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REPORT NO. 208-MGA-2000-08

SAFETY COMPLIANCE SLED TESTING FOR FMVSS 208 OCCUPANT CRASH PROTECTION

Isuzu Motors Limited
1999 Isuzu Rodeo SUV
NHTSA NO. CX5704

MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105

Test Date: May 18, 2000

Report Date: June 16, 2000

FINAL REPORT

Prepared For:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ASSURANCE
OFFICE OF VEHICLE SAFETY COMPLIANCE
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NHTSA, Office of Vehicle Safety Compliance

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15. Supplementary Notes			
16. Abstract A compliance test (sled test) was conducted on the subject 1999 Isuzu Rodeo SUV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208S-01 for the determination of FMVSS 208 compliance. Test failures identified were as follows: The driver neck compression exceeded the maximum allowable.			
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Purpose

This FMVSS 208 compliance sled test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 208 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA). The purpose of this test was to determine if the subject vehicle, a 1999 Isuzu Rodeo SUV, NHTSA No. CX5704, meets the performance requirements of FMVSS 208, "Occupant Crash Protection," in the impact simulation sled test mode.

Test Procedure

This test was conducted in accordance with NHTSA's Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure No. TP-208S-01 dated January 15, 1998. Data was obtained relative to FMVSS 208, "Occupant Crash Protection," performance.

The test vehicle was instrumented with ten (10) accelerometers to measure longitudinal axis accelerations.

The test vehicle contained two (2) Part 572 E 50th percentile adult male anthropomorphic test devices (dummies). The dummies were positioned in the front outboard seating positions according to the dummy placement procedures specified in Appendix B of the Laboratory Test Procedure. The dummies were not restrained by seat belts.

Both dummies were instrumented with head and chest accelerometers to measure longitudinal, lateral, and vertical accelerations; chest deflection potentiometers; left and right femur load cells to measure axial forces; and upper neck load cells to measure longitudinal, lateral, and vertical forces and moments.

The forty-three (43) data channels were digitally sampled at 10,000 samples per second and processed per Sections 11.7 through 11.9 of the Laboratory Test Procedure.

The crash event was recorded by six (6) high-speed motion picture cameras. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera.

Test Results Summary

This FMVSS 208 compliance sled test was conducted at MGA Research Corporation on May 18, 2000.

The test vehicle, a 1999 Isuzu Rodeo SUV, NHTSA No. CX5704, did not appear to comply with all of the performance requirements of FMVSS 208 in the impact simulation sled test mode as measured by Hybrid III 50th percentile male dummies.

	FMVSS 208 Max. Allowable Injury Assessment Values	Driver (Serial #401)	Passenger (Serial #403)
HIC	1000	282	324
Chest g	60 g	29.9 g	32.7 g
Chest displacement	3 inches	1.5 in.	0.5 in.
Left Femur	2250 lb	874 lb	1019 lb
Right Femur	2250 lb	1043 lb	972 lb
Neck Extension	57 Nm	8.2 Nm	18.3 Nm
Neck Flexion	190 Nm	63.5 Nm	65.1 Nm
Neck Tension	3300 N	570 N	336 N
Neck Compression	4000 N	4143 N	2707 N
Neck Shear	3100 N	837 N	1150 N

The vehicle appears to meet the other FMVSS 208 requirements for which it was tested except for the absence of a removable airbag warning label on the dash or steering wheel hub. These results are shown in the data sheets that are included in this report.

The test vehicle was equipped with air bags at the driver and passenger seating positions. The dummies were not restrained by seat belts. The sled carriage was accelerated to 16.5 g with an integrated velocity change of 29.1 mph. After filtering the acceleration signal to Channel Class 60, the airbag system was triggered 19.6 milliseconds after 0.5 g acceleration.

INCLUDE DISCUSSION OF LOST CHANNELS OR OTHER TEST ISSUES.

No valid data was collected from the Top of Engine X acceleration channel.

Sled Test Summary

Vehicle NHTSA No.: CX5704 Test Mode: FMVSS 208 SLED TEST

Vehicle Yr/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Test Date: May 18, 2000 Time: 4:00 p.m. Temp: 70°F

Vehicle Test Weight: 4166 lbs.

DUMMY INFO.	**DRIVER**	**PASSENGER**
Dummy Type	Part 572E	Part 572E
Serial Number	401	403
Restraint System	Frontal airbag	Frontal airbag
No. Data Channels	15	15

Number of Cameras: 1 Real Time

6 High Speed

Door Opening Data: yes Left Front

yes Right Front

FRONT SEAT(S) DATA	**DRIVER**	**PASSENGER**
Seat Track Failure -	0 inches shift;	0 inches shift
Seat Back Failure -	no	no

VISIBLE DUMMY CONTACT POINTS:	**DRIVER**	**PASSENGER**
Head	airbag/ windshield	airbag
Chest	airbag	airbag
Left Knee	knee bolster	glove box
Right Knee	knee bolster	glove box

General Test And Vehicle Parameter Data (Cont.)

DATA FROM VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured By: Isuzu Motors

Date of Manufacture: Nov. 1998 ; VIN: 4S2CK58D7X4326042

GVWR: 4550 lbs; GAWR Front: 2100 lbs.

GAWR Rear: 2700 lbs.

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load:

FRONT: 29 psi REAR: 29 psi

Recommended Tire Size: P235/75R15 ;

Recommended Cold Tire Pressure:

FRONT: 29 psi REAR: 29 psi

Size of Tires on Test Vehicle: P235/75R15

Type of Spare Tire: P235/75R15 ; Space Saver: ___; Standard: X

Vehicle Capacity Data:

Type of Front Seats: X Bucket; __Bench; __Split Bench

Number of Occupants: 2 Front; 3 Rear; __3rd Seat; 5 TOTAL

REMARKS: None

VEHICLE CAPACITY WEIGHT (VCW) = 1028 lbs.

No. Of Occupants x 150 lbs = 750 lbs.

Rated Cargo/Luggage Weight (RCLW) = 278 lbs. (Difference)*

* RCLW = GVW - UVW - (occupants x 150) or 300 lb, whichever is less.

General Test And Vehicle Parameter Data (Cont.)

WEIGHT OF TEST VEHICLE AS RECEIVED AT LABORATORY: (with maximum fluids)

Right Front =	866 lbs.	Right Rear =	865 lbs.
Left Front =	928 lbs.	Left Rear =	863 lbs.
TOTAL FRONT =	1794 lbs.	TOTAL REAR =	1728 lbs.
% Total Weight =	50.9 %	% Total Weight =	49.1 %

TOTAL DELIVERED WEIGHT = 3522 lbs.

WEIGHT OF FULLY LOADED TEST VEHICLE WITH TWO DUMMIES AND 300 POUNDS OF CARGO WEIGHT:

Right Front =	955 lbs.	Right Rear =	1109 lbs.
Left Front =	1004 lbs.	Left Rear =	1098 lbs.
TOTAL FRONT =	1959 lbs.	TOTAL REAR =	2207 lbs.
% Total Weight =	47.0 %	% Total Weight =	53.0 %

TOTAL WEIGHT = 4166 lbs.

TEST VEHICLE ATTITUDE: (all measurements in degrees)

AS DELIVERED DOOR SILL ANGLE:	0.9° nose down
AS TESTED DOOR SILL ANGLE:	0.6° nose down
FULLY LOADED DOOR SILL ANGLE:	0.2° nose down

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual = 21.1 gallons

Usable Capacity Figure Furnished by COTR = 21.1 gallons

REMARKS: None

Post-Impact Data

Test number:	HT00051801
NHTSA number:	CX5704
Test date:	May 18, 2000
Test time:	4:00 p.m.
Test type:	FMVSS 208 Compliance Sled Test
Impact angle:	0°
Ambient Temperature at Impact Area:	70°F
Temperature in Occupant Compartment:	70°F

Impact Velocity:

Integrated velocity from the integration of the entire sled acceleration:	29.1 mph
Specified integrated velocity range:	28 to 30 mph

Sled Carriage Acceleration:

Acceleration:	16.5 g
Specified Acceleration Range:	16.0 - 18.2 g

Sled Carriage Acceleration Duration:

Time from T-0 (-0.5 g) to 0.0 g:	123.9 msec
Specified Acceleration Duration:	120.0 to 130.0 msec

The sled acceleration corridor was achieved.

Seat and Steering Column Positioning Data

Vehicle Yr/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

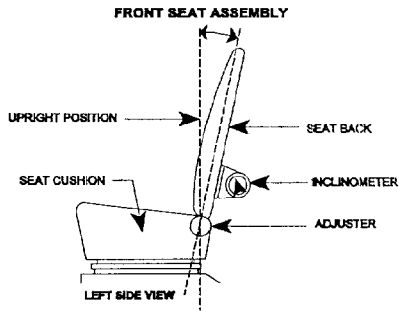
Vehicle NHTSA No.: CX5704 Test Date: May 18, 2000

NOMINAL DESIGN RIDING POSITION:

Driver Seat: Seat Back Angle = 8°*

Passenger Seat: Seat Back Angle = 8°*

* - from fully upright



SEAT FORE AND AFT POSITIONS:

Driver Seat: The seat track had a total position movement of 21 notches and was positioned 10 notches rearward from the foremost position with the forward most locking position as zero.

Passenger Seat: The seat track had a total position movement of 21 notches and was positioned 10 notches rearward from the foremost position with the forward most locking position as zero.

STEERING COLUMN ADJUSTMENTS:

The steering column was placed in the third position of six (lowest is first).

Dummy Positioning Measurement Table

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

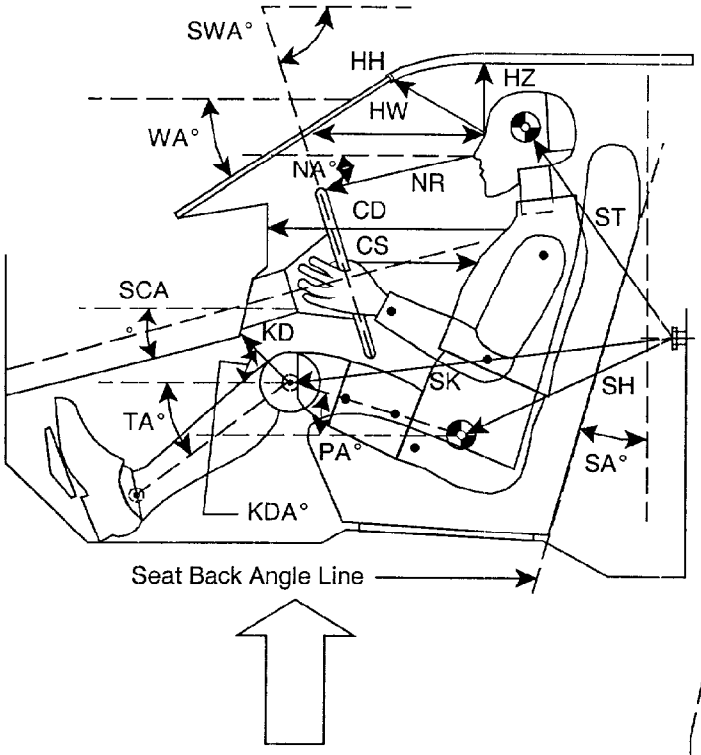
Vehicle NHTSA No.: CX5704 Test Date: May 18, 2000

	DRIVER (Serial #401)	PASSENGER (Serial #403)
WA°	36.7°	
SWA°	24.8°	N/A
SCA°	24.4°	N/A
SA°*	8.0°	8.0°
HZ	7.4	6.8
HH	14.5	14.6
HW	21.7	21.0
HR	10.1	10.4
NR	15.7 Angle (NA°) 14.6°	N/A
CD	20.4	21.3
CS	12.6	N/A
RA	6.8	N/A
KDL	6.3 Angle (KDA°) 13.4°	6.4
KDR	6.3	6.4 Angle (KDA°) 18.8°
PA°	24.5°	24.5°
TA°	44.9°	42.1°
KK	13.6	10.6
ST	22.1 Angle 14.7°	22.8 Angle 13.0°
SK	25.3 Angle 85.7°	25.7 Angle 87.7°
SH	11.0 Angle 109.3°	10.7 Angle 107.9°
SHY	8.9	9.0
HS	12.2	12.9
HD	5.9	5.8
AD	4.1	4.4

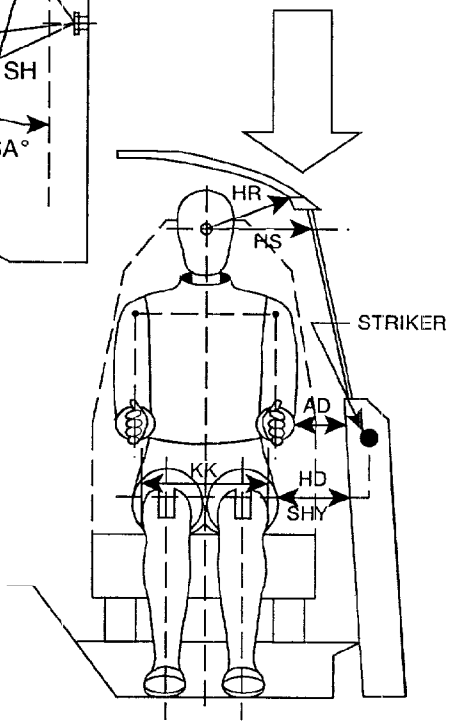
* - Measurement from fully upright

Dummy Positioning Measurement Locations

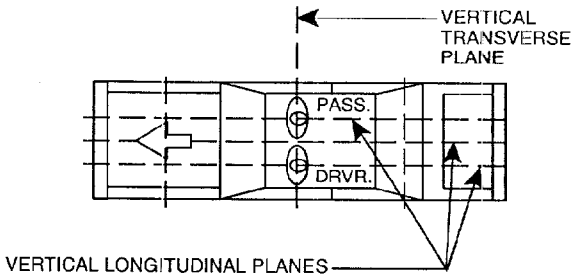
DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS



AD - Arm to Door
HD - H-Point to Door
HR - Head to Side Header
HS - Head to Side Window
KK - Knee to Knee
SHY- Striker to H-Point (Y Direction)



CD - Chest to Dash
CS - Steering Wheel to Chest
HH - Head to Header
HW - Head to Windshield
HZ - Head to Roof
KDA- Knee to Dash Angle
KDL- Left Knee to Dash
KDR- Right Knee to Dash
NA - Nose to Rim Angle
NR - Nose to Rim
PA - Pelvic Angle
RA - Rim to Abdomen
SA - Seat Back Angle
SCA- Steering Column Angle
SH - Striker to H-Point
SK - Striker to Knee
ST - Striker to Head
SWA- Steering Wheel Angle
TA - Tibial Angle
WA - Windshield Angle



Description of Dummy Measurements

When a level is to be used, it is to ensure that the line containing the two points described is either parallel or perpendicular to the ground. If a measurement to be made is less than 10 inches ignore the directions to use a level and approximate a level measurement. Also, when a measurement is to be taken to or from the center of a bolt on the dummy, take the measurement from the center of the bolt hole if the bolt is recessed.

The following measurements are to be made within a vertical longitudinal plane.

* HH Head to Header, taken from the point where the dummy's nose meets his forehead (between his eyes) to the furthest point forward on the header.

* HW Head to Windshield, taken from the point where the dummy's nose meets his forehead (between his eyes) to a point on the windshield. Use a level.

HZ Head to Roof, taken from the point where the dummy's nose meets his forehead (between his eyes) to the point on the roof directly above it. Use a level.

* CS Steering Wheel to Chest, taken from the center of the steering wheel hub to the dummy's chest. Use a level.

* CD Chest to Dash, place a tape measure on the tip of the dummy's chin and rotate five inches of it downward toward the dummy to the point of contact on the transverse center of the dummy's chest. Then measure from this point to the closest point on the dashboard either between the upper part of the steering wheel between the hub and the rim, or measure to the dashboard placing the tape measure above the rim, whichever is a shorter measurement. See photograph.

RA Steering Wheel Rim to Abdomen, taken from the bottommost point of the steering wheel rim horizontally rearward to the dummy. Use a level.

NR Nose to Rim, taken from the tip of the dummy's nose to the closest point on the top of the steering wheel rim. Also indicate the angle this line makes with respect to the horizontal (NA).

*[1] KDL, KDR Left and Right Knees to Dashboard, taken from the center of the knee pivot bolt's outer surface to the closest point forward acquired by swinging the tape measure in continually larger arcs until it contacts the dashboard. Also reference the angle of this measurement with respect to the horizontal for the outboard knee (KDA). See photograph.

* Measurement used in Data Tape Reference Guide

[1] Only outboard measurement is referenced in Data Tape Reference Guide

Description of Dummy Measurements (Cont.)

SH, SK, ST Striker to Hip, Knee, and Head, these measurements are to be taken in the X-Z plane measured from the forward most center point on the striker to the center of the H-point, outer knee bolt, and head target. When taking this measurement a firm device that can be rigidly connected to the striker should be used. Use a level. The angles of these measurements with respect to the horizontal should also be recorded. The measurement in the Y (transverse) direction from the striker to the H-point should also be taken (SHY). See photograph.

The following measurements are to be made within a vertical transverse plane.

HS Head to Side Window, taken from the point where the dummy's nose meets his forehead (between his eyes) to the outside of the side window. In order to make this measurement, roll the window down to the exact height which allows a level measurement. Use a level. See photograph.

* AD Arm to Door, taken from the outer surface of the elbow pivot bolt on a Hybrid II dummy to the first point it hits on the door. In the case of a Hybrid III dummy, measure from the bolt on the outer biceps. When a SID is used make the measurement from the center of the bottom of the arm segment where it meets the dummy's torso.

* HD H-point to Door, taken from the H-point on the dummy to the closest point on the door. Use a level.

* HR Head to Side Header, measure the shortest distance from the point where the dummy's nose meets his forehead (between his eyes) to the side edge of the header just above the window frame, directly adjacent to the dummy.

SHY Striker to H-point, taken from a rod rigidly connected to the forward most center point on the striker to the H-point. Use a level. See photograph.

KK Knee to Knee, for Hybrid II dummies measure the distance between knee pivot bolt head outer surfaces. For Hybrid III dummies measure the distance between the outboard knee clevis flange surfaces. (This measurement may not be exactly transverse)

* Measurement used in Data Tape Reference Guide

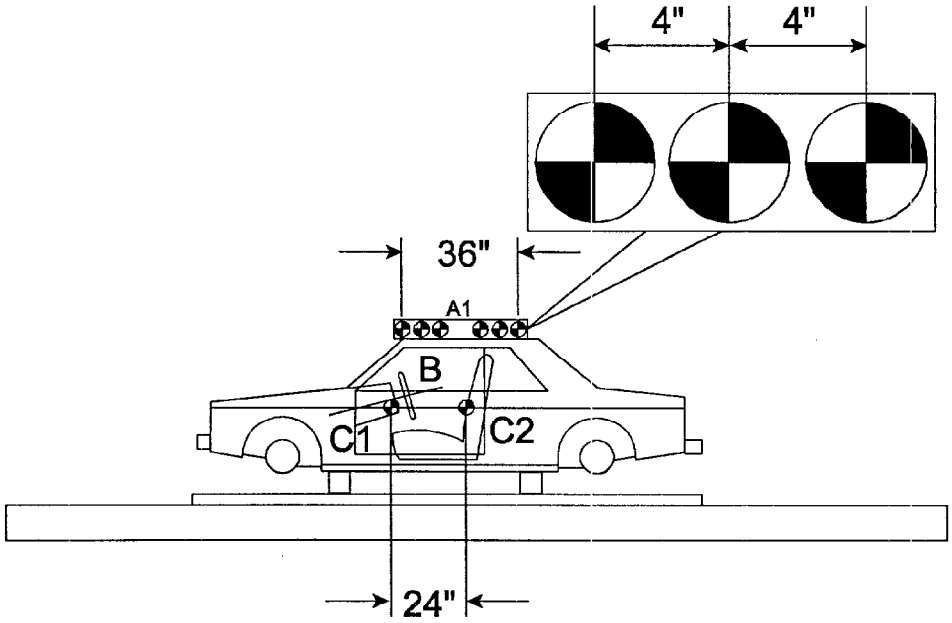
Description of Dummy Measurements (Cont.)

Angles

SA	Seat Back Angle, find this angle using the instructions provided by the manufacturer. If the manufacturer doesn't provide clear instructions contact the COTR.
PA	Pelvic or Femur Angle, taken by inserting the pelvic angle gauge into the H-point gauging hole on the SID or the Hybrid III dummies and taking this angle with respect to the horizontal. Measure the angle of the line connecting the H-point hole and the outer knee pivot bolt hole on a Hybrid II dummy with respect to the horizontal, to find the femur angle.
SWA	Steering Wheel Angle, find this by placing a straight edge against the steering wheel rim along the longitudinal plane. Then measure the acute angle of the straight edge with respect to the horizontal.
SCA	Steering Column Angle, measured with respect to the horizontal by placing an inclinometer on the center of the underside of the steering column.
NA	Measure the angle made when taking the measurement NR with respect to the horizontal.
KDA	Knee to Dash Angle, the angle that the measurement KD is taken at with respect to the horizontal. Only get this angle for the outboard knee. See photograph.
WA	Windshield Angle, place an inclinometer along the transverse center of the windshield exterior (measurement is made with respect to horizontal).
TA	Tibial Angle, use a straight edge to connect the dummy's knee and ankle bolts. Then place an inclinometer on the straight edge and measure the angle with respect to the horizontal.

Vehicle Targeting Measurements

REFERENCE PHOTO TARGETS



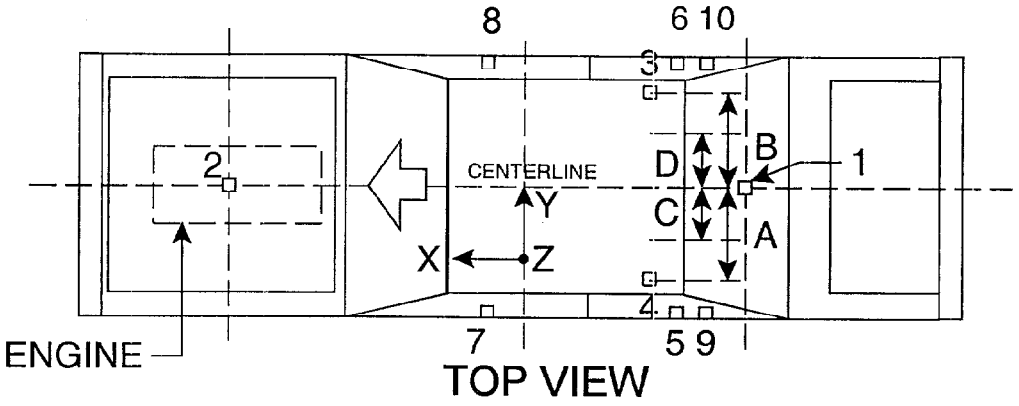
LEFT SIDE VIEW

Vehicle Accelerometer Placement and Data Summary

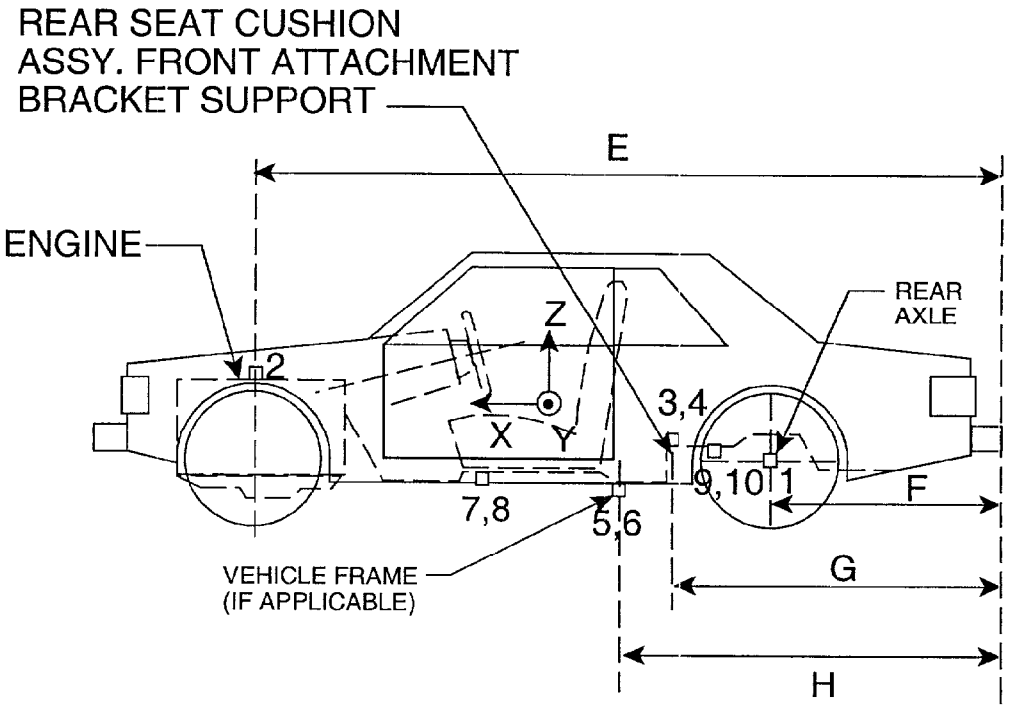
Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Vehicle NHTSA No.: CX5704 Test Date: May 18, 2000

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



TOP VIEW



LEFT SIDE VIEW

Vehicle Accelerometer Location Measurements and Data Summary

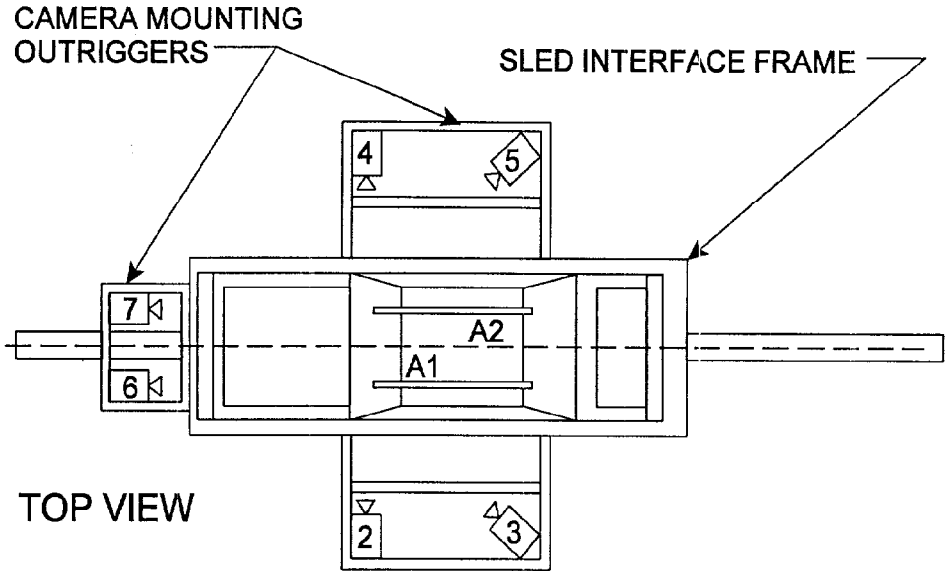
Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Vehicle NHTSA No.: CX5704 Test Date: May 18, 2000

No.	Location	X (in)	Y (in)	Positive Direction		Negative Direction	
				Value	Time (msec)	Value	Time (msec)
	Sled Primary Longitudinal	67.0	0	16.5 g	67	-1.2 g	179
	Sled Redundant Longitudinal	114.0	0	16.7 g	67	-1.4 g	127
	Sled Velocity Measured Integrated	67.0	0	29.1 mph	145	--	--
1	Rear Axle Longitudinal	35.8	0	17.4 g	39	-2.2 g	199
2	Top Engine Longitudinal	149.6	0	**	**	**	**
3	Right Rear Seat Member Longitudinal	68.1	18.4	17.7 g	52	-1.8 g	130
4	Left Rear Seat Member Longitudinal	68.1	18.4	17.7 g	62	-2.0 g	131
5	Left Frame Longitudinal	58.7	21.2	17.1 g	54	-1.4 g	129
6	Right Frame Longitudinal	58.7	21.2	16.4 g	70	-1.2 g	129
7	Left Front Seat Member Longitudinal	--	--	19.7 g	53	-2.0 g	133
8	Right Front Seat Member Longitudinal	--	--	18.0 g	50	-2.7 g	131
9	Left Rear Body Longitudinal	--	--	17.9 g	54	-2.6 g	130
10	Right Rear Body Longitudinal	--	--	15.9 g	52	-2.0 g	130

** - No valid data collected

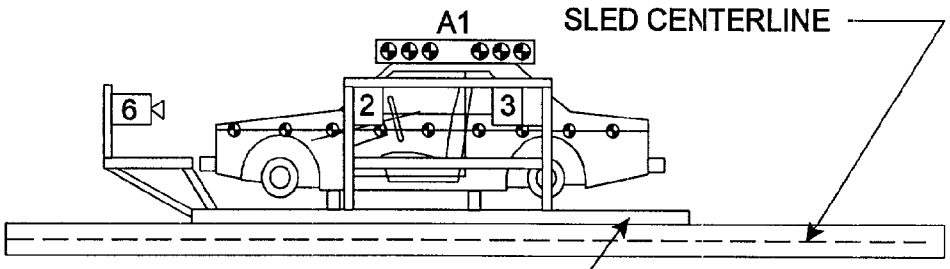
Camera Positions



TOP VIEW

CAMERA FRAME RATES:
#1 = 24 fps

1 REAL TIME CAMERA



LEFT SIDE VIEW

Camera Location Measurements

Camera No.	VIEW	Camera Positions (inches)*			Angle (deg)	Film Plane To Head Target	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Real-Time (Pre and Post)						10	24
2	Onboard Driver	67.3	51.2	49.0	90	67.7	13	813
3	Onboard Driver Angle	146.1	54.3	59.3			13	797
4	Onboard Passenger	61.8	52.8	49.8	90	67.7	13	866
5	Onboard Passenger Angle	146.1	54.9	58.9			13	1000
6	Onboard Windshield Driver	23.6	14.6	53.1			13	847
7	Onboard Windshield Passenger	23.6	12.6	53.1			13	952

Reference* X = Front of sled carriage

Y = Center of sled carriage

Z = Top of sled carriage

Occupant Injury Data

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Vehicle NHTSA No.: CX5704 Test Date: May 18, 2000

MAXIMUM ACCELERATION VALUES: (g's)	DRIVER DUMMY #401	PASSENGER DUMMY #403
Head Channel X	-47.8	-54.0
Head Channel Y	20.2	-17.9
Head Channel Z	-107.6	41.2
HEAD RESULTANT	107.6	62.4
Chest Channel X	-29.7	-26.8
Chest Channel Y	2.5	2.5
Chest Channel Z	23.8	21.8
CHEST RESULTANT	30.2	33.3

HEAD INJURY CRITERIA (HIC) VALUES:

HIC	282	324
t_1 = (msec)	97.6	96.3
t_2 = (msec)	133.2	123.0

[The maximum time interval from t_1 to t_2 is 36 milliseconds.]

CHEST INJURY CRITERIA (CLIP) VALUES: (g's)

CLIP	29.9	32.7
t_1 = (msec)	91.8	109.6
t_2 = (msec)	94.9	112.7
CHEST DEFLECTION (in)	1.5	0.5

Occupant Injury Data (Cont.)

MAX. COMPRESSIVE FEMUR FORCES:	DRIVER DUMMY #401	PASSENGER DUMMY #403
Left Side (lbs)	874	1019
Right Side (lbs)	1043	972

NECK INJURY CRITERIA:

Peak Flexion Bending Moment about the Occipital Condyle (N-m)	63.5	65.1
Peak Extension Bending Moment about the Occipital Condyle (N-m)	8.2	18.3
Peak Axial Tension (N)	570	336
Peak Axial Compression (N)	4143	2707
Peak Fore Shear (N)	837	1150
Peak Aft Shear (N)	134	169

Seat Belt Warning System Data

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Complete the following to determine which seat belt warning system option (S7.3(a)(1) or S7.3 (a)(2)) is used. (Manufacturers may use either option.)

A. With occupant in driver's position and lap belt in stowed position and ignition switch placed in "Start/On" position:

A.1 S7.3(a)(1)
Time duration of audible warning signal = 6 seconds
(4 to 8 seconds)

Time duration of reminder light operation = >60 seconds
(no less than 60 seconds)

A.2 S7.3(a)(2)
Time duration of audible warning signal = ____ seconds
(4 to 8 seconds)(see 49 USCS @ 30124)

Time duration of reminder light operation = ____ seconds
(4 to 8 seconds)

B. With occupant in driver's position and lap belt in use and ignition switch placed in "Start/On" position:

B.1 S7.3(a)(1)
Time duration of audible warning signal = 0 seconds
(audible warning not required)

Time duration of reminder light operation = 0 seconds
(reminder light not required)

B.2 S7.3(a)(2)
Time duration of audible warning signal = ____ seconds
(audible warning not required)

Time duration of reminder light operation = ____ seconds
(4 to 8 seconds)

C. Note wording of visual warning:
Fasten seat belt _____
Fasten Belt _____
Symbol 101 X

Readiness Indicator

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement. (11/8/94 legal interpretation)

1. Is the system totally mechanical? ( )Yes (X)No
   (If YES this Data Sheet is complete.)

2. Describe the location of the readiness indicator: left side of instrument cluster

3. Is the readiness indicator clearly visible to the driver?
   (X)Yes-Pass ( )**No-FAIL**

4. Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided?
   (X)Yes-Pass ( )**No-FAIL**

Air Bag Labels Data

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

1. Air bag maintenance label and owner's manual instructions (S4.5.1(a)):

   1.1. Does the manufacturer recommend periodic maintenance or replacement of the airbag? ( )Yes, go to 1.2 (X) No, go to 2

   1.2. Does the vehicle have a maintenance or replacement label?
   ( )Yes-Pass ( ) **No-FAIL**

   1.3. Does the label contain one of the following?
   ( )Yes-Pass ( ) **No-FAIL**
   ( ) Schedule on label specifies month and year (Date:_____)
   ( ) Schedule on label specifies vehicle mileage (Mileage:_____)
   ( ) Schedule on label specifies interval measured from date on certification label (Date:_____)

   1.4. Is the label permanently affixed within the passenger compartment?
   ( )Yes-Pass ( ) **No-FAIL**

   1.5. Is the label lettered in English?
   ( )Yes-Pass ( ) **No-FAIL**

   1.6. Is the label in block capitals and numerals?
   ( )Yes-Pass ( ) **No-FAIL**

   1.7. Are the letters and numerals at least 3/32 inches high?
   ( )Yes-Pass ( ) **No-FAIL**

   1.8. Does the owner's manual set forth the recommended schedule for maintenance or replacement? ( )Yes-Pass ( ) **No-FAIL**

2. Does the owner's manual (S4.5.1(f)):

   2.1 Include a description of the vehicle's airbag system in an easily understandable format? (X)Yes-Pass ( ) **No-FAIL**

   2.2 Include a statement that the vehicle is equipped with an airbag and a lap/shoulder belt at the front outboard seating positions?
   (X)Yes-Pass ( ) **No-FAIL**

Air Bag Labels Data (Cont.)

2.3 Include a statement that the air bag is a supplemental restraint at the front outboard seating positions?

(X)Yes-Pass ( ) **No-FAIL**

2.4 Emphasize that all occupants, including the driver, should always wear their seat belts whether or not an airbag is also provided at their seating positions to minimize the risk of severe injury or death in the event of a crash?

(X)Yes-Pass ( ) **No-FAIL**

2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to insure maximum safety protection for those occupants?

(X)Yes-Pass ( ) **No-FAIL**

2.6 Explain that no objects should be placed over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate?

(X)Yes-Pass ( ) **No-FAIL**

3. Does the vehicle:

3.1. Provide an automatic means to ensure that the airbag does not deploy when a child seat or child with a total mass of 30 kg or less is present on the front outboard passenger? ( )Yes (X) No

3.2. Incorporate sensors, other than or in addition to weight sensors, which automatically prevent the passenger air bag from deploying in situations in which it might have an adverse effect on infants in rear-facing child seats, and unbelted or improperly belted children? ( )Yes (X) No

3.3. Have a passenger air bag designed to deploy in a manner that does not create a risk of serious injury to infants in rear-facing child seats, and unbelted or improperly belted children? ( )Yes (X) No

If yes to 3.1, or 3.2, or 3.3, the vehicle is not required to have a sunvisor warning label (S4.5.1(6)), an airbag alert label (S4.5.1(c)) or a label on the dash (S4.5.2(e)) and this check sheet is complete (S4.5.1). If no to 3.1, 3.2, and 3.3, go to 4.

4. Sun Visor Warning Label

4.1. Is the label permanently affixed (may be permanent marking or molding) to either side of the sunvisor at each front outboard seating position with an airbag? (S4.5.1(b)(2))

Driver Side - (X)Yes-Pass ( ) **No-FAIL**

Passenger Side - ( ) N/A (X)Yes-Pass ( ) **No-FAIL**

Air Bag Labels Data (Cont.)

4.2. Does the label conform in content (vehicles without back seats may omit the statement: "The back seat is the safest place for children.") (S4.5.1(b)(2)(v))) to either label shown on the next page as appropriate at each front outboard seating position with an air bag? (S4.5.1(b)(2))

4.2.1 **Dual air bags:** ( ) Not Applicable

Driver Side -	(X)Yes	( ) **No-FAIL**
Passenger Side -	(X)Yes	( ) **No-FAIL**

4.2.2 **Vehicle with driver air bag ONLY - either 4.2.2.1 or 4.2.2.2 is applicable, not both.** (S4.5.1(b)(2)(iv))

4.2.2.1 Does the label conform in content to either label shown on the following page as appropriate?

( ) Not Applicable

Driver Side -	( )Yes-Pass	( ) **No-FAIL**

4.2.2.2 Does the label conform in content to the first label shown on the following page where the label can be modified to omit the pictogram and the message text may read:

DEATH or SERIOUS INJURY can occur.
- Sit as far back as possible from the air bag.
- ALWAYS use SEAT BELTS and CHILD RESTRAINTS
- The BACK SEAT is the SAFEST place for children.

( ) Not Applicable

Driver Side -	( )Yes-Pass	( ) **No-FAIL**

Air Bag Labels Data (Cont.)

