

V4321

**Vehicle Research and Test Center  
2001 Ford Escape into  
Flat Frontal Barrier at 25.0 MPH  
TRC Inc. Test Number: 020523**

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**Prepared For:  
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Section 1.0

**Purpose and Test Procedure**

## Purpose

This 40 km/h (25 mph) frontal barrier impact test was conducted for the National Highway Traffic Safety Administration (NHTSA) and Vehicle Research and Test Center (VRTC) by Transportation Research Center Inc. (TRC Inc.).

The purpose of this test was to evaluate frontal crash protection in a full frontal barrier impact test. The subject vehicle was a 2001 Ford Escape.

## Test Procedure

This test was conducted in accordance with VRTC instructions for a full frontal car to stationary barrier test. Data was obtained relative to FMVSS 208, "Occupant Crash Protection" (December 18, 2001) performance for the 25 mph test mode using 5<sup>th</sup> percentile female anthropomorphic test devices (dummies).

The test vehicle, a 2001 Ford Escape, was instrumented with six (6) accelerometers to measure longitudinal, lateral and vertical axis accelerations. The driver's and passenger's airbag signals were monitored with inductive pickups. The vehicle impacted a flat frontal barrier. The vehicle's specified impact velocity range was 39.4 to 41.0 km/h.

The test vehicle contained two (2) Part 5720 small adult female Hybrid III dummies. The dummies were positioned in the front outboard designated seating positions according to FMVSS 208 (December 18, 2001). The driver dummy and the passenger dummy were both unbelted and were restrained with front single stage airbags.

Both dummies were instrumented with an array of twelve (12) accelerometers in the head, plus six (6) chest and three (3) pelvis accelerometers to measure longitudinal, lateral, and vertical accelerations, three (3) sternum accelerometers to measure longitudinal accelerations. The dummies were also instrumented with upper and lower neck moment and force load cells, lumbar moment and force loads cells, left and right femur load cells to measure axial forces, and chest deflection potentiometers. Both dummies were also equipped with THOR-FLX legs, which included upper and lower tibia load cells to measure forces and moments, tibia and foot accelerometers in three axes, tibia to femur displacement potentiometers at each knee and three (3) rotary potentiometers at each ankle to measure foot rotations about three axes.

The 168 data channels were digitally sampled and recorded at 12,500 samples per second and processed per SAE J211 March 1995.

The crash event was recorded by one (1) real-time panning motion picture camera and eleven (11) high-speed motion picture cameras.

The barrier test summary data are presented in Section 2.0. The summary of FMVSS 208 data are presented in Section 3.0. The occupant, camera, and vehicle measurements are presented in Section 4.0. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots. Appendix C contains the dummy verification data. Appendix D contains miscellaneous test information.

Section 2.0

Full Frontal Barrier Test Summary

## Test Results Summary

This frontal barrier test was conducted by TRC Inc. on May 23, 2002.

The test vehicle, a 2001 Ford Escape, was equipped with a 3-liter transverse engine, automatic transmission, power steering, power brakes and single stage front airbags. The vehicle's test weight was 1733.4 kg. The vehicle's impact speed was 40.1 km/h. The vehicle sustained 365 mm of static crush during the impact.

The driver's 36 millisecond Head Injury Criteria (HIC) was 105. The driver's 15 millisecond HIC was 95. The driver's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 37.3 g. The driver's maximum chest deflection was 47 mm. The driver's left and right femur maximum axial compressive forces were 2658 N and 1830 N, respectively. The driver dummy's neck injury calculations were as follows: NTF, 0.24; NTE, 1.43; NCF, 0.20; NCE, 0.19. The driver dummy's peak neck tension force was 1582 N and peak neck compression force was 80 N.

The right front passenger's 36 millisecond HIC was 152. The passenger's 15 millisecond HIC was 89. The passenger's chest maximum resultant acceleration with three (3) milliseconds minimum duration was 29.8 g. The passenger's maximum chest deflection was 7 mm. The passenger's left and right femur maximum axial compressive forces were 3914 N and 2888 N, respectively. The right front passenger's neck injury calculations were as follows: NTF, 0.25; NTE, 0.15; NCF, 0.72; NCE, 0.03. The right front passenger dummy's peak neck tension force was 174 N and peak neck compression force was 849 N.

### Data Acquisition Explanations

The passenger dummy's lumbar X, Y, and Z axes force load cell data channels, LMBXF2, LMBYF2, and LMBZF2, respectively, recorded numerous anomalous data spikes between approximately 154 and 182 milliseconds.

Table 1 Crash Test Summary

Test mode:	Flat frontal barrier		
Test date:	05/23/02		
Test time:	1120		
Ambient temperature:	21° C		
Vehicle year/make/ model/body style:	2001/Ford/Escape/MPV		
Vehicle test weight:	1733.4 kg		
Impact angle <sup>1</sup> :	0°		
Impact velocity <sup>2</sup> :	40.1 km/h		
Maximum static crush:	365 mm		
Average rebound:	728 mm		
Number of data channels:	168		
Number of cameras:	High-speed	11	Real-time 1
<u>Dummies:</u>	<u>Driver #416</u>		<u>Passenger #421</u>
Type:	Part 5720		Part 5720
Location:	Left front		Right front
Restraint:	Airbag, single stage		Airbag, single stage

Seat track position for test:

Driver:	Full forward
Passenger:	1 position rearward of full forward

Seat back position for test:

Driver:	19.7°
Passenger:	14.5°

Head restraint position for test:

Driver:	Fixed
Passenger:	Fixed
Steering column position:	Mid (61.9°)

<sup>1</sup> With respect to tow track centerline.

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

Table 2 General Test and Vehicle Parameter Data

Vehicle year/make/  
model/body style: 2001/Ford/Escape/MPV

VIN: 1FMYU04161KB41439

Model year: 2001

Body style: MPV

Color: Red

Engine data:  
Cylinders: 6  
Displacement 3 liters  
Cylinder placement: V  
Engine placement: Transverse

Transmission data: 4 speed, \_\_\_ manual, X automatic, X overdrive

Final drive: \_\_\_ FWD, \_\_\_ RWD, X 4WD

Date vehicle received: 05/21/2002

Odometer reading: 68

Dealer's name  
and address: N/A  
(Supplied by VRTC)

Accessories:

Power steering	Yes	Automatic transmission	Yes
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	Yes
Clock	Yes	Rear window defroster	Yes
Other	None	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by: Ford Motor Company

Date of manufacture: 04/02

VIN: 1FMYU04161KB41439

GVWR: 4528 lbs. (2053 kg)

GAWR: Front: 2398 lbs. (1087 kg)

Rear: 2319 lbs. (1051 kg)

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

Tires on vehicle (mfr., line, size): Firestone, Wilderness HT, P235/70R16

Tire pressure with maximum capacity vehicle load:

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

Spare tire (mfr., line, size): Firestone, Temp, T145/90R17

Type of seats:

Front	Bucket
Rear	Split bench

Maximum width: 1747 mm

Wheelbase: 2612 mm

Location of "Recommended Tire Pressure" label:

The label was located on driver B-pillar.

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

Recommended tire size:

Recommended cold tire pressure:

Front:	30 psi	(207 kPa)
Rear:	30 psi	(207 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):

Front	2
Mid	N/A
Rear	3
Total	5

Vehicle capacity weight: 899 lbs. (408 kg)

Rated cargo/luggage weight<sup>1</sup> 68 kg

Test vehicle attitude:

Delivered attitude:	LF	810 mm;	RF	810 mm;	LR	842 mm;	RR	842 mm
Fully loaded attitude:	LF	803 mm;	RF	803 mm;	LR	818 mm;	RR	820 mm
Pre-test attitude:	LF	795 mm;	RF	800 mm;	LR	813 mm;	RR	813 mm
Post-test attitude:	LF	812 mm;	RF	795 mm;	LR	820 mm;	RR	807 mm

<sup>1</sup> Not on label; derived from vehicle capacity weight using NHTSA procedure.

Table 2 General Test and Vehicle Parameter Data Cont'd

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

Right front	458.0 kg	Right rear	320.0 kg
Left front	477.0 kg	Left rear	321.5 kg
Total front weight	935.0 kg	(59.3 % of total vehicle weight)	
Total rear weight	641.5 kg	(40.7 % of total vehicle weight)	
Total delivered weight	1576.5 kg		

Calculation of test vehicle's target test weight:

Total Delivered Weight (UDW) =	1576.5 kg
Rated Cargo/Luggage Weight (RCLW) <sup>1</sup> =	68 kg
Weight of 2 Part 5720 Dummies @ 49 kg each =	98 kg
Target test weight =	1742.5 kg

Weight of test vehicle with required dummies and 58.9 kg of cargo weight:

Right front	473.6 kg	Right rear	383.8 kg
Left front	493.0 kg	Left rear	383.0 kg
Total front weight	966.6 kg	(55.8% of total vehicle weight)	
Total rear weight	766.8 kg	(44.2% of total vehicle weight)	
Total test weight	1733.4 kg	(0.5% under target test weight)	

Weight of ballast secured in vehicle: None

Components removed to meet target test weight: Rear hatch window, rear left side door trim

Location of Vehicle's CG: 1155 mm rearward of front wheel centerline

Fuel System Data:

Usable fuel system capacity	60.6 l (from owner's manual)
Actual test volume:	56.4 l (93% of usable)

<sup>1</sup> 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: 020523  
Test date: 05/23/02  
Test time: 1120  
Test type: Flat frontal barrier  
Impact angle: 0°  
Ambient temperature  
at impact area: 21° C  
Required impact velocity range: 39.4 to 41.0 km/h

Barrier impact velocity:

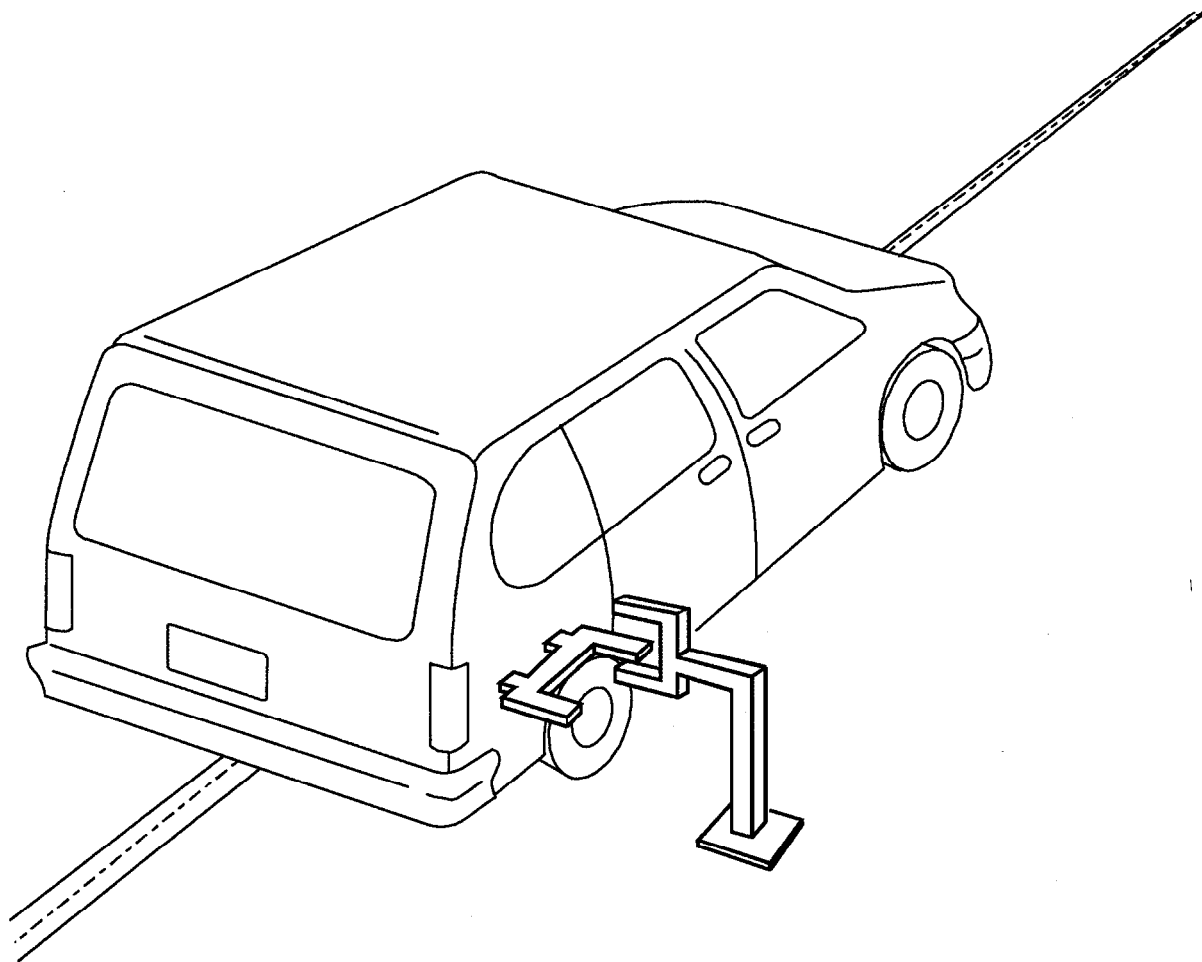
Primary: 40.1 km/h  
Secondary: 40.1 km/h  
Distance from vehicle to barrier:  
Entering velocity trap: 356 mm  
Exiting velocity trap: 51 mm

Vehicle rebound from flat rigid barrier:

Distance from test vehicle to barrier impact point:

Post-test: L 720 mm; C 710 mm; R 755 mm  
Average rebound: 728 mm

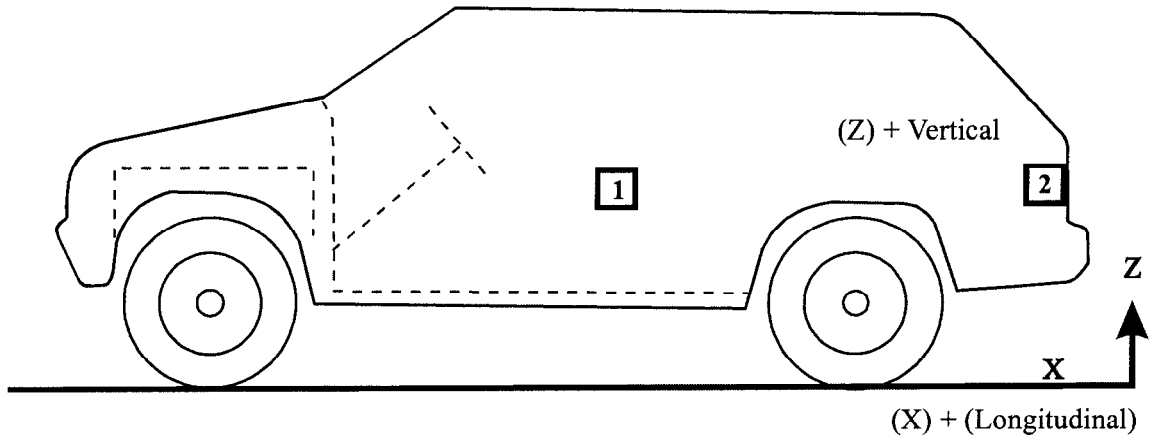
Figure 1 Impact Velocity Measurement System



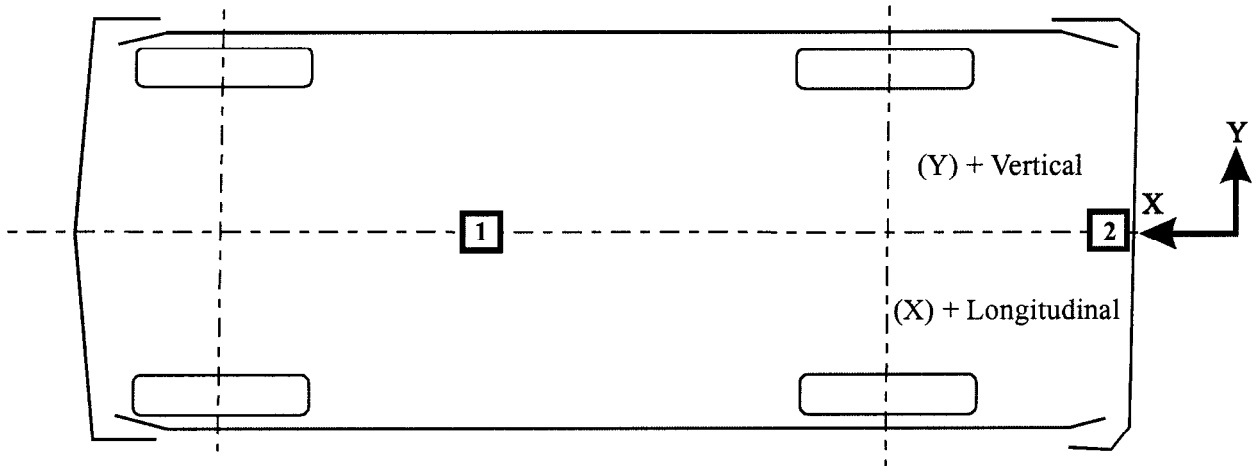
The final vane clears the final emitter/receiver pair 51 millimeters before impact.

The vanes have 305-millimeter spacing.

Figure 2 Vehicle Accelerometer Placement



**Side View**



**Bottom View**

Table 4 Vehicle Accelerometer Locations and Data Summary

TEST NUMBER: 020523									
No. LOCATION	X	Y		POSITIVE DIRECTION				NEGATIVE DIRECTION	
1 VEHICLE CENTER OF GRAVITY	2423 mm	0 mm							
LONGITUDINAL				14.8 g @ 76.9 ms				38.1 g @ 46.9 m	
LATERAL				4.2 g @ 52.5 ms				3.2 g @ 39.7 m	
VERTICAL				14.8 g @ 16.7 ms				48.9 g @ 76.6 m	
RESULTANT				51.1 g @ 76.6 ms					
2 REAR DECK	NA	NA							
LONGITUDINAL				37.3 g @ 135.0 ms				40.2 g @ 43.8 m	
LATERAL				5.4 g @ 37.2 ms				4.4 g @ 130.7 m	
VERTICAL				17.4 g @ 134.2 ms				26.0 g @ 130.9 m	
RESULTANT				46.5 g @ 44.2 ms					

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

Section 3.0

Summary of FMVSS 208 Data

Table 5 Dummy Injury Criteria Data

	<u>Maximum Acceleration<sup>1</sup></u>							
	Head				Chest			
	X	Y	Z	R	X	Y	Z	R
Driver	-39.6 g	-9.6 g	-19.6 g	41.0 g	-57.5 g	-14.6 g	12.9 g	58.3 g
Passenger	-32.2 g	-16.8 g	15.3 g	36.4 g	-28.4 g	3.8 g	13.6 g	30.2 g

Maximum Femur Compressive Force

	Left Femur	Right Femur
Driver	2658 N	1830 N
Passenger	3914 N	2888 N

Head Injury Criteria<sup>2</sup>

	36 millisecond		
	HIC	Time t <sub>1</sub>	Time t <sub>2</sub>
Driver	105	47.9 ms	70.6 ms
Passenger	152	52.4 ms	88.4 ms

	15 millisecond		
	HIC	Time t <sub>1</sub>	Time t <sub>2</sub>
Driver	95	50.9 ms	65.9 ms
Passenger	89	66.4 ms	81.4 ms

Chest Maximum Resultant Acceleration<sup>3</sup>

	Acceleration	Time t <sub>1</sub>	Time t <sub>2</sub>
Driver	37.3 g	65.6 ms	68.6 ms
Passenger	29.8 g	70.8 ms	74.9 ms

Table 5 Dummy Injury Criteria Data, Cont'd.

Maximum Chest Deflection

Driver	47 mm
Passenger	7 mm

Neck Injury Calculations (Nij)<sup>2</sup>

	NTF	NTE	NCF	NCE
Driver	0.24	1.43	0.20	0.19
Passenger	0.25	0.15	0.72	0.03

Neck Axial Force

	Neck Tension	Neck Compression
Driver	1582 N	80 N
Passenger	174 N	849 N

Tibia Index<sup>4</sup>

	Upper Tibia	Lower Tibia
Driver - Left	0.79	0.94
Driver - Right	0.72	0.82
Passenger - Left	0.88	0.80
Passenger - Right	0.65	0.70

<sup>1</sup> See Report Sign Convention in Appendix D.

<sup>2</sup> As defined in FMVSS No. 208.

<sup>3</sup> Defined as equal to or exceeding 0.003 sec. duration.

<sup>4</sup> Tibia Index calculation for Small Female THOR-FLX legs:  $F/8.6 \text{ kN} + M/146 \text{ Nm}$  (where M is the resultant of the measured Mx and My channels in Nm and Fz is absolute value of Fz in kN).

Table 6 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Airbag, visor, left corner seatback	Airbag, visor, head restraint
Chest	Airbag	Airbag
Abdomen	Lower steering wheel	N/A
Left knee	Knee bolster	Glove box
Right knee	Knee bolster	Glove box

Door opening:

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

Seat movement:

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

Glazing damage: None

Other notable impact effects: None

Section 4.0

Occupant, Camera, and Vehicle Information

## Dummy Kinematic Summary

### Driver Dummy

Upon impact, the driver dummy translated forward on the seat impacting both knees into the instrument panel. The dummy's head contacted the airbag and first rotated rearward as the chest moved forward into the airbag. The head and neck then flexed forward and the dummy began to rebound into the seat. The lower chest and upper abdomen area contacted the lower steering wheel rim. The sun visor swung down and contacted the back of the head. The driver dummy came to rest with the pelvis forward in the seat and the dummy leaning rearward into the seatback. The upper back and the rear of the head were against the seatback, to the outboard side.

### Right Front Passenger Dummy

Upon impact, the passenger dummy translated forward impacting both knees into the glove box. The dummy's head contacted the airbag and the neck rotated so that the head faced inboard as the chest moved forward into the airbag. The head and neck then flexed forward and the dummy began to rebound into the seat. The sun visor swung down and contacted the back of the head. The head and neck flexed rearward again and the head contacted the right side of the head restraint on rebound. The dummy came to rest seated upright in the seat.

**Figure 3 Dummy Measurement Locations for Front Seat Occupants**

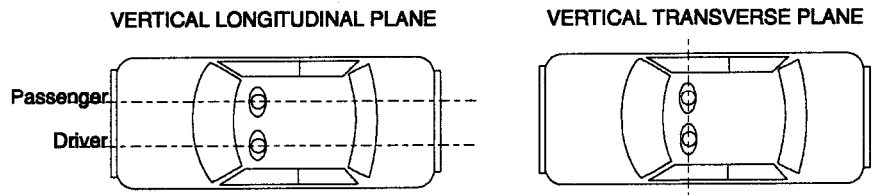
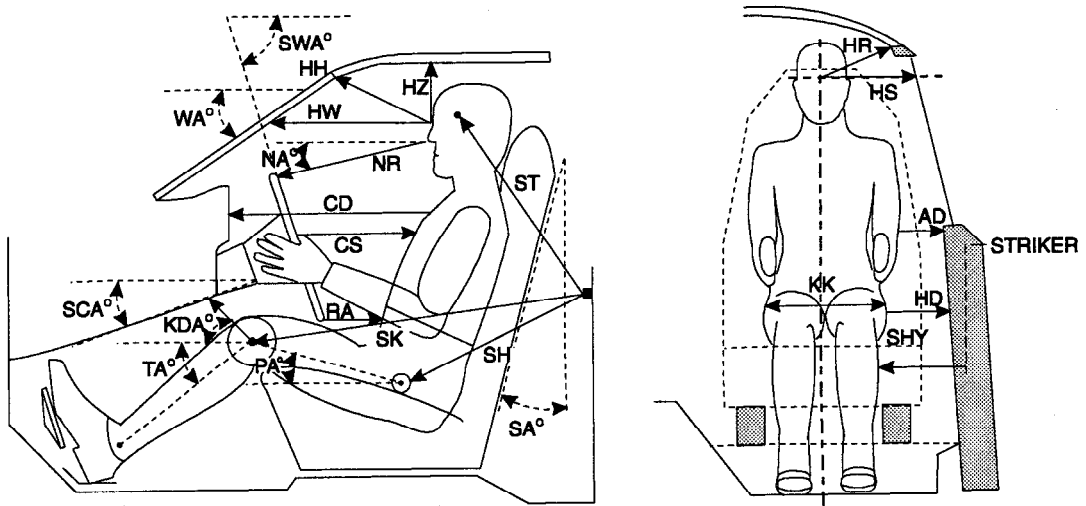


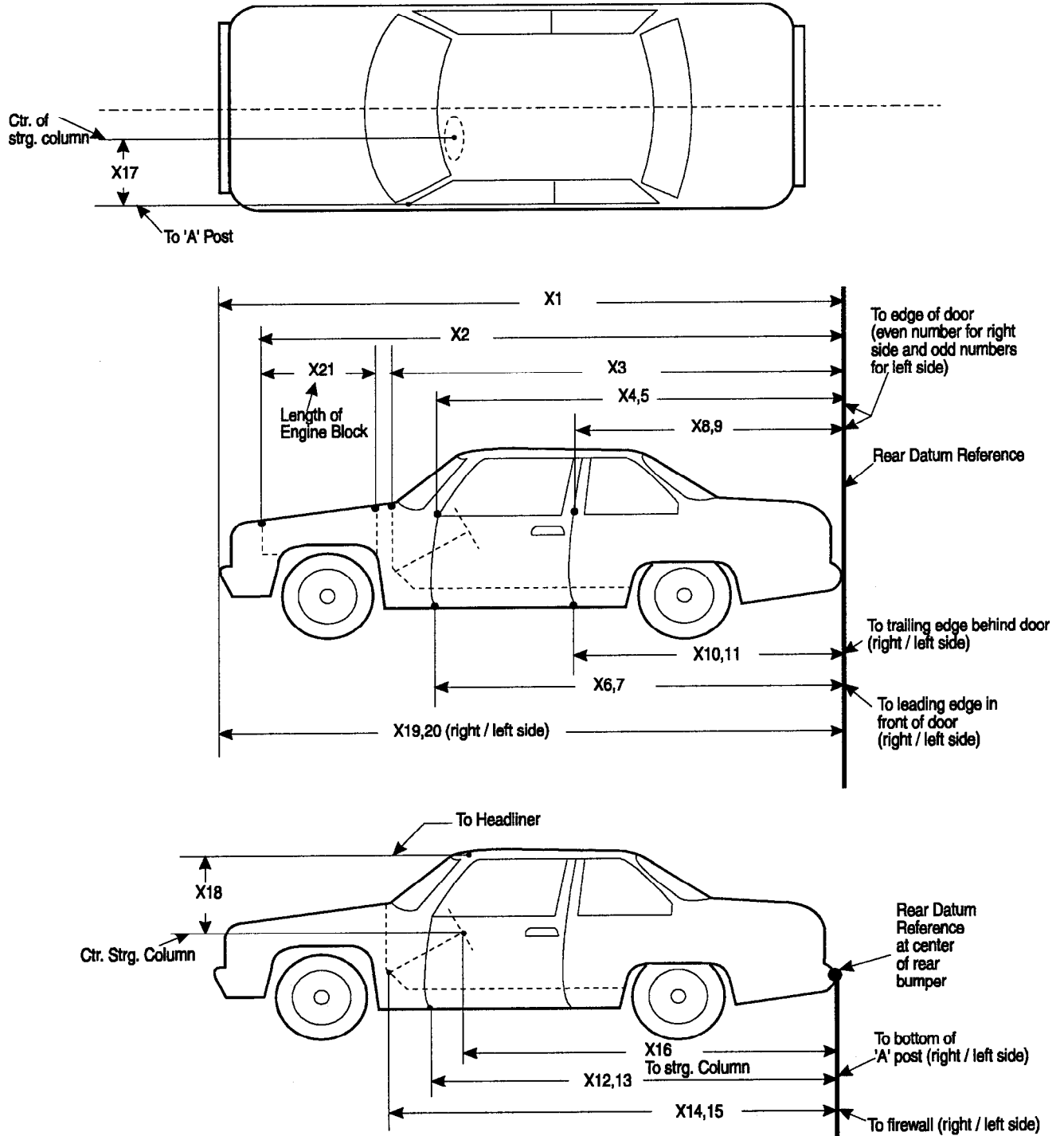
Table 7 Dummy Measurement Data For Front Seat Occupants

Designation	Type of Measurement	Driver (Serial # 416)	Passenger (Serial # 421)
WA	Windshield angle	35.8°	35.8°
SWA	Steering wheel angle	61.9°	N/A
SCA	Steering column angle	27.7°	N/A
SA	Seat back angle	19.7°	14.5°
HZ	Head to roof	255 mm	245 mm
HH	Head to header	340 mm	325 mm
HW	Head to windshield	563 mm	566 mm
HR	Head to side header	280 mm	265 mm
NR	Nose to rim	307 mm	N/A
NA	Nose to rim angle	7.1°	N/A
CD	Chest to dash	463 mm	457 mm
CS	Steering wheel to chest	213 mm	N/A
RA	Rim to abdomen	106 mm	N/A
KDL	Left knee to dash	70 mm	70 mm
KDR	Right knee to dash	70 mm	70 mm
KDA	Outboard knee to dash angle	58.2°	72.4°
PA	Pelvic angle	22.2°	21.0°
TA	Tibia angle	52.4°	54.3°
KK	Knee to knee	170 mm	160 mm
ST <sup>1</sup>	Striker to head	515 mm	529 mm
	Striker to head angle	-64.6°	-65.0°
SK <sup>1</sup>	Striker to knee	684 mm	695 mm
	Striker to knee angle	3.9°	3.8°
SH <sup>1</sup>	Striker to H-point	364 mm	356 mm
	Striker to H-point angle	15.0°	17.0°
SHY	Striker to H-point (Y dir.)	203 mm	234 mm
HS	Head to side window	277 mm	255 mm
HD	H-point to door	154 mm	167 mm
AD	Arm to door	130 mm	130 mm

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

<sup>1</sup> A negative angle indicates the measurement point was above the striker.

Figure 4 Pre-Test And Post-Test Measurement Points



**Table 8 Impacted Vehicle Measurements**

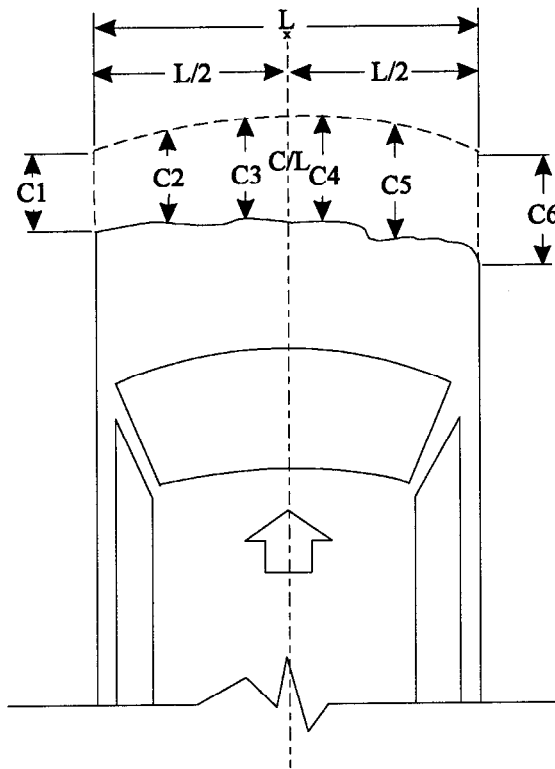
Test number: 020523

Vehicle year/make/model/body style: 2001/Ford/Escape/MPV

No.	Type of measurement	Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	4393	4133	260
X2	Rear Surface of Vehicle to Front of Engine Block	3826	3663	163
X3	Rear Surface of Vehicle to Firewall	3419	3408	11
X4	Rear Surface of Veh. to Upper Leading Edge of Right Door	3018	3018	0
X5	Rear Surface of Veh. to Upper Leading Edge of Left Door	3014	3016	-2
X6	Rear Surface of Veh. to Lower Leading Edge of Right Door	2974	2978	-4
X7	Rear Surface of Veh. to Lower Leading Edge of Left Door	2974	2981	-7
X8	Rear Surface of Veh. to Upper Trailing Edge of Right Door	2028	2025	3
X9	Rear Surface of Veh. to Upper Trailing Edge of Left Door	2020	2020	0
X10	Rear Surface of Veh. to Lower Trailing Edge of Right Door	2043	2049	-6
X11	Rear Surface of Veh. to Lower Trailing Edge of Left Door	2040	2046	-6
X12	Rear Surface of Veh. to Bottom of " A " Post on Right Side	3000	2994	6
X13	Rear Surface of Veh. to Bottom of " A " Post on Left Side	3002	2991	11
X14	Rear Surface of Vehicle to Firewall--Right Side	3489	3438	51
X15	Rear Surface of Vehicle to Firewall --Left Side	3456	3462	-6
X16	Rear Surface of Vehicle to Steering Wheel Center	2613	2553	60
X17	Center of Steering Column to " A " Post	345	290	55
X18	Center of Steering Column to Headliner	515	650	-135
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4266	4053	213
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4256	4124	132
X21	Length of Engine Block	440	440	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	2863	2858	5
CD	Rear Surface of Vehicle to Center of Dash Panel	2808	2808	0
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2863	2886	-23

All distance measurements are in millimeters.

Figure 5 Vehicle Crush



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

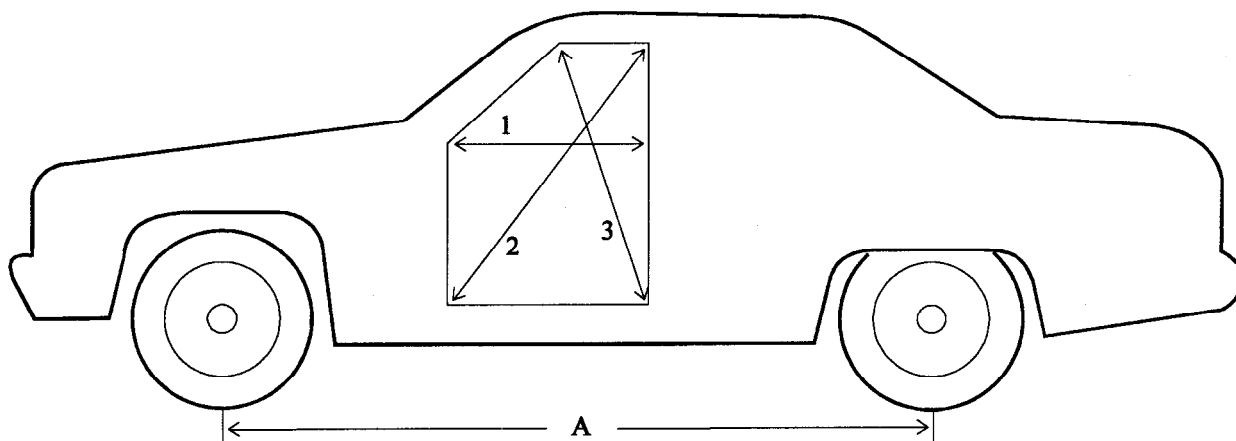
Vehicle: 2001 Ford Escape

Measured with bumper fascia:

Location	Pre-test	Post-test	Difference
L	1525 mm		
C1	4256 mm	4124 mm	132 mm
C2	4383 mm	4143 mm	240 mm
C3	4393 mm	4138 mm	255 mm
C4	4393 mm	4028 mm	365 mm
C5	4393 mm	4060 mm	333 mm
C6	4266 mm	4053 mm	213 mm
CL	4393 mm	4133 mm	260 mm

Figure 6 Vehicle Intrusion Measurements

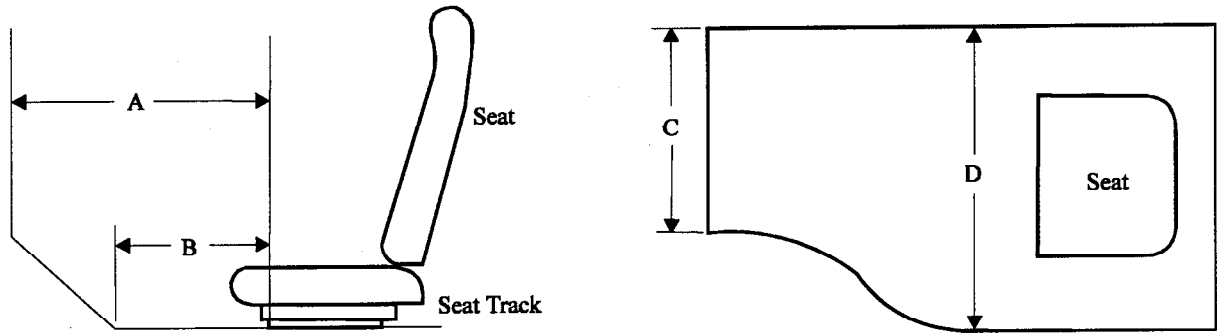
Door Opening Width



Units (mm)	Left			Right		
Measurement	1	2	3	1	2	3
Pre-Test	946 mm	1421 mm	1068 mm	944 mm	1423 mm	1070 mm
Post-Test	948 mm	1422 mm	1066 mm	940 mm	1421 mm	1062 mm
Difference	-2 mm	-1 mm	2 mm	4 mm	2 mm	8 mm

Units (mm)	A = Wheelbase Left	A = Wheelbase Right
Pre-Test	2612 mm	2612 mm
Post-Test	2630 mm	2635 mm
Difference	-18 mm	-23 mm

**Figure 7 Vehicle Intrusion Measurements**  
Static Footwell Deformation



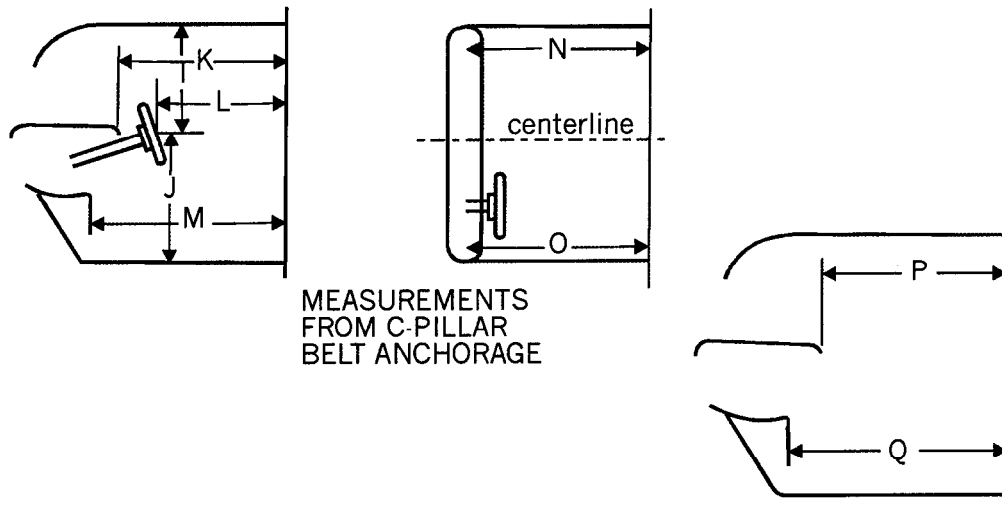
**Driver's Side**

Measurement	Pre-Test	Post-Test	Difference
A	713 mm	711 mm	2 mm
B	570 mm	565 mm	5 mm
C	350 mm	355 mm	-5 mm
D	467 mm	465 mm	2 mm

**Passenger's Side**

Measurement	Pre-Test	Post-Test	Difference
A	728 mm	724 mm	4 mm
B	595 mm	583 mm	12 mm
C	376 mm	376 mm	0 mm
D	478 mm	478 mm	0 mm

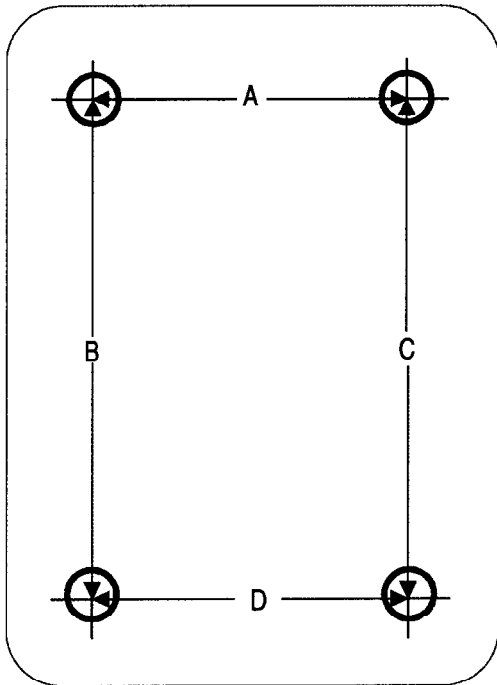
**Figure 8 Vehicle Intrusion Measurements**  
**Static Passenger Compartment Intrusion**



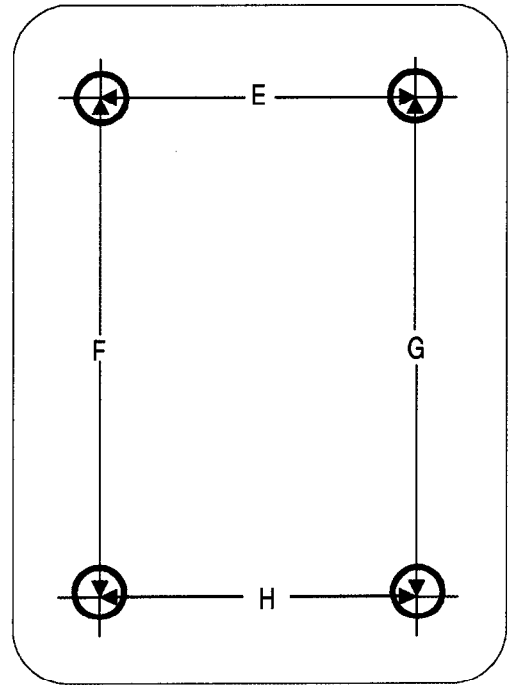
Measurement	Pre-Test	Post-Test	Difference
I	515 mm	650 mm	-135 mm
J	645 mm	525 mm	120 mm
K (driver's side)	1565 mm	1570 mm	-5 mm
L	1305 mm	1310 mm	-5 mm
M (driver's side)	1640 mm	1640 mm	0 mm
N (passenger's side)	1490 mm	1490 mm	0 mm
O (driver's side)	1490 mm	1490 mm	0 mm
P (passenger's side)	1560 mm	1552 mm	8 mm
Q (passenger's side)	1642 mm	1645 mm	-3 mm

Figure 9 Floorboard Deformation

DRIVERS SIDE

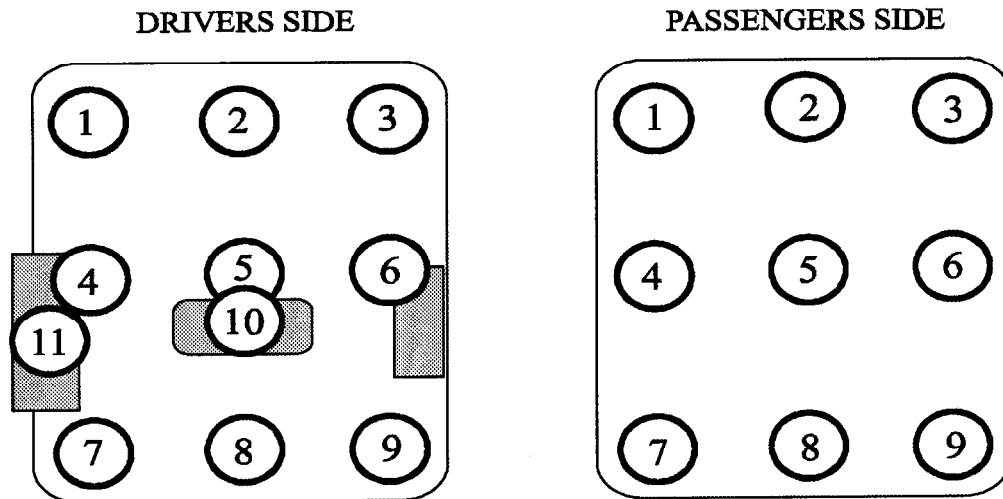


PASSENGERS SIDE



Measurement	Pre-Test	Post-Test	Difference
A	350 mm	355 mm	-5 mm
B	535 mm	535 mm	0 mm
C	505 mm	500 mm	5 mm
D	467 mm	465 mm	2 mm
E	376 mm	376 mm	0 mm
F	538 mm	541 mm	-3 mm
G	562 mm	560 mm	2 mm
H	478 mm	478 mm	0 mm

Figure 10 Toeboard Measurements



Driver's Side Toeboard Measurements in Millimeters

Toeboard Location	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3210	515	541	3187	522	589	23	-7	-48
2	3231	371	501	3196	394	542	35	-23	-41
3	3233	175	499	3221	195	520	12	-20	-21
4	3171	515	430	3163	522	459	8	-7	-29
5	3171	371	443	3163	394	447	8	-23	-4
6	3169	175	437	3165	195	467	4	-20	-30
7	3101	515	391	3099	522	414	2	-7	-23
8	3096	371	393	3096	394	414	0	-23	-21
9	3096	175	411	3093	195	430	3	-20	-19
10	3091	315	559	3095	356	580	-4	-41	-21
11	3088	600	458	3066	618	490	22	-18	-32

Passenger's Side Toeboard Measurements in Millimeters

Toeboard Location	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	3231	175	498	3211	165	531	20	10	-33
2	3251	360	522	3212	340	573	39	20	-51
3	3221	540	556	3192	510	610	29	30	-54
4	3186	175	438	3173	165	476	13	10	-38
5	3201	360	447	3161	340	523	40	20	-76
6	3191	540	499	3167	510	527	24	30	-28
7	3111	175	409	3108	165	426	3	10	-17
8	3106	360	413	3106	340	446	0	20	-33
9	3121	540	403	3116	510	437	5	30	-34

Reference: +X forward from rear bumper; +Y from centerline; +Z upward from ground level

Table 9 Intrusion of Upper Instrument Panel

Pre-Test	X	Y	Z
Driver Left Knee	2794	530	853
Driver Right Knee	2788	230	845
Passenger Left Knee	2793	250	878
Passenger Right Knee	2793	532	879
Steering Column	2613	380	1030
Driver Front Outboard Seat Attachment Bolt	2508	569	407
Pass. Front Outboard Seat Attachment Bolt	2513	582	415

Post-Test	X	Y	Z
Driver Left Knee	2810	523	868
Driver Right Knee	2808	223	873
Passenger Left Knee	2788	250	920
Passenger Right Knee	2790	533	910
Steering Column	2573	380	1060
Driver Front Outboard Seat Attachment Bolt	2518	545	430
Pass. Front Outboard Seat Attachment Bolt	2508	573	452

Difference	X	Y	Z
Driver Left Knee	-16	7	-15
Driver Right Knee	-20	7	-28
Passenger Left Knee	5	0	-42
Passenger Right Knee	3	-1	-31
Steering Column	40	0	-30
Driver Front Outboard Seat Attachment Bolt	-10	24	-23
Pass. Front Outboard Seat Attachment Bolt	5	9	-37

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

+X: Forward from rear bumper

+Y: From centerline

+Z: Upward from ground level

Figure 11 Camera Positions

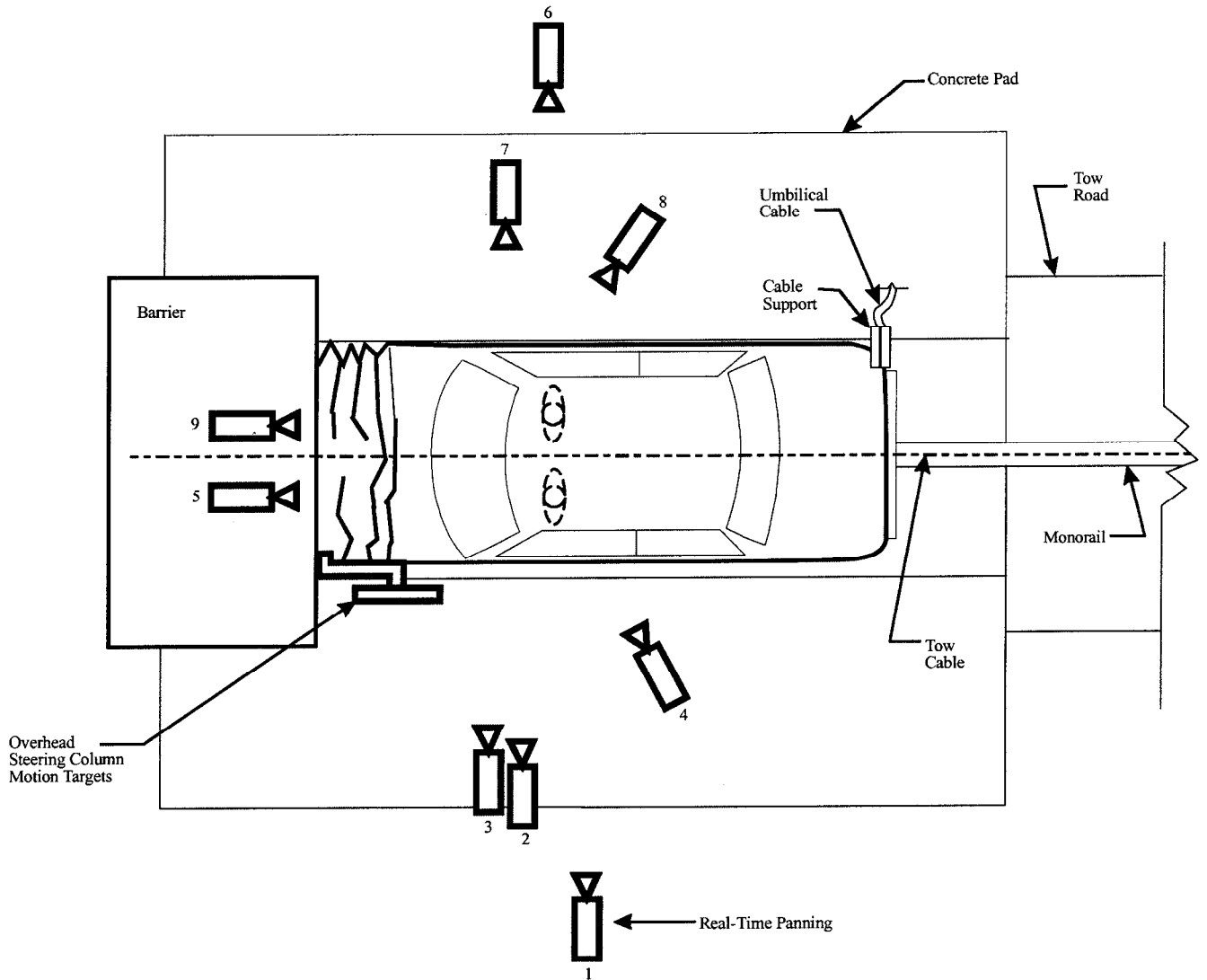


Figure 11 Camera Positions, Cont'd.

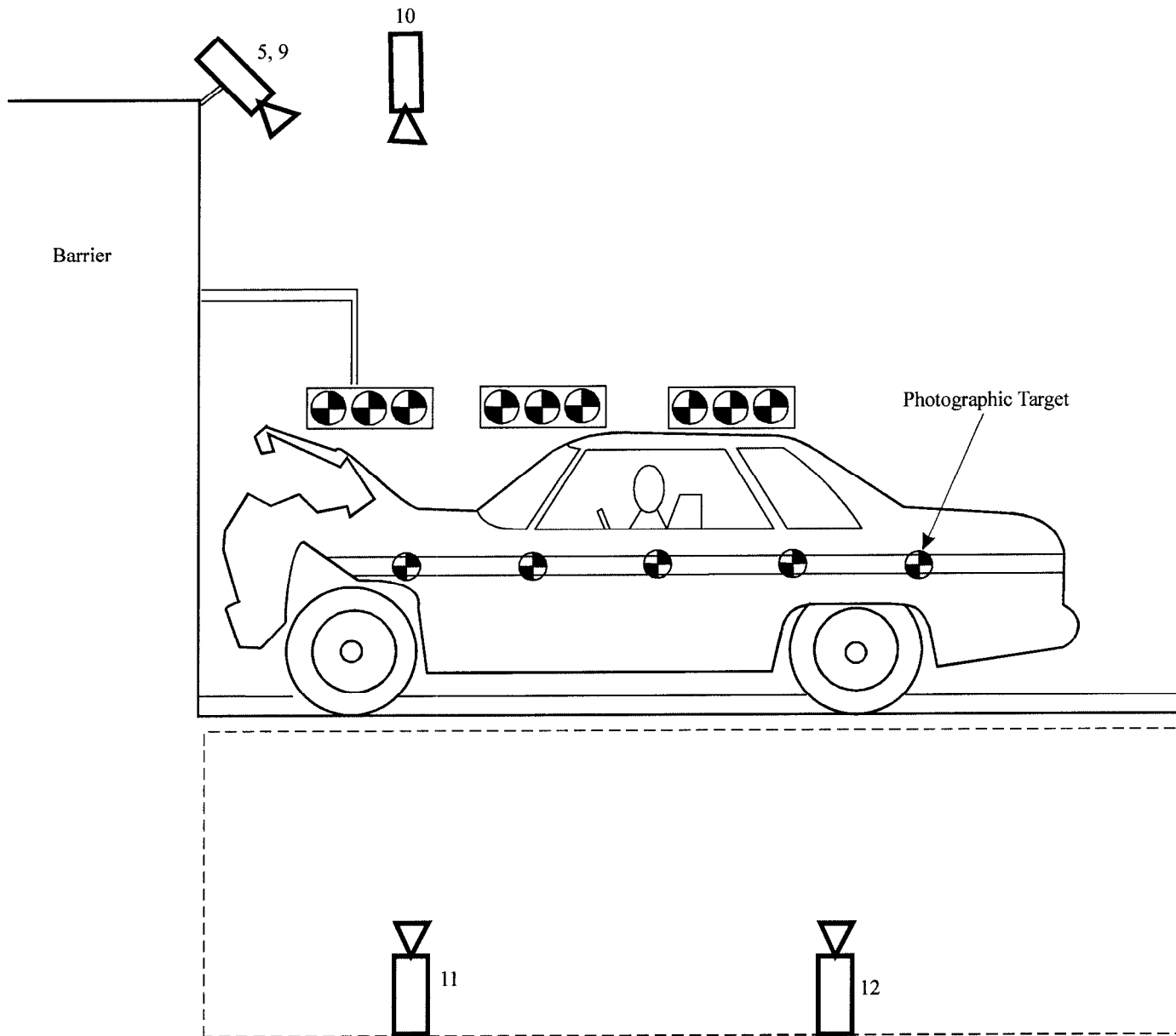
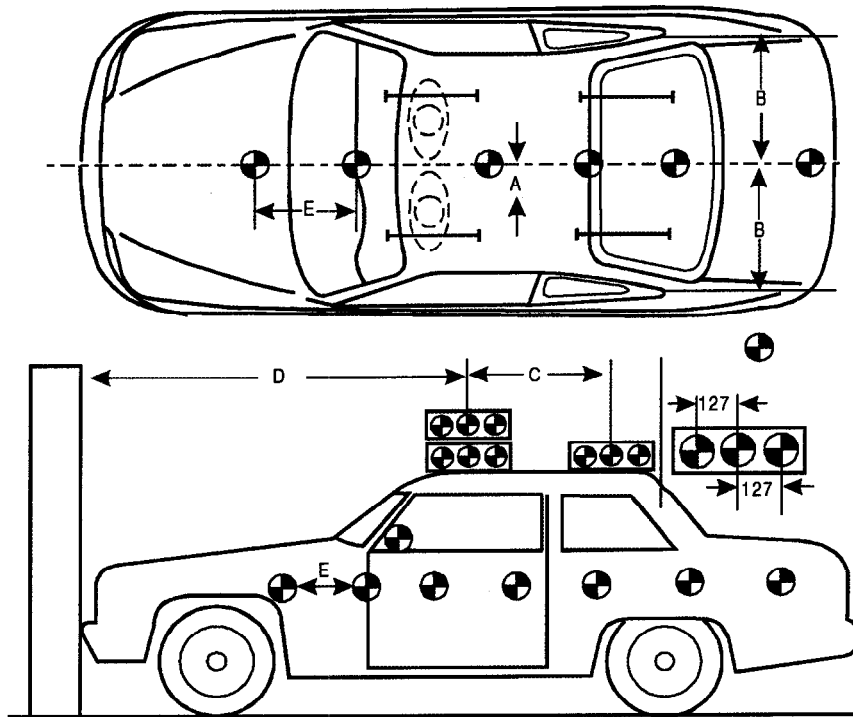


Table 10 Camera Information

Camera Number	Location	Type	Lens (mm)	Speed (fps)	Purpose of camera data
1	Panning	Bolex		24	Vehicle dynamics
2	Left perpendicular overall	Photosonic	13	1000	Vehicle crush
3	Left tight dummy	Photosonic	25	1010	Dummy kinematics
4	Left angled on dummy	Photosonic	25	1000	Dummy kinematics
5	Barrier driver	Photosonic	17	890	Airbag deployment
6	Right perpendicular overall	Photosonic	13	697	Vehicle crush
7	Right tight dummy	Photosonic	25	997	Dummy kinematics
8	Right angled on dummy	Photosonic	25	530	Dummy kinematics
9	Barrier passenger	Photosonic	17	1000	Airbag deployment
10	Overhead	Photosonic	13	1005	Vehicle dynamics
11	Pit front	Photosonic	13	985	Vehicle crush
12	Pit rear	Photosonic	13	1000	Vehicle crush

Figure 12 Vehicle Reference Photo Target Locations



Measurement	Pre-Test
A	left:382 mm right:382 mm
B	N/A mm
C	left:610 mm right:610 mm
D	1370 mm
E <sup>1</sup>	300 mm

<sup>1</sup> The first side target is placed 600 mm from front edge of bumper, and others are at 300 mm intervals.

Appendix A

Photographs



**Figure A-1 Pre-Test Front View**



**Figure A-2 Post-Test Front View**



**Figure A-3 Pre-Test Left Front View**



**Figure A-4 Post-Test Left Front View**



**Figure A-5 Pre-Test Left Side View**



**Figure A-6 Post-Test Left Side View**



**Figure A-7 Pre-Test Left Rear View**



**Figure A-8 Post-Test Left Rear View**



**Figure A-9 Pre-Test Rear View**



**Figure A-10 Post-Test Rear View**



**Figure A-11 Pre-Test Right Rear View**



**Figure A-12 Post-Test Right Rear View**



Figure A-13 Pre-Test Right Side View



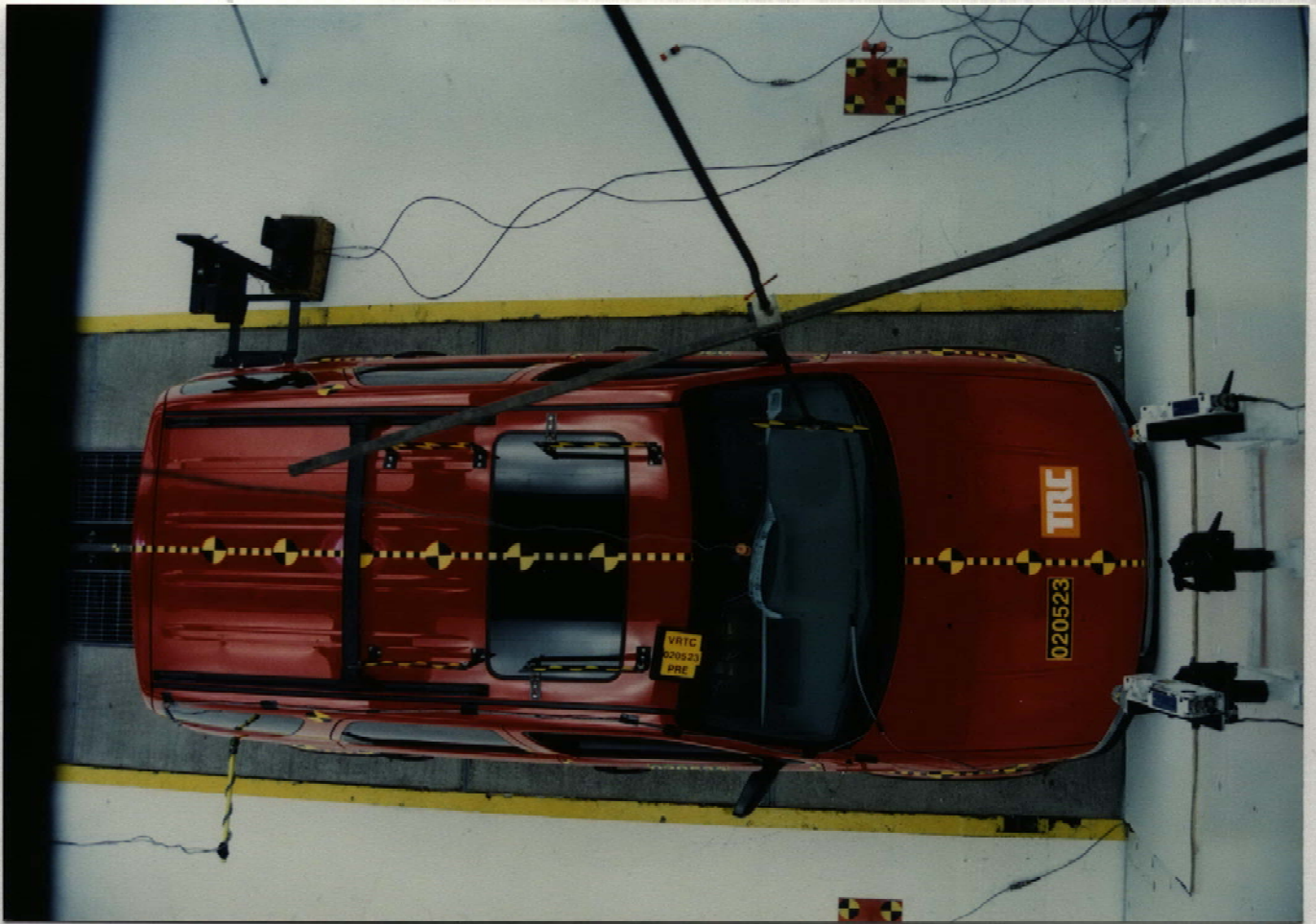
Figure A-14 Post-Test Right Side View



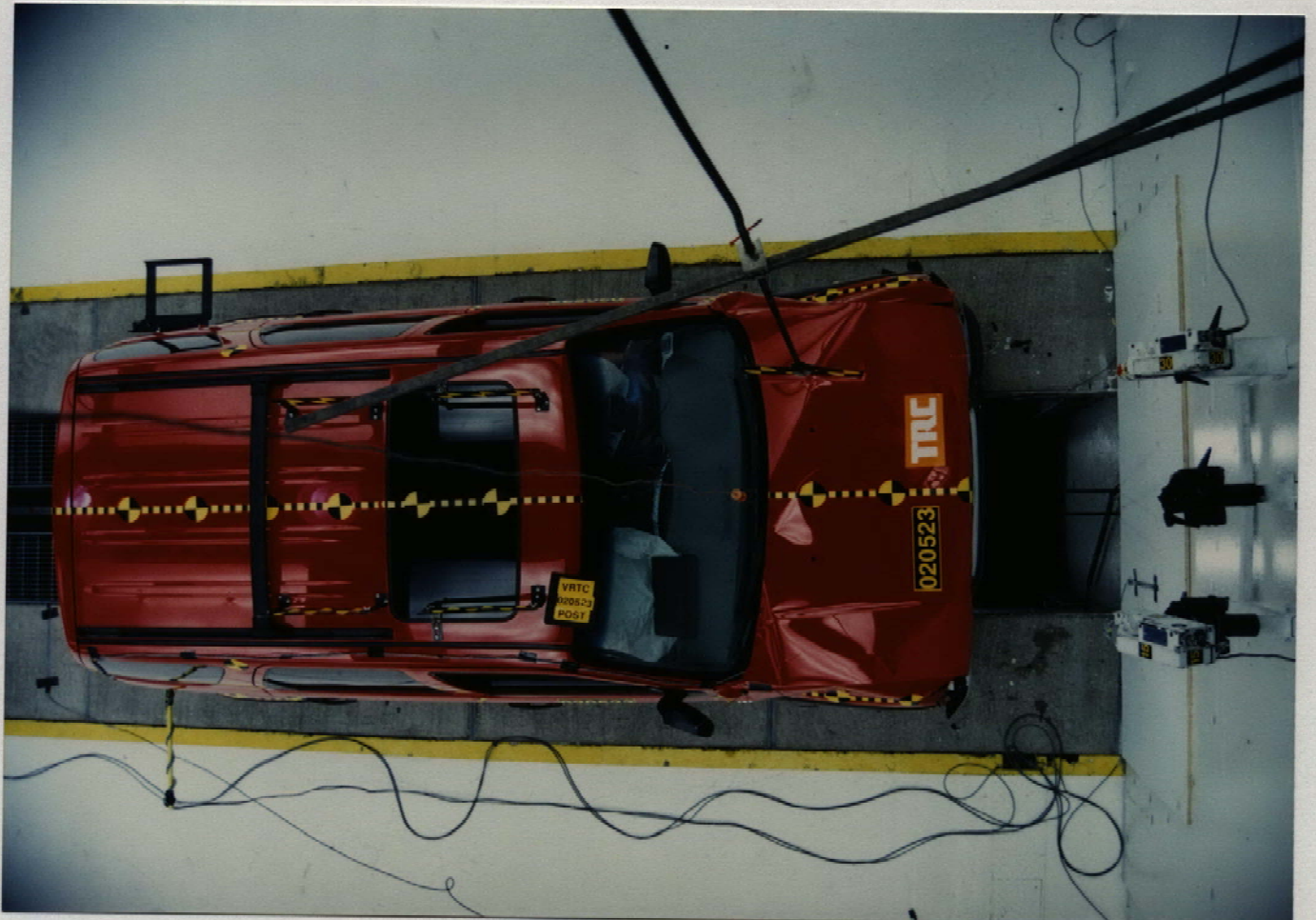
**Figure A-15 Pre-Test Right Front View**



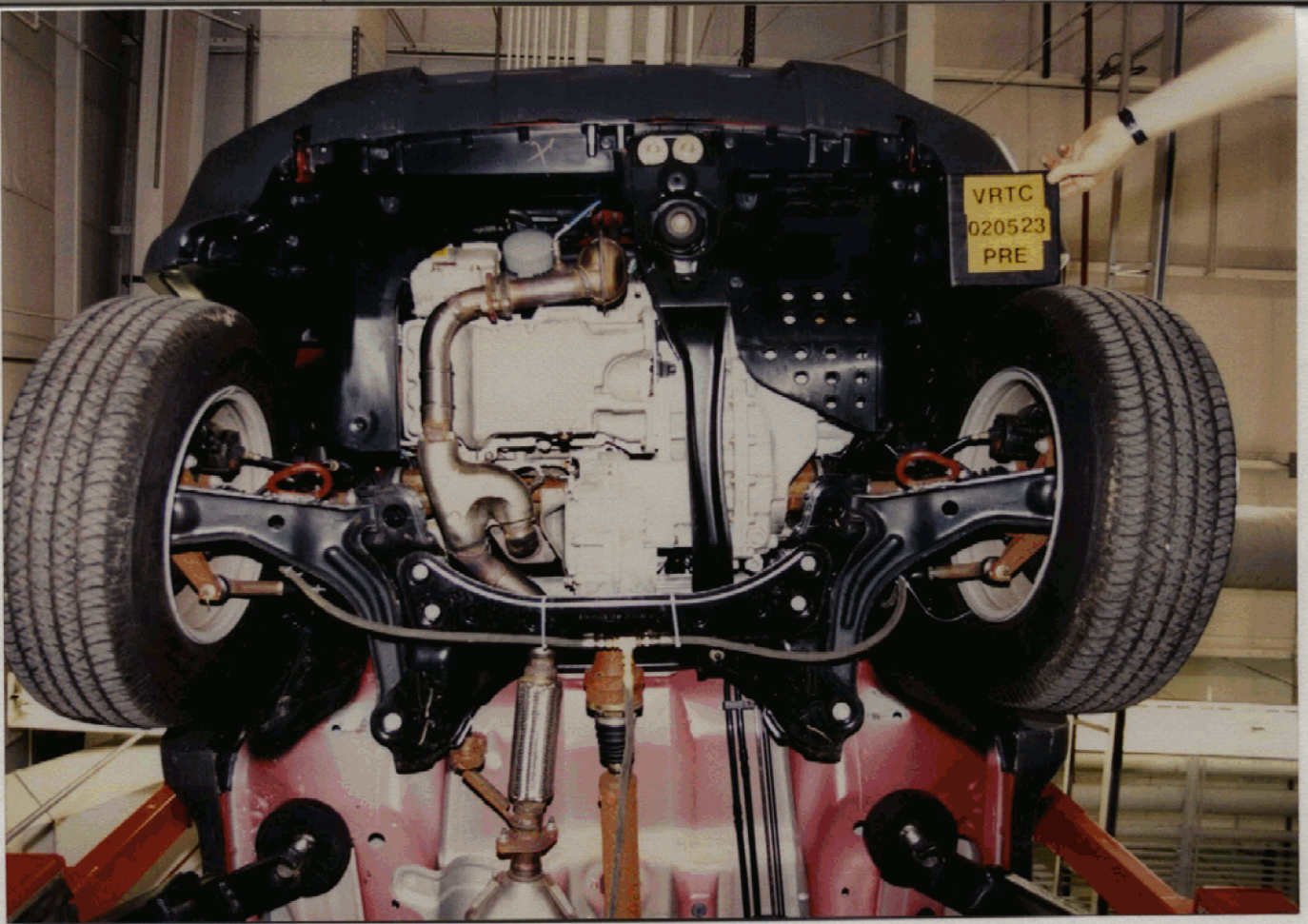
**Figure A-16 Post-Test Right Front View**



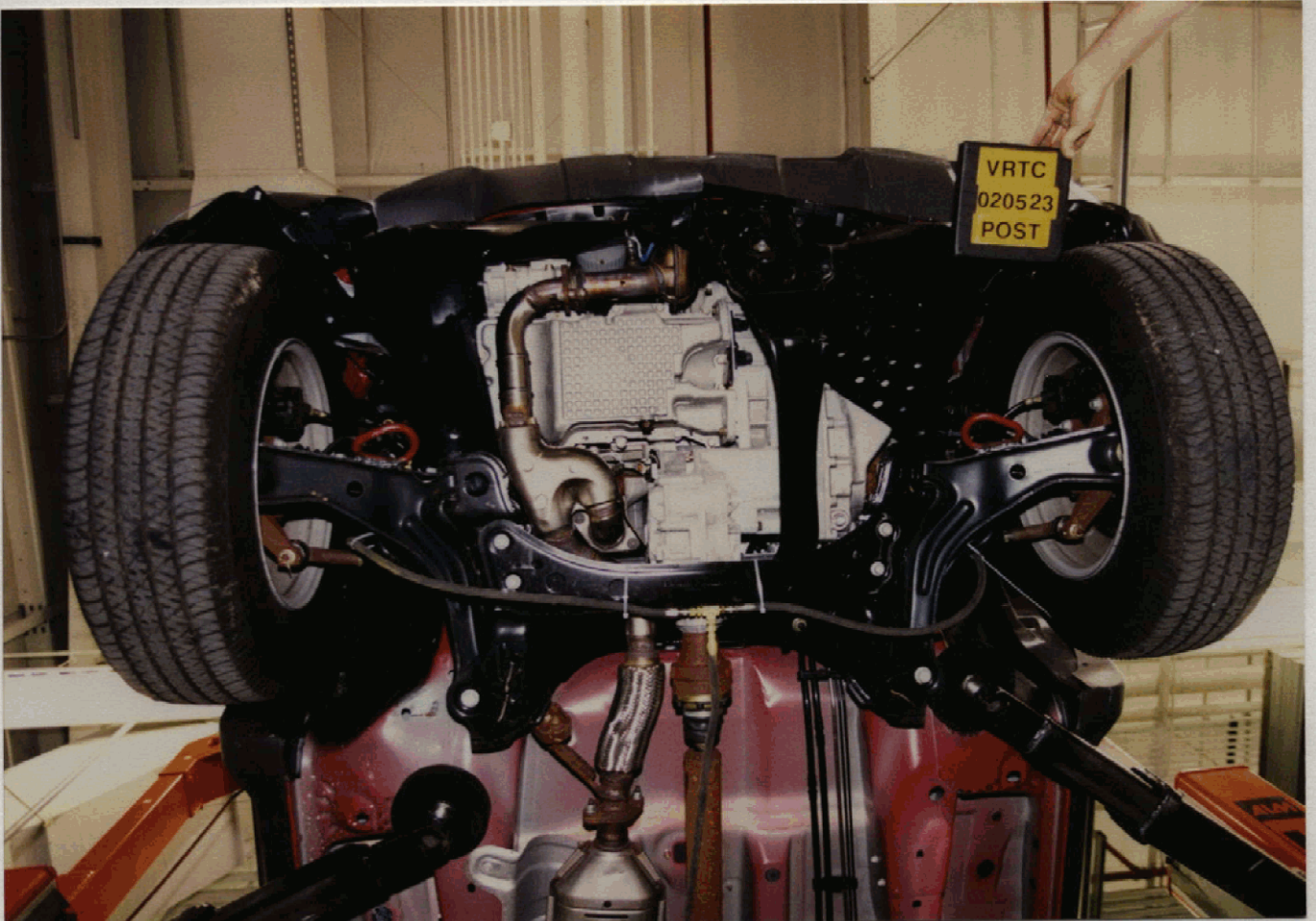
**Figure A-17 Pre-Test Overhead View**



**Figure A-18 Post-Test Overhead View**



**Figure A-19 Pre-Test Front Underbody View**



**Figure A-20 Post-Test Front Underbody View**

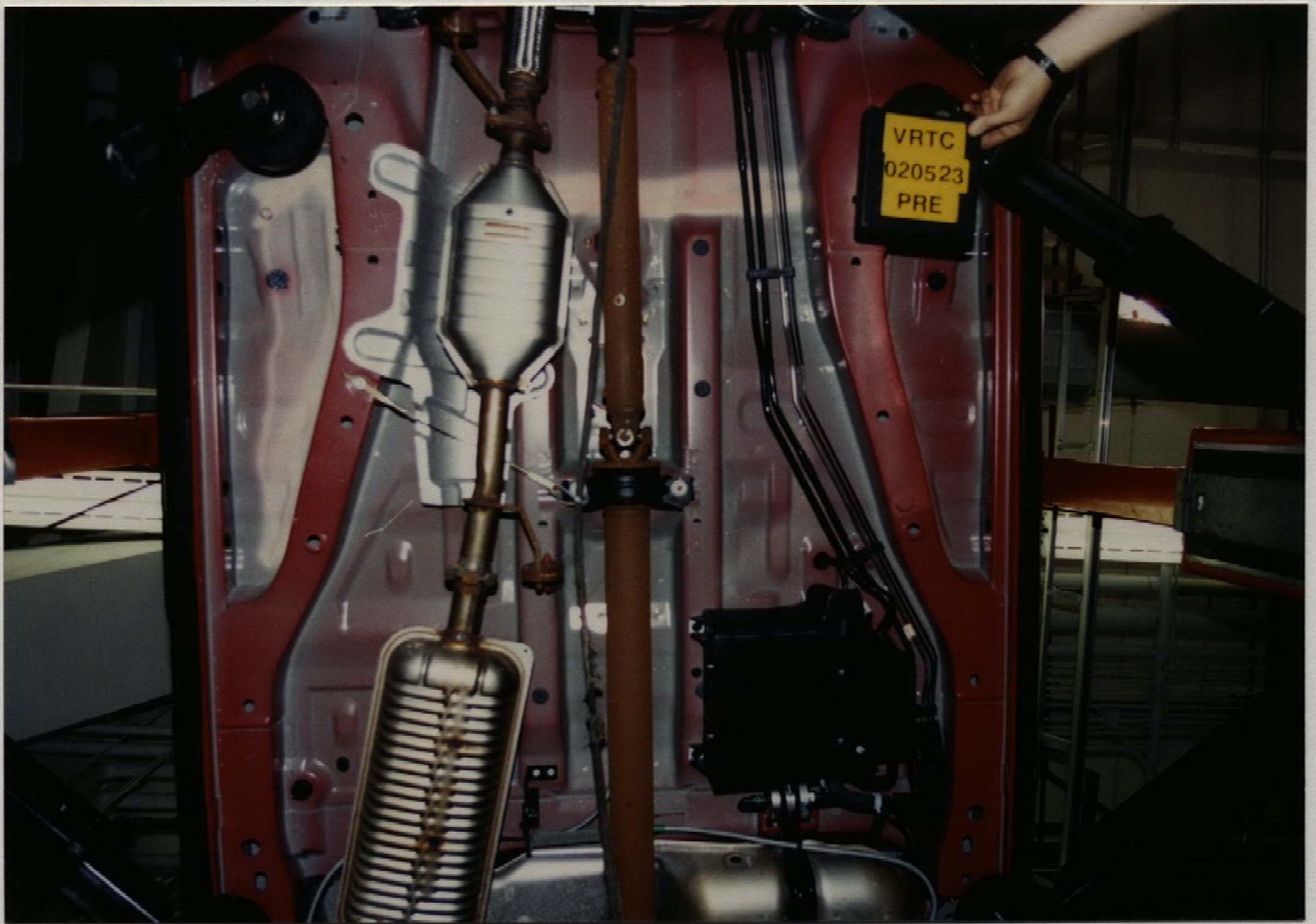


Figure A-21 Pre-Test Front Mid Underbody View

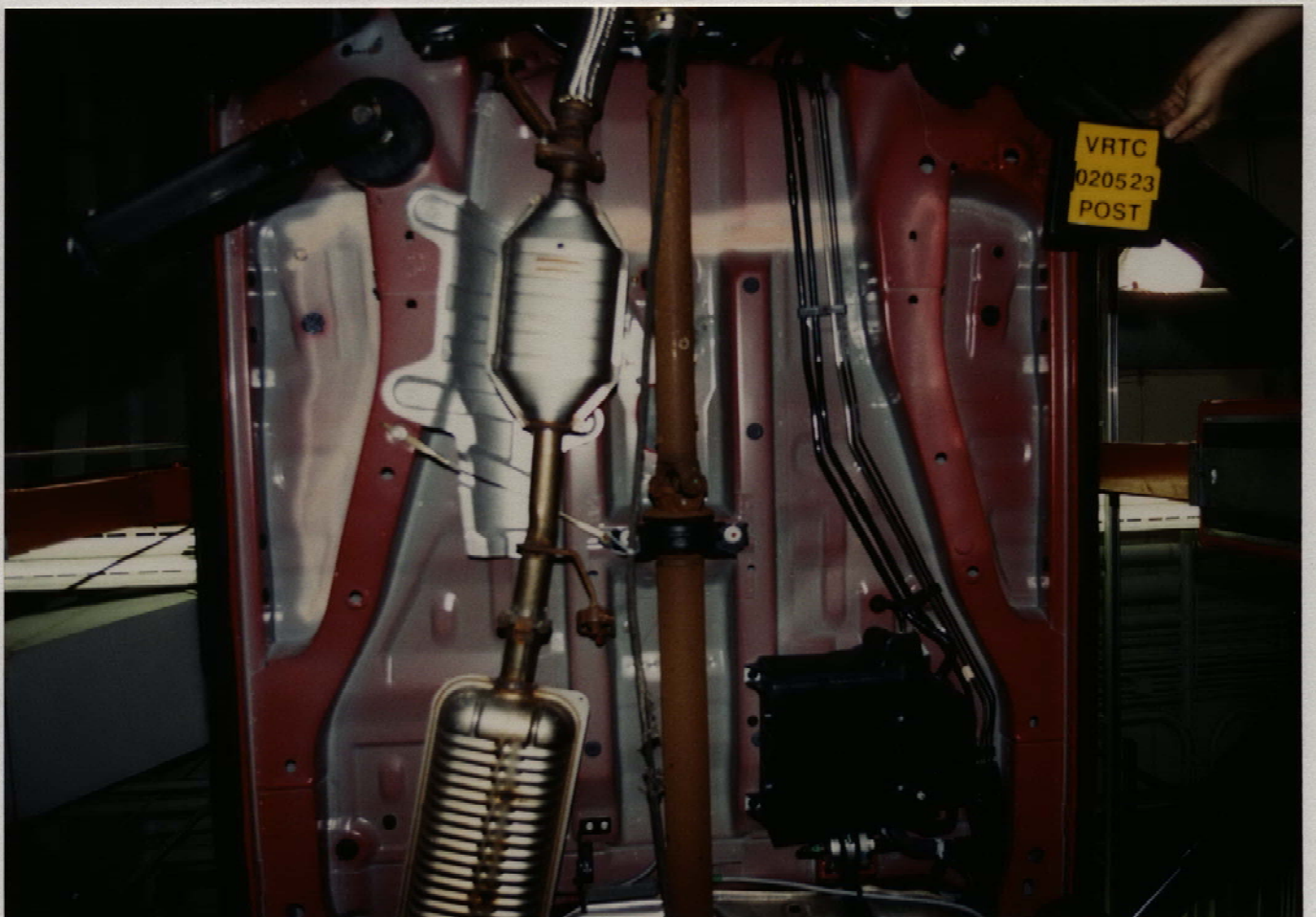


Figure A-22 Post-Test Front Mid Underbody View

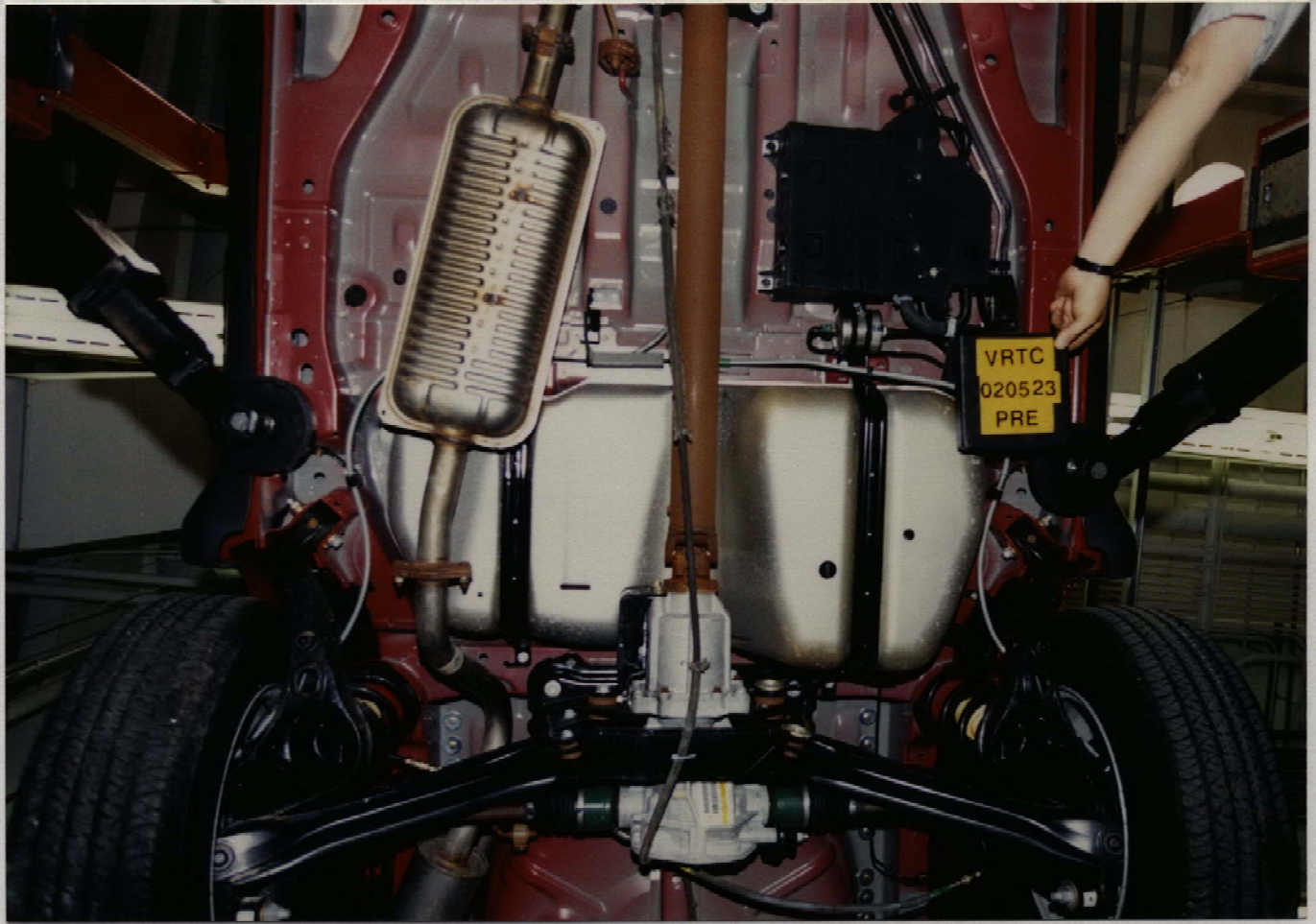


Figure A-23 Pre-Test Rear Mid Underbody View

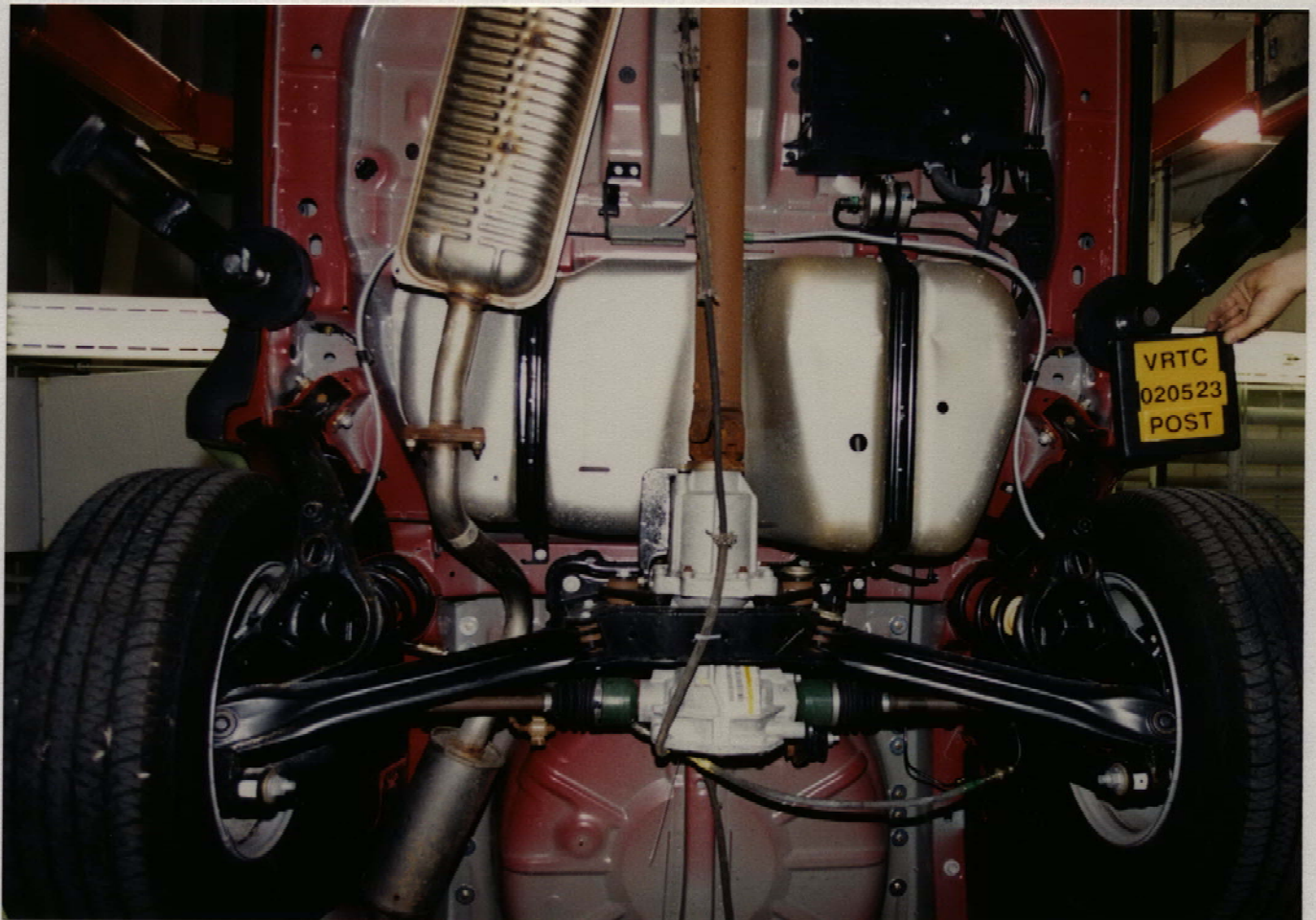
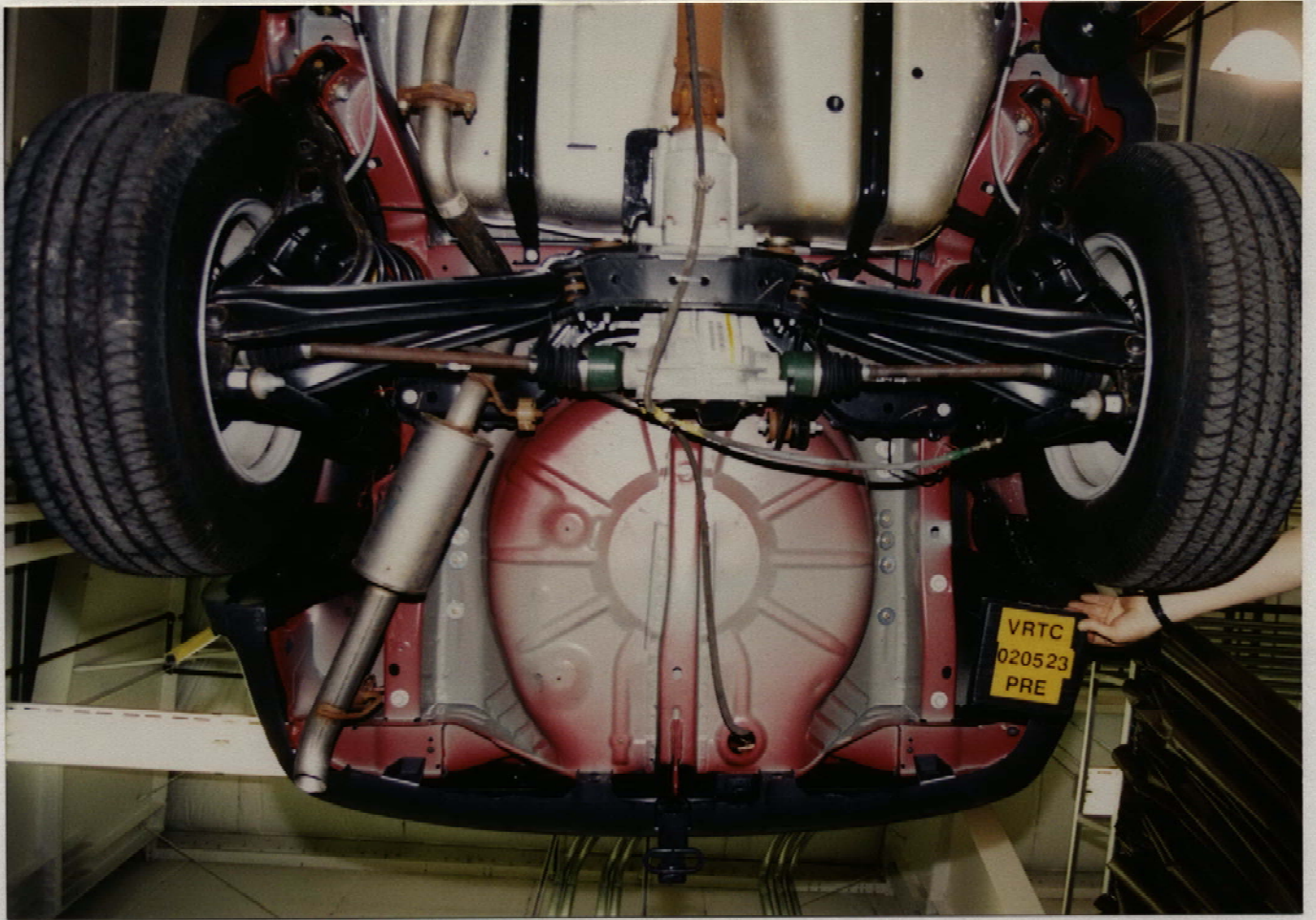
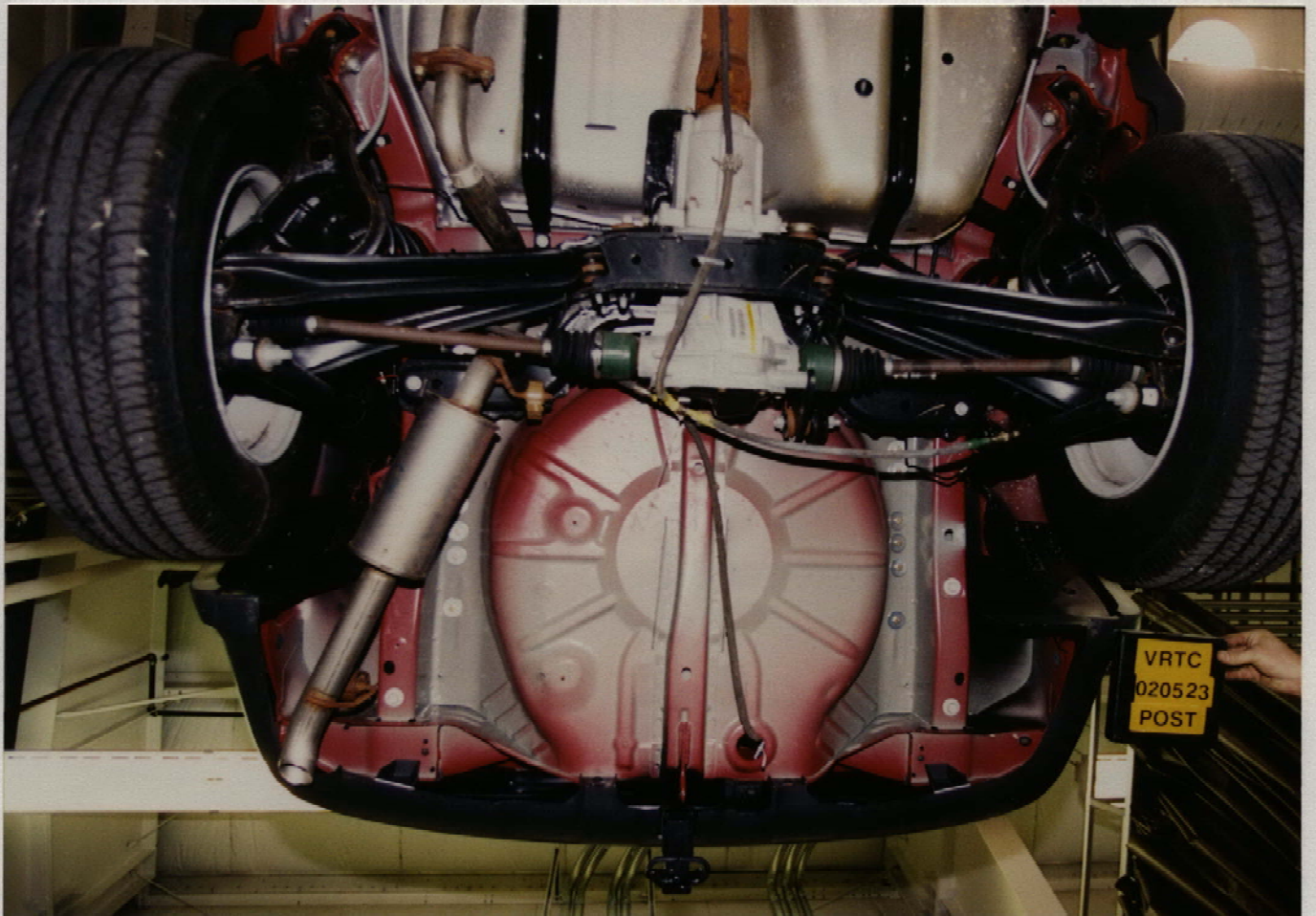


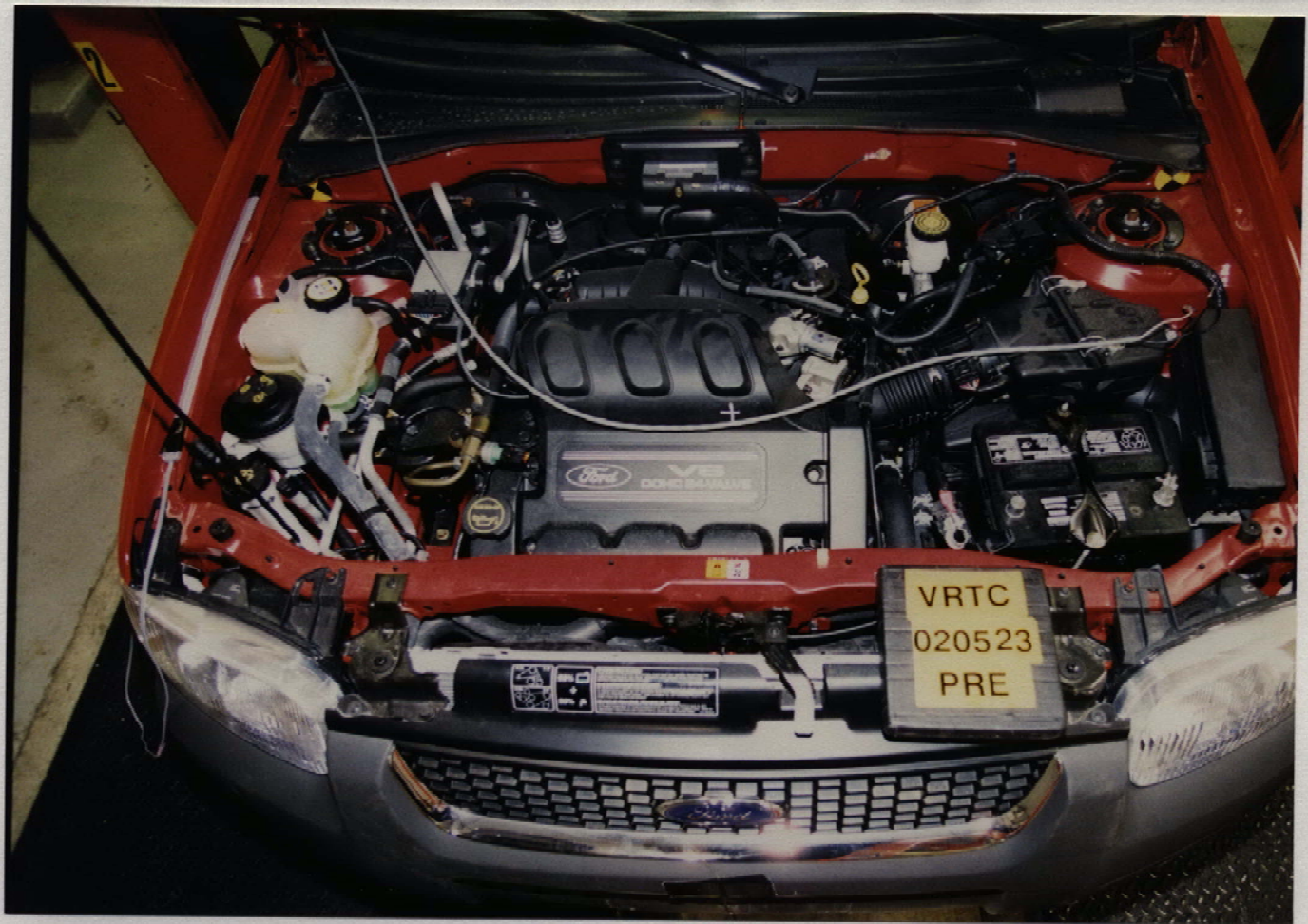
Figure A-24 Post-Test Rear Mid Underbody View



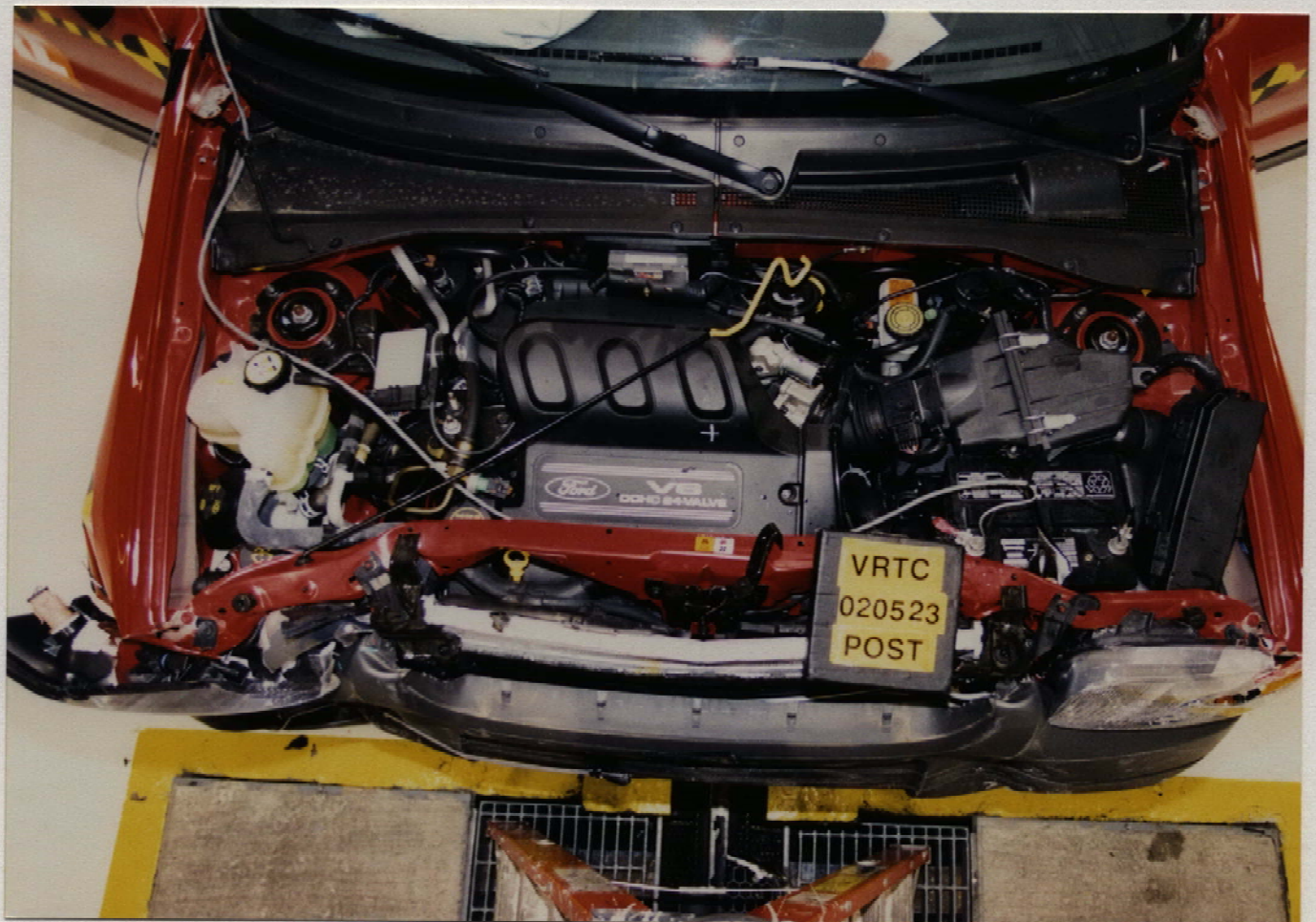
**Figure A-25 Pre-Test Rear Underbody View**



**Figure A-26 Post-Test Rear Underbody View**



**Figure A-27 Pre-Test Engine Compartment View**



**Figure A-28 Post-Test Engine Compartment View**



**Figure A-29 Pre-Test Windshield View**



**Figure A-30 Post-Test Windshield View**



**Figure A-31 Pre-Test Left Front Windshield View**



**Figure A-32 Post-Test Left Front Windshield View**



Figure A-33 Pre-Test Right Front Windshield View



Figure A-34 Post-Test Right Front Windshield View



Figure A-35 Pre-Test Driver and Passenger Dummies Front View



Figure A-36 Post-Test Driver and Passenger Dummies Front View



Figure A-37 Pre-Test Driver Dummy Position - View 1

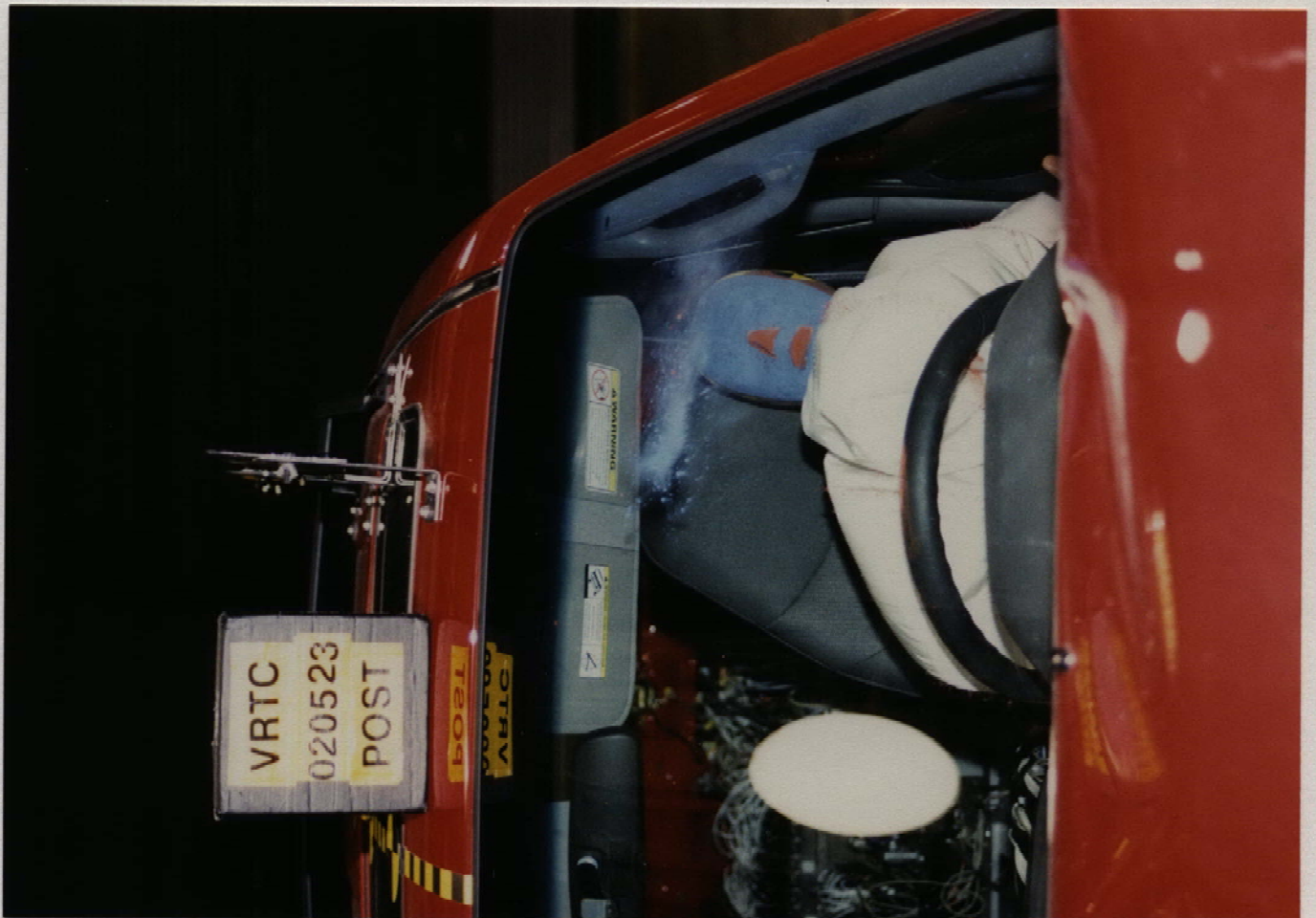


Figure A-38 Post-Test Driver Dummy Position - View 1



Figure A-39 Pre-Test Driver Dummy Position - View 2



Figure A-40 Post-Test Driver Dummy Position - View 2



Figure A-41 Pre-Test Driver Dummy and Vehicle Interior - View 1



Figure A-42 Post-Test Driver Dummy and Vehicle Interior - View 1



Figure A-43 Pre-Test Driver Dummy and Vehicle Interior - View 2



Figure A-44 Post-Test Driver Dummy and Vehicle Interior - View 2



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



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

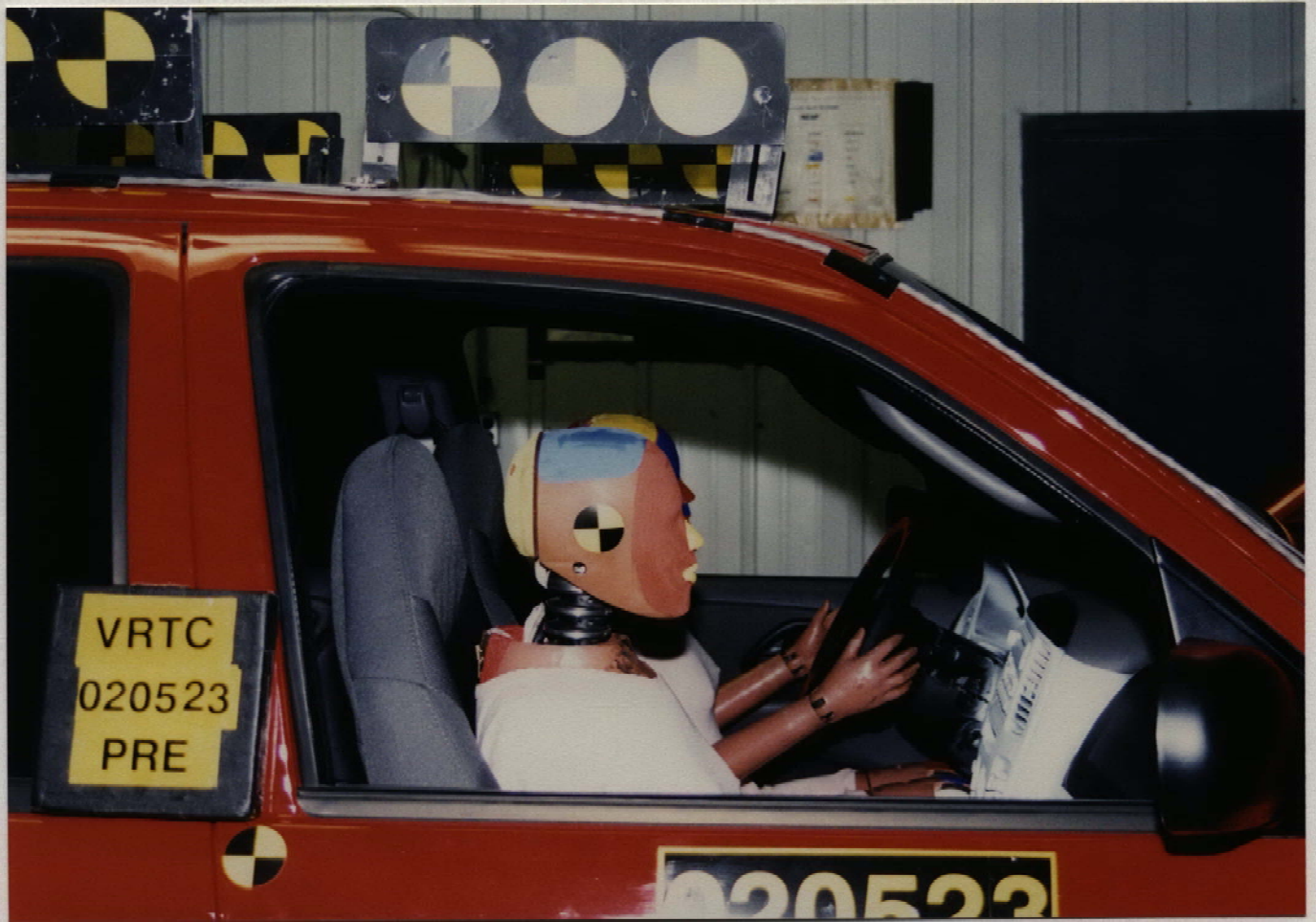


Figure A-47 Pre-Test Passenger Dummy Position - View 2



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



Figure A-49 Pre-Test Passenger Dummy and Vehicle Interior - View 1



Figure A-50 Post-Test Passenger Dummy and Vehicle Interior - View 1



Figure A-51 Pre-Test Passenger Dummy and Vehicle Interior - View 2



Figure A-52 Post-Test Passenger Dummy and Vehicle Interior - View 2

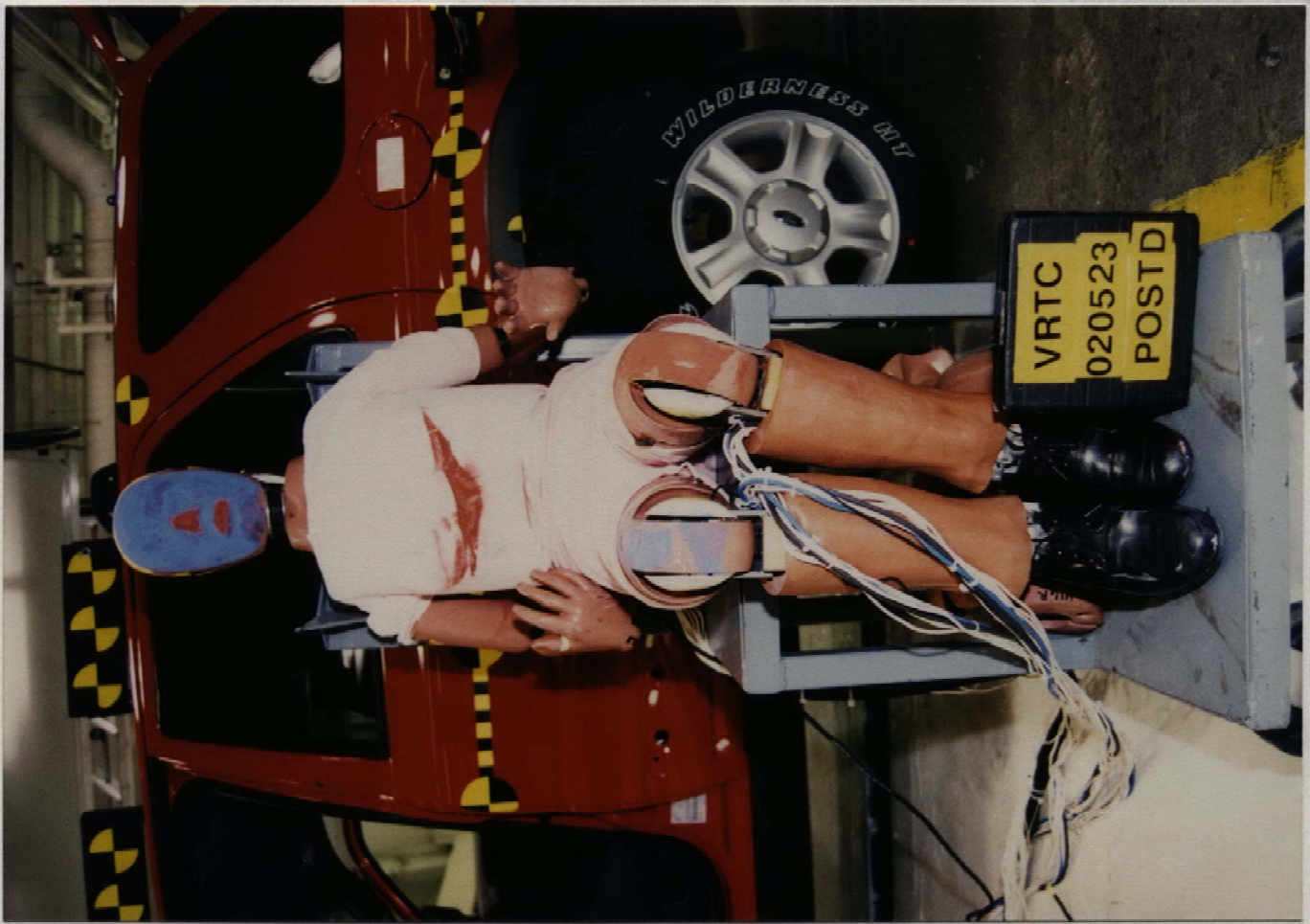


Figure A-53 Post-Test Driver Dummy Overall View



Figure A-54 Post-Test Driver Dummy Head Contact - View 1



Figure A-55 Post-Test Driver Dummy Head Contact - View 2

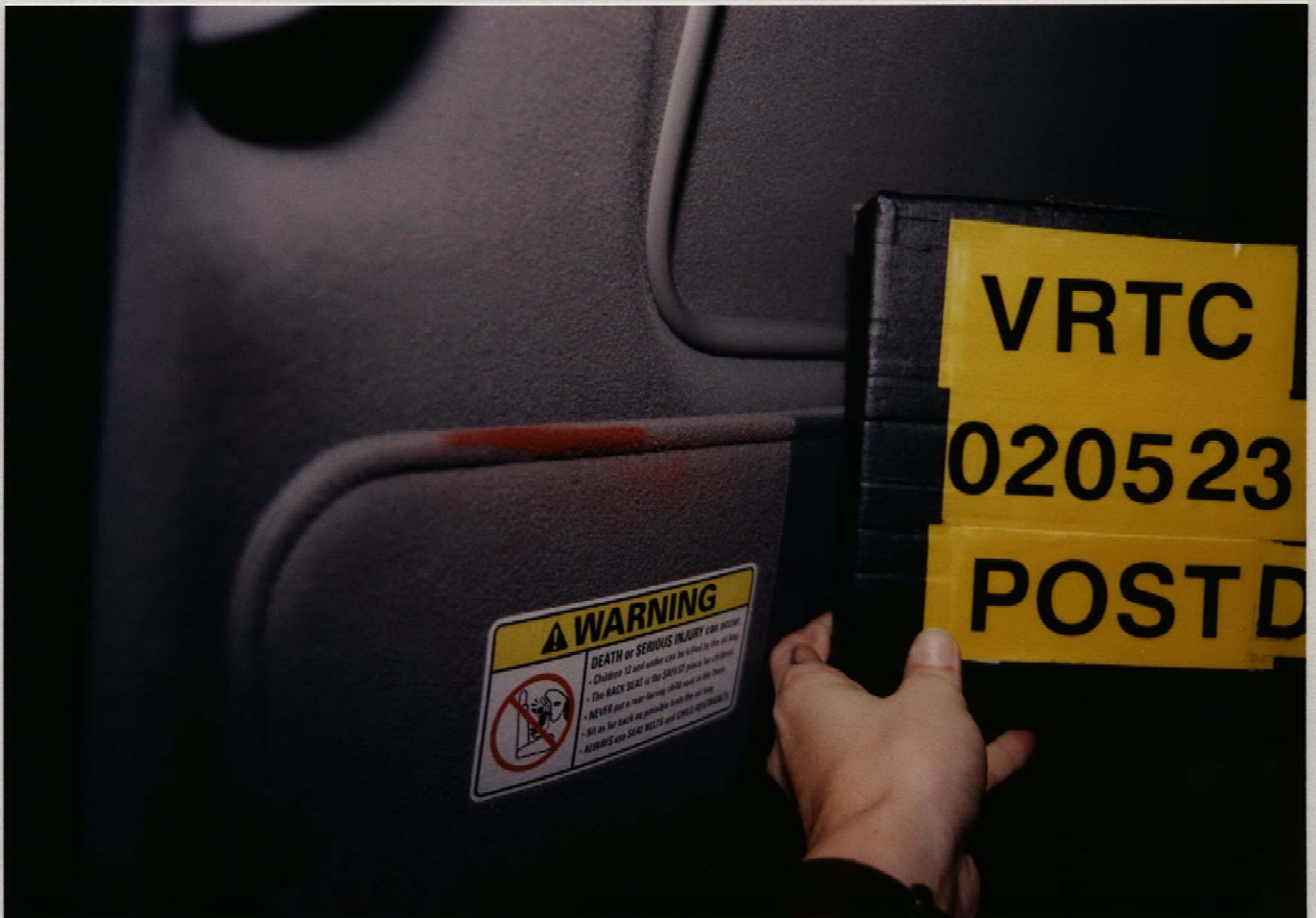


Figure A-56 Post-Test Driver Dummy Head Contact - View 3



Figure A-57 Post-Test Driver Dummy Head Contact - View 4



Figure A-58 Post-Test Driver Dummy Knee Contact View



Figure A-59 Post-Test Driver Dummy Knee Contact and Toeboard Damage View



Figure A-60 Post-Test Passenger Dummy Overall View



Figure A-61 Post-Test Passenger Dummy Head Contact - View 1



Figure A-62 Post-Test Passenger Dummy Head Contact - View 2



Figure A-63 Post-Test Passenger Dummy Head Contact - View 3



Figure A-64 Post-Test Passenger Dummy Head Contact - View 4

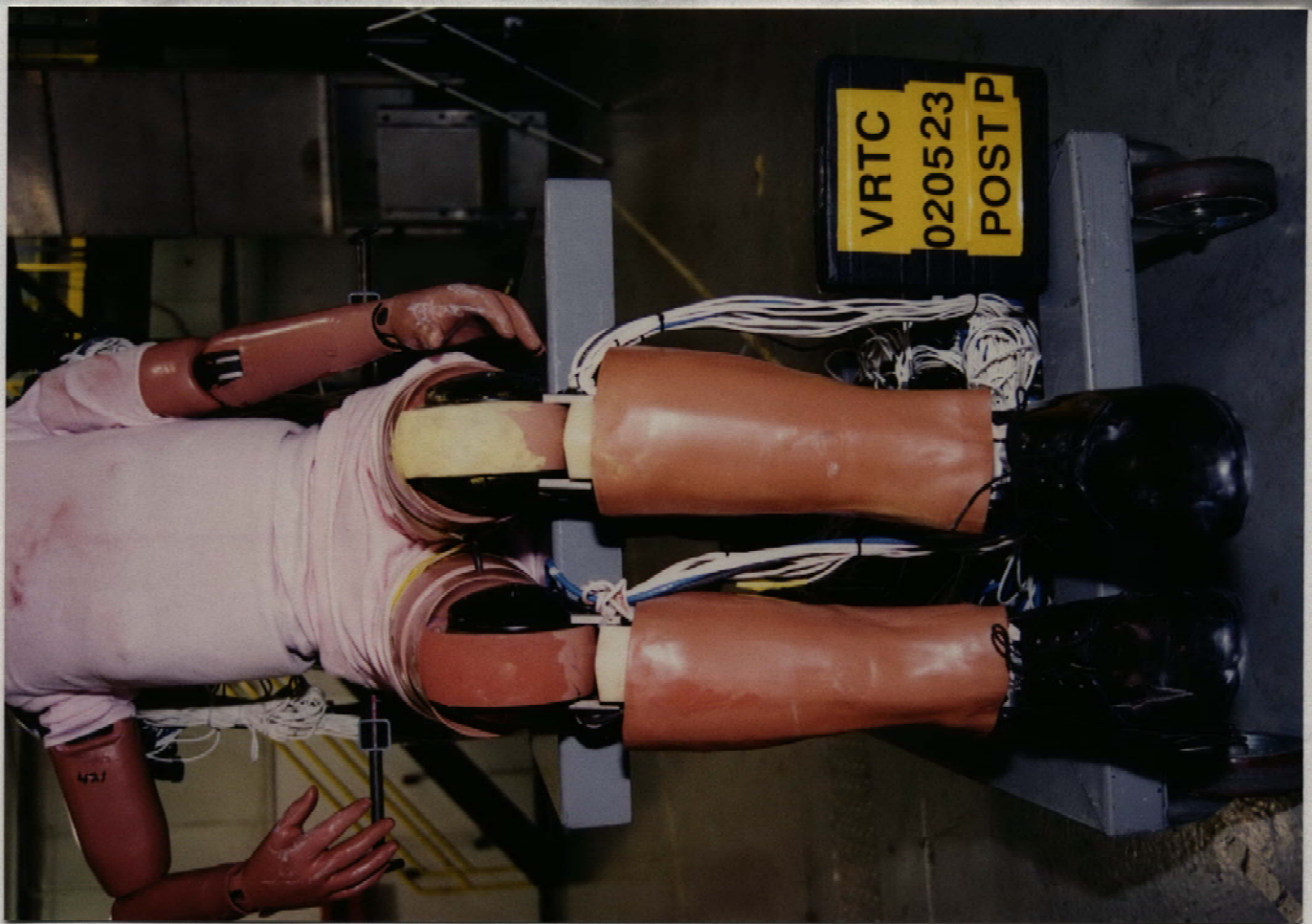


Figure A-65 Post-Test Passenger Dummy Knee Contact - View 1

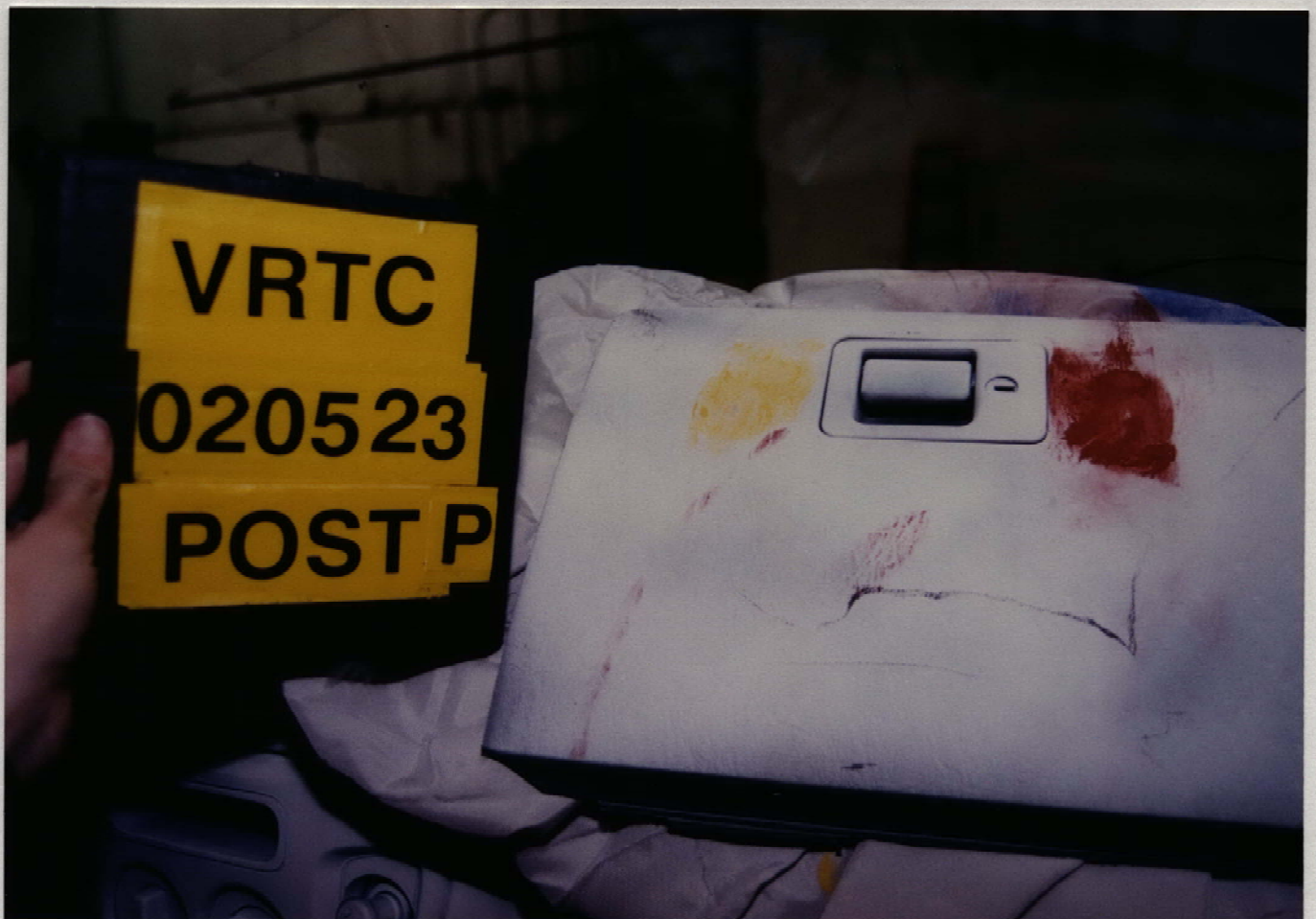


Figure A-66 Post-Test Passenger Dummy Knee Contact - View 2

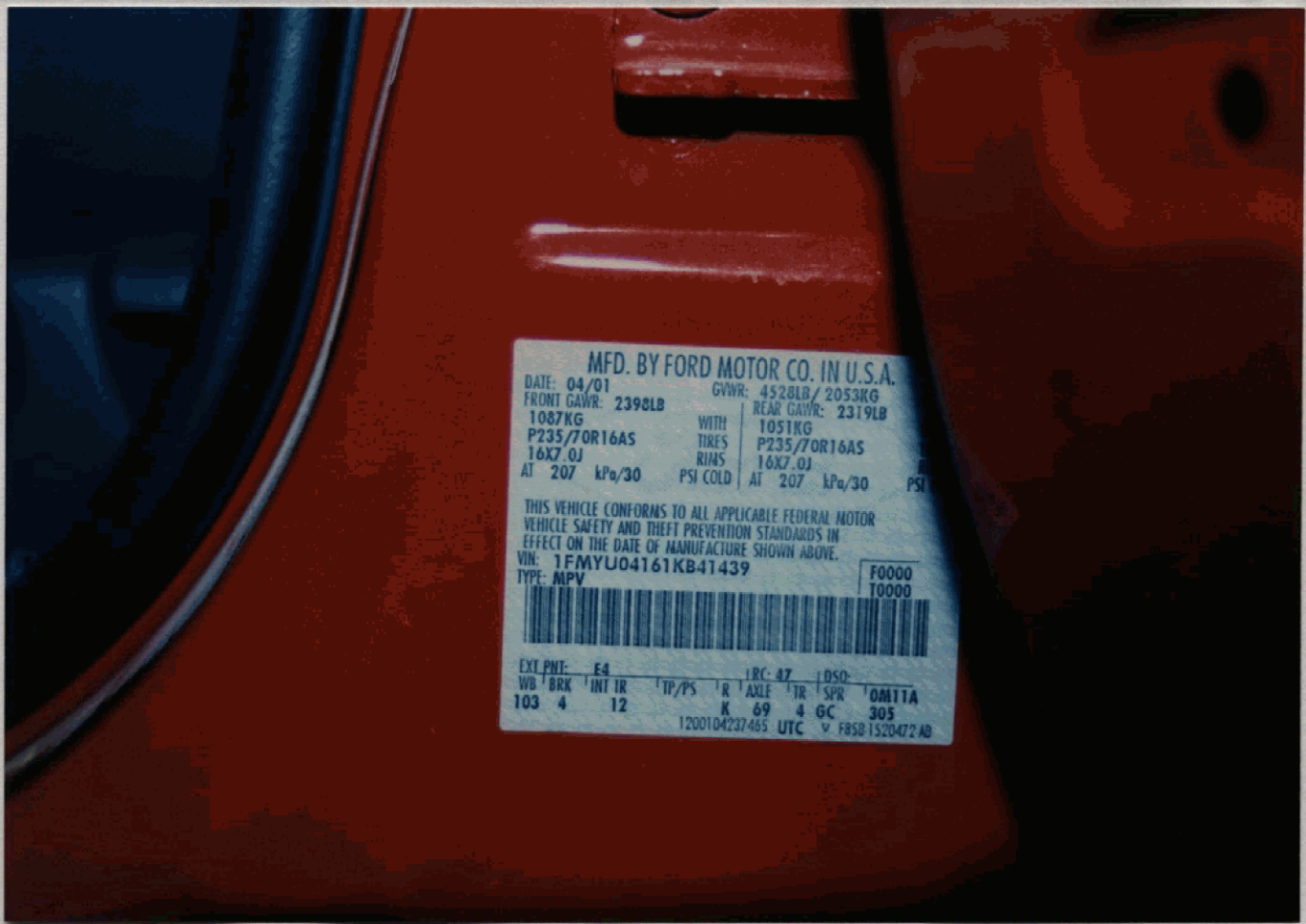


Figure A-67 Pre-Test Vehicle Certification Label View

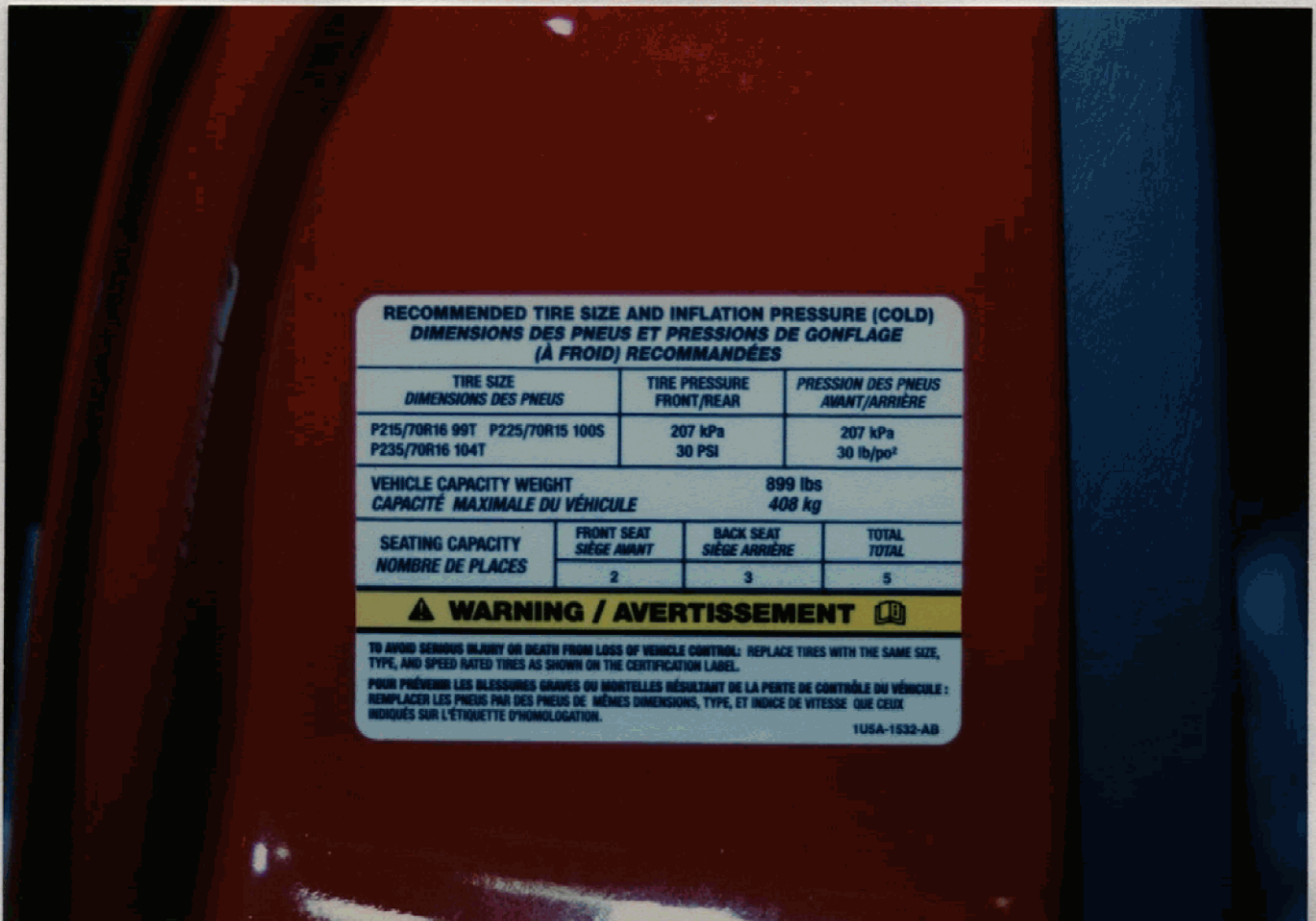
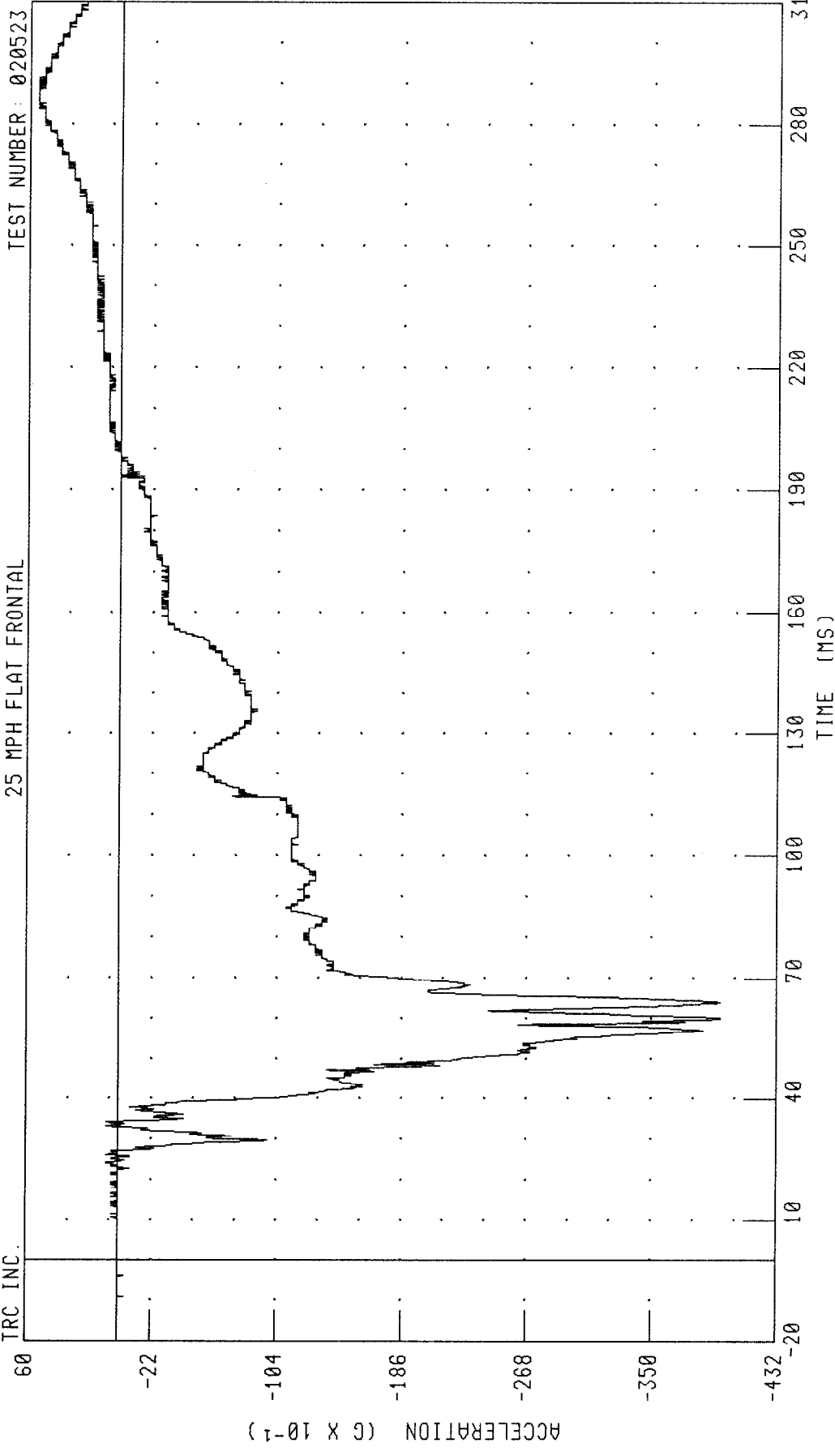


Figure A-68 Pre-Test Tire Load Label View

Appendix B

Data Plots

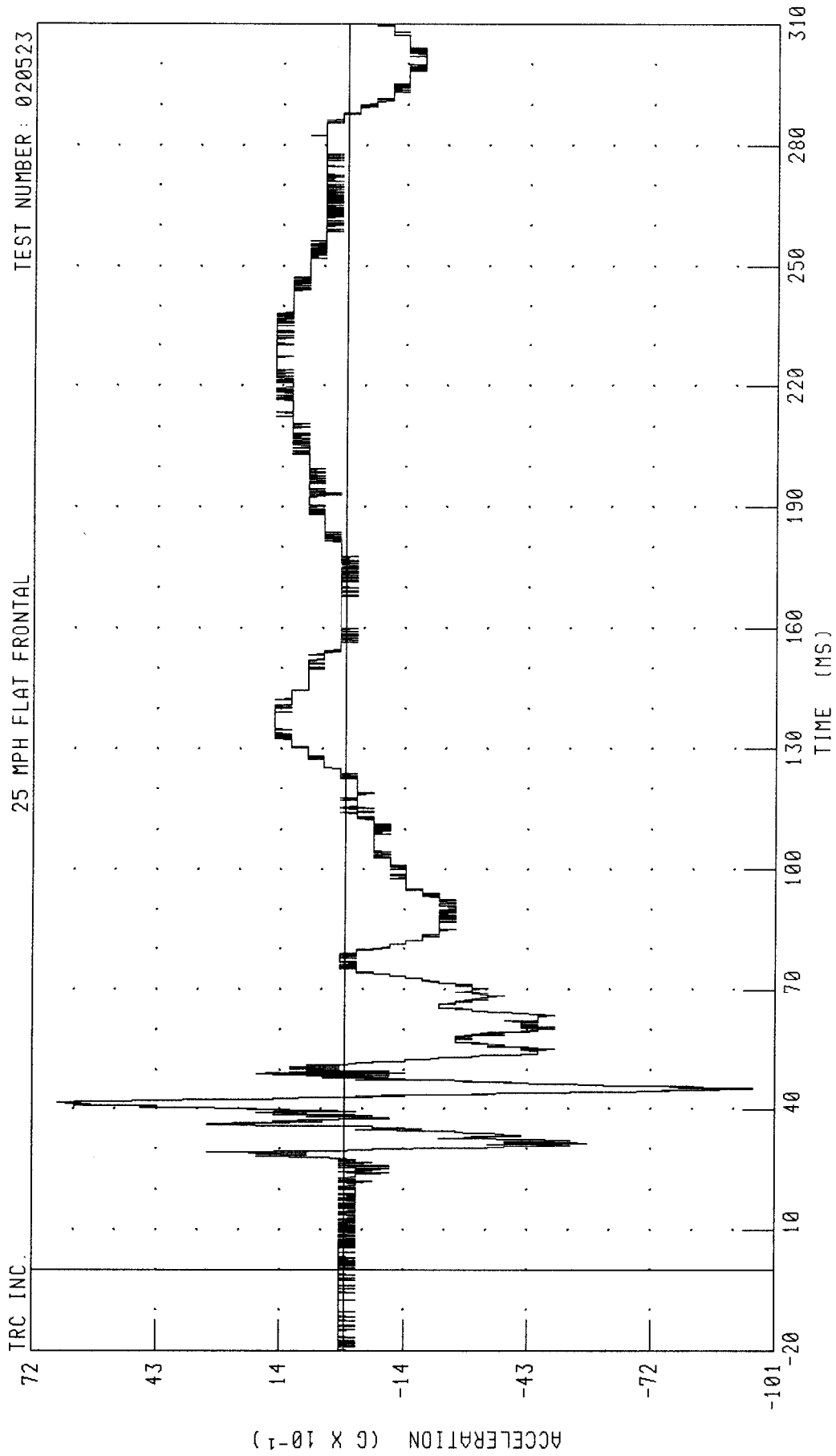
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL



CHANNEL: HEDXG1 FILTER: CH. CLASS 1000  
PEAK DATA: 5.46 G @ 283.76 MS, -39.56 G @ 60.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



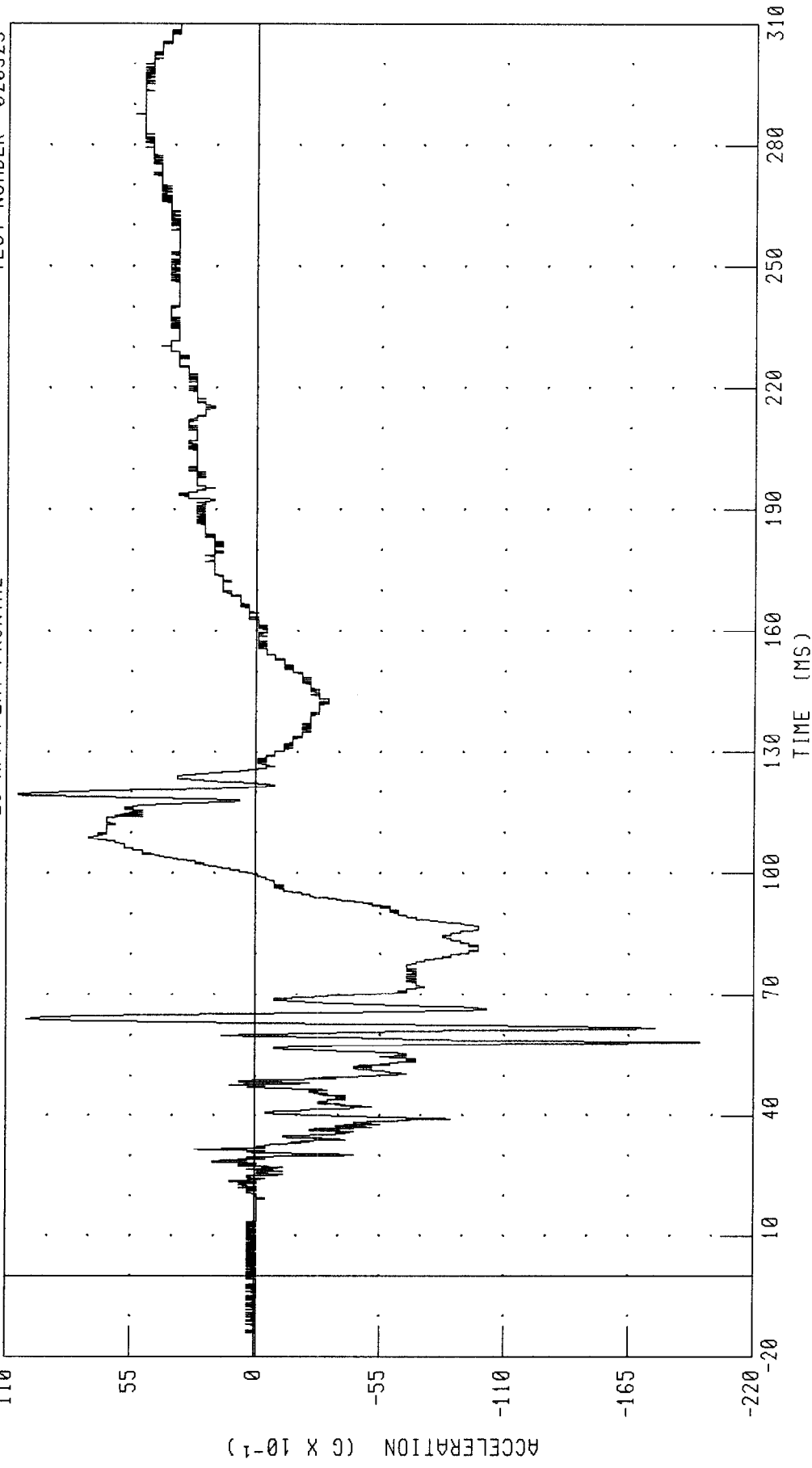
CHANNEL: HEDYG1 FILTER: CH. CLASS 1000

PEAK DATA: 6.71 G @ 41.60 MS; -9.59 G @ 45.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

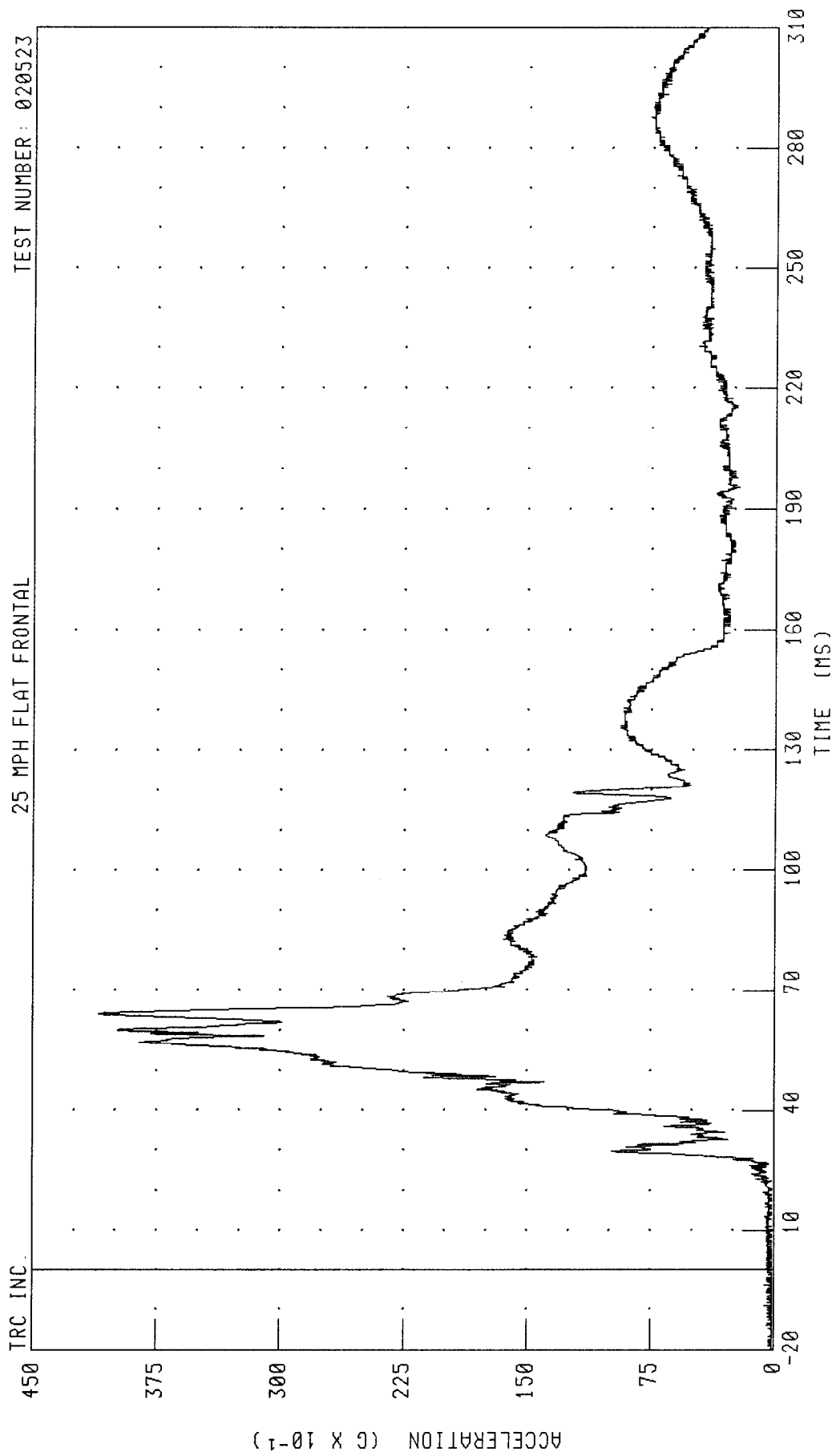
TRC INC.



