VZ806

2097

Report Number NCAP-TRC-98-002

New Car Assessment Program (NCAP)

Frontal Barrier Impact Test

Ford Motor Corporation

1998 Ford Mustang

2-door coupe

NHTSA Number: MW0208

TRC Test Number: 980120

Prepared By:

Transportation Research Center Inc.

10820 State Route 347

East Liberty, OH 43319

February 10, 1998

Final Report

Prepared For:

U. S. Department of Transportation

National Highway Traffic Safety Administration

Performance Standards,

Office of Crashworthiness Standards,

Motor Vehicle Information Division

Mail Code: NPS-10

400 Seventh Street, S.W., Room 5315

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This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract Number DTNH22-96-D-22010. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

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Technical Report Documentation Page

1. Report No. NCAP-TRC-98-002	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle Final Report of New Car Assessment Program (NCAP) Frontal Barrier Impact Test of a 1998 Ford Mustang 2-door coupe, NHTSA No. MW0208		5. Report Date February 10, 1998 6. Performing Organization Code TRC
7. Author(s) Allison E. Louden, Project Engineer		8. Performing Organization Report No. NCAP-TRC-98-002
9. Performing Organization Name and Address Transportation Research Center Inc. 10820 State Route 347 East Liberty, OH 43319-0367		10. Work Unit No. (TRAIS) 11. Contract or Grant No. DTNH22-96-D-22010
12. Sponsoring Agency Name and Address U. S. Department of Transportation National Highway Traffic Safety Administration Performance Standards., Office of Crashworthiness Standards; Motor Vehicle Information Division, Mail Code NPS-10 400 Seventh Street, S. W., Room 5311, Washington, DC 20590		13. Type of Report and Period Covered Final Report February 1998 14. Sponsoring Agency Code NPS-10
15. Supplemental Notes		

16. Abstract

A 56 kph (35 mph) frontal load cell barrier impact test was conducted on a 1998 Ford Mustang 2-door coupe, NHTSA No. MW0208, at Transportation Research Center Inc. on January 20, 1998. This test was conducted in accordance with Office of Crashworthiness Standards NCAPTP090196 for the determination of vehicle crashworthiness. The barrier impact velocity was 56.2 kph. The vehicle's maximum static crush was 469 millimeters. The ambient temperature was 21° C.

The driver's Head Injury Criteria (HIC) was 435. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 41.3 g. The driver's maximum chest deflection was 29 millimeters. The driver's left and right femur maximum axial forces were 3467 N and 4004 N, respectively.

The passenger's HIC was 364. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 46.9 g. The passenger's maximum chest deflection was 38 millimeters. The passenger's left and right femur maximum axial forces were 4160 N and 1567 N, respectively.

17. Key Words 56 kph (35 mph) Frontal Barrier Impact Test: New Car Assessment Program (NCAP)	18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. Technical Reference Division 400 Seventh Street, S. W., Room 5108 Washington, DC 20590

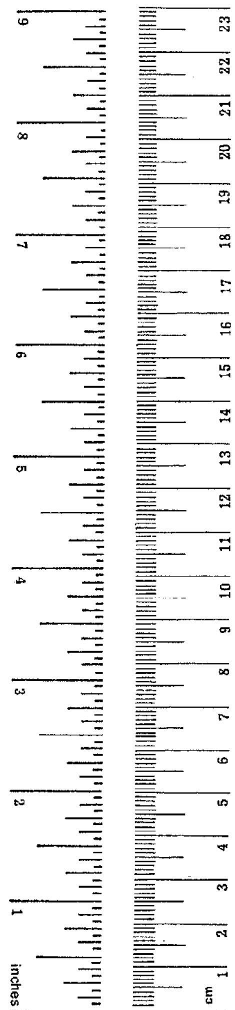
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. Number of Pages 405	22. Price

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

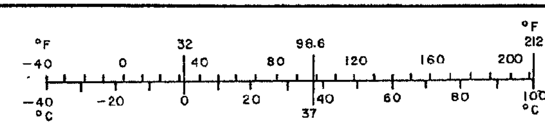
Symbol	When You Know	Multiply by	To Find	Symbol
	LENGTH			
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
	AREA			
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	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 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

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



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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 Crashworthiness Standards by Transportation Research Center Inc. (TRC) under Contract Number DTNH22-96-D-22010.

The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for the subject vehicle, a 1998 Ford Mustang 2-door coupe, NHTSA Number MW0208, at an impact speed of 56.2 kph (35 mph) FMVSS 208, 212, 219, and 301 requirements.

Test Procedure

This 56 kph (35 mph) test was conducted in accordance with NHTSA's Office of Crashworthiness Standards Laboratory Indicant Test Procedure, NCAPTP090196. 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 Appendix B of the Laboratory Indicant Test Procedure. This test was the third use of the driver dummy and the first use of 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, foot accelerometers to measure longitudinal and vertical axis accelerations, and upper and lower tibia load cells to measure forces and moments.

The one-hundred-thirty-three (133) data channels were digitally sampled and recorded at 12,500 samples per second and processed per Section 11.13 of the Laboratory Indicant Test Procedure.

The crash event was recorded by one (1) real-time panning motion picture camera and fourteen (14) 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 January 20, 1998.

The test vehicle, a 1998 Ford Mustang 2-door coupe, NHTSA Number MW0208, was equipped with a 3.8-liter inline engine, manual transmission, power steering, and power brakes. The vehicle's test weight was 1584.5 kg. The vehicle's impact speed was 56.2 kph. The vehicle sustained 469 millimeters of static crush during the impact.

The driver's Head Injury Criteria (HIC) was 435. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 41.3 g. The driver's maximum chest deflection was 29 mm. The driver's left and right femur maximum axial forces were 3467 N and 4004 N, respectively.

The right front passenger's HIC was 364. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 46.9 g. The passenger's maximum chest deflection was 38 mm. The passenger's left and right femur maximum axial forces were 4160 N and 1567 N, respectively.

There was 95.7% retention of windshield periphery.

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 the static rollover test.

Data Acquisition Explanations

The driver's shoulder belt displacement potentiometer, SHB01, lost data after approximately 120 milliseconds.

Table 1 Crash Test Summary

NHTSA number:	MW0208	
Test type:	Frontal Load Cell Barrier	
Test date:	01/20/98	
Test time:	1645	
Ambient temperature:	21° C	
Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe	
Vehicle test weight:	1584.5 kg	
Impact angle[1]:	0°	
Impact velocity[2]:	Primary = 56.2 kph Secondary = 56.2 kph	
Maximum static crush:	469 mm	
Average rebound:	1090 mm	
Dummies:	Driver #192	Passenger #142
Type:	Part 572 E	Part 572 E
Location:	Left front	Right front
Restraint:	Airbag and 3-point unibelt	Airbag and 3-point unibelt
Number of data channels:	40	40
Number of cameras:	High-speed 14 Real-time 1	

[1] With respect to tow track centerline.
[2] Speed trap measurement (± .08 kph accuracy)

Table 2 Test Vehicle Information

Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe
Color:	Yellow
VIN:	1FAFP4049WF129673
NHTSA number:	MW0208
Engine data:	
Placement:	inline
Cylinders:	6
Displacement	3.8 liters
Transmission data:	_5_ speed, _X_ manual, ___automatic, ___overdrive
	___FWD, _X_ RWD, ___4WD
Date vehicle received:	01/13/98
Odometer reading:	77
Dealer's name and address:	Ricart Ford Inc. 4255 S. Hamilton Road, Columbus, OH 43227

Accessories:

Power steering	Yes	Automatic transmission	No
Power brakes	Yes	Automatic speed control	Yes
Power seats	No	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			

Certification data from vehicle's label:

Vehicle manufactured by:	Ford Motor Corporation
Date of manufacture:	10/97
VIN:	1FAFP4049WF129673
GVWR:	4291 lbs.
GAWR: Front:	2315 lbs.
Rear:	2050 lbs.

Table 2 Test Vehicle Information, Cont'd.

Size of tires:	P205/65R15
Tire pressure with maximum capacity vehicle load:	
Front:	44 psi
Rear:	44 psi
Spare tire:	T125/90D15
Type of front seats:	Bucket

Tire & capacity data from vehicle's label:

Recommended tire size:	P205/65R15
Recommended cold tire pressure:	
Front:	30 psi
Rear:	35 psi

Designated seating capacity:

Front	2
Rear	2
Total	4

Vehicle capacity weight: 317 kg

Test vehicle attitude:

Delivered attitude:	LF 737 mm;	RF 738 mm;	LR 732 mm;	RR 732 mm
Pre-test attitude:	LF 721 mm;	RF 720 mm;	LR 693 mm;	RR 696 mm
Post-test attitude:	LF 900 mm;	RF 647 mm;	LR 690 mm;	RR 653 mm

Table 2 Test Vehicle Information Cont'd

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

Right front	384.2 kg	Right rear	300.3 kg
Left front	411.4 kg	Left rear	300.3 kg
Total front weight	795.6 kg	(57.0% of total vehicle weight)	
Total rear weight	600.6 kg	(43.0% of total vehicle weight)	
Total delivered weight	1396.2 kg		

Calculation of test vehicle's target test weight:

RCLW[1] = Rated cargo and luggage weight

UDW = Unloaded delivered weight (1396.2 kg)

VCW = Vehicle capacity weight (317 kg)

DSC = Designated seating capacity (4)

RCLW[1] = VCW - 68 (DSC) = 317 - 68(4) = 45 kg

Target test weight = UDW + RCLW[1] + (Number of Hybrid III dummies x 76 kg/dummy)

Target test weight = 1396.2 + 45 + 152

Target test weight = 1593.2 kg

Weight of test vehicle with required dummies and 188.3 kg of cargo weight:

Right front	416.9 kg	Right rear	361.5 kg
Left front	449.1 kg	Left rear	357.0 kg
Total front weight	866.0 kg	(54.7% of total vehicle weight)	
Total rear weight	718.5 kg	(45.3% of total vehicle weight)	
Total test weight	1584.5 kg	(0.5% under target test weight)	

Weight of ballast secured in vehicle: None

Components removed to meet target test weight: Rear seat, rear tail lights, rear bumper and facia

CG rearward of front wheel centerline: 1156.3 mm

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

Table 3 Post-Impact Data

Test number:	980120
NHTSA number:	MW0208
Test date:	01/20/98
Test time:	1645
Test type:	Frontal load cell barrier
Impact angle:	0°
Ambient temperature at impact area:	21° C
Temperature in occupant compartment:	20° C
Impact velocity:	
Primary	56.2 kph
Secondary	56.2 kph
Specified range	55.5 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:

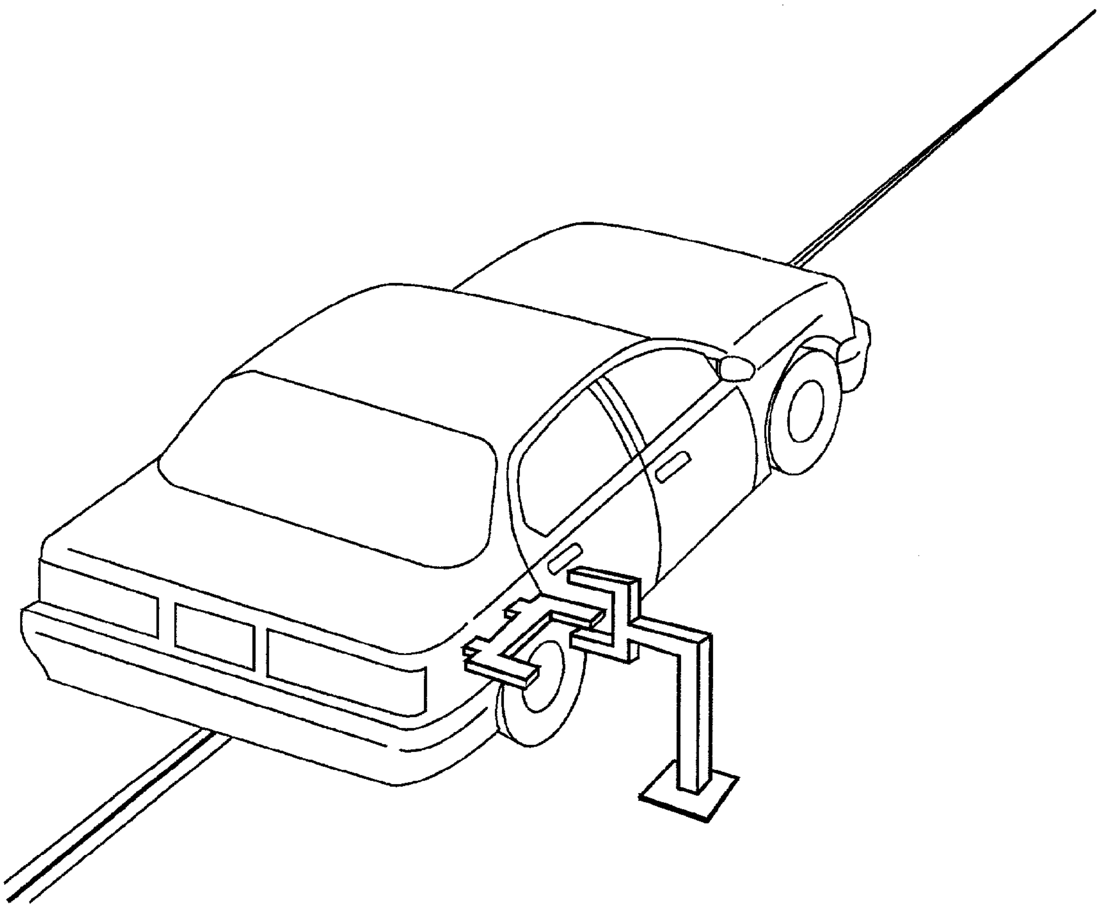
Pre-test:	L	4495 mm;	C	4610 mm;	R	4500 mm
Post-test:	L	4069 mm;	C	4141 mm;	R	4050 mm
Total crush:	L	426 mm;	C	469 mm;	R	450 mm
Average crush:	448 mm					

Test vehicle rebound from flat barrier:

Distance from test vehicle to barrier:

Post-test:	L	1115 mm;	C	1041 mm;	R	1115 mm
Average rebound	1090 mm					

Figure 1 Impact Velocity Measurement System

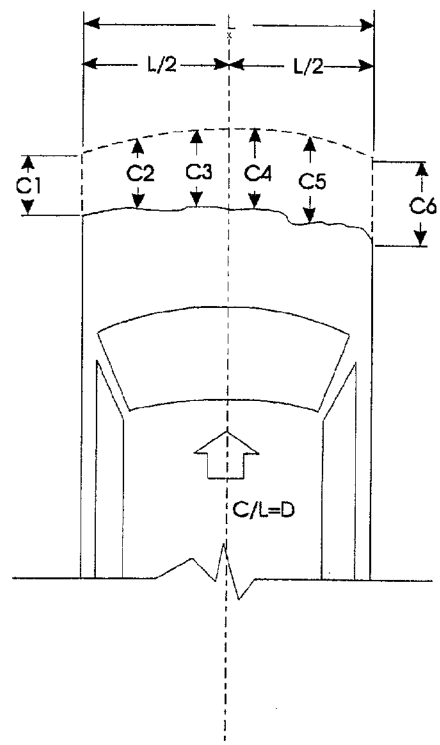


The final vane clears the final emitter/receiver pair 51 millimeters before impact.

The vanes have 305-millimeter spacing.

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

NHTSA number:	MW0208
Test date:	01/20/98
Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe
Vehicle size category:	Subcompact
VIN:	1FAFP4049WF129673
Build date:	10/97
Test weight:	1584.5 kg
Vehicle wheelbase:	2550 mm
Maximum width:	1820 mm
Front overhang:	1040 mm



Collision Deformation Classification (CDC) code: 12FDEW2

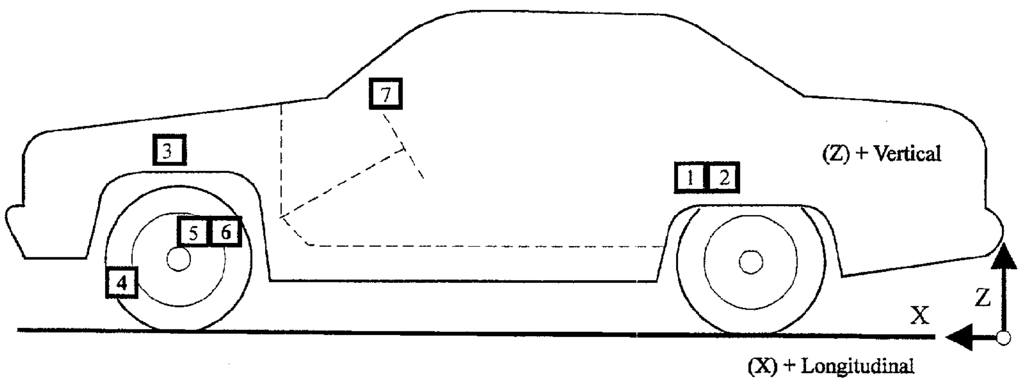
Crush depth measurements:

C1 = 426 mm
C2 = 419 mm
C3 = 459 mm
C4 = 459 mm
C5 = 461 mm
C6 = 450 mm

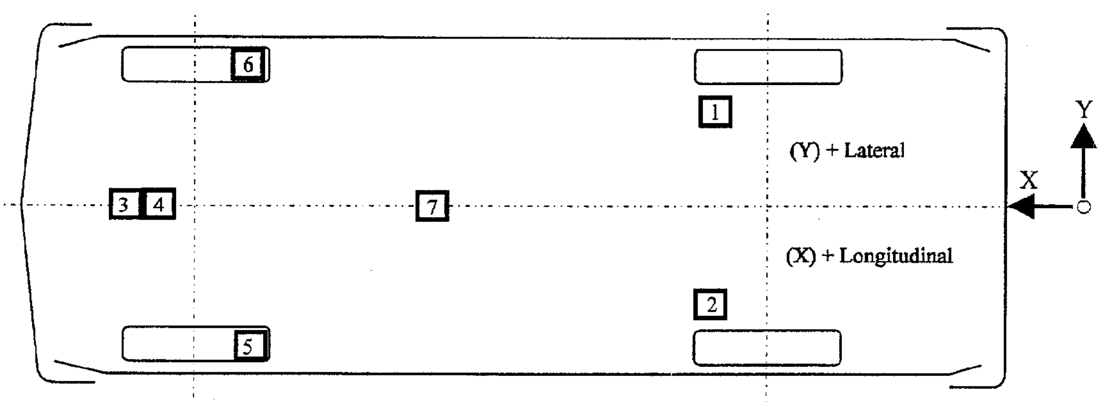
Midpoint of damage: D: Vehicle Longitudinal Centerline

Length of damaged region: L: 1422 mm

Figure 3 Vehicle Accelerometer Placement



Side View



Bottom View

Table 4 Vehicle Accelerometer Locations and Data Summary

TEST NUMBER: 980120

No. LOCATION	X	Y	Z	POSITIVE DIRECTION	NEGATIVE DIRECTION
1 LEFT REAR SEAT CROSSMEMBER	1694 mm	433 mm	464 mm		
LONGITUDINAL				1.8 g @ 153.1 ms	46.6 g @ 55.4 ms
REDUNDANT				1.7 g @ 153.2 ms	46.2 g @ 55.4 ms
2 RIGHT REAR SEAT CROSSMEMBER	1694 mm	-410 mm	457 mm		
LONGITUDINAL				1.5 g @ 168.8 ms	46.1 g @ 55.8 ms
REDUNDANT				1.5 g @ 151.8 ms	46.6 g @ 55.8 ms
3 ENGINE TOP	3531 mm	17 mm	862 mm		
LONGITUDINAL				18.3 g @ 79.3 ms	89.3 g @ 44.3 ms
4 ENGINE BOTTOM	3510 mm	-24 mm	152 mm		
LONGITUDINAL				10.9 g @ 50.8 ms	72.1 g @ 44.6 ms
5 RIGHT BRAKE CALIPER	3444 mm	-658 mm	314 mm		
LONGITUDINAL				29.4 g @ 81.3 ms	65.7 g @ 65.7 ms
6 LEFT BRAKE CALIPER	3444 mm	658 mm	314 mm		
LONGITUDINAL				26.3 g @ 85.3 ms	70.7 g @ 64.2 ms
7 INSTRUMENT PANEL CENTER	2961 mm	-29 mm	882 mm		
LONGITUDINAL				17.4 g @ 31.1 ms	72.3 g @ 64.2 ms

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

Table 5 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	Driver #192	Passenger #142
Head	Airbag, head restraint	Airbag, head restraint
Chest	Airbag	Airbag
Abdomen	None	None
Left knee	Instrument panel	Instrument panel
Right knee	Instrument panel	Instrument panel

Door Opening:

	Left	Right
Front	Easy	Easy
Rear	N/A	N/A

Seat Movement:

	Seat Back Failure	Seat Shift
Front	None	None
Rear	NA	NA

Glazing Damage: The lower portion of the windshield was cracked on impact.

Other Notable Impact Effects: None

Table 6 FMVSS 208 Data Summary

Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe
Vehicle NHTSA number:	MW0208
Test date:	01/20/98

	Driver Dummy #192		Passenger Dummy #142	
Maximum Accelerations:				
Head X-axis	-45.4	g	-41.4	g
Head Y-axis	5.3	g	11.3	g
Head Z-axis	-26.0	g	-22.9	g
Head resultant	51.0	g	47.0	g
Chest X-axis	-41.2	g	-46.3	g
Chest Y-axis	-2.7	g	-6.1	g
Chest Z-axis	17.0	g	15.2	g
Chest resultant[1]	41.3	g	46.9	g
Chest resultant time interval[1]	.003	sec	.003	sec
Head Injury Criteria (HIC) Values:				
HIC[2]	435		364	
HIC starting time	.063	sec	.061	sec
HIC ending time	.099	sec	.097	sec
Average head resultant acceleration during HIC time interval	42.9	g	40.0	g
Maximum Chest Deflections:				
Chest X-axis	29.0	mm	38.1	mm
Maximum chest deflection time	.078	sec	.077	sec
Maximum Compressive Femur Forces:				
Left femur	3466.6	N	4160.4	N
Right femur	4004.1	N	1566.8	N
Maximum Seat Belt Forces:				
Lap belt	4332.4	N	7914.1	N
Shoulder belt	6539.4	N	6330.3	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:	1998/Ford/Mustang/2-door coupe
Vehicle NHTSA number:	MW0208
Test date:	01/20/98

	Driver Dummy #192	Passenger Dummy #142
Maximum Forces		
Neck X-axis shear force	389.0 N	776.4 N
Neck Y-axis shear force	158.3 N	256.7 N
Neck Z-axis axial force	1728.5 N	1855.2 N
Maximum Moments		
Neck moment about X-axis	-9.2 N·m	20.8 N·m
Neck moment about Y-axis	32.1 N·m	-56.3 N·m
Neck moment about Z-axis	13.1 N·m	16.9 N·m
Maximum Accelerations:		
Pelvis X-axis	-19.3 g	-54.9 g
Pelvis Y-axis	-6.6 g	-6.0 g
Pelvis Z-axis	46.6 g	13.4 g
Pelvis resultant	47.8 g	55.7 g

Table 7 Hybrid III Data Summary, Cont'd.

Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe
Vehicle NHTSA number:	MW0208
Test date:	01/20/98

	Driver Dummy #192	Passenger Dummy #142
Left upper tibia moment about X-axis	155.4 N·m	48.5 N·m
Left upper tibia moment about Y-axis	-38.5 N·m	88.4 N·m
Right upper tibia moment about X-axis	100.4 N·m	32.8 N·m
Right upper tibia moment about Y-axis	43.3 N·m	85.5 N·m
Left lower tibia X-axis force	-1131.5 N	773.4 N
Left lower tibia Z-axis force	-2490.0 N	-1907.0 N
Left lower tibia moment about Y-axis	-59.9 N·m	-68.9 N·m
Right lower tibia X-axis force	-651.6 N	-692.1 N
Right lower tibia Z-axis force	-2554.4 N	-2737.1 N
Right lower tibia moment about Y-axis	-46.6 N·m	-63.6 N·m
Left foot X-axis acceleration	-45.1 g	-72.6 g
Left foot Z-axis acceleration at heel	43.2 g	37.4 g
Left foot Z-axis acceleration at toe	61.6 g	60.1 g
Right foot X-axis acceleration	-86.6 g	-54.6 g
Right foot Z-axis acceleration at heel	74.4 g	31.0 g
Right foot Z-axis acceleration at toe	95.1 g	55.6 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 impacting both knees into the instrument panel. The dummy's head and chest were restrained by the driver's airbag as the dummy's torso was restrained by the three-point unibelt. The dummy's head rotated rearward into the head restraint as the dummy rebounded into the seat back. The dummy came to rest seated in the driver's seat, restrained by the three-point unibelt.

Right Front Passenger Dummy

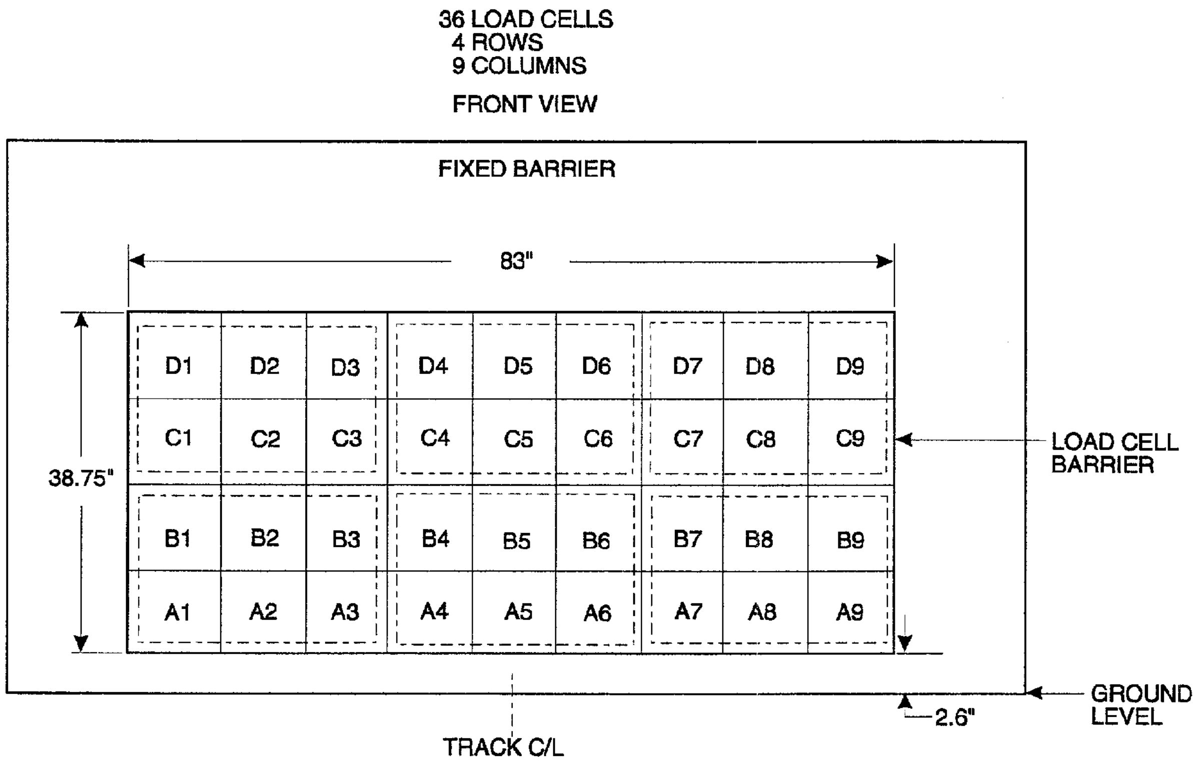
Upon impact, the right front passenger dummy translated forward on the seat impacting both knees into the instrument panel. The dummy's head rotated forward as the dummy's head and chest were restrained by the passenger's airbag and the dummy's torso was restrained by the three-point unibelt. The dummy's head rotated rearward into the head restraint as the dummy rebounded into the seat back. The dummy came to rest seated upright in the right front passenger's seat, restrained by the three-point unibelt.

Table 8 Seat Belt Performance Assessment Test Data

	Driver	Passenger
Belt length data:		
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	2000 mm	2015 mm
Shoulder belt length as measured on Part 572 dummy.	885 mm	880 mm
Lap belt length as measured on Part 572 dummy.	780 mm	740 mm
Shoulder belt spool-off length:		
As determined by film analysis	N/A	N/A
As determined mechanically	65 mm	87 mm
As determined electronically	70 mm	83 mm
Belt stretch length:		
As measured mechanically	0 mm/m	0 mm/m
As measured electronically	.02 mm/m	1 mm/m
Retractor lock-up time:		
As determined by shoulder belt spool-off [1]	N/A	N/A

[1] There were not any onboard cameras because of test weight.

Figure 4 Load Cell Barrier Configuration



Group 1: A1 through B3
Group 2: A4 through B6
Group 3: A7 through B9
Group 4: C1 through D3
Group 5: C4 through D6
Group 6: C7 through D9

Table 9 Load Cell Barrier Data Summary

Location	Positive direction					Negative direction				
Total group 1	1.3	kN	@	2.2	ms	69.8	kN	@	23.9	ms
Total group 2	0.0	kN	@	184.3	ms	107.0	kN	@	81.0	ms
Total group 3	0.8	kN	@	1.3	ms	61.7	kN	@	24.2	ms
Total group 4	0.8	kN	@	3.0	ms	103.3	kN	@	36.4	ms
Total group 5	0.1	kN	@	159.6	ms	145.2	kN	@	47.8	ms
Total group 6	0.5	kN	@	1.9	ms	96.7	kN	@	37.3	ms
Total load cell force [1]	----.-	kN	@	----.-	ms	412.1	kN	@	46.0	ms

Tension is positive
Compression is negative

[1] No positive value in the time frame of interest.

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.:

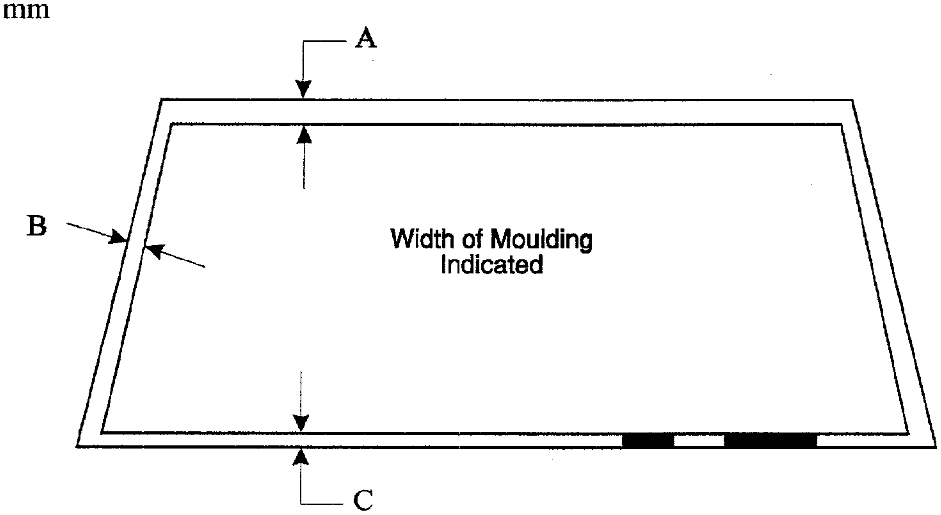
FMVSS 212 requirements: The post-test periphery retention amount must be at least 75% of the pre-test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

Windshield periphery measurements:

	Pre-test	Post-test	Percent retention
Right side	2077 mm	1899 mm	91.4
Left side	2077 mm	2077 mm	100.0
Total	4154 mm	3976 mm	95.7

Pre-test windshield mounting material temperature: 21° C

A = 18 mm
B = 5 mm
C = 14 mm



Front view of windshield[1]

Loss of windshield retention lengths: 43 mm and 135 mm along the lower right perimeter.

[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 = 1244 mm

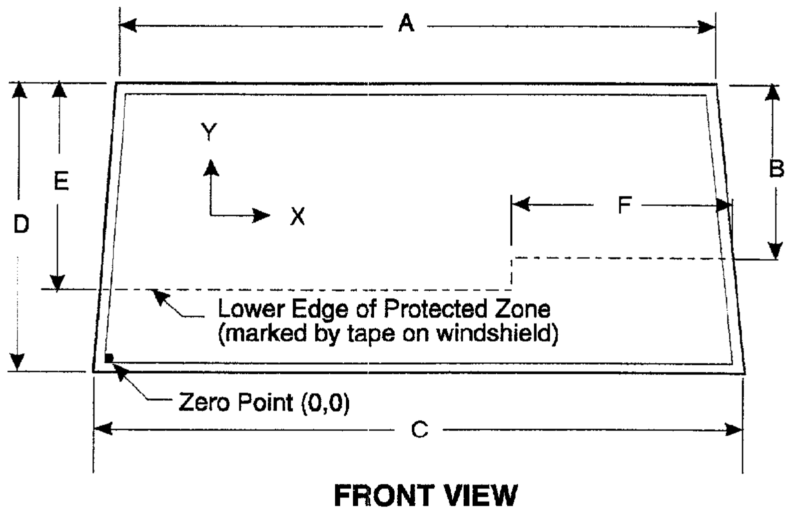
B = 404 mm

C = 1636 mm

D = 690 mm

E = 400 mm

F = 590 mm



Method of adhering protected zone template to windshield: NA

Areas of windshield template penetration greater than 6 mm: NA

	Coordinates X	Y
1.		
2.		
3.		

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

1.
2.
3.

Table 10 Fuel System Data

Vehicle year/make/ model/body style:	1998/Ford/Mustang/2-door coupe
NHTSA number:	MW0208
Fuel system capacity:	41.5 liters (from owner's manual)
Usable capacity:	41.5 liters (furnished by COTR)
Test volume range:	38.2 liters to 39.0 liters (92-94% of usable)
Actual test volume:	38.1 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.	Yes
Details of fuel system:	The fuel tank was located rearward of the rear axle. The fuel filler neck was located on the right side and entered the right rear portion of the fuel tank. The fuel lines ran along the right frame rail to the engine compartment.

Table 11 FMVSS 301 Post-Impact Test Data

NHTSA number: MW0208

Test date: 01/20/98

Vehicle year/make/
model/body style: 1998/Ford/Mustang/2-door coupe

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:

_x_ 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:

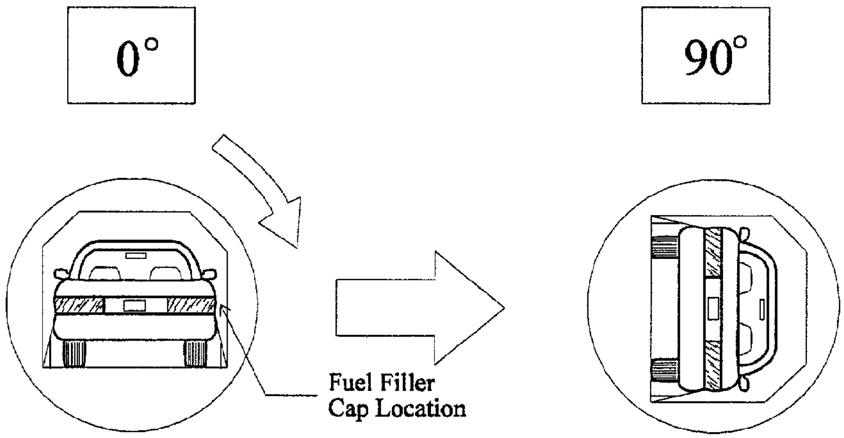
		Test Results	Maximum Allowable
1.	From impact until vehicle motion ceases	0 g	28 g
2.	5-minute period after vehicle motion ceases	0 g	142 g
3.	Next 25 minutes after 5-minute period	0 g	28 g/min

Fuel system fluid spillage location(s): None

Figure 7 FMVSS 301 Static Rollover Test Data

NHTSA number: MW0208

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	

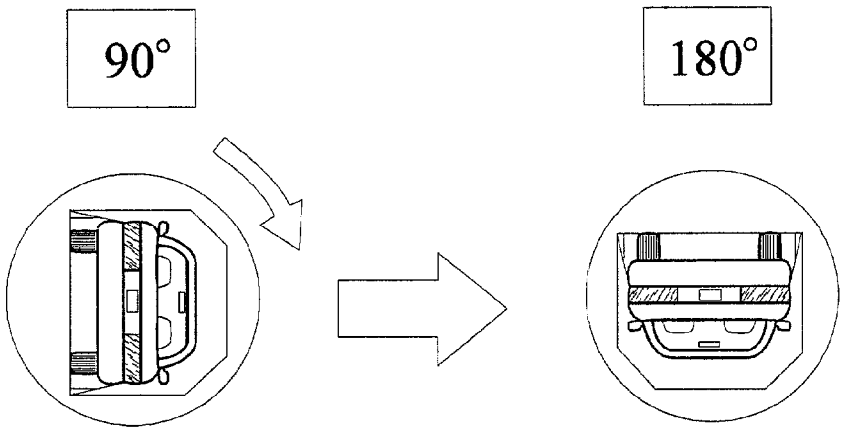
Fuel system fluid spillage measurements:

0° to 90° rotation (fuel filler cap down)	Test Results	Maximum Allowable
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		

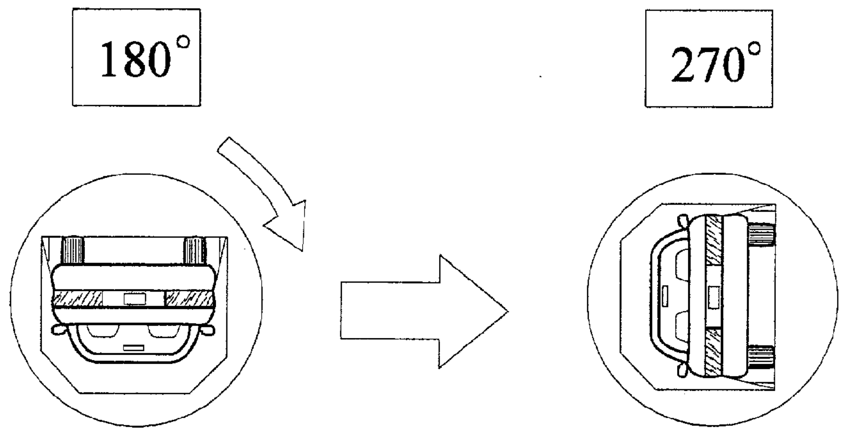
Fuel system fluid spillage measurements:

90° to 180° rotation		Test Results	Maximum Allowable
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		

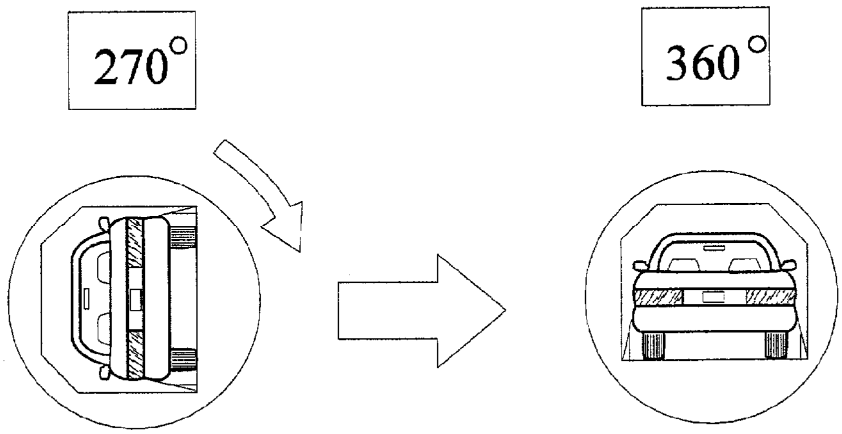
Fuel system fluid spillage measurements:

180 to 270° rotation	Test Results	Maximum Allowable
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:

270° to 360° rotation	Test Results	Maximum Allowable
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

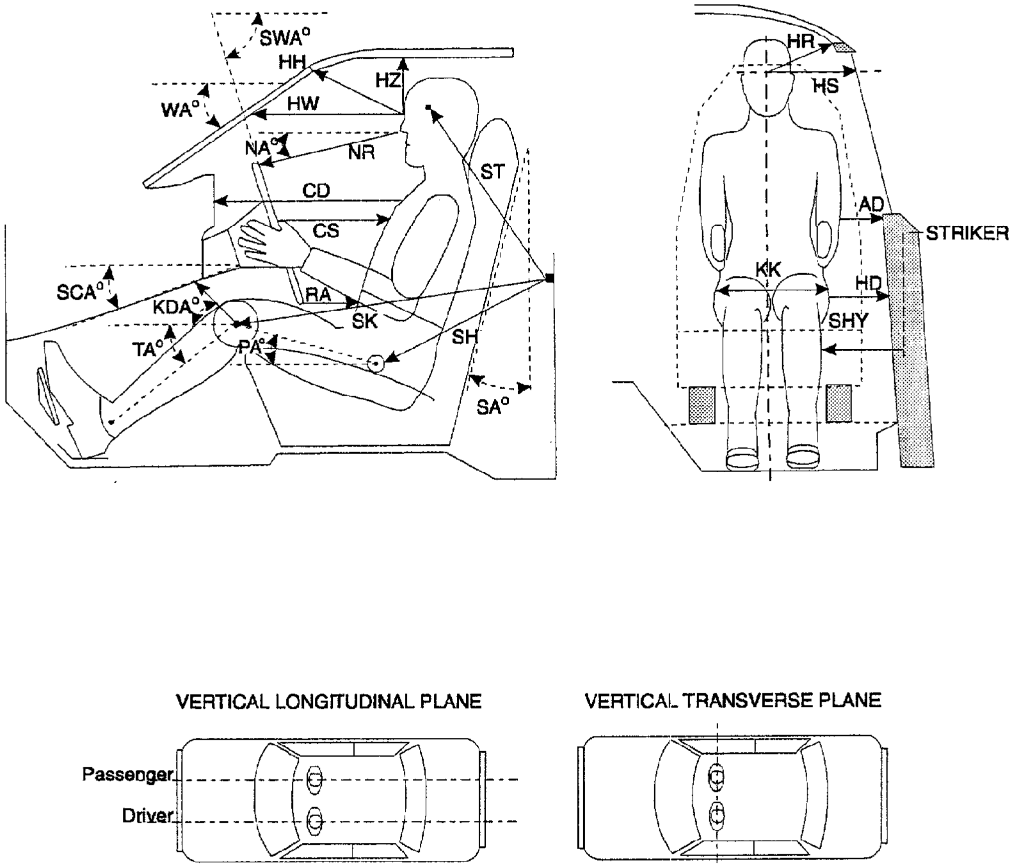


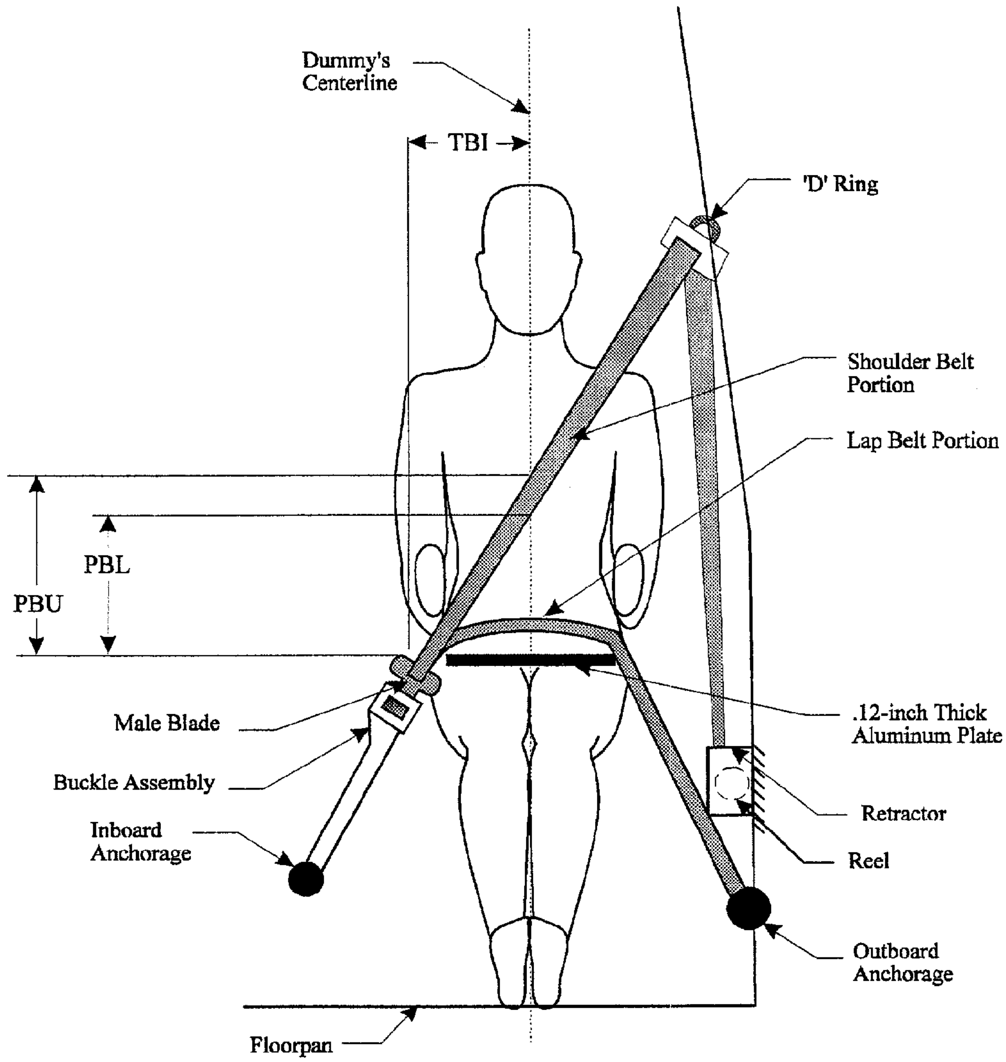
Table 12 Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial #192)	Passenger (Serial #142)
WA	Windshield angle	26°	26°
SWA	Steering wheel angle	69°	NA
SCA	Steering column angle	21°	NA
SA	Seat back angle	21°	21°
HZ	Head to roof	150 mm	131 mm
HH	Head to header	271 mm	248 mm
HW	Head to windshield	461 mm	408 mm
HR	Head to side header	170 mm	178 mm
NR	Nose to rim	347 mm	NA
NA	Nose to rim angle	26°	NA
CD	Chest to dash	518 mm	478 mm
CS	Steering wheel to chest	280 mm	NA
RA	Rim to abdomen	164 mm	NA
KDL	Left knee to dash	149 mm	156 mm
KDR	Right knee to dash	147 mm	142 mm
KDA	Outboard knee to dash angle	32°	35°
PA	Pelvic angle	24°	24.7°
TA	Tibial angle	39°	30°
KK	Knee to knee	331 mm	267 mm
ST[1]	Striker to head	650 mm	665 mm
	Striker to head angle	-54°	-51°
SK[1]	Striker to knee	895 mm	946 mm
	Striker to knee angle	0°	3°
SH[1]	Striker to H-point	566 mm	550 mm
	Striker to H-point angle	16°	14°
SHY	Striker to H-point (Y dir.)	197 mm	213 mm
HS	Head to side window	291 mm	284 mm
HD	H-point to door	103 mm	81 mm
AD	Arm to door	51 mm	70 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
PBU - Top surface of aluminum plate to belt upper edge	300 mm	311 mm
PBI - Top surface of aluminum plate to belt lower edge	228 mm	231 mm
TBI - Dummy centerline to intersection of upper torso belt and lap belt	113 mm	125 mm

Figure 10 Camera Positions

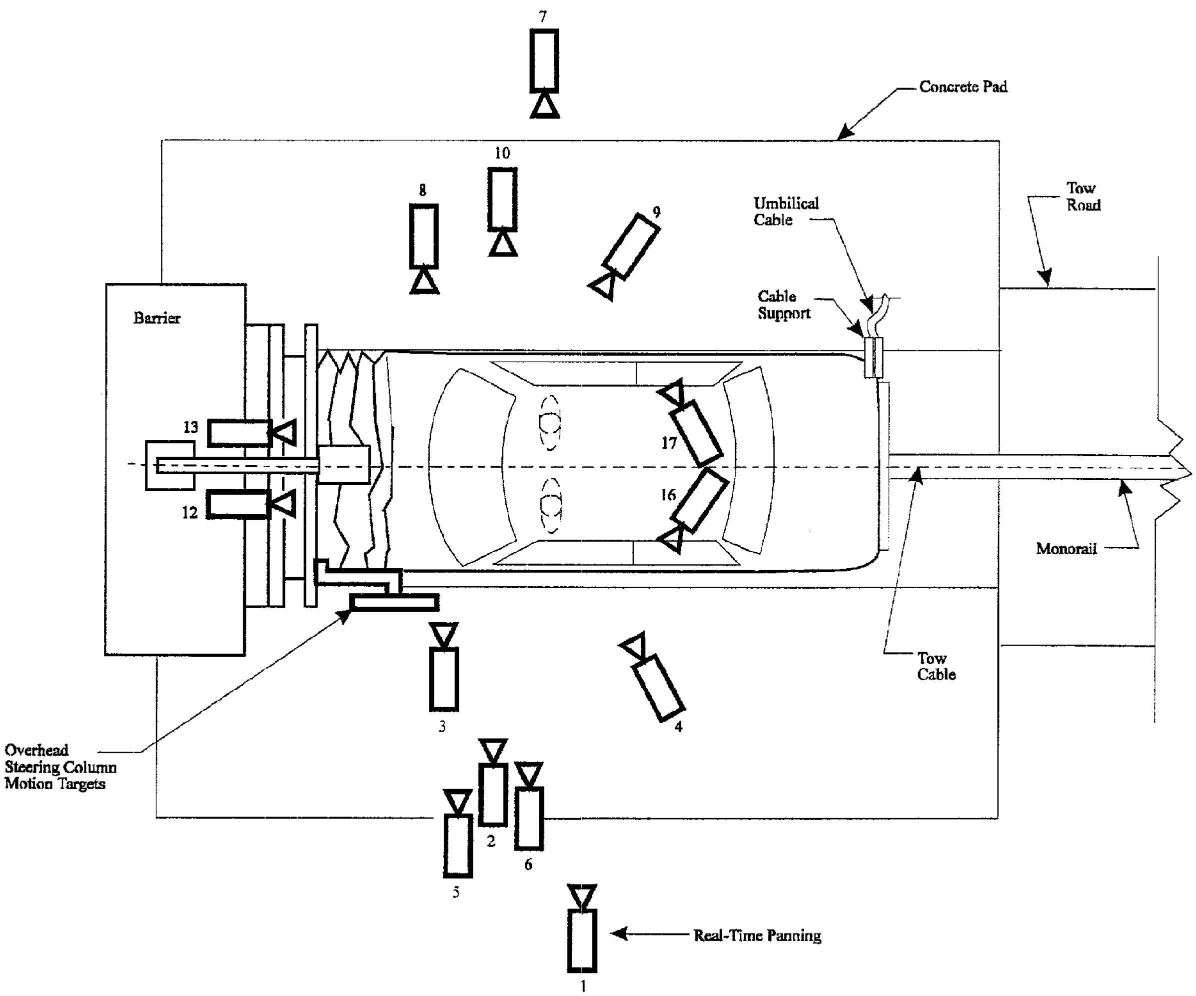


Figure 10 Camera Positions, Cont'd.

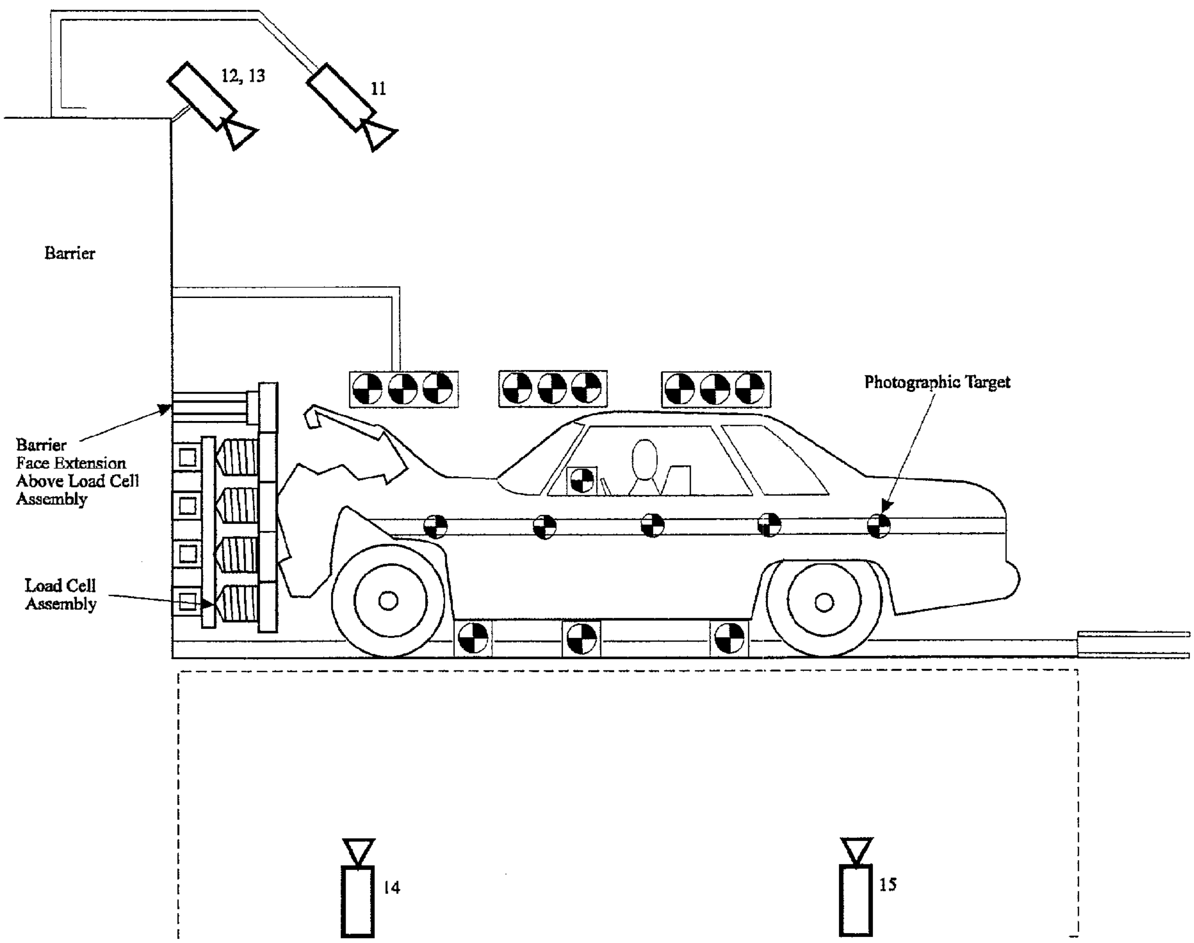


Table 13 Motion Picture Camera Locations

Test Number: 980120

Vehicle Year/Make/Model/Body Style: 1998/Ford/Mustang/2-door coupe

Camera Number	View	Camera Positions[1] X	Y	Z	Angle[2]	Film Plane to Head Target	Lens	Film Speed
1	Real-time panning	-3607 mm	2802 mm	1549 mm	NA	NA	NA	24 frames/s
2	Left Barrier to seat back	-4572 mm	7010 mm	2591 mm	-27°	6400 mm	NA	998 frames/s
3	Left windshield intrusion	-1346 mm	7859 mm	1074 mm	0°	NA	NA	1005 frames/s
4	Dummy angled view	-1054 mm	1524 mm	1118 mm	-12°	2895 mm	NA	693 frames/s
5	Column movement - upper	-3048 mm	8534 mm	2616 mm	-14°	NA	NA	992 frames/s
6	Column movement - lower	-3048 mm	8534 mm	1908 mm	-9°	NA	NA	1002 frames/s
7	Right side overall	-2065 mm	-6767 mm	942 mm	-2°	NA	NA	990 frames/s
8	Right windshield intrusion	-968 mm	-7775 mm	1118 mm	0°	NA	NA	1005 frames/s
9	Passenger angled view	-986 mm	1524 mm	1151 mm	7°	2895 mm	NA	995 frames/s
10	Right medium tight	-4674 mm	6400 mm	2540 mm	-26°	5791 mm	NA	1008 frames/s
11	Windshield - barrier center	-925 mm	0 mm	2489 mm	-40°	NA	NA	1000 frames/s
12	Driver - barrier view	-173 mm	368 mm	2159 mm	-41°	NA	NA	998 frames/s
13	Passenger - barrier view	-114 mm	-351 mm	2159 mm	-40°	NA	NA	1005 frames/s
14	Crush & fluid spillage - front pit	-1283 mm	0 mm	-2347 mm	90°	NA	NA	992 frames/s
15	Fluid spillage - rear pit	-2522 mm	0 mm	-2515 mm	90°	NA	NA	1002 frames/s
16	Driver seat belt movement	NA	NA	NA	NA	NA	NA	NA frames/s
17	Passenger seat belt movement	NA	NA	NA	NA	NA	NA	NA 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]

Figure 11 Vehicle Target Locations

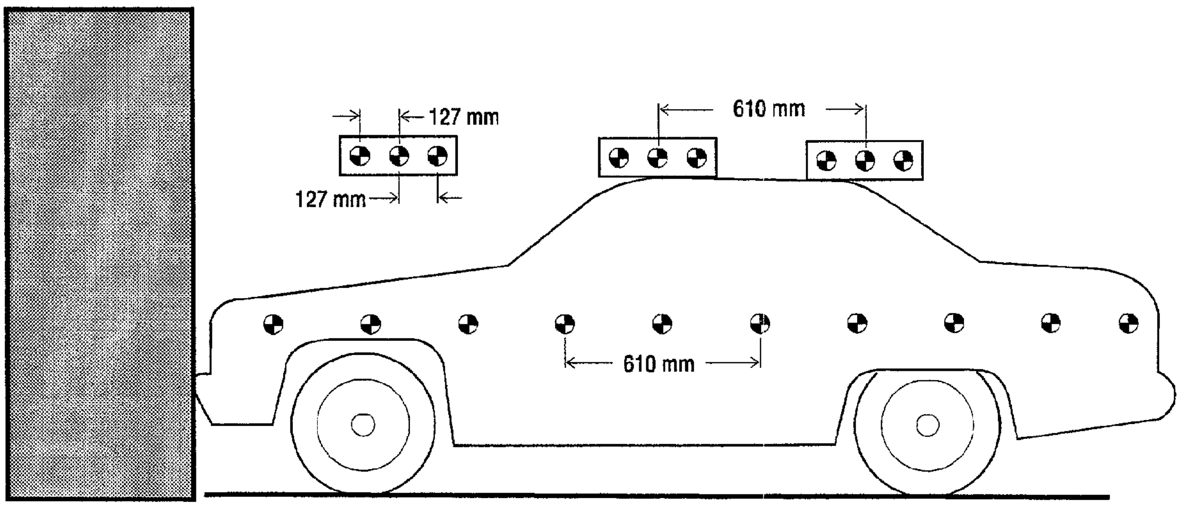


Figure 12 Pre-Test And Post-Test Measurement Points

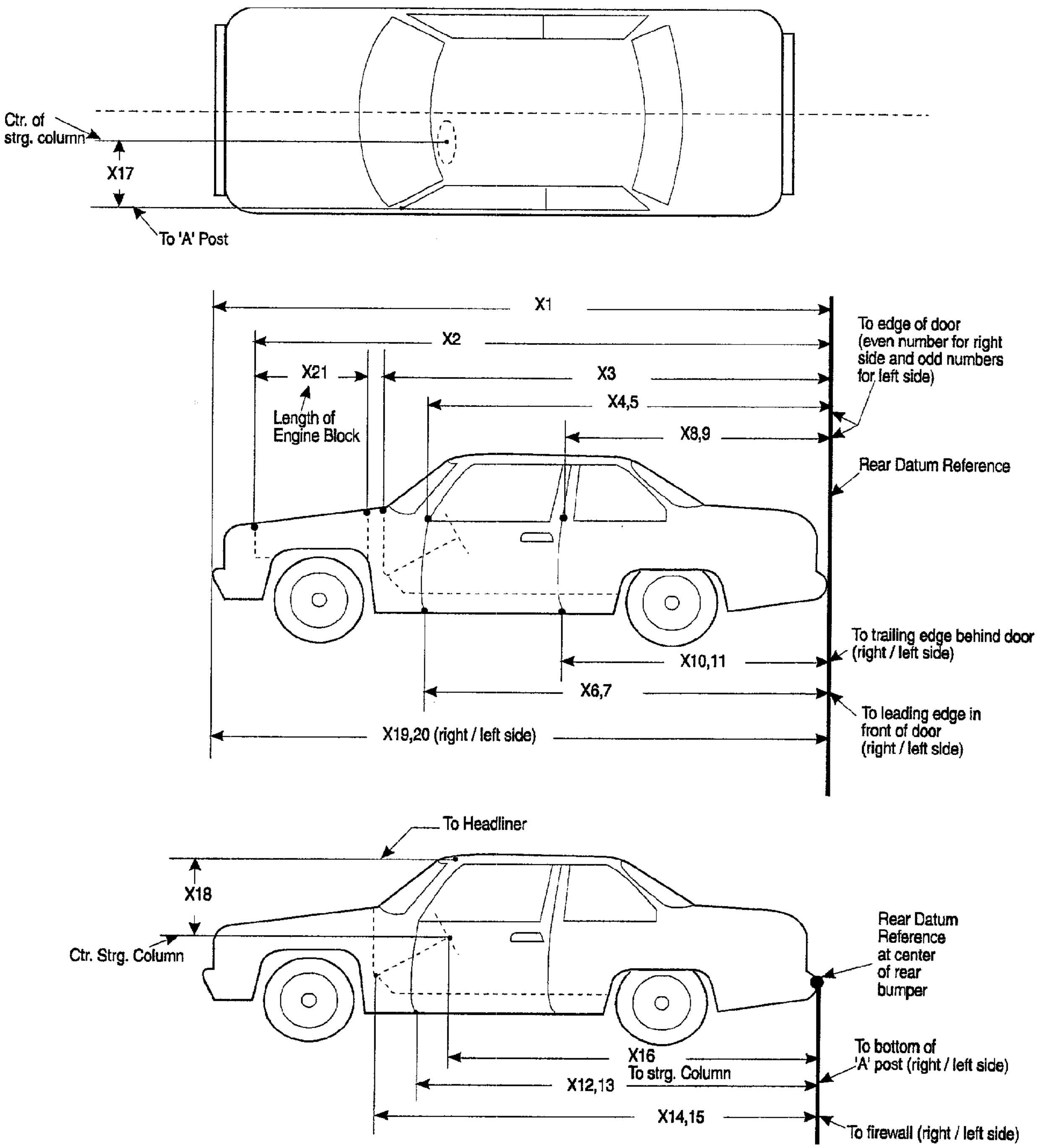


Table 14 Impacted Vehicle Measurements

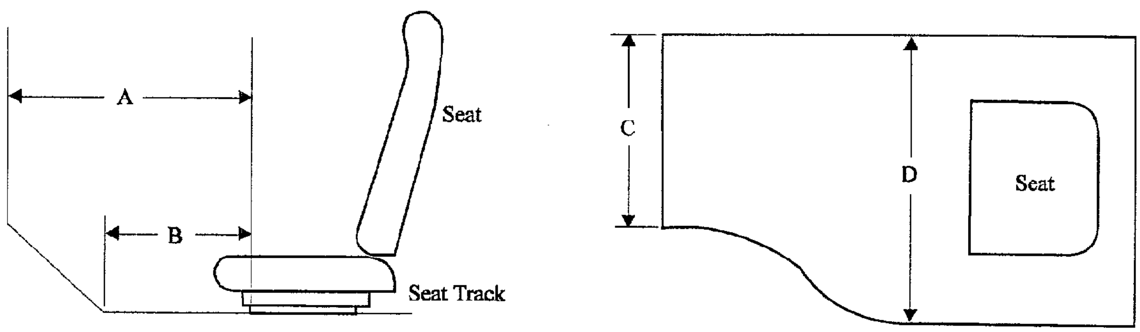
Test number: 980120

Vehicle year/make/model/body style: 1998/Ford/Mustang/2-door coupe

No.	Type of measurement	Pre-test	Post-test	Difference
X1	Total length of vehicle at centerline	4610 mm	4141 mm	469 mm
X2	Rear surface of vehicle to front of engine block	3670 mm	3419 mm	251 mm
X3	Rear surface of vehicle to firewall	3280 mm	3131 mm	149 mm
X4	Rear surface of vehicle to upper leading edge of right door	2933 mm	2926 mm	7 mm
X5	Rear surface of vehicle to upper leading edge of left door	2962 mm	2954 mm	8 mm
X6	Rear surface of vehicle to lower leading edge of right door	2992 mm	2972 mm	20 mm
X7	Rear surface of vehicle to lower leading edge of left door	2990 mm	2972 mm	18 mm
X8	Rear surface of vehicle to upper trailing edge of right door	1669 mm	1669 mm	0 mm
X9	Rear surface of vehicle to upper trailing edge of left door	1670 mm	1665 mm	5 mm
X10	Rear surface of vehicle to lower trailing edge of right door	1706 mm	1686 mm	20 mm
X11	Rear surface of vehicle to lower trailing edge of left door	1712 mm	1695 mm	17 mm
X12	Rear surface of vehicle to bottom of "A" post on right side	2906 mm	2900 mm	6 mm
X13	Rear surface of vehicle to bottom of "A" post on left side	2914 mm	2907 mm	7 mm
X14	Rear surface of vehicle to firewall - right side	3255 mm	3119 mm	136 mm
X15	Rear surface of vehicle to firewall - left side	3270 mm	3180 mm	90 mm
X16	Rear surface of vehicle to steering wheel center	2562 mm	2588 mm	-26 mm
X17	Center of steering column to "A" post	315 mm	282 mm	33 mm
X18	Center of steering column to headliner	432 mm	383 mm	49 mm
X19	Rear surface of vehicle to right side of front bumper	4500 mm	4050 mm	450 mm
X20	Rear surface of vehicle to left side of front bumper	4495 mm	4069 mm	426 mm
X21	Length of engine block	343 mm	343 mm	0 mm

Figure 13 Vehicle Intrusion Measurements

Static Footwell Deformation



Driver's Side

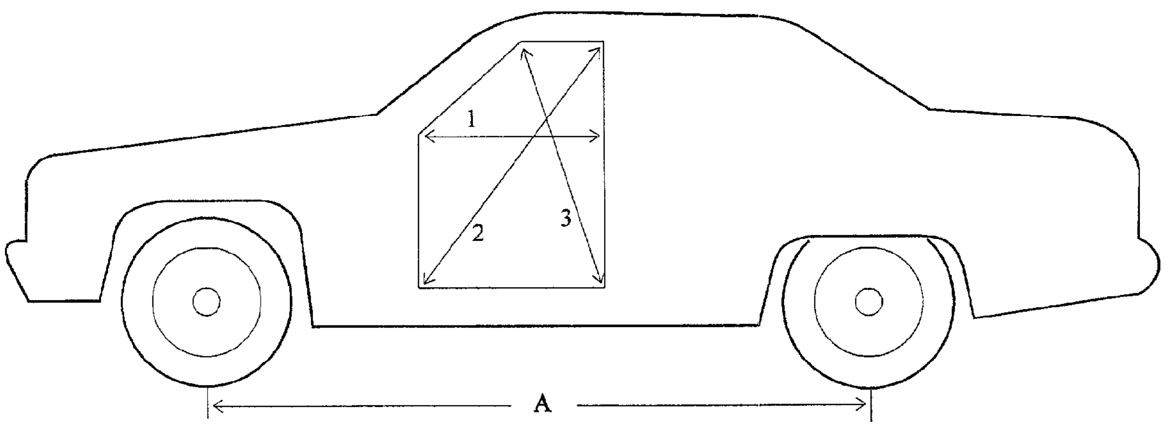
Measurement	Pre-Test	Post-Test	Difference
A	670 mm	666 mm	4 mm
B	569 mm	543 mm	26 mm
C	351 mm	340 mm	11 mm
D	369 mm	367 mm	2 mm

Passenger's Side

Measurement	Pre-Test	Post-Test	Difference
A	641 mm	628 mm	13 mm
B	574 mm	566 mm	8 mm
C	300 mm	301 mm	-1 mm
D	322 mm	323 mm	1 mm

Figure 14 Vehicle Intrusion Measurements

Door Opening Width

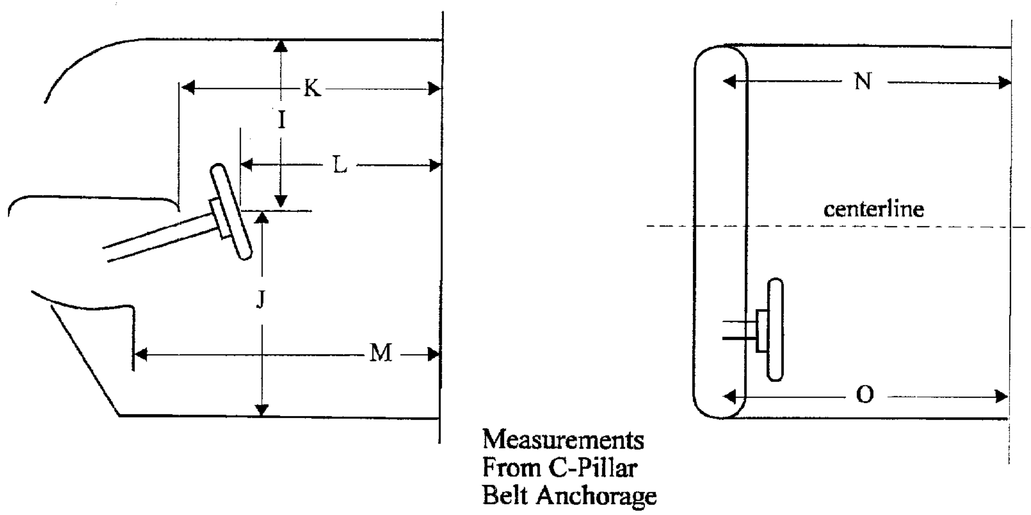


Units (mm)	Left			Right		
Measurement	1	2	3	1	2	3
Pre-Test	1249 mm	1544 mm	1095 mm	1254 mm	1553 mm	1075 mm
Post-Test	1253 mm	1554 mm	1094 mm	1252 mm	1547 mm	1088 mm
Difference	-4 mm	-10 mm	1 mm	2 mm	6 mm	-13 mm

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	2550 mm	2550 mm
Post-Test	2478 mm	2502 mm
Difference	72 mm	48 mm

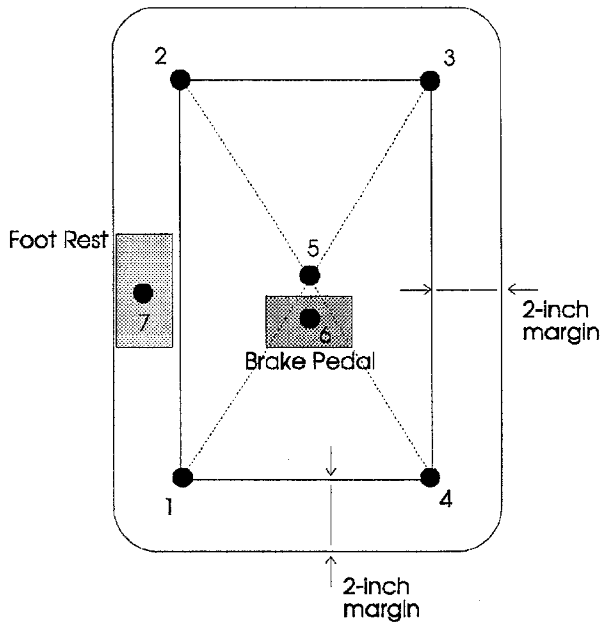
Figure 15 Vehicle Intrusion Measurements

Static Passenger Compartment Intrusion



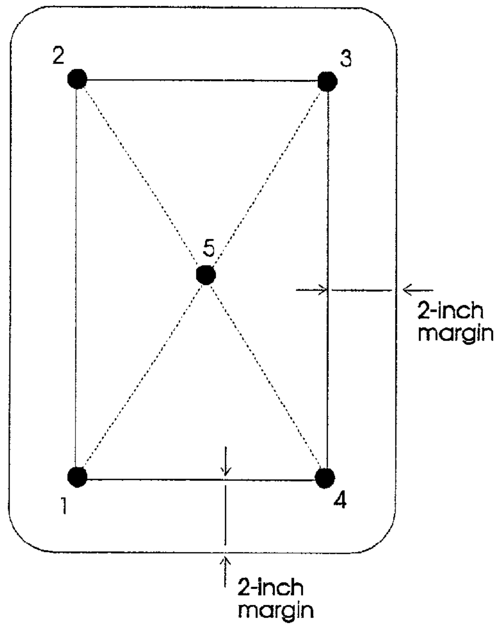
Measurement	Pre-Test	Post-Test	Difference
I	444 mm	366 mm	78 mm
J	513 mm	569 mm	-56 mm
K (driver's side)	1708 mm	1695 mm	13 mm
L	1464 mm	1483 mm	-19 mm
M (driver's side)	1400 mm	1400 mm	0 mm
N	1531 mm	1535 mm	-4 mm
O	1444 mm	1439 mm	5 mm
Passenger's side	1741 mm	1741 mm	0 mm
Passenger's side	1414 mm	1395 mm	19 mm

Figure 16 Driver Toeboard Measurements



Driver Side		X	Z
1	Pre-Test	890	170
	Post-Test	882	230
	Crush	8	-60
2	Pre-Test	1292	269
	Post-Test	1303	220
	Crush	-11	49
3	Pre-Test	1300	269
	Post-Test	1331	262
	Crush	-31	7
4	Pre-Test	899	213
	Post-Test	911	213
	Crush	-12	0
5	Pre-Test	1097	170
	Post-Test	1100	190
	Crush	-3	-20
6	Pre-Test	1299	342
	Post-Test	1151	408
	Crush	148	-66
7	Pre-Test	1369	437
	Post-Test	1366	413
	Crush	3	24

Figure 17 Passenger Toeboard Measurements



Passenger Side		X	Z
1	Pre-Test	837	315
	Post-Test	859	198
	Crush	-22	117
2	Pre-Test	1255	239
	Post-Test	1222	278
	Crush	33	-39
3	Pre-Test	1189	239
	Post-Test	1264	180
	Crush	-75	59
4	Pre-Test	858	247
	Post-Test	855	198
	Crush	3	49
5	Pre-Test	1169	247
	Post-Test	1069	178
	Crush	100	69
6	Pre-Test	N/A	N/A
	Post-Test	N/A	N/A
	Crush	N/A	N/A
7	Pre-Test	N/A	N/A
	Post-Test	N/A	N/A
	Crush	N/A	N/A

