DOT 11 51

NEW CAR ASSESSMENT PROGRAM (NCAP)

FRONTAL BARRIER IMPACT TEST

MITSUBISHI MOTORS CORPORATION

1988 DODGE COLT

4 DOOR WAGON

NHTSA NO. MJ0302

MOBILITY SYSTEMS AND EQUIPMENT COMPANY
9920 La Cienega Boulevard Suite 708
Inglewood, California 90301

APRIL 08, 1988

FINAL REPORT

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF MARKET INCENTIVES
400 Seventh Street, S. W.
Room No. 5313 (NRM-22)
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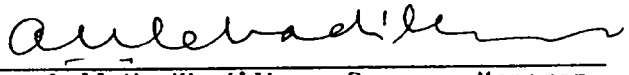
APPROVED BY: 

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15. Supplementary Notes

16. Abstract

A 35 mph frontal barrier impact test using a load cell barrier was conducted on a 1988 Dodge Colt, 4 Door Wagon at the Mobility Systems and Equipment Company (MSE) crash test facility in Mira Loma, CA on 25 March 1988.

The barrier impact velocity was 35.2 mph and the ambient temperature at the barrier face at the time of impact was 95°F. The posttest vehicle crush maximum was 28.0 in.

A summary of occupant injury measure data from the test.

Injury Criteria Threshold Value		Driver Dummy	Passenger Dummy
Head Injury Criterion HIC = 1000		1354	816
Chest Resultant Peak 60 Gs (3 ms clip)		53	38
Femur Load 2250 pounds	Left	844	461
	Right	402	1601

TYPE OF RESTRAINT SYSTEM: 3-point continuous webbing system at each front outboard seating positions.

17. Key Words	18. Distribution Statement
35 MPH FRONTAL BARRIER IMPACT TEST NEW CAR ASSESSMENT PROGRAM (NCAP) 1988/DODGE/COLT/4 DOOR WAGON	Copies of this report are available from Technical Reference Division Nat'l Hwy. Traffic Safety Admin. Room 5108, Nassif Building 400 7th St. S.W. Wash. DC 20590

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SECTION 1

PURPOSE AND TEST PROCEDURE

This 35 mph frontal barrier impact test is a part of the FY'88 Vehicle Barrier Impact and Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-87-D-02009. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 30 mph FMVSS 208/212/219/301-75 requirements.

This 35 mph frontal barrier impact test was conducted in accordance with the Office of Market Incentives (OMI) Laboratory Indicant Test Procedure, dated 01 September 1986.

SECTION 2

SUMMARY OF FRONTAL BARRIER IMPACT TESTS

A load cell barrier consisting of 36 cell units was impacted by a 1988 Dodge Colt, 2 Door Wagon NHTSA No. MJ0302 at a velocity of 35.2 mph. The frontal impact test was conducted by Mobility Systems and Equipment Company (MSE) on 25 March 1988. The general test and vehicle description information are presented in Tables 1 and 2. Pretest and posttest photographs of the test vehicle and dummies are shown in Appendix A.

Two (2) Part 572 50th percentile adult male Anthropomorphic Test Devices (ATD's) were placed in the driver and right front passenger designated seating positions (DSP's) according to the NHTSA test requirements.

The ATD's were instrumented with head and chest triaxial accelerometers and right/left femur load cells. In addition, load cells were placed on the driver's and passenger's lap and shoulder belts to measure dummy upper torso and pelvic section belt loading. A summary of dummy configuration and performance verification test data is presented in Appendix C.

The frontal impact event was documented by one (1) real time camera and fifteen (15) high-speed cameras. The camera location data are presented in Table 8.

Sixty-seven (67) channels of crash parameters were recorded using three (3) FM tape recorders and four (4) direct analog to digital acquisition units. Time history plots of all recorded channels are presented in Appendix B.

2.1 GENERAL COMMENTS

The 1988 Dodge Colt, 4 Door Wagon was equipped with a 1.468 liter, 4 cylinder engine and 5 speed manual transmission. The test weight of the Dodge Colt, 4 Door Wagon with two (2) 50th percentile male dummies, instrumentation, and cameras was 2852 pounds.

The 1988 Dodge Colt, 4 Door Wagon was involved in a frontal load cell barrier crash at a velocity of 35.2 mph.

The maximum static crush for the vehicle of 28.0 inches occurred at the right side of the front bumper. The windshield was cracked but otherwise the vehicle glazing remained intact. Both the driver's and passenger's front doors needed tools to open them.

The driver ATD's head hit the steering wheel rim and the center hub. The driver's left and right knees hit the dash panel and steering column. The driver ATD had a HIC value of 1354, the maximum chest acceleration (resultant clipped) was 53 and the maximum femur loads were 844 (left) and 402 (right) pounds.

The passenger ATD's head hit the dash panel and his knees hit the dash panel and center console. The HIC value for the passenger ATD was 816, the maximum chest acceleration (resultant clipped) was 38 and the maximum femur loads were 461 (left) and 1601 (right) pounds.

Seat belt spool out, measured by high speed film analysis was 1.9 inches for the driver and 2.2 inches for the passenger.

There were no apparent visual indications of any stoddard solvent leaks, windshield periphery separation or hood contact with the windshield.

VEHICLE YEAR/MAKE/MODEL/BODY STYLE: 1988/DODGE/COLT/4 DOOR WAGON

VEHICLE NHTSA NO.: MJ0302 VIN: JB4EA31P3JU040838

VEHICLE BODY COLOR: GRAY ; MONTH & YEAR OF MANUFACTURE: 09/87

ENGINE: 4 cylinders; ___ C.I.D.; 1.468 Liters; ___ CC

X Gas; ___ Diesel; ___ Turbocharged

PLACEMENT— ___ Longitudinal; X Transverse (Lateral)

TRANSMISSION: 5 speed; X Manual; ___ Automatic; X Overdrive

FINAL DRIVE: [X] Front Wheel Drive; [ ] Rear Wheel Drive; [ ] Four Wheel Drive

DATE VEHICLE AVAILABLE FOR 35 MPH CRASH TESTING: 12/15/87

ODOMETER READING: 38 miles; OPTIONS: [ ] A/C; [X] P/S; [ ] P/Wdo; [ ] ___

[ ] Tilt Whl.; [ ] Cruise Control

DATA RECORDED FROM VEHICLE'S TIRE PLACARD:

Tire Pressure (at capacity): 26 psi Front; 34 psi Rear

Recommended Tire Size: P175/70R13

Tires On Vehicle: P175/70R13 ; Manufacturer: YOKOHAMA

Number Of Occupants: 3 Front; 2 Rear; ___ 3rd Seat; [5] TOTAL

Type Of Front Seats: X Bucket; ___ Bench; ___ Split Bench

Type Of Front Seat Back: X Fixed; ___ Adjustable With [ ] Lever/[ ] Rotating Knob

Vehicle Maximum Capacity Loading = 926* lbs. (A) *(GVWR - 2348)

No. Of Occupants x 150 lbs. -- = 750 lbs. (B)

Cargo Capacity (A - B) ------ = 176 lbs.

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Right Front = 621 lbs.
Left Front = 660 lbs. — TOTAL FRONT = 1281.0 lbs (54.6% of TOTAL)

Right Rear = 544 lbs.
Left Rear = 523 lbs. — TOTAL REAR = 1067.0 lbs. (45.4% of TOTAL)

TOTAL WEIGHT= 2348 lbs.Y

CALCULATION OF TEST VEHICLE TARGET WEIGHT:

Total Test Vehicle Delivered Weight With Maximum Fluids = 2348 lbs.
Maximum Cargo Carrying Capacity Of Test Vehicle* - - - - = 176 lbs.
Weight Of Two P.572 Dummies (2 x 164 lbs.) - - - - - - - = 328 lbs.
TEST VEHICLE TARGET WEIGHT - - - - - - - = 2852 lbs.

*300 lbs. for light trucks and MPVs

ACTUAL WEIGHT OF TEST VEHICLE WITH 2 DUMMIES AND CARGO:

Right Front = 706 lbs.
Left Front = 736 lbs.
TOTAL FRONT = 1442 lbs. (50.6% of TOTAL)
Right Rear = 691 lbs.
Left Rear = 719 lbs.
TOTAL REAR = 1410 lbs. (49.4% of TOTAL)
TOTAL WEIGHT= 2852 lbs. (which includes 96 lbs. of cargo ballast weight placed in the cargo/luggage area)

VEHICLE COMPONENTS REMOVED TO MEET TARGET WEIGHT:

1. [X] Spare Tire, Jack, Jack Stand
2. [ ] Rear Bumper Assembly
3. [X] Tail lamp hsg. [X] Rt. Side [X] Left Side
4. DRIVER MIRROR AND REAR SEAT MIRRORS

TEST VEHICLE ATTITUDE:

As Delivered— Right Front = 25.8 inches; Ready For Test— Right Front = 24.7 inches
Left Front = 25.4 inches Left Front = 25.0 inches
Right Rear = 27.0 inches Right Rear = 25.9 inches
Left Rear = 26.9 inches Left Rear = 26.0 inches
Test Vehicle Wheelbase: 94.3 inches; C.G.= 46.6 inches rearward of front wheel centerline

Total Vehicle Length:
Right Side = 166.3 inches
Left Side = 166.0 inches
Centerline = 168.5 inches

Data Table No. 2 Post Crash Test Data

DATE OF 35 MPH FRONTAL BARRIER IMPACT RATINGS TEST: 03/25/88

TIME OF TEST: 2:54 PM : AMBIENT TEMPERATURE AT BARRIER FACE: 95 °F.

VEHICLE'S OCCUPANT COMPARTMENT TEMPERATURE: 71 °F. (Spec. Range + 66 to 78° F.)

VEHICLE'S WINDSHIELD MOLDING TEMPERATURE: 71 °F.

VEHICLE IMPACT VELOCITY: Primary Speed Trap = 35.22 mph

Secondary Speed Trap = 35.22 mph

(Specified Range = 34.5 to 35.5 mph)

Distance from vehicles's front bumper forwardmost surface to barrier face when—

(a) entering the speed trap = 60 in

(b) existing the speed trap = 12 in

VEHICLE STATIC CRUSH: (All measurements in inches)

Vehicle Pre-test Length— Right Side= 166.3; C/Line= 168.5 ; Left Side= 166.0

Vehicle Post-test Length -Right Side= 138.3; C/Line= 142.2 ; Left Side= 139.8

VEHICLE STATIC CRUSH ---- Right Side= 28.0; C/Line= 26.3 ; Left Side= 26.2

VEHICLE REBOUND FROM BARRIER FACE:

Vehicle Right Side = 20.7 inches

Vehicle Centerline = 18.0 inches

Vehicle Left Side = 20.7 inches

VISIBLE DUMMY CONTACT POINTS:

	DRIVER (I.D. No. 464)			PASSENGER (I.D. No. 467)		
	Strg. Col. Hub	Strg. Wheel	Instru. Panel	Instru. Panel	Knee Assy.	Glove Box Door
HEAD	YES-	YES	NO	YES	NO	NO
RIGHT KNEE			YES	NO		YES
LEFT KNEE			YES	NO		YES

VEHICLE DOOR OPENING INFORMATON:

	RIGHT SIDE		LEFT SIDE	
	OPENED	JAMMED	OPENED	JAMMED
FRONT DOORS	NO	YES	NO	YES
REAR DOORS	YES	NO	YES	NO

VEHICLE'S FRONT SEAT MOVEMENT DURING CRASH:

	RIGHTSIDE	LEFT SIDE
Seat Cushion Shift - - -	0.2 " forward;	0.3 " forward
Seat Adjuster Failure- -	None "	None

Details Of Any Failure: N/A

OTHER NOTABLE IMPACT EFFECTS:

SECTION 3

OCCUPANT AND VEHICLE INFORMATION

I. OMI DATA

- Dummy injury Criteria Data Summary
- Dummy Positioning Data
- Seat Belt Positioning Data
- Seat Belt Performance Assessment Data
- Driver Dummy to Steering Column Dimensions
- Camera Locations

II. OVR DATA

- Load Cell Barrier Data
- Vehicle Accelerometer Data

Data Table No. 3 FMVSS No. 208 Occupant Crash Protection Data Sheet

VEH. YR./MAKE/MODEL/BODY STYLE: 1988/DODGE/COLT/4 DOOR WAGON

VEH. NHTSA NO.: MJ0302 ; TEST DATE: 03/25/88

MAXIMUM ACCELERATION VALUES:		DRIVER DUMMY # 464	PASSENGER DUMMY # 467
Head Channel X	HEAD X	-258.85	52.38
Head Channel Y	Y	42.72	-7.61
Head Channel Z	Z	-44.70	-80.37
HEAD RESULTANT	R	262.64	89.61
Chest Channel X	CHEST X	-54.19	-37.15
Chest Channel Y	Y	14.77	-11.14
Chest Channel Z	Z	12.49	-12.22
CHEST RESULTANT	R	52.75	37.69
TIME INTERVAL (seconds)		0.0625 - 0.0655	0.0730 - 0.0760

HEAD INJURY CRITERIA (HIC) VALUES:

HIC	HIC	1353.49	816.17
t_1 (seconds)		60.50	71.62
t_2 (seconds)		92.13	107.62
Avg. Accel. t_1 to t_2		71.18	55.23

MAXIMUM FEMUR FORCES:

Right Side (lbs.)	FR	402.00	1601.30
Left Side (lbs.)	FL	843.70	461.10

MAXIMUM SEAT BELT FORCES:

Lap Belt	LAP	1101.70	857.35
Shoulder Belt	SHLDR	1542.70	1644.40

MAXIMUM SEAT BELT WEBBING SPOOL-OUT:

Lap/Shoulder Belt Combination	1.90	2.20

Data Table No. 4 Test Dummy Positioning Data

PRE-IMPACT DATA:

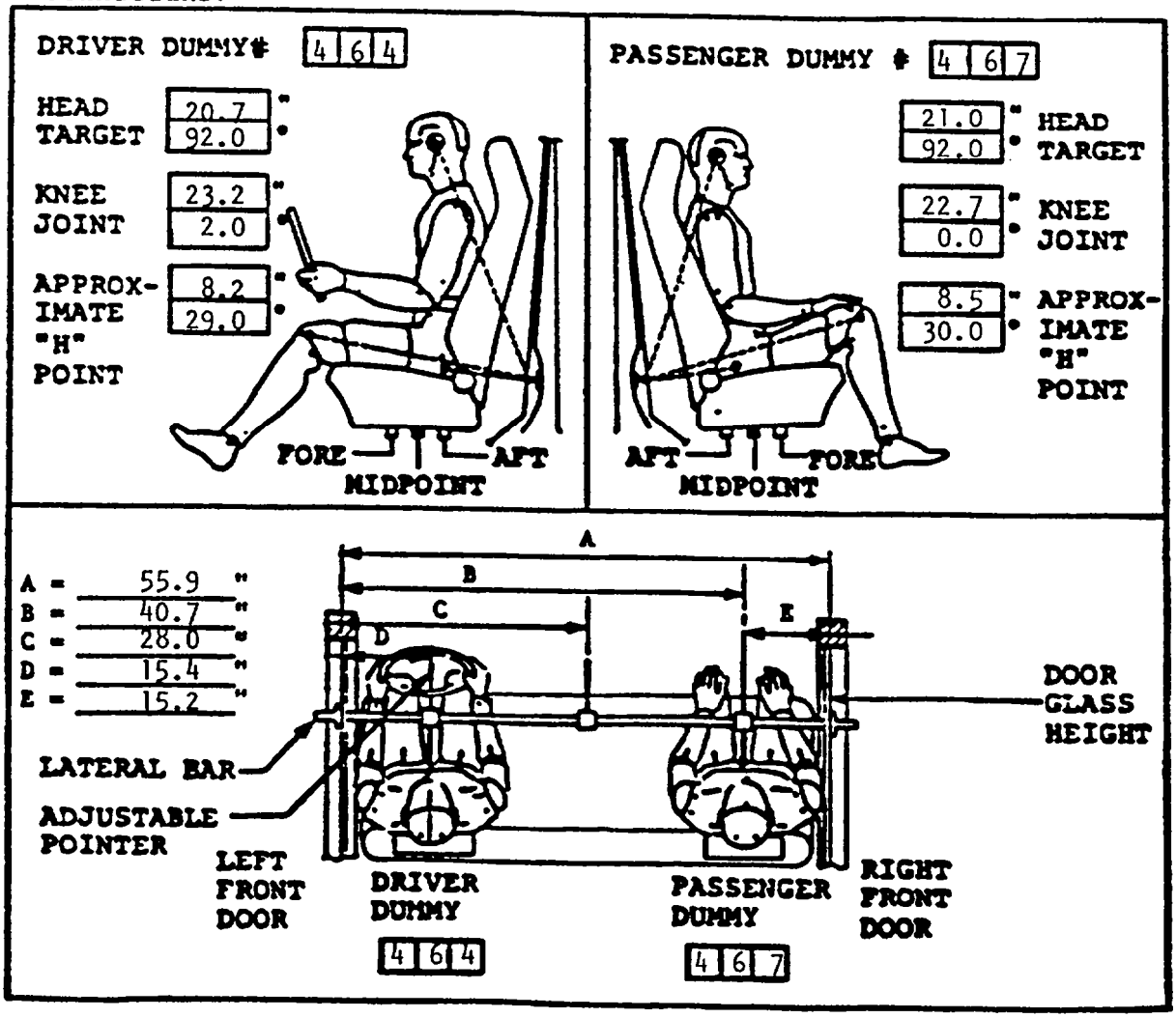
Make/Model: DODGE/COLT
Body Style: 4 DOOR WAGON **Model Year:** 1988
NHTSA No.: MJ0302 **Color:** GRAY

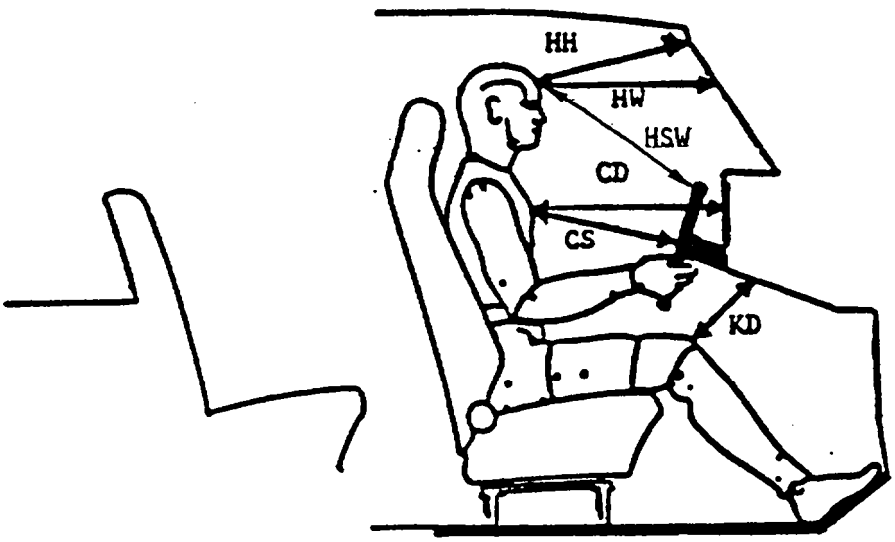
DATA FROM CERTIFICATION LABEL:

Vehicle Manufacturer: MITSUBISHI MOTORS CORPORATION
Date of Manufacture: 09/87 ; **VIN:** JB4EA31P3JU040838
GVWR: 3274 lb; **GAWR:** Front = 1620 lb; Rear = 1863 lb

POST-IMPACT DATA:

Date of Test: 03/25/88 **Time:** 2:54 PM **Temperature** 95 °F
Required Impact Velocity Range: 34.5 to 35.5 mph
Impact Velocity: Primary = 35.22 mph Secondary = 35.22 mph
Seat Type: BUCKET **Adjuster Type:** MANUAL
Bucket Seat Back Type: HIGH BACK
Technicians:

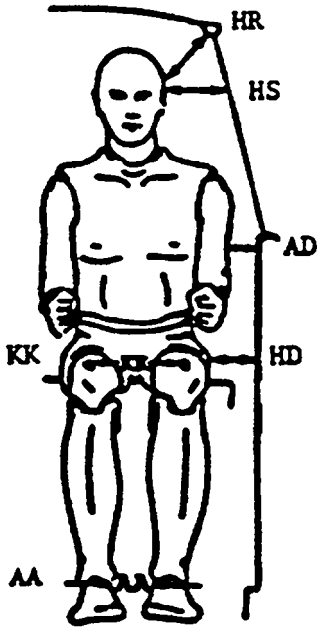


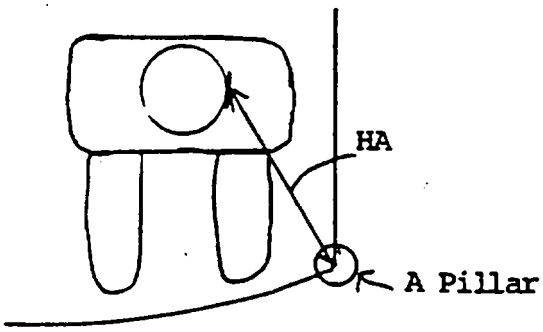


	Driver	Passenger
HH	11.7	11.0
HW	17.7	17.3
CD	22.8	22.8
CS	14.3	N/A
KD L-	7.0	L- 6.4
KD R-	7.1	R- 6.2
Torso Angle	22.0	Torso Angle 22.0
Seat Back Angle	22.0	Seat Back Angle 22.0
HSW	19.2	N/A

HSW = Head to Steering Wheel
HA = Head Target to A pillar
HH = Head to Windshield Header
HW = Head to Windshield
CD = Chest to Dash
CS = Chest to Steering Wheel
KD = Knees to Dash
HR = Head to Side Roof
HS = Head to Side Window
AD = Arm to Door
HD = Hip to Door
KK = Knee to Knee
Torso and seat back angles are relative to vertical.

REMARKS:





	Driver	Passenger
HR	6.5	6.5
HS	9.0	8.2
AD	4.3	4.5
HD	6.5	6.5
KK	14.5	14.5
AA	9.5	9.5
HA	20.1	19.5

Data Table No. 6 Seat Belt Performance Assessment Test Data

BELT LENGTH DATA:

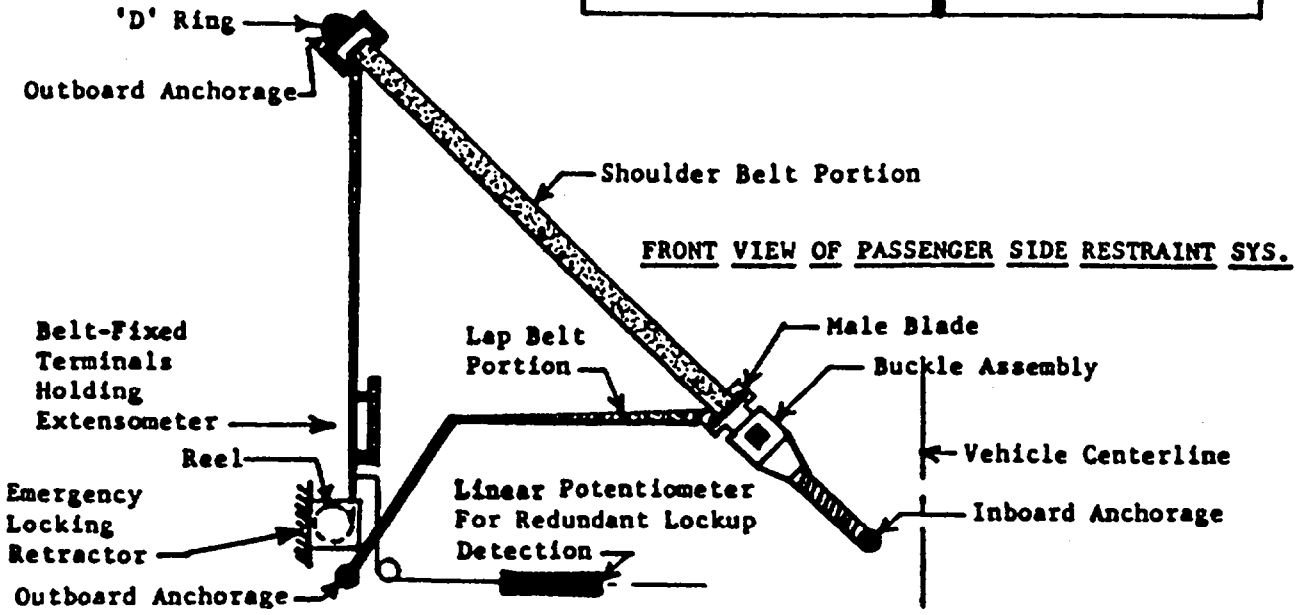
	DRIVER SIDE		PASSENGER SIDE	
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
Total Belt Length from retractor reel to bolt hole anchor point for continuous webbing systems	97.0	97.0	96.0	96.0
Retractor reel to 'D' ring as measured on Part 572 dummy	10.7	10.7	10.2	10.2
Shoulder belt length as measured on Part 572 dummy	43.0	42.7	42.5	42.2
Lap belt length as measured on Part 572 dummy	29.5	31.3	30.0	32.0
Remainder of belt webbing left on retractor reel	24.5	23.0	23.5	21.8

BELT SPOOL-OFF DATA:

As determined by film analysis	1.9	2.2
As determined electronically	N.D.	N.D.
As determined mechanically	1.8	2.5

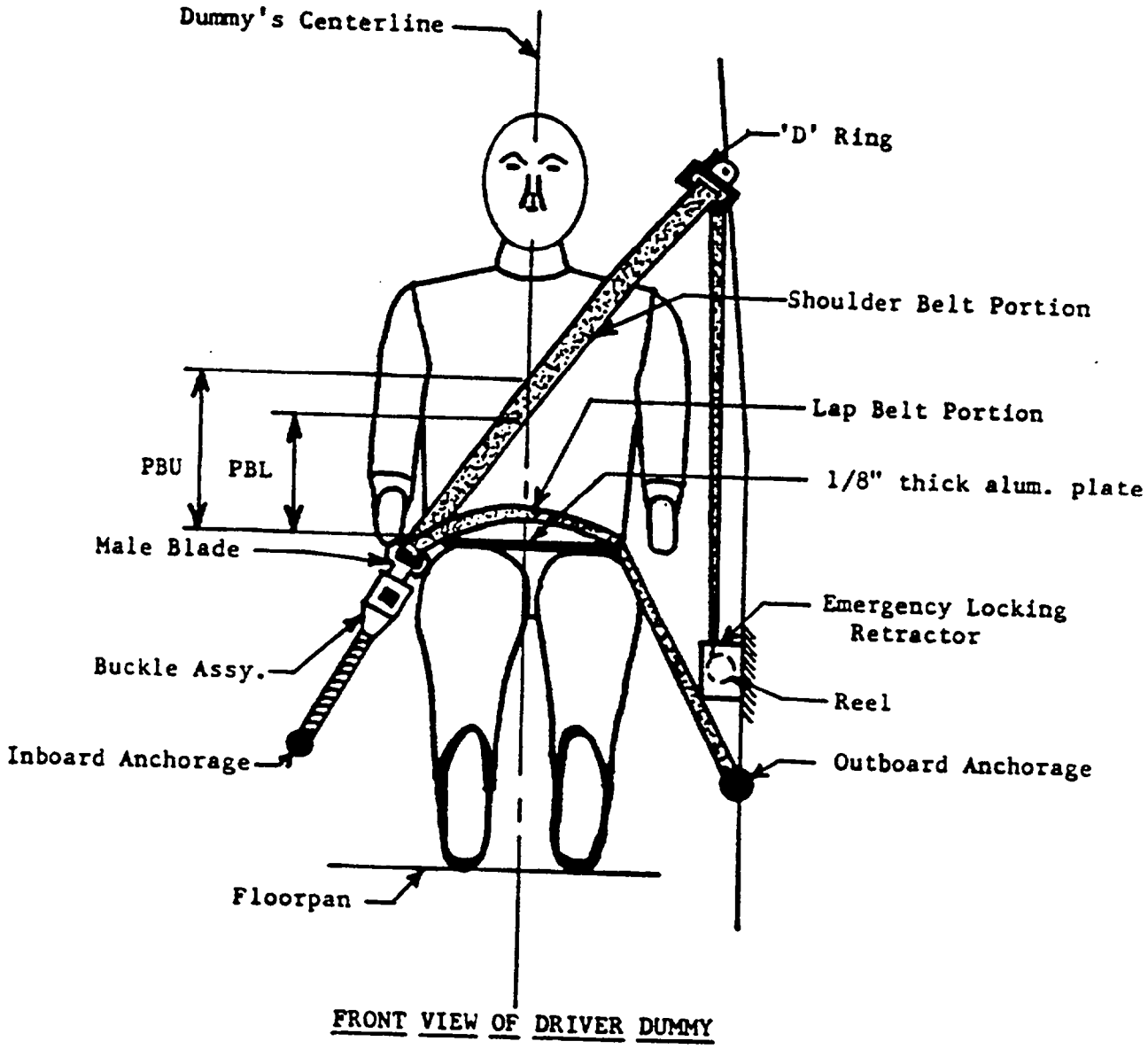
BELT STRAIN DATA:

Measured between retractor reel and 'D' ring	2.0 Percent	5.0 Percent



FRONT VIEW OF PASSENGER SIDE RESTRAINT SYS.

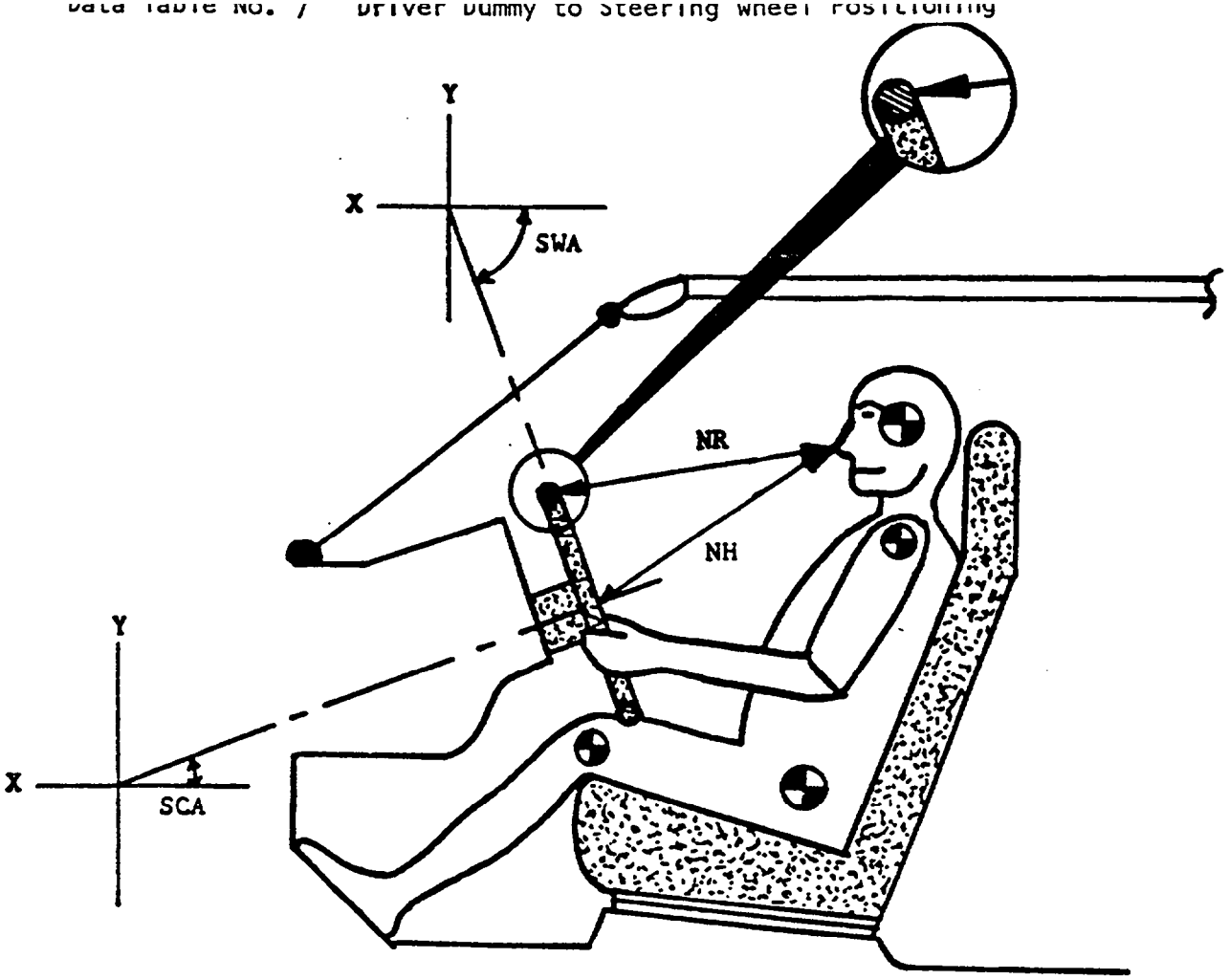
Data Table No. 5 Seat Belt Positioning Data



FRONT VIEW OF DRIVER DUMMY

	DRIVER DUMMY (inches)	PASSENGER DUMMY (inches)
PBU--Top surface of alum. plate to belt upper edge	14.4	13.4
PBL--Top surface of alum. plate to belt lower edge	11.0	10.0
LAP BELT TENSION, POUNDS	3.0	3.0
SHOULDER BELT TENSION, POUNDS	3.0	3.0

Data Table No. 7 Driver Dummy to Steering Wheel Positioning



LEFT SIDE VIEW

	MEASUREMENTS	
NR--Distance from tip of dummy's nose to Top Rear surface of steering wheel rim	17.5	Inches
NH--Distance from tip of dummy's nose to center of steering column hub	18.7	Inches
SCA--Angle of steering column relative to the horizontal X axis	25.0	Degrees
SWA--Angle of steering wheel relative to the horizontal X axis.	63.0	Degrees

Data Table No. 8 Camera Location Data

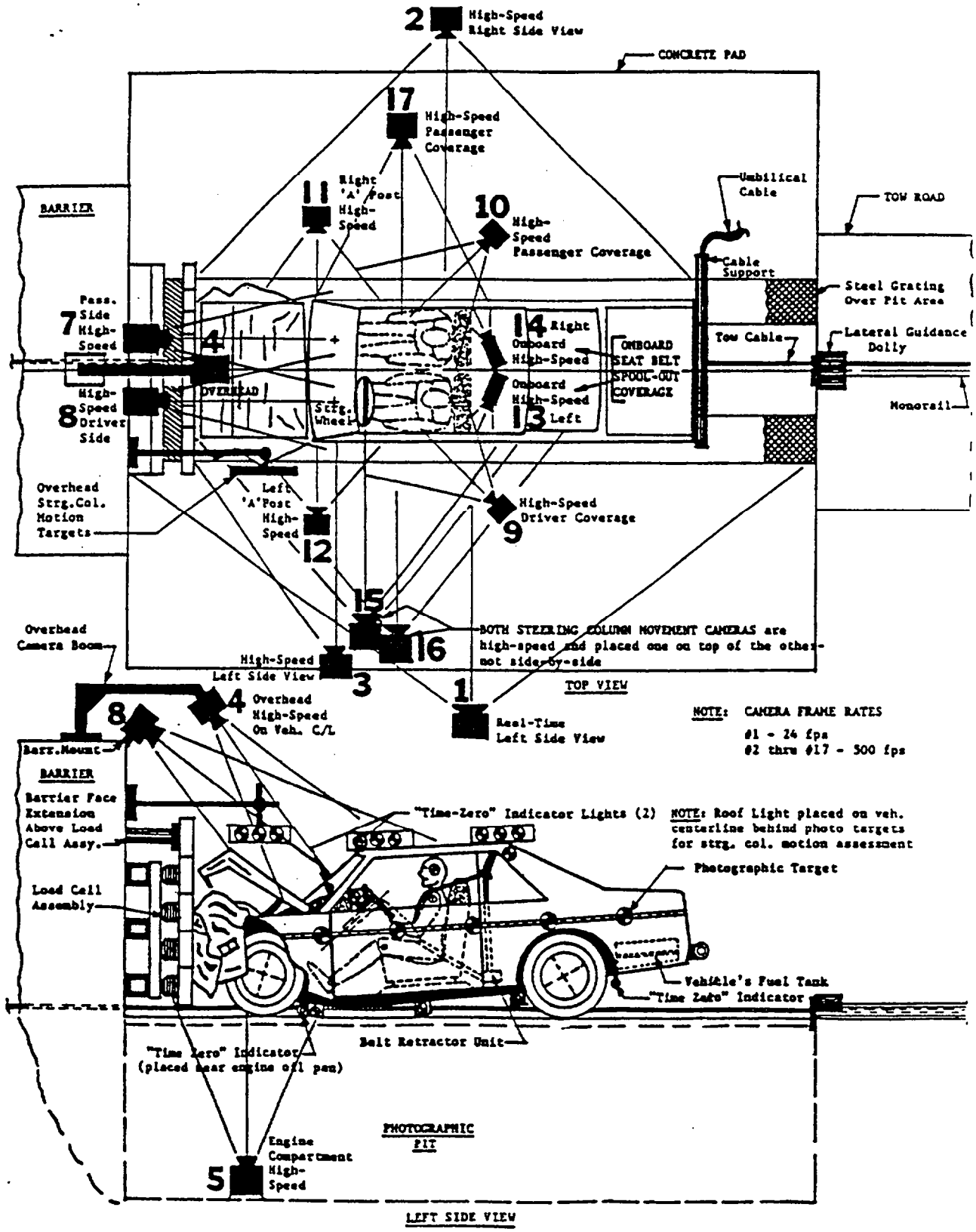
VEH. NHTSA NO.: MJ0302 ; TEST DATE: 03/25/88 ; TIME: 2:54 PM

VEH. YEAR/MAKE/MODEL/BODY STYLE: 1988/DODGE/COLT/ 4 DOOR WAGON

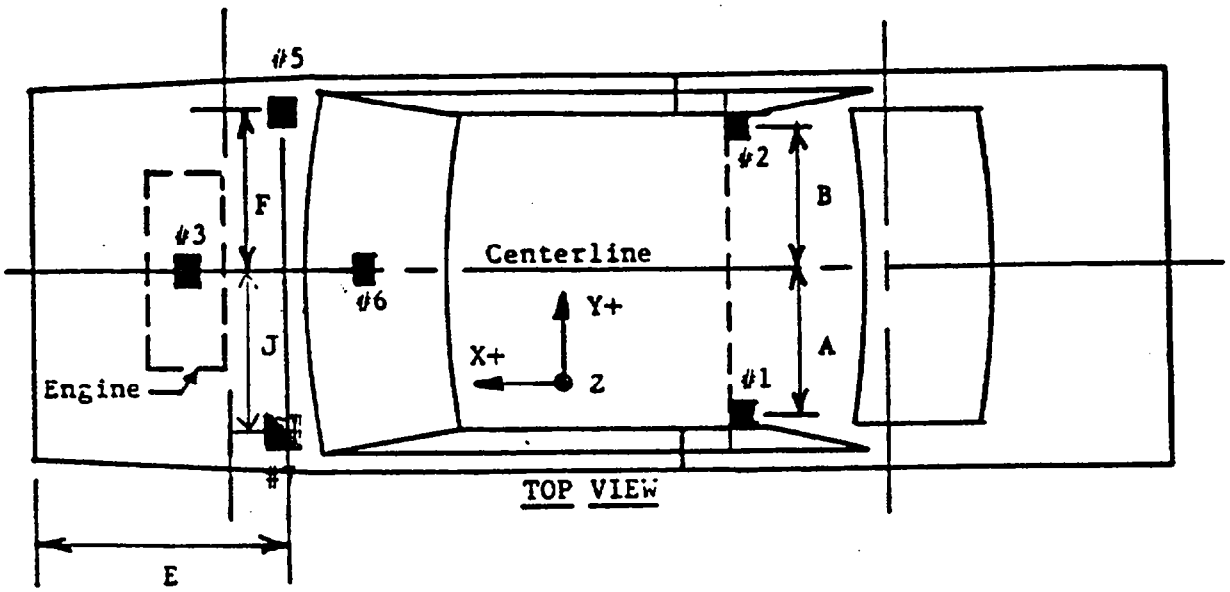
CAMERA NO.	VIEW	CAMERA POSITIONS (in.)*			ANGLE (deg)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Left Side View	338.5	249.0	58.0	0.0	310.9	15-70 zoom	24
2	Right Side View	-237.6	99.0	50.5	-3.0	264.5	13	500
3	Left Side View	358.4	73.2	43.3	2.0	331.9	13	800
4	Overhead	0.0	-21.0	127.0	-63.0	82.3	13	650
5	Pit-Engine	0.0	50.3	-57.1	-12.0	26.2	13	500
6	Pit-Fuel Tank	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
7	Front-Passenger	-13.9	-13.0	103.4	-55.0	84.6	16	600
8	Front-Driver	11.5	-13.0	103.5	-55.0	78.2	16	600
9	Left Side-Driver	84.2	98.8	98.0	-23.0	58.4	16	650
10	Right Side-Passenger	-87.5	96.2	77.9	-20.0	115.7	16	600
11	Right Side-'A' Post	-199.3	23.0	54.3	-3.0	236.2	28	700
12	Left Side-'A' Post	385.5	23.2	53.8	2.0	361.0	50	750
13	Onboard-Left Side	12.2	114.8	30.0	13.0	28.5	13	800
14	Onboard-Right Side	-12.3	114.8	30.0	12.0	37.0	13	800
15	Left Side-Steering Col.	325.0	78.5	132.0	-18.0	298.0	28	600
16	Left Side-Steering Col.	325.0	78.5	109.3	-14.0	298.0	28	625
17	Right Side-Passenger	128.5	47.2	51.9	-4.0	160.8	16	700

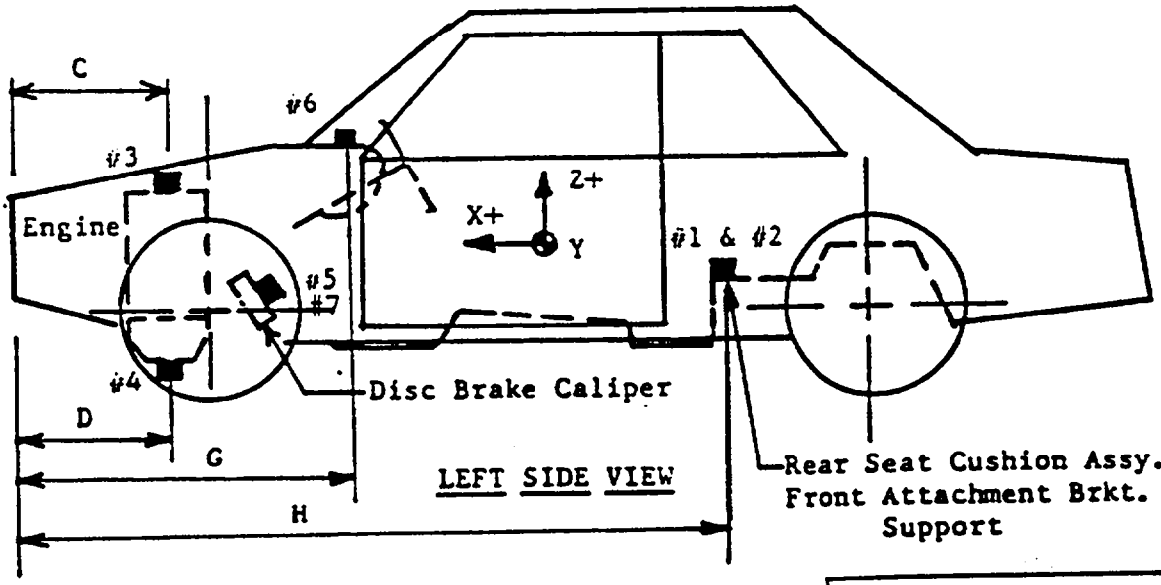
* X = film plane to monorail centerline
  Y = film plane to barrier face
  Z = film plane to ground

Data Table No. 8 (Cont'd) Camera Location Data



Data Table No. 9 Vehicle Accelerometer Location and Data Summary



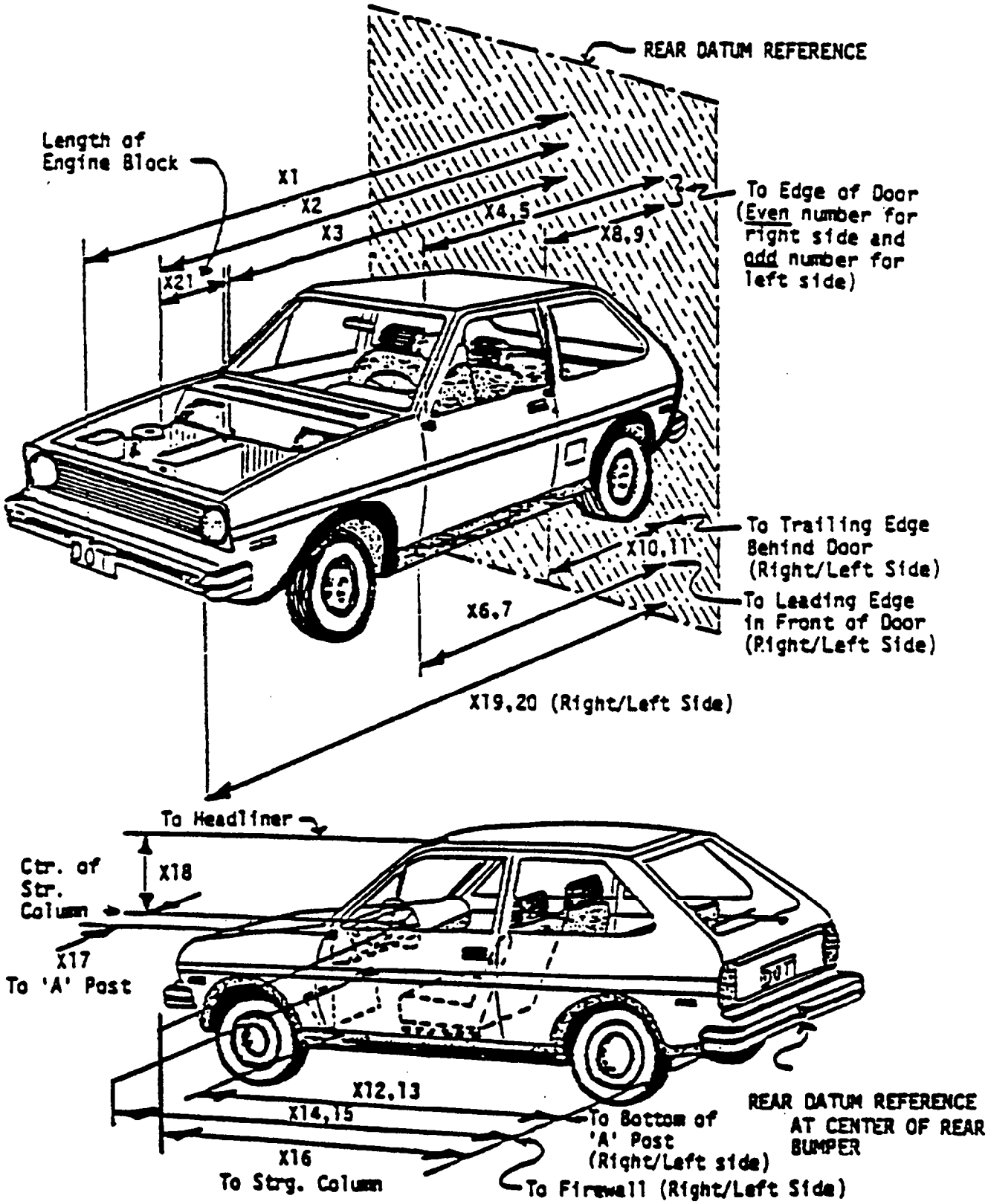


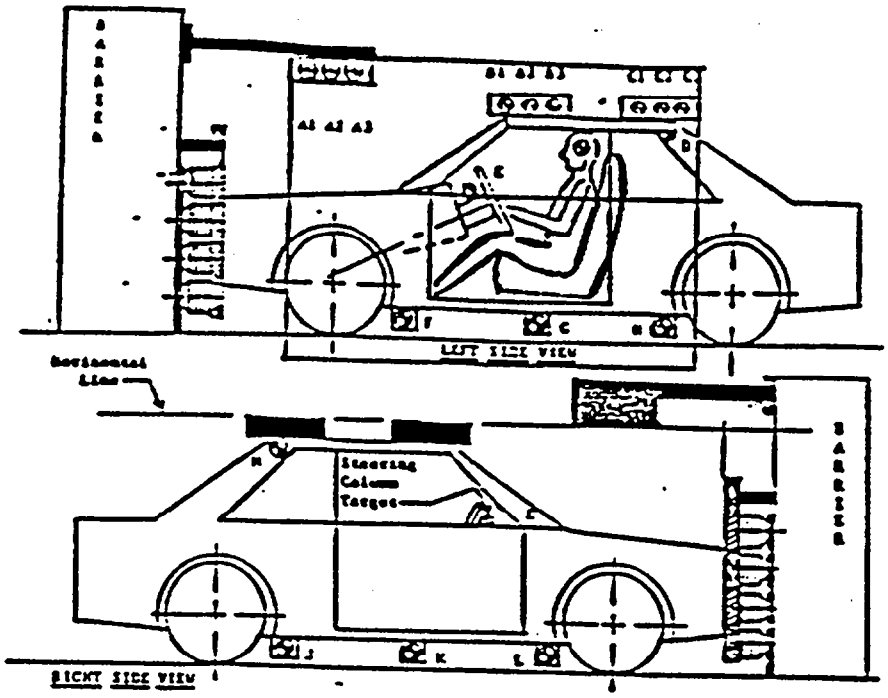
Dimension	Length (in.)
A	14.7
B	14.7
C	22.3
D	26.5
E	27.5
F	24.3
G	55.4
H	130.0
J	24.3

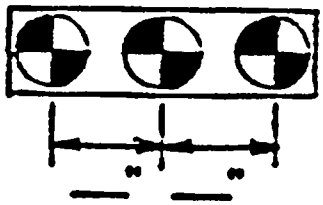
Loc. No.	Description	Maximum Value X-	msec.	X+	msec.
1	Rear seat X-member @ Left Side	27.1	74.9	3.7	205.8
2	Rear seat X-member @ Right Side	-32.1	75.5	3.3	203.2
3	Top of Engine Block	-165.2	70.4	38.4	82.8
4	Bottom of Engine	-114.0	78.2	20.8	86.8
5	Disc Brake Caliper @ Right Side	-109.2	78.0	43.4	103.5
6	Instrument Panel	-96.9	93.8	146.8	102.0
7	Disc Brake Caliper @ Left Side	-149.1	84.4	69.2	99.8

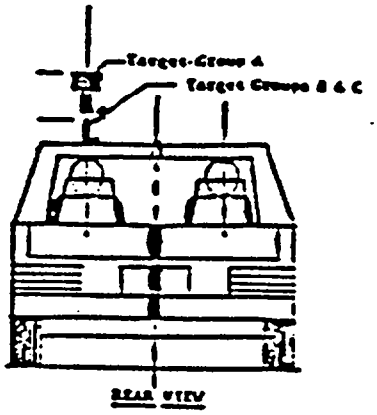
Data Table No. 10 Test Vehicle Measurements

NO.	MEASUREMENT DESCRIPTION:	Pre-Test (in.)	Post-Test (in.)	Diff. (in.)
X1	Total Length of Test Vehicle at Centerline	168.5	142.2	26.3
X2	Rear Surface of Vehicle to Front of Engine	148.2	132.4	15.8
X3	Rear Surface of Vehicle to Firewall	128.3	117.6	10.7
X4	Rear Surface to Upr. Leading Edge of Right Door	117.6	114.4	3.2
X5	Rear Surface to Upr. Leading Edge of Left Door	117.1	114.9	2.2
X6	Rear Surface to Lwr. Leading Edge of Right Door	116.5	114.7	1.8
X7	Rear Surface to Lwr. Leading Edge of Left Door	116.9	115.4	1.5
X8	Rear Surface to Upr. Trailing Edge of Right Door	76.0	72.8	3.2
X9	Rear Surface to Upr. Trailing Edge of Left Door	76.2	74.3	1.9
X10	Rear Surface to Lwr. Trailing Edge of Right Door	77.4	76.0	1.4
X11	Rear Surface to Lwr. Trailing Edge of Left Door	77.8	76.6	1.2
X12	Rear Surface to Bottom of 'A' Post on Right Side	116.4	114.5	1.9
X13	Rear Surface to Bottom of 'A' Post on Left Side	116.8	115.3	1.5
X14	Rear Surface to Firewall on Right Side	128.3	119.8	8.5
X15	Rear Surface to Firewall on Left Side	128.3	118.6	9.7
X16	Rear Surface to Steering Column	102.1	94.5	7.6
X17	Center of Steering Column to 'A' Post	16.3	14.4	1.9
X18	Center of Steering Column to Headlining	16.9	17.7	-0.8
X19	Rear Surface to Right Side of Front Bumper	166.3	138.3	28.0
X20	Rear Surface to Left Side of Front Bumper	166.0	139.8	26.2
X21	Length of Engine Block	5.5	5.5	0.0


REAR DATUM REFERENCE
Length of Engine Block
X1
X2
X3
X4,5
X8,9
X21
To Edge of Door (Even number for right side and add number for left side)
To Trailing Edge Behind Door (Right/Left Side)
X10,11
To Leading Edge in Front of Door (Right/Left Side)
X6,7
X19,20 (Right/Left Side)
To Headliner
Ctr. of Str. Column
X18
X17
To 'A' Post
X12,13
X14,15
X16
To Strg. Column
To Bottom of 'A' Post (Right/Left side)
To Firewall (Right/Left Side)
REAR DATUM REFERENCE AT CENTER OF REAR BUMPER







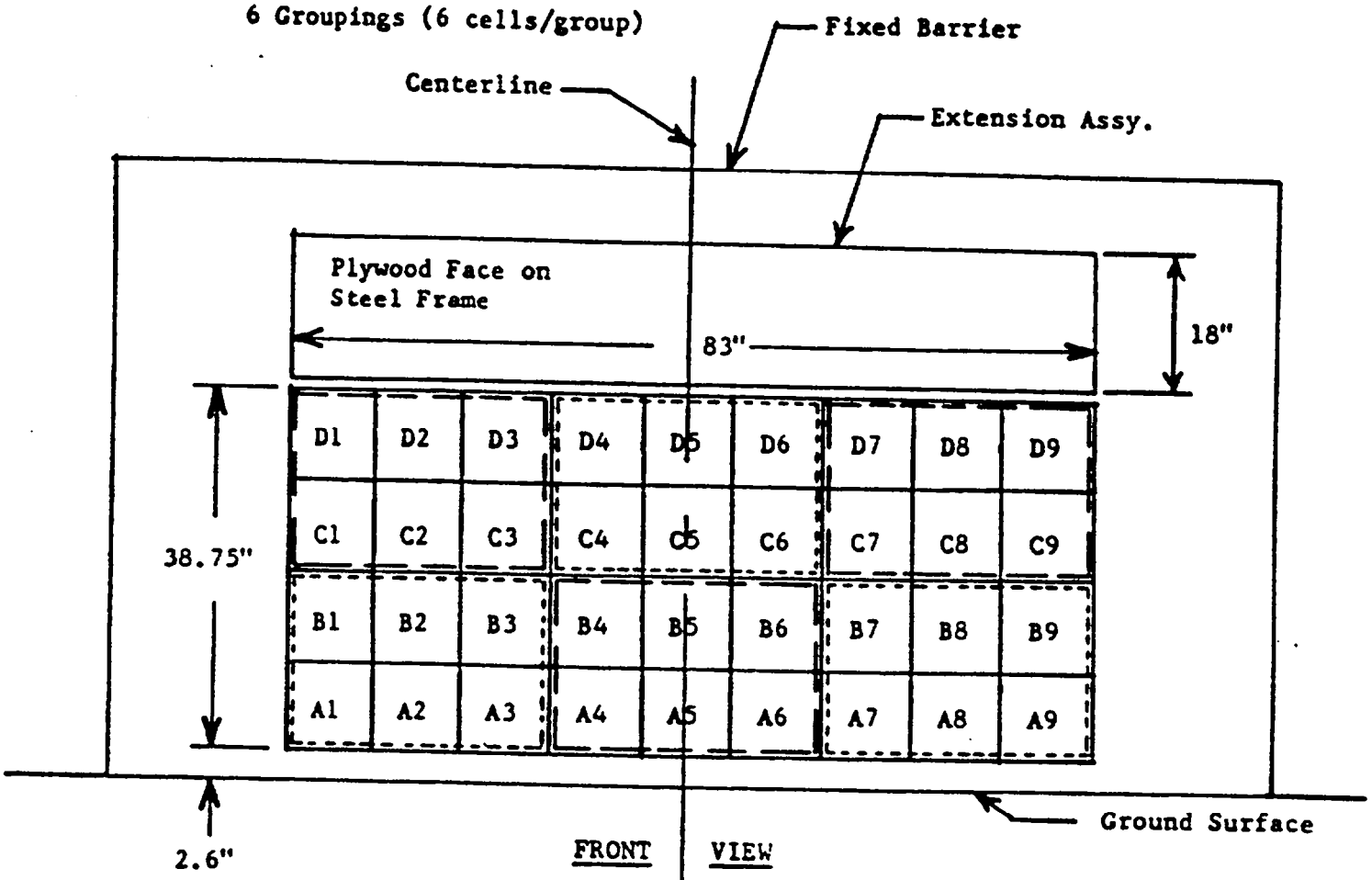
BARRIER TARGETS	'X' From Imag. Barrier Face Vertical Plane	'Y' From Monorail C/L	'Z' Above Ground
A1	63.0	20.8	72.0
A2	67.0	20.8	72.0
A3	71.0	20.8	72.0

VEHICLE TARGETS	'X' From Imag. Barrier Face Vertical Plane	'Y' From Vehicle C/L	'Z' Above Ground
B1	80.8	12.0	56.1
B2	84.8	12.0	56.1
B3	88.8	12.0	56.1
C1	107.4	12.0	58.0
C2	111.4	12.0	58.0
C3	115.4	12.0	58.0
D	111.4	21.6	51.8
E	62.9	12.0	36.0
F	50.2	29.4	8.9
G	83.1	29.6	9.6
H	111.4	29.1	10.0
J	111.7	29.0	9.9
K	79.2	29.6	9.6
L	50.6	29.4	9.0
M	111.5	21.6	50.5

NOTE: Diameter of all photo targets is 5" except for target 'E' which is "3".