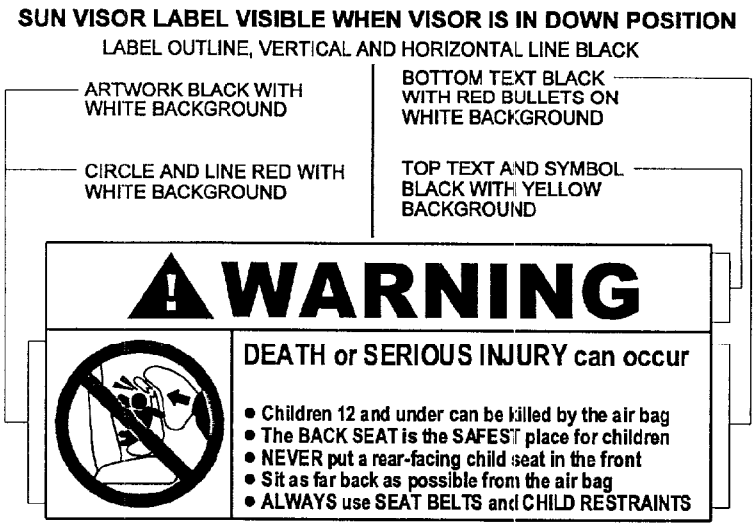


Figure 6a (S4.5.1(b)(2))

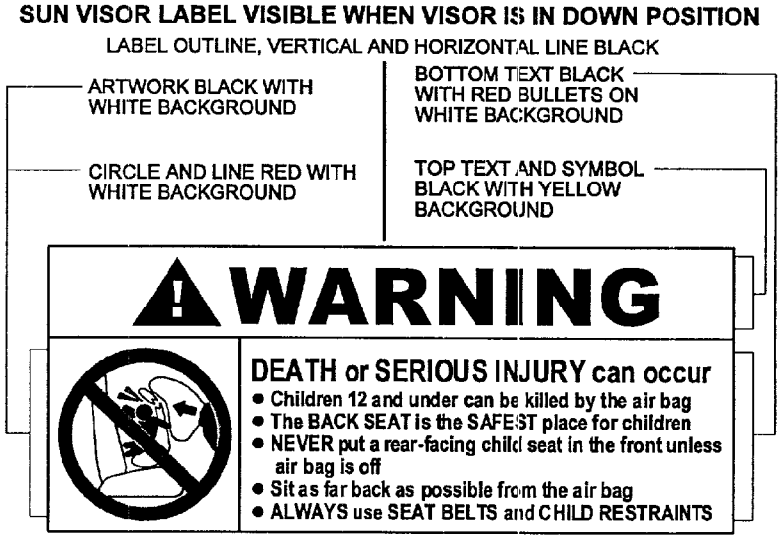


Figure 6b (S4.5.1(b)(2))

4.3 Is the label heading area yellow with the word "warning" and the alert symbol in black? (S4.5.1(b)(2)(i))

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

4.4 Is the message white with black text? (S4.5.1(b)(2)(ii))

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

Air Bag Labels Data (Cont.)

4.5 Is the message area at least 30 cm^2? (S4.5.1(b)(2)(ii))
Actual message area: 34 cm^2

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

4.6 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(b)(2)(iii) & (S4.5.1(b)(2)(iv))
For vehicles with driver side air bag ONLY ( ) Not Applicable

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

4.7 Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii))
Actual diameter: 35 mm
For vehicles with driver side air bag ONLY ( ) Not Applicable

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

4.8 Is the same side of the sun visor to which the sun visor label is affixed free of other information with the exception of an air bag maintenance label? (S4.5.1(b)(3))

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

4.9 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label or the utility vehicle label? (S4.5.1(b)(3))

Driver Side -		(X)Yes-Pass	( ) **No-FAIL**
Passenger Side -	( ) No air bag	(X)Yes-Pass	( ) **No-FAIL**

5. Air Bag Alert Label

5.1 Is the Sun Visor Warning Label visible when the sunvisor is in the stowed position?

Driver Side -	(X)Yes, go to 6	( ) No	
Passenger Side -	( )No air bag	(X)Yes	( ) No

5.2 Does the label conform in content to the label shown below? (S4.5.1(c)(2))

Driver Side -		( )Yes	( ) **No-FAIL**
Passenger Side -	( )No air bag	( )Yes-Pass	( ) **No-FAIL**

5.3 Is the message area black with yellow text? (S4.5.1(c)(2)(i))

Driver Side -		( )Yes-Pass	( ) **No-FAIL**
Passenger Side -	( )No air bag	( )Yes-Pass	( ) **No-FAIL**

Air Bag Labels Data (Cont.)

5.4 Is the message area at least 20 cm^2? (S4.5.1(c)(2)(i))
Actual message area: _____ cm^2
Driver Side - ( )Yes-Pass ( ) **No-FAIL**
Passenger Side - ( )No air bag ( )Yes-Pass ( ) **No-FAIL**

5.5 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(c)(2)(ii))
For vehicles with driver side air bag ONLY ( ) Not Applicable
( )Yes-Pass ( ) **No-FAIL**

5.6 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2)(ii))
Actual diameter _____ mm
For vehicles with driver side air bag ONLY ( ) Not Applicable
( )Yes-Pass ( ) **No-FAIL**

SUN VISOR LABEL VISIBLE WHEN VISOR IS IN UP POSITION

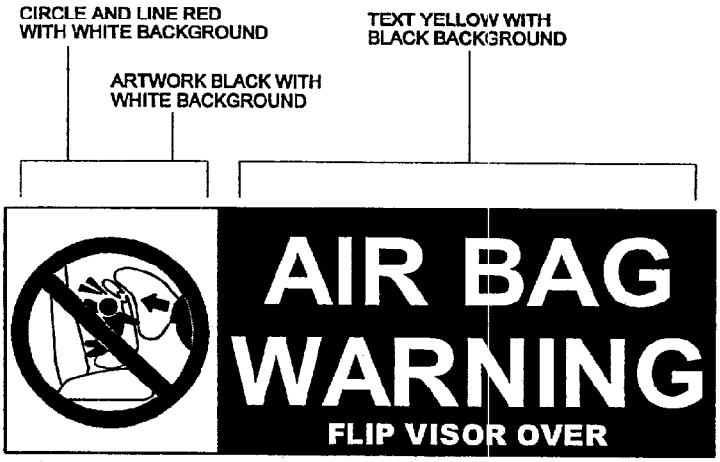


Figure 6c (S4.5.1(c)(2))

6. Label On the Dash The label was not with the vehicle, but because of the mileage (1,284 miles) on the vehicle and the 18 months since the vehicle was produced this has not been marked as a failure nor as a pass.

6.1 Does the vehicle have a passenger side air bag?
(X)Yes ( ) No, check sheet is complete.

6.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e))
( )Yes (X) No

6.3 Does the label conform in content (vehicles without back seats may omit the statement: "The back seat is the safest place for children 12 and under." (S4.5.1(e)(iii)) to the label shown below. (S4.5.1(e))
( )Yes-Pass ( ) **No-FAIL**

Air Bag Labels Data (Cont.)

6.4 Is the heading area yellow with the word "warning" and the alert symbol in black? (S4.5.1(e)(i)) ( )Yes-Pass ( ) **No-FAIL**

6.5 Is the message white with black text? (S4.5.1(e)(ii))
( )Yes-Pass ( ) **No-FAIL**

6.6 Is the message area at least 30 cm^2? (S4.5.1(e)(ii))
Actual message area: ___ cm^2
( )Yes-Pass ( )**No-FAIL**

REMOVABLE LABEL ON DASH

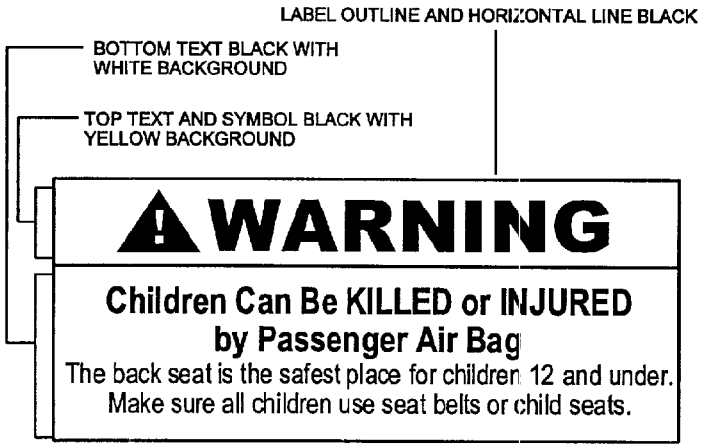


Figure 7 (S4.5.1(e))

Rear Outboard Seating Position Seat Belt Data

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Do all rear outboard seating positions have type 2 seat belts?

(X)Yes ( )No

If NO, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a type 2 belt was not installed.

_____

_____

Lap Belt Lockability Data

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic locking retractors. (S7.1.1.5(c))

Designated Seating Position (DSP): Right front

1. Record the seating position. fully rearward
(S7.1.1.5(c)(1))
(Any position is acceptable.)

2. Buckle the seat belt. (S7.1.1.5(c)(1))

3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))

4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing? (X)Yes, go to 6.1 ( ) No, go to 7.

   6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))

   (X)Yes-Pass ( ) **No-FAIL**

7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))

Lap Belt Lockability Data (Cont.)

8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))

10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

    Measured distance between A and B is 60 inches.

11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

    The measured force application angle = 10 (spec. 5-15 degrees)

WEBBING TENSION PULL DEVICE

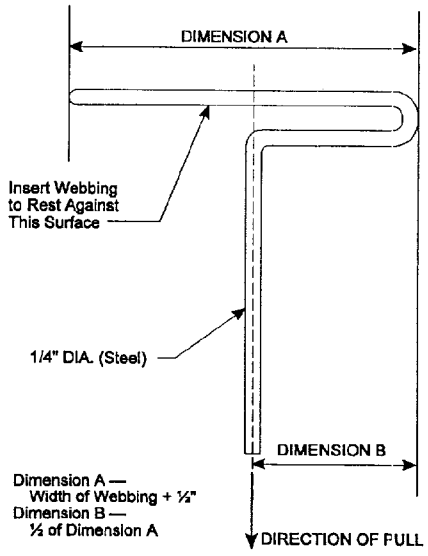


Figure 5 (S7.1.1.5(c)(4))

Lap Belt Lockability Data (Cont.)

13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

    Measured distance between A and B is 29 inches.

14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

    Record onset rate: 10 lb/sec (Spec. 10 to 50 lb/sec)

    Measure distance between points A and B 31 inches (S7.1.1.5(c)(6))

15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

    14-13 = 2 inches (X)Yes-Pass ( ) **No-FAIL**

16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more?

    10-14 = 29 inches (X)Yes-Pass ( ) **No-FAIL**

REMARKS: None

Lap Belt Lockability Data (Cont.)

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic locking retractors. (S7.1.1.5(c))

Designated Seating Position (DSP): Left rear

1. Record the seating position. non-adjustable
(S7.1.1.5(c)(1))
(Any position is acceptable.)

2. Buckle the seat belt. (S7.1.1.5(c)(1))

3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))

4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing? (X)Yes, go to 6.1 ( ) No, go to 7.

   6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))

   (X)Yes-Pass ( ) **No-FAIL**

7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))

Lap Belt Lockability Data (Cont.)

8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))

10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

    Measured distance between A and B is 62 inches.

11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

    The measured force application angle = 10 (spec. 5-15 degrees)

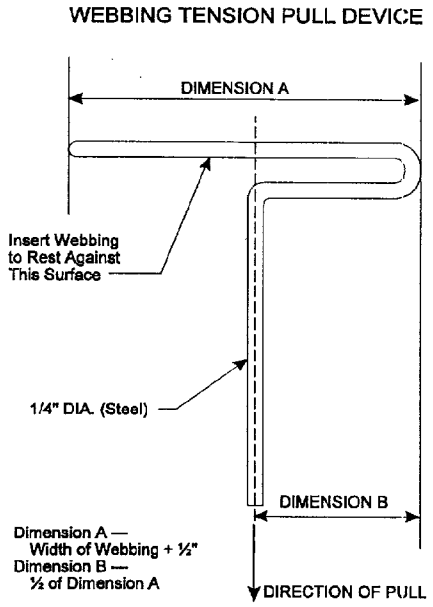


Figure 5 (S7.1.1.5(c)(4))

Lap Belt Lockability Data (Cont.)

13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

    Measured distance between A and B is 16 inches.

14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

    Record onset rate: 10 lb/sec (Spec. 10 to 50 lb/sec)

    Measure distance between points A and B 16.5 inches (S7.1.1.5(c)(6))

15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

    14-13 = 0.5 inches (X)Yes-Pass ( ) **No-FAIL**

16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more?

    10-14 = 45.5 inches (X)Yes-Pass ( ) **No-FAIL**

REMARKS: None

Lap Belt Lockability Data (Cont.)

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic locking retractors. (S7.1.1.5(c))

Designated Seating Position (DSP): Center rear

1. Record the seating position. non-adjustable
(S7.1.1.5(c)(1))
(Any position is acceptable.)

2. Buckle the seat belt. (S7.1.1.5(c)(1))

3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))

4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing? ( )Yes, go to 6.1 (X) No, go to 7.

   6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))

   ( )Yes-Pass ( ) **No-FAIL**

7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))

Lap Belt Lockability Data (Cont.)

8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))

10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

    Measured distance between A and B is 44 inches.

11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

    The measured force application angle = 10 (spec. 5-15 degrees)

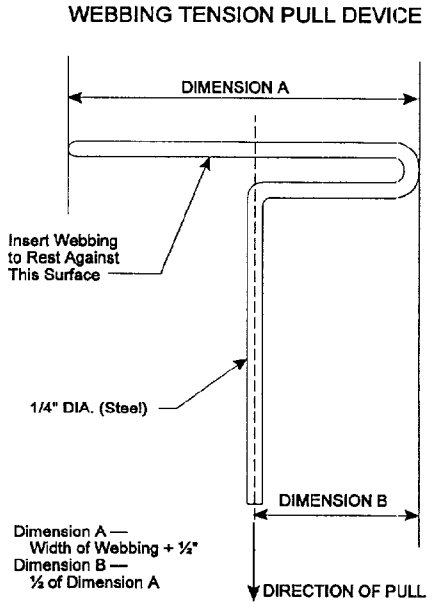


Figure 5 (S7.1.1.5(c)(4))

Lap Belt Lockability Data (Cont.)

13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

    Measured distance between A and B is 31 inches.

14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

    Record onset rate: 10 lb/sec (Spec. 10 to 50 lb/sec)

    Measure distance between points A and B 31 inches (S7.1.1.5(c)(6))

15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

    14-13 = 0 inches (X)Yes-Pass ( ) **No-FAIL**

16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more?

    10-14 = 13 inches (X)Yes-Pass ( ) **No-FAIL**

REMARKS: None

Lap Belt Lockability Data (Cont.)

Vehicle Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

NHTSA No.: CX5704 ; Technician: Chad Gadberry ; Date: April 26, 2000

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Complete one of these forms for **each** designated seating position with forward-facing seats, other than the driver's seat, or seats that can be adjusted to forward-facing **and** that has seat belt retractors that are not automatic locking retractors. (S7.1.1.5(c))

Designated Seating Position (DSP): Right rear

1. Record the seating position. non-adjustable
(S7.1.1.5(c)(1))
(Any position is acceptable.)

2. Buckle the seat belt. (S7.1.1.5(c)(1))

3. Complete any procedures recommended in the vehicle owner's manual to activate any locking feature. (S7.1.1.5(c)(1))

4. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

5. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5(a))

(X)Yes-Pass ( ) **No-FAIL**

6. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing? (X)Yes, go to 6.1 ( ) No, go to 7.

6.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))

(X)Yes-Pass ( ) **No-FAIL**

7. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))

Lap Belt Lockability Data (Cont.)

8. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

9. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2))

10. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

    Measured distance between A and B is 62 inches.

11. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

12. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

    The measured force application angle = 10 (spec. 5-15 degrees)

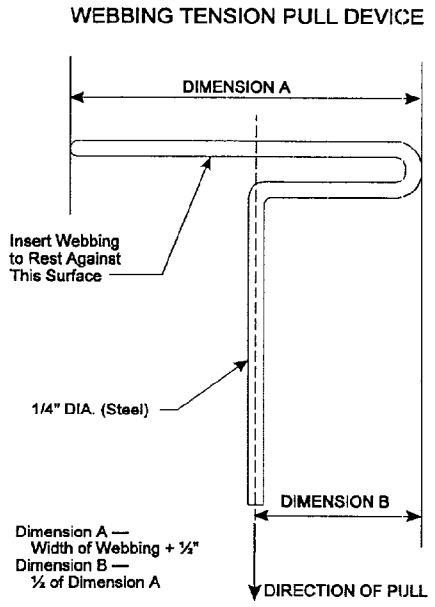


Figure 5 (S7.1.1.5(c)(4))

Lap Belt Lockability Data (Cont.)

13. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

    Measured distance between A and B is 16 inches.

14. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

    Record onset rate: 10 lb/sec (Spec. 10 to 50 lb/sec)

    Measure distance between points A and B 16.5 inches (S7.1.1.5(c)(6))

15. Subtract the measurement in 13 from the measurement in 14. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

    14-13 = 0.5 inches (X)Yes-Pass ( ) **No-FAIL**

16. Subtract the measurement in 14 from the measurement in 10. Is the difference 3 inches or more?

    10-14 = 45.5 inches (X)Yes-Pass ( ) **No-FAIL**

REMARKS: None

Seat Belt Comfort and Convenience Data

1. **BELT CONTACT FORCE (S7.4.3)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: Left rear

Date of Comfort/Convenience Check: April 26, 2000

Technician Performing Check: Chad Gadberry

GVWR: 4550 lb

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1.1 Does the vehicle incorporate a webbing tension-relieving device?
( ) Yes - go to latchplate access
(X) No - continue with this check sheet

1.2 Adjustable seats are in adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)
( ) Check
(X) N/A

1.3 If separately adjustable in a vertical direction, the seats are at the lowest position.
( ) Check
(X) N/A

1.4 Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.
( ) Check
(X) N/A

1.5 Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.
(X) Check
( ) N/A

1.6 Place each adjustable head restraint in its highest adjustment position.
(X) Check
( ) N/A

Seat Belt Comfort and Convenience Data (Cont.)

1.7 Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

( ) Check
(X) N/A

1.8 Position the test dummies according to dummy position placement instructions in Appendix B.

(X) Check

1.9 Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point, pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds.

Contact Force 0.1 lb.

(X) 0.0 to 0.7 pounds - Pass
( ) greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

Seat Belt Comfort and Convenience Data (Cont.)

1. **BELT CONTACT FORCE (S7.4.3)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: Right rear

Date of Comfort/Convenience Check: April 26, 2000

Technician Performing Check: Chad Gadberry

GVWR: 4550 lb

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

1.1 Does the vehicle incorporate a webbing tension-relieving device?
( ) Yes - go to latchplate access
(X) No - continue with this check sheet

1.2 Adjustable seats are in adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)
( ) Check
(X) N/A

1.3 If separately adjustable in a vertical direction, the seats are at the lowest position.
( ) Check
(X) N/A

1.4 Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.
( ) Check
(X) N/A

1.5 Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.
(X) Check
( ) N/A

1.6 Place each adjustable head restraint in its highest adjustment position.
(X) Check
( ) N/A

Seat Belt Comfort and Convenience Data (Cont.)

1.7 Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position. (S8.1.3)

( ) Check
(X) N/A

1.8 Position the test dummies according to dummy position placement instructions in Appendix B.

(X) Check

1.9 Fasten the seat belt latch. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point, pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Measure the contact force exerted by the belt webbing on the dummy's chest. Contact the COTR if the contact force exceeds 0.7 pounds.

Contact Force 0.1 lb.

(X) 0.0 to 0.7 pounds - Pass
( ) greater than 0.7 pounds - FAIL*

* If the seat belts are voluntarily installed by the manufacturer they do not have to comply.

Seat Belt Comfort and Convenience Data (Cont.)

2. **LATCHPLATE ACCESS (S7.4.4)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: **None tested**

Date of Comfort/Convenience Check:_____

Technician Performing Check:_____

GVWR: _____

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

2.1 Position the seat in its forward most adjustment position.
( ) Check

2.2 Position the test dummy using the procedures in Appendix B. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position.)
( ) Check

2.3 Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50th percentile adult male occupant.
( ) Check

2.4 Attach the inboard and outboard reach string following the instructions on Figure 1C.
( ) Check

2.5 Place the latch plate in the stowed position.
( ) Check

2.6 Extend each line backward and outboard to generate arcs of the reach envelop of the test dummy's arms. Is the latch plate within the reach envelope?
( )Yes-Pass ( ) **No-FAIL**

2.7 Using the clearance test block, specified in Figure 2C, is there sufficient clearance between the vehicle seat and the side of vehicle interior to allow the test block to move unhindered to the latch plate or buckle?
( )Yes-Pass ( ) **No-FAIL**

Seat Belt Comfort and Convenience Data (Cont.)

3. **RETRACTION (S7.4.5)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: **None tested**

Date of Comfort/Convenience Check:_____

Technician Performing Check:_____

GVWR: _____

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

3.1 Is the vehicle a passenger car or walk-in van-type vehicle?

( )Yes If yes, go to seat belt guides and hardware.
( ) No

3.2 Adjustable seats are in the adjustment position midway between the forward most and rearmost positions. If an adjustment position does not exist midway between the forward most and rearmost positions, the next closest adjustment position to the rear of the midpoint is used. (S8.1.2)

( ) Check

3.3 If separately adjustable in a vertical direction, the seats are at the lowest position.

( ) Check

3.4 Place adjustable seat backs in the manufacturer's nominal design riding position in the manner specified by the manufacturer.

( ) Check

3.5 Place any adjustable anchorages at the manufacturer's nominal design position for a 50th percentile adult male (50M) occupant. This information will be furnished by the COTR.

( ) Check

3.6 Place each adjustable head restraint in its highest adjustment position.

( ) Check

3.7 Adjustable lumbar supports are positioned so that the lumbar support is in its lowest adjustment position (S8.1.3)

( ) Check

Seat Belt Comfort and Convenience Data (Cont.)

3.8 Use anthropomorphic test dummies whose arms have been removed and position the dummies in the front outboard designated seating positions according to instructions in Appendix B.

( ) Check

3.9 Restrain the dummies using the belt systems for the position being tested.

( ) Check

3.10 Stow outboard armrests which are capable of being stowed.

( ) Check

3.11 Check the statement that applies to this test vehicle:

(A) The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released.

( ) Pass

(B) The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released.

( ) Pass

(C) Neither A or B apply.

( ) **FAIL**

3.12 With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?

( )Yes - Pass

( ) **No - FAIL**

3.13 If this test vehicle has an open body (without doors) and has a seat belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?

( ) N/A

( ) Yes - Pass

( ) **No - FAIL**

Seat Belt Comfort and Convenience Data (Cont.)

4. **SEAT BELT GUIDES AND HARDWARE (S7.4.6)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: Left rear

Date of Comfort/Convenience Check: April 26, 2000

Technician Performing Check: Chad Gadberry

GVWR: 4550 lb

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b))

B. Seats which are removable.

C. Seats which are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above determine the following:

4.1 Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?

(X)Yes - Go to 4.2.
( ) No - this form is complete

4.2 Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?

(X)Yes - Pass
( ) **No - FAIL**

4.3 Are the remaining two seat belt parts accessible under normal conditions?

(X)Yes - Pass
( ) **No - FAIL**

Seat Belt Comfort and Convenience Data (Cont.)

4.4 The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (X) Check

(B) The seat is moved to any position to which it is designed to be adjusted.
(X) Check

(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.
(X) Check

(X)Yes - Pass
( ) **No - FAIL**

4.5 Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?
(X) Yes - Pass
( ) **No - FAIL**

Seat Belt Comfort and Convenience Data (Cont.)

4. **SEAT BELT GUIDES AND HARDWARE (S7.4.6)**

Test Vehicle NHTSA No.:CX5704

Vehicle Model Year/Make/Model/Body Style: 1999/Isuzu/Rodeo/SUV

Designated Seating Position Tested: Right rear

Date of Comfort/Convenience Check: April 26, 2000

Technician Performing Check: Chad Gadberry

GVWR: 4550 lb

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

The requirements for accessibility **DO NOT APPLY** to:

A. Seats whose seat cushions are movable so that the seat back serves a function other than seating (S7.4.6.1(b))

B. Seats which are removable.

C. Seats which are movable so that the space formerly occupied by the seat can be used for a secondary function.

If the seats in this vehicle are different than the criteria above determine the following:

4.1 Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back?

(X)Yes - Go to 4.2.
( ) No - this form is complete

4.2 Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)?

(X)Yes - Pass
( ) **No - FAIL**

4.3 Are the remaining two seat belt parts accessible under normal conditions?

(X)Yes - Pass
( ) **No - FAIL**

Seat Belt Comfort and Convenience Data (Cont.)

4.4 The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the following events occur in order:

(A) The belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (X) Check

(B) The seat is moved to any position to which it is designed to be adjusted.
(X) Check

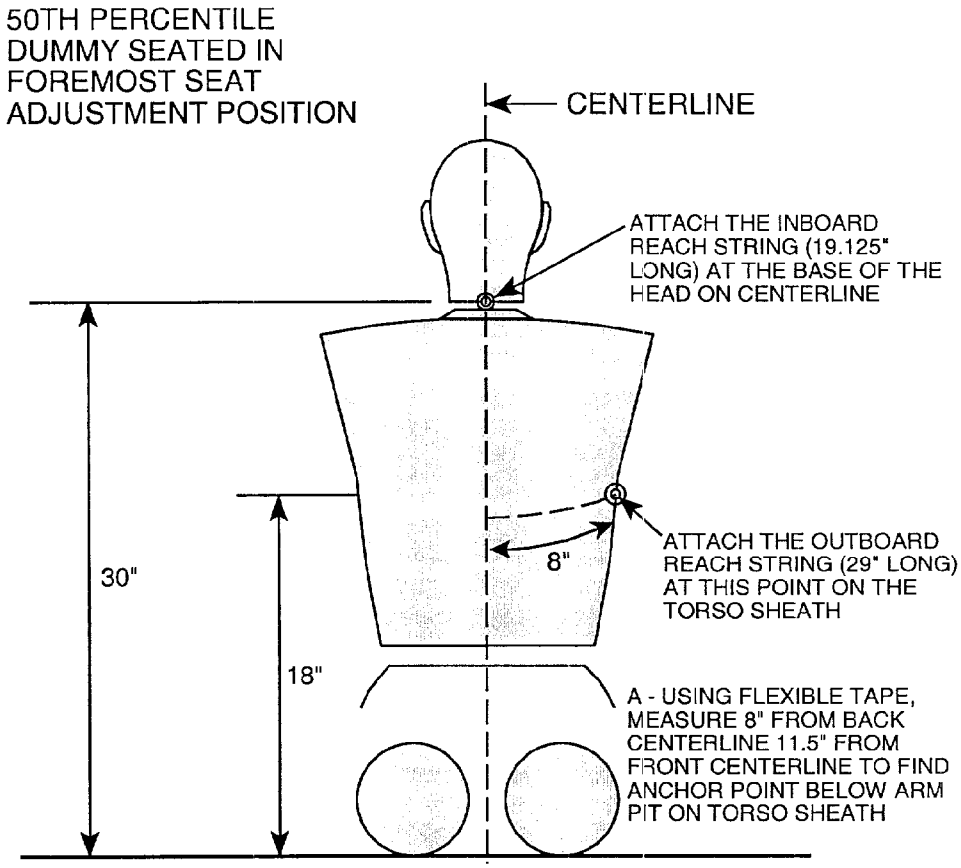
(C) The seat back, if foldable, is folded forward as far as possible and then moved backward into position.
(X) Check

(X)Yes - Pass
( ) **No - FAIL**

4.5 Is the inboard receptacle end of the seat belt assembly, installed in the outboard designated seating position, accessible with the center arm rest in any position to which it can be adjusted (without moving the armrest)?
(X) Yes - Pass
( ) **No - FAIL**

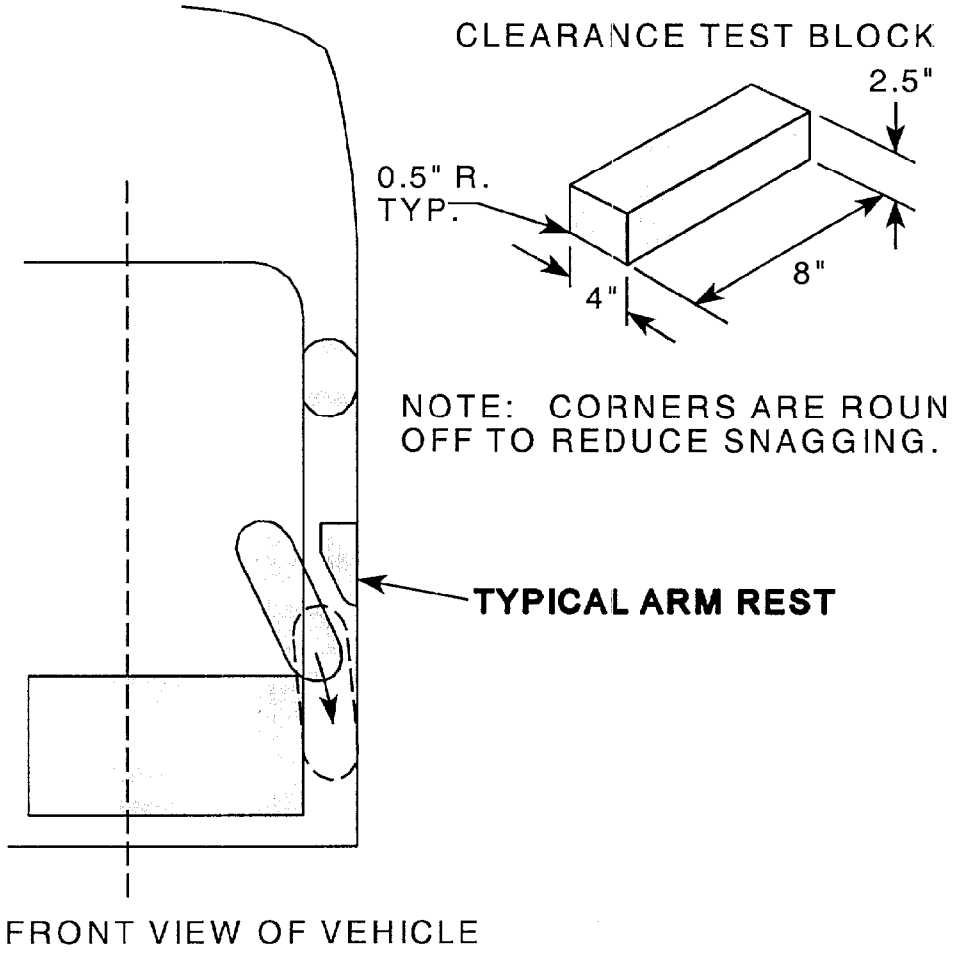
LOCATION OF ANCHORING POINTS FOR LATCHPLATE REACH LIMITING CHAINS OR STRINGS TO TEST FOR LATCHPLATE ACCESSIBILITY

PART 572E DUMMY



REAR VIEW

USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS



APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

Photo No. A-1 - Pre-Test Frontal View

Photo No. A-2 - Pre-Test Left Side View

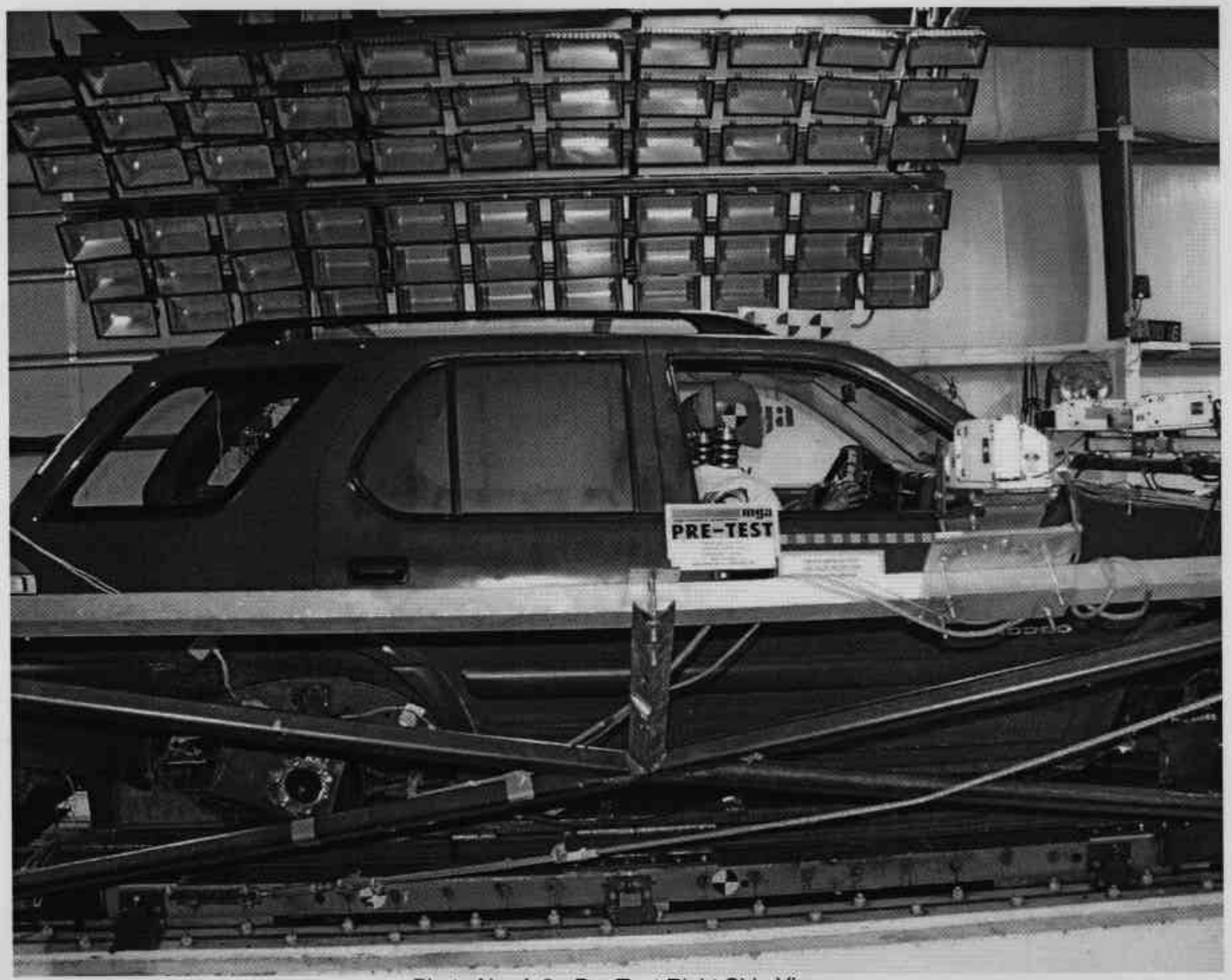


Photo No. A-3 - Pre-Test Right Side View

Photo No. A-4 - Pre-Test Windshield View

Photo No. A-5 - Post-Test Windshield View

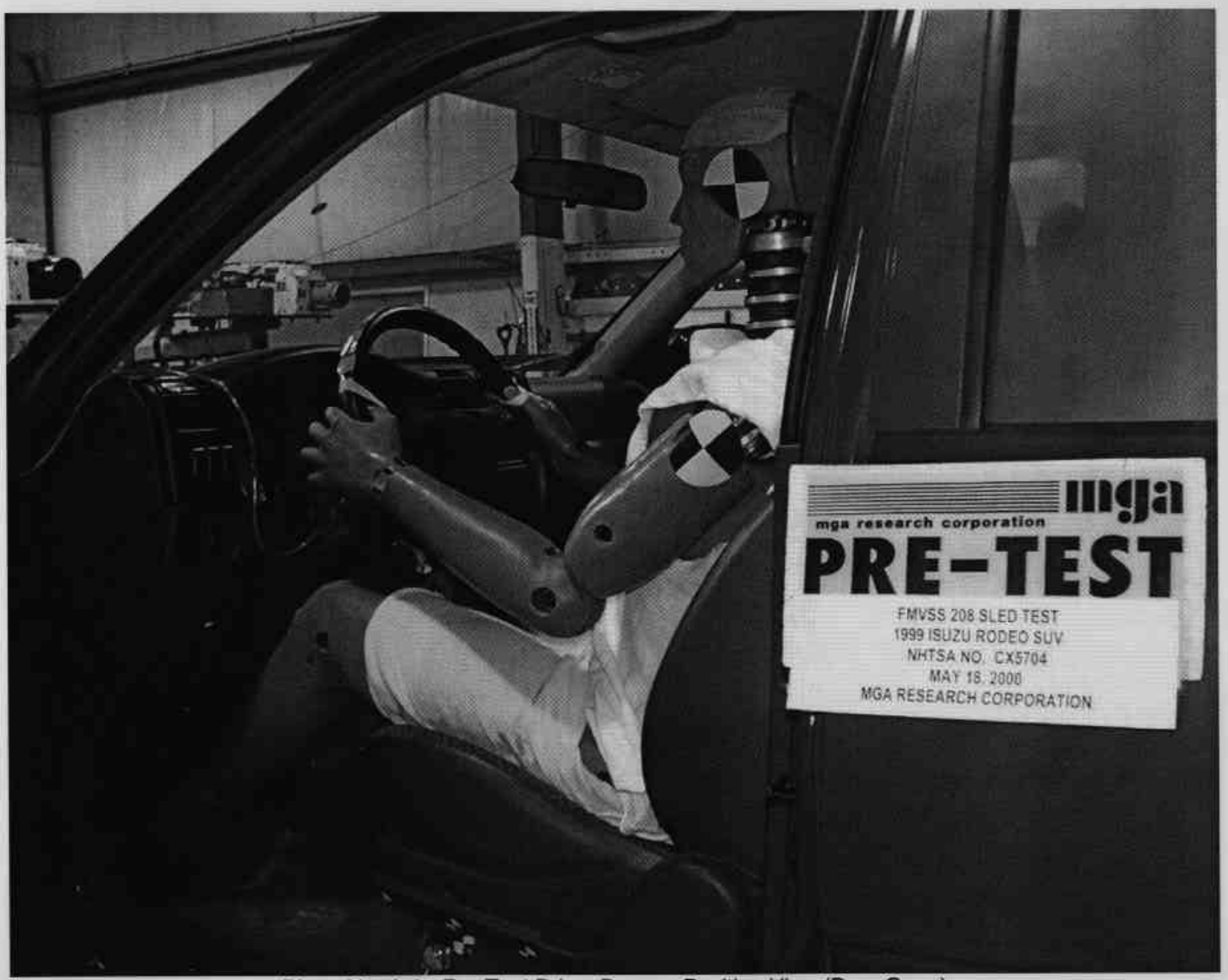


Photo No. A-6 - Pre-Test Driver Dummy Position View (Door Open)

