1986 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
DRIVER SHOULDER BELT DISPLACEMENT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

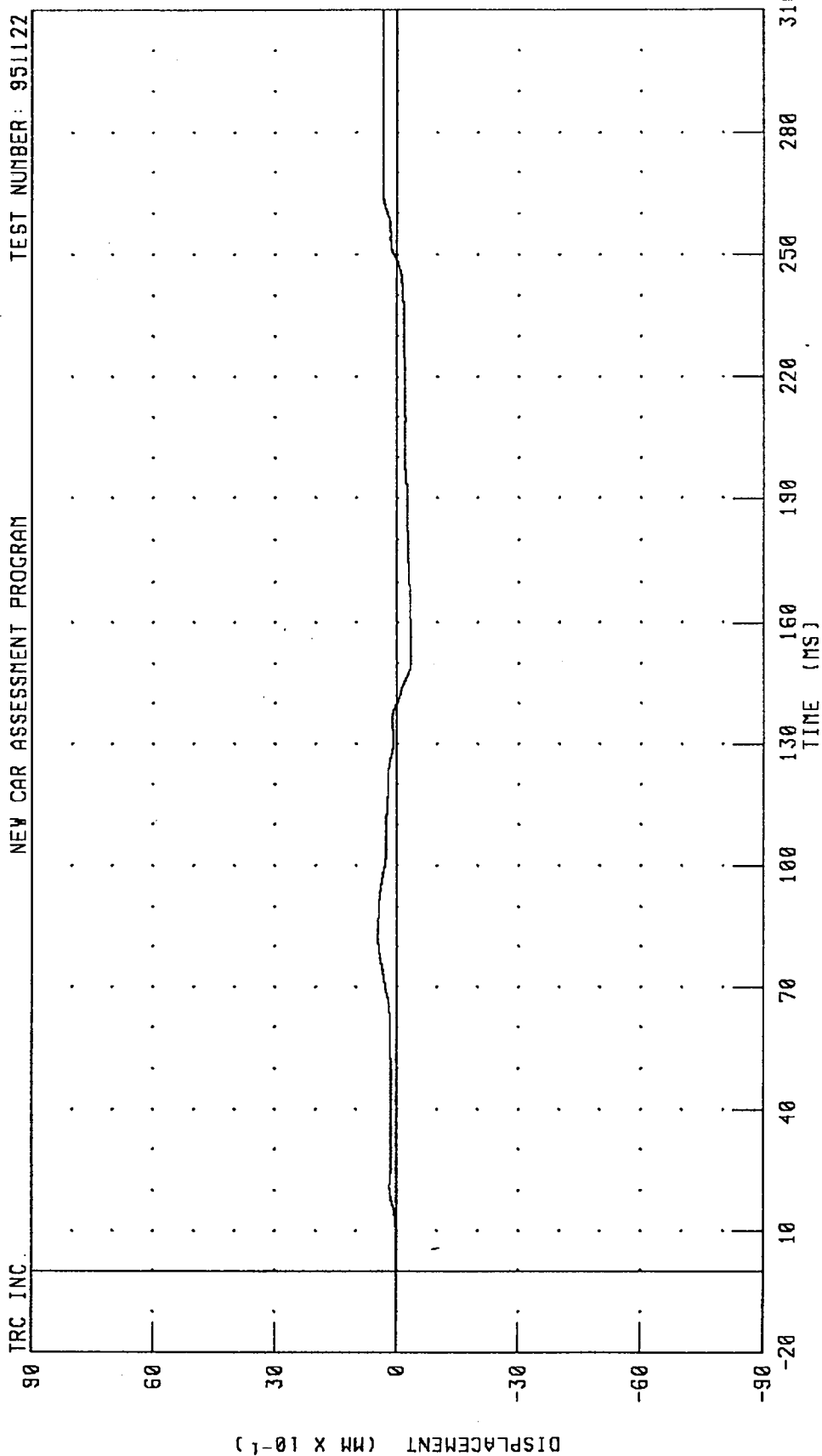


PEAK DATA: 93.41 MM @ 87.92 MS; -0.15 MM @ 7.76 MS

CHANNEL: SHBD1 FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 DRIVER SEAT BELT EXTENSION
 NEW CAR ASSESSMENT PROGRAM

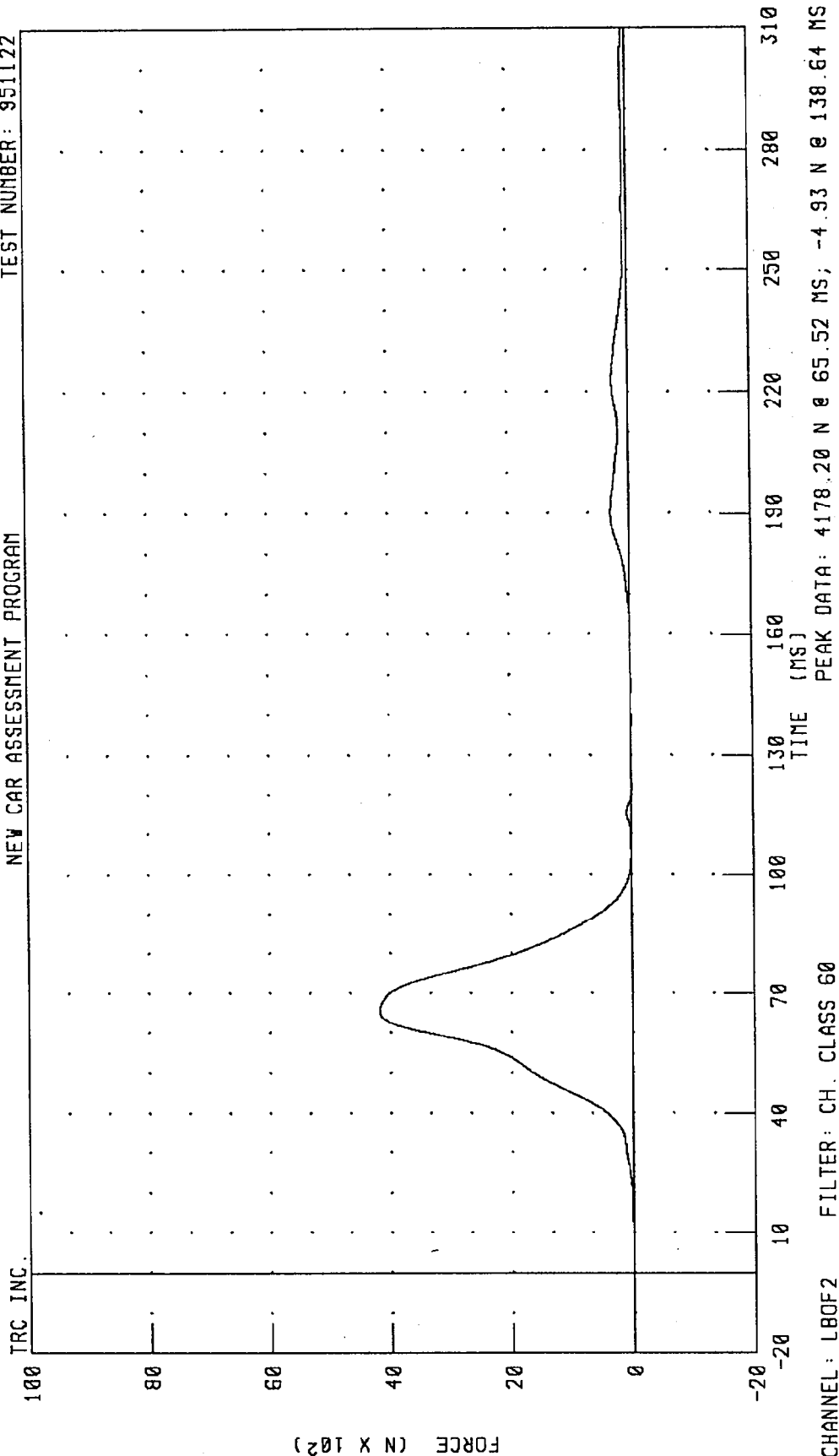
TEST NUMBER: 951122



CHANNEL: SBED1 FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER LAP BELT OUTBOARD FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



CHANNEL: LBOF2 FILTER: CH. CLASS 60

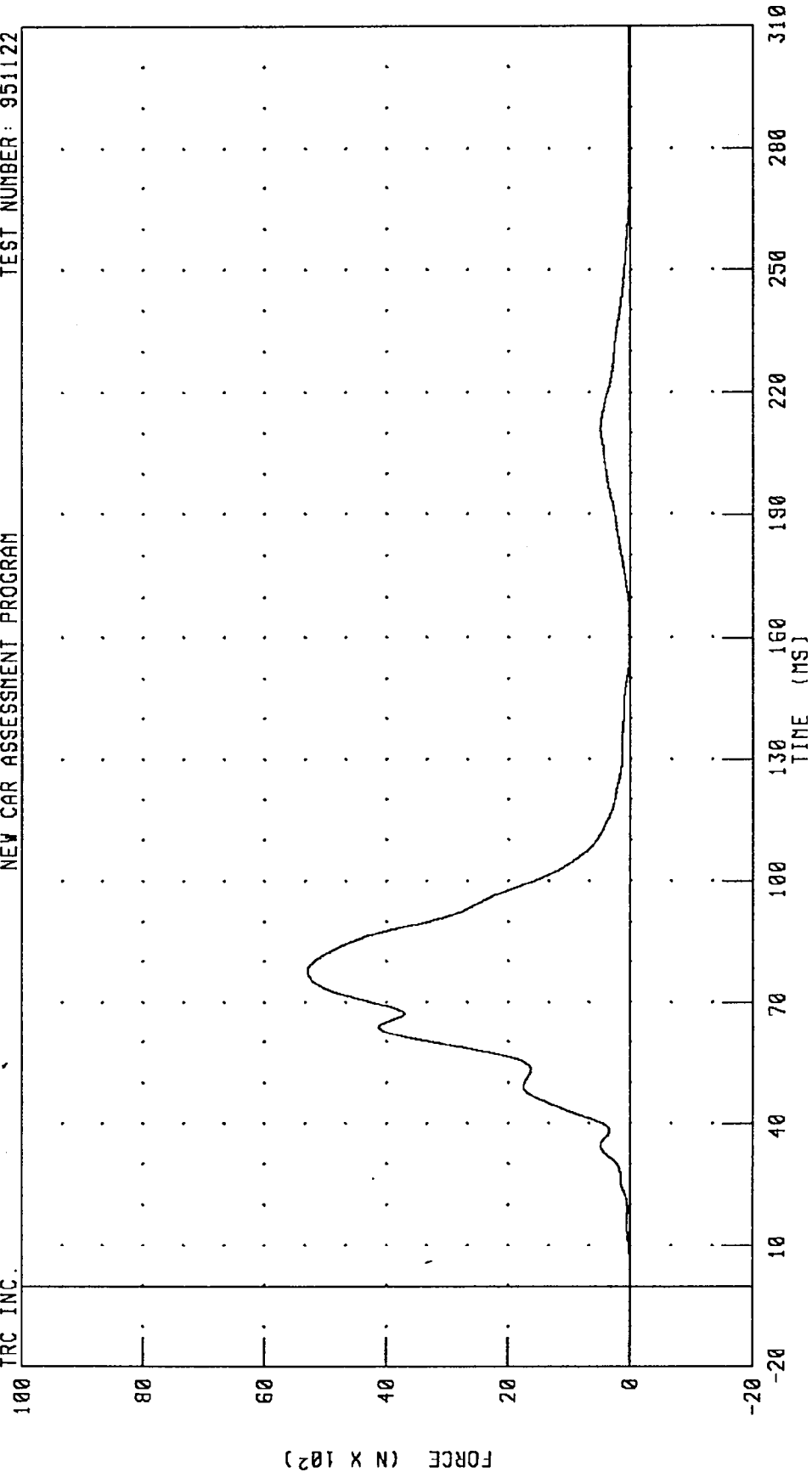
PEAK DATA: 4178.20 N @ 65.52 MS; -4.93 N @ 138.64 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER SHOULDER BELT FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: SHBF2 FILTER: CH. CLASS 60

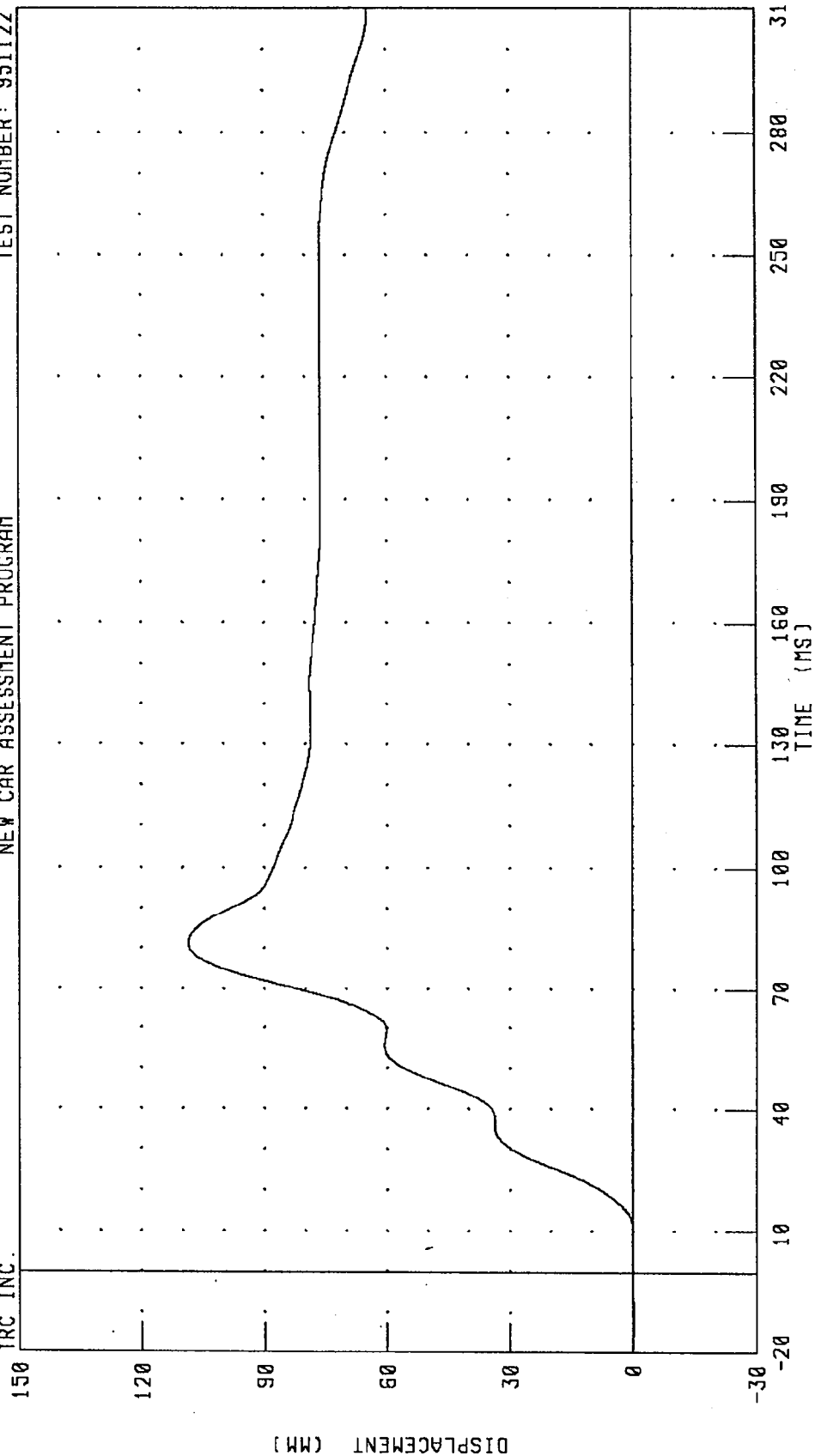
PEAK DATA: 5293.04 N @ 77.60 MS, 0.29 N @ -20.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER SHOULDER BELT DISPLACEMENT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



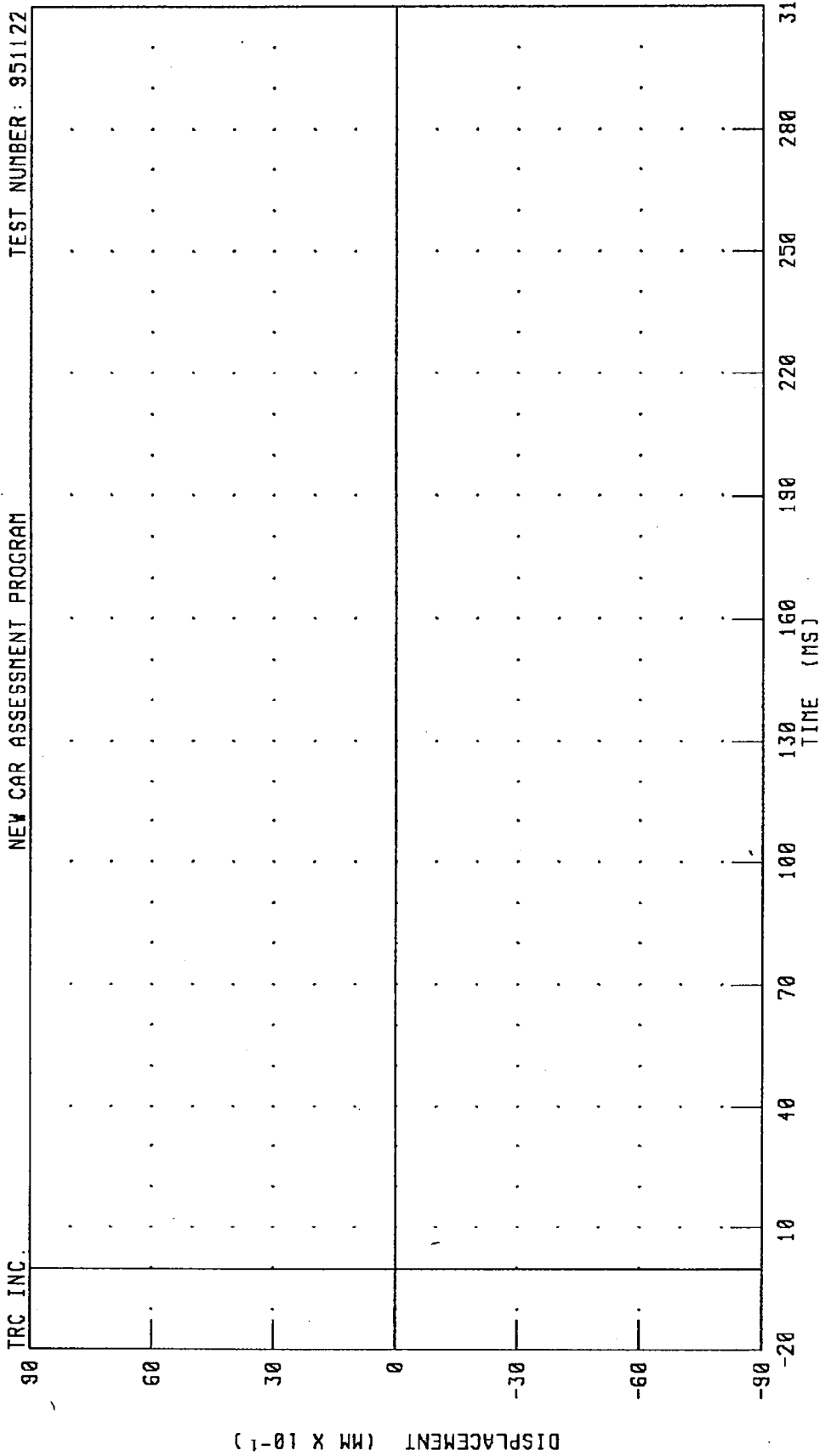
PEAK DATA: 108.60 MM @ 81.36 MS; -0.10 MM @ -12.96 MS

FILTER: CH. CLASS 60

CHANNEL: SHB02

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
PASSENGER SEAT BELT EXTENSION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



CHANNEL: SBED2 FILTER: CH. CLASS 60

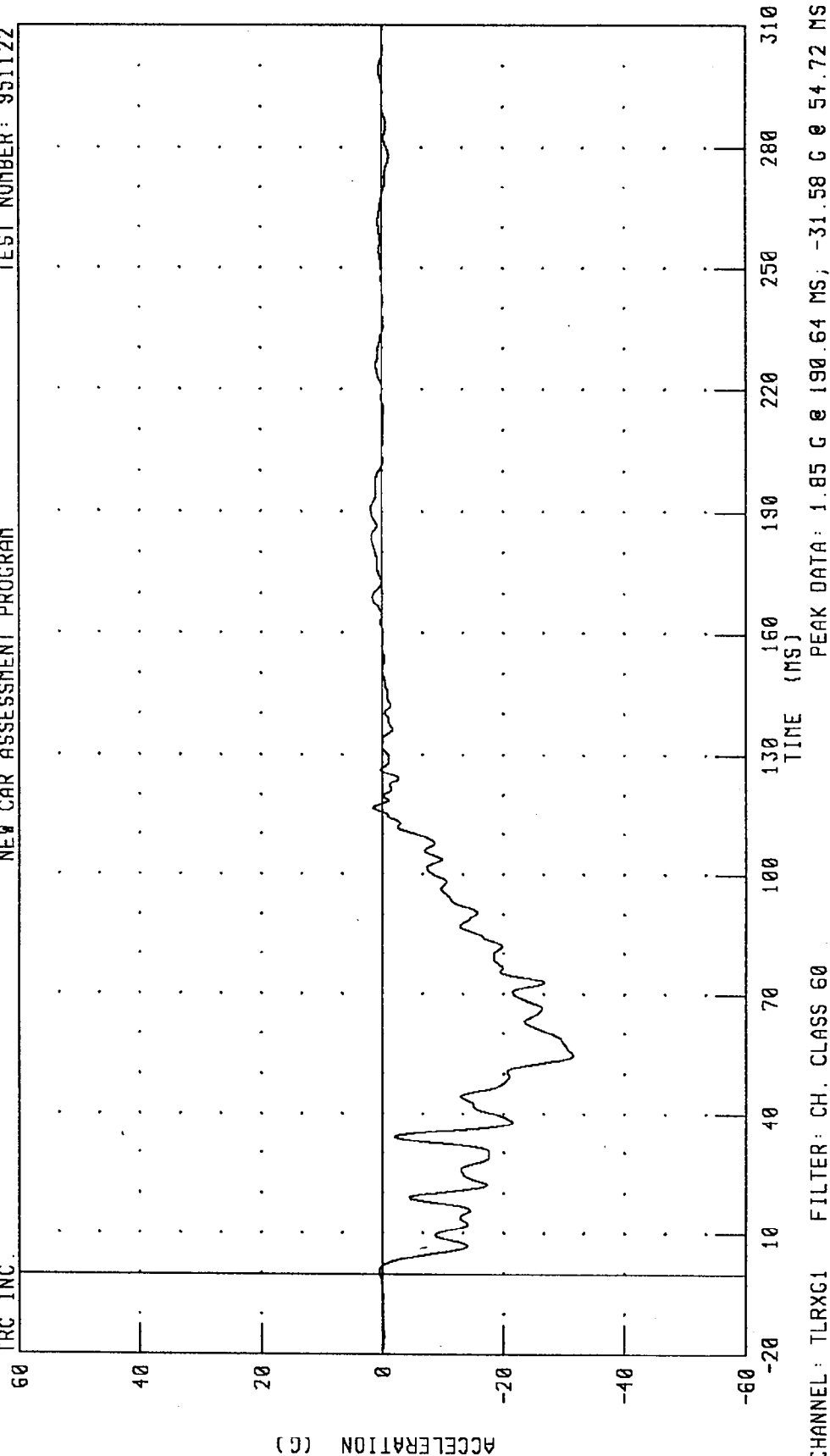
PEAK DATA: 0.00 MM @ 66.24 MS; -0.01 MM @ 73.60 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



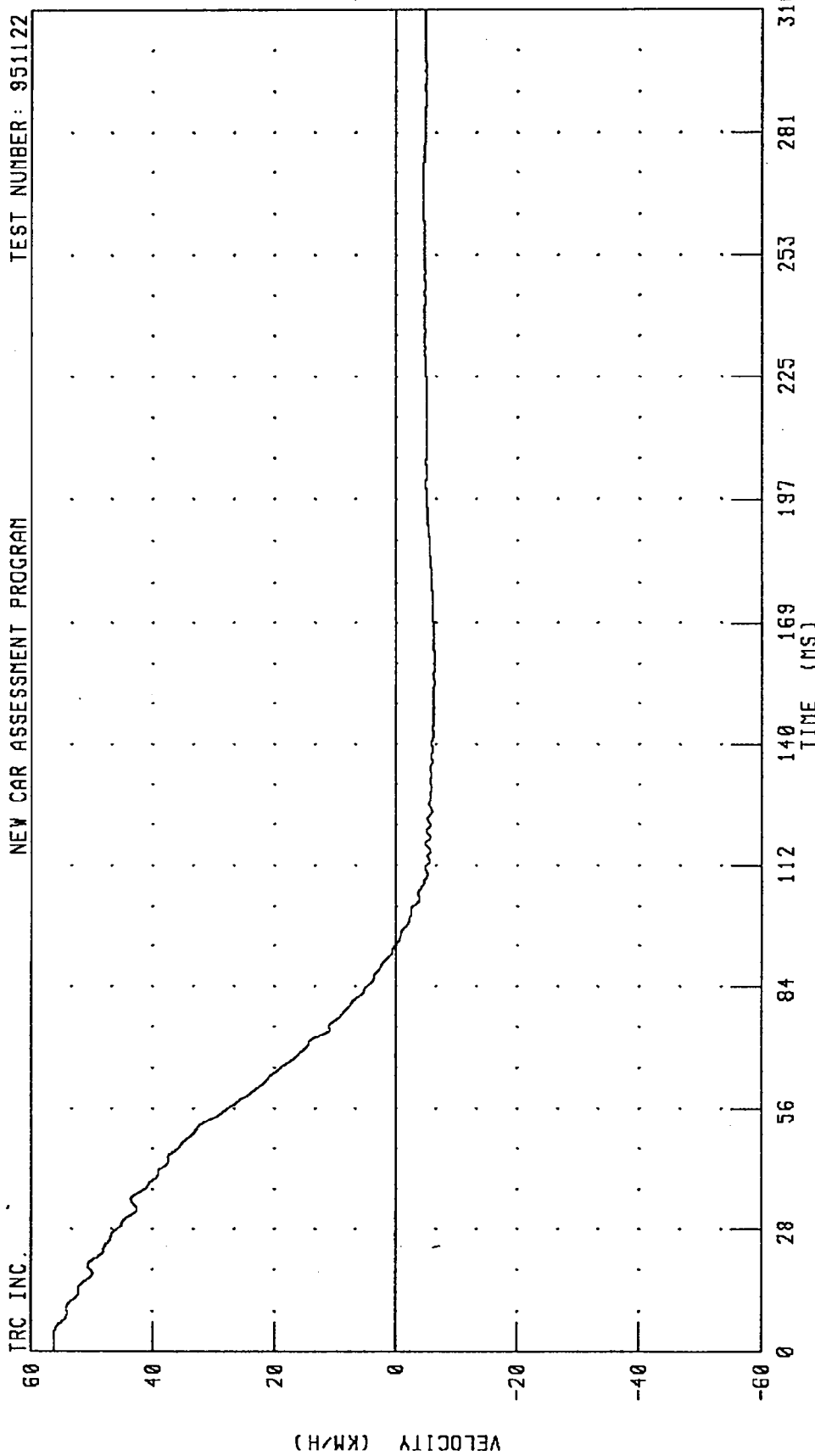
951122

CHANNEL: TLRXC1 FILTER: CH. CLASS 60

B-90

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 LEFT REAR SEAT X-AXIS VELOCITY
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



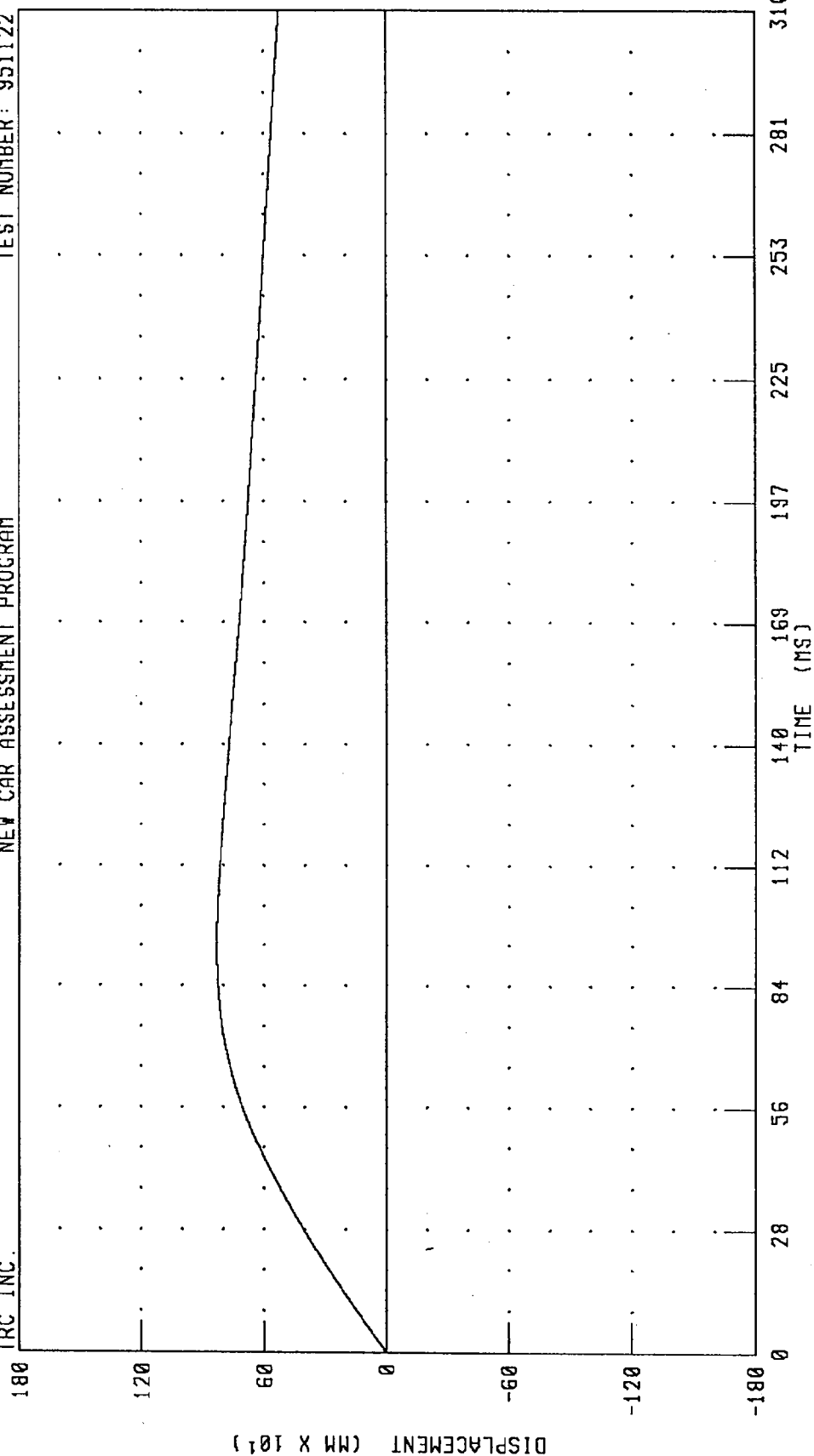
CHANNEL: TLRXV1 FILTER: CH. CLASS 180

1986 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT X-AXIS DISPLACEMENT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 832.33 MM @ 94.32 MS; 0.00 MM @ 0.00 MS

CHANNEL: TLRXD1 FILTER: CH. CLASS 180

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

60

40

20

0

-20

-40

-60

ACCELERATION (G)

TIME (MS)

310

280

250

220

190

160

130

100

70

40

10

-20

CHANNEL: TRRXG1 FILTER: CH. CLASS 60

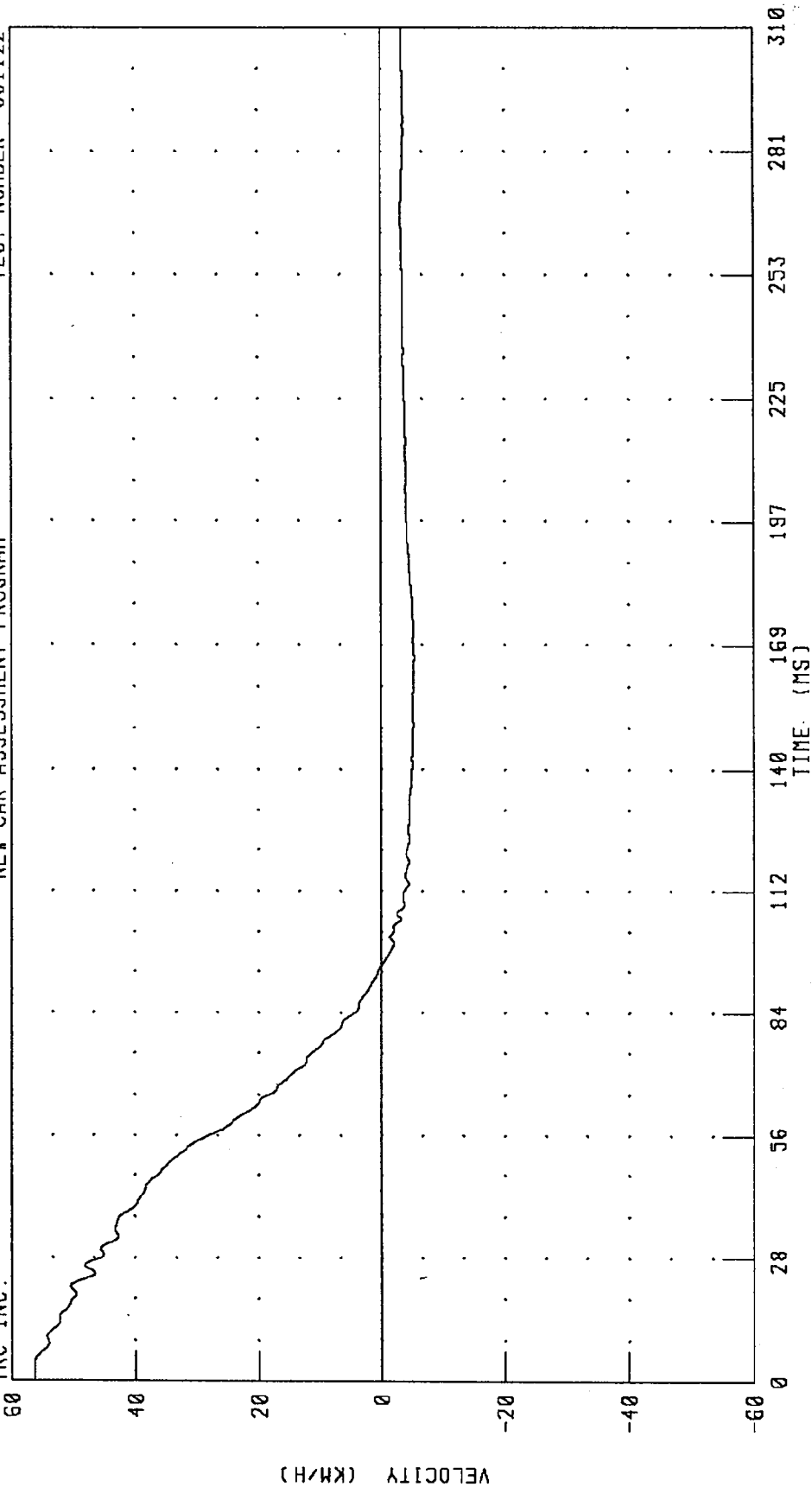
PEAK DATA: 1.80 G @ 190.32 MS; -38.24 G @ 56.64 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS VELOCITY

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: TRRXV1 FILTER: CH. CLASS 180

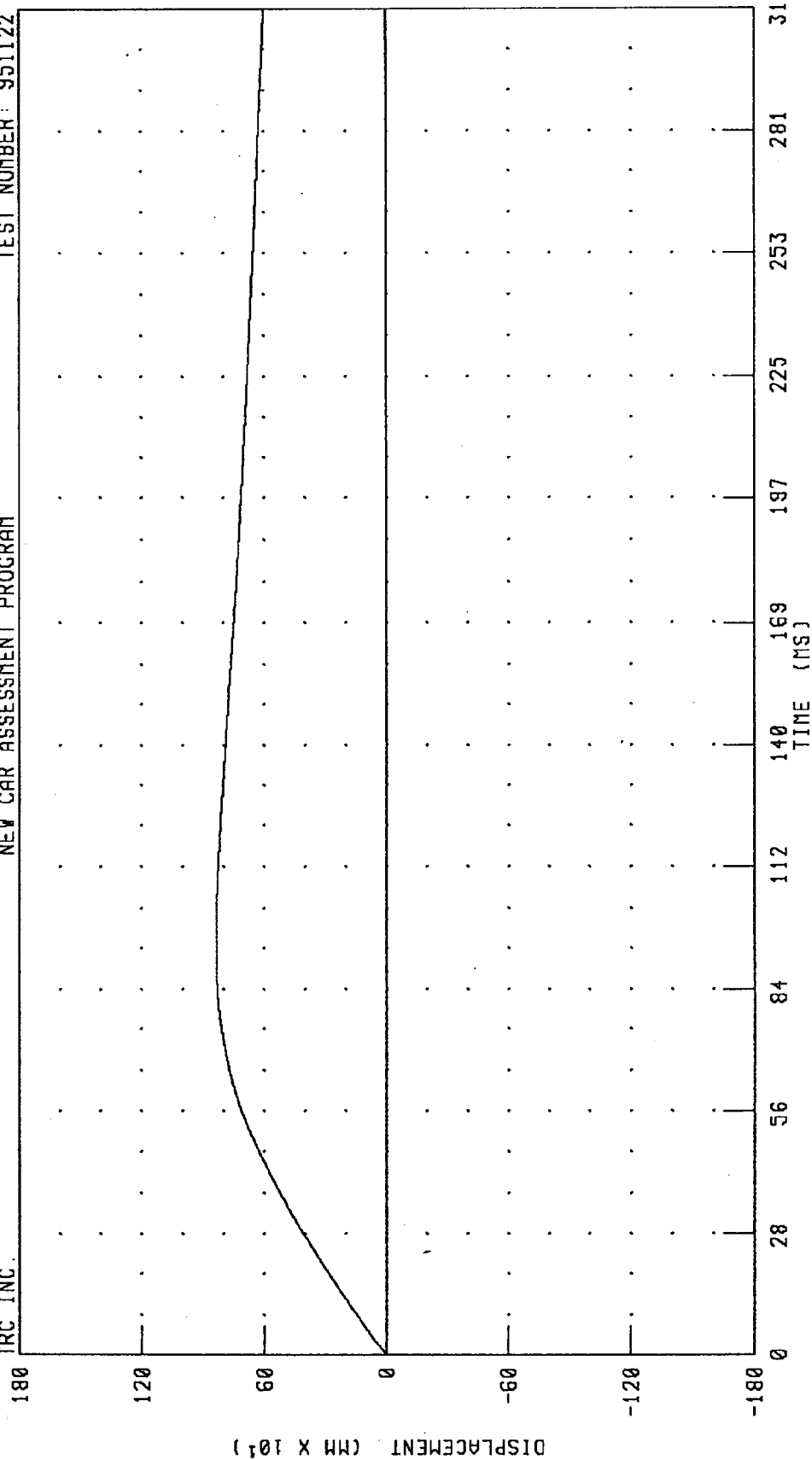
PEAK DATA: 56.30 KM/H @ 3.28 MS; -5.33 KM/H @ 166.32 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS DISPLACEMENT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: TRRXD1 FILTER: CH. CLASS 180

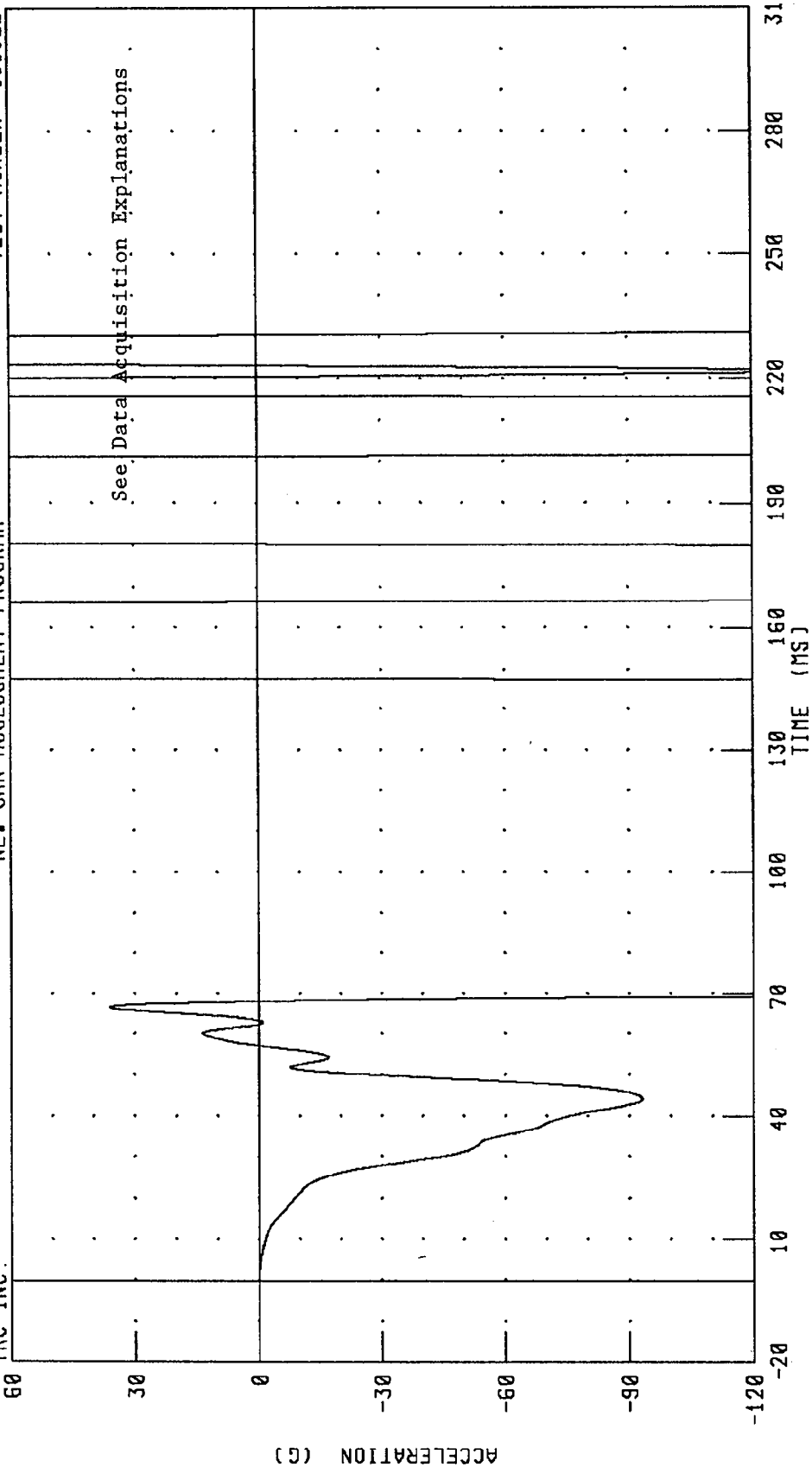
PEAK DATA: 835.75 MM @ 95.44 MS; 0.00 MM @ 0.00 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
ENGINE TOP X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

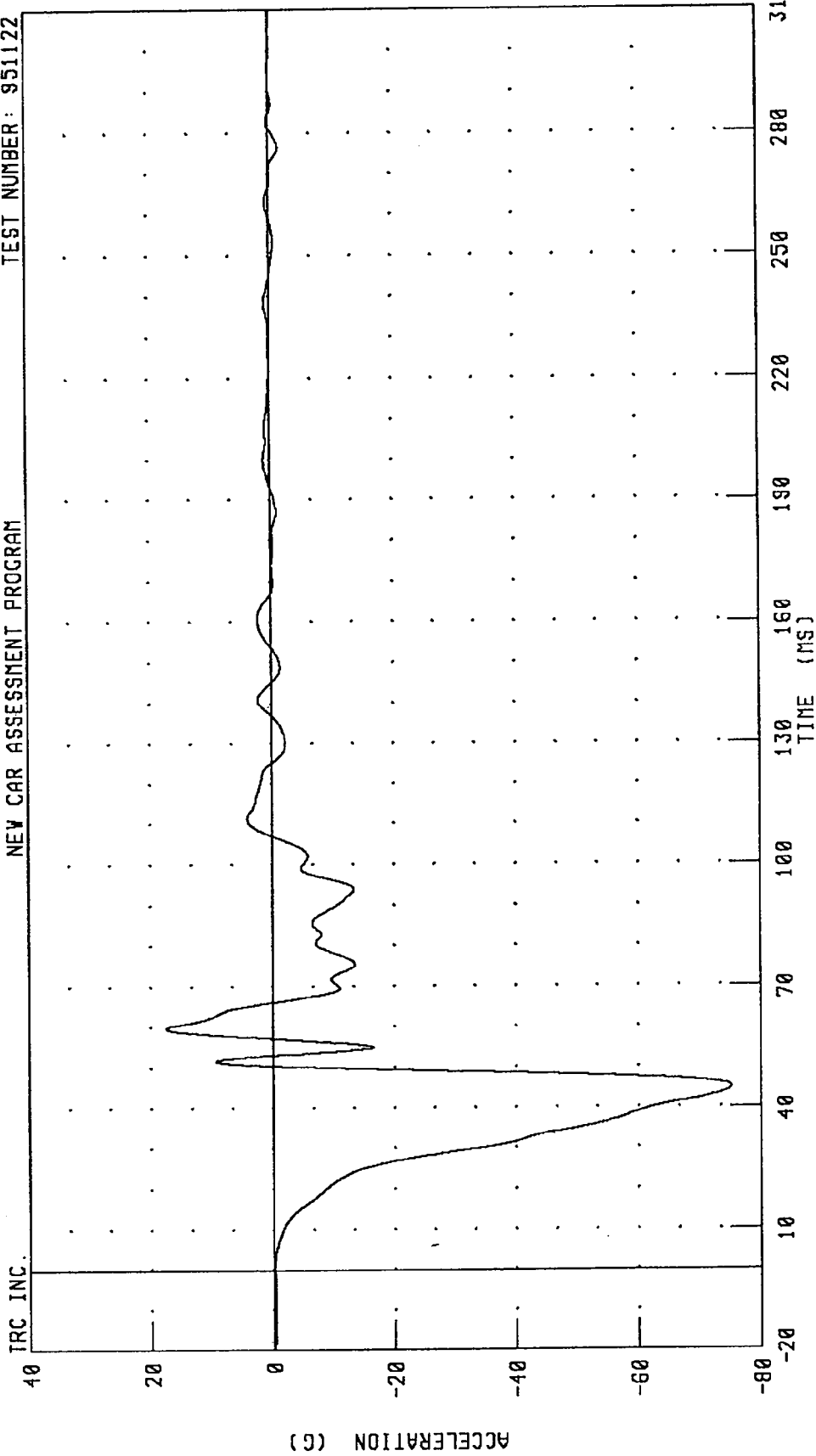


PEAK DATA: 1082.23 G @ 197.12 MS; -1081.14 G @ 205.68 MS

CHANNEL: ENGCG1 FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
ENGINE BOTTOM X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

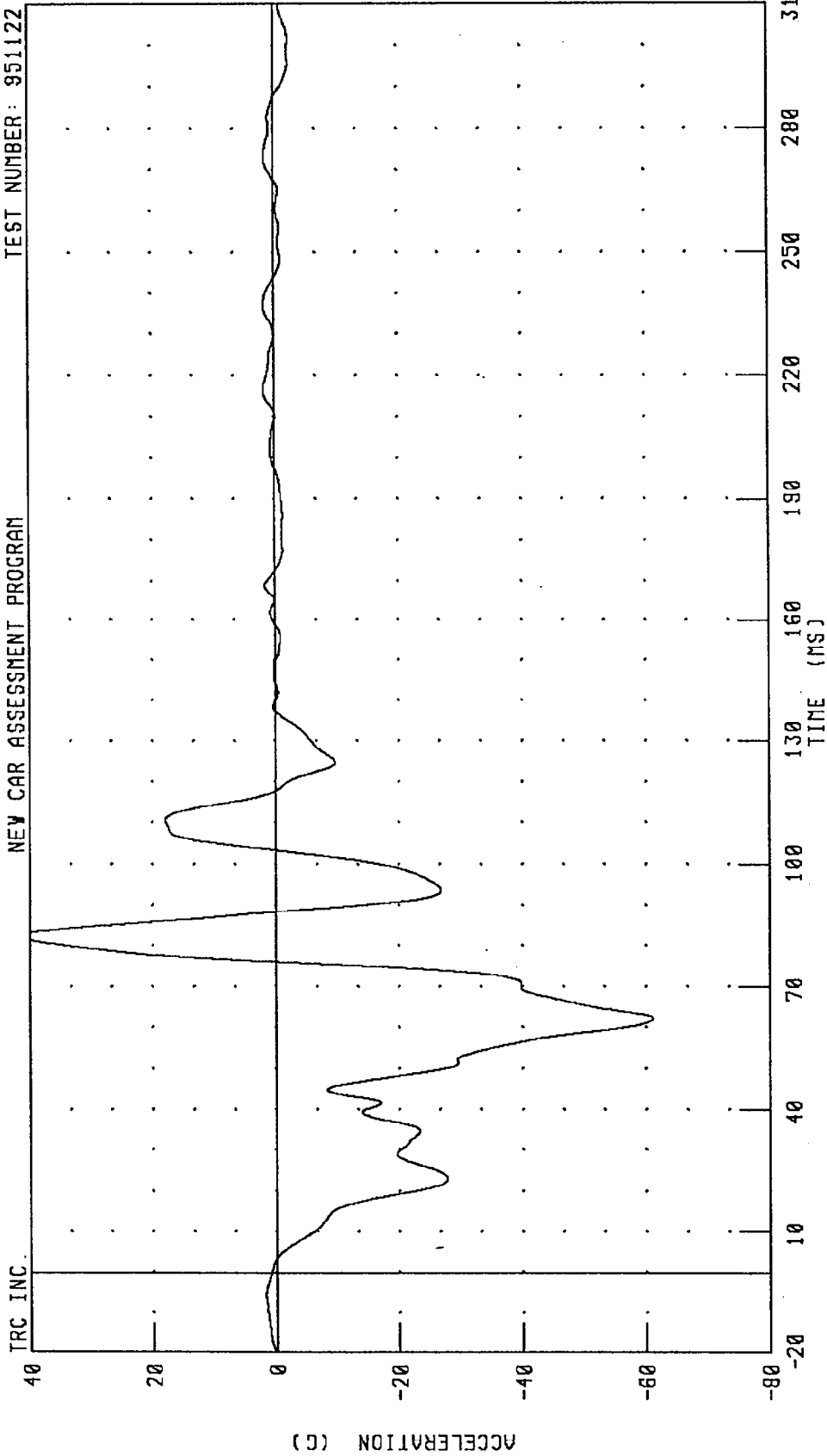


PEAK DATA: 17.44 G @ 59.68 MS; -75.14 G @ 44.96 MS

CHANNEL: ENG XG2 FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
RIGHT BRAKE CALIPER X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122



CHANNEL: BCRXG1 FILTER: CH. CLASS 60

PEAK DATA: 41.59 G @ 82.40 MS; -61.20 G @ 62.16 MS

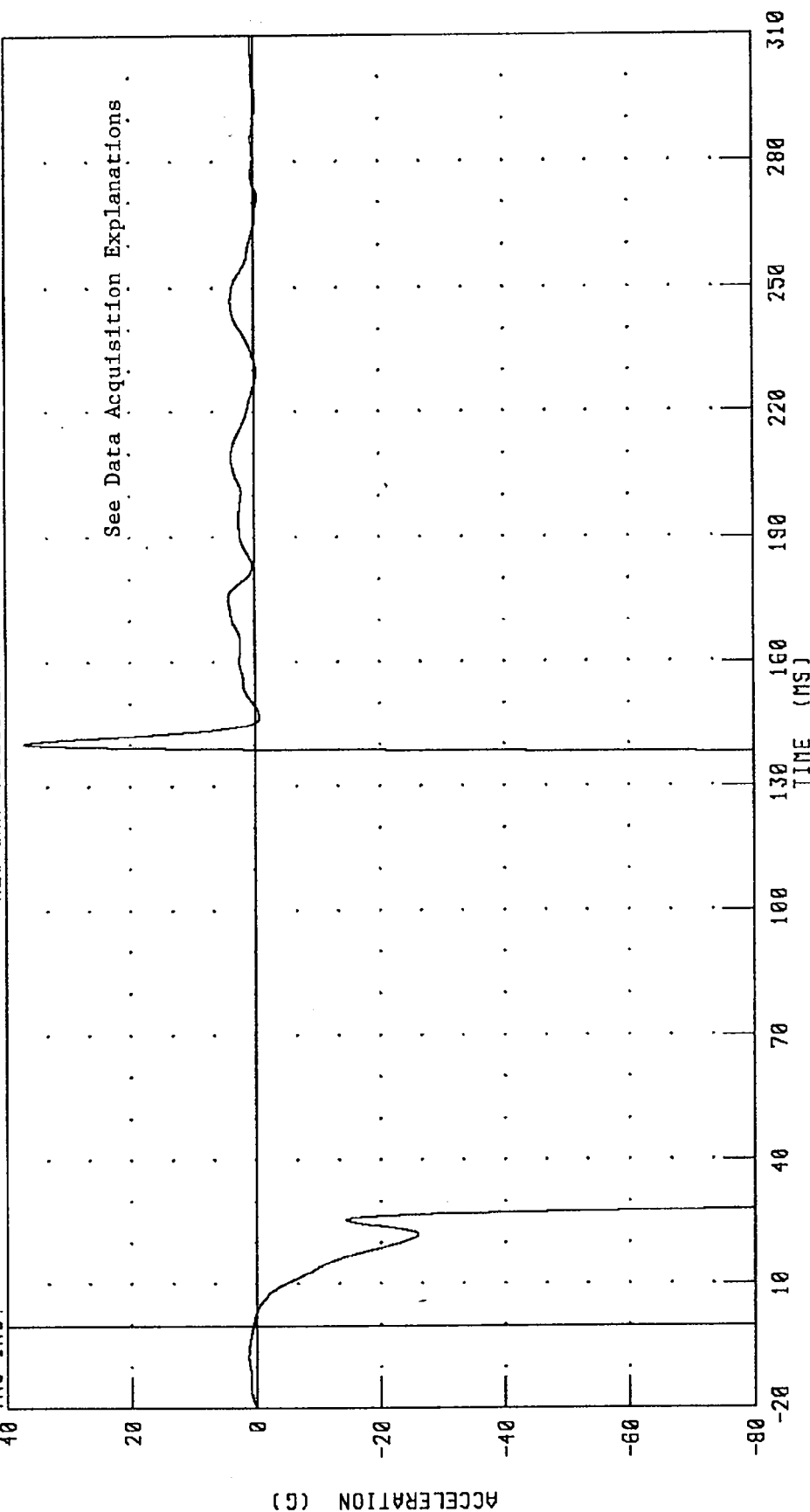
1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LEFT BRAKE CALIPER X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