Data Table No. 12 Load Cell Locations on Fixed Barrier

36 Load Cells
4 Rows
9 Columns
6 Groupings (6 cells/group)



6 GROUPINGS OF 6 LOAD CELLS EACH

C1 thru D3	C4 thru D6	C7 thru D9
A1 thru B3	A4 thru B6	A7 thru B9

DATA REQUIREMENTS: (1) Data from 36 individual load cells
(2) Total or Sum of 36 individual load cells
(3) Data from 6 Groupings shown above (6 cells/group)

APPENDIX A

PHOTOGRAPHS

PRETEST FRONT VIEW
POSTTEST FRONT VIEW
PRETEST LEFT SIDE VIEW
POSTTEST LEFT SIDE VIEW
PRETEST RIGHT SIDE VIEW
POSTTEST RIGHT SIDE VIEW
PRETEST RIGHT FRONT 3/4 VIEW
POSTTEST RIGHT FRONT 3/4 VIEW
PRETEST LEFT REAR 3/4 VIEW
POSTTEST LEFT REAR 3/4 VIEW
PRETEST WINDSHIELD VIEW
POSTTEST WINDSHIELD VIEW
PRETEST ENGINE COMPARTMENT VIEW
POSTTEST ENGINE COMPARTMENT VIEW
PRETEST FRONT UNDERBODY VIEW
POSTTEST FRONT UNDERBODY VIEW
PRETEST REAR UNDERBODY VIEW
POSTTEST REAR UNDERBODY VIEW
PRETEST DRIVER DUMMY (ATD) POSITION VIEW
POSTTEST DRIVER DUMMY (ATD) POSITION VIEW
PRETEST PASSENGER DUMMY (ATD) POSITION VIEW
POSTTEST PASSENGER DUMMY (ATD) POSITION VIEW
PRETEST DRIVER DUMMY & VEHICLE INTERIOR VIEW (Door Open)
POSTTEST DRIVER DUMMY & VEHICLE INTERIOR VIEW (Door Open)
PRETEST PASSENGER DUMMY & VEHICLE INTERIOR VIEW (Door Open)
POSTTEST PASSENGER DUMMY (ATD) & VEHICLE INTERIOR VIEW (Door Open)
POSTTEST DRIVER DUMMY (ATD) STEERING COLUMN HUB/RIM CONTACT
POSTTEST DRIVER DUMMY (ATD) KNEE CONTACT AREA
POSTTEST PASSENGER DUMMY (ATD) HEAD/KNEE CONTACT
POSTTEST PASSENGER DUMMY (ATD) KNEE CONTACT

PRETEST FRONT VIEW

POSTTEST FRONT VIEW

PRETEST LEFT SIDE VIEW

POSTTEST LEFT SIDE VIEW

PRETEST RIGHT SIDE VIEW

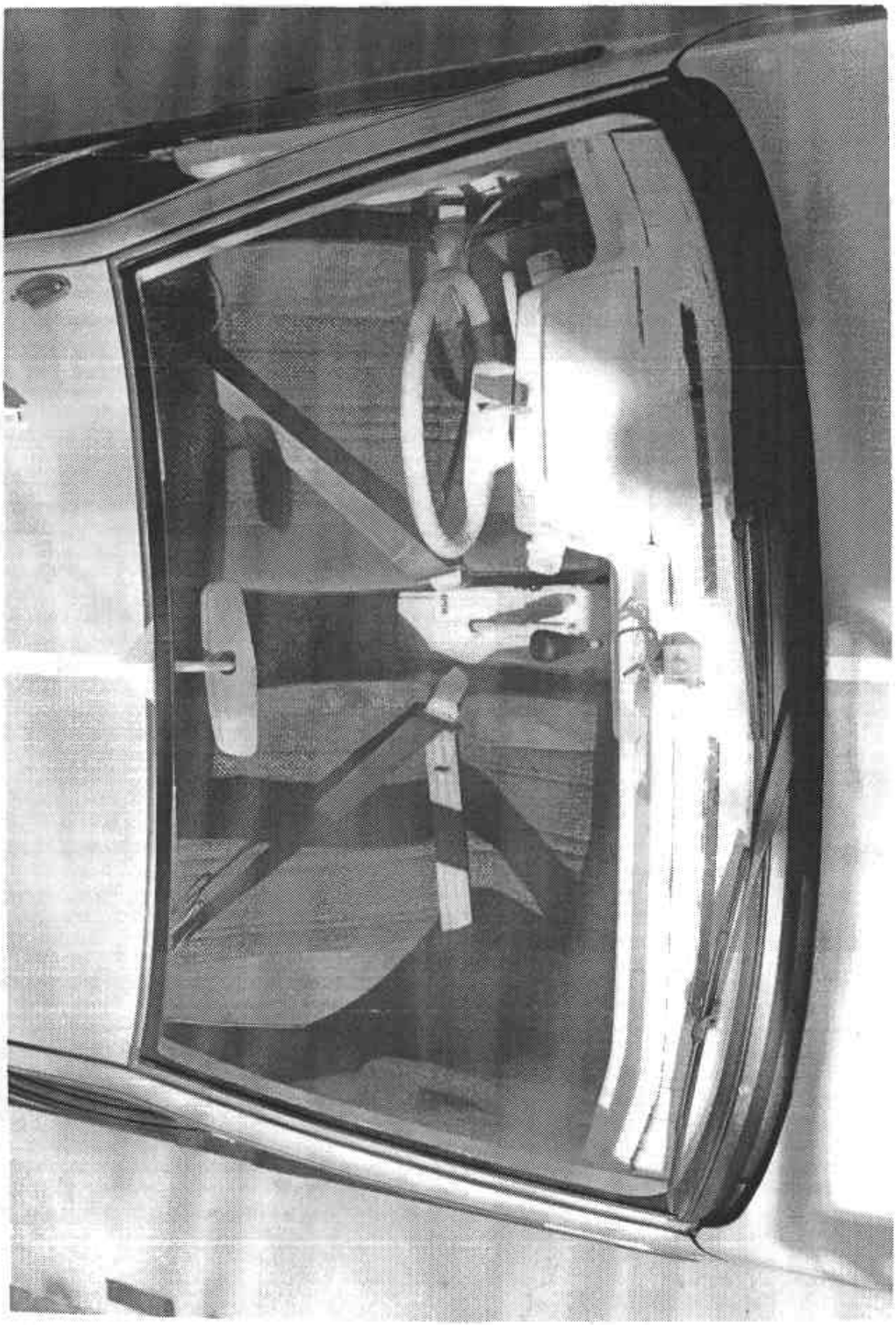
POSTTEST RIGHT SIDE VIEW

PRETEST RIGHT FRONT 3/4 VIEW

POSTTEST RIGHT FRONT 3/4 VIEW

PRETEST LEFT REAR 3/4 VIEW

POSTTEST LEFT REAR 3/4 VIEW

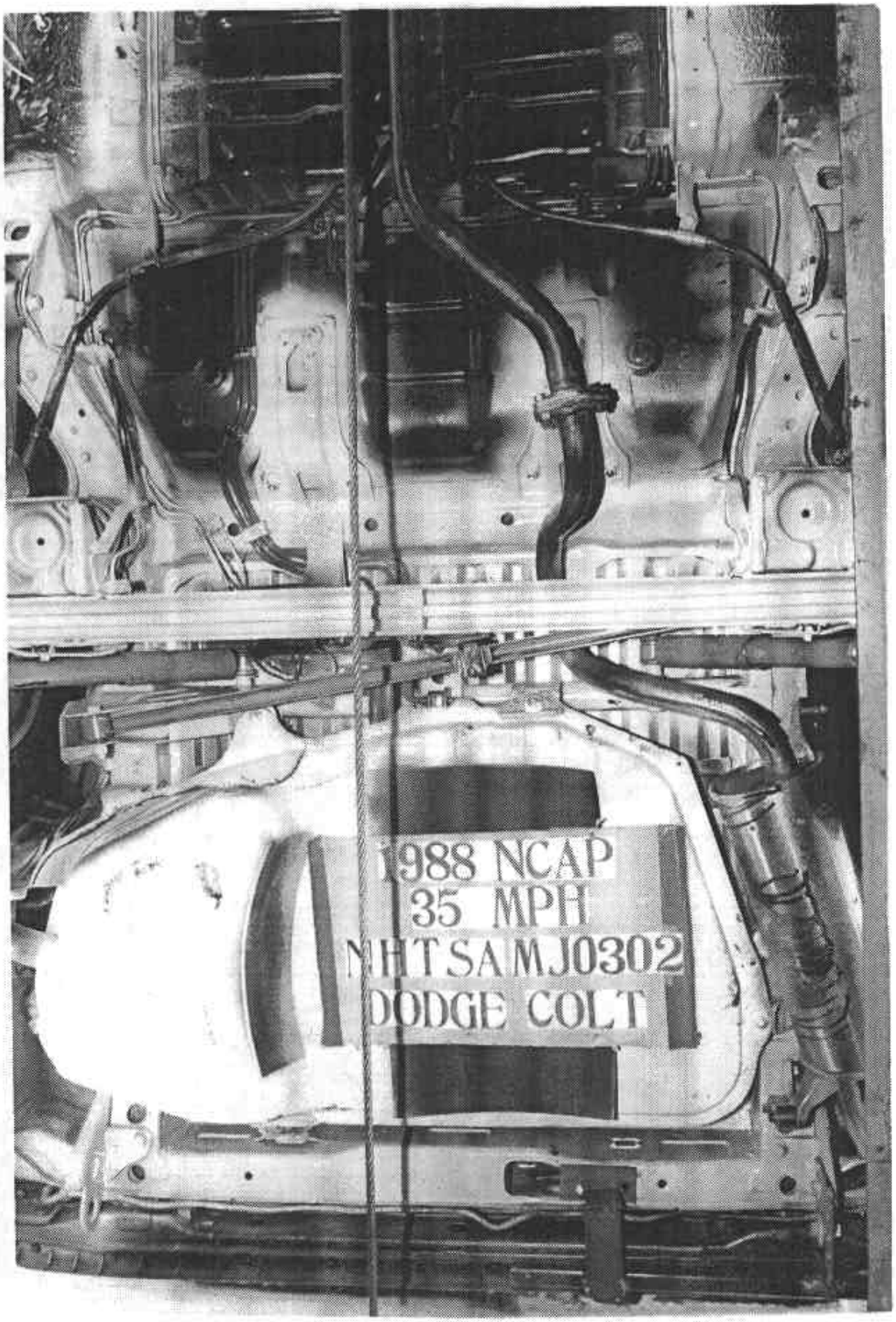


PRETEST WINDSHIELD VIEW

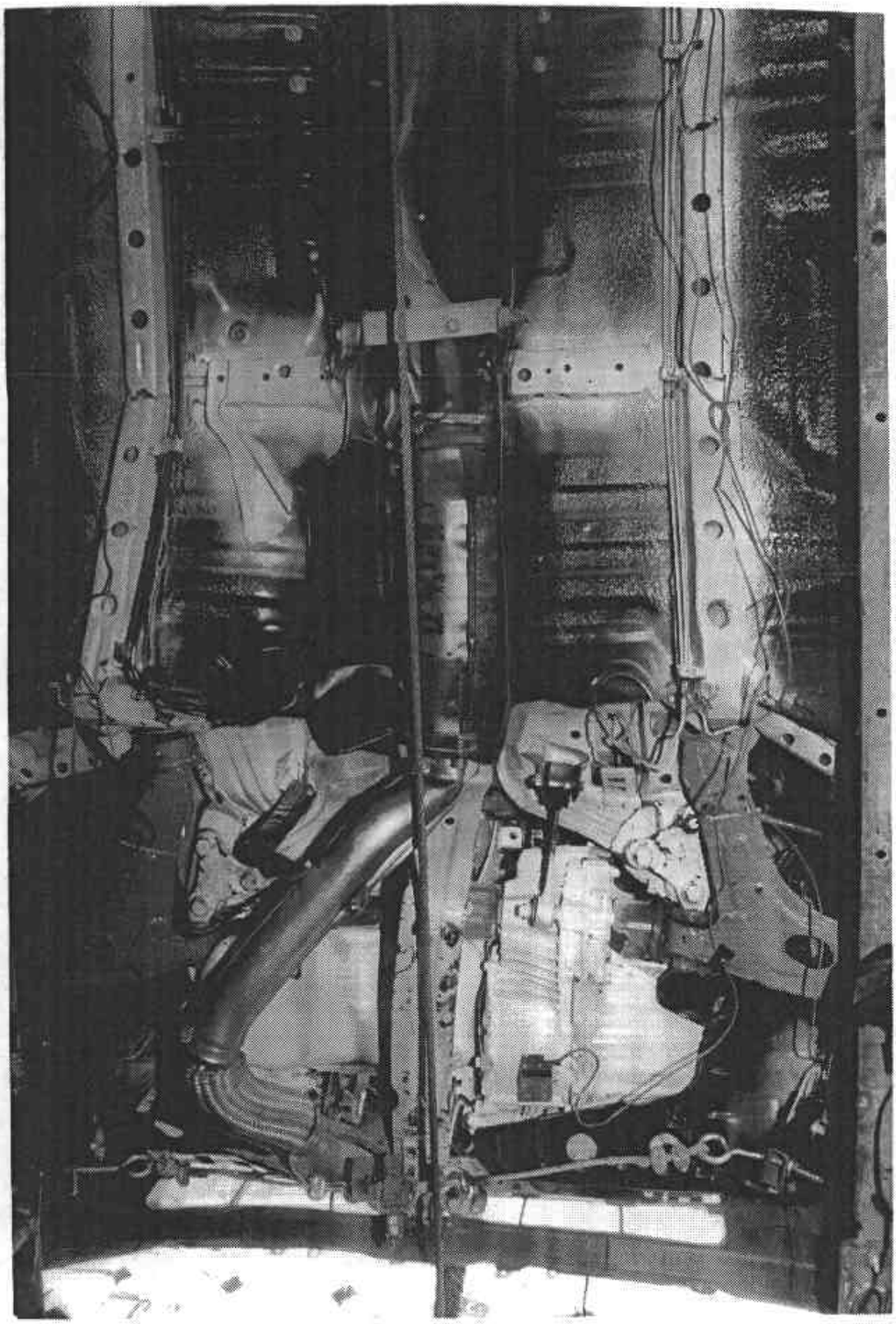
POSTTEST WINDSHIELD VIEW

PRETEST ENGINE COMPARTMENT VIEW

POSTTEST ENGINE COMPARTMENT VIEW

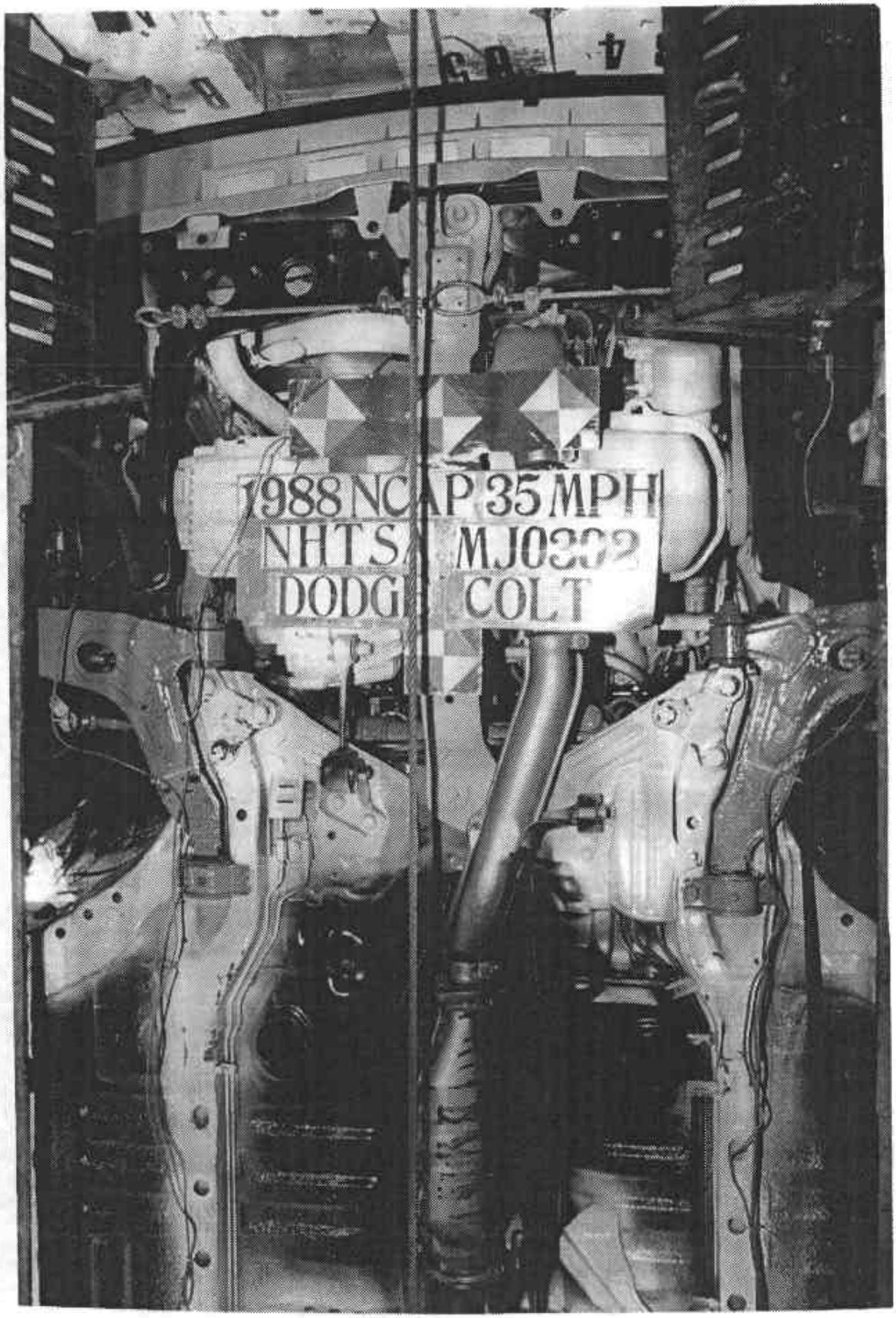


PRETEST FRONT UNDERBODY VIEW

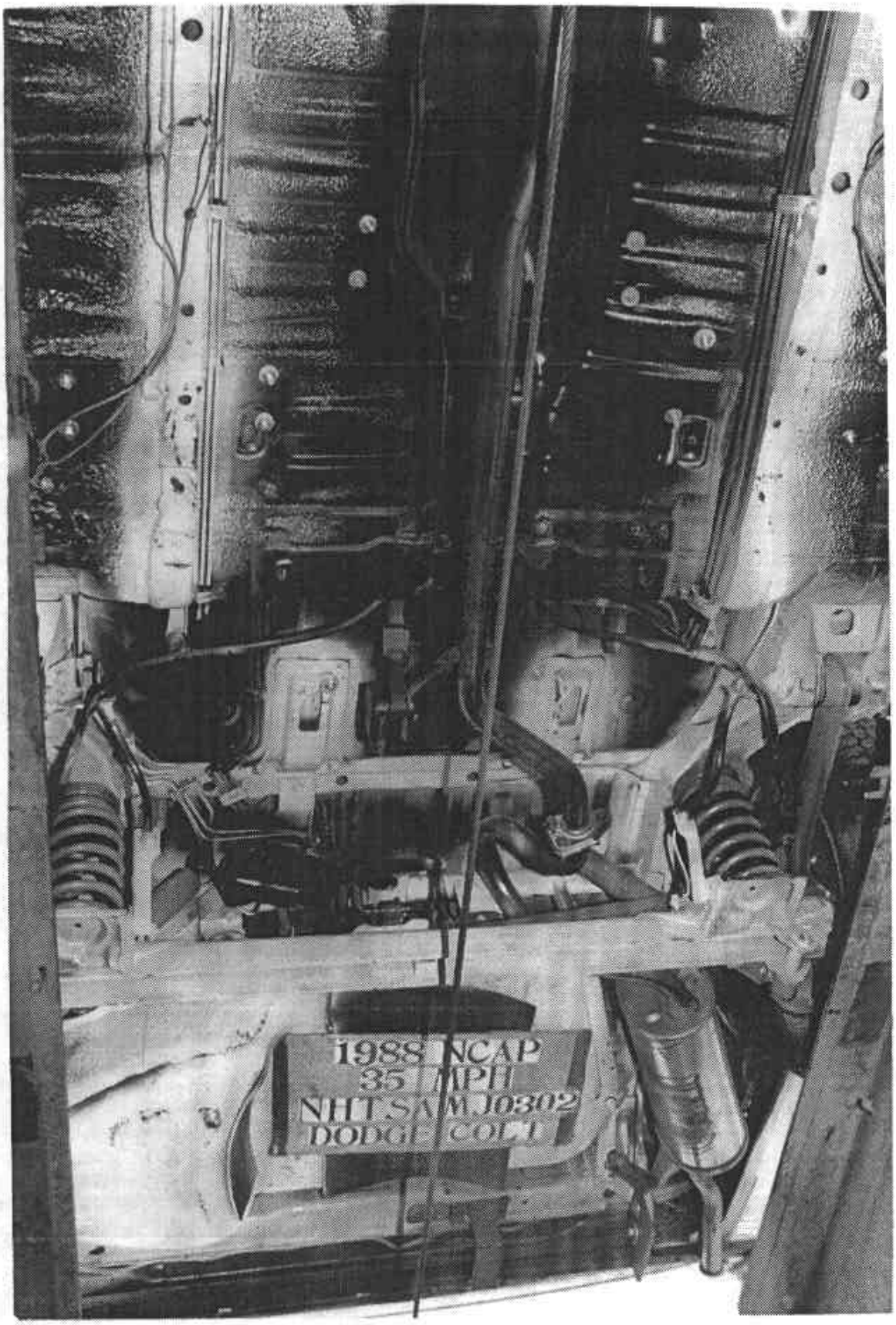


MSE-88-R7157-N06

POSTTEST FRONT UNDERBODY VIEW



PRETEST REAR UNDERBODY VIEW



POSTTEST REAR UNDERBODY VIEW

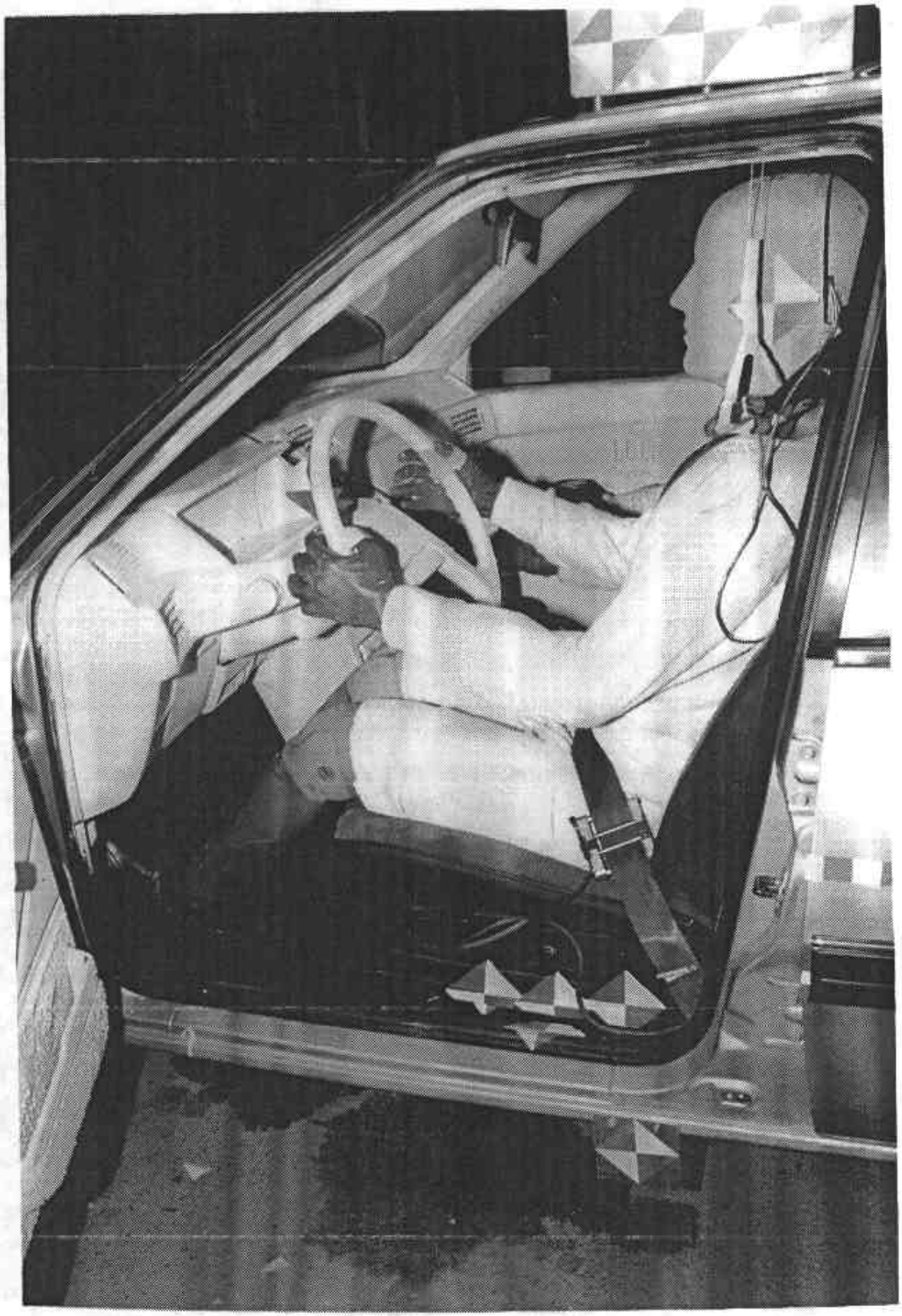
MSE-88-R7157-N06

PRETEST DRIVER DUMMY (ATD) POSITION VIEW

POSTTEST DRIVER DUMMY (ATD) ROSITION VIEW

PRETEST PASSENGER DUMMY (ATD) POSITION VIEW

POSTTEST PASSENGER DUMMY (ATD) POSITION VIEW

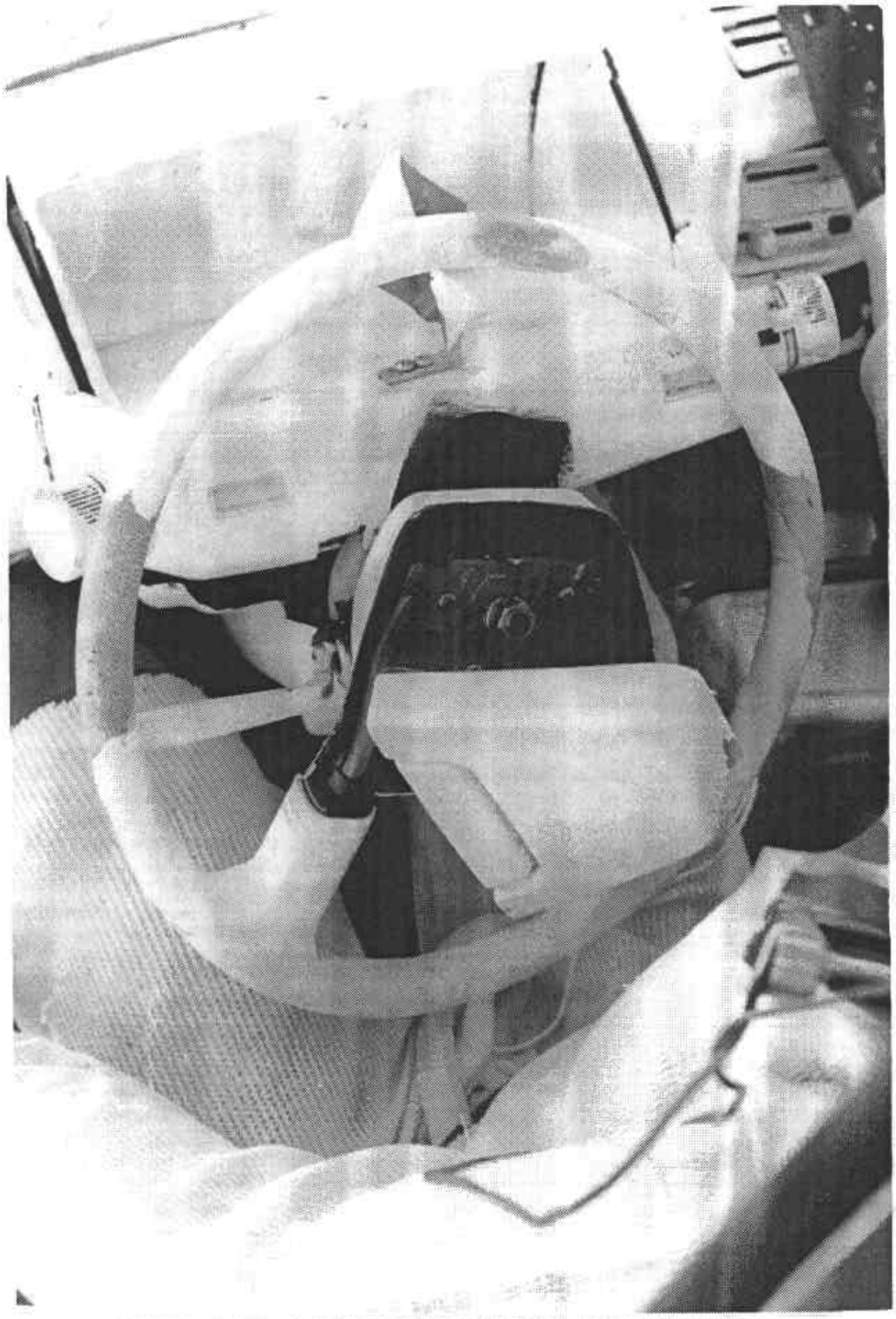


PRETEST DRIVER DUMMY & VEHICLE INTERIOR VIEW (Door Open) MSE-88-R7157-N06

POSTTEST DRIVER DUMMY & VEHICLE INTERIOR VIEW (Door Open)

PRETEST PASSENGER DUMMY & VEHICLE INTERIOR VIEW (Door Open)

POSTTEST PASSENGER DUMMY & VEHICLE INTERIOR VIEW (Door Open)



POSTTEST STEERING COLUMN HUB/RIM CONTACT BY DRIVER DUMMY

POSTTEST DRIVER DUMMY KNEE CONTACT AREA

POSTTEST PASSENGER DUMMY KNEE CONTACT

APPENDIX B-1

VEHICLE AND DUMMY (ATD) RESPONSE DATA

DATA FILTERING:

ATD Head Channels	- Class 1000
ATD Chest Channels	- Class 180
ATD Femur Channels	- Class 600
Vehicle Channels	- Class 60

```
V21  1988 35 MPH NCAP FRONTAL BARRIER IMPACT                                    ACQUIRE NCAP DATA USING TWO INSTR. DUMMIES AND
LOAD CELL BARRIER   25MAR88SEDTNV22-87-0-02009   N87169NCAVTBASHORY 95FHTURB 35.20000000.09999.9ENG0477
        NO COMMENTS
21070788SNJB4EA31P3JU040838  4CTF1.468 LITERSMF 2852  94.3 168.5 64.0 46.6SPOTHP            UNMODIFIED
                             168.5 148.2 128.3 117.6 117.1 116.5 116.9  76.0  76.2  77.4  77.8 116.4 116.8 128.3 128.
3 102.1  16.3  16.9 166.3 166.8   5.5 35.2000000NNNNNN999.9999.9999.9999.9999.9999.912FCNN9  64.0  0.0 28.0 142.2 132.4
117.6 114.4 114.9 114.7 115.4  72.8  74.3  76.0  76.6 114.5 115.3 119.8 118.6  94.5  14.4  17.7 138.3 139.8   5.5999999N
0 COMMENTS
3RLC0000999.9 36 50KLB LOAD CELLS ARRANGED IN A 9 WIDE BY 4 HIGH MATRIX.
4101P599NN99999P550MFG: HUMANOID SYSTEMS. S/N 464                                UNMODIFIED
                                NO COMMENTS                                                          11.7 17.7
16.5 19.0 22.8 14.3  4.3  6.5  7.1999.9999.9999.9999.93PTSNNO COMMENTS
        CNNASRSHNONOOPOT1353. 92.125 60.500 52.8 844. 402. 487.1102.1543.NO COMMENTS

4102P599NN99999P550MFG: HUMANOID SYSTEMS. S/N 467                                UNMODIFIED
                                NO COMMENTS                                                          11.0 17.3
16.5 18.2 22.8999.9  4.5  6.5  6.4999.9999.9999.9999.93PTDPLNO COMMENTS
        CNNADPNONONOOPOT 816.107.625 71.625 37.7 461.1601. 361. 857.1644.NO COMMENTS

51001AC01HDCGXLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: AT34                  28/FEB/88  200129 35.2 -360
02499   125AM
51002AC01HDCGYLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BB91H                 28/FEB/88  200 21  0.0 -360
02499   125AM
51003AC01HDCGZLG'S 1650MFG: ENDEVCO. MODEL: 7264-20 . S/N: BF82H                 28/FEB/88  200 22  0.0 -360
02499   125AM
51004AC01CHSTXLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BJ28H                 28/FEB/88  200 29 35.2 -360
02499   125AM
51005AC01CHSTYLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: AC97                  28/FEB/88  200 13  0.0 -360
02499   125AM
51006AC01CHSTZLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: AE29                  28/FEB/88  200 10  0.0 -360
02499   125AM
51007AC02HDCGXLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BG75H                 28/FEB/88  200 26 35.20F380
02499   125AM
51008AC02HDCGYLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BJ61H                 28/FEB/88  200  4  0.0 -360
02499   125AM
51009AC02HDCGZLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BJ54H                 28/FEB/88  200 40  0.0 -360
02499   125AM
51010AC02CHSTXLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BJ27H                 28/FEB/88  200 19 35.2 -360
02499   125AM
51011AC02CHSTYLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: BG78H                 28/FEB/88  200 10  0.0 -360
02499   125AM
51012AC02CHSTZLG'S 1650MFG: ENDEVCO. MODEL: 7264-200. S/N: AR39                  28/FEB/88  200  9  0.0 -360
02499   125AM
51013LC01FHRLXLLBS 1650MFG: GSE.     MODEL: 2430.    S/N: 735                    29/FEB/88 3000 30  0.0 -360
02499   125AM
51014LC01FHRRXLLBS 1650MFG: ENDEVCO. MODEL: 7168C.   S/N: BA14                   29/FEB/88 3000 27  0.0 -360
02499   125AM
51015LC02FHRLXLLBS 1650MFG: ENDEVCO. MODEL: 7168C.   S/N: BA24                   29/FEB/88 3000 59  0.0 -360
02499   125AM
51016LC02FHRRXLLBS 1650MFG: ENDEVCO. MODEL: 7168C.   S/N: BA55                   29/FEB/88 3000 59  0.0 -360
02499   125AM
51017LC01SHBTOTLBS 1650MFG: LEBOW.   MODEL: 3371.    S/N: 333                    01/MAR/88 3500 33  0.0 -360
02499   125AM
51018LC01LPBOOTLBS 1650MFG: LEBOW.   MODEL: 3371.    S/N: 327                    01/MAR/88 3500 45  0.0 -360
02499   125AM
51019LC02SHBTOTLBS 1650MFG: LEBOW.   MODEL: 3371.    S/N: 330                    01/MAR/88 3500 25  0.0 -360
02499   125AM
51020LC02LPBOOTLBS 1650MFG: LEBOW.   MODEL: 3371.    S/N: 368                    01/MAR/88 3500 48  0.0 -360
02499   125AM
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50049LCNALCB9XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19286
04239   125AM                                                    14/MAY/8550000  3  0.0 -360
50050LCNALCC1XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19287
04239   125AM                                                    14/MAY/8550000  3  0.0 -360
50051LCNALCC2XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19288
04239   125AM                                                    14/MAY/8550000 11  0.0 -360
50052LCNALCC3XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19289
04239   125AM                                                    14/MAY/8550000 13  0.0 -360
50053LCNALCC4XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19291
04239   125AM                                                    14/MAY/8550000  7  0.0 -360
50054LCNALCC5XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19324
04239   125AM                                                    14/MAY/8550000 11  0.0 -360
50055LCNALCC6XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19313
04239   125AM                                                    14/MAY/8550000  7  0.0 -360
50056LCNALCC7XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19314
04239   125AM                                                    14/MAY/8550000 11  0.0 -360
50057LCNALCC8XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19315