Figure A-1 Pre-Test Front View

Figure A-2 Post-Test Front View

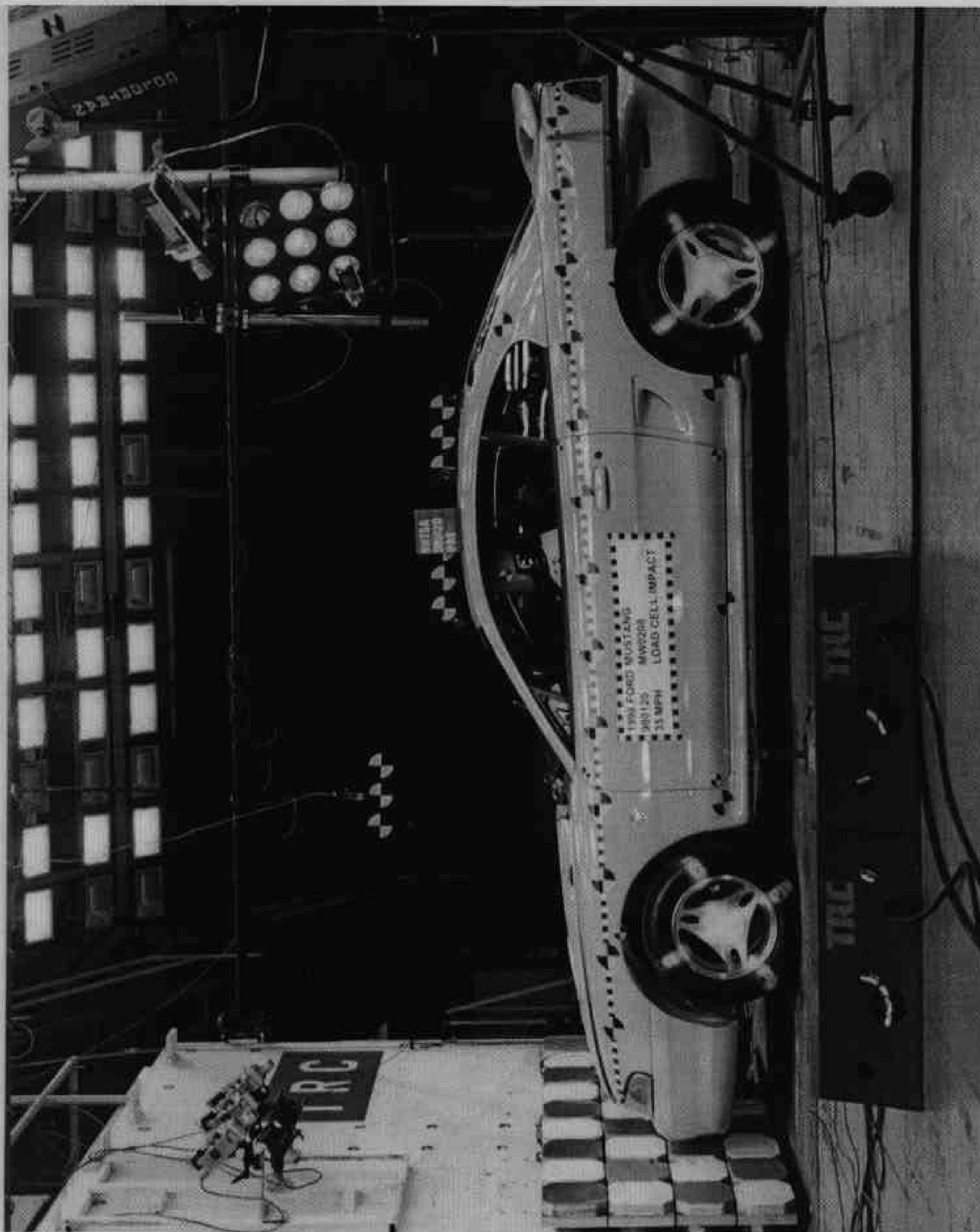


Figure A-3 Pre-Test Left Side View

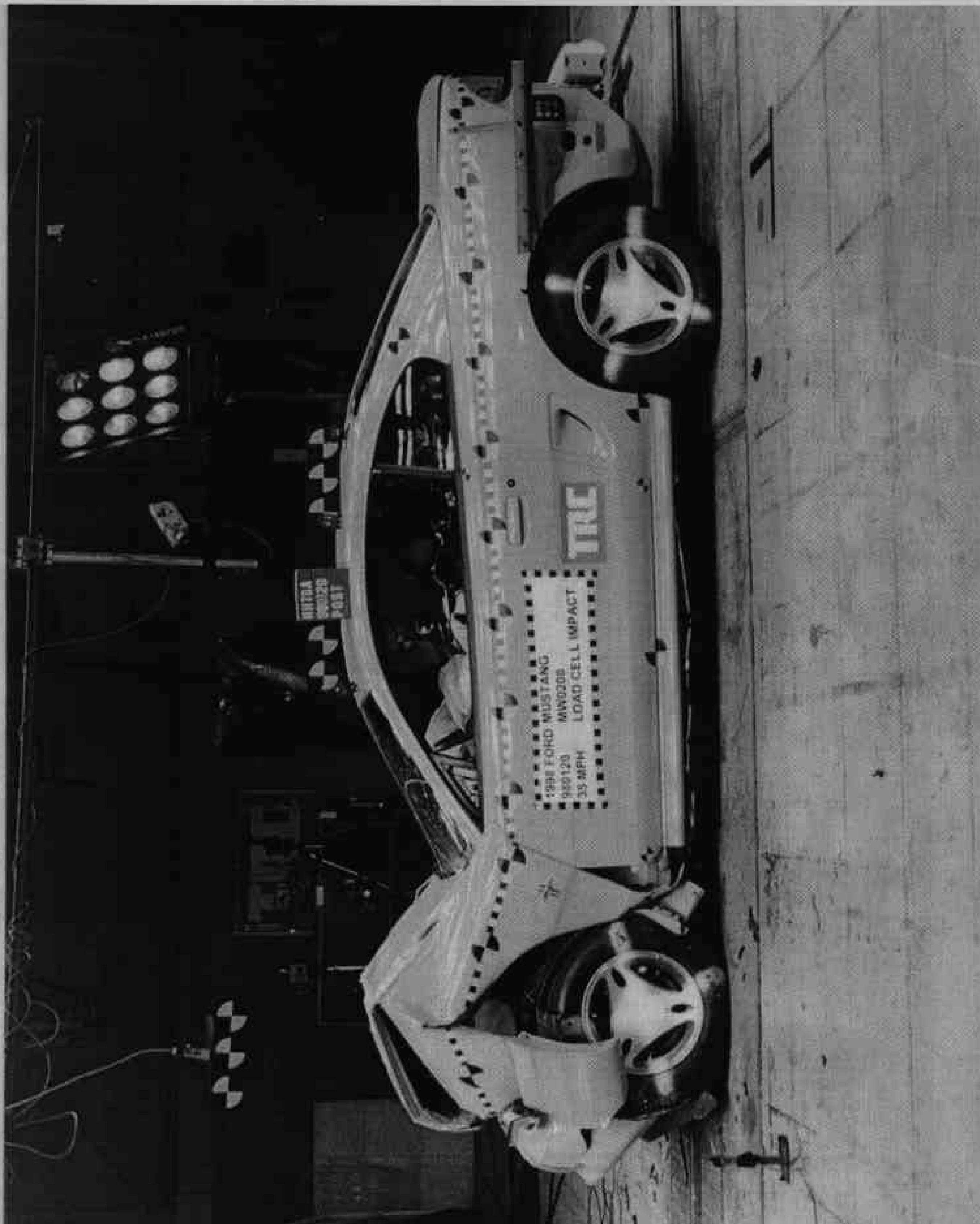


Figure A-4 Post-Test Left Side View

Figure A-5 Pre-Test Rear View

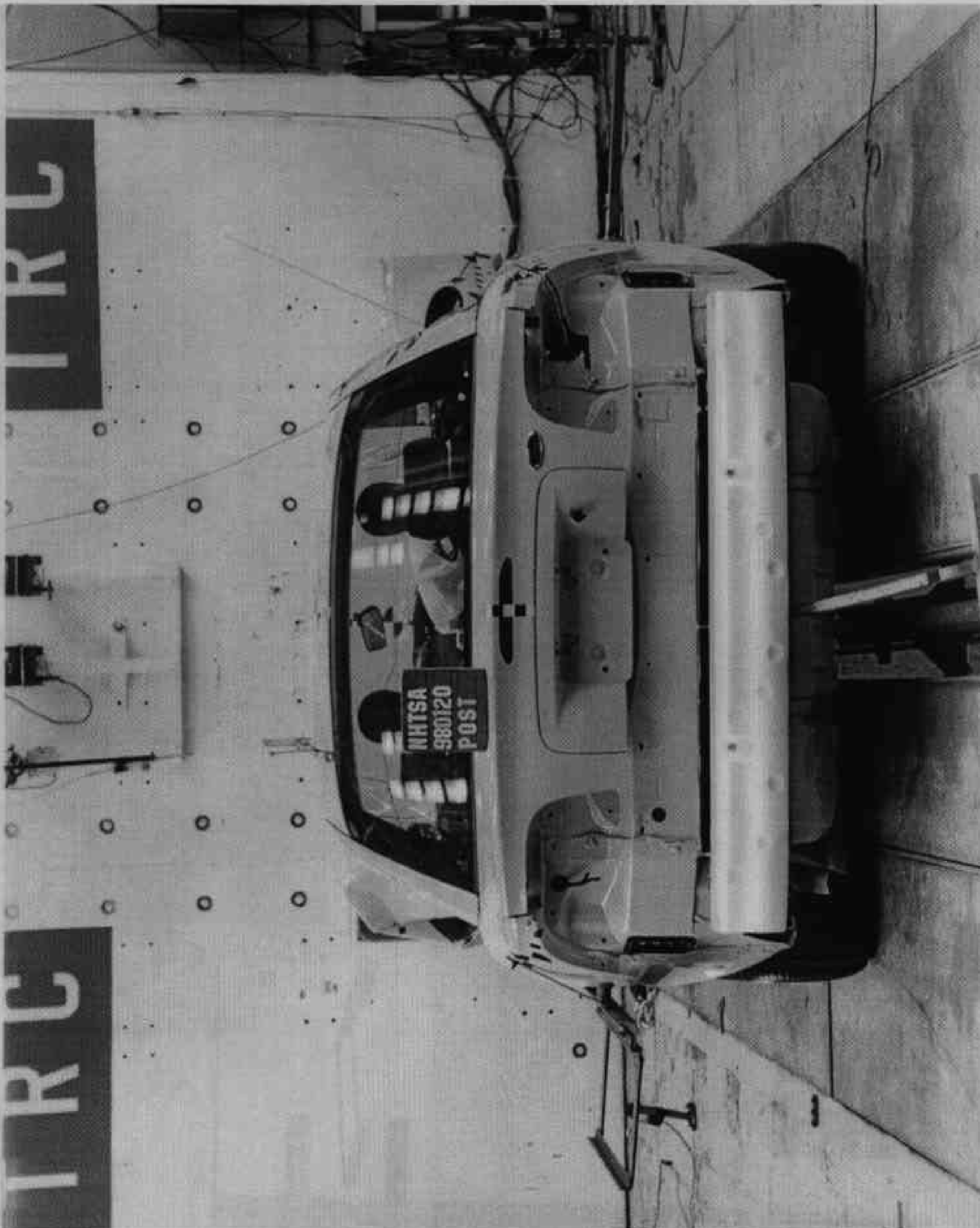


Figure A-6 Post-Test Rear View

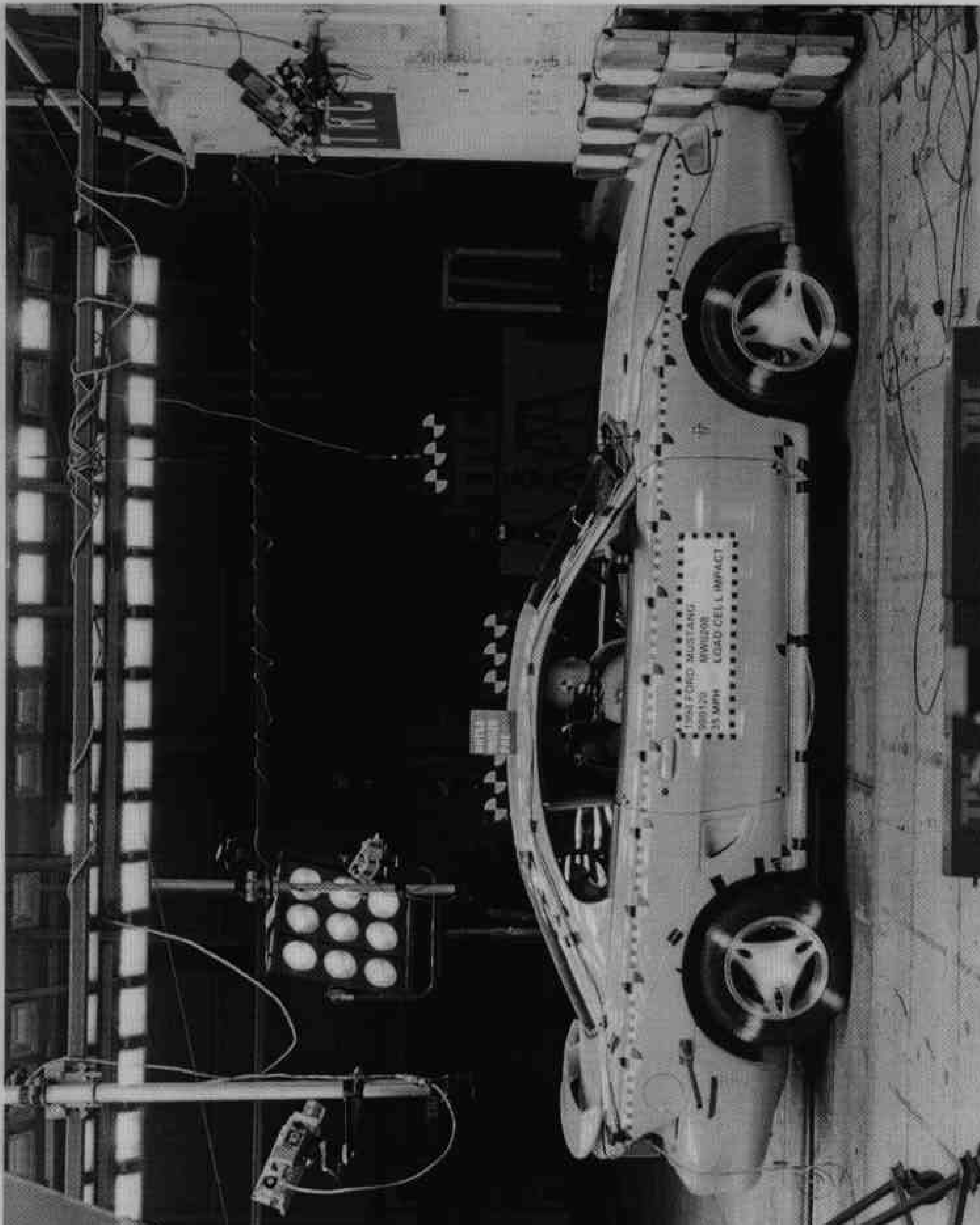


Figure A-7 Pre-Test Right Side View

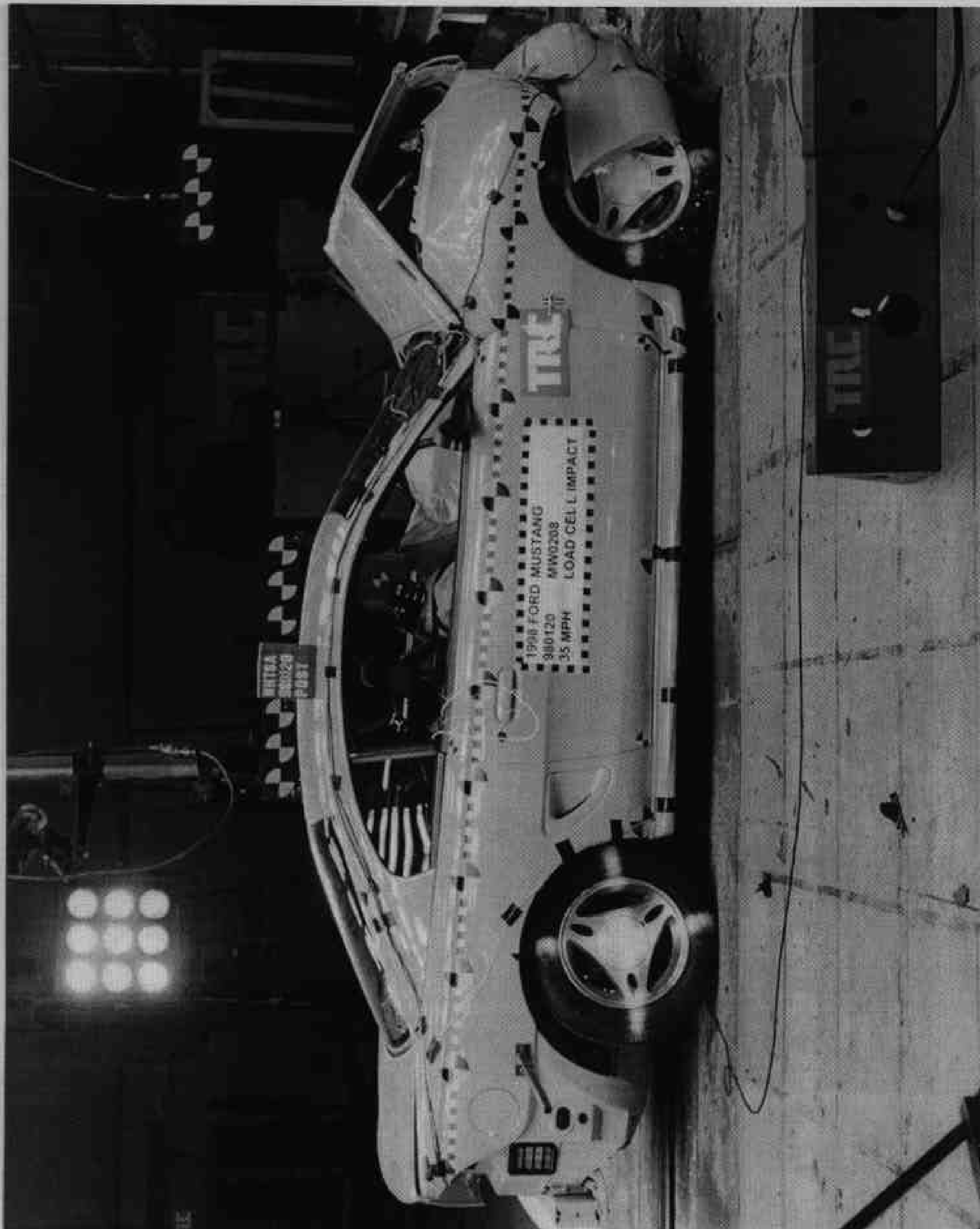


Figure A-8 Post-Test Right Side View

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

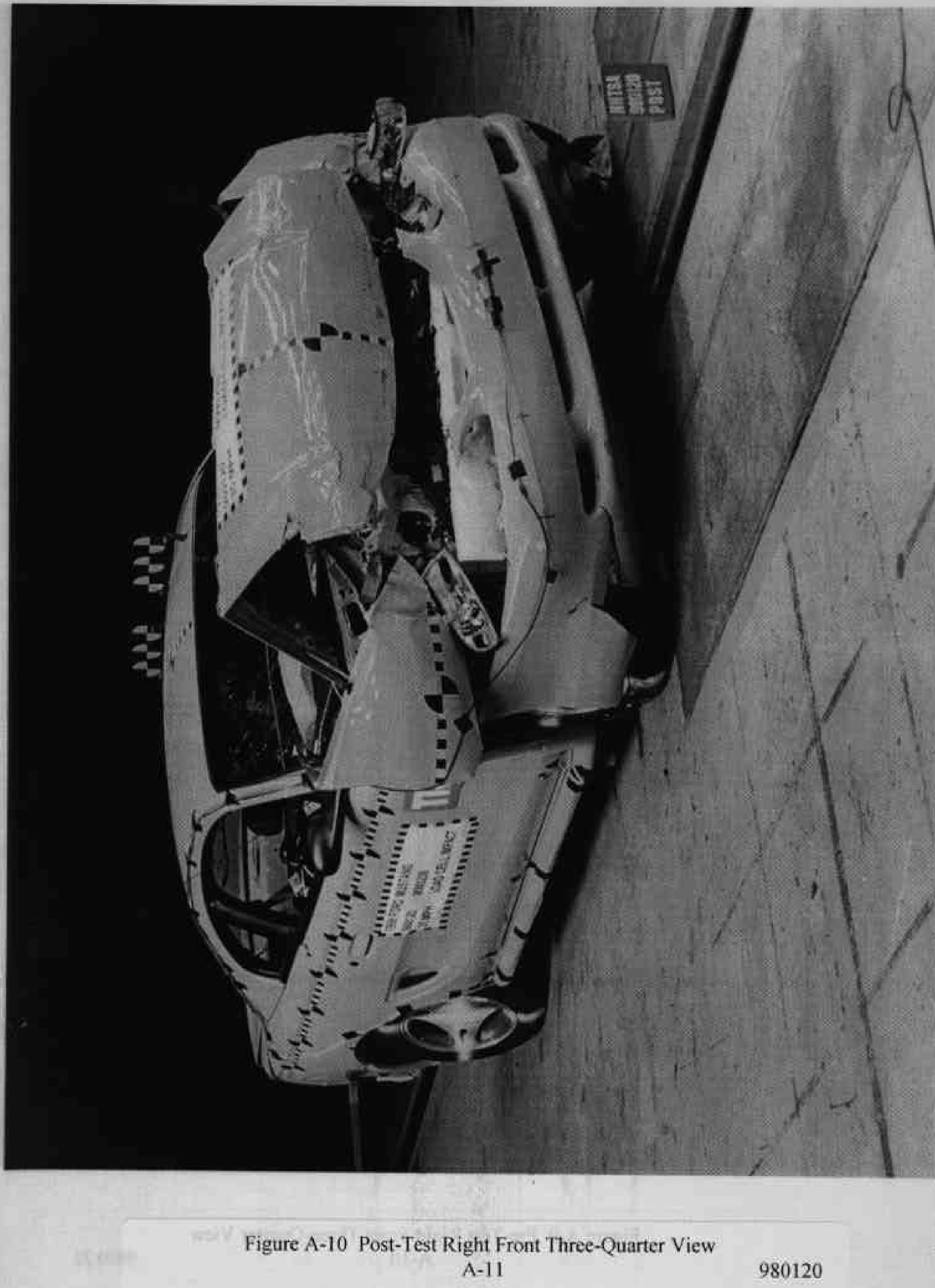


Figure A-10 Post-Test Right Front Three-Quarter View

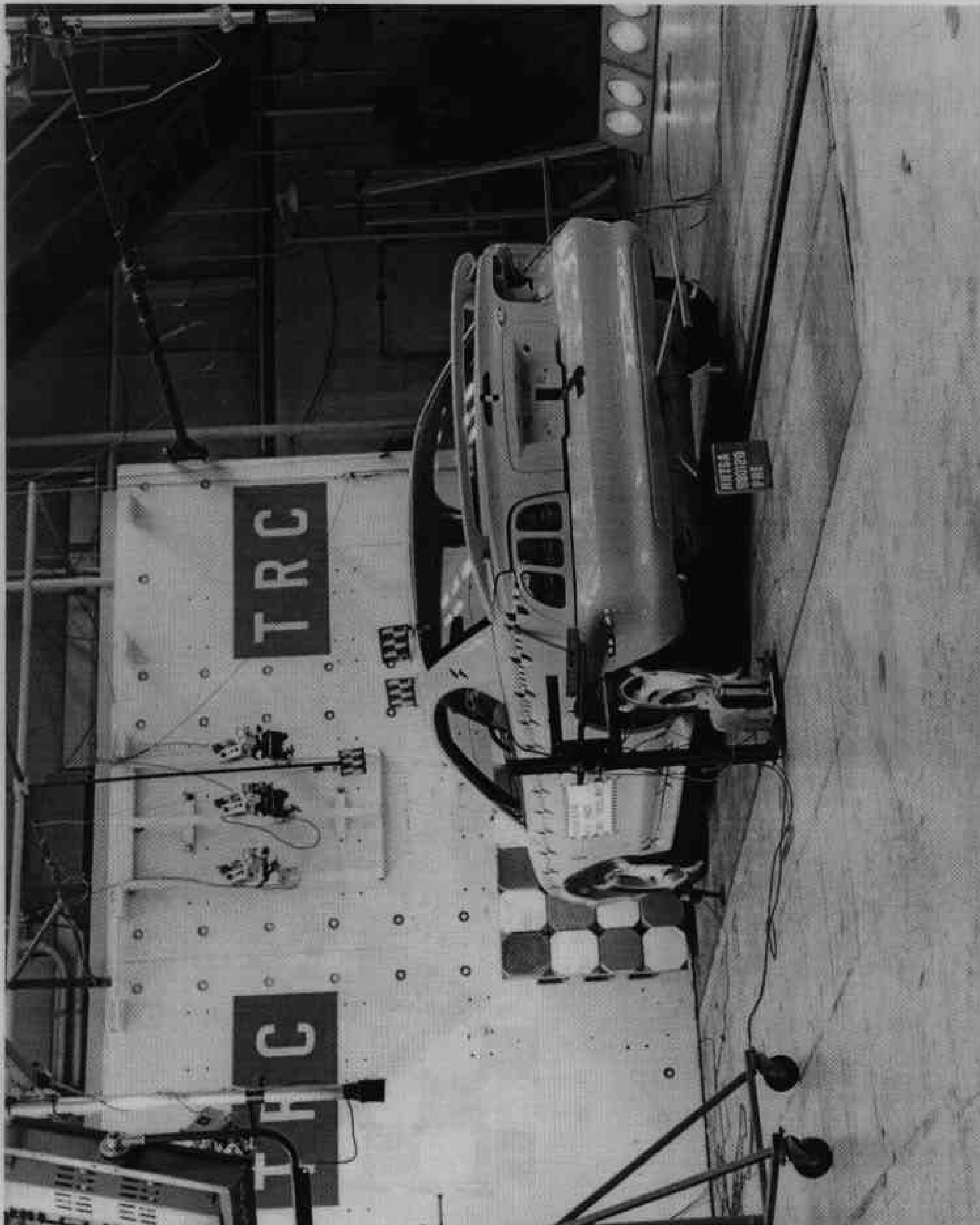


Figure A-11 Pre-Test Left Rear Three-Quarter View

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

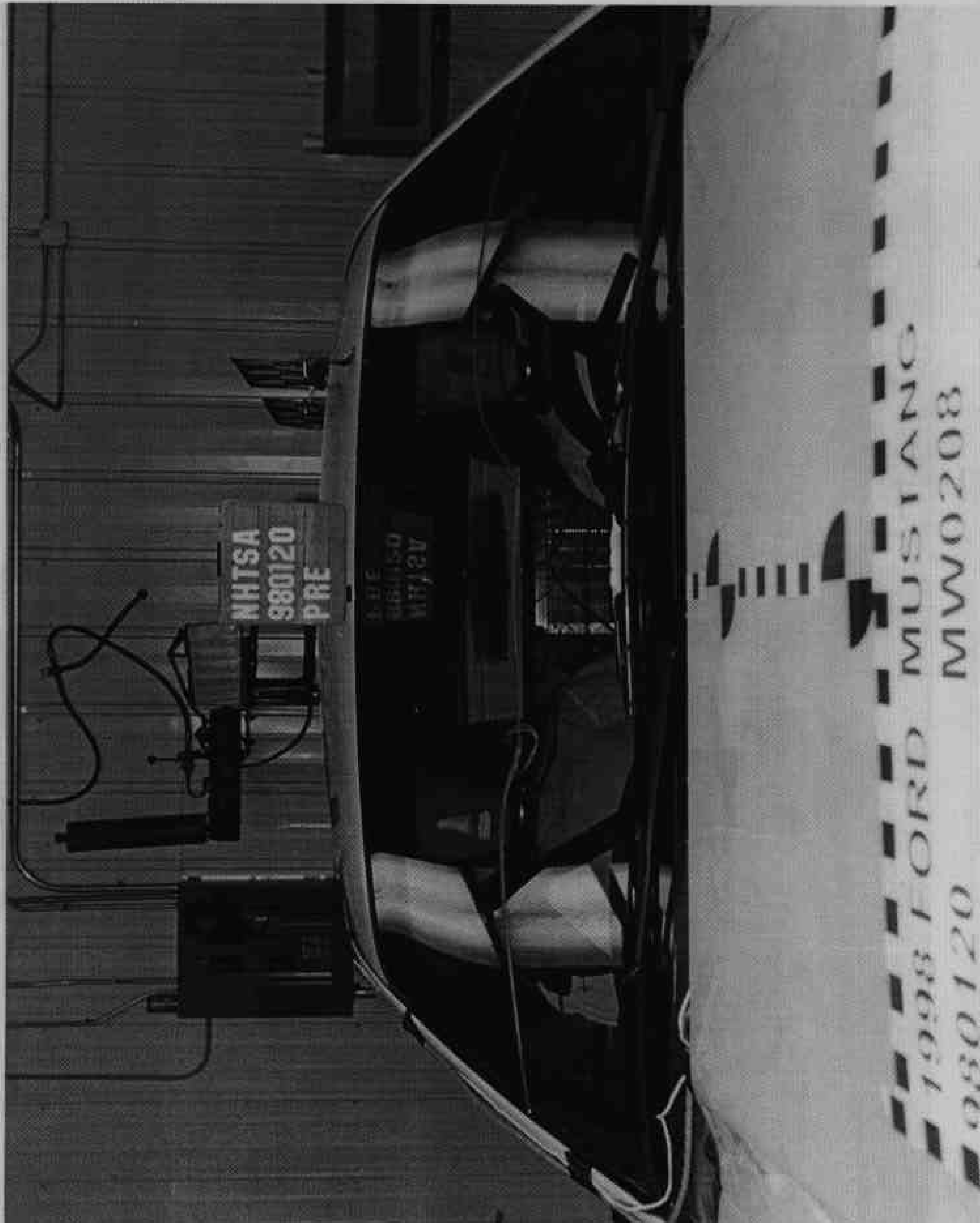


Figure A-13 Pre-Test Windshield View

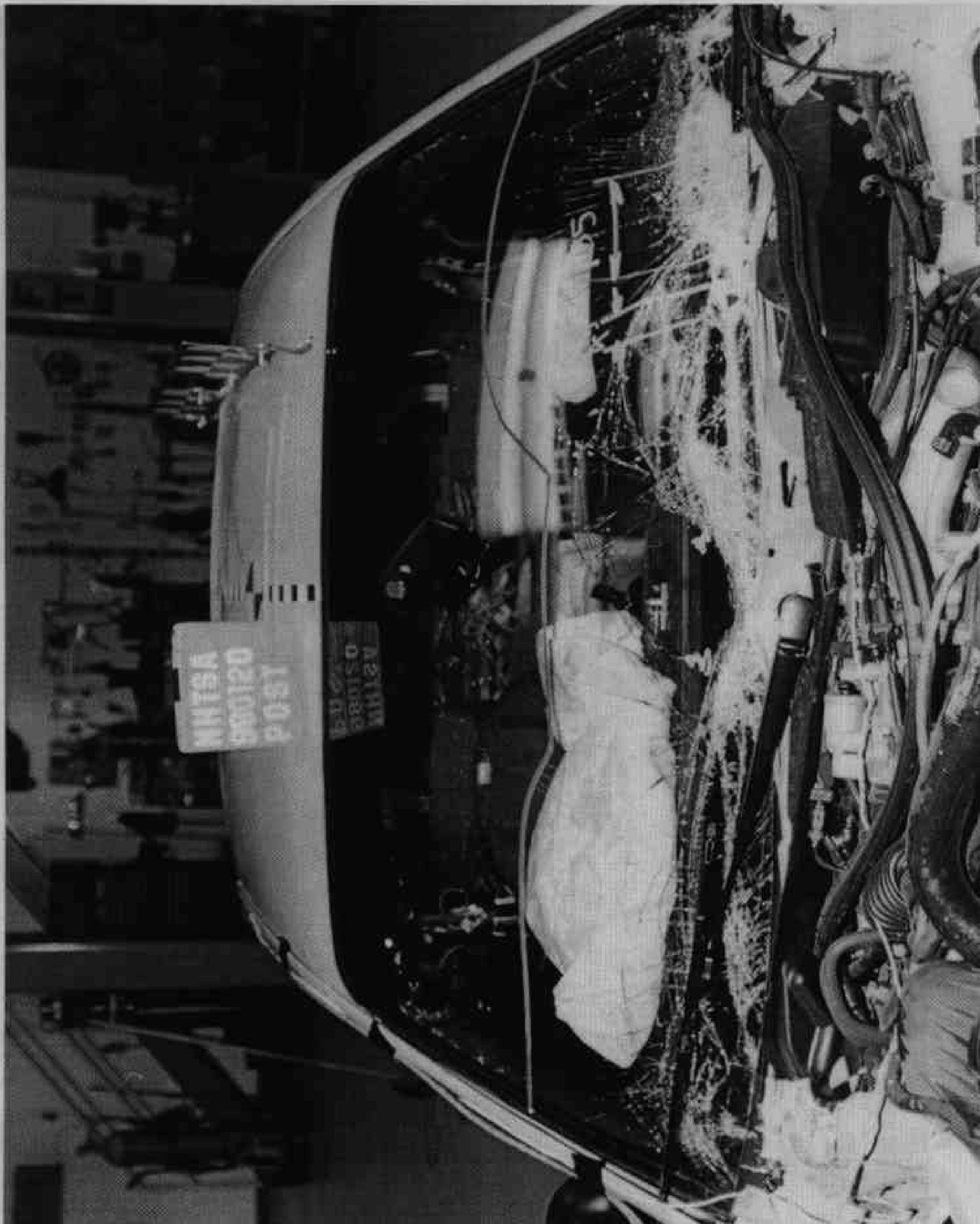


Figure A-14 Post-Test Windshield View

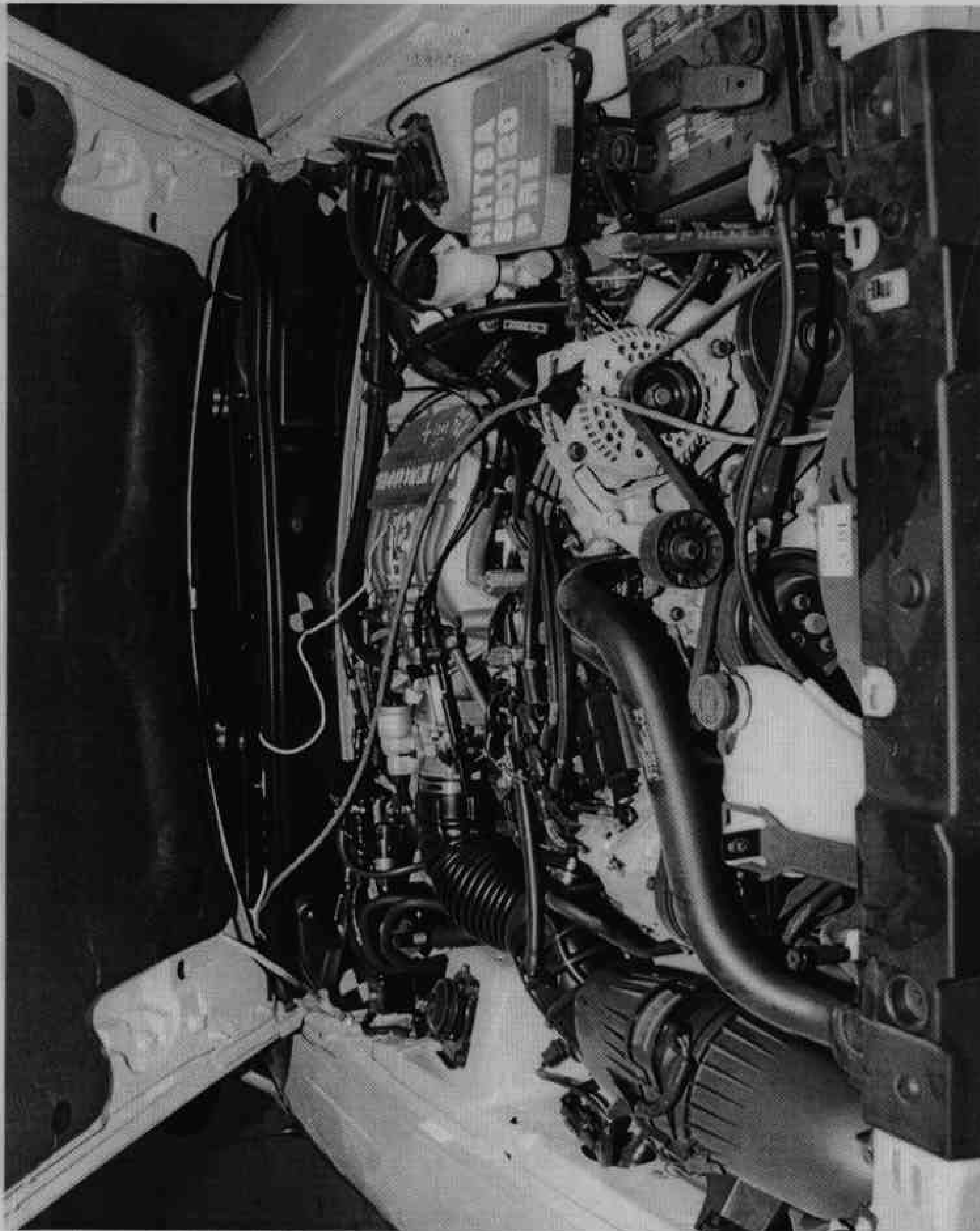


Figure A-15 Pre-Test Engine Compartment View

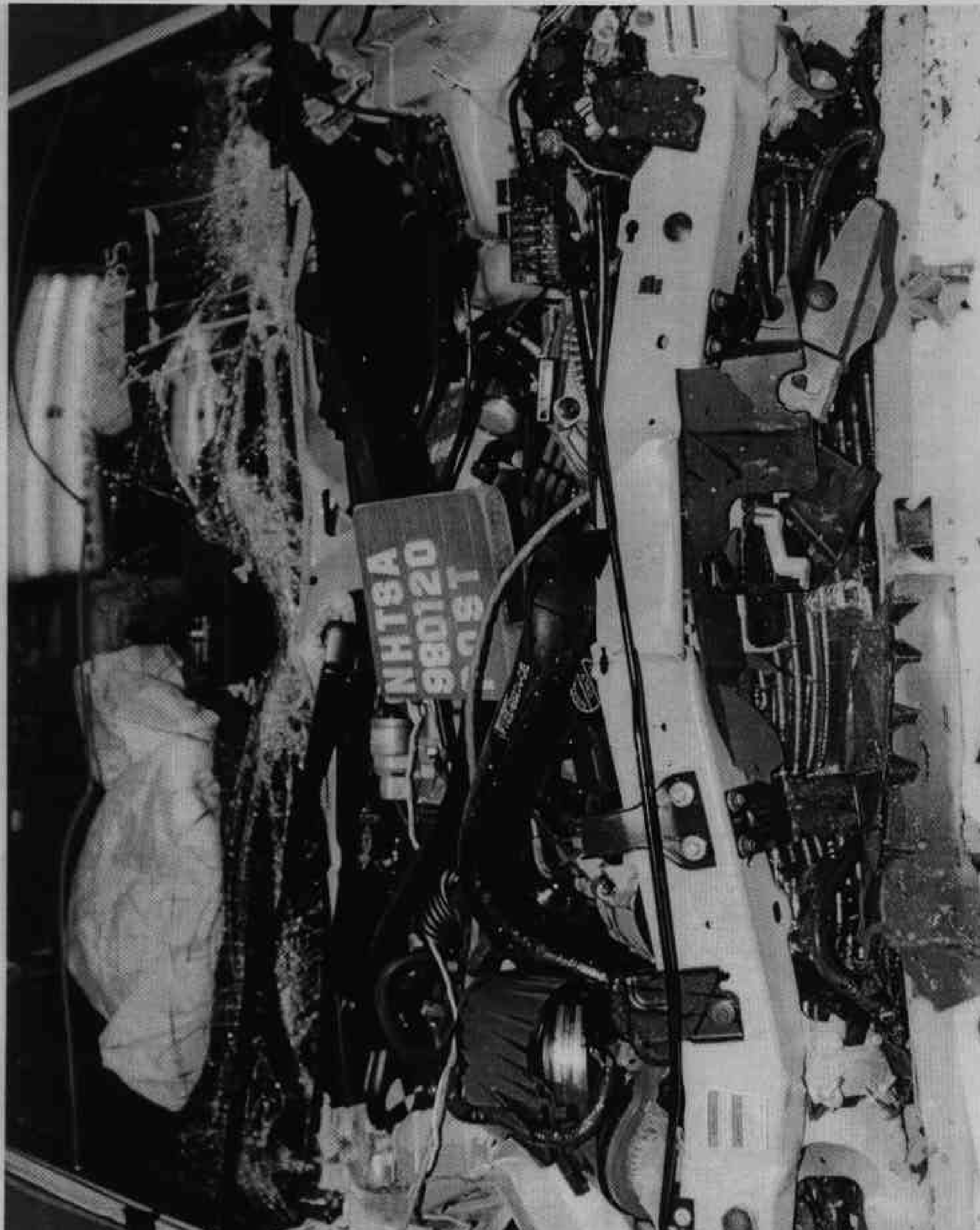


Figure A-16 Post-Test Engine Compartment View

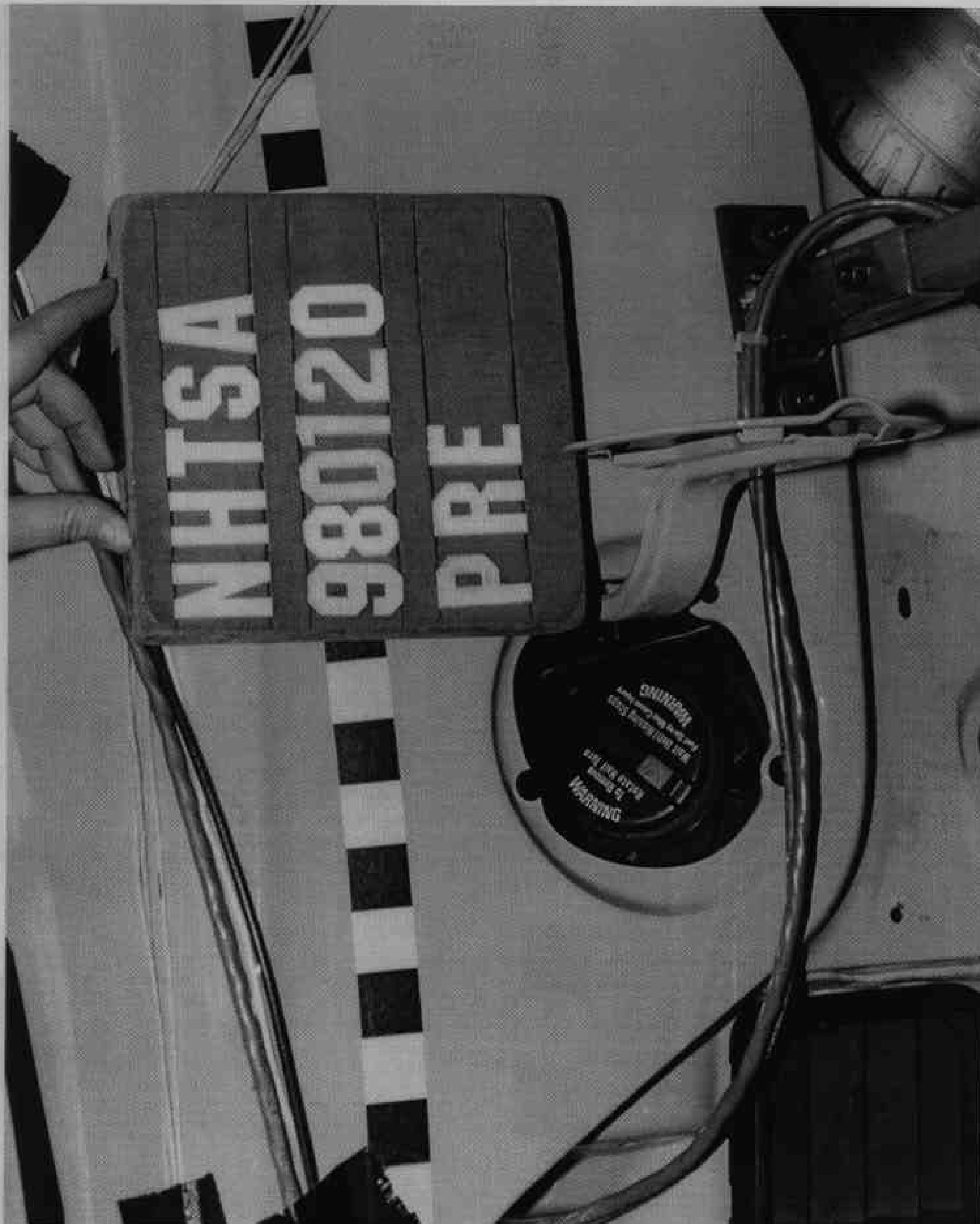


Figure A-17 Pre-Test Fuel Filler Cap View

Figure A-18 Post-Test Fuel Filler Cap View

Figure A-19 Pre-Test Fuel Filler Neck View

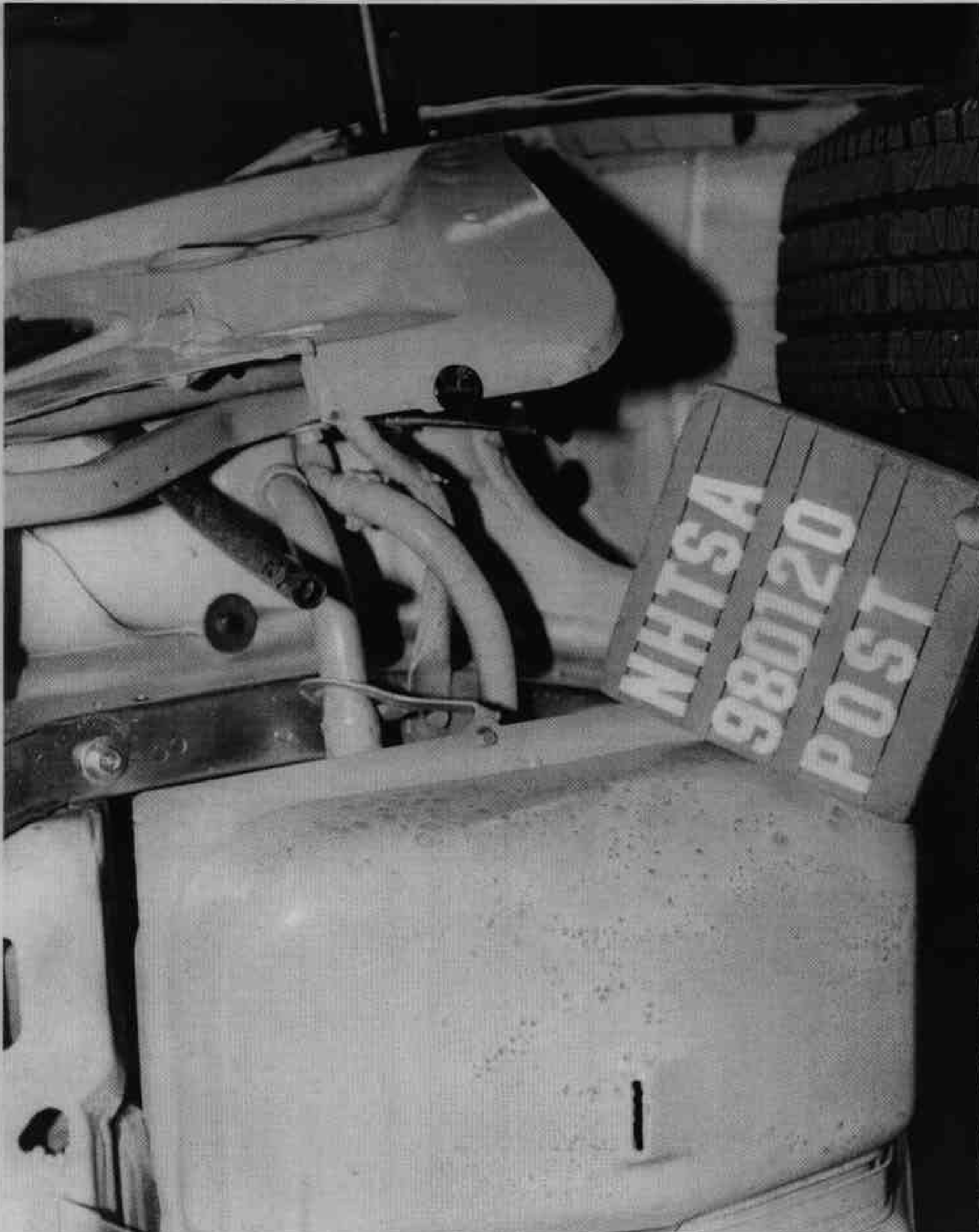


Figure A-20 Post-Test Fuel Filler Neck View

Figure A-21 Pre-Test Fuel Tank View

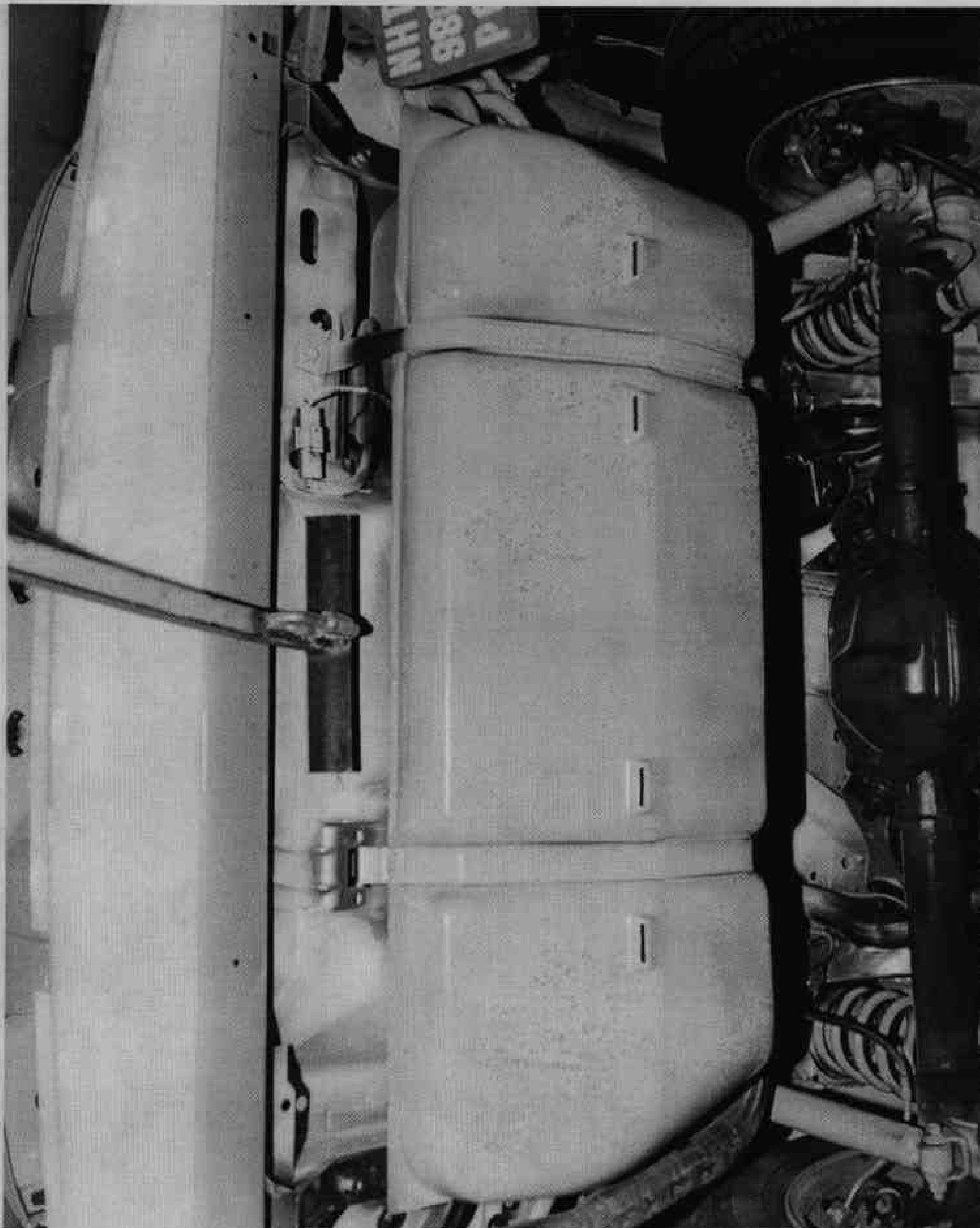


Figure A-22 Post-Test Fuel Tank View

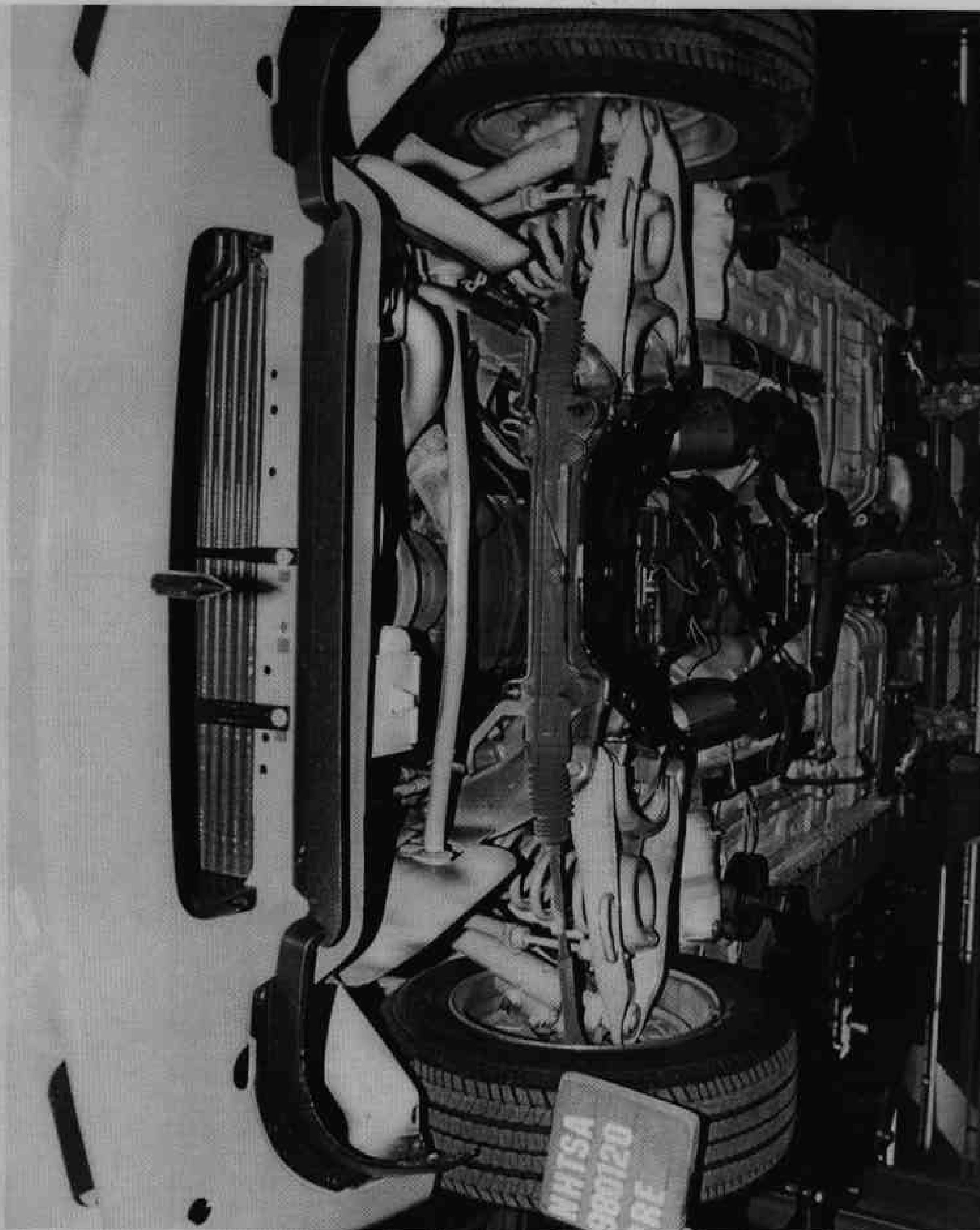


Figure A-23 Pre-Test Front Underbody View

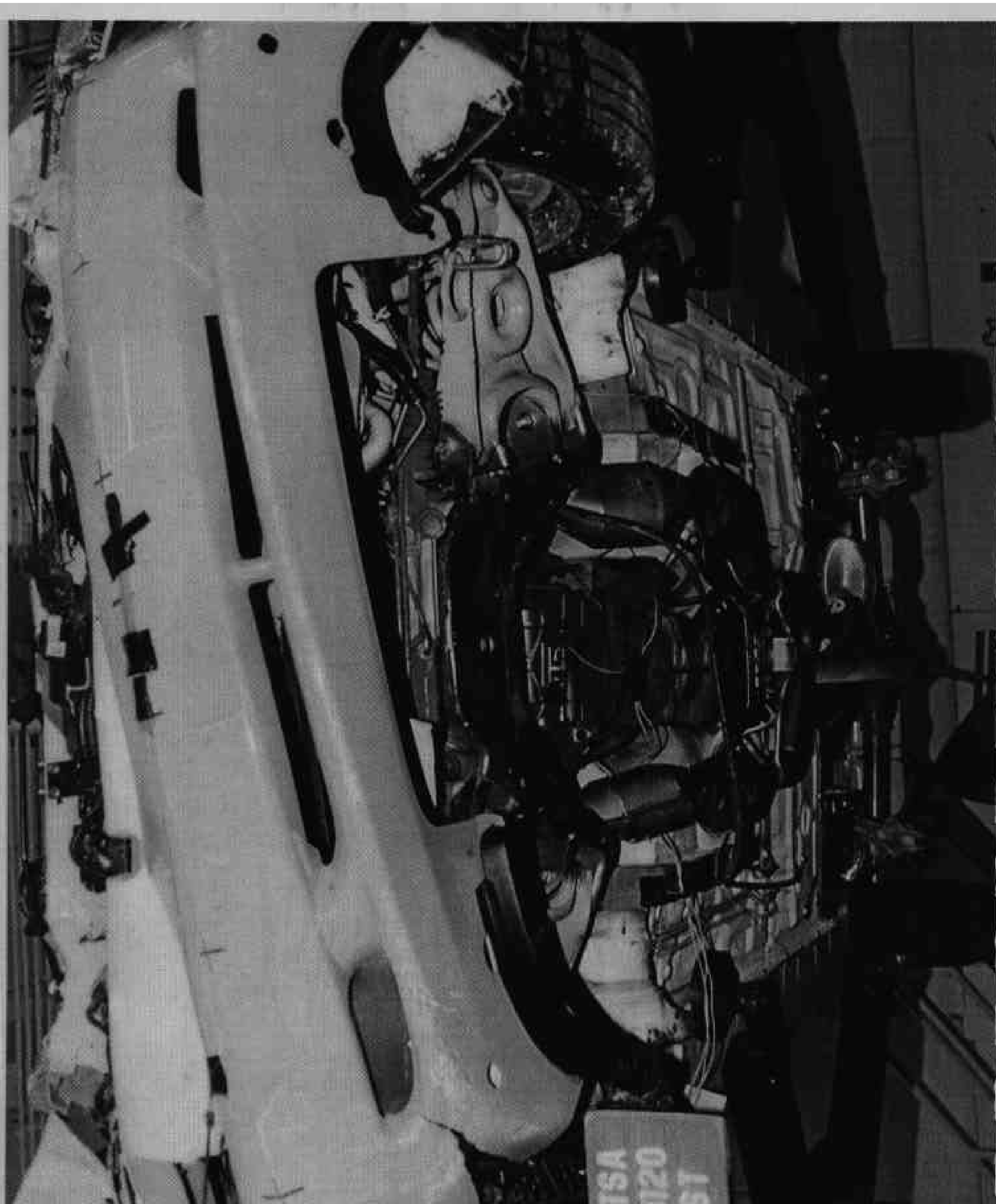


Figure A-24 Post-Test Front Underbody View

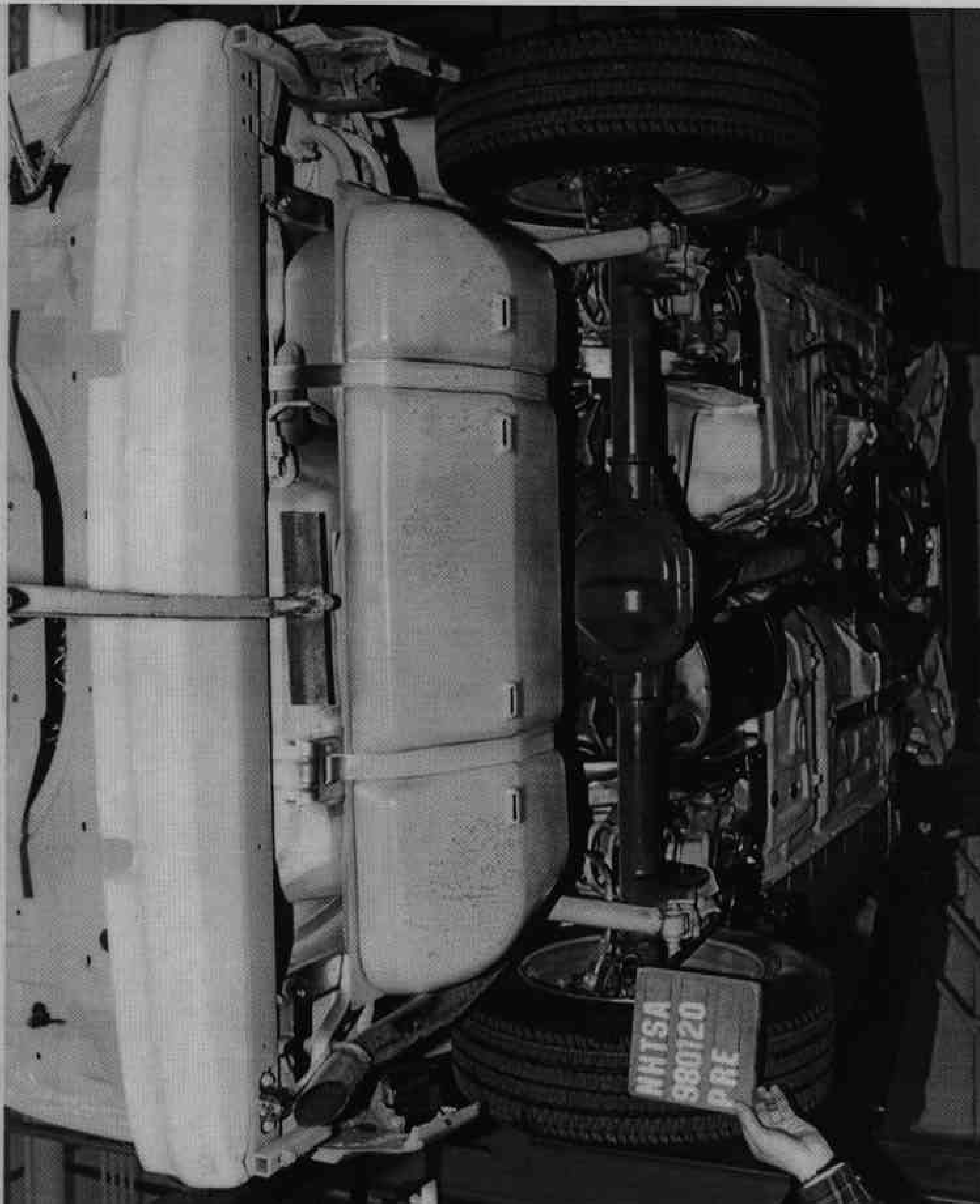


Figure A-25 Pre-Test Rear Underbody View

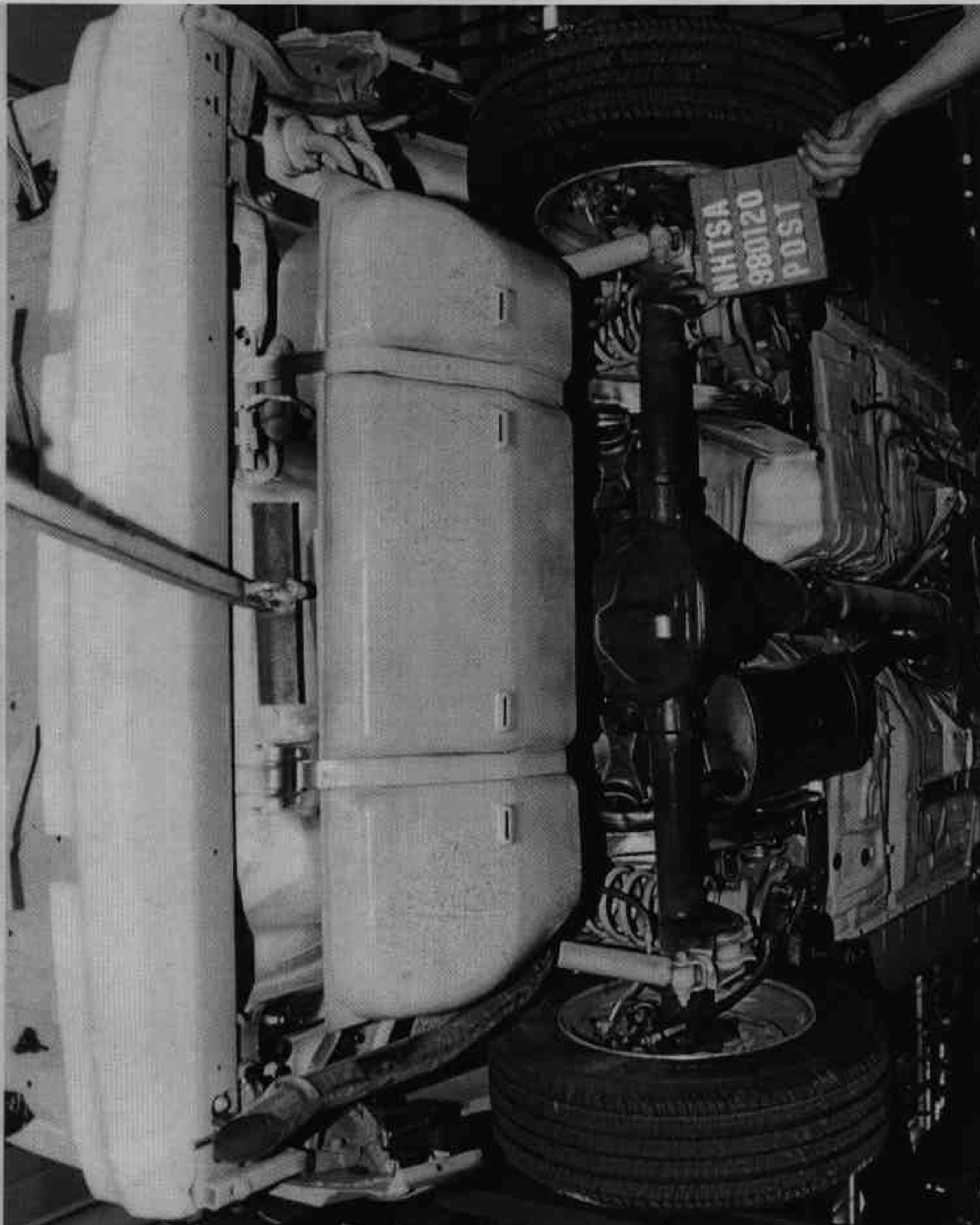


Figure A-26 Post-Test Rear Underbody View

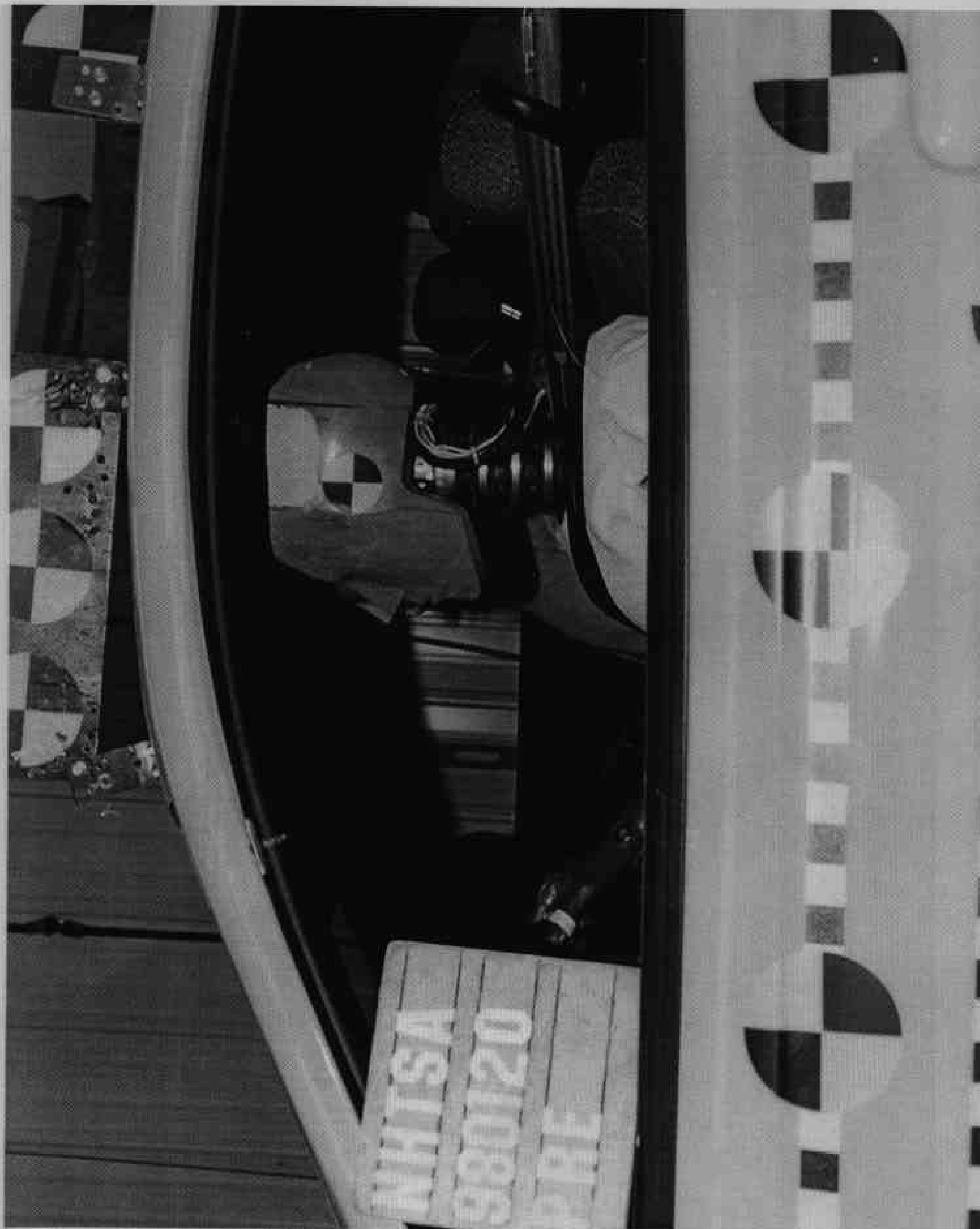


Figure A-27 Pre-Test Driver Dummy Position View

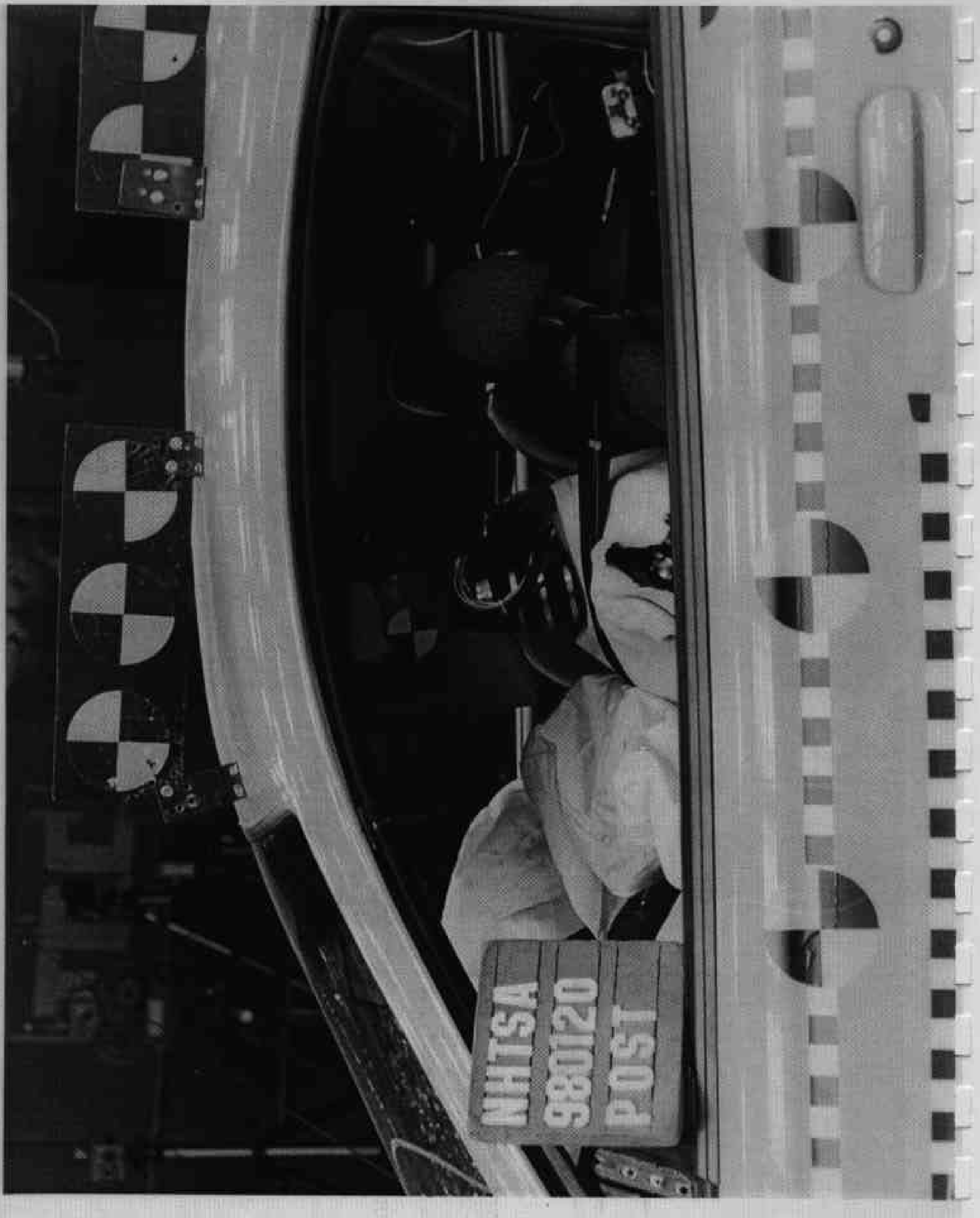


Figure A-28 Post-Test Driver Dummy Position View

Figure A-29 Pre-Test Passenger Dummy Position View

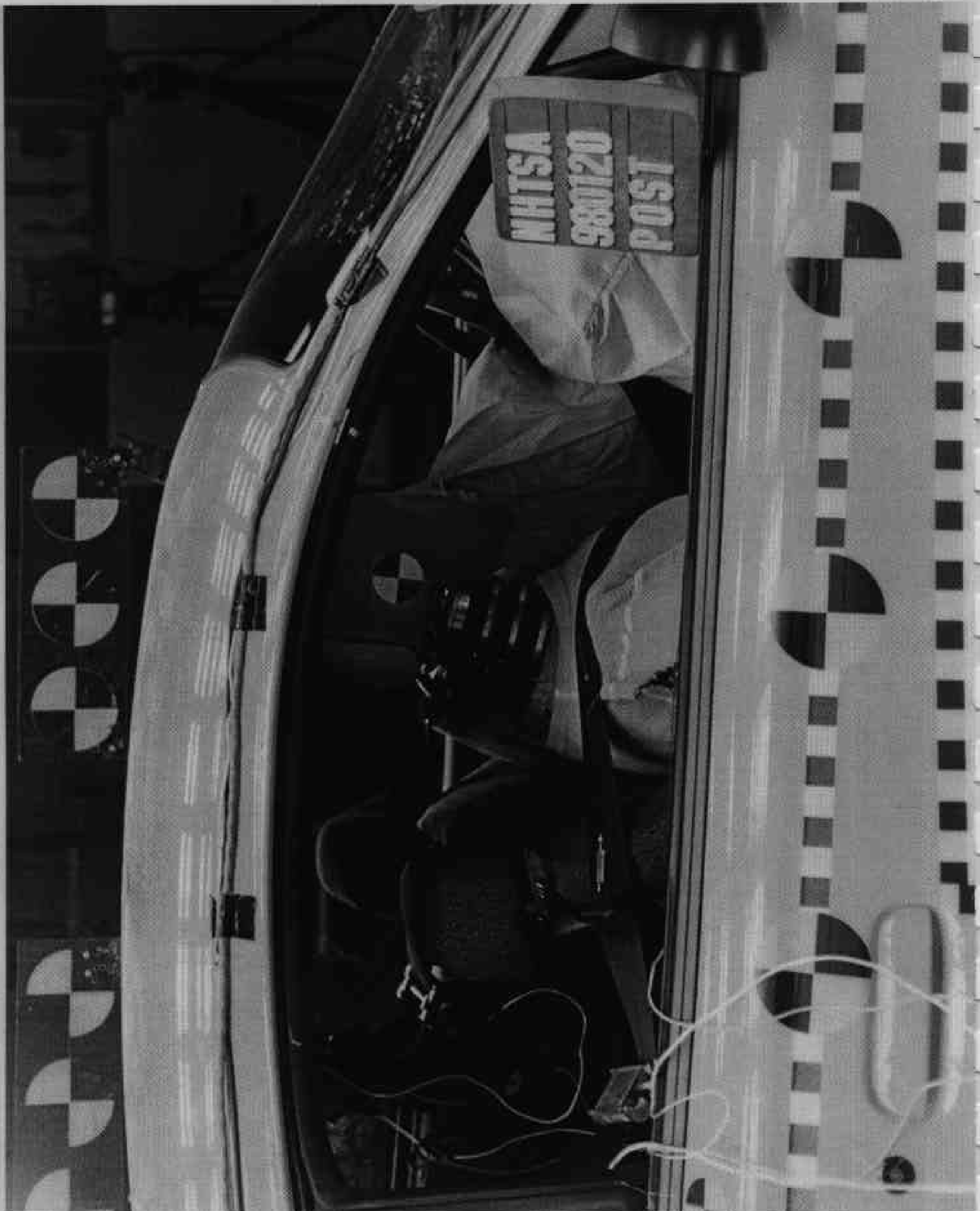


Figure A-30 Post-Test Passenger Dummy Position View

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

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

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

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

Figure A-35 Pre-Test Passenger Dummy and Vehicle Interior - View 1

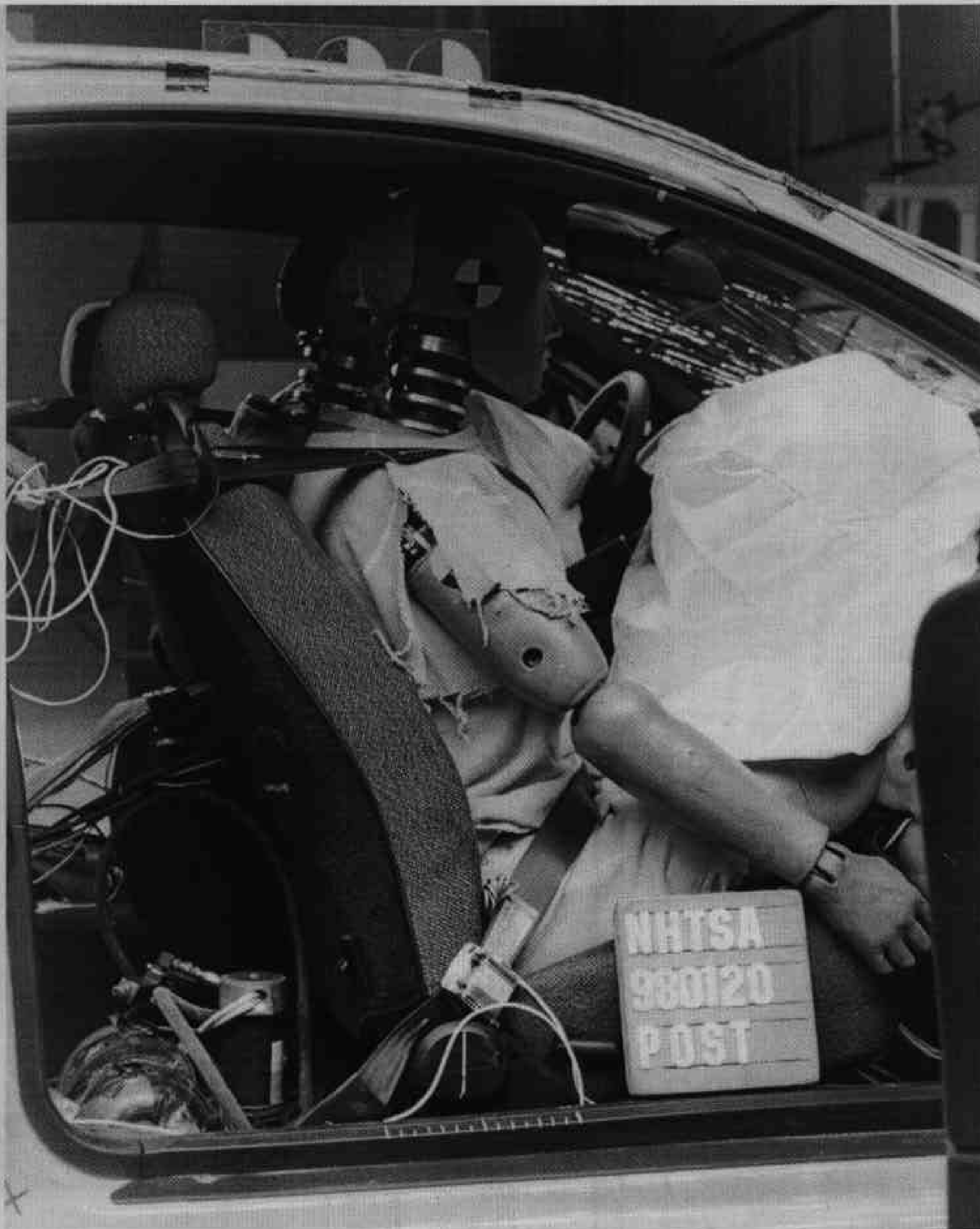


Figure A-36 Post-Test Passenger Dummy and Vehicle Interior - View 1

Figure A-37 Pre-Test Passenger Dummy and Vehicle Interior - View 2

Figure A-38 Post-Test Passenger Dummy and Vehicle Interior - View 2

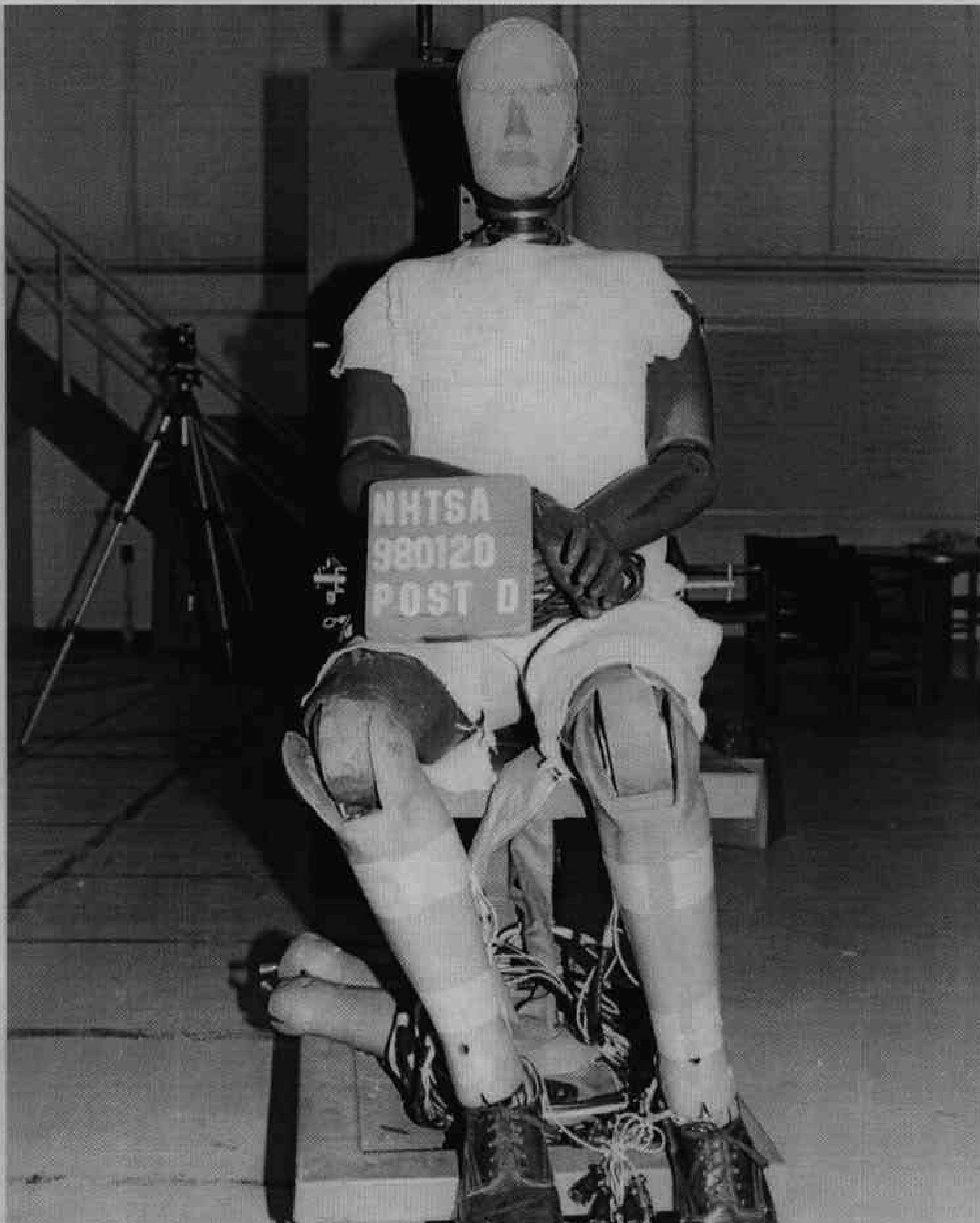


Figure A-39 Post-Test Driver Dummy View

Figure A-40 Post-Test Driver Dummy Head Contact - View 1

Figure A-41 Post-Test Driver Dummy Head Contact - View 2

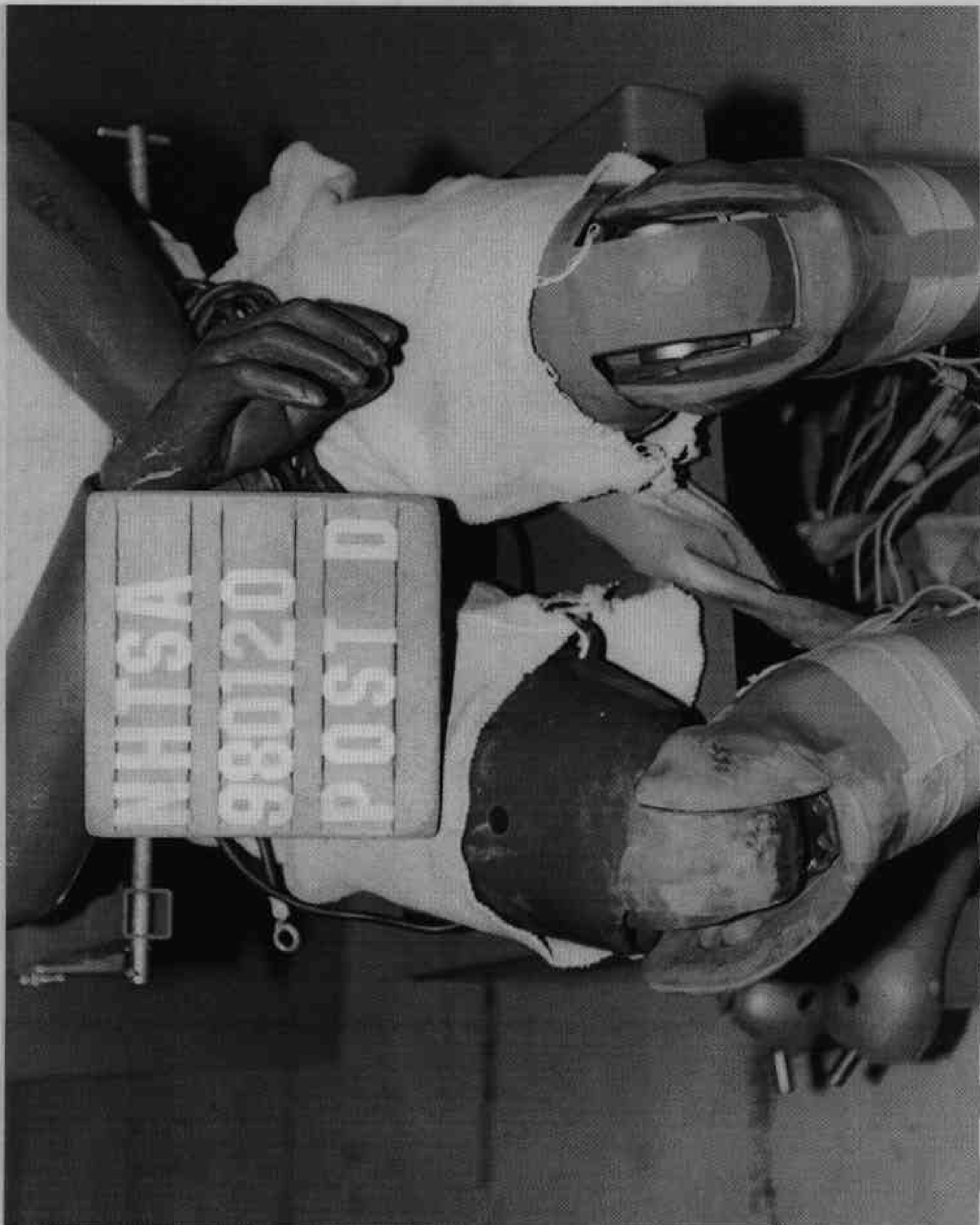


Figure A-42 Post-Test Driver Dummy Knee Contact - View 1

Figure A-43 Post-Test Driver Dummy Knee Contact - View 2

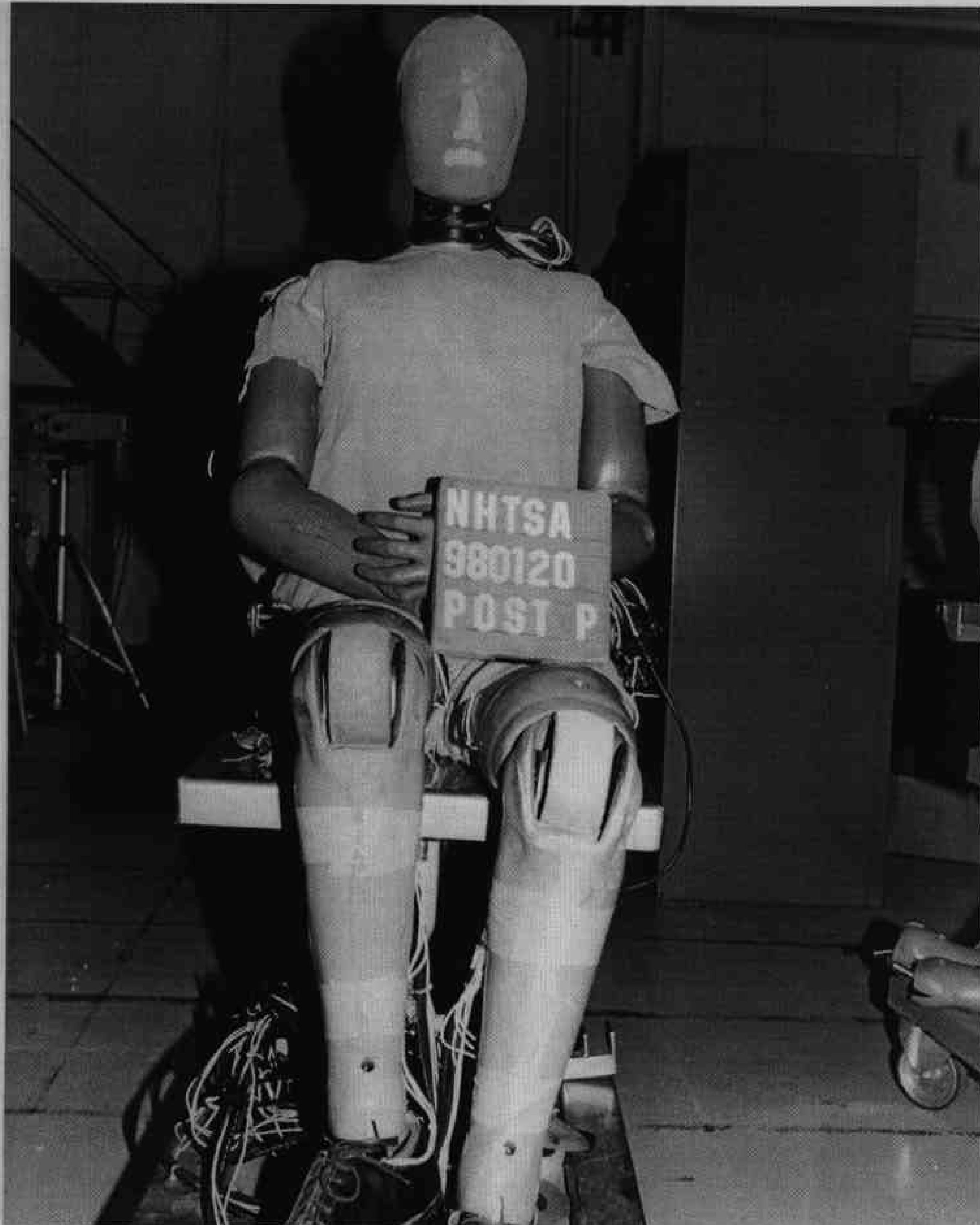


Figure A-44 Post-Test Passenger Dummy View

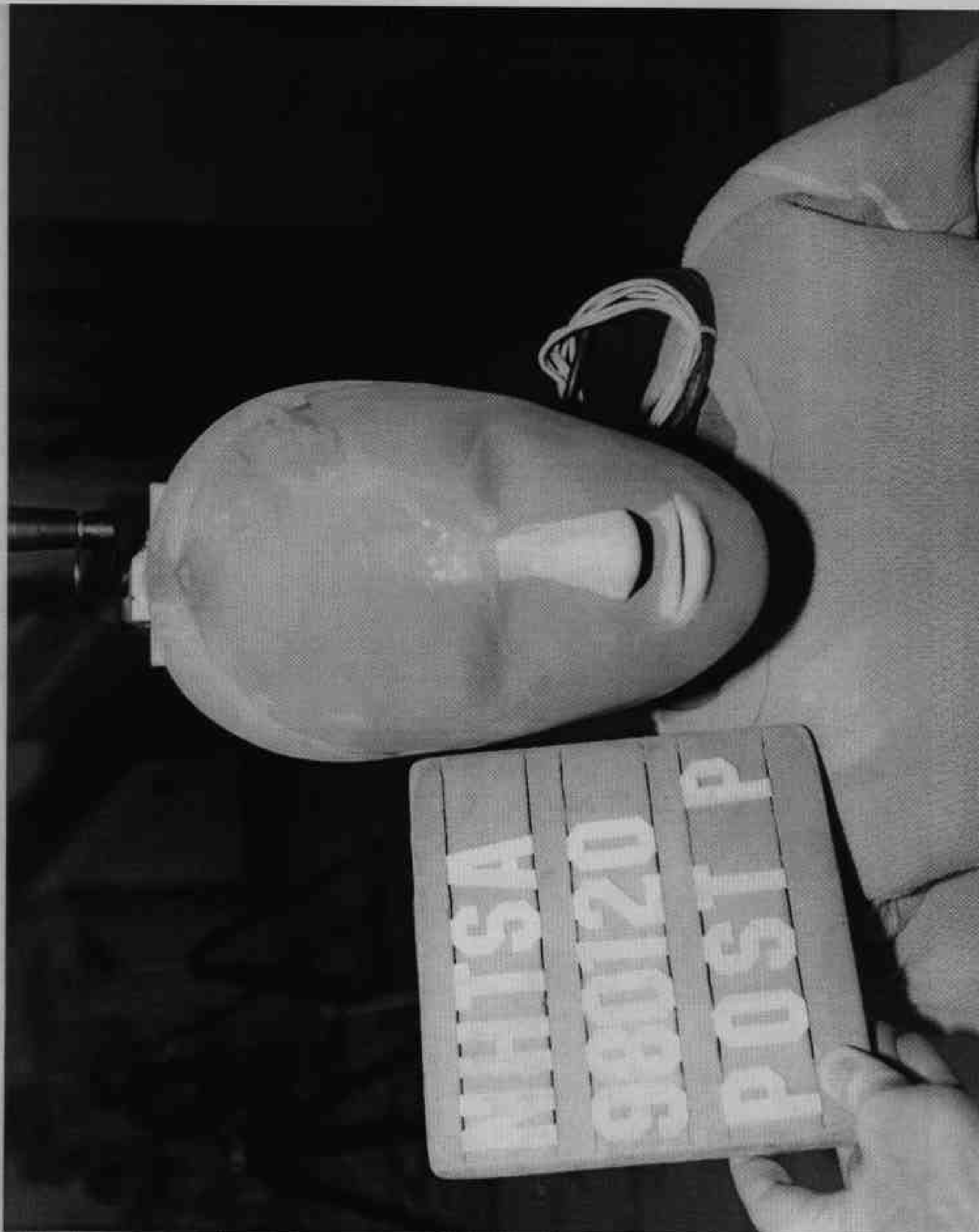


Figure A-45 Post-Test Passenger Dummy Head Contact - View 1

Figure A-46 Post-Test Passenger Dummy Head Contact - View 2

Figure A-47 Post-Test Passenger Dummy Head Contact - View 3

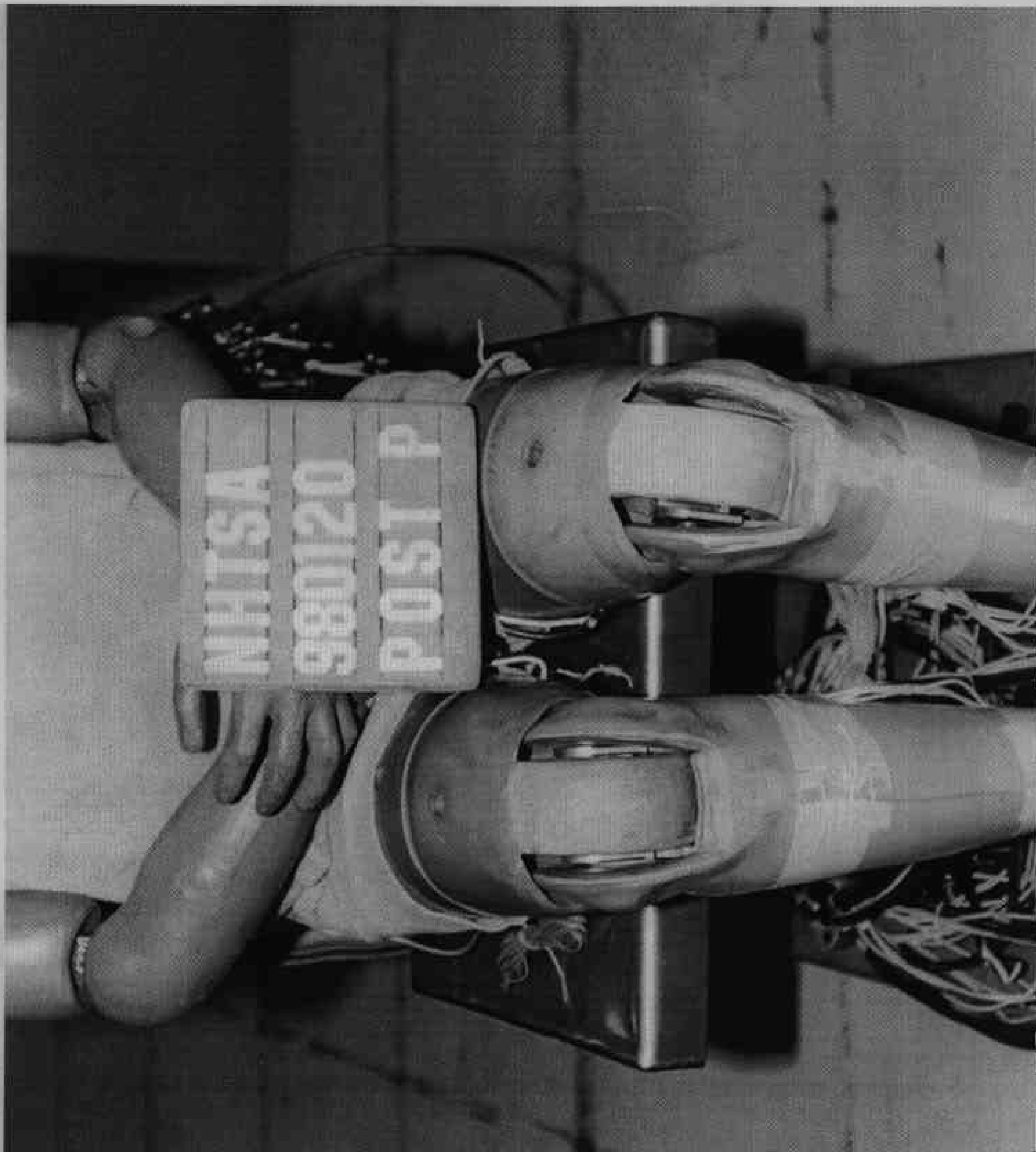


Figure A-48 Post-Test Passenger Dummy Knee Contact - View 1

Figure A-49 Post-Test Passenger Dummy Knee Contact - View 2

Figure A-50 Pre-Test Vehicle Certification Label View

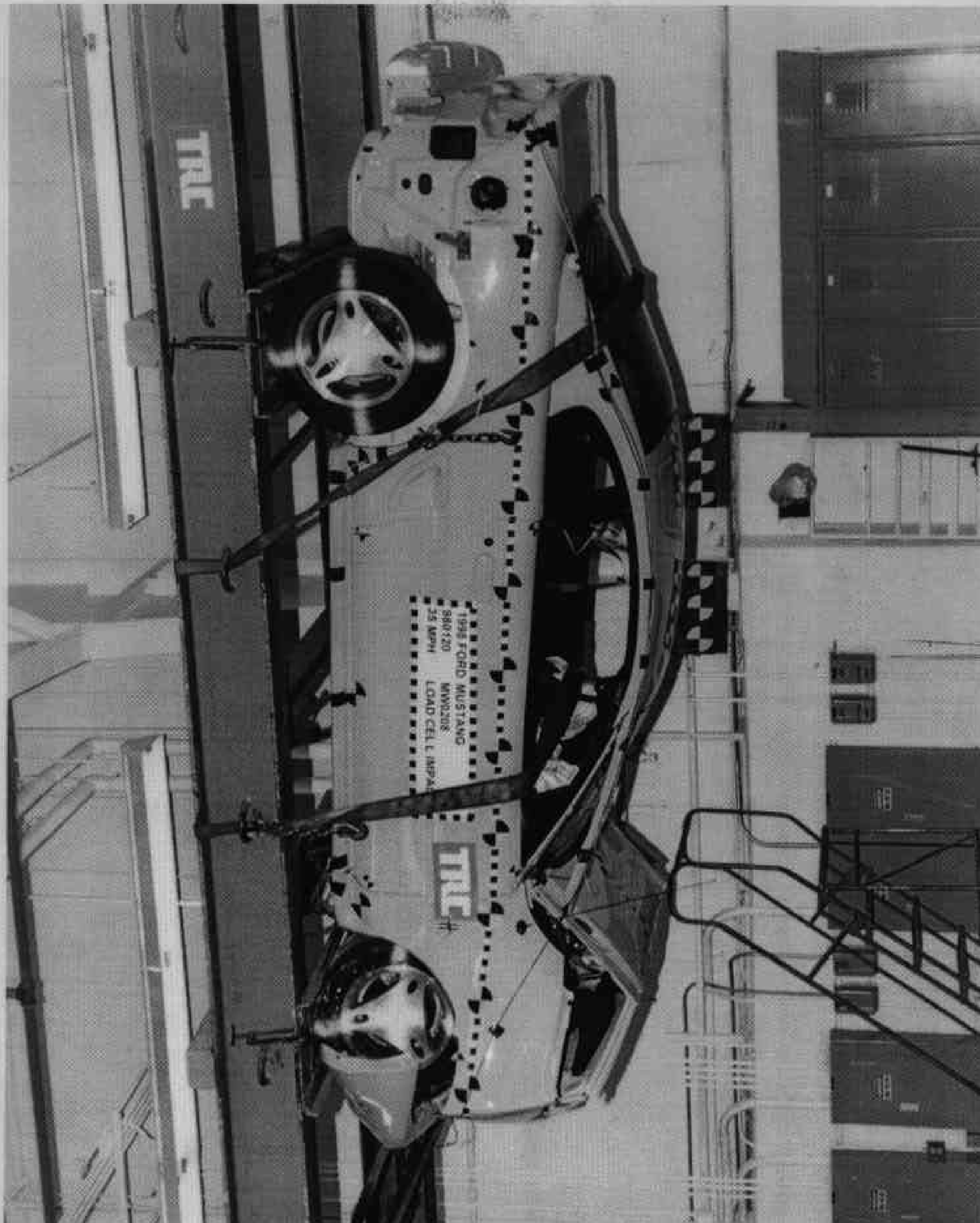
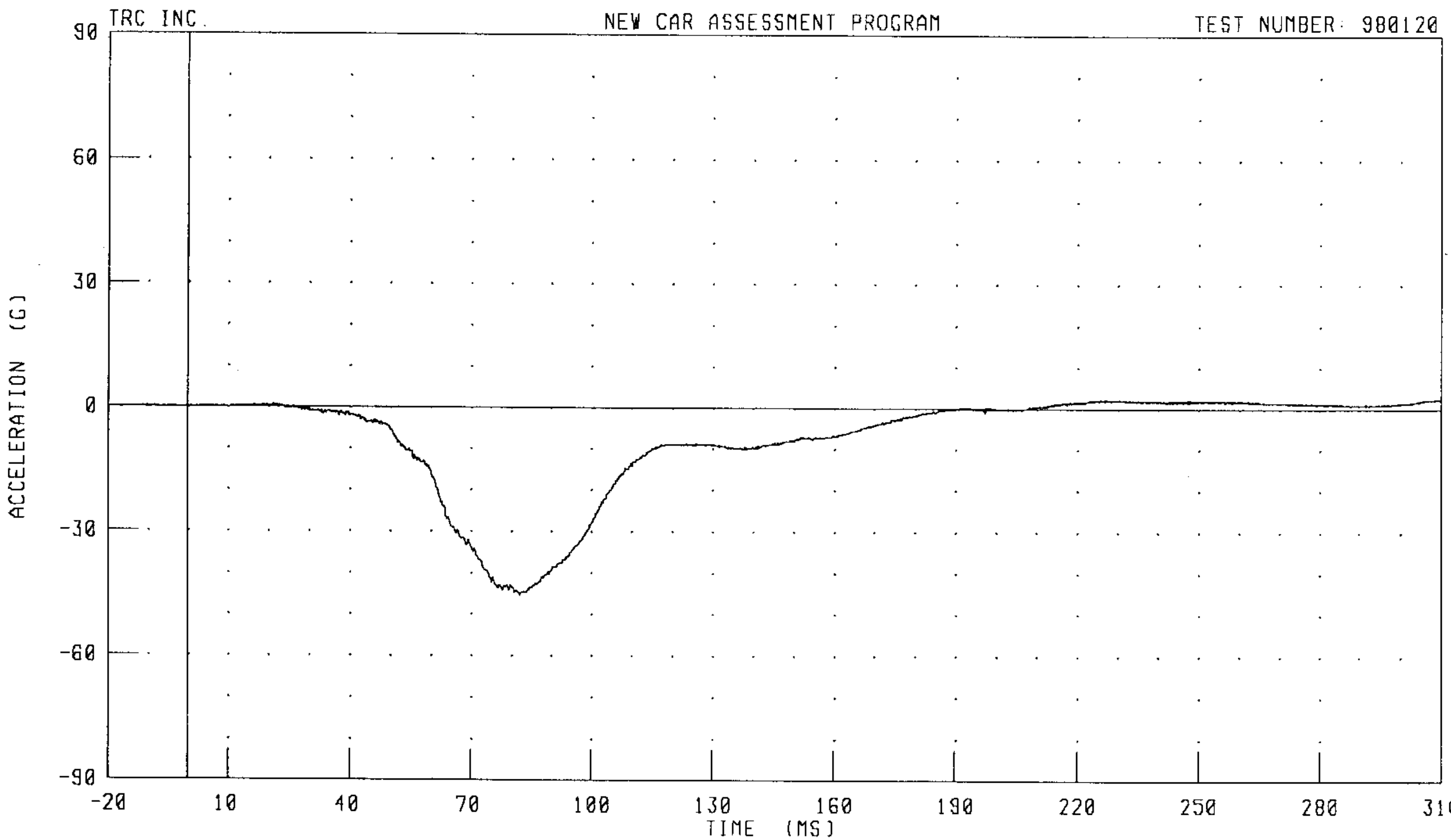


Figure A-51 Post-Test Vehicle on Static Rollover Machine View

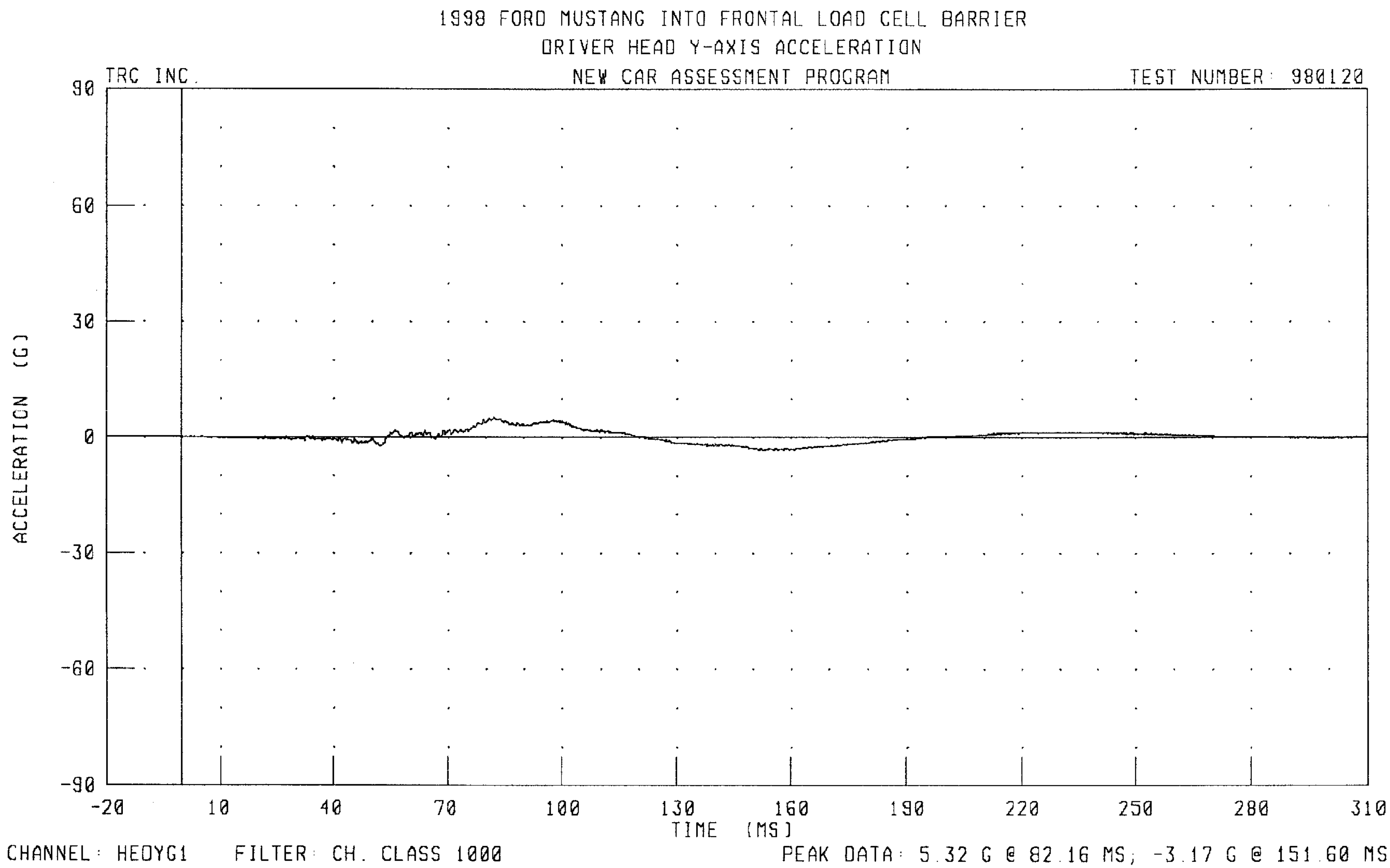
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 980120

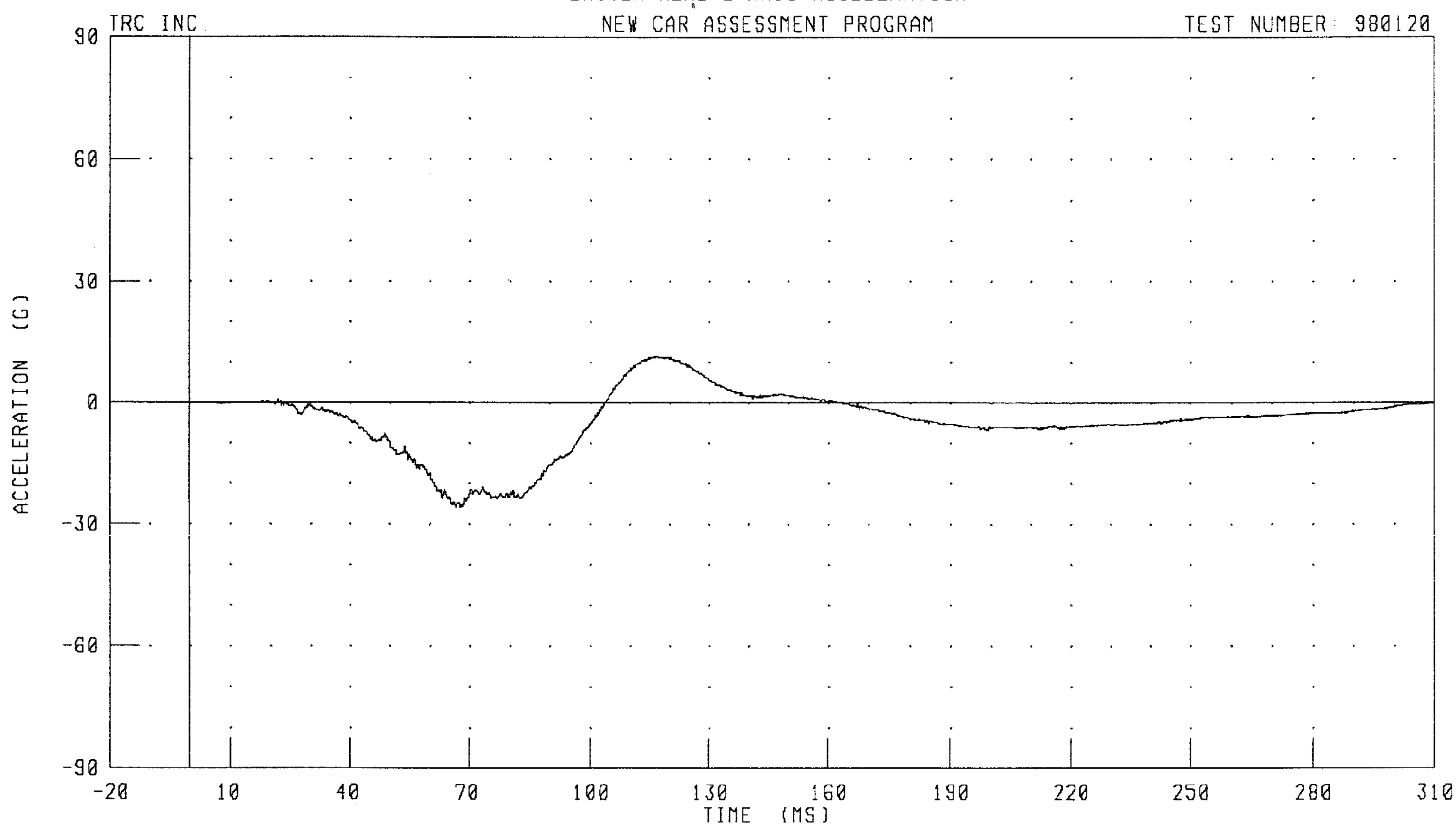


CHANNEL: HEDXG1 FILTER: CH. CLASS 1000

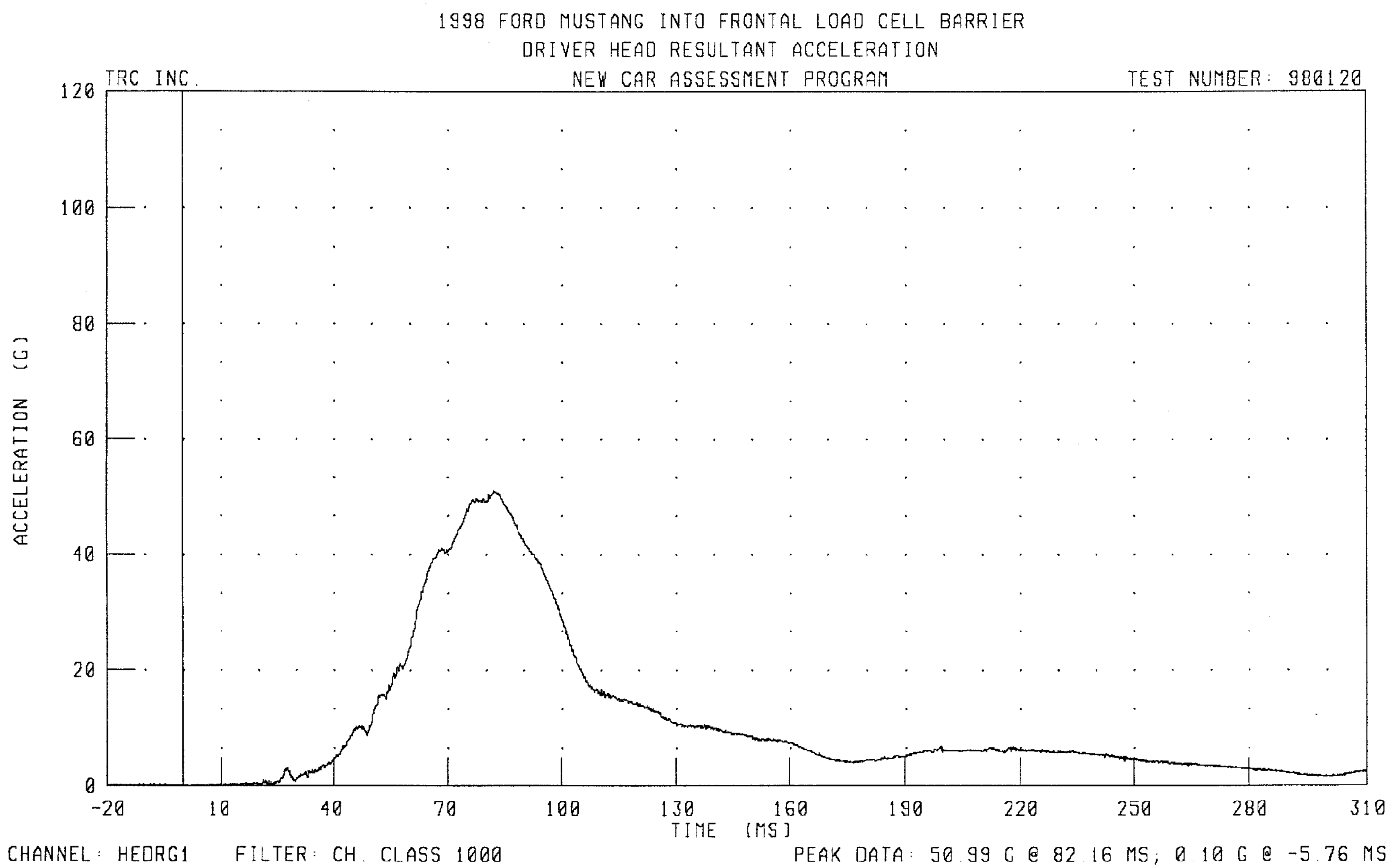
PEAK DATA: 2.61 G @ 310.00 MS; -45.37 G @ 82.08 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
90
60
30
0
-30
-60
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: HEDYG1
FILTER: CH. CLASS 1000
PEAK DATA: 5.32 G @ 82.16 MS; -3.17 G @ 151.60 MS

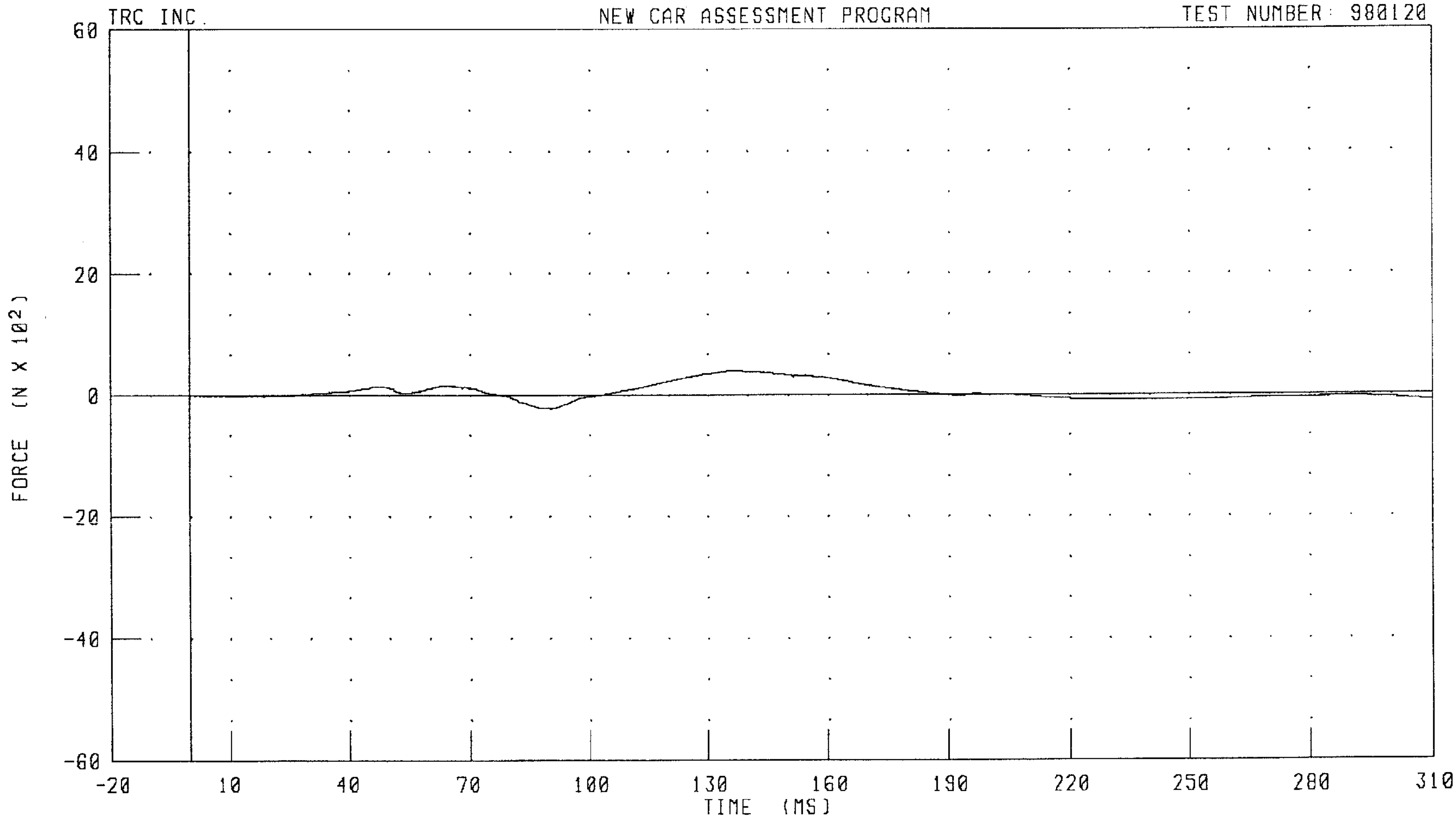
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDZG1 FILTER: CH. CLASS 1000 PEAK DATA: 11.50 G @ 116.16 MS, -26.01 G @ 67.84 MS

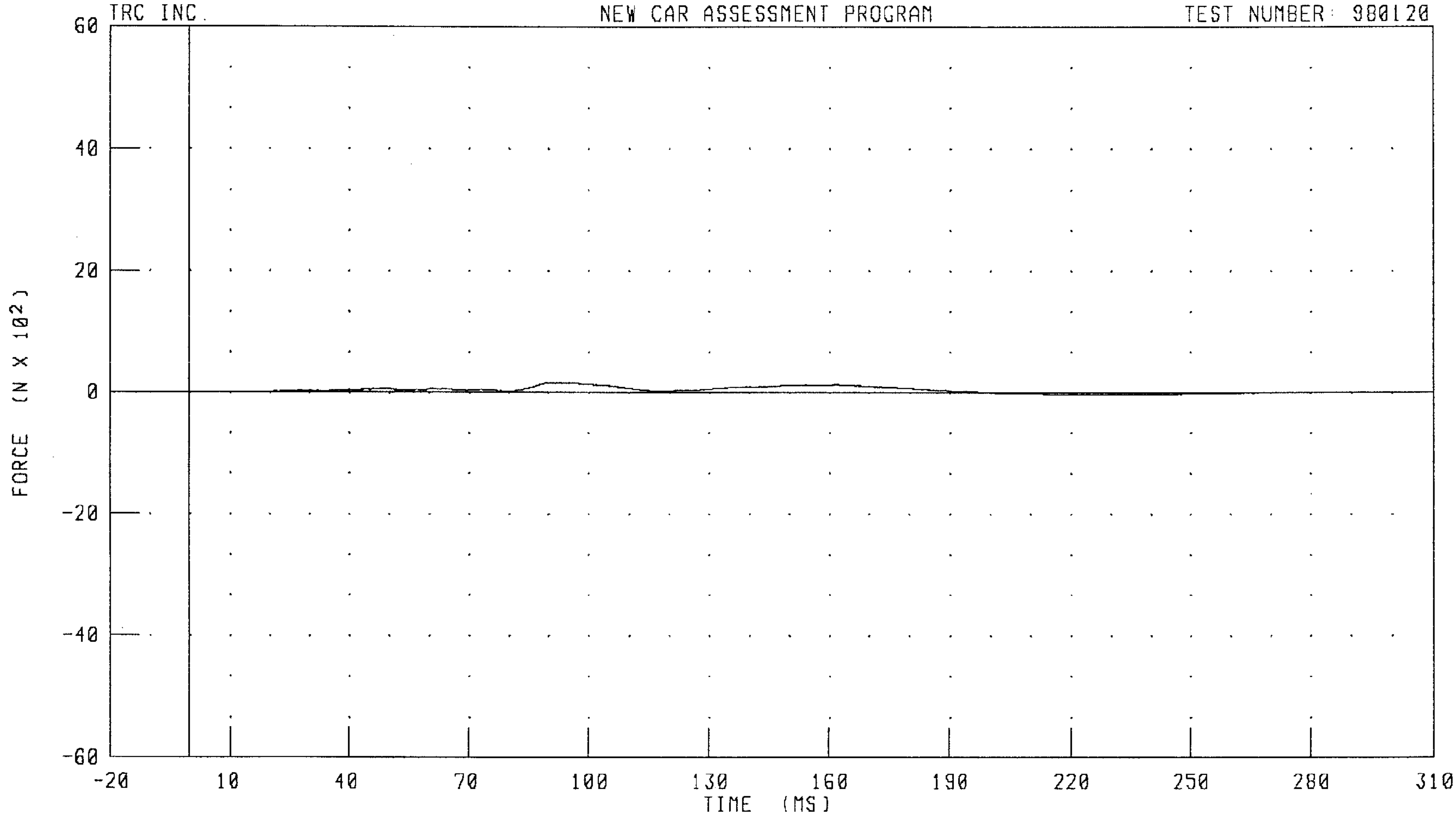

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
120
100
80
60
40
20
0
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: HEDRG1
FILTER: CH. CLASS 1000
PEAK DATA: 50.99 G @ 82.16 MS; 0.10 G @ -5.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK X-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM



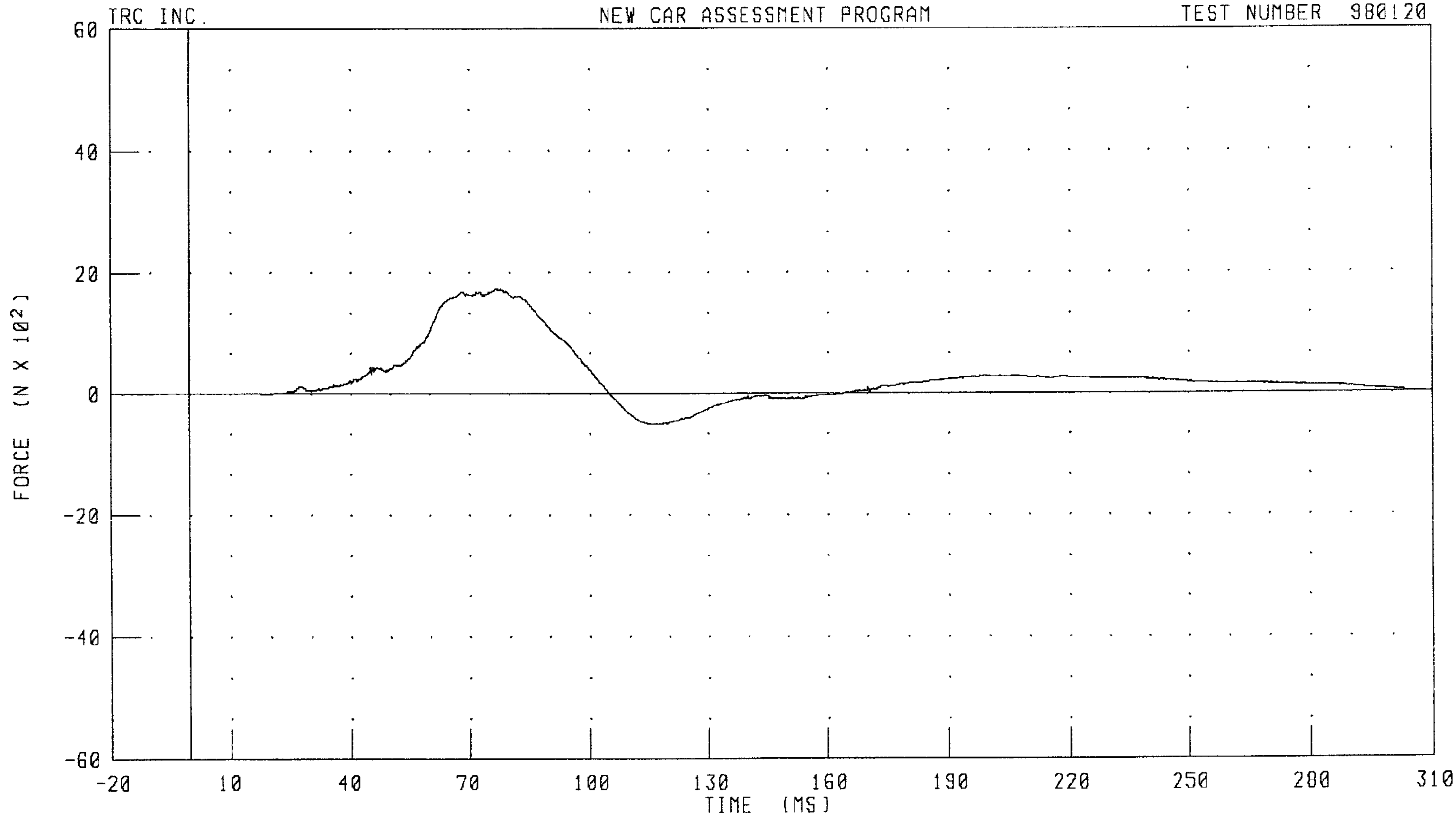
CHANNEL: NEKXF1 FILTER: CH. CLASS 1000 PEAK DATA: 388.97 N @ 136.24 MS; -227.86 N @ 90.40 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK Y-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: NEKYF1   FILTER: CH. CLASS 1000   PEAK DATA: 158.31 N @ 93.68 MS; -37.30 N @ 217.44 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK Z-AXIS AXIAL FORCE
NEW CAR ASSESSMENT PROGRAM



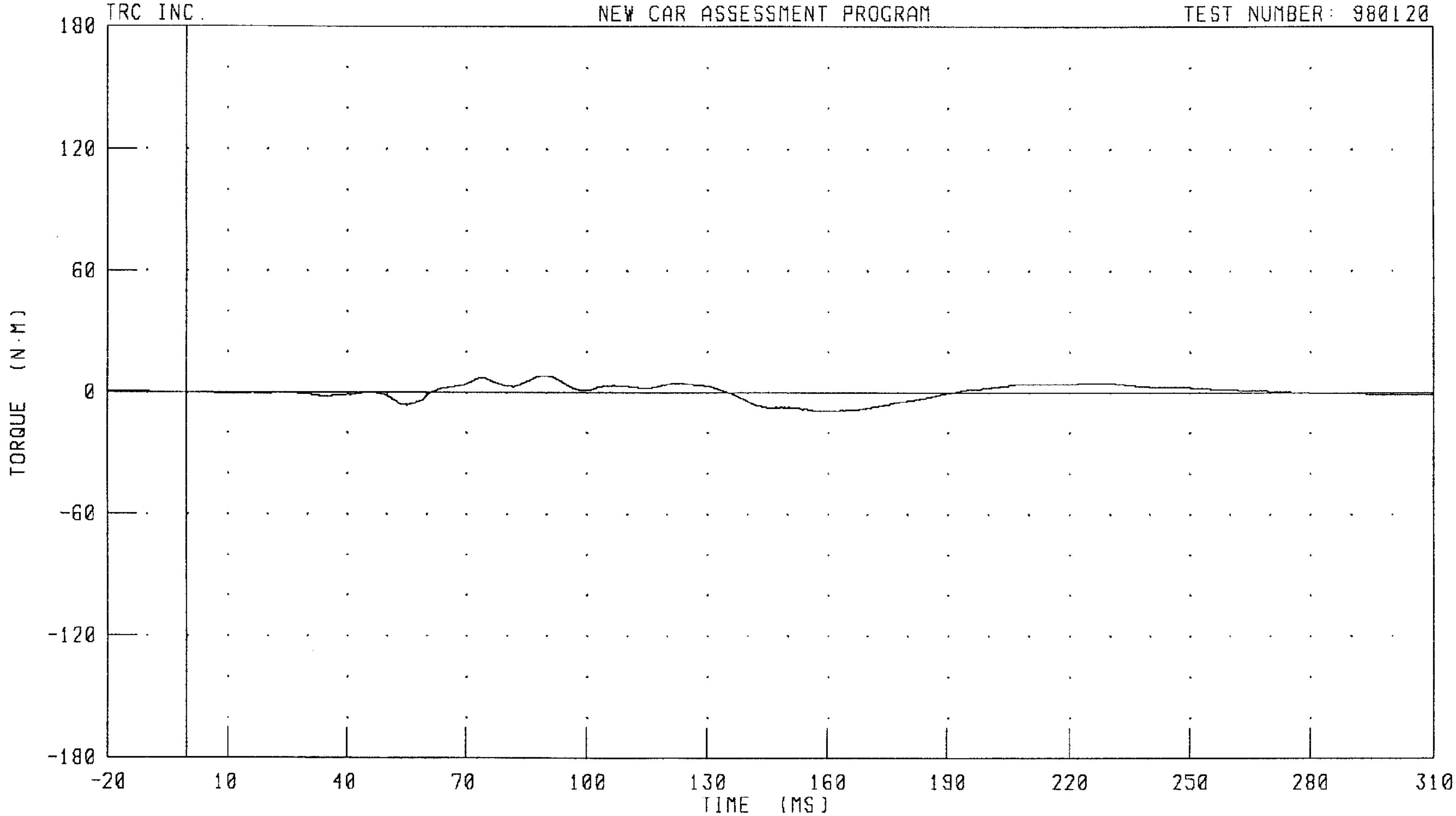
CHANNEL: NEKZF1 FILTER: CH. CLASS 1000 PEAK DATA: 1728.50 N @ 76.80 MS; -513.29 N @ 116.32 MS

980120

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM

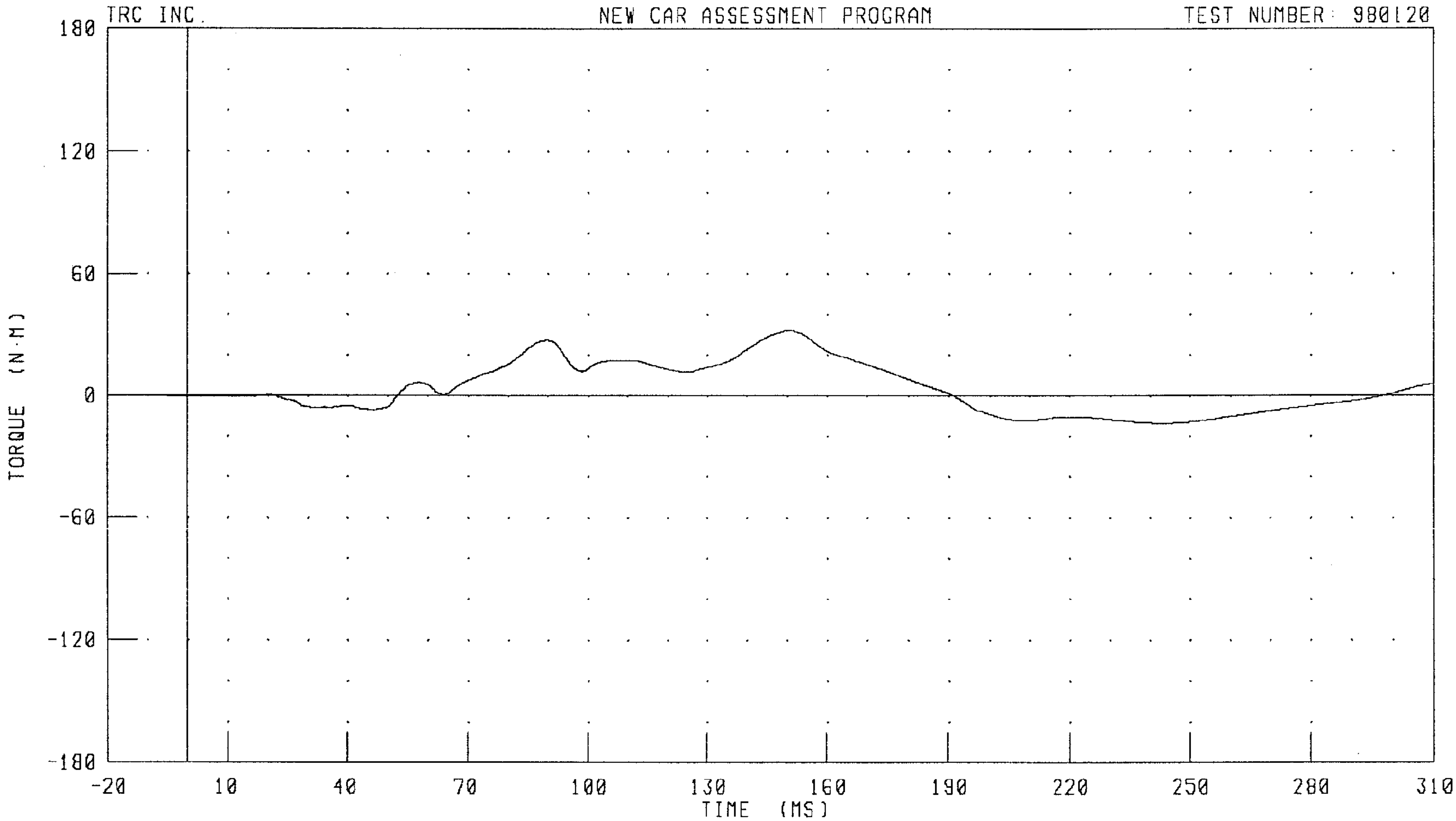
TRC INC.

TEST NUMBER: 980120

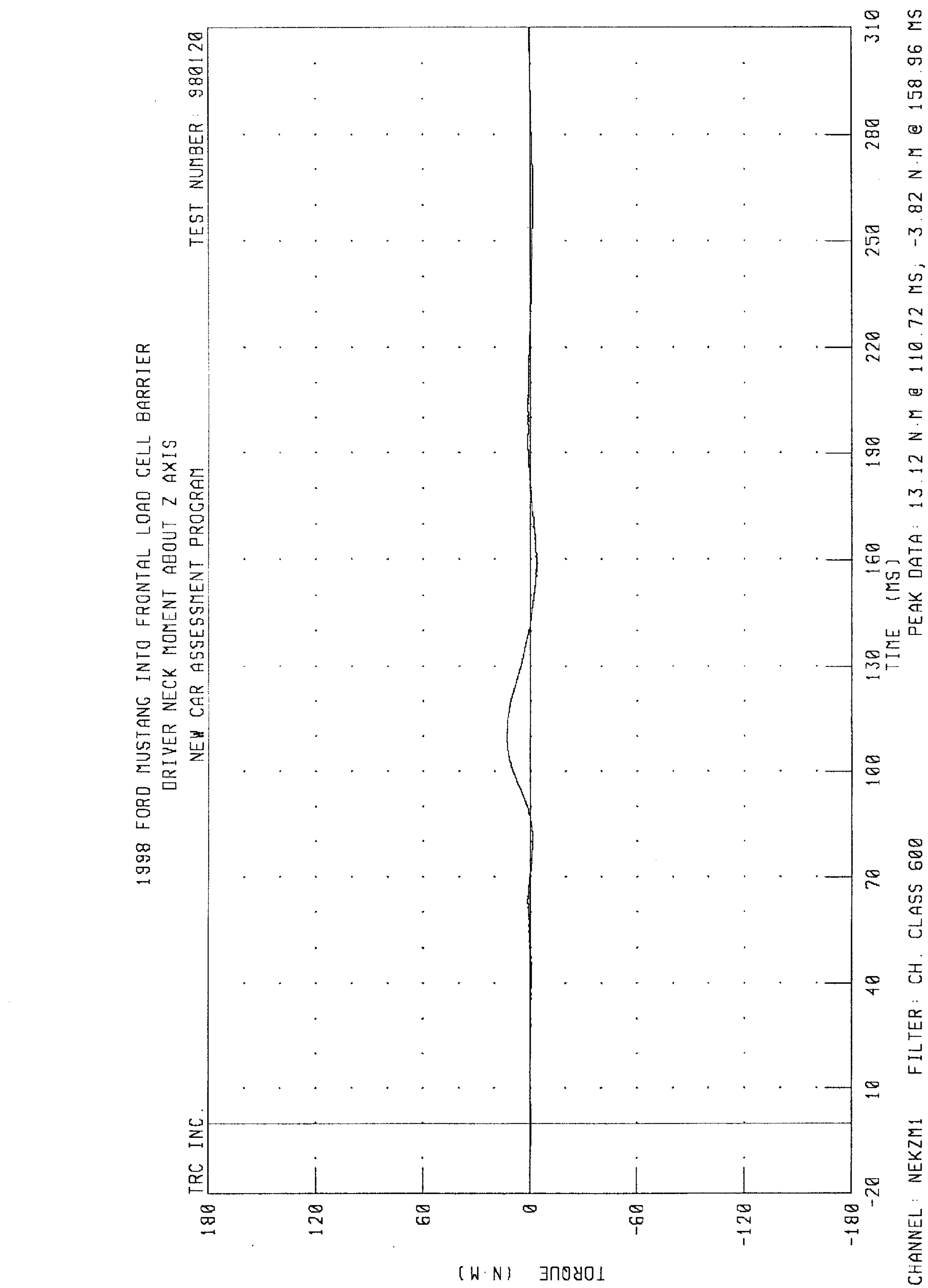


CHANNEL: NEKXM1   FILTER: CH. CLASS 600   PEAK DATA: 8.30 N·M @ 89.92 MS; -9.23 N·M @ 158.08 MS

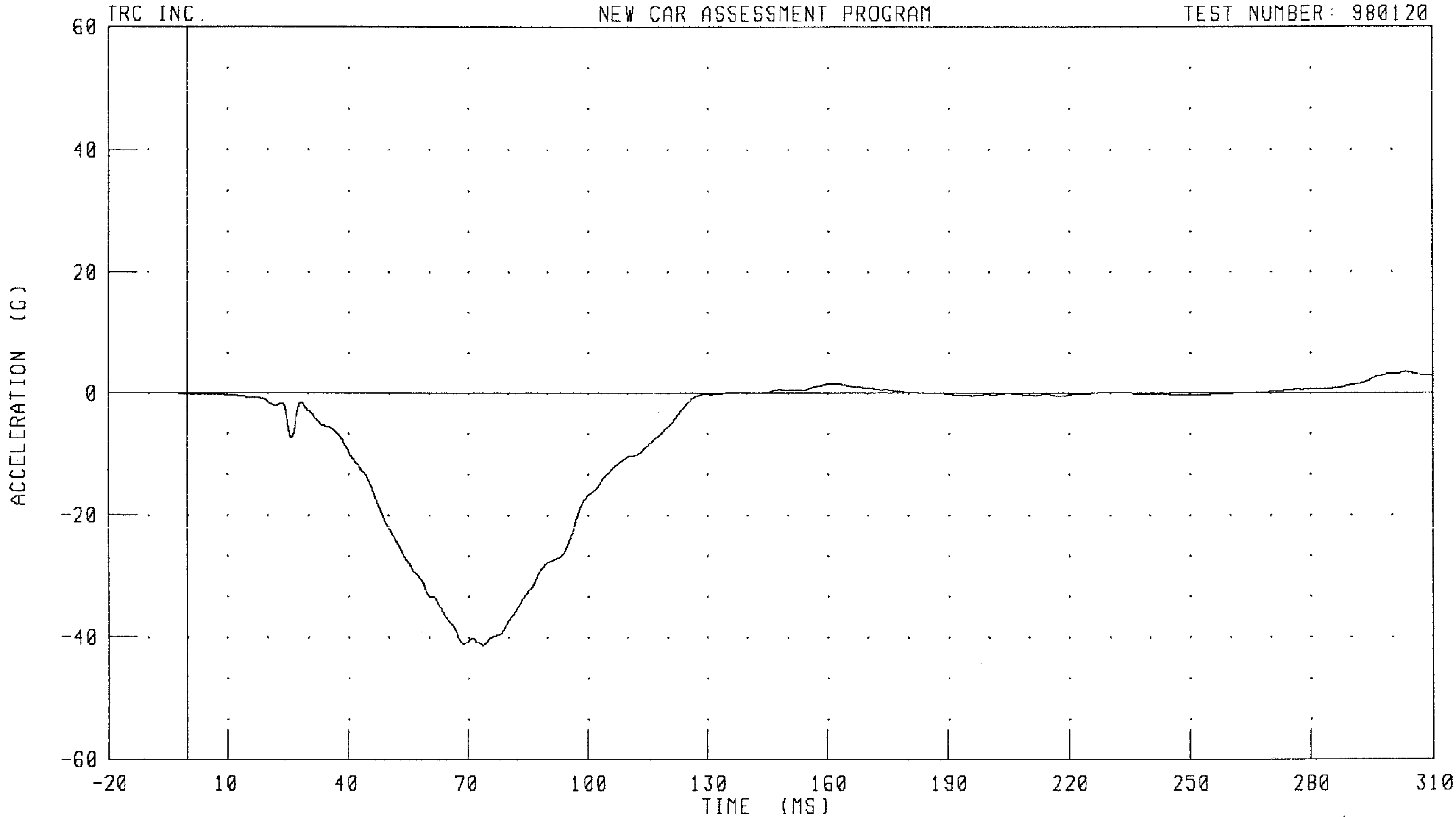
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM



CHANNEL: NEKYM1 FILTER: CH. CLASS 600 PEAK DATA: 32.05 N·M @ 150.80 MS; -13.57 N·M @ 242.96 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER NECK MOMENT ABOUT Z AXIS
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
TORQUE (N·M)
180
120
60
0
-60
-120
-180
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: NEKZM1 FILTER: CH. CLASS 600 PEAK DATA: 13.12 N·M @ 110.72 MS, -3.82 N·M @ 158.96 MS

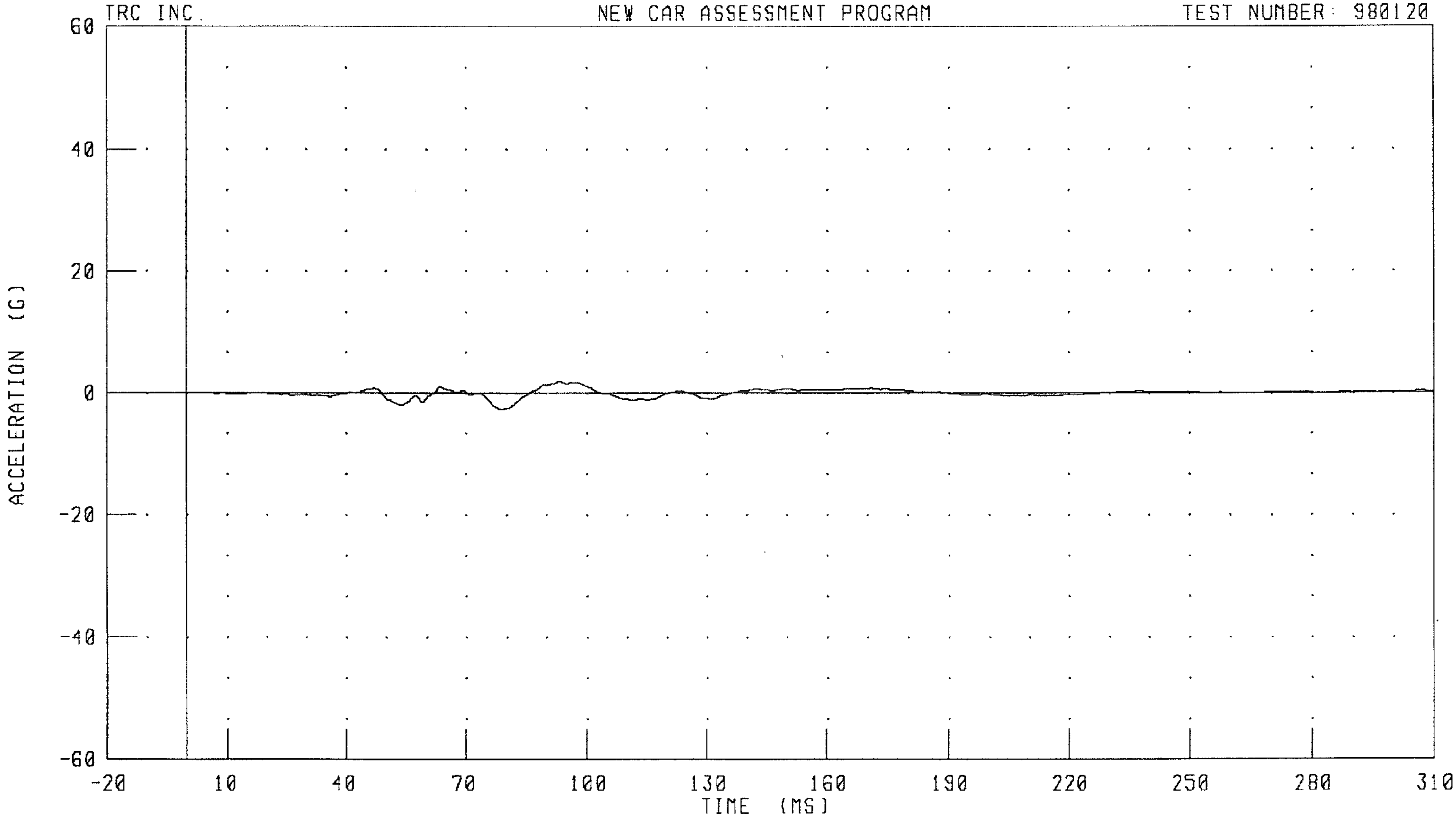
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: CSTXG1 FILTER: CH. CLASS 180 PEAK DATA: 3.50 G @ 303.60 MS; -41.24 G @ 73.84 MS

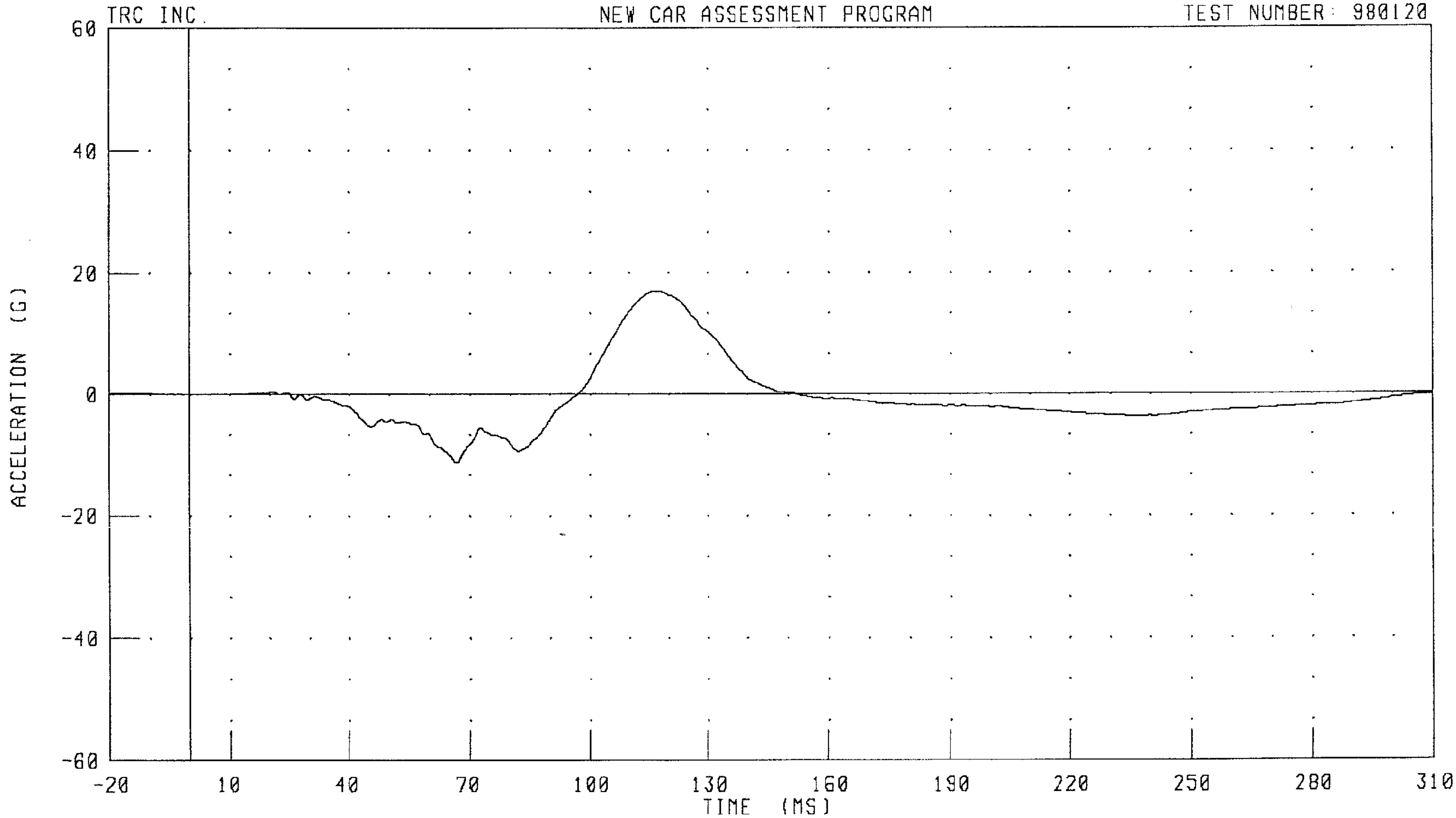
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120

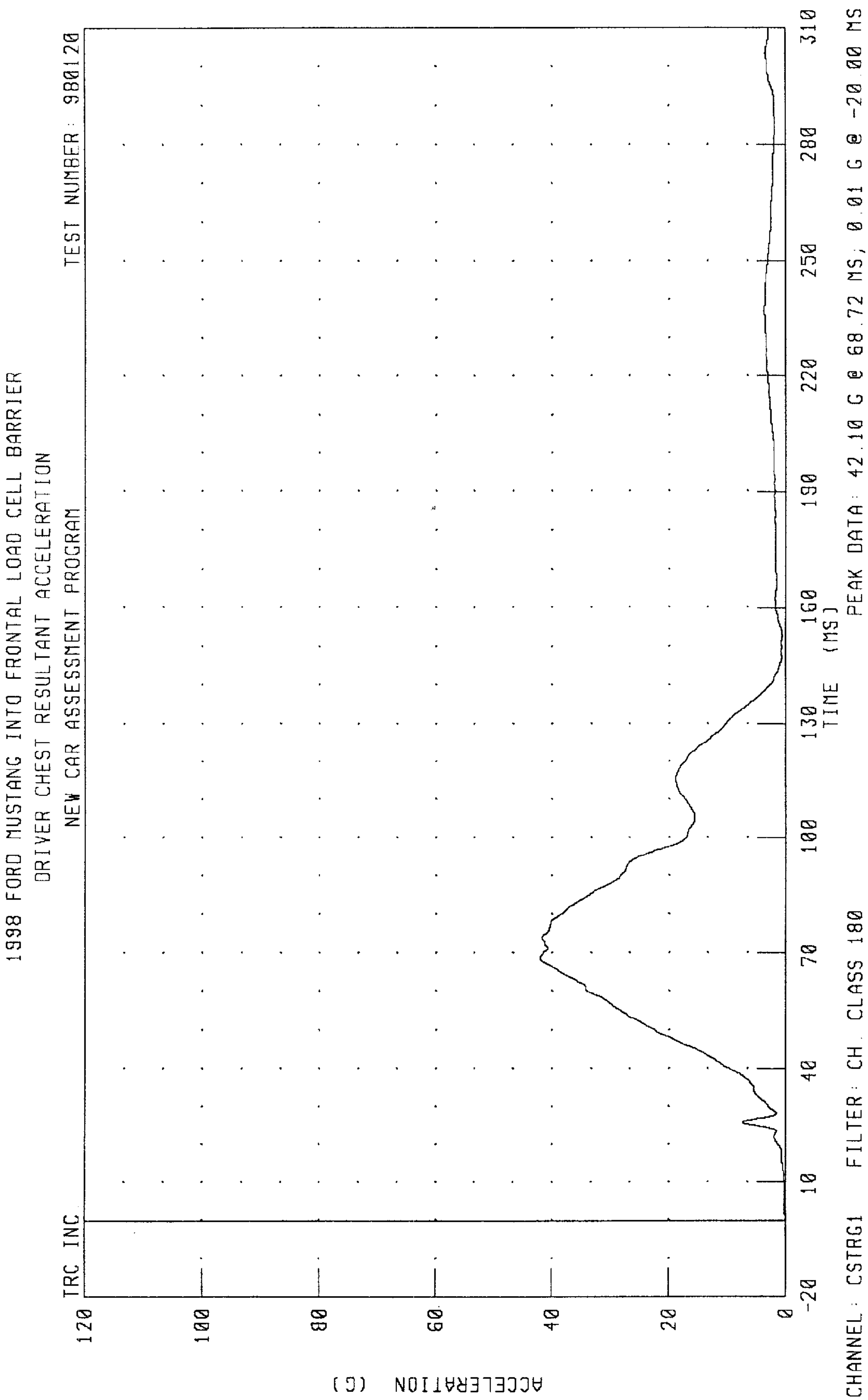


CHANNEL: CSTYG1 FILTER: CH. CLASS 180 PEAK DATA: 1.83 G @ 93.28 MS, -2.65 G @ 79.28 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: CSTZG1 FILTER: CH. CLASS 180 PEAK DATA: 16.97 G @ 116.40 MS; -11.27 G @ 66.88 MS

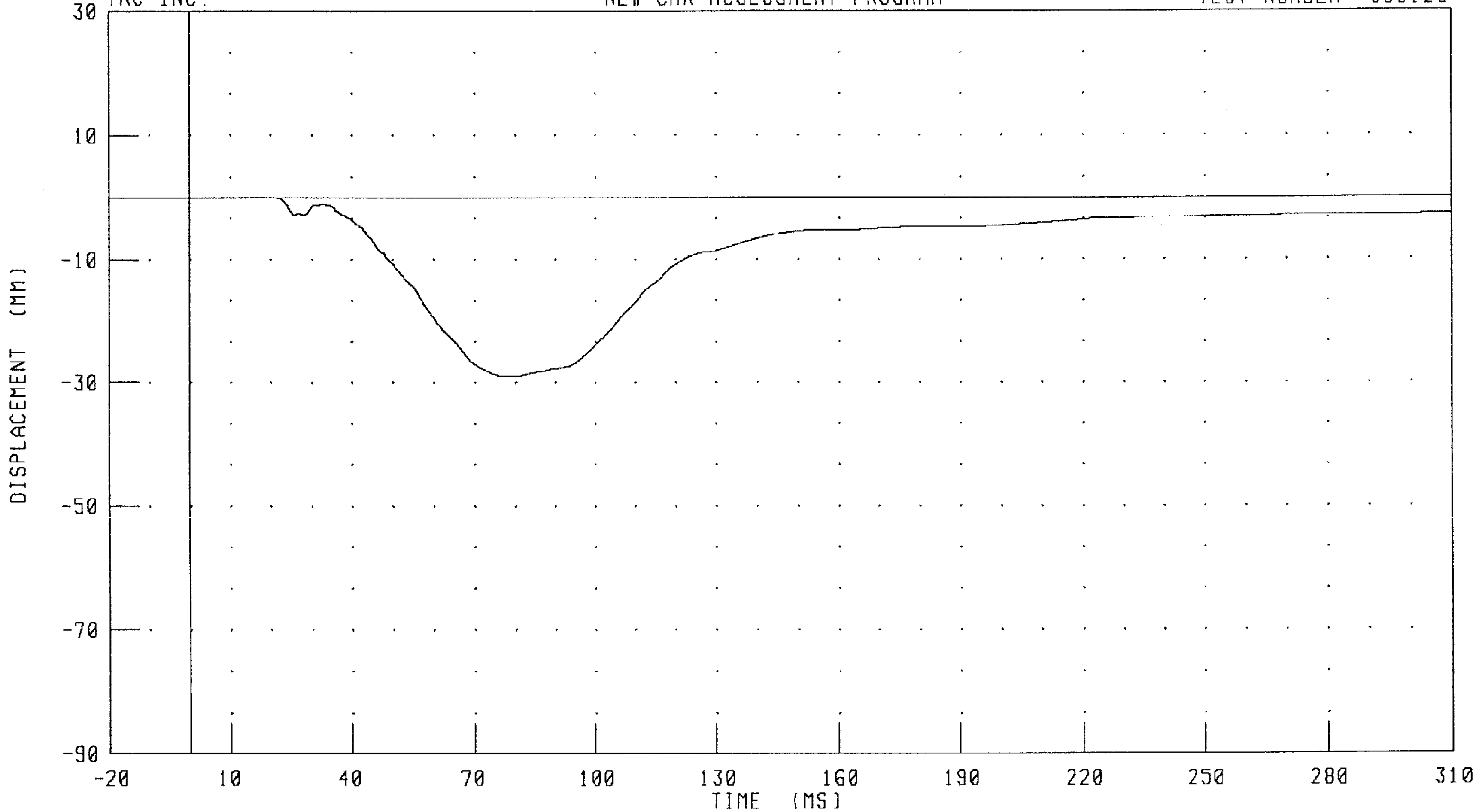


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC
TEST NUMBER: 980120
ACCELERATION (G)
120
100
80
60
40
20
0
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: CSTRG1
FILTER: CH. CLASS 180
PEAK DATA: 42.10 G @ 68.72 MS; 0.01 G @ -20.00 MS

980120

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST DEFLECTION
NEW CAR ASSESSMENT PROGRAM

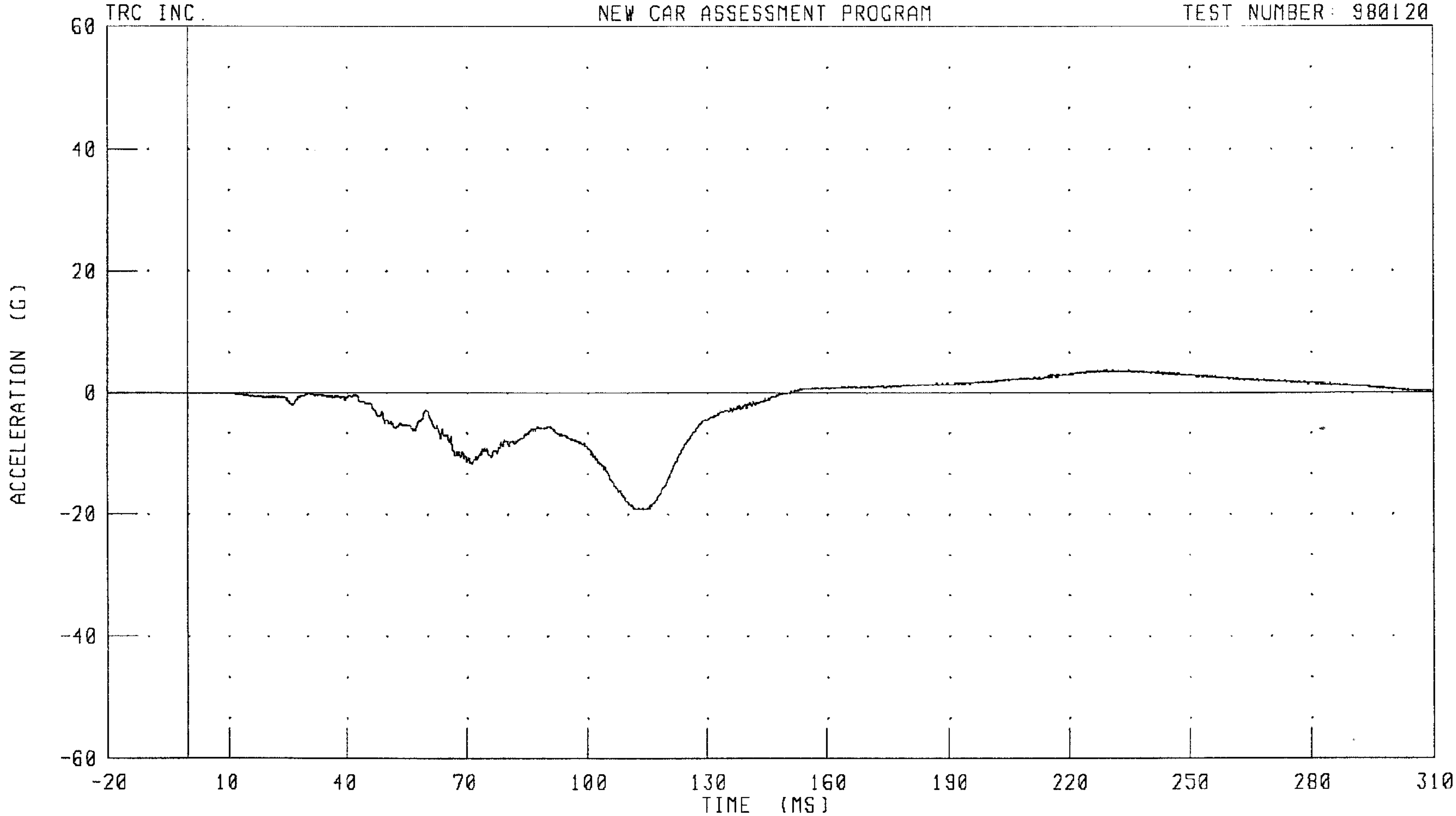
TRC INC. TEST NUMBER: 980120



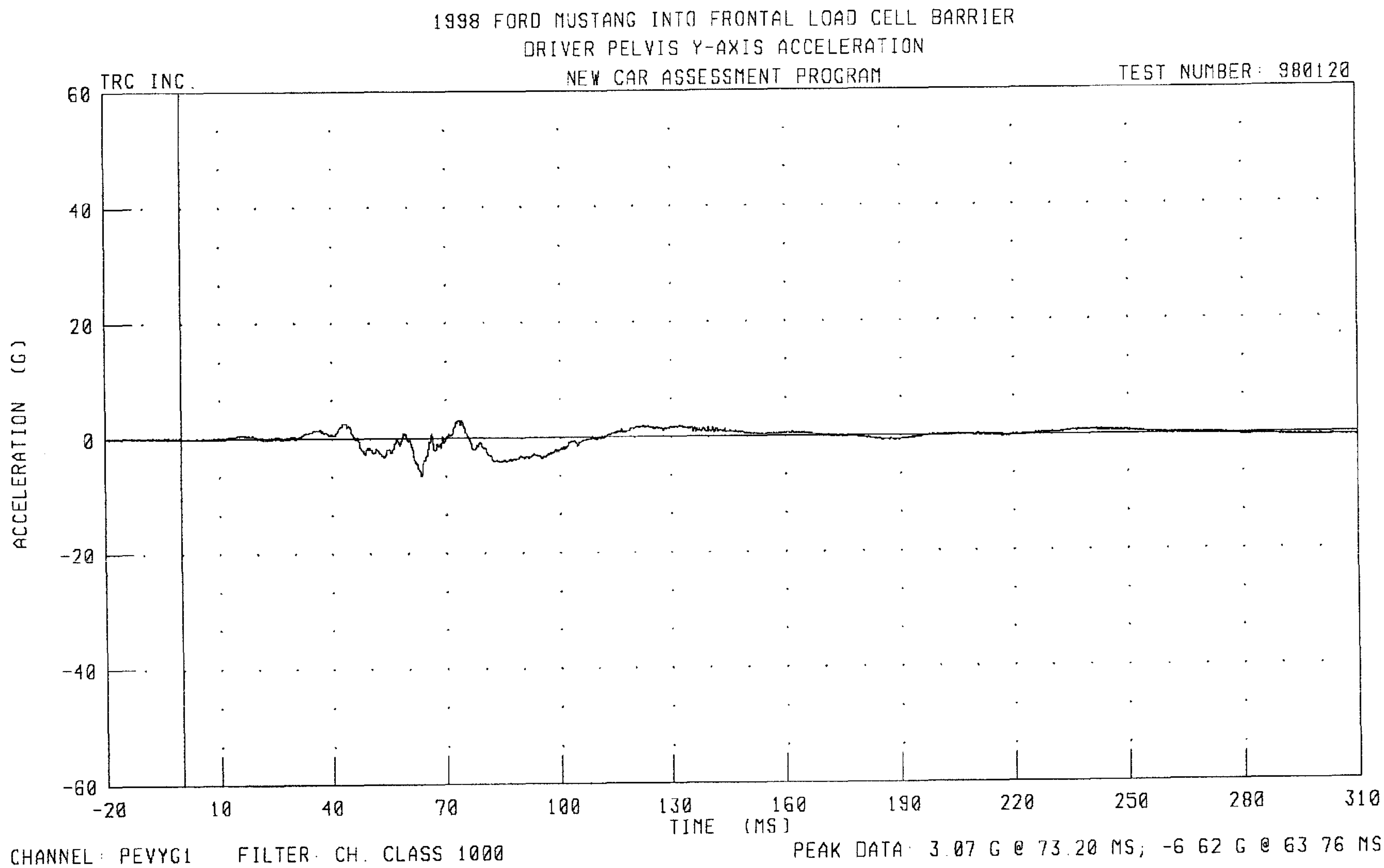
CHANNEL: CSTXD1 FILTER: CH. CLASS 180 PEAK DATA: 0.01 MM @ -11.84 MS, -29.03 MM @ 78.48 MS

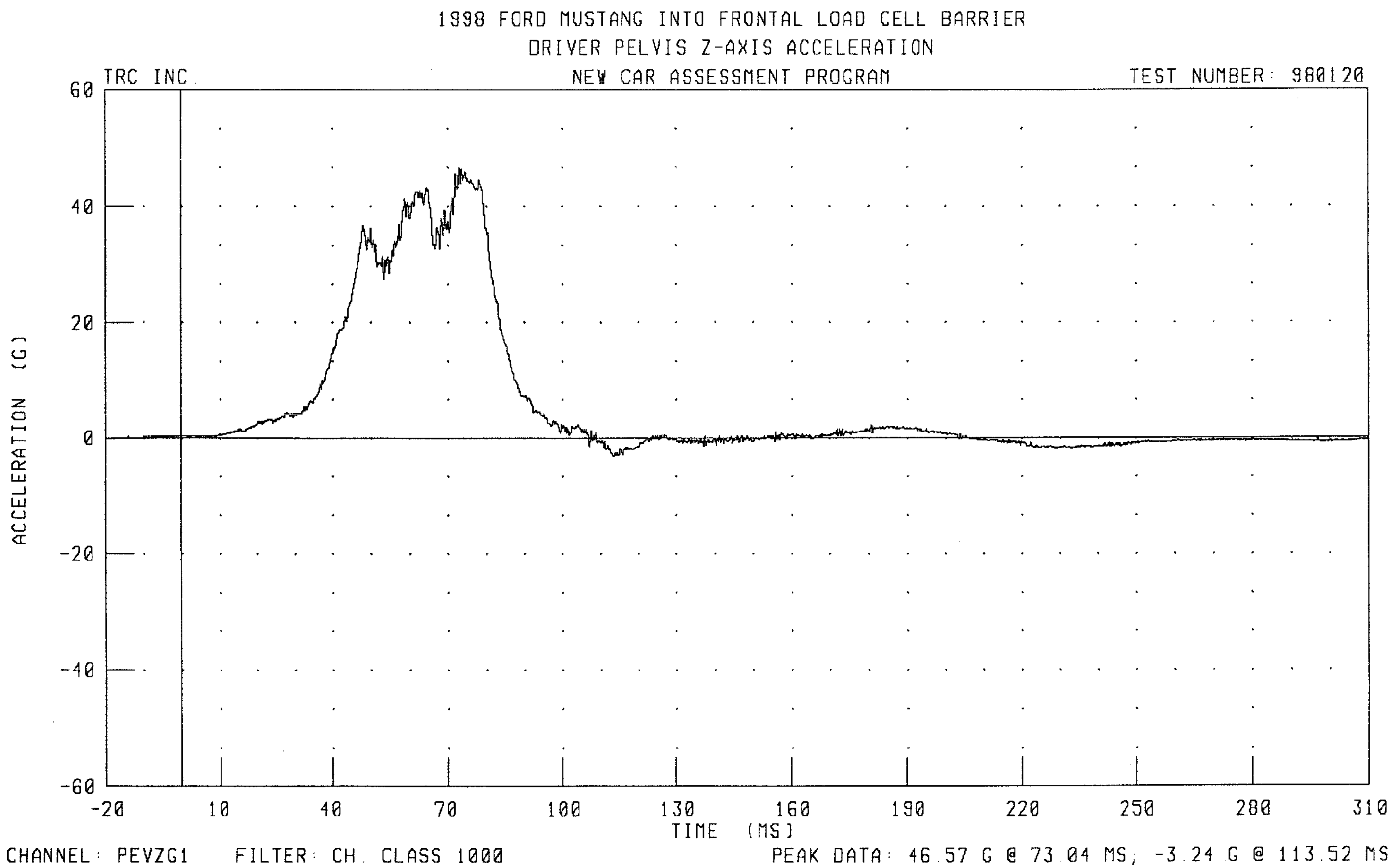
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER PELVIS X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120

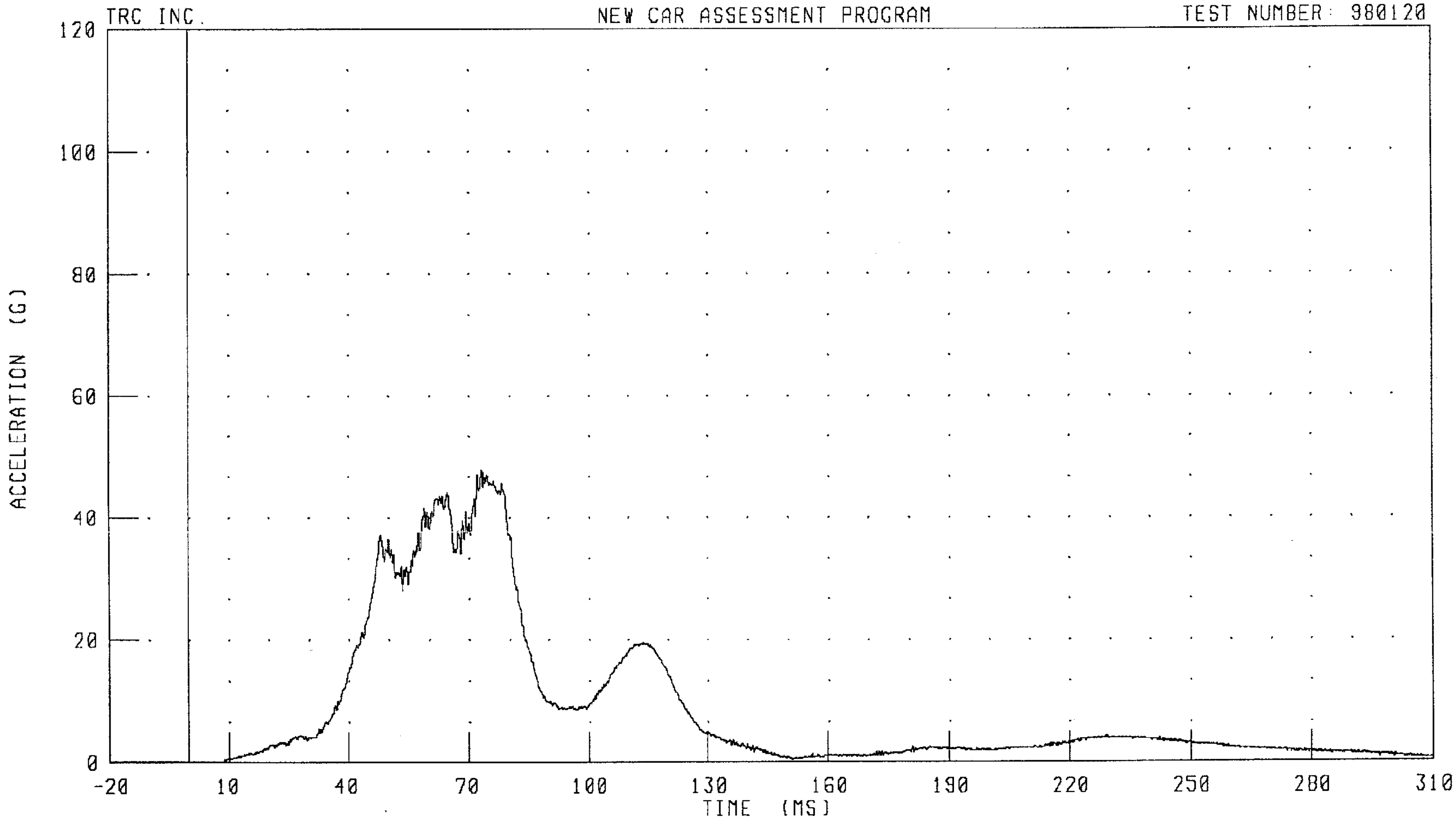


CHANNEL: PEVXG1 FILTER: CH. CLASS 1000 PEAK DATA: 3.79 G @ 227.12 MS, -19.28 G @ 114.00 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER PELVIS Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
60
40
20
0
-20
-40
-60
ACCELERATION (G)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: PEVYG1
FILTER: CH. CLASS 1000
PEAK DATA: 3.07 G @ 73.20 MS; -6.62 G @ 63.76 MS

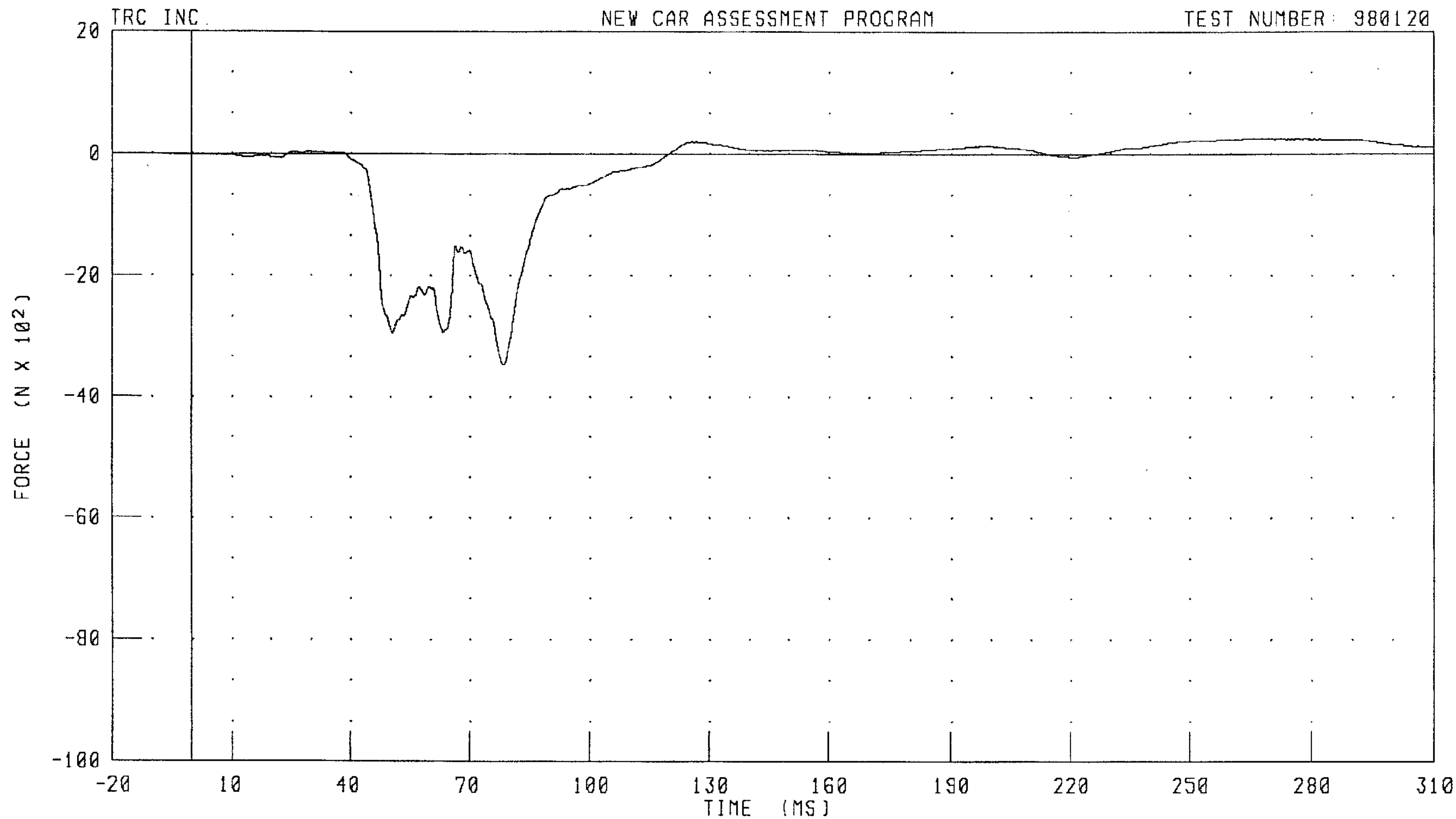

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER PELVIS Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: PEVZG1
FILTER: CH. CLASS 1000
PEAK DATA: 46.57 G @ 73.04 MS, -3.24 G @ 113.52 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER PELVIS RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: PEVRG1 FILTER: CH. CLASS 1000 PEAK DATA: 47.76 G @ 73.04 MS; 0.14 G @ -11.52 MS

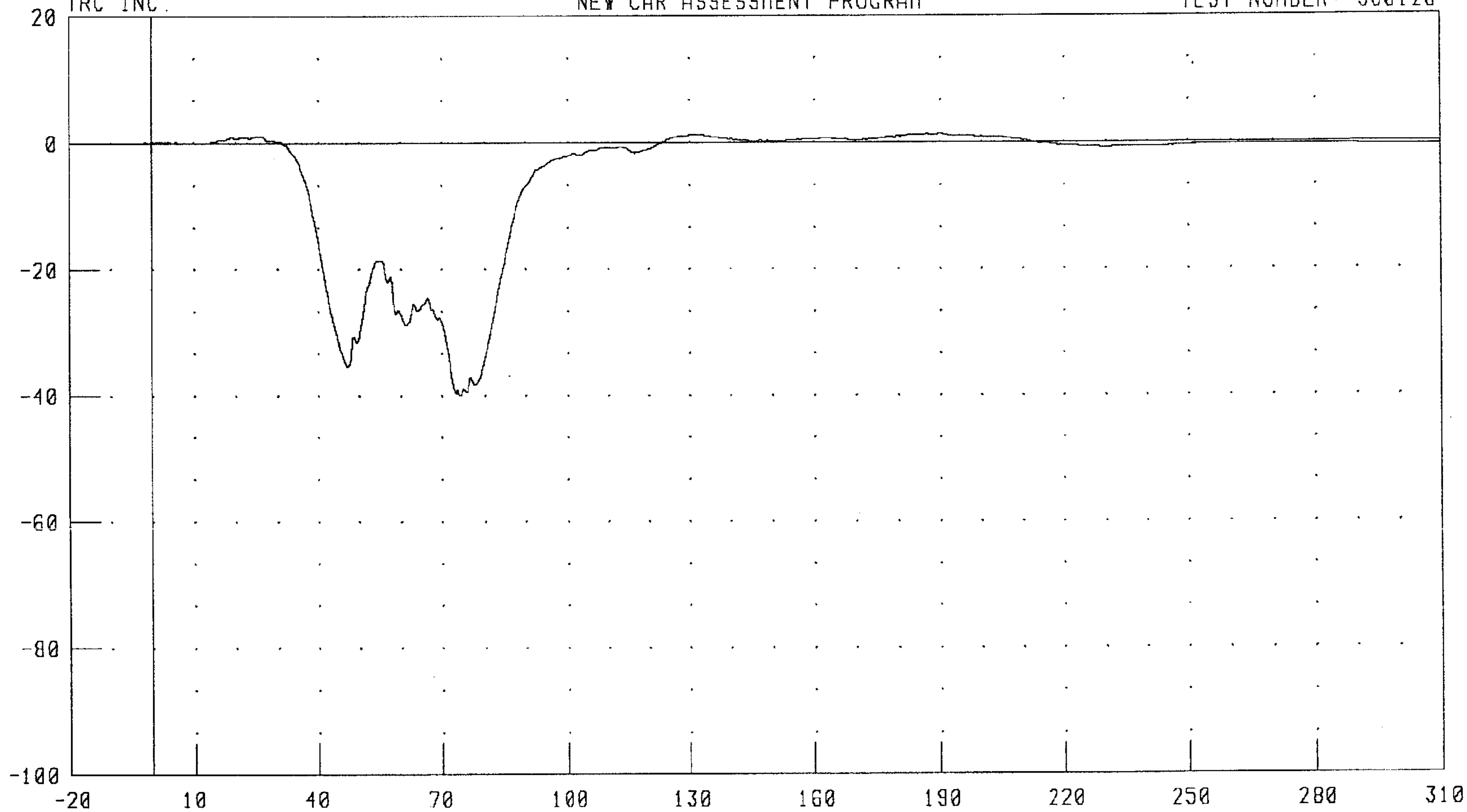
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: LFMFL   FILTER: CH. CLASS 600   PEAK DATA: 254.52 N @ 266.56 MS; -3466.62 N @ 78.48 MS

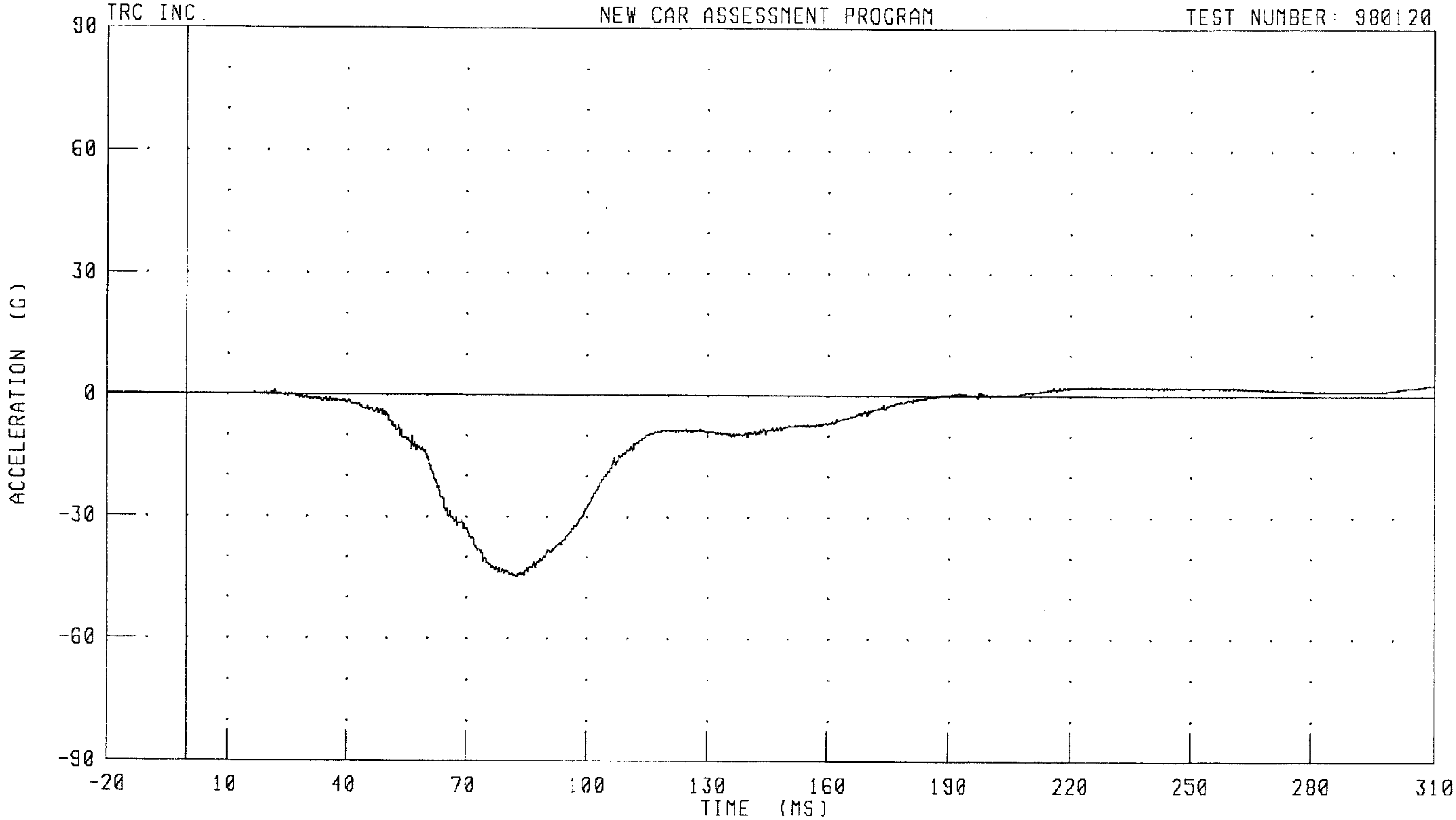
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



CHANNEL: RFMF1 FILTER: CH. CLASS 600 PEAK DATA: 128.67 N @ 190.48 MS; -4004.05 N @ 74.32 MS

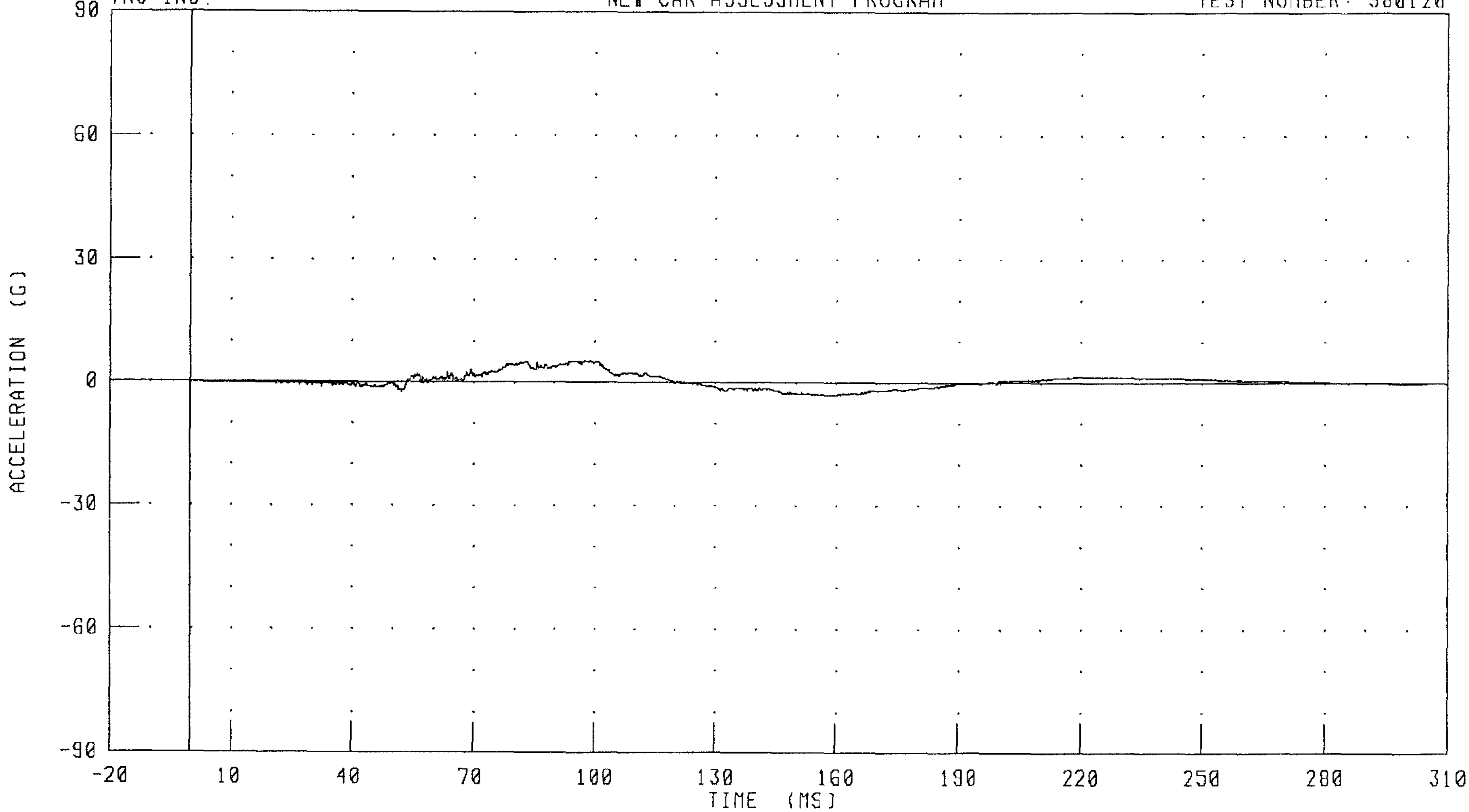
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD X-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDXR1 FILTER: CH. CLASS 1000
PEAK DATA: 2.73 G @ 308.64 MS; -44.95 G @ 82.40 MS

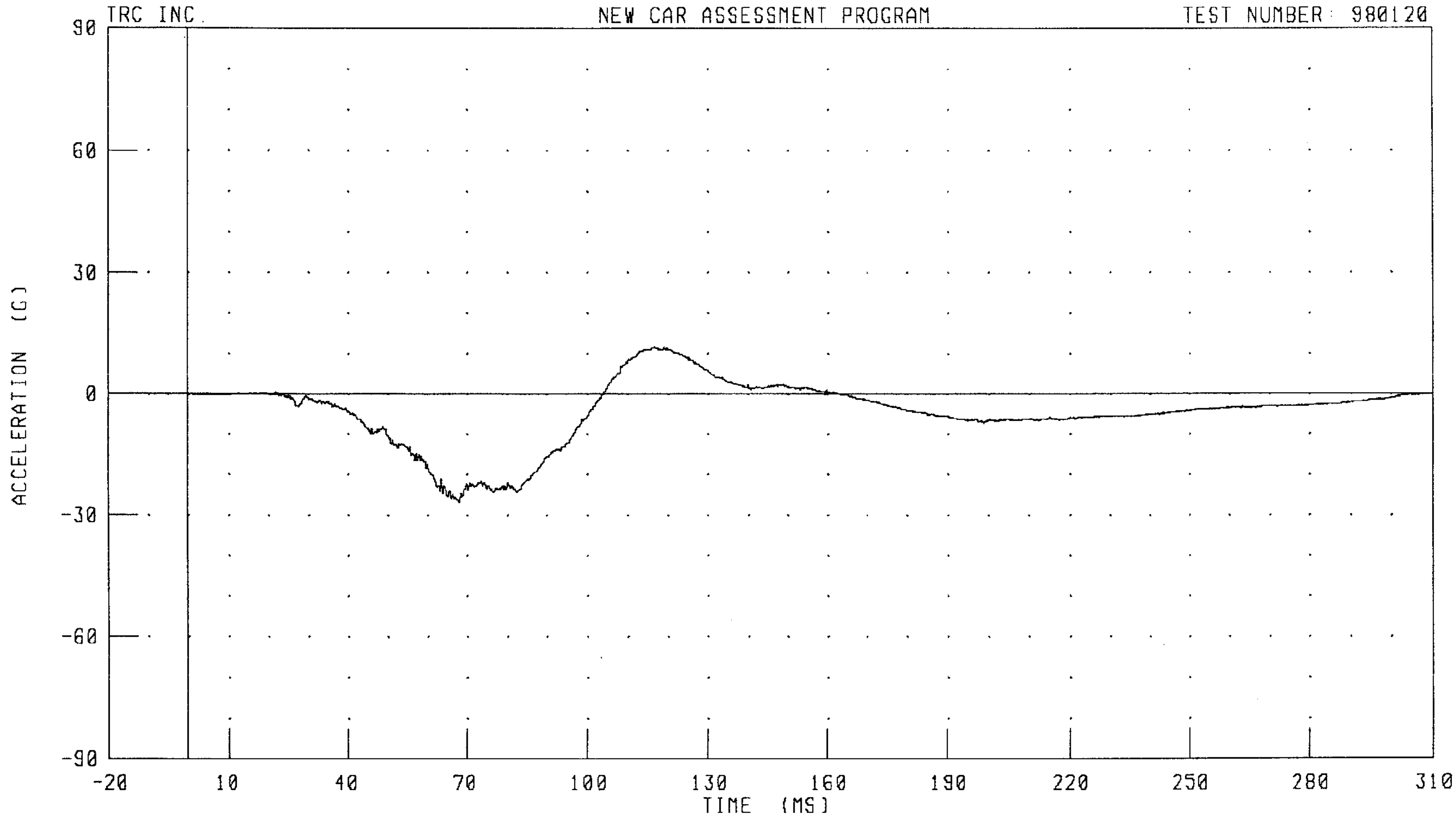
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD Y-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



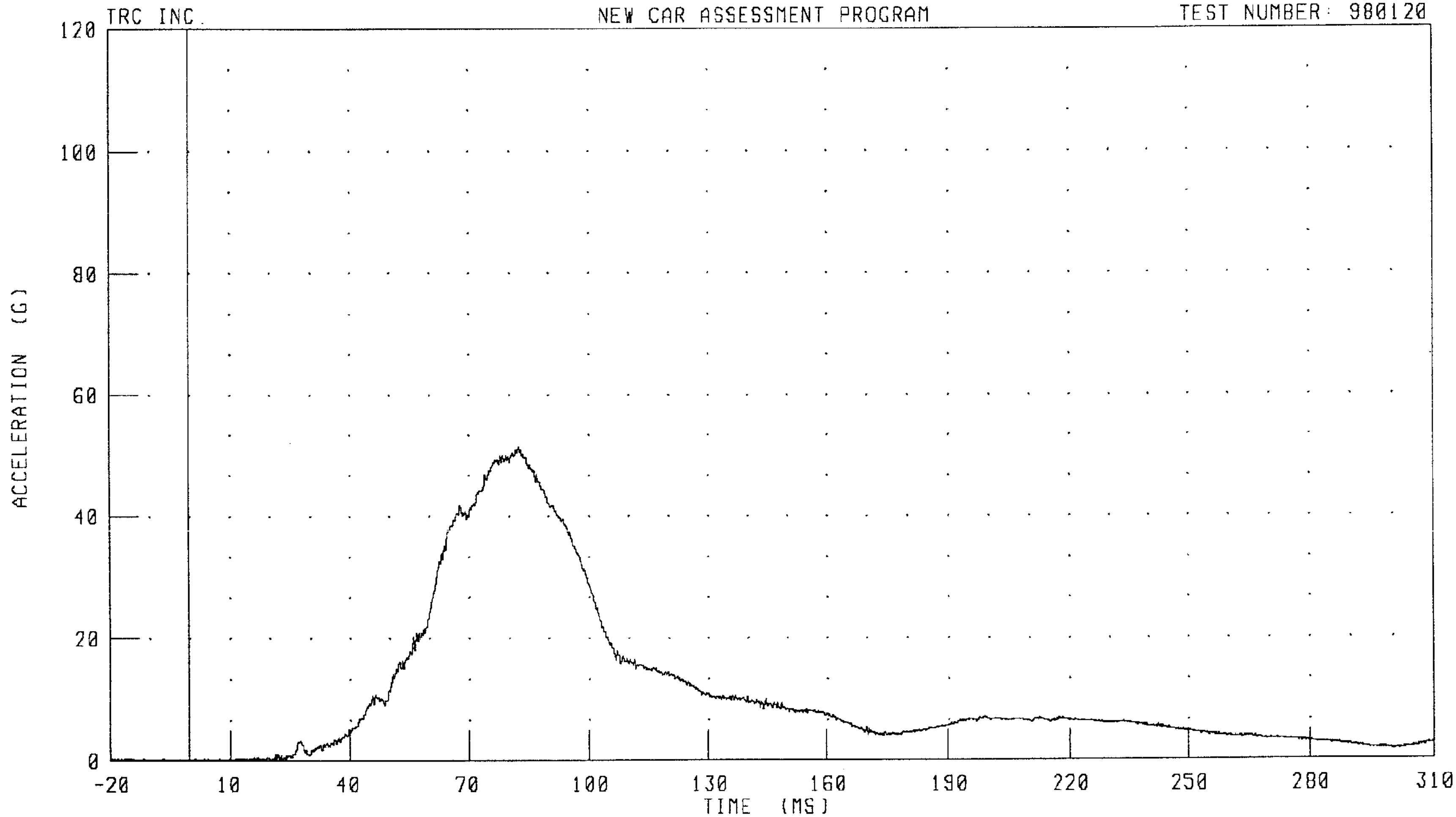
CHANNEL: HEDYR1 FILTER: CH. CLASS 1000 PEAK DATA: 5.38 G @ 97.68 MS, -3.12 G @ 157.68 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD Z-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



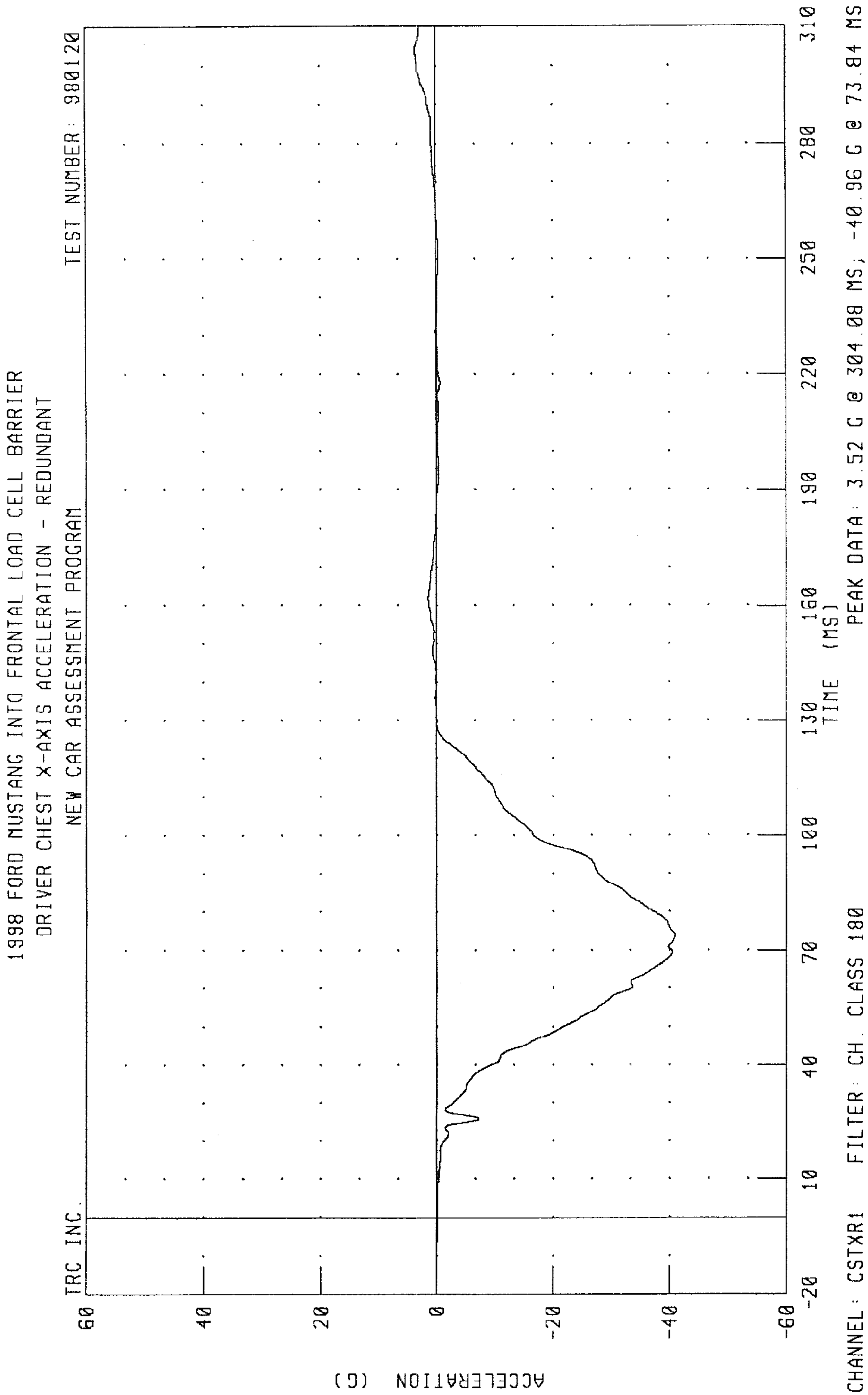
CHANNEL: HEDZR1 FILTER: CH. CLASS 1000 PEAK DATA: 11.63 G @ 116.80 MS, -26.87 G @ 68.08 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER HEAD RESULTANT ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



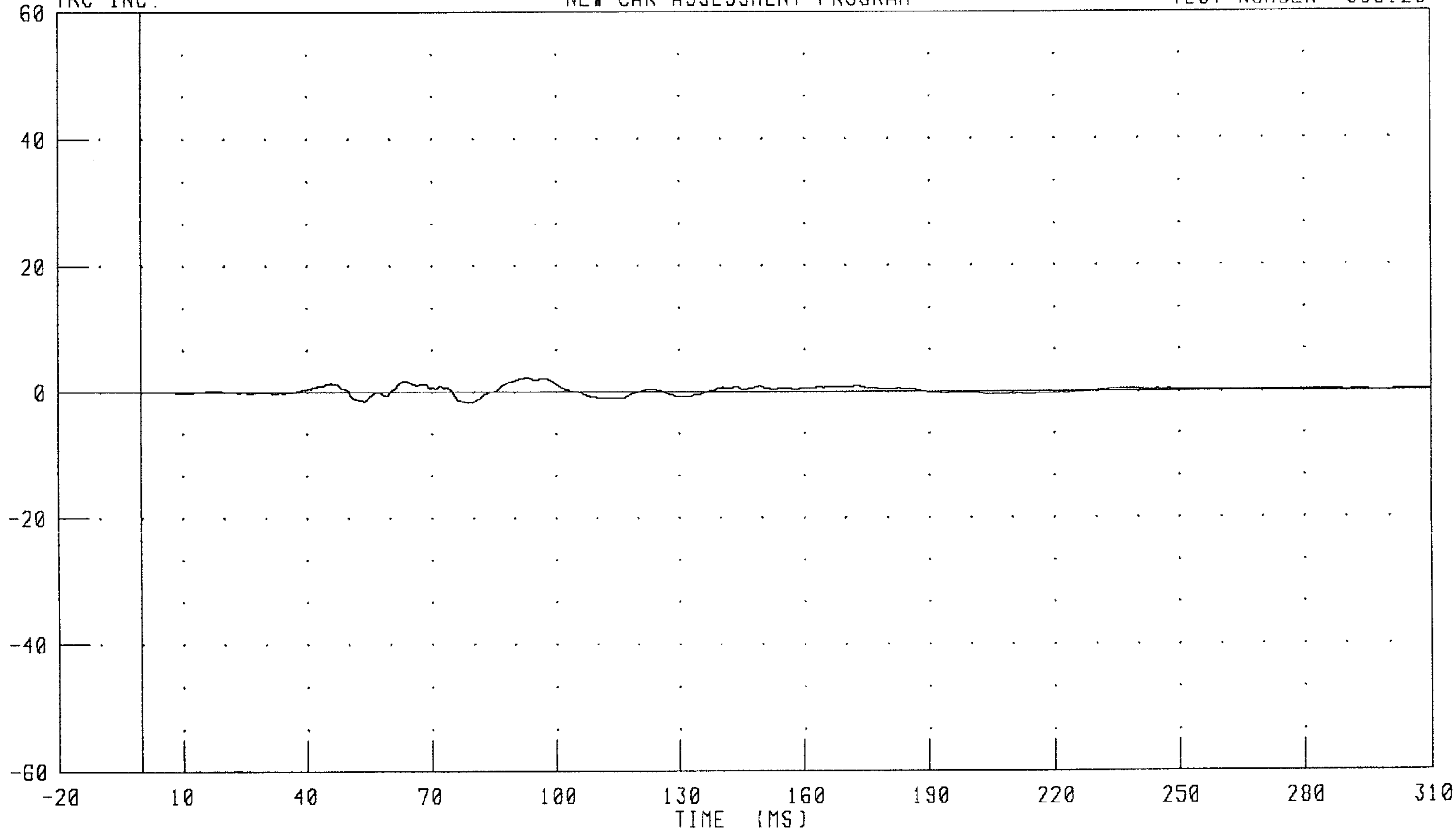
CHANNEL: HEDRR1 FILTER: CH. CLASS 1000

PEAK DATA: 51.33 G @ 82.40 MS; 0.07 G @ -19.92 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST X-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: CSTXR1
FILTER: CH. CLASS 180
PEAK DATA: 3.52 G @ 304.08 MS; -40.96 G @ 73.84 MS

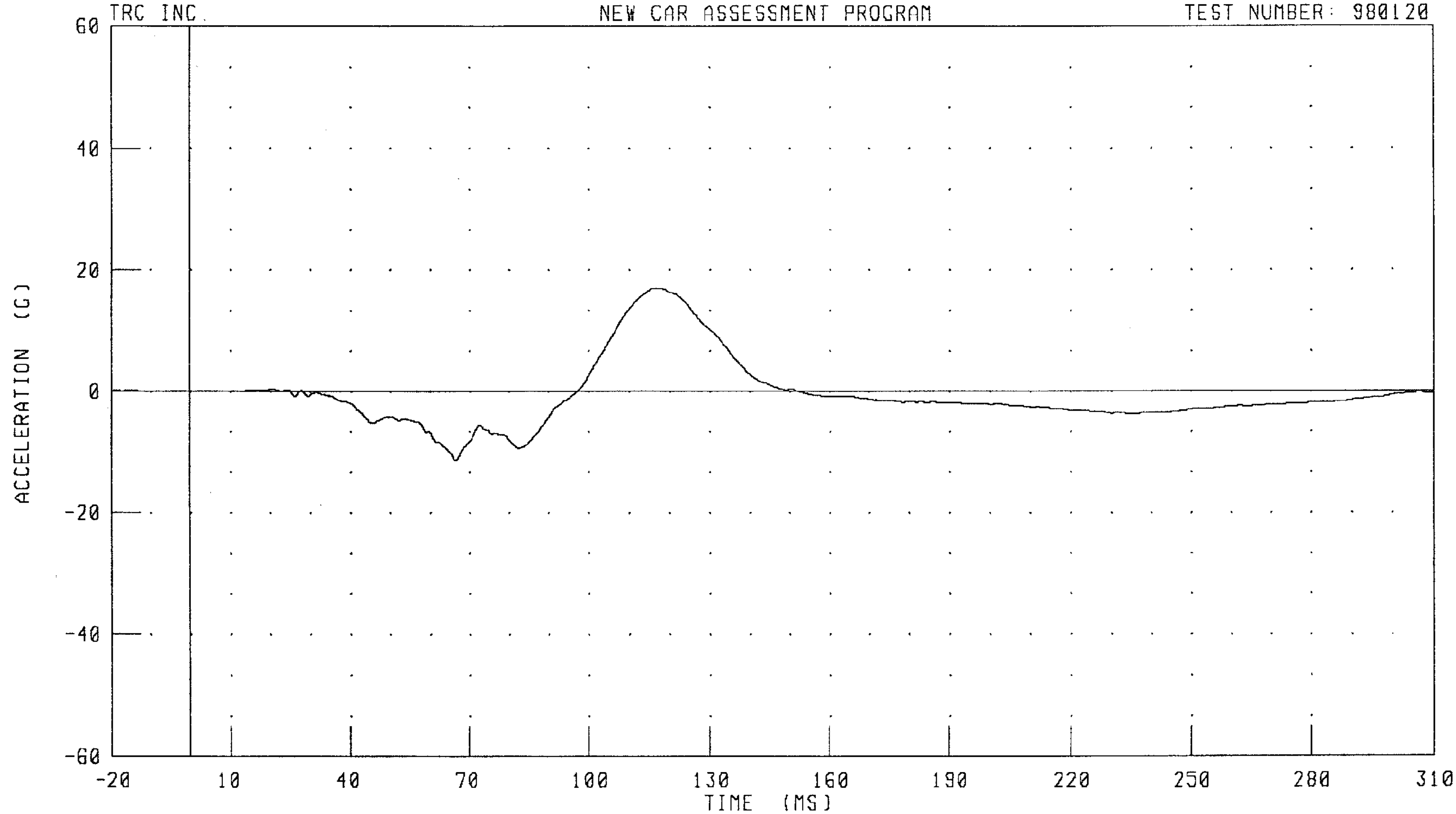
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST Y-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



CHANNEL: CSTYR1 FILTER: CH. CLASS 180 PEAK DATA: 2.28 G @ 93.04 MS; -1.73 G @ 78.96 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST Z-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

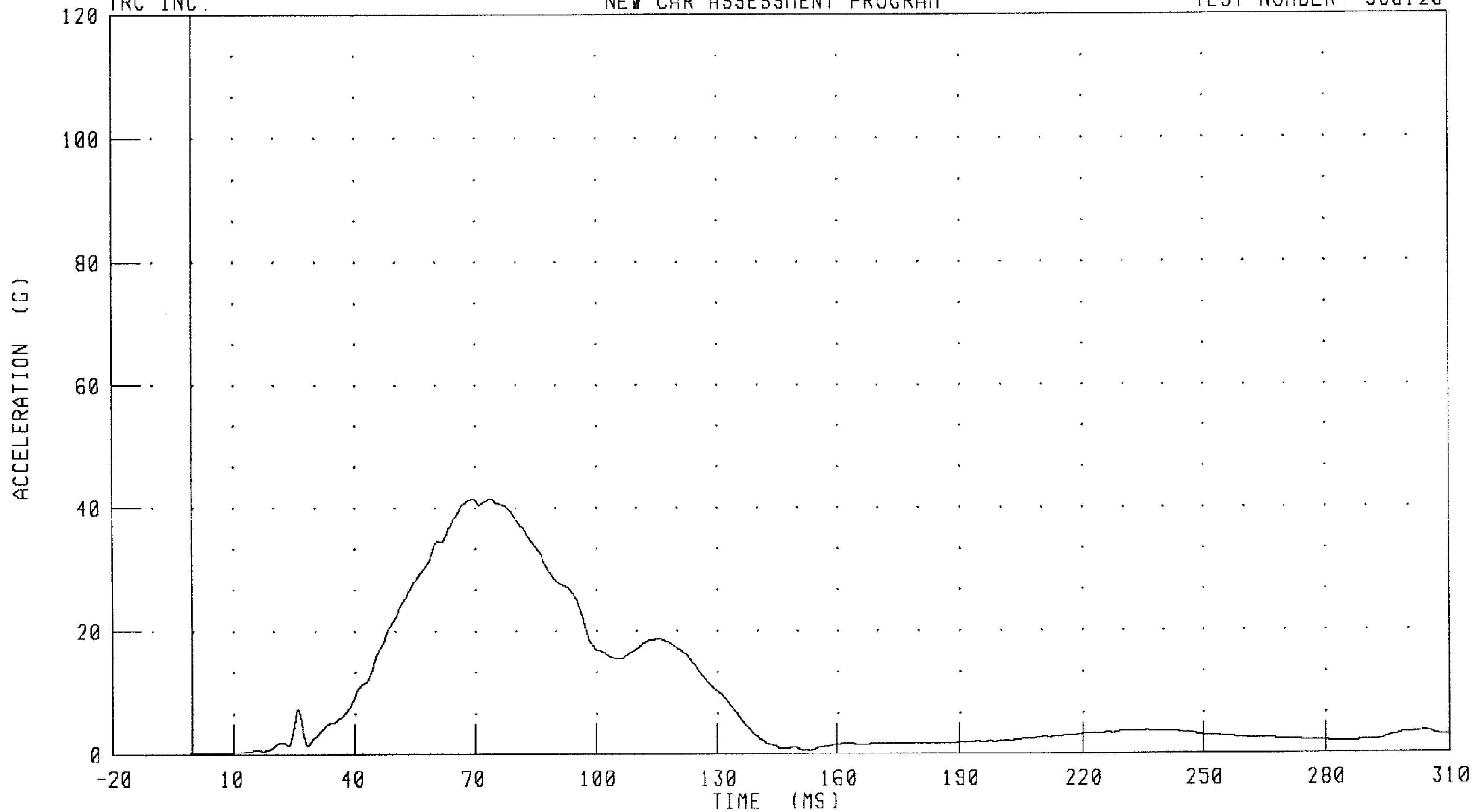


CHANNEL: CSTZR1 FILTER: CH. CLASS 180 PEAK DATA: 16.98 G @ 116.16 MS; -11.36 G @ 66.64 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER CHEST RESULTANT ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

TRC INC.