CHANNEL: HEDZG1 FILTER: CH. CLASS 1000 PEAK DATA: 10.50 G @ 119.36 MS, -19.61 G @ 58.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

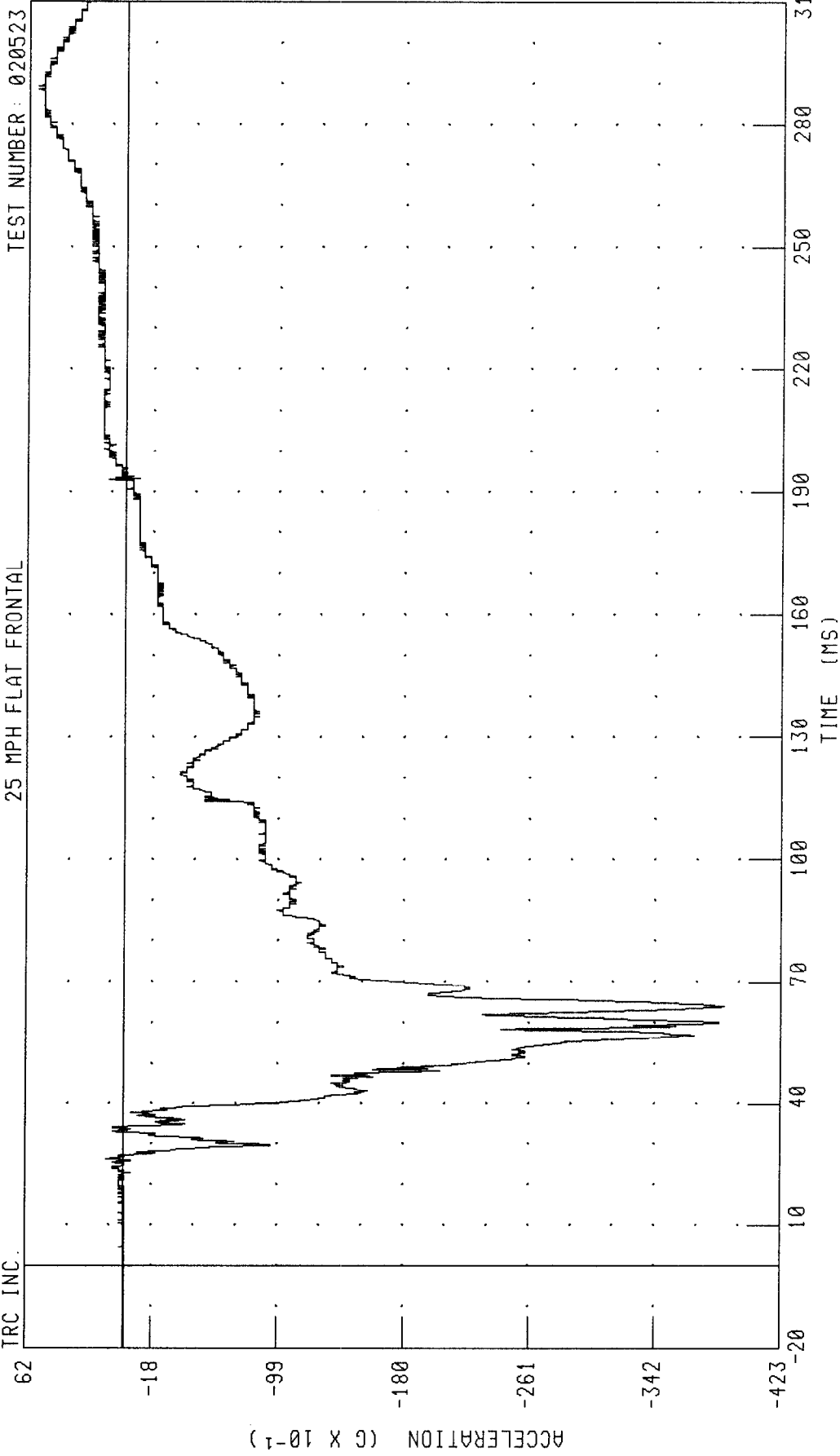
TEST NUMBER: 020523



CHANNEL: HEDRG1 FILTER: CH. CLASS 1000

PEAK DATA: 41.04 G @ 64.08 MS; 0.12 G @ -20.00 MS

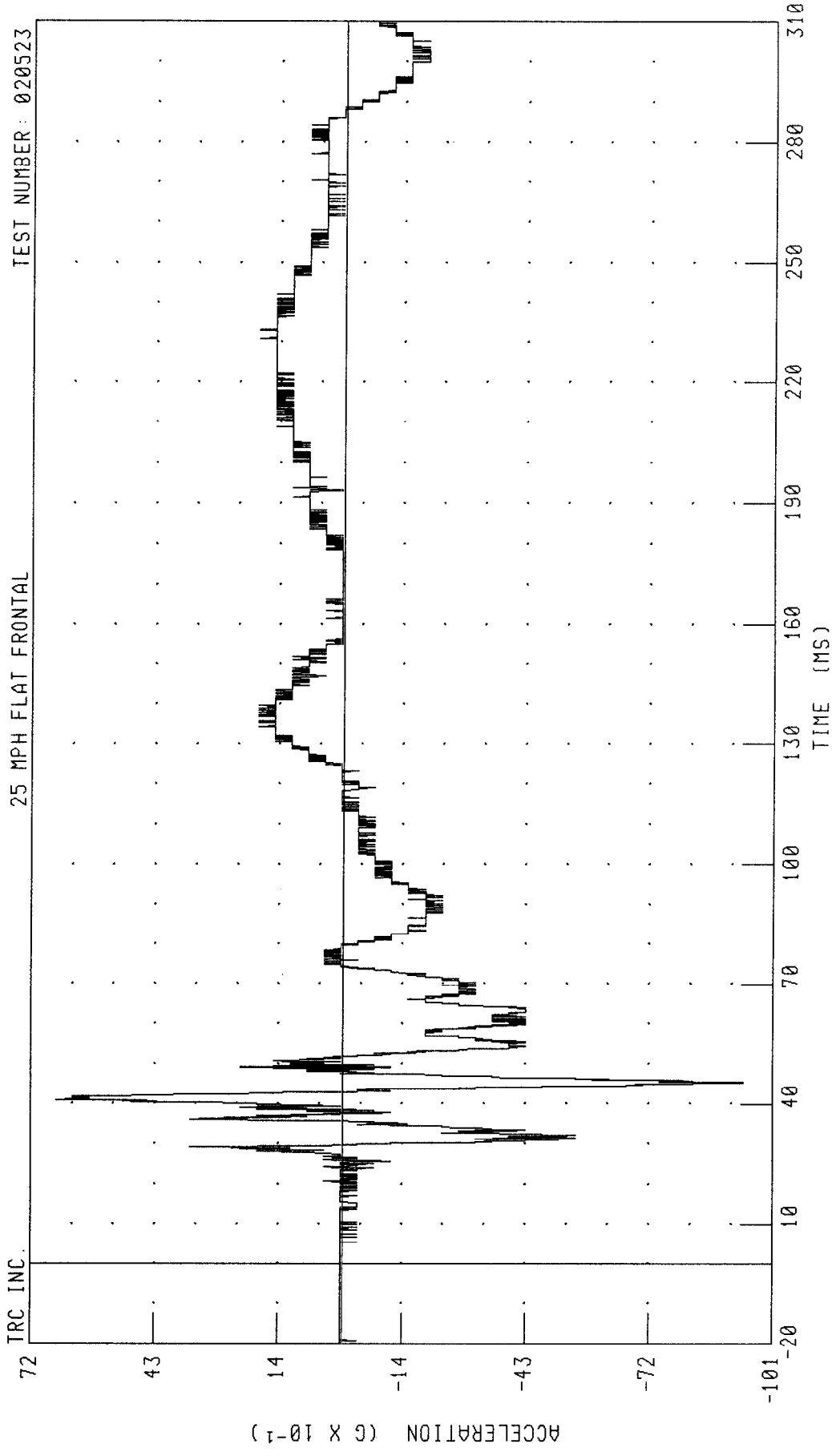
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD X-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL



CHANNEL: HEDXR1 FILTER: CH. CLASS 1000 PEAK DATA: 5.77 G @ 288.48 MS, -38.69 G @ 63.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Y-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

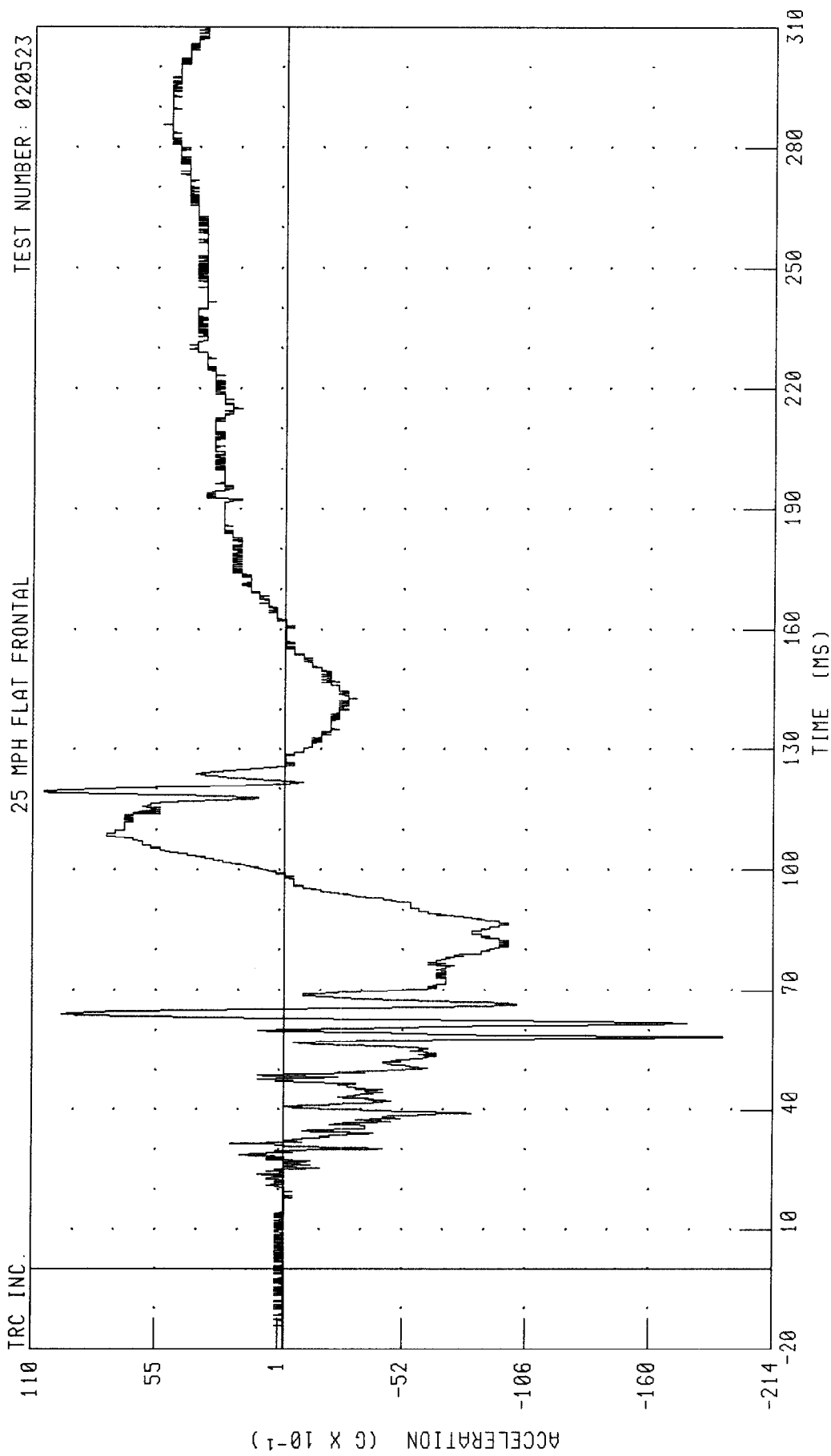
TEST NUMBER : 020523



CHANNEL : HEDYR1 FILTER : CH., CLASS 1000 PEAK DATA : 6.71 G @ 41.04 MS, -9.41 G @ 45.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Z-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



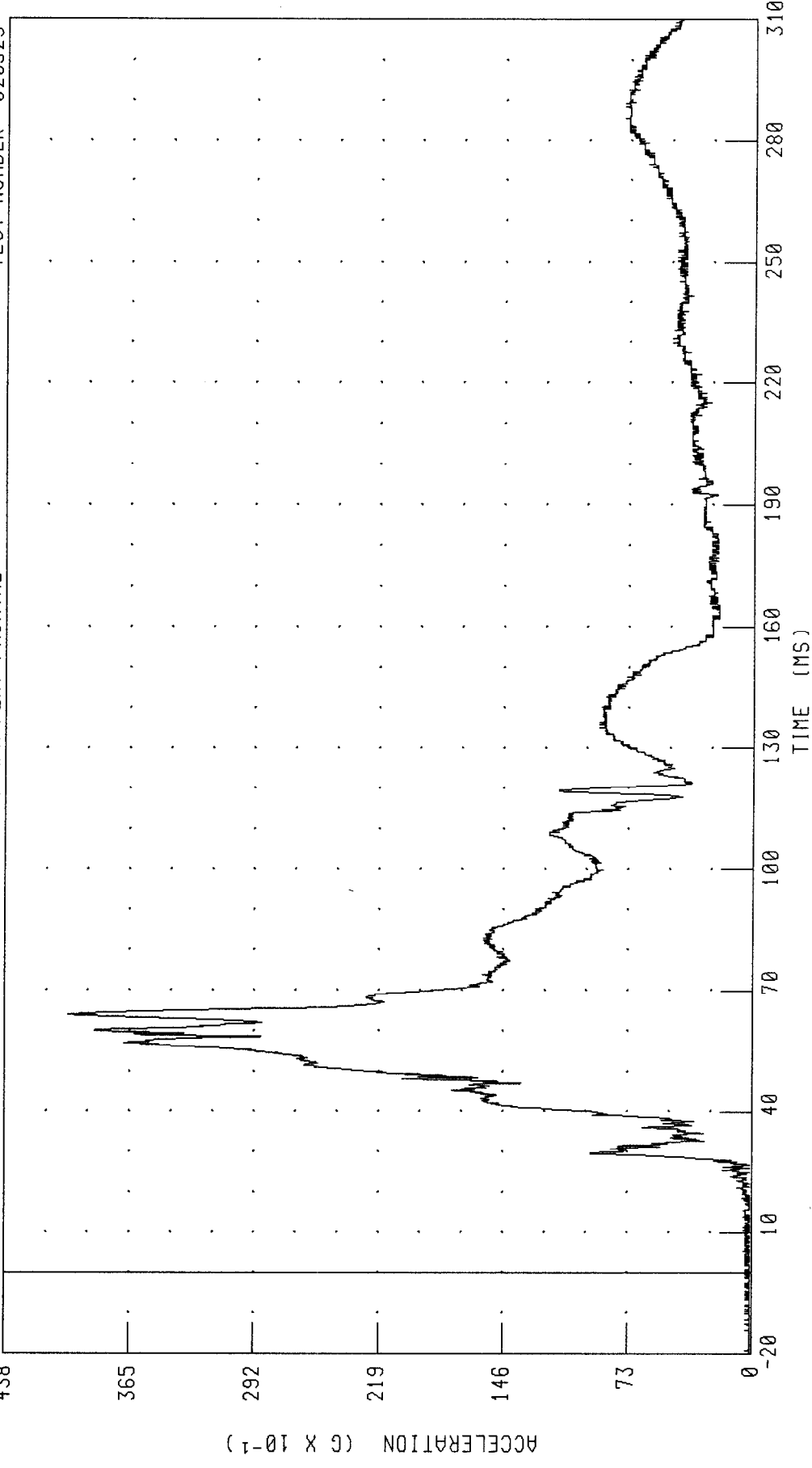
CHANNEL: HEDZR1 FILTER: CH. CLASS 1000

PEAK DATA: 10.52 G @ 119.36 MS; -19.21 G @ 58.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD RESULTANT ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

TRC INC.

TEST NUMBER: 020523

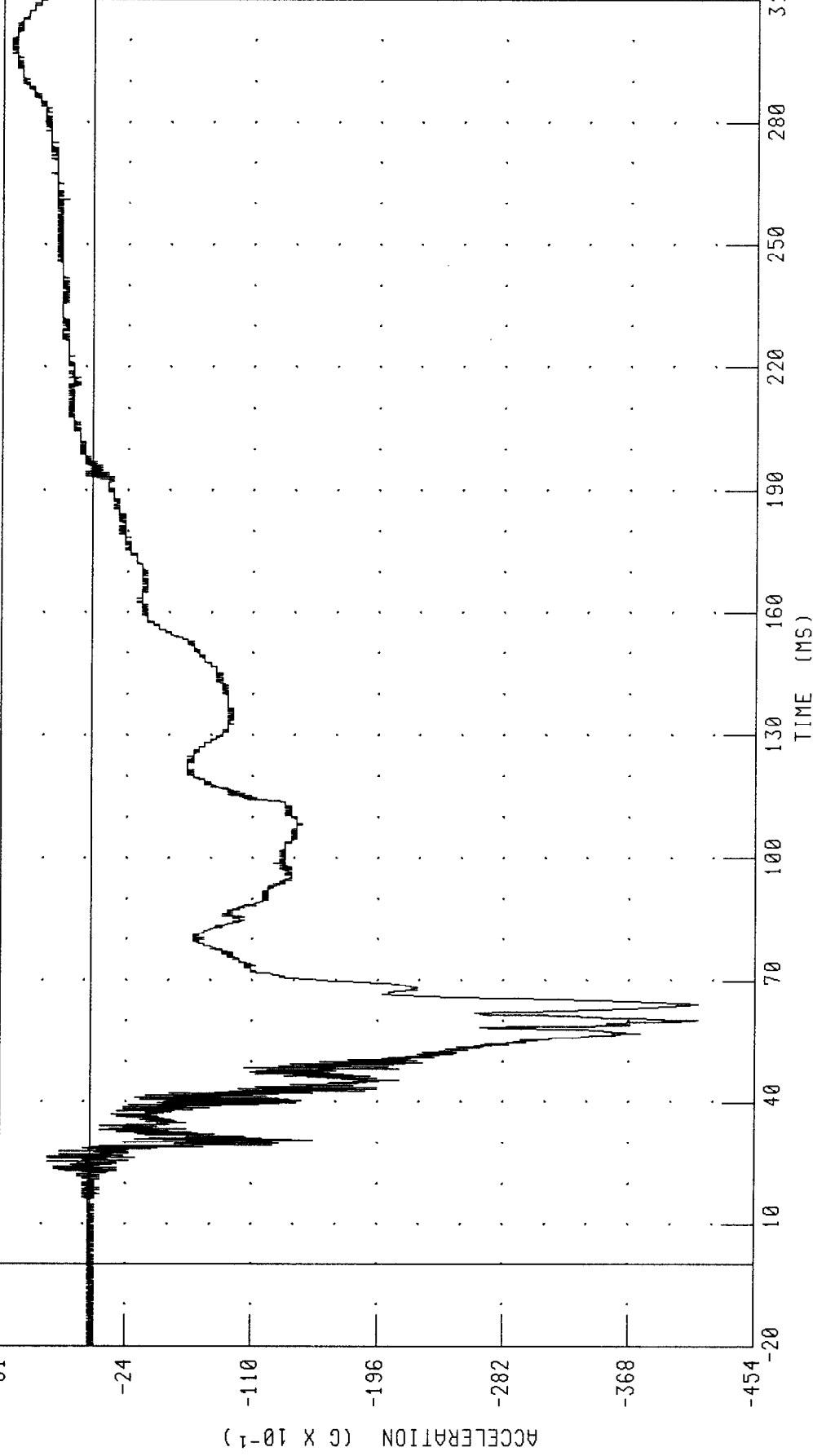


CHANNEL: HEDRR1 FILTER: CH. CLASS 1000 PEAK DATA: 40.13 G @ 64.00 MS; 0.09 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD X-AXIS (LT) ACCELERATION  
25 MPH FLAT FRONTAL

TRC INC.

TEST NUMBER: 020523

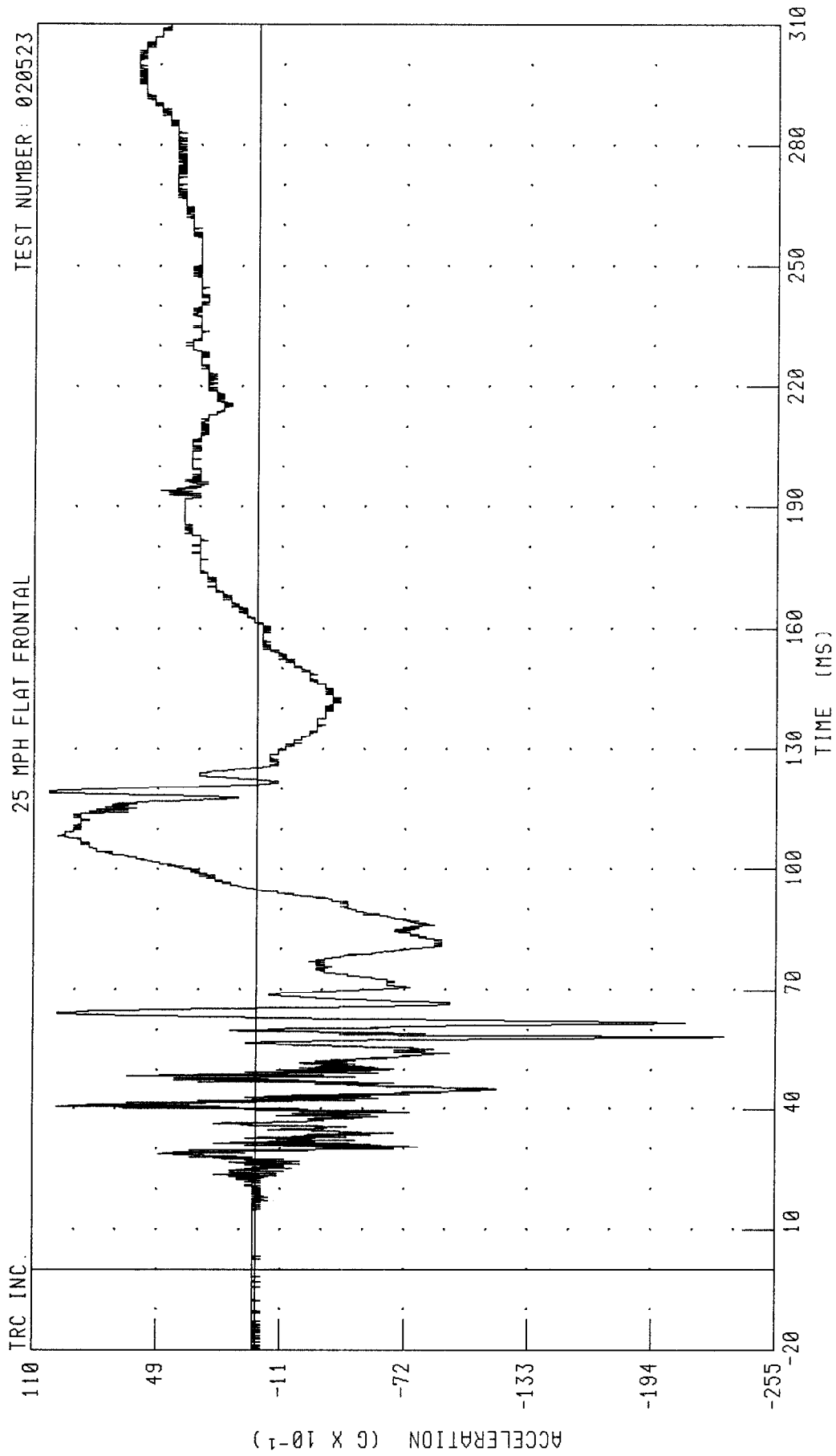


CHANNEL: HD1XC1 FILTER: CH. CLASS 1000

PEAK DATA: 5.66 G @ 296.80 MS, -41.58 G @ 60.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Z-AXIS (LT) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

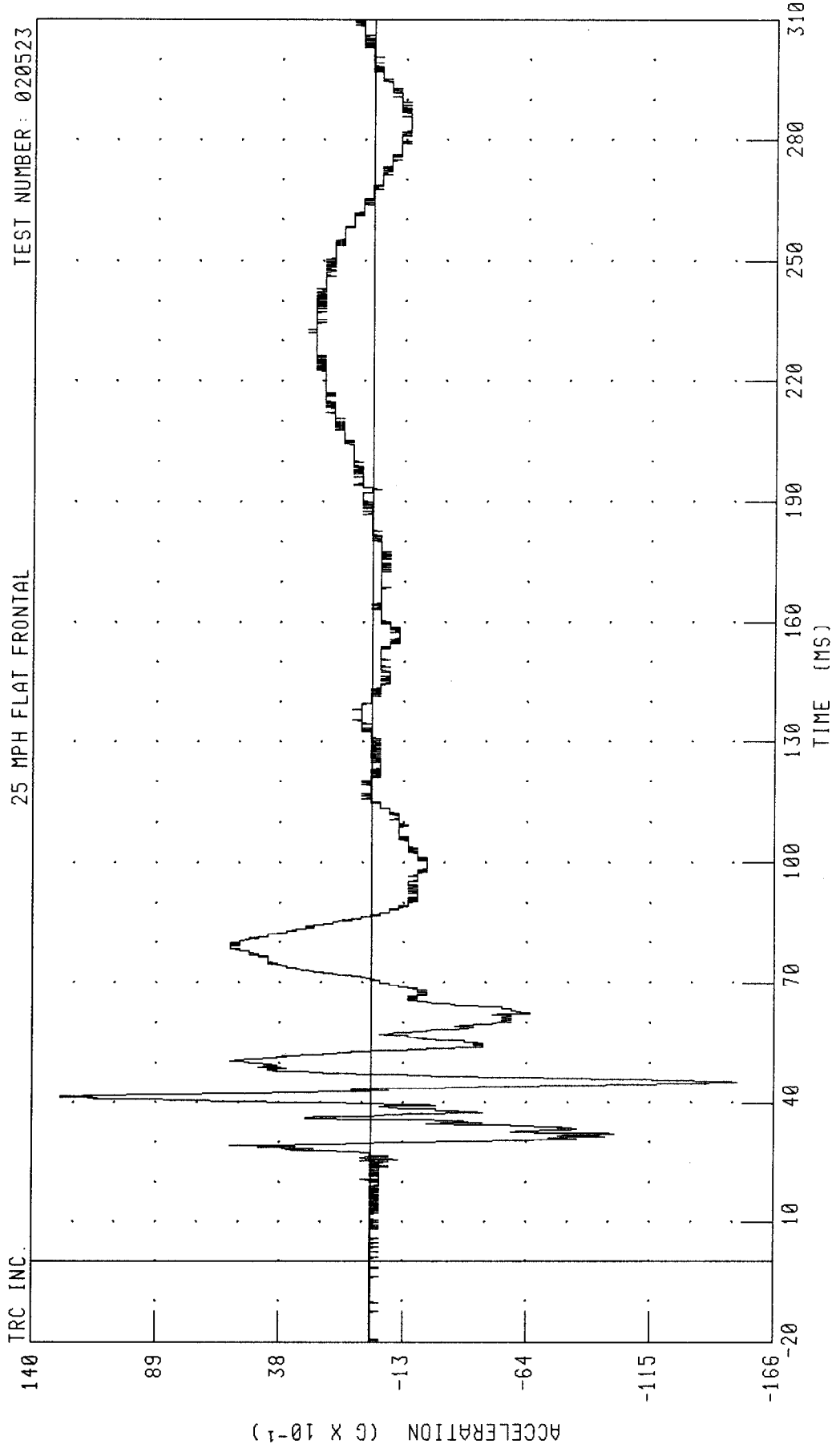


CHANNEL: HD1ZG1 FILTER: CH. CLASS 1000

PEAK DATA: 10.22 G @ 119.28 MS; -23.09 G @ 58.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Y-AXIS (FT) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

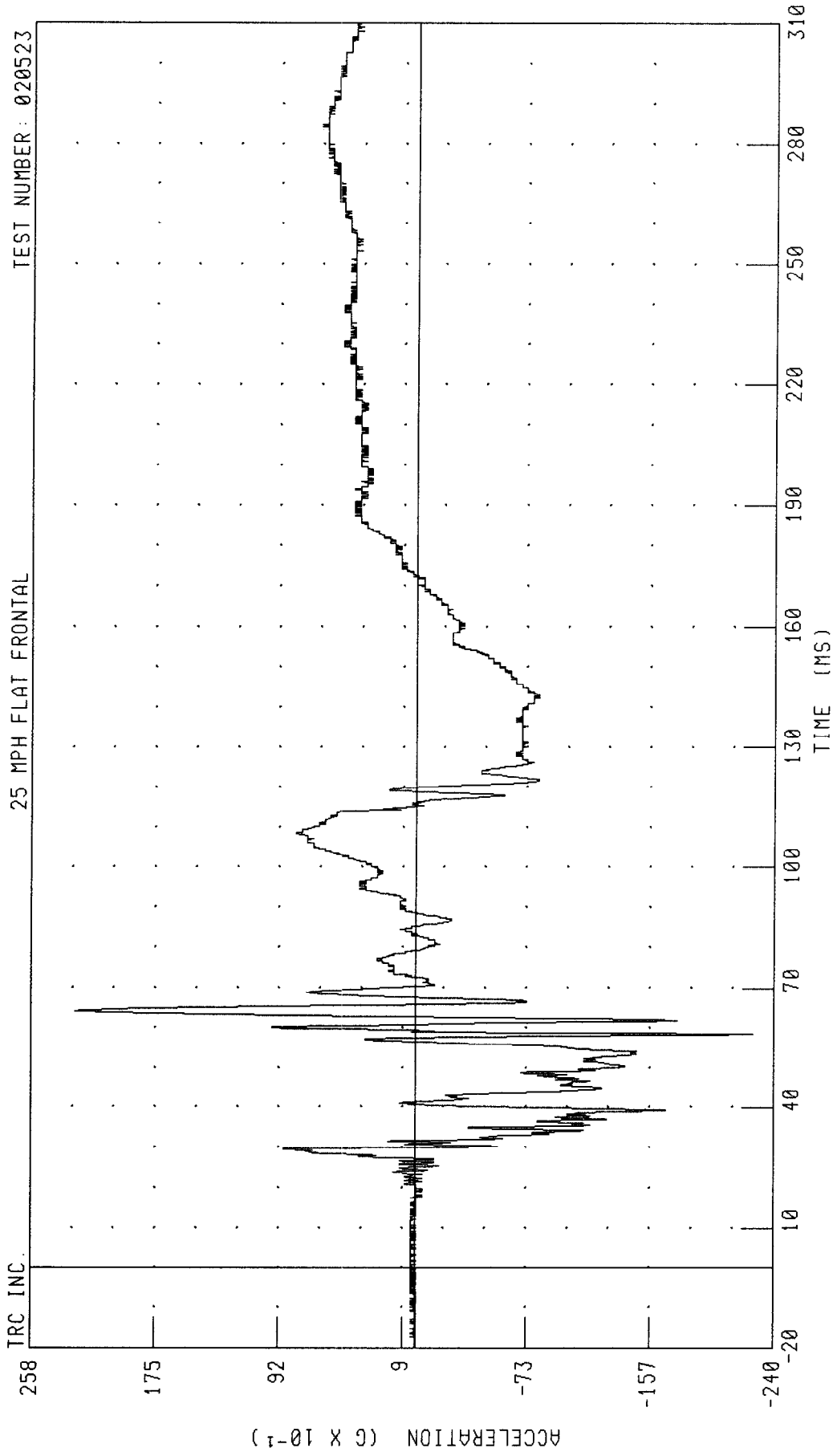


CHANNEL: HD2YG1 FILTER: CH. CLASS 1000

PEAK DATA: 12.85 G @ 41.52 MS; -15.08 G @ 45.28 MS

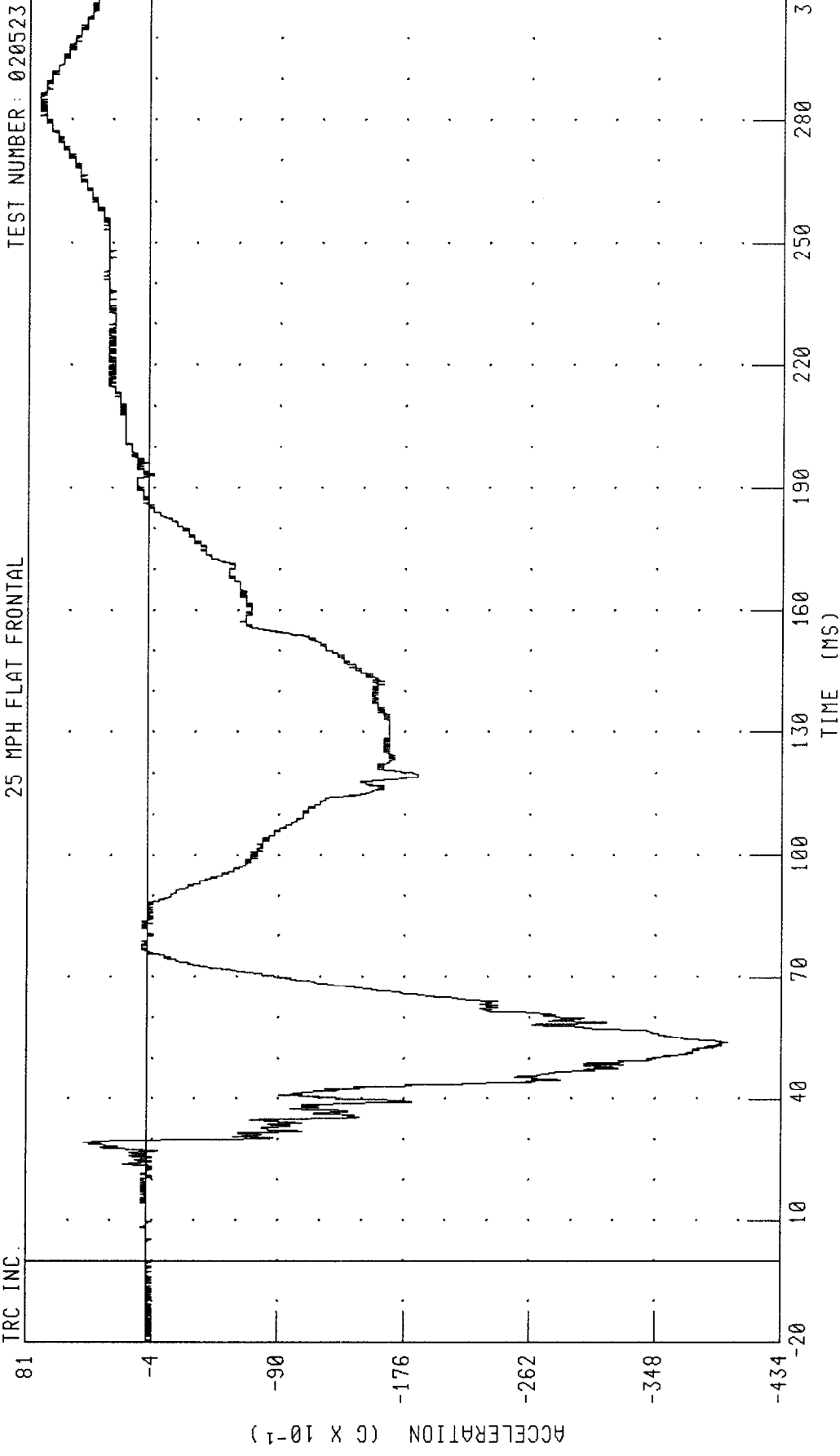
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Z-AXIS (FT) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: HD2ZG1 FILTER: CH. CLASS 1000  
PEAK DATA: 22.84 G @ 64.08 MS, -22.57 G @ 58.40 MS

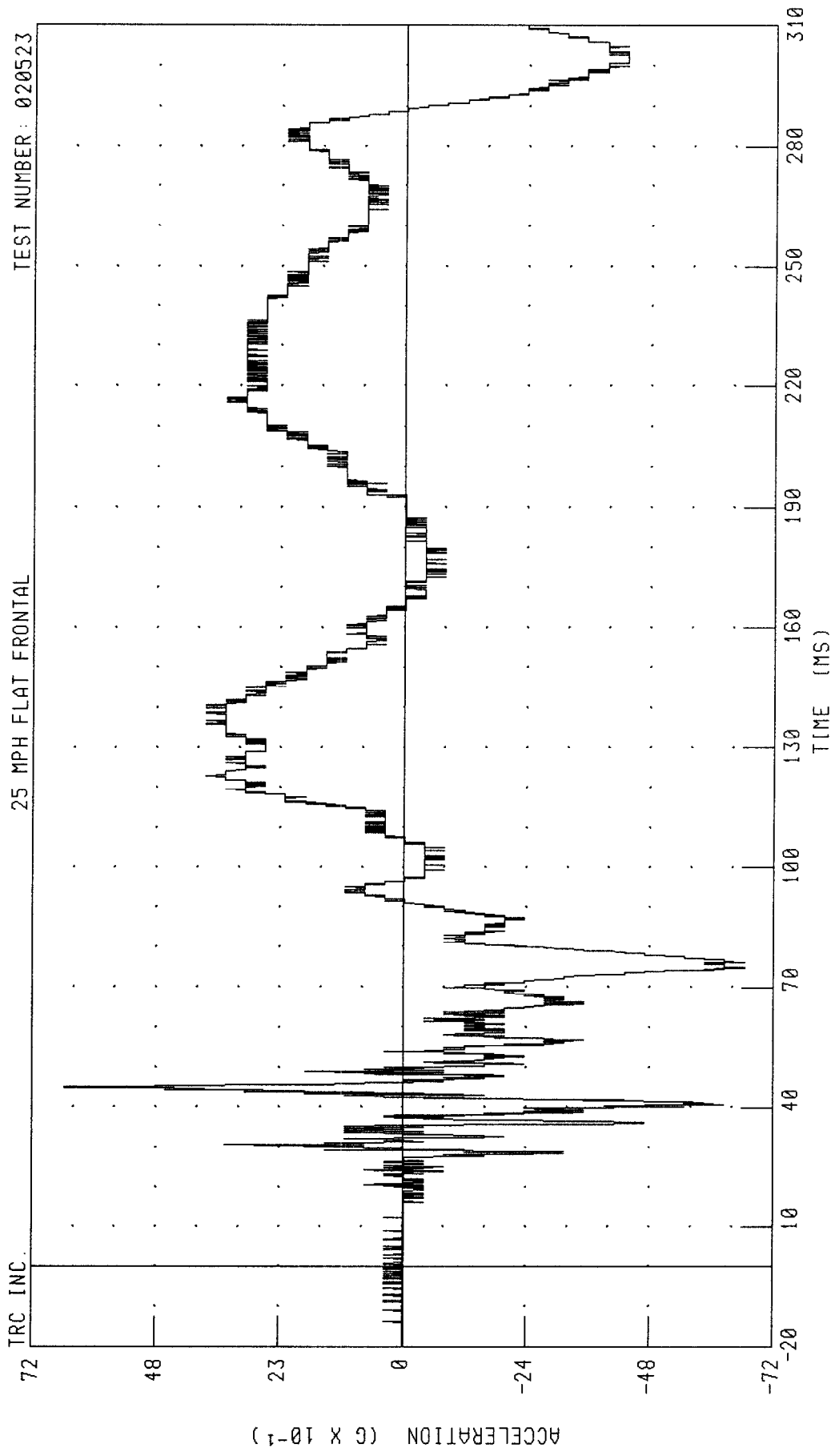
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD X-AXIS (TP) ACCELERATION  
25 MPH FLAT FRONTAL



CHANNEL: HDJXC1 FILTER: CH. CLASS 1000 PEAK DATA: 7.46 G @ 281.04 MS; -39.74 G @ 53.84 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER HEAD Y-AXIS (TP) ACCELERATION  
25 MPH FLAT FRONTAL

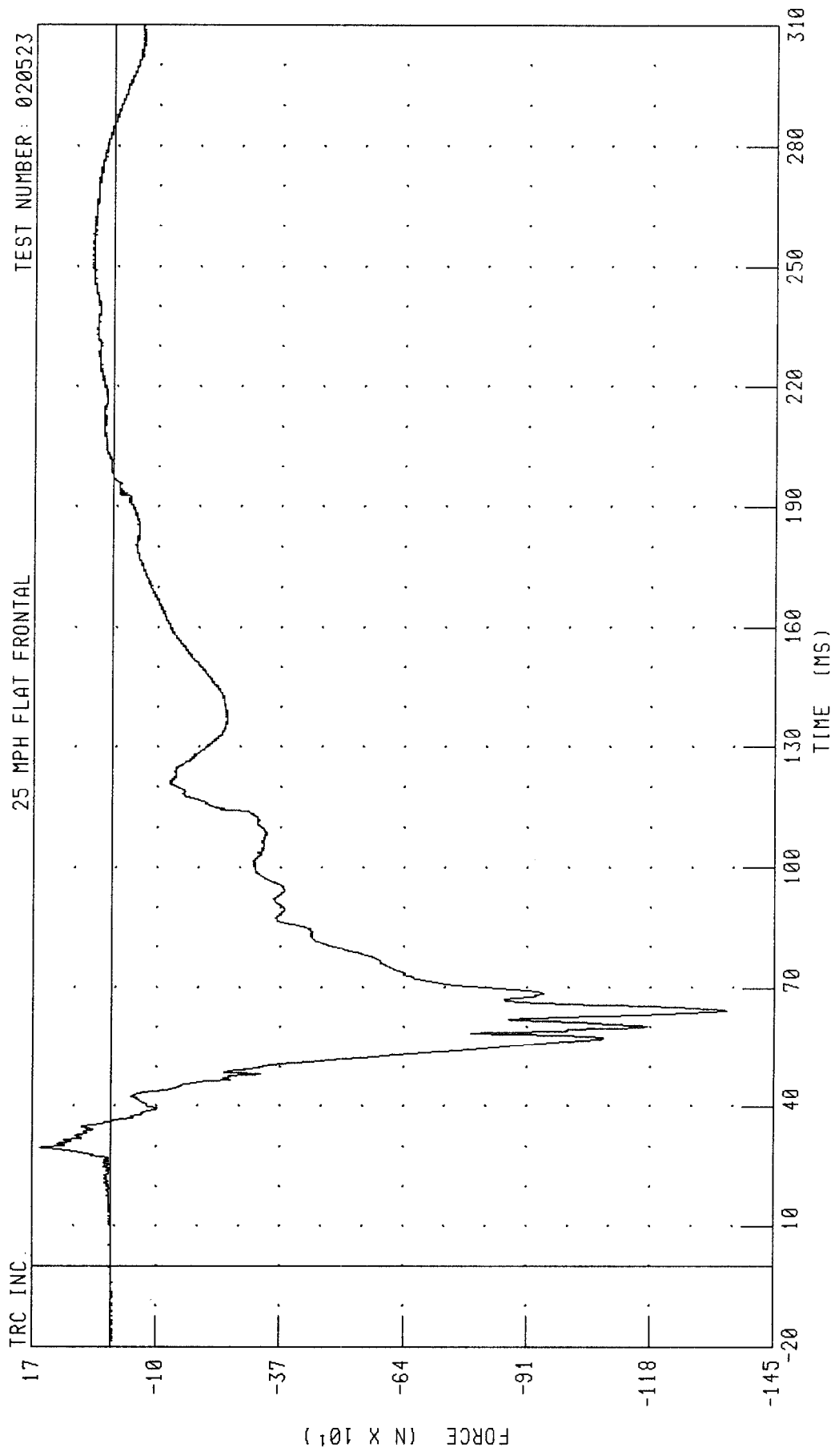
TEST NUMBER: 020523



CHANNEL: HD3YG1 FILTER: CH. CLASS 1000  
PEAK DATA: 6.58 G @ 45.04 MS, -6.64 G @ 74.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK X-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

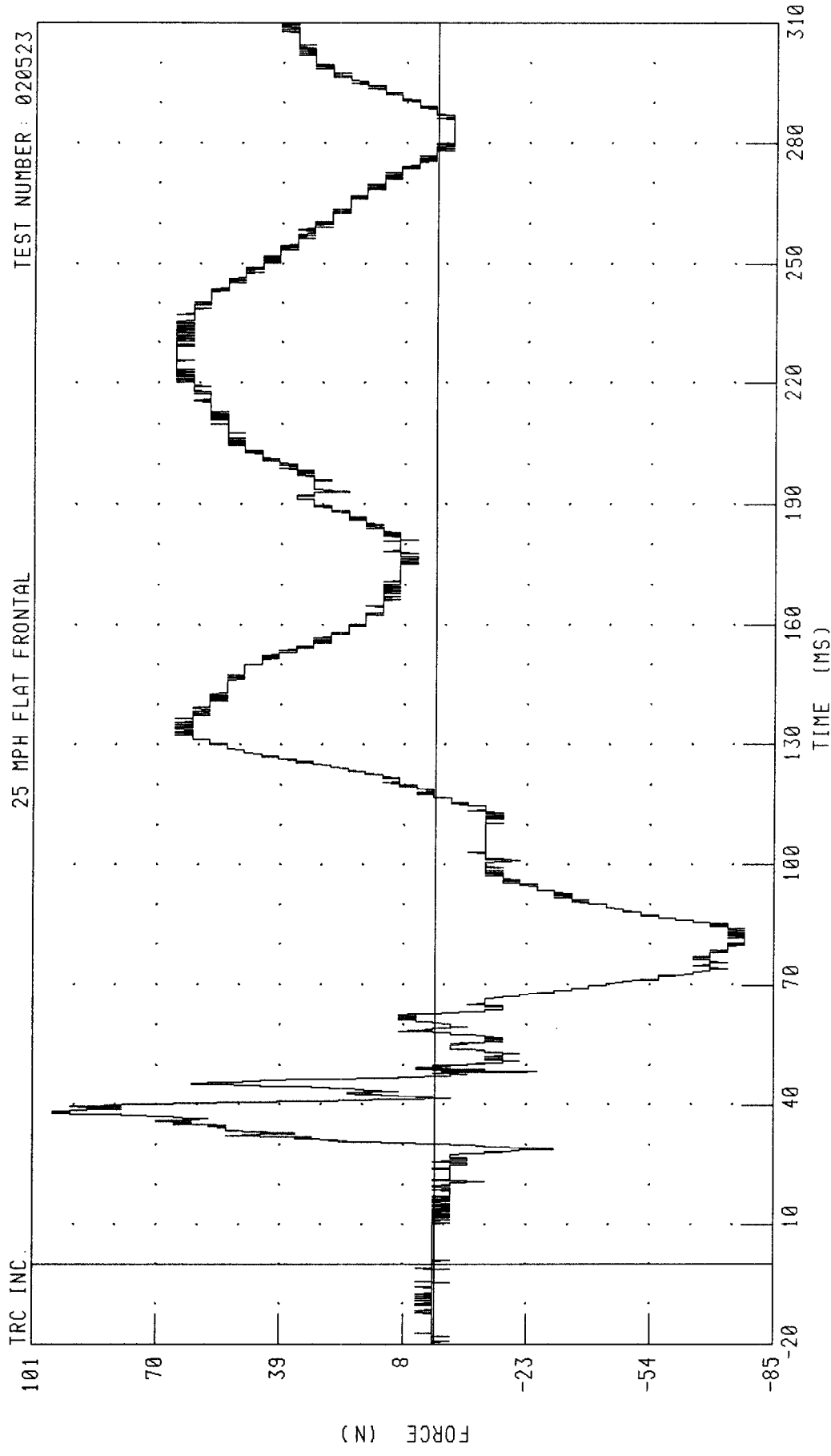
TEST NUMBER: 020523



TRC INC. CHANNEL: NEKXF1 FILTER: CH. CLASS 1000  
PEAK DATA: 155.05 N @ 29.68 MS; -1347.30 N @ 64.08 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK Y-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

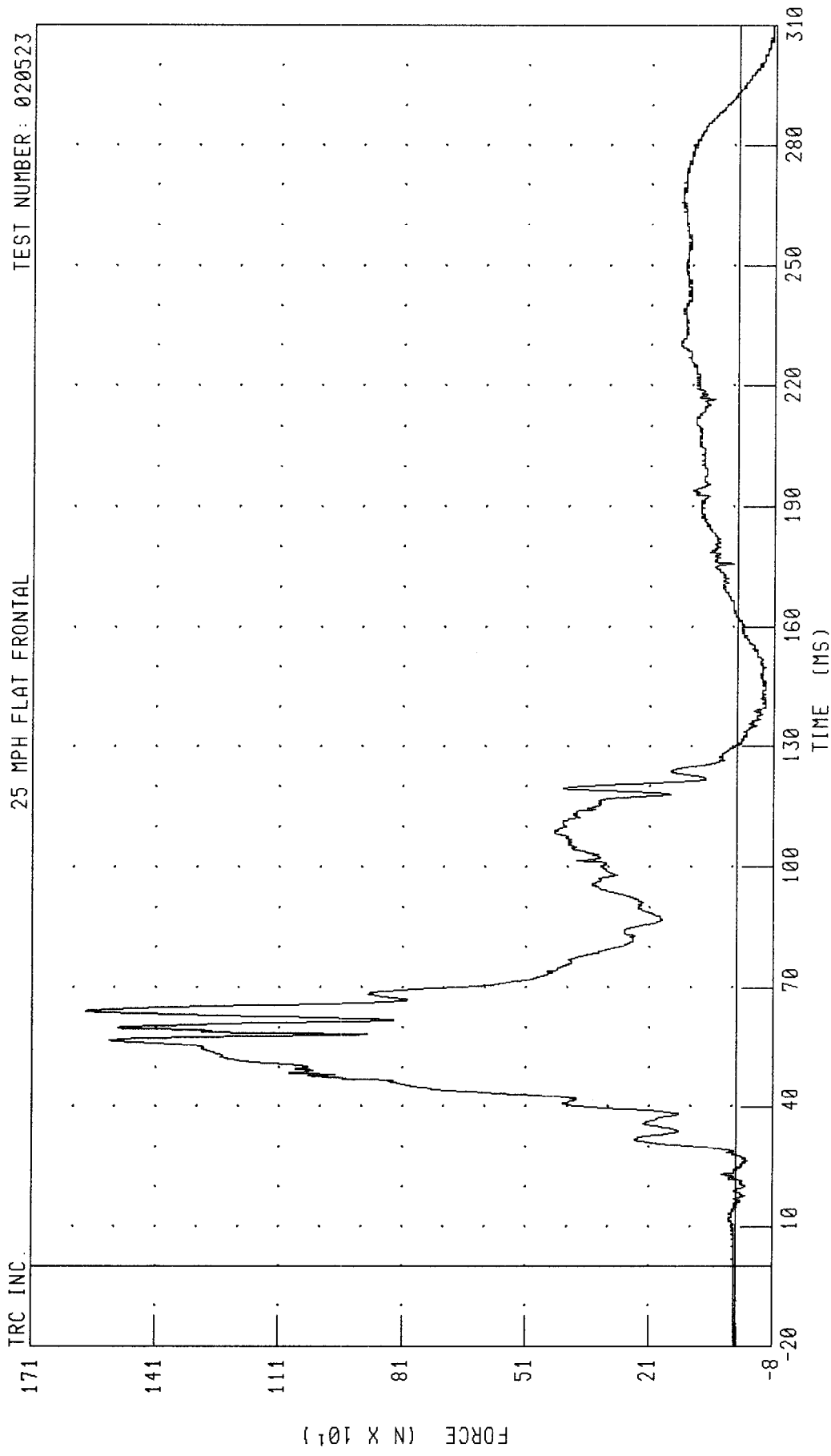
TEST NUMBER: 020523



TRC INC. CHANNEL: NEKYF1 FILTER: CH. CLASS 1000  
PEAK DATA: 96.04 N @ 38.00 MS; -77.78 N @ 79.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK Z-AXIS AXIAL FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

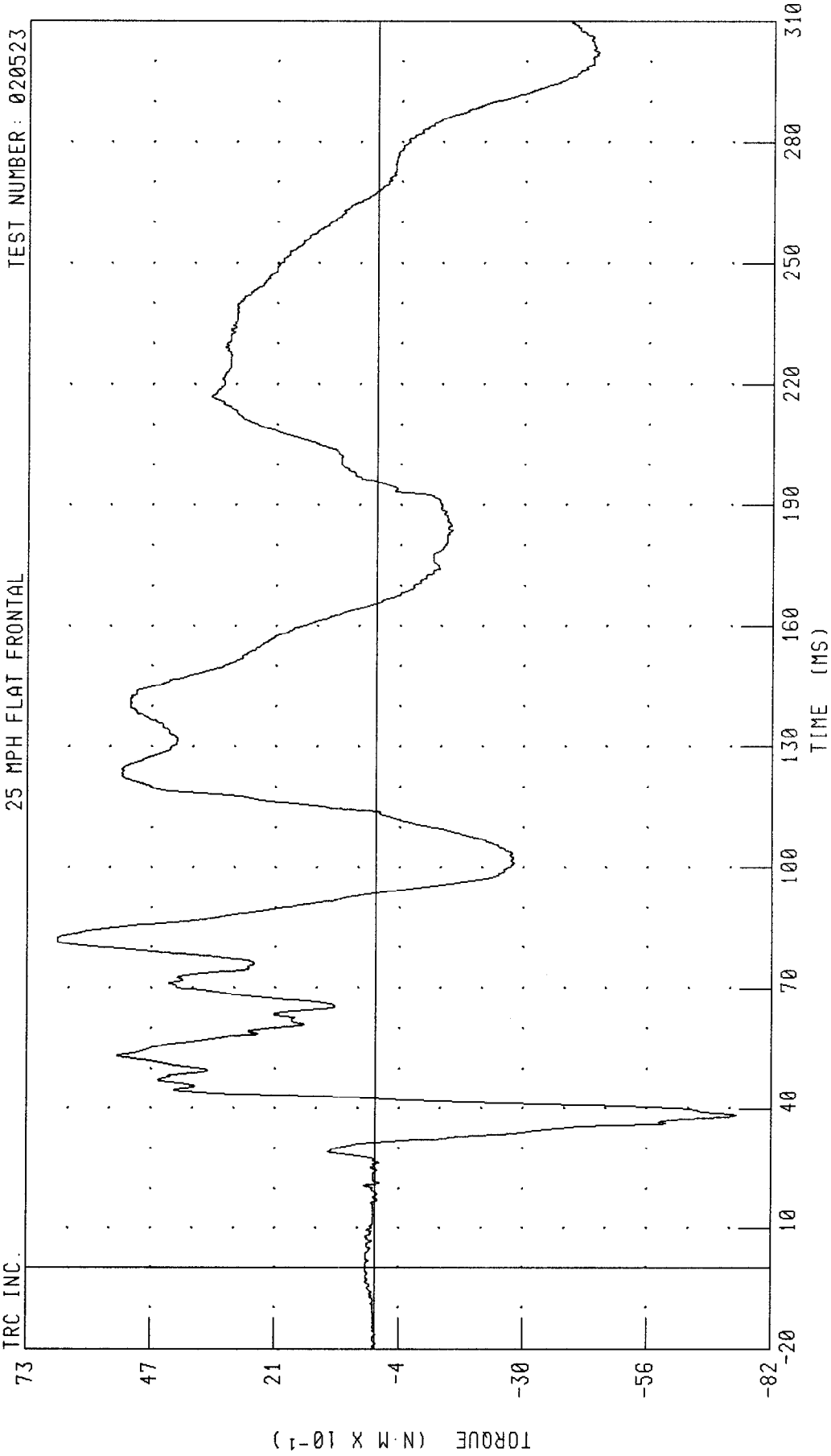


CHANNEL: NEKZF1 FILTER: CH. CLASS 1000  
PEAK DATA: 1582.26 N @ 64.08 MS, -80 19 N @ 305.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



CHANNEL: NEKXM1

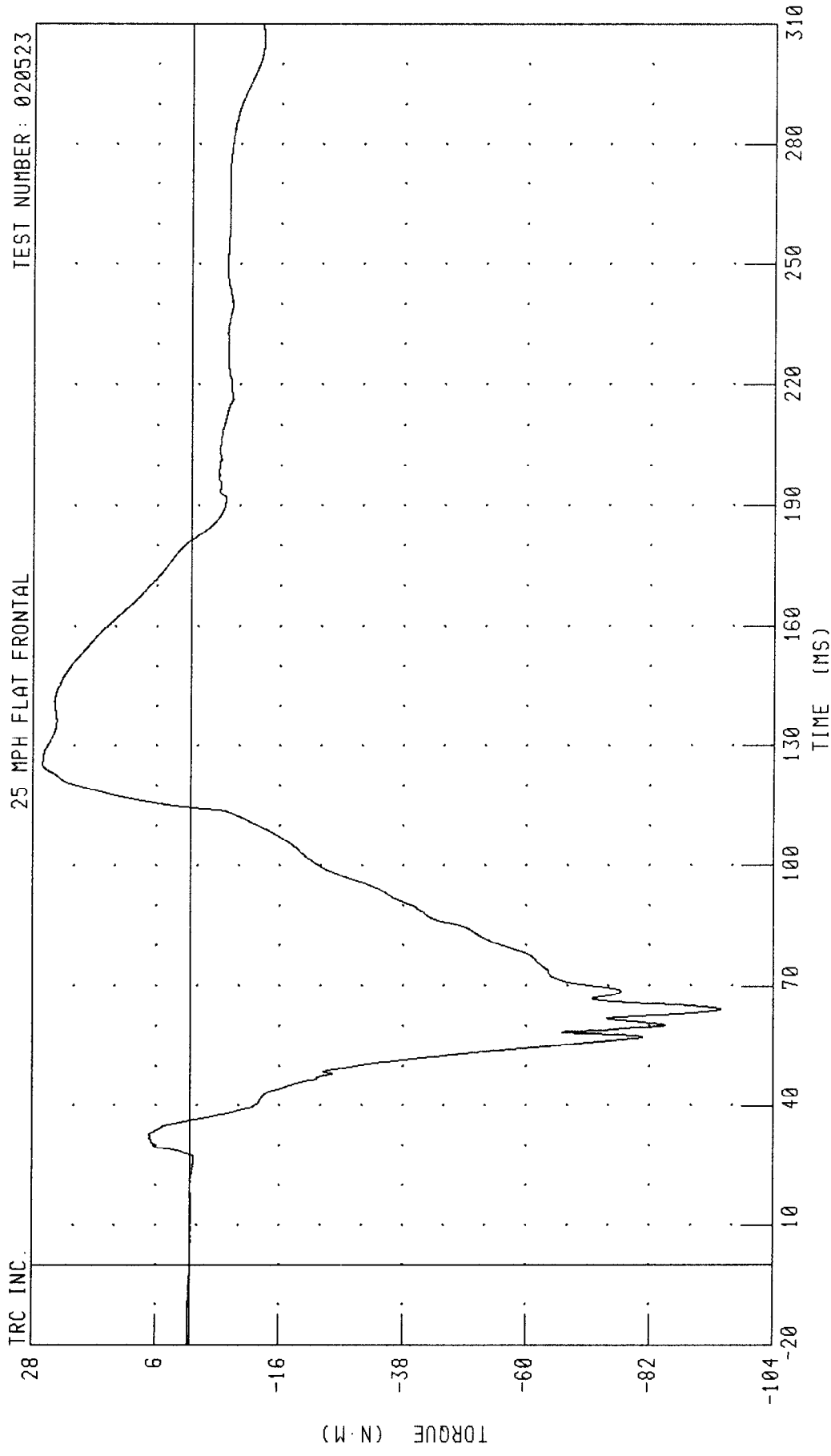
FILTER: CH. CLASS 600

TIME (MS)

PEAK DATA: 6.68 N·m @ 81.60 MS, -7.56 N·m @ 38.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

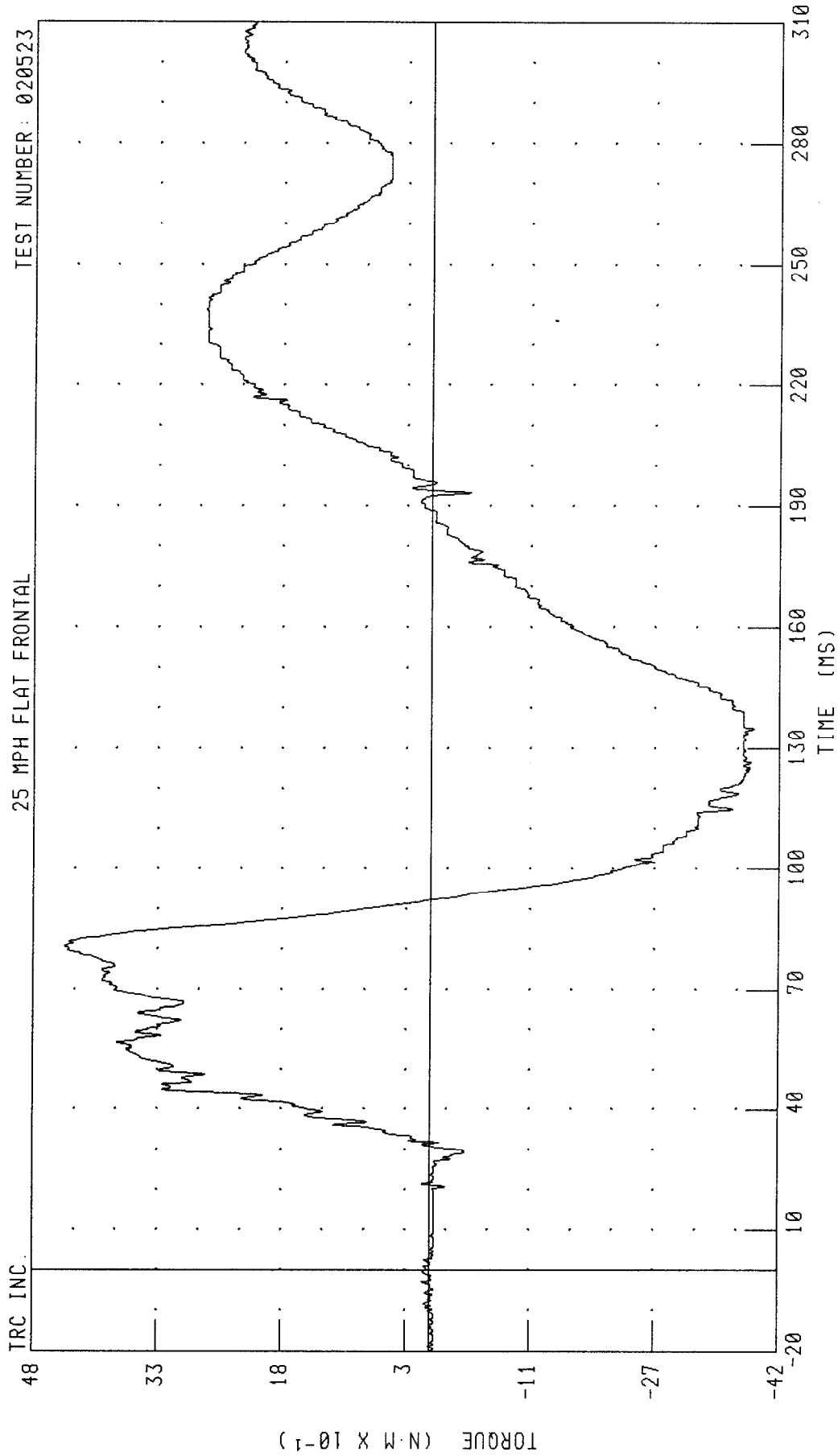
TEST NUMBER: 020523



TRC INC. CHANNEL: NEKYM1 FILTER: CH. CLASS 600  
PEAK DATA: 26.31 N·M @ 125.44 MS, -94.78 N·M @ 64.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK MOMENT ABOUT Z AXIS  
25 MPH FLAT FRONTAL

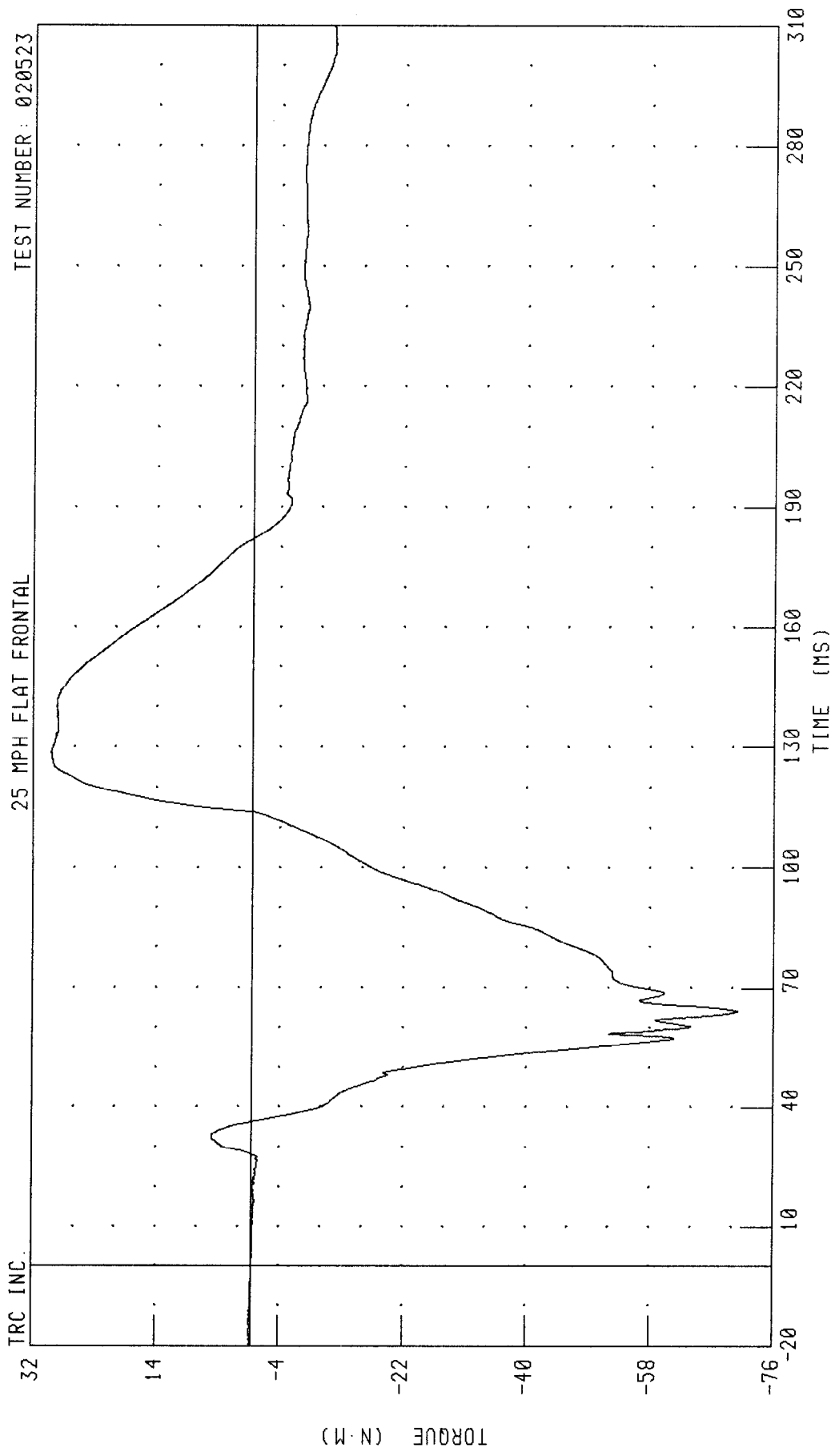
TEST NUMBER: 020523



CHANNEL: NEKZM1 FILTER: CH. CLASS 600 PEAK DATA: 4.43 N·M @ 80.80 MS, -3.89 N·M @ 134.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

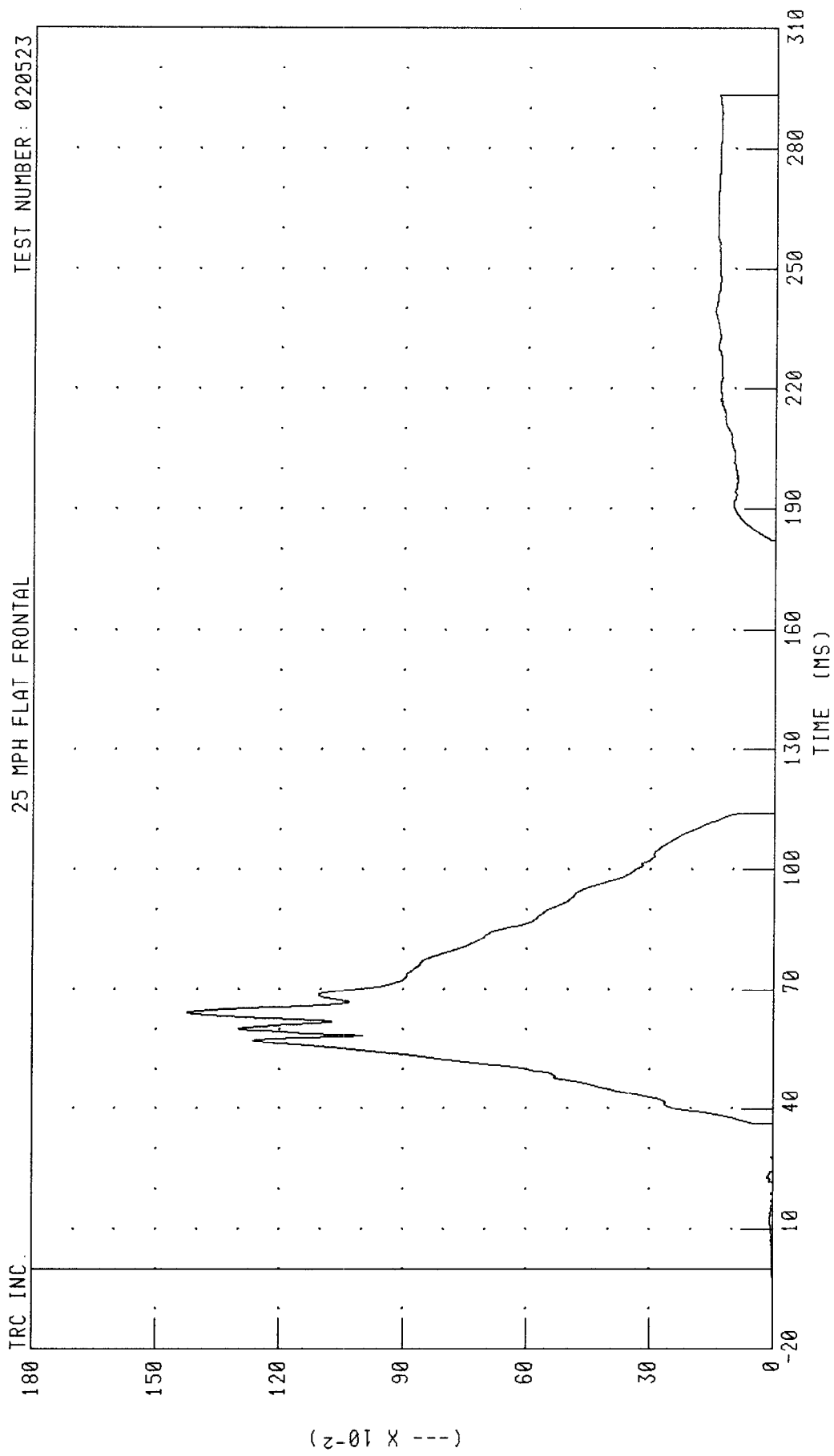
TEST NUMBER: 020523



CHANNEL: NEKOM1 FILTER: CH. CLASS 600 PEAK DATA: 29.39 N·M @ 128.72 MS, -70.84 N·M @ 64.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NIJ TENSION/EXTENSION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



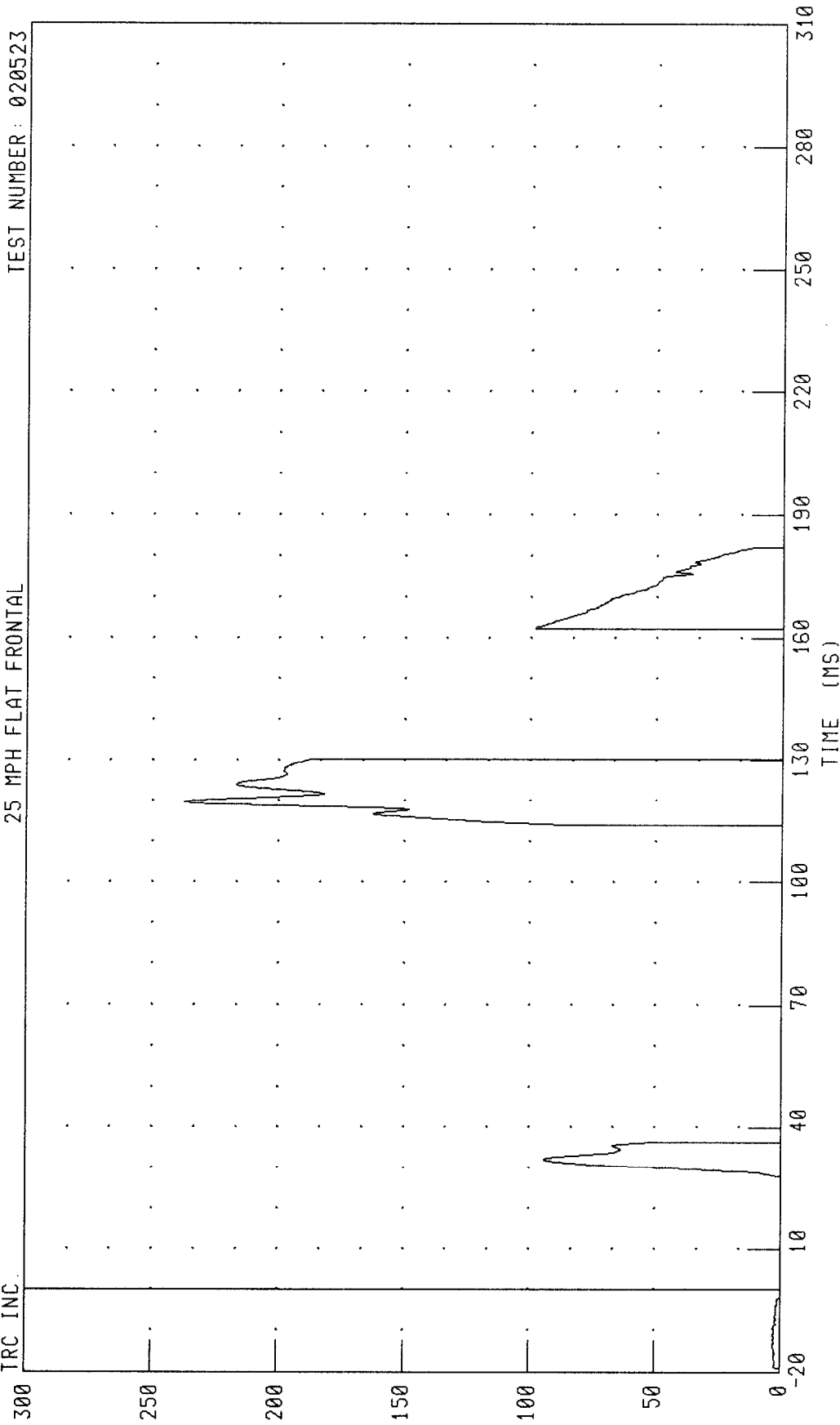
(--- X 10<sup>-2</sup>)

CHANNEL: NTE1 FILTER: CH. CLASS 600 PEAK DATA: 1.43 --- 0 64.16 MS; 0.00 --- 0 -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NIJ TENSION/FLEXION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



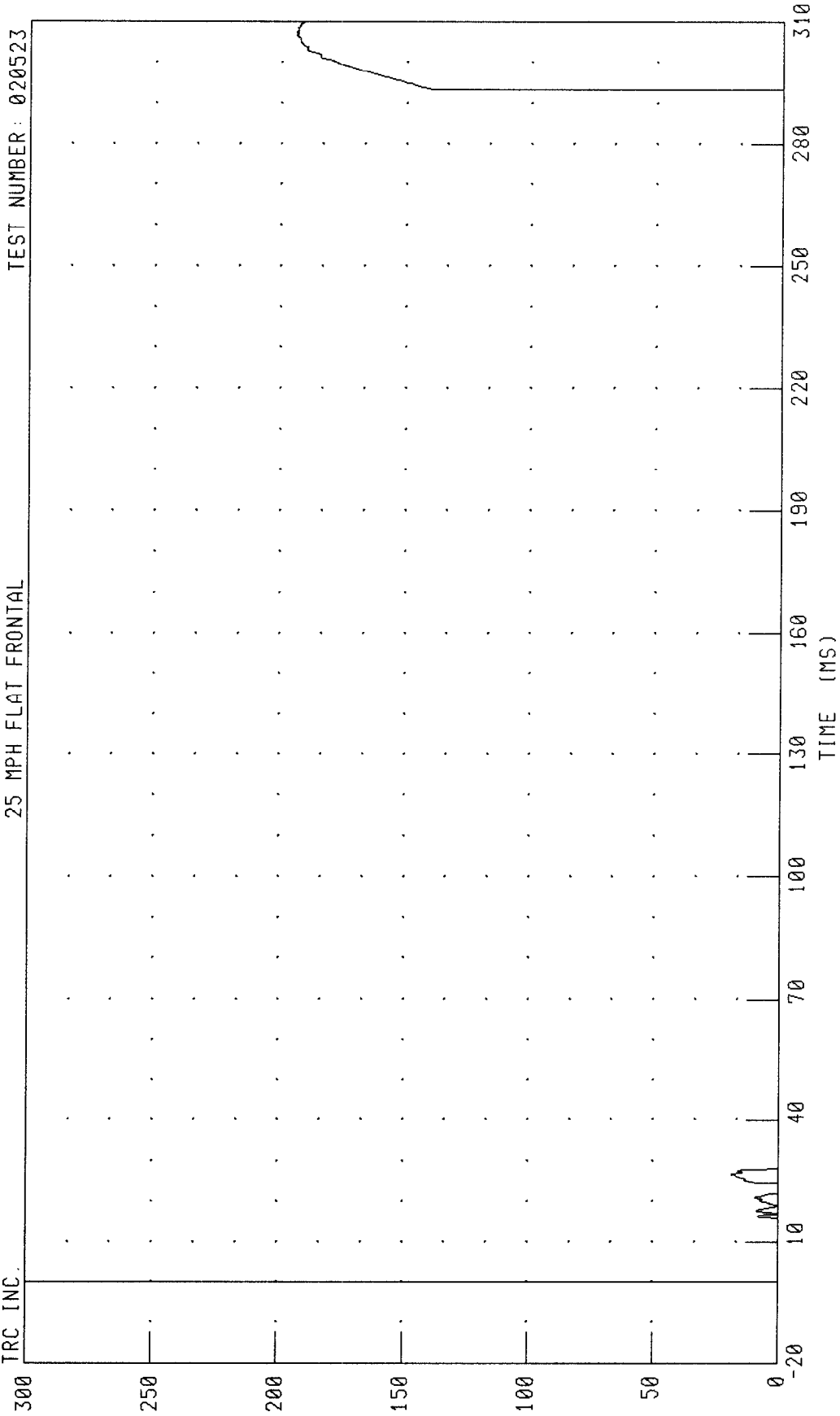
(--- X 10<sup>-3</sup>)

CHANNEL: NTF1 FILTER: CH. CLASS 600  
PEAK DATA: 0 24 --- 0 119.76 MS; 0 00 --- 0 -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NIJ COMPRESSION/EXTENSION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



(--- X 10<sup>-3</sup>)

CHANNEL: NCE1

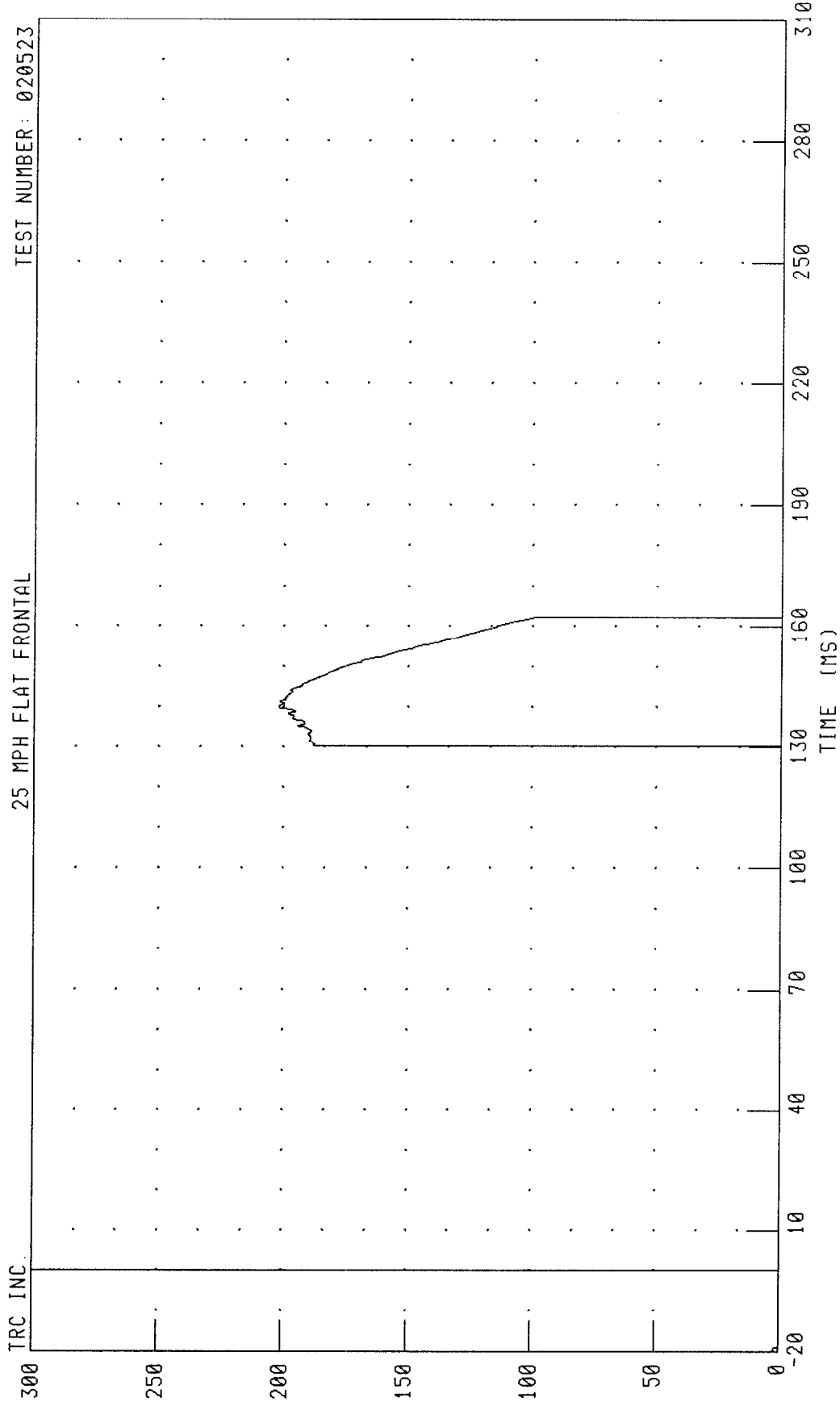
FILTER: CH. CLASS 600

TIME (MS)

PEAK DATA: 0.19 --- 0 307.28 MS; 0.00 --- 0 -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NIJ COMPRESSION/FLEXION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

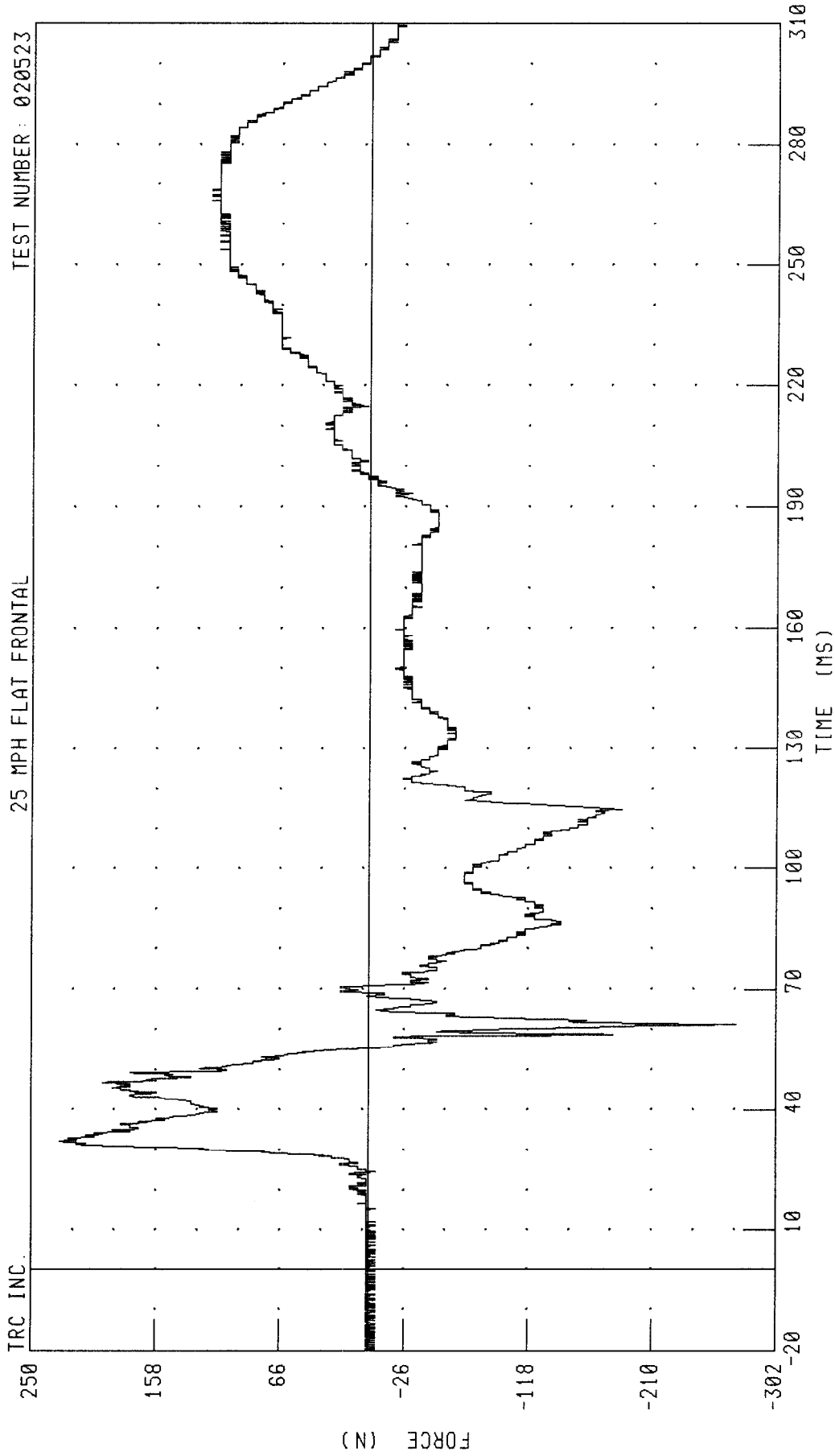


(--- X 10<sup>-3</sup>)

CHANNEL: NCF1 FILTER: CH. CLASS 600 PEAK DATA: 0.20 --- 0 140.08 MS; 0.00 --- 0 -18.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER X-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

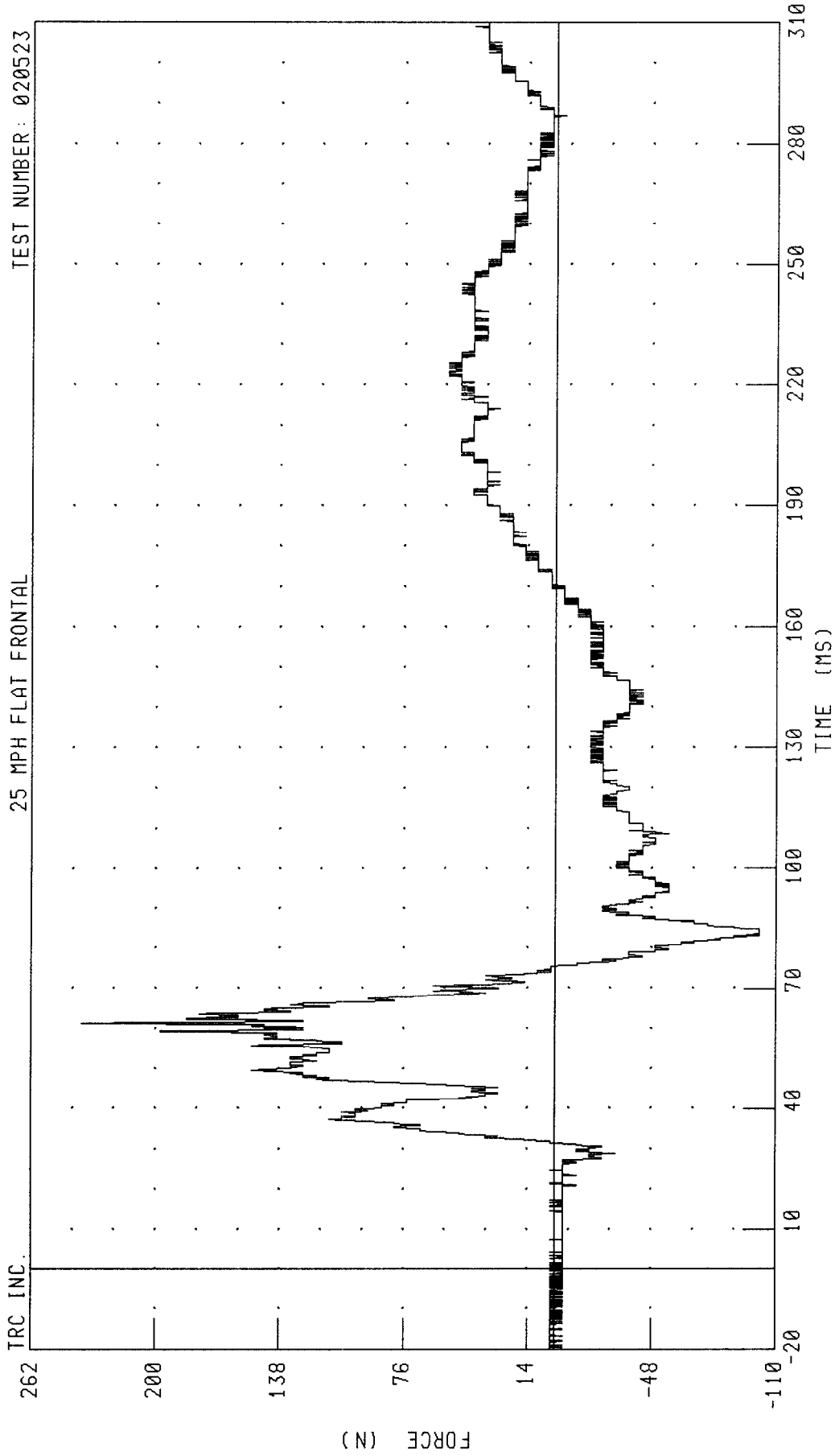
TEST NUMBER: 020523



CHANNEL: NKLXF1 FILTER: CH. CLASS 1000  
PEAK DATA: 229.47 N @ 32.16 MS, -272.46 N @ 61.20 MS

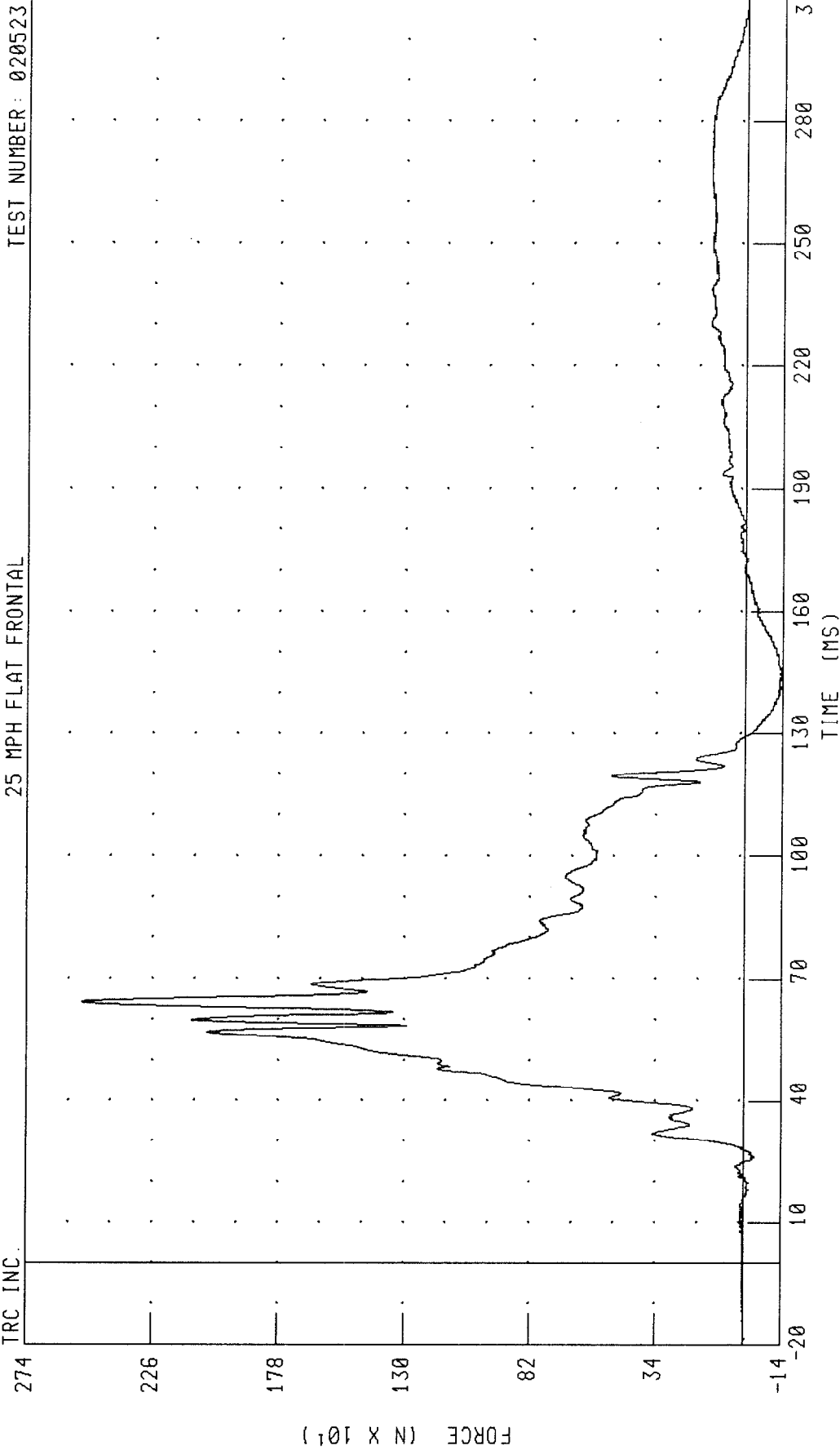
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER Y-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



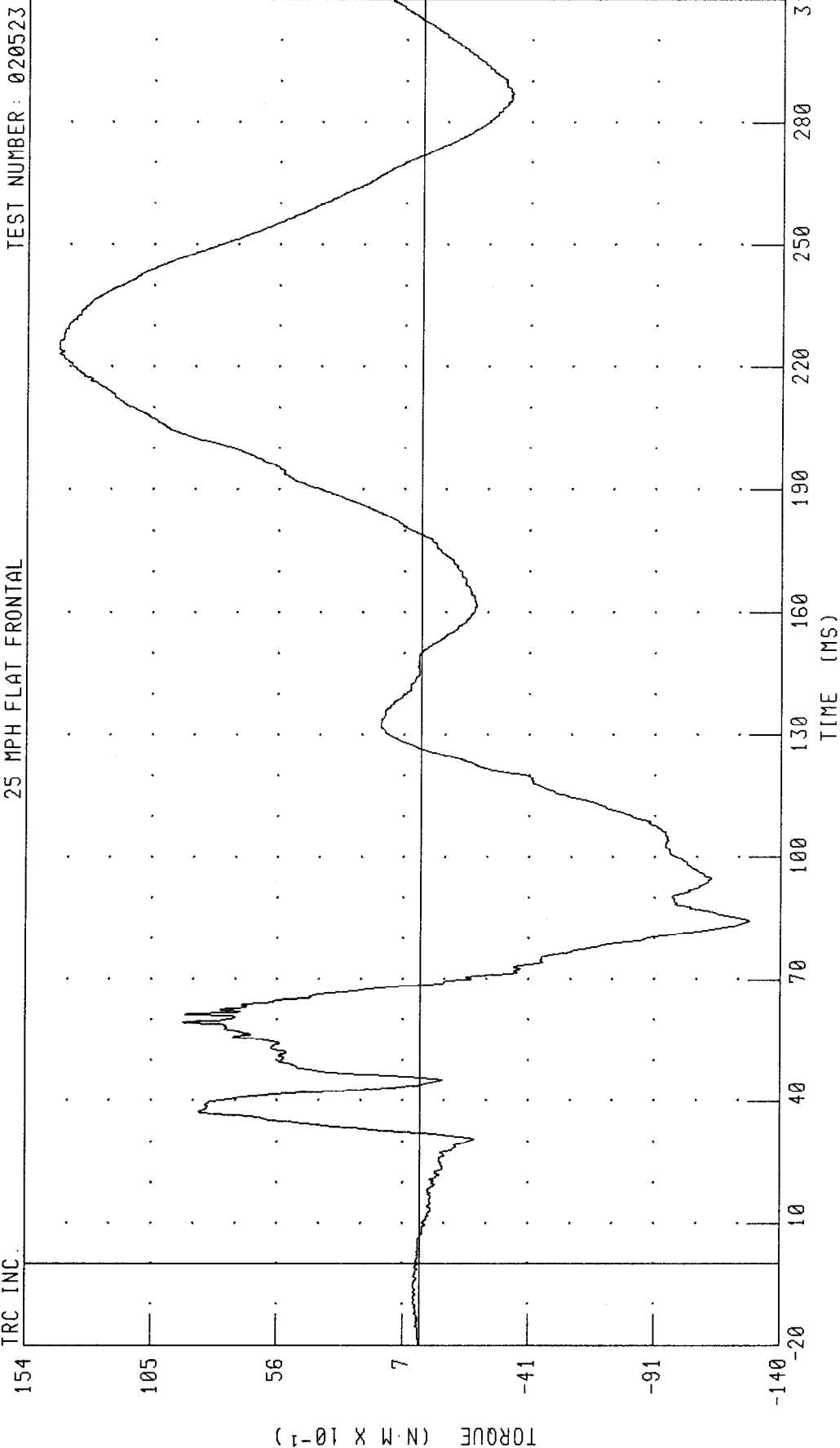
CHANNEL: NKLYF1 FILTER: CH. CLASS 1000 PEAK DATA: 236.80 N @ 61.28 MS, -101.86 N @ 83.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER Z-AXIS AXIAL FORCE  
25 MPH FLAT FRONTAL



CHANNEL: NKLZF1 FILTER: CH. CLASS 1000 PEAK DATA: 2528.79 N @ 64.24 MS; -135.61 N @ 140.96 MS

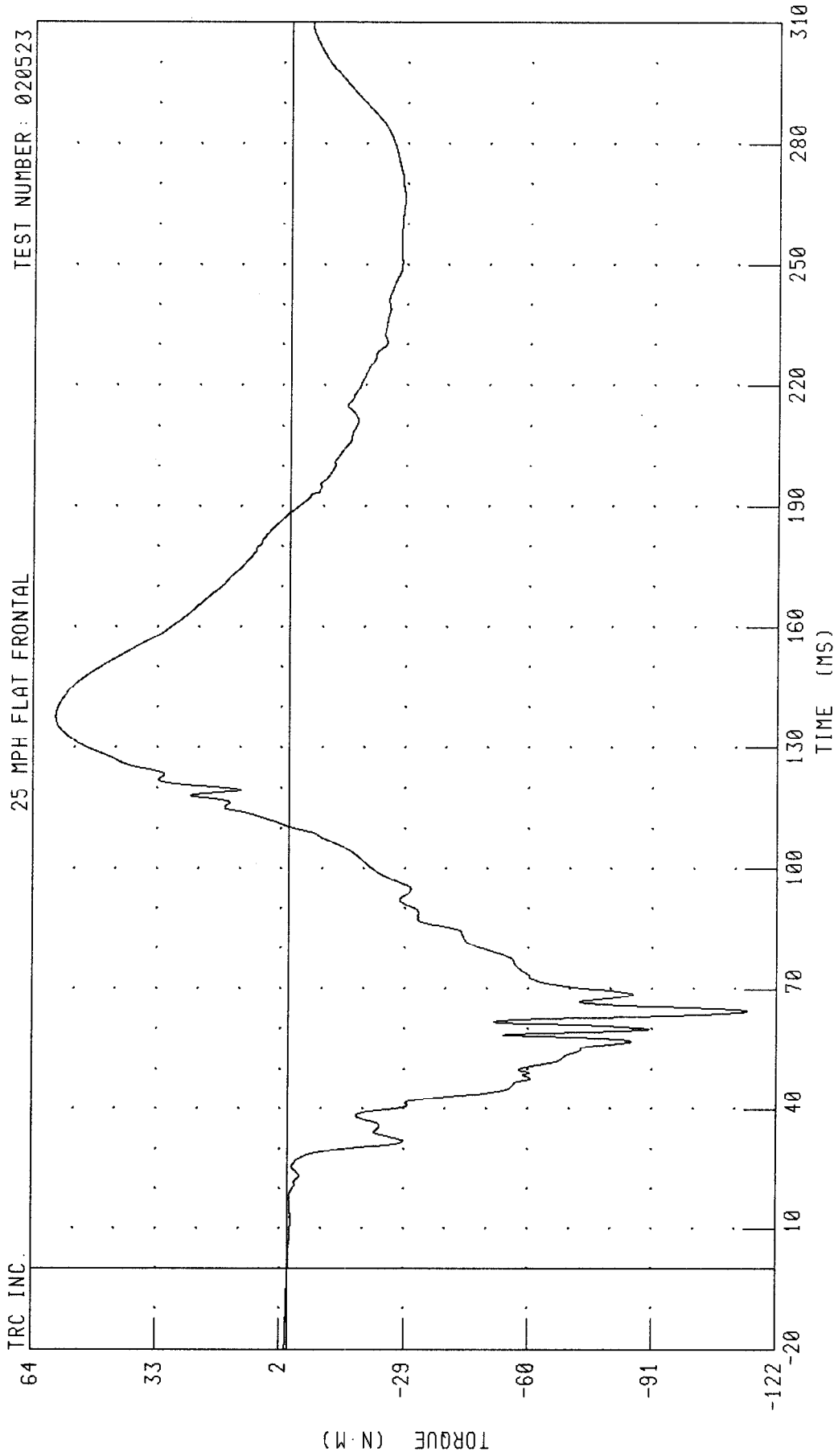
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL



CHANNEL: NKLXM1 FILTER: CH. CLASS 600  
PEAK DATA: 14.18 N·M @ 224.64 MS, -12.78 N·M @ 84.40 MS

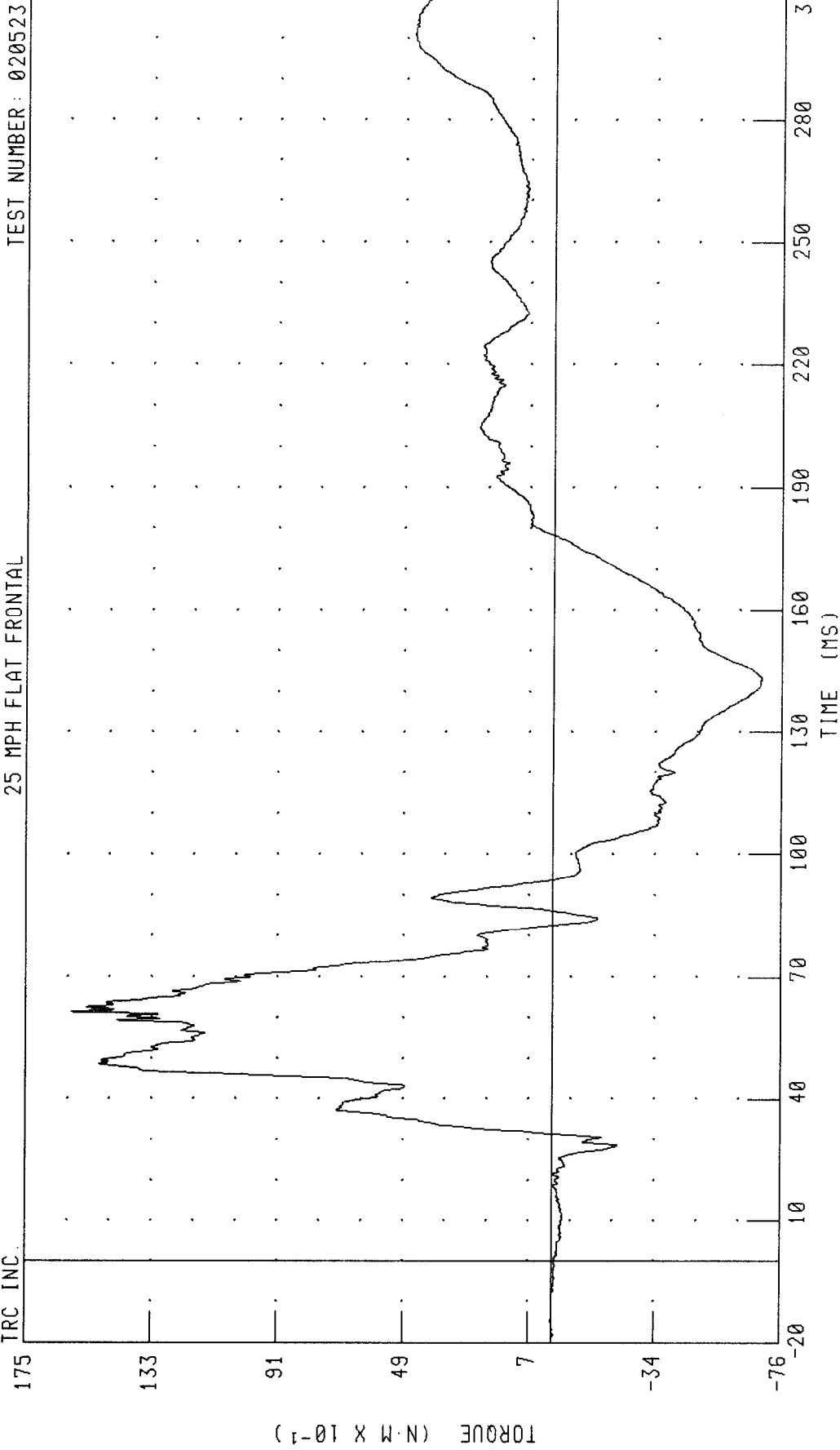
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: NKLYM1 FILTER: CH. CLASS 600  
PEAK DATA: 58.46 N·M @ 137.68 MS, -114.64 N·M @ 64.40 MS

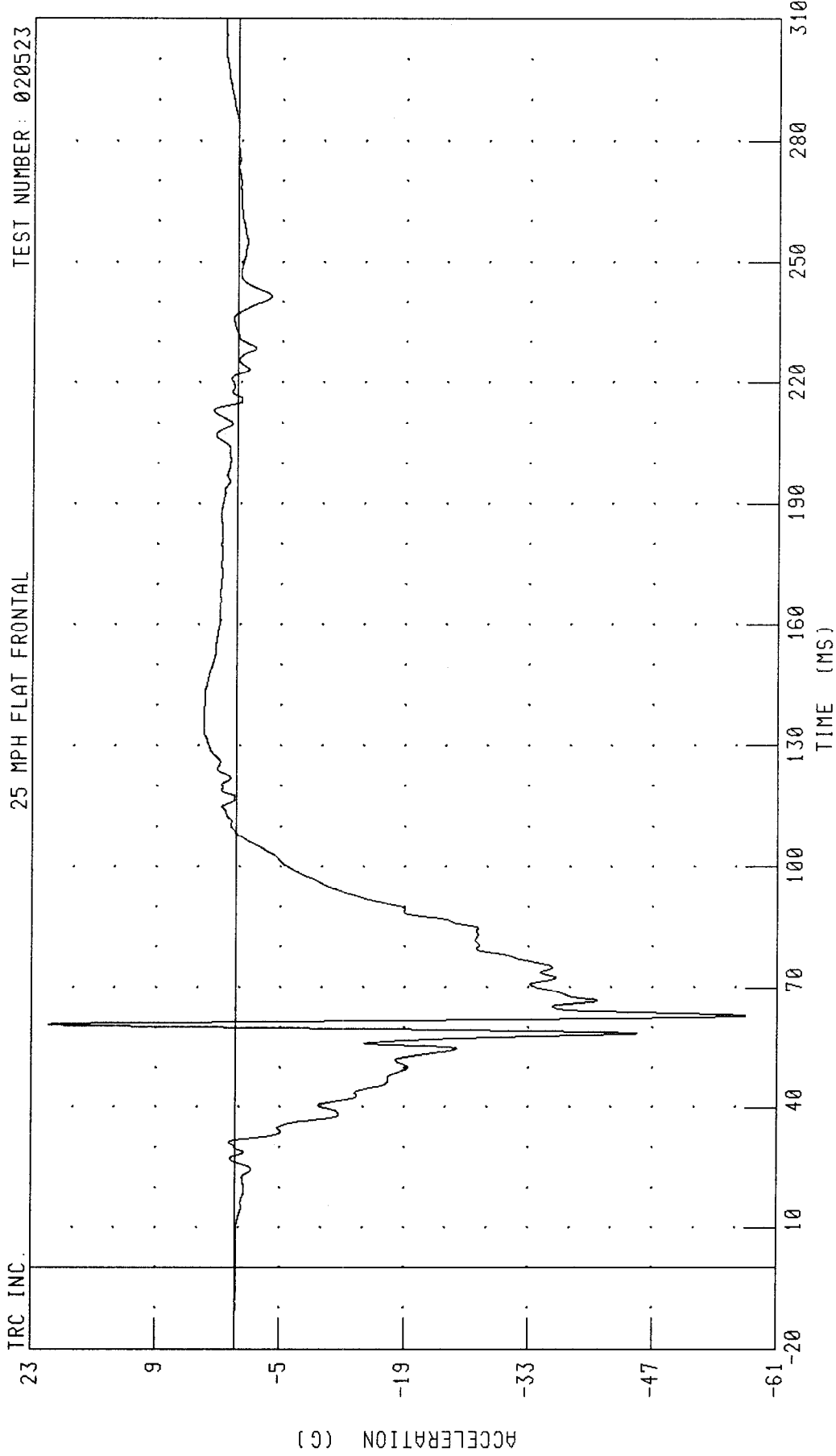
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER NECK LOWER MOMENT ABOUT Z AXIS  
25 MPH FLAT FRONTAL



CHANNEL: NKLZM1 FILTER: CH. CLASS 600 PEAK DATA: 16.07 N·M @ 61.44 MS; -6.94 N·M @ 143.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

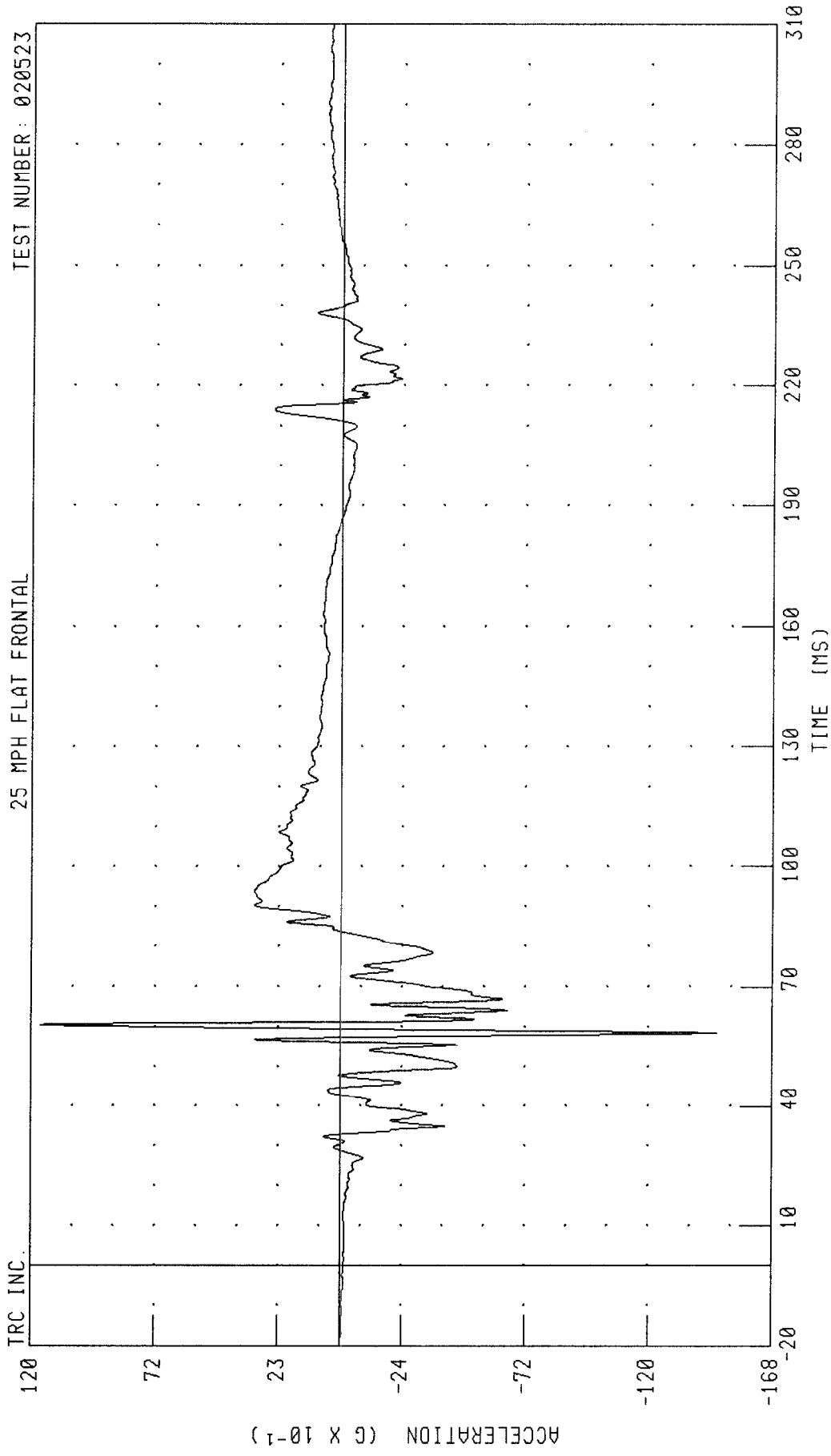
TEST NUMBER: 020523



CHANNEL: CSTXG1 FILTER: CH. CLASS 180  
PEAK DATA: 21.18 G @ 60.80 MS, -57.50 G @ 62.96 MS

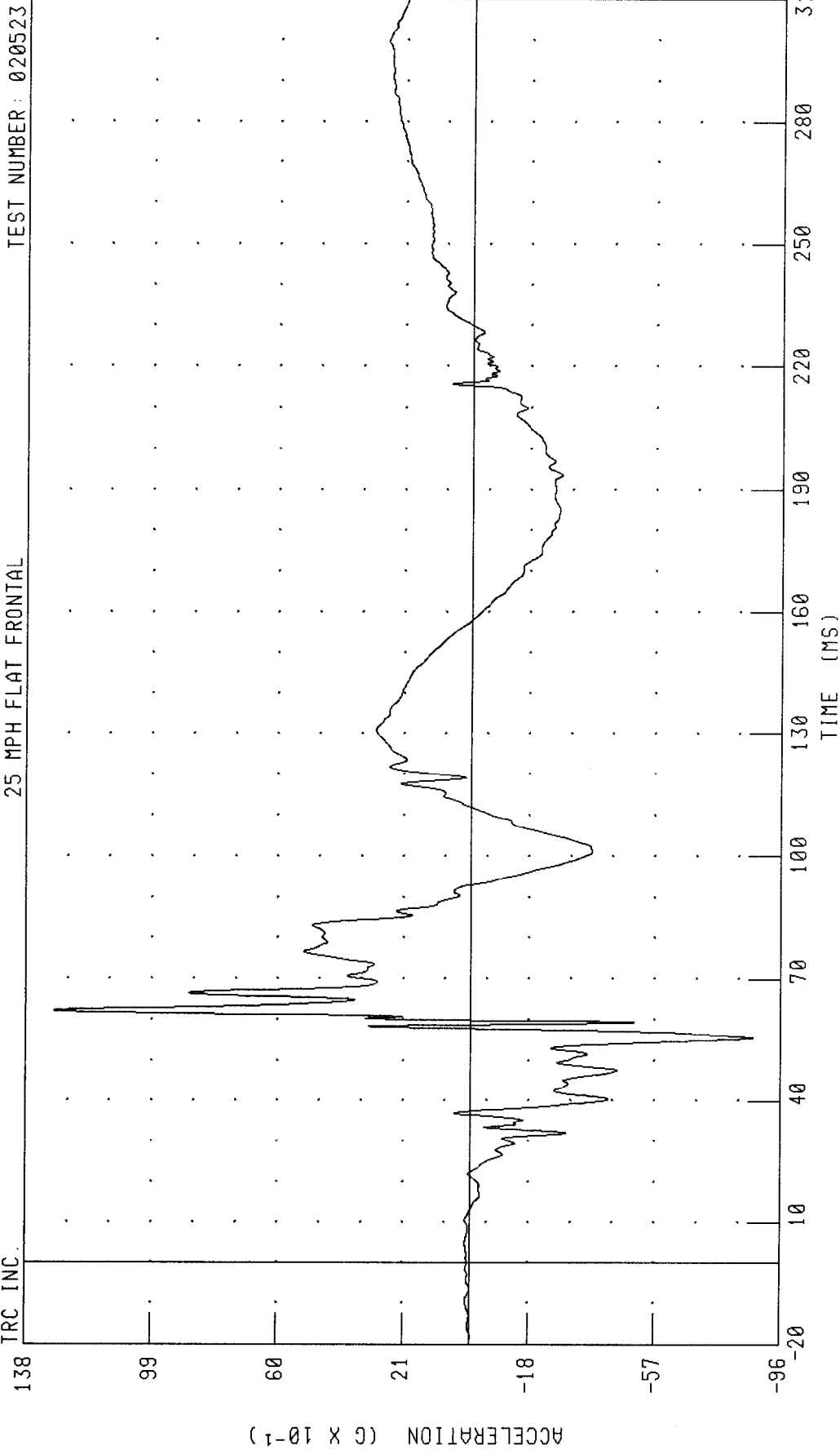
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: CSTYG1 FILTER: CH. CLASS 180 PEAK DATA: 11.66 G @ 60.56 MS, -14.63 G @ 58.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