04239   125AM                                                    14/MAY/8550000  9  0.0 -360
50058LCNALCC9XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19316
04239   125AM                                                    14/MAY/8550000  2  0.0 -360
50059LCNALCD1XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19317
04239   125AM                                                    14/MAY/8550000  3  0.0 -360
50060LCNALCD2XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19318
04239   125AM                                                    14/MAY/8550000  6  0.0 -360
50061LCNALCD3XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19322
04239   125AM                                                    14/MAY/8550000  4  0.0 -360
50062LCNALCD4XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19323
04239   125AM                                                    14/MAY/8550000  6  0.0 -360
50063LCNALCD5XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19268
04239   125AM                                                    14/MAY/8550000  4  0.0 -360
50064LCNALCD6XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19325
04239   125AM                                                    14/MAY/8550000  3  0.0 -360
50065LCNALCD7XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19332
04239   125AM                                                    14/MAY/8550000  5  0.0 -360
50066LCNALCD8XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19333
04239   125AM                                                    14/MAY/8550000  8  0.0 -360
50067LCNALCD9XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS   S/N: 19338
04239   125AM                                                    14/MAY/8550000  2  0.0 -360
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51021DS01SHBEOTINS 1650MFG: BOURNS.  MODEL: 8 IN LIN  S/N: NAV                 03/MAR/88    8  1  0.0 -360
02499   125MN NOT USED IN THIS TEST
51022DS02SHBEOTINS 1650MFG: BOURNS.  MODEL: 8 IN LIN  S/N: NAV                 03/MAR/88    8  1  0.0 -360
02499   125MN NOT USED IN THIS TEST
51023DS01SHBTOTOTH 1650MFG: BOURNS.  MODEL: 2051414101  S/N: NAV               03/MAR/88   30  7  0.0 -360
02499   125AM SEAT BELT ELONGATION. UNITS ARE INCHES/IN.(PERCENTAGE BELT STRETCH)
51024DS02SHBTOTOTH 1650MFG: BOURNS.  MODEL: 2051414101  S/N: NAV               03/MAR/88   30 17  0.0 -360
02499   125AM SEAT BELT ELONGATION. UNITS ARE INCHES/IN.(PERCENTAGE BELT STRETCH)
51025AONASULFXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1109                 03/MAR/88  250 94 35.2 -360
02499   125AM LEFT  FRONT BRAKE CALIPER
51026AONASURFXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1116                 03/MAR/88  250 76 35.2 -360
02499   125AM RIGHT FRONT BRAKE CALIPER
51027AONAENGNXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1878                 03/MAR/88  250111 35.2 -360
02499   125AM ENGINE BOTTOM
51028AONAENGNXGG'S 1650MFG: SETRA.  MODEL: 113       S/N: 1876                 03/MAR/88  250 94 35.2 -360
02499   125AM ENGINE TOP
51029AONADPLCXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1111                 03/MAR/88  250 73 35.2 -360
02499   125AM TOP OF DASH AT LATERAL C/L
51030AONAFLLRXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1121                 03/MAR/88  250 29 35.2 -360
02499   125AM LEFT  SIDE FLOOR ON CROSS MEMBER BEHIND SEAT
51031AONAFLRRXGG'S 1650MFG: SETRA.  MODEL: 111       S/N: 1123                 03/MAR/88  250 26 35.2 -360
02499   125AM RIGHT SIDE FLOOR ON CROSS MEMBER BEHIND SEAT
50032LONALCA1XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 15777              14/MAY/8550000  2  0.0 -360
04239   125AM
50033LONALCA2XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19324              14/MAY/8550000  2  0.0 -360
04239   125AM
50034LONALCA3XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19283              14/MAY/8550000  7  0.0 -360
04239   125AM
50035LONALCA4XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19263              14/MAY/8550000  5  0.0 -360
04239   125AM
50036LONALCA5XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19265              14/MAY/8550000 33  0.0 -360
04239   125AM
50037LONALCA6XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19266              14/MAY/8550000  3  0.0 -360
04239   125AM
50038LONALCA7XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19268              14/MAY/8550000999  0.0 -360
04239   125MN LOAD CELL FAILURE AT IMPACT
50039LONALCA8XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19270              14/MAY/8550000  2  0.0 -360
04239   125AM
50040LONALCA9XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19258              14/MAY/8550000  2  0.0 -360
04239   125AM
50041LONALCB1XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19273              14/MAY/8550000  4  0.0 -360
04239   125AM
50042LONALCB2XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19276              14/MAY/8550000 12  0.0 -360
04239   125AM
50043LONALCB3XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19277              14/MAY/8550000 34  0.0 -360
04239   125AM
50044LONALCB4XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19278              14/MAY/8550000 34  0.0 -360
04239   125AM
50045LONALCB5XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19279              14/MAY/8550000 48  0.0 -360
04239   125AM
50046LONALCB6XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19282              14/MAY/8550000 23  0.0 -360
04239   125AM
50047LONALCB7XGLBS 1650MFG: INTERFACE  MODEL: 1220-FS  S/N: 19262              14/MAY/8550000 27  0.0 -360
04239   125AM