TEST NUMBER: 980120



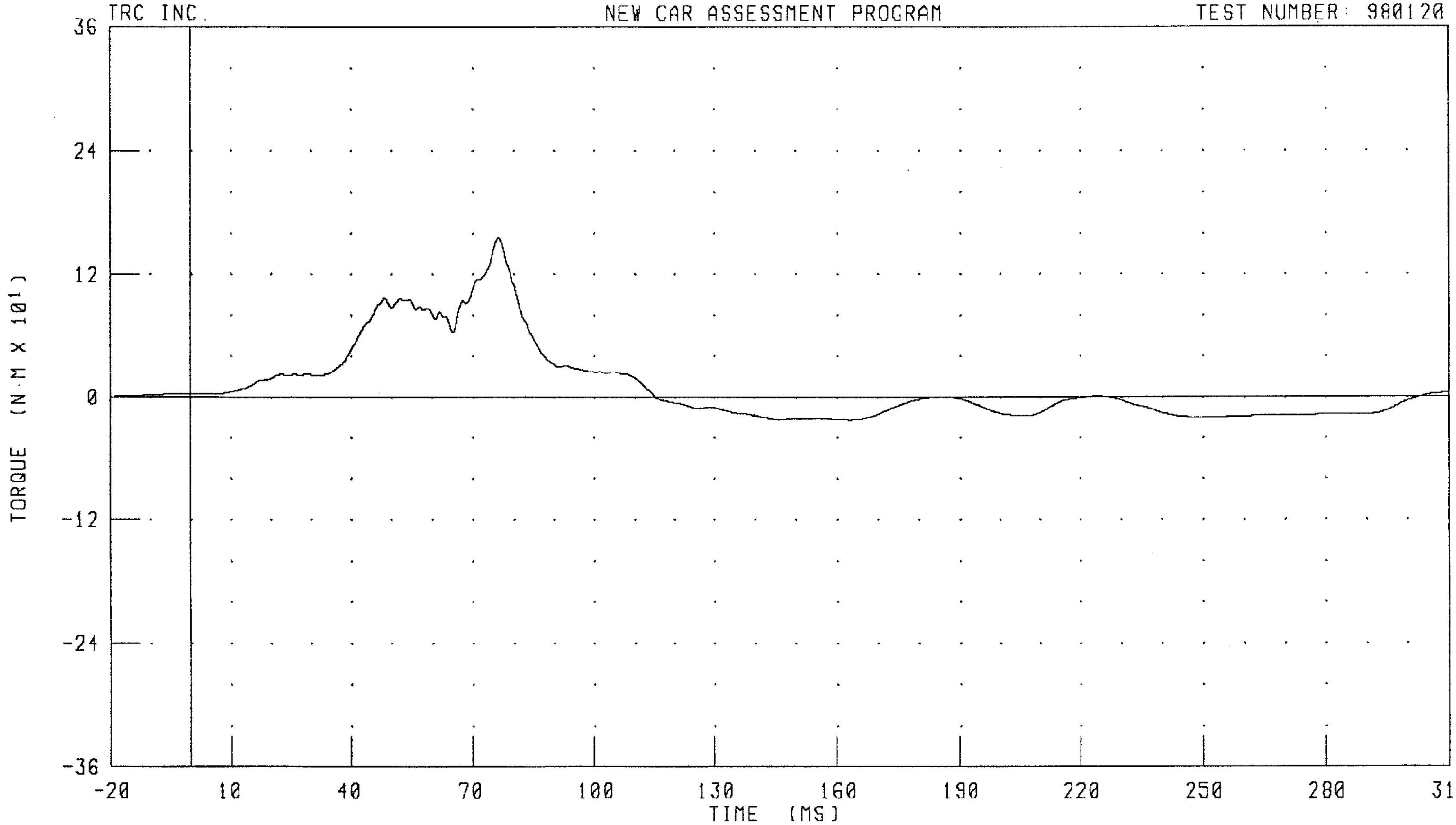
CHANNEL: CSTRR1 FILTER: CH. CLASS 180

PEAK DATA: 41.45 G @ 69.44 MS; 0.01 G @ -20.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT UPPER TIBIA MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM

TRC INC.

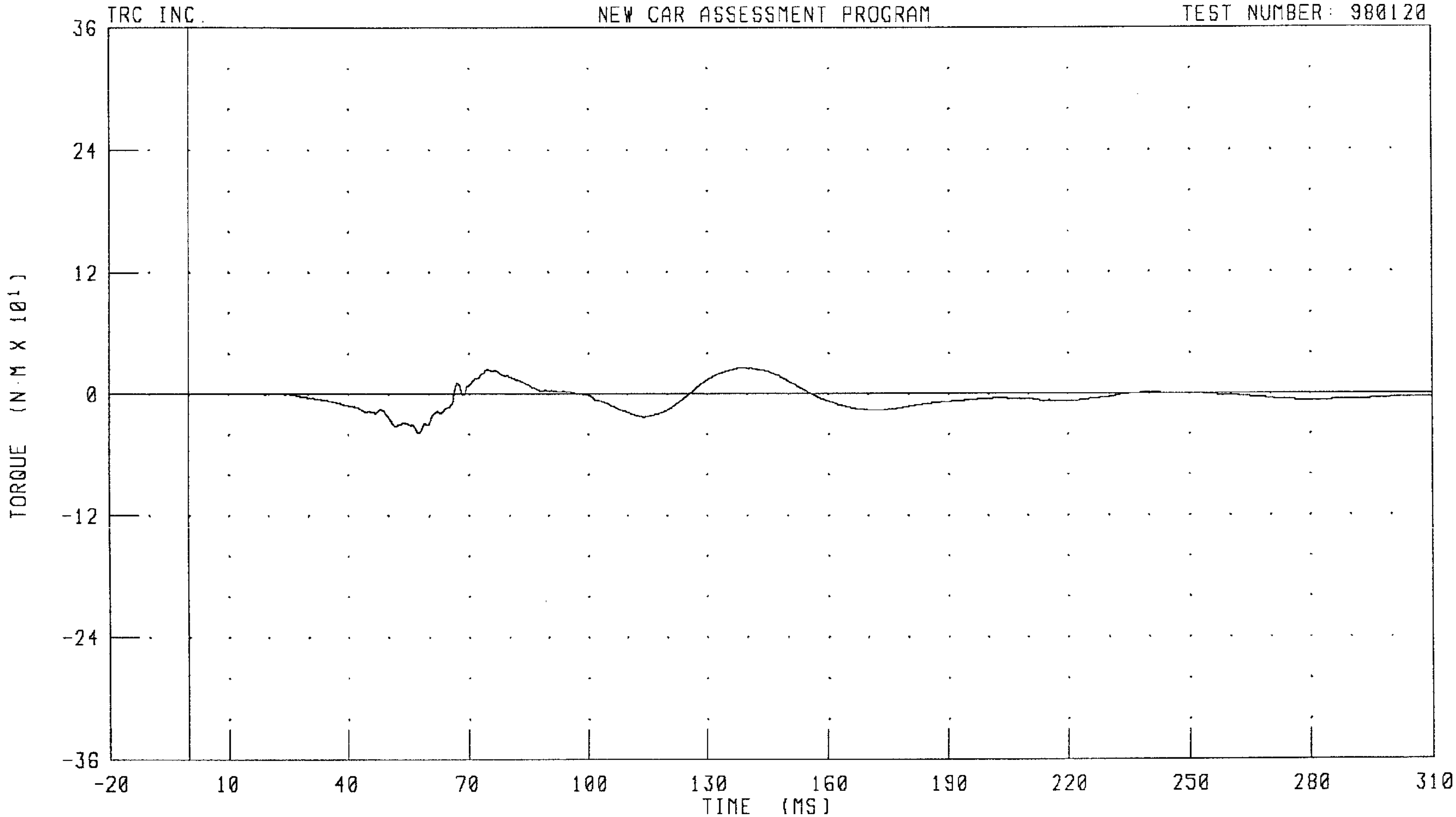
TEST NUMBER: 980120



CHANNEL: TBLXM1 FILTER: CH. CLASS 600

PEAK DATA: 155.41 N·M @ 76.32 MS; -22.91 N·M @ 163.20 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM

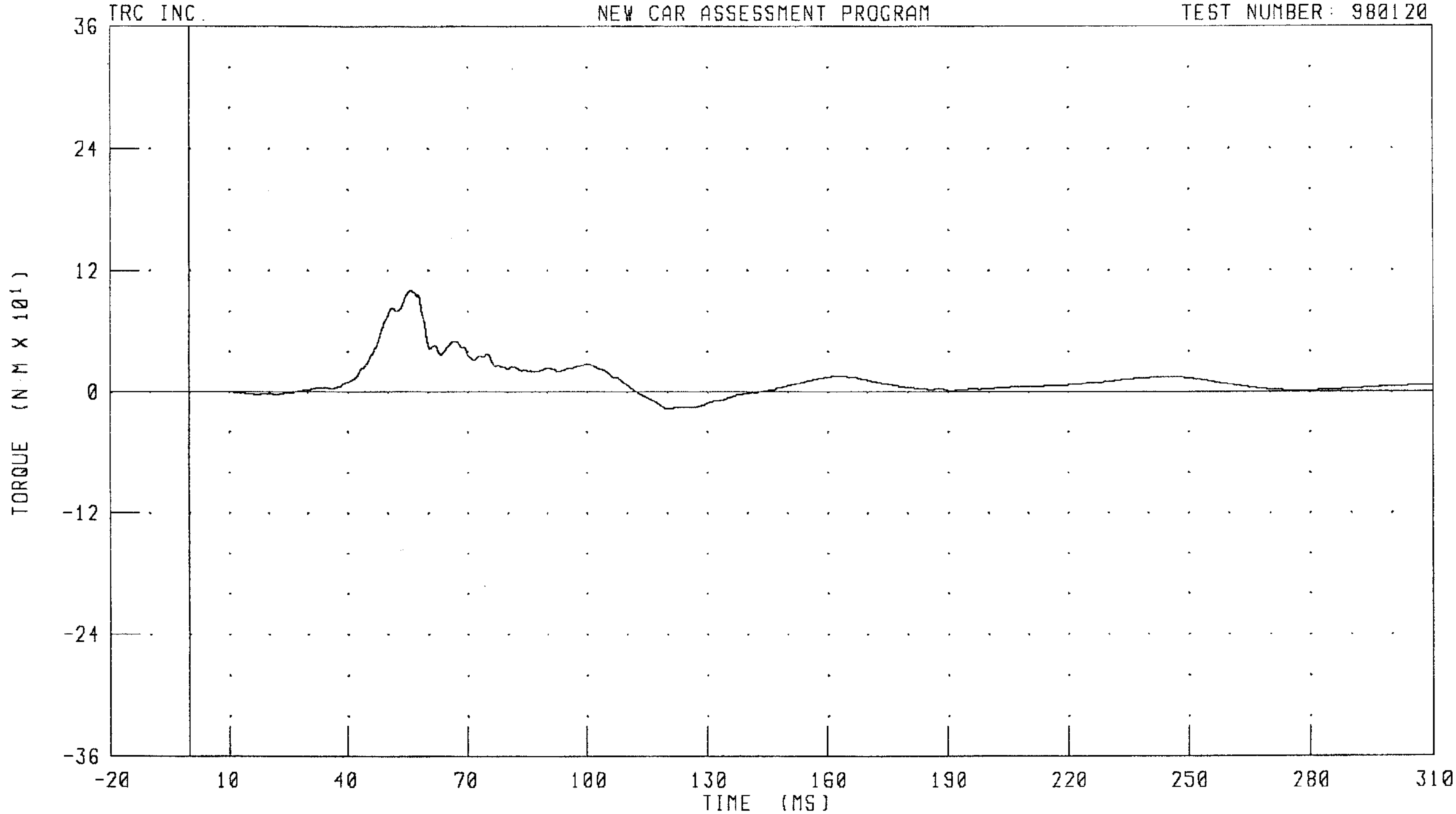


CHANNEL: TBLYM1 FILTER: CH. CLASS 600 PEAK DATA: 25.36 N·M @ 139.44 MS; -38.46 N·M @ 57.60 MS

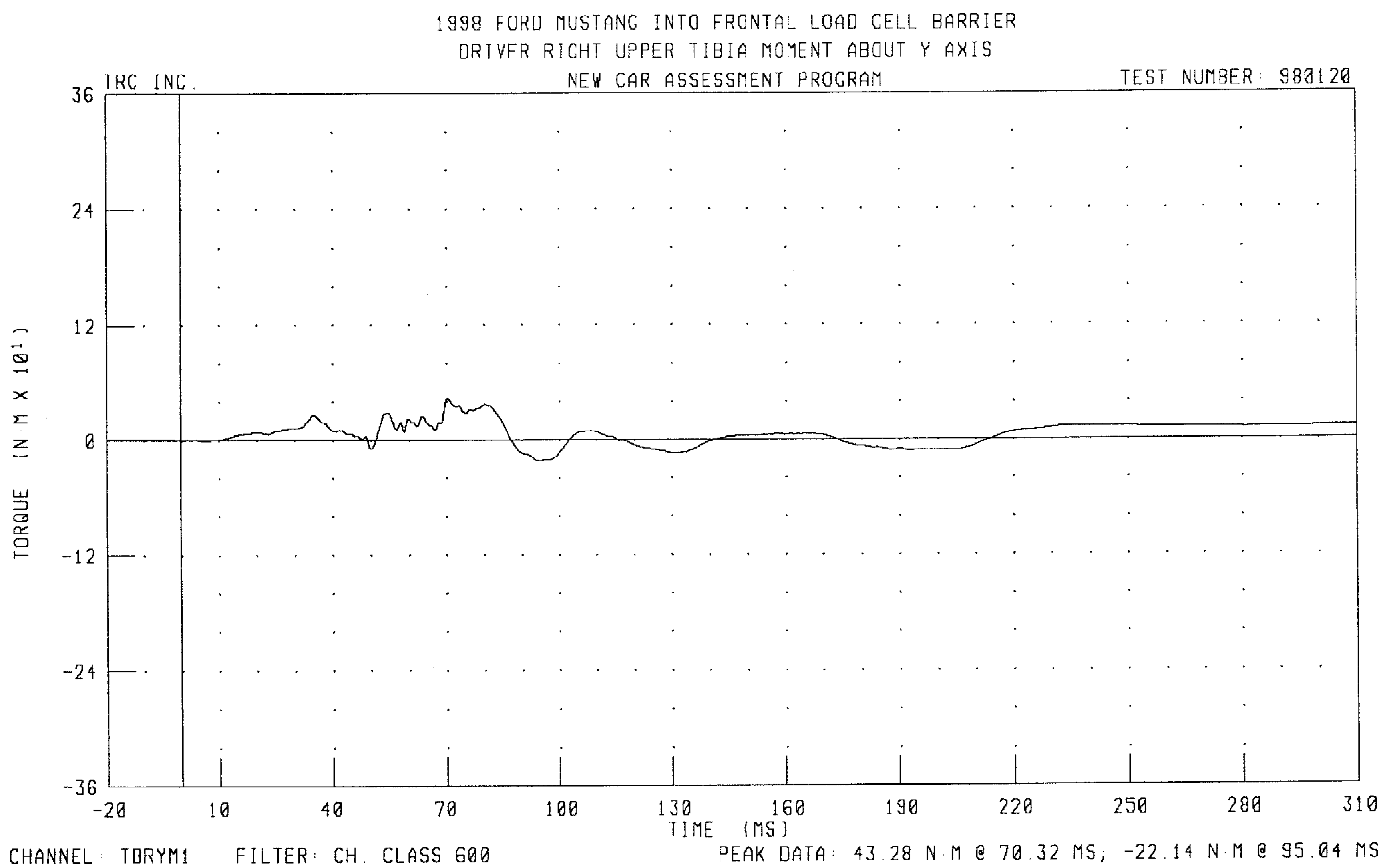
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM

TRC INC.

TEST NUMBER: 980120

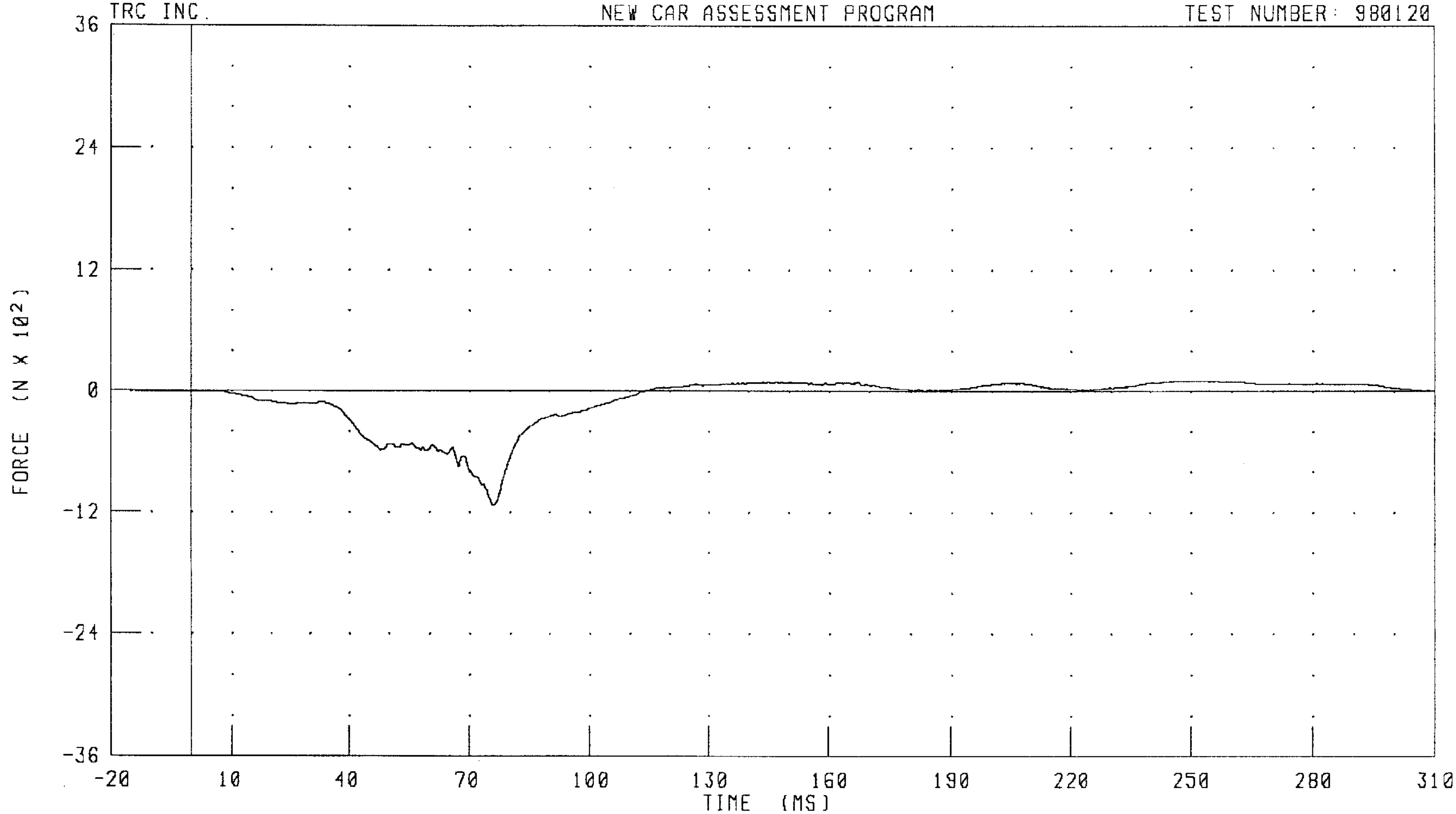


CHANNEL: TBRXM1 FILTER: CH. CLASS 600 PEAK DATA: 100.39 N·M @ 55.76 MS; -16.24 N·M @ 120.48 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
TORQUE (N·M X 10¹)
36
24
12
0
-12
-24
-36
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: TBRYM1
FILTER: CH. CLASS 600
PEAK DATA: 43.28 N·M @ 70.32 MS; -22.14 N·M @ 95.04 MS

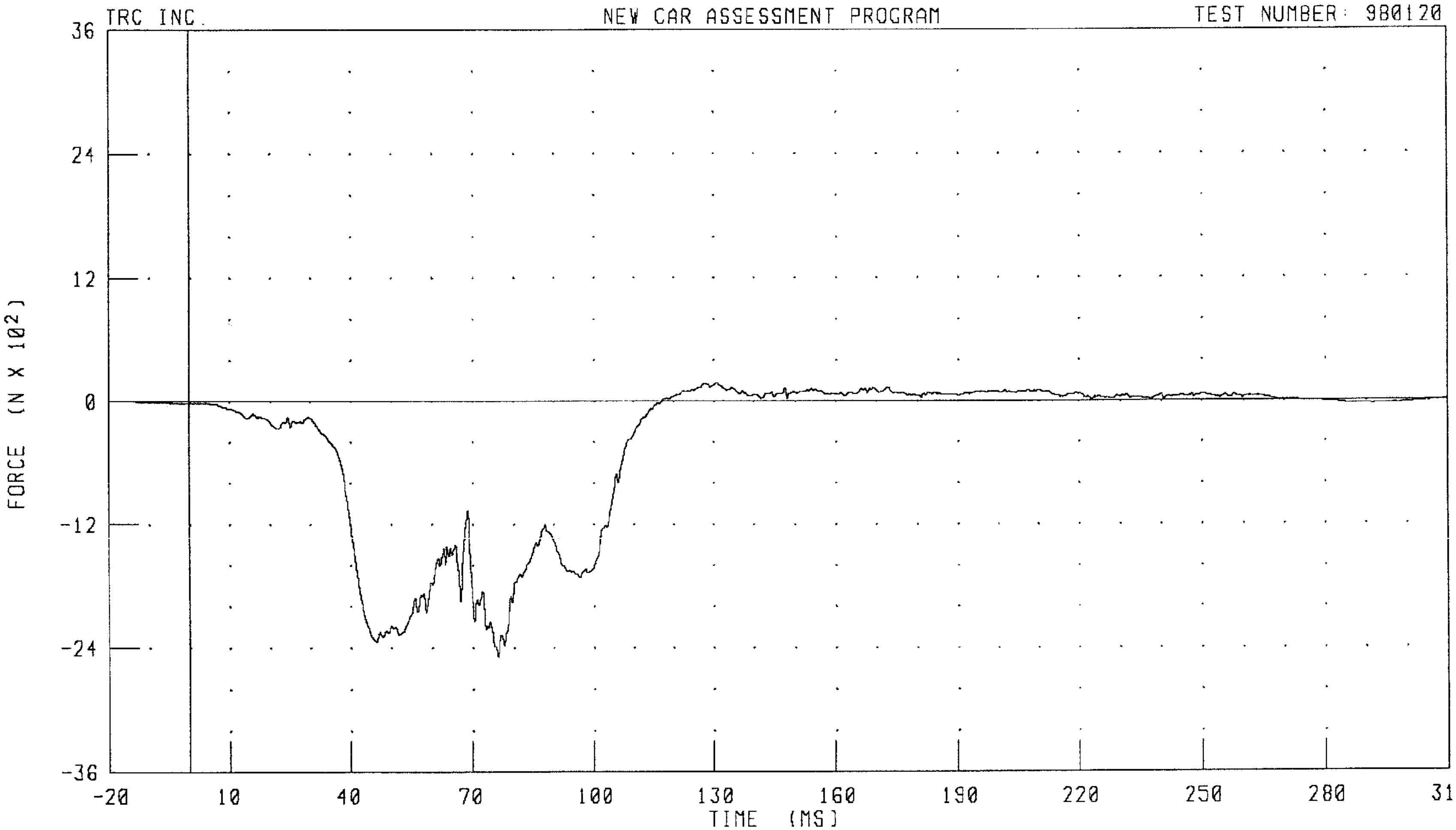
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT LOWER TIBIA X-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



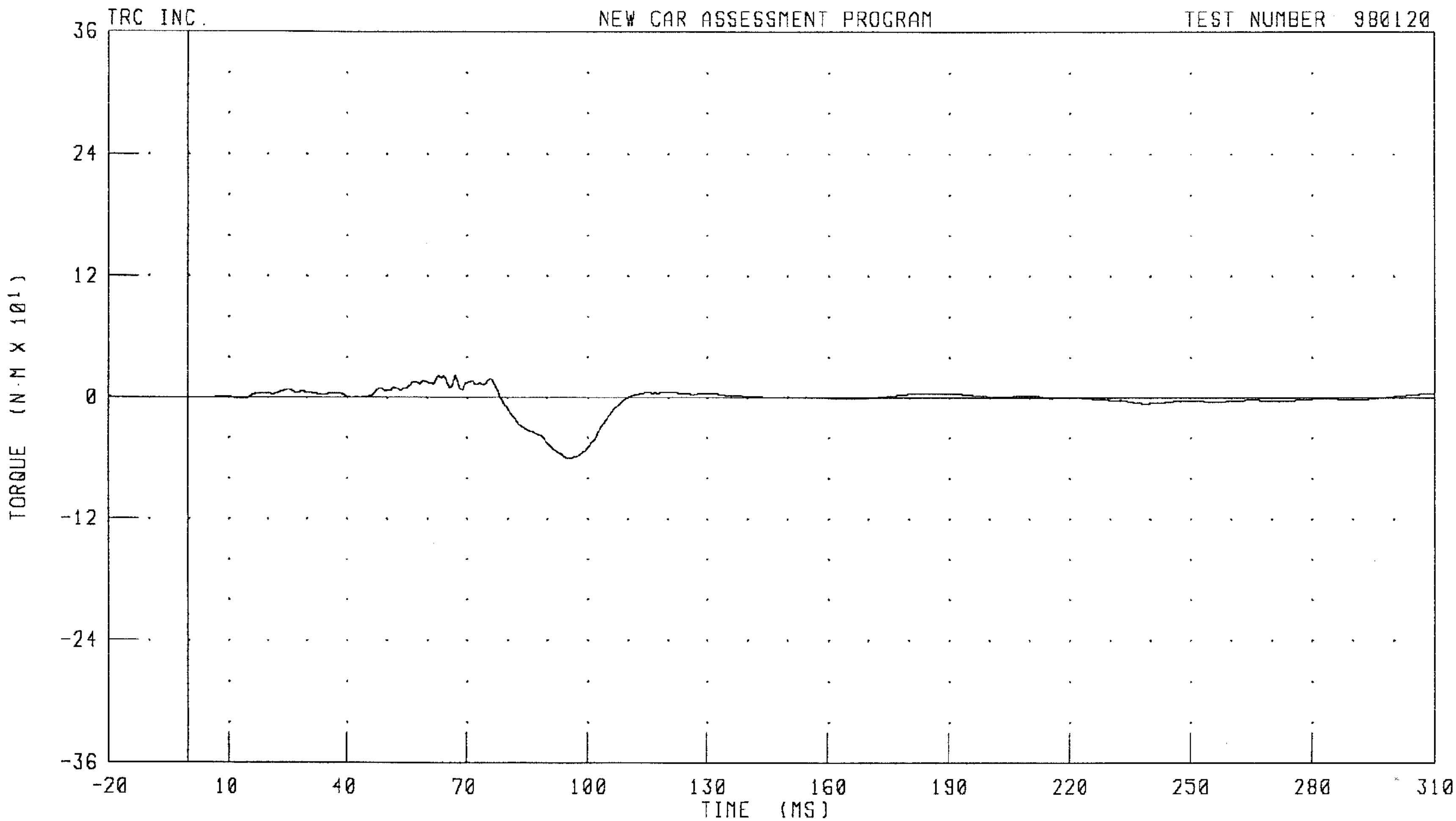
CHANNEL: ANLXF1 FILTER: CH. CLASS 600 PEAK DATA: 103.99 N @ 253.28 MS, -1131.46 N @ 75.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT LOWER TIBIA Z-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



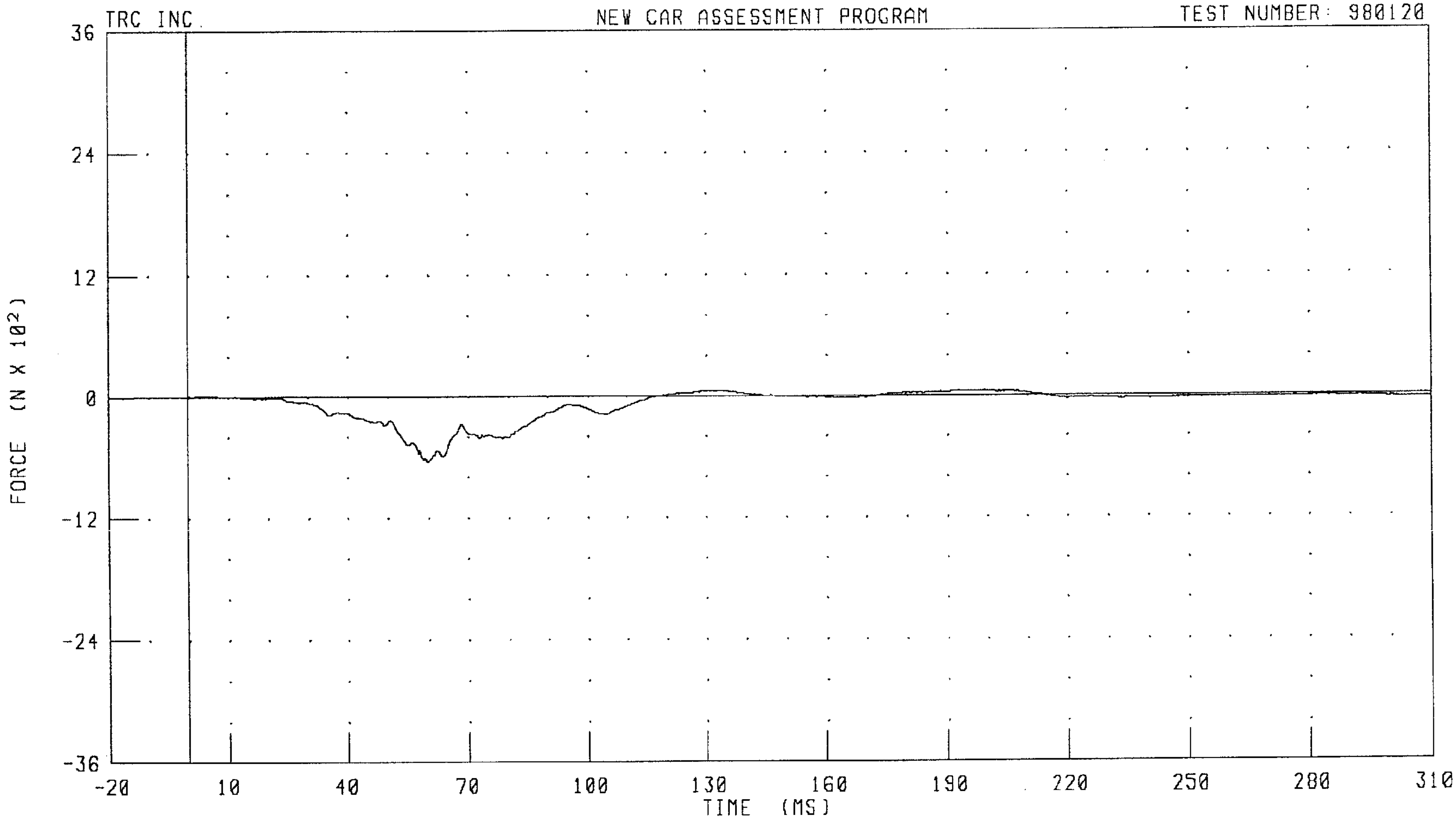
CHANNEL: ANLZF1 FILTER: CH. CLASS 600 PEAK DATA: 182.76 N @ 130.80 MS; -2490.03 N @ 76.24 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM



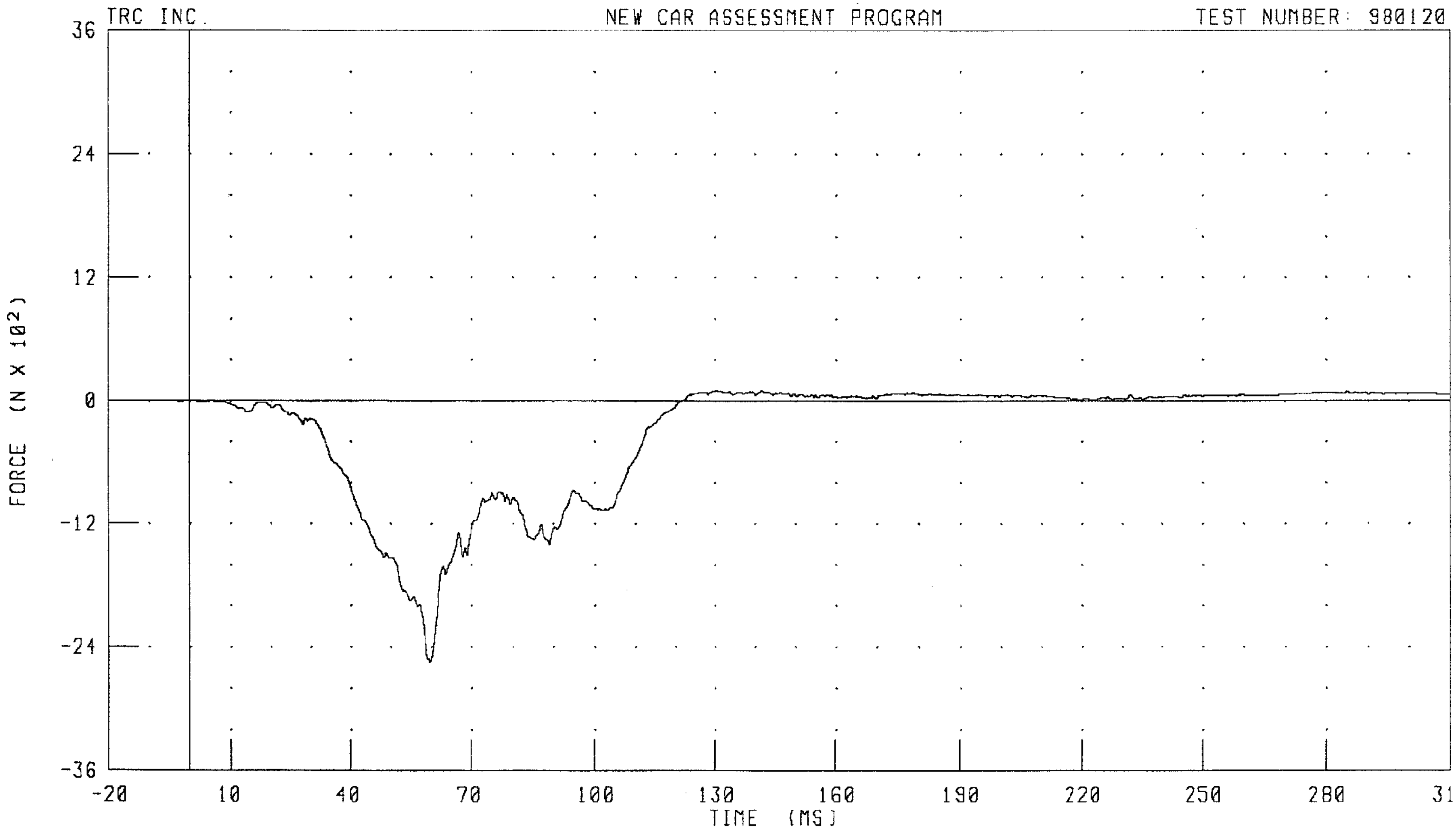
CHANNEL: ANLYM1 FILTER: CH. CLASS 600 PEAK DATA: 22.10 N·M @ 67.20 MS; -59.88 N·M @ 95.52 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT LOWER TIBIA X-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: ANRXF1   FILTER: CH. CLASS 600   PEAK DATA: 52.75 N @ 128.88 MS; -651.58 N @ 59.92 MS

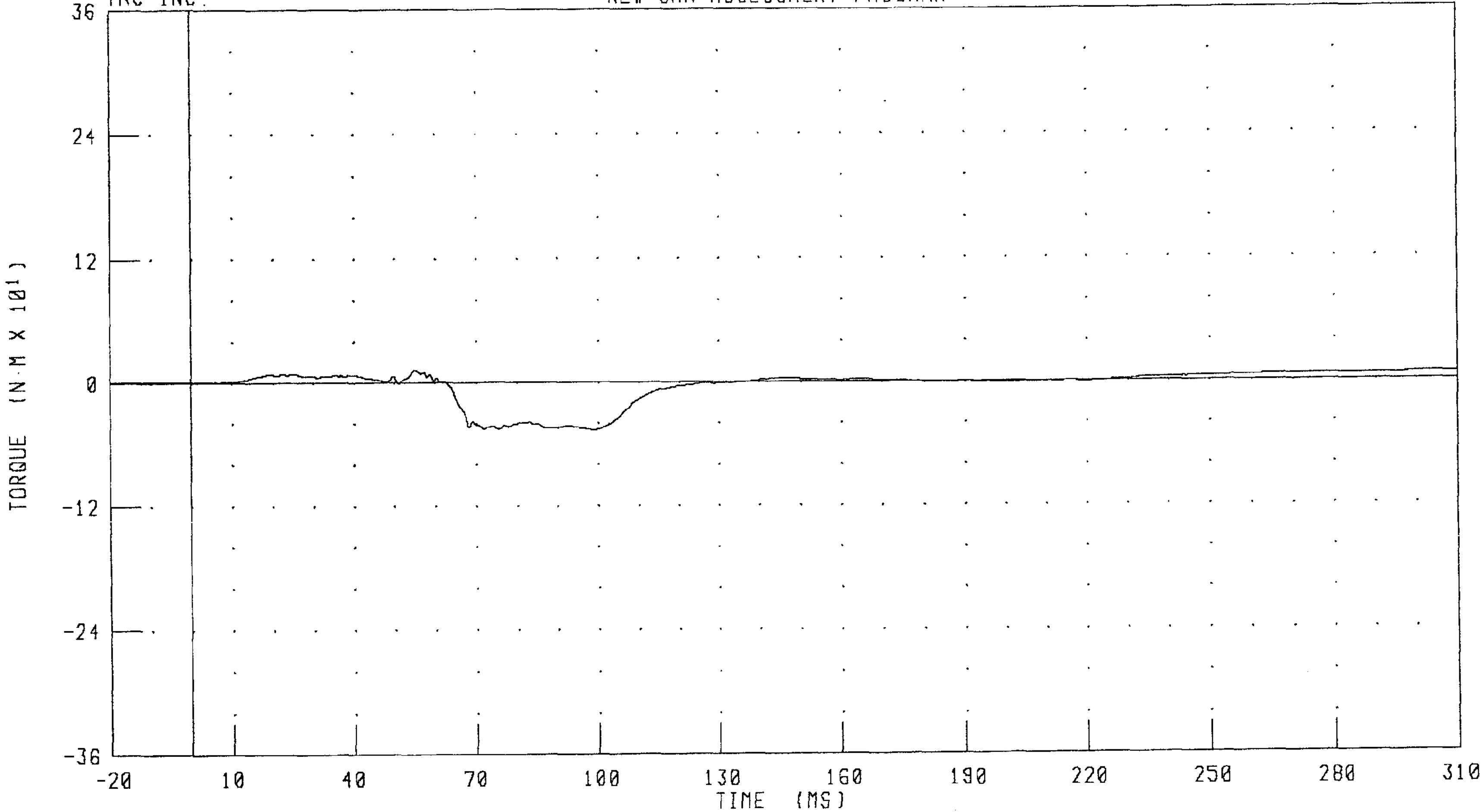
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT LOWER TIBIA Z-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



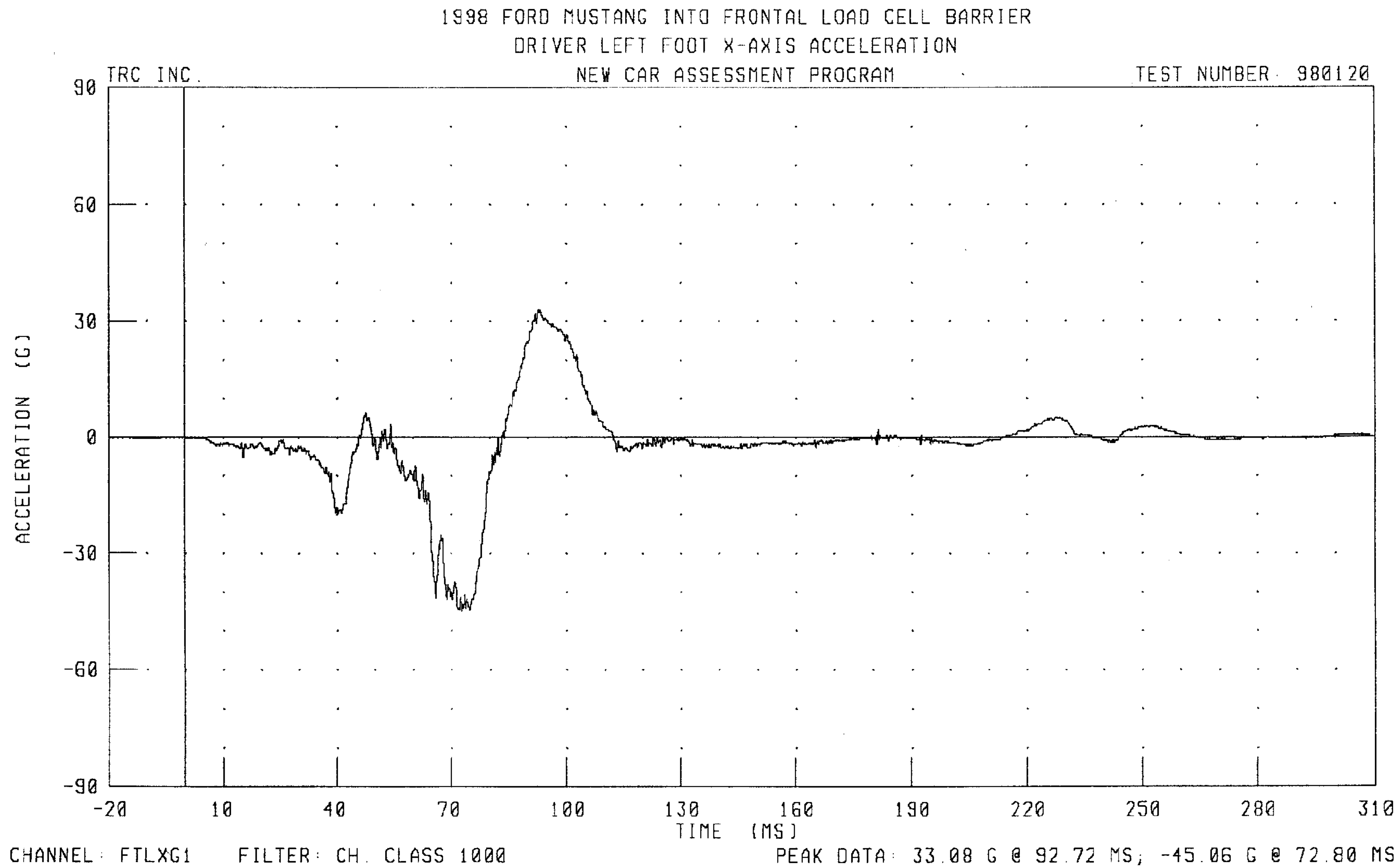
CHANNEL: ANRZF1 FILTER: CH. CLASS 600 PEAK DATA: 99.11 N @ 130.48 MS; -2554.43 N @ 59.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM

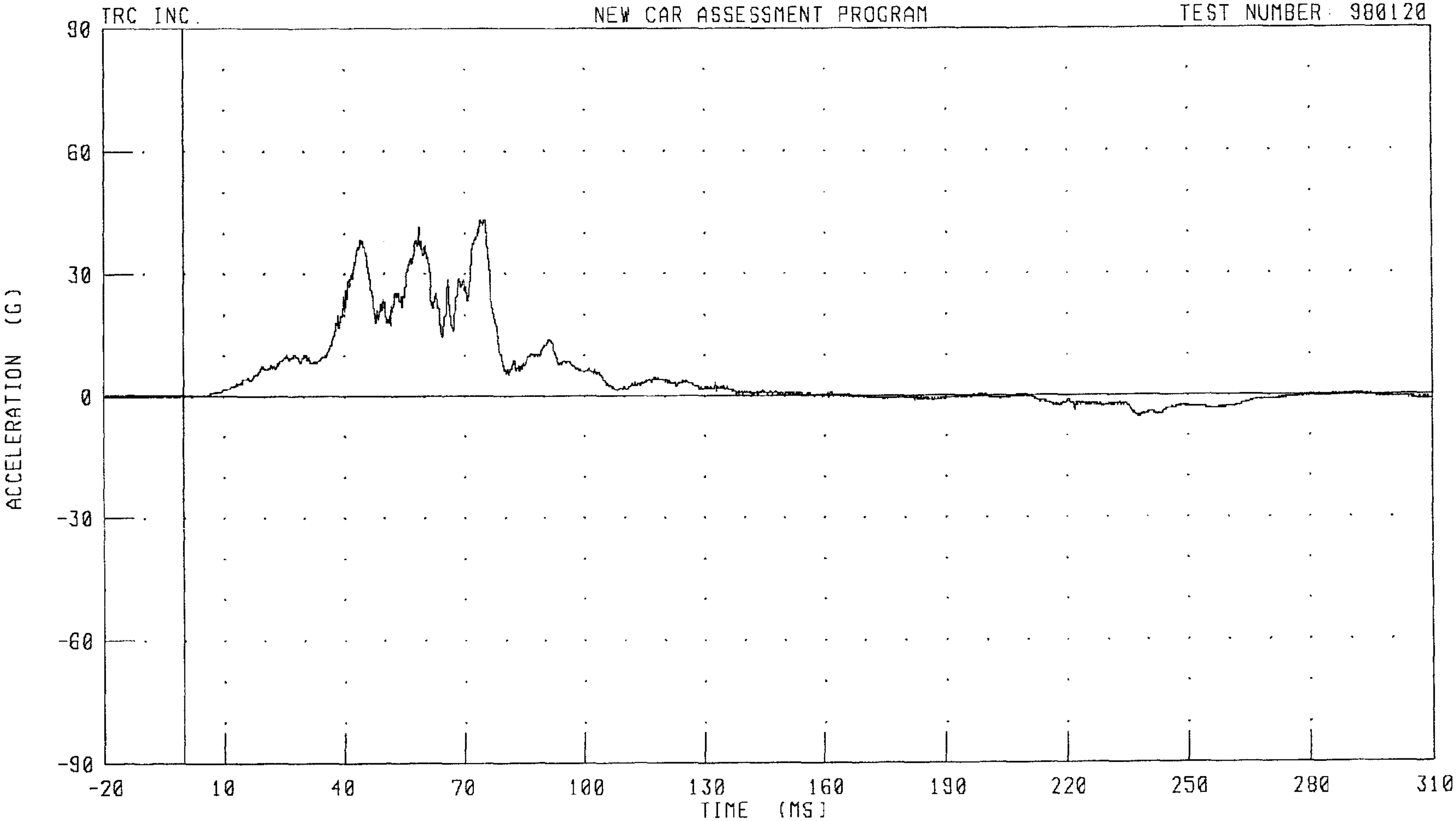
TRC INC. TEST NUMBER: 980120



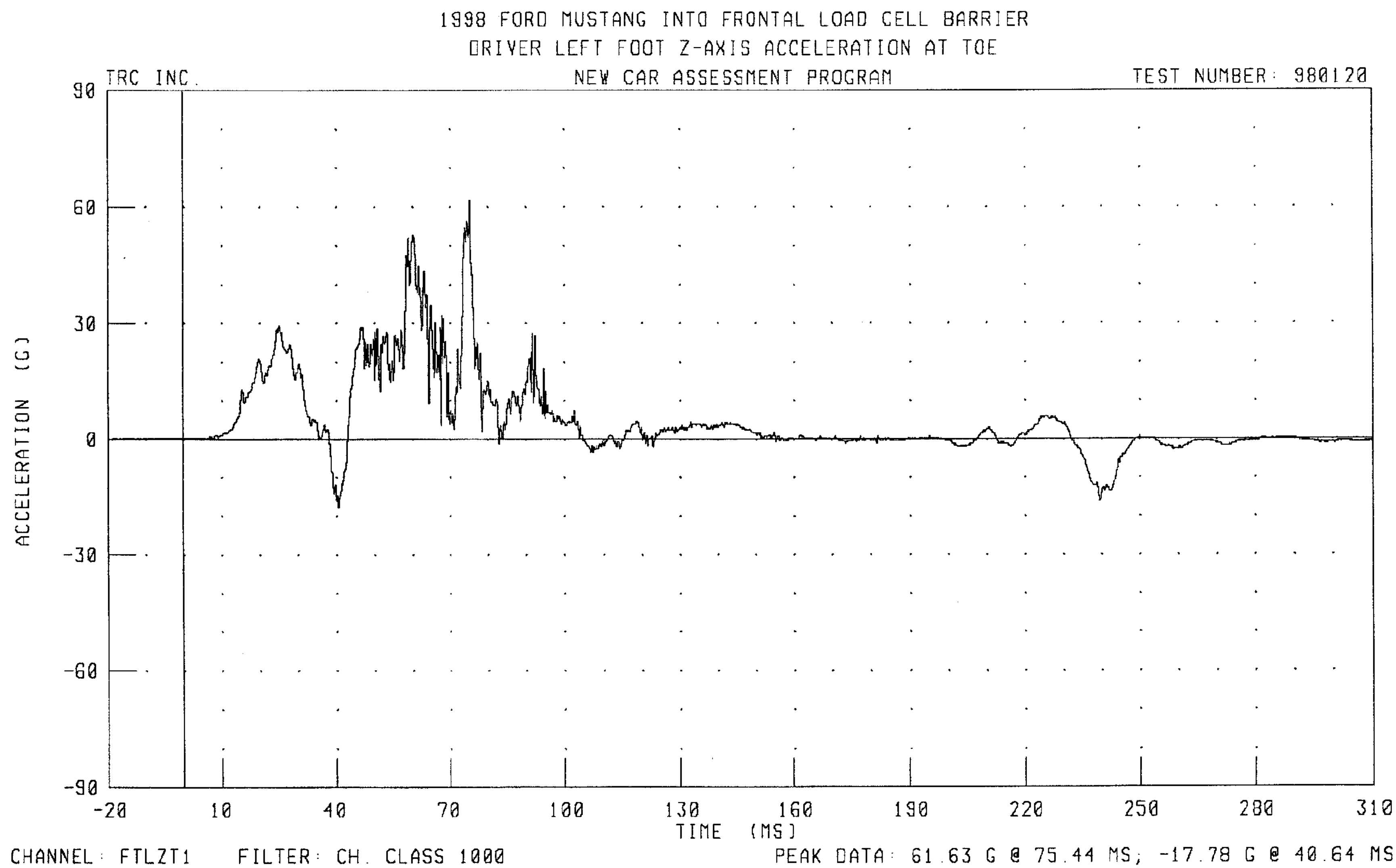
CHANNEL: ANRYM1 FILTER: CH. CLASS 600 PEAK DATA: 12.32 N·M @ 55.20 MS; -46.61 N·M @ 98.88 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
90
60
30
0
-30
-60
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: FTLXG1
FILTER: CH. CLASS 1000
PEAK DATA: 33.08 G @ 92.72 MS; -45.06 G @ 72.80 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT Z-AXIS ACCELERATION AT HEEL
NEW CAR ASSESSMENT PROGRAM

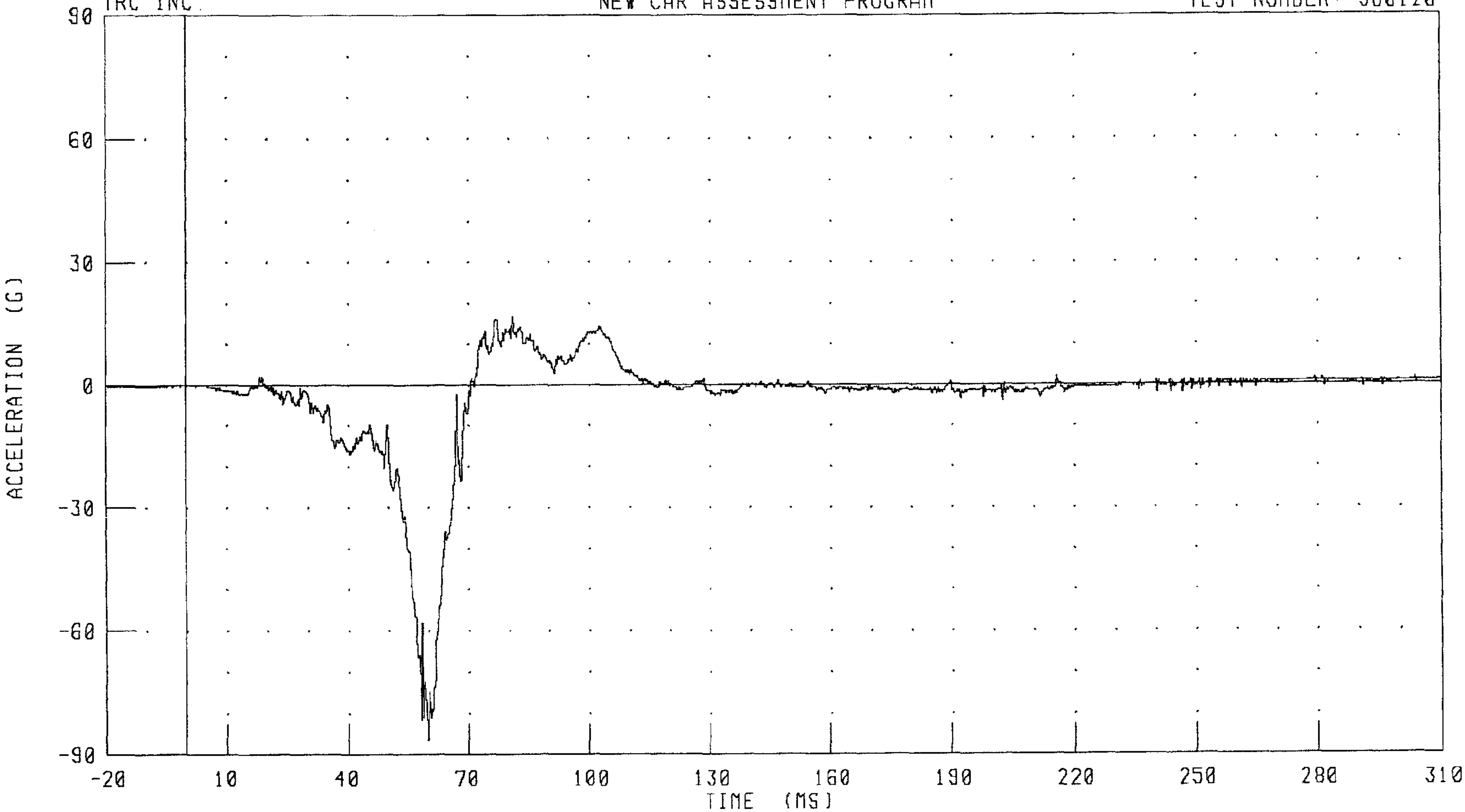


CHANNEL: FTLZH1   FILTER: CH. CLASS 1000   PEAK DATA: 43.19 G @ 73.84 MS; -5.26 G @ 237.52 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LEFT FOOT Z-AXIS ACCELERATION AT TOE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
90
60
30
0
-30
-60
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: FTLZT1
FILTER: CH. CLASS 1000
PEAK DATA: 61.63 G @ 75.44 MS; -17.78 G @ 40.64 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT FOOT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

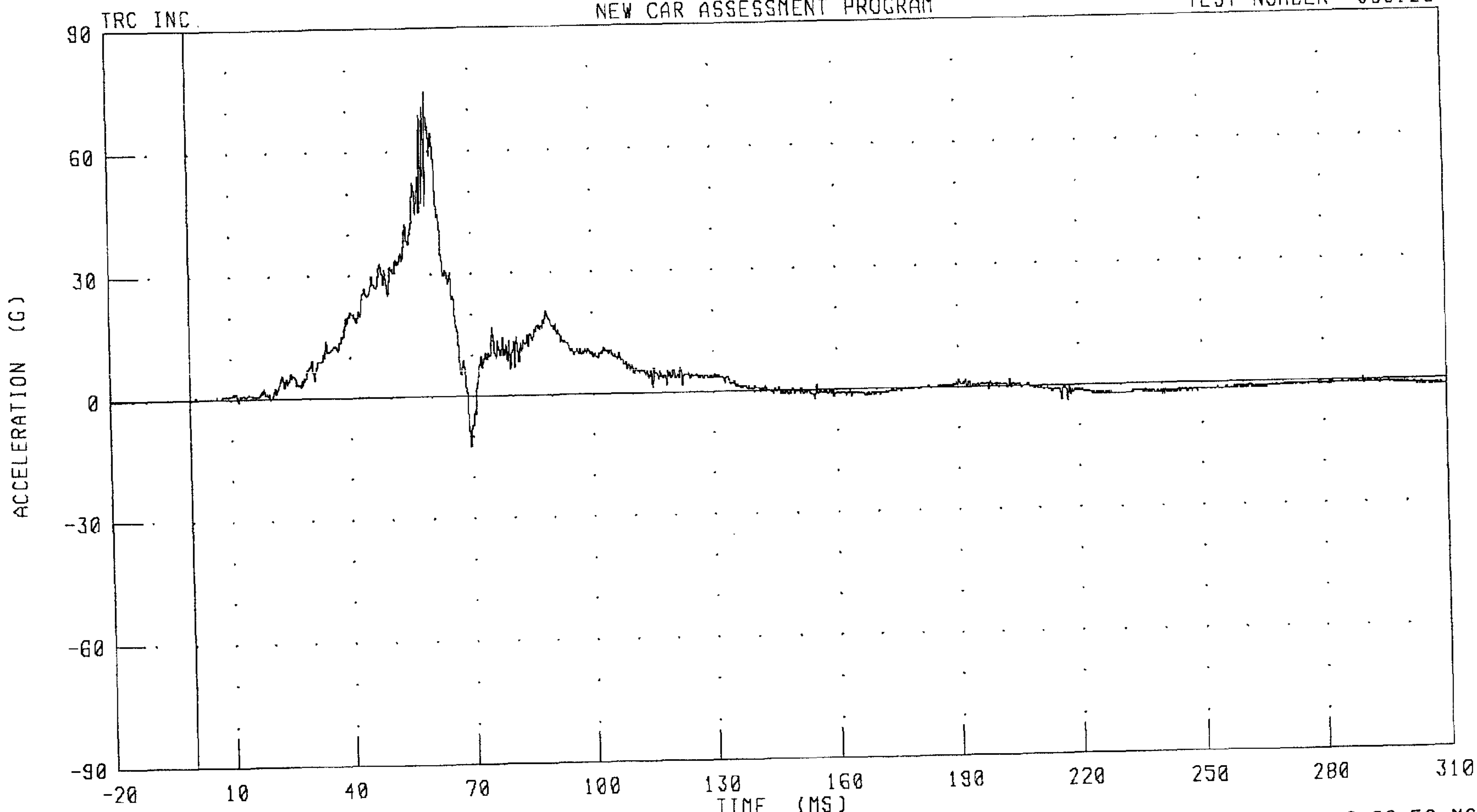
TRC INC. TEST NUMBER: 980120



CHANNEL: FTRXG1 FILTER: CH. CLASS 1000 PEAK DATA: 16.87 G @ 81.12 MS, -86.55 G @ 59.92 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT FOOT Z-AXIS ACCELERATION AT HEEL
NEW CAR ASSESSMENT PROGRAM

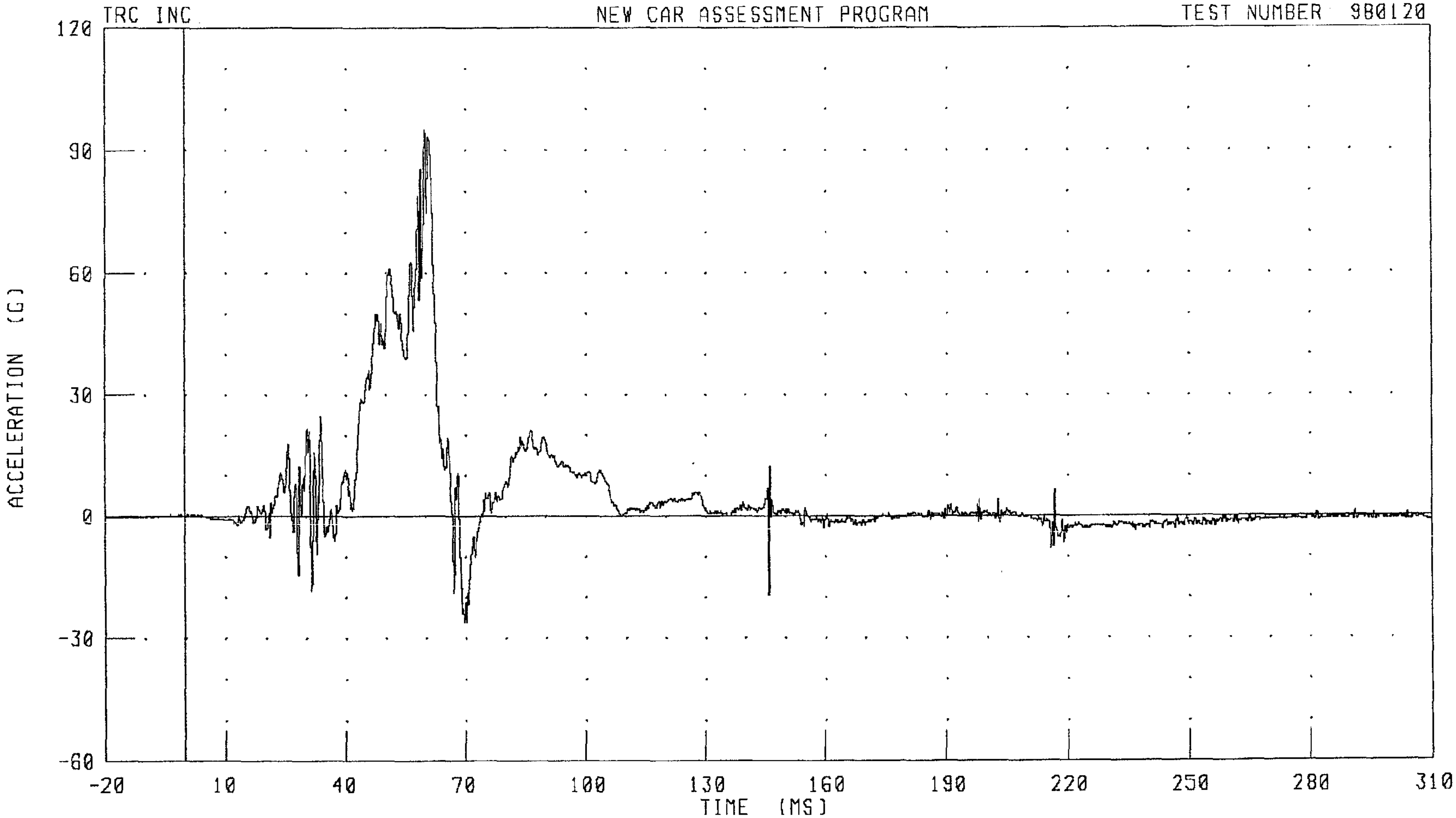
TEST NUMBER: 980120



CHANNEL: FTRZH1 FILTER: CH CLASS 1000

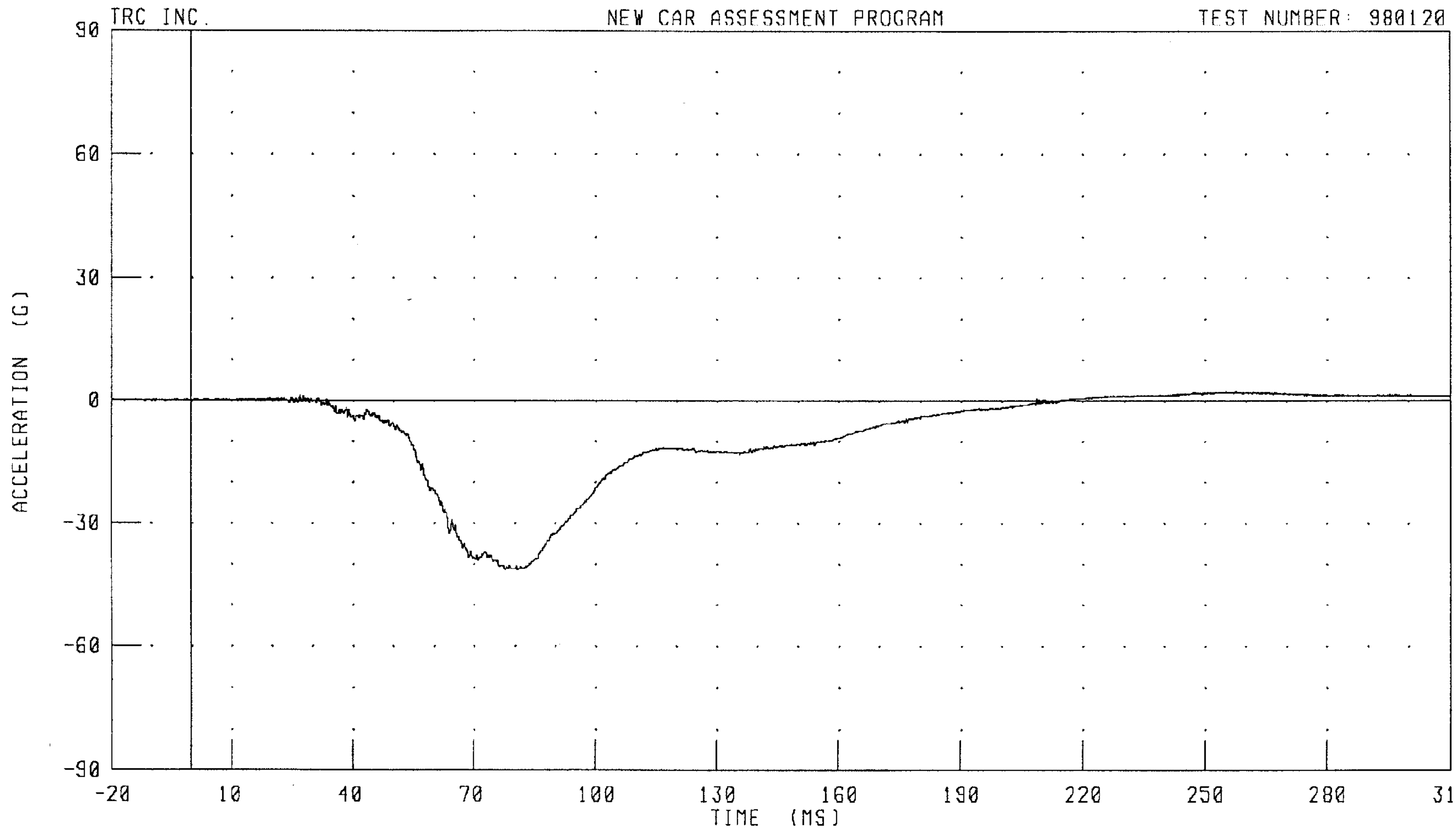
PEAK DATA: 74.38 G @ 59.44 MS; -12.53 G @ 69.52 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER RIGHT FOOT Z-AXIS ACCELERATION AT TOE
NEW CAR ASSESSMENT PROGRAM



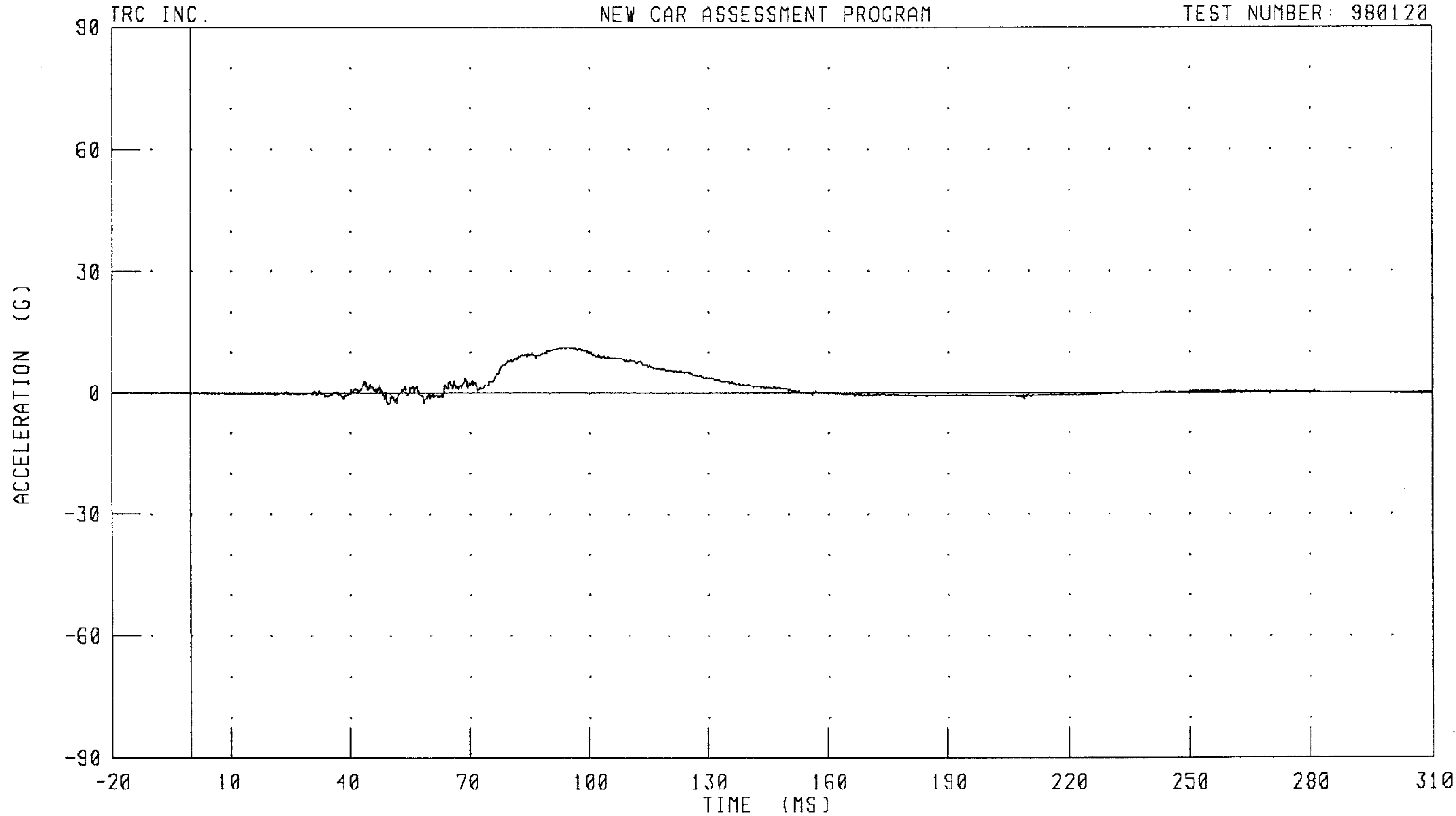
CHANNEL: FTRZT1 FILTER: CH. CLASS 1000 PEAK DATA: 95.11 G @ 59.84 MS; -26.04 G @ 69.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



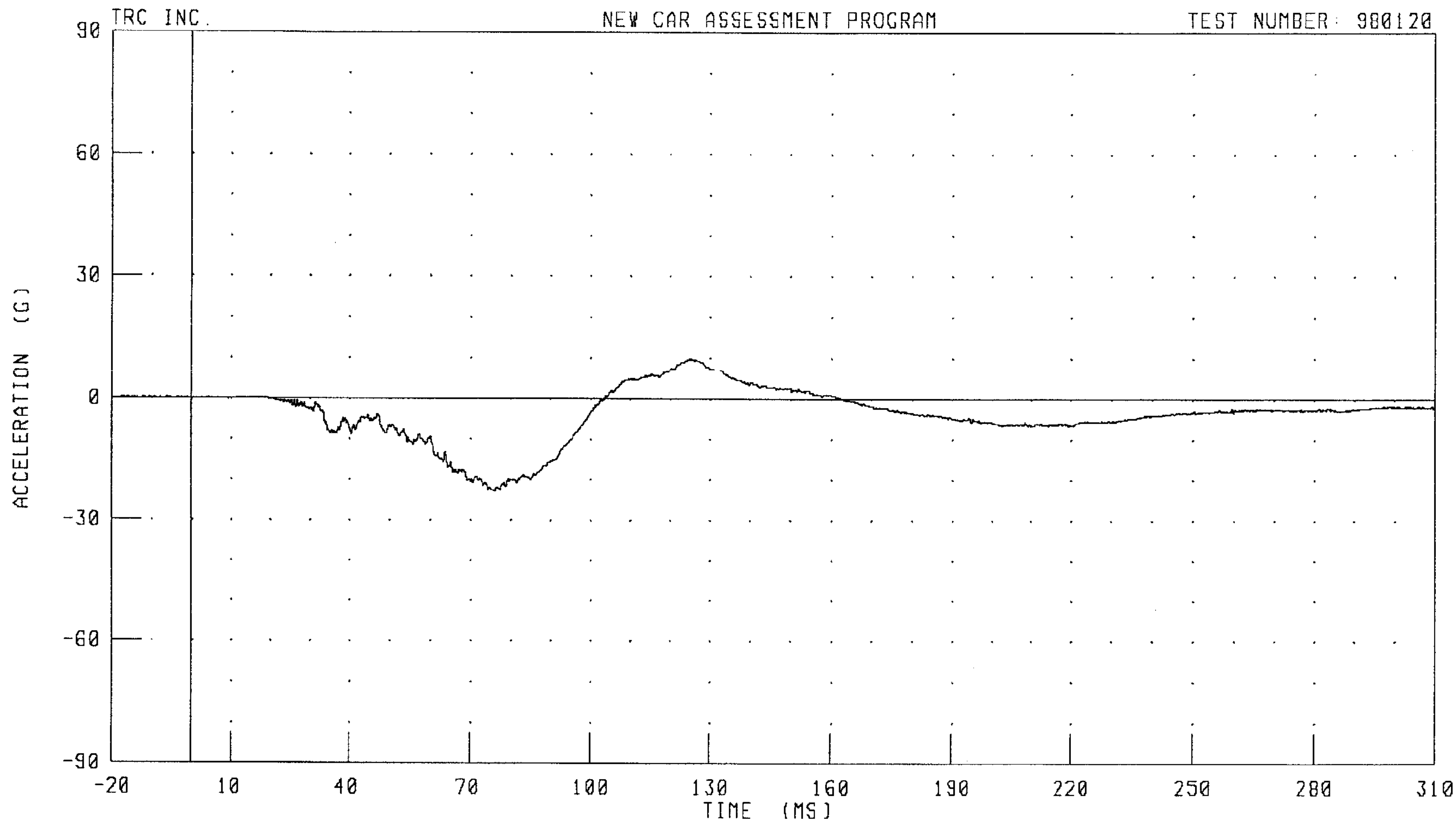
CHANNEL: HEDXG2 FILTER: CH. CLASS 1000 PEAK DATA: 2.18 G @ 255.20 MS; -41.44 G @ 77.84 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDYG2 FILTER: CH. CLASS 1000 PEAK DATA: 11.29 G @ 93.12 MS; -2.99 G @ 49.52 MS

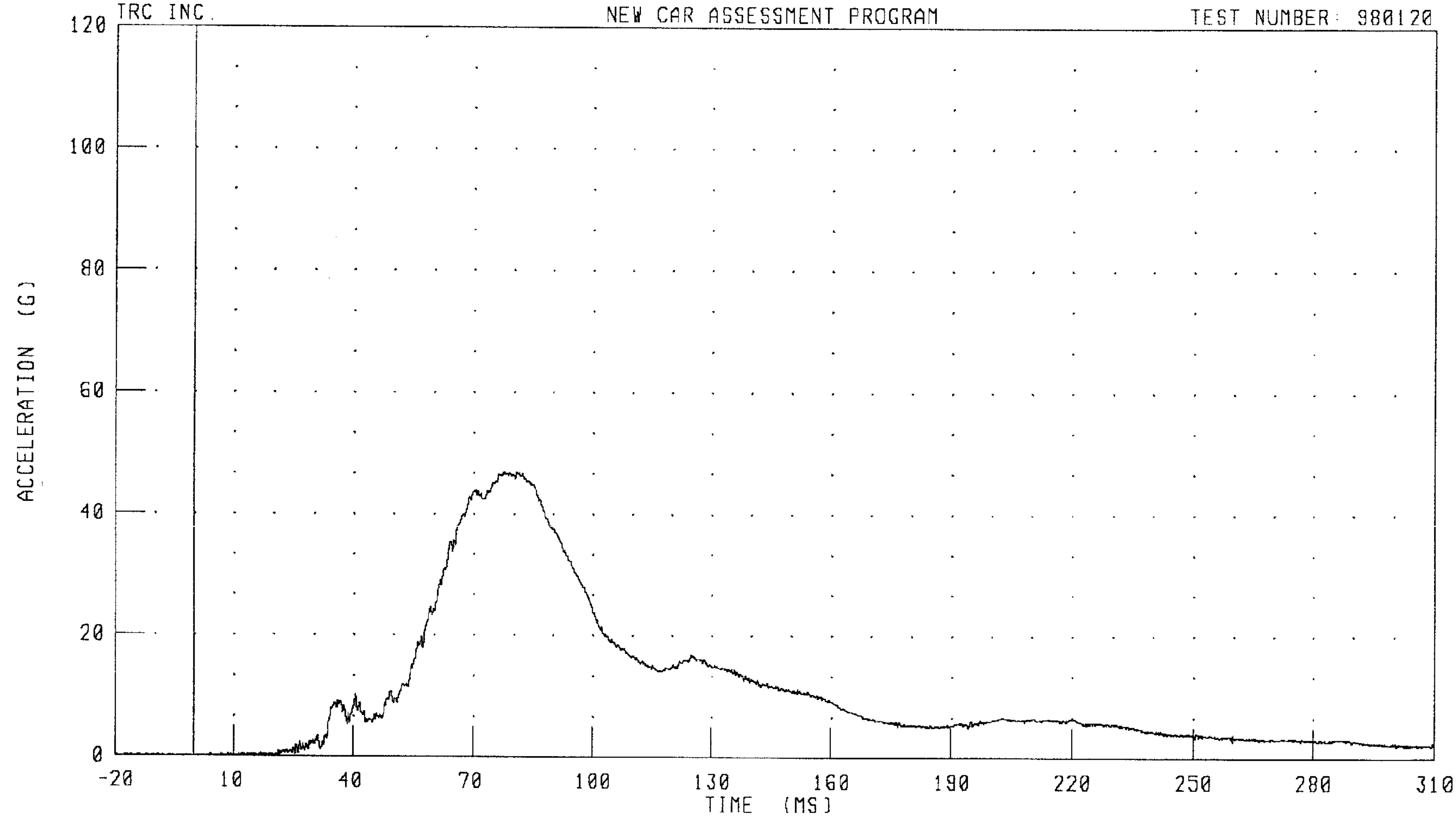
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDZG2 FILTER: CH. CLASS 1000

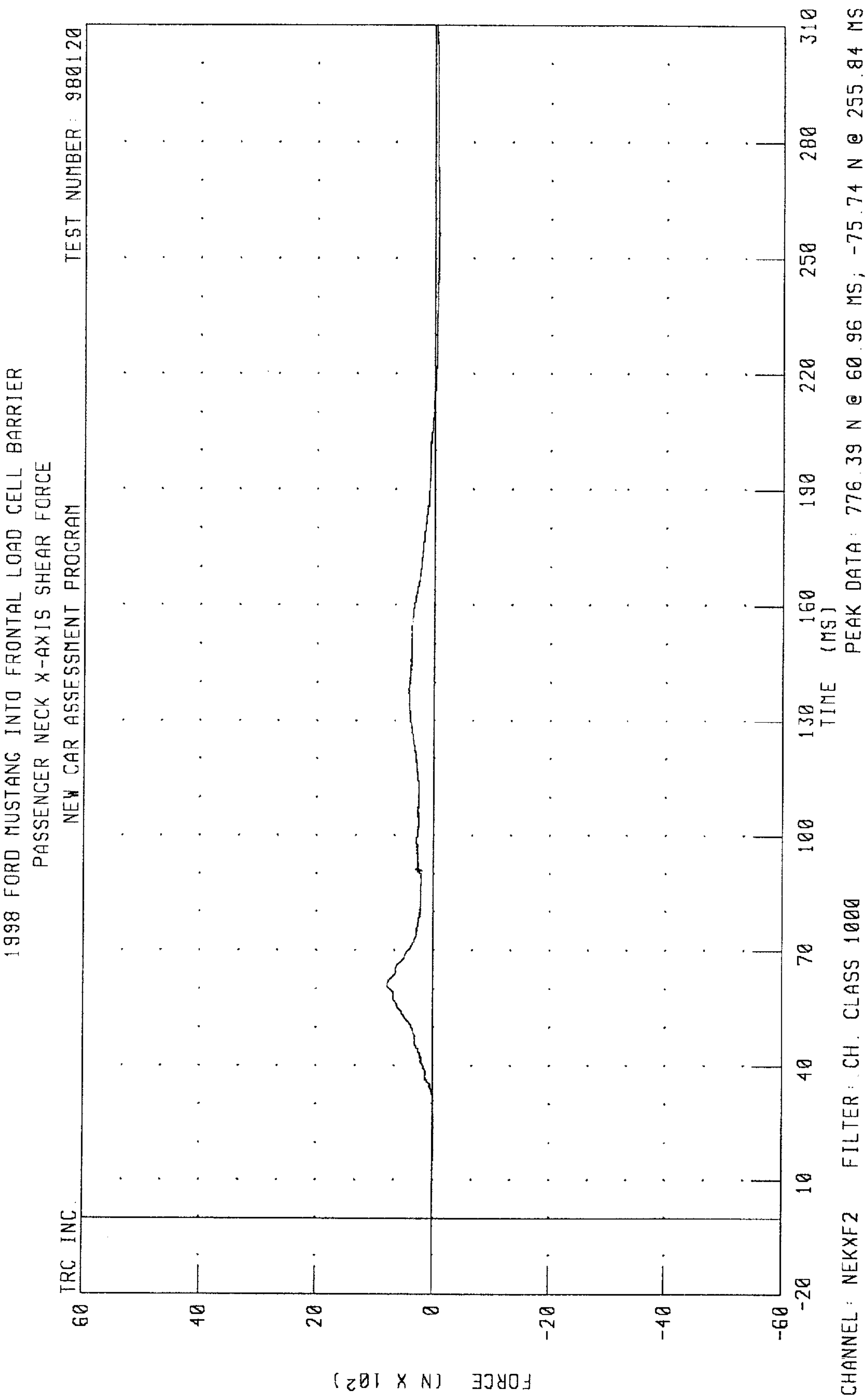
PEAK DATA: 9.95 G @ 124.88 MS; -22.89 G @ 76.08 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM

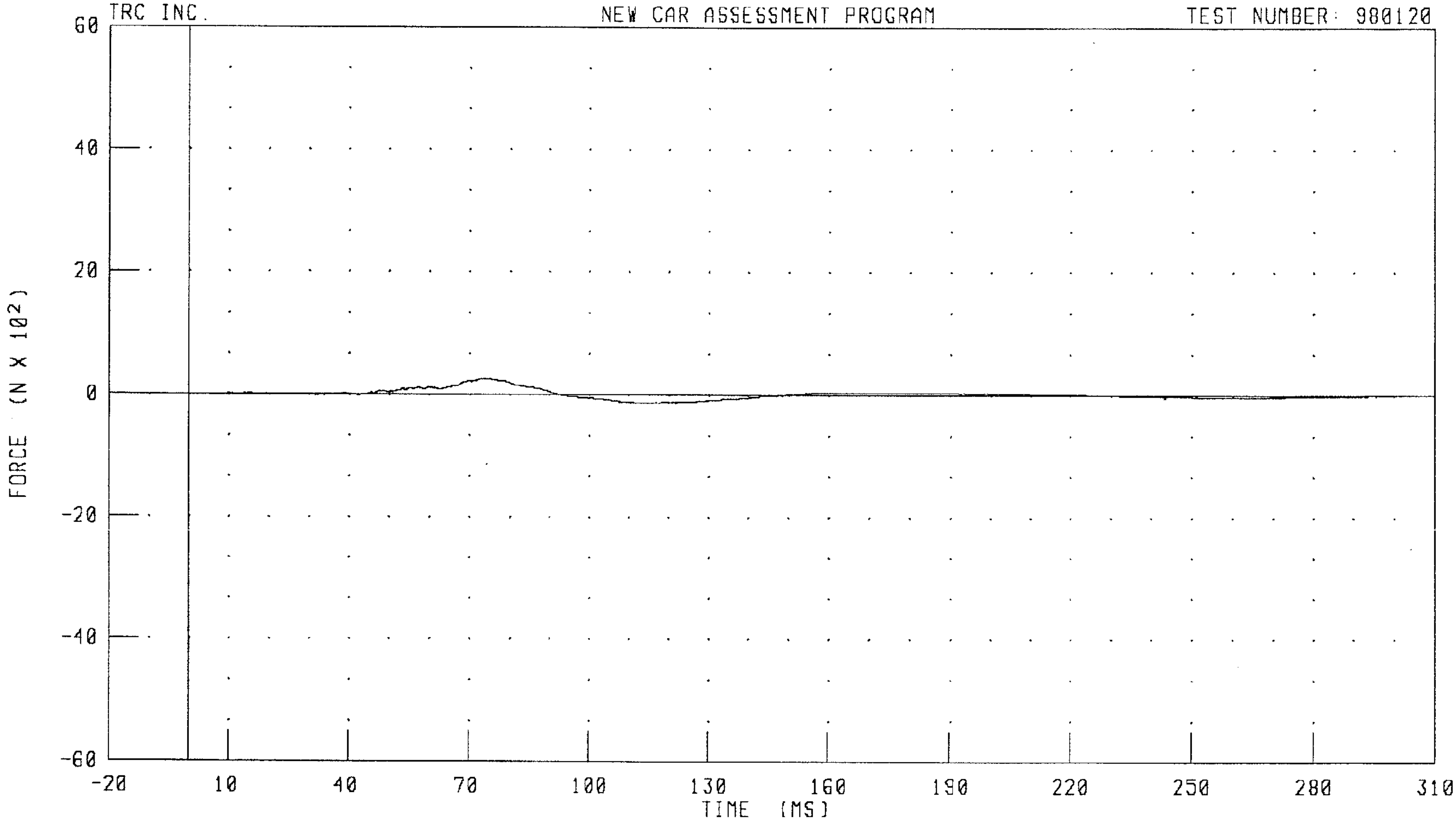


CHANNEL: HEDRG2 FILTER: CH. CLASS 1000

PEAK DATA: 46.95 G @ 77.84 MS, 0.06 G @ -19.92 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK X-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM
TEST NUMBER: 980120
TRC INC.
FORCE (N X 10²)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: NEKXF2
FILTER: CH. CLASS 1000
PEAK DATA: 776.39 N @ 60.96 MS; -75.74 N @ 255.84 MS

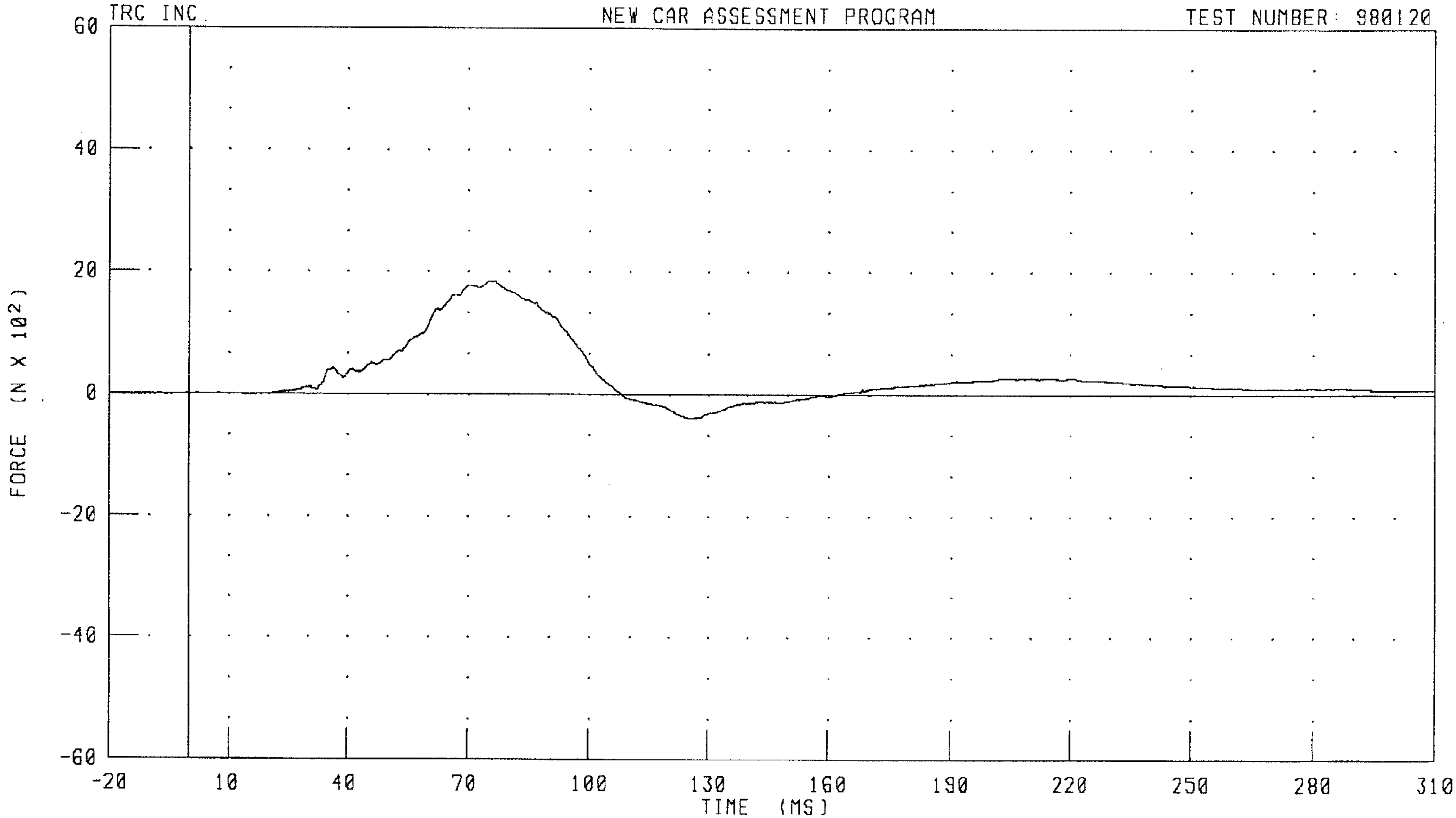
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK Y-AXIS SHEAR FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: NEKYF2 FILTER: CH. CLASS 1000

PEAK DATA: 256.68 N @ 73.12 MS; -134.56 N @ 112.40 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK Z-AXIS AXIAL FORCE
NEW CAR ASSESSMENT PROGRAM

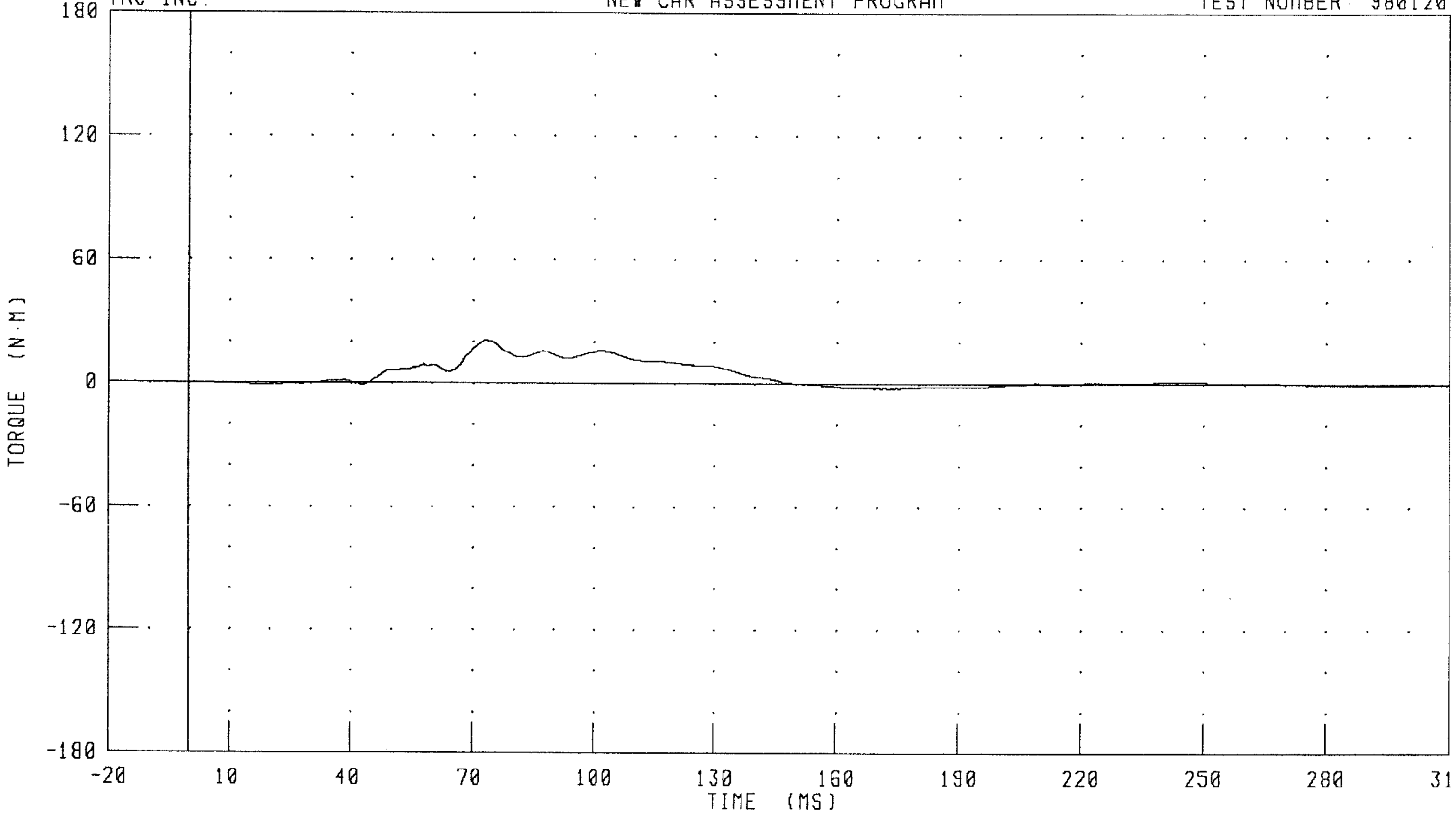


CHANNEL: NEKZF2 FILTER: CH. CLASS 1000 PEAK DATA: 1855.24 N @ 75.36 MS, -392.88 N @ 125.12 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM

TRC INC.

TEST NUMBER: 980120

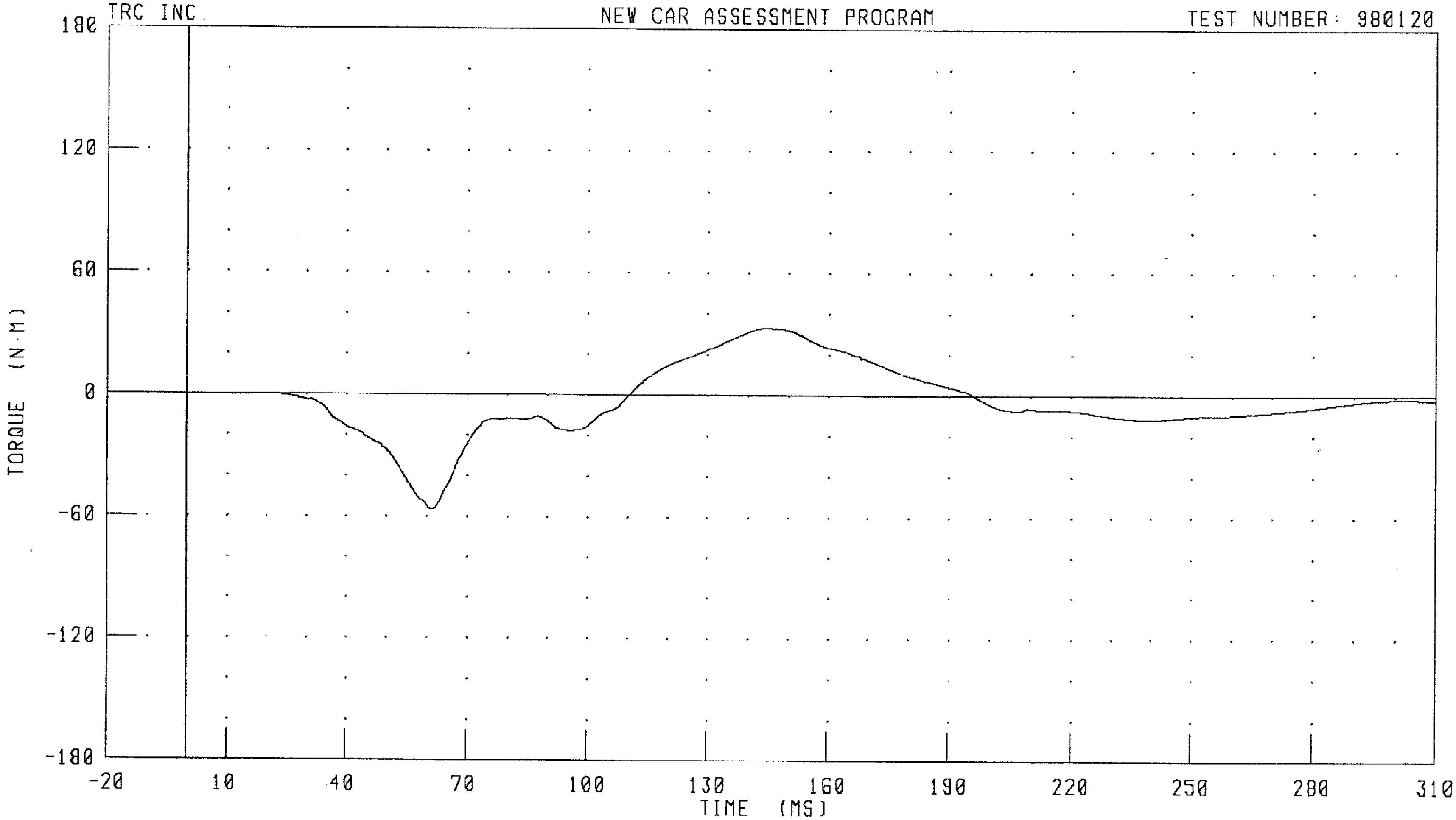


CHANNEL: NEKXM2 FILTER: CH. CLASS 600

PEAK DATA: 20.79 N·M @ 73.28 MS; -2.43 N·M @ 172.64 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM

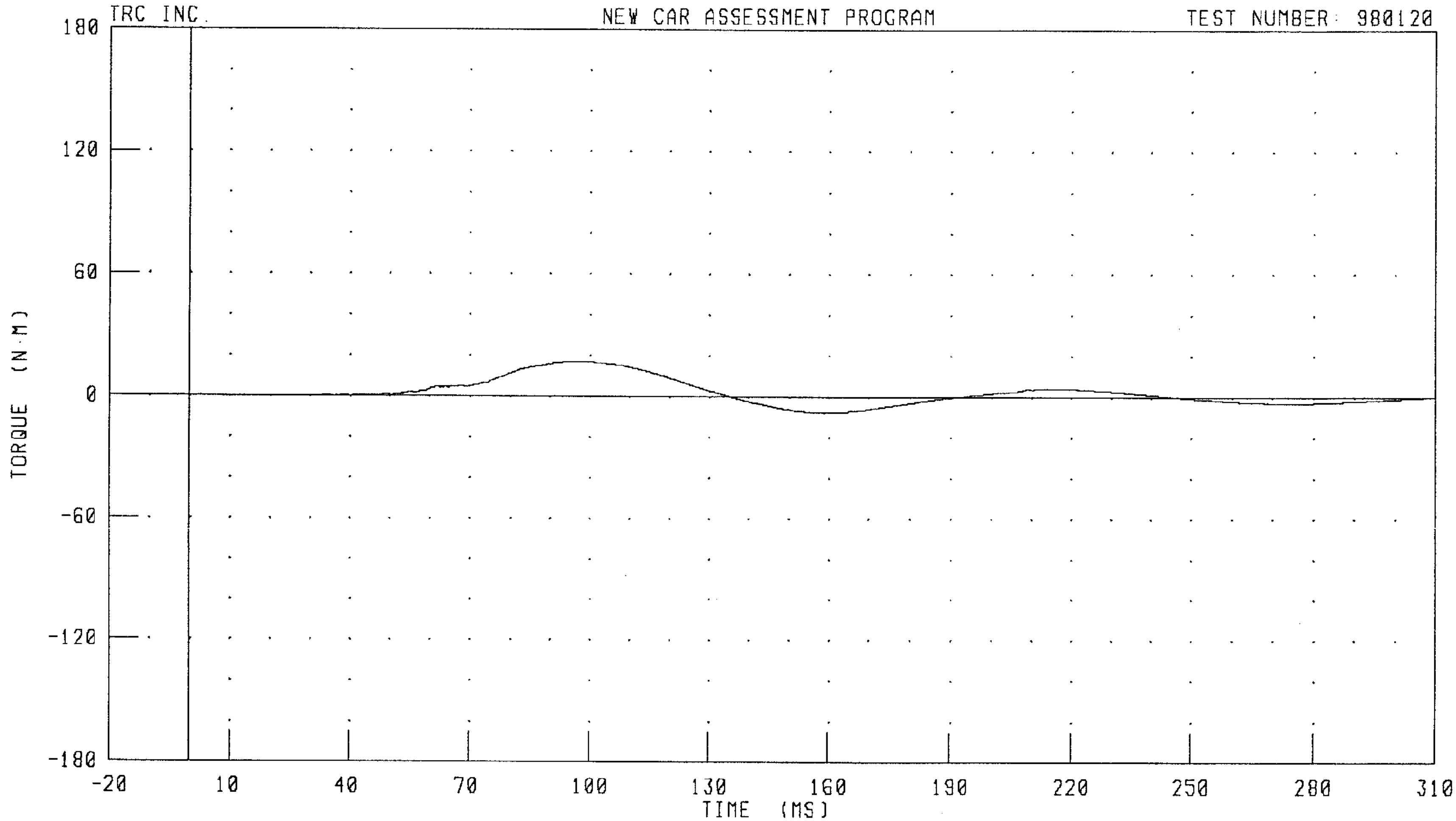
TEST NUMBER: 980120



CHANNEL: NEKYM2 FILTER: CH. CLASS 600

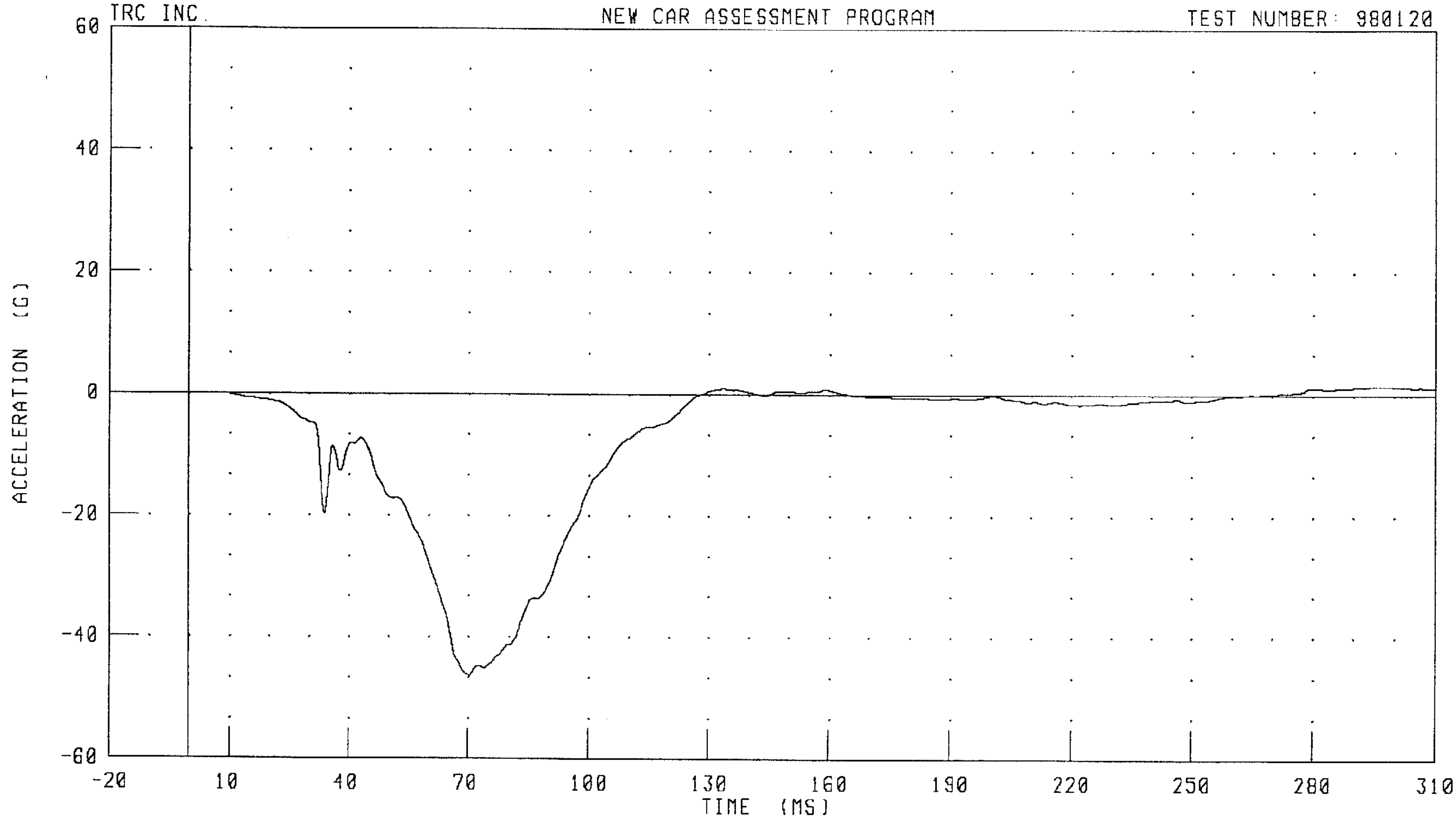
PEAK DATA: 33.06 N·M @ 145.12 MS, -56.33 N·M @ 61.20 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER NECK MOMENT ABOUT Z AXIS
NEW CAR ASSESSMENT PROGRAM



CHANNEL: NEKZM2 FILTER: CH. CLASS 600 PEAK DATA: 16.86 N·M @ 96.64 MS; -7.85 N·M @ 159.04 MS

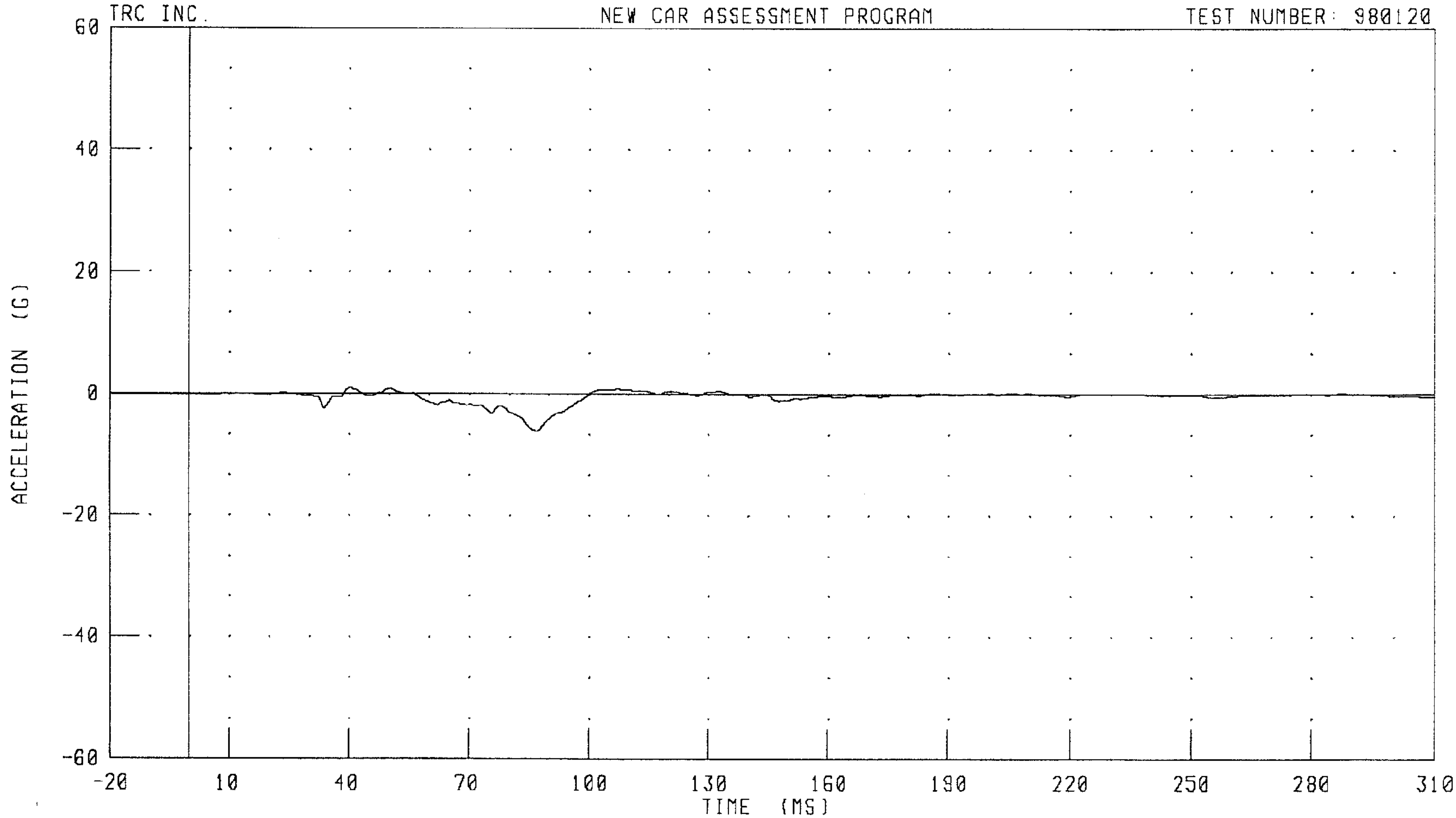
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



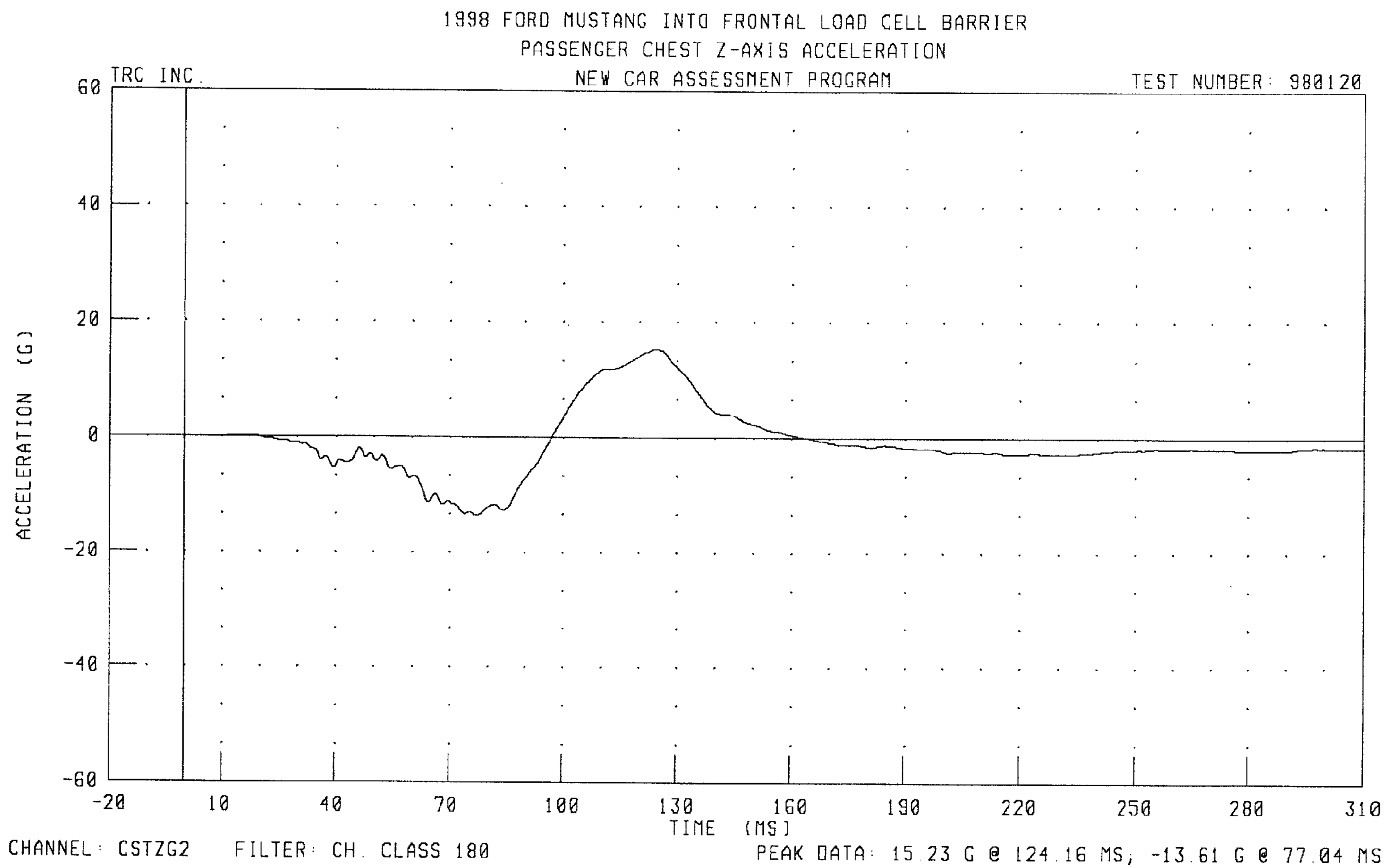
CHANNEL: CSTXG2 FILTER: CH. CLASS 180

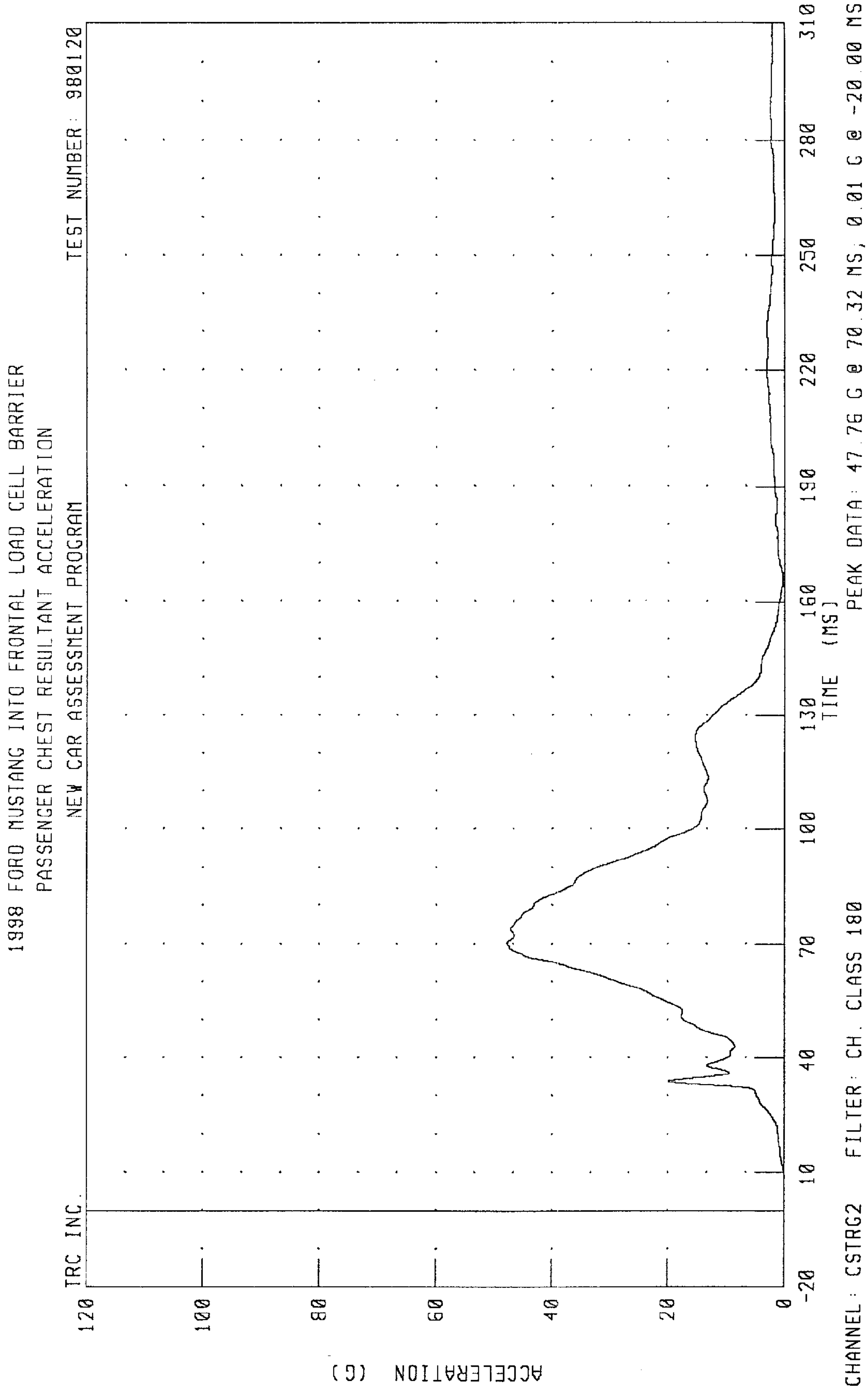
PEAK DATA: 1.55 G @ 295.76 MS; -46.32 G @ 70.24 MS

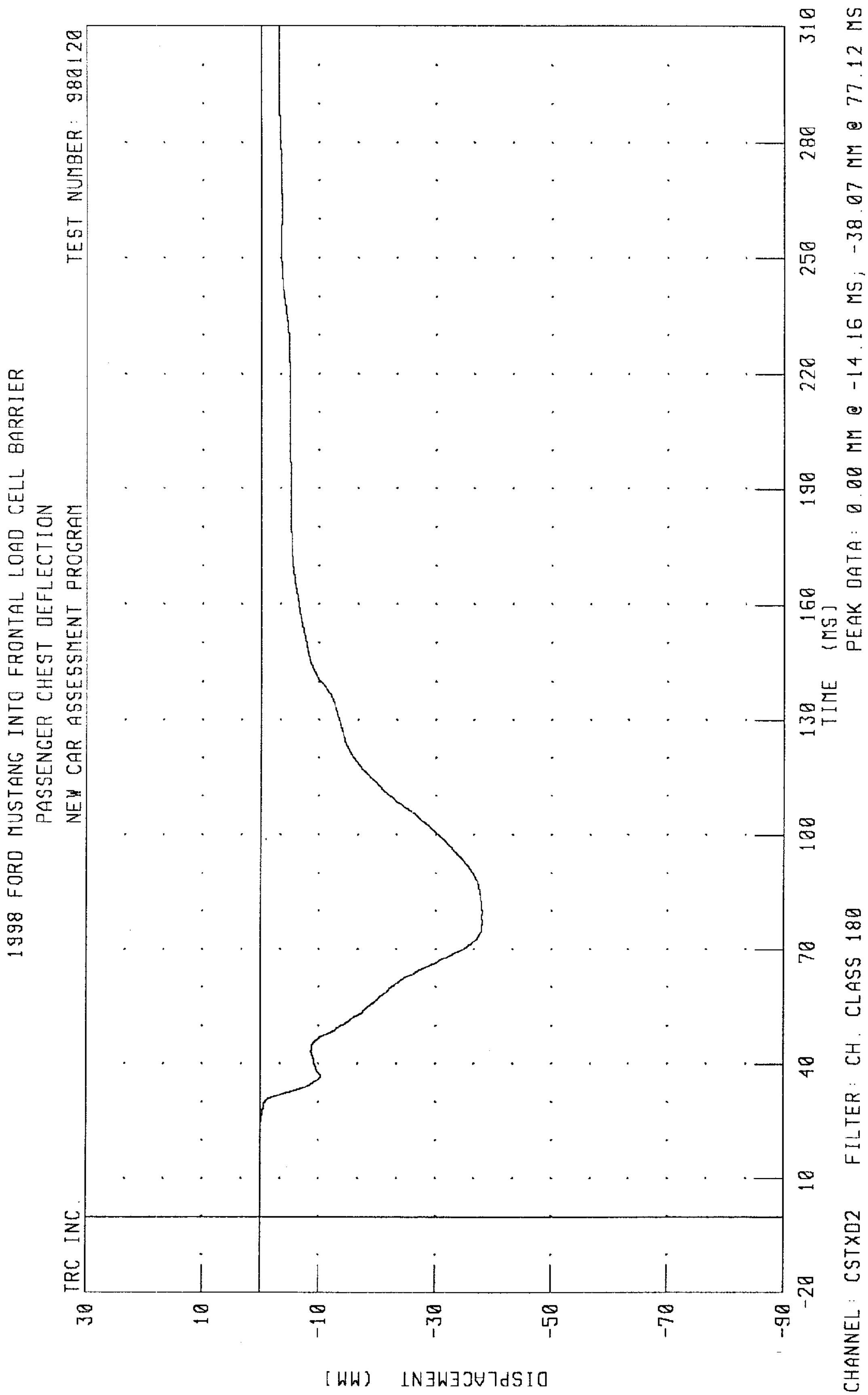
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

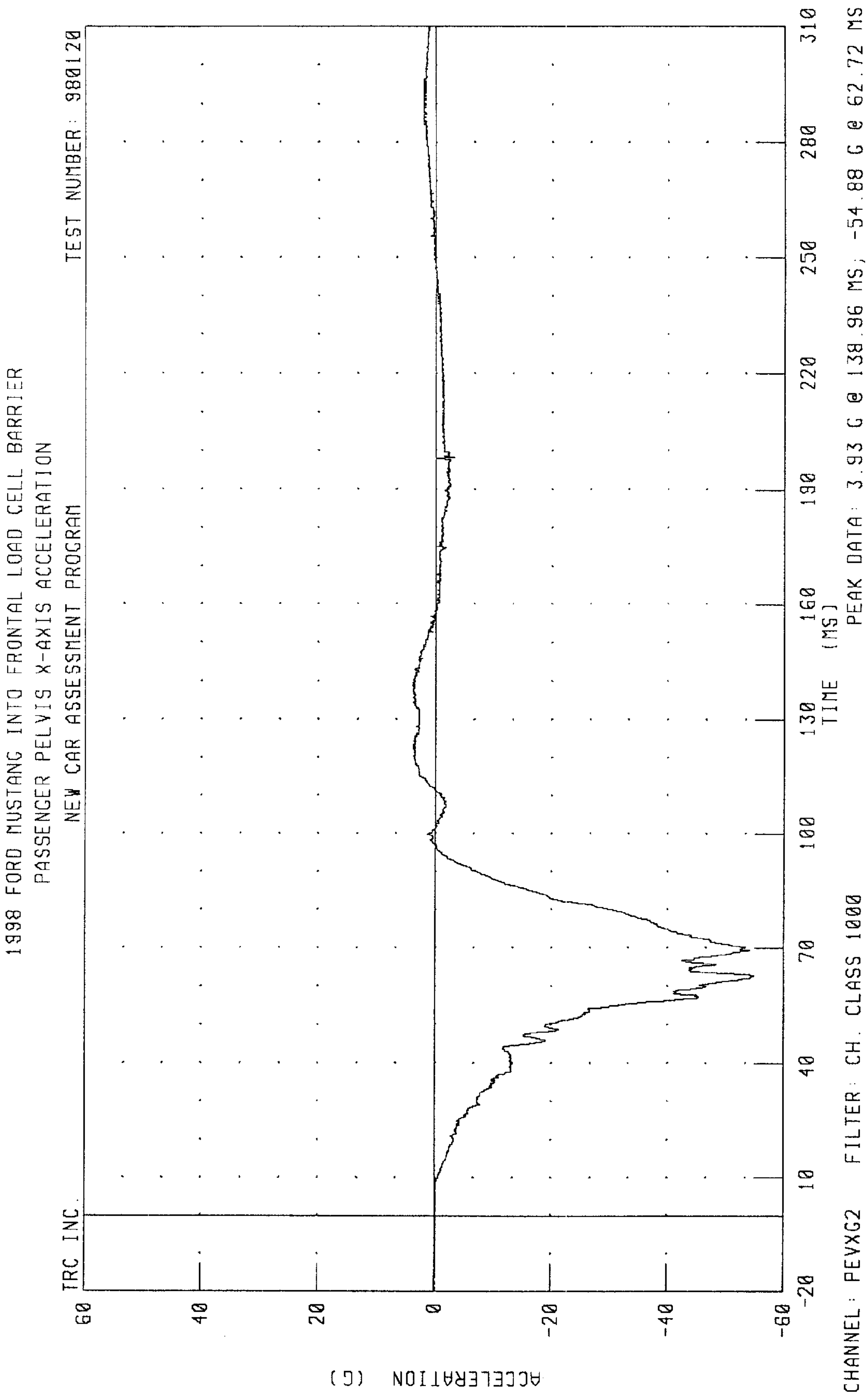


CHANNEL: CSTYG2 FILTER: CH. CLASS 180 PEAK DATA: 1.07 G @ 40.24 MS; -6.05 G @ 86.88 MS

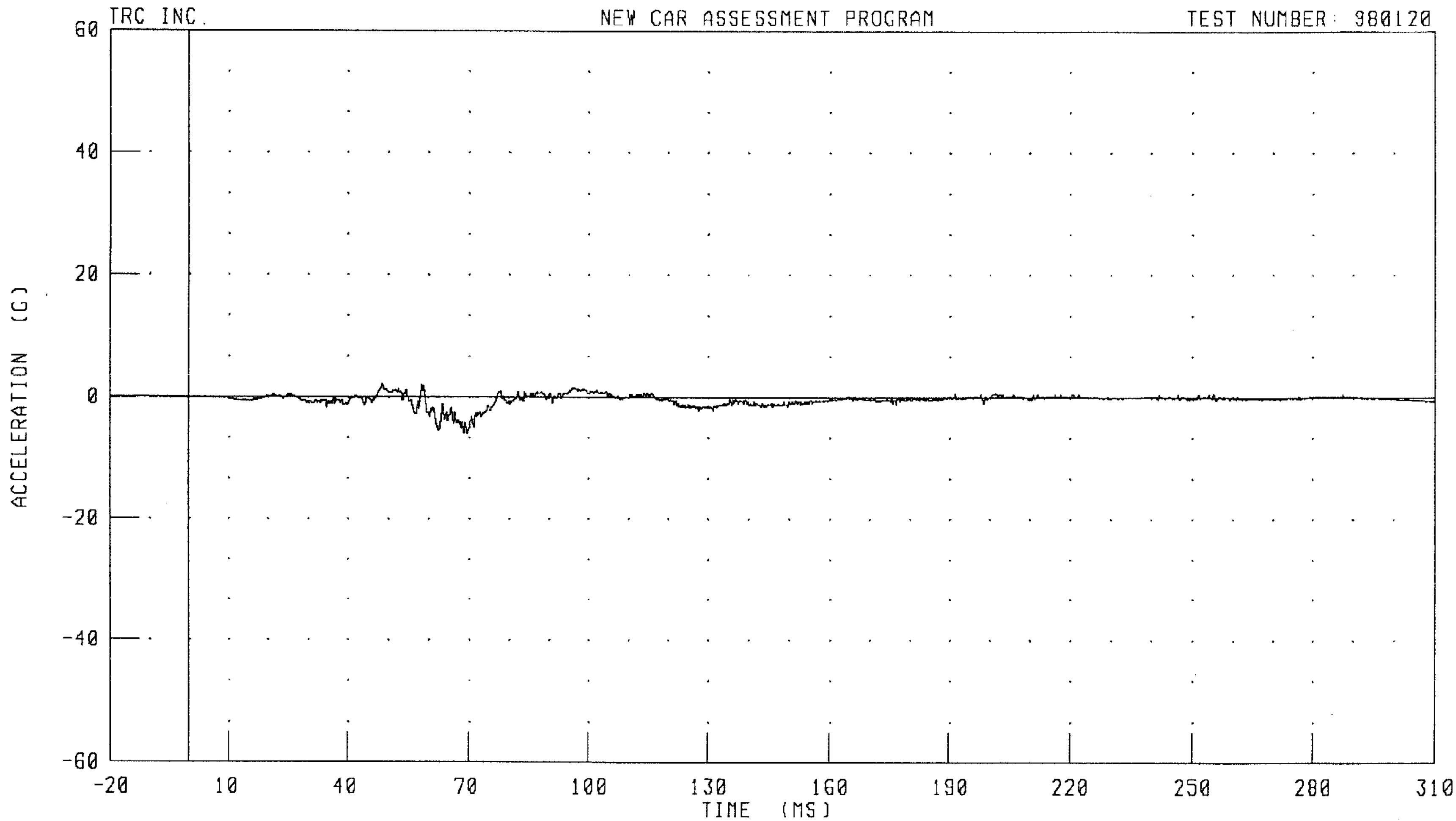

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: CSTZG2
FILTER: CH. CLASS 180
PEAK DATA: 15.23 G @ 124.16 MS; -13.61 G @ 77.04 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
120
100
80
60
40
20
0
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: CSTRG2
FILTER: CH. CLASS 180
PEAK DATA: 47.76 G @ 70.32 MS, 0.01 G @ -20.00 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST DEFLECTION
NEW CAR ASSESSMENT PROGRAM
TEST NUMBER: 980120
TRC INC.
DISPLACEMENT (MM)
30
10
-10
-30
-50
-70
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: CSTXD2
FILTER: CH. CLASS 180
PEAK DATA: 0.00 MM @ -14.16 MS; -38.07 MM @ 77.12 MS

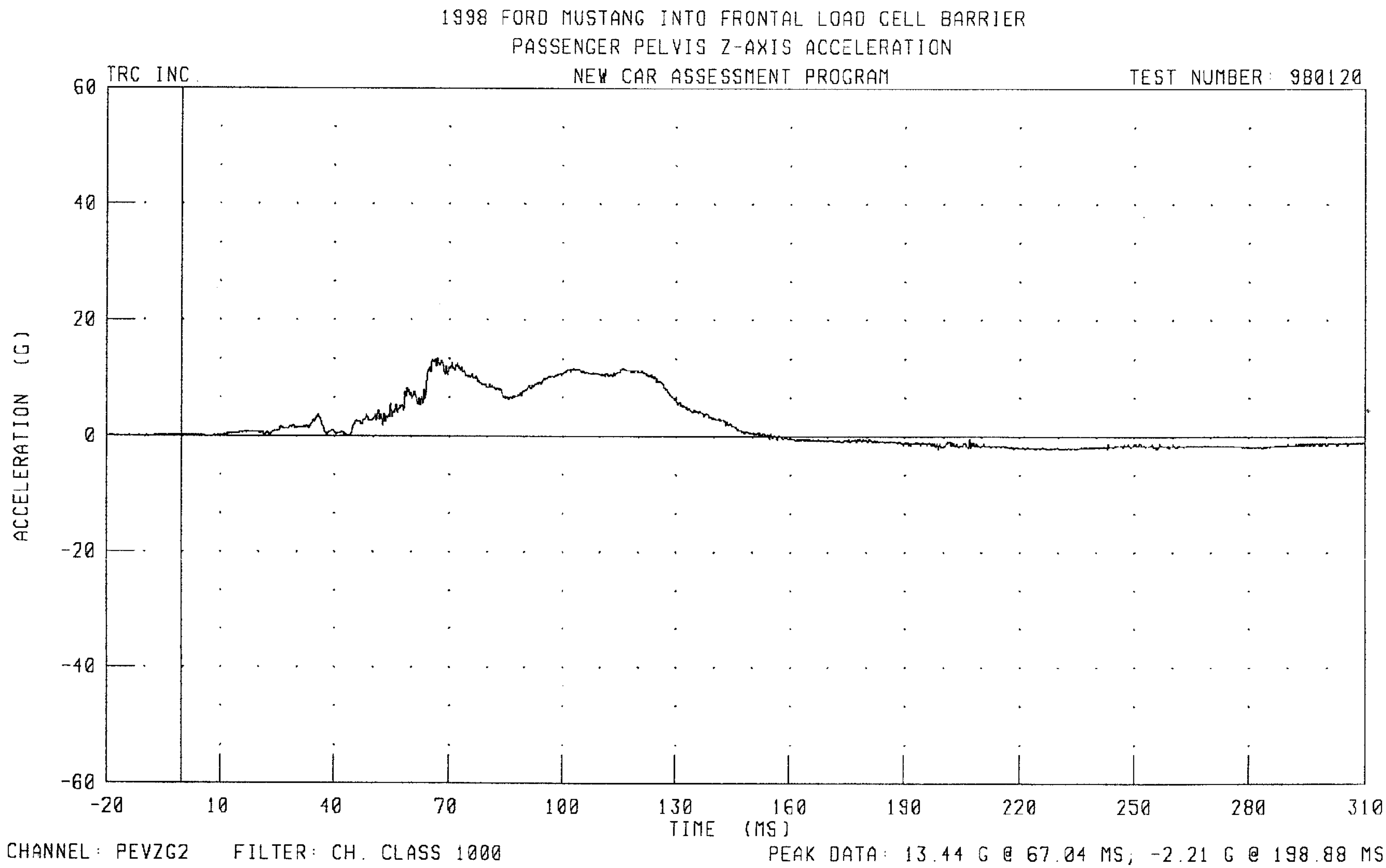

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
60
40
20
0
-20
-40
-60
ACCELERATION (G)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: PEVXG2
FILTER: CH. CLASS 1000
PEAK DATA: 3.93 G @ 138.96 MS; -54.88 G @ 62.72 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS Y-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



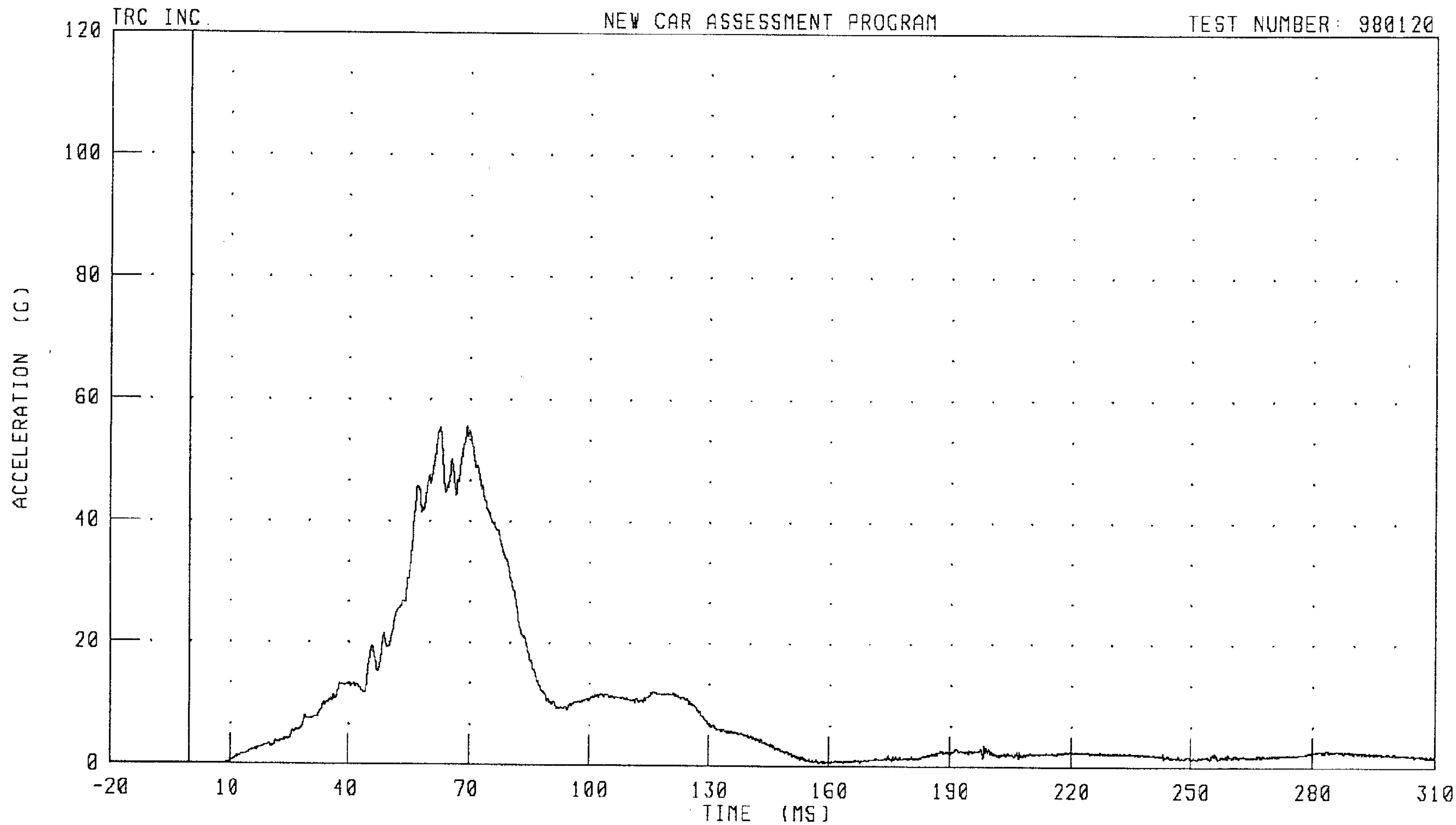
CHANNEL: PEVYG2 FILTER: CH. CLASS 1000

PEAK DATA: 2.20 G @ 48.48 MS; -6.03 G @ 69.68 MS



1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS Z-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: PEVZG2
FILTER: CH. CLASS 1000
PEAK DATA: 13.44 G @ 67.04 MS; -2.21 G @ 198.88 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER PELVIS RESULTANT ACCELERATION
NEW CAR ASSESSMENT PROGRAM



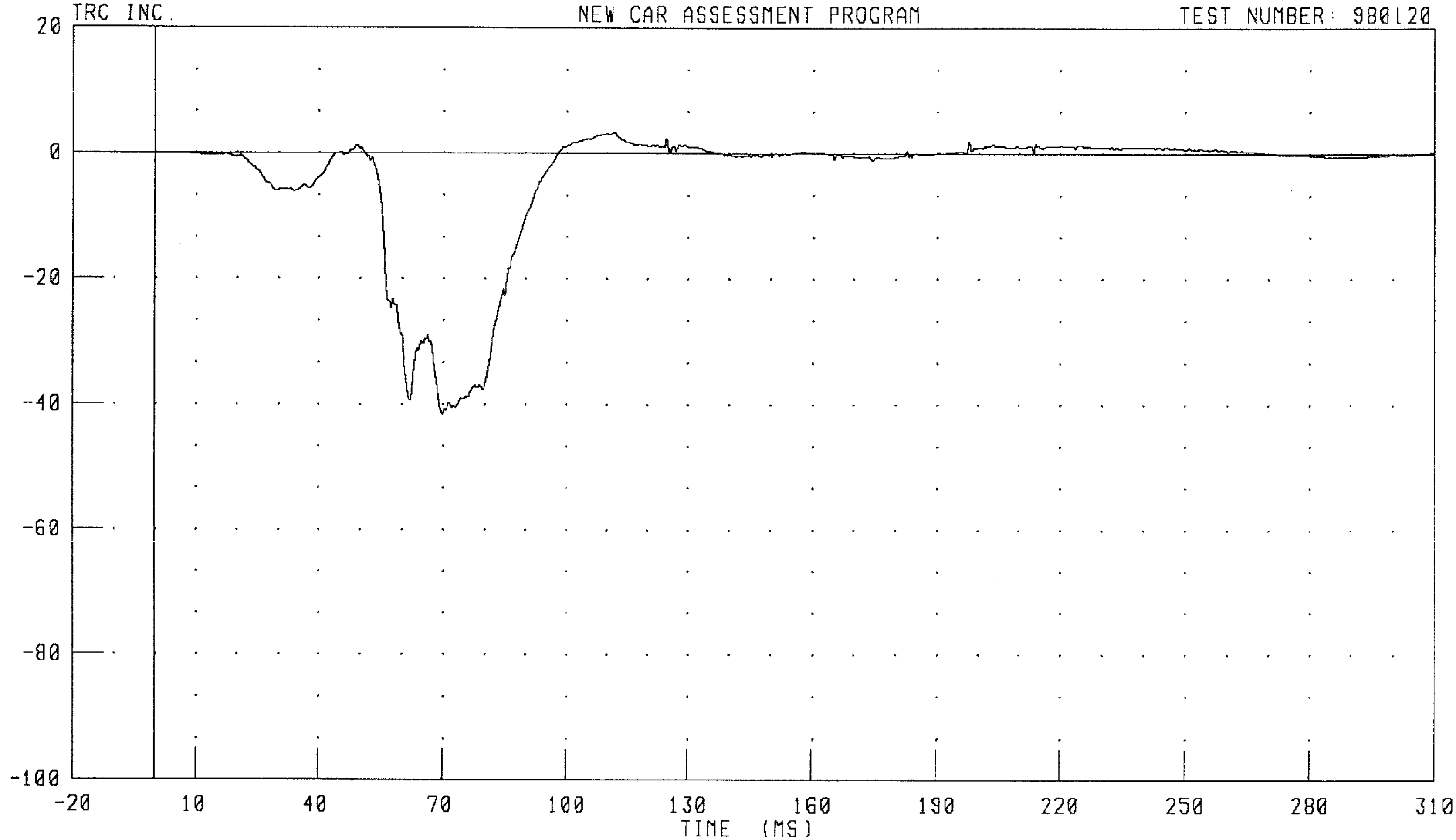
CHANNEL: PEVRG2 FILTER: CH. CLASS 1000

PEAK DATA: 55.65 G @ 69.44 MS; 0.08 G @ -19.84 MS

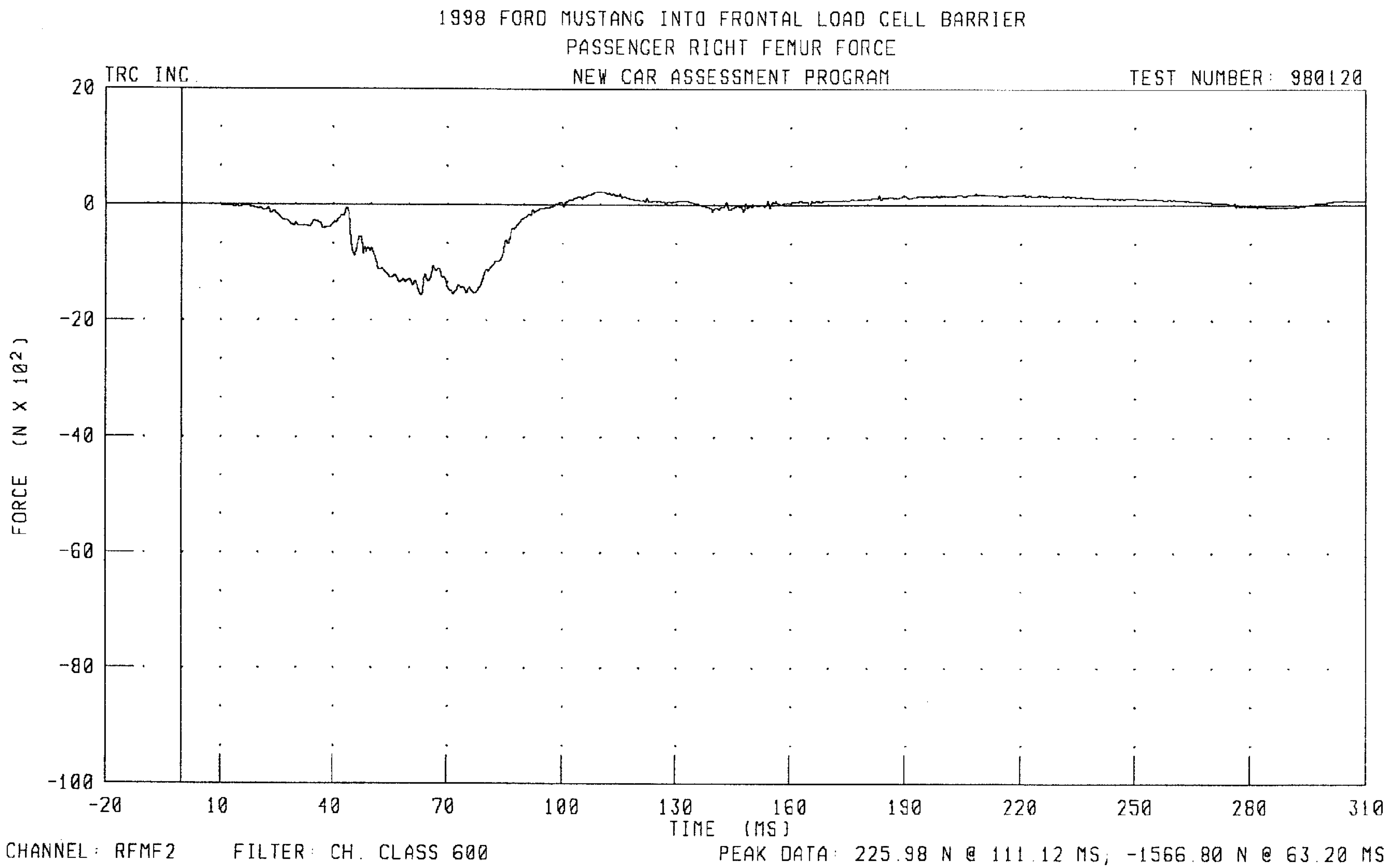
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC.