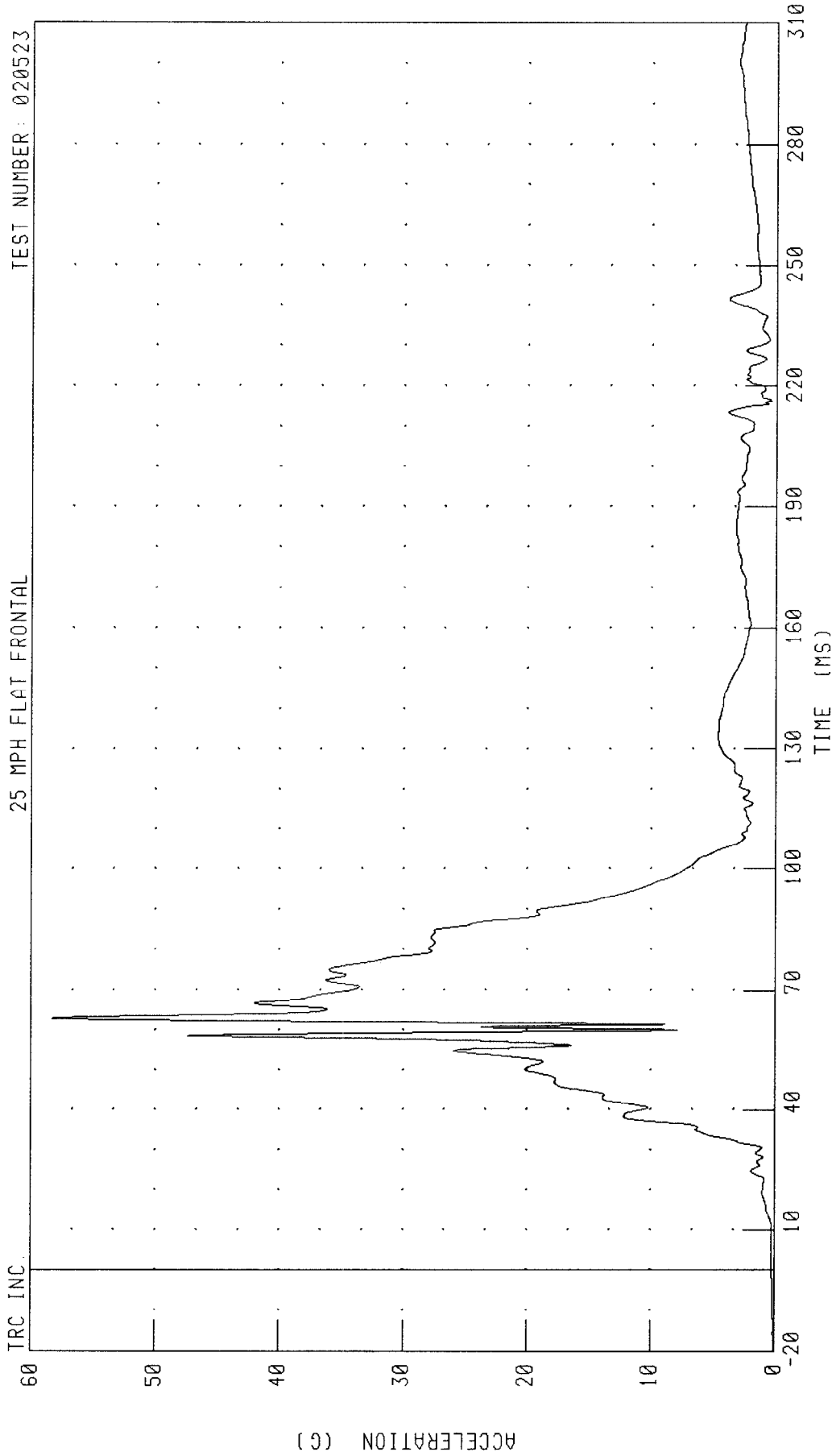


CHANNEL: CSTZG1 FILTER: CH. CLASS 180

PEAK DATA: 12.93 G @ 62.16 MS; -8.75 G @ 55.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

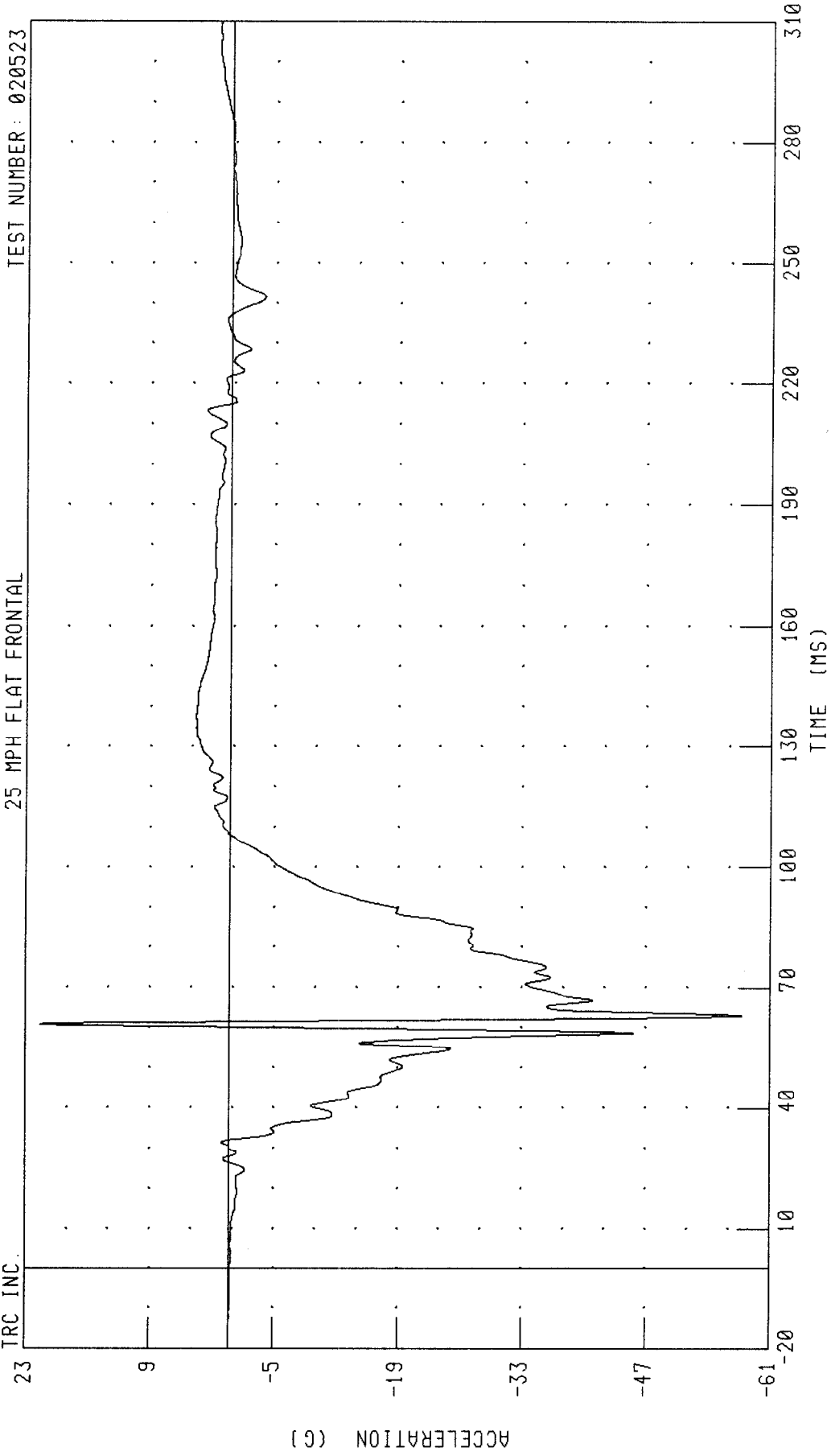
TEST NUMBER: 020523



CHANNEL: CSTRG1 FILTER: CH. CLASS 180 PEAK DATA: 58.30 G @ 62.88 MS; 0.01 G @ -20.00 MS

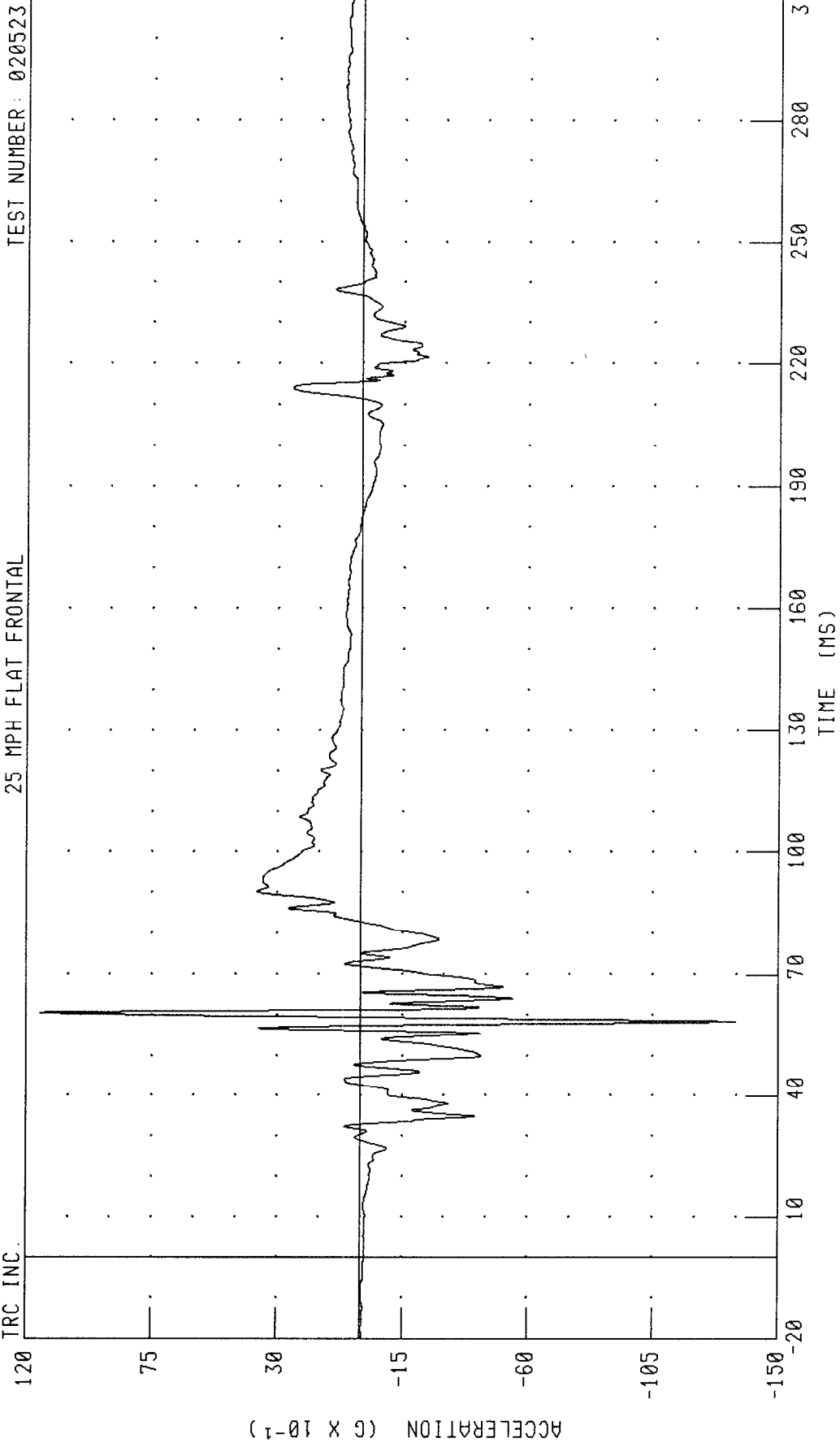
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST X-AXIS REDUNDANT ACCELERATION  
25 MPH FLAT FRONTAL

TRC INC. TEST NUMBER: 020523



CHANNEL: CSTXR1 FILTER: CH. CLASS 180 PEAK DATA: 21.37 G @ 60.80 MS, -57.81 G @ 62.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST Y-AXIS REDUNDANT ACCELERATION  
25 MPH FLAT FRONTAL



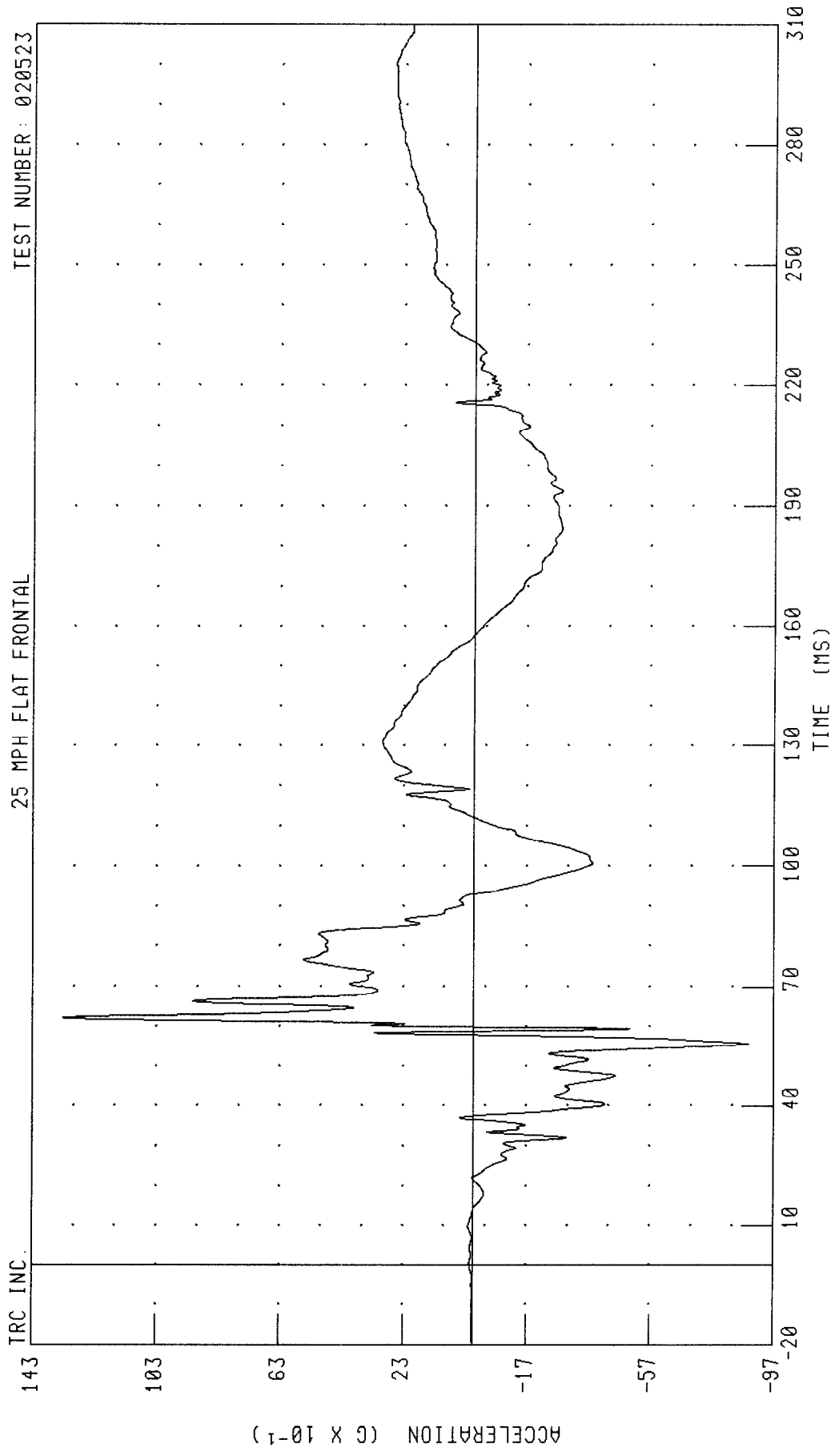
CHANNEL: CSTYR1 FILTER: CH. CLASS 180 PEAK DATA: 11.50 G @ 60.56 MS; -13.48 G @ 113.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST Z-AXIS REDUNDANT ACCELERATION

TEST NUMBER: 020523

25 MPH FLAT FRONTAL

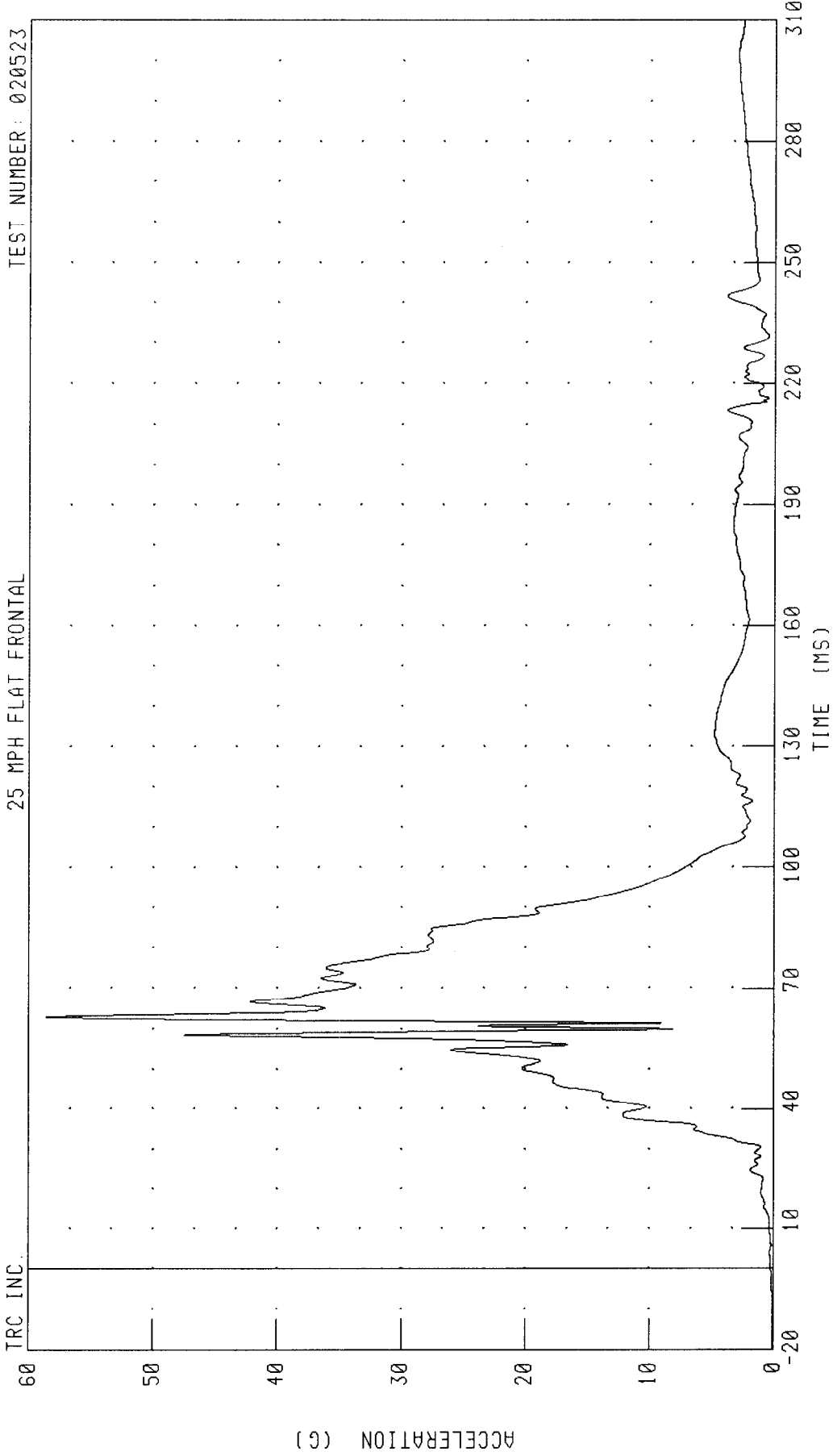
TRC INC.



CHANNEL: CSTZR1 FILTER: CH. CLASS 180 PEAK DATA: 13.34 G @ 62.16 MS; -8.90 G @ 55.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST REDUNDANT RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

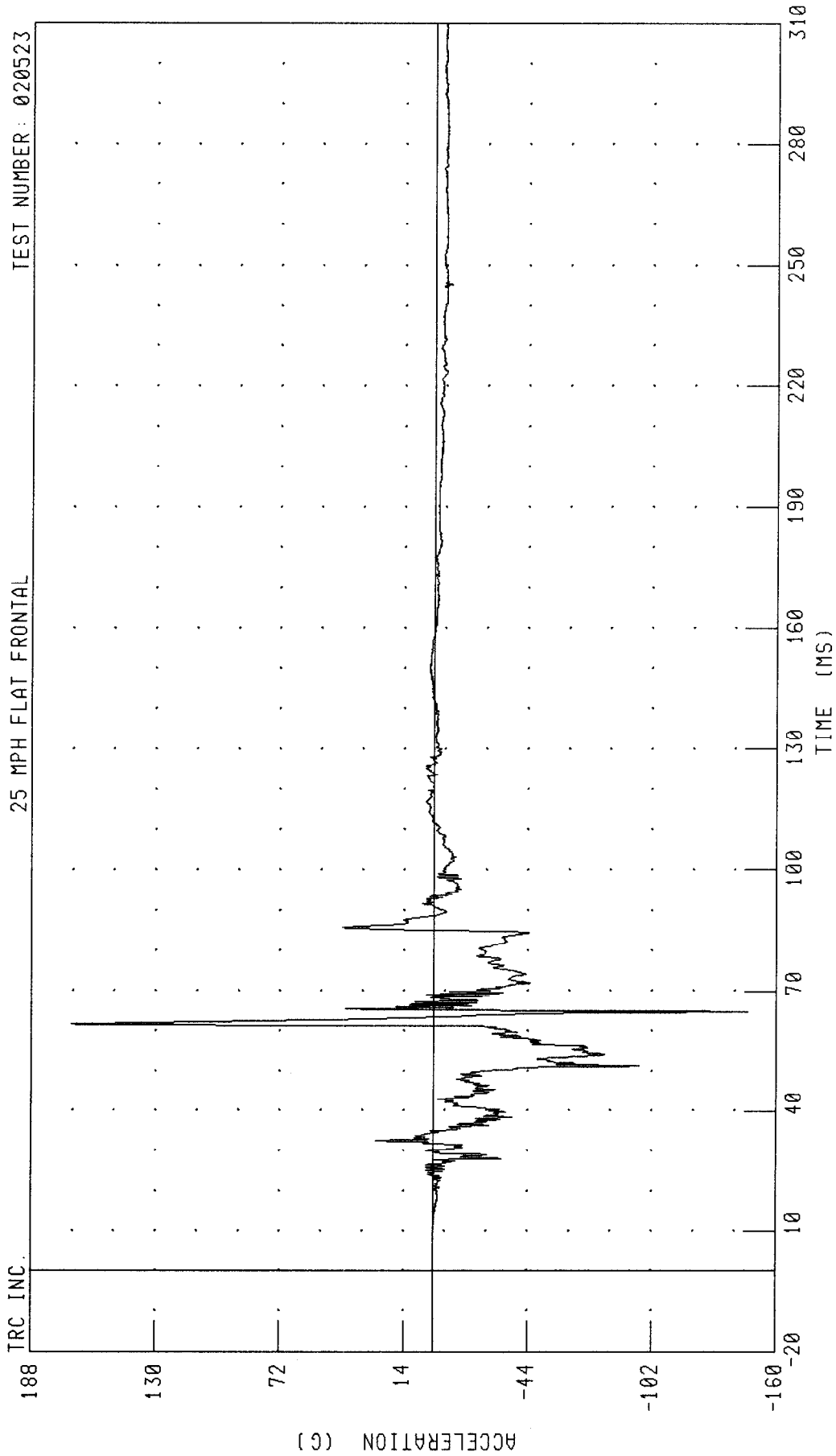
TEST NUMBER: 020523



CHANNEL: CSTRR1 FILTER: CH. CLASS 180 PEAK DATA: 58.62 G @ 62.88 MS; 0.01 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER STERNUM UPPER X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

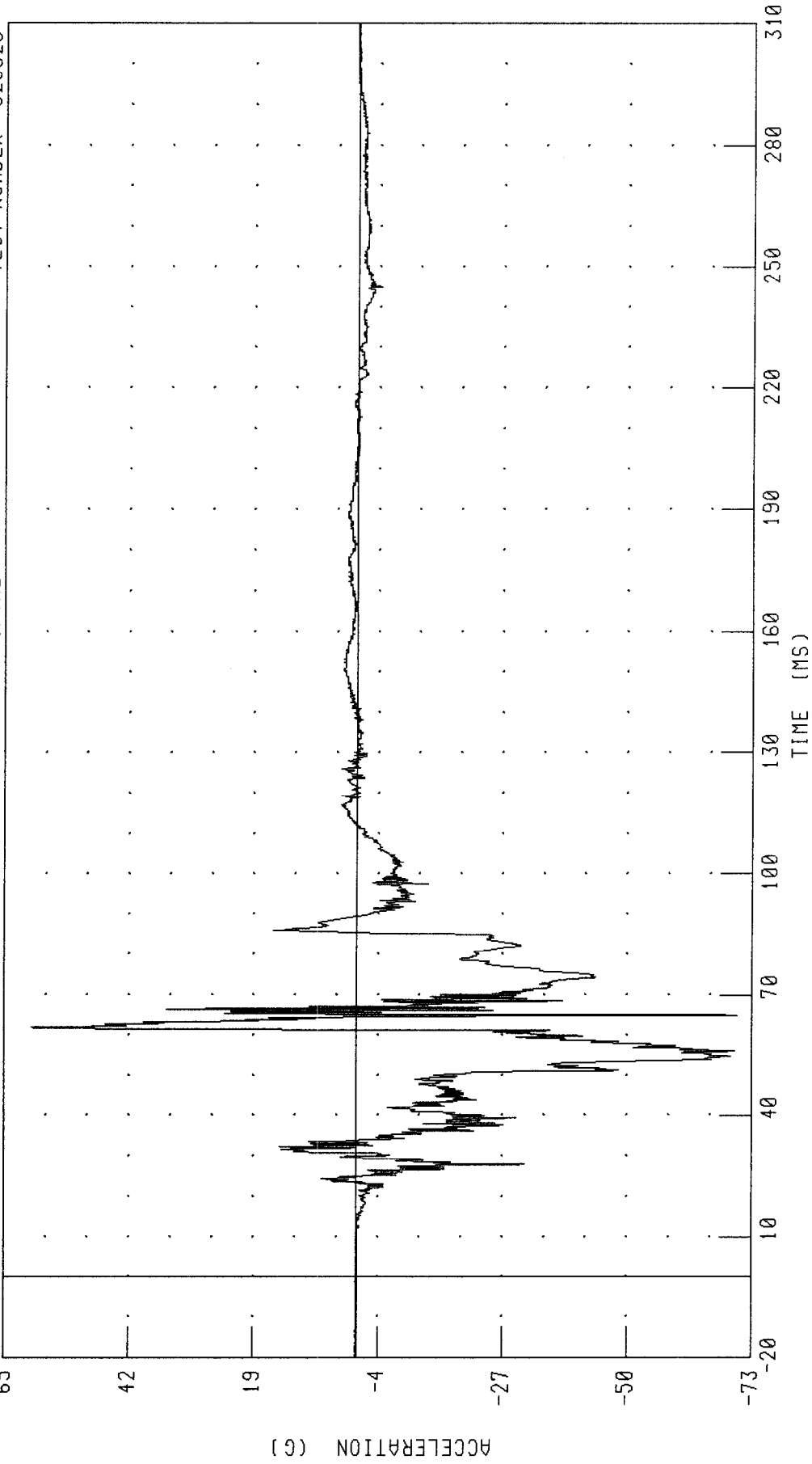


CHANNEL: STUXG1 FILTER: CH. CLASS 1000 PEAK DATA: 169.53 G @ 61.68 MS; -146.92 G @ 64.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER STERNUM MID X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

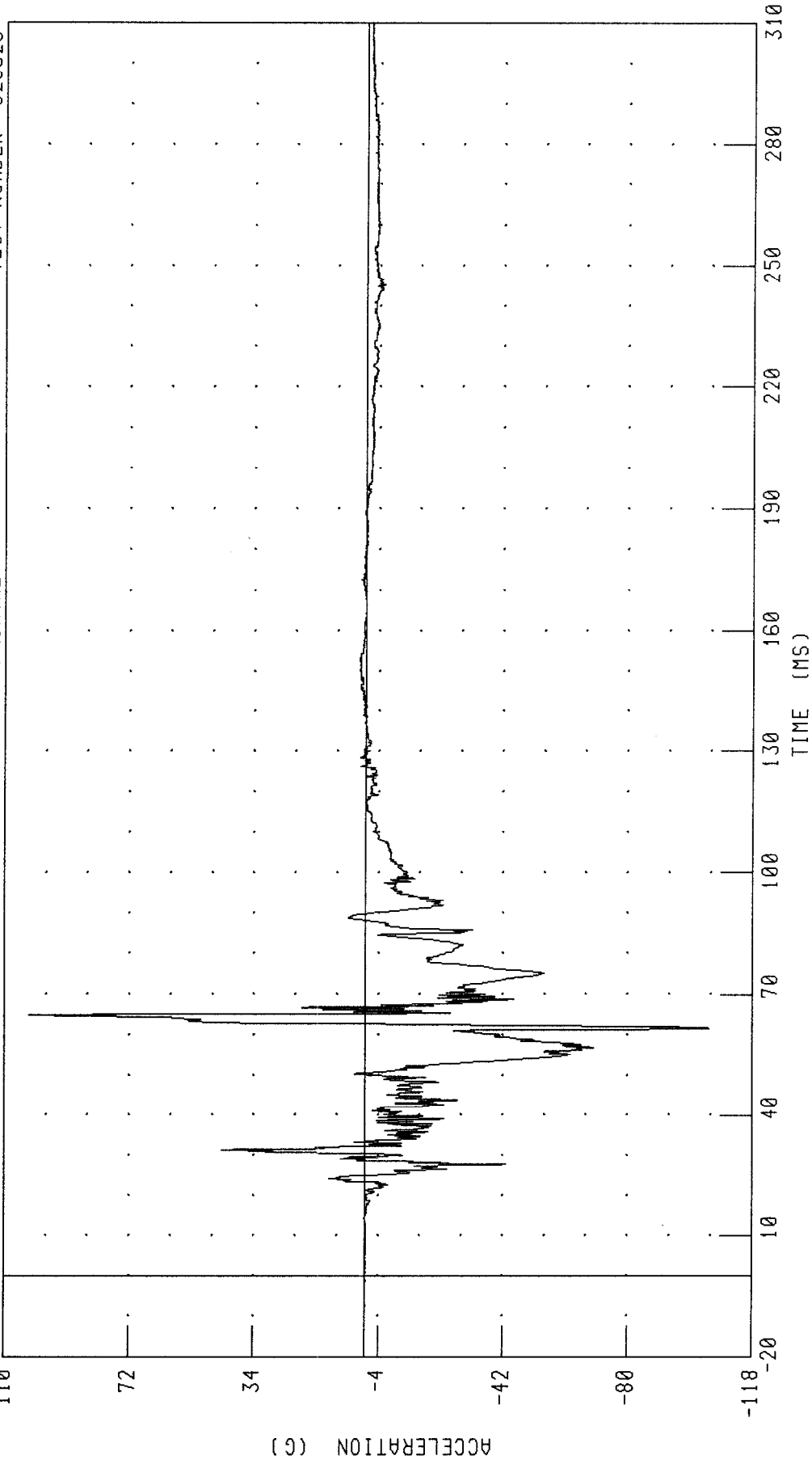


CHANNEL: STMXG1 FILTER: CH. CLASS 1000 PEAK DATA: 59.92 G @ 61.92 MS; -70.22 G @ 64.88 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER STERNUM LOWER X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

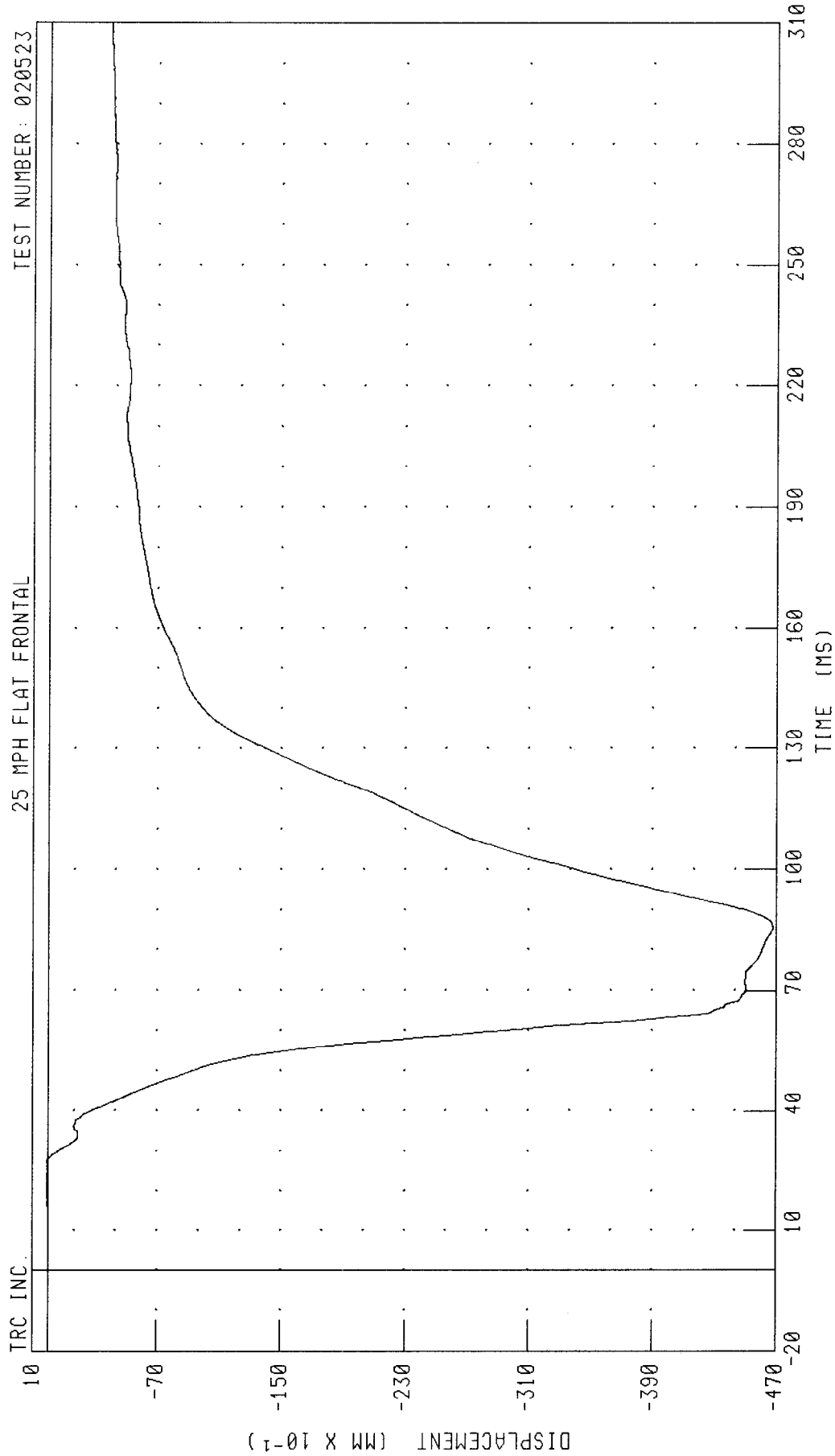
TRC INC.



CHANNEL: STLXG1 FILTER: CH. CLASS 1000 PEAK DATA: 102.69 G @ 64.80 MS; -104.99 G @ 61.60 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER CHEST DEFLECTION  
25 MPH FLAT FRONTAL

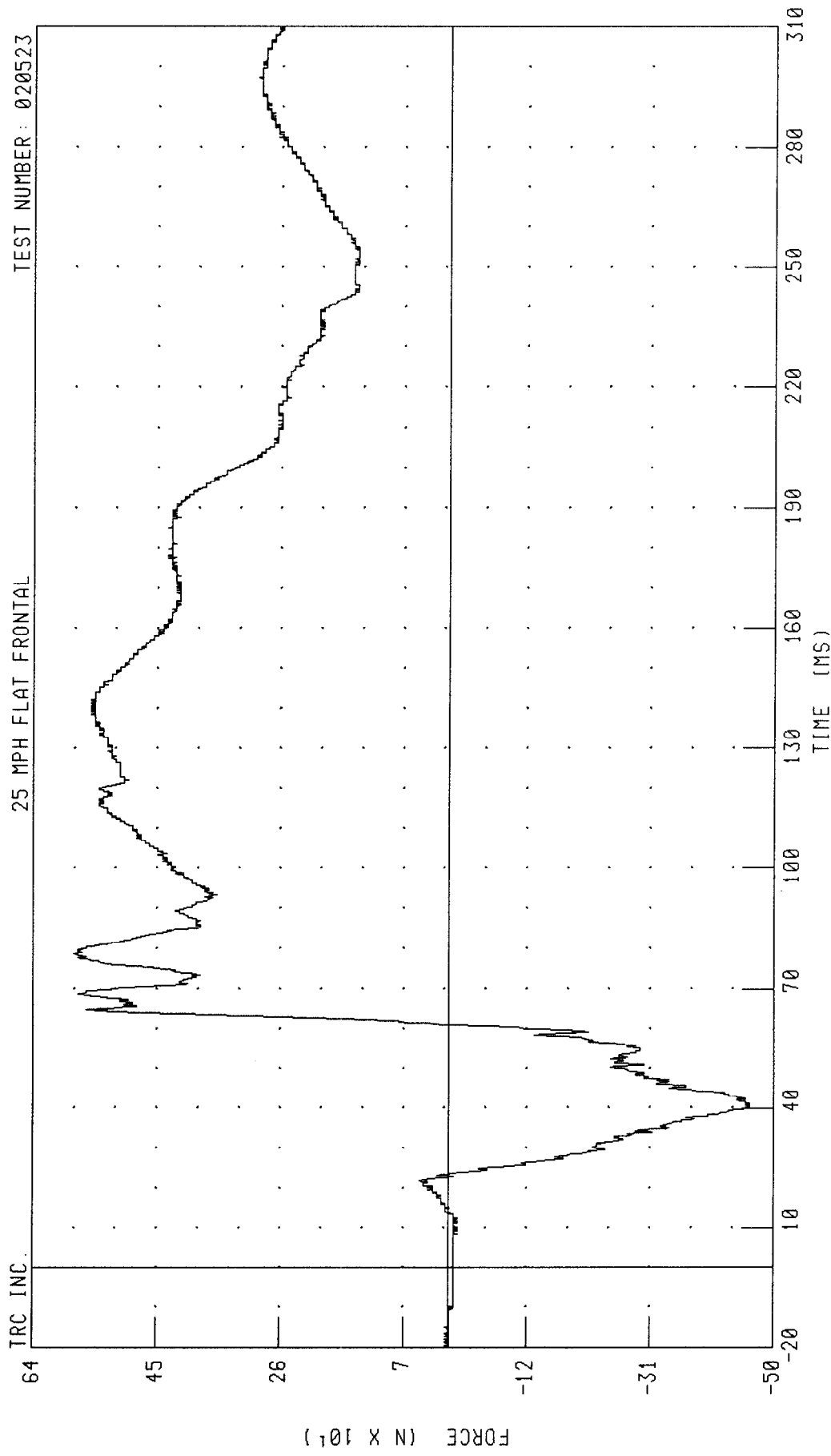
TEST NUMBER: 020523



CHANNEL: CSTXD1 FILTER: CH. CLASS 600 PEAK DATA: 0.10 MM @ 19.44 MS, -46.80 MM @ 85.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LUMBAR X-AXIS FORCE  
25 MPH FLAT FRONTAL

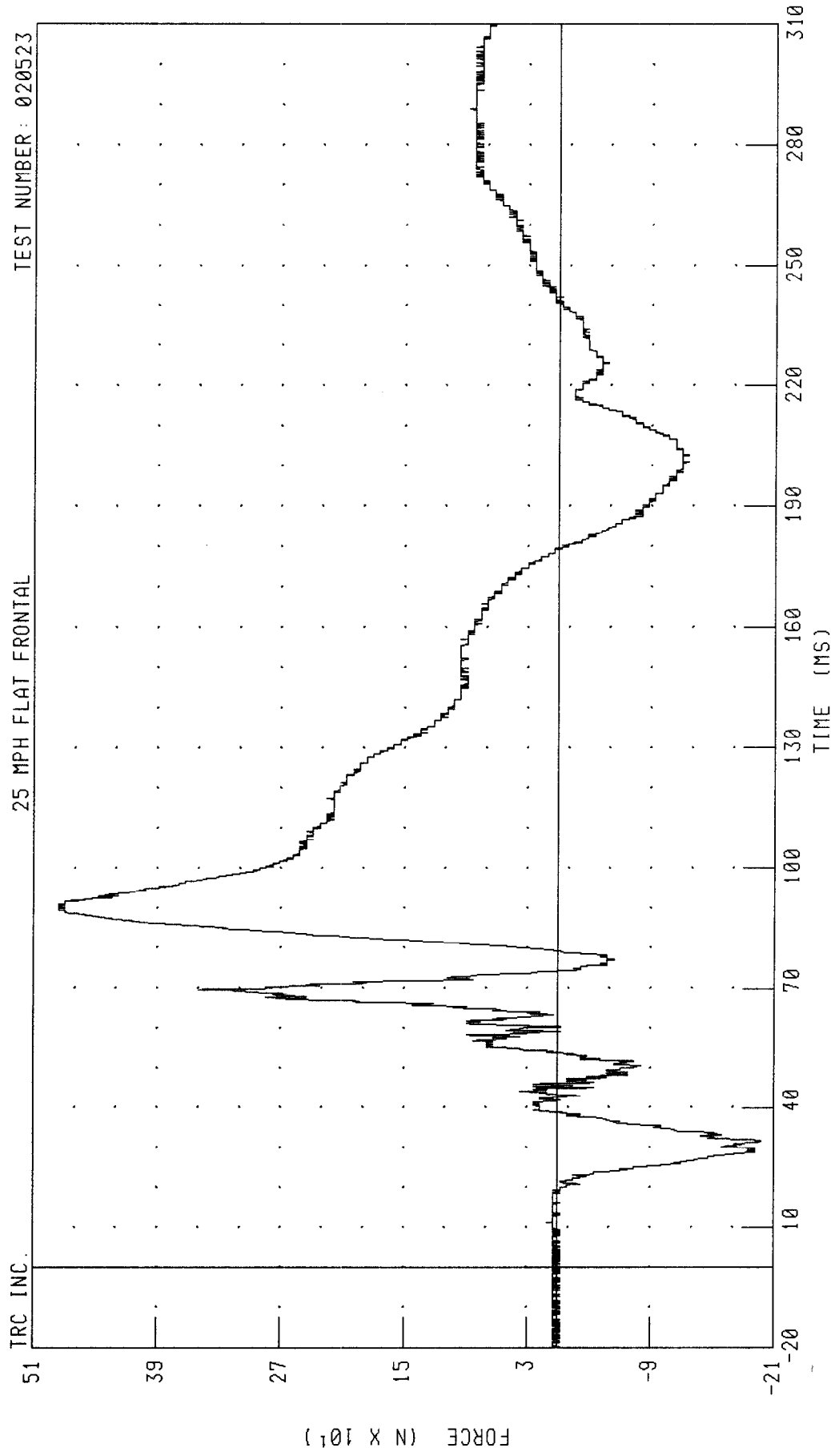
TEST NUMBER: 020523



TRC INC. CHANNEL: LMBXF1 FILTER: CH. CLASS 1000  
PEAK DATA: 578.40 N @ 78.72 MS, -463.24 N @ 39.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LUMBAR Y-AXIS FORCE  
25 MPH FLAT FRONTAL

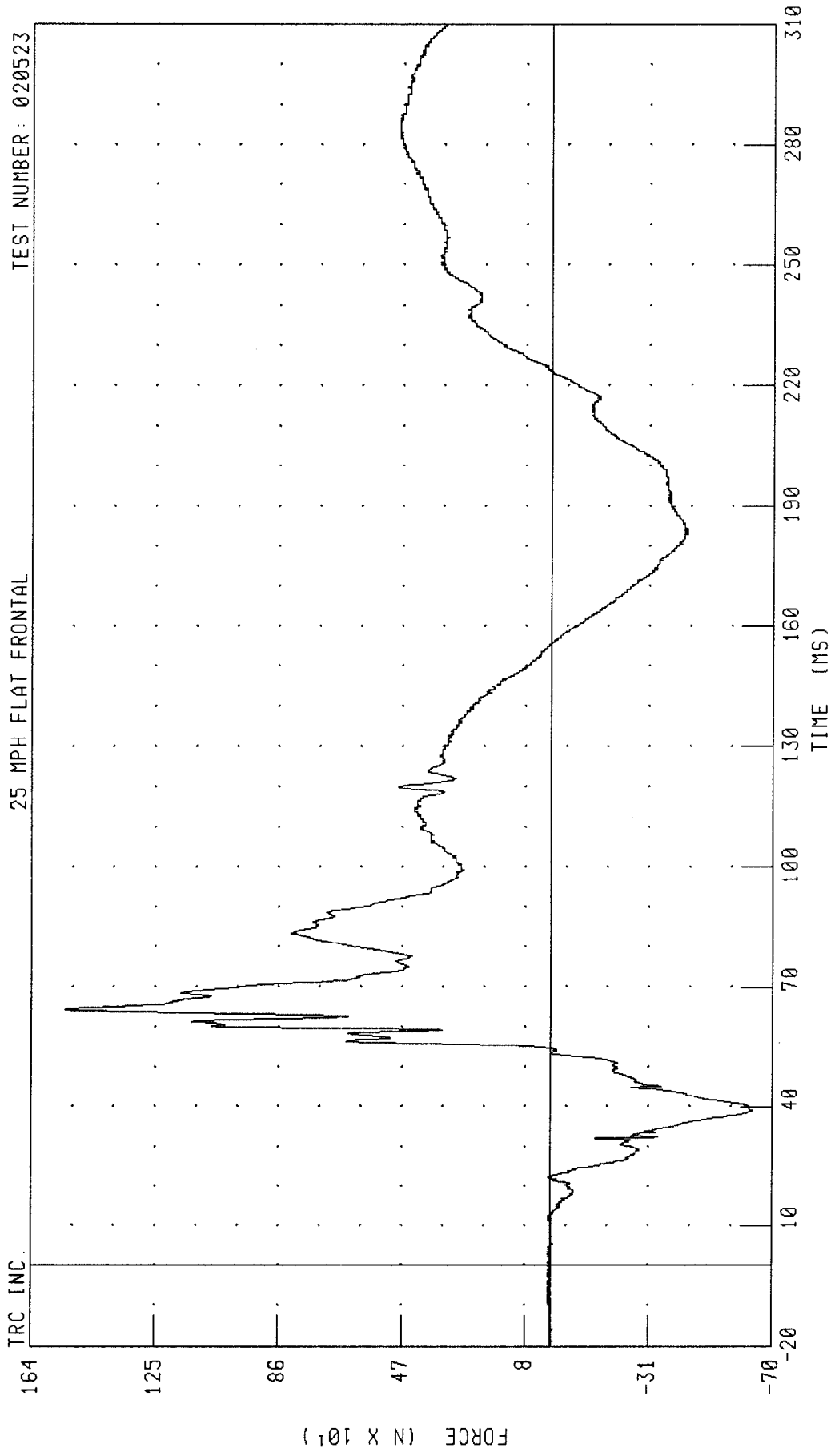
TEST NUMBER: 020523



CHANNEL: LMBYF1 FILTER: CH. CLASS 1000 PEAK DATA: 486.27 N @ 89.44 MS; -197.91 N @ 31.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LUMBAR Z-AXIS FORCE  
25 MPH FLAT FRONTAL

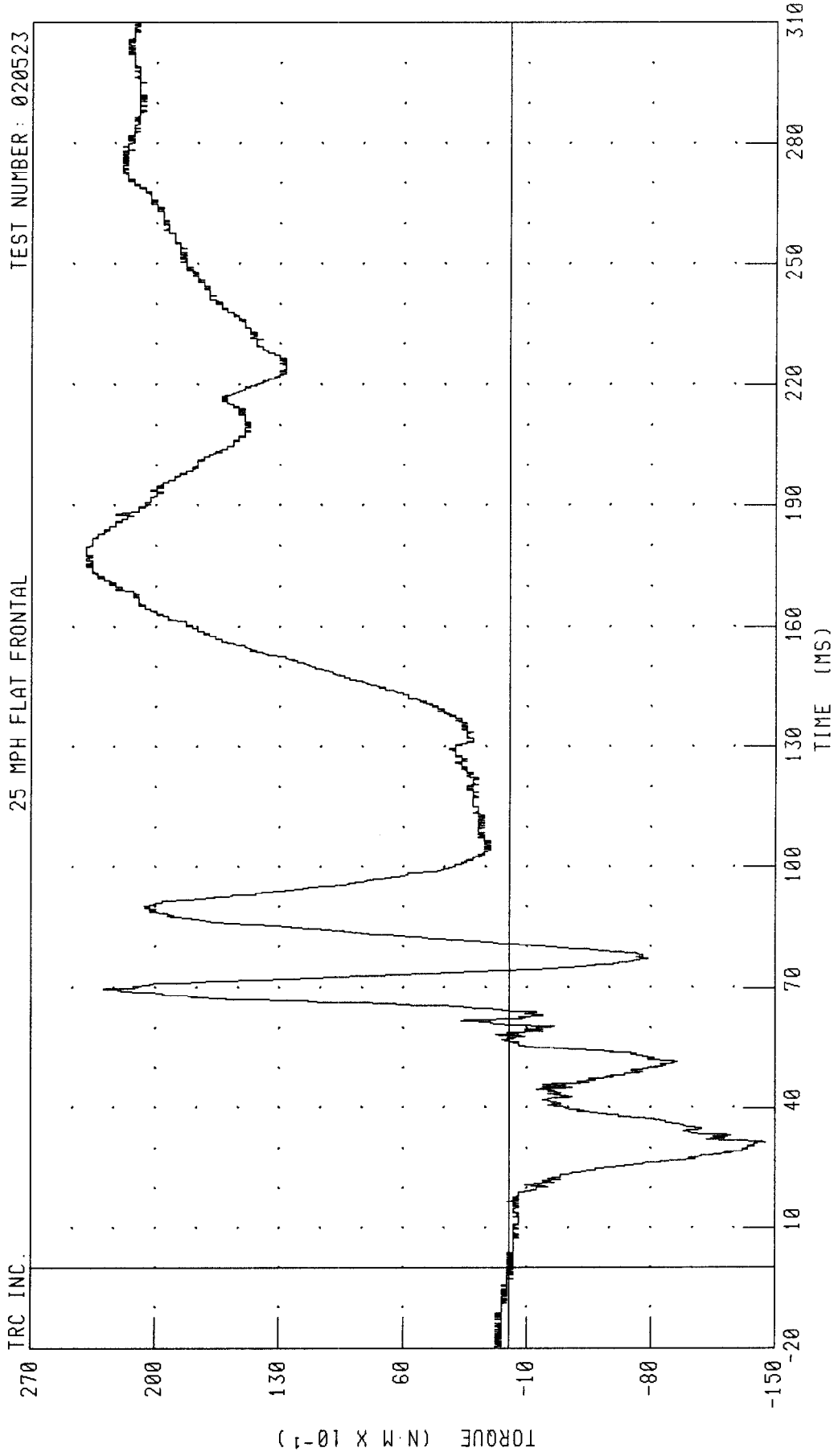
TEST NUMBER: 020523



CHANNEL: LMBZF1 FILTER: CH. CLASS 1000 PEAK DATA: 1534.44 N @ 64.40 MS, -637.34 N @ 38.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LUMBAR X-AXIS MOMENT  
25 MPH FLAT FRONTAL

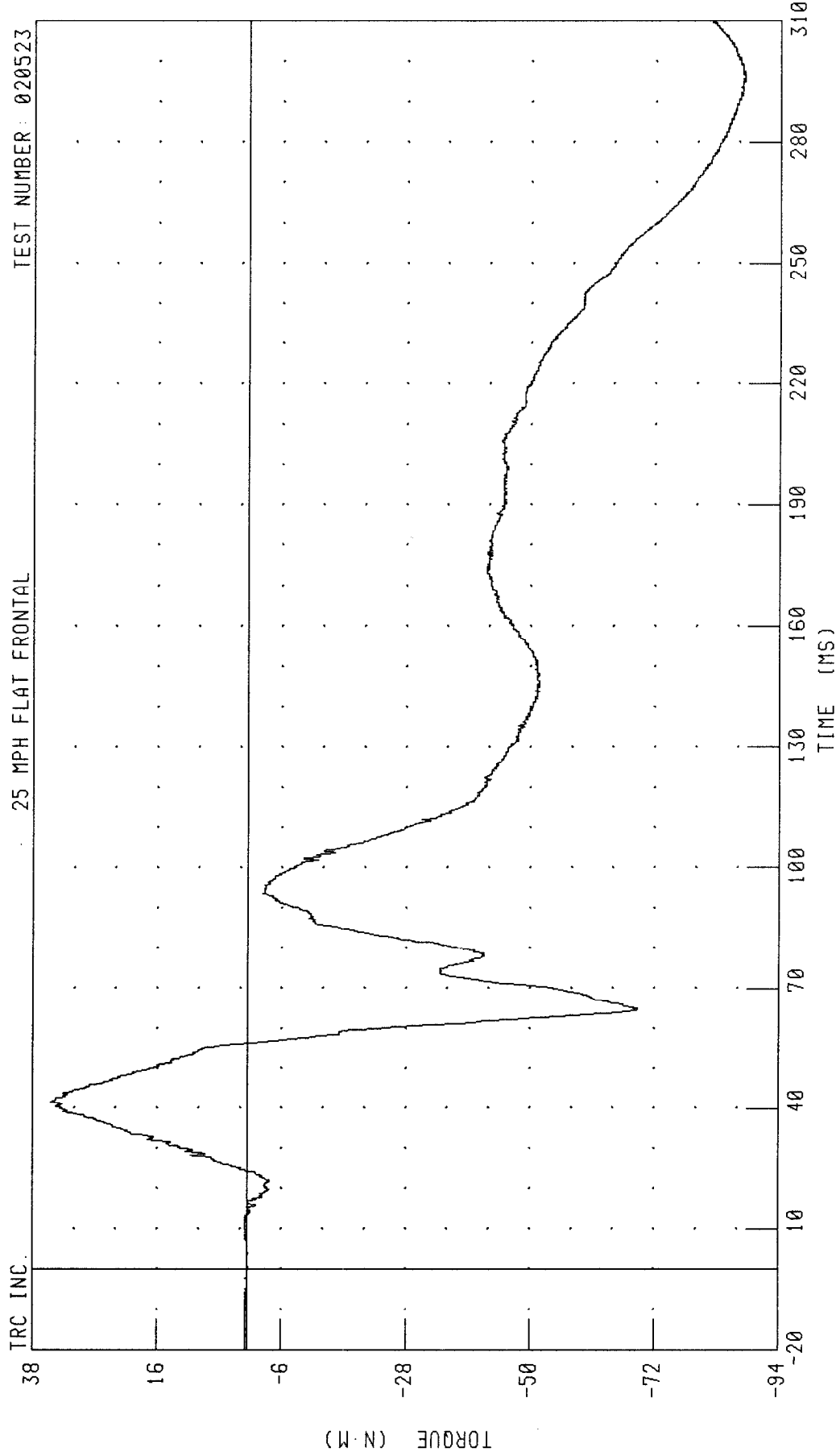
TEST NUMBER: 020523



CHANNEL: LMBXM1 FILTER: CH. CLASS 1000  
PEAK DATA: 23.93 N·M @ 175.12 MS; -14.48 N·M @ 31.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LUMBAR Y-AXIS MOMENT  
25 MPH FLAT FRONTAL

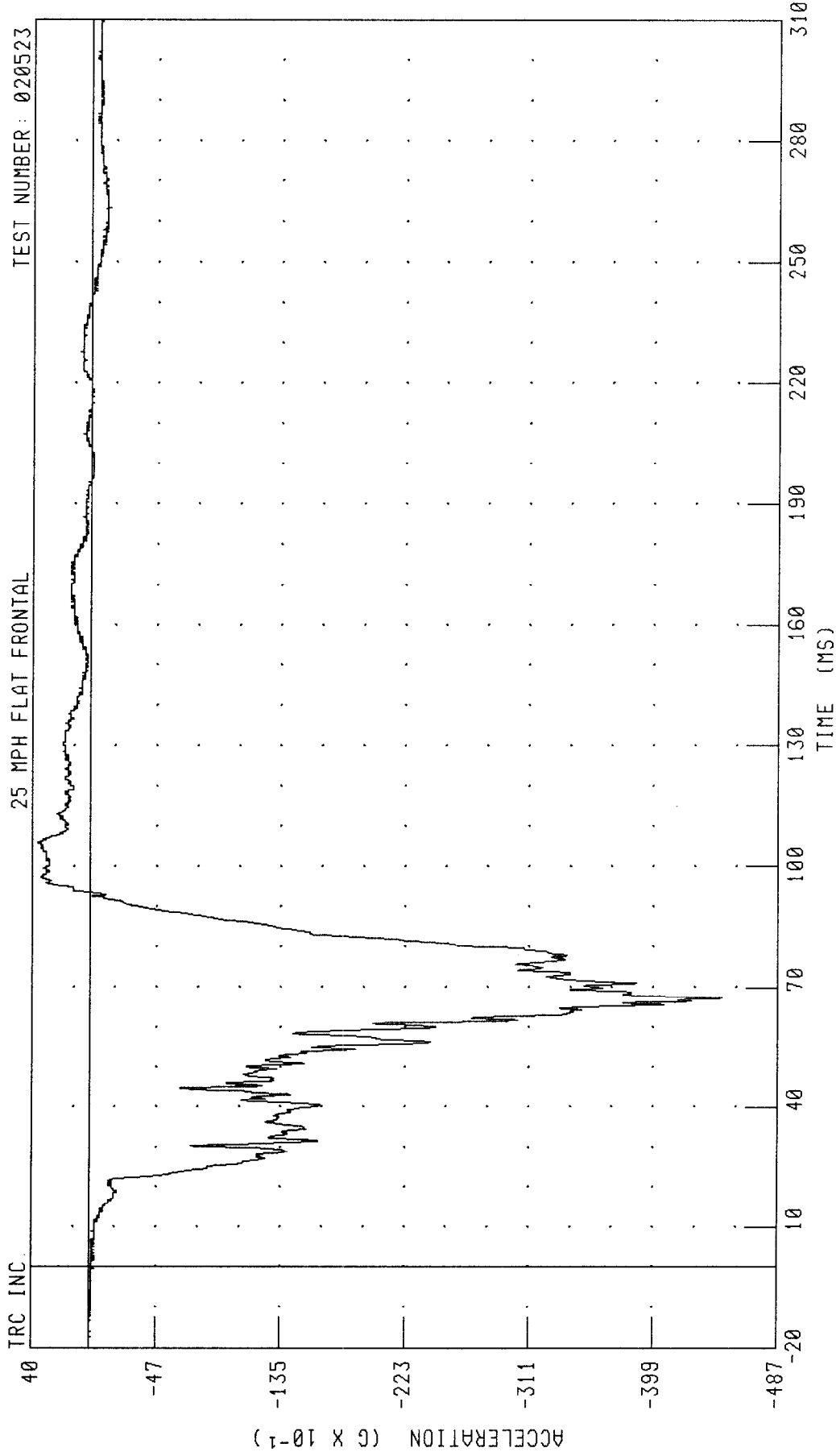
TEST NUMBER: 020523



CHANNEL: LMBYM1 FILTER: CH. CLASS 1000  
PEAK DATA: 34.89 N·M @ 41.76 MS; -87.60 N·M @ 294.88 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER PELVIS X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

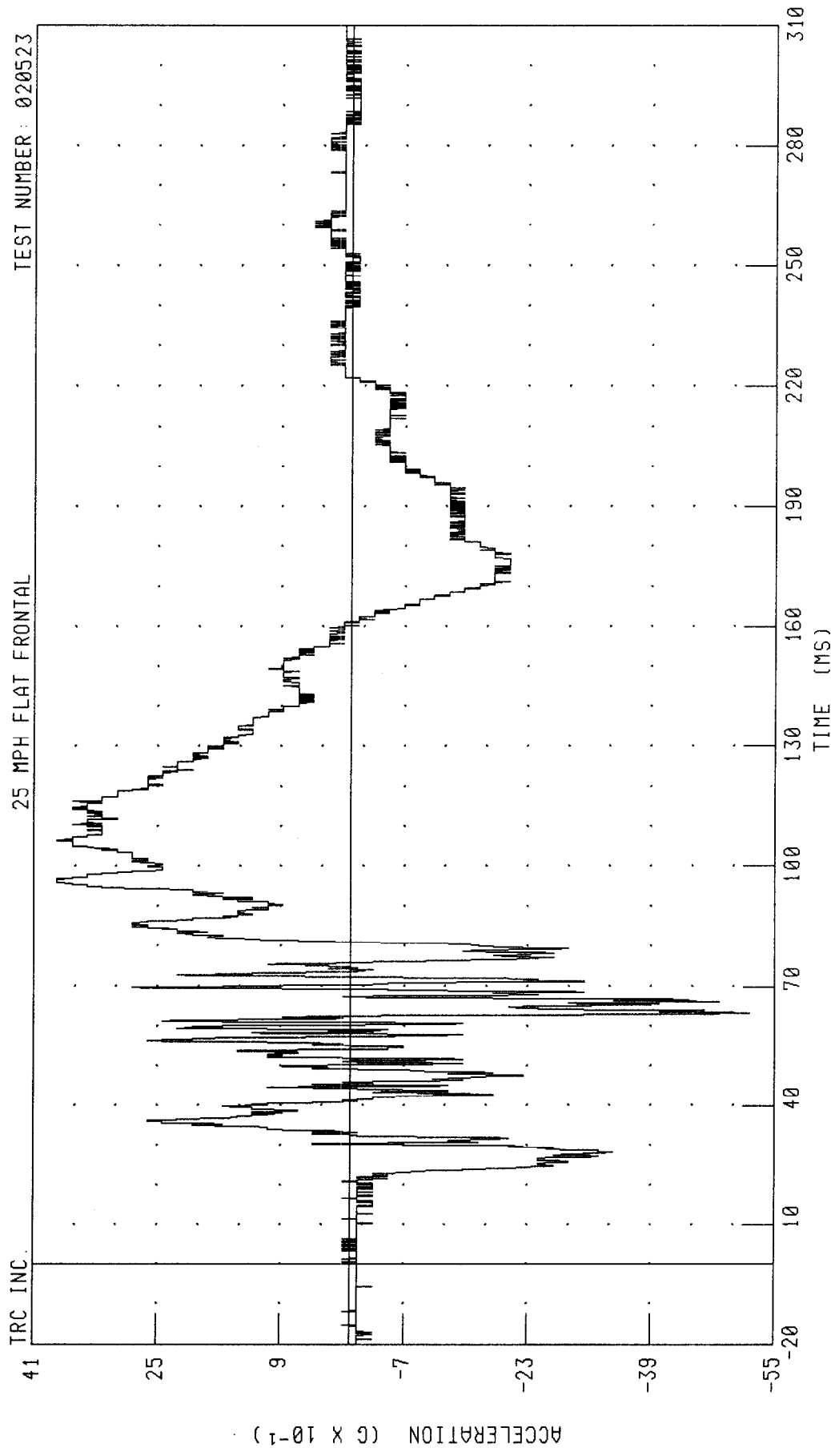
TEST NUMBER: 020523



CHANNEL: PEVXG1 FILTER: CH. CLASS 1000 PEAK DATA: 3.73 G @ 105.68 MS; -44.75 G @ 67.28 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER PELVIS Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

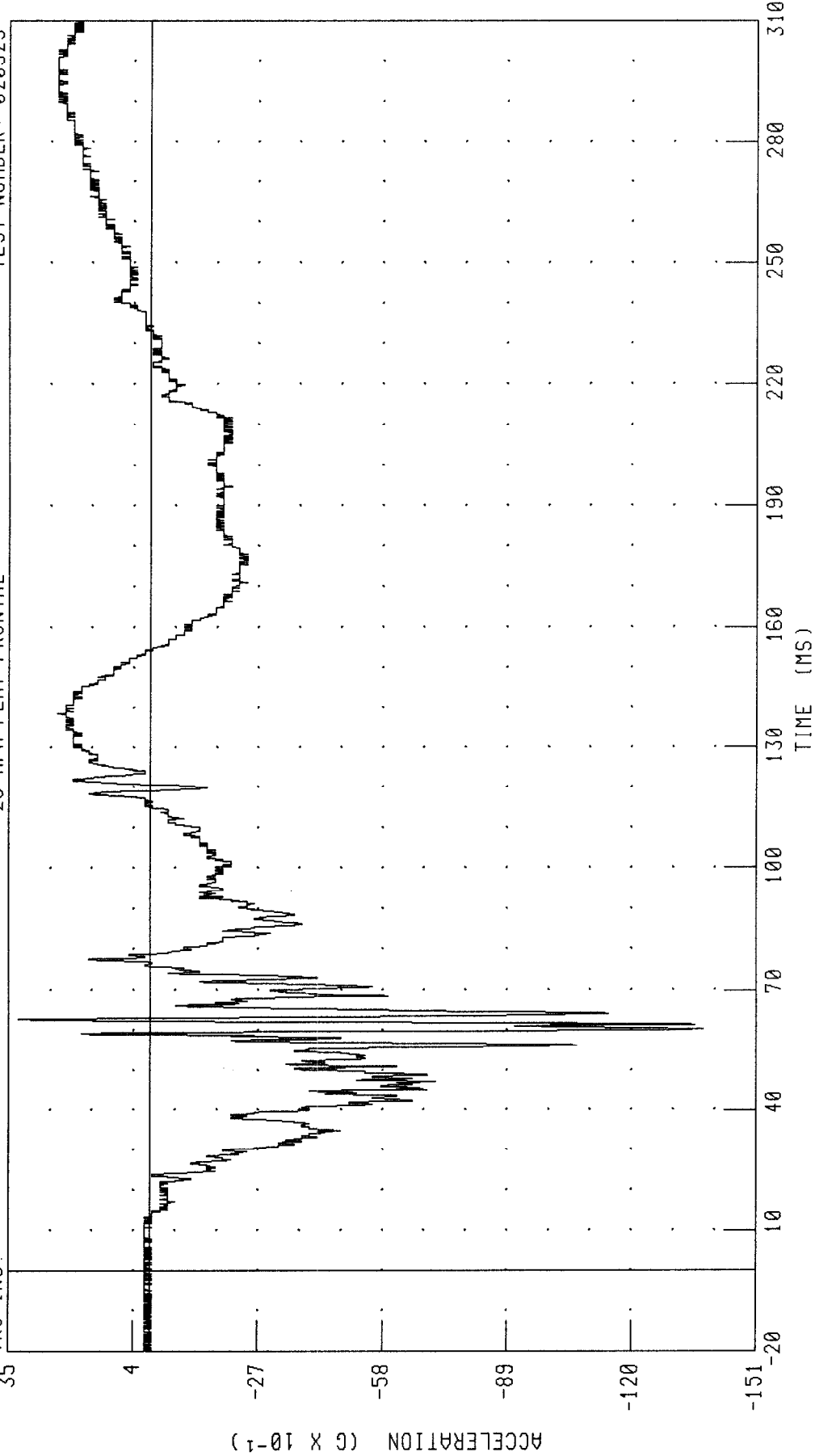


CHANNEL: PEVYG1 FILTER: CH. CLASS 1000  
PEAK DATA: 3.80 G @ 95.92 MS; -5.18 G @ 63.28 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER PELVIS Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



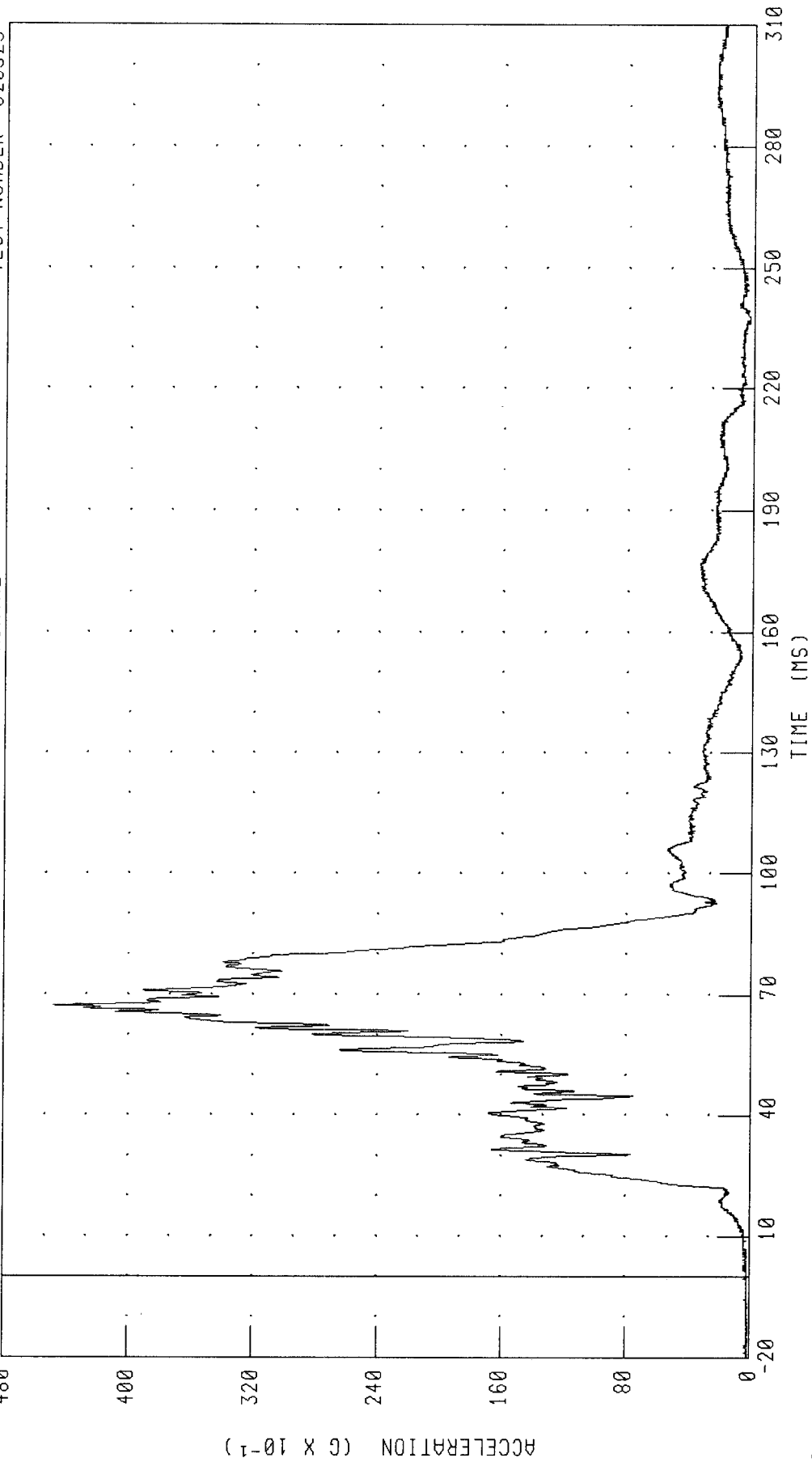
CHANNEL: PEVZG1 FILTER: CH. CLASS 1000

PEAK DATA: 3.27 G @ 62.72 MS, -13.79 G @ 60.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER PELVIS RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TRC INC.

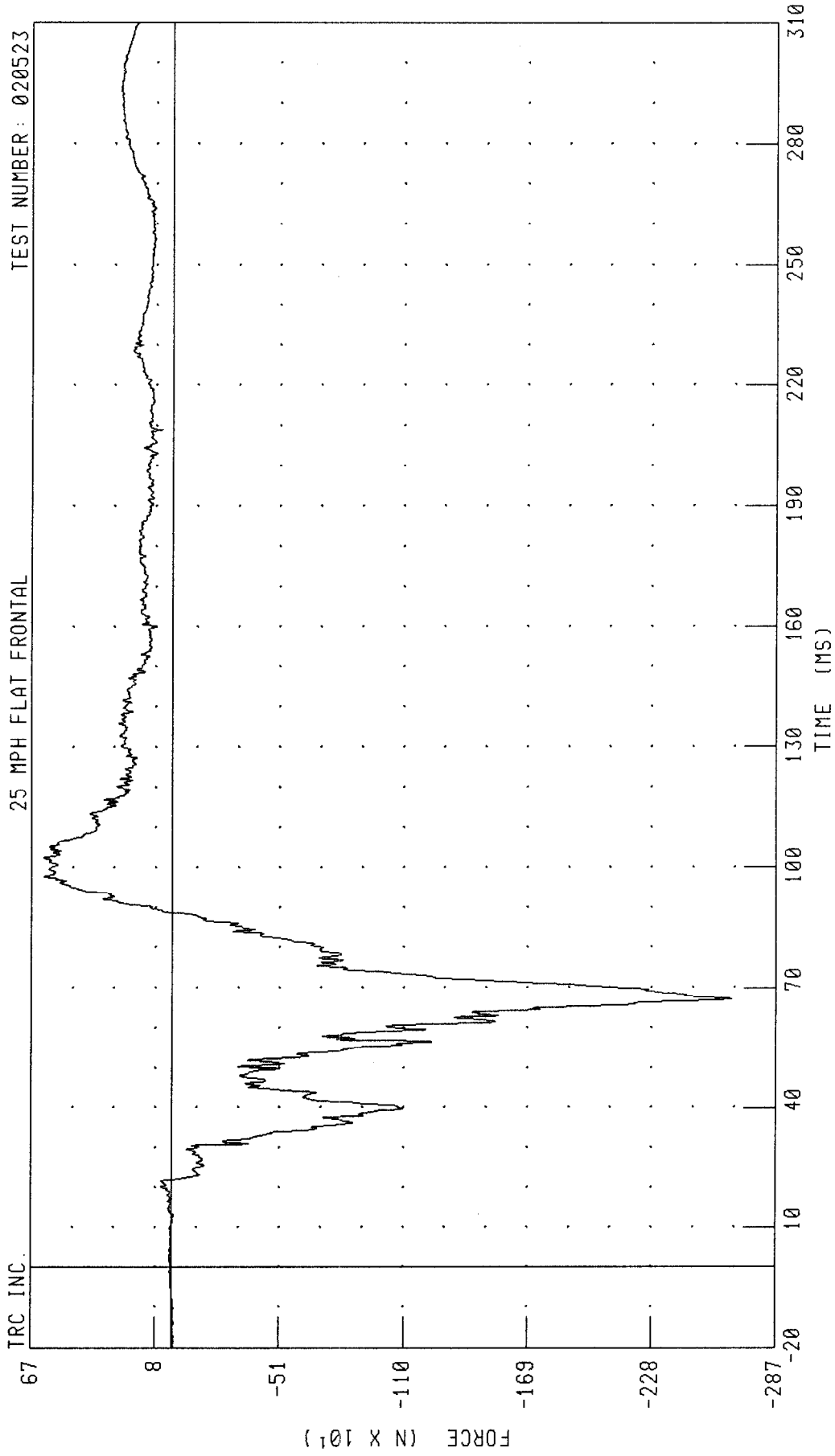
TEST NUMBER: 020523



CHANNEL: PEVRG1 FILTER: CH. CLASS 1000  
PEAK DATA: 44.80 G @ 67.28 MS; 0.13 G @ -19.84 MS

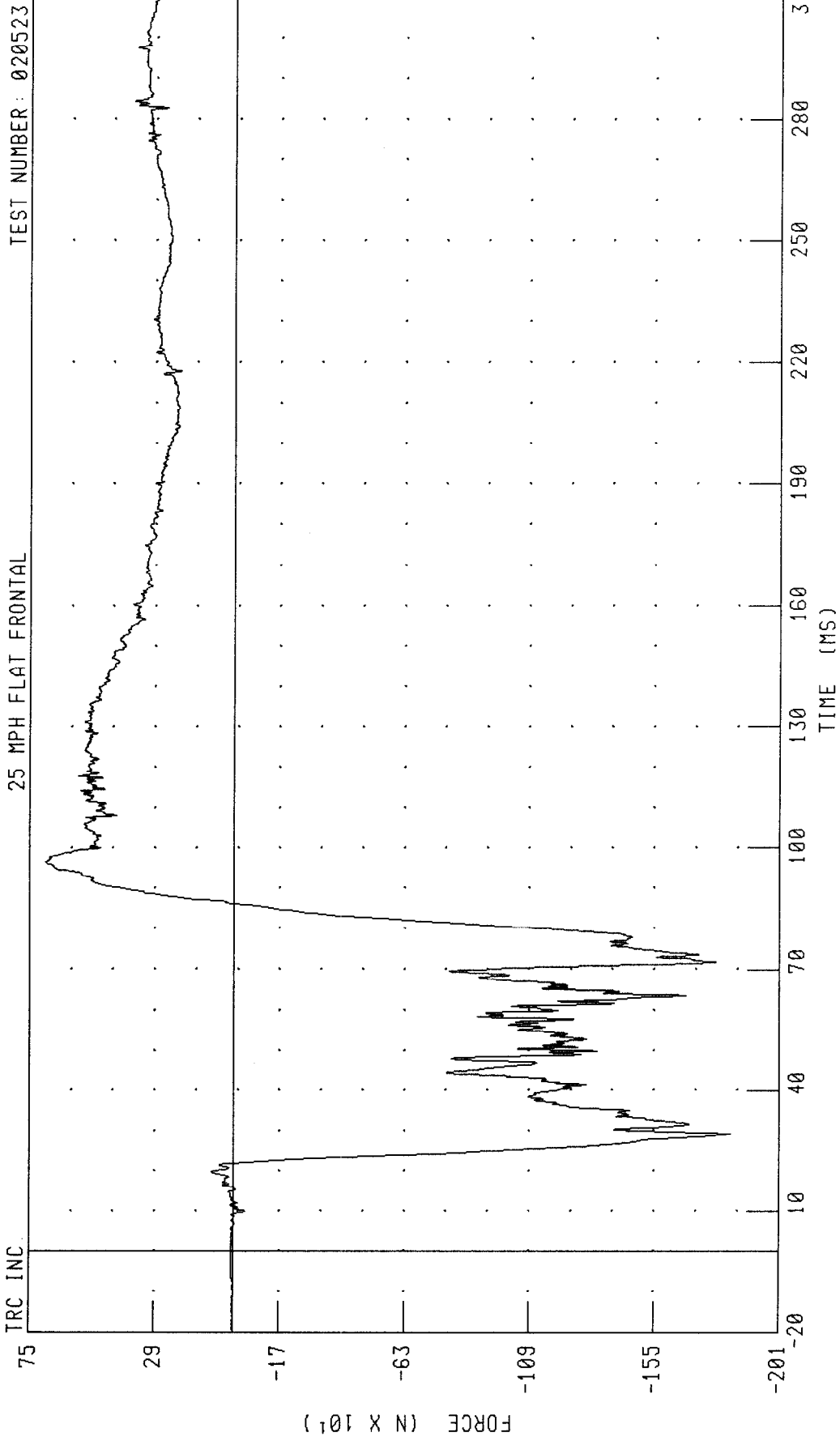
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FEMUR FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: LFMZF1 FILTER: CH. CLASS 600  
PEAK DATA: 613.38 N @ 102.48 MS; -2658.23 N @ 67.20 MS

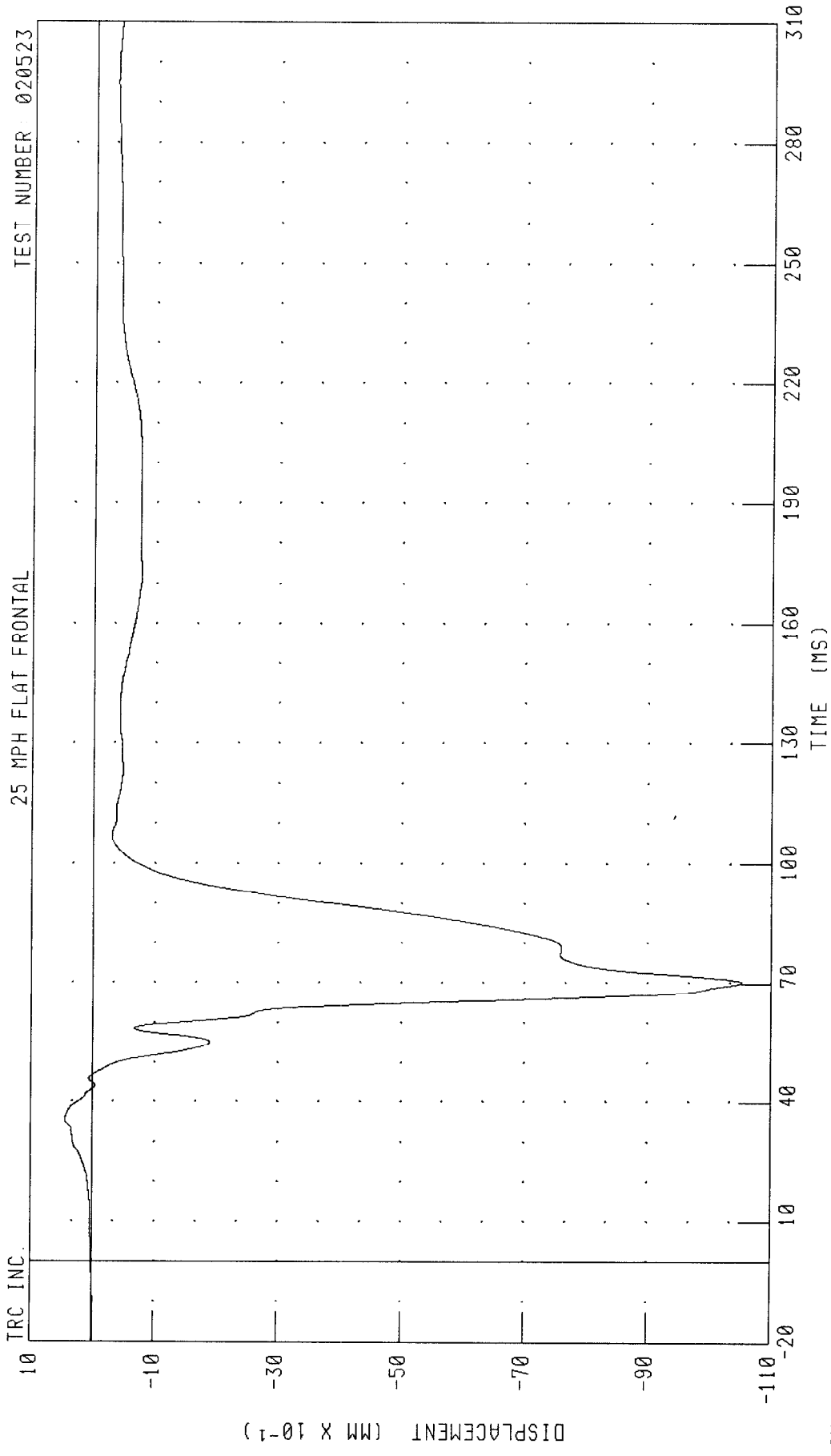
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FEMUR FORCE  
25 MPH FLAT FRONTAL



CHANNEL: RFMZFI FILTER: CH. CLASS 600 PEAK DATA: 690.59 N @ 96.48 MS, -1829.67 N @ 29.20 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT TIBIA TO FEMUR DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER 020523



CHANNEL: KNLXD1 FILTER: CH. CLASS 180 PEAK DATA: 0.45 MM @ 35.44 MS, -10.53 MM @ 70.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT TIBIA TO FEMUR DISPLACEMENT  
25 MPH FLAT FRONTAL

TRC INC. TEST NUMBER: 020523

20

10

DISPLACEMENT (MM X 10<sup>-1</sup>)

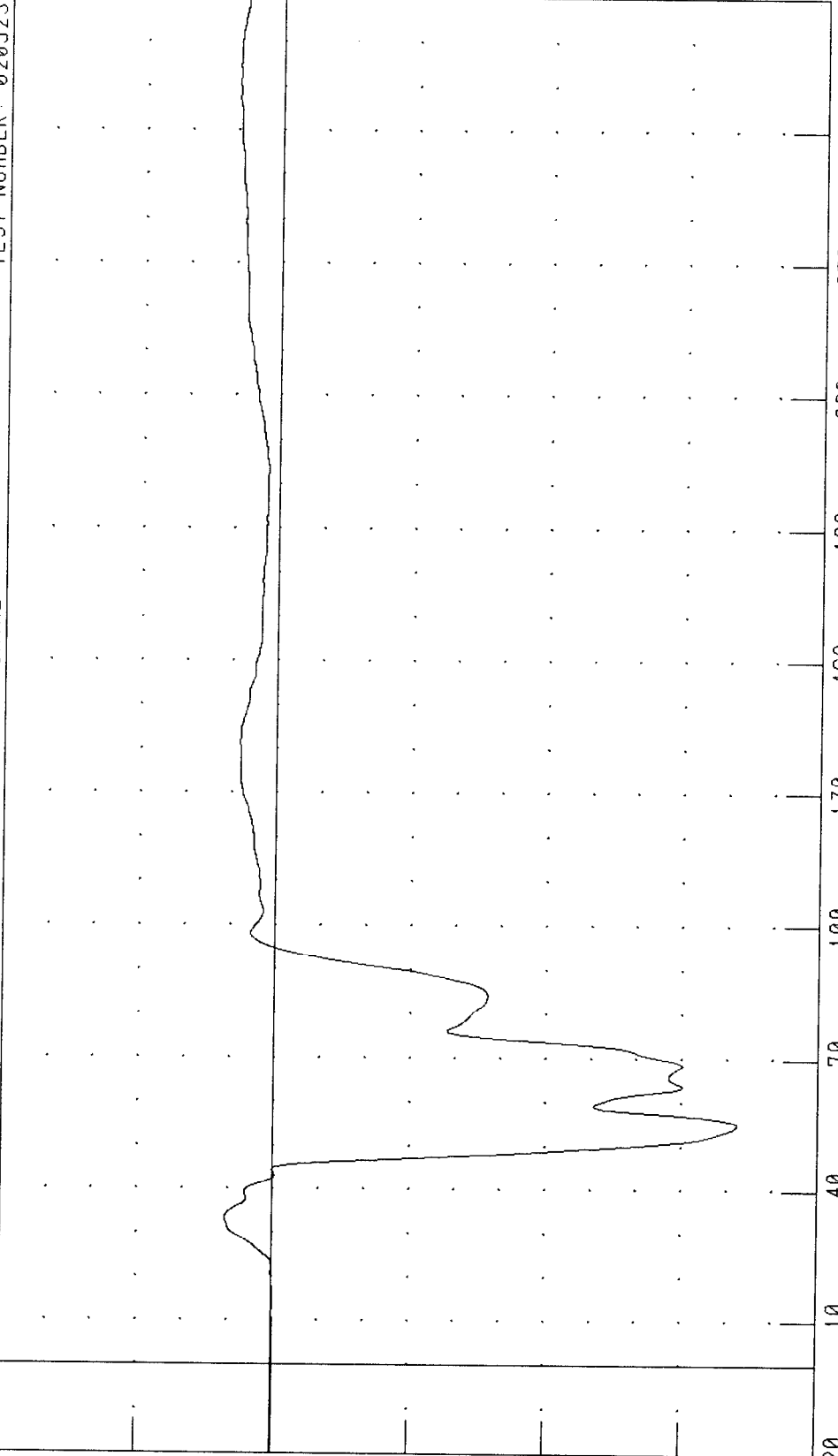
0

-10

-20

-30

-40



TIME (MS)

CHANNEL: KNRXD1

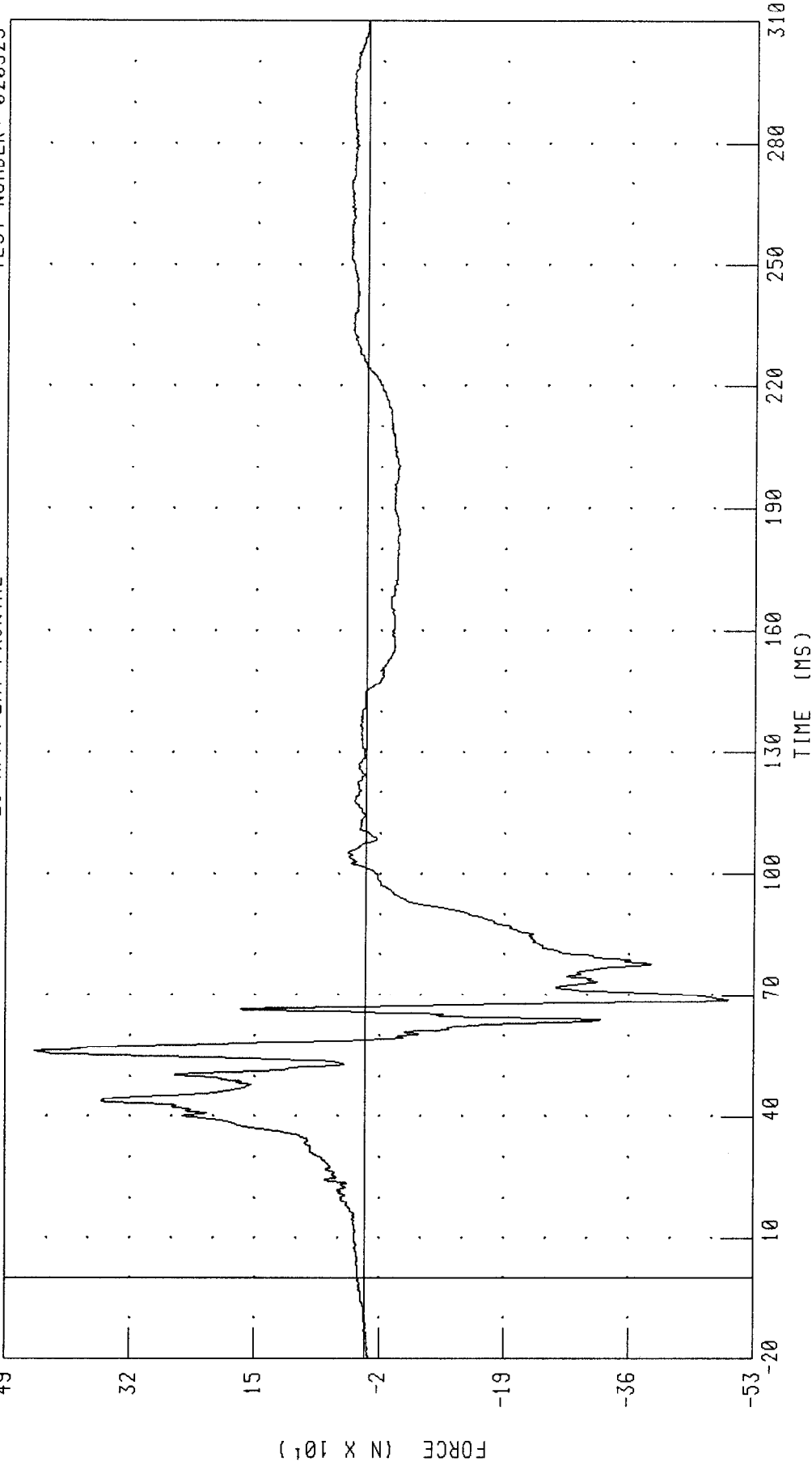
FILTER: CH. CLASS 180

PEAK DATA: 0.35 MM @ 33.36 MS, -3.41 MM @ 55.04 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT UPPER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TRC INC.

TEST NUMBER: 020523



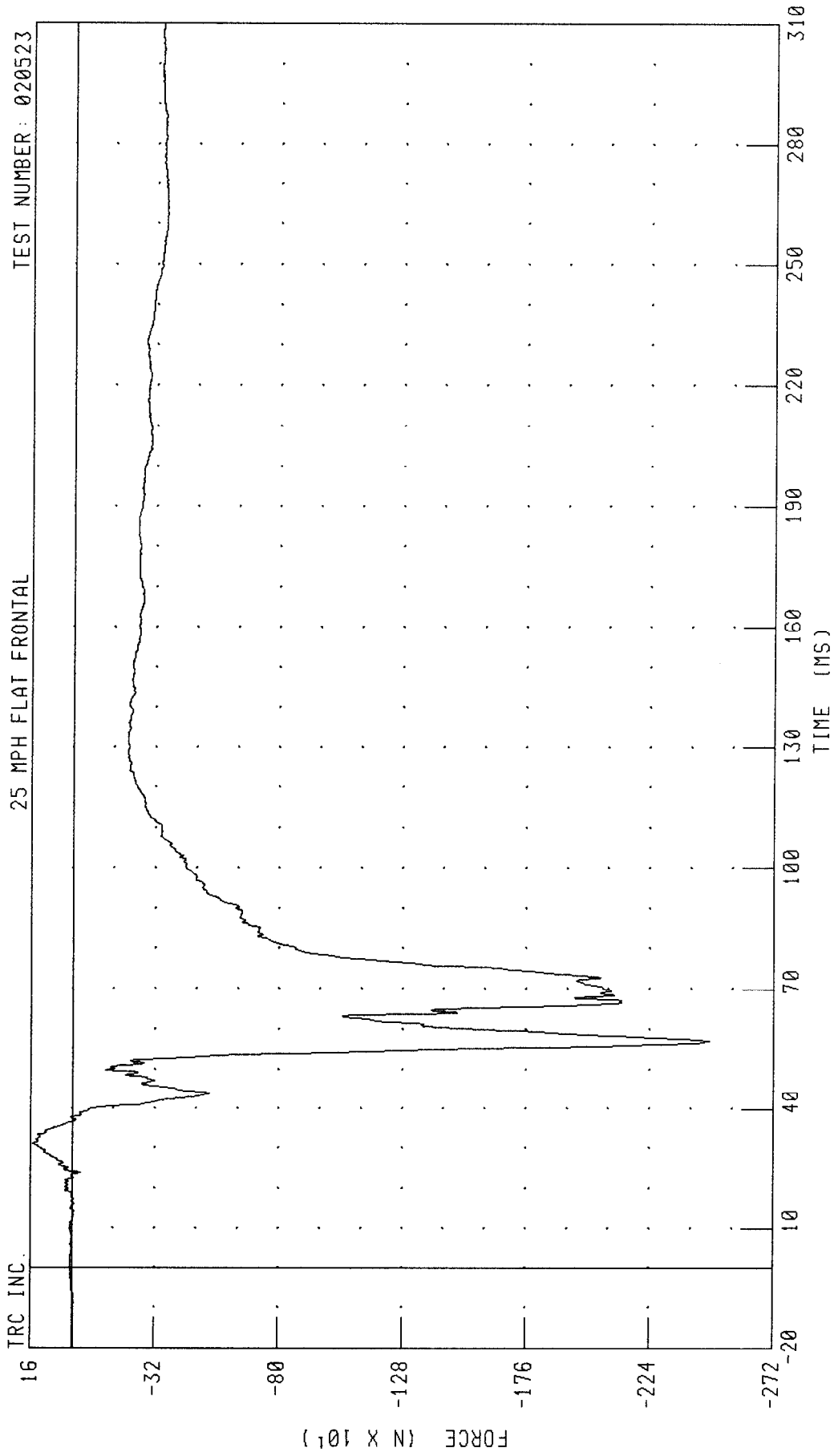
CHANNEL: TBLXF1 FILTER: CH. CLASS 600  
PEAK DATA: 450.44 N @ 56.16 MS, -495.25 N @ 68.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH

DRIVER LEFT UPPER TIBIA Z-AXIS FORCE

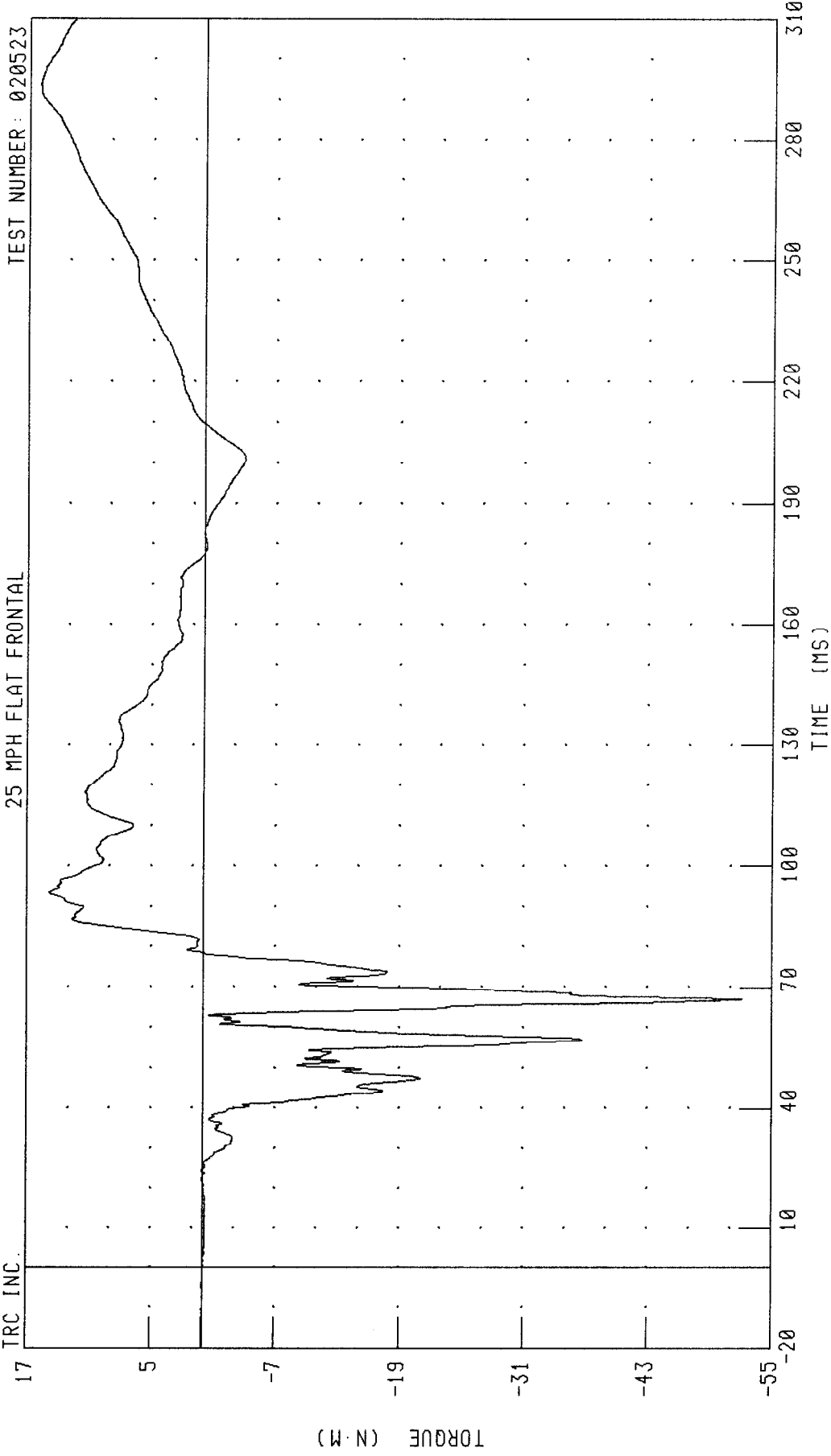
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: TBLZF1 FILTER: CH. CLASS 600 PEAK DATA: 152.69 N @ 31.20 MS; -2474.47 N @ 57.04 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT UPPER TIBIA MOMENT ABOUT X AXIS



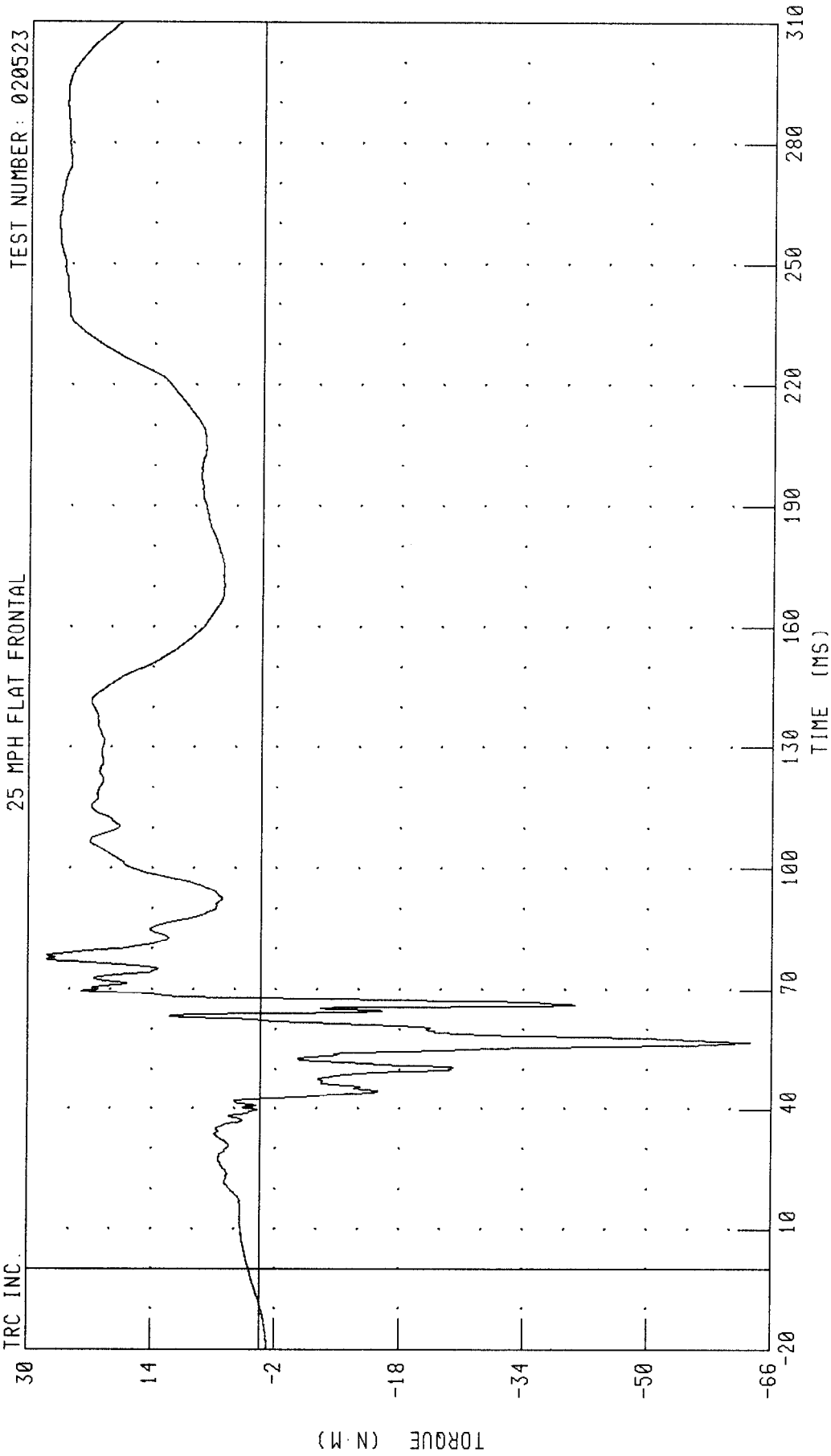
CHANNEL: TBLXM1 FILTER: CH. CLASS 600

PEAK DATA: 15.97 N·M @ 293.68 MS; -52.21 N·M @ 66.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS

TEST NUMBER: 020523

TRC INC.



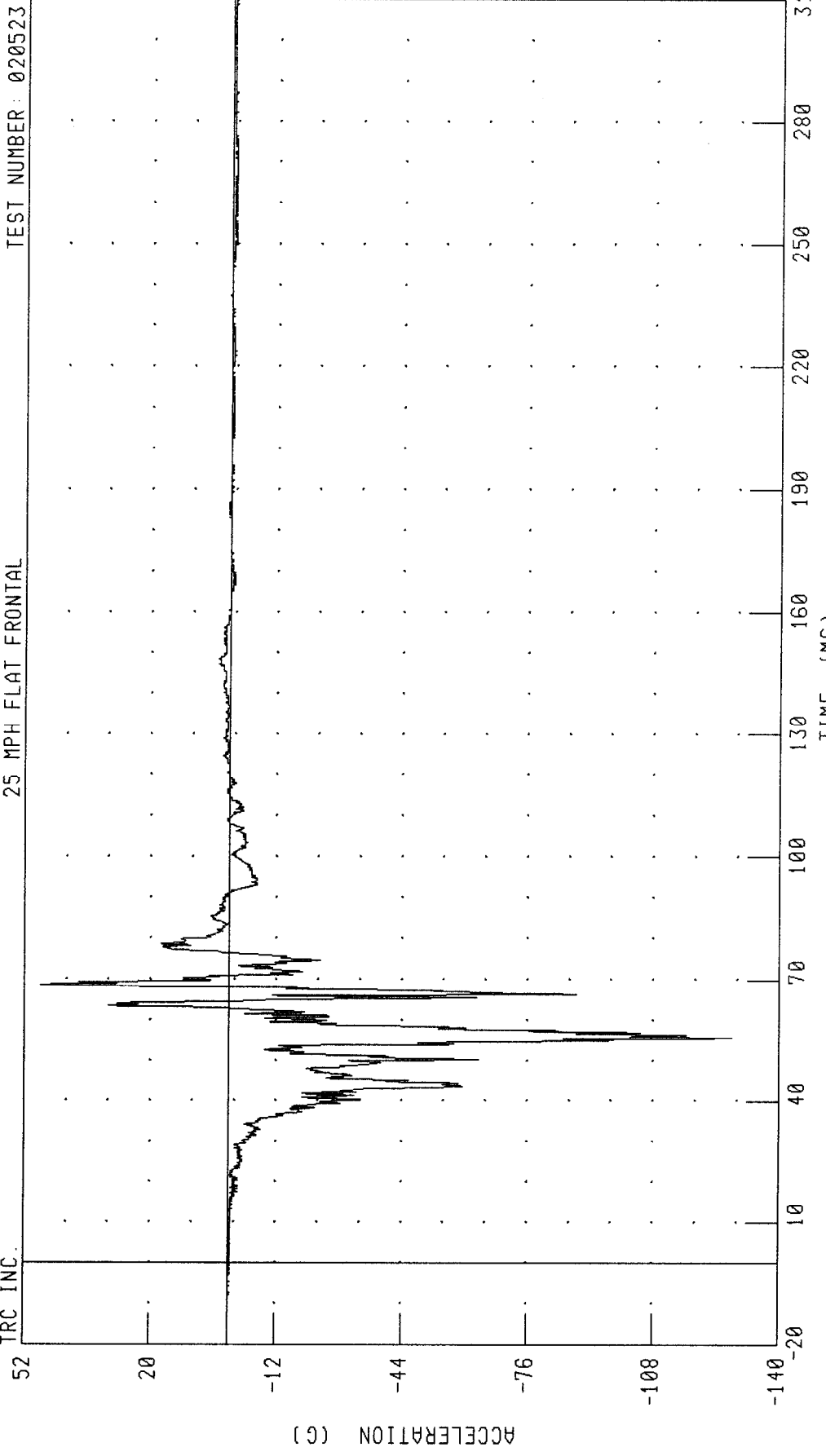
CHANNEL: TBLYM1

FILTER: CH. CLASS 600

TIME (MS)

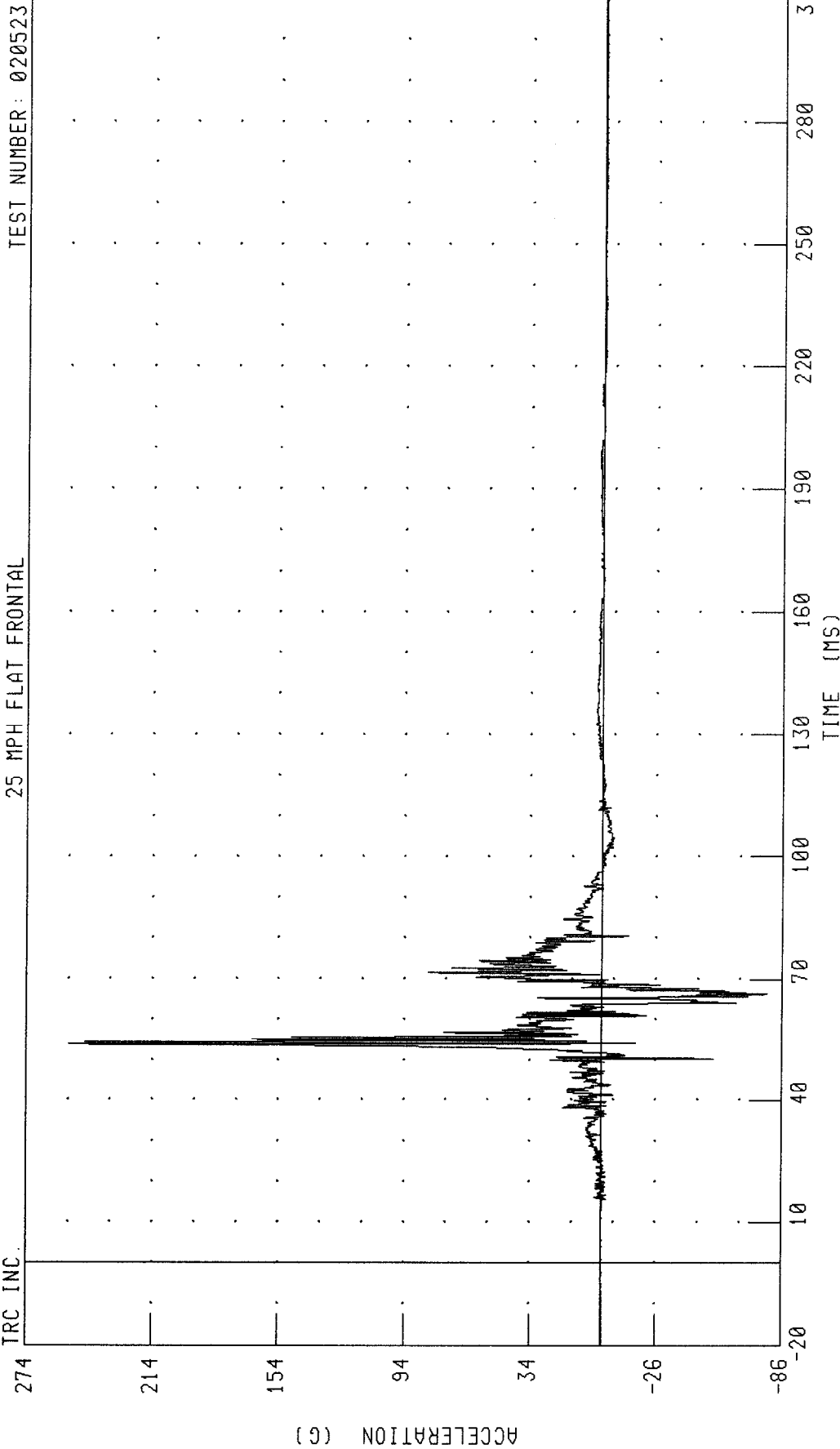
PEAK DATA: 27.65 N·M @ 77.52 MS; -63.32 N·M @ 56.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT TIBIA X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL



TRC INC. CHANNEL: TBLXG1 FILTER: CH. CLASS 1000  
PEAK DATA: 48.13 G @ 68.72 MS, -128.06 G @ 55.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT TIBIA Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL



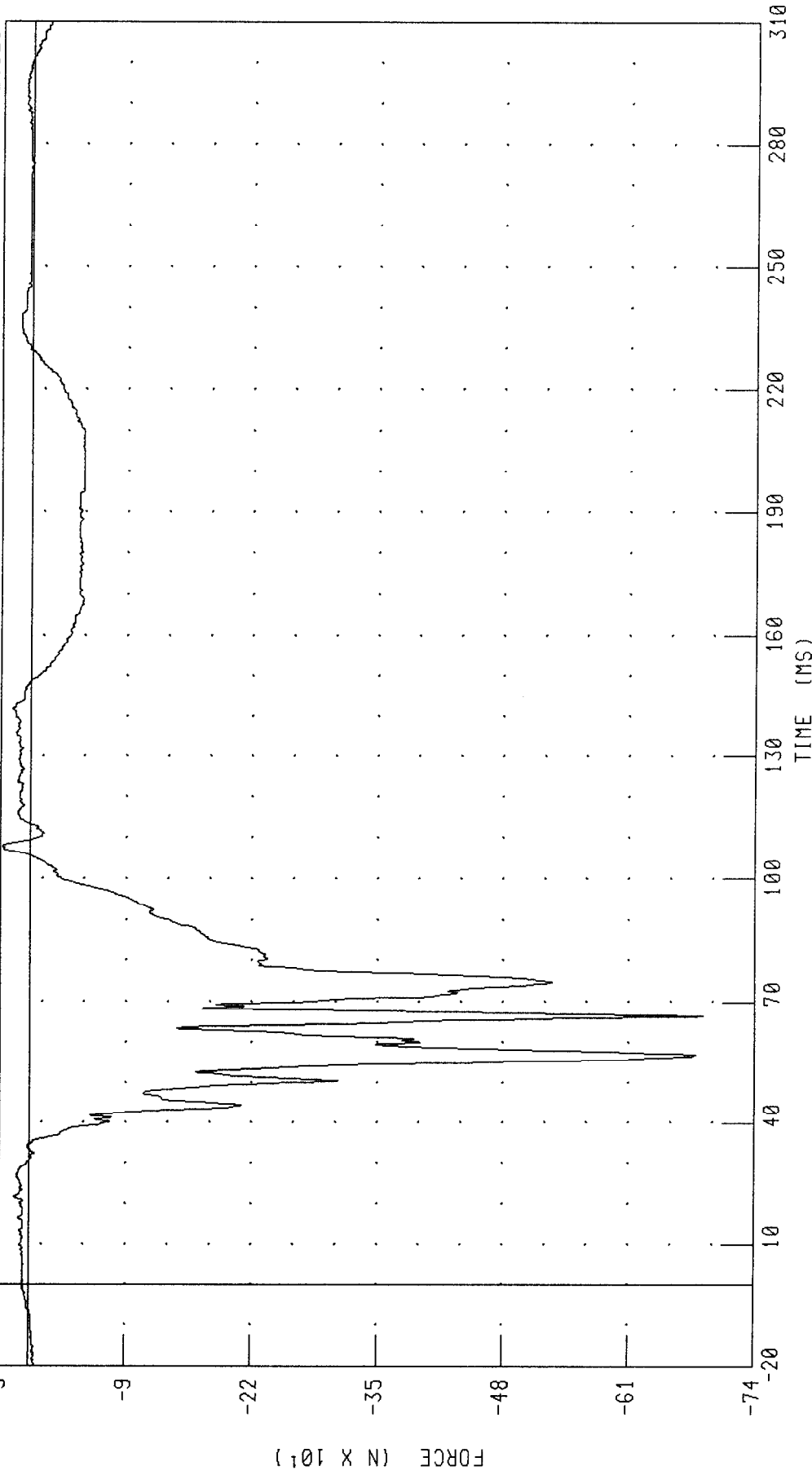
CHANNEL: TBLZG1 FILTER: CH. CLASS 1000 PEAK DATA: 253.80 G @ 53.76 MS; -78.85 G @ 66.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT LOWER TIBIA X-AXIS FORCE

TRC INC.