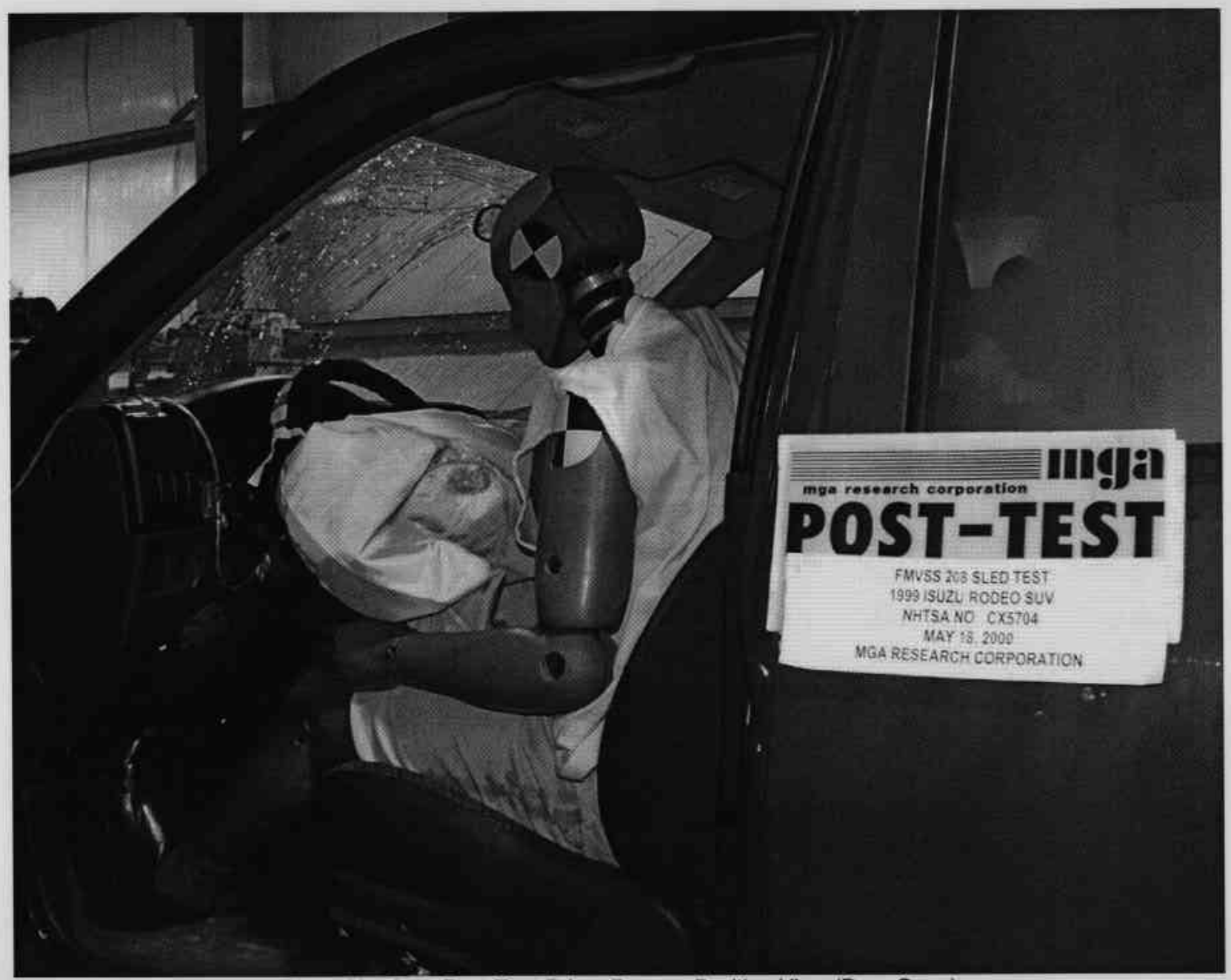


Photo No. A-7 - Post-Test Driver Dummy Position View (Door Open)

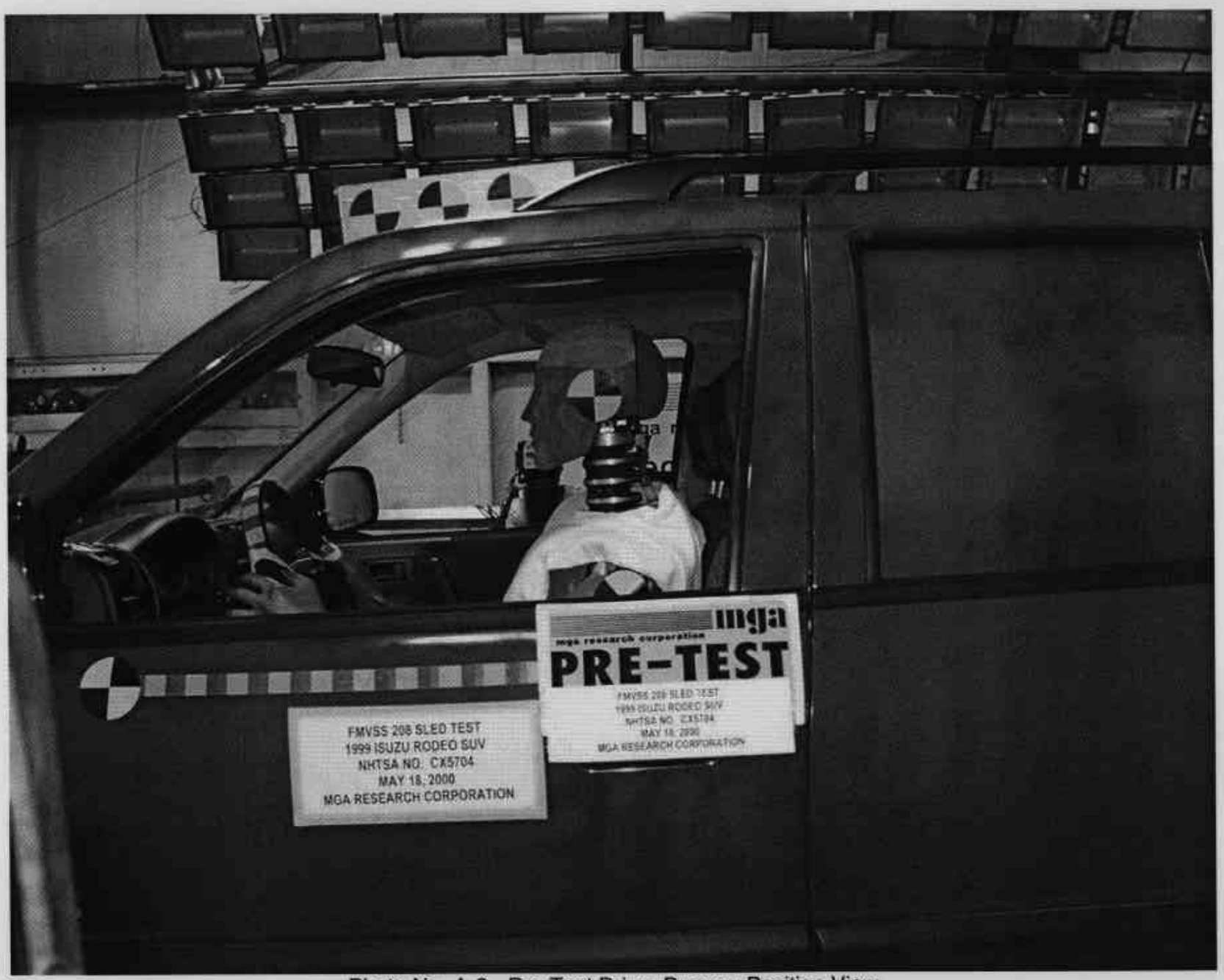


Photo No. A-8 - Pre-Test Driver Dummy Position View

Photo No. A-9 - Post-Test Driver Dummy Position View

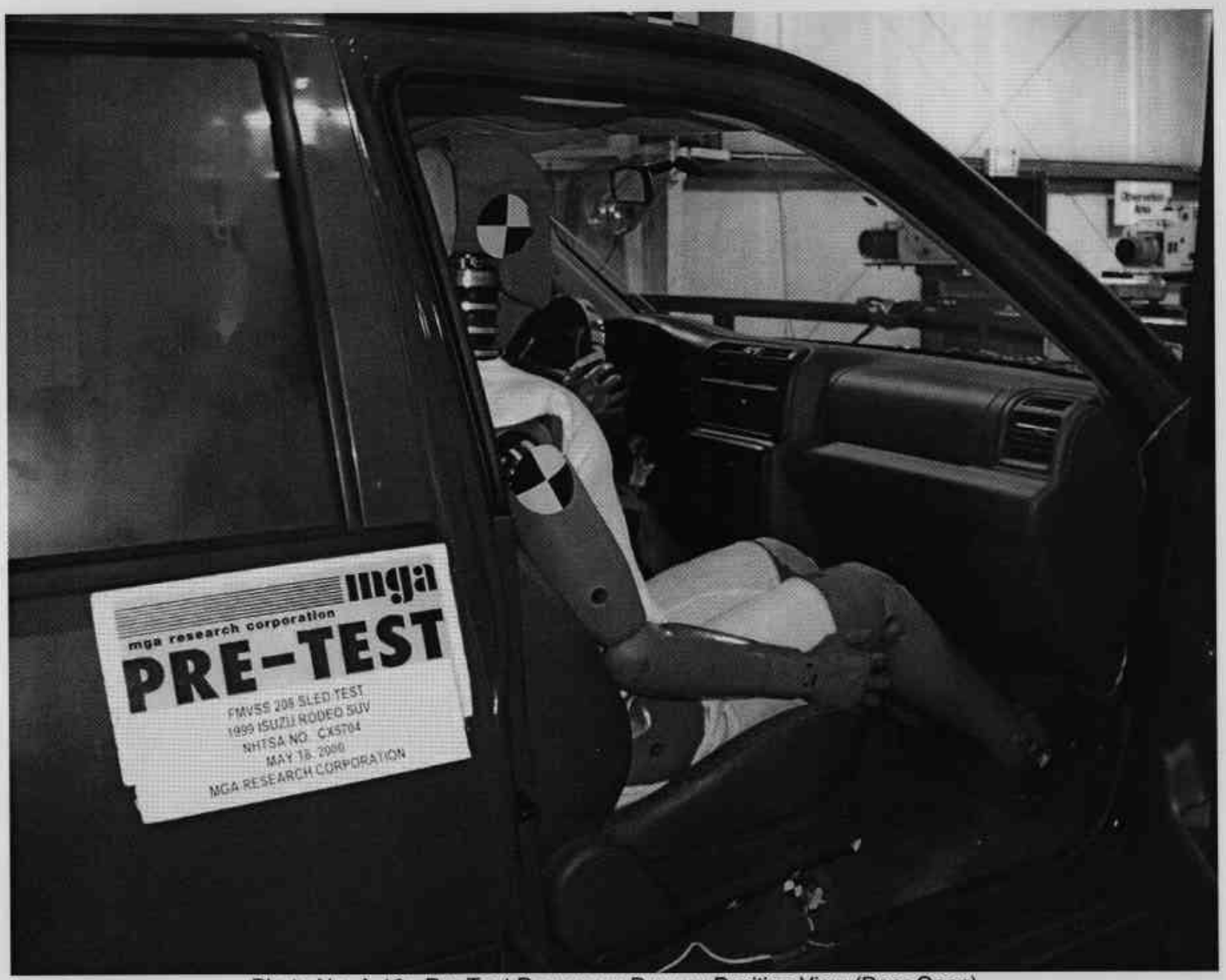


Photo No. A-10 - Pre-Test Passenger Dummy Position View (Door Open)

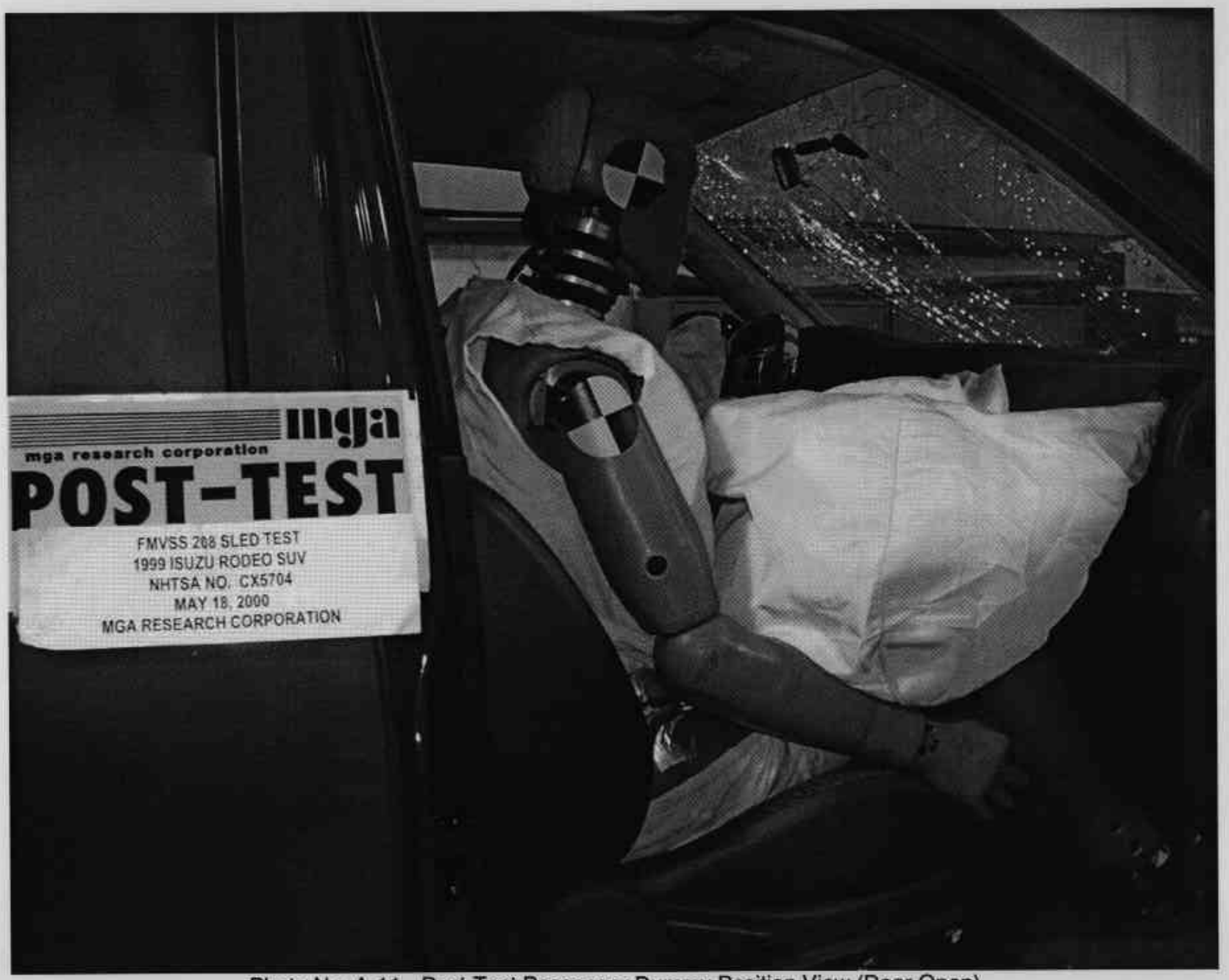


Photo No. A-11 - Post-Test Passenger Dummy Position View (Door Open)

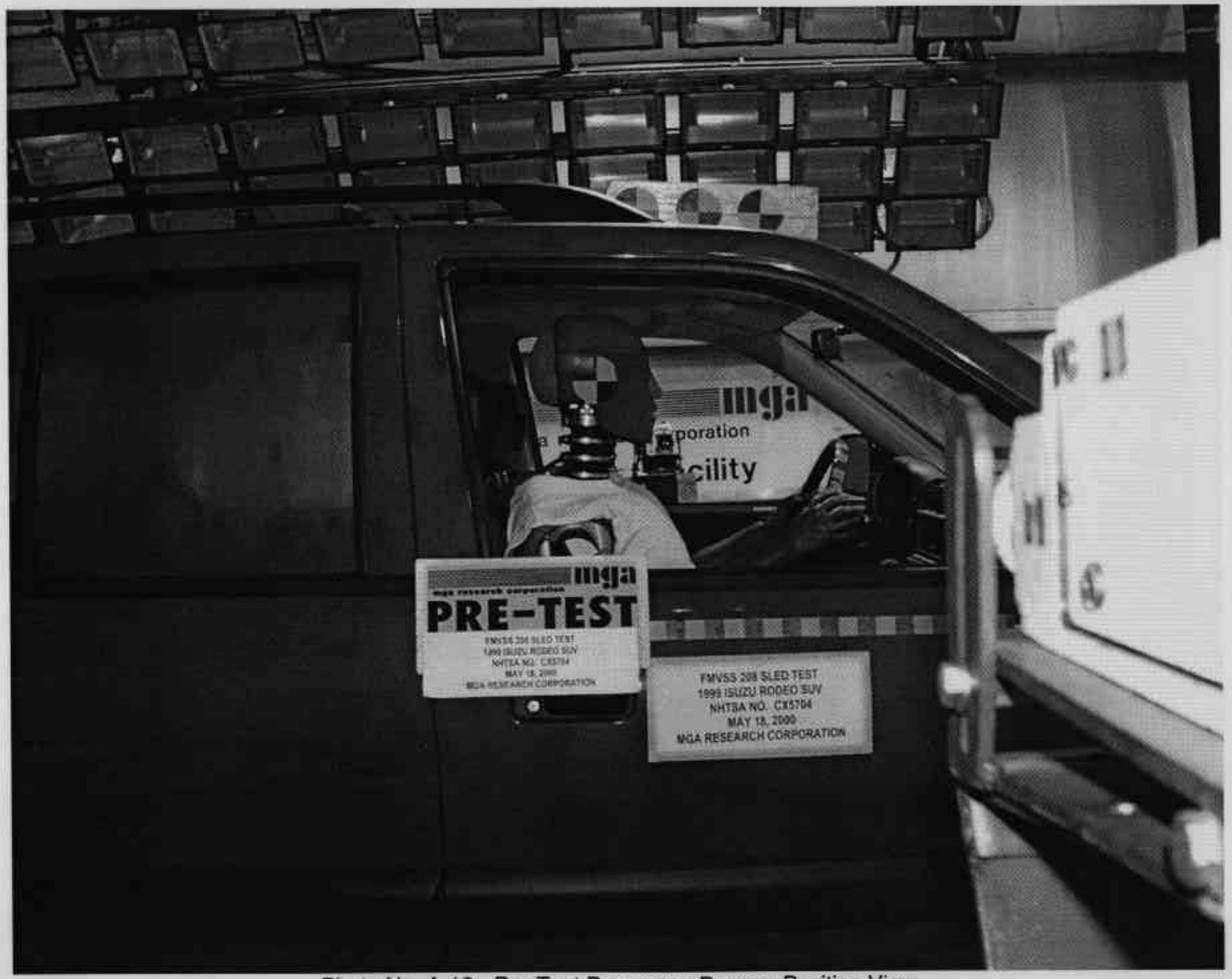


Photo No. A-12 - Pre-Test Passenger Dummy Position View

Photo No. A-13 - Post-Test Passenger Dummy Position View

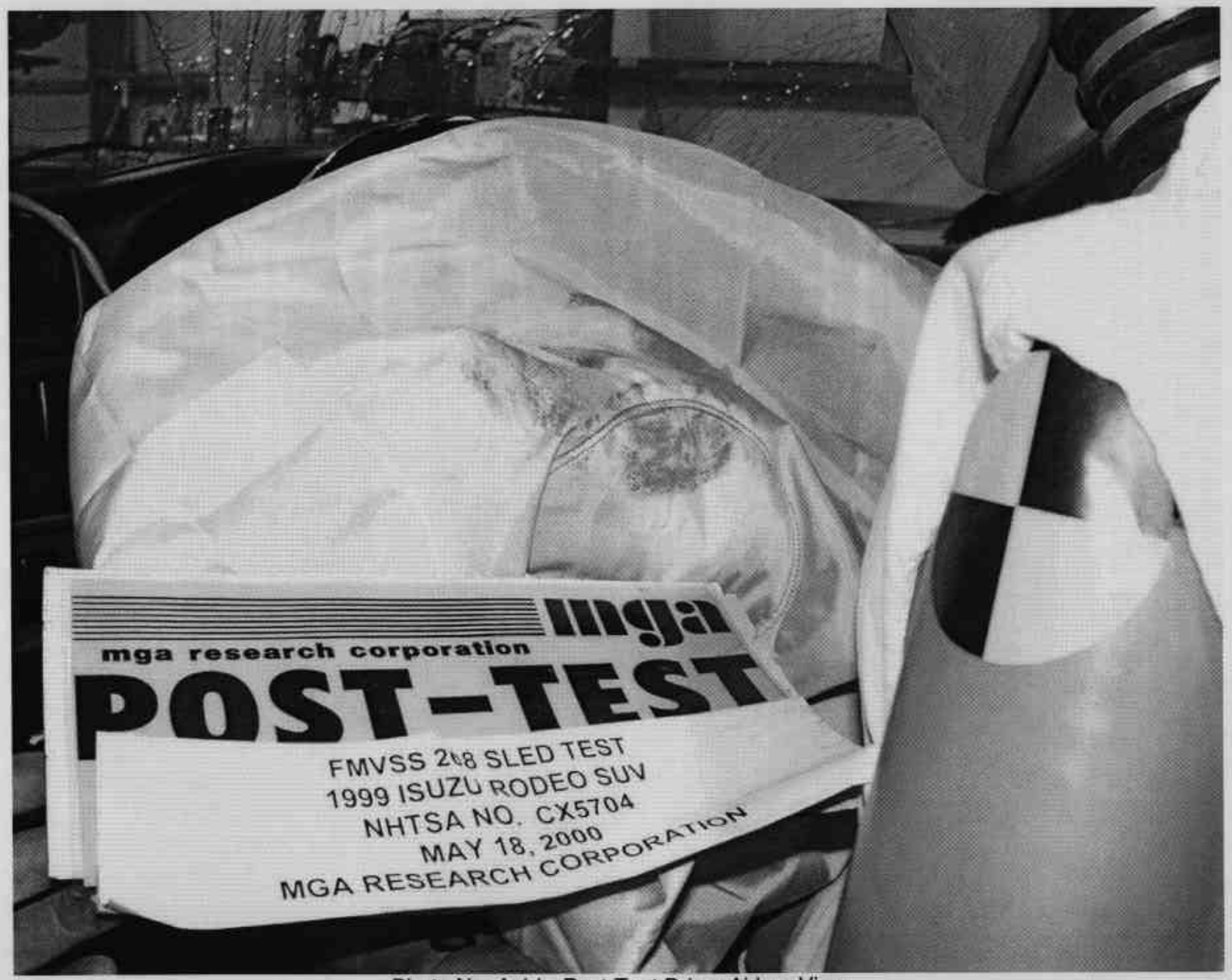


Photo No. A-14 - Post-Test Driver Airbag View

Photo No. A-15 - Post-Test Driver Head Contact View (windshield)

Photo No. A-16 - Post-Test Passenger Dummy Airbag View

Photo No. A-17 - Post-Test Passenger Dummy Head Contact View (headrest)

Photo No. A-18 - Post-Test Passenger Dummy Head Contact View (windshield)

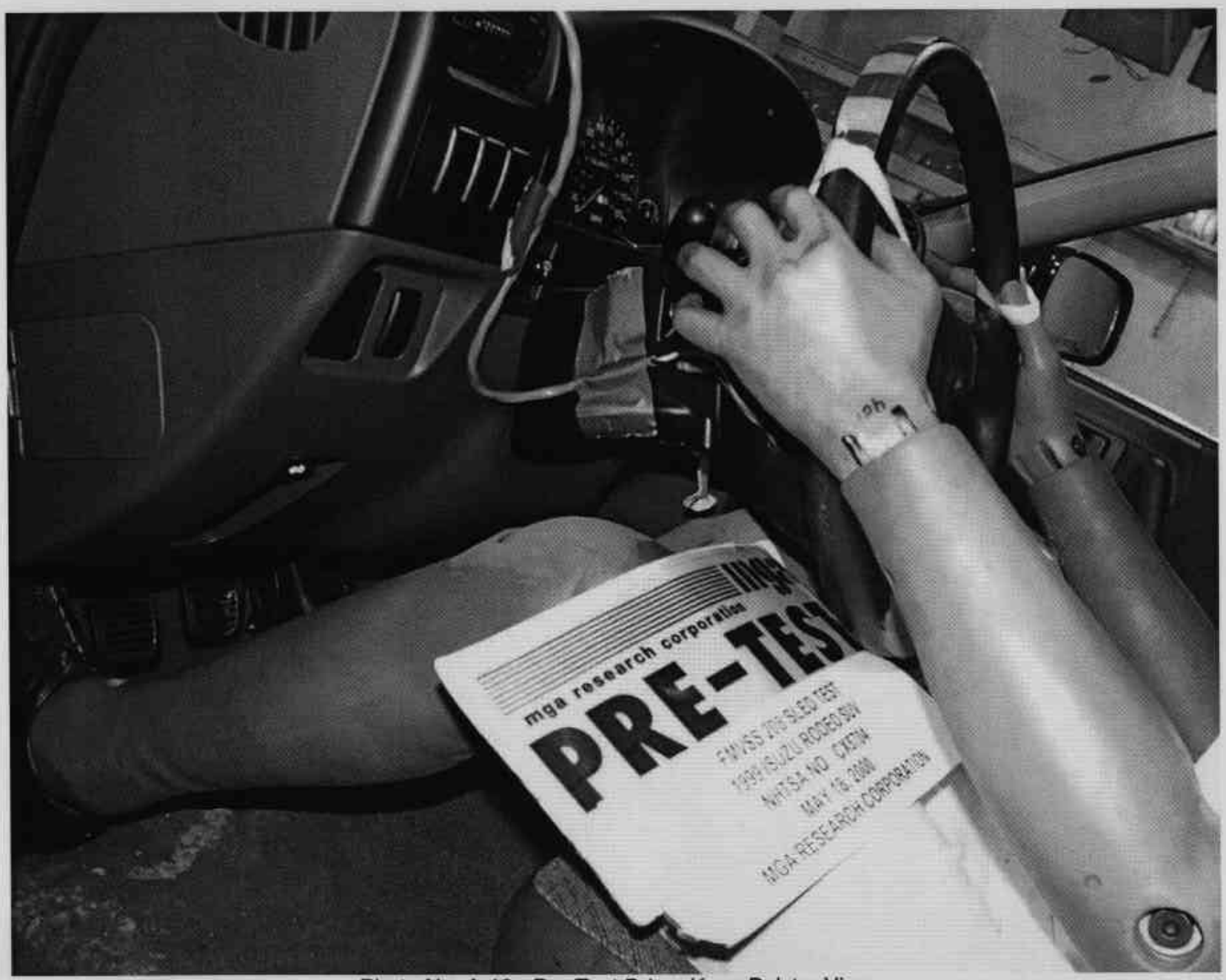


Photo No. A-19 - Pre-Test Driver Knee Bolster View

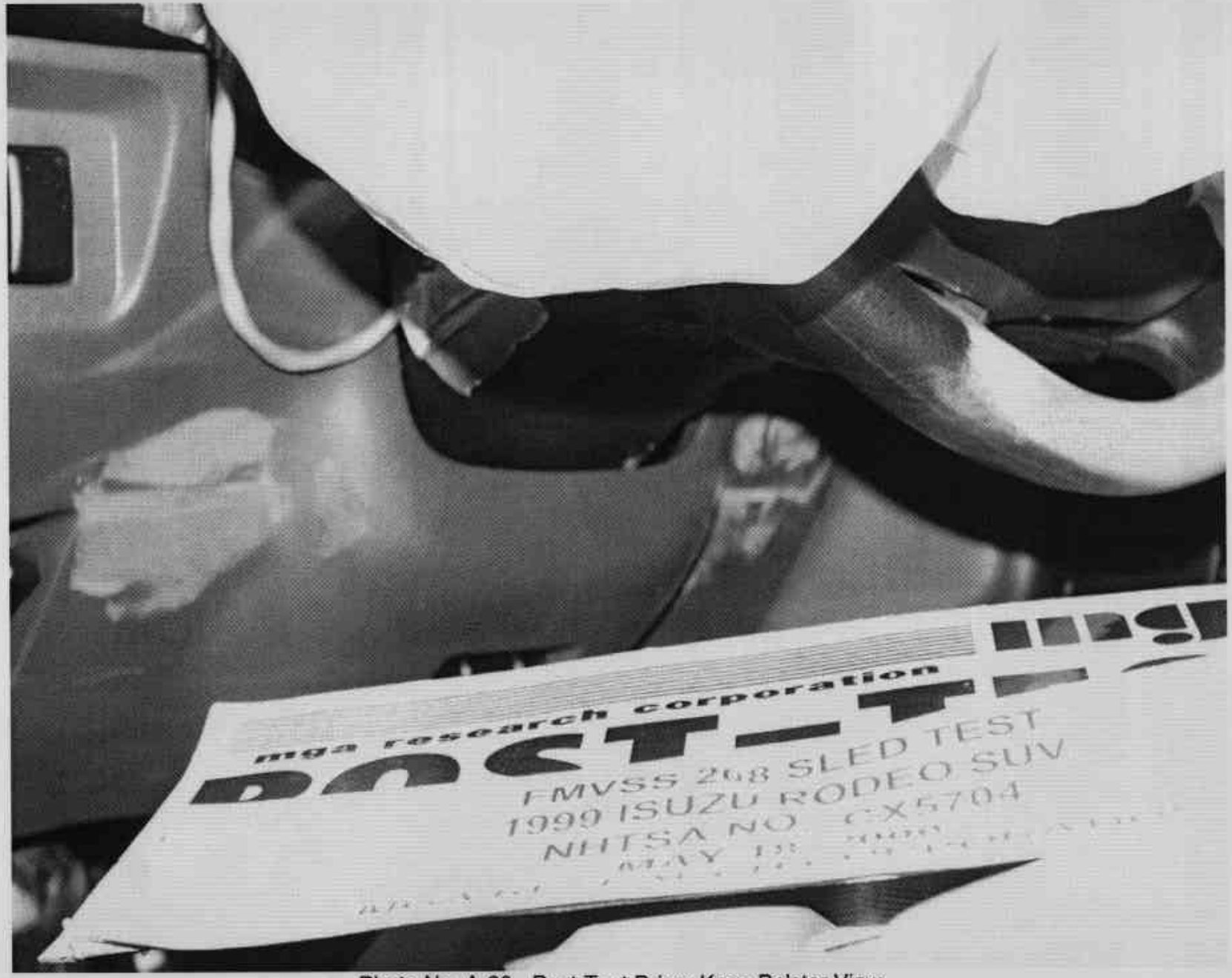


Photo No. A-20 - Post-Test Driver Knee Bolster View

Photo No. A-21 - Pre-Test Passenger Knee Bolster View

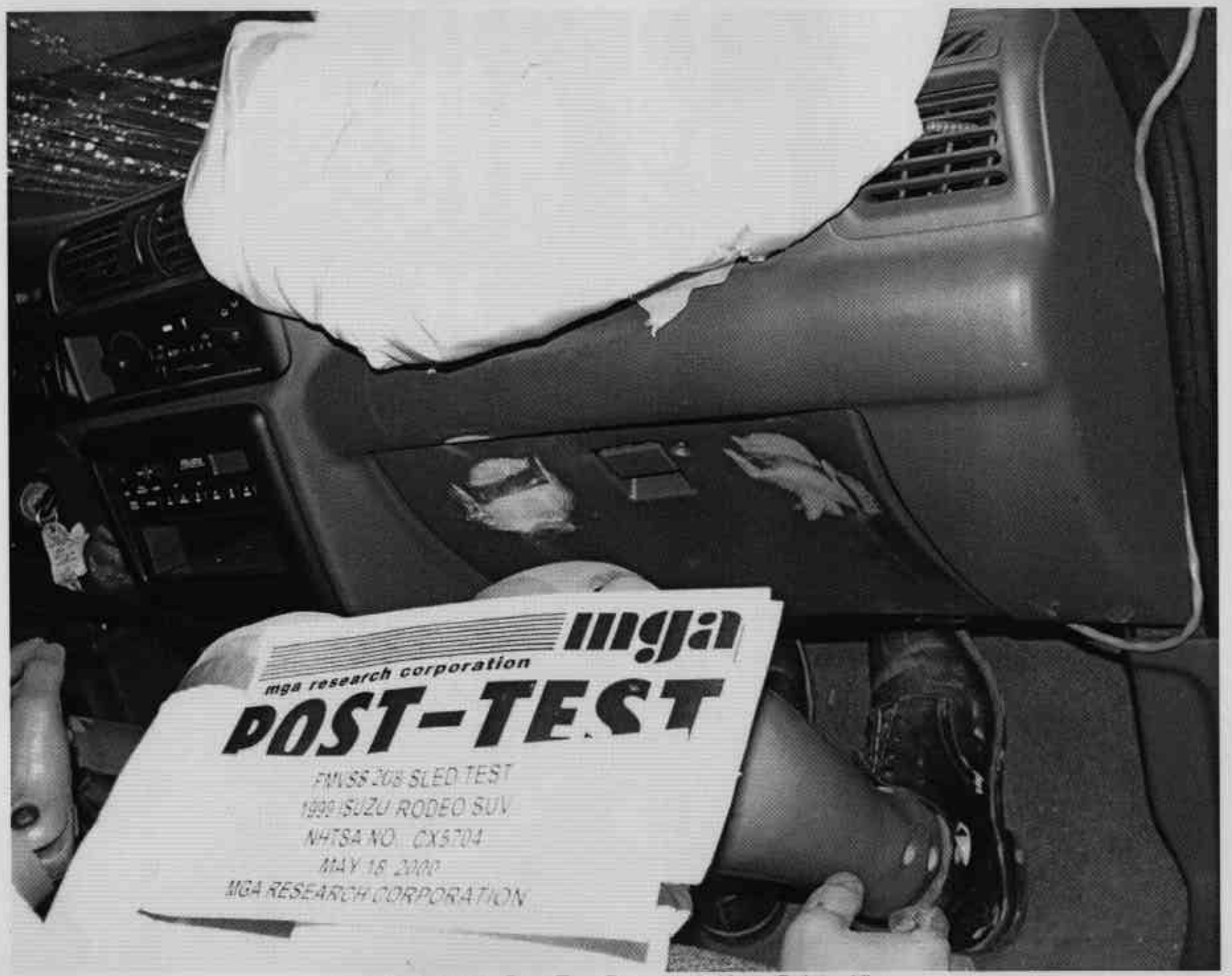


Photo No. A-22 - Post-Test Passenger Knee Bolster View

Photo No. A-23 – Pre-Test Driver Windshield View

Photo No. A-24 – Post-Test Driver Windshield View

Photo No. A-25 – Pre-Test Passenger Windshield View

Photo No. A-26 – Post-Test Passenger Windshield View

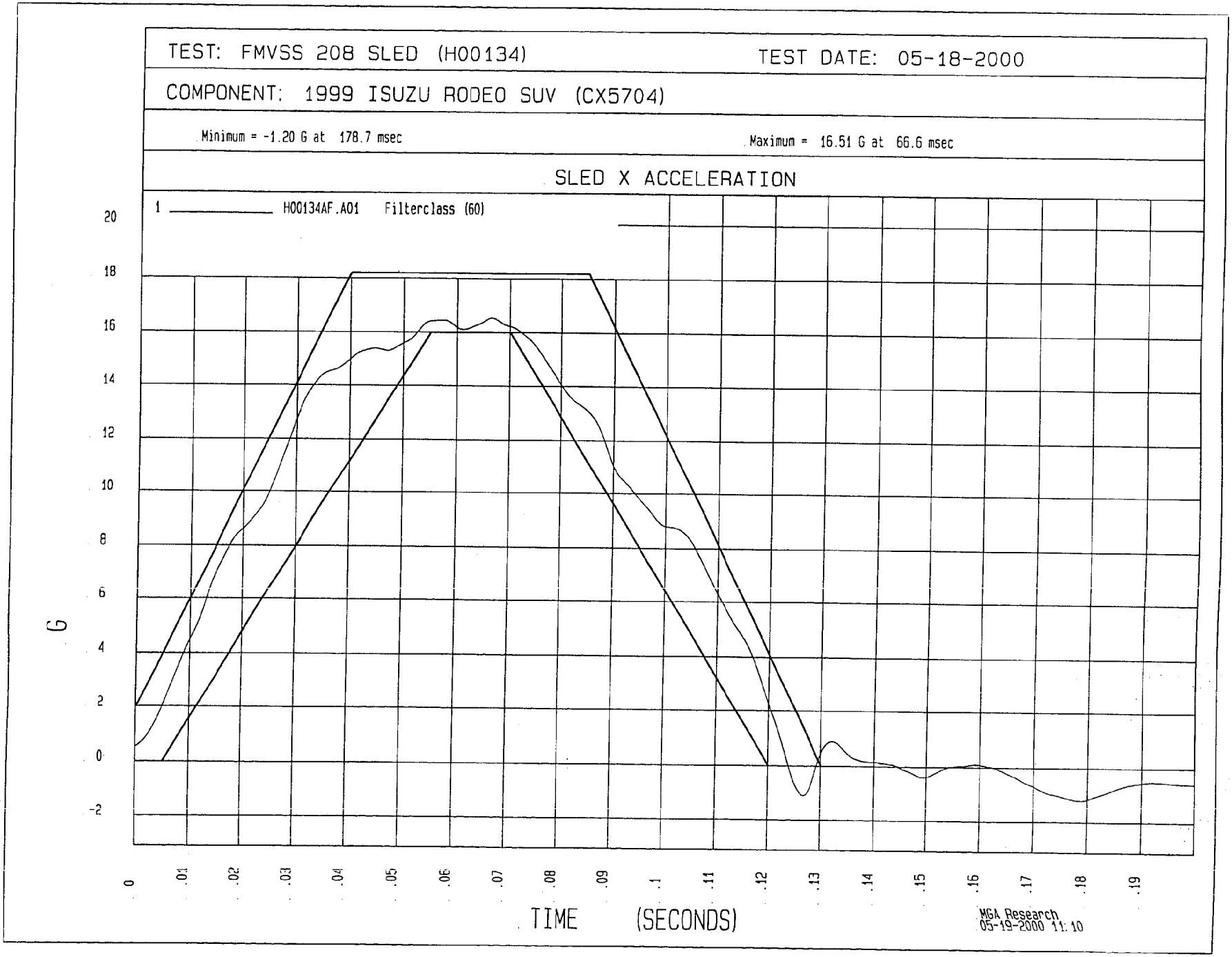
Photo No. A-27 - Vehicle Certification Label and Tire Placard