TEST NUMBER: 980120

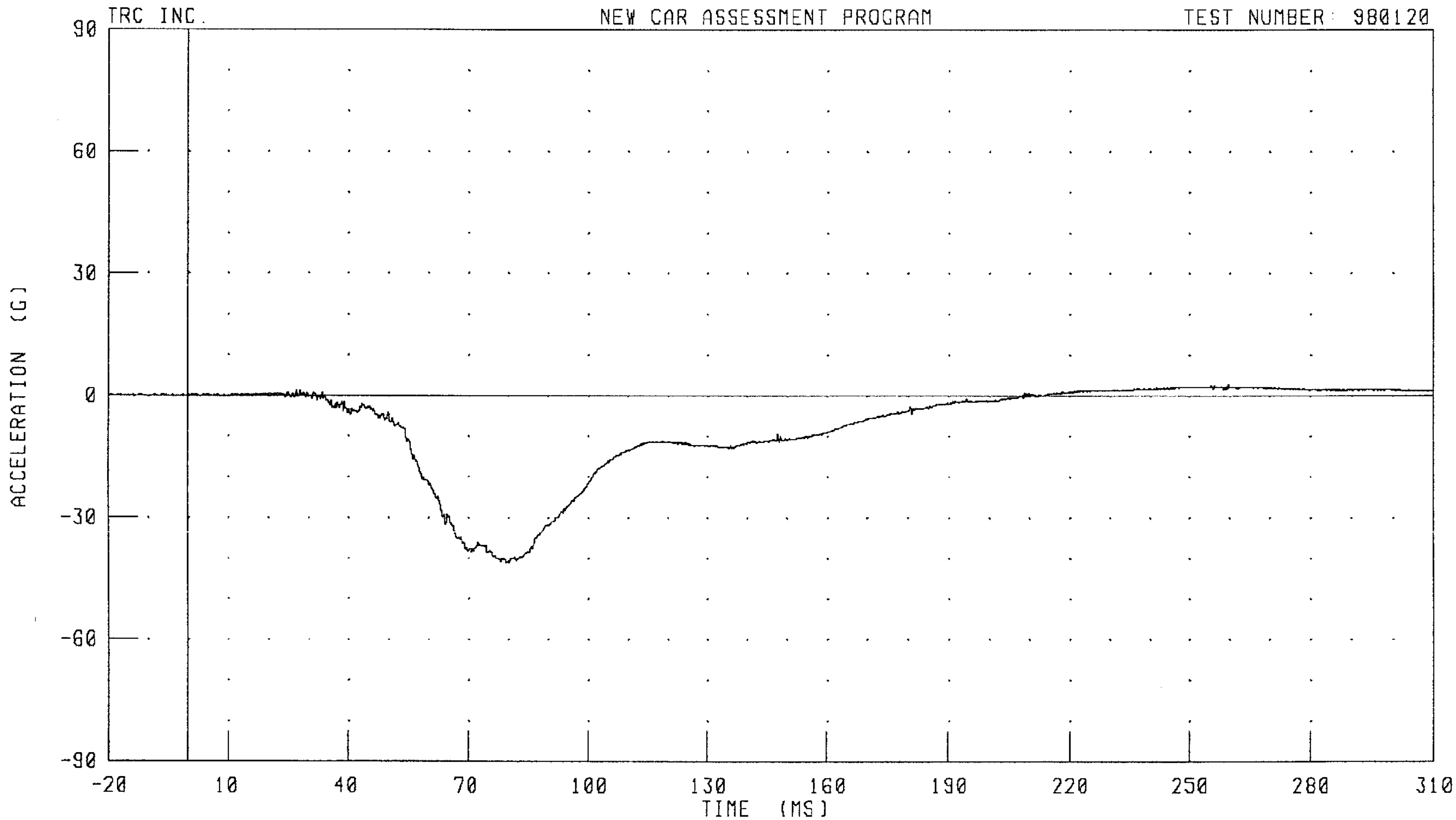


CHANNEL: LFMF2 FILTER: CH. CLASS 600 PEAK DATA: 334.87 N @ 111.92 MS; -4160.35 N @ 69.92 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FEMUR FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
FORCE (N X 10²)
20
0
-20
-40
-60
-80
-100
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: RFMF2
FILTER: CH. CLASS 600
PEAK DATA: 225.98 N @ 111.12 MS, -1566.80 N @ 63.20 MS

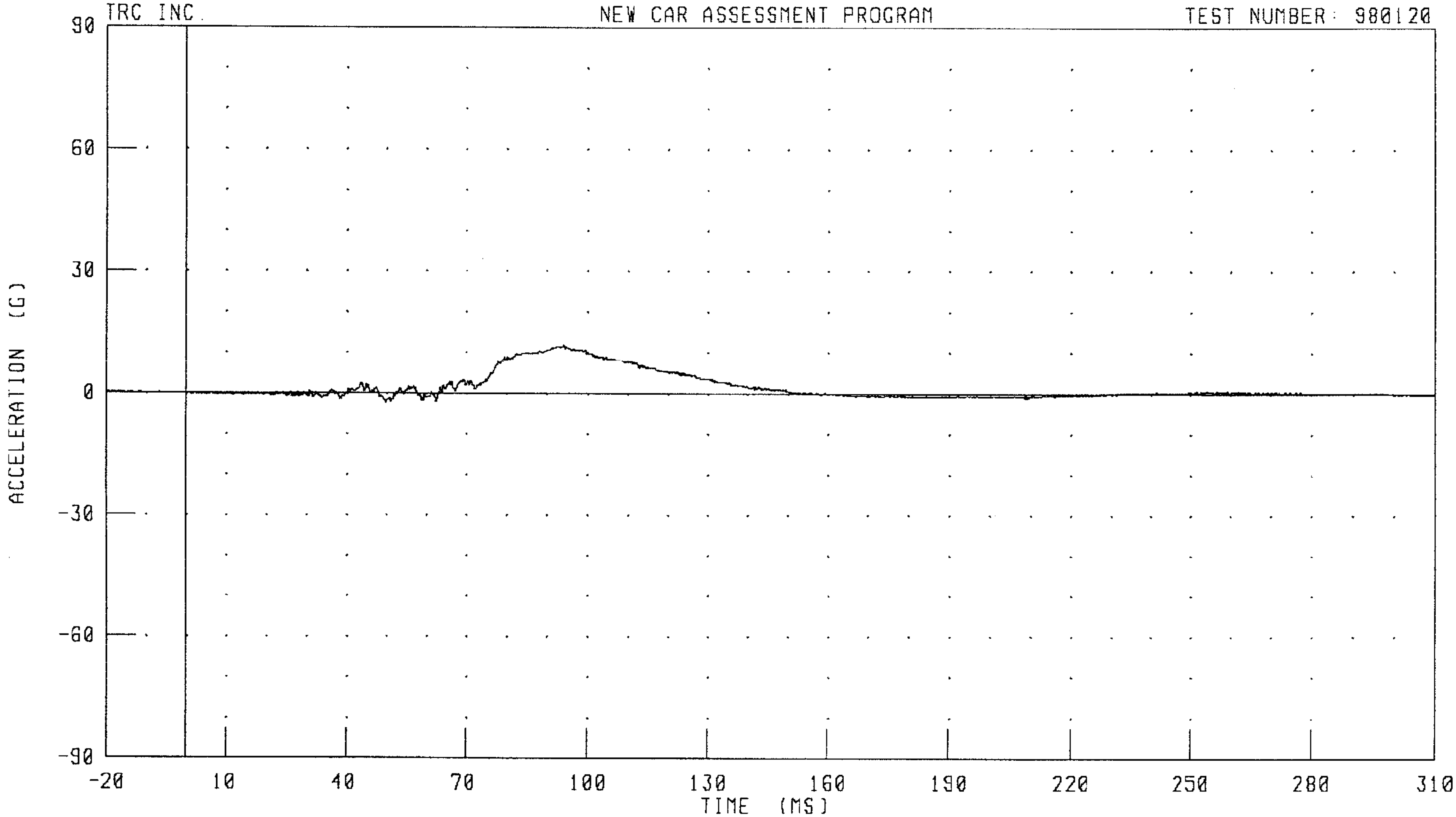
980120

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD X-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

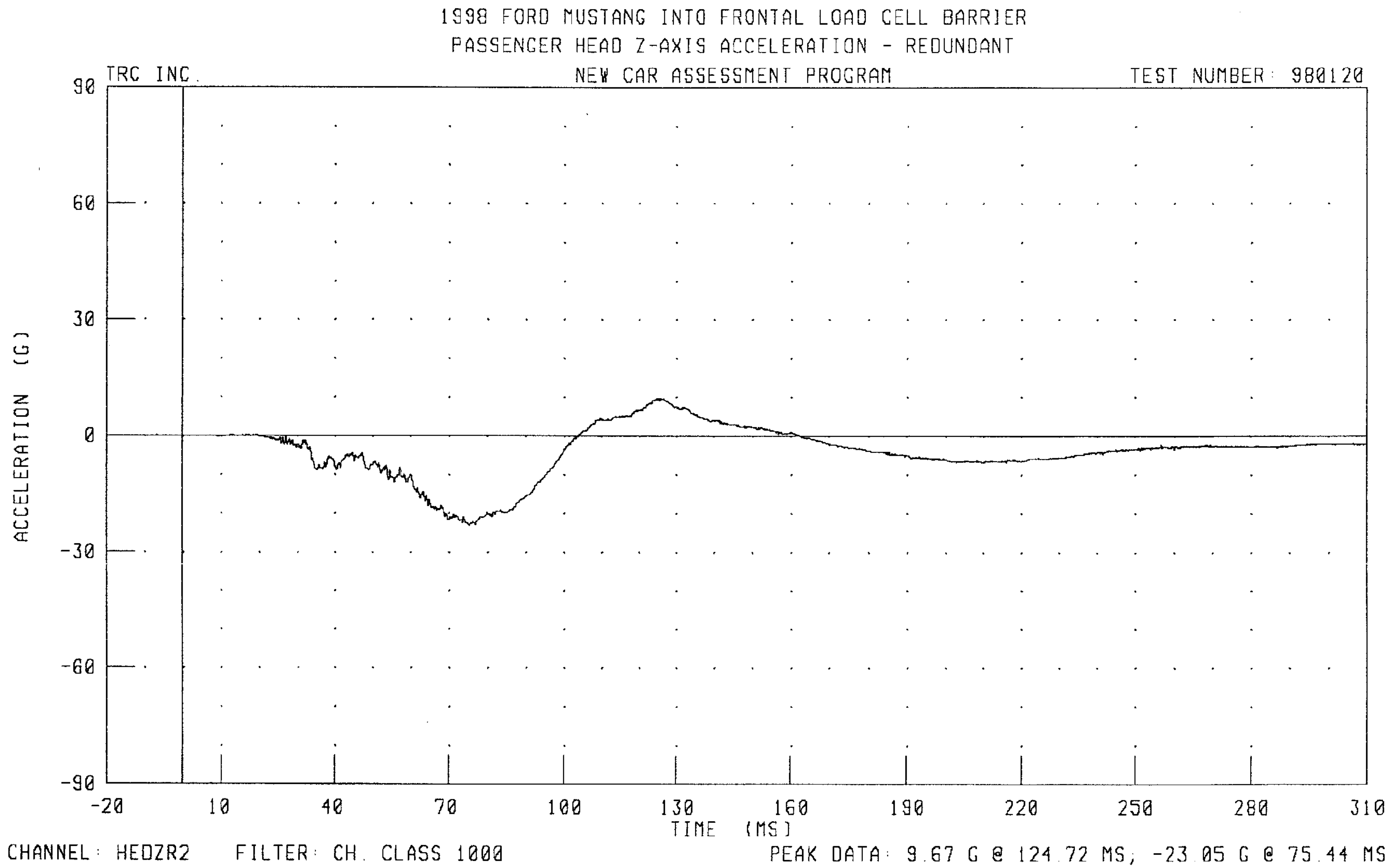


CHANNEL: HEDXR2 FILTER: CH. CLASS 1000 PEAK DATA: 2.75 G @ 259.84 MS; -41.01 G @ 79.44 MS

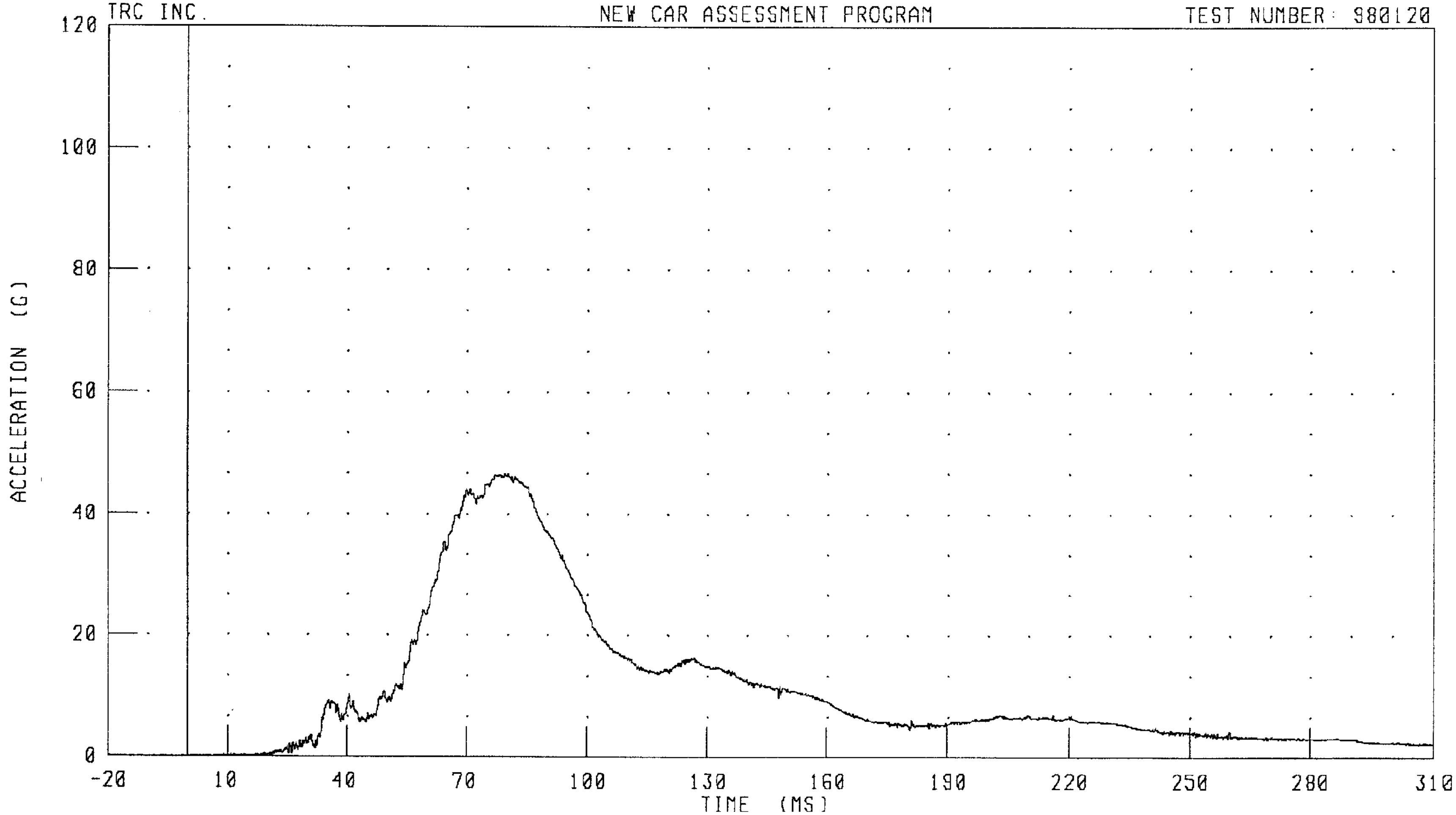
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Y-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



CHANNEL: HEDYR2 FILTER: CH. CLASS 1000 PEAK DATA: 11.96 G @ 94.16 MS; -2.21 G @ 49.76 MS

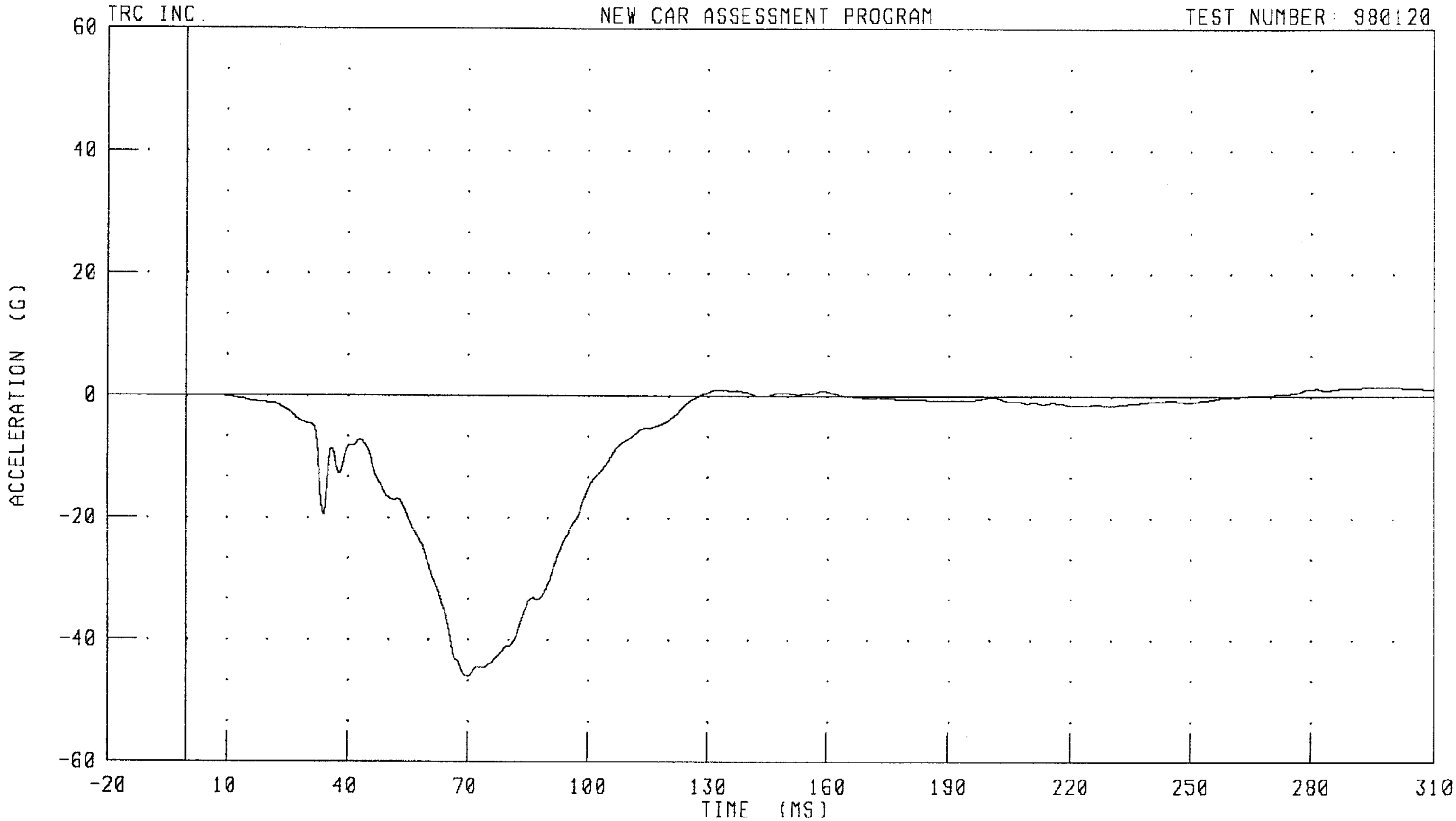

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD Z-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
90
60
30
0
-30
-60
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: HEDZR2
FILTER: CH. CLASS 1000
PEAK DATA: 9.67 G @ 124.72 MS; -23.05 G @ 75.44 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER HEAD RESULTANT ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



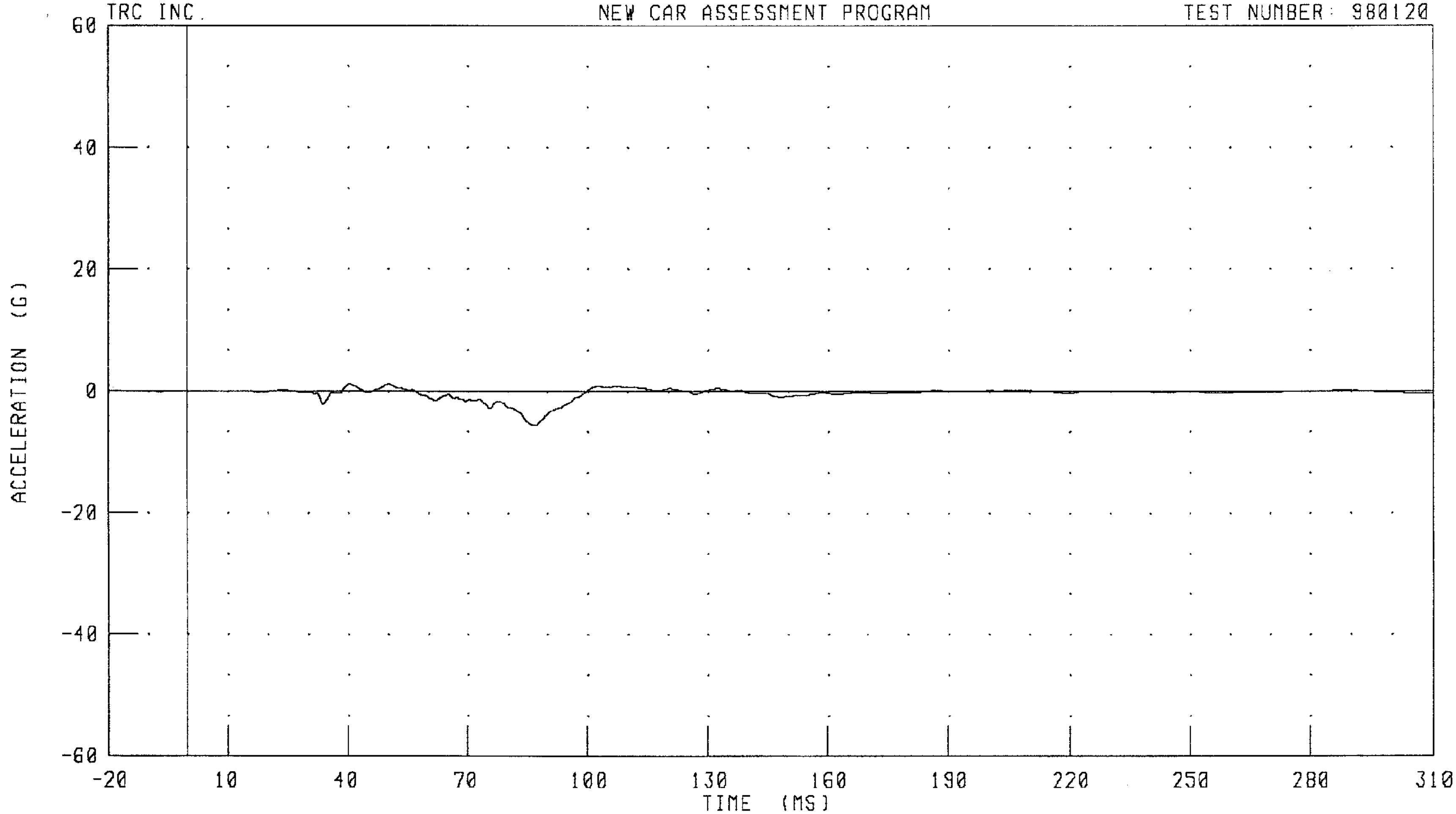
CHANNEL: HEDRR2 FILTER: CH. CLASS 1000 PEAK DATA: 46.61 G @ 79.52 MS; 0.05 G @ -20.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST X-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



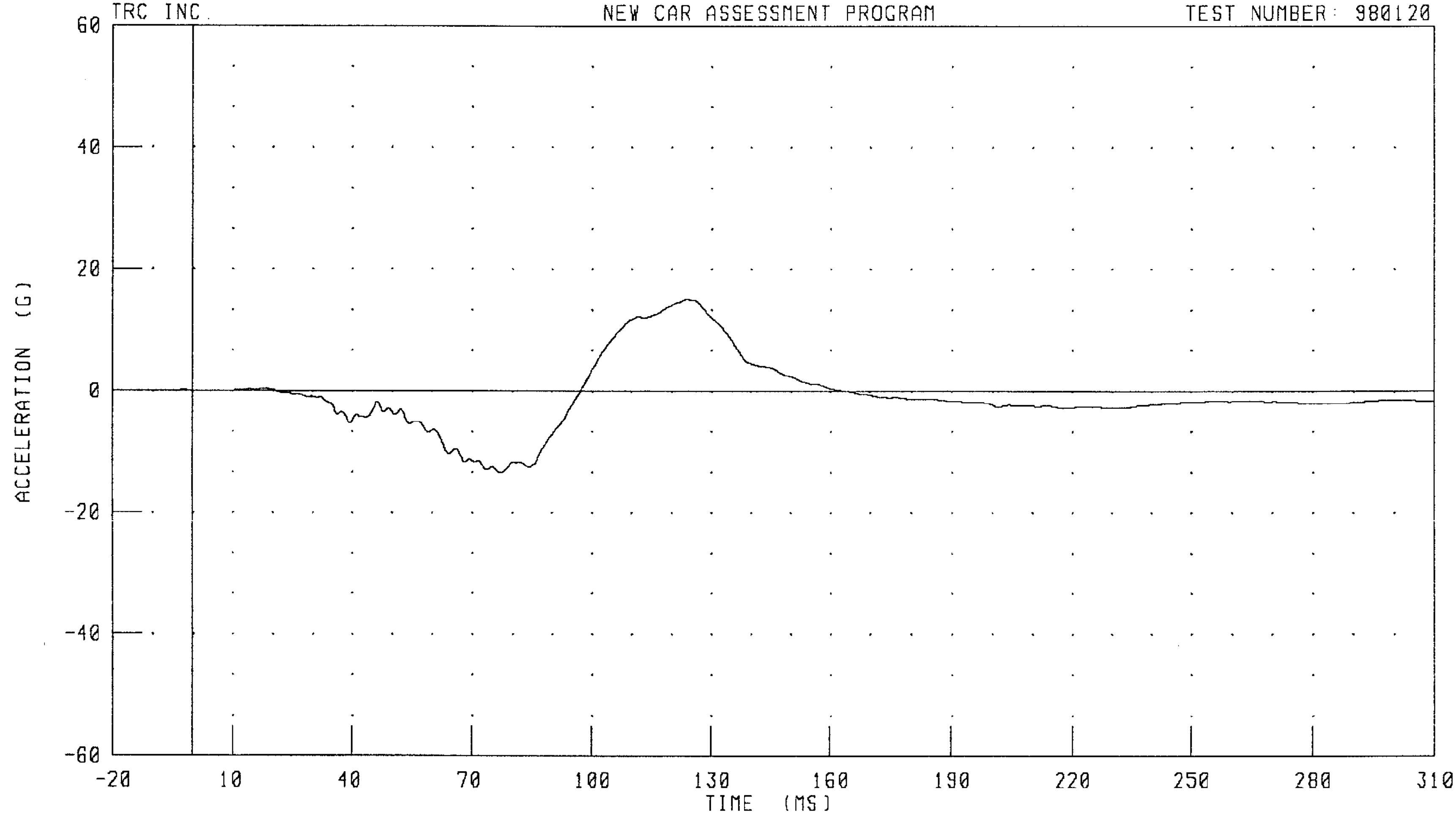
CHANNEL: CSTXR2 FILTER: CH. CLASS 180 PEAK DATA: 1.60 G @ 296.32 MS; -45.97 G @ 70.08 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Y-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM



CHANNEL: CSTYR2 FILTER: CH. CLASS 180 PEAK DATA: 1.24 G @ 40.24 MS; -5.63 G @ 86.80 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST Z-AXIS ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

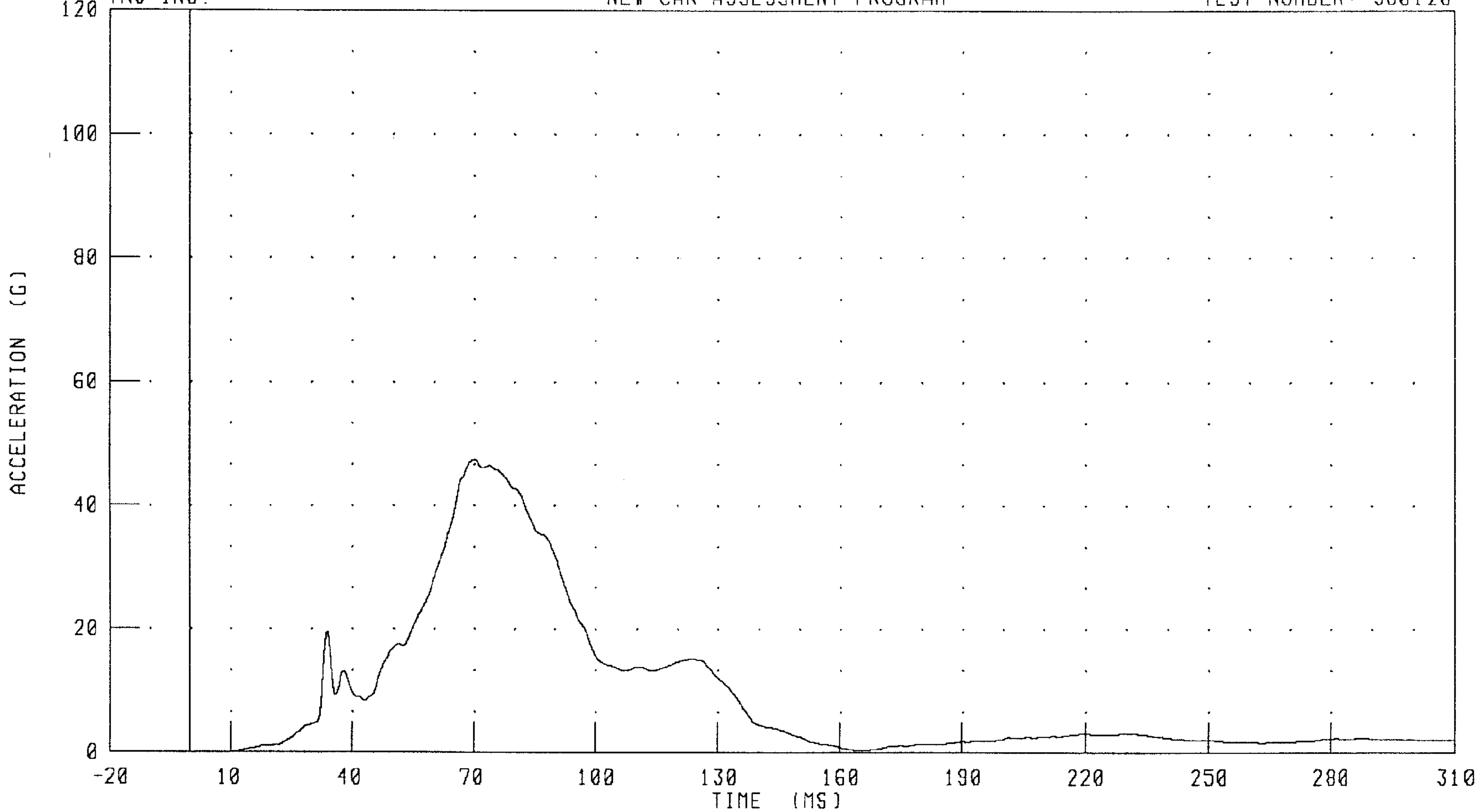


CHANNEL: CSTZR2 FILTER: CH. CLASS 180 PEAK DATA: 15.05 G @ 123.76 MS; -13.43 G @ 77.12 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER CHEST RESULTANT ACCELERATION - REDUNDANT
NEW CAR ASSESSMENT PROGRAM

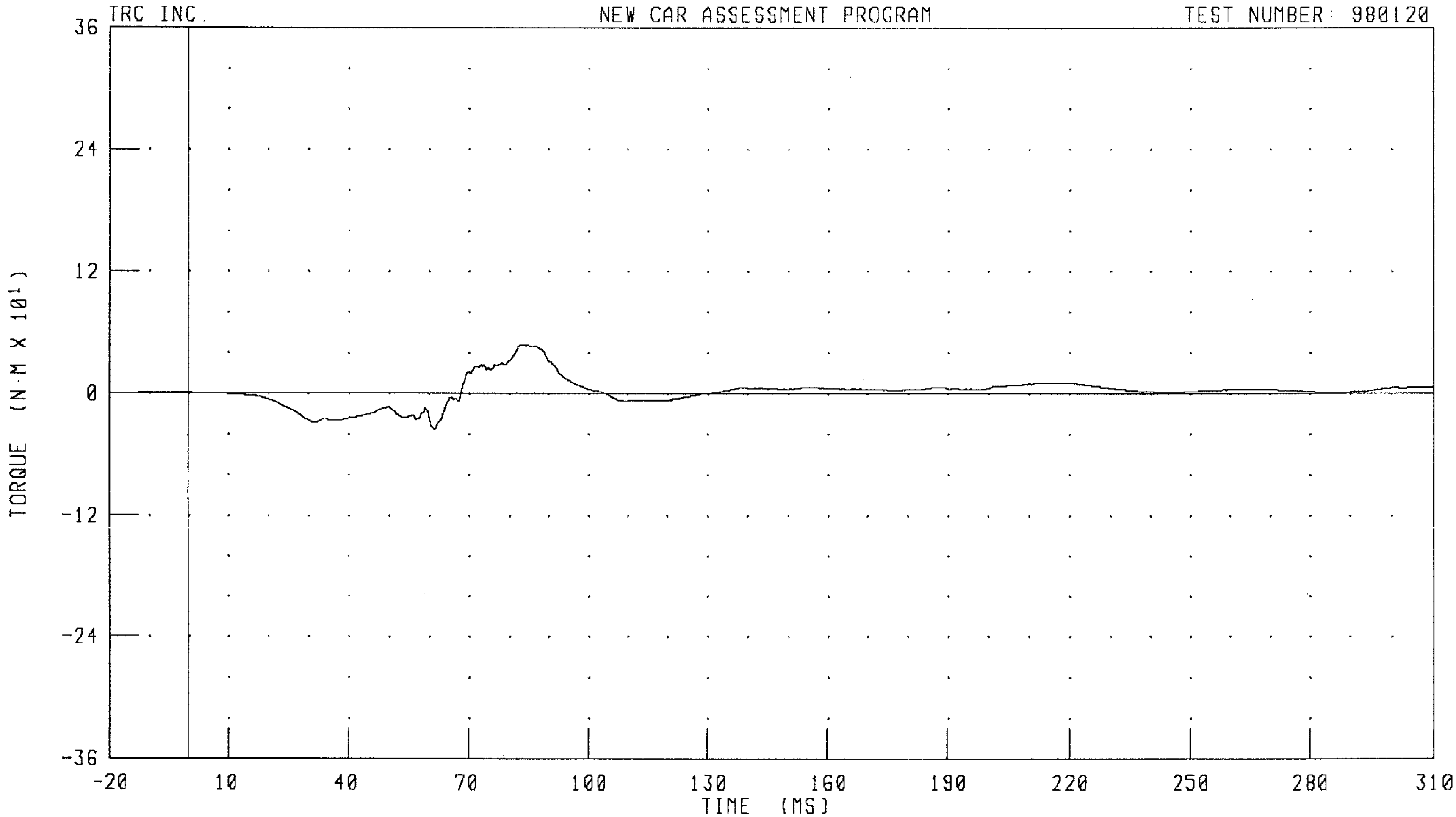
TRC INC.

TEST NUMBER: 980120



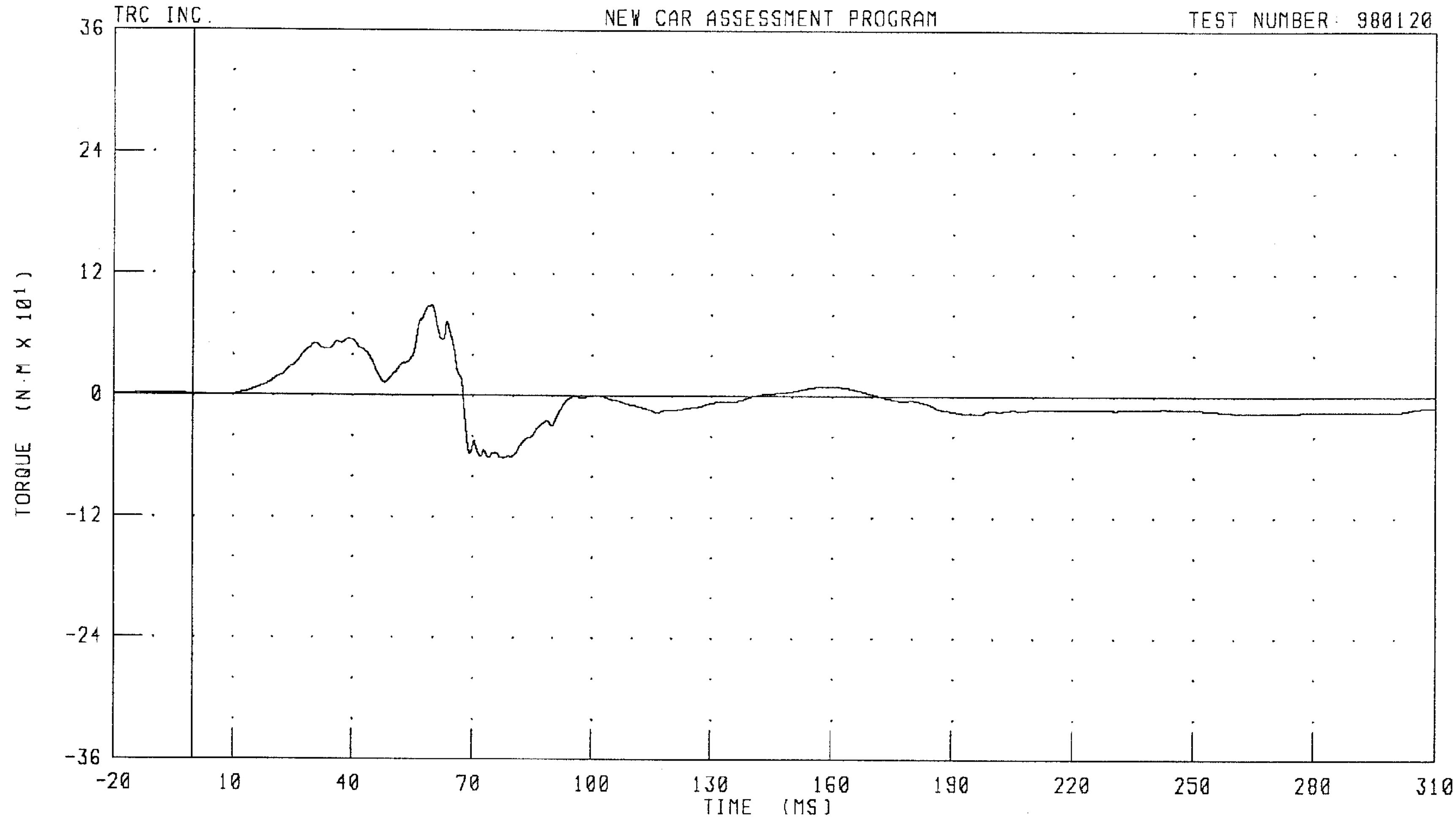
CHANNEL: CSTRR2   FILTER: CH. CLASS 180   PEAK DATA: 47.40 G @ 70.24 MS; 0.01 G @ -20.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT UPPER TIBIA MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM



CHANNEL: TBLXM2   FILTER: CH. CLASS 600   PEAK DATA: 48.16 N·M @ 83.60 MS; -35.39 N·M @ 61.52 MS

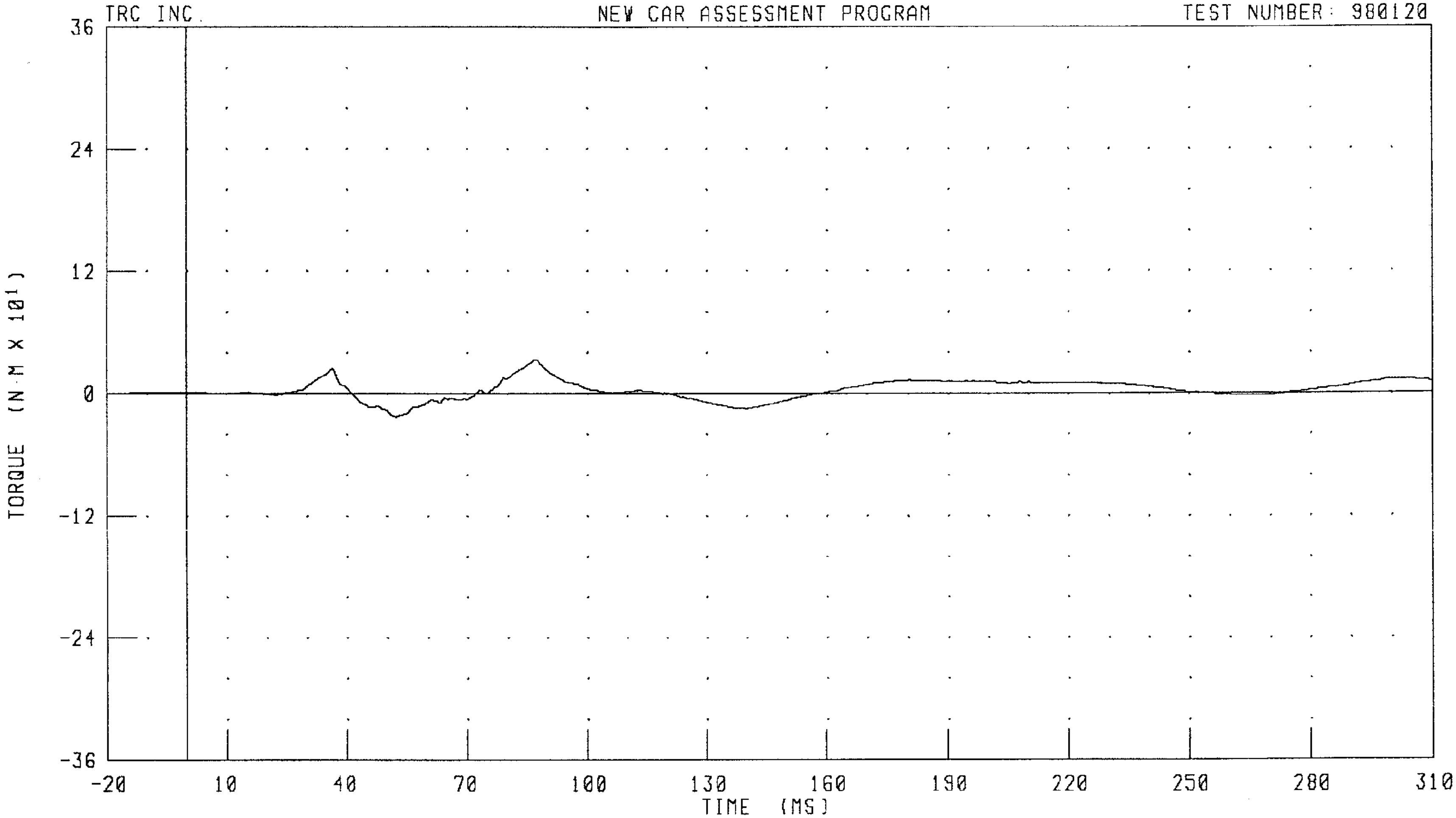
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM



CHANNEL: TBLYM2 FILTER: CH. CLASS 600

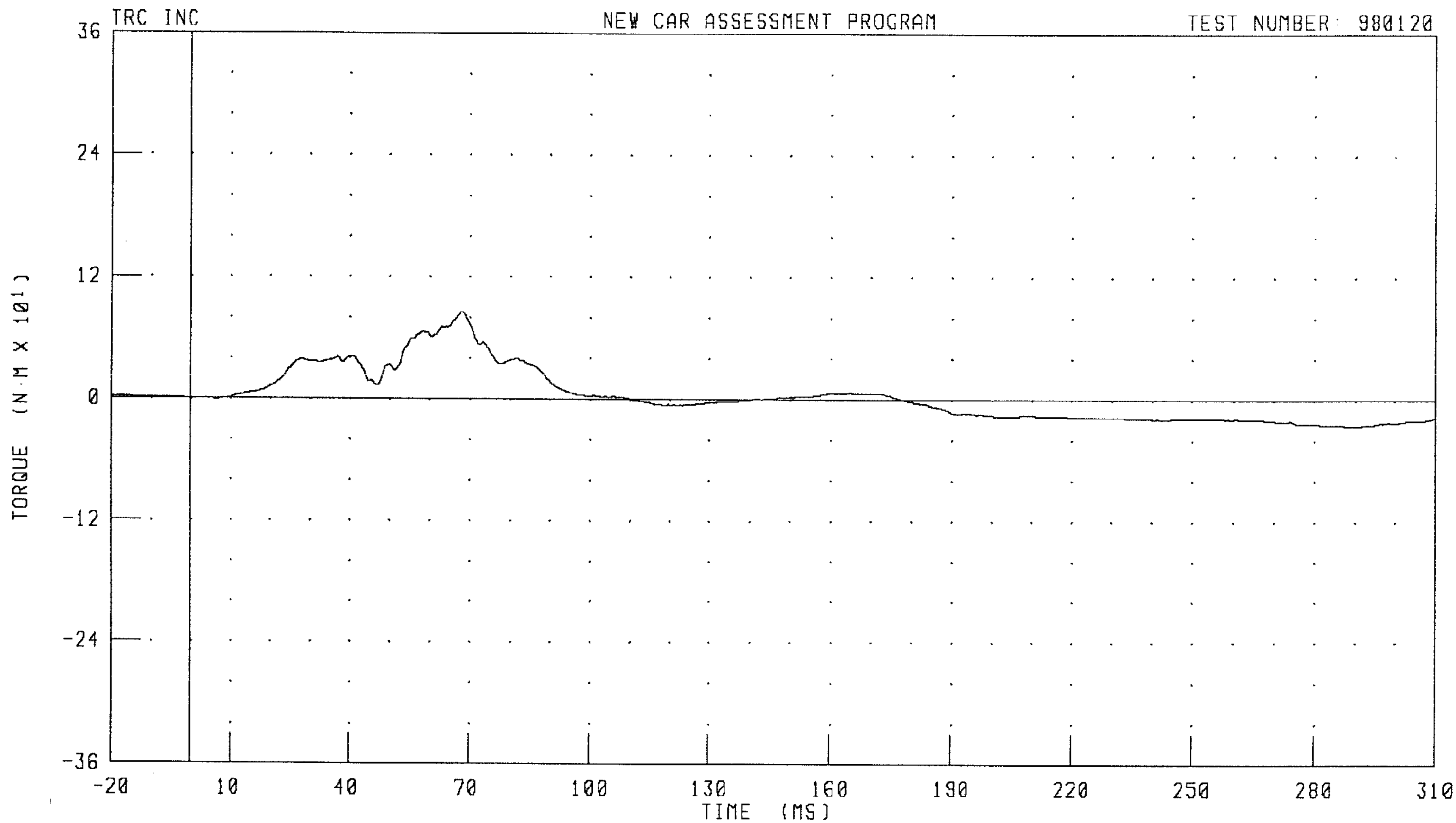
PEAK DATA: 88.35 N·M @ 59.84 MS; -61.83 N·M @ 77.68 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS
NEW CAR ASSESSMENT PROGRAM



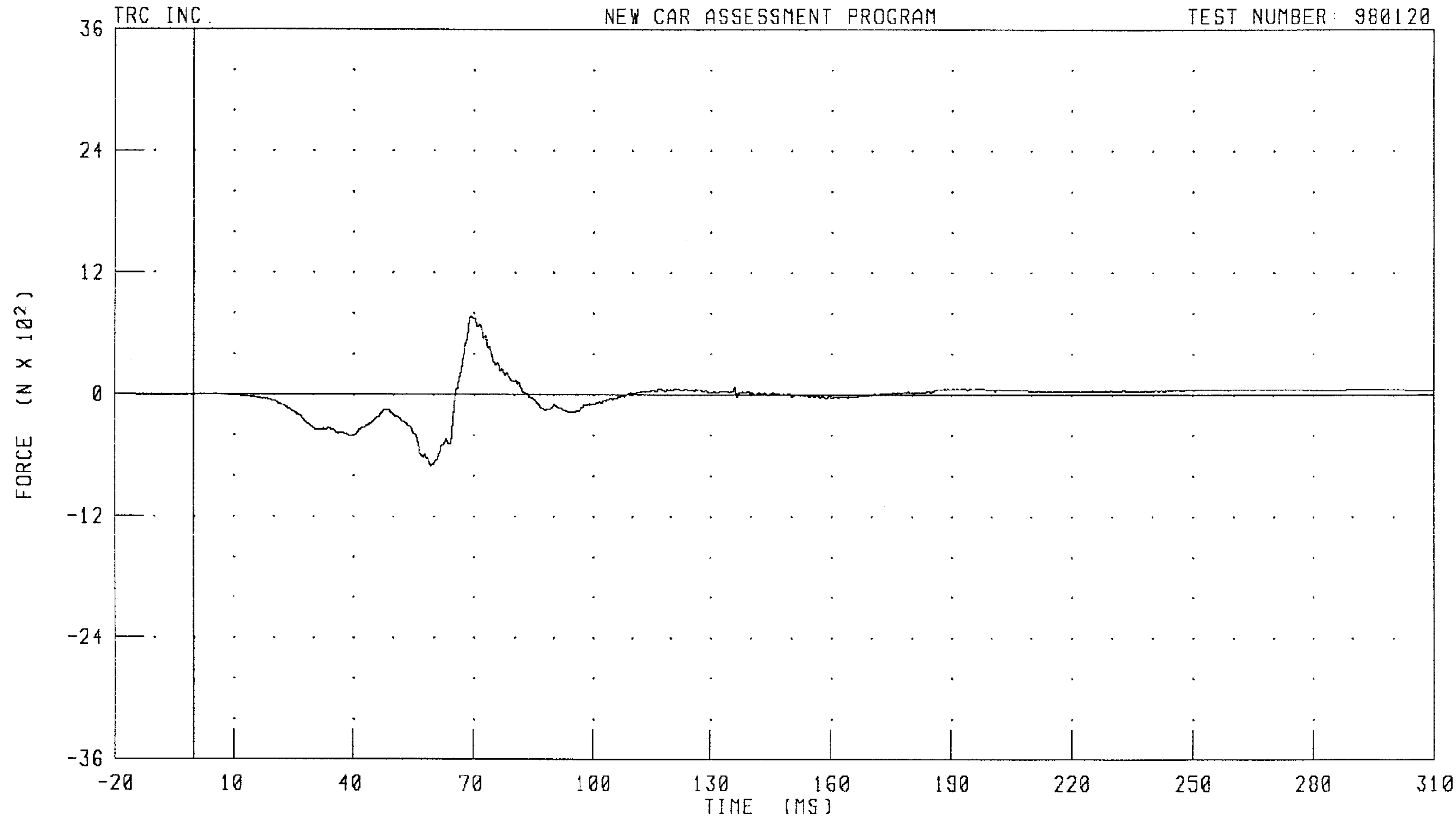
CHANNEL: TBRXM2 FILTER: CH. CLASS 600 PEAK DATA: 32.79 N·M @ 87.36 MS; -22.82 N·M @ 52.32 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM



CHANNEL: TBRYM2 FILTER: CH. CLASS 600 PEAK DATA: 85.49 N·M @ 68.08 MS; -25.31 N·M @ 289.52 MS

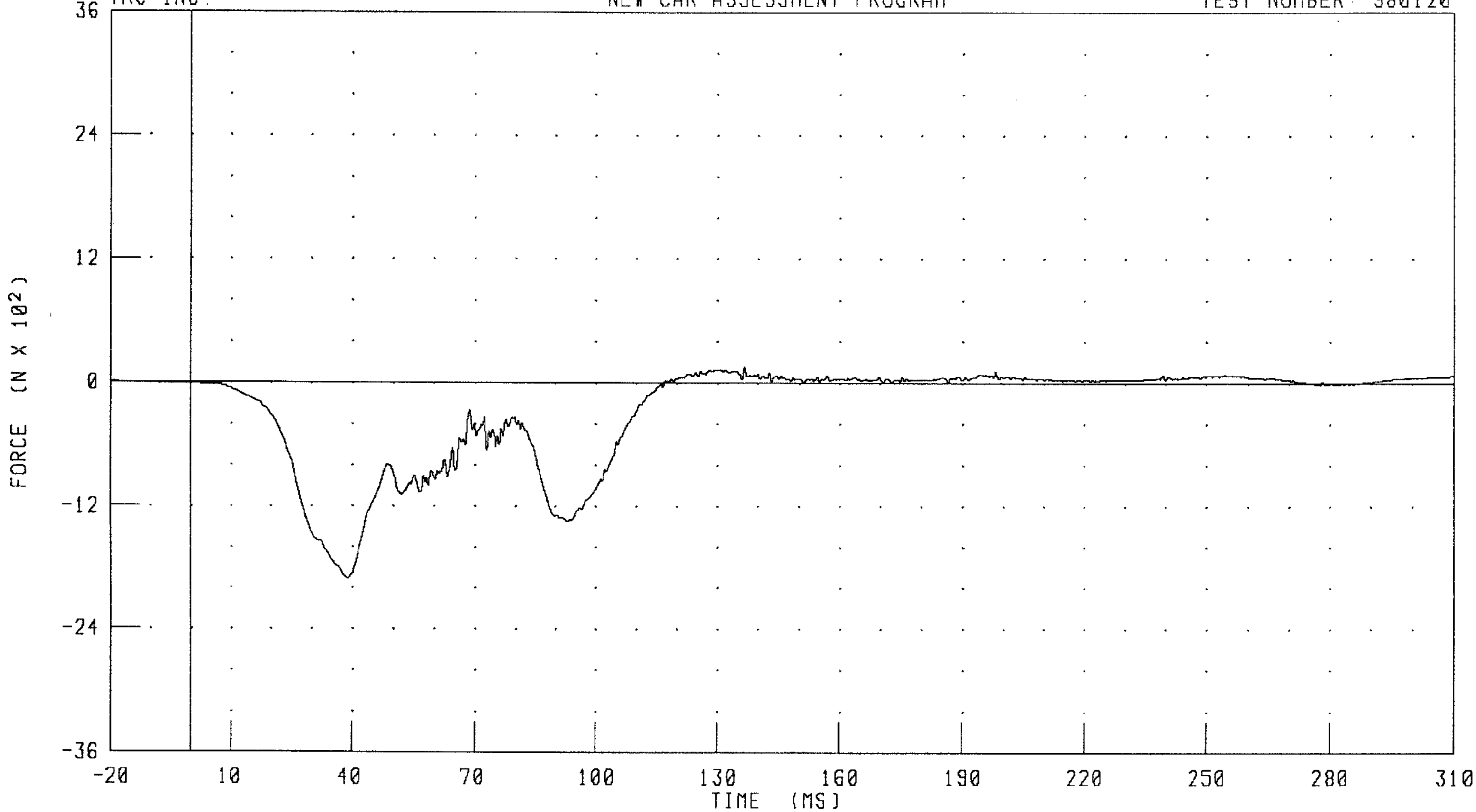
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT LOWER TIBIA X-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



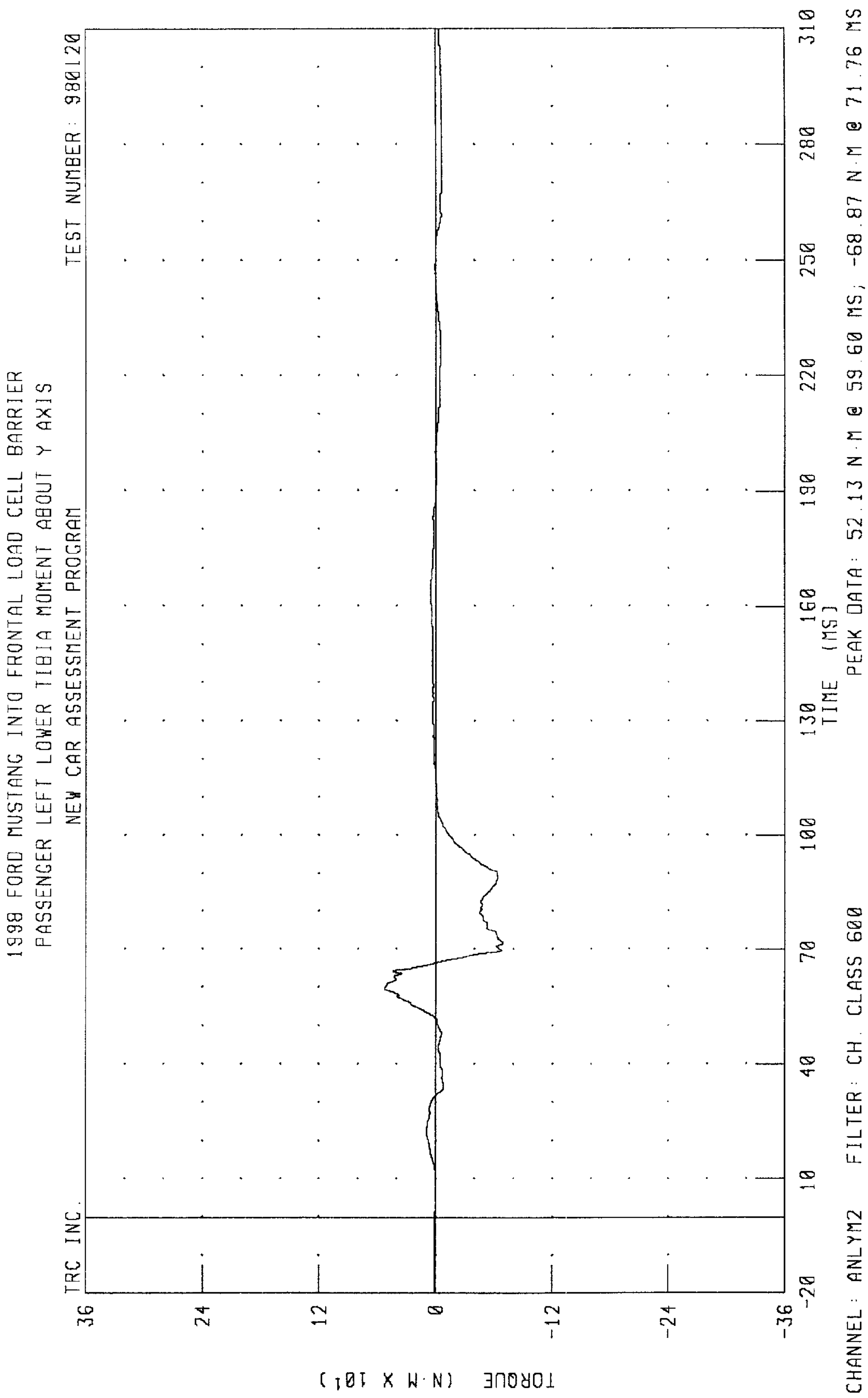
CHANNEL: ANLXF2 FILTER: CH. CLASS 600 PEAK DATA: 773.44 N @ 69.20 MS; -702.81 N @ 59.44 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT LOWER TIBIA Z-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM

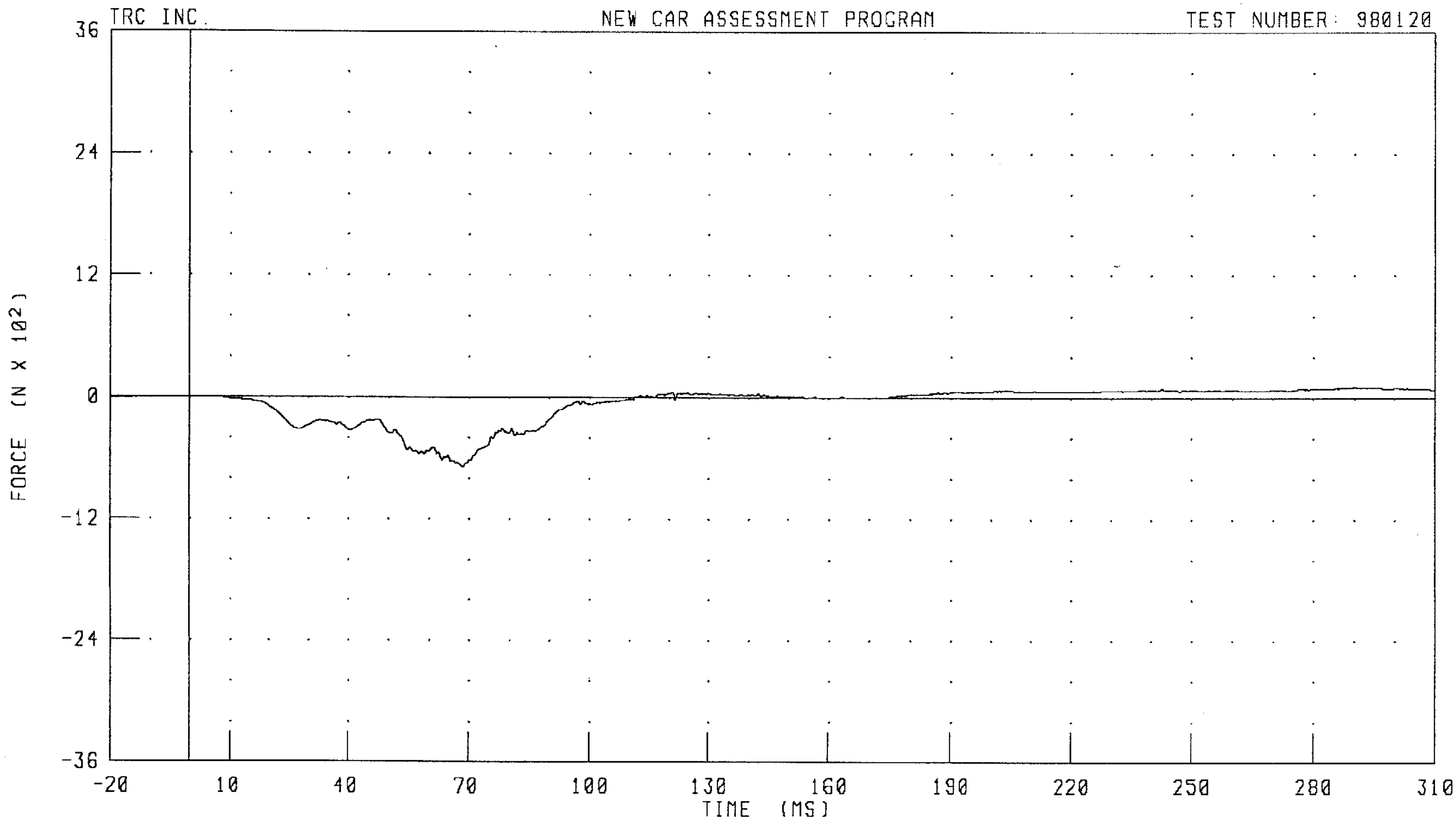
TRC INC. TEST NUMBER: 980120



CHANNEL: ANLZF2 FILTER: CH. CLASS 600 PEAK DATA: 160.20 N @ 136.56 MS; -1907.04 N @ 38.72 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
TORQUE (N·M X 10¹)
36
24
12
0
-12
-24
-36
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: ANLYM2 FILTER: CH. CLASS 600
PEAK DATA: 52.13 N·M @ 59.60 MS; -68.87 N·M @ 71.76 MS

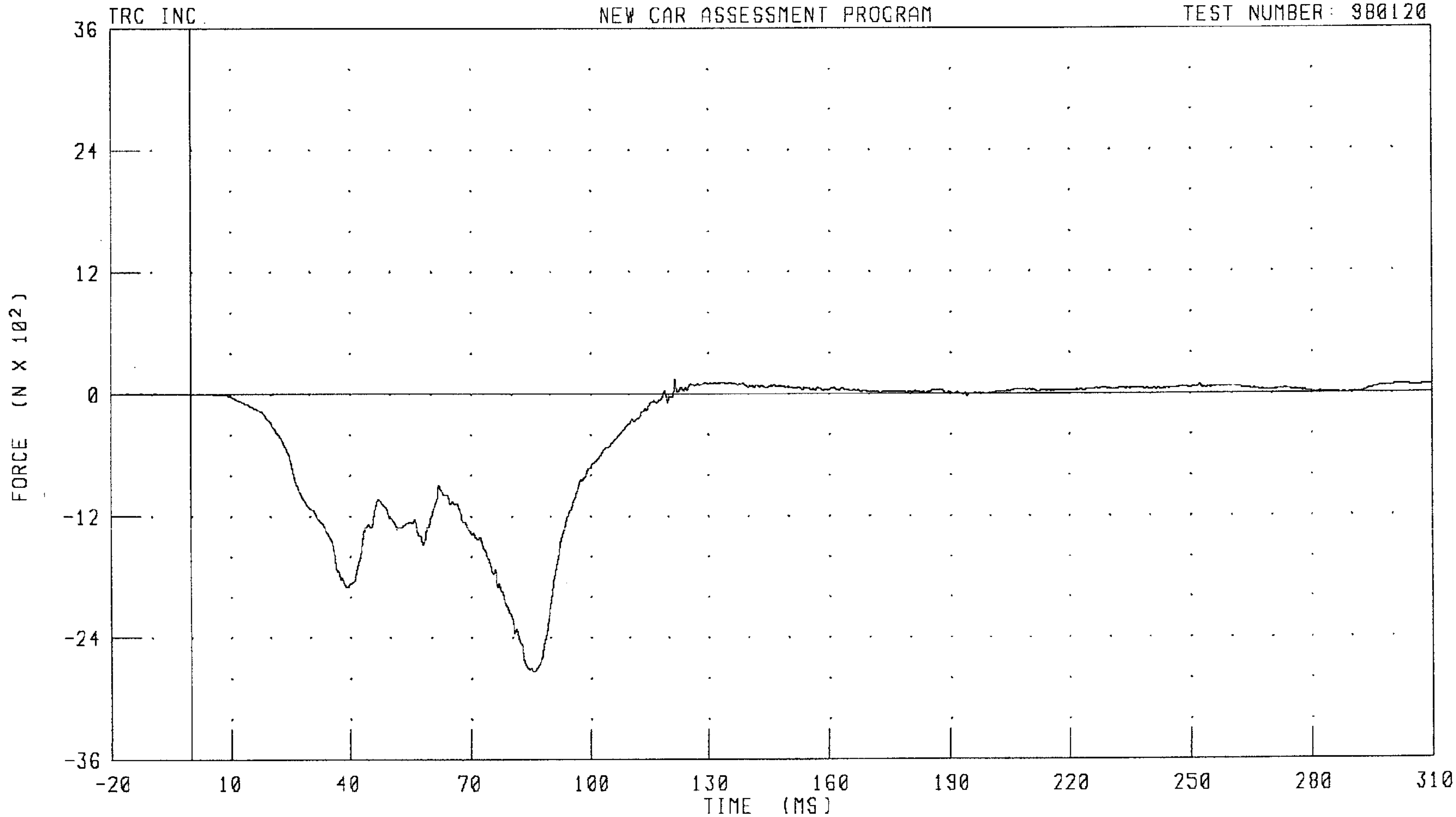
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT LOWER TIBIA X-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



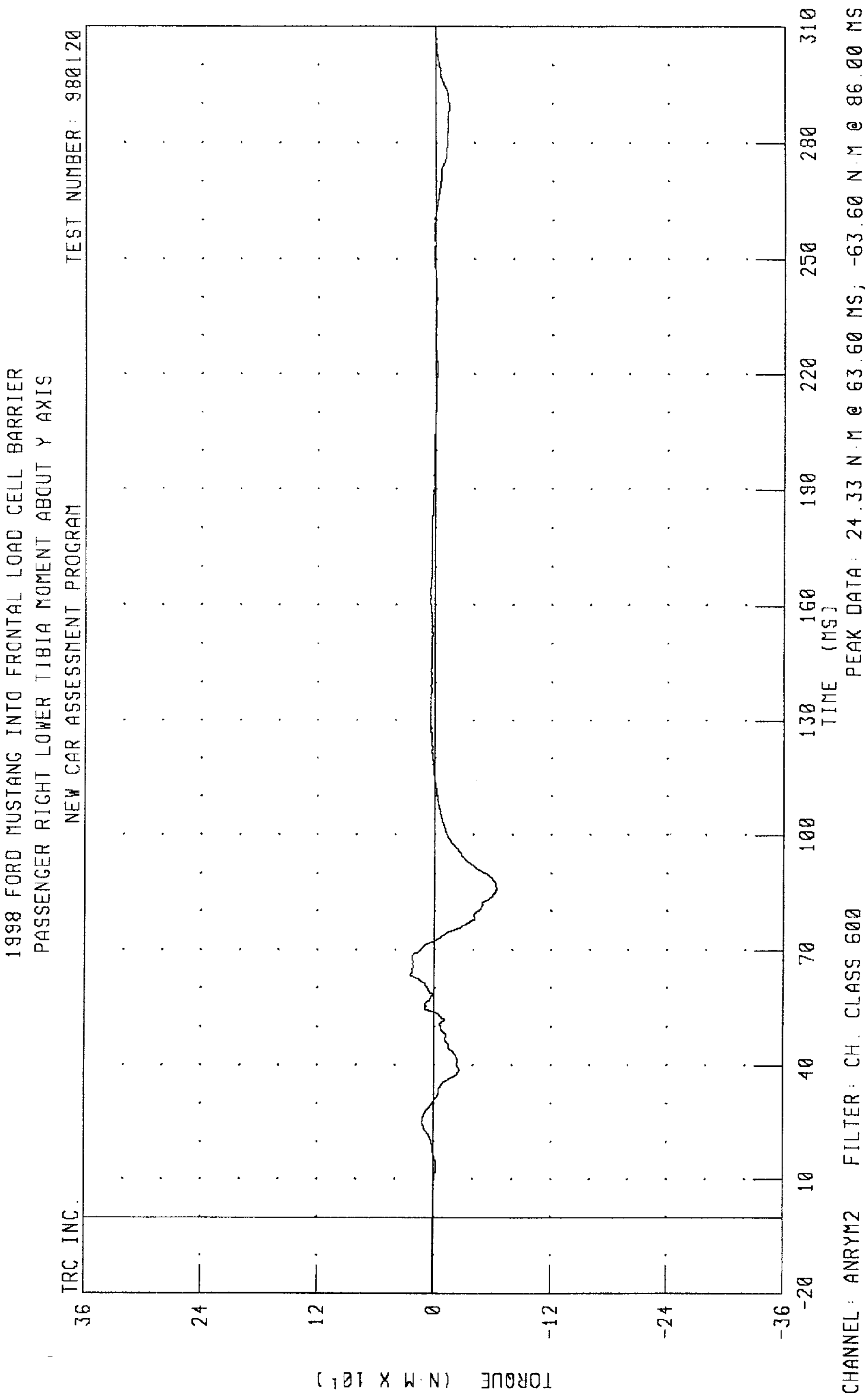
CHANNEL: ANRXF2 FILTER: CH. CLASS 600

PEAK DATA: 108.26 N @ 290.24 MS; -692.05 N @ 68.56 MS

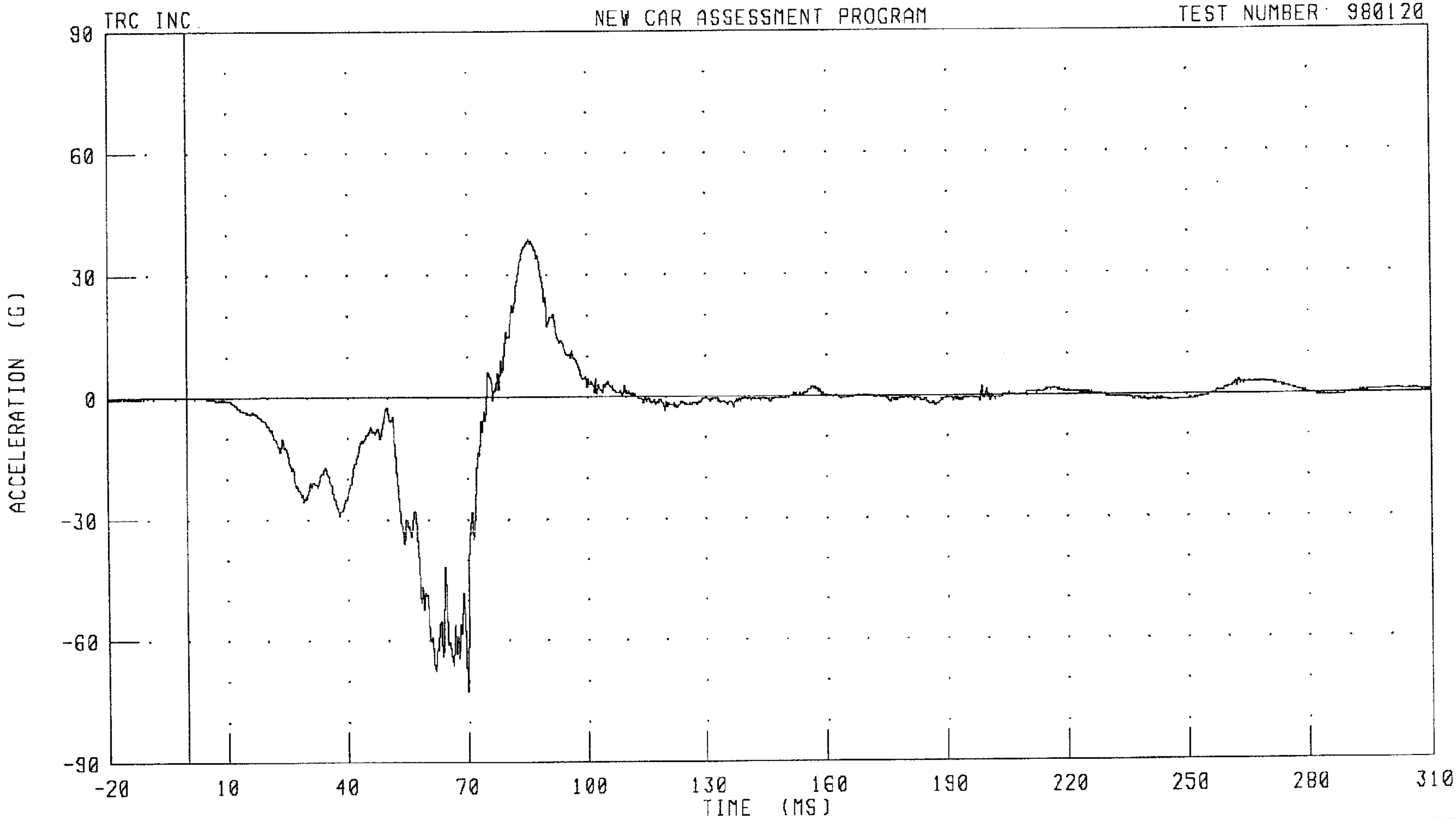
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT LOWER TIBIA Z-AXIS FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: ANRZF2 FILTER: CH. CLASS 600 PEAK DATA: 140.27 N @ 121.76 MS; -2737.13 N @ 85.68 MS

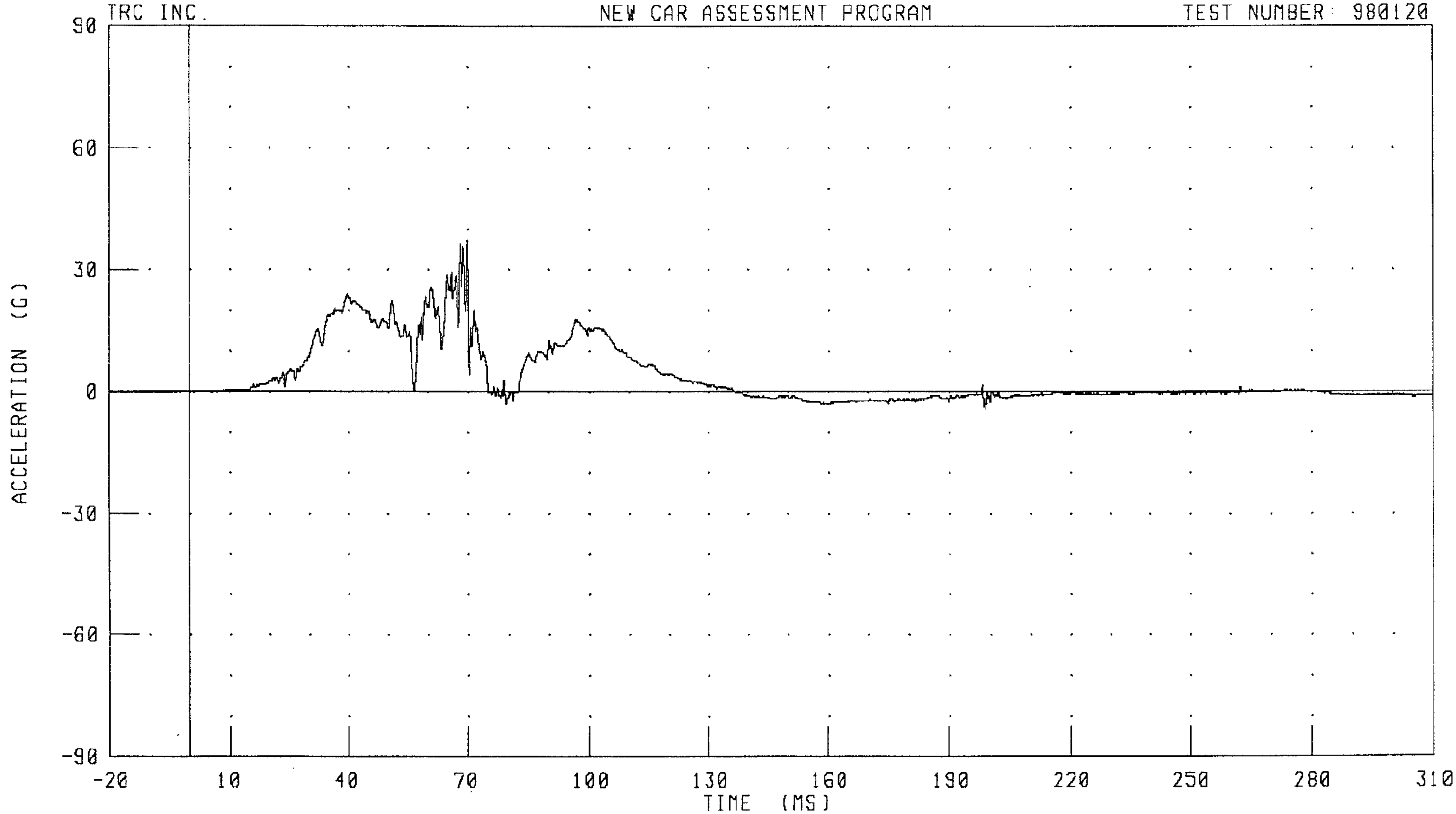

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
36
24
12
0
-12
-24
-36
TORQUE (N·M X 10¹)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: ANRYM2 FILTER: CH. CLASS 600
PEAK DATA: 24.33 N·M @ 63.60 MS; -63.60 N·M @ 86.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM

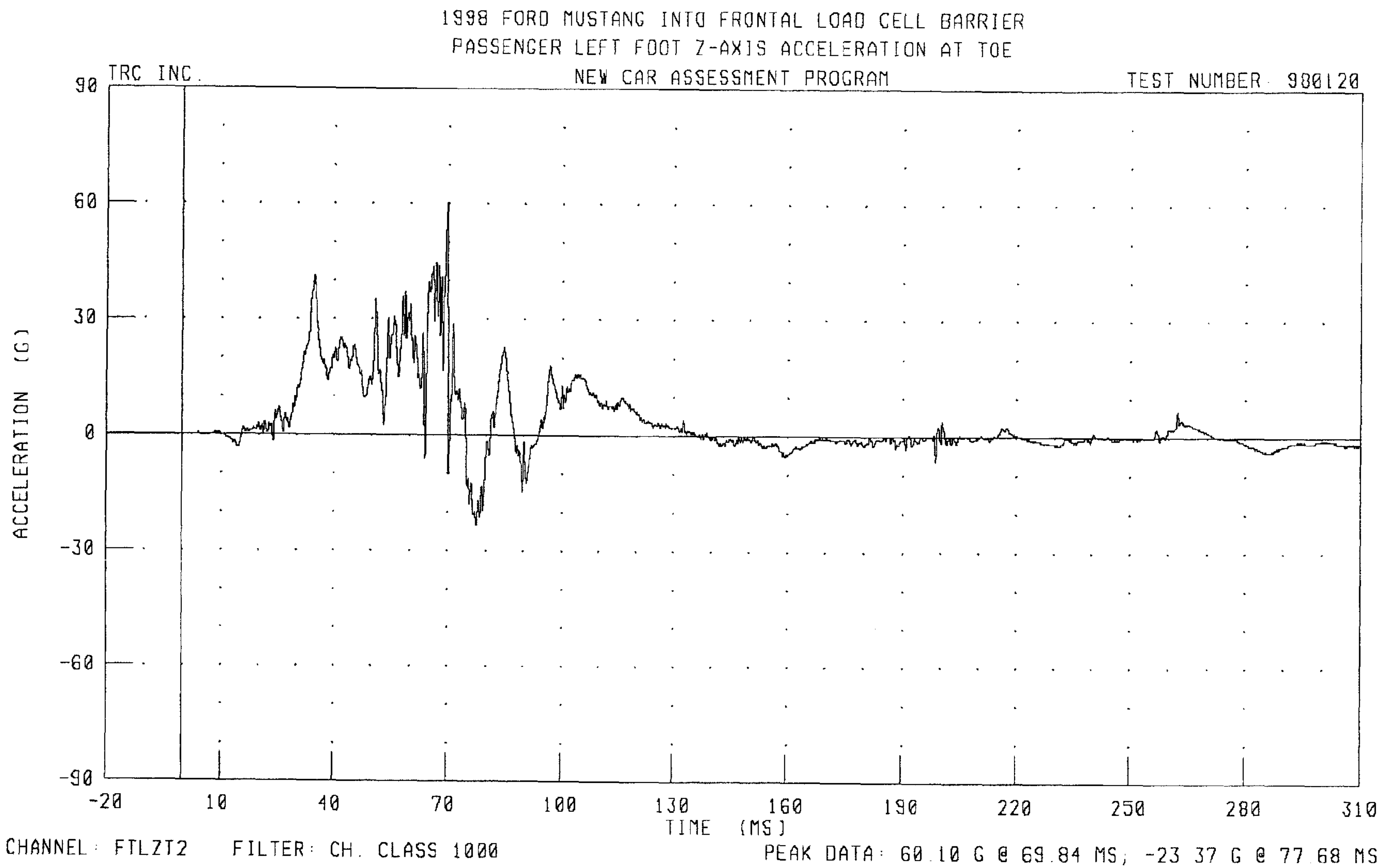


CHANNEL: FTLXG2   FILTER: CH. CLASS 1000   PEAK DATA: 38.78 G @ 85.44 MS; -72.62 G @ 69.84 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT Z-AXIS ACCELERATION AT HEEL
NEW CAR ASSESSMENT PROGRAM



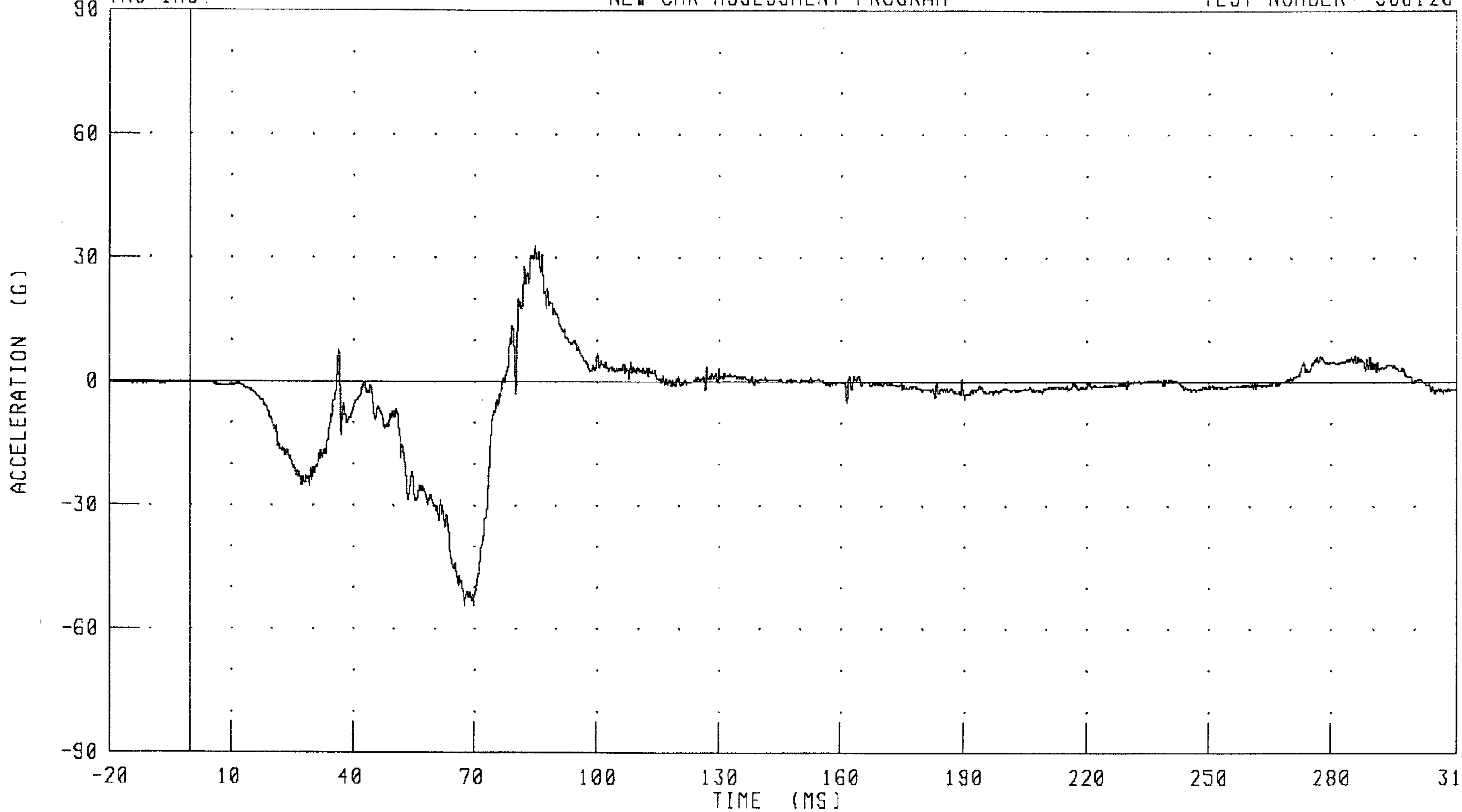
CHANNEL: FTLZH2 FILTER: CH. CLASS 1000 PEAK DATA: 37.37 G @ 69.92 MS; -4.18 G @ 198.96 MS



1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LEFT FOOT Z-AXIS ACCELERATION AT TOE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
90
60
30
0
-30
-60
-90
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: FTLZT2
FILTER: CH. CLASS 1000
PEAK DATA: 60.10 G @ 69.84 MS; -23.37 G @ 77.68 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT X-AXIS ACCELERATION

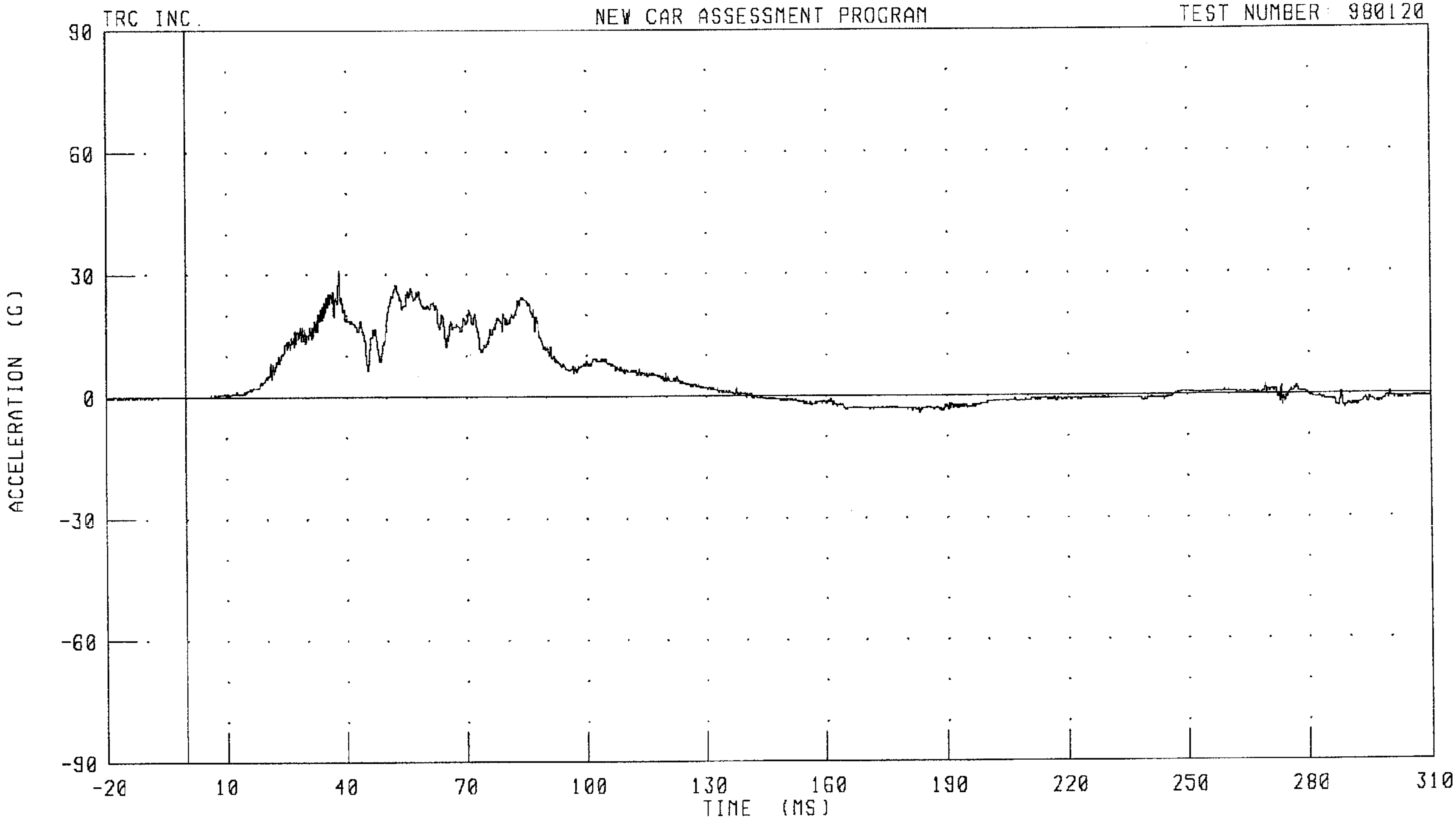
TRC INC.
NEW CAR ASSESSMENT PROGRAM
TEST NUMBER: 980120



CHANNEL: FTRXG2   FILTER: CH. CLASS 1000

PEAK DATA: 33.16 G @ 84.96 MS; -54.63 G @ 67.68 MS

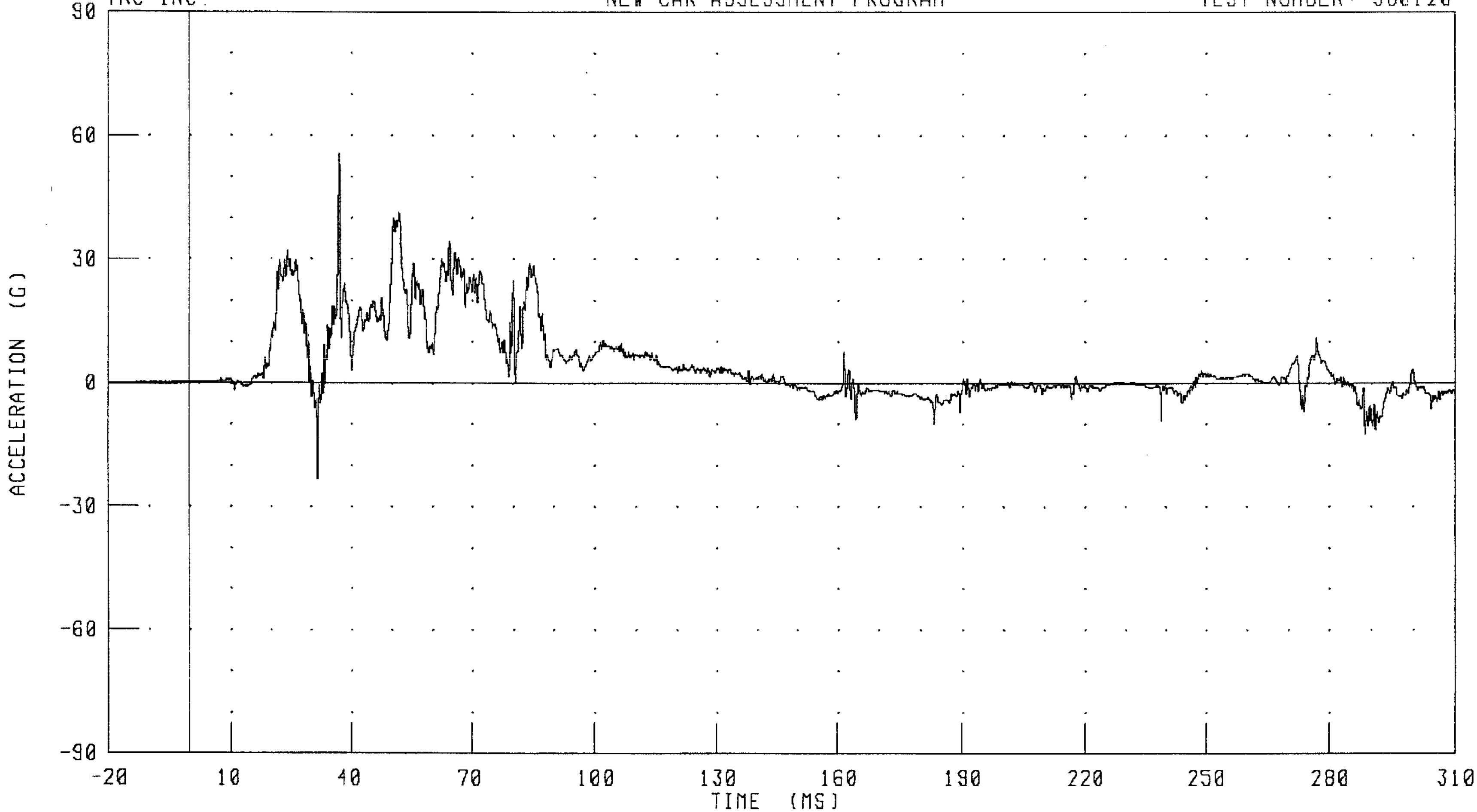
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION AT HEEL
NEW CAR ASSESSMENT PROGRAM



CHANNEL: FTRZH2 FILTER: CH. CLASS 1000 PEAK DATA: 31.04 G @ 38.24 MS; -4.30 G @ 183.36 MS

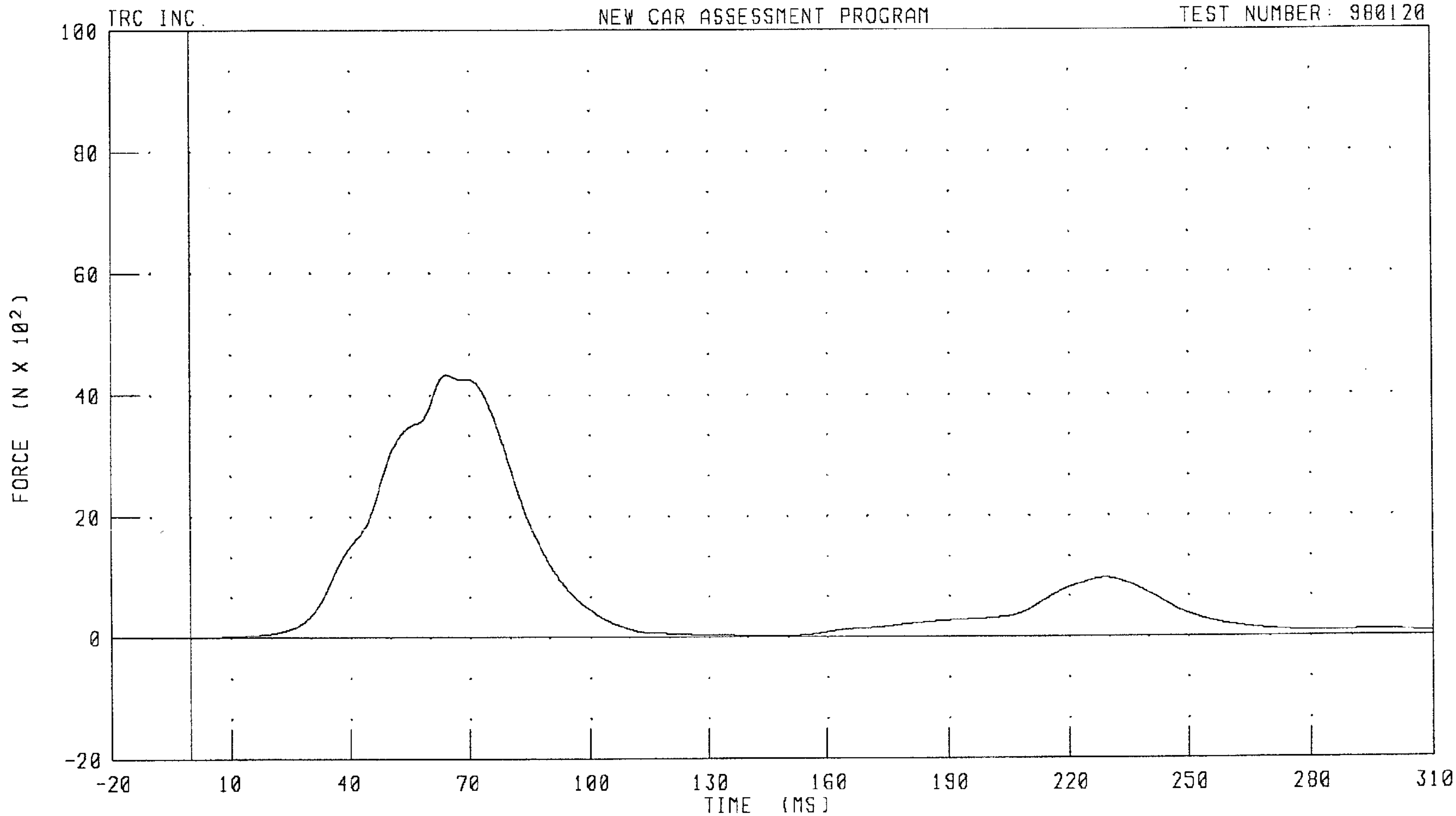
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION AT TOE

TRC INC. NEW CAR ASSESSMENT PROGRAM TEST NUMBER: 980120



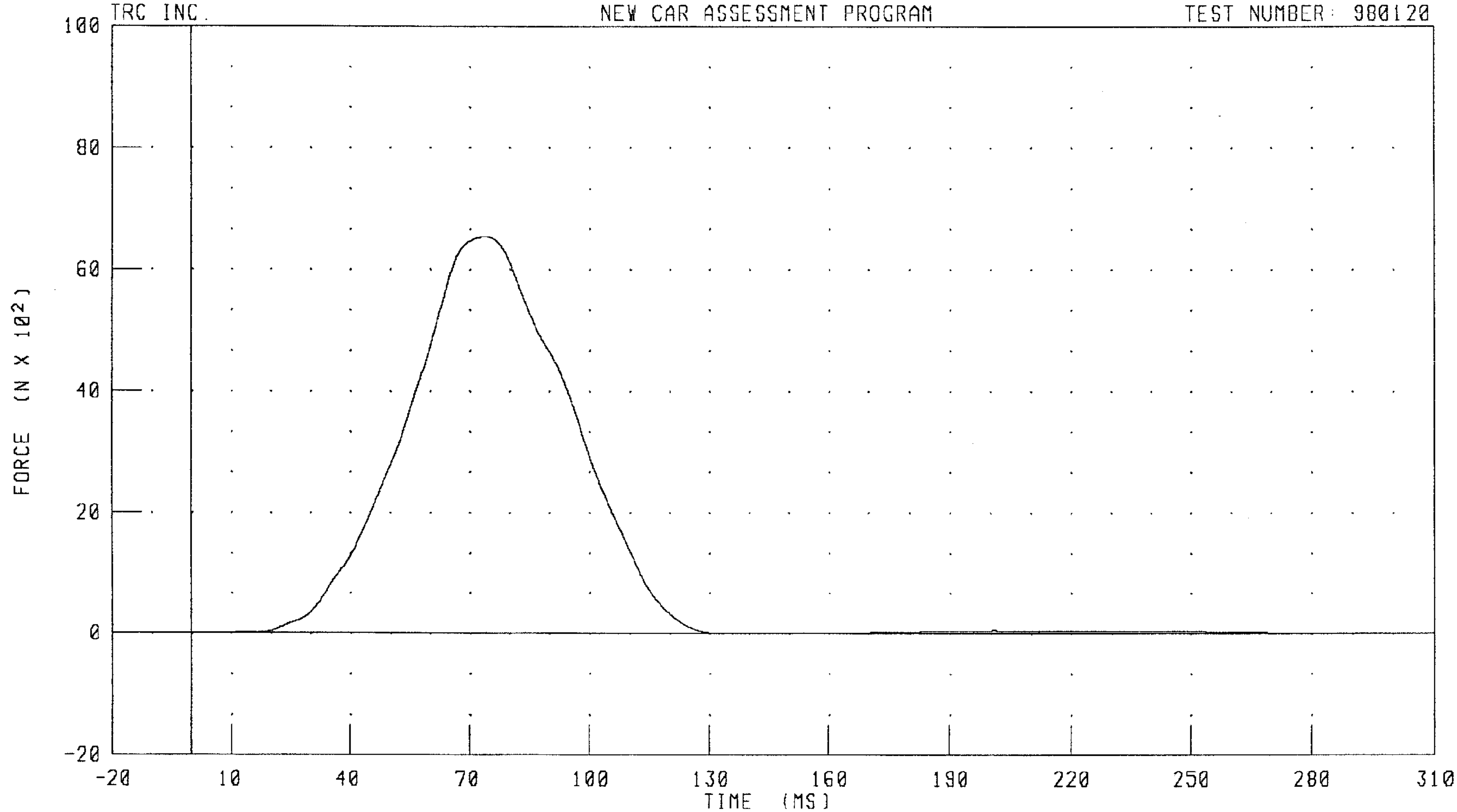
CHANNEL: FTRZT2 FILTER: CH. CLASS 1000 PEAK DATA: 55.55 G @ 36.96 MS; -23.30 G @ 31.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER LAP BELT OUTBOARD FORCE
NEW CAR ASSESSMENT PROGRAM

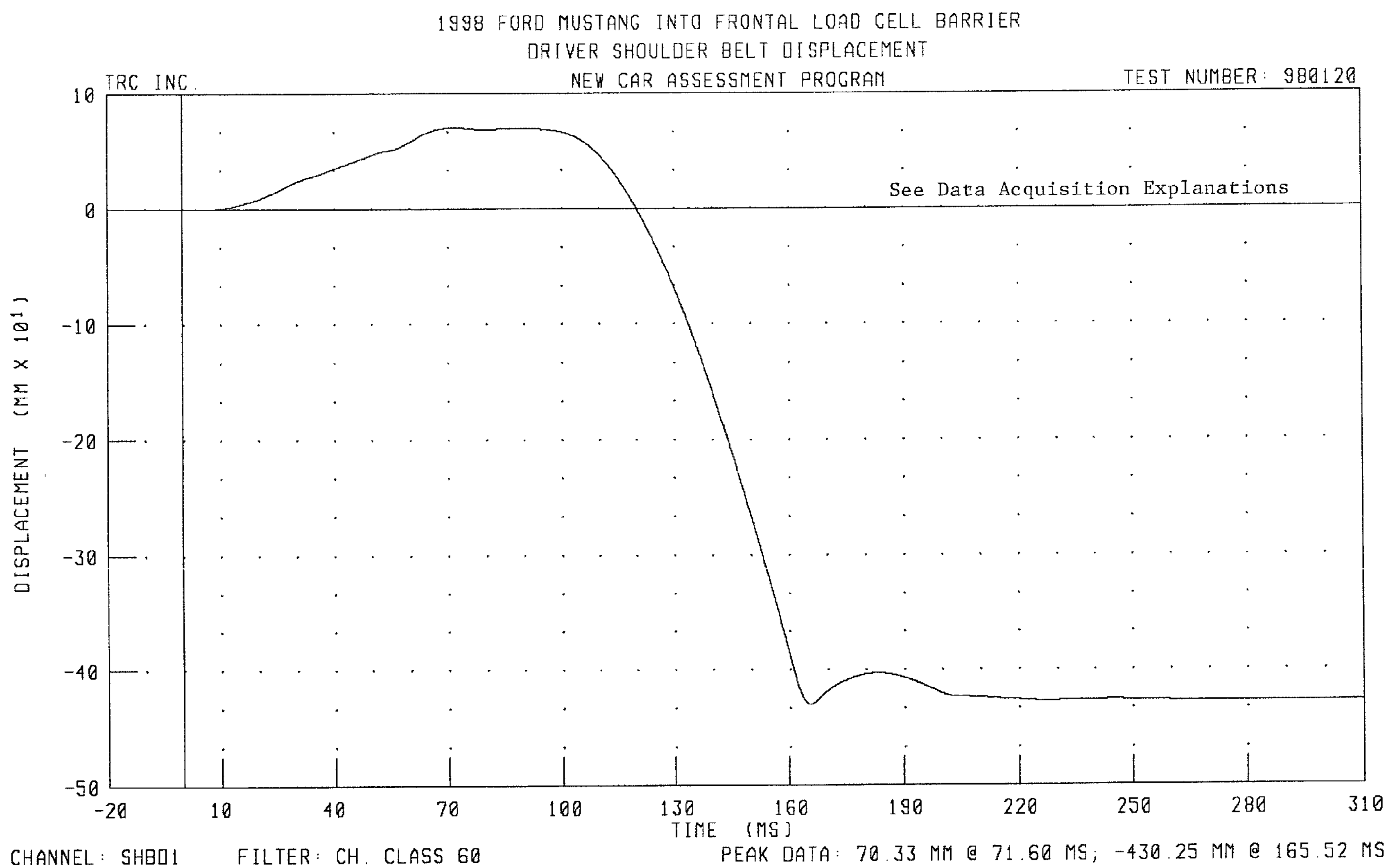


CHANNEL: LBOF1 FILTER: CH. CLASS 60 PEAK DATA: 4332.36 N @ 64.40 MS; -0.03 N @ -20.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER SHOULDER BELT FORCE
NEW CAR ASSESSMENT PROGRAM

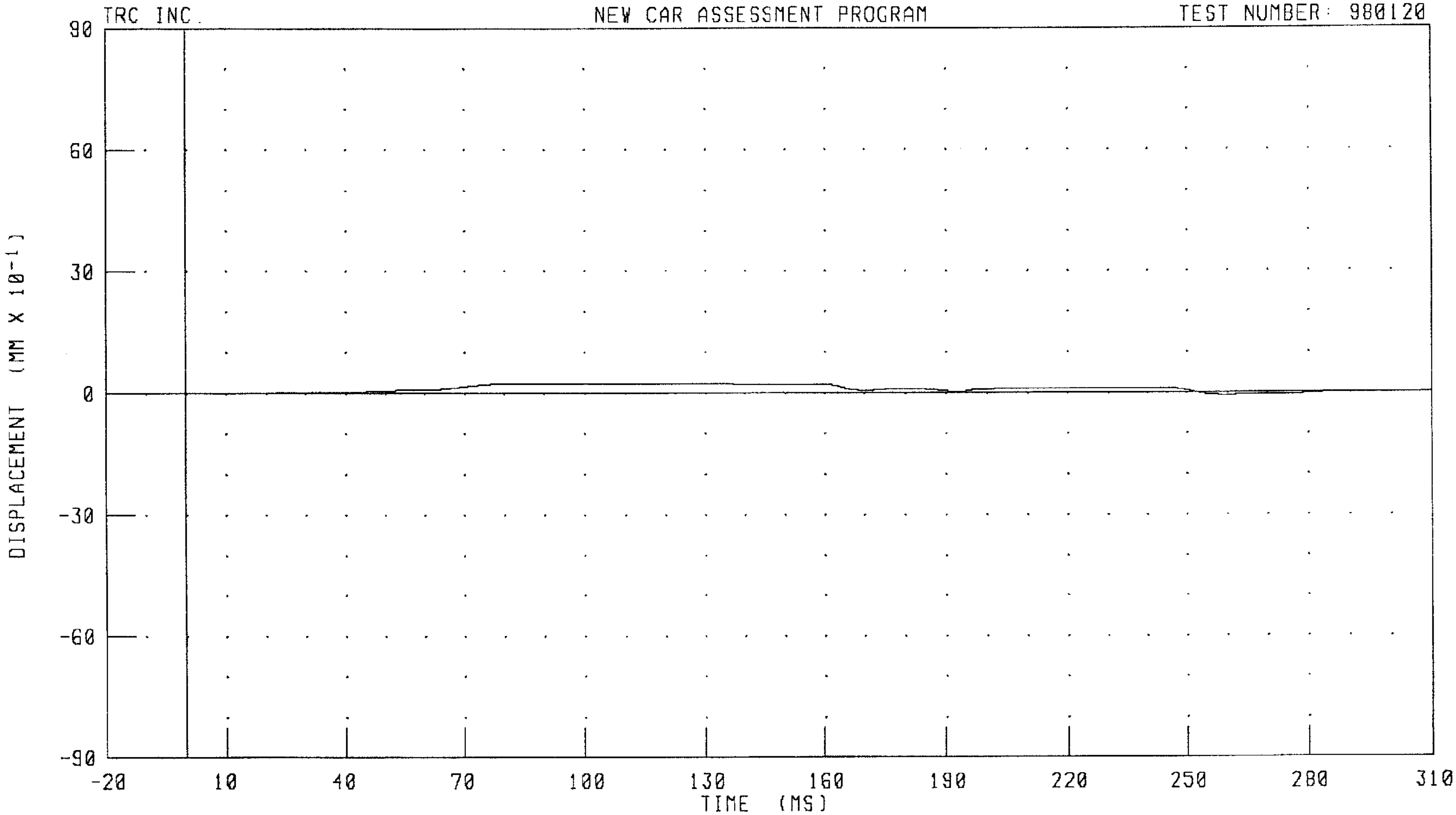


CHANNEL: SHBF1 FILTER: CH. CLASS 60 PEAK DATA: 6539.37 N @ 73.92 MS; -0.20 N @ -11.76 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER SHOULDER BELT DISPLACEMENT
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
See Data Acquisition Explanations
DISPLACEMENT (MM X 10¹)
10
0
-10
-20
-30
-40
-50
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: SHB01
FILTER: CH. CLASS 60
PEAK DATA: 70.33 MM @ 71.60 MS; -430.25 MM @ 165.52 MS

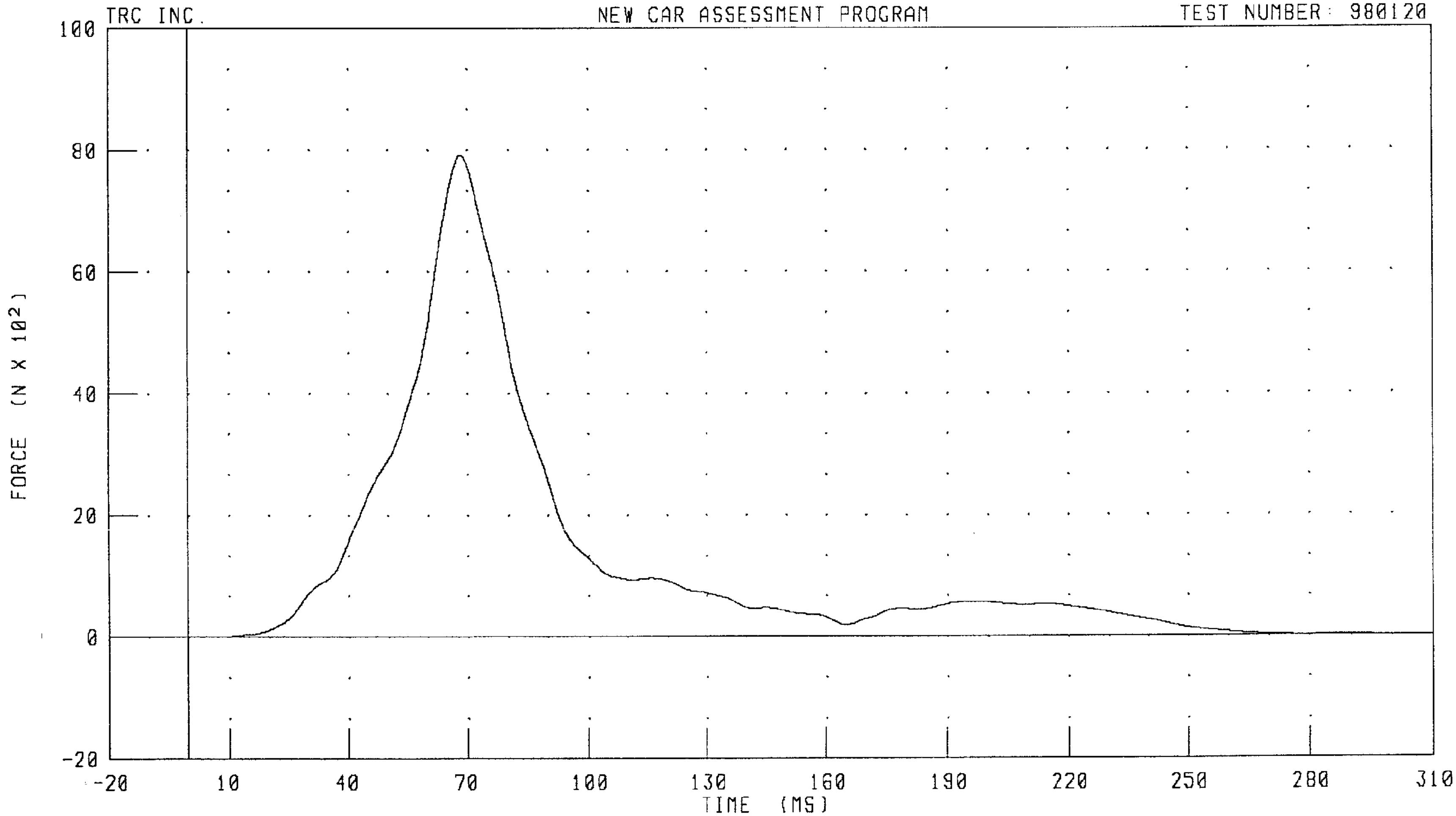
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
DRIVER SEAT BELT EXTENSION
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120

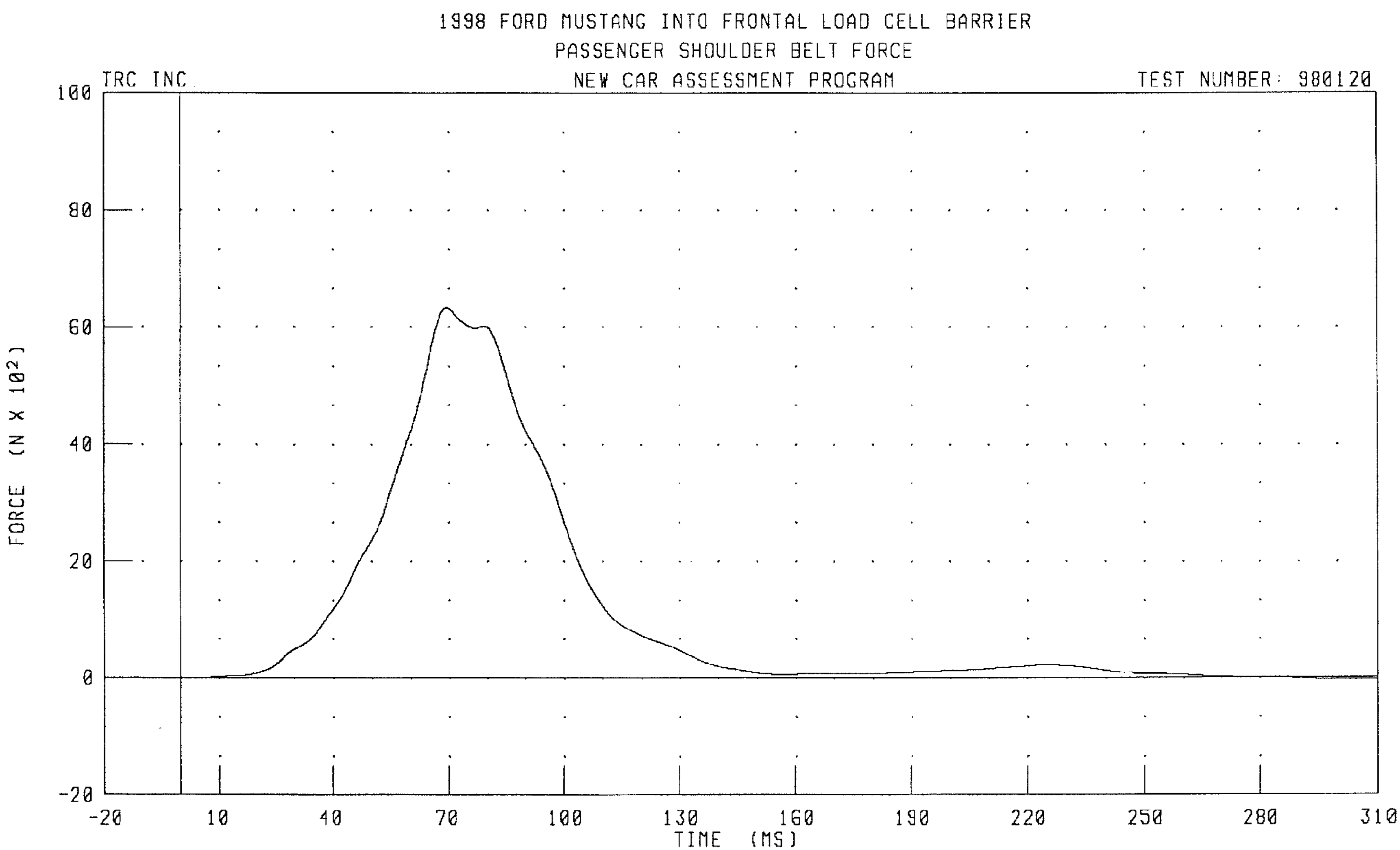


CHANNEL: SBED1 FILTER: CH. CLASS 60 PEAK DATA: 0.24 MM @ 86.72 MS, -0.06 MM @ 259.84 MS

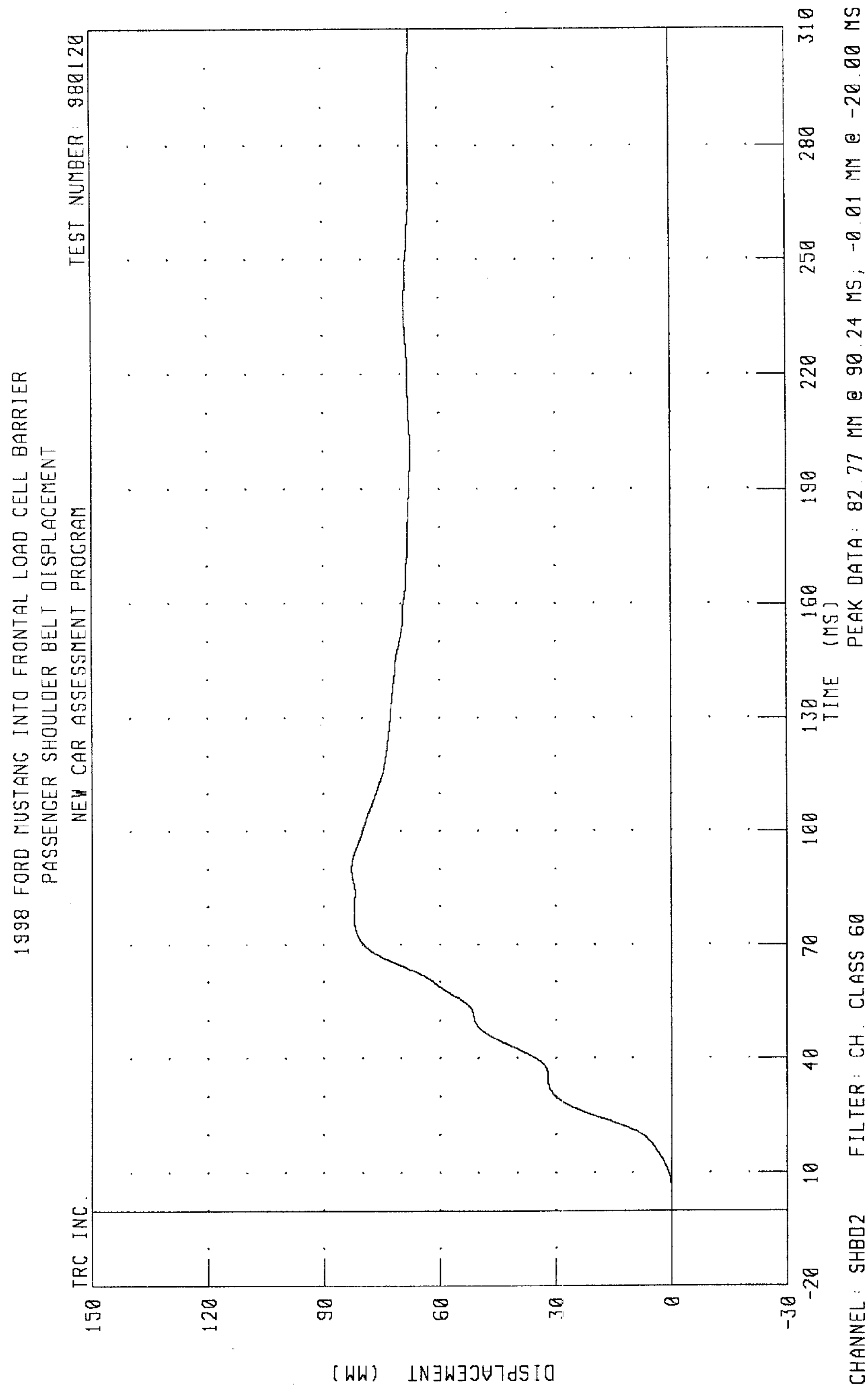
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER LAP BELT OUTBOARD FORCE
NEW CAR ASSESSMENT PROGRAM



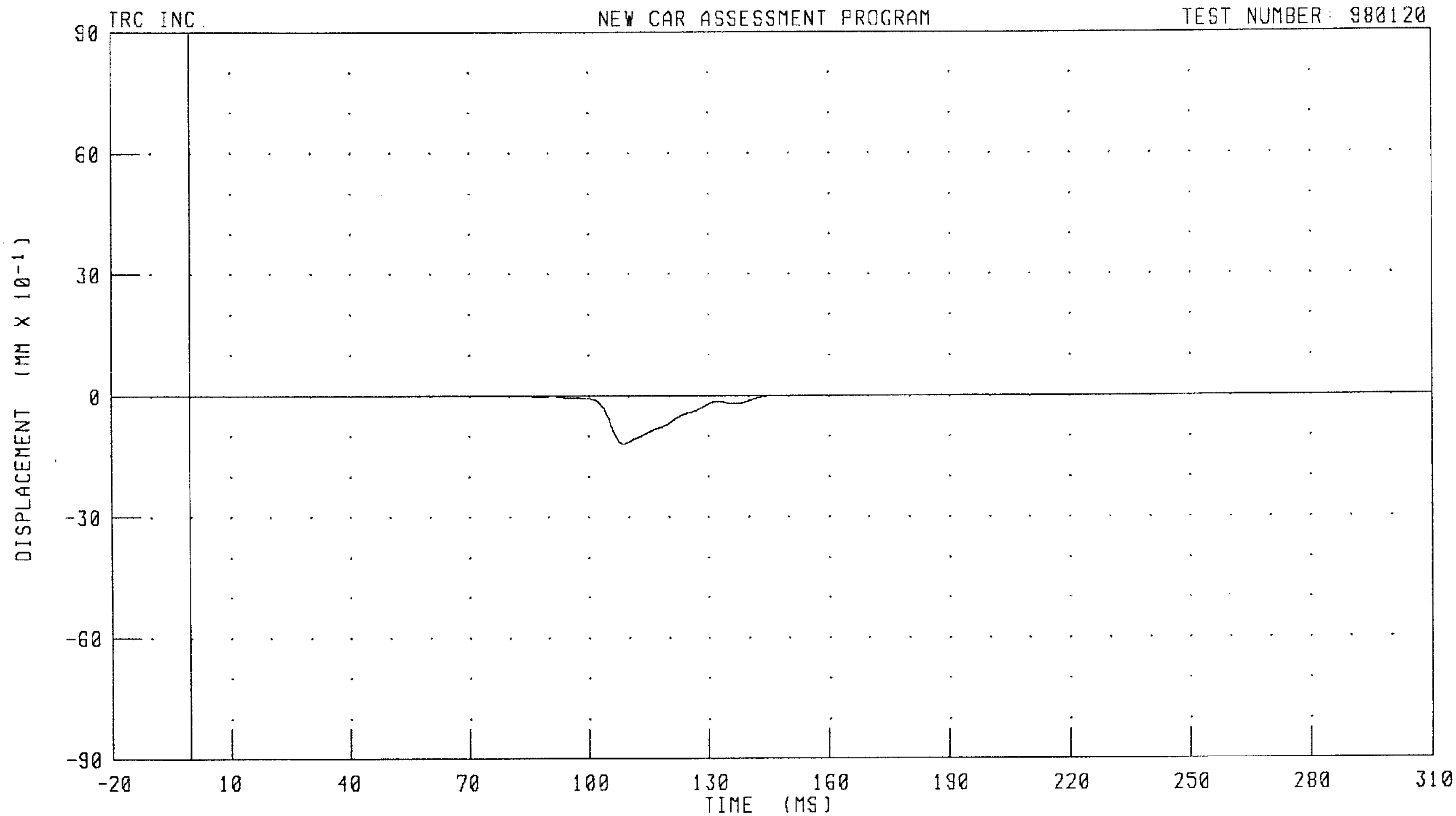
CHANNEL: LBOF2 FILTER: CH. CLASS 60 PEAK DATA: 7914.07 N @ 68.40 MS; 0.08 N @ -20.00 MS