25 MPH FLAT FRONTAL

TEST NUMBER: 020523



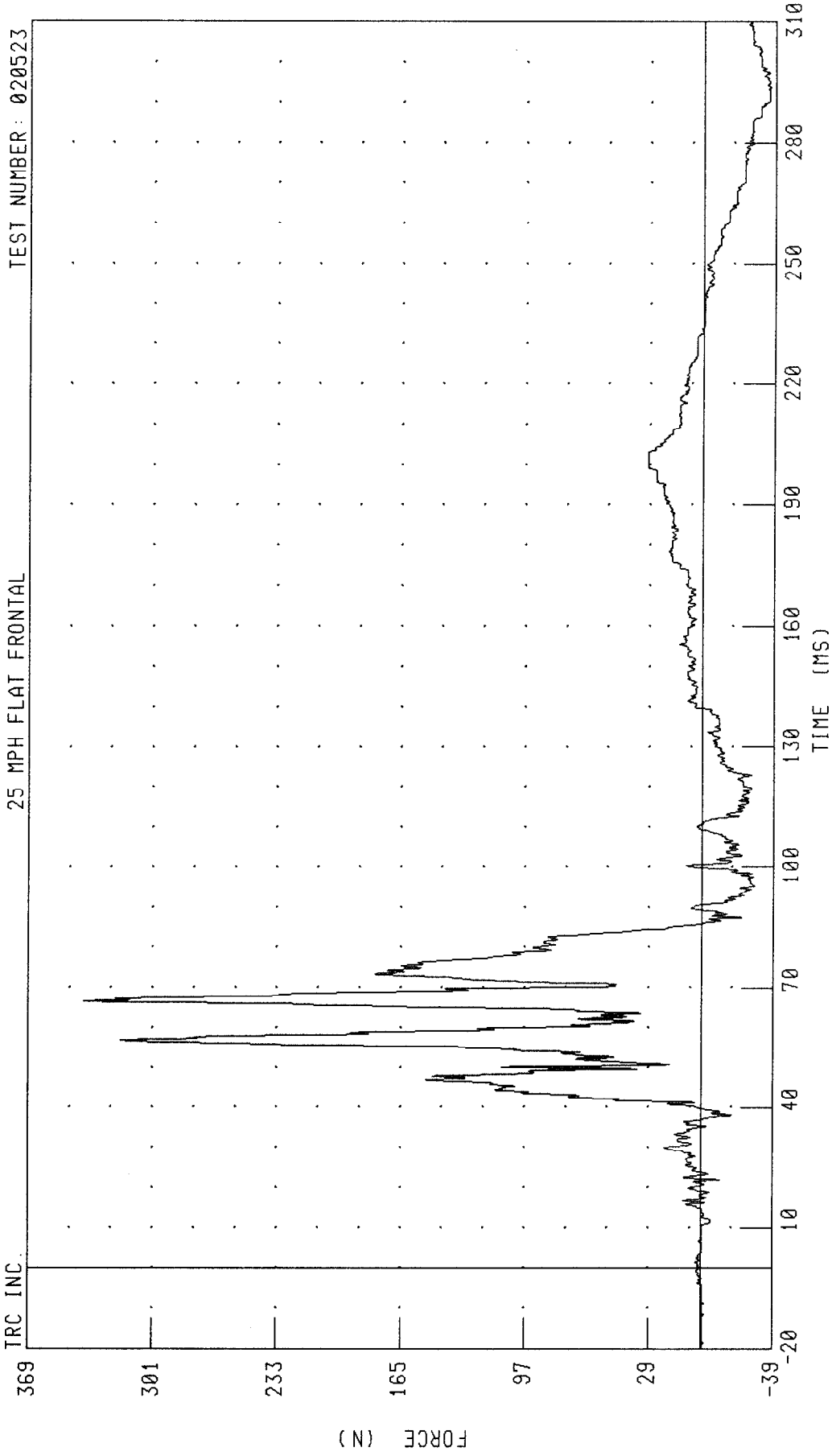
CHANNEL: ANLXF1 FILTER: CH. CLASS 600

PEAK DATA: 29.05 N @ 108.00 MS, -695.82 N @ 66.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT LOWER TIBIA Y-AXIS FORCE

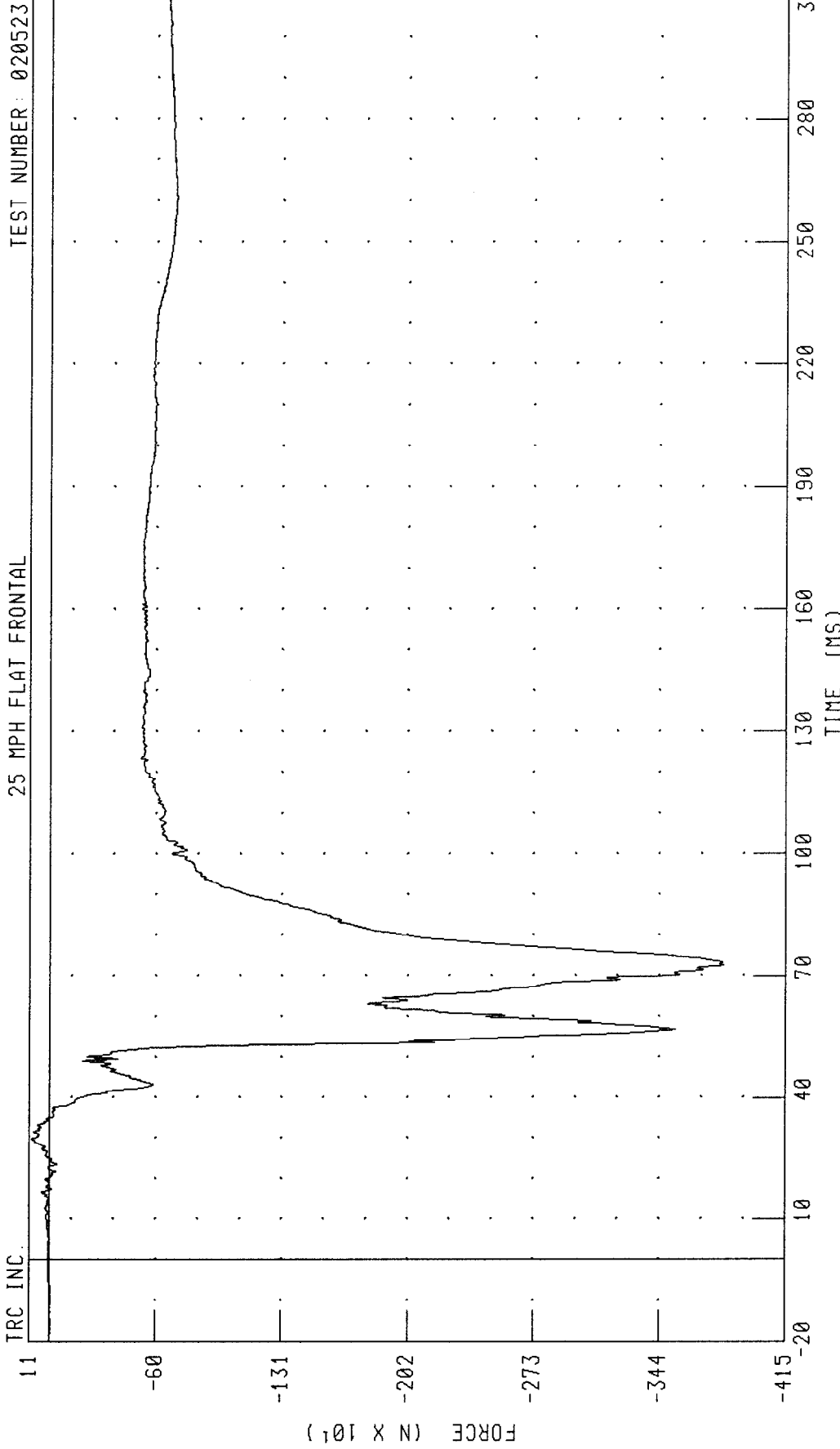
TRC INC. TEST NUMBER: 020523

25 MPH FLAT FRONTAL



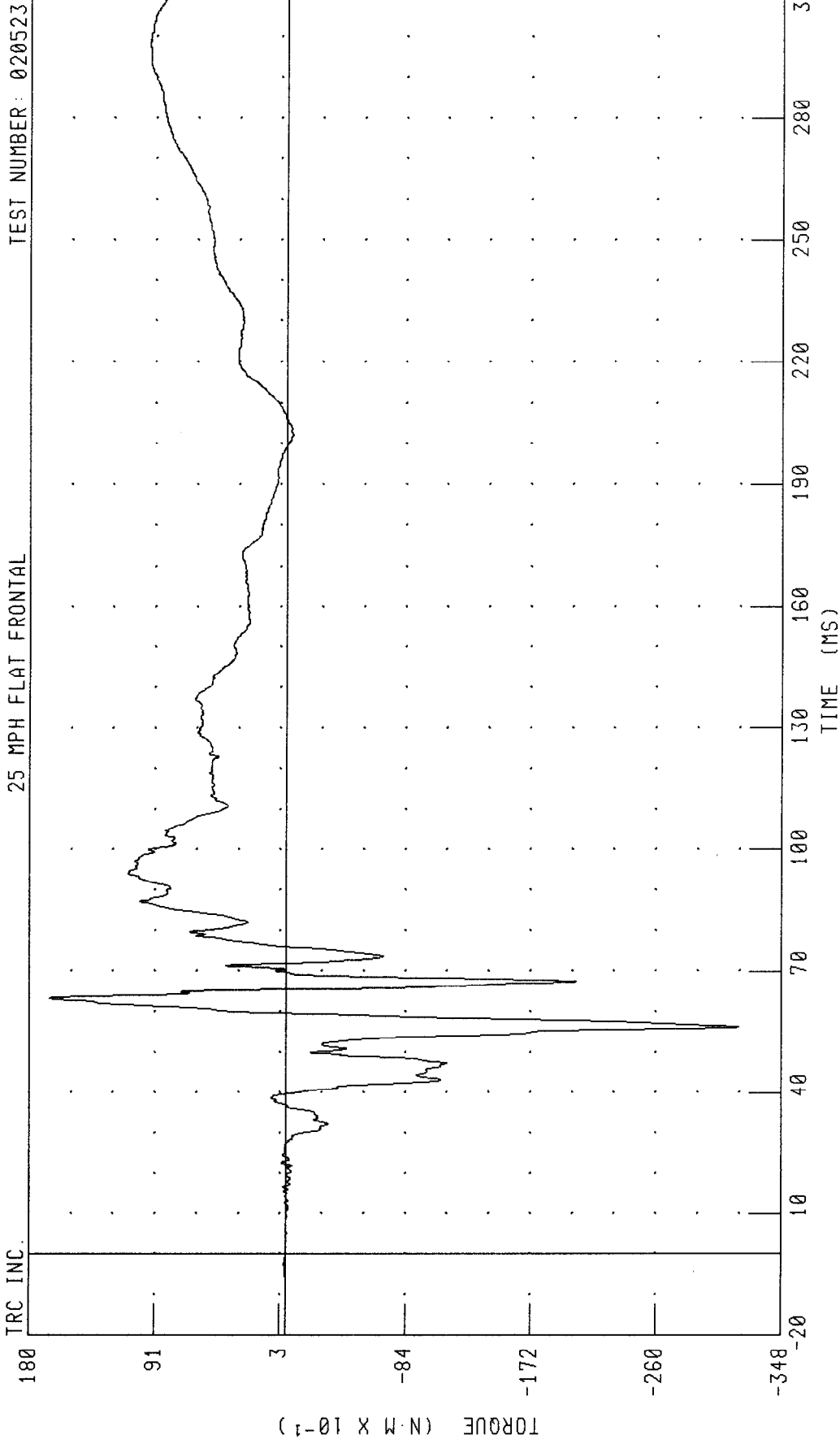
CHANNEL: ANLYF1 FILTER: CH. CLASS 600  
PEAK DATA: 338.67 N @ 66.56 MS; -36.24 N @ 293.84 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT LOWER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL



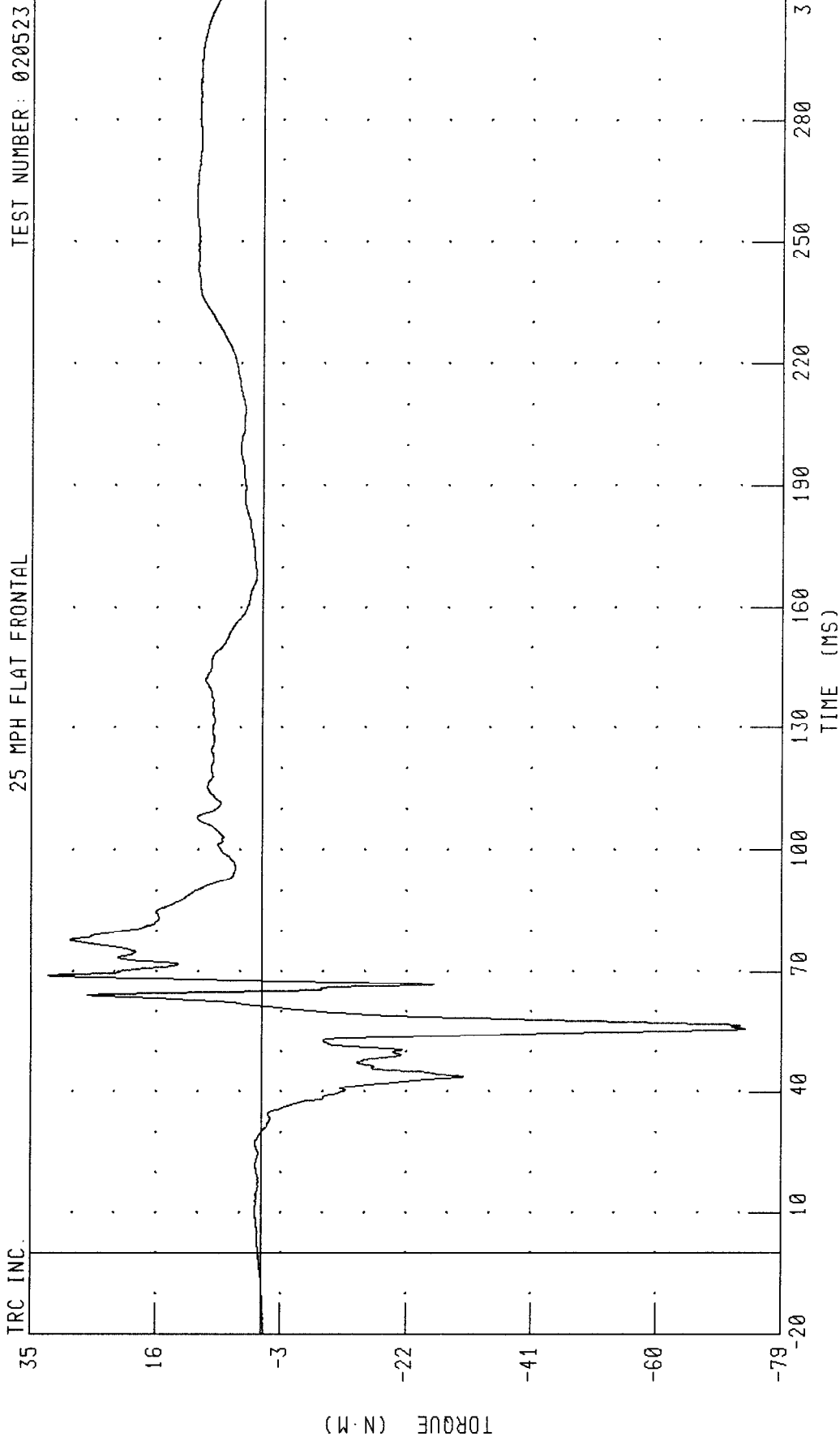
CHANNEL: ANLZF1 FILTER: CH. CLASS 600 PEAK DATA: 100.85 N @ 29.76 MS; -3803.51 N @ 72.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT LOWER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL



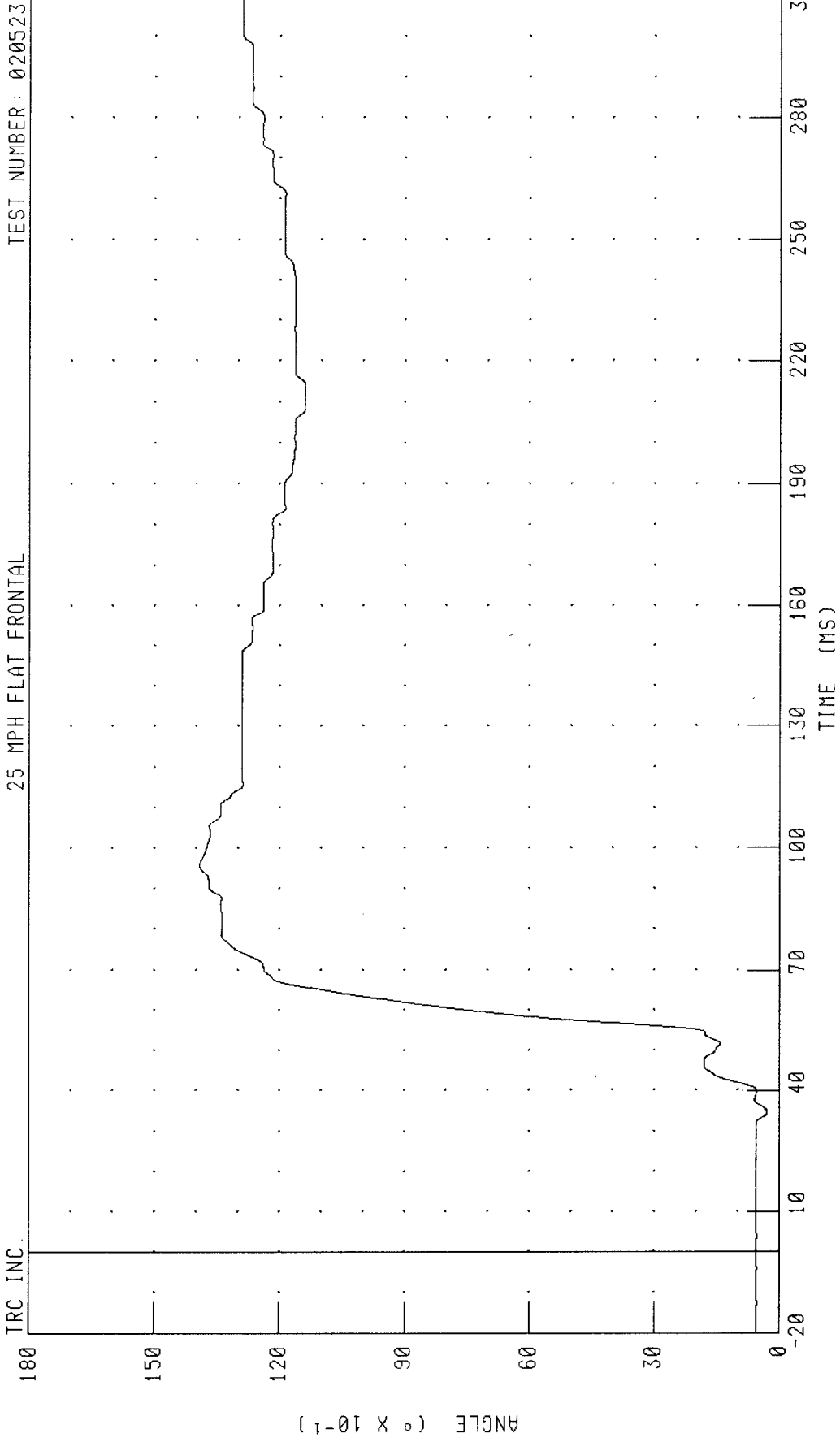
CHANNEL: ANLXM1 FILTER: CH CLASS 600 PEAK DATA: 16.62 N·M @ 63.36 MS, -31.85 N·M @ 56.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL



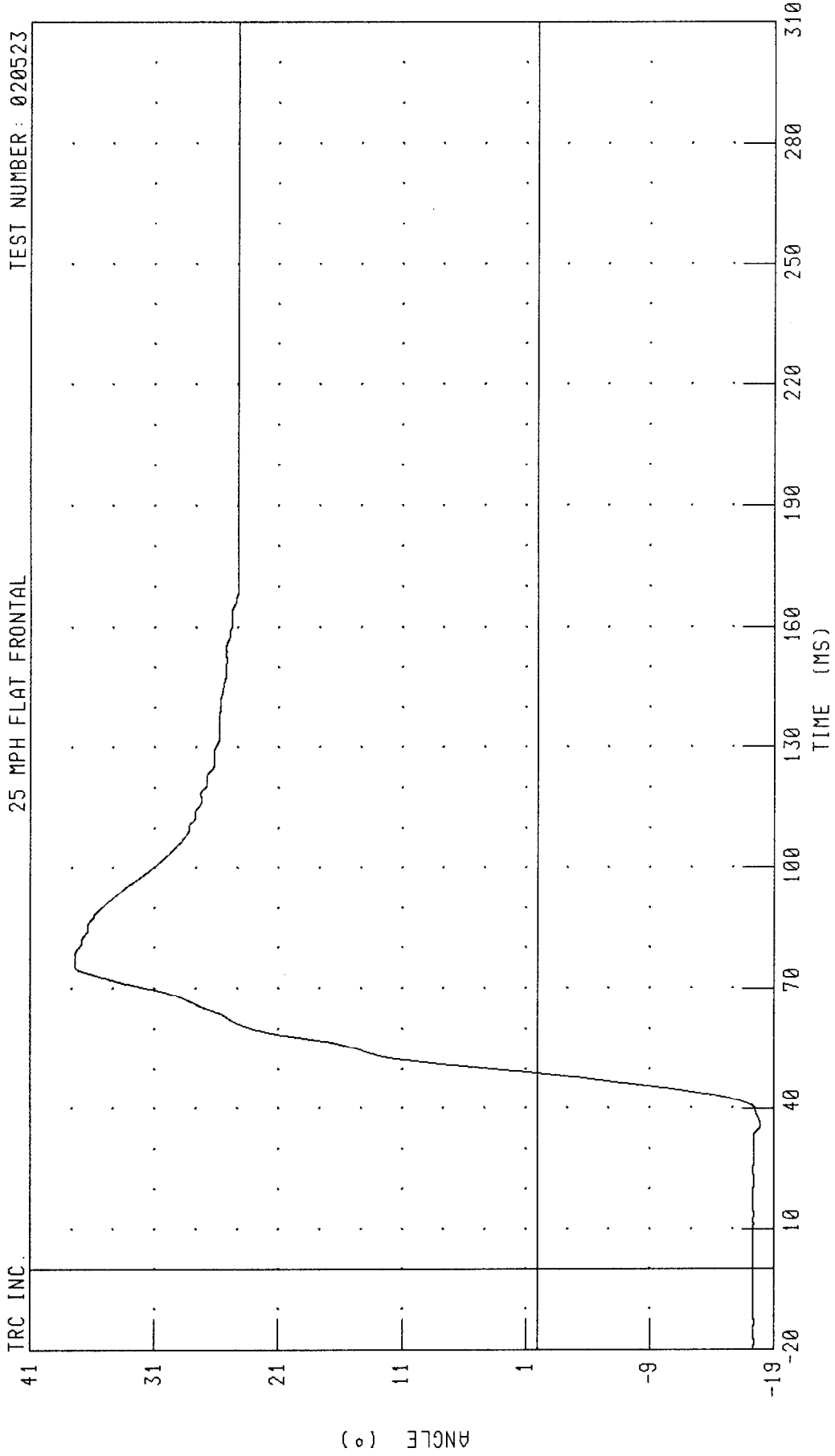
CHANNEL: ANLYM1 FILTER: CH. CLASS 600 PEAK DATA: 32.46 N·M @ 69.04 MS; -73.62 N·M @ 55.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT TO ANKLE X-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL



2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT TO ANKLE Y-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

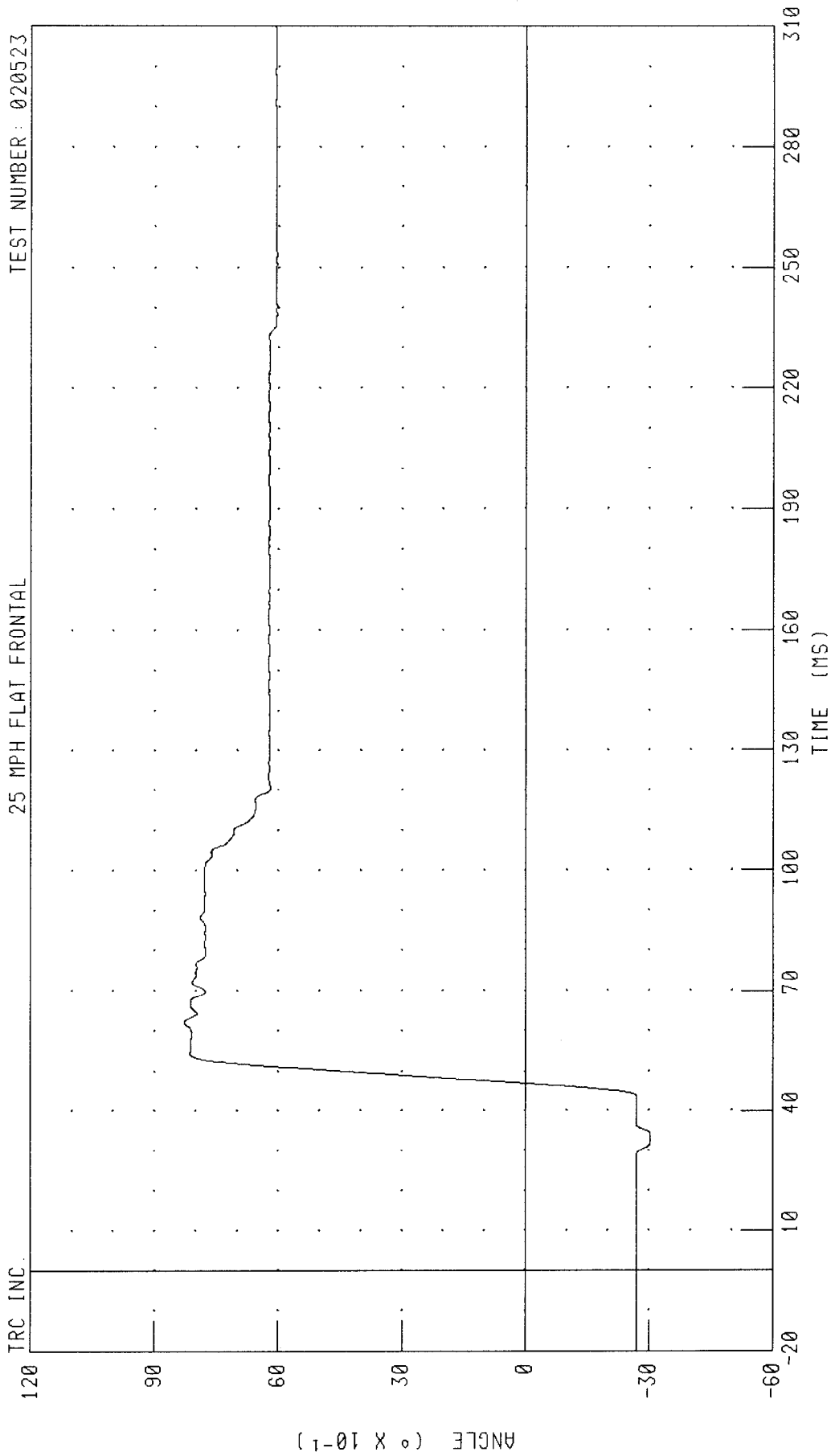
TEST NUMBER: 020523



CHANNEL: FTLYD1 FILTER: CH. CLASS 180 PEAK DATA: 37.40 ° @ 75.68 MS; -17.89 ° @ 357.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT TO ANKLE Z-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

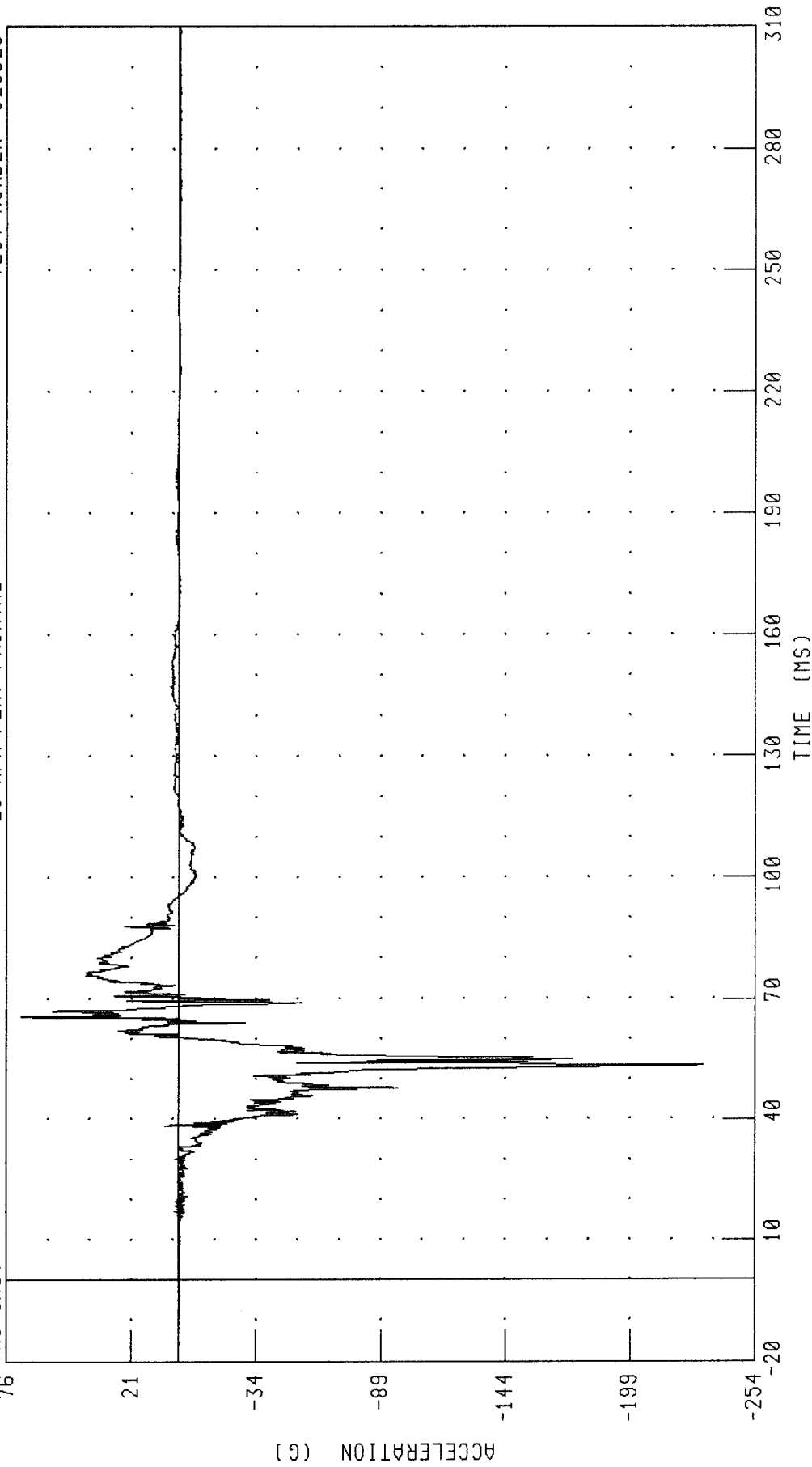


CHANNEL: FTLZD1 FILTER: CH. CLASS 180 PEAK DATA: 8.27 ° @ 62.16 MS; -3.03 ° @ 34.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

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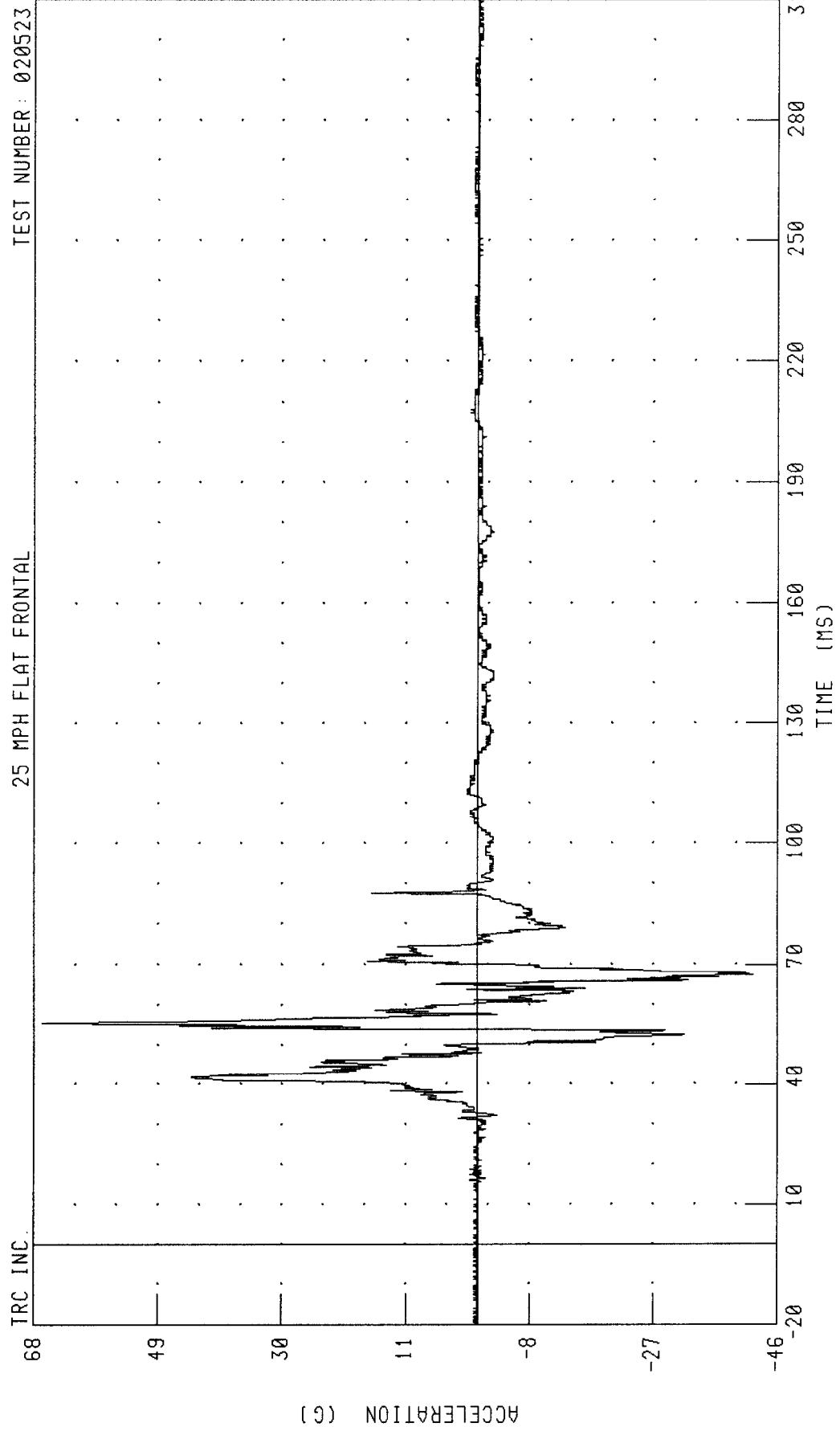
TEST NUMBER: 020523



CHANNEL: FTLXG1 FILTER: CH. CLASS 1000

PEAK DATA: 69.75 G @ 65.44 MS; -231.34 G @ 53.28 MS

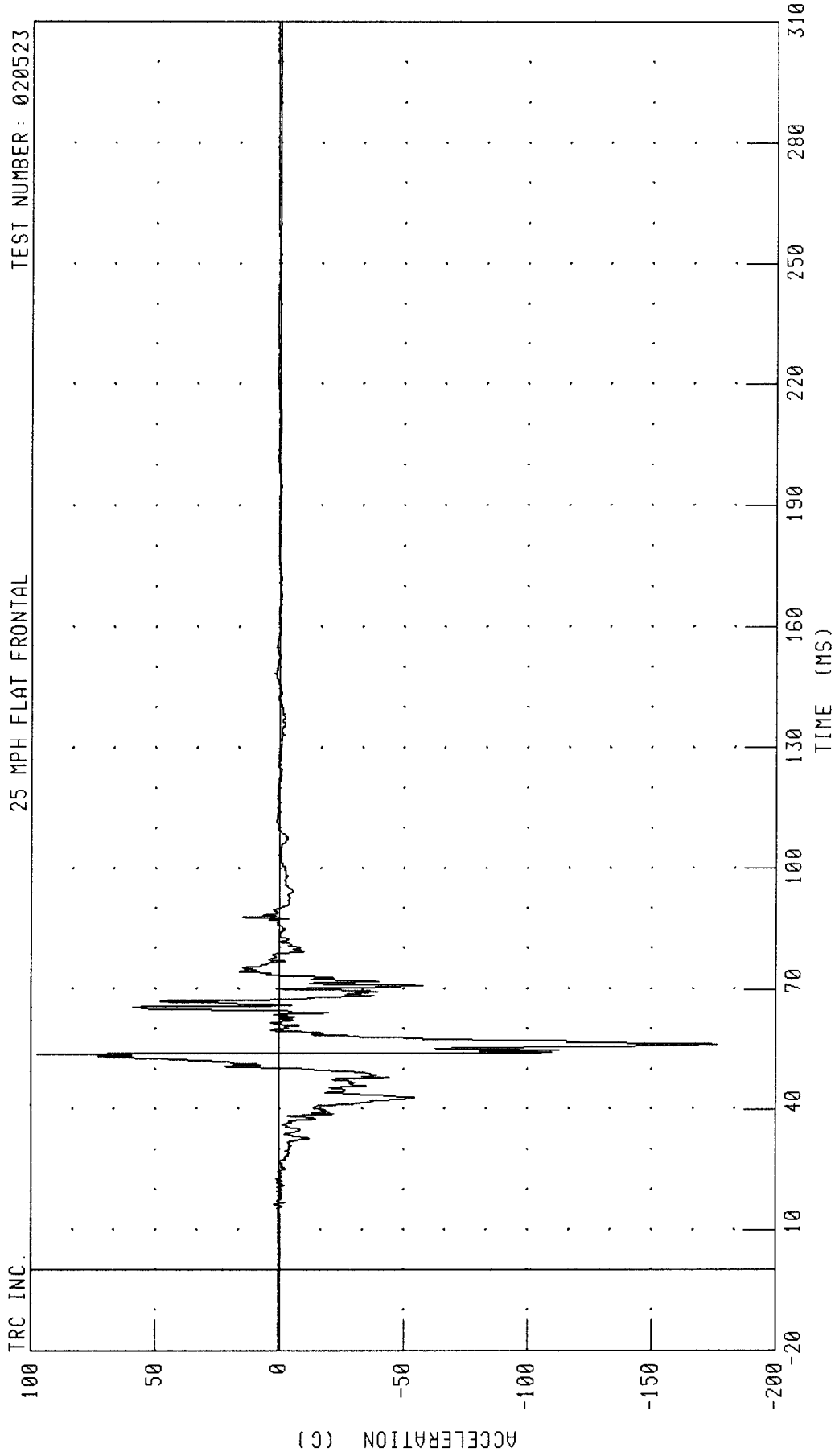
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL



CHANNEL: FTLYG1 FILTER: CH. CLASS 1000 PEAK DATA: 66.69 G @ 55.36 MS, -42.29 G @ 67.44 MS

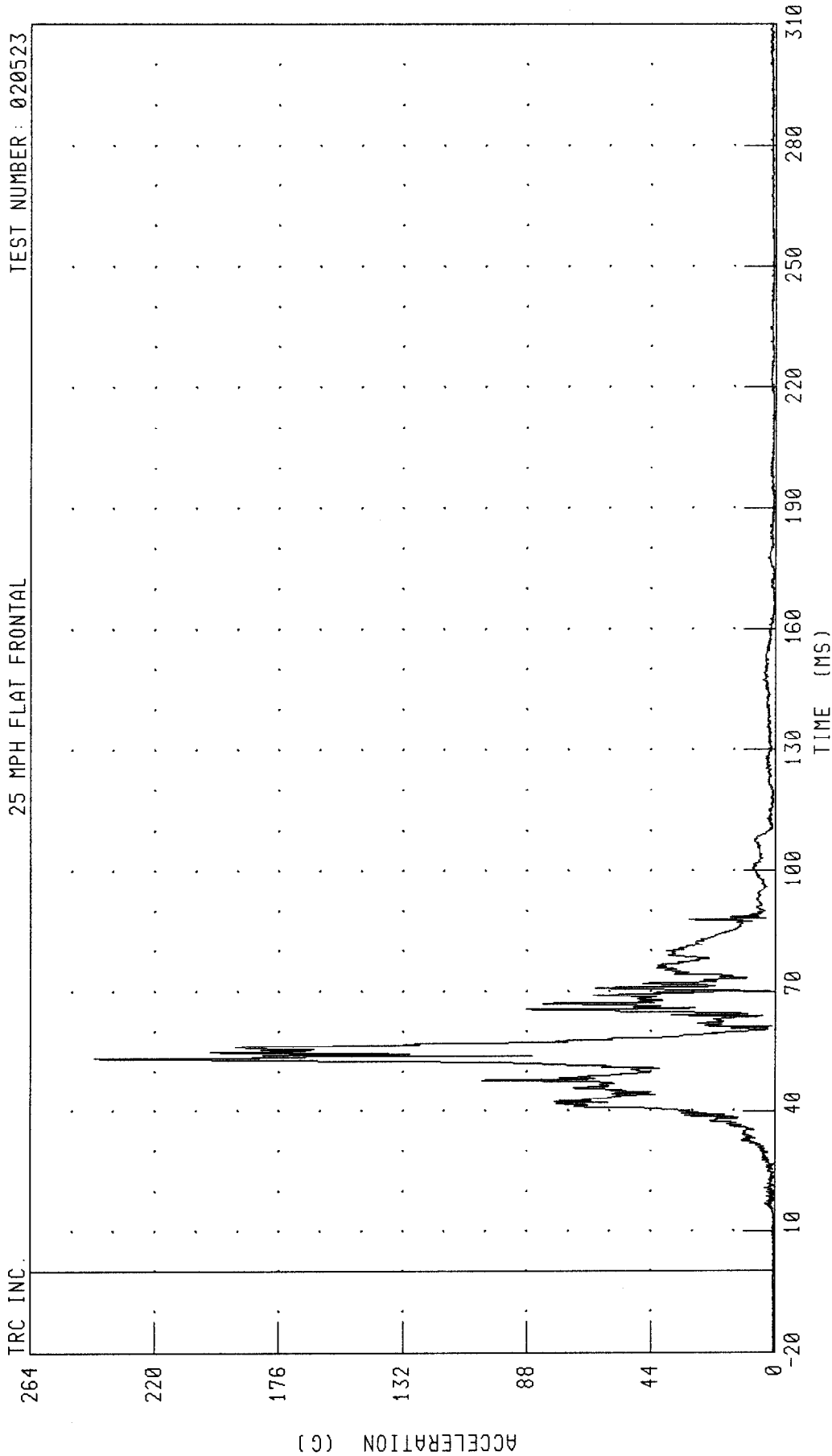
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: FTLZG1 FILTER: CH. CLASS 1000  
PEAK DATA: 97.73 G @ 53.60 MS; -176.90 G @ 56.24 MS

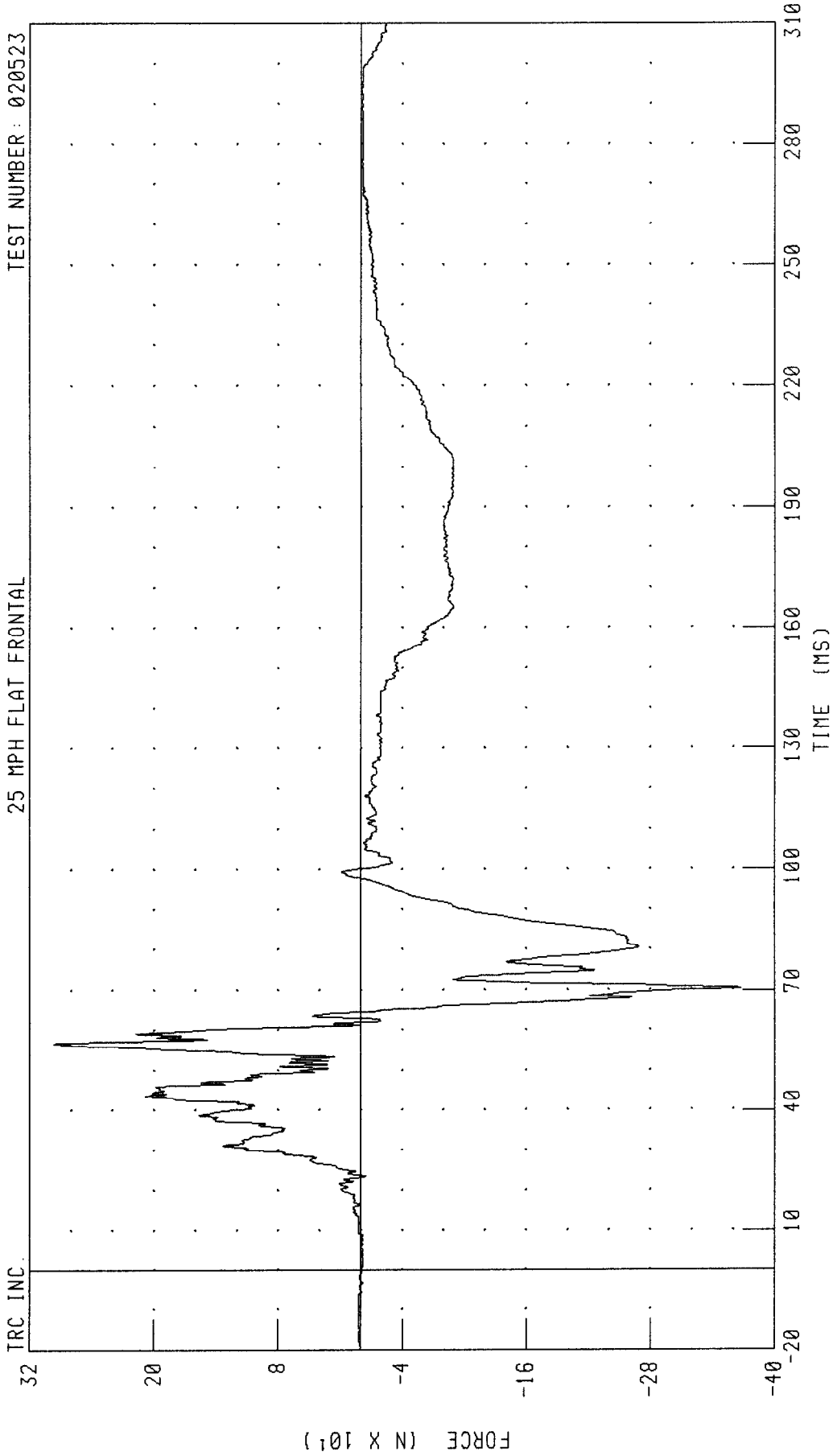
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER LEFT FOOT RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL



CHANNEL: FTLRG1 FILTER: CH. CLASS 1000 PEAK DATA: 241.54 G @ 53.28 MS, 0.30 G @ -20.00 MS

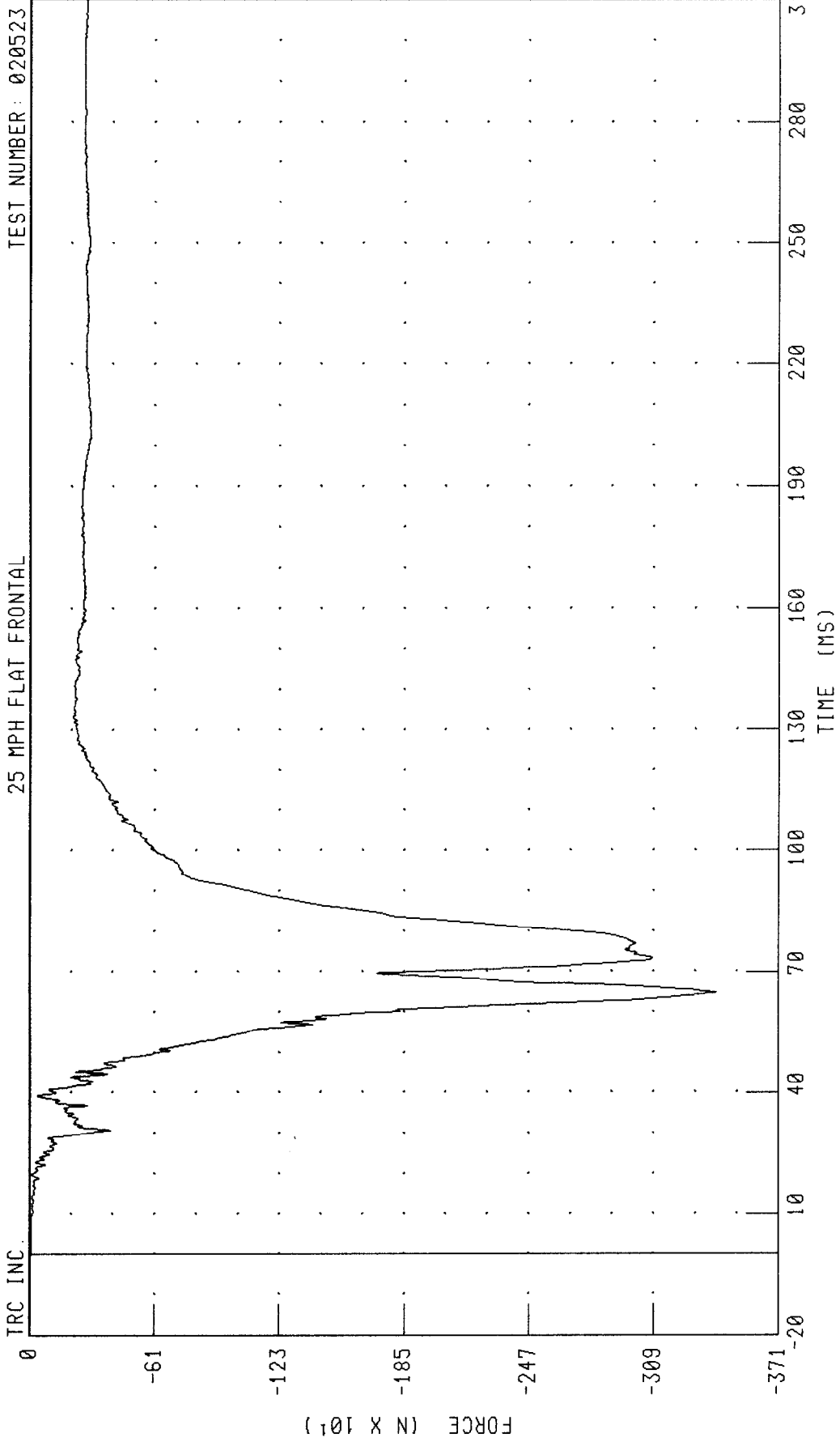
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT UPPER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



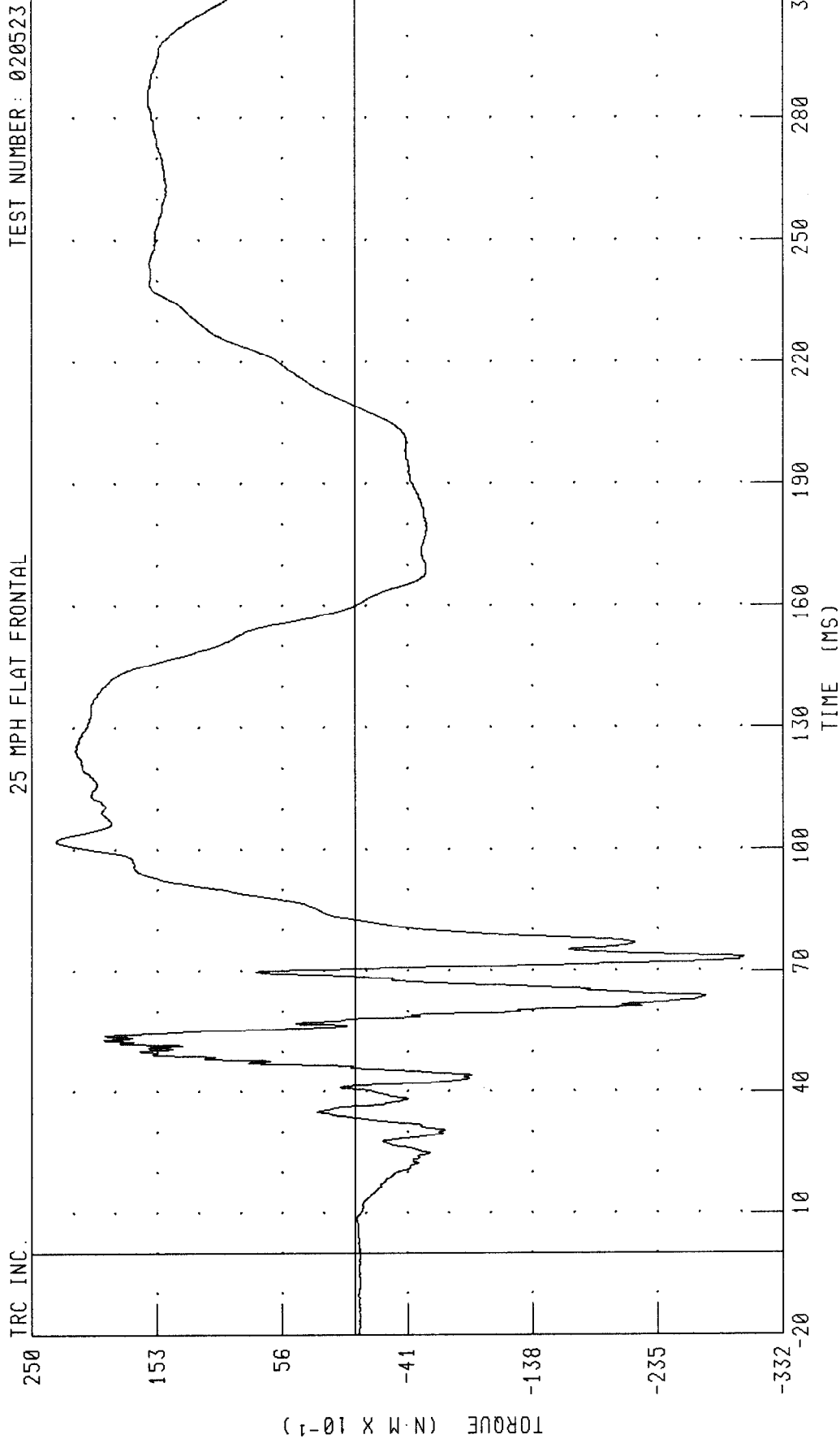
CHANNEL: TBRXF1 FILTER: CH. CLASS 600 PEAK DATA: 296.64 N @ 56.72 MS; -367.42 N @ 70.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT UPPER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL



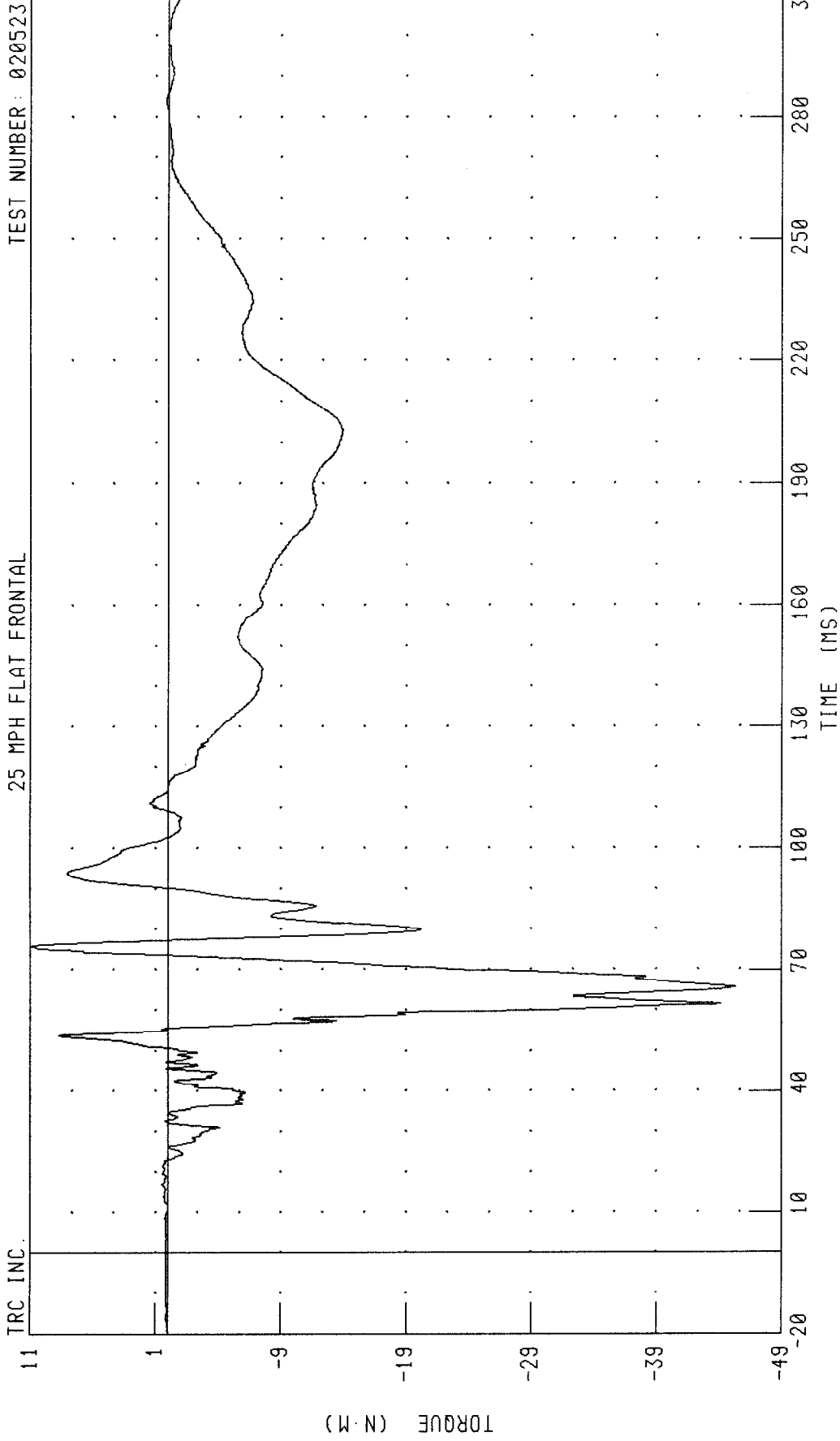
CHANNEL: TBRZF1 FILTER: CH. CLASS 600  
PEAK DATA: 3.25 N @ -19.68 MS; -3406.66 N @ 64.72 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL



CHANNEL: TBRXM1 FILTER: CH. CLASS 600 PEAK DATA: 23.14 N·M @ 102.16 MS; -30.17 N·M @ 73.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

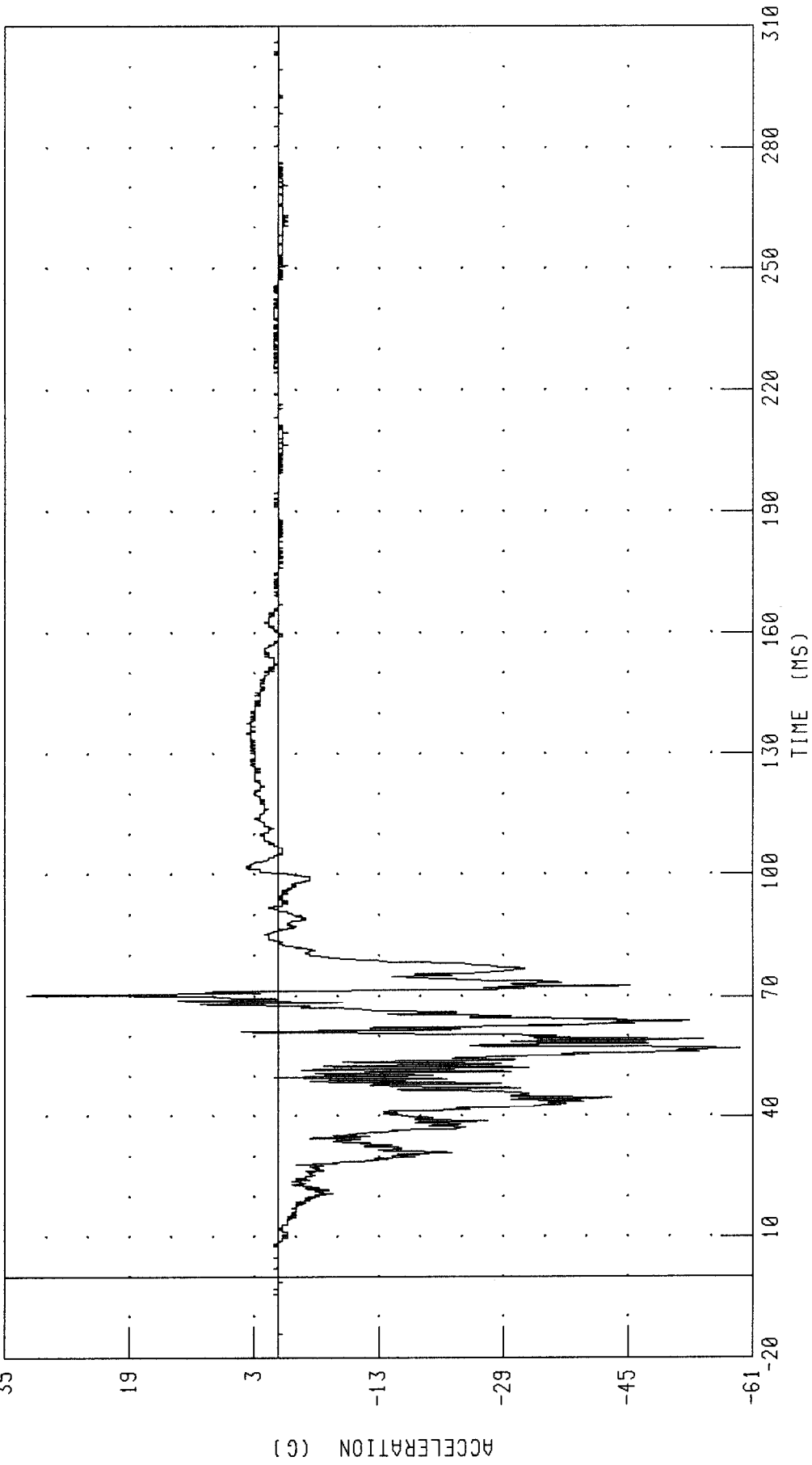


CHANNEL: TBRYM1 FILTER: CH. CLASS 600 PEAK DATA: 10.90 N·M @ 75.84 MS; -45.40 N·M @ 65.60 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT TIBIA X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



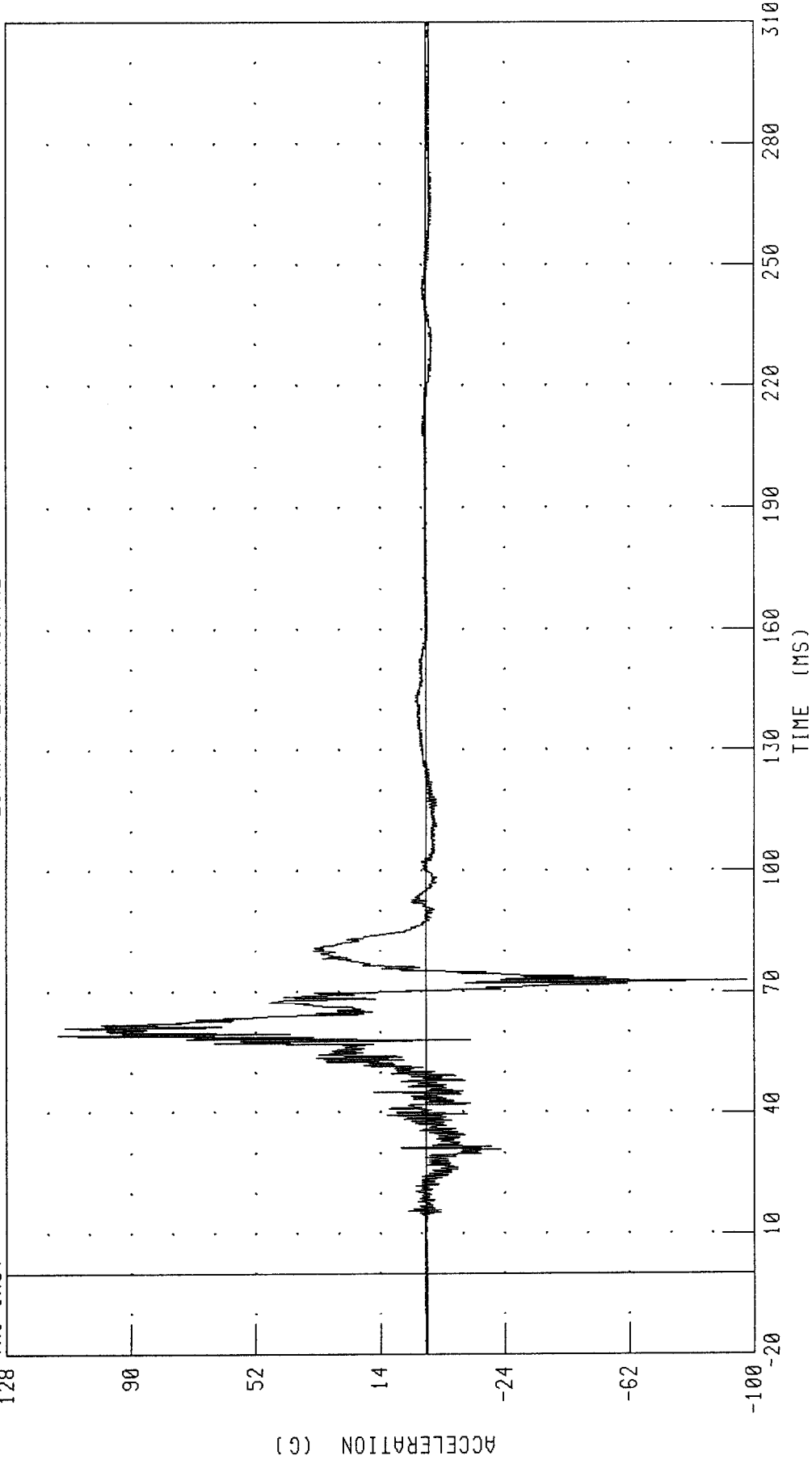
CHANNEL: TBRXC1 FILTER: CH. CLASS 1000

PEAK DATA: 32.22 G @ 70.48 MS; -59.35 G @ 56.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT TIBIA Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

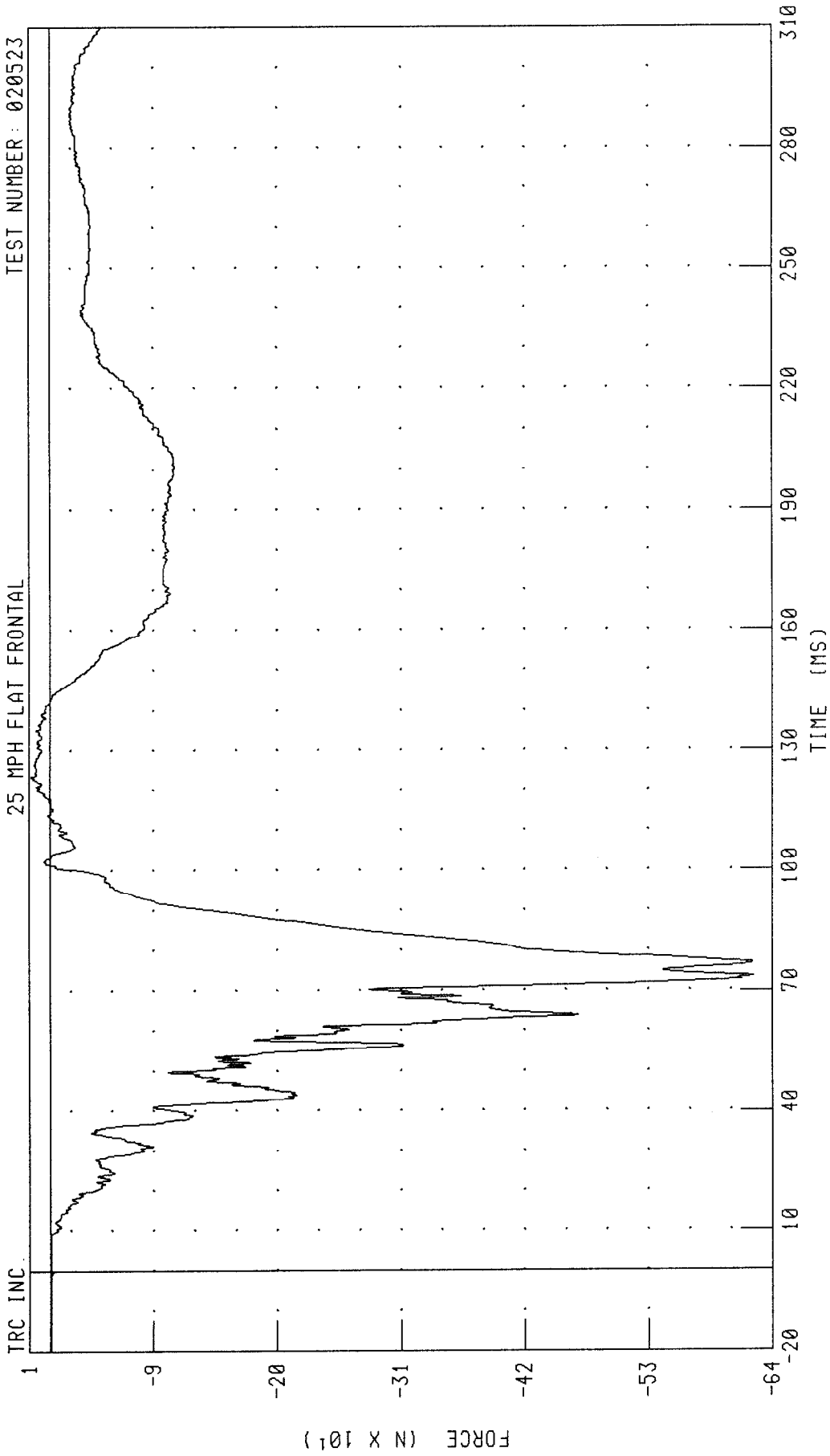
TEST NUMBER: 020523

TRC INC.



CHANNEL: TBRZG1 FILTER: CH. CLASS 1000 PEAK DATA: 112.46 G @ 59.44 MS, -97.90 G @ 72.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT LOWER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

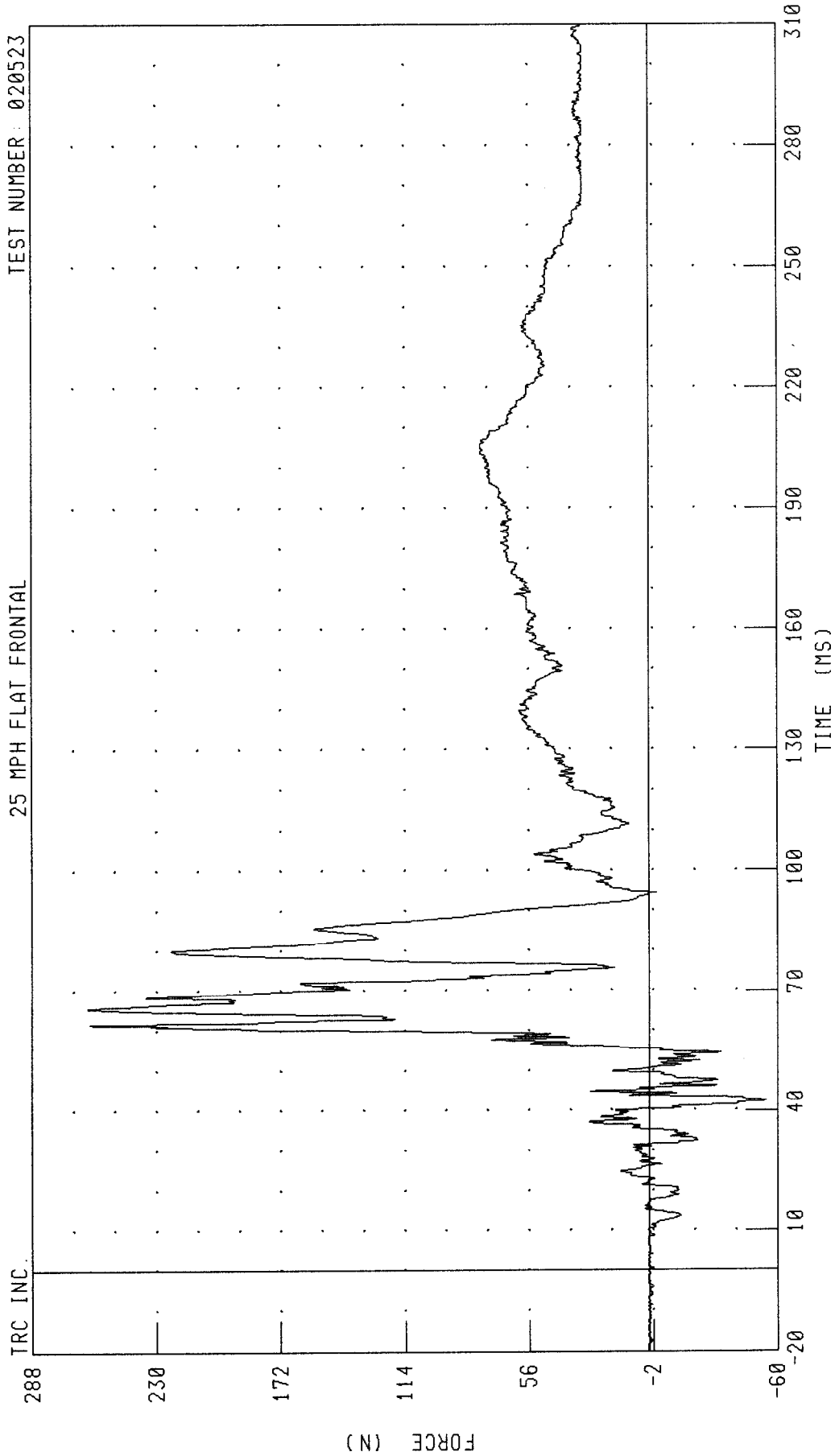


TEST NUMBER: 020523

CHANNEL: ANRXF1 FILTER: CH. CLASS 600 PEAK DATA: 16.68 N @ 123.60 MS; -625.00 N @ 73.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT LOWER TIBIA Y-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

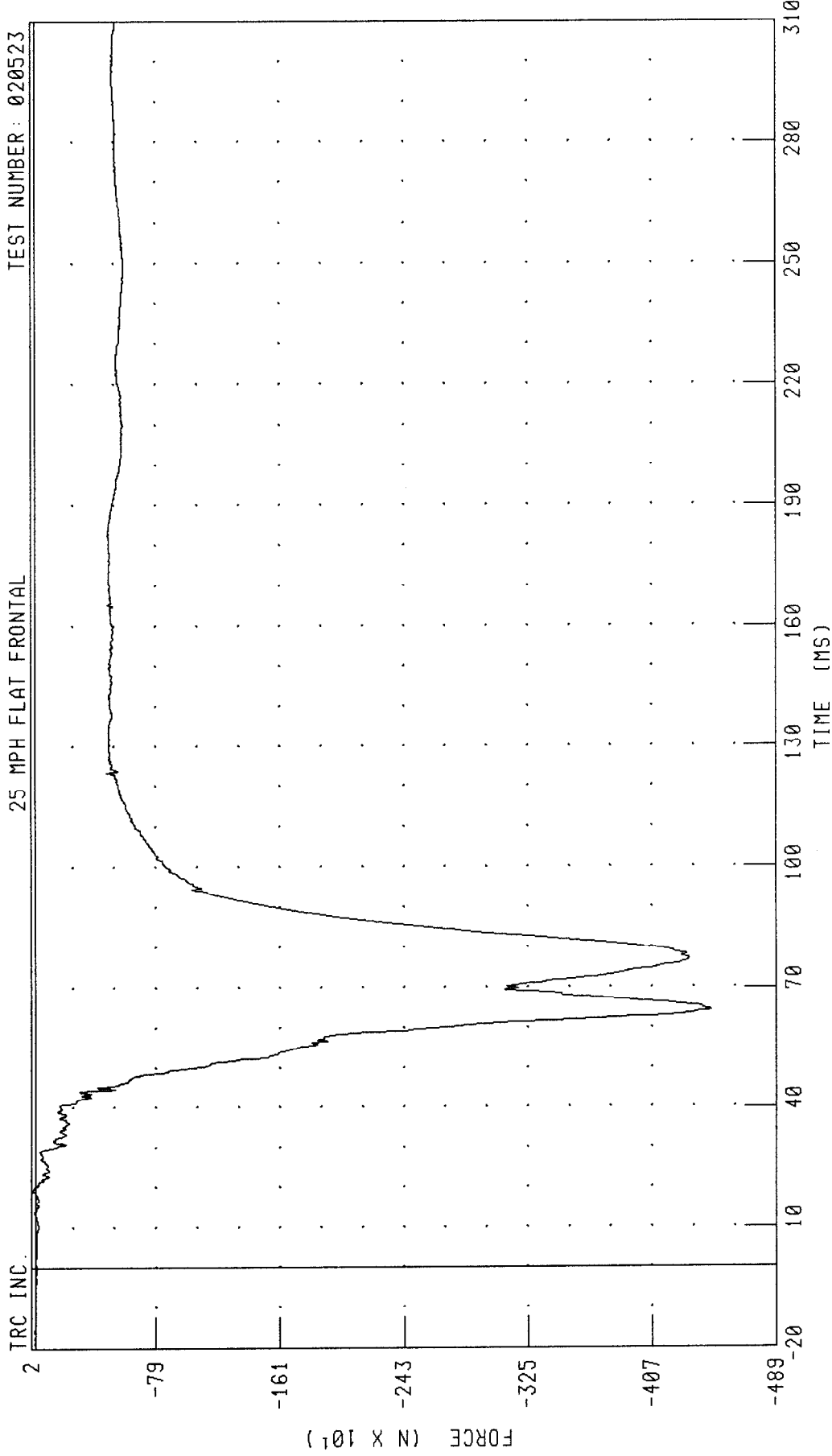


CHANNEL: ANRYF1 FILTER: CH. CLASS 600

PEAK DATA: 262.14 N @ 65.76 MS, -54.56 N @ 42.48 MS

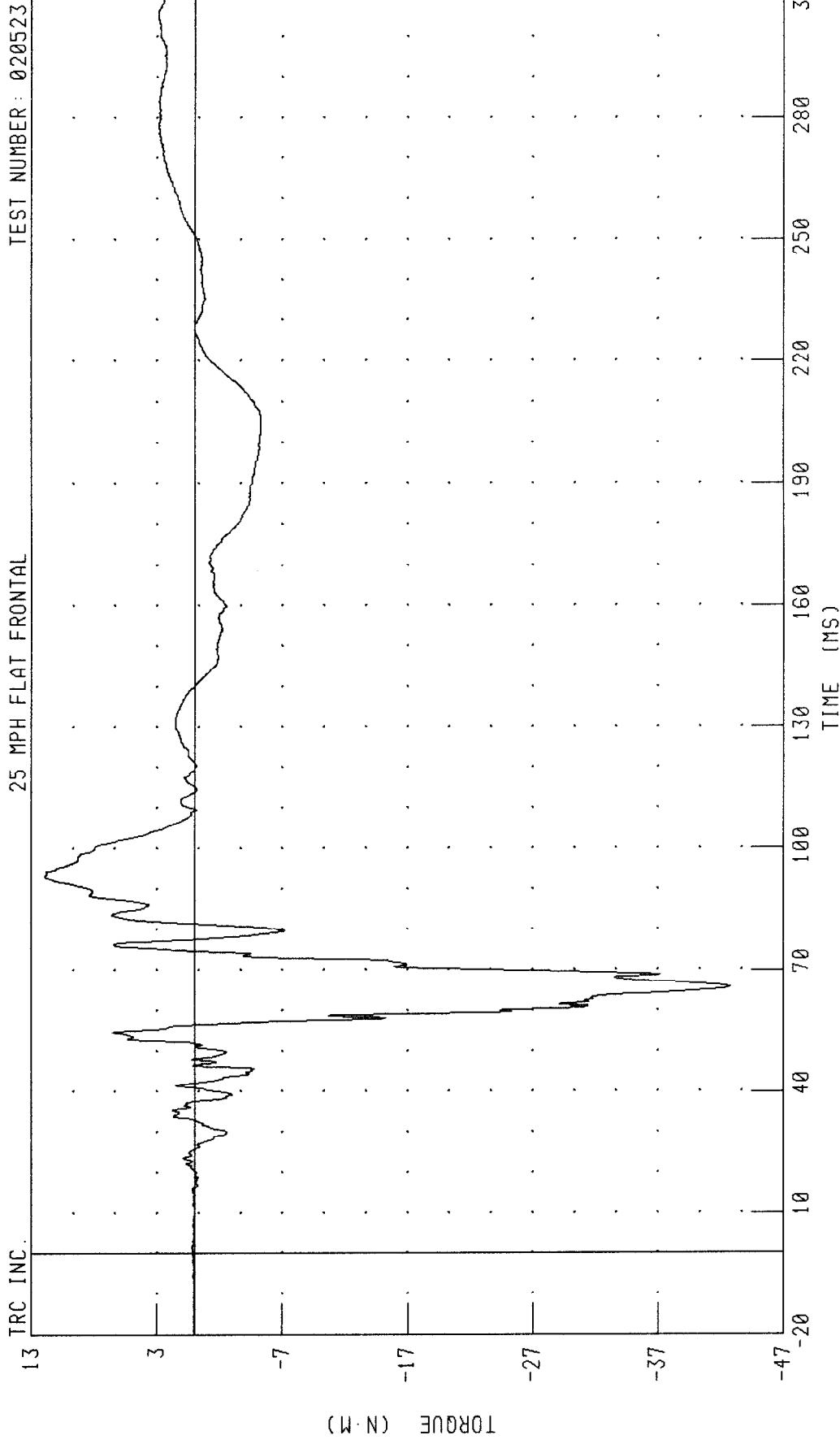
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT LOWER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: ANRZF1 FILTER: CH. CLASS 600 PEAK DATA: 20.93 N @ 19.28 MS; -4464.49 N @ 64.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT LOWER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

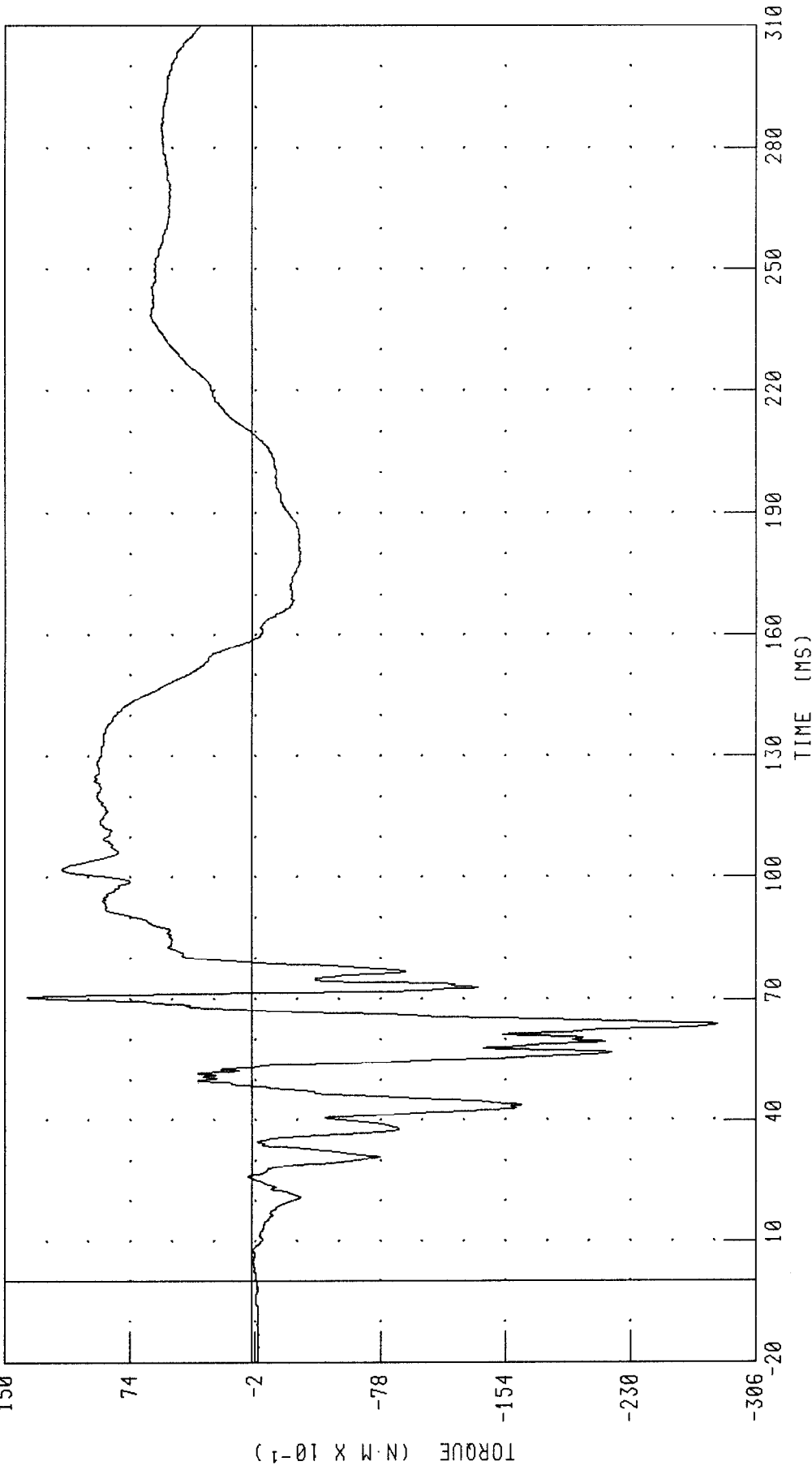


CHANNEL: ANRXM1 FILTER: CH. CLASS 600 PEAK DATA: 11.95 N·M @ 93.20 MS; -42.73 N·M @ 65.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC

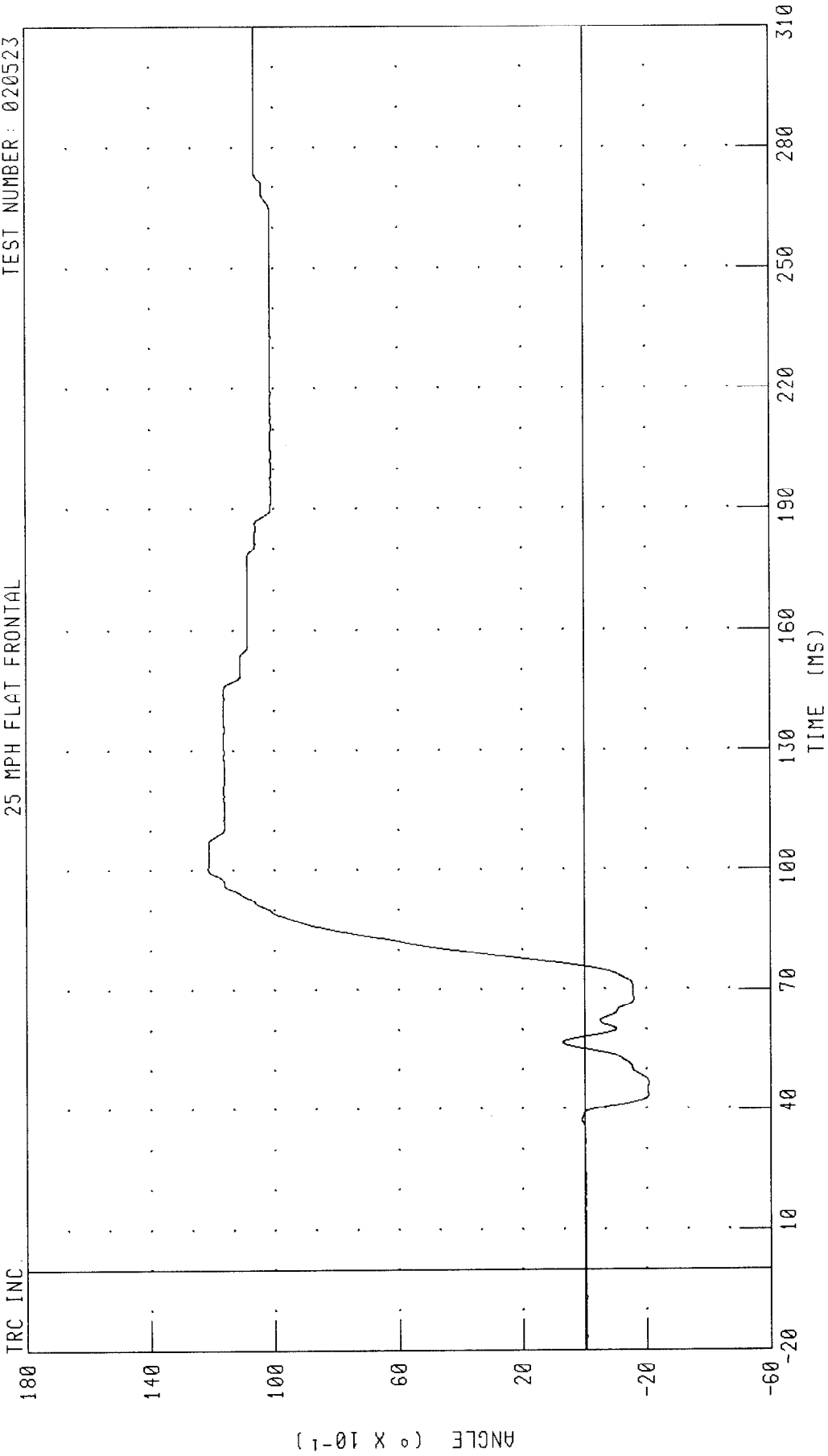


CHANNEL: ANRYM1 FILTER: CH. CLASS 600

PEAK DATA: 13.64 N·M @ 70.56 MS; -28.28 N·M @ 63.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT TO ANKLE X-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

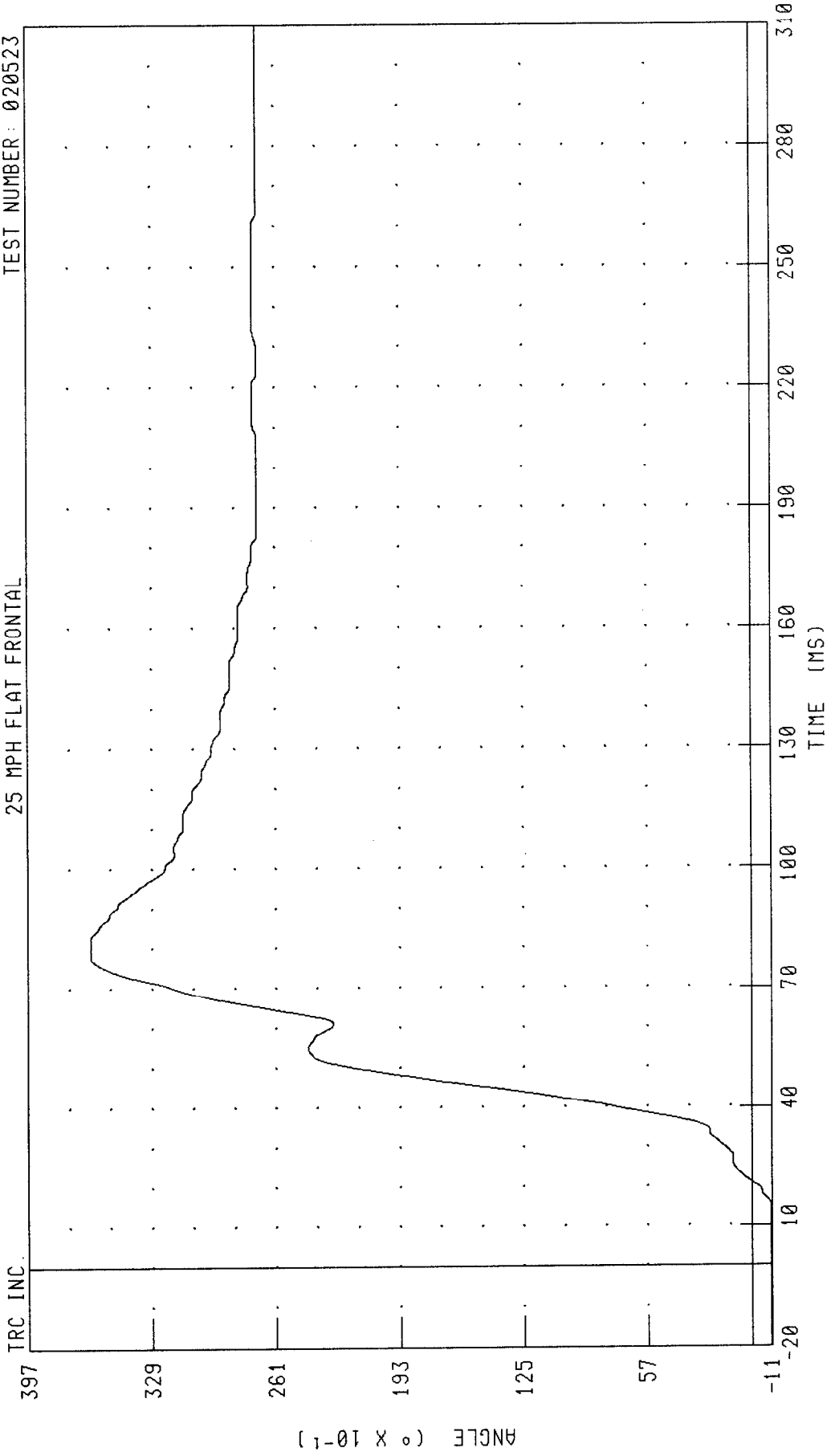


CHANNEL: FTRXD1 FILTER: CH. CLASS 180

PEAK DATA: 12.14 ° @ 100.32 MS; -2.06 ° @ 46.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT TO ANKLE Y-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

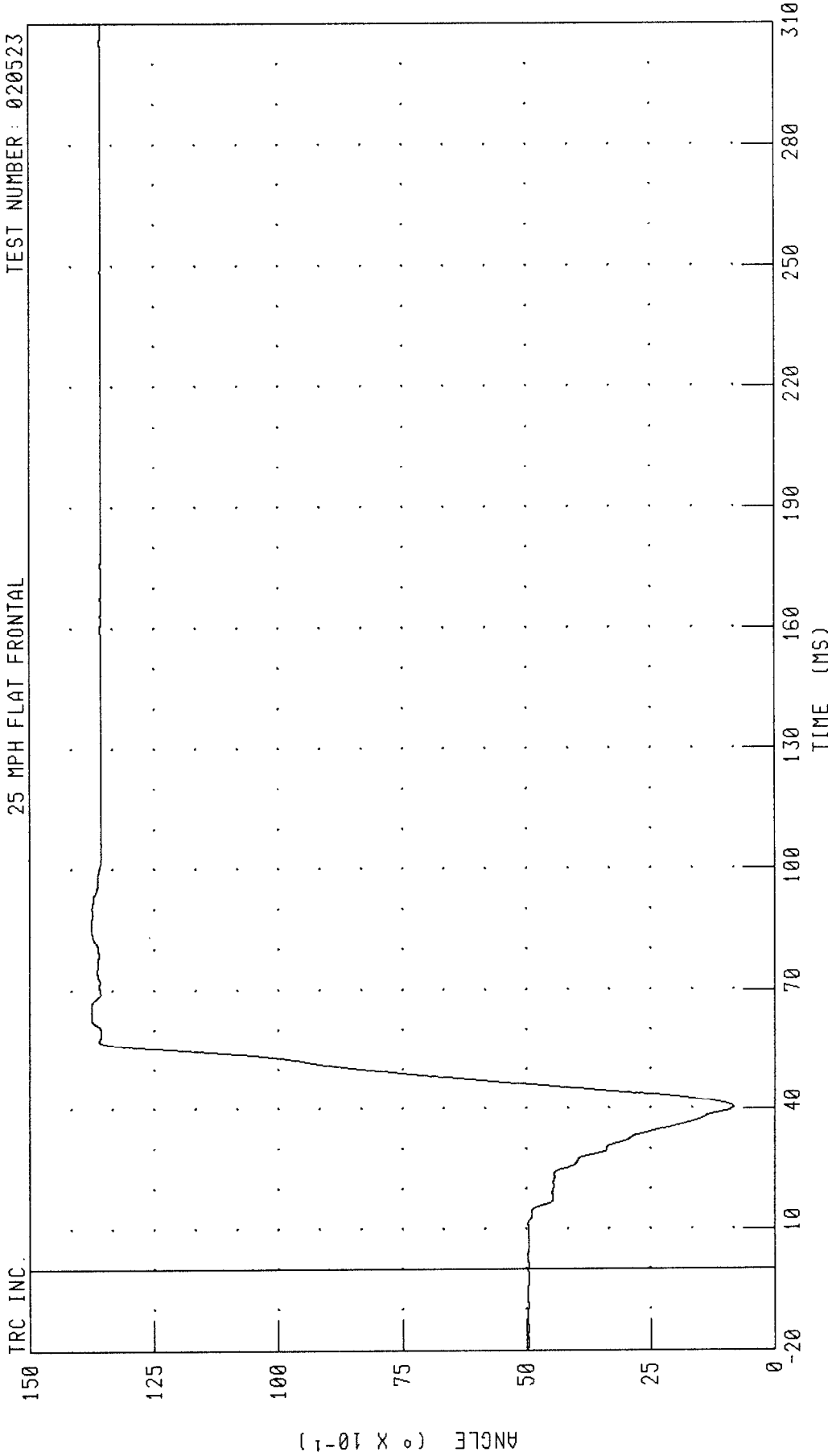
TEST NUMBER: 020523



CHANNEL: FTRYD1 FILTER: CH. CLASS 180 PEAK DATA: 36.28 ° @ 82.48 MS; -1.04 ° @ 2.08 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT TO ANKLE Z-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

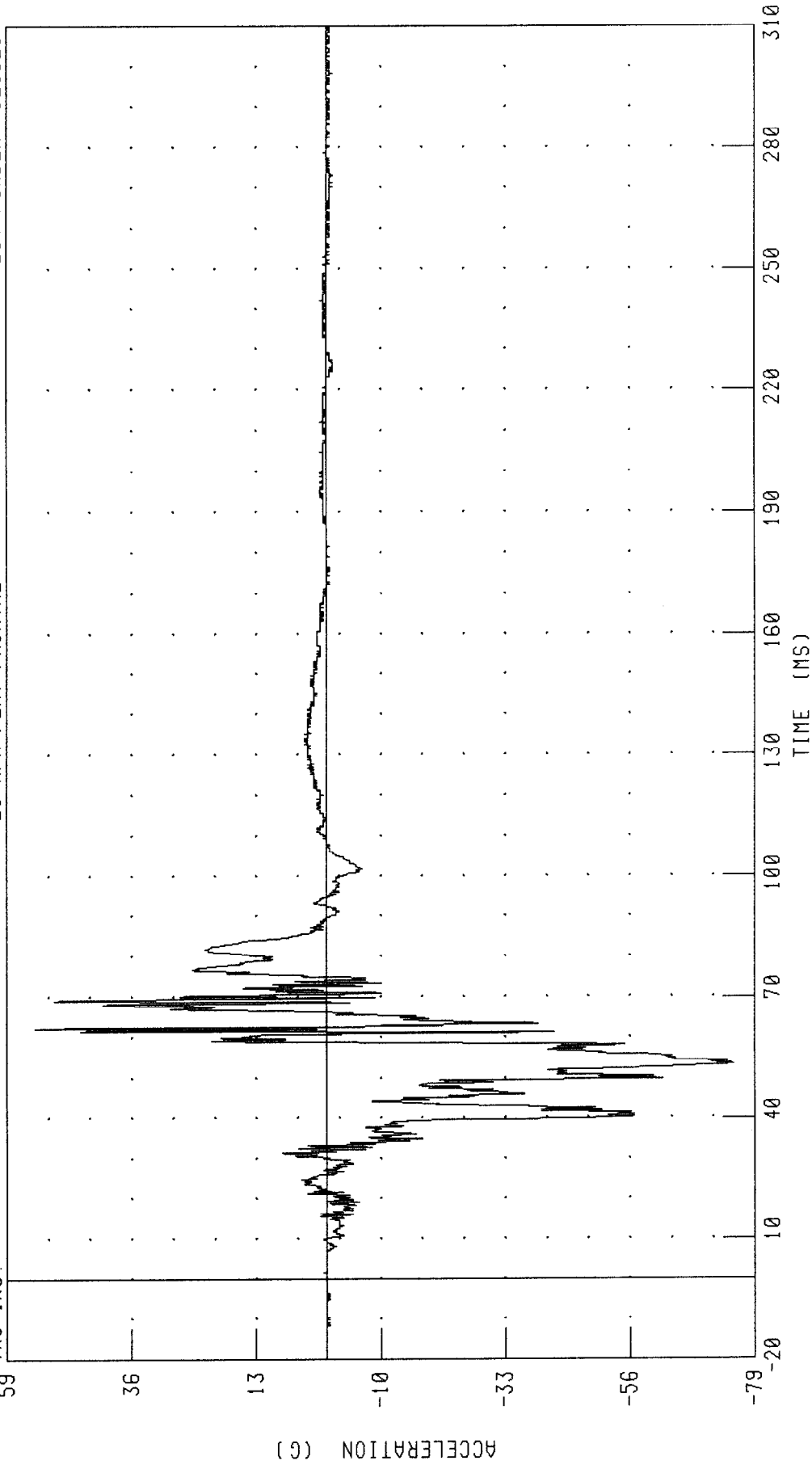


CHANNEL: FTRZD1 FILTER: CH. CLASS 180 PEAK DATA: 13.76 ° @ 62.80 MS; 0.84 ° @ 40.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



CHANNEL: FTRXG1 FILTER: CH. CLASS 1000 PEAK DATA: 53.76 G @ 62.32 MS; -75.09 G @ 53.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

147

111

75

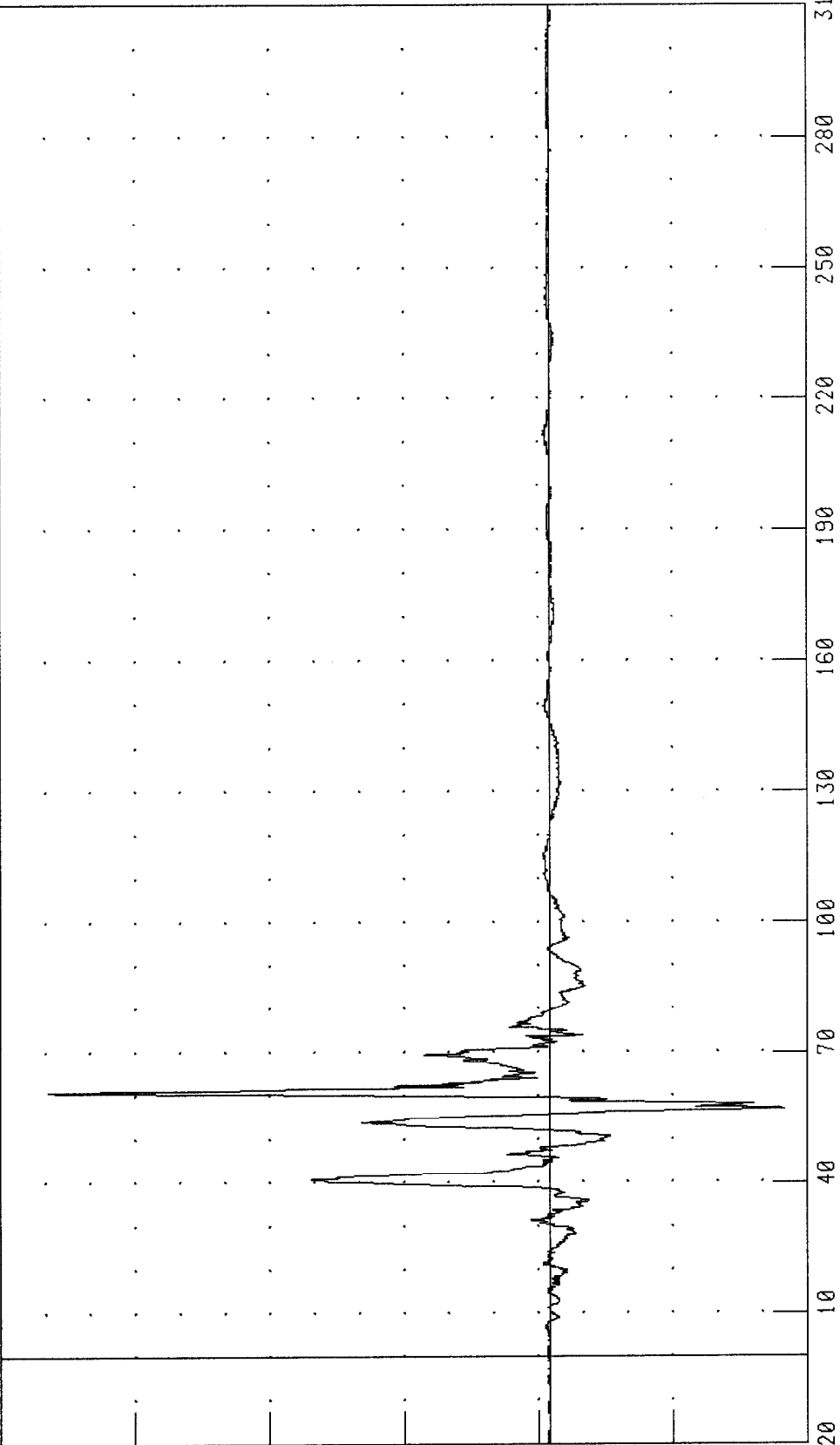
39

3

-33

-69

ACCELERATION (G)



TIME (MS)

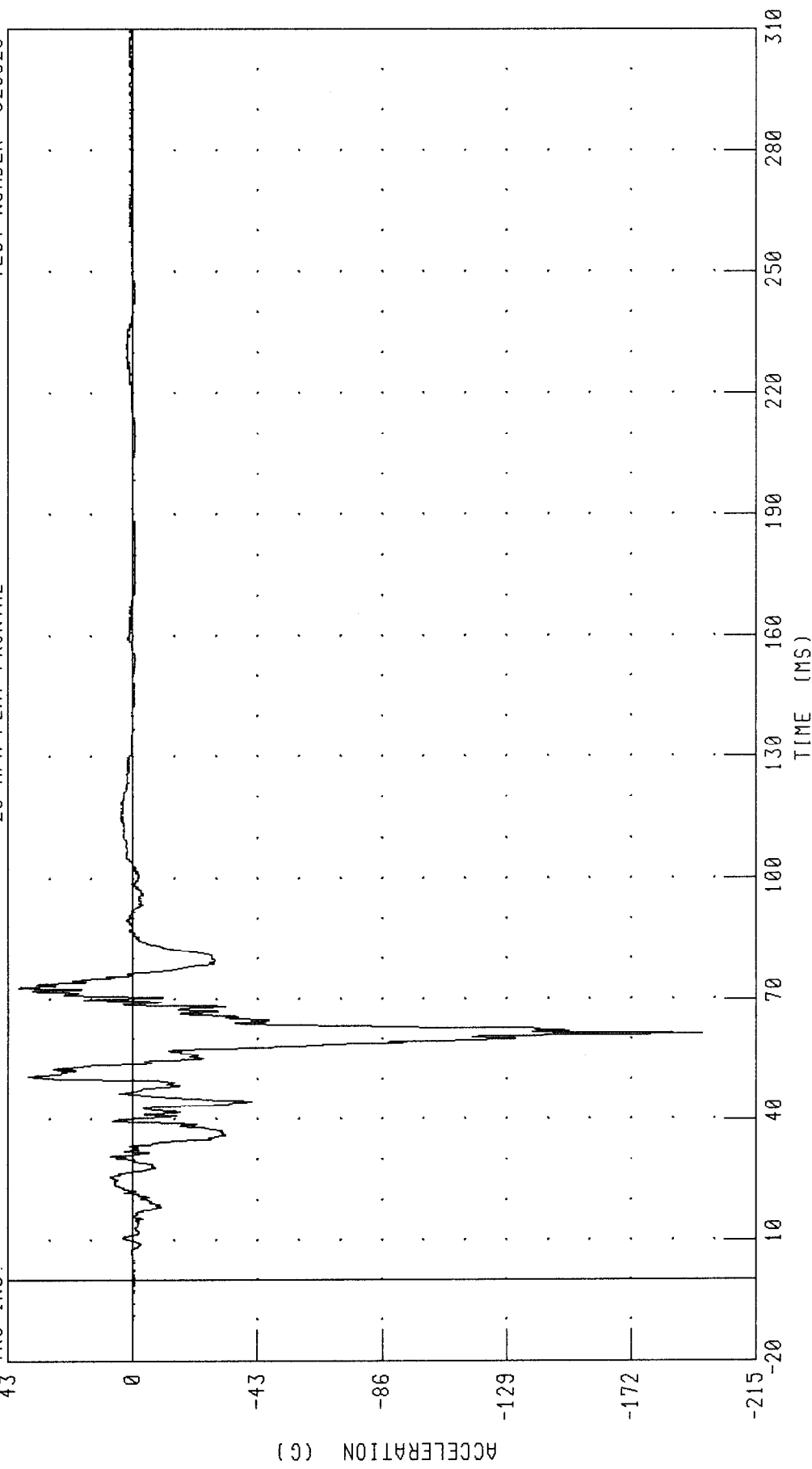
PEAK DATA: 134.25 G @ 60.88 MS; -63.00 G @ 56.96 MS

CHANNEL: FTRYG1 FILTER: CH. CLASS 1000

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TRC INC.

TEST NUMBER: 020523

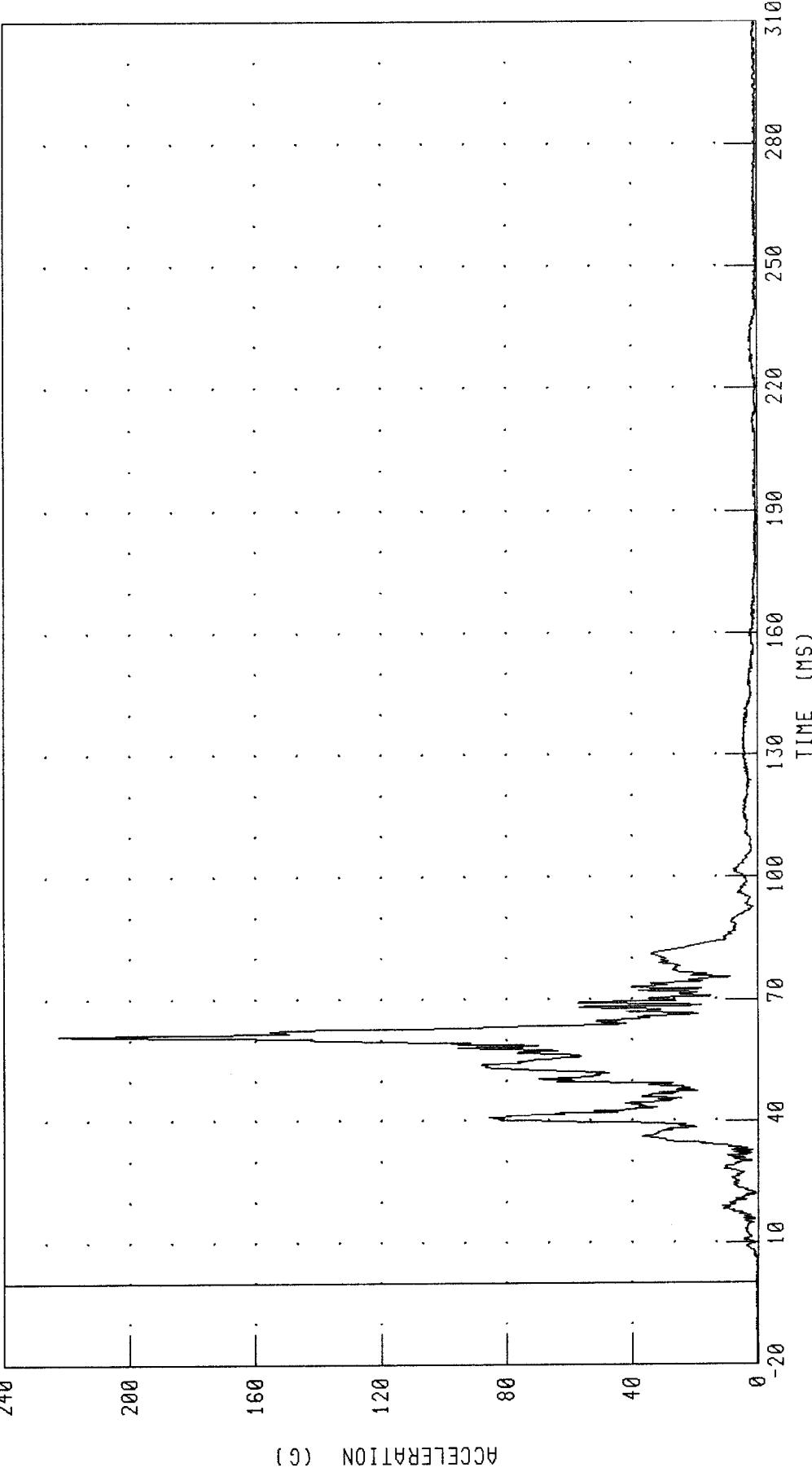


CHANNEL: FTRZG1 FILTER: CH. CLASS 1000  
PEAK DATA: 39.51 G @ 72.96 MS, -196.50 G @ 61.28 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER RIGHT FOOT RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

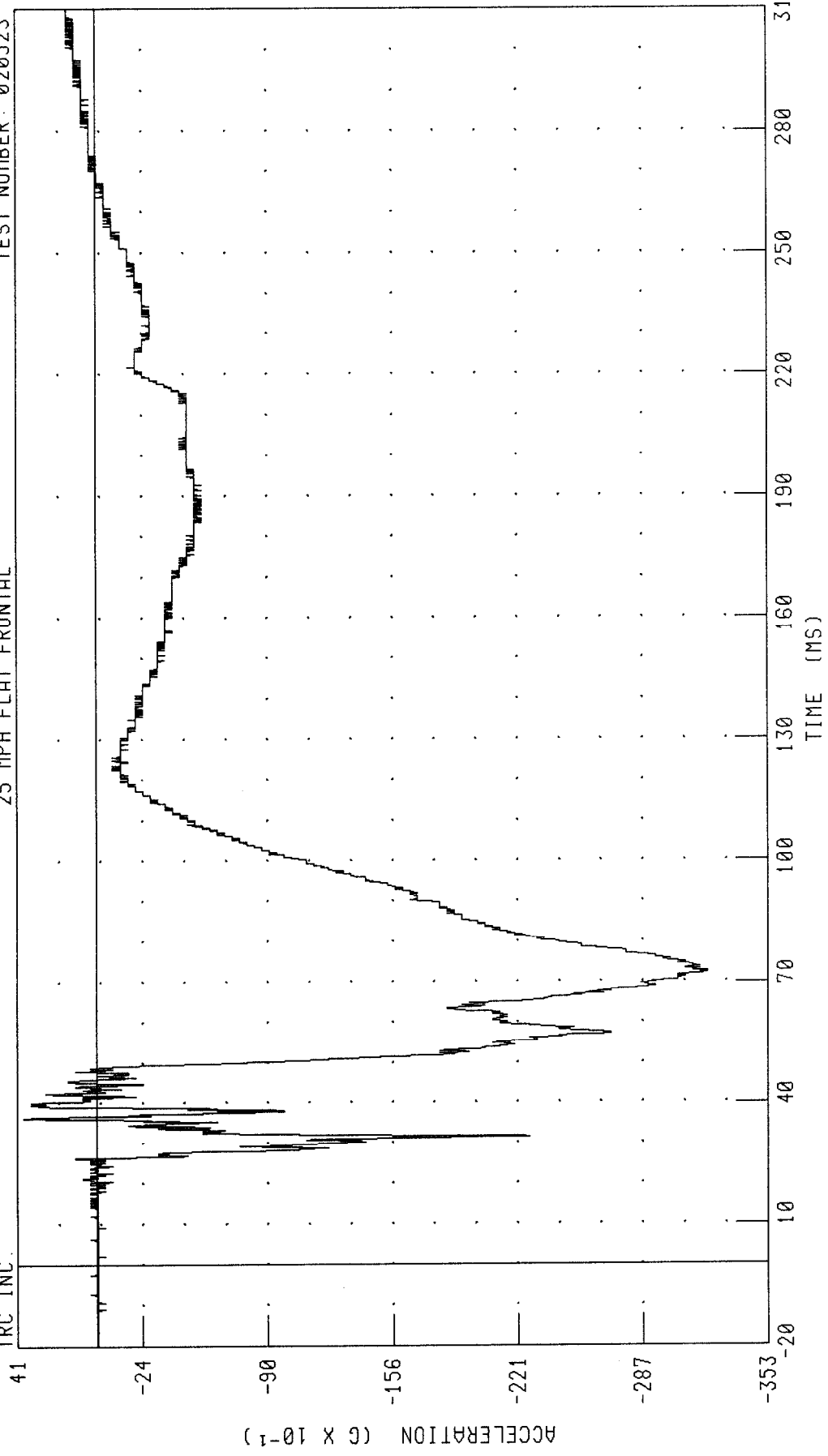


CHANNEL: FTRRG1 FILTER: CH. CLASS 1000 PEAK DATA: 222.74 G @ 61.20 MS; 0.18 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

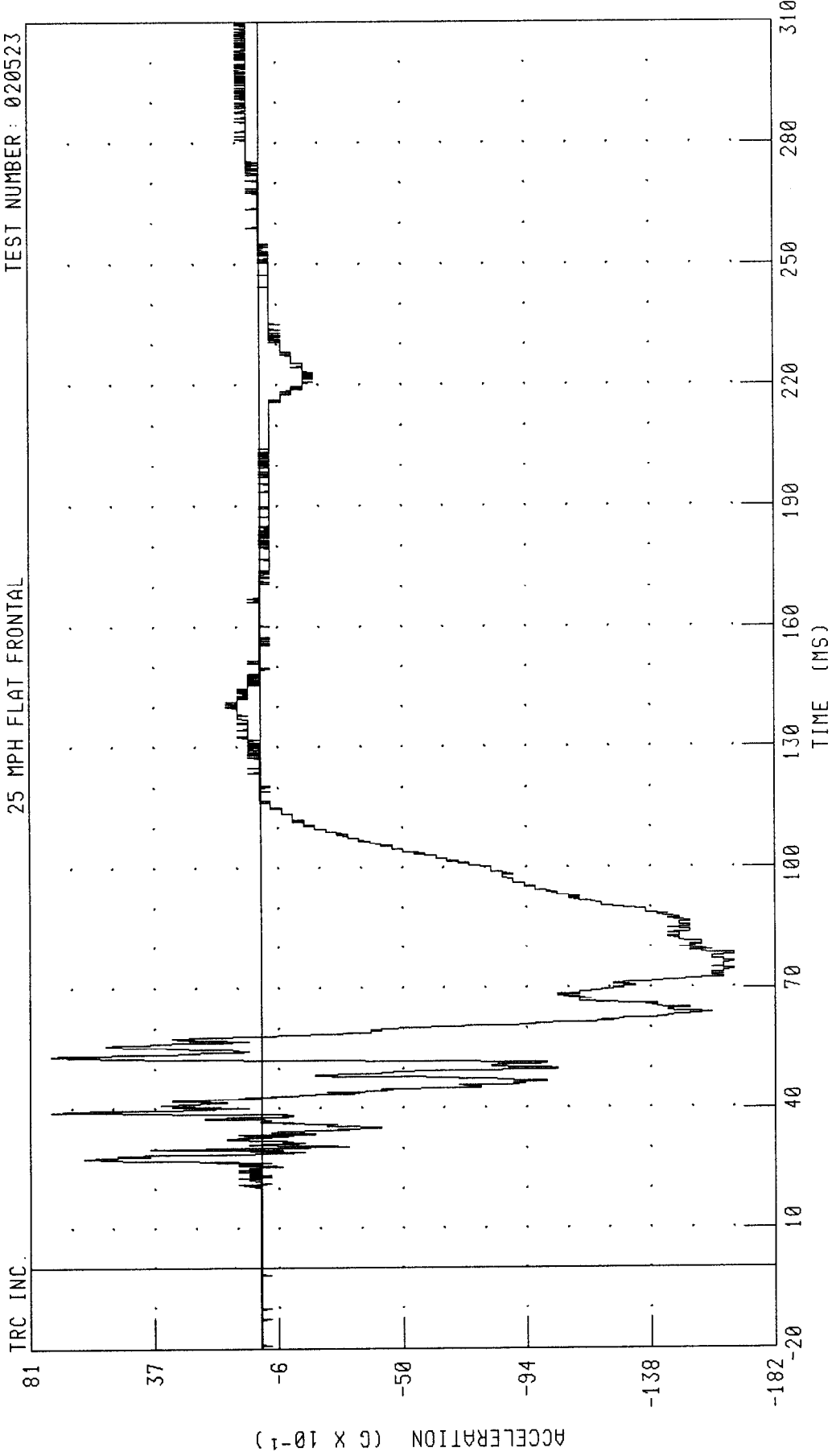
TRC INC.



CHANNEL: HEDXC2 FILTER: CH. CLASS 1000 PEAK DATA: 3.86 G @ 36.32 MS; -32.23 G @ 72.08 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

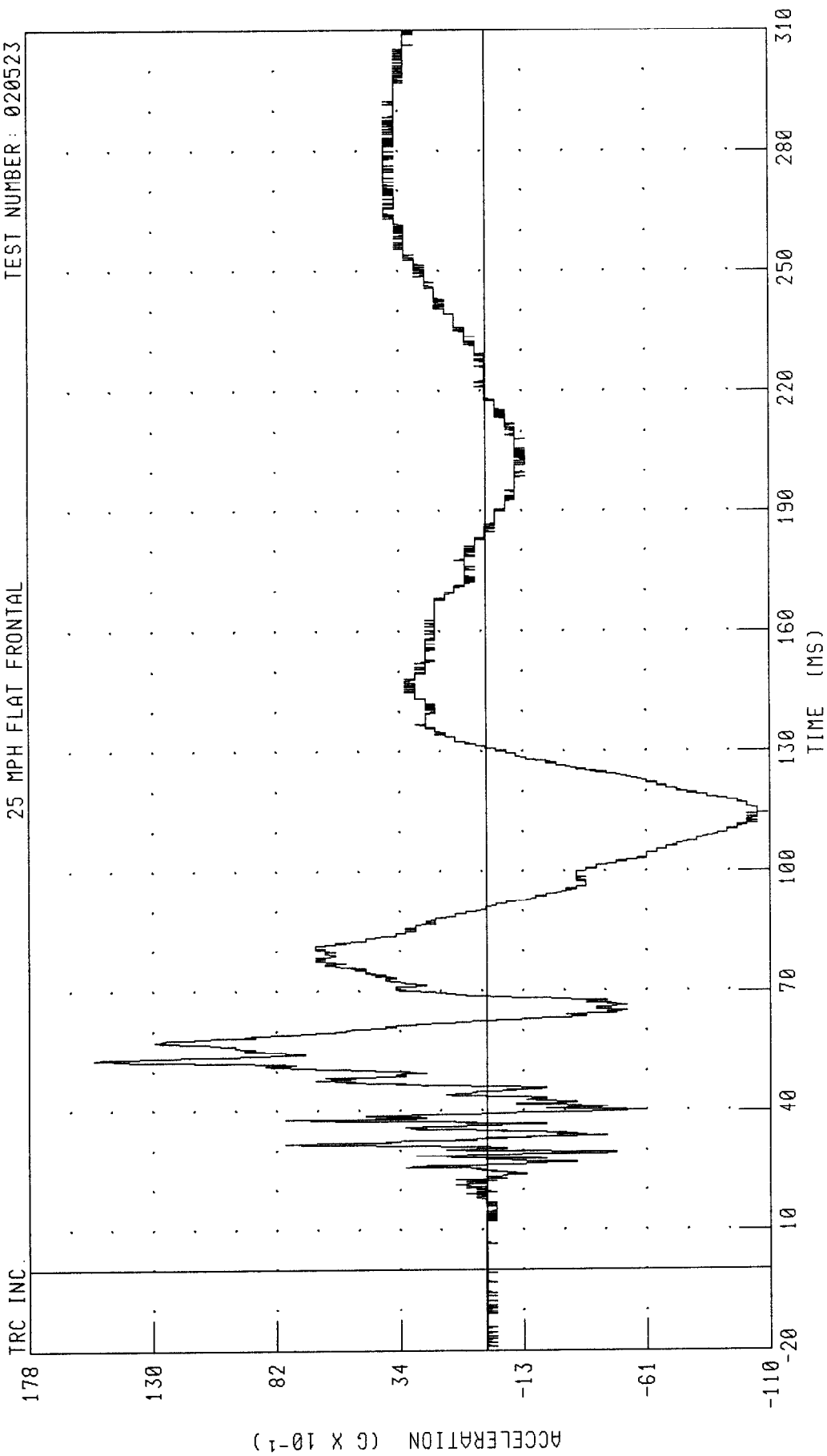
TEST NUMBER: 020523



CHANNEL: HEDYG2 FILTER: CH. CLASS 1000  
PEAK DATA: 7.48 G @ 39.20 MS, -16.76 G @ 74.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

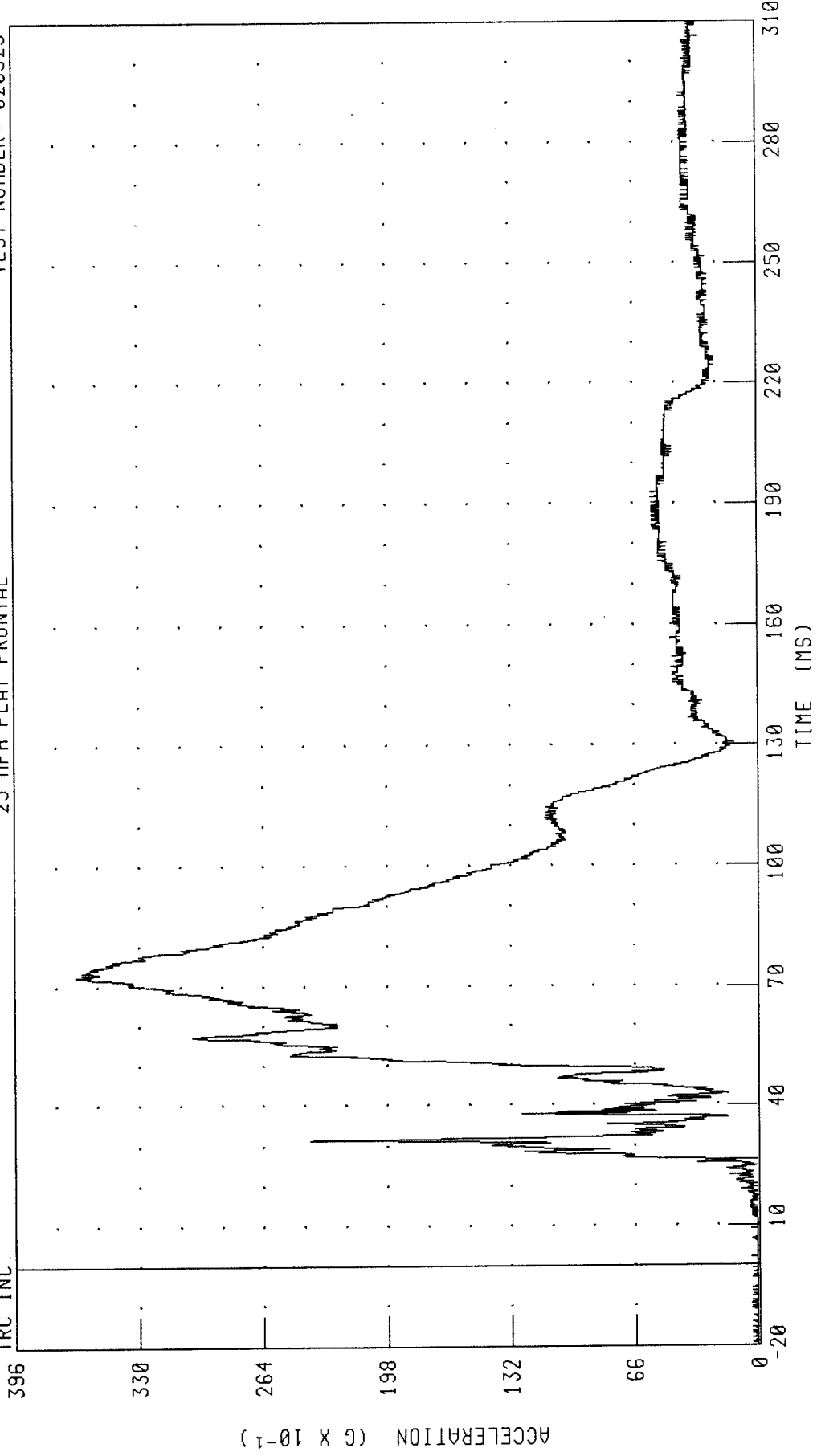


CHANNEL: HEDZG2 FILTER: CH. CLASS 1000  
PEAK DATA 15.28 G @ 52.96 MS; -10.91 G @ 114.56 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

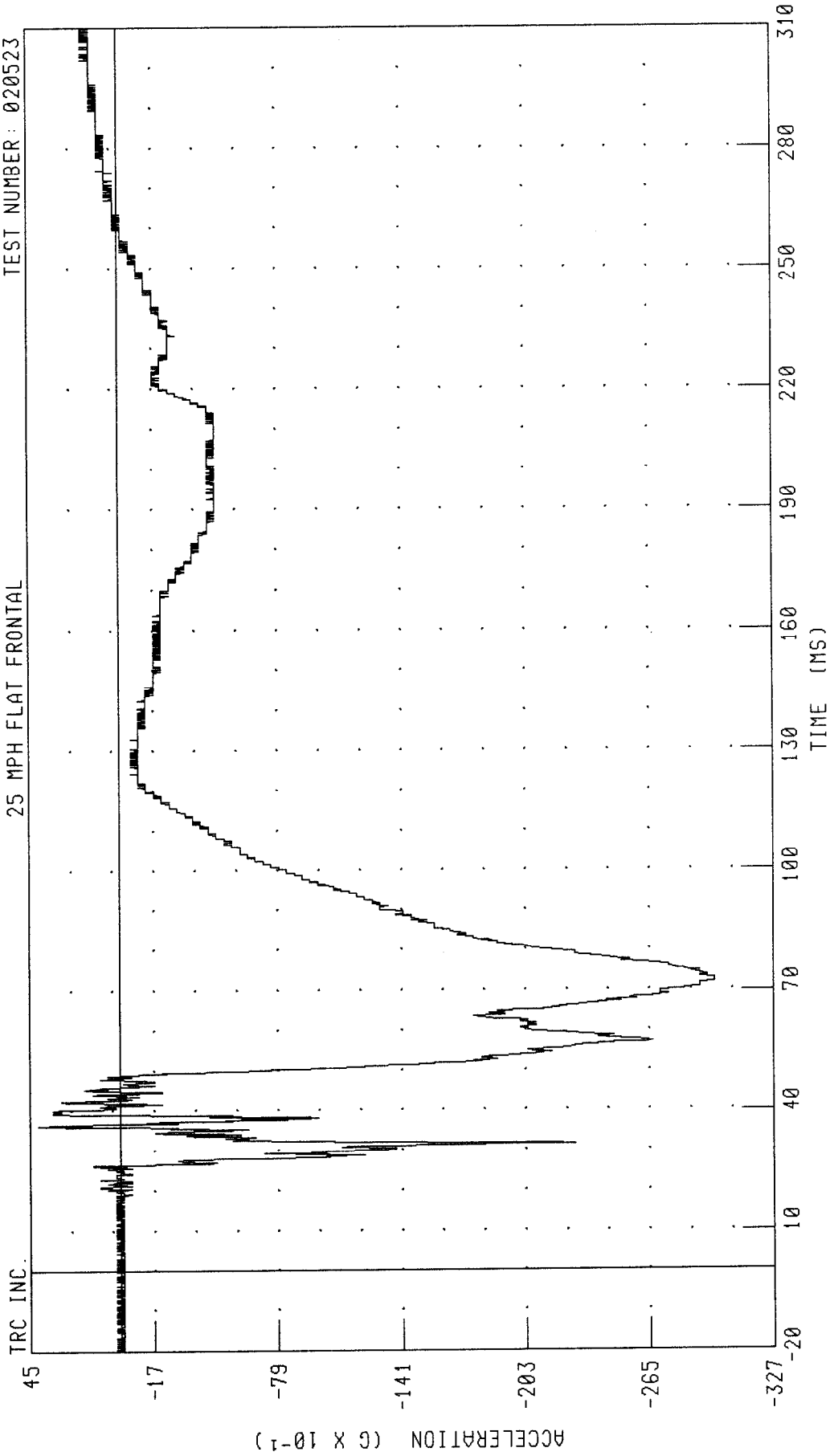


PEAK DATA: 36.36 G @ 72.56 MS; 0.09 G @ -20.00 MS

CHANNEL: HEDRC2 FILTER: CH. CLASS 1000

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD X-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

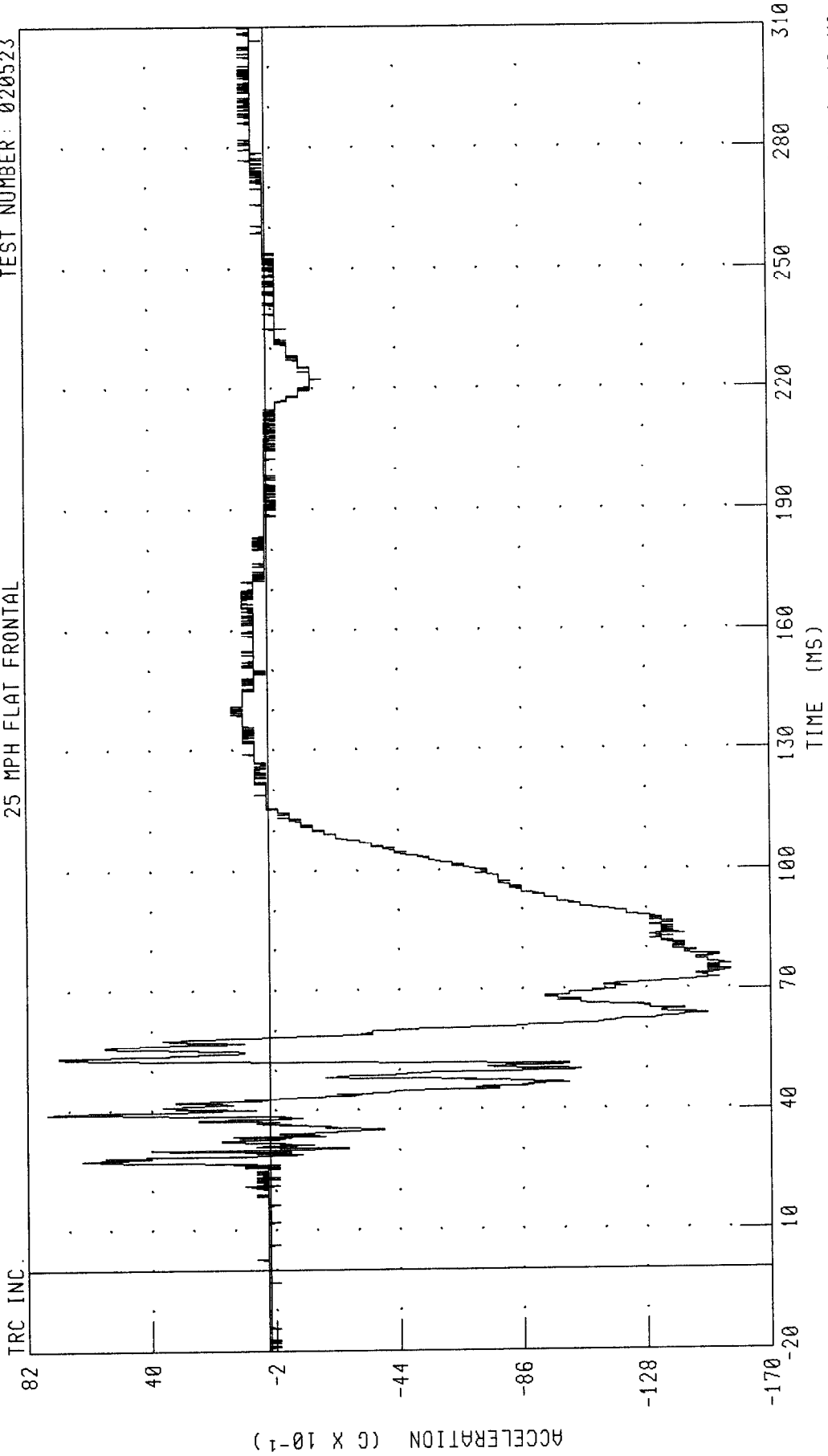
TEST NUMBER: 020523



CHANNEL: HEDXR2 FILTER: CH. CLASS 1000 PEAK DATA: 4.12 G @ 36.32 MS; -29.79 G @ 71.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Y-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

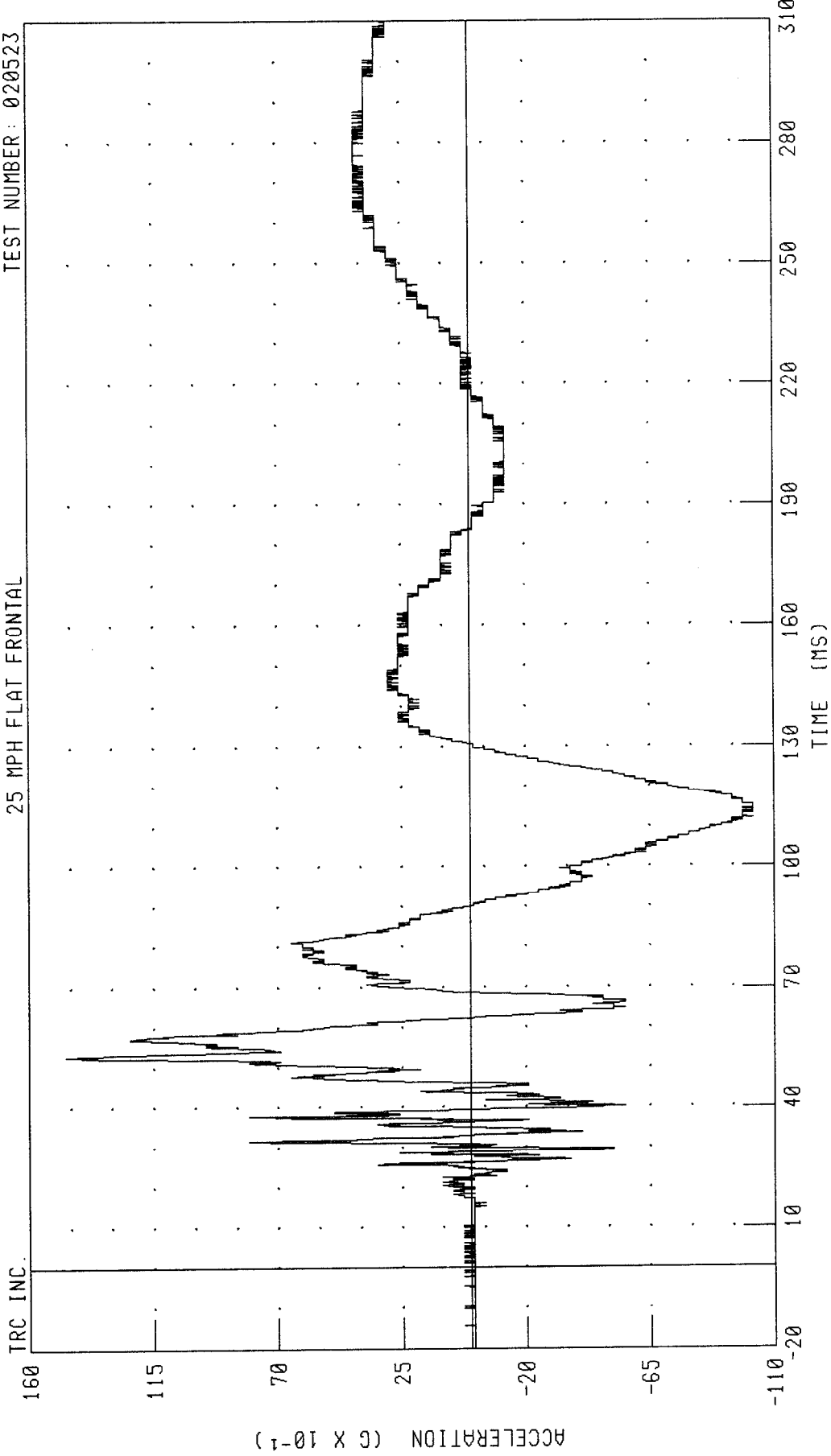


CHANNEL: HEDVR2 FILTER: CH. CLASS 1000

PEAK DATA: 7.54 G @ 39.20 MS; -15.67 G @ 74.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Z-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

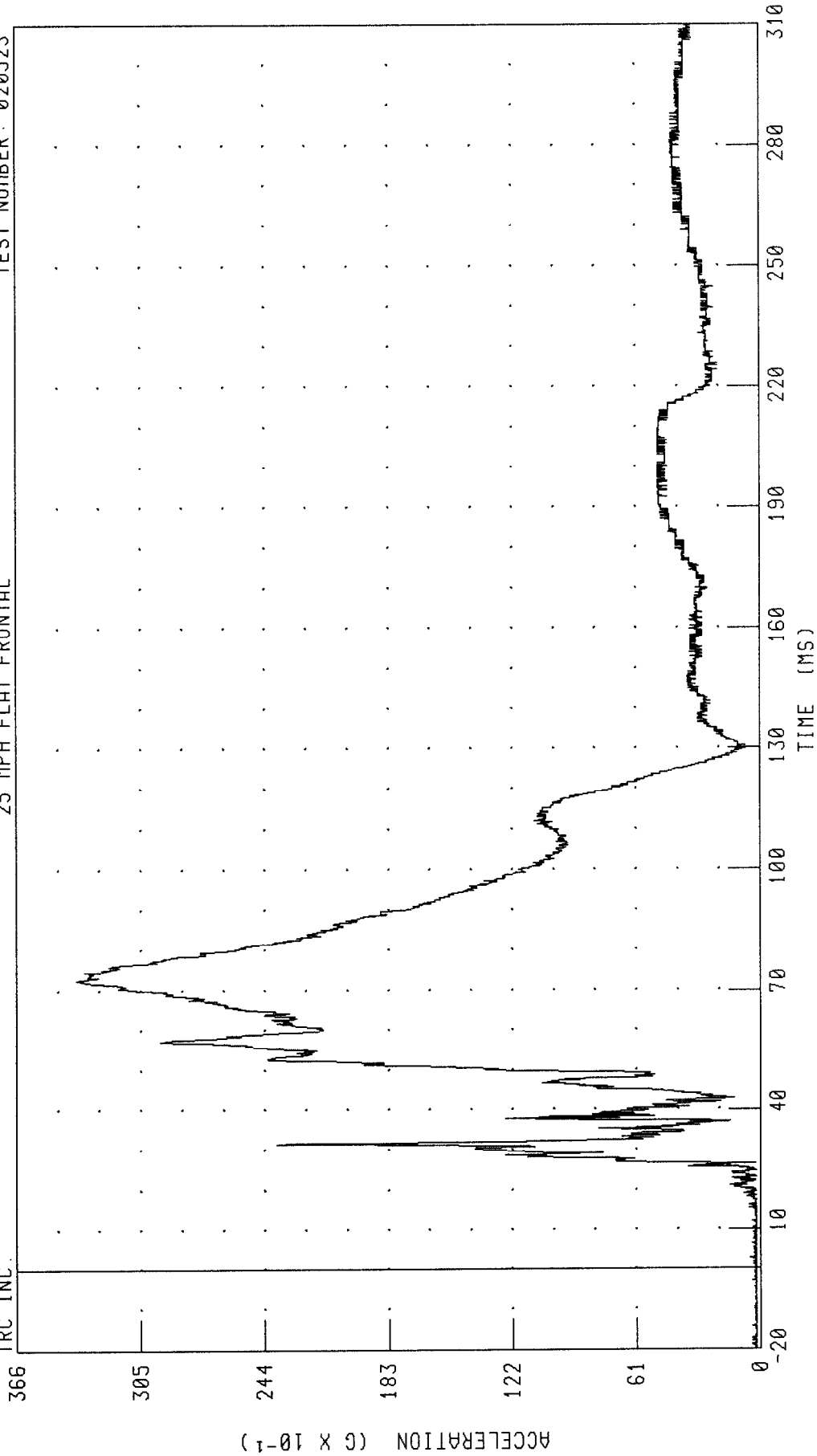
TEST NUMBER: 020523



2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD RESULTANT ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

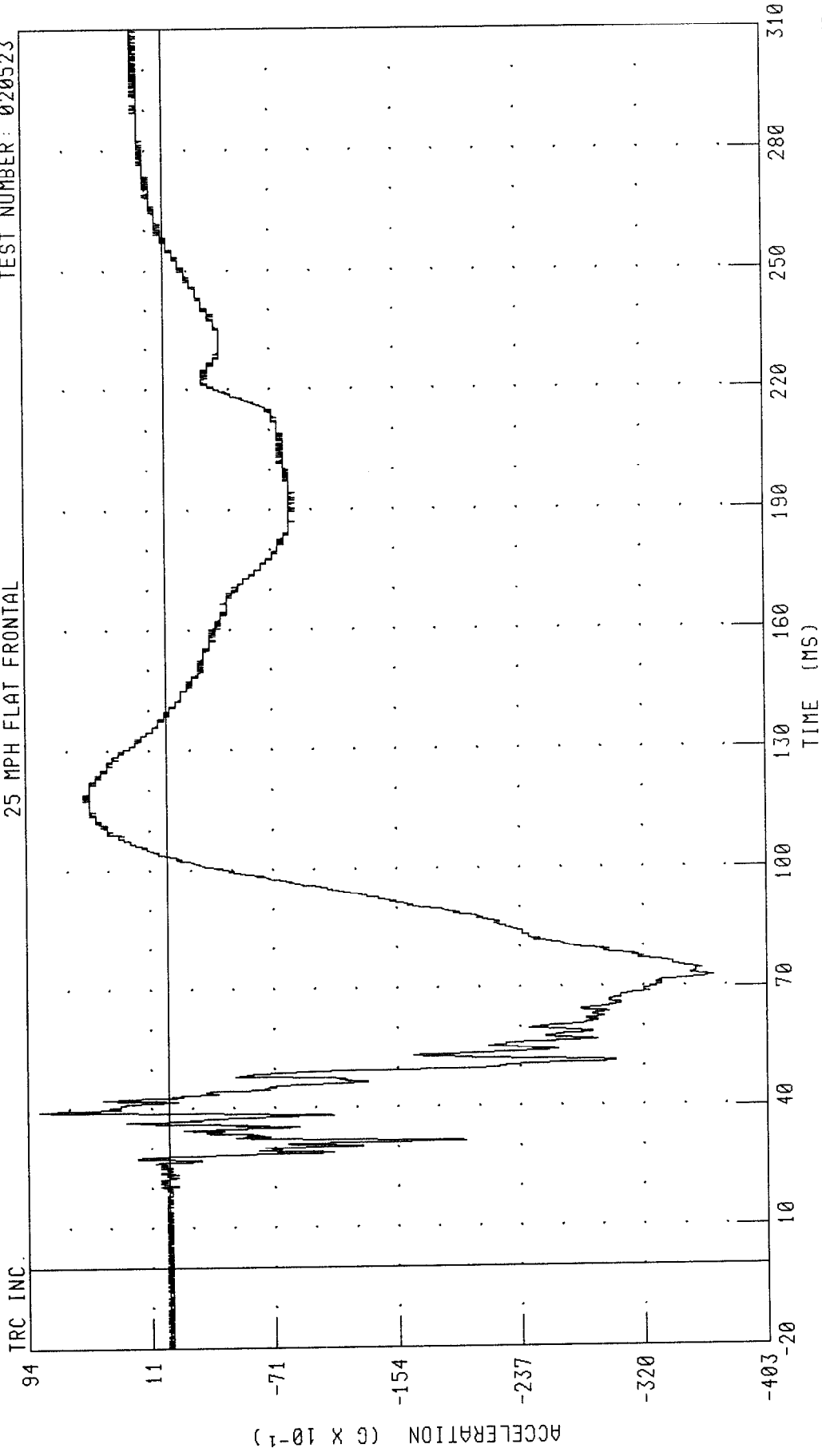
TRC INC.