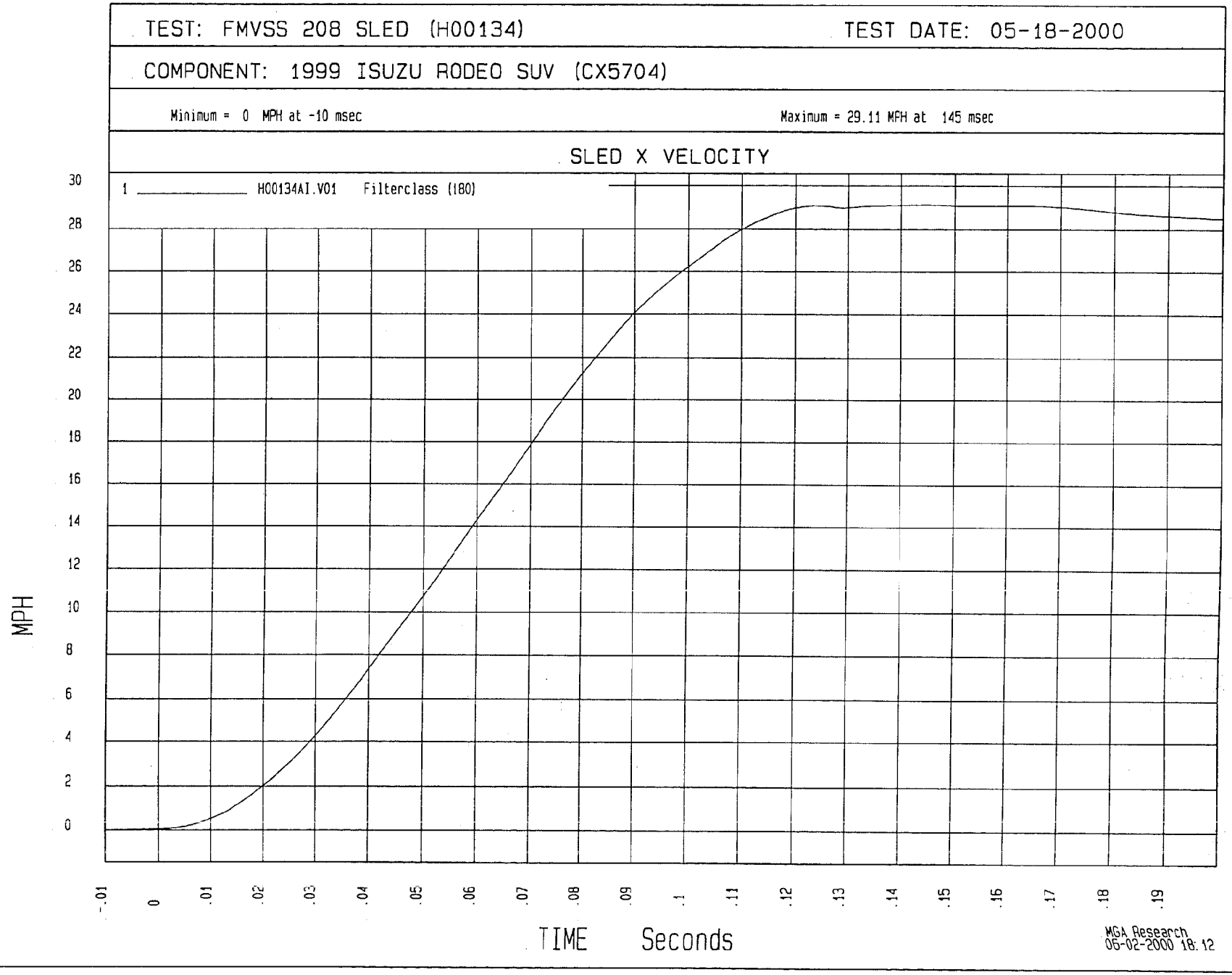
APPENDIX B
DATA PLOTS

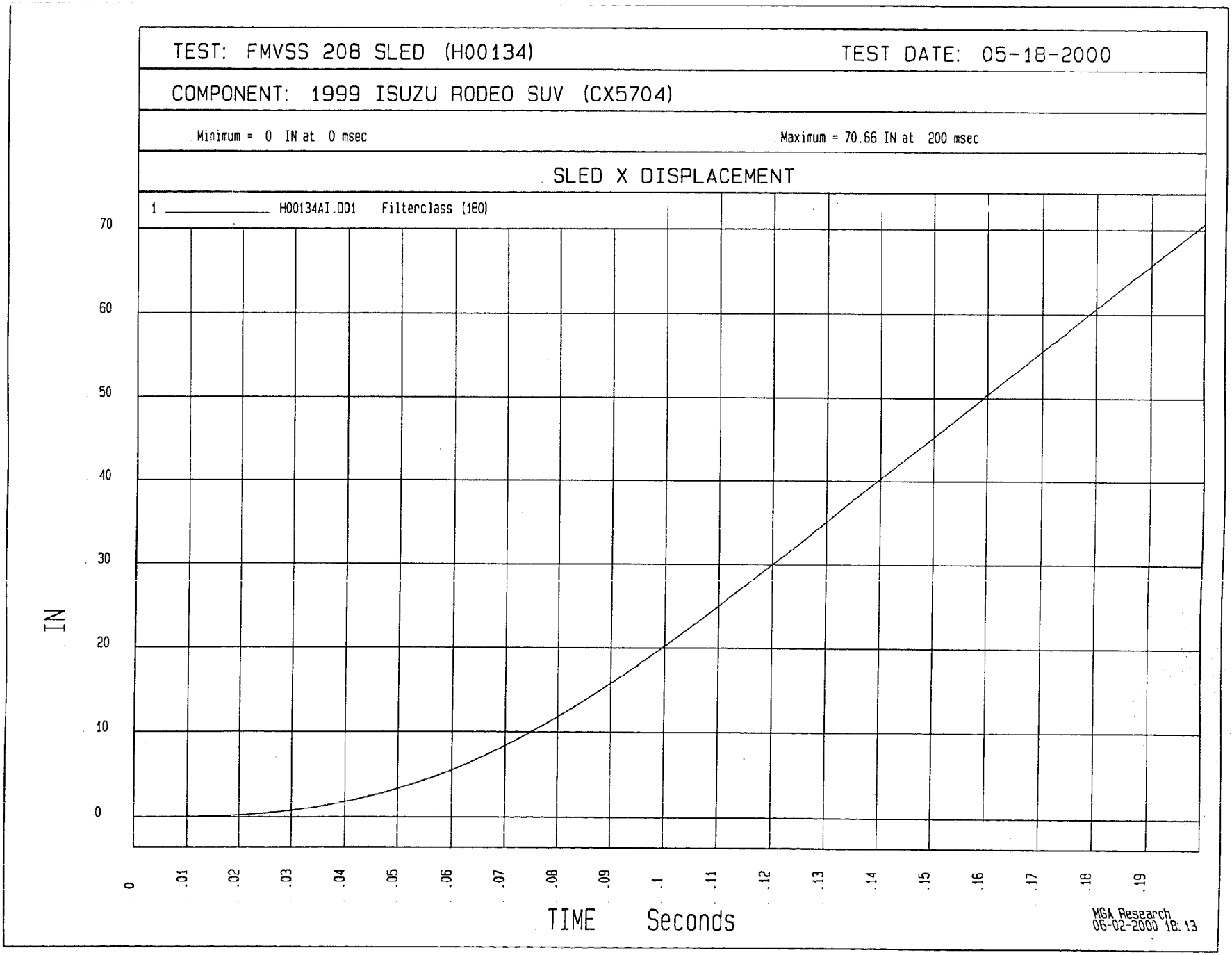
TABLE OF DATA PLOTS

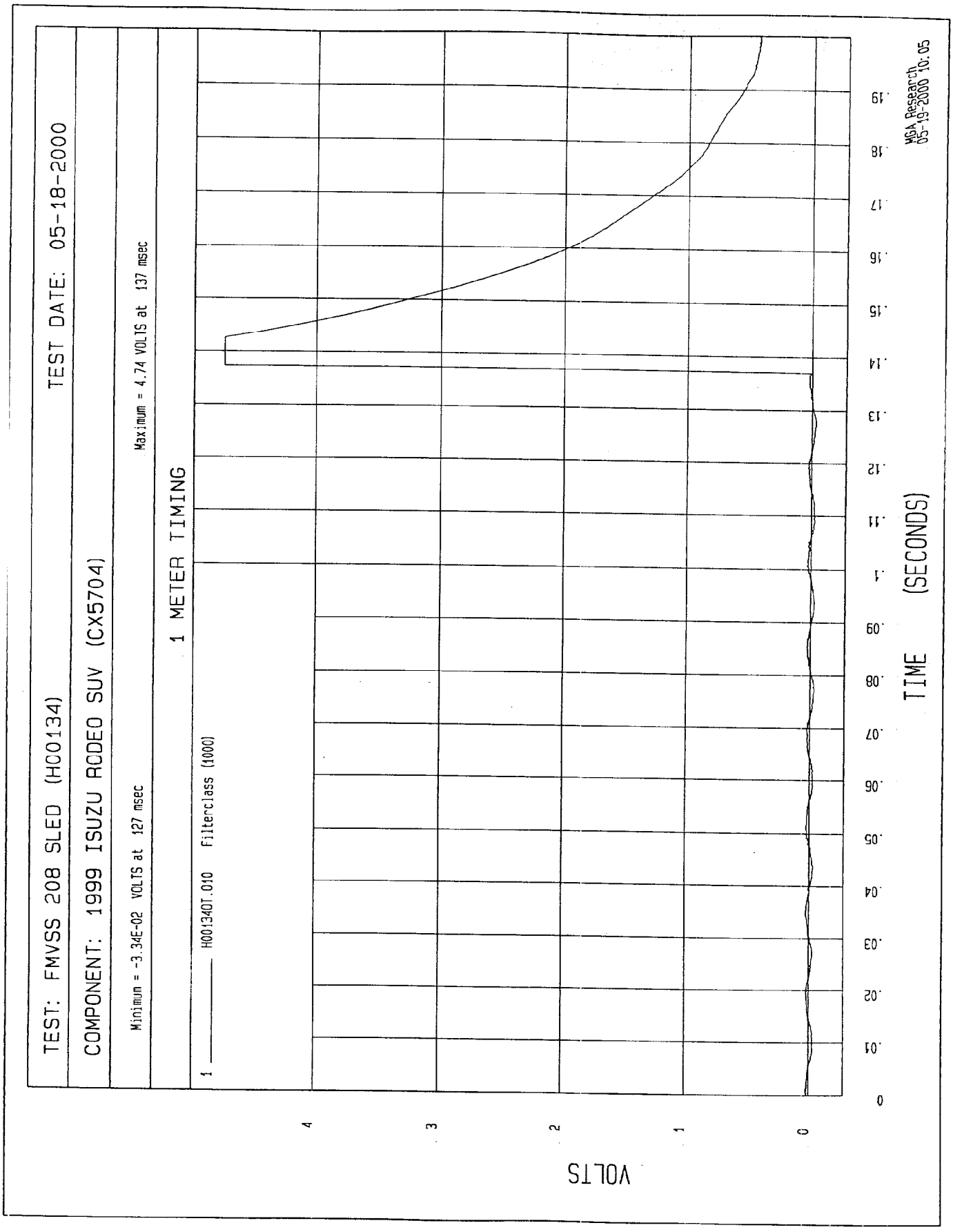
* No valid data collected

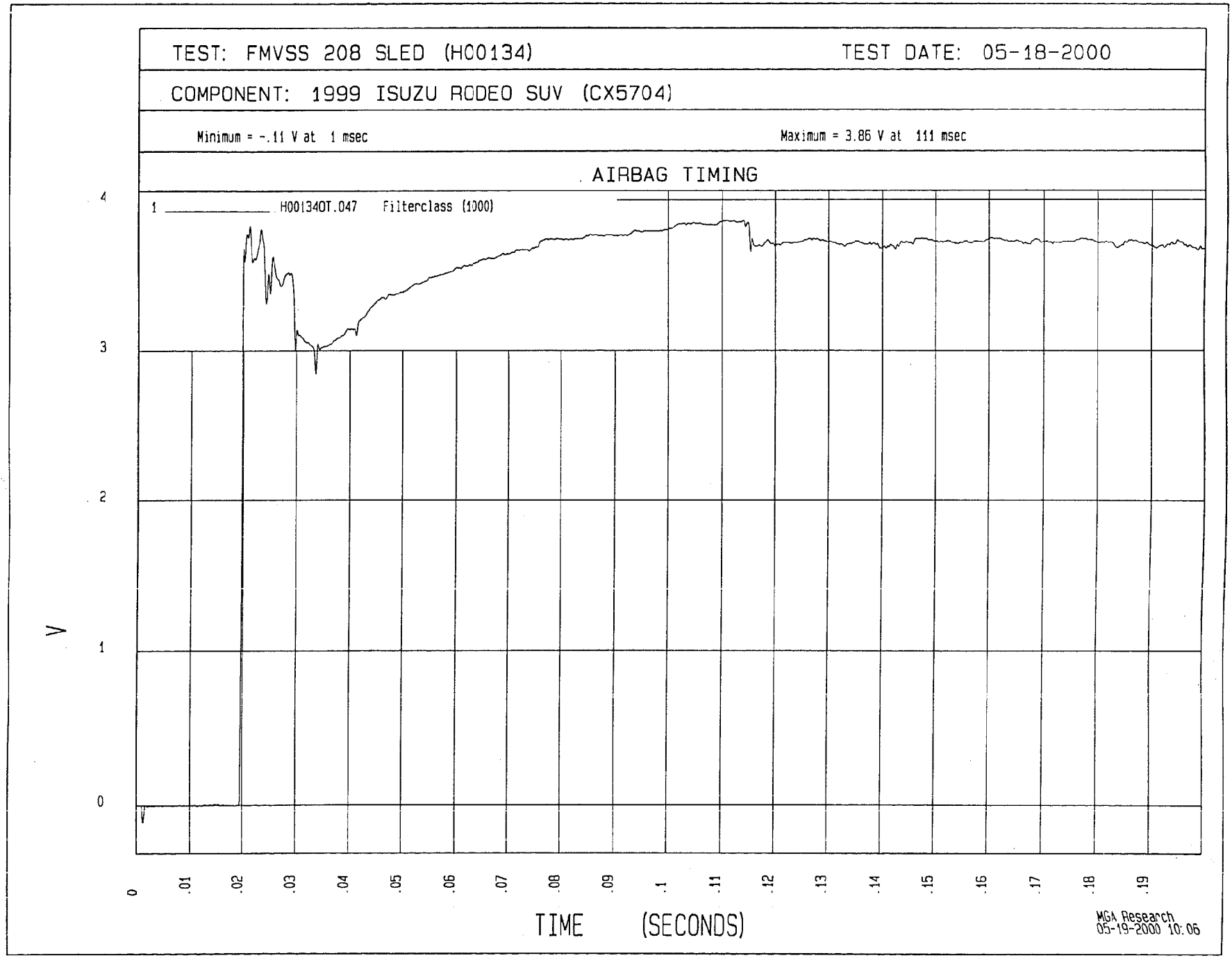
TABLE OF DATA PLOTS (Cont.)

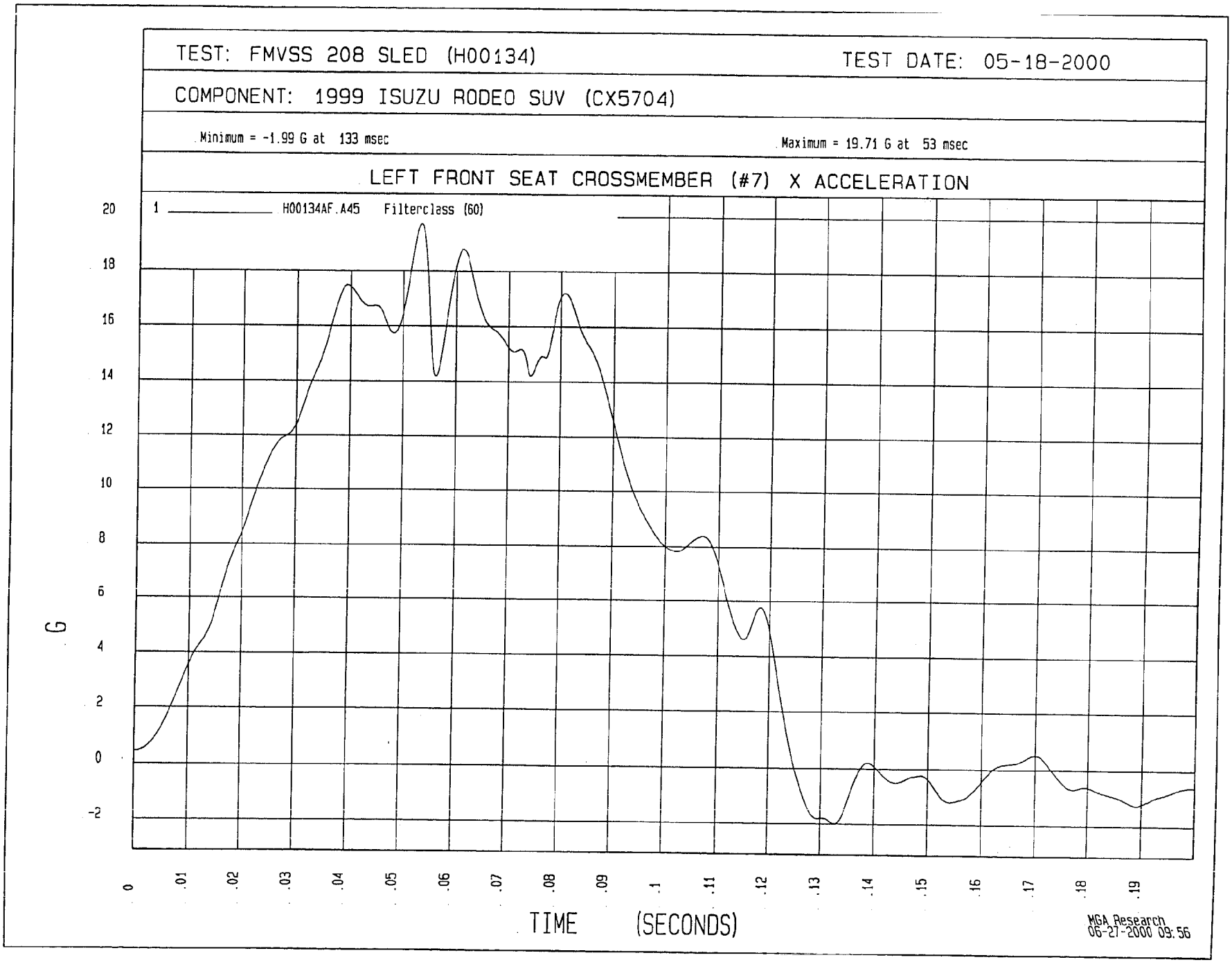

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.20 G at 178.7 msec
Maximum = 16.51 G at 66.6 msec
SLED X ACCELERATION
1 H00134AF.A01 Filterclass (60)
G
TIME (SECONDS)
MGA Research
05-19-2000 11:10

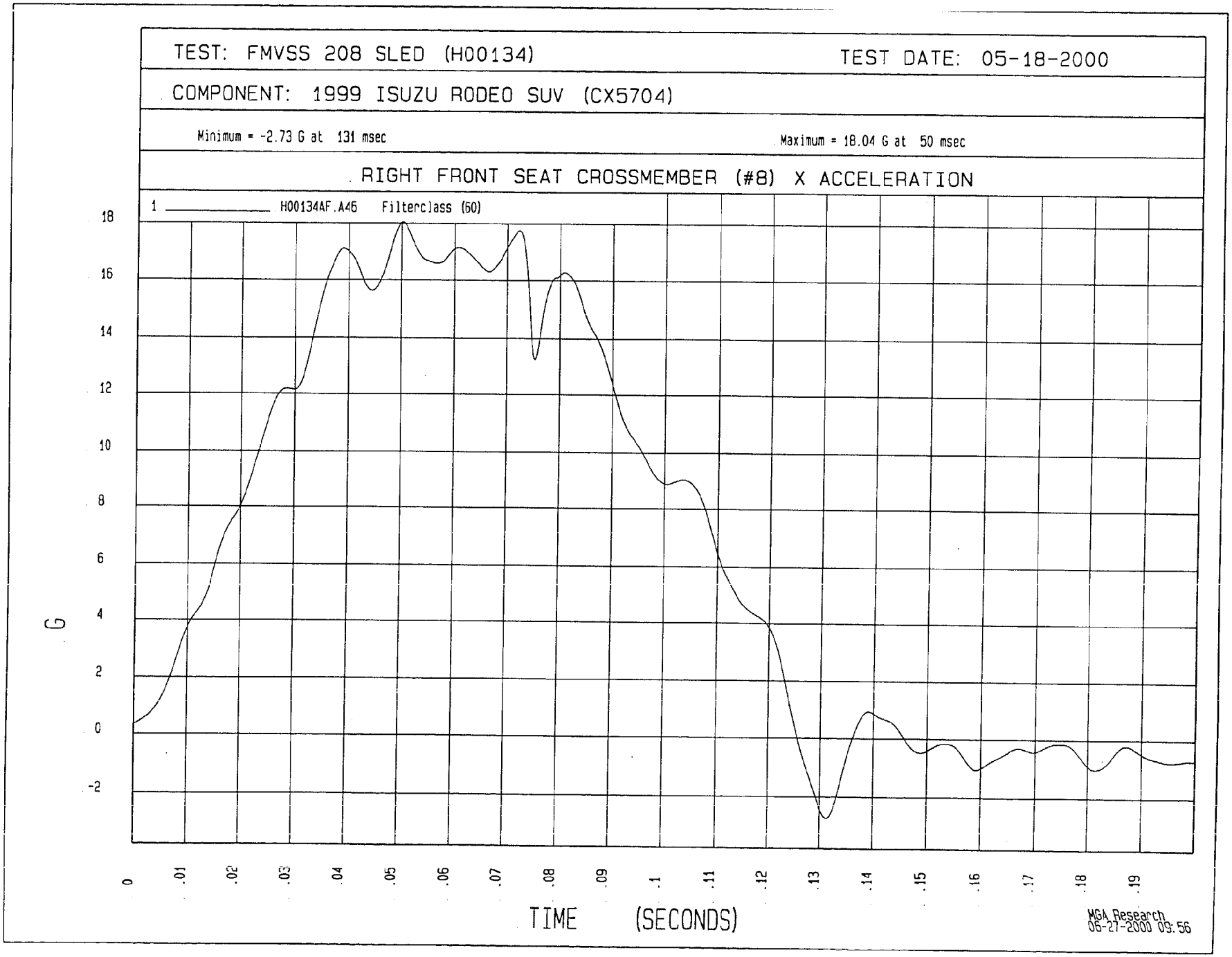

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = 0 MPH at -10 msec
Maximum = 29.11 MPH at 145 msec
SLED X VELOCITY
1 H00134AI.V01 Filterclass (180)
MPH
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
-.01
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME Seconds
MGA Research
05-02-2000 18:12

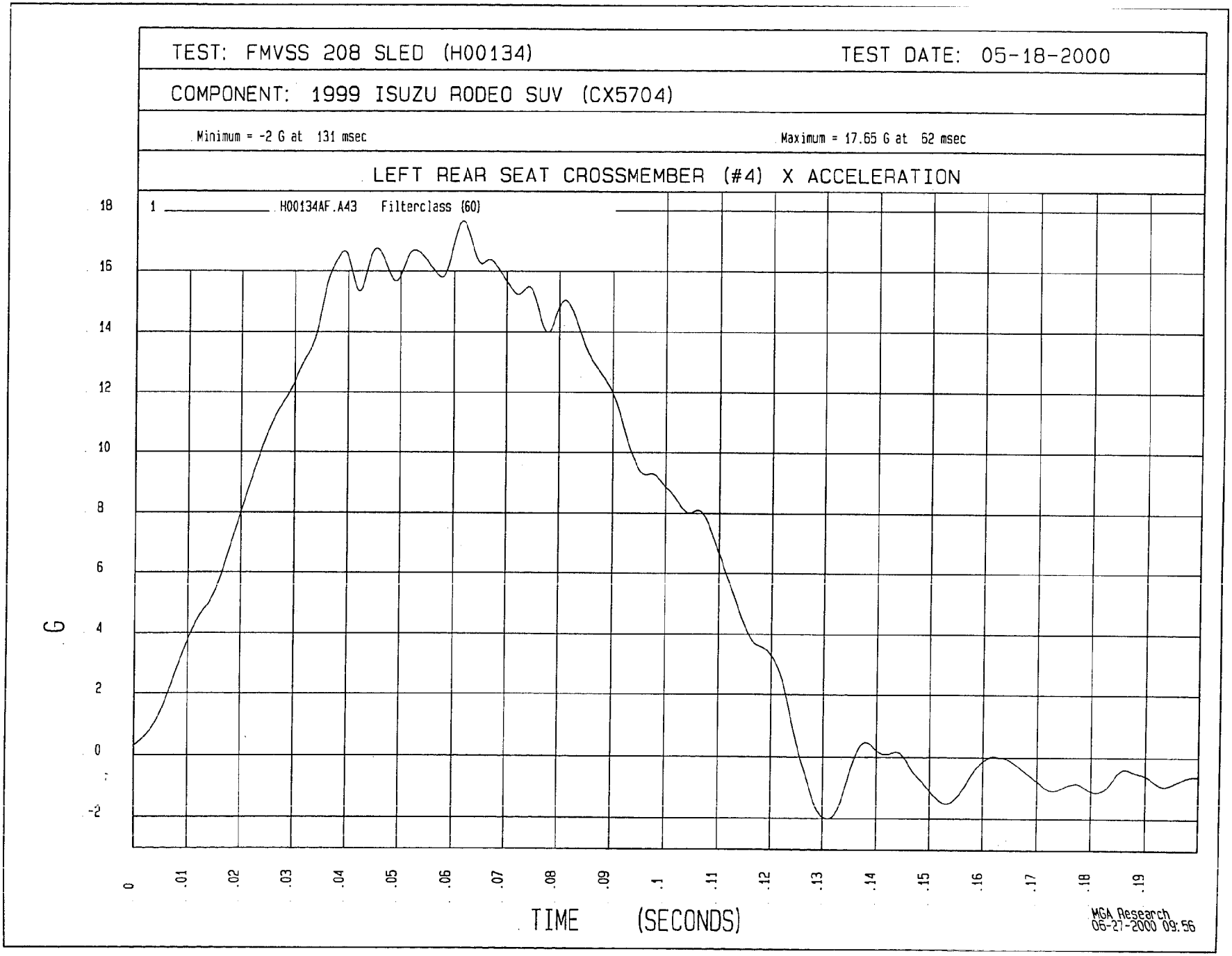

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = 0 IN at 0 msec
Maximum = 70.66 IN at 200 msec
SLED X DISPLACEMENT
1 H00134AI.D01 Filterclass (180)
IN
70
60
50
40
30
20
10
0
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME Seconds
MGA Research
06-02-2000 18:13

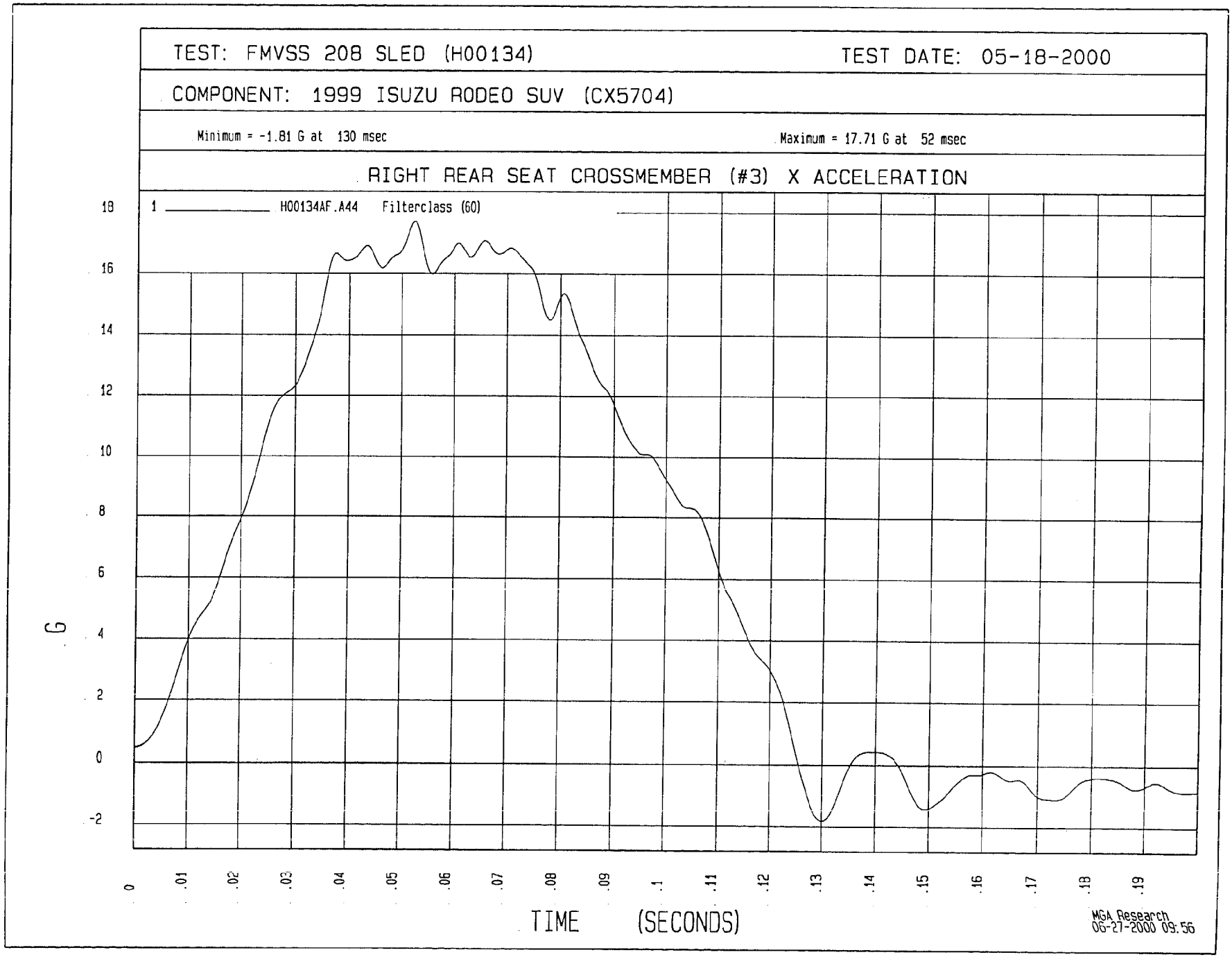

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -3.34E-02 VOLTS at 127 msec
Maximum = 4.74 VOLTS at 137 msec
1 METER TIMING
1 ——— H0013407.010 Filterclass (1000)
VOLTS
TIME (SECONDS)
MGA Research
05-19-2000 10:05

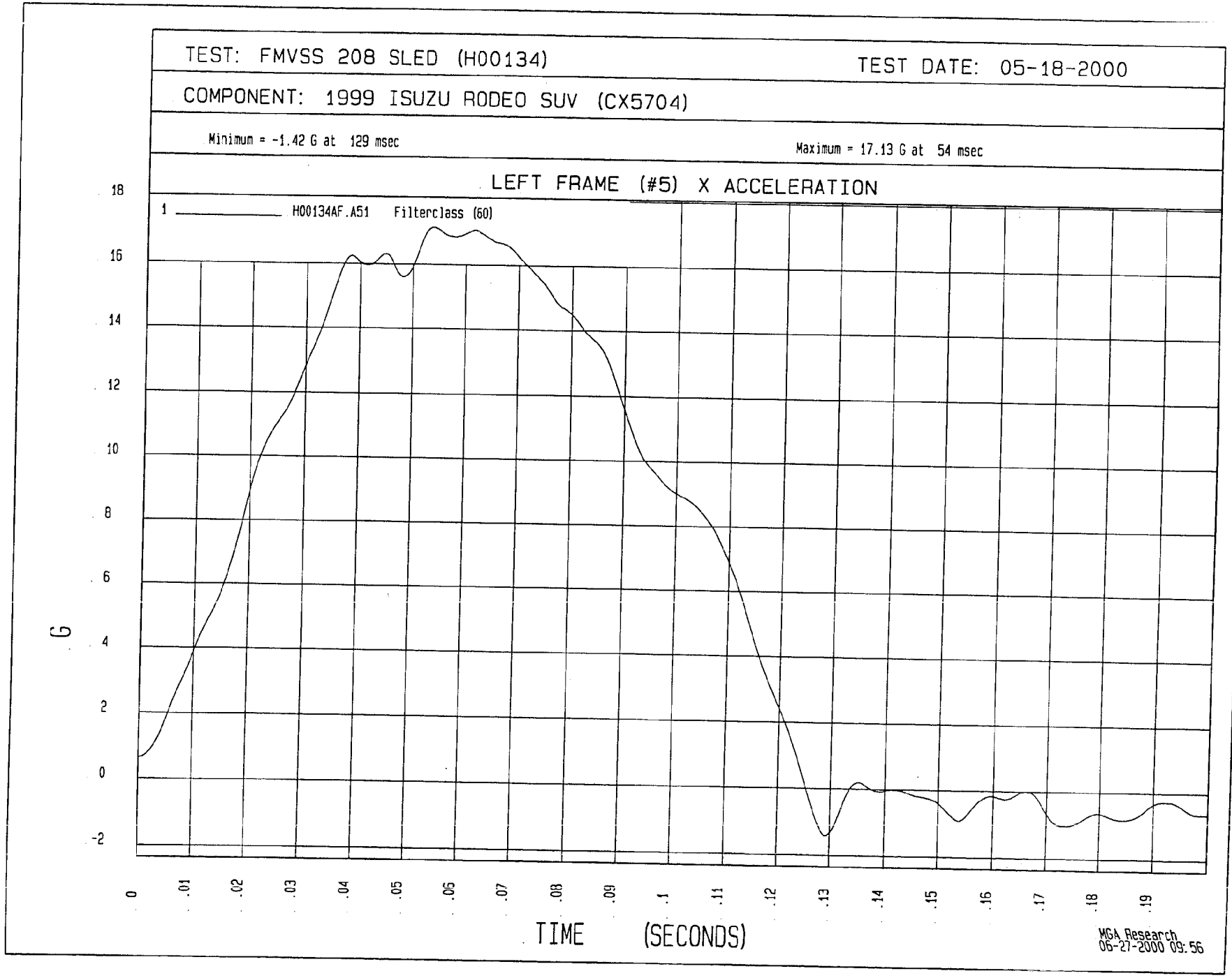

TEST: FMVSS 208 SLED (HC0134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -.11 V at 1 msec
Maximum = 3.86 V at 111 msec
AIRBAG TIMING
1 H00134OT.047 Filterclass (1000)
V
4
3
2
1
0
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06

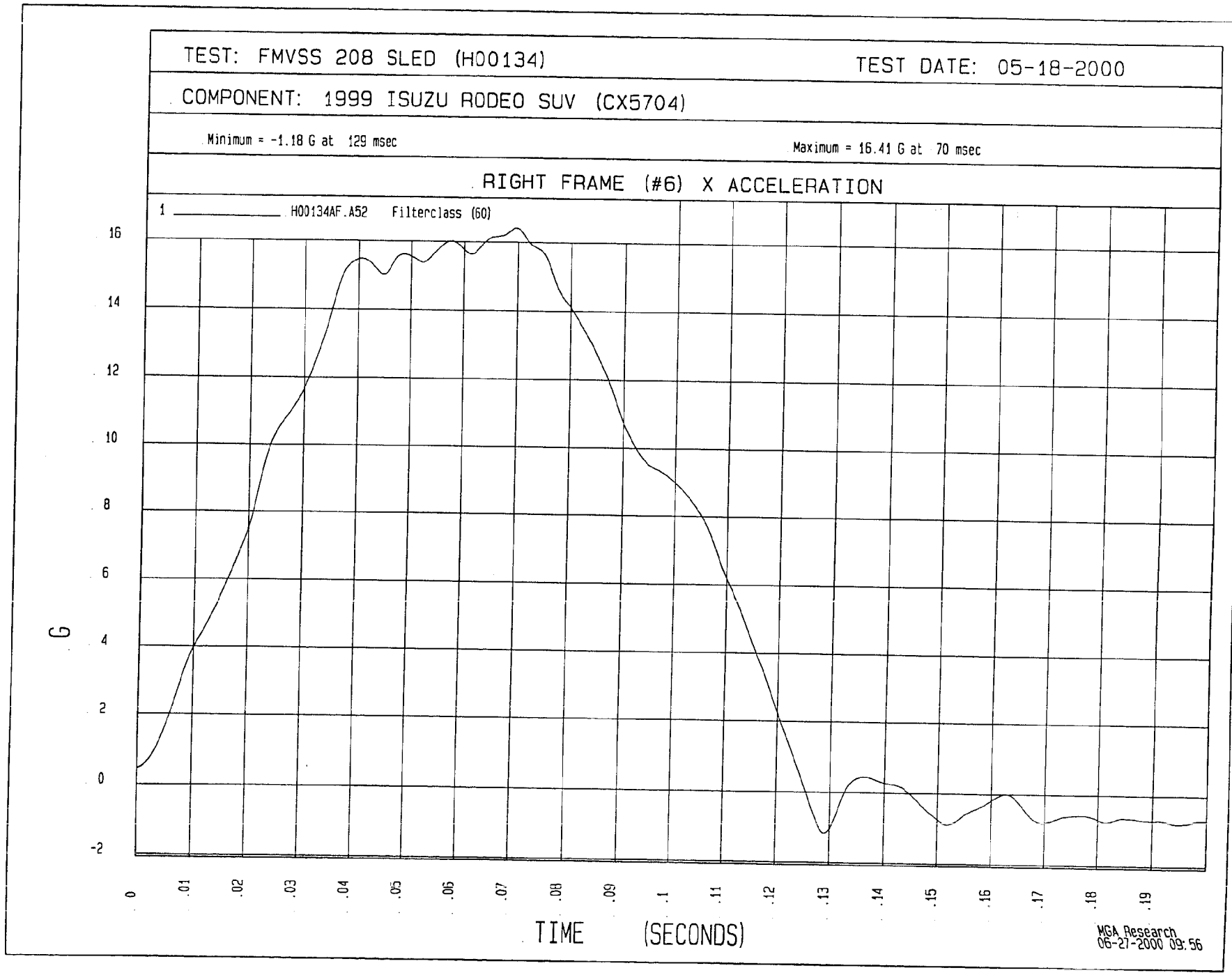

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.99 G at 133 msec
Maximum = 19.71 G at 53 msec
LEFT FRONT SEAT CROSSMEMBER (#7) X ACCELERATION
1 H00134AF.A45 Filterclass (60)
G
20
18
16
14
12
10
8
6
4
2
0
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56

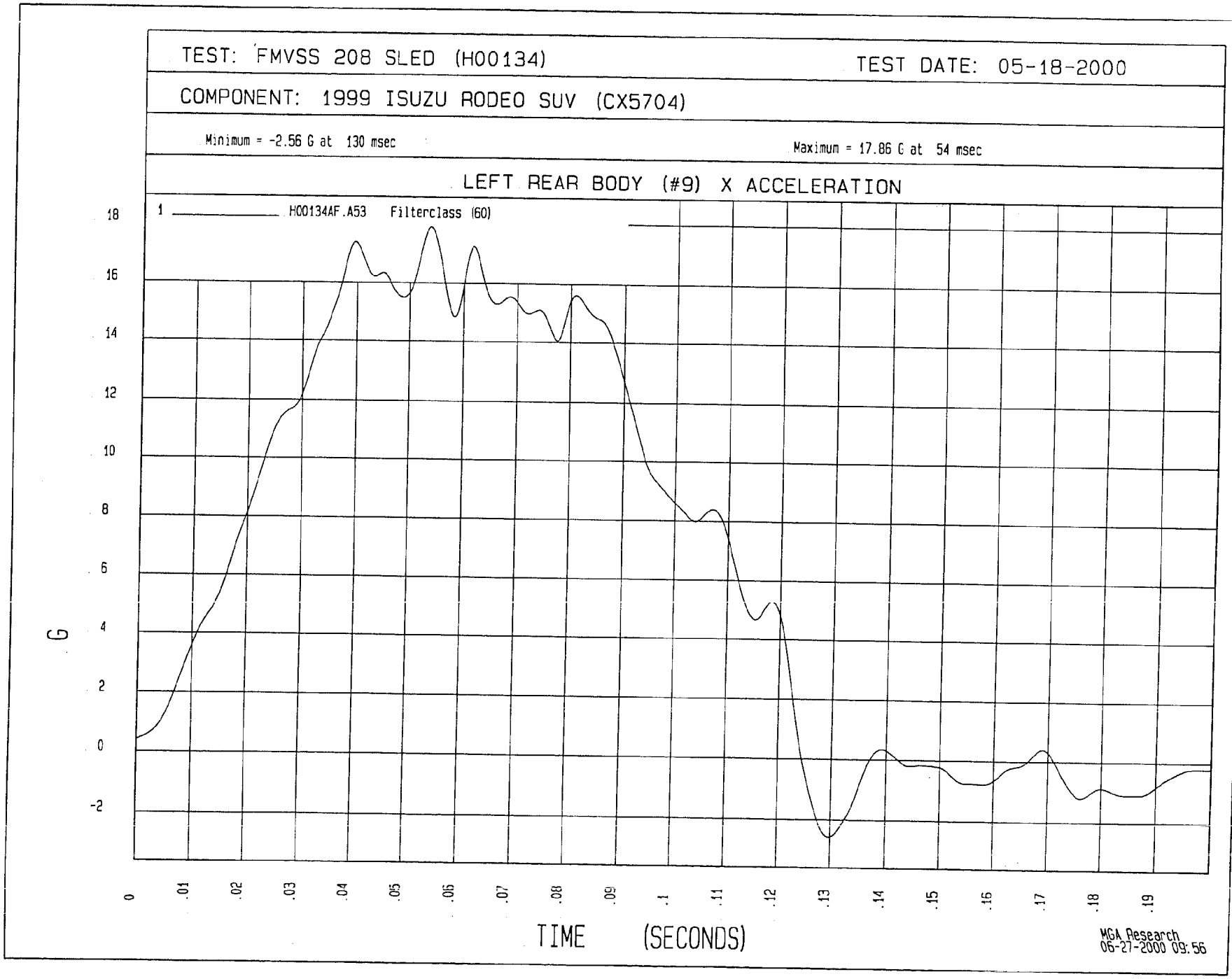

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2.73 G at 131 msec
Maximum = 18.04 G at 50 msec
RIGHT FRONT SEAT CROSSMEMBER (#8) X ACCELERATION
1 H00134AF.A46 Filterclass (60)
18
16
14
12
10
8
6
4
2
0
-2
G
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-27-2000 09:56