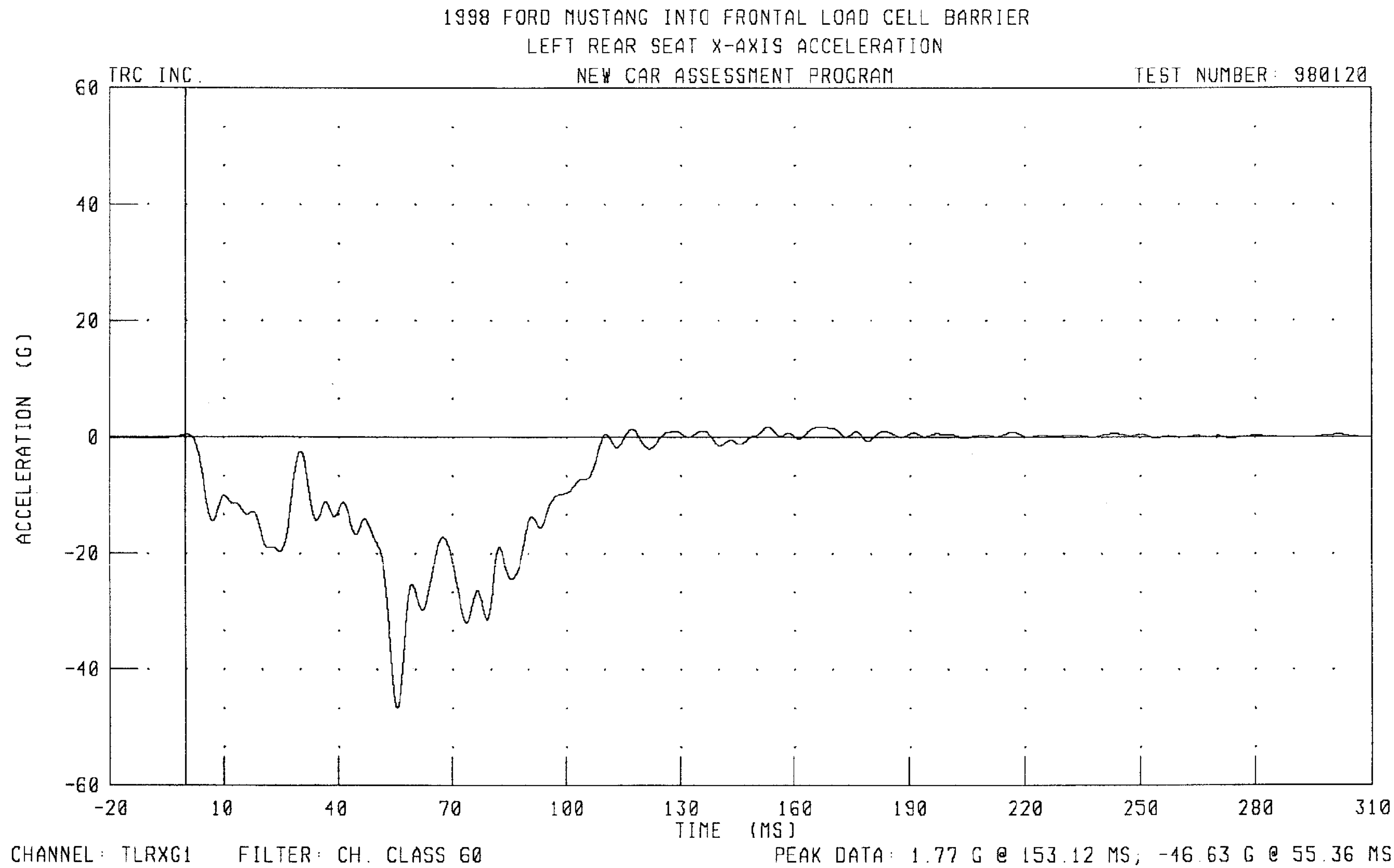
CHANNEL: SHBF2 FILTER: CH. CLASS 60 PEAK DATA: 6330.33 N @ 69.44 MS; -25.62 N @ 298.32 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER SHOULDER BELT DISPLACEMENT
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
DISPLACEMENT (MM)
150
120
90
60
30
0
-30
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: SHBD2
FILTER: CH. CLASS 60
PEAK DATA: 82.77 MM @ 90.24 MS; -0.01 MM @ -20.00 MS

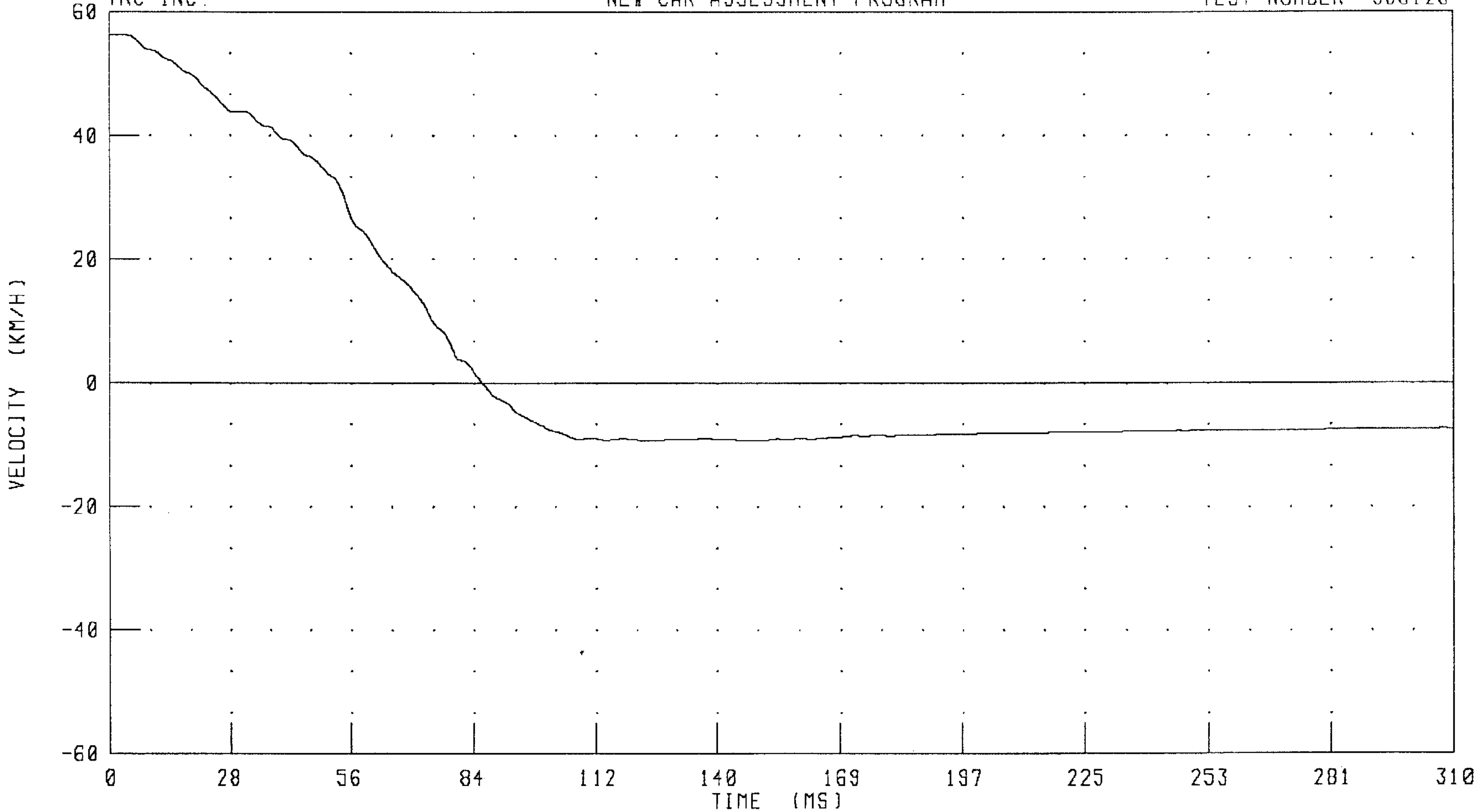
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
PASSENGER SEAT BELT EXTENSION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: SBED2 FILTER: CH. CLASS 60 PEAK DATA: 0.00 MM @ 146.96 MS; -1.19 MM @ 108.80 MS

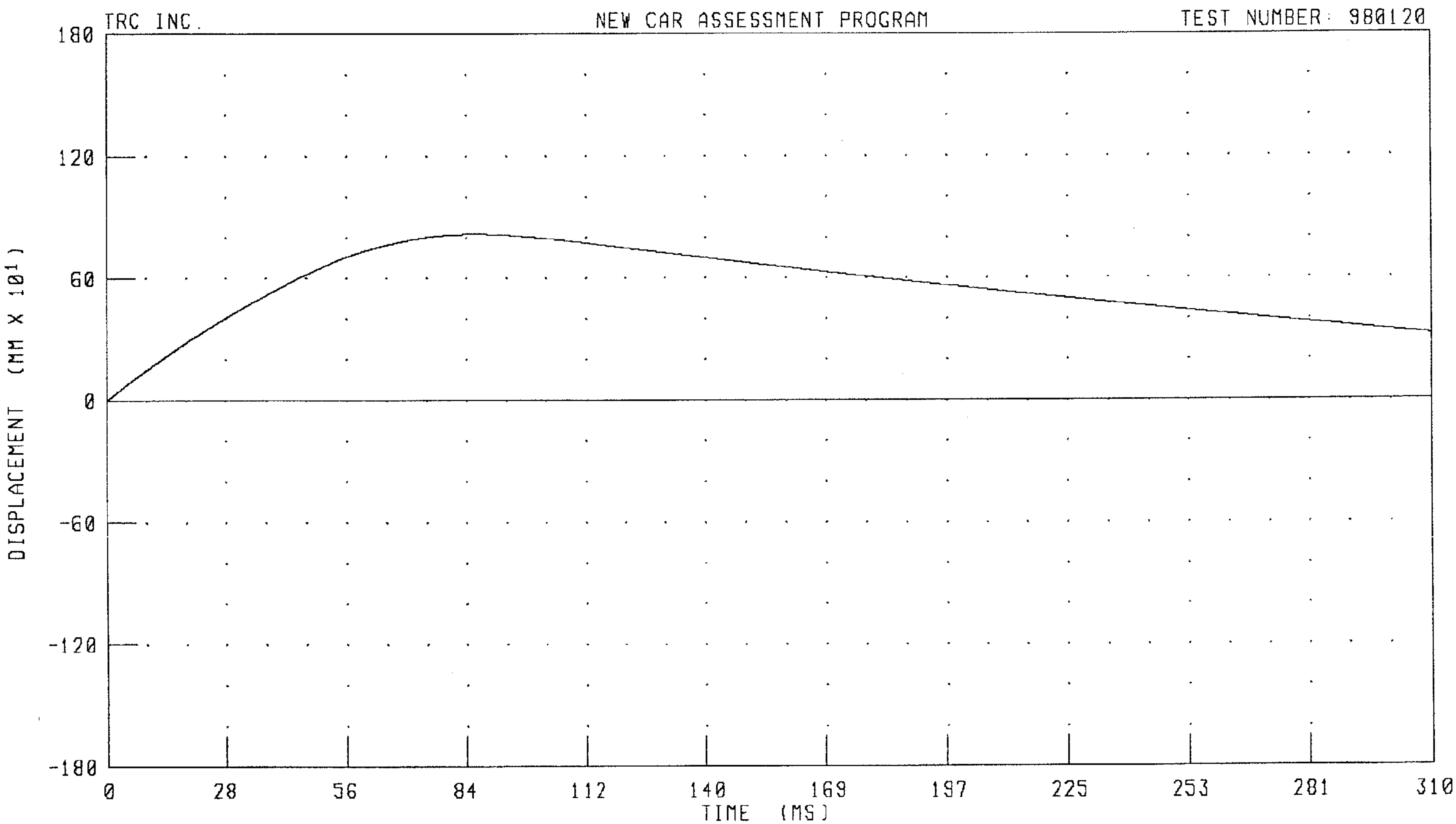

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT X-AXIS ACCELERATION
TRC INC.
NEW CAR ASSESSMENT PROGRAM
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: TLRXG1
FILTER: CH. CLASS 60
PEAK DATA: 1.77 G @ 153.12 MS; -46.63 G @ 55.36 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT X-AXIS VELOCITY
TRC INC. NEW CAR ASSESSMENT PROGRAM TEST NUMBER: 980120

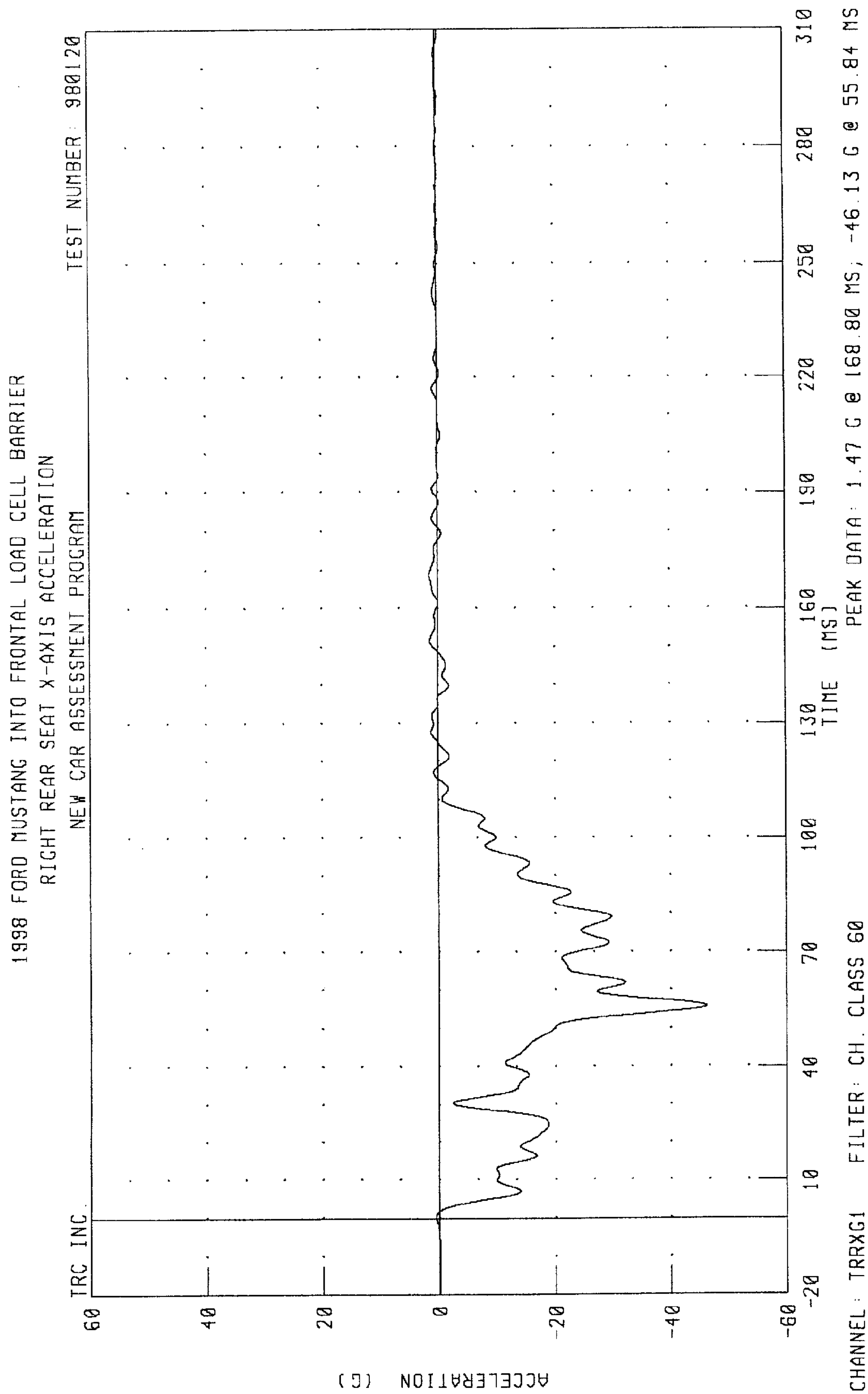


CHANNEL: TLRXV1 FILTER: CH. CLASS 180 PEAK DATA: 56.20 KM/H @ 2.80 MS; -9.36 KM/H @ 147.28 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT X-AXIS DISPLACEMENT
NEW CAR ASSESSMENT PROGRAM

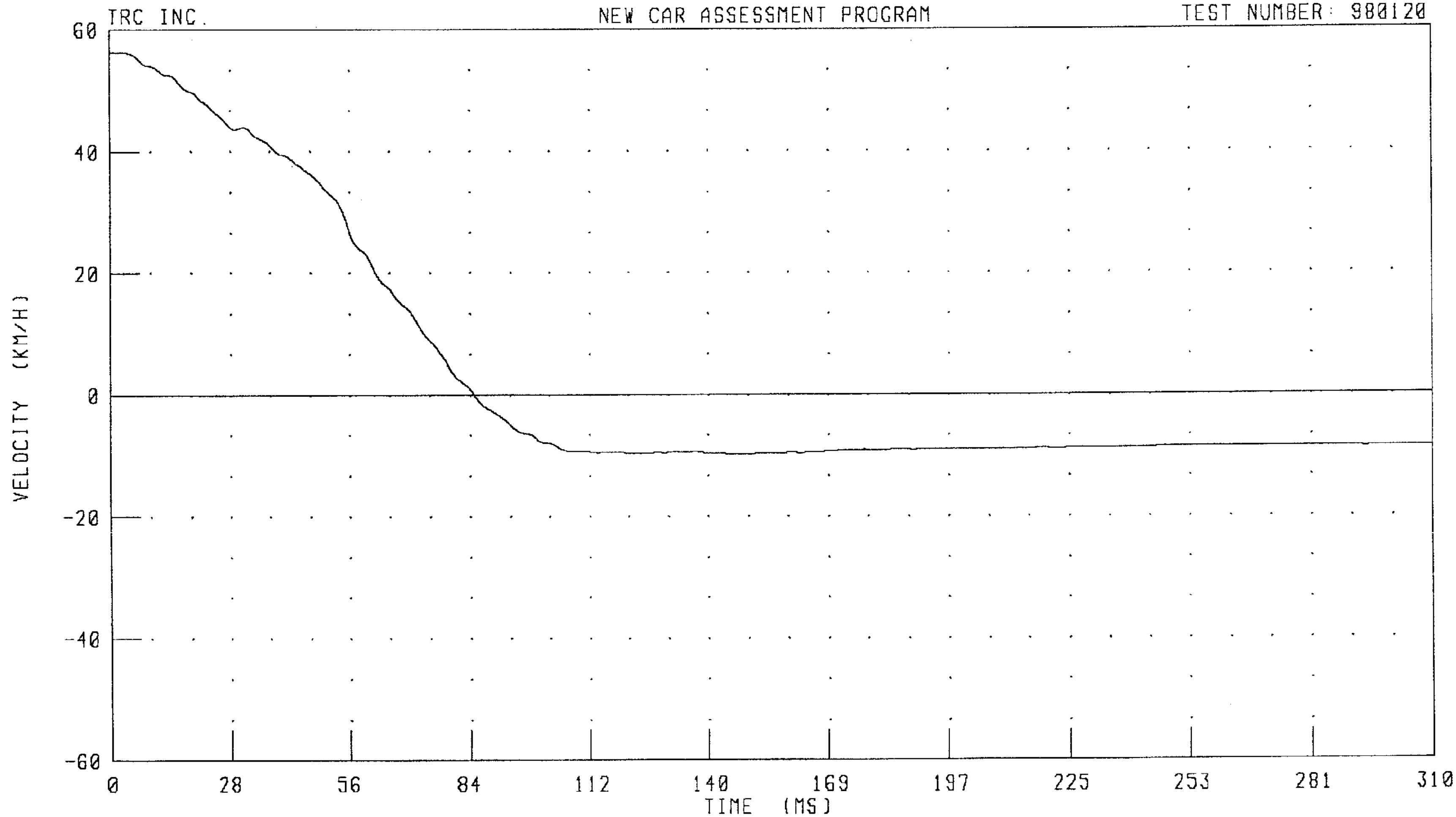


CHANNEL: TLRXD1 FILTER: CH. CLASS 180 PEAK DATA: 816.54 MM @ 86.64 MS; 0.00 MM @ 0.00 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
ACCELERATION (G)
60
40
20
0
-20
-40
-60
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: TRRXG1 FILTER: CH. CLASS 60 PEAK DATA: 1.47 G @ 168.80 MS; -46.13 G @ 55.84 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS VELOCITY
NEW CAR ASSESSMENT PROGRAM

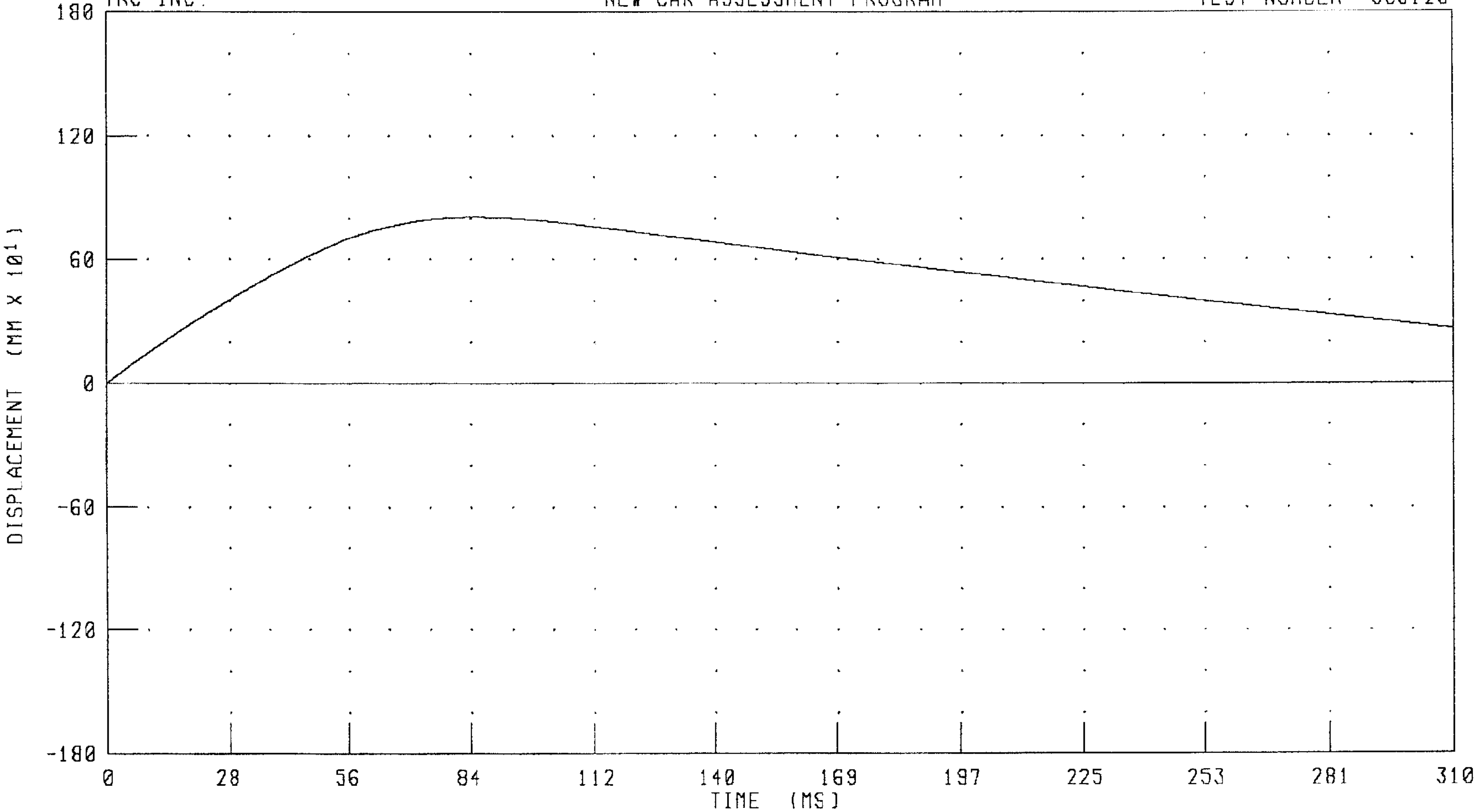
TRC INC. TEST NUMBER: 980120



CHANNEL: TRRXV1 FILTER: CH. CLASS 180 PEAK DATA: 56.20 KM/H @ 0.56 MS; -9.87 KM/H @ 149.68 MS

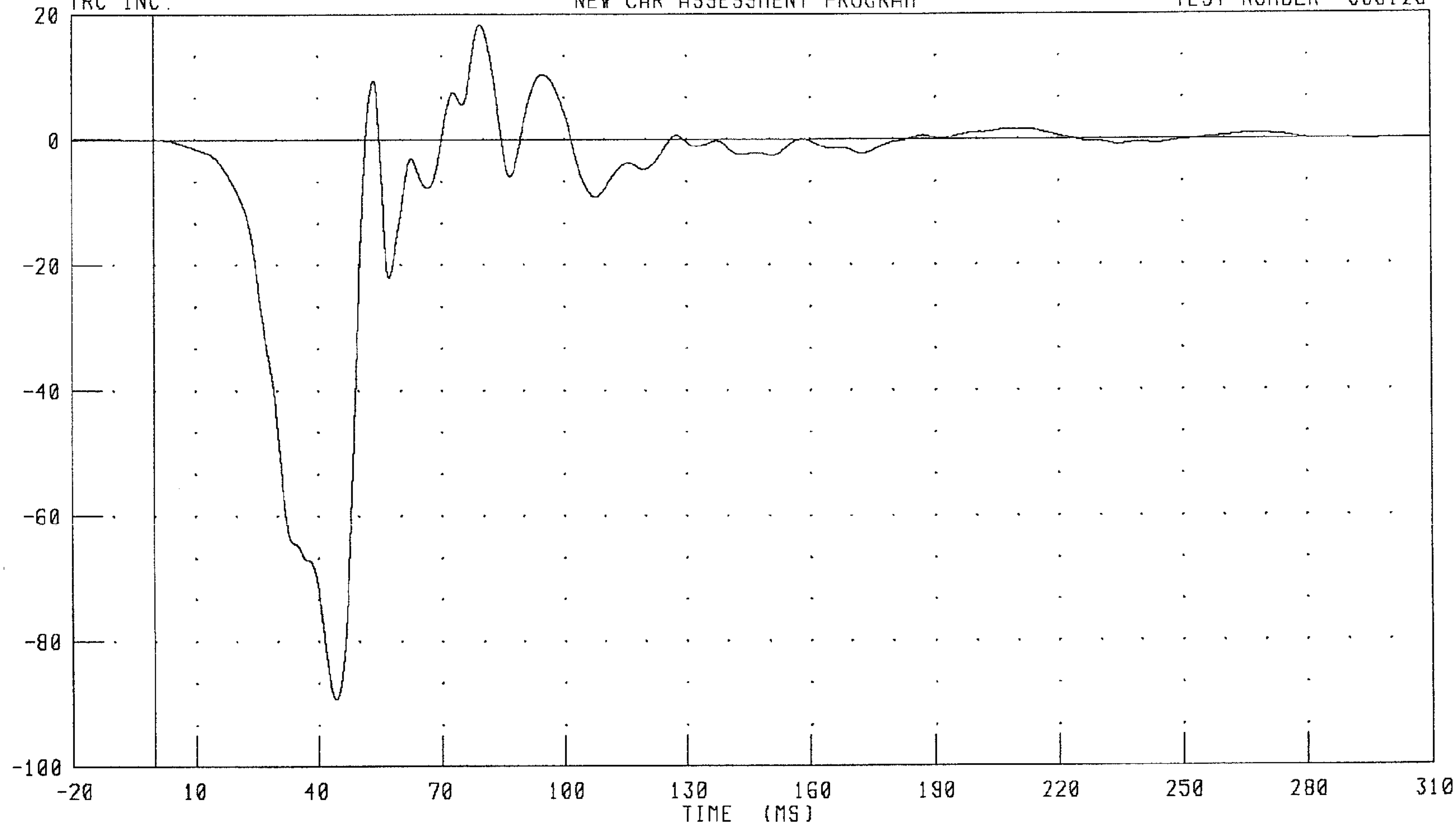
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT X-AXIS DISPLACEMENT

TRC INC. NEW CAR ASSESSMENT PROGRAM TEST NUMBER: 980120

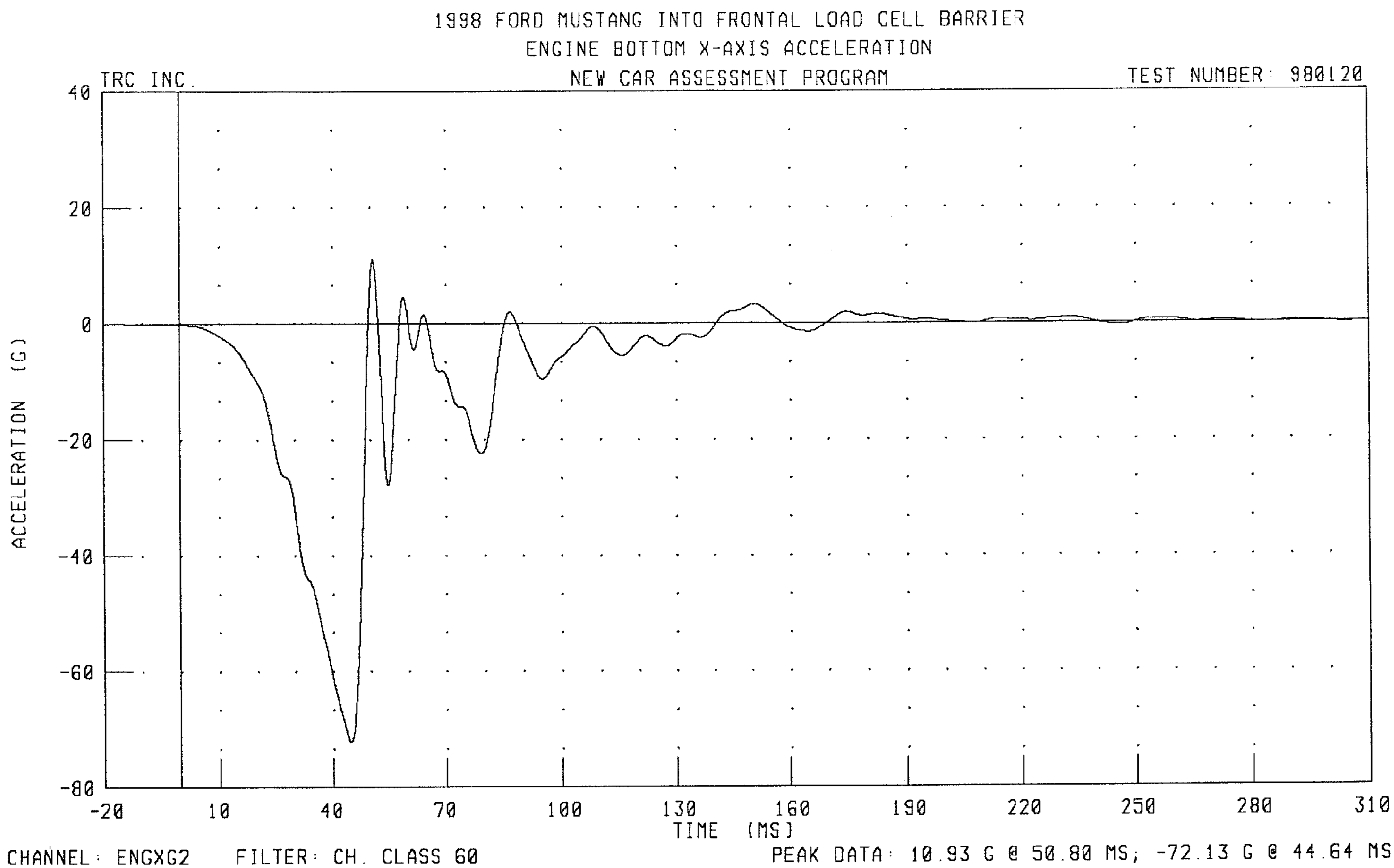


CHANNEL: TRRXD1 FILTER: CH. CLASS 180 PEAK DATA: 806.33 MM @ 85.60 MS; 0.00 MM @ 0.00 MS

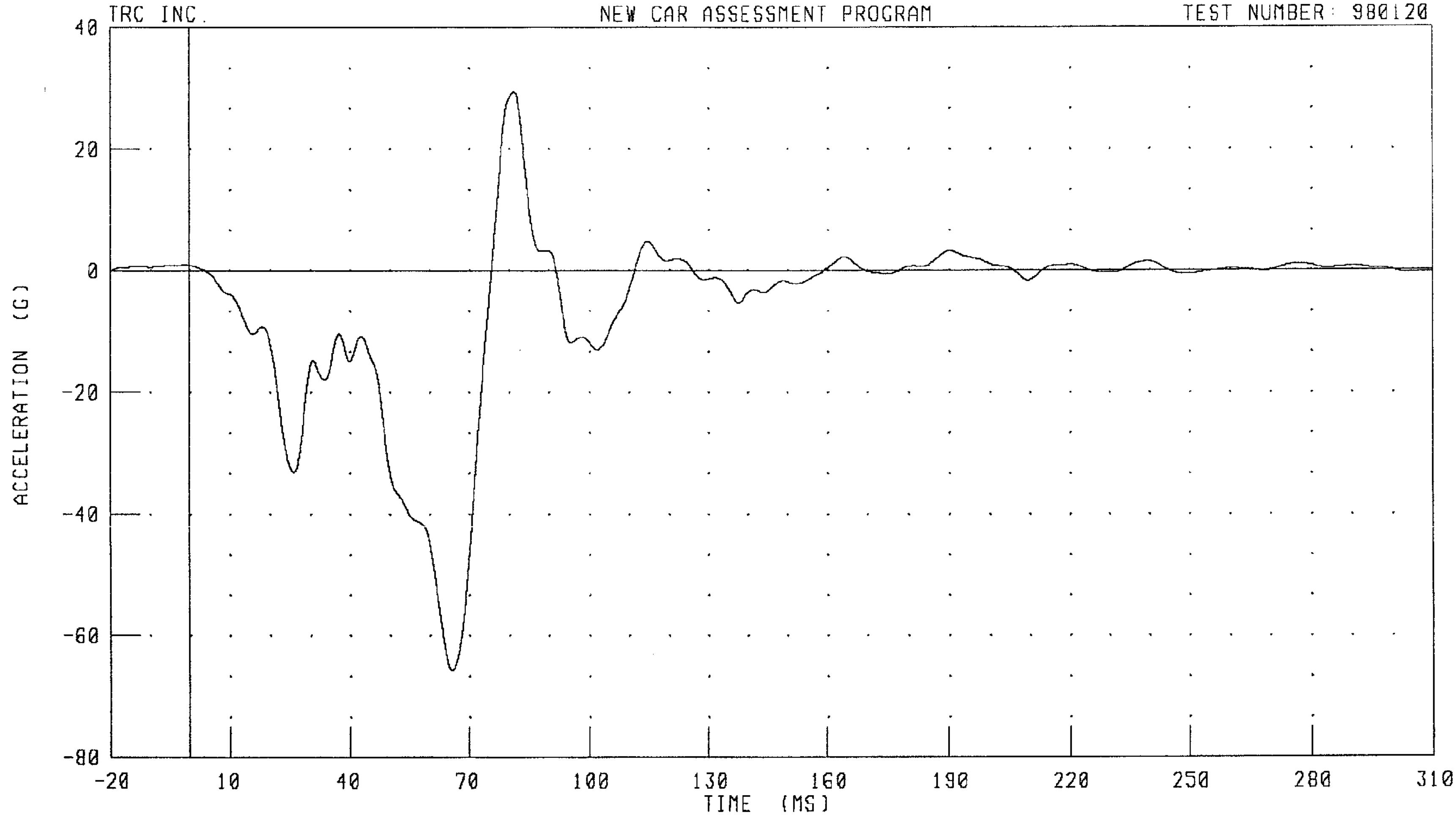
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
ENGINE TOP X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: ENGXG1   FILTER: CH. CLASS 60   PEAK DATA: 18.28 G @ 79.28 MS; -89.29 G @ 44.32 MS

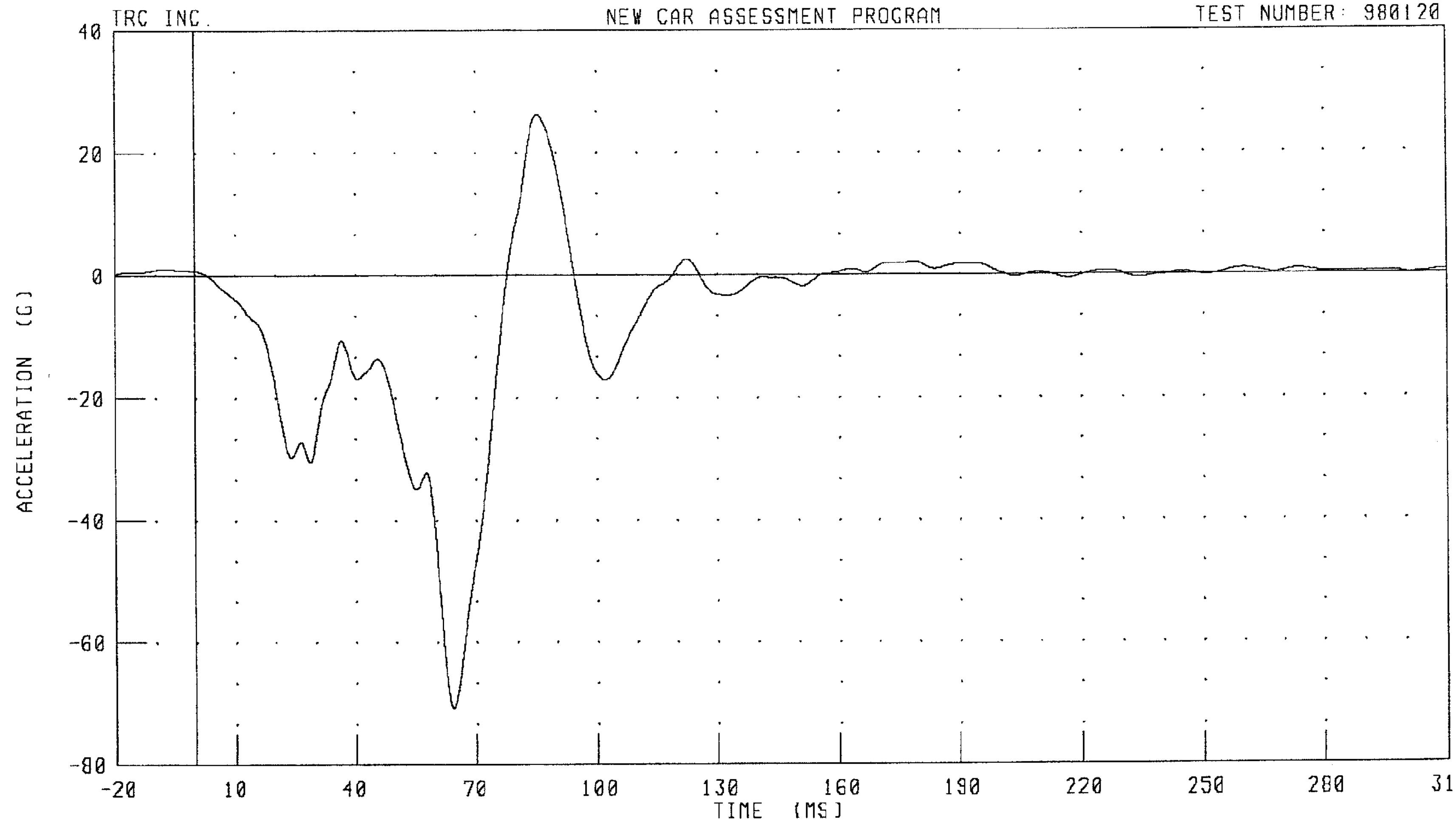

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
ENGINE BOTTOM X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
40
20
0
-20
-40
-60
-80
ACCELERATION (G)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: ENGXG2
FILTER: CH. CLASS 60
PEAK DATA: 10.93 G @ 50.80 MS; -72.13 G @ 44.64 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
RIGHT BRAKE CALIPER X-AXIS ACCELERATION



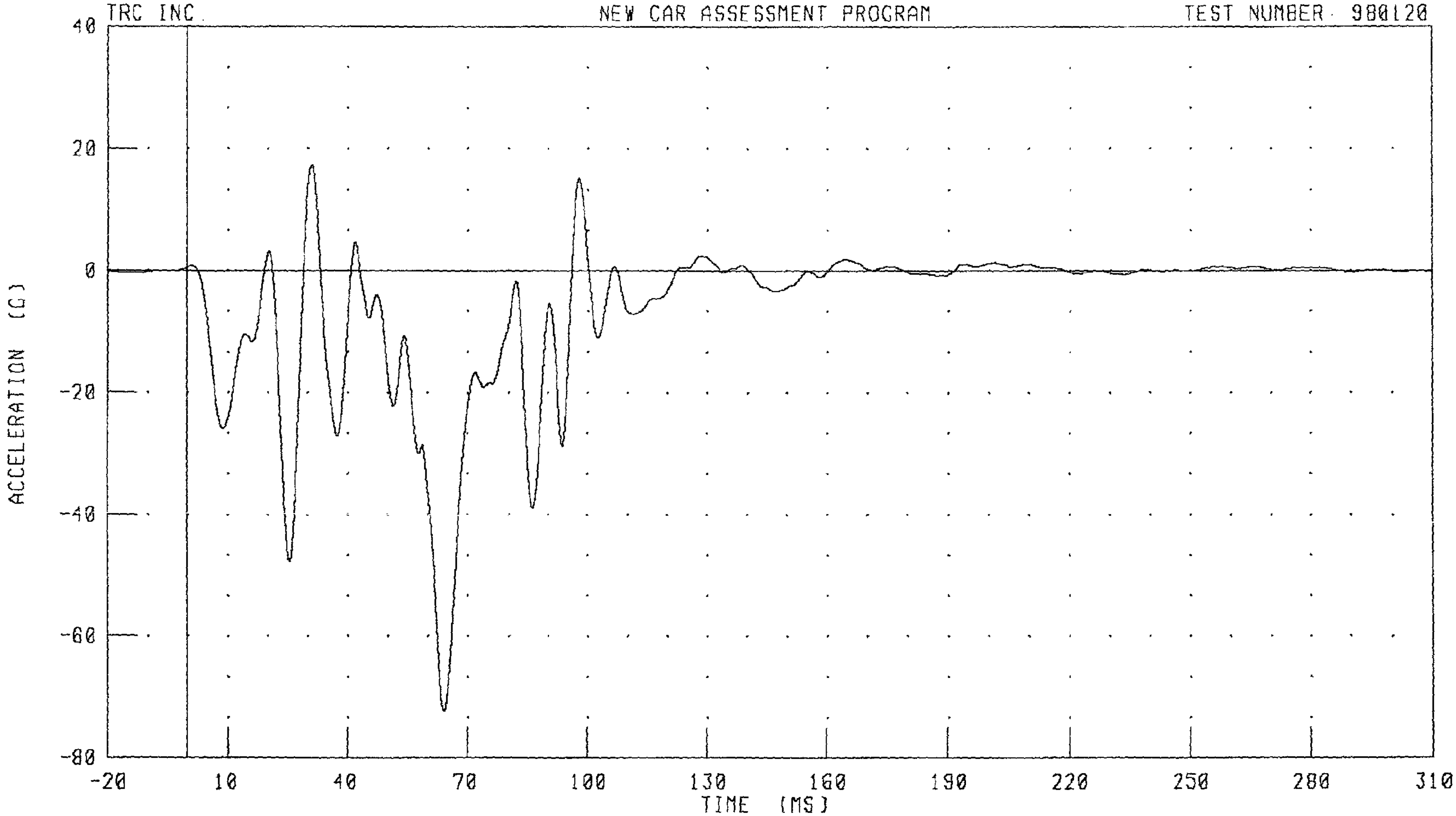
CHANNEL: BCRXG1 FILTER: CH. CLASS 60 PEAK DATA: 29.42 G @ 81.28 MS; -65.73 G @ 65.68 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LEFT BRAKE CALIPER X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



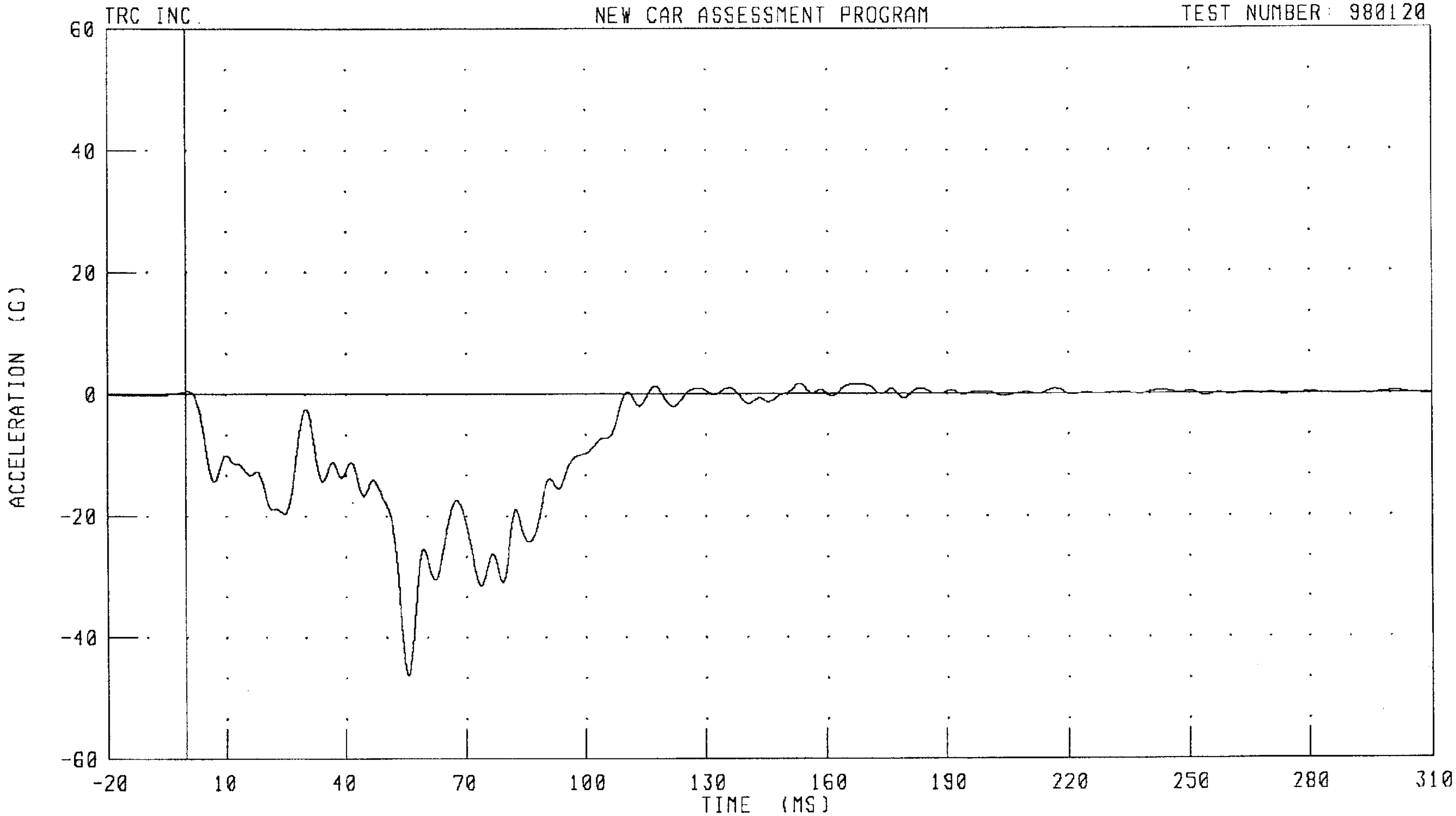
CHANNEL: BCLXG1 FILTER: CH. CLASS 60 PEAK DATA: 26.33 G @ 85.28 MS; -70.74 G @ 64.24 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
INSTRUMENT PANEL CENTER X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



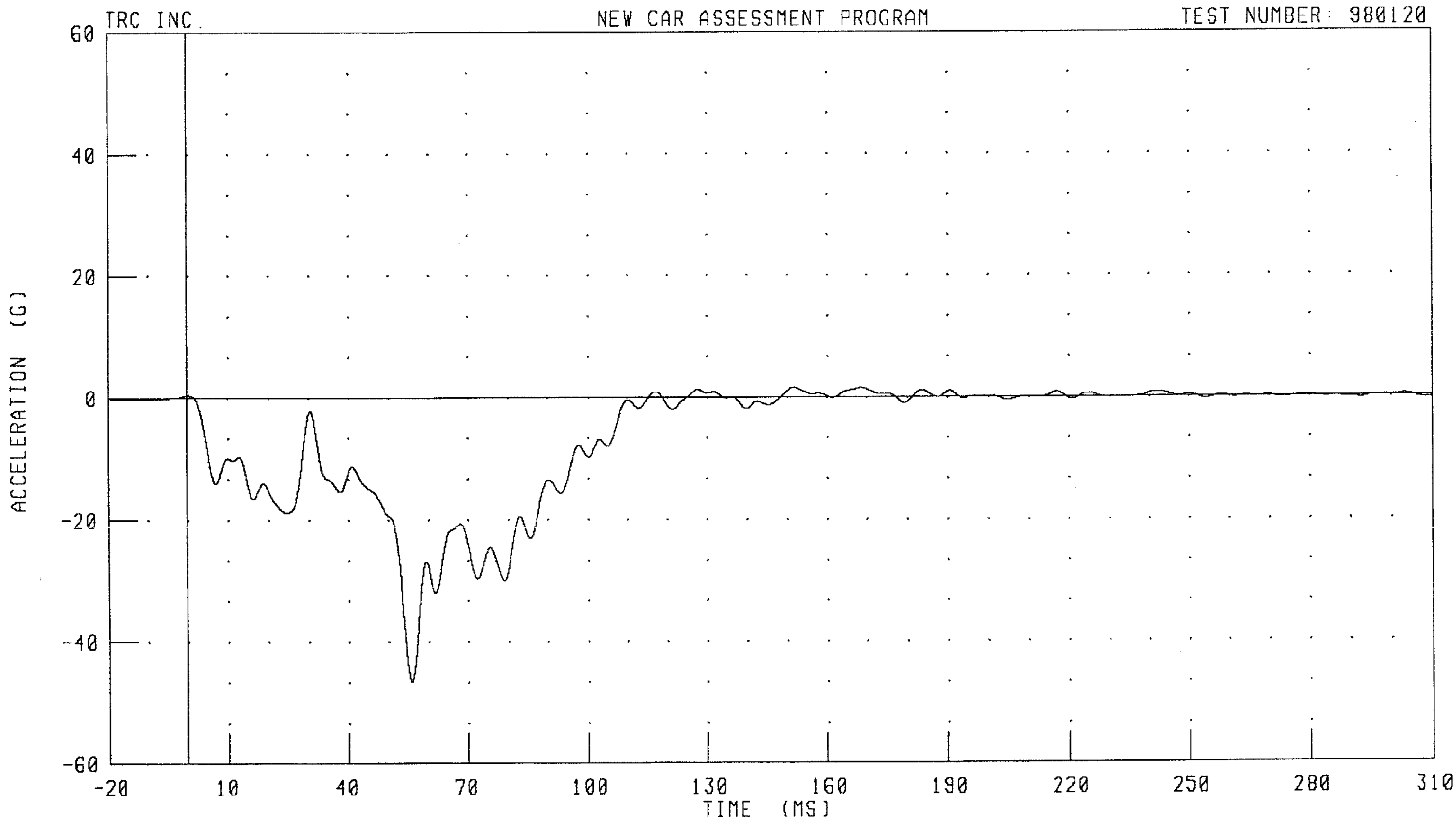
CHANNEL: DPCXG1 FILTER: CH. CLASS 60 PEAK DATA: 17.41 G @ 31.12 MS; -72.32 G @ 64.24 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LEFT REAR SEAT REDUNDANT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



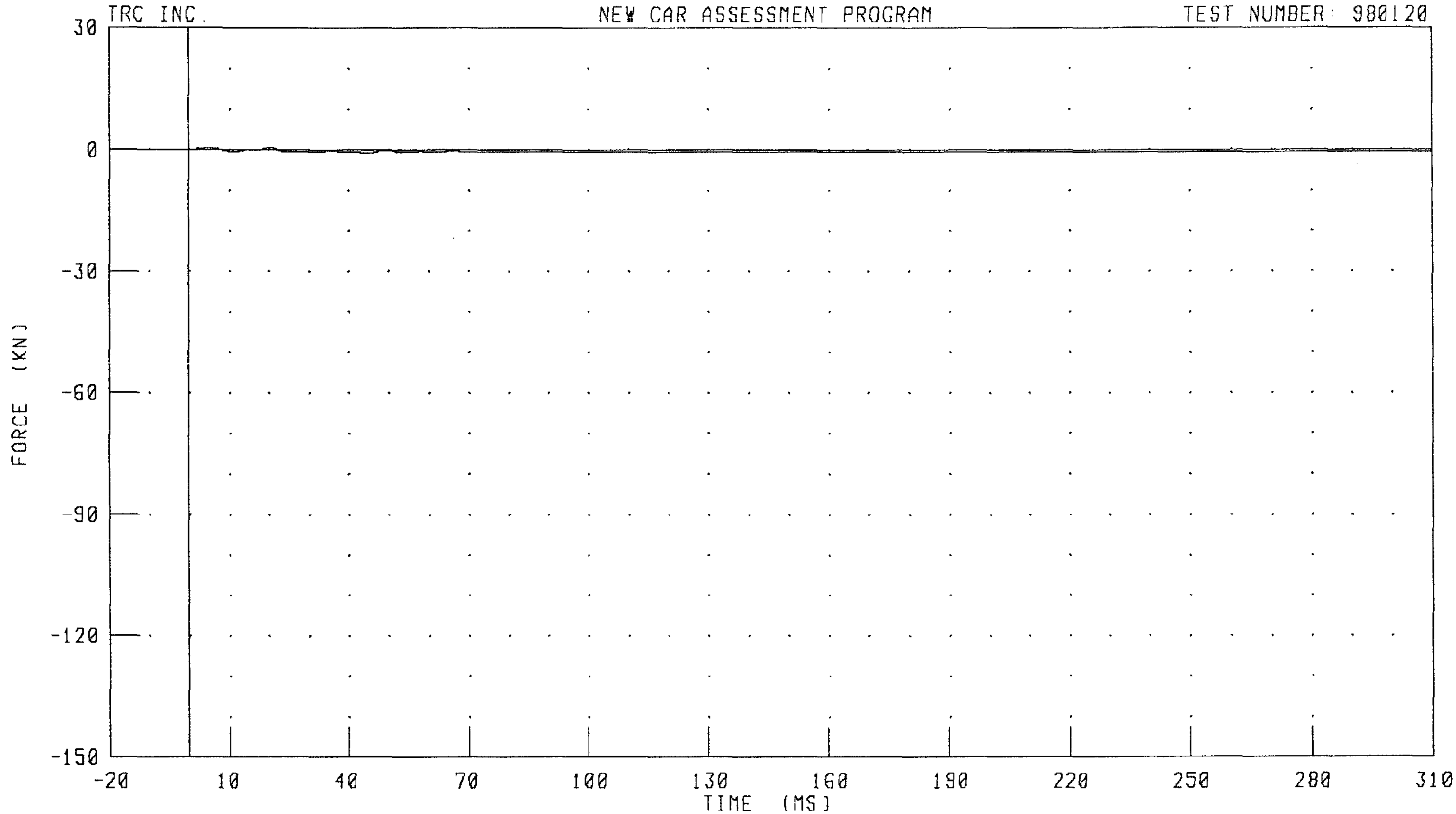
CHANNEL: TLRXGA   FILTER: CH. CLASS 60   PEAK DATA: 1.67 G @ 153.20 MS; -46.19 G @ 55.36 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
RIGHT REAR SEAT REDUNDANT X-AXIS ACCELERATION
NEW CAR ASSESSMENT PROGRAM



CHANNEL: TRRXGA FILTER: CH. CLASS 60 PEAK DATA: 1.54 G @ 151.76 MS; -46.62 G @ 55.76 MS

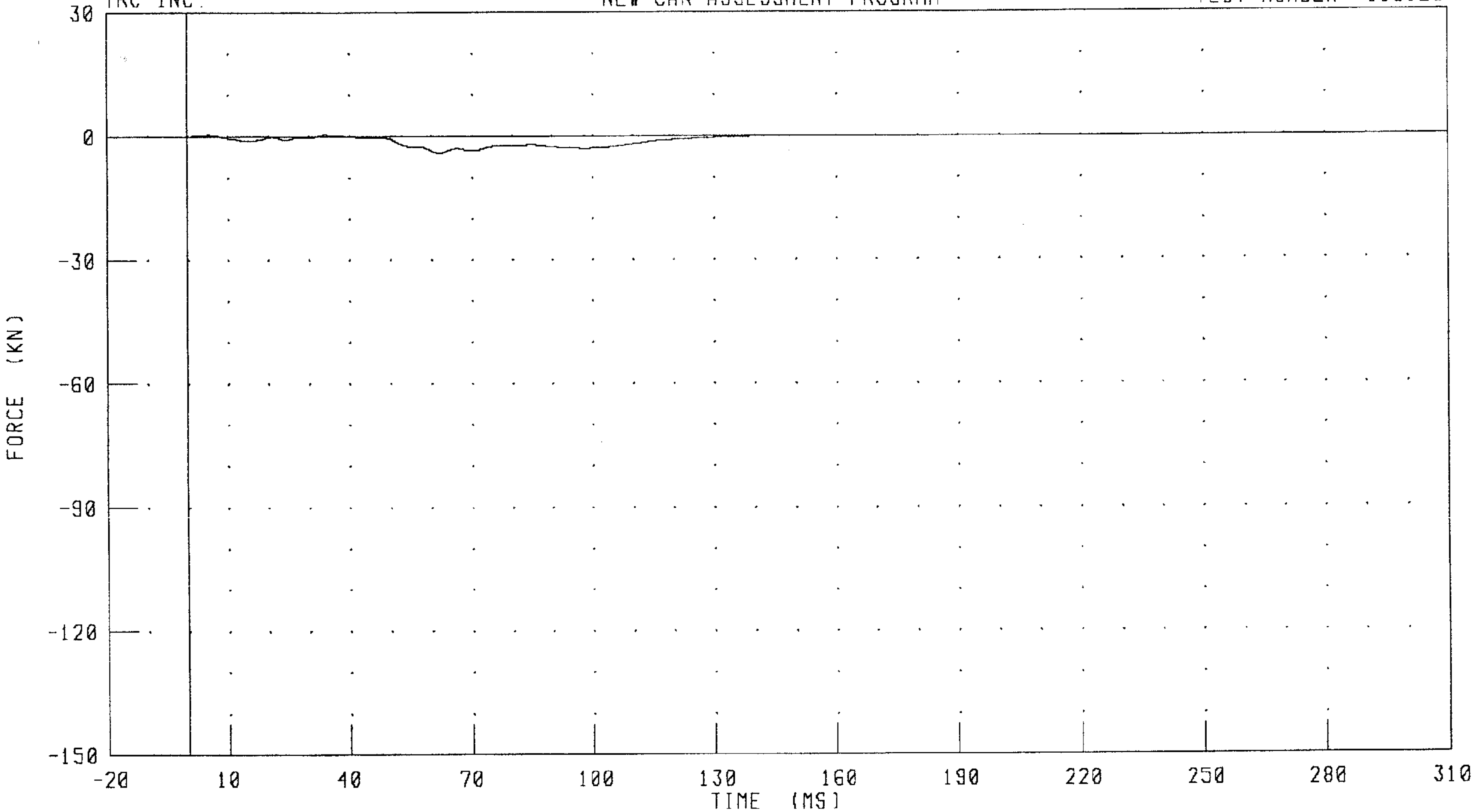
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A1 FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: 9A1F FILTER: CH. CLASS 60 PEAK DATA: 0.48 KN @ 20.40 MS, -0.88 KN @ 44.96 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A2 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120

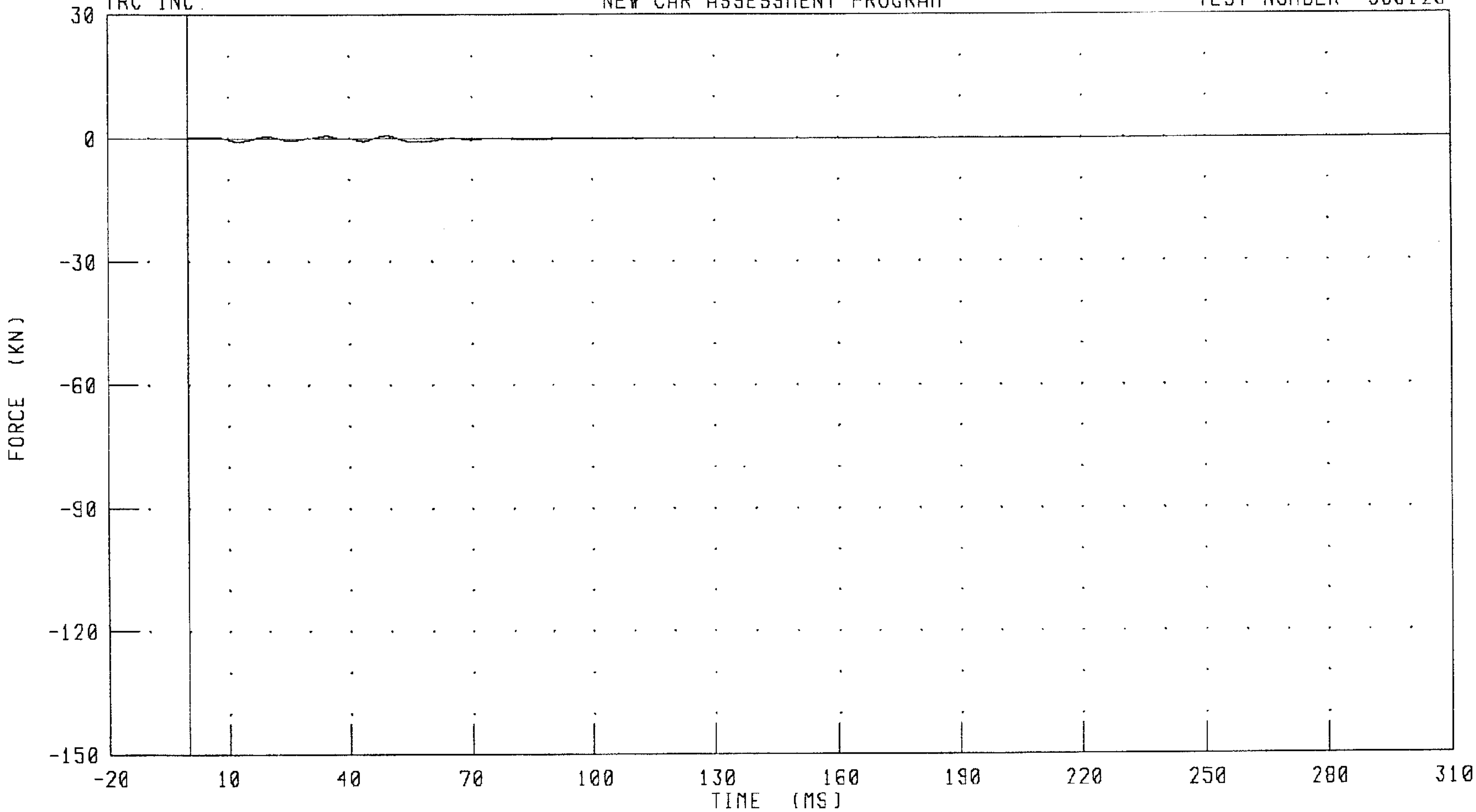


CHANNEL: BA2F FILTER: CH. CLASS 60 PEAK DATA: 0.36 KN @ 34.08 MS; -4.07 KN @ 62.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A3 FORCE
NEW CAR ASSESSMENT PROGRAM

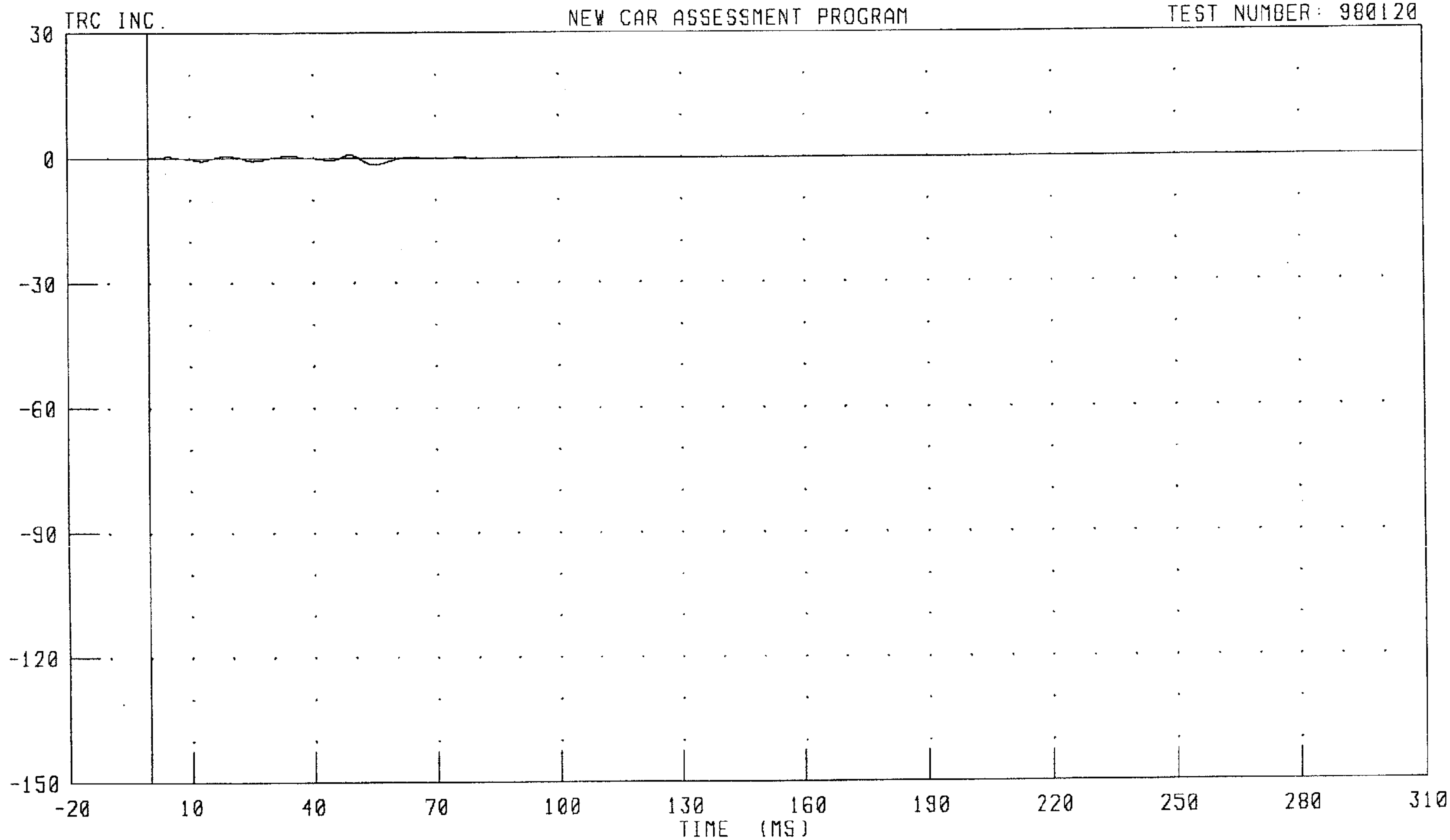
TRC INC.

TEST NUMBER: 980120



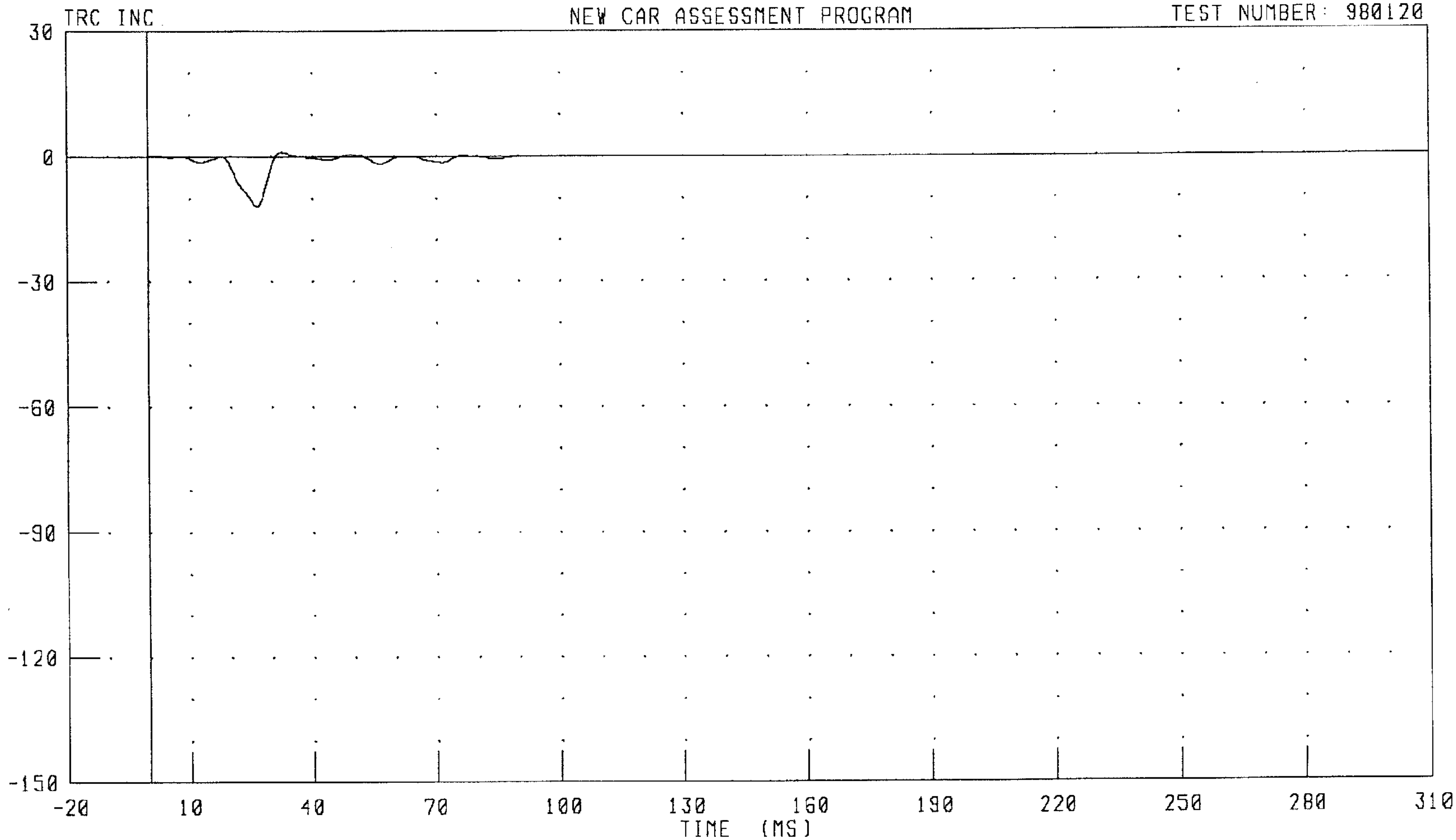
CHANNEL: 8A3F FILTER: CH. CLASS 60 PEAK DATA: 0.65 KN @ 34.48 MS; -0.82 KN @ 12.48 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A4 FORCE
NEW CAR ASSESSMENT PROGRAM



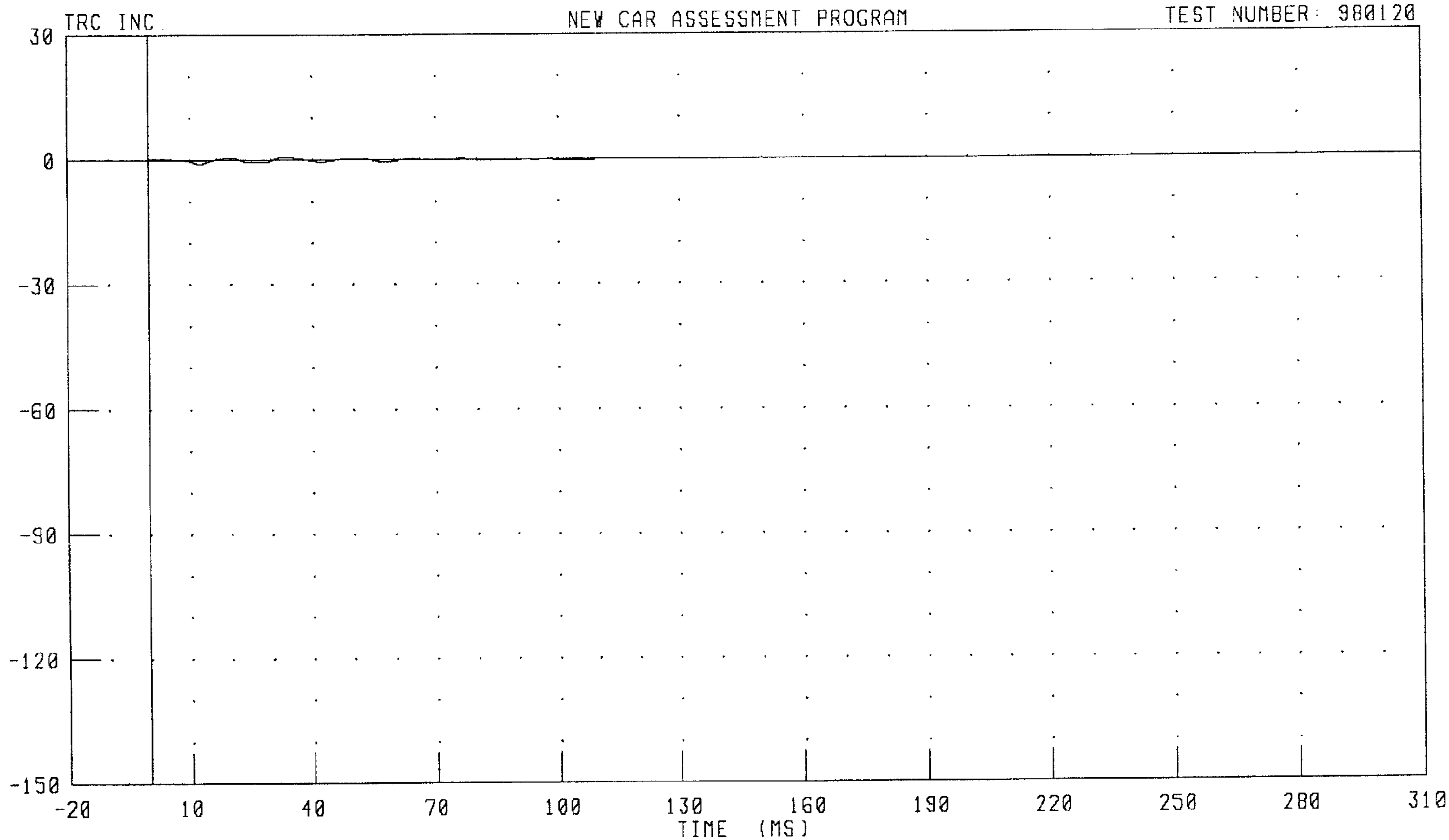
CHANNEL: BA4F FILTER: CH. CLASS 60 PEAK DATA: 0.75 KN @ 49.12 MS; -1.68 KN @ 54.96 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A5 FORCE
NEW CAR ASSESSMENT PROGRAM



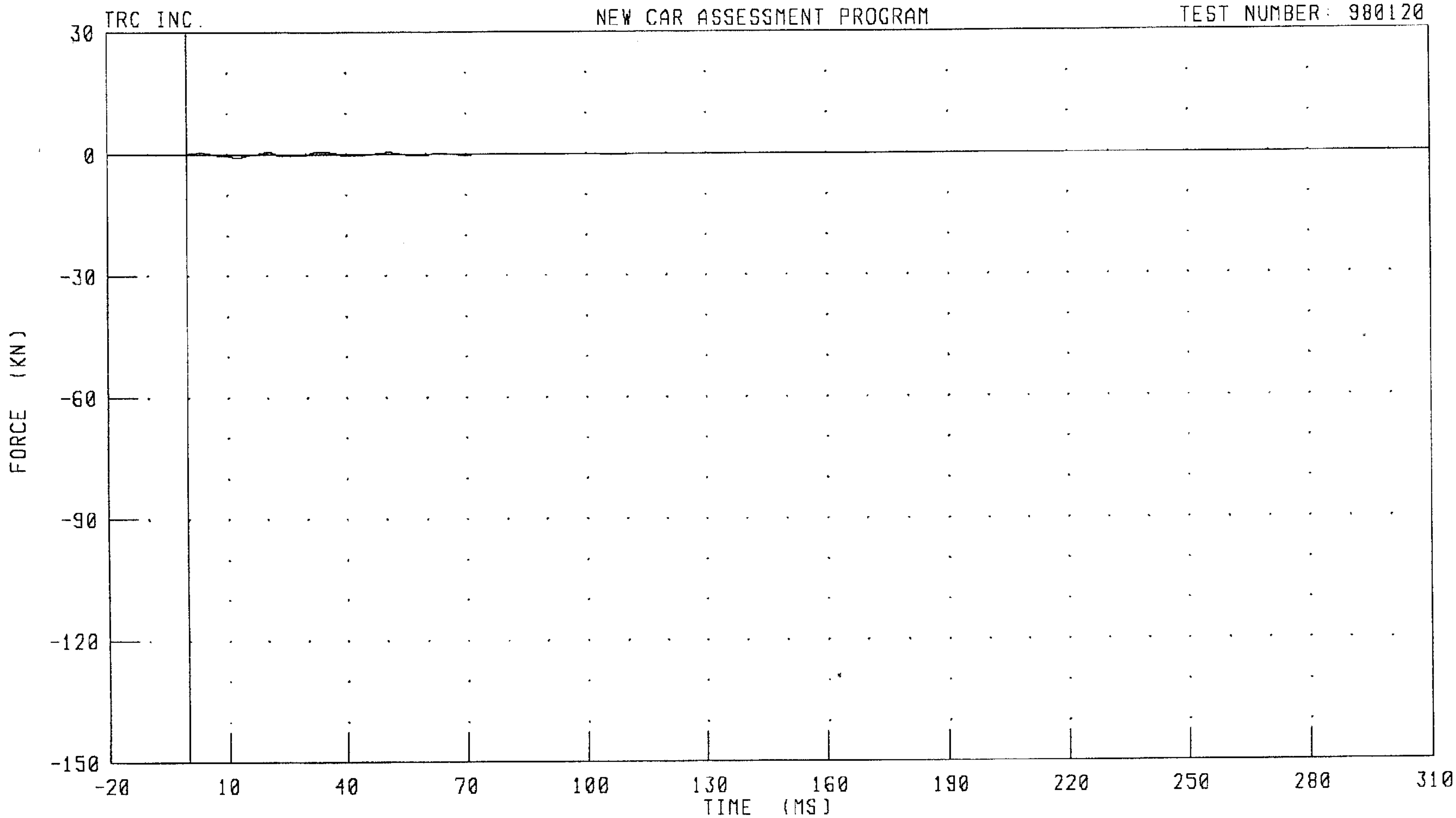
CHANNEL: BA5F FILTER: CH. CLASS 60 PEAK DATA: 1.10 KN @ 32.64 MS; -11.91 KN @ 26.72 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A6 FORCE
NEW CAR ASSESSMENT PROGRAM



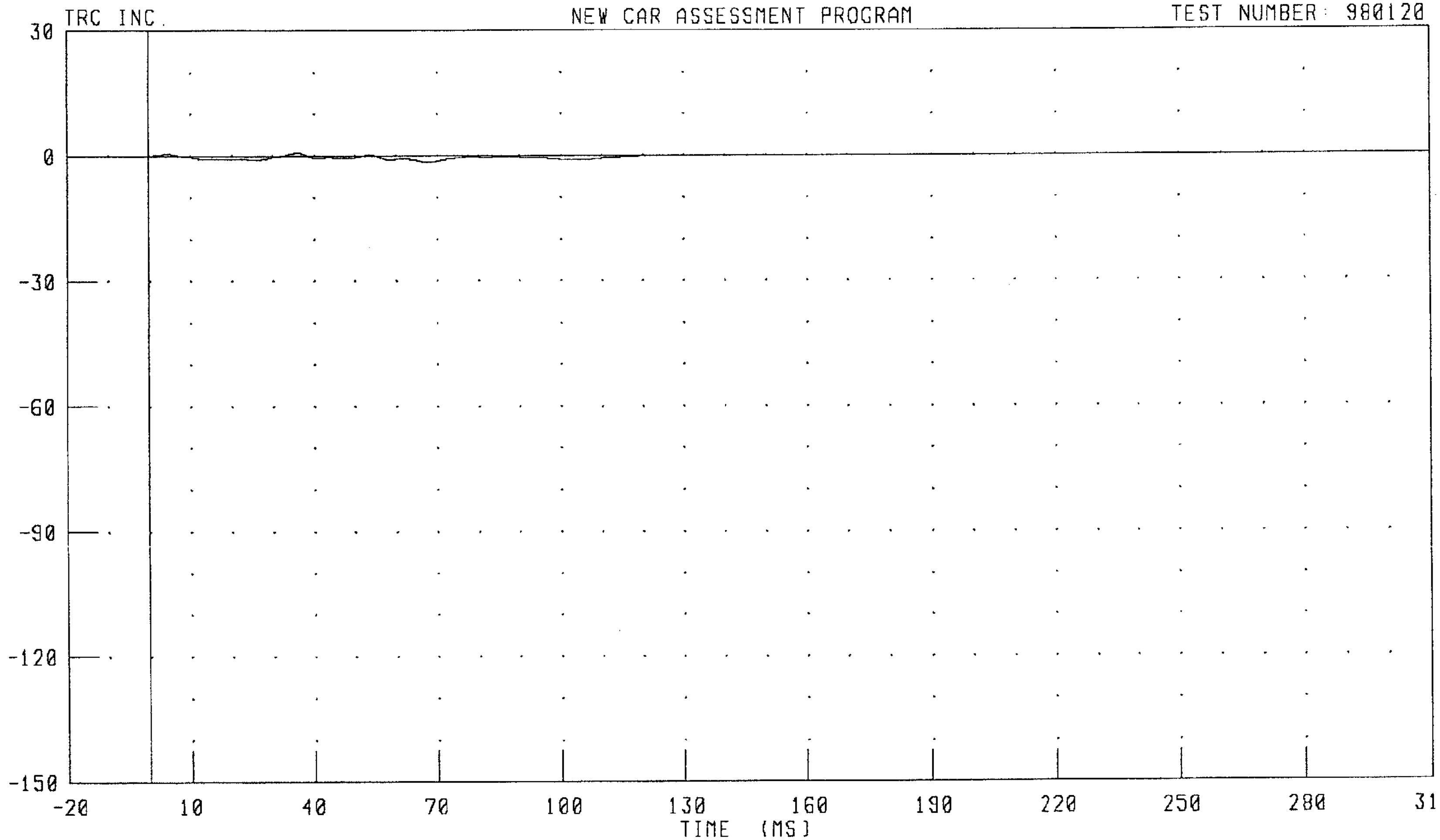
CHANNEL: 8A6F FILTER: CH. CLASS 60 PEAK DATA: 0.57 KN @ 20.16 MS; -1.01 KN @ 12.56 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A7 FORCE
NEW CAR ASSESSMENT PROGRAM



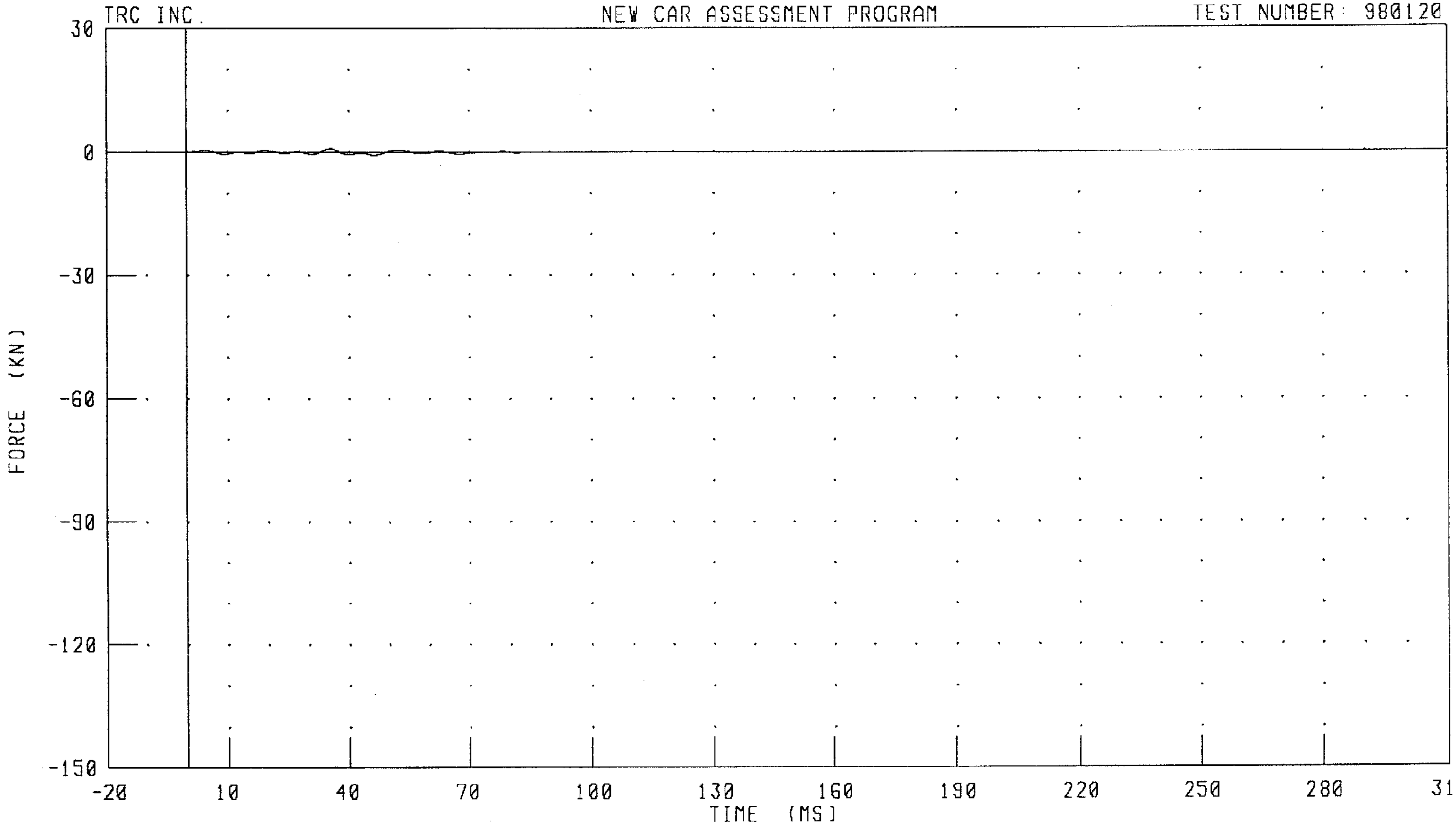
CHANNEL: BA7F   FILTER: CH. CLASS 60   PEAK DATA: 0.56 KN @ 33.60 MS, -0.83 KN @ 12.72 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A8 FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: BA8F FILTER: CH. CLASS 60 PEAK DATA: 0.71 KN @ 36.00 MS; -1.57 KN @ 68.16 MS

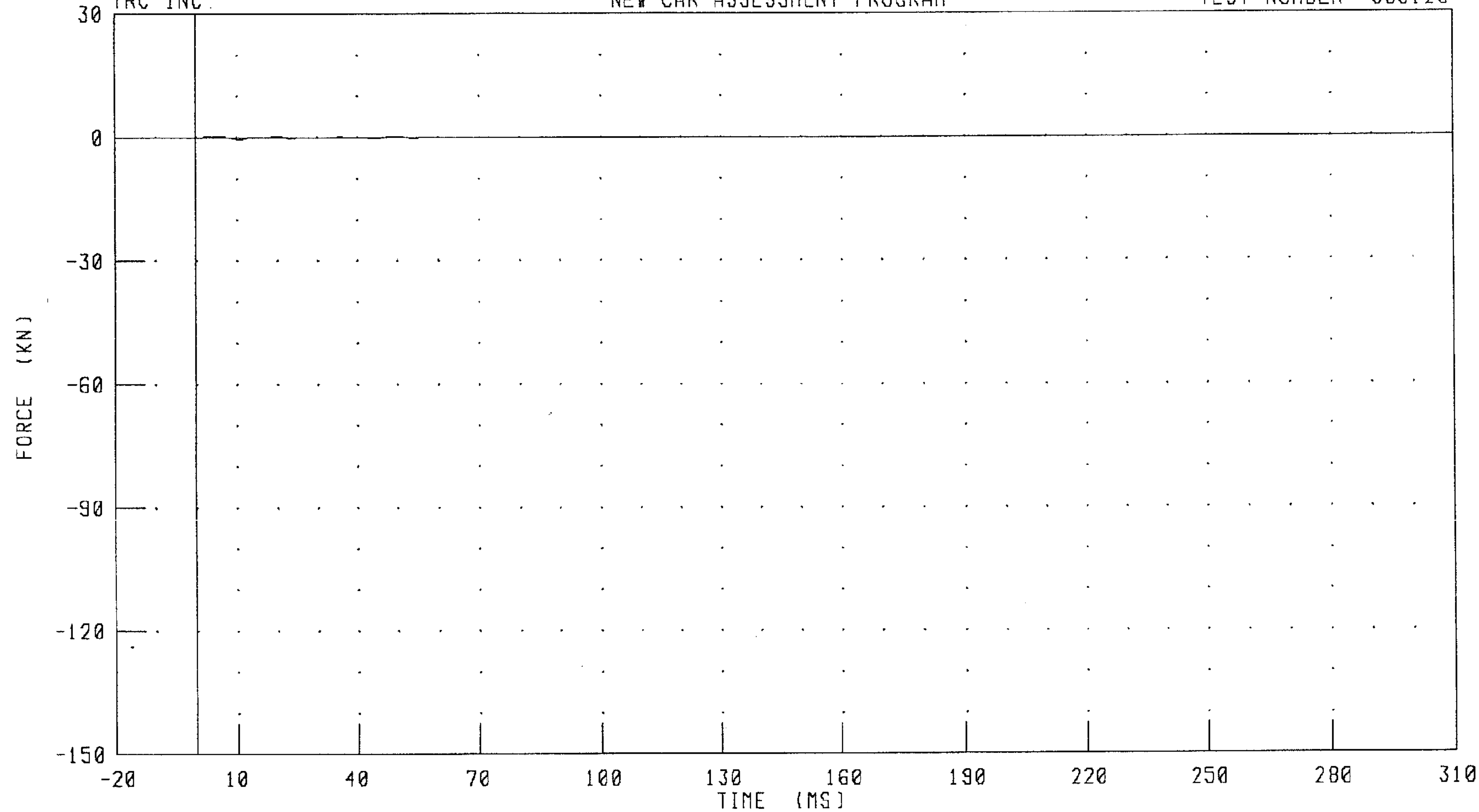
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION A9 FORCE
NEW CAR ASSESSMENT PROGRAM



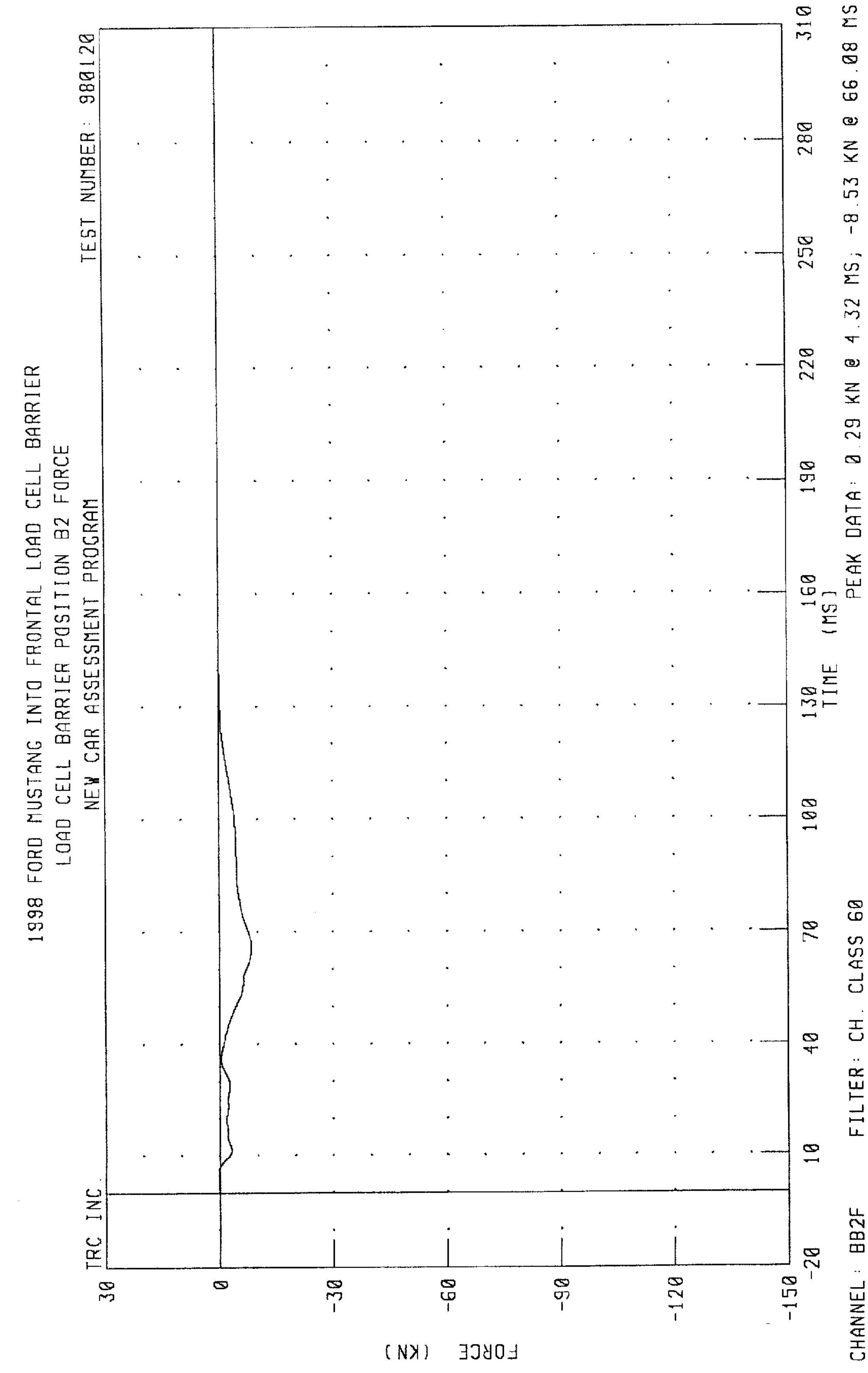
CHANNEL: BA9F FILTER: CH. CLASS 60 PEAK DATA: 0.86 KN @ 35.60 MS, -0.74 KN @ 46.32 MS

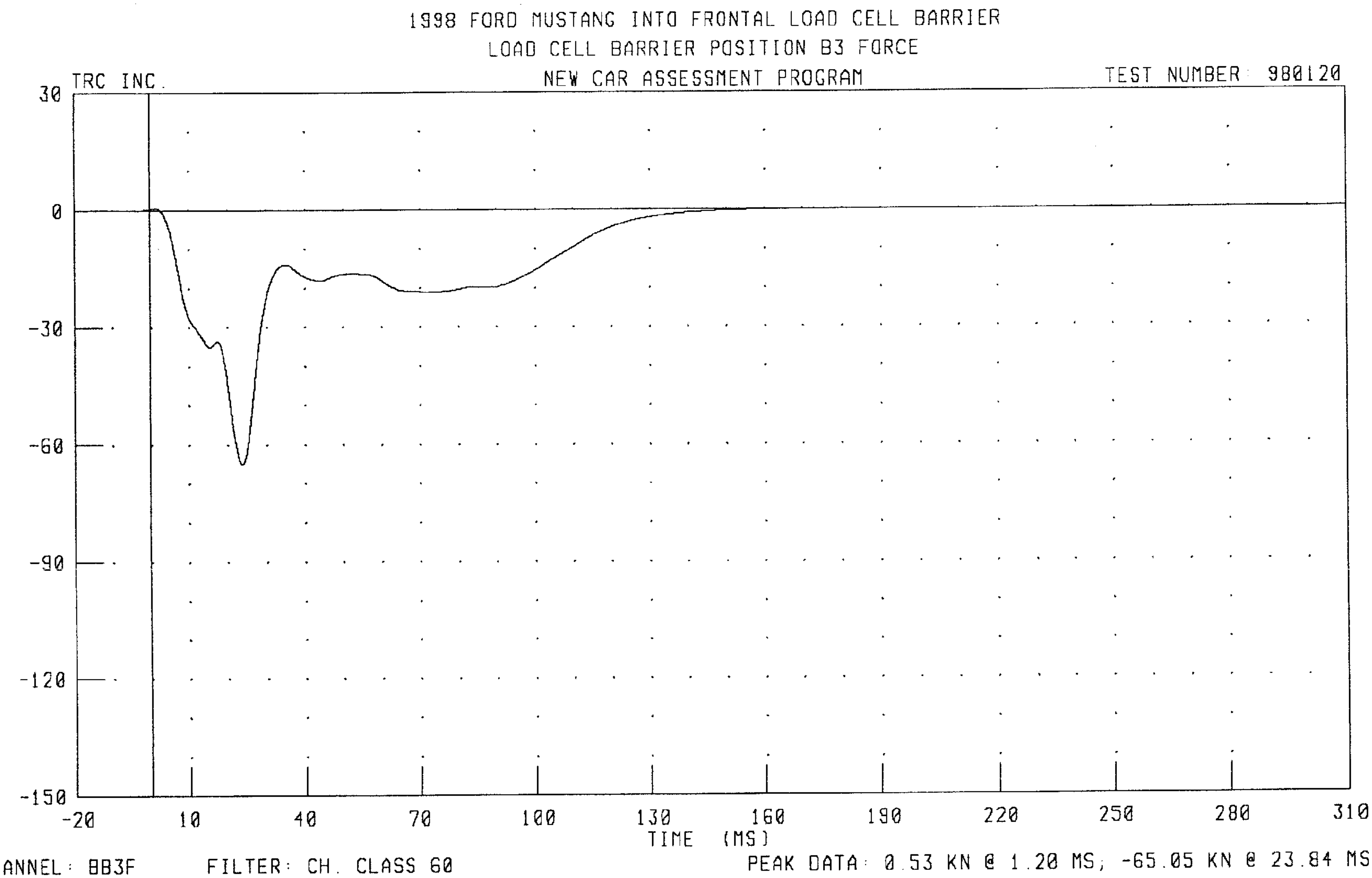
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B1 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120

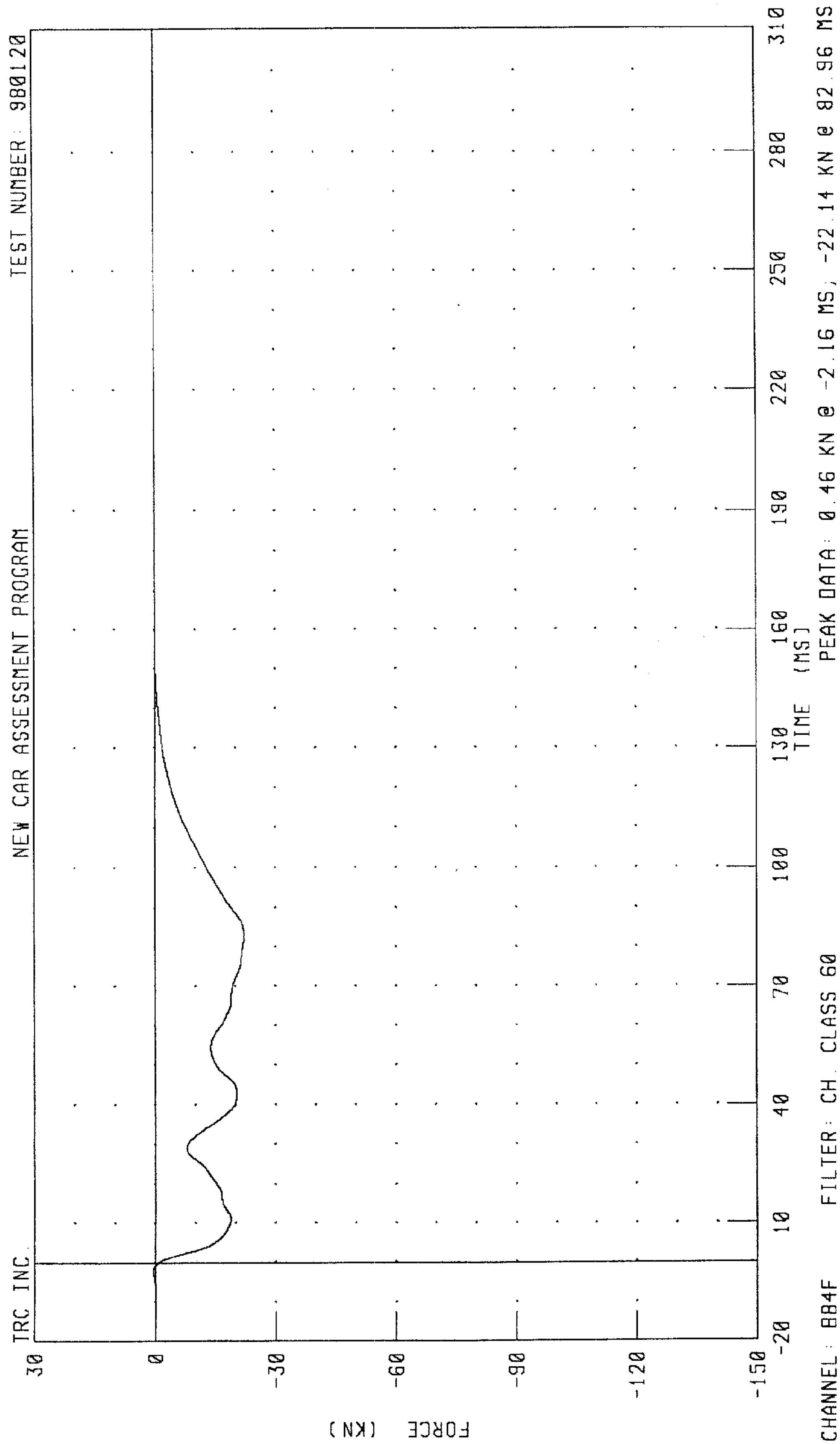


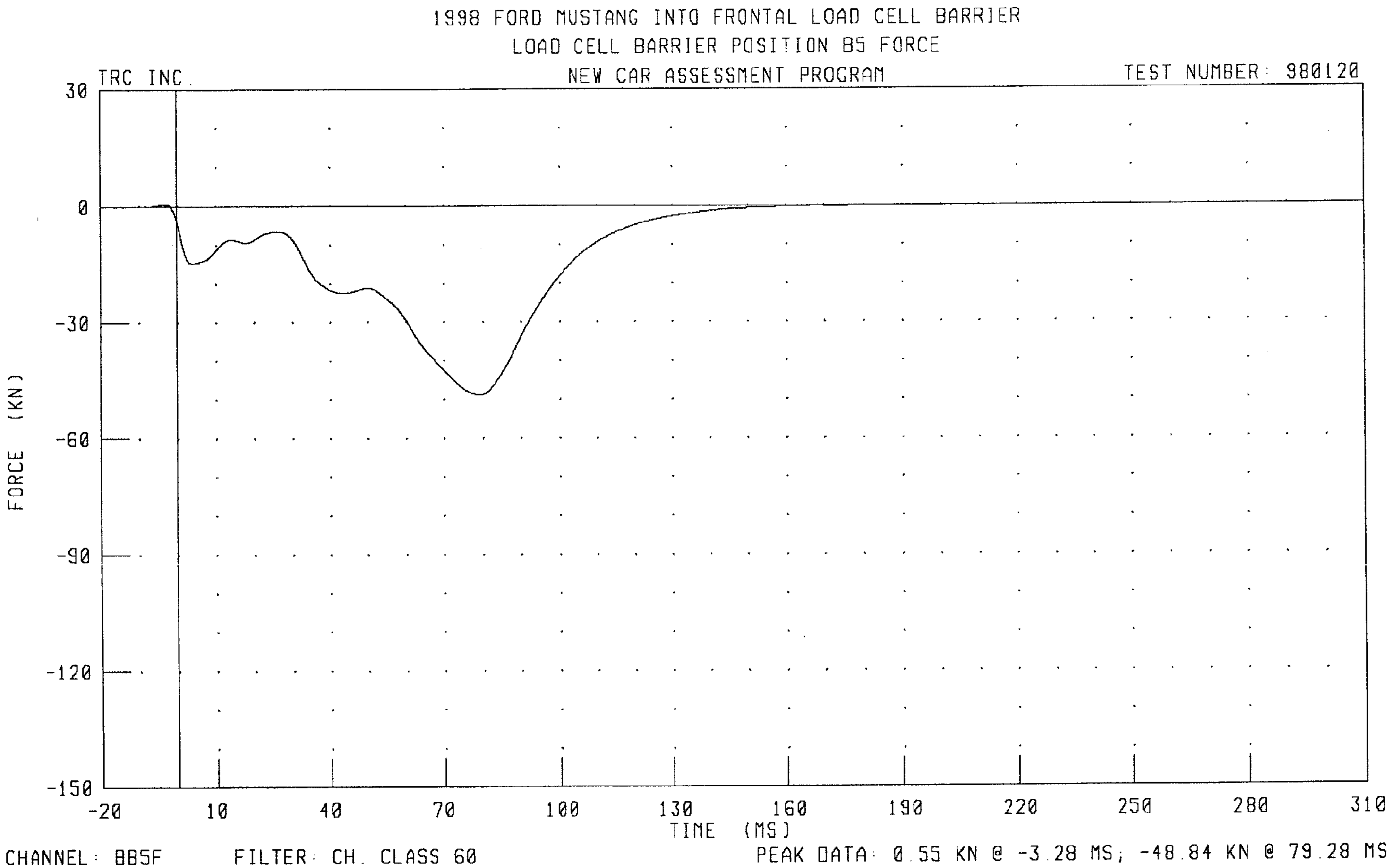
CHANNEL: BB1F FILTER: CH. CLASS 60 PEAK DATA: 0.26 KN @ 49.44 MS; -0.52 KN @ 10.88 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B2 FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
FORCE (KN)
30
0
-30
-60
-90
-120
-150
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: BB2F
FILTER: CH. CLASS 60
PEAK DATA: 0.29 KN @ 4.32 MS; -8.53 KN @ 66.08 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B3 FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
30
0
-30
-60
-90
-120
-150
FORCE (KN)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: BB3F
FILTER: CH. CLASS 60
PEAK DATA: 0.53 KN @ 1.20 MS; -65.05 KN @ 23.84 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B4 FORCE
NEW CAR ASSESSMENT PROGRAM

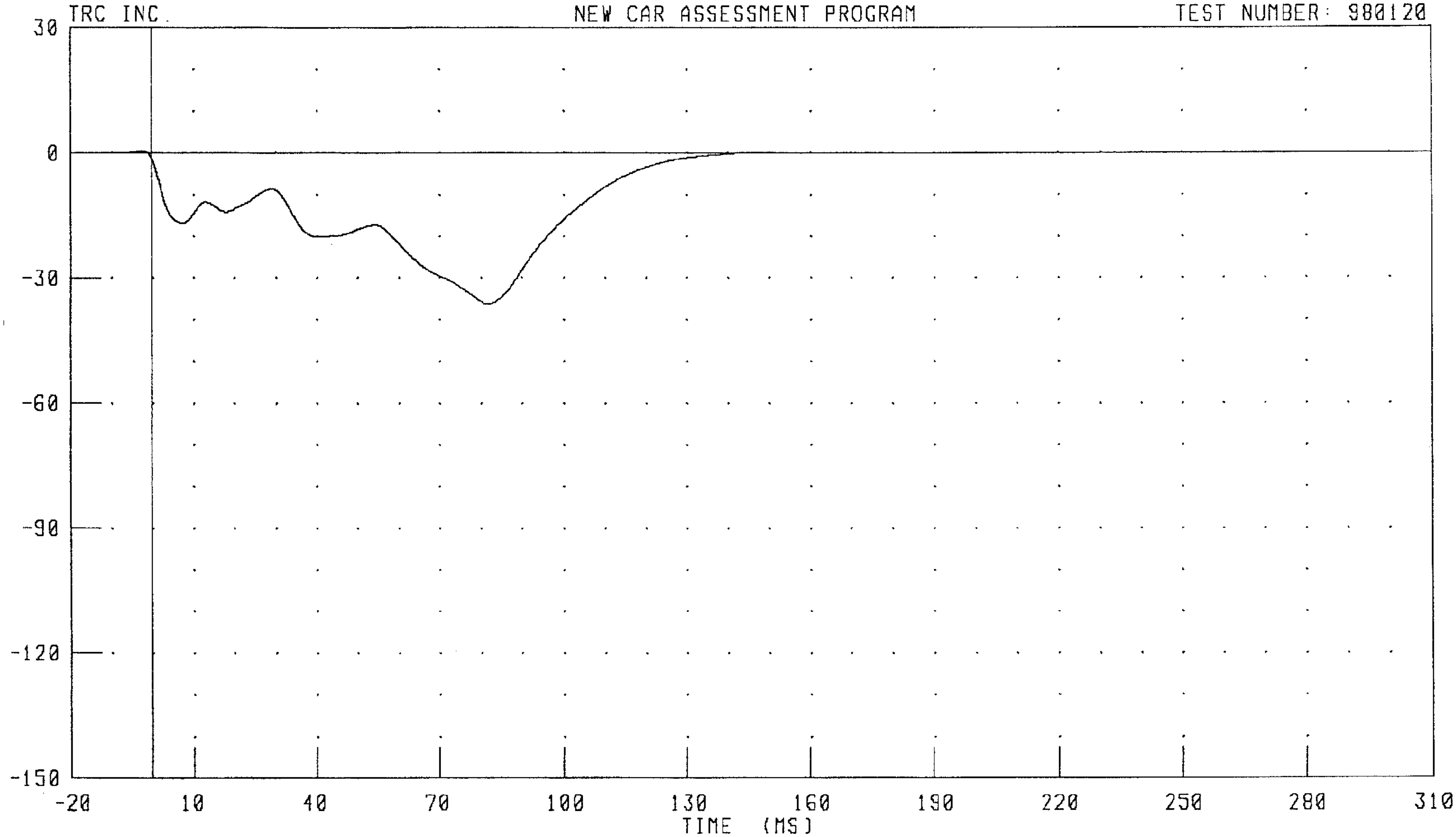



1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B5 FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
FORCE (KN)
30
0
-30
-60
-90
-120
-150
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: BB5F
FILTER: CH. CLASS 60
PEAK DATA: 0.55 KN @ -3.28 MS; -48.84 KN @ 79.28 MS

980120

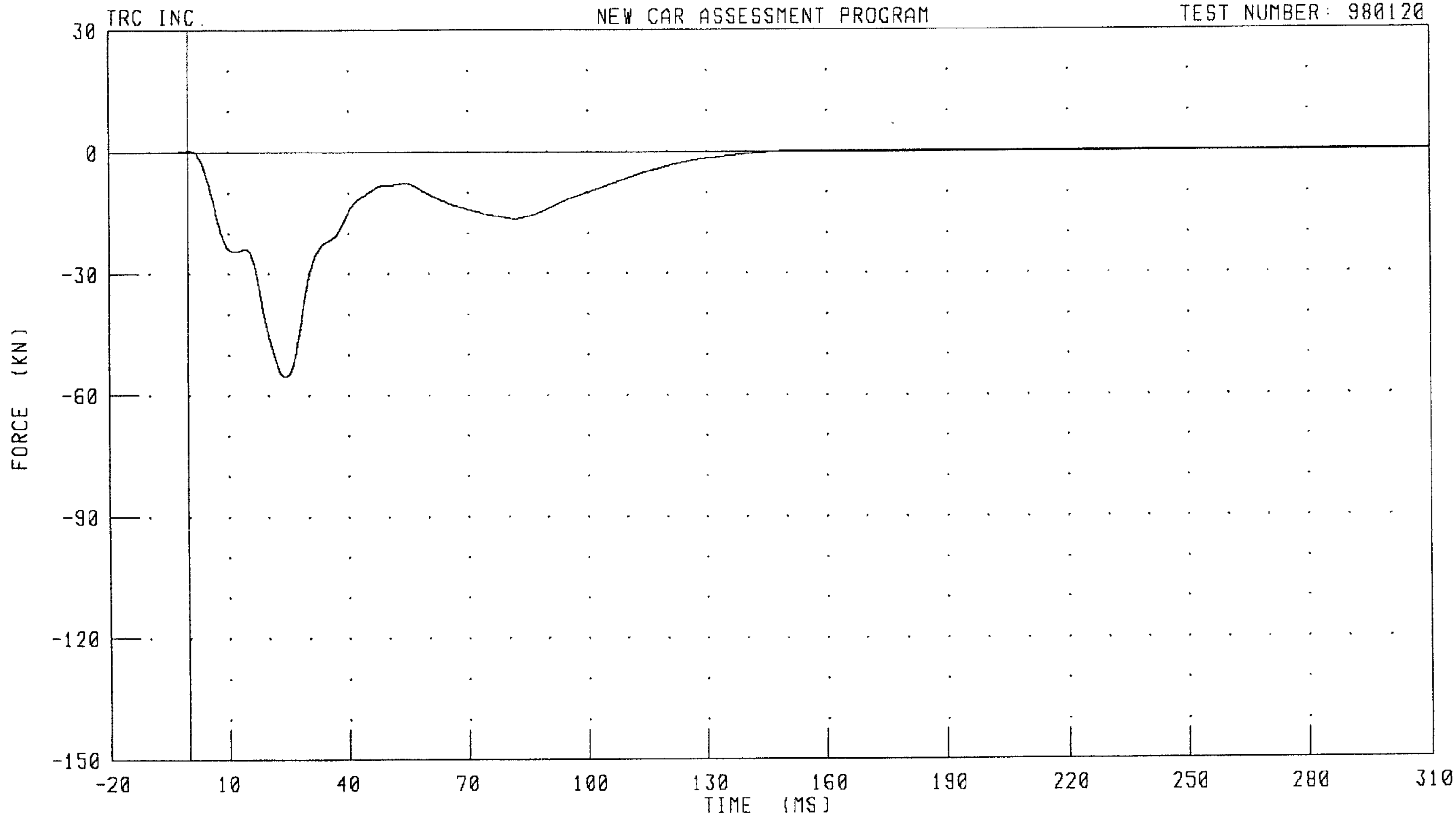
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B6 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



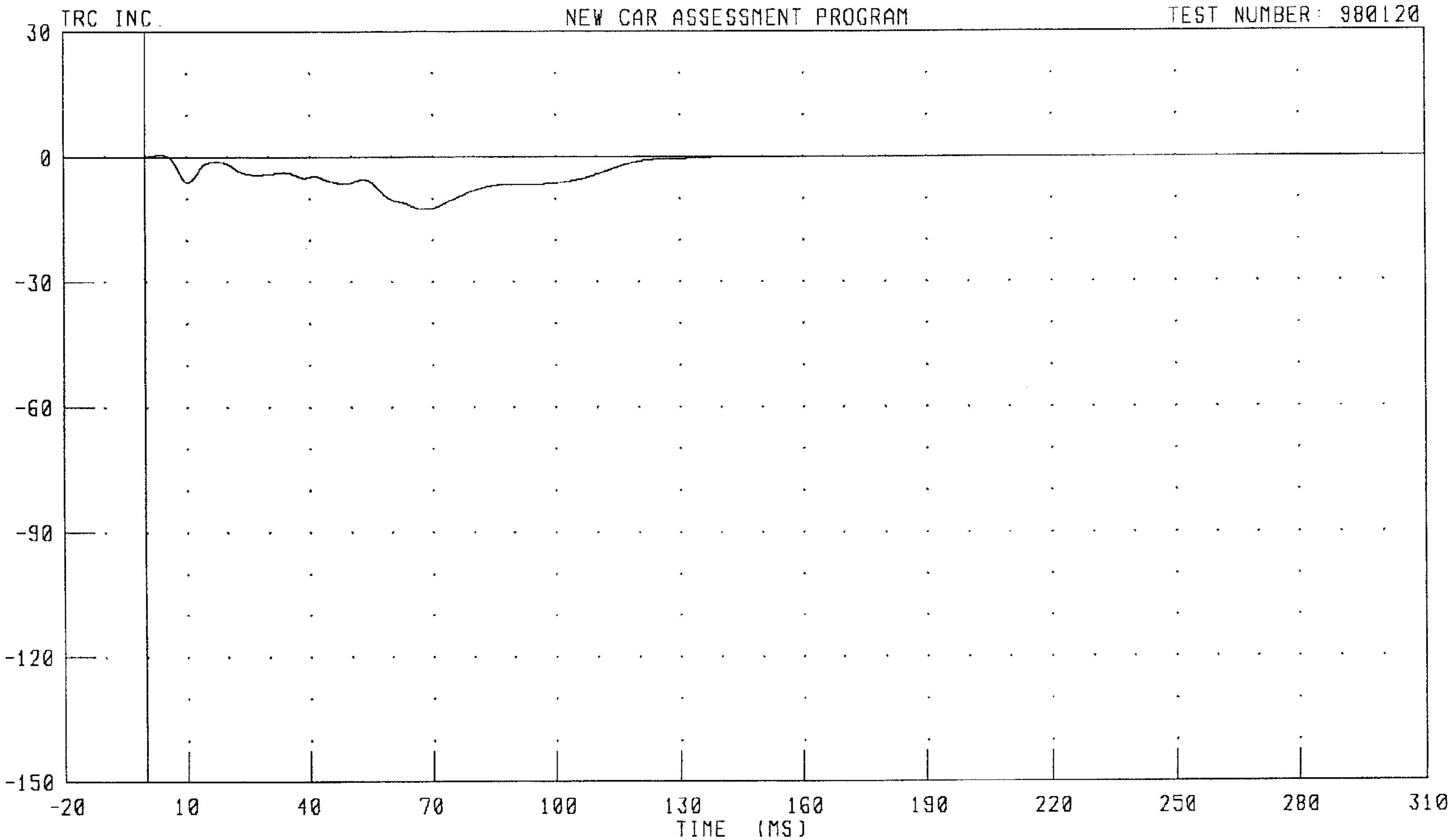
CHANNEL: BB6F FILTER: CH. CLASS 60 PEAK DATA: 0.47 KN @ -2.56 MS; -36.23 KN @ 81.92 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B7 FORCE
NEW CAR ASSESSMENT PROGRAM



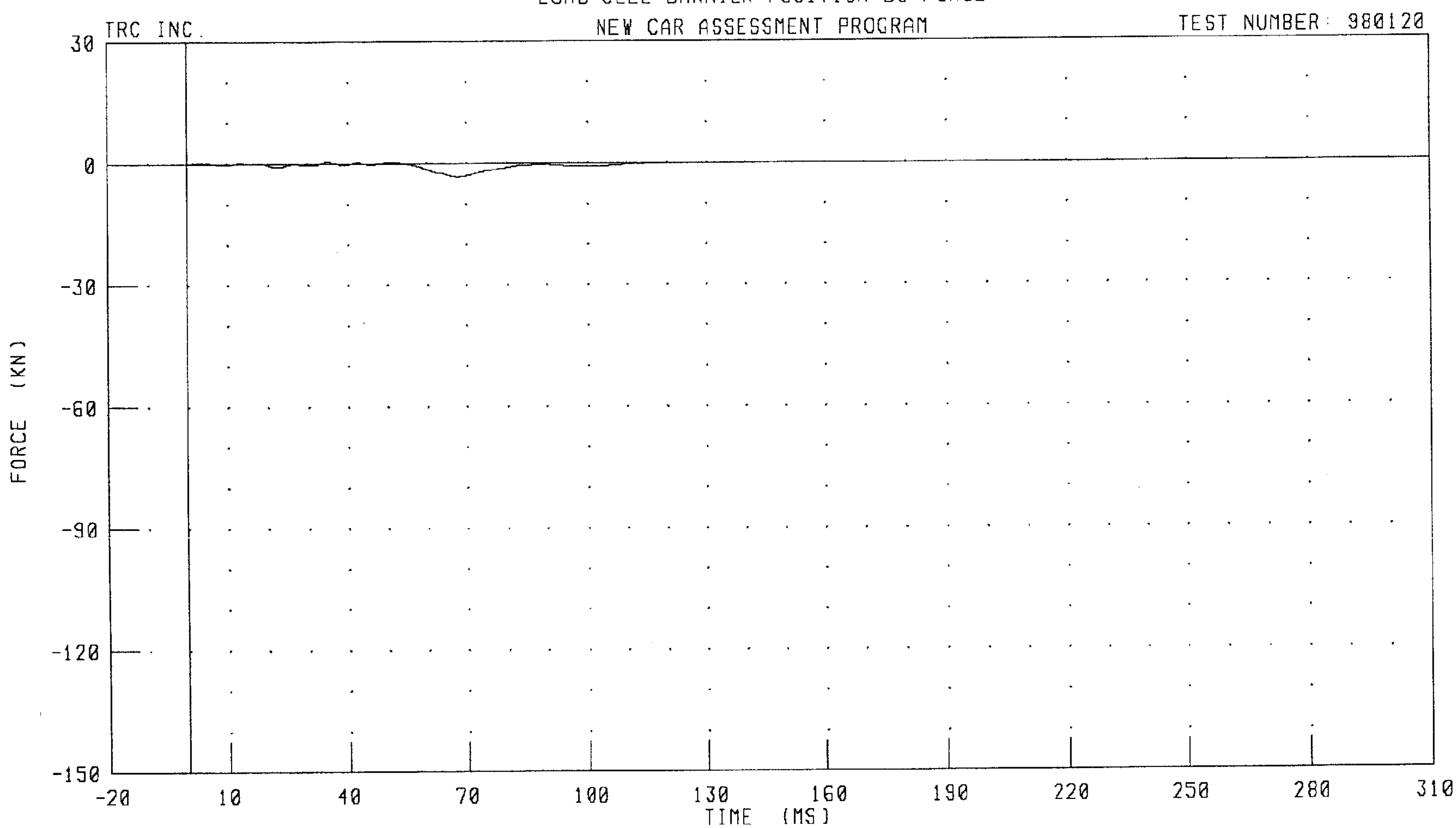
CHANNEL: BB7F FILTER: CH. CLASS 60 PEAK DATA: 0.37 KN @ 0.16 MS; -55.46 KN @ 24.24 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B8 FORCE
NEW CAR ASSESSMENT PROGRAM



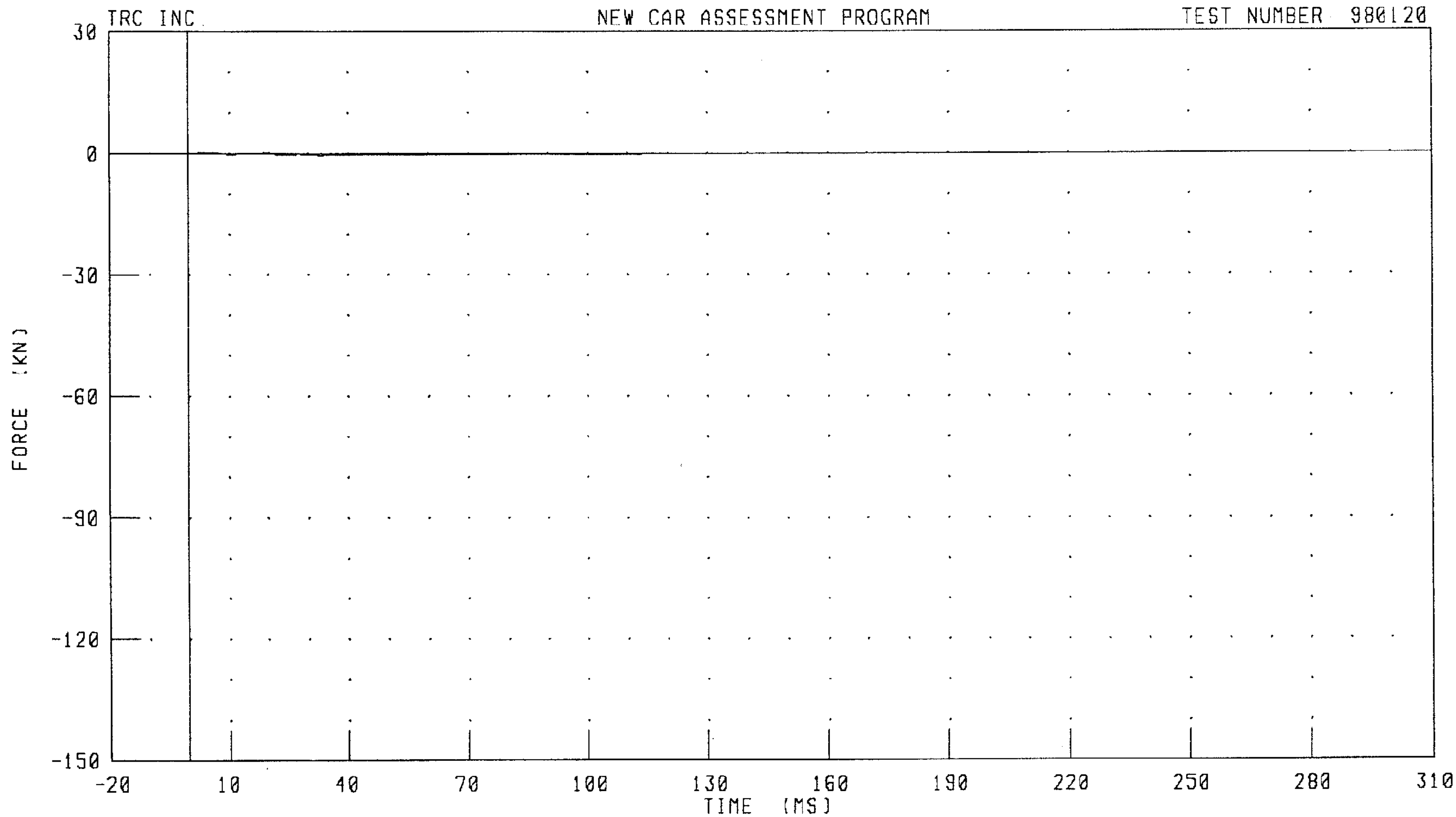
CHANNEL: BB8F FILTER: CH. CLASS 60 PEAK DATA: 0.44 KN @ 3.84 MS; -12.60 KN @ 68.16 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION B9 FORCE
NEW CAR ASSESSMENT PROGRAM



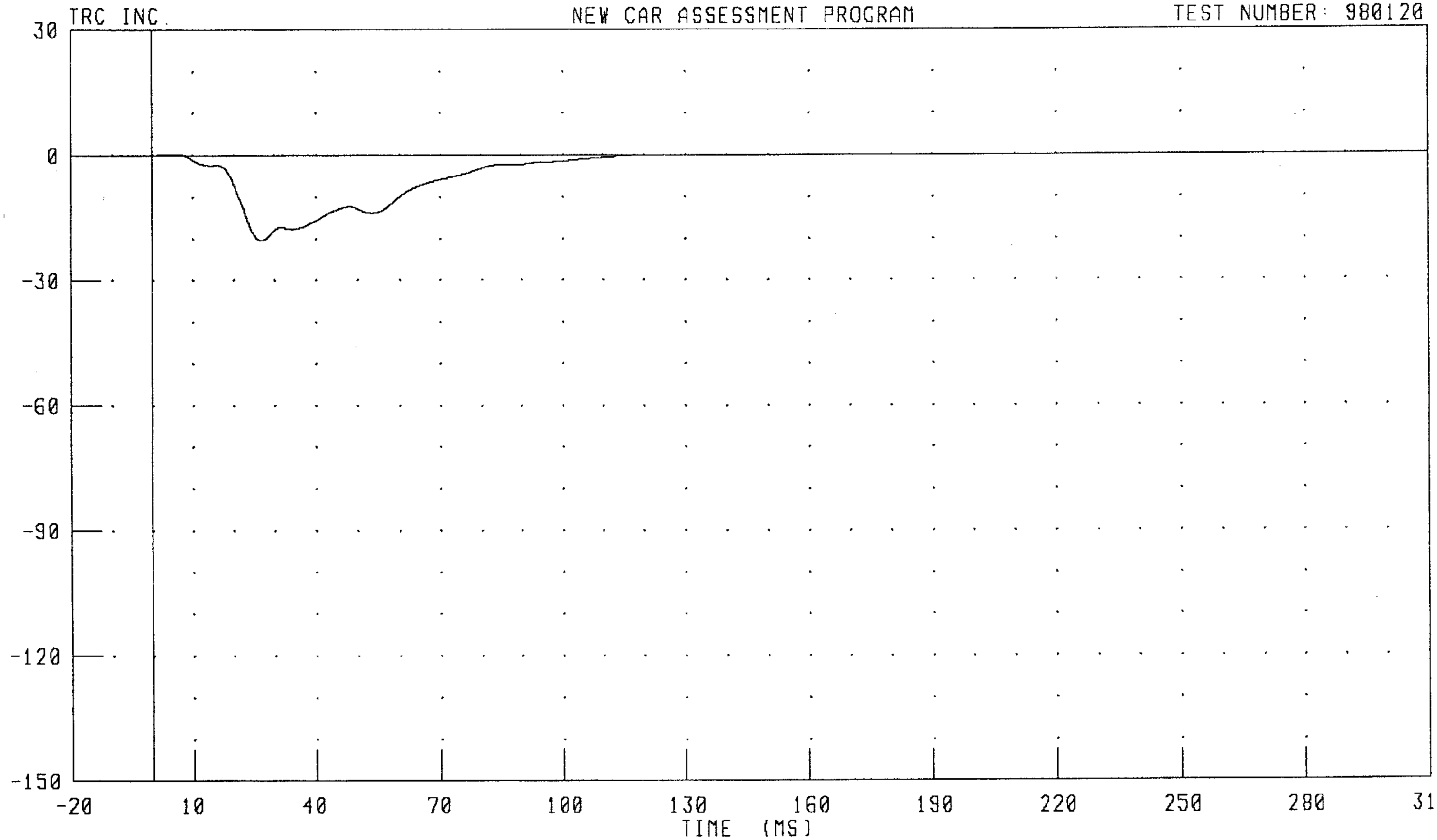
CHANNEL: BB9F FILTER: CH. CLASS 60 PEAK DATA: 0.41 KN @ 35.20 MS; -3.23 KN @ 68.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C1 FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: BC1F FILTER: CH. CLASS 60 PEAK DATA: 0.16 KN @ 4.72 MS; -0.45 KN @ 33.20 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C2 FORCE
NEW CAR ASSESSMENT PROGRAM

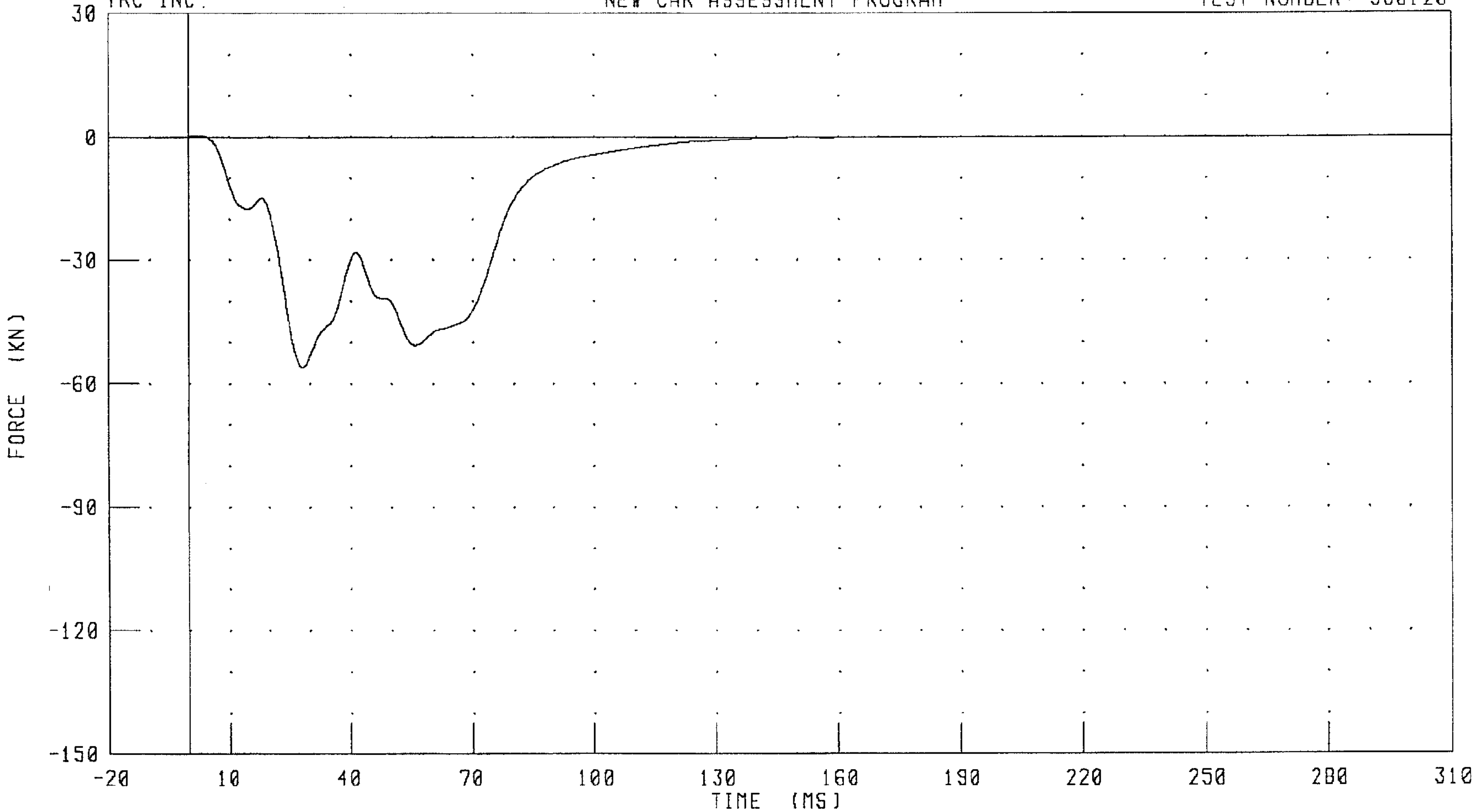


CHANNEL: BC2F FILTER: CH. CLASS 60 PEAK DATA: 0.18 KN @ 5.92 MS; -20.44 KN @ 26.88 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C3 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC.

