

EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash

Tests Public

XJ Development Crash Test

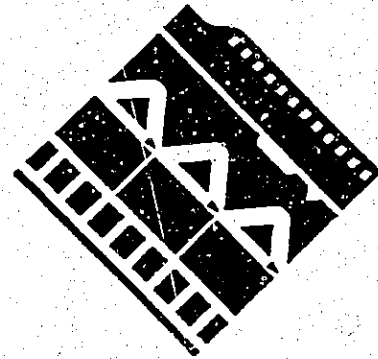
vc-3860 Public

Image Source Inc.

801 Front Street

Toledo, Ohio 43805

419/697-1111



DECLARATION OF INTENT AND PURPOSE

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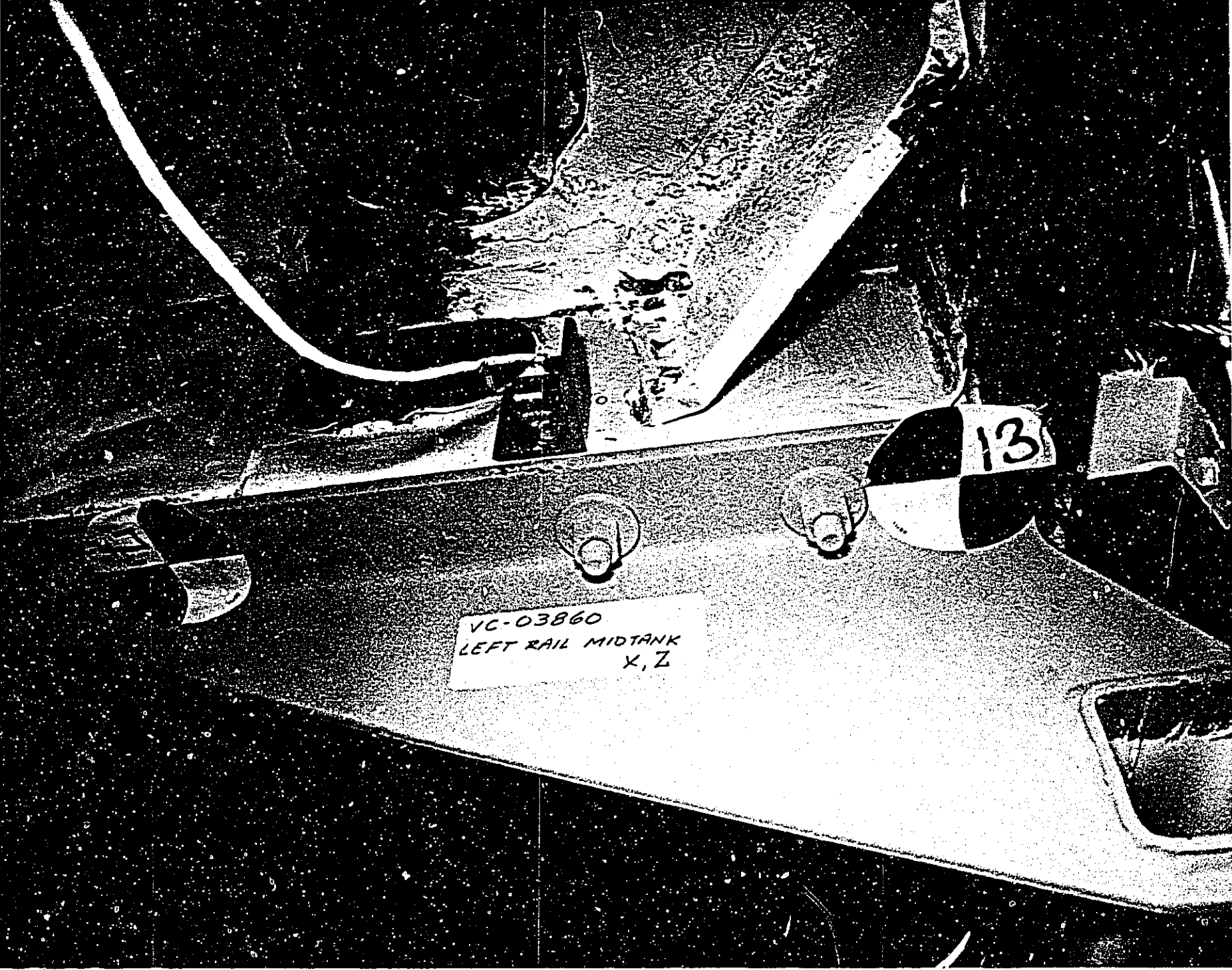
Date 8 25 19 94
Month Day