CHANNEL: HEDRR2 FILTER: CH. CLASS 1000 PEAK DATA: 33.65 G @ 72.64 MS; 0.22 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD X-AXIS (LT) ACCELERATION  
25 MPH FLAT FRONTAL

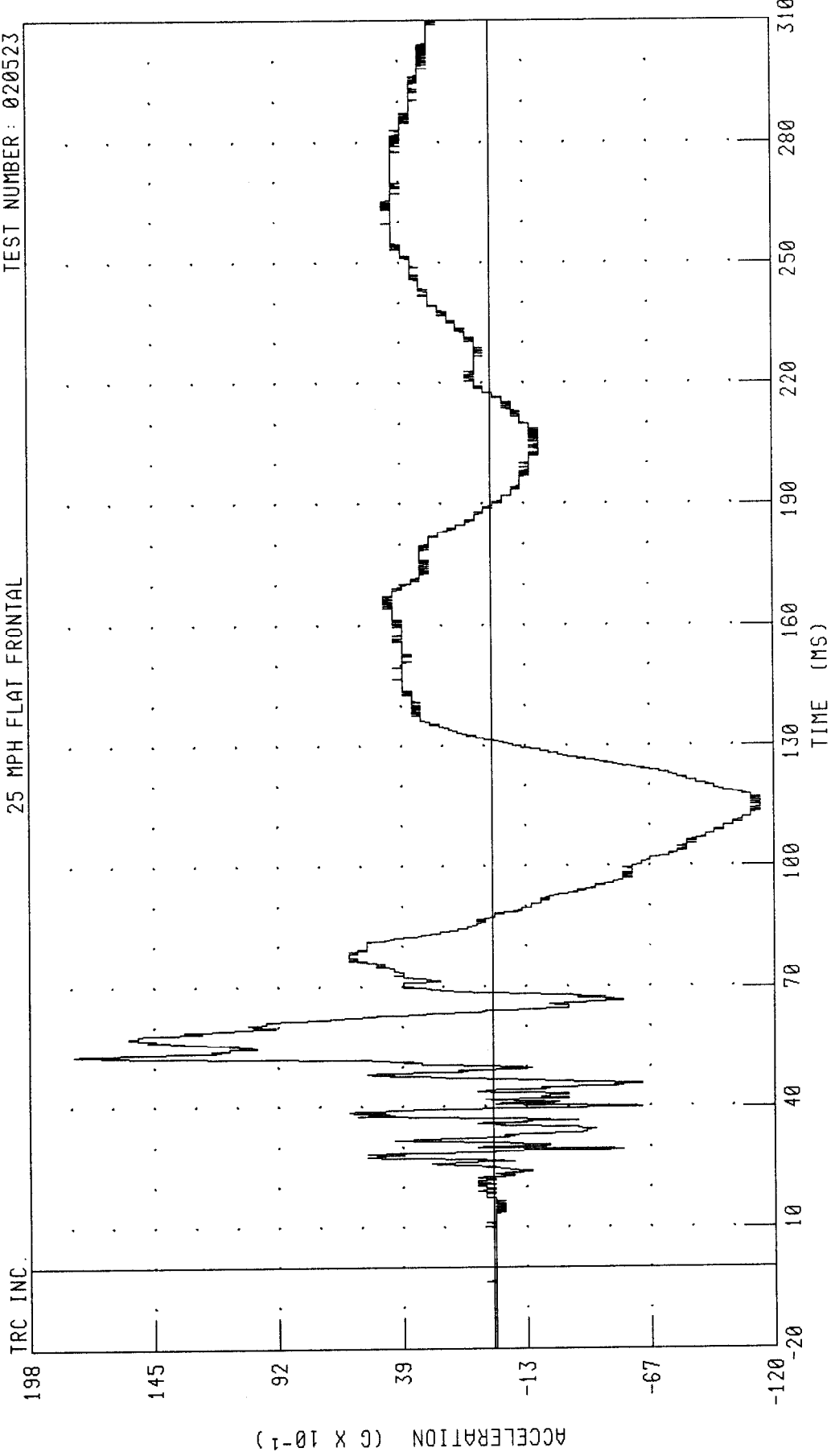
TEST NUMBER: 020523



CHANNEL: HDIXG2 FILTER: CH. CLASS 1000 PEAK DATA: 8.72 G @ 39.28 MS; -36.71 G @ 72.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Z-AXIS (LT) ACCELERATION  
25 MPH FLAT FRONTAL

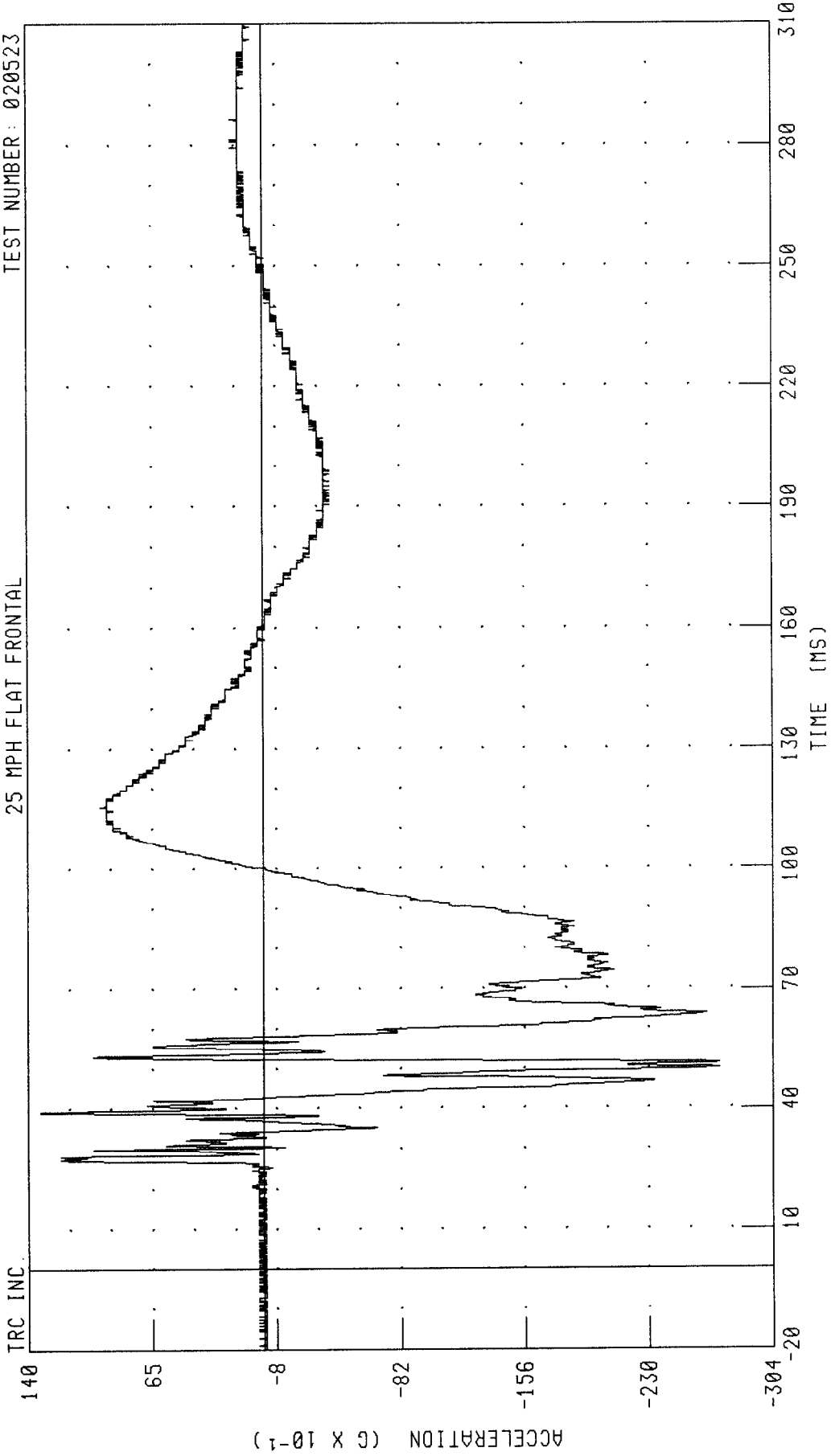
TEST NUMBER: 020523



CHANNEL: HD1ZG2 FILTER: CH. CLASS 1000

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Y-AXIS (FT) ACCELERATION  
25 MPH FLAT FRONTAL

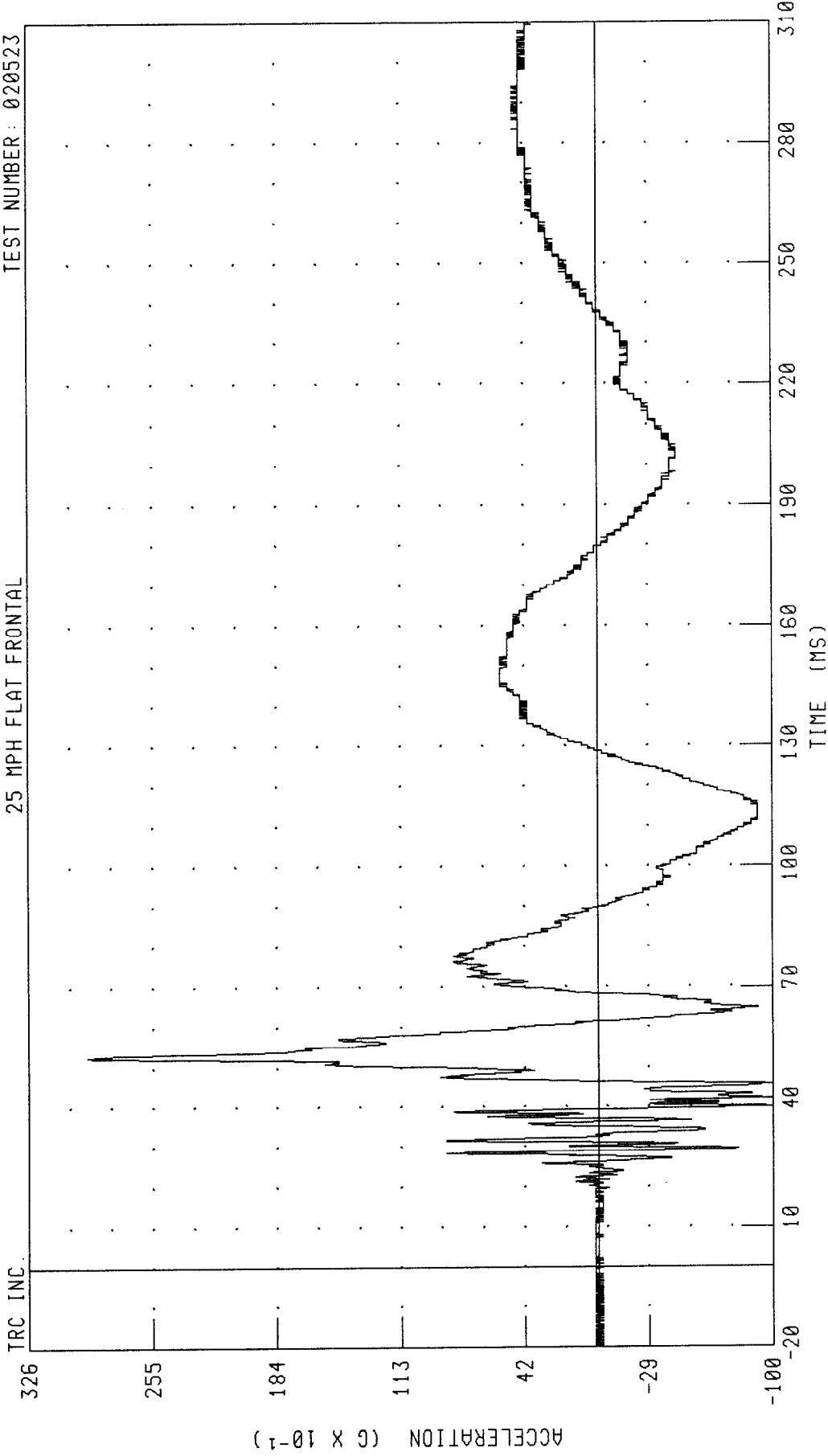
TEST NUMBER: 020523



CHANNEL: HD2YC2 FILTER: CH. CLASS 1000 PEAK DATA: 13 24 G @ 39.20 MS; -27.23 G @ 50.08 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Z-AXIS (FT) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

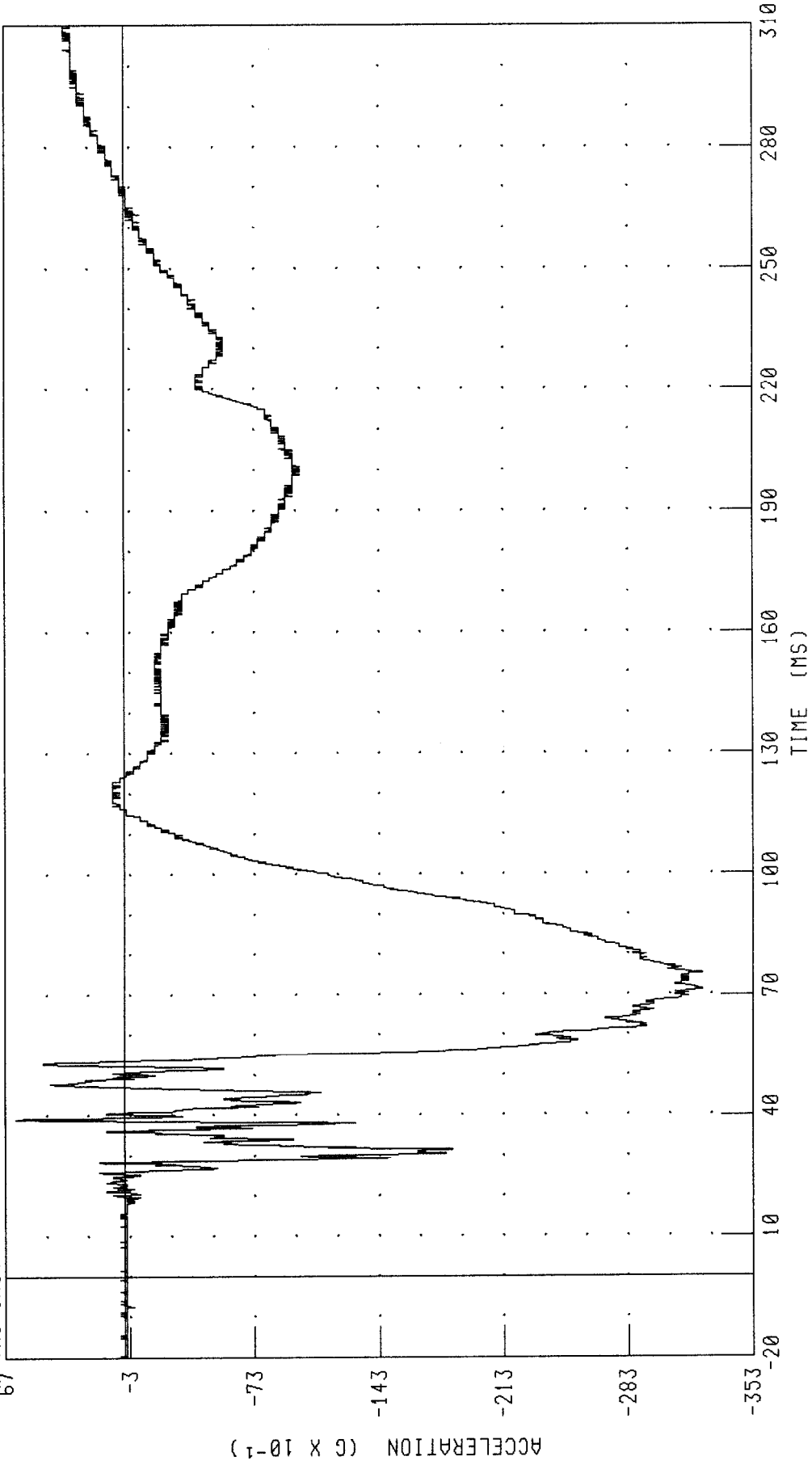


CHANNEL: HD2ZC2 FILTER: CH. CLASS 1000 PEAK DATA: 29.23 G @ 52.80 MS; -9.97 G @ 42.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD X-AXIS (TP) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

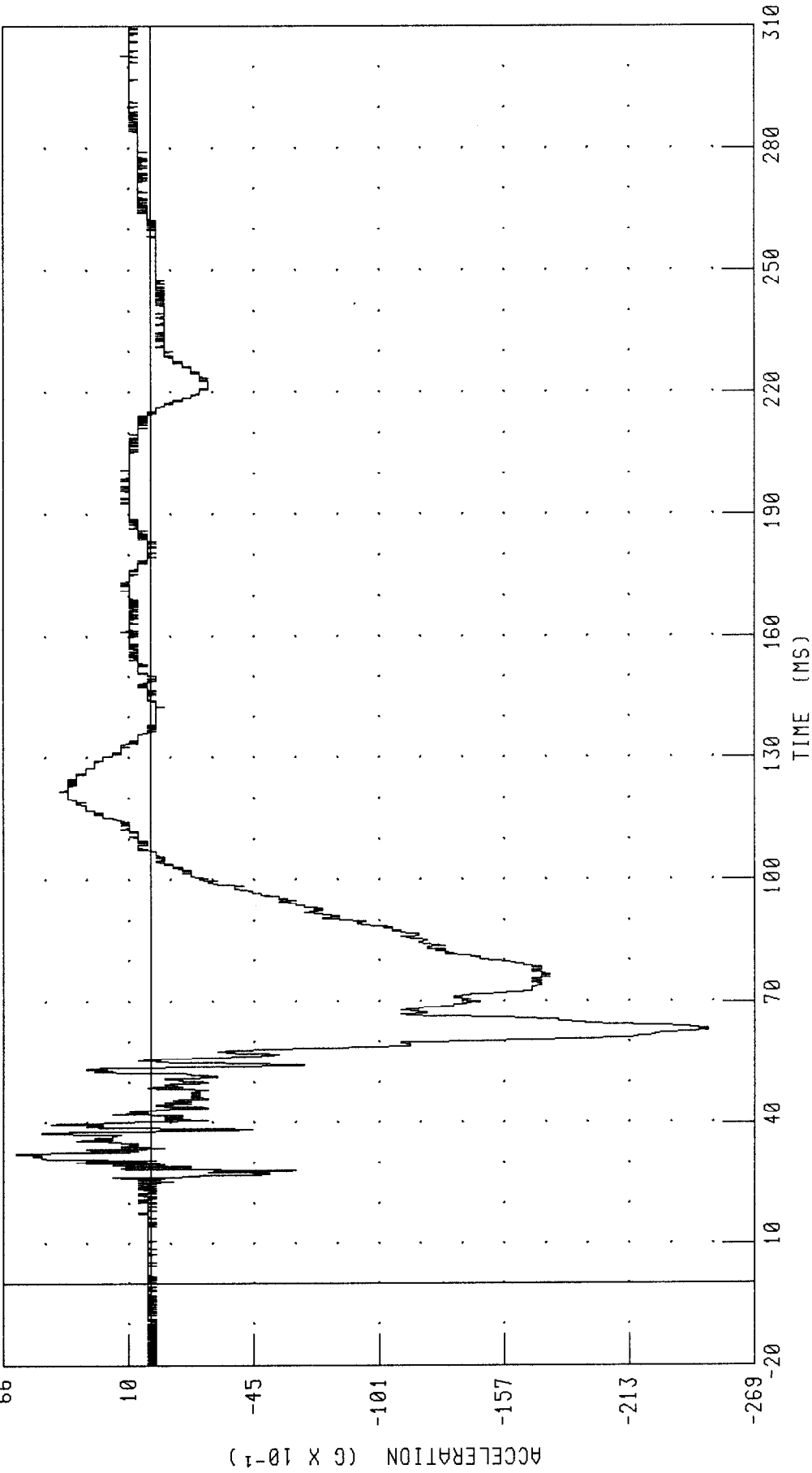


CHANNEL: HDJXG2 FILTER: CH. CLASS 1000 PEAK DATA: 6.12 G @ 39.12 MS; -32.46 G @ 71.20 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER HEAD Y-AXIS (TP) ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.  
66



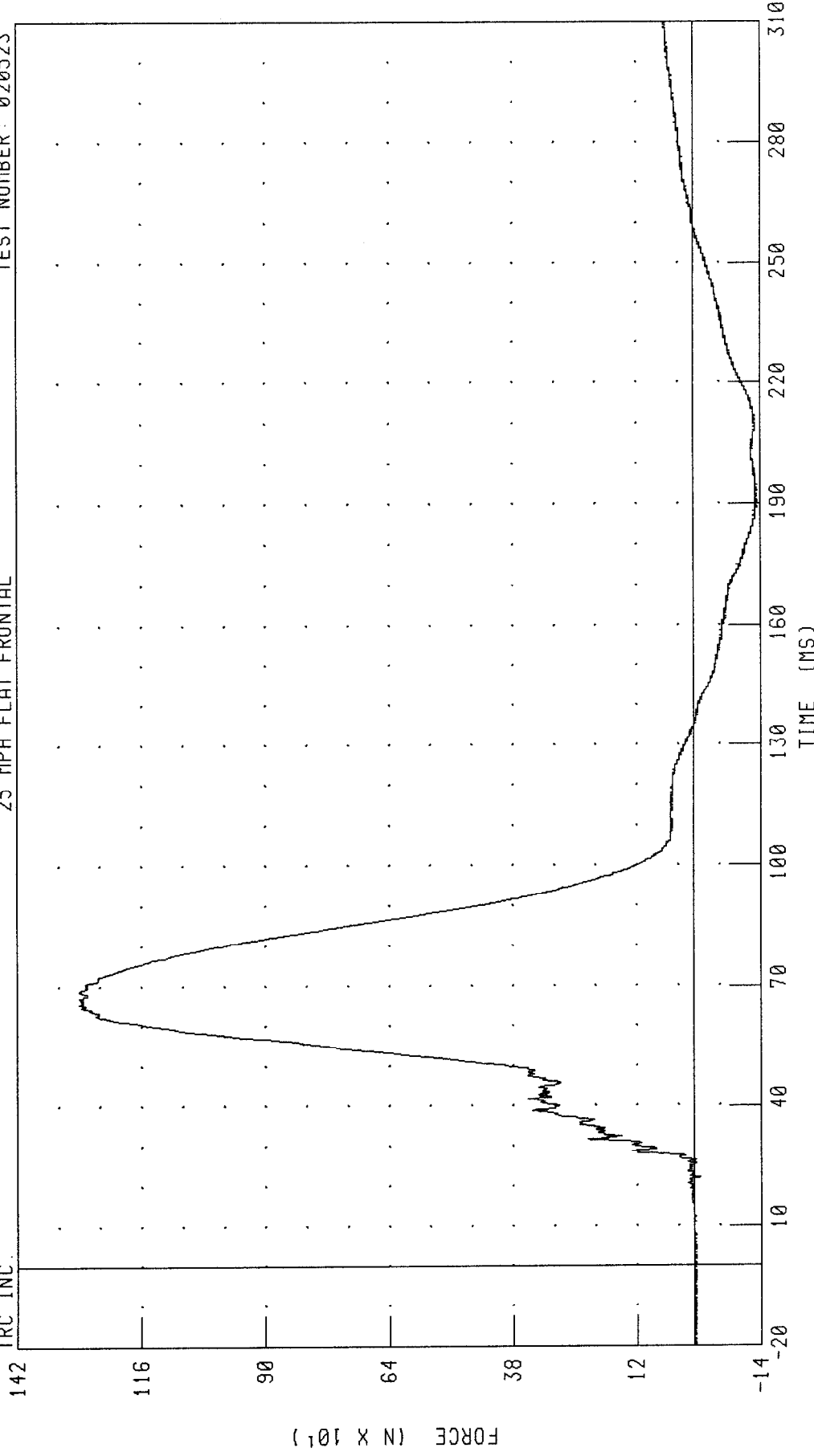
PEAK DATA: 6.06 G @ 32.24 MS; -24.90 G @ 62.72 MS

CHANNEL: HD3YG2 FILTER: CH. CLASS 1000

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK X-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

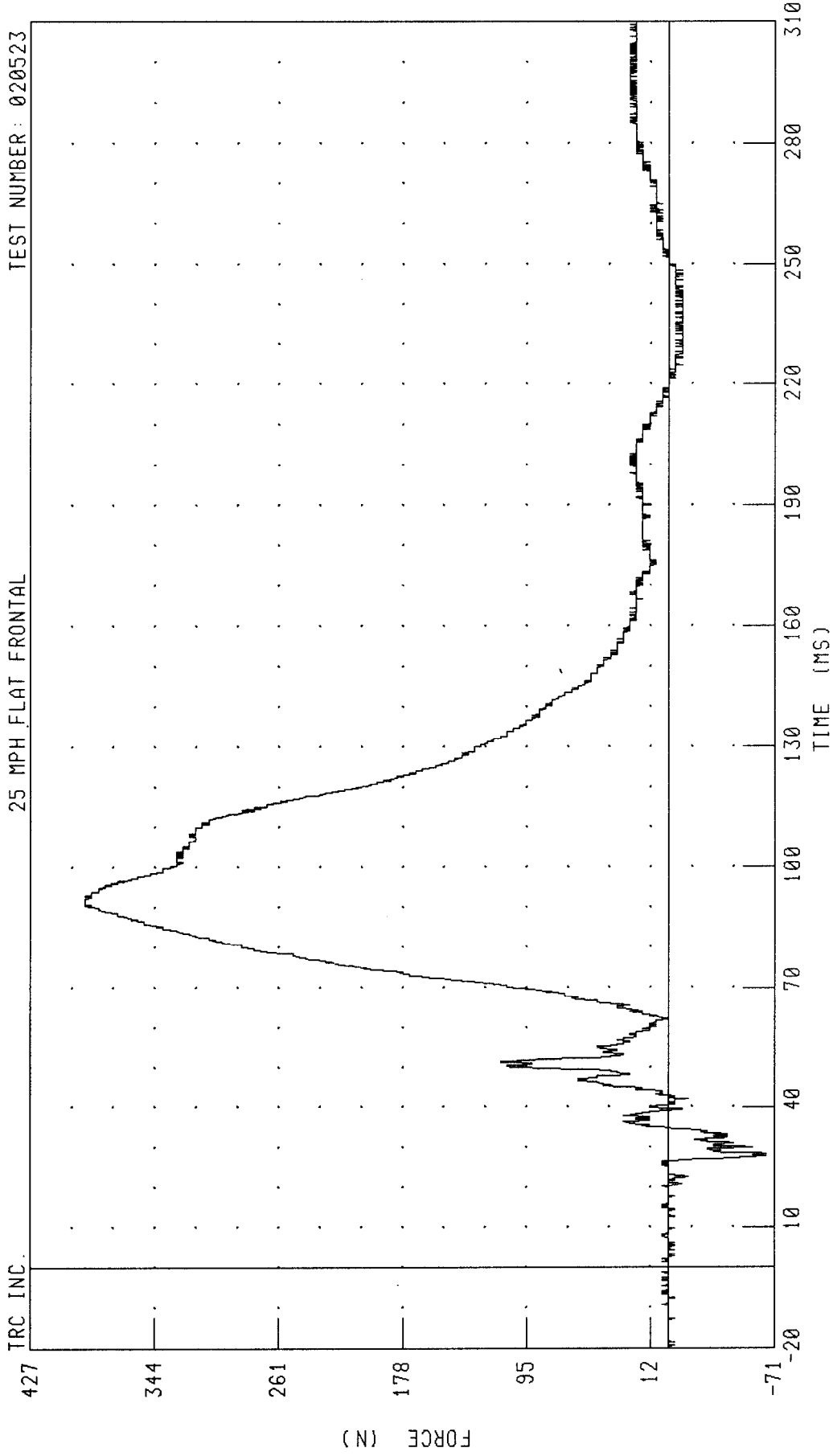
TRC INC.



CHANNEL: NEKXF2 FILTER: CH. CLASS 1000 PEAK DATA: 1291.21 N @ 65.68 MS, -133.47 N @ 189.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK Y-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

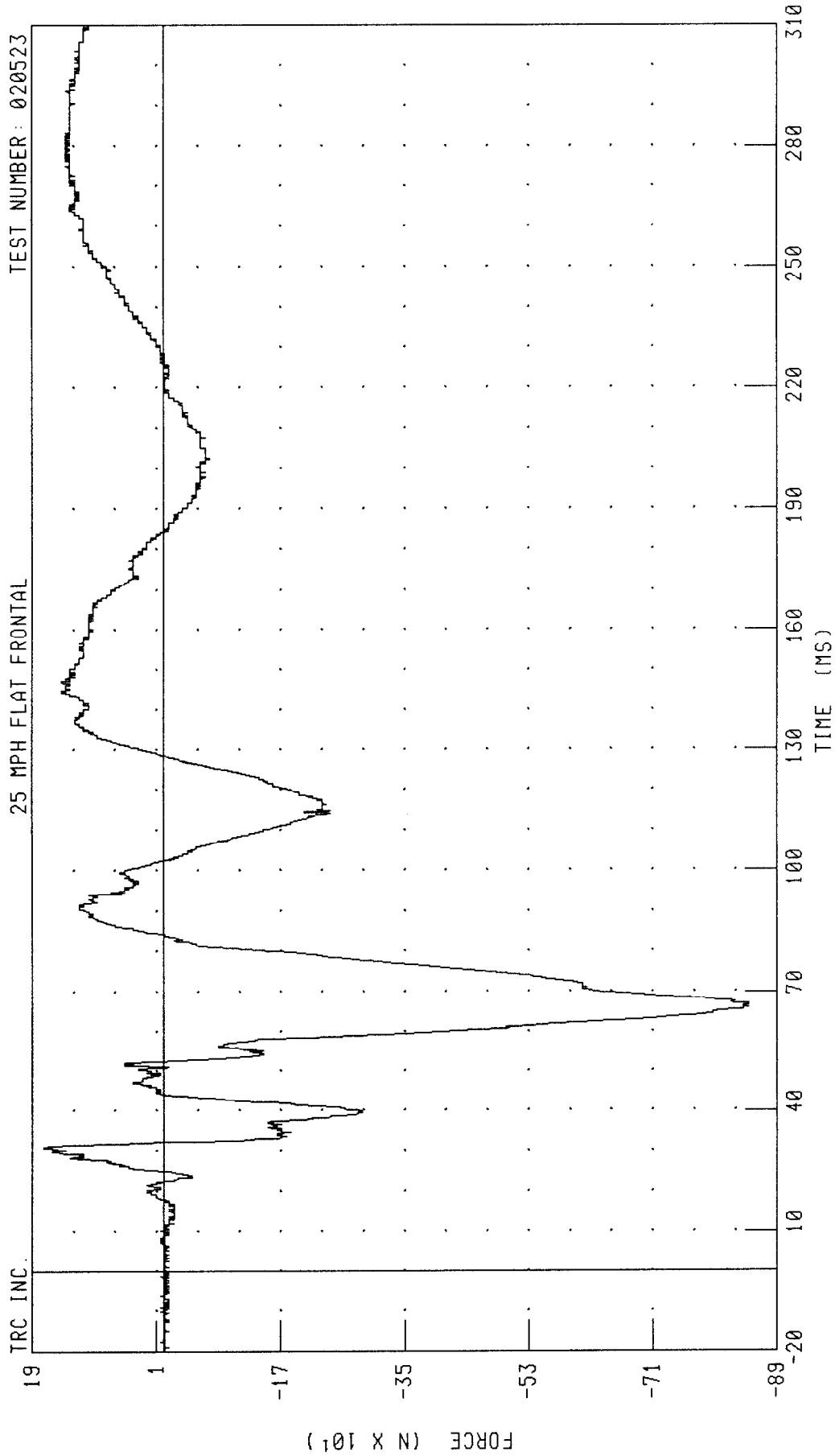
TEST NUMBER: 020523



TRC INC. CHANNEL: NEKYF2 FILTER: CH. CLASS 1000  
PEAK DATA: 390.43 N @ 90.40 MS; -65.34 N @ 27.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK Z-AXIS AXIAL FORCE  
25 MPH FLAT FRONTAL

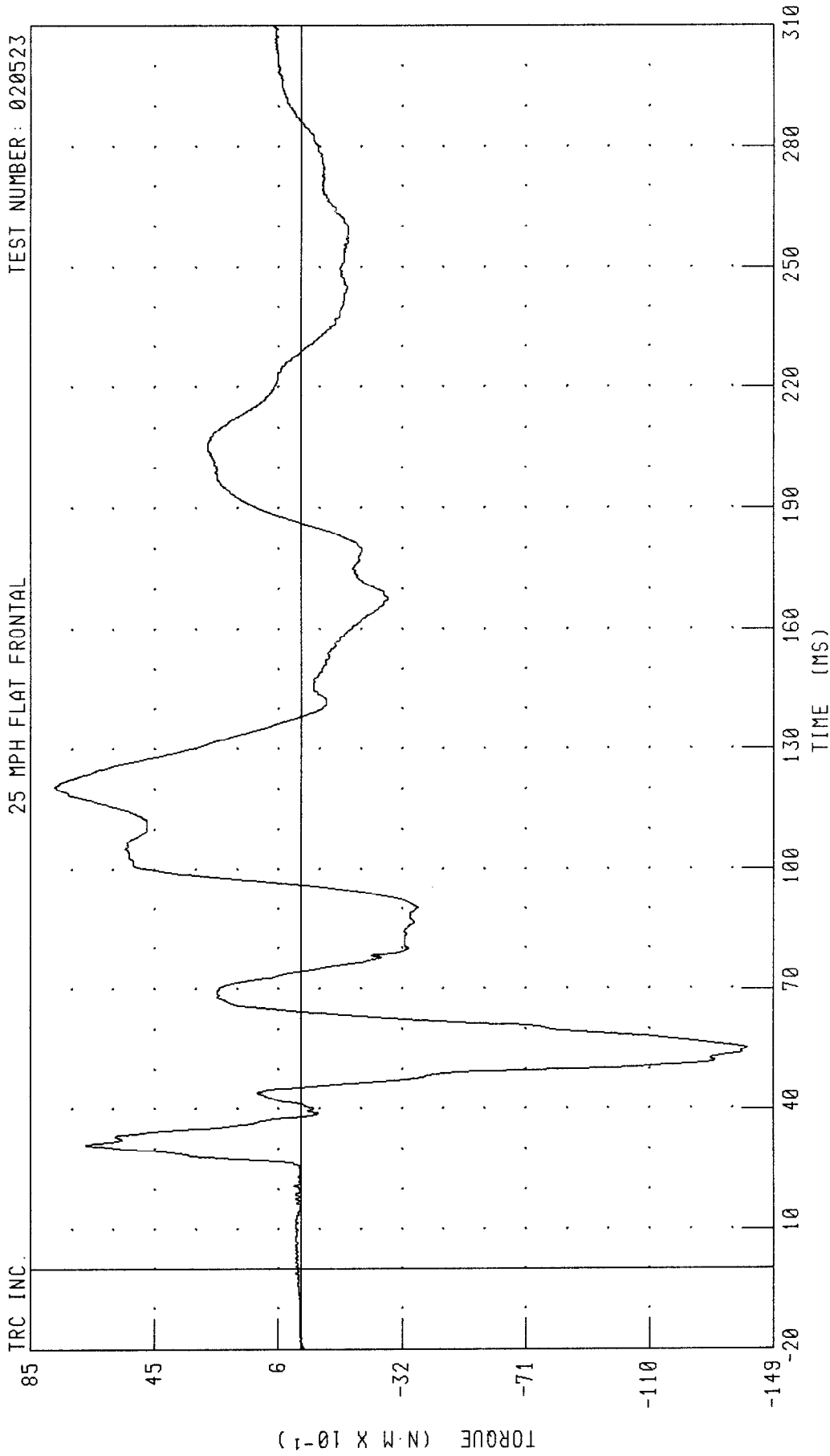
TEST NUMBER: 020523



CHANNEL: NEKZF2 FILTER: CH. CLASS 1000 PEAK DATA: 173.98 N @ 30.80 MS; -848.62 N @ 66.08 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

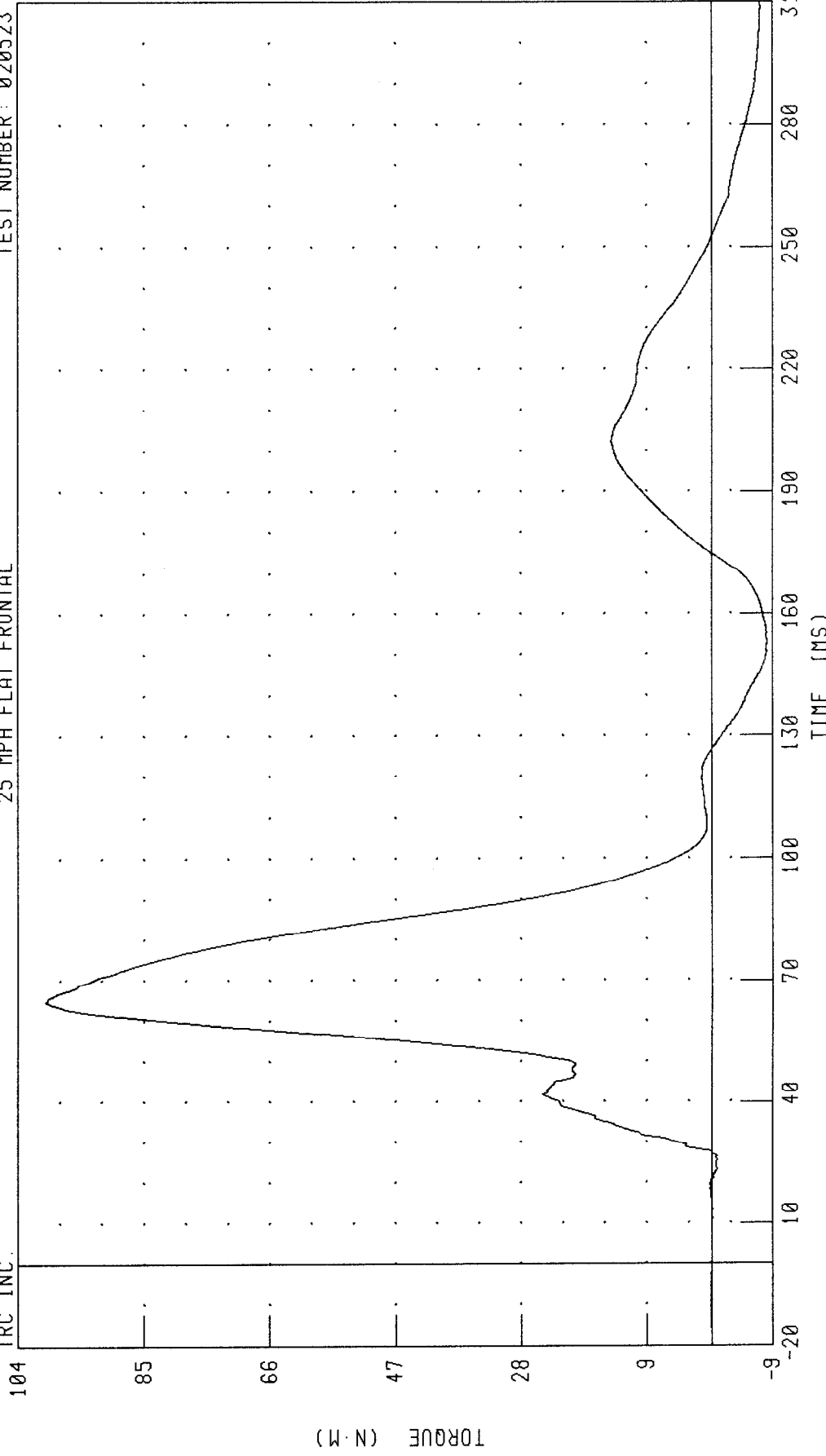


CHANNEL: NEKXM2 FILTER: CH. CLASS 600 PEAK DATA: 7.74 N-M @ 120.80 MS; -14.06 N-M @ 55.28 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

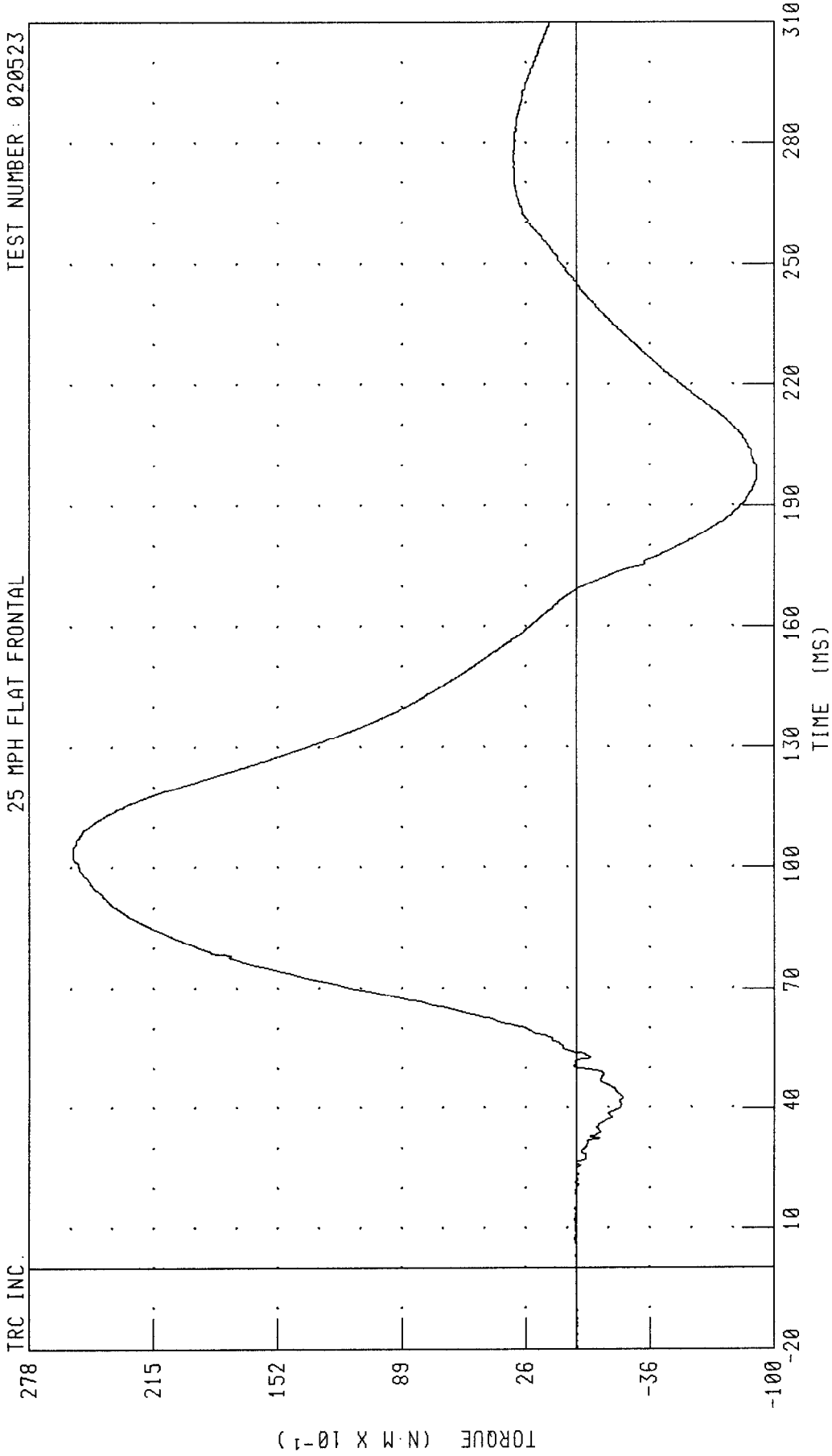


PEAK DATA: 100.76 N·M @ 64.80 MS, -8.28 N·M @ 153.20 MS

CHANNEL: NEKYM2 FILTER: CH. CLASS 600

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK MOMENT ABOUT Z AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

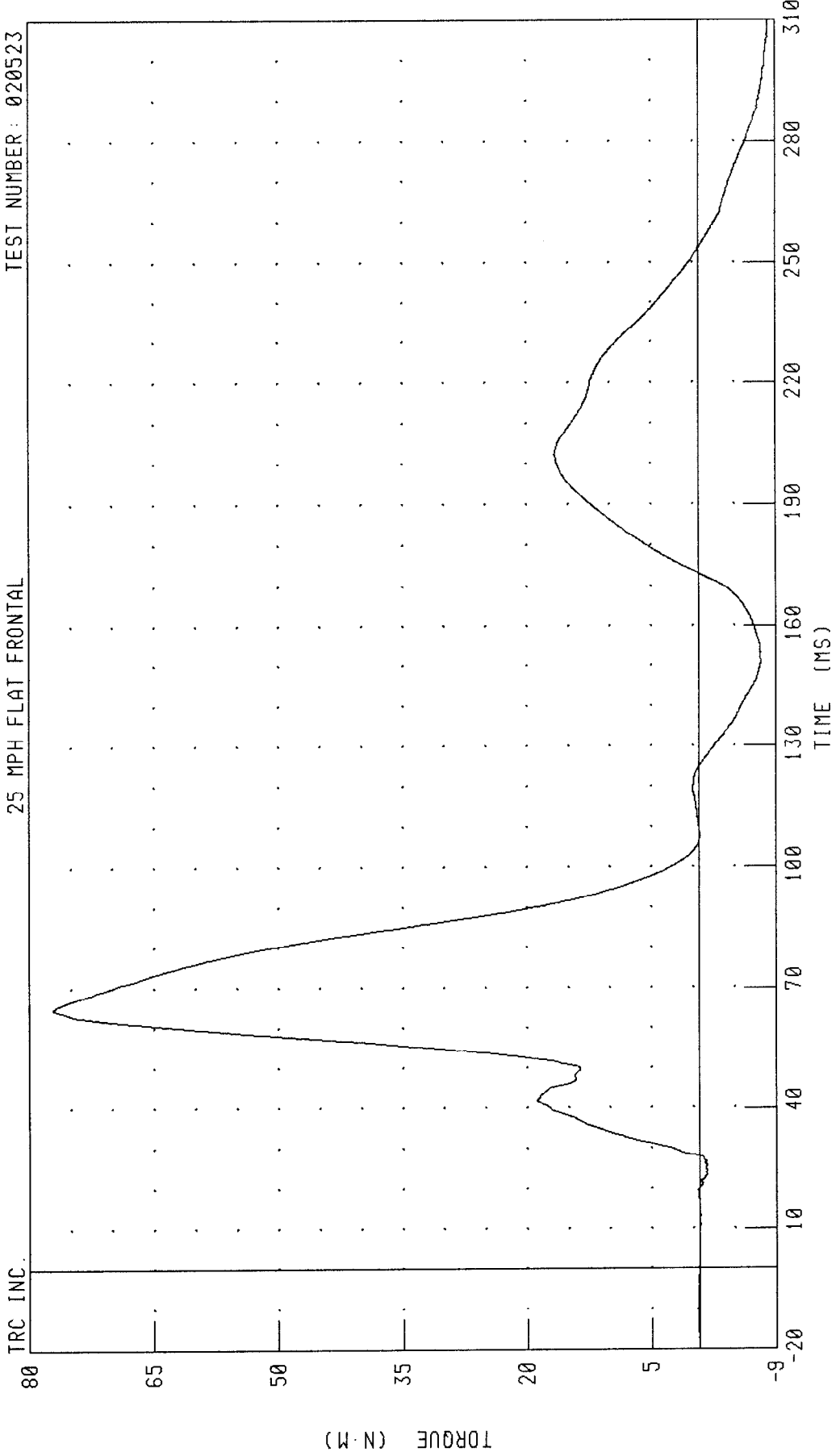


CHANNEL: NEKZM2 FILTER: CH. CLASS 600

PEAK DATA: 25.55 N·M @ 104.88 MS; -9.10 N·M @ 199.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK OCCIPITAL CONDYLE MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

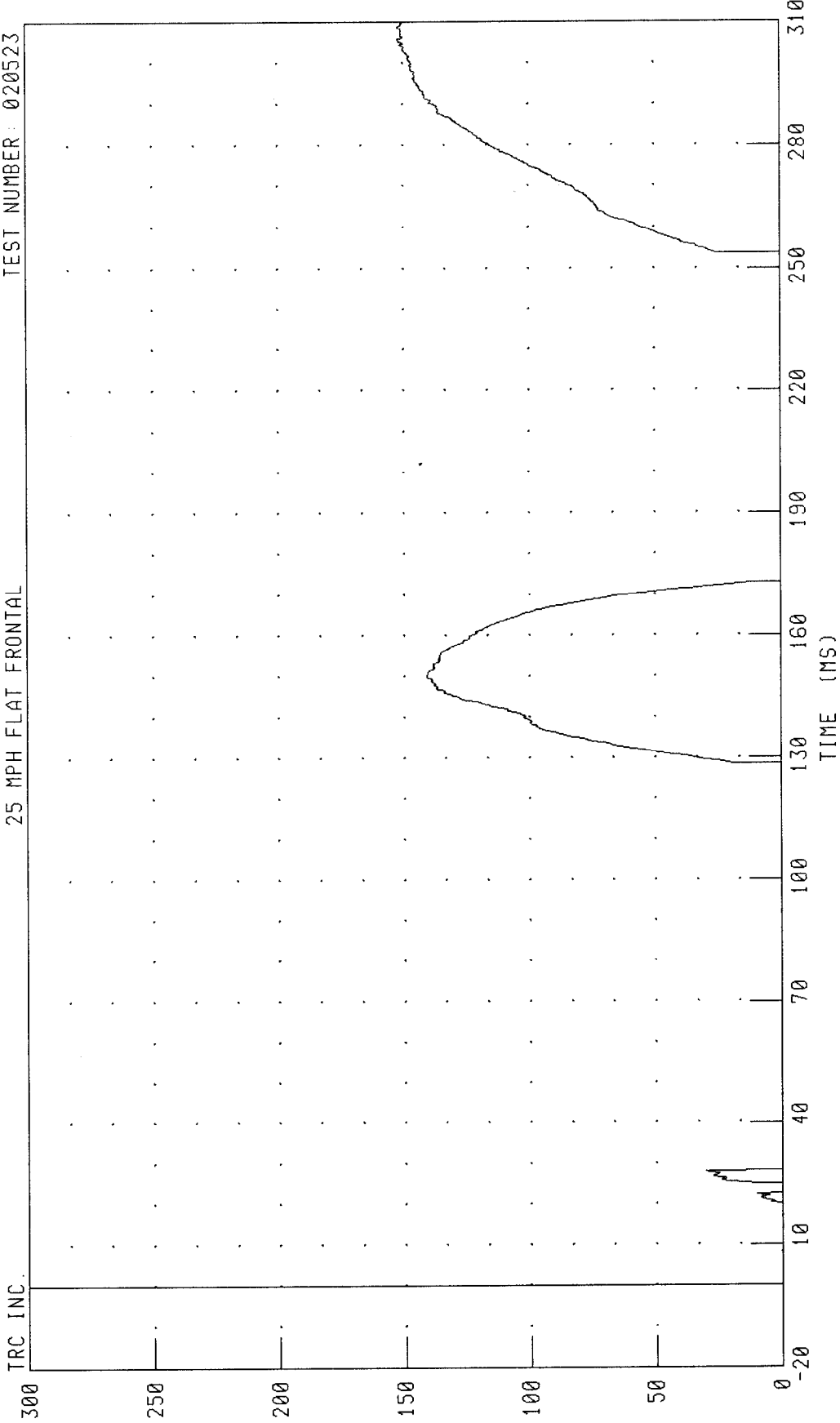


CHANNEL: NEKOM2 FILTER: CH. CLASS 600 PEAK DATA: 77.95 N·M @ 64.80 MS; -8.38 N·M @ 308.56 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NIJ TENSION/EXTENSION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

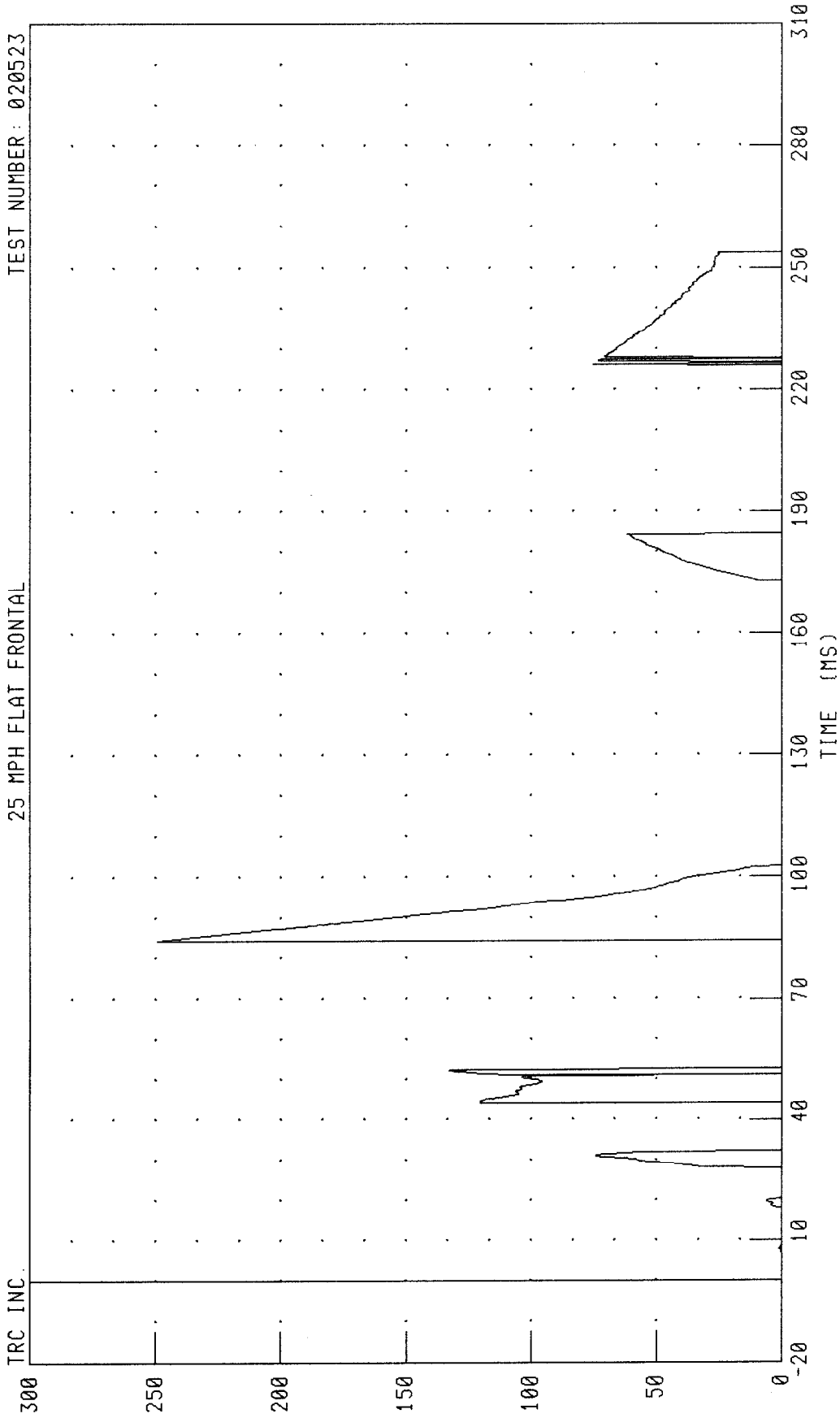


CHANNEL: NTE2 FILTER: CH. CLASS 600

PEAK DATA: 0.15 --- @ 308.56 MS; 0.00 --- @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NIJ TENSION/FLEXION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



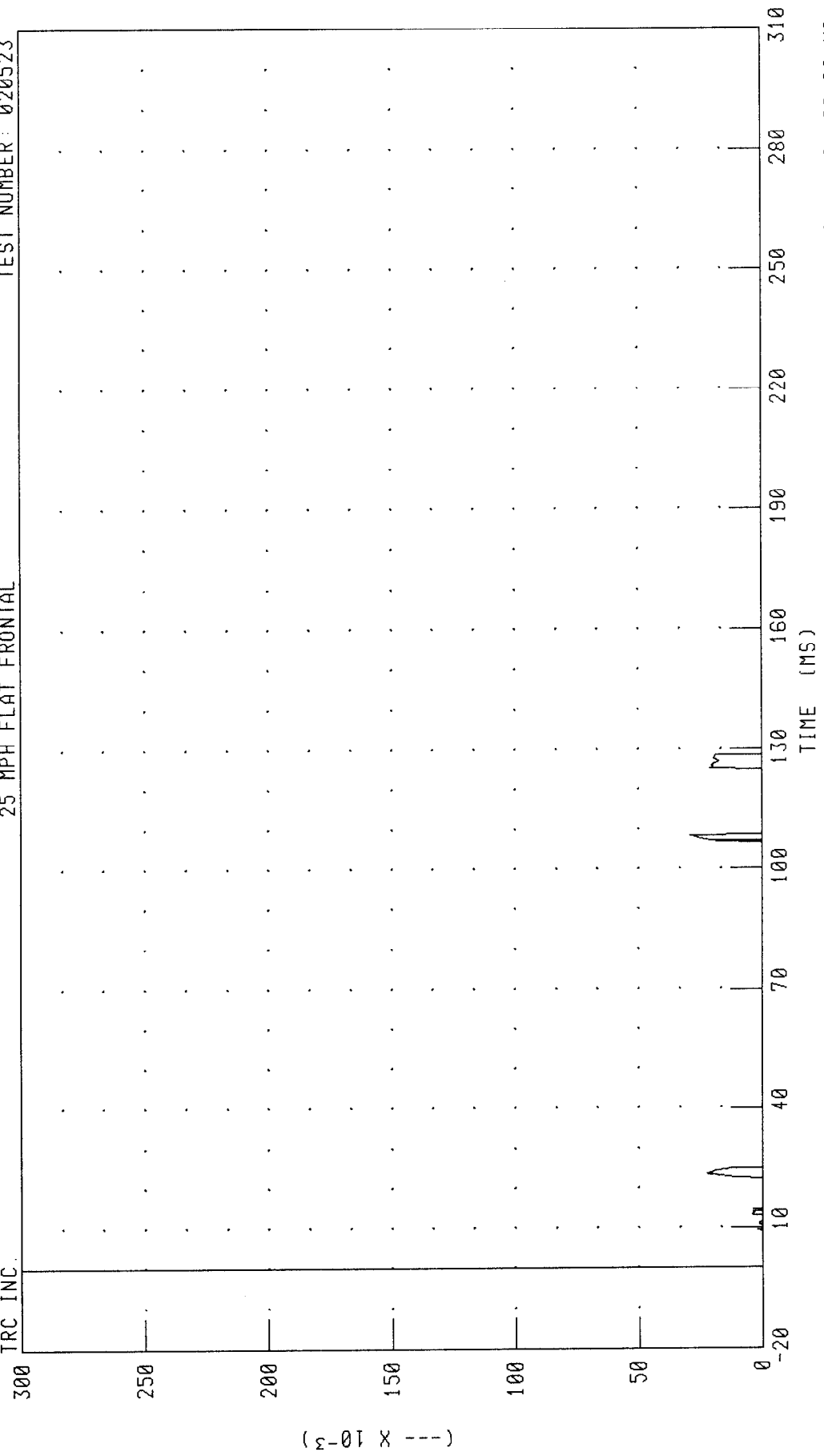
(--- X 10<sup>-3</sup>)

CHANNEL: NTF2 FILTER: CH. CLASS 600 PEAK DATA: 0.25 --- 0 84.32 MS; 0.00 --- 0 -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NIJ COMPRESSION/EXTENSION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

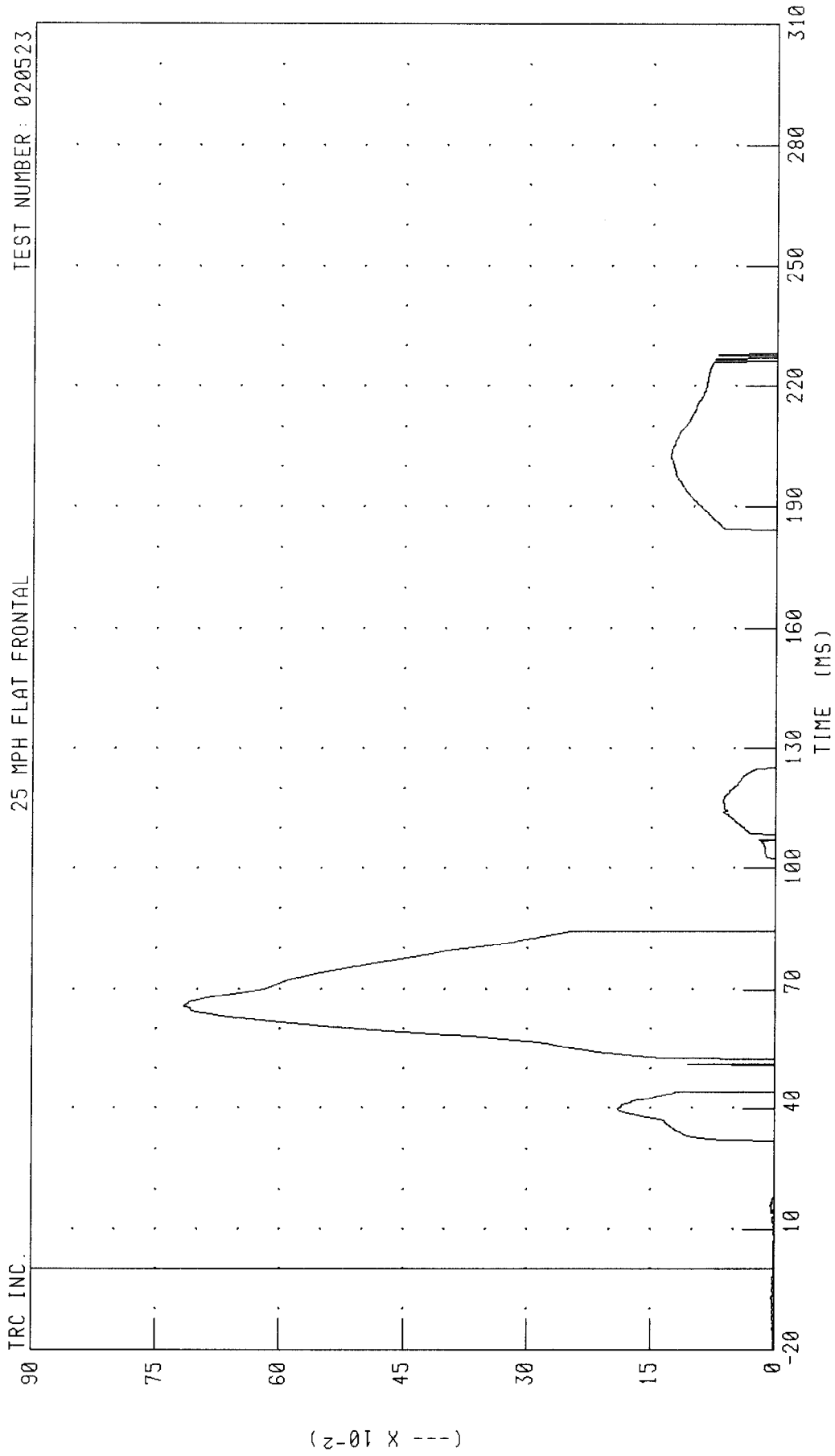
TRC INC.



CHANNEL: NCE2 FILTER: CH. CLASS 600 PEAK DATA: 0.03 --- 0 108.56 MS; 0.00 --- 0 -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NIJ COMPRESSION/FLEXION  
25 MPH FLAT FRONTAL

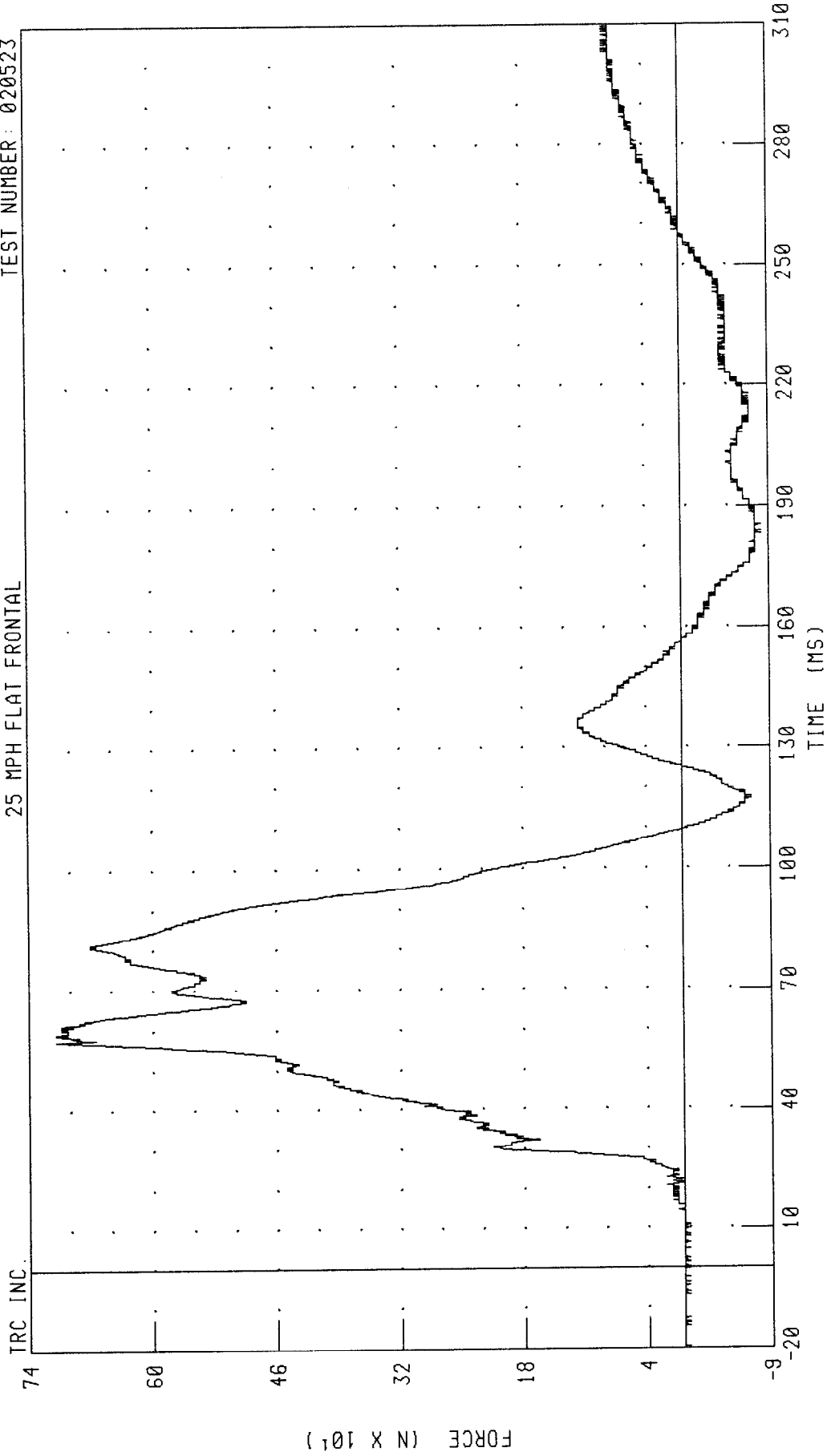
TEST NUMBER: 020523



CHANNEL: NCF2 FILTER: CH. CLASS 600 PEAK DATA: 0.72 --- 0 65.76 MS; 0.00 --- 0 6.96 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER X-AXIS SHEAR FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



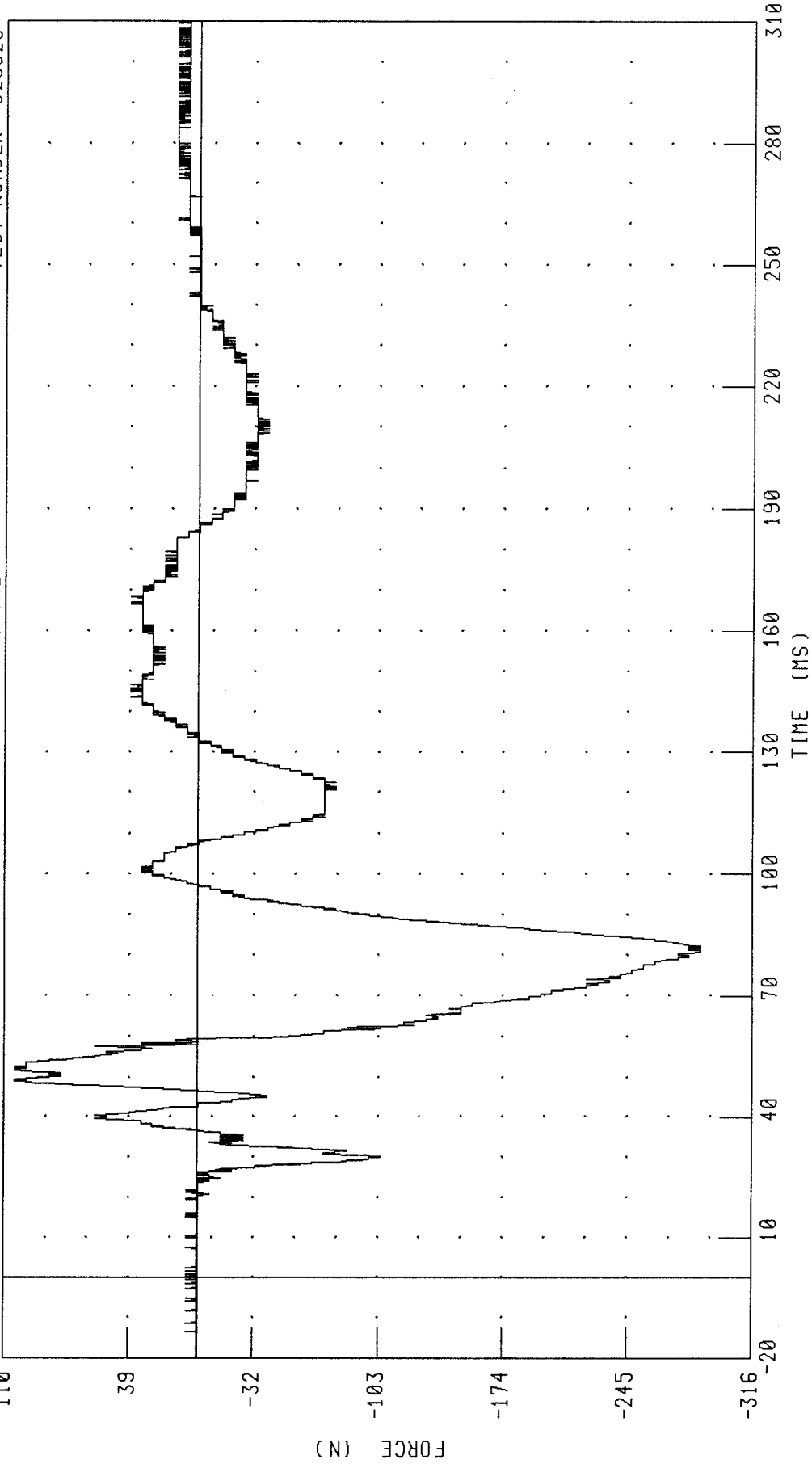
CHANNEL: NKLXF2 FILTER: CH. CLASS 1000 PEAK DATA: 710.94 N @ 57.44 MS; -90.72 N @ 183.20 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER Y-AXIS SHEAR FORCE

TRC INC.

25 MPH FLAT FRONTAL

TEST NUMBER: 020523

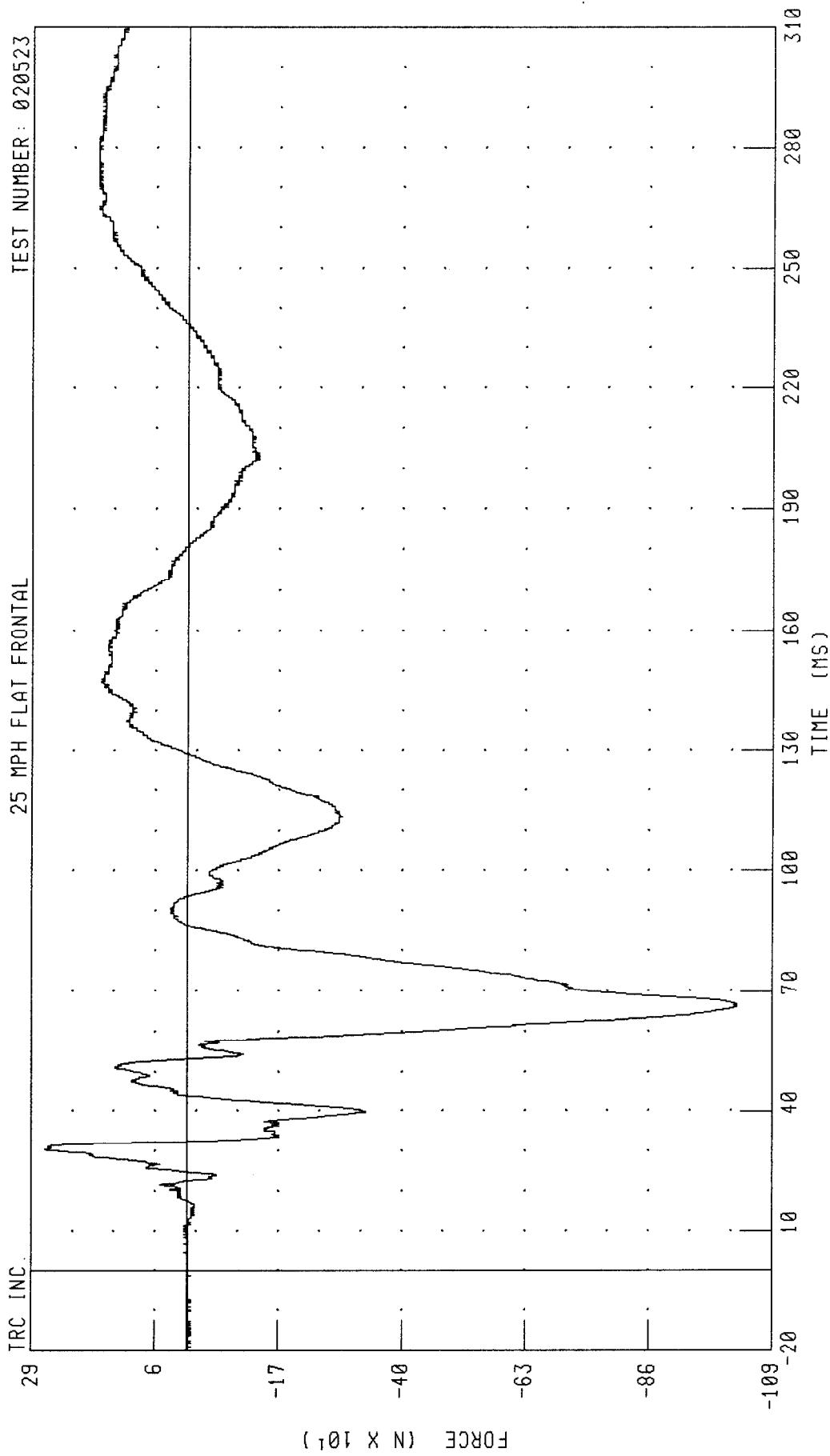


CHANNEL: NKLYF2 FILTER: CH. CLASS 1000

PEAK DATA: 103.84 N @ 49.04 MS, -286.73 N @ 80.72 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER Z-AXIS AXIAL FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

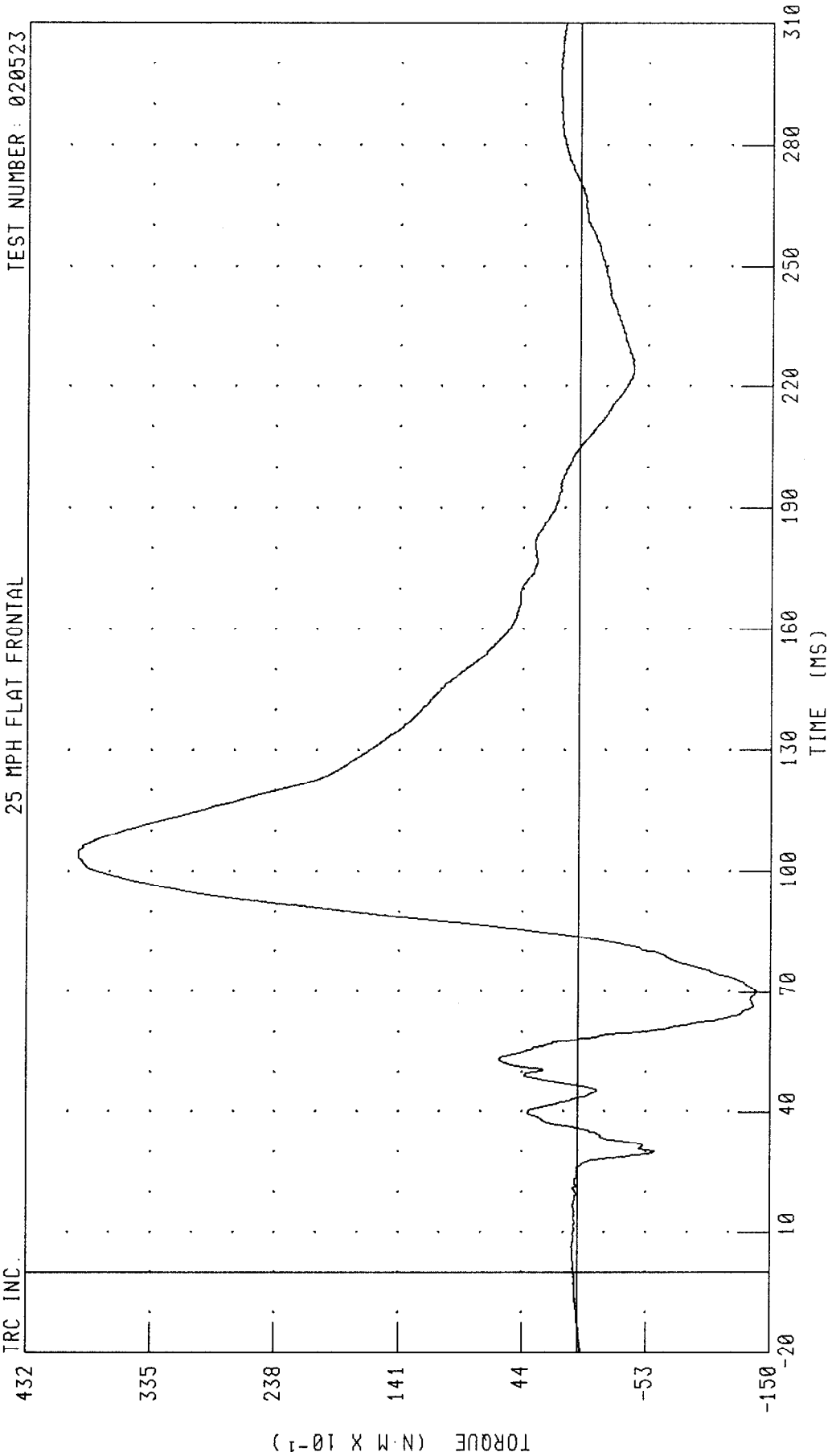


CHANNEL: NKLZF2 FILTER: CH. CLASS 1000 PEAK DATA: 265.89 N @ 30.40 MS, -1023.96 N @ 66.16 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

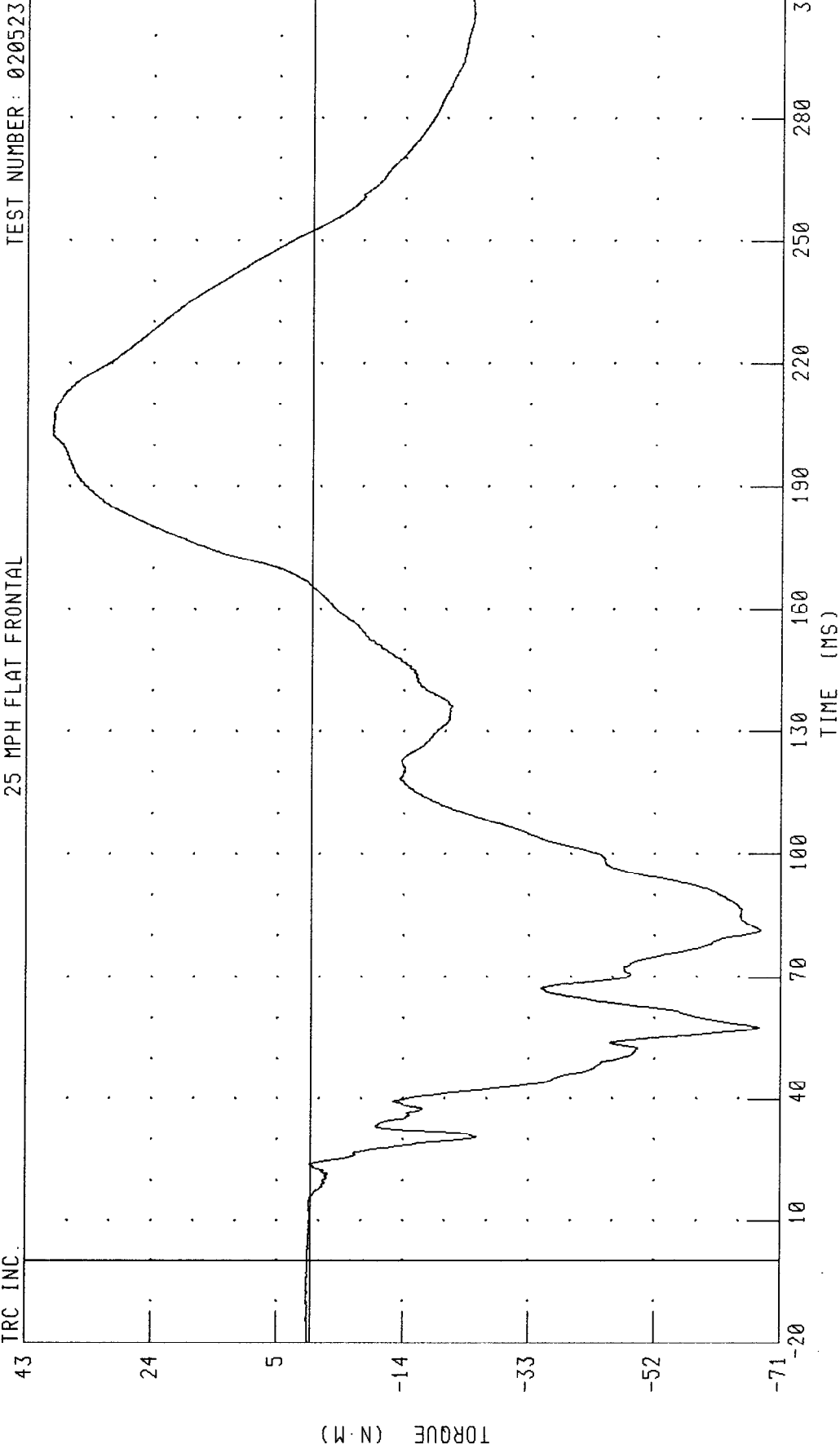
TRC INC.



CHANNEL: NKLXM2 FILTER: CH. CLASS 600

PEAK DATA: 39.22 N·M @ 104.16 MS; -13.96 N·M @ 70.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

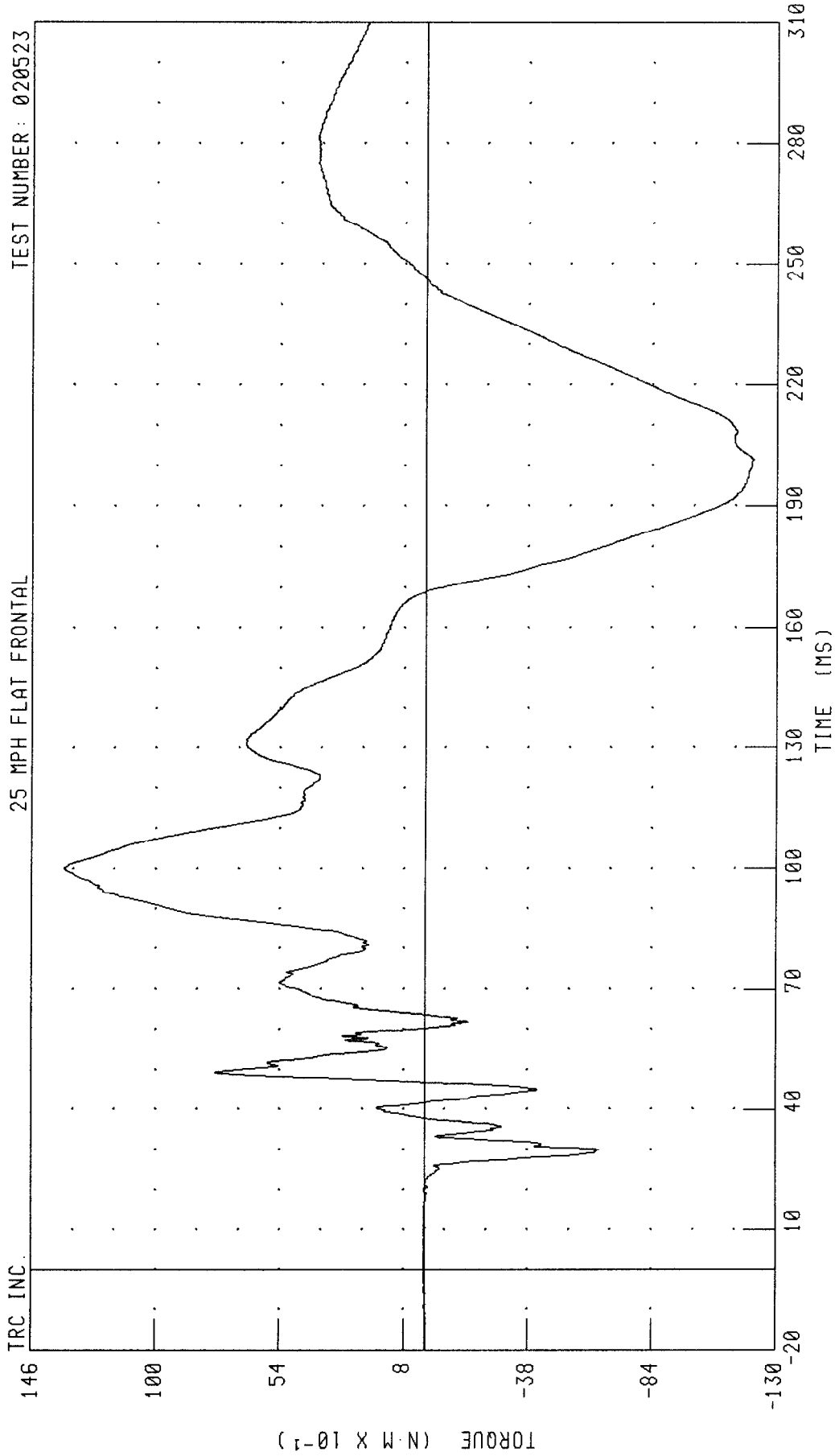


CHANNEL: NKLYM2 FILTER: CH. CLASS 600 PEAK DATA: 39.22 N·M @ 203.92 MS, -67.93 N·M @ 81.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER NECK LOWER MOMENT ABOUT Z AXIS

TEST NUMBER: 020523

TRC INC.



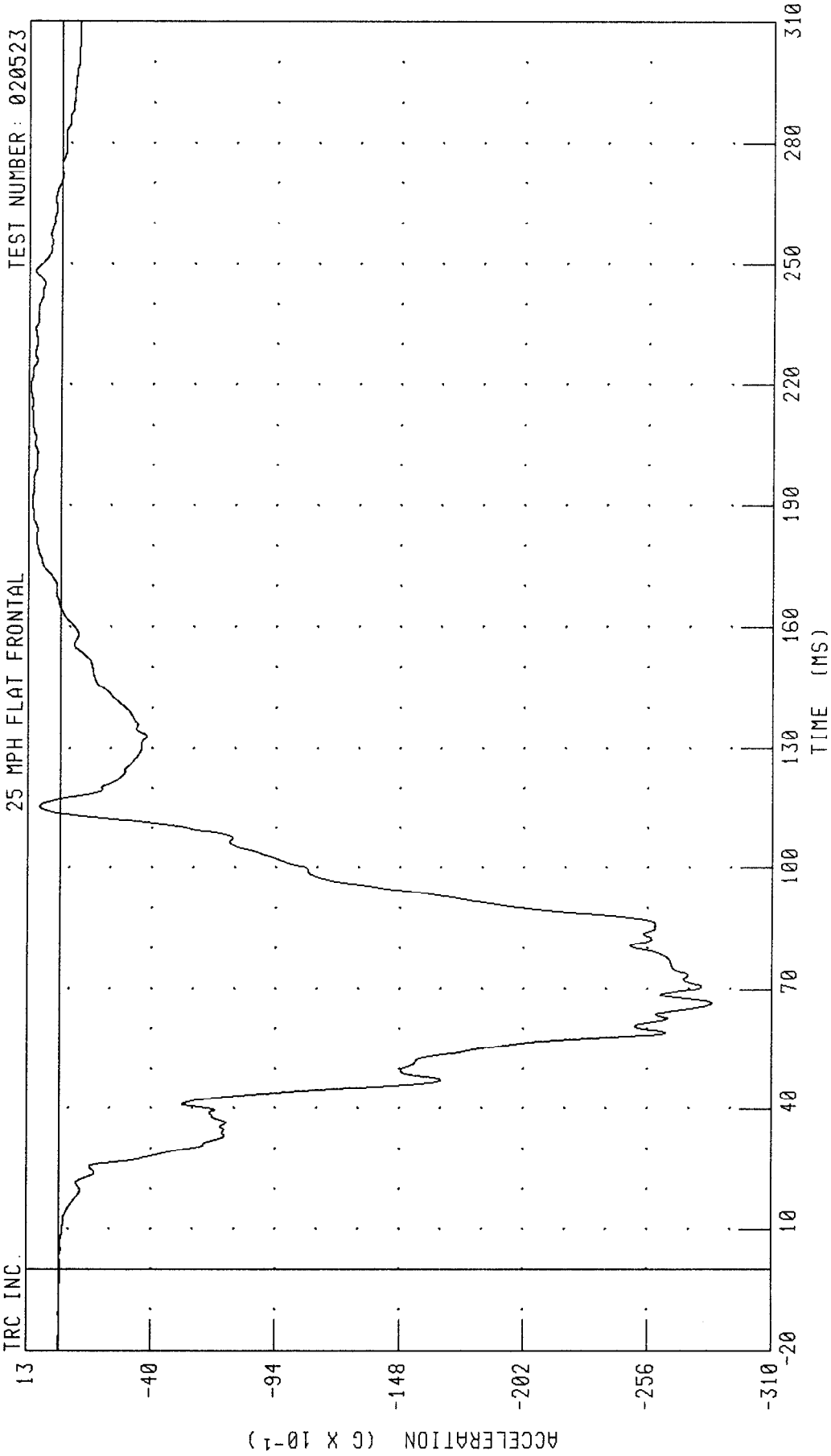
CHANNEL: NKLZM2

FILTER: CH. CLASS 600

TIME (MS)

PEAK DATA: 13.39 N·M @ 100.24 MS, -12.13 N·M @ 201.36 MS

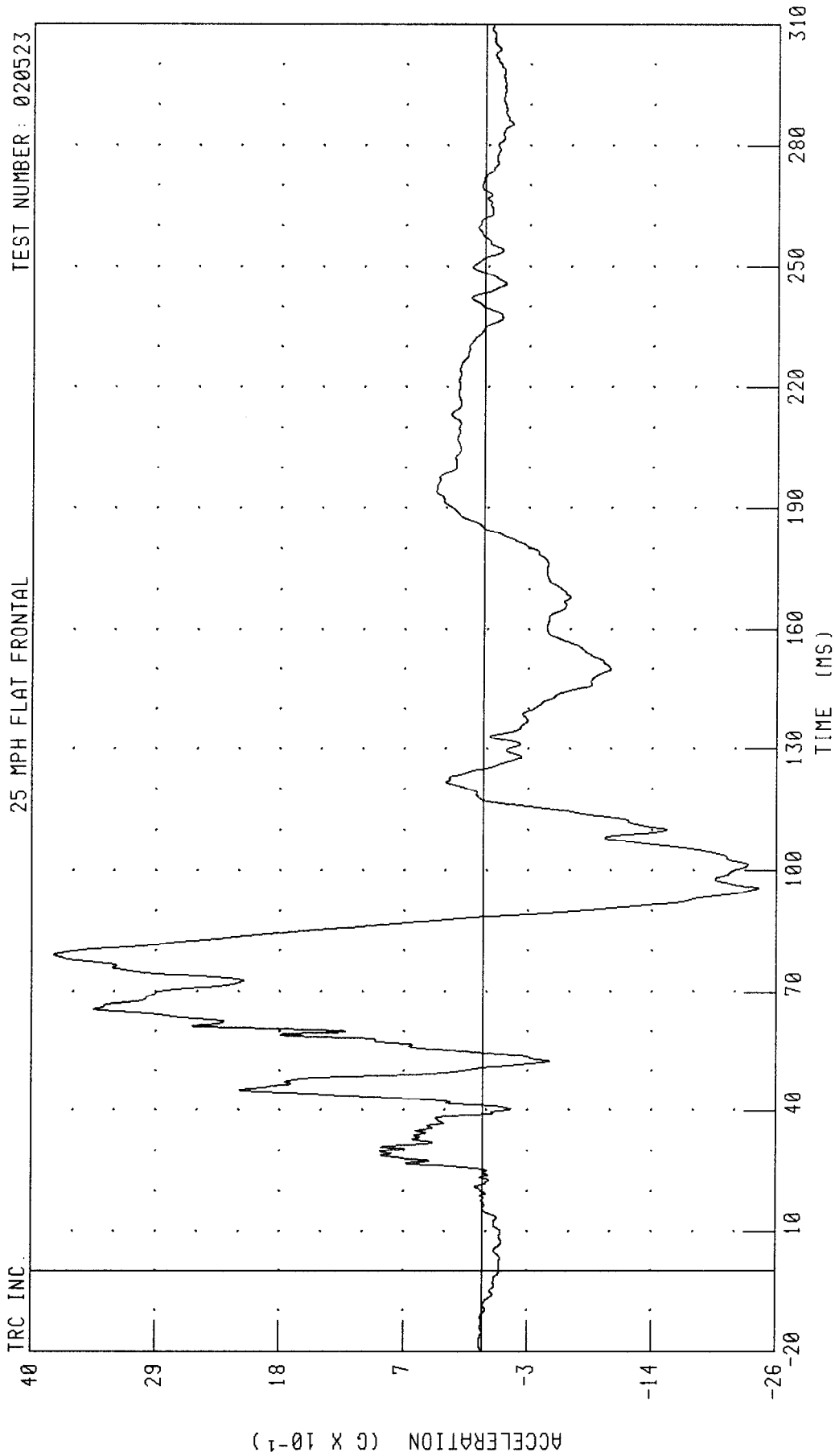
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST X-AXIS ACCELERATION



CHANNEL: CSTXG2 FILTER: CH. CLASS 180 PEAK DATA: 1.33 G @ 219.68 MS, -28.38 G @ 66.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: CSTYG2

FILTER: CH. CLASS 180

PEAK DATA: 3.80 G @ 79.12 MS; -2.45 G @ 95.60 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

146

116

ACCELERATION (G X 10<sup>-1</sup>)

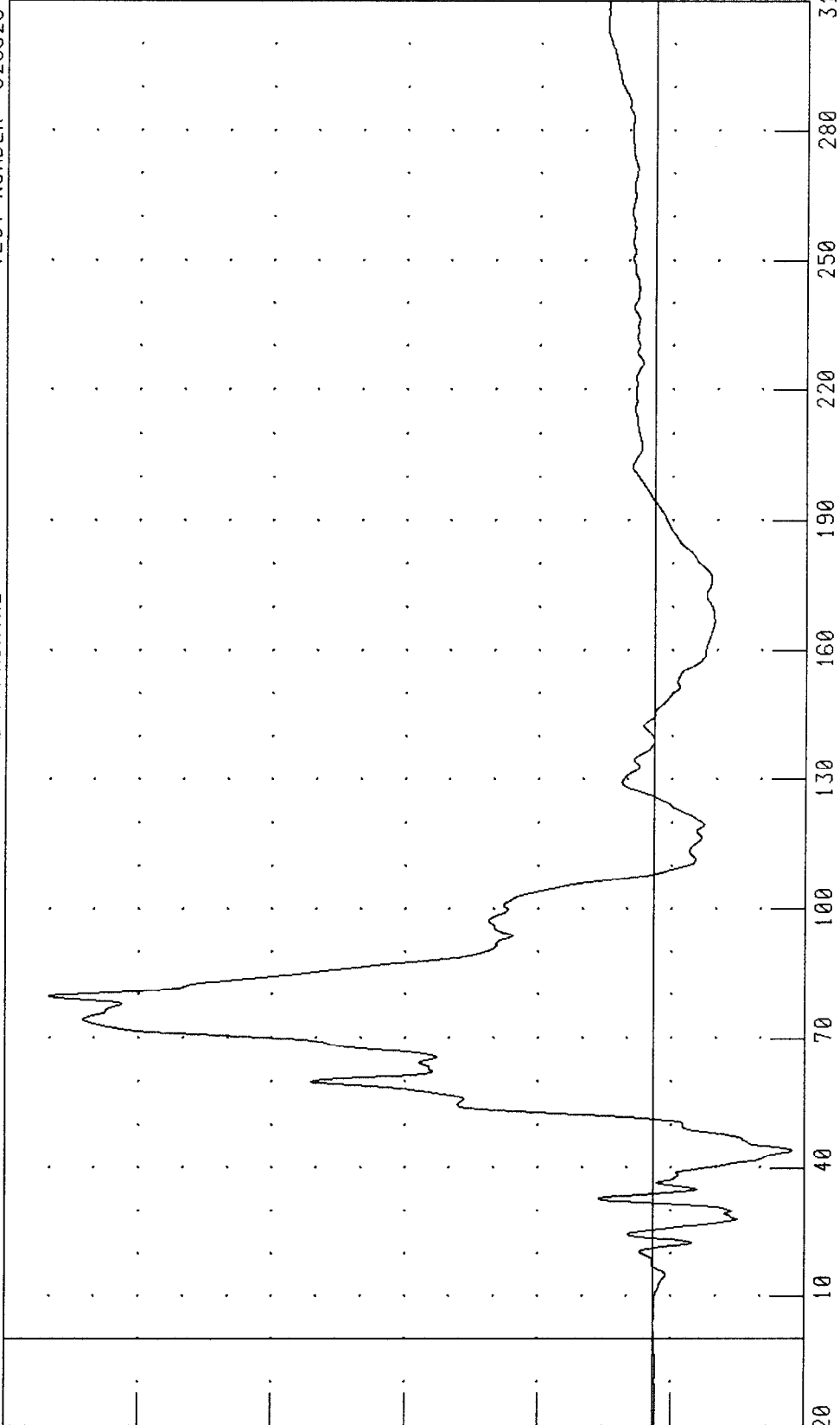
86

56

26

-4

-34



TIME (MS)

CHANNEL: CSTZG2

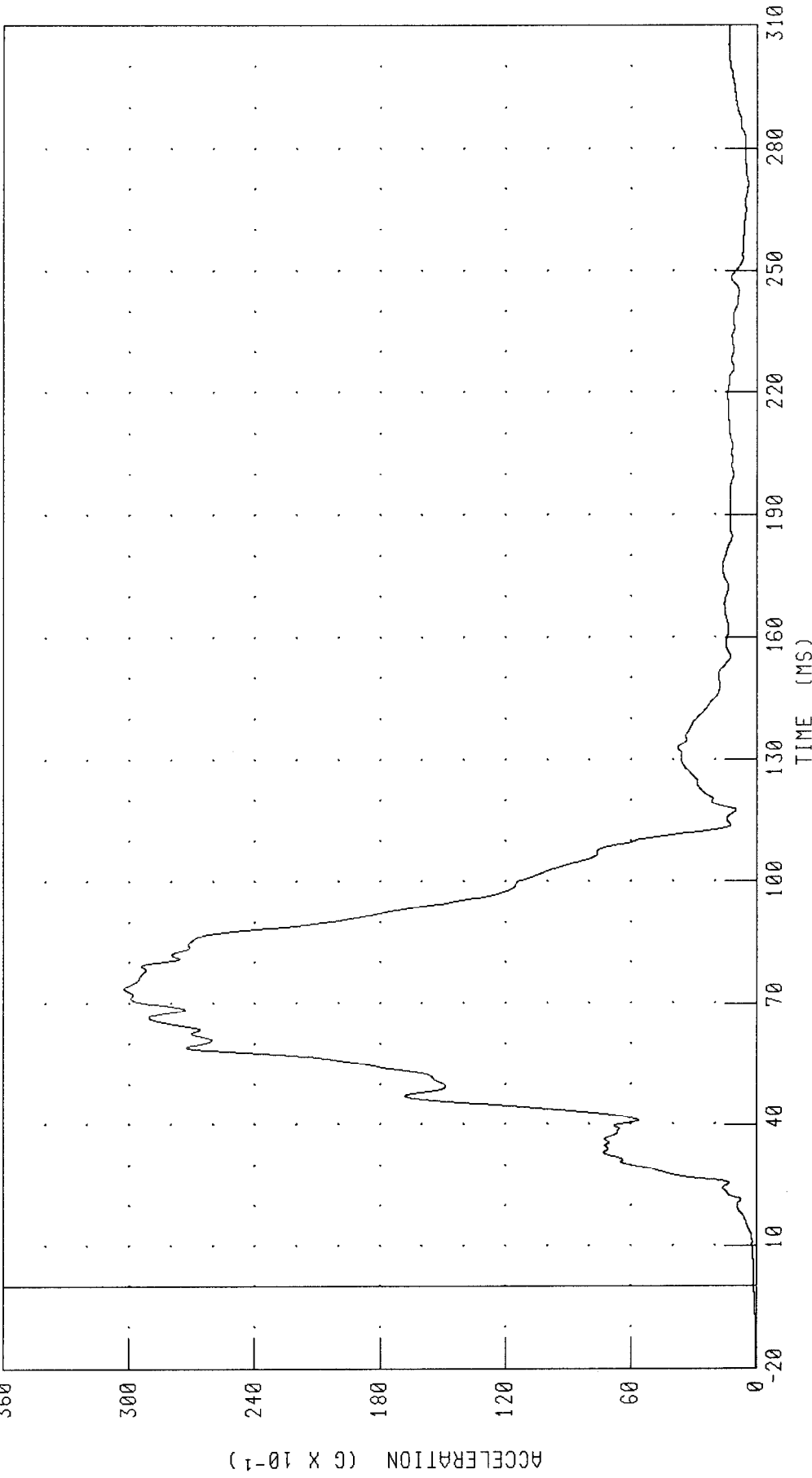
FILTER: CH. CLASS 180

PEAK DATA: 13.61 G @ 79.60 MS, -3.12 G @ 44.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

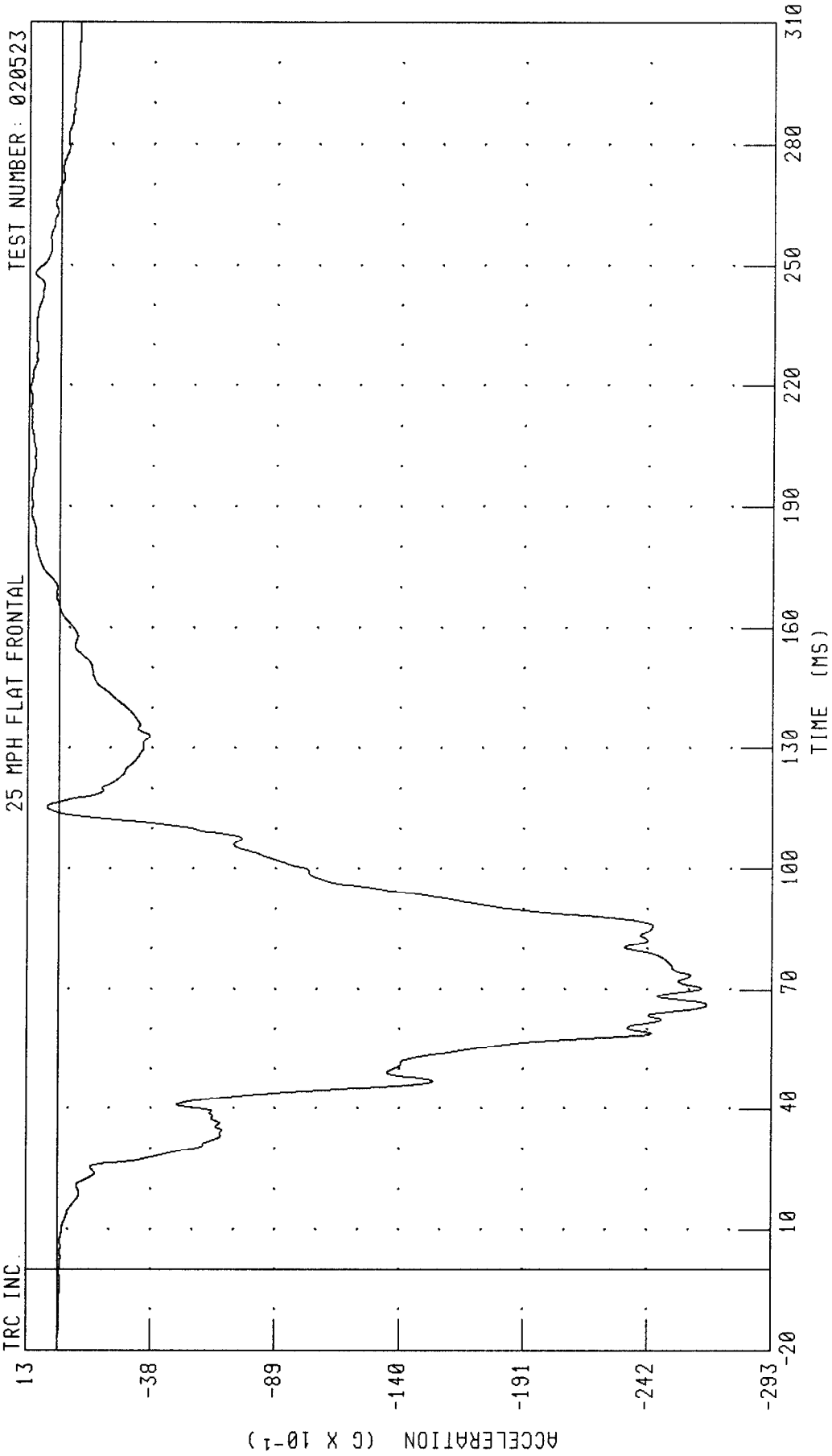
TEST NUMBER: 020523

TRC INC.



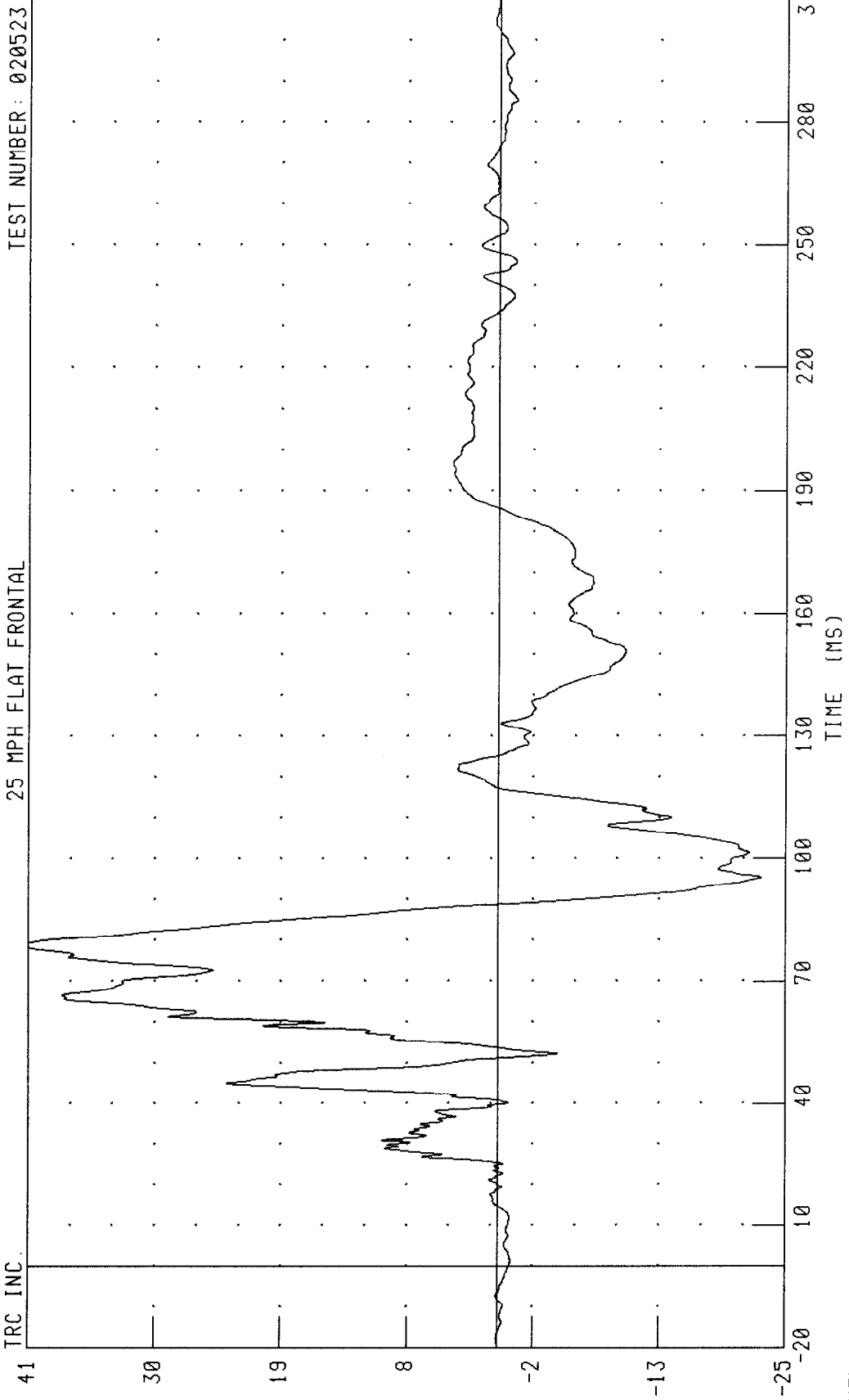
CHANNEL: CSTRG2 FILTER: CH. CLASS 180 PEAK DATA: 30.25 G @ 73.68 MS, 0.00 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST X-AXIS ACCELERATION REDUNDANT



CHANNEL: CSTXR2 FILTER: CH. CLASS 180 PEAK DATA: 1.27 G @ 219.44 MS, -26.65 G @ 66.08 MS

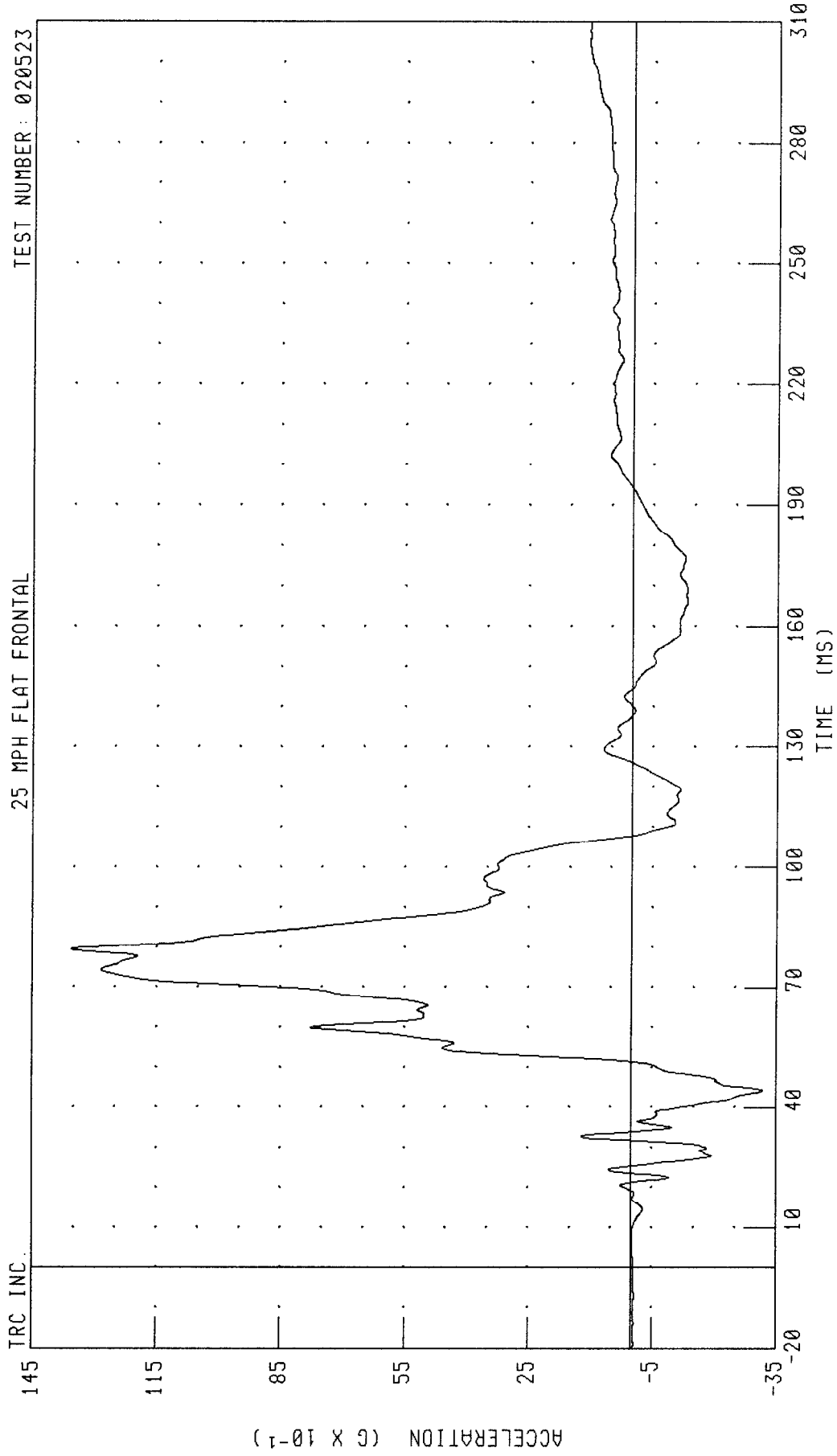
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST Y-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL



CHANNEL: CSTYR2 FILTER: CH. CLASS 180 PEAK DATA: 4.19 G @ 78.96 MS, -2.29 G @ 95.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST Z-AXIS ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

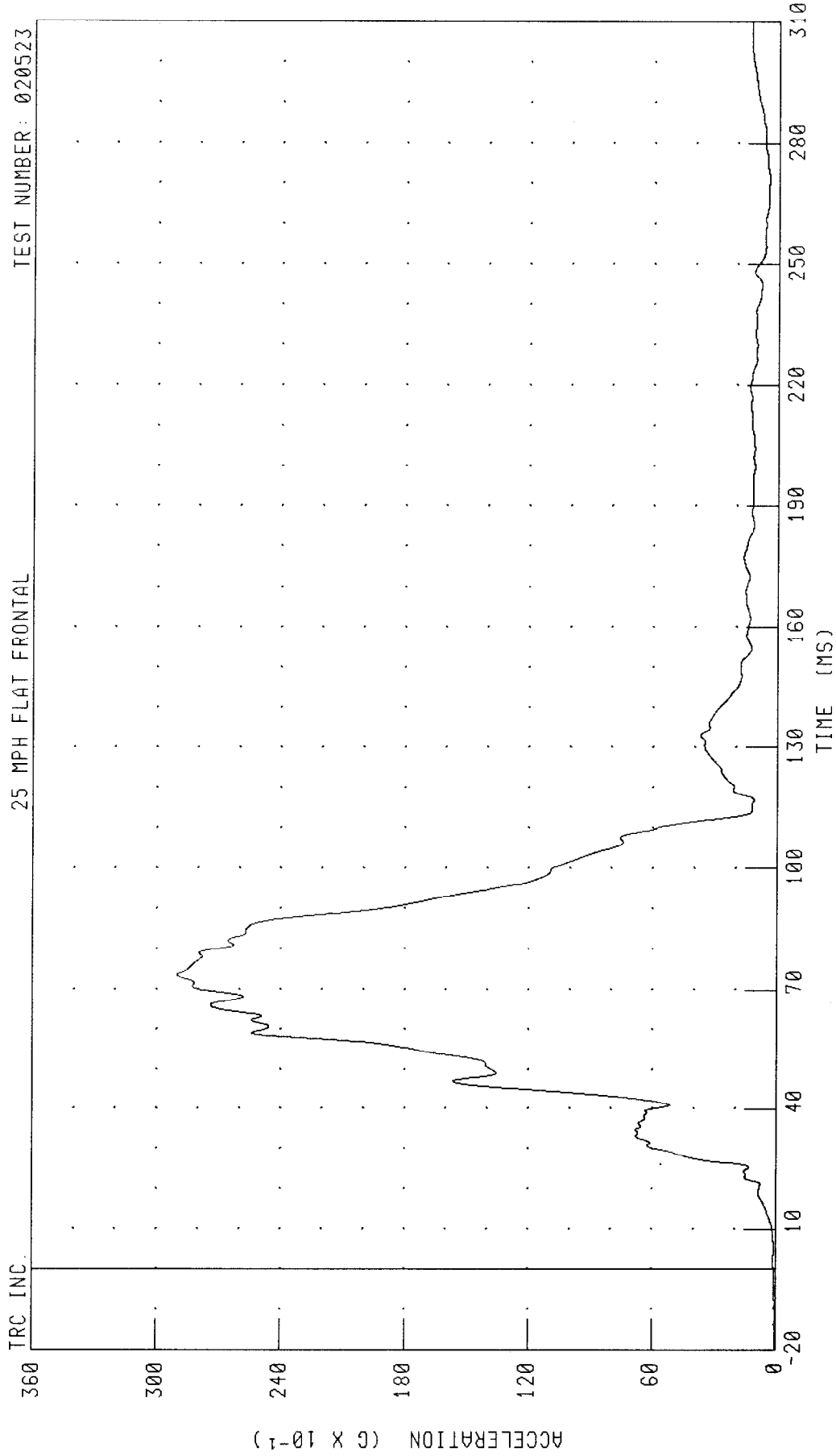
TEST NUMBER: 020523



CHANNEL: CSTZR2 FILTER: CH. CLASS 180 PEAK DATA: 13.57 G @ 79.60 MS, -3.18 G @ 44.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST RESULTANT ACCELERATION REDUNDANT  
25 MPH FLAT FRONTAL

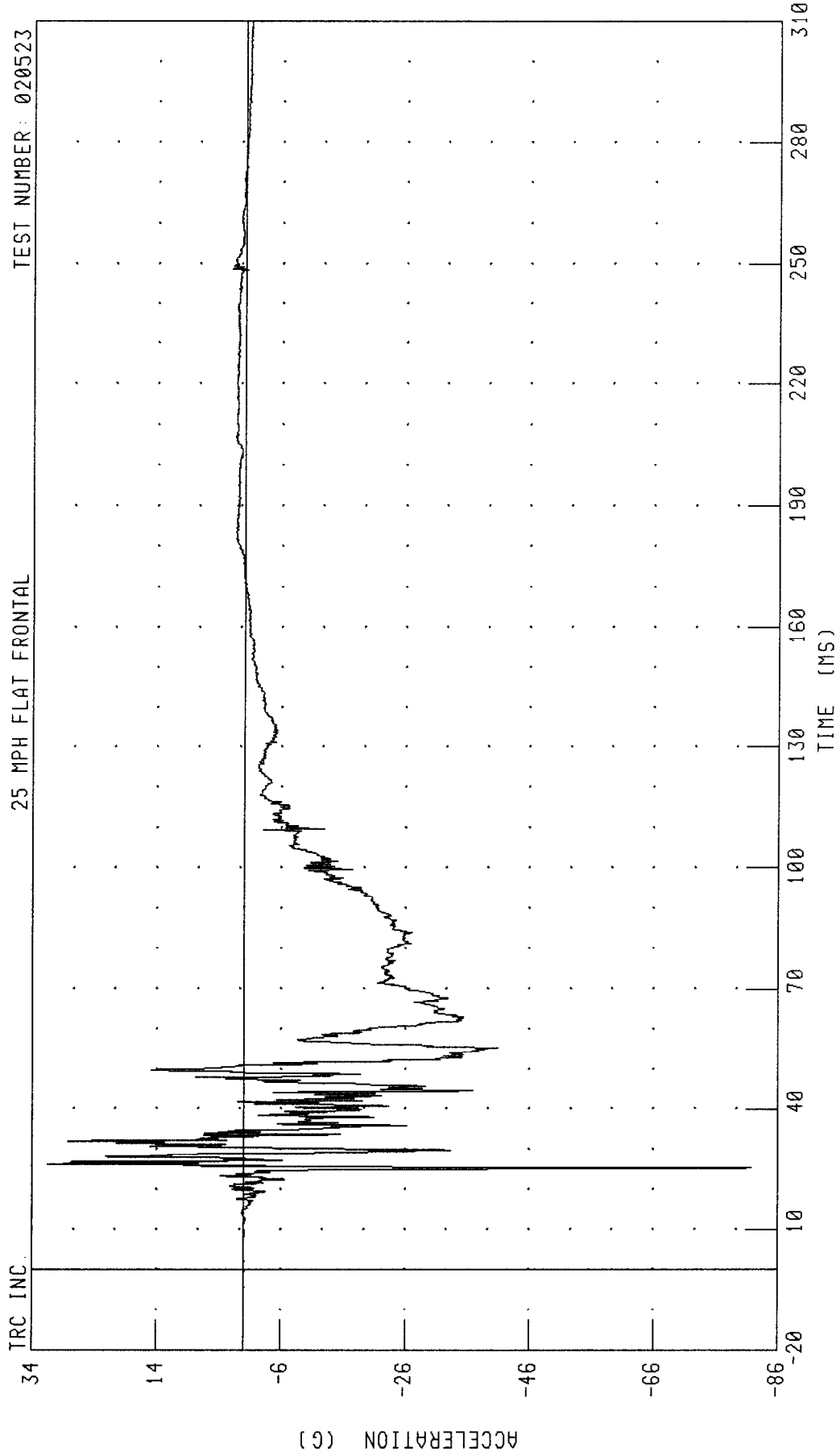
TEST NUMBER: 020523



CHANNEL: CSTRR2 FILTER: CH. CLASS 180  
PEAK DATA: 29.00 G @ 73.68 MS; 0.00 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER STERNUM UPPER X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

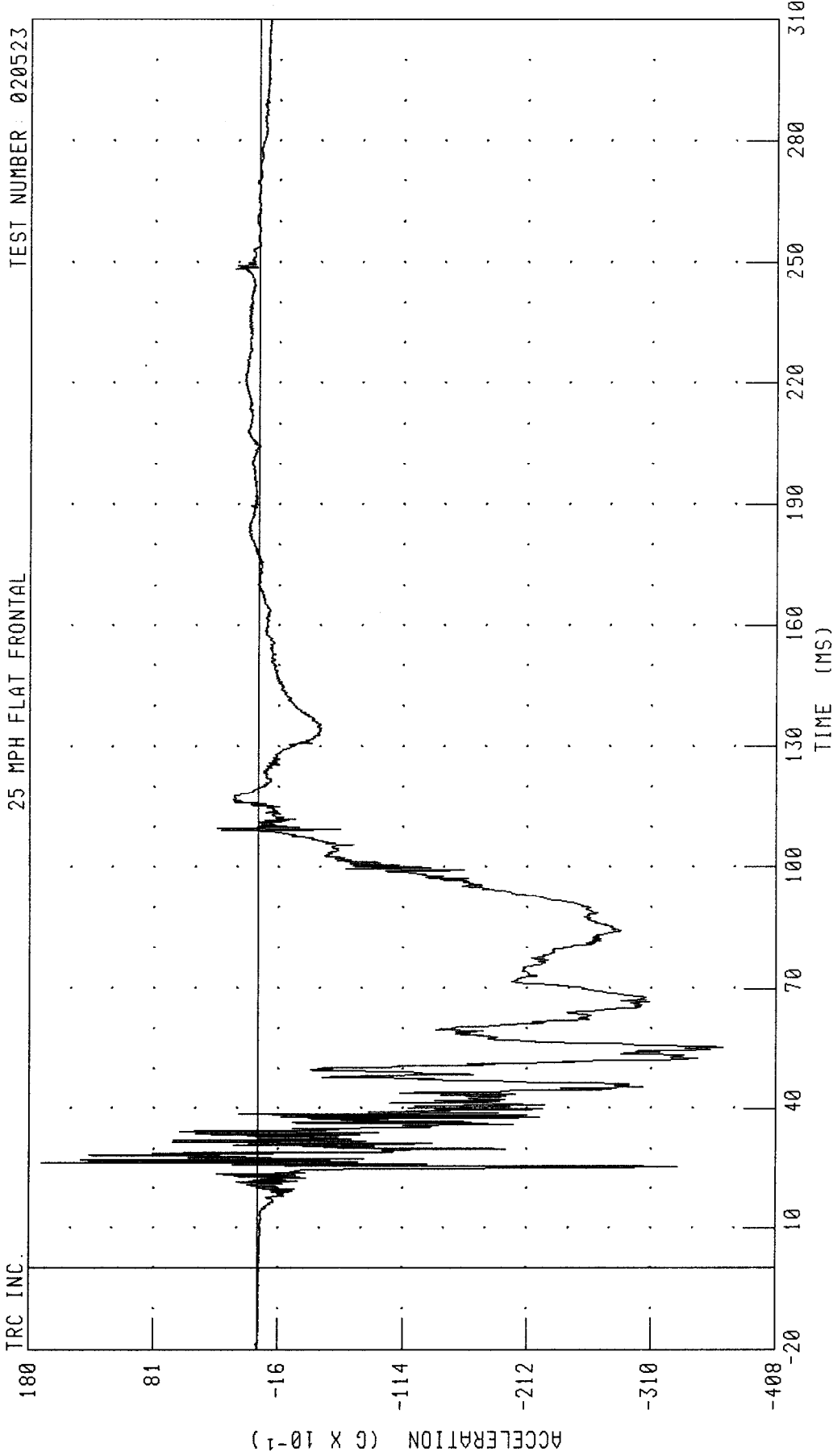
TEST NUMBER: 020523



CHANNEL: STUXG2 FILTER: CH. CLASS 1000 PEAK DATA: 31.54 G @ 26.24 MS, -81.71 G @ 25.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER STERNUM MID X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER 020523

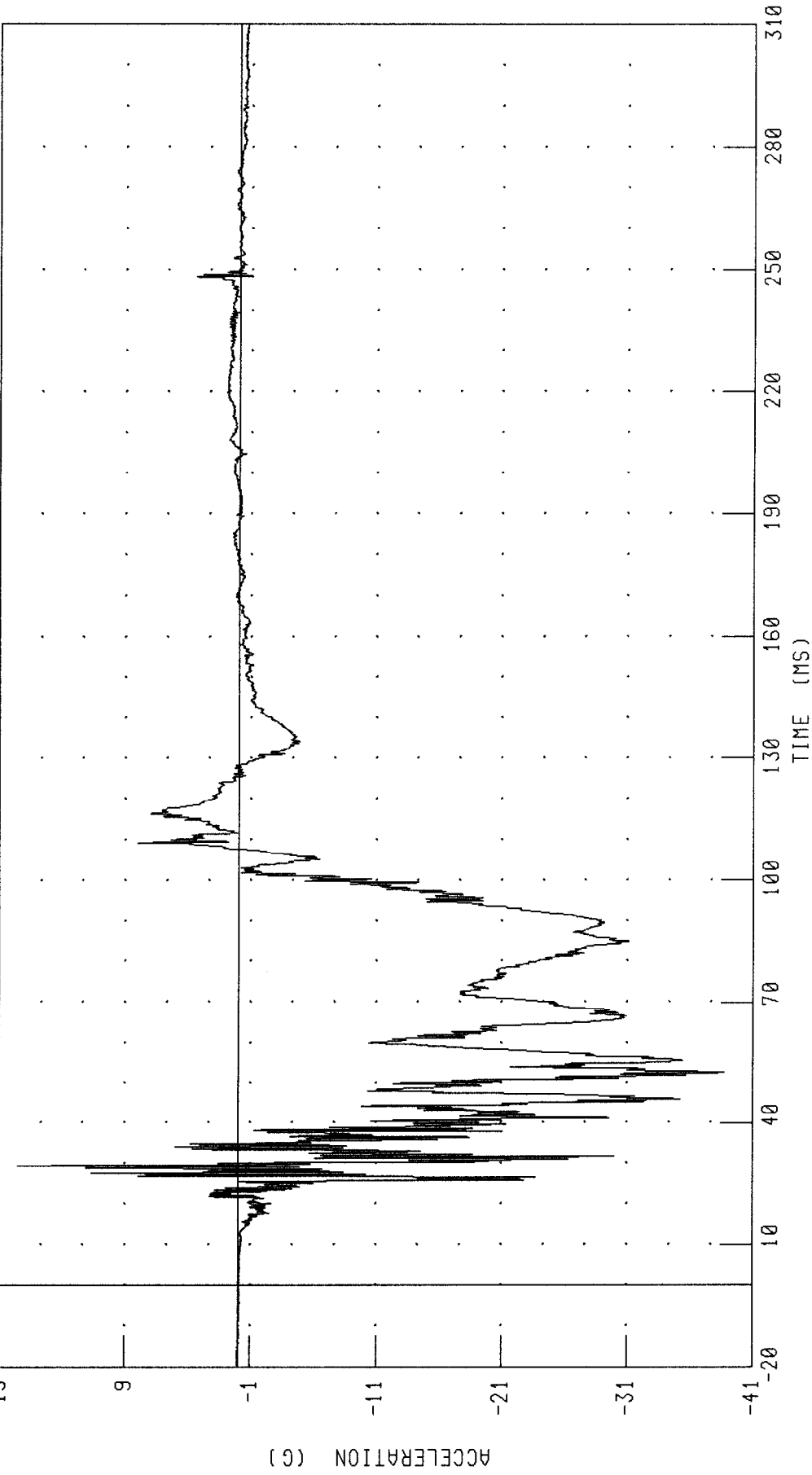


CHANNEL: STMXC2 FILTER: CH. CLASS 1000 PEAK DATA: 17.02 G @ 26.48 MS; -36.69 G @ 55.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER STERNUM LOWER X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

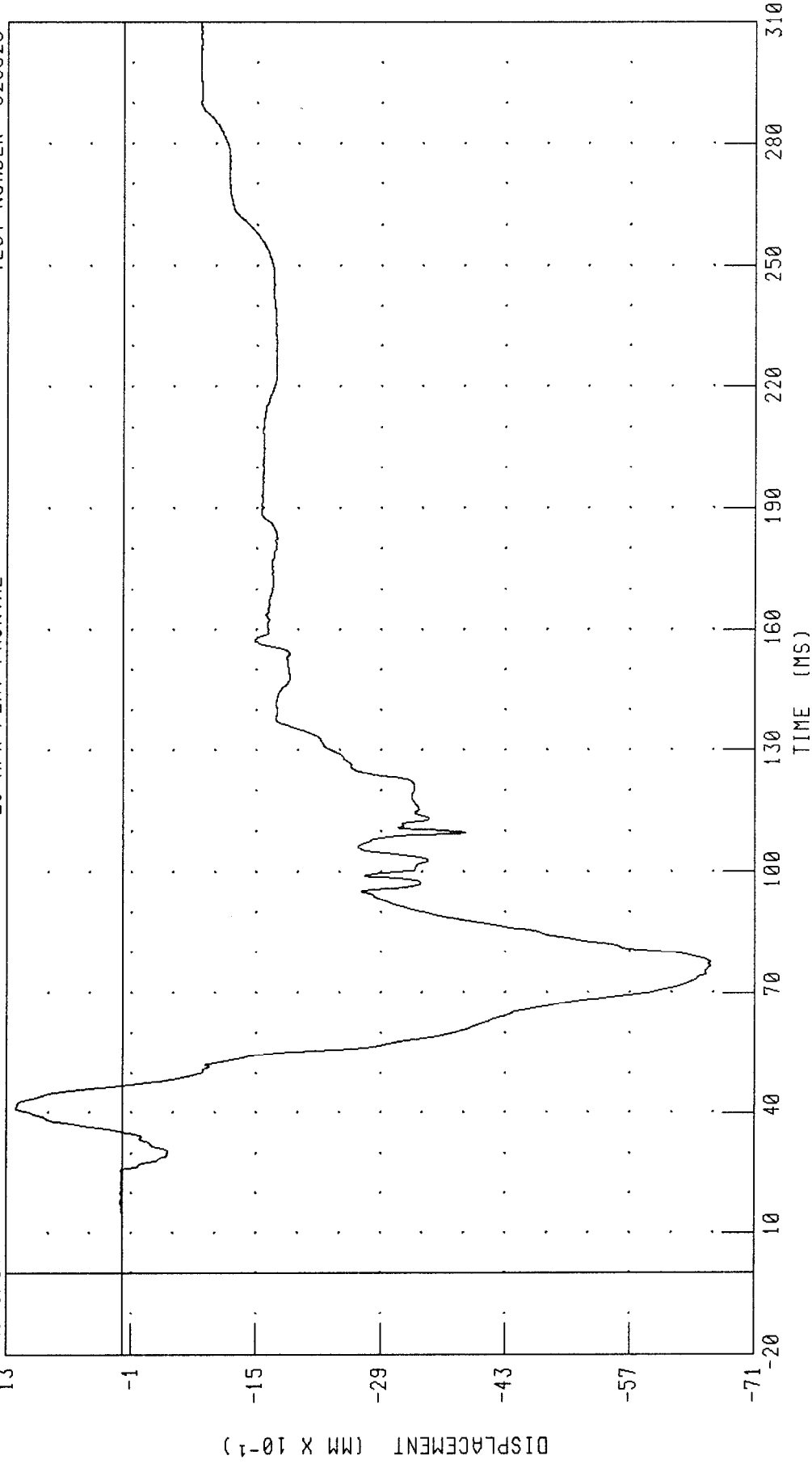


CHANNEL: STLXC2 FILTER: CH. CLASS 1000  
PEAK DATA: 17.49 G @ 29.36 MS, -38.69 G @ 52.56 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER CHEST DEFLECTION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC

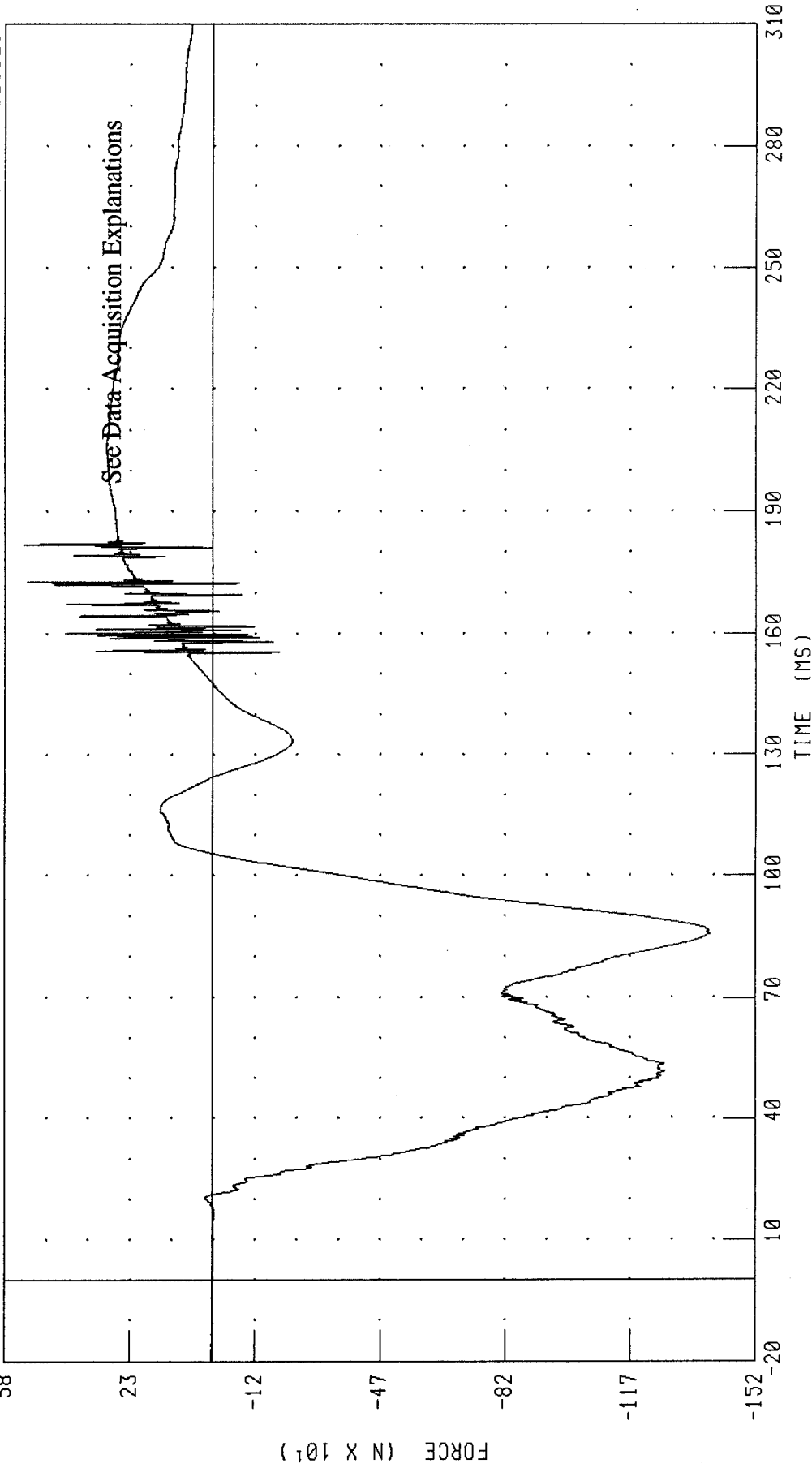


CHANNEL: CSTXD2 FILTER: CH. CLASS 600 PEAK DATA: 1.20 MM @ 41.20 MS, -6.61 MM @ 76.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LUMBAR X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

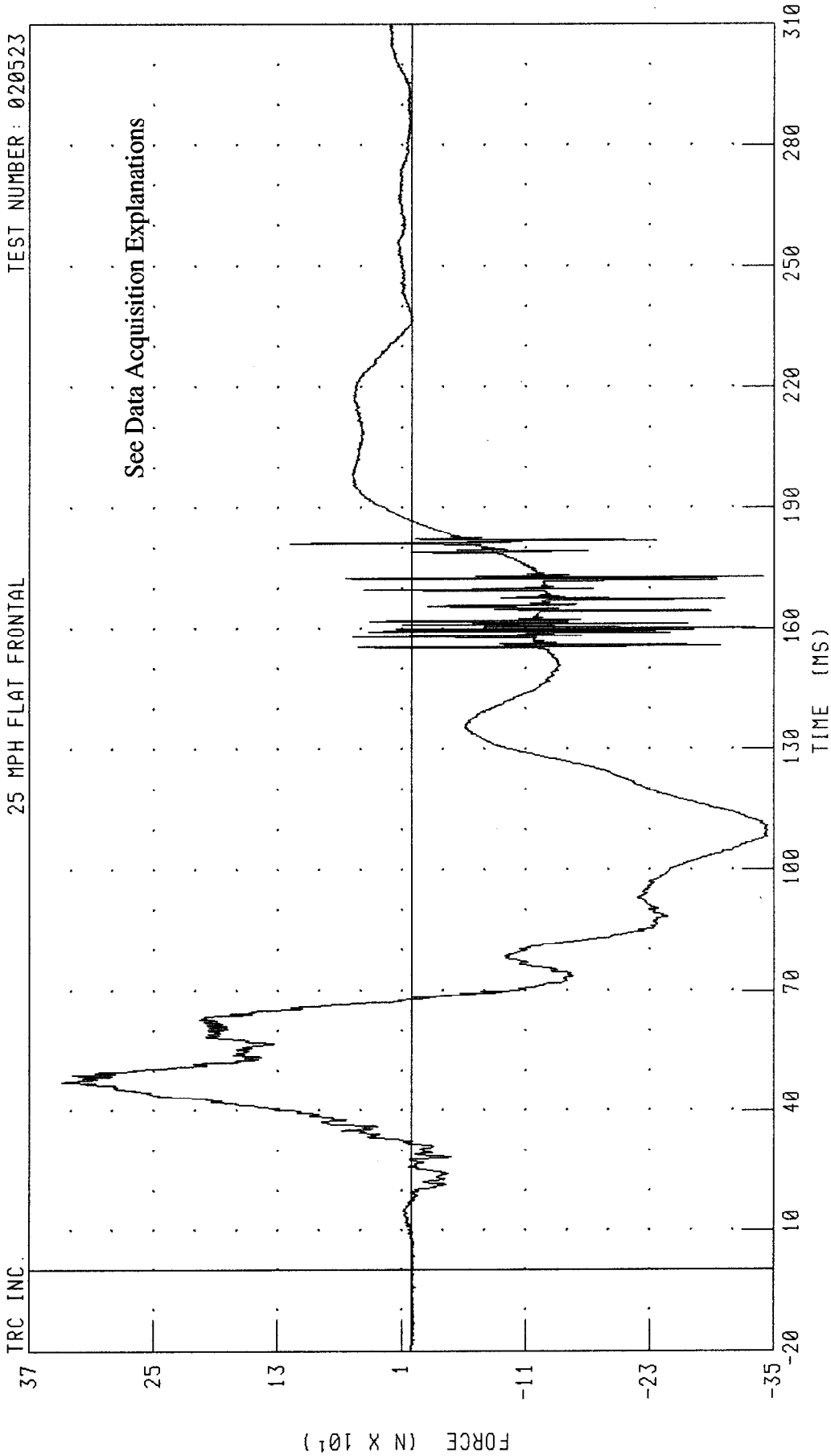
TRC INC.