See Data Acquisition Explanations

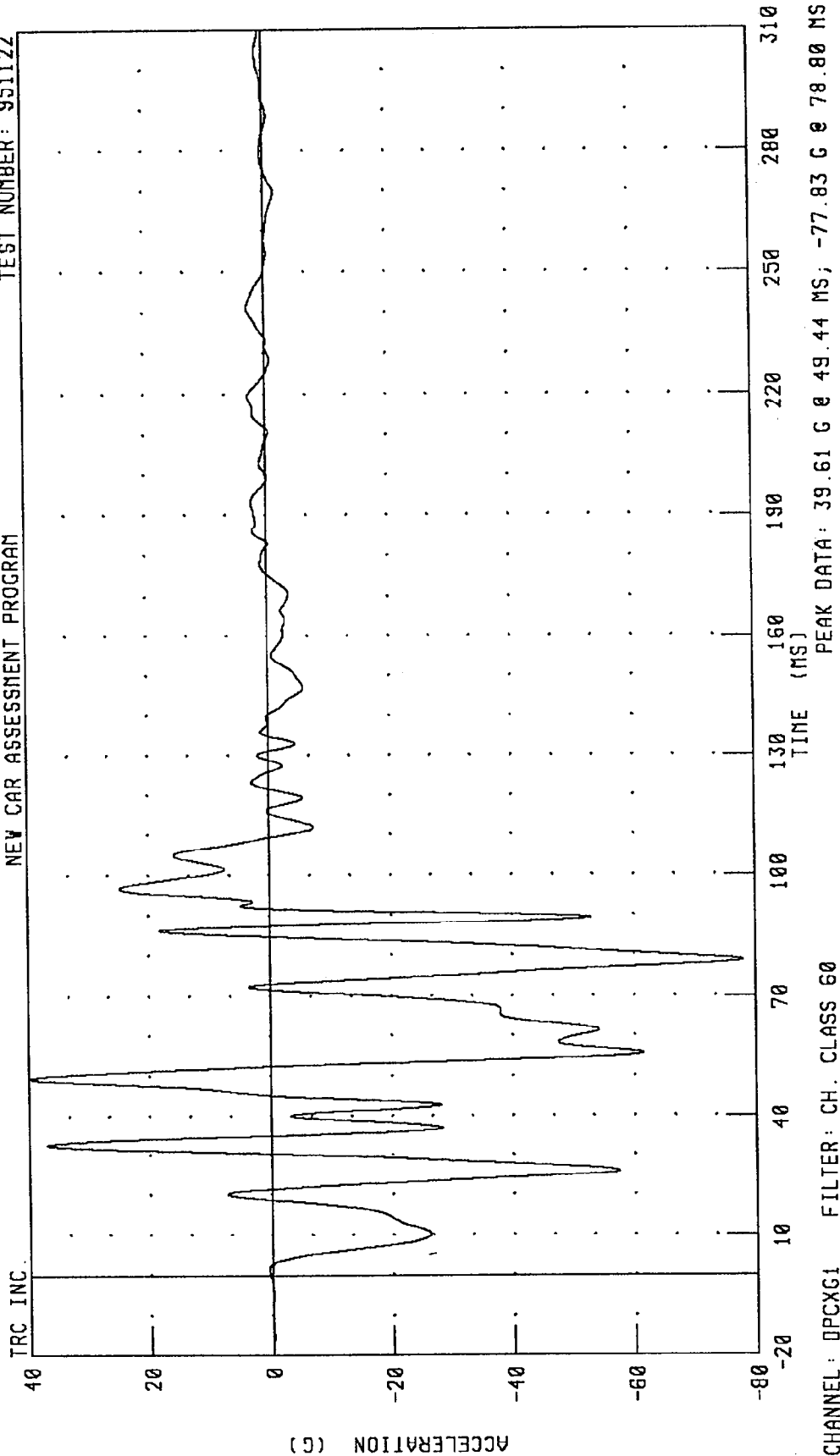


PEAK DATA: 37.02 G @ 140.40 MS; -1041.57 G @ 131.92 MS

CHANNEL: BCLXG1 FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
INSTRUMENT PANEL CENTER X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

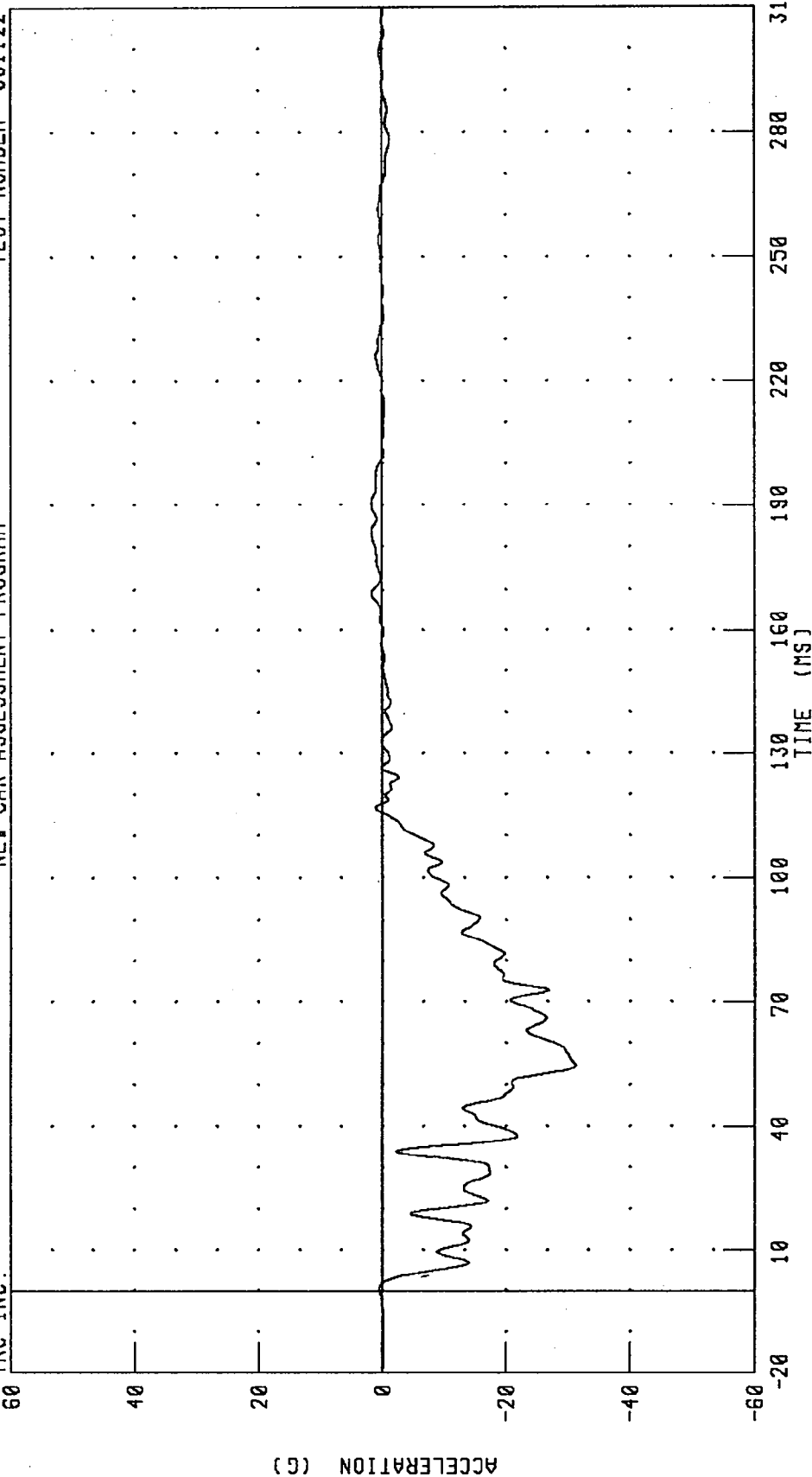


1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT REDUNDANT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: TLRXGA FILTER: CH. CLASS 60

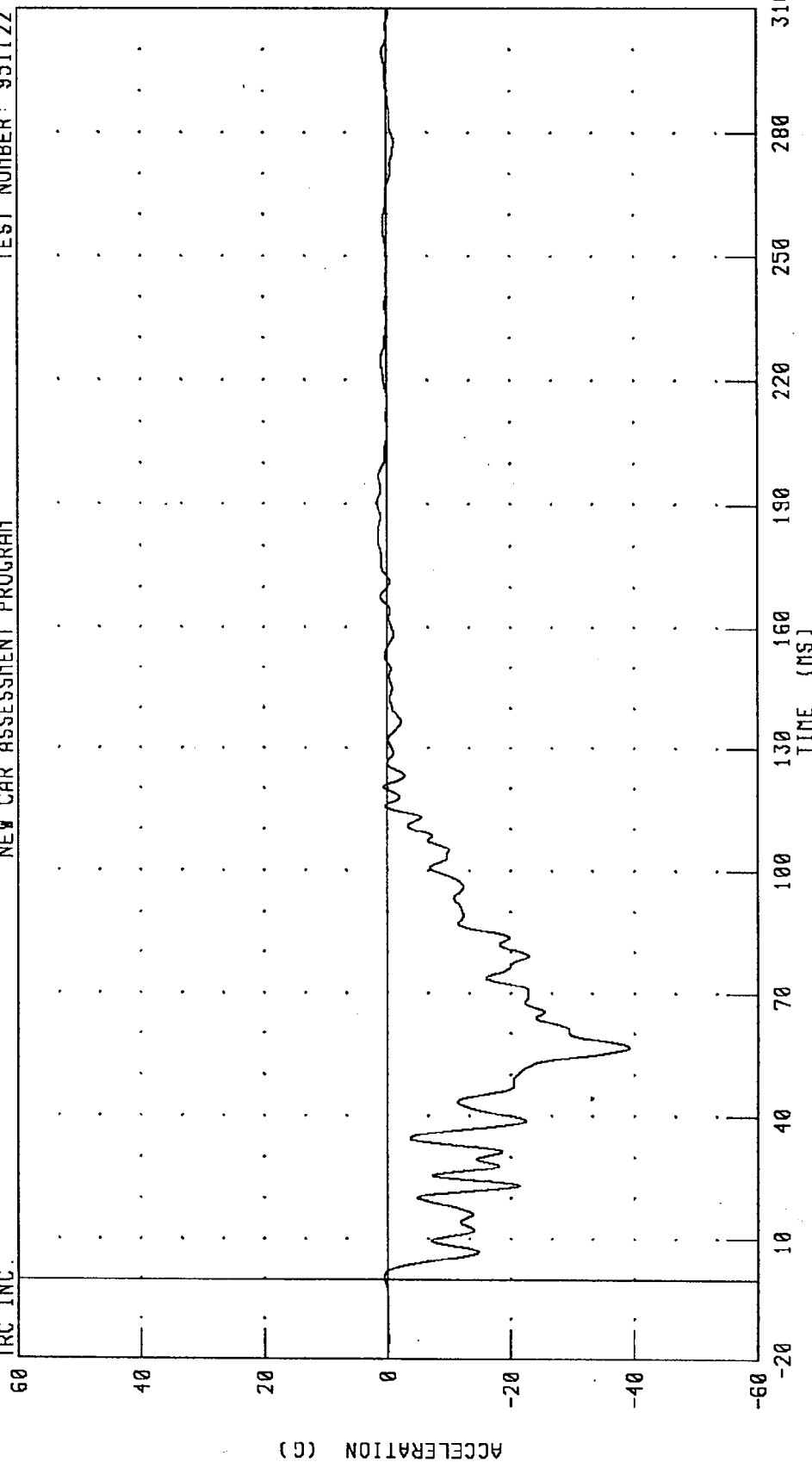
PEAK DATA: 1.77 G @ 190.56 MS; -31.29 G @ 54.56 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT REDUNDANT X-AXIS ACCELERATION

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 1.63 G @ 190.40 MS; -39.25 G @ 56.72 MS

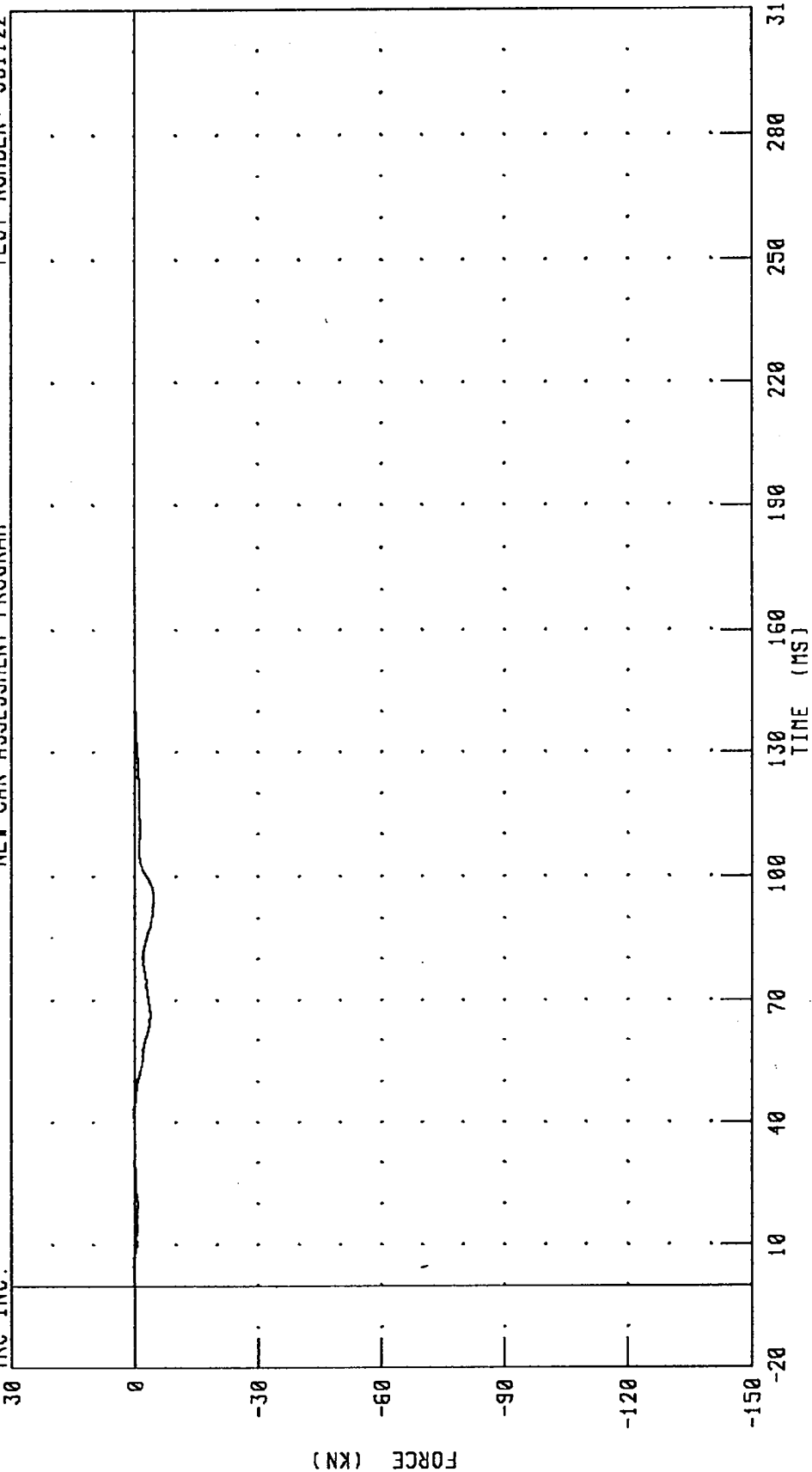
CHANNEL: TRRXGA FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A2 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.31 KN @ 4.32 MS; -4.59 KN @ 94.96 MS

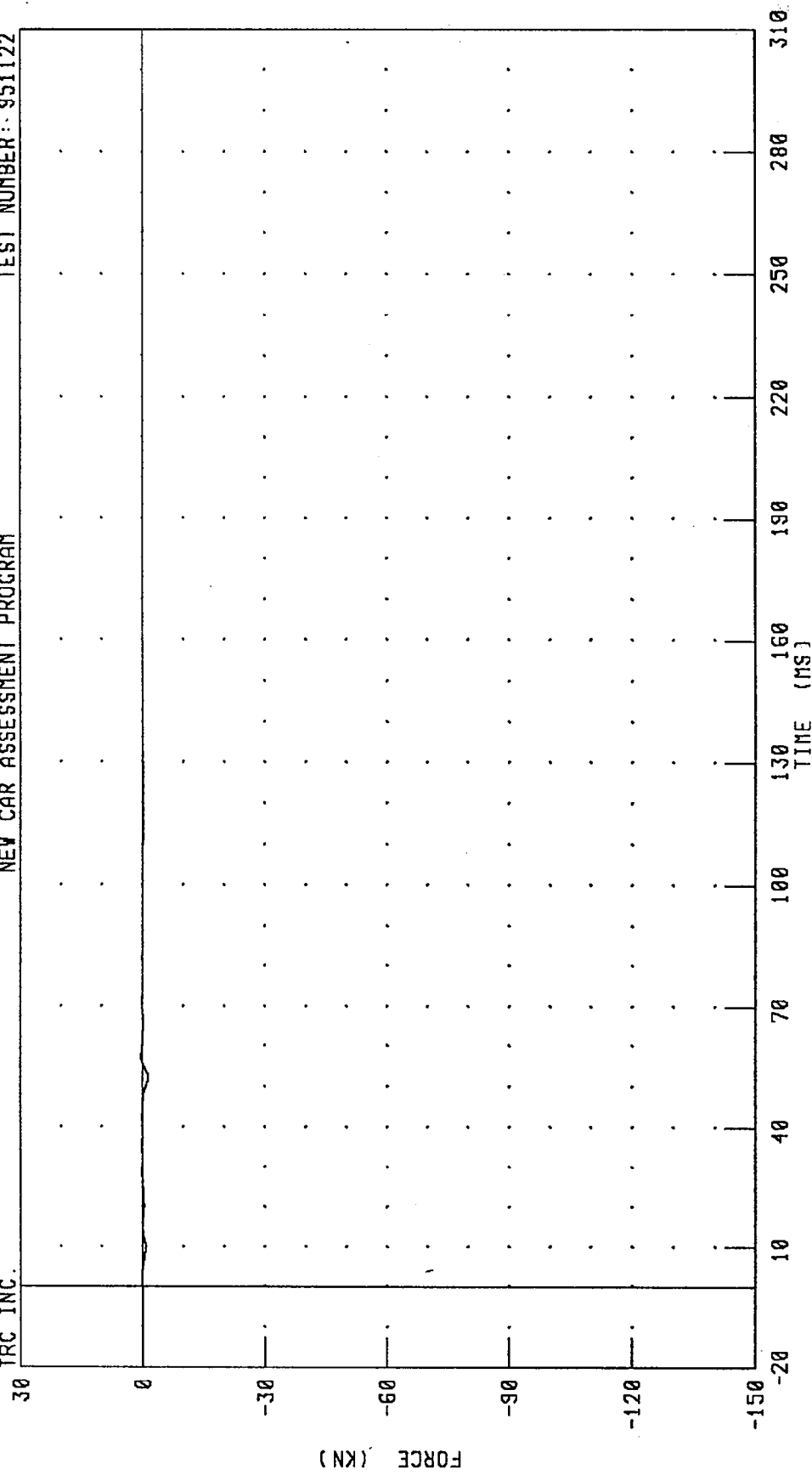
CHANNEL: BA2F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A3 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

IRC INC.



PEAK DATA: 0.38 KN @ 57.36 MS; -1.39 KN @ 52.00 MS

FILTER: CH. CLASS 60

CHANNEL: BA3F

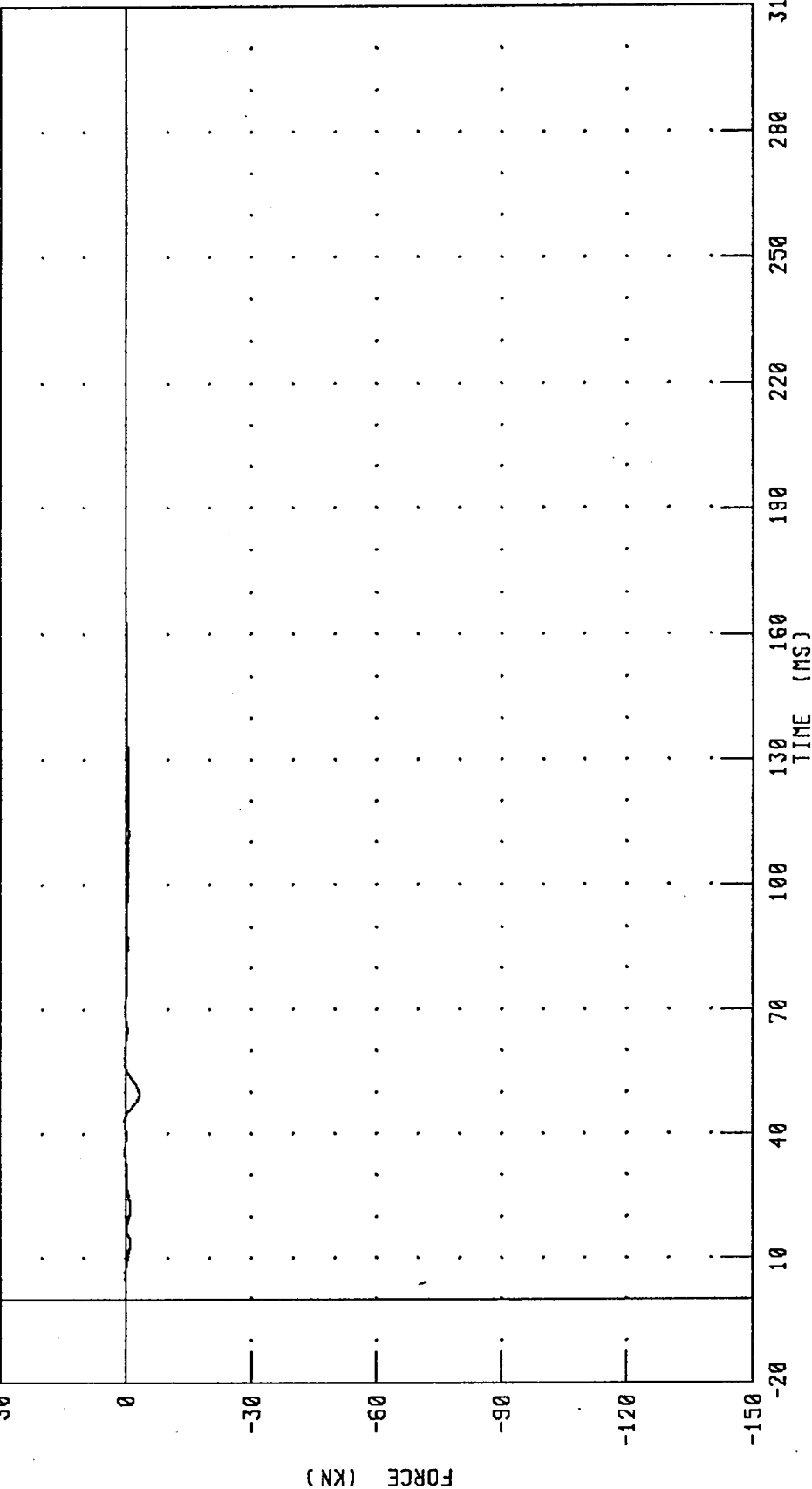
1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A4 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

30



PEAK DATA: 0.34 KN @ 43.12 MS; -3.25 KN @ 49.60 MS

FILTER: CH. CLASS 60

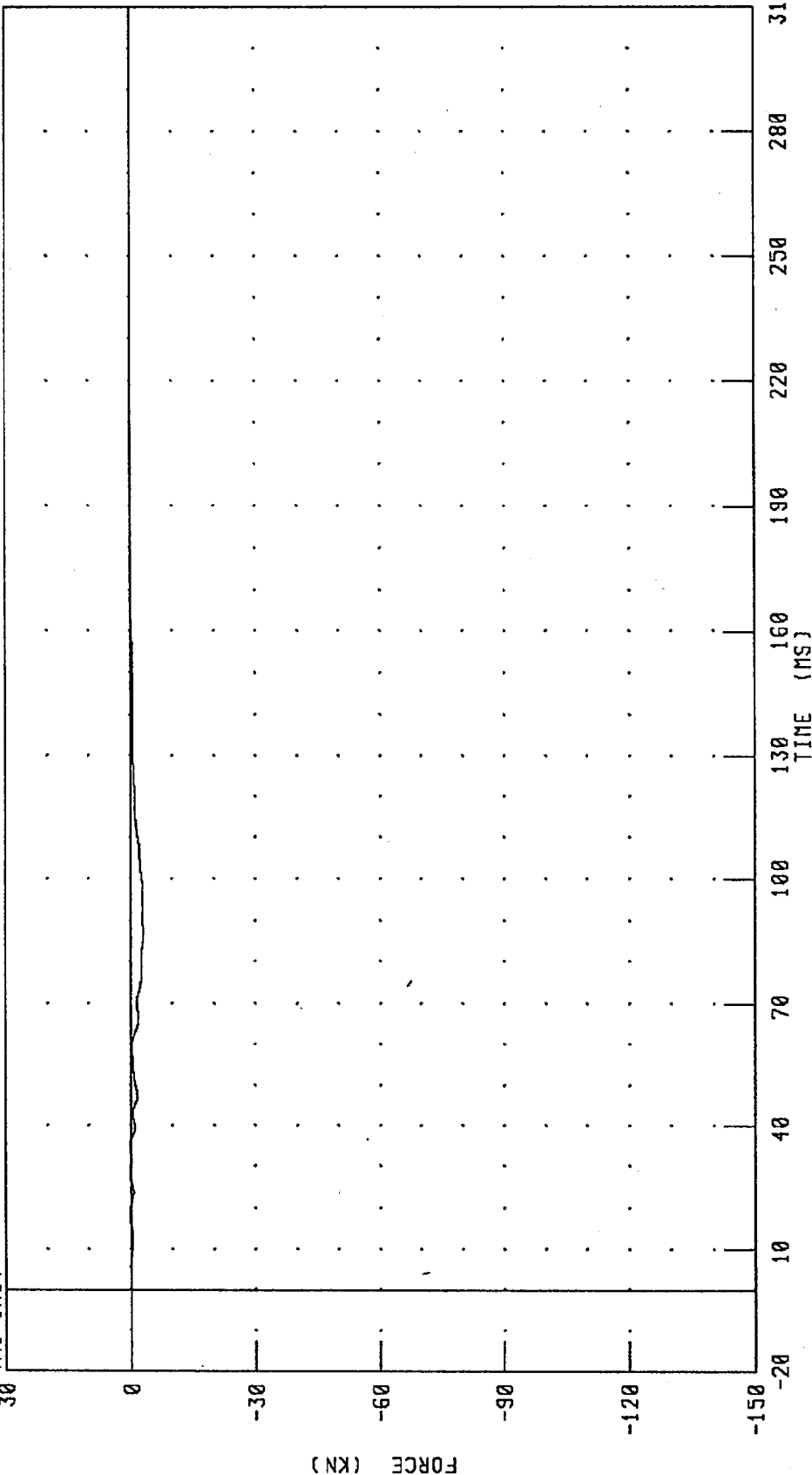
CHANNEL: BA4F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A5 FORCE

NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: BASF

FILTER: CH. CLASS 60

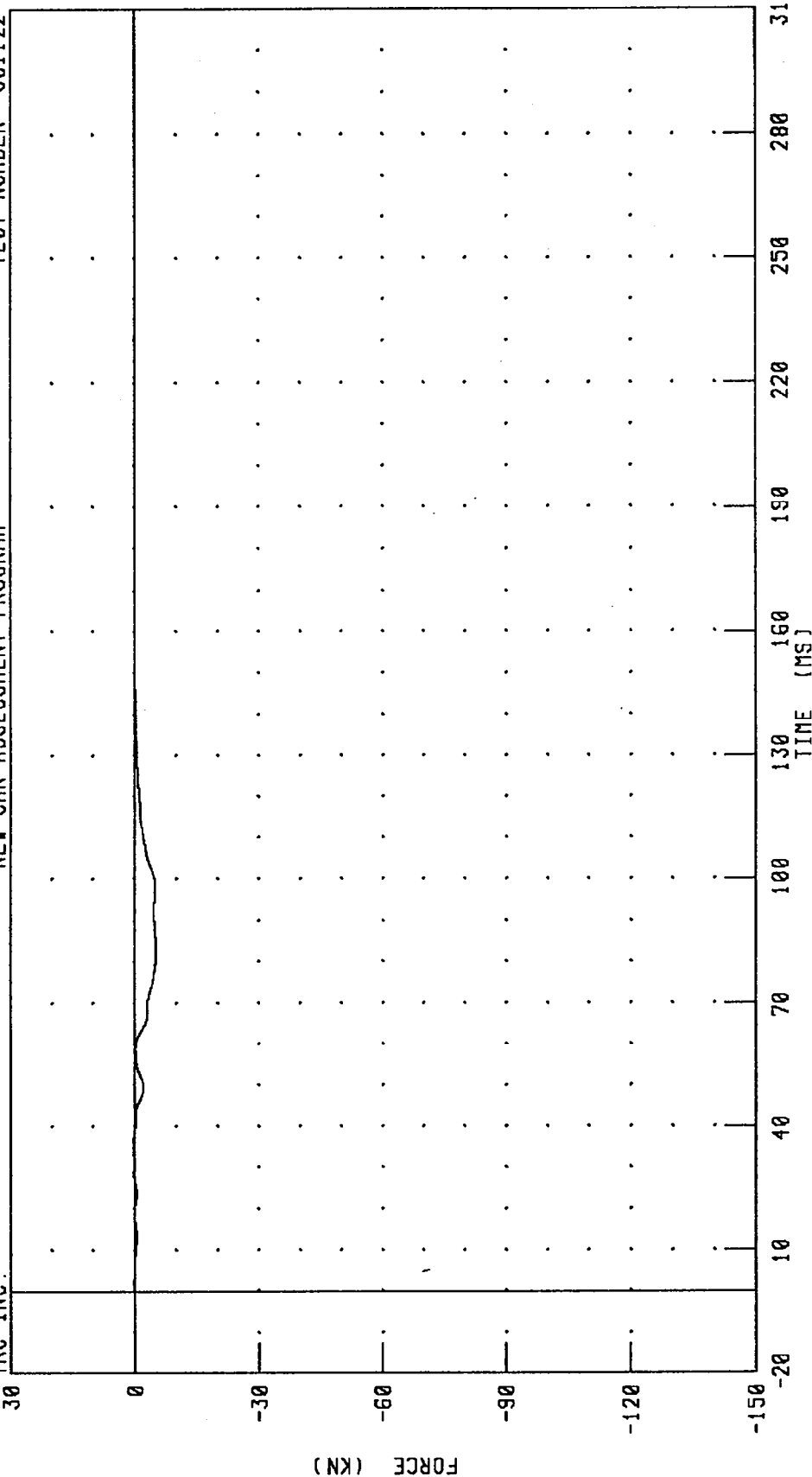
PEAK DATA: 0.30 KN @ 18.40 MS; -3.13 KN @ 86.48 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A6 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



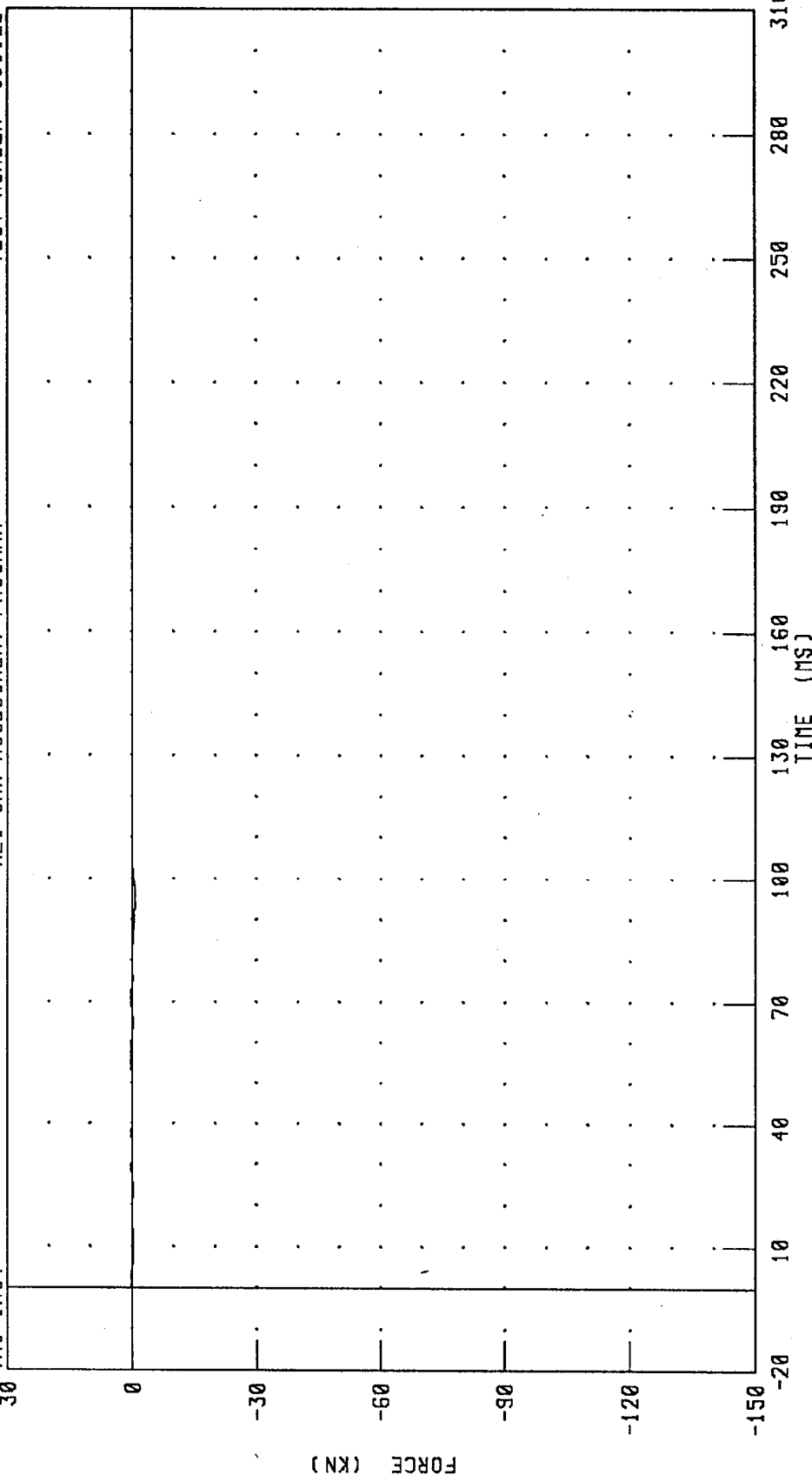
CHANNEL: BAGF FILTER: CH. CLASS 60

PEAK DATA: 0.21 KN @ 35.12 MS; -5.17 KN @ 82.96 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 LOAD CELL BARRIER POSITION A7 FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



CHANNEL: BA7F

FILTER: CH. CLASS 60

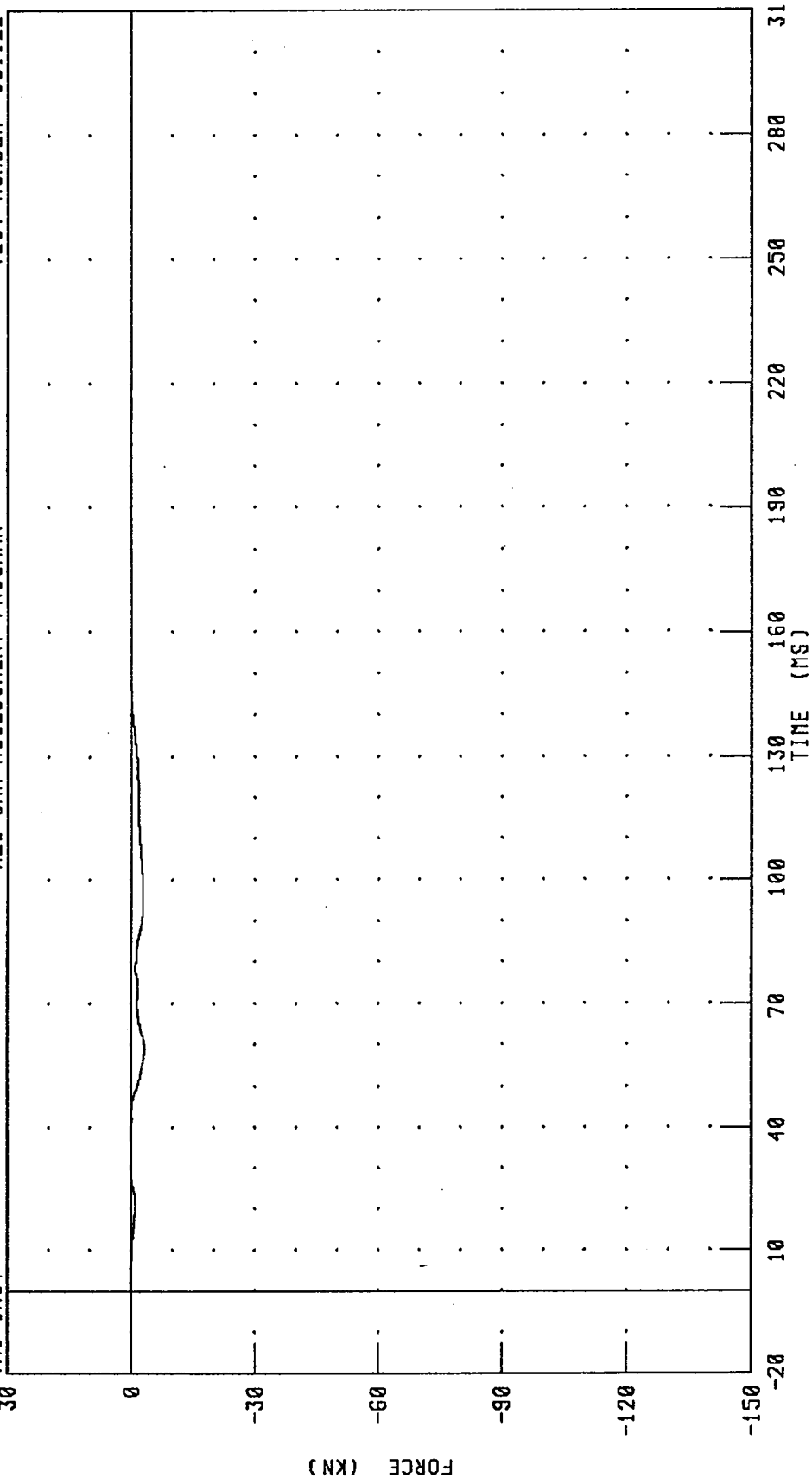
PEAK DATA: 0.26 KN @ 2.32 MS; -0.77 KN @ 94.32 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A8 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.25 KN @ 3.28 MS; -3.31 KN @ 58.88 MS

FILTER: CH. CLASS 60

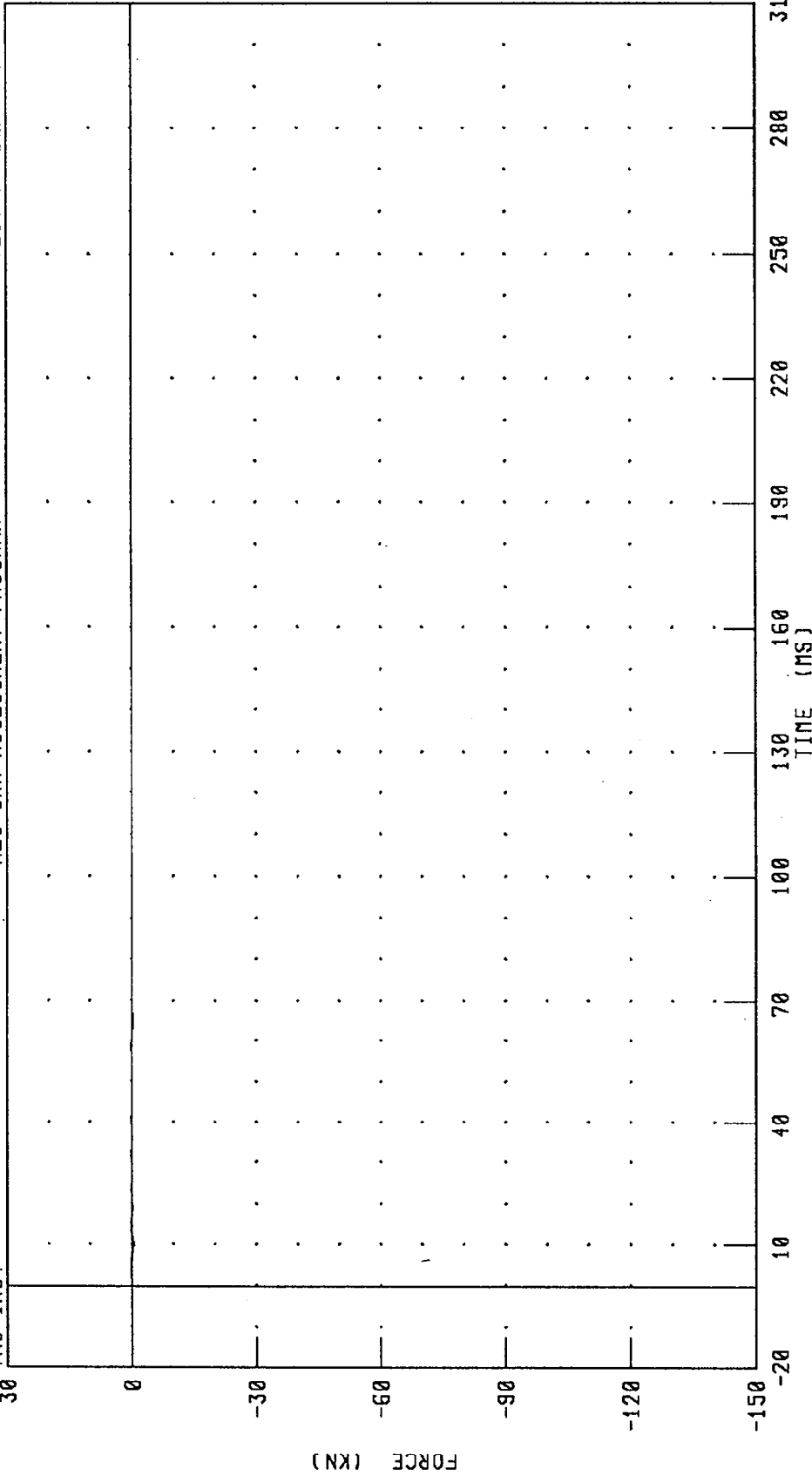
CHANNEL: BA8F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B1 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: BB1F

FILTER: CH. CLASS 60

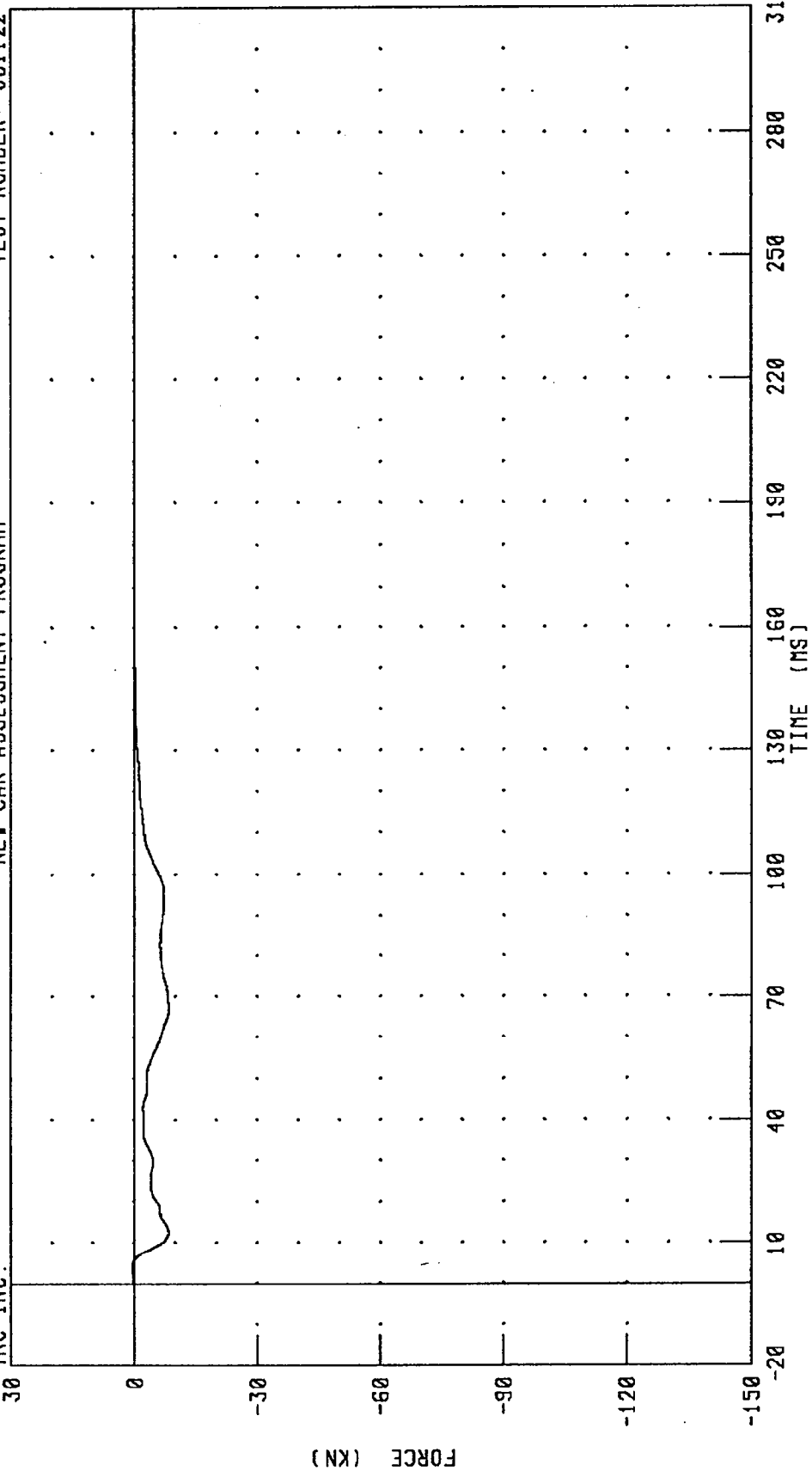
PEAK DATA: 0.26 KN @ 4.08 MS; -0.45 KN @ 10.08 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B2 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



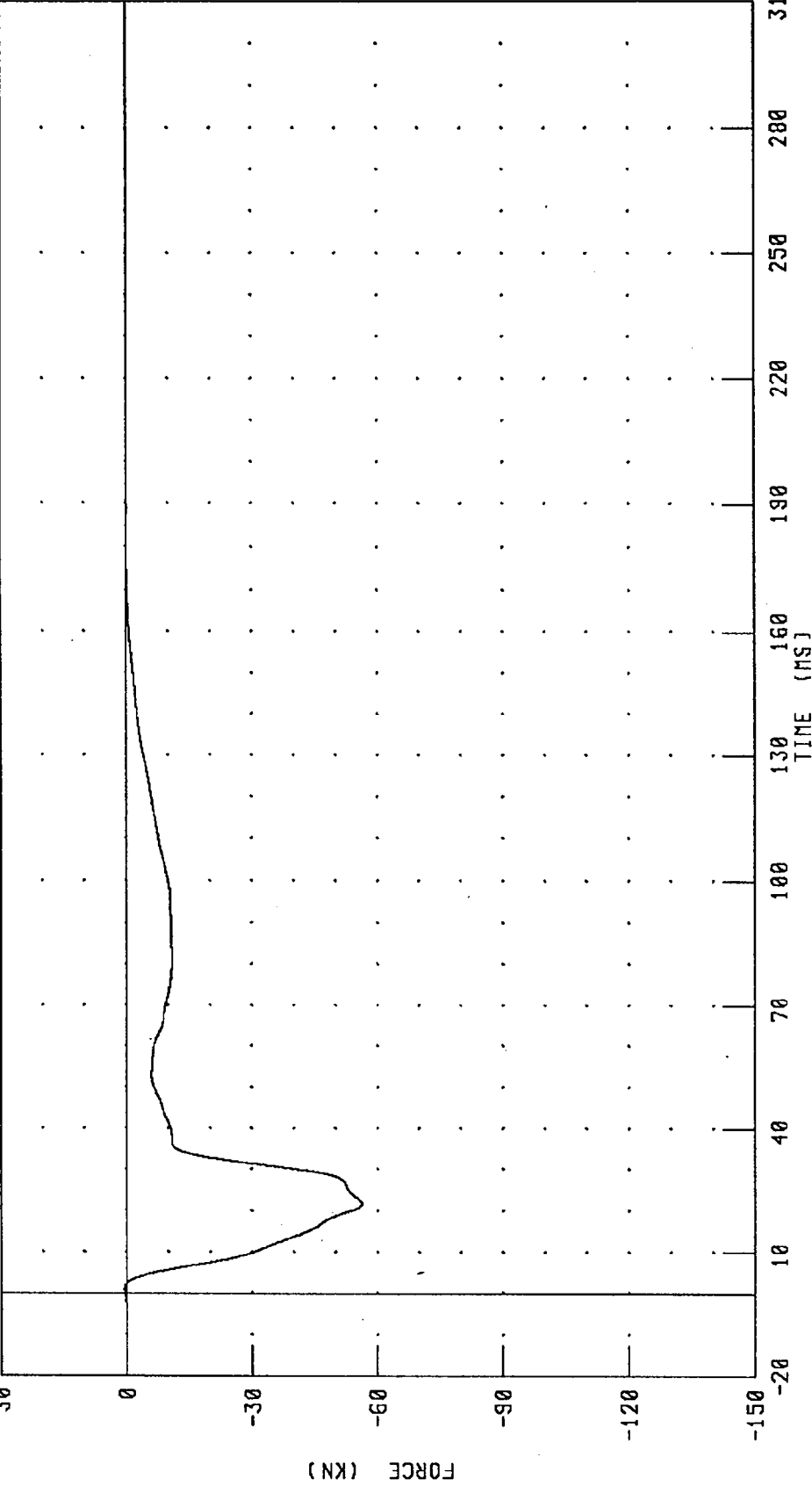
PEAK DATA: 0.47 KN @ 3.84 MS; -8.40 KN @ 66.72 MS

CHANNEL: BB2F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 LOAD CELL BARRIER POSITION B3 FORCE
 NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 951122

TRC INC.