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04239   125AM
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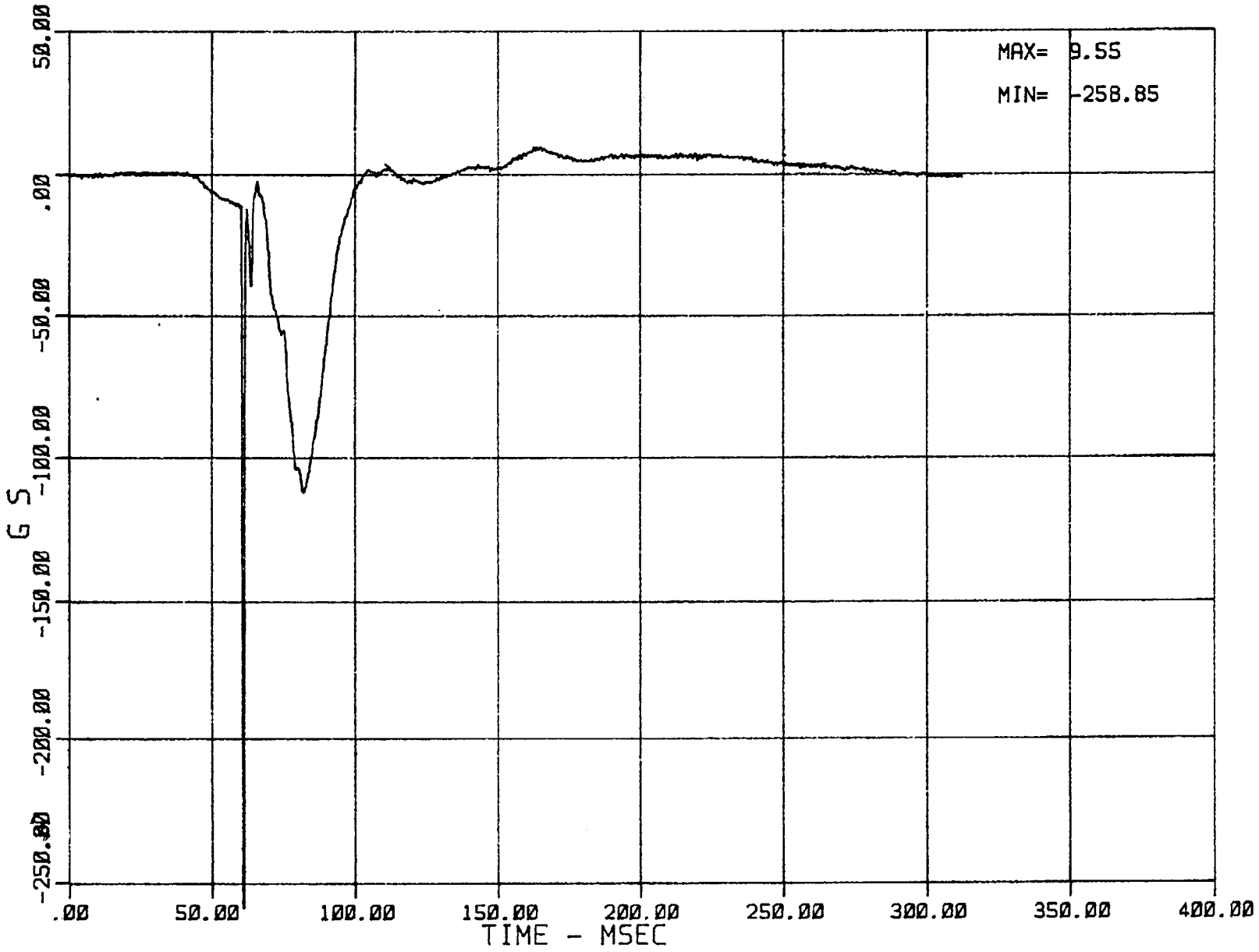
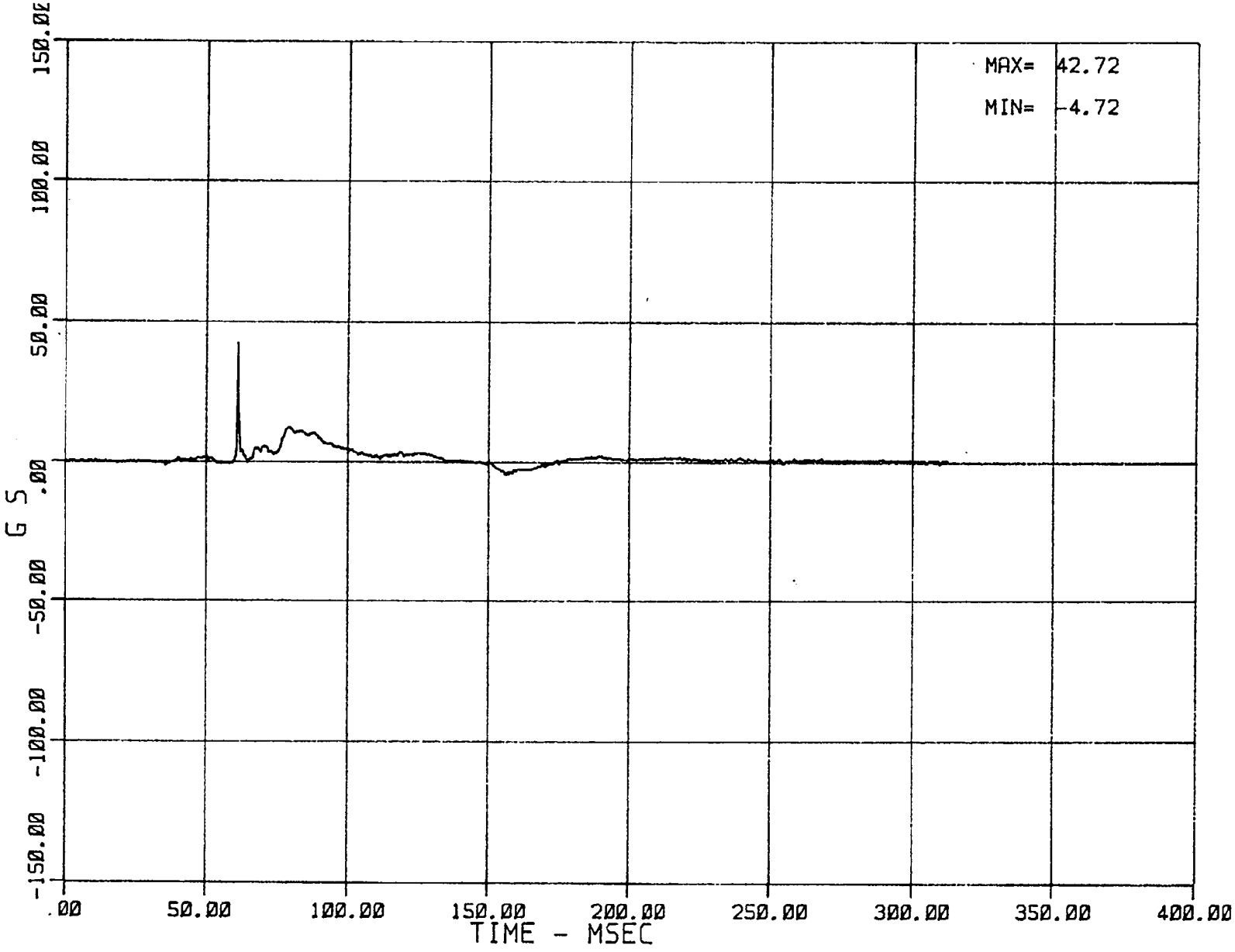
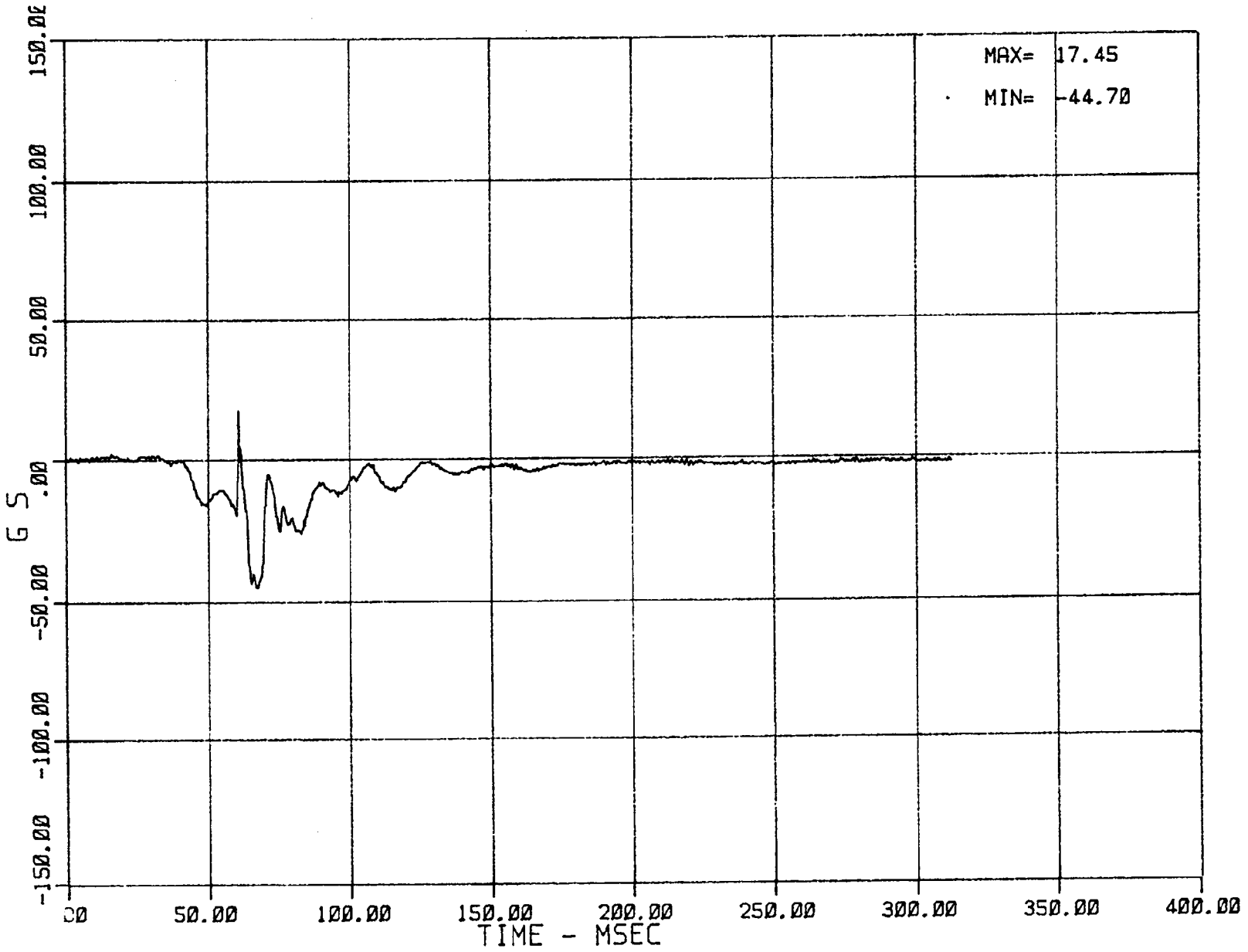


01 AC 01 1 HED X (DRIVER HEAD ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88

MSE-88-R7157-N06



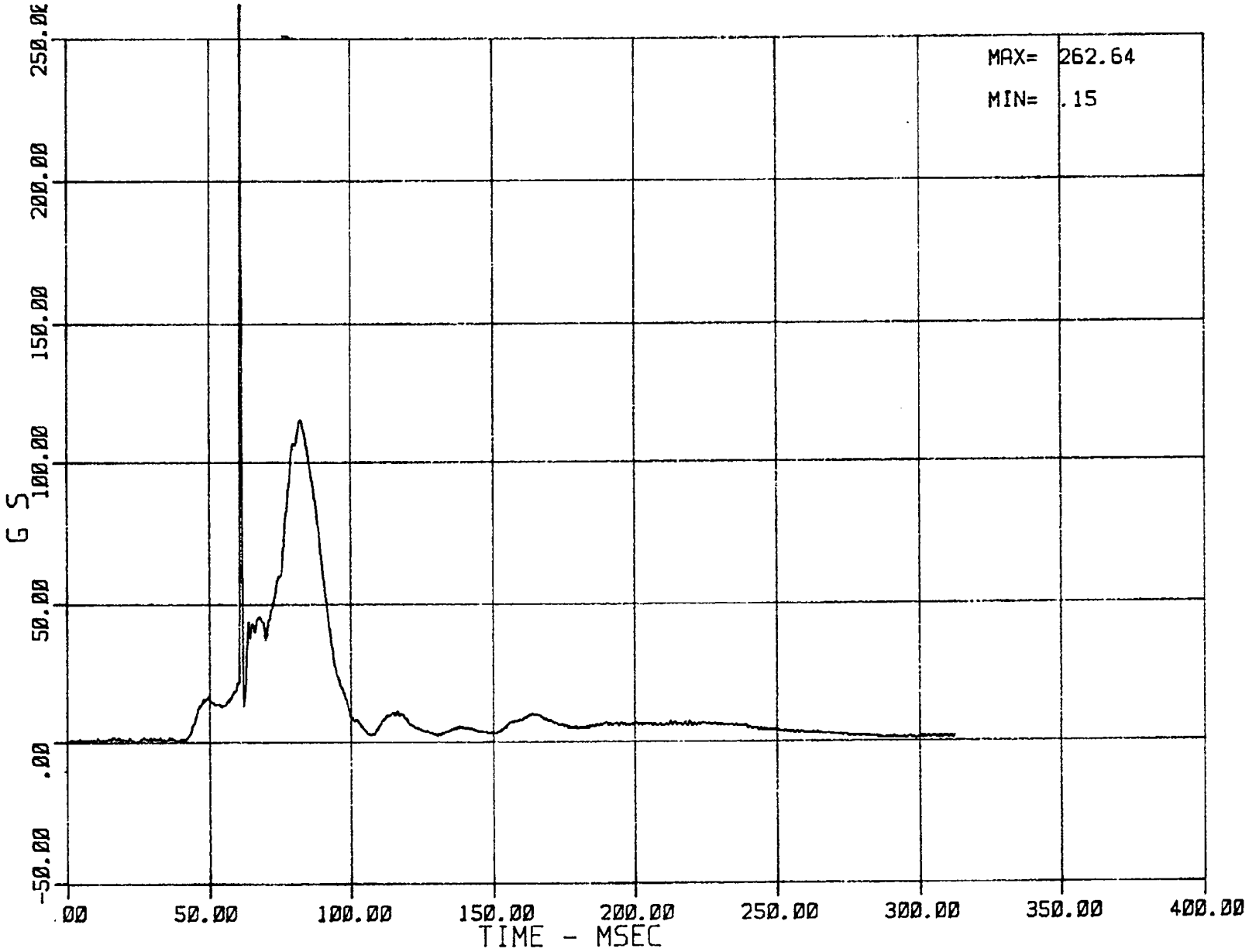
Ø2 AC Ø1 1 HED Y (DRIVER HEAD ACCEL. -- Y-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88



Ø3 AC Ø1 1 HED Z (DRIVER HEAD ACCEL. -- Z-AXIS)
MSE NØ7Ø68 1988 DODGE COLT DL

Ø3/25/88

MSE-88-R7157-N06

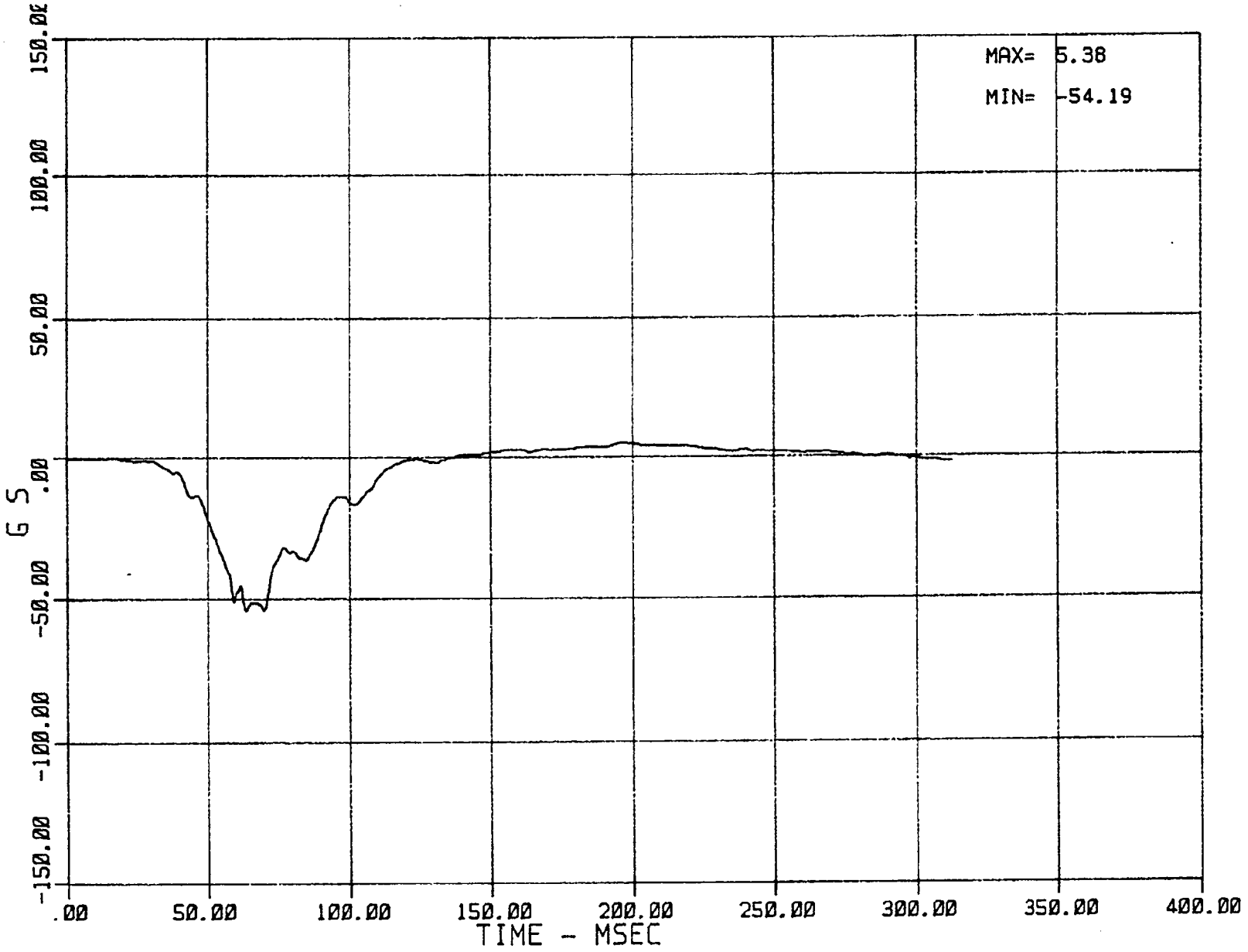


DRIVER HEAD RESULTANT ACCELERATION
MSE N07068 1988 DODGE COLT DL

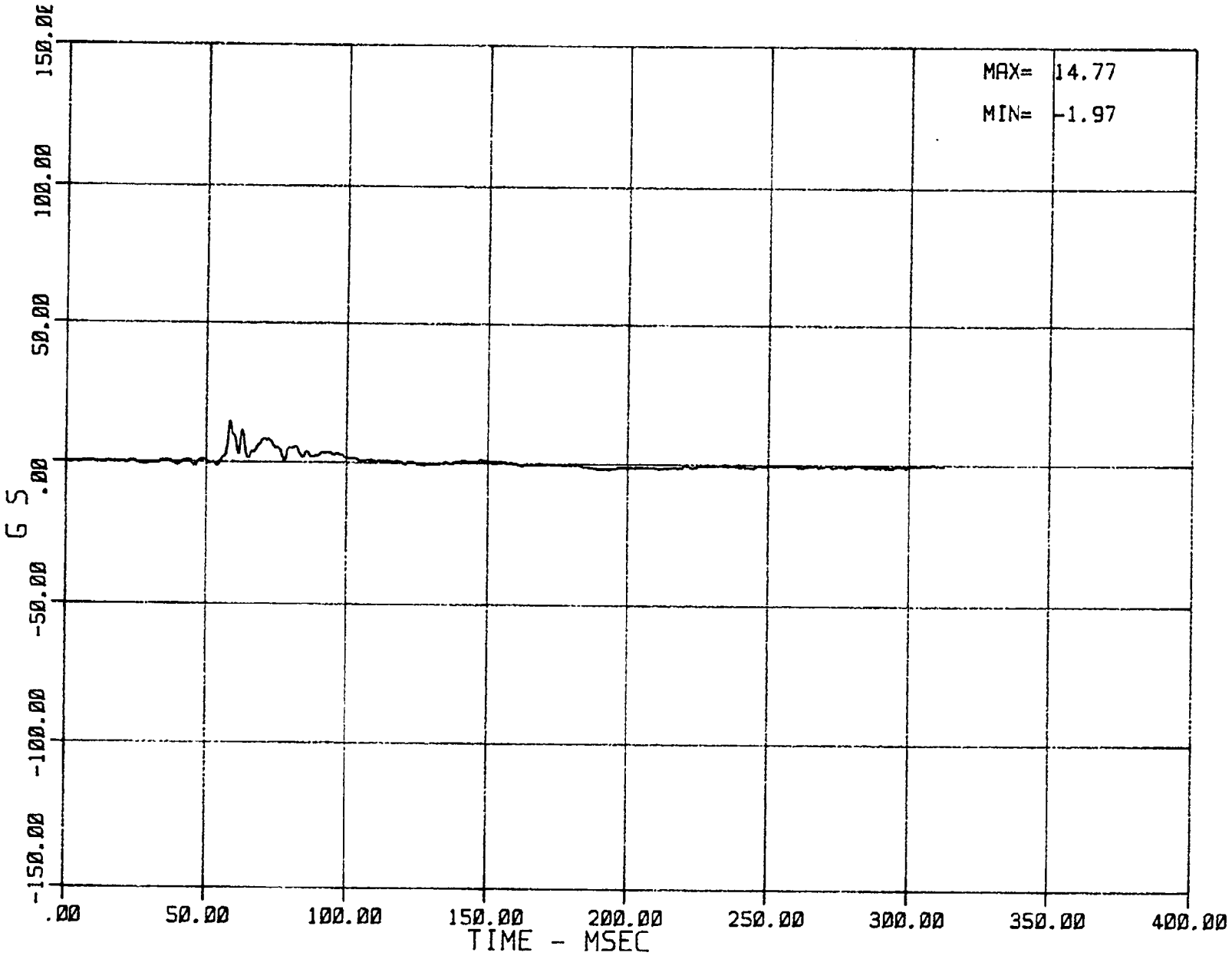
03/25/88

69

MSE-88-R7157-N06

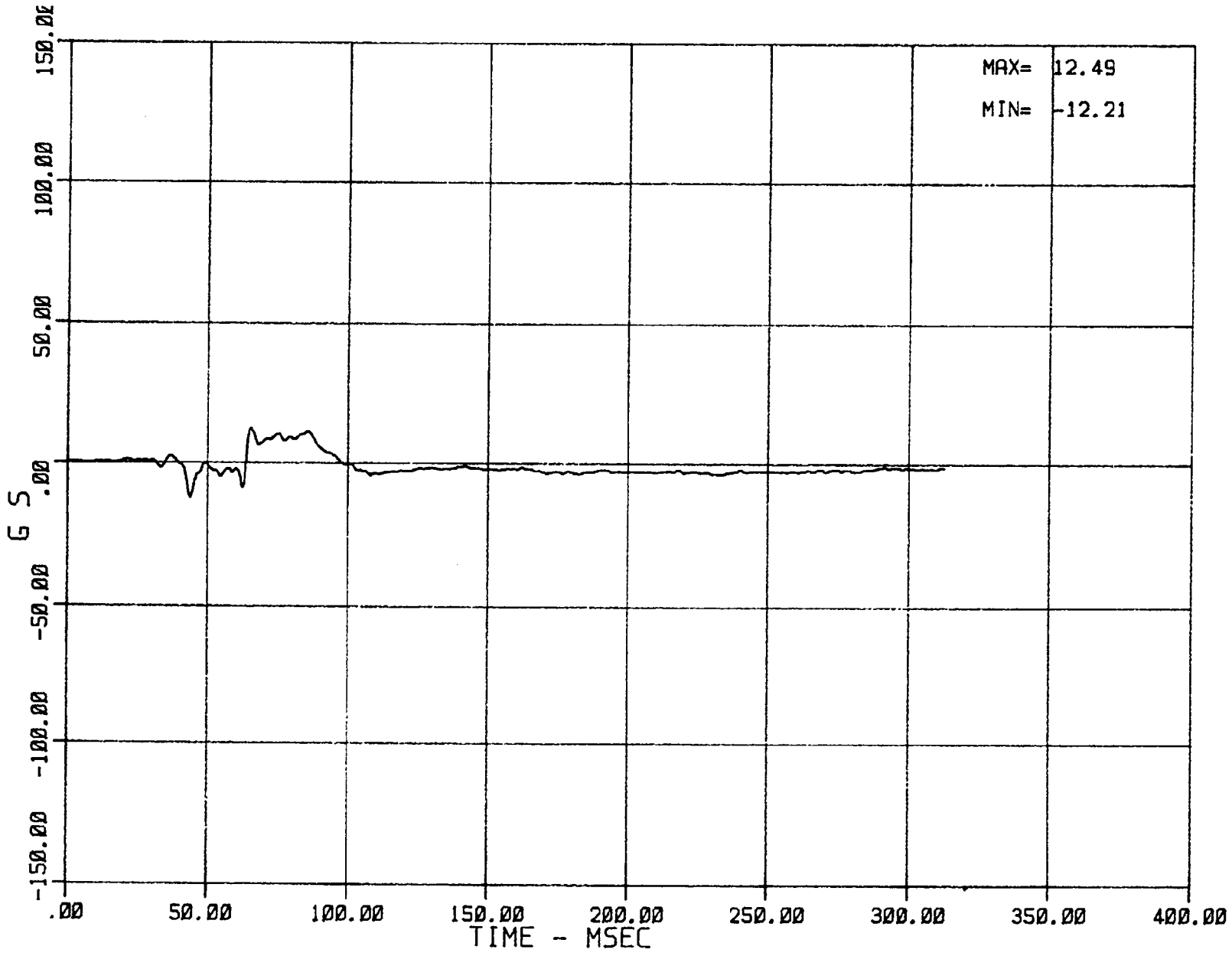


04 AC 01 1 CST X (DRIVER CHEST ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88



05 AC 01 1 CST Y (DRIVER CHEST ACCEL. -- Y-AXIS)
MSE N07068 1988 DODGE COLT DL

03/25/88



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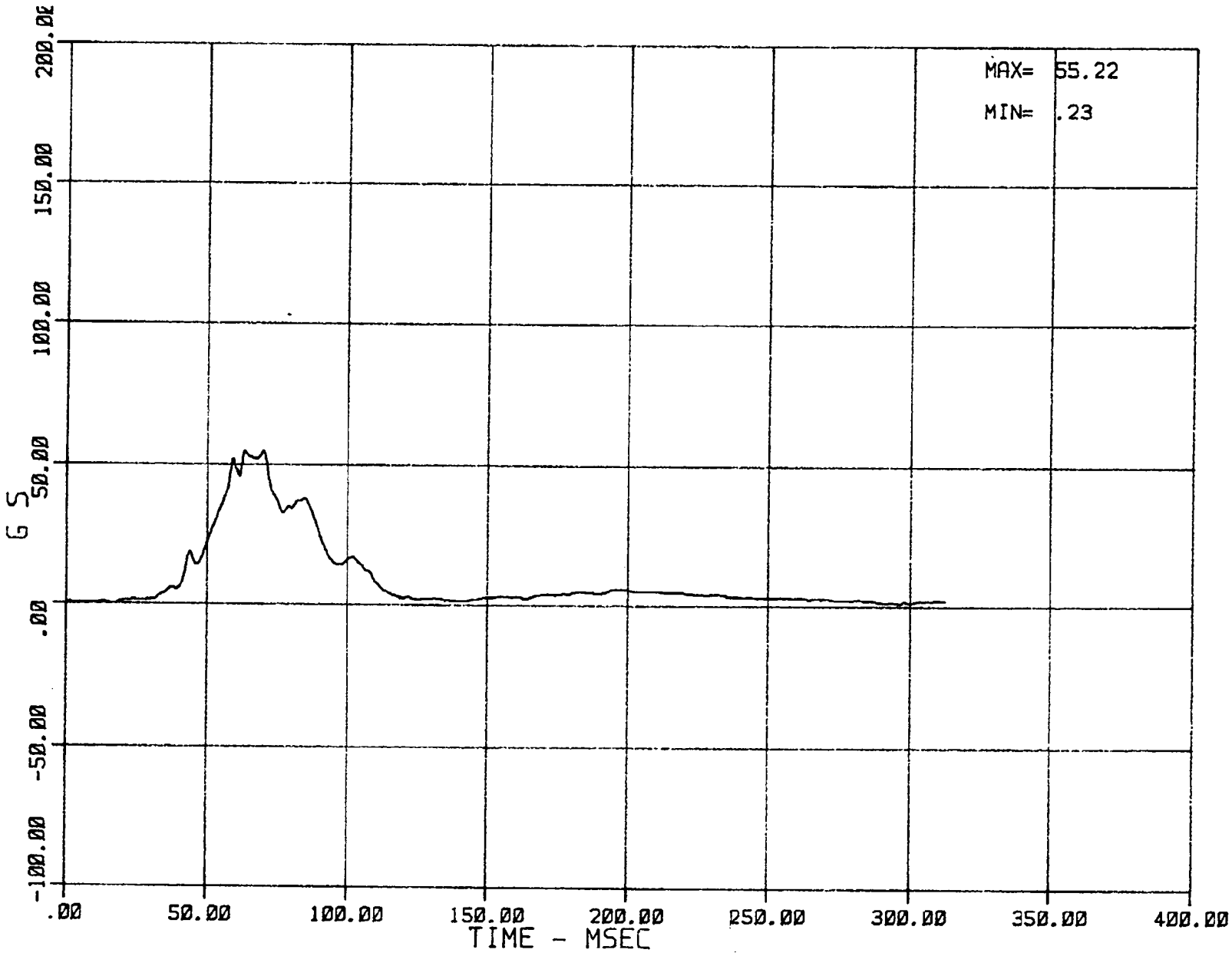
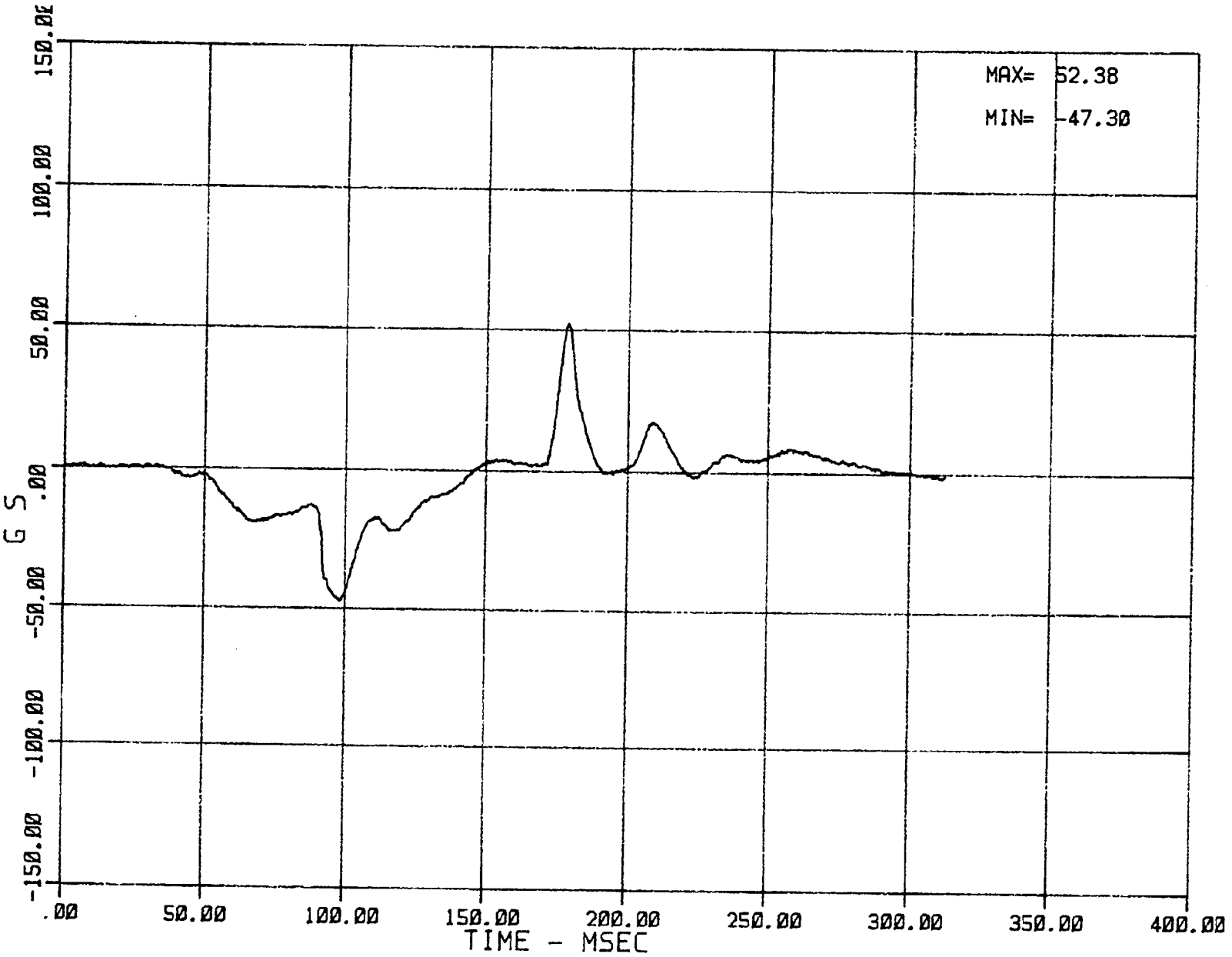
MSE N07068 1988 DODGE COLT DL 03/25/88

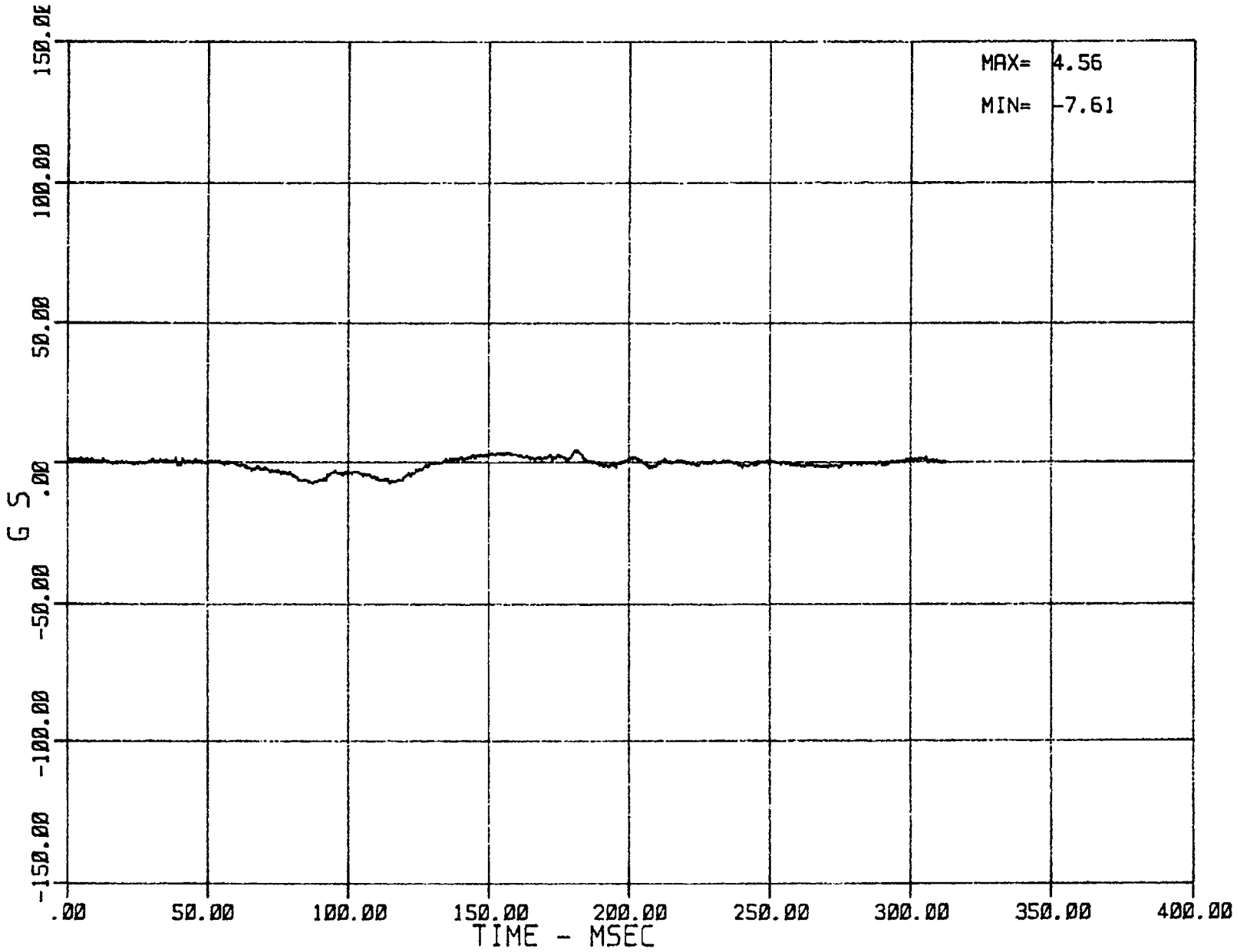


DRIVER'S CHEST RESULTANT ACCELERATION
MSE N07068 1988 DODGE COLT DL 03/25/88

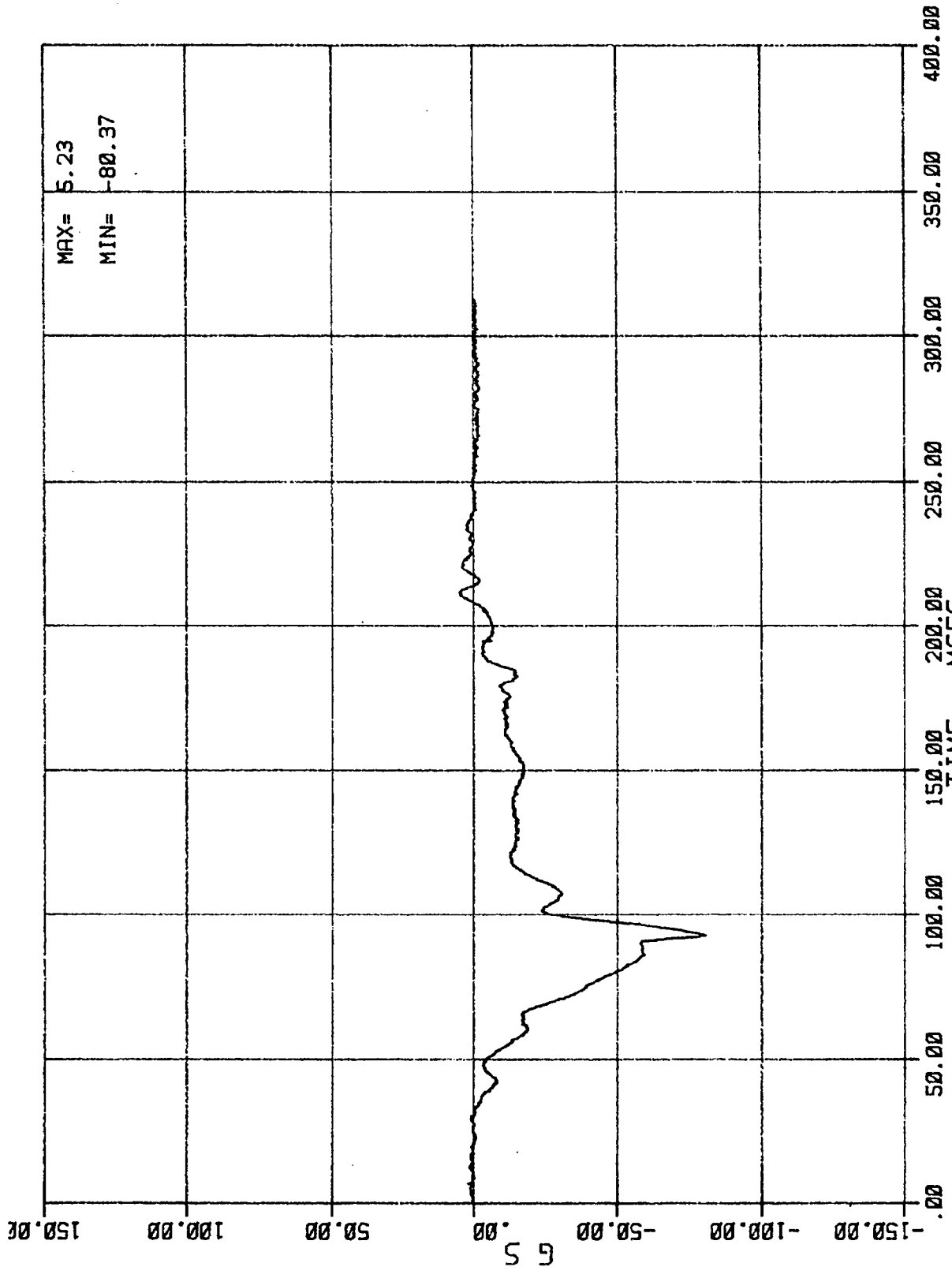


Ø7 AC Ø1 2 HED X (PASSENGER HEAD ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL

Ø3/25/88

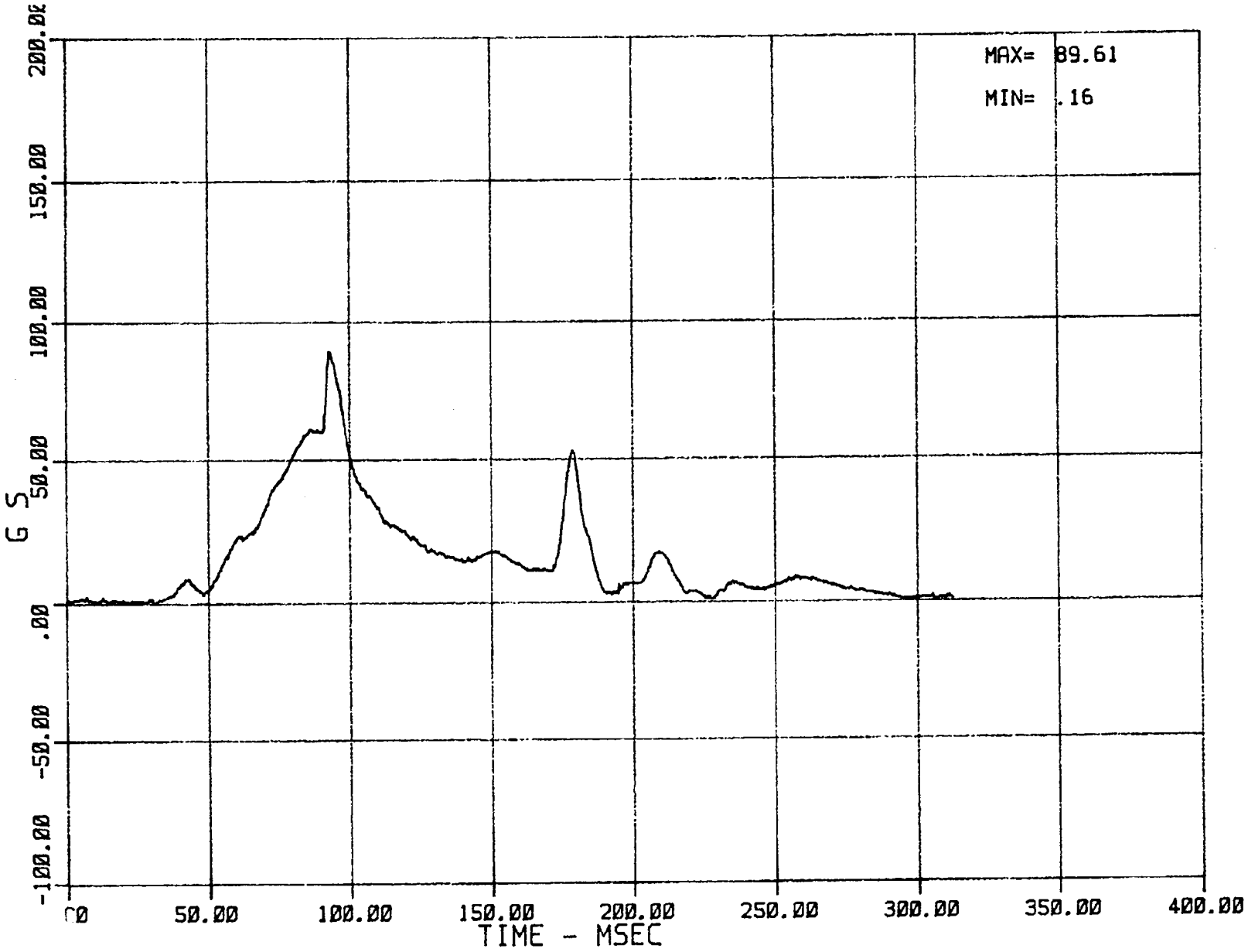


08 AC 01 2 HED Y (PASSENGER HEAD ACCEL. -- Y-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88



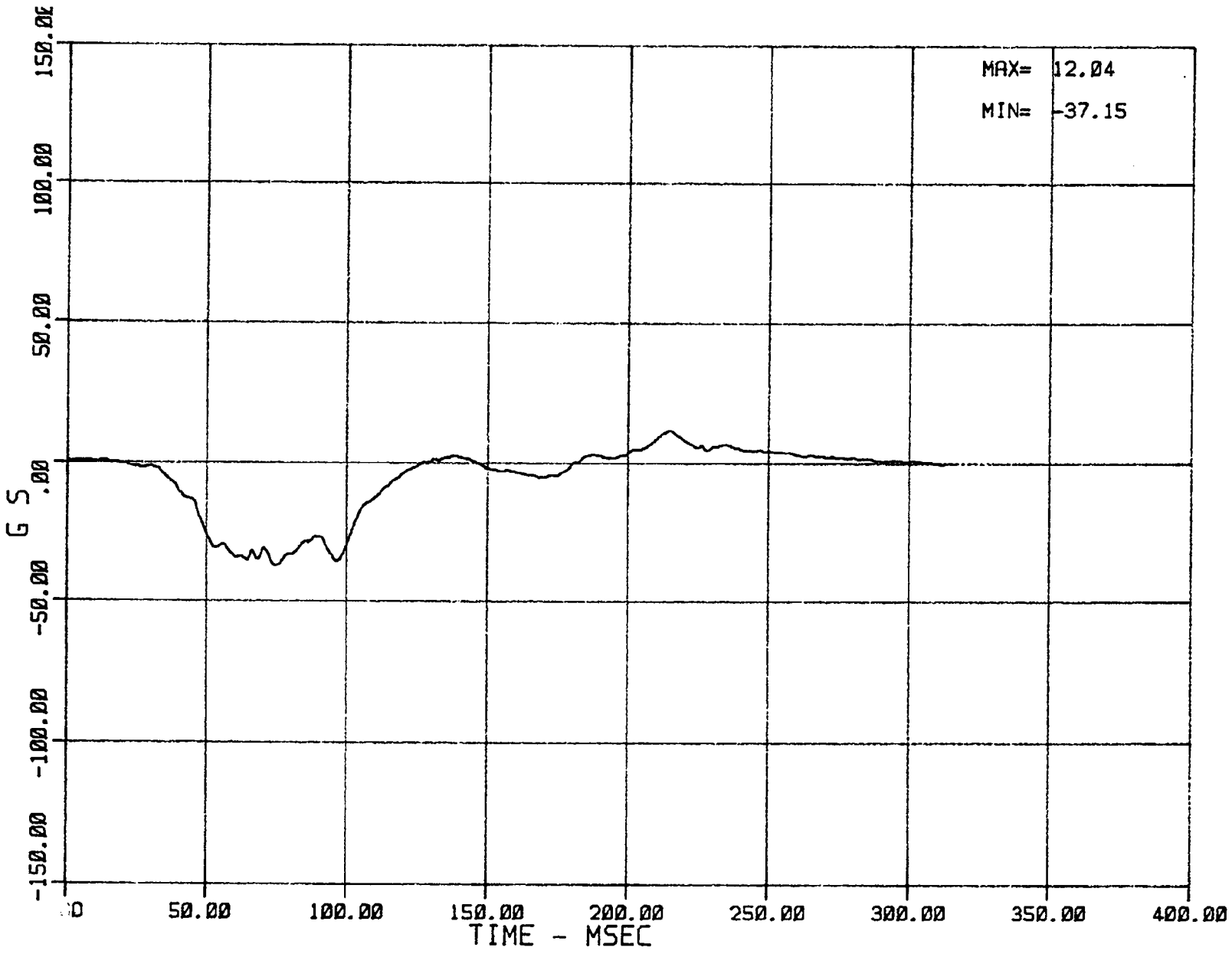
09 AC 01 2 HED Z (PASSENGER HEAD ACCEL. -- Z-AXIS)
MSE N07068 1988 DODGE COLT DL

03/25/88

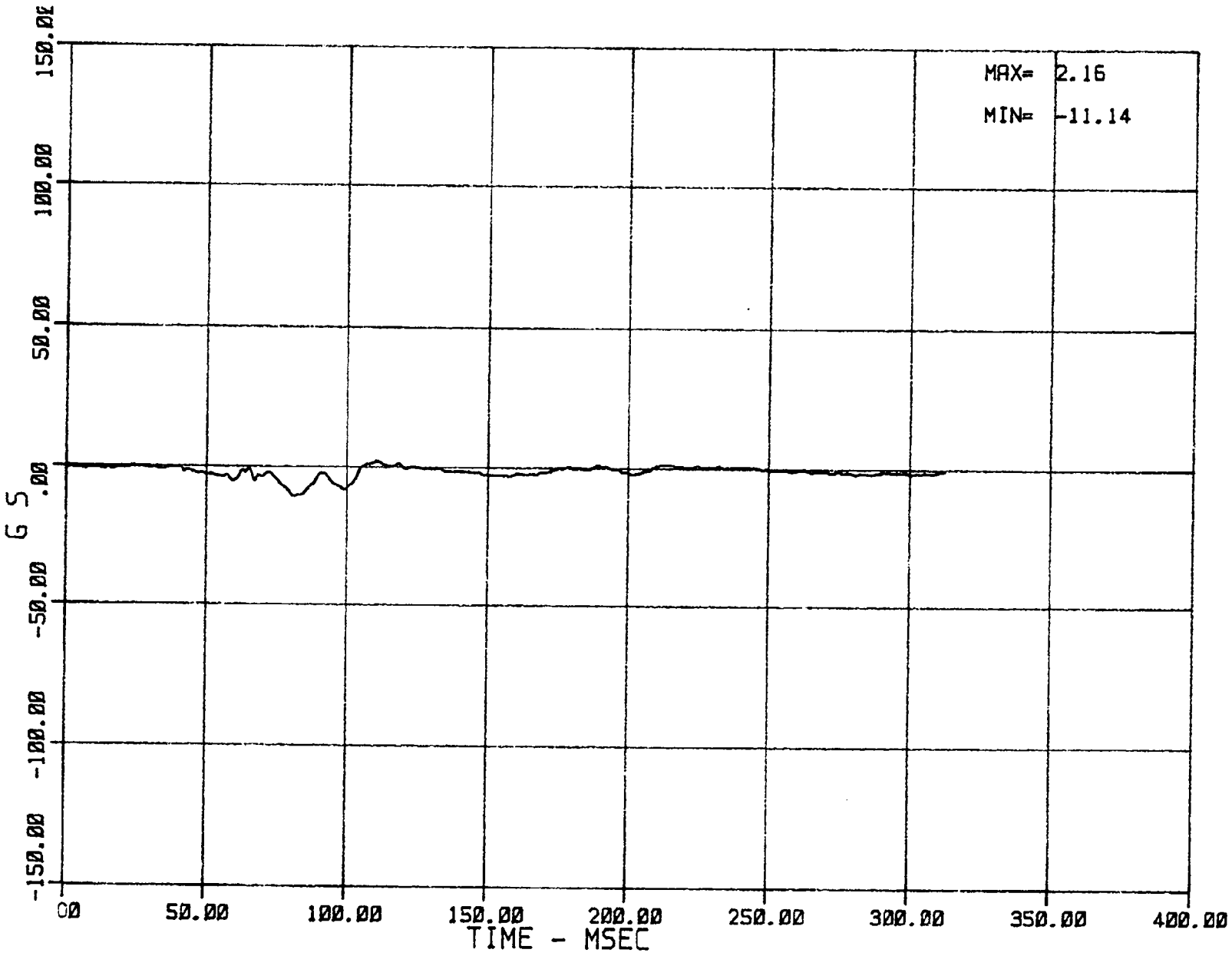


PASSENGER'S HEAD RESULTANT ACCELERATION
MSE N07068 1988 DODGE COLT DE-

03/25/88

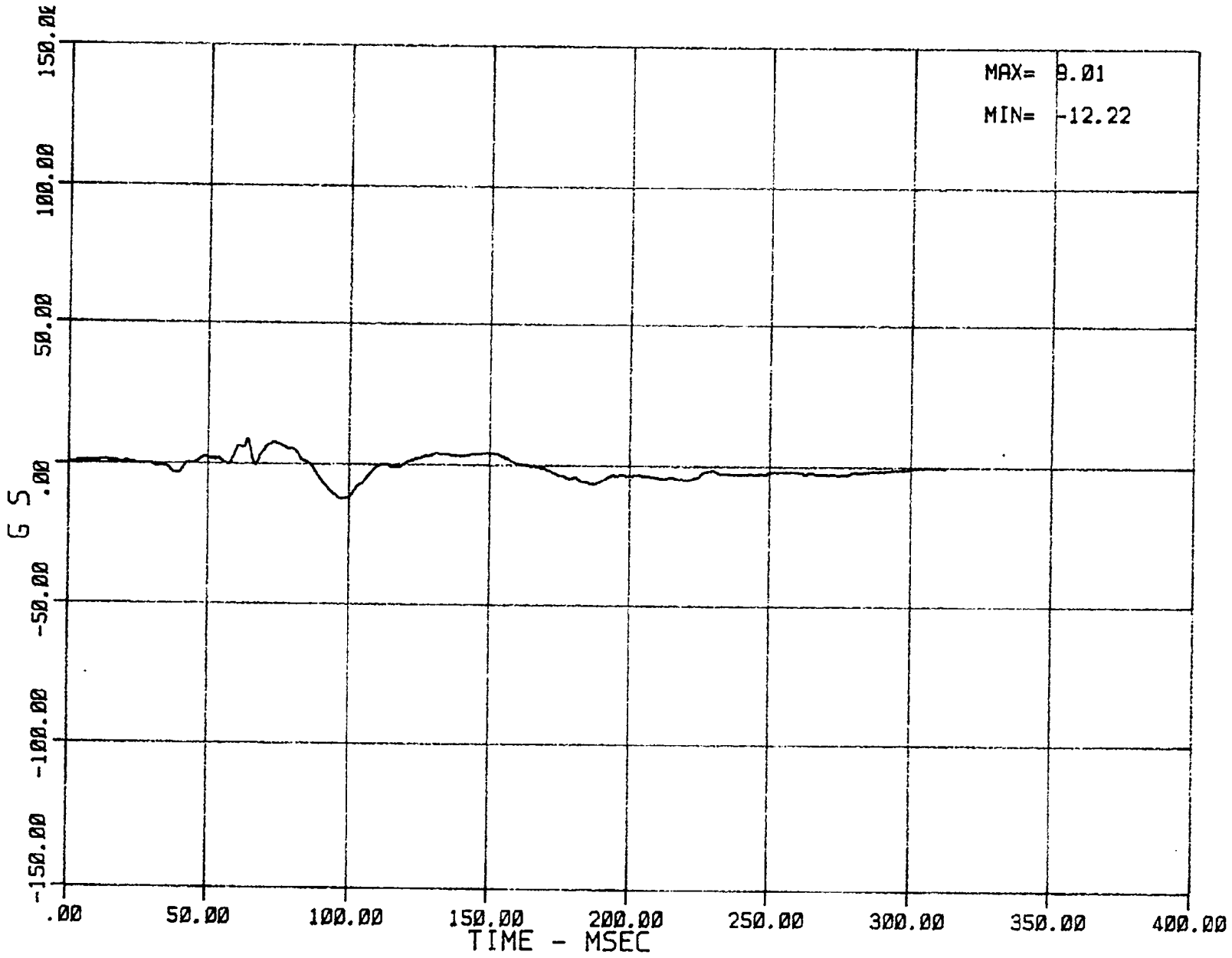


10 AC 01 2 CST X (PASSENGER CHEST ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88



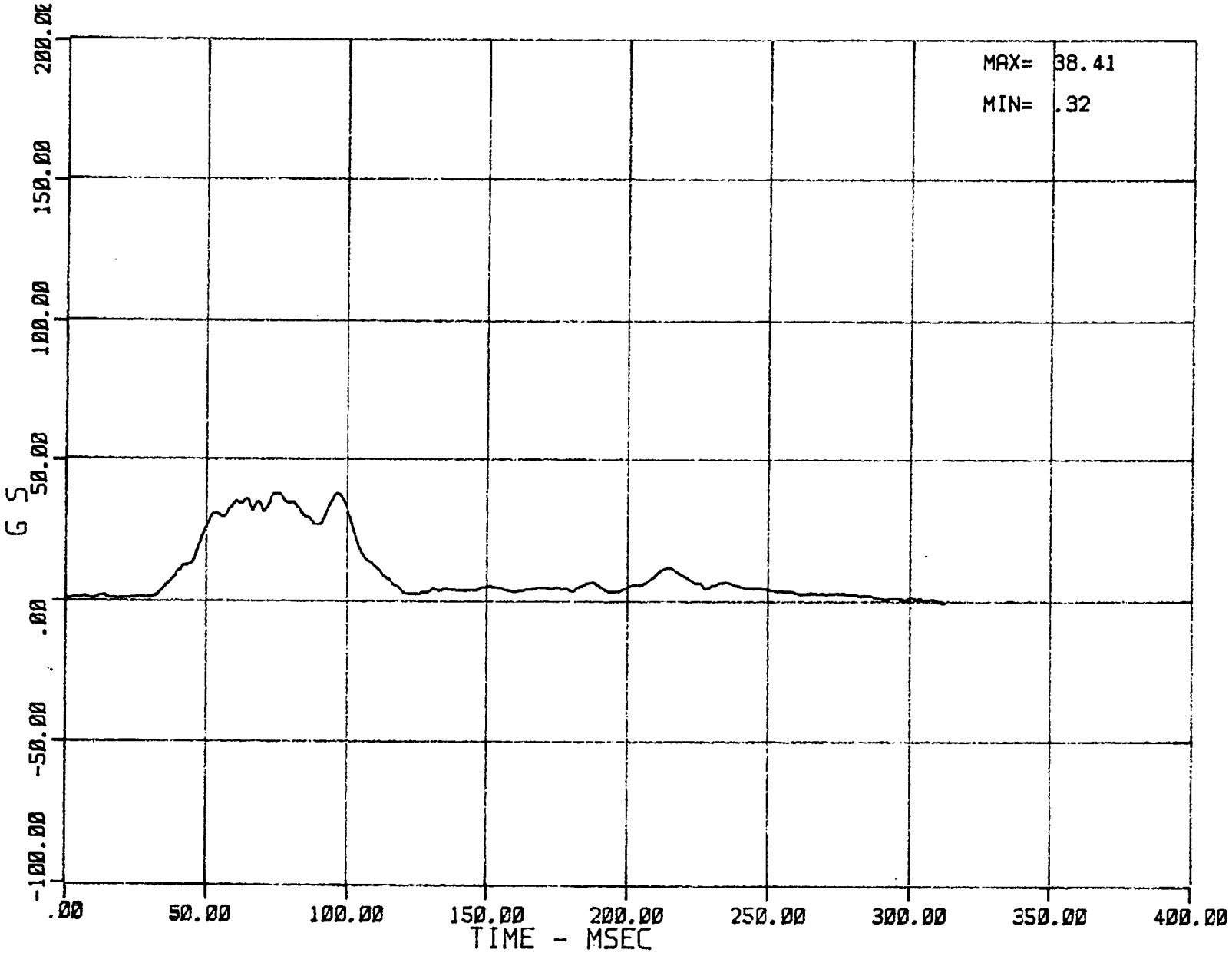
11 AC 01 2 CST Y (PASSENGER CHEST ACCEL. -- Y-AXIS)
MSE N07068 1988 DODGE COLT DL

03/25/88

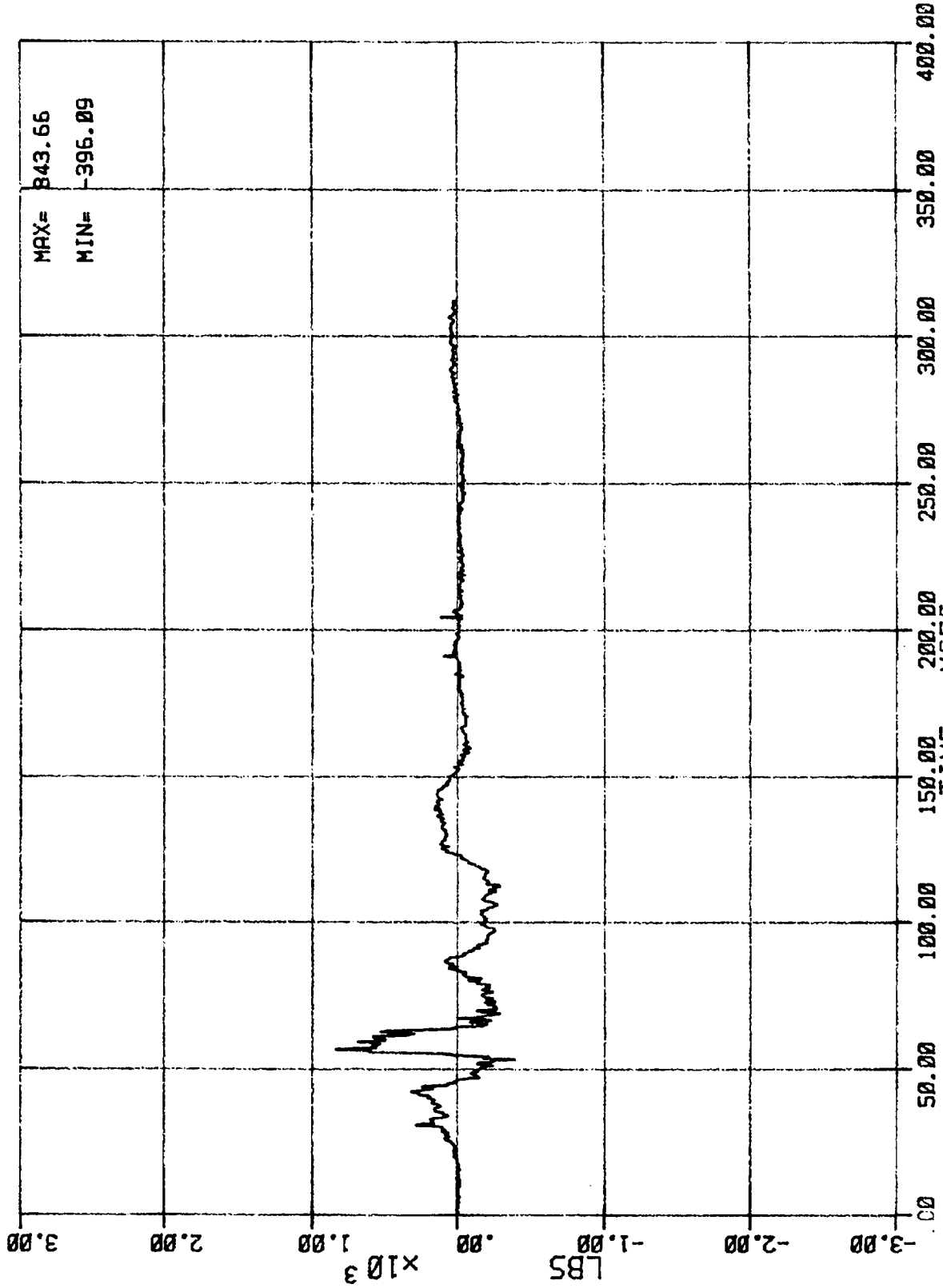


12 AC Ø1 2 CST Z (PASSENGER CHEST ACCEL. -- Z-AXIS)
MSE N07068 1988 DODGE COLT DL

Ø3/25/88

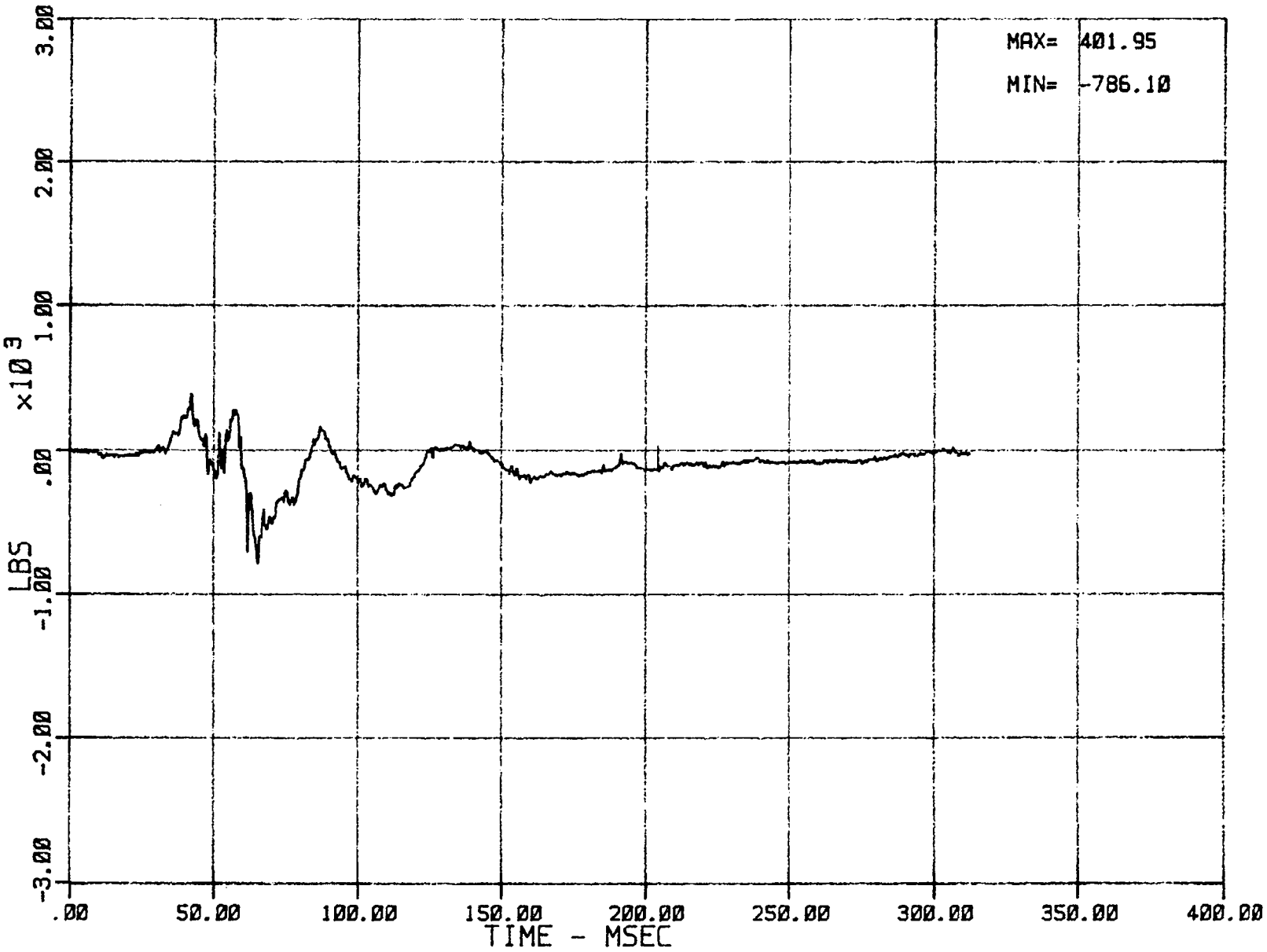


PASSENGER'S CHEST RESULTANT ACCELERATION
MSE N07068 1988 DODGE COLT DL 03/25/88

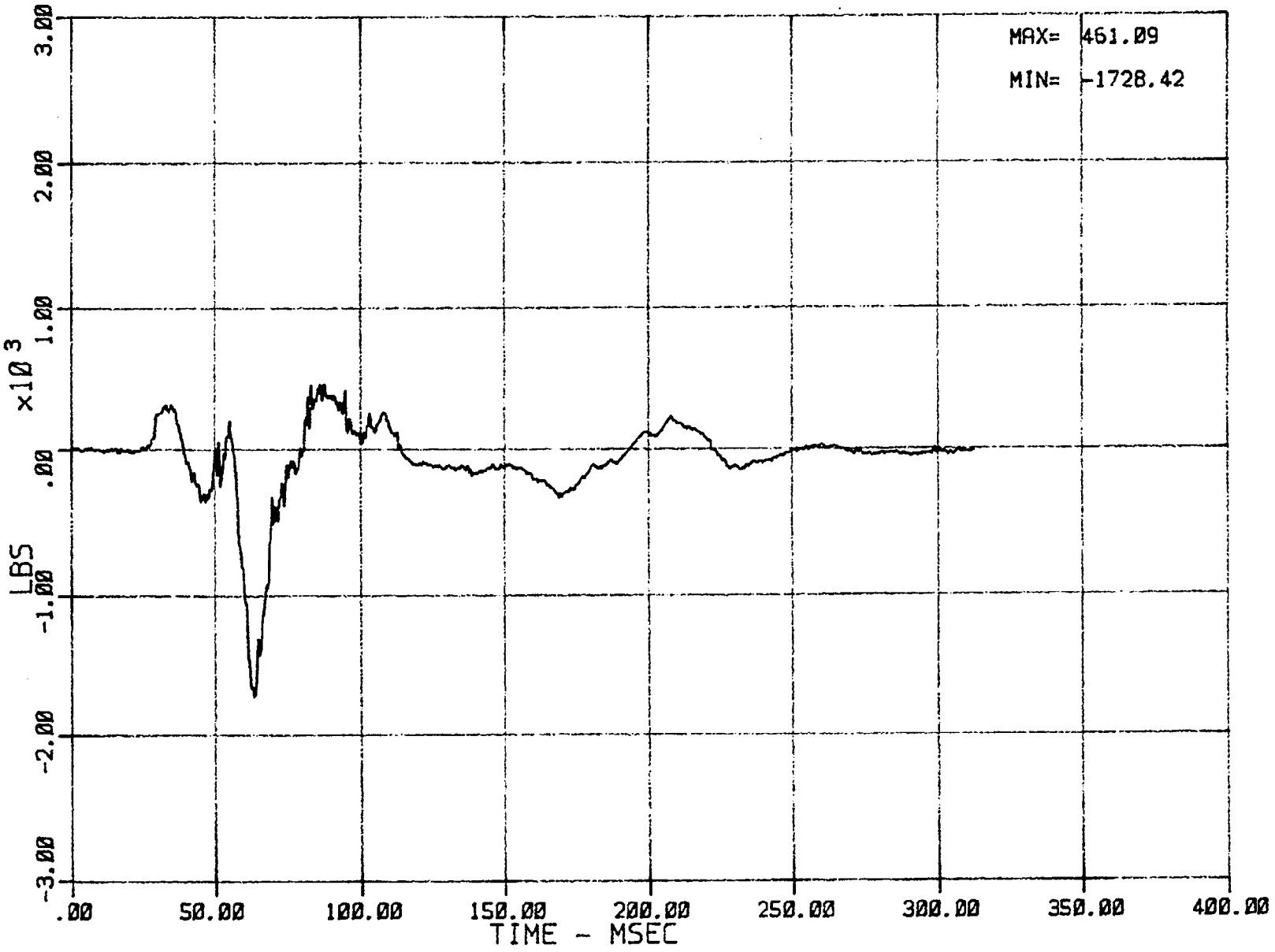


13 LC 01 1 LFM (DRIVER LEFT FEMUR FORCE)
MSE N07068 1988 DODGE COLT DL

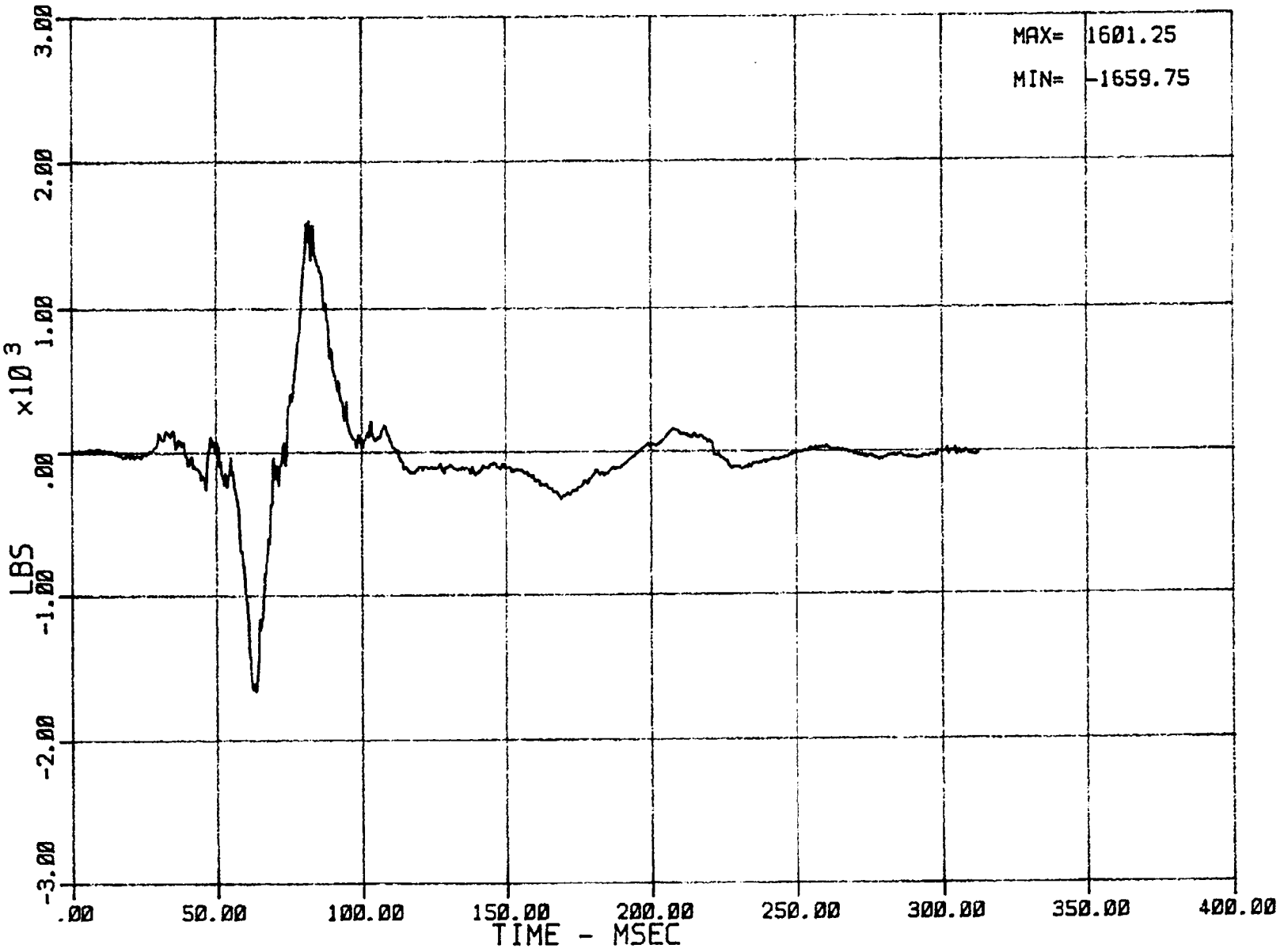
03/25/88



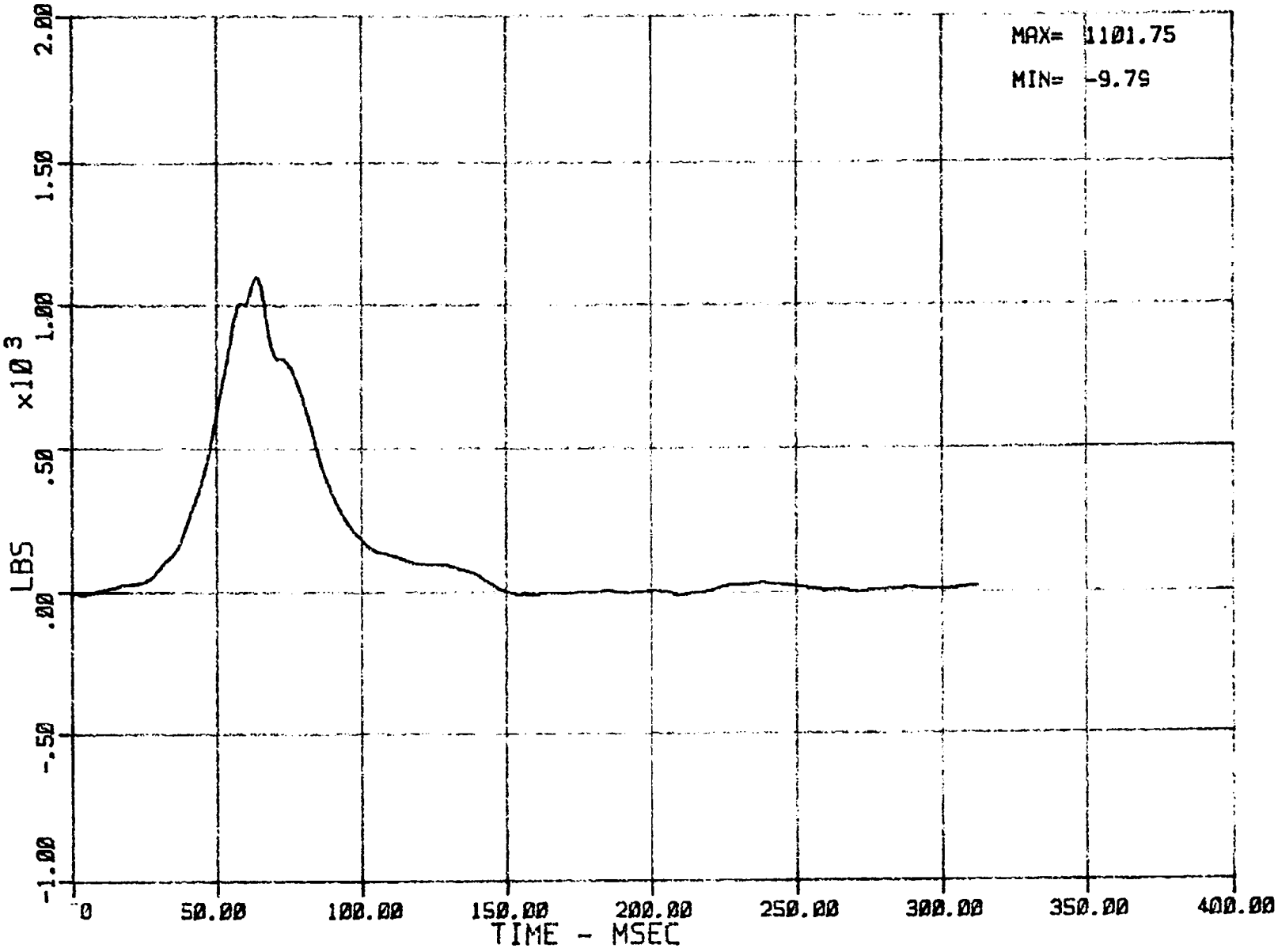
14 LC 01 1 RFM (DRIVER RIGHT FEMUR FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



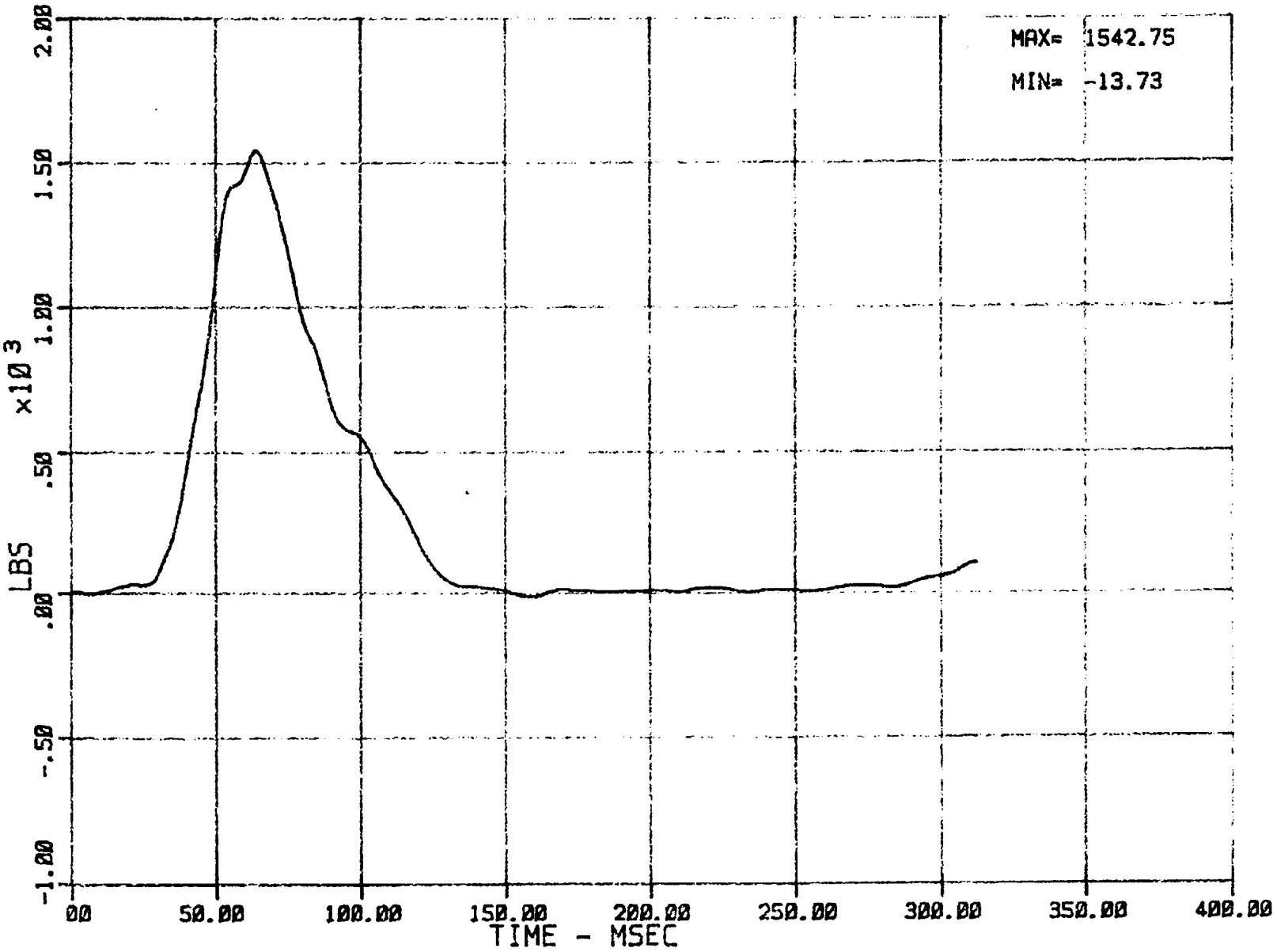
15 LC 01 2 LFM (PASSENGER LEFT FEMUR FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



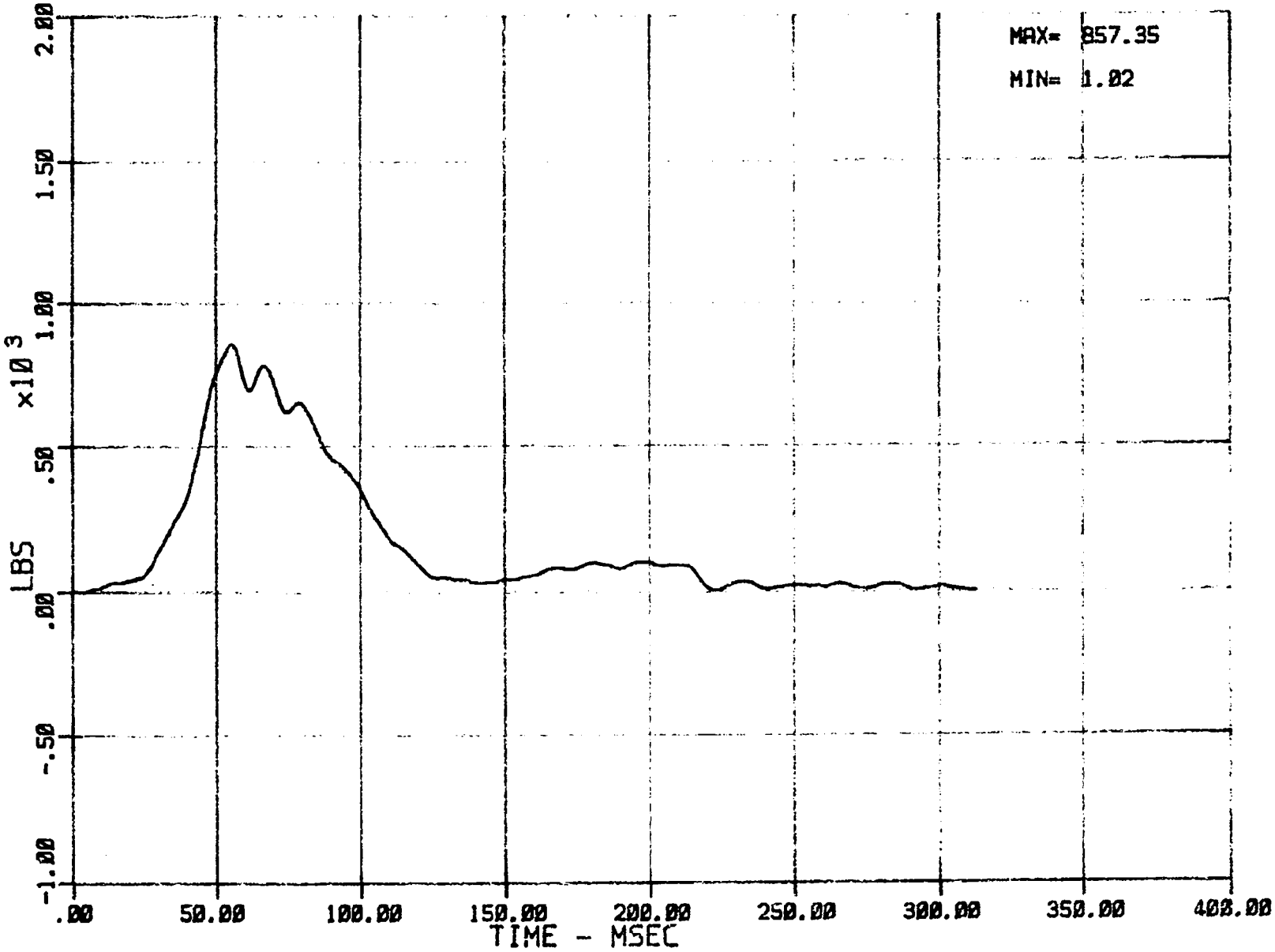
16 LC 01 2 RFM (PASSENGER RIGHT FEMUR FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



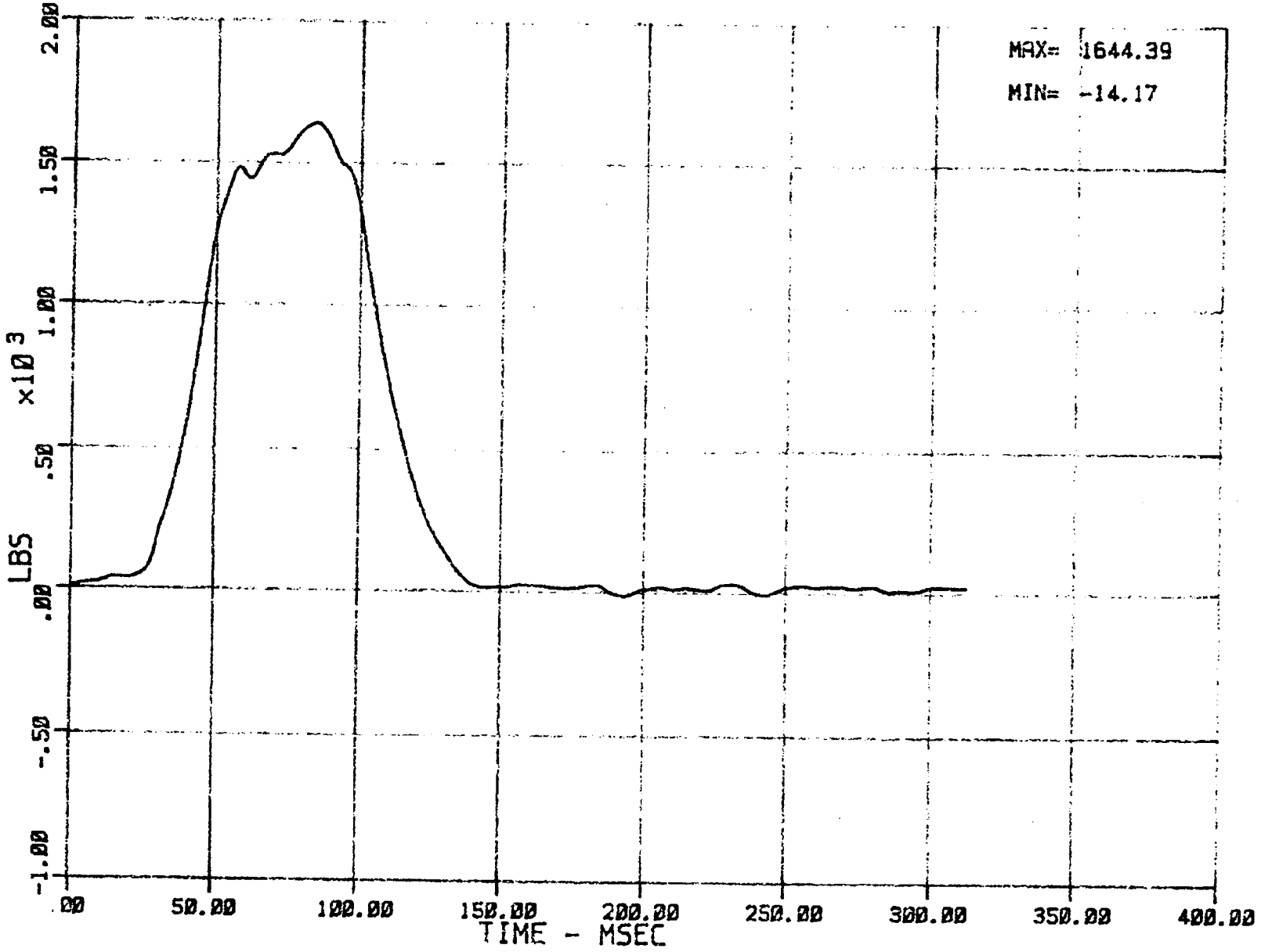
17 LC 01 1 LBD (DRIVER LAP BELT FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



18 LC 01 1 SHB (DRIVER SHOULDER BELT FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

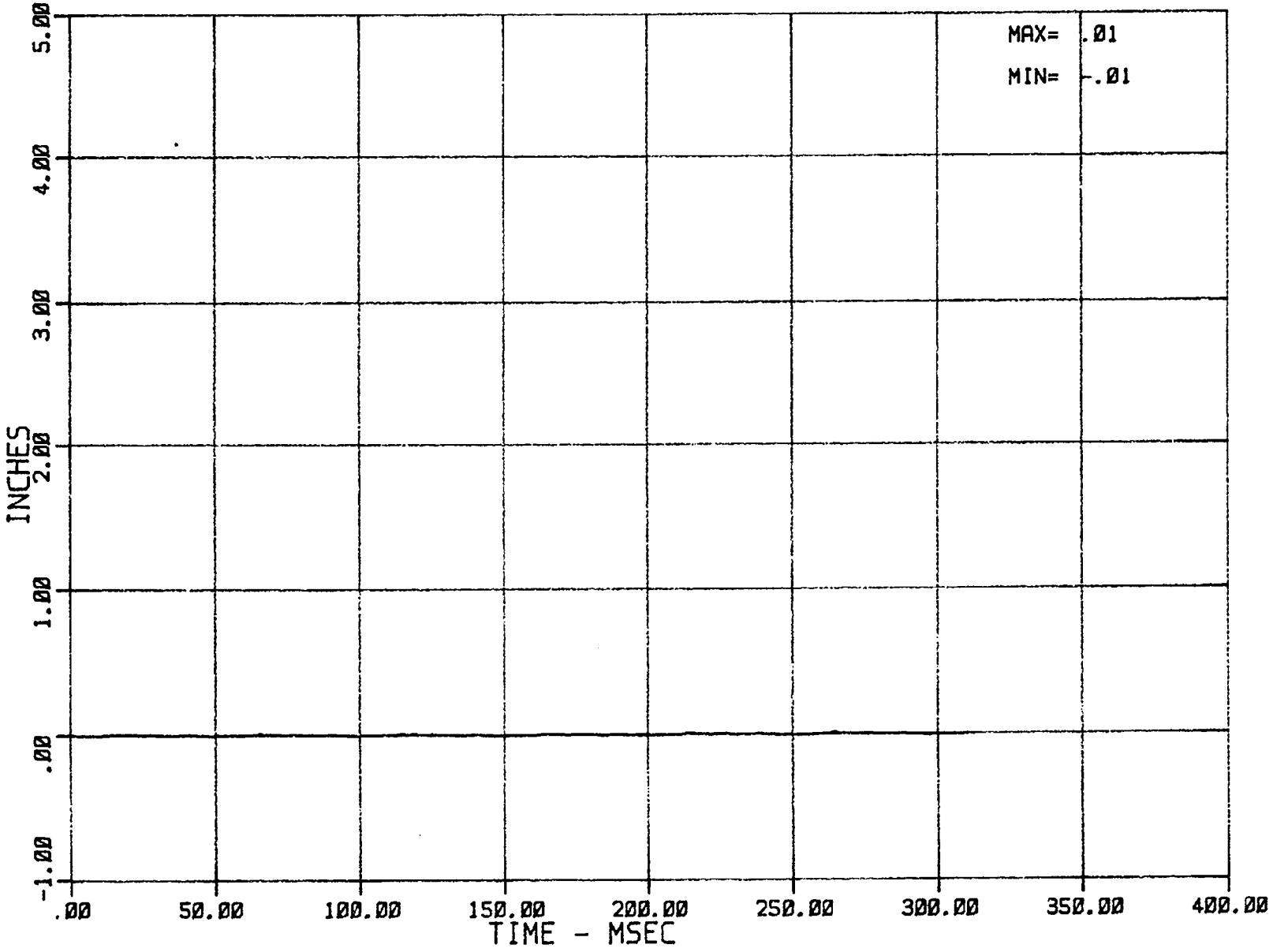


19 LC 01 2 LBD (PASSENGER LAP BELT FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

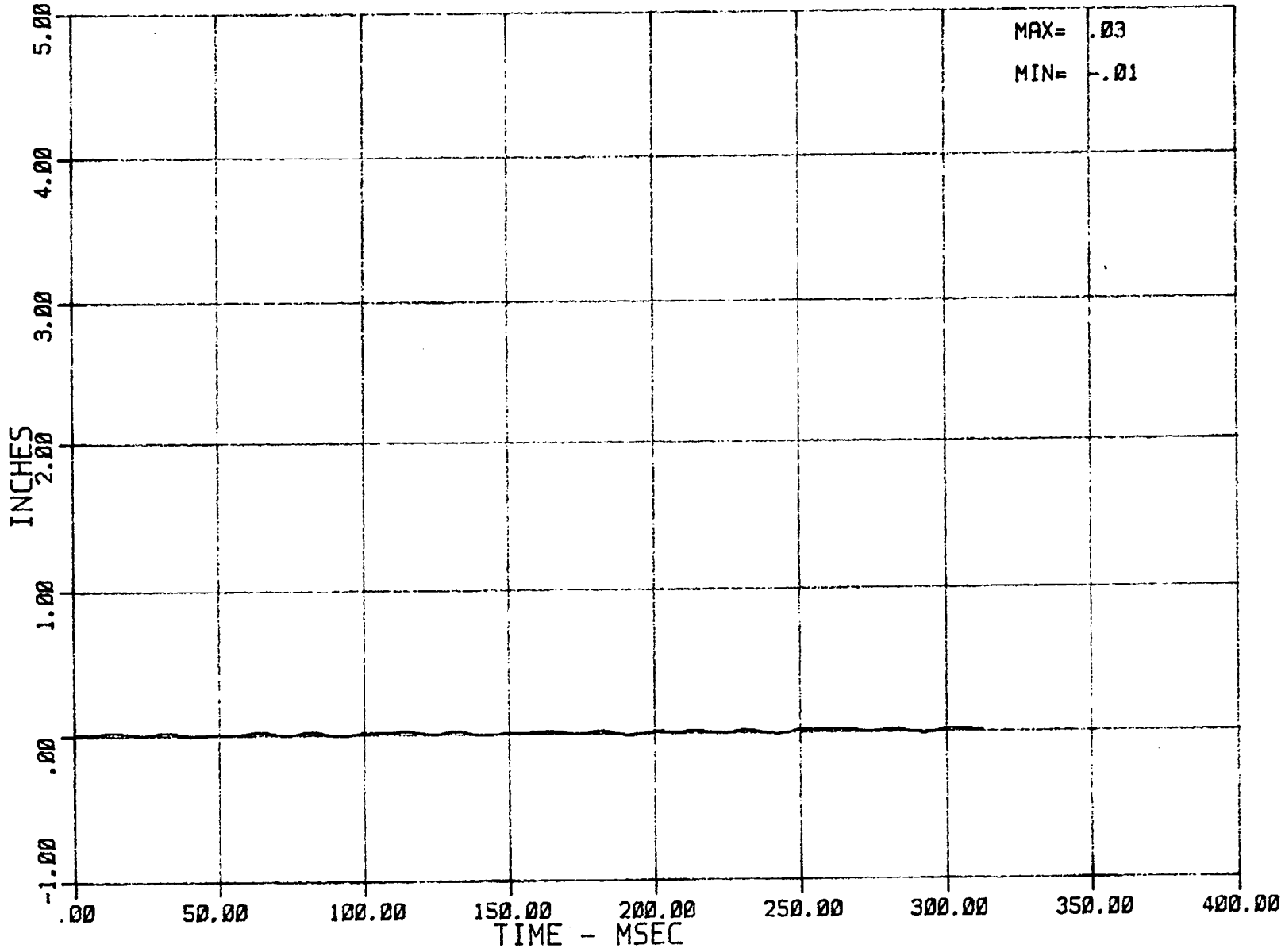


20 LC 01 2 SHB (PASSENGER SHOULDER BELT FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

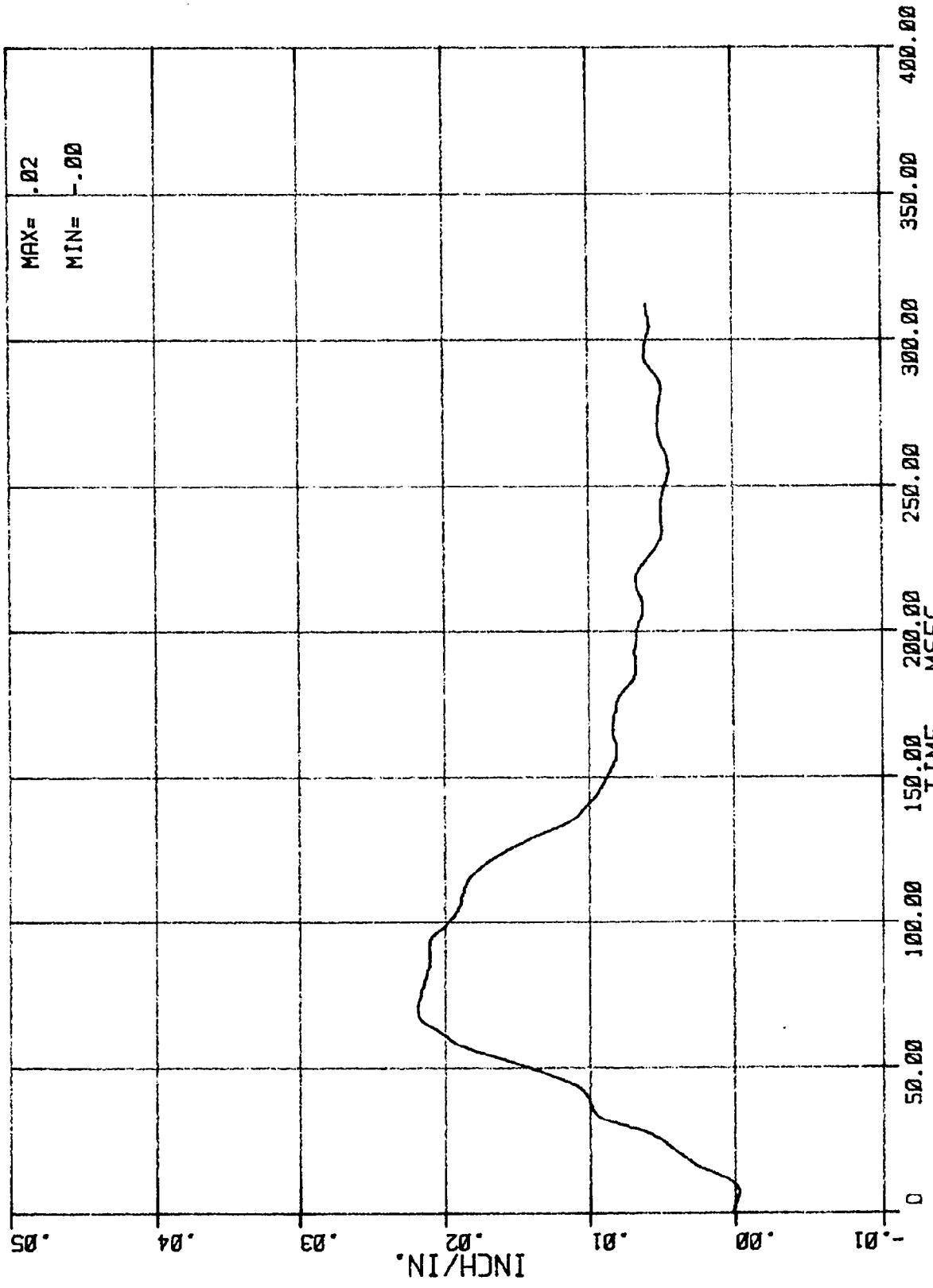


21 DT 01 1 SHB (DRIVER SHOULDER BELT PULLOUT)
MSE N07068 1988 DODGE COLT DL 03/25/88



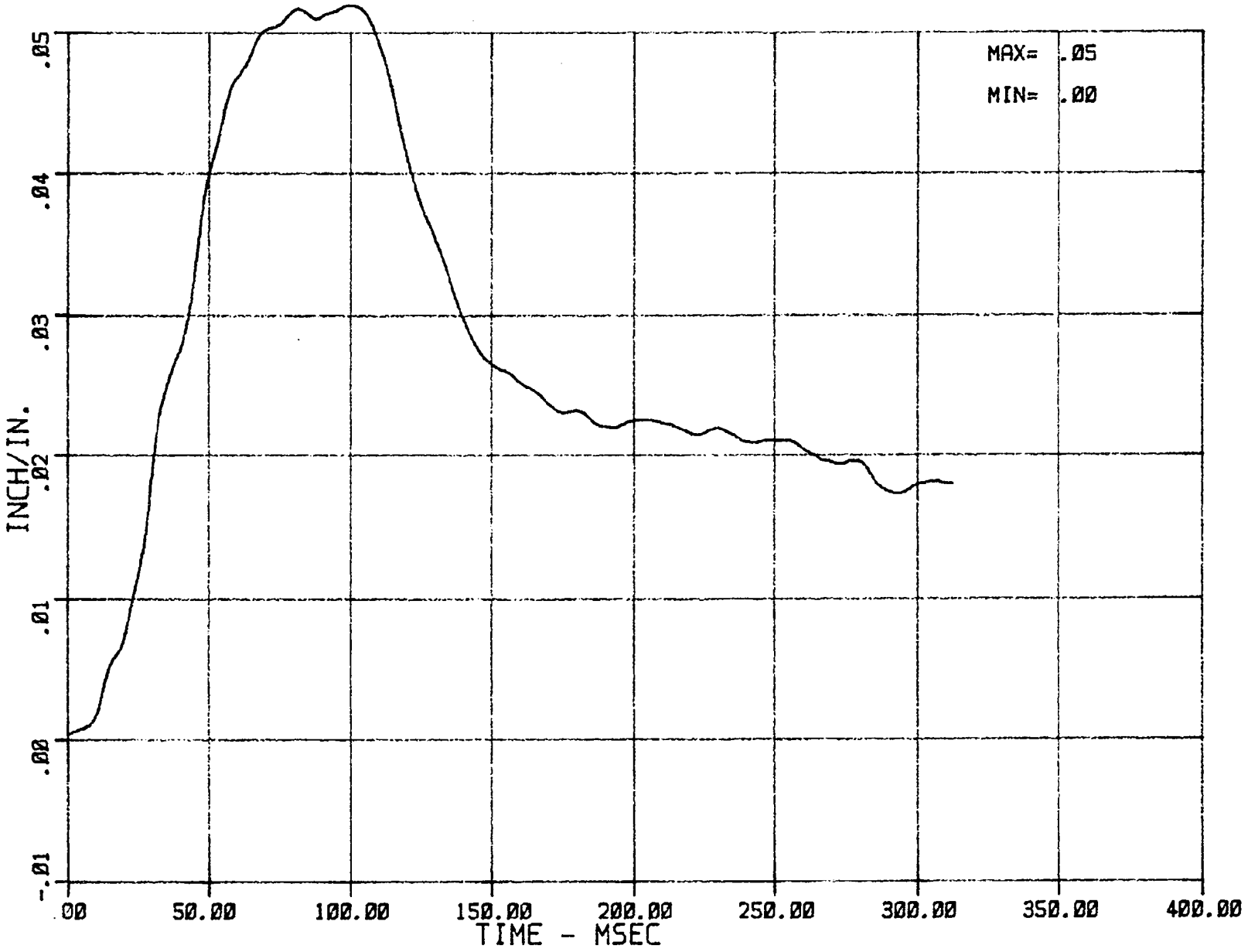
22 DT 01 2 SHB (PASSENGER SHOULDER BELT PULLOUT)
MSE N07068 1988 DODGE COLT DL

03/25/88

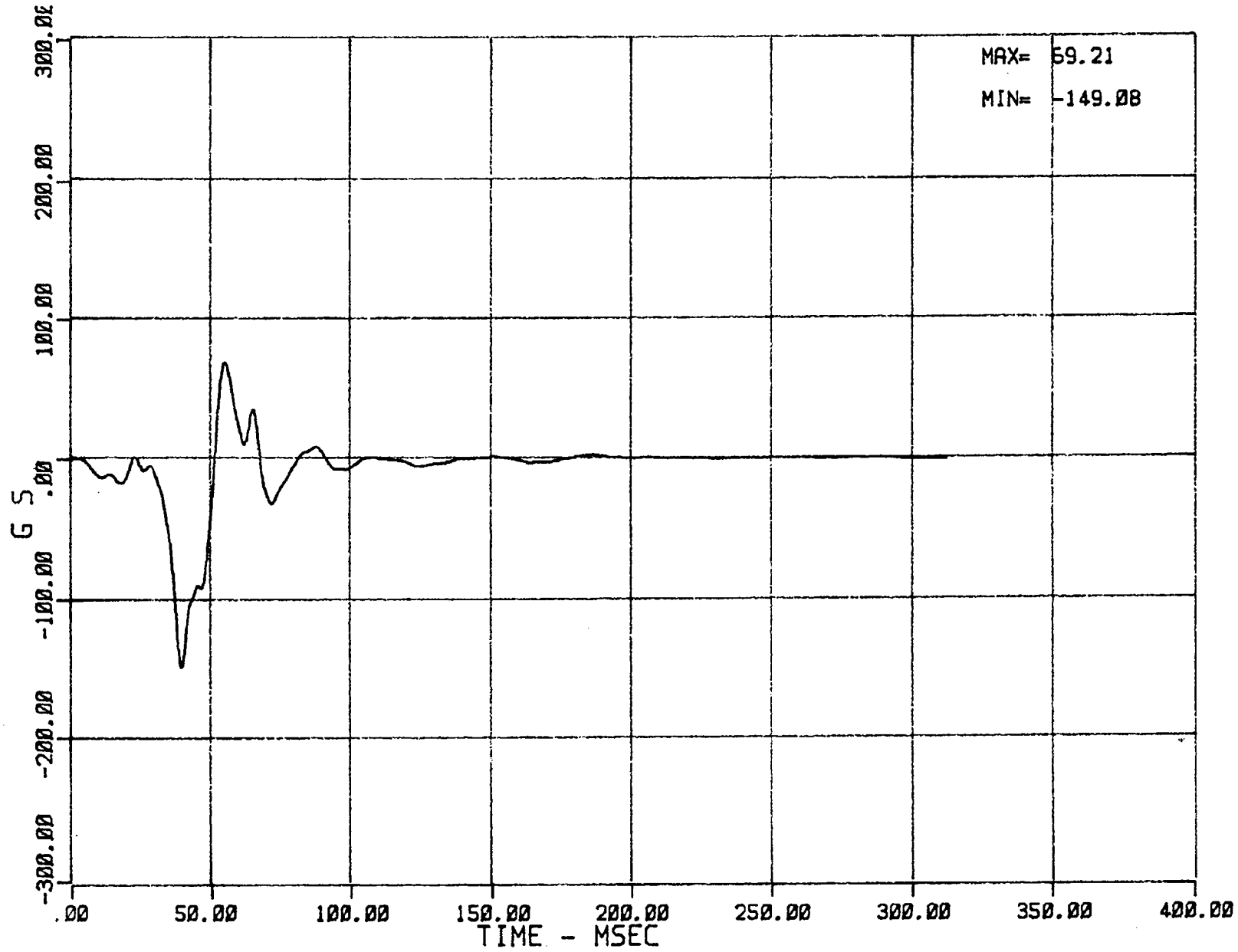


23 DT 01 1 SHB (DRIVER'S SHOULDER BELT ELONGATION)
MSE N07068 1988 DODGE COLT DL

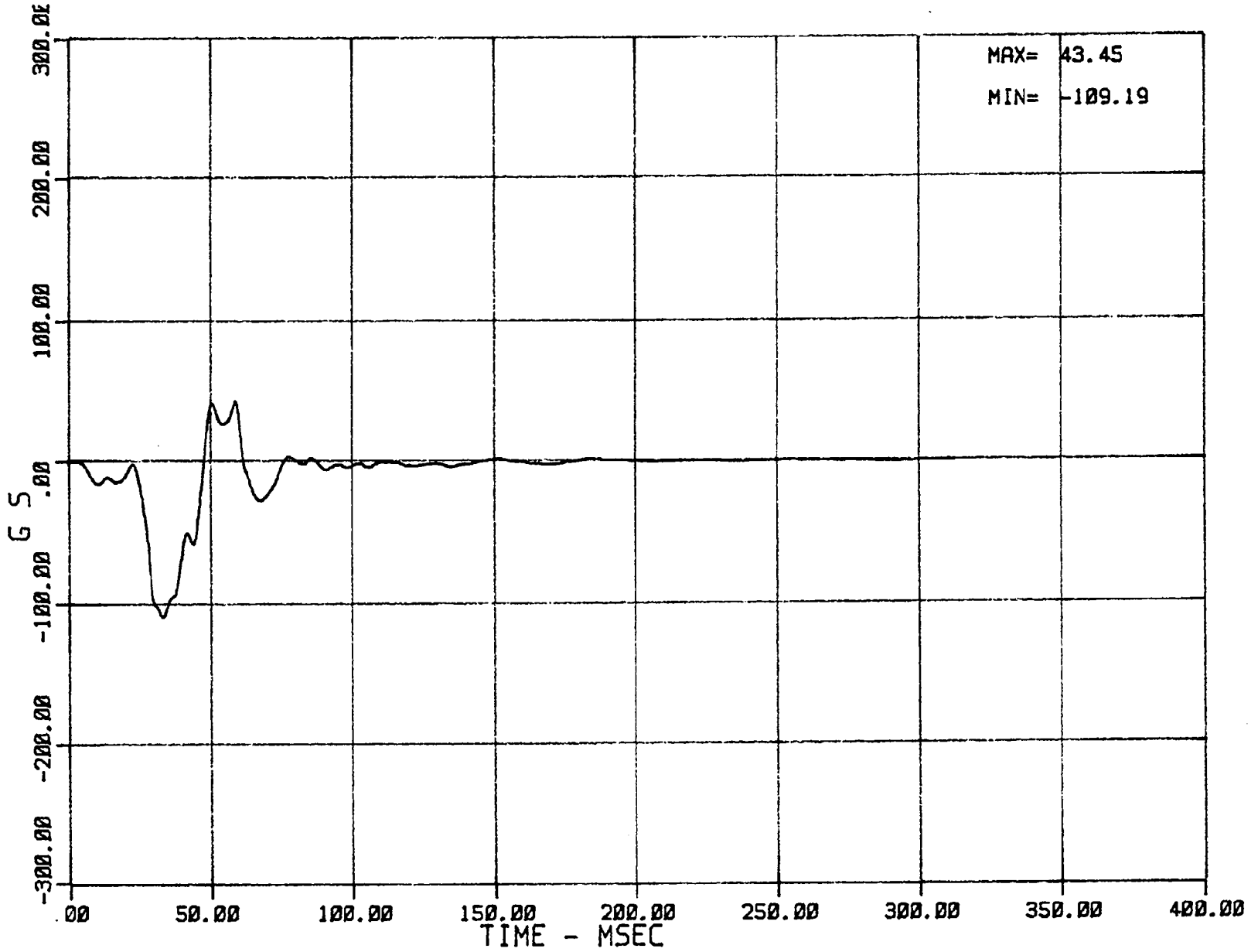
03/25/88



24 DT 01 2 SHB (PASSENGER'S SHOULDER BELT ELONGATION)
MSE N07068 1988 DODGE COLT DL 03/25/88



25 AC 01 N BCR X (LEFT FRONT WHEEL ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88

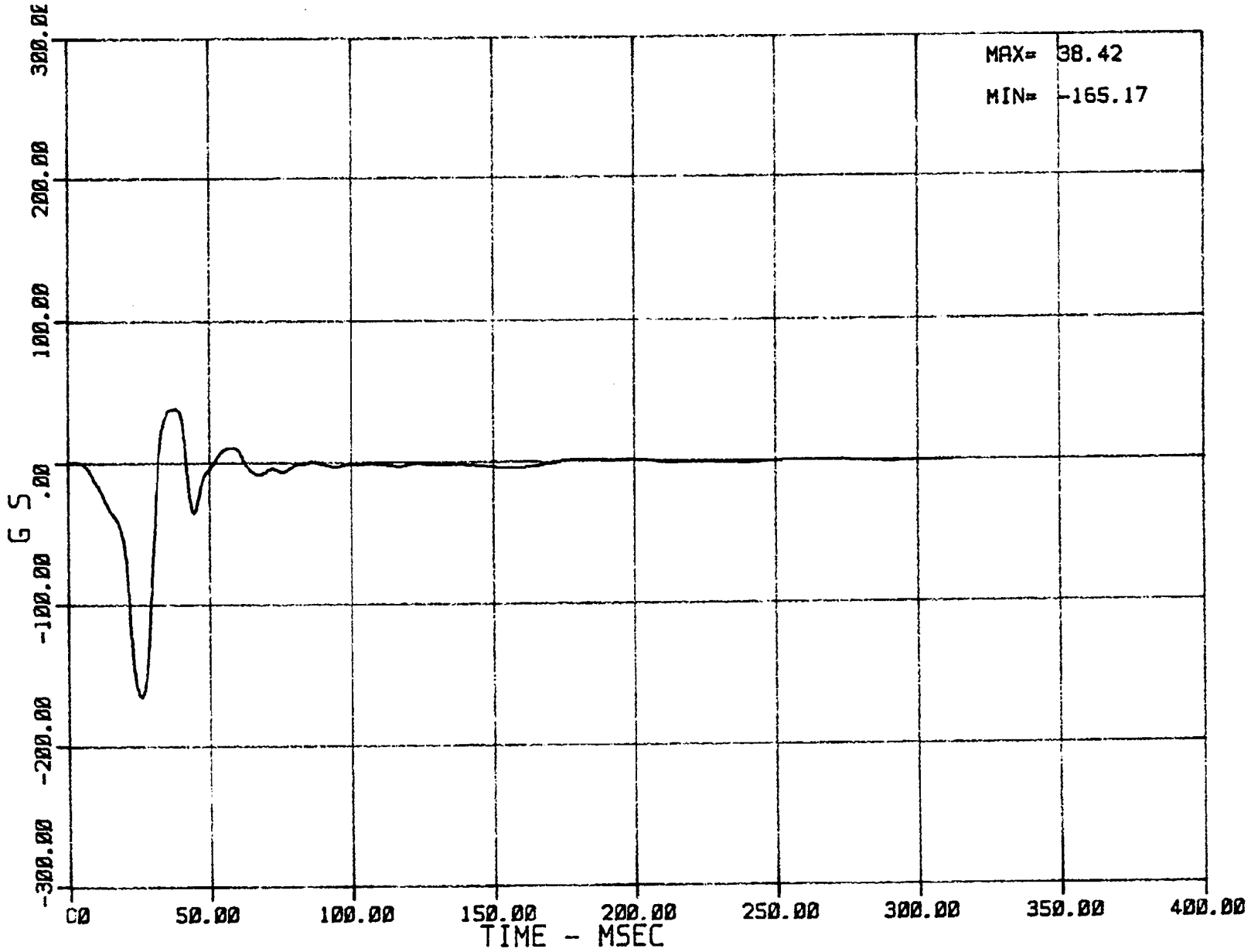


26 AC 01 N BCR X (RIGHT FRONT WHEEL ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88

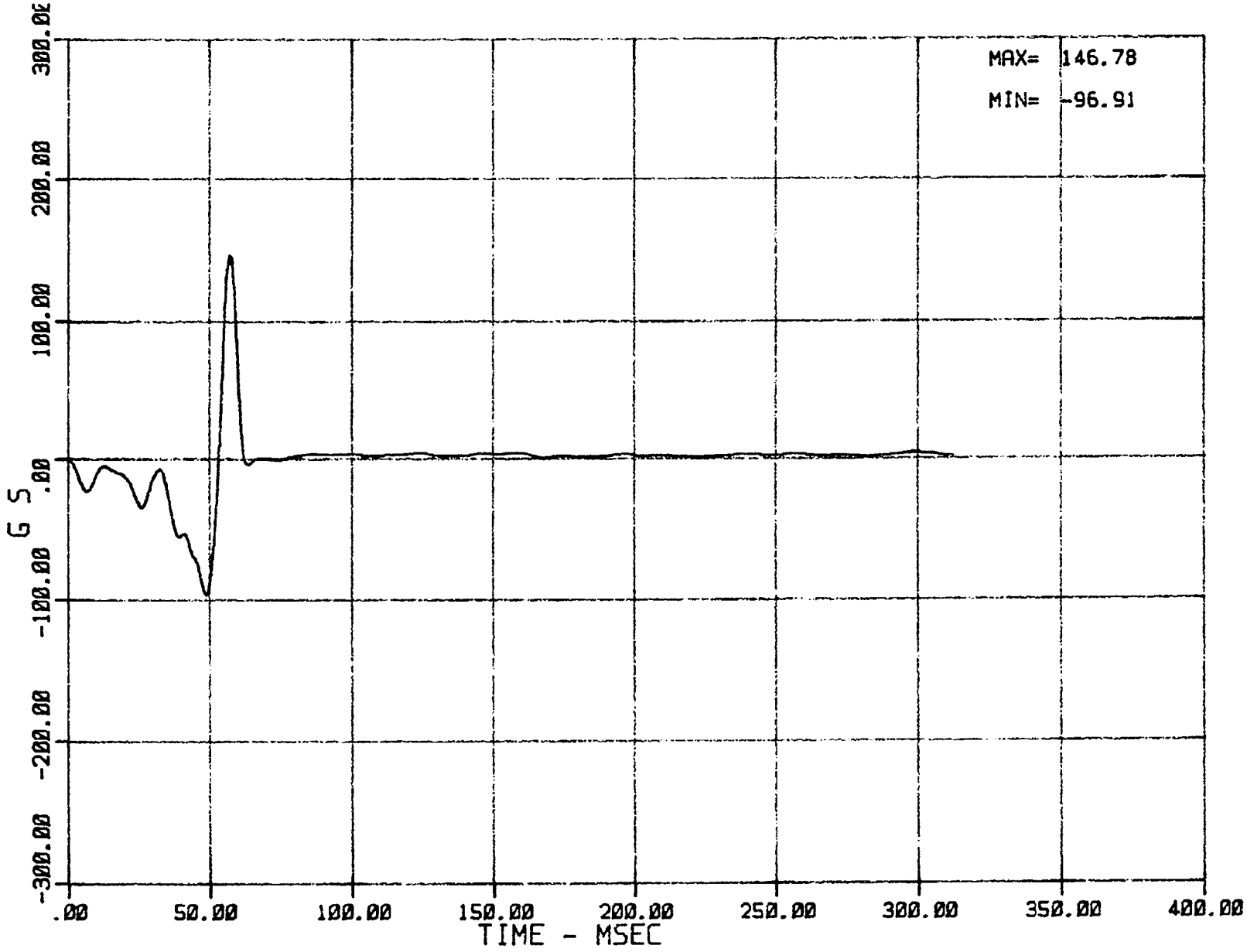
27 AC 01 N ENG X (BOTTOM OF ENGINE ACCEL, -- X-AXIS)
MSE N07068 1988 DODGE COLT DL

03/25/88

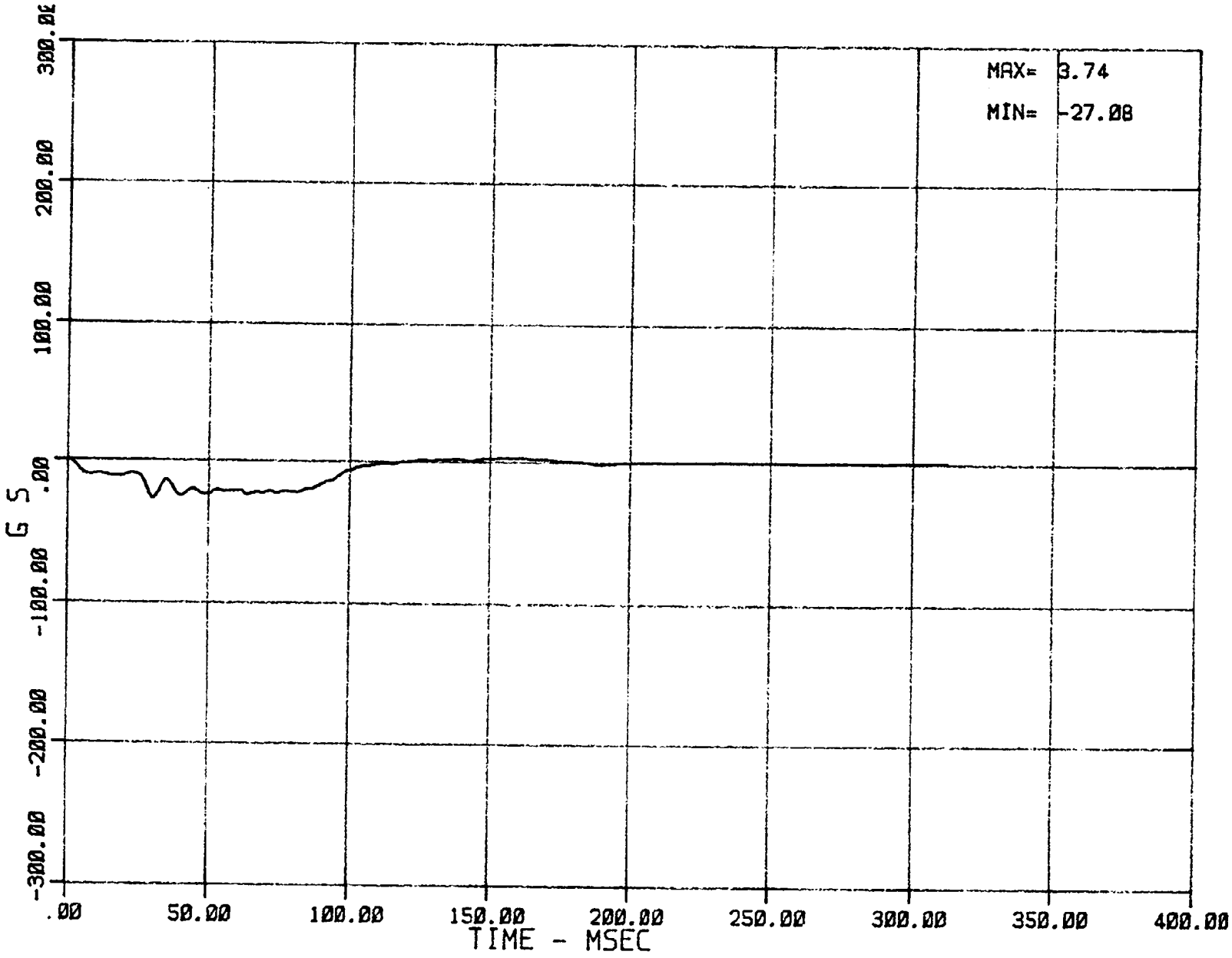
MSE-88-R7157-N06



28 AC 01 N ENG X (TOP OF ENGINE ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88

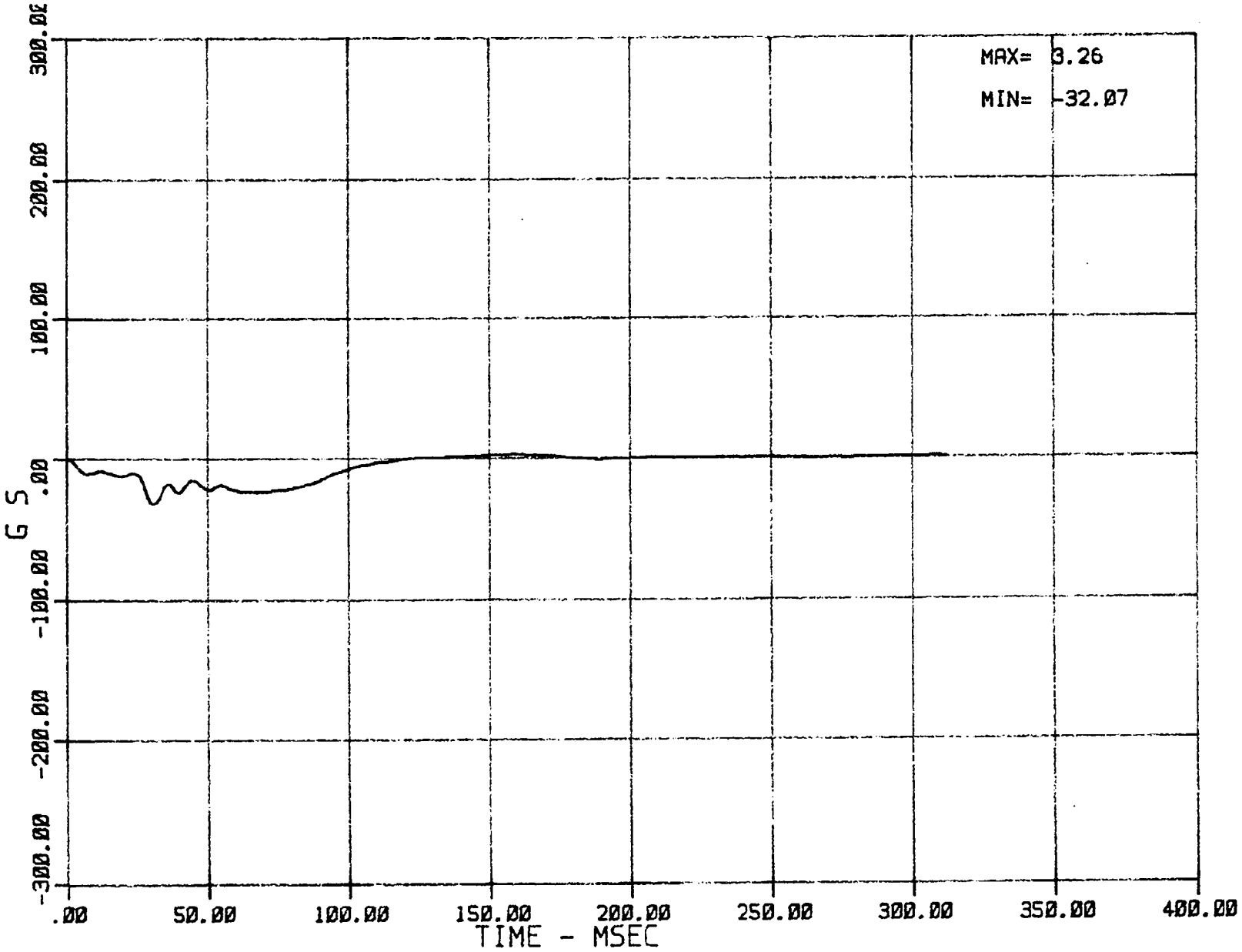


29 AC 01 N DPC X (CENTER OF DASH ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88



30 AC 01 N LRF (LEFT REAR FLOOR ACCEL. - X-AXIS)
MSE N07068 1988 DODGE COLT DL

03/25/88



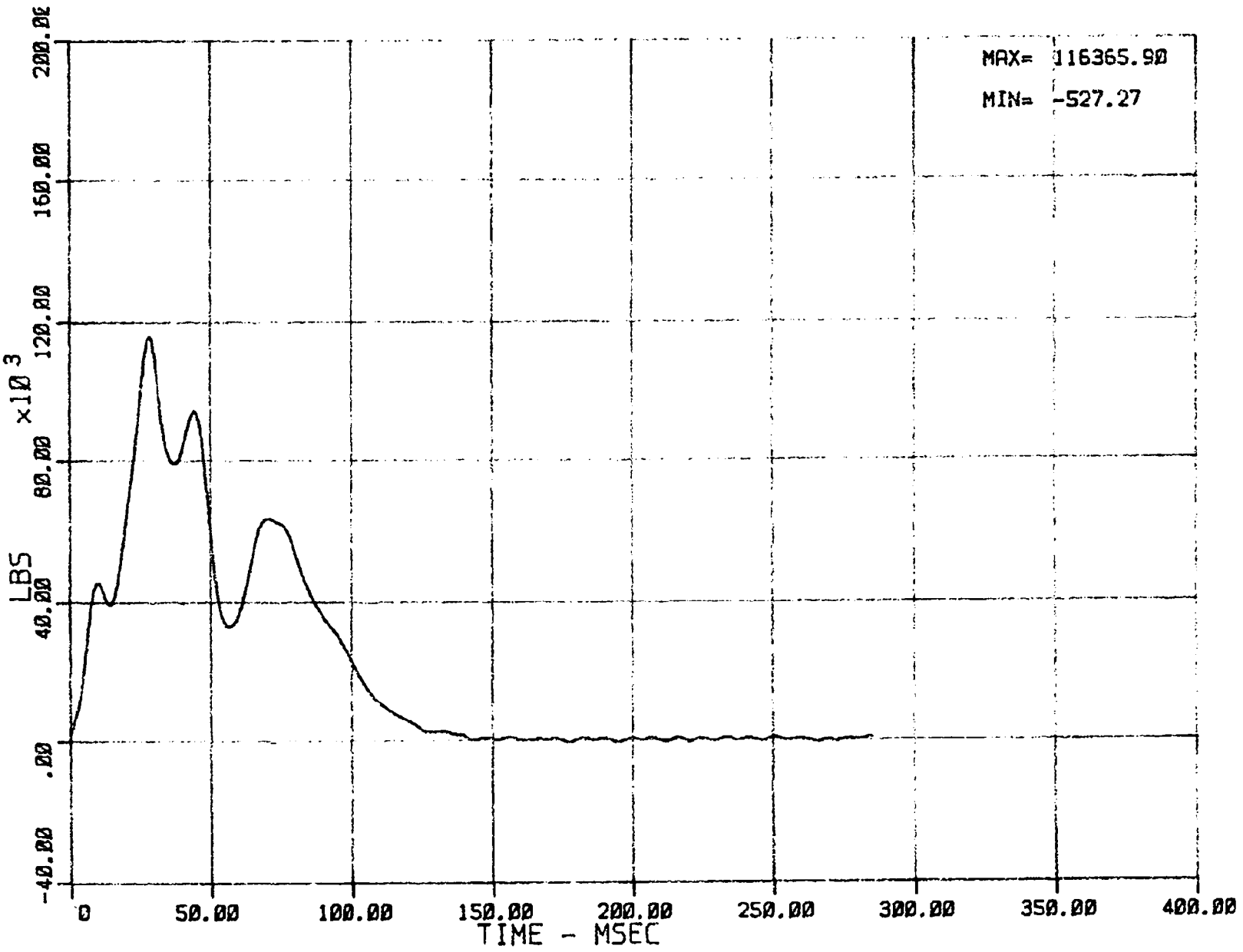
31 AC 01 N RRF (RIGHT REAR FLOOR ACCEL. -- X-AXIS)
MSE N07068 1988 DODGE COLT DL 03/25/88

APPENDIX B-2

LOAD CELL BARRIER DATA

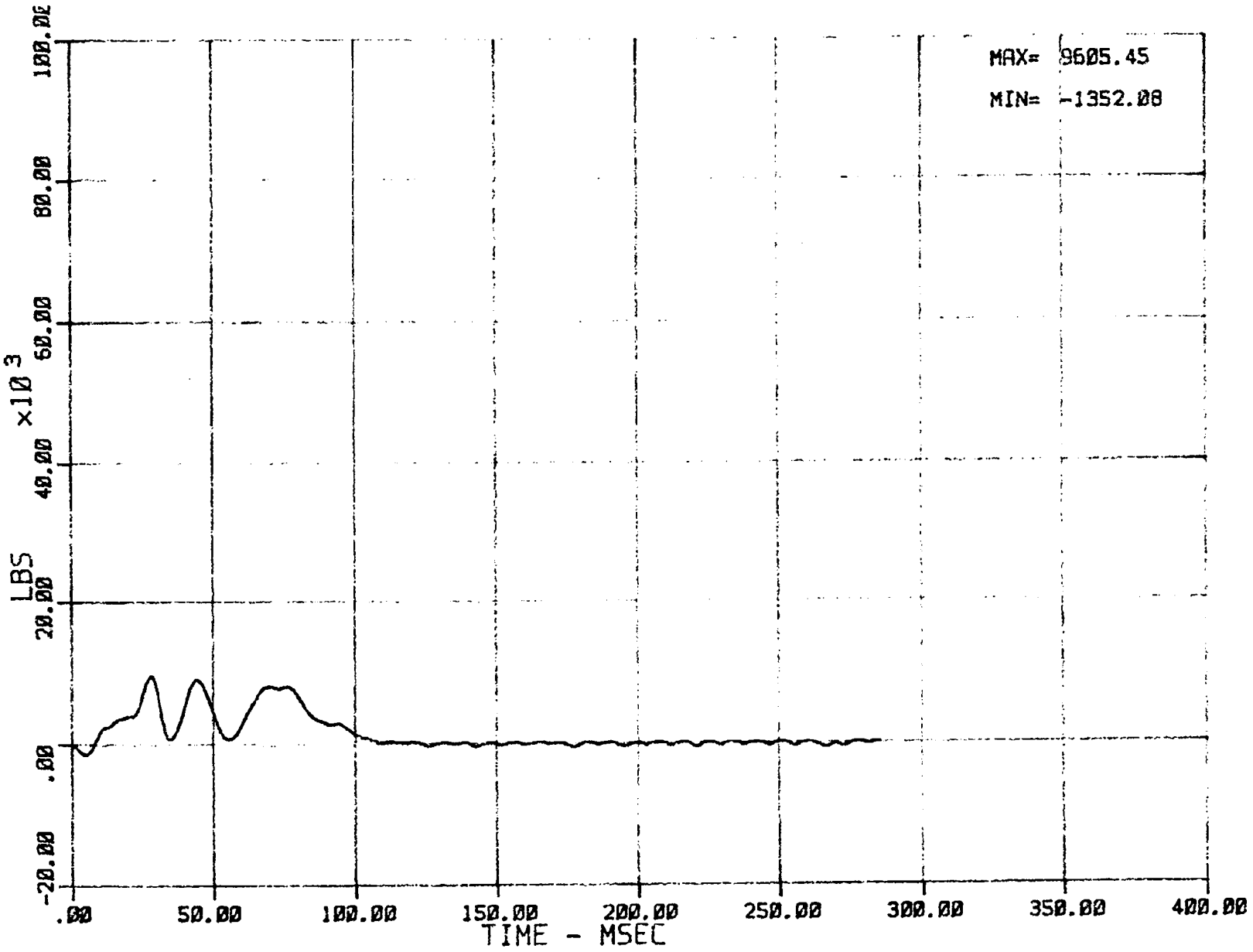
DATA FILTERING:

Load Cell Barrier channels - Class 60

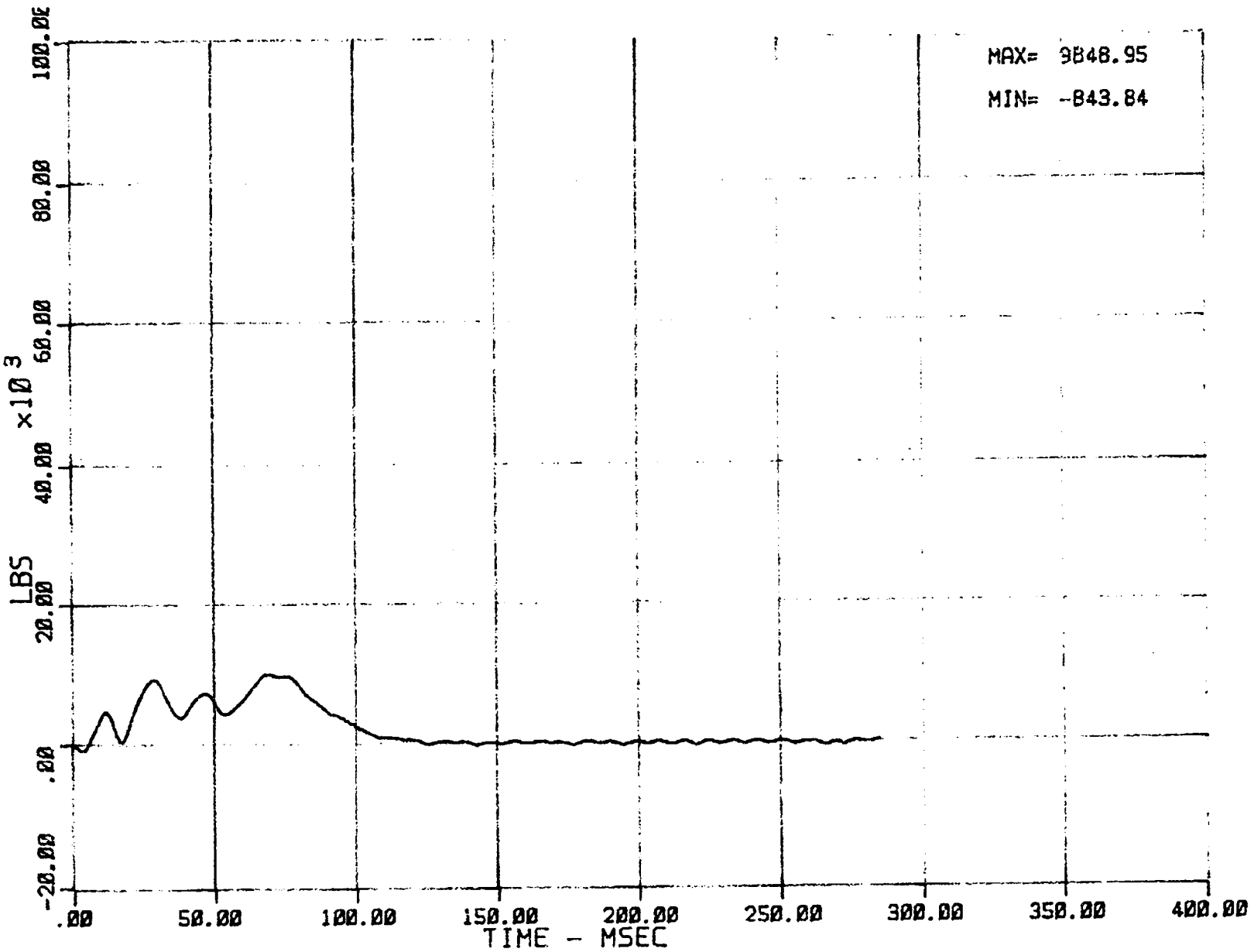


TOTAL SUM, LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT DL

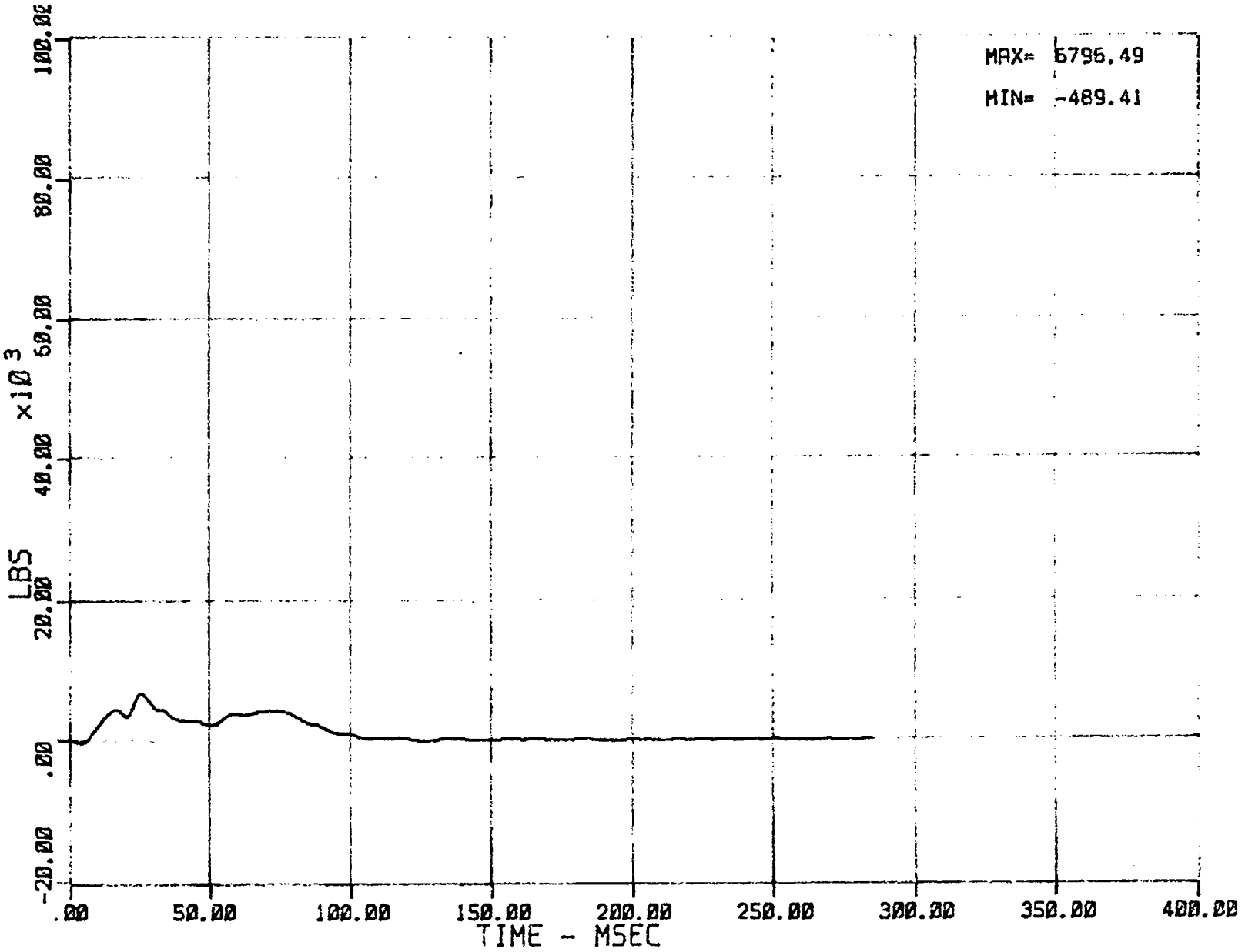
03/25/88



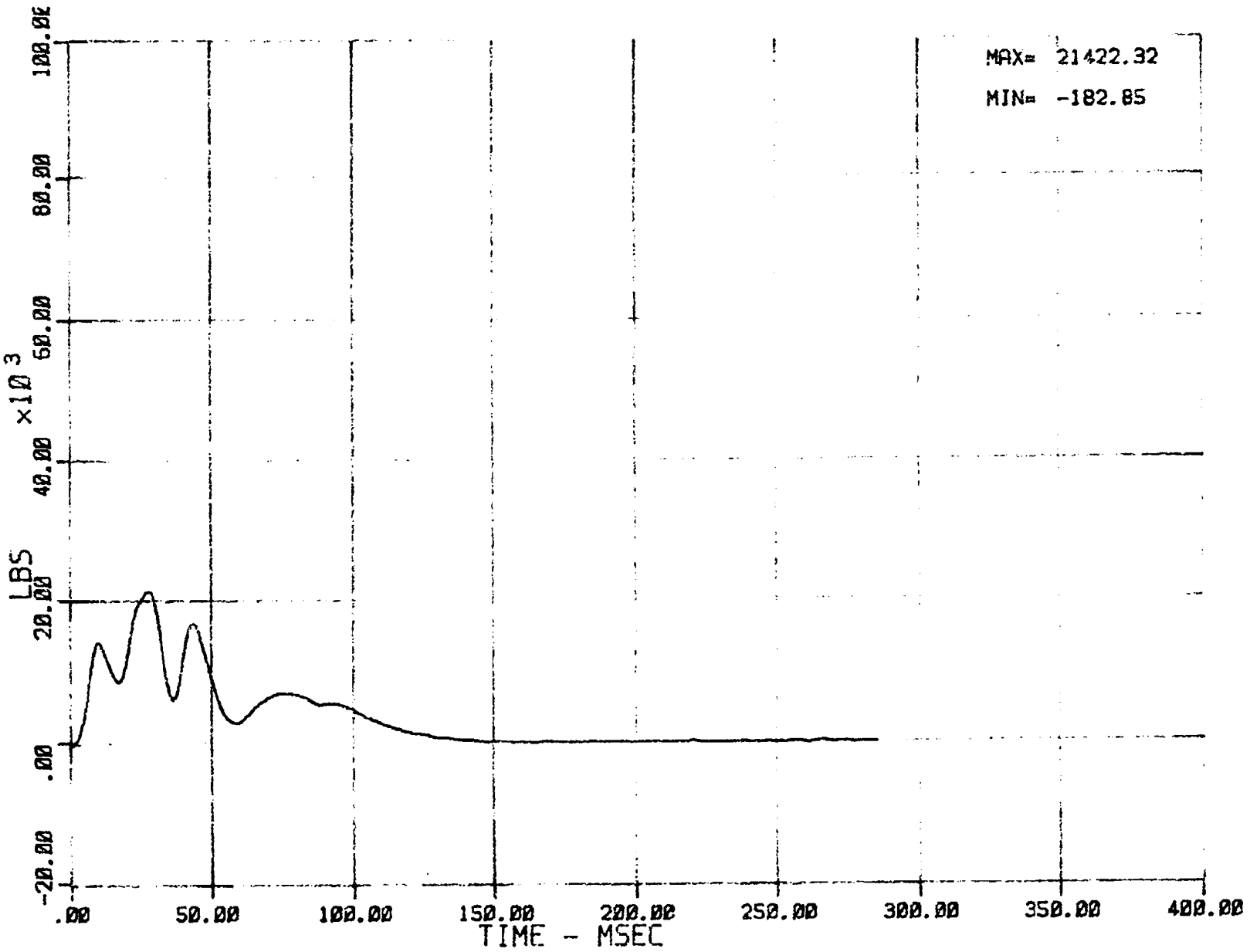
GROUP 1 SUM (C1,C2,C3,D1,D2,D3) LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT GL 03/25/88



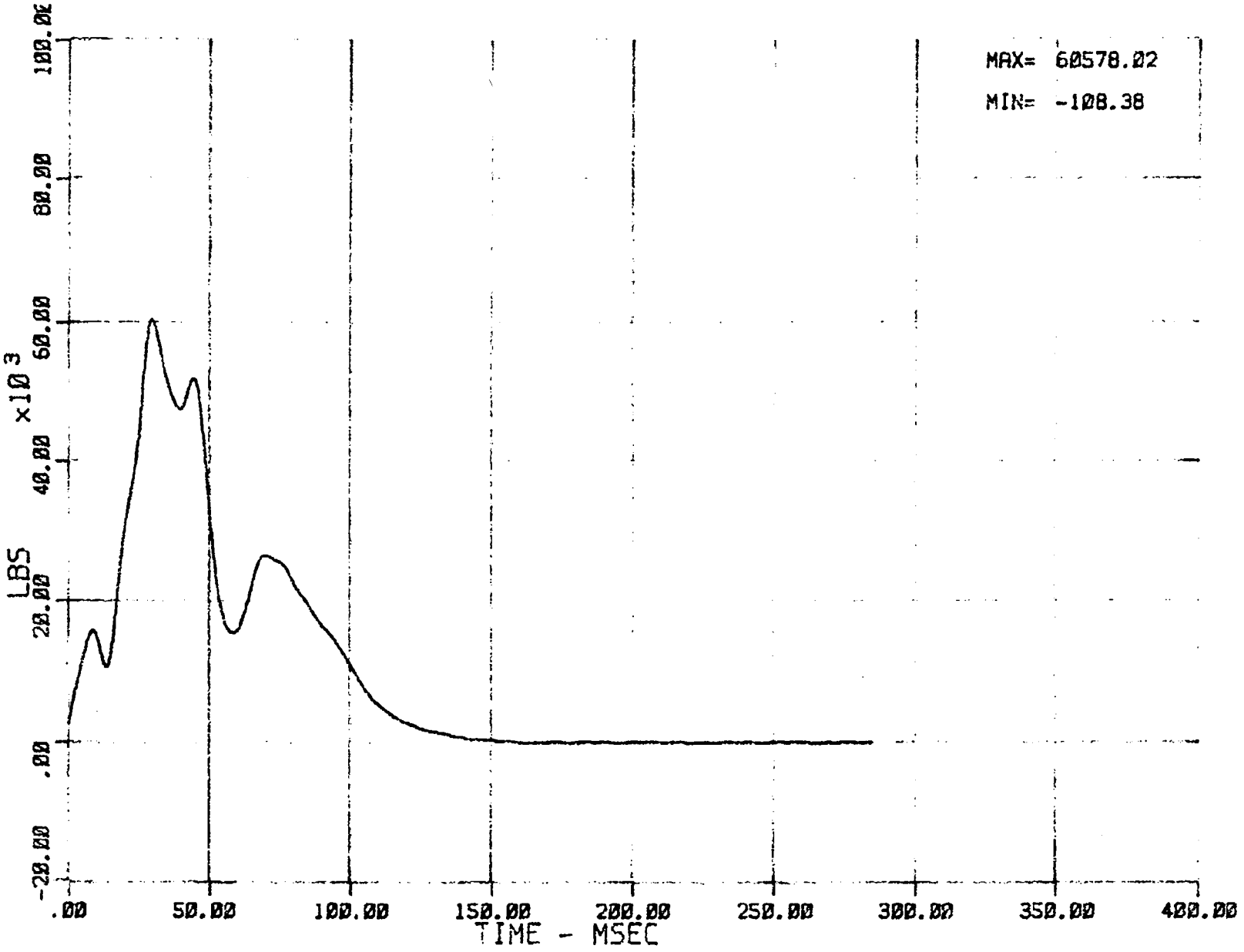
GROUP 2 SUM (C4,C5,C6,D4,D5,D6) LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT DL 03/25/88



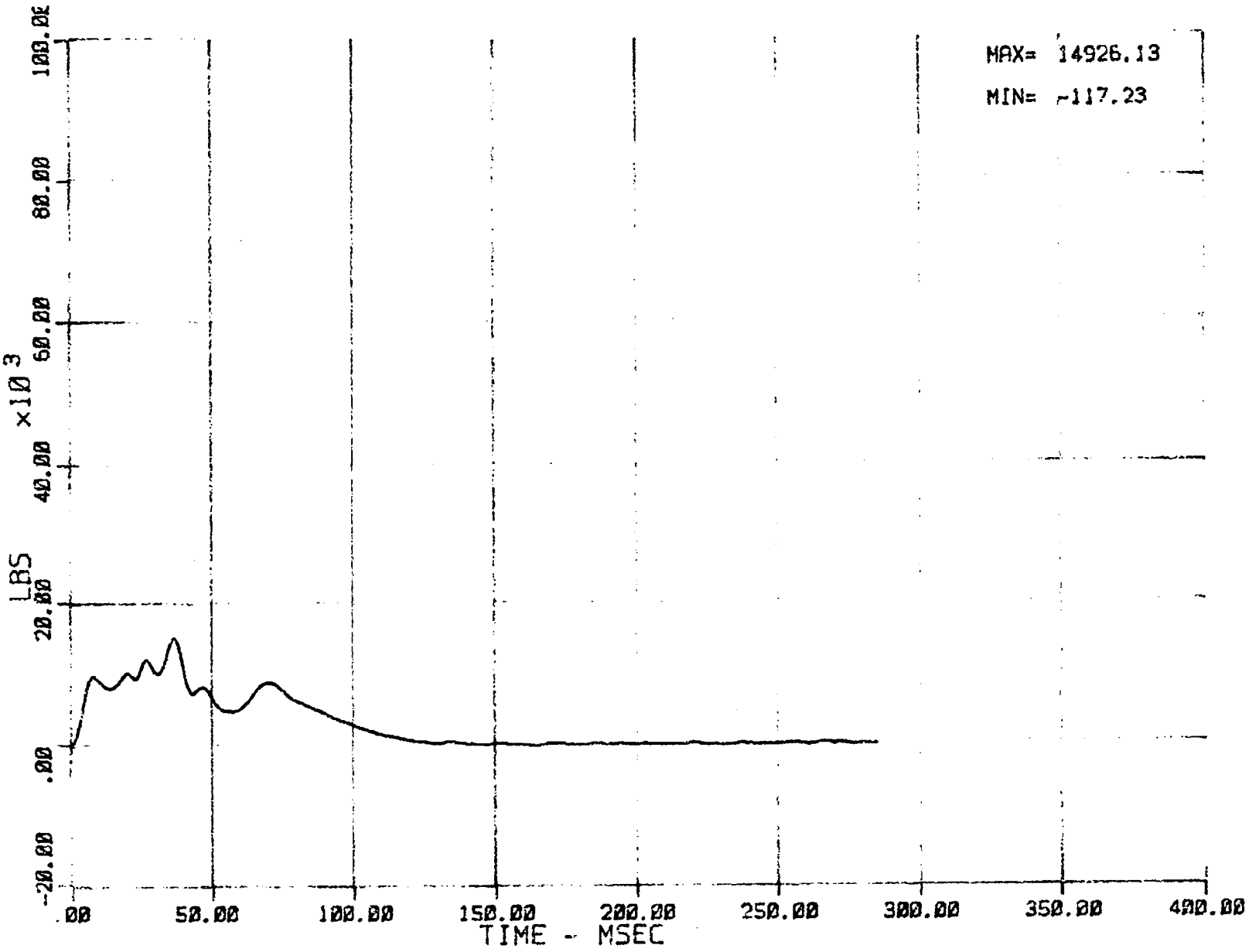
GROUP 3 SUM (C7,C8,C9,D7,D8,D9) LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT DL 03/25/88