CHANNEL: LMBXF2 FILTER: CH. CLASS 1000 PEAK DATA: 527.55 N @ 182.00 MS, -1392.65 N @ 85.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LUMBAR Y-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

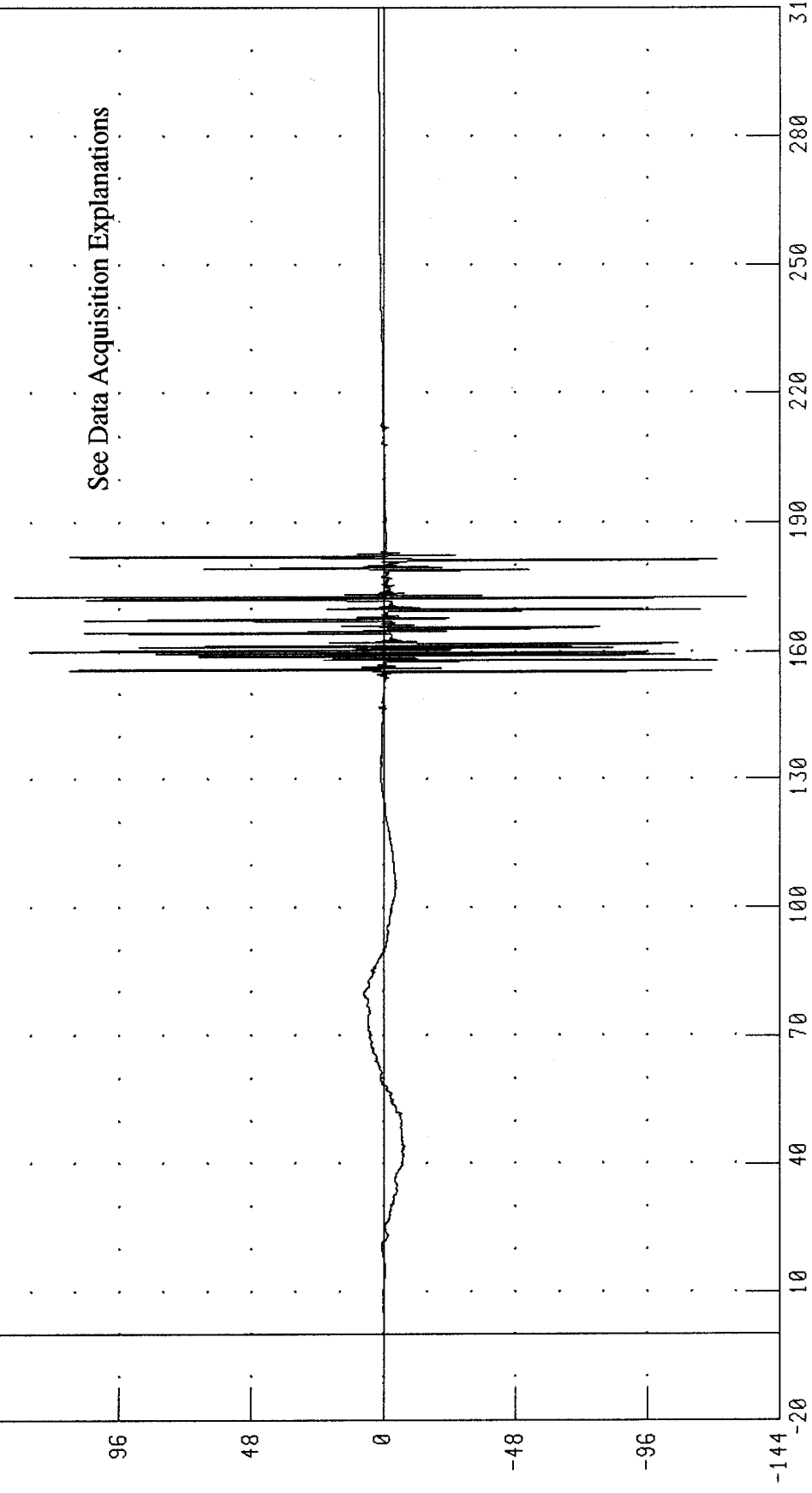


CHANNEL: LMBYF2 FILTER: CH. CLASS 1000 PEAK DATA: 338.28 N @ 47.36 MS, -343.91 N @ 108.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LUMBAR Z-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



FORCE (N X 10<sup>2</sup>)

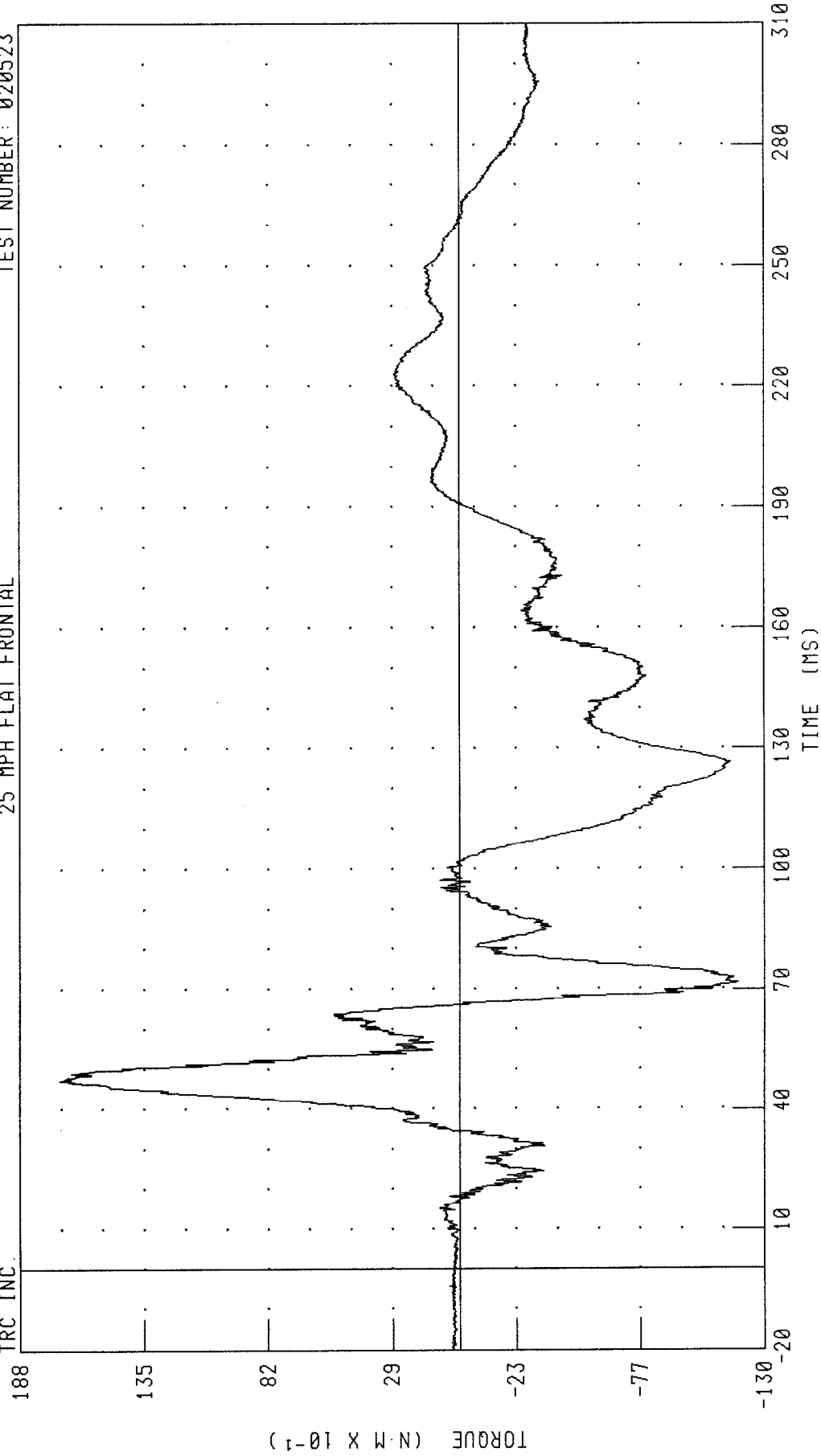
TIME (MS)

CHANNEL: LMBZF2 FILTER: CH. CLASS 1000 PEAK DATA: 13404.42 N @ 172.96 MS; -13173.93 N @ 172.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LUMBAR X-AXIS MOMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

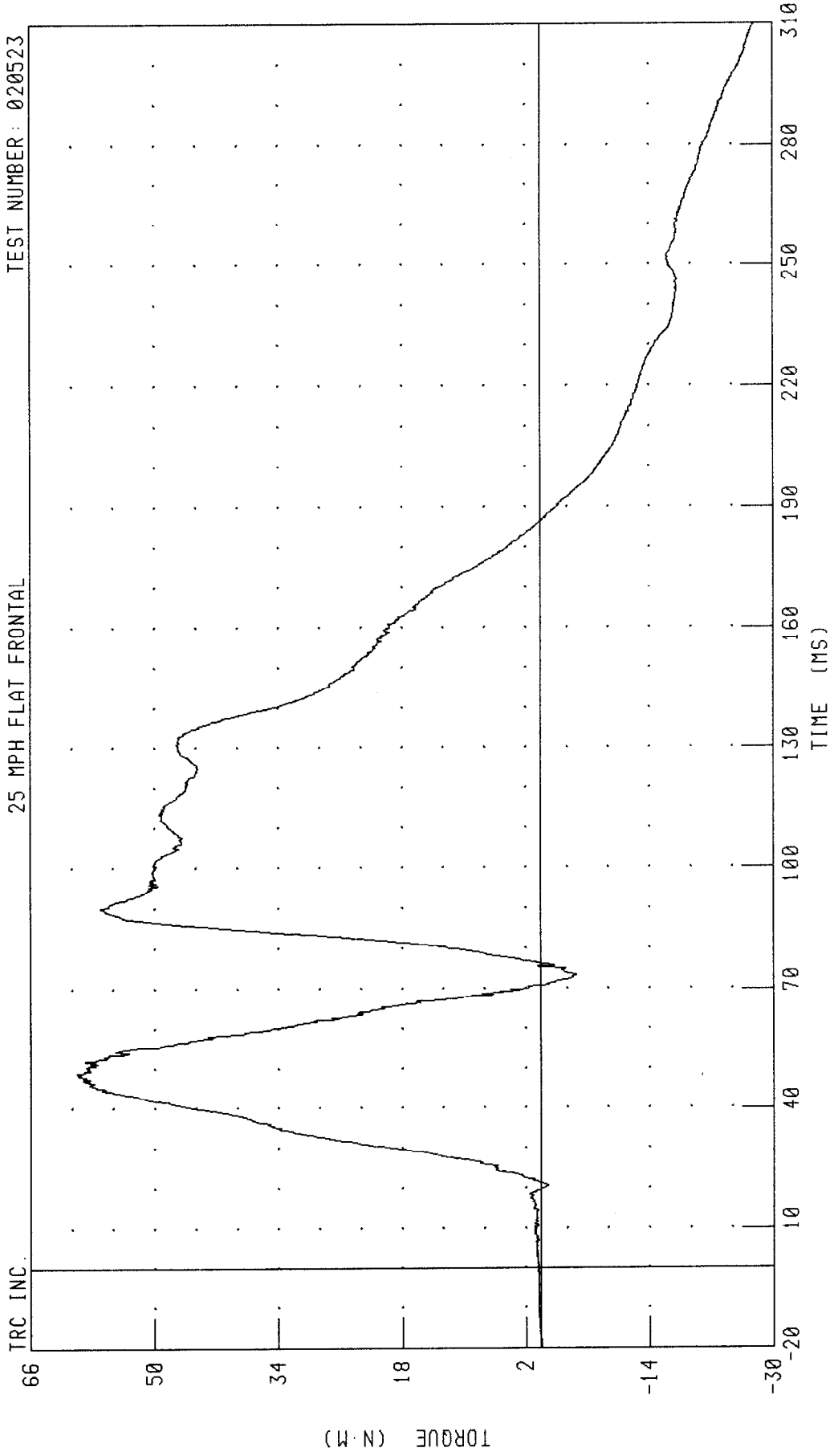
TRC INC.



CHANNEL: LMBXM2 FILTER: CH. CLASS 1000 PEAK DATA: 17.11 N·M @ 47.28 MS; -11.89 N·M @ 71.60 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LUMBAR Y-AXIS MOMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



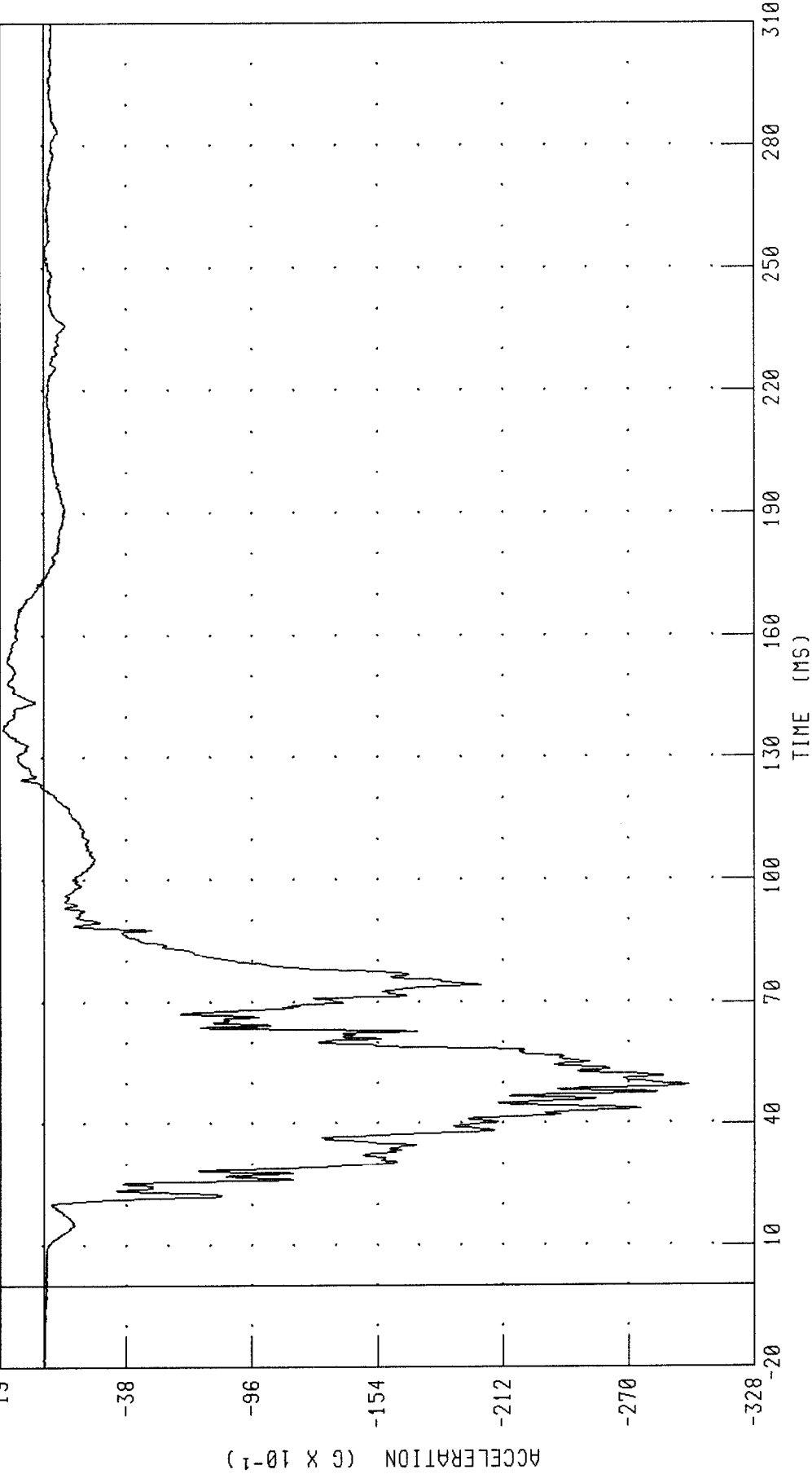
PEAK DATA: 60.06 N·M @ 48.96 MS, -27.53 N·M @ 309.76 MS

CHANNEL: LMBYM2 FILTER: CH. CLASS 1000

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER PELVIS X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

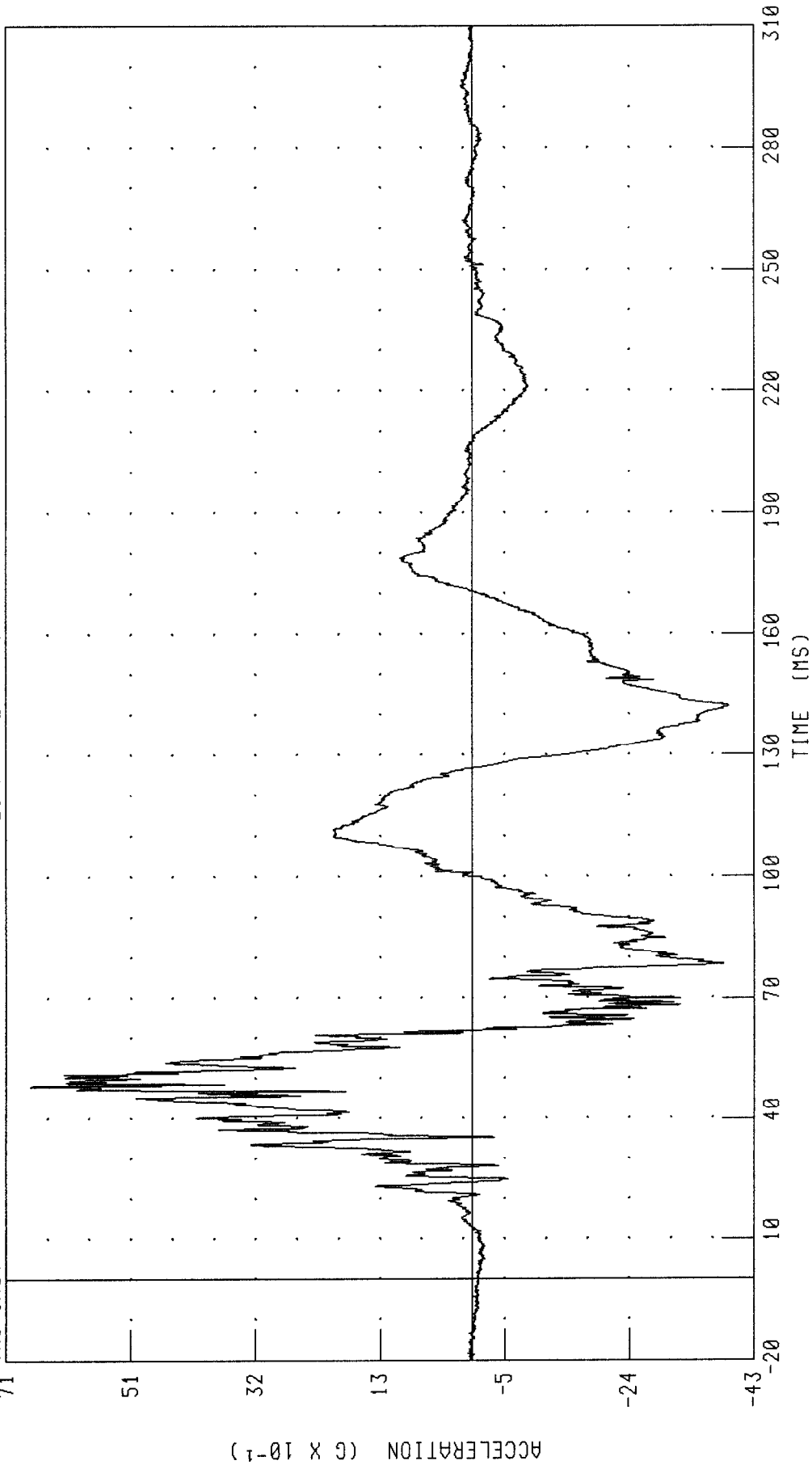


CHANNEL: PEVXC2 FILTER: CH. CLASS 1000 PEAK DATA: 1.88 G @ 137.20 MS; -29.78 G @ 49.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER PELVIS Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



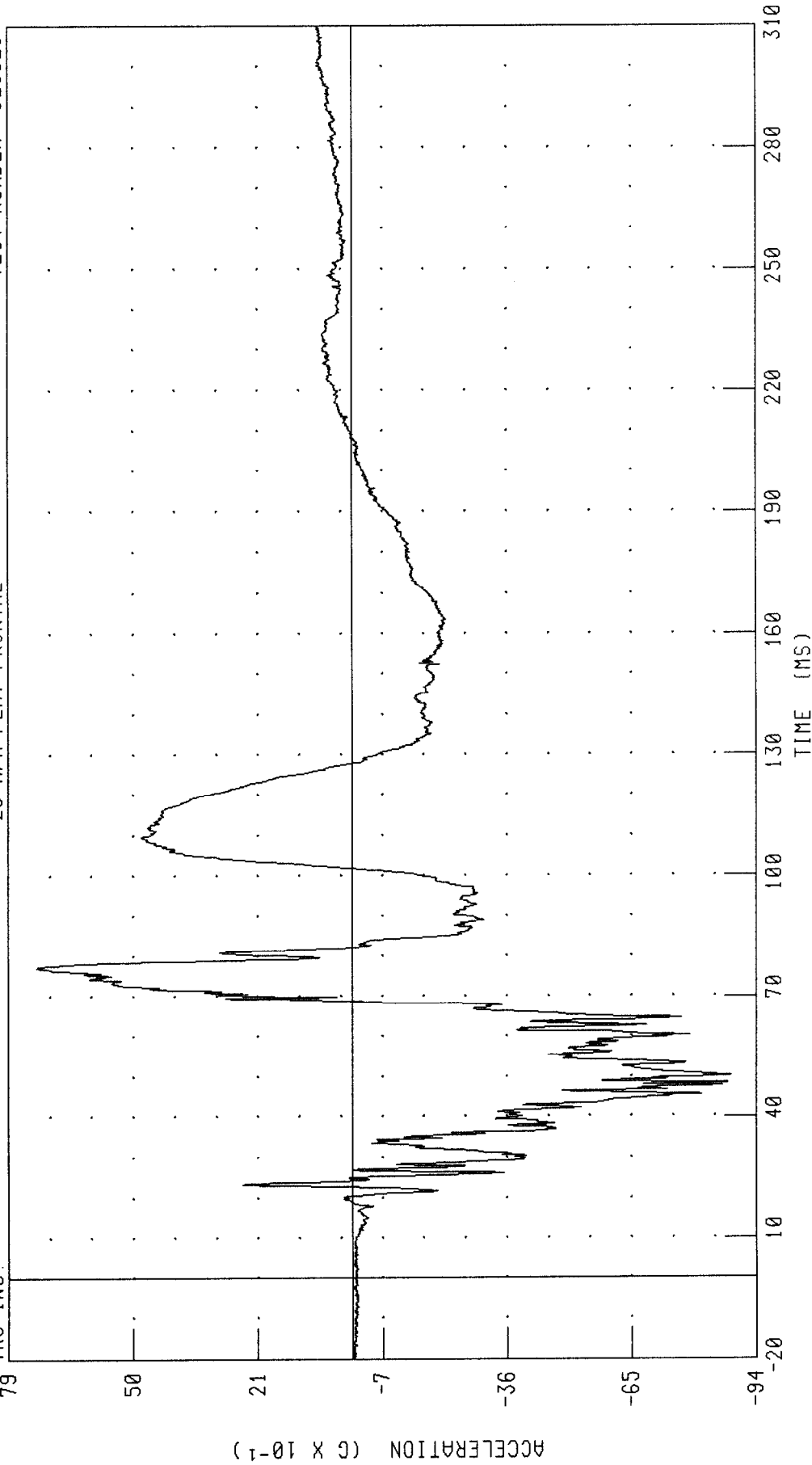
CHANNEL: PEVYG2 FILTER: CH. CLASS 1000

PEAK DATA: 6.73 G @ 48.16 MS; -3.92 G @ 141.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER PELVIS Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

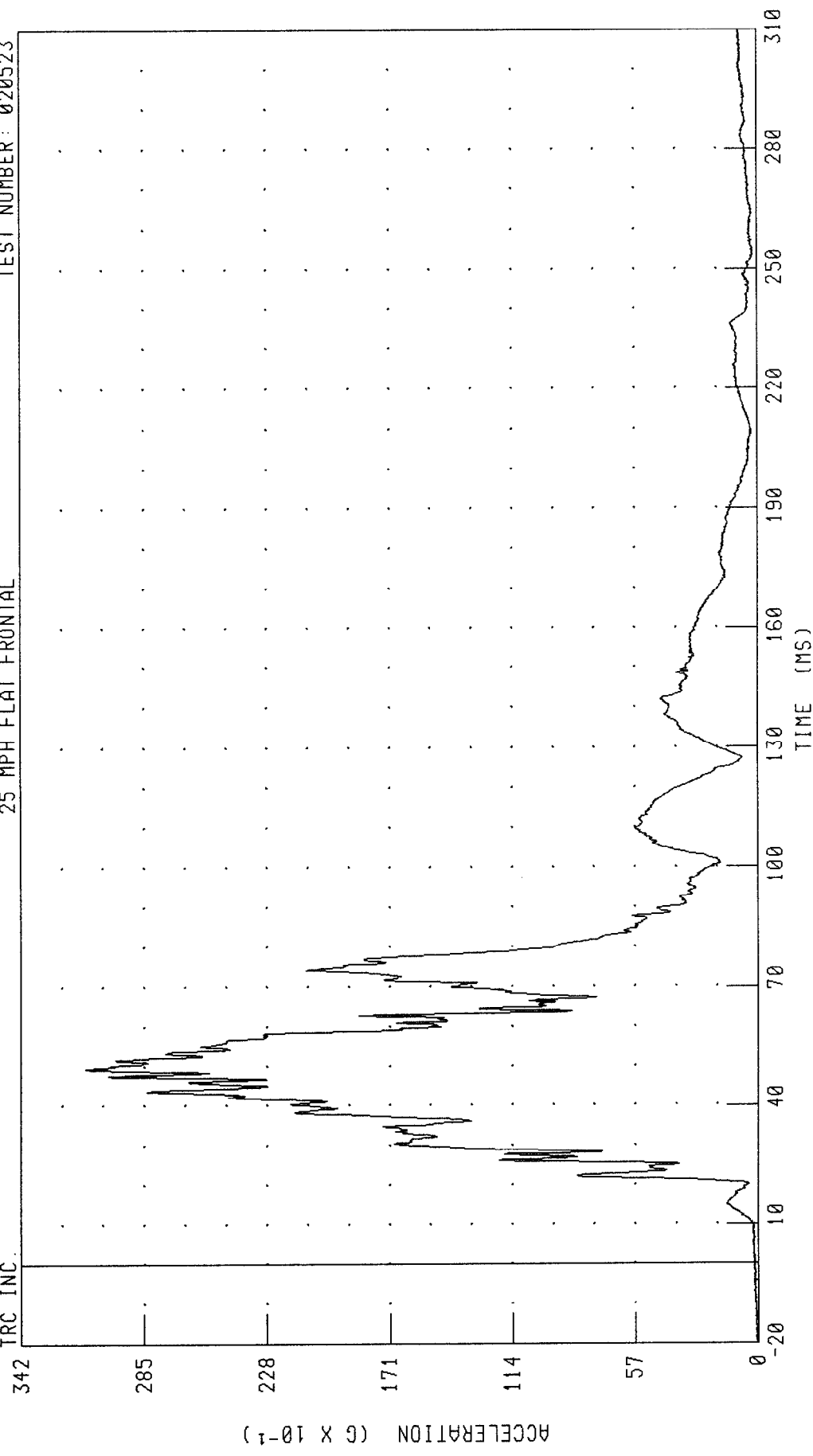


CHANNEL: PEVZG2 FILTER: CH. CLASS 1000 PEAK DATA: 7.34 G @ 77.36 MS; -8.82 G @ 50.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER PELVIS RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

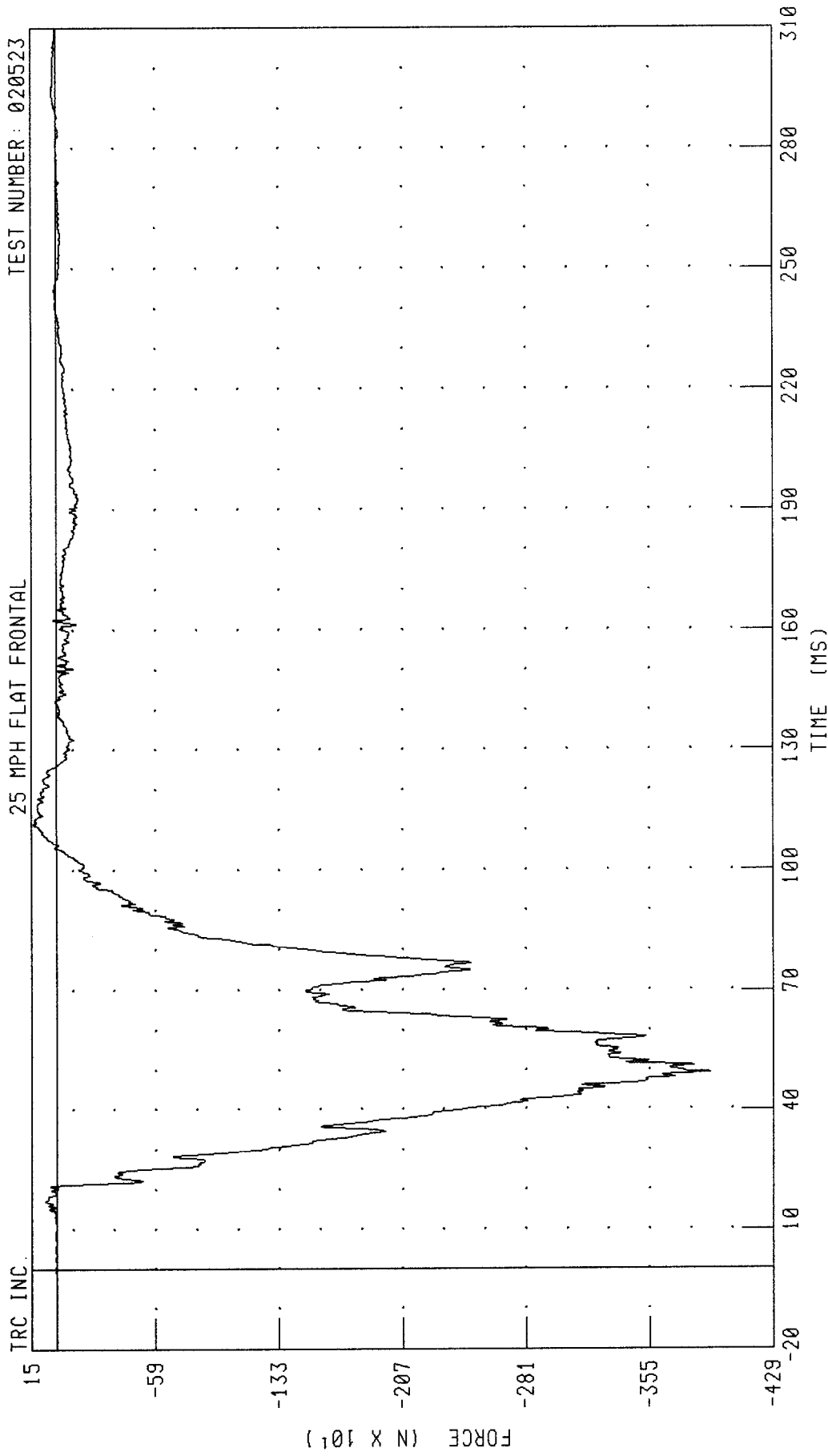
TRC INC.



CHANNEL: PEVRG2 FILTER: CH. CLASS 1000 PEAK DATA: 31.24 G @ 49.52 MS; 0.03 G @ -17.04 MS

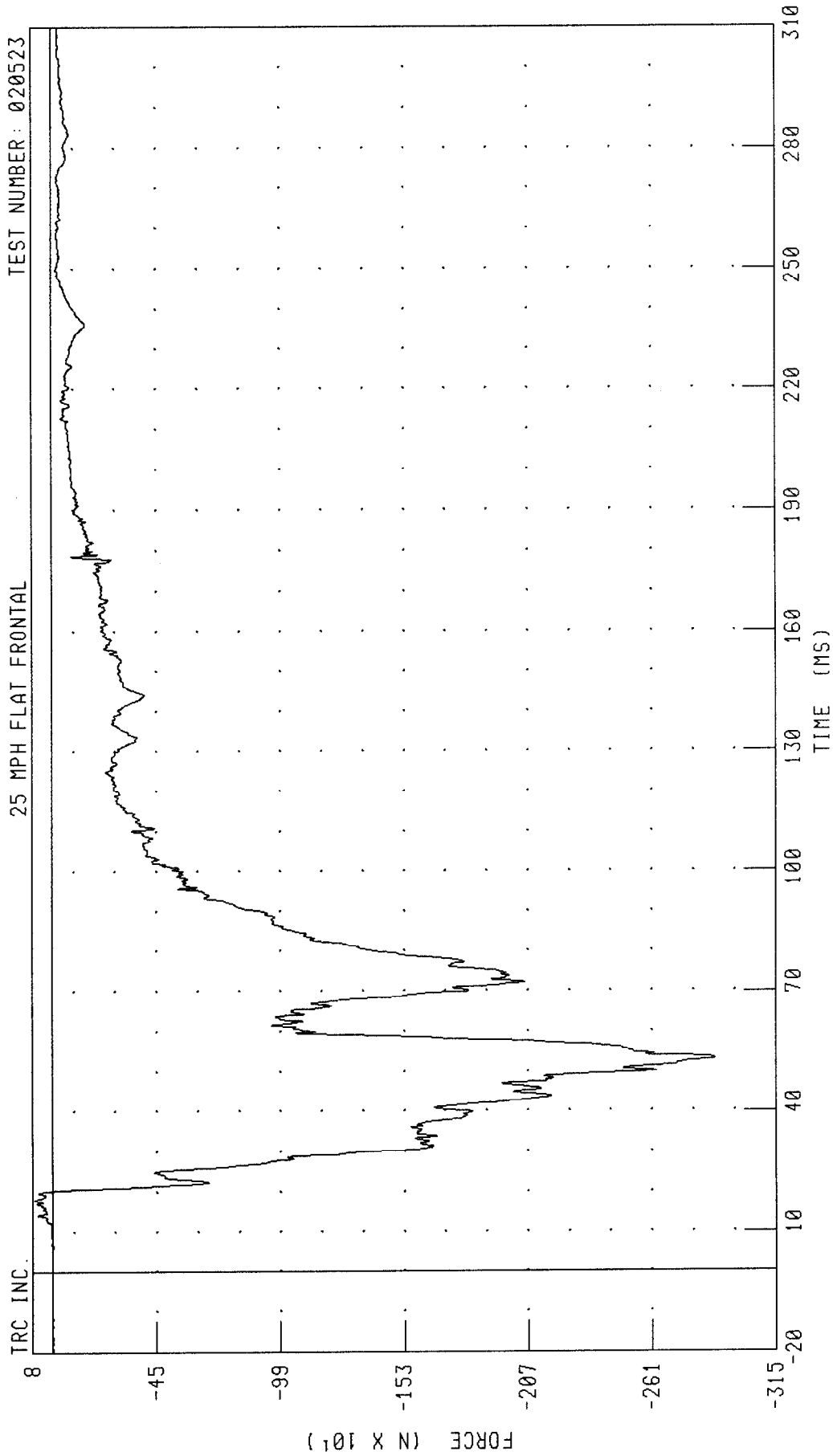
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FEMUR FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: LFMZF2 FILTER: CH. CLASS 600 PEAK DATA: 140.41 N @ 111.60 MS; -3913.65 N @ 49.36 MS

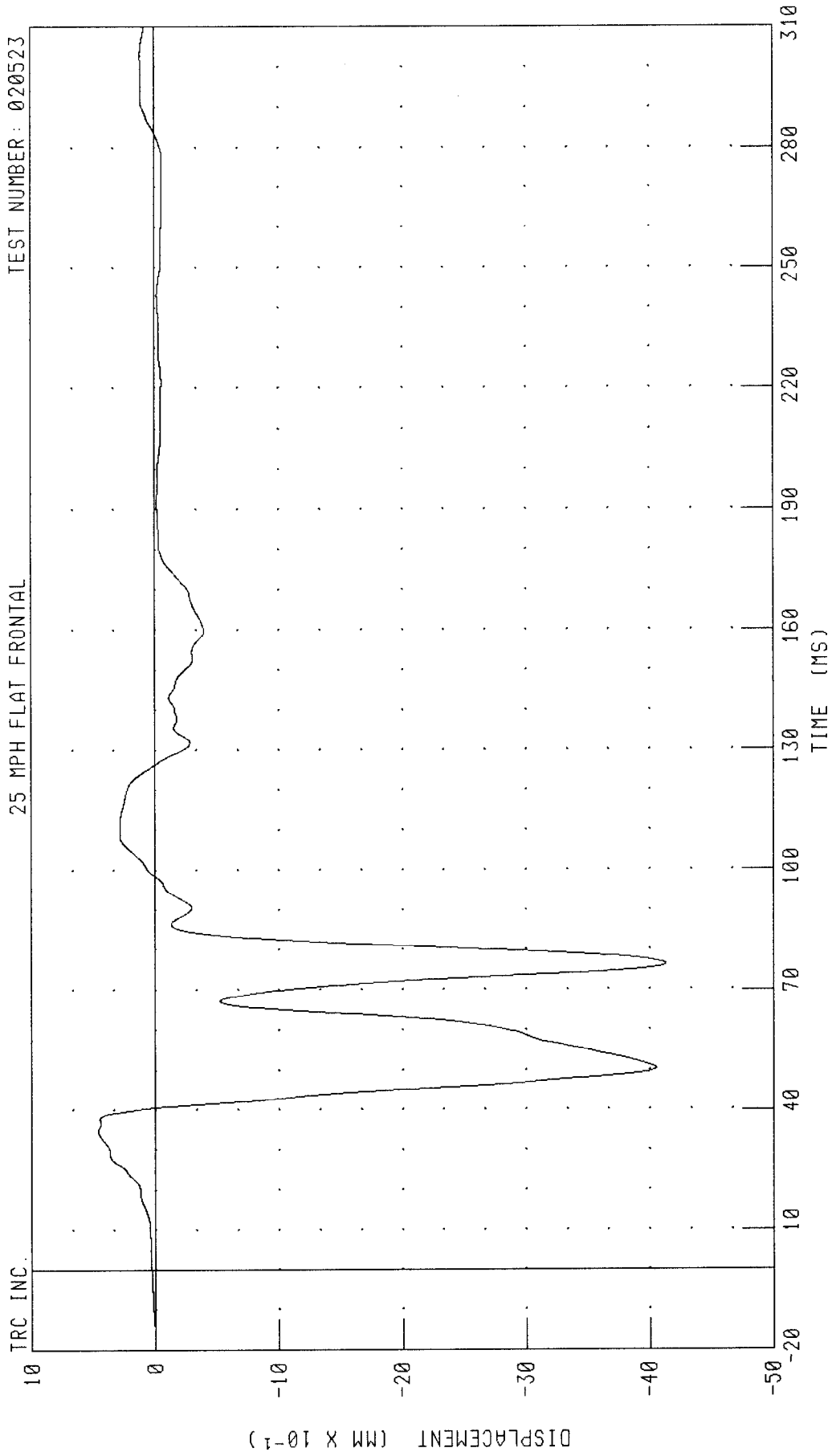
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FEMUR FORCE  
25 MPH FLAT FRONTAL



CHANNEL: RFMZ F2 FILTER: CH. CLASS 600 PEAK DATA: 80.16 N @ 18.24 MS; -2888 08 N @ 53.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT TIBIA TO FEMUR DISPLACEMENT  
25 MPH FLAT FRONTAL

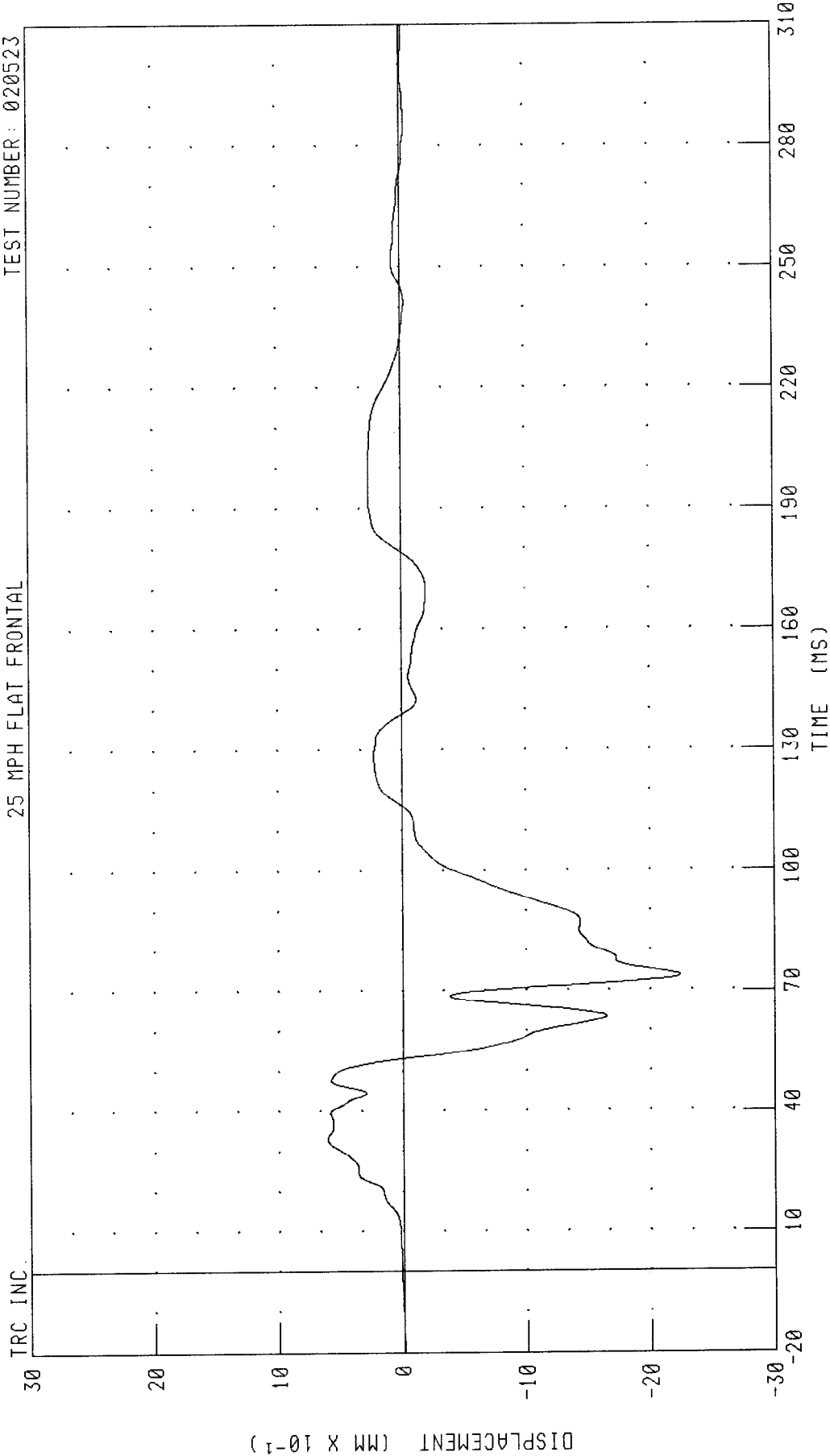
TEST NUMBER: 020523



CHANNEL: KNLXD2 FILTER: CH. CLASS 180 PEAK DATA: 0.46 MM @ 34.72 MS; -4.13 MM @ 76.48 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT TIBIA TO FEMUR DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

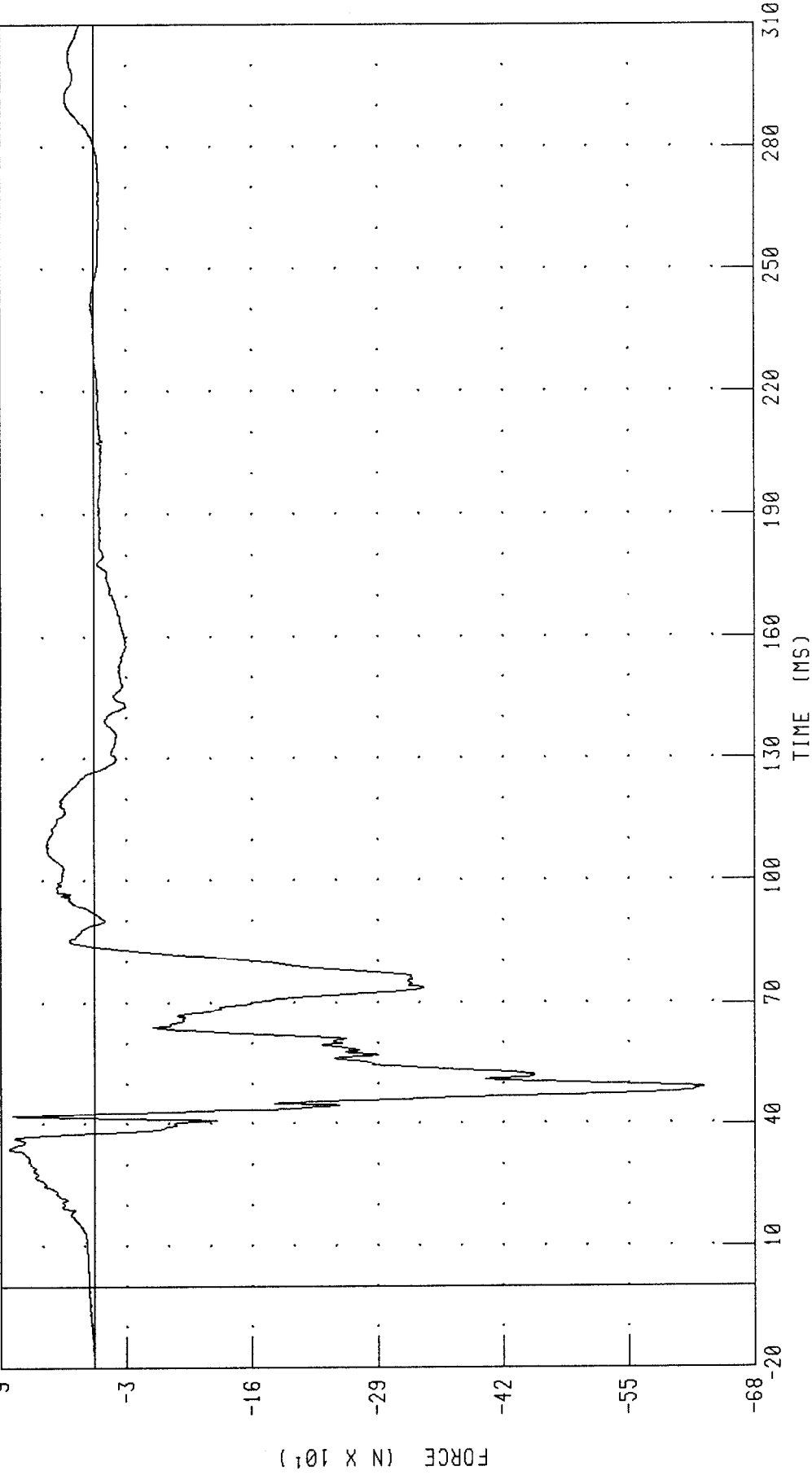


CHANNEL: KNRXD2 FILTER: CH. CLASS 180 PEAK DATA: 0.61 MM @ 33.20 MS, -2.24 MM @ 73.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT UPPER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

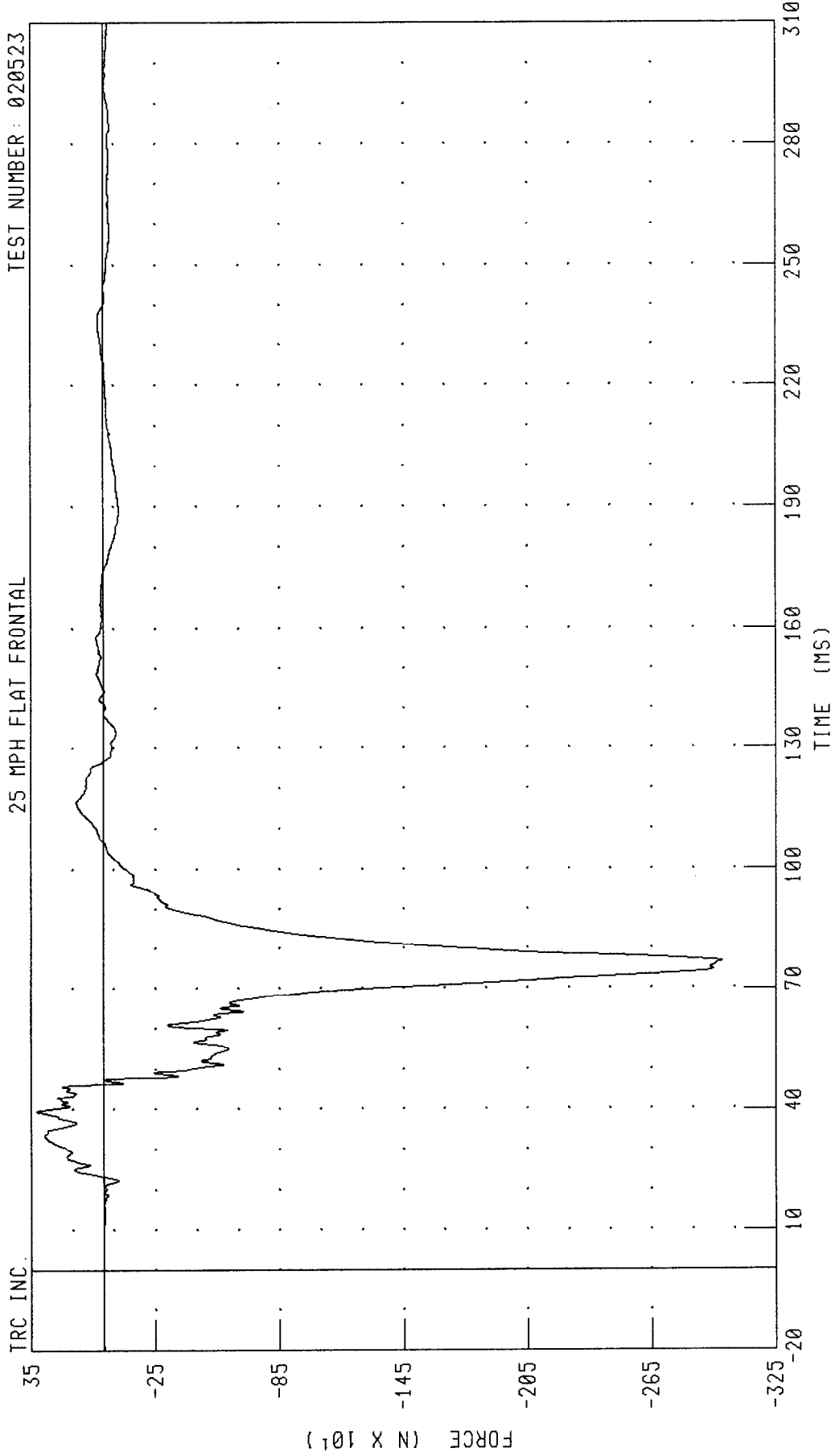
TRC INC.



CHANNEL: TBLXF2 FILTER: CH. CLASS 600 PEAK DATA: 88.68 N @ 34.00 MS; -630.66 N @ 49.12 MS

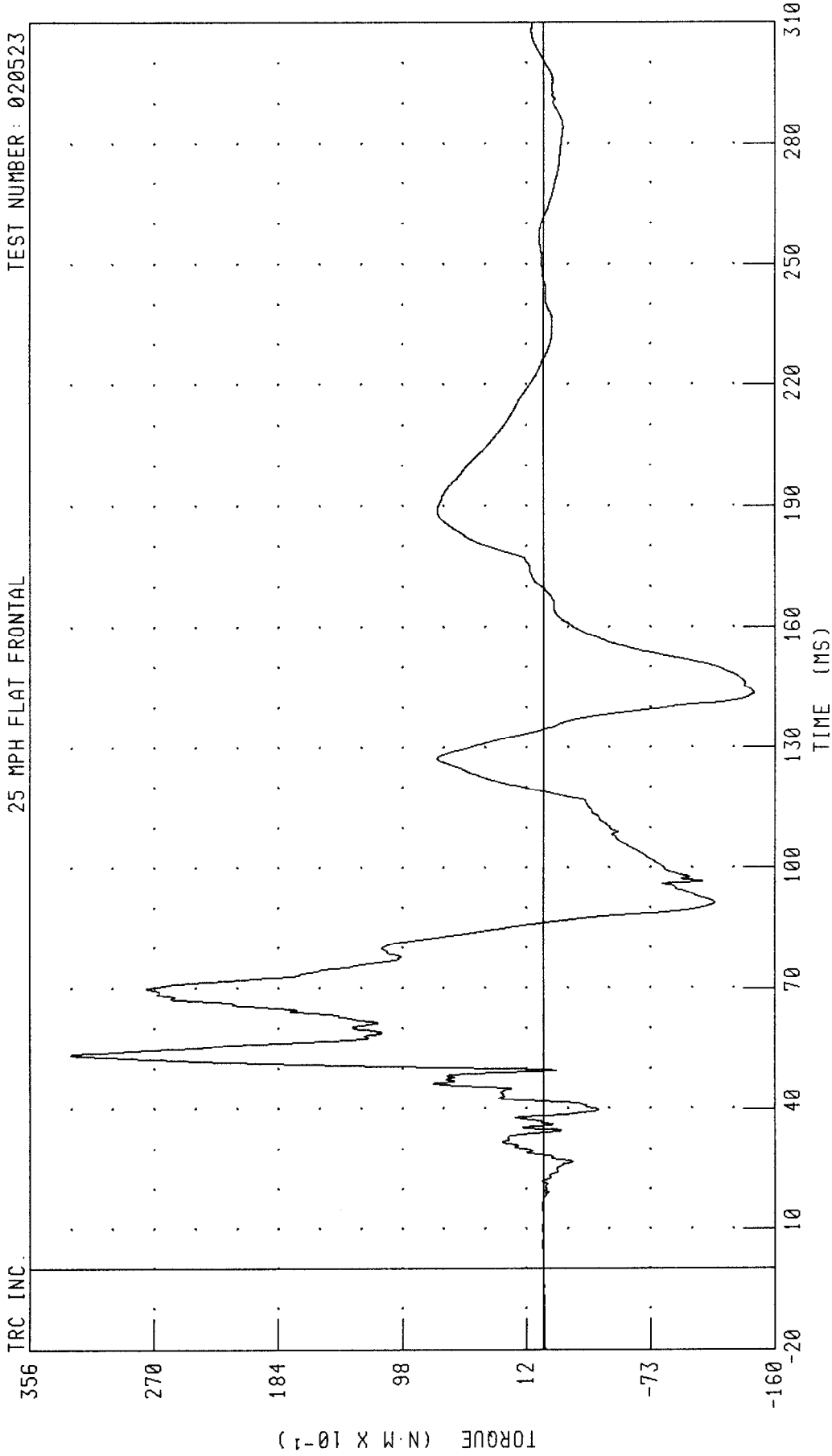
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT UPPER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: TBLZF2 FILTER: CH. CLASS 600 PEAK DATA: 326.87 N @ 39.68 MS; -2989.64 N @ 76.64 MS

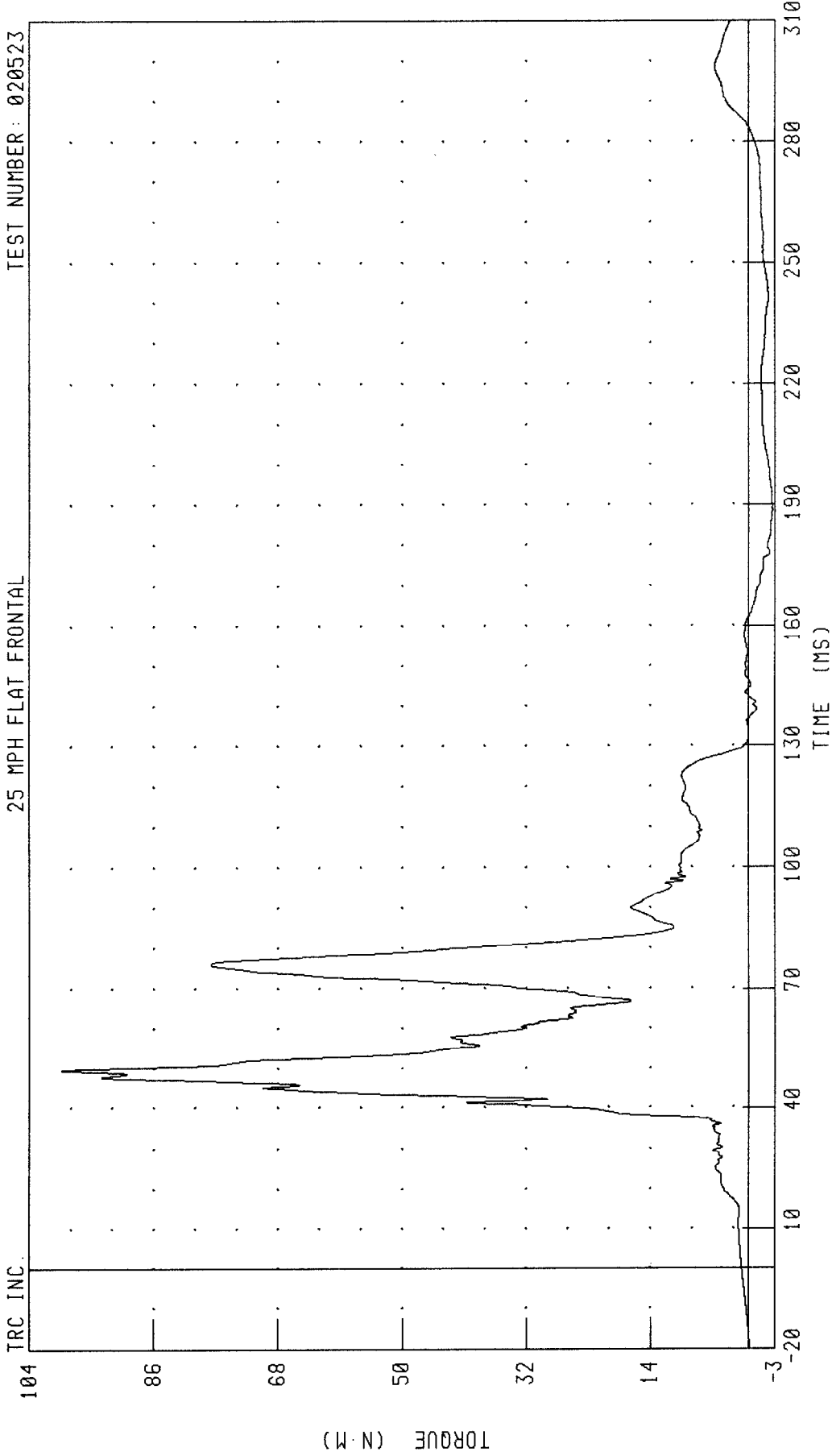
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT UPPER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL



CHANNEL: TBLXM2 FILTER: CH. CLASS 600 PEAK DATA: 32.80 N·M @ 53.44 MS, -14.55 N·M @ 143.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT UPPER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

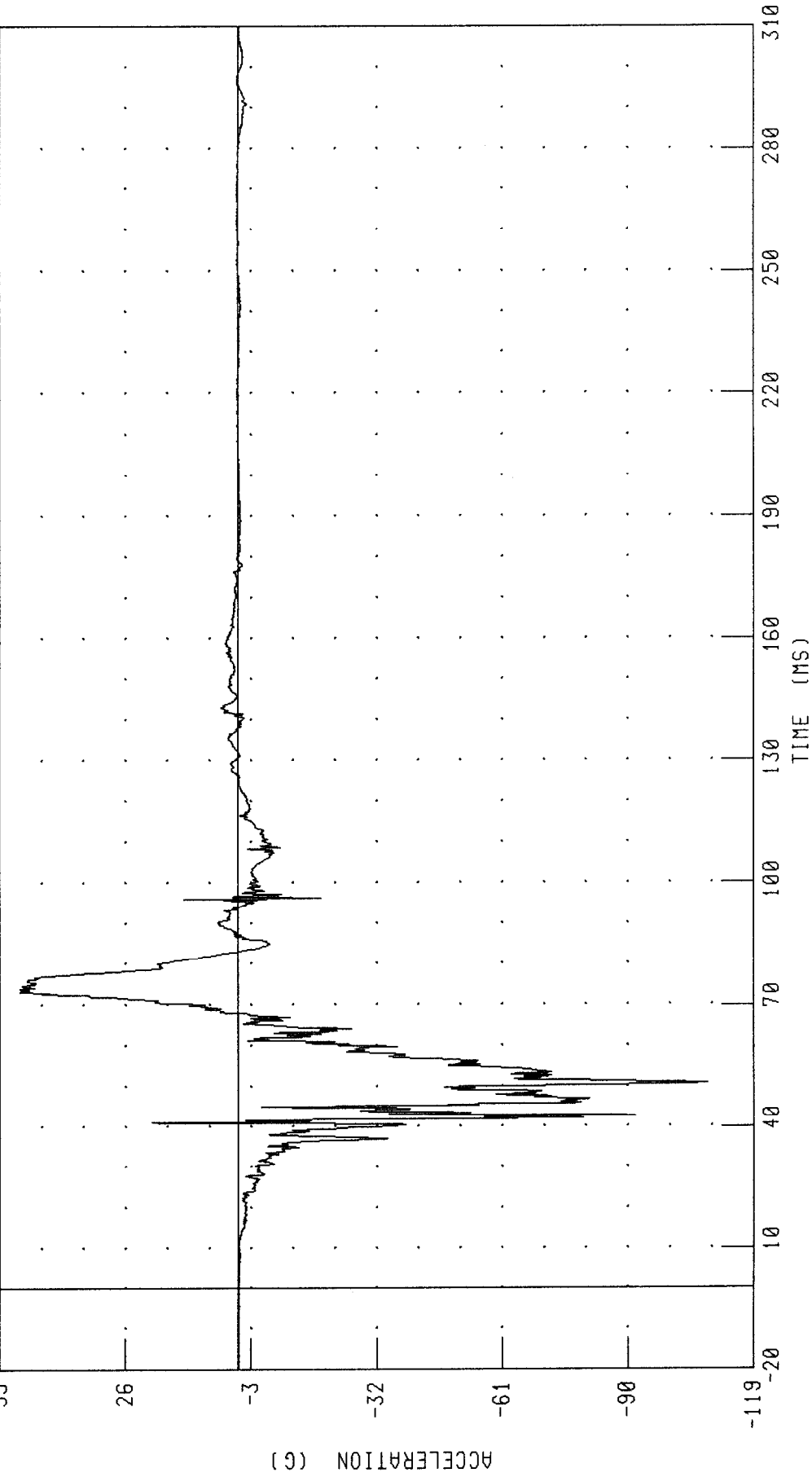


CHANNEL: TBLYM2 FILTER: CH. CLASS 600 PEAK DATA: 99.48 N·M @ 49.68 MS; -3.46 N·M @ 189.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT TIBIA X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

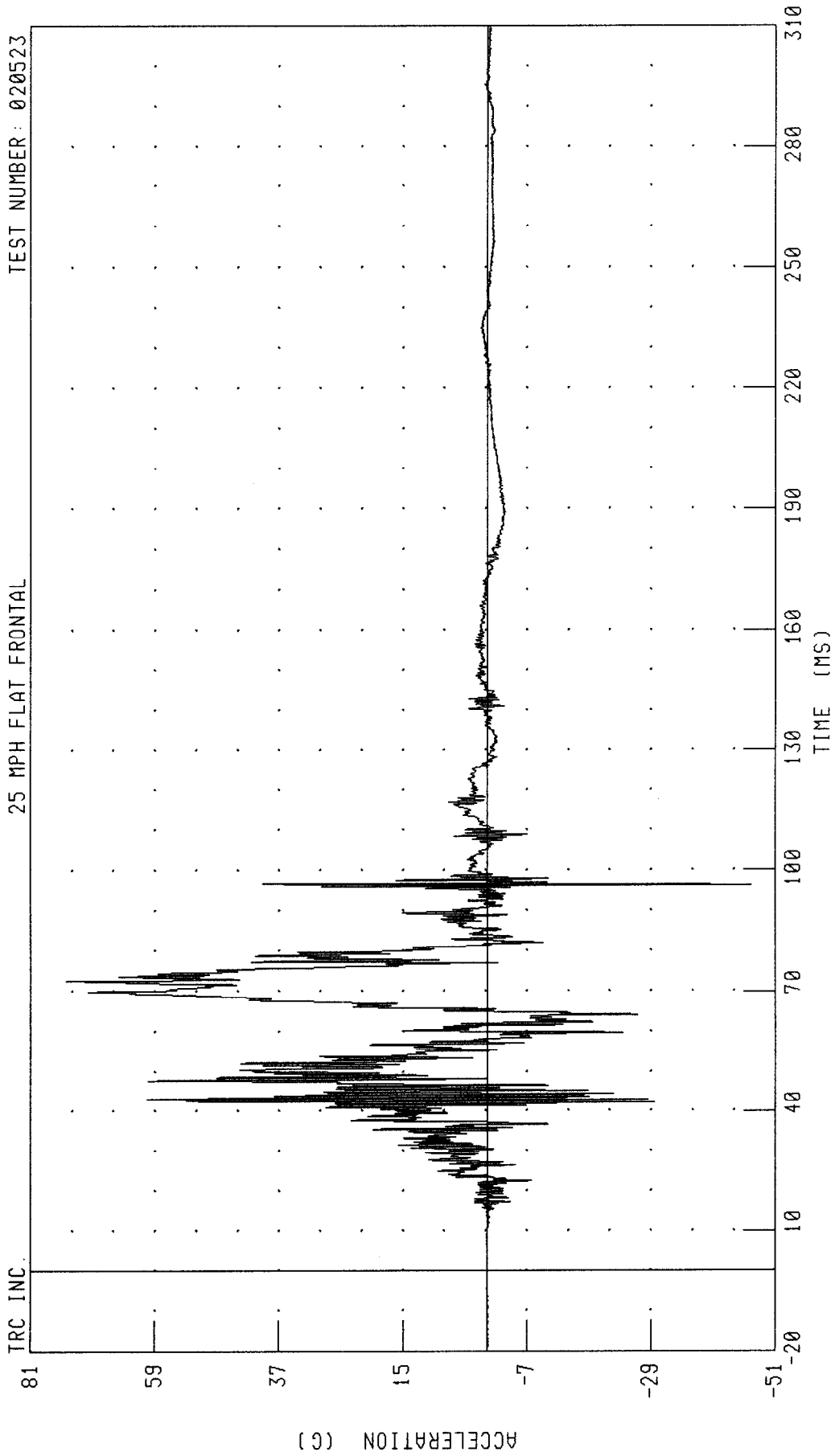


CHANNEL: TBLXC2 FILTER: CH. CLASS 1000 PEAK DATA: 50.47 G @ 73.28 MS; -108.44 G @ 50.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT TIBIA Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

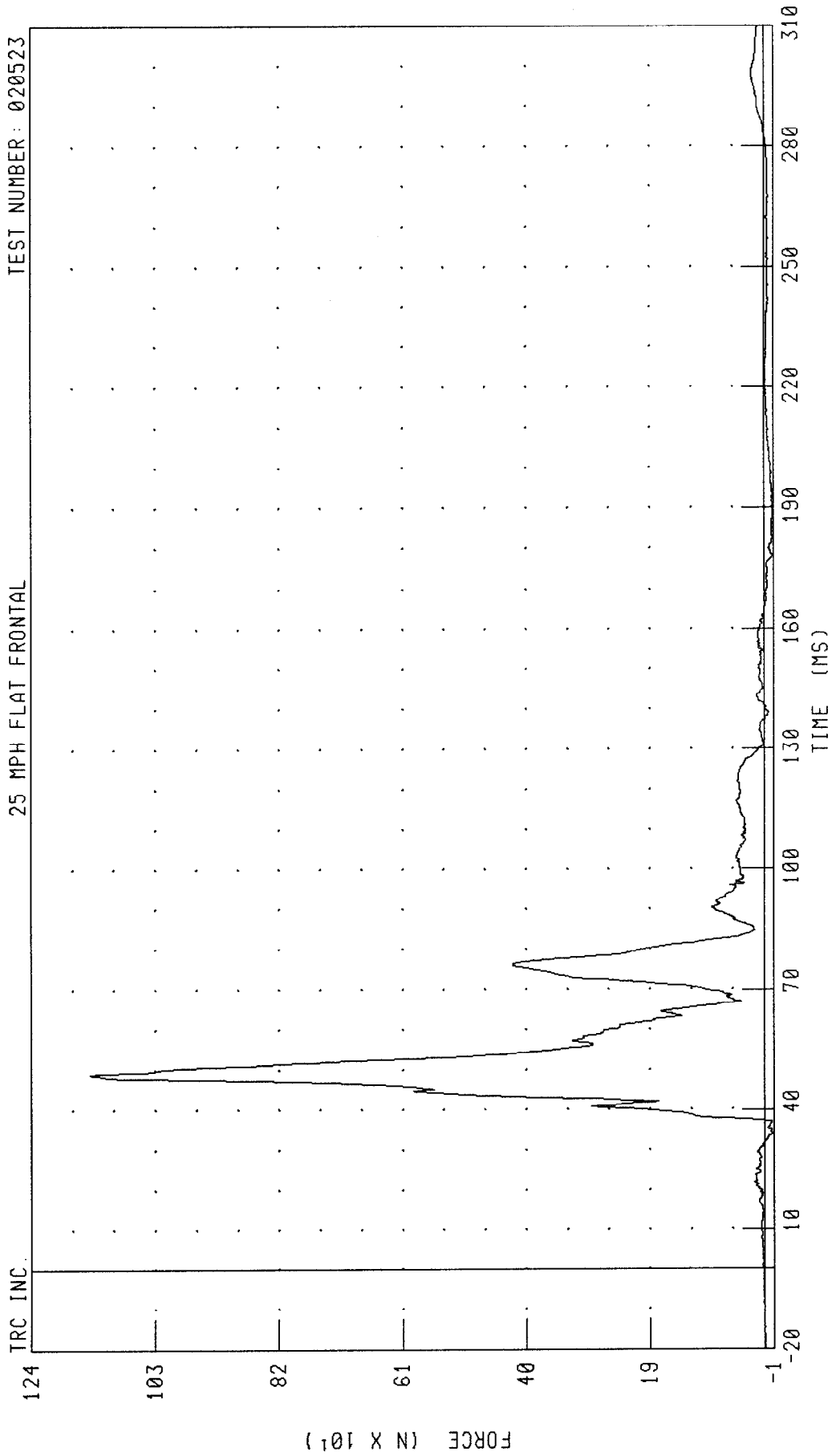
TRC INC.



CHANNEL: TBLZG2 FILTER: CH. CLASS 1000 PEAK DATA: 74.80 G @ 72.64 MS; -46.65 G @ 96.40 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT LOWER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

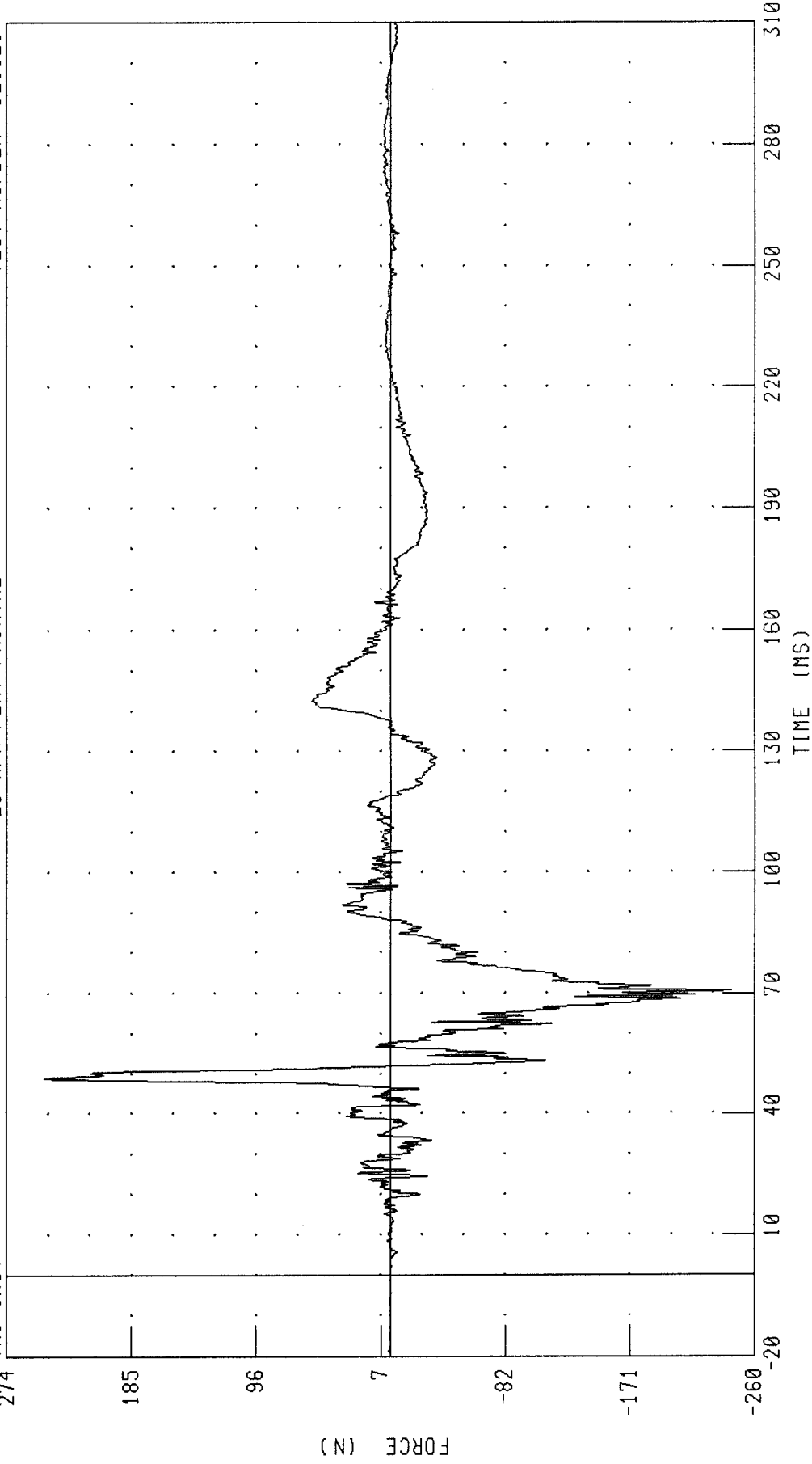


CHANNEL: ANLXF2 FILTER: CH CLASS 600 PEAK DATA: 1145.97 N @ 49.04 MS, -13.80 N @ 33.92 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT LOWER TIBIA Y-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

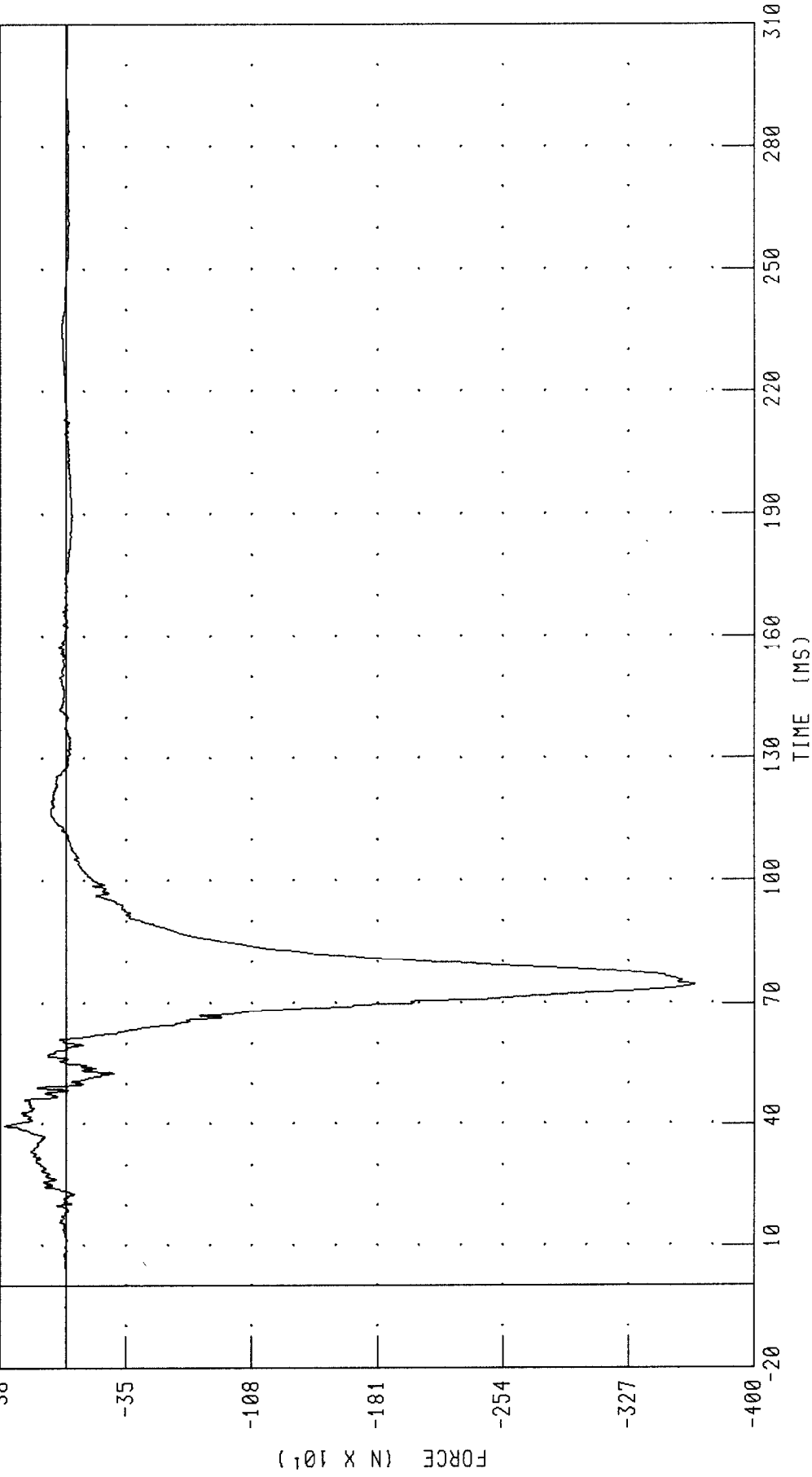


CHANNEL: ANLYF2 FILTER: CH. CLASS 600  
PEAK DATA: 246.95 N @ 49.04 MS, -243.42 N @ 70.56 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT LOWER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

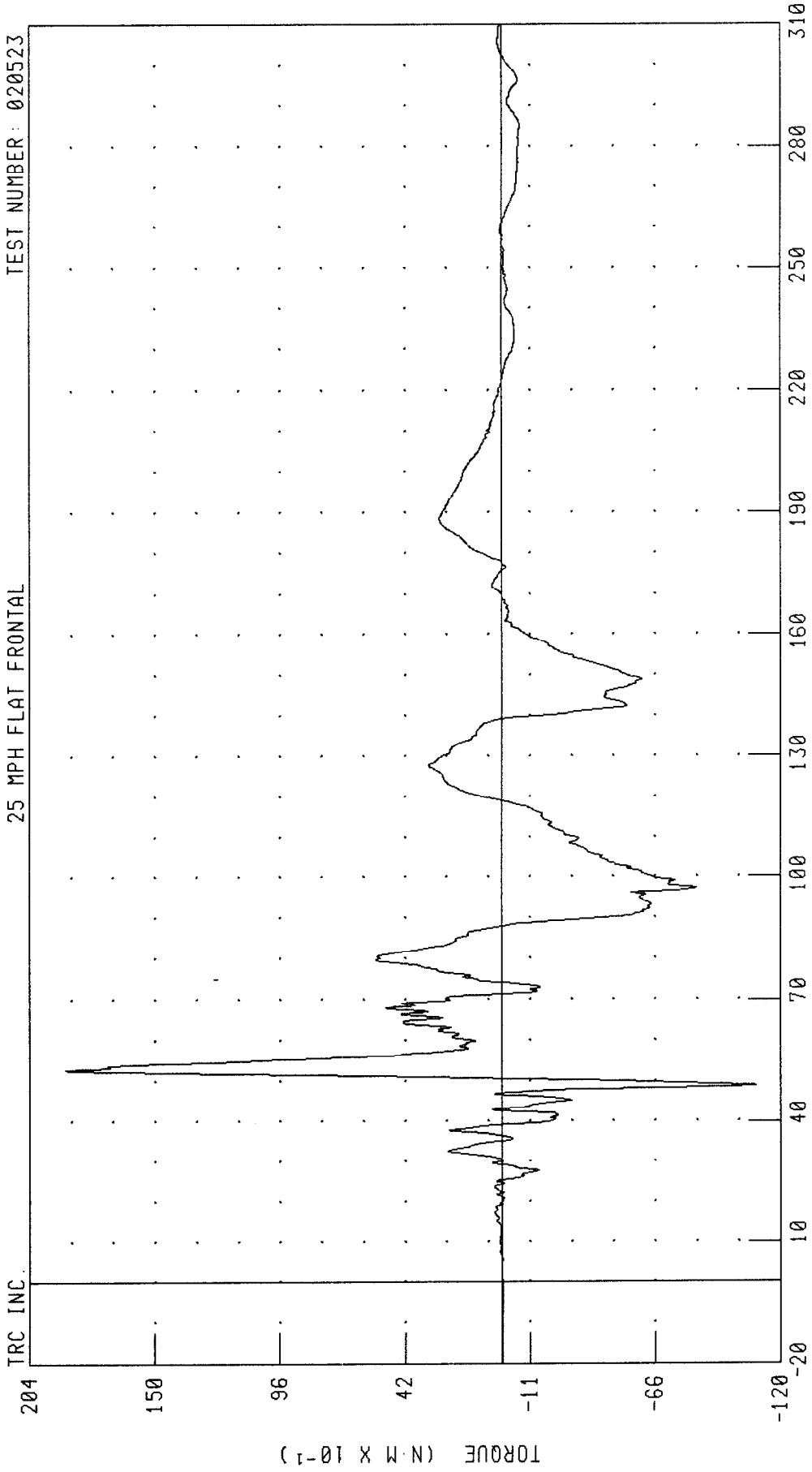
TRC INC.



CHANNEL: ANLZF2 FILTER: CH. CLASS 600 PEAK DATA: 354.33 N @ 39.68 MS; -3653.01 N @ 74.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT LOWER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



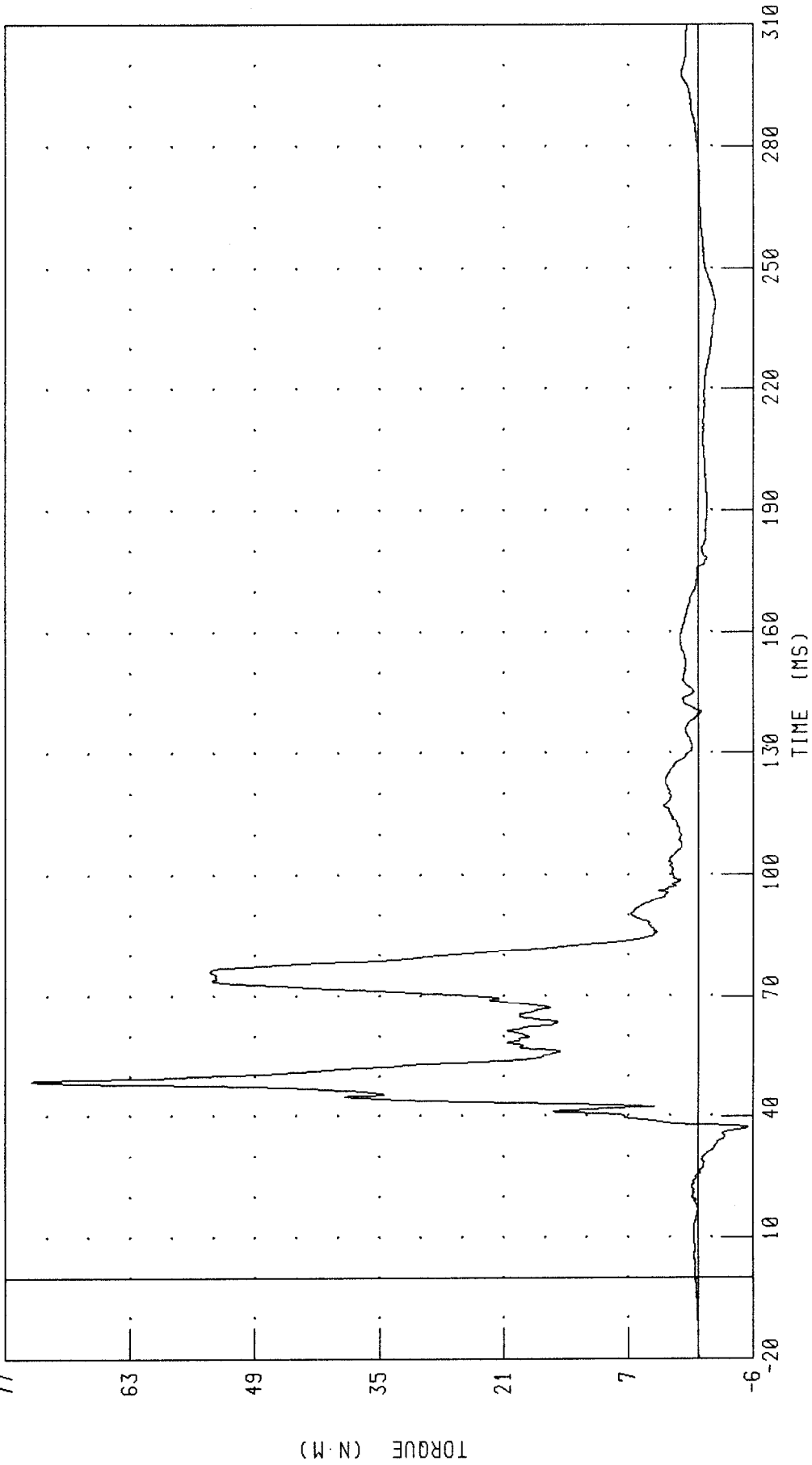
CHANNEL: ANLXM2 FILTER: CH. CLASS 600

PEAK DATA: 18.87 N·M @ 52.80 MS, -10.95 N·M @ 48.88 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT LOWER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

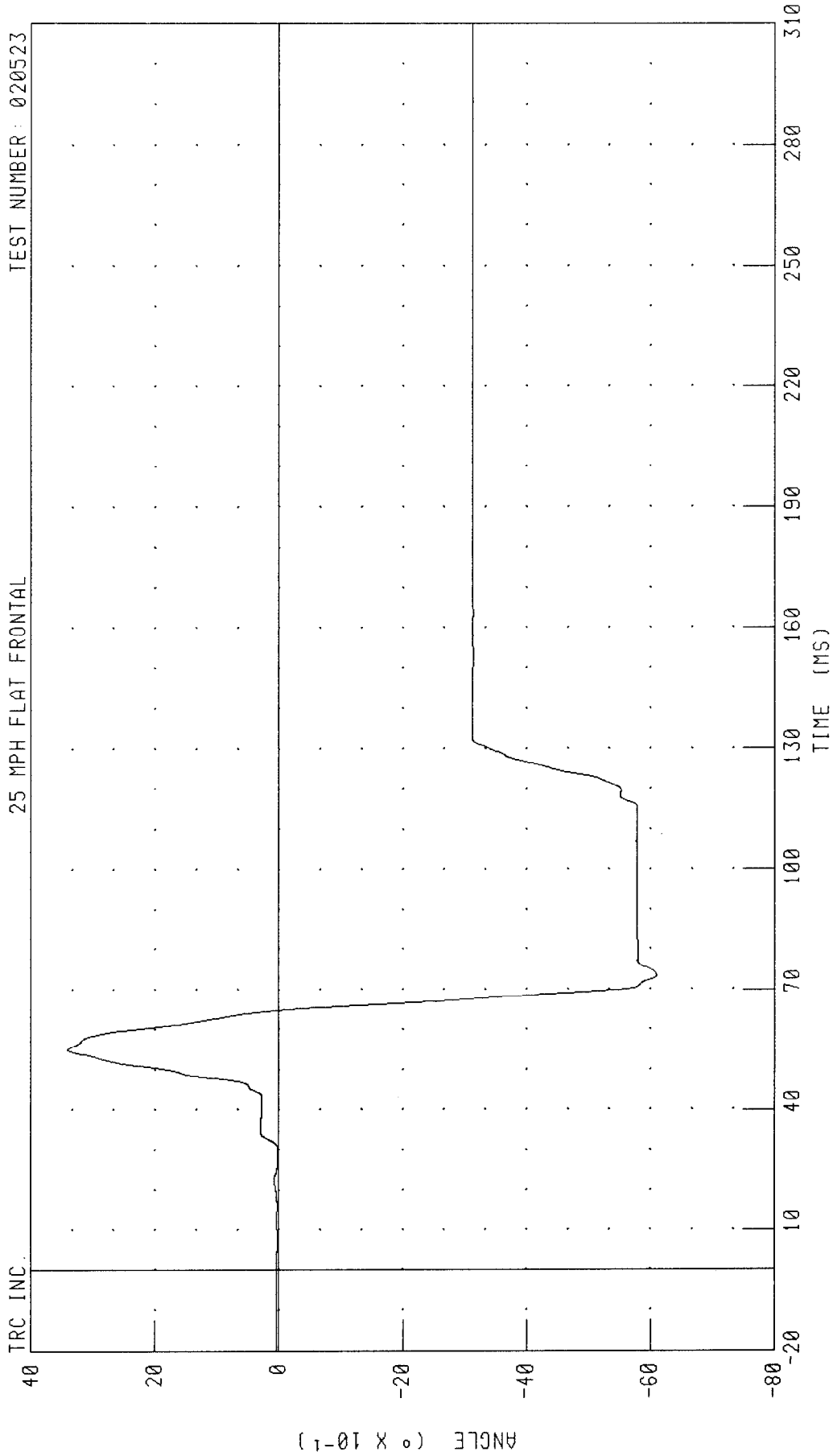
TRC INC.



CHANNEL: ANLYM2 FILTER: CH. CLASS 600 PEAK DATA: 74.86 N·M @ 48.88 MS; -5.65 N·M @ 37.20 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT TO ANKLE X-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

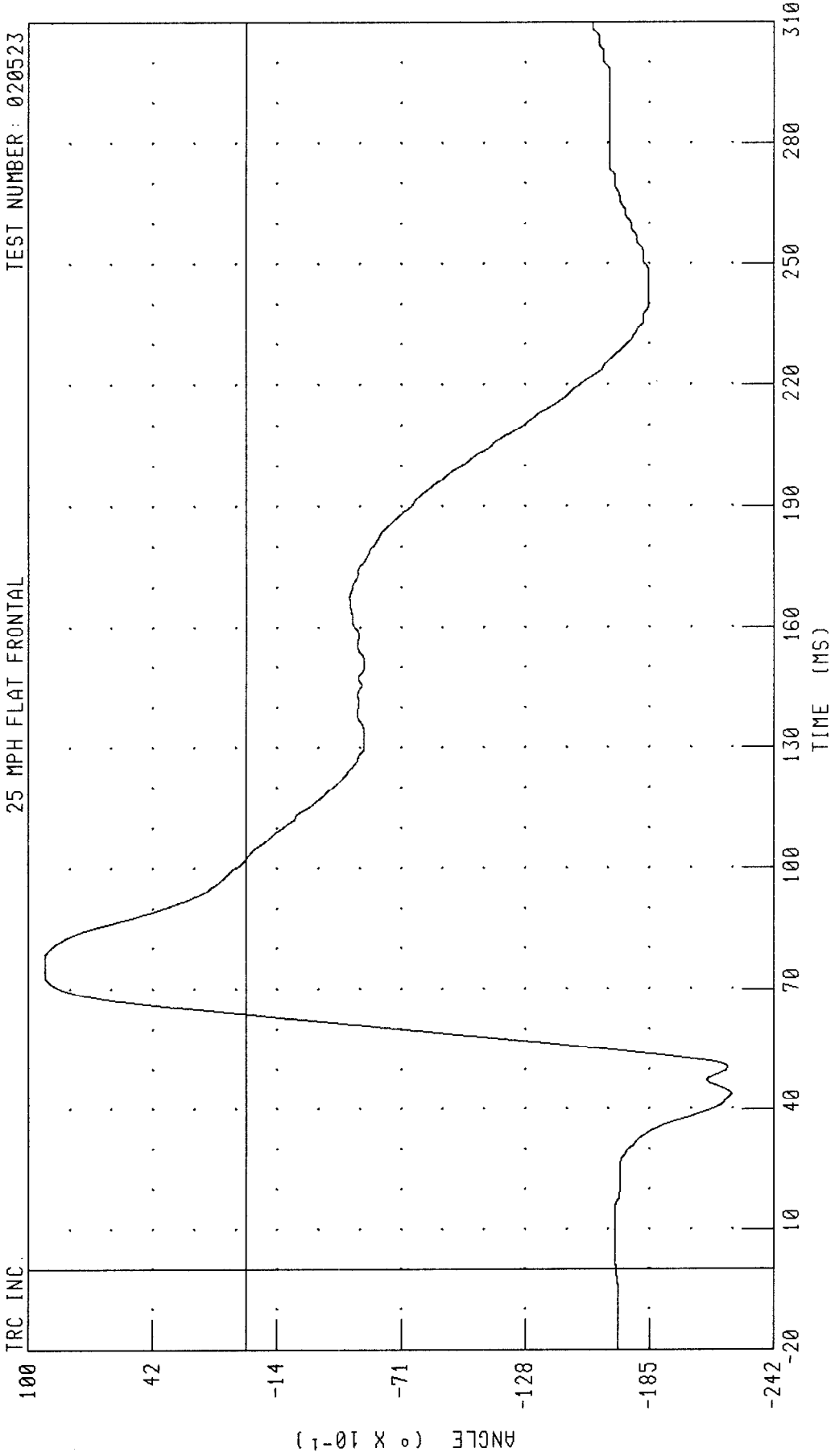


PEAK DATA: 3.41 ° @ 55.12 MS; -6.10 ° @ 73.60 MS

CHANNEL: FTLXD2 FILTER: CH. CLASS 180

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT TO ANKLE Y-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

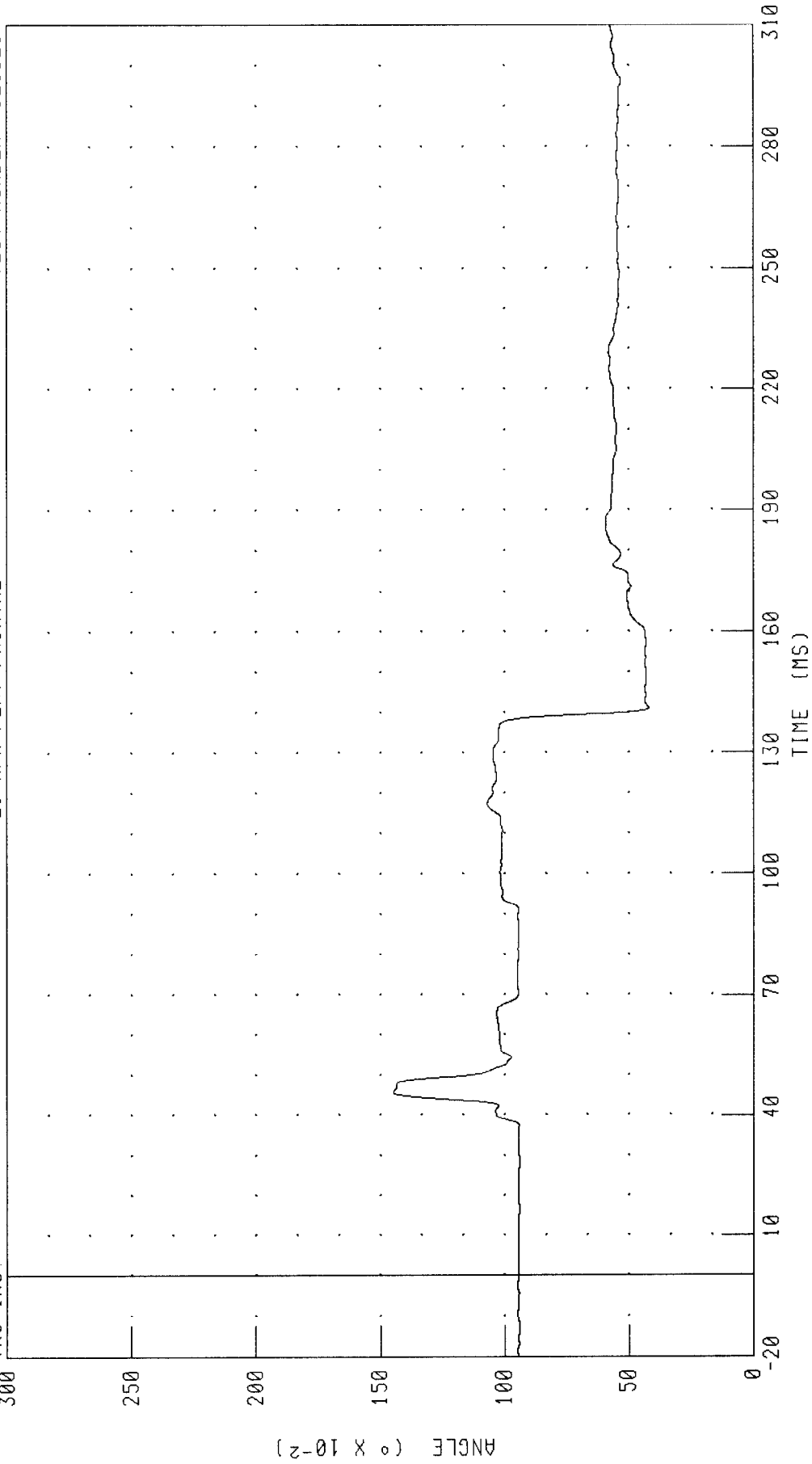


CHANNEL: FTLYD2 FILTER: CH. CLASS 180 PEAK DATA: 9.24 @ 78.00 MS; -22.26 @ 43.84 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT TO ANKLE Z-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

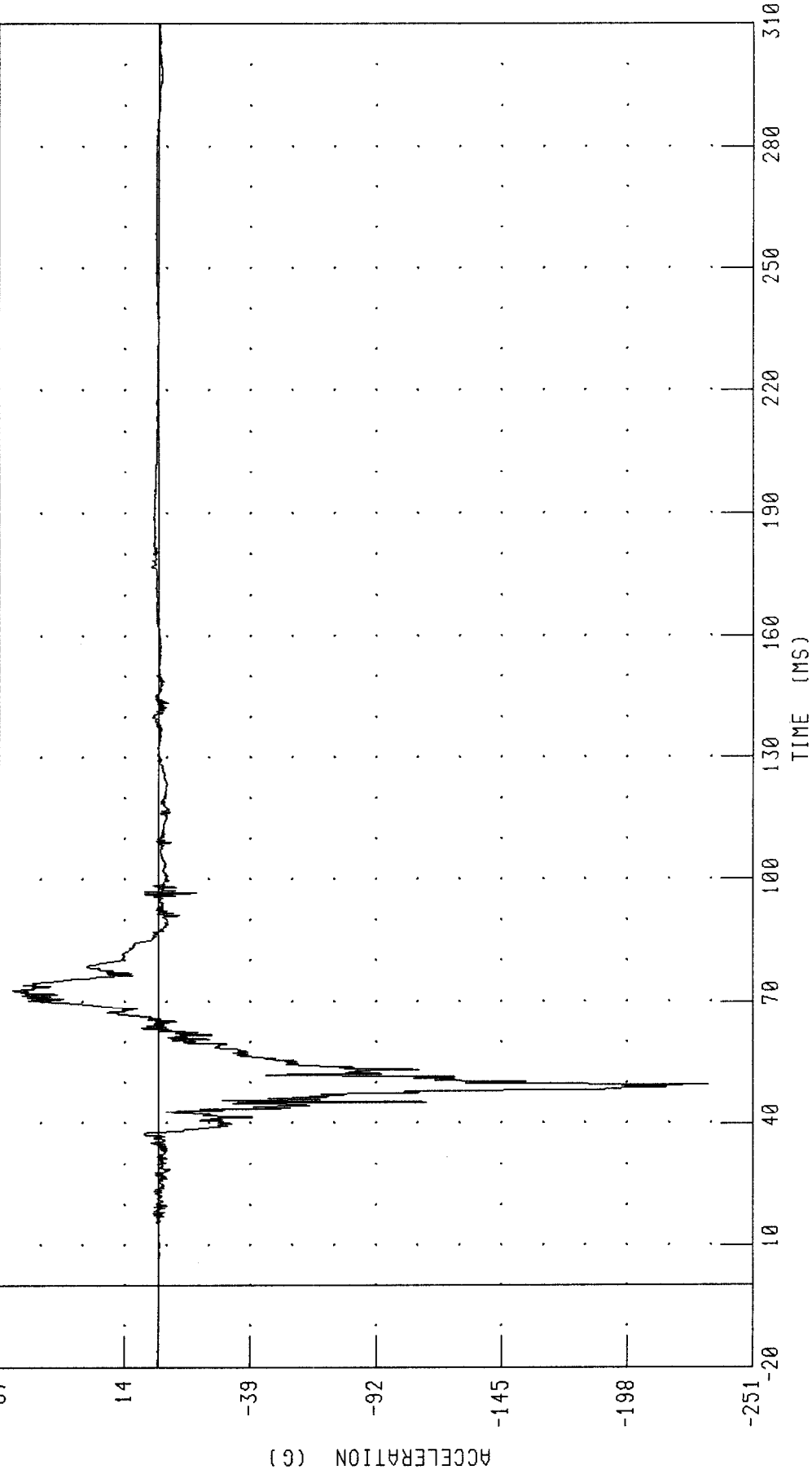


CHANNEL: FTLZD2 FILTER: CH. CLASS 180 PEAK DATA: 1.45 ° @ 45.84 MS; 0.42 ° @ 141.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

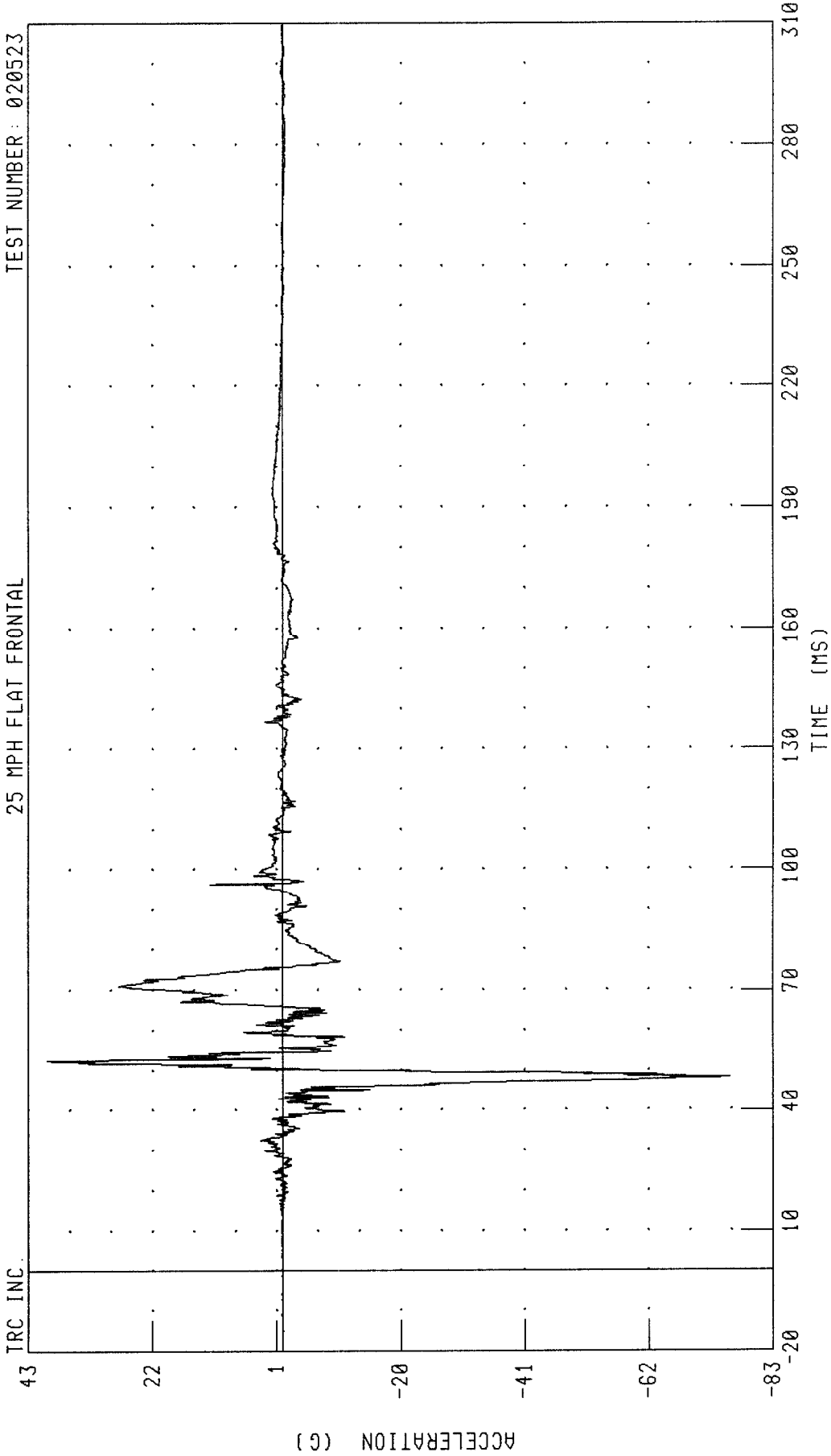
TRC INC.



CHANNEL: FTLXC2 FILTER: CH. CLASS 1000 PEAK DATA: 61.33 G @ 72.88 MS; -232.05 G @ 49.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

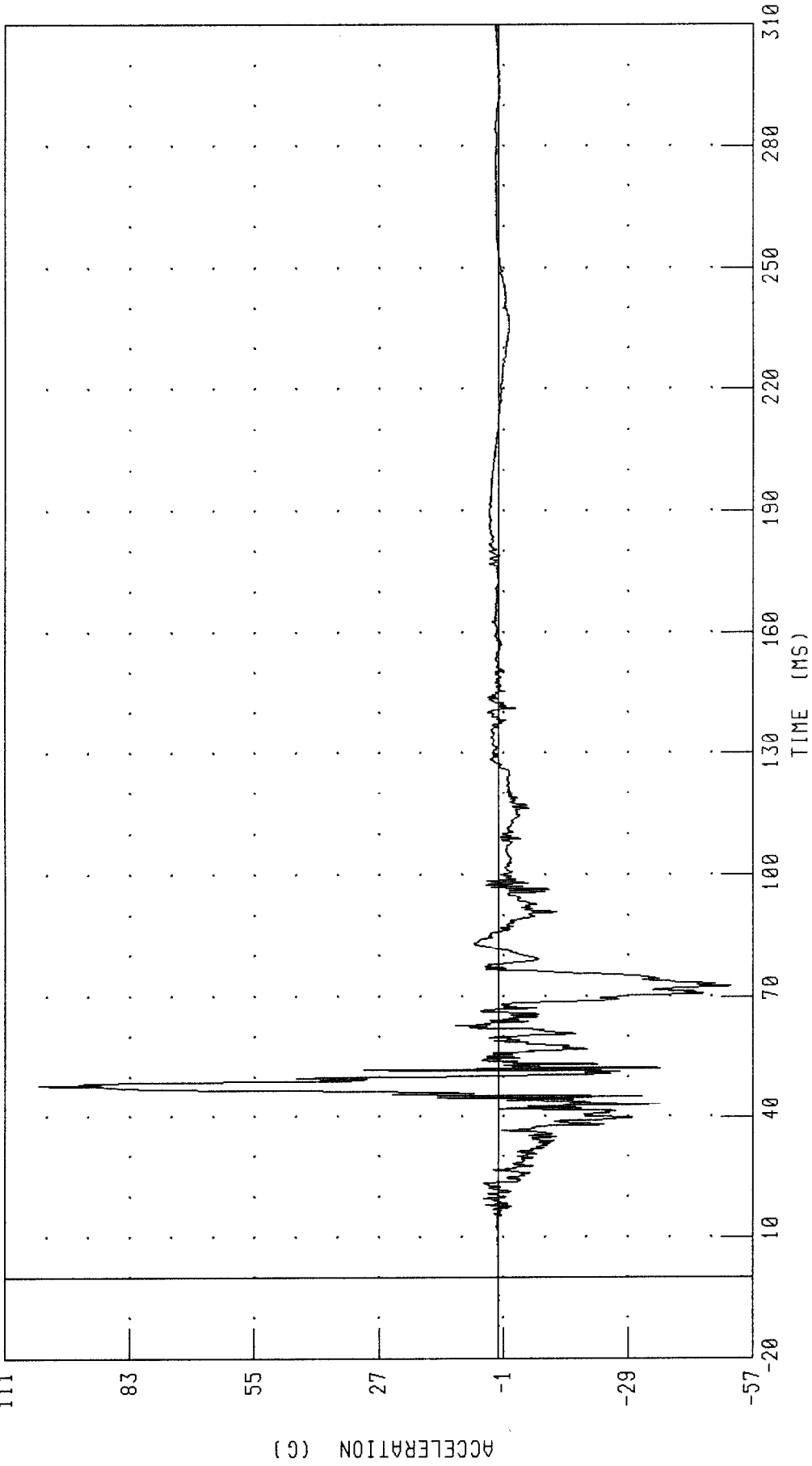


CHANNEL: FTLYG2 FILTER: CH. CLASS 1000 PEAK DATA: 39.91 G @ 52.56 MS, -75.78 G @ 48.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

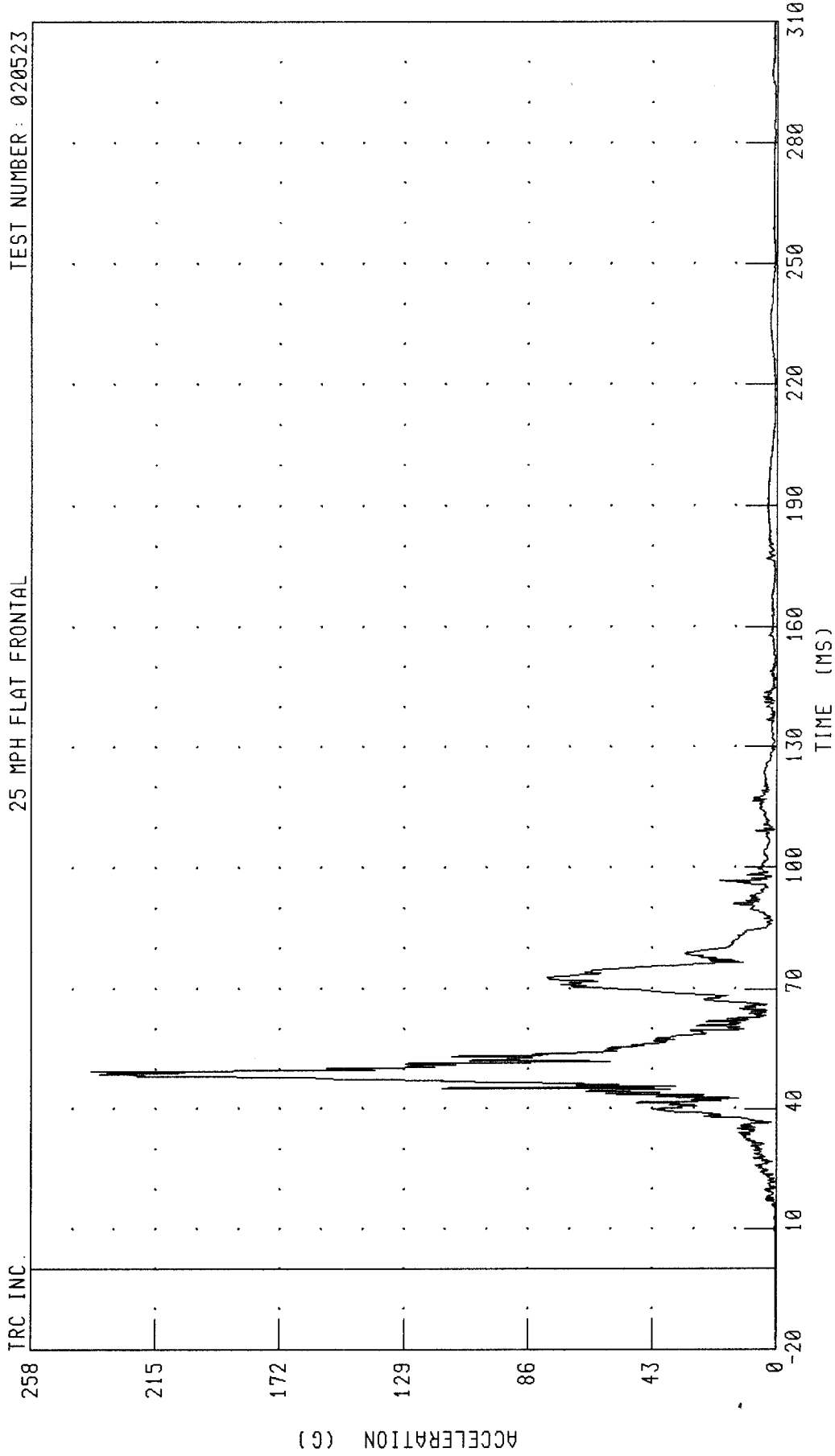


CHANNEL: FTLZG2 FILTER: CH. CLASS 1000

PEAK DATA: 103.52 G @ 47.92 MS, -52.05 G @ 72.56 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER LEFT FOOT RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



TRC INC.

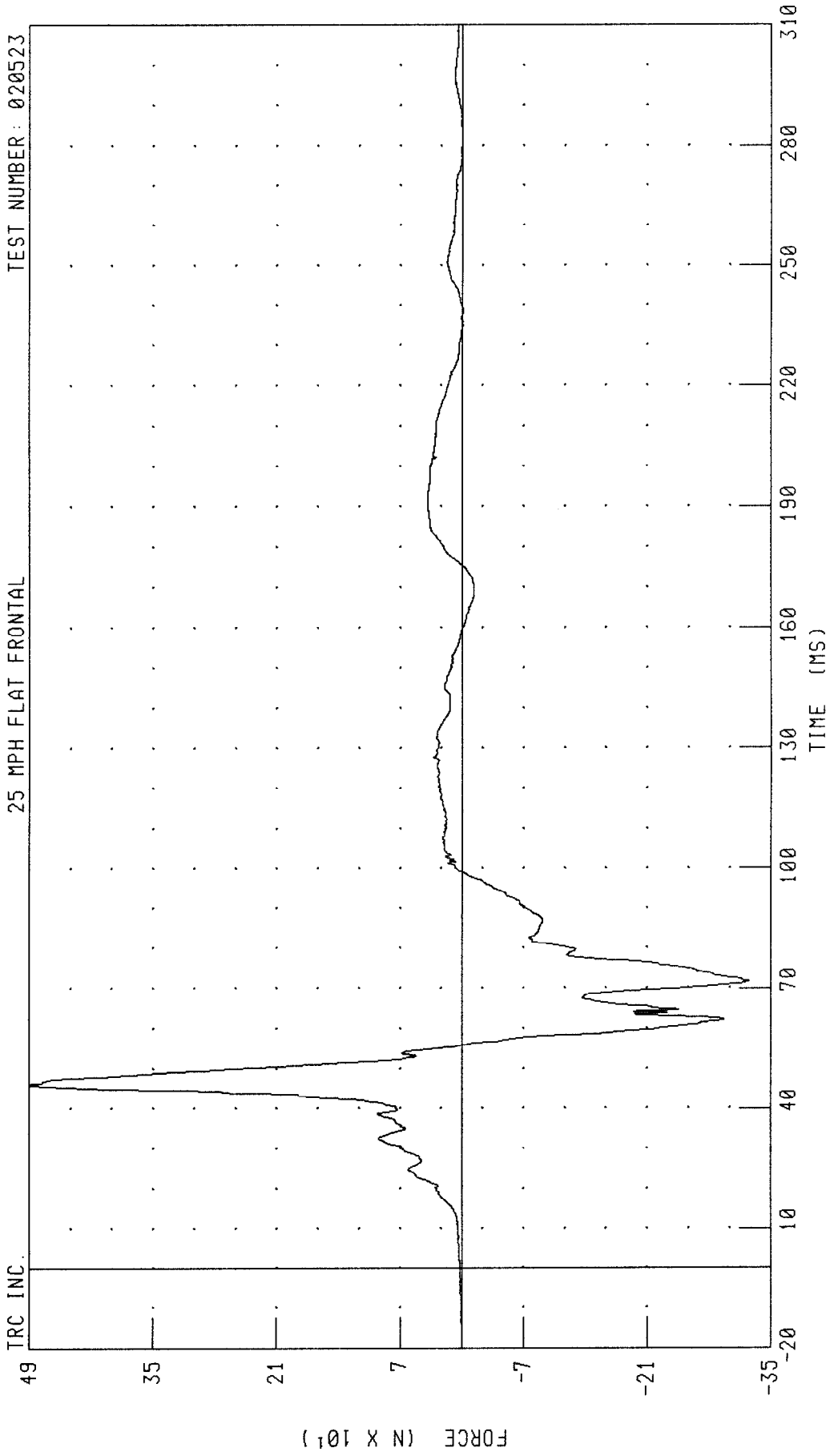
CHANNEL: FTLRG2 FILTER: CH. CLASS 1000

PEAK DATA: 237.38 G @ 49.52 MS; 0.04 G @ -19.60 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT UPPER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

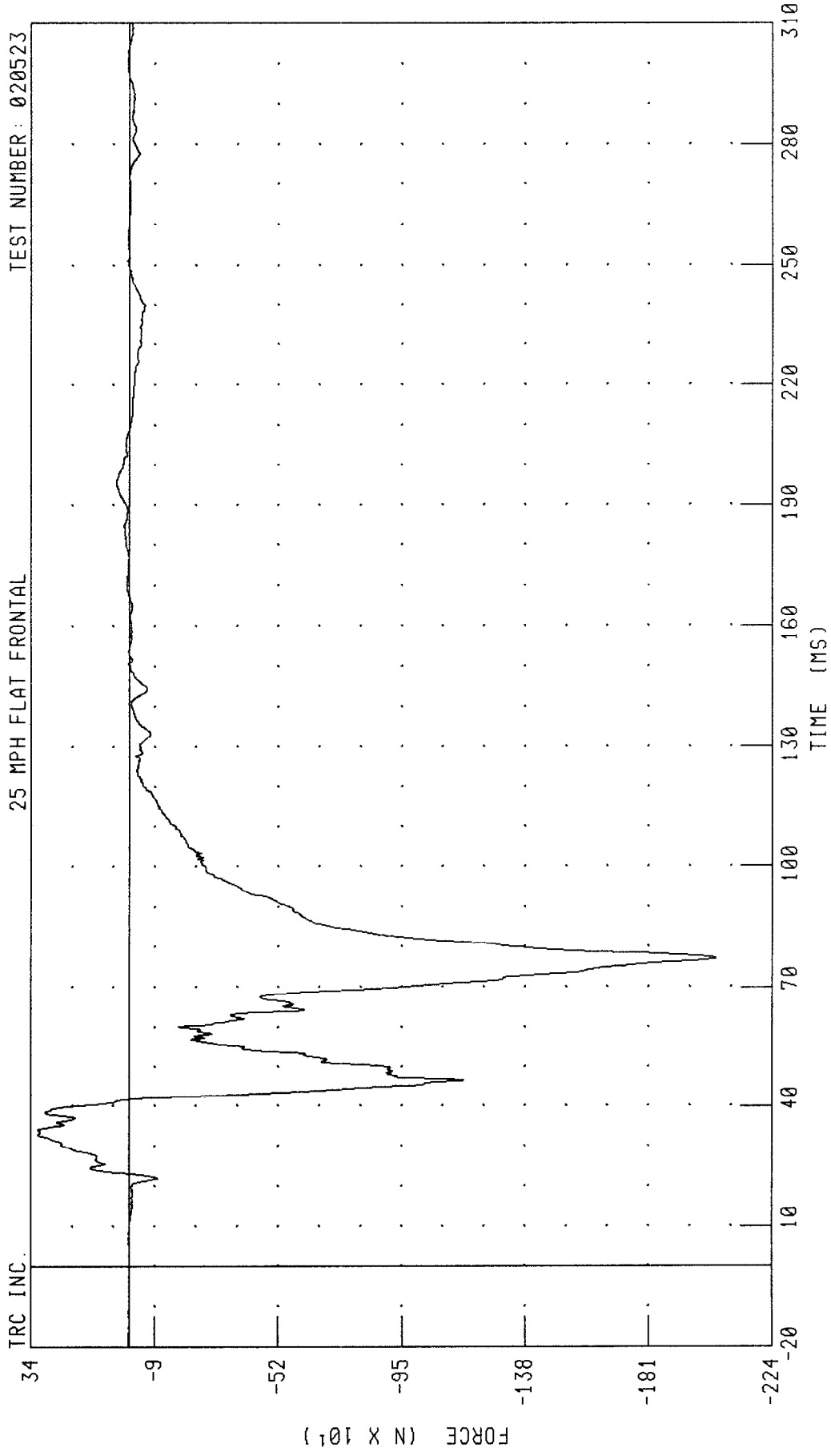
TRC INC.