PEAK DATA: 0.60 KN @ 0.88 MS; -56.31 KN @ 21.68 MS

FILTER: CH. CLASS 60

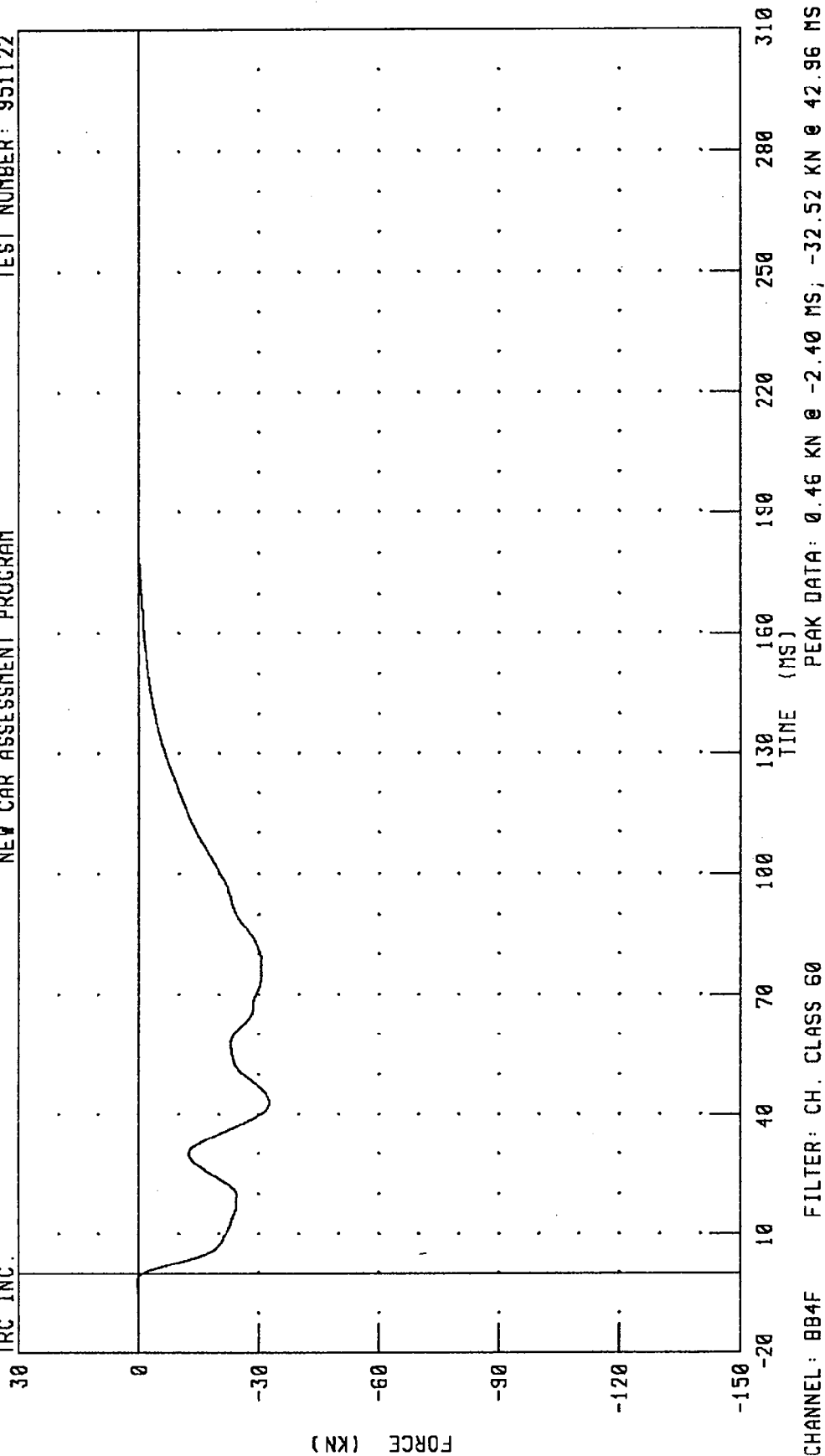
CHANNEL: BB3F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B4 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: BB4F FILTER: CH. CLASS 60

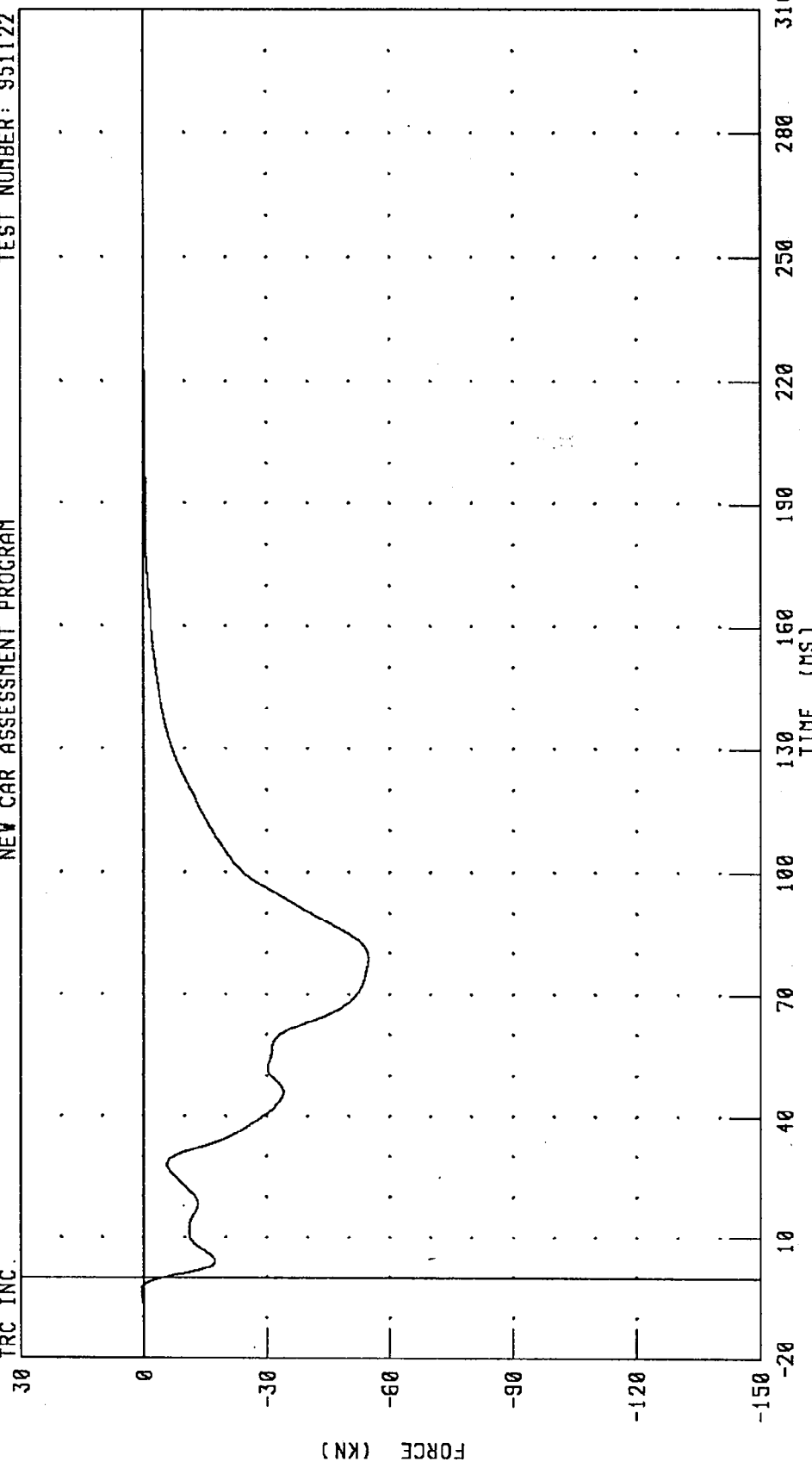
PEAK DATA: 0.46 KN @ -2.40 MS; -32.52 KN @ 42.96 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B5 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: BBSF

FILTER: CH. CLASS 60

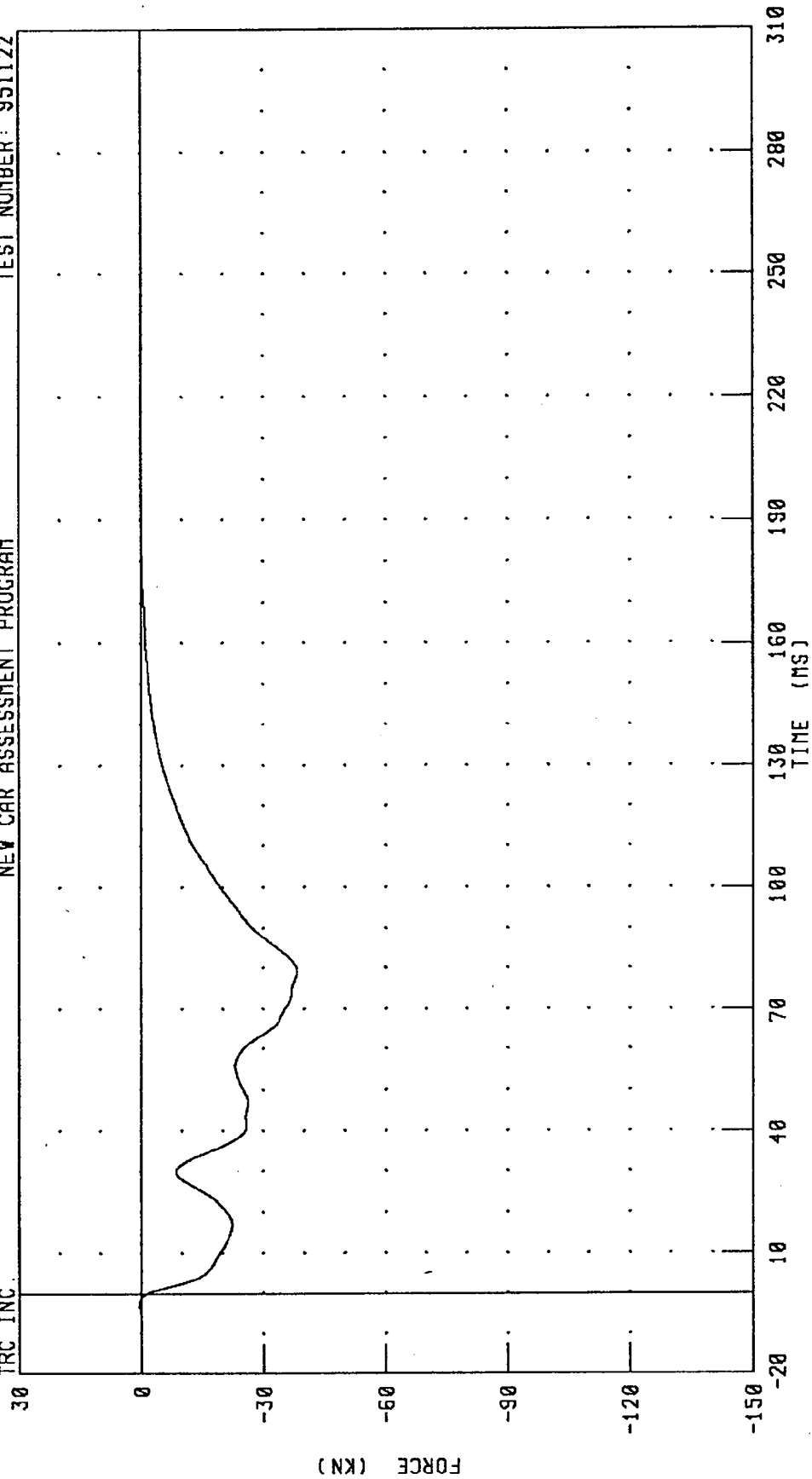
PEAK DATA: 0.58 KN @ -3.44 MS; -54.79 KN @ 78.64 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B6 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.43 KN @ -2.56 MS; -38.22 KN @ 79.28 MS

FILTER: CH. CLASS 60

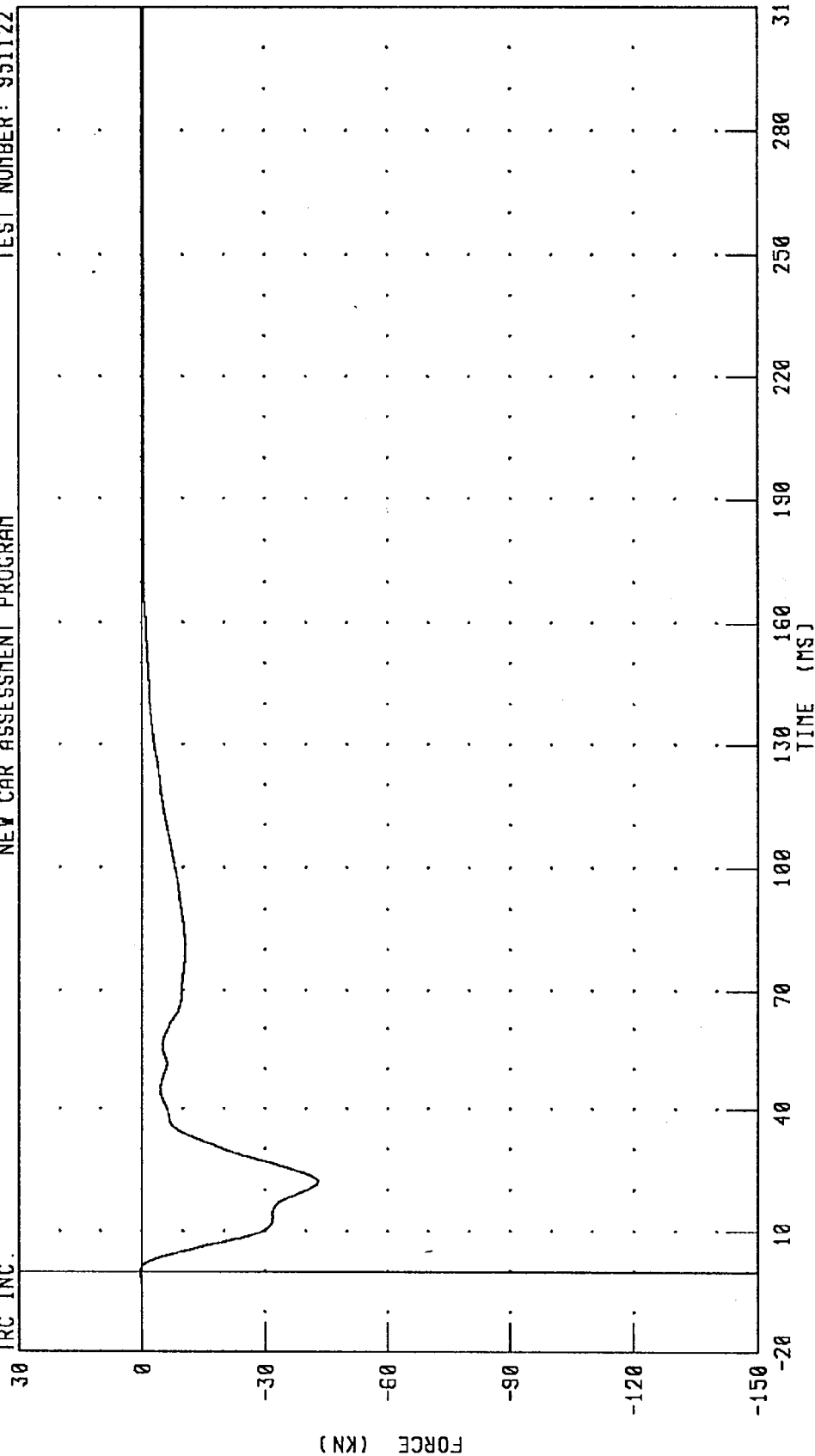
CHANNEL: BB6F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B7 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.43 KN @ -0.32 MS; -42.99 KN @ 22.00 MS

FILTER: CH. CLASS 60

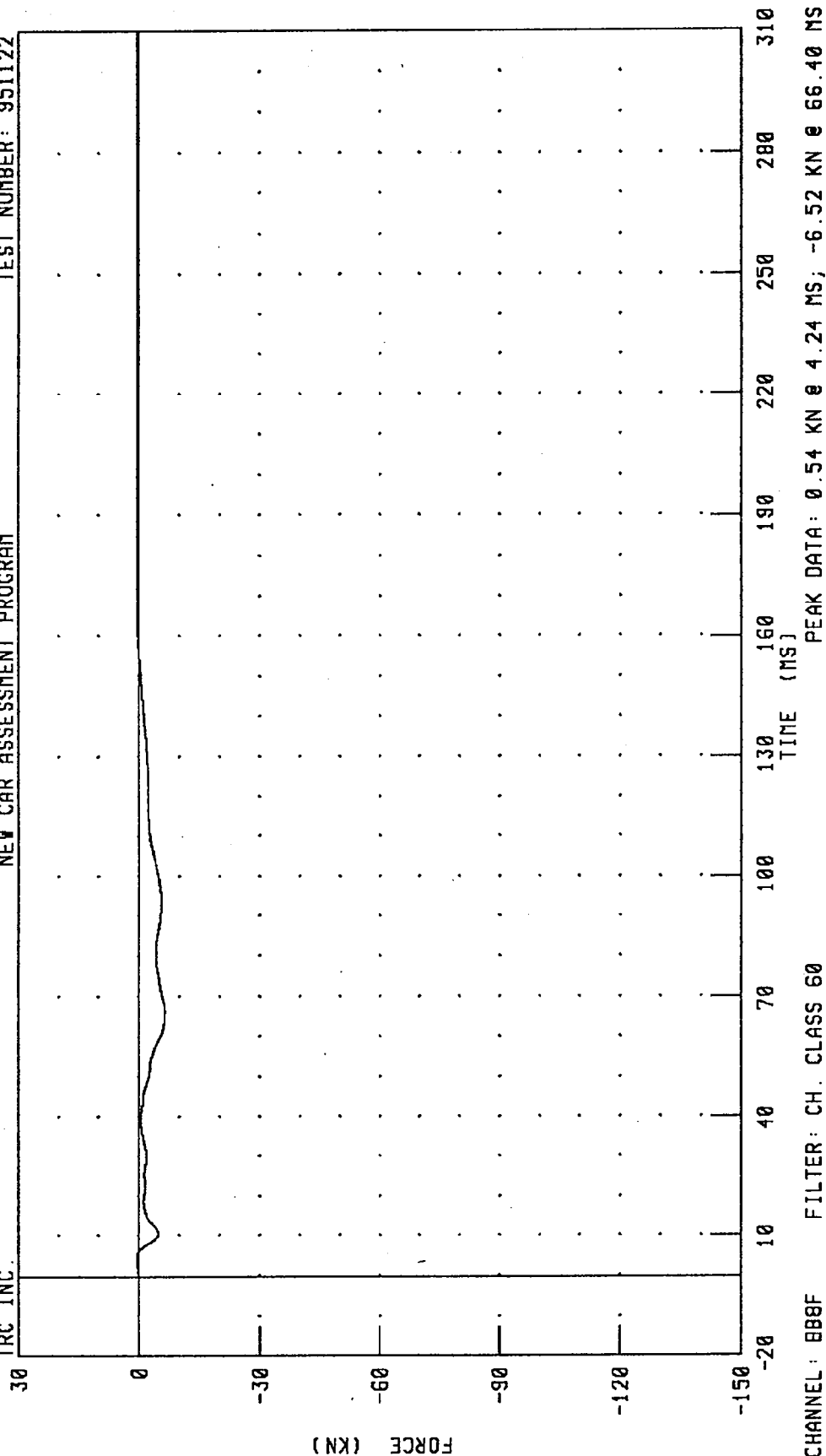
CHANNEL: 887F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION BB FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



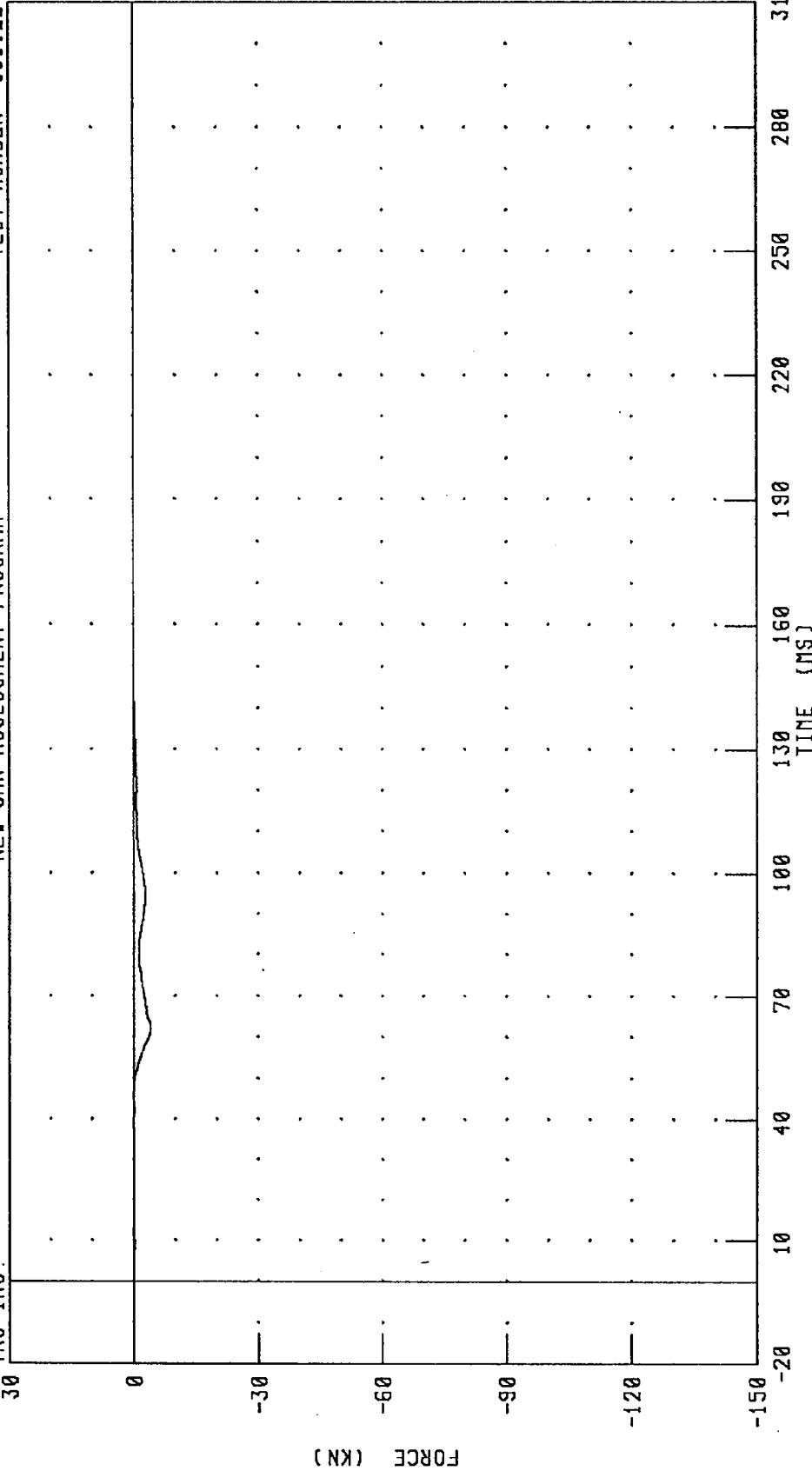
CHANNEL: BB8F FILTER: CH. CLASS 60 PEAK DATA: 0.54 KN @ 4.24 MS; -6.52 KN @ 66.40 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B9 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.14 KN @ 38.88 MS; -4.14 KN @ 62.24 MS

FILTER: CH. CLASS 60

CHANNEL: BB9F

FORCE (KN)

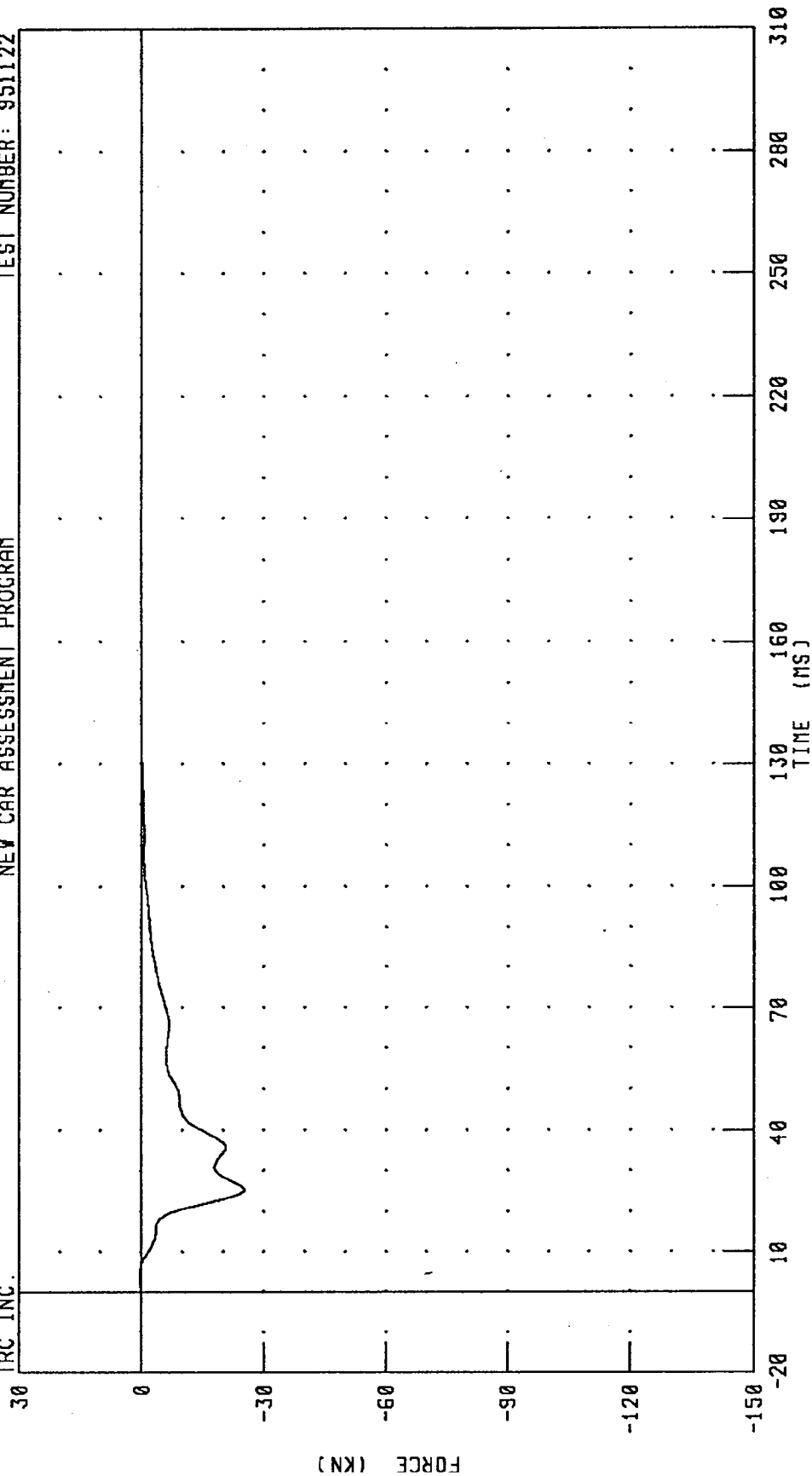
TIME (MS)

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C2 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.17 KN @ 3.28 MS; -25.20 KN @ 25.44 MS

FILTER: CH. CLASS 60

CHANNEL: BC2F

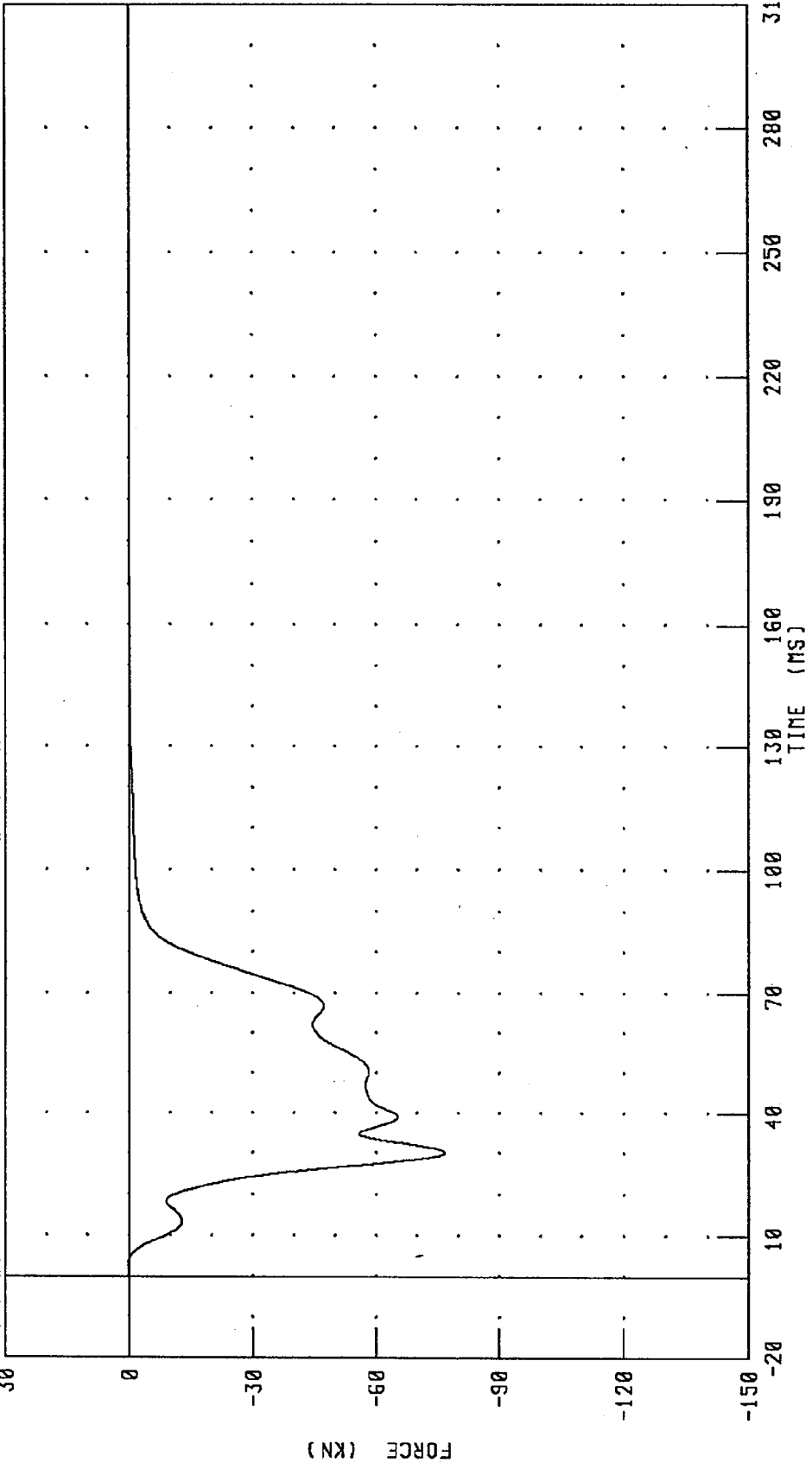
1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 LOAD CELL BARRIER POSITION C3 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

30



FORCE (KN)

TIME (MS)

CHANNEL: BC3F

FILTER: CH. CLASS 60

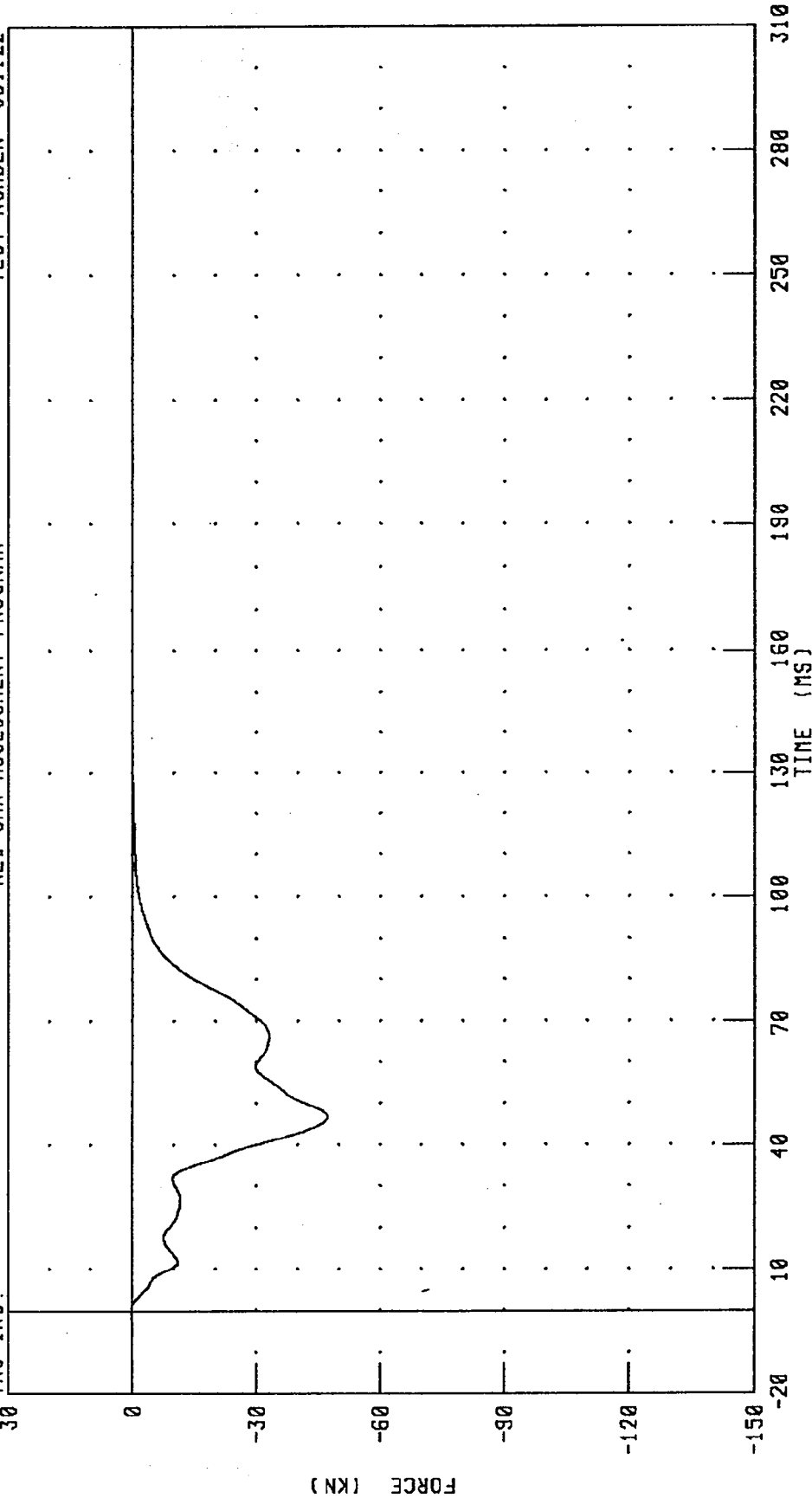
PEAK DATA: 0.30 KN @ 2.16 MS; -76.79 KN @ 30.16 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C4 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: BC4F

FILTER: CH. CLASS 60

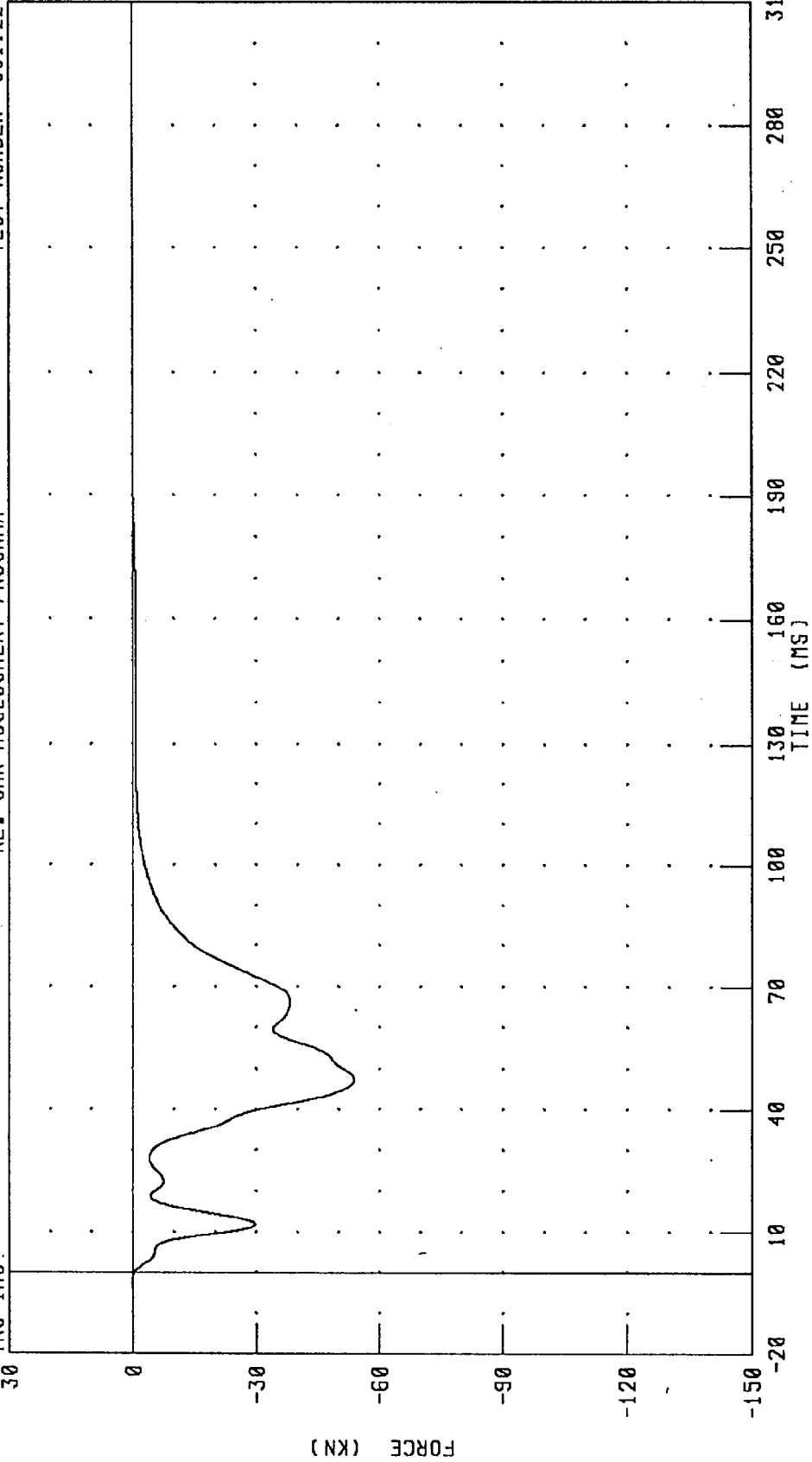
PEAK DATA: 0.17 KN @ -0.32 MS; -47.25 KN @ 46.80 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C5 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.16 KN @ -2.32 MS; -53.94 KN @ 47.36 MS

FILTER: CH. CLASS 60

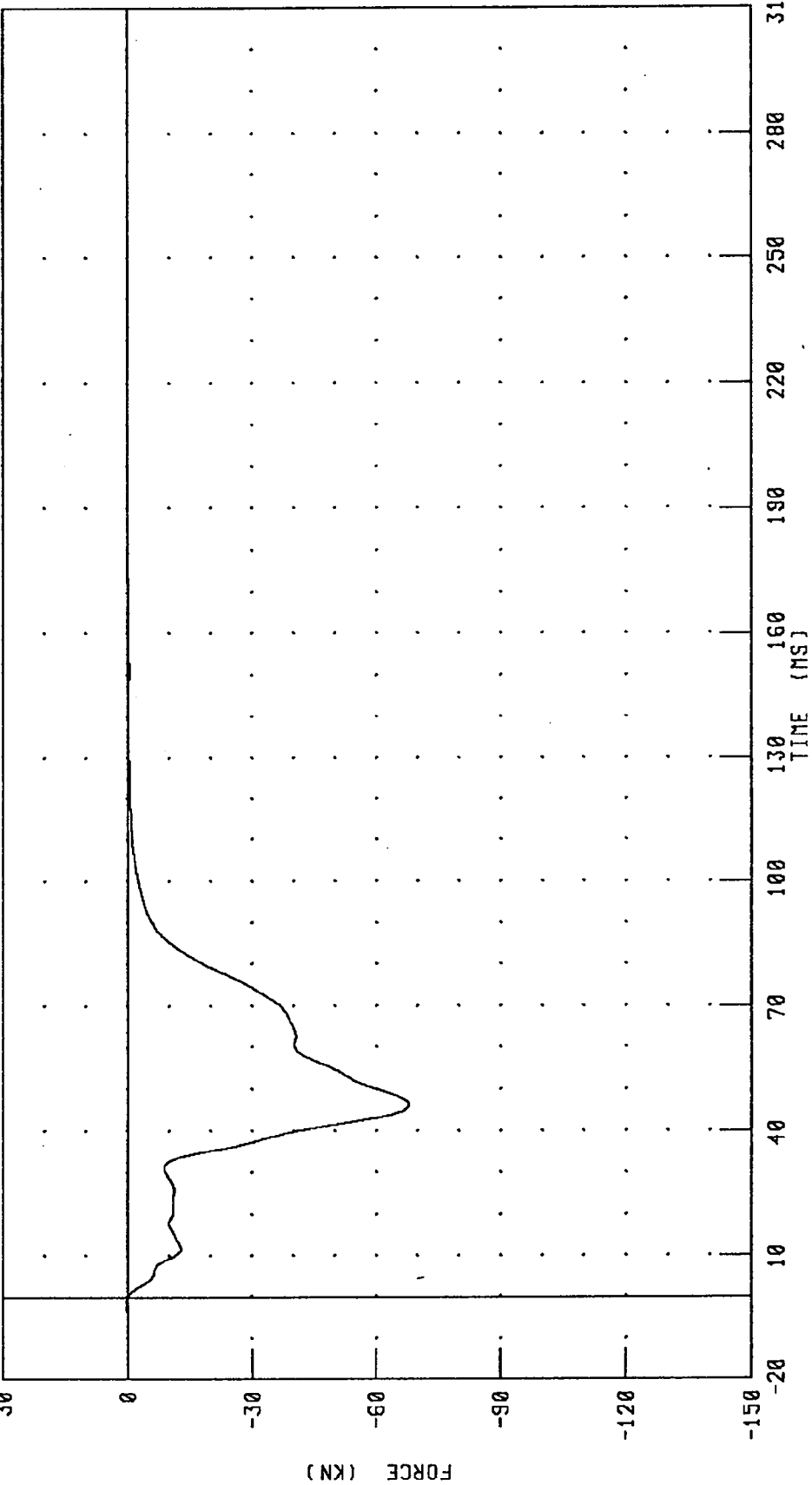
CHANNEL: BC5F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C6 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.18 KN @ -1.68 MS; -67.88 KN @ 46.24 MS

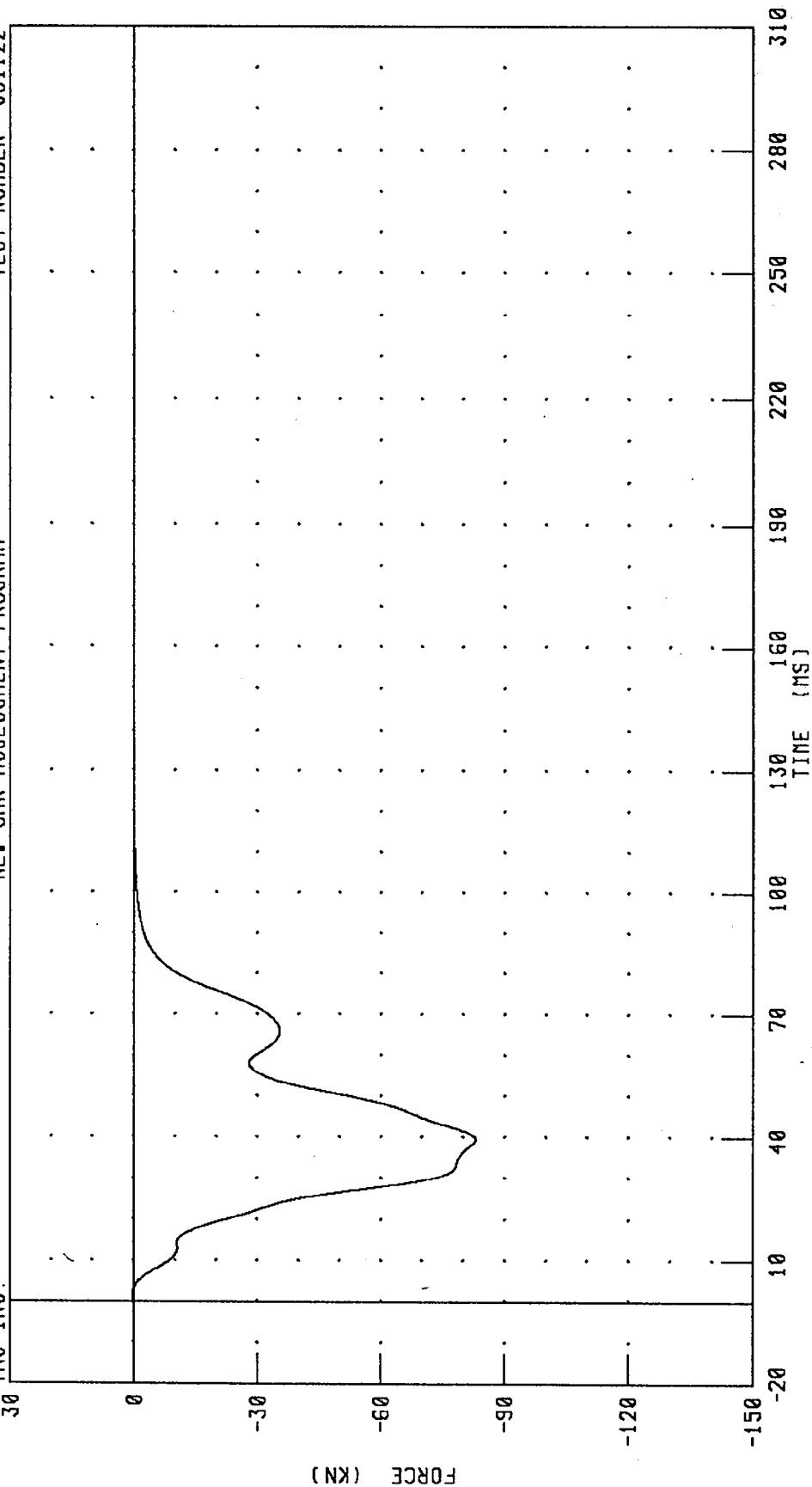
CHANNEL: BCGF FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C7 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.19 KN @ 1.52 MS; -82.99 KN @ 39.44 MS

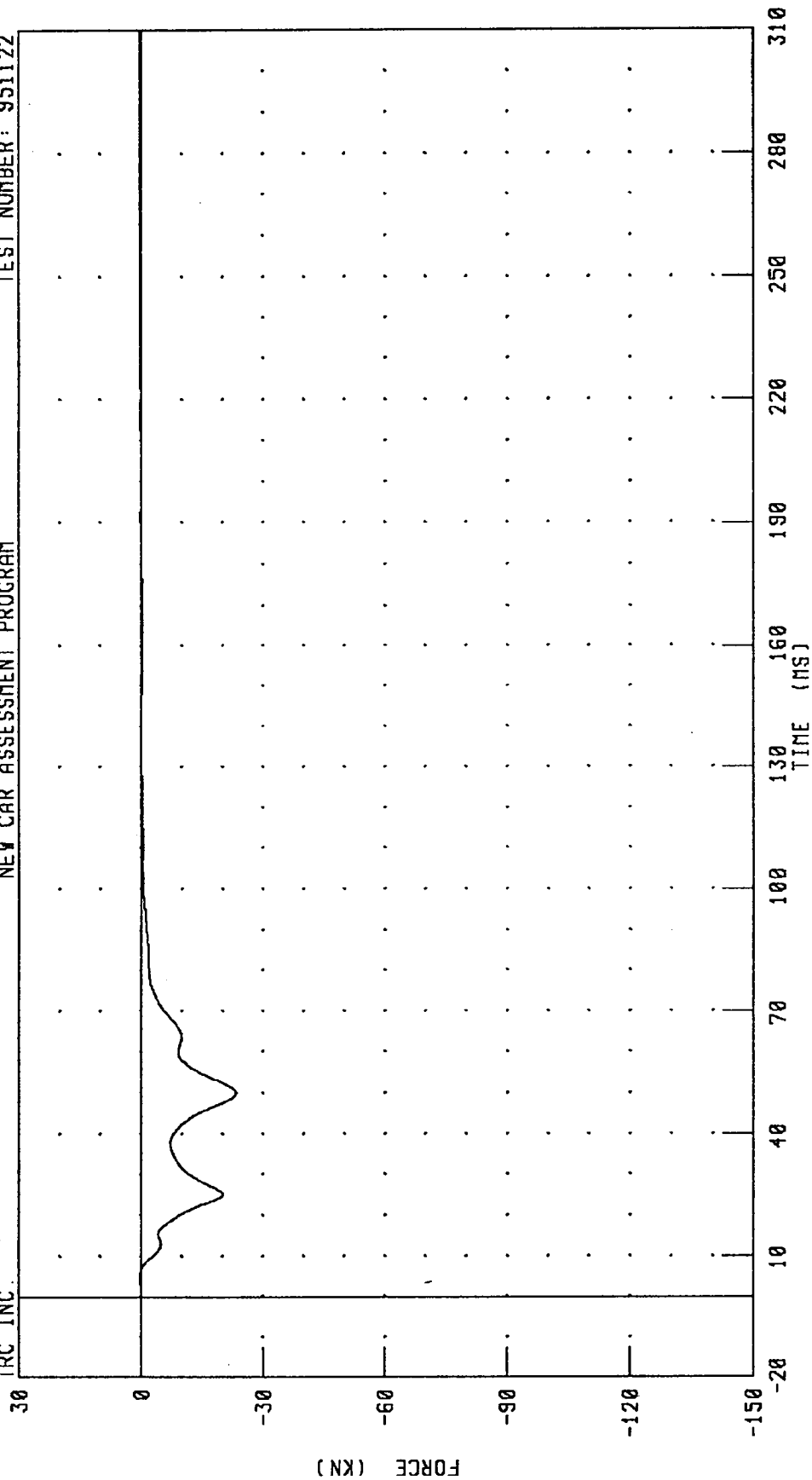
CHANNEL: BC7F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C8 FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 0.14 KN @ 5.12 MS; -23.32 KN @ 50.00 MS

FILTER: CH. CLASS 60

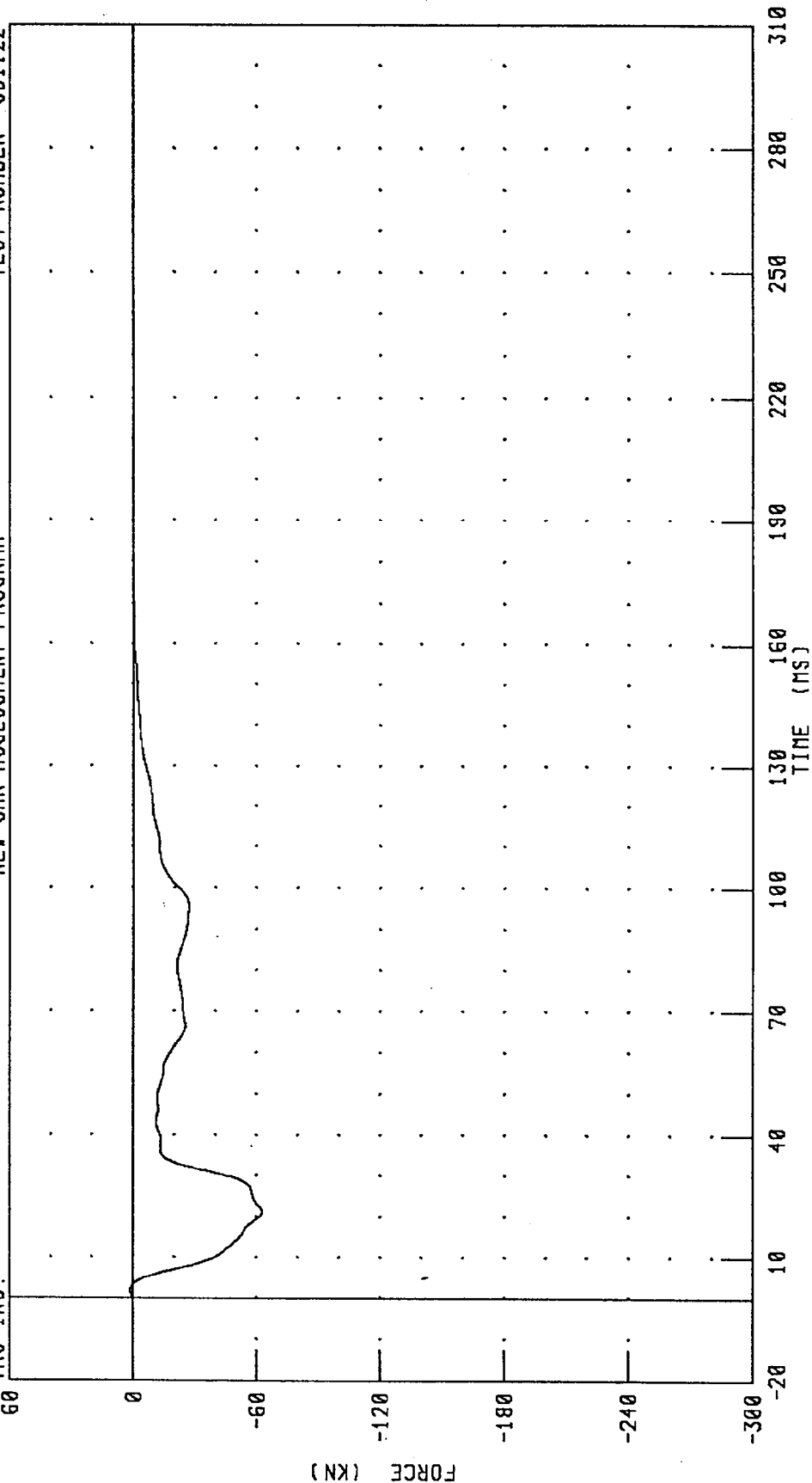
CHANNEL: BC8F

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 1 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 1.30 KN @ 1.76 MS; -62.52 KN @ 21.20 MS

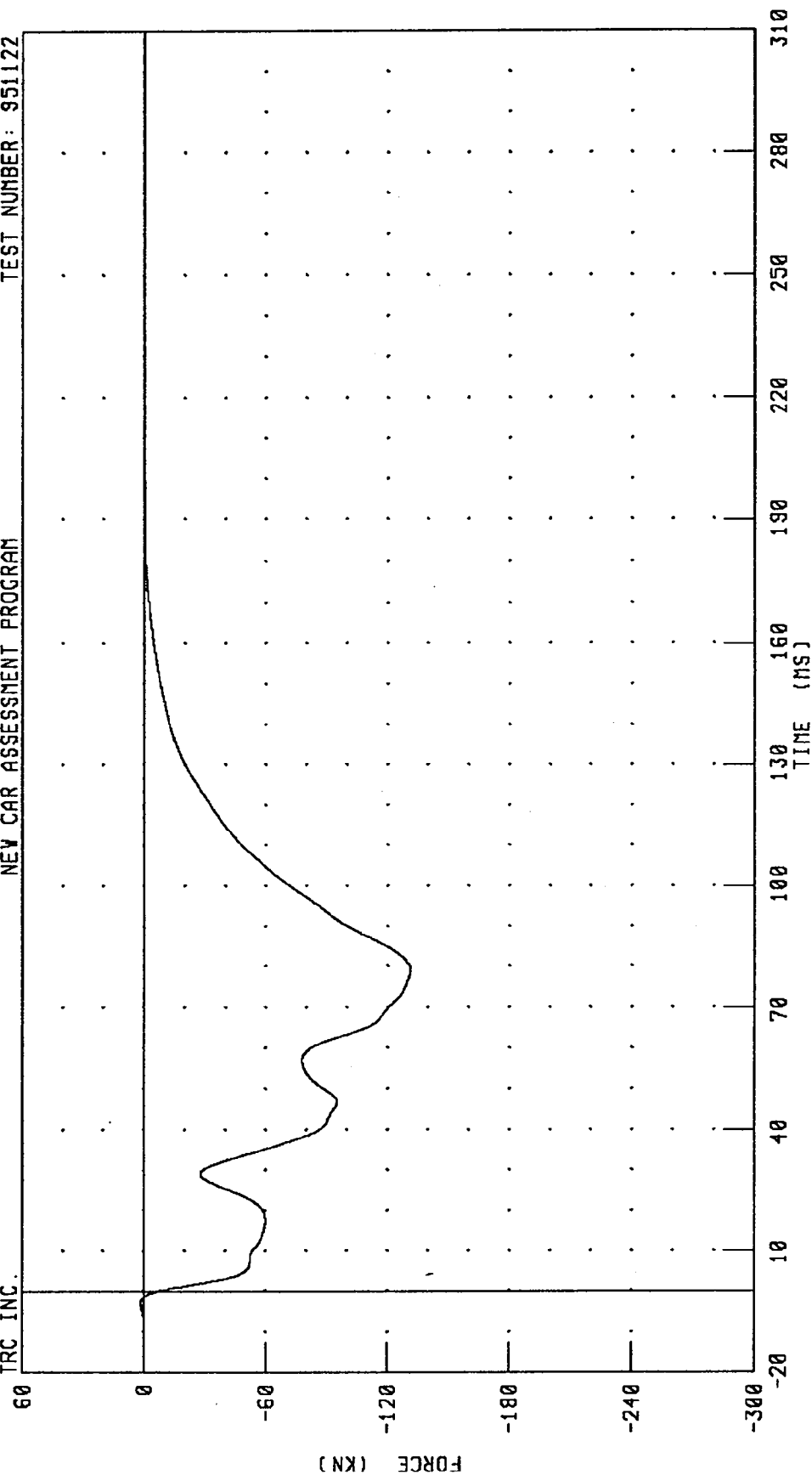
CHANNEL: LCBG1F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 2 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 1.35 KN @ -2.96 MS; -131.31 KN @ 79.04 MS

CHANNEL: LCBG2F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
 LOAD CELL BARRIER GROUP # 3 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.