GROUP 4 SUM (A1,A2,A3,B1,B2,B3) LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT DL 03/25/88

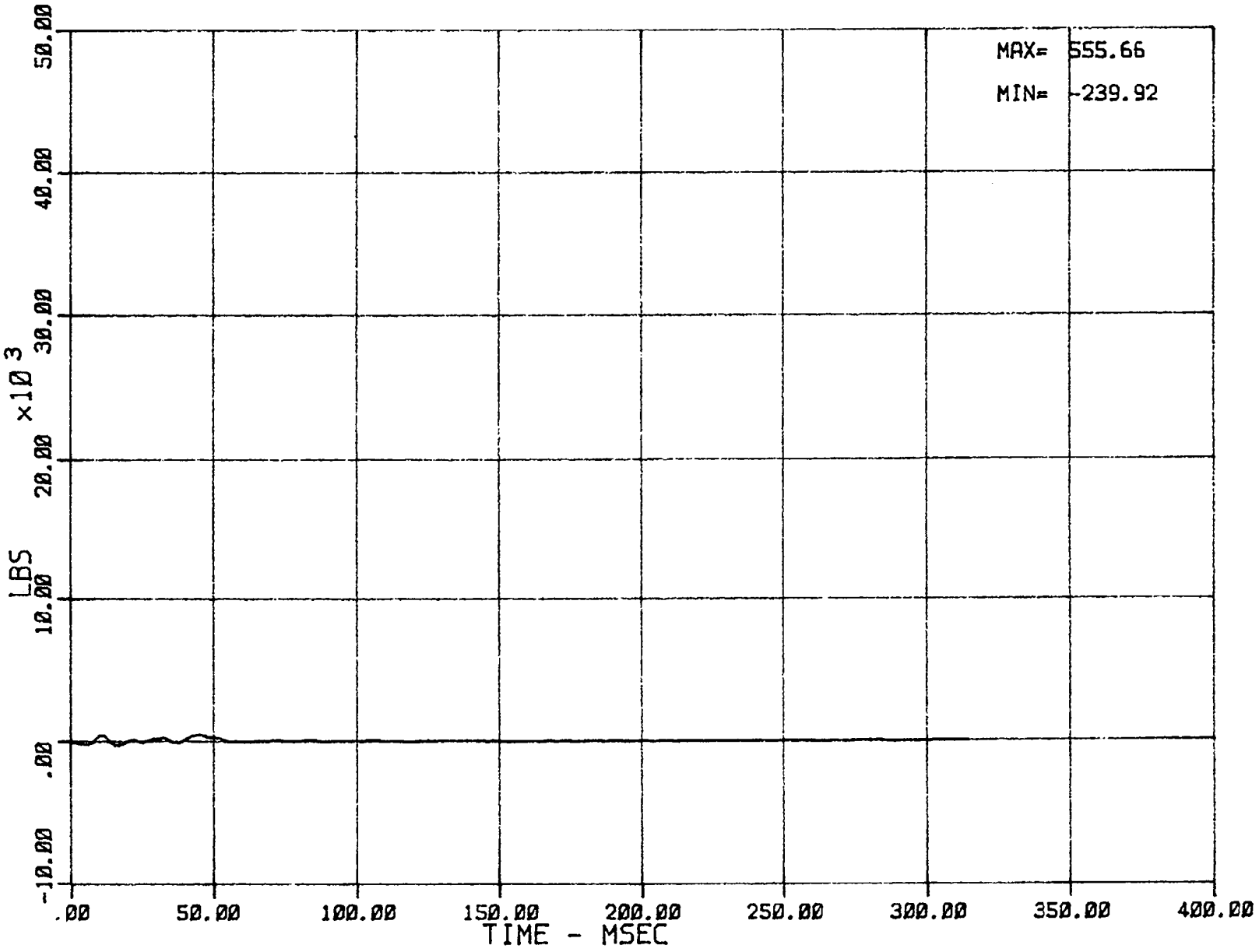


GROUP 5 SUM (A4,A5,A6,B4,B5,B6) LOAD CELL BARRIER FORCE
MSE N07068 1988 DODGE COLT DL 03/25/88

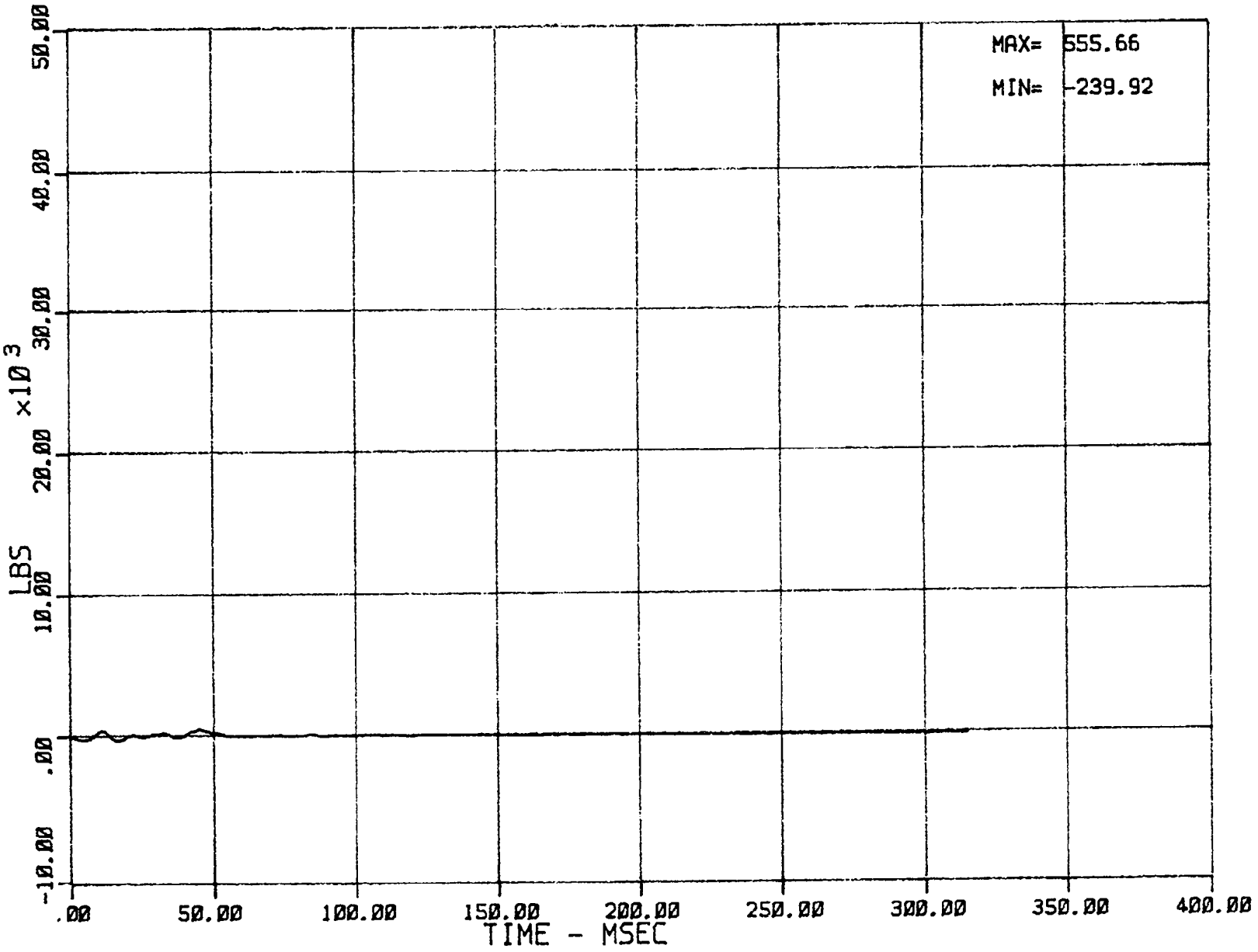


GROUP 6 SUM (A7,A8,A9,B7,B8,B9) LOAD CELL BARRIER FORCE

MSE N07068 1988 DODGE COLT DL 03/25/88

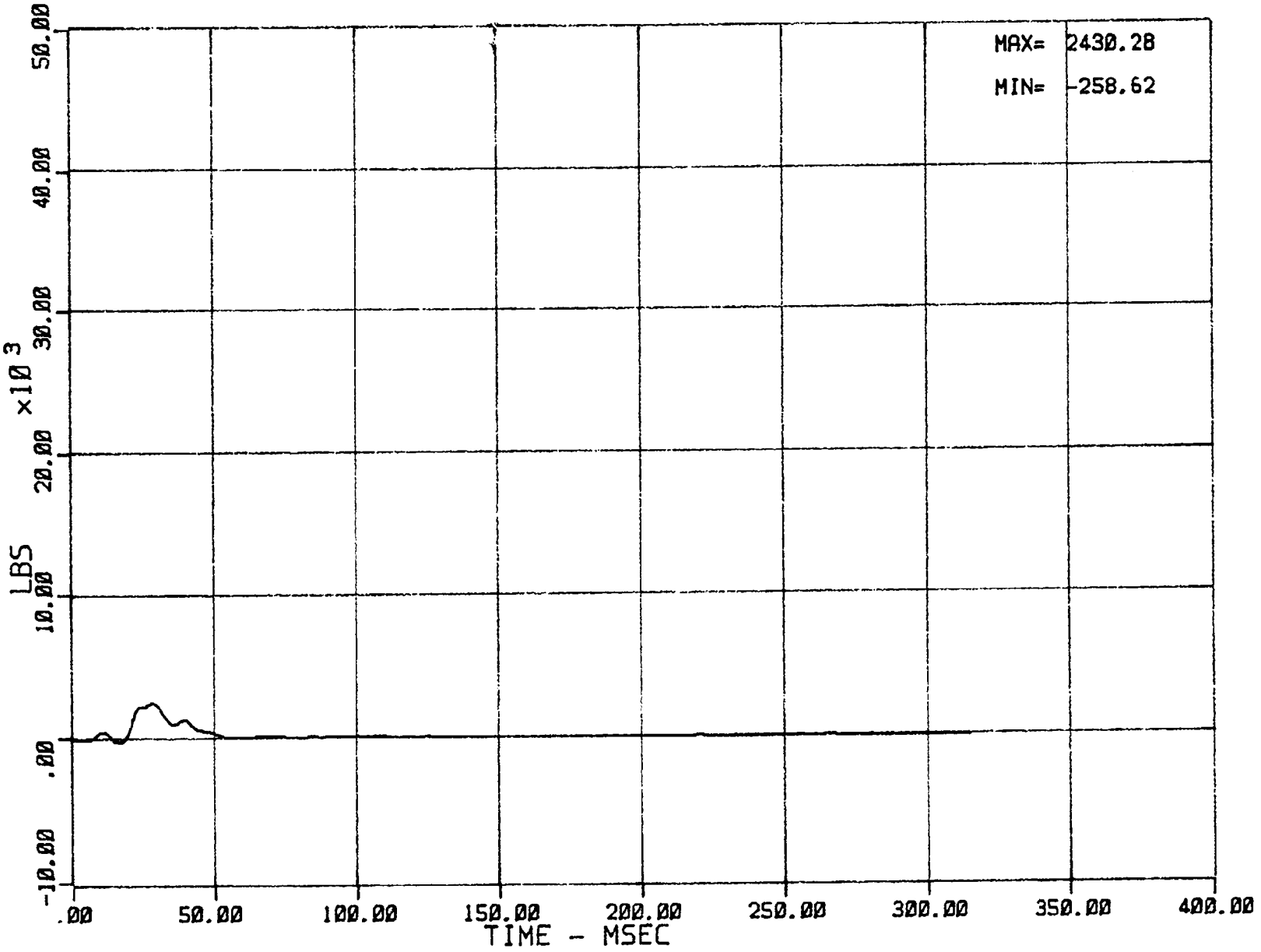


32 LC BA N BA1 (BARRIER LOAD CELL A1 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



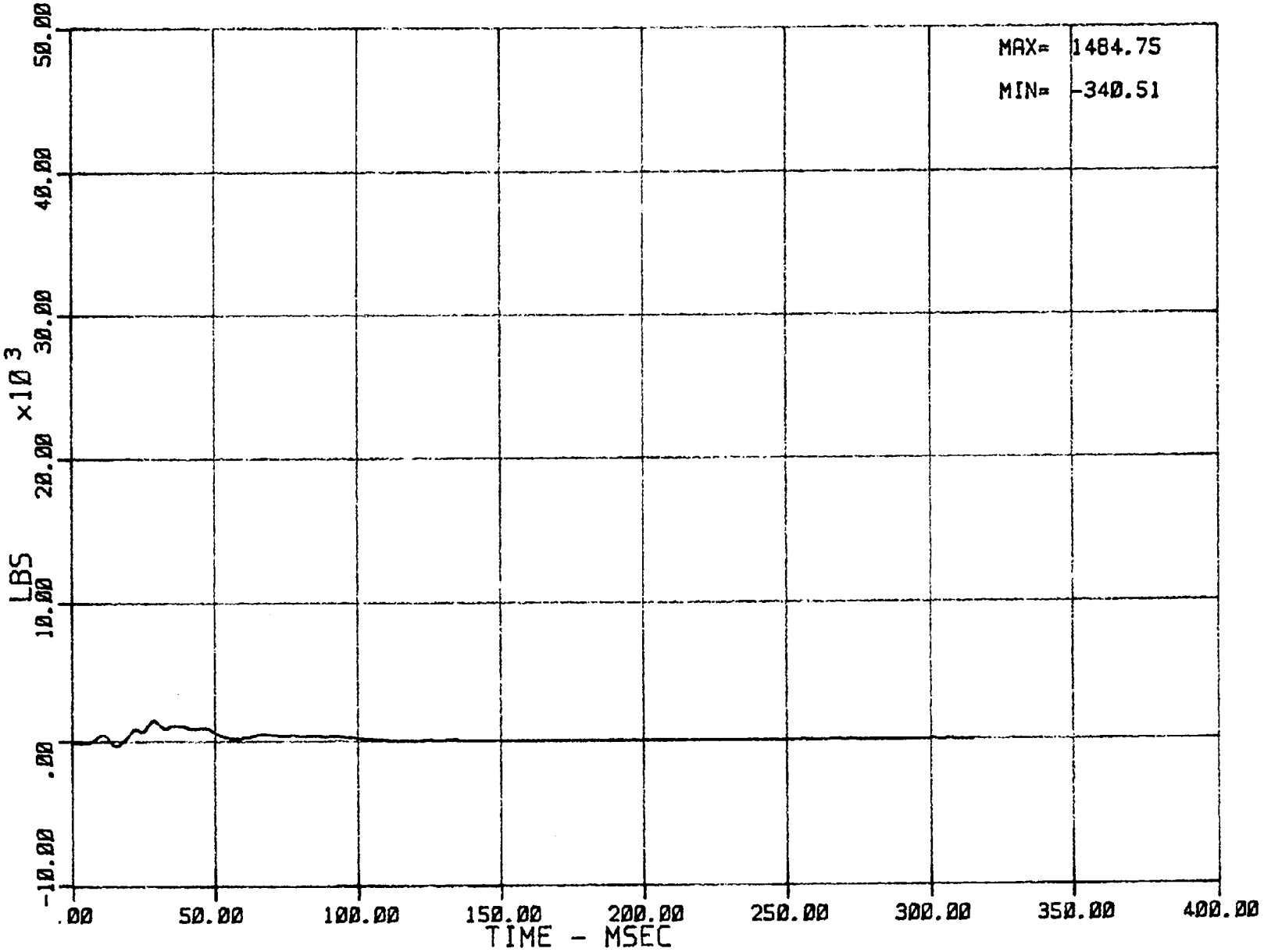
33 LC BA N BA2 (BARRIER LOAD CELL A2 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



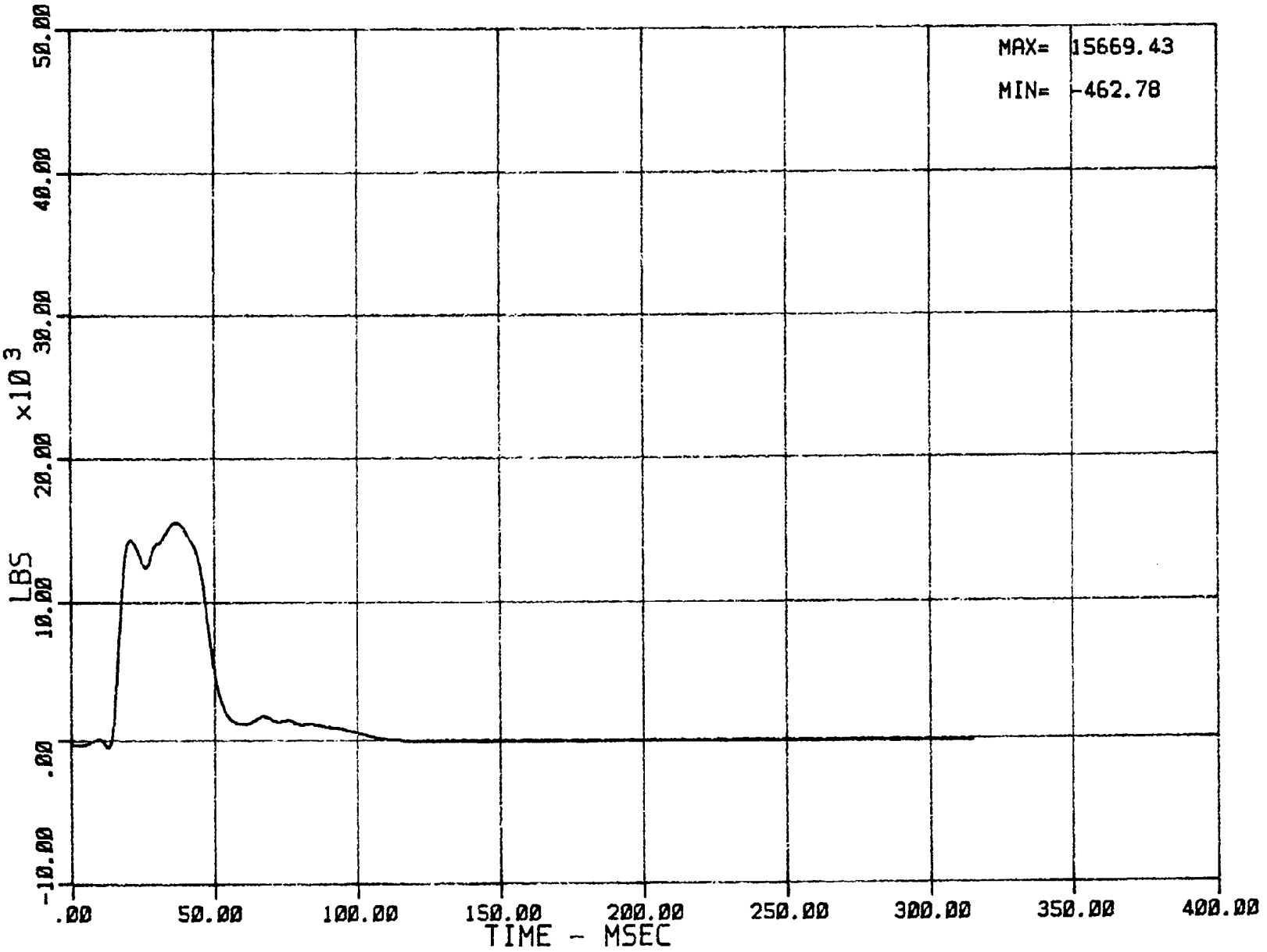
34 LC BA N BA3 (BARRIER LOAD CELL A3 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

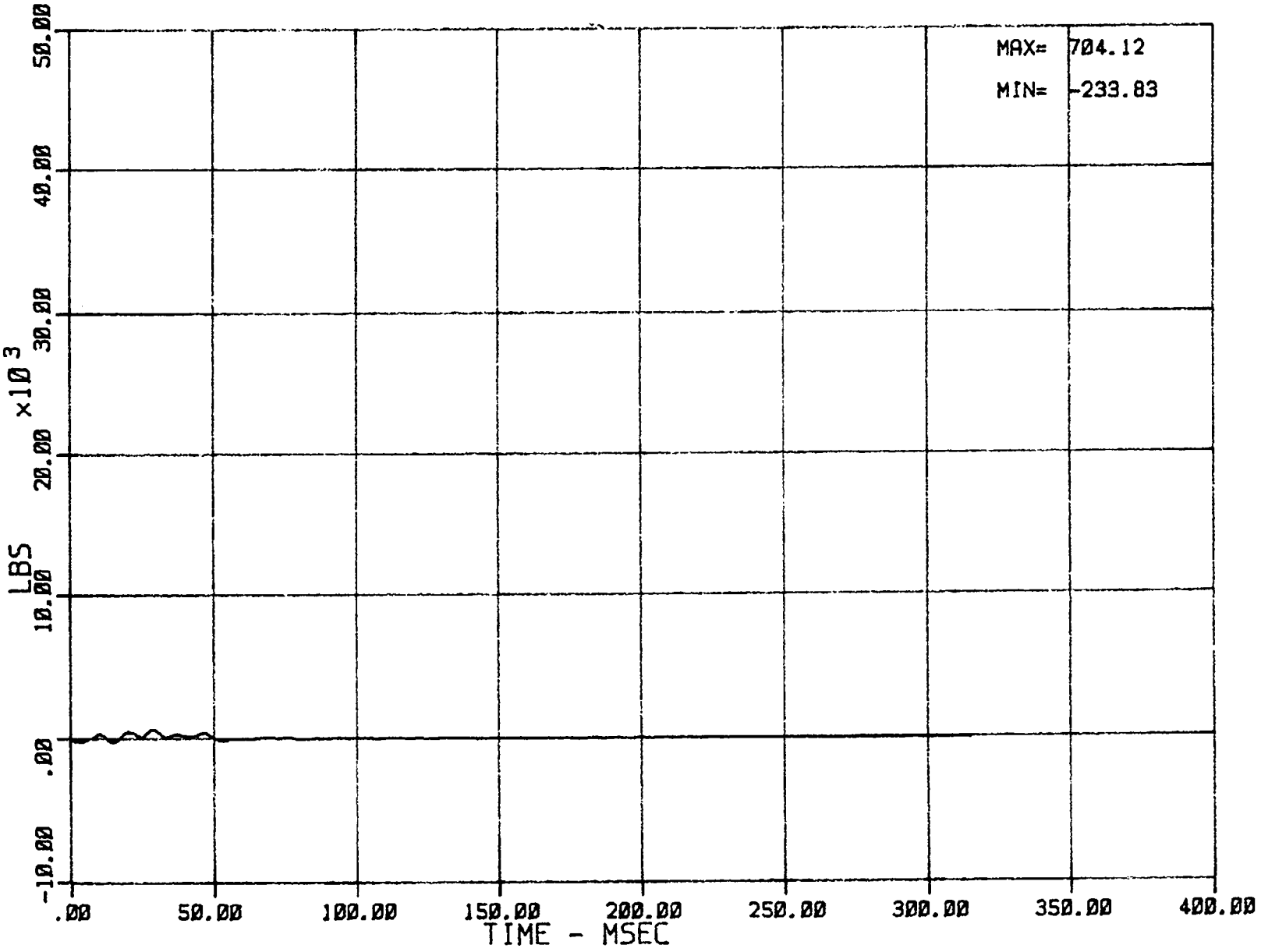


35 LC N BA4 (BARRIER LOAD CELL A4 - FORCE)
MSE N07068 1988 DODGE COLT DL

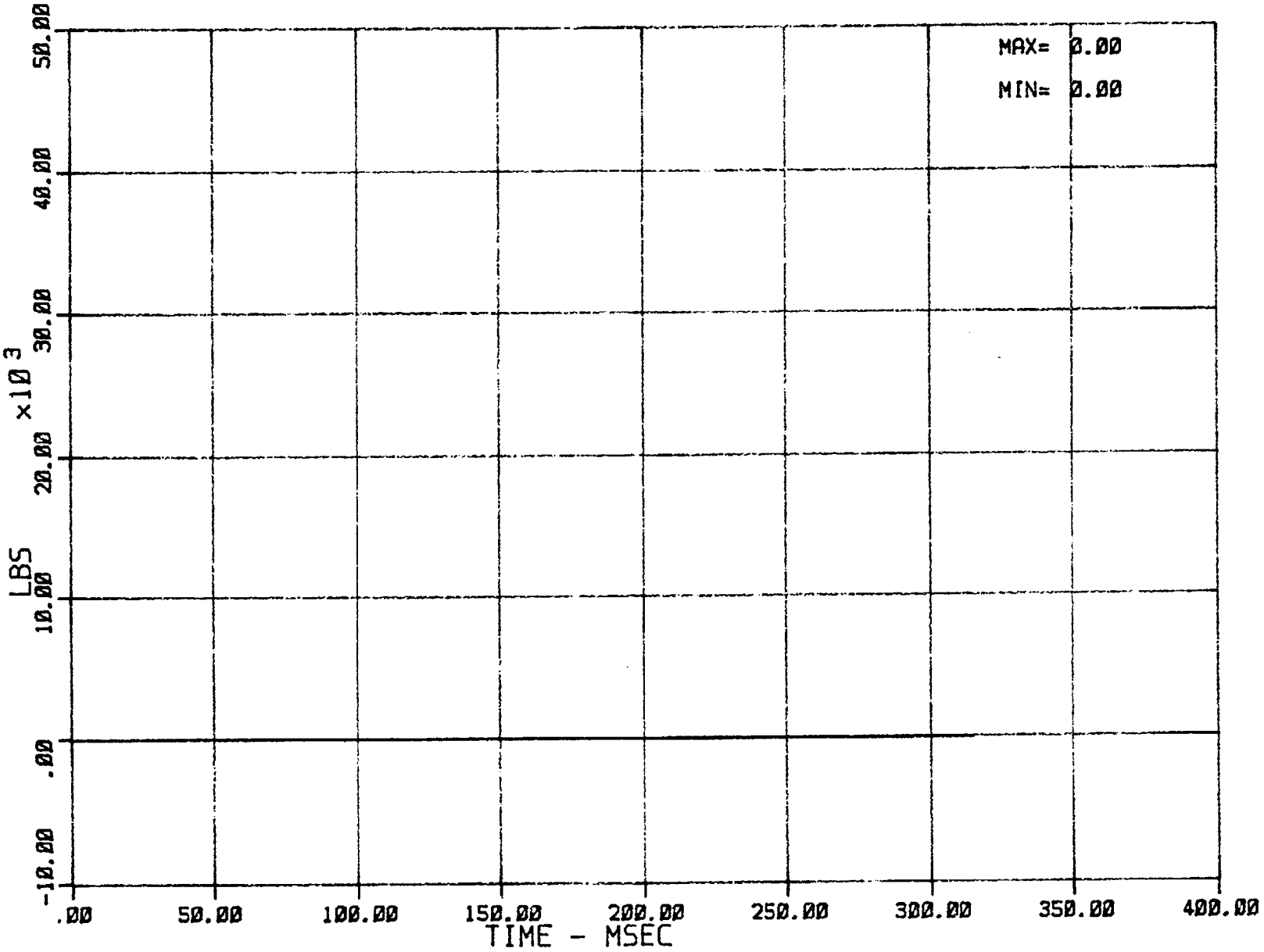
03/25/88



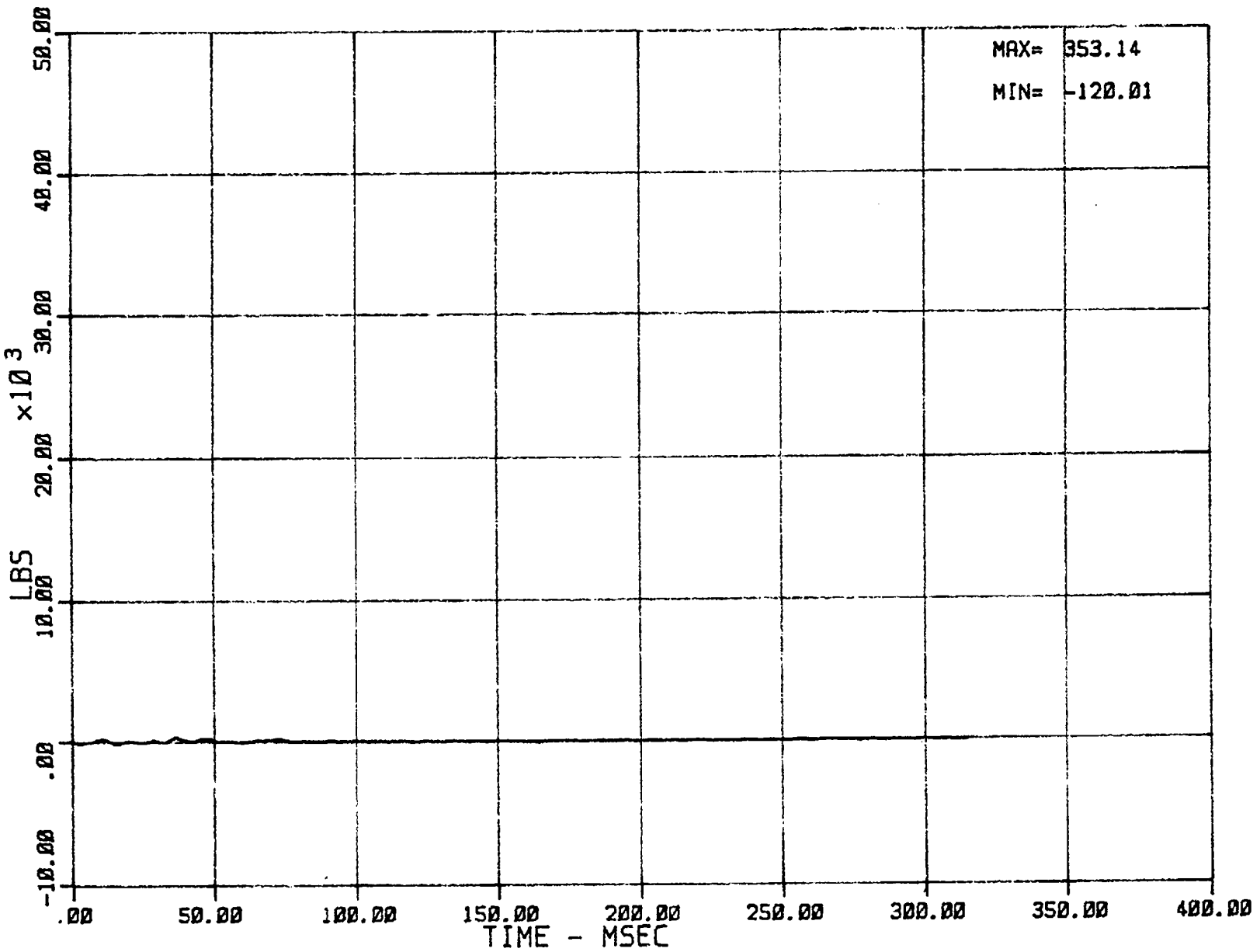
36 LC BA N BA5 (BARRIER LOAD CELL A5 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



37 LC BA N BA6 (BARRIER LOAD CELL A6 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

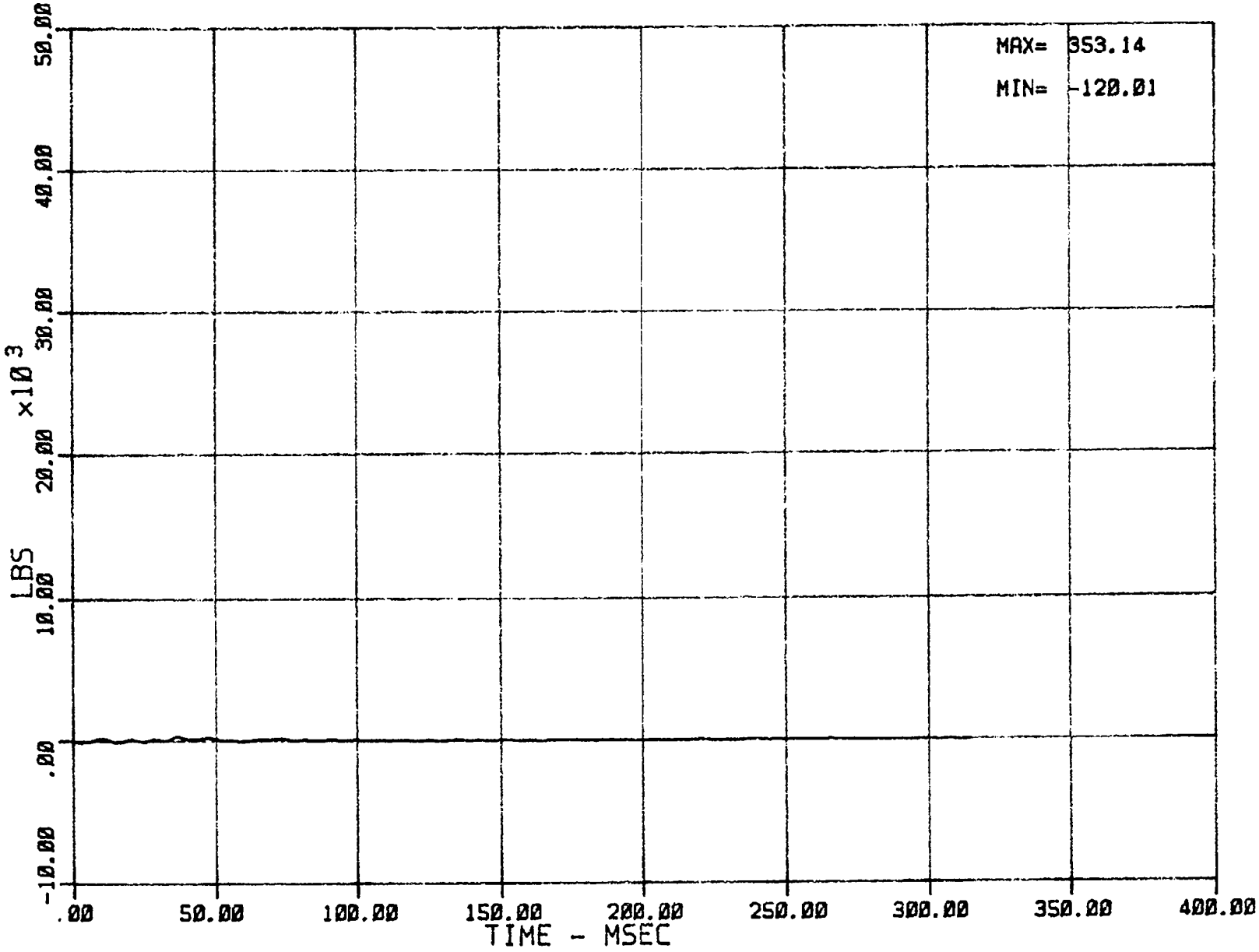


38 LC BA N BA7 (BARRIER LOAD CELL A7 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

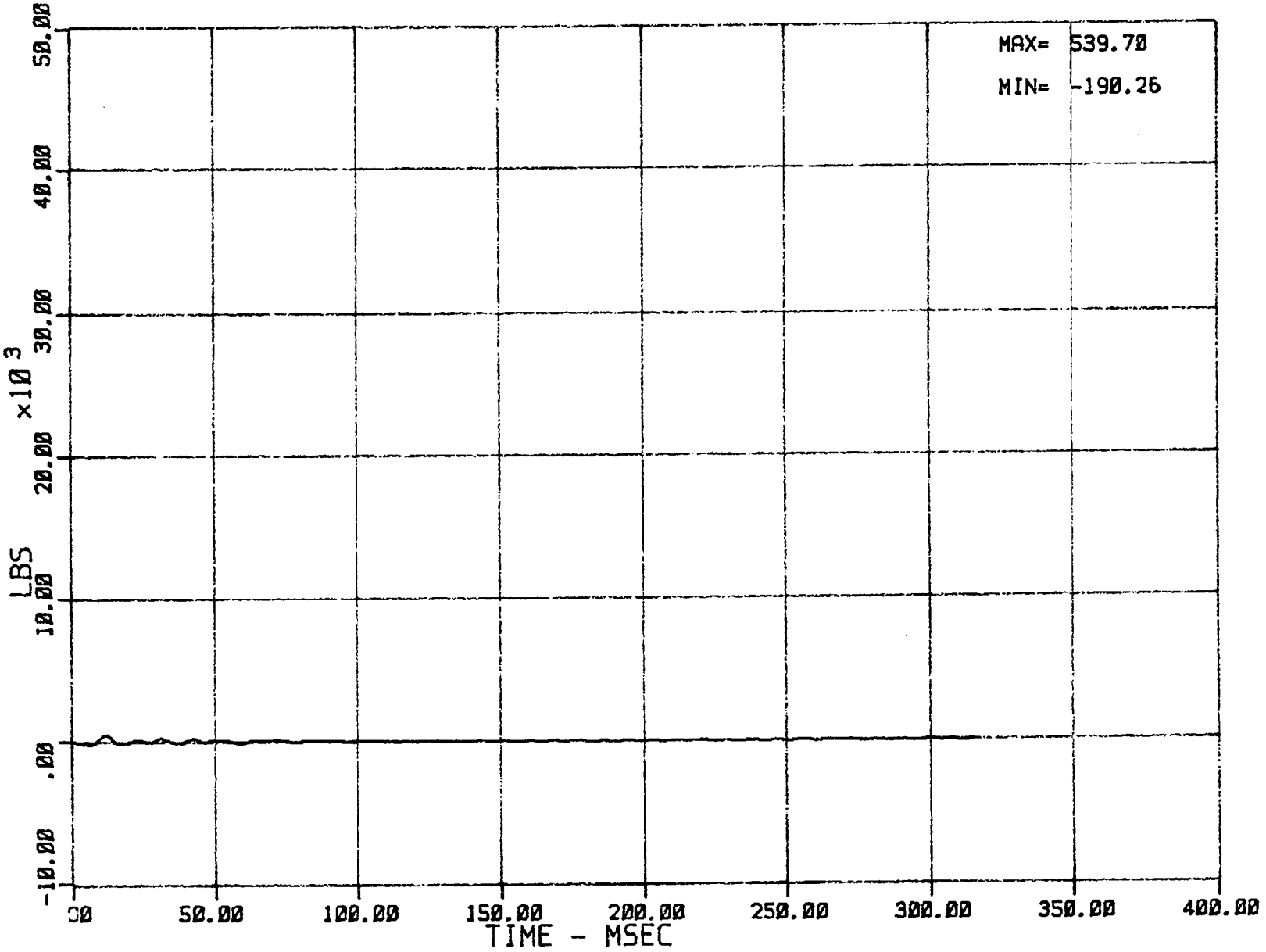


39 LC BA N BA8 (BARRIER LOAD CELL A8 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

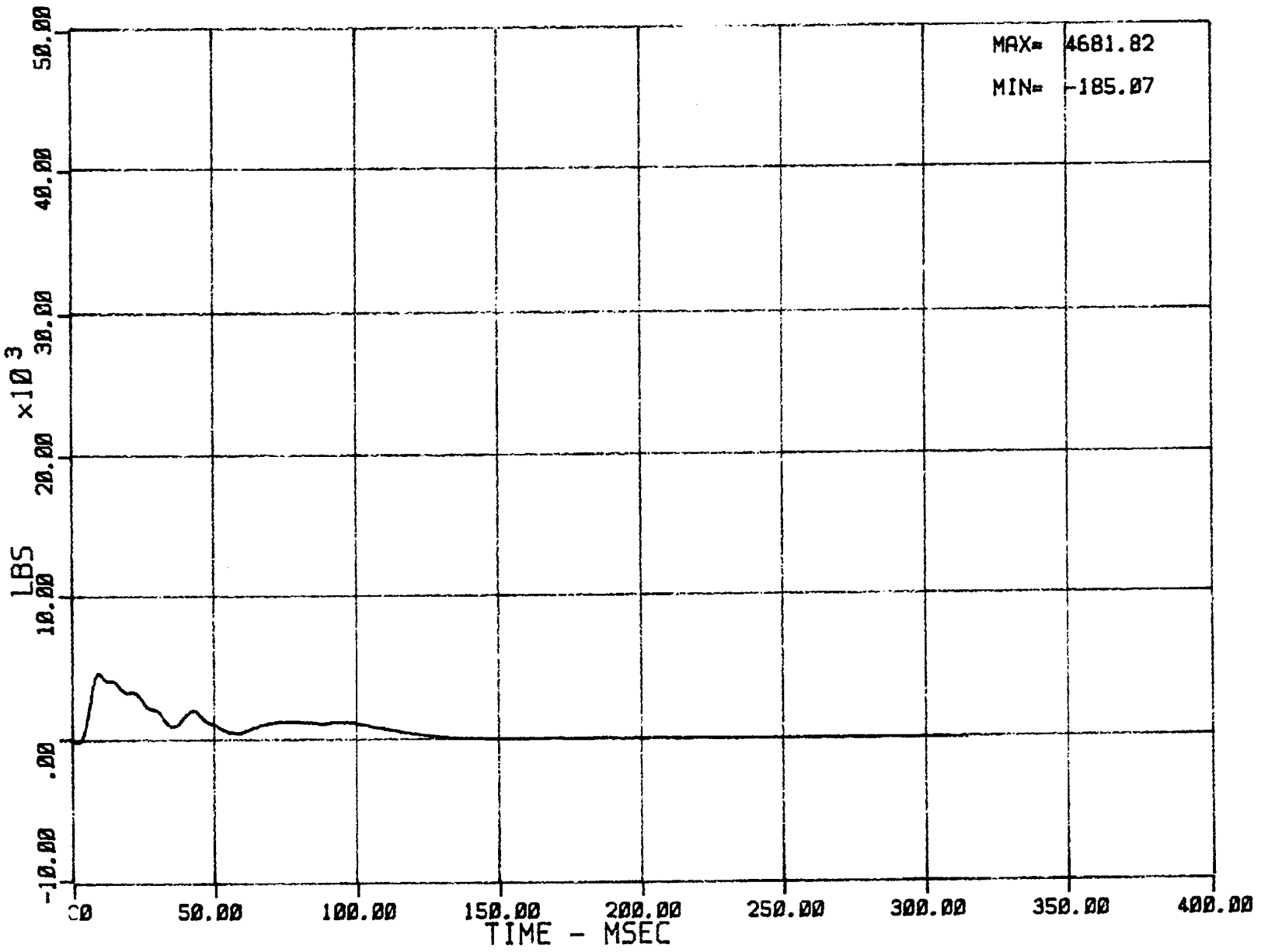


40 LC BA N BA9 (BARRIER LOAD CELL A9 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

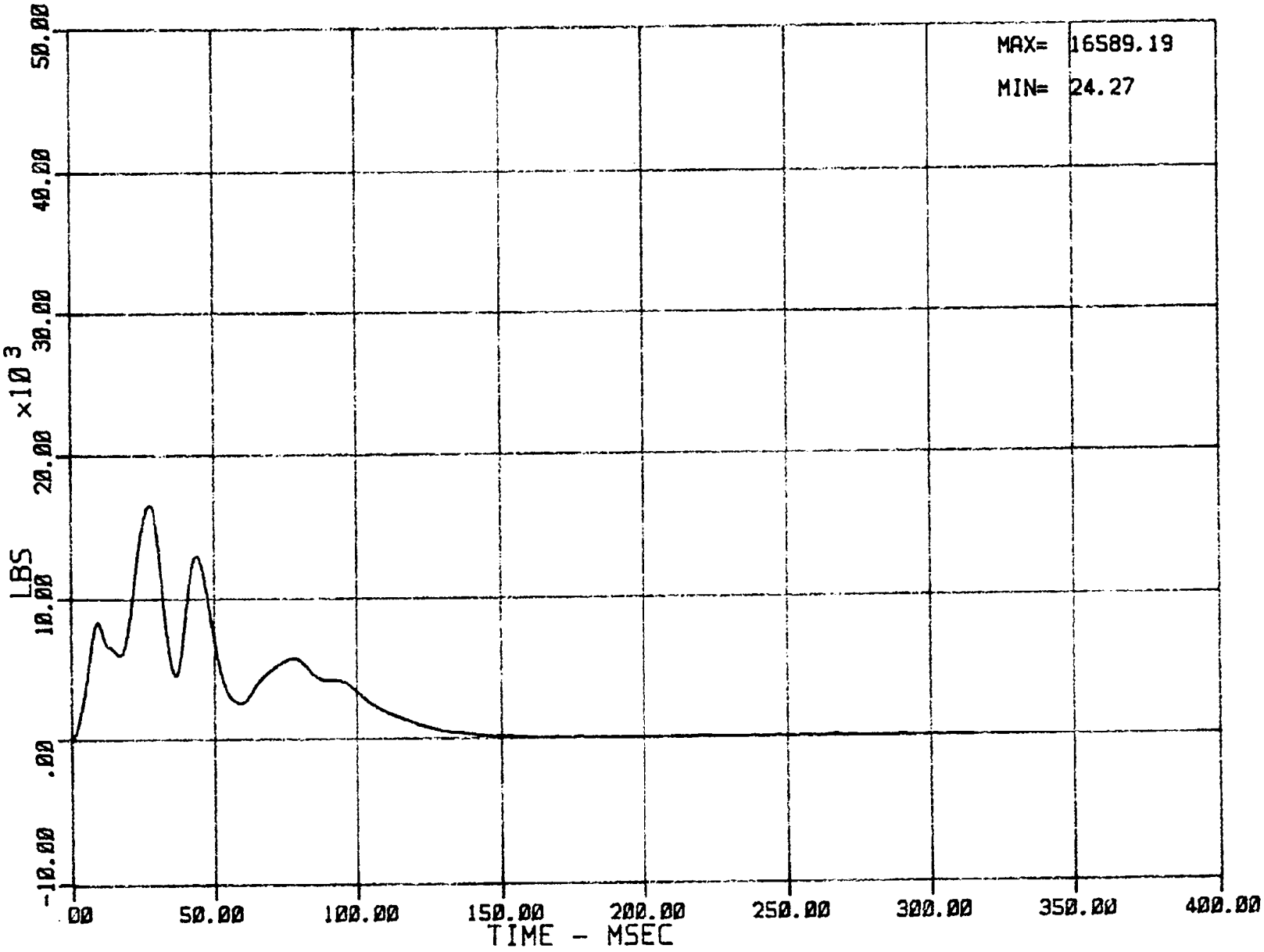


41 LC BA N BB1 (BARRIER LOAD CELL B1 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

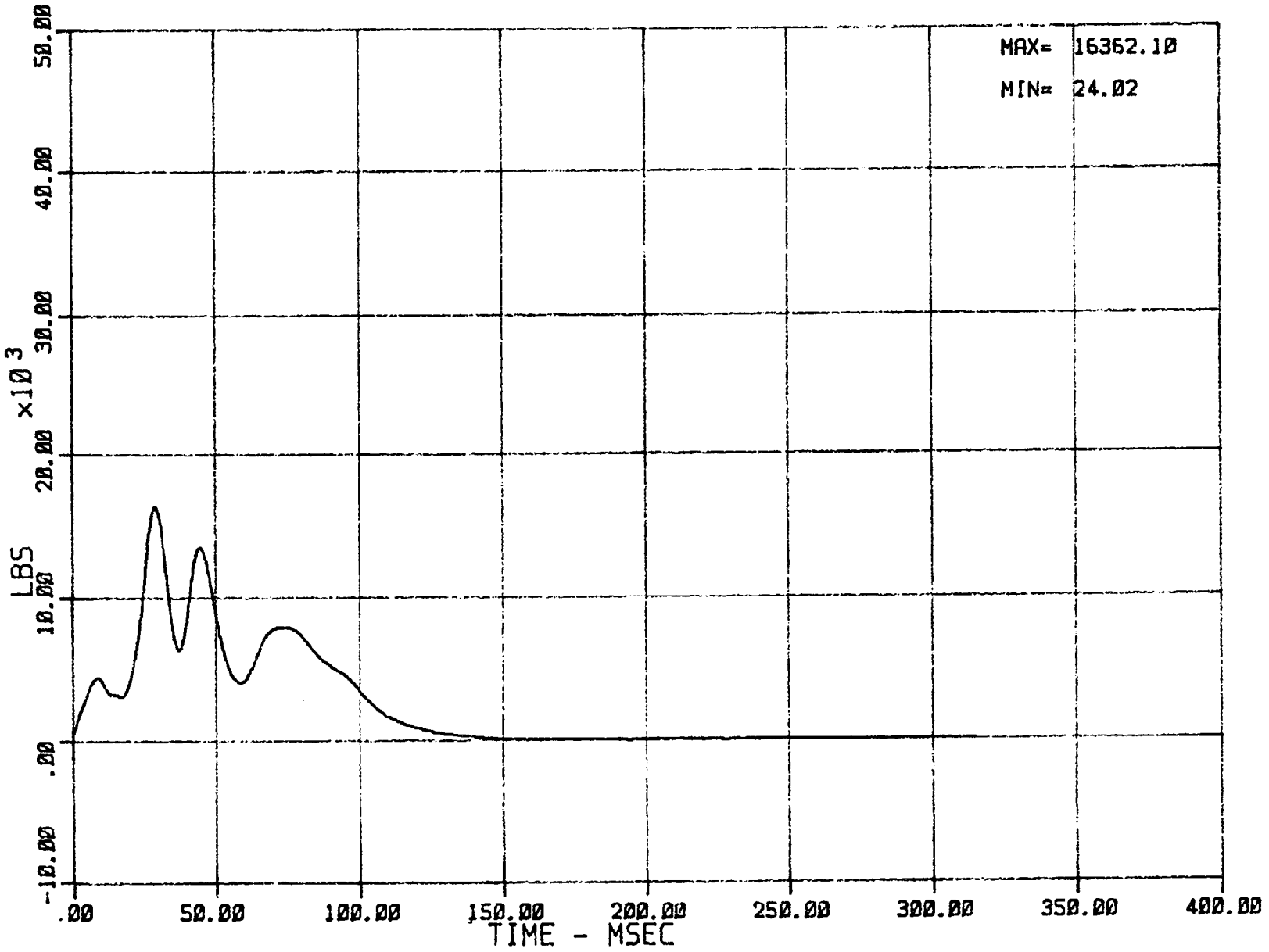


42 LC BA N BB2 (BARRIER LOAD CELL B2 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



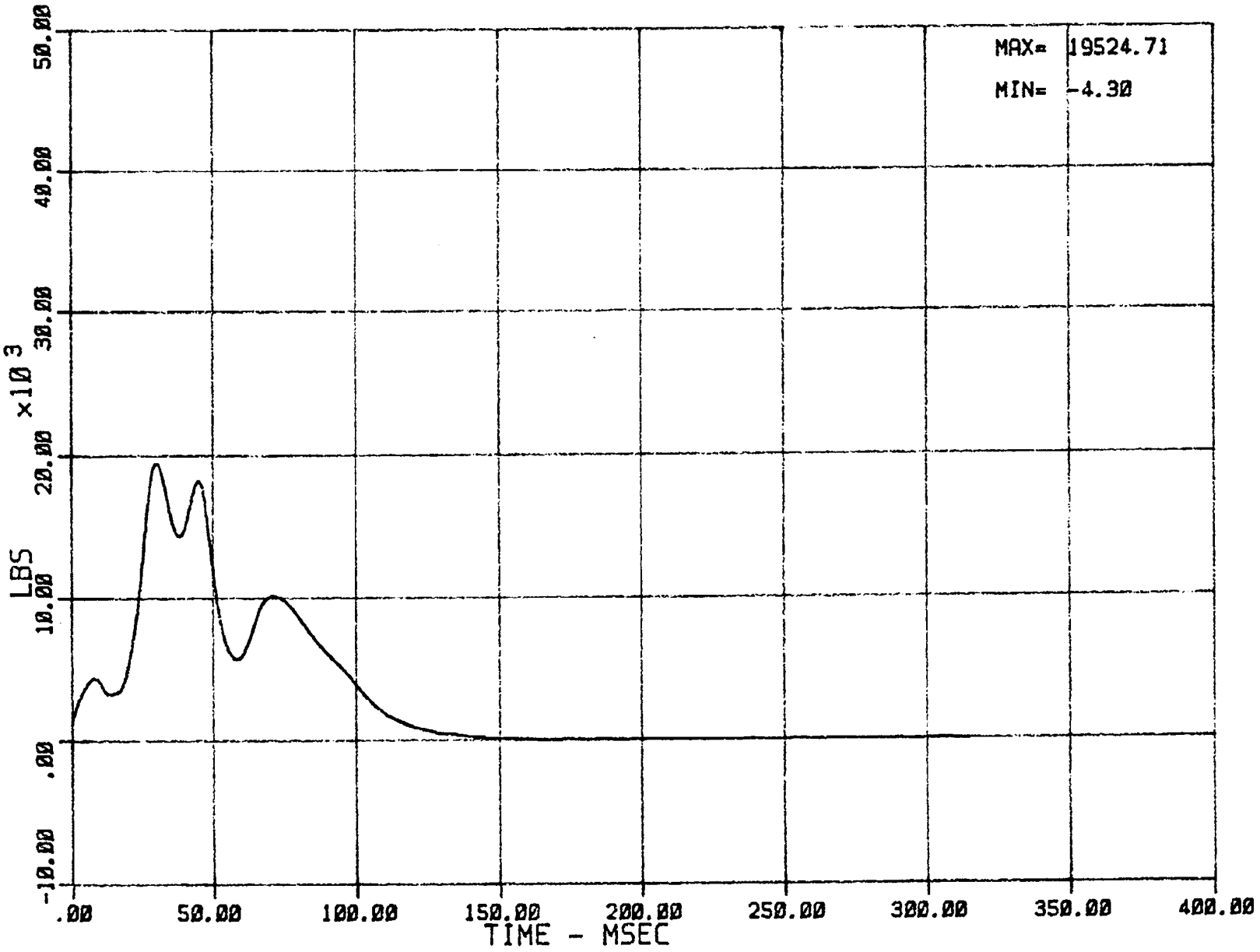
43 LC BA N BB3 (BARRIER LOAD CELL B3 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

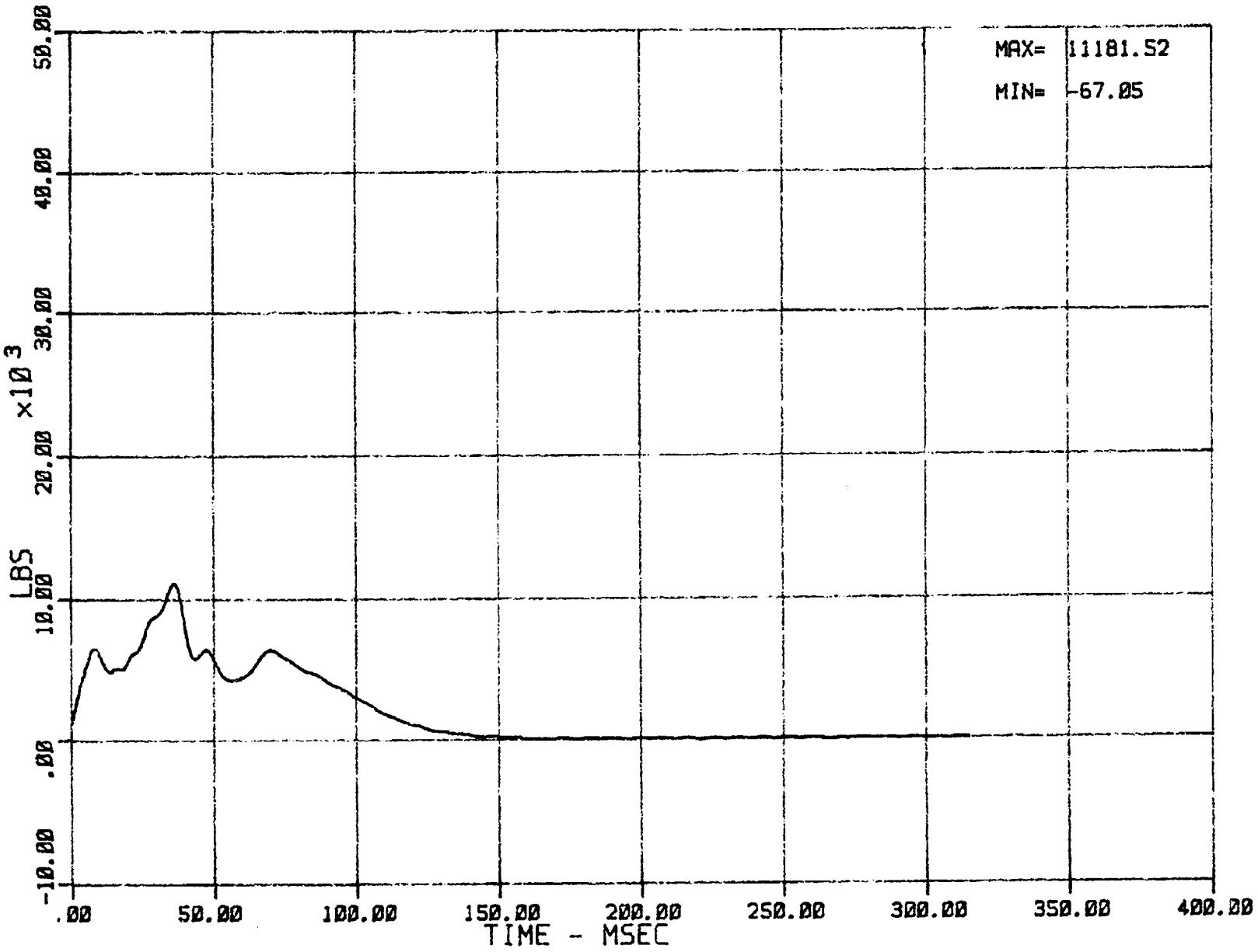


44 LC BA N BB4 (BARRIER LOAD CELL B4 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

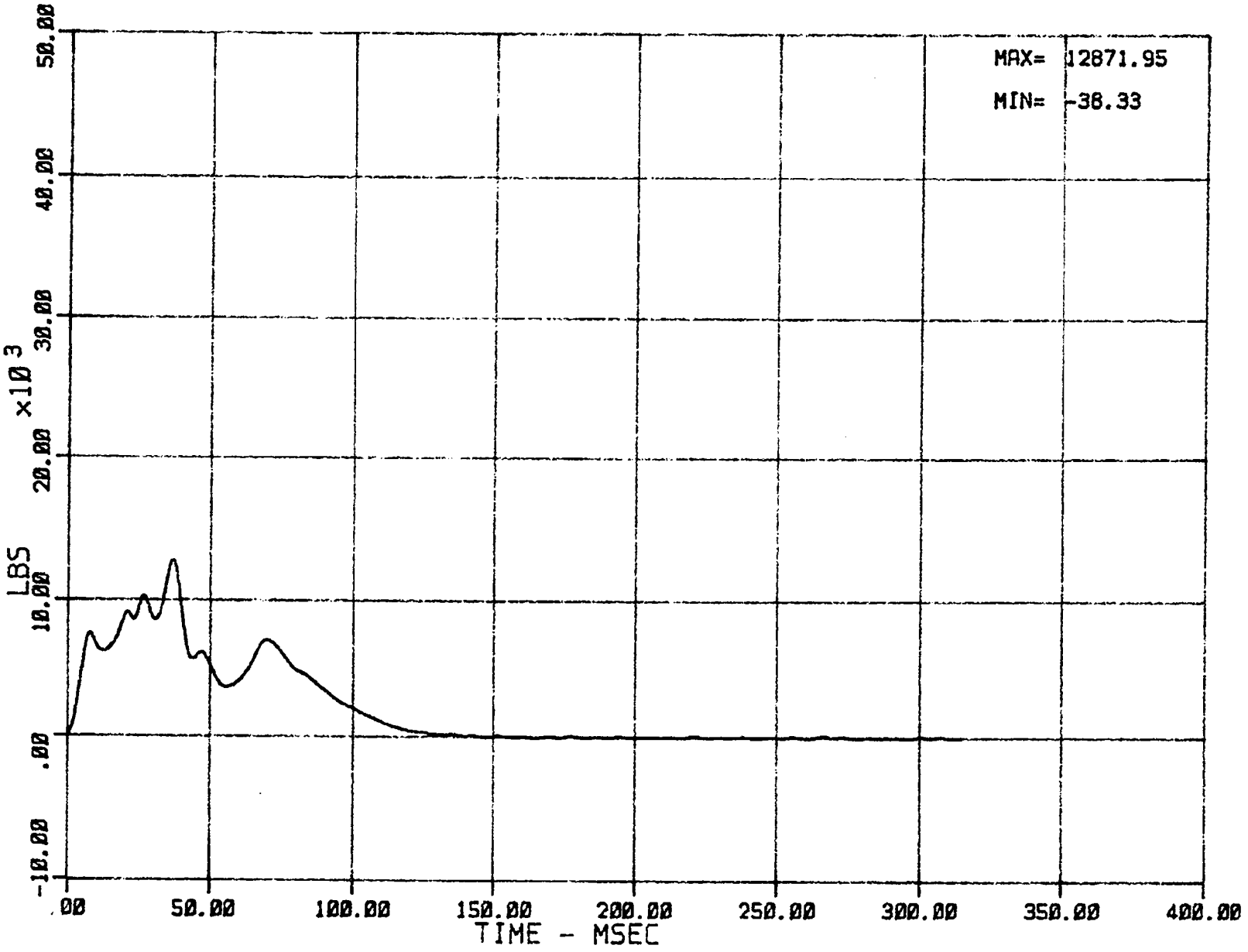


4S LC BA N BBS (BARRIER LOAD CELL BS - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

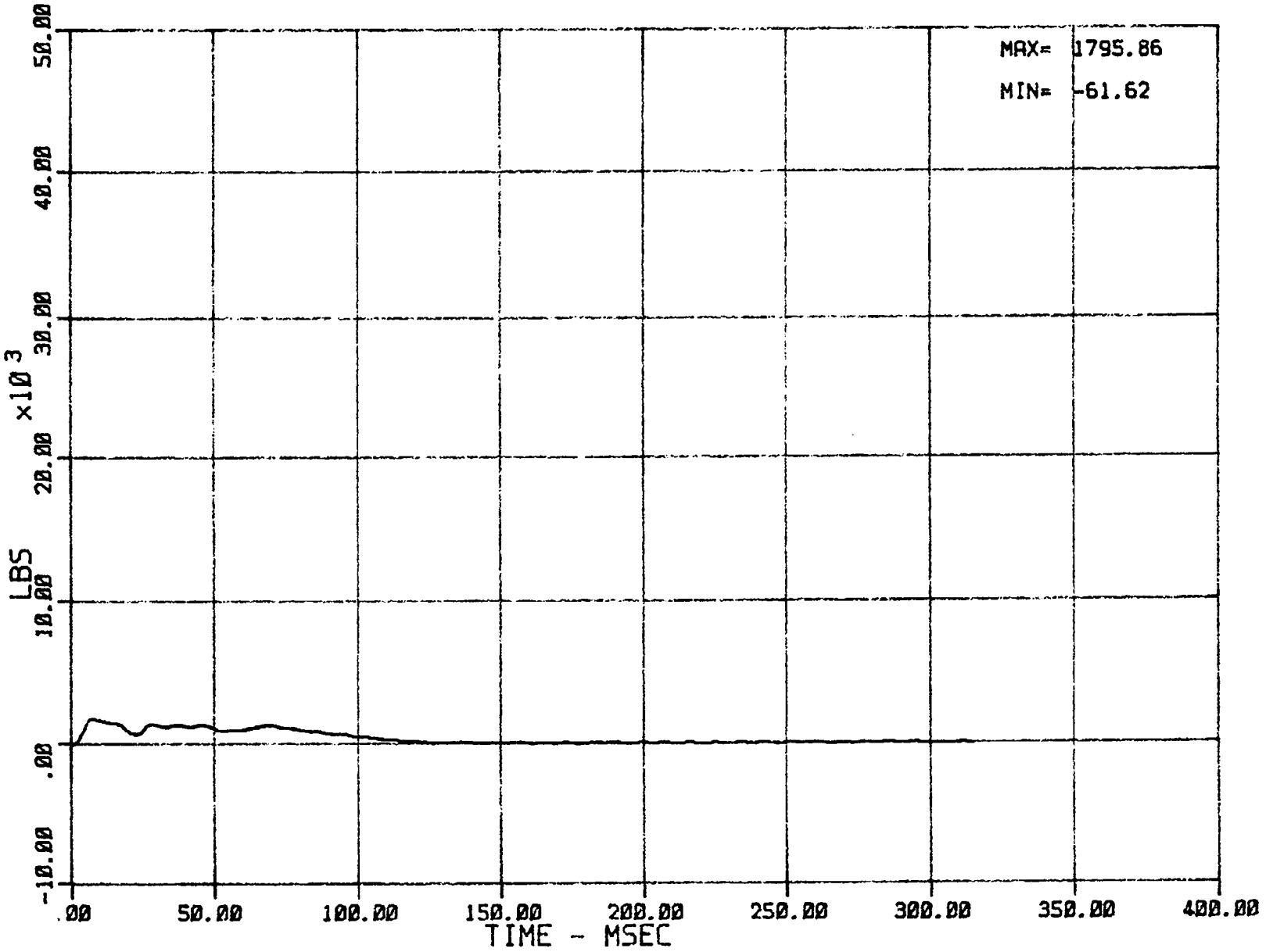


46 LC BA N BB6 (BARRIER LOAD CELL B6 - FORCE)
MSE N07068 1988 DODGE COLT DL

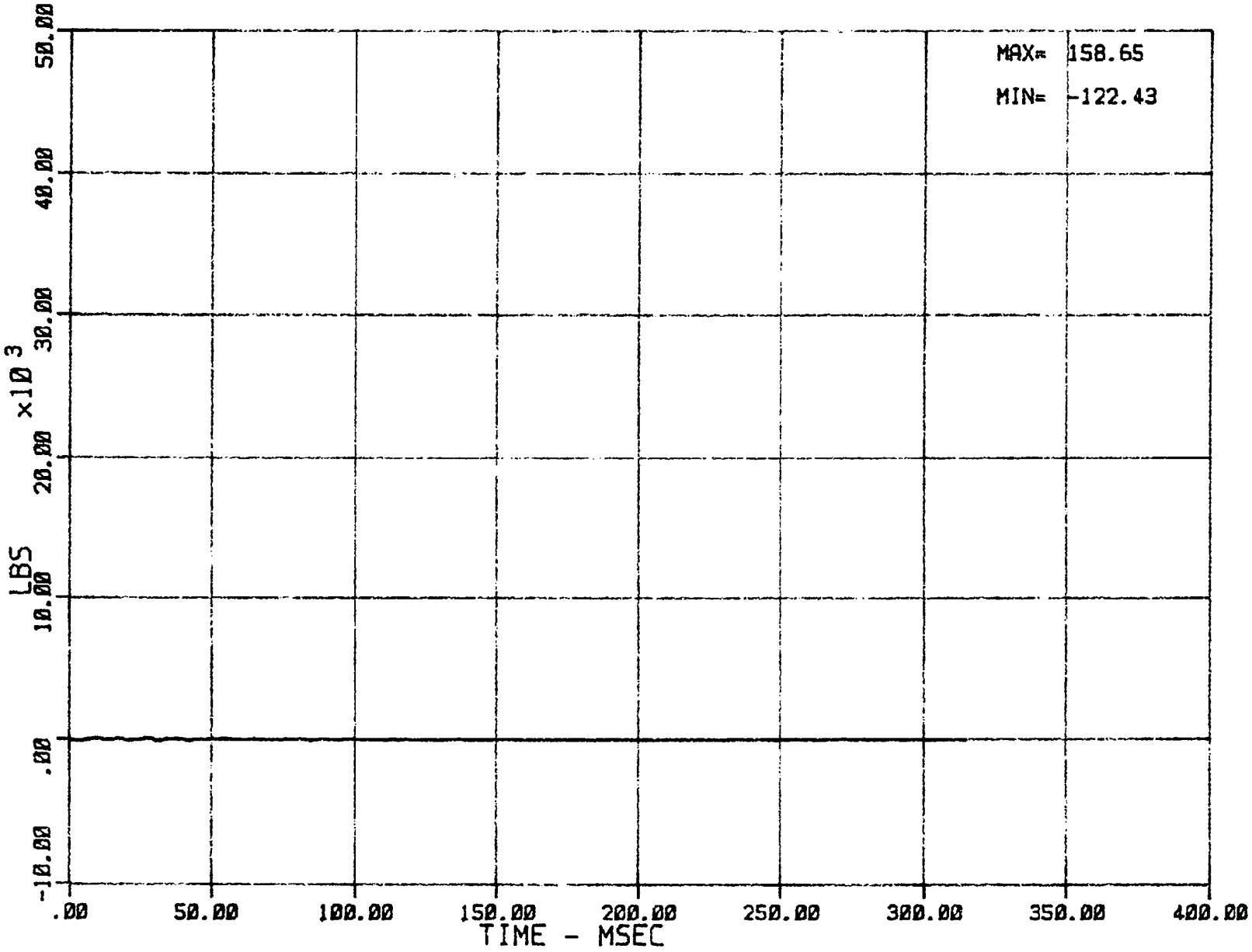
03/25/88



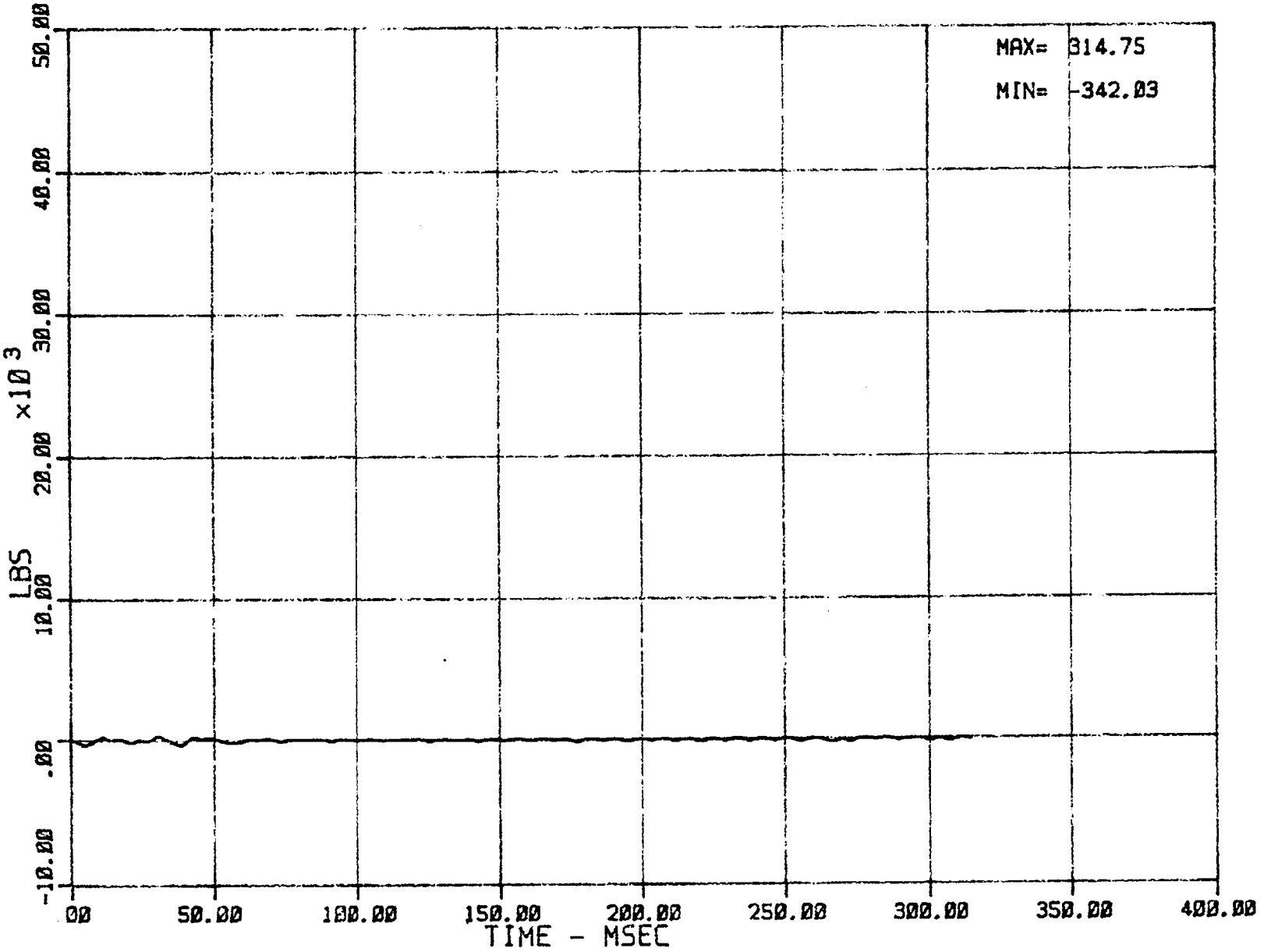
47 LC BA N BB7 (BARRIER LOAD CELL B7 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



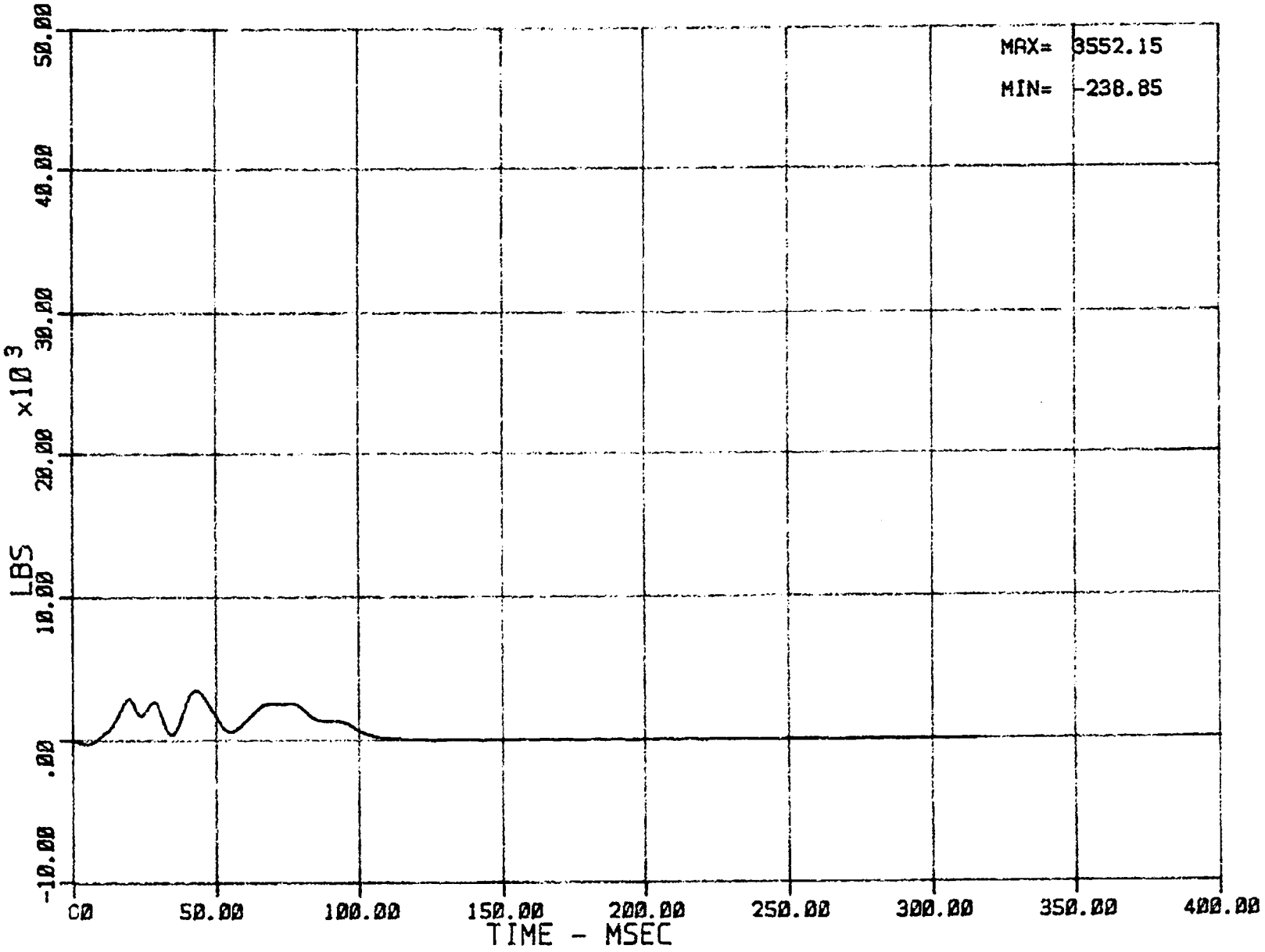
48 LC BA N BB8 (BARRIER LOAD CELL B8 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



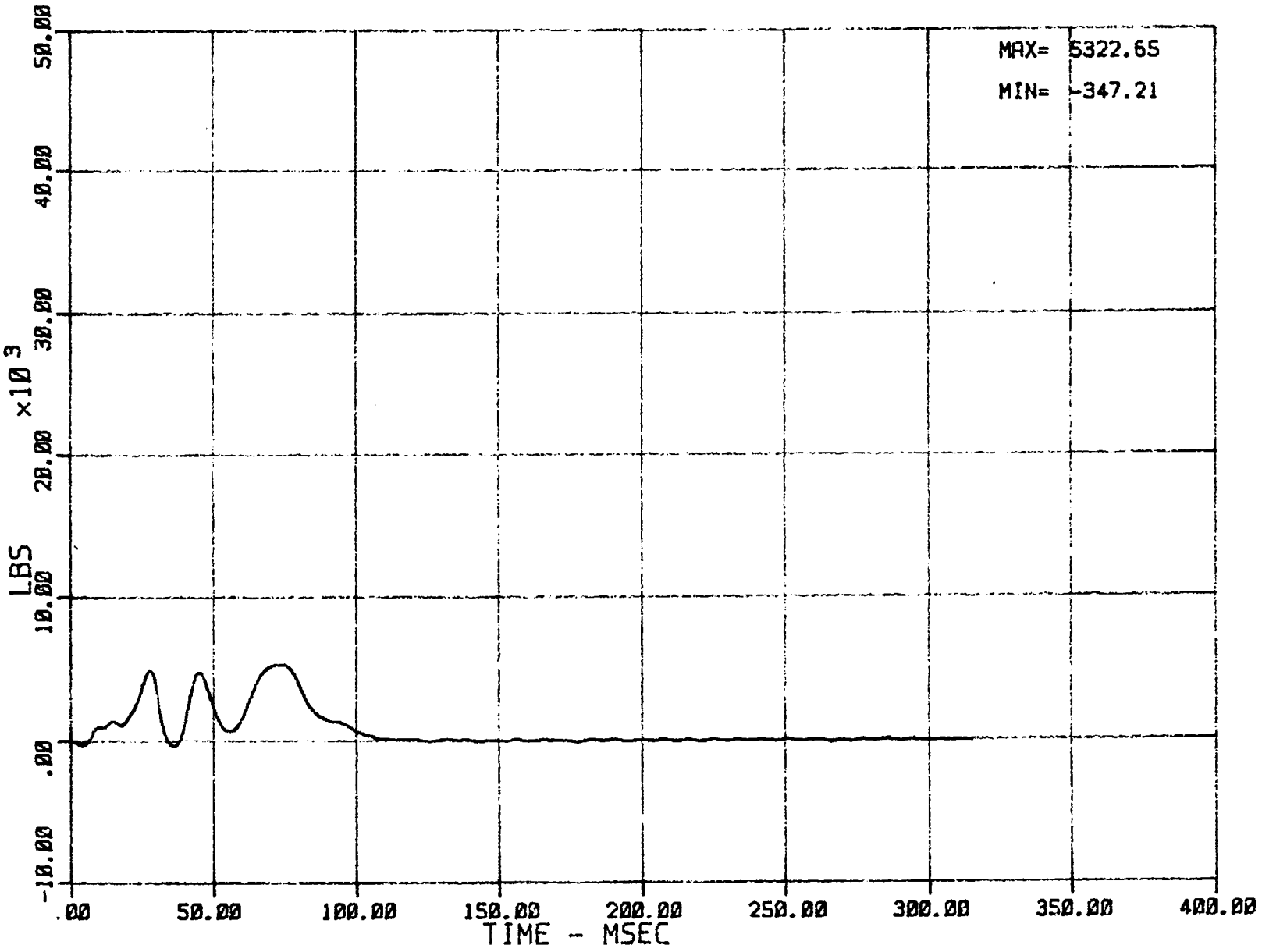
49 LC BA N BB9 (BARRIER LOAD CELL B9 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



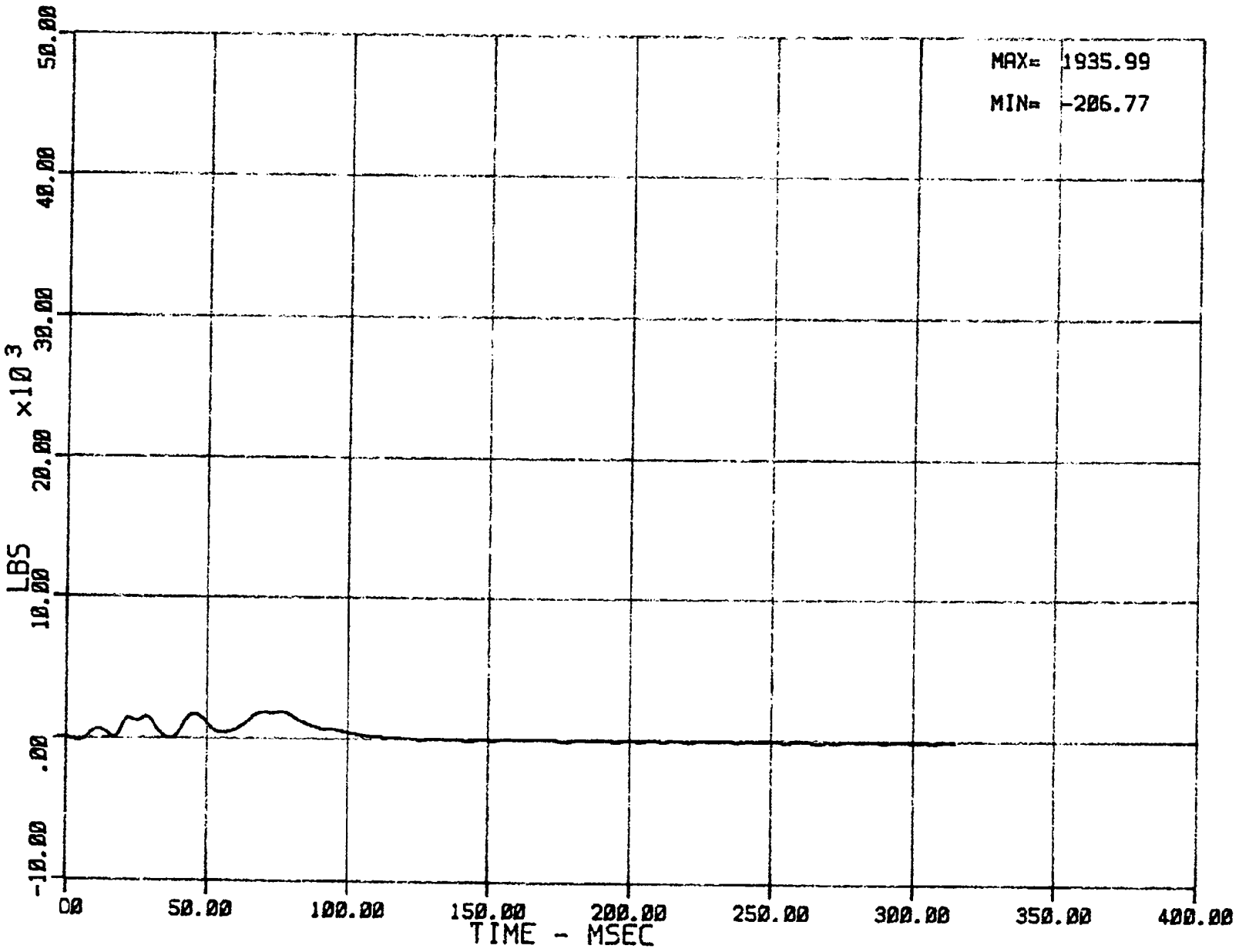
50 LC BA N BC1 (BARRIER LOAD CELL C1 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



S1 LC BA N BC2 (BARRIER LOAD CELL C2 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

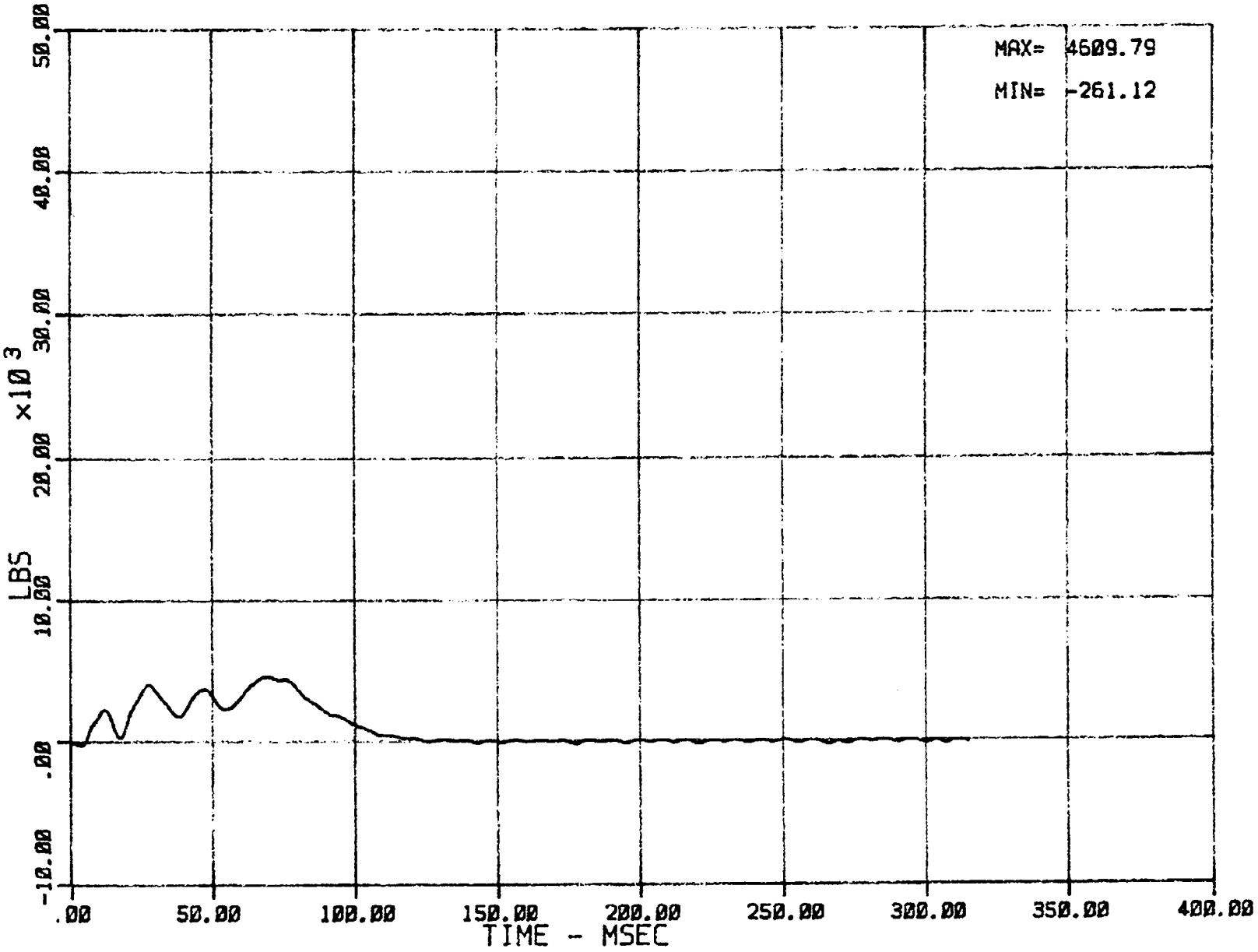


S2 LC BA N BC3 (BARRIER LOAD CELL C3 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

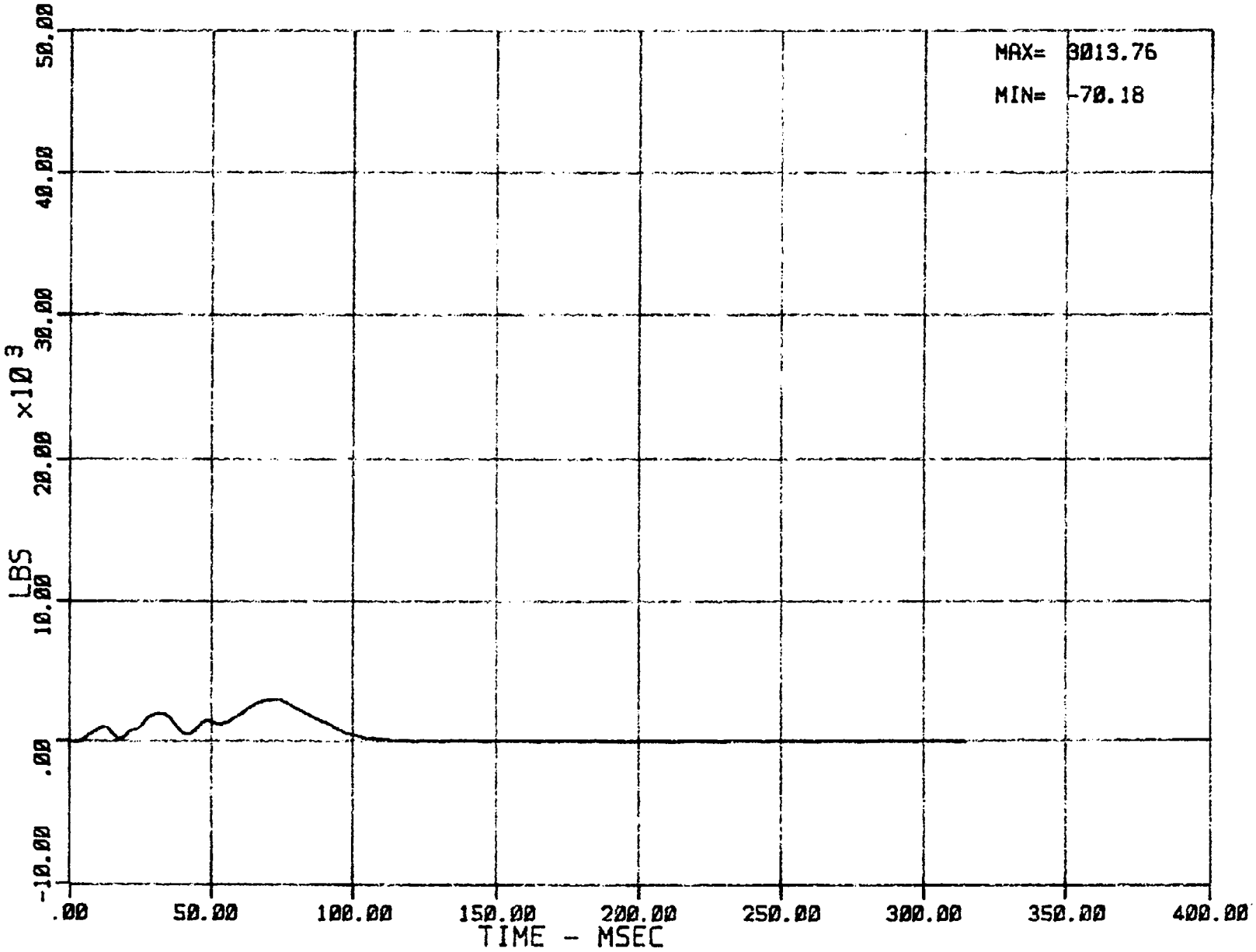


53 LC BA N BC4 (BARRIER LOAD CELL C4 - FORCE)
MSE N07068 1988 DODGE COLT DL

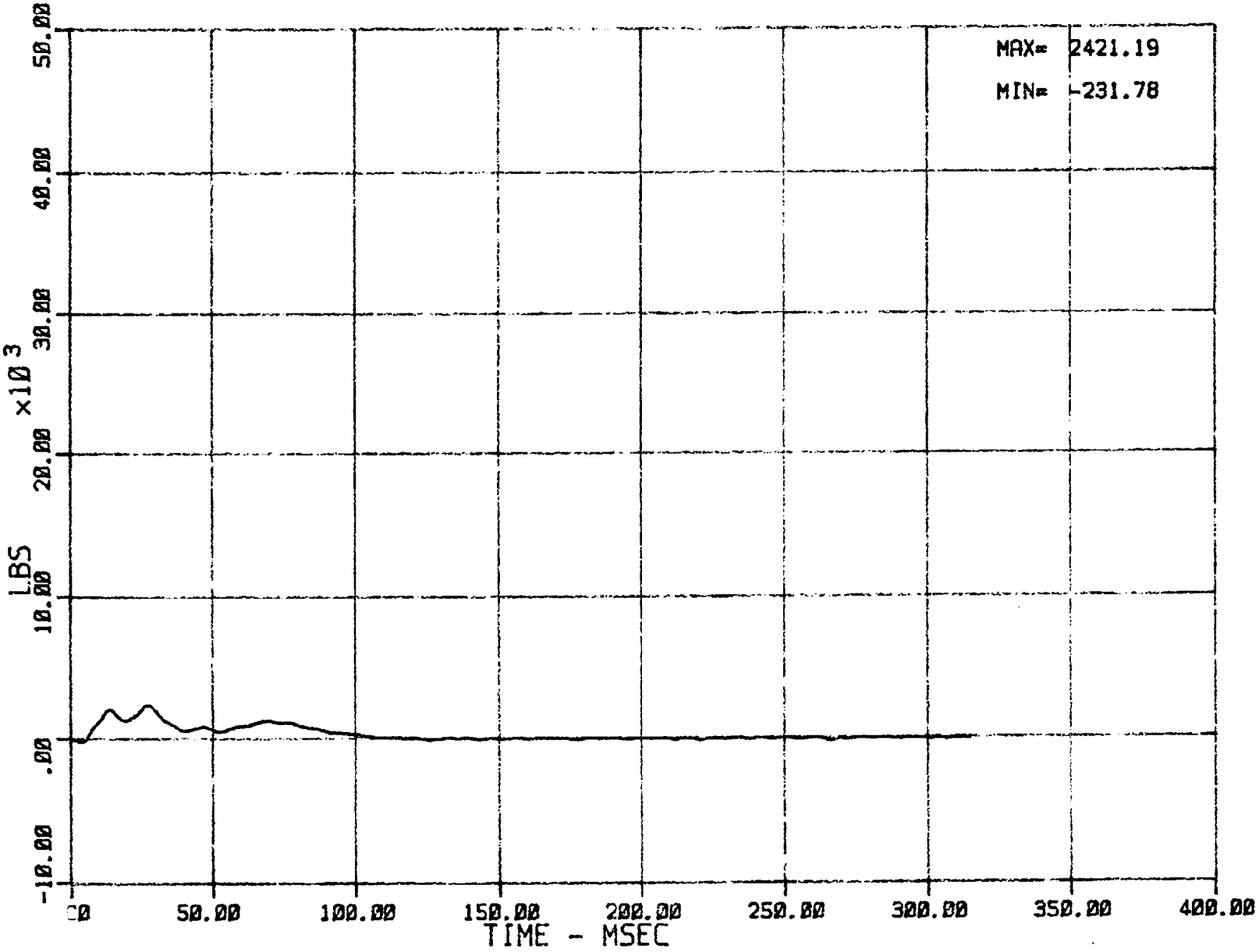
03/25/88



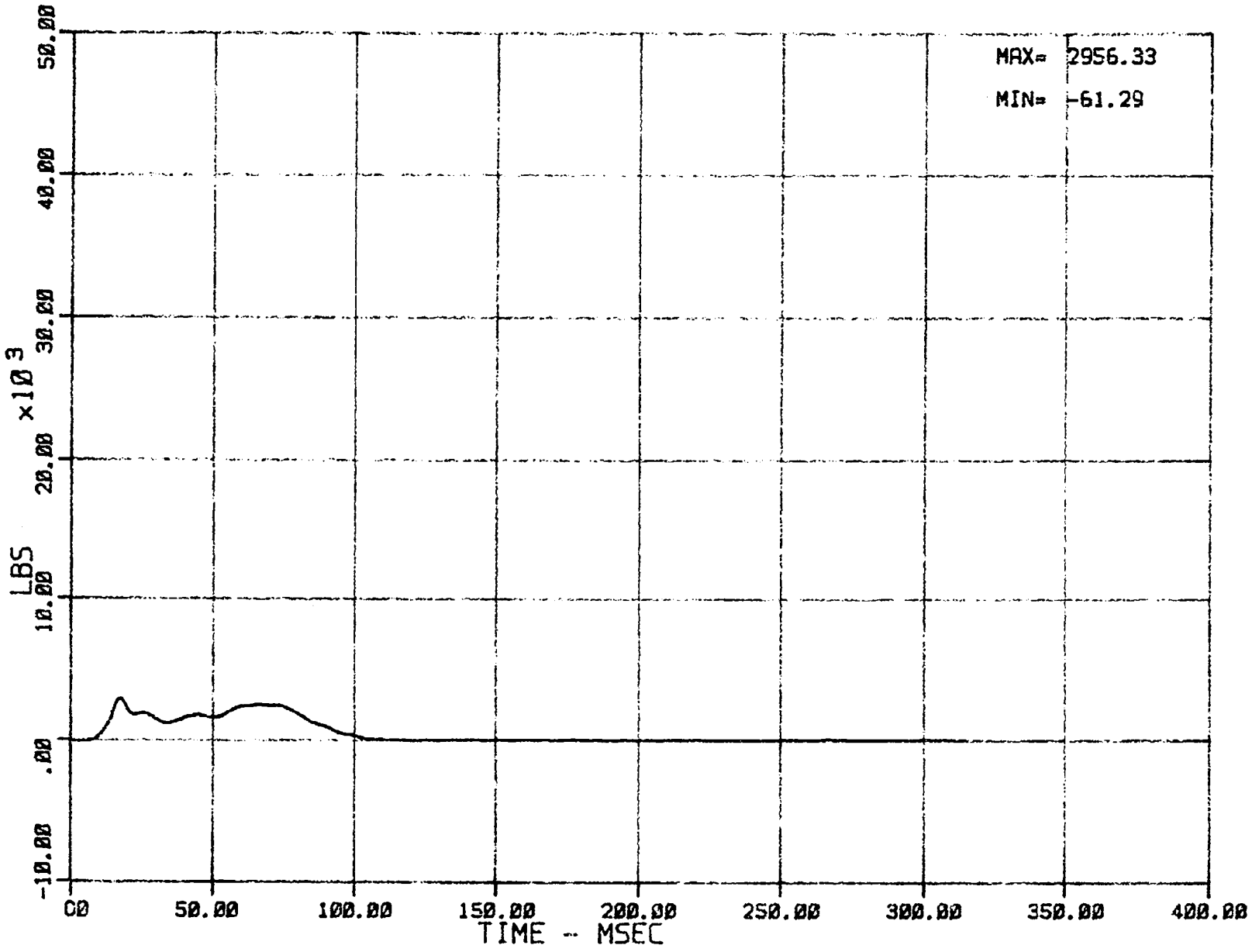
54 LC BA N BCS (BARRIER LOAD CELL C5 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



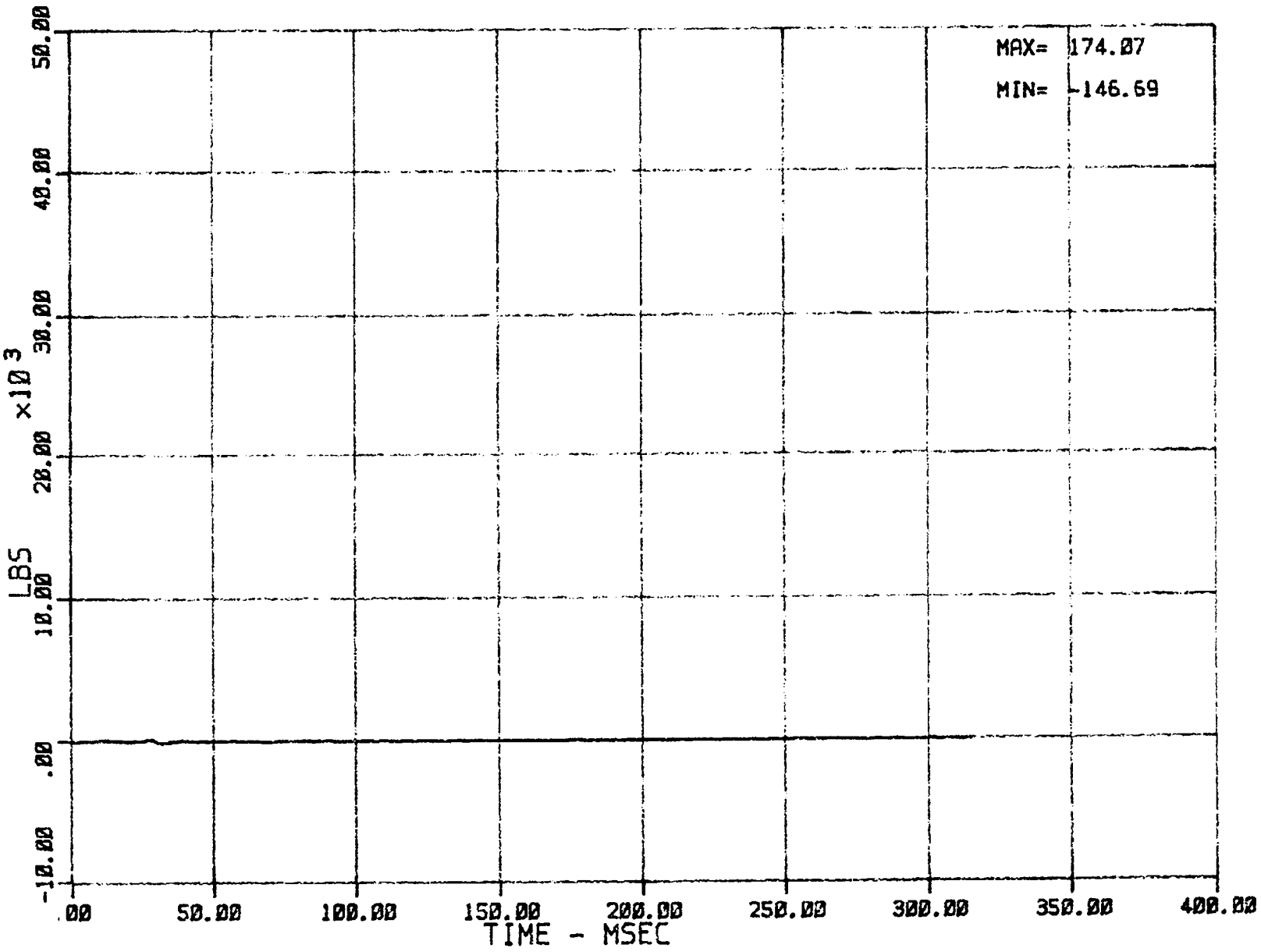
55 LC BA N BC6 (BARRIER LOAD CELL C6 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



S6 LC BA N BC7 (BARRIER LOAD CELL C7 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88

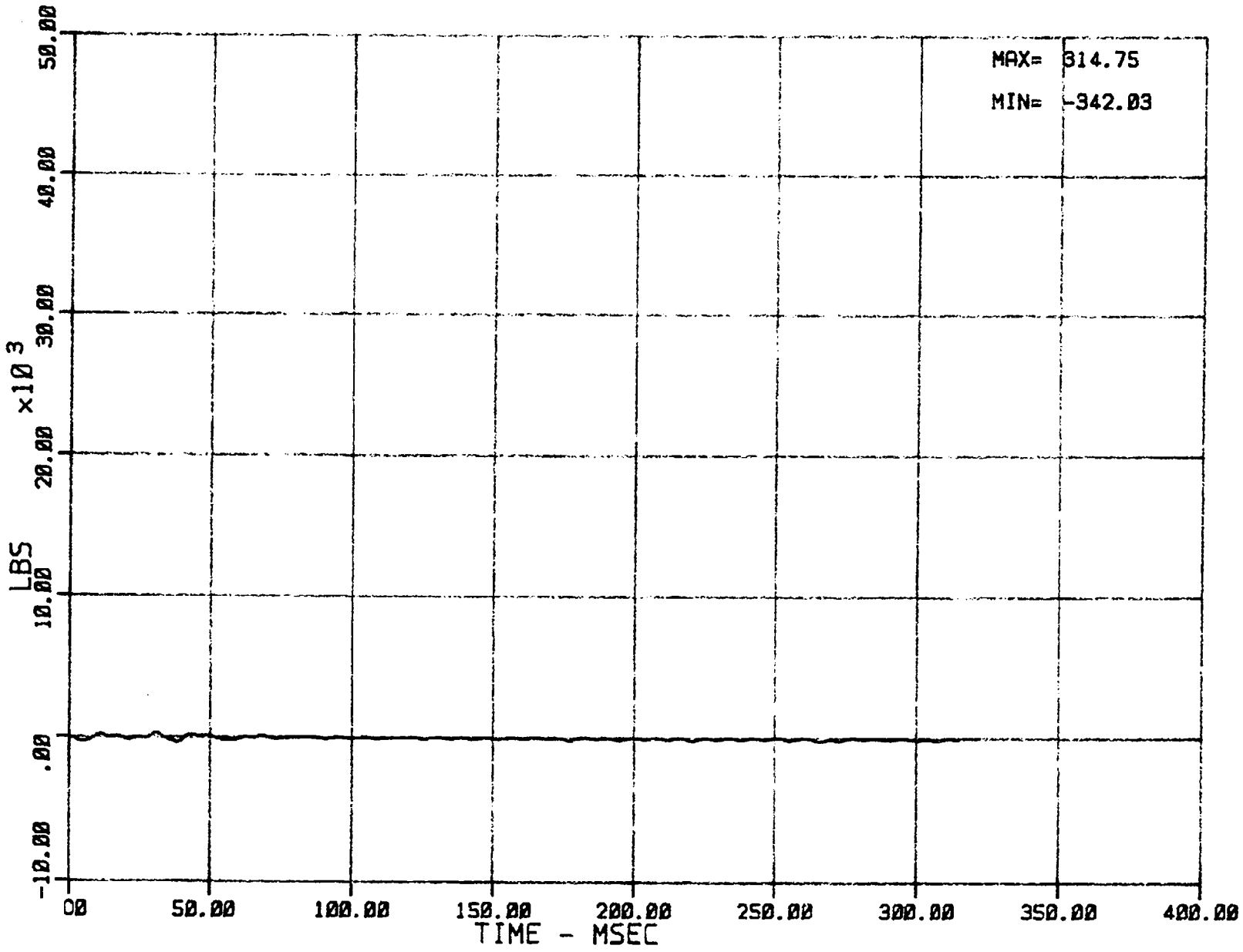


57 LC BA N BCB (BARRIER LOAD CELL CB - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



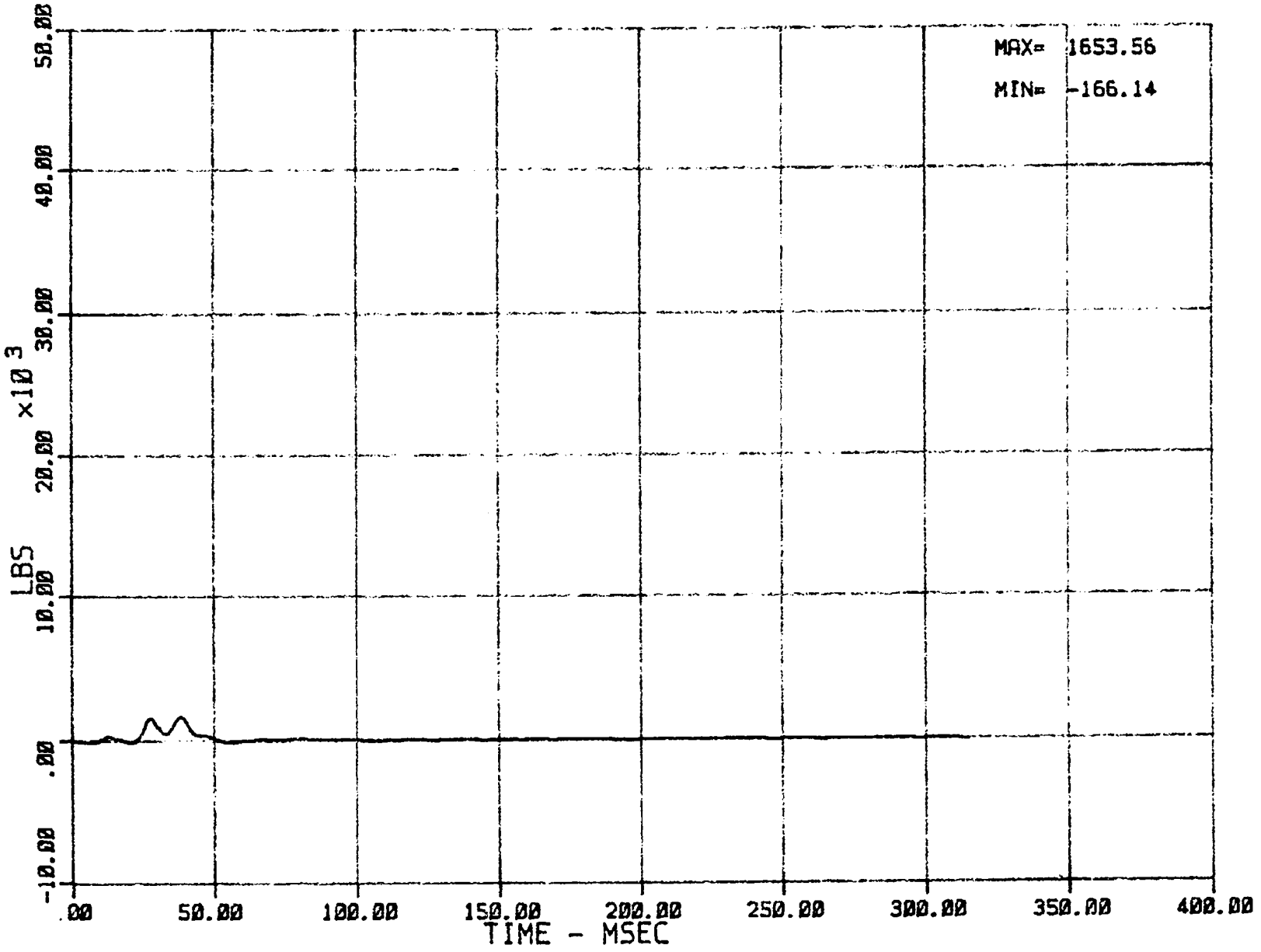
S8 LC BA N BC9 (BARRIER LOAD CELL C9 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



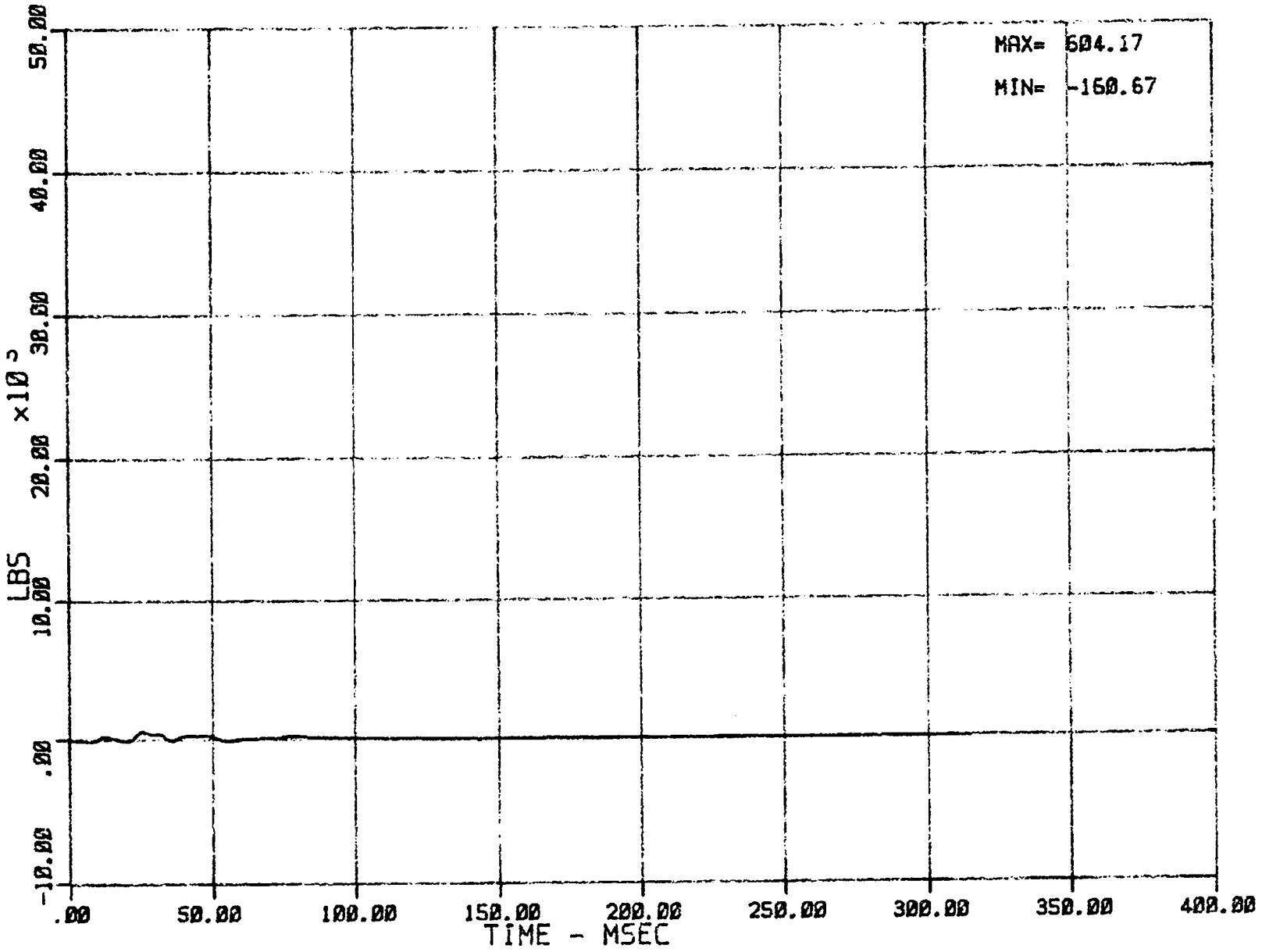
59 LC BA N BD1 (BARRIER LOAD CELL D1 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



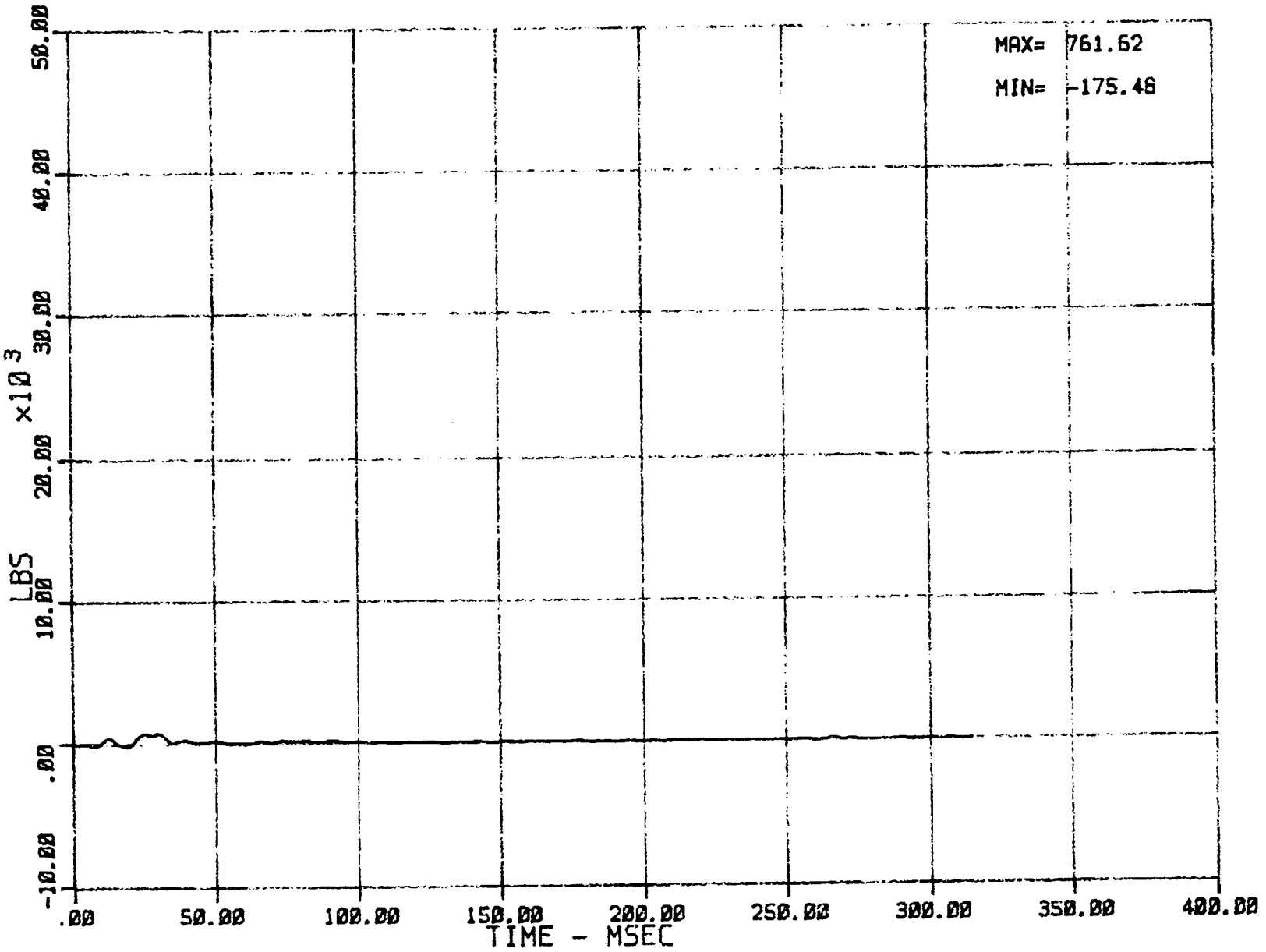
60 LC 8A N 8D2 (BARRIER LOAD CELL D2 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



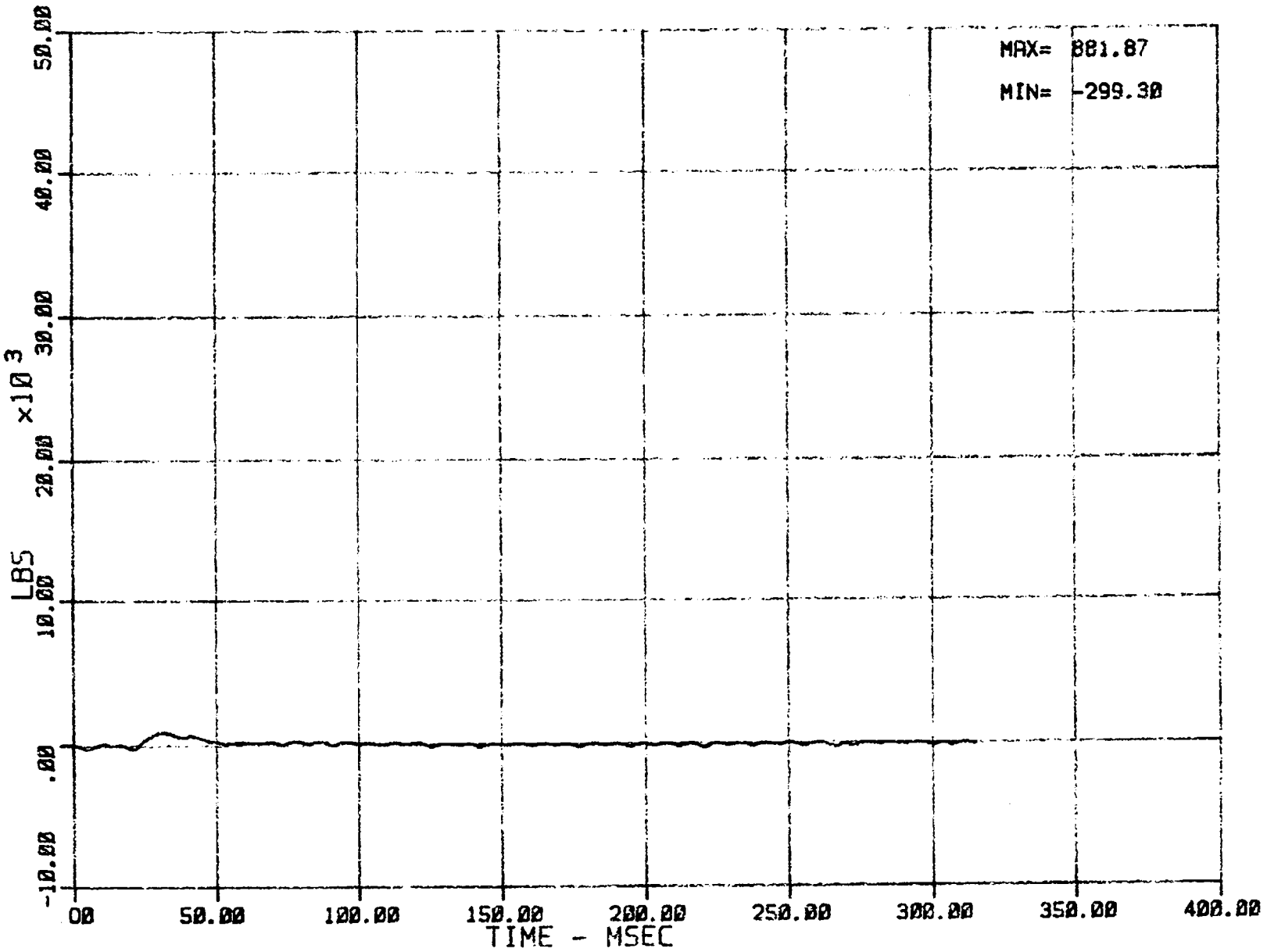
61 LC BA N BD3 (BARRIER LOAD CELL D3 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



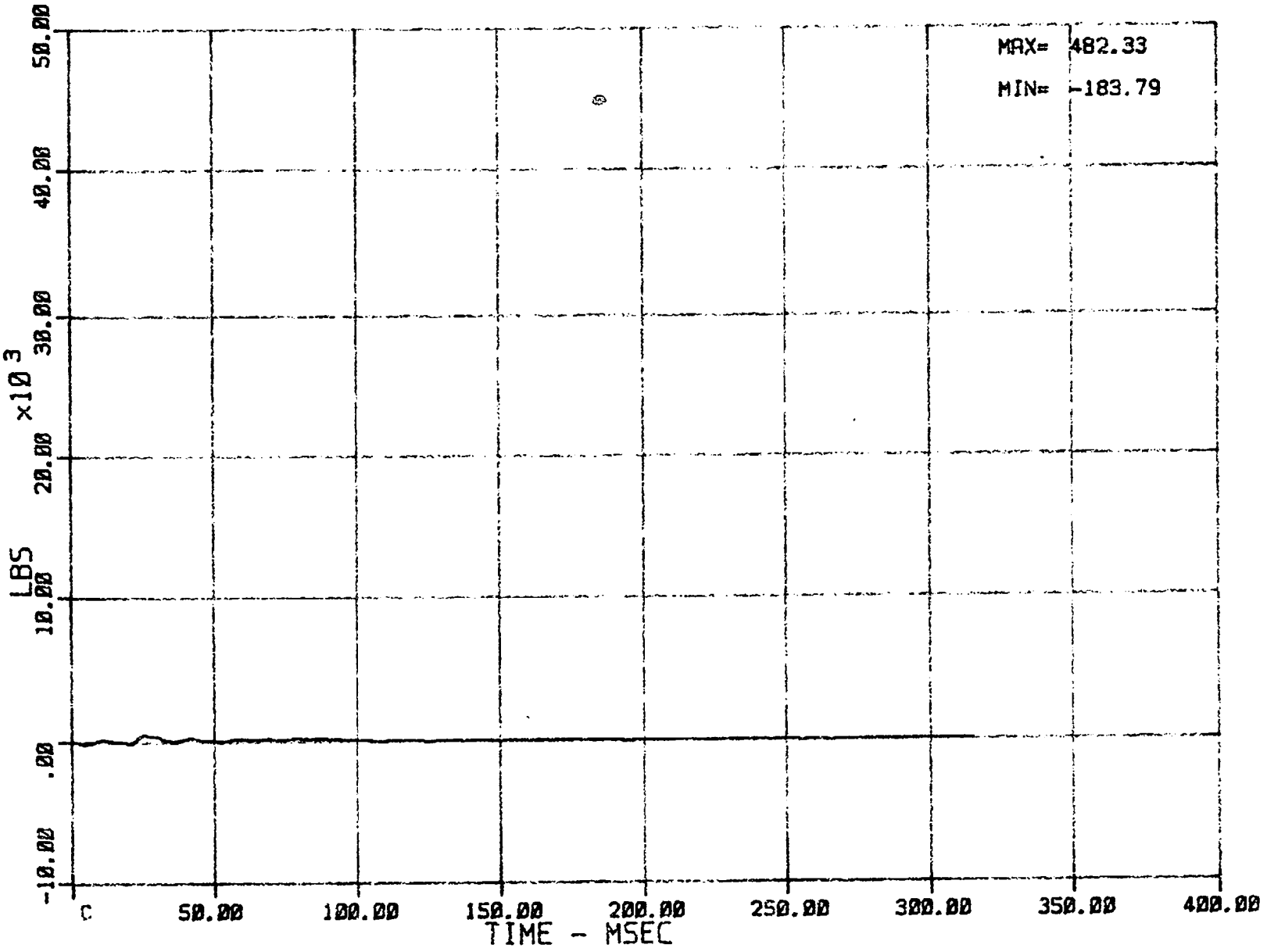
62 LC BA N BD4 (BARRIER LOAD CELL D4 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



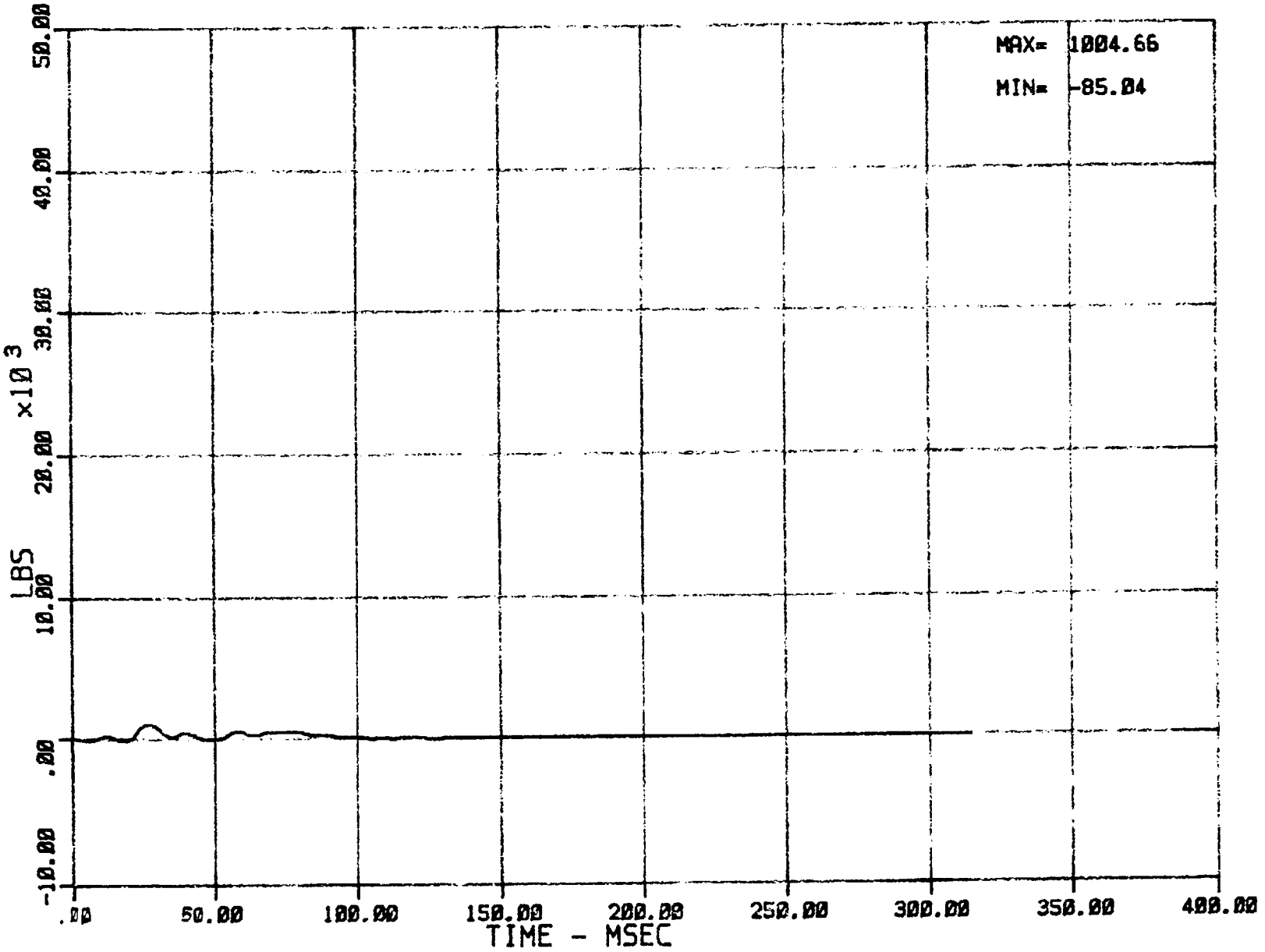
63 LC BA N BD5 (BARRIER LOAD CELL D5 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



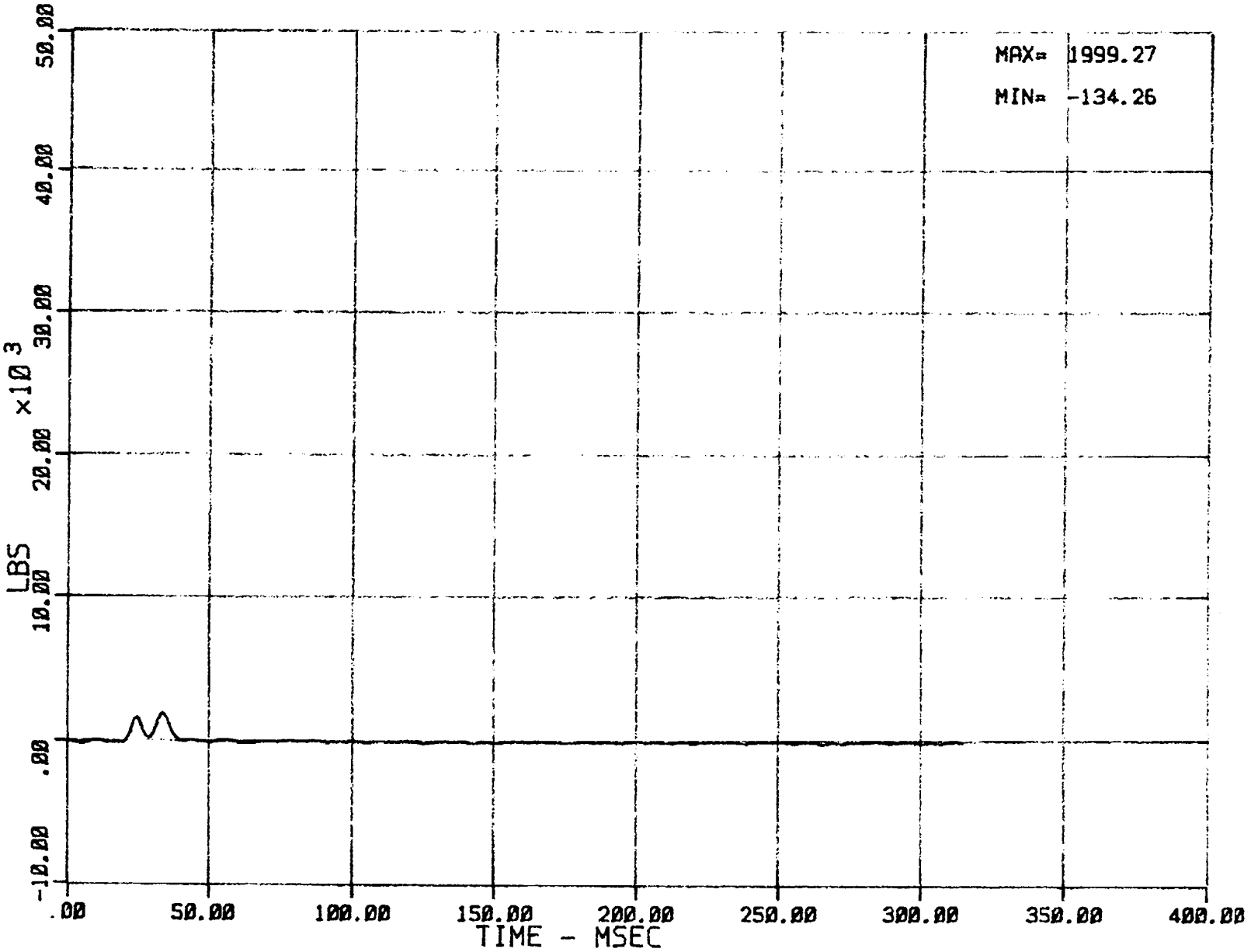
64 LC BA N BD6 (BARRIER LOAD CELL D6 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

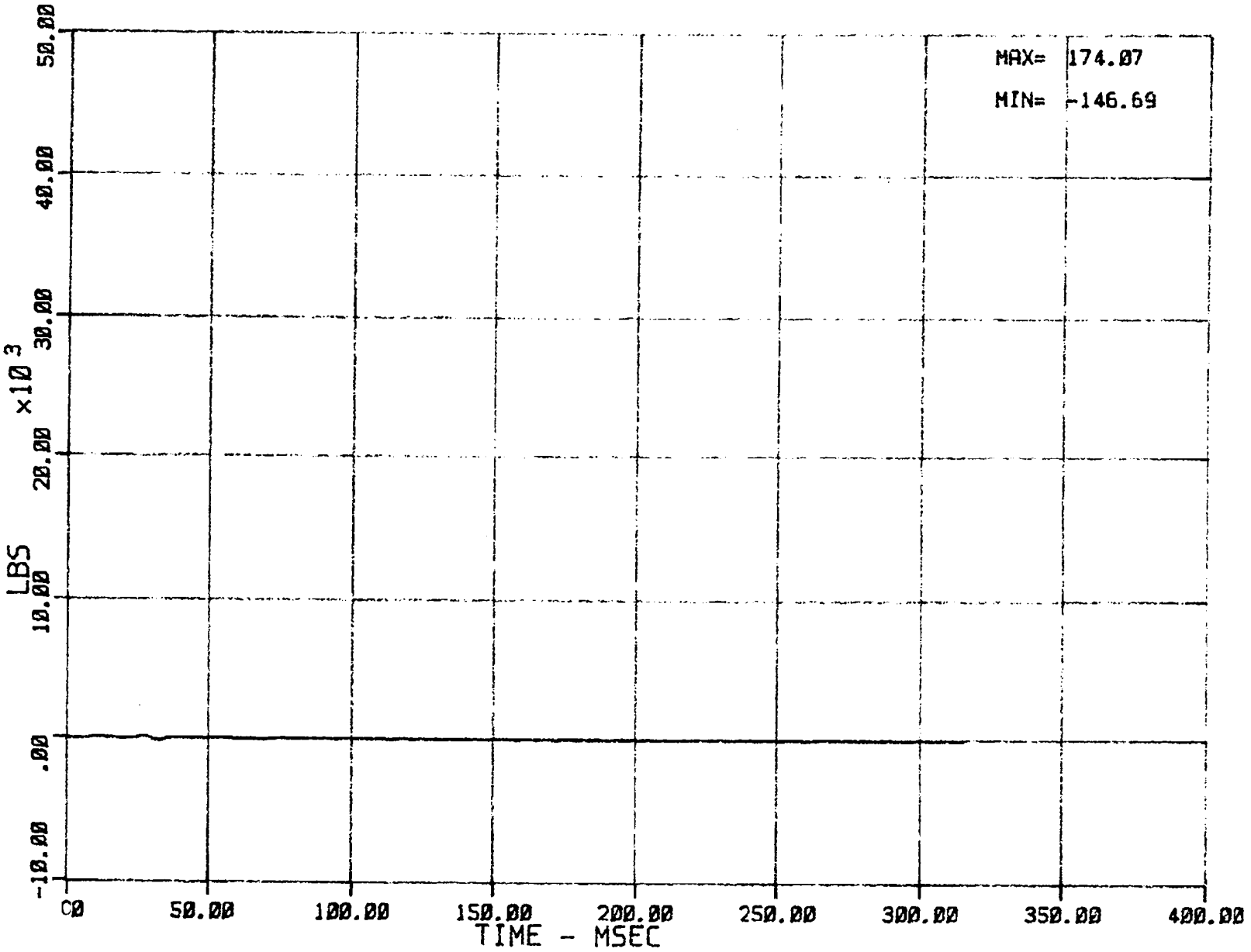


65 LC BA N BD7 (BARRIER LOAD CELL D7 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88



66 LC BA N BD8 (BARRIER LOAD CELL D8 - FORCE)
MSE N07068 1988 DODGE COLT DL 03/25/88



67 LC BA N BD9 (BARRIER LOAD CELL D9 - FORCE)
MSE N07068 1988 DODGE COLT DL

03/25/88

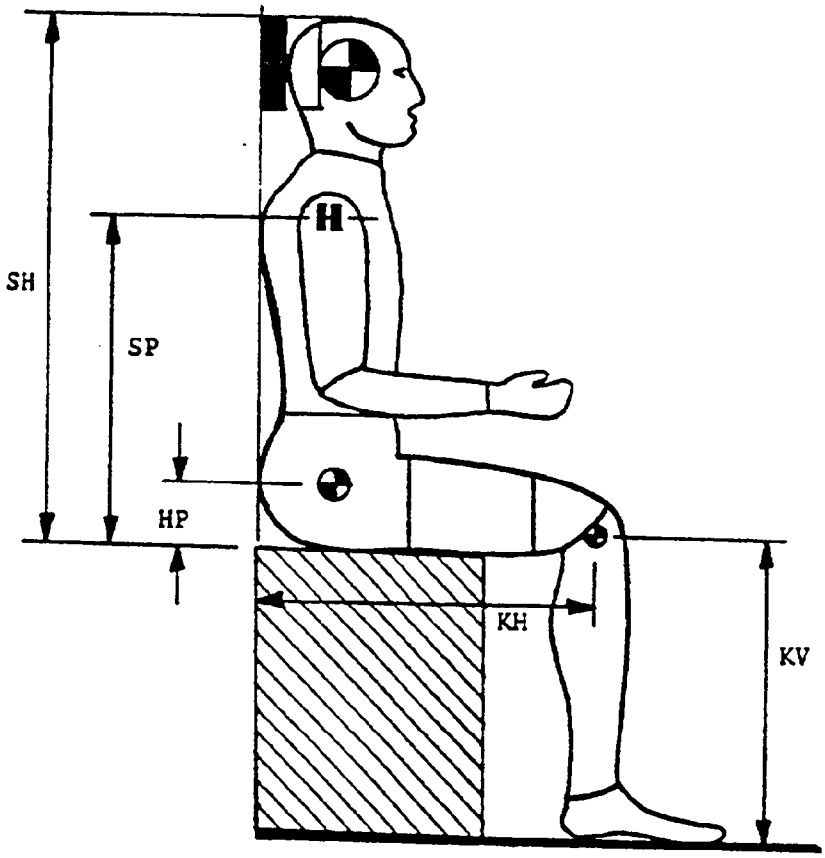
APPENDIX C

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION TESTS

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

NHTSA DUMMY I.D. NO.: 4 6 4

I. CONFIGURATION VERIFICATION DATA:



	P.572 SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
DATE OF CONFIGURATION VERIFICATION		03/23 - 03/24/88	
VERIFICATION NUMBER FOR DUMMY*		3	
SH - Seated Height- - - - - - - -	35.6 to 35.8"	35.6	
SP - Shoulder Pivot Height- - - -	21.8 to 22.4"	22.1	
HP - Hip Pivot Height - - - - - -	3.9" ref.	3.9	