CHANNEL: TBRXF2 FILTER: CH. CLASS 600 PEAK DATA: 492.30 N @ 46.24 MS, -325.46 N @ 71.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT UPPER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

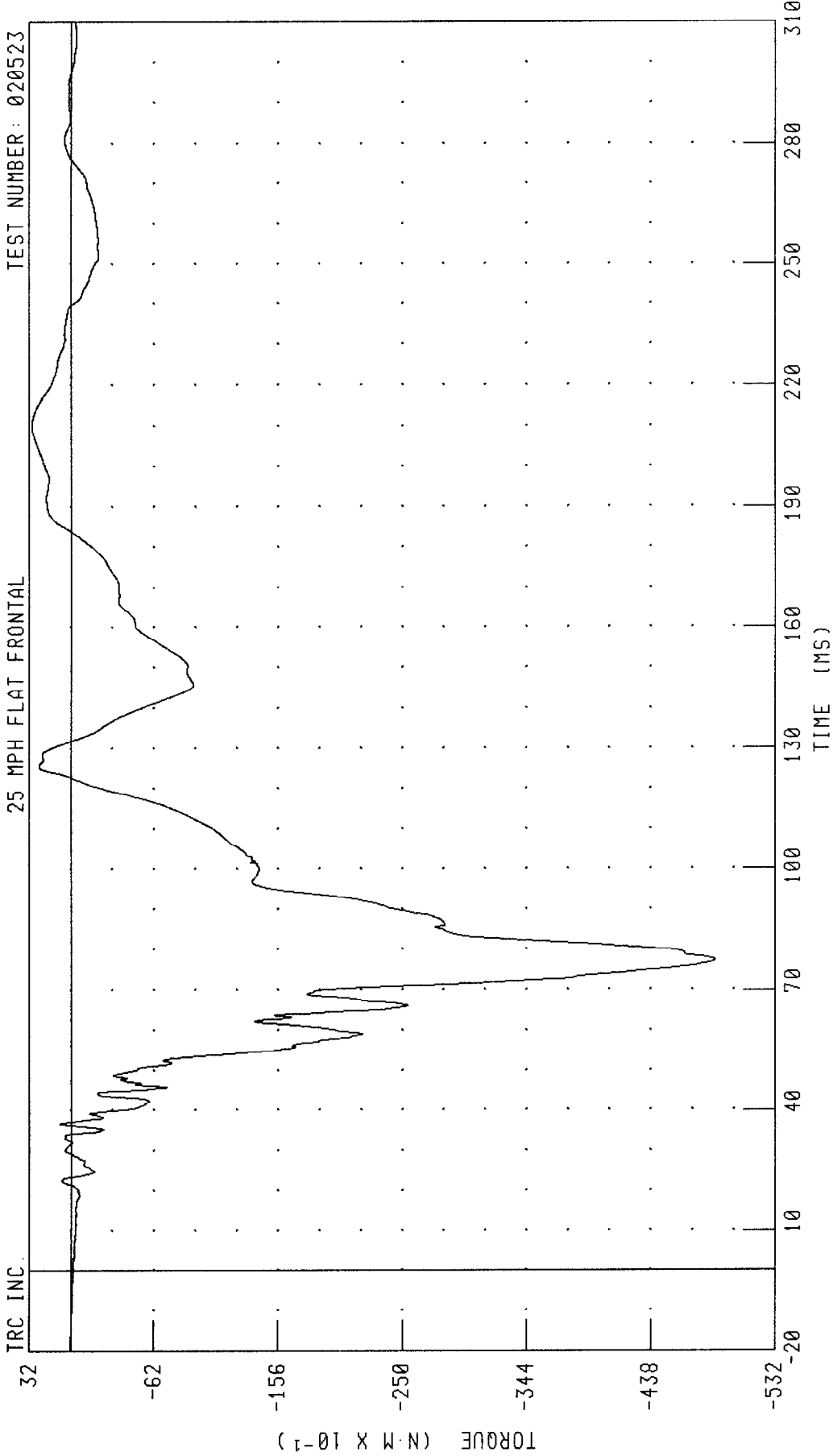


CHANNEL: TBRZF2 FILTER: CH. CLASS 600 PEAK DATA: 316.69 N @ 34.16 MS; -2045.09 N @ 77.20 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

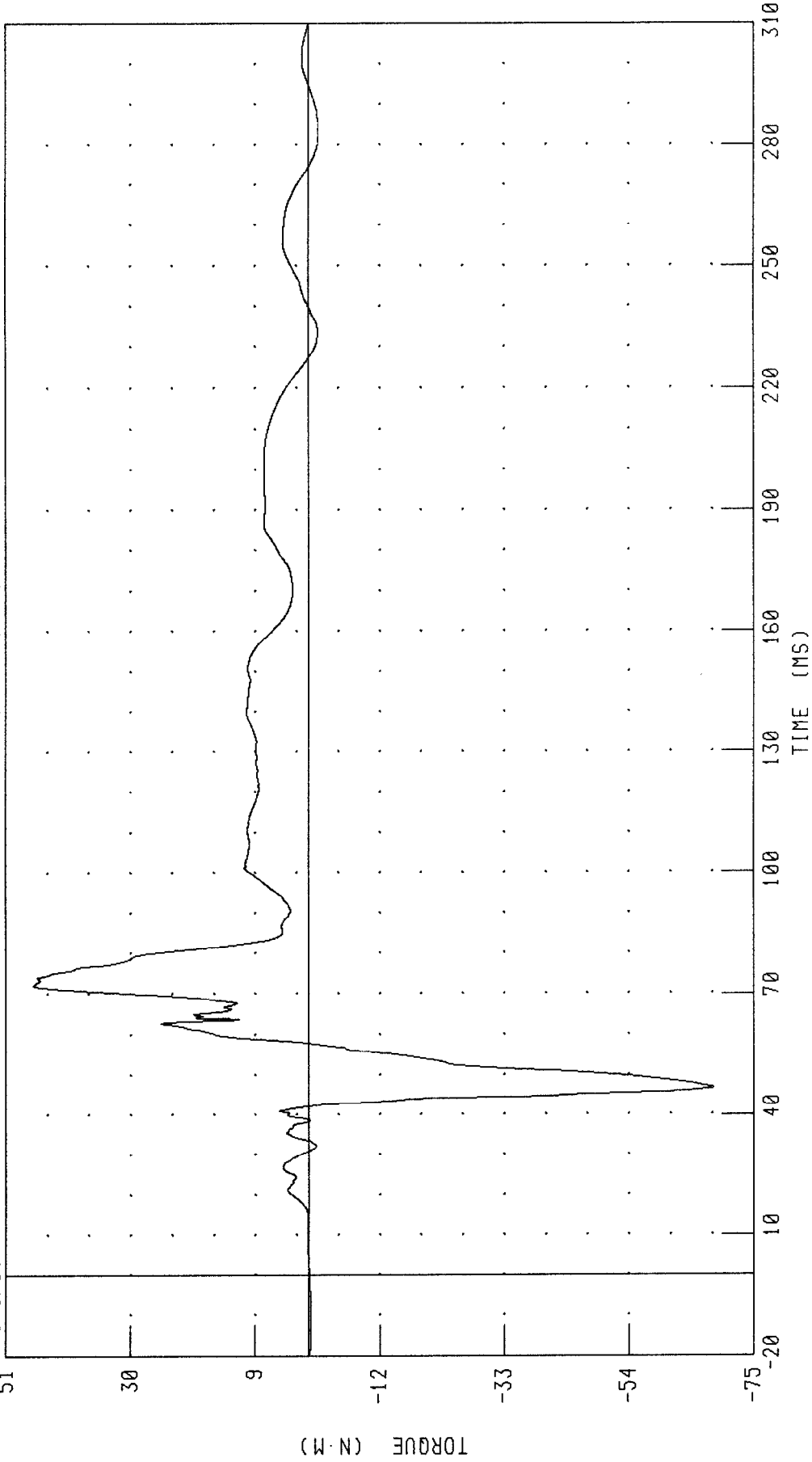


CHANNEL: TBRX12 FILTER: CH. CLASS 600 PEAK DATA: 3.00 N·M @ 210.16 MS; -48.67 N·M @ 77.44 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT UPPER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

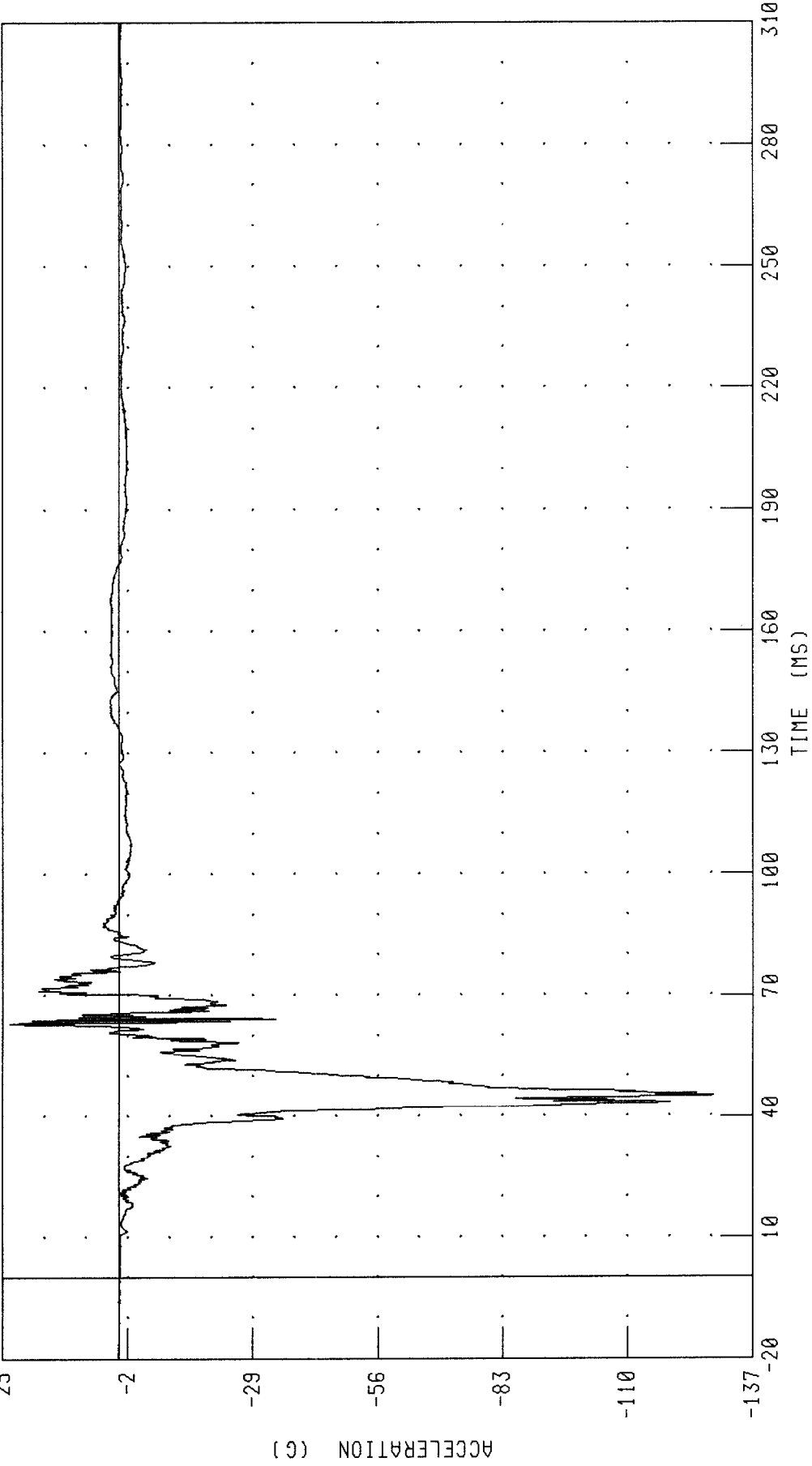


CHANNEL: TBRYM2 FILTER: CH. CLASS 600 PEAK DATA: 46.41 N·M @ 72.16 MS; -68.26 N·M @ 46.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT TIBIA X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

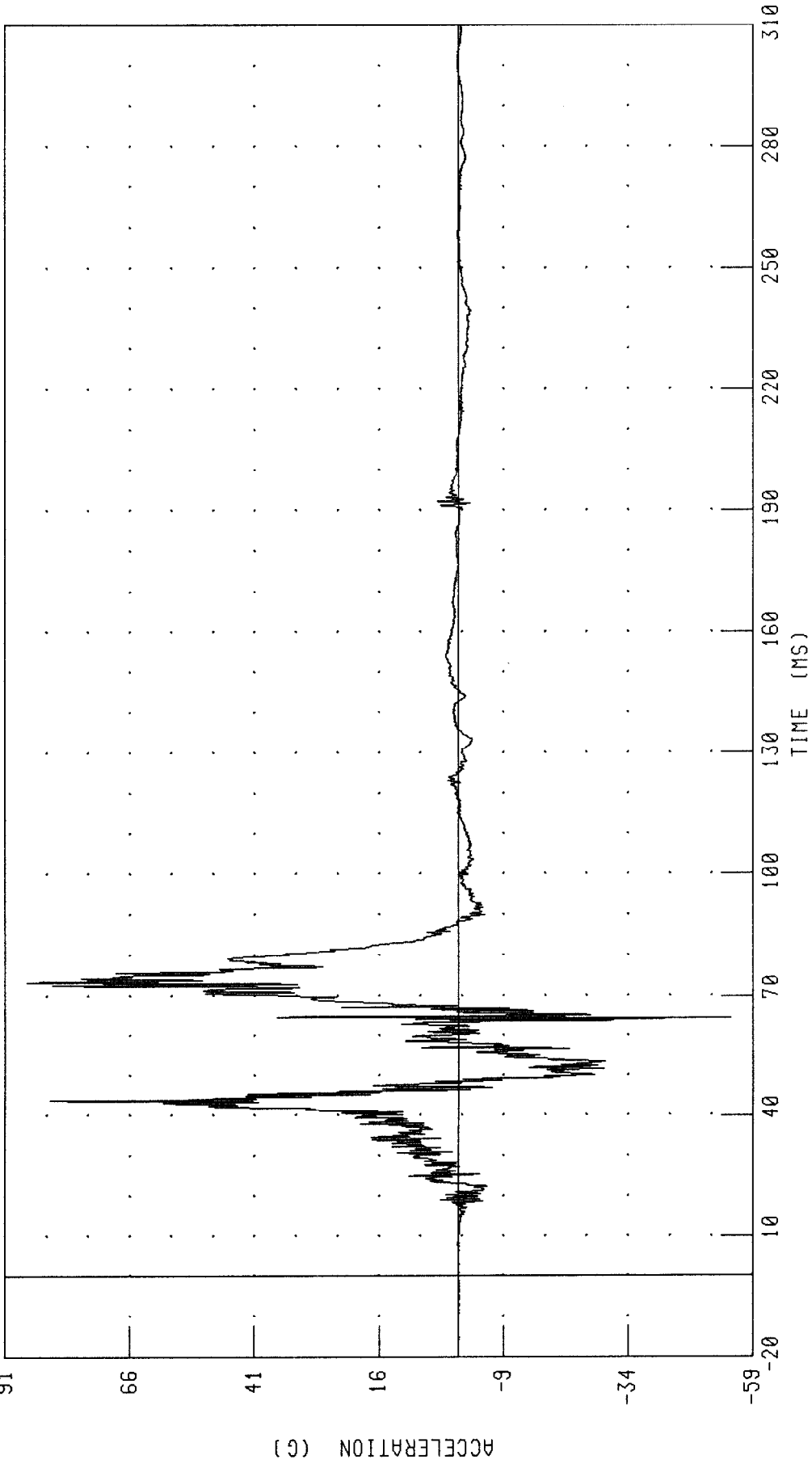


CHANNEL: TBRXC2 FILTER: CH. CLASS 1000 PEAK DATA: 23.35 G @ 63.12 MS; -128.61 G @ 45.12 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT TIBIA Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

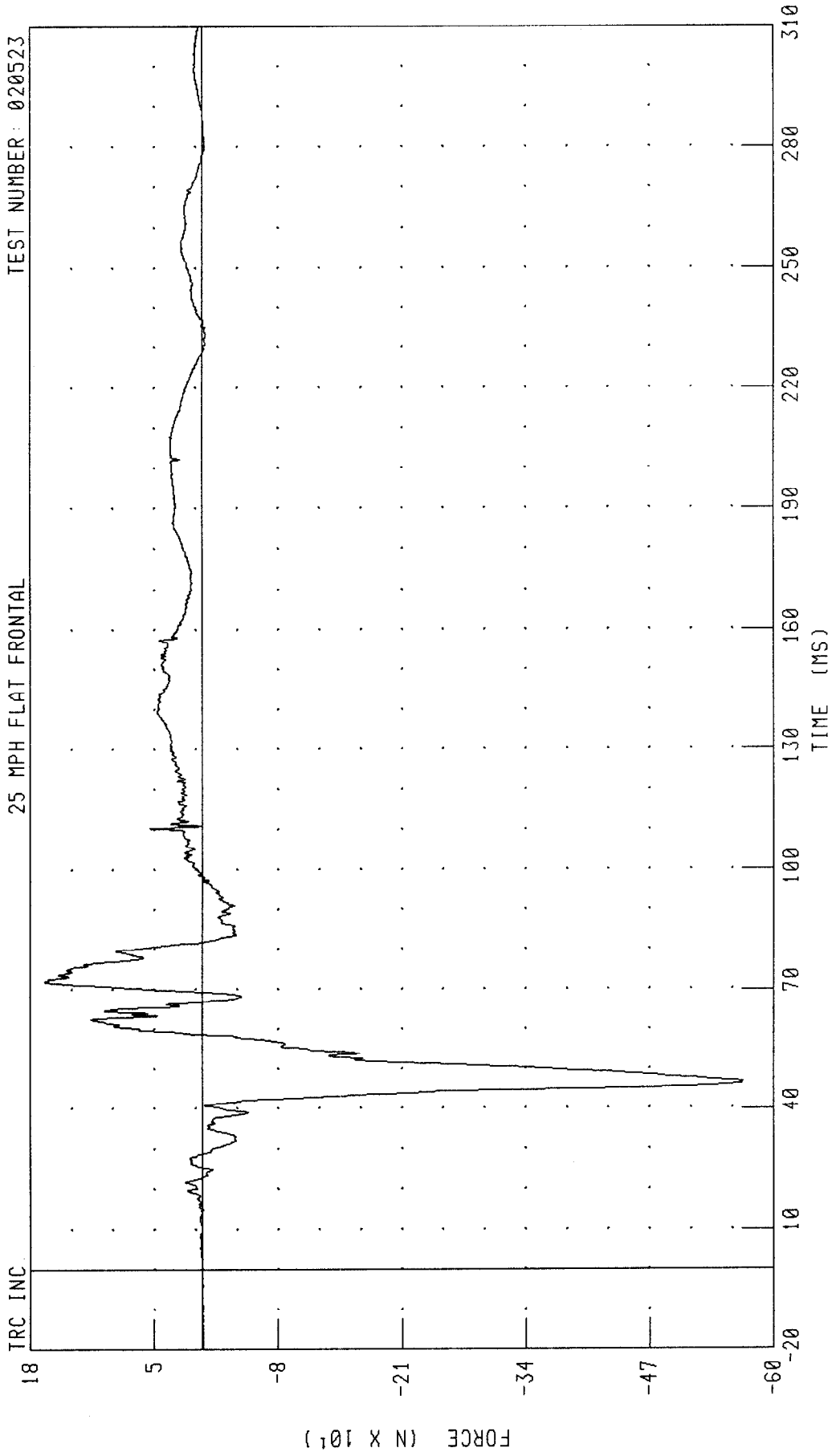
TRC INC



CHANNEL: TBRZG2 FILTER: CH. CLASS 1000 PEAK DATA: 86.50 G @ 73.52 MS; -54.53 G @ 64.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT LOWER TIBIA X-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: ANRXF2 FILTER: CH. CLASS 600 PEAK DATA: 165.30 N @ 72.00 MS, -568.06 N @ 46.80 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT LOWER TIBIA Y-AXIS FORCE  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

425

350

275

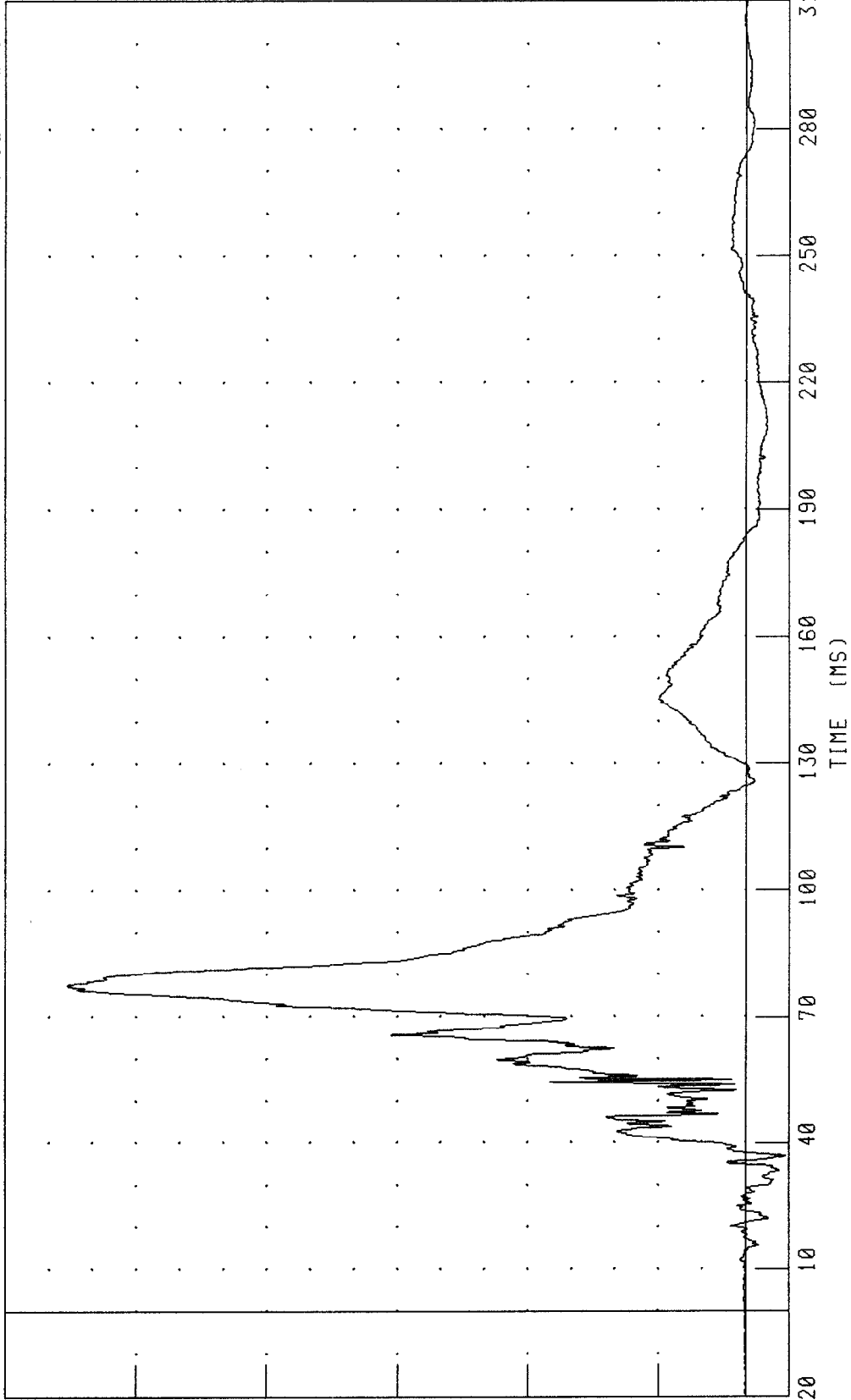
200

125

50

-25

FORCE (N)



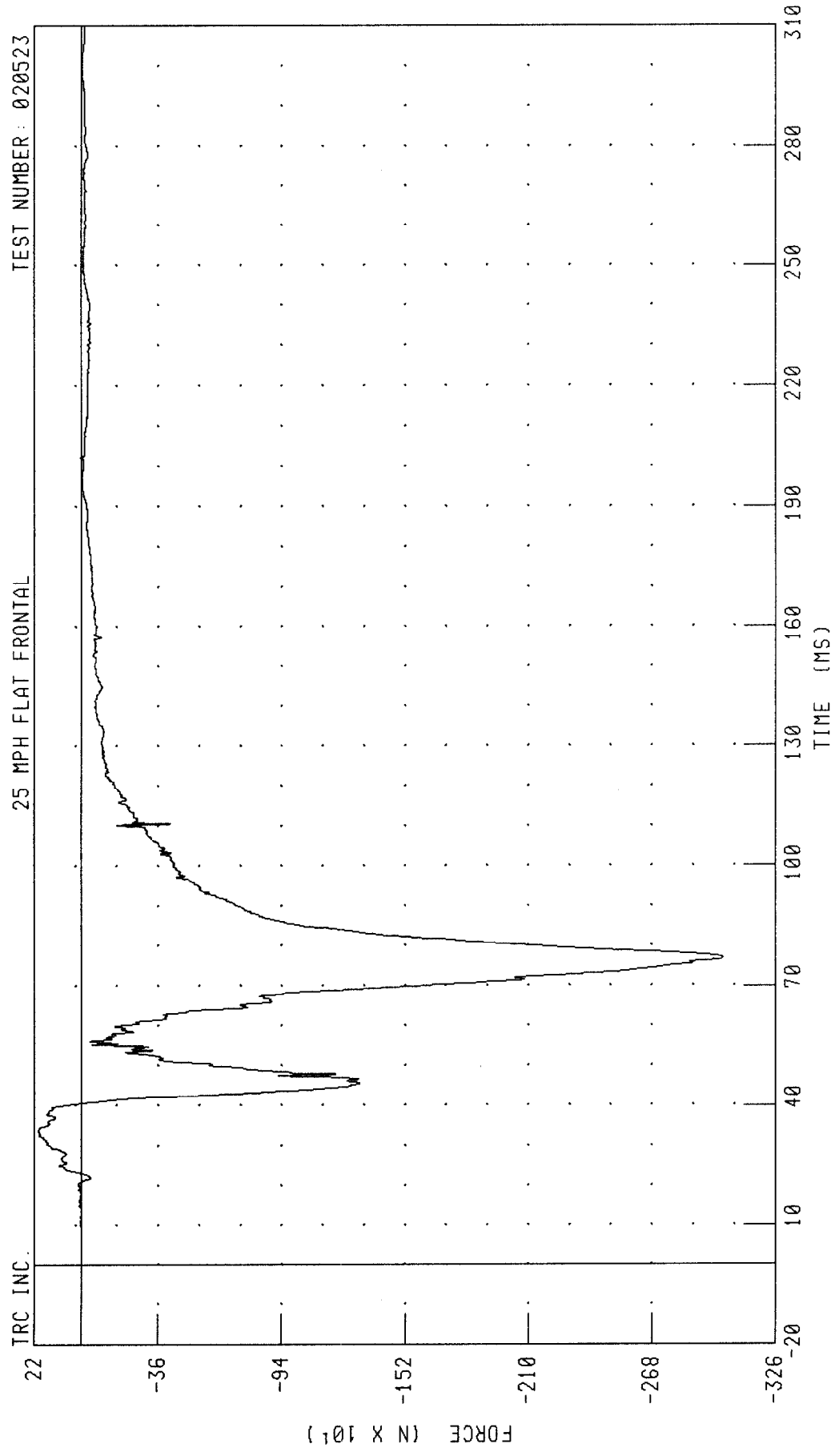
TIME (MS)

PEAK DATA: 389.29 N @ 77.44 MS; -22.97 N @ 36.88 MS

CHANNEL: ANRYF2 FILTER: CH. CLASS 600

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT LOWER TIBIA Z-AXIS FORCE  
25 MPH FLAT FRONTAL

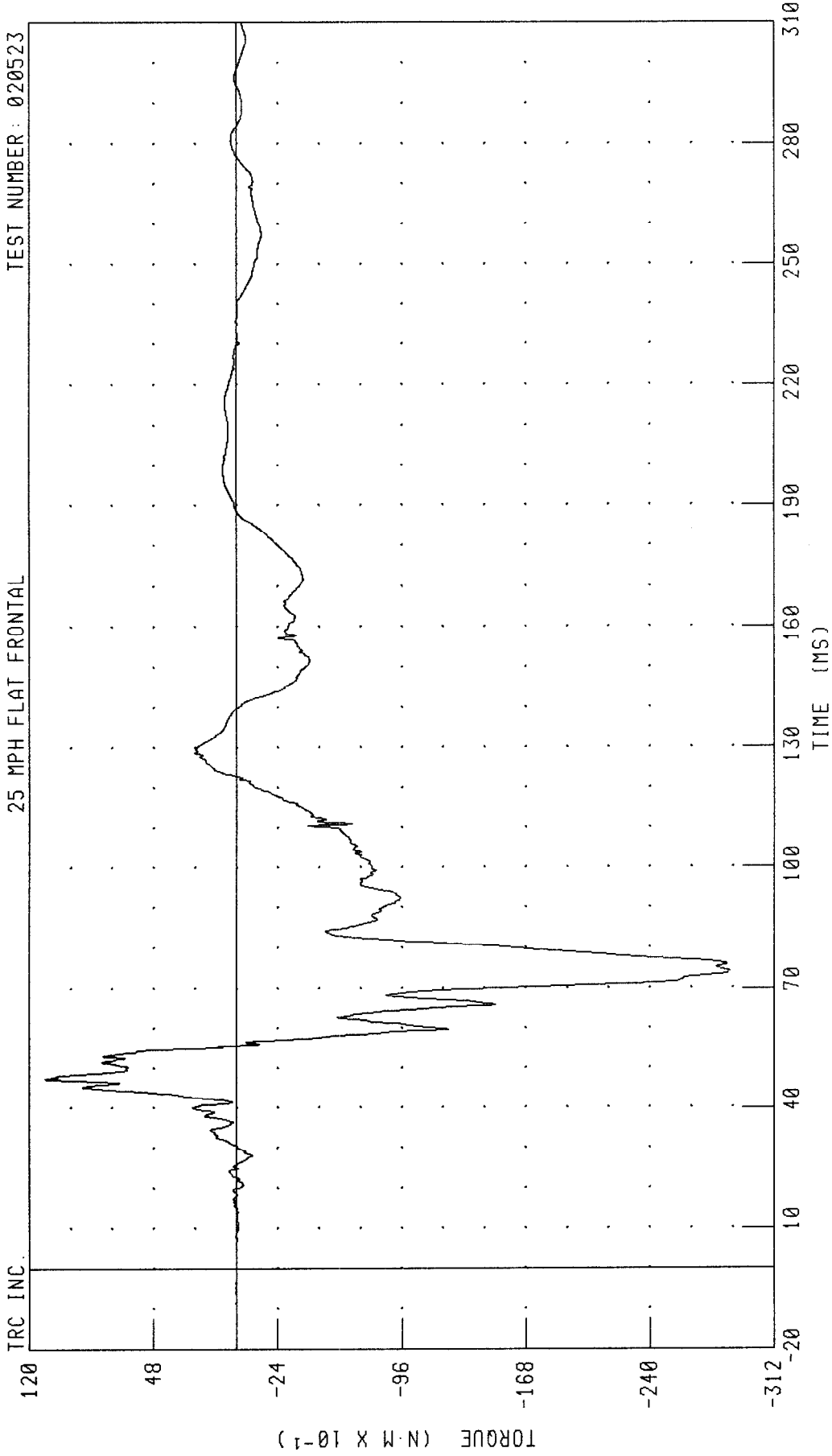
TEST NUMBER: 020523



CHANNEL: ANRZF2 FILTER: CH. CLASS 600  
PEAK DATA: 203.09 N @ 33.84 MS; -3012.99 N @ 77.04 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT LOWER TIBIA MOMENT ABOUT X AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

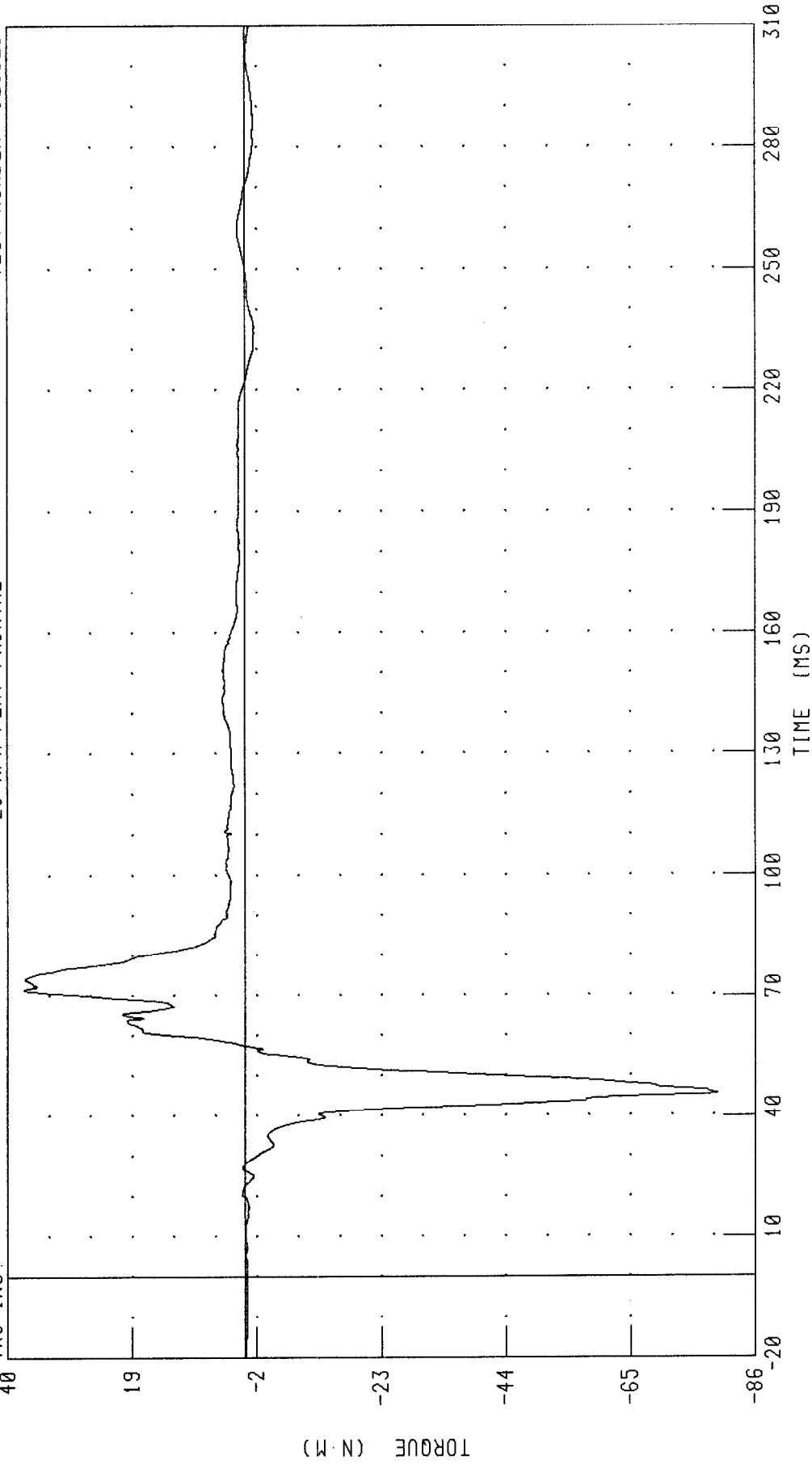


CHANNEL: ANRXM2 FILTER: CH. CLASS 600 PEAK DATA: 11.11 N·M @ 47.44 MS; -28.63 N·M @ 74.24 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT LOWER TIBIA MOMENT ABOUT Y AXIS  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

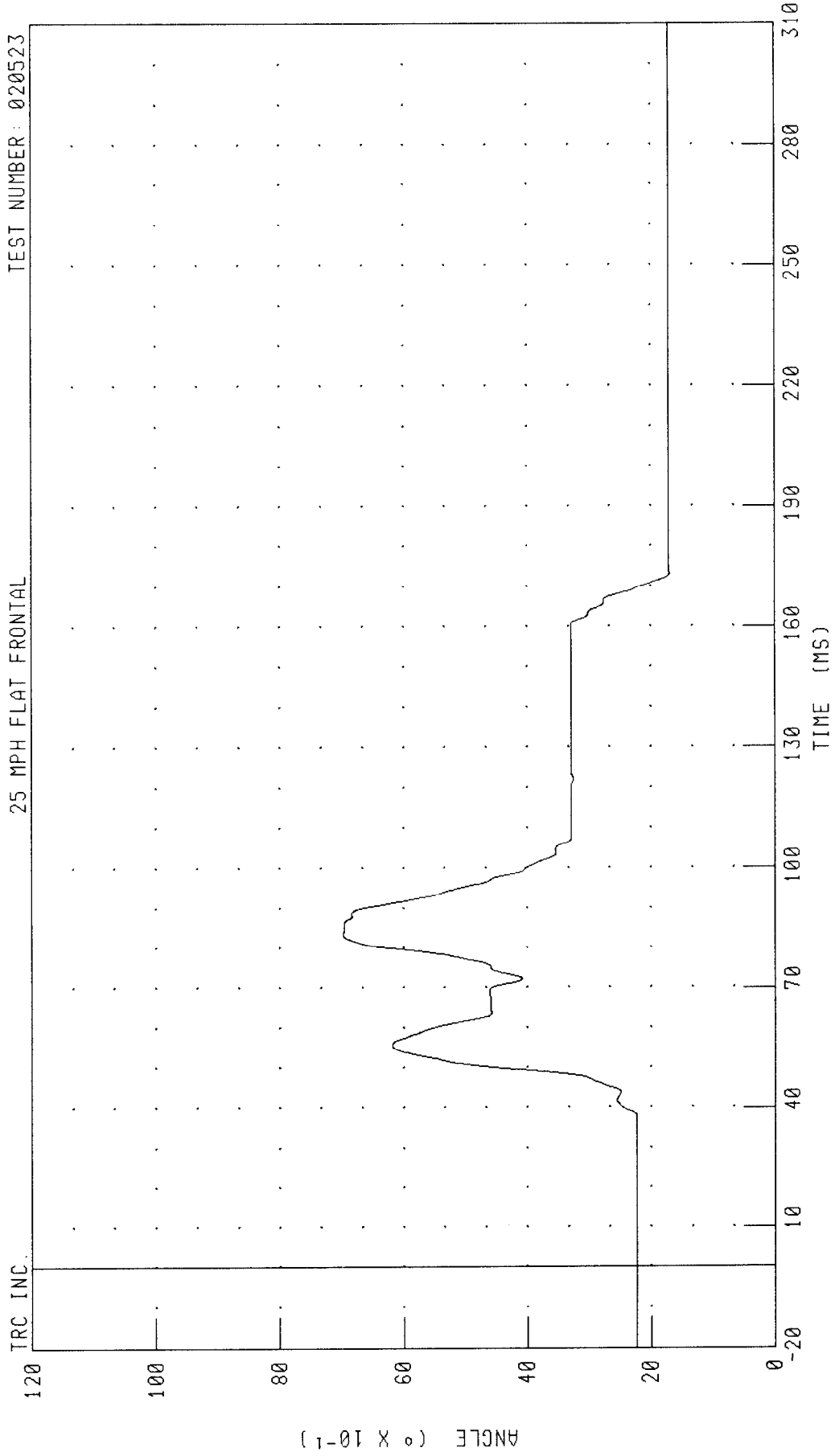


CHANNEL: ANRYM2 FILTER: CH CLASS 600 PEAK DATA: 37.16 N·M @ 71.60 MS, -79.63 N·M @ 45.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT TO ANKLE X-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

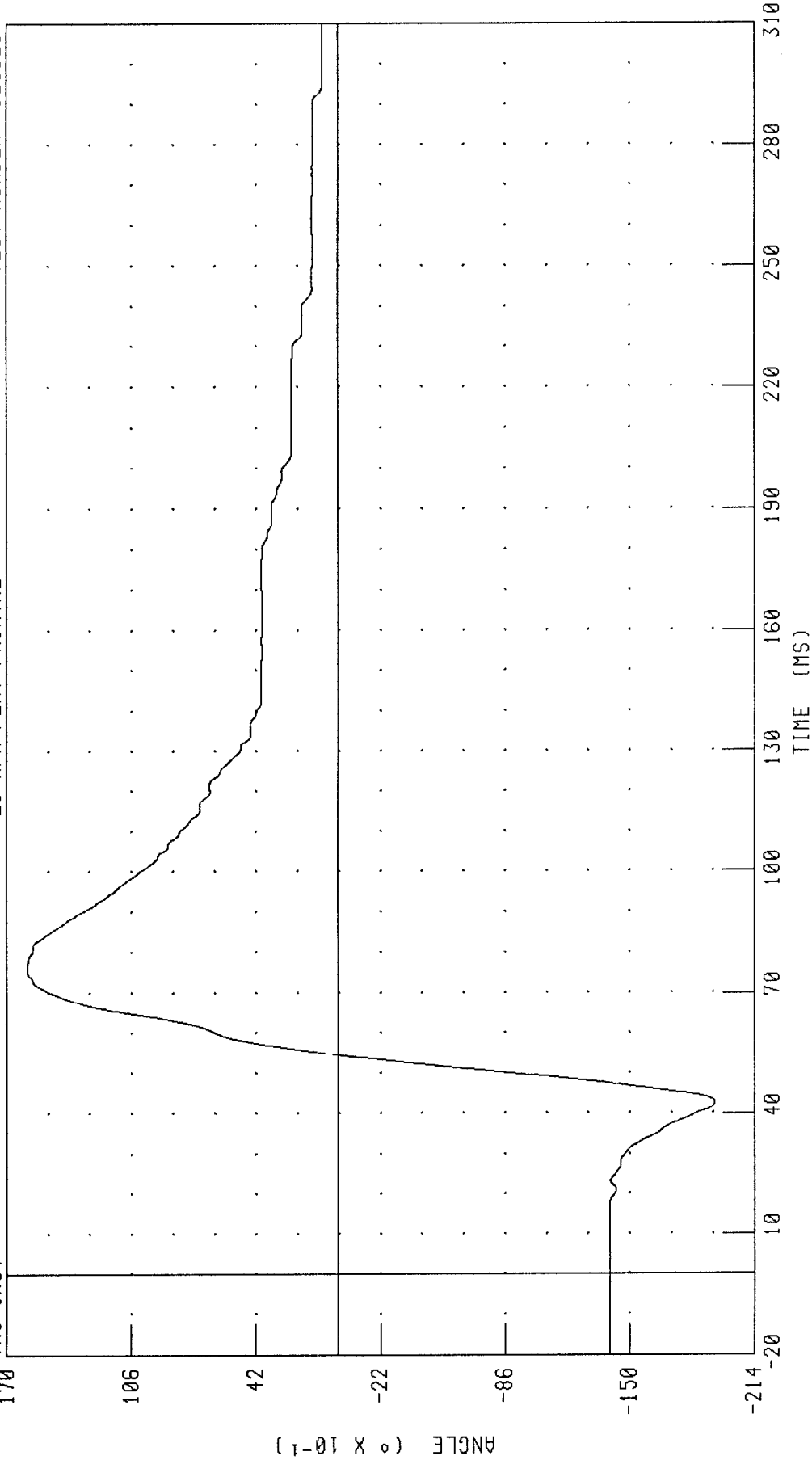


CHANNEL: FTRXD2 FILTER: CH. CLASS 180 PEAK DATA: 6.97 ° @ 83.52 MS; 1.70 ° @ 173.28 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT TO ANKLE Y-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

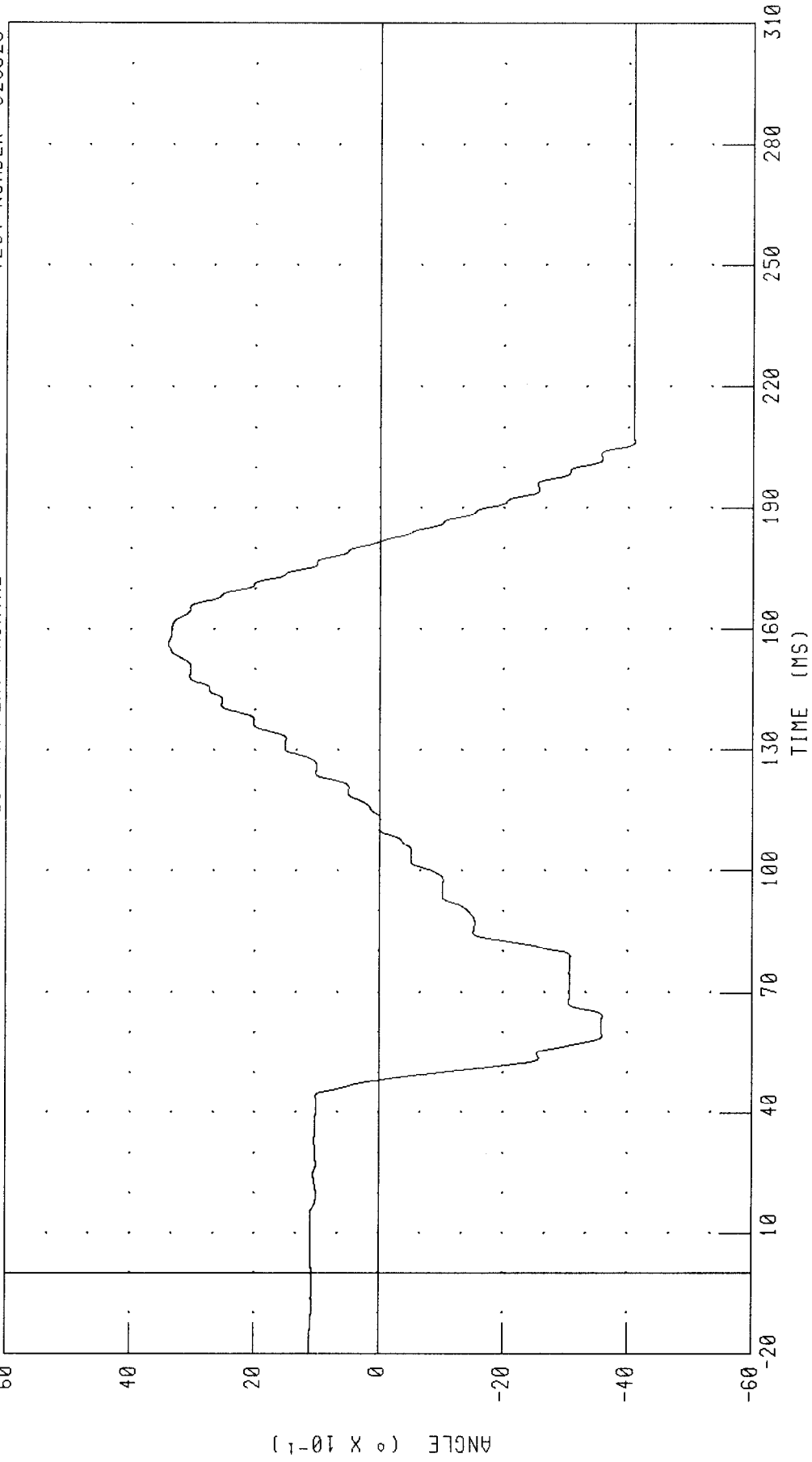


CHANNEL: FTRYD2 FILTER: CH. CLASS 180 PEAK DATA: 15.92 ° @ 75.92 MS; -19.34 ° @ 42.72 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT TO ANKLE Z-AXIS DISPLACEMENT  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

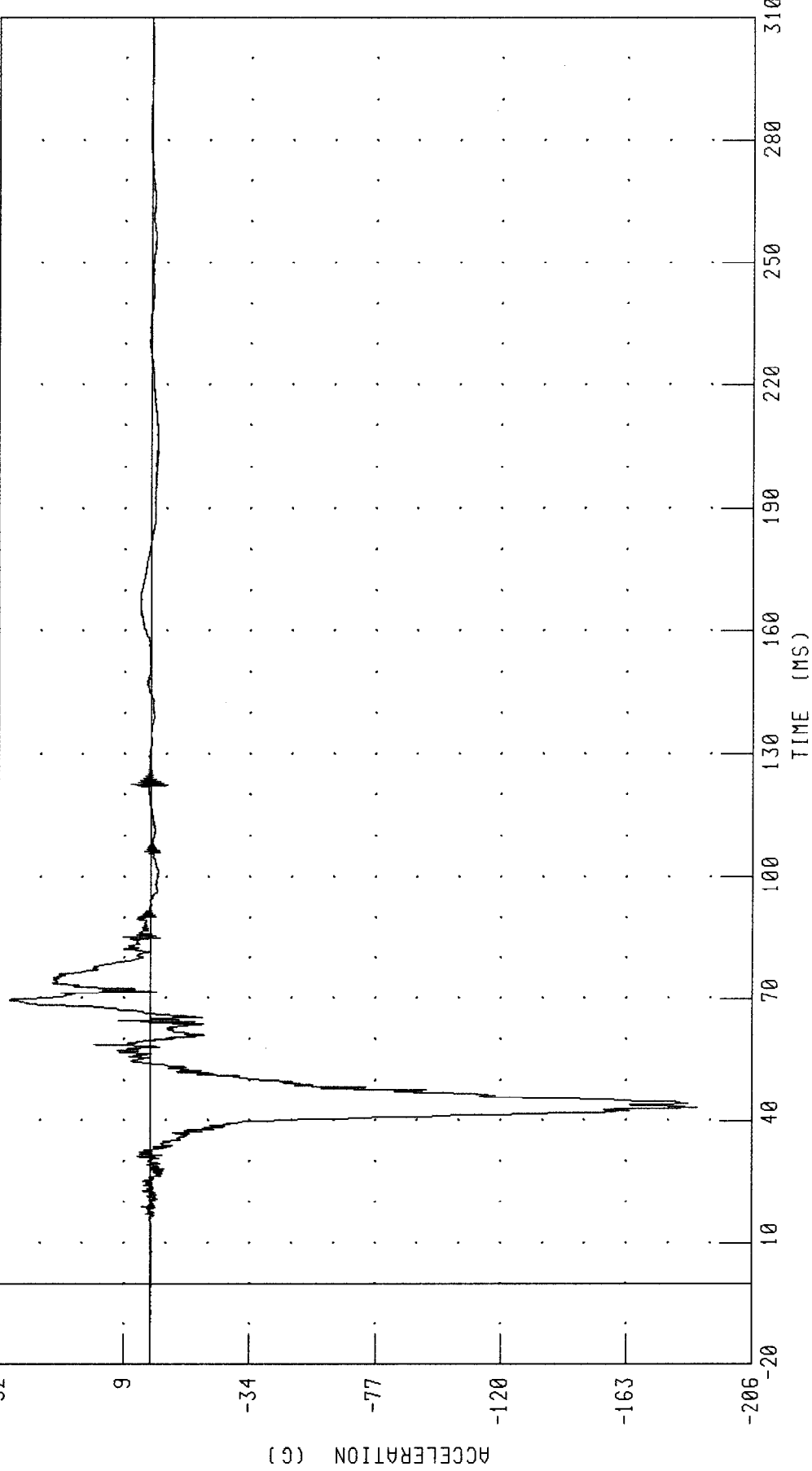


CHANNEL: FTRZD2 FILTER: CH. CLASS 180 PEAK DATA: 3.40 ° @ 156.16 MS; -4.10 ° @ 206.32 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

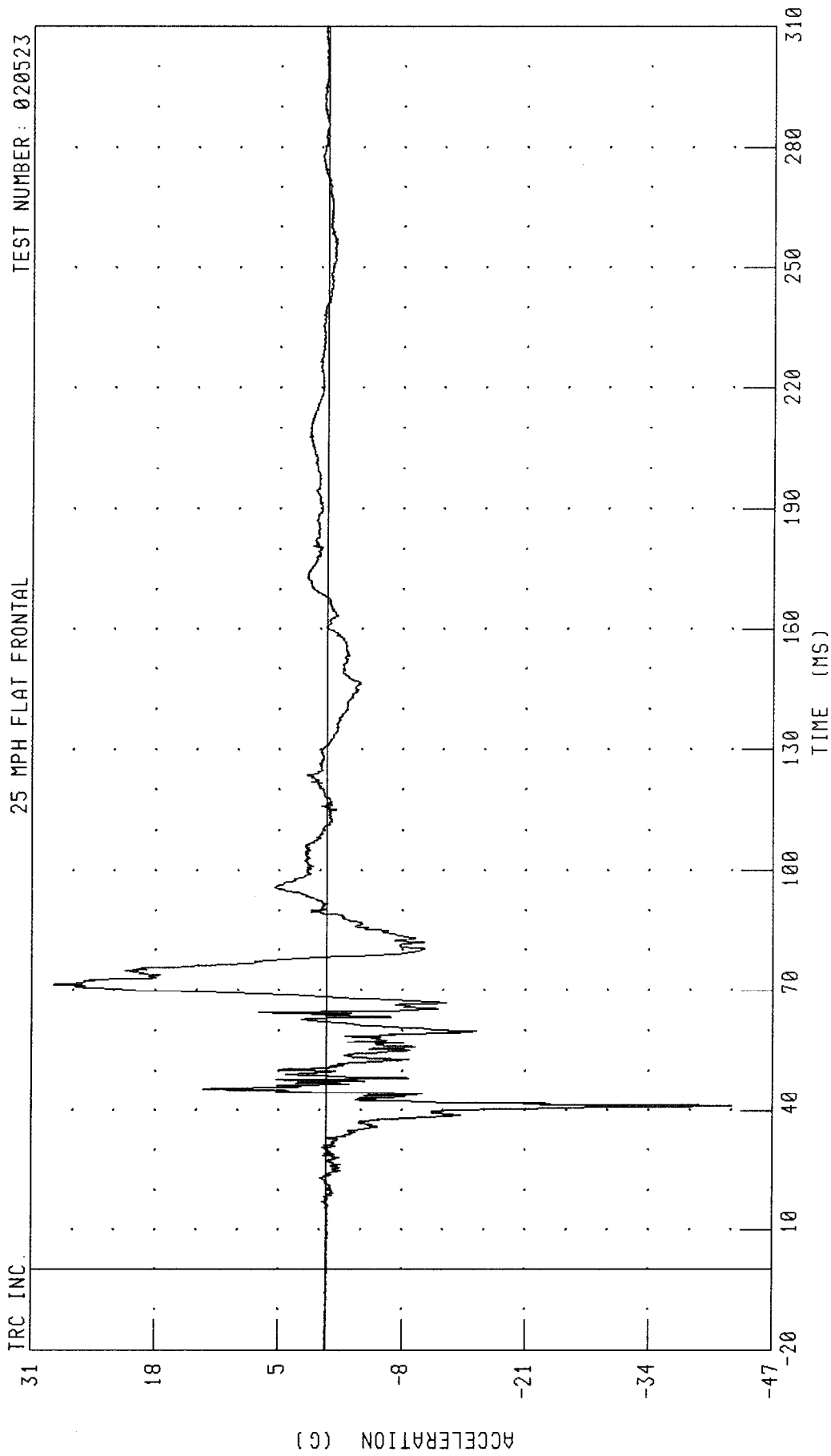
TRC INC.



CHANNEL: FTRXC2 FILTER: CH. CLASS 1000 PEAK DATA: 47.95 G @ 69.44 MS; -187.61 G @ 187.61 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

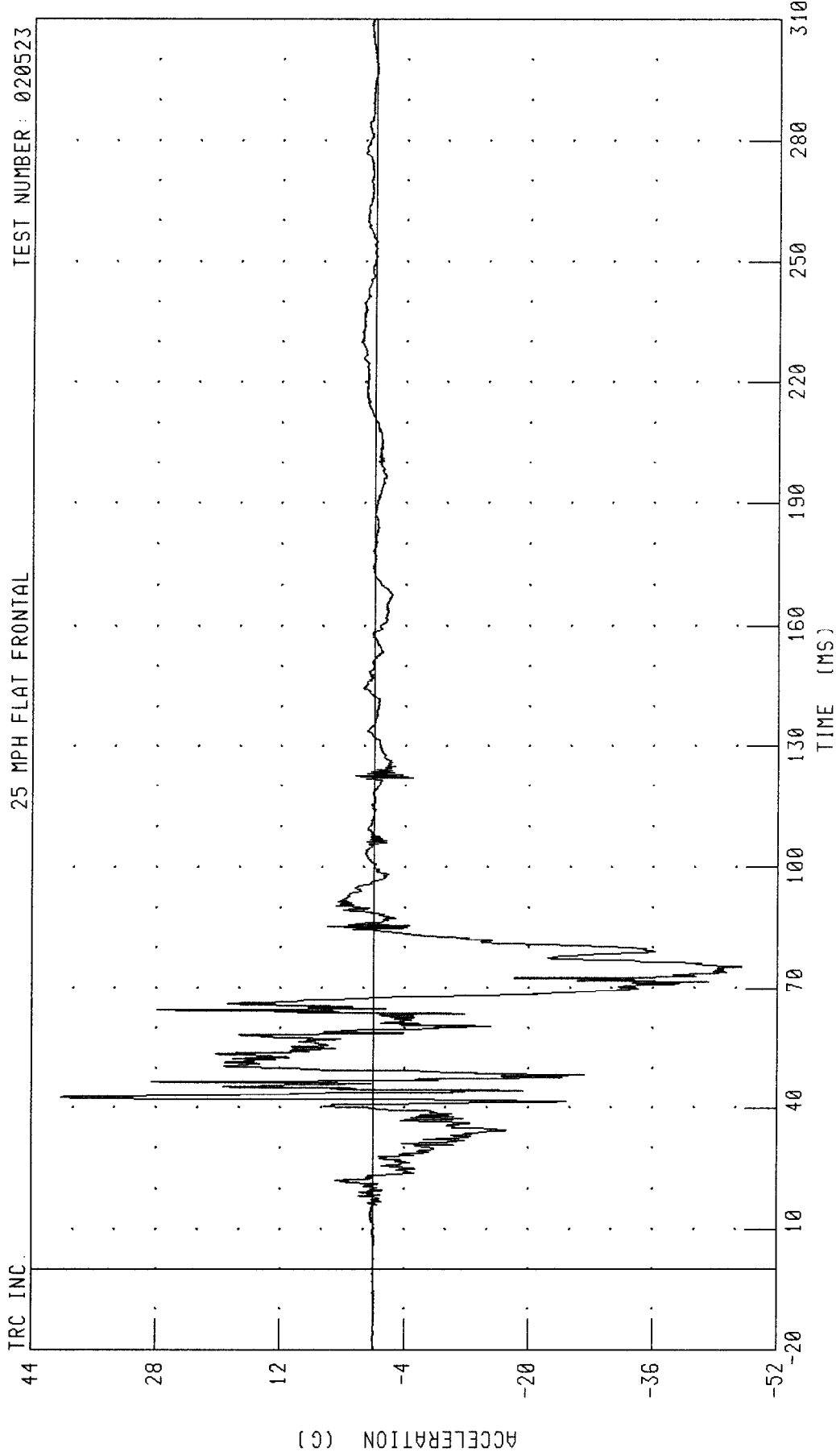


CHANNEL: FTRYG2 FILTER: CH. CLASS 1000

PEAK DATA: 28.75 G @ 71.52 MS, -42.69 G @ 41.20 MS

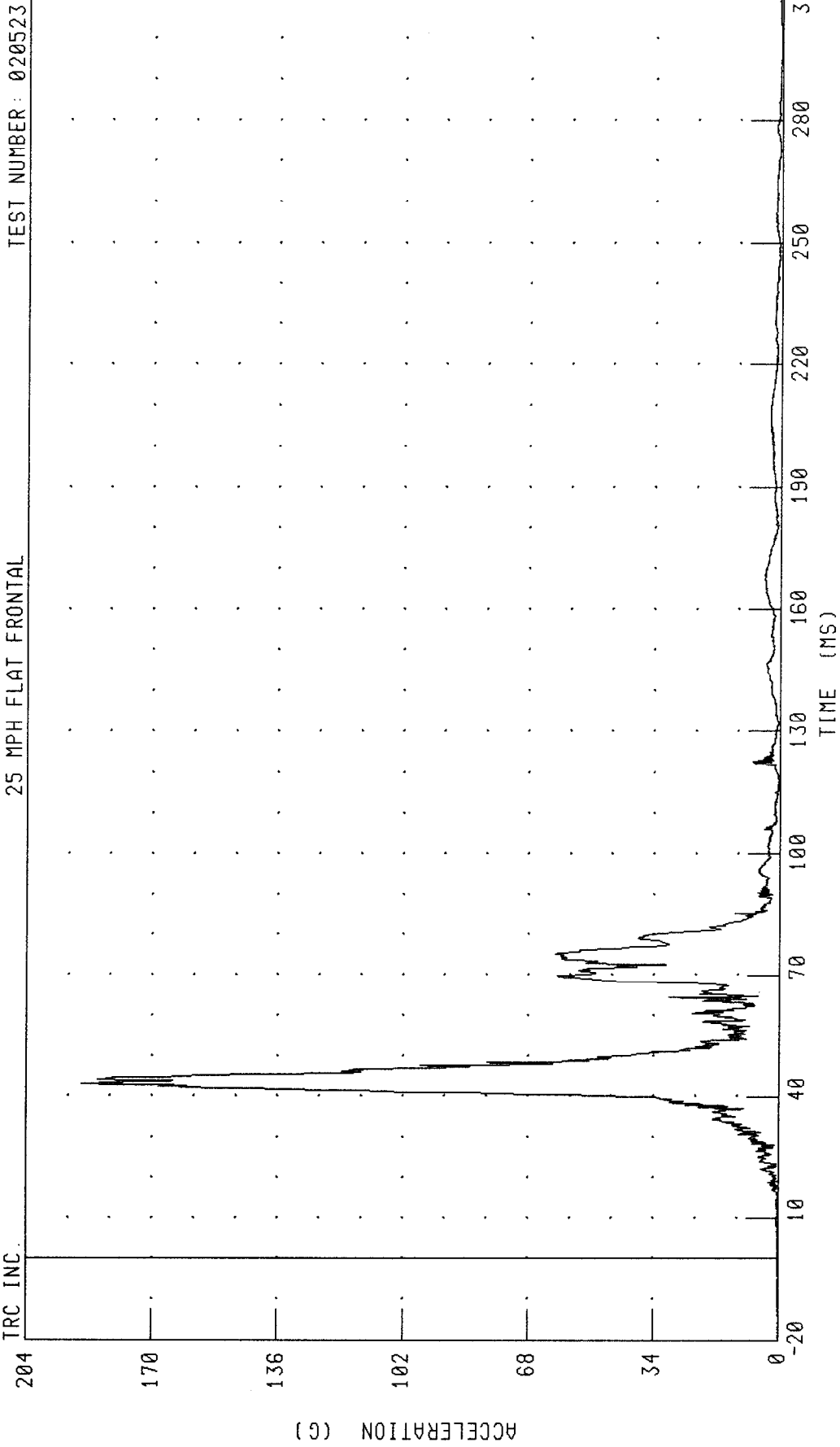
2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523



CHANNEL: FTRZG2 FILTER: CH. CLASS 1000  
PEAK DATA: 40.24 G @ 42.80 MS, -47.41 G @ 75.36 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER RIGHT FOOT RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL



CHANNEL: FTRRG2 FILTER: CH. CLASS 1000 PEAK DATA: 189.01 G @ 43.20 MS; 0.02 G @ -20.00 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

160

63

-34

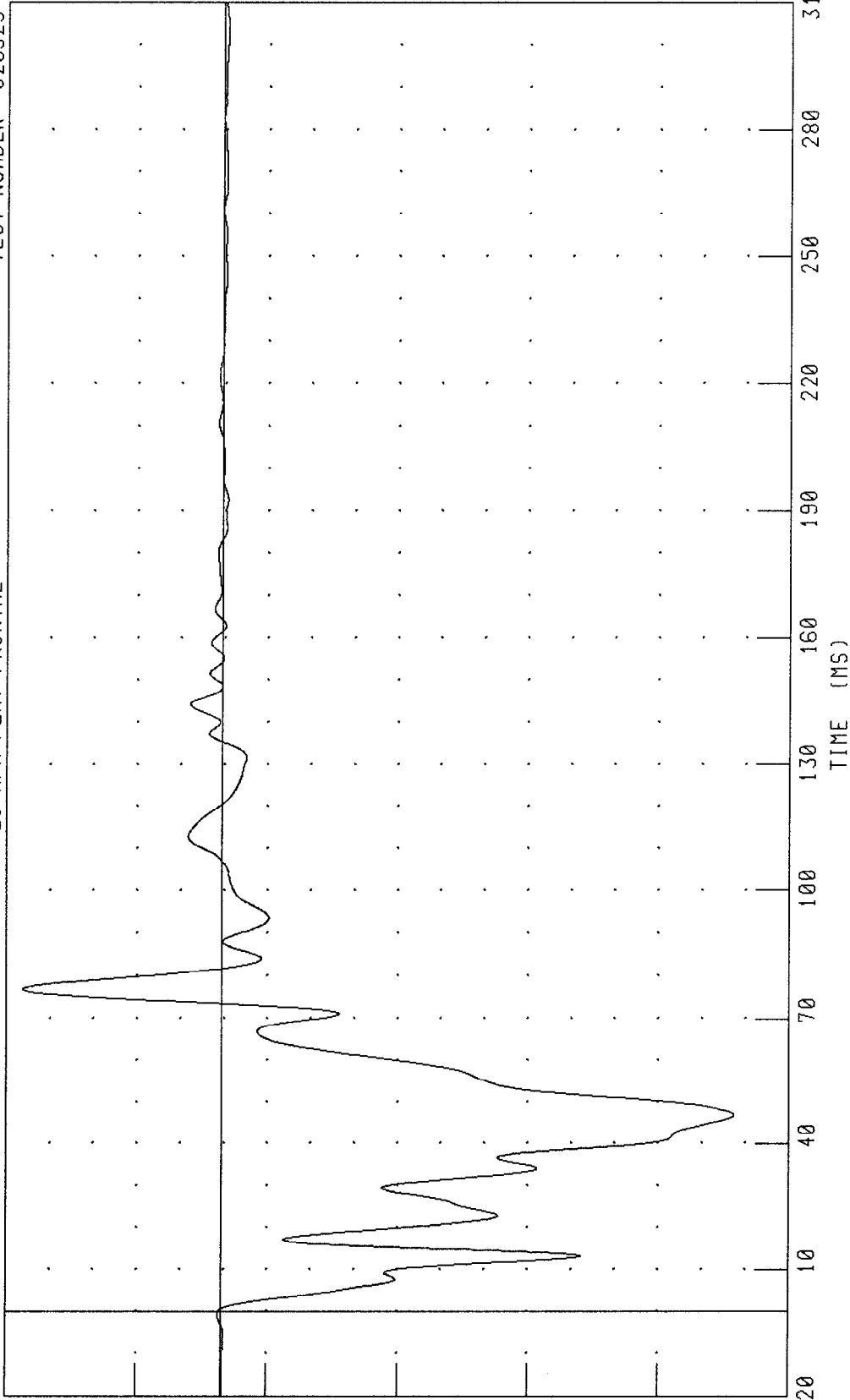
-131

-228

-325

-422

ACCELERATION (G X 10<sup>-1</sup>)

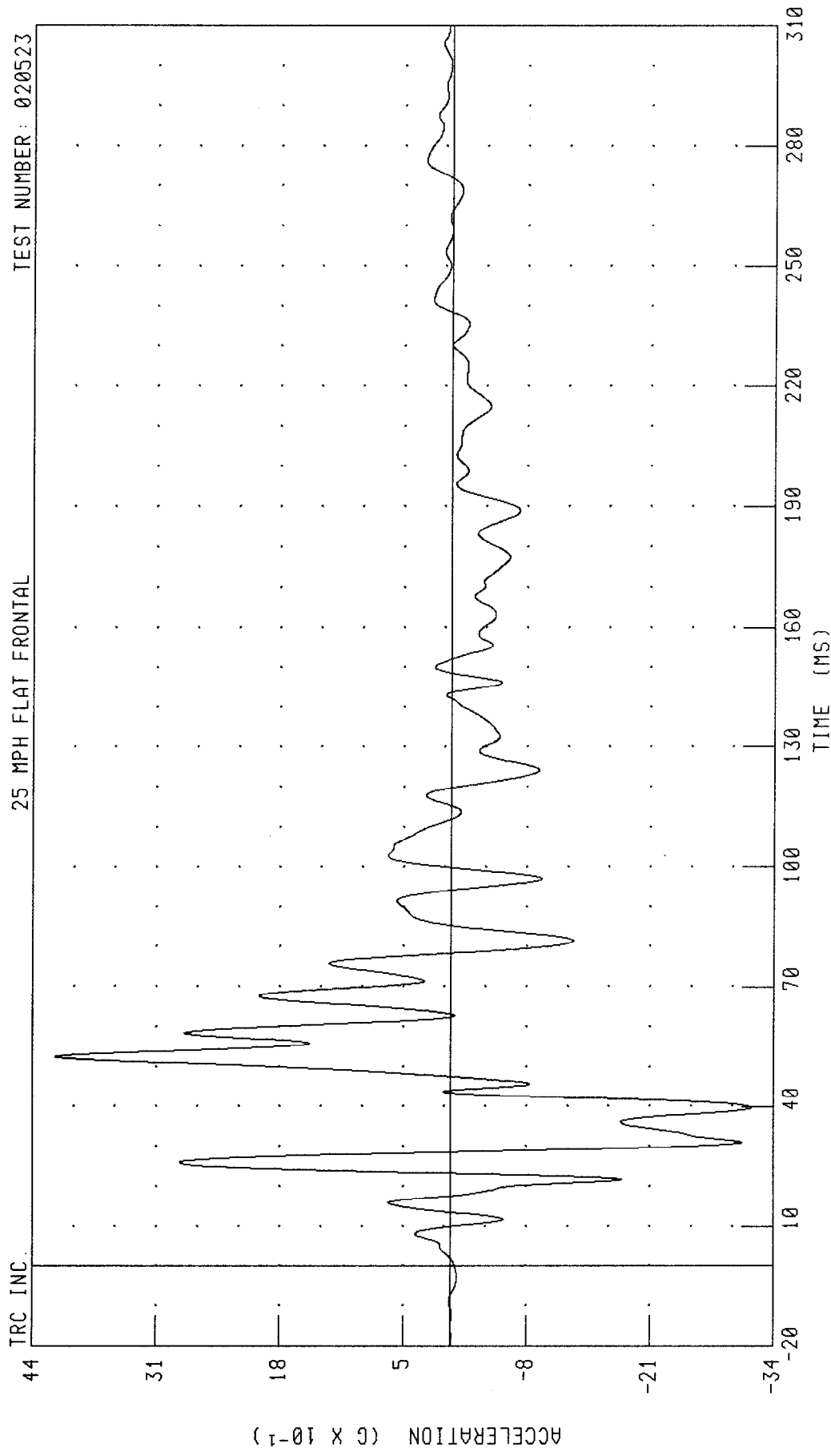


TIME (MS)

CHANNEL: VCCXG1 FILTER: CH. CLASS 60 PEAK DATA: 14.78 G @ 76.88 MS, -38.14 G @ 46.88 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION

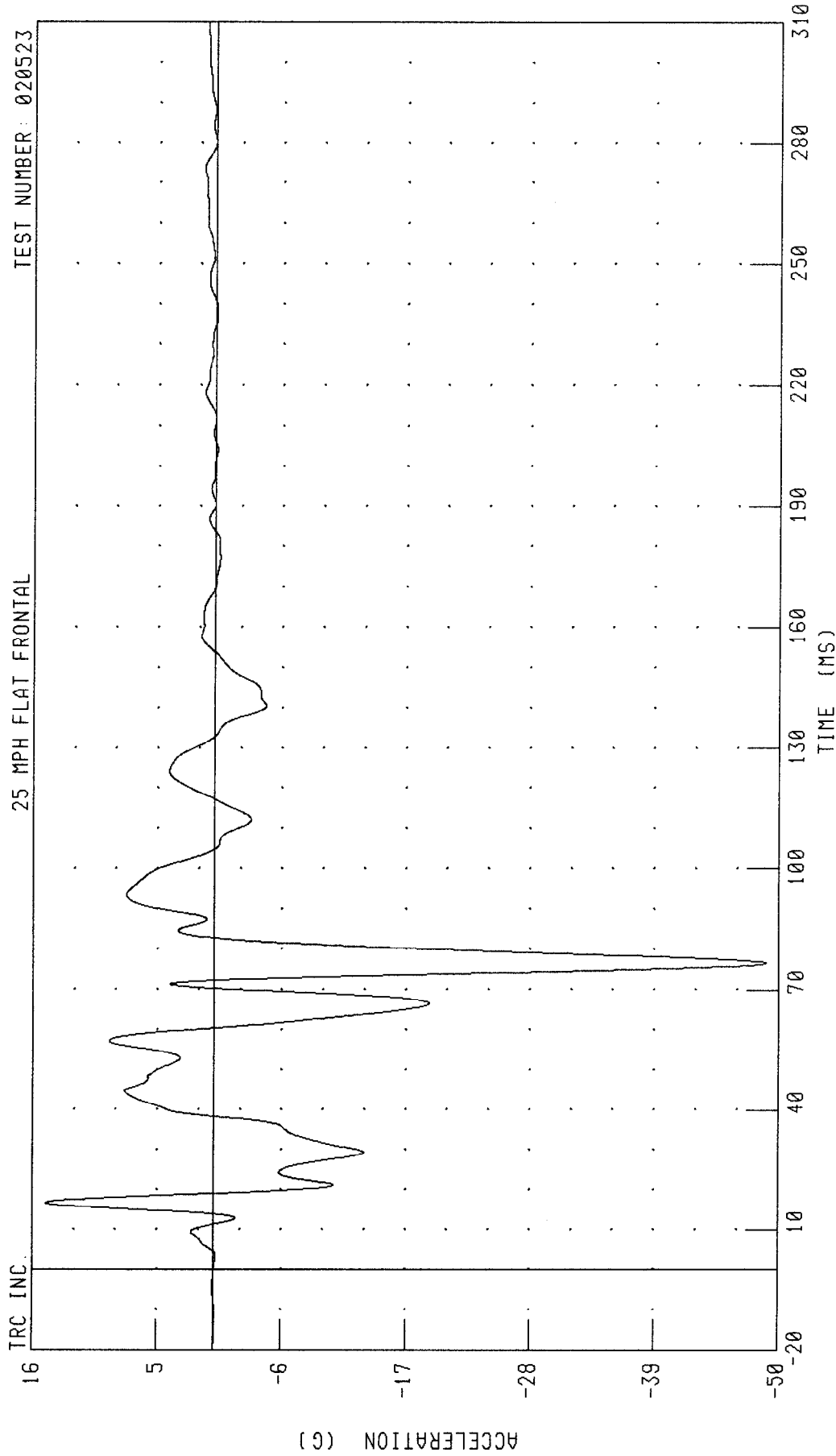
TEST NUMBER: 020523



CHANNEL: VCCYG1 FILTER: CH. CLASS 60 PEAK DATA: 4.16 G @ 52.48 MS; -3.17 G @ 39.68 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

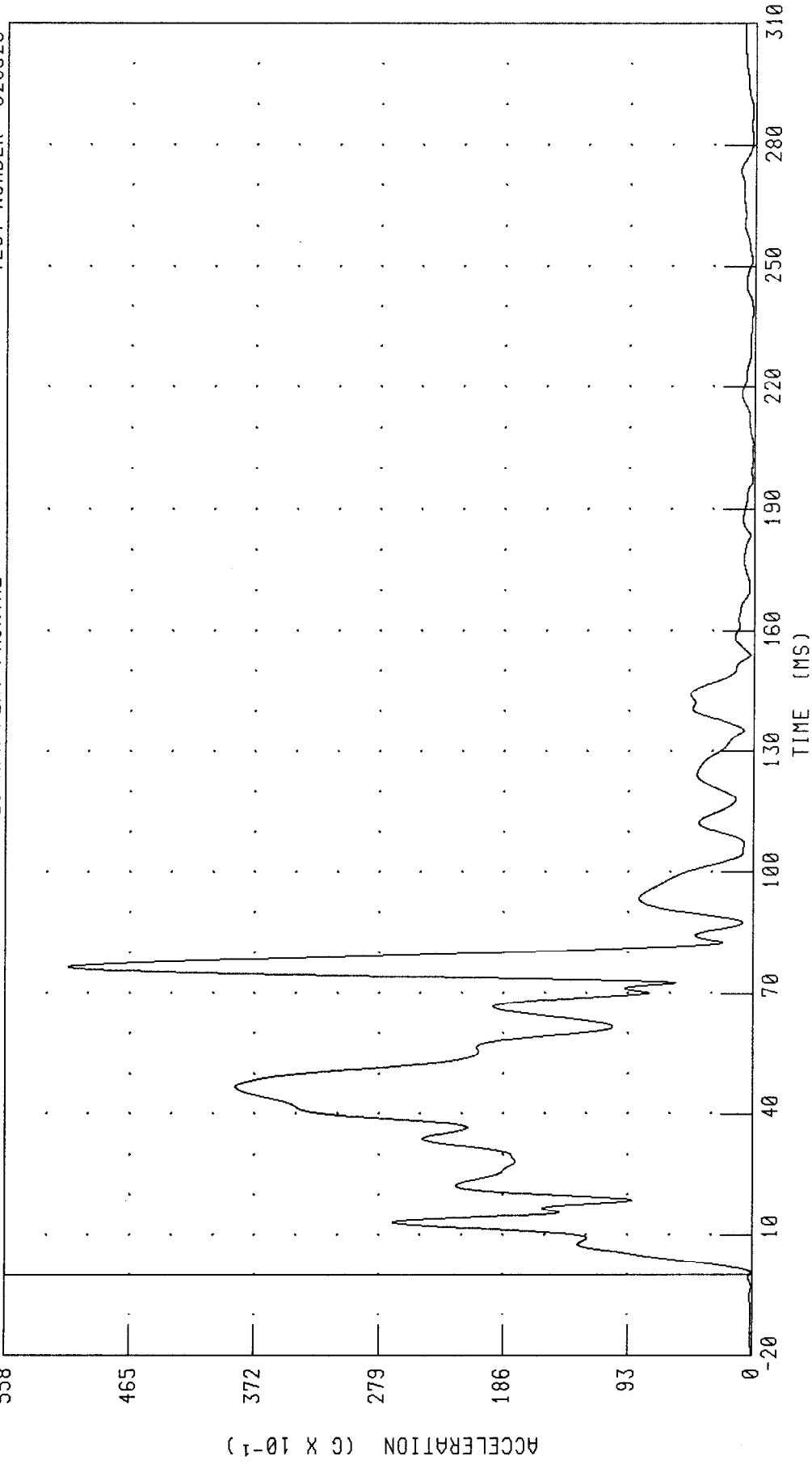


CHANNEL: YCCZG1 FILTER: CH. CLASS 60 PEAK DATA: 14.81 G @ 16.72 MS, -48.93 G @ 76.64 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

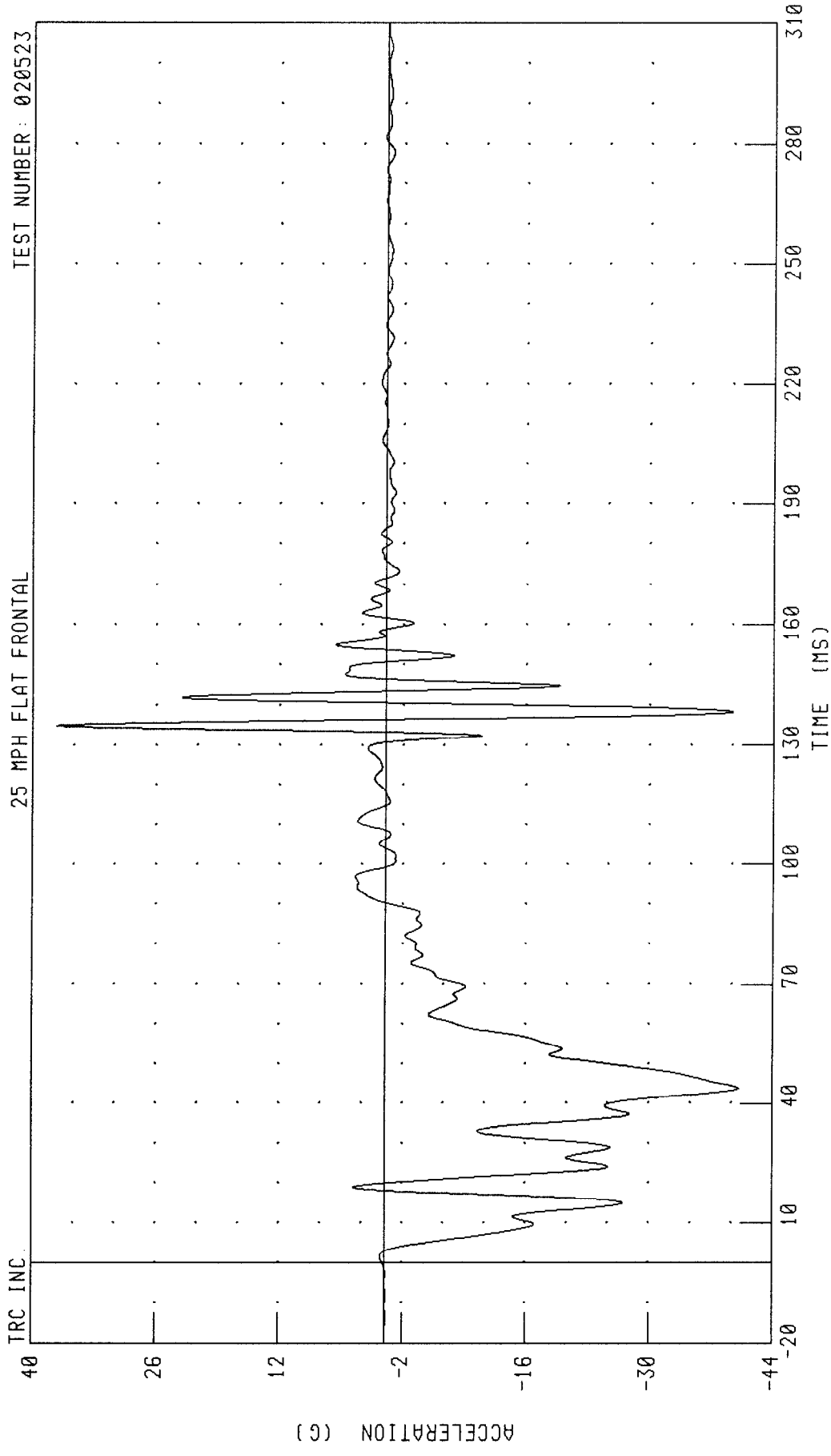
TRC INC.



CHANNEL: VCCRG1 FILTER: CH. CLASS 60 PEAK DATA: 51.11 G @ 76.64 MS; 0.05 G @ -19.84 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
REAR DECK X-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

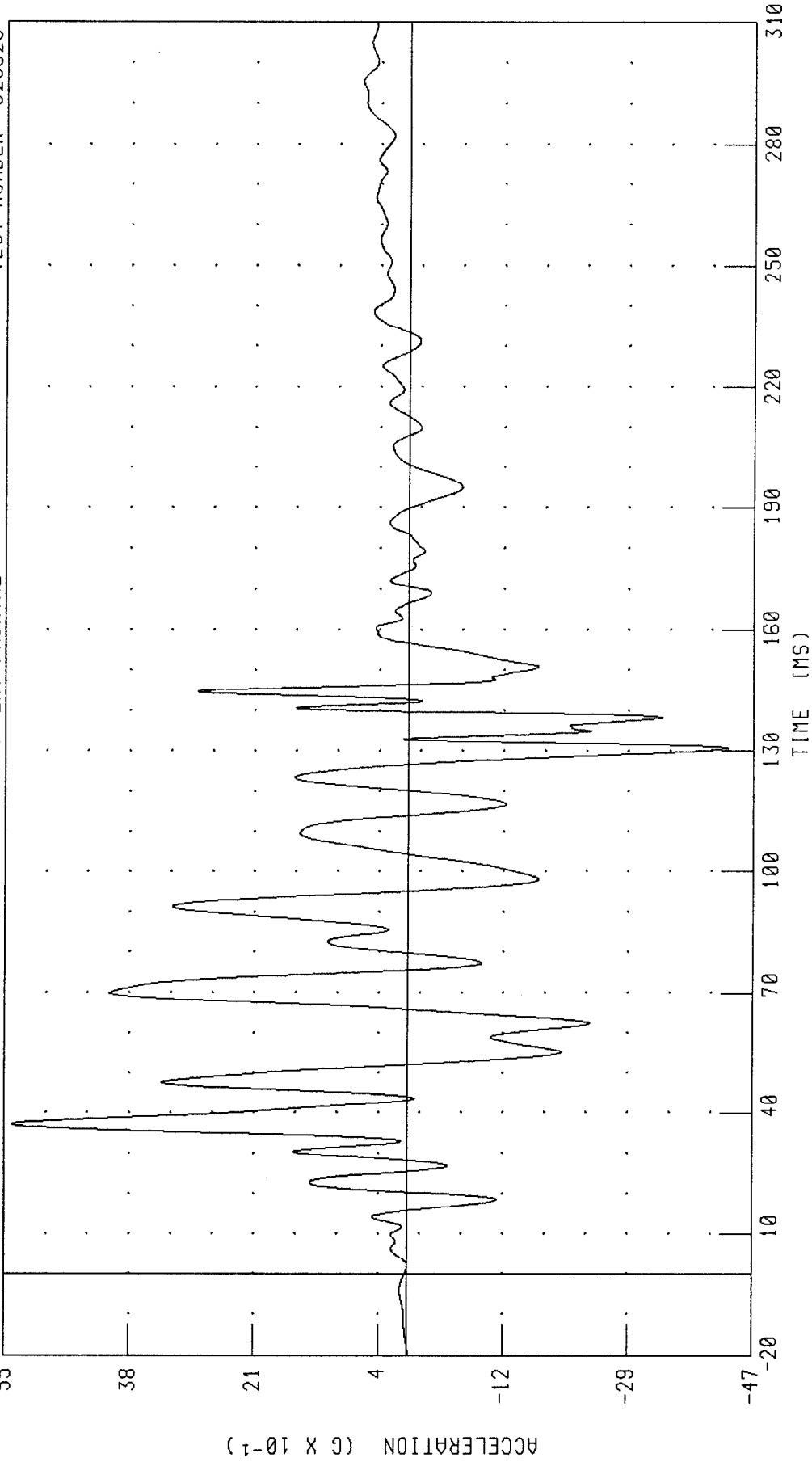


CHANNEL: RDKXG1 FILTER: CH. CLASS 60  
PEAK DATA: 37.27 G @ 134.96 MS; -40.17 G @ 43.76 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
REAR DECK Y-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.



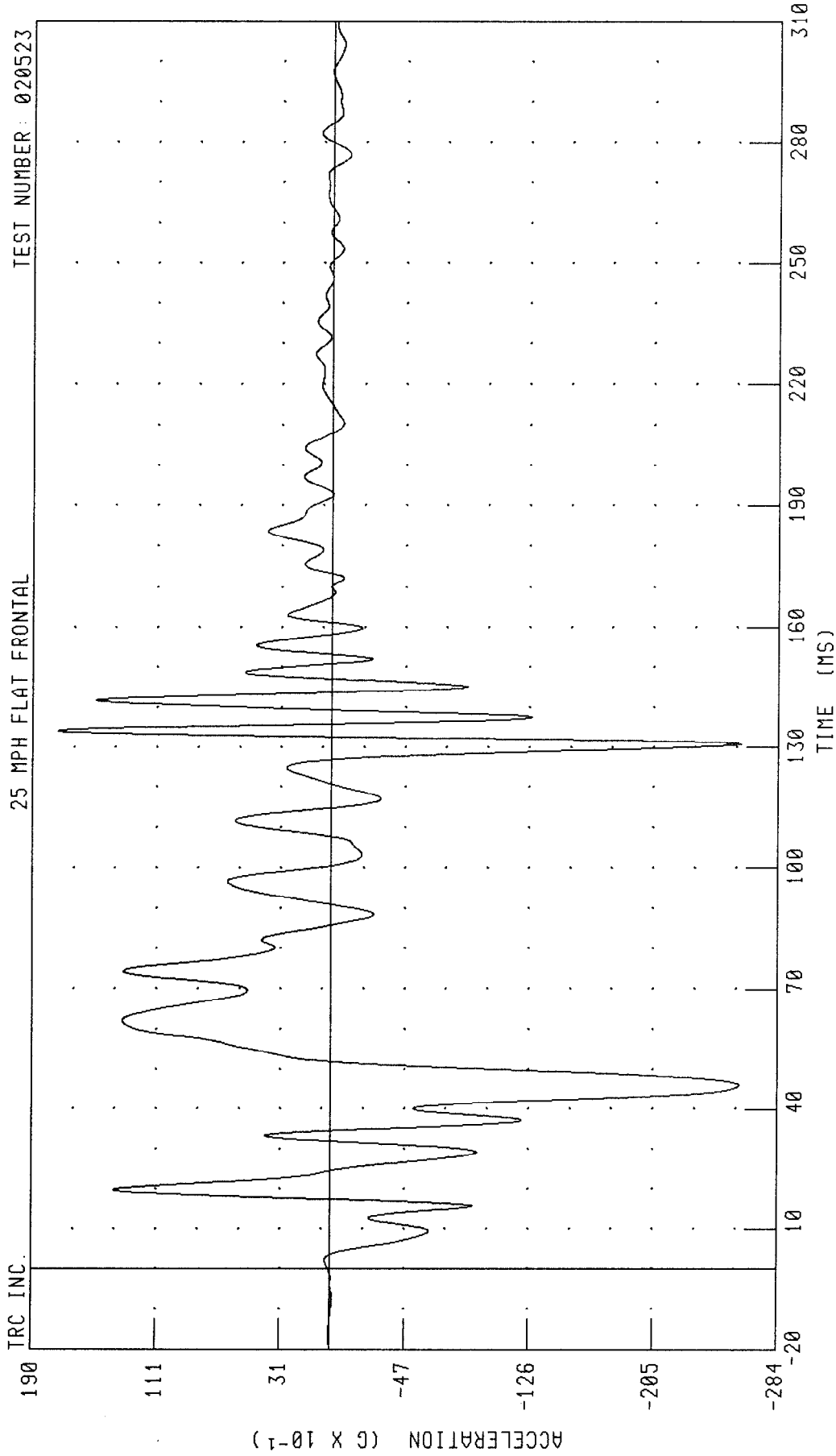
CHANNEL: RDKYG1

FILTER: CH. CLASS 60

PEAK DATA: 5.39 G @ 37.20 MS, -4.36 G @ 130.72 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
REAR DECK Z-AXIS ACCELERATION  
25 MPH FLAT FRONTAL

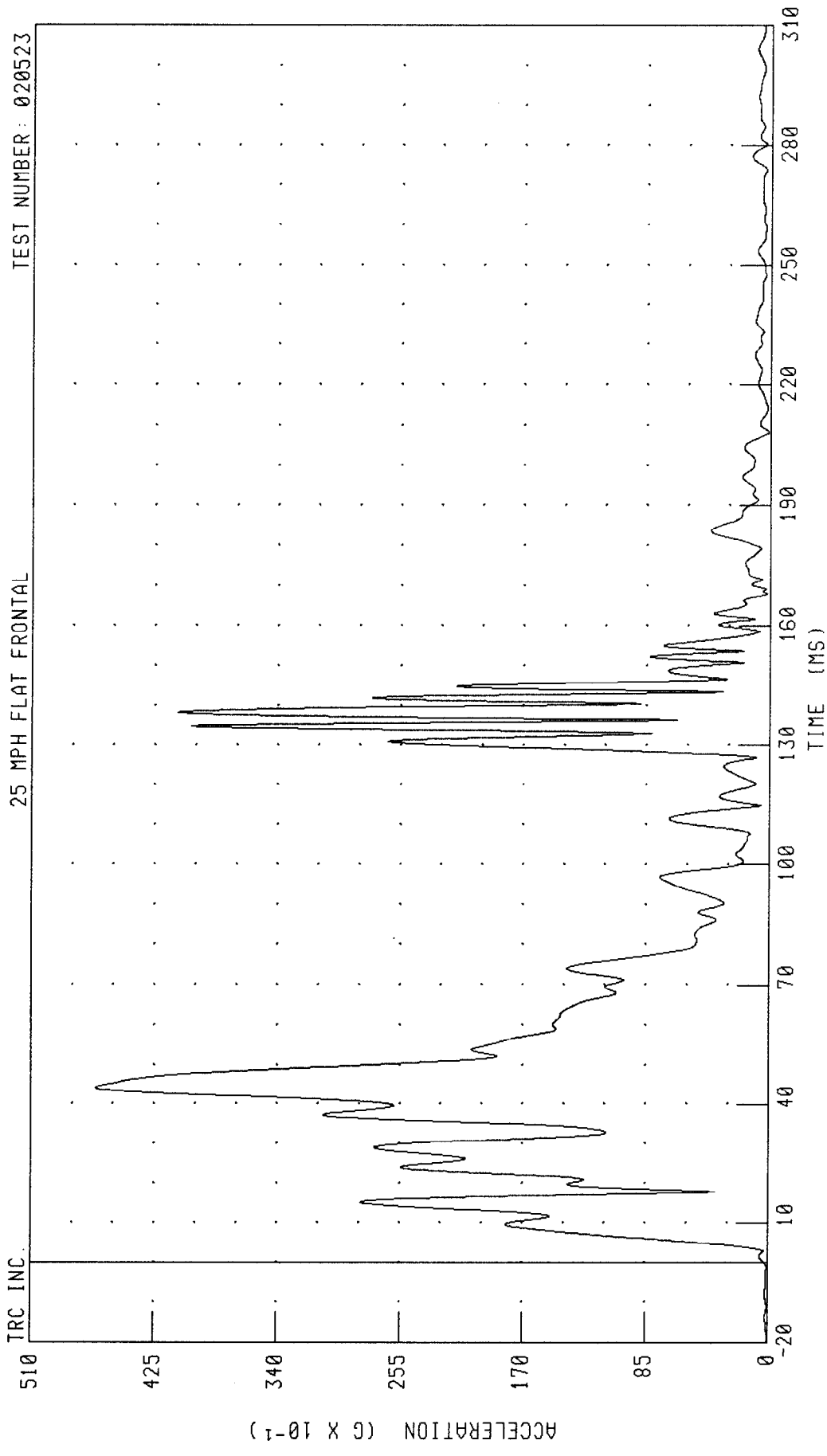
TEST NUMBER: 020523



CHANNEL: RDKZG1 FILTER: CH. CLASS 60  
PEAK DATA: 17.40 G @ 134.24 MS; -26.04 G @ 130.88 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
REAR DECK RESULTANT ACCELERATION  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

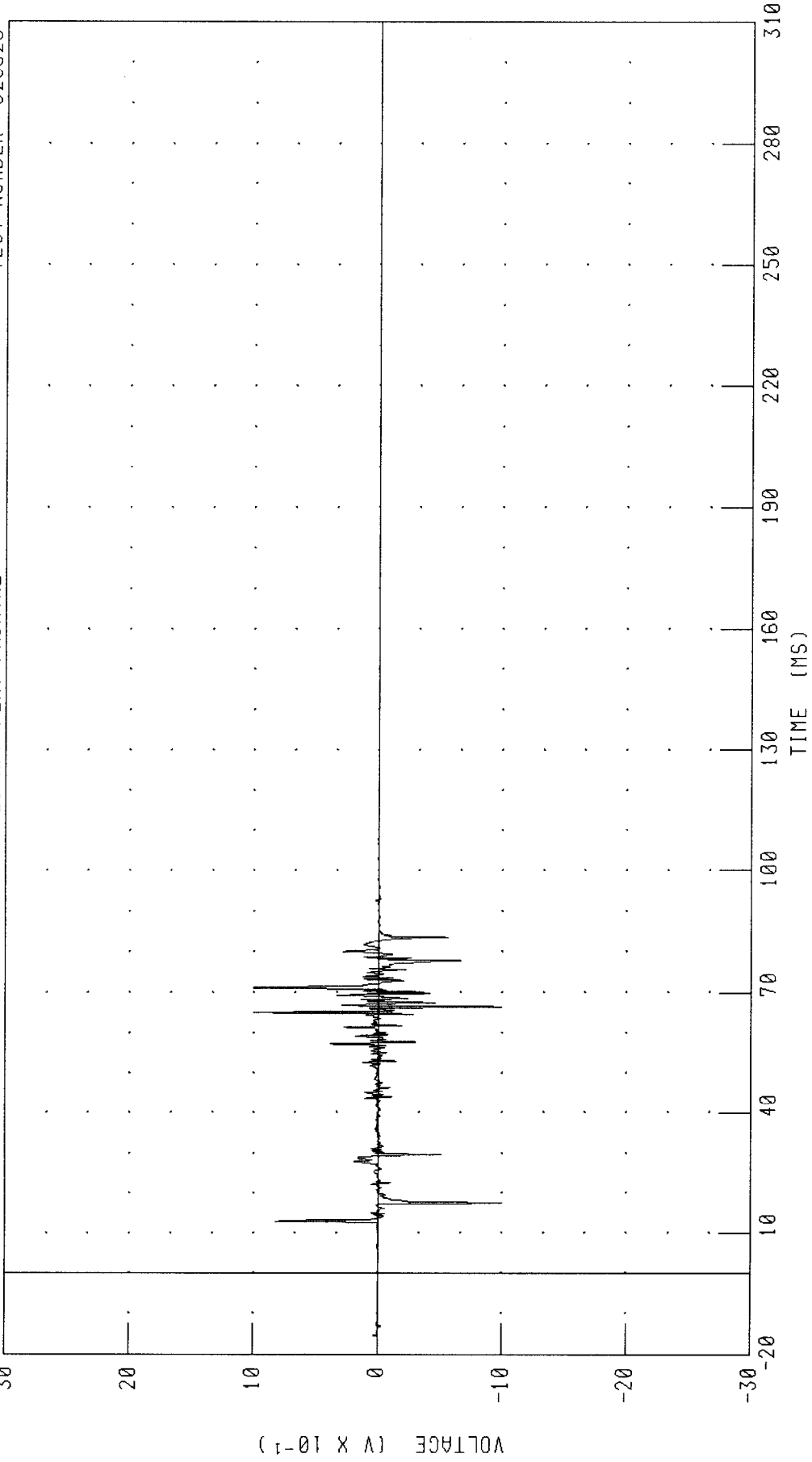


CHANNEL: RDKRG1 FILTER: CH. CLASS 60  
PEAK DATA: 46.53 G @ 44.24 MS; 0.03 G @ -19.84 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
DRIVER AIRBAG EVENT - WIRE A  
25 MPH FLAT FRONTAL

TEST NUMBER: 020523

TRC INC.

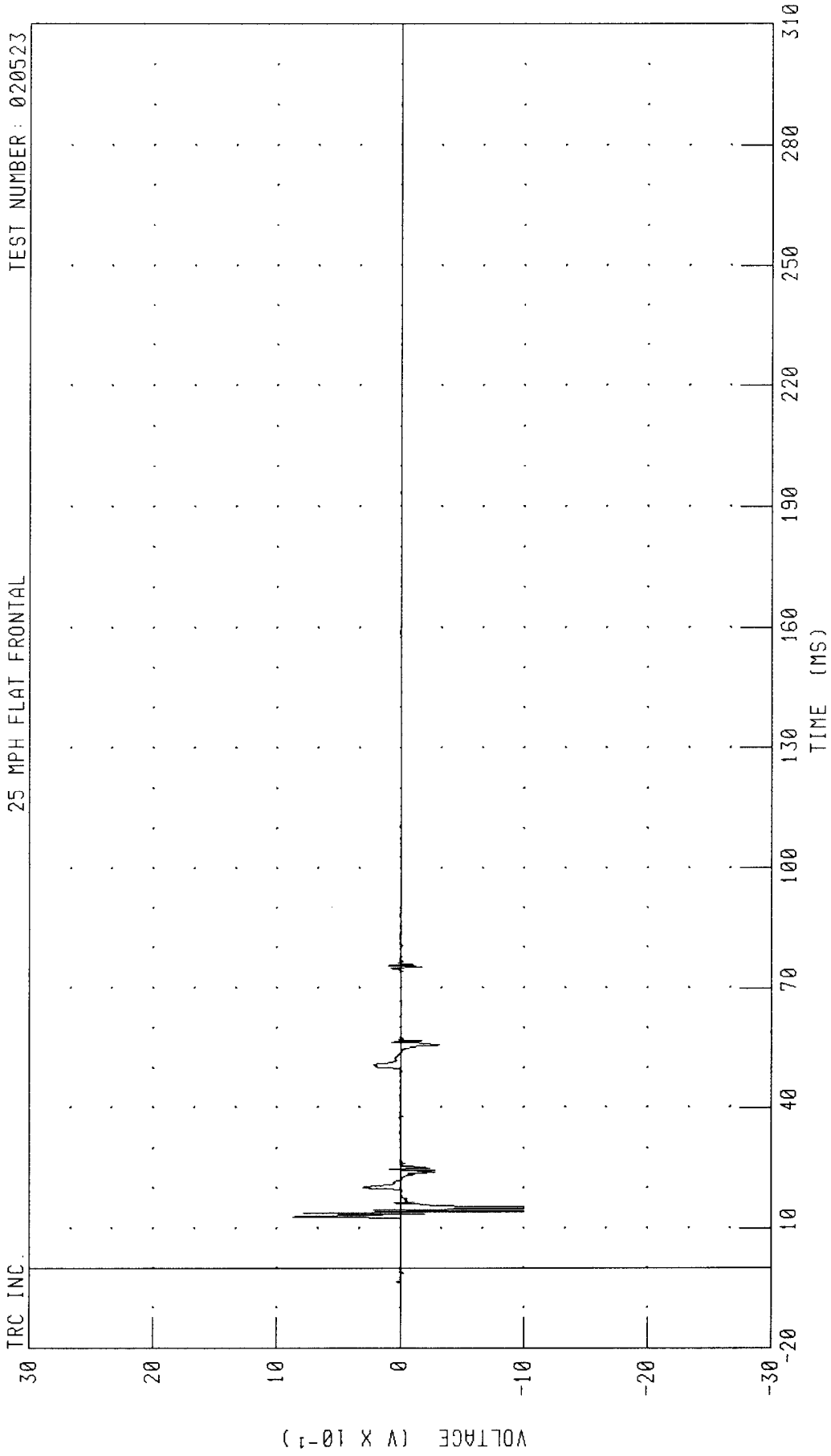


CHANNEL: DABETA FILTER: CH. CLASS 1000

PEAK DATA: 1.00 V @ 64.96 MS; -1.00 V @ 17.52 MS

2001 FORD ESCAPE INTO FLAT FRONTAL BARRIER AT 25 MPH  
PASSENGER AIRBAG EVENT - WIRE A  
25 MPH FLAT FRONTAL

TRC INC. TEST NUMBER: 020523



CHANNEL: PABETA FILTER: CH. CLASS 1000 PEAK DATA: 0.87 V @ 12.80 MS; -1.00 V @ 14.08 MS

## Appendix C

### Dummy Configuration and Performance Verification Data

Pre-test Dummy Configuration and Performance Verification Data

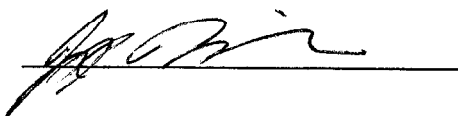
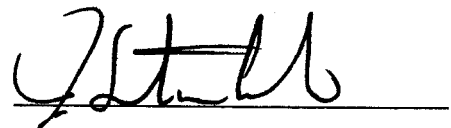
Driver Dummy S/N: 416

**Transportation Research Center Inc.**  
**572F HIII 5th Dummy**  
**External Dimensions**  
**Serial No. 416 Calibration No. 14**

Test Parameter	Dimension	Specification	Results	Pass
Total Sitting Height	A	774.7 - 800.1 mm	783 mm	Yes
Shoulder Pivot Height	B	431.8 - 457.2 mm	449 mm	Yes
Hip Pivot Height	C	81.3 - 86.3 mm	82 mm	Yes
Hip Pivot from Backline	D	144.8 - 149.8 mm	149 mm	Yes
Shoulder Pivot from Backline	E	68.6 - 83.8 mm	70.5 mm	Yes
Thigh Clearance	F	119.4 - 134.6 mm	123 mm	Yes
Back of Elbow to Wrist Pivot	G	243.9 - 259.0 mm	249 mm	Yes
Head Back to Backline	H	40.7 - 45.7 mm	43 mm	Yes
Shoulder to Elbow Length	I	276.9 - 297.1 mm	283 mm	Yes
Elbow Rest Height	J	182.9 - 203.2 mm	193 mm	Yes
Buttock Knee Length	K	520.7 - 546.1 mm	536 mm	Yes
Popliteal Height	L	355.6 - 375.9 mm	361 mm	Yes
Knee Pivot Height	M	393.7 - 419.1 mm	402 mm	Yes
Buttock Popliteal Height	N	414.1 - 439.4 mm	421 mm	Yes
Chest Depth without Jacket	O	175.3 - 190.5 mm	181 mm	Yes
Foot Length	P	218.5 - 233.6 mm	230 mm	Yes
Buttock to Knee Pivot Length	R	457.2 - 482.6 mm	468 mm	Yes
Head Breadth	S	137.2 - 147.3 mm	139 mm	Yes
Head Depth	T	177.8 - 187.9 mm	180 mm	Yes
Hip Breadth	U	299.8 - 314.9 mm	302 mm	Yes
Shoulder Breadth	V	350.6 - 365.7 mm	356 mm	Yes
Foot Breadth	W	78.8 - 93.9 mm	88 mm	Yes
Head Circumference	X	528.4 - 548.6 mm	539 mm	Yes
Chest Circumference with Jacket	Y	850.9 - 881.3 mm	864 mm	Yes
Waist Circumference	Z	759.5 - 789.9 mm	782 mm	Yes
Reference Location for Chest Circumference	AA	299.8 - 309.8 mm	306 mm	Yes
Reference Location for Waist Circumference	BB	160.1 - 170.1 mm	168 mm	Yes

Technician

Approved


# Transportation Research Center Inc.

5720 Head Drop Test

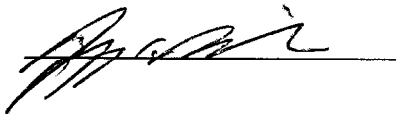
HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

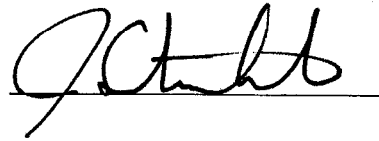
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Peak Resultant Acceleration	250 - 300 g	285.9 g	Yes
Peak Lateral Acceleration	15 g Max	12.2 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

## Comments:

Technician



Approved

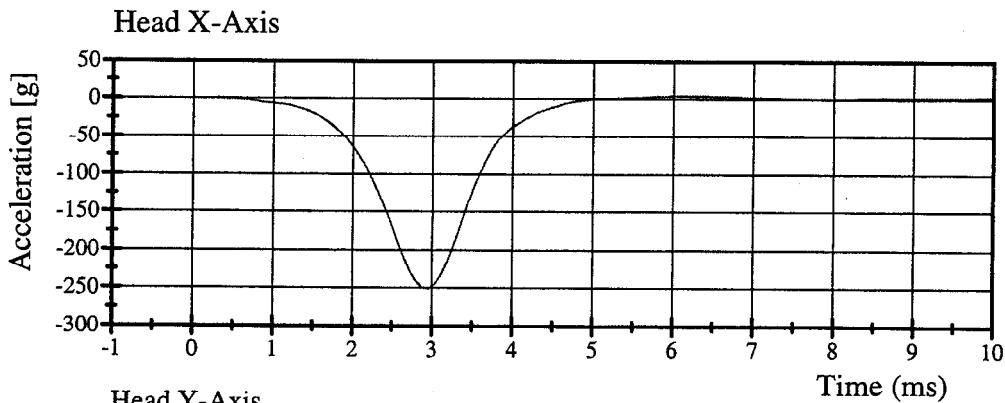


# Transportation Research Center Inc.

5720 Head Drop Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

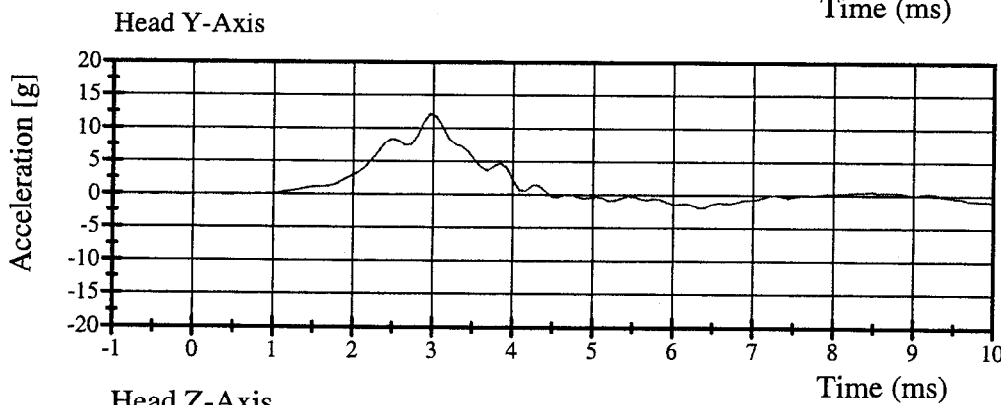
Test Date 05/17/2002



Filter Class: 1000

Max: 3.9 g at 6.1 ms

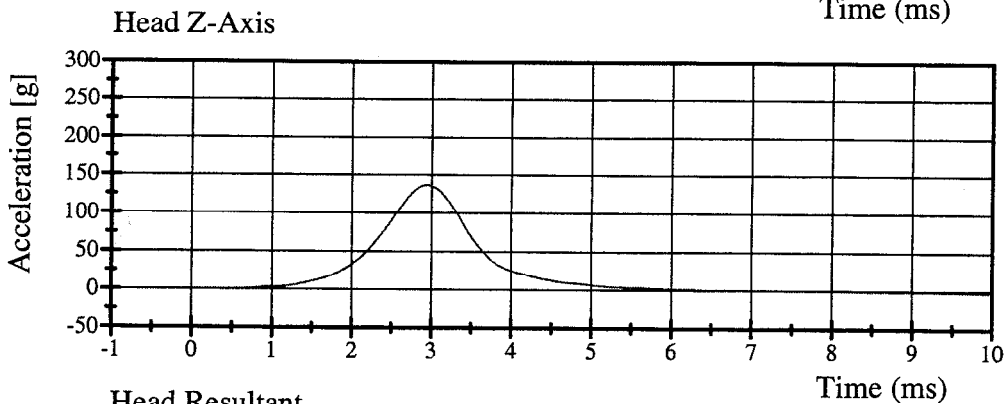
Min: -250.6 g at 3.0 ms



Filter Class: 1000

Max: 12.2 g at 3.0 ms

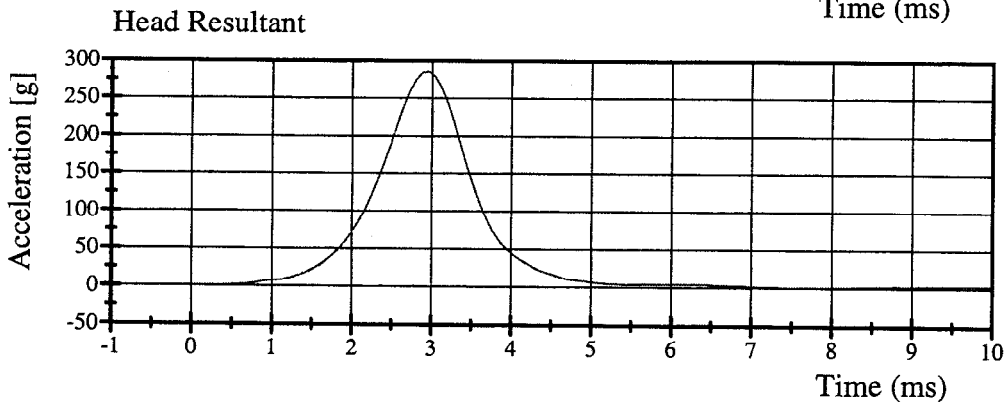
Min: -2.0 g at 6.3 ms



Filter Class: 1000

Max: 137.0 g at 3.0 ms

Min: -2.0 g at 9.9 ms



Filter Class: 1000

Max: 285.9 g at 3.0 ms

Min: 0.0 g at 2.1 ms

# Transportation Research Center Inc.

5720 Neck Flexion Test - 6 Channel Transducer

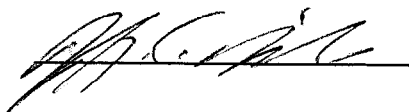
HIII 5th Female Serial No. 416 Calibration No. 14 - 2

Test Date 05/17/2002

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Impact Velocity	6.89 - 7.13 m/s	7.10 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.50 m/s	2.14 m/s	Yes
20 ms	4.00 - 5.00 m/s	4.21 m/s	Yes
30 ms	5.80 - 7.00 m/s	6.12 m/s	Yes
Peak D Plane Rotation	77 - 91 °	78.4 °	Yes
Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors)	69.0 - 83.0 N·m	76.74 N·m	Yes
Positive Moment Decay Time To 10 N·m	80 - 100 ms	89.84 ms	Yes

## Comments:

Technician



Approved



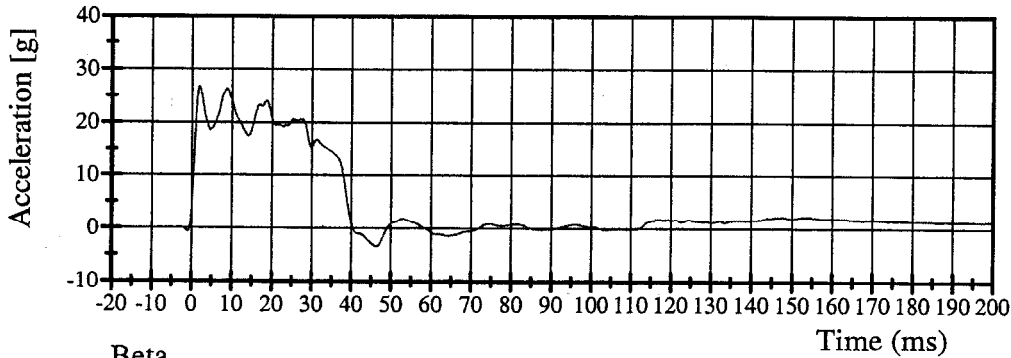
# Transportation Research Center Inc.

5720 Neck Flexion Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 2

Test Date 05/17/2002

### Pendulum Deceleration

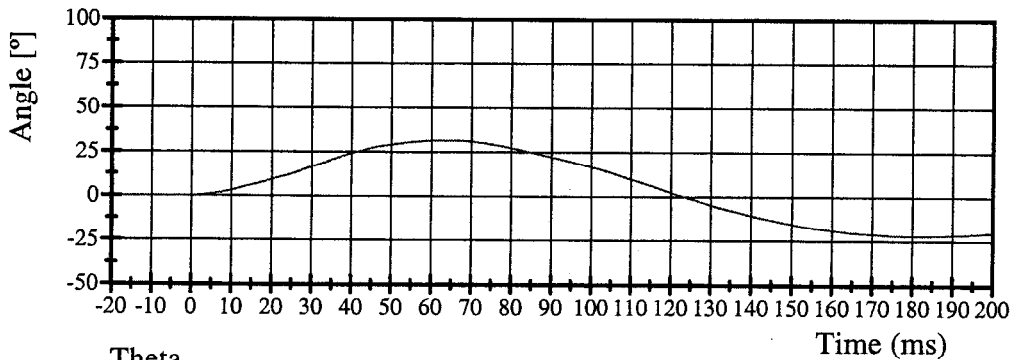


Filter Class: 180

Max: 26.7 g at 1.8 ms

Min: -3.4 g at 46.3 ms

### Beta

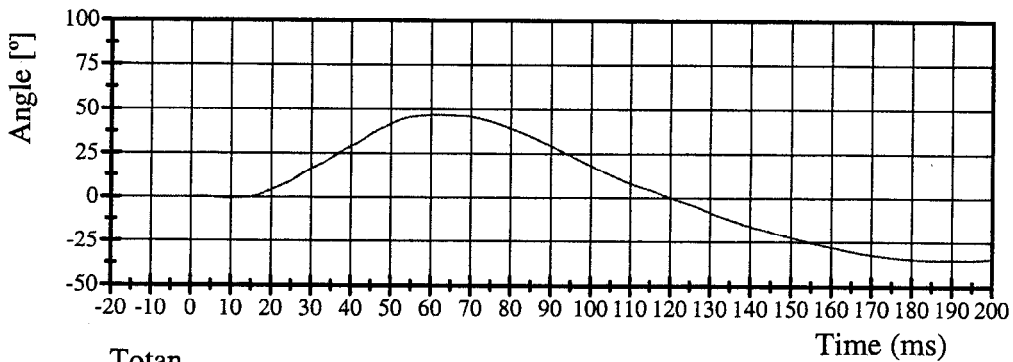


Filter Class: 60

Max: 31.7 ° at 63.7 ms

Min: -22.0 ° at 181.6 ms

### Theta

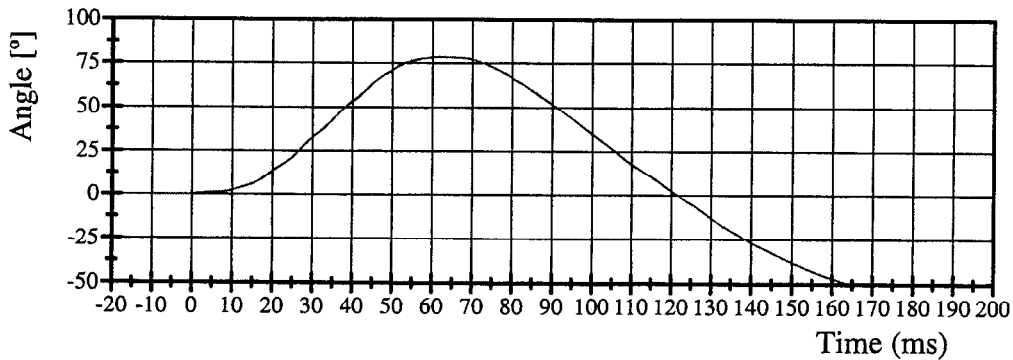


Filter Class: 60

Max: 46.8 ° at 61.7 ms

Min: -35.1 ° at 189.0 ms

### Totan



Filter Class: 60

Max: 78.4 ° at 62.2 ms

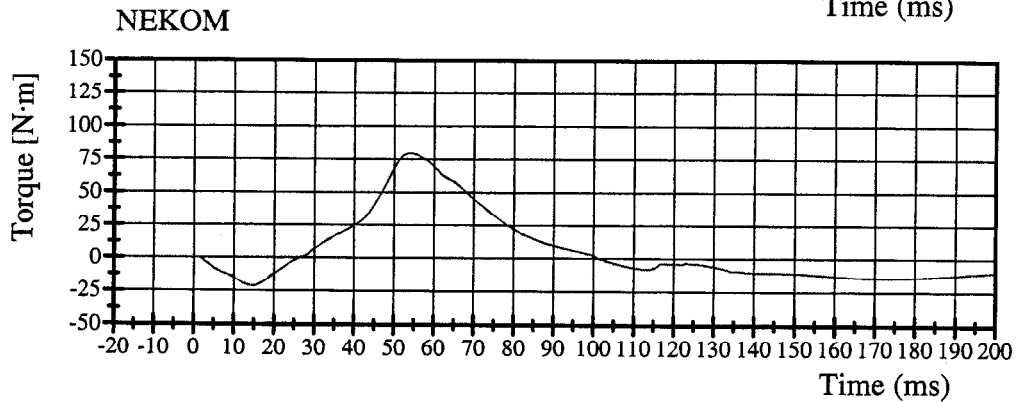
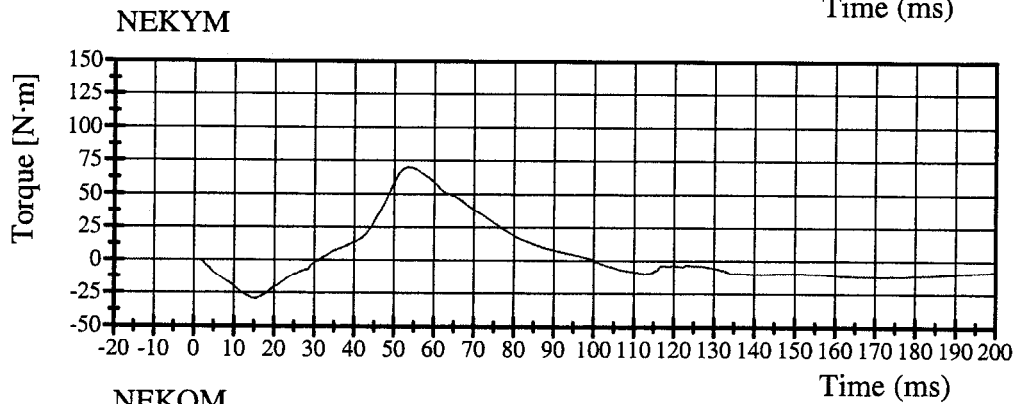
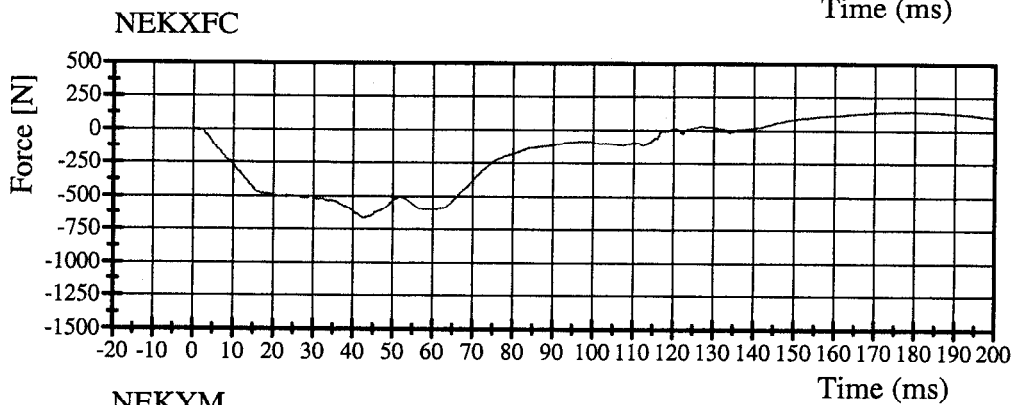
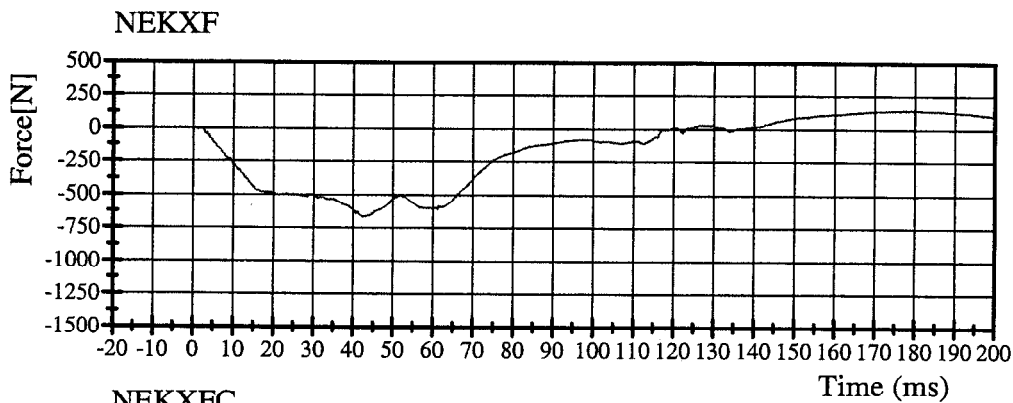
Min: -57.0 ° at 184.2 ms

# Transportation Research Center Inc.

5720 Neck Flexion Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 2

Test Date 05/17/2002



# Transportation Research Center Inc.

5720 Neck Extension Test - 6 Channel Transducer

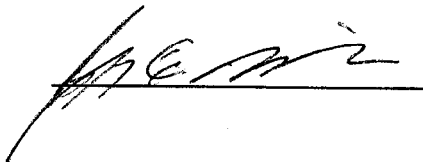
HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Impact Velocity	5.95 - 6.19 m/s	6.18 m/s	Yes
Integrated Pendulum Velocity			
10 ms	1.50 - 1.90 m/s	1.54 m/s	Yes
20 ms	3.10 - 3.90 m/s	3.13 m/s	Yes
30 ms	4.60 - 5.60 m/s	4.64 m/s	Yes
Peak D Plane Rotation	99 - 114 °	102.4 °	Yes
Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors)	-65.0 - (-53.0) N·m	-55.50 N·m	Yes
Positive Moment Decay Time To -10 N·m	94 - 114 ms	105.60 ms	Yes

## Comments:

Technician



Approved

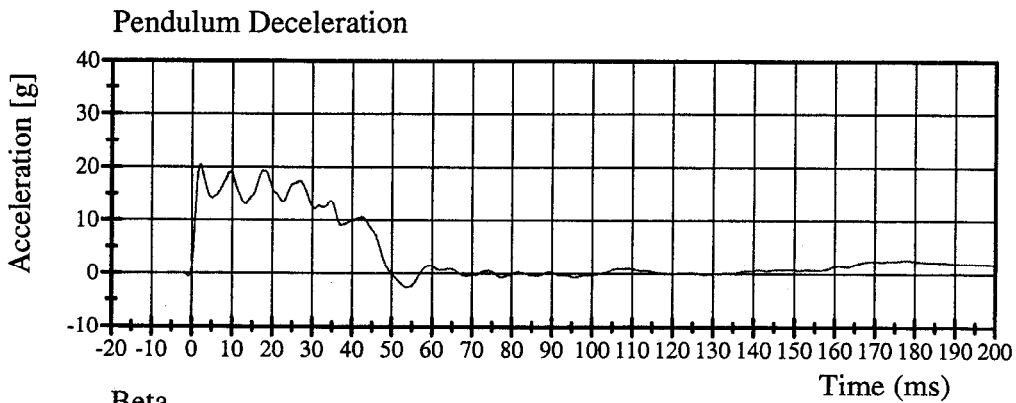


# Transportation Research Center Inc.

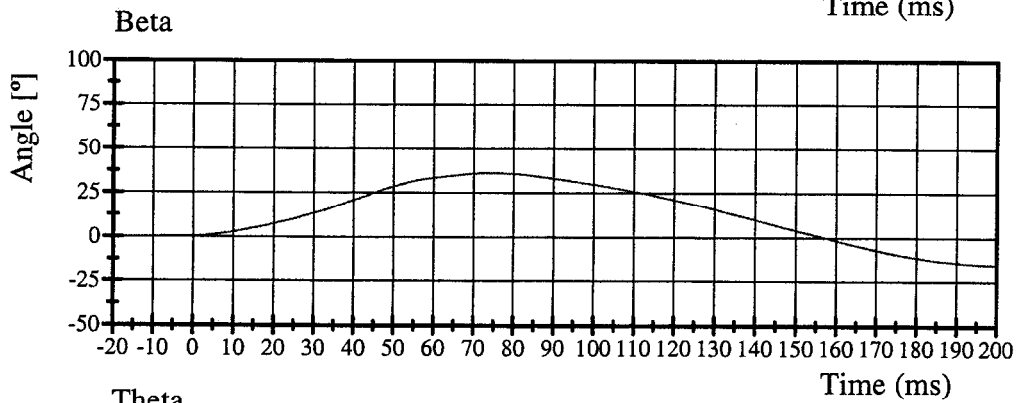
5720 Neck Extension Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

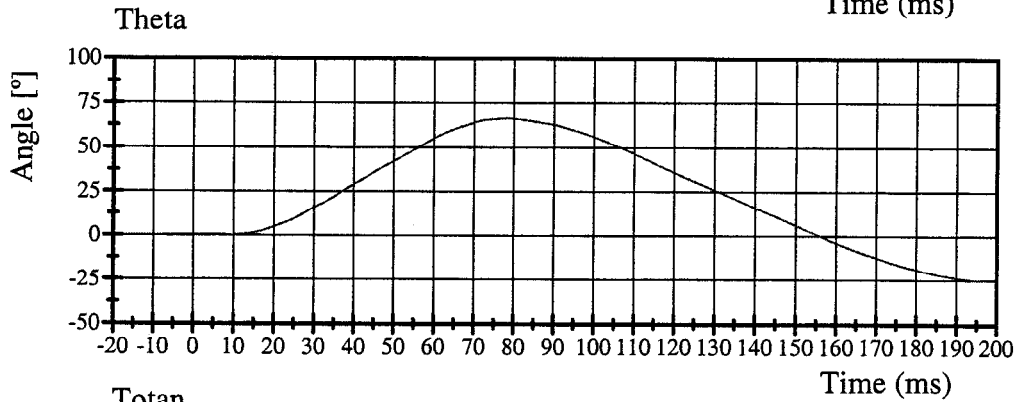
Test Date 05/17/2002



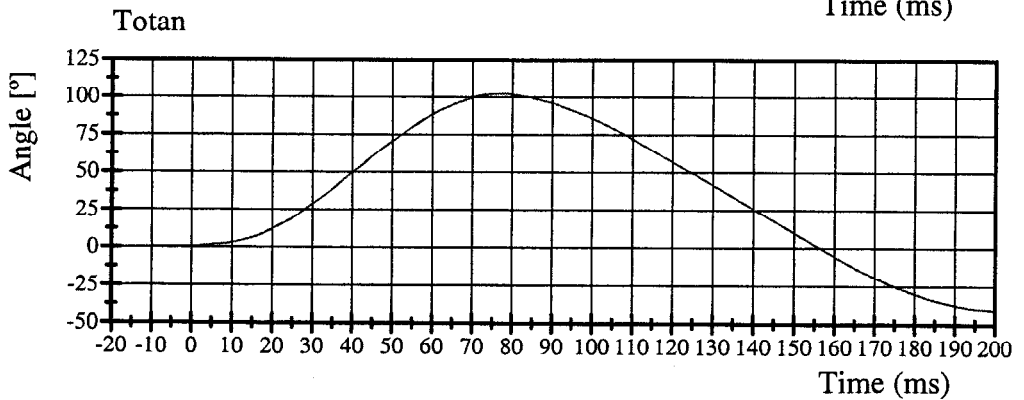
Filter Class: 180  
Max: 20.4 g at 2.0 ms  
Min: -2.7 g at 53.8 ms



Filter Class: 60  
Max: 36.2 ° at 73.7 ms  
Min: -15.4 ° at 204.3 ms



Filter Class: 60  
Max: 66.4 ° at 78.6 ms  
Min: -25.4 ° at 202.8 ms



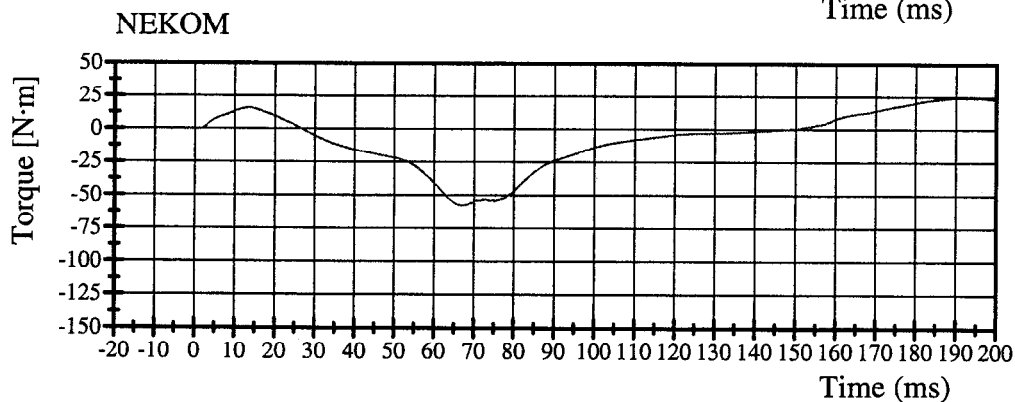
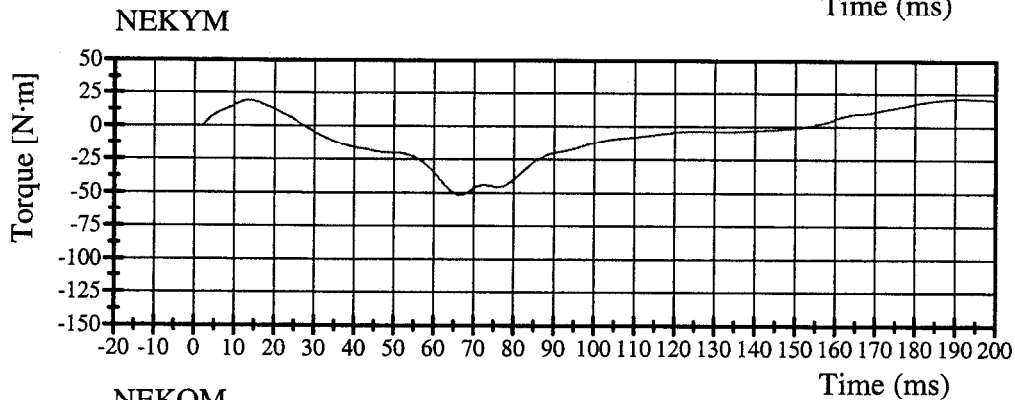
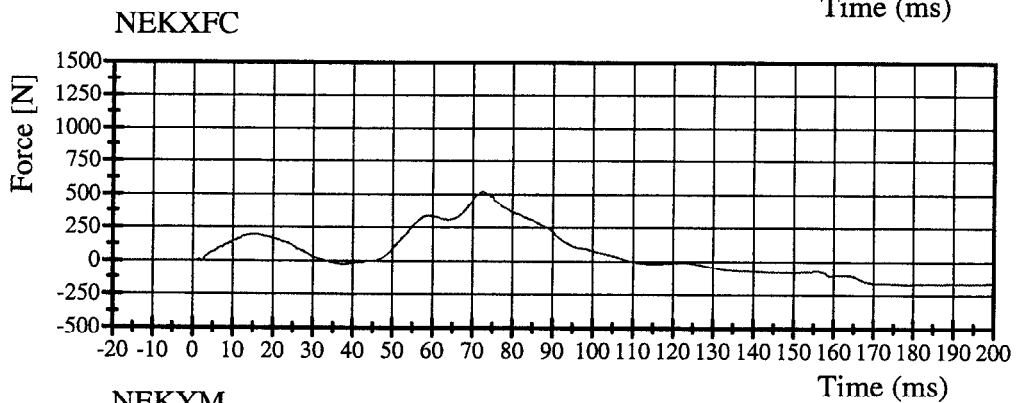
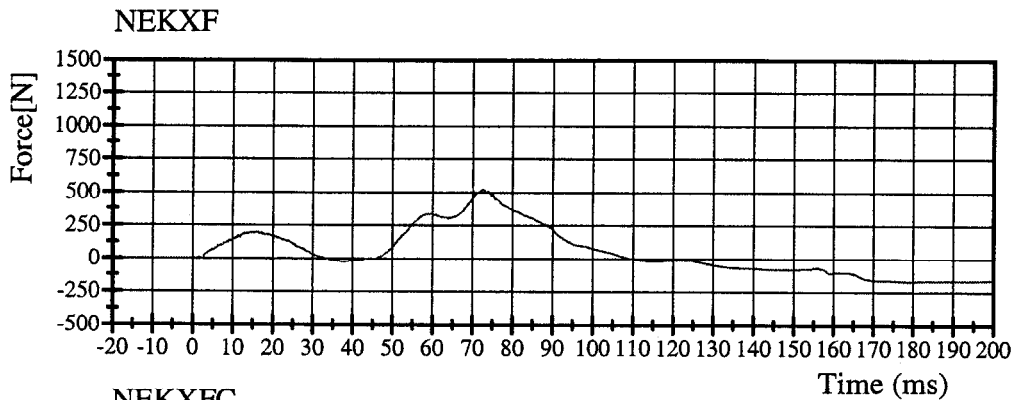
Filter Class: 60  
Max: 102.4 ° at 77.8 ms  
Min: -40.8 ° at 203.7 ms

# Transportation Research Center Inc.

5720 Neck Extension Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002



# Transportation Research Center Inc.

5720 Thorax Test

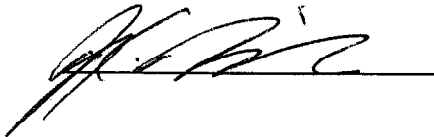
HHH 5th Female Serial No. 416 Calibration No. 14 - 3

Test Date 05/20/2002

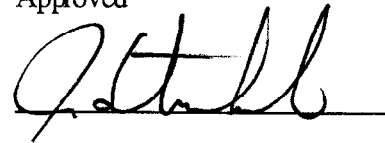
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Pendulum Velocity	6.59 - 6.83 m/s	6.66 m/s	Yes
Maximum Chest Deflection	-58.0 - (-50.0) mm	-54.9 mm	Yes
Peak Impact Probe Force Within Compression Corridor	3900 - 4400 N	4290 N	Yes
Internal Hysteresis	105 % Max.	95 %	Yes
Internal Hysteresis	69 - 85 %	73 %	Yes

**Comments:**

Technician



Approved



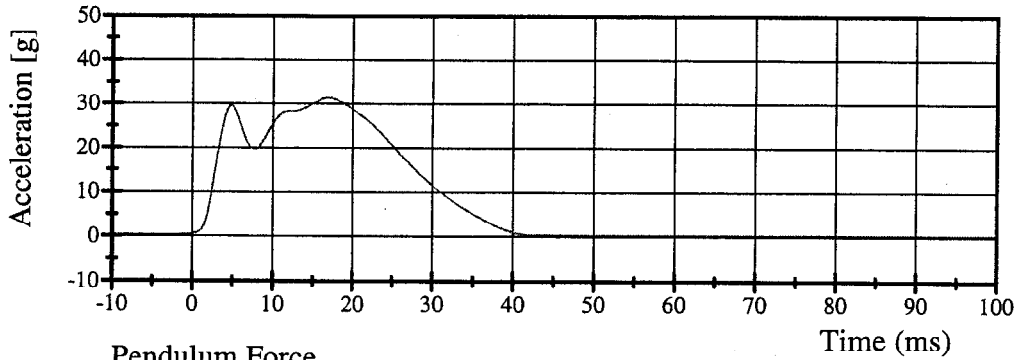
# Transportation Research Center Inc.

5720 Thorax Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 3

Test Date 05/20/2002

### Pendulum Deceleration

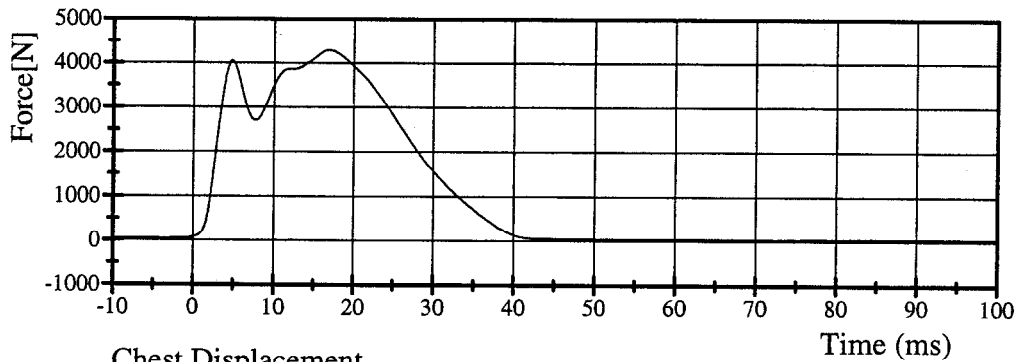


Filter Class: 180

Max: 31.3 g at 17.0 ms

Min: -1.0 g at 407.8 ms

### Pendulum Force

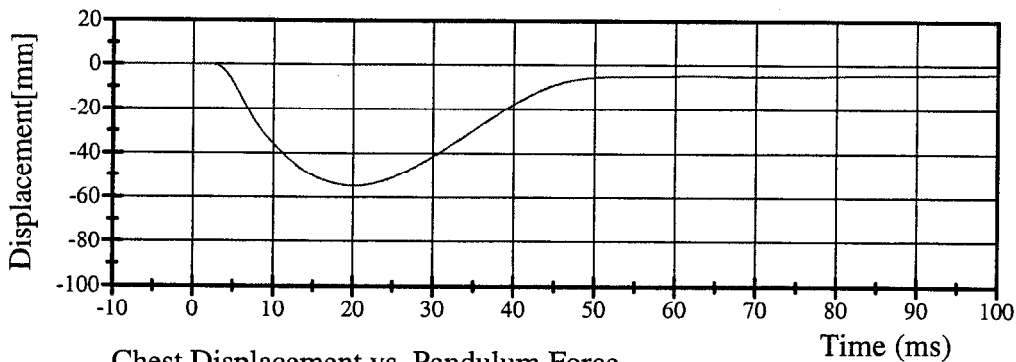


Filter Class: 180

Max: 4290.1 N at 17.0 ms

Min: -131.5 N at 407.8 ms

### Chest Displacement

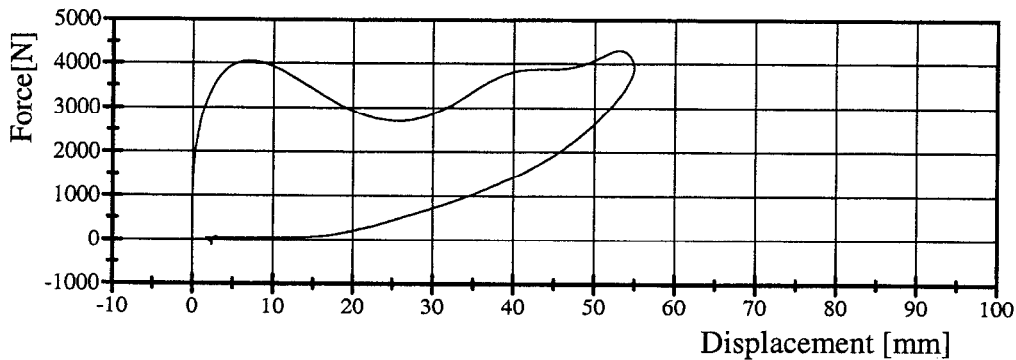


Filter Class: 180

Max: 0.1 mm at 1.8 ms

Min: -54.9 mm at 20.2 ms

### Chest Displacement vs. Pendulum Force



TRANSPORTATION RESEARCH CENTER INC.

TORSO FLEXION TEST

HYBRID III SMALL FEMALE

CAL DATE: 17-May-02

TRC, INC. TEST NO: 416C14TF1 572 O SN 416 TORSO FLEX CAL 14

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 – 70 %	45 %
INITIAL ANGLE OF UNSUPPORTED DUMMY	<= 20 DEG. REFERENCED TO VERTICAL	13.2 DEG.
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 – 390 N	361.2 N
RETURN ANGLE @ 3MINUTES		17.1 DEG.
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 DEG OF INTIAL ANGLE	3.9 DEG.