Place Toledo Ohio
City State

Trina J. Carder
Signature

Camera Operator
Title

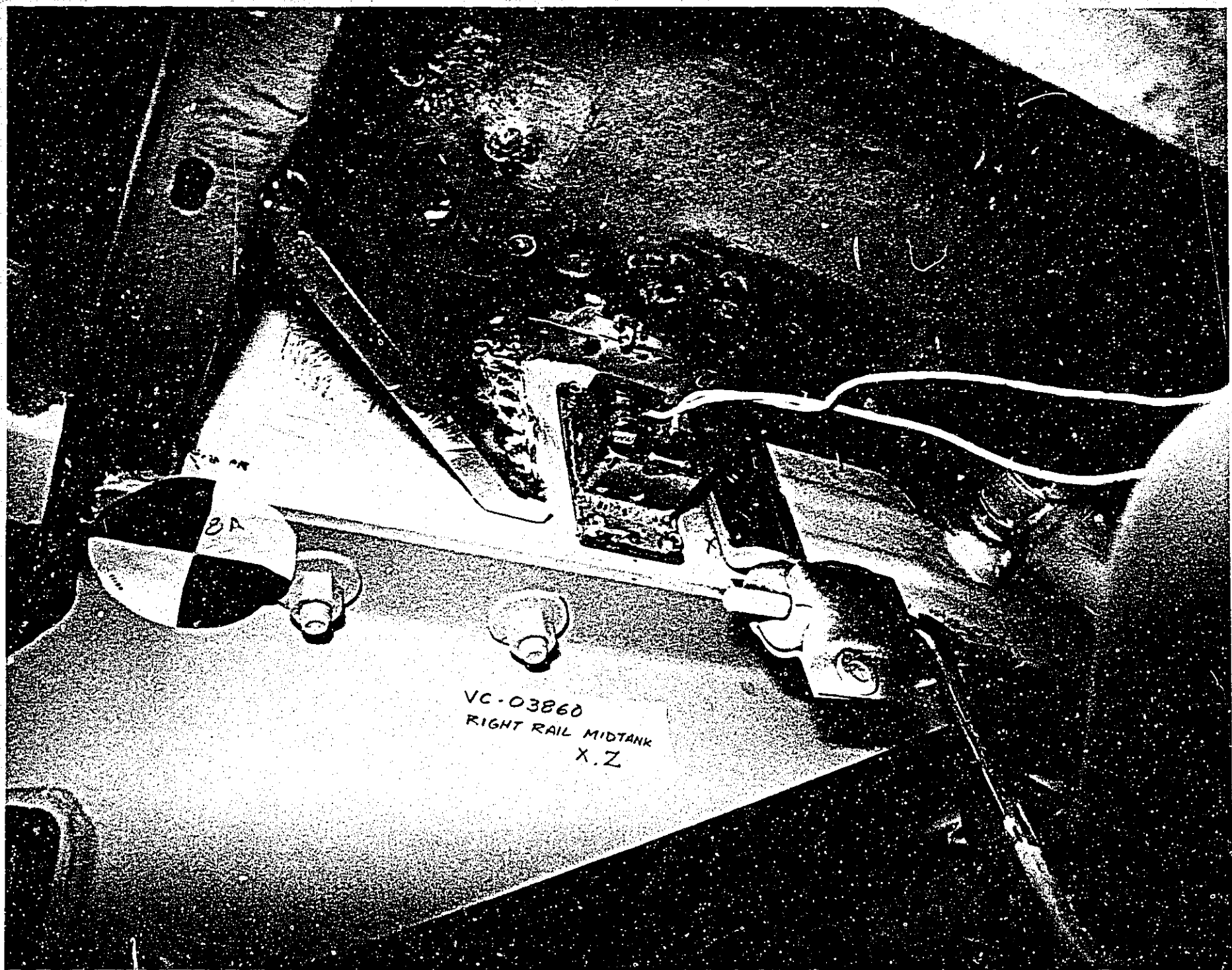
801 Front St.
Location



VC-03860