KH - Knee Pivot from back line- -	20.1 to 20.7"	20.6	
KV - Knee Pivot from floor- - - -	19.3 to 19.9"	19.5	
SW - Shoulder Width - - - - - - -	17.8 to 18.4"	18.2	
HW - Hip Width- - - - - - - - - -	14.0 to 15.4"	14.7	

TECHNICIAN'S NAME: Mark Walker

* Sequential number beginning with "1" at the start of each fiscal year's crash test program

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA:

NHTSA DUMMY I.D. NO.: 4 6 4

TECHNICIAN'S NAME: Mark Walker

		PRE-TEST (if required)	POST-TEST (if required)
DATE OF PERFORMANCE VERIFICATION----------		03/23 - 03/24/88	
SEQUENTIAL VERIFICATION NUMBER FOR DUMMY*------		3	
VERIF. LAB. TEMPERATURE (66 to 78°F Range)-----		70-74 °F.	°F.
VERIF. LAB. HUMIDITY (10 to 70% Range)		28-61 %	%
TEST PARAMETER	SPECIFICATION		
1. HEAD DROP TEST--			
a. Peak Resultant Accel.-	210 to 260G	218.56	
b. Peak Lateral Accel.- -	- 10G	-9.345	
c. Time above 100G- - - -	0.9 to 1.5ms	1.2	
2. NECK BENDING TEST--			
a. Pendulum Speed - - - -	21.5 to 25.5 fps	22.42	
b. Pend. Avg. Decel. over $t_3 - t_2$	20 to 24G	23.0	
c. Peak Resultant Head Acceleration - - - - -	26G max.	26.0	
d. Pendulum Decel.(t_2-t_1)	- 3ms	2.4	
e. Pendulum Decel.(t_3-t_2)	25 to 30 ms	26.2	
f. Pendulum Decel.(t_4-t_3)	- 10ms	9.2	
g. Max. Head Rotation - -	63 to 73°	72.0	
h. Chordal Displacement-- Head Rotation Angle-			
0° Time- -	-2 to 2 ms	0	
0° Displ.-	-.5 to .5"	0	
30° Time- -	25.6 to 34.4ms	30.4	
30° Displ.-	2.1 to 3.1"	2.94	
60° Time- -	40.3 to 51.7ms	44.6	
60° Displ.-	4.3 to 5.3"	5.213	
Maximum (72 °) Time- -	53.2 to 66.8ms	59.6	
Maximum (72 °) Displ.-	5.0 to 6.0"	5.96	

*beginning with "1" at the start of each fiscal year's crash test program

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA (Continued) NHTSA DUMMY I.D. NO.: 4 6 4

TECHNICIAN'S NAME: Mark Walker

TEST PARAMETER		SPECIFICATION	Pre-Test (if required)	Post-Test (if required)
2. NECK BENDING TEST.... Continued:				
h. Chordal Displacement:				
Head Rotation Angle--				
60°	Time	67.0 to 83.0 ms	75.0	
	Displ.	4.3 to 5.3 in.	5.18	
30°	Time	85.4 to 104.6 ms	89.6	
	Displ.	2.1 to 3.1 in.	2.56	
0°	Time	101.0 to 123.0 ms	101.0	
	Displ.	-.5 to 0.5 in.	0.215	
3. ABDOMINAL COMPRESSION TEST:				
(Preload = 10 pounds)				
a. Force @ .5" - - - - -		23 to 36 lbs.	26.5	
b. Force @ .75" - - - - -		36 to 50 lbs.	39.0	
c. Force @ 1.0" - - - - -		50 to 63 lbs.	55.0	
d. Force @ 1.3" - - - - -		73 to 88 lbs.	85.0	
4. LUMBAR FLEXION TEST:				
a. Force @ 20° - - - - -		22 to 34 lbs.	24.7	
b. Force @ 30° - - - - -		34 to 46 lbs.	36.0	
c. Force @ 40° - - - - -		46 to 58 lbs.	46.2	
d. Return Angle - - - - -		12° maximum	12.0	
5. CHEST IMPACT TESTS:				
a. High Speed				
(1) Probe Speed- - -		21.78-22.22 fps	21.82	
(2) Peak Deflection-		1.7" maximum	1.631	
(3) Peak Resistive Force- - - - - -		2250 lbs. maximum	1768.0	
(4) Internal Hysteresis - - -		50 to 70%	70.0	
b. Low Speed				
(1) Probe Speed- - -		13.86-14.14 fps	13.92	
(2) Peak Deflection-		1.1" maximum	1.09	
(3) Peak Resistive Force- - - - - -		1450 lbs. maximum	1070.3	
(4) Internal Hyster.		50 to 70%	55.9	

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA (Continued) NHTSA DUMMY I.D. NO.: 4 6 4

TECHNICIAN'S NAME: Mark Walker

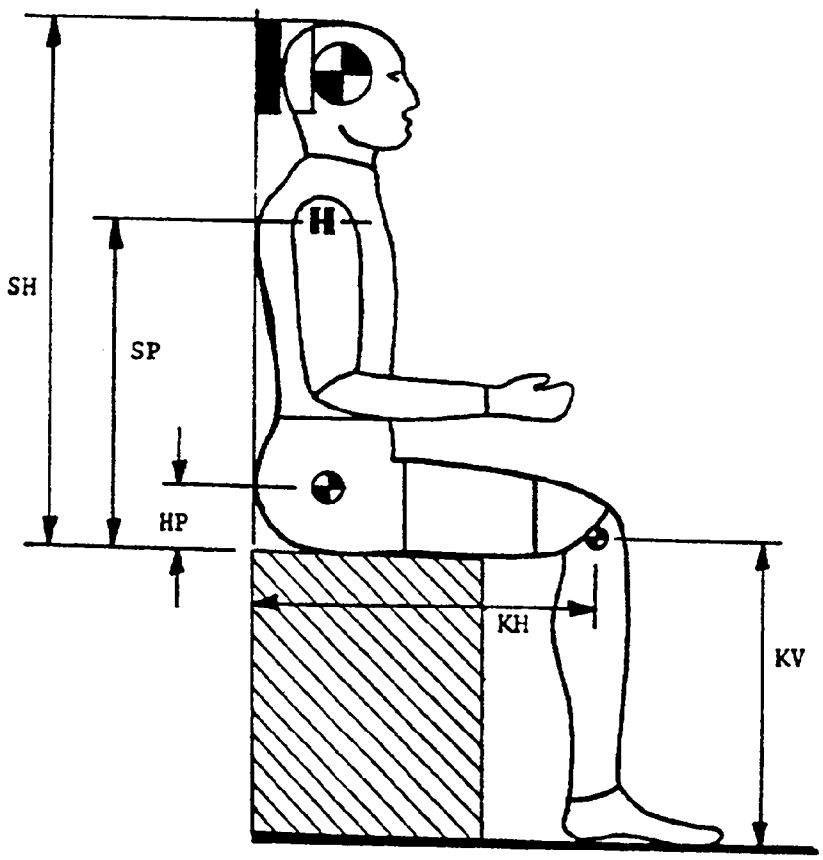
TEST PARAMETER	SPECIFICATION	Pre-Test (if required)	Post-Test (if required)
6. KNEE IMPACT TESTS:			
a. Right Side--			
(1) Probe Speed - - -	6.76 to 7.04 fps	6.83	
(2) Maximum Force - -	1850 to 2500 lbs.	1897.7	
(3) Time Above 1000# -	1.7 ms minimum	2.0	
b. Left Side--			
(1) Probe Speed - - -	6.76 to 7.04 fps	6.34	
(2) Maximum Force - -	1850 to 2500 lbs.	1934.6	
(3) Time Above 1000# -	1.7 ms minimum	2.0	

REMARKS:

PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

NHTSA DUMMY I.D. NO.: 4 6 7

I. CONFIGURATION VERIFICATION DATA:



	P.572 SPECIFICATION	PRE-TEST (if required)	POST-TEST (if required)
DATE OF CONFIGURATION VERIFICATION		03/13 - 03/14/88	
VERIFICATION NUMBER FOR DUMMY*		2	
SH - Seated Height- - - - - - - -	35.6 to 35.8"	35.6	
SP - Shoulder Pivot Height- - - -	21.8 to 22.4"	22.0	
HP - Hip Pivot Height - - - - - -	3.9" ref.	3.9	
KH - Knee Pivot from back line- -	20.1 to 20.7"	20.6	
KV - Knee Pivot from floor- - - -	19.3 to 19.9"	19.5	
SW - Shoulder Width - - - - - - -	17.8 to 18.4"	17.9	
HW - Hip Width- - - - - - - - - -	14.0 to 15.4"	15.0	

TECHNICIAN'S NAME: Mark Walker

* Sequential number beginning with "1" at the start of each fiscal year's crash test program

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA:

NHTSA DUMMY I.D. NO.: 4 6 7

TECHNICIAN'S NAME: Mark Walker

		PRE-TEST (if required)	POST-TEST (if required)
DATE OF PERFORMANCE VERIFICATION----------		03/13 - 03/14/88	
SEQUENTIAL VERIFICATION NUMBER FOR DUMMY*------		2	
VERIF. LAB. TEMPERATURE (66 to 78°F Range)-----		69-74 °F.	°F.
VERIF. LAB. HUMIDITY (10 to 70% Range)		16-35 %	%
TEST PARAMETER	SPECIFICATION		
1. HEAD DROP TEST--			
a. Peak Resultant Accel.-	210 to 260G	220.0	
b. Peak Lateral Accel.- -	- 10G	6.6	
c. Time above 100G- - - -	0.9 to 1.5ms	1.2	
2. NECK BENDING TEST--			
a. Pendulum Speed - - - -	21.5 to 25.5 fps	22.42	
b. Pend. Avg. Decel. over $t_3 - t_2$	20 to 24G	21.0	
c. Peak Resultant Head Acceleration - - - - -	26G max.	23.7	
d. Pendulum Decel.(t_2-t_1)	- 3ms	3.0	
e. Pendulum Decel.(t_3-t_2)	25 to 30 ms	26.8	
f. Pendulum Decel.(t_4-t_3)	- 10ms	10.0	
g. Max. Head Rotation - -	63 to 73°	67.5	
h. Chordal Displacement-- Head Rotation Angle-			
0° Time- -	-2 to 2 ms	0	
0° Displ.-	-.5 to .5"	0	
30° Time- -	25.6 to 34.4ms	33.2	
30° Displ.-	2.1 to 3.1"	2.56	
60° Time- -	40.3 to 51.7ms	49.2	
60° Displ.-	4.3 to 5.3"	4.81	
Maximum (67.5°) Time- -	53.2 to 66.8ms	61.6	