60

0

-60

-120

-180

-240

-300

FORCE (KN)

310

280

250

220

190

160

130

100

70

40

10

-20

TIME (MS)

PEAK DATA: 0.62 KN @ 0.32 MS; -45.95 KN @ 22.08 MS

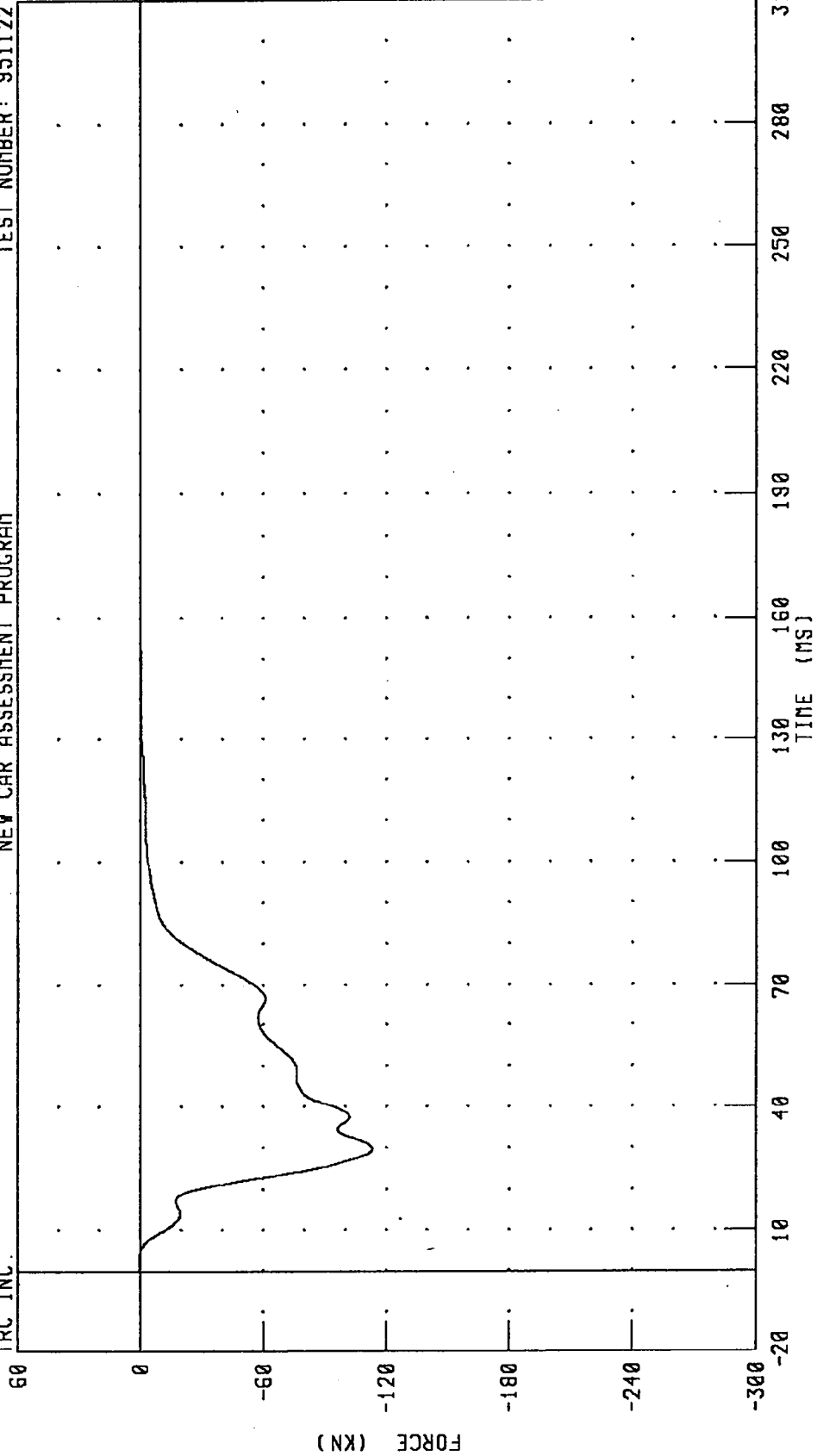
CHANNEL: LCBG3F FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 4 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



CHANNEL: LCBG4F FILTER: CH. CLASS 60

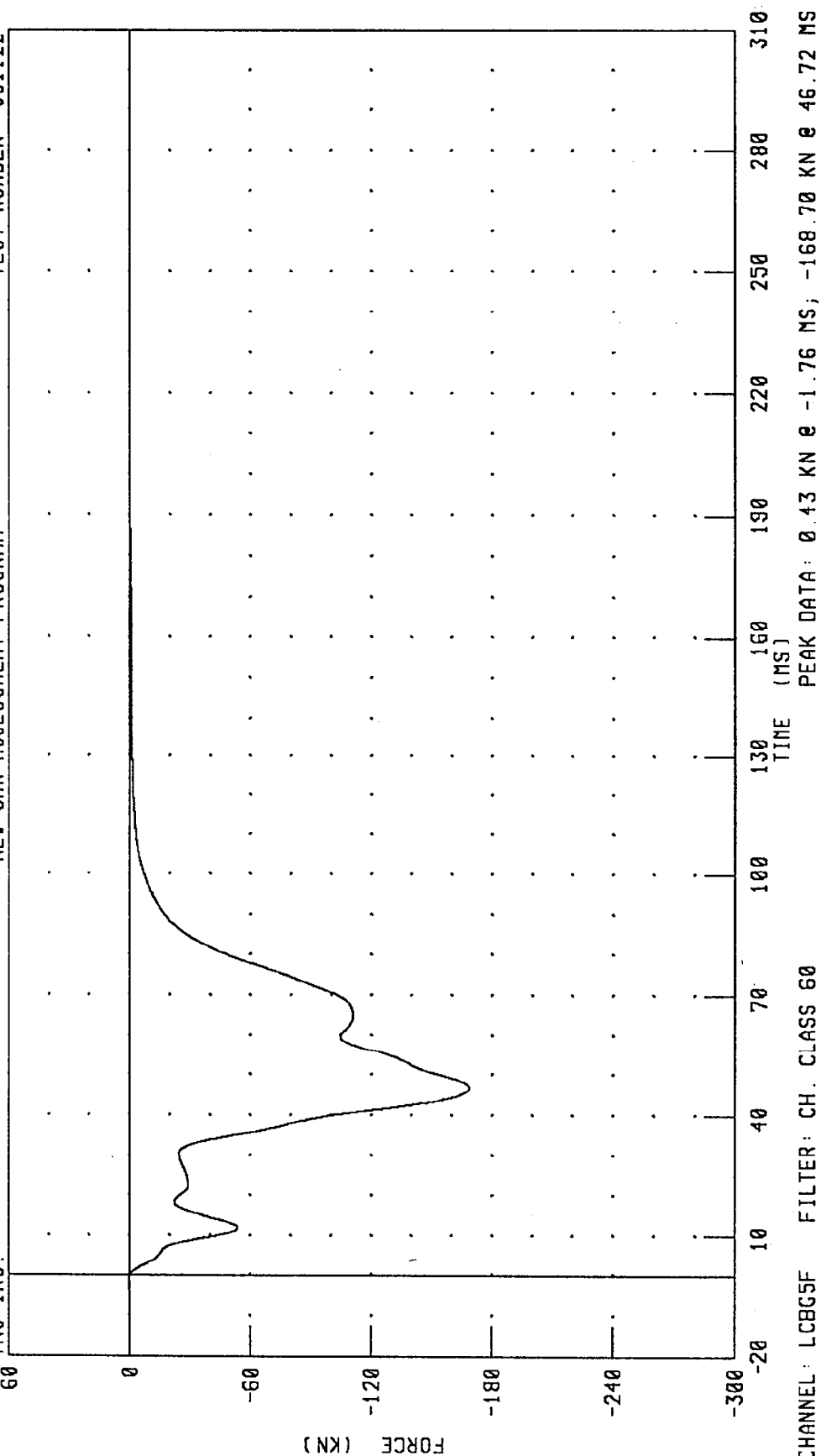
PEAK DATA: 0.61 KN @ 2.56 MS; -113.27 KN @ 29.76 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 5 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



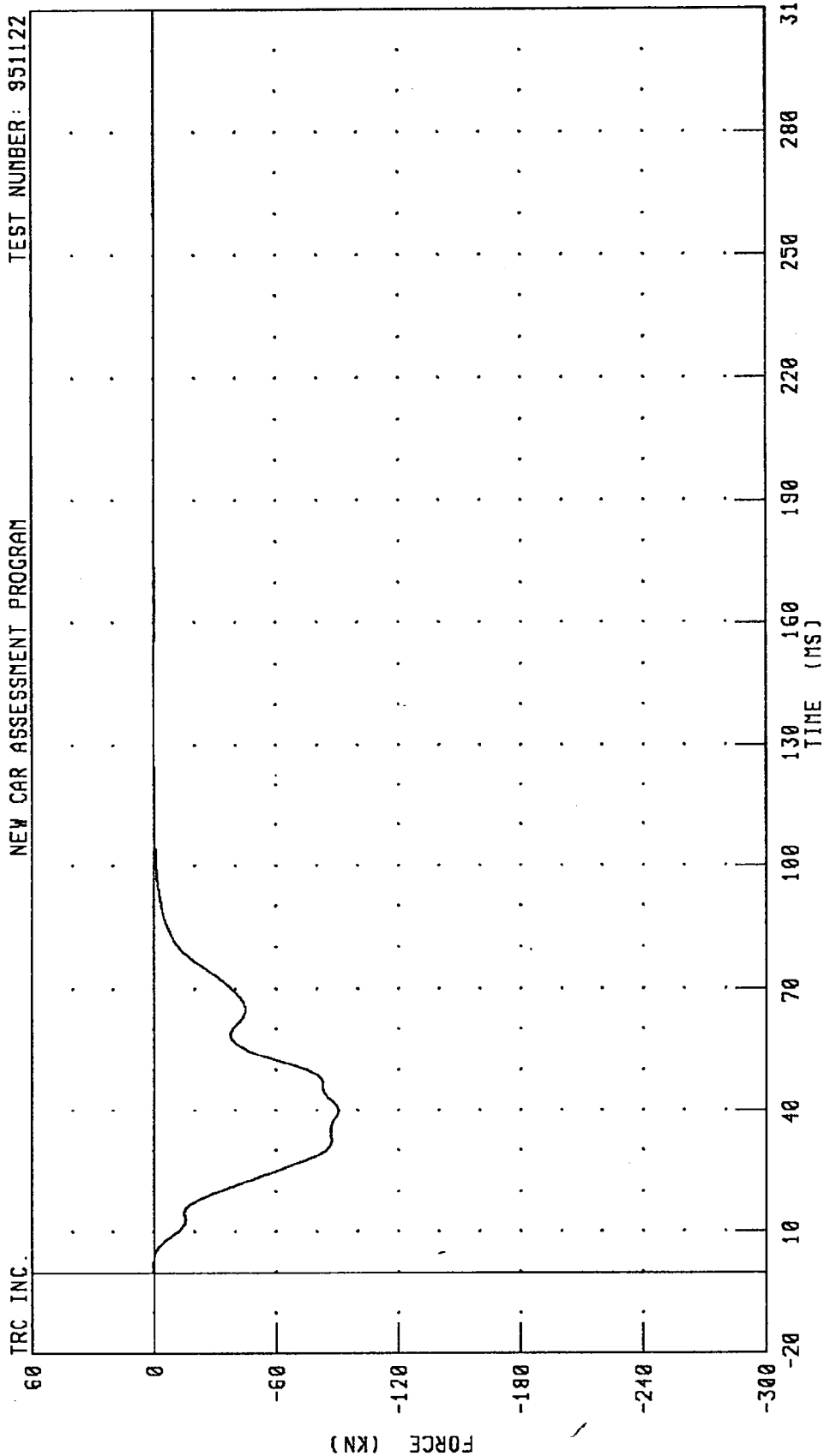
CHANNEL: LCBG5F FILTER: CH. CLASS 60

PEAK DATA: 0.43 KN @ -1.76 MS, -168.70 KN @ 46.72 MS

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 6 FORCE TOTAL

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM



PEAK DATA: 0.25 KN @ 1.68 MS; -90.79 KN @ 39.92 MS

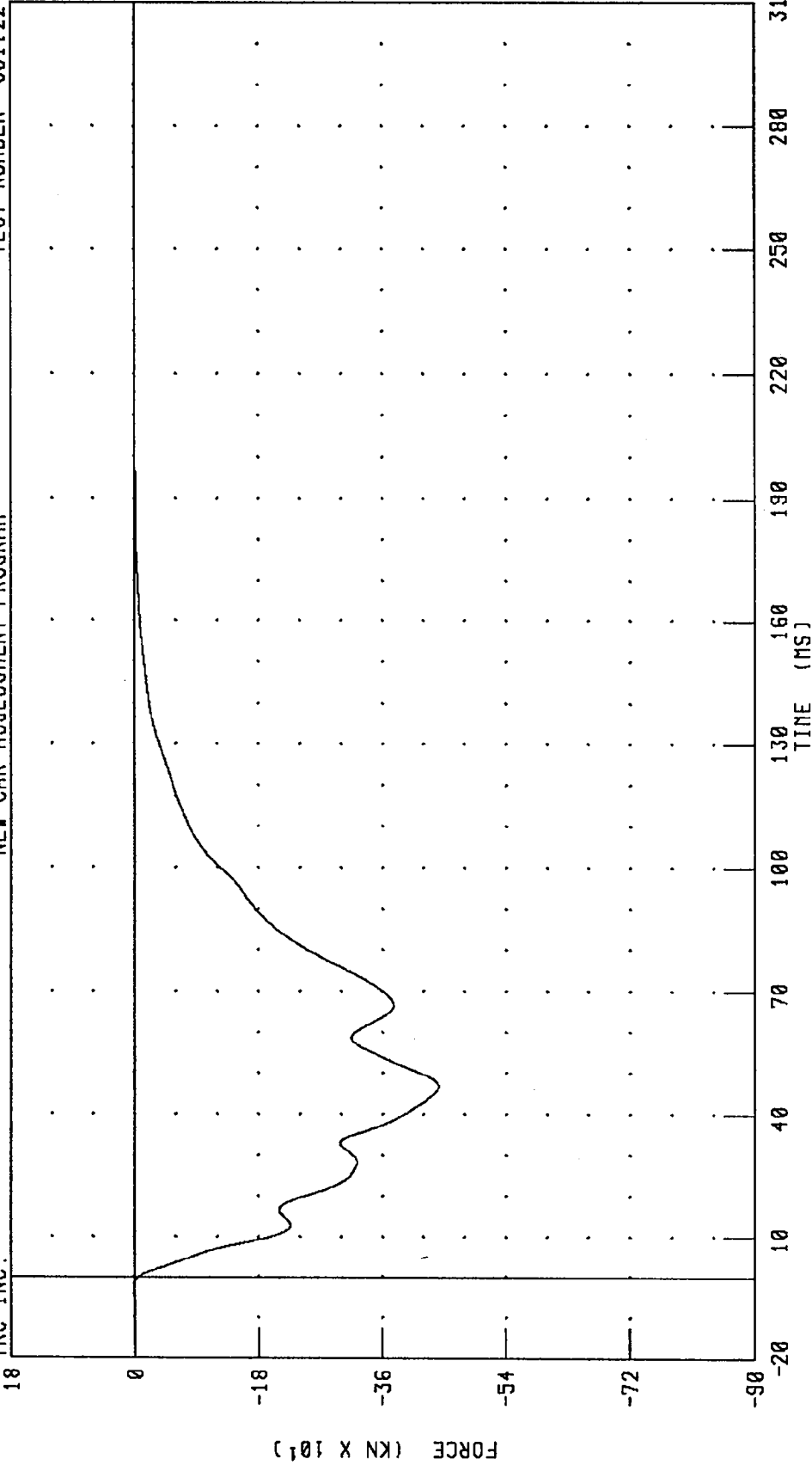
CHANNEL: LCBG6F FILTER: CH. CLASS 60

1986 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
TOTAL LOAD CELL BARRIER FORCE

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

TRC INC.



PEAK DATA: 1.65 KN @ -2.56 MS; -441.77 KN @ 46.80 MS

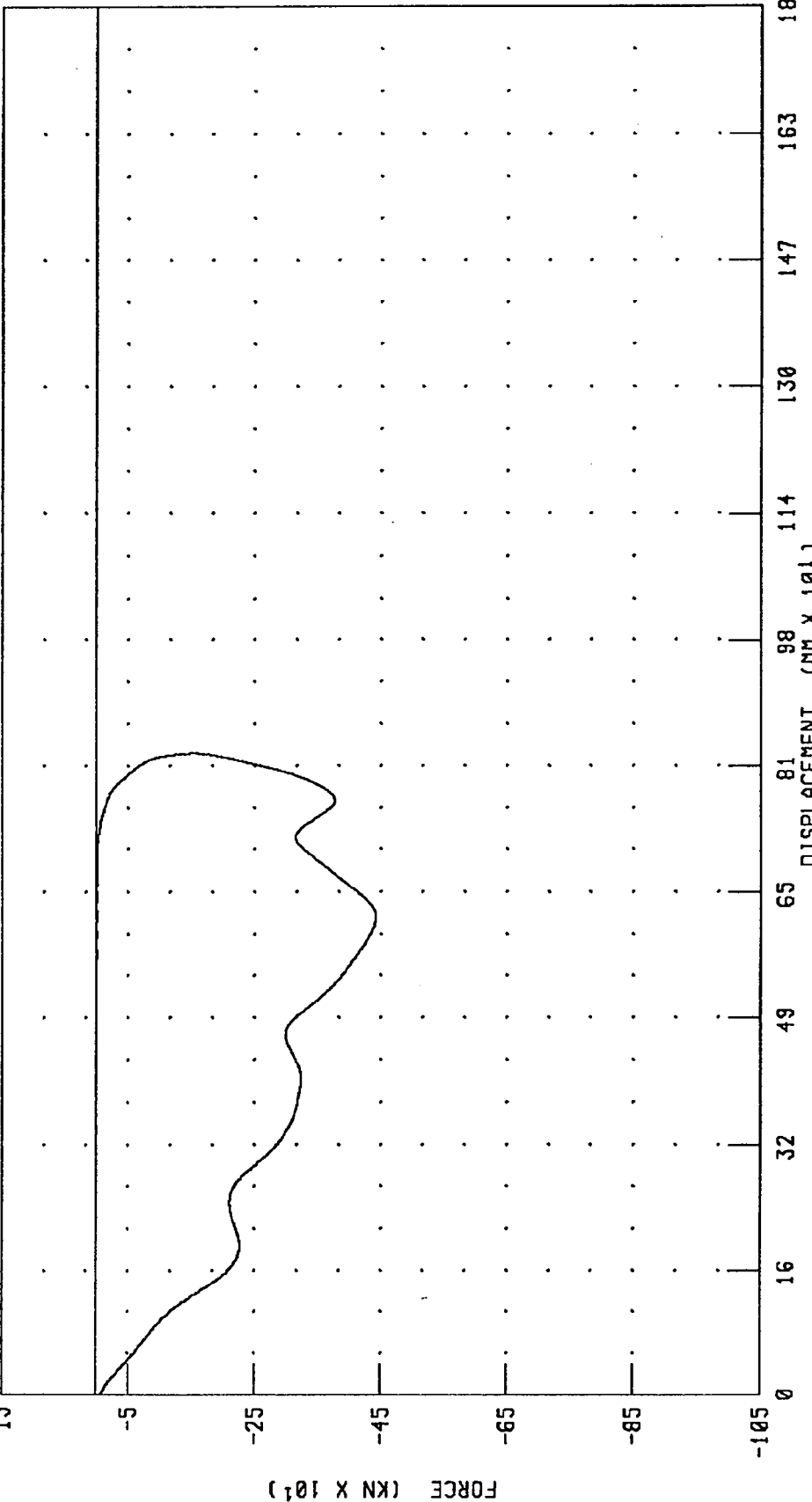
CHANNEL: LCBGT FILTER: CH. CLASS 60

1996 FORD MUSTANG CONVERTIBLE INTO FRONTAL LOAD CELL BARRIER
TOTAL LOAD CELL BARRIER FORCE VS AVERAGE VEHICLE X-AXIS DISPLACEMENT

TEST NUMBER: 951122

NEW CAR ASSESSMENT PROGRAM

IRC INC.



CHANNEL: 0THXD
LCBGT

FILTER: CH. CLASS 180
CH. CLASS 60

PEAK DATA: 834.01 MM @ 94.80 MS;
-0.12 KN @ 246.08 MS; -441.77 KN @ 46.80 MS

Appendix C

Dummy Certification Data

Pre-test Certification Data

Driver Dummy S/N: 142

TRANSPORTATION RESEARCH CENTER INC.
HYBRID III EXTERNAL DIMENSIONS

142 HUMANOID

07-NOV-95

TRC INC.

TEST NO: 142C29ED1

572E SN142 EXT.DIMENSION CAL29

TEST PARAMETER	(DIMEN.)	SPECIFICATION	TEST RESULTS
LOCATION FOR CHEST CIRCUMFERENCE (AA)		429 - 434 MM	432. MM
LOCATION FOR WAIST CIRCUMFERENCE (BB)		226 - 231 MM	229. MM
CHEST CIRCUMFERENCE (Y)		970 -1001 MM	986. MM
WAIST CIRCUMFERENCE (Z)		836 - 866 MM	848. MM
CHEST DEPTH (O)		213 - 229 MM	221. MM
H-POINT HEIGHT (C)		84 - 89 MM	84. MM
H-POINT FROM SEATBACK (D)		135 - 140 MM	137. MM
SKULL CAP TO BACKLINE (H)		41 - 46 MM	43. MM
TOTAL SITTING HEIGHT (A)		879 - 889 MM	879. MM
THIGH CLEARANCE (F)		140 - 155 MM	145. MM
BUTTOCK KNEE LENGTH (K)		579 - 605 MM	602. MM
BUTTOCK POPLITEAL LENGTH (N)		452 - 478 MM	470. MM
POPLITEAL HEIGHT (L)		429 - 455 MM	445. MM
KNEE PIVOT HEIGHT (M)		485 - 500 MM	488. MM
FOOT LENGTH (P)		252 - 267 MM	257. MM
FOOT BREADTH (W)		91 - 107 MM	97. MM
SHOULDER PIVOT FROM BACKLINE (E)		84 - 94 MM	91. MM
SHOULDER BREADTH (V)		422 - 437 MM	429. MM
SHOULDER PIVOT HEIGHT (B)		506 - 521 MM	508. MM
ELBOW REST HEIGHT (J)		191 - 211 MM	203. MM
SHOULDER-ELBOW LENGTH (I)		330 - 345 MM	345. MM
BACK OF ELBOW TO WRIST PIVOT (G)		290 - 305 MM	292. MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN Chas. Millt

RUN NUMBER: 111695.0902

TRANSPORTATION RESEARCH CENTER INC.

HEAD DROP TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 142C29HD1

572E SN142 HEAD DROP CAL 29

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PEAK RESULTANT ACCELERATION	225 - 275 G	261.83 G
PEAK LATERAL ACCELERATION	15 G MAX	-2.05 G
IS ACCELERATION CURVE UNIMODAL?	YES	YES

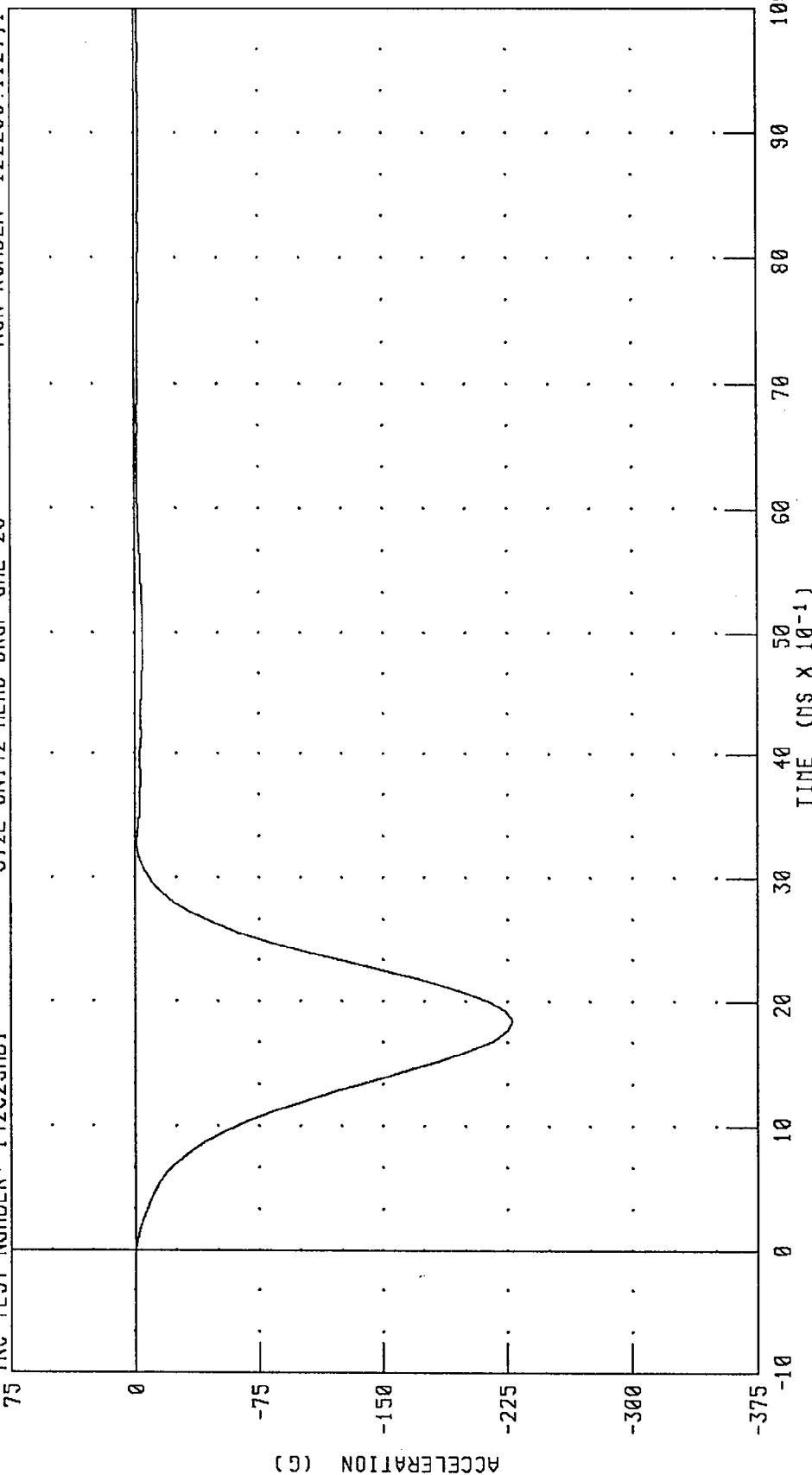
TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. Middel

RUN NUMBER: 110795.1240;1

PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION X AXIS

TRC TEST NUMBER: 142C29HD1 572E SN142 HEAD DROP CAL 29 RUN NUMBER: 122295.1127.1

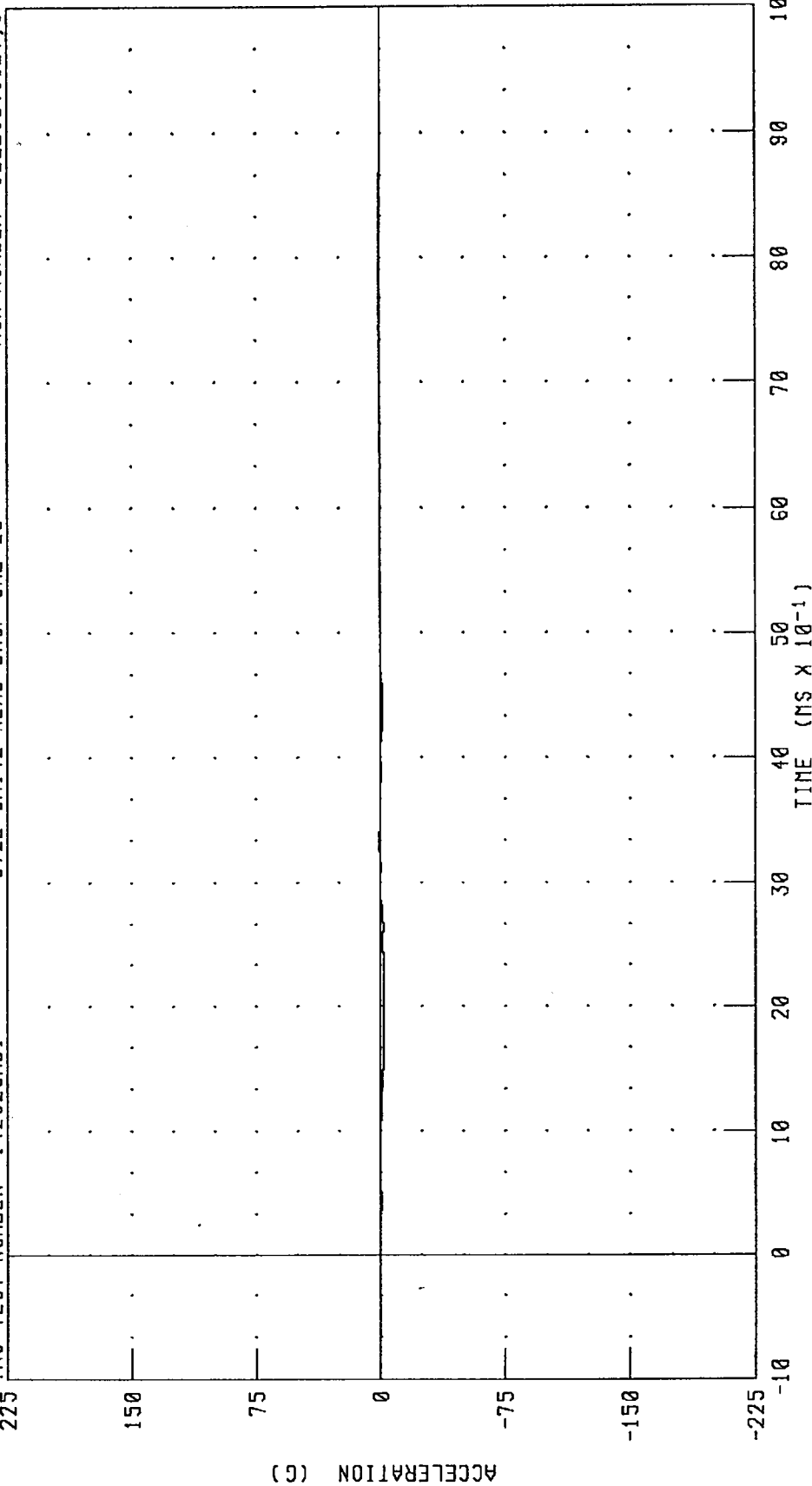


PEAK DATA: 0.08 G @ -0.08 MS; -227.91 G @ 1.84 MS

CHANNEL: HEDXG FILTER: CH. CLASS 1000

PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Y AXIS

TRC TEST NUMBER: 142C29HD1 572E SN142 HEAD DROP CAL 29 RUN NUMBER: 122295.1127;1

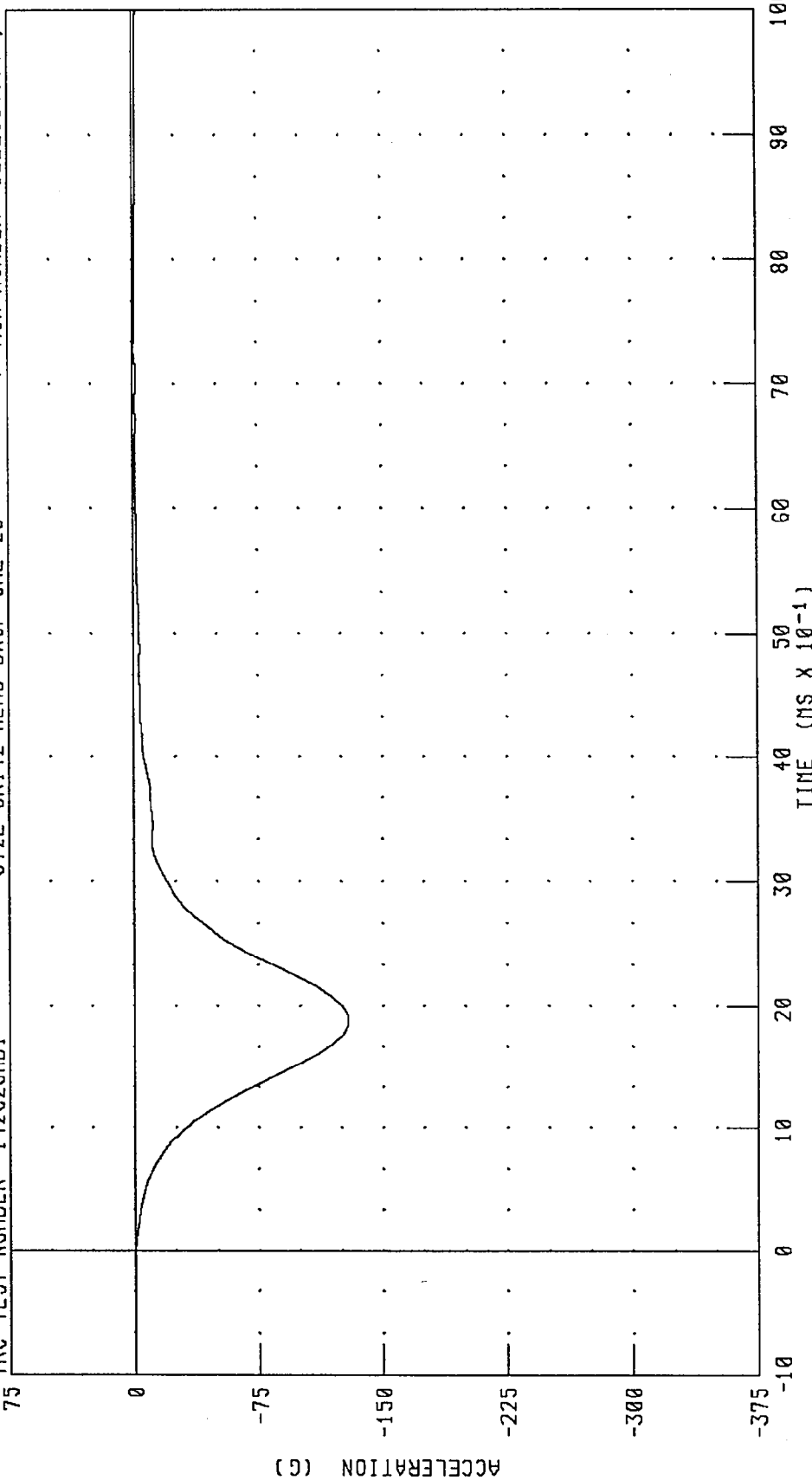


PEAK DATA: 0.98 G @ 3.36 MS; -2.06 G @ 2.24 MS

CHANNEL: HEDYG FILTER: CH. CLASS 1000

PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Z AXIS

TRC TEST NUMBER: 142C29HD1 572E SN142 HEAD DROP CAL 29 RUN NUMBER: 122295.1127;1



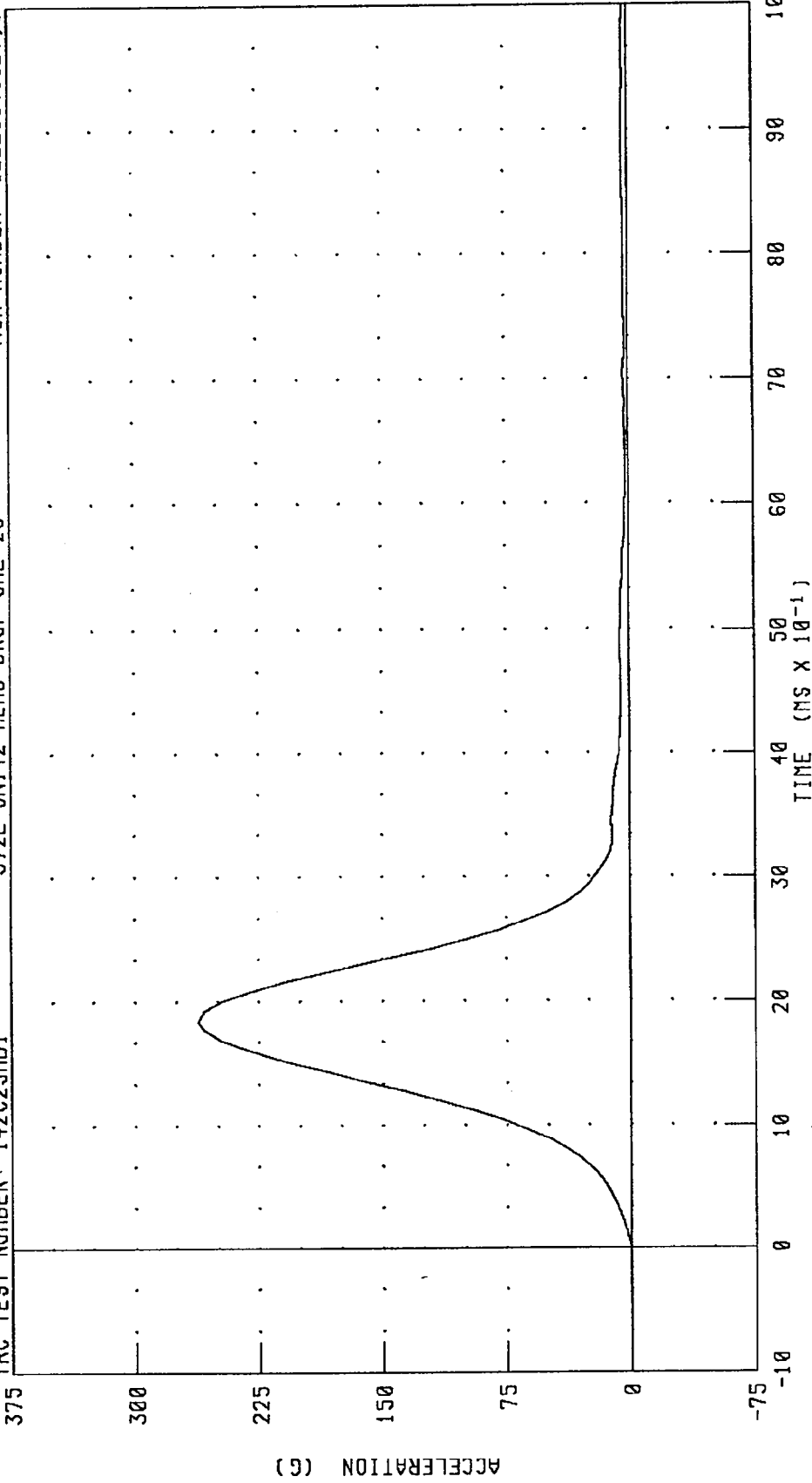
PEAK DATA: 0.01 G @ -0.08 MS; -128.90 G @ 1.84 MS

CHANNEL: HEDZG FILTER: CH. CLASS 1000

PART 572-E HYBRID III HEAD CALIBRATION
 HEAD RESULTANT ACCELERATION
 572E SN142 HEAD DROP CAL 29

RUN NUMBER: 122295.1127;1

TRC TEST NUMBER: 142C29HD1



PEAK DATA: 261.84 G @ 1.84 MS; 0.01 G @ -0.56 MS

CHANNEL: HEDRG FILTER: CH. CLASS 1000

TRANSPORTATION RESEARCH CENTER INC.

NECK FLEXION TEST - 6 CHANNEL TRANSDUCER

HYBRID III

07-NOV-95

TRC INC. TEST NO: 142C29NF1 572E SN142 NECK FLEXION CAL29

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6-22.2 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY		10 - 70 %	52.0 %
IMPACT VELOCITY		6.89 - 7.13 M/S	6.99 M/S
PENDULUM DECELERATION	10 MS	22.50 - 27.50 G	23.67 G
	20 MS	17.60 - 22.60 G	21.57 G
	30 MS	12.50 - 18.50 G	17.99 G
MAX PENDULUM G		29 G MAX	24.42 G
MAX PENDULUM G ABOVE 30 MS		29 G MAX	17.89 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		34 - 42 MS	35.12 MS
D PLANE	MAX	64 - 78 DEG.	72.21 DEG.
ROTATION	TIME	57 - 64 MS	58.80 MS
MOMENT ABOUT OCCIPITAL	MAX	88.2 - 108.5 NM	100.85 NM
CONDYLE	TIME	47 - 58 MS	48.88 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		113 - 128 MS	113.52 MS
POSITIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		97 - 107 MS	100.64 MS

TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. Hildt

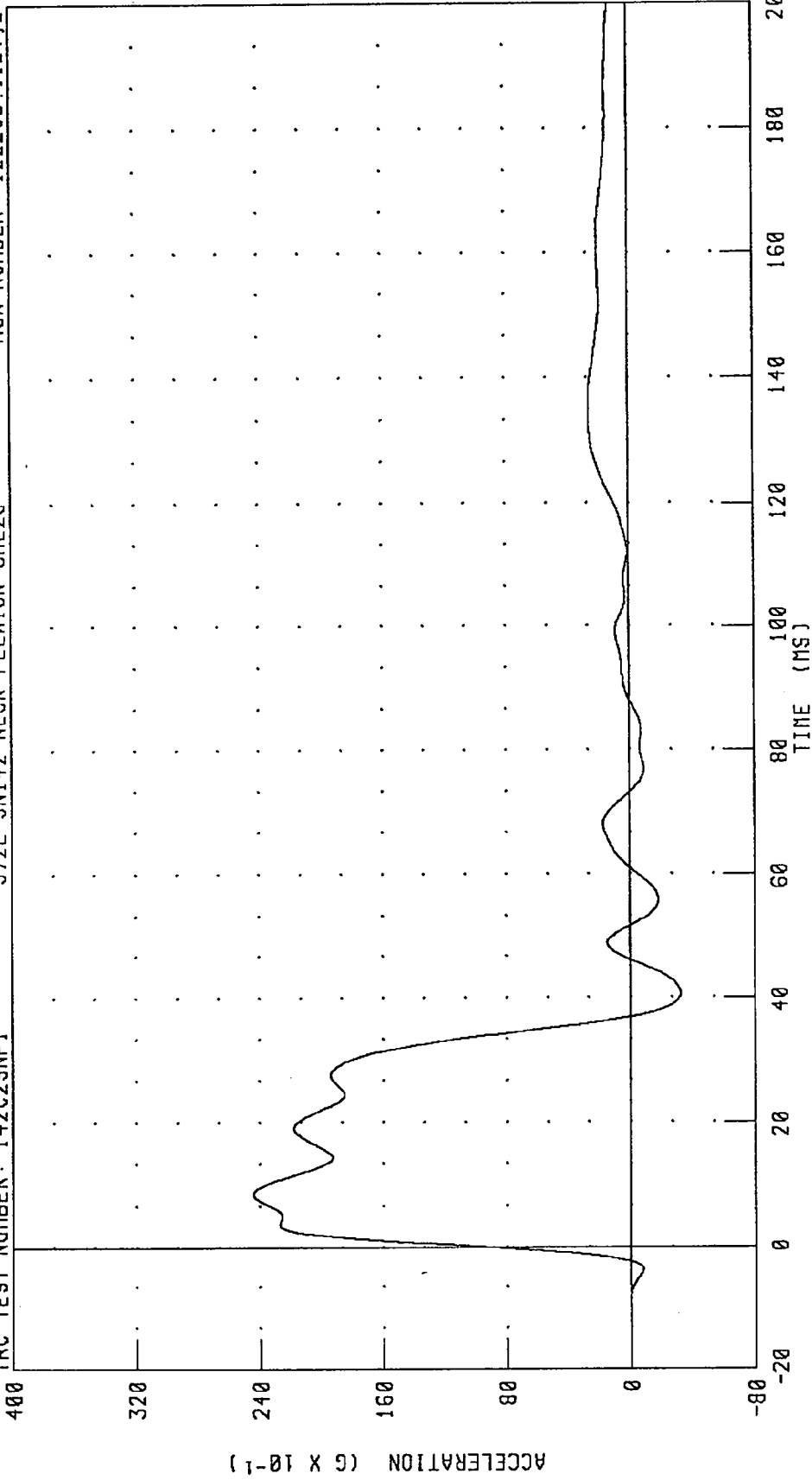
RUN NUMBER: 110795.1557;2

PART 572-E HYBRID III NECK FLEXION CALIBRATION
PENDULUM DECELERATION

TRC TEST NUMBER: 142C29NF1

572E SN142 NECK FLEXION CAL29

RUN NUMBER: 122295.1127;2



PEAK DATA: 24.43 G @ 8.56 MS; -3.22 G @ 40.64 MS

CHANNEL: PENXG FILTER: CH. CLASS 60

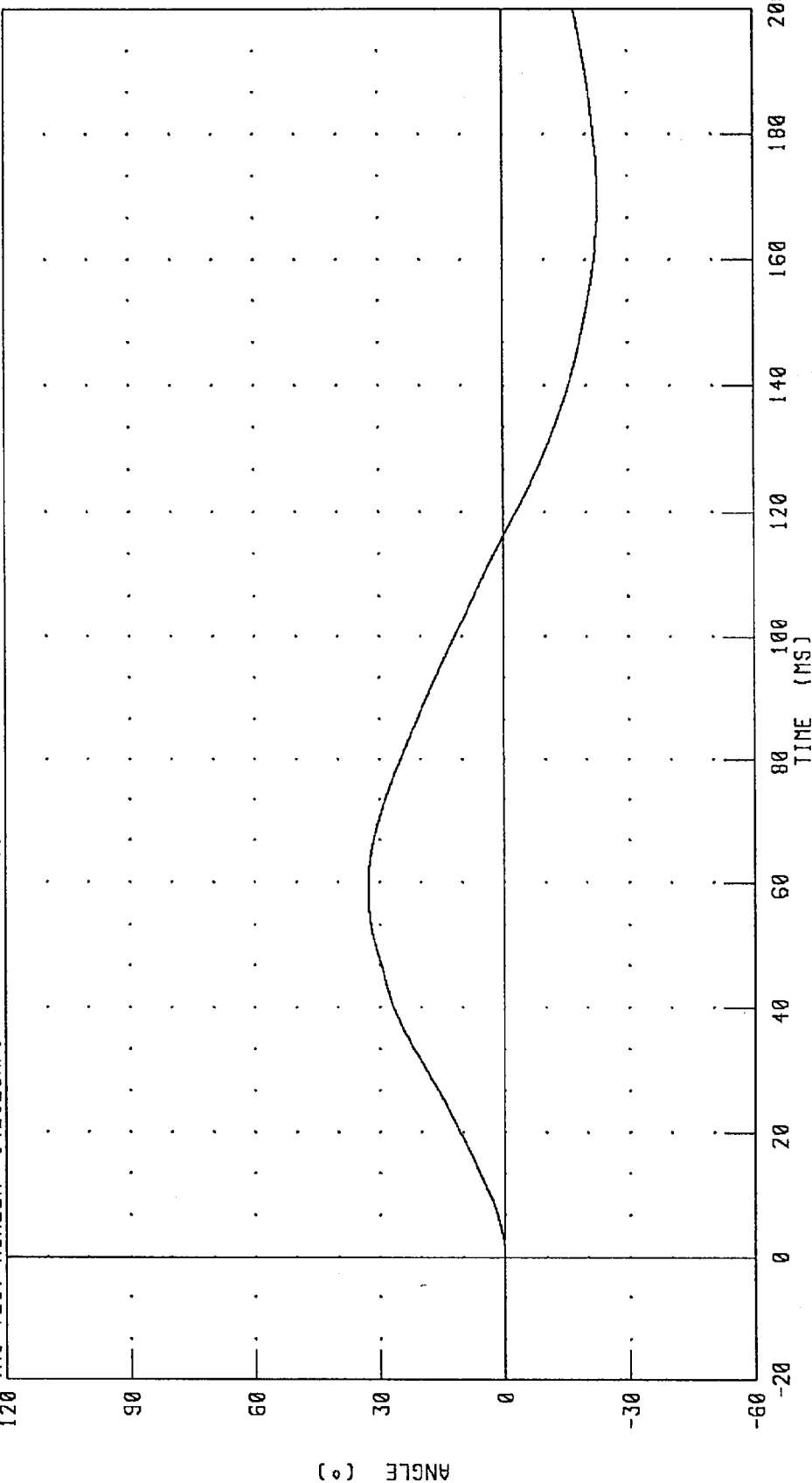
PART 572-E HYBRID III NECK FLEXION CALIBRATION

ROTATION ABOUT BASE OF NECK

572E SN142 NECK FLEXION CAL29

IRC TEST NUMBER: 142C29NF1

RUN NUMBER: 122295.1127;2



CHANNEL: BETA

FILTER: CH. CLASS 60

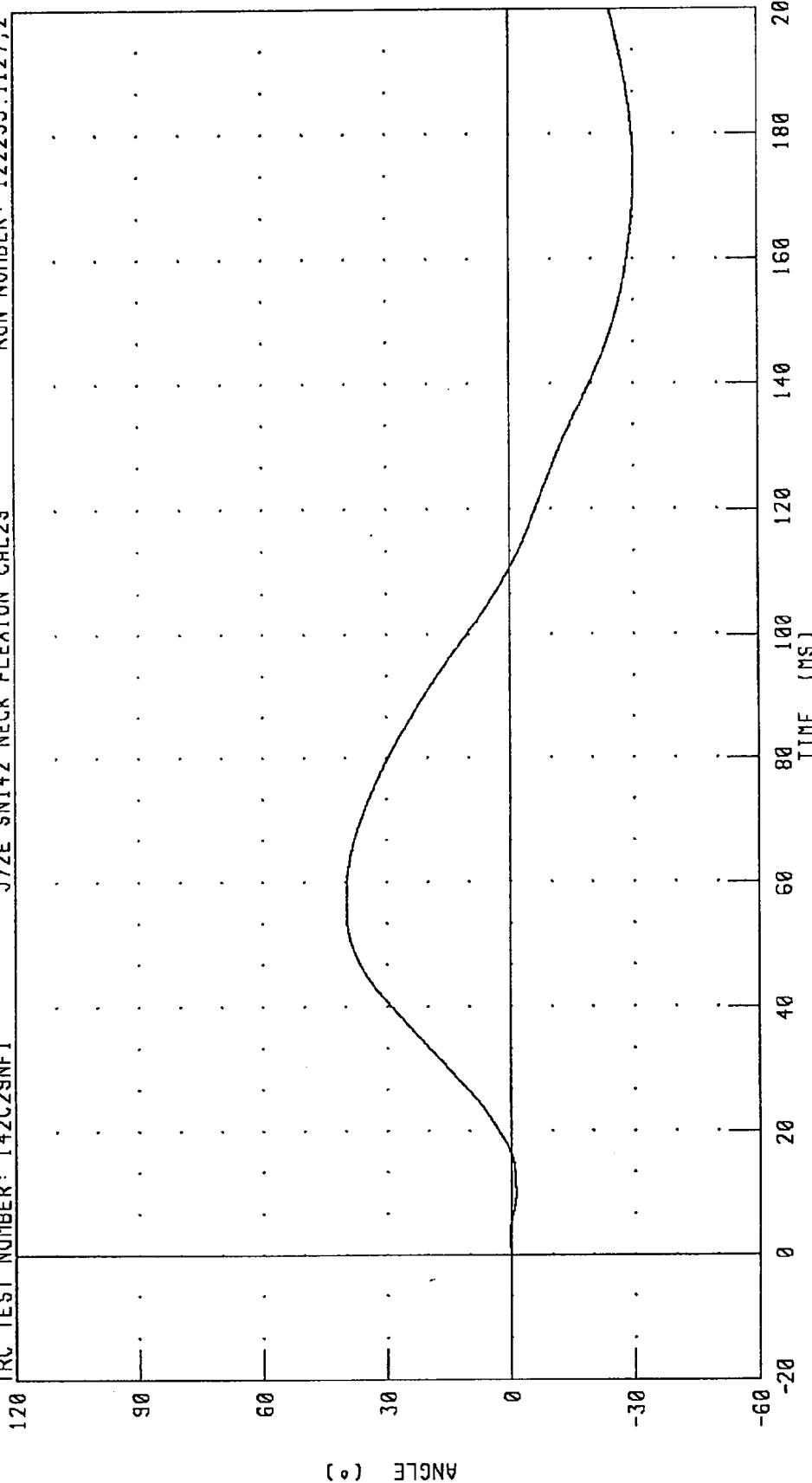
PEAK DATA: 32.55 ° @ 60.00 MS; -22.91 ° @ 168.88 MS