TEST MEETS SPECIFICATIONS

TECHNICIAN



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# Transportation Research Center Inc.

5720 Left Knee Test

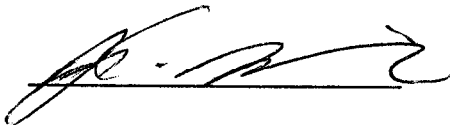
HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

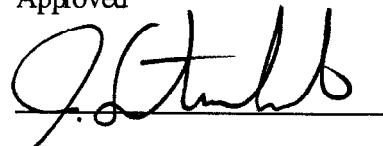
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Pendulum Velocity	2.07 - 2.13 m/s	2.10 m/s	Yes
Maximum Pendulum Force	3450 - 4060 N	3532 N	Yes

## Comments:

Technician



Approved

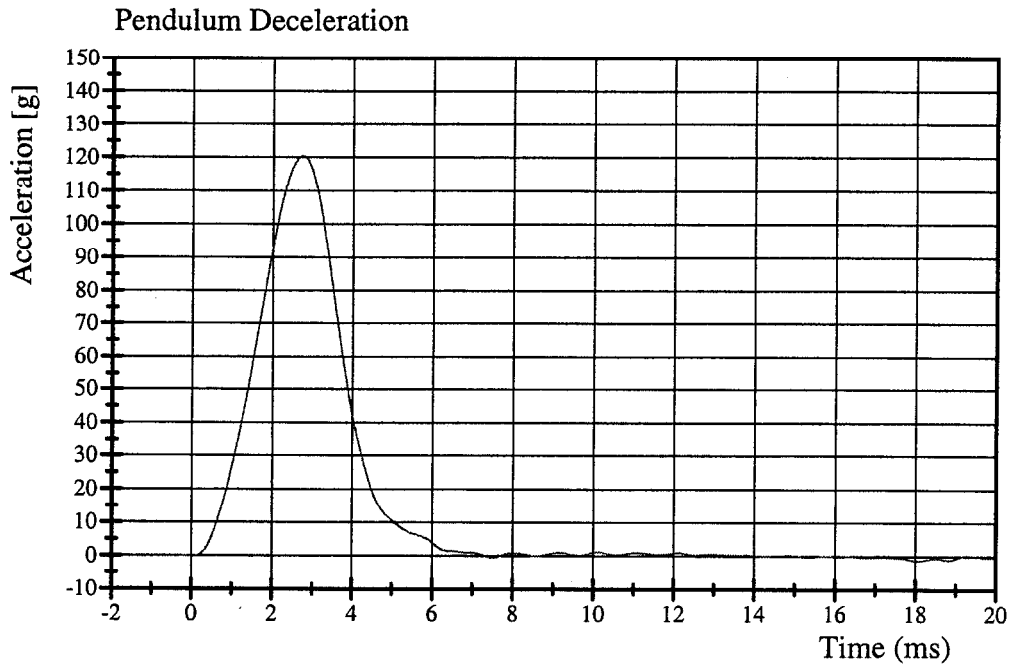


# Transportation Research Center Inc.

5720 Left Knee Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

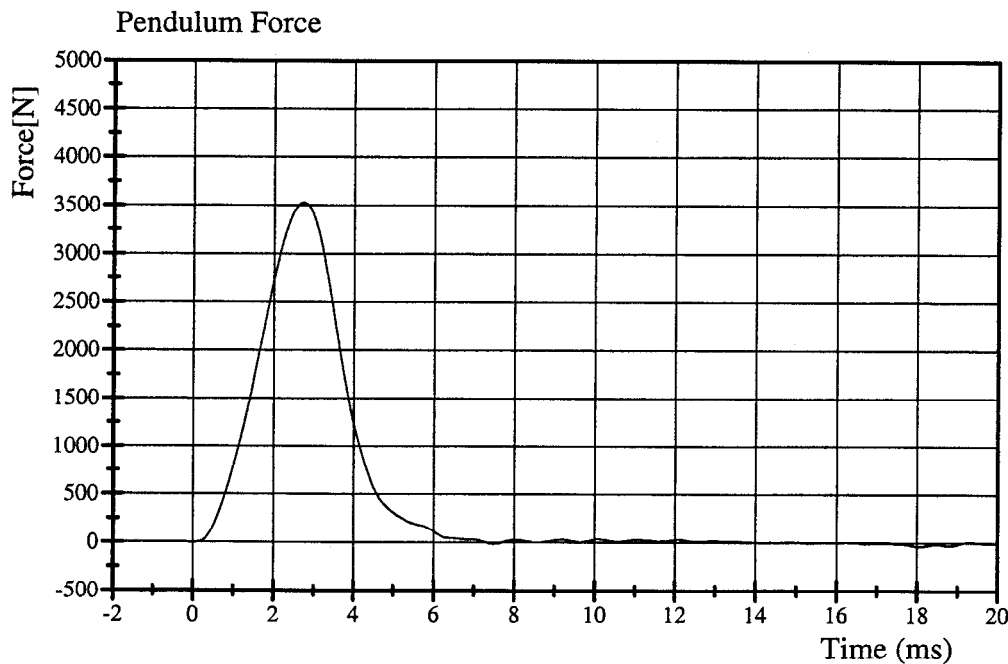
Test Date 05/17/2002



Filter Class: 600

Max: 120.5 g at 2.7 ms

Min: -1.3 g at 18.1 ms



Filter Class: 600

Max: 3531.9 N at 2.7 ms

Min: -37.2 N at 18.1 ms

# Transportation Research Center Inc.

5720 Right Knee Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

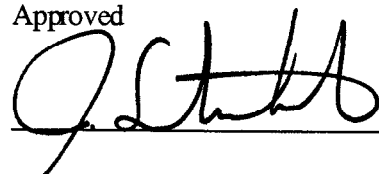
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Pendulum Velocity	2.07 - 2.13 m/s	2.10 m/s	Yes
Maximum Pendulum Force	3450 - 4060 N	3532 N	Yes

## Comments:

Technician



Approved

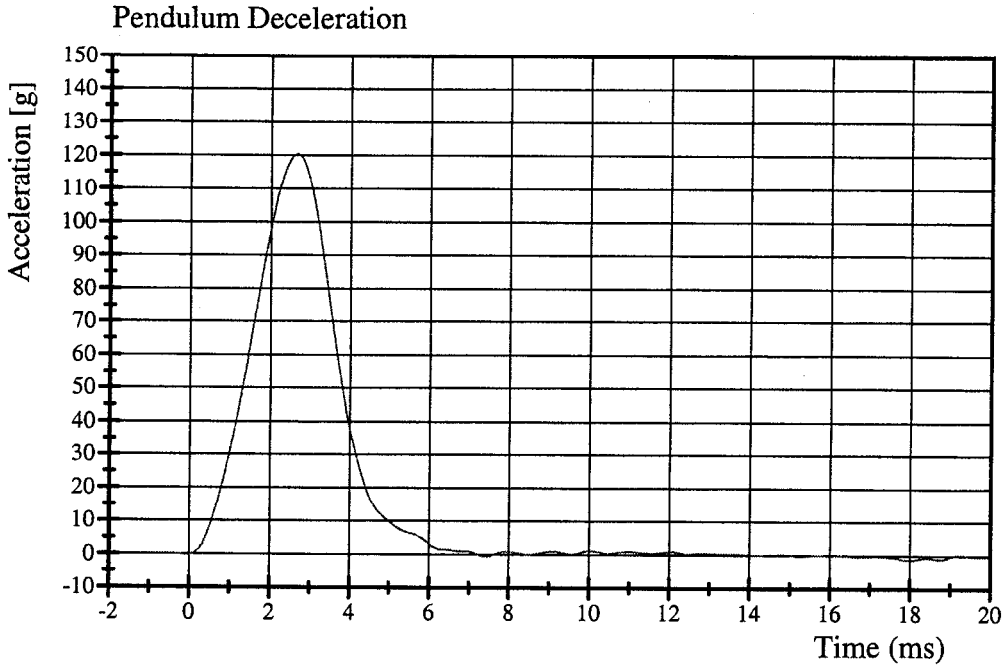


# Transportation Research Center Inc.

5720 Right Knee Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

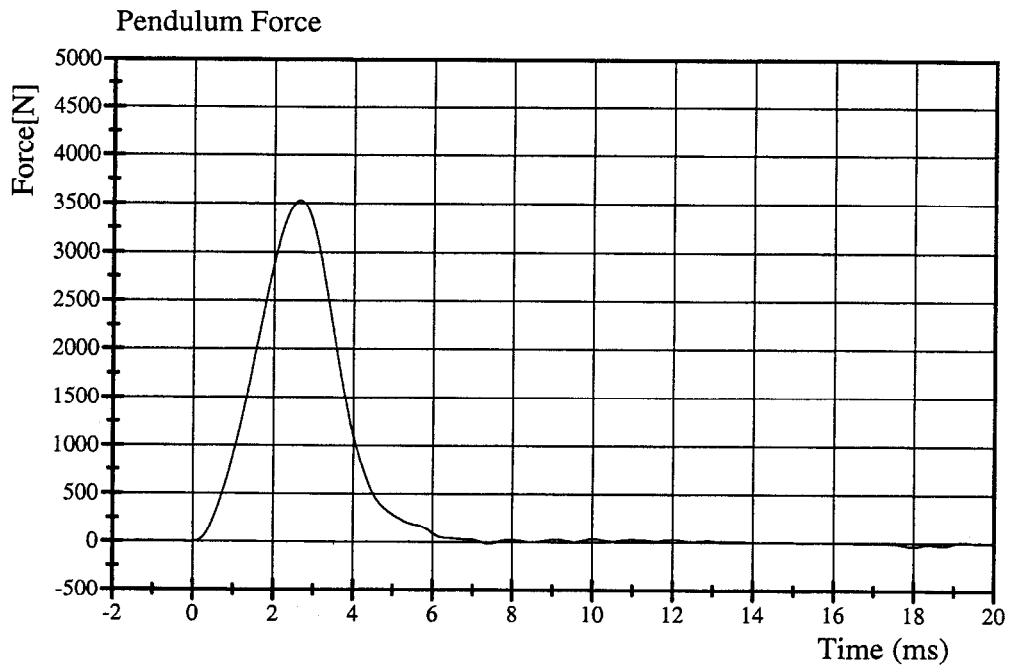
Test Date 05/17/2002



Filter Class: 600

Max: 120.5 g at 2.6 ms

Min: -1.3 g at 18.0 ms



Filter Class: 600

Max: 3531.9 N at 2.6 ms

Min: -37.2 N at 18.0 ms

# Transportation Research Center Inc.

5720 Left Knee Slider Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

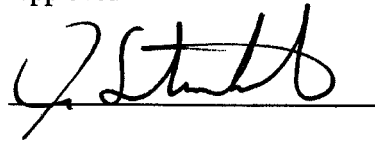
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.76 m/s	Yes
Knee Displacement	-15.5 - (-12.7) mm	-14.1 mm	Yes

Comments:

Technician



Approved

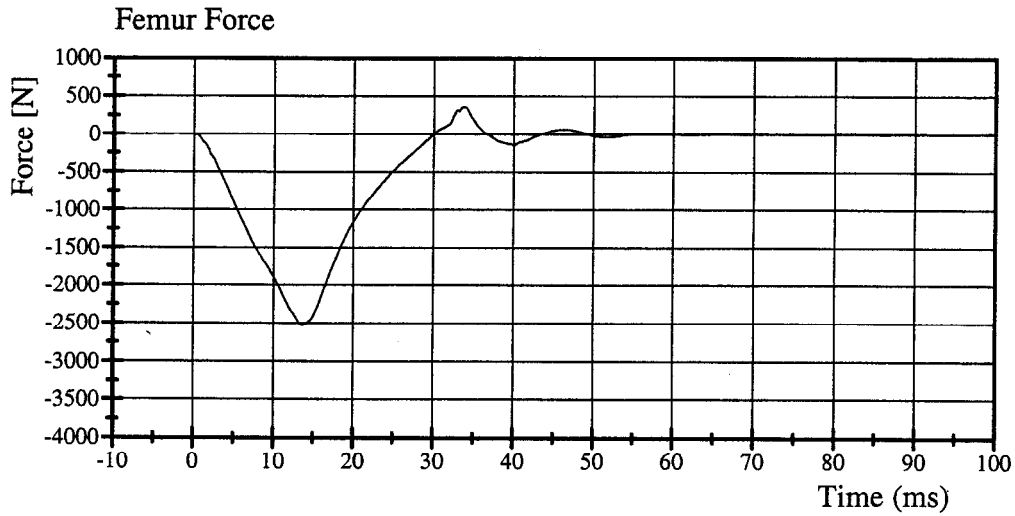


# Transportation Research Center Inc.

5720 Left Knee Slider Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

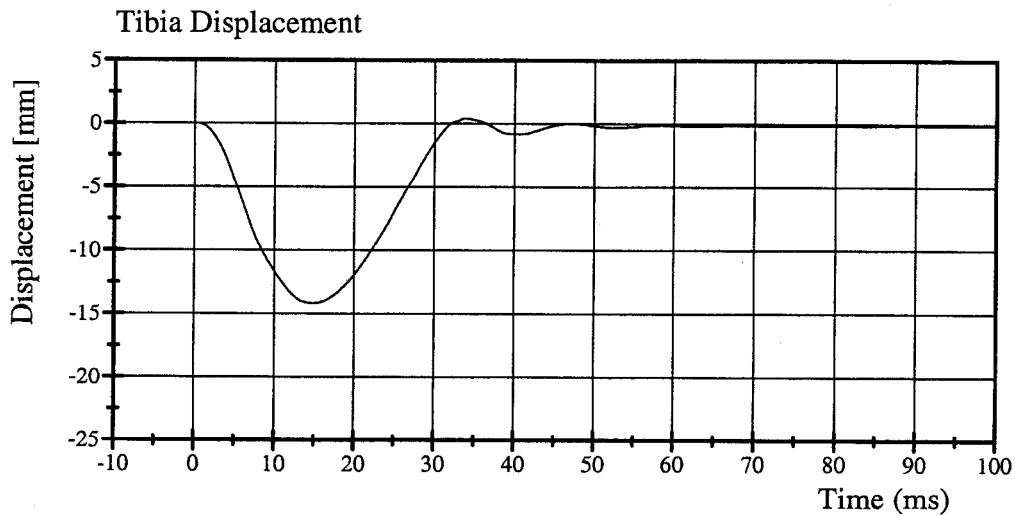
Test Date 05/17/2002



Filter Class: 600

Max: 357.4 N at 33.8 ms

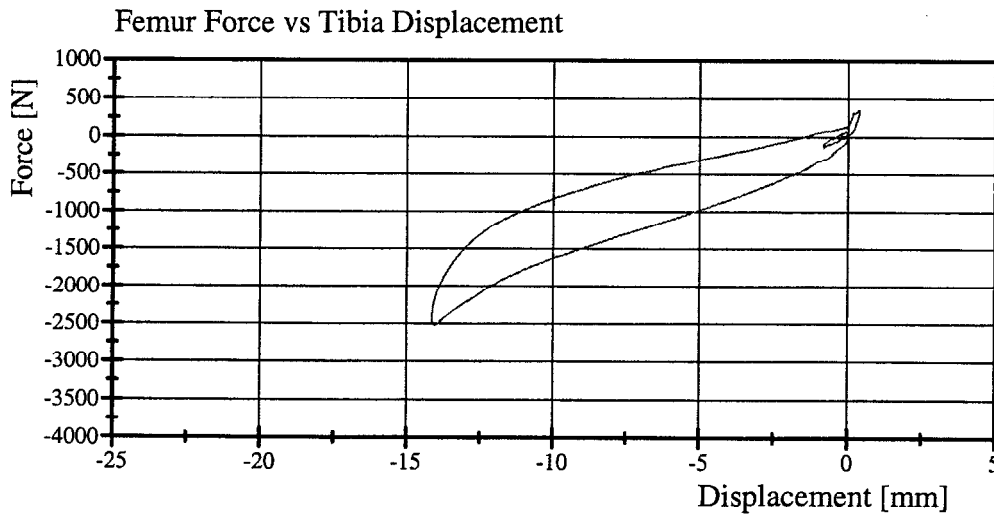
Min: -2525.5 N at 13.6 ms



Filter Class: 600

Max: 0.4 mm at 33.9 ms

Min: -14.1 mm at 14.8 ms



# Transportation Research Center Inc.

5720 Right Slider Test

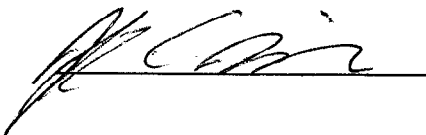
HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.76 m/s	Yes
Knee Displacement	-15.5 - (-12.7) mm	-14.4 mm	Yes

Comments:

Technician



Approved

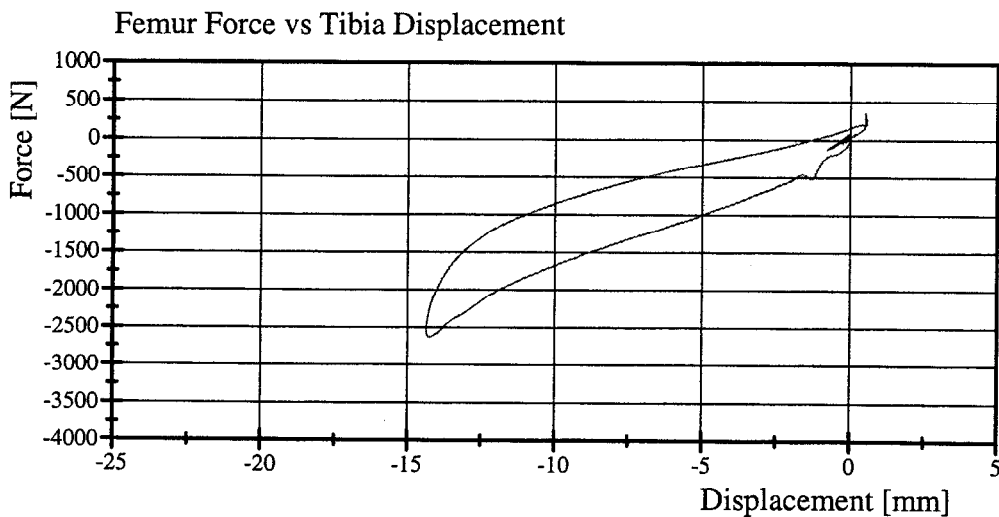
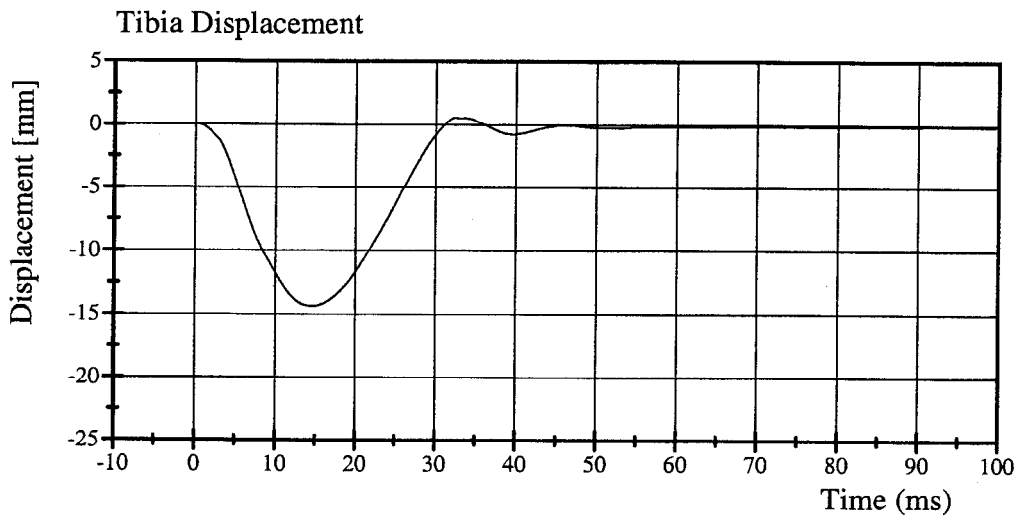
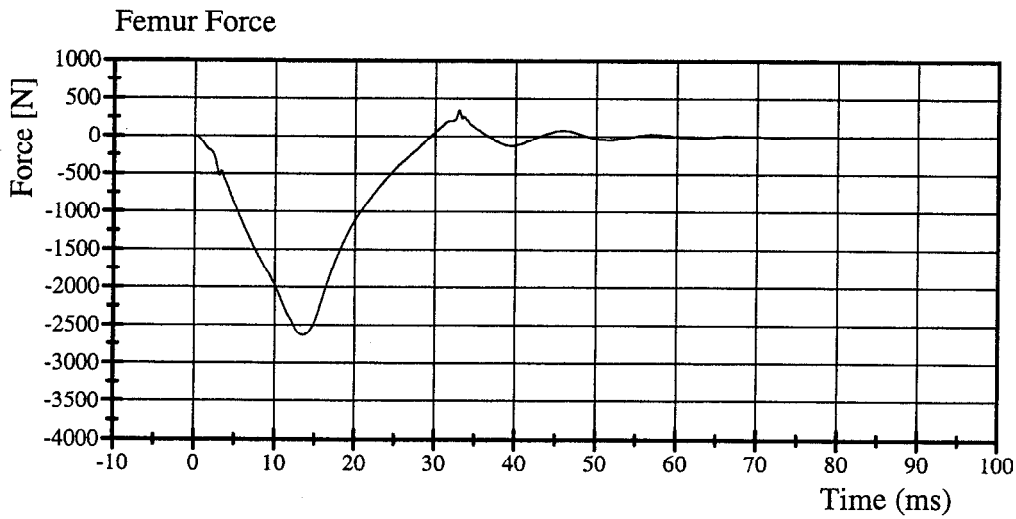


# Transportation Research Center Inc.

5720 Right Slider Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002



Pre-test Dummy Configuration and Performance Verification Data

Passenger Dummy S/N: 421

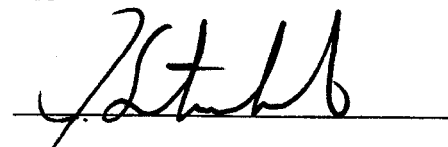
**Transportation Research Center Inc.**  
**572F HIII 5th Dummy**  
**External Dimensions**  
**Serial No. 421 Calibration No. 07**

Test Parameter	Dimension	Specification	Results	Pass
Total Sitting Height	A	774.7 - 800.1 mm	790 mm	Yes
Shoulder Pivot Height	B	431.8 - 457.2 mm	449 mm	Yes
Hip Pivot Height	C	81.3 - 86.3 mm	86 mm	Yes
Hip Pivot from Backline	D	144.8 - 149.8 mm	145 mm	Yes
Shoulder Pivot from Backline	E	68.6 - 83.8 mm	77 mm	Yes
Thigh Clearance	F	119.4 - 134.6 mm	130 mm	Yes
Back of Elbow to Wrist Pivot	G	243.9 - 259.0 mm	254 mm	Yes
Head Back to Backline	H	40.7 - 45.7 mm	45 mm	Yes
Shoulder to Elbow Length	I	276.9 - 297.1 mm	281 mm	Yes
Elbow Rest Height	J	182.9 - 203.2 mm	192 mm	Yes
Buttock Knee Length	K	520.7 - 546.1 mm	533 mm	Yes
Popliteal Height	L	355.6 - 375.9 mm	367 mm	Yes
Knee Pivot Height	M	393.7 - 419.1 mm	408 mm	Yes
Buttock Popliteal Height	N	414.1 - 439.4 mm	430 mm	Yes
Chest Depth without Jacket	O	175.3 - 190.5 mm	184 mm	Yes
Foot Length	P	218.5 - 233.6 mm	229 mm	Yes
Buttock to Knee Pivot Length	R	457.2 - 482.6 mm	472 mm	Yes
Head Breadth	S	137.2 - 147.3 mm	144 mm	Yes
Head Depth	T	177.8 - 187.9 mm	181 mm	Yes
Hip Breadth	U	299.8 - 314.9 mm	301 mm	Yes
Shoulder Breadth	V	350.6 - 365.7 mm	351 mm	Yes
Foot Breadth	W	78.8 - 93.9 mm	89 mm	Yes
Head Circumference	X	528.4 - 548.6 mm	547 mm	Yes
Chest Circumference with Jacket	Y	850.9 - 881.3 mm	867 mm	Yes
Waist Circumference	Z	759.5 - 789.9 mm	765 mm	Yes
Reference Location for Chest Circumference	AA	299.8 - 309.8 mm	305 mm	Yes
Reference Location for Waist Circumference	BB	160.1 - 170.1 mm	165 mm	Yes

Technician



Approved




# Transportation Research Center Inc.

5720 Head Drop Test

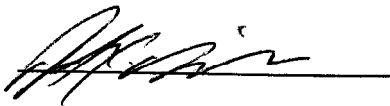
HIII 5th Female Serial No. 421 Calibration No. 07 - 2

Test Date 05/20/2002

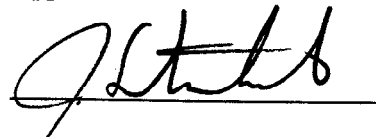
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Peak Resultant Acceleration	250 - 300 g	279.3 g	Yes
Peak Lateral Acceleration	15 g Max	-3.8 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

## Comments:

Technician



Approved

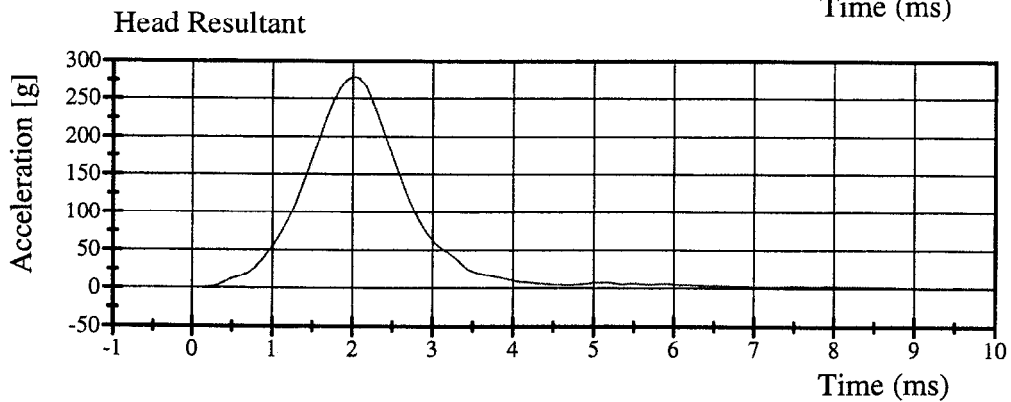
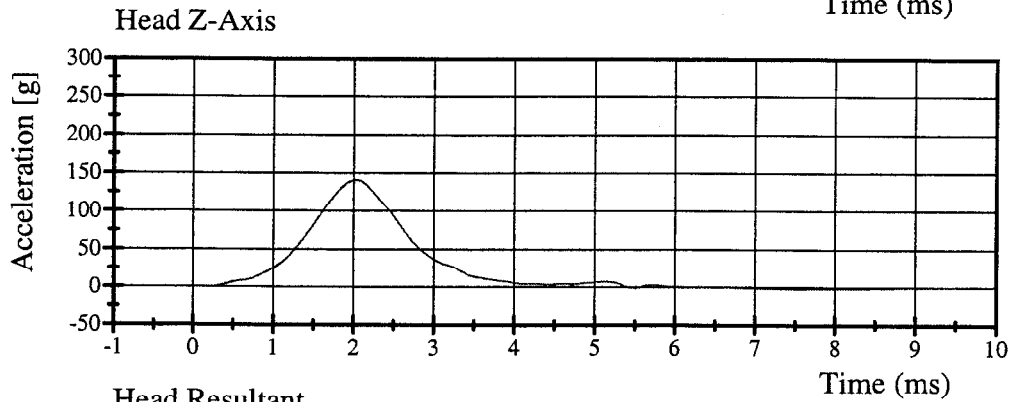
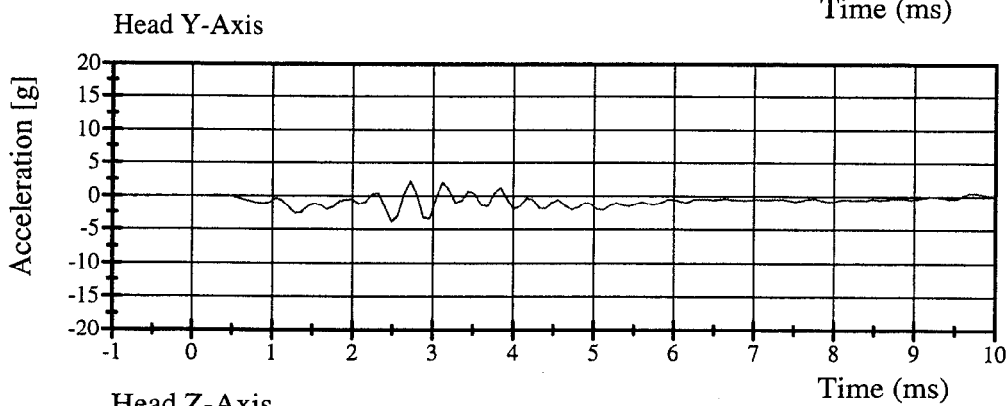
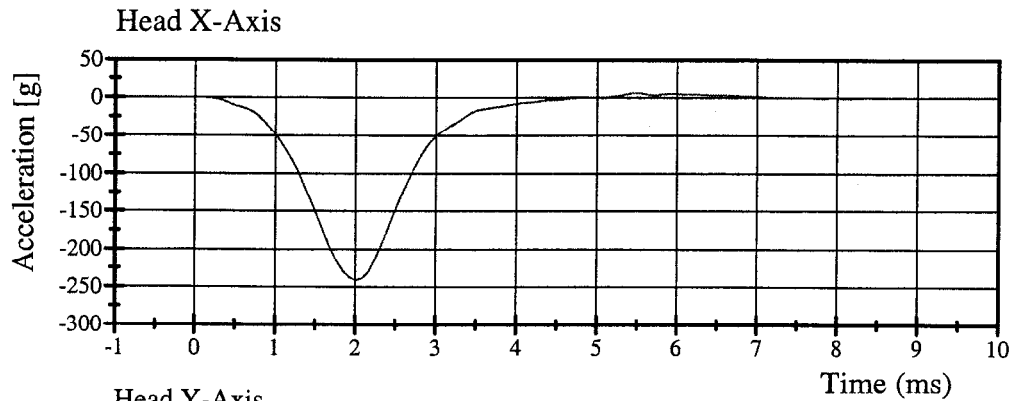


# Transportation Research Center Inc.

5720 Head Drop Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 2

Test Date 05/20/2002



# Transportation Research Center Inc.

5720 Neck Flexion Test - 6 Channel Transducer

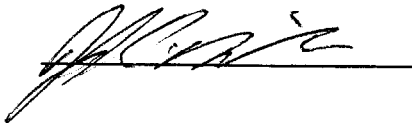
HIII 5th Female Serial No. 421 Calibration No. 07 - 7

Test Date 05/20/2002

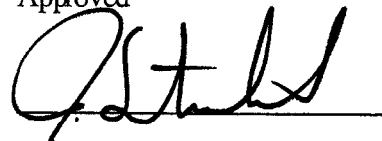
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Impact Velocity	6.89 - 7.13 m/s	7.10 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.10 - 2.50 m/s	2.47 m/s	Yes
20 ms	4.00 - 5.00 m/s	4.81 m/s	Yes
30 ms	5.80 - 7.00 m/s	6.85 m/s	Yes
Peak D Plane Rotation	77 - 91 °	83.2 °	Yes
Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors)	69.0 - 83.0 N·m	71.77 N·m	Yes
Positive Moment Decay Time To 10 N·m	80 - 100 ms	89.76 ms	Yes

## Comments:

Technician



Approved



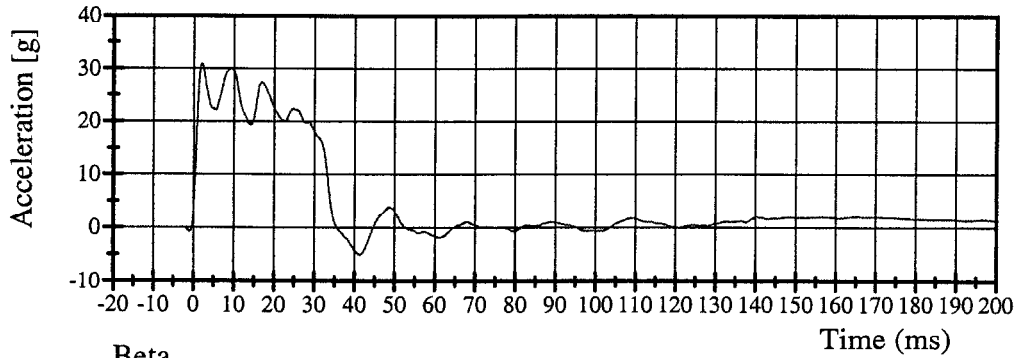
# Transportation Research Center Inc.

5720 Neck Flexion Test

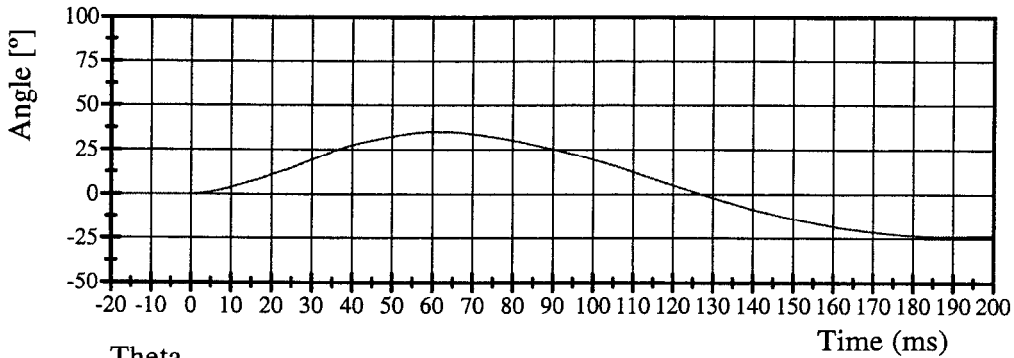
HIII 5th Female Serial No. 421 Calibration No. 07 - 7

Test Date 05/20/2002

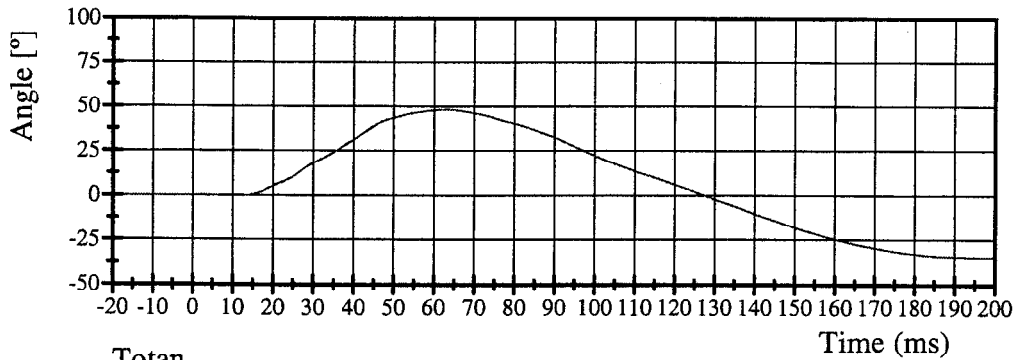
### Pendulum Deceleration



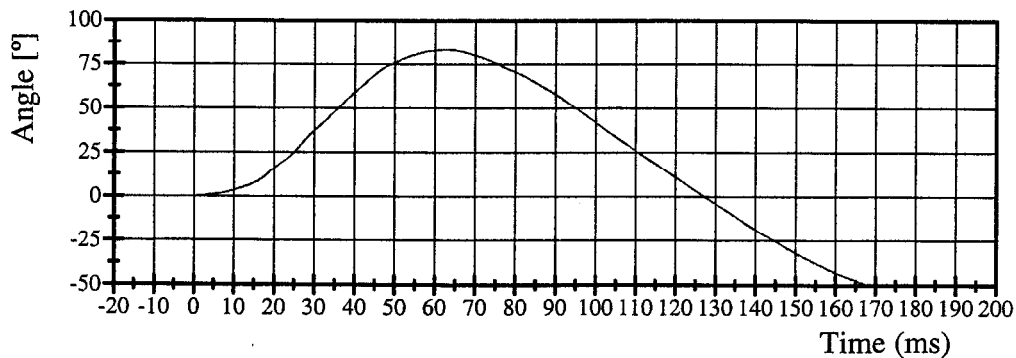
### Beta



### Theta



### Totan

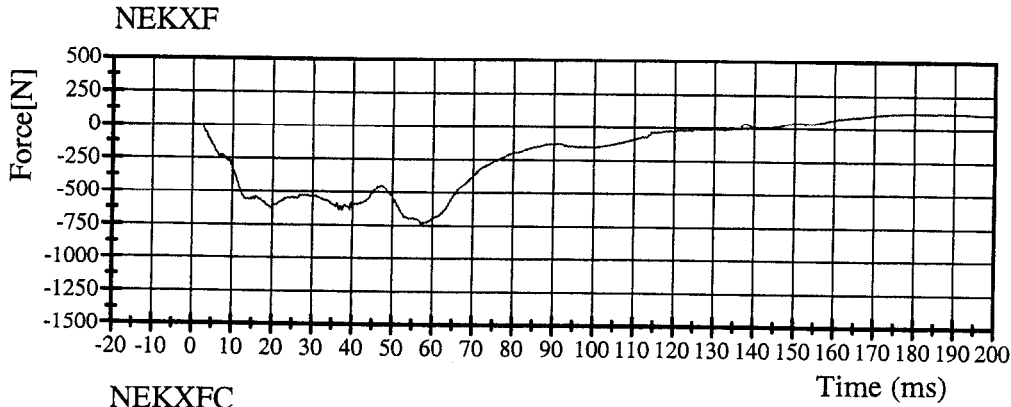


# Transportation Research Center Inc.

5720 Neck Flexion Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 7

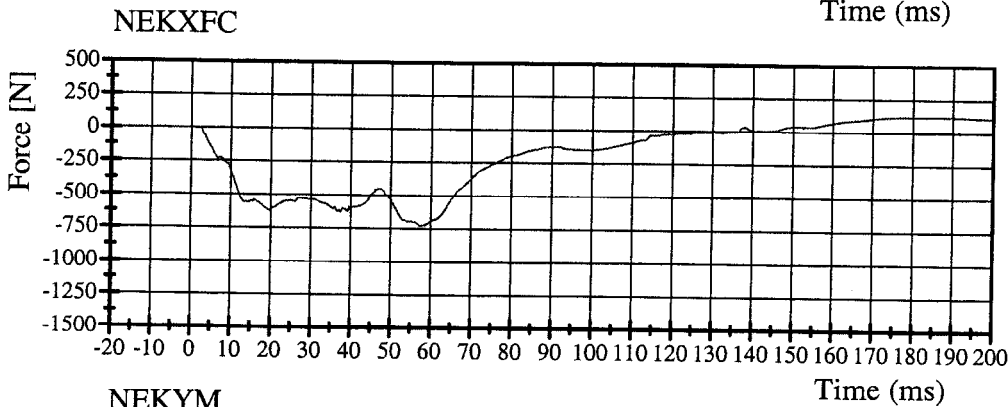
Test Date 05/20/2002



Filter Class: 1000

Max: 122.7 N at 186.4 ms

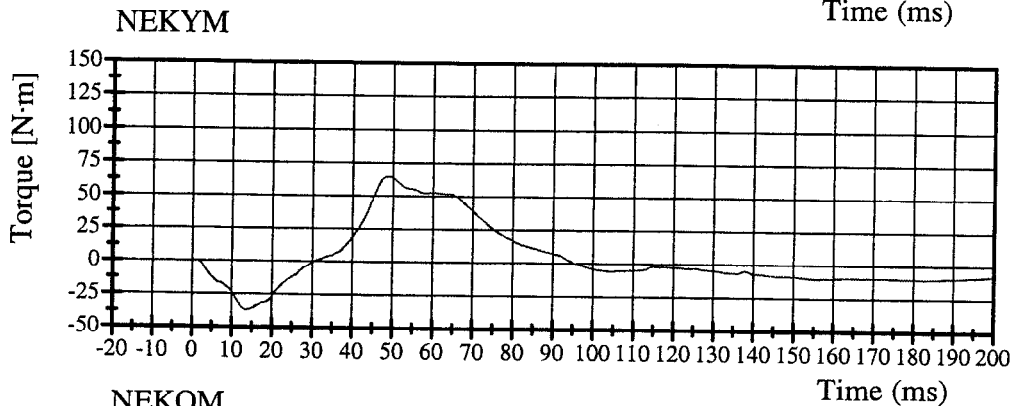
Min: -731.9 N at 57.5 ms



Filter Class: 600

Max: 122.0 N at 186.6 ms

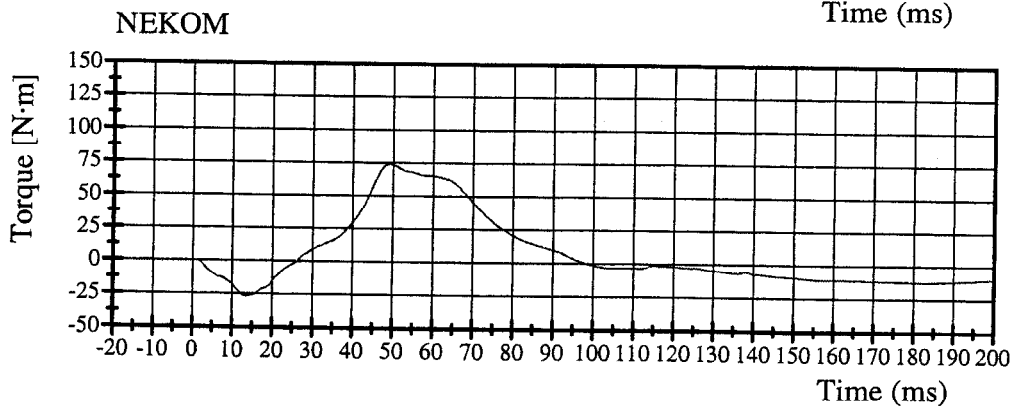
Min: -730.4 N at 57.4 ms



Filter Class: 600

Max: 64.8 N·m at 48.7 ms

Min: -36.8 N·m at 13.4 ms



Filter Class: 600

Max: 73.8 N·m at 49.4 ms

Min: -26.9 N·m at 13.4 ms

# Transportation Research Center Inc.

5720 Neck Extension Test - 6 Channel Transducer

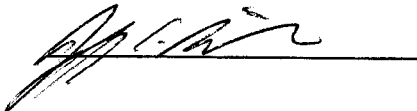
HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/20/2002

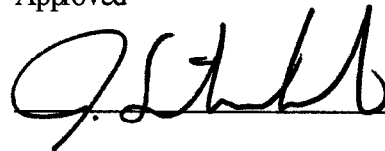
Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impact Velocity	5.95 - 6.19 m/s	6.18 m/s	Yes
Integrated Pendulum Velocity			
10 ms	1.50 - 1.90 m/s	1.88 m/s	Yes
20 ms	3.10 - 3.90 m/s	3.82 m/s	Yes
30 ms	4.60 - 5.60 m/s	5.56 m/s	Yes
Peak D Plane Rotation	99 - 114 °	103.9 °	Yes
Peak Moment About Occipital Condyles (During time interval rotation is within specified corridors)	-65.0 - (-53.0) N·m	-60.37 N·m	Yes
Positive Moment Decay Time To -10 N·m	94 - 114 ms	102.72 ms	Yes

## Comments:

Technician



Approved



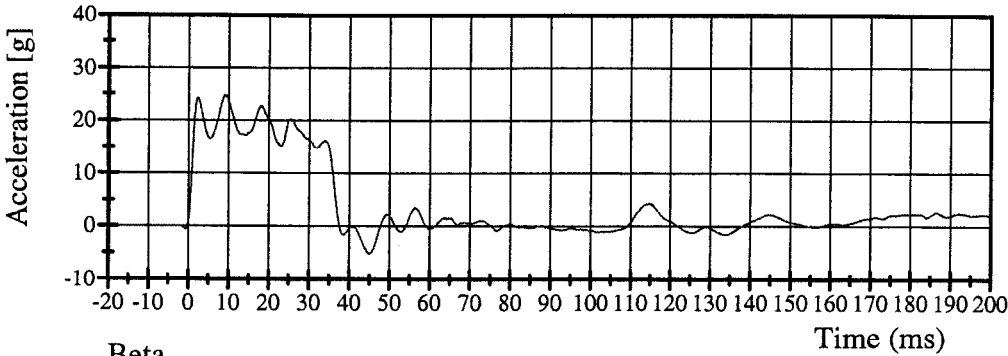
# Transportation Research Center Inc.

5720 Neck Extension Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/20/2002

### Pendulum Deceleration

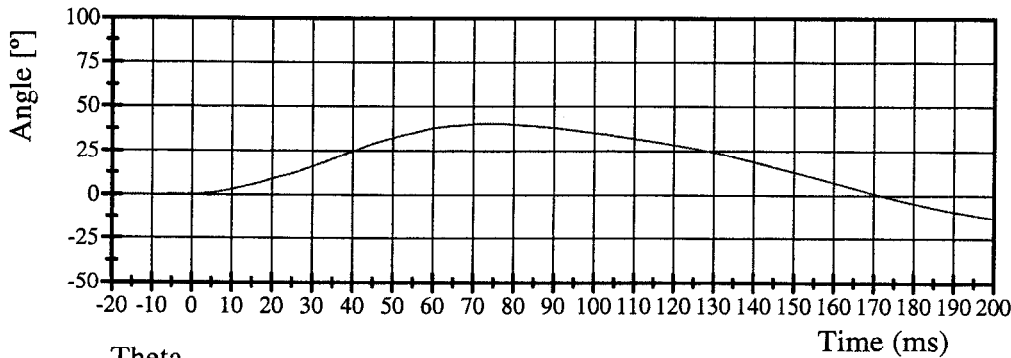


Filter Class: 180

Max: 24.7 g at 9.1 ms

Min: -5.2 g at 45.0 ms

### Beta

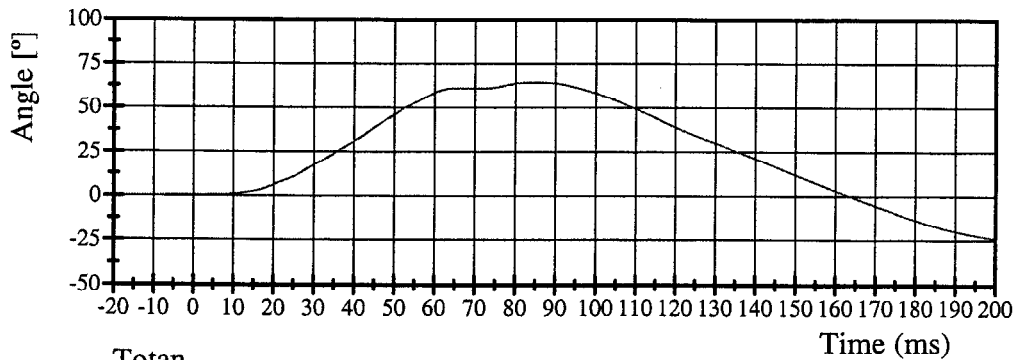


Filter Class: 60

Max: 40.4 ° at 72.9 ms

Min: -15.3 ° at 220.0 ms

### Theta

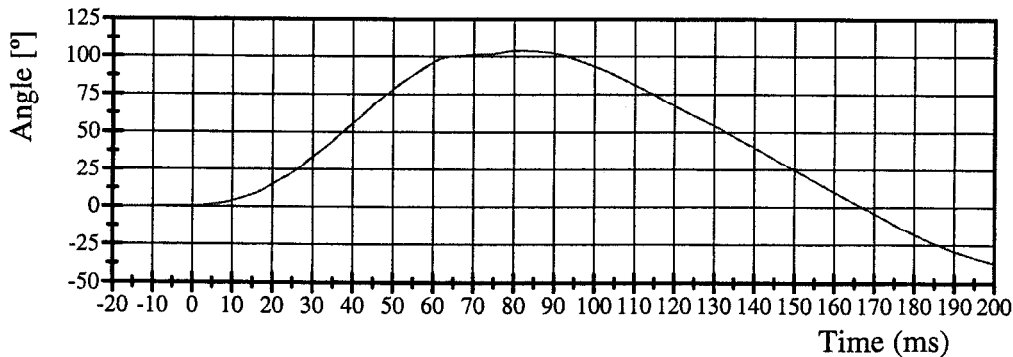


Filter Class: 60

Max: 64.4 ° at 84.2 ms

Min: -26.1 ° at 214.9 ms

### Totan



Filter Class: 60

Max: 103.9 ° at 81.5 ms

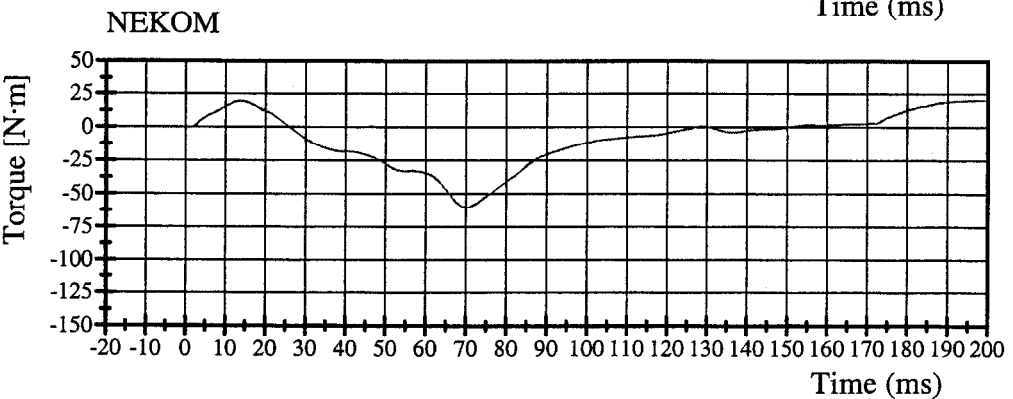
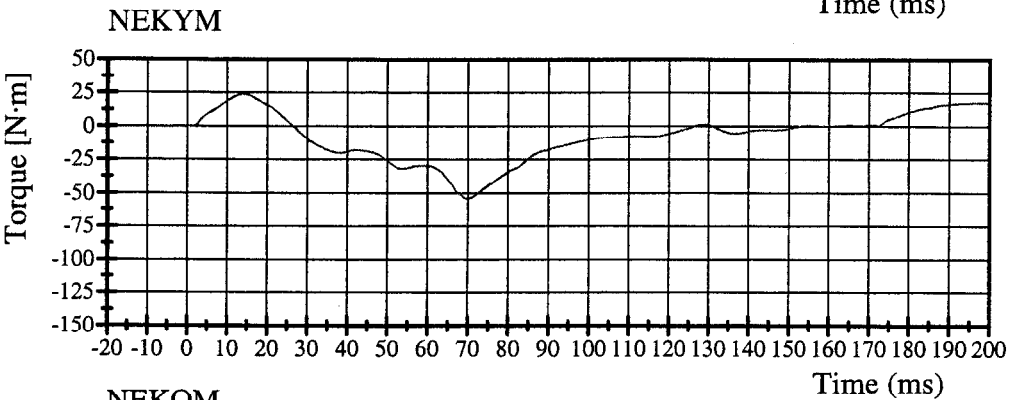
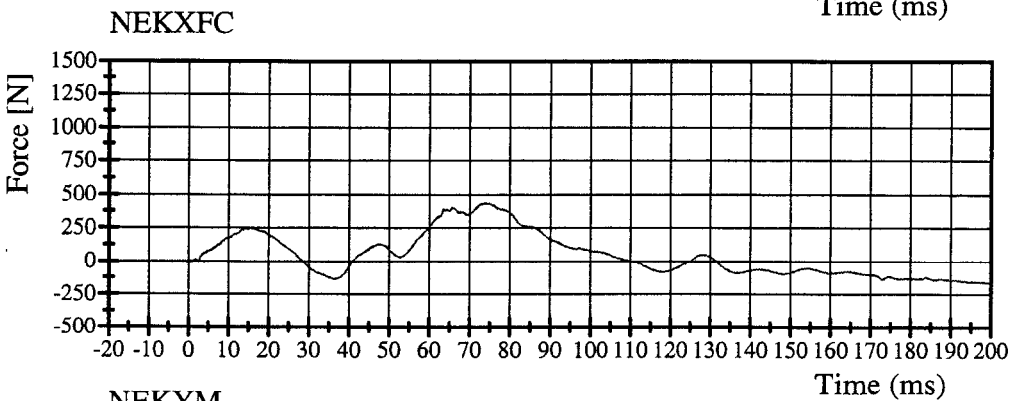
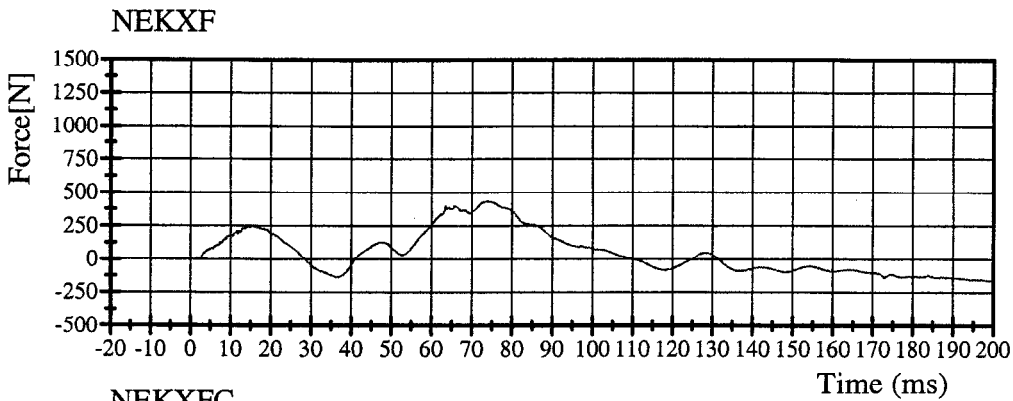
Min: -41.3 ° at 219.0 ms

# Transportation Research Center Inc.

5720 Neck Extension Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/20/2002



# Transportation Research Center Inc.

5720 Thorax Test

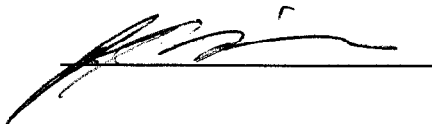
HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/20/2002


Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	30 %	Yes
Pendulum Velocity	6.59 - 6.83 m/s	6.82 m/s	Yes
Maximum Chest Deflection	-58.0 - (-50.0) mm	-52.9 mm	Yes
Peak Impact Probe Force Within Compression Corridor	3900 - 4400 N	4086 N	Yes
Internal Hysteresis	105 % Max.	100 %	Yes
Internal Hysteresis	69 - 85 %	73 %	Yes

**Comments:**

Technician



Approved



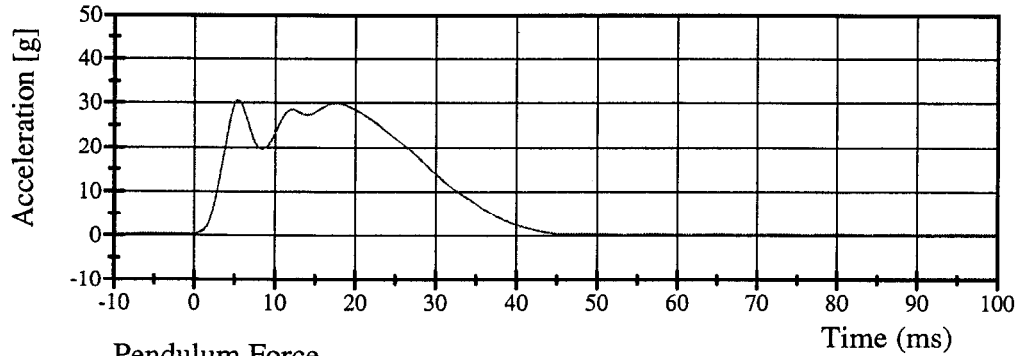
# Transportation Research Center Inc.

5720 Thorax Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/20/2002

### Pendulum Deceleration

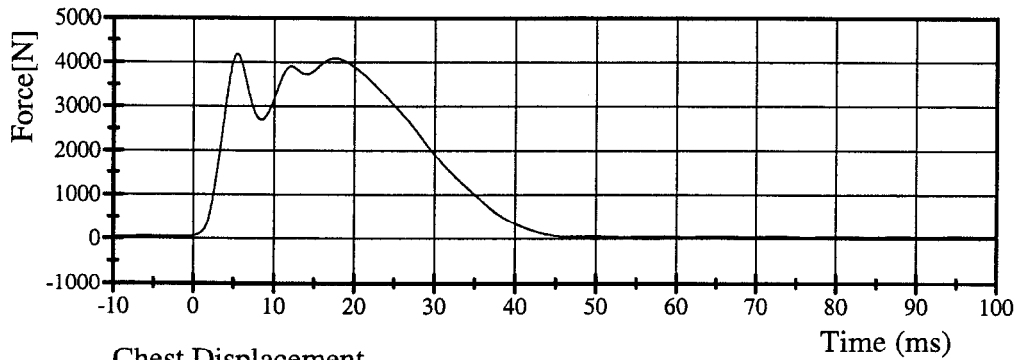


Filter Class: 180

Max: 30.5 g at 5.4 ms

Min: -0.1 g at 237.5 ms

### Pendulum Force

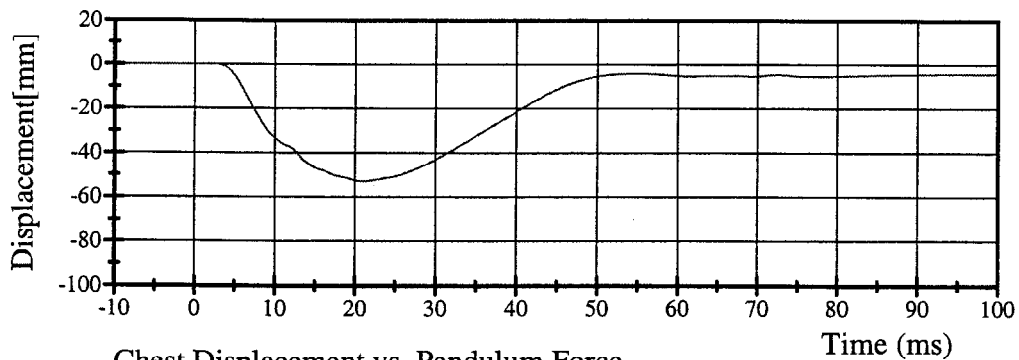


Filter Class: 180

Max: 4182.3 N at 5.4 ms

Min: -13.4 N at 237.5 ms

### Chest Displacement

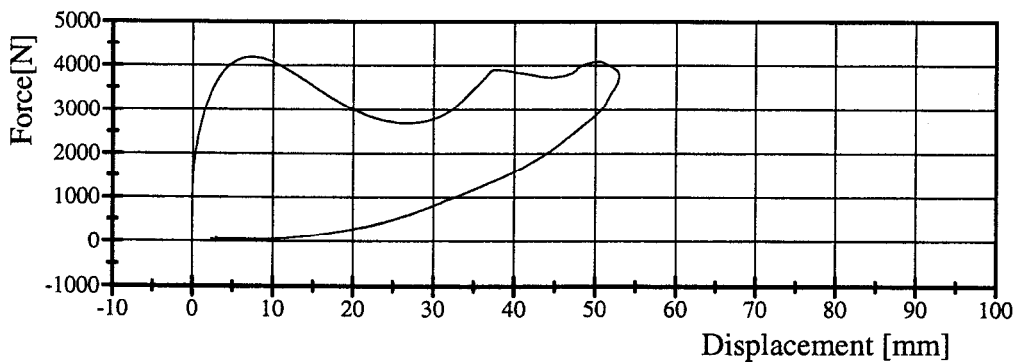


Filter Class: 180

Max: 0.0 mm at 2.2 ms

Min: -52.9 mm at 20.9 ms

### Chest Displacement vs. Pendulum Force



**TRANSPORTATION RESEARCH CENTER INC.**

**TORSO FLEXION TEST**

**HYBRID III SMALL FEMALE**

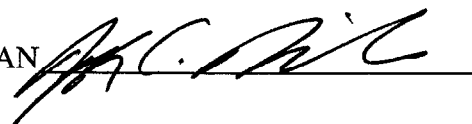
**CAL DATE: 20-May-02**

**TRC, INC. TEST NO: 421C07TF1 572 O SN 421 TORSO FLEX CAL 07**

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6 DEG. C	21.7 DEG. C
RELATIVE HUMIDITY	10 – 70 %	31 %
INITIAL ANGLE OF UNSUPPORTTED DUMMY	<= 20 DEG. REFERENCED TO VERTICAL	16.1 DEG.
MAXIMUM FORCE AT 45 DEG. DURING 10 SECOND PERIOD	320 – 390 N	353.2 N
RETURN ANGLE @ 3MINUTES		20.1 DEG.
DIFFERENCE BETWEEN RETURN ANGLE & INTIAL ANGLE	+/- 8 DEG OF INTIAL ANGLE	4.0 DEG.

TEST MEETS SPECIFICATIONS

TECHNICIAN



# Transportation Research Center Inc.

5720 Left Knee Test

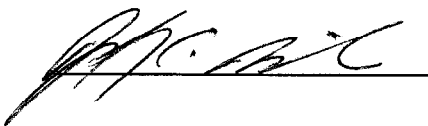
HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

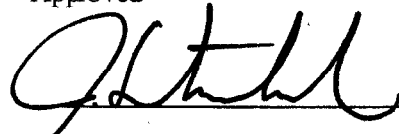
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	46 %	Yes
Pendulum Velocity	2.07 - 2.13 m/s	2.10 m/s	Yes
Maximum Pendulum Force	3450 - 4060 N	3725 N	Yes

Comments:

Technician



Approved



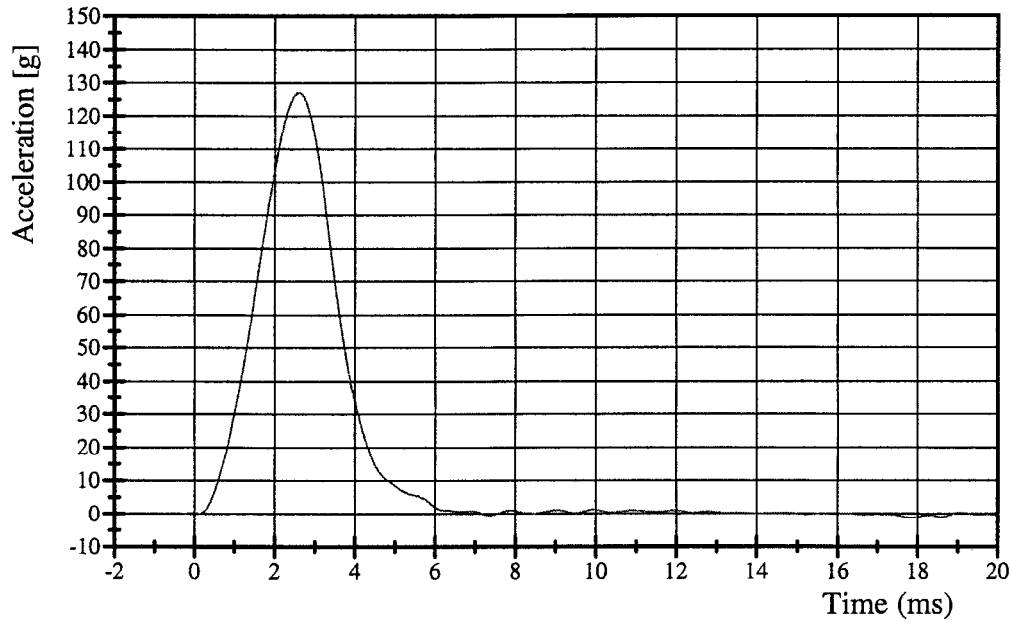
# Transportation Research Center Inc.

5720 Left Knee Test

HIII 5th Female Serial No. 416 Calibration No. 14 - 1

Test Date 05/17/2002

### Pendulum Deceleration

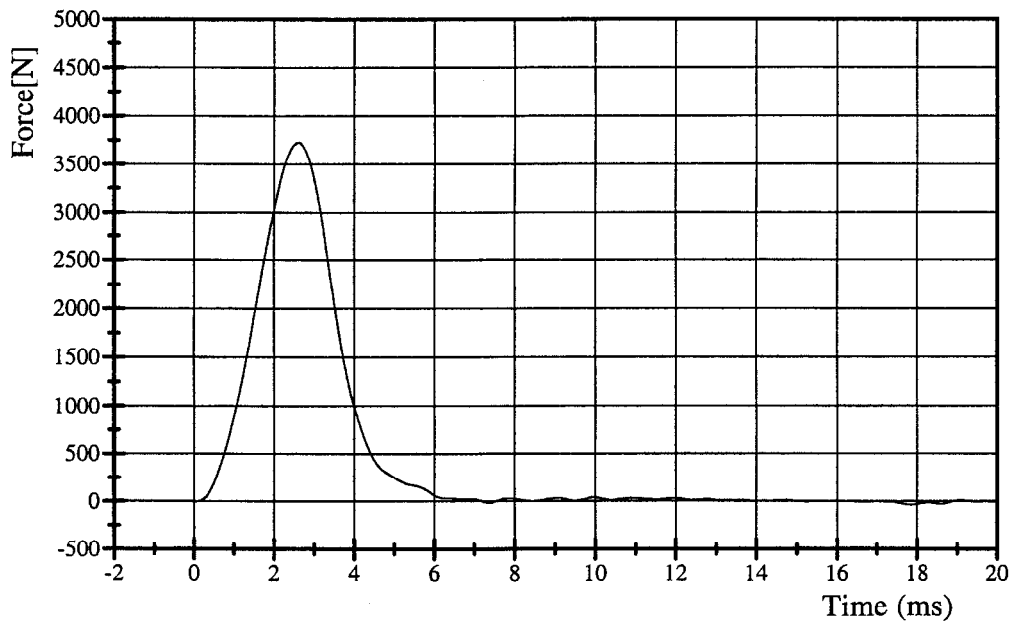


Filter Class: 600

Max: 127.0 g at 2.6 ms

Min: -1.3 g at 17.8 ms

### Pendulum Force



Filter Class: 600

Max: 3725.2 N at 2.6 ms

Min: -36.9 N at 17.8 ms

# Transportation Research Center Inc.

5720 Right Knee Test

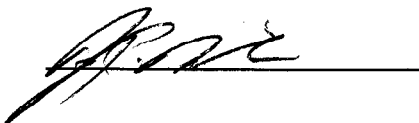
HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/17/2002

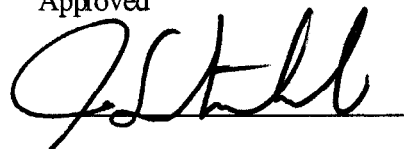
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	47 %	Yes
Pendulum Velocity	2.07 - 2.13 m/s	2.12 m/s	Yes
Maximum Pendulum Force	3450 - 4060 N	3732 N	Yes

Comments:

Technician



Approved

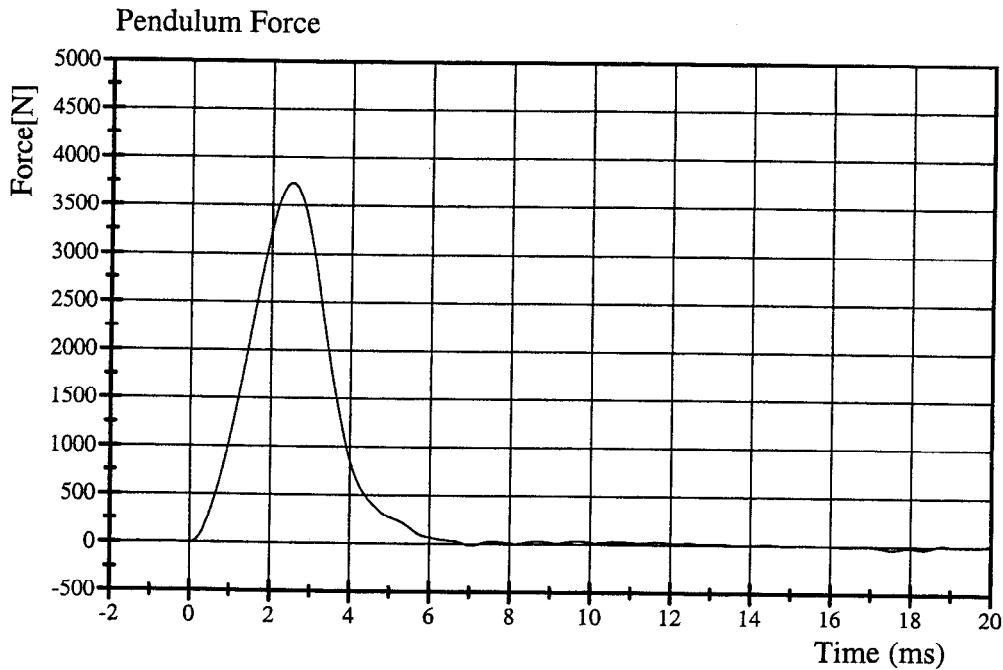
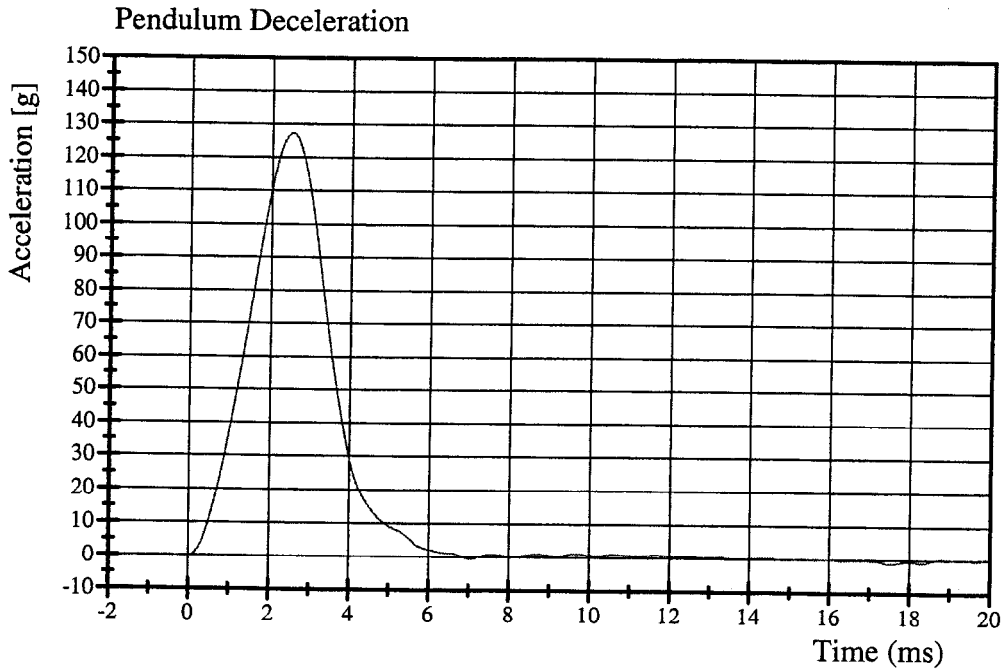


# Transportation Research Center Inc.

5720 Right Knee Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/17/2002



# Transportation Research Center Inc.

5720 Left Knee Slider Test

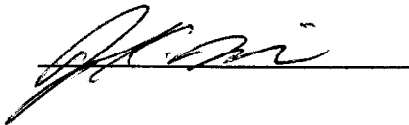
HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/17/2002

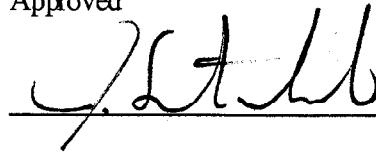
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	49 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.76 m/s	Yes
Knee Displacement	-15.5 - (-12.7) mm	-14.3 mm	Yes

Comments:

Technician



Approved

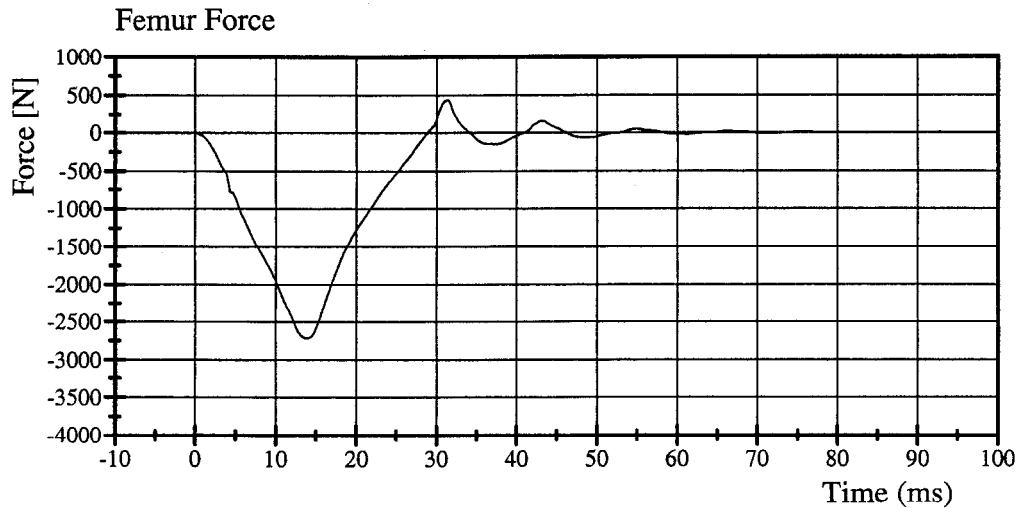


# Transportation Research Center Inc.

5720 Left Knee Slider Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

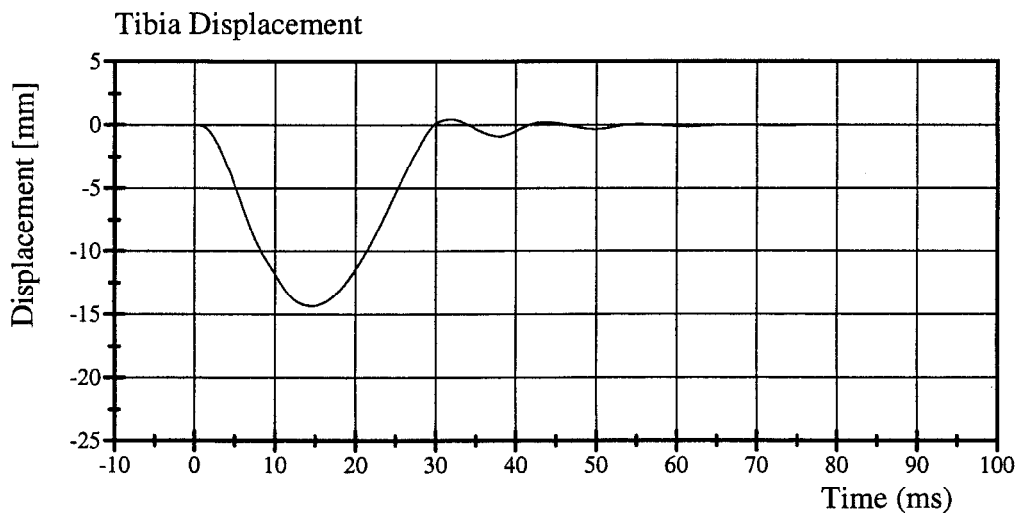
Test Date 05/17/2002



Filter Class: 600

Max: 438.4 N at 31.4 ms

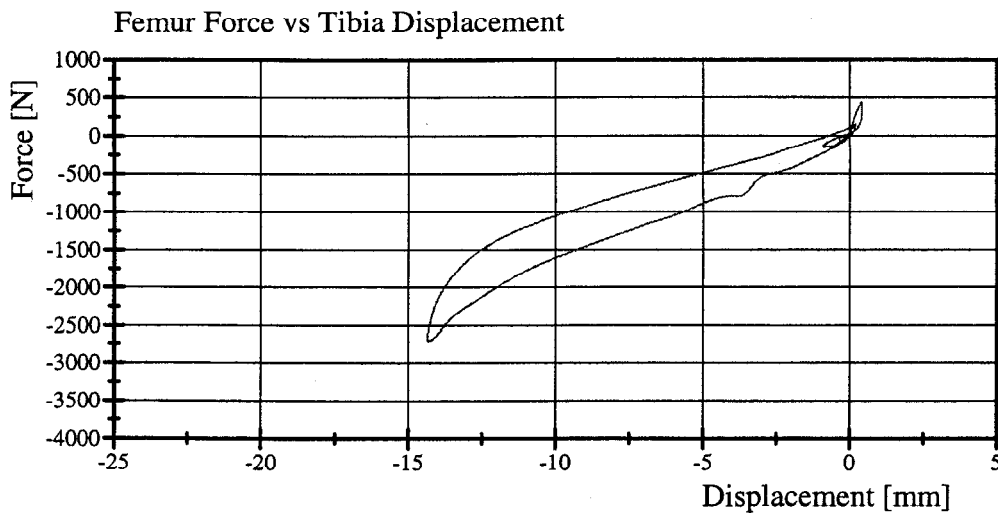
Min: -2717.6 N at 13.9 ms



Filter Class: 600

Max: 0.4 mm at 31.8 ms

Min: -14.3 mm at 14.6 ms



# Transportation Research Center Inc.

5720 Right Knee Slider Test

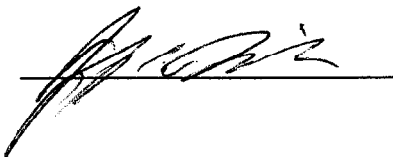
HIII 5th Female Serial No. 421 Calibration No. 07 - 1

Test Date 05/17/2002

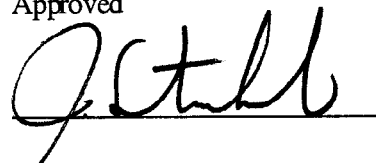
Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Pendulum Velocity	2.70 - 2.80 m/s	2.75 m/s	Yes
Knee Displacement	-15.5 - (-12.7) mm	-14.8 mm	Yes

Comments:

Technician



Approved

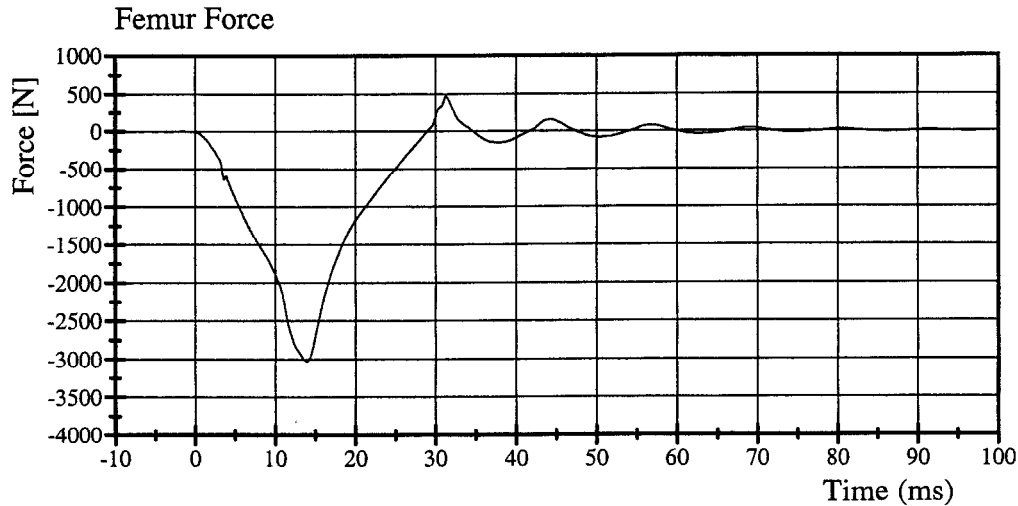


# Transportation Research Center Inc.

5720 Right Knee Slider Test

HIII 5th Female Serial No. 421 Calibration No. 07 - 1

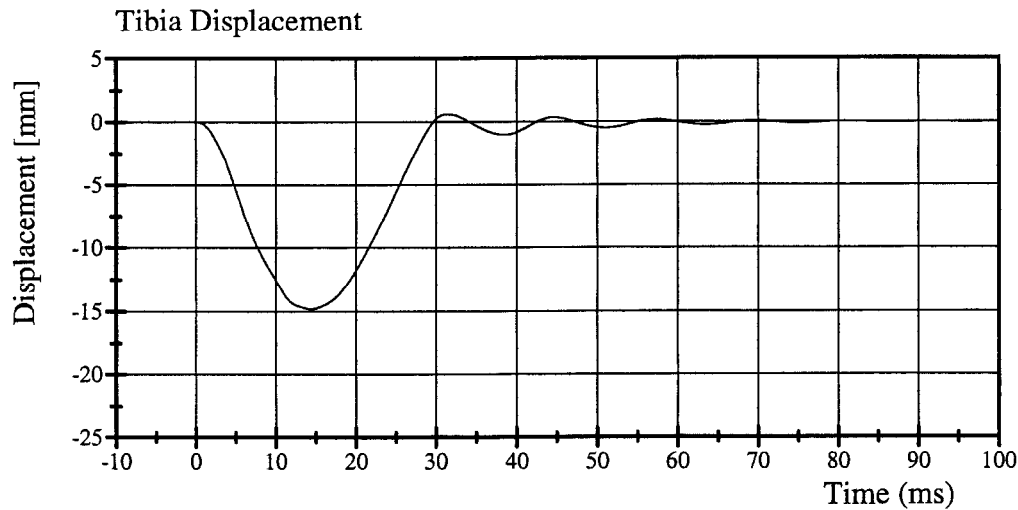
Test Date 05/17/2002



Filter Class: 600

Max: 470.3 N at 31.3 ms

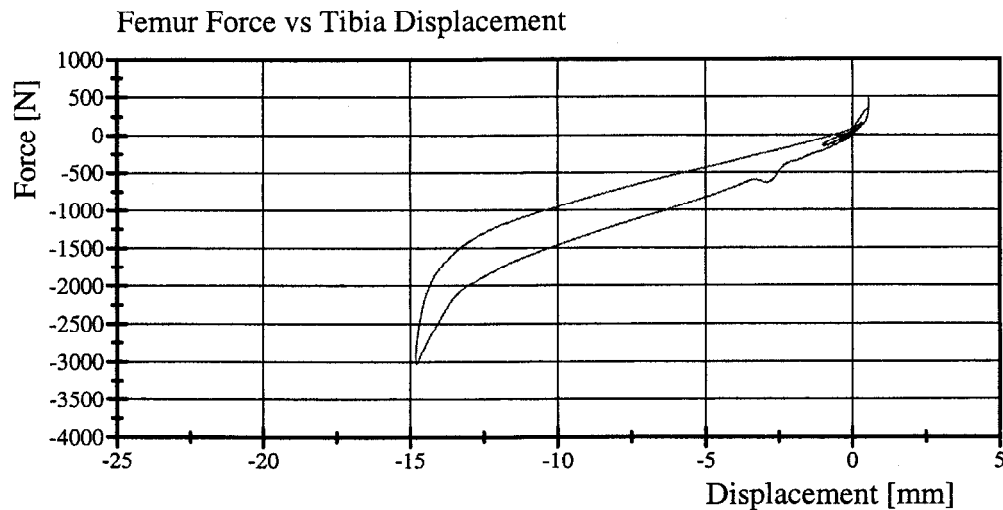
Min: -3025.5 N at 14.0 ms



Filter Class: 600

Max: 0.6 mm at 31.7 ms

Min: -14.8 mm at 14.4 ms



Appendix D

**Test Equipment and Instrumentation Calibration Information**

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.



Sign Convention, Cont'd.  
SAE J211 MAR95

Lumbar load cells:

+X force:	Chest rearward, pelvis forward
+Y force:	Chest leftward, pelvis rightward
+Z force:	Chest upward, pelvis downward
+X moment:	Left shoulder toward left hip
+Y moment:	Sternum toward front of legs
+Z moment:	Right shoulder forward, left shoulder rearward

Frequency Response Classes  
SAE J211 MAR95

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

# Channel Report

5/23/2002 7:21:58 AM

Name of Test 020523

System K3600

Name of DAU DAU1

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol. Cal.	Group	Mfg.	Model
1000	EVENT	SYNC1	SYNC1		10.24	+	OK	TRC	Event
1001	02A02-F02	HEDXG1	Head Accel X	Fwd	801.85428	+	OK	Entran	EGE-73B6Q-200
1002	02A18-N10	HEDYG1	Head Accel Y	Lft	794.83358	-	OK	Entran	EGE-73B6Q-200
1003	02A09-F15	HEDZG1	Head Accel Z	Up	800.87595	-	OK	Entran	EGE-73B6Q-200
1004	01L26-F02	HEDXR1	Head Accel Red X	Rwd	798.80179	-	OK	Entran	EGE-73B6Q-200
1005	02A09-F13	HEDYR1	Head Accel Red Y	Lft	805.41135	-	OK	Entran	EGE-73B6Q-200
1006	02A16-A06	HEDZR1	Head Accel Red Z	Up	800.98872	-	OK	Entran	EGE-73B6Q-200
1007	02A16-A19	HD1XG1	Head (LT) Accel X	Fwd	806.28651	+	OK	Entran	EGE-73B6Q-200
1008	02A16-A22	HD1ZG1	Head (LT) Accel Z	Up	793.23273	-	OK	Entran	EGE-73B6Q-200
1009	02A18-N04	HD2YG1	Head (FT) Accel Y	Lft	794.42660	-	OK	Entran	EGE-73B6Q-200
1010	02A18-N20	HD2ZG1	Head (FT) Accel Z	Up	794.84592	-	OK	Entran	EGE-73B6Q-200
1011	02A09-F01	HD3XG1	Head (TP) Accel X	Fwd	805.63947	+	OK	Entran	EGE-73B6Q-200
1012	02A09-F17	HD3YG1	Head (TP) Accel Y	Lft	796.34180	-	OK	Entran	EGE-73B6Q-200
1013	IF-205-161-FX	NEKXF1	Neck Force X	Hd	8892.5003	-	OK	FTSS	IF-205
1014	IF-205-161-FY	NEKYF1	Neck Force Y	Hd	8899.5046	+	OK	FTSS	IF-205
1015	IF-205-161-FZ	NEKZF1	Neck Force Z	Hd	13351.704	+	OK	FTSS	IF-205
1016	IF-205-161-MX	NEKXM1	Neck Moment X	Rt Ear	282.61167	-	OK	FTSS	IF-205
1017	IF-205-161-MY	NEKYM1	Neck Moment Y	Chin	282.67032	-	OK	FTSS	IF-205
1018	IF-205-161-MZ	NEKZM1	Neck Moment Z	Chin	282.76257	+	OK	FTSS	IF-205
1019	3251-108-FX	NKLYF1	Neck Lwr Force X	Hd	13350.194	-	OK	Denton	3251
1020	3251-108-FY	NKLYF1	Neck Lwr Force Y	Hd	13337.912	+	OK	Denton	3251
1021	3251-108-FZ	NKLYF1	Neck Lwr Force Z	Hd	13341.543	+	OK	Denton	3251
1022	3251-108-MX	NKLYM1	Neck Lwr Moment X	Rt Ear	339.23322	-	OK	Denton	3251
1023	3251-108-MY	NKLYM1	Neck Lwr Moment Y	Chn	338.91670	+	OK	Denton	3251
1024	3251-108-MZ	NKLYM1	Neck Lwr Moment Z	Chn	181.17067	+	OK	Denton	3251
1025	02A16-A04	CSTXG1	Chest Accel X	Fwd	398.71663	+	OK	Entran	EGE-73B6Q-200
1026	C02B19-F02	CSTYG1	Chest Accel Y	Lft	399.43828	-	OK	Entran	EGE-73B6Q-200
1027	C02B19-F06	CSTZG1	Chest Accel Z	Up	400.72318	-	OK	Entran	EGE-73B6Q-200
1028	B02A25-N08	CSTXR1	Chest Accel Red X	Rwd	400.65732	-	OK	Entran	EGE-73B6Q-200
1029	01L17-F09	CSTYR1	Chest Accel Red Y	Lft	399.33859	-	OK	Entran	EGE-73B6Q-200

# Channel Report

5/23/2002 7:21:58 AM

ID	Code	Channel	Measurement	Value	Unit	Sign	Date	Status	Location	Age
1030	C02B19-F04	CSTZR1	Chest Accel Red Z	401.39232	g	-	3/25/2002	OK	416v	Entran
1031	B02A09-F08	STUXG1	Sternum Upr Accel X	795.21010	g	+	2/11/2002	OK	416v	Entran
1032	02A16-A05	STMXG1	Sternum Mid Accel X	793.23273	g	+	1/25/2002	OK	416v	Entran
1033	02A16-A16	STLXG1	Sternum Lwr Accel X	793.50319	g	+	1/25/2002	OK	416v	Entran
1034	14CB1-2897-416	CSTXD1	Chest Deflection X	98.566265	mm	+	6/18/2001	OK	416v	Servo
1035	2152-076-FX	LMBXF1	Lumbar Force X	13333.047	N	-	6/1/2001	OK	416v	Denton
1036	2152-076-FY	LMBYF1	Lumbar Force Y	13344.730	N	+	6/1/2001	OK	416v	Denton
1037	2152-076-FZ	LMBZF1	Lumbar Force Z	17791.212	N	+	6/1/2001	OK	416v	Denton
1038	2152-076-MX	LMBXM1	Lumbar Moment X	678.13736	N·m	-	6/1/2001	OK	416v	Denton
1039	2152-076-MY	LMBYM1	Lumbar Moment Y	677.99944	N·m	+	6/1/2001	OK	416v	Denton
1040	C02B19-F03	PEVXG1	Pelvis Accel X	398.73215	g	-	3/25/2002	OK	416v	Entran
1041	02A16-A27	PEVYG1	Pelvis Accel Y	399.86254	g	-	1/30/2002	OK	416v	Entran
1042	C02B19-F01	PEVZG1	Pelvis Accel Z	401.51666	g	-	3/25/2002	OK	416v	Entran
1043	2430-736	LFMZP1	Left Femur Force Z	13340.662	N	+	3/18/2002	OK	416v	GSE
1044	2430-742	RFMZP1	Right Femur Force Z	13339.705	N	+	3/18/2002	OK	416v	GSE
1045	150-0121VR-555	KNLXD1	Left Knee Displacement	43.132134	mm	-	5/8/2002	OK	416v	SpaceAge
1046	4825-79-FX	TBLXF1	Left Upr Tibia Force X	8891.9575	N	+	11/29/2000	---	416v	Denton
1047	4825-79-FZ	TBLZF1	Left Upr Tibia Force Z	8896.9975	N	+	11/29/2000	---	416v	Denton
1048	4825-79-MX	TBLXM1	Left Upr Tibia Moment X	282.78718	N·m	+	11/29/2000	---	416v	Denton
1049	4825-79-MY	TBLYM1	Left Upr Tibia Moment Y	282.40542	N·m	+	11/29/2000	---	416v	Denton
1050	99H30-Z10	TBLXG1	Left Tibia Accel X	1186.9986	g	+	4/26/2002	OK	416v	Entran
1051	98H10-F17	TBLZG1	Left Tibia Accel Z	1205.7697	g	-	4/25/2002	OK	416v	Entran
1052	4826-77-FX	ANLXF1	Left Lwr Tibia Force X	8902.0193	N	+	11/8/2000	---	416v	Denton
1053	4826-77-FY	ANLYF1	Left Lwr Tibia Force Y	8901.3331	N	+	11/8/2000	---	416v	Denton
1054	4826-77-FZ	ANLZF1	Left Lwr Tibia Force Z	8903.6937	N	+	11/8/2000	---	416v	Denton
1055	4826-77-MX	ANLXM1	Left Lwr Tibia Moment X	282.48278	N·m	+	11/8/2000	---	416v	Denton
1056	4826-77-MY	ANLYM1	Left Lwr Tibia Moment Y	282.74668	N·m	+	11/8/2000	---	416v	Denton
1057	PD210-4B-AK-04	FTLXD1	Left Foot Disp. X	160	o	+	7/31/2001	OK	416v	Contelec
1058	PD210-4B-AK-04	FTLYD1	Left Foot Disp. Y	160.40100	o	+	7/31/2001	OK	416v	Contelec
1059	PD210-4B-AK-08	FTLZD1	Left Foot Disp. Z	162.79809	o	+	7/31/2001	OK	416v	Contelec
1060	99H30-Z11	FTLXG1	Left Foot Accel X	1185.8439	g	+	4/26/2002	OK	416v	Entran
1061	01J02-F05	FTLYG1	Left Foot Accel Y	1200.0187	g	+	4/25/2002	OK	416v	Entran
1062	01J02-F22	FTLZG1	Left Foot Accel Z	1206.9636	g	+	4/25/2002	OK	416v	Entran
1063	150-0121VL-548	KNRXD1	Right Knee Displacement	43.923990	mm	-	5/8/2002	OK	416v	SpaceAge
1064	4825-76-FX	TBRXF1	Right Upr Tibia Force X	8895.4242	N	+	11/8/2000	---	416v	Denton

# Channel Report

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ID	Channel	Right Upr Tibia Force Z	Tib	Weight	Unit	Start	End	Quality	Location
1065	4825-76-FZ	Right Upr Tibia Force Z	Tib	8902.9634	N	11/8/2000	11/8/2000	OK	Denton
1066	4825-76-MX	Right Upr Tibia Moment X	Ank	282.19485	N·m	11/8/2000	11/8/2000	OK	Denton
1067	4825-76-MY	Right Upr Tibia Moment Y	Ank	282.29805	N·m	11/8/2000	11/8/2000	OK	Denton
1068	99H30-Z13	Right Tibia Accel X	Fwd	1202.2165	g	4/25/2002	4/25/2002	OK	Entran
1069	99H30-Z01	Right Tibia Accel Z	Up	1190.1441	g	4/25/2002	4/25/2002	OK	Entran
1070	4826-78-FX	Right Lwr Tibia Force X	Ank	8900.6516	N	11/8/2000	11/8/2000	OK	Denton
1071	4826-78-FY	Right Lwr Tibia Force Y	Ank	8902.2298	N	11/8/2000	11/8/2000	OK	Denton
1072	4826-78-FZ	Right Lwr Tibia Force Z	Ank	8903.7377	N	11/8/2000	11/8/2000	OK	Denton
1073	4826-78-MX	Right Lwr Tibia Moment X	Ank	282.00626	N·m	11/8/2000	11/8/2000	OK	Denton
1074	4826-78-MY	Right Lwr Tibia Moment Y	Ank	282.18429	N·m	11/8/2000	11/8/2000	OK	Denton
1075	PD210-4B-AK-08	Right Foot Disp. X ROT X	Invers	162.28209	o	7/31/2001	7/31/2001	OK	Denton
1076	PD210-4B-AK-08	Right Foot Disp. Y ROT Y	Dorsif	161.82048	o	7/31/2001	7/31/2001	OK	Contelec
1077	PD210-4B-AK-08	Right Foot Disp. Z ROT Z	Exter	161.46326	o	7/31/2001	7/31/2001	OK	Contelec
1078	01J02-F10	Right Foot Accel X	Fwd	1210.4018	g	4/25/2002	4/25/2002	OK	Entran
1079	99H30-Z15	Right Foot Accel Y	Rt	1191.6399	g	4/26/2002	4/26/2002	OK	Entran
1080	01J02-F03	Right Foot Accel Z	Dn	1187.5768	g	4/26/2002	4/26/2002	OK	Entran
1081	02A16-A24	Head Accel X	Fwd	803.51537	g	1/25/2002	1/25/2002	OK	Entran
1082	02A16-A01	Head Accel Y	Lft	800.51908	g	1/28/2002	1/28/2002	OK	Entran
1083	01L26-F06	Head Accel Z	Up	800.57541	g	2/1/2002	2/1/2002	OK	Entran
1084	02A16-A03	Head Accel Red X	Rwd	798.15426	g	1/28/2002	1/28/2002	OK	Entran
1085	02A16-A08	Head Accel Red Y	Lft	805.39235	g	1/28/2002	1/28/2002	OK	Entran
1086	02A16-A09	Head Accel Red Z	Up	798.32849	g	1/25/2002	1/25/2002	OK	Entran
1087	02A16-A28	Head (LT) Accel X	Fwd	795.22862	g	1/25/2002	1/25/2002	OK	Entran
1088	02A16-A20	Head (LT) Accel Z	Up	801.28957	g	1/25/2002	1/25/2002	OK	Entran
1089	02A09-F12	Head (FT) Accel Y	Lft	804.72777	g	2/1/2002	2/1/2002	OK	Entran
1090	02A18-N07	Head (FT) Accel Z	Up	794.84592	g	2/1/2002	2/1/2002	OK	Entran
1091	02A16-A23	Head (TP) Accel X	Fwd	798.00498	g	1/30/2002	1/30/2002	OK	Entran
1092	02A16-A25	Head (TP) Accel Y	Lft	802.66509	g	1/25/2002	1/25/2002	OK	Entran
1093	IF-205-180-FX	Neck Force X	Hd	8895.5814	N	3/18/2002	3/18/2002	OK	FTSS
1094	IF-205-180-FY	Neck Force Y	Hd	8889.5852	N	3/18/2002	3/18/2002	OK	FTSS
1095	IF-205-180-FZ	Neck Force Z	Hd	13339.358	N	3/18/2002	3/18/2002	OK	FTSS
1096	IF-205-180-MX	Neck Moment X	Rt Ear	282.44346	N·m	3/18/2002	3/18/2002	OK	FTSS
1097	IF-205-180-MY	Neck Moment Y	Chin	282.51594	N·m	3/18/2002	3/18/2002	OK	FTSS
1098	IF-205-180-MZ	Neck Moment Z	Chn	282.66794	N·m	3/18/2002	3/18/2002	OK	FTSS
1099	3251-107-FX	Neck Lwr Force X	Hd	13348.061	N	7/6/2001	7/6/2001	OK	Denton

# Channel Report

5/23/2002 7:21:59 AM

1100	3251-107-FY	NKLYF2	Neck Lwr Force Y	Hd	13331.262	N	+ 7/6/2001	OK	421V	Denton	3251
1101	3251-107-FZ	NKLZF2	Neck Lwr Force Z	Hd	13341.504	N	+ 7/6/2001	OK	421V	Denton	3251
1102	3251-107-MX	NKLYM2	Neck Lwr Moment X	Rt Ear	338.99620	N-m	- 7/6/2001	OK	421V	Denton	3251
1103	3251-107-MY	NKLYM2	Neck Lwr Moment Y	Chn	338.80164	N-m	+ 7/6/2001	OK	421V	Denton	3251
1104	3251-107-MZ	NKLYM2	Neck Lwr Moment Z	Chn	181.03965	N-m	+ 7/6/2001	OK	421V	Denton	3251
1105	B02A25-N03	CSIXG2	Chest Accel X	Fwd	400.42075	g	+ 2/11/2002	OK	421V	Entran	BGE-73B6Q-200
1106	02A18-N12	CSITYG2	Chest Accel Y	Lft	399.88440	g	- 2/1/2002	OK	421V	Entran	EGE-73B6Q-200
1107	J41077	VCGXG	VEHICLE CG X-AXIS	FWD	1001.8491	g	+ 5/1/2002	OK	-1	Endevco	7264-2000TZ

# Channel Report

5/23/2002 7:21:59 AM

Chan.#	Sensor #	Mnemonic	Description	System	MINIDAU	Name of DAU	DAU6	Pol. Cal.	Group	Mfg.	Model
6001	B02A25-N06	CSTXR2	Chest Accel Red X					-	421V	Entran	EGE-73B6Q-200
6002	02A04-A24	CSTYR2	Chest Accel Red Y					-	421V	Entran	EGE-73B6Q-200
6003	B02A18-N22	CSTZR2	Chest Accel Red Z					-	421V	Entran	EGE-73B6Q-200
6004	02A16-A14	STUXG2	Sternum Upr Accel X					+	421V	Entran	EGE-73B6Q-200
6005	02A16-A12	STMXG2	Sternum Mid Accel X					+	421V	Entran	EGE-73B6Q-200
6006	02A18-N16	STLXG2	Sternum Lwr Accel X					+	421V	Entran	EGE-73B6Q-200
6007	14CB1-2897-135	CSTXD2	Chest Deflection X					+	421V	Servo	14CB1-2897
6008	2152A-086-FX	LMBXF2	Lumbar Force X					-	421V	Denton	2152A
6009	2152A-086-FY	LMBYF2	Lumbar Force Y					+	421V	Denton	2152A
6010	2152A-086-FZ	LMBZF2	Lumbar Force Z					+	421V	Denton	2152A
6011	2152A-086-MX	LMBXM2	Lumbar Moment X					-	421V	Denton	2152A
6012	2152A-086-MY	LMBYM2	Lumbar Moment Y					+	421V	Denton	2152A
6013	02A09-F11	PEVXG2	Pelvis Accel X					-	421V	Entran	EGE-73B6Q-200
6014	02A16-A26	PEVYG2	Pelvis Accel Y					-	421V	Entran	EGE-73B6Q-200
6015	02A18-N15	PEVZG2	Pelvis Accel Z					-	421V	Entran	EGE-73B6Q-200
6016	2430-739	LFMZF2	Left Femur Force Z S37					+	421V	GSE	2430
6017	2430-760	RFMZF2	Right Femur Force Z VRTC 4					+	421V	GSE	2430
6018	150-0121VR-150	KNLXD2	Left Knee Displacement					+	421V	SpaceAge	150-0121VR
6019	4825-82-FX	TBLXF2	Left Upr Tibia Force X LC2					+	421V	Denton	4825
6020	4825-82-FZ	TBLZF2	Left Upr Tibia Force Z LC9					+	421V	Denton	4825
6021	4825-82-MX	TBLXM2	Left Upr Tibia Moment X					+	421V	Denton	4825
6022	4825-82-MY	TBLYM2	Left Upr Tibia Moment Y					+	421V	Denton	4825
6023	99H30-Z09	TBLXG2	Left Tibia Accel X					+	421V	Entran	EGE-73BQE0-20
6024	99H12-F09	TBLZG2	Left Tibia Accel Z					-	421V	Entran	EGE-73BQE0-20
6025	4826-82-FX	ANLXF2	Left Lwr Tibia Force X LC13					+	421V	Denton	4826
6026	4826-82-FY	ANLYF2	Left Lwr Tibia Force Y LC14					+	421V	Denton	4826
6027	4826-82-FZ	ANLZF2	Left Lwr Tibia Force Z LC20					+	421V	Denton	4826
6028	4826-82-MX	ANLXM2	Left Lwr Tibia Moment X					+	421V	Denton	4826
6029	4826-82-MY	ANLYM2	Left Lwr Tibia Moment Y					+	421V	Denton	4826
6030	PD210-4B-AK-06	FTLXD2	Left Foot Disp. X POT4					+	421V	Contelec	PD210-4B

**Channel Report**

5/23/2002 7:21:59 AM

6031	PD210-4B-AK-06	FTLYD2	Left Foot Disp. Y	POT5	Dorsif 162.48809 °	+ 7/31/2001	OK 421v	Contelec	PD210-4B
6032	PD210-4B-AK-06	FTLZD2	Left Foot Disp. Z	POT6	Intern 161.87164 °	+ 7/31/2001	OK 421v	Contelec	PD210-4B

# Channel Report

5/23/2002 7:21:59 AM

Name of Test 020523

System MINIDAU Name of DAU DAU7

Chan.#	Sensor #	Mnemonic	Description	Dir.	Range	Pol. Cal.	Group	Mfg.	Model
7001	98H10-F03	FILXG2	Left Foot Accel X	Fwd	1219.0476	+	421V	Entran	EGE-73BQ-2000
7002	98H10-F07	FILYG2	Left Foot Accel Y	Rt	1200.7504	+	421V	Entran	EGE-73BQ-2000
7003	98H13-F16	FITLZG2	Left Foot Accel Z	Dn	1218.4383	+	421V	Entran	EGE-73BQ-2000
7004	150-0121VL-149	KNRDXD2	Right Knee Displacement	Tib	39.721330	+	421V	SpaceAge	150-0121VL
7005	4825-80-FX	TBRXF2	Right Upr Tibia Force X	Tib	8908.1824	+	421V	Denton	4825
7006	4825-80-FZ	TBRZF2	Right Upr Tibia Force Z	Tib	8896.2540	+	421V	Denton	4825
7007	4825-80-MX	TBRXM2	Right Upr Tibia Moment X	Ank	281.63277	+	421V	Denton	4825
7008	4825-80-MY	TBRYM2	Right Upr Tibia Moment Y	Ank	281.94845	+	421V	Denton	4825
7009	99H12-F19	TBRXG2	Right Tibia Accel X	Fwd	1227.6411	+	421V	Entran	EGE-73BQE0-20
7010	99H30-Z12	TBRZG2	Right Tibia Accel Z	Up	1208.1740	+	421V	Entran	EGE-73BQE0-20
7011	4826-76-FX	ANRXF2	Right Lwr Tibia Force X	Ank	8879.8889	+	421V	Entran	EGE-73BQE0-20
7012	4826-76-FY	ANRYF2	Right Lwr Tibia Force Y	Ank	8908.5918	+	421V	Denton	4826
7013	4826-76-FZ	ANRZF2	Right Lwr Tibia Force Z	Ank	8893.9854	+	421V	Denton	4826
7014	4826-76-MX	ANRXM2	Right Lwr Tibia Moment X	Ank	282.71059	+	421V	Denton	4826
7015	4826-76-MY	ANRYM2	Right Lwr Tibia Moment Y	Ank	283.01268	+	421V	Denton	4826
7016	PD210-4B-AK-13	FTRXD2	Right Foot Disp. X	Invers	162.17928	+	421V	Contelec	PD210-4B
7017	PD210-4B-AK-06	FTRYD2	Right Foot Disp. Y	Dorsif	161.71825	+	421V	Contelec	PD210-4B
7018	PD210-4B-AK-06	FTRZD2	Right Foot Disp. Z	Exter	161.66719	+	421V	Contelec	PD210-4B
7019	98H14-K06	FTRXG2	Right Foot Accel X	Fwd	1213.2701	+	421V	Entran	EGE-73BQ-2000
7020	99H12-F03	FTRYG2	Right Foot Accel Y	Rt	1174.0964	+	421V	Entran	EGE-73BQE0-20
7021	98H14-K10	FTRZG2	Right Foot Accel Z	Dn	1225.8188	+	421V	Entran	EGE-73BQ-2000
7022	B02A25-N10	CSTZG2	Chest Accel Z	Up	400.86122	-	421V	Entran	EGE-73B6Q-200
7023	J40528	VCGYG	VEHICLE CG Y-AXIS	LT	1005.4593	-	421V	Endevco	7264-2000TZ
7024	J36177	VCGZG	VEHICLE CG Z-AXIS	UP	995.33437	-	421V	Endevco	7264-2000TZ
7025	J38775	RDKXG	REAR DECK X-AXIS	FWD	1025.3945	+	421V	Endevco	7264-2000TZ
7026	J41113	RDKYG	REAR DECK Y-AXIS	RT	994.56099	+	421V	Endevco	7264-2000TZ
7027	J41114	RDKZG	REAR DECK Z-AXIS	DWN	1022.6705	+	421V	Endevco	7264-2000TZ
7028	IP1	DABETA	DRIVER AIRBAG EVENT -	4	1.0039215	+	421V	FLUKE	Y8101A
7030	IP3	PABETA	PASSENGER AIRBAG EVENT	69	1.0039215	+	421V	FLUKE	Y8101A

Dummy 416v Type HYBRID III 5th Description VRTC - 416v HYBRID III 5th Female CAL'd 2-1-02 (DKS 5-17-02)J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head Accel X	EGE-73B6Q-20	02A02-F02	Entran	0.02504	g 2000	2/1/02	Fwd	0
HEDYG	Head Accel Y	EGE-73B6Q-20	02A18-N10	Entran	0.01952	g 2000	2/1/02	Lft	1
HEDZG	Head Accel Z	EGE-73B6Q-20	02A09-F15	Entran	0.02131	g 2000	2/1/02	Up	1
HEDXR	Head Accel Red X	EGE-73B6Q-20	01L26-F02	Entran	0.02003	g 2000	2/1/02	Rwd	1
HEDYR	Head Accel Red Y	EGE-73B6Q-20	02A09-F13	Entran	0.01956	g 2000	2/1/02	Lft	1
HEDZR	Head Accel Red Z	EGE-73B6Q-20	02A16-A06	Entran	0.01937	g 2000	2/1/02	Up	1
HD1XG	Head (LT) Accel X	EGE-73B6Q-20	02A16-A19	Entran	0.02082	g 2000	1/25/02	Fwd	0
HD1ZG	Head (LT) Accel Z	EGE-73B6Q-20	02A16-A22	Entran	0.02188	g 2000	1/30/02	Up	1
HD2YG	Head (FT) Accel Y	EGE-73B6Q-20	02A18-N04	Entran	0.01953	g 2000	2/1/02	Lft	1
HD2ZG	Head (FT) Accel Z	EGE-73B6Q-20	02A18-N20	Entran	0.01982	g 2000	2/1/02	Up	1
HD3XG	Head (TP) Accel X	EGE-73B6Q-20	02A09-F01	Entran	0.01986	g 2000	2/1/02	Fwd	0
HD3YG	Head (TP) Accel Y	EGE-73B6Q-20	02A09-F17	Entran	0.02074	g 2000	2/1/02	Lft	1
NEKXF	Neck Force X	IF-205	IF-205-161-FX	FTSS	0.000187241	N 8996	3/18/02	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	IF-205	IF-205-161-FY	FTSS	0.000180632	N 8996	3/18/02	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	IF-205	IF-205-161-FZ	FTSS	0.000992626	N 13344	3/18/02	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	IF-205	IF-205-161-MX	FTSS	0.005688142	N·m 282.5	3/18/02	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	IF-205	IF-205-161-MY	FTSS	0.005759292	N·m 282.5	3/18/02	Chin to Strnum	0
NEKZM	Neck Moment Z	IF-205	IF-205-161-MZ	FTSS	0.00836354	N·m 282.5	3/18/02	Chn to Lt Shld	0
NKLYF	Neck Lwr Force X	3251	3251-108-FX	Denton	0.000174325	N 13344.6	8/21/01	Hd Rr,Cst Fd	1
NKLYF	Neck Lwr Force Y	3251	3251-108-FY	Denton	0.000173696	N 13344.6	8/21/01	Hd Lt,Cst Rt	0
NKLYF	Neck Lwr Force Z	3251	3251-108-FZ	Denton	0.000096061	N 13344.6	8/21/01	Hd Up,Cst Dn	0
NKLYM	Neck Lwr Moment X	3251	3251-108-MX	Denton	0.004491923	N·m 451.9	8/21/01	Lt Ear to Lt Shld	1
NKLYM	Neck Lwr Moment Y	3251	3251-108-MY	Denton	0.004297854	N·m 451.9	8/21/01	Chn to Strnum	0
NKLYM	Neck Lwr Moment Z	3251	3251-108-MZ	Denton	0.005223779	N·m 338.95	8/21/01	Chn to Lt Shld	0
CSTXG	Chest Accel X	EGE-73B6Q-20	02A16-A04	Entran	0.02088	g 2000	1/30/02	Fwd	0
CSTYG	Chest Accel Y	EGE-73B6Q-20	C02B19-F02	Entran	0.01885	g 2000	3/25/02	Lft	1

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip	
CSTZG	Chest Accel Z	EGE-73B6Q-20	C02B19-F06	Entran	0.01907	g	2000	3/25/02	Up	1
CSTXR	Chest Accel Red X	EGE-73B6Q-20	B02A25-N08	Entran	0.01966	g	2000	2/8/02	Rwd	1
CSTYR	Chest Accel Red Y	EGE-73B6Q-20	01L17-F09	Entran	0.01928	g	2000	2/1/02	Lft	1
CSTZR	Chest Accel Red Z	EGE-73B6Q-20	C02B19-F04	Entran	0.01784	g	2000	3/25/02	Up	1
STUXG	Sternum Upr Accel X	EGE-73B6Q-20	B02A09-F08	Entran	0.02111	g	2000	2/11/02	Fwd	0
STMXG	Sternum Mid Accel X	EGE-73B6Q-20	02A16-A05	Entran	0.02188	g	2000	1/25/02	Fwd	0
STLXG	Sternum Lwr Accel X	EGE-73B6Q-20	02A16-A16	Entran	0.02264	g	2000	1/25/02	Fwd	0
CSTXD	Chest Deflection X	14CB1-2897	14CB1-2897-416	Servo	1.5983	mm	100	6/18/01	Strmm Away Frm Spn	0
LMBXF	Lumbar Force X	2152	2152-076-FX	Denton	0.000144364	N	13344.6	6/1/01	Cst Fd,Pel Rr	1
LMBYF	Lumbar Force Y	2152	2152-076-FY	Denton	0.000143967	N	13344.6	6/1/01	Cst Lt,Pel Rt	0
LMBZF	Lumbar Force Z	2152	2152-076-FZ	Denton	0.000058433	N	17793	6/1/01	Cst Up,Pel Dn	0
LMBXM	Lumbar Moment X	2152	2152-076-MX	Denton	0.002374243	N-m	677.9	6/1/01	Rt Shld to Rt Hip	1
LMBYM	Lumbar Moment Y	2152	2152-076-MY	Denton	0.002370998	N-m	677.9	6/1/01	Strmm to Frt of Legs	0
PEVXG	Pelvis Accel X	EGE-73B6Q-20	C02B19-F03	Entran	0.01759	g	2000	3/25/02	Rwd	1
PEVYG	Pelvis Accel Y	EGE-73B6Q-20	02A16-A27	Entran	0.02152	g	2000	1/30/02	Lft	1
PEVZG	Pelvis Accel Z	EGE-73B6Q-20	C02B19-F01	Entran	0.01977	g	2000	3/25/02	Up	1
LFMZP	Left Femur Force Z #8	2430	2430-736	GSE	0.000069527	N	13344	3/18/02	Knee Fd,Pel Rr	0
RFMZP	Right Femur Force Z 507	2430	2430-742	GSE	0.000066867	N	13344	3/18/02	Knee Fd,Pel Rr	0
KNLXD	Left Knee Displacement	150-0121VR	150-0121VR-5556	SpaceAge	23.741	mm	40	5/8/02	Tib Rr,Hld Fem	1
TBLXF	Left Upr Tibia Force X LC12	4825	4825-79-FX	Denton	0.000264129	N	8896	11/29/00	Tib Fd,Knee Rr	0
TBLZF	Left Upr Tibia Force Z LC7	4825	4825-79-FZ	Denton	0.000108172	N	8896	11/29/00	Tib Dn,Knee Up	0
TBLXM	Left Upr Tibia Moment X LC3	4825	4825-79-MX	Denton	0.010405453	N-m	282.4	11/29/00	Ank Lt,Hld Knee	0
TBLYM	Left Upr Tibia Moment Y LC4	4825	4825-79-MY	Denton	0.010242917	N-m	282.4	11/29/00	Ank Fd,Hld Knee	0
TBLXG	Left Tibia Accel X	EGE-73BQE0-2	99H30-Z10	Entran	0.02054	g	2000	4/26/02	Fwd	0
TBLYG	Left Tibia Accel Z	EGE-73BQ-200	98H10-F17	Entran	0.01975	g	2000	4/25/02	Up	0
ANLXF	Left Lwr Tibia Force X LC21	4826	4826-77-FX	Denton	0.000261432	N	8896	11/8/00	Ank Fd,Knee Rr	0
ANLYF	Left Lwr Tibia Force Y LC06	4826	4826-77-FY	Denton	0.000262646	N	8896	11/8/00	Ank Rt,Knee Lft	0
ANLZF	Left Lwr Tibia Force Z LC24	4826	4826-77-FZ	Denton	0.000107284	N	8896	11/8/00	Ank Dn,Knee Up	0

020523

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
ANLXM	Left Lwr Tibia Moment X LC30	4826	4826-77-MX	Denton	0.010269121 N·m	282.4	11/8/00	Ank Lt,Hld Knee	0
ANLYM	Left Lwr Tibia Moment Y LC05	4826	4826-77-MY	Denton	0.010377124 N·m	282.4	11/8/00	Ank Fd,Hld Knee	0
FTLXD	Left Foot Disp. X POT7	PD210-4B	PD210-4B-AK-047	Contelec	3.2 °	318	7/31/01	Inversion	0
FTLYD	Left Foot Disp. Y POT8	PD210-4B	PD210-4B-AK-049	Contelec	3.192 °	318	7/31/01	Dorsiflexion	0
FTLZD	Left Foot Disp. Z POT9	PD210-4B	PD210-4B-AK-087	Contelec	3.145 °	318	7/31/01	External Rotation	0
FTLXG	Left Foot Accel X	EGE-73BQE0-2	99H30-Z11	Entran	0.02056 g	2000	4/26/02	Fwd	0
FTLYG	Left Foot Accel Y	EGE-73B6Q-20	01J02-F05	Entran	0.02188 g	2000	4/25/02	Rt	0
FTLZG	Left Foot Accel Z	EGE-73B6Q-20	01J02-F22	Entran	0.02293 g	2000	4/25/02	Dn	0
KNRXD	Right Knee Displacement	150-0121VL	150-0121VL-5482	SpaceAge	23.313 mm	40	5/8/02	Tib Rt,Hld Fem	1
TBRXF	Right Upr Tibia Force X UTRFX	4825	4825-76-FX	Denton	0.000260442 N	8896	11/8/00	Tib Fd,Knee Rr	0
TBRZF	Right Upr Tibia Force Z UTRFZ	4825	4825-76-FZ	Denton	0.000107093 N	8896	11/8/00	Tib Dn,Knee Up	0
TBRXM	Right Upr Tibia Moment X UTRMX	4825	4825-76-MX	Denton	0.010338172 N·m	282.4	11/8/00	Ank Lt,Hld Knee	0
TBRYM	Right Upr Tibia Moment Y UTRMY	4825	4825-76-MY	Denton	0.010246813 N·m	282.4	11/8/00	Ank Fd,Hld Knee	0
TBRXG	Right Tibia Accel X	EGE-73BQE0-2	99H30-Z13	Entran	0.02028 g	2000	4/25/02	Fwd	0
TBRYG	Right Tibia Accel Z	EGE-73BQE0-2	99H30-Z01	Entran	0.01912 g	2000	4/25/02	Up	0
ANRFX	Right Lwr Tibia Force X LTRFX	4826	4826-78-FX	Denton	0.000263871 N	8896	11/8/00	Ank Fd,Knee Rr	0
ANRYF	Right Lwr Tibia Force Y LC25	4826	4826-78-FY	Denton	0.00026504 N	8896	11/8/00	Ank Rt,Knee Lft	0
ANRZF	Right Lwr Tibia Force Z LTRFZ	4826	4826-78-FZ	Denton	0.000108498 N	8896	11/8/00	Ank Dn,Knee Up	0
ANRXM	Right Lwr Tibia Moment X LC27	4826	4826-78-MX	Denton	0.010286473 N·m	282.4	11/8/00	Ank Lt,Hld Knee	0
ANRYM	Right Lwr Tibia Moment Y LTRMY	4826	4826-78-MY	Denton	0.01048796 N·m	282.4	11/8/00	Ank Fd,Hld Knee	0
FTRXD	Right Foot Disp. X ROTX	PD210-4B	PD210-4B-AK-084	Contelec	3.155 °	318	7/31/01	Eversion	0
FTRYD	Right Foot Disp. Y ROTY	PD210-4B	PD210-4B-AK-085	Contelec	3.164 °	318	7/31/01	Dorsiflexion	0
FTRZD	Right Foot Disp. Z ROTZ	PD210-4B	PD210-4B-AK-086	Contelec	3.171 °	318	7/31/01	Internal Rotation	0
FTRXG	Right Foot Accel X	EGE-73B6Q-20	01J02-F10	Entran	0.02115 g	2000	4/25/02	Fwd	0
FTRYG	Right Foot Accel Y	EGE-73BQE0-2	99H30-Z15	Entran	0.01953 g	2000	4/26/02	Rt	0
FTRZG	Right Foot Accel Z	EGE-73B6Q-20	01J02-F03	Entran	0.02053 g	2000	4/26/02	Dn	0

Dummy 421v Type HYBRID III 5th Description VRTC - 421v HYBRID III 5th Female CAL'd 1-25-02 (DKS 5-17-02)J211

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
HEDXG	Head Accel X	EGE-73B6Q-20	02A16-A24	Entran	0.02124	g 2000	1/25/02	Fwd	0
HEDYG	Head Accel Y	EGE-73B6Q-20	02A16-A01	Entran	0.02097	g 2000	1/28/02	Lft	1
HEDZG	Head Accel Z	EGE-73B6Q-20	01L26-F06	Entran	0.01938	g 2000	2/1/02	Up	1
HEDXR	Head Accel Red X	EGE-73B6Q-20	02A16-A03	Entran	0.02291	g 2000	1/28/02	Rwd	1
HEDYR	Head Accel Red Y	EGE-73B6Q-20	02A16-A08	Entran	0.02493	g 2000	1/28/02	Lft	1
HEDZR	Head Accel Red Z	EGE-73B6Q-20	02A16-A09	Entran	0.02036	g 2000	1/25/02	Up	1
HD1XG	Head (LT) Accel X	EGE-73B6Q-20	02A16-A28	Entran	0.02012	g 2000	1/25/02	Fwd	0
HD1ZG	Head (LT) Accel Z	EGE-73B6Q-20	02A16-A20	Entran	0.02242	g 2000	1/25/02	Up	1
HD2YG	Head (FT) Accel Y	EGE-73B6Q-20	02A09-F12	Entran	0.01928	g 2000	2/1/02	Lft	1
HD2ZG	Head (FT) Accel Z	EGE-73B6Q-20	02A18-N07	Entran	0.01982	g 2000	2/1/02	Up	1
HD3XG	Head (TP) Accel X	EGE-73B6Q-20	02A16-A23	Entran	0.02005	g 2000	1/30/02	Fwd	0
HD3YG	Head (TP) Accel Y	EGE-73B6Q-20	02A16-A25	Entran	0.02025	g 2000	1/25/02	Lft	1
NEKXF	Neck Force X	IF-205	IF-205-180-FX	FTSS	0.00018243	N 8896	3/18/02	Hd Fd,Cst Rr	1
NEKYF	Neck Force Y	IF-205	IF-205-180-FY	FTSS	0.000175596	N 8896	3/18/02	Hd Lt,Cst Rt	0
NEKZF	Neck Force Z	IF-205	IF-205-180-FZ	FTSS	0.000092266	N 13344	3/18/02	Hd Up,Cst Dn	0
NEKXM	Neck Moment X	IF-205	IF-205-180-MX	FTSS	0.005577699	N-m 282.5	3/18/02	Rt Ear to Rt Shld	1
NEKYM	Neck Moment Y	IF-205	IF-205-180-MY	FTSS	0.005602124	N-m 282.5	3/18/02	Chin to Strmm	0
NEKZM	Neck Moment Z	IF-205	IF-205-180-MZ	FTSS	0.008122478	N-m 282.5	3/18/02	Chn to Lt Shld	0
NKLXF	Neck Lwr Force X	3251	3251-107-FX	Denton	0.000175149	N 13344.6	7/6/01	Hd Fd,Cst Rr	1
NKLYF	Neck Lwr Force Y	3251	3251-107-FY	Denton	0.000175771	N 13344.6	7/6/01	Hd Lt,Cst Rt	0
NKLZF	Neck Lwr Force Z	3251	3251-107-FZ	Denton	0.000095109	N 13344.6	7/6/01	Hd Up,Cst Dn	0
NKLXM	Neck Lwr Moment X	3251	3251-107-MX	Denton	0.004384155	N-m 451.9	7/6/01	Lt Bar to Lt Shld	1
NKLYM	Neck Lwr Moment Y	3251	3251-107-MY	Denton	0.004373976	N-m 451.9	7/6/01	Chn to Strmm	0
NKLZM	Neck Lwr Moment Z	3251	3251-107-MZ	Denton	0.005777548	N-m 338.95	7/6/01	Chn to Lt Shld	0
CSTXG	Chest Accel X	EGE-73B6Q-20	B02A25-N03	Entran	0.02149	g 2000	2/11/02	Fwd	0
CSTYG	Chest Accel Y	EGE-73B6Q-20	02A18-N12	Entran	0.01911	g 2000	2/1/02	Lft	1

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Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
CSTZG	Chest Accel Z	EGE-73B6Q-20	B02A25-N10	Entran	0.01965	g	2/11/02	Up	1
CSTXR	Chest Accel Red X	EGE-73B6Q-20	B02A25-N06	Entran	0.02014	g	2/11/02	Rwd	1
CSTYR	Chest Accel Red Y	EGE-73B6Q-20	02A04-A24	Entran	0.01912	g	2/11/02	Lft	1
CSTZR	Chest Accel Red Z	EGE-73B6Q-20	B02A18-N22	Entran	0.02094	g	2/11/02	Up	1
STUXG	Sternum Upr Accel X	EGE-73B6Q-20	02A16-A14	Entran	0.02247	g	1/25/02	Fwd	0
STMXG	Sternum Mid Accel X	EGE-73B6Q-20	02A16-A12	Entran	0.02219	g	1/28/02	Fwd	0
STLXG	Sternum Lwr Accel X	EGE-73B6Q-20	02A18-N16	Entran	0.01957	g	2/1/02	Fwd	0
CSTXD	Chest Deflection X	14CB1-2897	14CB1-2897-1355	Servo	1.70969	mm	3/25/02	Strm Away Firm Spn	0
LMBXF	Lumbar Force X	2152A	2152A-086-FX	Denton	0.000139995	N	6/2/01	Cst Fd,Pel Rr	1
LMBYF	Lumbar Force Y	2152A	2152A-086-FY	Denton	0.000138002	N	6/2/01	Cst Lt,Pel Rt	0
LMBZF	Lumbar Force Z	2152A	2152A-086-FZ	Denton	0.000050458	N	6/2/01	Cst Up,Pel Dn	0
LMBXM	Lumbar Moment X	2152A	2152A-086-MX	Denton	0.002293111	N·m	6/2/01	Rt Shld to Rt Hip	1
LMBYM	Lumbar Moment Y	2152A	2152A-086-MY	Denton	0.002268623	N·m	6/2/01	Strm to Frt of Legs	0
LFMZP	Left Femur Force Z S37	2430	2430-739	GSE	0.000067676	N	3/18/02	Knee Fd,Pel Rr	0
RPMZF	Right Femur Force Z VRTC 4	2430	2430-760	GSE	0.000067069	N	3/18/02	Knee Fd,Pel Rr	0
PEVXG	Pelvis Accel X	EGE-73B6Q-20	02A09-F11	Entran	0.0198	g	2/1/02	Rwd	1
PEVYG	Pelvis Accel Y	EGE-73B6Q-20	02A16-A26	Entran	0.01995	g	1/28/02	Lft	0
PEVZG	Pelvis Accel Z	EGE-73B6Q-20	02A18-N15	Entran	0.01868	g	2/1/02	Up	1
KNLXD	Left Knee Displacement POT10	150-0121VR	150-0121VR-15021	SpaceAge	23.387	mm	5/8/02	Tib Fd,Hld Fem	0
TBLXF	Left Upr Tibia Force X LC2	4825	4825-82-FX	Denton	0.000268929	N	11/8/00	Tib Fd,Knee Rr	0
TBLZF	Left Upr Tibia Force Z LC9	4825	4825-82-FZ	Denton	0.000109505	N	11/8/00	Tib Dn,Knee Up	0
TBLXM	Left Upr Tibia Moment X LC10	4825	4825-82-MX	Denton	0.010314093	N·m	11/8/00	Ank Lt,Hld Knee	0
TBLYM	Left Upr Tibia Moment Y LC11	4825	4825-82-MY	Denton	0.010326841	N·m	11/8/00	Ank Fd,Hld Knee	0
TBLXG	Left Tibia Accel X	EGE-73BQE0-2	99H30-Z09	Entran	0.01954	g	4/25/02	Fwd	0
TBLYG	Left Tibia Accel Z	EGE-73BQE0-2	99H12-F09	Entran	0.01847	g	4/26/02	Up	0
ANLXF	Left Lwr Tibia Force X LC13	4826	4826-82-FX	Denton	0.000264714	N	11/15/00	Ank Fd,Knee Rr	0
ANLYF	Left Lwr Tibia Force Y LC14	4826	4826-82-FY	Denton	0.000265714	N	11/15/00	Ank Rt,Knee Lft	0
ANLZF	Left Lwr Tibia Force Z LC20	4826	4826-82-FZ	Denton	0.000108145	N	11/15/00	Ank Dn,Knee Up	0

Chsname	Location	Model	Name	Manufacturer	Sens./mV/V/U	Fullscale	Caldate	Pos Output	Flip
ANLXM	Left Lwr Tibia Moment X LC22	4826	4826-82-MX	Denton	0.010351983 N·m	282.4	11/15/00	Ank Lt,Hld Knee	0
ANLYM	Left Lwr Tibia Moment Y LC28	4826	4826-82-MY	Denton	0.010339943 N·m	282.4	11/15/00	Ank Fd,Hld Knee	0
FTLXD	Left Foot Disp. X POT4	PD210-4B	PD210-4B-AK-066	Contelec	3.169 °	318	7/31/01	Inversion	0
FTLYD	Left Foot Disp. Y POT5	PD210-4B	PD210-4B-AK-068	Contelec	3.151 °	318	7/31/01	Dorsiflexion	0
FTLZD	Left Foot Disp. Z POT6	PD210-4B	PD210-4B-AK-067	Contelec	3.163 °	318	7/31/01	External Rotation	0
FTLXG	Left Foot Accel X	EGE-73BQ-200	98H10-F03	Entran	0.0168 g	2000	4/25/02	Fwd	0
FTLYG	Left Foot Accel Y	EGE-73BQ-200	98H10-F07	Entran	0.02132 g	2000	4/25/02	Rt	0
FTLZG	Left Foot Accel Z	EGE-73BQ-200	98H13-F16	Entran	0.01827 g	2000	4/25/02	Dn	0
KNRXD	Right Knee Displacement AXRRP	150-0121VL	150-0121VL-14949	SpaceAge	23.436 mm	40	5/8/02	Tib Fd,Hld Fem	0
TBRXF	Right Upr Tibia Force X LC1	4825	4825-80-FX	Denton	0.00027111 N	8896.4	12/7/00	Tib Fd,Knee Rr	0
TBRZF	Right Upr Tibia Force Z LC8	4825	4825-80-FZ	Denton	0.000109415 N	8896.4	12/7/00	Tib Dn,Knee Up	0
TBRXM	Right Upr Tibia Moment X LC15	4825	4825-80-MX	Denton	0.010508499 N·m	282.4	12/7/00	Ank Lt,Hld Knee	0
TBRYM	Right Upr Tibia Moment Y LC17	4825	4825-80-MY	Denton	0.01037677 N·m	282.4	12/7/00	Ank Fd,Hld Knee	0
TBRXG	Right Tibia Accel X	EGE-73BQE0-2	99H12-F19	Entran	0.01986 g	2000	4/26/02	Fwd	0
TBRYG	Right Tibia Accel Z	EGE-73BQE0-2	99H30-Z12	Entran	0.02018 g	2000	4/26/02	Up	0
ANRXF	Right Lwr Tibia Force X LC16	4826	4826-76-FX	Denton	0.000262084 N	8896.4	11/8/00	Ank Fd,Knee Rr	0
ANRYF	Right Lwr Tibia Force Y LC18	4826	4826-76-FY	Denton	0.000262432 N	8896.4	11/8/00	Ank Rt,Knee Lt	0
ANRZF	Right Lwr Tibia Force Z LC19	4826	4826-76-FZ	Denton	0.000108617 N	8896.4	11/8/00	Ank Dn,Knee Up	0
ANRXM	Right Lwr Tibia Moment X LC23	4826	4826-76-MX	Denton	0.010348796 N·m	282.4	11/8/00	Ank Lt,Hld Knee	0
ANRYM	Right Lwr Tibia Moment Y LC26	4826	4826-76-MY	Denton	0.010518059 N·m	282.4	11/8/00	Ank Fd,Hld Knee	0
FTRXD	Right Foot Disp. X POT1	PD210-4B	PD210-4B-AK-131	Contelec	3.157 °	318	7/31/01	Everson	0
FTRYD	Right Foot Disp. Y POT2	PD210-4B	PD210-4B-AK-064	Contelec	3.166 °	318	7/31/01	Dorsiflexion	0
FTRZD	Right Foot Disp. Z POT3	PD210-4B	PD210-4B-AK-065	Contelec	3.167 °	318	7/31/01	Internal Rotation	0
FTRXG	Right Foot Accel X	EGE-73BQ-200	98H14-K06	Entran	0.0211 g	2000	4/26/02	Fwd	0
FTRYG	Right Foot Accel Y	EGE-73BQE0-2	99H12-F03	Entran	0.01896 g	2000	4/25/02	Rt	0
FTRZG	Right Foot Accel Z	EGE-73BQ-200	98H14-K10	Entran	0.01816 g	2000	4/25/02	Dn	0

## Description Of Timing Marks On TRC High-Speed Film

All TRC high-speed cameras are equipped with red LEDs which put timing marks on the right edge of the film. TRC uses a single timing generator to generate the timing for all cameras. This allows the timing marks to be common to all cameras. The timing marks can be used to measure camera speed (frames per second) or to locate a point in time before or after the time-zero event.

The timing marks appear on the film as small red marks on the right edge of the film. Round marks are left by the Photosonic cameras.

The timing generator puts out a pulse for every millisecond plus it generates additional pulses for hundredths and tenths of seconds. To explain this further, we can use an example of a camera running at 1000 frames per second.

1. Every frame will have **one** LED appear in it. This indicates a *millisecond* pulse.
2. Every ten frames will have **two** LEDs appear in it. These indicate a *millisecond* pulse plus a *hundredth of a second* pulse.
3. Every one hundred frames will have **three** LEDs appear in it. These indicate a *millisecond* pulse, a *hundredth of a second* pulse, and a *tenth of a second* pulse.

To locate time-zero, observe the continuous LED that is visible on the left side of the frame at the beginning of each view. Locate the frame where the left side LED is fully extinguished and reverse 4 frames for the Photosonic cameras; reverse 5 frames for Hycam cameras; reverse 2 frames for Stalex cameras. This frame is time-zero.

020523

STATION

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SACRAMENTO, CA. 95841

WEATHER MEASURE

DATE ON 5/22/02

DATE OFF 5/22/02

HYGROTHERMOGRAPH

1 DAY VPLC 20010641-0500

PART # 699123

CHART # C311 D HF