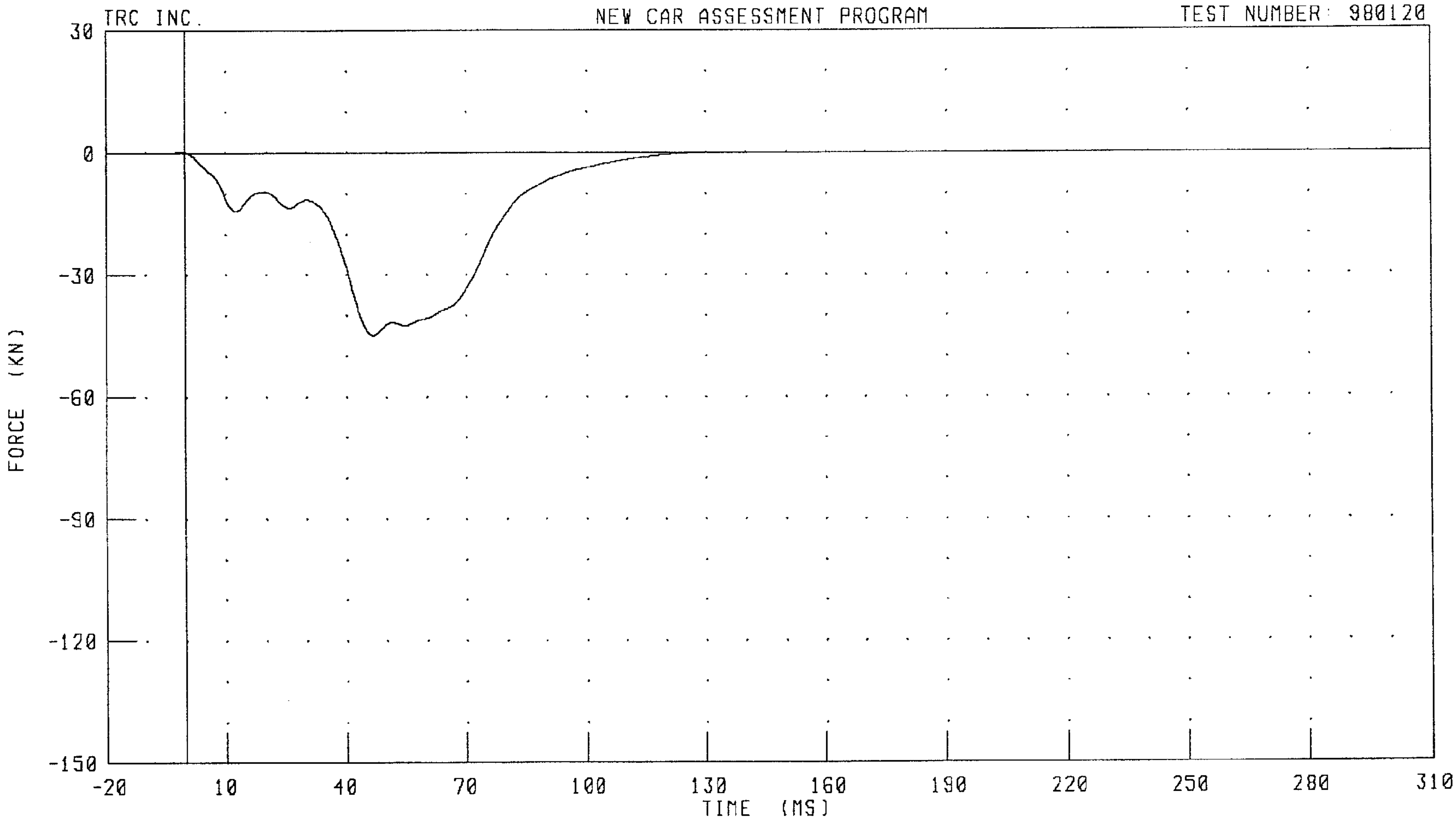
TEST NUMBER: 980120



CHANNEL: BC3F FILTER: CH. CLASS 60 PEAK DATA: 0.33 KN @ 2.48 MS; -56.12 KN @ 28.40 MS

980120

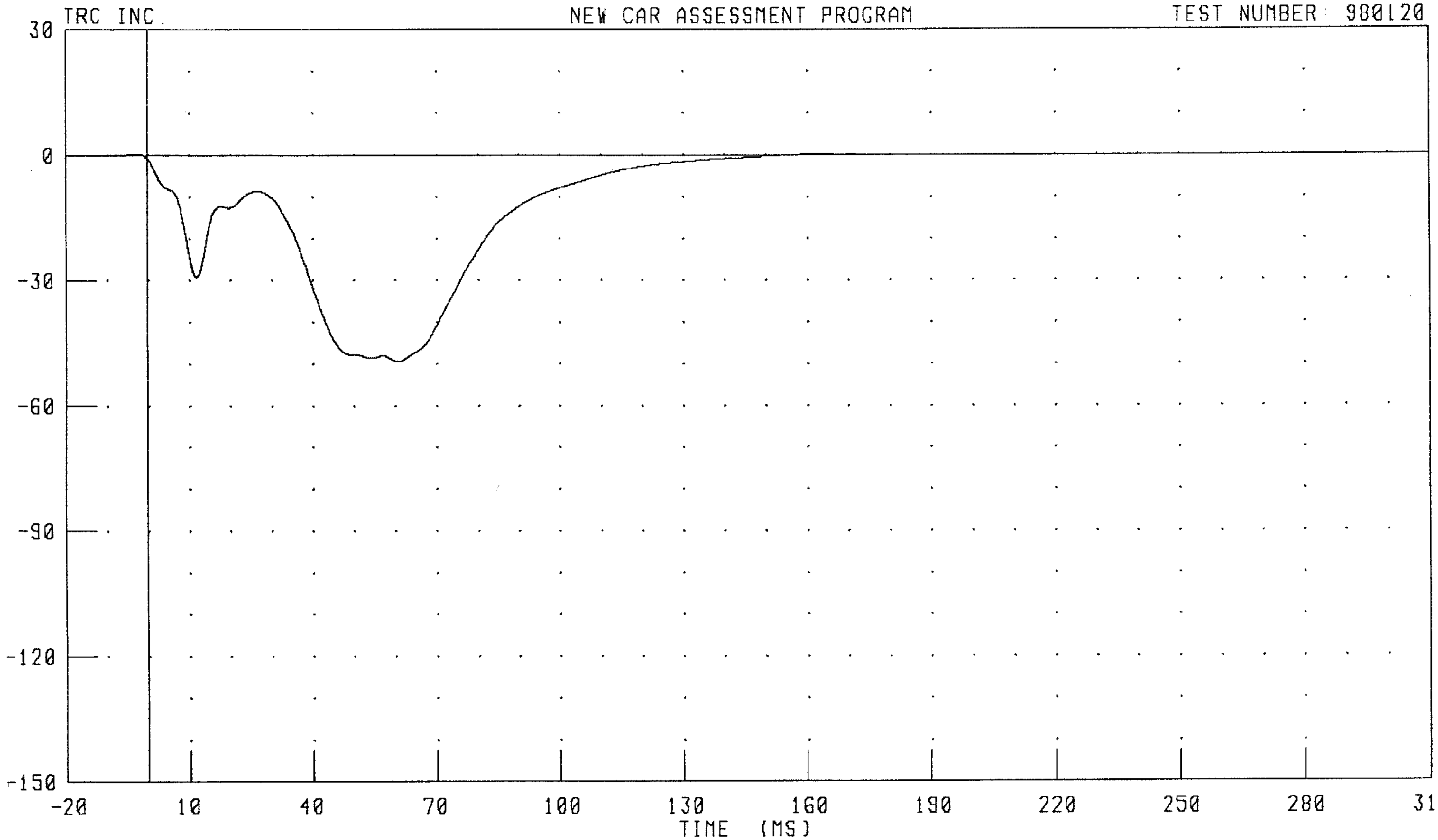
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C4 FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: BC4F FILTER: CH. CLASS 60 PEAK DATA: 0.14 KN @ -1.04 MS; -44.88 KN @ 46.56 MS

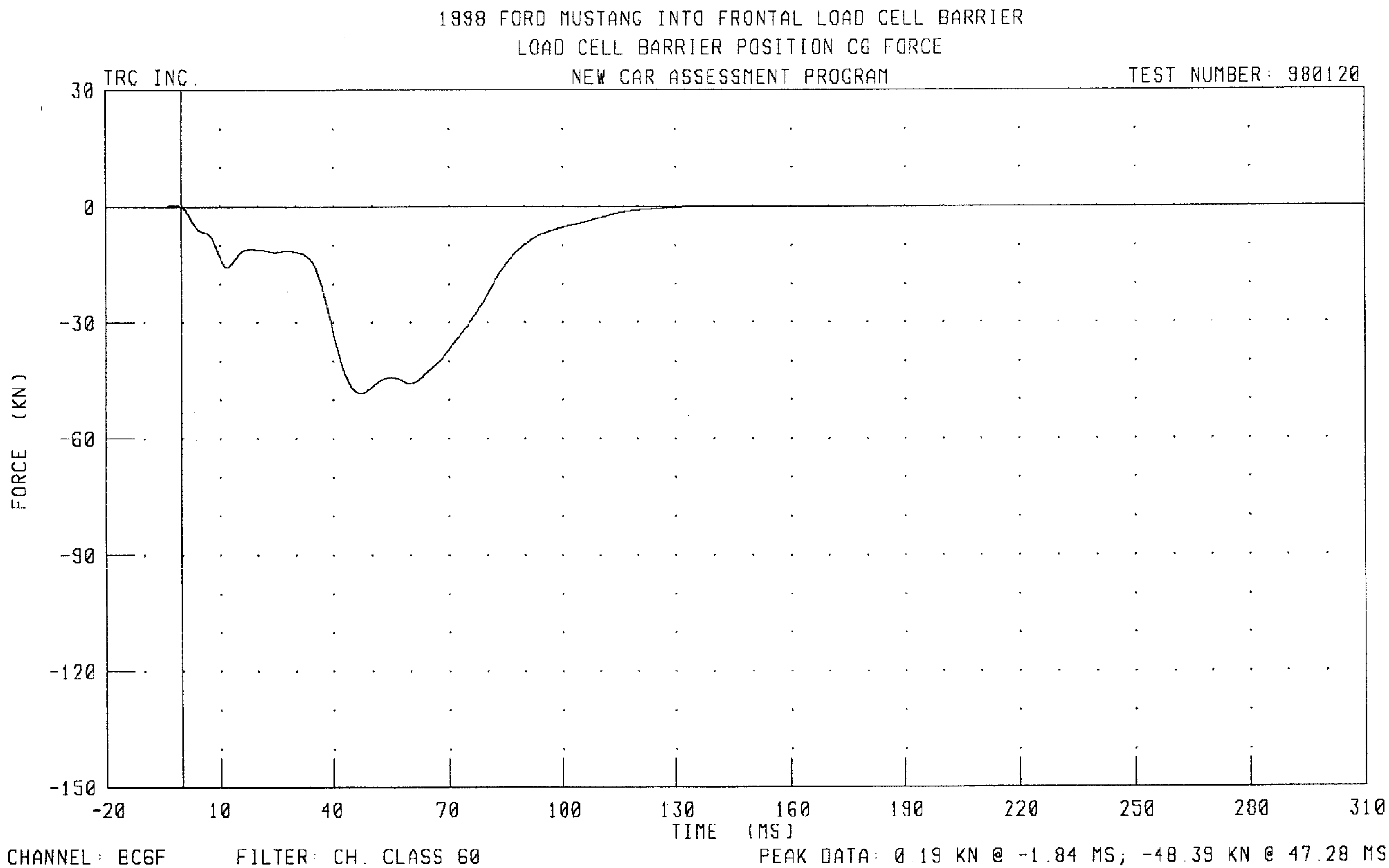
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C5 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC.   TEST NUMBER: 980120



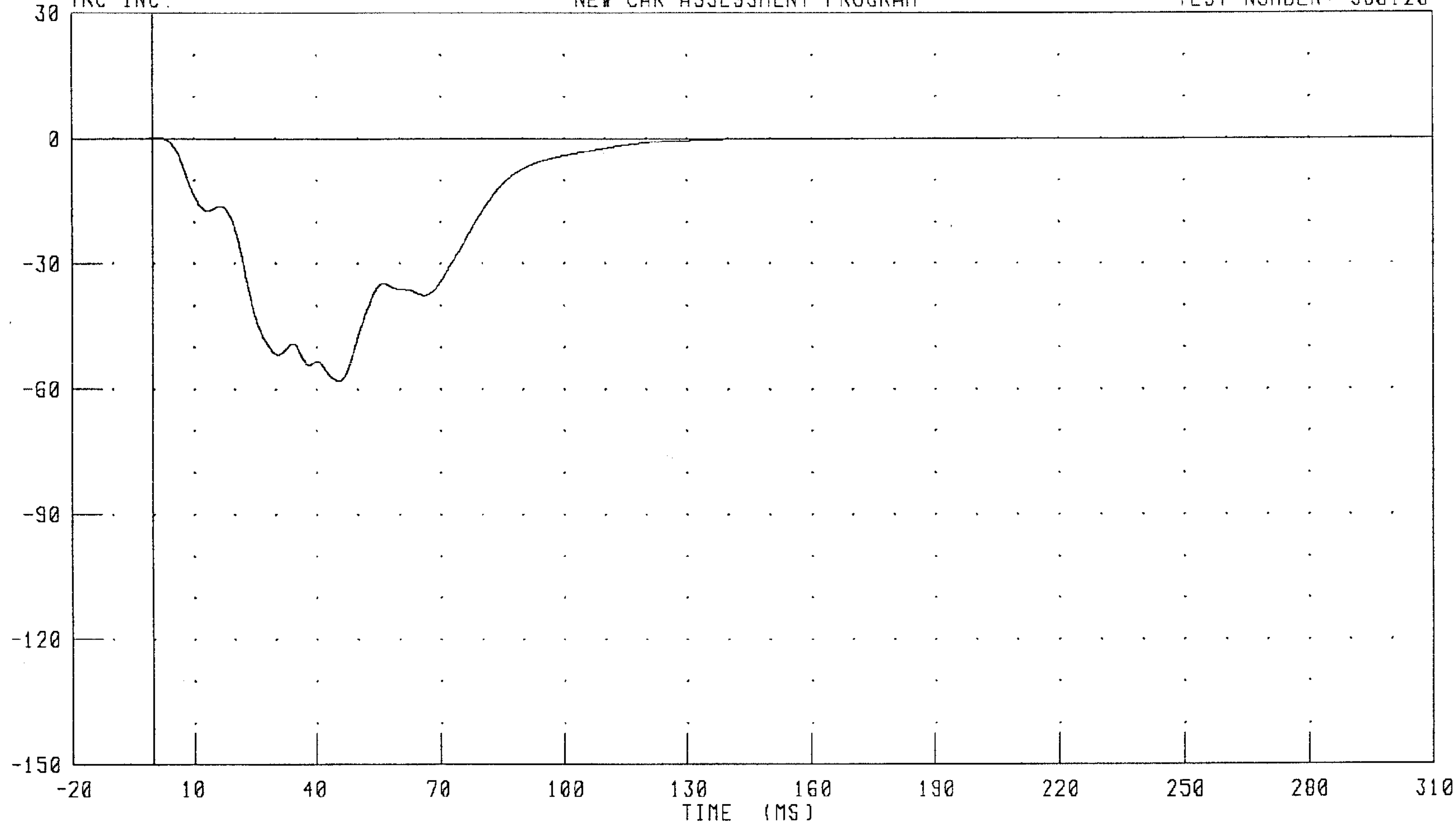
CHANNEL: BC5F   FILTER: CH. CLASS 60   PEAK DATA: 0.25 KN @ -2.64 MS; -49.41 KN @ 60.88 MS

980120


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C6 FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
FORCE (KN)
30
0
-30
-60
-90
-120
-150
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: BC6F
FILTER: CH. CLASS 60
PEAK DATA: 0.19 KN @ -1.84 MS; -48.39 KN @ 47.28 MS

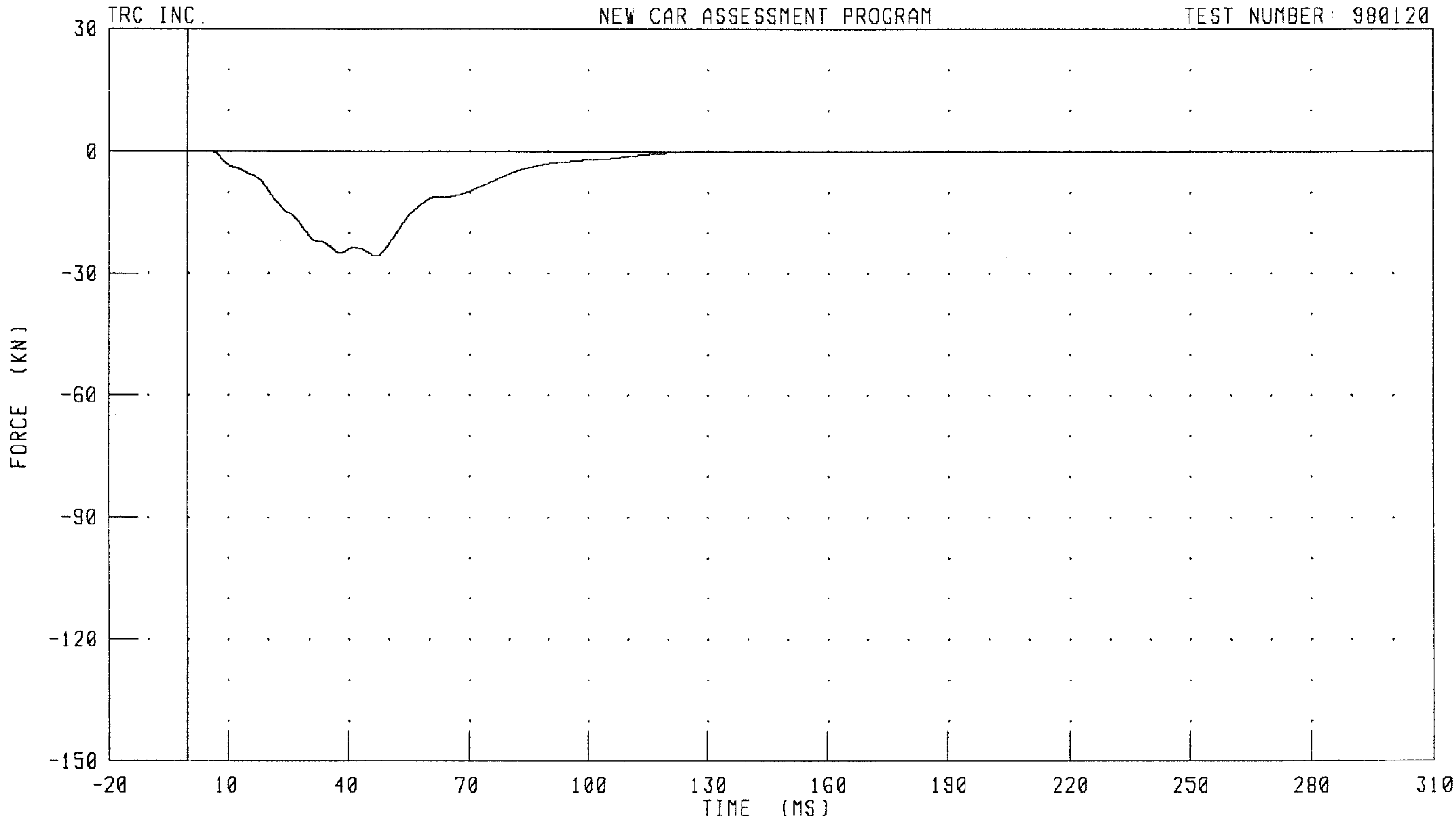
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C7 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



CHANNEL: BC7F FILTER: CH. CLASS 60 PEAK DATA: 0.24 KN @ 1.28 MS; -57.97 KN @ 45.44 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C8 FORCE
NEW CAR ASSESSMENT PROGRAM

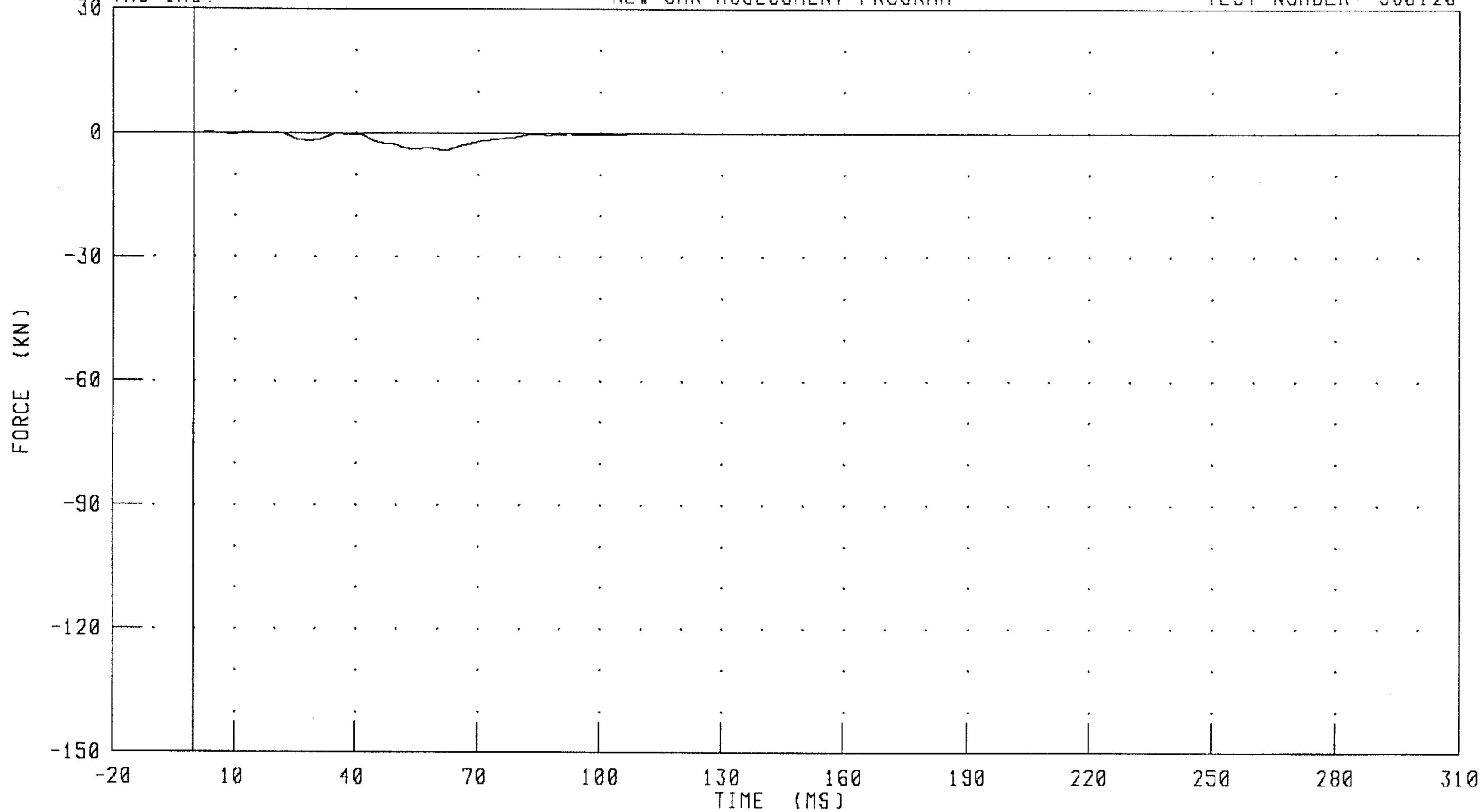


CHANNEL: BC8F FILTER: CH. CLASS 60 PEAK DATA: 0.24 KN @ 3.76 MS; -25.82 KN @ 46.88 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION C9 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC.

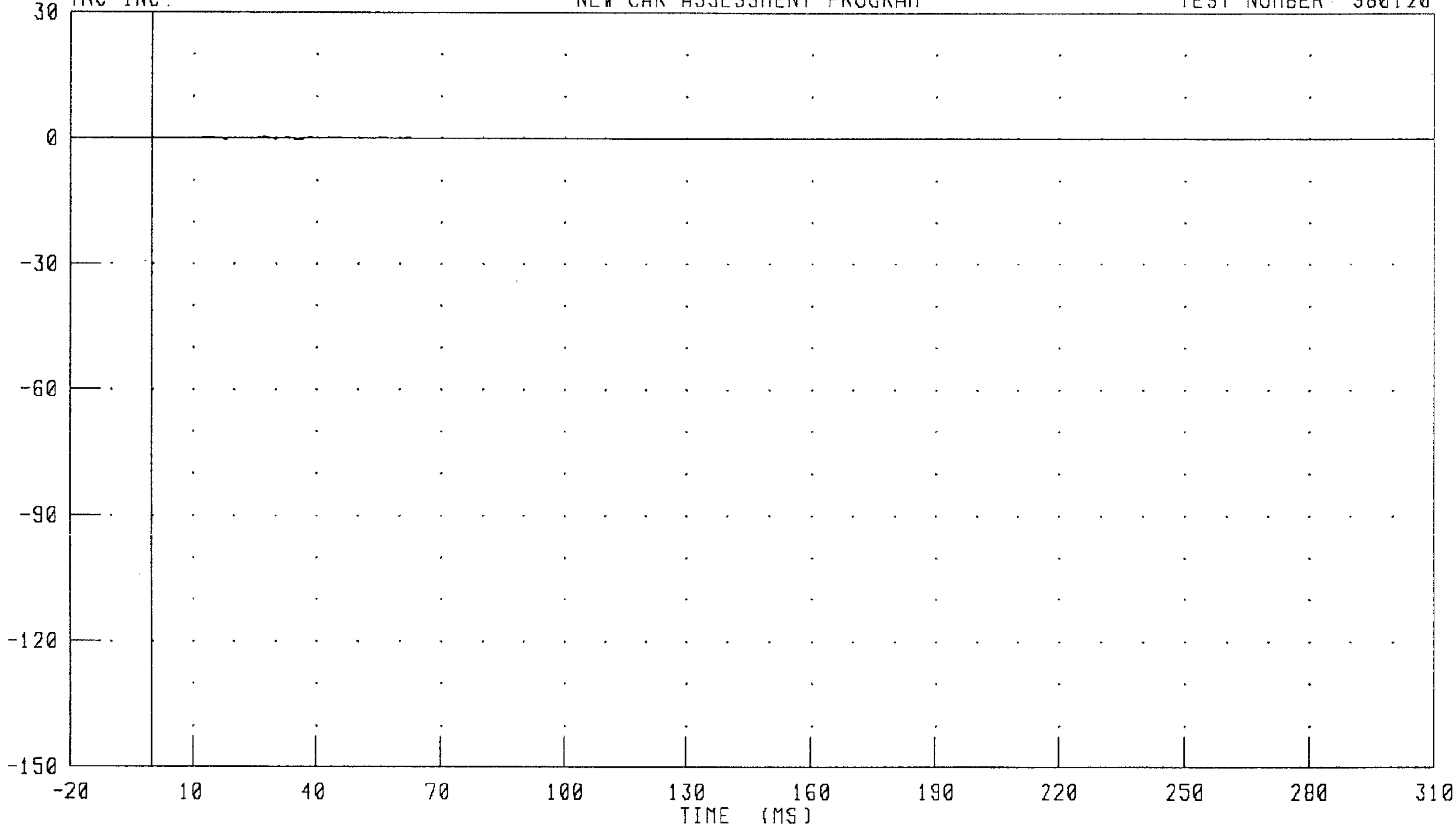
TEST NUMBER: 980120



CHANNEL: BC9F FILTER: CH. CLASS 60 PEAK DATA: 0.27 KN @ 13.20 MS; -4.20 KN @ 61.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D1 FORCE
NEW CAR ASSESSMENT PROGRAM

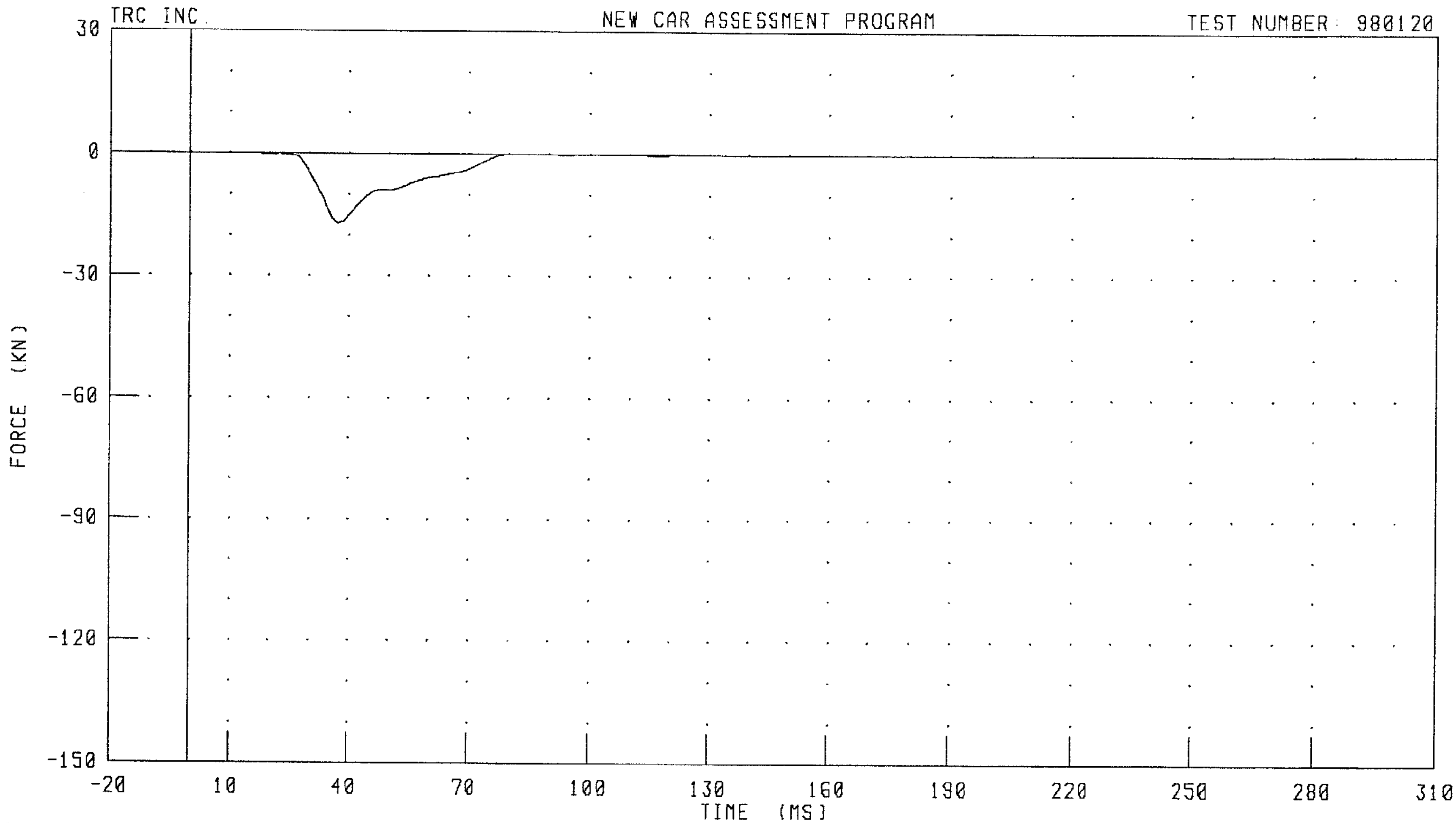
TRC INC. TEST NUMBER: 980120



CHANNEL: BD1F FILTER: CH. CLASS 60 PEAK DATA: 0.34 KN @ 27.20 MS; -0.30 KN @ 35.76 MS

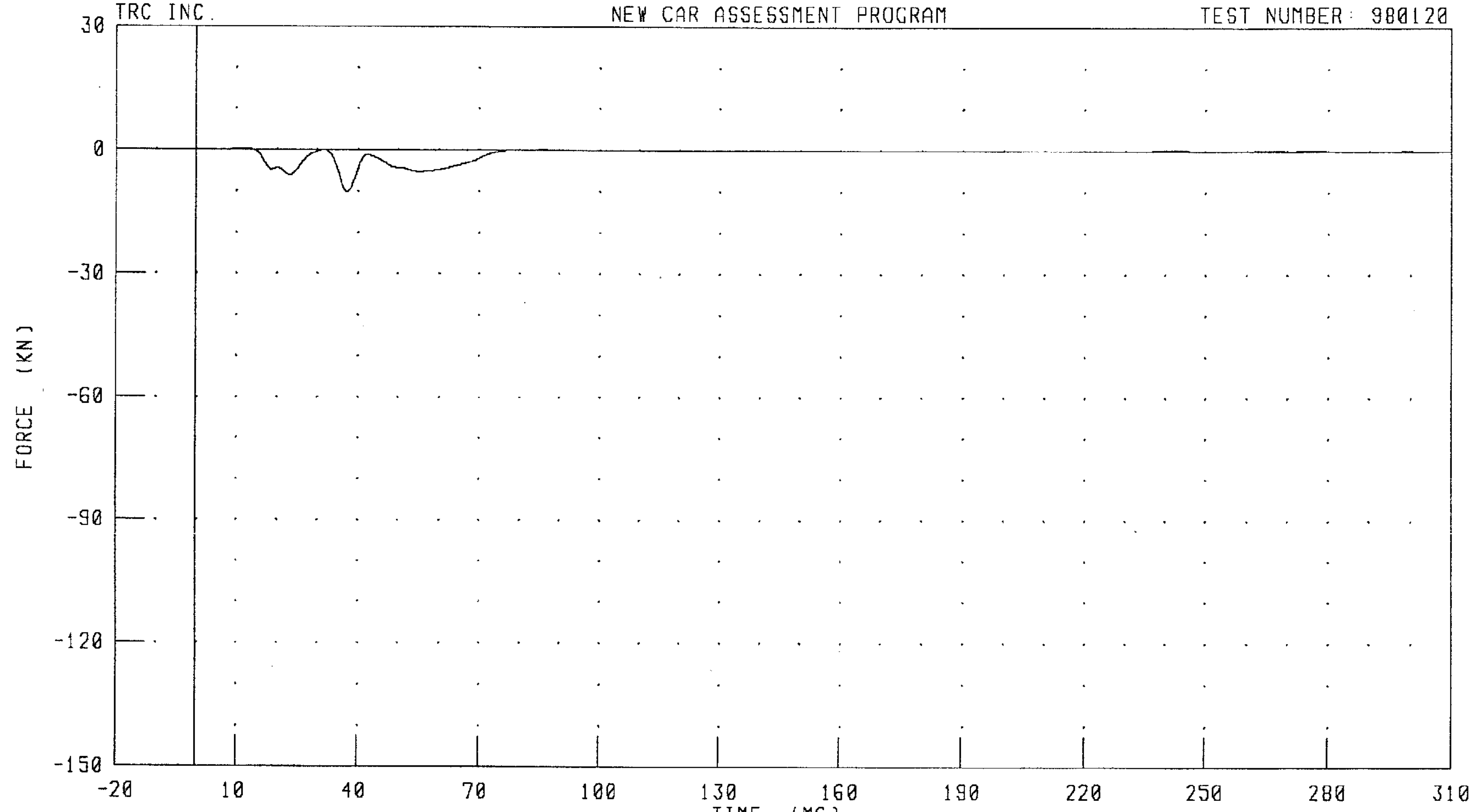
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D2 FORCE
NEW CAR ASSESSMENT PROGRAM

TEST NUMBER: 980120



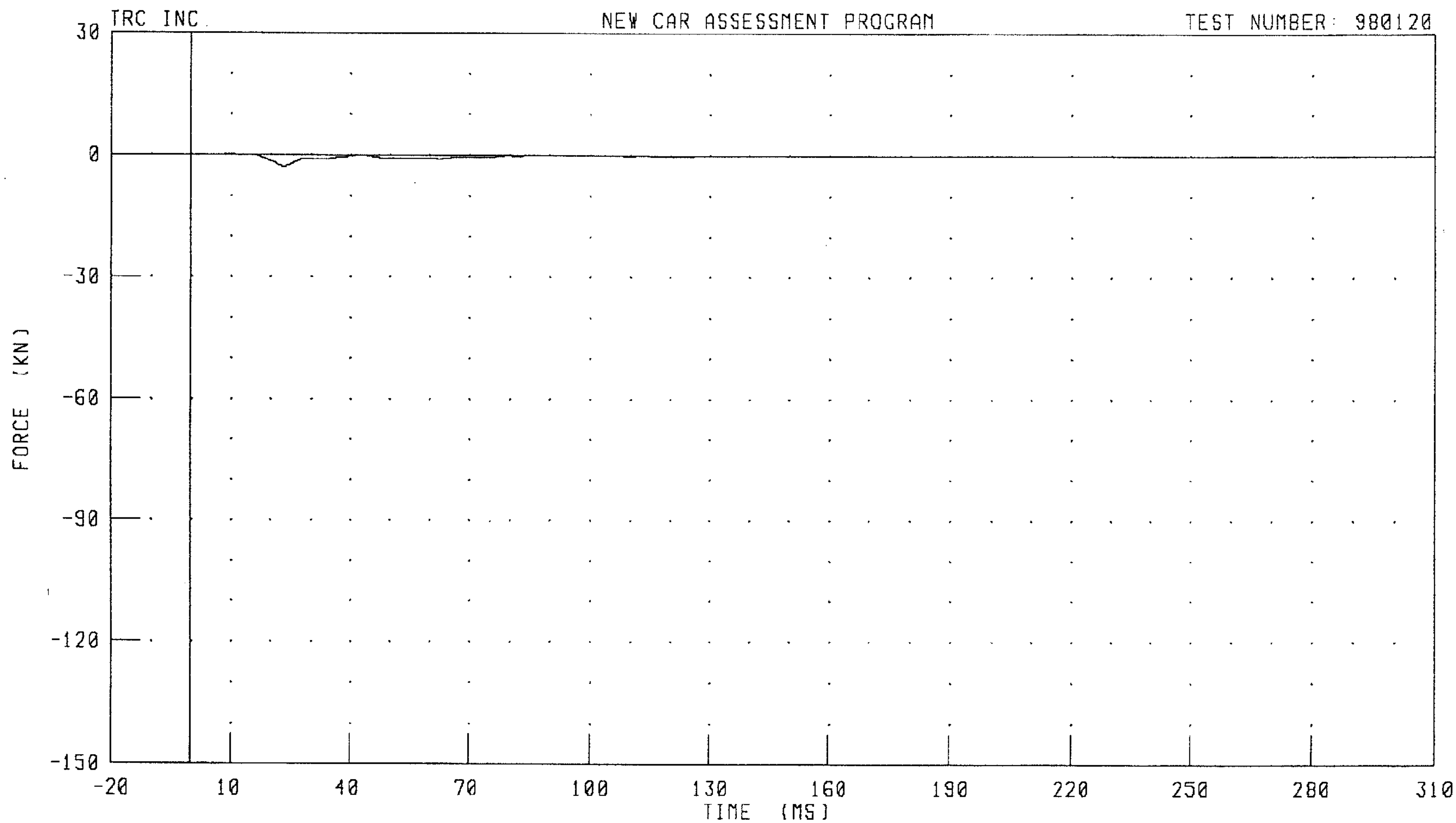
CHANNEL: BD2F FILTER: CH. CLASS 60 PEAK DATA: 0.04 KN @ 13.04 MS; -16.99 KN @ 37.60 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D3 FORCE
NEW CAR ASSESSMENT PROGRAM



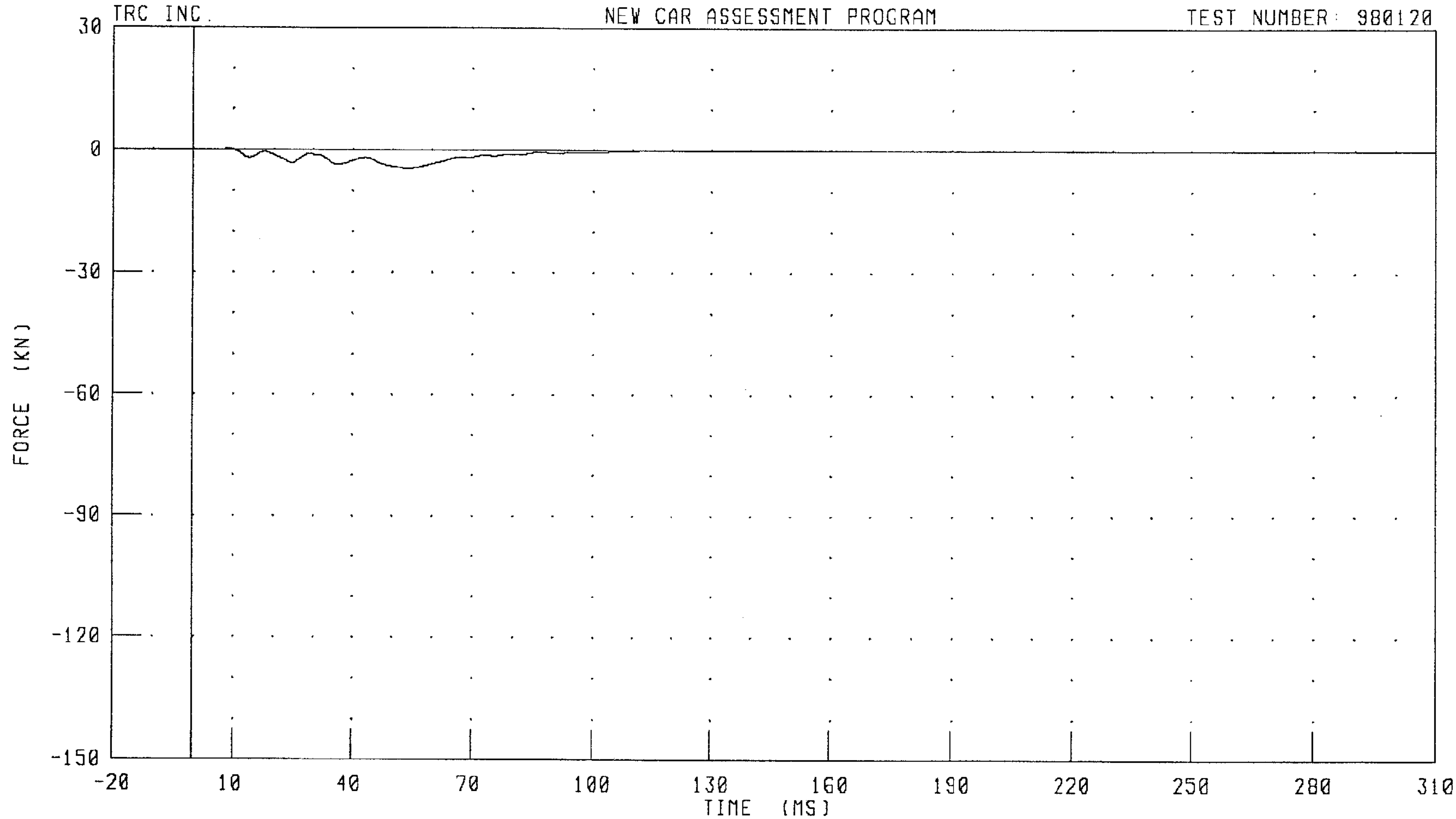
CHANNEL: 8D3F FILTER: CH. CLASS 60 PEAK DATA: 0.18 KN @ 12.88 MS; -10.15 KN @ 37.52 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D4 FORCE
NEW CAR ASSESSMENT PROGRAM



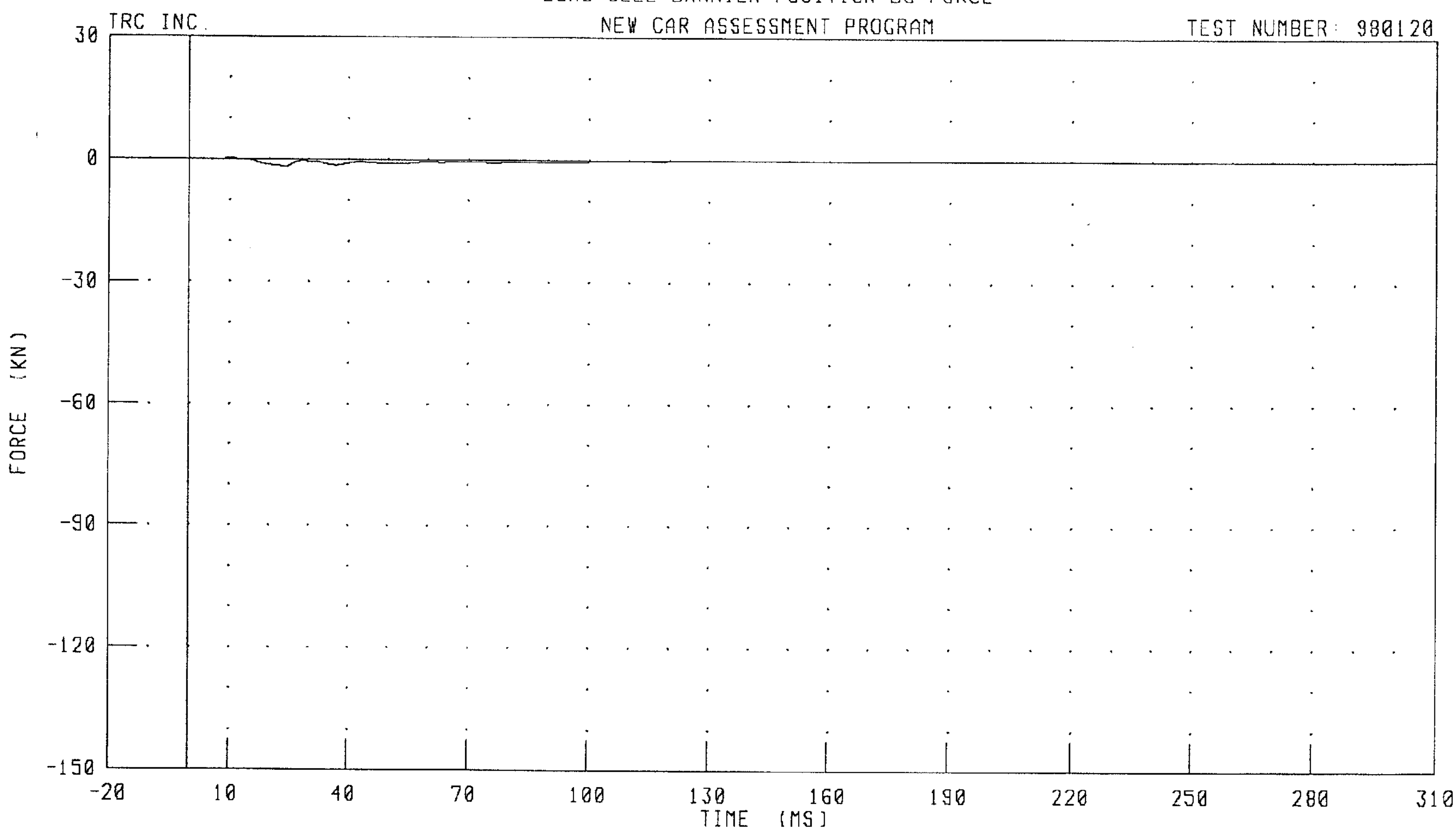
CHANNEL: BD4F FILTER: CH. CLASS 60 PEAK DATA: 0.15 KN @ 9.76 MS; -2.77 KN @ 23.20 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D5 FORCE
NEW CAR ASSESSMENT PROGRAM

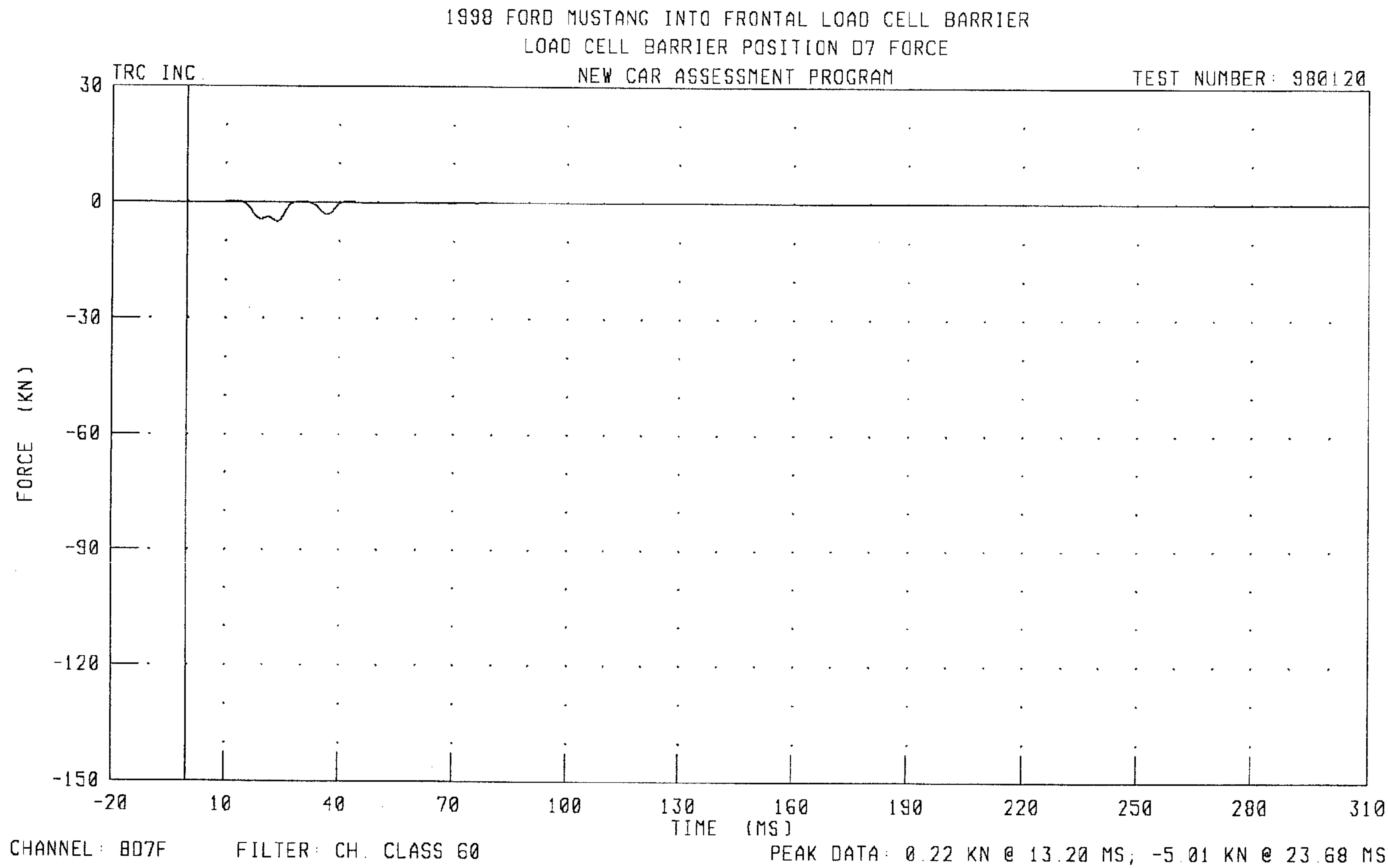


CHANNEL: BD5F FILTER: CH. CLASS 60 PEAK DATA: 0.13 KN @ 8.96 MS; -4.57 KN @ 53.84 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D6 FORCE
NEW CAR ASSESSMENT PROGRAM

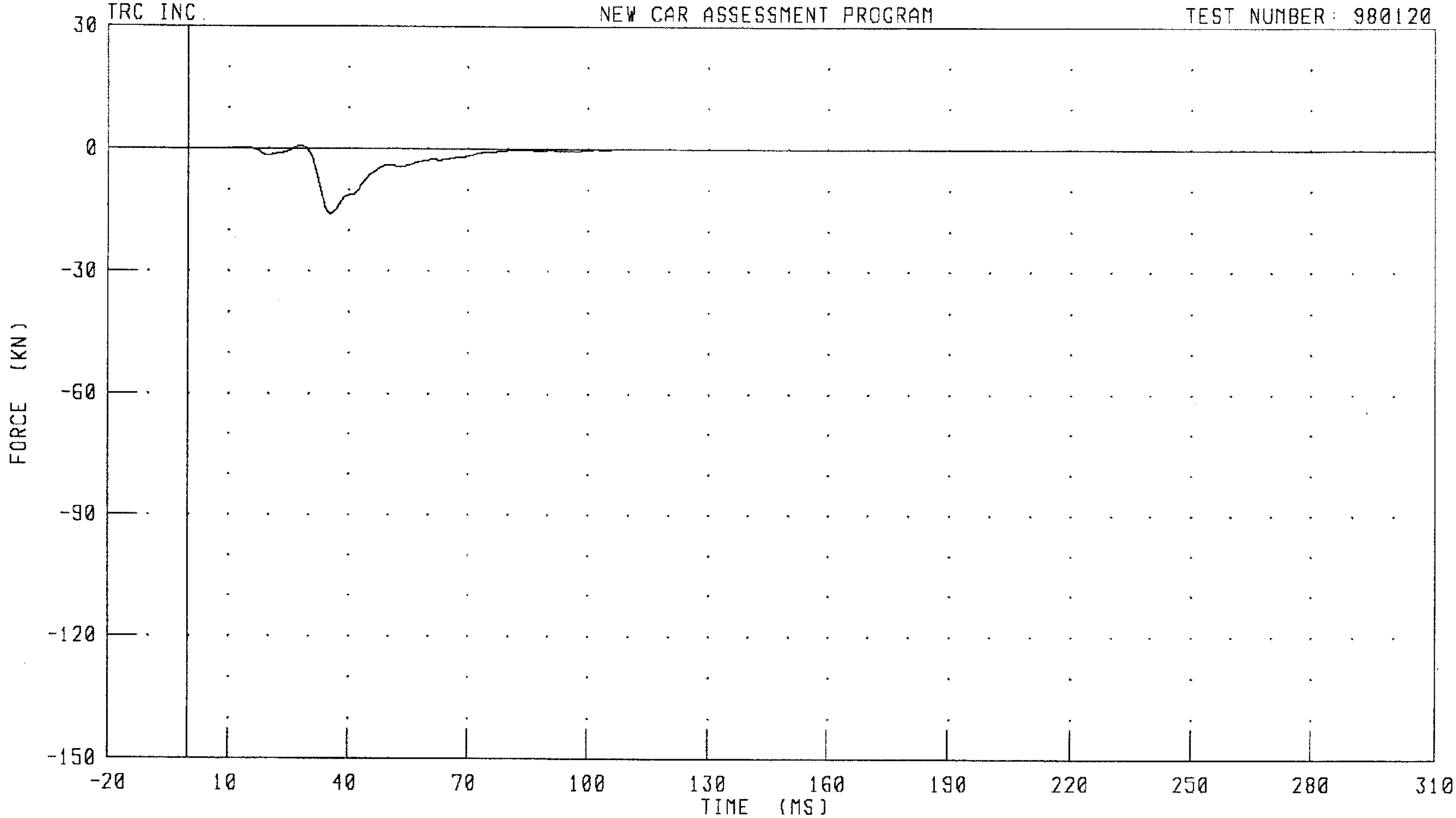


CHANNEL: BD6F FILTER: CH. CLASS 60 PEAK DATA: 0.13 KN @ 10.40 MS; -1.88 KN @ 24.00 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D7 FORCE
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
FORCE (KN)
30
0
-30
-60
-90
-120
-150
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: 807F
FILTER: CH. CLASS 60
PEAK DATA: 0.22 KN @ 13.20 MS; -5.01 KN @ 23.68 MS

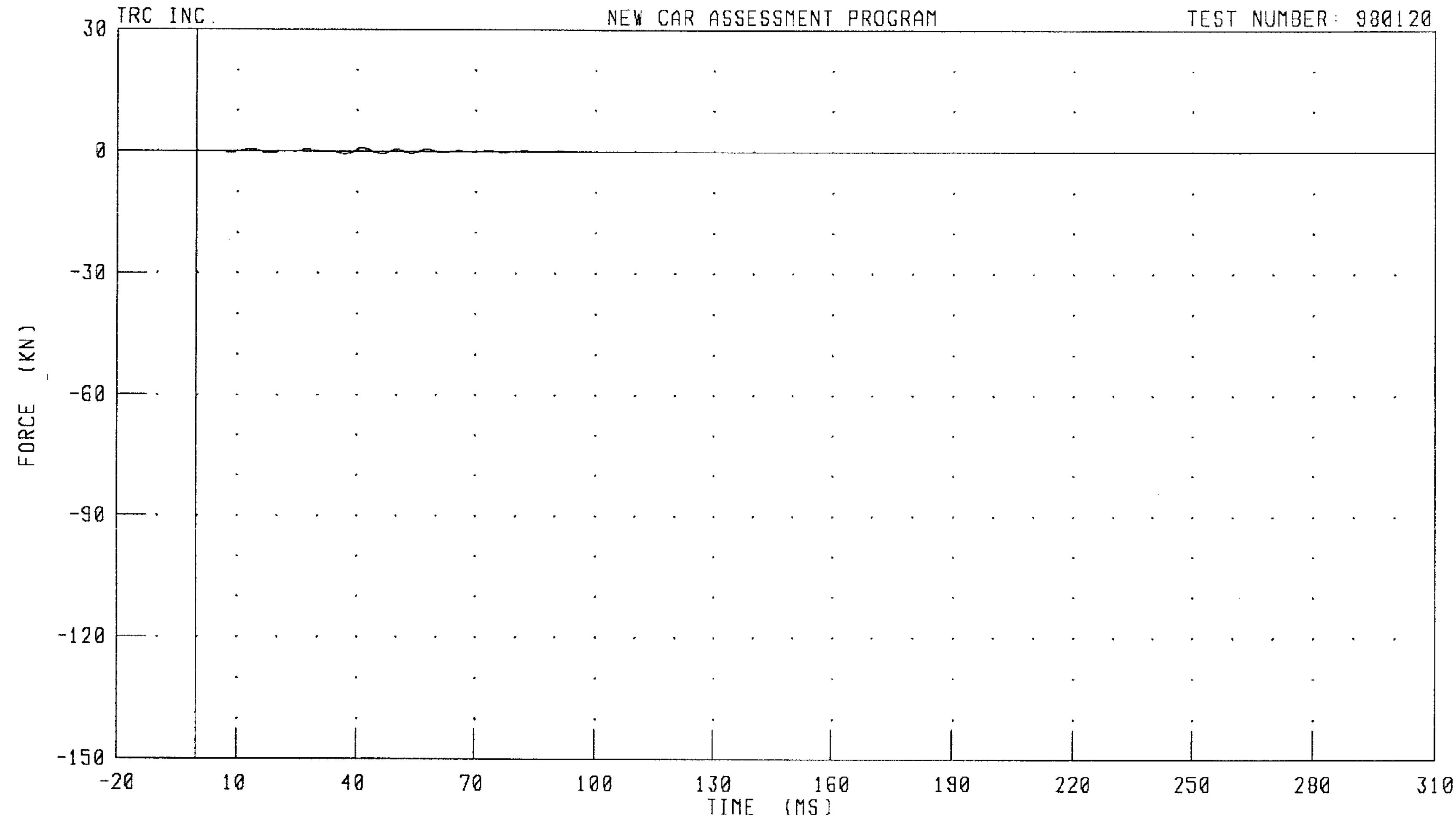
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D8 FORCE
NEW CAR ASSESSMENT PROGRAM

TRC INC. TEST NUMBER: 980120



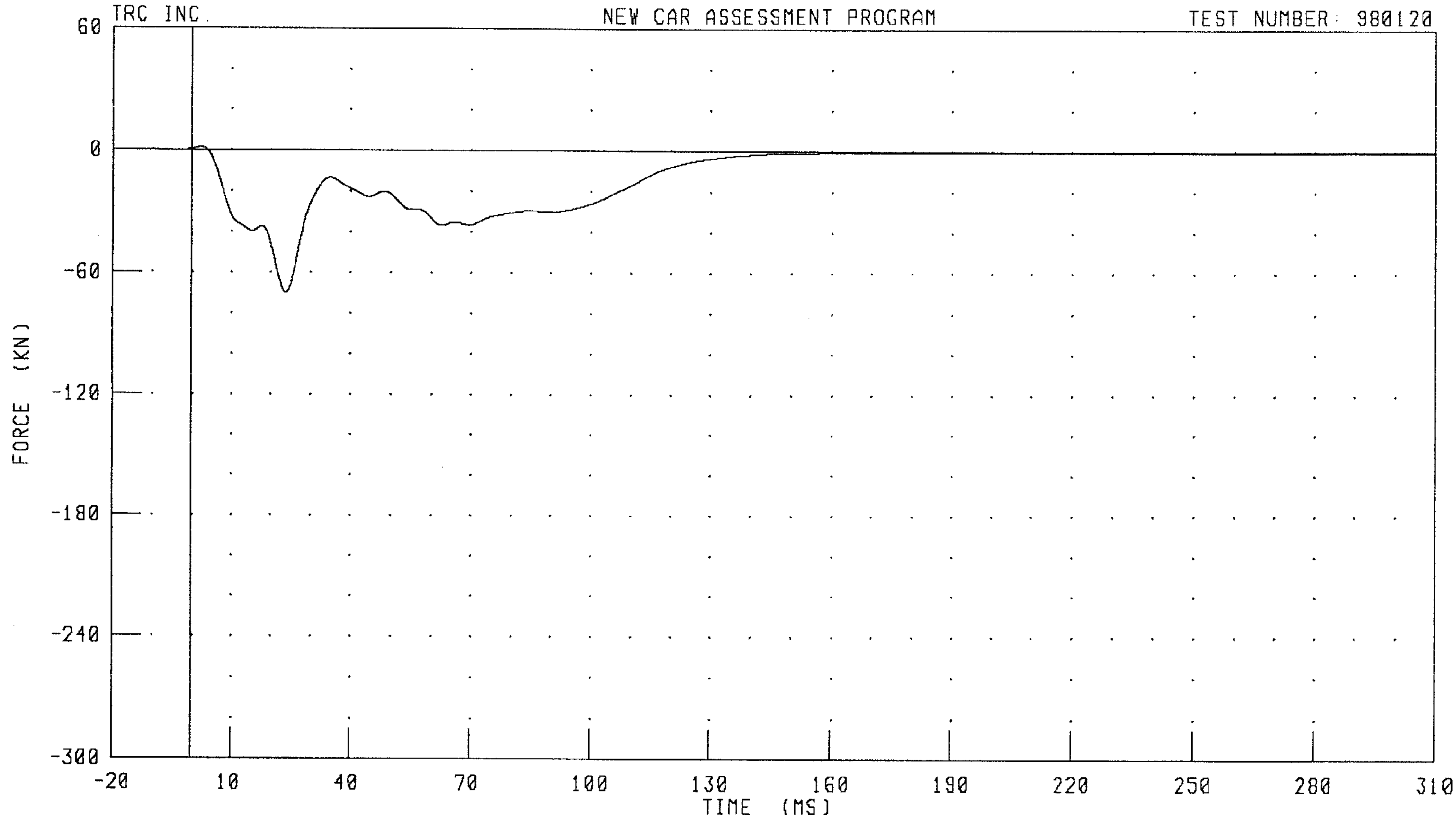
CHANNEL: BD8F FILTER: CH. CLASS 60 PEAK DATA: 0.71 KN @ 28.00 MS, -15.93 KN @ 35.68 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER POSITION D9 FORCE
NEW CAR ASSESSMENT PROGRAM



CHANNEL: B09F FILTER: CH. CLASS 60 PEAK DATA: 0.76 KN @ 41.44 MS; -0.71 KN @ 37.12 MS

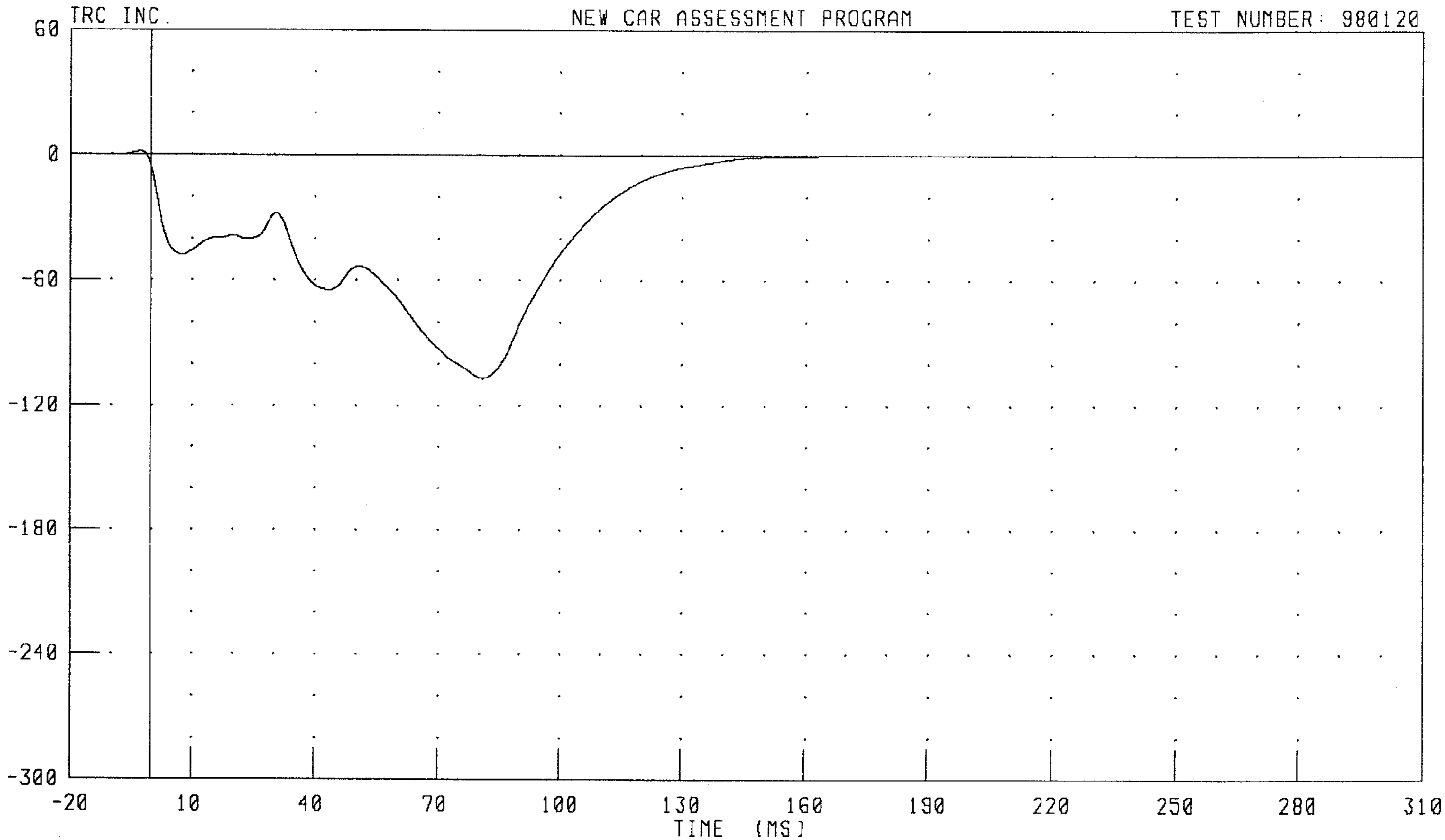
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 1 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM



CHANNEL: LCBG1F FILTER: CH. CLASS 60

PEAK DATA: 1.34 KN @ 2.24 MS; -69.83 KN @ 23.92 MS

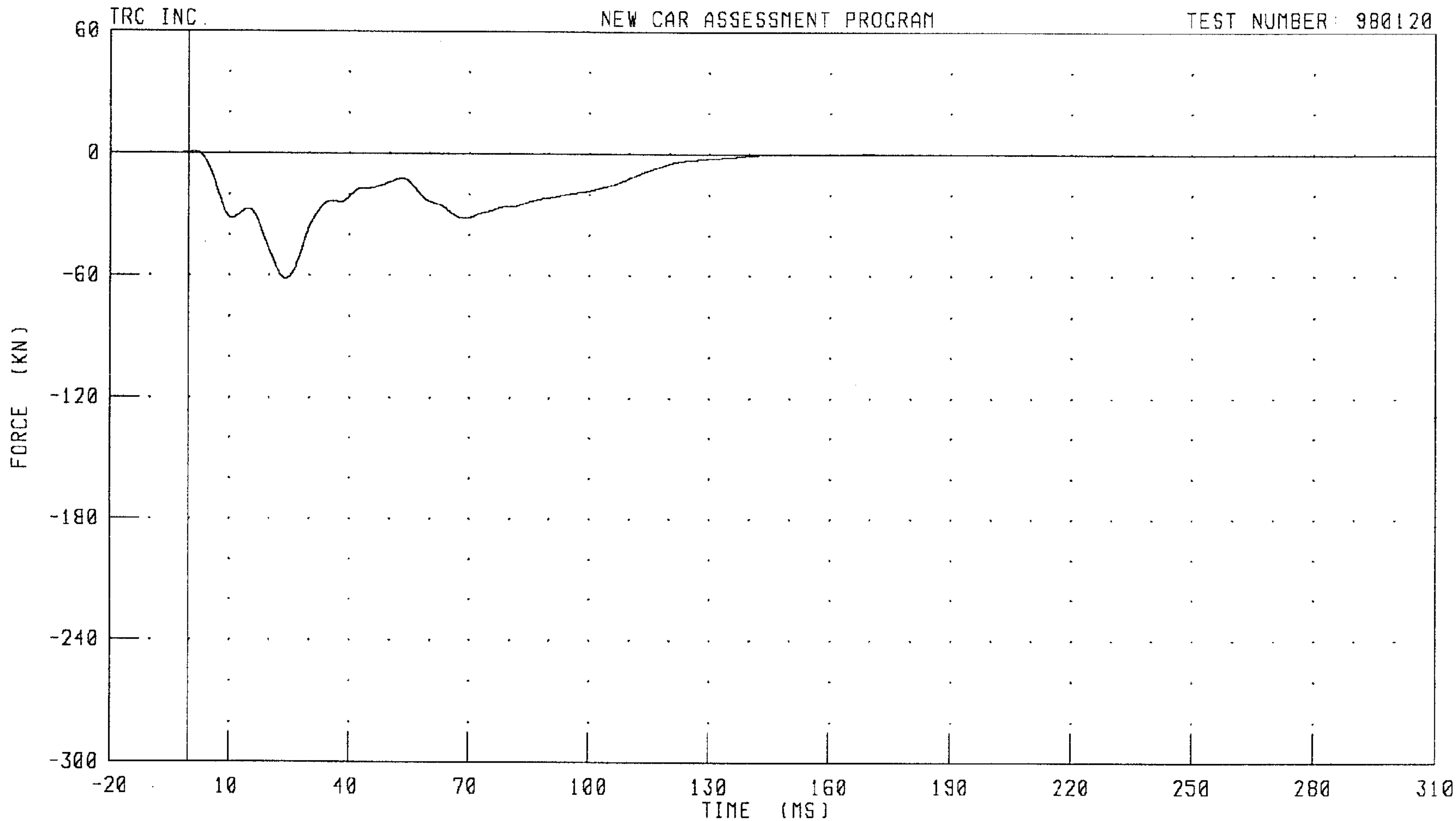
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 2 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM



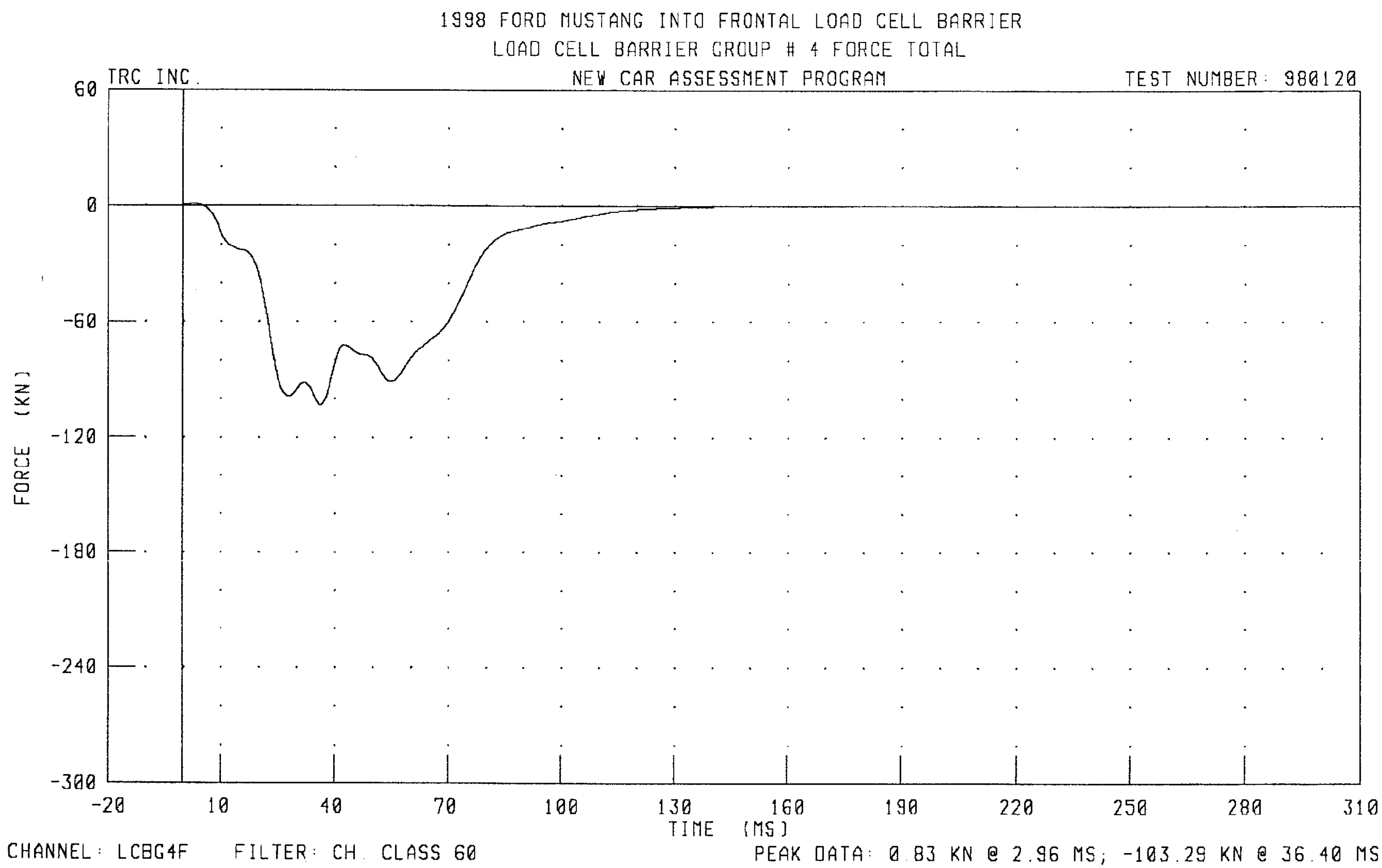
CHANNEL: LCBG2F FILTER: CH. CLASS 60

PEAK DATA: 1.36 KN @ -2.80 MS; -107.03 KN @ 80.96 MS

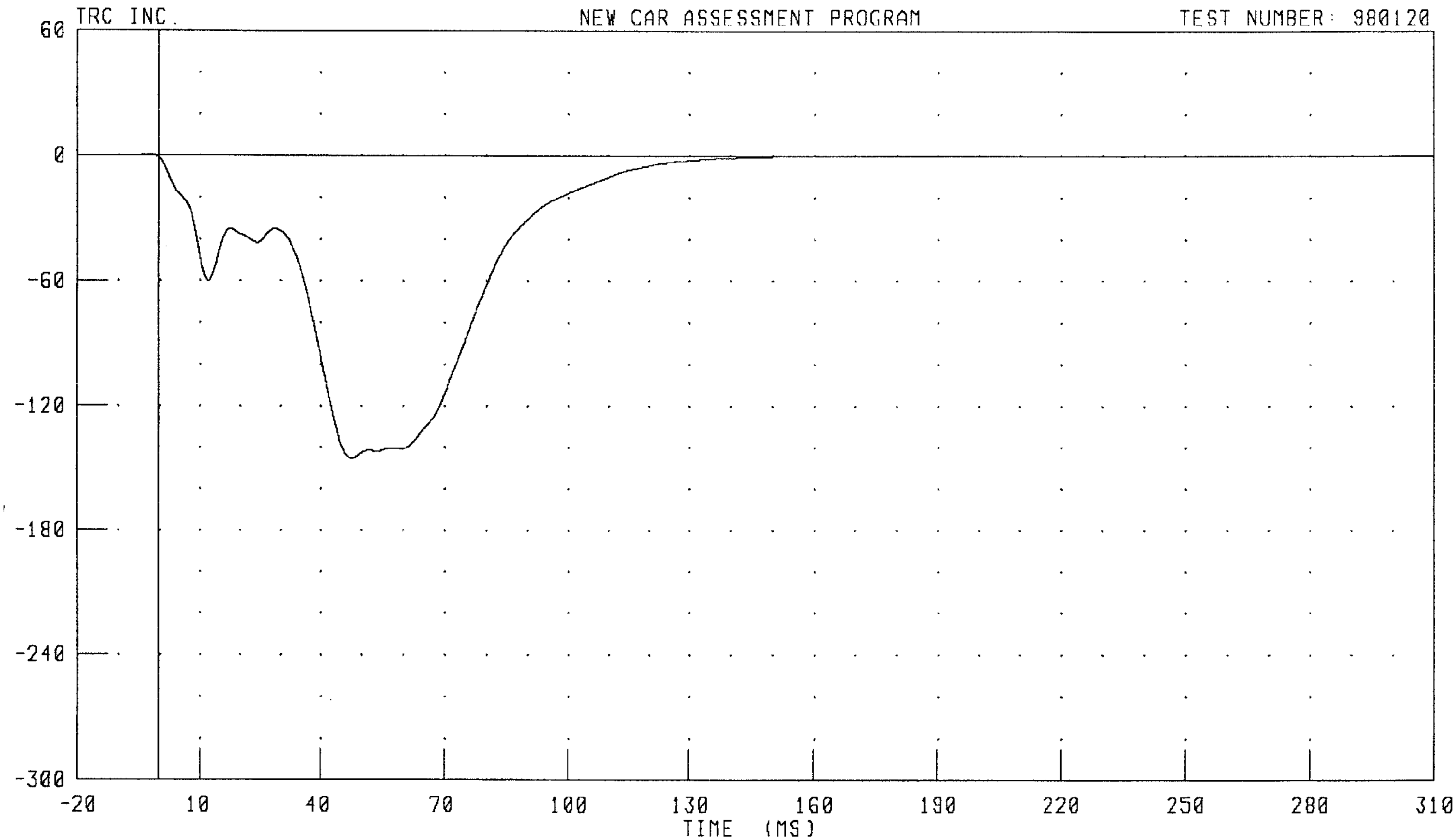
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 3 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM



CHANNEL: LCBG3F FILTER: CH. CLASS 60 PEAK DATA: 0.75 KN @ 1.28 MS; -61.66 KN @ 24.24 MS


1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 4 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM
TRC INC.
TEST NUMBER: 980120
60
0
-60
-120
-180
-240
-300
FORCE (KN)
-20
10
40
70
100
130
160
190
220
250
280
310
TIME (MS)
CHANNEL: LCBG4F
FILTER: CH. CLASS 60
PEAK DATA: 0.83 KN @ 2.96 MS; -103.29 KN @ 36.40 MS

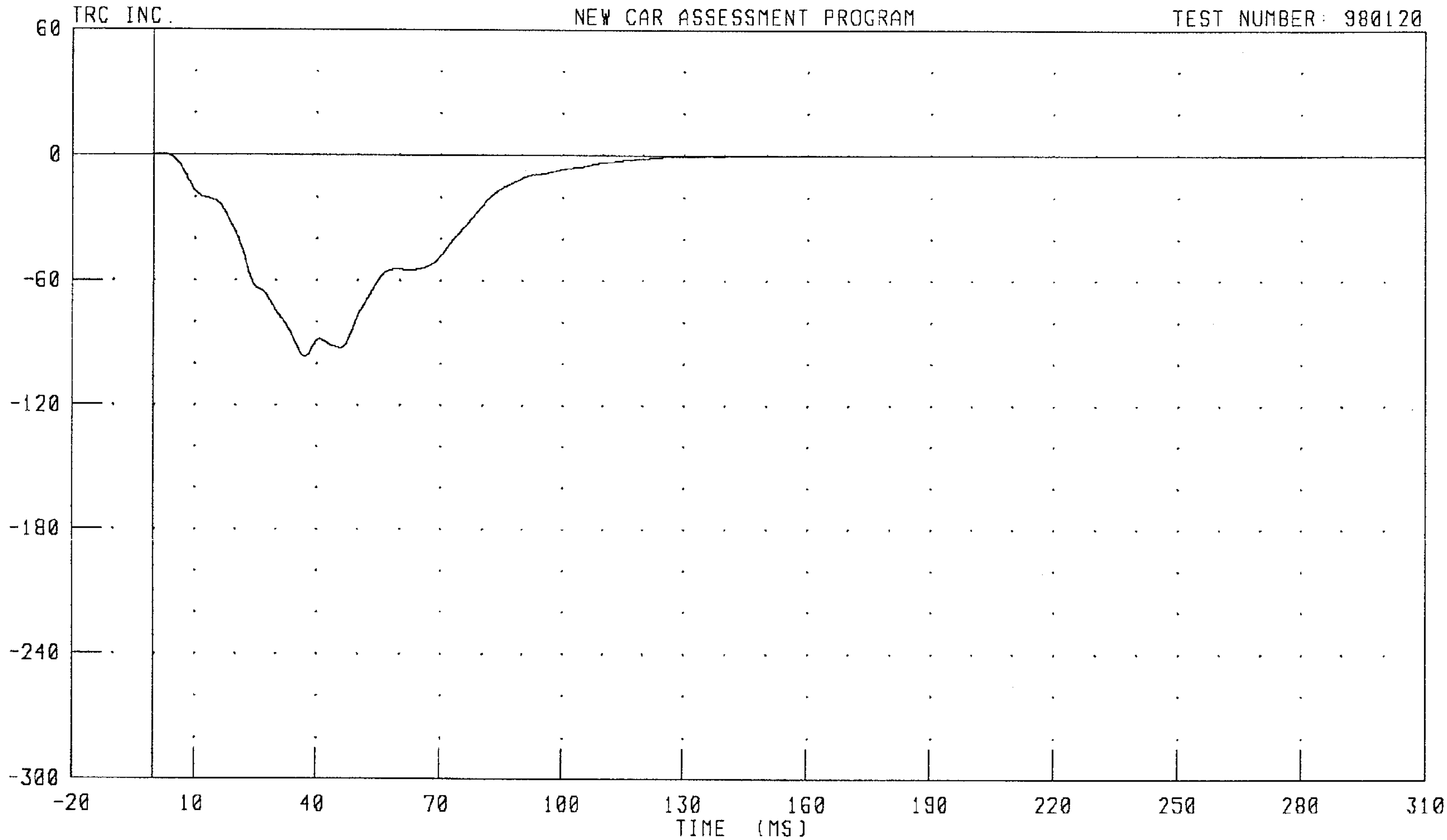
1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 5 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM



CHANNEL: LCBG5F   FILTER: CH. CLASS 60

PEAK DATA: 0.52 KN @ -2.16 MS; -145.22 KN @ 47.76 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
LOAD CELL BARRIER GROUP # 6 FORCE TOTAL
NEW CAR ASSESSMENT PROGRAM

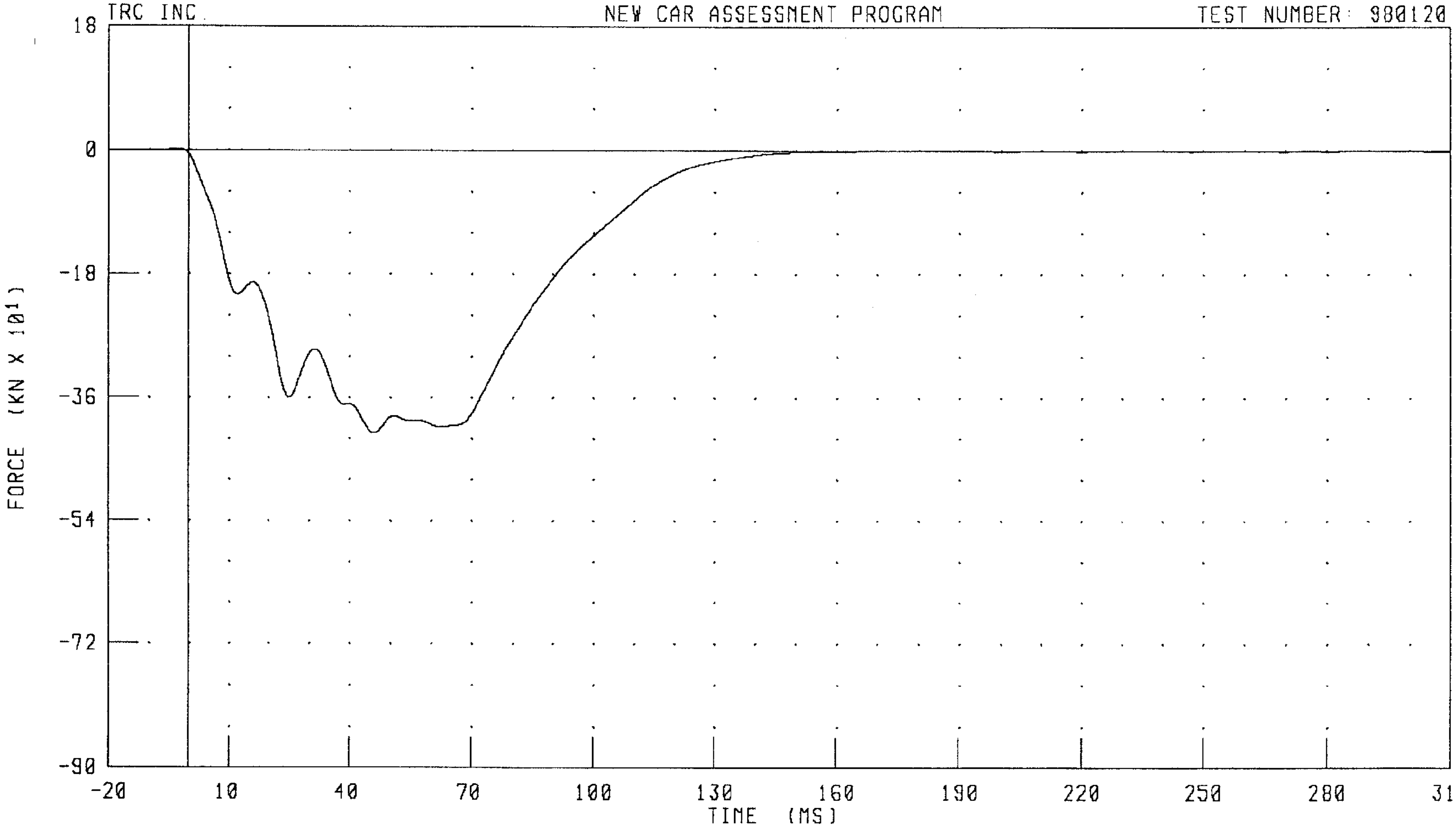


CHANNEL: LCBG6F   FILTER: CH. CLASS 60   PEAK DATA: 0.47 KN @ 1.92 MS; -96.74 KN @ 37.28 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
TOTAL LOAD CELL BARRIER FORCE
NEW CAR ASSESSMENT PROGRAM

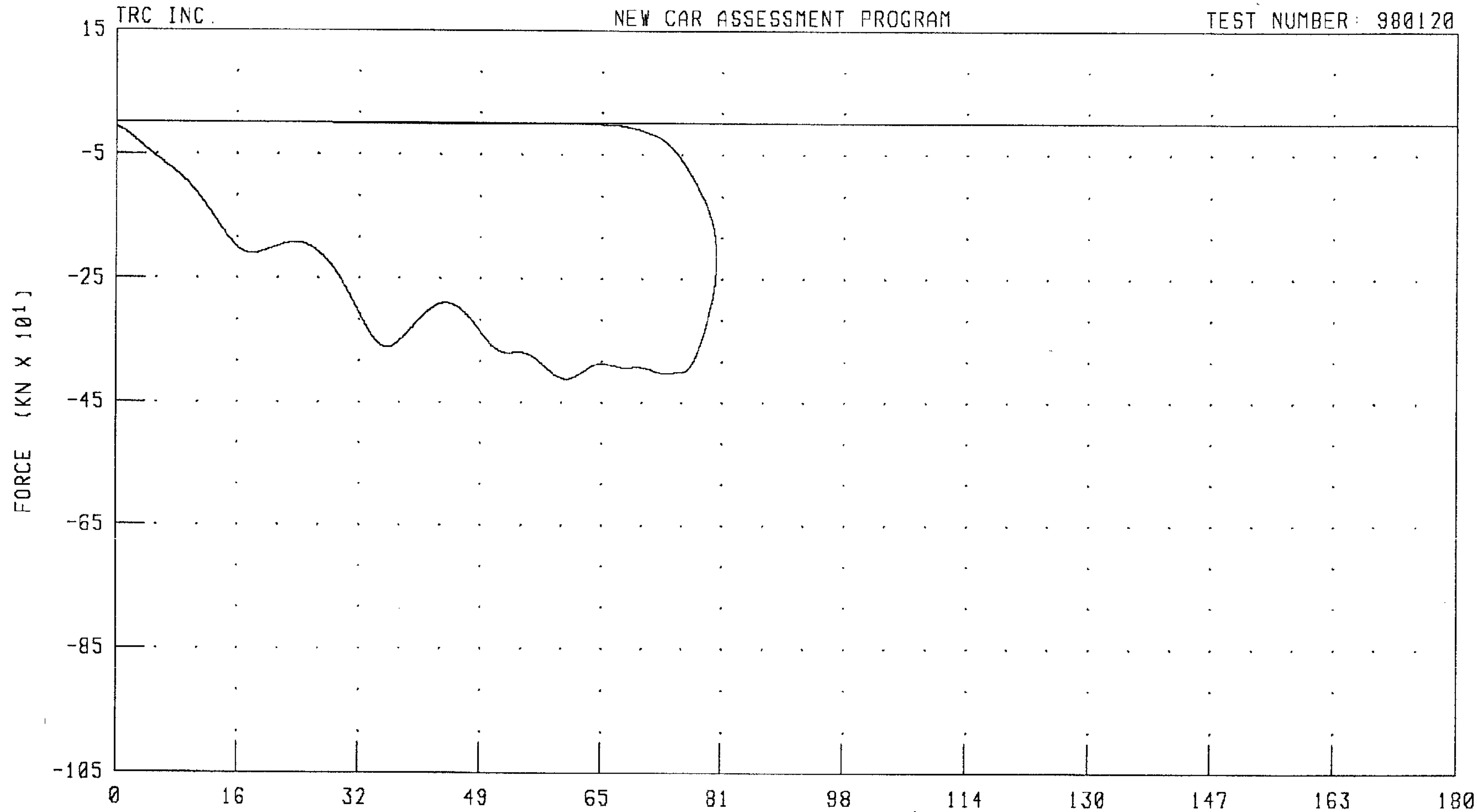
TRC INC.

TEST NUMBER: 980120



CHANNEL: LCBGT FILTER: CH. CLASS 60 PEAK DATA: 1.65 KN @ -2.56 MS; -412.10 KN @ 46.00 MS

1998 FORD MUSTANG INTO FRONTAL LOAD CELL BARRIER
TOTAL LOAD CELL BARRIER FORCE VS AVERAGE VEHICLE X-AXIS DISPLACEMENT
NEW CAR ASSESSMENT PROGRAM



CHANNEL: QTHXD FILTER: CH. CLASS 180
LCBGT CH. CLASS 60

PEAK DATA: 811.40 MM @ 86.00 MS; 0.00 MM @ 0.00 MS
-0.63 KN @ 192.48 MS; -412.10 KN @ 46.00 MS

Appendix C

Dummy Certification Data

Pre-test Certification Data

Driver Dummy S/N: 192

TRANSPORTATION RESEARCH CENTER INC.
HYBRID III EXTERNAL DIMENSIONS
SN192 ALDERSON 14-01-98
TRC INC. TEST NO: 192C37ED1 572E SN192 EXT.DIMENSION CAL37

TEST PARAMETER	(DIMEN.)	SPECIFICATION	TEST RESULTS
LOCATION FOR CHEST CIRCUMFERENCE	(AA)	16.9 - 17.1 IN	17.0 IN
LOCATION FOR WAIST CIRCUMFERENCE	(BB)	8.9 - 9.1 IN	9.0 IN
CHEST CIRCUMFERENCE	(Y)	38.2 - 39.4 IN	38.6 IN
WAIST CIRCUMFERENCE	(Z)	32.9 - 34.1 IN	33.9 IN
CHEST DEPTH	(O)	8.4 - 9.0 IN	8.5 IN
H-POINT HEIGHT	(C)	3.3 - 3.5 IN	3.5 IN
H-POINT FROM SEATBACK	(D)	5.3 - 5.5 IN	5.4 IN
SKULL CAP TO BACKLINE	(H)	1.6 - 1.8 IN	1.7 IN
TOTAL SITTING HEIGHT	(A)	34.6 - 35.0 IN	34.8 IN
THIGH CLEARANCE	(F)	5.5 - 6.1 IN	5.7 IN
BUTTOCK KNEE LENGTH	(K)	22.8 - 23.8 IN	23.7 IN
BUTTOCK POPLITEAL LENGTH	(N)	17.8 - 18.8 IN	18.7 IN
POPLITEAL HEIGHT	(L)	16.9 - 17.9 IN	17.6 IN
KNEE PIVOT HEIGHT	(M)	19.1 - 19.7 IN	19.6 IN
FOOT LENGTH	(P)	9.9 - 10.5 IN	10.3 IN
FOOT BREADTH	(W)	3.6 - 4.2 IN	3.9 IN
SHOULDER PIVOT FROM BACKLINE	(E)	3.3 - 3.7 IN	3.7 IN
SHOULDER BREADTH	(V)	16.6 - 17.2 IN	16.8 IN
SHOULDER PIVOT HEIGHT	(B)	19.9 - 20.5 IN	20.1 IN
ELBOW REST HEIGHT	(J)	7.5 - 8.3 IN	8.0 IN
SHOULDER-ELBOW LENGTH	(I)	13.0 - 13.6 IN	13.1 IN
BACK OF ELBOW TO WRIST PIVOT	(G)	11.4 - 12.0 IN	11.6 IN

DUMMY MEETS SPECIFICATIONS
TECHNICIAN [signature] RUN NUMBER: 011598.0726

TRANSPORTATION RESEARCH CENTER INC.

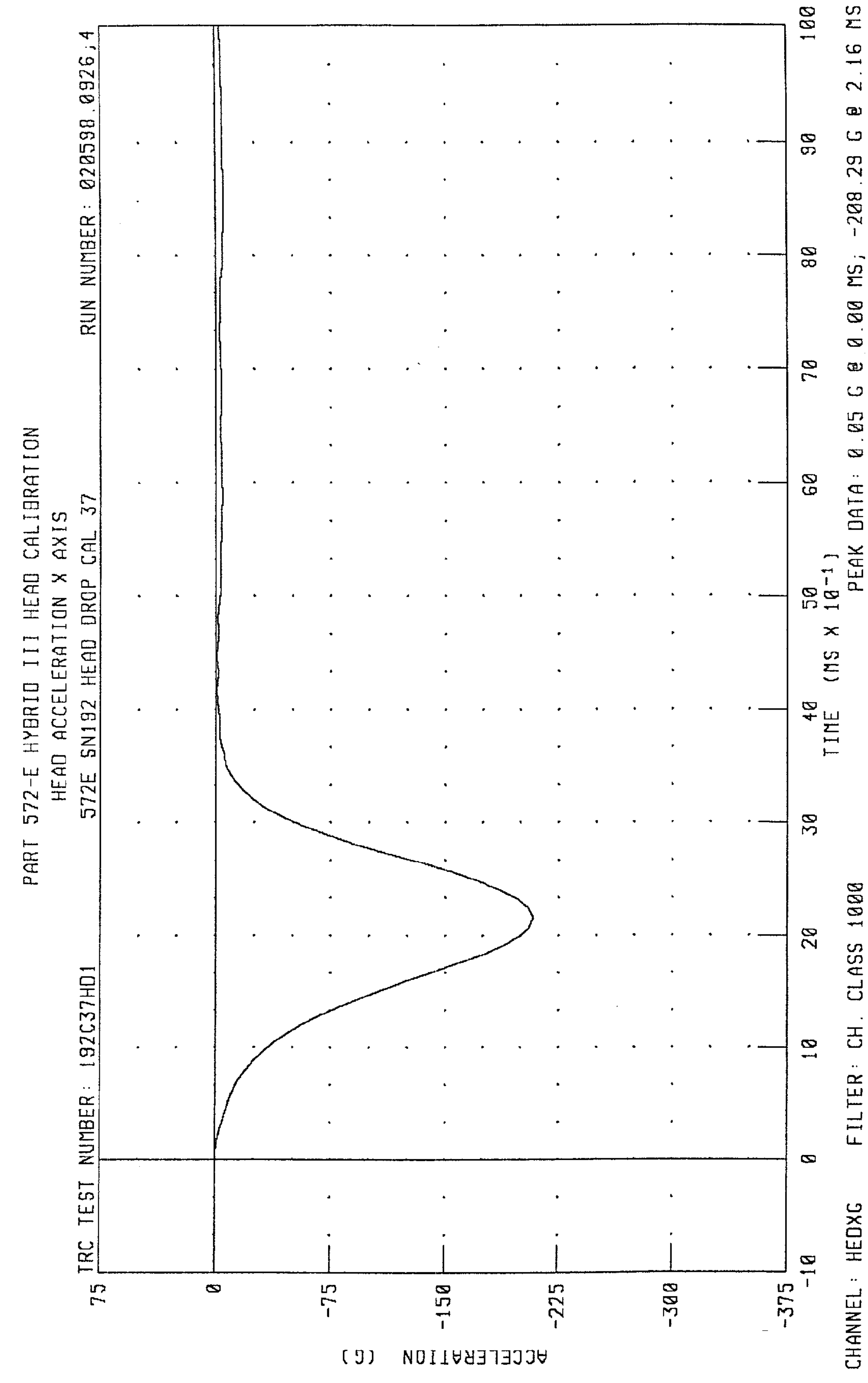
HEAD DROP TEST

TRC INC.   TEST NO: 192C37HD1   572E SN192 HEAD DROP CAL 37

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	46.0 %
PEAK RESULTANT ACCELERATION	225 - 275 G	241.45 G
PEAK LATERAL ACCELERATION	15 G MAX	-3.54 G
IS ACCELERATION CURVE UNIMODAL?	YES	YES

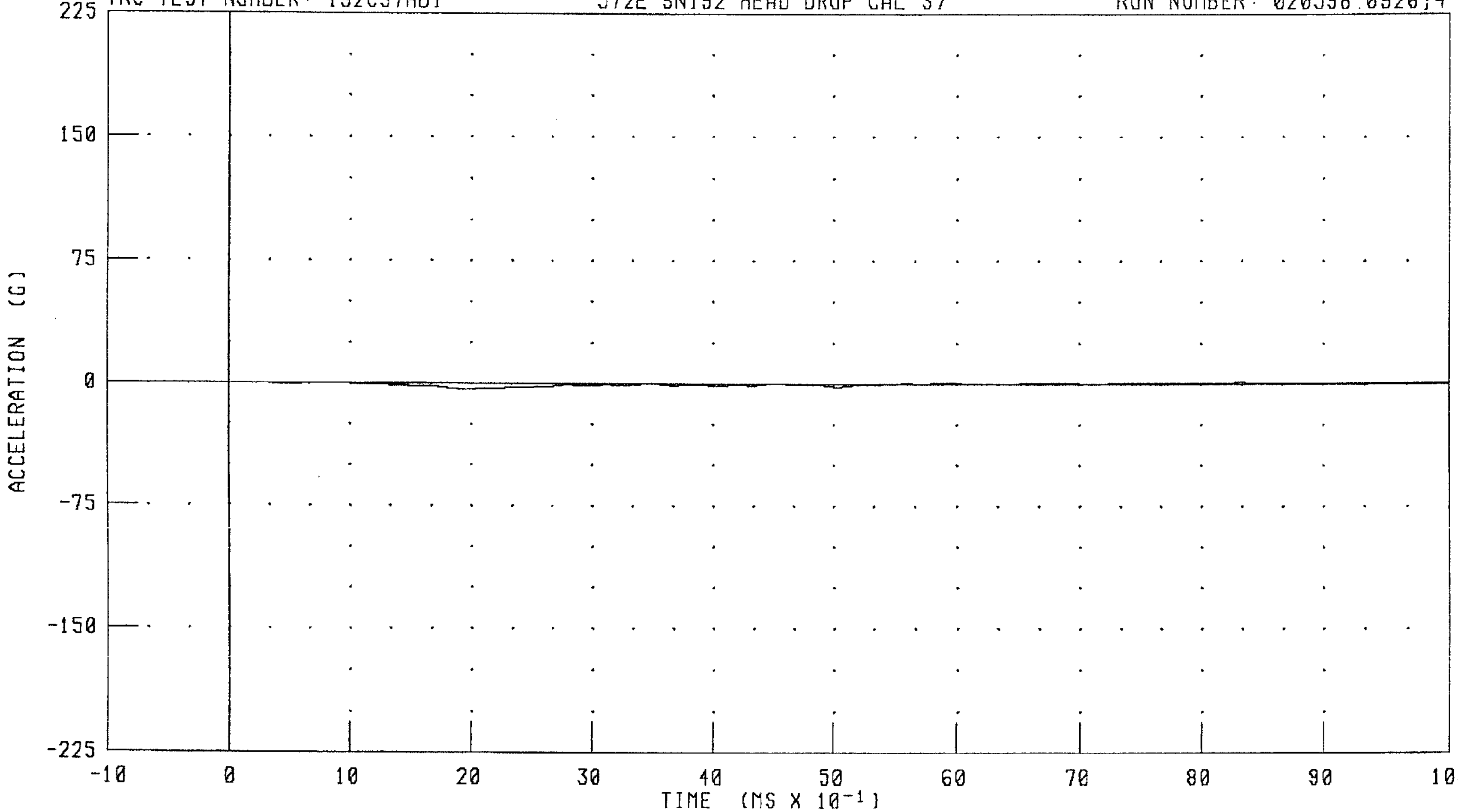
TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins   RUN NUMBER: 020598.0925;4


PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION X AXIS
572E SN192 HEAD DROP CAL 37
TRC TEST NUMBER: 192C37HD1
RUN NUMBER: 020598.0926;4
ACCELERATION (G)
75
0
-75
-150
-225
-300
-375
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS X 10-1)
CHANNEL: HEDXG
FILTER: CH. CLASS 1000
PEAK DATA: 0.05 G @ 0.00 MS; -208.29 G @ 2.16 MS

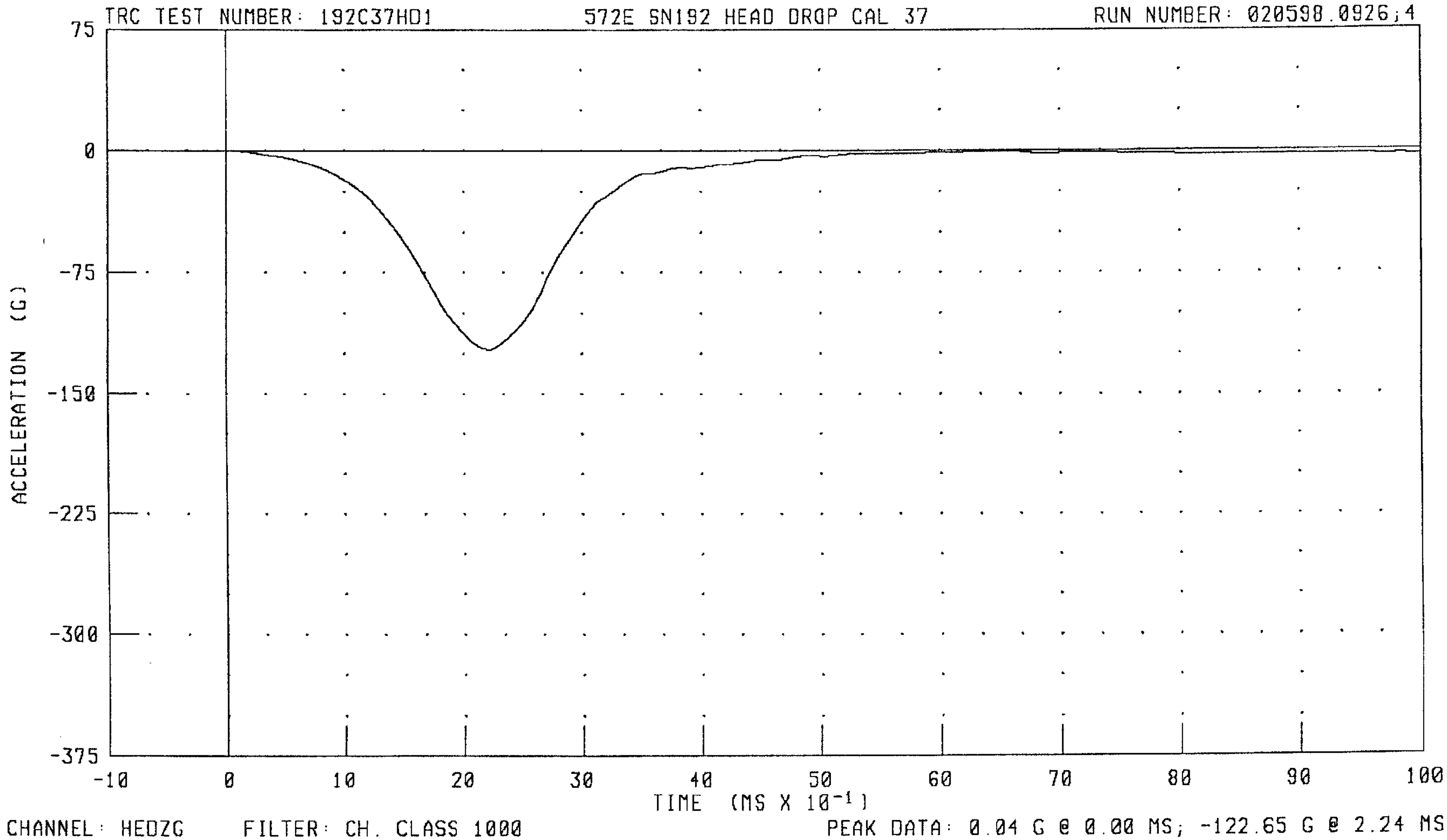
PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Y AXIS

TRC TEST NUMBER: 192C37HD1 572E SN192 HEAD DROP CAL 37 RUN NUMBER: 020598.0926;4



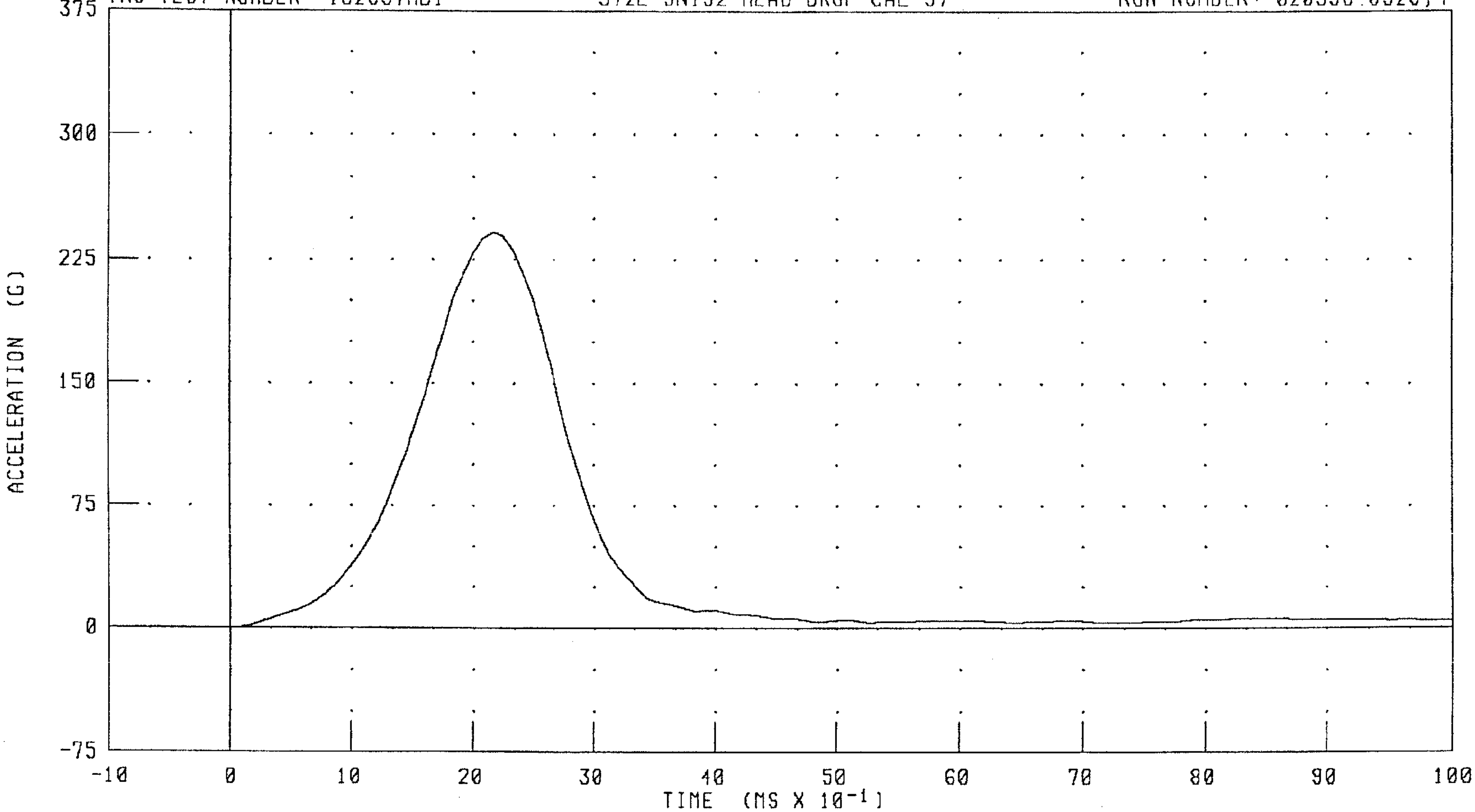
CHANNEL: HEDYG FILTER: CH. CLASS 1000 PEAK DATA: 1.02 G @ 8.32 MS; -3.55 G @ 1.92 MS

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



PART 572-E HYBRID III HEAD CALIBRATION
HEAD RESULTANT ACCELERATION

TRC TEST NUMBER: 192C37HD1 572E SN192 HEAD DROP CAL 37 RUN NUMBER: 020598.0926;4



CHANNEL: HEDRG FILTER: CH. CLASS 1000 PEAK DATA: 241.46 G @ 2.16 MS; 0.02 G @ -0.72 MS

TRANSPORTATION RESEARCH CENTER INC.

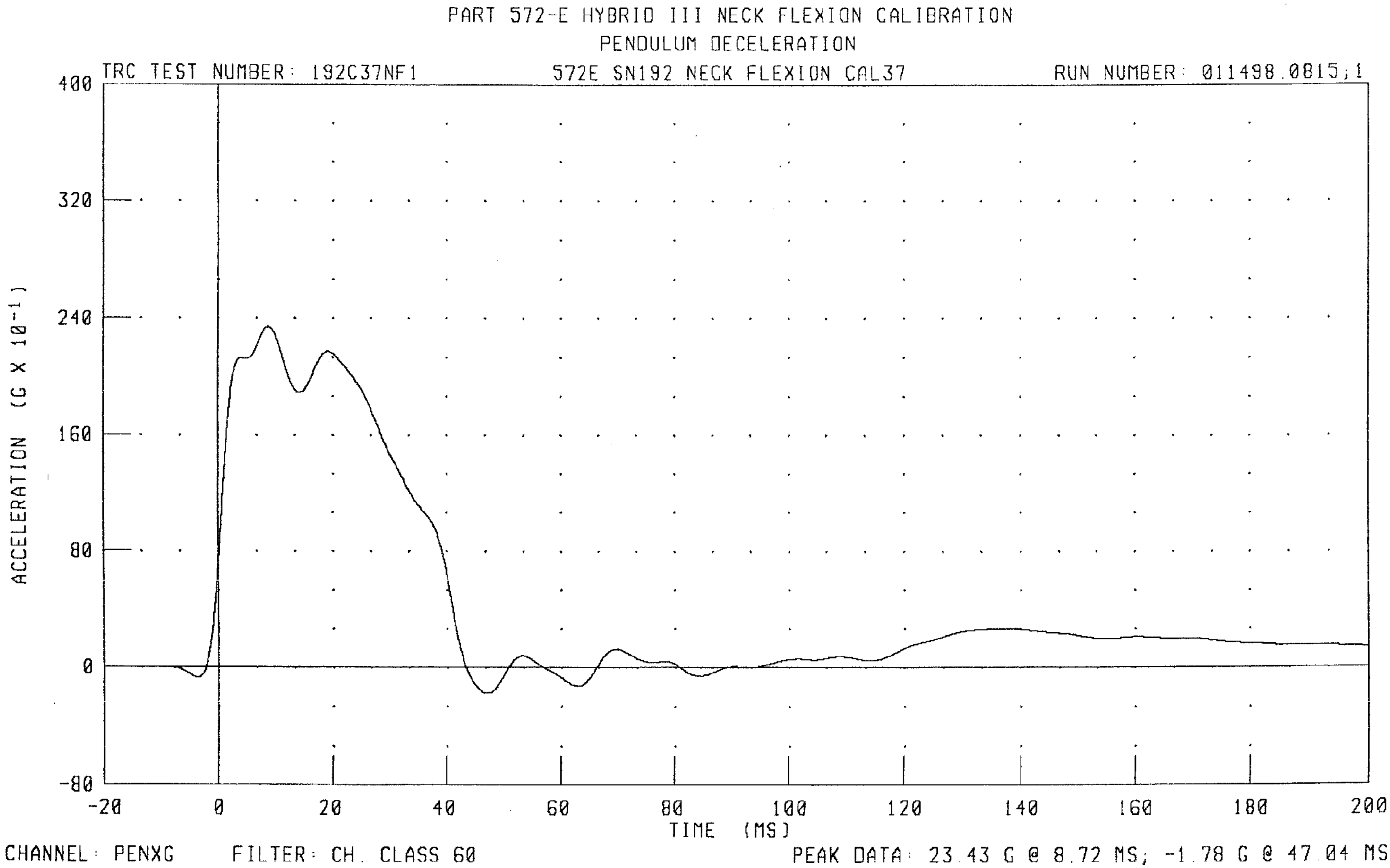
NECK FLEXION TEST - 6 CHANNEL TRANSDUCER

TRC INC. TEST NO: 192C37NF1 572E SN192 NECK FLEXION CAL37

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6-22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	20.0 %
IMPACT VELOCITY		6.89 - 7.13 M/S	7.12 M/S
PENDULUM DECELERATION	10 MS	22.50 - 27.50 G	22.83 G
	20 MS	17.60 - 22.60 G	21.61 G
	30 MS	12.50 - 18.50 G	14.73 G
MAX PENDULUM G		29 G MAX	23.42 G
MAX PENDULUM G ABOVE 30 MS		29 G MAX	14.67 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		34 - 42 MS	40.64 MS
D PLANE ROTATION	MAX	64 - 78 DEG.	70.01 DEG.
	TIME	57 - 64 MS	59.52 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MAX	88.2 - 108.5 NM	96.08 NM
	TIME	47 - 58 MS	53.28 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		113 - 128 MS	114.16 MS
POSITIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		97 - 107 MS	101.60 MS

TEST MEETS SPECIFICATIONS

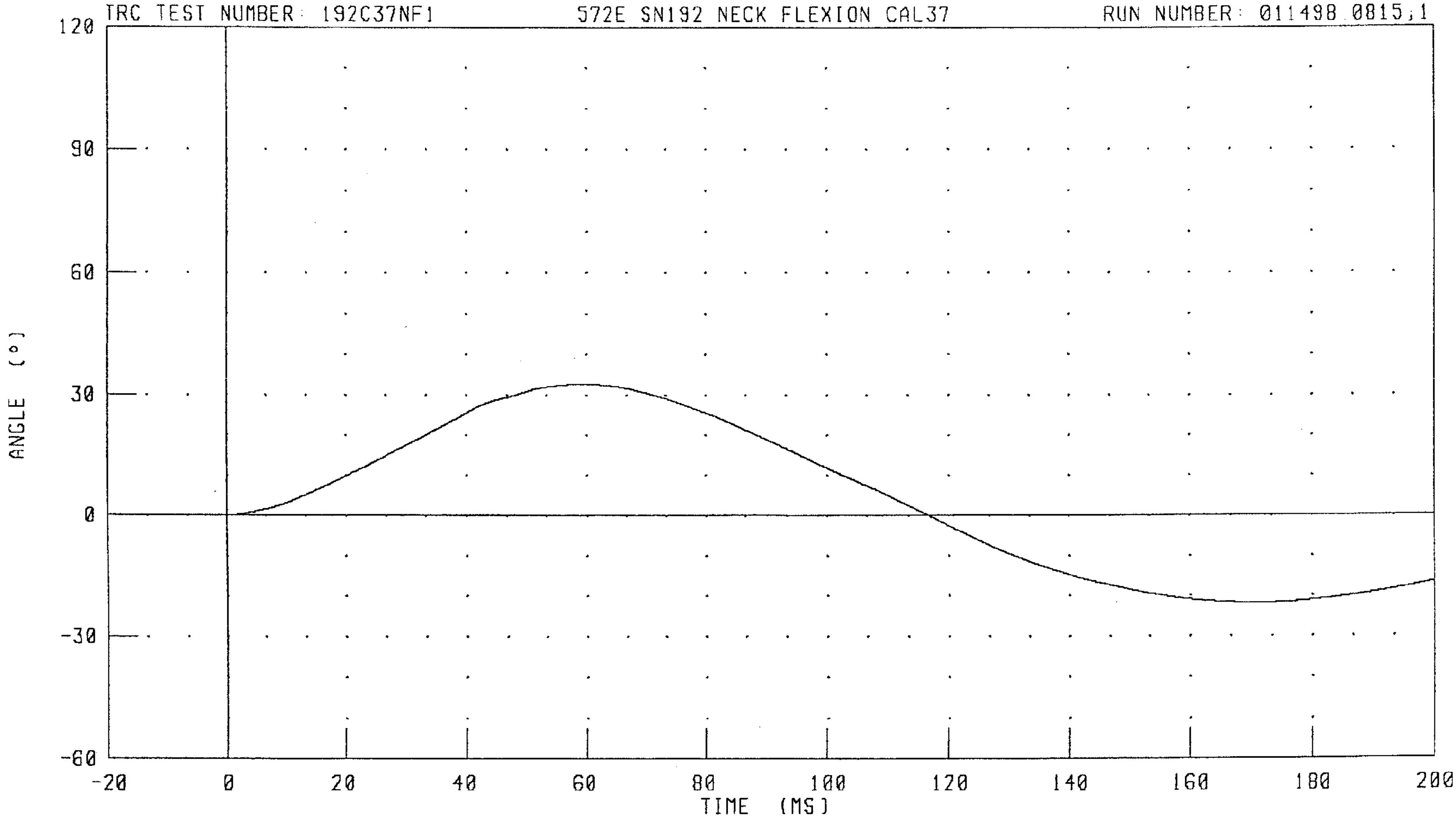
TECHNICIAN Kevin Watkins RUN NUMBER: 011498.0815;1


PART 572-E HYBRID III NECK FLEXION CALIBRATION
PENDULUM DECELERATION
TRC TEST NUMBER: 192C37NF1
572E SN192 NECK FLEXION CAL37
RUN NUMBER: 011498.0815;1
400
320
240
160
80
0
-80
ACCELERATION (G X 10^-1)
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: PENXG
FILTER: CH. CLASS 60
PEAK DATA: 23.43 G @ 8.72 MS; -1.78 G @ 47.04 MS

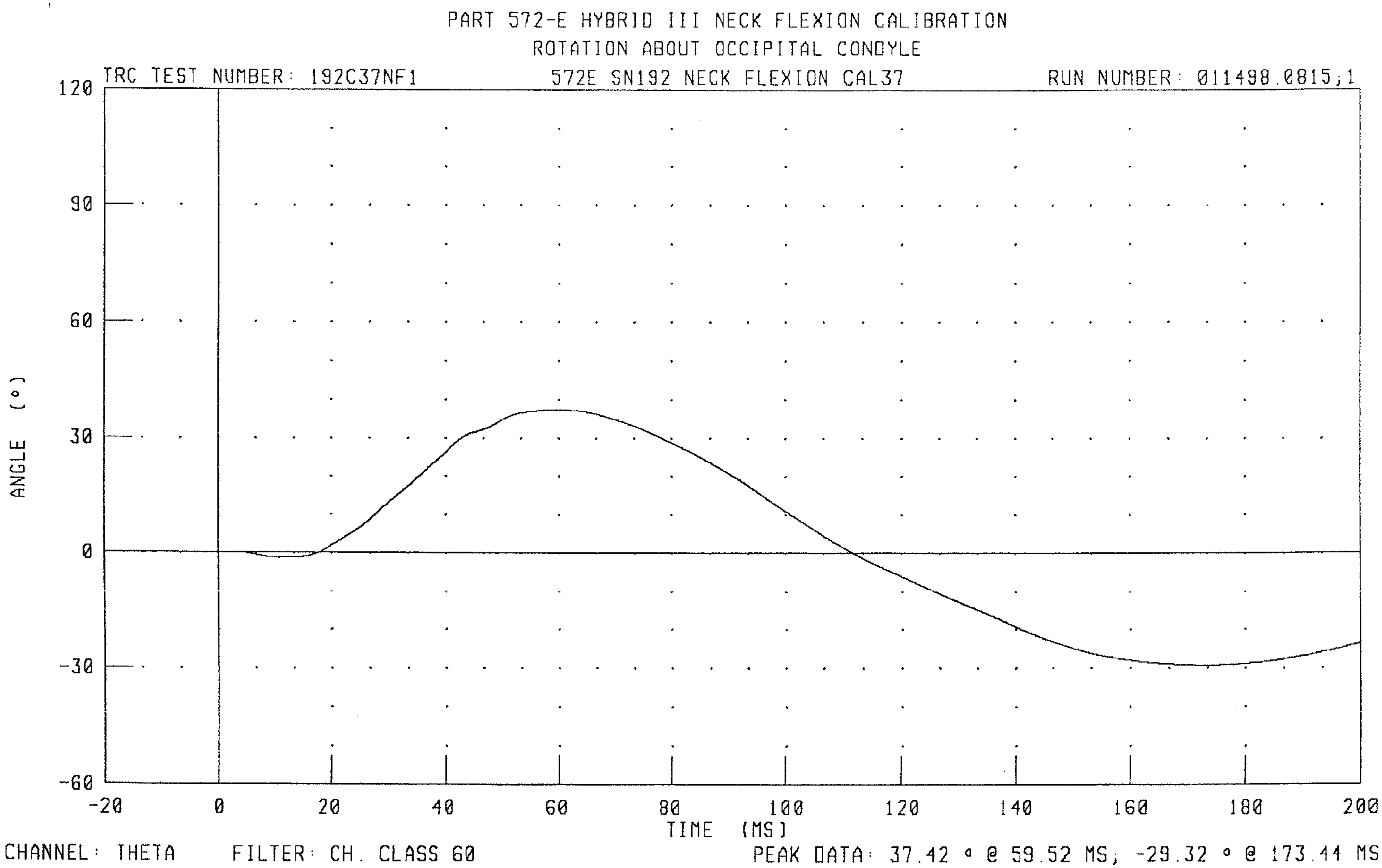
PART 572-E HYBRID III NECK FLEXION CALIBRATION

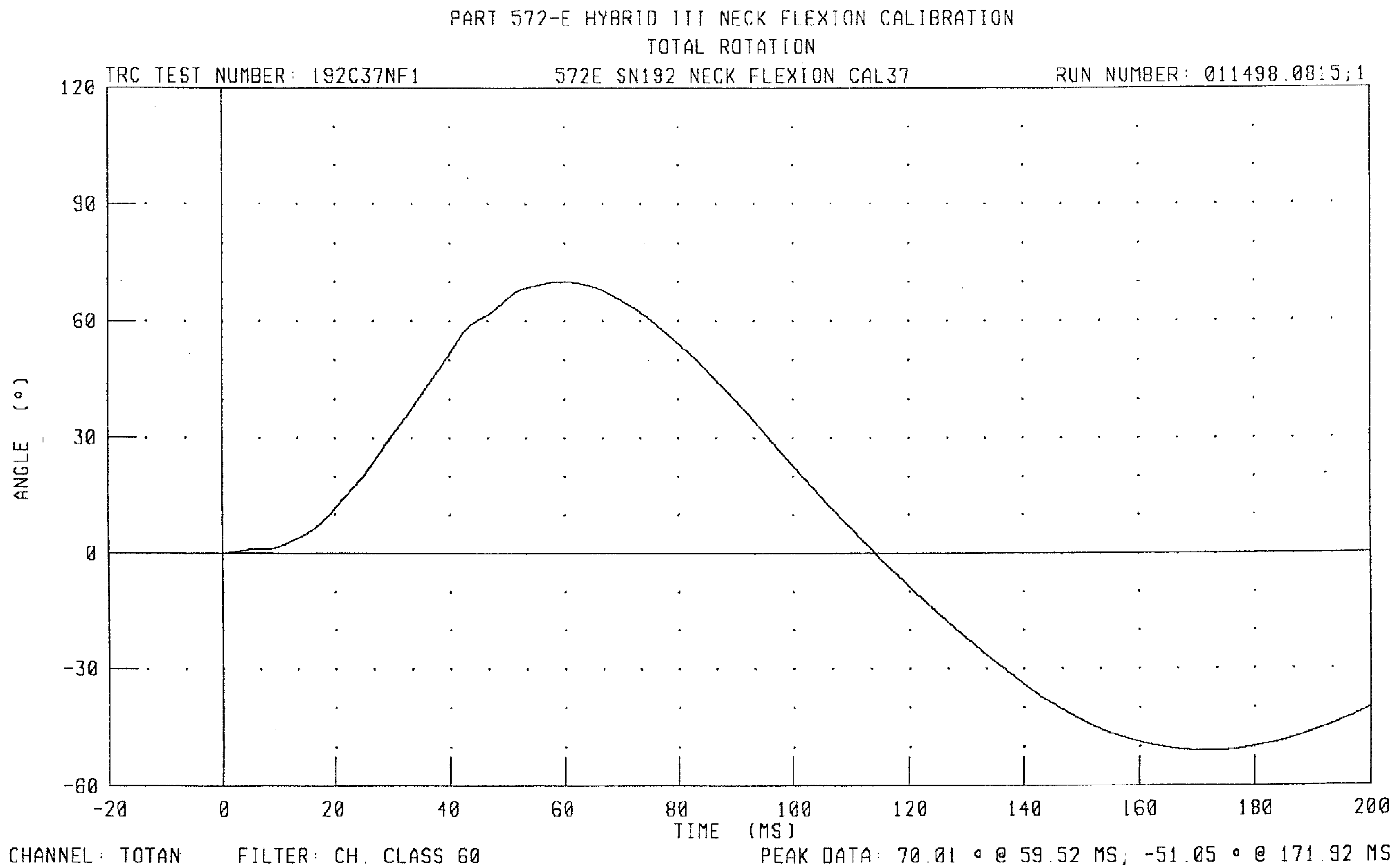
ROTATION ABOUT BASE OF NECK

TRC TEST NUMBER: 192C37NF1 | 572E SN192 NECK FLEXION CAL37 | RUN NUMBER: 011498.0815;1

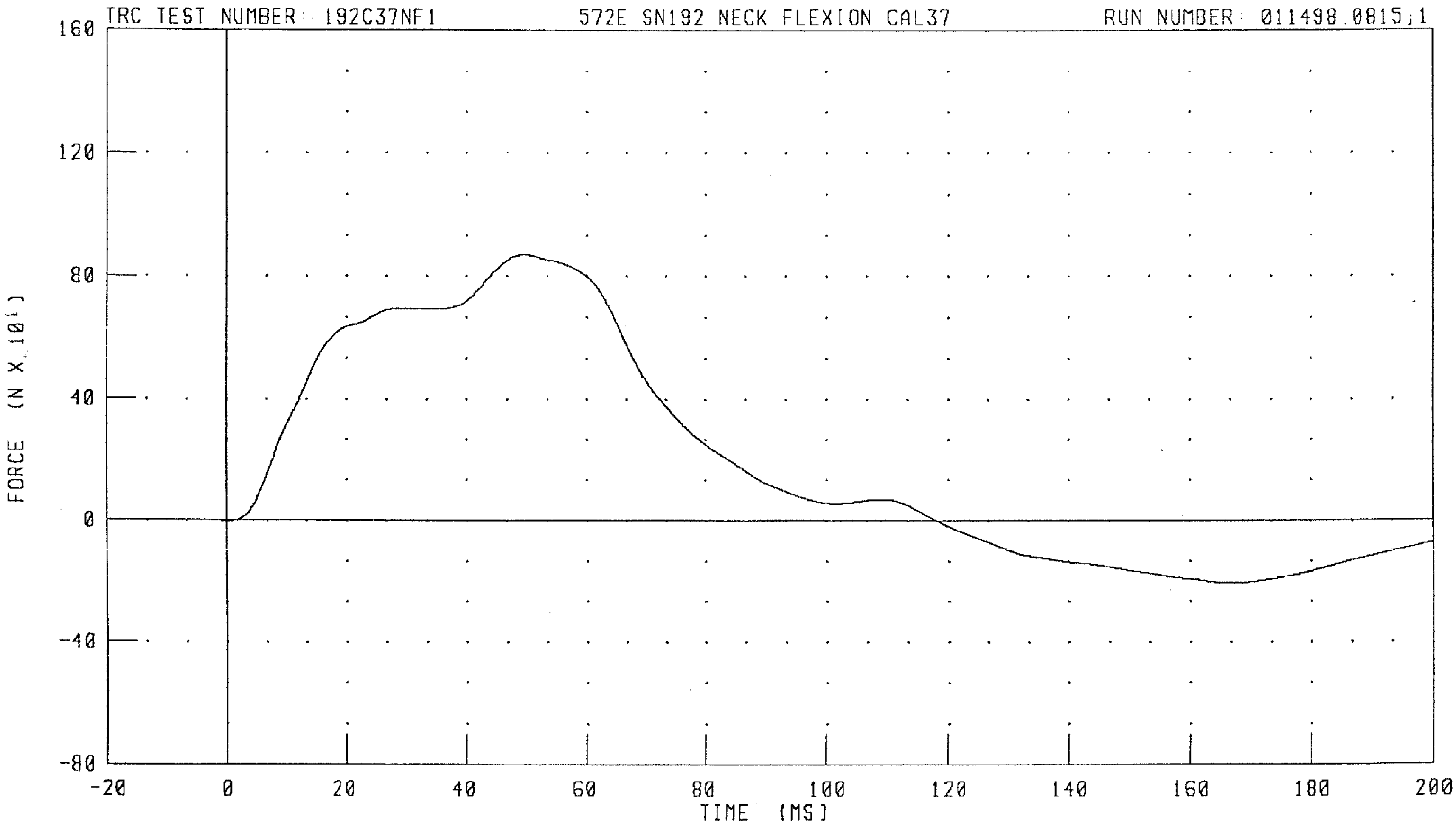


CHANNEL: BETA   FILTER: CH. CLASS 60   PEAK DATA: 32.59 ° @ 59.52 MS; -21.76 ° @ 170.56 MS


PART 572-E HYBRID III NECK FLEXION CALIBRATION
ROTATION ABOUT OCCIPITAL CONDYLE
TRC TEST NUMBER: 192C37NF1
572E SN192 NECK FLEXION CAL37
RUN NUMBER: 011498.0815;1
ANGLE (°)
120
90
60
30
0
-30
-60
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: THETA
FILTER: CH. CLASS 60
PEAK DATA: 37.42 ° @ 59.52 MS; -29.32 ° @ 173.44 MS


PART 572-E HYBRID III NECK FLEXION CALIBRATION
TOTAL ROTATION
TRC TEST NUMBER: 192C37NF1
572E SN192 NECK FLEXION CAL37
RUN NUMBER: 011498.0815;1
ANGLE (°)
120
90
60
30
0
-30
-60
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: TOTAN
FILTER: CH. CLASS 60
PEAK DATA: 70.01 ° @ 59.52 MS; -51.05 ° @ 171.92 MS

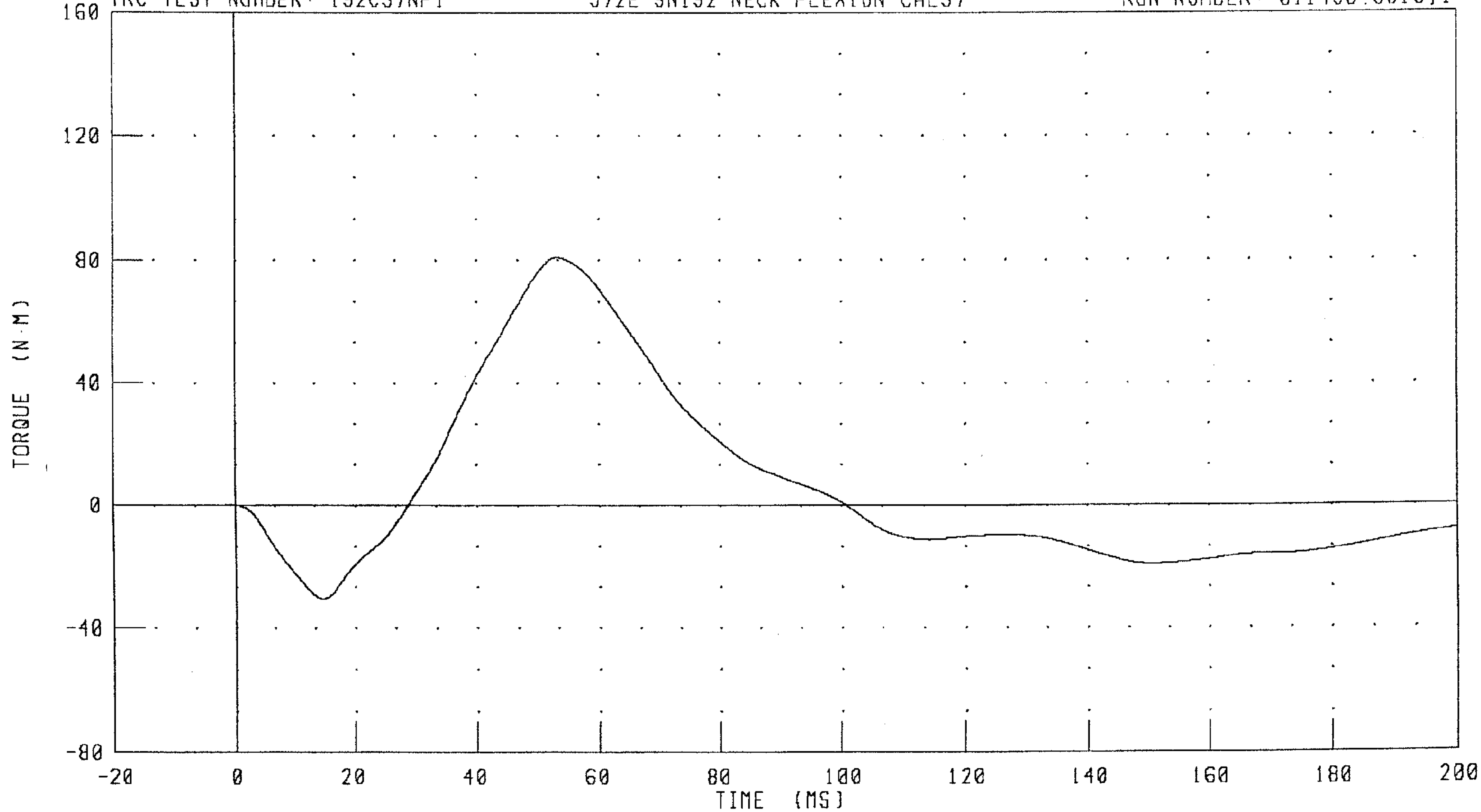
PART 572-E HYBRID III NECK FLEXION CALIBRATION
NECK FORCE X AXIS



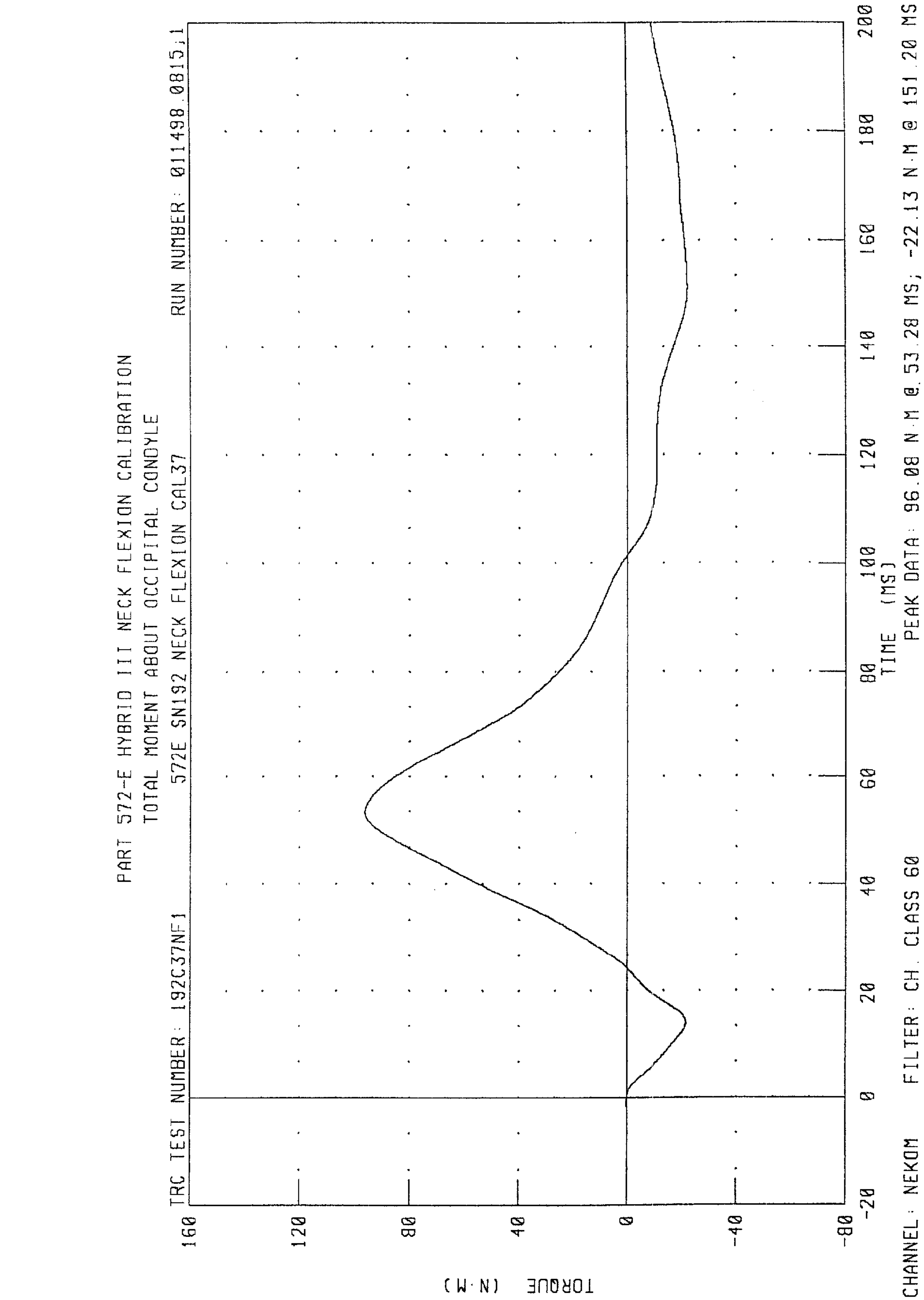
CHANNEL: NEKXF FILTER: CH. CLASS 60 PEAK DATA: 871.89 N @ 49.44 MS; -207.42 N @ 166.96 MS

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

TRC TEST NUMBER: 192C37NF1   572E SN192 NECK FLEXION CAL37   RUN NUMBER: 011498.0815;1



CHANNEL: NEKYM   FILTER: CH. CLASS 60   PEAK DATA: 80.90 N·M @ 53.36 MS; -30.43 N·M @ 14.72 MS


PART 572-E HYBRID III NECK FLEXION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE
572E SN192 NECK FLEXION CAL37
TRC TEST NUMBER: 192C37NF1
RUN NUMBER: 011498.0815;1
TORQUE (N·M)
160
120
80
40
0
-40
-80
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: NEKOM
FILTER: CH. CLASS 60
PEAK DATA: 96.08 N·M @ 53.28 MS; -22.13 N·M @ 151.20 MS

TRANSPORTATION RESEARCH CENTER INC.