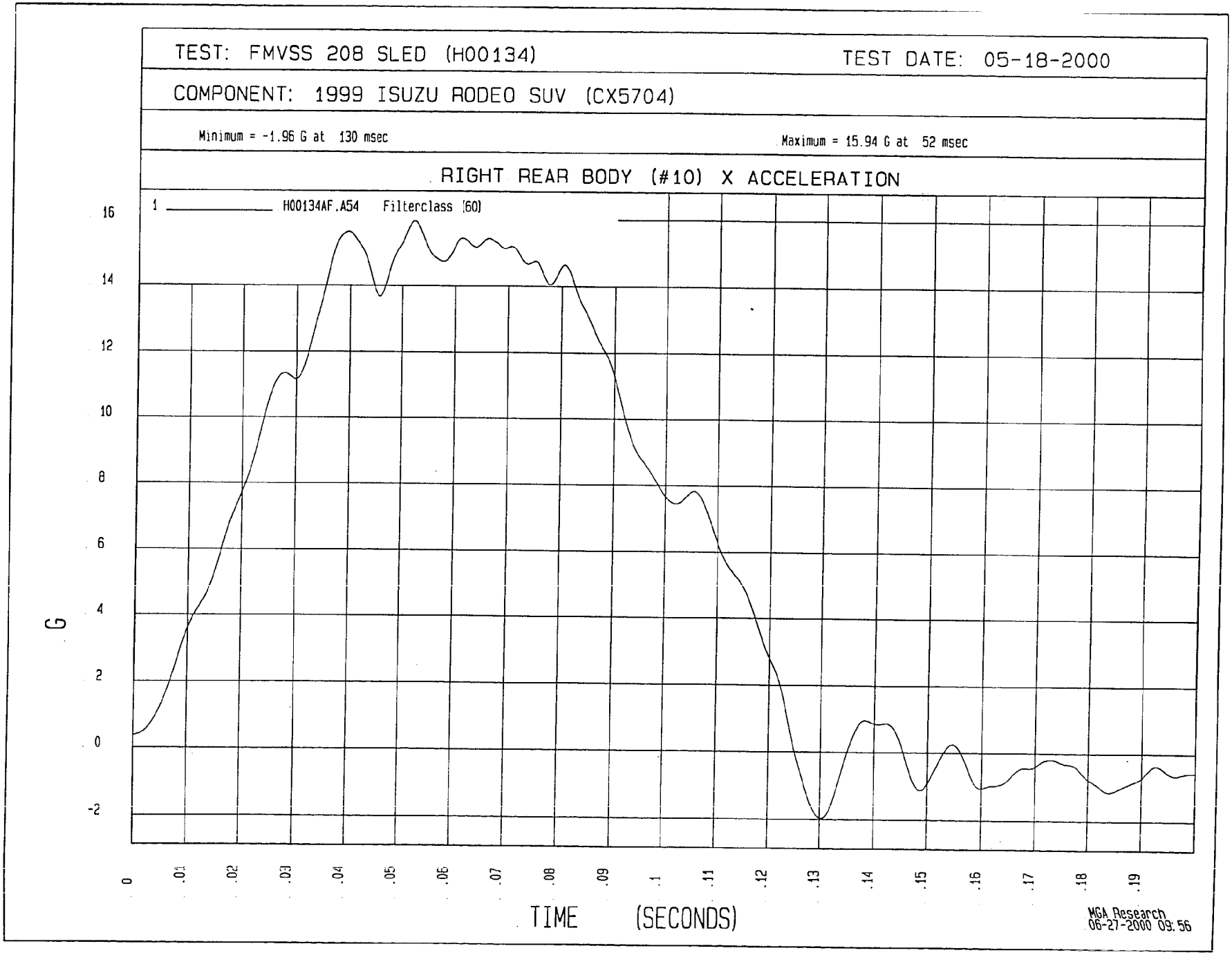

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2 G at 131 msec
Maximum = 17.65 G at 62 msec
LEFT REAR SEAT CROSSMEMBER (#4) X ACCELERATION
1 H00134AF.A43 Filterclass (60)
18
16
14
12
10
8
6
4
2
0
-2
G
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.81 G at 130 msec
Maximum = 17.71 G at 52 msec
RIGHT REAR SEAT CROSSMEMBER (#3) X ACCELERATION
1 H00134AF.A44 Filterclass (60)
G
18
16
14
12
10
8
6
4
2
0
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.42 G at 129 msec
Maximum = 17.13 G at 54 msec
LEFT FRAME (#5) X ACCELERATION
1 H00134AF.A51 Filterclass (60)
G
18
16
14
12
10
8
6
4
2
0
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56

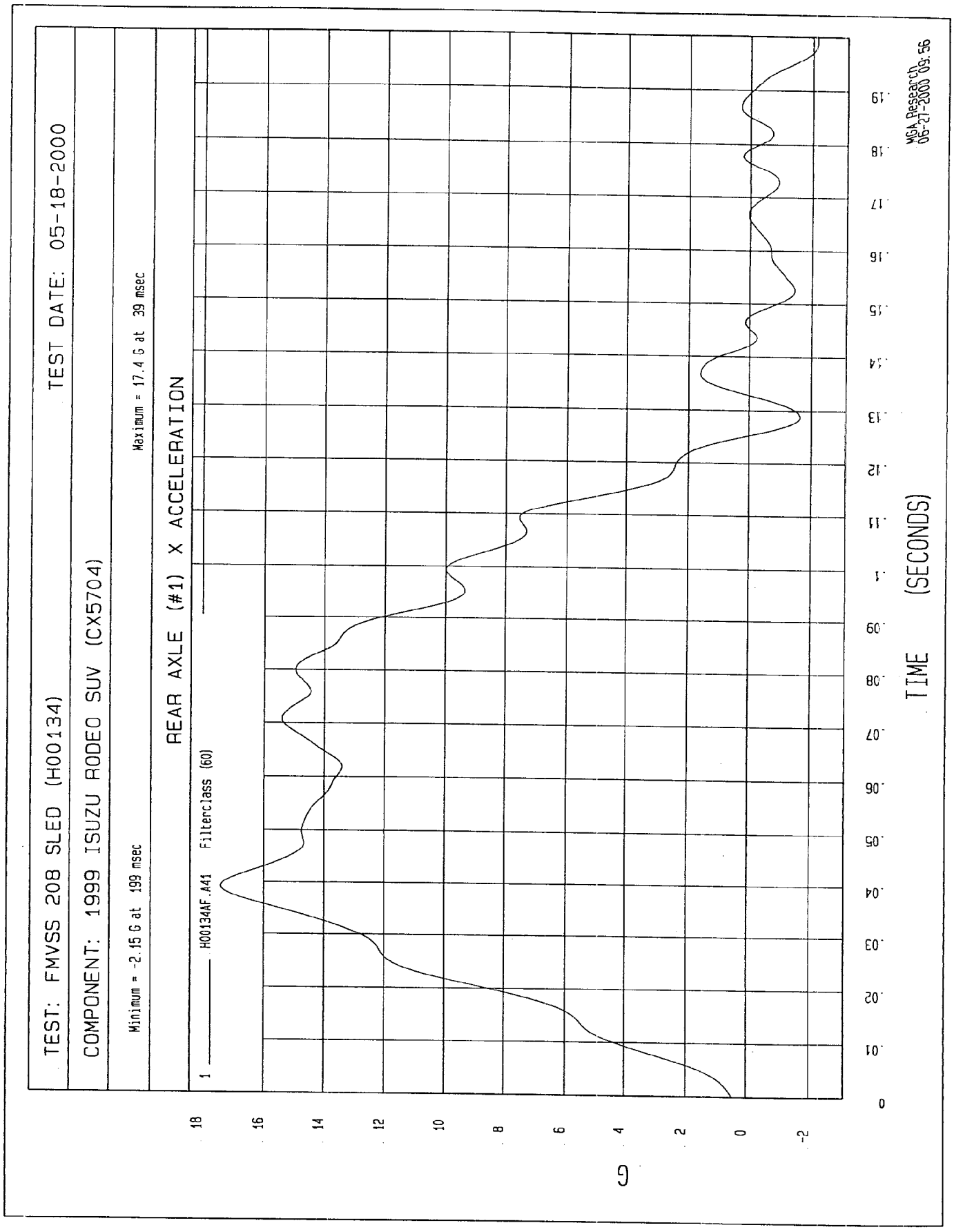

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.18 G at 129 msec
Maximum = 16.41 G at 70 msec
RIGHT FRAME (#6) X ACCELERATION
1 H00134AF.A52 Filterclass (60)
G
16
14
12
10
8
6
4
2
0
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56

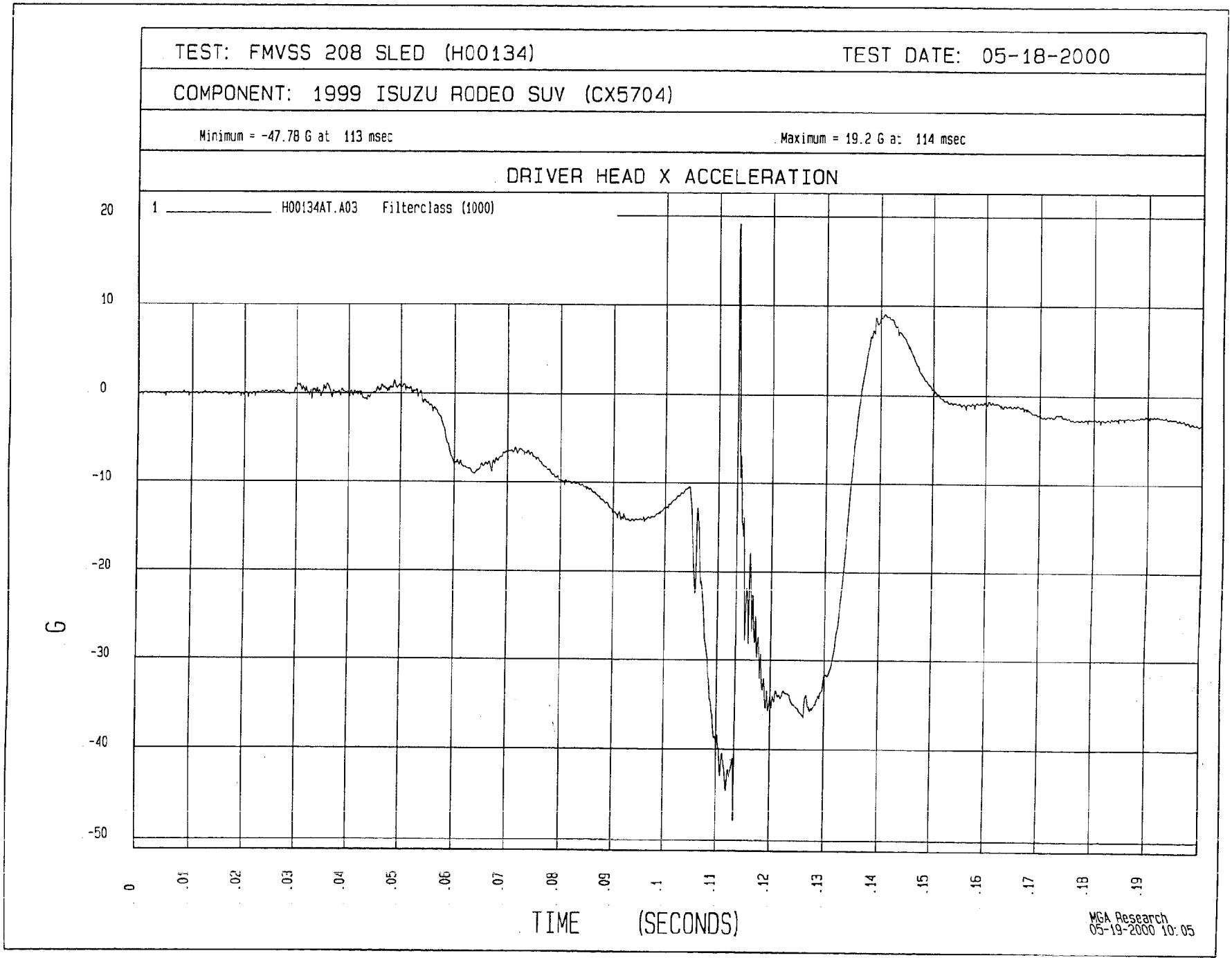

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2.56 G at 130 msec
Maximum = 17.86 G at 54 msec
LEFT REAR BODY (#9) X ACCELERATION
1 H00134AF.A53 Filterclass (60)
G
18
16
14
12
10
8
6
4
2
0
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56

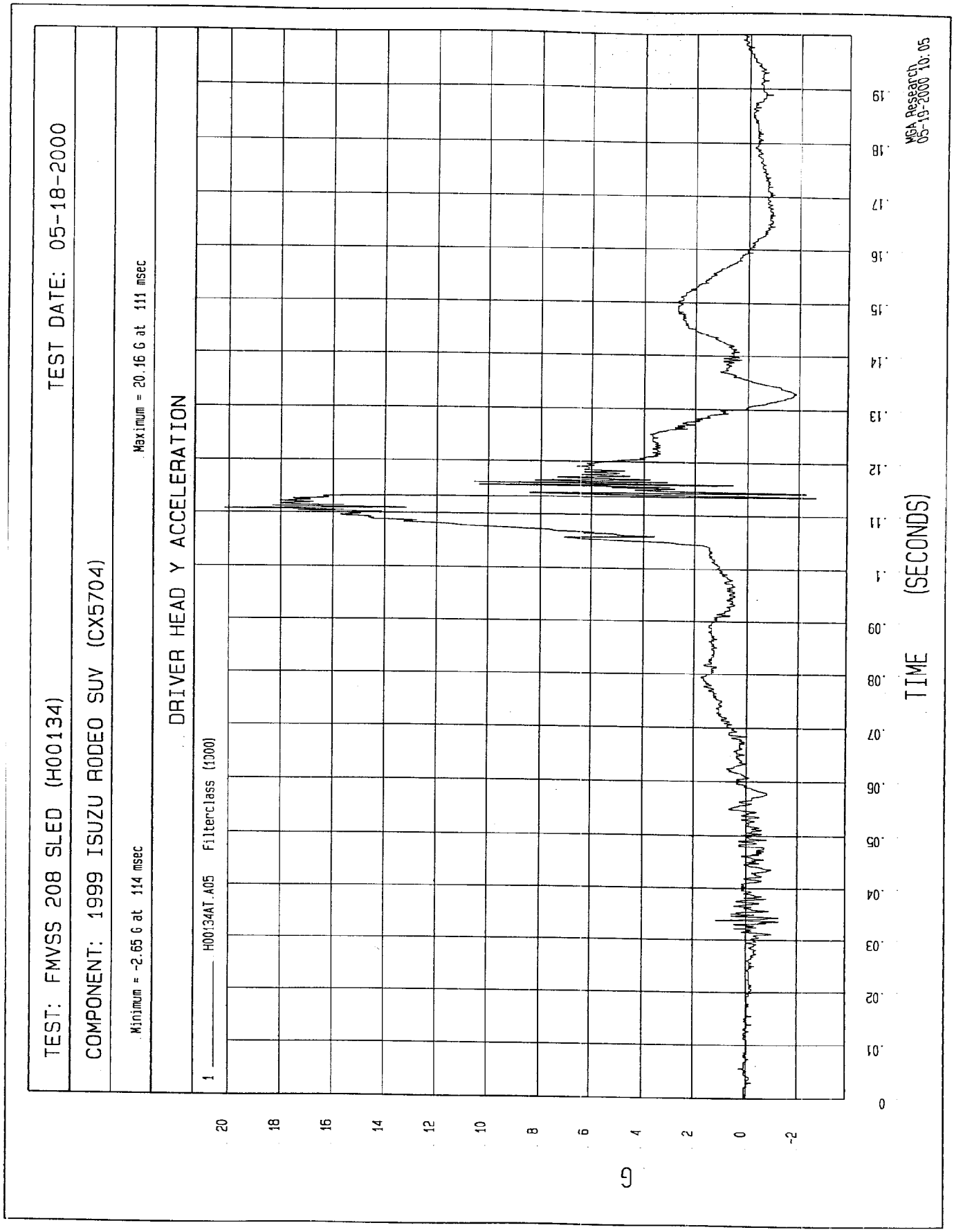

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.96 G at 130 msec
Maximum = 15.94 G at 52 msec
RIGHT REAR BODY (#10) X ACCELERATION
1 H00134AF.A54 Filterclass [60]
16
14
12
10
8
6
4
2
0
-2
G
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
06-27-2000 09:56

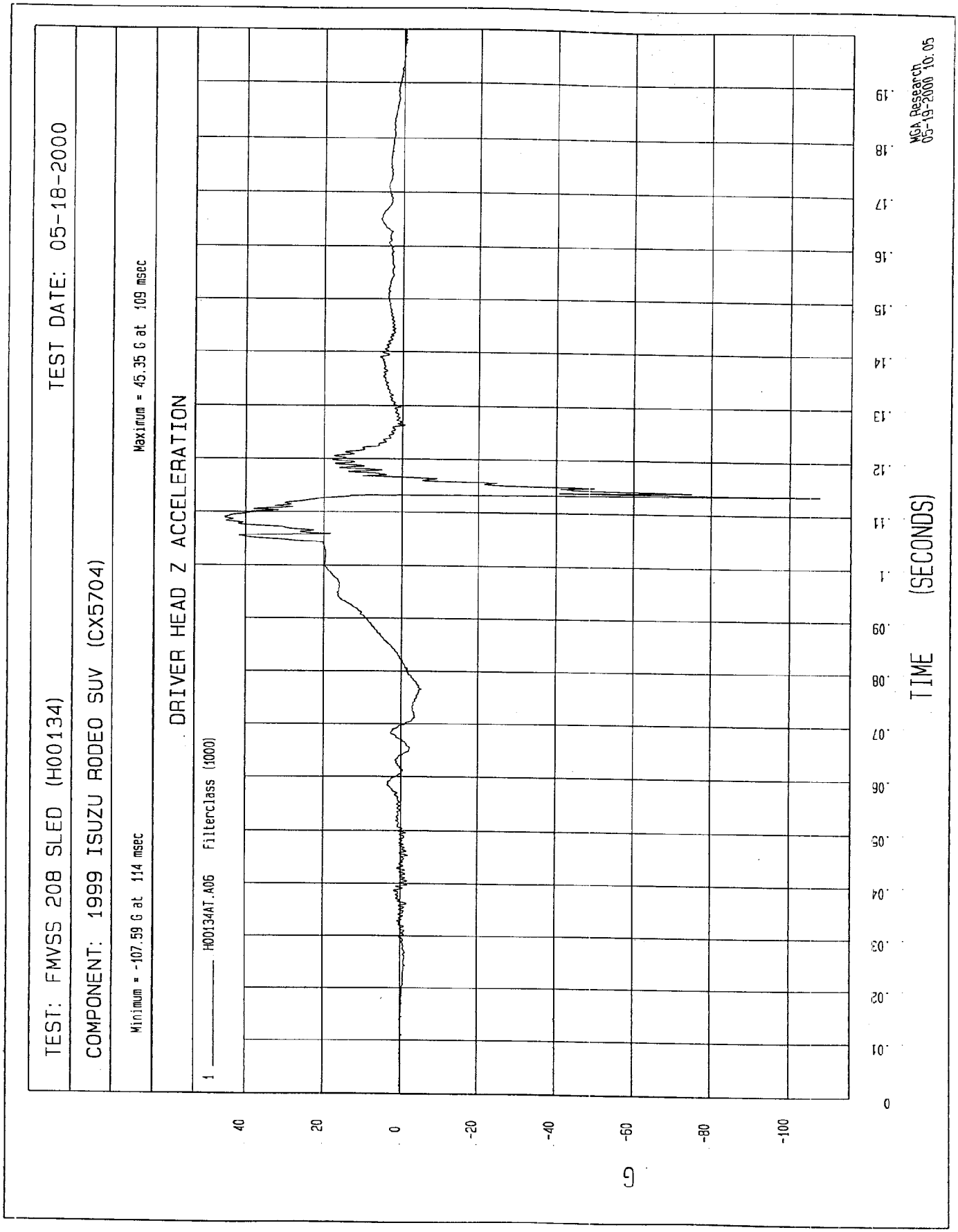
TOP OF ENGINE X ACCELERATION VS. TIME

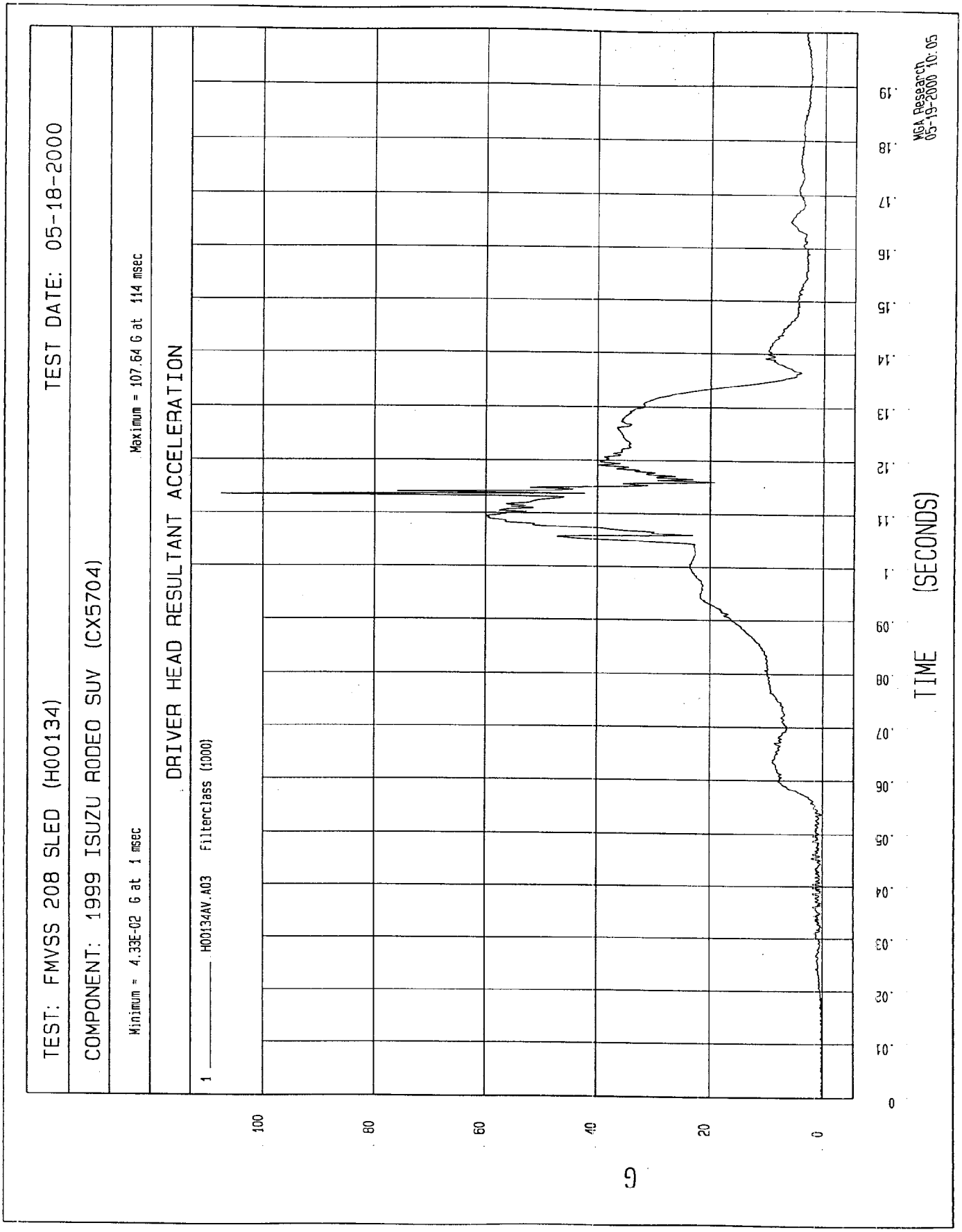
NO VALID DATA COLLECTED

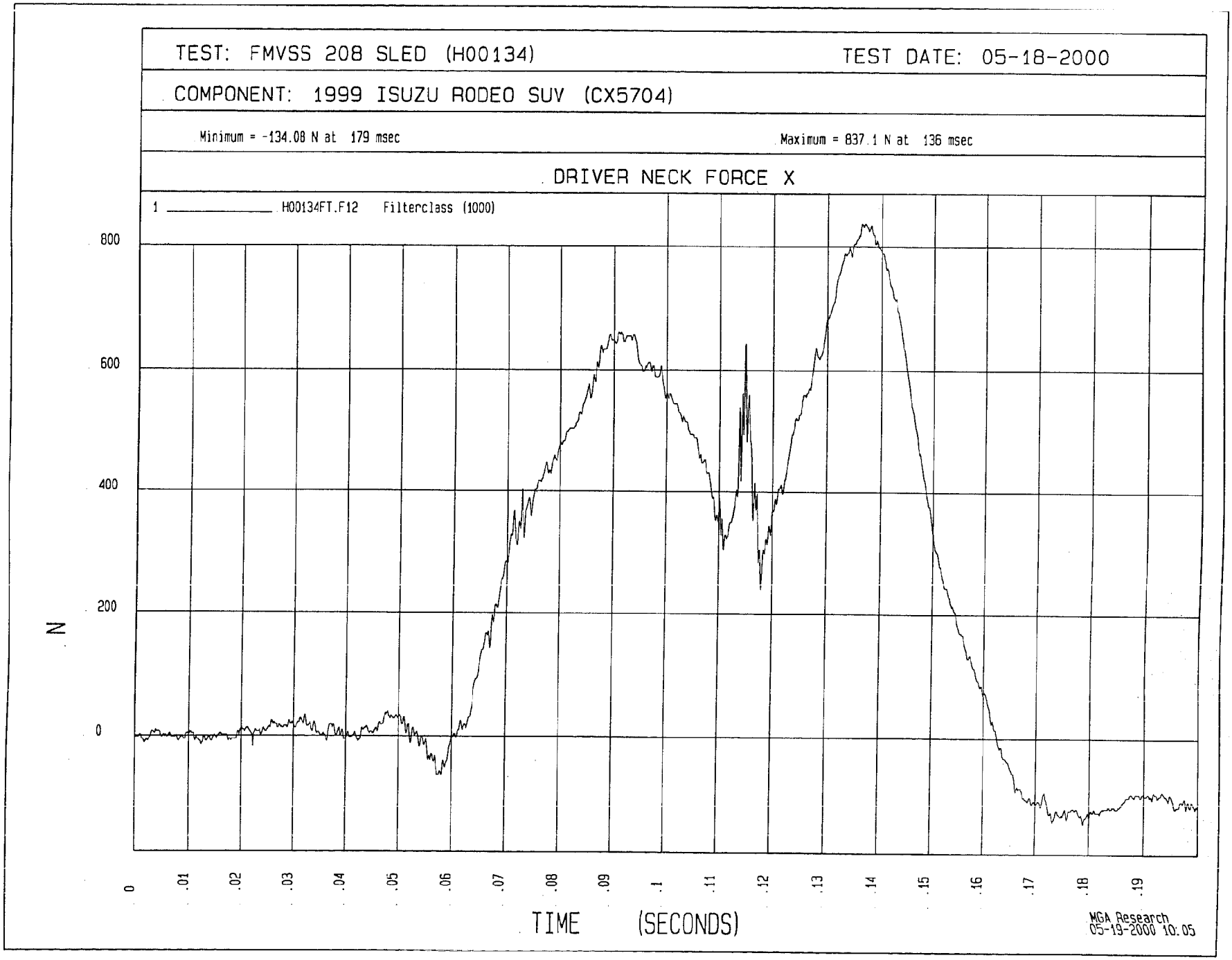

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2.15 G at 199 msec
Maximum = 17.4 G at 39 msec
REAR AXLE (#1) X ACCELERATION
1 H00134AF.A41 Filterclass (60)
G
TIME (SECONDS)
MGA Research
06-27-2000 09:56

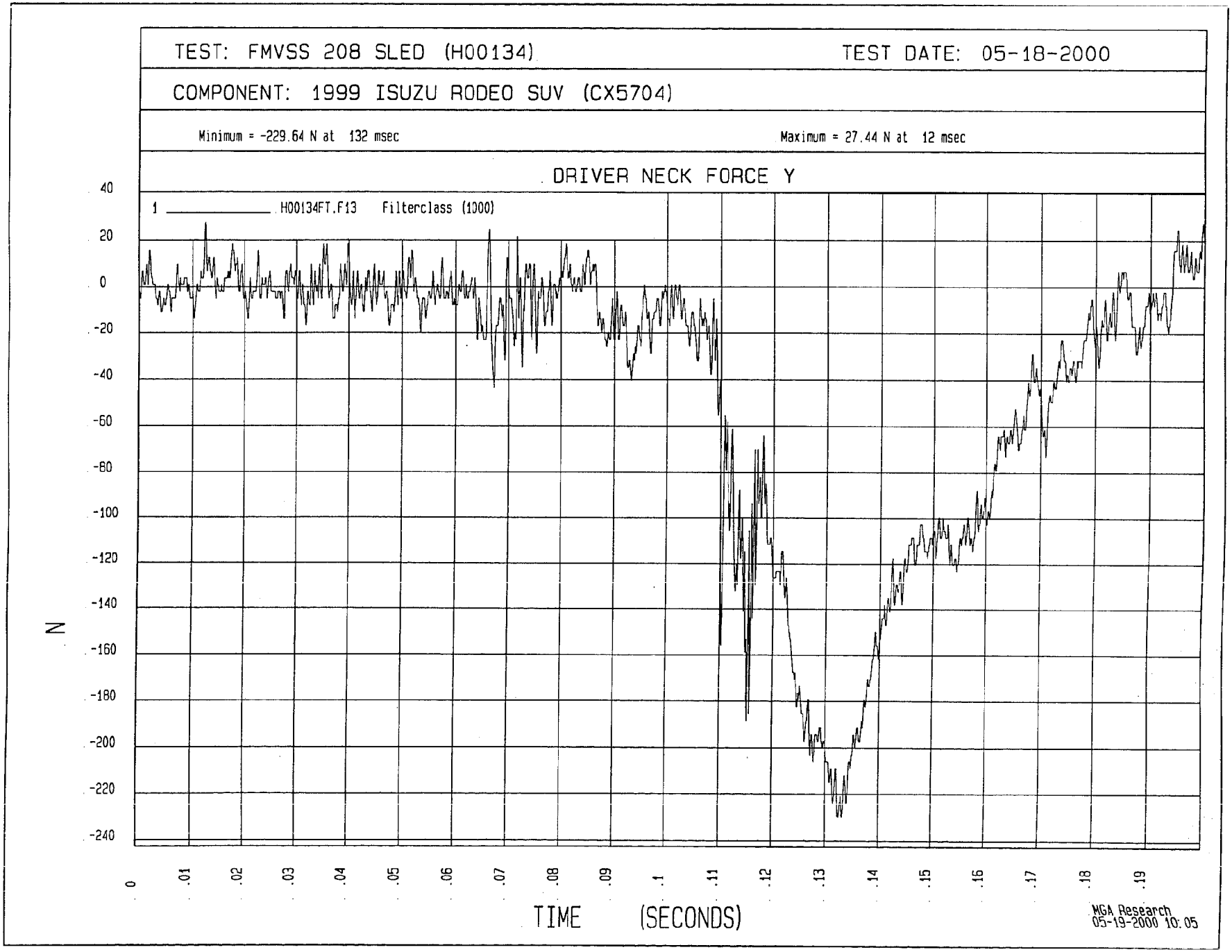

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -47.78 G at 113 msec
Maximum = 19.2 G at 114 msec
DRIVER HEAD X ACCELERATION
1 H00134AT.A03 Filterclass (1000)
20
10
0
-10
-20
-30
-40
-50
G
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:05

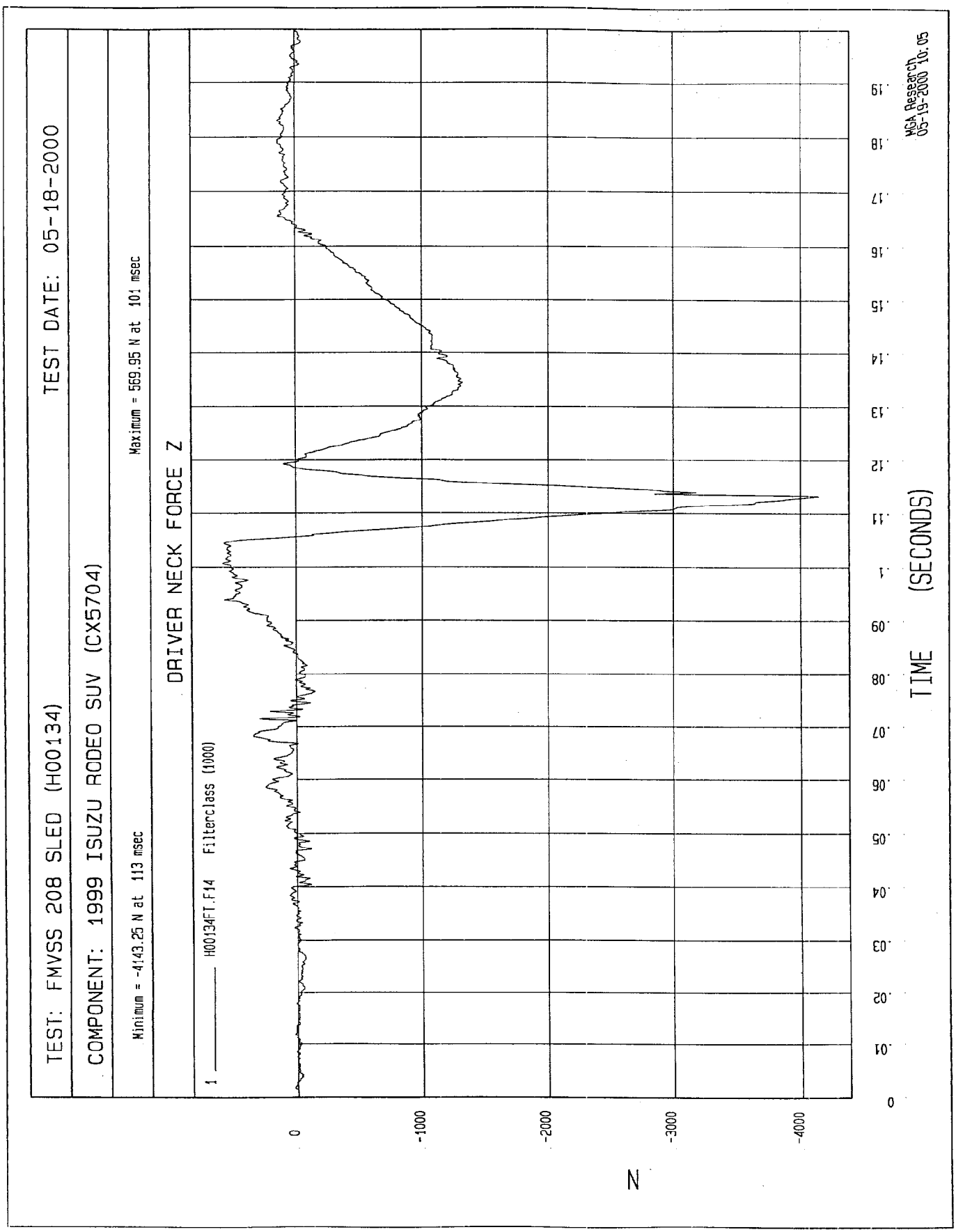

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2.65 G at 114 msec
Maximum = 20.16 G at 111 msec
DRIVER HEAD Y ACCELERATION
1 _____ H00134AT.A05 Filterclass (1000)
G
TIME (SECONDS)
MGA Research
05-19-2000 10:05

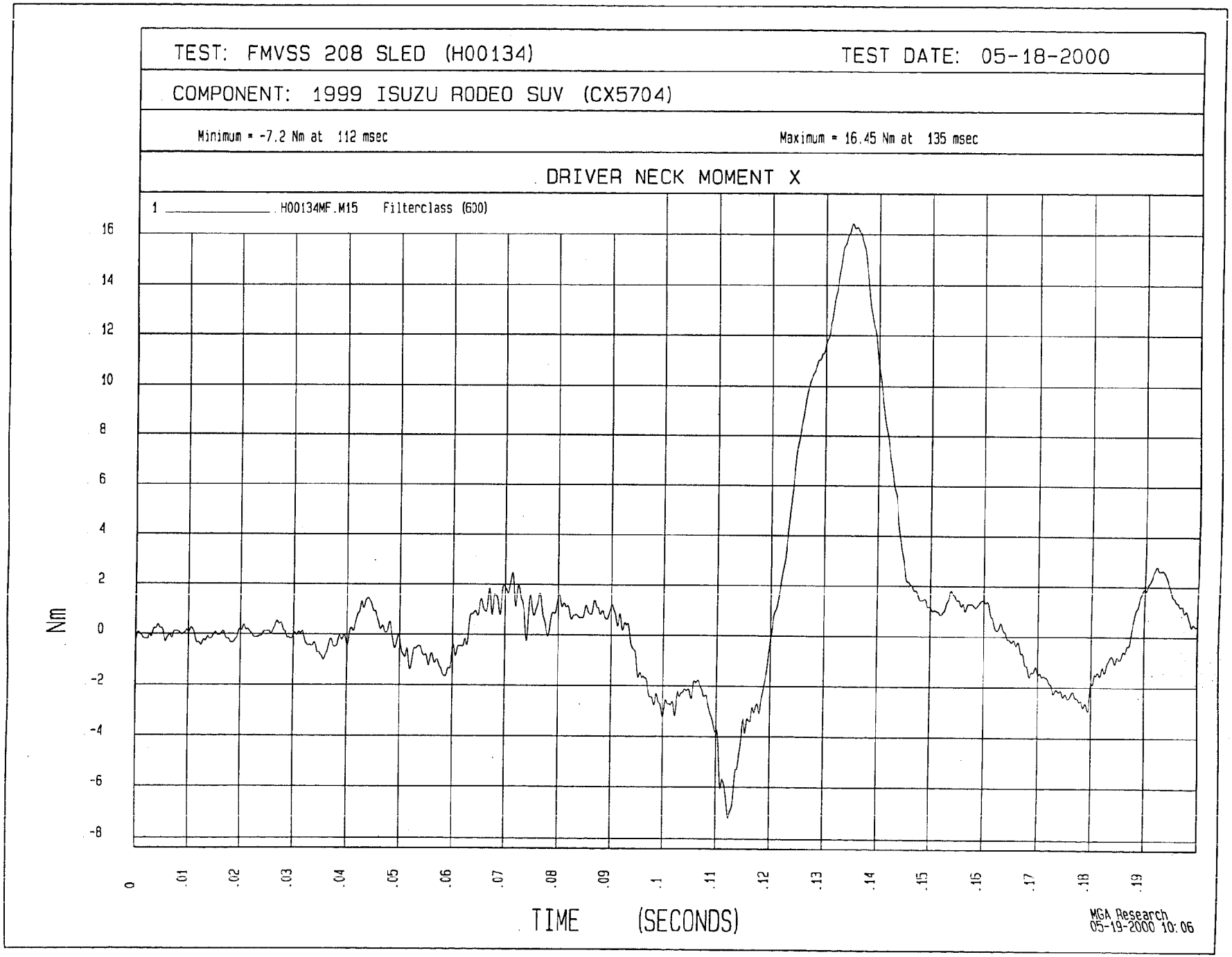

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -107.59 G at 114 msec
Maximum = 45.35 G at 109 msec
DRIVER HEAD Z ACCELERATION
1 H00134AT.A06 Filterclass (1000)
G
40
20
0
-20
-40
-60
-80
-100
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:05