PART 572-E HYBRID III NECK FLEXION CALIBRATION
 ROTATION ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 142C29NF1

572E SN142 NECK FLEXION CAL29

RUN NUMBER: 122295.1127;2



PEAK DATA: 39.68 ° @ 55.68 MS; -30.22 ° @ 174.08 MS

CHANNEL: THETA FILTER: CH. CLASS 60

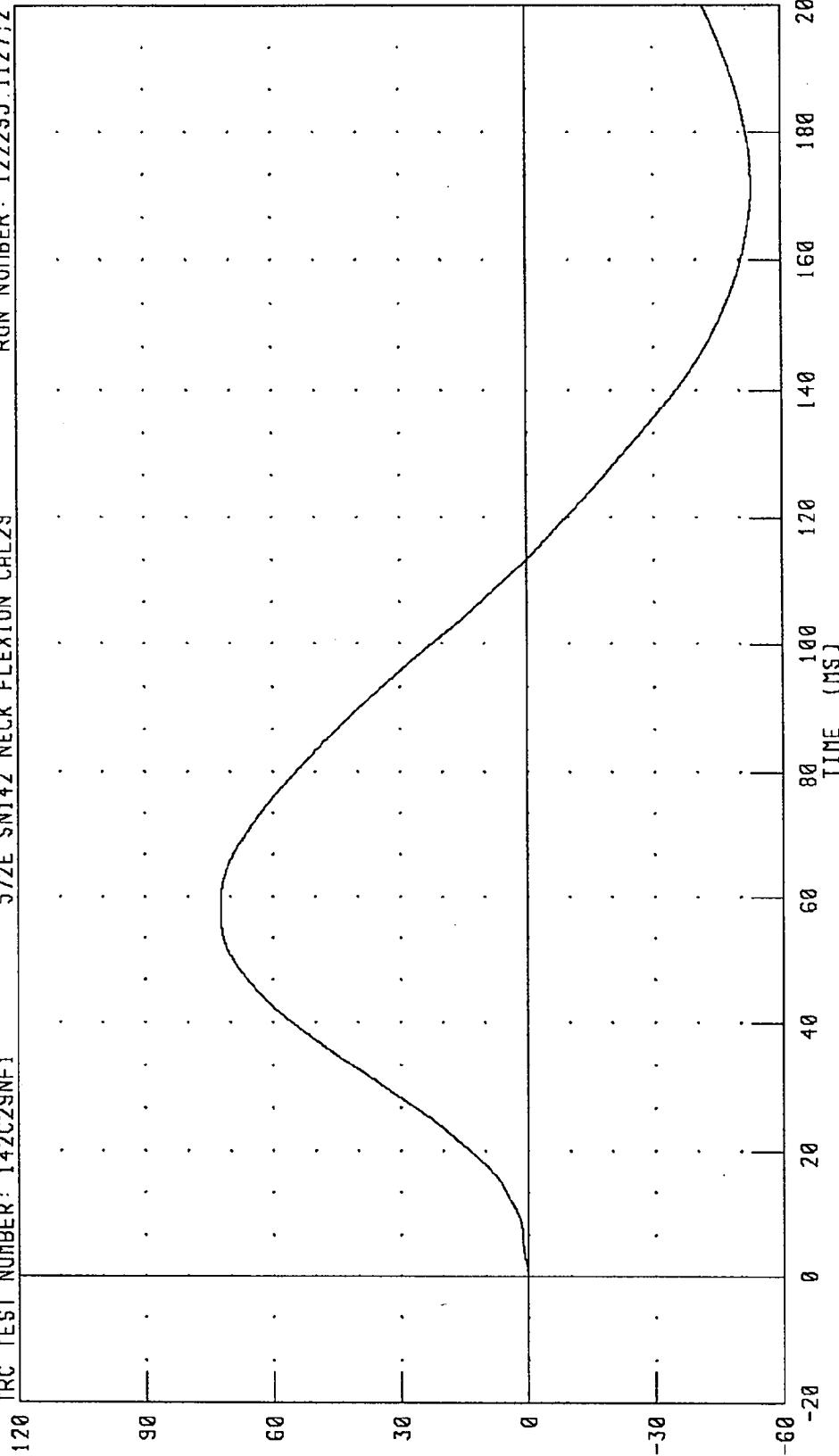
PART 572-E HYBRID III NECK FLEXION CALIBRATION

TOTAL ROTATION

TRC TEST NUMBER: 142C29NF1

572E SN142 NECK FLEXION CAL29

RUN NUMBER: 122295.1127;2



PEAK DATA: 72.21 ° @ 58.80 MS; -52.98 ° @ 170.72 MS

CHANNEL: TOTAL FILTER: CH. CLASS 60

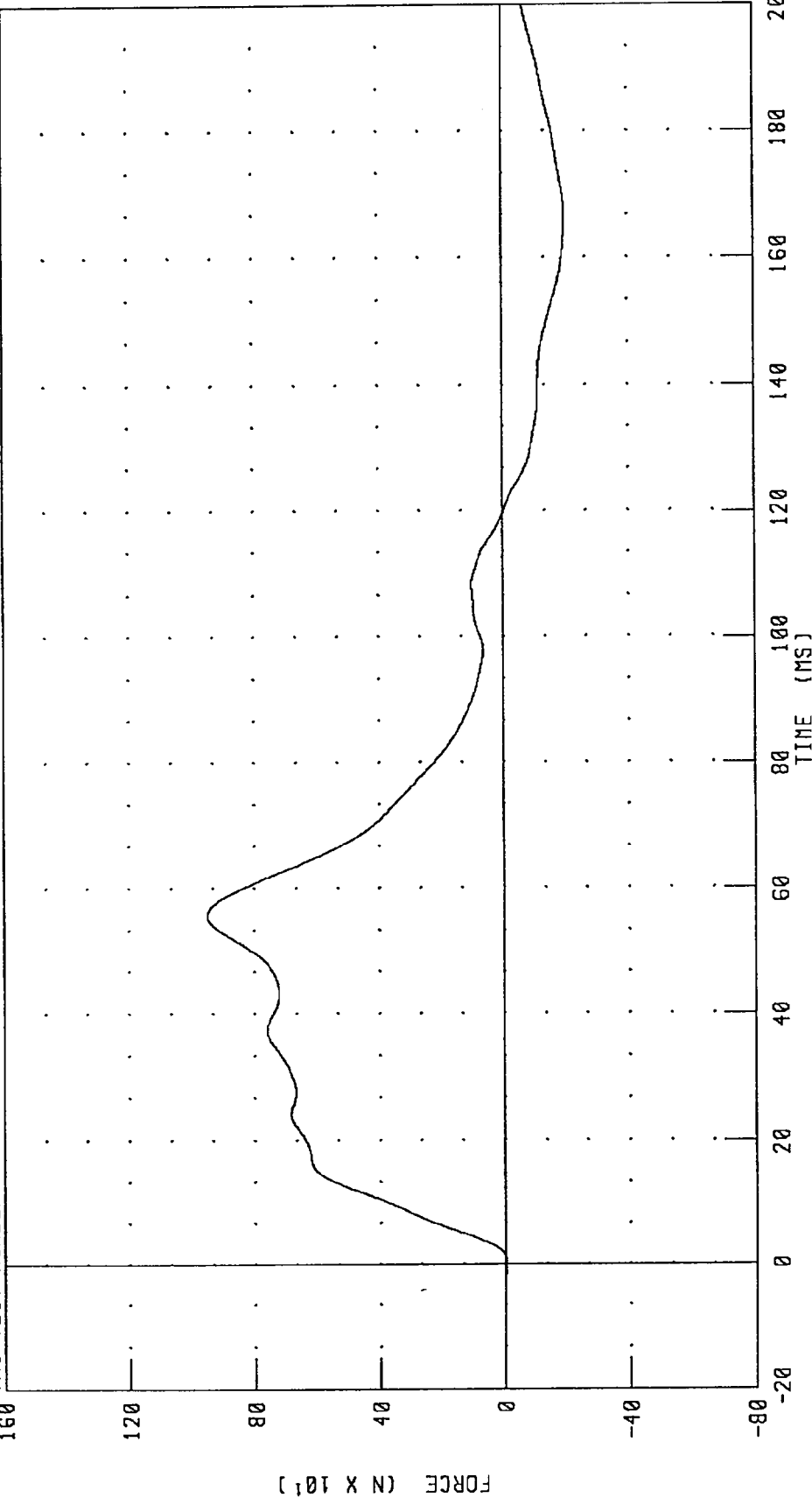
PART 572-E HYBRID III NECK FLEXION CALIBRATION

NECK FORCE X AXIS

TRC TEST NUMBER: 142C28NF1

572E SN142 NECK FLEXION CAL28

RUN NUMBER: 122295.1127;2



PEAK DATA: 949.72 N @ 55.68 MS; -200.53 N @ 166.24 MS

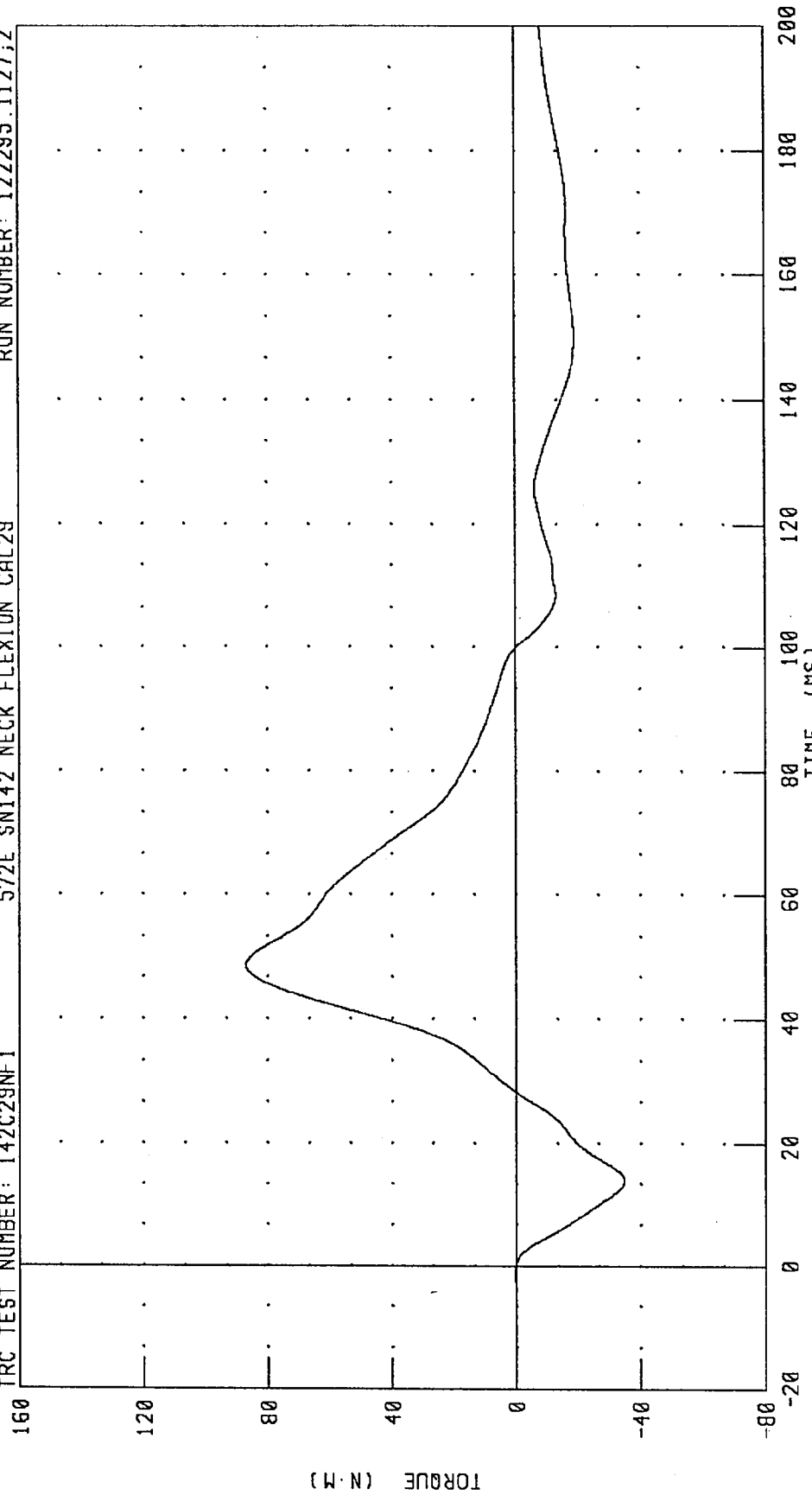
CHANNEL: NEKXF FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK FLEXION CALIBRATION NECK MOMENT Y AXIS

TRC TEST NUMBER: 142C29NF1

572E SN142 NECK FLEXION CAL29

RUN NUMBER: 122295.1127,2



PEAK DATA: 87.10 N·M @ 48.64 MS; -34.88 N·M @ 14.00 MS

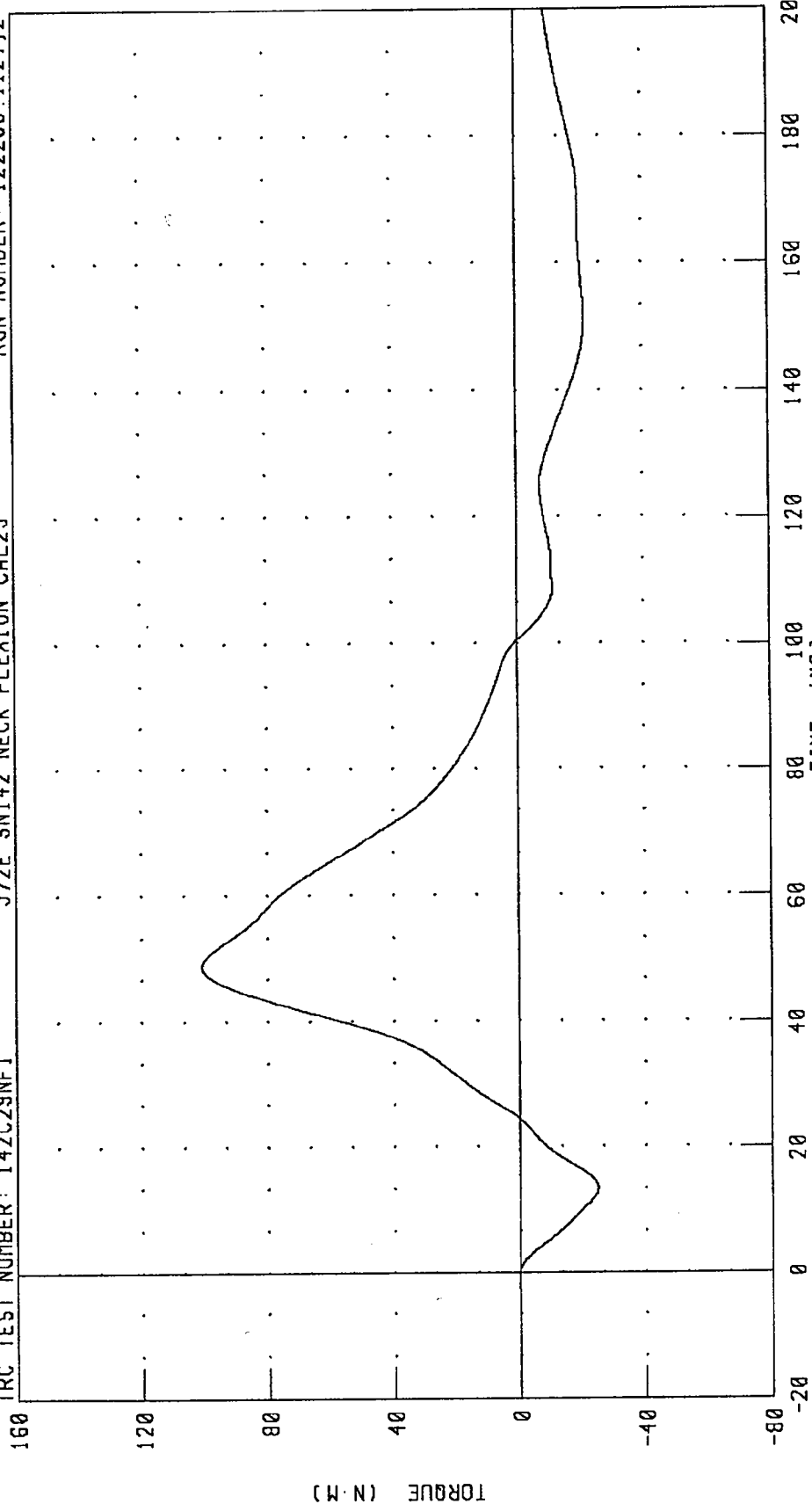
CHANNEL: NEKYM FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK FLEXION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 142C29NF1

572E SN142 NECK FLEXION CAL29

RUN NUMBER: 122295.1127;2



PEAK DATA: 100.85 N.M @ 48.88 MS; -24.91 N.M @ 13.44 MS

CHANNEL: NEKOM FILTER: CH. CLASS 60

TRANSPORTATION RESEARCH CENTER INC.

NECK EXTENSION TEST - 6 CHANNEL TRANSDUCER

HYBRID III

07-NOV-95

TRC INC. TEST NO: 142C29NE1 572E SN142 NECK EXT. CAL29

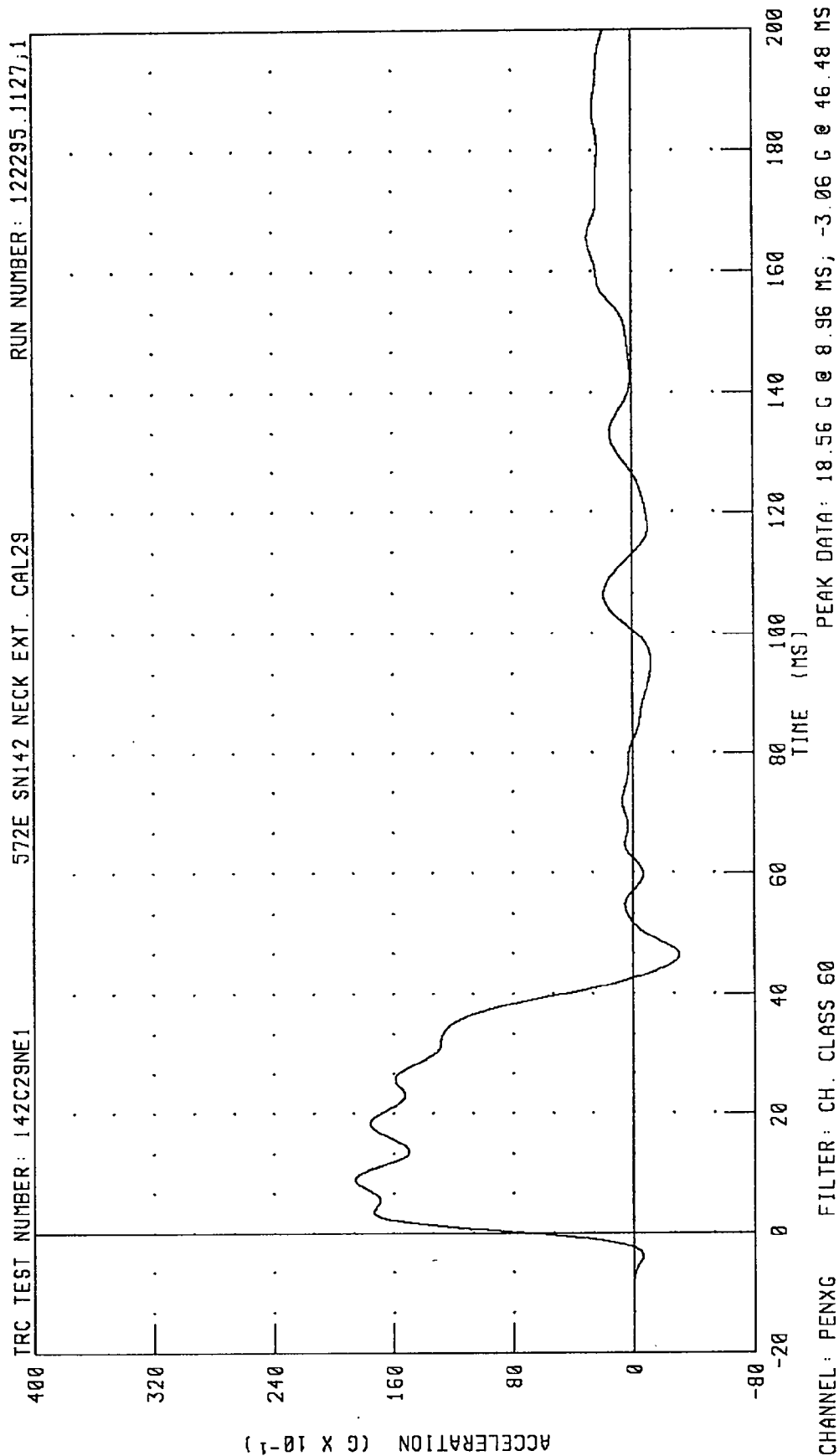
TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6 - 22.2 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY		10 - 70 %	52.0 %
IMPACT VELOCITY		5.95 - 6.19 M/S	6.05 M/S
PENDULUM DECELERATION	10 MS	17.20 - 21.20 G	18.13 G
	20 MS	14.00 - 19.00 G	16.85 G
	30 MS	11.00 - 16.00 G	13.23 G
MAX PENDULUM G		22 G MAX	18.56 G
MAX PENDULUM G ABOVE 30 MS		22 G MAX	13.19 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		38 - 46 MS	39.76 MS
D PLANE	MAX	81 - 106 DEG.	96.63 DEG.
ROTATION	TIME	72 - 82 MS	74.00 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MIN	-80.0/-52.9 NM	-71.35 NM
	TIME	65 - 79 MS	69.92 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		147 - 174 MS	152.16 MS
NEGATIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		120 - 148 MS	136.72 MS

TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. Mittle

RUN NUMBER: 110795.1610;1

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
 PENDULUM DECELERATION

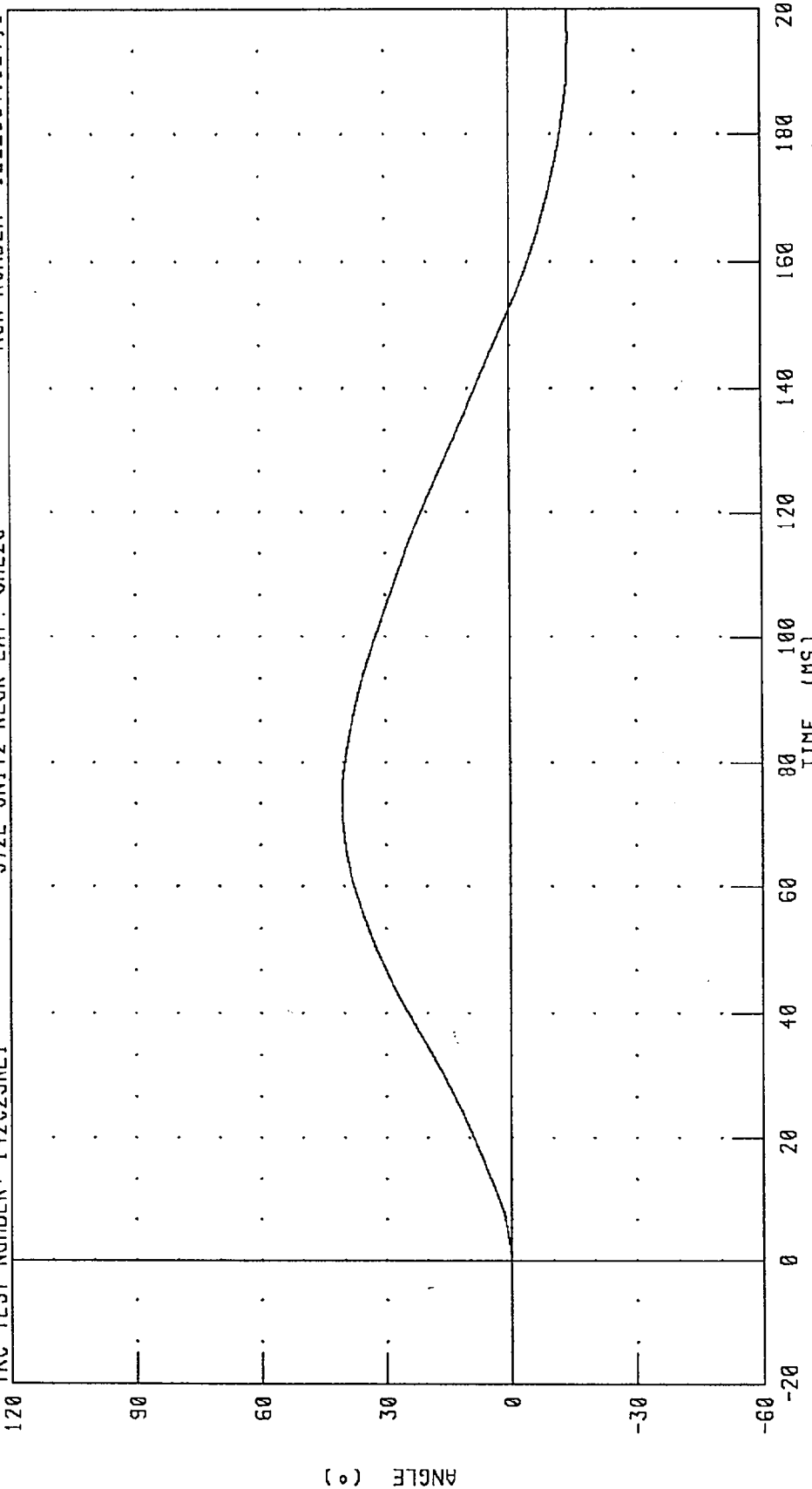


PART 572-E HYBRID III NECK EXTENSION CALIBRATION
 ROTATION ABOUT BASE OF NECK

TRC TEST NUMBER: 142C29NE1

572E SN142 NECK EXT. CAL29

RUN NUMBER: 122295.1127;1



PEAK DATA: 40.52 ° @ 73.36 MS; -14.05 ° @ 195.52 MS

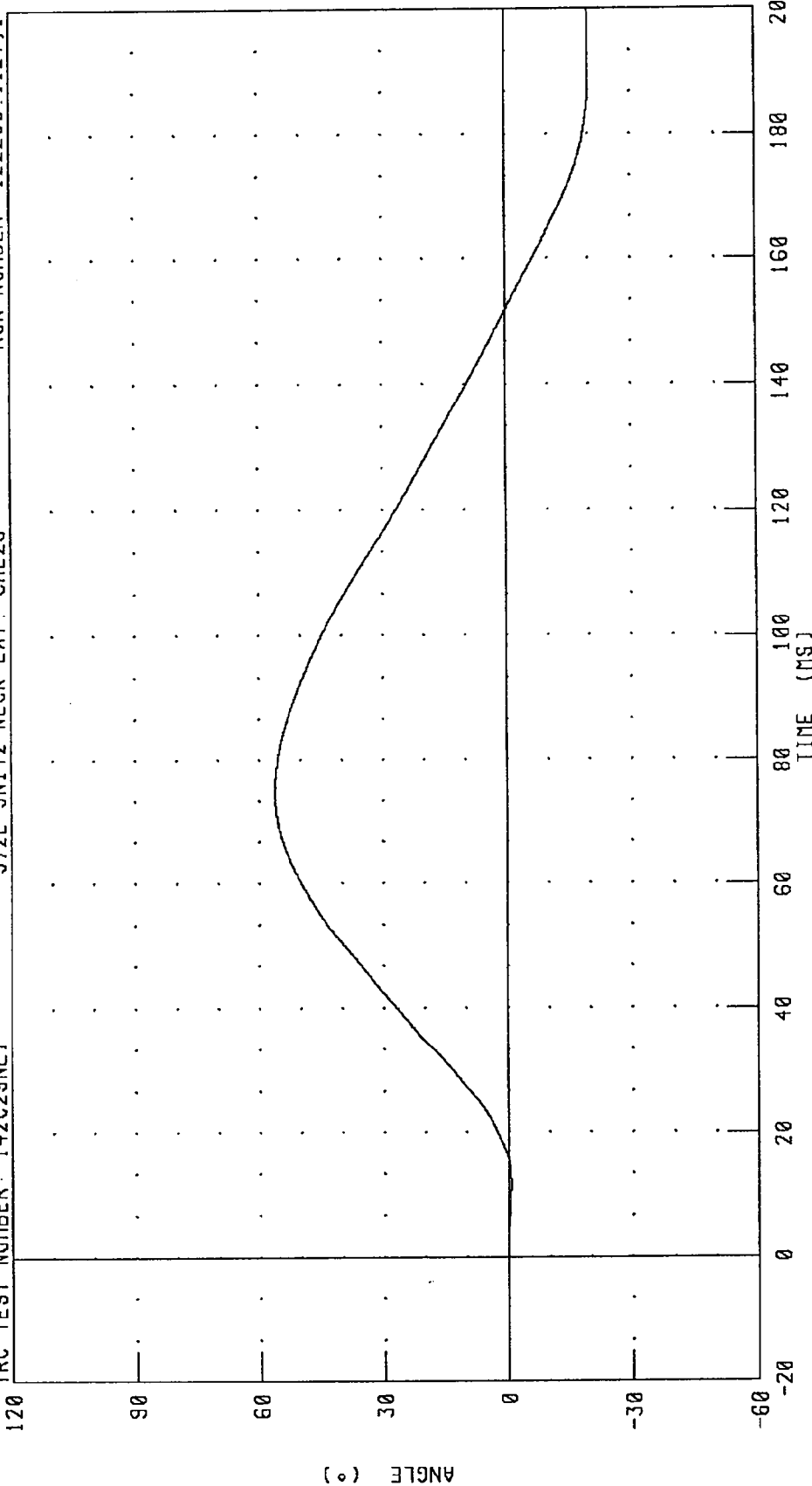
CHANNEL: BETA FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK EXTENSION CALIBRATION ROTATION ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 142C28NE1

572E SN142 NECK EXT. CAL29

RUN NUMBER: 122295.1127;1



PEAK DATA: 56.13 ° @ 74.80 MS; -20.04 ° @ 188.16 MS

CHANNEL: THETA FILTER: CH. CLASS 60

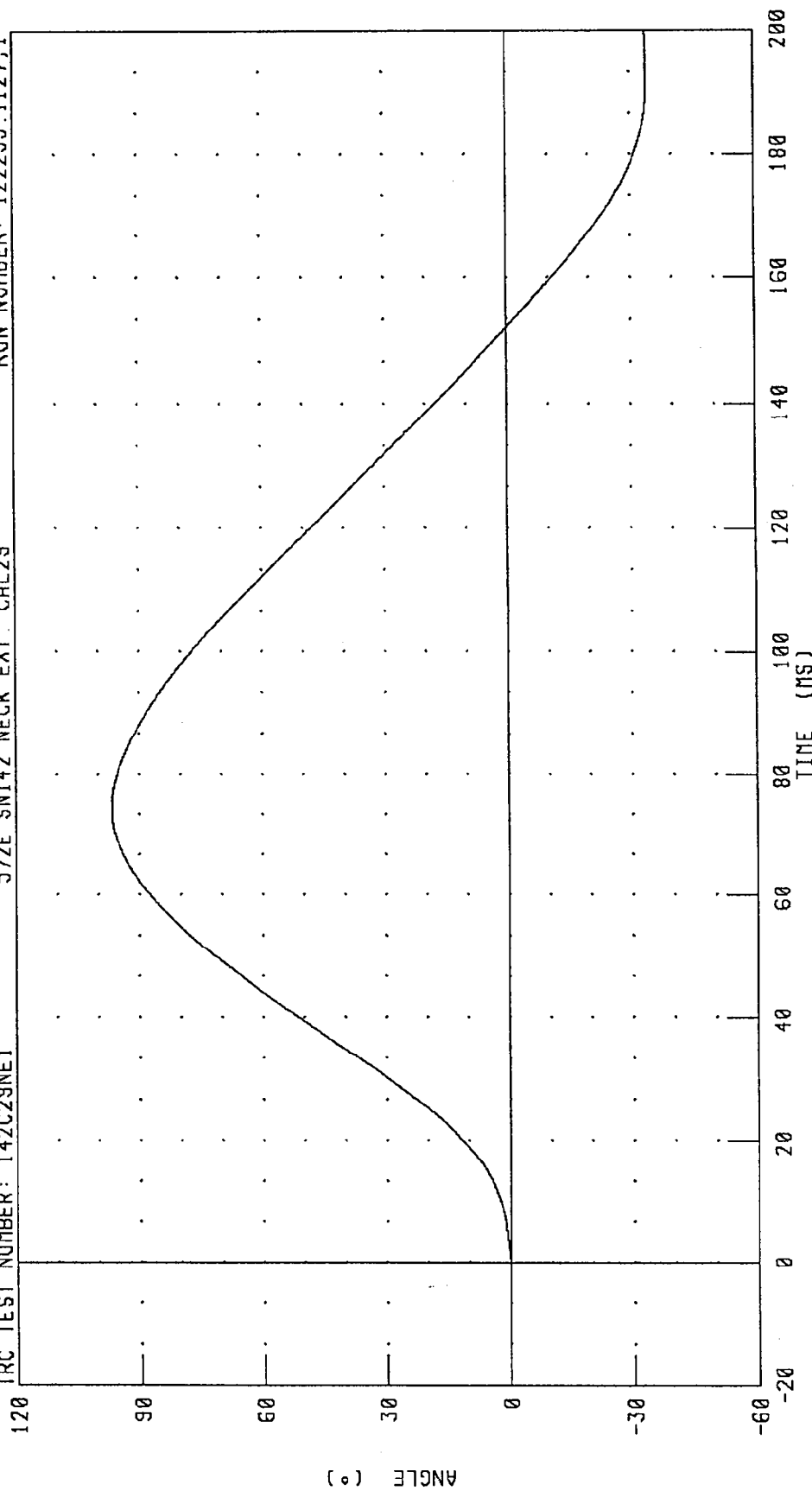
PART 572-E HYBRID III NECK EXTENSION CALIBRATION

TOTAL ROTATION

TRC TEST NUMBER: 142C23NE1

572E SN142 NECK EXT. CAL29

RUN NUMBER: 122295.1127;1

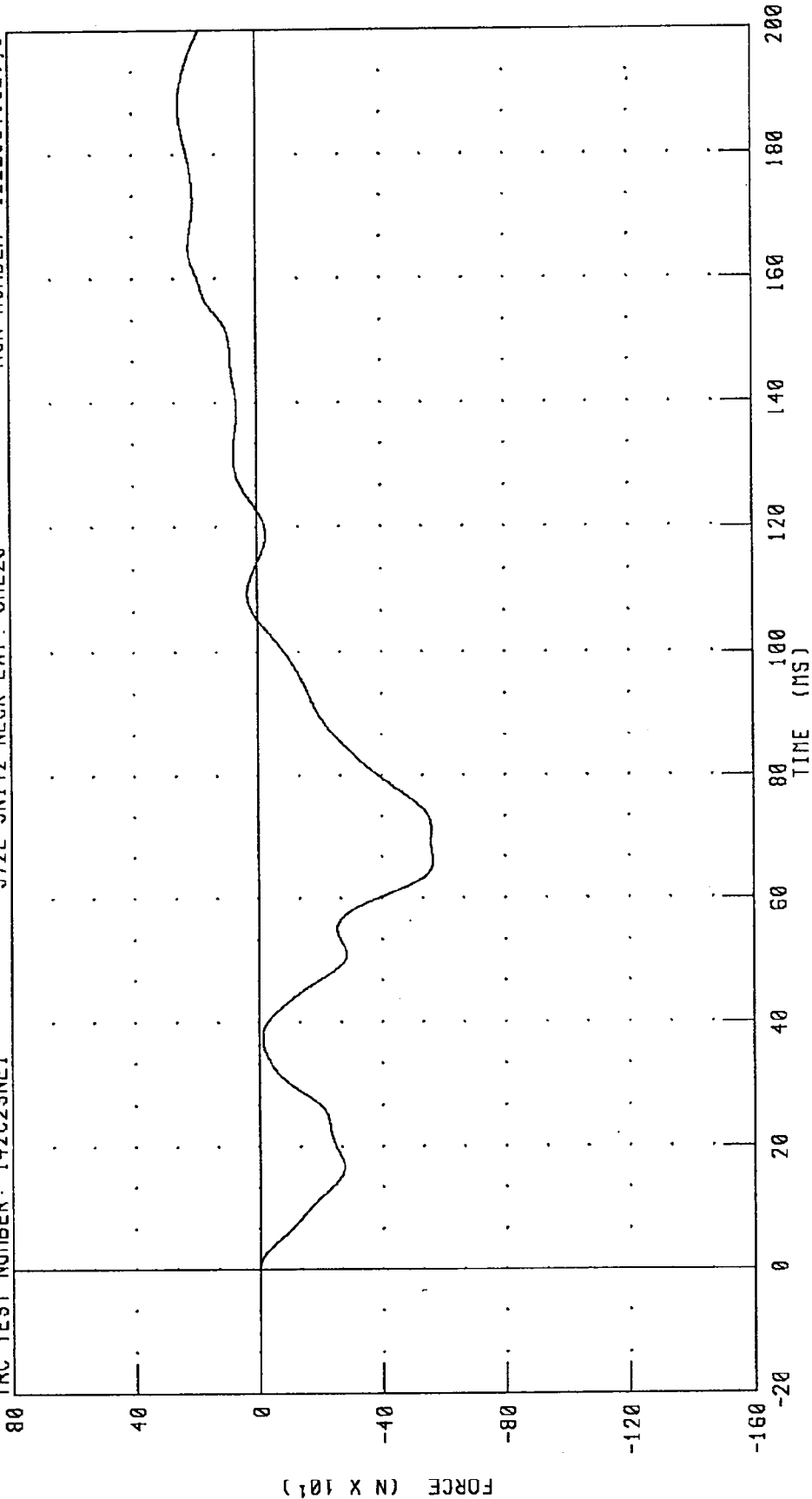


CHANNEL: TOTAL FILTER: CH. CLASS 60

PEAK DATA: 96.63 ° @ 74.00 MS; -34.09 ° @ 196.08 MS

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
NECK FORCE X AXIS

TRC TEST NUMBER: 142C29NE1 572E SN142 NECK EXT. CAL29 RUN NUMBER: 122295.1127;1



PEAK DATA: 251.12 N @ 188.08 MS; -565.91 N @ 65.92 MS

CHANNEL: NEKXF FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK EXTENSION CALIBRATION

NECK MOMENT Y AXIS

IRC TEST NUMBER: 142C29NE1

572E SN142 NECK EXT. CAL29

RUN NUMBER: 122295.1127;1

80

40

0

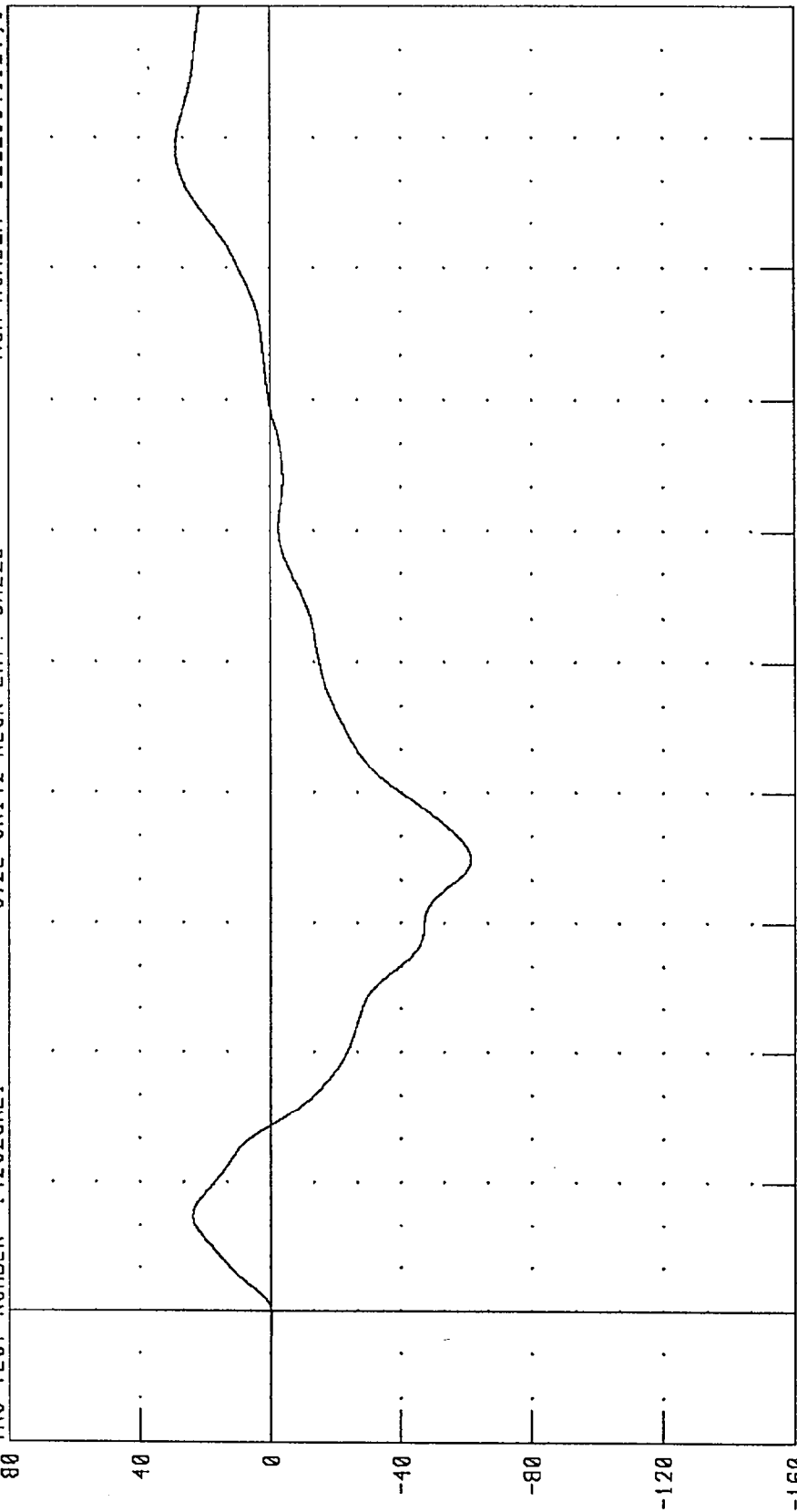
-40

-80

-120

-160

TORQUE (N·M)



TIME (MS)

PEAK DATA: 28.79 N·M @ 178.48 MS; -61.39 N·M @ 89.92 MS

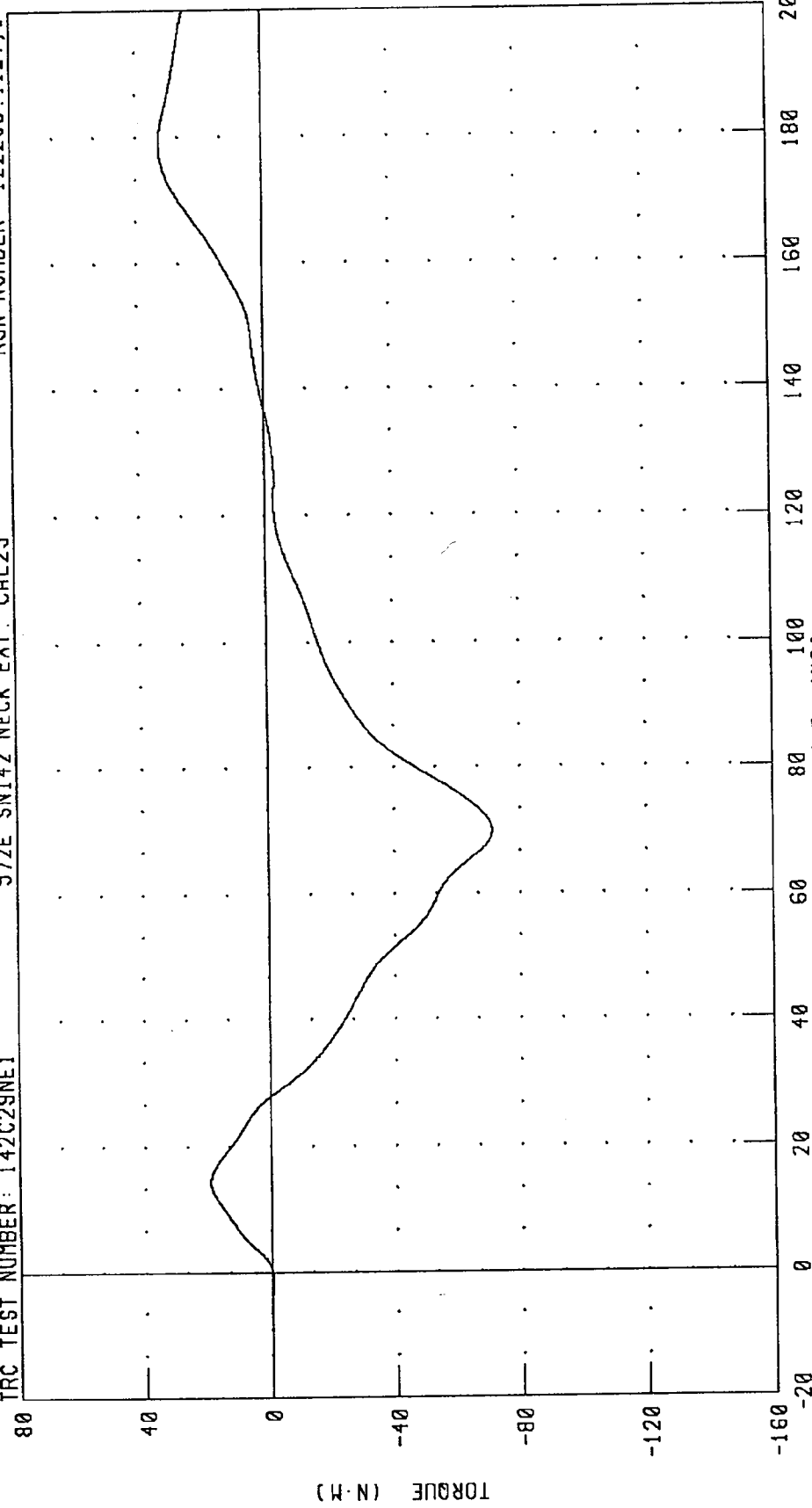
CHANNEL: NEKYM FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE

RUN NUMBER: 122295.1127;1

572E SN142 NECK EXT. CAL29

TRC TEST NUMBER: 142C29NE1



PEAK DATA: 32.67 N-M @ 178.96 MS; -71.35 N-M @ 69.92 MS

CHANNEL: NEKOM FILTER: CH. CLASS 60

TRANSPORTATION RESEARCH CENTER INC.

THORAX IMPACT TEST

HYBRID III

08-NOV-95

TRC INC.

TEST NO: 142C29TH1

572E SN142 H.S.THORAX CAL29

TEST PARAMETER	HIGH SPEED TEST	TEST RESULTS
	SPECIFICATION	
TEMPERATURE	20.6-22.2 DEG. C	21.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	38.0 %
PENDULUM VELOCITY	6.59 - 6.83 M/S	6.68 M/S
MAXIMUM DEFLECTION	63.5 - 72.6 MM	67.7 MM
MAXIMUM RESISTIVE FORCE	5159 - 5894 N	5724. N
INTERNAL HYSTERESIS	69% - 85%	73.8%

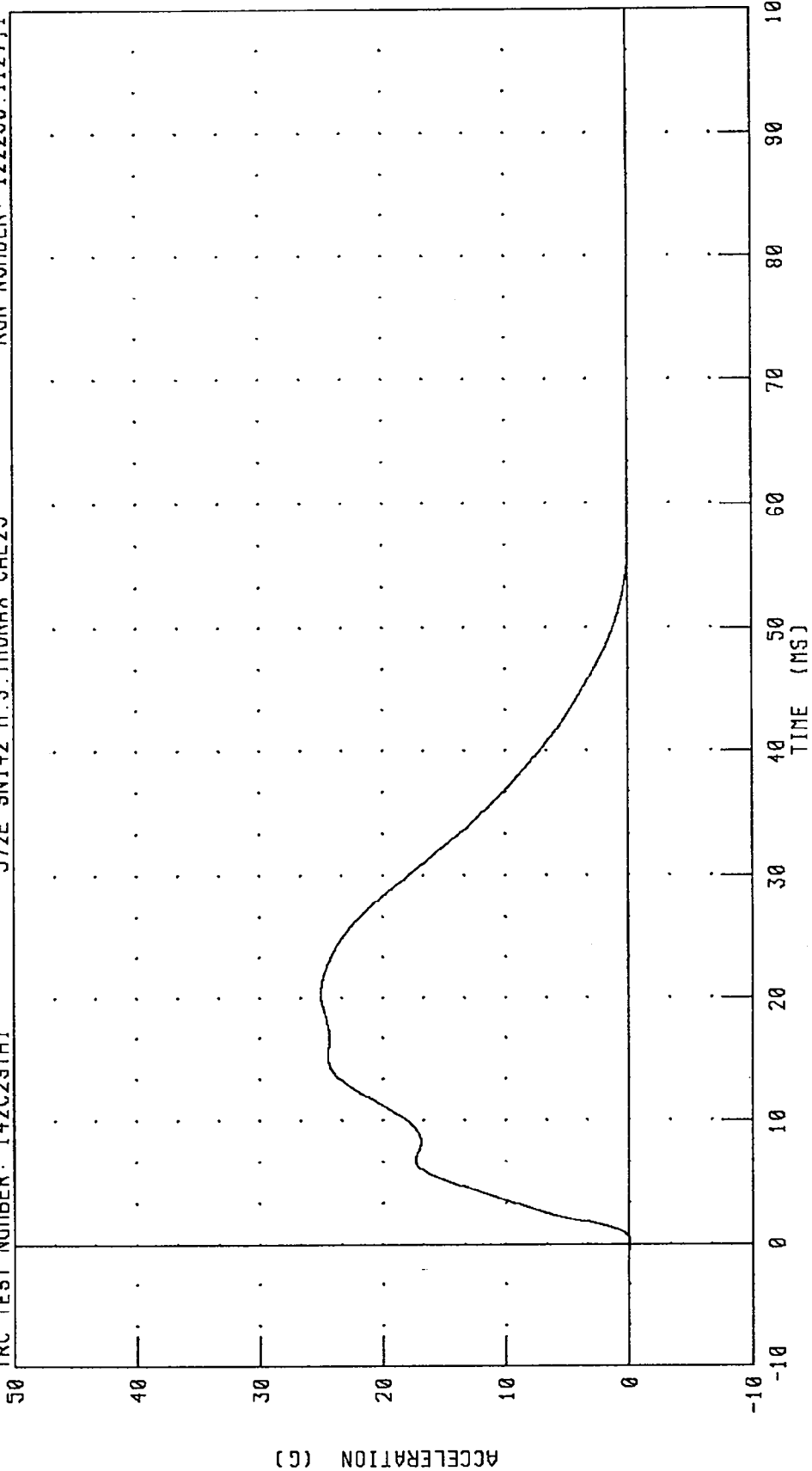
TEST MEETS SPECIFICATIONS

TECHNICIAN Cha. Miller

RUN NUMBER: 110895.0740;1

PART 572-E HYBRID III THORAX CALIBRATION PENDULUM DECELERATION

TRC TEST NUMBER: 142C29TH1 572E SN142 H.S. THORAX CAL29 RUN NUMBER: 122295.1127,1



PEAK DATA: 24.99 G @ 20.40 MS; -0.10 G @ 0.24 MS

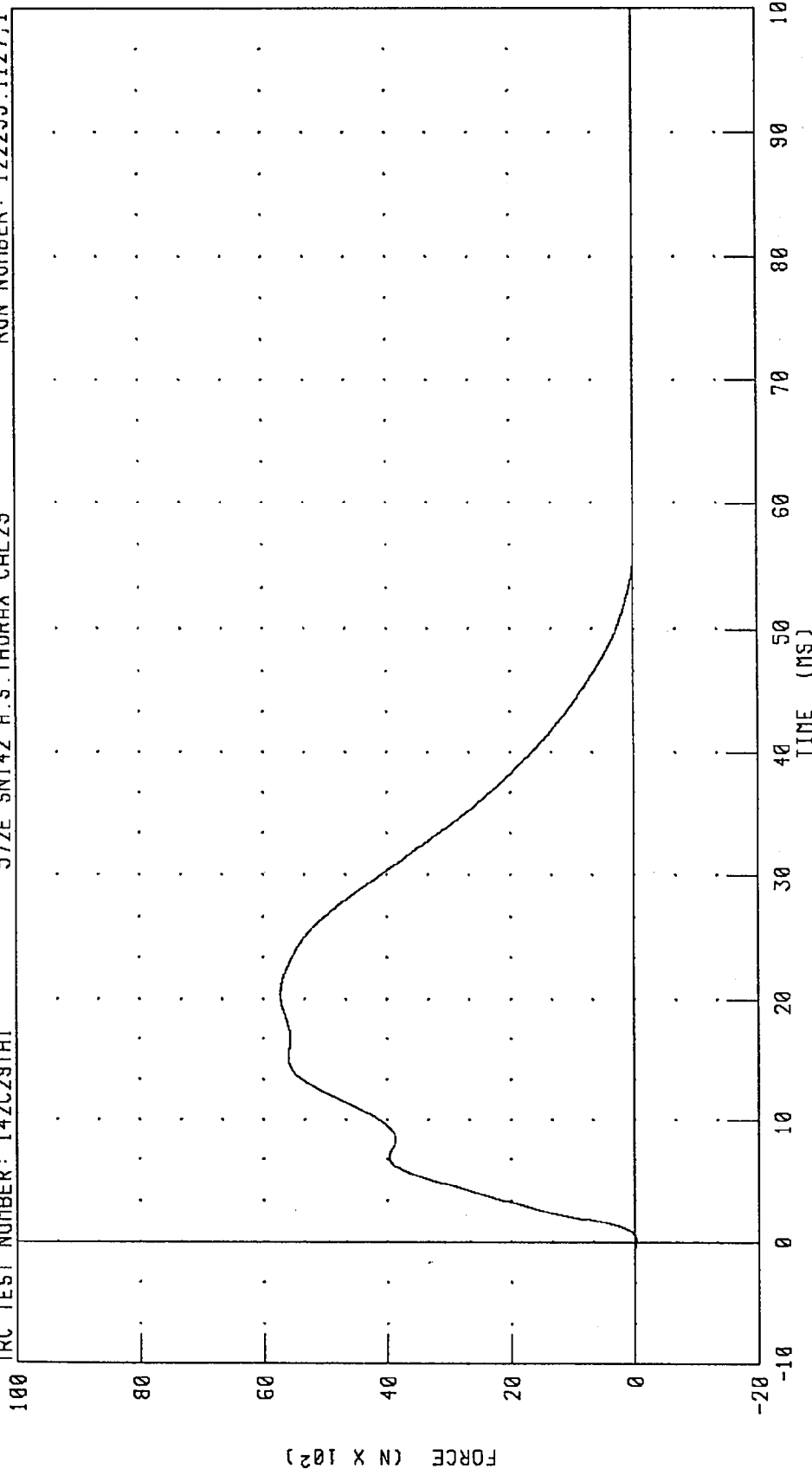
CHANNEL: PENXG FILTER: CH. CLASS 180

PART 572-E HYBRID III THORAX CALIBRATION
PENDULUM FORCE

TRC TEST NUMBER: 142C29TH1

572E SN142 H.S. THORAX CAL29

RUN NUMBER: 122295.1127.1

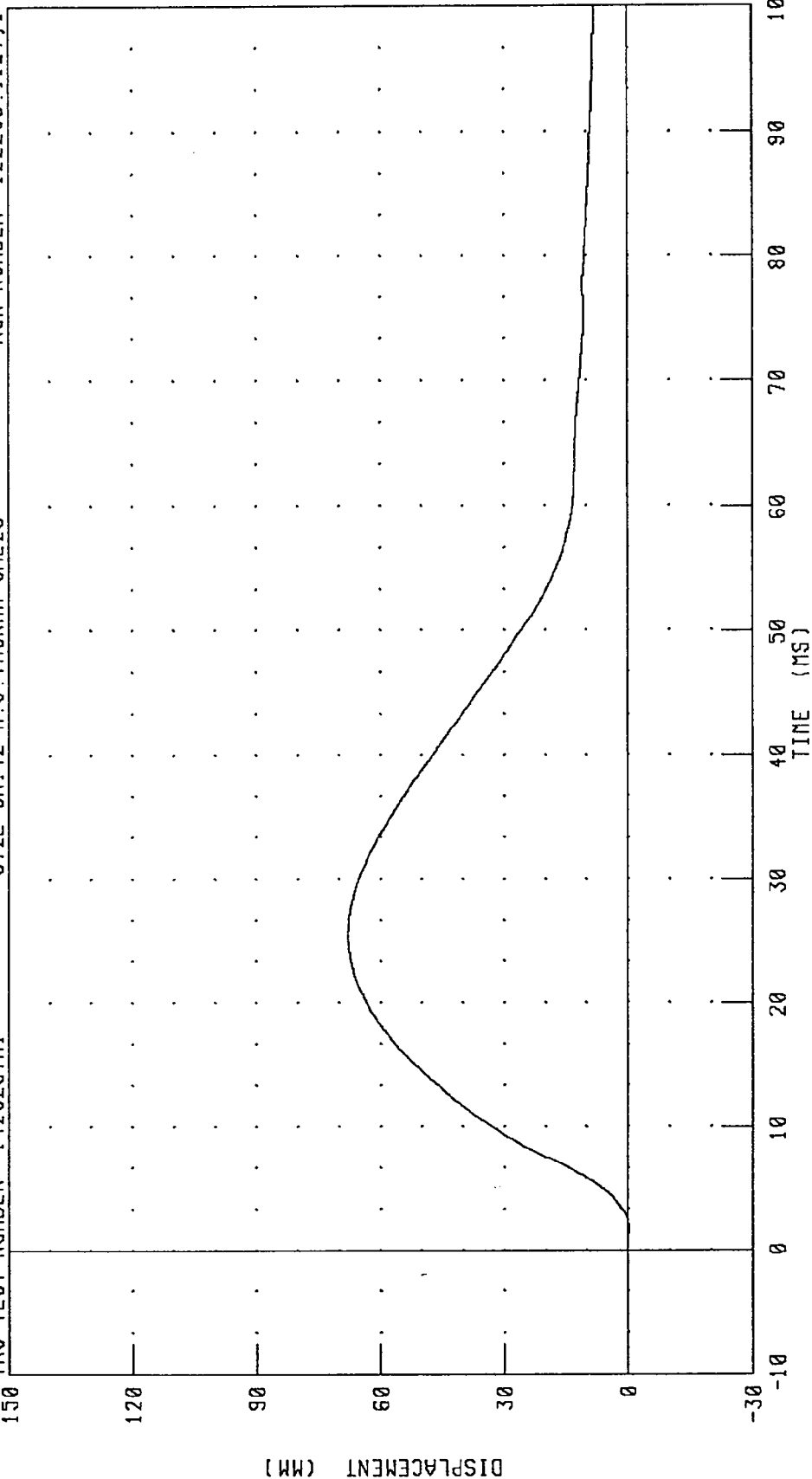


CHANNEL: PENXF FILTER: CH. CLASS 180

PEAK DATA: 5724.19 N @ 20.40 MS; -22.28 N @ 0.24 MS

PART 572-E HYBRID III THORAX CALIBRATION STERNUM DISPLACEMENT

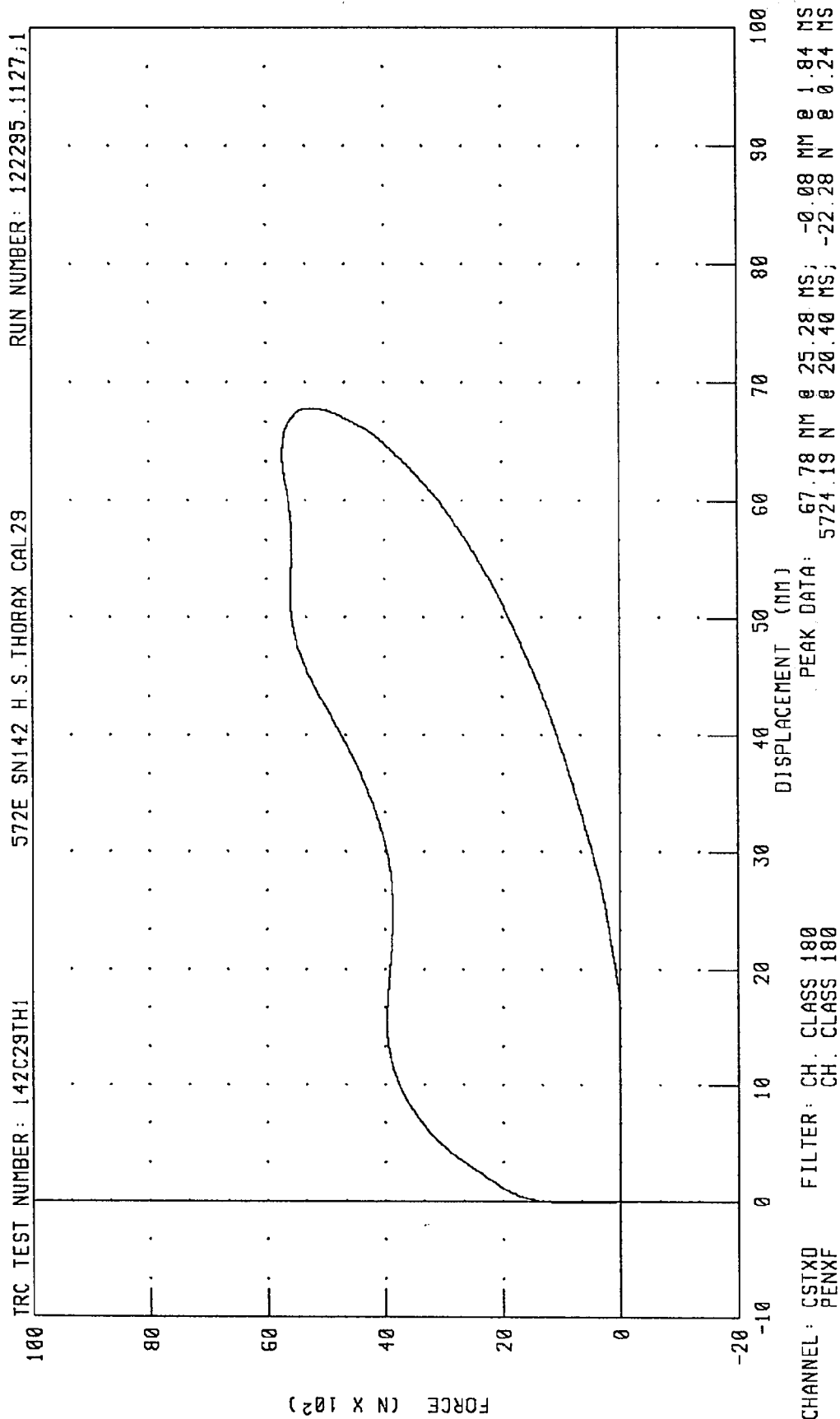
TRC TEST NUMBER: 142C29TH1 572E SN142 H.S. THORAX CAL29 RUN NUMBER: 122295.1127;1



PEAK DATA: 67.78 MM @ 25.28 MS; -0.08 MM @ 1.84 MS

CHANNEL: CSTXD FILTER: CH. CLASS 180

PART 572-E HYBRID III THORAX CALIBRATION
CHEST DISPLACEMENT VS PENDULUM FORCE



TRANSPORTATION RESEARCH CENTER INC.