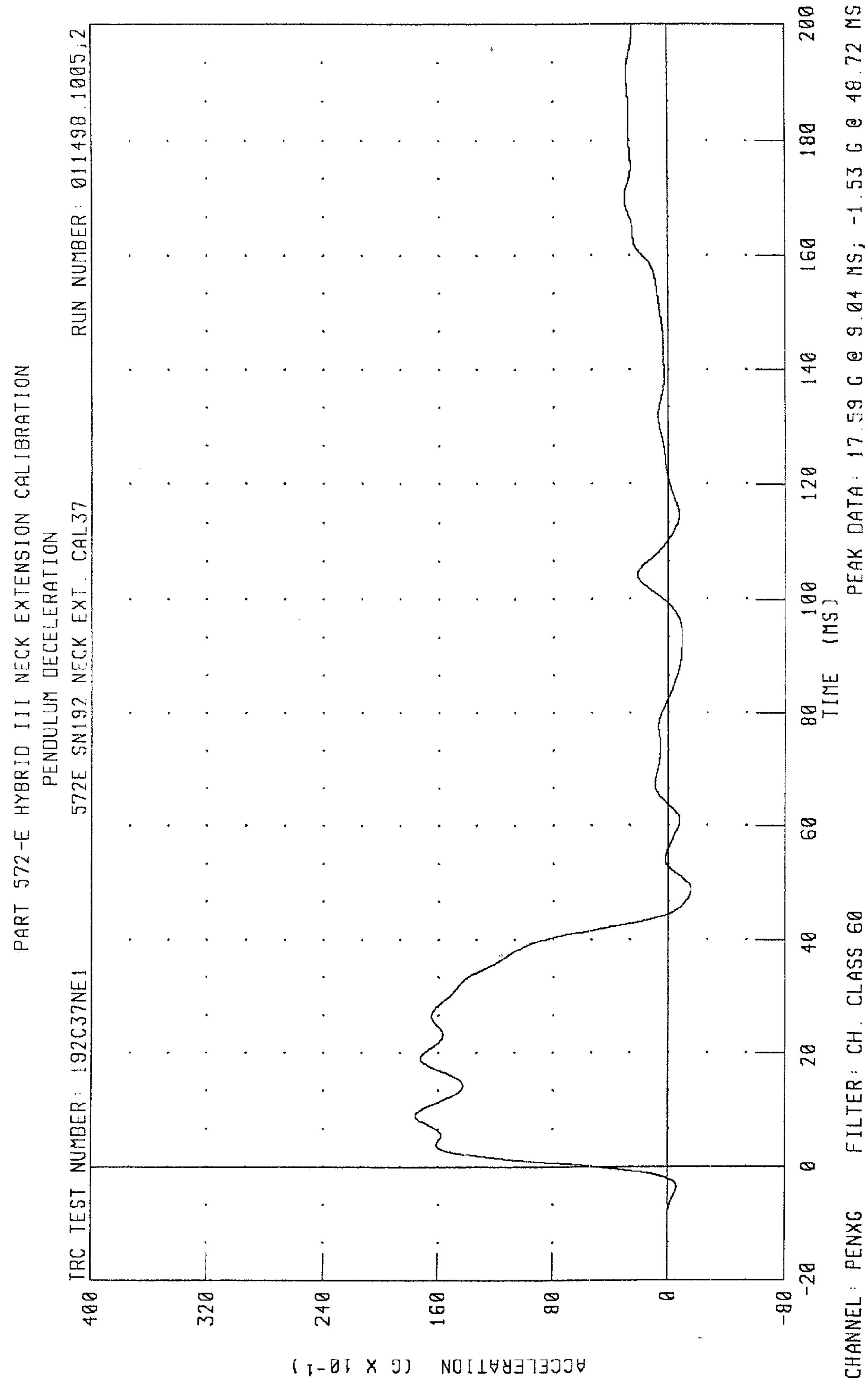
NECK EXTENSION TEST - 6 CHANNEL TRANSDUCER

TRC INC. TEST NO: 192C37NE1 572E SN192 NECK EXT. CAL37

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6 - 22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	20.0 %
IMPACT VELOCITY		5.95 - 6.19 M/S	6.05 M/S
PENDULUM DECELERATION	10 MS	17.20 - 21.20 G	17.24 G
	20 MS	14.00 - 19.00 G	16.97 G
	30 MS	11.00 - 16.00 G	15.25 G
MAX PENDULUM G		22 G MAX	17.58 G
MAX PENDULUM G ABOVE 30 MS		22 G MAX	15.21 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		38 - 46 MS	41.76 MS
D PLANE ROTATION	MAX	81 - 106 DEG.	95.60 DEG.
	TIME	72 - 82 MS	77.52 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MIN	-80.0/-52.9 NM	-62.35 NM
	TIME	65 - 79 MS	72.32 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		147 - 174 MS	157.20 MS
NEGATIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		120 - 148 MS	140.88 MS

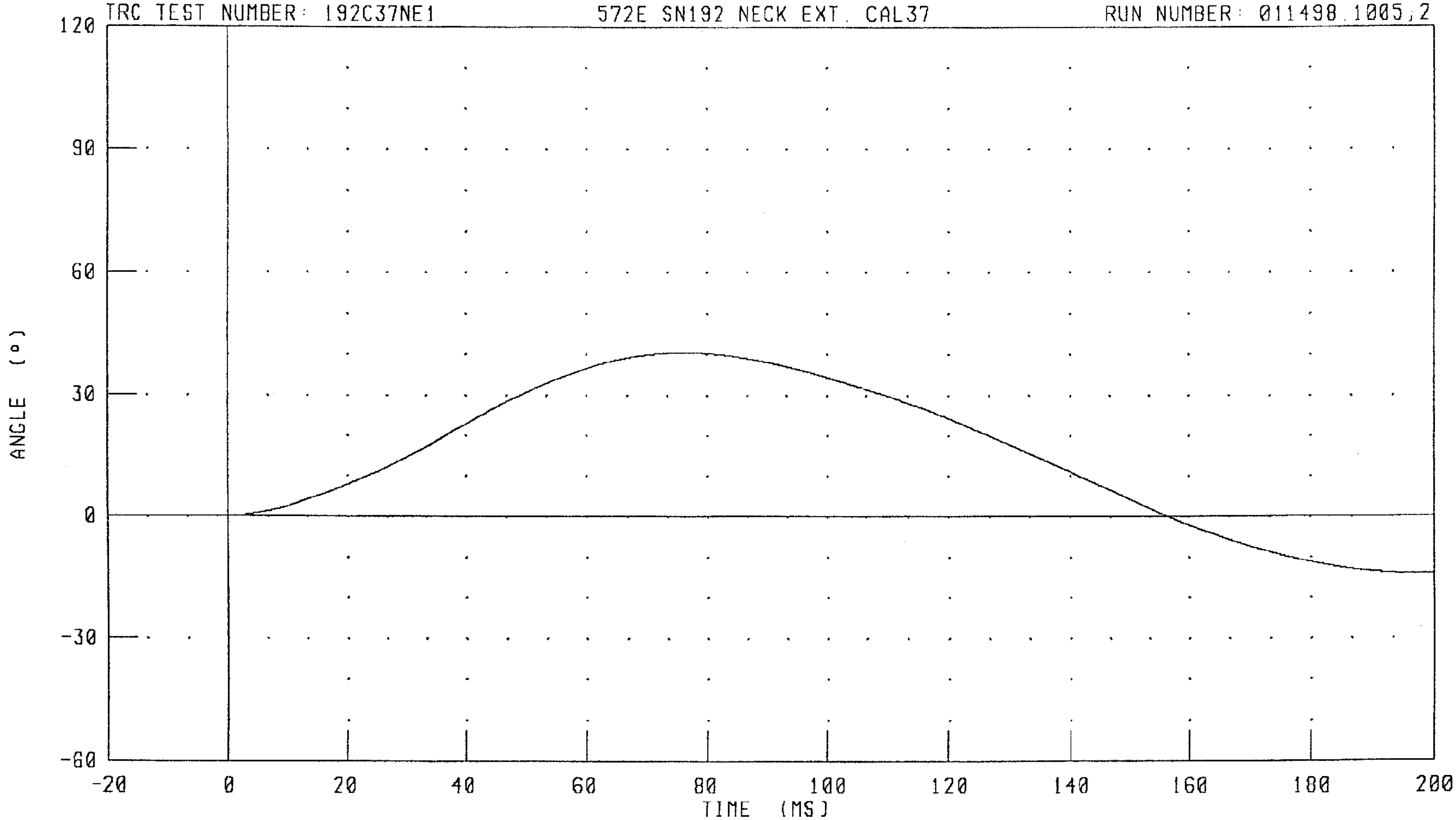
TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011498.1004;2


PART 572-E HYBRID III NECK EXTENSION CALIBRATION
PENDULUM DECELERATION
572E SN192 NECK EXT. CAL37
TRC TEST NUMBER: 192C37NE1
RUN NUMBER: 011498.1005.2
ACCELERATION (G X 10-1)
400
320
240
160
80
0
-80
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: PENXG
FILTER: CH. CLASS 60
PEAK DATA: 17.59 G @ 9.04 MS; -1.53 G @ 48.72 MS

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

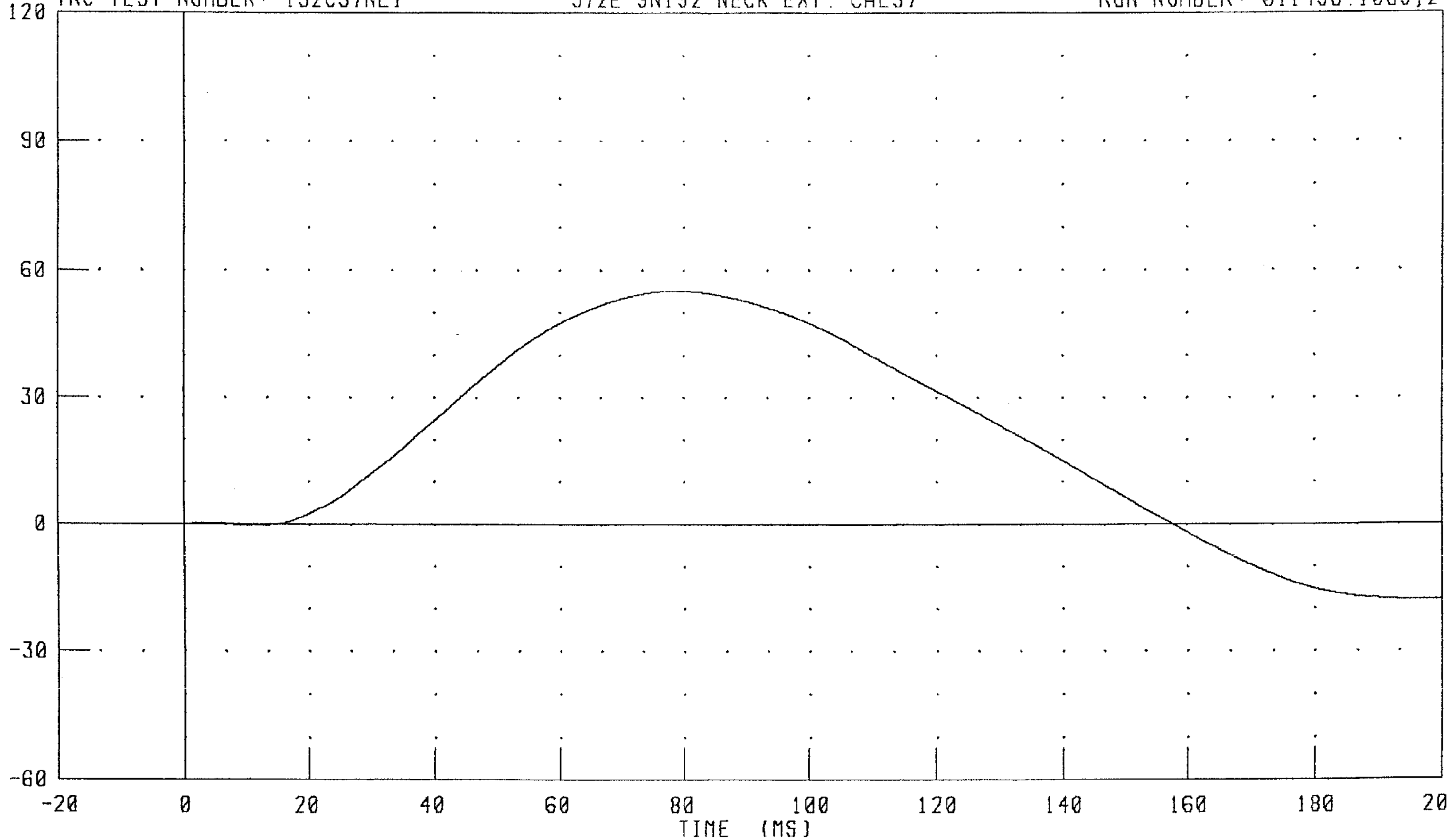
TRC TEST NUMBER: 192C37NE1 572E SN192 NECK EXT. CAL37 RUN NUMBER: 011498.1005;2



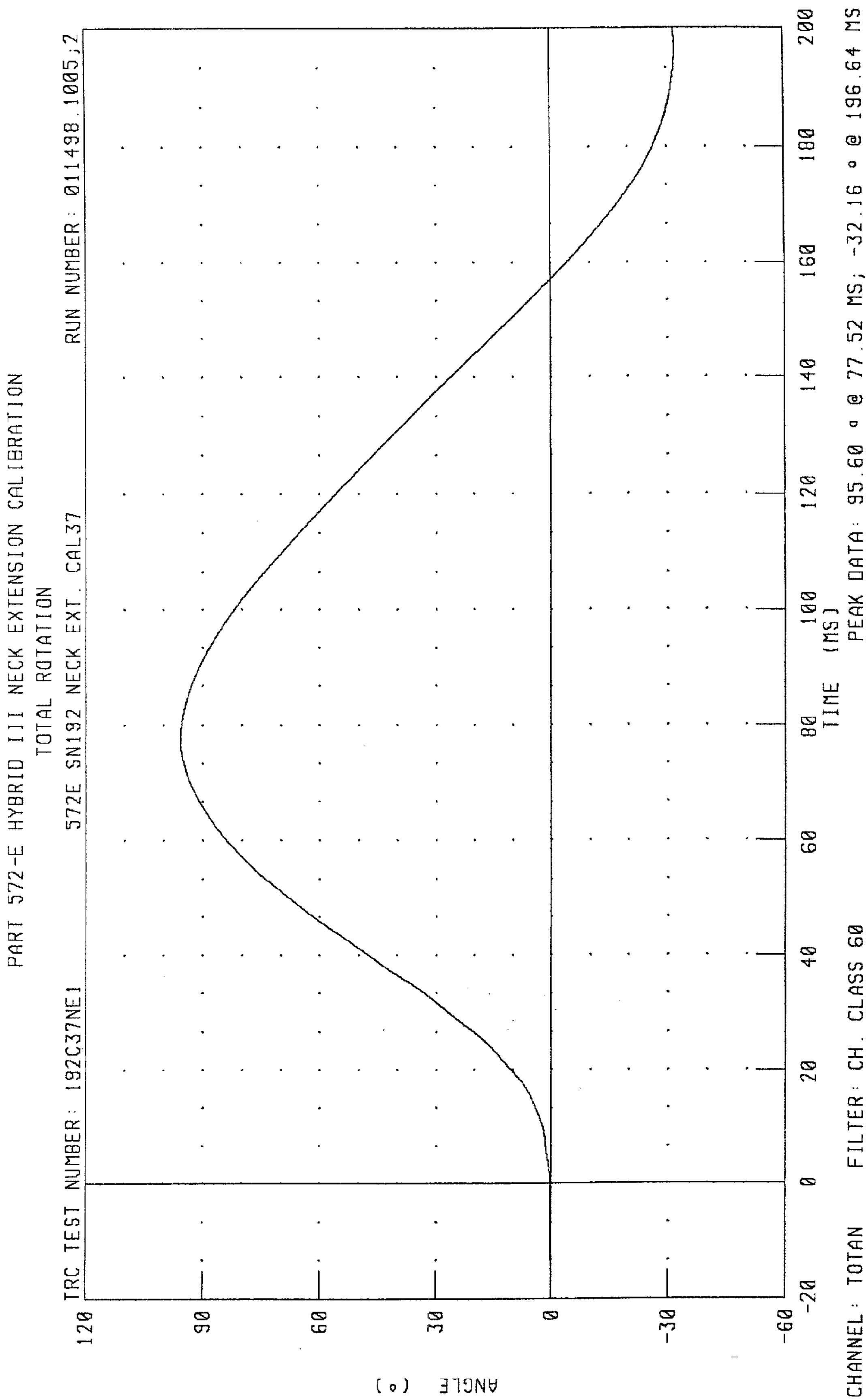
CHANNEL: BETA FILTER: CH. CLASS 60 PEAK DATA: 40.48 o @ 76.32 MS; -14.15 o @ 197.04 MS

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

TRC TEST NUMBER: 192C37NE1 572E SN192 NECK EXT. CAL37 RUN NUMBER: 011498.1005;2

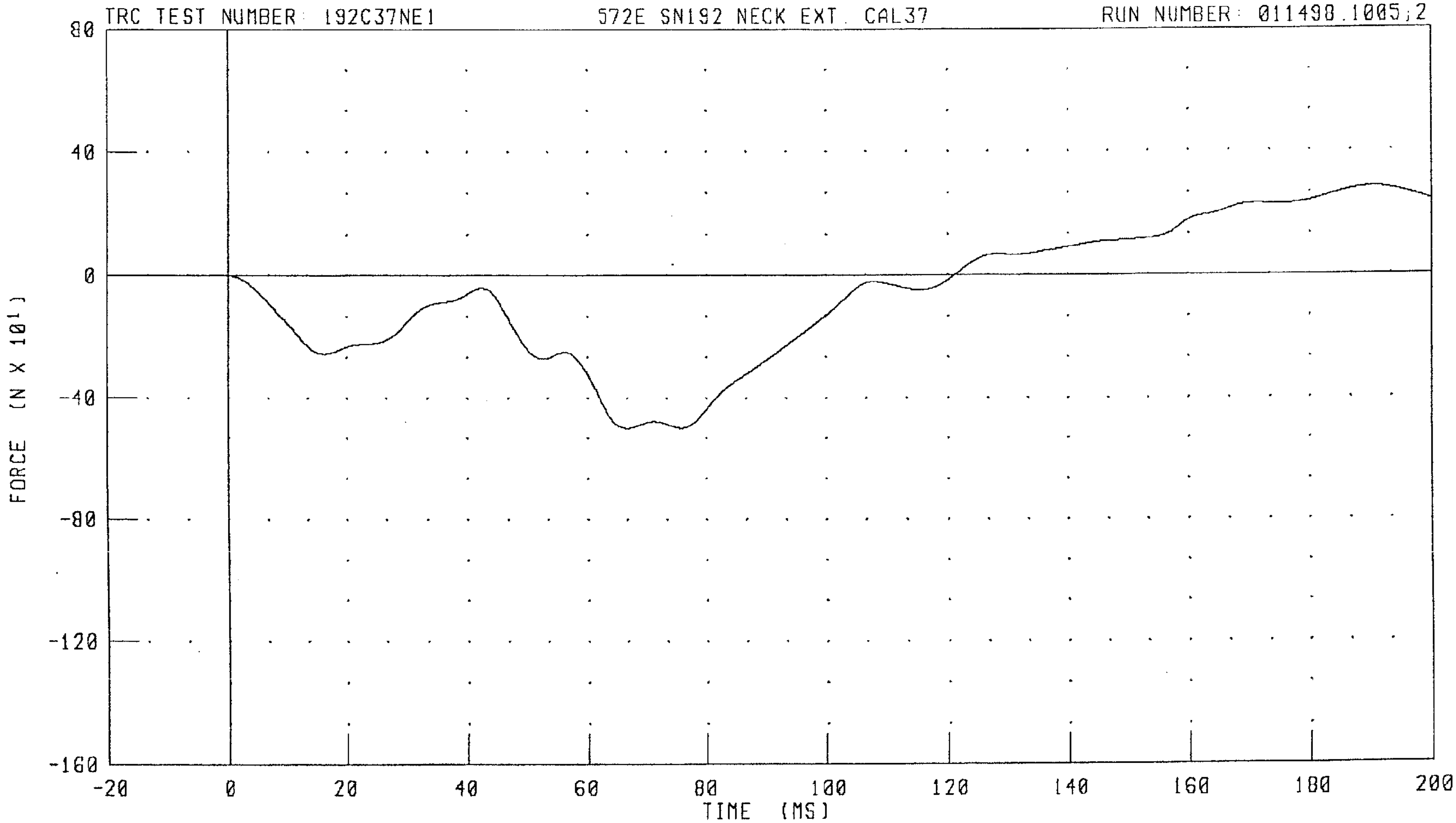


CHANNEL: THETA FILTER: CH. CLASS 60 PEAK DATA: 55.18 ° @ 78.56 MS; -18.02 ° @ 196.40 MS


PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL ROTATION
572E SN192 NECK EXT. CAL37
TRC TEST NUMBER: 192C37NE1
RUN NUMBER: 011498.1005;2
ANGLE (o)
120
90
60
30
0
-30
-60
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: TOTAN
FILTER: CH. CLASS 60
PEAK DATA: 95.60 o @ 77.52 MS; -32.16 o @ 196.64 MS

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

TRC TEST NUMBER: 192C37NE1   572E SN192 NECK EXT. CAL37   RUN NUMBER: 011498.1005;2



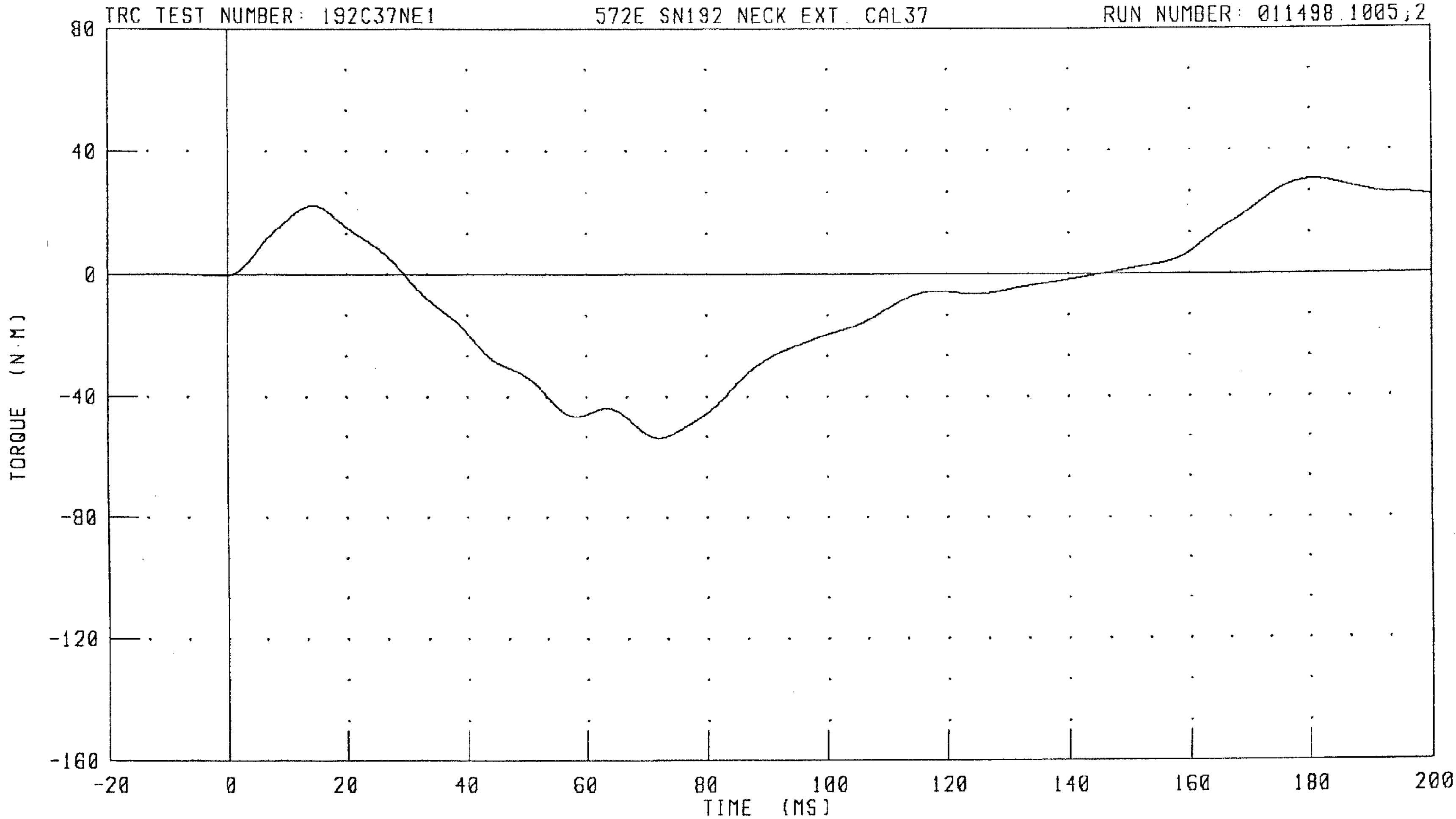
CHANNEL: NEKXF   FILTER: CH. CLASS 60   PEAK DATA: 280.64 N @ 190.56 MS; -500.17 N @ 66.72 MS

980120

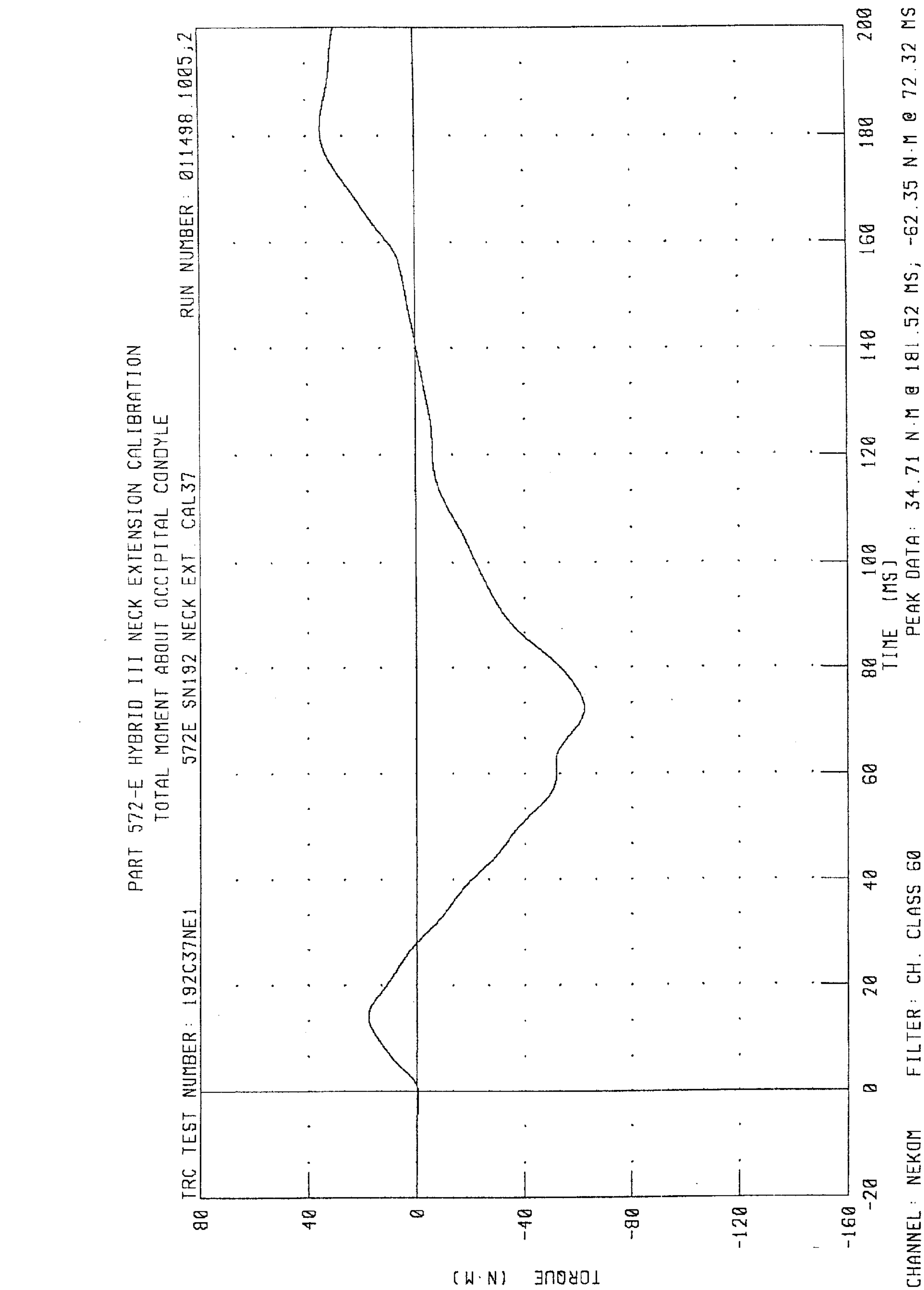
PART 572-E HYBRID III NECK EXTENSION CALIBRATION

NECK MOMENT Y AXIS

TRC TEST NUMBER: 192C37NE1 572E SN192 NECK EXT. CAL37 RUN NUMBER: 011498.1005;2



CHANNEL: NEKYM FILTER: CH. CLASS 60 PEAK DATA: 30.40 N·M @ 180.80 MS; -53.79 N·M @ 72.24 MS


PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE
TRC TEST NUMBER: 192C37NE1
572E SN192 NECK EXT. CAL37
RUN NUMBER: 011498.1005;2
TORQUE (N·M)
80
40
0
-40
-80
-120
-160
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: NEKOM
FILTER: CH. CLASS 60
PEAK DATA: 34.71 N·M @ 181.52 MS; -62.35 N·M @ 72.32 MS

TRANSPORTATION RESEARCH CENTER INC.

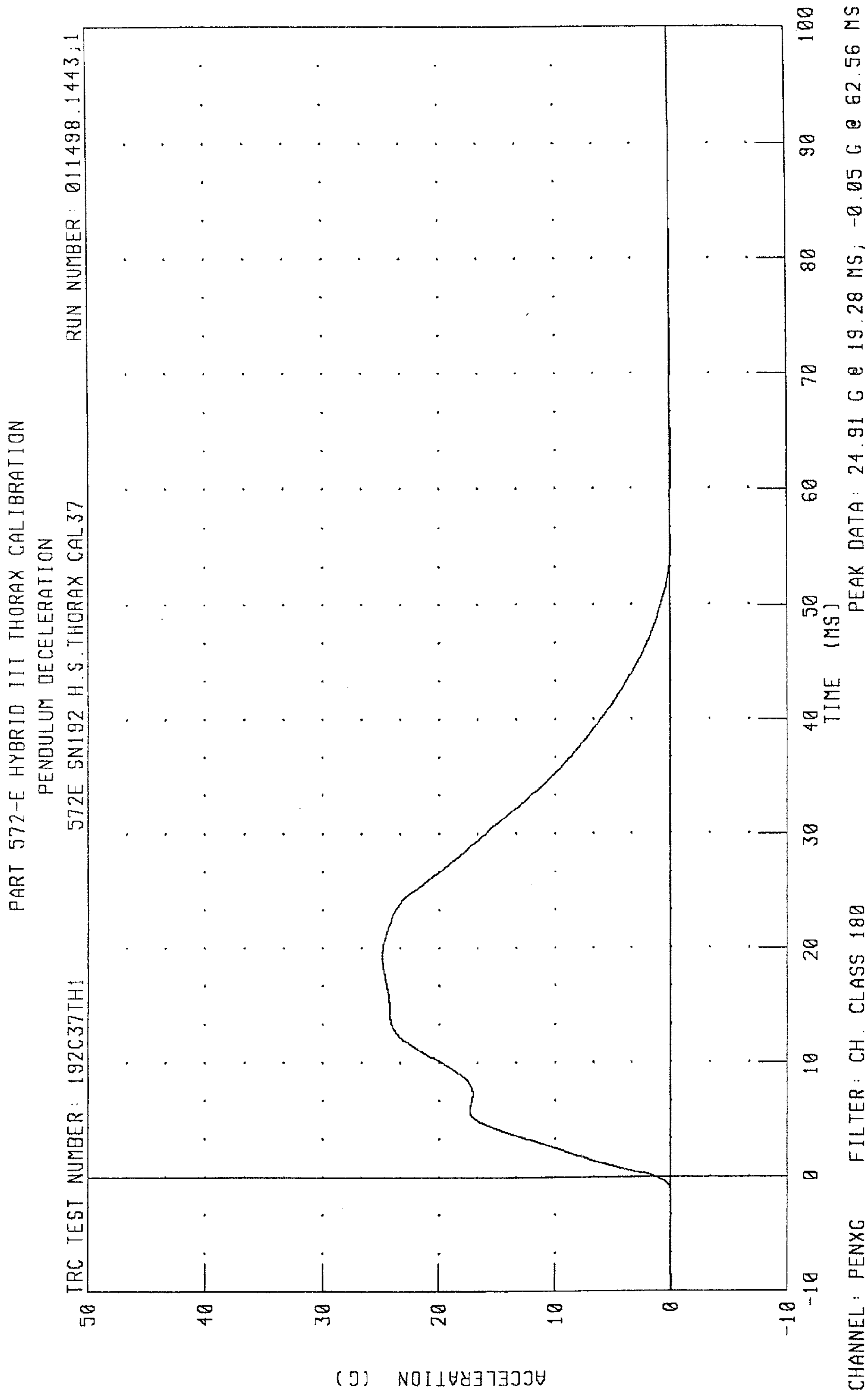
THORAX IMPACT TEST

TRC INC. TEST NO: 192C37TH1 572E SN192 H.S.THORAX CAL37

TEST PARAMETER	HIGH SPEED TEST SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6-22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	20.0 %
PENDULUM VELOCITY	6.59 - 6.83 M/S	6.68 M/S
MAXIMUM DEFLECTION	63.5 - 72.6 MM	67.5 MM
MAXIMUM RESISTIVE FORCE	5159 - 5894 N	5705. N
INTERNAL HYSTERESIS	69% - 85%	73.1%

TEST MEETS SPECIFICATIONS

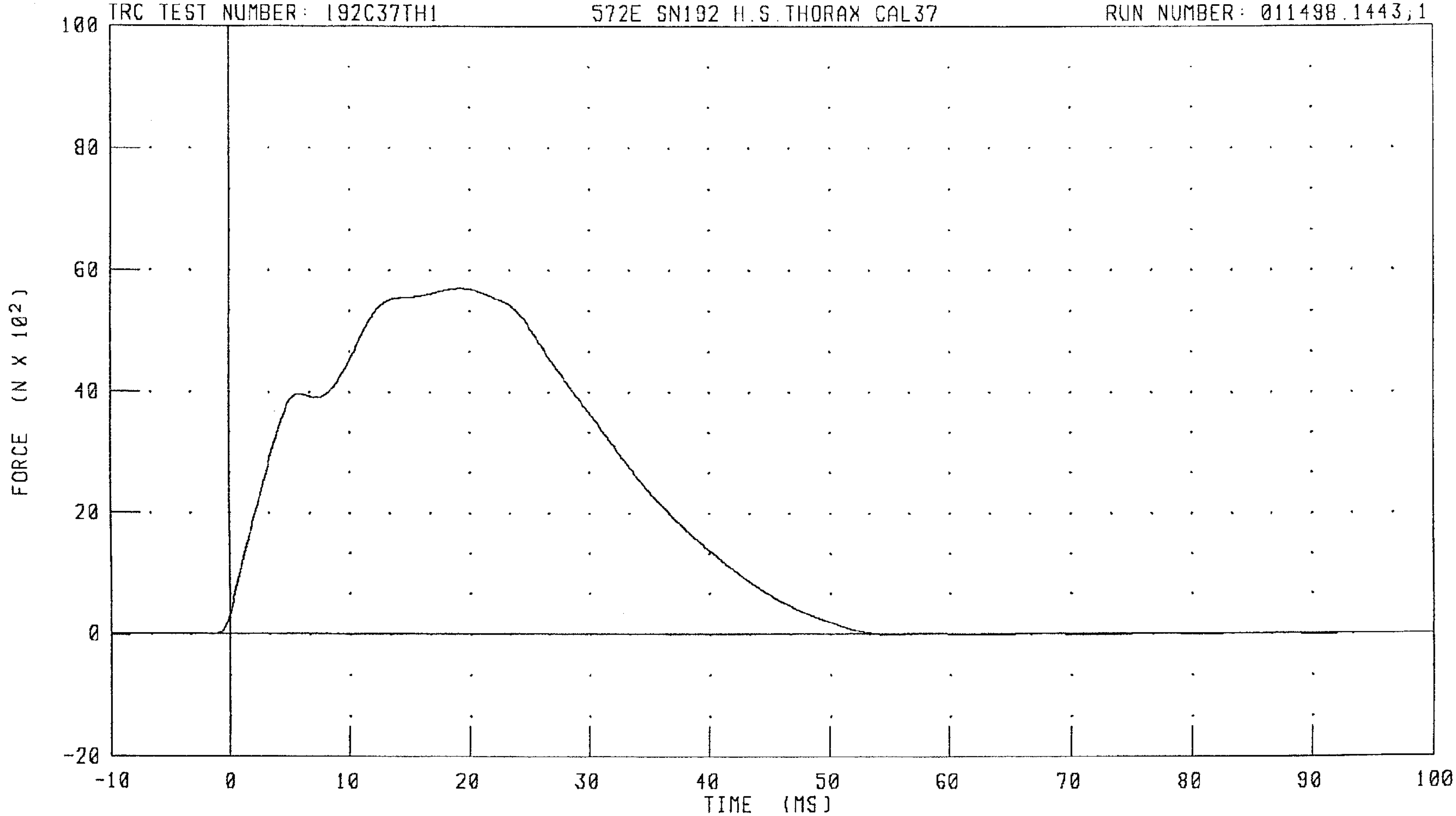
TECHNICIAN Kevin Watkins RUN NUMBER: 011498.1443;1



PART 572-E HYBRID III THORAX CALIBRATION
PENDULUM DECELERATION
572E SN192 H.S.THORAX CAL37
TRC TEST NUMBER: 192C37TH1
RUN NUMBER: 011498.1443;1
ACCELERATION (G)
50
40
30
20
10
0
-10
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS)
CHANNEL: PENXG
FILTER: CH. CLASS 180
PEAK DATA: 24.91 G @ 19.28 MS; -0.05 G @ 62.56 MS

PART 572-E HYBRID III THORAX CALIBRATION
PENDULUM FORCE

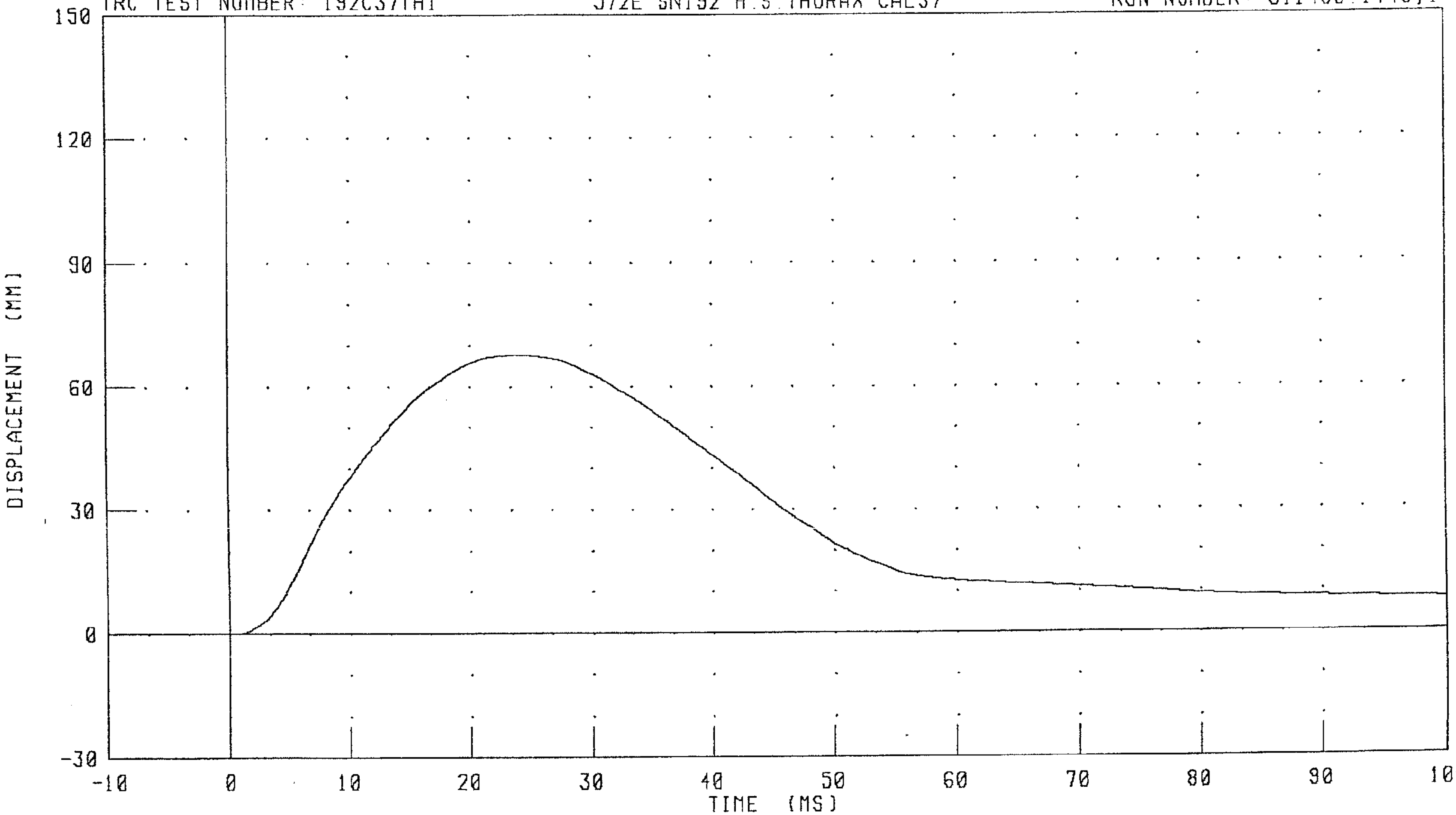
TRC TEST NUMBER: 192C37TH1 572E SN192 H.S.THORAX CAL37 RUN NUMBER: 011498.1443;1



CHANNEL: PENXF FILTER: CH. CLASS 180 PEAK DATA: 5705.36 N @ 19.28 MS; -11.41 N @ 62.56 MS

PART 572-E HYBRID III THORAX CALIBRATION
STERNUM DISPLACEMENT

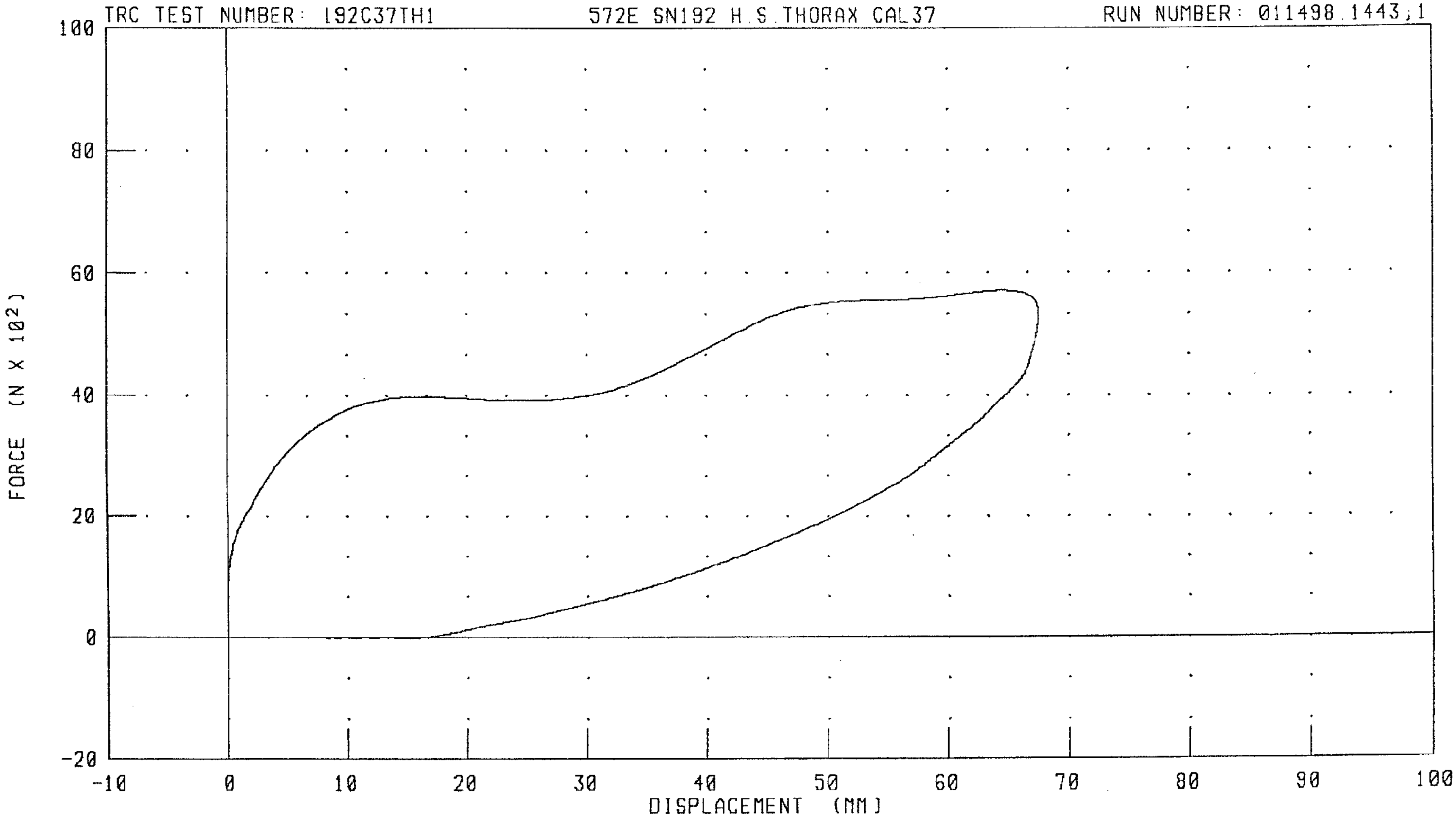
TRC TEST NUMBER: 192C37TH1 572E SN192 H.S.THORAX CAL37 RUN NUMBER: 011498.1443;1



CHANNEL: CSTXD FILTER: CH. CLASS 180 PEAK DATA: 67.57 MM @ 24.16 MS; -0.02 MM @ 0.08 MS

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

TRC TEST NUMBER: 192C37TH1 | 572E SN192 H.S. THORAX CAL37 | RUN NUMBER: 011498.1443;1



CHANNEL: CSTXD FILTER: CH. CLASS 180 PEAK DATA: 67.57 MM @ 24.16 MS; -0.02 MM @ 0.08 MS
PENXF CH. CLASS 180 5705.36 N @ 19.28 MS; -11.41 N @ 62.56 MS

TRANSPORTATION RESEARCH CENTER INC.

RIGHT HIP JOINT FEMUR FLEXION TEST

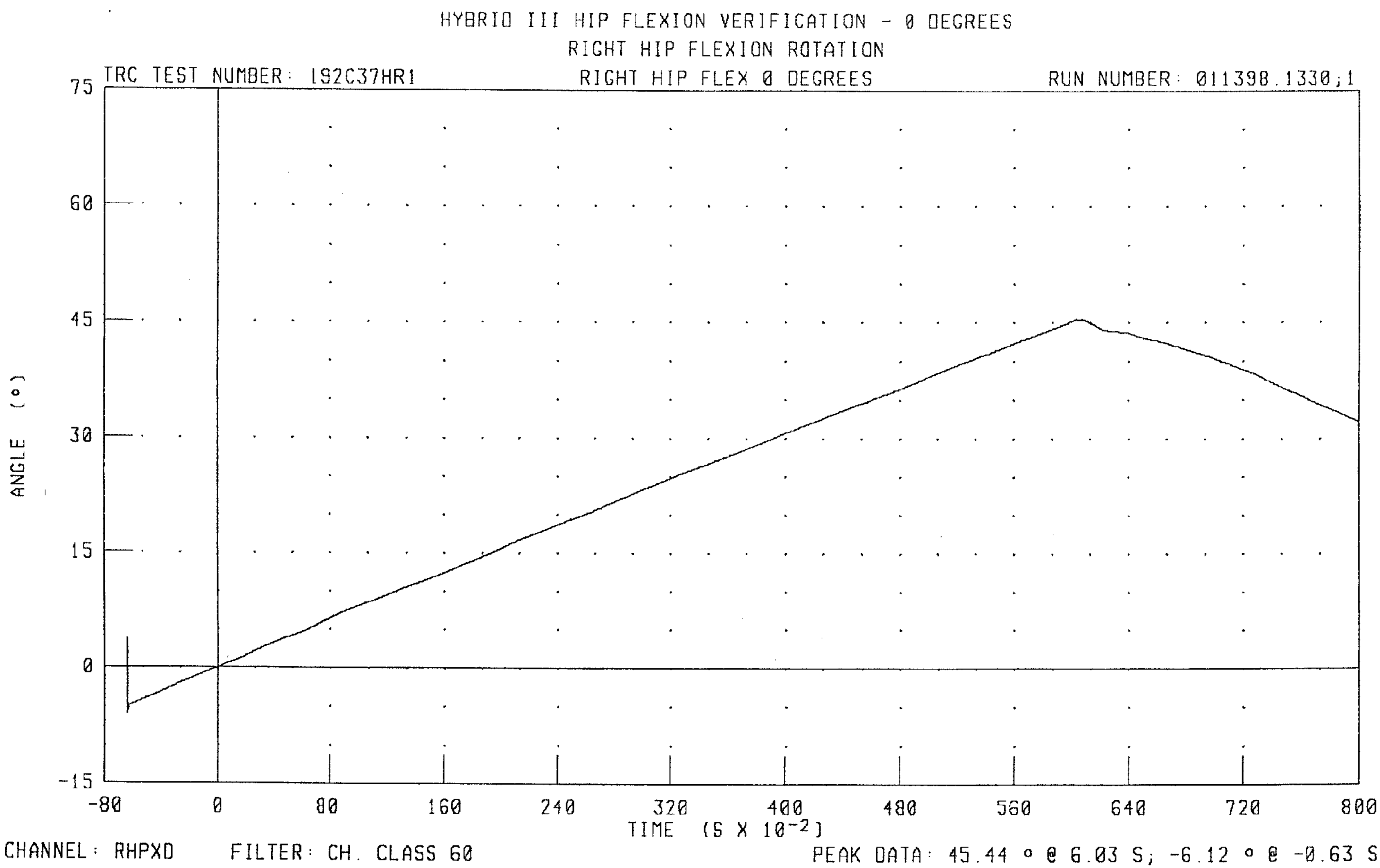
HYBRID III PART 572E   13-JAN-98

TRC INC.   TEST NO: 192C37HR1   RIGHT HIP FLEX 0 DEGREES

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
ROTATION RATE	5 - 10 deg/sec	YES
TORQUE @ 30 deg ROTATION	<= 94.9 Nm	72.8 Nm
ROTATION @ 203.4 Nm TORQUE	40 - 50 deg.	44.6 deg.

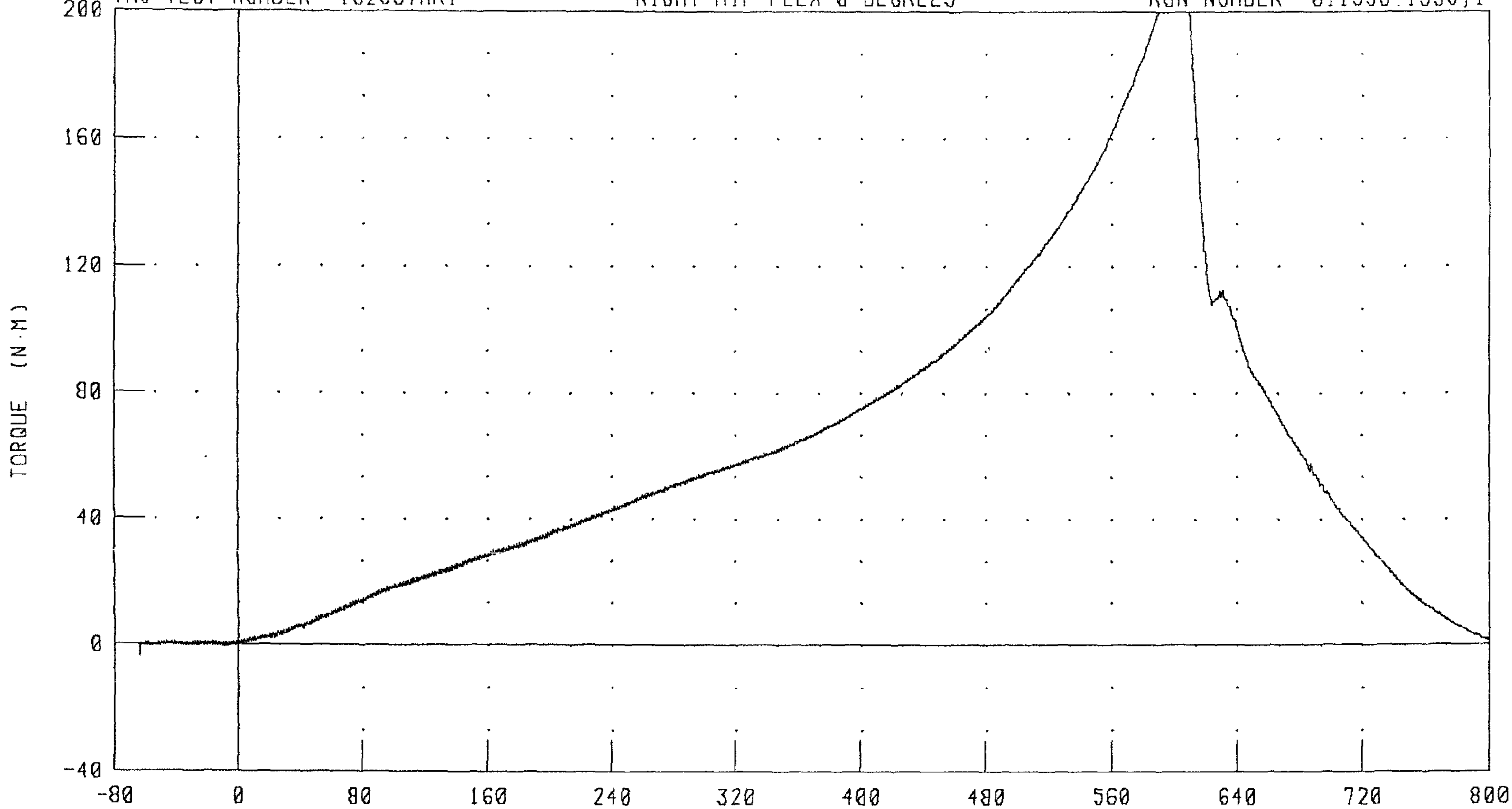
TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins   RUN NUMBER: 011398.1329;1


HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
RIGHT HIP FLEXION ROTATION
TRC TEST NUMBER: 192C37HR1
RIGHT HIP FLEX 0 DEGREES
RUN NUMBER: 011398.1330;1
ANGLE (°)
75
60
45
30
15
0
-15
-80
0
80
160
240
320
400
480
560
640
720
800
TIME (S X 10^-2)
CHANNEL: RHPXD
FILTER: CH. CLASS 60
PEAK DATA: 45.44 ° @ 6.03 S; -6.12 ° @ -0.63 S

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
RIGHT HIP FLEXION MOMENT
RIGHT HIP FLEX 0 DEGREES

TRC TEST NUMBER: 192C37HR1 RUN NUMBER 011398.1330,1



CHANNEL: RHPYM FILTER: CH. CLASS 60 PEAK DATA: 220.98 N·M @ 6.04 S; -16.69 N·M @ 9.34 S

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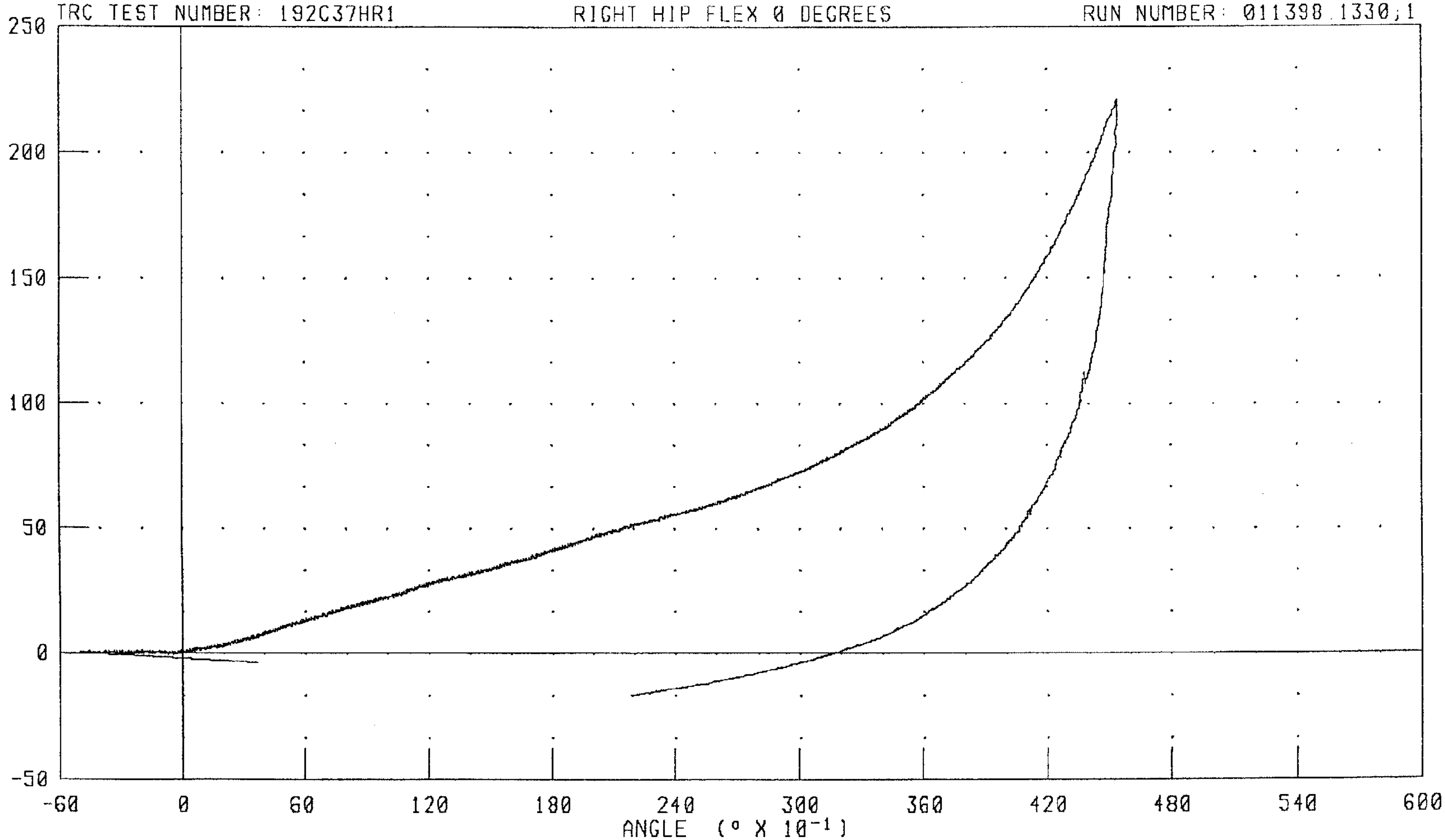
HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
RIGHT HIP FLEXION MOMENT VS ROTATION ANGLE

TRC TEST NUMBER: 192C37HR1 RIGHT HIP FLEX 0 DEGREES RUN NUMBER: 011398.1330;1



CHANNEL: RHPXD FILTER: CH. CLASS 60 PEAK DATA: 45.44 ° @ 6.03 S; -6.12 ° @ -0.63 S
RHPYM CH. CLASS 60 220.98 N·M @ 6.04 S; -16.69 N·M @ 9.34 S

TRANSPORTATION RESEARCH CENTER INC.

LEFT HIP JOINT FEMUR FLEXION TEST

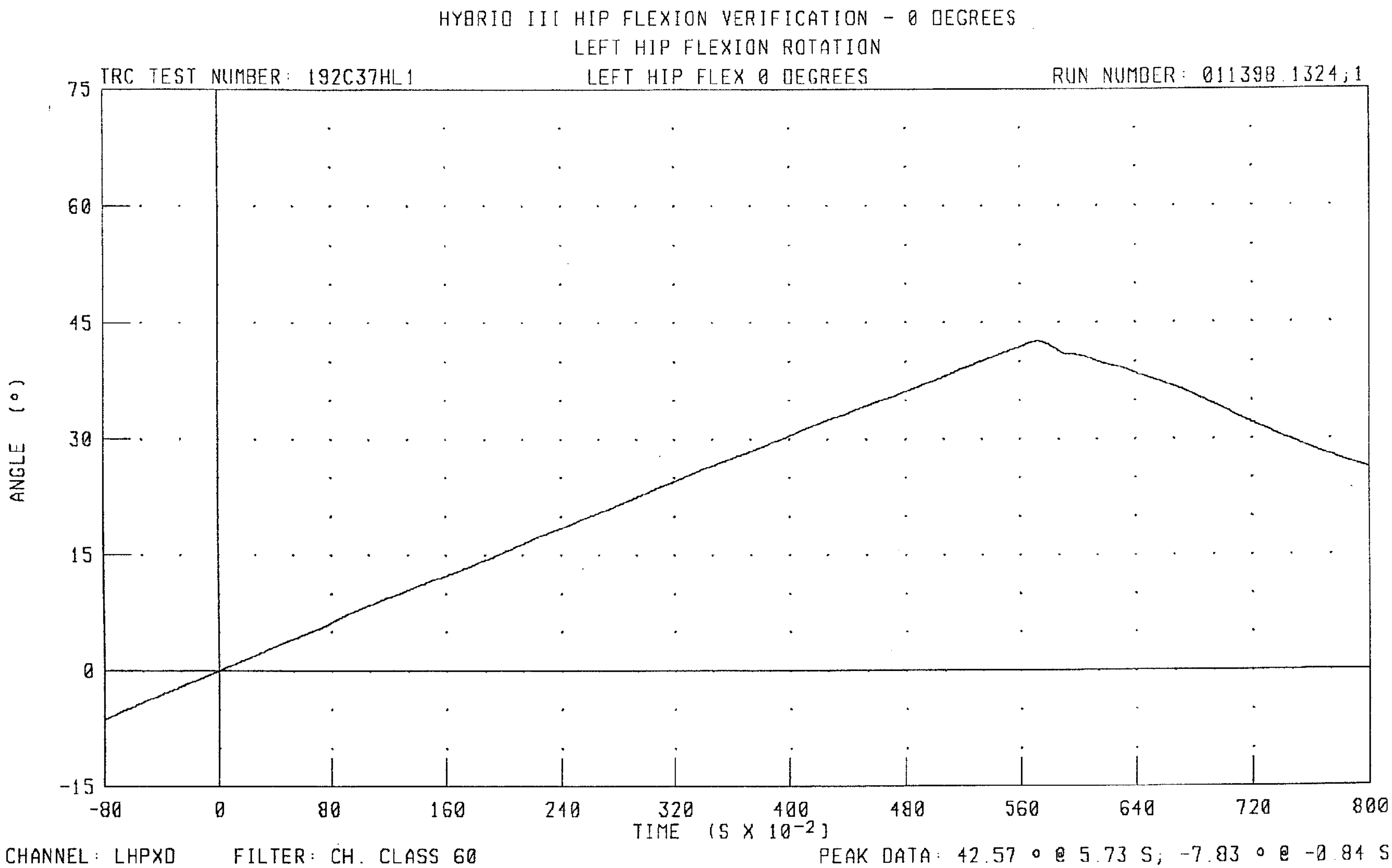
HYBRID III PART 572E 13-JAN-98

TRC INC. TEST NO: 192C37HL1 LEFT HIP FLEX 0 DEGREES

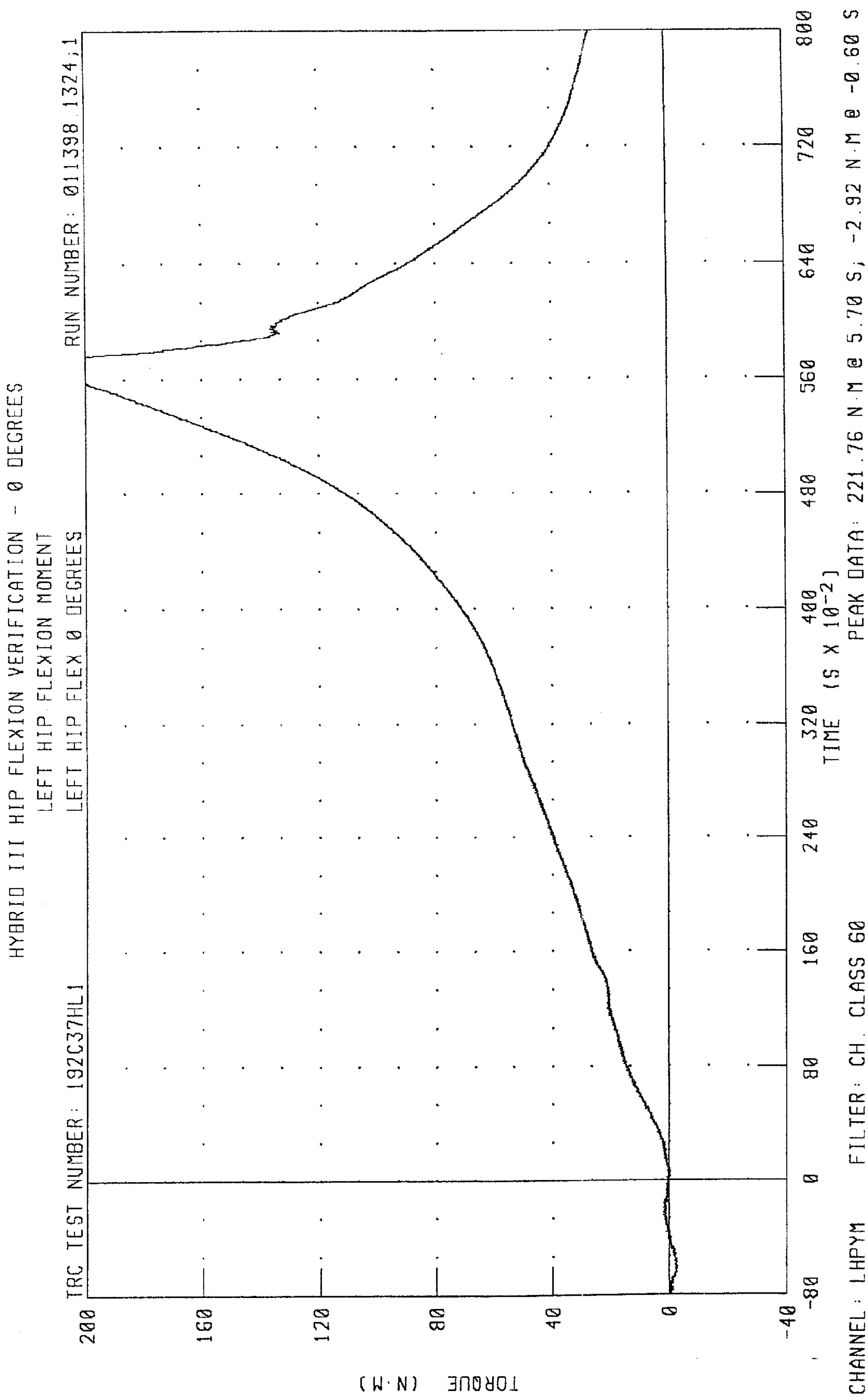
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
ROTATION RATE	5 - 10 deg/sec	YES
TORQUE @ 30 deg ROTATION	<= 94.9 Nm	69.6 Nm
ROTATION @ 203.4 Nm TORQUE	40 - 50 deg.	41.7 deg.

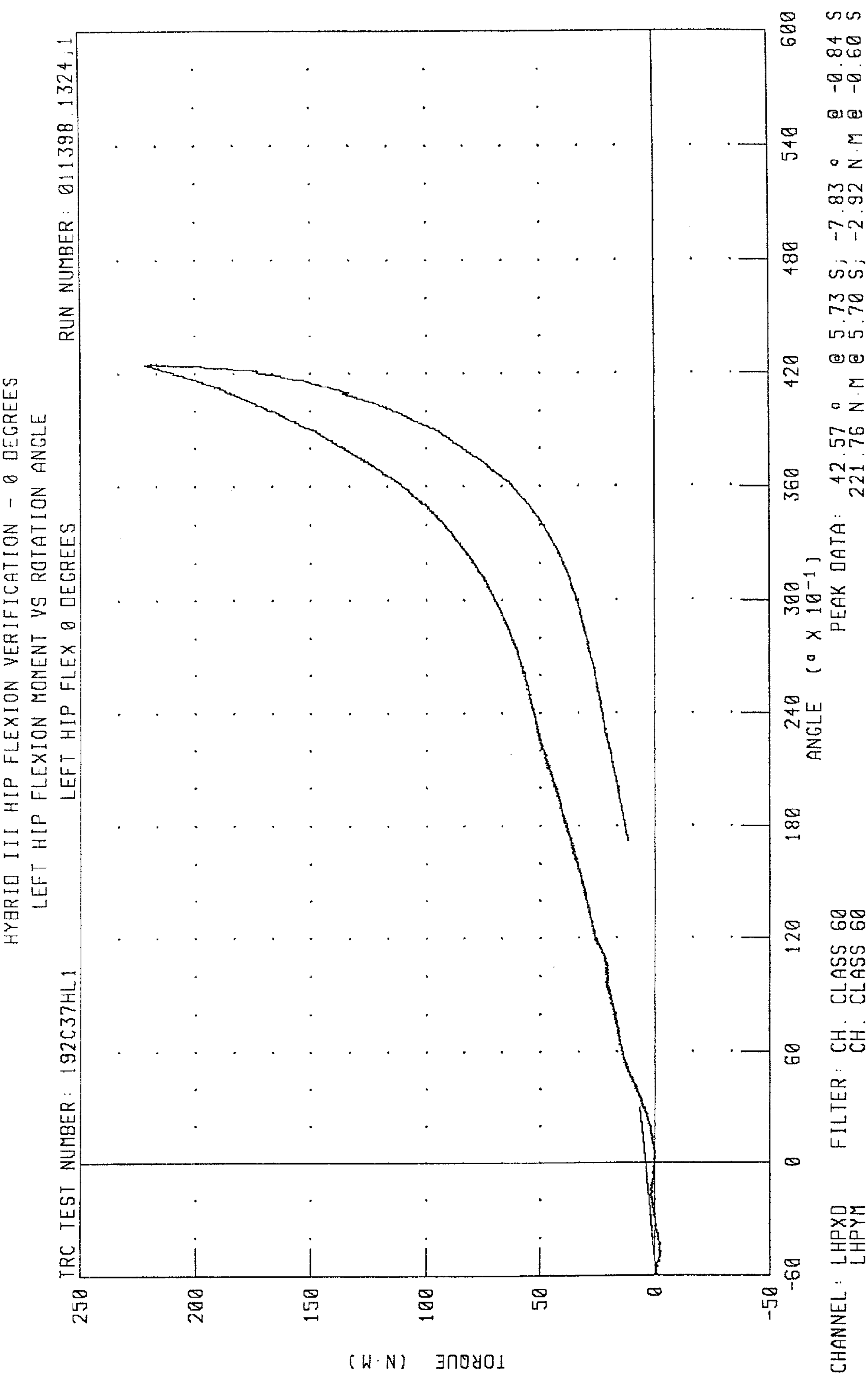
TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011398.1324;1


HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION ROTATION
TRC TEST NUMBER: 192C37HL1
LEFT HIP FLEX 0 DEGREES
RUN NUMBER: 011398.1324;1
75
60
45
30
15
0
-15
ANGLE (°)
-80
0
80
160
240
320
400
480
560
640
720
800
TIME (S X 10⁻²)
CHANNEL: LHPXD
FILTER: CH. CLASS 60
PEAK DATA: 42.57 ° @ 5.73 S; -7.83 ° @ -0.84 S

980120


HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION MOMENT
LEFT HIP FLEX 0 DEGREES
TRC TEST NUMBER: 192C37HL1
RUN NUMBER: 011398 1324;1
TORQUE (N·M)
200
160
120
80
40
0
-40
-80
0
80
160
240
320
400
480
560
640
720
800
TIME (S X 10^-2)
CHANNEL: LHPYM
FILTER: CH. CLASS 60
PEAK DATA: 221.76 N·M @ 5.70 S; -2.92 N·M @ -0.60 S


HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION MOMENT VS ROTATION ANGLE
LEFT HIP FLEX 0 DEGREES
TRC TEST NUMBER: 192C37HL1
RUN NUMBER: 011398 1324 1
TORQUE (N·M)
250
200
150
100
50
0
-50
-60
0
60
120
180
240
300
360
420
480
540
600
ANGLE (° X 10⁻¹)
CHANNEL: LHPXD
LHPYM
FILTER: CH. CLASS 60
CH. CLASS 60
PEAK DATA: 42.57 ° @ 5.73 S; -7.83 ° @ -0.84 S
221.76 N·M @ 5.70 S; -2.92 N·M @ -0.60 S

980120

TRANSPORTATION RESEARCH CENTER INC.

RIGHT KNEE IMPACT TEST

TRC INC. TEST NO: 192C37RK1 572E SN192 RIGHT KNEE CAL 37

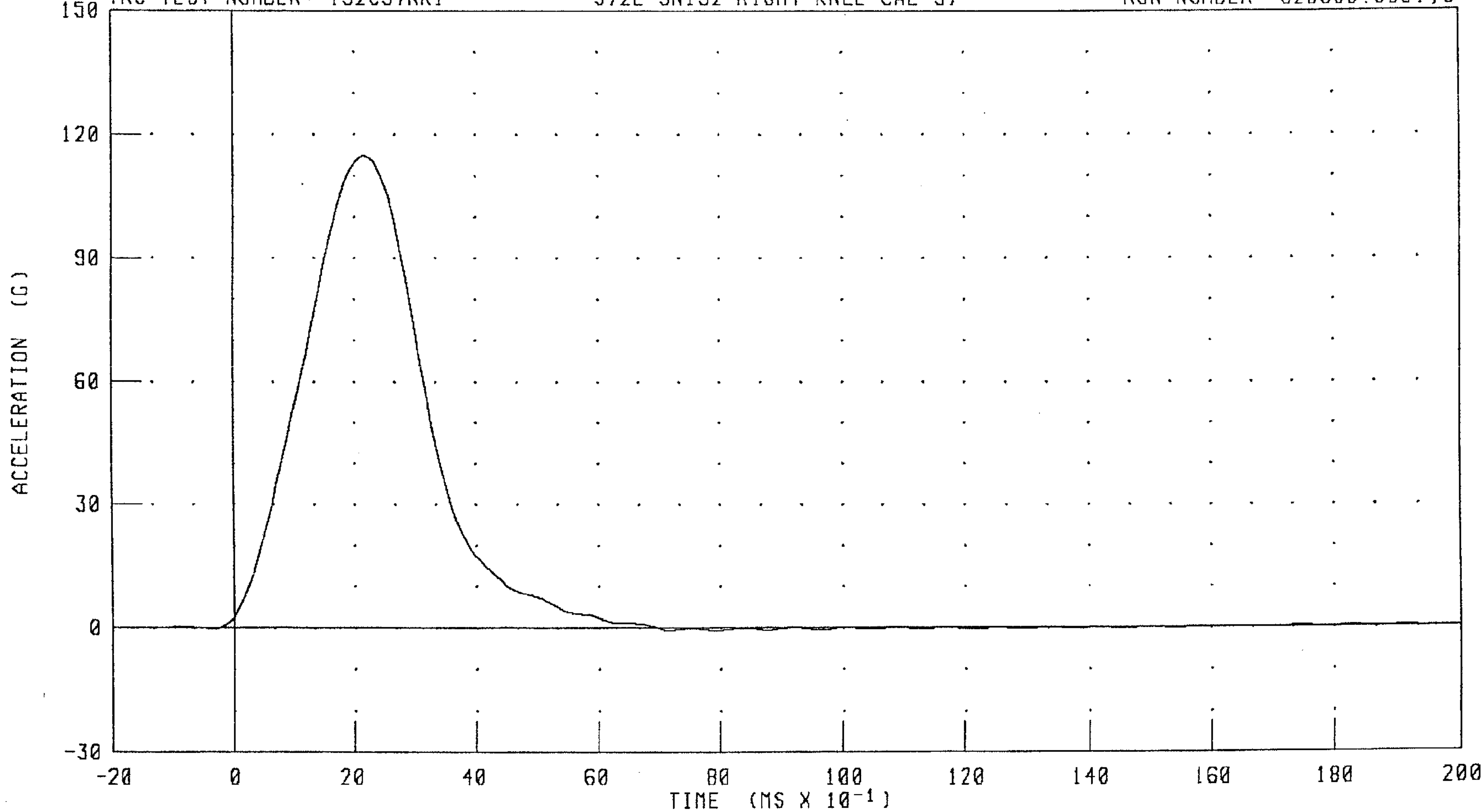
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	45.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.08 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5620.0 N

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 020598.0856;3

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

TRC TEST NUMBER: 192C37RK1 572E SN192 RIGHT KNEE CAL 37 RUN NUMBER: 020598.0857;3



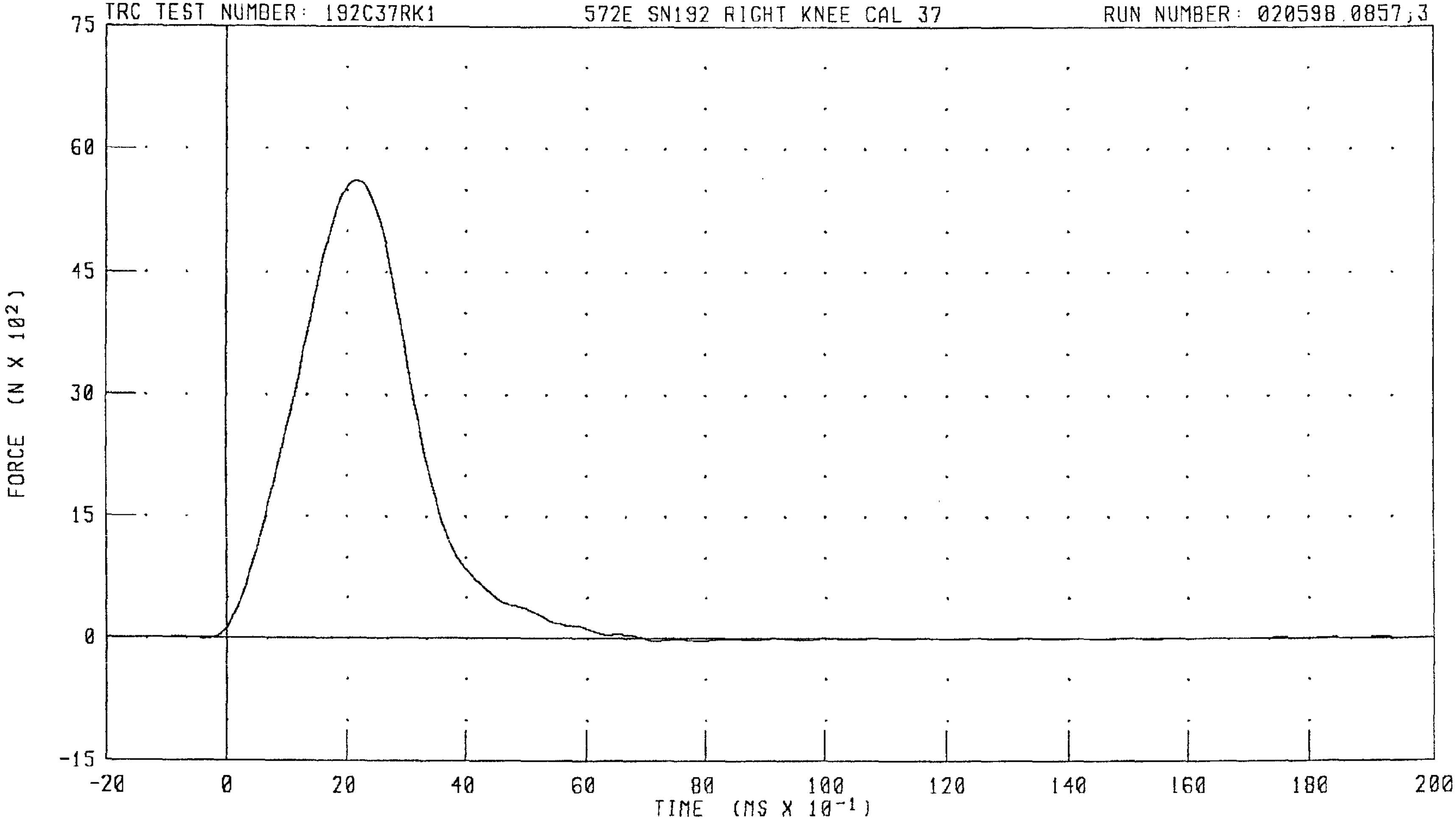
CHANNEL: PENXG FILTER: CH. CLASS 600 PEAK DATA: 114.86 G @ 2.16 MS; -0.66 G @ 7.92 MS

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

TRC TEST NUMBER: 192C37RK1

572E SN192 RIGHT KNEE CAL 37

RUN NUMBER: 020598.0857;3



CHANNEL: PENXF   FILTER: CH. CLASS 600

PEAK DATA: 5620.05 N @ 2.16 MS; -32.11 N @ 7.92 MS

TRANSPORTATION RESEARCH CENTER INC.

LEFT KNEE IMPACT TEST

TRC INC. TEST NO: 192C37LK1 572E SN192 LEFT KNEE CAL 37

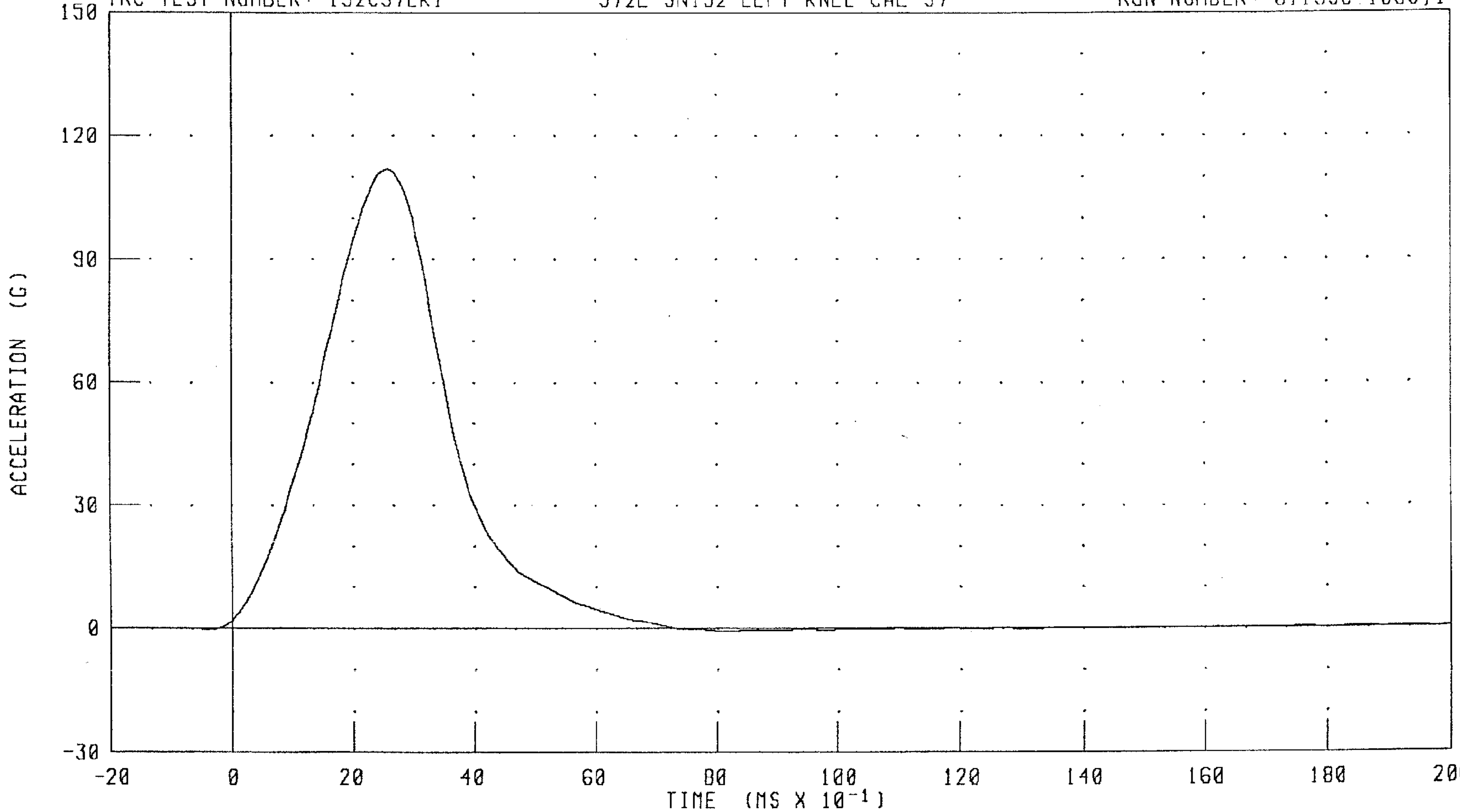
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.08 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5474.3 N

TEST MEETS SPECIFICATIONS

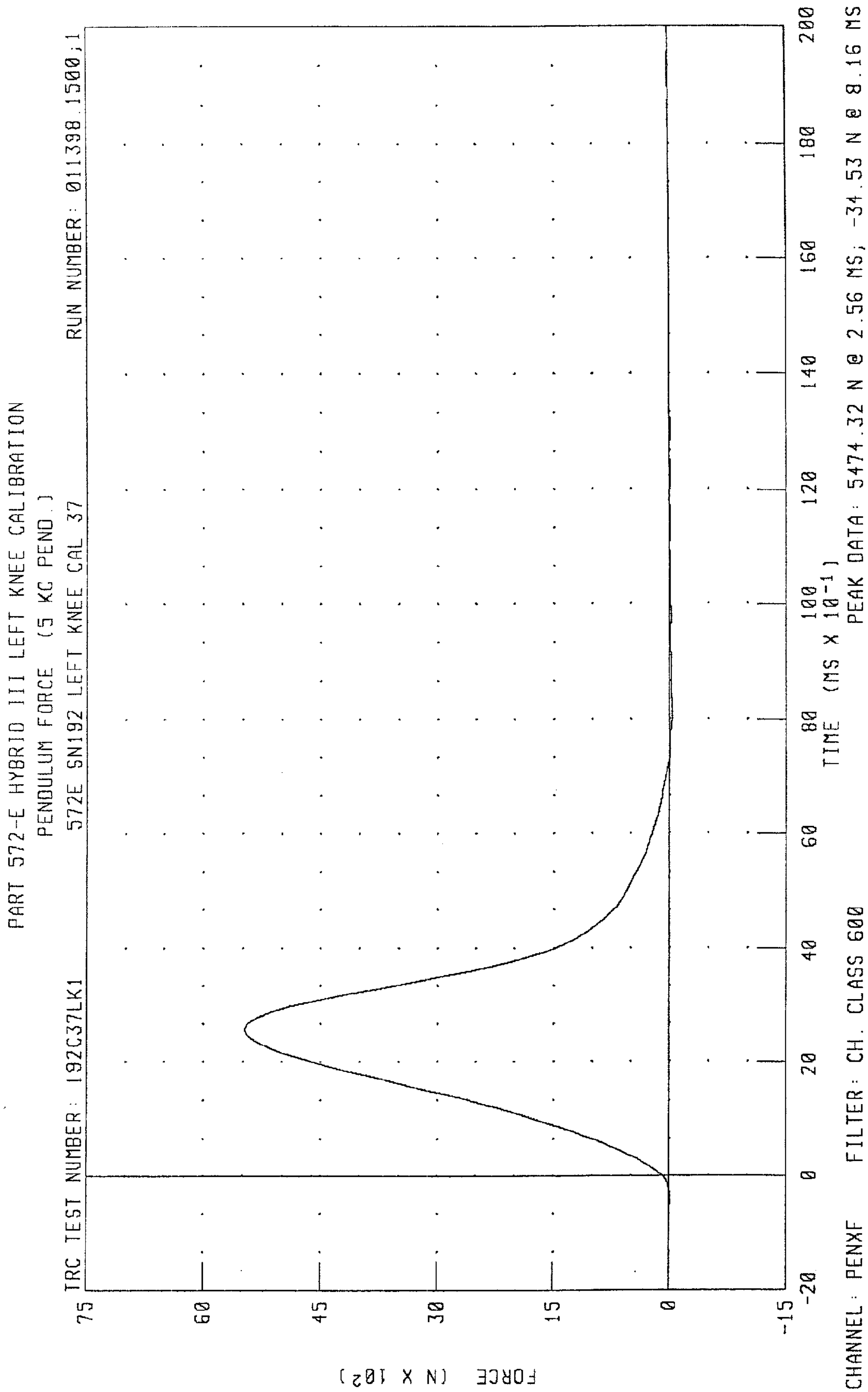
TECHNICIAN Kevin Watkins RUN NUMBER: 011398.1500;1

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

TRC TEST NUMBER: 192C37LK1 572E SN192 LEFT KNEE CAL 37 RUN NUMBER: 011398.1500,1



CHANNEL: PENXG FILTER: CH. CLASS 600 PEAK DATA: 111.89 G @ 2.56 MS; -0.71 G @ 8.16 MS


PART 572-E HYBRID III LEFT KNEE CALIBRATION
PENDULUM FORCE (5 KG PEND.)
572E SN192 LEFT KNEE CAL 37
TRC TEST NUMBER: 192C37LK1
RUN NUMBER: 011398.1500;1
FORCE (N X 10²)
75
60
45
30
15
0
-15
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS X 10-1)
CHANNEL: PENXF
FILTER: CH. CLASS 600
PEAK DATA: 5474.32 N @ 2.56 MS; -34.53 N @ 8.16 MS

Pre-test Certification Data

Passenger Dummy S/N: 142

TRANSPORTATION RESEARCH CENTER INC.
HYBRID III EXTERNAL DIMENSIONS
SN142 HUMANOID 14-01-98

TRC INC. TEST NO: 142C38ED1 572E SN142 EXT.DIMENSION CAL38

TEST PARAMETER	(DIMEN.)	SPECIFICATION	TEST RESULTS
LOCATION FOR CHEST CIRCUMFERENCE	(AA)	16.9 - 17.1 IN	17.0 IN
LOCATION FOR WAIST CIRCUMFERENCE	(BB)	8.9 - 9.1 IN	9.0 IN
CHEST CIRCUMFERENCE	(Y)	38.2 - 39.4 IN	38.8 IN
WAIST CIRCUMFERENCE	(Z)	32.9 - 34.1 IN	33.5 IN
CHEST DEPTH	(O)	8.4 - 9.0 IN	8.6 IN
H-POINT HEIGHT	(C)	3.3 - 3.5 IN	3.4 IN
H-POINT FROM SEATBACK	(D)	5.3 - 5.5 IN	5.4 IN
SKULL CAP TO BACKLINE	(H)	1.6 - 1.8 IN	1.7 IN
TOTAL SITTING HEIGHT	(A)	34.6 - 35.0 IN	34.6 IN
THIGH CLEARANCE	(F)	5.5 - 6.1 IN	6.0 IN
BUTTOCK KNEE LENGTH	(K)	22.8 - 23.8 IN	22.9 IN
BUTTOCK POPLITEAL LENGTH	(N)	17.8 - 18.8 IN	17.8 IN
POPLITEAL HEIGHT	(L)	16.9 - 17.9 IN	17.4 IN
KNEE PIVOT HEIGHT	(M)	19.1 - 19.7 IN	19.5 IN
FOOT LENGTH	(P)	9.9 - 10.5 IN	10.1 IN
FOOT BREADTH	(W)	3.6 - 4.2 IN	3.9 IN
SHOULDER PIVOT FROM BACKLINE	(E)	3.3 - 3.7 IN	3.6 IN
SHOULDER BREADTH	(V)	16.6 - 17.2 IN	17.0 IN
SHOULDER PIVOT HEIGHT	(B)	19.9 - 20.5 IN	20.2 IN
ELBOW REST HEIGHT	(J)	7.5 - 8.3 IN	7.8 IN
SHOULDER-ELBOW LENGTH	(I)	13.0 - 13.6 IN	13.3 IN
BACK OF ELBOW TO WRIST PIVOT	(G)	11.4 - 12.0 IN	11.5 IN

DUMMY MEETS SPECIFICATIONS
TECHNICIAN Bryan Cr[illegible] RUN NUMBER: 011598.0717

TRANSPORTATION RESEARCH CENTER INC.

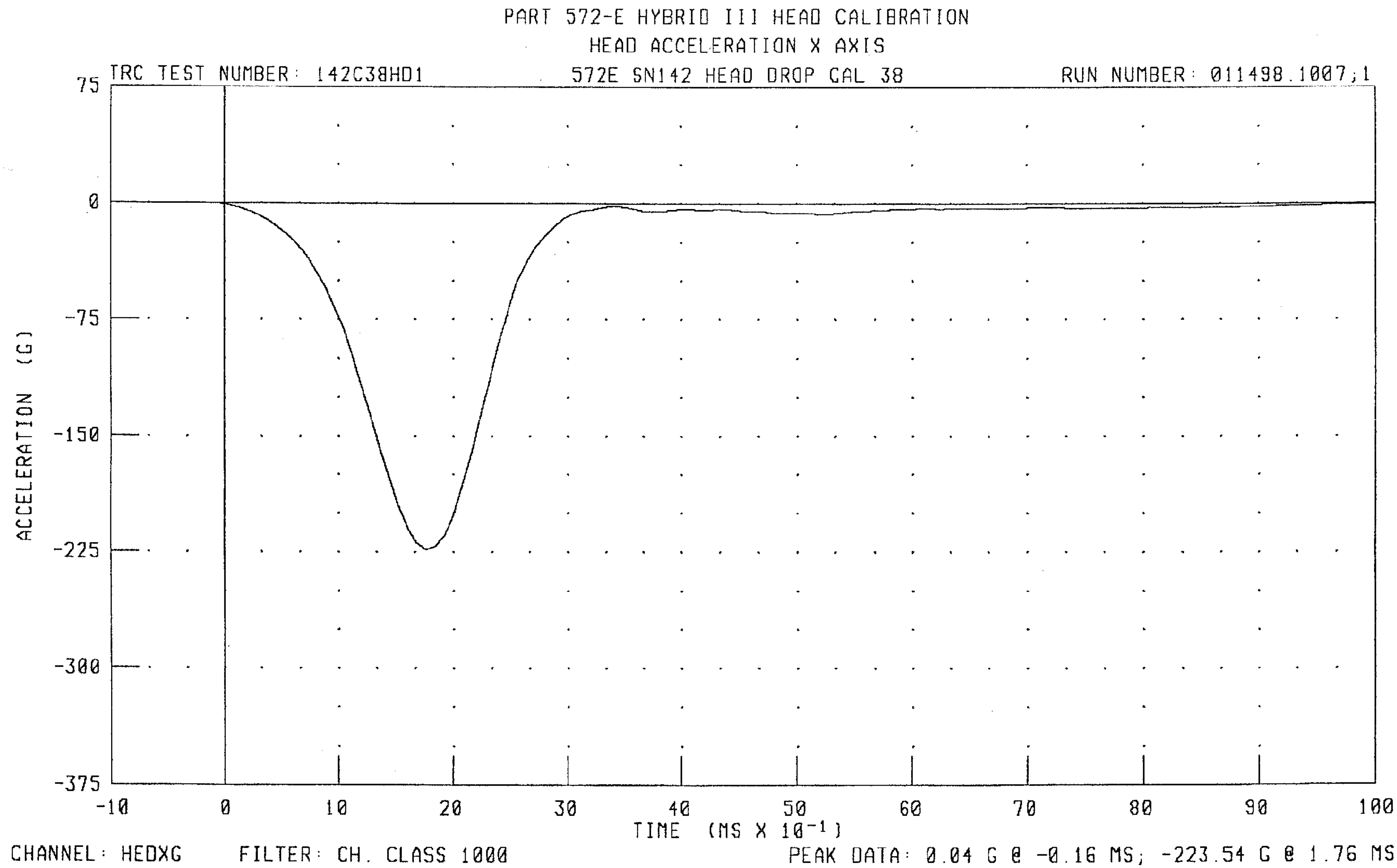
HEAD DROP TEST

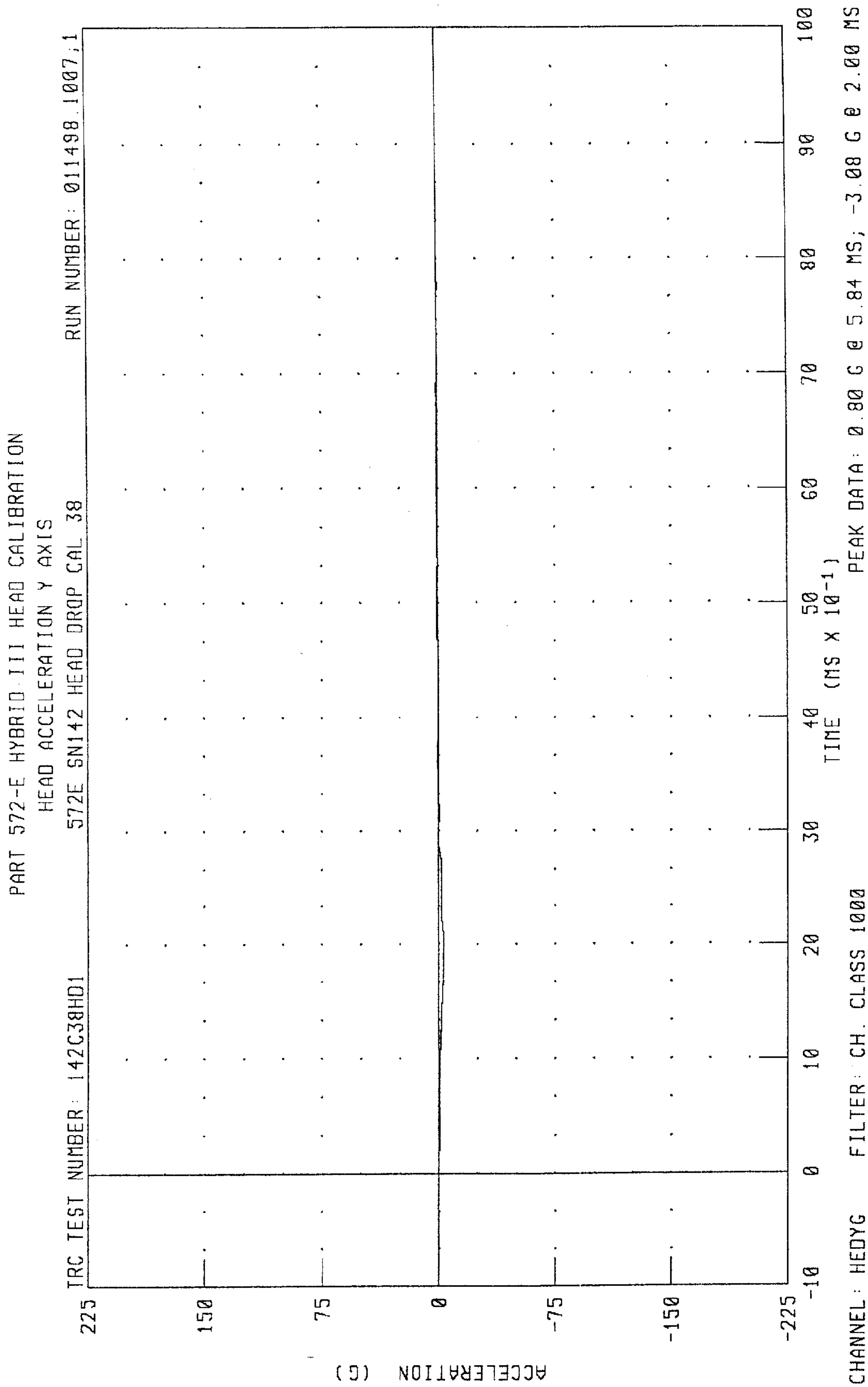
TRC INC.   TEST NO: 142C38HD1   572E SN142 HEAD DROP CAL 38

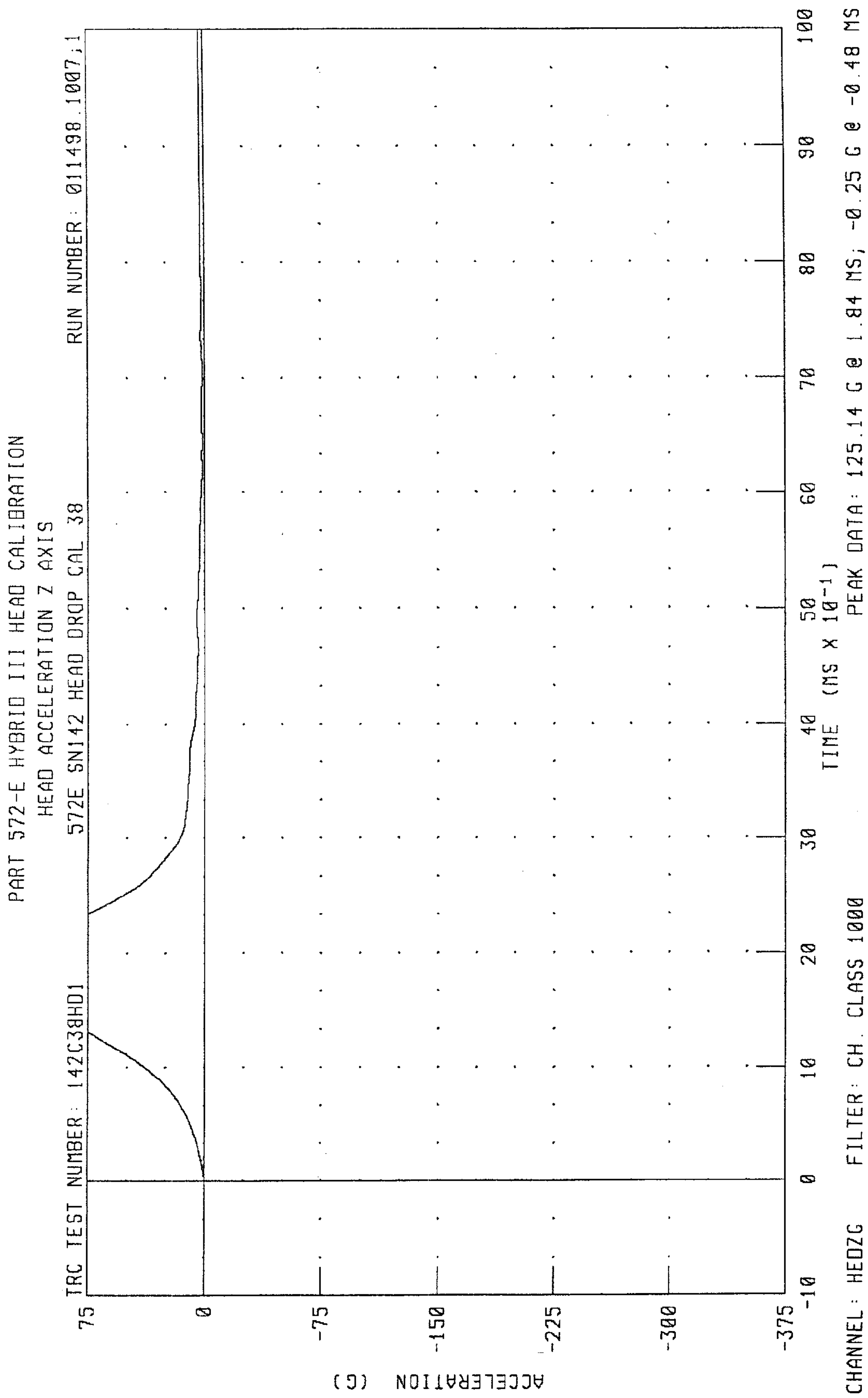
TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	20.0 %
PEAK RESULTANT ACCELERATION	225 - 275 G	255.53 G
PEAK LATERAL ACCELERATION	15 G MAX	-3.07 G
IS ACCELERATION CURVE UNIMODAL?	YES	YES

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins   RUN NUMBER: 011498.1006;1


PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION X AXIS
TRC TEST NUMBER: 142C38HD1
572E SN142 HEAD DROP CAL 38
RUN NUMBER: 011498.1007;1
ACCELERATION (G)
75
0
-75
-150
-225
-300
-375
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS X 10^{-1})
CHANNEL: HEDXG
FILTER: CH. CLASS 1000
PEAK DATA: 0.04 G @ -0.16 MS; -223.54 G @ 1.76 MS

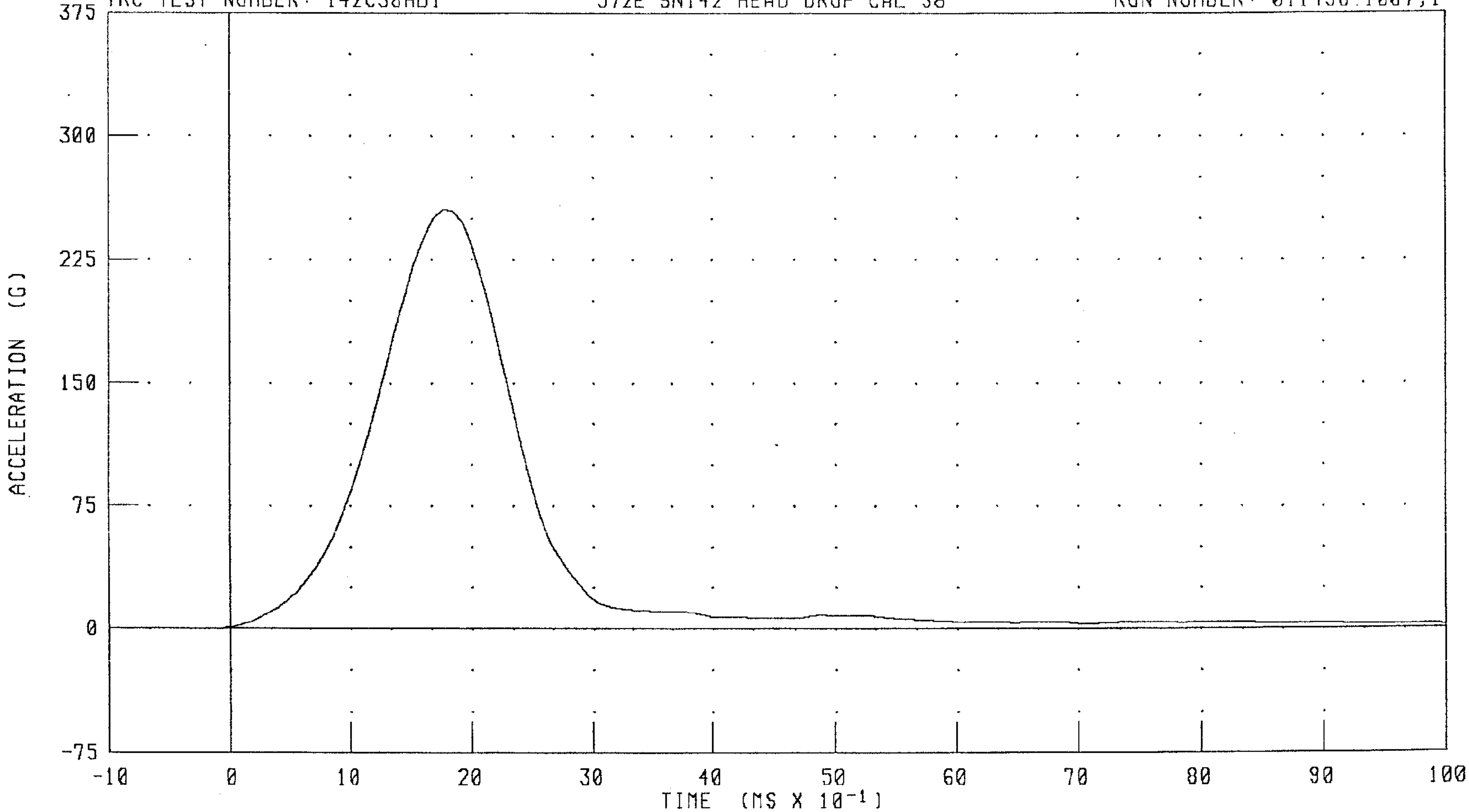

PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Y AXIS
572E SN142 HEAD DROP CAL 38
TRC TEST NUMBER: 142C38HD1
RUN NUMBER: 011498.1007;1
225
150
75
0
-75
-150
-225
ACCELERATION (G)
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS X 10-1)
CHANNEL: HEDYG
FILTER: CH. CLASS 1000
PEAK DATA: 0.80 G @ 5.84 MS; -3.08 G @ 2.00 MS



PART 572-E HYBRID III HEAD CALIBRATION
HEAD ACCELERATION Z AXIS
572E SN142 HEAD DROP CAL 38
TRC TEST NUMBER: 142C38HD1
RUN NUMBER: 011498.1007;1
ACCELERATION (G)
75
0
-75
-150
-225
-300
-375
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS X 10^-1)
CHANNEL: HEDZG
FILTER: CH. CLASS 1000
PEAK DATA: 125.14 G @ 1.84 MS; -0.25 G @ -0.48 MS

PART 572-E HYBRID III HEAD CALIBRATION
HEAD RESULTANT ACCELERATION

TRC TEST NUMBER: 142C38HD1 572E SN142 HEAD DROP CAL 38 RUN NUMBER: 011498.1007;1



CHANNEL: HEDRG FILTER: CH. CLASS 1000 PEAK DATA: 255.53 G @ 1.76 MS; 0.02 G @ -0.88 MS

TRANSPORTATION RESEARCH CENTER INC.

NECK FLEXION TEST - 6 CHANNEL TRANSDUCER

TRC INC. TEST NO: 142C38NF1 572E SN142 NECK FLEXION CAL38

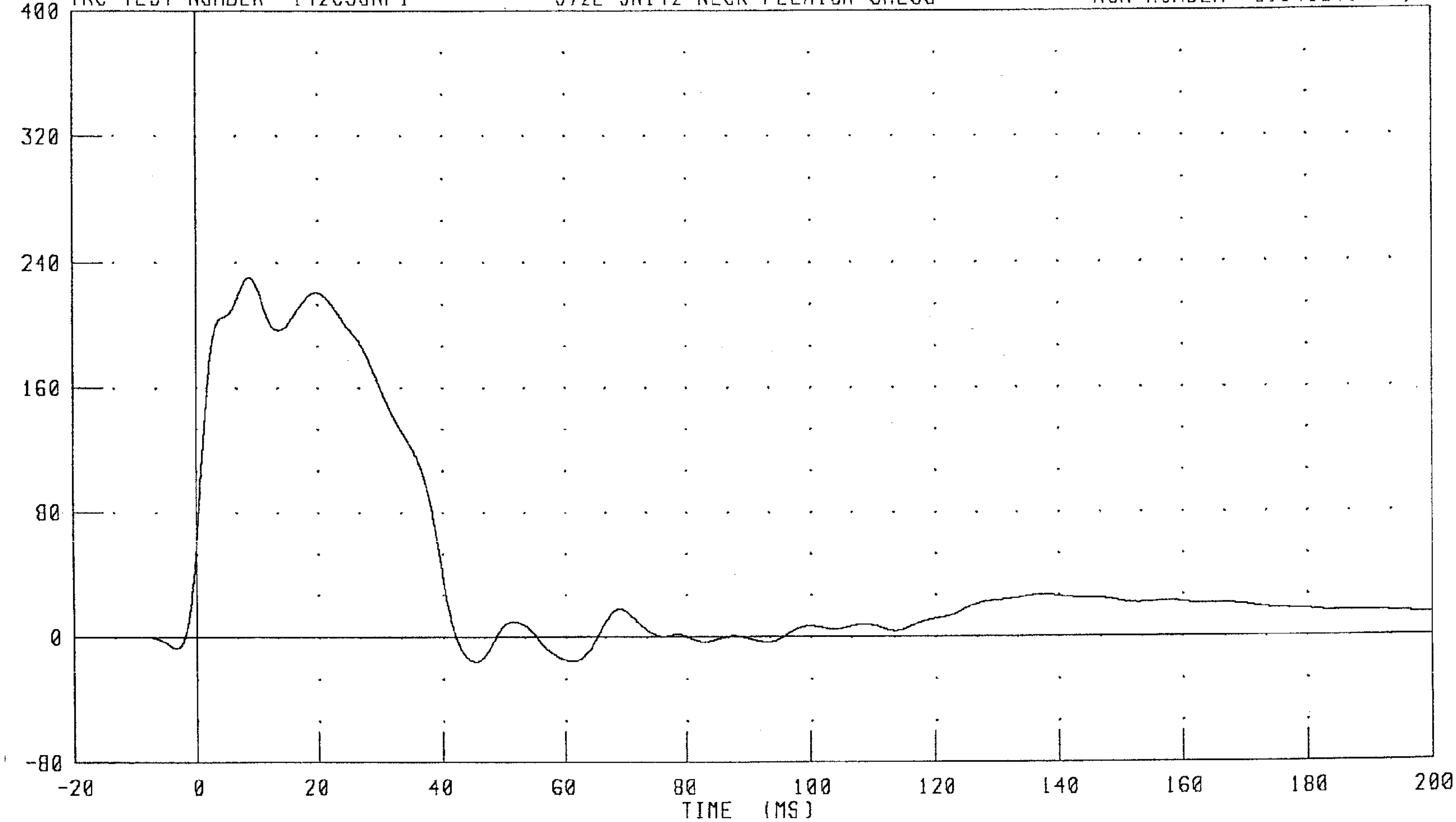
TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6-22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	20.0 %
IMPACT VELOCITY		6.89 - 7.13 M/S	7.12 M/S
PENDULUM DECELERATION	10 MS	22.50 - 27.50 G	22.53 G
	20 MS	17.60 - 22.60 G	22.07 G
	30 MS	12.50 - 18.50 G	16.02 G
MAX PENDULUM G		29 G MAX	23.05 G
MAX PENDULUM G ABOVE 30 MS		29 G MAX	15.94 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		34 - 42 MS	39.60 MS
D PLANE ROTATION	MAX	64 - 78 DEG.	73.08 DEG.
	TIME	57 - 64 MS	61.84 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MAX	88.2 - 108.5 NM	96.58 NM
	TIME	47 - 58 MS	53.44 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		113 - 128 MS	116.48 MS
POSITIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		97 - 107 MS	101.36 MS

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011498.1039;3

PART 572-E HYBRID III NECK FLEXION CALIBRATION
PENDULUM DECELERATION

TRC TEST NUMBER: 142C38NF1 572E SN142 NECK FLEXION CAL38 RUN NUMBER: 011498.1039;3

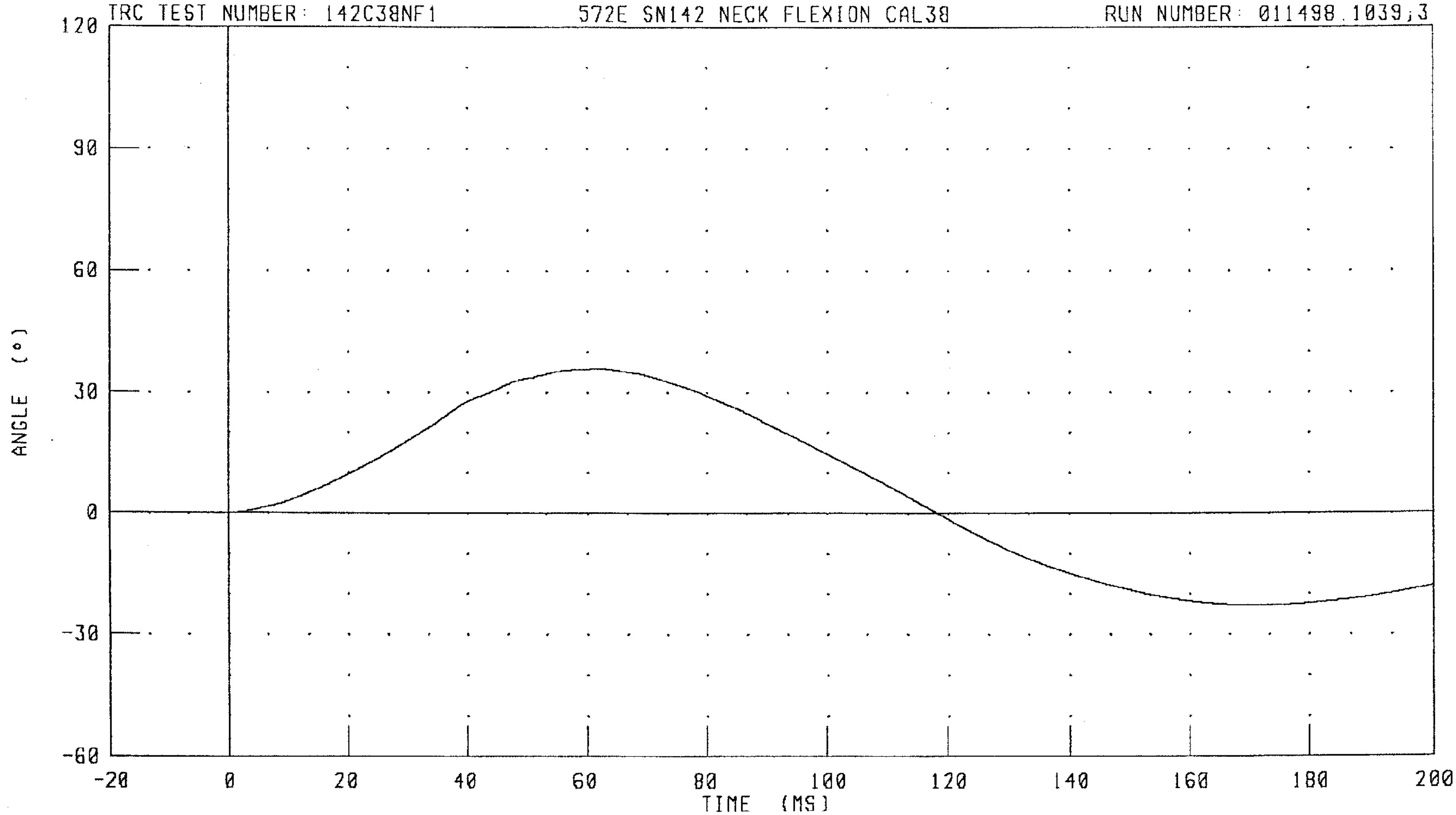


CHANNEL: PENXG FILTER: CH. CLASS 60 PEAK DATA: 23.05 G @ 8.88 MS; -1.59 G @ 45.36 MS

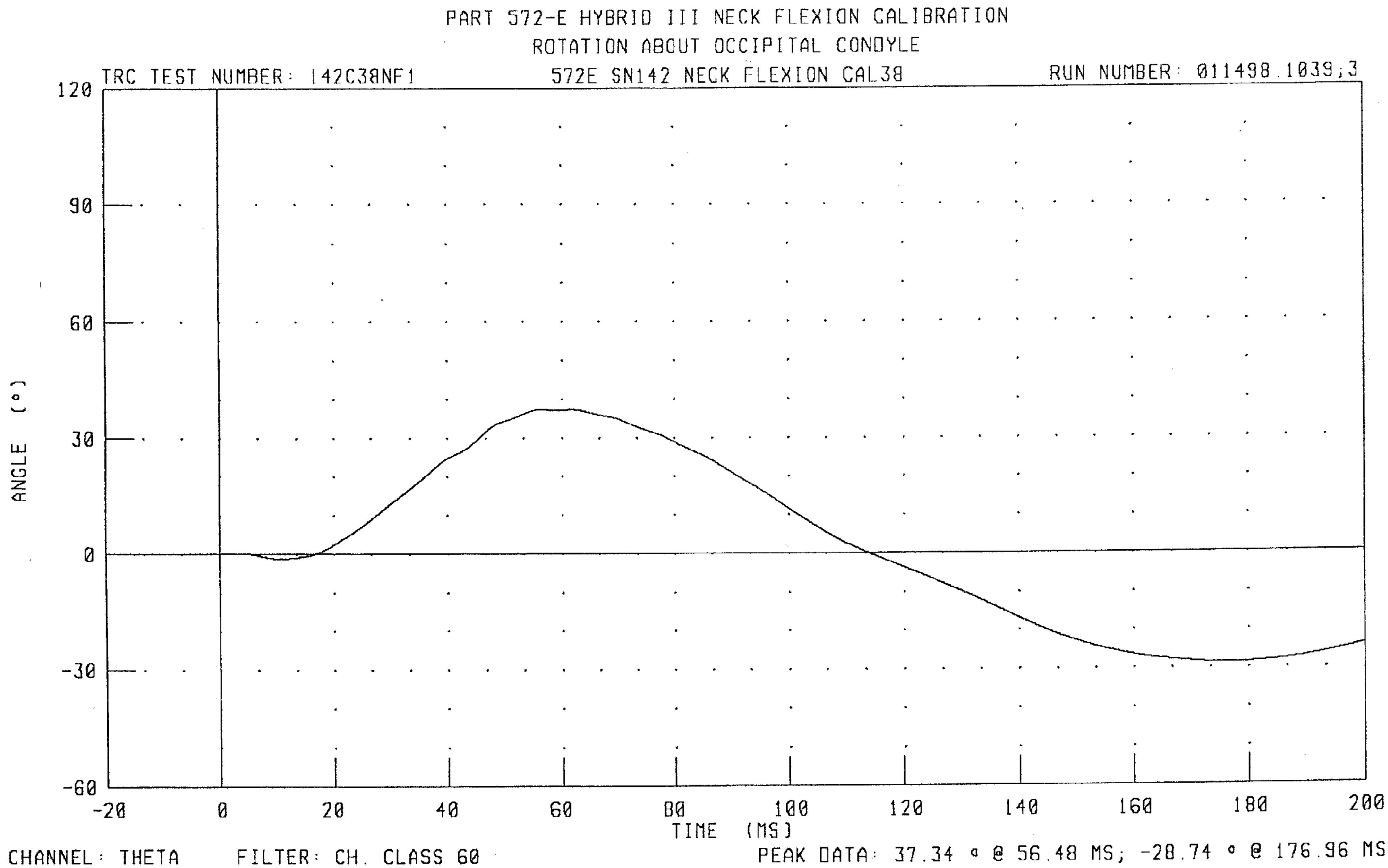
PART 572-E HYBRID III NECK FLEXION CALIBRATION

ROTATION ABOUT BASE OF NECK

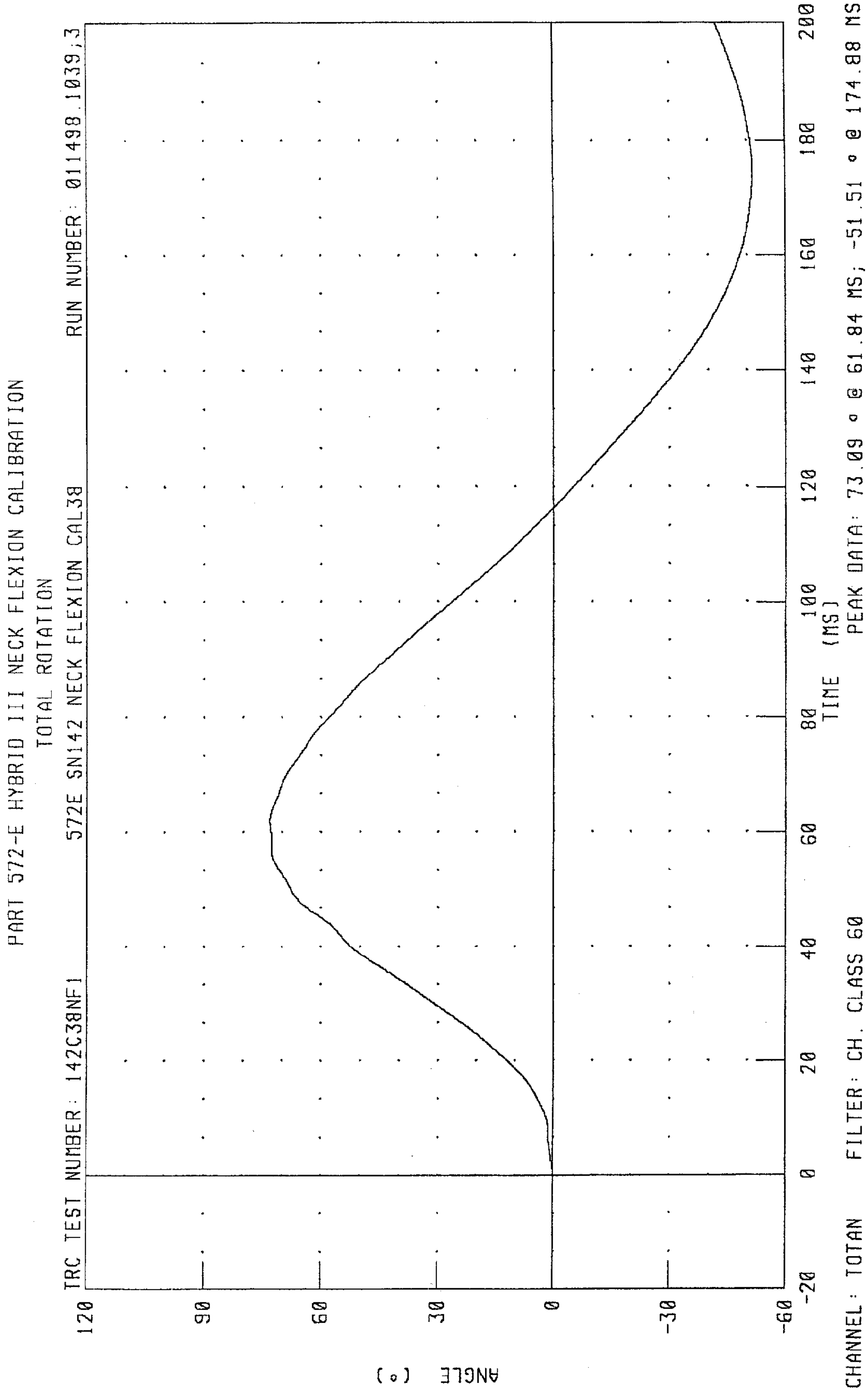
TRC TEST NUMBER: 142C38NF1 572E SN142 NECK FLEXION CAL38 RUN NUMBER: 011498.1039;3



CHANNEL: BETA FILTER: CH. CLASS 60 PEAK DATA: 35.80 ° @ 61.84 MS; -22.90 ° @ 171.52 MS

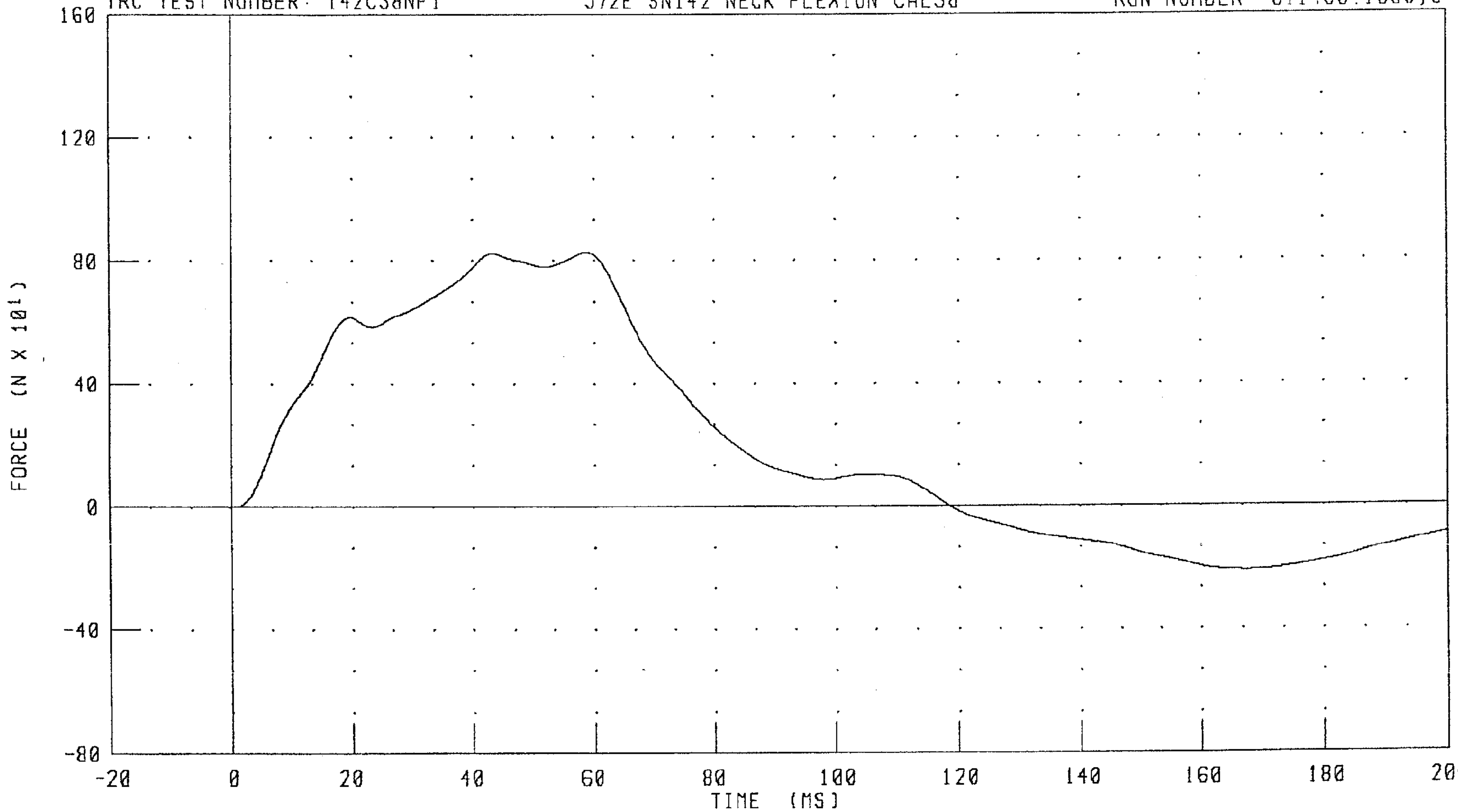


PART 572-E HYBRID III NECK FLEXION CALIBRATION
ROTATION ABOUT OCCIPITAL CONDYLE
TRC TEST NUMBER: 142C38NF1
572E SN142 NECK FLEXION CAL38
RUN NUMBER: 011498.1039;3
120
90
60
30
0
-30
-60
ANGLE (°)
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: THETA
FILTER: CH. CLASS 60
PEAK DATA: 37.34 ° @ 56.48 MS; -28.74 ° @ 176.96 MS

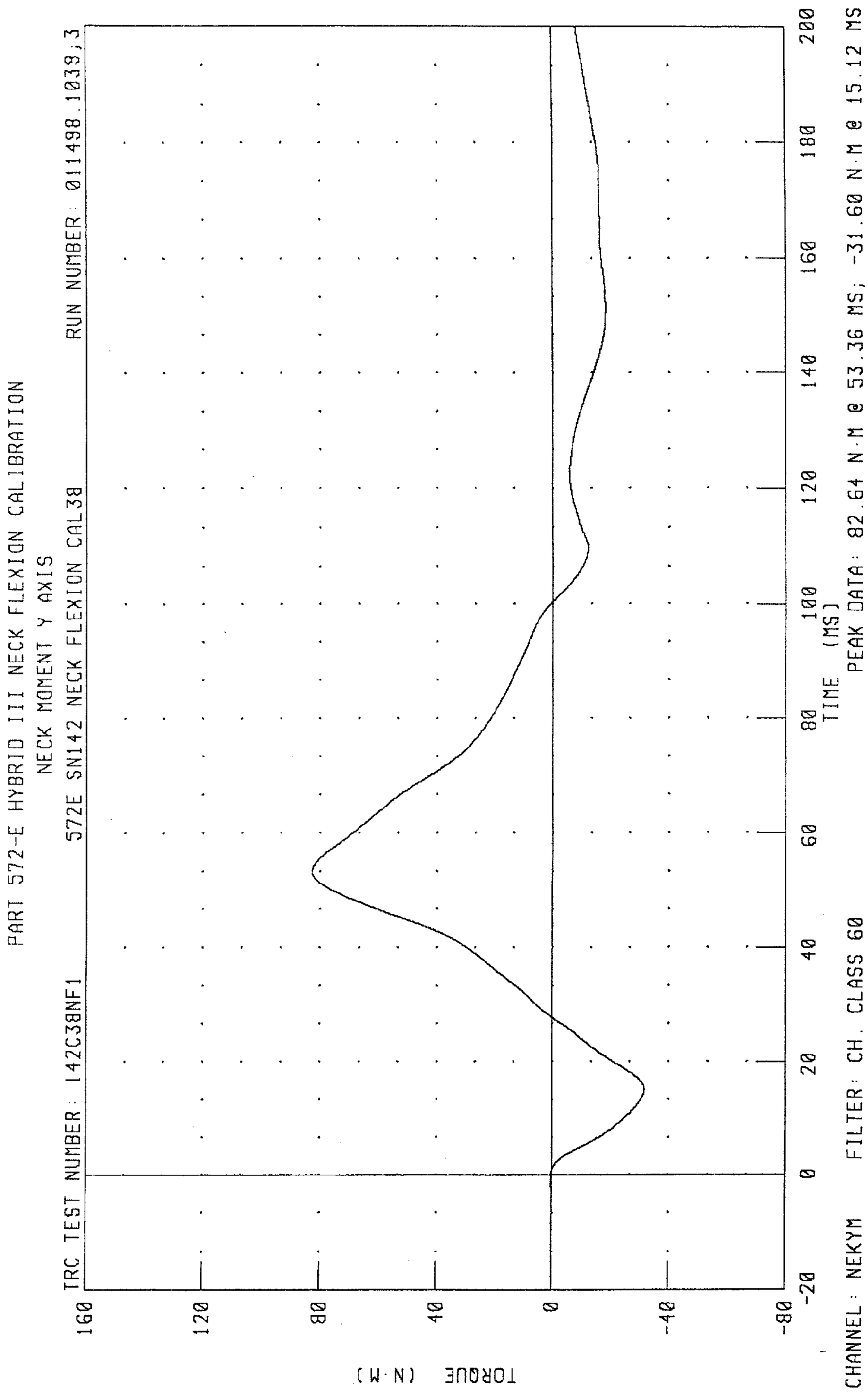

PART 572-E HYBRID III NECK FLEXION CALIBRATION
TOTAL ROTATION
572E SN142 NECK FLEXION CAL38
TRC TEST NUMBER: 142C38NF1
RUN NUMBER: 011498.1039.3
ANGLE (°)
120
90
60
30
0
-30
-60
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: TOTAN
FILTER: CH. CLASS 60
PEAK DATA: 73.09 ° @ 61.84 MS; -51.51 ° @ 174.88 MS

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

TRC TEST NUMBER: 142C38NF1 572E SN142 NECK FLEXION CAL38 RUN NUMBER: 011498.1039;3

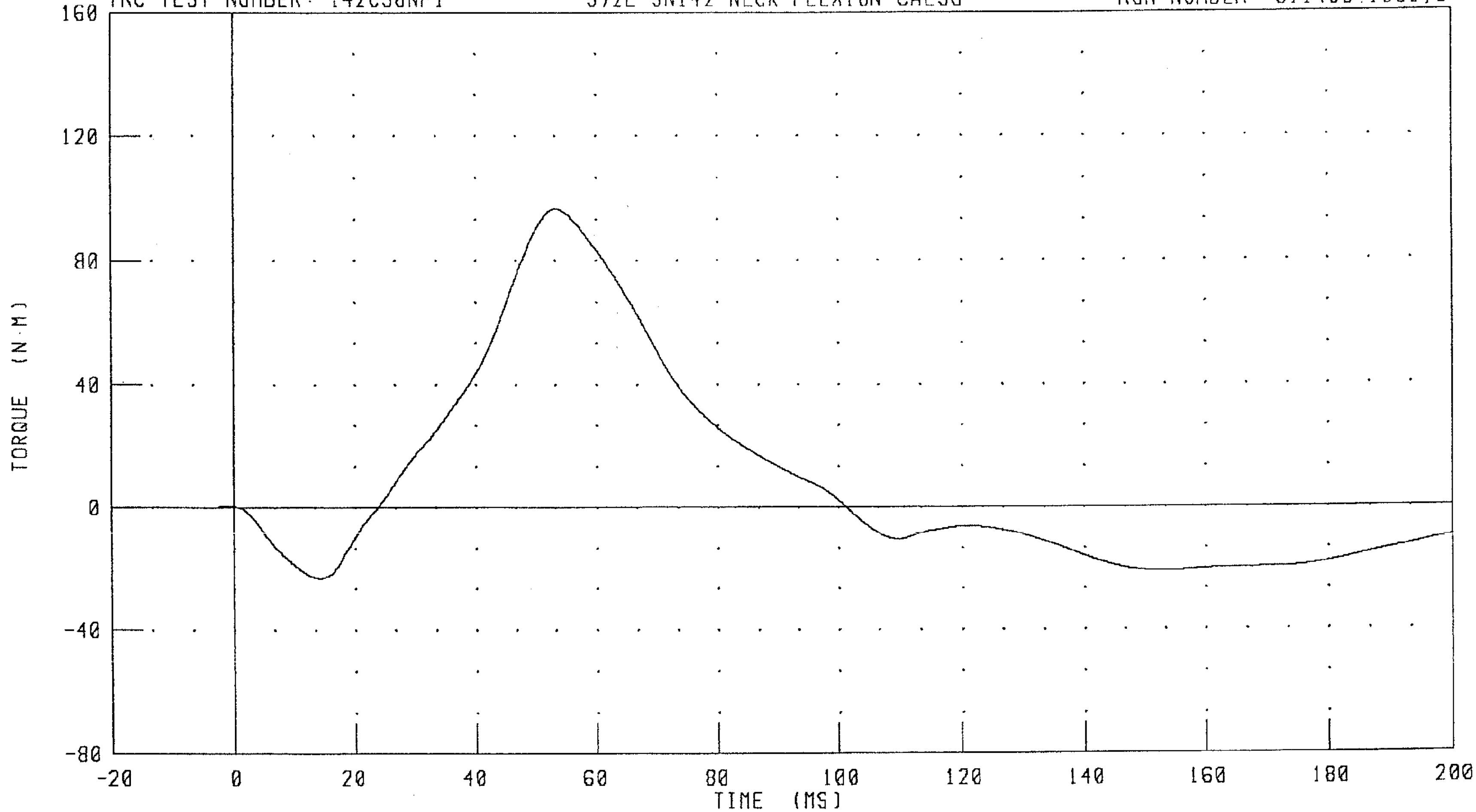


CHANNEL: NEKXF FILTER: CH. CLASS 60 PEAK DATA: 826.97 N @ 58.64 MS; -211.21 N @ 167.36 MS


PART 572-E HYBRID III NECK FLEXION CALIBRATION
NECK MOMENT Y AXIS
TRC TEST NUMBER: 142C38NF1
572E SN142 NECK FLEXION CAL38
RUN NUMBER: 011498.1039.3
TORQUE (N·M)
160
120
80
40
0
-40
-80
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: NEKYM
FILTER: CH. CLASS 60
PEAK DATA: 82.64 N·M @ 53.36 MS; -31.60 N·M @ 15.12 MS

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

TRC TEST NUMBER: 142C38NF1 572E SN142 NECK FLEXION CAL38 RUN NUMBER: 011498.1039;3



CHANNEL: NEKOM FILTER: CH. CLASS 60 PEAK DATA: 96.58 N·M @ 53.44 MS; -23.18 N·M @ 14.24 MS

TRANSPORTATION RESEARCH CENTER INC.