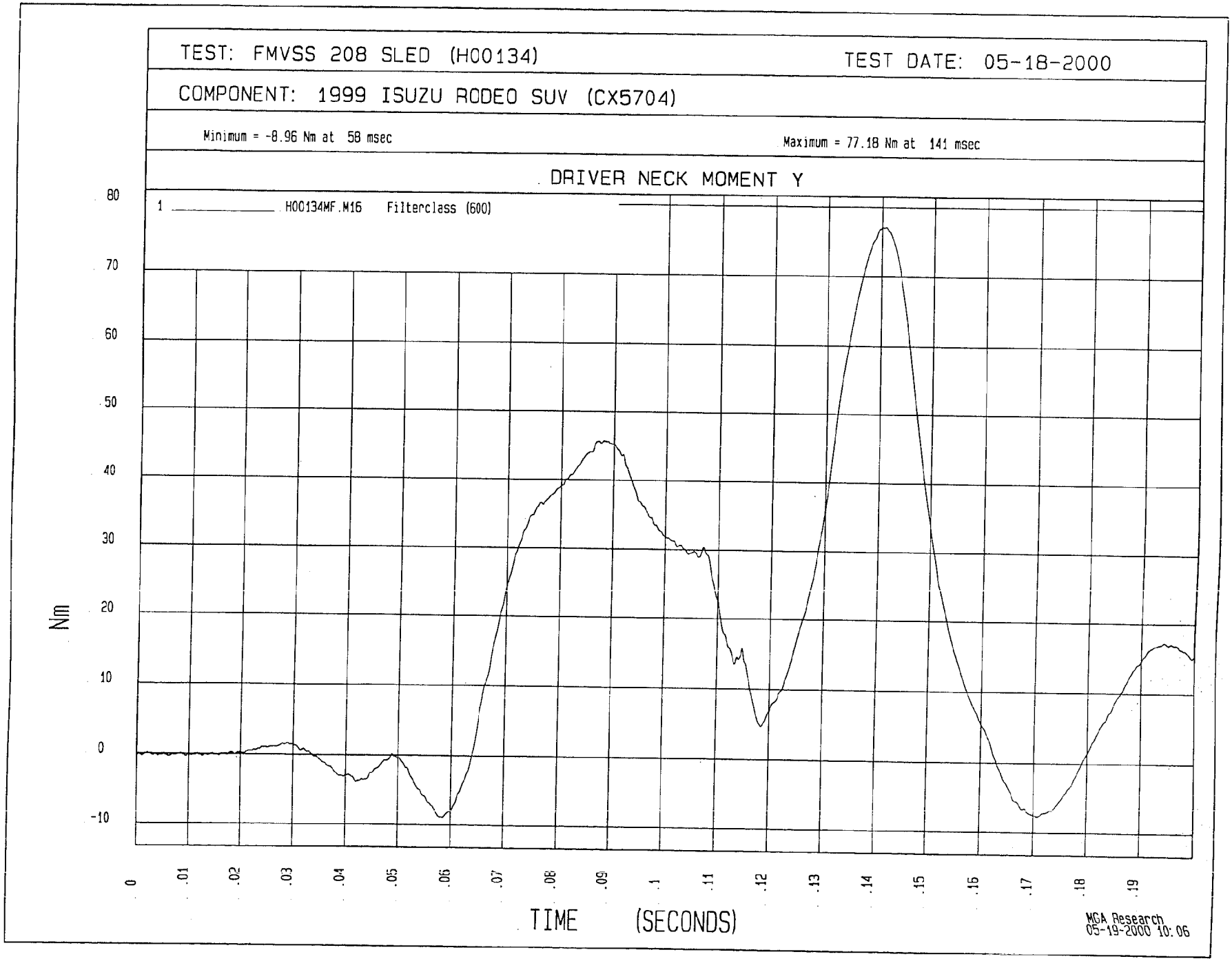

TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = 4.33E-02 G at 1 msec
Maximum = 107.64 G at 114 msec
DRIVER HEAD RESULTANT ACCELERATION
1 H00134AV.A03 Filterclass (1000)
G
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -134.08 N at 179 msec
Maximum = 837.1 N at 136 msec
DRIVER NECK FORCE X
1 H00134FT.F12 Filterclass (1000)
800
600
400
200
0
N
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -229.64 N at 132 msec
Maximum = 27.44 N at 12 msec
DRIVER NECK FORCE Y
1 H00134FT.F13 Filterclass (1000)
40
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
-200
-220
-240
N
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -4143.25 N at 113 msec
Maximum = 569.95 N at 101 msec
DRIVER NECK FORCE Z
1 _____ H00134FT.F14 Filterclass (1000)
MGA Research
05-19-2000 10:05
0
-1000
-2000
-3000
-4000
N
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -7.2 Nm at 112 msec
Maximum = 16.45 Nm at 135 msec
DRIVER NECK MOMENT X
1 H00134MF.M15 Filterclass (600)
Nm
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -8.96 Nm at 58 msec
Maximum = 77.18 Nm at 141 msec
DRIVER NECK MOMENT Y
1 H00134MF.M16 Filterclass (600)
Nm
80
70
60
50
40
30
20
10
0
-10
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
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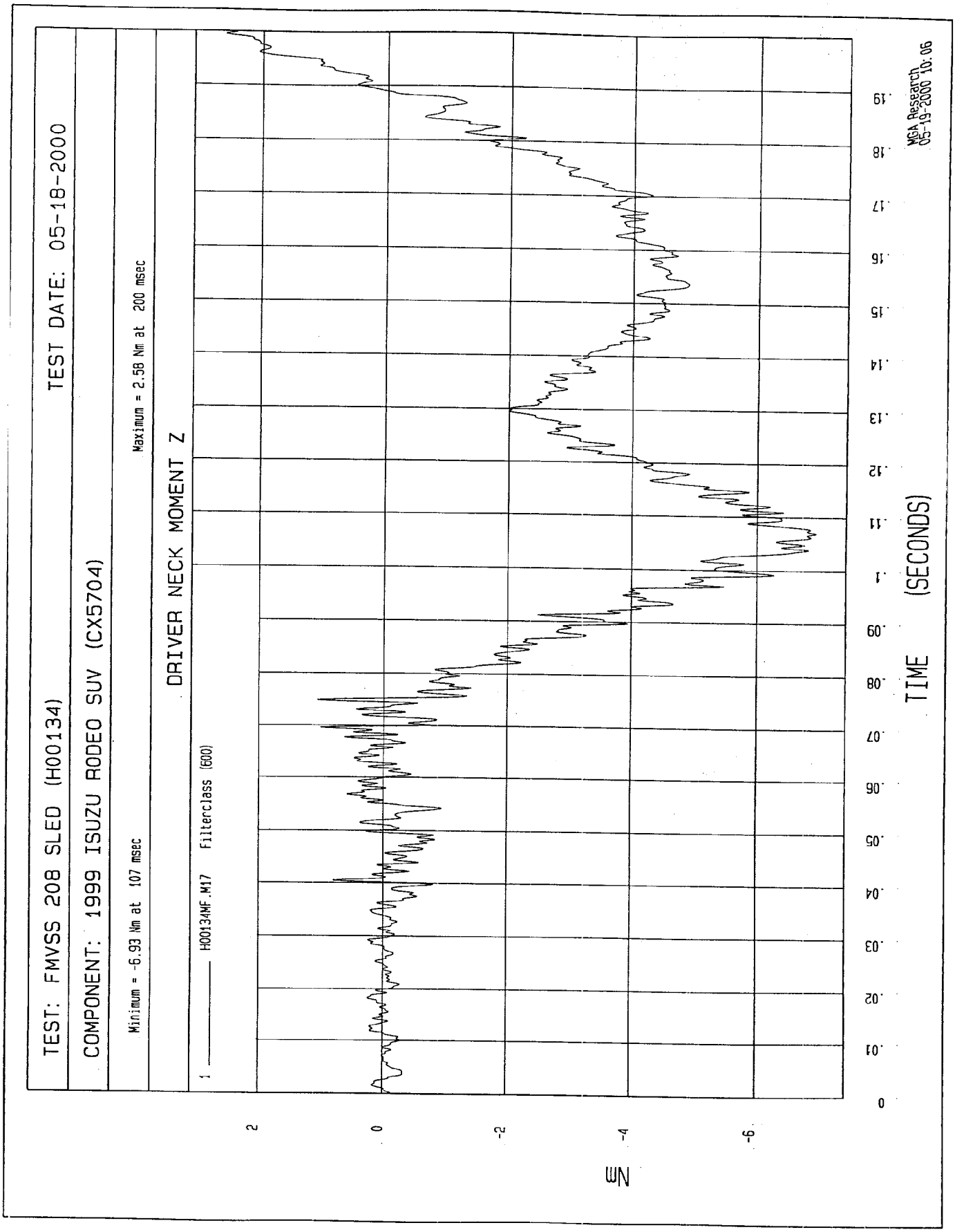
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -6.93 Nm at 107 msec
Maximum = 2.58 Nm at 200 msec
DRIVER NECK MOMENT Z
1 H0013AMF.M17 Filterclass (600)
NM
2
0
-2
-4
-6
0
.01
.02
.03
.04
.05
.06
.07
.08
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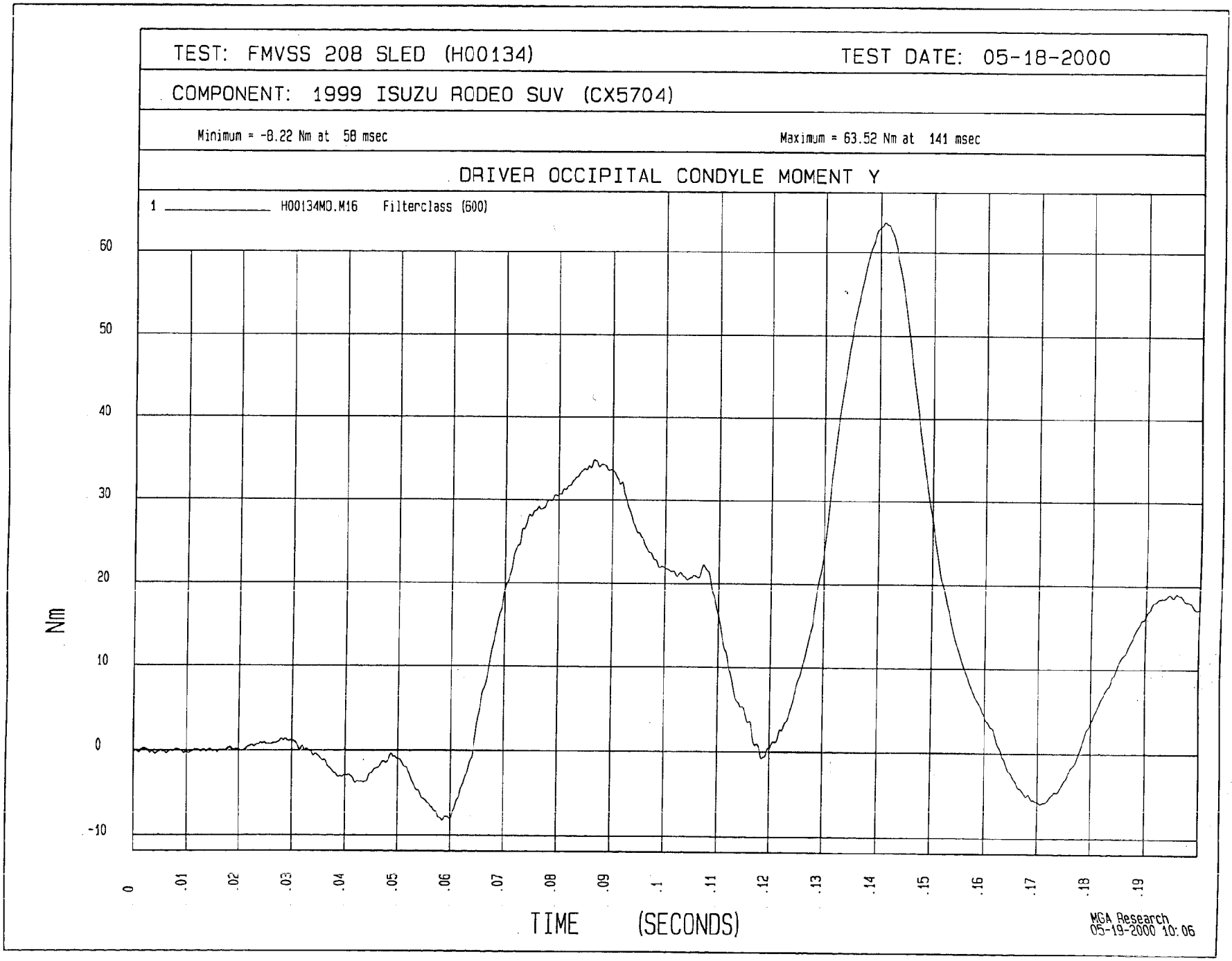
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -8.22 Nm at 58 msec
Maximum = 63.52 Nm at 141 msec
DRIVER OCCIPITAL CONDYLE MOMENT Y
1 H00134MO.M16 Filterclass (600)
Nm
60
50
40
30
20
10
0
-10
0
.01
.02
.03
.04
.05
.06
.07
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.09
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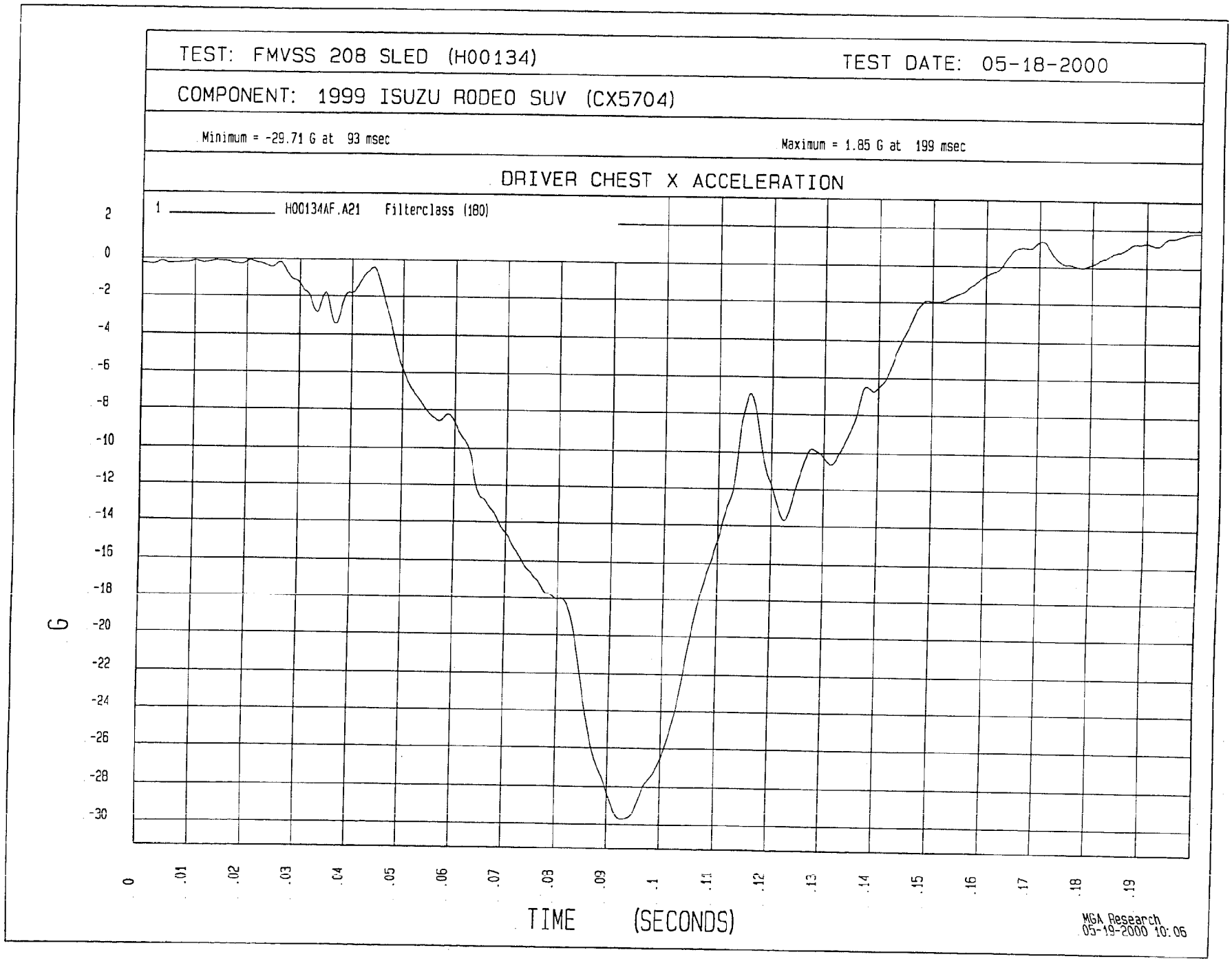
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -29.71 G at 93 msec
Maximum = 1.85 G at 199 msec
DRIVER CHEST X ACCELERATION
1 H00134AF.A21 Filterclass (180)
G
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
-28
-30
0
.01
.02
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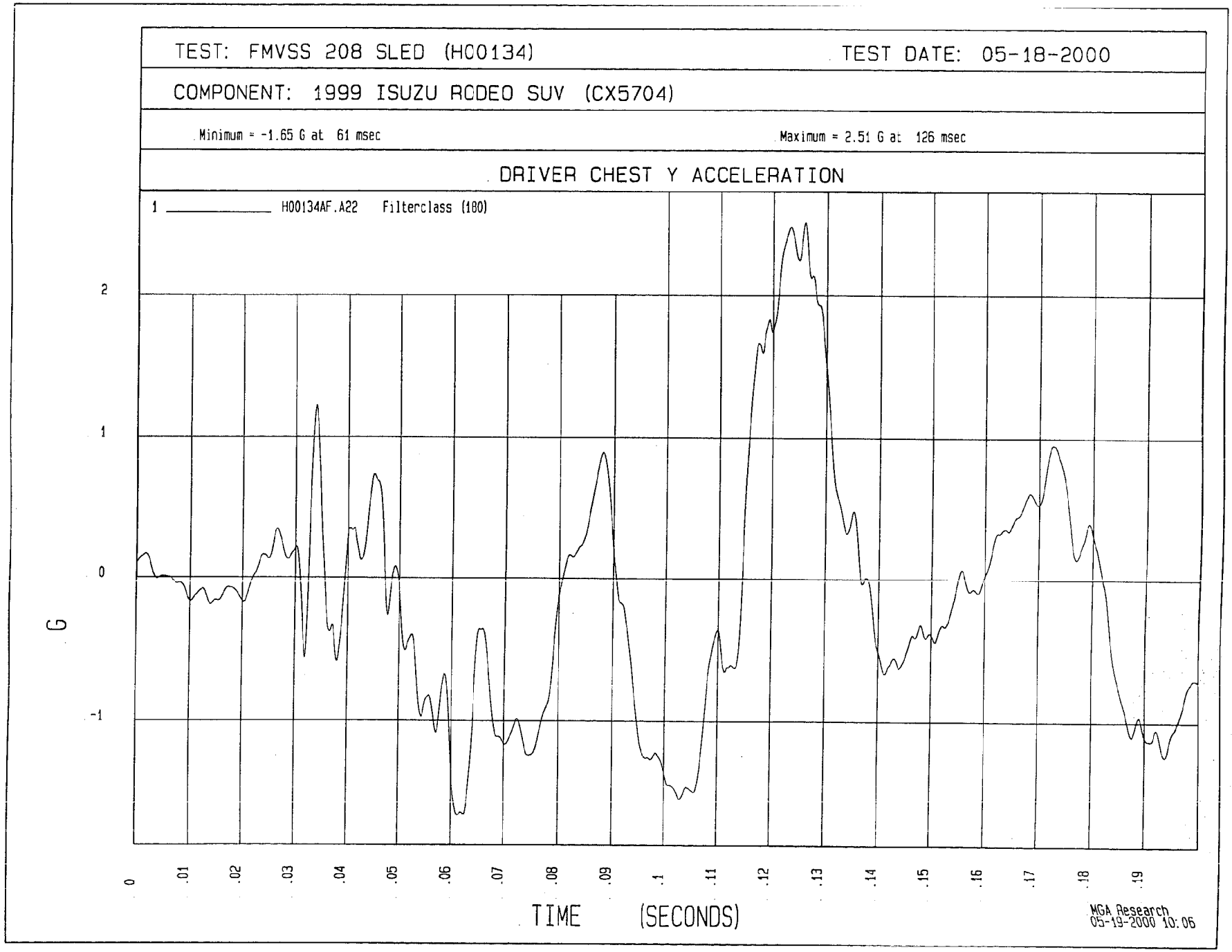
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.65 G at 61 msec
Maximum = 2.51 G at 126 msec
DRIVER CHEST Y ACCELERATION
1 H00134AF.A22 Filterclass (180)
G
2
1
0
-1
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
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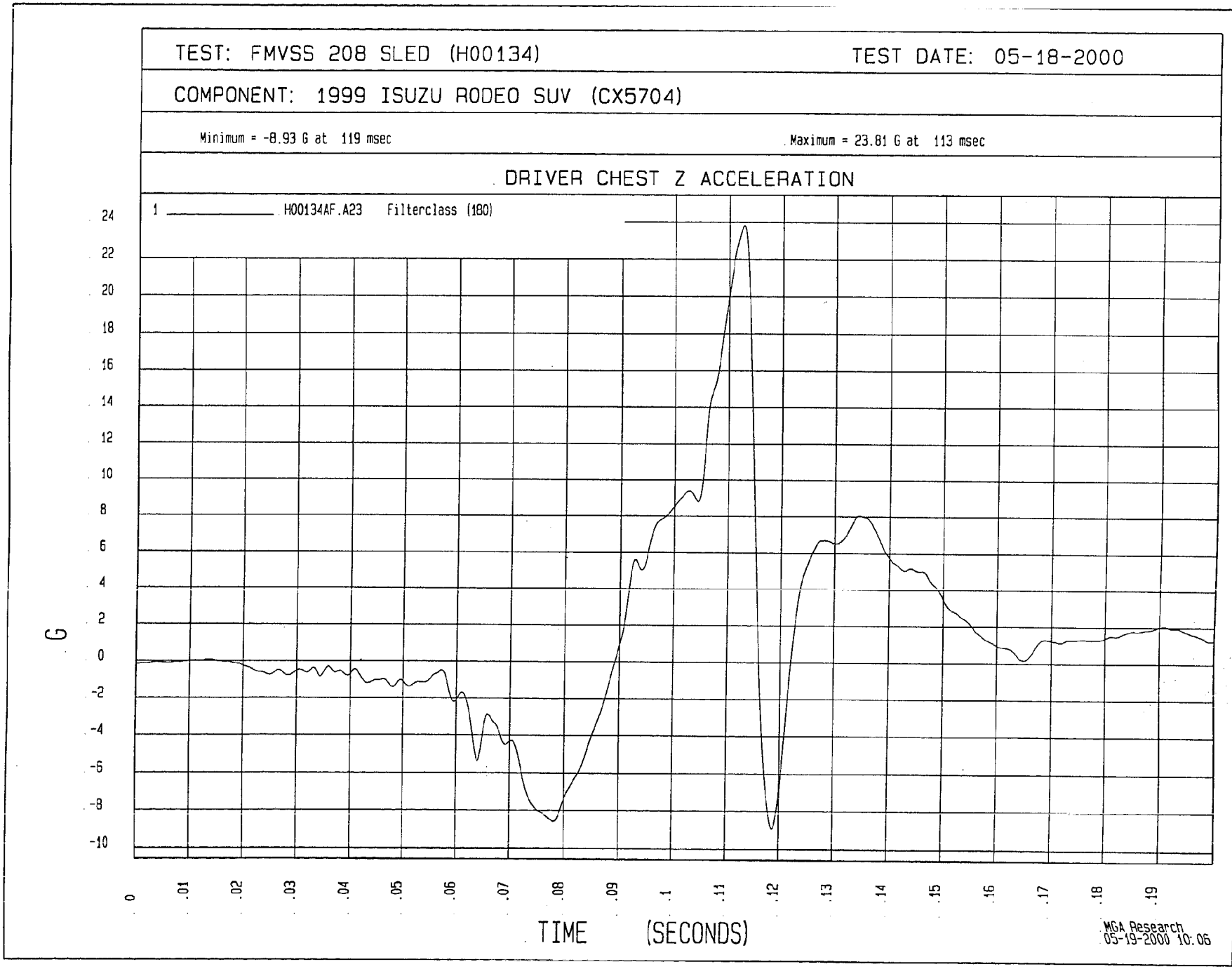
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -8.93 G at 119 msec
Maximum = 23.81 G at 113 msec
DRIVER CHEST Z ACCELERATION
1 H00134AF.A23 Filterclass (180)
G
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
0
.01
.02
.03
.04
.05
.06
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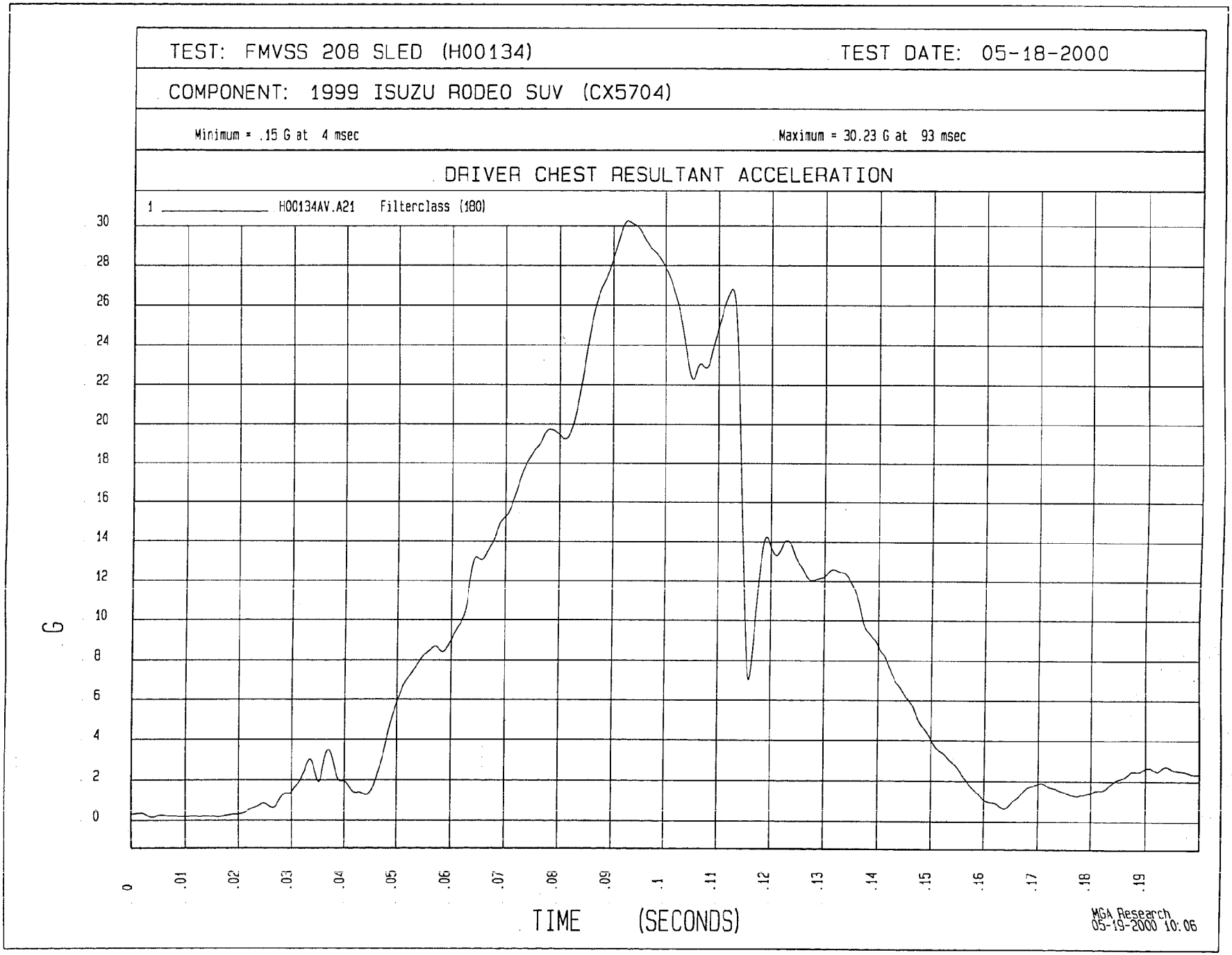
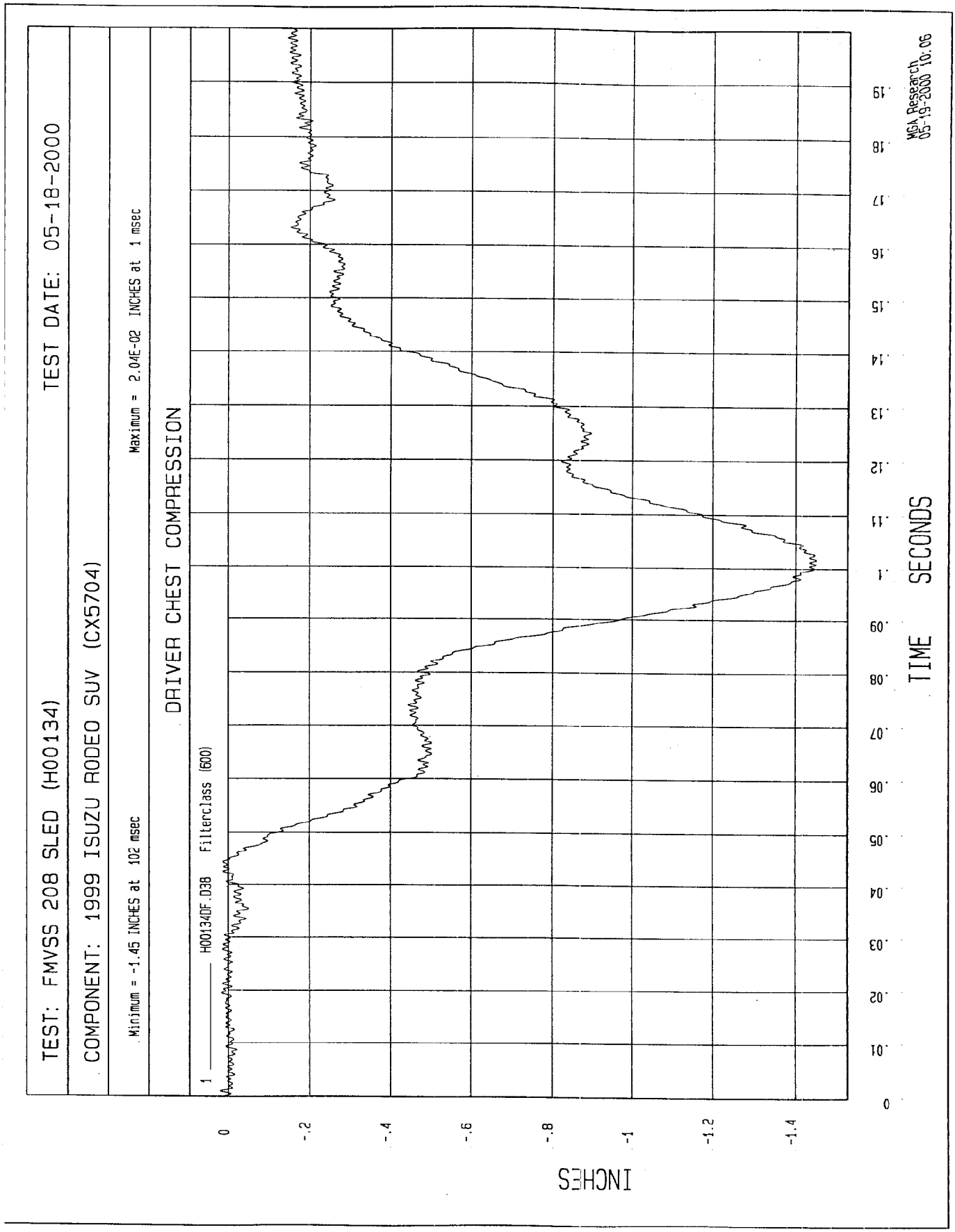
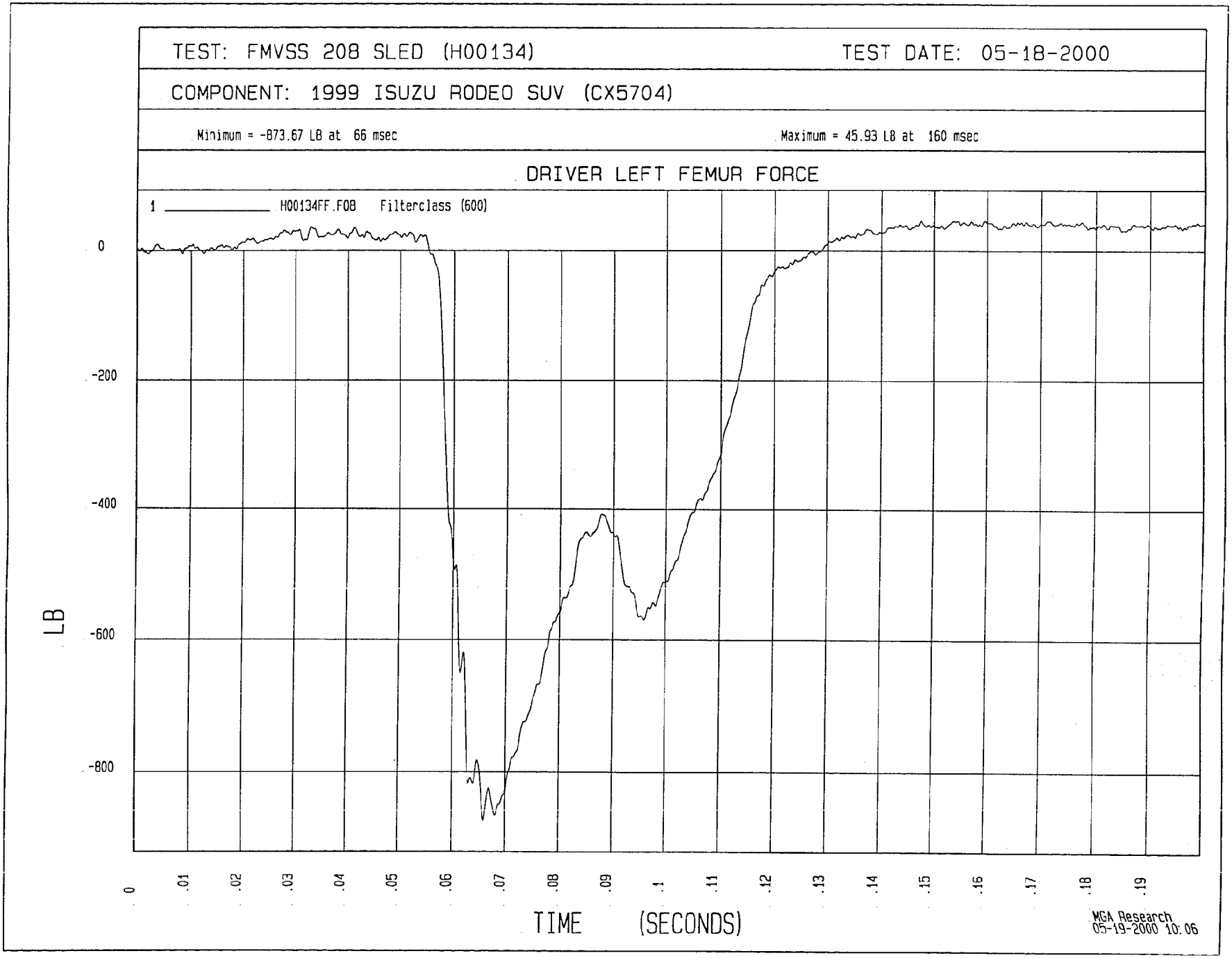
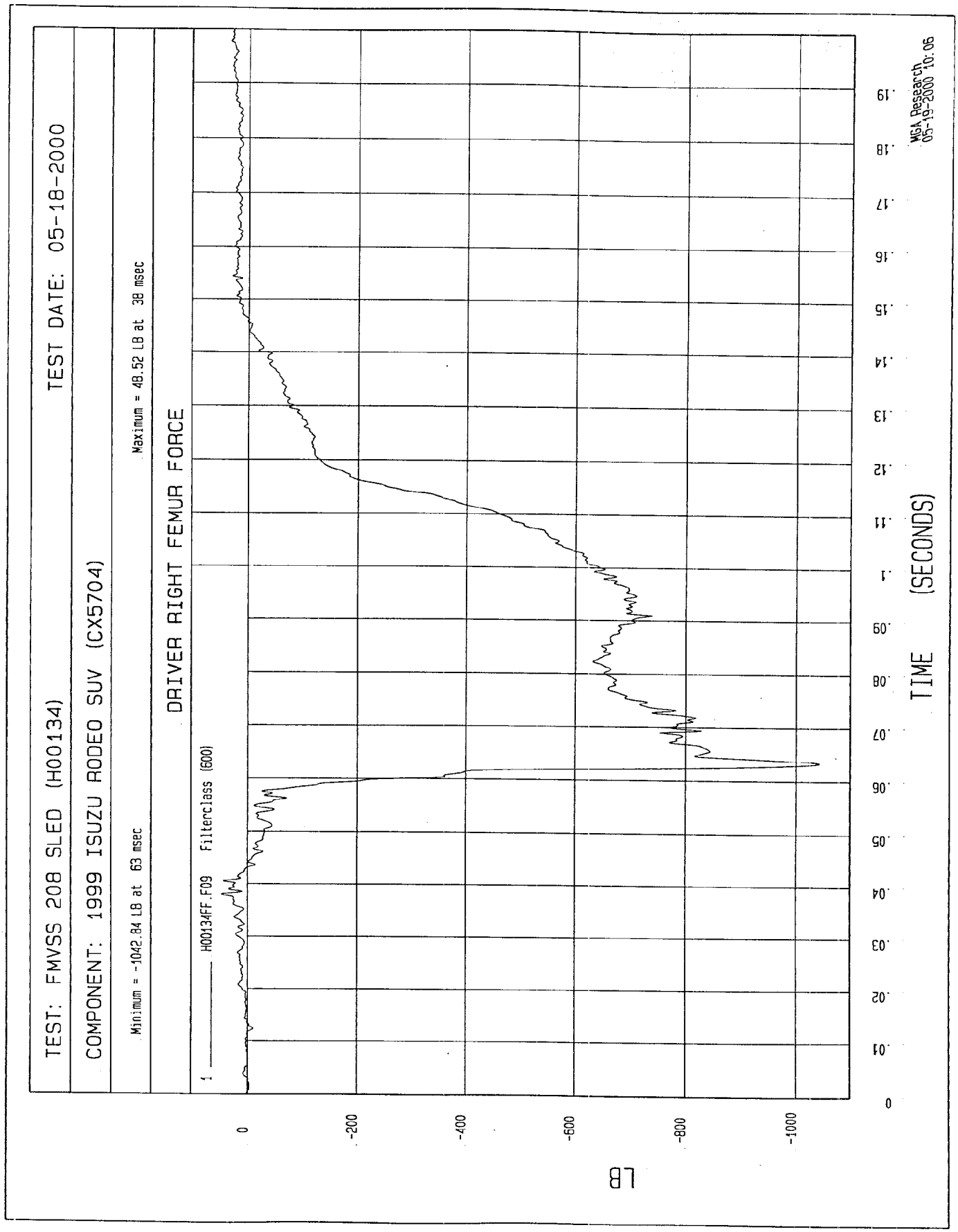
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = .15 G at 4 msec
Maximum = 30.23 G at 93 msec
DRIVER CHEST RESULTANT ACCELERATION
1 H00134AV.A21 Filterclass (180)
G
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1.45 INCHES at 102 msec
Maximum = 2.04E-02 INCHES at 1 msec
DRIVER CHEST COMPRESSION
1 H00134DF.D38 Filterclass (600)
INCHES
0
-.2
-.4
-.6
-.8
-1
-1.2
-1.4
TIME SECONDS
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -873.67 LB at 66 msec
Maximum = 45.93 LB at 160 msec
DRIVER LEFT FEMUR FORCE
1 H00134FF.F08 Filterclass (600)
LB
0
-200
-400
-600
-800
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1042.84 LB at 63 msec
Maximum = 48.52 LB at 38 msec
DRIVER RIGHT FEMUR FORCE
1 H00134FF.F09 Filterclass (600)
LB
0
-200
-400
-600
-800
-1000
TIME (SECONDS)
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
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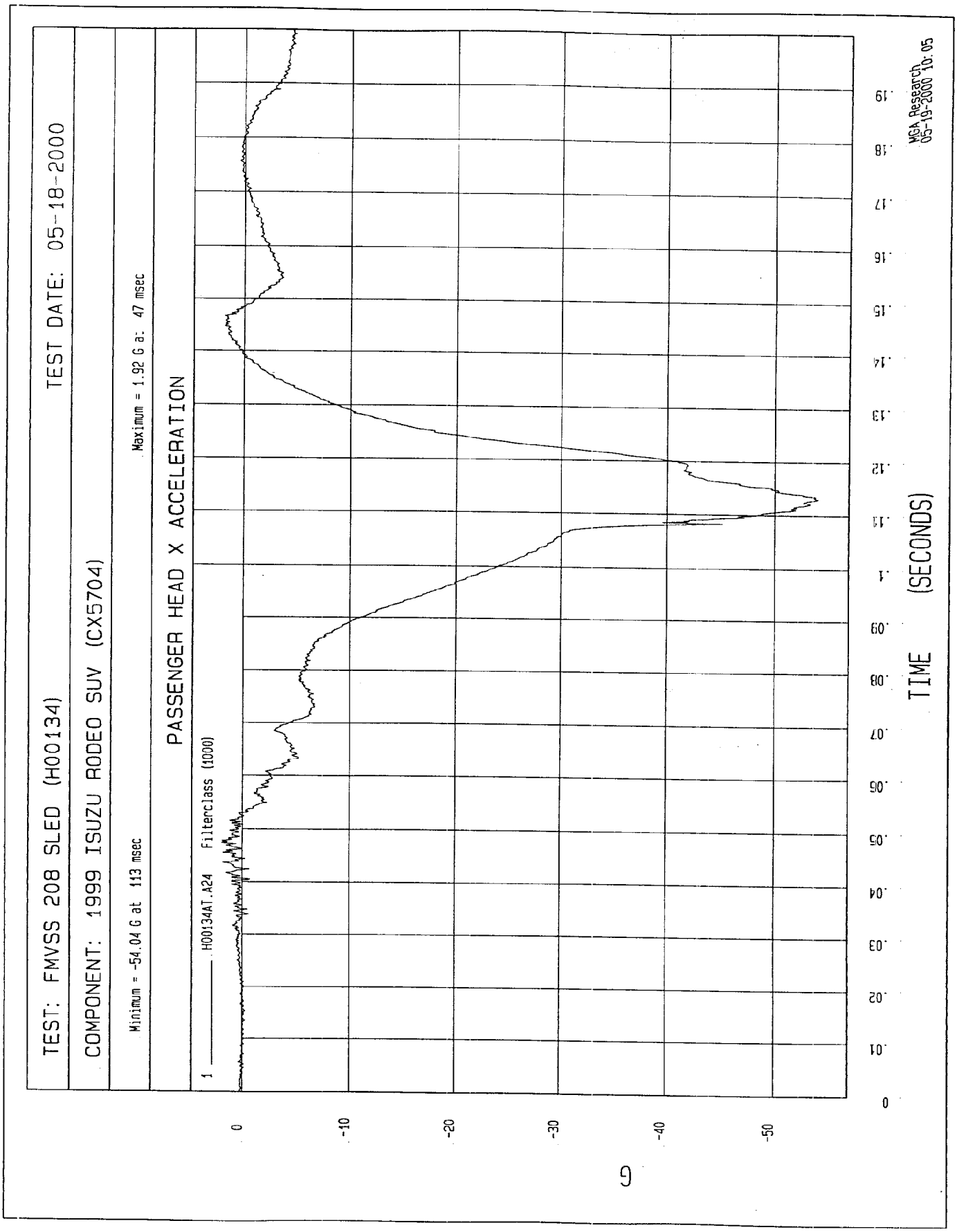
.19
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -54.04 G at 113 msec
Maximum = 1.92 G at 47 msec
PASSENGER HEAD X ACCELERATION
1 H00134AT.A24 Filterclass (1000)
MGA Research
05-19-2000 10:05
G
0
-10
-20
-30
-40
-50
TIME (SECONDS)
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
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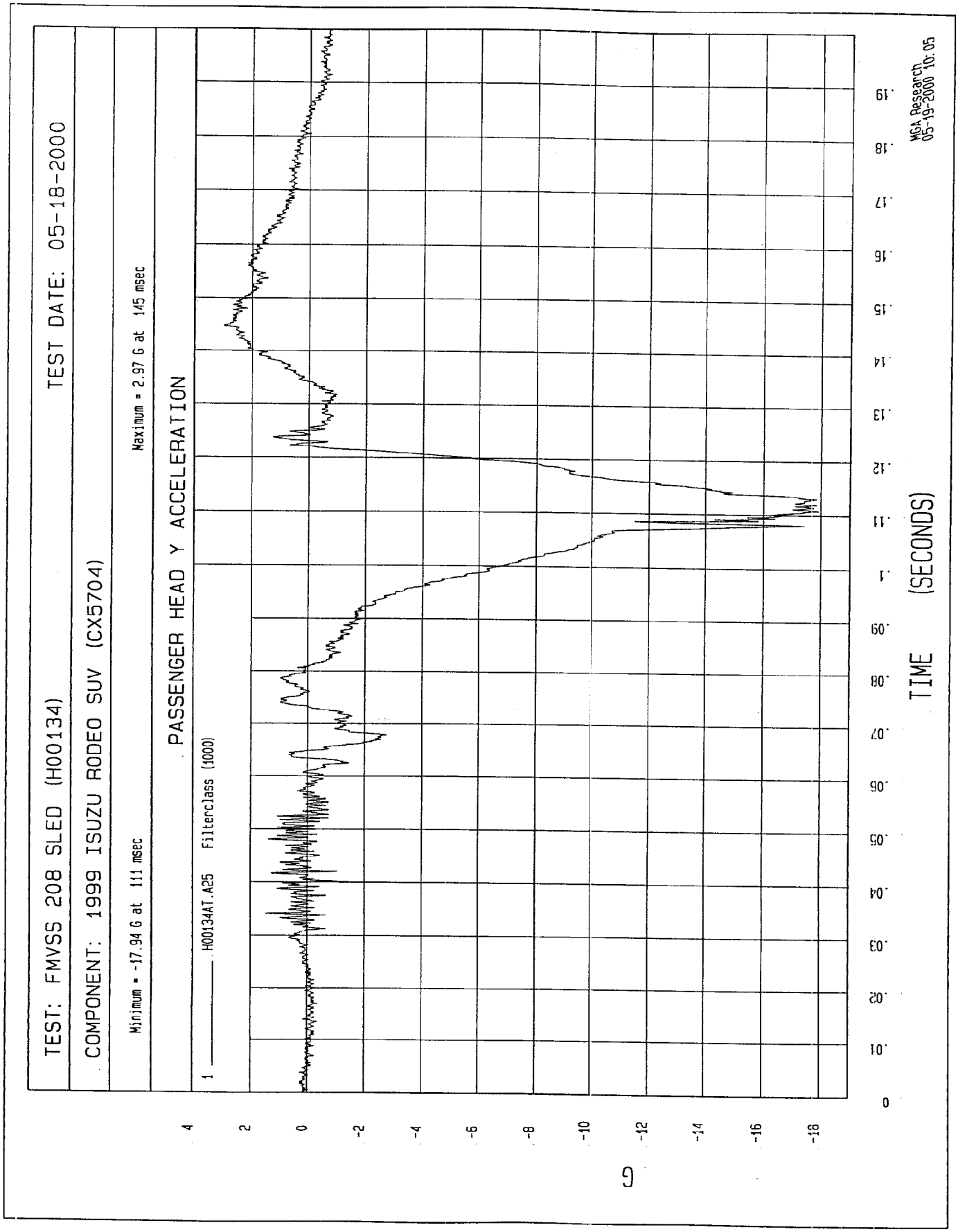
.19