Maximum (67.5°) Displ.-	5.0 to 6.0"	5.39	

*beginning with "1" at the start of each fiscal year's crash test program

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA (Continued) NHTSA DUMMY I.D. NO.: 4 6 7

TECHNICIAN'S NAME: Mark Walker

TEST PARAMETER		SPECIFICATION	Pre-Test (if required)	Post-Test (if required)
2. NECK BENDING TEST.... Continued:				
h. Chordal Displacement:				
Head Rotation Angle--				
60°	Time	67.0 to 83.0 ms	73.2	
	Displ.	4.3 to 5.3 in.	4.68	
30°	Time	85.4 to 104.6 ms	89.6	
	Displ.	2.1 to 3.1 in.	2.23	
0°	Time	101.0 to 123.0 ms	101.0	
	Displ.	-.5 to 0.5 in.	0.215	
3. ABDOMINAL COMPRESSION TEST:				
(Preload = 10 pounds)				
a. Force @ .5"- - - - -		23 to 36 lbs.	28.0	
b. Force @ .75" - - - -		36 to 50 lbs.	40.0	
c. Force @ 1.0" - - - -		50 to 63 lbs.	57.0	
d. Force @ 1.3" - - - -		73 to 88 lbs.	76.0	
4. LUMBAR FLEXION TEST:				
a. Force @ 20°- - - - -		22 to 34 lbs.	29.9	
b. Force @ 30°- - - - -		34 to 46 lbs.	37.0	
c. Force @ 40°- - - - -		46 to 58 lbs.	53.6	
d. Return Angle - - - -		12° maximum	12.0	
5. CHEST IMPACT TESTS:				
a. High Speed				
(1) Probe Speed- - -		21.78-22.22 fps	21.94	
(2) Peak Deflection-		1.7" maximum	1.70	
(3) Peak Resistive Force- - - - - -		2250 lbs. maximum	2161.0	
(4) Internal Hysteresis - - -		50 to 70%	59.5	
b. Low Speed				
(1) Probe Speed- - -		13.86-14.14 fps	14.04	
(2) Peak Deflection-		1.1" maximum	0.99	
(3) Peak Resistive Force- - - - - -		1490 lbs. maximum	1114.0	
(4) Internal Hyster.		50 to 70%	69.0	

DUMMY CONFIG. & PERF. VERIF. DATA....Continued:

II. PERFORMANCE VERIFICATION DATA (Continued) NHTSA DUMMY I.D. NO.: 4 6 7

TECHNICIAN'S NAME: Mark Walker

TEST PARAMETER	SPECIFICATION	Pre-Test (if required)	Post-Test (if required)
6. KNEE IMPACT TESTS:			
a. Right Side--			
(1) Probe Speed - - -	6.76 to 7.04 fps	6.87	
(2) Maximum Force - -	1850 to 2500 lbs.	1933.0	
(3) Time Above 1000#-	1.7 ms minimum	1.88	
b. Left Side--			
(1) Probe Speed - - -	6.76 to 7.04 fps	6.88	
(2) Maximum Force - -	1850 to 2500 lbs.	2177.0	
(3) Time Above 1000#-	1.7 ms minimum	1.88	

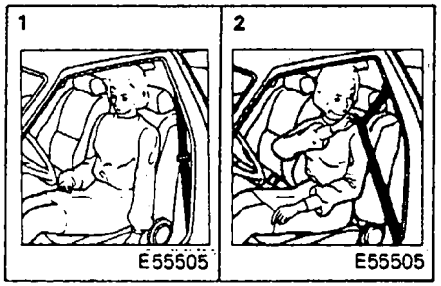
REMARKS:

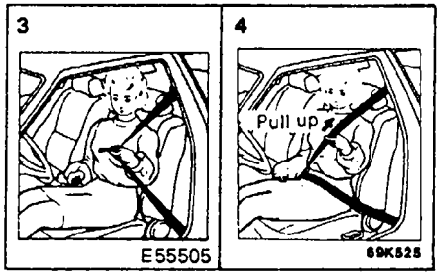
APPENDIX D

VEHICLE'S OWNER MANUAL OCCUPANT RESTRAINT SYSTEM INSTRUCTIONS

Seat Belts ND06A-A

Seat belts are installed in your car for the protection of the driver and passengers. Use the seat belts. In the event of an accident, injury to the driver and passengers may be reduced if seat belts are properly used.
The following pages contain the recommended procedure for fastening, adjusting, and wearing the belts for comfort and safety.





Seat Unibelt Restraint System ND06B-E

Front seats (all models) and both side of the rear seat (wagon only) are equipped with a UNIBELT system which uses a single belt and an emergency locking retractor.

This system is designed to provide comfort and safety by permitting full extension and automatic retraction of the belts during normal vehicle operation. A sensing device inside the belt retractor is designed to lock the retractor in the event of an abrupt change in vehicle motion.

Unibelt Instructions ND06D-A

1. Get in the car and adjust the seat.
2. Grasp the movable latch plate and slide it up the webbing as far as necessary so that it will be easy to pull across your body.
   After a couple of tries this will become an automatic one-handed operation.
3. Pull the webbing, and move the movable latch plate toward the buckle. This system will not lock up if you stop or hesitate, so relax and continue to "buckle-up".
   Push the latch plate into the buckle until a "click" is heard.
4. Pull up on the shoulder belt to insure that there is no slack in the lap belt. The lap belt will not tighten during use; therefore you can set it right now to safe, comfortable snugness.

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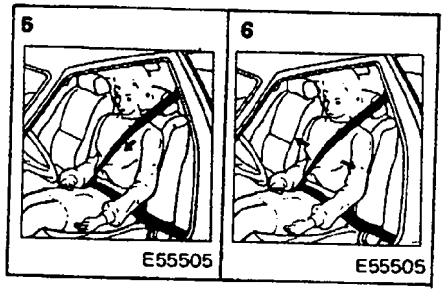
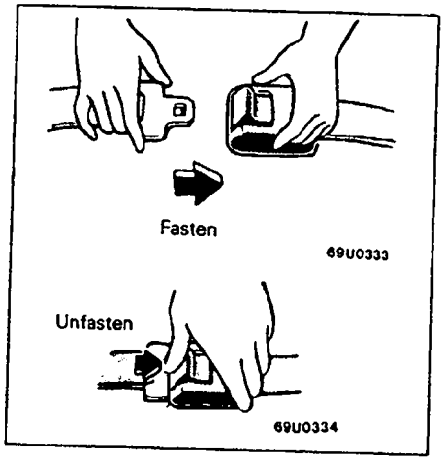
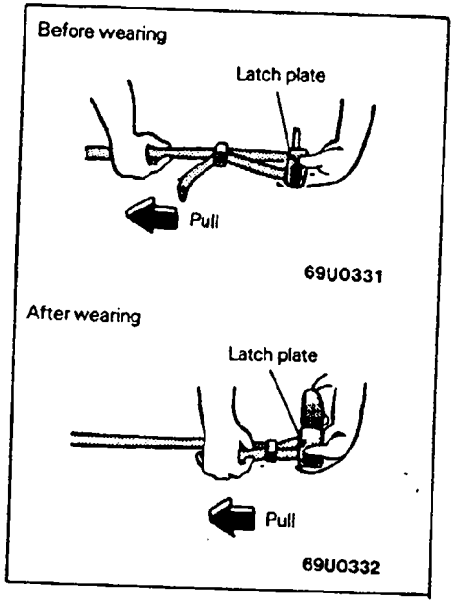


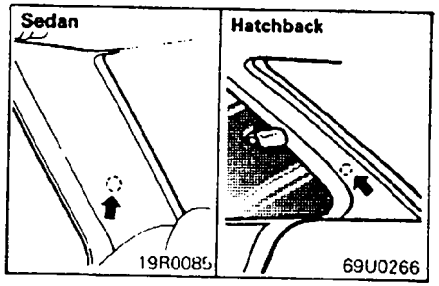
5. Check the belt slackness. The belt will retain the small amount of slack necessary for comfort when you return to your normal seating position. If the belt is still too tight, pull out 6" or 8" of webbing, let it return to your chest, and repeat the above motion.
6. The shoulder belt will allow unrestricted movement under normal conditions. The belt will lock in the event of an accident.
To release the belt, push the button on the buckle. To return the belt to its stowed position, pull the shoulder belt down slightly and release immediately.



Rear Seat Lap Belts ND06C-A

The rear seat lap belts (except center belt) are fitted with an automatic locking retractor.
Holding the latch plate by hand, pull it out until the webbing is fully extended and insert the latch plate into the buckle. Then release the belt. The webbing with the latch plate is automatically retracted until the belt fits the wearer snugly and is locked in place. To release, unfasten the belt, and a light tug to the webbing with the latch plate will cause the retractor to work automatically.





CENTER BELT

The center belt should be adjusted by holding the belt and latch plate at right angles to each other, and then pulling the belt as illustrated above to a snug fit around the occupant.

NEVER USE THE SAME LAP BELT ON MORE THAN ONE PERSON AT A TIME.

Rear Shoulder Belt Anchorage Locations (Sedan and Hatchback)

Rear shoulder belt anchorages (for the left and right rear seats) are provided as shown in the illustration.

If you wish to install shoulder belts, please consult your authorized dealer.

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