NECK EXTENSION TEST - 6 CHANNEL TRANSDUCER

TRC INC. TEST NO: 142C38NE1 572E SN142 NECK EXT. CAL38

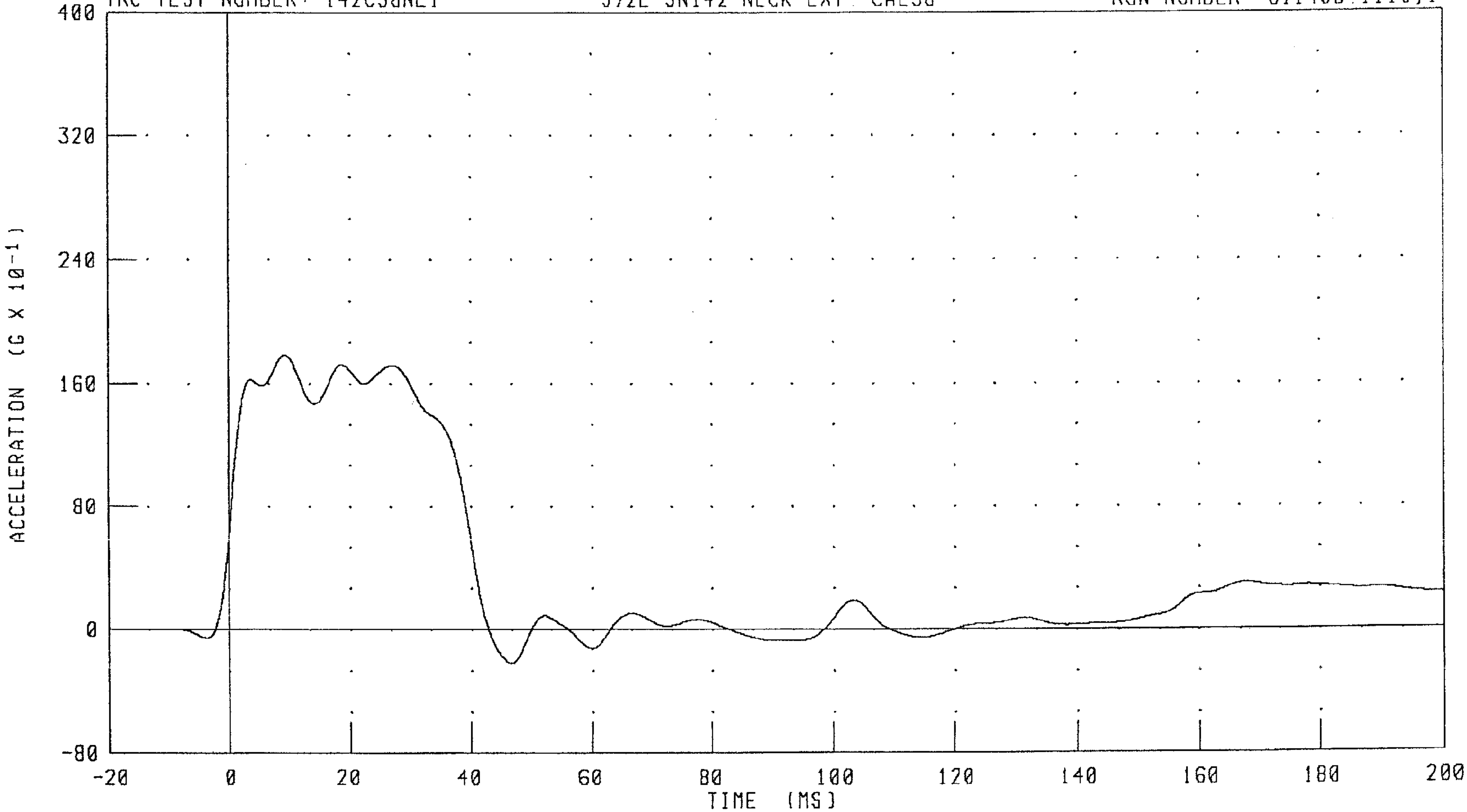
TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE		20.6 - 22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY		10 - 70 %	20.0 %
IMPACT VELOCITY		5.95 - 6.19 M/S	6.05 M/S
PENDULUM DECELERATION	10 MS	17.20 - 21.20 G	17.68 G
	20 MS	14.00 - 19.00 G	16.86 G
	30 MS	11.00 - 16.00 G	15.92 G
MAX PENDULUM G		22 G MAX	17.84 G
MAX PENDULUM G ABOVE 30 MS		22 G MAX	15.86 G
DECELERATION-TIME CURVE DECAY TIME TO 5 G		38 - 46 MS	40.24 MS
D PLANE ROTATION	MAX	81 - 106 DEG.	95.16 DEG.
	TIME	72 - 82 MS	75.52 MS
MOMENT ABOUT OCCIPITAL CONDYLE	MIN	-80.0/-52.9 NM	-71.20 NM
	TIME	65 - 79 MS	70.24 MS
ROTATION ANGLE-TIME CURVE DECAY TIME TO ZERO		147 - 174 MS	153.60 MS
NEGATIVE MOMENT-TIME CURVE DECAY TIME TO ZERO		120 - 148 MS	137.44 MS

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011498.1109;1

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
PENDULUM DECELERATION

TRC TEST NUMBER: 142C38NE1   572E SN142 NECK EXT. CAL38   RUN NUMBER: 011498.1110;1

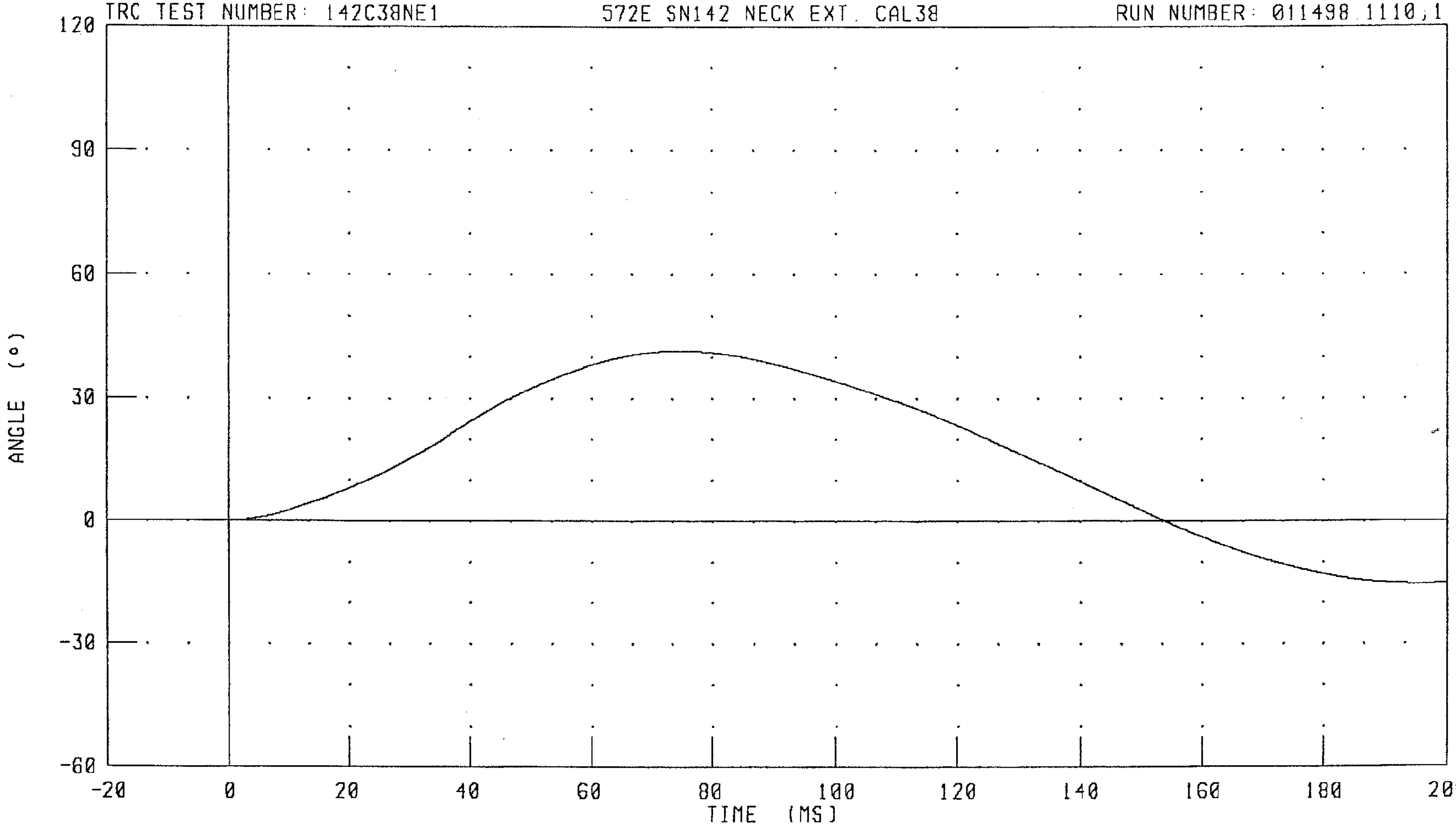


CHANNEL: PENXG   FILTER: CH. CLASS 60   PEAK DATA: 17.84 G @ 9.36 MS; -2.18 G @ 46.64 MS

980120

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

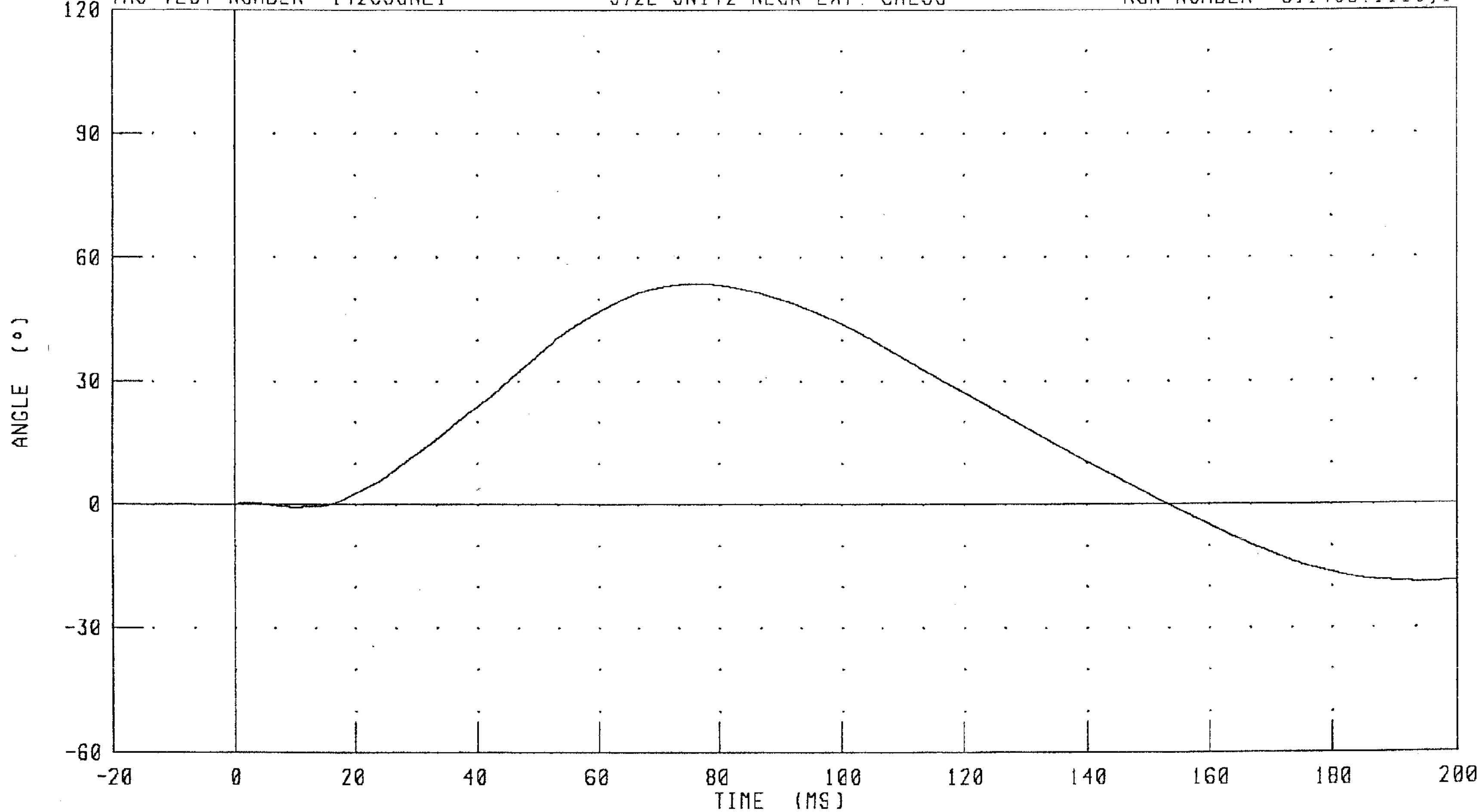
TRC TEST NUMBER: 142C38NE1 572E SN142 NECK EXT. CAL38 RUN NUMBER: 011498.1110;1



CHANNEL: BETA FILTER: CH. CLASS 60 PEAK DATA: 41.52 ° @ 74.72 MS; -15.38 ° @ 195.84 MS

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

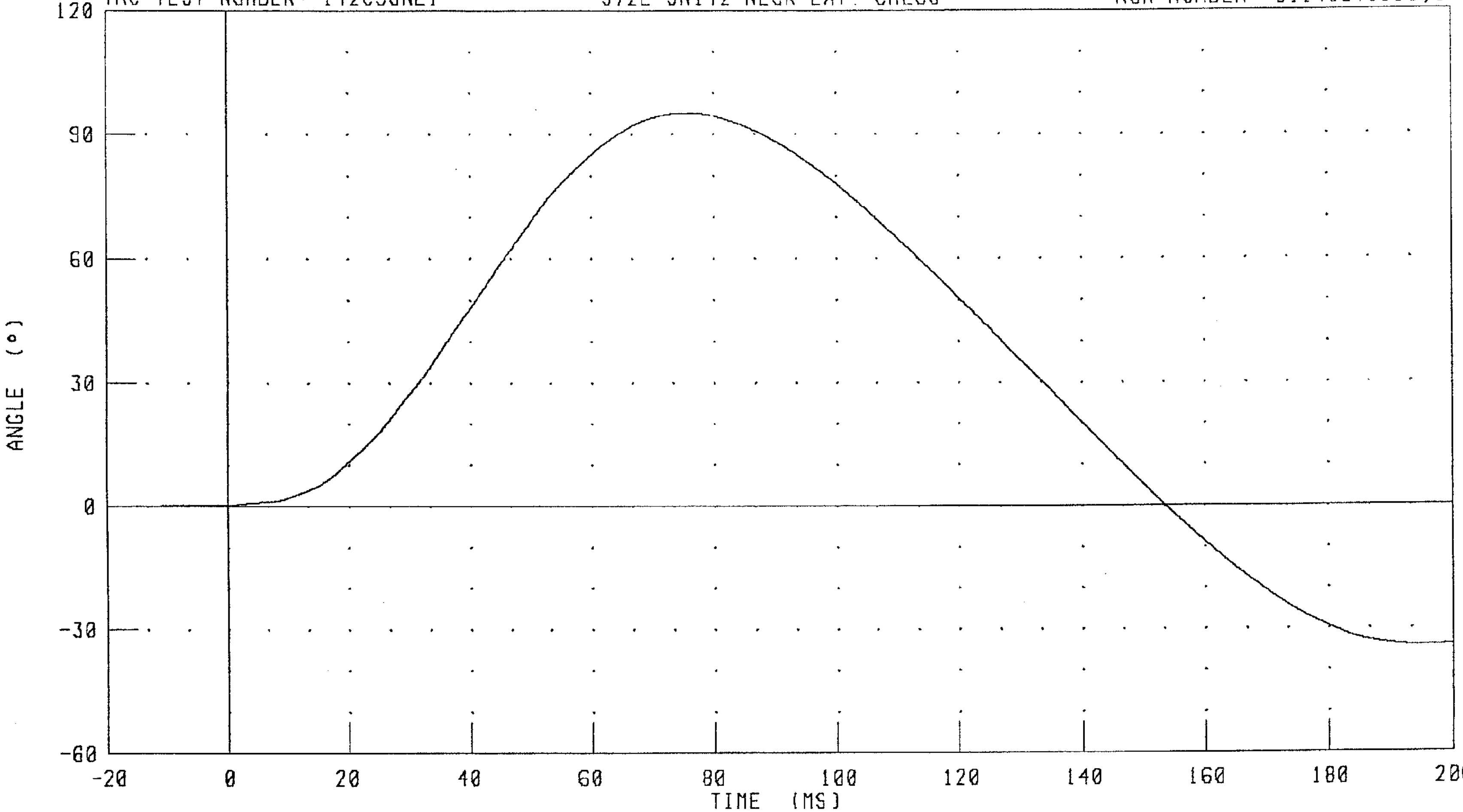
TRC TEST NUMBER: 142C38NE1 572E SN142 NECK EXT. CAL38 RUN NUMBER: 011498.1110;1



CHANNEL: THETA FILTER: CH. CLASS 60 PEAK DATA: 53.67 ° @ 76.16 MS; -18.93 ° @ 195.20 MS

PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL ROTATION

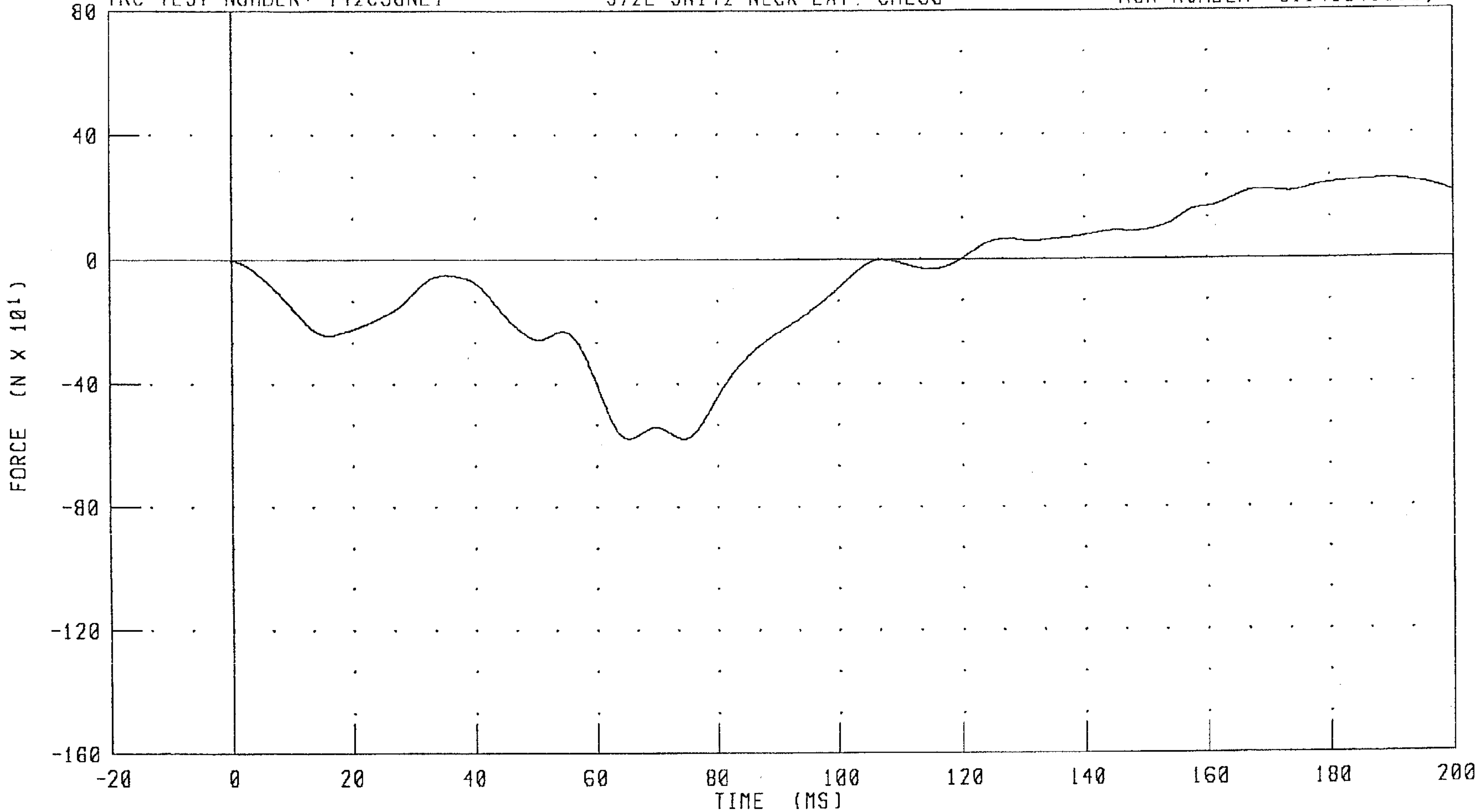
TRC TEST NUMBER: 142C38NE1 572E SN142 NECK EXT. CAL38 RUN NUMBER: 011498.1110;1



CHANNEL: TOTAN FILTER: CH. CLASS 60 PEAK DATA: 95.17 ° @ 75.52 MS; -34.31 ° @ 195.60 MS

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

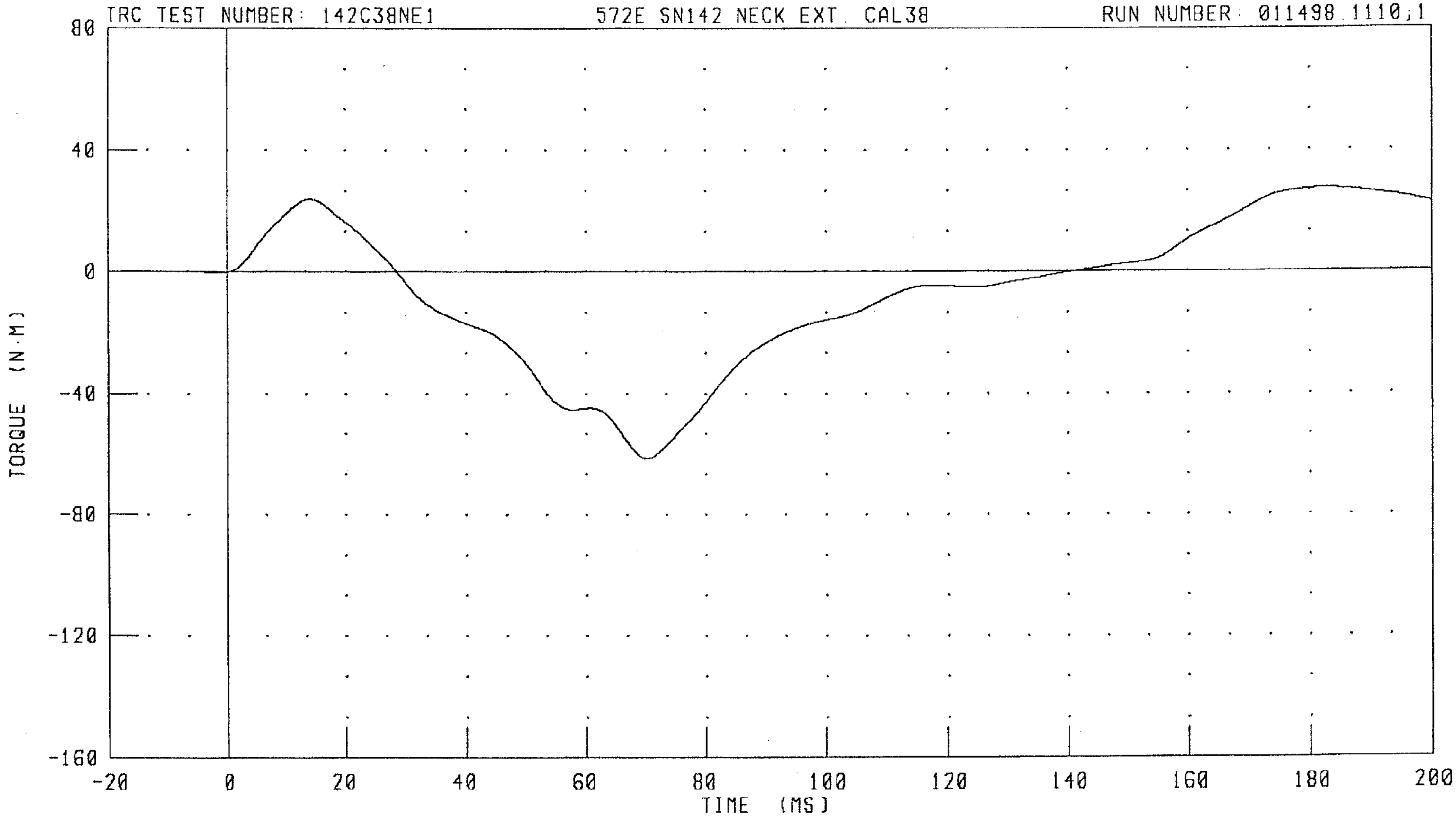
TRC TEST NUMBER: 142C38NE1 572E SN142 NECK EXT. CAL38 RUN NUMBER: 011498.1110;1



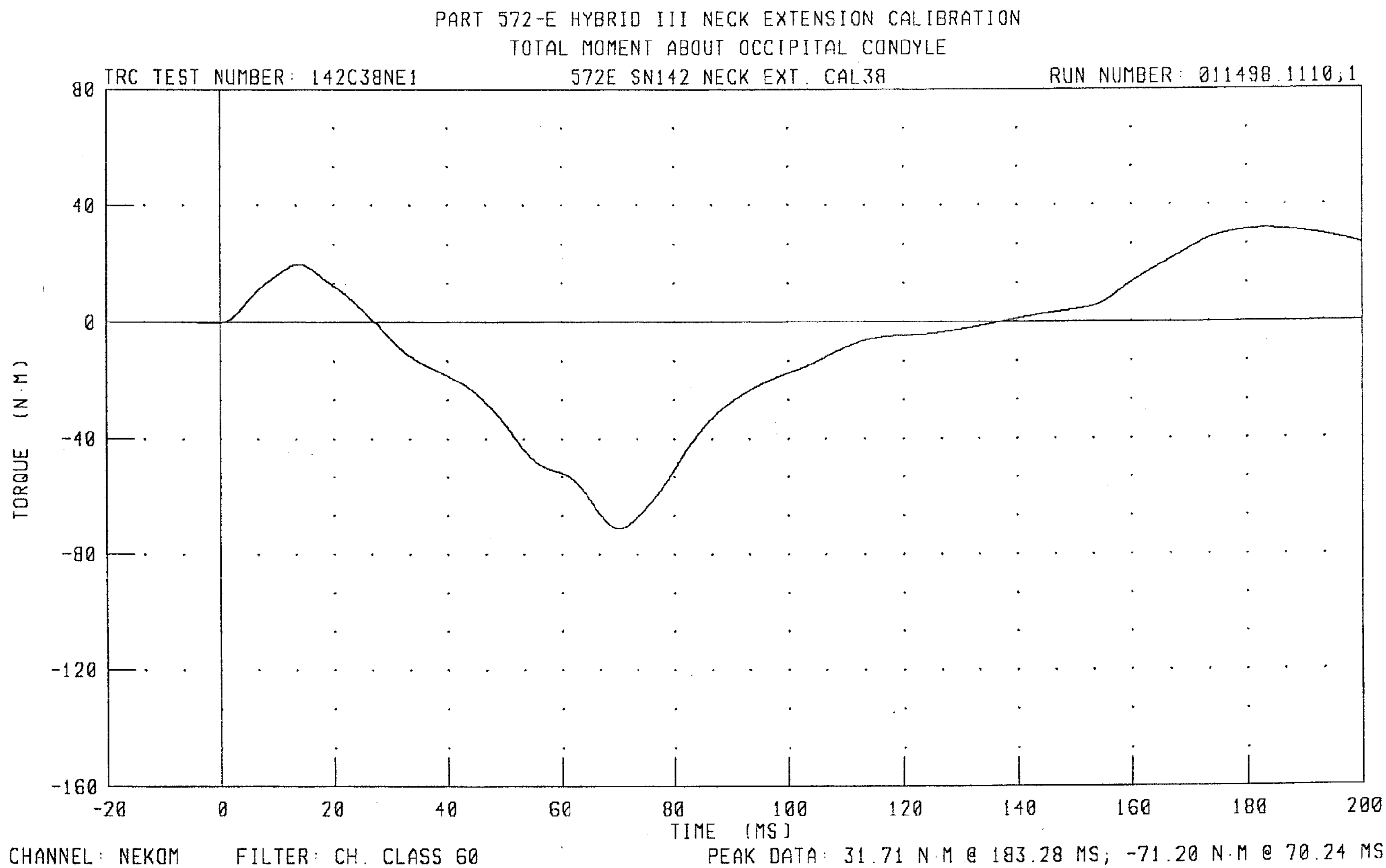
CHANNEL: NEKXF FILTER: CH. CLASS 60 PEAK DATA: 253.26 N @ 189.60 MS; -578.92 N @ 74.48 MS

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

TRC TEST NUMBER: 142C38NE1 572E SN142 NECK EXT. CAL38 RUN NUMBER: 011498.1110;1



CHANNEL: NEKYM FILTER: CH. CLASS 60 PEAK DATA: 27.34 N·M @ 182.72 MS; -61.57 N·M @ 70.24 MS


PART 572-E HYBRID III NECK EXTENSION CALIBRATION
TOTAL MOMENT ABOUT OCCIPITAL CONDYLE
TRC TEST NUMBER: 142C38NE1
572E SN142 NECK EXT. CAL38
RUN NUMBER: 011498.1110;1
80
40
0
-40
-80
-120
-160
TORQUE (N·M)
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS)
CHANNEL: NEKOM
FILTER: CH. CLASS 60
PEAK DATA: 31.71 N·M @ 183.28 MS; -71.20 N·M @ 70.24 MS

TRANSPORTATION RESEARCH CENTER INC.

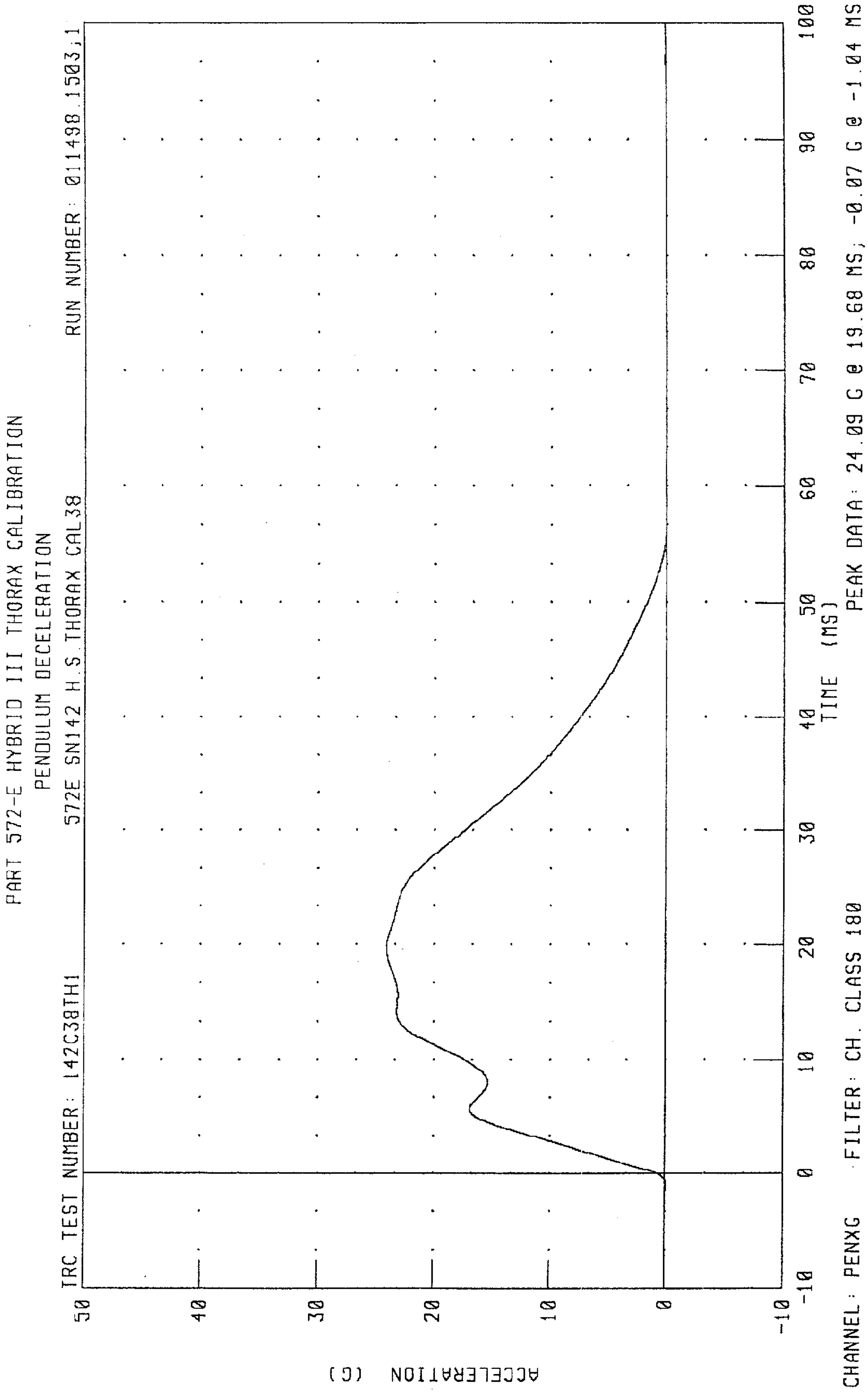
THORAX IMPACT TEST

TRC INC. TEST NO: 142C38TH1 572E SN142 H.S.THORAX CAL38

TEST PARAMETER	HIGH SPEED TEST SPECIFICATION	TEST RESULTS
TEMPERATURE	20.6-22.2 DEG. C	21.1 DEG. C
RELATIVE HUMIDITY	10 - 70 %	20.0 %
PENDULUM VELOCITY	6.59 - 6.83 M/S	6.68 M/S
MAXIMUM DEFLECTION	63.5 - 72.6 MM	71.1 MM
MAXIMUM RESISTIVE FORCE	5159 - 5894 N	5518. N
INTERNAL HYSTERESIS	69% - 85%	71.7%

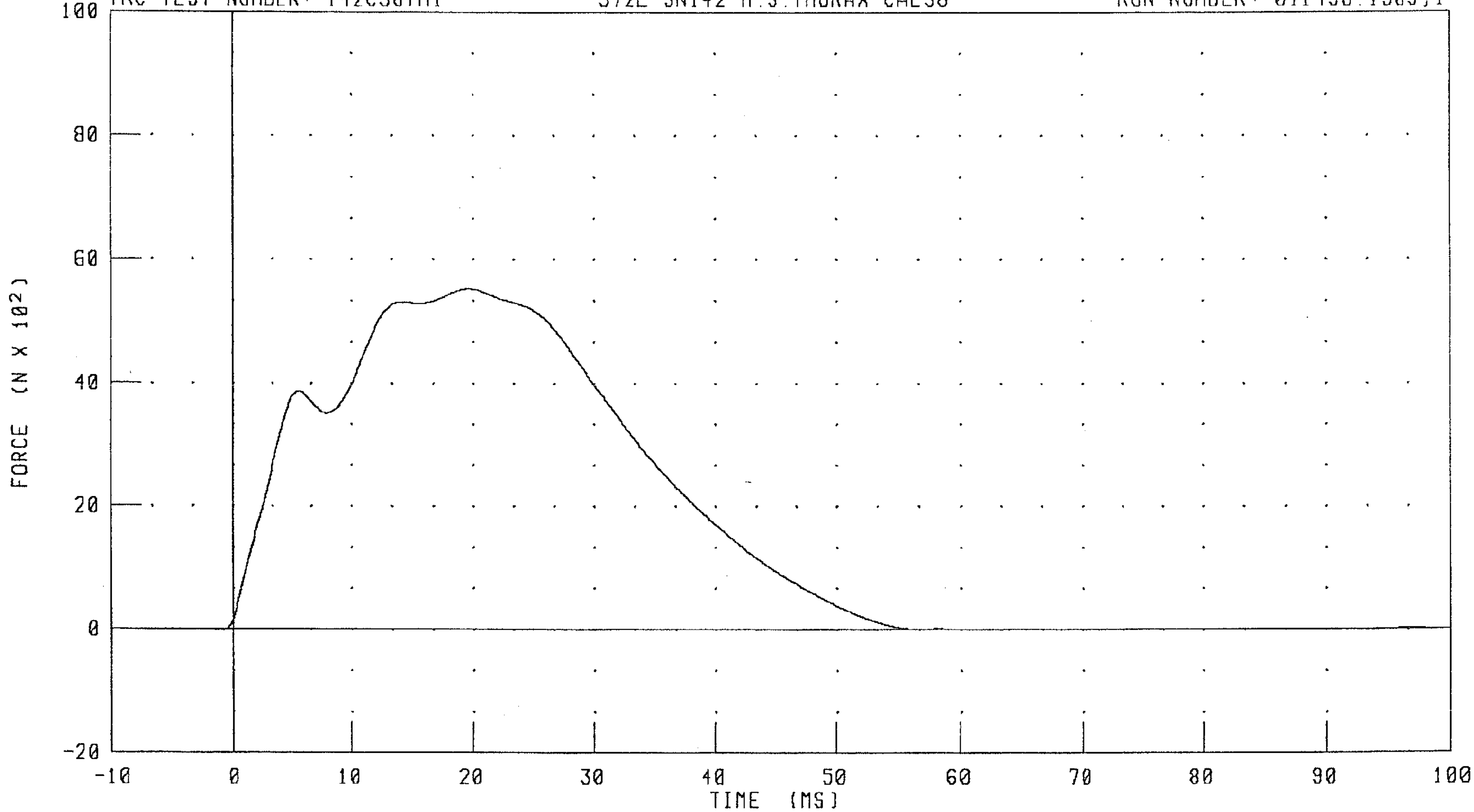
TEST MEETS SPECIFICATIONS

TECHNICIAN John Clarridge RUN NUMBER: 011498.1502;1


PART 572-E HYBRID III THORAX CALIBRATION
PENDULUM DECELERATION
572E SN142 H.S THORAX CAL38
TRC TEST NUMBER: 142C38TH1
RUN NUMBER: 011498.1503;1
50
40
30
20
10
0
-10
ACCELERATION (G)
-10
0
10
20
30
40
50
60
70
80
90
100
TIME (MS)
CHANNEL: PENXG
FILTER: CH. CLASS 180
PEAK DATA: 24.09 G @ 19.68 MS; -0.07 G @ -1.04 MS

PART 572-E HYBRID III THORAX CALIBRATION
PENDULUM FORCE

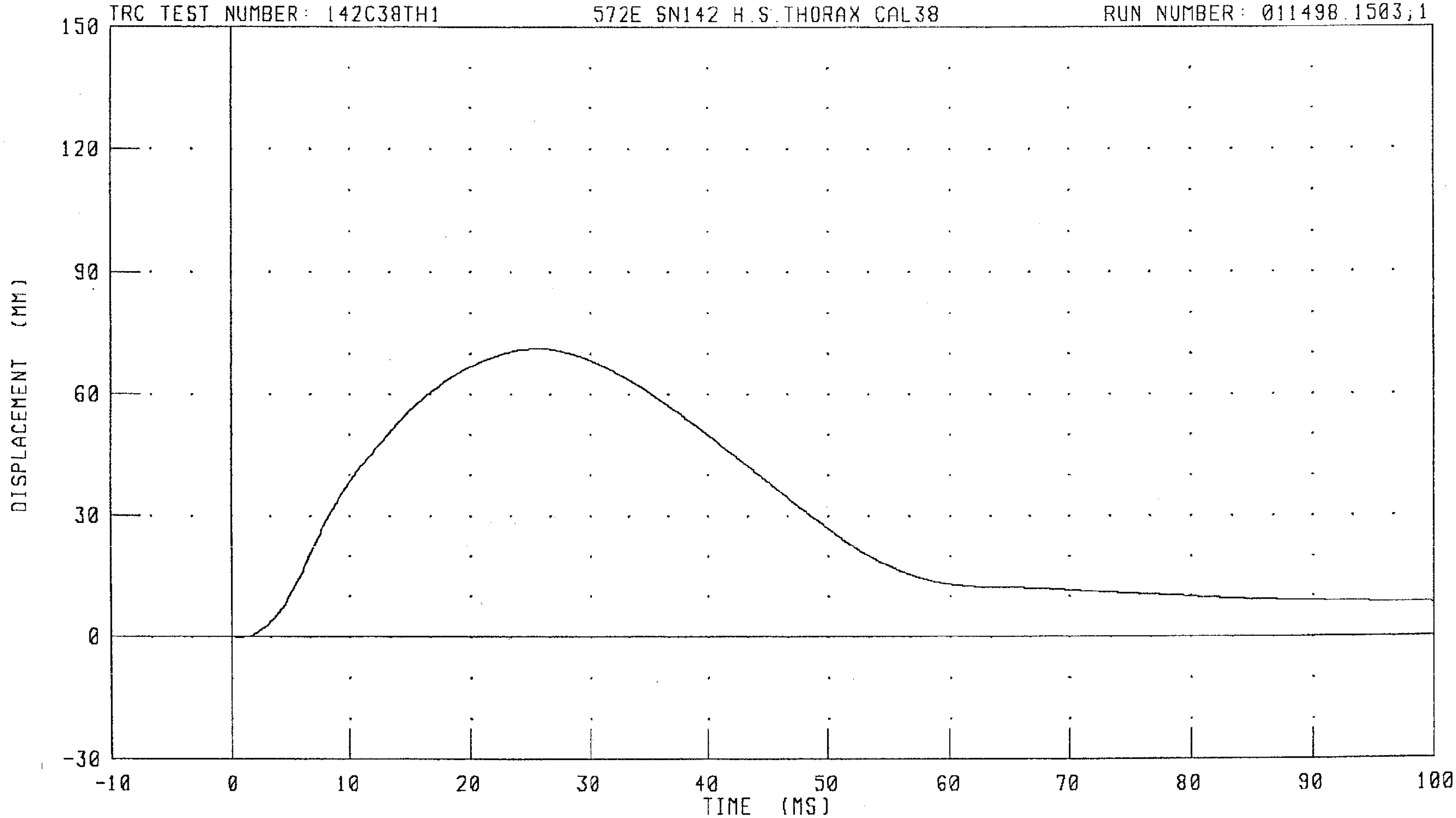
TRC TEST NUMBER: 142C38TH1 572E SN142 H.S.THORAX CAL38 RUN NUMBER: 011498.1503;1



CHANNEL: PENXF FILTER: CH. CLASS 180 PEAK DATA: 5518.54 N @ 19.68 MS; -15.24 N @ -1.04 MS

PART 572-E HYBRID III THORAX CALIBRATION
STERNUM DISPLACEMENT

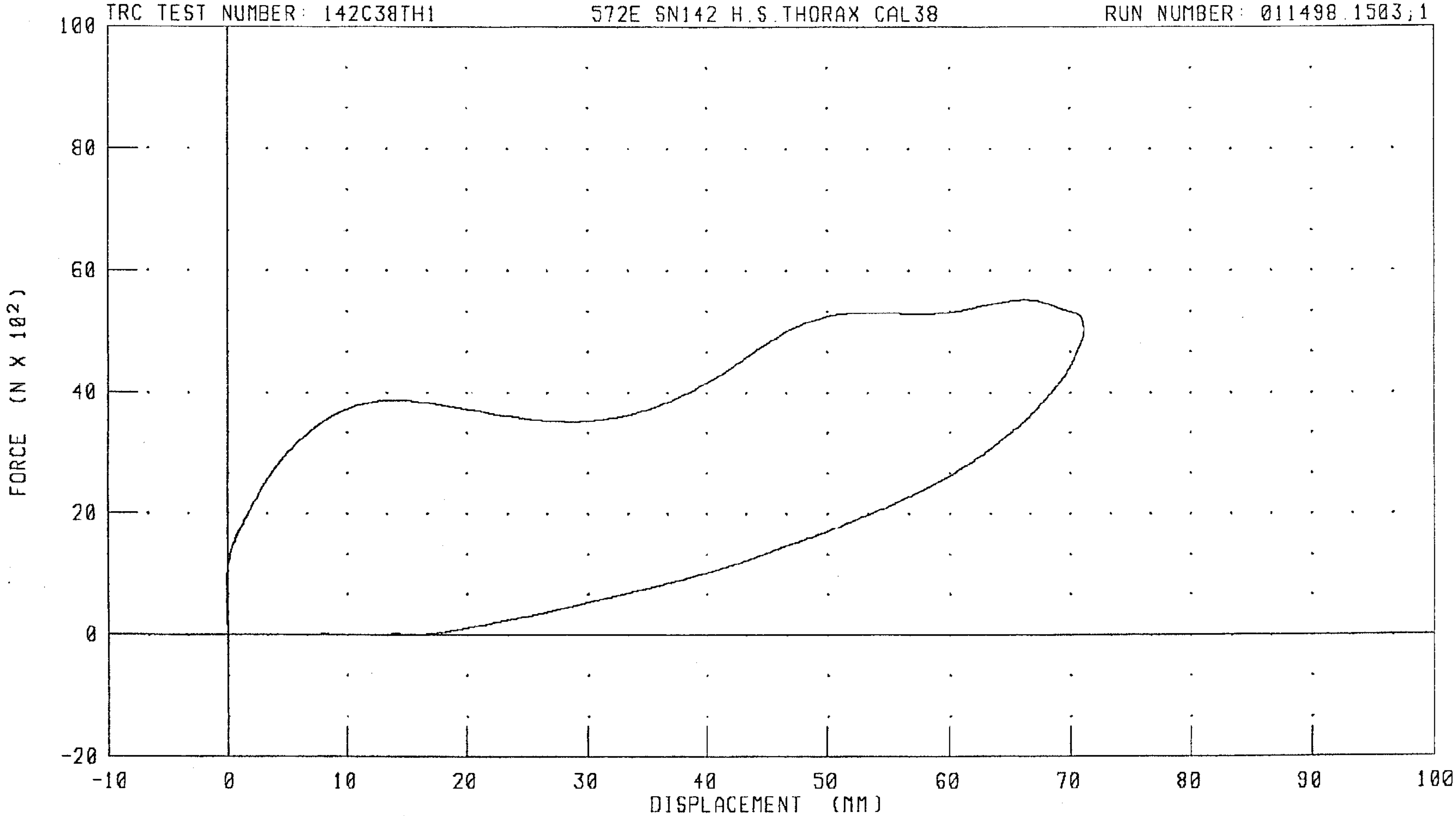
TRC TEST NUMBER: 142C38TH1 572E SN142 H.S.THORAX CAL38 RUN NUMBER: 011498.1503;1



CHANNEL: CSTXD FILTER: CH. CLASS 180 PEAK DATA: 71.20 MM @ 25.92 MS; -0.07 MM @ 0.80 MS

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

TRC TEST NUMBER: 142C38TH1 572E SN142 H.S THORAX CAL38 RUN NUMBER: 011498.1503;1



CHANNEL: CSTXD FILTER: CH. CLASS 180 PEAK DATA: 71.20 MM @ 25.92 MS; -0.07 MM @ 0.80 MS
PENXF CH. CLASS 180 5518.54 N @ 19.68 MS; -15.24 N @ -1.04 MS

TRANSPORTATION RESEARCH CENTER INC.

RIGHT HIP JOINT FEMUR FLEXION TEST

HYBRID III PART 572E 13-JAN-98

TRC INC. TEST NO: 142C38HR1 RIGHT HIP FLEX 0 DEGREES

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
ROTATION RATE	5 - 10 deg/sec	YES
TORQUE @ 30 deg ROTATION	<= 94.9 Nm	75.1 Nm
ROTATION @ 203.4 Nm TORQUE	40 - 50 deg.	43.8 deg.

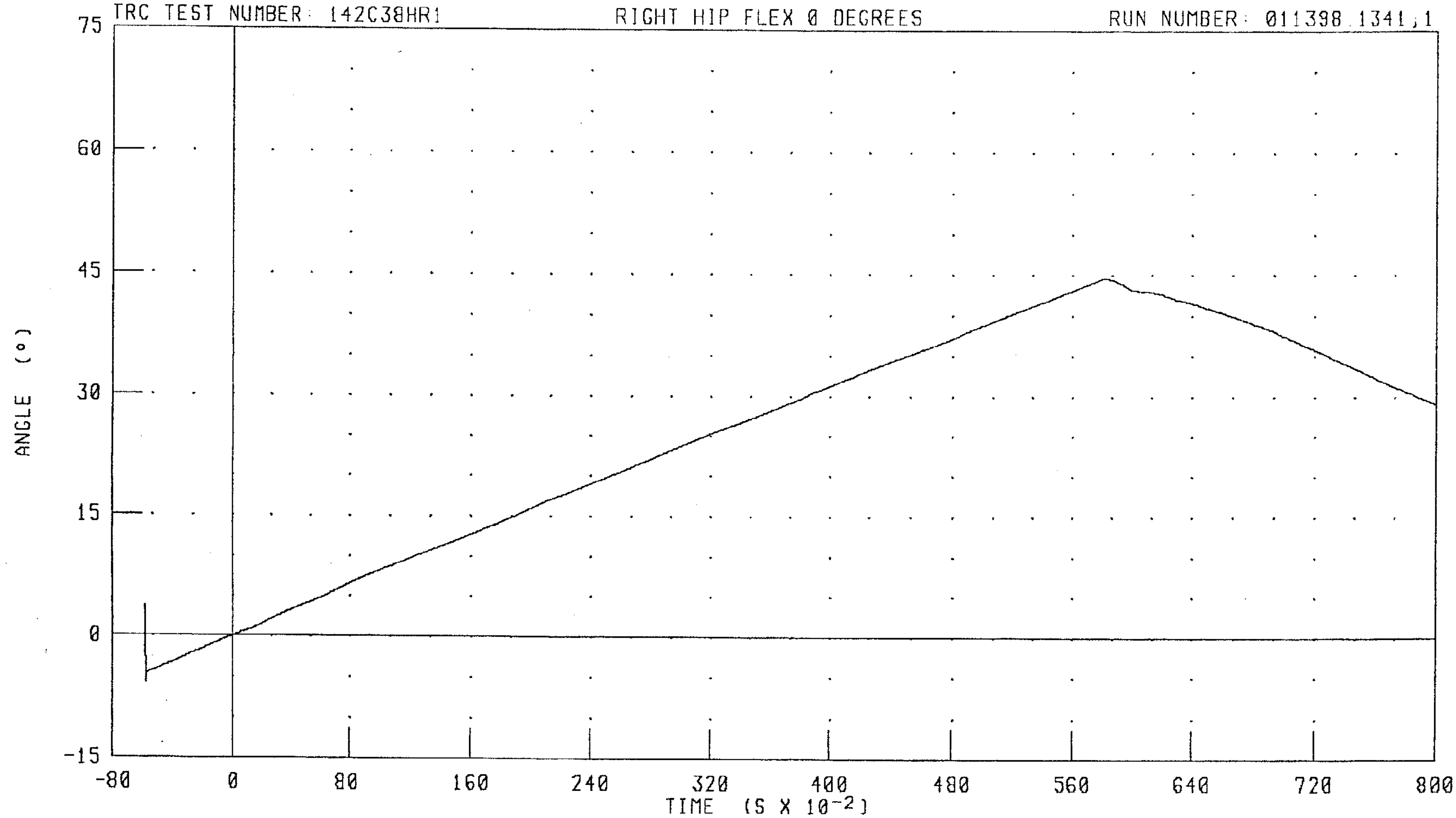
TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011398.1341;1

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES

RIGHT HIP FLEXION ROTATION

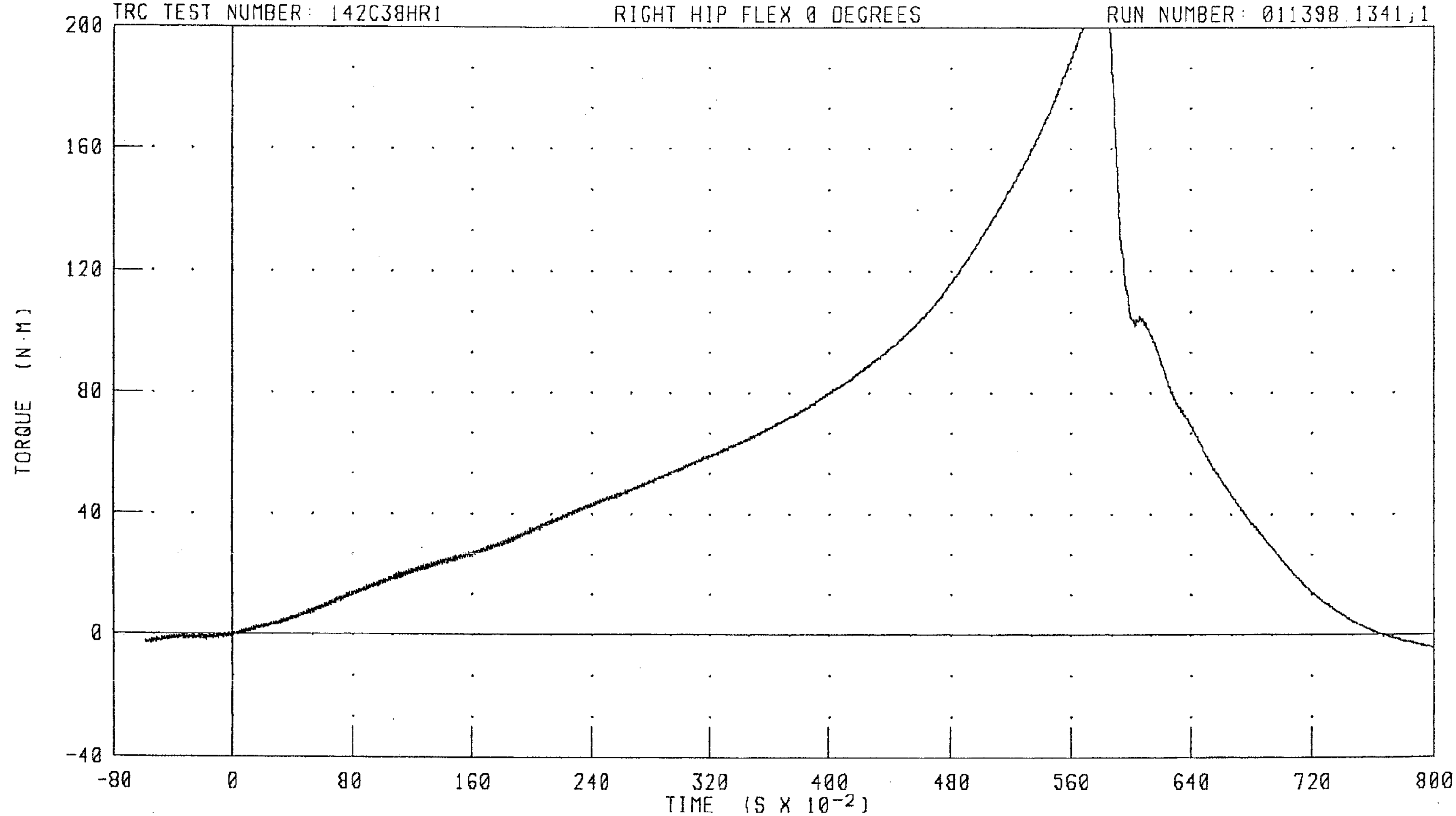
TRC TEST NUMBER: 142C38HR1 RIGHT HIP FLEX 0 DEGREES RUN NUMBER: 011398.1341;1



CHANNEL: RHPXD FILTER: CH. CLASS 60 PEAK DATA: 44.61 ° @ 5.80 S; -5.75 ° @ -0.57 S

980120

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
RIGHT HIP FLEXION MOMENT
TRC TEST NUMBER: 142C38HR1 RIGHT HIP FLEX 0 DEGREES RUN NUMBER: 011398 1341;1

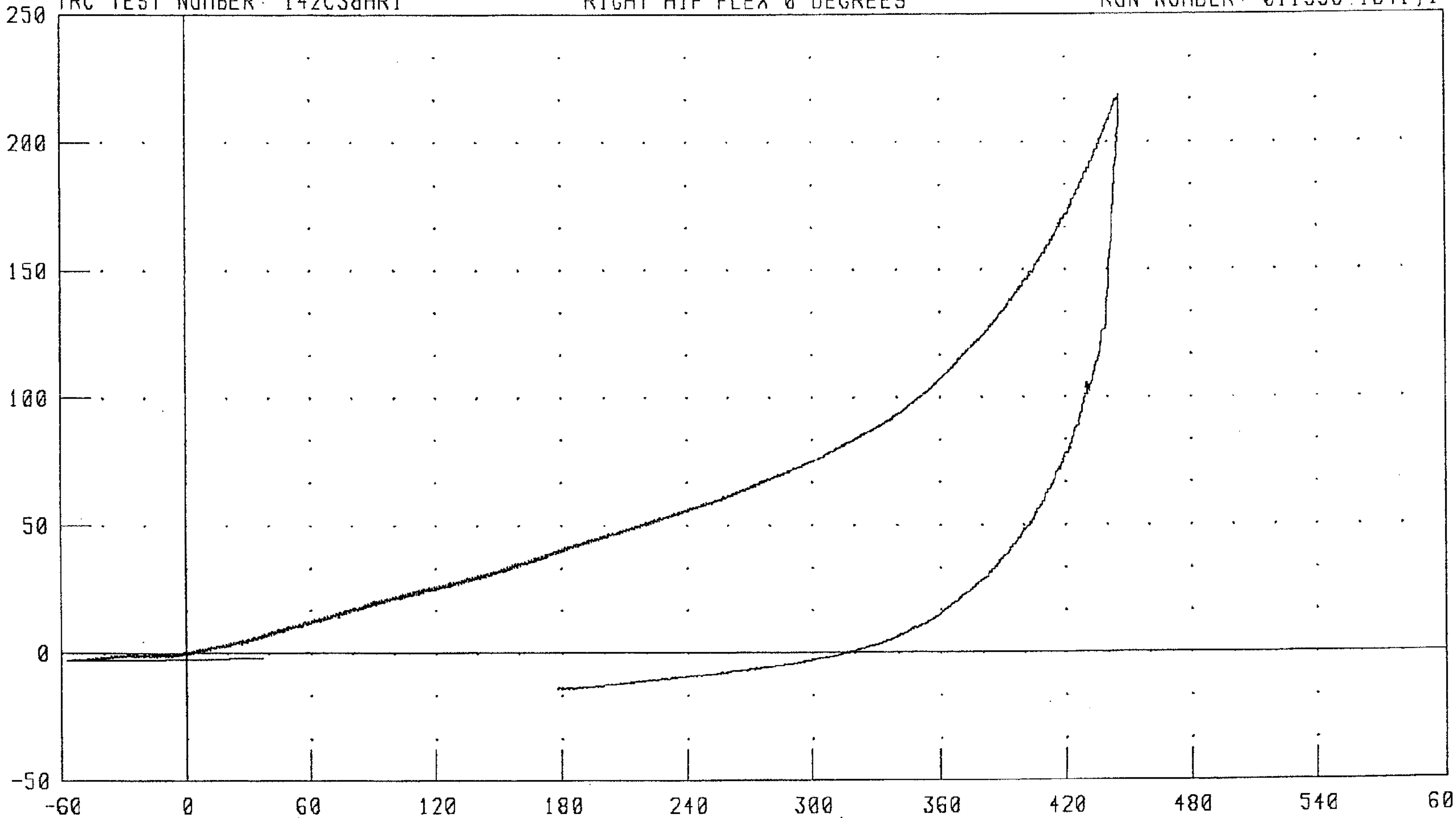


CHANNEL: RHPYM FILTER: CH. CLASS 60 PEAK DATA: 218.76 N·M @ 5.80 S; -14.27 N·M @ 9.39 S

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES

RIGHT HIP FLEXION MOMENT VS ROTATION ANGLE

TRC TEST NUMBER: 142C38HR1 RIGHT HIP FLEX 0 DEGREES RUN NUMBER: 011398.1341;1



CHANNEL: RHPXD FILTER: CH. CLASS 60 PEAK DATA: 44.61 ° @ 5.80 S; -5.75 ° @ -0.57 S
RHPYM CH. CLASS 60 218.76 N·M @ 5.80 S; -14.27 N·M @ 9.39 S

TRANSPORTATION RESEARCH CENTER INC.

LEFT HIP JOINT FEMUR FLEXION TEST

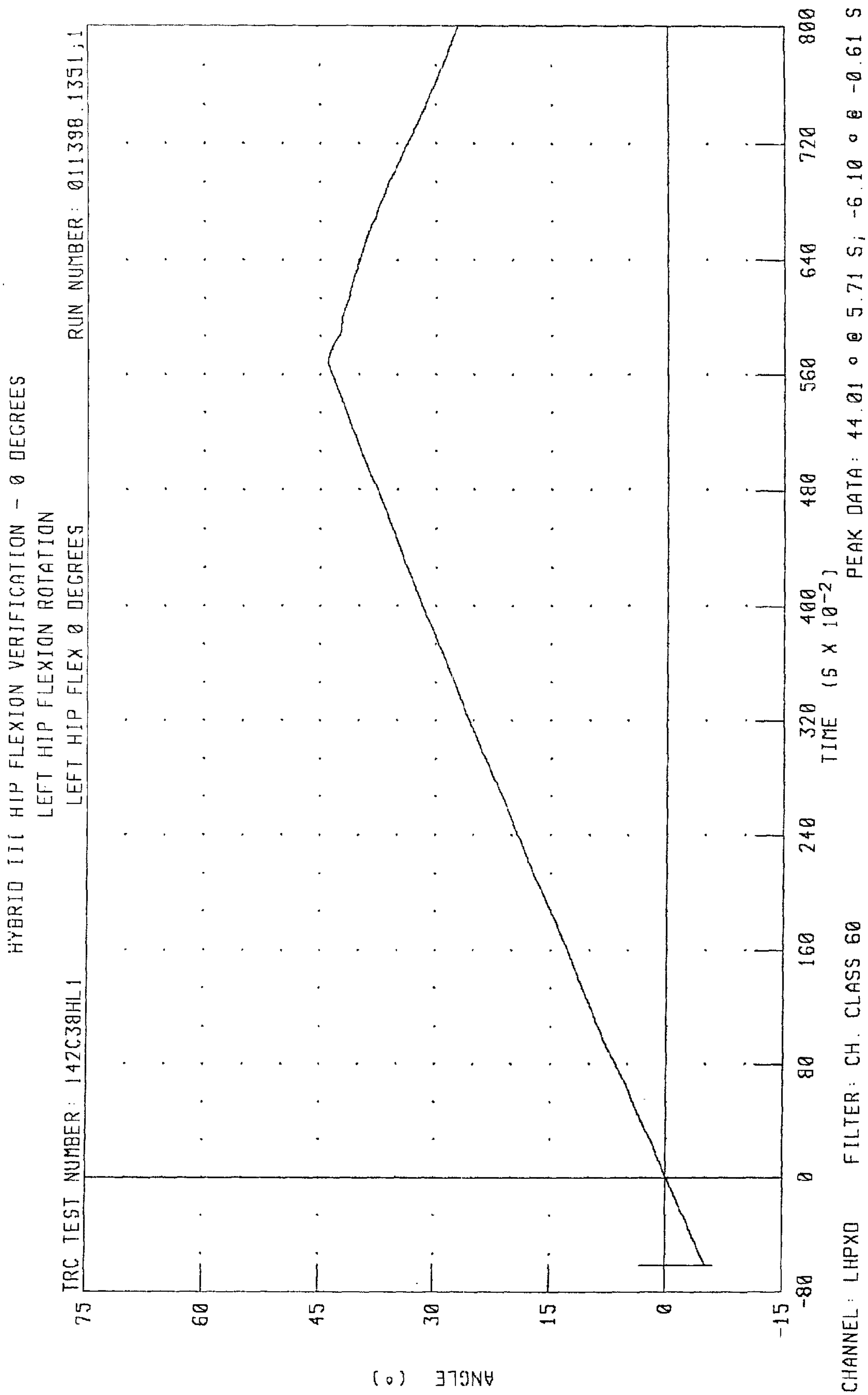
HYBRID III PART 572E 13-JAN-98

TRC INC. TEST NO: 142C38HL1 LEFT HIP FLEX 0 DEGREES

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
ROTATION RATE	5 - 10 deg/sec	YES
TORQUE @ 30 deg ROTATION	<= 94.9 Nm	64.4 Nm
ROTATION @ 203.4 Nm TORQUE	40 - 50 deg.	43.3 deg.

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011398.1350;1

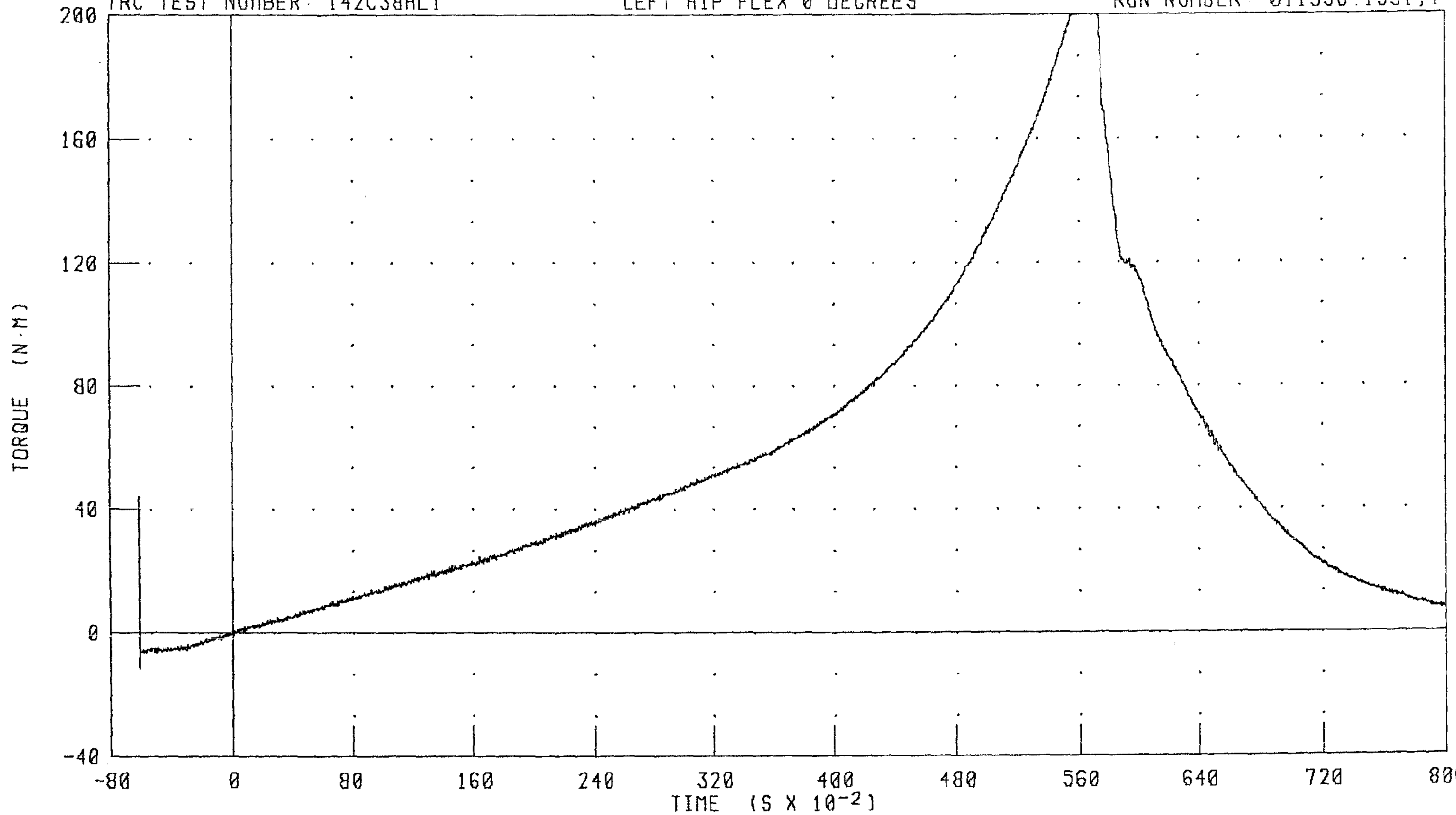


HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION ROTATION
LEFT HIP FLEX 0 DEGREES
TRC TEST NUMBER: 142C38HL1
RUN NUMBER: 011398.1351.1
ANGLE (°)
75
60
45
30
15
0
-15
-80
0
80
160
240
320
400
480
560
640
720
800
TIME (S X 10^-2)
CHANNEL: LHPXD
FILTER: CH. CLASS 60
PEAK DATA: 44.01 ° @ 5.71 S; -6.10 ° @ -0.61 S

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION MOMENT
LEFT HIP FLEX 0 DEGREES

TRC TEST NUMBER: 142C38HL1

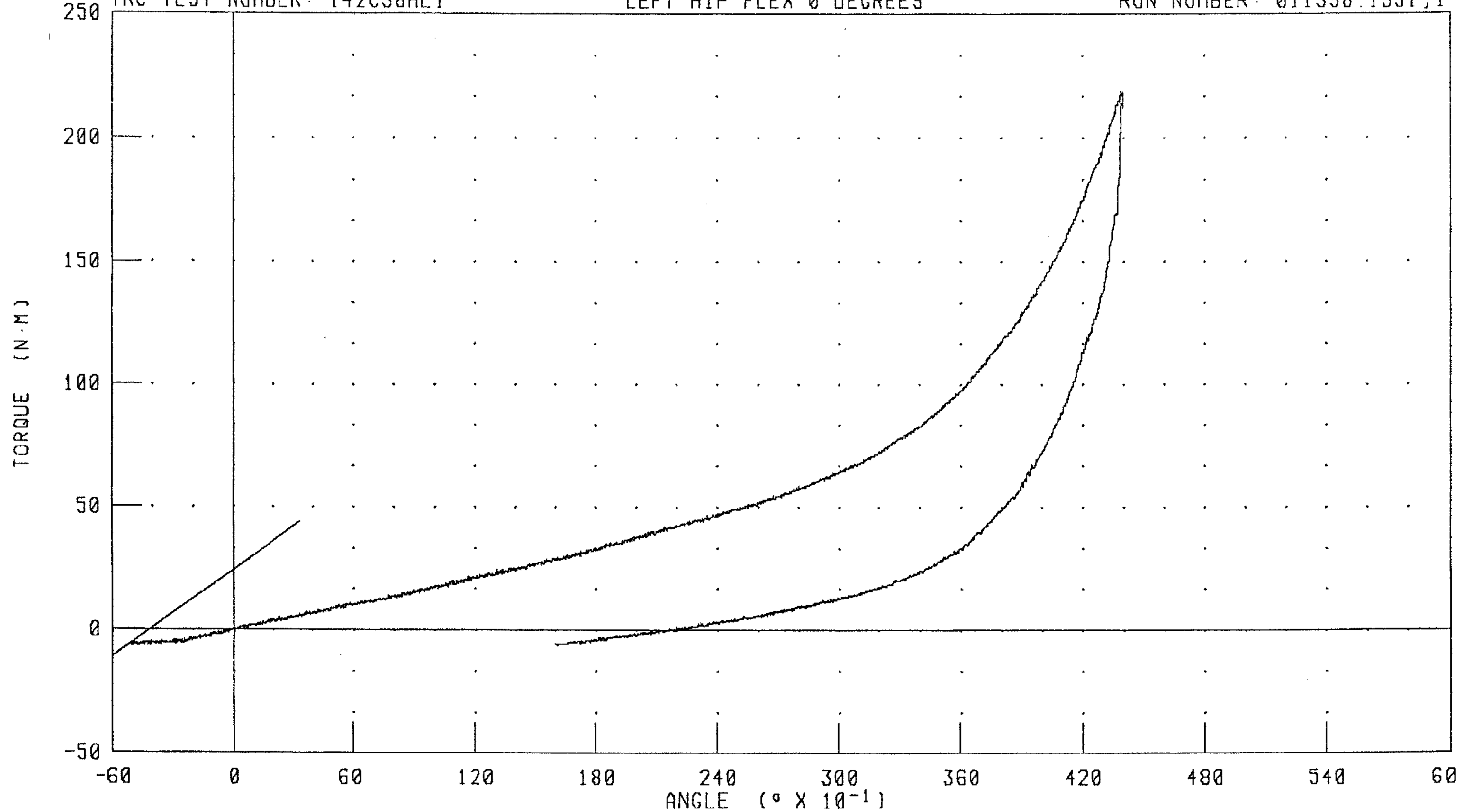
RUN NUMBER: 011398.1351;1



CHANNEL: LHPYM FILTER: CH. CLASS 60 PEAK DATA: 218.95 N·M @ 5.67 S; -11.39 N·M @ -0.61 S

HYBRID III HIP FLEXION VERIFICATION - 0 DEGREES
LEFT HIP FLEXION MOMENT VS ROTATION ANGLE

TRC TEST NUMBER: 142C38HL1 LEFT HIP FLEX 0 DEGREES RUN NUMBER: 011398.1351;1



CHANNEL: LHPXD FILTER: CH. CLASS 60
LHPYM CH. CLASS 60

PEAK DATA: 44.01 ° @ 5.71 S; -6.10 ° @ -0.61 S
218.95 N·M @ 5.67 S; -11.39 N·M @ -0.61 S

TRANSPORTATION RESEARCH CENTER INC.

RIGHT KNEE IMPACT TEST

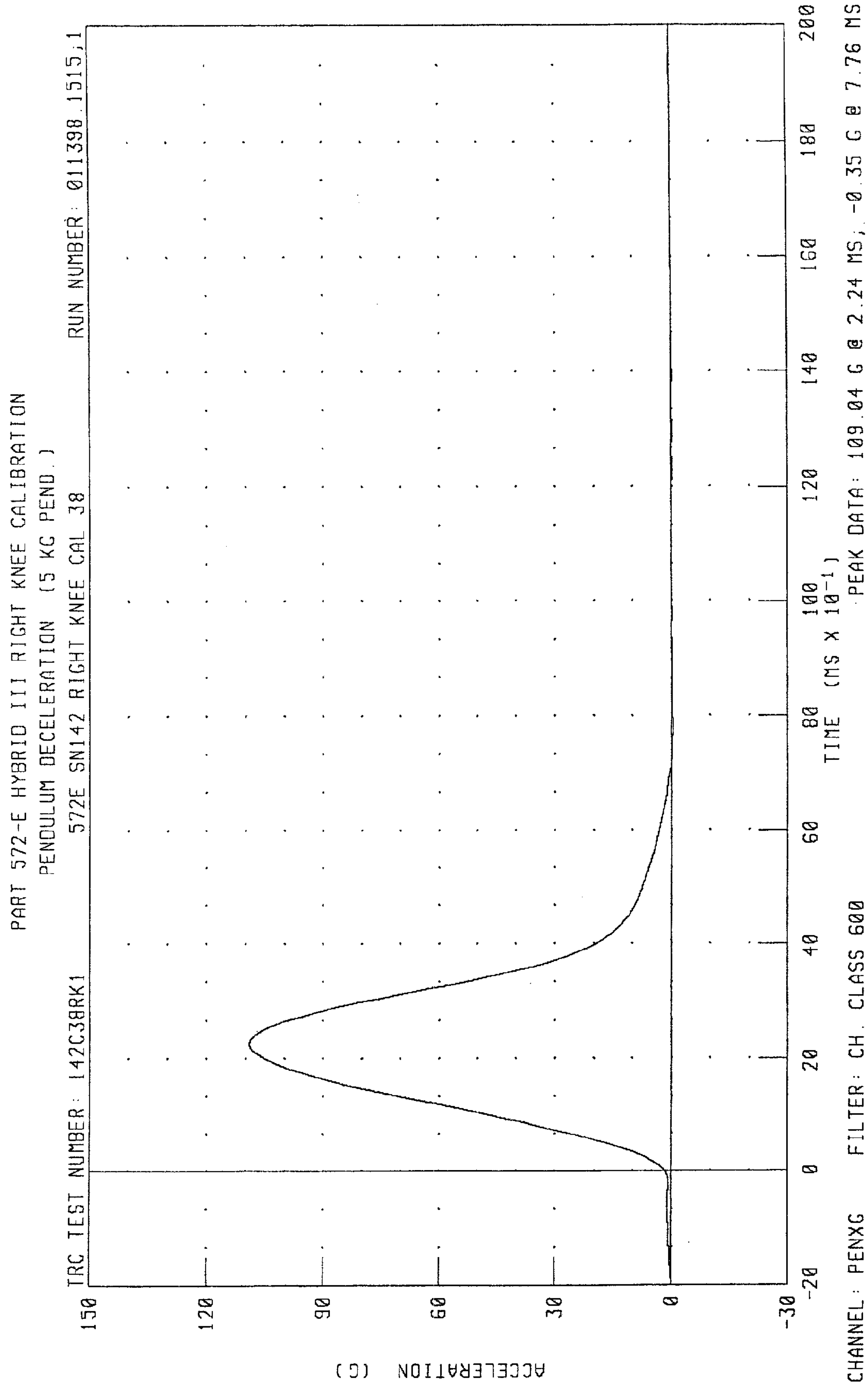
TRC INC. TEST NO: 142C38RK1 572E SN142 RIGHT KNEE CAL 38

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.07 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5334.9 N

TEST MEETS SPECIFICATIONS

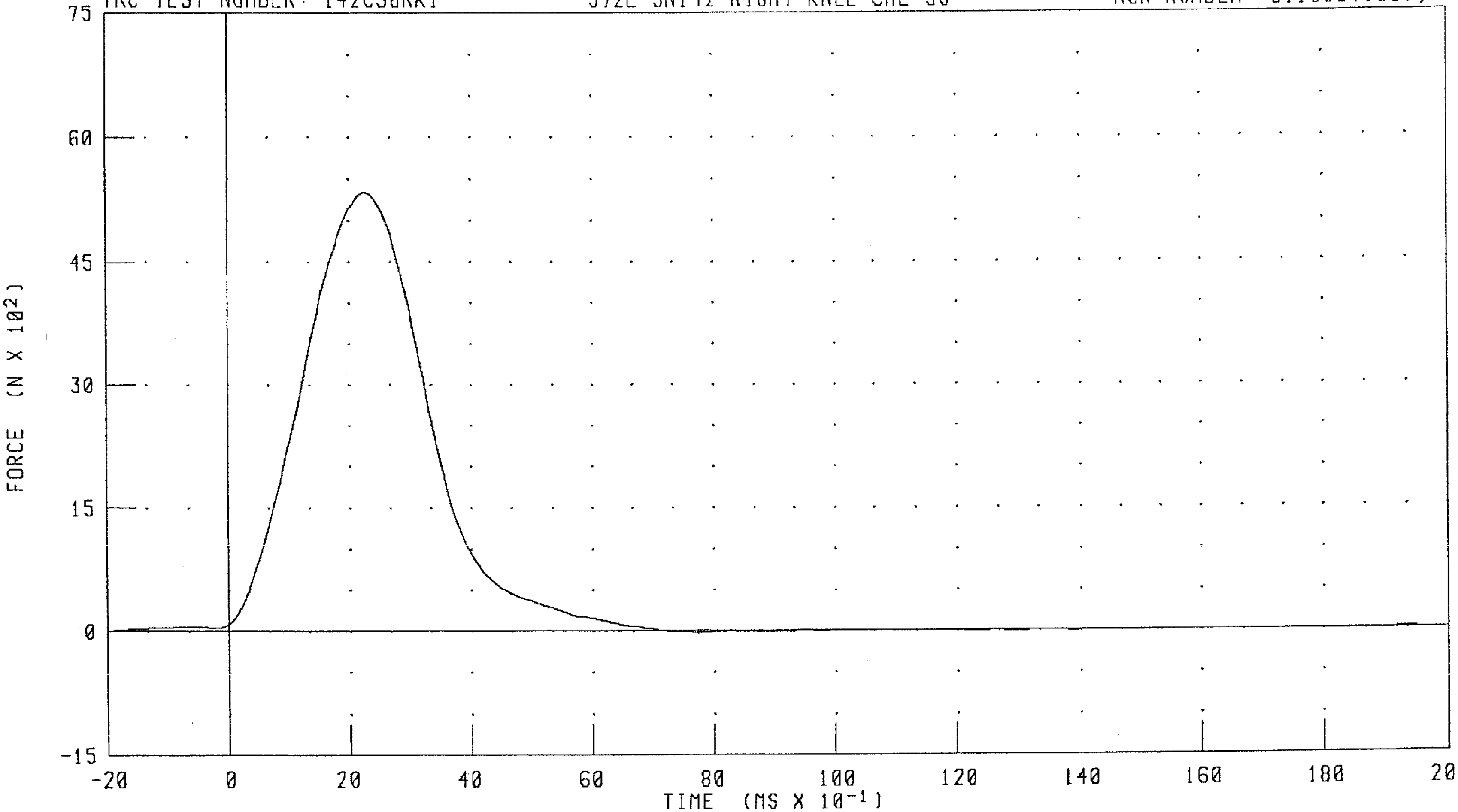
TECHNICIAN Kevin Watkins

RUN NUMBER: 011398.1515;1


PART 572-E HYBRID III RIGHT KNEE CALIBRATION
PENDULUM DECELERATION (5 KG PEND.)
572E SN142 RIGHT KNEE CAL 38
TRC TEST NUMBER: 142C38RK1
RUN NUMBER: 011398.1515;1
ACCELERATION (G)
150
120
90
60
30
0
-30
-20
0
20
40
60
80
100
120
140
160
180
200
TIME (MS X 10^{-1})
CHANNEL: PENXG
FILTER: CH. CLASS 600
PEAK DATA: 109.04 G @ 2.24 MS; -0.35 G @ 7.76 MS

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

TRC TEST NUMBER: 142C38RK1 572E SN142 RIGHT KNEE CAL 38 RUN NUMBER: 011398.1515;1



CHANNEL: PENXF FILTER: CH. CLASS 600 PEAK DATA: 5334.99 N @ 2.24 MS; -17.37 N @ 7.76 MS

TRANSPORTATION RESEARCH CENTER INC.

LEFT KNEE IMPACT TEST

TRC INC. TEST NO: 142C38LK1 572E SN142 LEFT KNEE CAL 38

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9-25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 - 70 %	35.0 %
PROBE VELOCITY	2.07 - 2.13 M/S	2.07 M/S
PEAK KNEE IMPACT FORCE 5.0 KG PENDULUM	4715 - 5782 N	5003.8 N

TEST MEETS SPECIFICATIONS

TECHNICIAN Kevin Watkins RUN NUMBER: 011398.1510;1

Dummy Instrument Calibrations, Cont'd.
Passenger Dummy #142

	Serial Number	Model Number	Manufacturer	Calibration Date Last	Due
Left knee left sensor	045	1587	Denton	09/26/97	03/26/98
Left knee right sensor	045	1587	Denton	09/26/97	03/26/98
Right knee left sensor	037	1587	Denton	09/26/97	03/26/98
Right knee right sensor	037	1587	Denton	09/26/97	03/26/98

Vehicle and Calibration Laboratory Instrument Calibrations

Vehicle Accelerometers

	Serial Number	Model Number	Manufacturer	Calibration Date Last	Calibration Date Due
Left rear seat crossmember X-axis	J19982	7264	Endevco	01/08/98	07/08/98
Left rear seat crossmember X-axis redundant	J20422	7264	Endevco	11/13/97	05/13/97
Right rear seat crossmember X-axis	J22078	7264	Endevco	01/09/98	07/08/98
Right rear seat crossmember X-axis redundant	J19954	7264	Endevco	08/15/97	02/15/98
Engine top X-axis	96G01-Z-17	EGE-73BE0QT	Entran	12/09/97	06/09/98
Engine bottom X-axis	J20185	7264	Endevco	10/13/97	04/13/98
Right brake caliper X-axis	J20013	7264	Endevco	10/13/97	04/13/98
Left brake caliper X-axis	J22210	7264	Endevco	08/06/97	02/06/98
Instrument panel center X-axis	J19942	7264	Endevco	08/15/97	02/15/98

Calibration Laboratory Instruments

	Serial Number	Model Number	Manufacturer	Calibration Date Last	Calibration Date Due
Neck bending pendulum accelerometer	CB27	7232	Endevco	09/18/97	03/18/98
Neck bending rotary potentiometer	6	6657S-1-102	Bournes	08/04/97	02/04/98
Neck bending rotary potentiometer	7	6657S-1-102	Bournes	08/04/97	02/04/98
Thorax/Hybrid III pendulum accelerometer	CC64	7232	Endevco	09/18/97	03/18/98
Hybrid III femur pendulum accelerometer	CB35	7232	Endevco	09/18/97	03/18/98

Sign Convention
NHTSA Data Tape Reference Guide

Accelerometers:	+X:	Forward
	+Y:	Leftward
	+Z:	Upward

Potentiometers:	+Chest longitudinal deflection:	Outward
	+Chest lateral deflection:	Leftward
	+Seat belt displacement:	Outward
	+Seat belt extension:	Elongation
	+Knee slider displacement:	Distance between femur and tibia increased (in relation to a seated dummy)

Load cells:	+Femur force:	Tension
	+Seat belt force:	Tension
	+Barrier force:	Tension

Neck load cells:	+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

Tibia load cells:	+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

Typical Test Measurements	Channel Class
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

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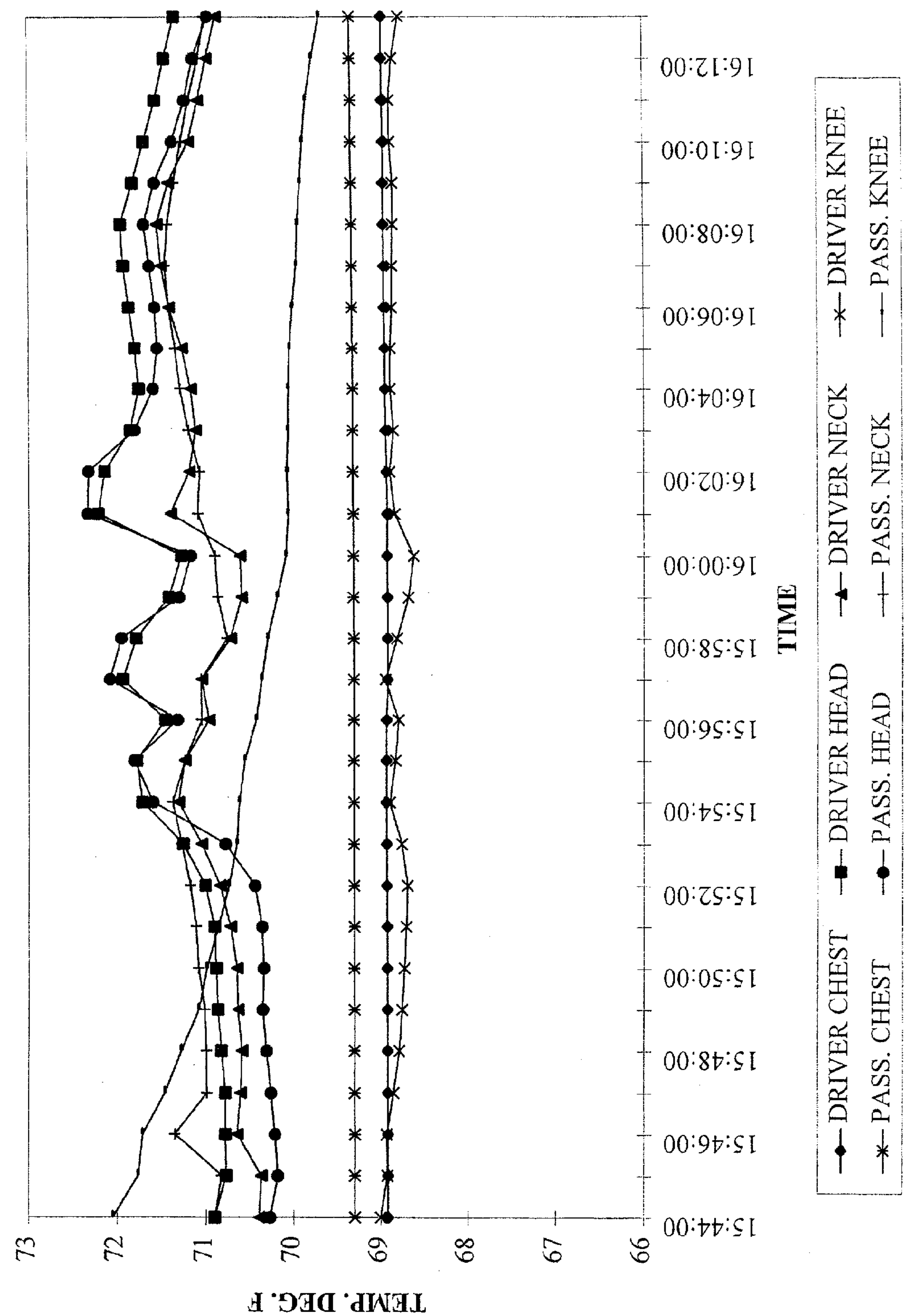

TEMP. DEG. F
73
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15:50:00
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15:56:00
15:58:00
16:00:00
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16:04:00
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16:08:00
16:10:00
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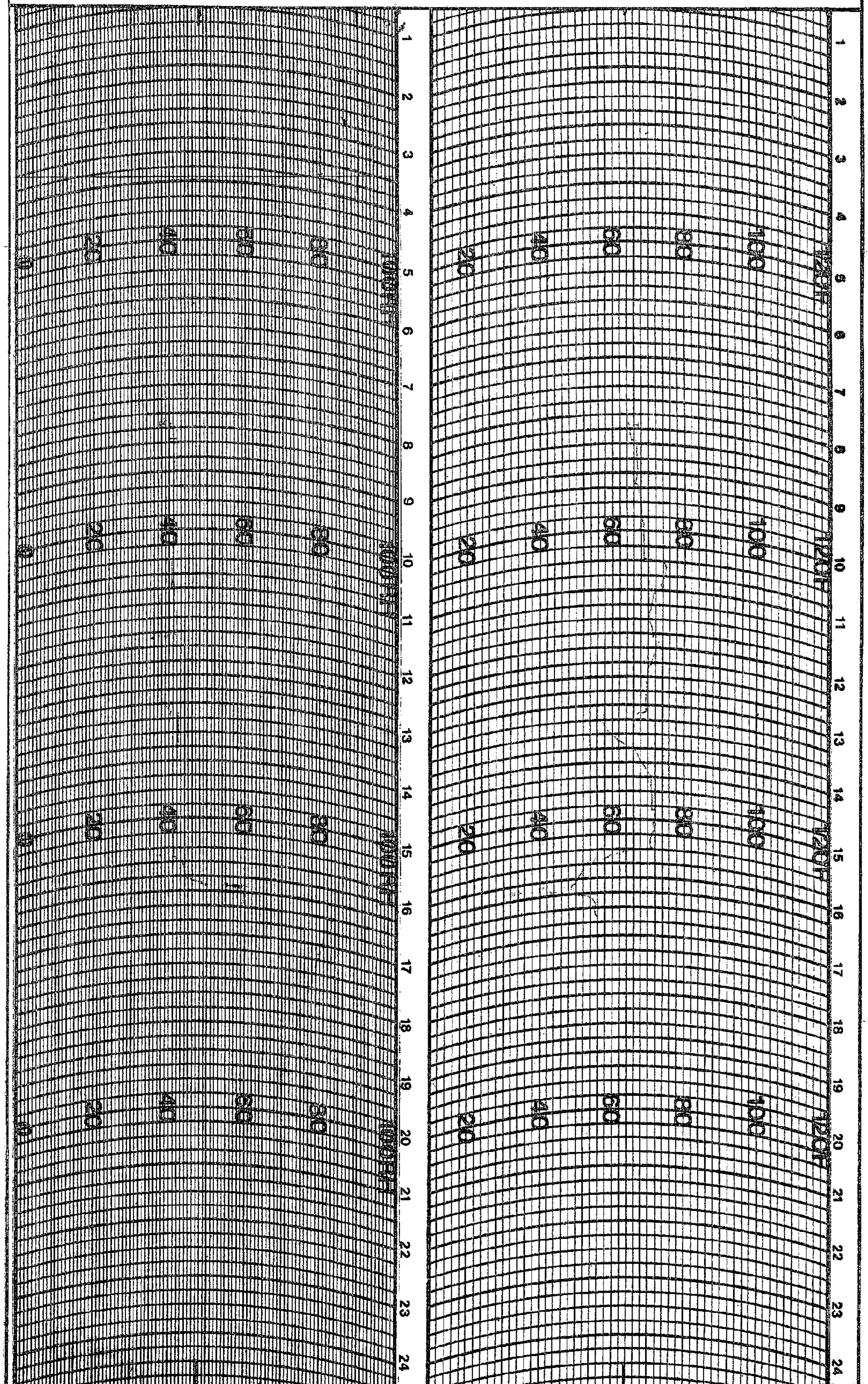
DRIVER HEAD
DRIVER NECK
DRIVER KNEE
PASS. CHEST
PASS. HEAD
PASS. NECK
PASS. KNEE



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

HYGROTHERMOGRAPH
1 DAY

CHART # C311 D HF
PART # 699123

STATION ______ DATE ON 1/20/98 ______ DATE OFF ______

980120

Appendix E

Restraint System Instructions from Owner's Manual

Seating and Safety Restraints

Seats

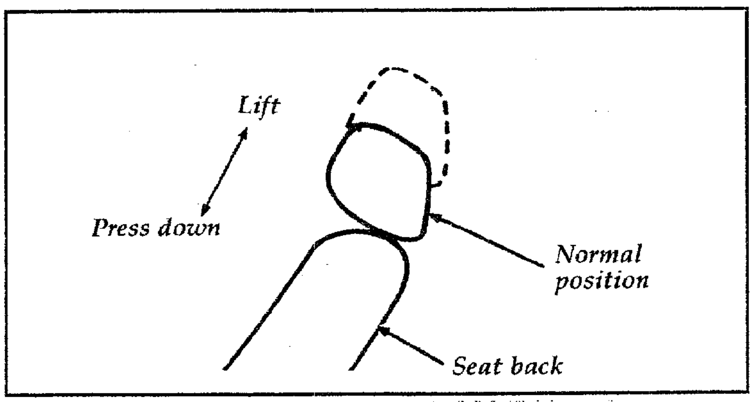
Head Restraints

If you use them properly, head restraints will help protect your head and neck in a collision.

A head restraint helps protect you best if you position it behind your head and not behind your neck.

Standard head restraints

You can adjust the head restraints for your comfort and protection.



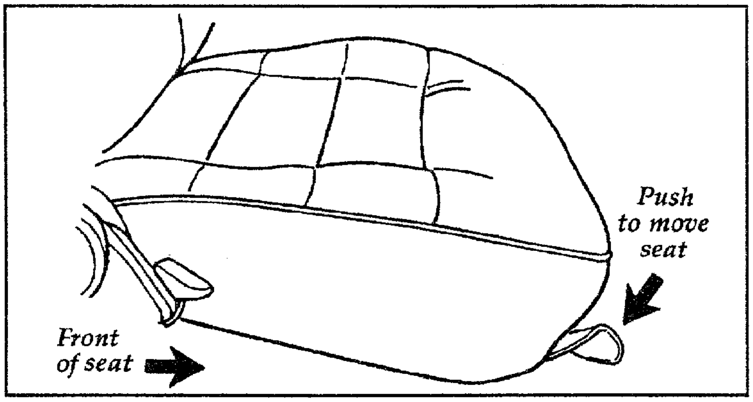
Adjusting Manual Seats

In the front seats, you can move the whole seat forward or backward or tilt the back of the seat forward or backward.

To move the seats forward or backward:

1. Find the adjustment lever at the lower left corner of the front seat.

2. Push the lever to the left to unlock the seat.
3. Move the seat to the desired position.
4. Release the lever to latch the seat in its new position. Make sure the seat locks securely in place.



To recline the front manual seats:

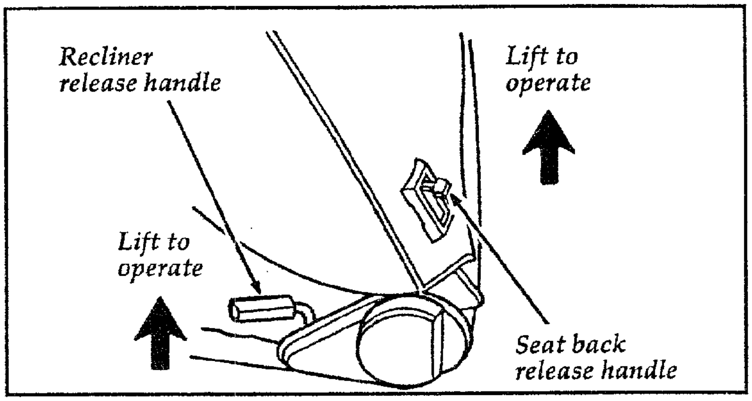
1. On the side of the seat, find the handle for the recliner.
2. Lift the handle up and hold it in place.
3. Lean against the back of the seat and adjust it to the position you want. You can tilt the seat back or bring it forward.
4. Release the handle to lock the seat in its new position.

NOTE: **Seat back recline angle is restricted to prevent interference with interior trim panels on convertible models.**

⚠ WARNING
Never adjust the driver's seat or seatback when the vehicle is moving.

⚠ WARNING
Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

Seatback Recline



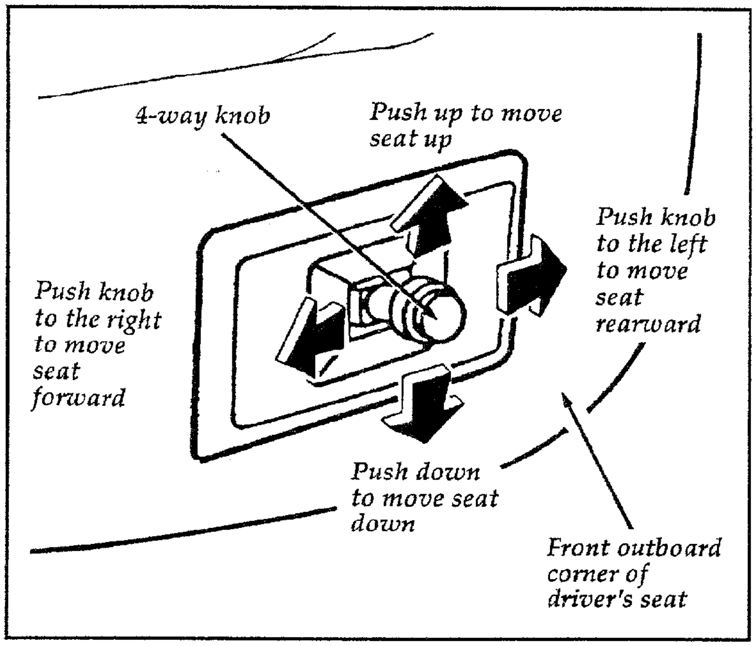
It is necessary to use the seatback release when folding the back of the front seat forward for rear seat passenger entry or exit. This release handle is located on the lower outboard back of the seat. The seatback locks automatically when returned to the normal position.

To allow rear seat passenger access, use one hand to pull up on the release handle then use the other hand to push the seatback forward.

⚠ WARNING
Check to see that the seat and seatback are latched securely in position. Keep floor area free of objects that would prevent proper seat engagement. Never attempt to adjust the seat while the vehicle is in motion.

Using the Power Seat (If equipped)

If your vehicle has a driver side power seat, you can adjust it in several directions. Using the seat adjustment switch, located on the front outboard corner of the driver's seat, you can raise or lower the whole front seat and move the seat forward or backward.

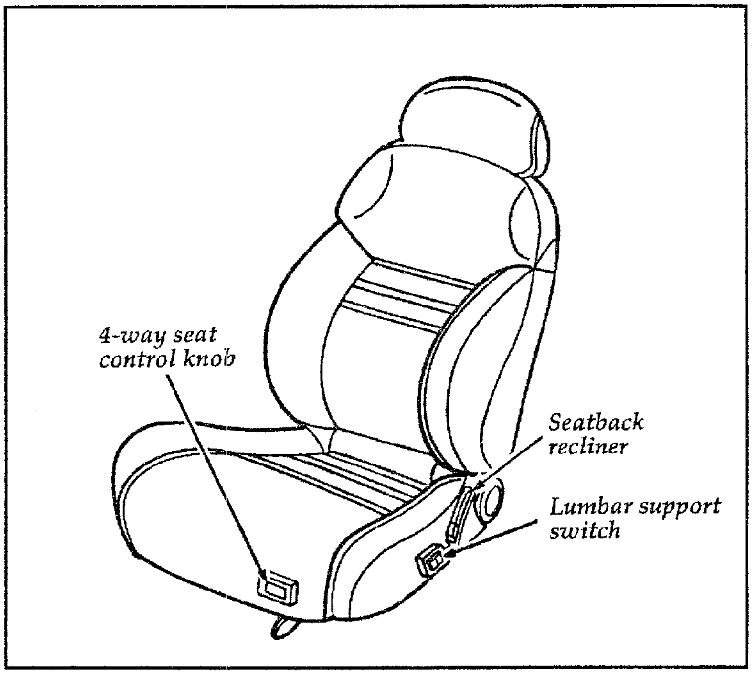


The seat controls on the driver's seat

Leather Sport Seat Controls (If equipped)

Using the Power Lumbar Supports

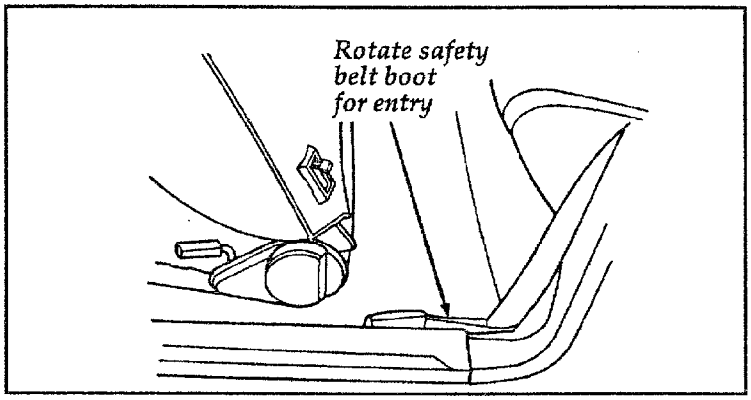
You can inflate a lumbar support pad in the seat back. To inflate the lumbar pad, push the forward portion of the rocker control. To deflate push the rear portion of the control.



GT leather seat controls

Rear Seat Entry

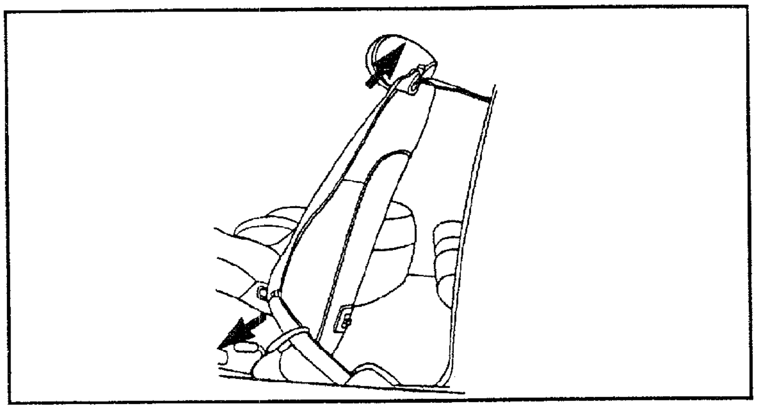
Coupe models



The rotating boot on the lap belt is designed to allow rear seat entry / exit. To enter the rear seat:

1. Remove seat belt from seat belt guide on top of front seat.
2. Rotate the safety belt boot rearward.
3. Enter the rear seat in front of the safety belt.
4. Rotate the safety belt boot forward and place the belt in the belt guide on the seat back to allow use by the front seat passengers.

Convertible models



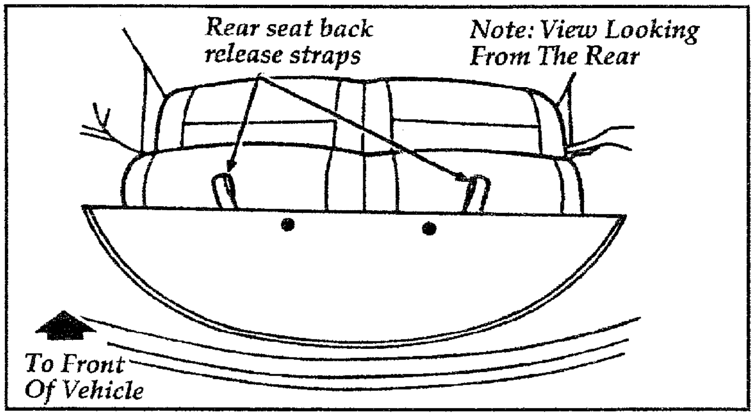
To enter the rear seat:

1. Remove the shoulder belt from the seat belt guide on top of front seat.
2. Remove the lap belt from the seat belt guide on side of seat.
3. Enter the rear seat in front of the safety belt.
4. Place the lap and shoulder belt into the guides to allow use by the front seat passengers.

Folding Rear Seat (Coupe only)

To fold down the rear seats, gently pull on the release straps.

NOTE: **It may be necessary to apply slight hand pressure to top of seatback while pulling on release strap.**



To raise the rear seatback:

1. Push the seatback upward until it locks in place.
2. Make sure the seatback is firmly latched by pushing forward and backward on it.

⚠ WARNING
Check to see that the seat and seatback are latched securely in position. Keep floor area free of objects that would prevent proper seat engagement. Never attempt to adjust the seat while the vehicle is in motion.

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 *Instrumentation* 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

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.

⚠ WARNING
Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

⚠ WARNING
Ford recommends that all safety belt assemblies and attaching hardware should be inspected by a qualified technician after any collision. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

⚠ WARNING
Children should always ride with the seatback in the fully upright position.

⚠ 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.

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

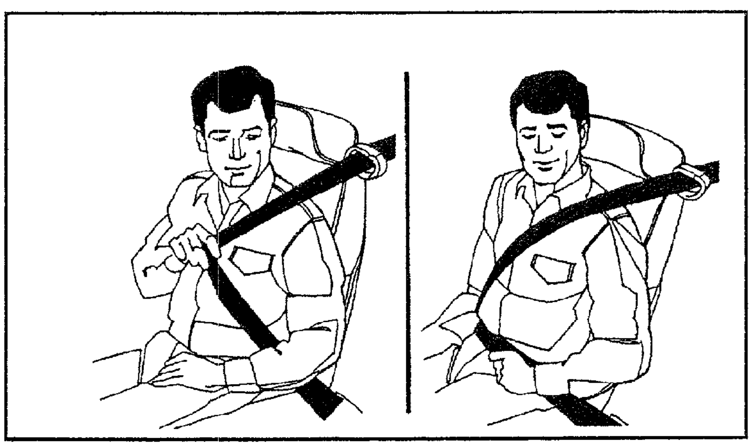
Combination Lap and Shoulder Belts

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.

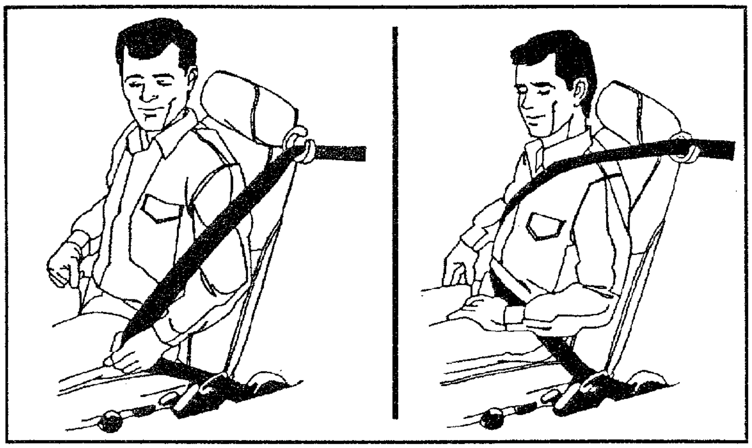
After you get into your vehicle, close the door and lock it. Then adjust the seat to the position that suits you best.

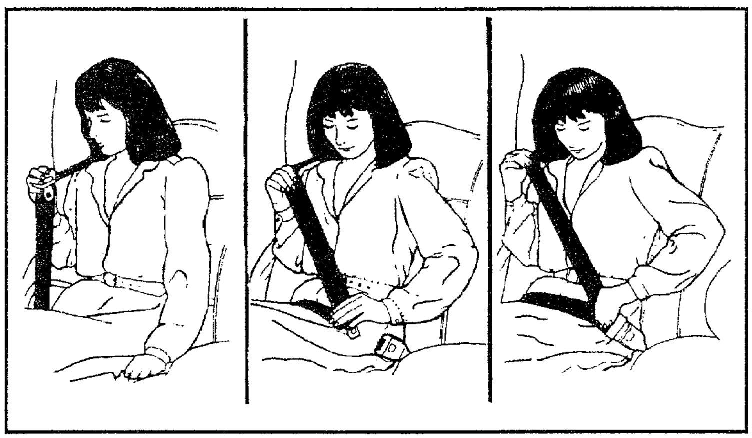
Before fastening the front seat belt, make sure the shoulder belt passes through the belt holder on the top of the seatback.

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.



NOTE: **Be sure to read and understand** *Important Safety Belt Information* in 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
Rear-facing child seats or infant carriers should never be placed in the front seats.

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 is 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)

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

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.

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
Rear-facing child seats or infant carriers should never be placed in the front seats.

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. Push down on the child seat as you 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.**

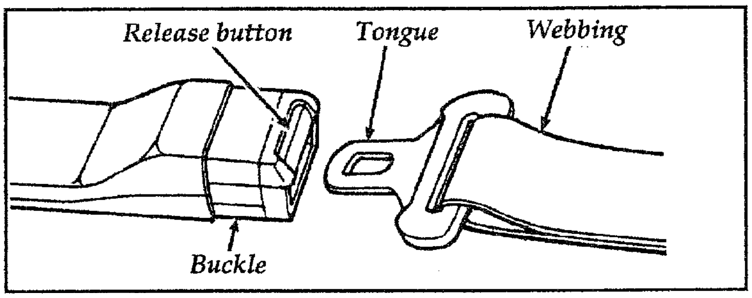
⚠ WARNING
The lap belts should fit snugly and as low as possible around the hips, not around the waist.

⚠ WARNING

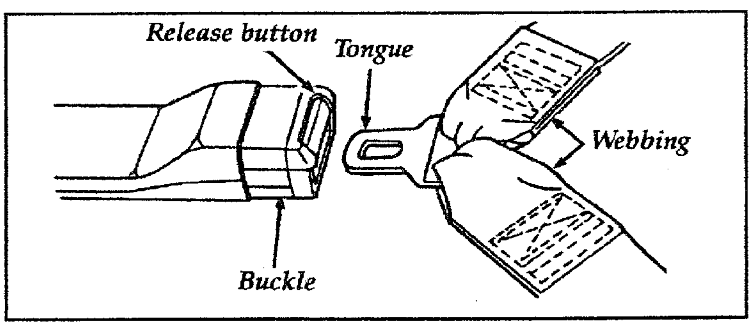
Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing it around your neck over the 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.



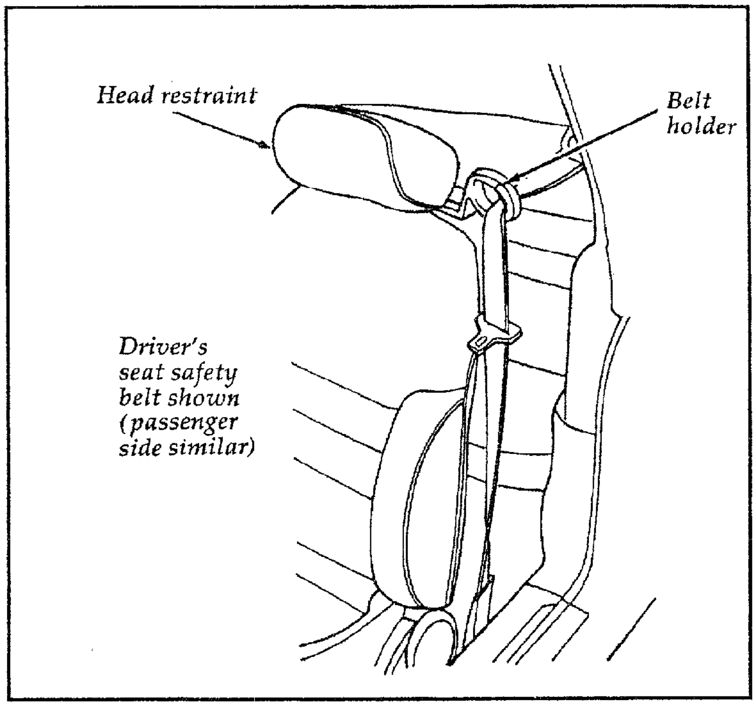
Unfastening the front (coupes) and rear outboard lap/shoulder belts



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.

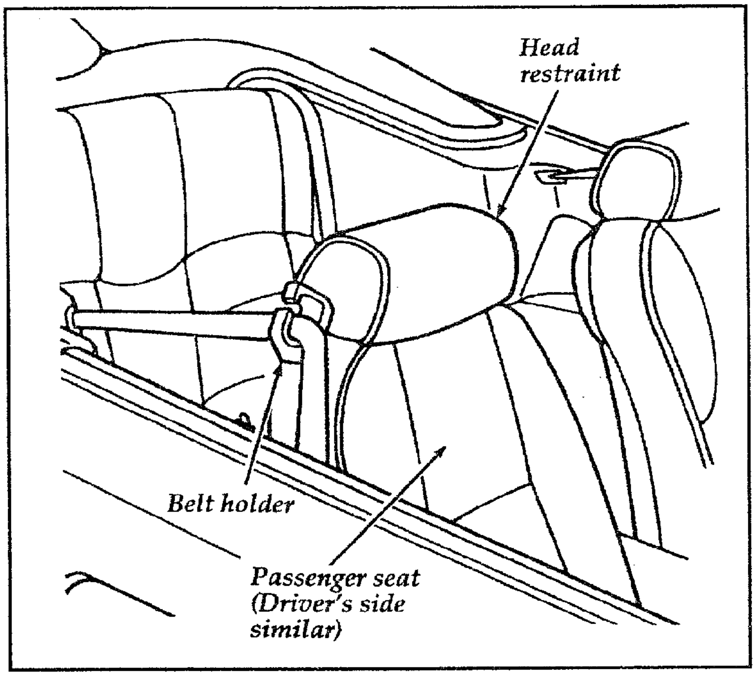
3. (Coupe only). Place the belt in the belt holder at the top of the seatback. The retracted belt should be stored on this holder when not in use, except when a passenger is entering or leaving the rear seat area of the vehicle.



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.

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



Belt holder location — convertible only

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 16611C22). 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.

⚠ WARNING
All safety belt assemblies, including retractors, buckles, front seat belt buckle support assemblies (slide bar) (if equipped), shoulder belt height adjusters (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.

Air Bag Supplemental Restraint System (SRS)

Important Air Bag Precautions

Your vehicle is equipped with a supplemental restraint system designed to work with the safety belts to help protect you and your right front seat passenger in the event of certain collisions described in the section *Does the Air Bag Supplemental Restraint System Work?*

⚠ WARNING
All occupants of the vehicle, including the driver, should always wear their safety belts.

⚠ WARNING

Do not place objects or mount equipment on or near the air bag covers that may come into contact with an inflating air bag.

⚠ 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.

⚠ WARNING

If you are close to an inflating air bag, it could seriously injure you. Sit against the seatback and position your seat such that it is as far back from the steering wheel as possible but still allows you to properly control the vehicle.

Children and Air Bags

NOTE: For additional important safety information on the proper use of seat belts, child seats, and infant seats, please read the entire Safety Restraints chapter in this owner guide.

⚠ WARNING

Children should always wear their safety belts.

⚠ 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.

⚠ WARNING

Rear-facing child seats and infant carriers should never be placed in the front seats.

How Does the Air Bag Supplemental Restraint System Work?

The Air Bag Supplemental Restraint System is designed to activate when the vehicle sustains sufficient longitudinal (lengthwise) deceleration. The fact that the air bags did not inflate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to cause activation.

If the vehicle is in a moderate or severe frontal collision, the system is activated and the air bags inflate rapidly. After the air bag inflates, it will quickly deflate. After the air bag deployment, you may notice a smoke-like, powdery residue or smell the burnt propellant. This is normal. The residue may consist of cornstarch or talcum powder (which is used to lubricate the air bag) or sodium compounds, such as sodium carbonates (e.g. baking soda) that result from the combustion process that inflates the air bag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic. The Air Bag Supplemental Restraint System will reduce, but not eliminate all injuries in an accident.

⚠ WARNING

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

⚠ WARNING

The air bag will inflate only once. The system is designed to function on a one-time-only basis. 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, this will increase the risk of injury in a subsequent collision.

The Air Bag Supplemental Restraint System consists of:

- ❑ driver and passenger air bag modules (which include the inflators and air bags),
- ❑ one or more impact and safing sensors,
- ❑ a system diagnostic module,
- ❑ a readiness light and tone,
- ❑ and the electrical wiring which connects the components.

The diagnostic module monitors its own circuits, the air bag electrical system, the air bag readiness light, the air bag power, and the air bag inflators.

Determining If System Is Operational

The Air Bag Supplemental Restraint 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 key to ON, this light will illuminate for approximately six (6) seconds and then turn off. This indicates that the system is operating normally. NOTE: Routine 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,

- ❑ the readiness light will not light immediately after ignition is turned on,
- ❑ a group of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

If any of these things happen, even intermittently, have the Air Bag Supplemental Restraint System serviced at your Ford or Lincoln-Mercury dealer immediately. Unless serviced, the system may not function properly in the event of a collision.

Disposal of Air Bags and 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.

Safety Restraints for Children

In the U.S. and Canada, you are required by law to use safety restraints for children. If small children ride in your vehicle — this generally includes children who are four years old or younger and who weigh 40 pounds (18 kg) or less — you must put them in safety seats that are made specially for children. Safety belts alone do not provide maximum protection for these children. Check your local and state laws for specific requirements.

⚠ 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.

⚠ WARNING

Cargo should always be secured to prevent it from shifting and causing damage to the vehicle or harm to passengers.

When possible, put children in the rear seat of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating positions.

⚠ WARNING

Carefully follow all of the manufacturer's instructions included with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

⚠ WARNING

Safety belts and seats can become hot in a vehicle that has been closed up in sunny weather; they could burn a small child. Check seat covers and buckles before you place a child anywhere near them.

⚠ WARNING

Do not leave children, unreliable adults, or pets unattended in your vehicle.

⚠ WARNING

Air bags can kill or injure a child in a child seat. If you must use a forward facing child seat in the front seat, move seat all the way back.

Safety Seats for Children

Use a safety seat that is recommended for the size and weight of the child. Always follow the safety seat manufacturer's instructions when installing and using the safety seat.

When installing a child safety seat, be sure to use the correct safety belt buckle for that seating position, and make sure the tongue is securely fastened in the buckle. For a shoulder/lap belt combination with a sliding tongue, make sure the retractor is in the automatic locking mode.

Children weighing less than 40 lbs. (18 kg) should use child or infant seats. Forward facing child seats must have the passenger seat moved as far back from the instrument panel as possible.

⚠ WARNING

Rear-facing child seats or infant carriers should never be placed in the front seats.

All child restraint systems are designed to be secured in vehicle seats by lap belts or by the lap portion of a lap-shoulder belt.

⚠ WARNING

If you do not properly secure the safety seat, the child occupying the seat may be injured during a collision or sudden stop. An unsecured safety seat could also injure other passengers.

⚠ WARNING

Carefully follow all of the manufacturer's instructions included with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

⚠ WARNING
Always keep the buckle release button pointing upward and away from the child seat, with the tongue between the child seat and the release button as shown in the following illustration.

Installing Safety Seats in the Front Seat — Convertible

Your Mustang Convertible is equipped with a dual locking mode retractor on the lap belt portion of the lap/shoulder belt at the front passenger seat.

The automatic locking mode **must be used** when installing a child seat in the front passenger seat.

⚠ WARNING
Rear-facing child seats or infant carriers should never be placed in the front seats.

If you choose to install a child safety seat in the front seat:

1. Position the child seat in the front passenger seat of the vehicle.
2. Pull up on the lap belt, Figure 1.
3. Following the child seat manufacturer's instructions, route the lap/shoulder belt through the child seat or infant carrier and insert the belt tongue into the buckle until you hear and feel the latch engage, Figure 2.

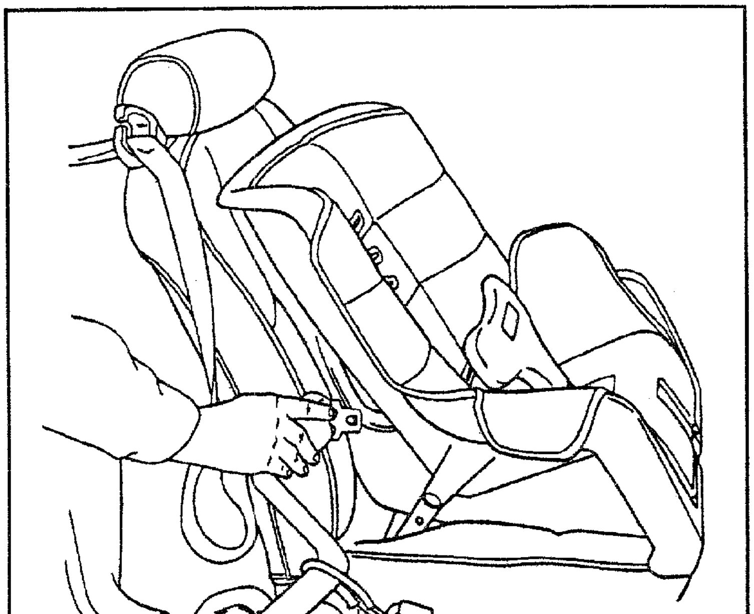


Figure 1

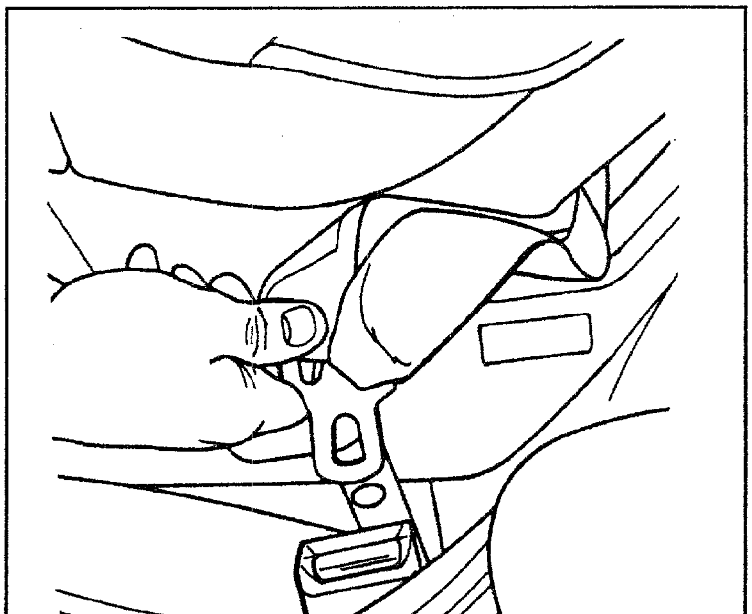
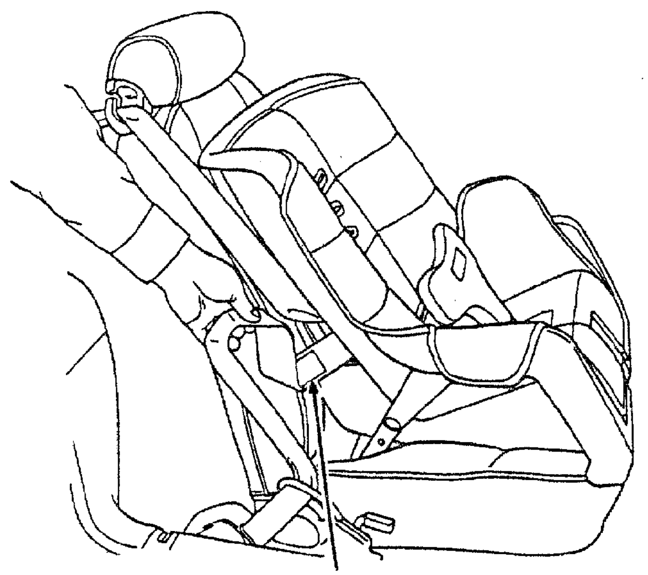


Figure 2

Routing the lap/shoulder belt

4. 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 seat restraint mode), Figure 3.



Child seat label *Figure 3*

Pull the lap belt out completely to set the automatic locking mode

5. Allow the belt to retract. A clicking sound will be heard as the belt retracts. This indicates the retractor is in the automatic locking mode, Figure 4.

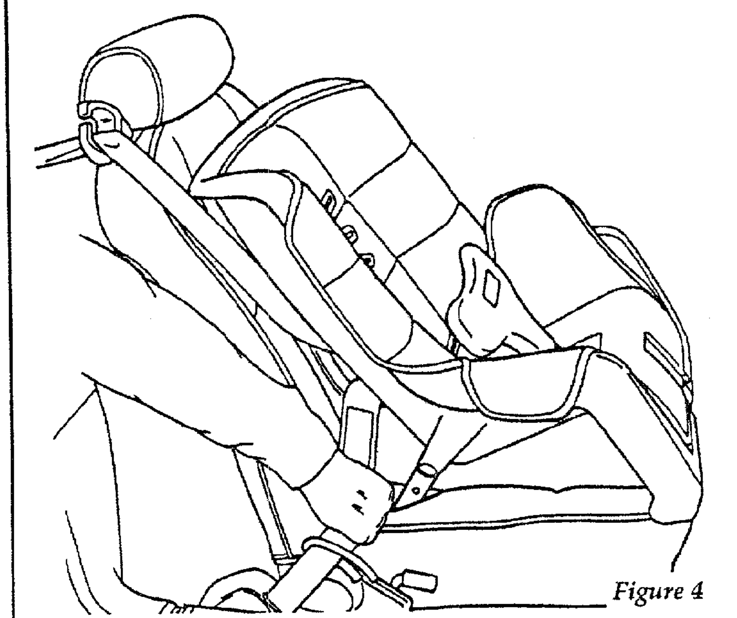


Figure 4

Allowing belt to retract

6. Push down on the child seat while you pull down on the belt to remove any slack in the belt, Figure 5.

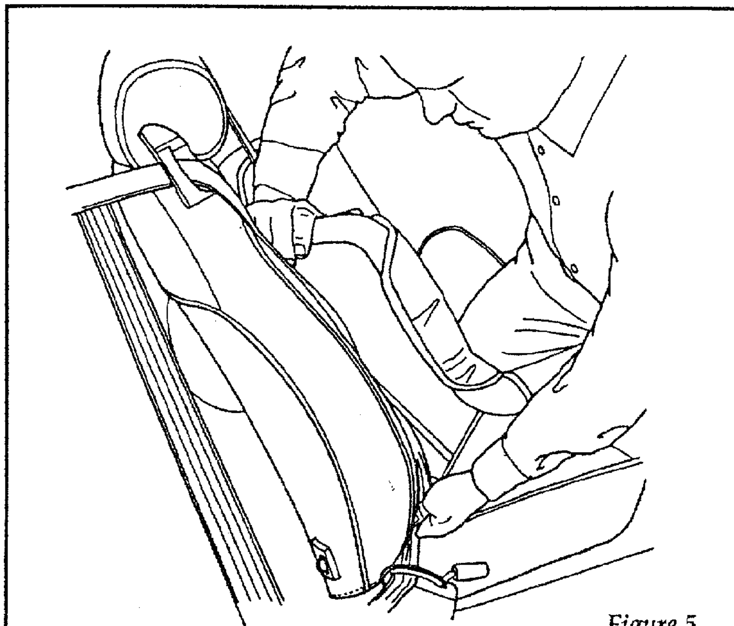


Figure 5

Removing slack from the belt

7. Before placing the child in the child seat or infant carrier, forcibly tilt the seat from side to side, and also tug it forward to make sure that the seat is securely held in place, Figure 6.

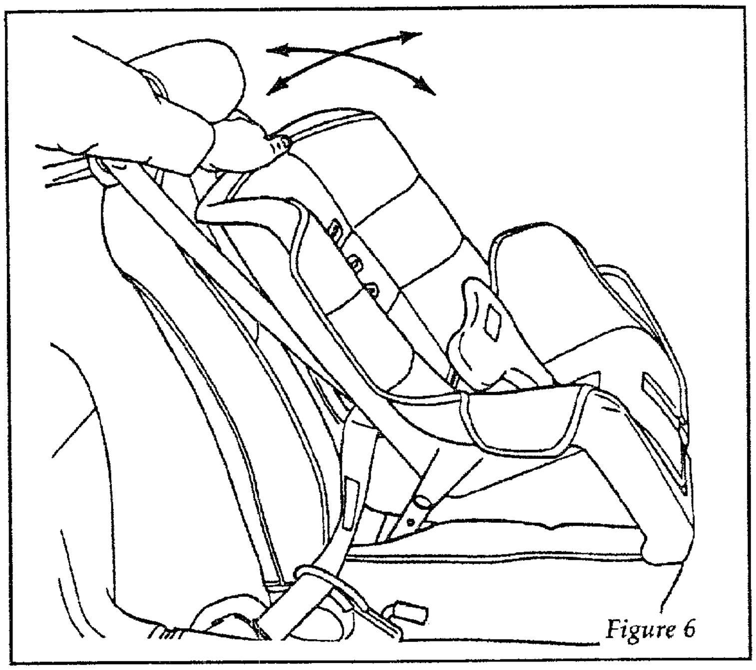
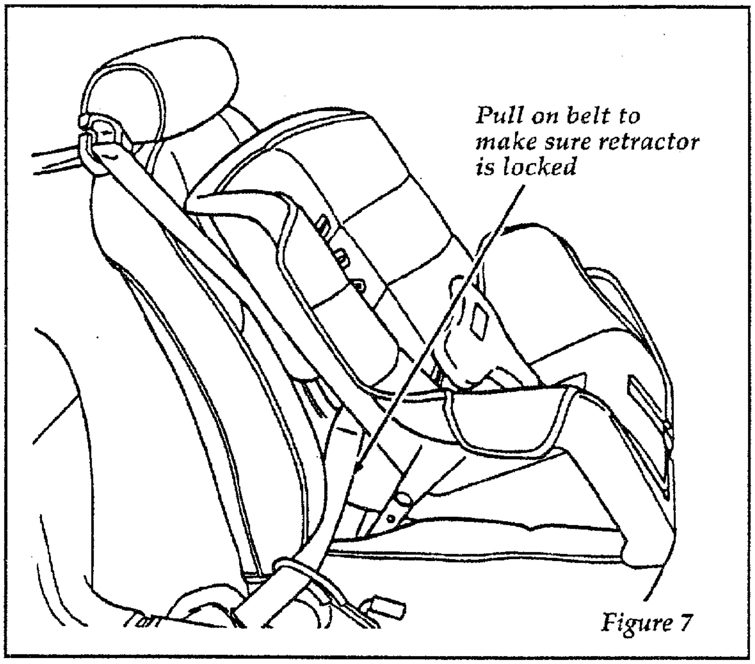


Figure 6

Checking that the seat is secure

8. Double check that the retractor is in the automatic locking mode. Try to pull more belt out of the retractor, if you cannot, the belt is in the automatic locking mode, Figure 7.



Checking the retractor

9. Check to make sure that the child seat or infant carrier is properly secured prior to each use. If the lap belt is not locked, repeat steps 4 through 8.

NOTE: **To remove the retractor from automatic lock mode, allow seat belt to retract fully to its stowed position and the retractor will automatically switch back to the vehicle sensitive locking mode for normal adult usage.**

Installing Safety Seats in the Front Seat (Coupe only) and Rear Seating Positions (Coupe and Convertible)

For seating positions equipped with a dual locking mode retractor, use the following procedure.

If you choose to install a forward-facing child safety seat in the front seating positions, move vehicle seat as far back as possible.

1. Position the child seat in the center of the passenger seating position.
2. Pull down on shoulder belt, then grasp shoulder belt and lap belt together. See Figure 1.

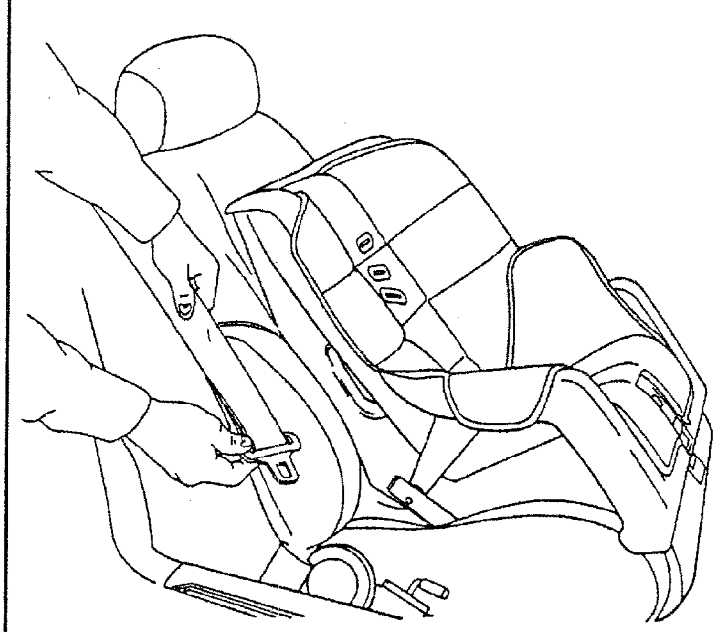


Figure 1

Pulling out belt webbing

3. While holding the shoulder and lap belt portions together, route the tongue through the child seat according to the child seat manufacturer's instructions. See Figure 2. Be sure that the belt webbing is not twisted.

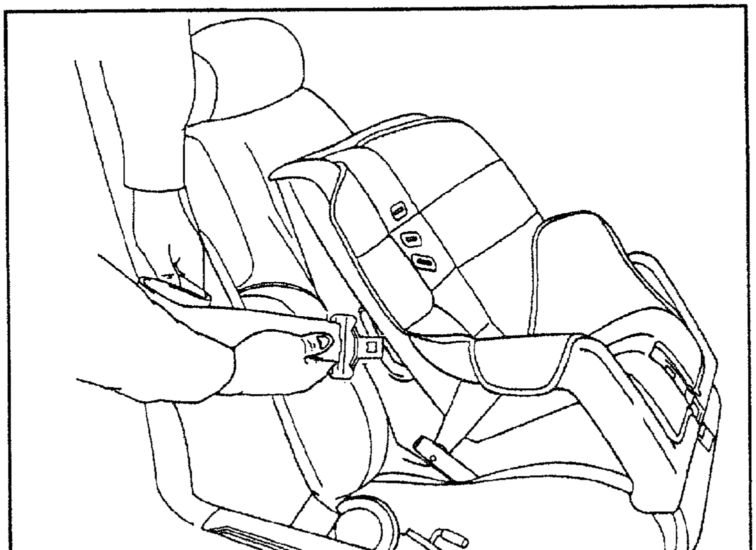
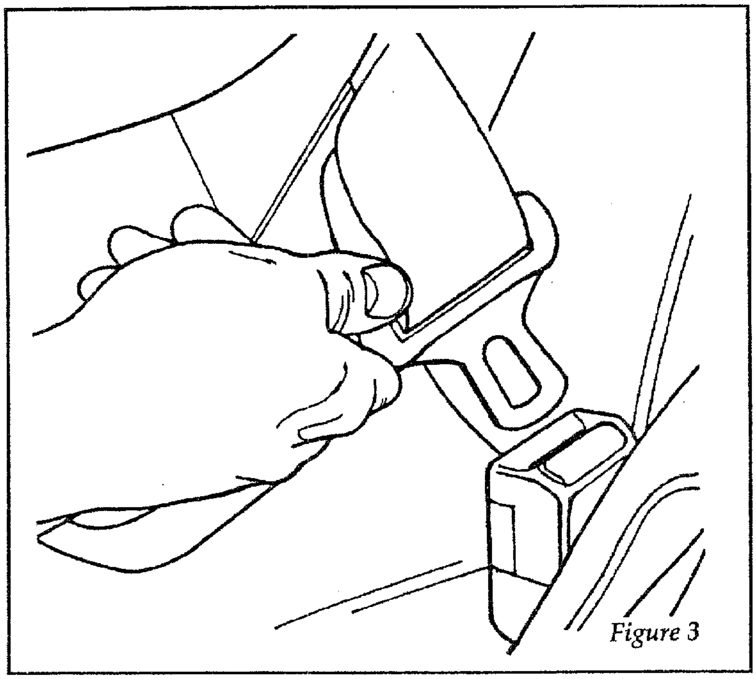


Figure 2

Routing the lap/shoulder belt

4. Insert the belt tongue into the buckle for that seating position until you hear and feel the latch engage. See Figure 3. Make sure tongue is latched securely to buckle by pulling on tongue.



Buckling the belt

5. Grasp the shoulder portion of the belt and pull downward until all of the belt is extracted and a click is heard. At this time, the retractor is in the automatic locking mode (child seat restraint mode). See Figure 4.

NOTE: **The dual-locking mode retractor must be in the automatic locking mode to properly restrain a child.**

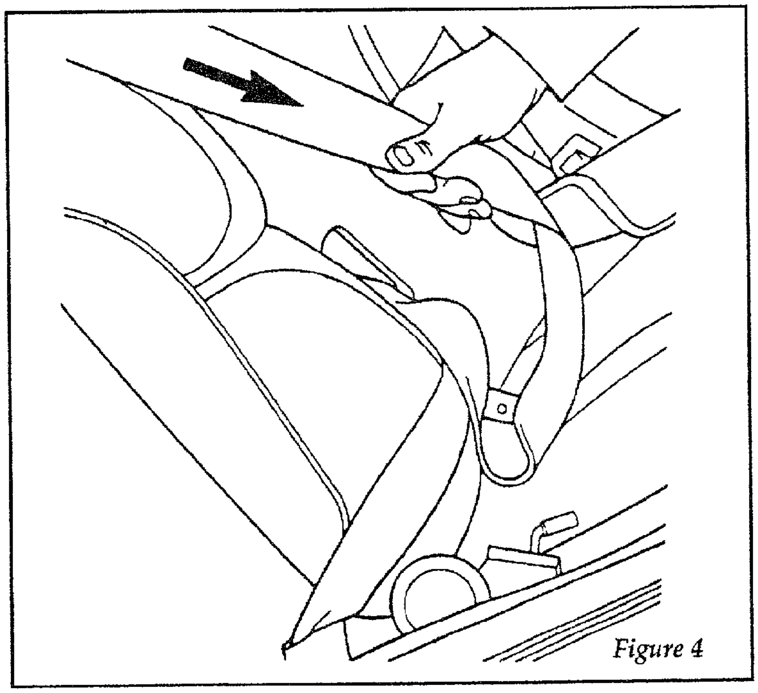


Figure 4

Setting the retractor to automatic locking mode

6. Allow the belt to retract. Pull up on the shoulder webbing. A clicking sound will be heard as the belt retracts. This indicates the retractor is in the automatic locking mode. Push down on the child seat while you pull up on the belt to remove any slack in the belt. See Figures 5 and 6.

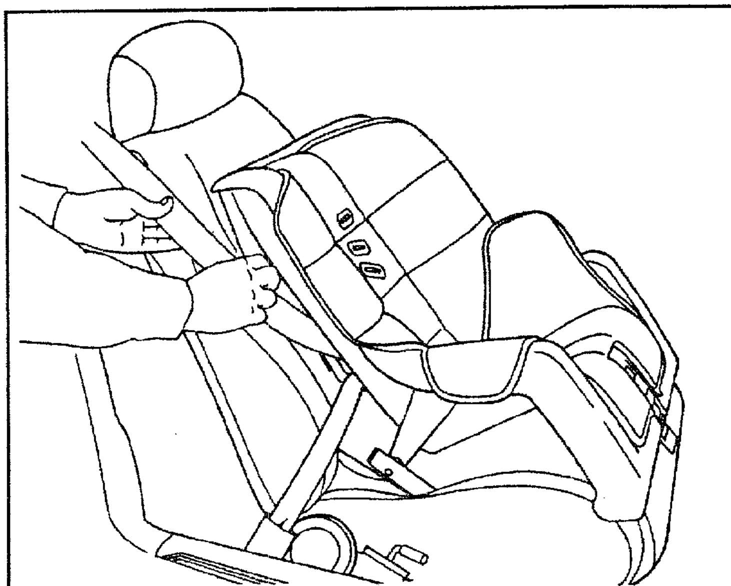
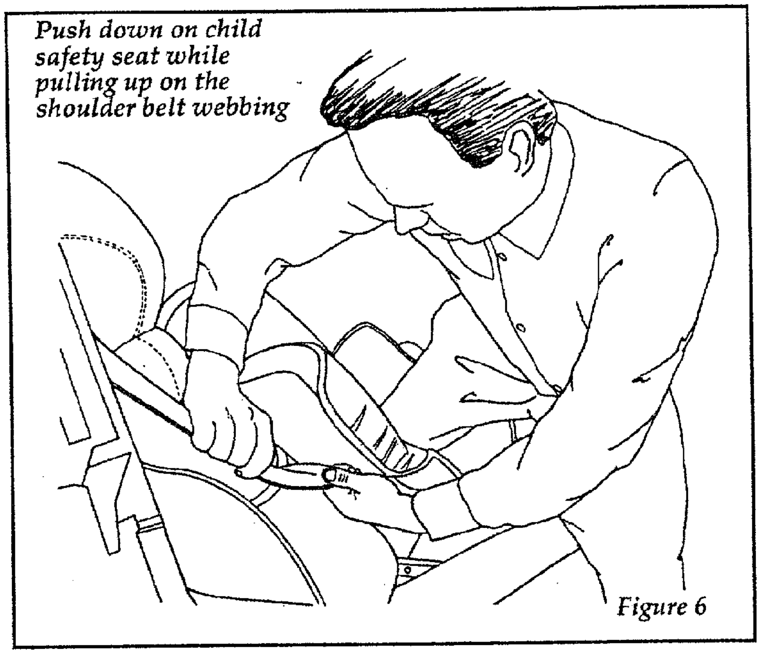


Figure 5

Allowing shoulder belt to retract



Removing slack from belt

7. Before placing the child in the child seat, forcibly tilt the seat from side to side, and tug it forward to make sure that the seat is securely held in place. See Figure 7.

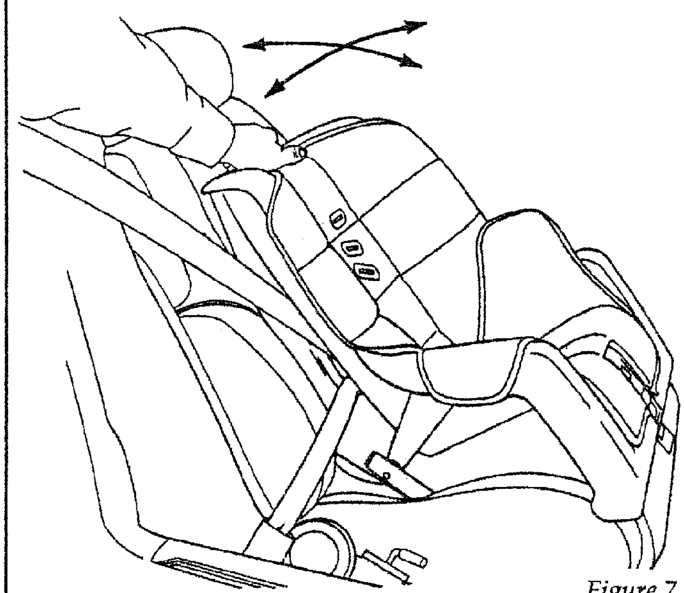
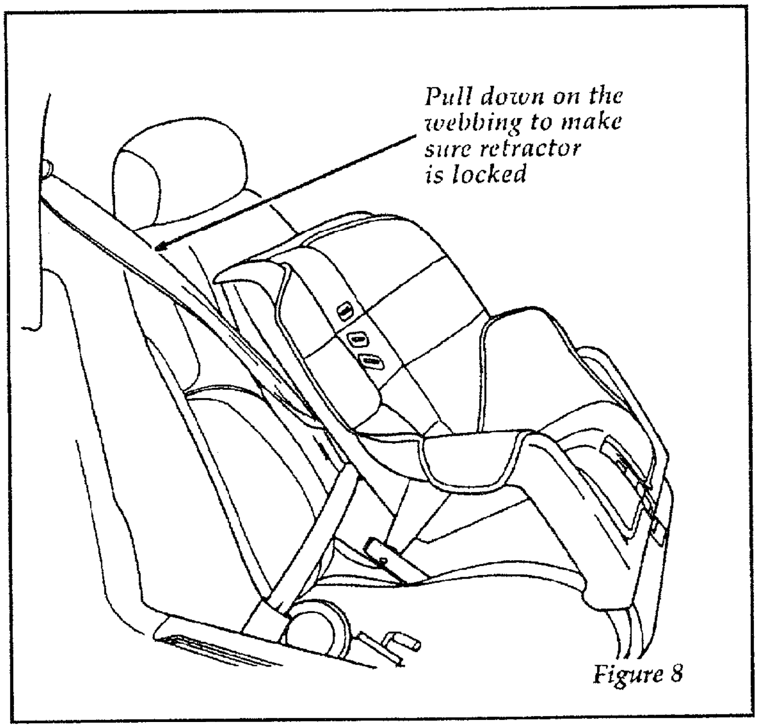


Figure 7

Checking that the seat is secure

8. Double check that the retractor is in the automatic locking mode. Try to pull more belt out of the retractor. If you cannot, the belt is in the automatic locking mode. See Figure 8.



Checking the retractor

9. Check to make sure that the child seat is properly secured prior to each use. If the retractor is not locked, repeat steps 4 through 7.

To remove the retractor from automatic lock mode, allow webbing to retract fully to its stowed position and the retractor will automatically switch back to the vehicle sensitive locking mode for normal adult usage.

Attaching Safety Seats with Tether Straps

Some manufacturers make safety seats that include a tether strap that goes over the back of the vehicle seat and attaches to an anchoring point. Other manufacturers offer the tether strap as an accessory. Contact the manufacturer of your child safety seat for information about ordering a tether strap.

Tether anchorage hardware

Attachment holes (at each rear seating position) have been provided in your vehicle to attach anchor hardware, if required. Tether anchor hardware kits (Part number 613D74), including instructions, may be obtained at no charge from any Ford or Lincoln-Mercury dealer. All vehicles built for sale in Canada include a tether anchor hardware kit.

Safety Belts for Children

Children who are too large for child safety seats should always wear safety belts. (See instructions with your child seat, or contact its manufacturer, to determine maximum size of child that will safely fit in the seat.)

⚠ WARNING
If safety belts are not properly worn and adjusted as described, the risk of serious injury to the child in a collision will be much greater.

If the shoulder belt portion of one of the lap and shoulder belts can be positioned so that it does not cross or rest in front of the child's face or neck, the child should wear the lap and shoulder belt. Moving the child closer to the center of the vehicle may help provide a good shoulder belt fit.

To improve the fit of lap and shoulder belts on children who have outgrown child safety seats, Ford recommends use of a belt-positioning booster seat that is labelled as conforming to all Federal motor vehicle safety standards. Belt-positioning booster seats raise the child and provide a shorter, firmer seating cushion that encourages safer seating posture and better fit of lap and shoulder belts on the child. A belt-positioning booster should be used if the shoulder belt rests in front of the child's face or neck, or if the lap belt does not fit snugly on both thighs, or if the thighs are too short to let the child sit all the way back on the seat cushion when the lower legs hang over the edge of the seat cushion. You may wish to discuss the specific needs of your child with your pediatrician.

⚠ WARNING
Do not use a belt-positioning booster with a lap-only belt.

Lap belts and the lap belt portion of lap and shoulder belts should always be worn snugly and below the hips, touching the child's thighs.

⚠ WARNING
Children should always ride with the seatback in the fully upright position.

Appendix B

Data Plots