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -17.94 G at 111 msec
Maximum = 2.97 G at 145 msec
PASSENGER HEAD Y ACCELERATION
1 H00134AT.A25 Filterclass (1000)
G
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
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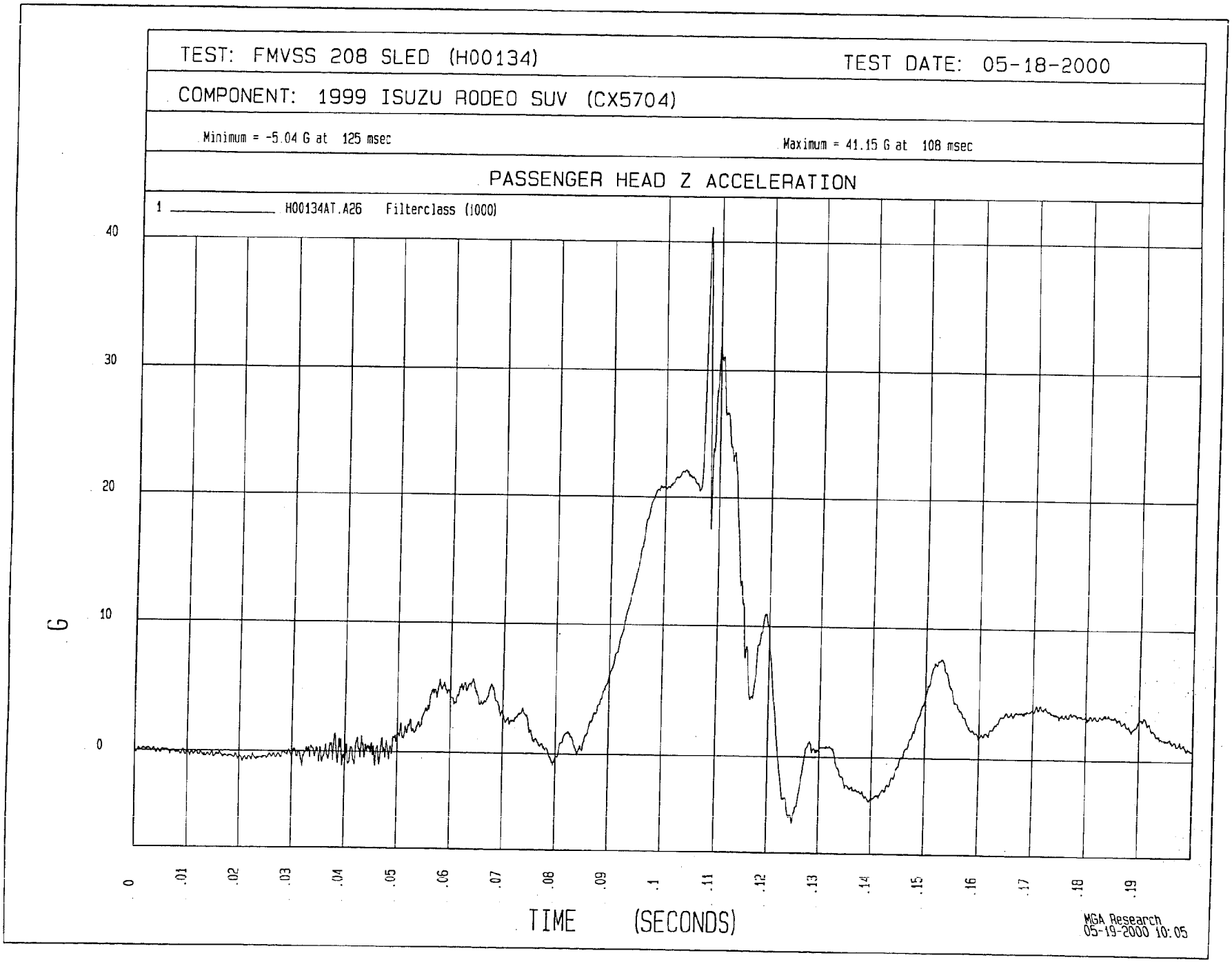
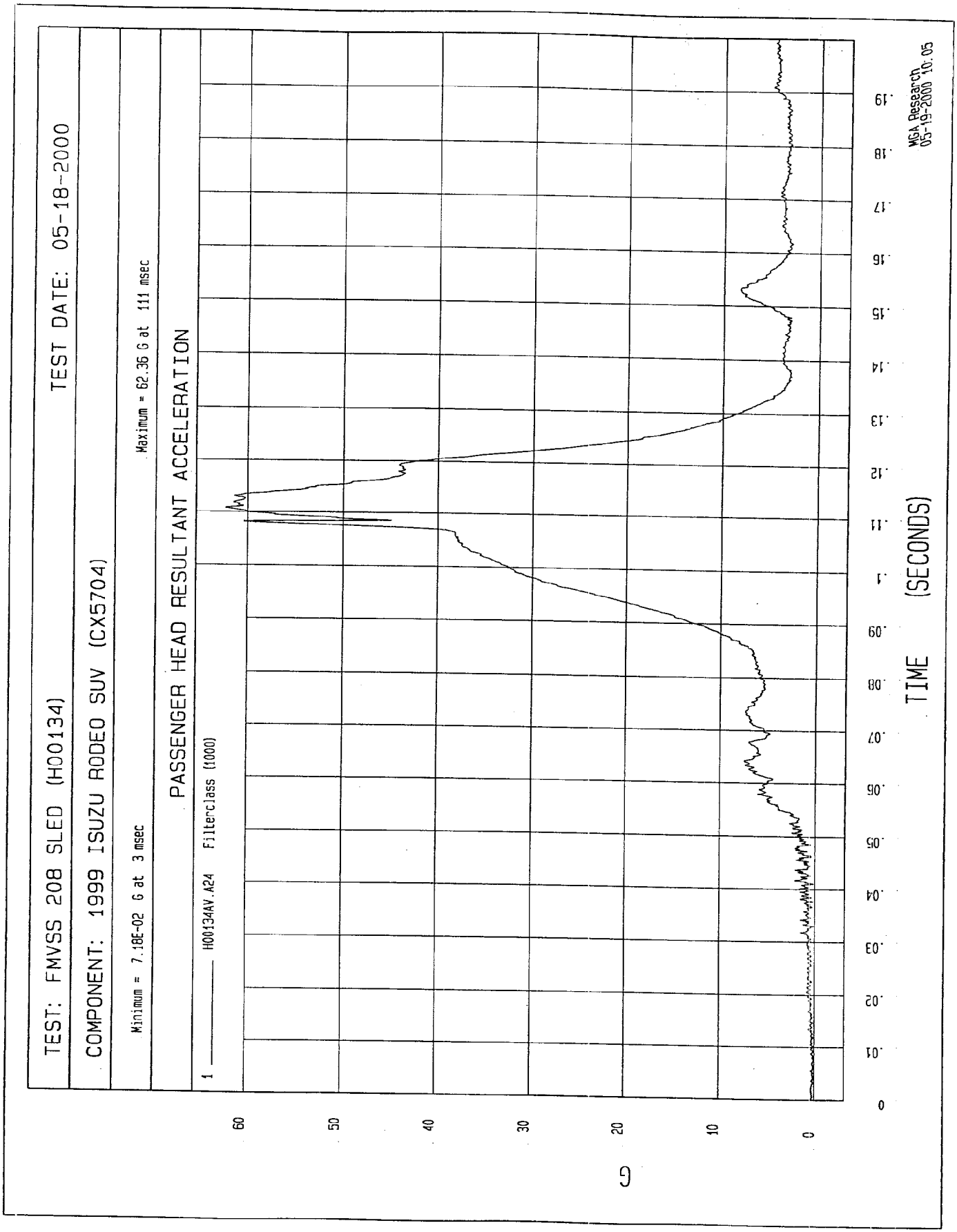
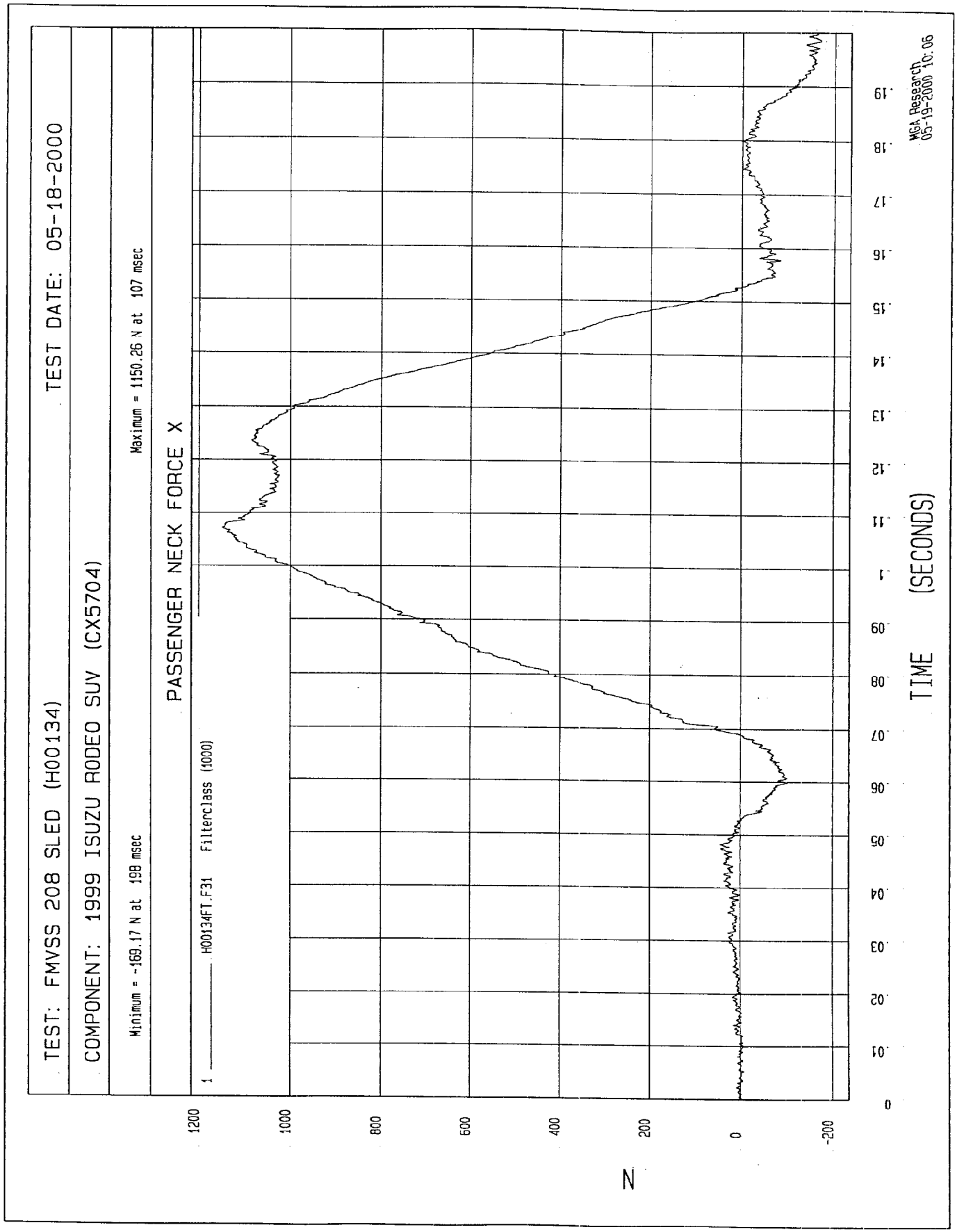
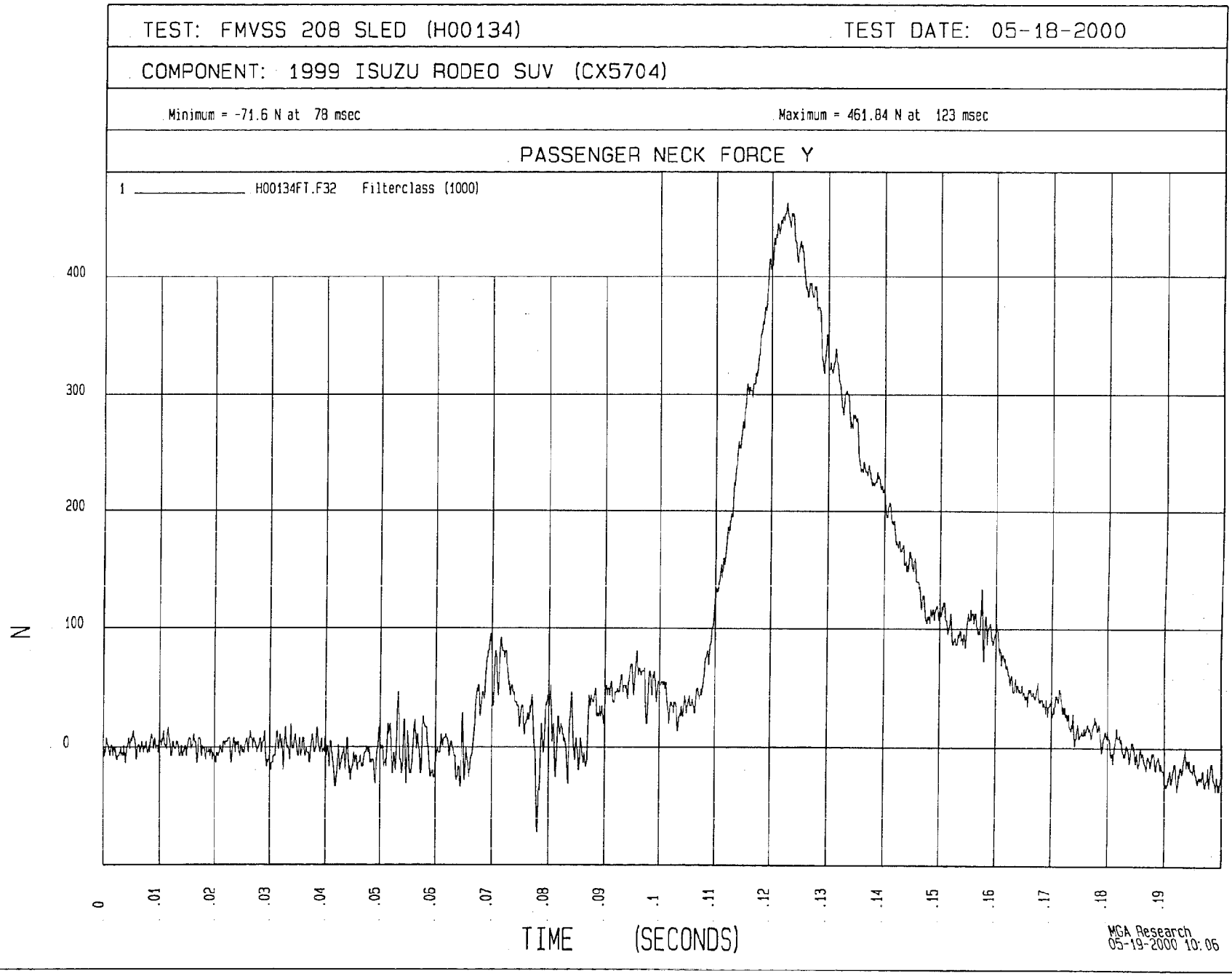
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -5.04 G at 125 msec
Maximum = 41.15 G at 108 msec
PASSENGER HEAD Z ACCELERATION
1 H00134AT.A26 Filterclass (1000)
G
40
30
20
10
0
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = 7.18E-02 G at 3 msec
Maximum = 62.36 G at 111 msec
PASSENGER HEAD RESULTANT ACCELERATION
1 H00134AV.A24 Filterclass (1000)
G
TIME (SECONDS)
MGA Research
05-19-2000 10:05


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -169.17 N at 198 msec
Maximum = 1150.26 N at 107 msec
PASSENGER NECK FORCE X
1 H00134FT.F31 Filterclass (1000)
MGA Research
05-19-2000 10:06
N
TIME (SECONDS)
1200
1000
800
600
400
200
0
-200
0
01
02
03
04
05
06
07
08
09
1
11
12
13
14
15
16
17
18
19