RIGHT KNEE IMPACT TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 142C29RK1

572E SN142 RIGHT KNEE CAL 29

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.12 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5691.0 N

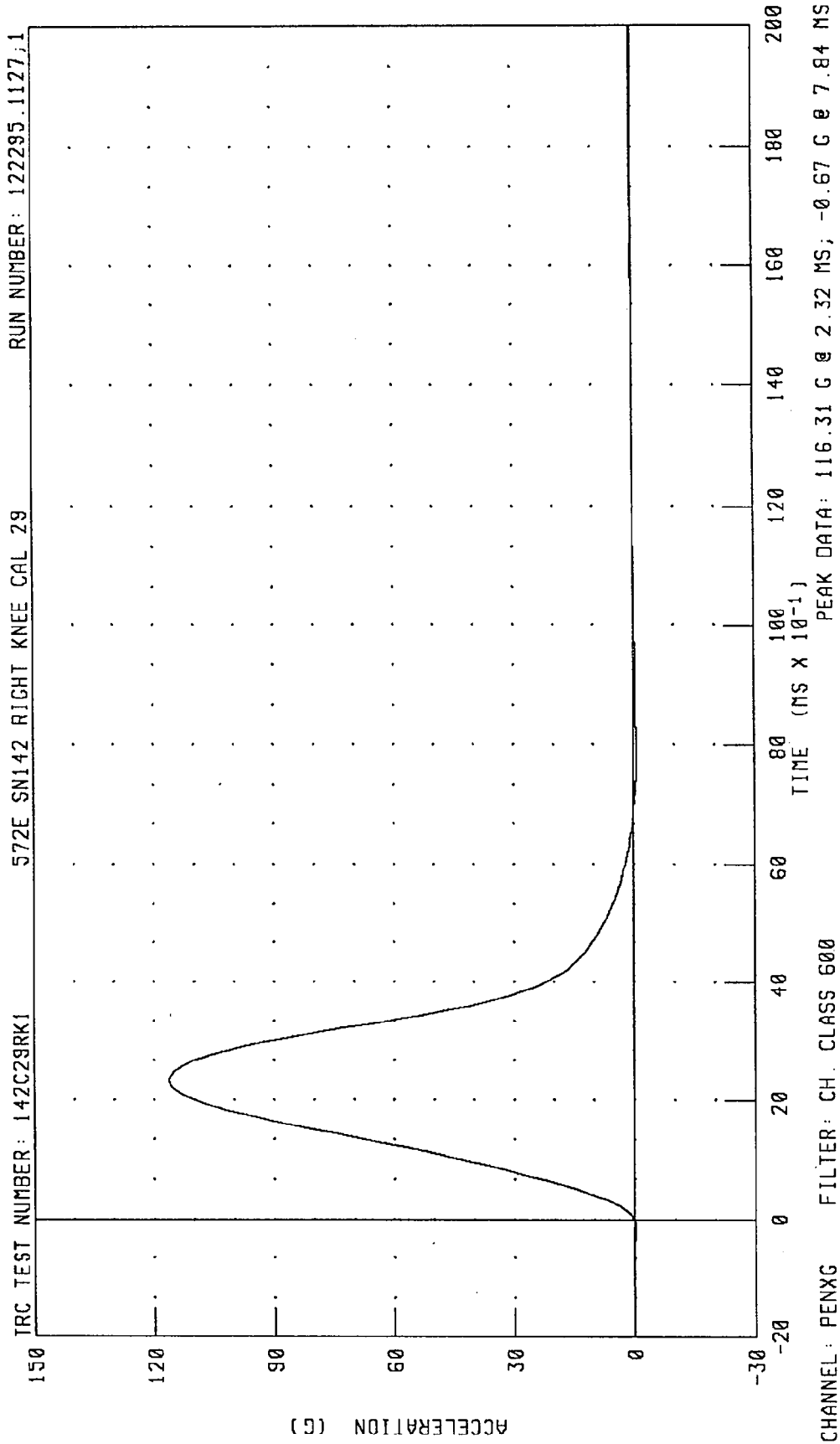
TEST MEETS SPECIFICATIONS

TECHNICIAN

Chas. Middle

RUN NUMBER: 110795.1300;1

PART 572-E HYBRID III RIGHT KNEE CALIBRATION
 PENDULUM DECELERATION (5 KG PEND.)



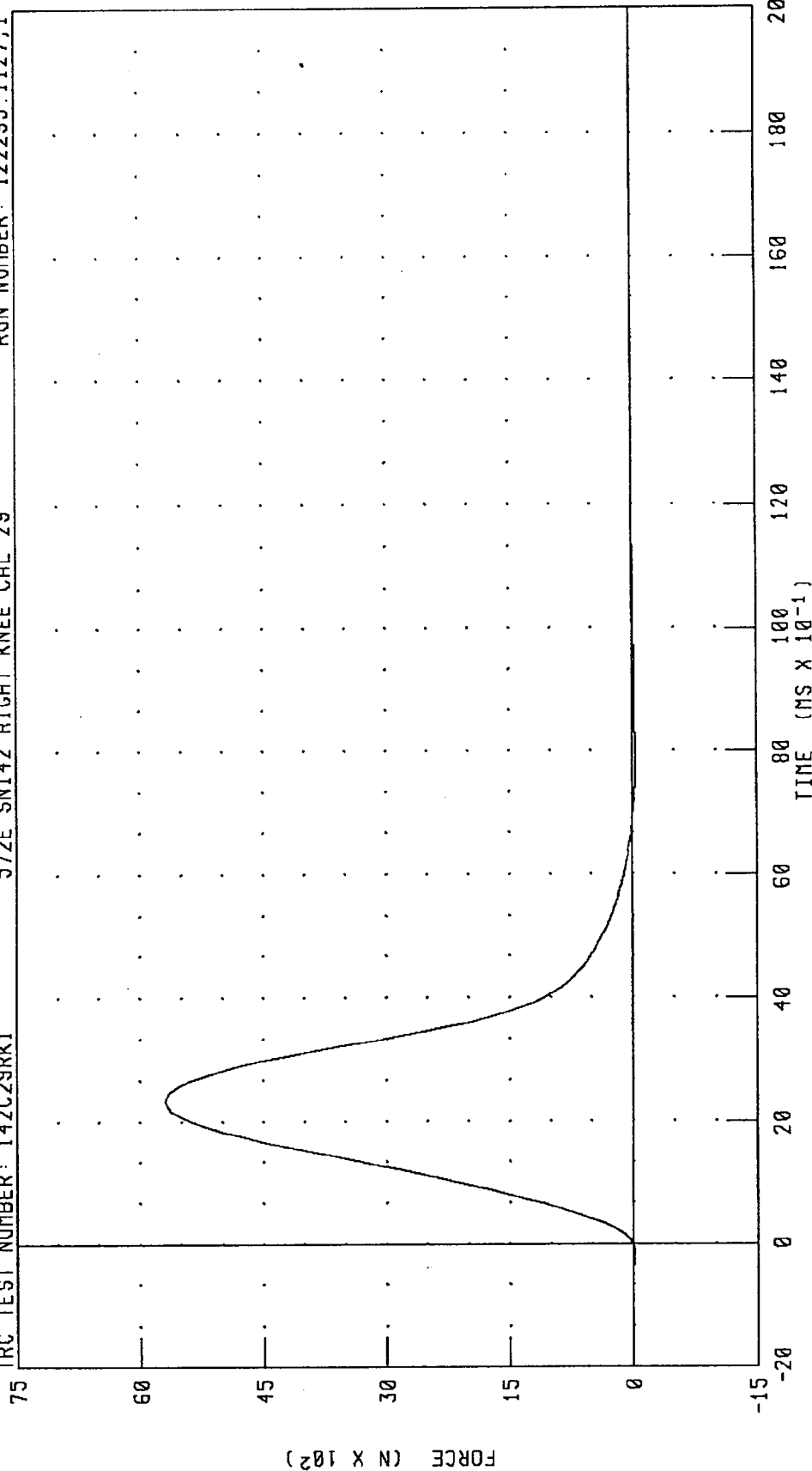
PART 572-E HYBRID III RIGHT KNEE CALIBRATION

PENDULUM FORCE (5 KG PEND.)

TRC TEST NUMBER: 142C29RK1

572E SN142 RIGHT KNEE CAL 29

RUN NUMBER: 122295.1127;1



PEAK DATA: 5691.03 N @ 2.32 MS; -33.01 N @ 7.84 MS

CHANNEL: PENXF FILTER: CH. CLASS 600

TRANSPORTATION RESEARCH CENTER INC.

LEFT KNEE IMPACT TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 142C29LK1

572E SN142 LEFT KNEE CAL 29

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.11 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5157.4 N

TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. Smith

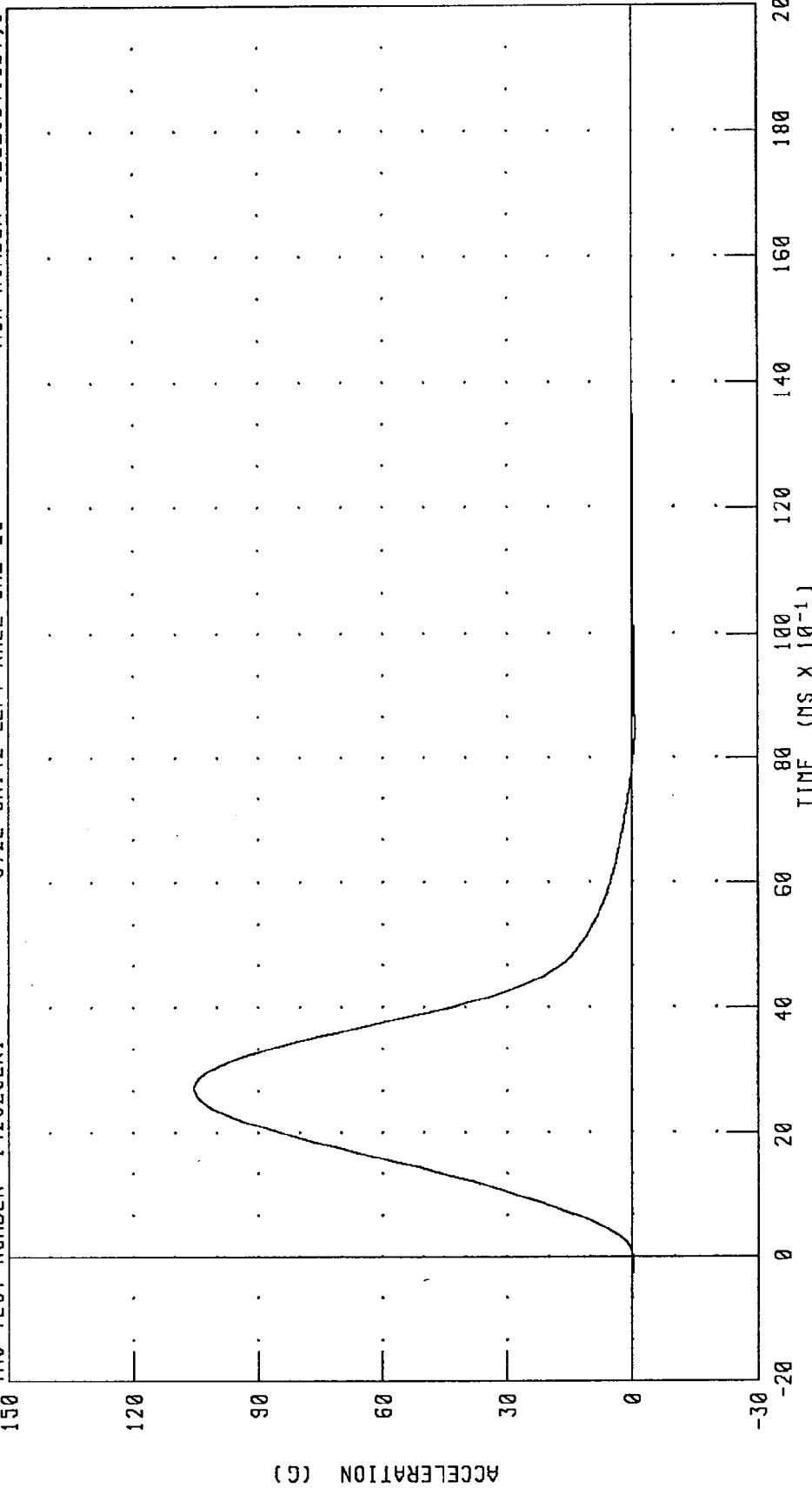
RUN NUMBER: 110795.1255;1

PART 572-E HYBRID III LEFT KNEE CALIBRATION
 PENDULUM DECELERATION (5 KG PEND.)

TRC TEST NUMBER: 142C29LK1

572E SN142 LEFT KNEE CAL 29

RUN NUMBER: 122295.1127.1



CHANNEL: PENXG FILTER: CH. CLASS 600

PEAK DATA: 105.41 G @ 2.72 MS; -0.64 G @ 8.48 MS

PART 572-E HYBRID III LEFT KNEE CALIBRATION

PENDULUM FORCE (5 KG PEND.)

572E SN142 LEFT KNEE CAL 29

TRC TEST NUMBER: 142C29LK1

75

60

45

30

15

0

-15

-20

0

20

40

60

80

100

120

140

160

180

200

220

240

260

280

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320

340

360

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420

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460

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4220

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5000

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5100

5120

5140

5160

5180

5200

5220

5240

5260

5280

5300

5320

5340

5360

5380

5400

5420

5440

5460

5480

5500

5520

Pre-test Certification Data

Passenger Dummy S/N: 192

TRANSPORTATION RESEARCH CENTER INC.

HYBRID III EXTERNAL DIMENSIONS

192 ALDERSON

07-NOV-95

TRC INC.

TEST NO: 192C28ED1

572E SN192 EXT.DIMENSION CAL28

TEST PARAMETER	(DIMEN.)	SPECIFICATION	TEST RESULTS
LOCATION FOR CHEST CIRCUMFERENCE (AA)		429 - 434 MM	432. MM
LOCATION FOR WAIST CIRCUMFERENCE (BB)		226 - 231 MM	229. MM
CHEST CIRCUMFERENCE (Y)		970 -1001 MM	980. MM
WAIST CIRCUMFERENCE (Z)		836 - 866 MM	851. MM
CHEST DEPTH (O)		213 - 229 MM	218. MM
H-POINT HEIGHT (C)		84 - 89 MM	84. MM
H-POINT FROM SEATBACK (D)		135 - 140 MM	135. MM
SKULL CAP TO BACKLINE (H)		41 - 46 MM	43. MM
TOTAL SITTING HEIGHT (A)		879 - 889 MM	889. MM
THIGH CLEARANCE (F)		140 - 155 MM	150. MM
BUTTOCK KNEE LENGTH (K)		579 - 605 MM	597. MM
BUTTOCK POPLITEAL LENGTH (N)		452 - 478 MM	470. MM
POPLITEAL HEIGHT (L)		429 - 455 MM	447. MM
KNEE PIVOT HEIGHT (M)		485 - 500 MM	493. MM
FOOT LENGTH (P)		252 - 267 MM	259. MM
FOOT BREADTH (W)		91 - 107 MM	102. MM
SHOULDER PIVOT FROM BACKLINE (E)		84 - 94 MM	94. MM
SHOULDER BREADTH (V)		422 - 437 MM	429. MM
SHOULDER PIVOT HEIGHT (B)		506 - 521 MM	516. MM
ELBOW REST HEIGHT (J)		191 - 211 MM	211. MM
SHOULDER-ELBOW LENGTH (I)		330 - 345 MM	345. MM
BACK OF ELBOW TO WRIST PIVOT (G)		290 - 305 MM	290. MM

DUMMY MEETS SPECIFICATIONS

TECHNICIAN *Chas. Middel*

RUN NUMBER: 111695.0906

TRANSPORTATION RESEARCH CENTER INC.

HEAD DROP TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 192C28HD1

572E SN192 HEAD DROP CAL 28

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PEAK RESULTANT ACCELERATION	225 - 275 G	245.56 G
PEAK LATERAL ACCELERATION	15 G MAX	-3.28 G
IS ACCELERATION CURVE UNIMODAL?	YES	YES

TEST MEETS SPECIFICATIONS

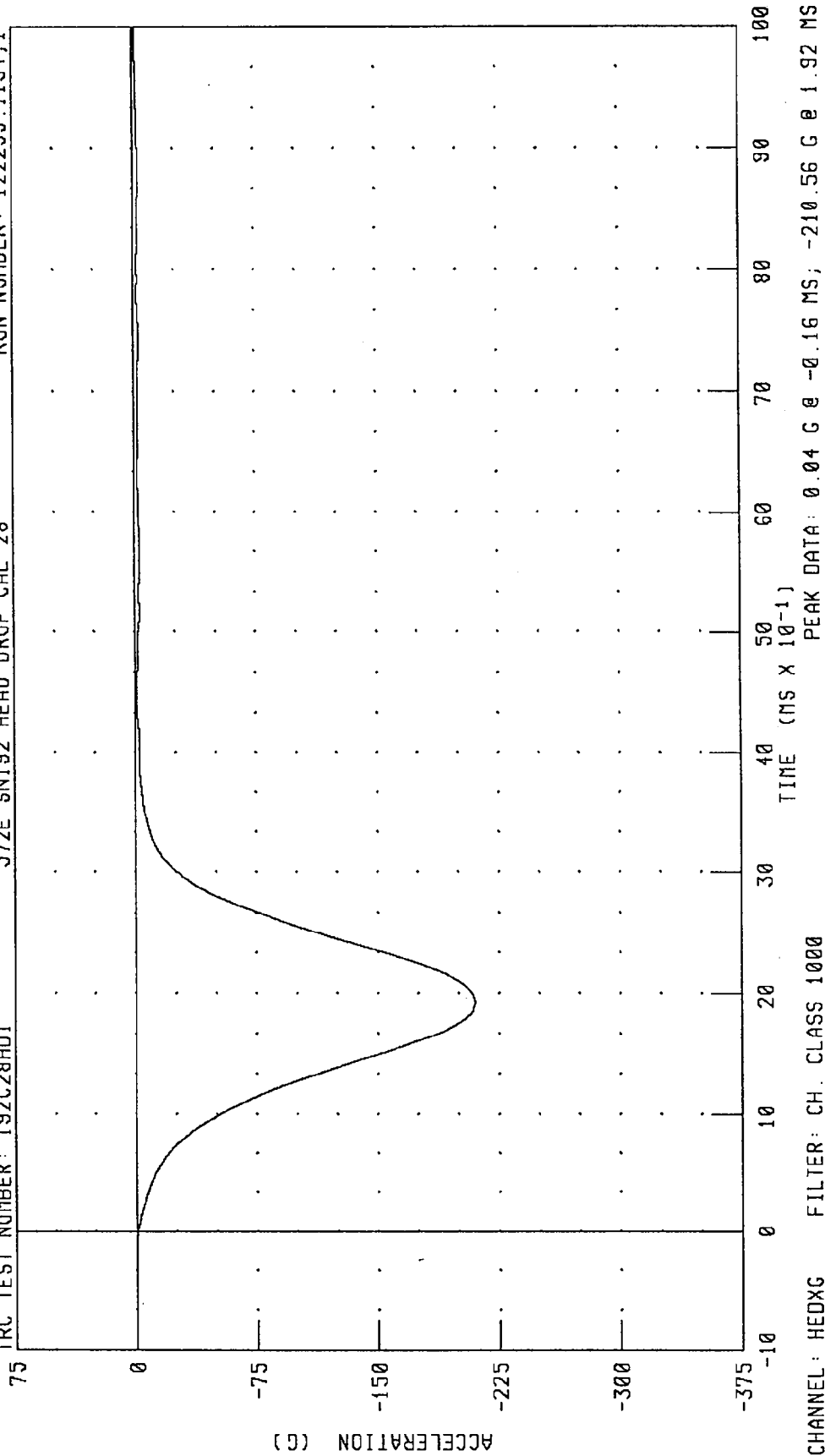
TECHNICIAN

Chas. M. Hight

RUN NUMBER: 110795.1216;1

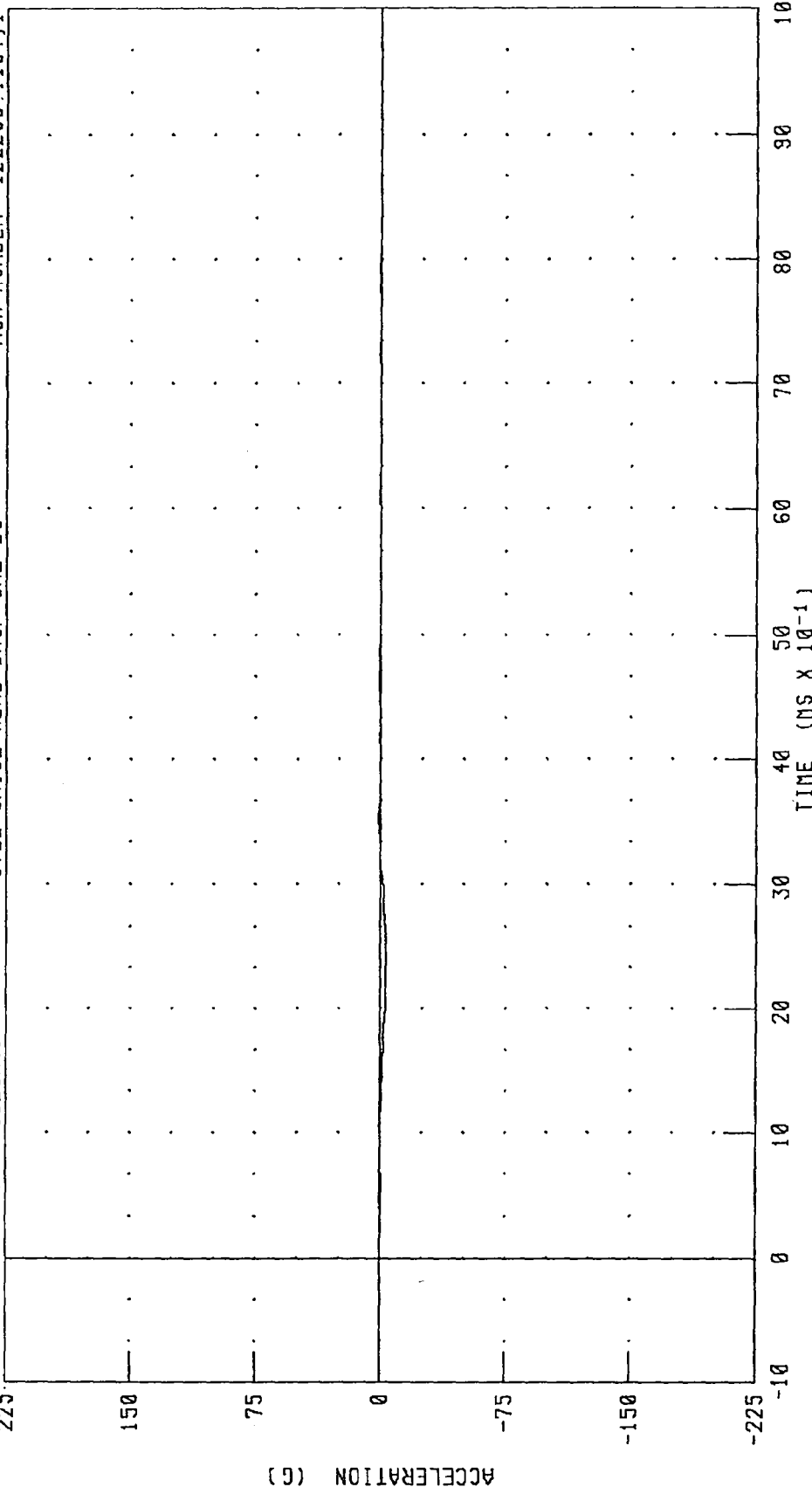
PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION X AXIS

TRC TEST NUMBER: 192C28HD1 572E SN192 HEAD DROP CAL 28 RUN NUMBER: 122295.1134;1



PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Y AXIS

TRC TEST NUMBER: 192C28HD1 572E SN192 HEAD DROP CAL 28 RUN NUMBER: 122295.1134,1



PEAK DATA: 1.03 G @ 3.52 MS; -3.28 G @ 2.56 MS

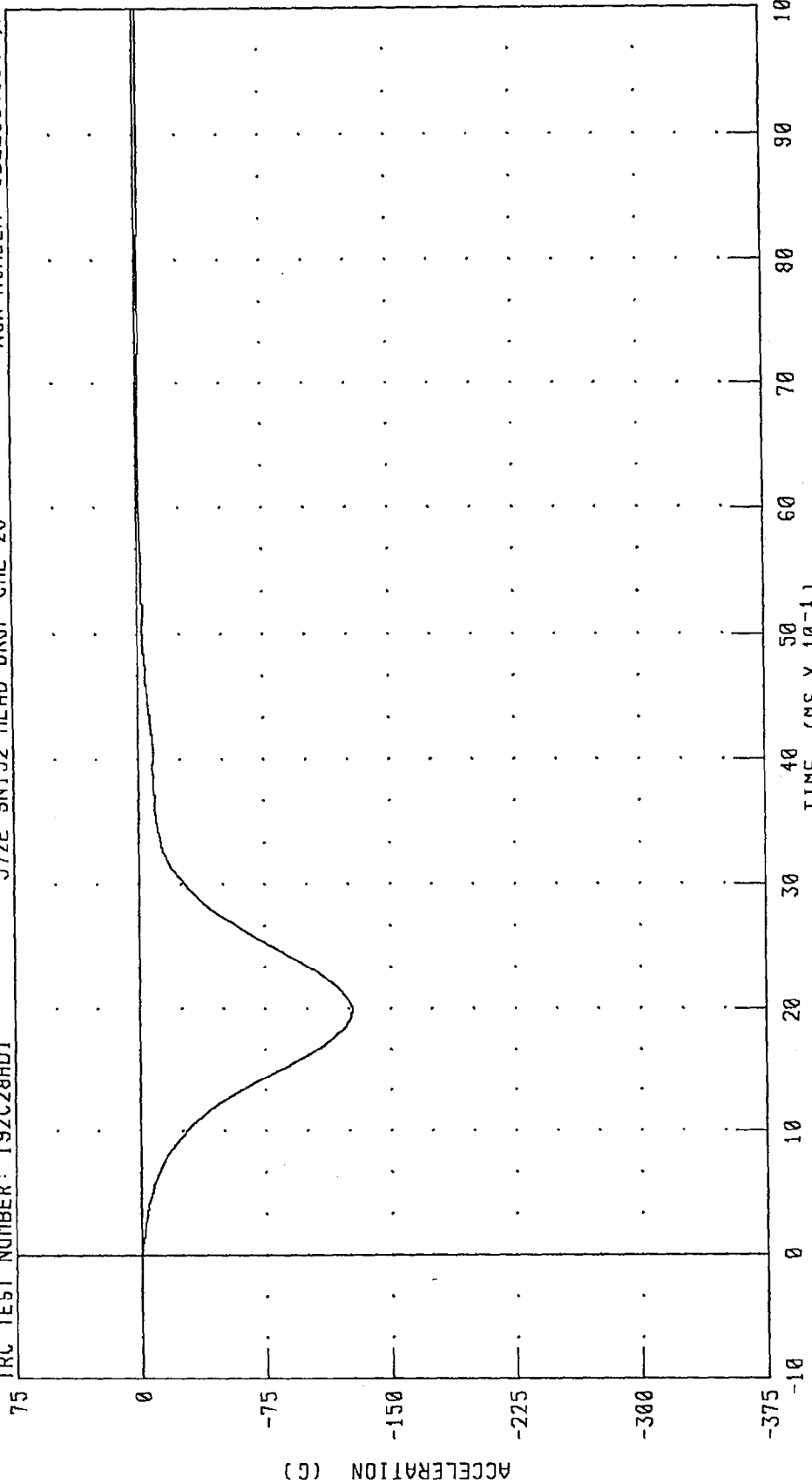
CHANNEL: HEDYG FILTER: CH. CLASS 1000

PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Z AXIS

TRC TEST NUMBER: 192C28HD1

572E SN192 HEAD DROP CAL 28

RUN NUMBER: 122295.1134;1



PEAK DATA: 0.04 G @ -0.08 MS; -126.83 G @ 2.00 MS

CHANNEL: HEDZG FILTER: CH. CLASS 1000

PART 572-E HYBRID III HEAD CALIBRATION
HEAD RESULTANT ACCELERATION

TRC TEST NUMBER: 192C28HD1

572E SN192 HEAD DROP CAL 28

RUN NUMBER: 122295.1134;1

375

300

225

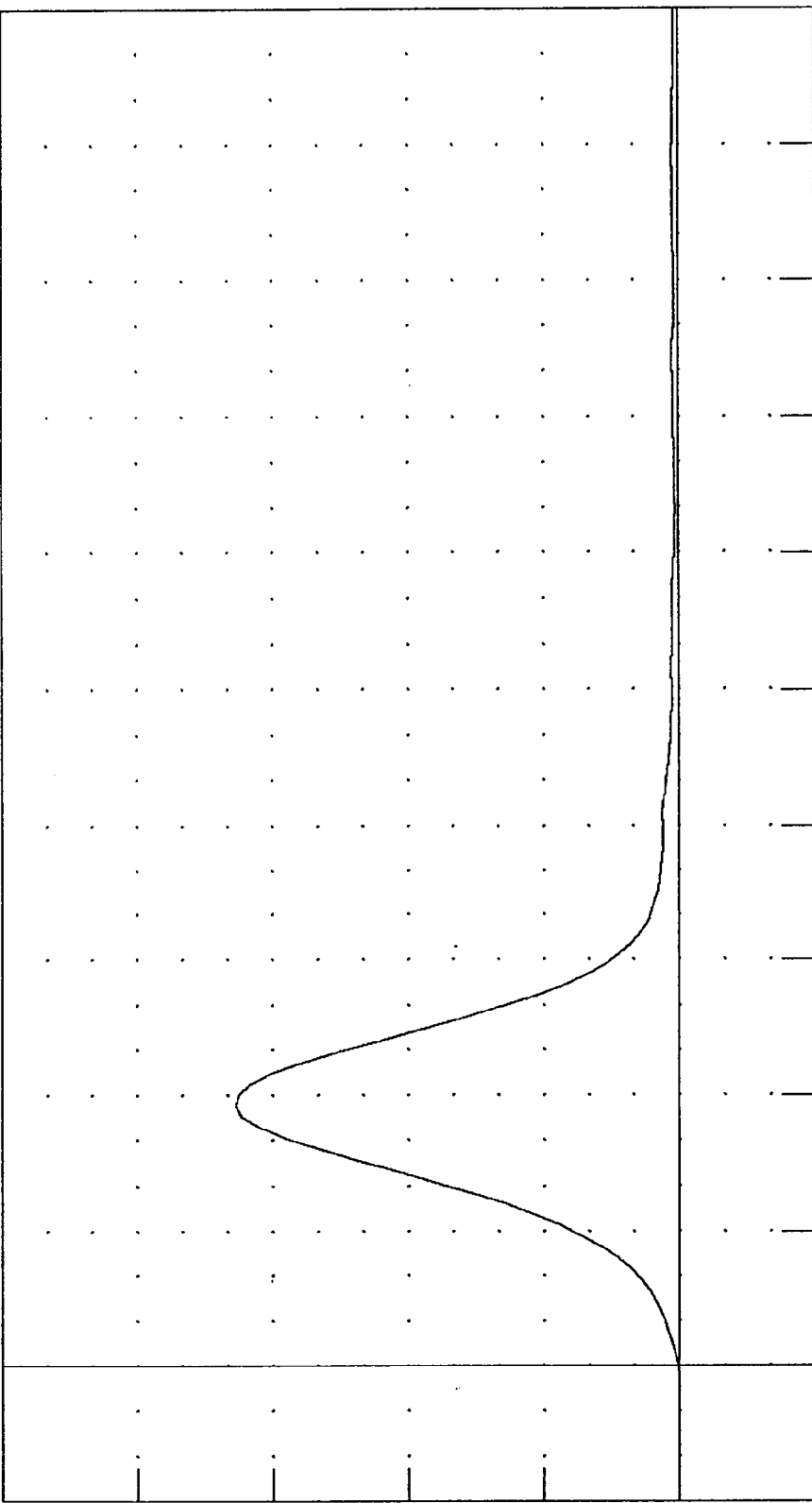
150

75

0

-75

ACCELERATION (G)



TIME (MS X 10⁻¹)

100

90

80

70

60

50

40

30

20

10

0

-10

CHANNEL: HEDRG

FILTER: CH. CLASS 1000

PEAK DATA: 245.56 G @ 1.92 MS; 0.00 G @ -0.88 MS

TRANSPORTATION RESEARCH CENTER INC.

NECK FLEXION TEST - 6 CHANNEL TRANSDUCER

HYBRID III

07-NOV-95

TRC INC. TEST NO: 192C28NF1 572E SN192 NECK FLEXION CAL28

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6-22.2 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY		10 - 70 %	52.0 %
IMPACT VELOCITY		6.89 - 7.13 M/S	6.93 M/S
PENDULUM DECELERATION	10 MS	22.50 - 27.50 G	22.77 G
	20 MS	17.60 - 22.60 G	19.77 G
	30 MS	12.50 - 18.50 G	15.95 G
MAX PENDULUM G		29 G MAX	23.37 G
MAX PENDULUM G ABOVE 30 MS		29 G MAX	15.91 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		34 - 42 MS	37.92 MS
D PLANE	MAX	64 - 78 DEG.	74.71 DEG.
ROTATION	TIME	57 - 64 MS	62.40 MS
MOMENT ABOUT OCCIPITAL	MAX	88.2 - 108.5 NM	99.65 NM
CONDYLE	TIME	47 - 58 MS	52.16 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		113 - 128 MS	120.72 MS
POSITIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		97 - 107 MS	102.72 MS

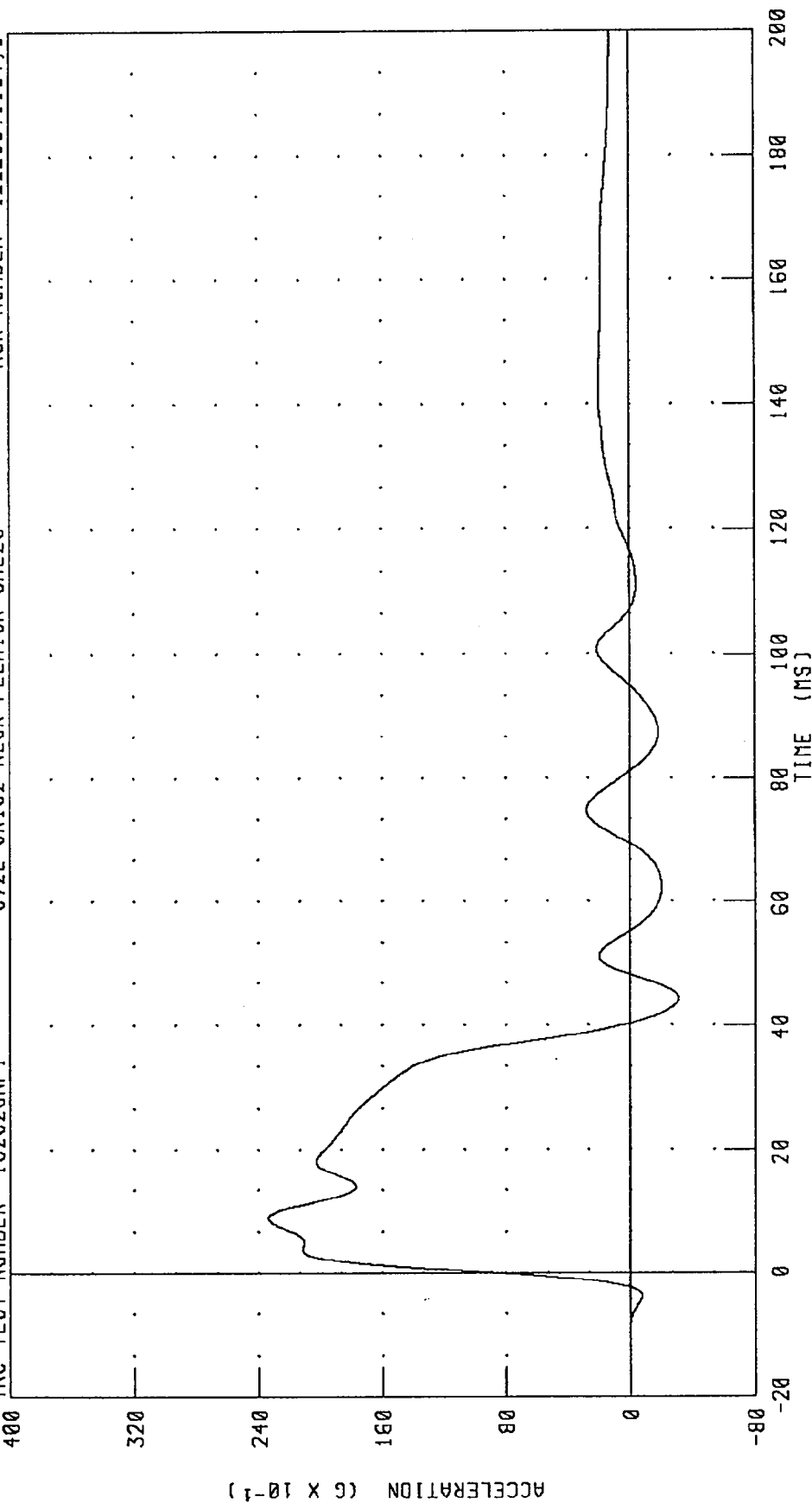
TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. Middleton

RUN NUMBER: 110795.1424;5

PART 572-E HYBRID III NECK FLEXION CALIBRATION
 PENDULUM DECELERATION

TRC TEST NUMBER: 192028NF1 572E SN192 NECK FLEXION CAL28 RUN NUMBER: 122295.1134;5



PEAK DATA: 23.38 G @ 8.88 MS; -3.08 G @ 44.24 MS

CHANNEL: PENXC FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK FLEXION CALIBRATION

ROTATION ABOUT BASE OF NECK

572E SN192 NECK FLEXION CAL28

TRC TEST NUMBER: 192C28NF1

120

90

60

RUN NUMBER: 122295.1134,5

30

0

-30

-60

ANGLE (°)

TIME (MS)

80

100

120

140

160

180

200

220

240

260

280

300

320

340

360

380

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500

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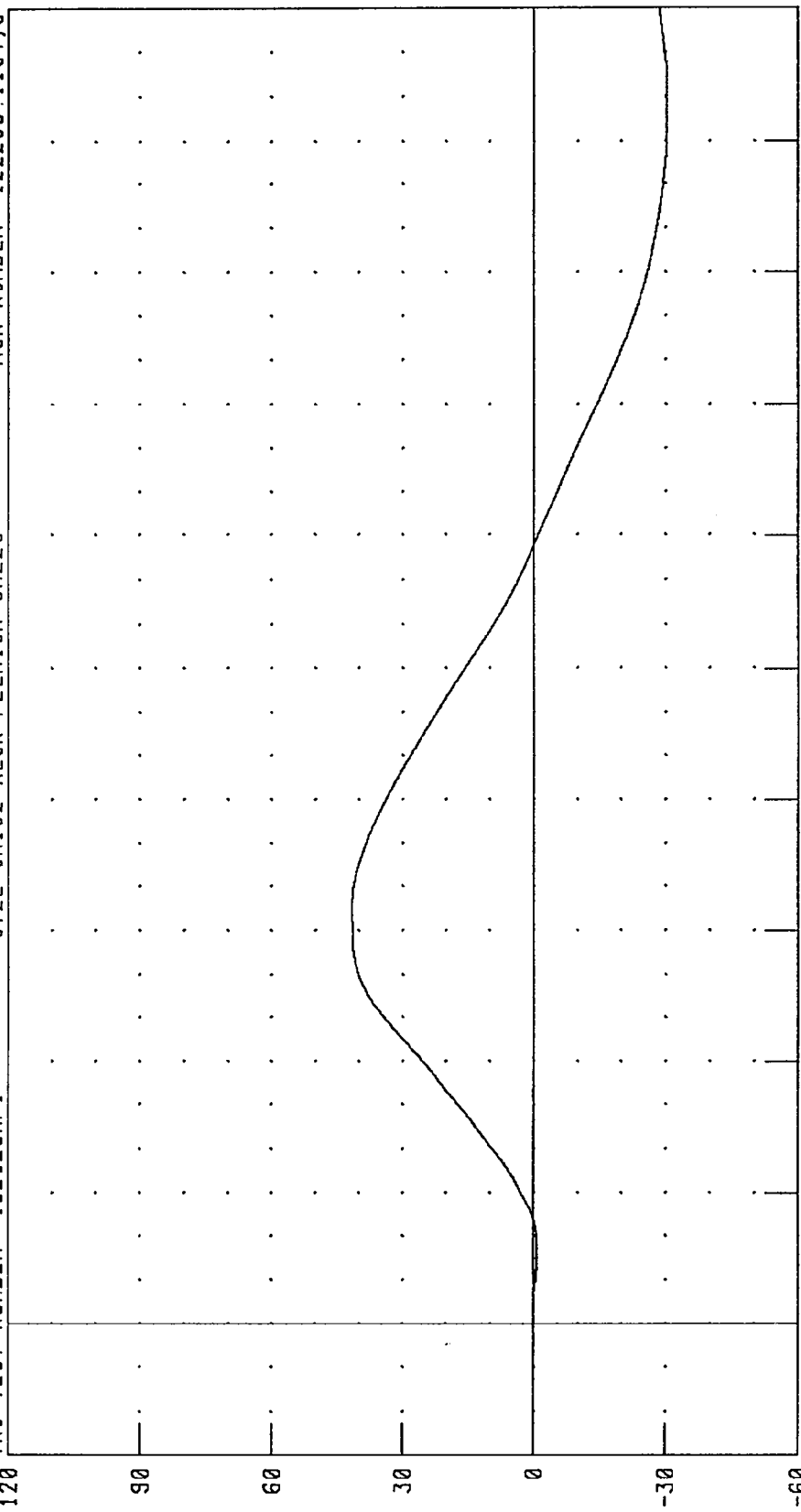
5800

PART 572-E HYBRID III NECK FLEXION CALIBRATION
 ROTATION ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 192C28NF1 RUN NUMBER: 122295.1134;5

572E SN192 NECK FLEXION CAL28

120



ANGLE (°)

TIME (MS)

CHANNEL: THETA FILTER: CH. CLASS 60

PEAK DATA: 41.63 ° @ 63.20 MS; -30.24 ° @ 188.56 MS

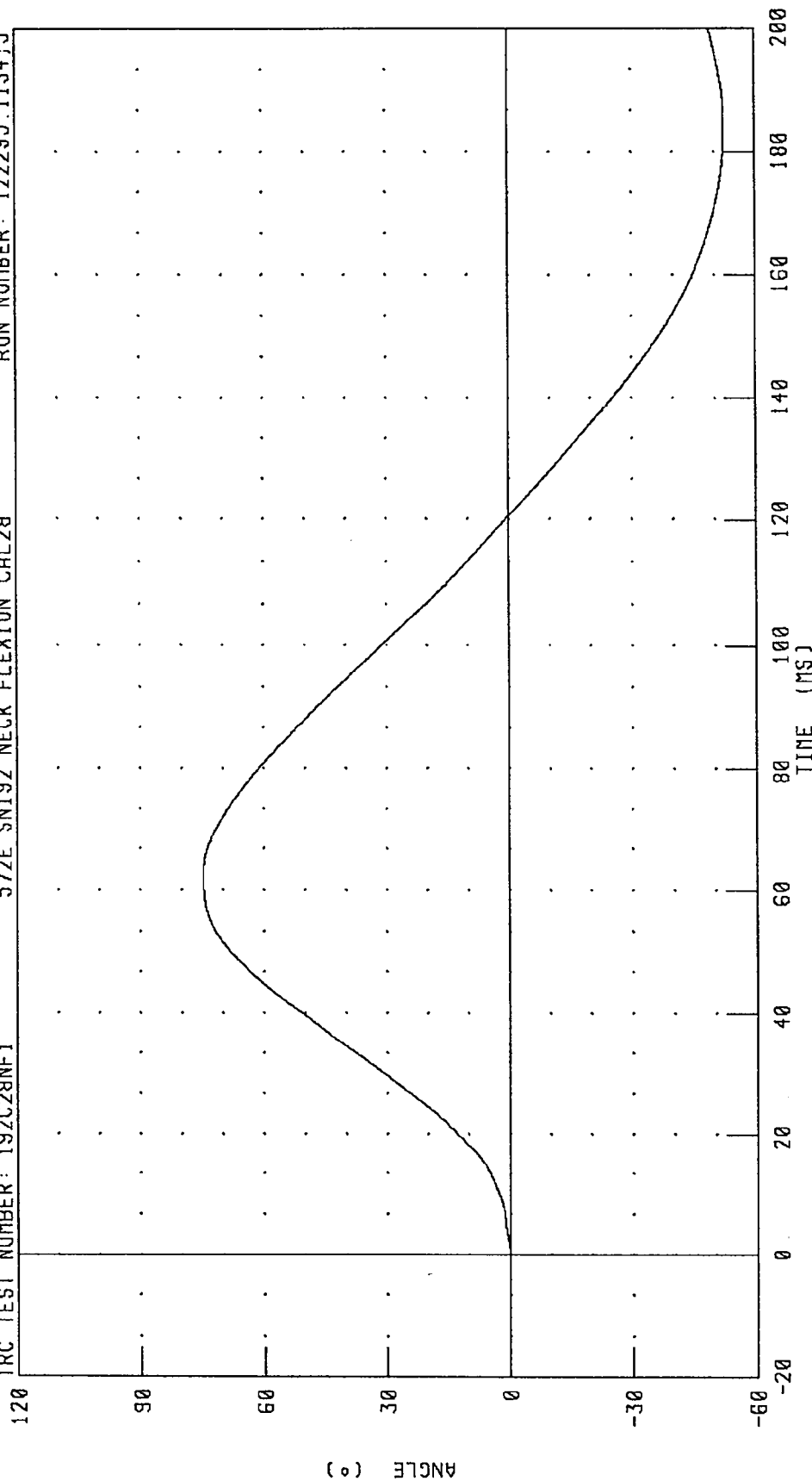
PART 572-E HYBRID III NECK FLEXION CALIBRATION

TOTAL ROTATION

TRC TEST NUMBER: 192C28NF1

572E SNI92 NECK FLEXION CAL28

RUN NUMBER: 122295.1134.5



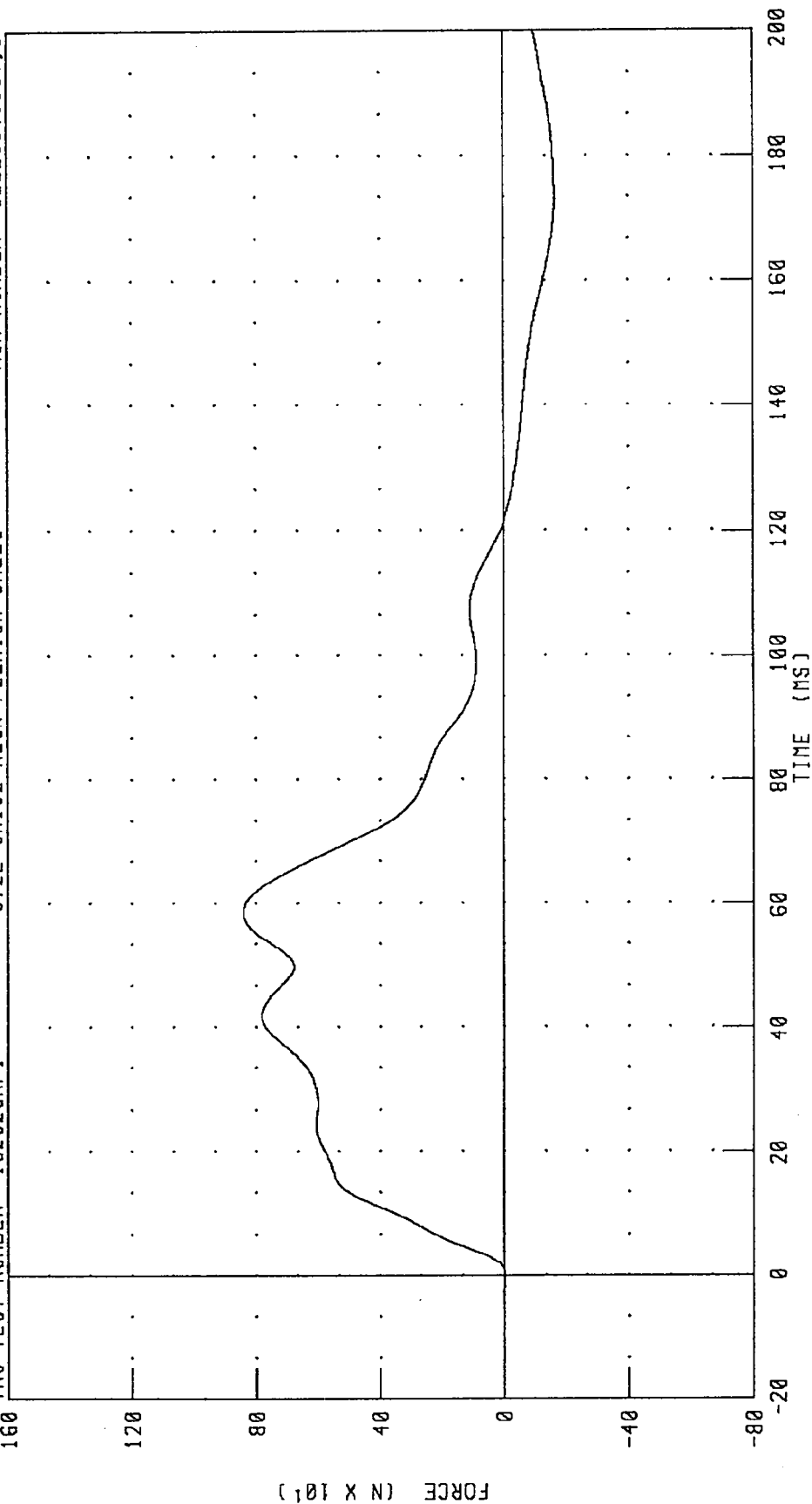
PEAK DATA: 74.71 ° @ 62.40 MS; -52.31 ° @ 183.12 MS

CHANNEL: TOTAL FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK FLEXION CALIBRATION

NECK FORCE X AXIS

TRC TEST NUMBER: 192C28NF1 572E SN192 NECK FLEXION CAL28 RUN NUMBER: 122295.1134;5



CHANNEL: NEKXF FILTER: CH. CLASS 60 PEAK DATA: 841.91 N @ 58.56 MS; -164.50 N @ 173.12 MS

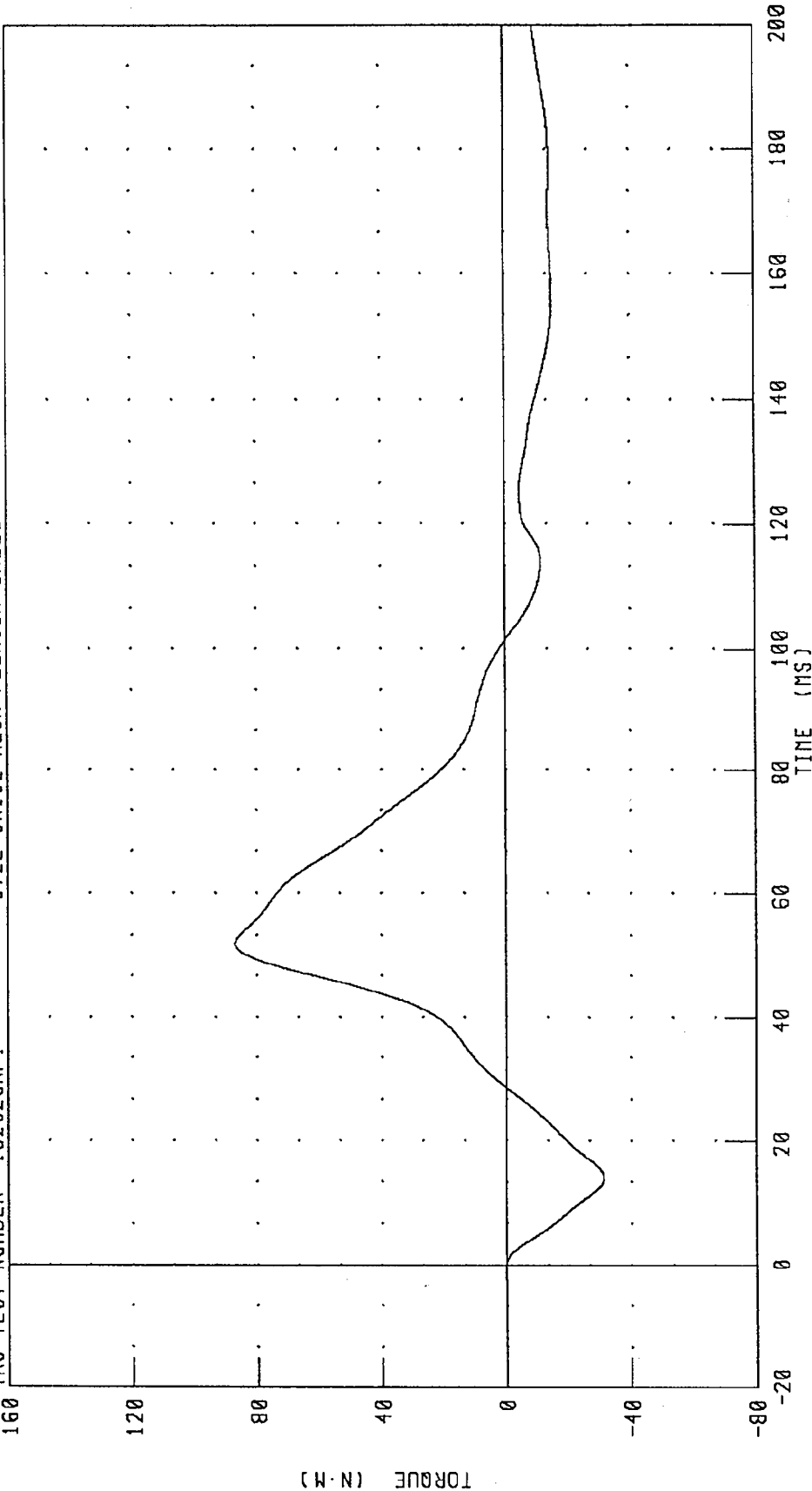
PART 572-E HYBRID III NECK FLEXION CALIBRATION

NECK MOMENT Y AXIS

TRC TEST NUMBER: 192C28NF1

572E SN192 NECK FLEXION CAL28

RUN NUMBER: 122295.1134;5



PEAK DATA: 87.02 N·M @ 51.84 MS; -31.15 N·M @ 14.00 MS

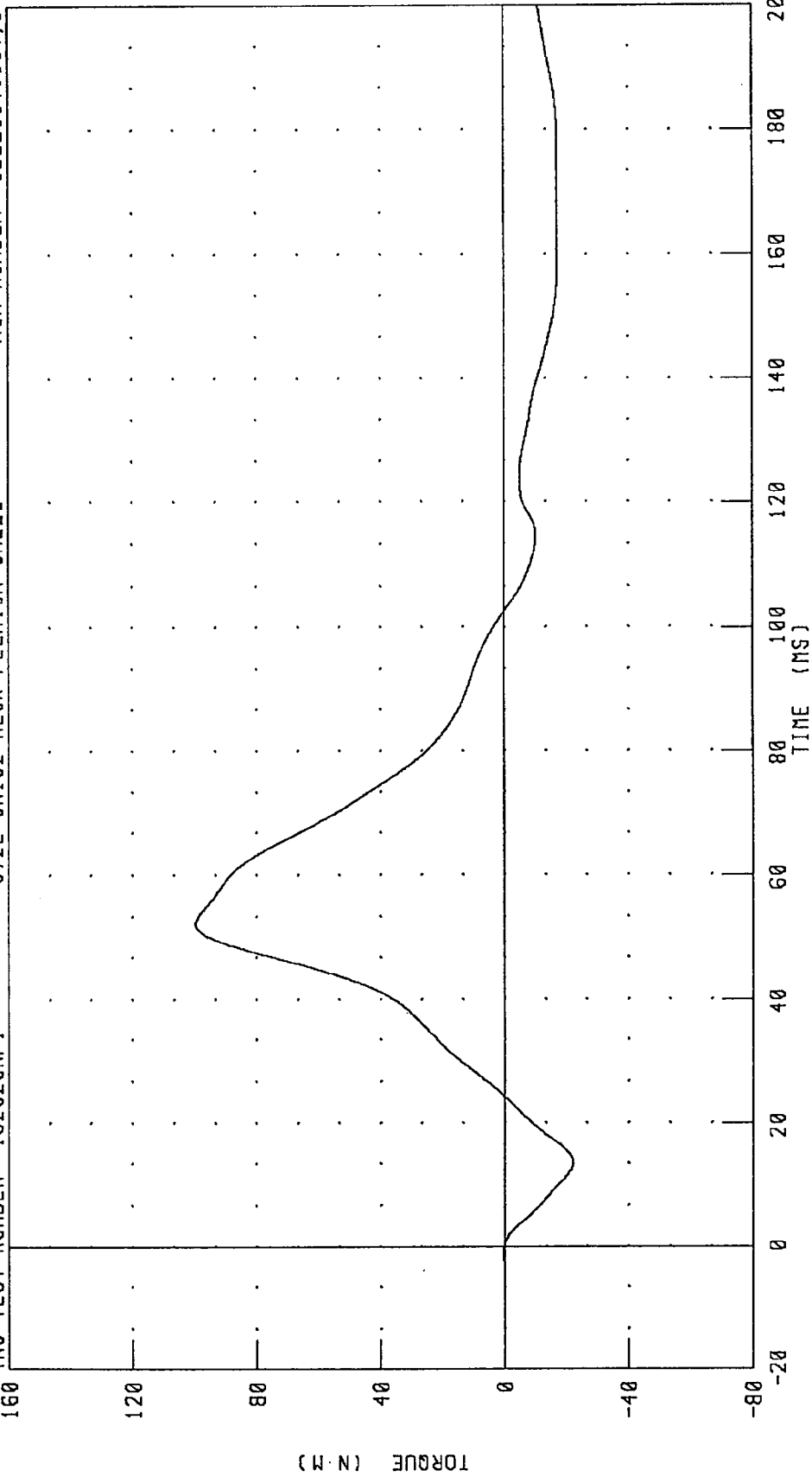
CHANNEL: NEKYM FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK FLEXION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 192C28NF1

572E SN192 NECK FLEXION CAL28

RUN NUMBER: 122295.1134;5



PEAK DATA: 99.65 N.M @ 52.16 MS; -22.03 N.M @ 13.60 MS

CHANNEL: NEKOM FILTER: CH. CLASS 60

TRANSPORTATION RESEARCH CENTER INC.

NECK EXTENSION TEST - 6 CHANNEL TRANSDUCER

HYBRID III

07-NOV-95

TRC INC. TEST NO: 192C28NE1 572E SN192 NECK EXT. CAL28

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6 - 22.2 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY		10 - 70 %	52.0 %
IMPACT VELOCITY		5.95 - 6.19 M/S	6.00 M/S
PENDULUM DECELERATION	10 MS	17.20 - 21.20 G	17.54 G
	20 MS	14.00 - 19.00 G	16.98 G
	30 MS	11.00 - 16.00 G	13.88 G
MAX PENDULUM G		22 G MAX	18.25 G
MAX PENDULUM G ABOVE 30 MS		22 G MAX	13.85 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		38 - 46 MS	40.24 MS
D PLANE	MAX	81 - 106 DEG.	101.22 DEG.
ROTATION	TIME	72 - 82 MS	77.52 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MIN	-80.0/-52.9 NM	-70.60 NM
	TIME	65 - 79 MS	72.88 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		147 - 174 MS	163.52 MS
NEGATIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		120 - 148 MS	138.56 MS

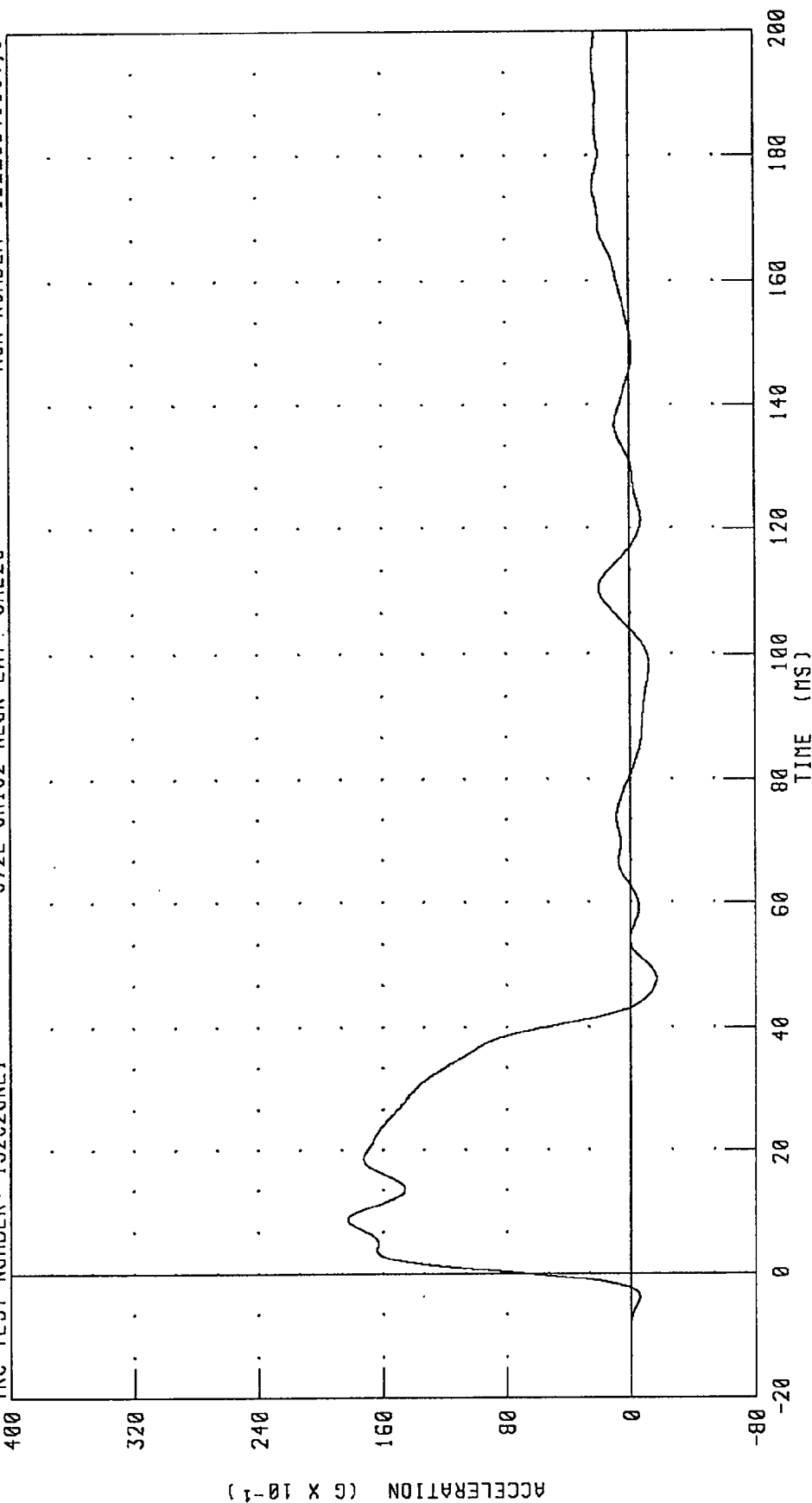
TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. Mallett

RUN NUMBER: 110795.1445;1

PART 572-E HYBRID III NECK EXTENSION CALIBRATION PENDULUM DECELERATION

TRC TEST NUMBER: 192C28NE1 572E SN192 NECK EXT. CAL28 RUN NUMBER: 122295.1134;1



CHANNEL: PENXG FILTER: CH. CLASS 60 PEAK DATA: 18.26 G @ 8.72 MS; -1.66 G @ 47.68 MS

PART 572-E HYBRID III NECK EXTENSION CALIBRATION

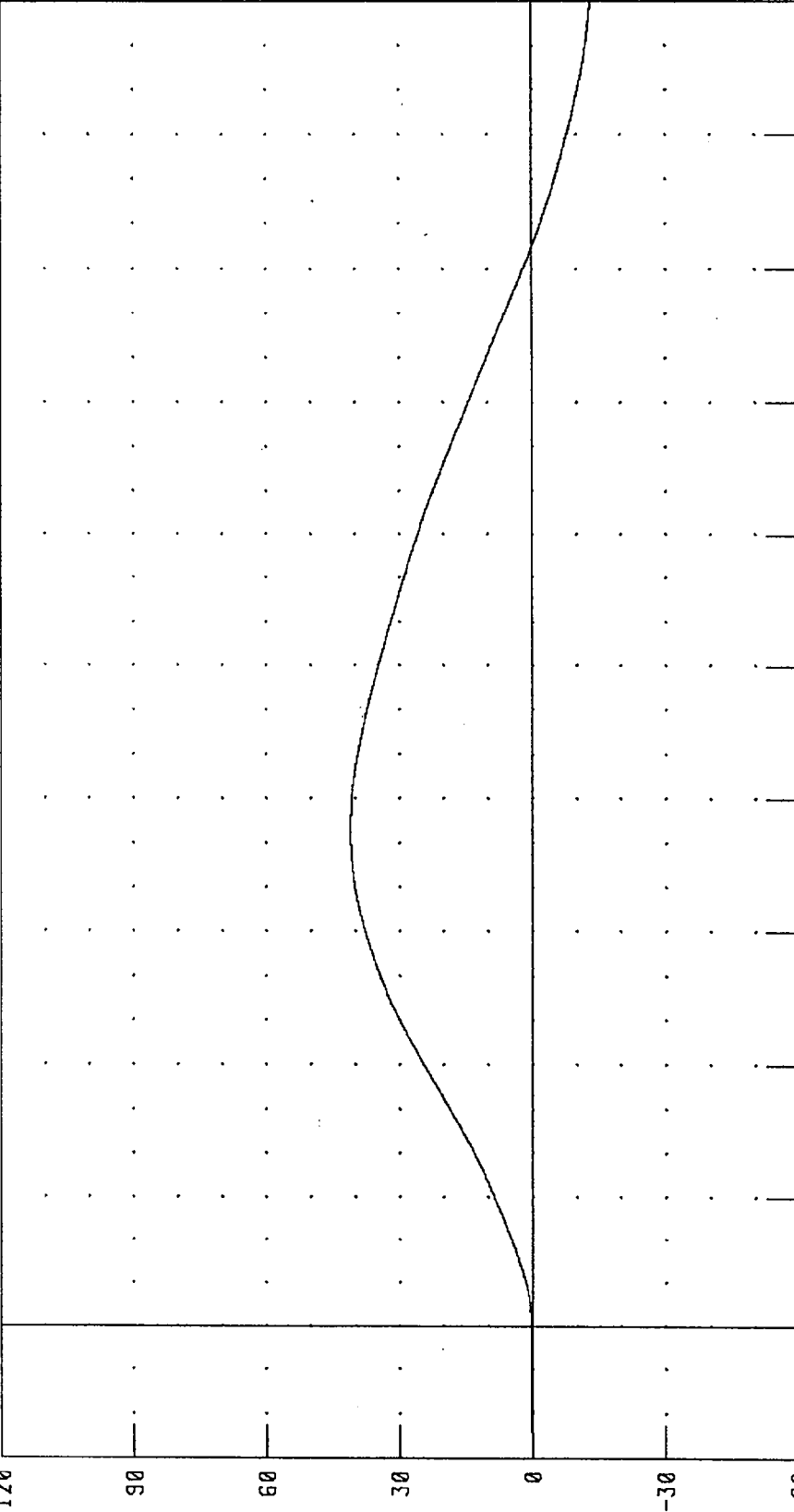
ROTATION ABOUT BASE OF NECK

TRC TEST NUMBER: 192C28NE1

572E SN192 NECK EXT. CAL28

RUN NUMBER: 122295.1134;1

120



ANGLE (°)

-60

-30

0

30

60

90

120

0

20

40

60

80

100

120

140

160

180

200

TIME (ms)

PEAK DATA: 41.09 ° @ 74.72 MS; -13.17 ° @ 200.00 MS

CHANNEL: BETA

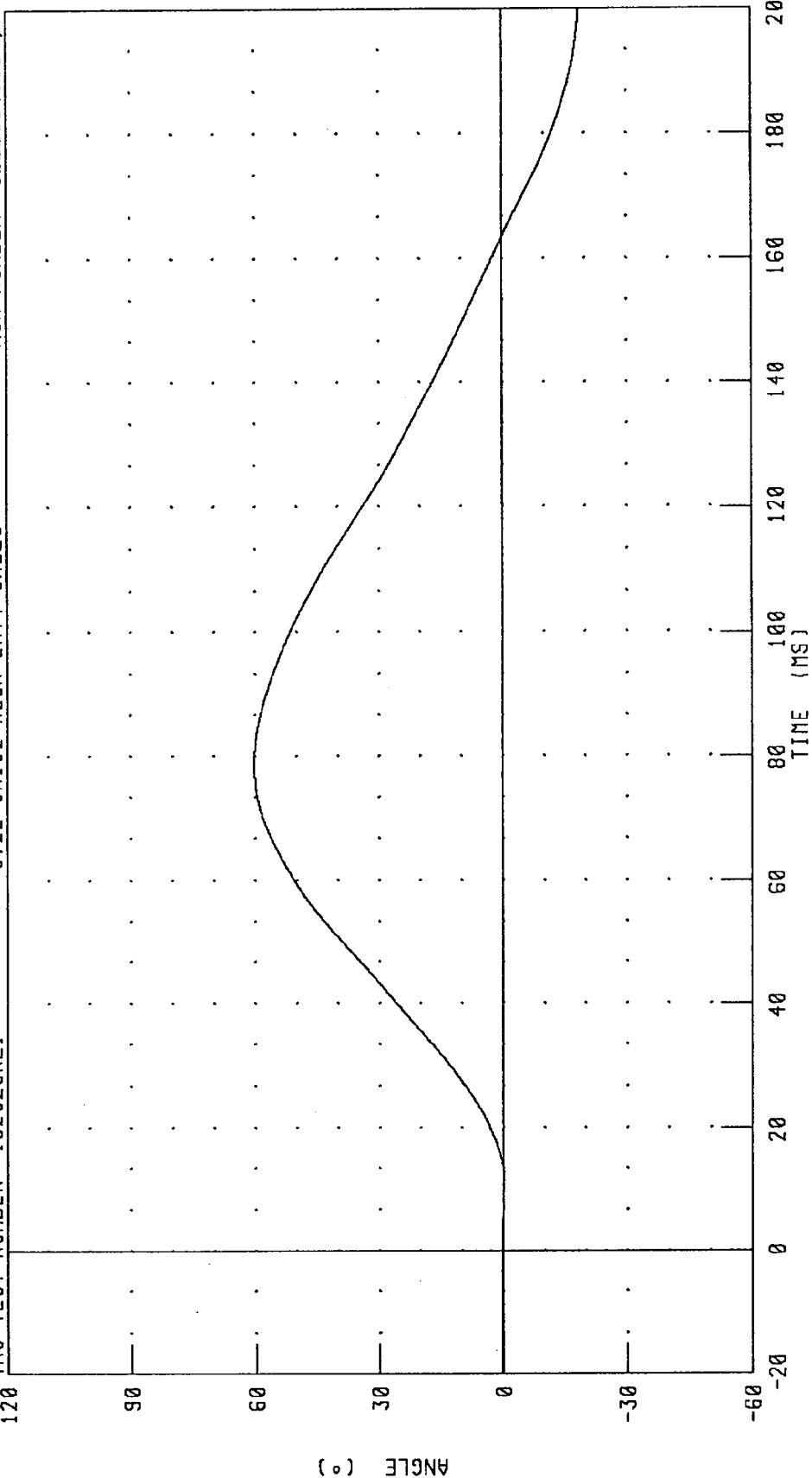
FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
 ROTATION ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 192C28NE1

572E SN192 NECK EXT. CAL28

RUN NUMBER: 122295.1134;1



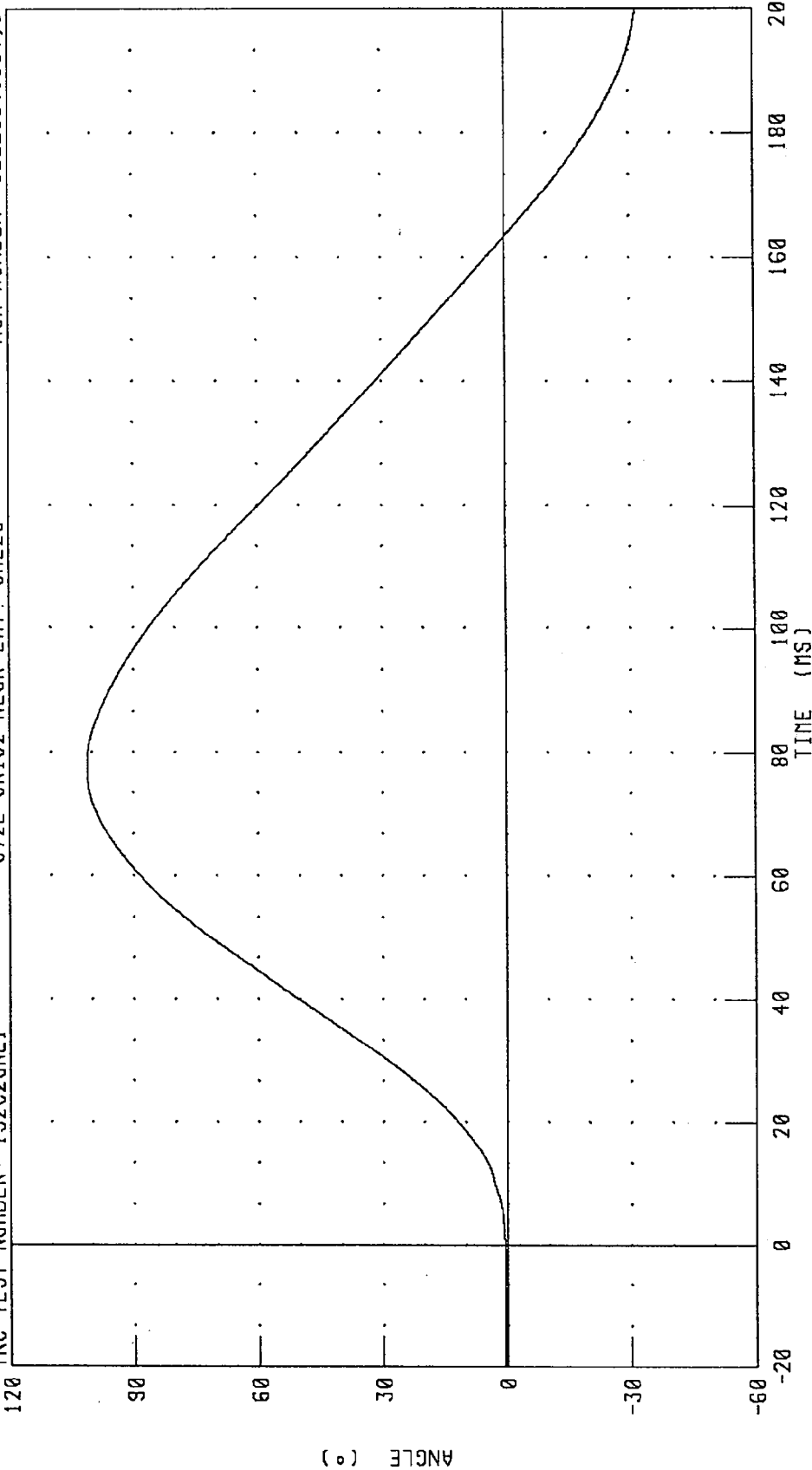
CHANNEL: THETA FILTER: CH. CLASS 60

PEAK DATA: 60.17 ° @ 78.56 MS; -18.57 ° @ 200.00 MS

PART 572-E HYBRID III NECK EXTENSION CALIBRATION

TOTAL ROTATION

TRC TEST NUMBER: 192C28NE1 572E SN192 NECK EXT. CAL28 RUN NUMBER: 122295.1134.1



PEAK DATA: 101.22 ° @ 77.52 MS; -31.74 ° @ 200.00 MS

FILTER: CH. CLASS 60

CHANNEL: TOTAL

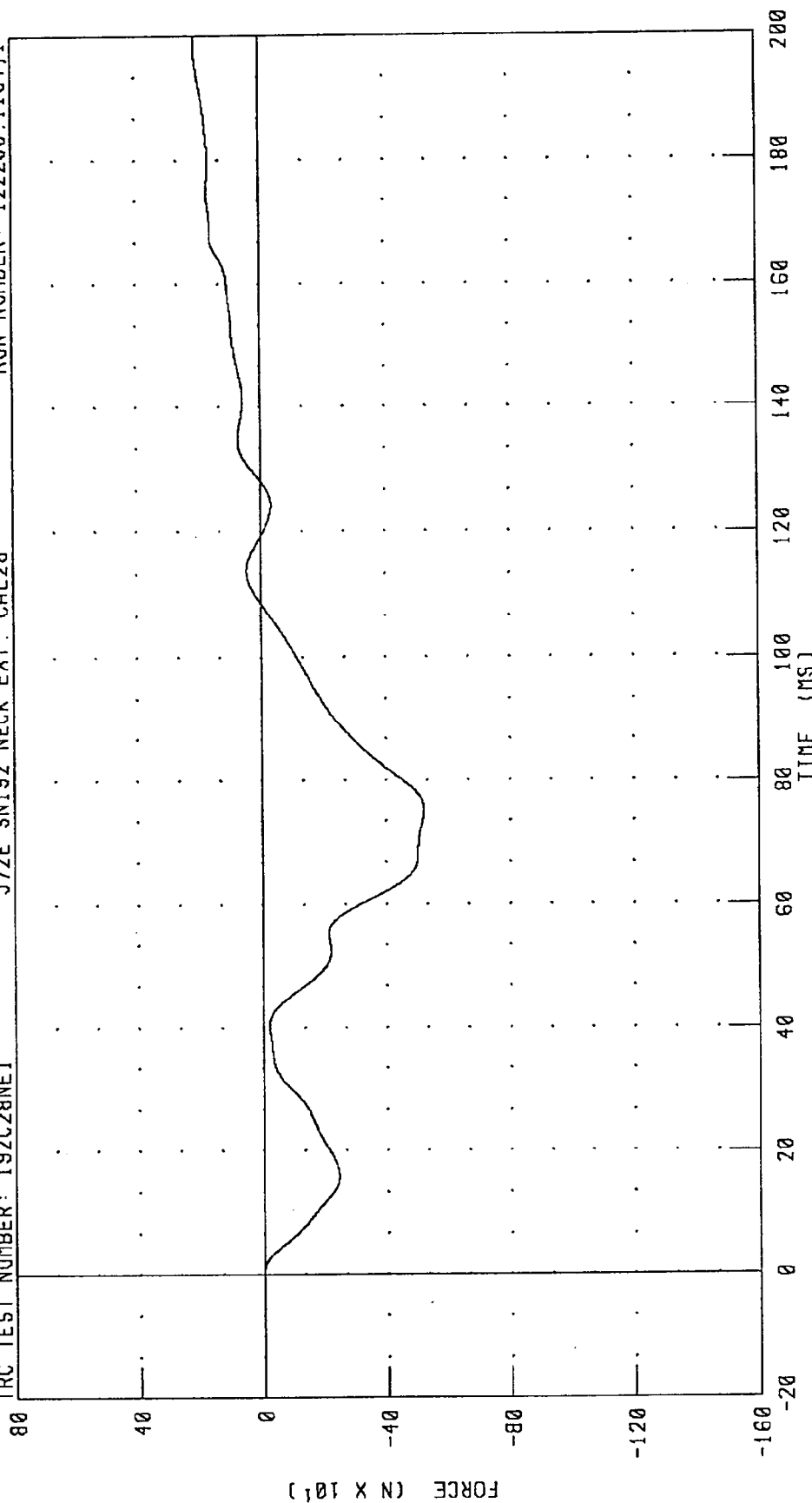
PART 572-E HYBRID III NECK EXTENSION CALIBRATION

NECK FORCE X AXIS

TRC TEST NUMBER: 192C28NE1

572E SN192 NECK EXT. CAL28

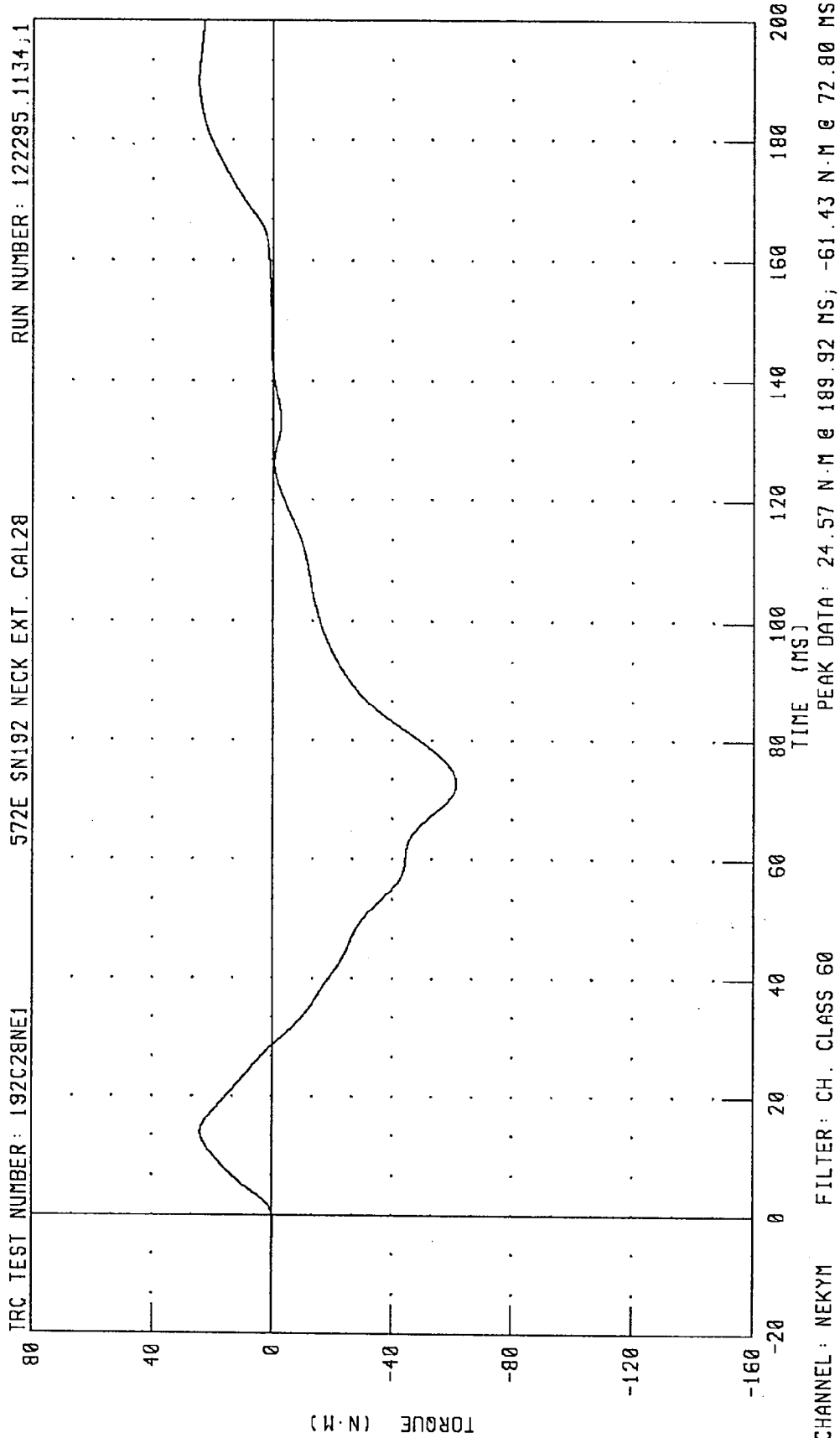
RUN NUMBER: 122295.1134;1



PEAK DATA: 206.77 N @ 199.28 MS; -523.28 N @ 75.12 MS

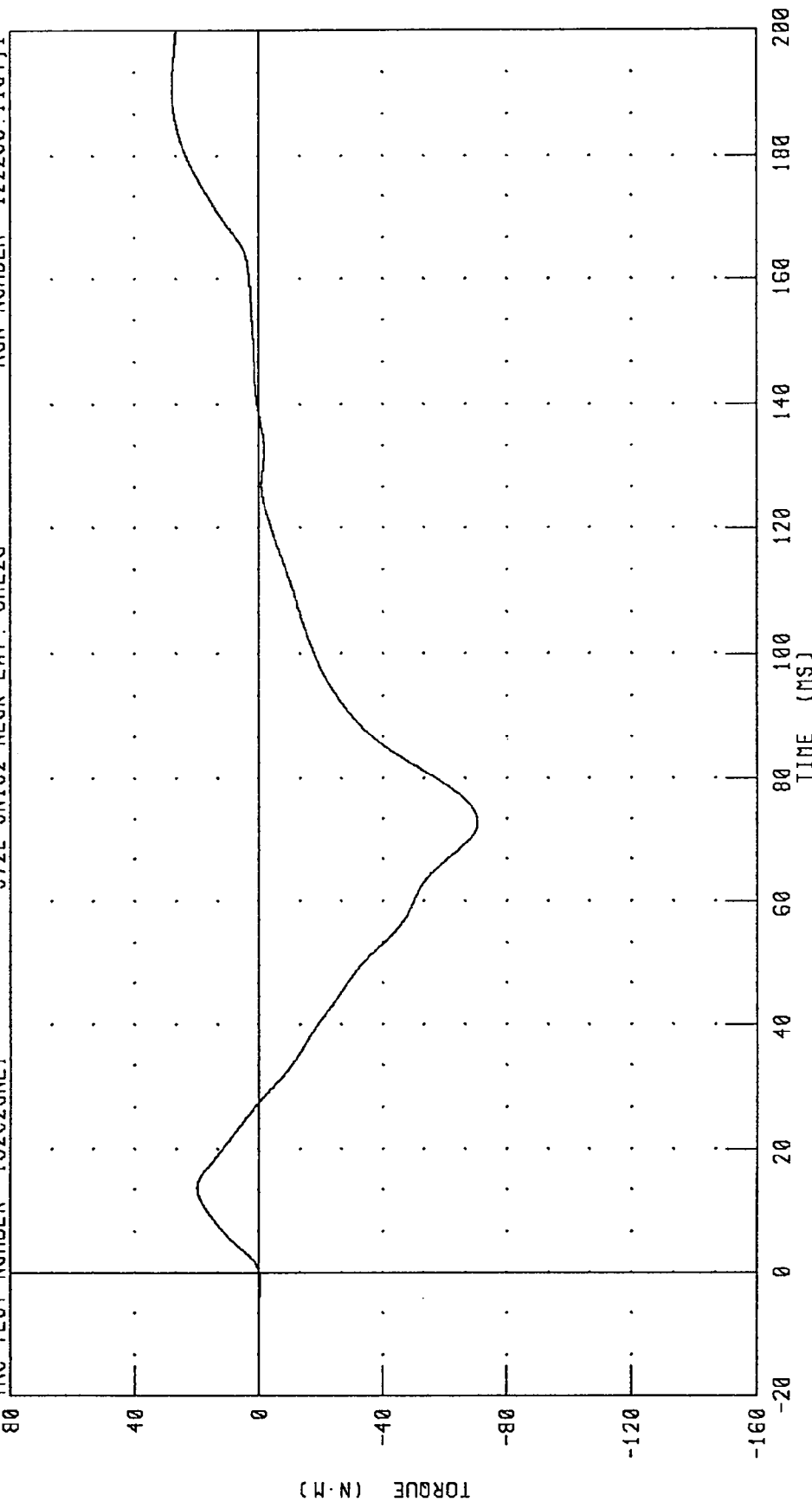
CHANNEL: NEKXF FILTER: CH. CLASS 60

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
NECK MOMENT Y AXIS



PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE

TRC TEST NUMBER: 192028NE1 572E SNI92 NECK EXT. CAL28 RUN NUMBER: 122295.1134;1



PEAK DATA: 27.88 N·M @ 190.56 MS; -70.60 N·M @ 72.88 MS

CHANNEL: NEKOM FILTER: CH. CLASS 60

TRANSPORTATION RESEARCH CENTER INC.

THORAX IMPACT TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 192C28TH1

572E SN192 H.S.THORAX CAL28

TEST PARAMETER	HIGH SPEED TEST	TEST RESULTS
	SPECIFICATION	
TEMPERATURE	20.6-22.2 DEG. C	20.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PENDULUM VELOCITY	6.59 - 6.83 M/S	6.71 M/S
MAXIMUM DEFLECTION	63.5 - 72.6 MM	64.8 MM
MAXIMUM RESISTIVE FORCE	5159 - 5894 N	5807. N
INTERNAL HYSTERESIS	69% - 85%	72.4%

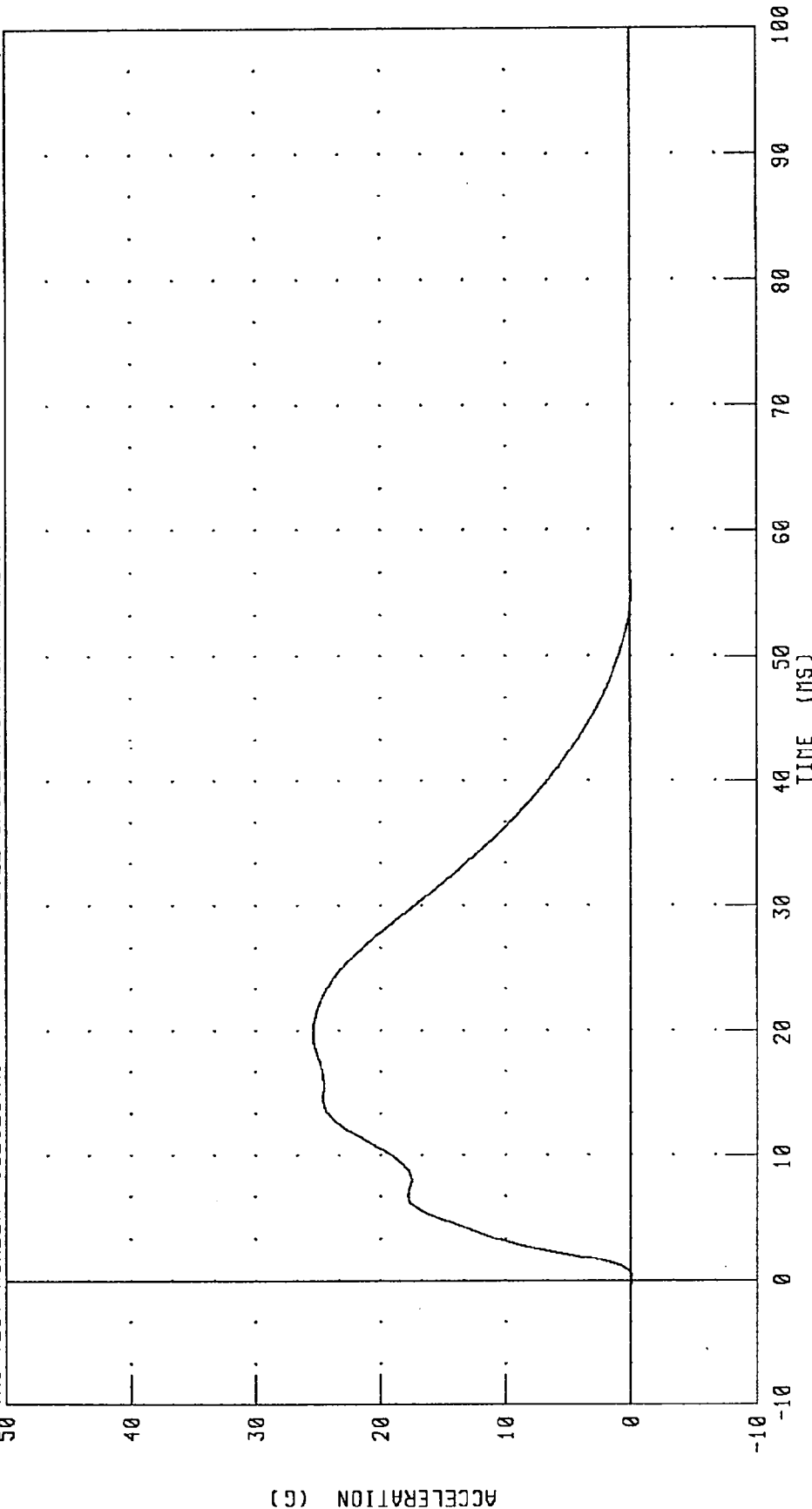
TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. Mudditt

RUN NUMBER: 110795.1712;2

PART 572-E HYBRID III THORAX CALIBRATION
 PENDULUM DECELERATION

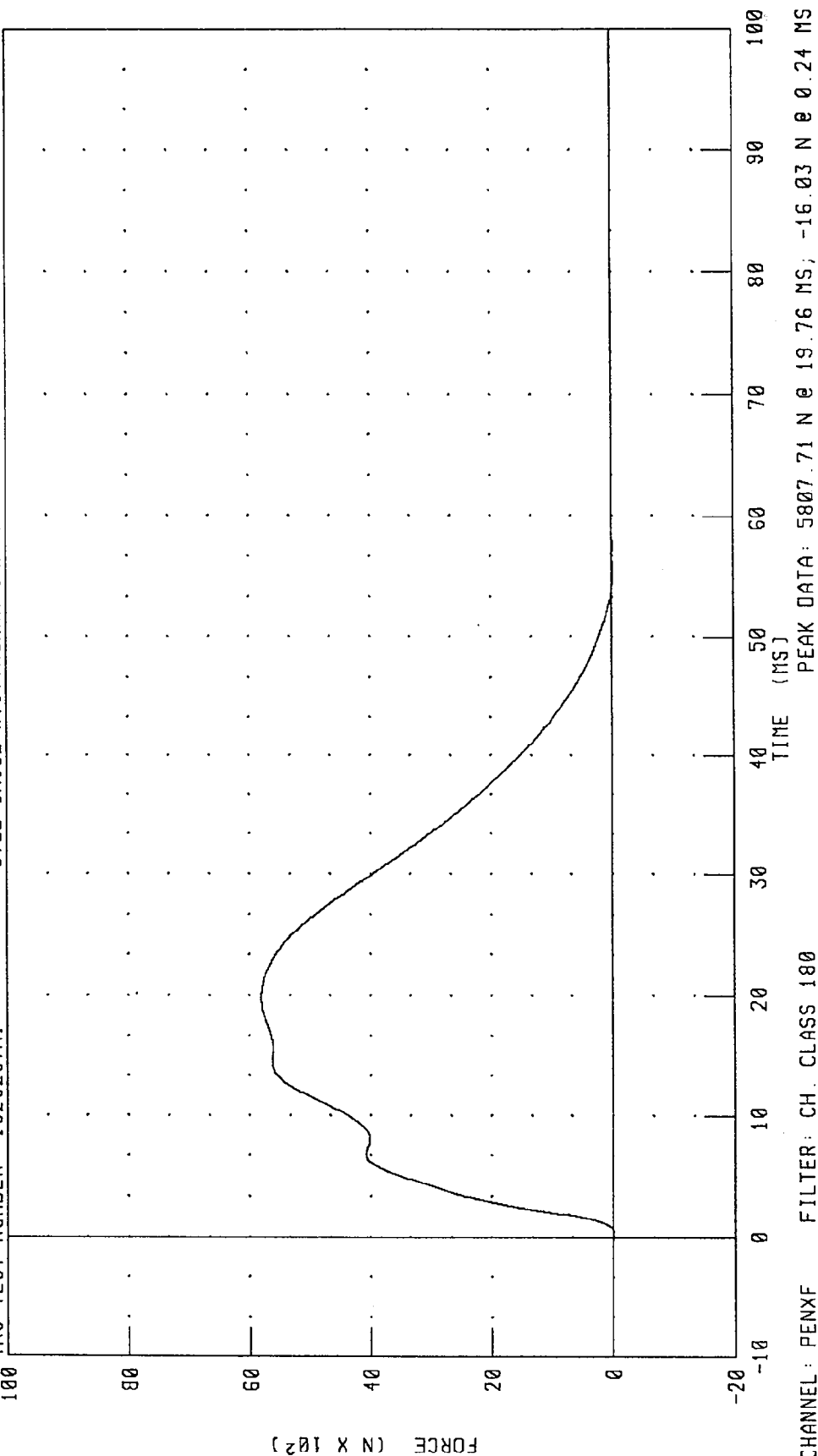
TRC TEST NUMBER: 192C28TH1 572E SN192 H.S. THORAX CAL28 RUN NUMBER: 122295.1134;2



CHANNEL: PENXG FILTER: CH. CLASS 180 PEAK DATA: 25.35 G @ 19.76 MS; -0.07 G @ 0.24 MS

PART 572-E HYBRID III THORAX CALIBRATION PENDULUM FORCE

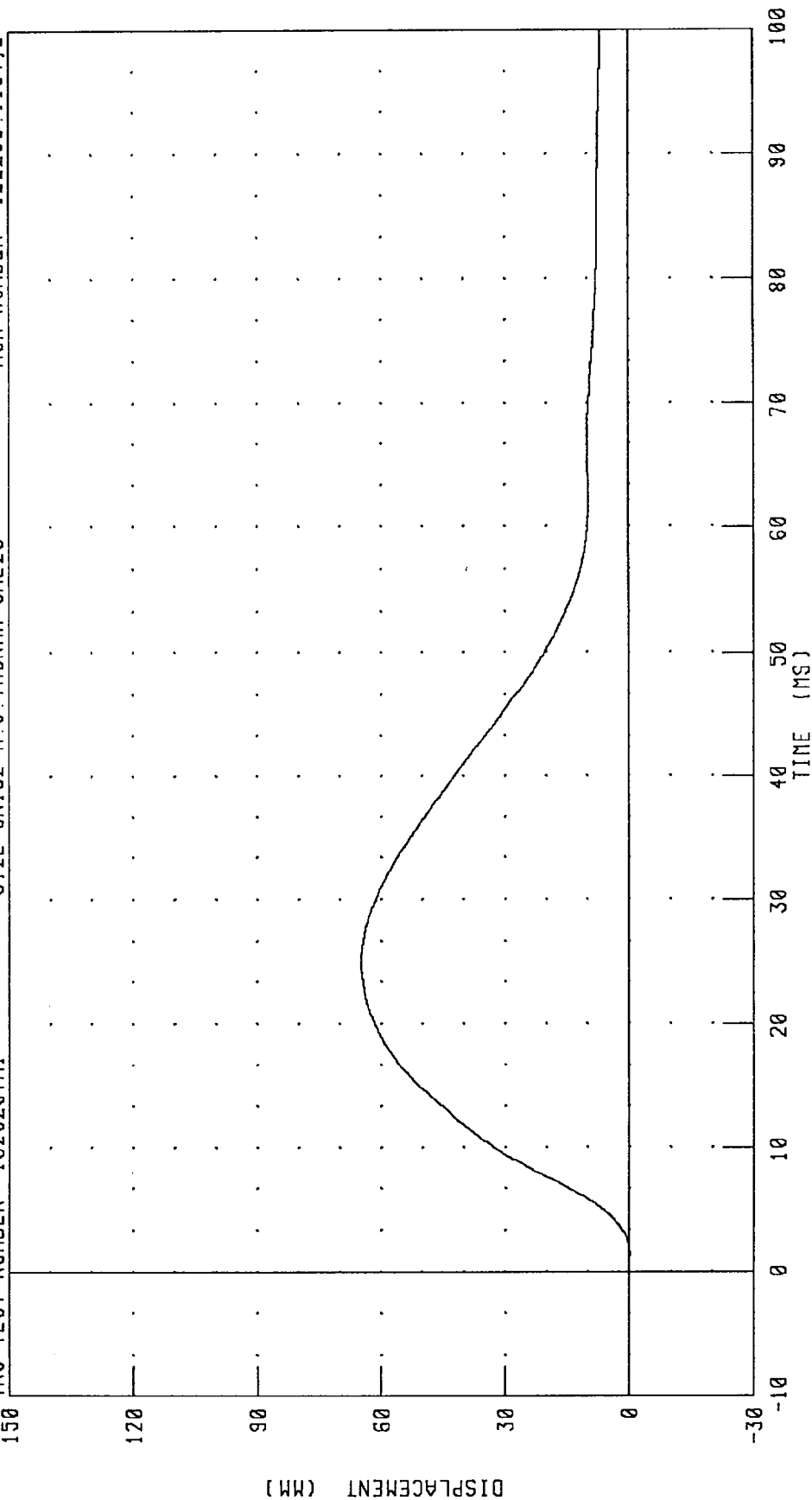
TRC TEST NUMBER: 192C28TH1 572E SN192 H.S. THORAX CAL28 RUN NUMBER: 122295.1134;2



CHANNEL: PENXF FILTER: CH. CLASS 180

PART 572-E HYBRID III THORAX CALIBRATION
STERNUM DISPLACEMENT

TRC TEST NUMBER: 192C28TH1 572E SN192 H.S. THORAX CAL28 RUN NUMBER: 122295.1134;2



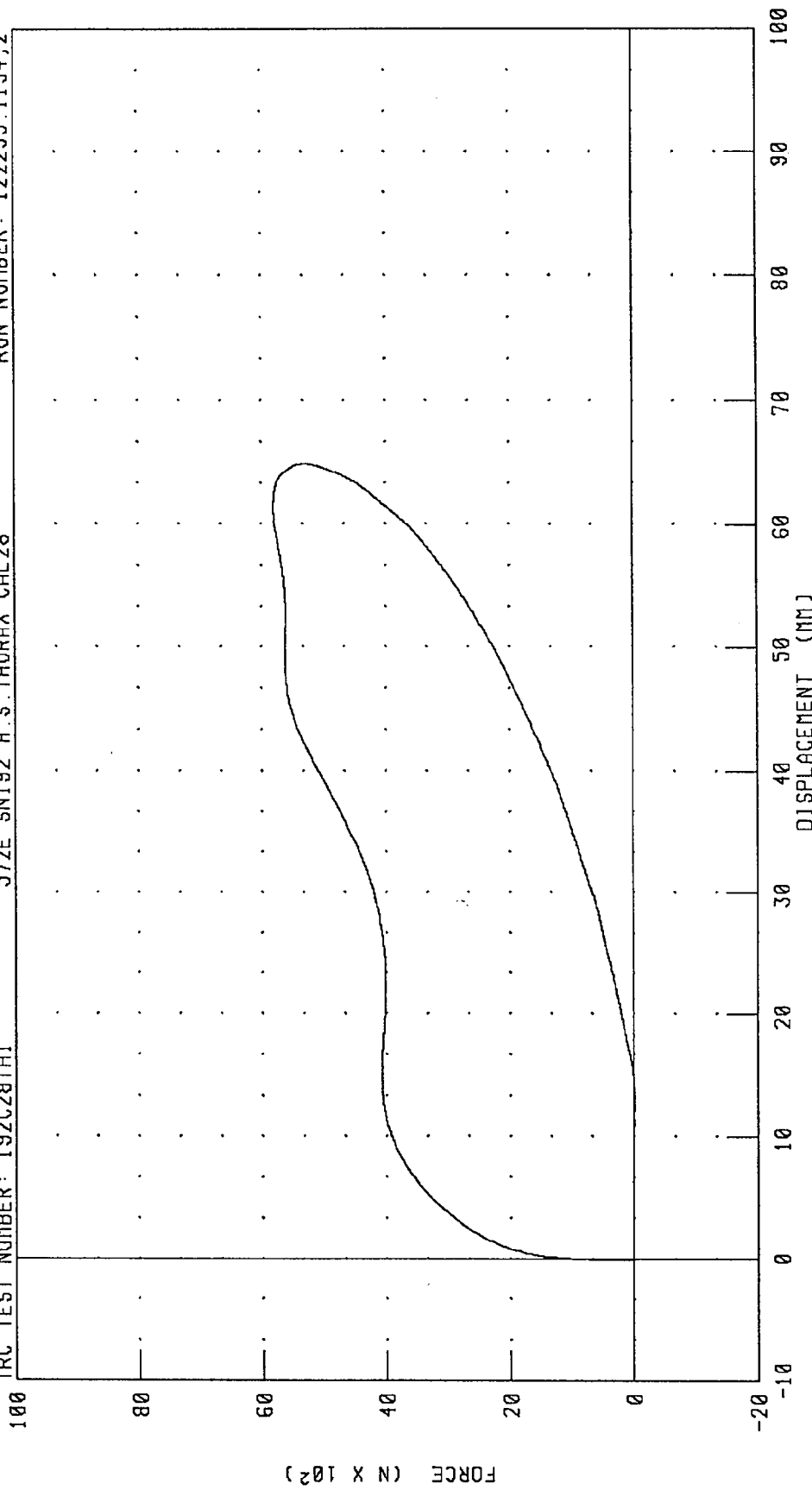
CHANNEL: CSTXD FILTER: CH. CLASS 180 PEAK DATA: 64.85 MM @ 24.96 MS; -0.06 MM @ 1.44 MS

PART 572-E HYBRID III THORAX CALIBRATION
CHEST DISPLACEMENT VS PENDULUM FORCE

TRC TEST NUMBER: 192C28TH1

572E SN192 H.S. THORAX CAL28

RUN NUMBER: 122295.1134.2



PEAK DATA: 64.85 MM @ 24.98 MS; -0.06 MM @ 1.44 MS
5807.71 N @ 19.76 MS; -16.03 N @ 0.24 MS

CHANNEL: CSIXD FILTER: CH. CLASS 180
PENXF CH. CLASS 180

TRANSPORTATION RESEARCH CENTER INC.