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -71.6 N at 78 msec
Maximum = 461.84 N at 123 msec
PASSENGER NECK FORCE Y
1 H00134FT.F32 Filterclass (1000)
400
300
200
100
0
N
0
.01
.02
.03
.04
.05
.06
.07
.08
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.1
.11
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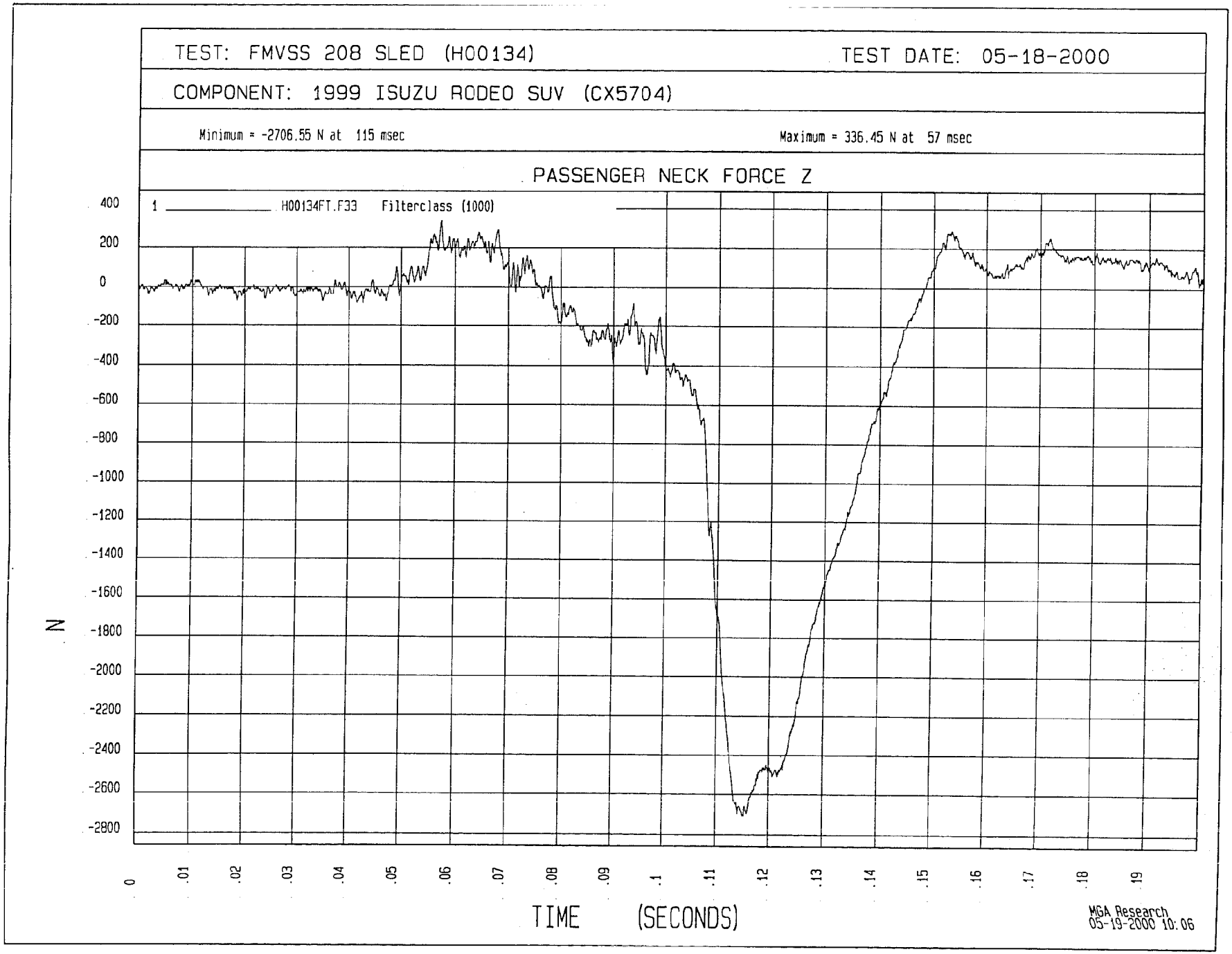
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2706.55 N at 115 msec
Maximum = 336.45 N at 57 msec
PASSENGER NECK FORCE Z
1 H00134FT.F33 Filterclass (1000)
400
200
0
-200
-400
-600
-800
-1000
-1200
-1400
-1600
-1800
-2000
-2200
-2400
-2600
-2800
N
0
.01
.02
.03
.04
.05
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.07
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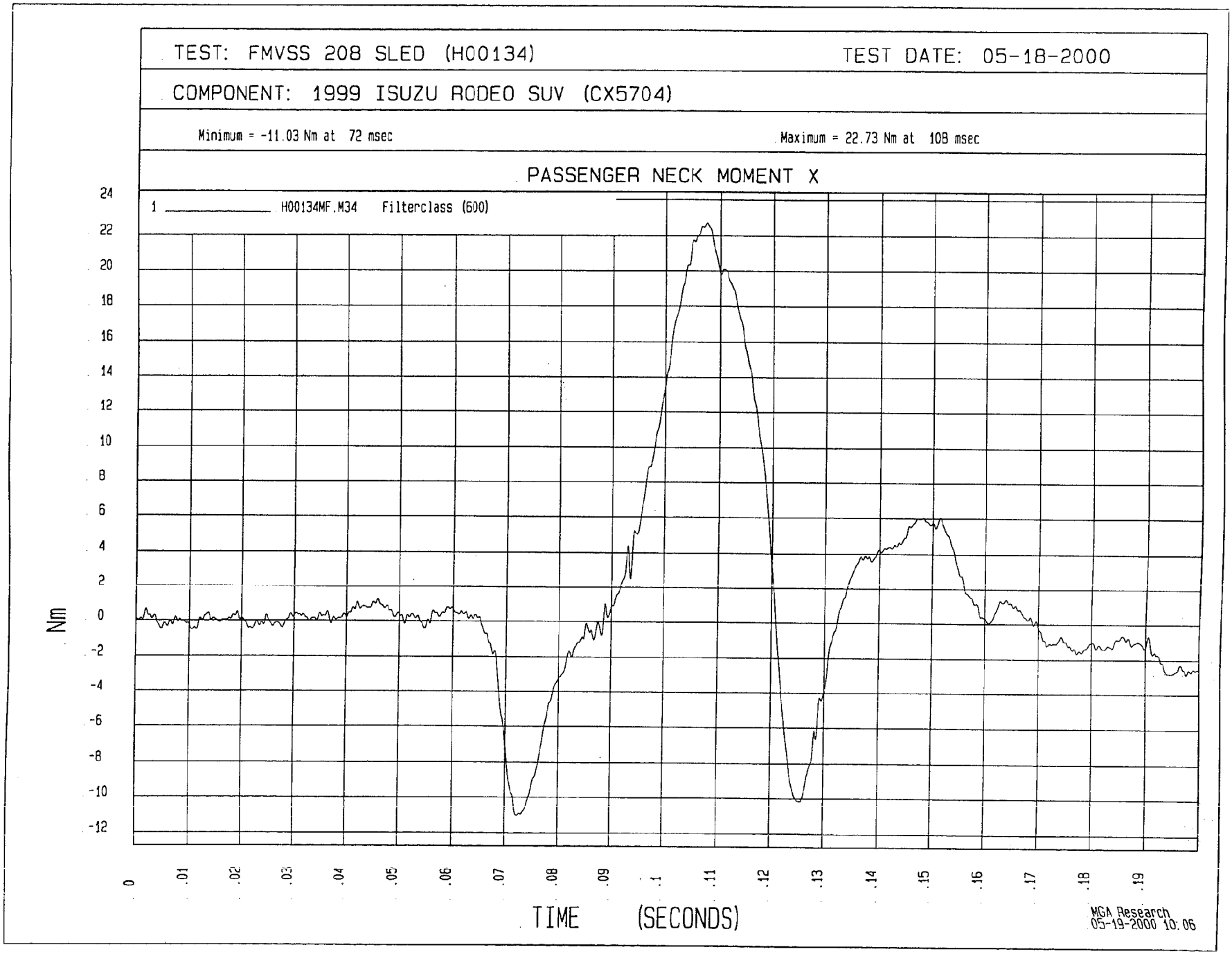
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -11.03 Nm at 72 msec
Maximum = 22.73 Nm at 108 msec
PASSENGER NECK MOMENT X
1 H00134MF.M34 Filterclass (600)
Nm
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
0
.01
.02
.03
.04
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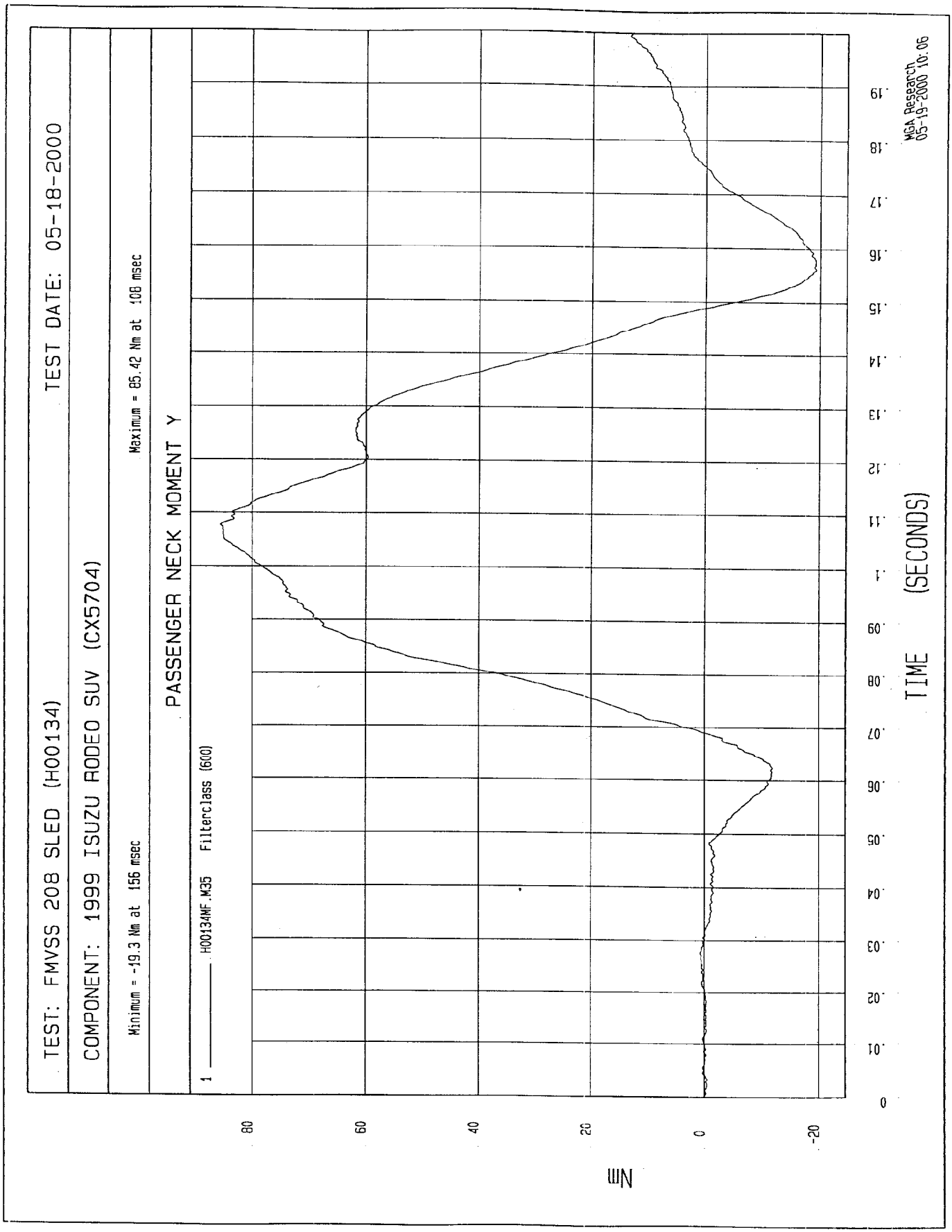
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -19.3 Nm at 156 msec
Maximum = 85.42 Nm at 108 msec
PASSENGER NECK MOMENT Y
1 H00134MF.M35 Filterclass (600)
Nm
80
60
40
20
0
-20
TIME (SECONDS)
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
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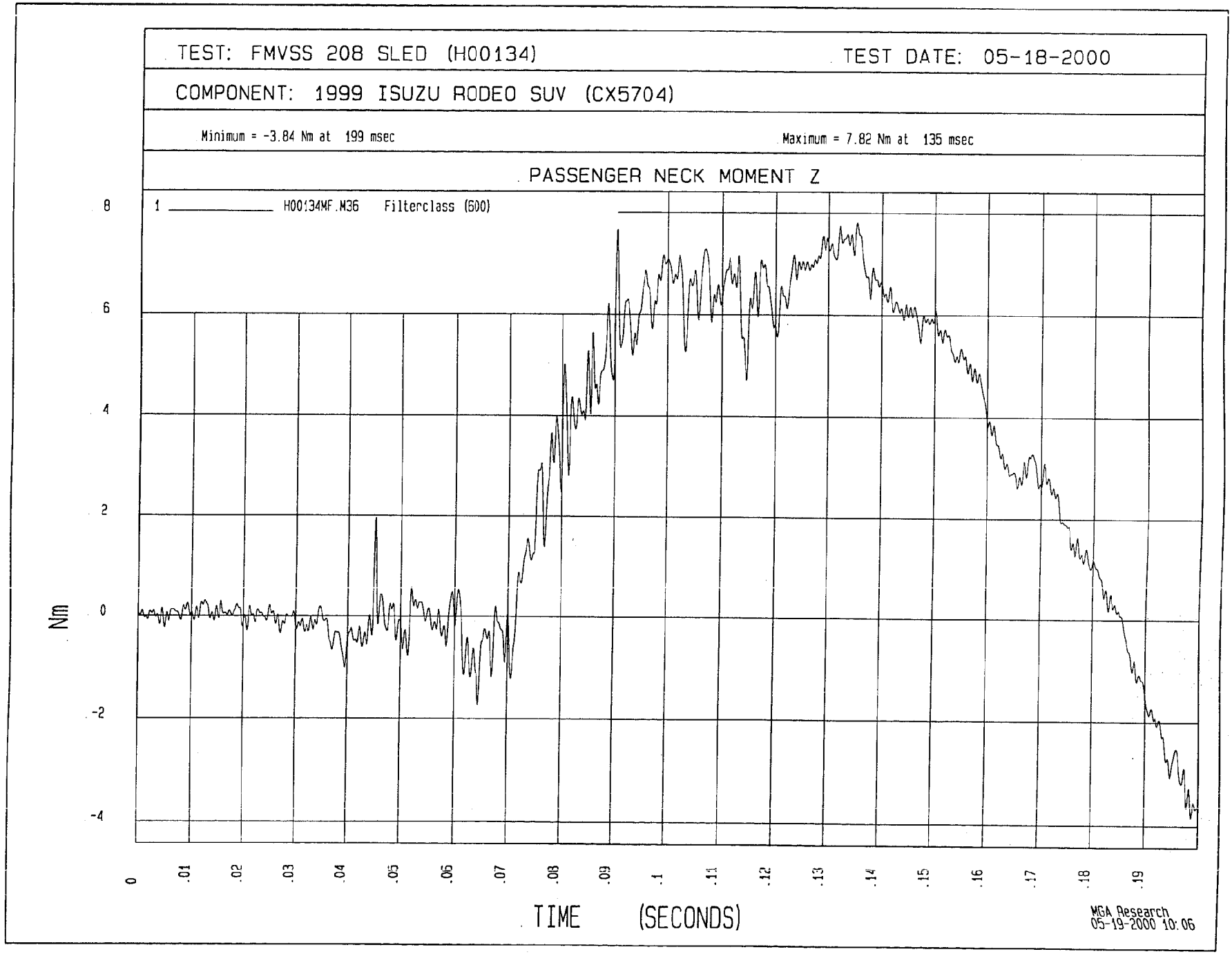
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -3.84 Nm at 199 msec
Maximum = 7.82 Nm at 135 msec
PASSENGER NECK MOMENT Z
1 H00134MF.M36 Filterclass (600)
Nm
8
6
4
2
0
-2
-4
0
.01
.02
.03
.04
.05
.06
.07
.08
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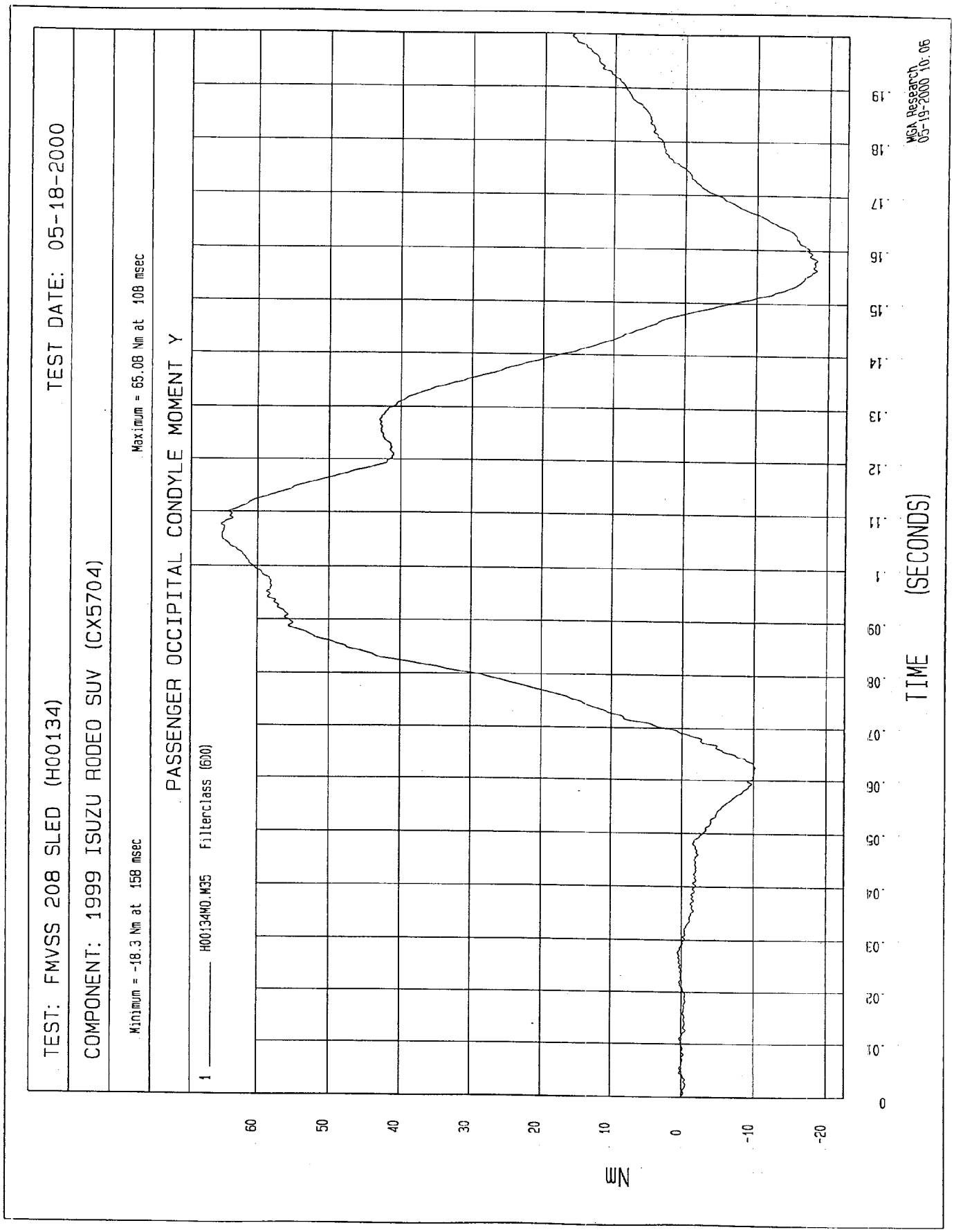
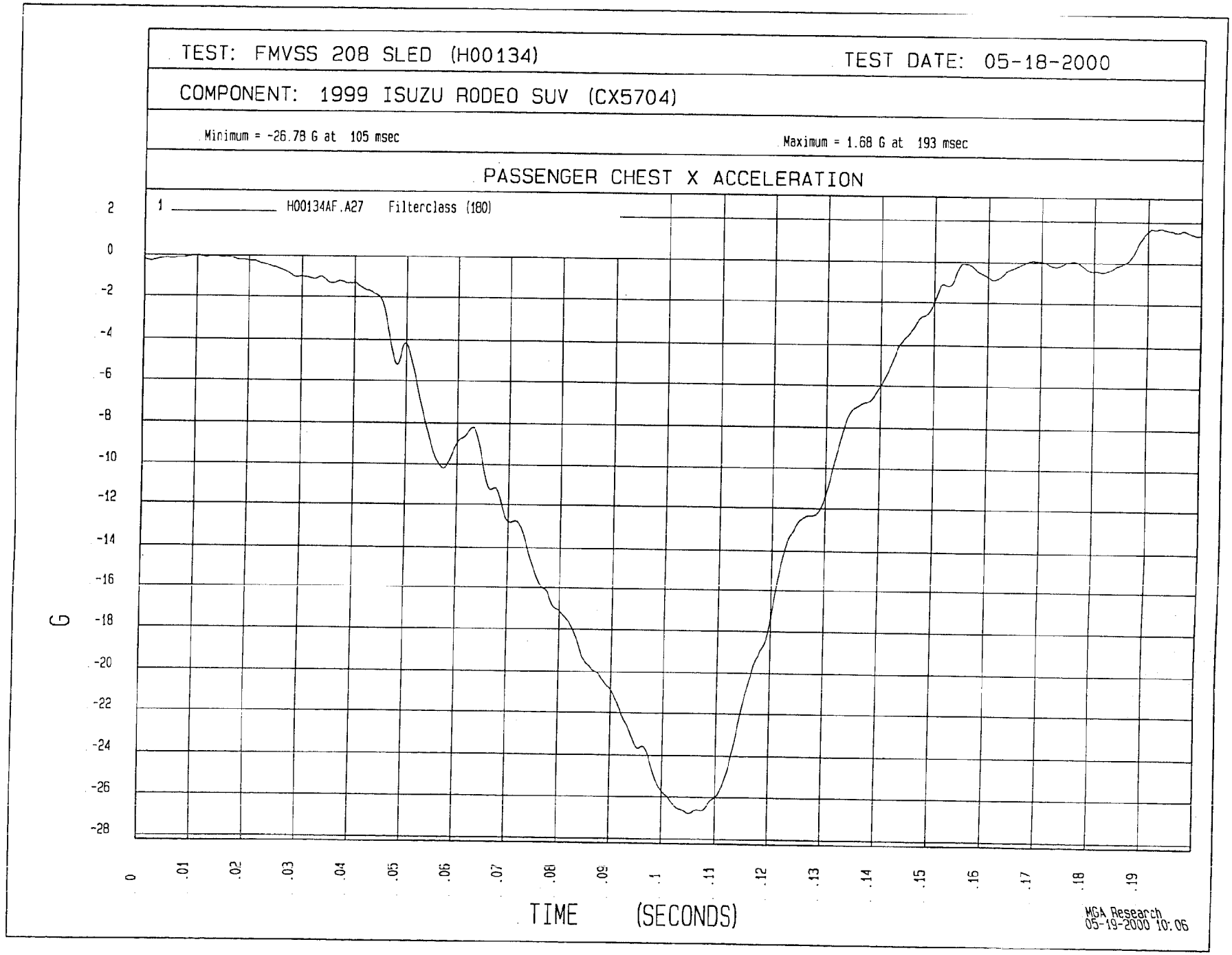
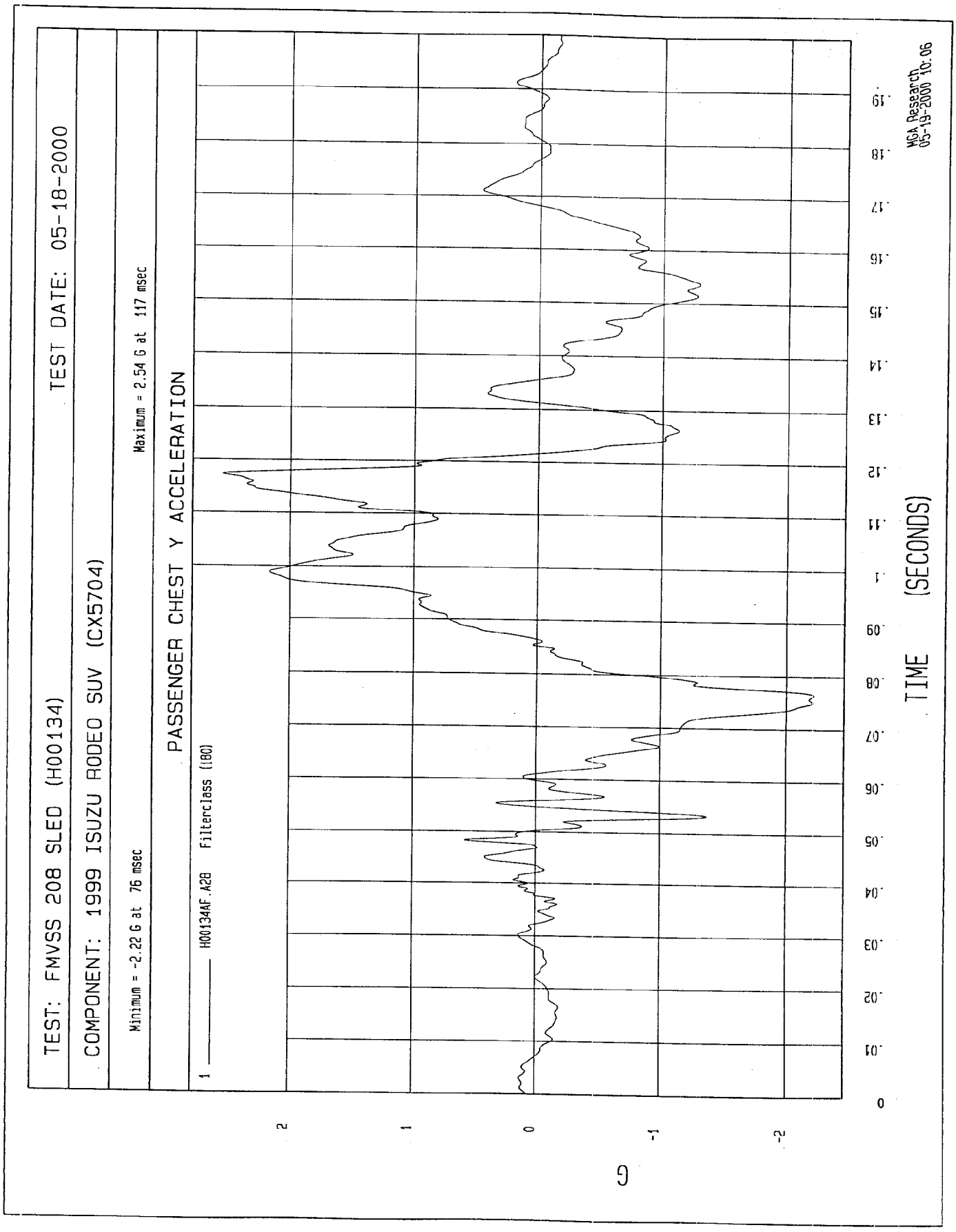
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -18.3 Nm at 158 msec
Maximum = 65.08 Nm at 108 msec
PASSENGER OCCIPITAL CONDYLE MOMENT Y
1 H00134WO.M35 Filterclass (600)
NM
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -26.78 G at 105 msec
Maximum = 1.68 G at 193 msec
PASSENGER CHEST X ACCELERATION
1 H00134AF.A27 Filterclass (180)
G
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
-28
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -2.22 G at 76 msec
Maximum = 2.54 G at 117 msec
PASSENGER CHEST Y ACCELERATION
1 H00134AF.A2B Filterclass (180)
G
2
1
0
-1
-2
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
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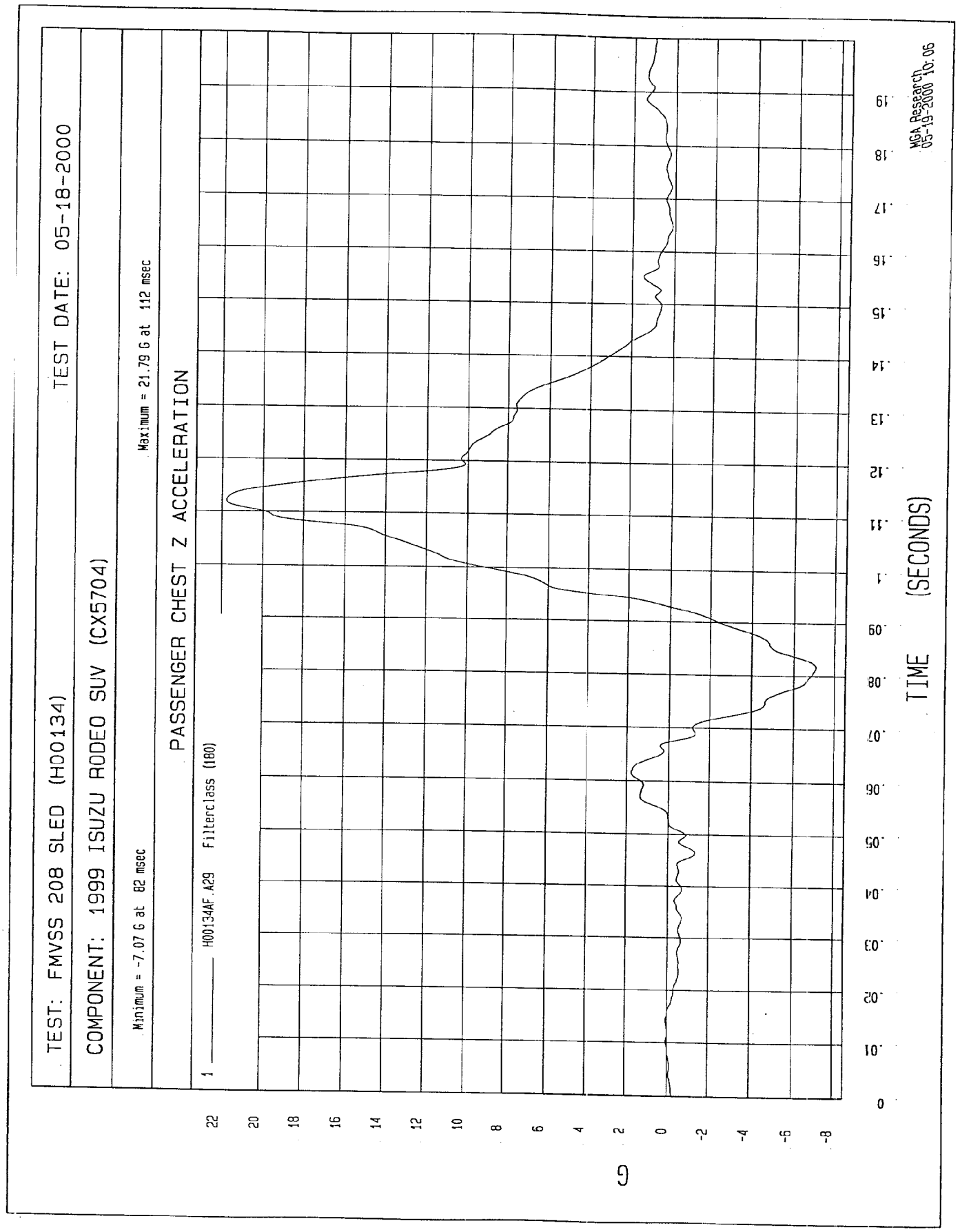
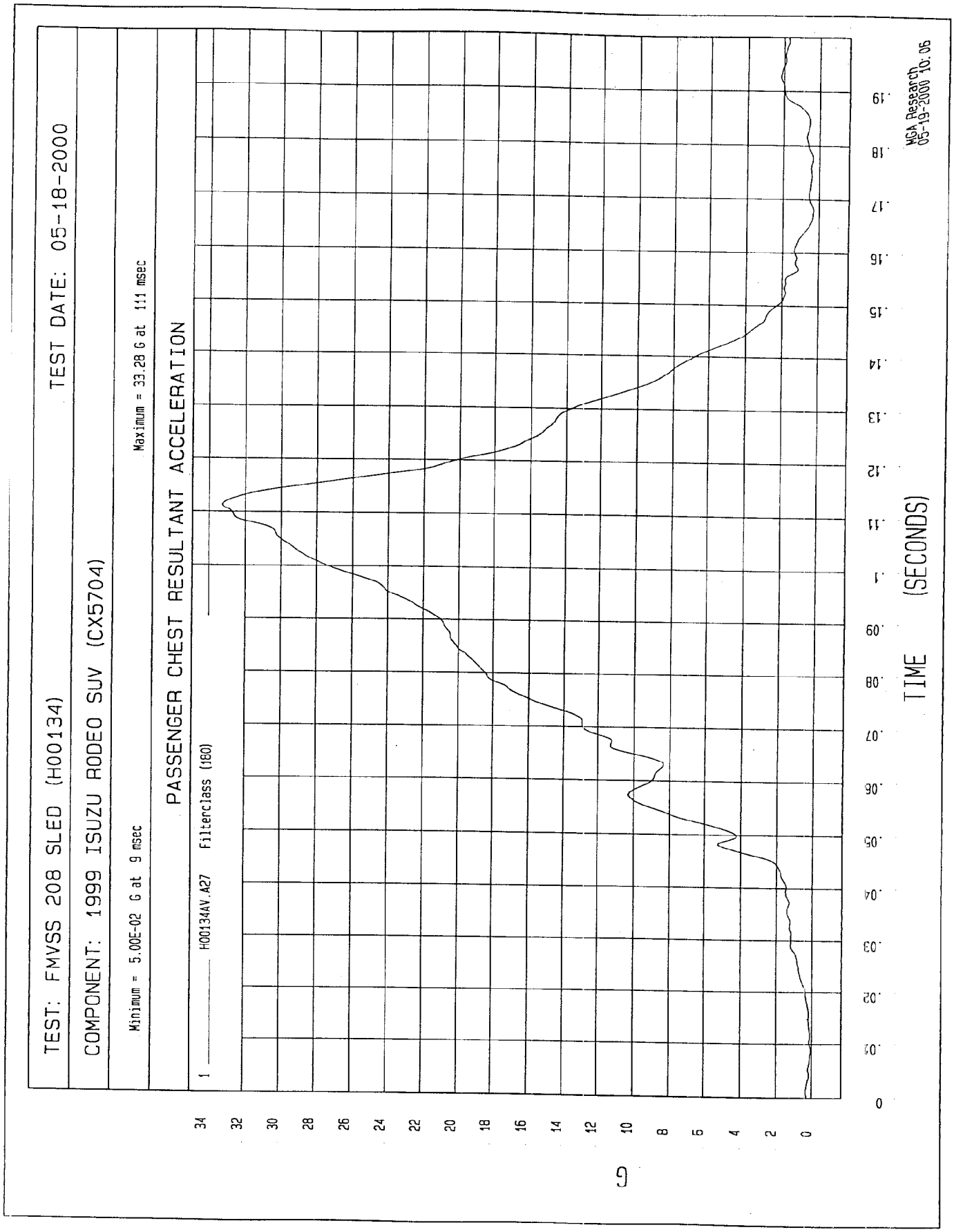
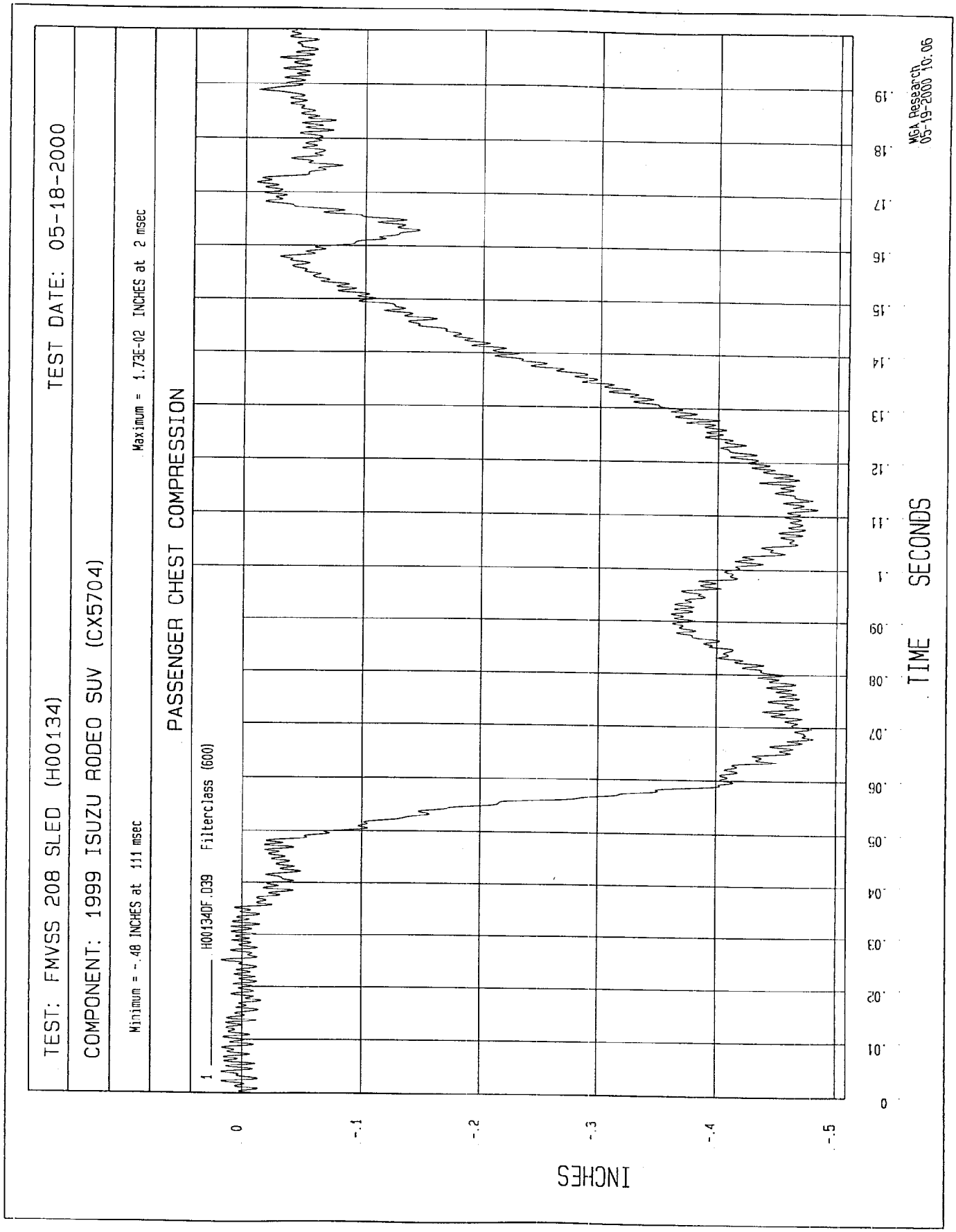
.18
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -7.07 G at 82 msec
Maximum = 21.79 G at 112 msec
PASSENGER CHEST Z ACCELERATION
1 _____ H00134AF.A29 Filterclass (180)
MGA Research
05-19-2000 10:06
G
TIME (SECONDS)
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
1
11
12
13
14
15
16
17
18
19


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = 5.00E-02 G at 9 msec
Maximum = 33.28 G at 111 msec
PASSENGER CHEST RESULTANT ACCELERATION
1 H00134AV.A27 Filterclass (180)
G
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -.48 INCHES at 111 msec
Maximum = 1.73E-02 INCHES at 2 msec
PASSENGER CHEST COMPRESSION
1 H00134DF.D39 Filterclass (600)
0
-.1
-.2
-.3
-.4
-.5
INCHES
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
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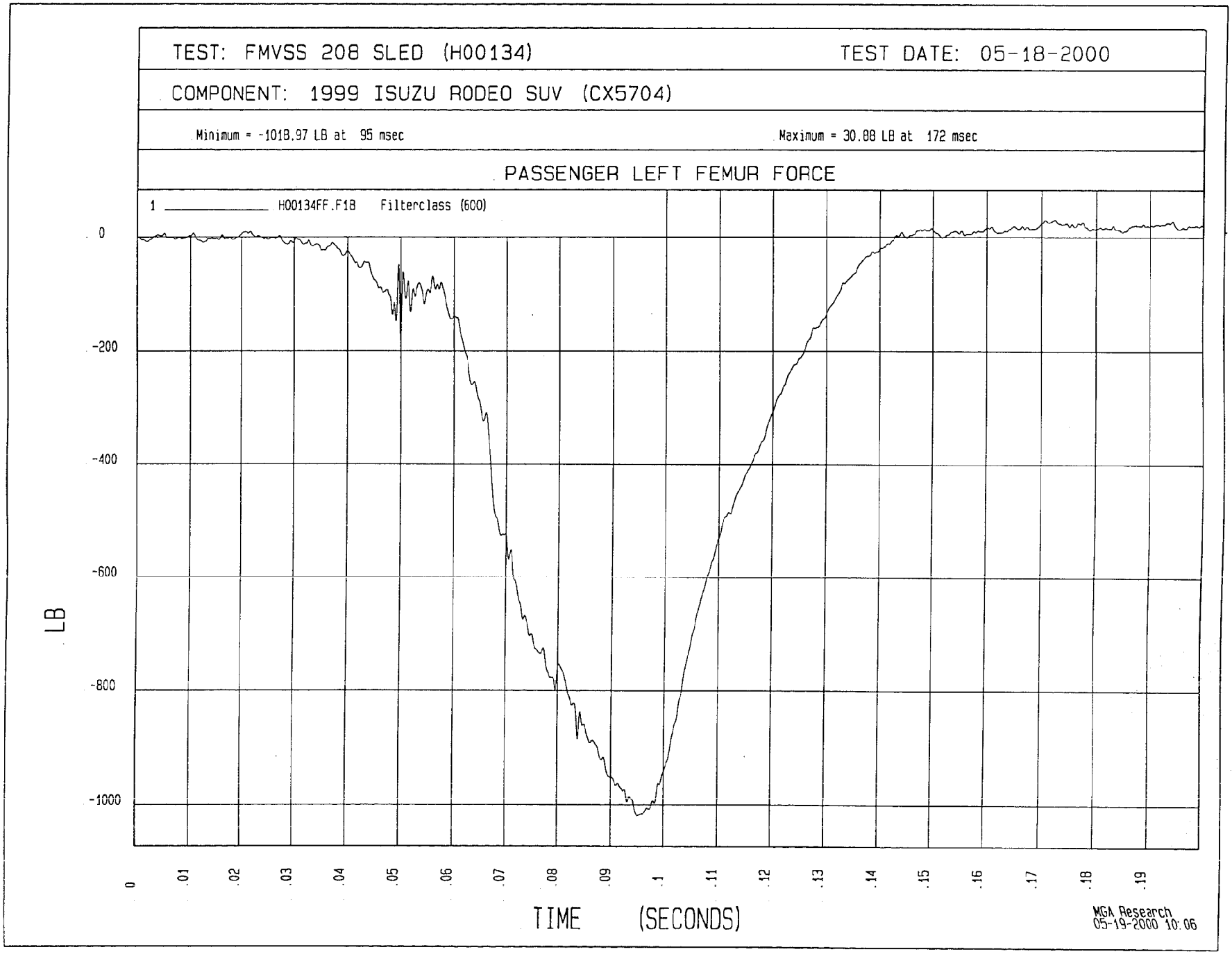
.18
.19
TIME SECONDS
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -1018.97 LB at 95 msec
Maximum = 30.88 LB at 172 msec
PASSENGER LEFT FEMUR FORCE
1 H00134FF.F18 Filterclass (600)
LB
0
-200
-400
-600
-800
-1000
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
.11
.12
.13
.14
.15
.16
.17
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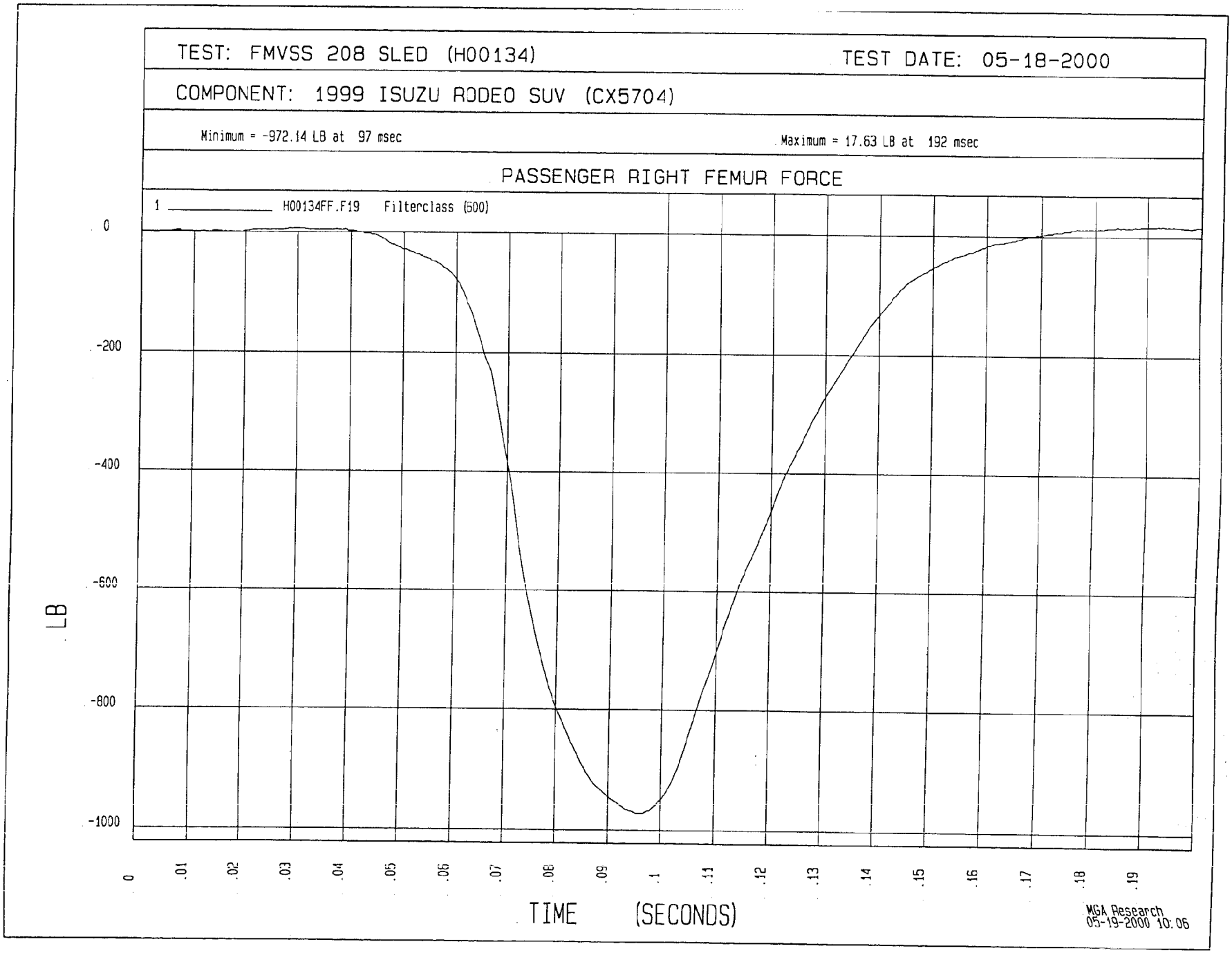
.19
TIME (SECONDS)
MGA Research
05-19-2000 10:06


TEST: FMVSS 208 SLED (H00134)
TEST DATE: 05-18-2000
COMPONENT: 1999 ISUZU RODEO SUV (CX5704)
Minimum = -972.14 LB at 97 msec
Maximum = 17.63 LB at 192 msec
PASSENGER RIGHT FEMUR FORCE
1 H00134FF.F19 Filterclass (600)
0
-200
-400
-600
-800
-1000
LB
0
.01
.02
.03
.04
.05
.06
.07
.08
.09
.1
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TIME (SECONDS)
MGA Research
05-19-2000 10:06

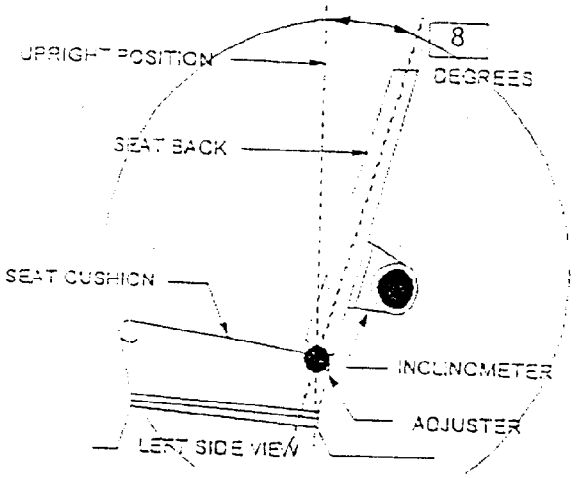
APPENDIX C
MANUFACTURER'S VEHICLE INFORMATION

TEST VEHICLE INFORMATION

Vehicle Model Year & Make: 1999 Isuzu

Vehicle Model & Body Style: Rodeo, 4-Door SUV

1. NOMINAL DESIGN RIDING POSITION - -
For adjustable driver and passenger seat backs.
Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent if applicable.
Indicate, if applicable, how the detents are numbered (Is the first detent "0" of "1"?). Indicate if the seat back angle is measured with the dummy in the seat.



Seat back angle for driver's seat = 8 degrees.
Measurement Instructions:
Release the seat back adjuster lever, and adjust the seat back into the 5th latch position rearward from the upright position (1st latch position).

Seat back angle for passenger's seat = 8 degrees.
Measurement Instructions:
Same as driver's seat.

2. SEAT FORE & AFT POSITIONS - -
Provide instructions for positioning the driver and front outboard passenger seat(s) in the center of fore and aft travel. For example, indicate how the detents are numbered (Is the first detent "0" or "1"?). Provide information to locate the detent in which the seat track is to be locked.

Positioning of the driver's seat:
Release the seat adjuster lever, and adjust the seat into the 11th latch detent position forward from the rearmost position (1st latch detent position).

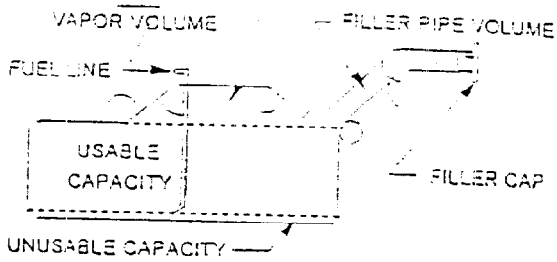
Positioning of the passenger's seat (if applicable):
Same as driver's seat

3. FUEL TANK CAPACITY DATA - -

3.1 A. "Usable Capacity" of standard equipment fuel tank = 21.1 gallons.

B. "Usable Capacity" of optional equipment fuel tank = _____ gallons. Not Available

C. "Usable Capacity" of vehicle(s) used for certification testing to requirements of FMVSS 301 = 19.8 gallons.



VEHICLE FUEL TANK ASSEMBLY

Operational Instructions:

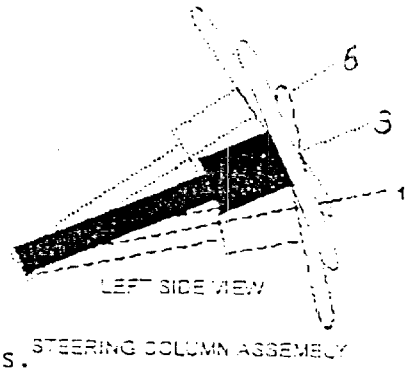
Operate the engine until it stop. Add the stoddard solvent to the fuel tank. Then operate the engine until the entire fuel system is filled with the stoddard solvent.

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 20.8 gallons

3.3 Is vehicle equipped with electric fuel pump? X YES ___ NO
If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel.
The engine control key is in "ON" position and engine is running.

4. STEERING COLUMN ADJUSTMENTS - -

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center?



STEERING COLUMN ASSEMBLY

Operational Instructions:

The steering wheel has six(6) adjustment positions. The 3rd position upward from the lowest position (1st) is the geometric center of the full range of adjustments. The adjustment release lever is on the left side of the steering column and can be unlocked when the lever is pulled upward.