RIGHT KNEE IMPACT TEST

HYBRID III

07-NOV-95

TRC INC. TEST NO: 192C28RK1 572E SN192 RIGHT KNEE CAL 28

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.11 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5157.5 N

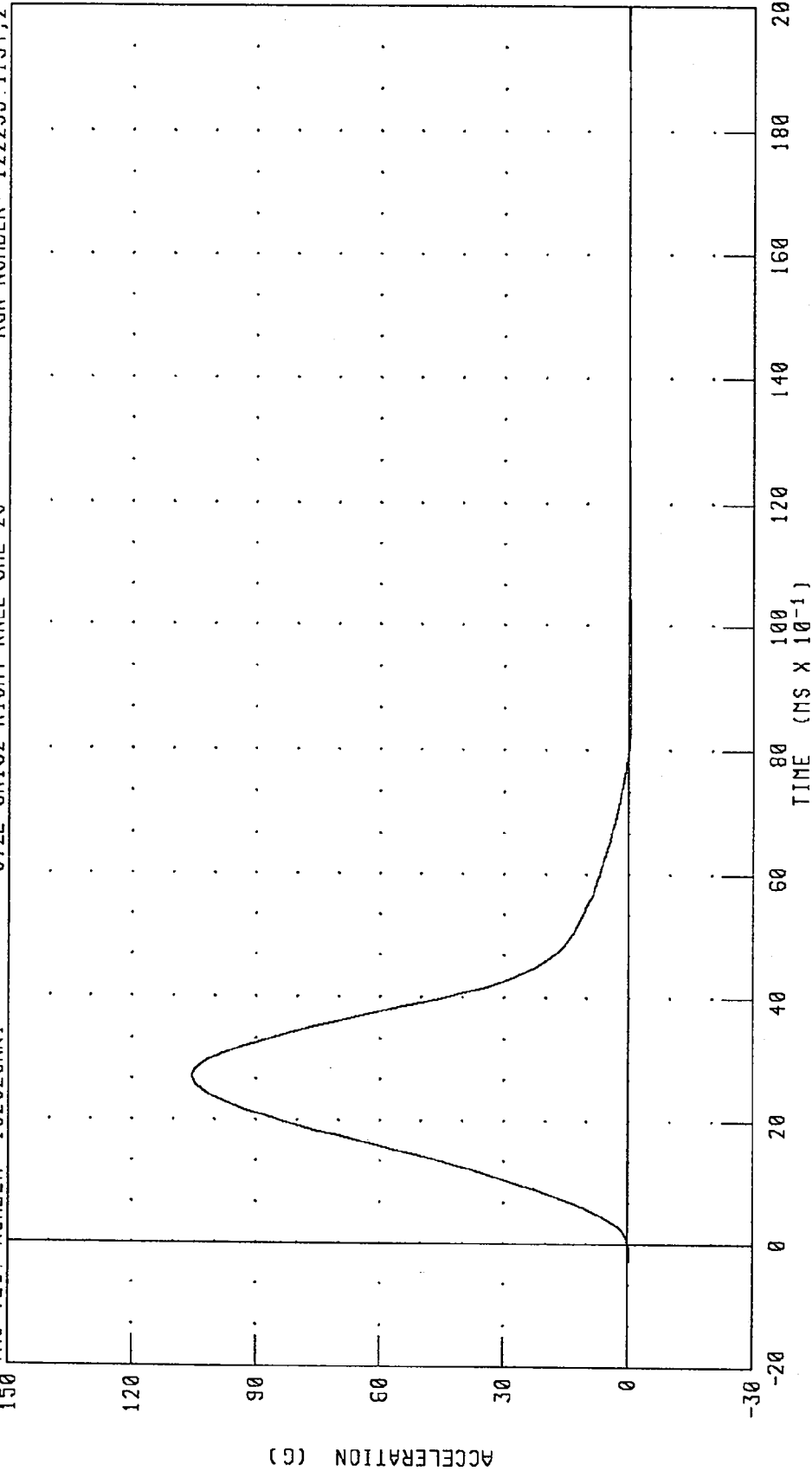
TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. M. M. L. T.

RUN NUMBER: 110795.1332;2

PART 572-E HYBRID III RIGHT KNEE CALIBRATION
PENDULUM DECELERATION (5 KC PEND.)

TRC TEST NUMBER: 192028RK1 572E SN192 RIGHT KNEE CAL 28 RUN NUMBER: 122295.1134;2



CHANNEL: PENXG FILTER: CH. CLASS 600

PEAK DATA: 105.41 G @ 2.72 MS; -0.49 G @ 9.36 MS

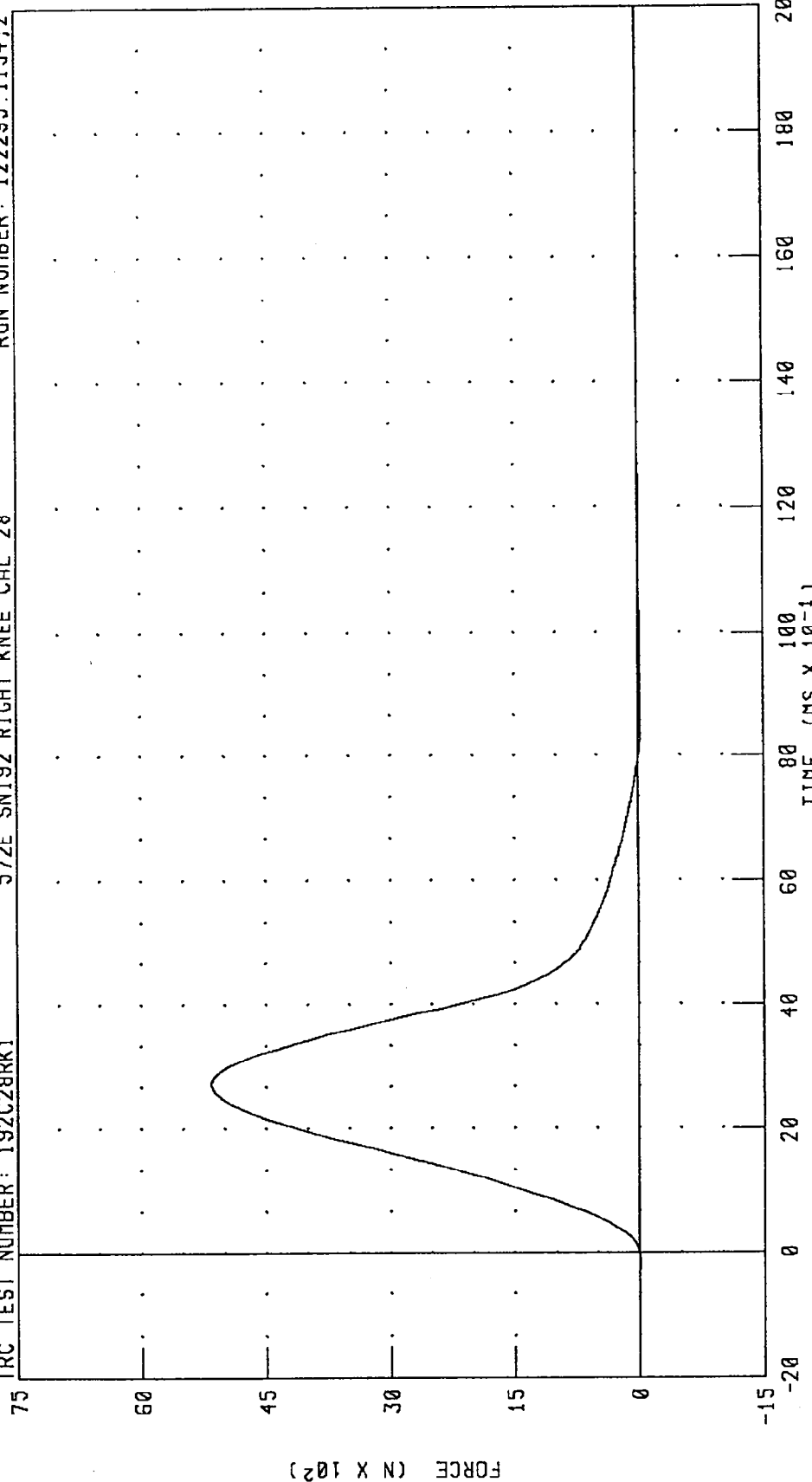
PART 572-E HYBRID III RIGHT KNEE CALIBRATION

PENDULUM FORCE (5 KG PEND.)

TRC TEST NUMBER: 192C28RK1

572E SN192 RIGHT KNEE CAL 28

RUN NUMBER: 122295.1134;2



CHANNEL: PENXF

FILTER: CH. CLASS 600

PEAK DATA: 5157.55 N @ 2.72 MS; -23.75 N @ 9.36 MS

TRANSPORTATION RESEARCH CENTER INC.

LEFT KNEE IMPACT TEST

HYBRID III

07-NOV-95

TRC INC.

TEST NO: 192C28LK1

572E SN192 LEFT KNEE CAL 28

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	20.6 DEG. C
RELATIVE HUMIDITY	10 - 70 %	52.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.12 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5129.7 N

TEST MEETS SPECIFICATIONS

TECHNICIAN Chas. Middel

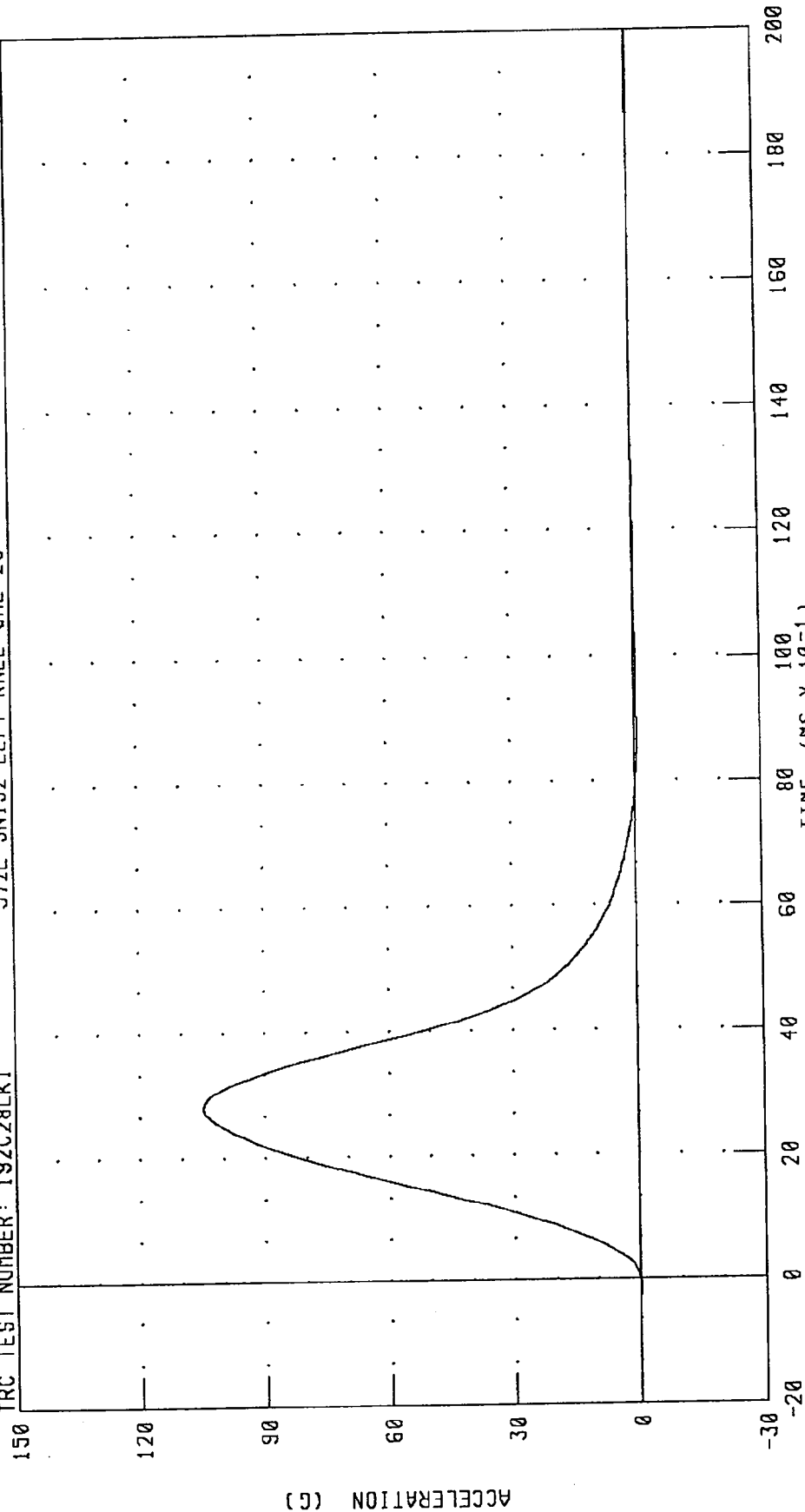
RUN NUMBER: 110795.1247;1

PART 572-E HYBRID III LEFT KNEE CALIBRATION
 PENDULUM DECELERATION (5 KG PEND.)

RUN NUMBER: 122295.1134;1

572E SN192 LEFT KNEE CAL 28

TRC TEST NUMBER: 192C28LK1



PEAK DATA: 104.84 G @ 2.80 MS; -0.64 G @ 8.64 MS

CHANNEL: PENXG FILTER: CH. CLASS 600

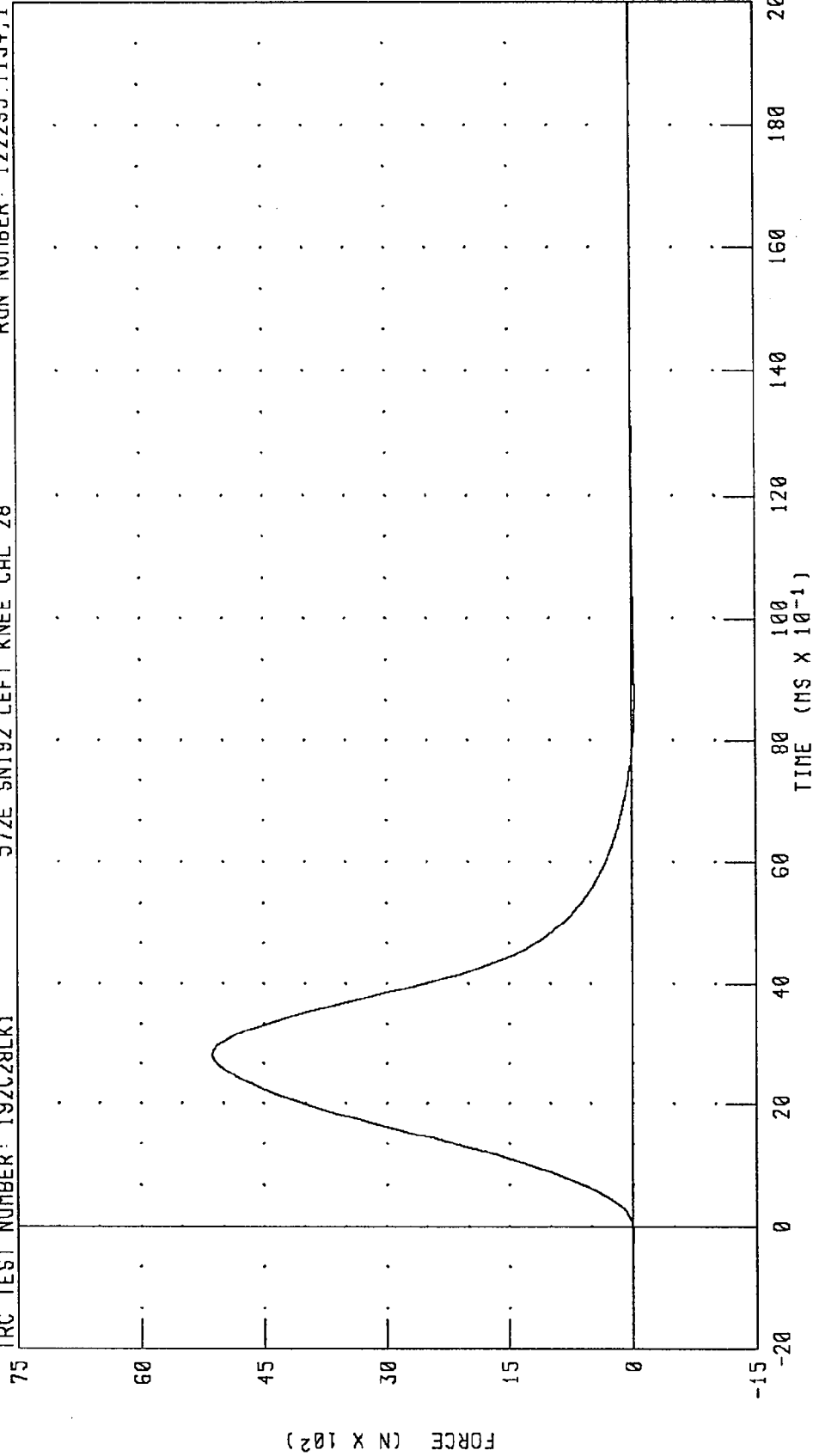
PART 572-E HYBRID III LEFT KNEE CALIBRATION

PENDULUM FORCE (5 KG PEND.)

572E SN192 LEFT KNEE CAL 28

TRC TEST NUMBER: 192C28LK1

RUN NUMBER: 122295.1134.1



PEAK DATA: 5129.78 N @ 2.80 MS; -31.10 N @ 8.64 MS

FILTER: CH. CLASS 600

CHANNEL: PENXF

Appendix D

Miscellaneous Test Information

Dummy Instrument Calibrations

Driver Dummy #142

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Head X-axis accelerometer	A74JJ	7264	Endevco	09/01/95	03/01/96
Head X-axis accelerometer-redundant	AC8L5	7264	Endevco	09/01/95	03/01/96
Head Y-axis accelerometer	ACCR7	7264	Endevco	09/01/95	03/01/96
Head Y-axis accelerometer-redundant	AC872	7264	Endevco	09/01/95	03/01/96
Head Z-axis accelerometer	ACCJ1	7264	Endevco	09/01/95	03/01/96
Head Z-axis accelerometer-redundant	A68JJ	7264	Endevco	09/01/95	03/01/96
Chest X-axis accelerometer	AC721	7264	Endevco	09/01/95	03/01/96
Chest X-axis accelerometer-redundant	A65JJ	7264	Endevco	09/01/95	03/01/96
Chest Y-axis accelerometer	CY47H	7264	Endevco	09/01/95	03/01/96
Chest Y-axis accelerometer-redundant	FH14J	7264	Endevco	09/01/95	03/01/96
Chest Z-axis accelerometer	AAL44	7264	Endevco	09/01/95	03/01/96
Chest Z-axis accelerometer-redundant	AC745	7264	Endevco	09/01/95	03/01/96
Left femur force load cell	903	2430	GSE	09/01/95	03/01/96
Right femur force load cell	904	2430	GSE	09/01/95	03/01/96
Neck X-axis force load cell ¹	280	1716	Denton	09/01/95	03/01/96
Neck Y-axis force load cell ¹	280	1716	Denton	09/01/95	03/01/96
Neck Z-axis force load cell ¹	280	1716	Denton	09/01/95	03/01/96
Neck Moment about X-axis load cell ¹	280	1716	Denton	09/01/95	03/01/96
Neck Moment about Y-axis load cell ¹	280	1716	Denton	09/01/95	03/01/96
Neck Moment about Z-axis load cell ¹	280	1716	Denton	09/01/95	03/01/96
Pelvis X-axis accelerometer	CY63H	7264	Endevco	09/01/95	03/01/96
Pelvis Y-axis accelerometer	AMWA9	7264	Endevco	09/01/95	03/01/96
Pelvis Z-axis accelerometer	ANA55	7264	Endevco	09/01/95	03/01/96
Chest deflection potentiometer ¹	142	14CB1-2981	Vernitech	09/01/95	03/01/96
Lap belt force load cell	616	3419	Lebow	07/14/95	01/14/96
Shoulder belt force load cell	236	3419	Lebow	07/14/95	01/14/96

¹ Hybrid III use only.

Dummy Instrument Calibrations
Driver Dummy #142

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Left upper tibia moment about X-axis load cell	46	1583	Denton	10/03/95	04/03/96
Left upper tibia moment about Y-axis load cell	46	1583	Denton	10/03/95	04/03/96
Right upper tibia moment about X-axis load cell	35	1583	Denton	10/03/95	04/03/96
Right upper tibia moment about Y-axis load cell	35	1583	Denton	10/03/95	04/03/96
Left Lower tibia X-axis force load cell	42	1584	Denton	10/03/95	04/03/96
Left Lower tibia Z-axis force load cell	42	1584	Denton	10/03/95	04/03/96
Left Lower tibia moment about Y-axis load cell	42	1584	Denton	10/03/95	04/03/96
Right Lower tibia X-axis force load cell	39	1584	Denton	10/03/95	04/03/96
Right Lower tibia Z-axis force load cell	39	1584	Denton	10/03/95	04/03/96
Right Lower tibia moment about Y-axis load cell	39	1584	Denton	10/03/95	04/03/96
Left foot X-axis accelerometer	APOA1	7264	Endevco	10/16/95	04/16/96
Left foot heel Z-axis accelerometer	10102	7264	Endevco	10/16/95	04/16/96
Left foot toe Z-axis accelerometer	10074	7264	Endevco	10/16/95	04/16/96
Right foot X-axis accelerometer	10088	7264	Endevco	10/16/95	04/16/96
Right foot heel Z-axis accelerometer	10089	7264	Endevco	10/16/95	04/16/96
Right foot toe Z-axis accelerometer	10087	7264	Endevco	10/17/95	04/17/96

Dummy Instrument Calibrations
Right Front Passenger Dummy #192

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Head X-axis accelerometer	AAL82	7264	Endevco	08/30/95	03/01/96
Head X-axis accelerometer-redundant	AJ8J7	7264	Endevco	08/30/95	03/01/96
Head Y-axis accelerometer	A84JJ	7264	Endevco	08/30/95	03/01/96
Head Y-axis accelerometer-redundant	AJ8A6	7264	Endevco	08/30/95	03/01/96
Head Z-axis accelerometer	FH87J	7264	Endevco	08/30/95	03/01/96
Head Z-axis accelerometer-redundant	AC8W6	7264	Endevco	08/30/95	03/01/96
Chest X-axis accelerometer	CT22H	7264	Endevco	08/30/95	03/01/96
Chest X-axis accelerometer-redundant	A79GJ	7264	Endevco	08/30/95	03/01/96
Chest Y-axis accelerometer	AC708	7264	Endevco	08/30/95	03/01/96
Chest Y-axis accelerometer-redundant	AGR69	7264	Endevco	08/30/95	03/01/96
Chest Z-axis accelerometer	CW59H	7264	Endevco	08/30/95	03/01/96
Chest Z-axis accelerometer-redundant	DB74H	7264	Endevco	08/30/95	03/01/96
Left femur force load cell	986	2430	GSE	08/30/95	03/01/96
Right femur force load cell	987	2430	GSE	08/30/95	03/01/96
Neck X-axis force load cell ¹	85	1716	Denton	08/30/95	03/01/96
Neck Y-axis force load cell ¹	85	1716	Denton	08/30/95	03/01/96
Neck Z-axis force load cell ¹	85	1716	Denton	08/30/95	03/01/96
Neck Moment about X-axis load cell ¹	85	1716	Denton	08/30/95	03/01/96
Neck Moment about Y-axis load cell ¹	85	1716	Denton	08/30/95	03/01/96
Neck Moment about Z-axis load cell ¹	85	1716	Denton	08/30/95	03/01/96
Pelvis X-axis accelerometer	AJ694	7264	Endevco	08/30/95	03/01/96
Pelvis Y-axis accelerometer	AJ656	7264	Endevco	08/30/95	03/01/96
Pelvis Z-axis accelerometer	AJ788	7264	Endevco	08/30/95	03/01/96
Chest deflection potentiometer	87313-96	14CB1-2981	Vernitech	08/30/95	03/01/96
Lap belt force load cell	590	3419	Lebow	07/14/95	01/14/96
Shoulder belt force load cell	234	3419	Lebow	07/14/95	01/14/96

¹ Hybrid III use only.

Dummy Instrument Calibrations, Cont'd.
Right Front Passenger Dummy #192

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Left foot X-axis accelerometer	10073	7264	Endevco	10/17/95	04/17/96
Left foot heel Z-axis accelerometer	10263	7264	Endevco	10/31/95	04/31/96
Left foot toe Z-axis accelerometer	10101	7264	Endevco	10/17/95	04/17/96
Right foot X-axis accelerometer	APYT4	7264	Endevco	10/17/95	04/17/96
Right foot heel Z-axis accelerometer	APOR8	7264	Endevco	10/17/95	04/17/96
Right foot toe Z-axis accelerometer	10076	7264	Endevco	10/16/95	04/16/96

Vehicle and Calibration Laboratory Instrument Calibrations

Vehicle Accelerometers

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Left rear seat crossmember X-axis	DA99H	7264	Endevco	11/02/95	05/02/96
Left rear seat crossmember X-axis redundant	10237	7264	Endevco	10/31/95	04/31/96
Right rear seat crossmember X-axis	AGR75	7264	Endevco	10/05/95	04/05/96
Right rear seat crossmember X-axis redundant	CY78H	7264	Endevco	11/09/95	05/09/96
Engine top X-axis	DK71J	7264	Endevco	09/08/95	03/08/96
Engine bottom X-axis	DW48JC	7264	Endevco	09/07/95	03/07/96
Right brake caliper X-axis	FH45J	7264	Endevco	09/27/95	03/27/96
Left brake caliper X-axis	FG17J	7264	Endevco	11/20/95	05/20/96
Instrument panel center X-axis	10079	7264	Endevco	10/17/95	05/17/96

Calibration Laboratory Instruments

	Serial Number	Model Number	Manufacturer	Calibration Date	
				Last	Due
Neck bending pendulum accelerometer	CB27	7232	Endevco	09/19/95	03/19/96
Neck bending rotary potentiometer	NA	35435-1-102	Bournes	Mfr. Specification	
Neck bending linear potentiometer	NA	5184-2051846003	Bournes	09/19/95	03/19/96
Thorax/Hybrid II femur pendulum accelerometer	CC64	7232	Endevco	09/19/95	03/19/96
Lumbar flexion force gauge	NA	DPPH-50	Chatillon	05/03/89	repaired
Lumbar flexion rotation gauge	CP17-0601-1	7020	Humphrey	Mfr. Specification	
Abdomen compression displacement gauge	4075-175	80294-2051941504	Bournes	09/19/95	03/19/96
Abdomen compression force gauge	3443	3167	Lebow	09/19/95	03/19/96
Hybrid III femur pendulum accelerometer	CG83	7232	Endevco	09/19/95	03/19/96

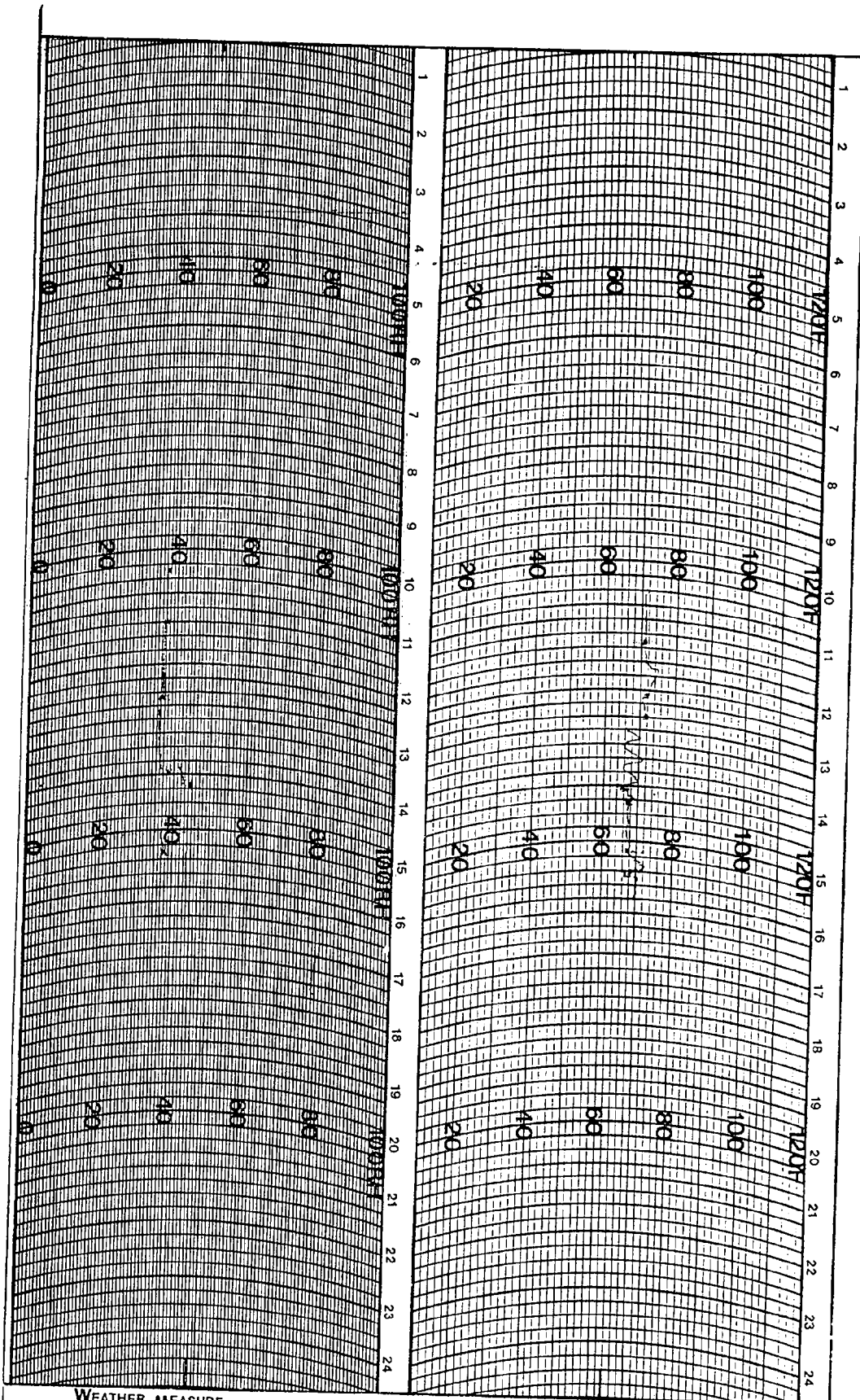
Sign Convention
NHTSA Data Tape Reference Guide

<u>Accelerometers:</u>	+X: Forward	
	+Y: Leftward	
	+Z: Upward	
<u>Potentiometers:</u>	+Chest longitudinal deflection:	Outward
	+Chest lateral deflection:	Leftward
	+Seat belt displacement:	Outward
	+Seat belt extension:	Elongation
	+Knee slider displacement:	Distance between femur and tibia
increased		(in relation to a seated dummy)
<u>Load cells:</u>	+Femur force:	Tension
	+Seat belt force:	Tension
	+Barrier force:	Tension
<u>Neck load cells:</u>	+X force:	Head pushed forward
	+y force:	Head pushed leftward
	+Z force:	Head pulled upward (tension on neck)
	+X moment:	Right ear rotating toward right shoulder
	+Y moment:	Chin rotating toward chest
	+Z moment:	Chin rotating toward left shoulder
<u>Tibia load cells:</u>	+X force:	Tension
	+Y force:	Tension
	+Z force:	Tension
	+X moment:	Bottom of tibia moving leftward
	+Y moment:	Bottom of tibia moving rearward

Frequency Response Classes

SAE J211 OCT88

<u>Typical Test Measurements</u>	<u>Channel Class</u>
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Collision simulation input	60
Component analysis	600
Integration for velocity or displacement	180
Barrier Face Forces	60
Belt Restraint System Loads	60
Anthropomorphic Test Device	
Head accelerations (linear and angular)	1000
Neck	
Forces	1000
Moments	600
Thorax	
Spine accelerations	180
Rib accelerations	1000
Sternum accelerations	1000
Deflections	180
Lumbar	
Forces	1000
Moments	1000
Pelvis	
Accelerations	1000
Forces	1000
Moments	1000
Femur/Knee/Tibia/Ankle	
Forces	600
Moments	600
Displacements	180
Sled Accelerations	60
Steering Column Loads	600
Head form Accelerations	1000



WEATHER MEASURE
 P.O. BOX 41257
 SACRAMENTO, CA. 95841
 PHONE (916) 481-7565

HYGROTHERMOGRAPH
 1 DAY

CHART # C311 D HF
 PART # 699123

STATION 951122

DATE ON _____

DATE OFF _____

Appendix E

Restraint System Instructions from Owner's Manual

Safety Restraints

Important Safety Belt Information

The use of safety belts helps to restrain you and your passengers in case of a collision. In most states and in Canada the law requires their use.

Safety belts provide best restraint when:

- ☐ the seatback is upright
- ☐ the occupant is sitting upright (not slouched)
- ☐ the lap belt is snug and low on the hips
- ☐ the shoulder belt is snug against the chest
- ☐ the knees are straight forward
- ☐ seat belt is placed in guide on top of seat

To help you remember to fasten your safety belt, a warning light may come on and a chime may sound. See *Safety Belt Warning Light and Chime* in the *Warning Lights and Gauges* chapter.

See the following sections in this chapter for directions on how to properly use these safety belts. Also see *Safety Restraints for Children* in this chapter for special instructions about using safety belts for children.

⚠ WARNING
Make sure that you and your passengers wear safety belts. Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

⚠ WARNING

Never wear the shoulder belt under the arm. Never swing it around the neck over the inside shoulder. Never use a single belt for more than one person or across more than one seating position. Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. Failure to follow these precautions could increase the risk and/or severity of injury in a collision.

⚠ WARNING

Never drive or ride with a twisted or jammed safety belt. If you cannot untwist or unjam the safety belt, see the nearest qualified technician immediately.

⚠ WARNING

To reduce the risk of serious injury in a collision, children should always ride with the seatback upright.

⚠ WARNING

Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

Lock the doors of your vehicle before driving to lessen the risk of the door coming open in a collision.

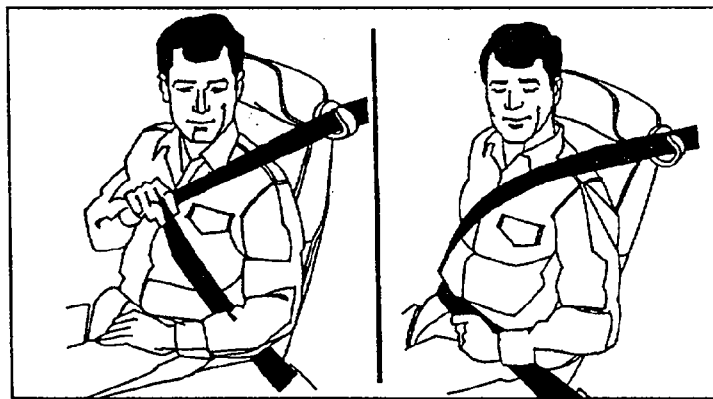
Combination Lap and Shoulder Belts

While your vehicle is in motion, the combination lap and shoulder belt adjusts to your movement. However, if you brake hard, corner hard or if your vehicle receives an impact of 5 mph (8 km/h) or more, the lap and shoulder belt locks and helps reduce your forward movement.

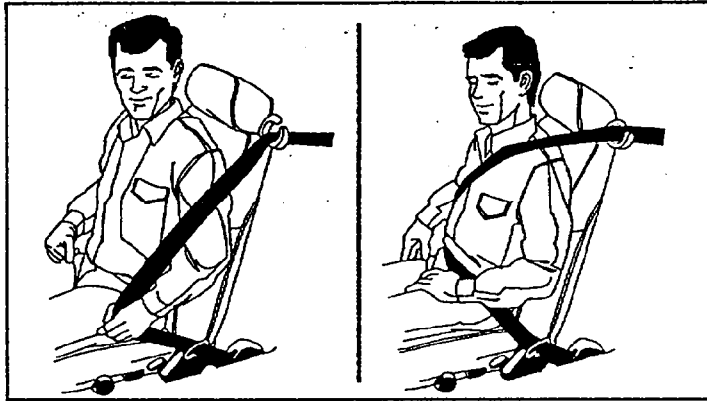
After you get into your vehicle, close the door and lock it. Then adjust the seat to the position that suits you best.

Before fastening the front seat belt, make sure the shoulder belt passes through the belt holder on the top of the seatback.

To fasten the belt, pull the lap/shoulder belt from the retractor so that the shoulder portion of the belt crosses your shoulder and chest. Be sure the belt is not twisted. If it is, remove the twist. Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.



Fastening the front seat combination lap and shoulder belt (coupe models)



Fastening the front seat combination lap and shoulder belt
(convertible models)



Fastening the rear seat combination lap and shoulder belt
coupe and convertible

NOTE: Be sure to read and understand
Important Safety Belt Information at
the beginning of this chapter.

Safety Belts for Front Passenger (Coupe Only) and Rear (Coupe and Convertible) Outboard Seating Positions

Your vehicle is equipped with a dual locking mode retractor on the shoulder belt portion of the combination lap/shoulder safety belt for front seat passengers (coupe) and rear outboard passenger seats (coupe and convertible).

Dual locking mode retractors operate in two ways:

Vehicle sensitive (emergency) locking mode

In this operating mode, the shoulder belt retractor will allow the occupant freedom of movement, locking tight only on hard braking, hard cornering or impacts of approximately 5 mph (8 km/h) or more. The retractor can also be made to lock by pulling/jerking on the belt.

Automatic locking mode

In this operating mode, the shoulder belt retractor will be automatically locked and remain locked when the combination lap/shoulder safety belt is buckled, and does not allow the occupant freedom of movement. This mode provides the following:

- ☐ A tight lap/shoulder belt fit on the occupant.
- ☐ Child seat or infant carrier installation restraint.

⚠ WARNING

Never install a rear-facing child seat or infant carrier in the right front passenger seat.

This mode **must be used** when installing a child safety seat on the front passenger seat and rear outboard seats where dual locking retractors are provided.

To switch the retractor from the emergency locking mode to the automatic locking mode, perform the following steps:

1. Buckle the lap/shoulder combination belt.
2. Grasp the shoulder portion of the belt and pull downward until all of the belt is extracted, and when allowed to retract, a clicking sound will be heard. At this time, the belt retractor is in the automatic locking mode (child restraint mode).
3. A clicking sound will continue to be heard as the belt is allowed to retract.

NOTE: When the combination lap/shoulder belt is unbuckled and allowed to retract completely, the retractor will switch back to the vehicle sensitive (emergency) locking mode. See the detailed instructions under *Safety Seats for Children* in this chapter.

Front Passenger Lap Belt Retractor (Convertible Only)

Your convertible is equipped with a dual locking mode retractor on the lap belt part of the lap/shoulder belt for the front seat passenger.

Dual locking mode passenger seat lap belt retractors operate in two ways:

Vehicle sensitive (emergency) locking mode

In this operating mode, the lap belt retractor will allow the occupant freedom of movement, locking tight only on hard braking, hard cornering or impacts of approximately 5 mph (8 km/h) or more. The retractor cannot be made to lock by pulling on the belt.

Automatic locking mode

In this operating mode, the lap belt retractor will remain locked and does not allow the occupant freedom of movement. This mode provides the following:

- ☐ A tight lap/shoulder belt on the occupant.
- ☐ Child safety seat installation.

This mode **must** be used when installing a forward facing child safety seat on the front passenger seat. To switch the retractor from the vehicle sensitive (emergency) locking mode to the automatic locking mode, perform the following steps:

WARNING
Never install a rear-facing child seat or infant carrier in the frontseat.

1. Buckle the lap/shoulder belt.
2. Grasp the lap portion of the belt below the child seat label. Pull upward until all of the belt is extracted and a click is heard. At this time, the lap belt retractor is in the automatic locking mode (child restraint mode).
3. Allow the belt to retract. A clicking sound will be heard as the belt retracts. This indicates that the retractor is in the automatic locking mode.

4. Pull down on the belt to remove slack in the belt.

NOTE: When the combination lap/shoulder belt is unbuckled and allowed to retract completely, the retractor will switch to the vehicle sensitive (emergency) locking mode. See the detailed instructions under *Safety Seats for Children* in this chapter.

⚠ WARNING

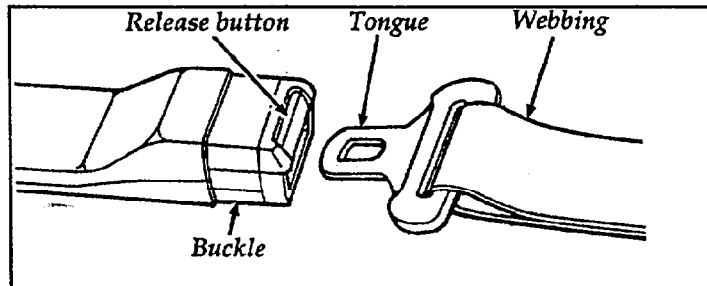
The lap belts should fit snugly and as low as possible around the hips, not around the waist.

⚠ WARNING

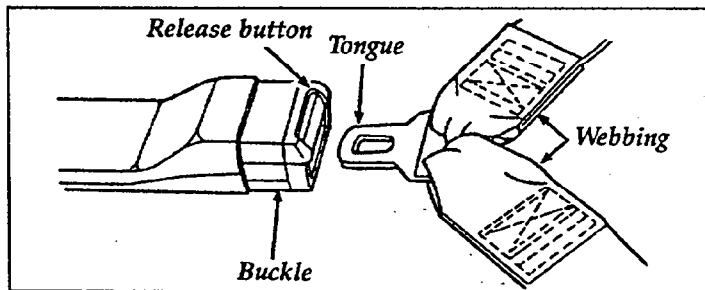
Failure to follow these precautions could increase the risk and/or severity of injury in a collision. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing it around your neck over the inside shoulder. 3) Never use a single belt for more than one person.

To unfasten all the belts:

1. Push the release button on the end of the buckle. This allows the tongue to unlatch from the buckle.

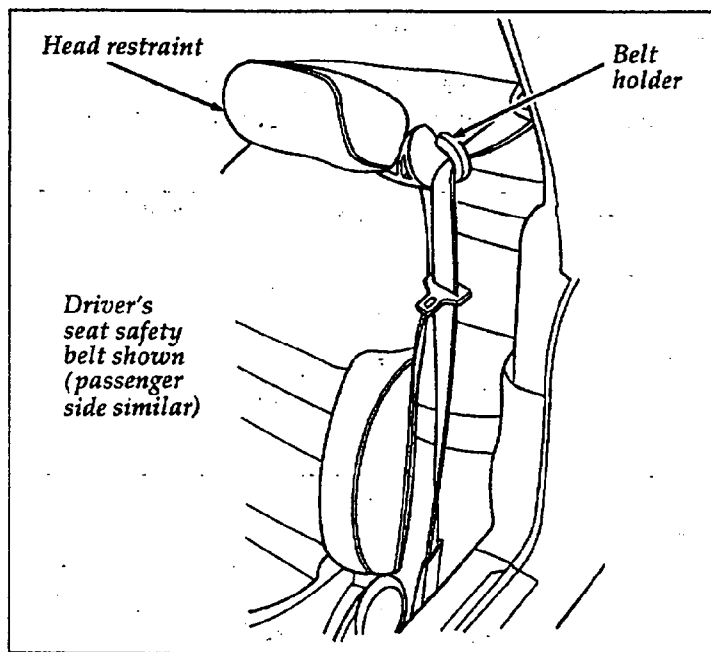


Unfastening the front (coupes) and rear outboard lap/shoulder belts



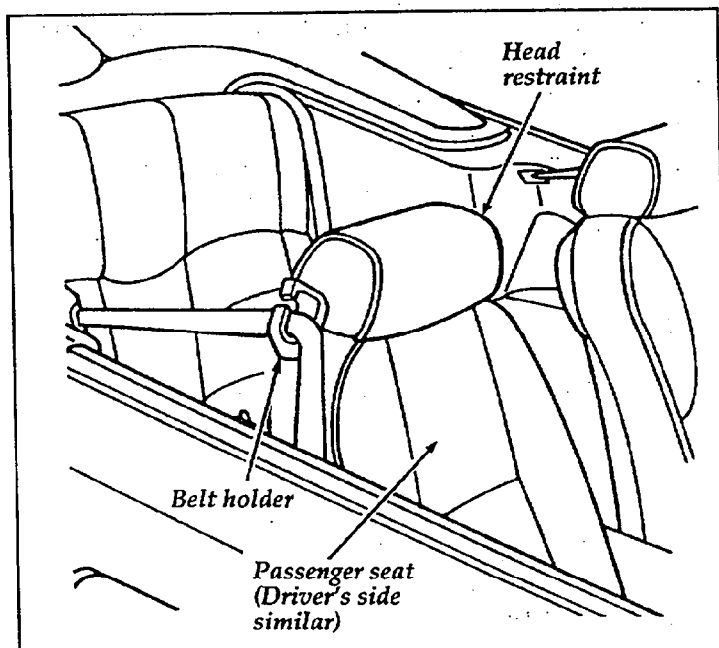
Unfastening the Mustang convertible front outboard lap/shoulder belts

2. While the belt retracts, guide the tongue to its stowed position. If you do not guide the tongue, it may strike you or part of the vehicle.
3. (Coupe only). Place the belt in the belt holder at the top of the seatback. The retracted belt should be stored on this holder when not in use, except when a passenger is entering or leaving the rear seat area of the vehicle.



Belt holder location — coupe only

4. (Convertible only). Place the shoulder belt in the belt holder at the top of the seatback and place the lap belt in the belt guide at the side of the seat cushion. The retracted belt should be stored on this holder and in the belt guide when not in use, except when a passenger is entering or leaving the rear seat area of the vehicle.



Belt holder location — convertible only

⚠ WARNING

The shoulder belt must always be in the belt holder when the belt is in use.

Safety Belt Extension Assembly

For some people, the safety belt may be too short even when it is fully extended. You can add about eight inches (20 cm) to the belt length with a safety belt extension assembly (part number 611C22). Safety belt extensions are available at no cost from your dealer.

⚠ WARNING

Failure to follow these instructions will affect the performance of the safety belts and increase the risk of personal injury.

Use only extensions manufactured by the same supplier as the safety belt. Manufacturer identification is located at the end of the webbing on the label. Also, use the safety belt extension only if the safety belt is too short for you when fully extended. Do not use extension to change the fit of the shoulder belt across the torso.

Safety Belt Maintenance

Check the safety belt systems periodically to make sure that they work properly and are not damaged.

All safety belt assemblies, including retractors, buckles, front seat belt buckle support assemblies (slide bar) (if equipped), child safety seat tether bracket assemblies (if equipped), and attaching hardware, should be inspected after any collision. Ford recommends that all safety belt assemblies used in vehicles involved in a collision be replaced. However, if the collision was minor and a qualified technician finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

Cleaning the Safety Belts

Clean the safety belts with any mild soap solution that is recommended for cleaning upholstery or carpets. Do not bleach or dye the belt webbing because this may weaken it.

Air Bag Supplemental Restraint System (SRS)

The driver and right front passenger air bags are Supplemental Restraint Systems (SRS), provided at these seating positions in addition to the lap/shoulder belt, and are designed to supplement the protection provided to properly belted occupants in moderate to severe frontal collisions. The supplemental air bag system does not provide restraint to the lower body.

The Importance of Wearing Safety Belts

⚠ WARNING

Safety belts must be worn by all vehicle occupants to be properly restrained and help reduce the risk of injury in a collision.

⚠ WARNING

All occupants of the vehicle, including the driver, should always wear their safety belts, even when an air bag Supplemental Restraint System is provided.

There are four very important reasons to use safety belts even with an air bag system. Use your safety belts to:

- ☐ help keep you in the proper position (away from the air bag) when it inflates
- ☐ reduce the risk of harm in rollover, side or rear impact collisions, because an air bag is not designed to inflate in such situations
- ☐ reduce the risk of harm in frontal collisions that are not severe enough to activate the supplemental air bag

- ☐ reduce the risk of being thrown from your vehicle

The Importance of Being Properly Seated

In a collision, the air bag must inflate extremely fast to help provide additional protection for you. In order to do this, the air bag must inflate with considerable force. If you are not seated in a normal riding position with your back against the seatback, the air bag may not protect you properly and could possibly hurt you as it inflates.

⚠ WARNING
If a passenger is not properly seated and restrained, an inflating air bag could cause serious injury.

⚠ WARNING
Rear-facing infant seats should never be placed in the front seat.

In rear-facing infant seats, the infant's head is closer to the air bag. The force of the rapidly inflating air bag could push the top of the rear-facing seat against the vehicle seatback, center console (if so equipped), or center armrests (if so equipped). **REAR-FACING INFANT SEATS MUST ALWAYS BE SECURED IN THE REAR SEAT**, and other child safety seats and infant seats should be secured in the rear seat whenever possible.

Your vehicle is equipped with a right front passenger air bag. Air bags deploy with great force, faster than the blink of an eye. Front passengers, especially children and small adults, must never sit on the front edge of the seat, stand near the glove compartment of the

instrument panel, or lean over near the air bag cover when the vehicle is moving. All occupants should sit with their backs against the seatback, move the seat to the most rearward position if possible and use the safety belts. Children weighing less than 40 lbs. (18 kg) always should use child or infant seats.

⚠ WARNING

When using forward-facing child seats move the passenger seat as far back from the instrument panel as possible. NEVER SECURE REAR-FACING INFANT SEATS IN THE FRONT SEAT.

THE FORCE OF THE RAPIDLY INFLATING PASSENGER AIR BAG COULD PUSH THE TOP OF THE REAR-FACING SEAT AGAINST THE VEHICLE SEATBACK OR CENTER CONSOLE/ARMRESTS. REAR-FACING INFANT SEATS MUST ALWAYS BE PLACED IN THE REAR SEAT.

⚠ WARNING

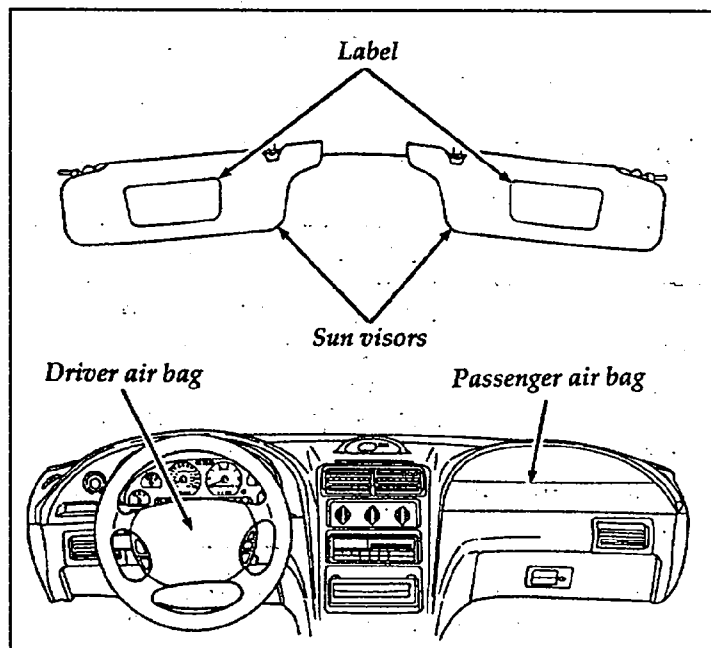
Do not place objects or mount equipment on or near the air bag cover on the steering wheel or in front seat areas that may come in contact with a deploying air bag. Failure to follow this instruction may increase the risk of personal injury in the event of a collision.

For additional important safety information on the proper use of seat belts, child seats, and infant seats, please read the other sections of this part of the Owner Guide, especially sections entitled *Safety Belts for Children* and *Safety Seats for Children*.

For further information about the proper mounting of equipment in the front seat of this vehicle, please refer to Ford's brochure entitled *Some Important Information About Air Bag Supplemental Restraint System* which can be obtained by calling Helm Inc. at 1-800-782-4356. Ask for brochure FPS-8602.

How the Air Bag Supplemental Restraint System Operates

The driver air bag is in the center of the steering wheel. The right front passenger seat air bag is in the upper right hand section of the instrument panel ledge above the glove compartment. Both air bags are designed to stay out of sight until they are activated.



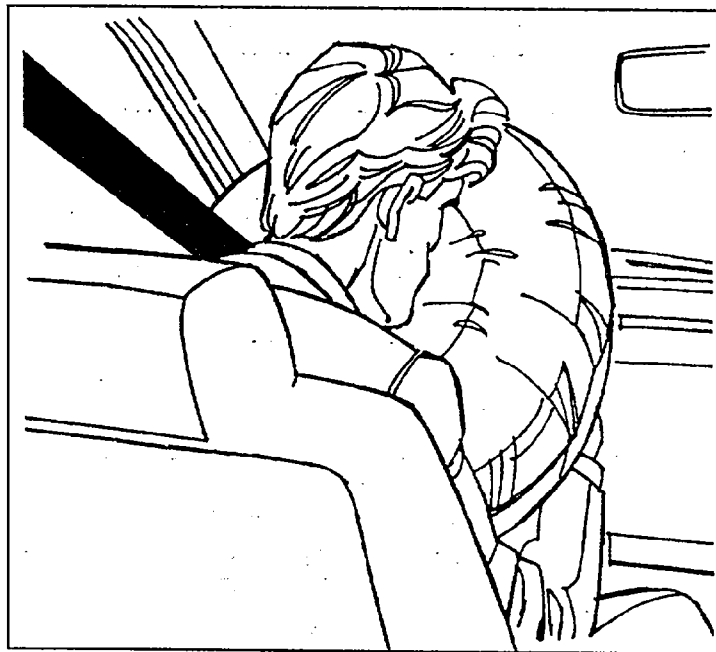
The location of the air bag and warning labels

If a collision occurs, the sensors sense the severity of the impact and activates the air bags if necessary. The air bag system is designed to deploy in frontal and front-angled collisions more severe than hitting a parked vehicle (of similar size and weight) head-on at about 28 mph (45 km/h). Because the system senses the crash severity rather than vehicle speed, some frontal collisions at speeds above 28 mph (45 km/h) will not inflate the air bag.

The whole inflation and deflation process takes place in a matter of seconds.

! WARNING

Air bag system components get hot after inflation. Do not touch them after inflation.



Inflated driver side air bag



Inflated right front passenger side air bag

⚠ WARNING

If the air bag is inflated, THE AIR BAG WILL NOT FUNCTION AGAIN AND MUST BE REPLACED IMMEDIATELY. If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.

The air bag system uses a readiness light and a tone to indicate the condition of the system. The readiness light is in the instrument cluster. When you turn the ignition to the ON position, this light will illuminate for approximately six (6) seconds and then turn off. This indicates that the system is operating normally. **NOTE:** Maintenance of the air bag system is not required.

A problem with the system is indicated by one or more of the following:

- ☐ the readiness light will either flash or stay lit, or
- ☐ it will not light immediately after the ignition is turned on, or
- ☐ a group of five beeps will be heard.

If any of these things happen, have the air bag system serviced at your Ford or Lincoln-Mercury dealer immediately. Unless serviced, the air bag supplemental restraint system may not function properly in the event of a collision.

⚠ WARNING

Do not attempt to service, repair, or modify the Air Bag Supplemental Restraint System or its fuses. See your Ford or Lincoln-Mercury dealer.

Disposal of air bags or air bag equipped vehicles

For disposal of air bags or air bag equipped vehicles, see your local Ford or Lincoln-Mercury dealer. Air bags **MUST** be disposed of by qualified personnel.