LEFT RAIL MIDTANK
X, Z

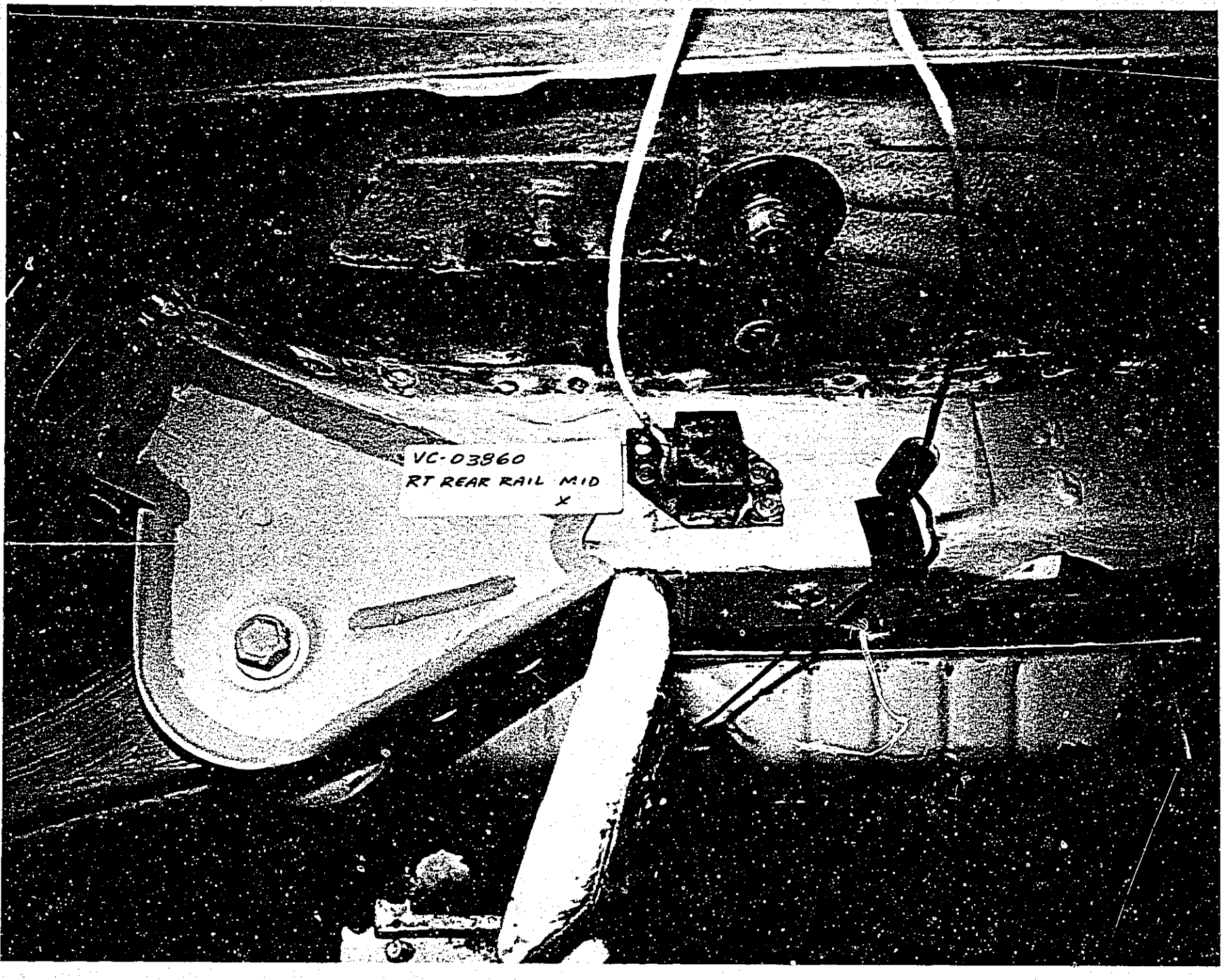
13

8789 - 2510



VC-03860
RIGHT RAIL MIDTANK
X.Z

8789-2509



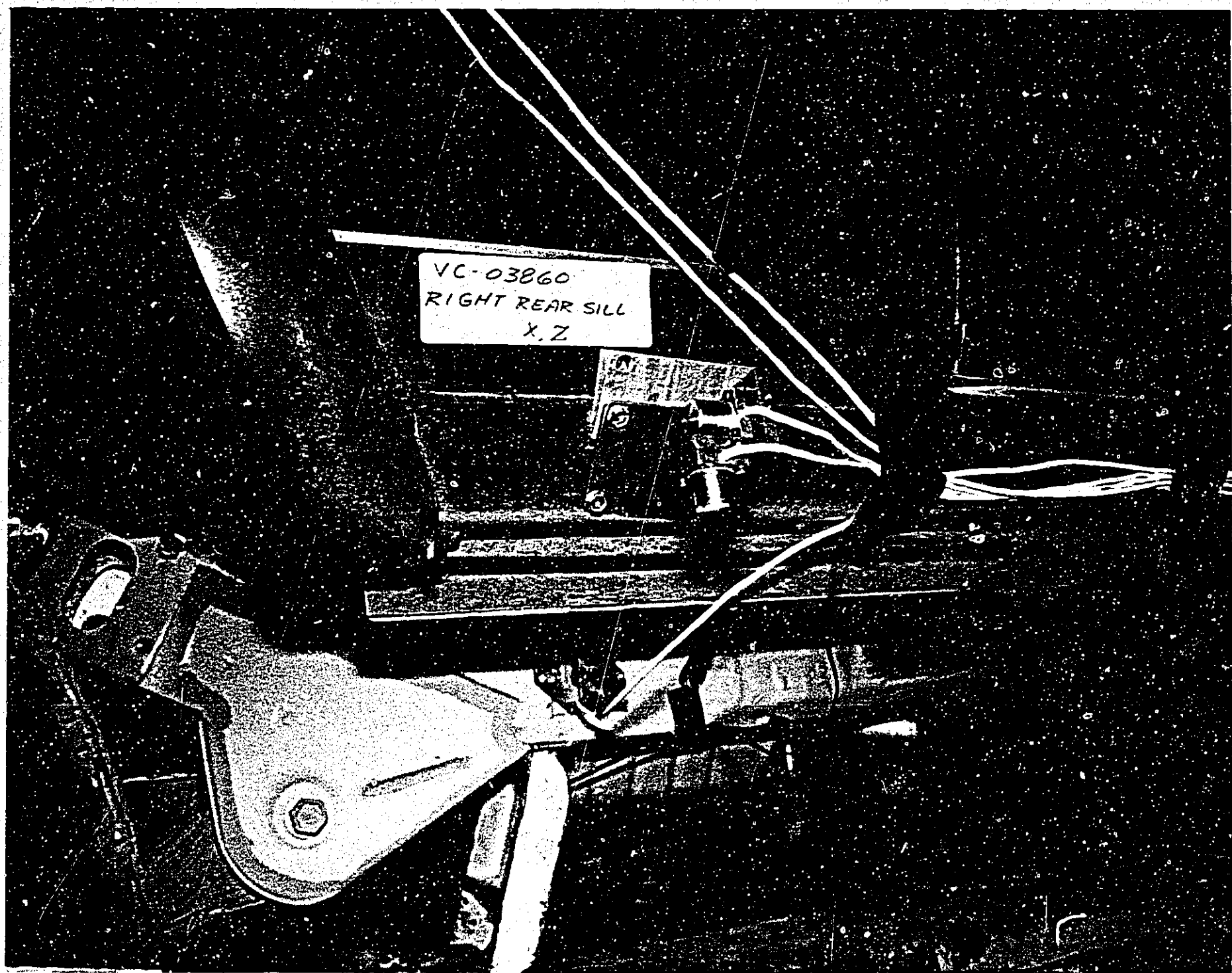
VC-03860
RT REAR RAIL MID
X

8789-2508


VC-3860
LEFT REAR SILL
Y.Z.

8789-2507

VC-03860
RIGHT REAR SILL
X.Z



8789-2506



VC-3860
RIGHT FRONT SILL
X

8789-2505

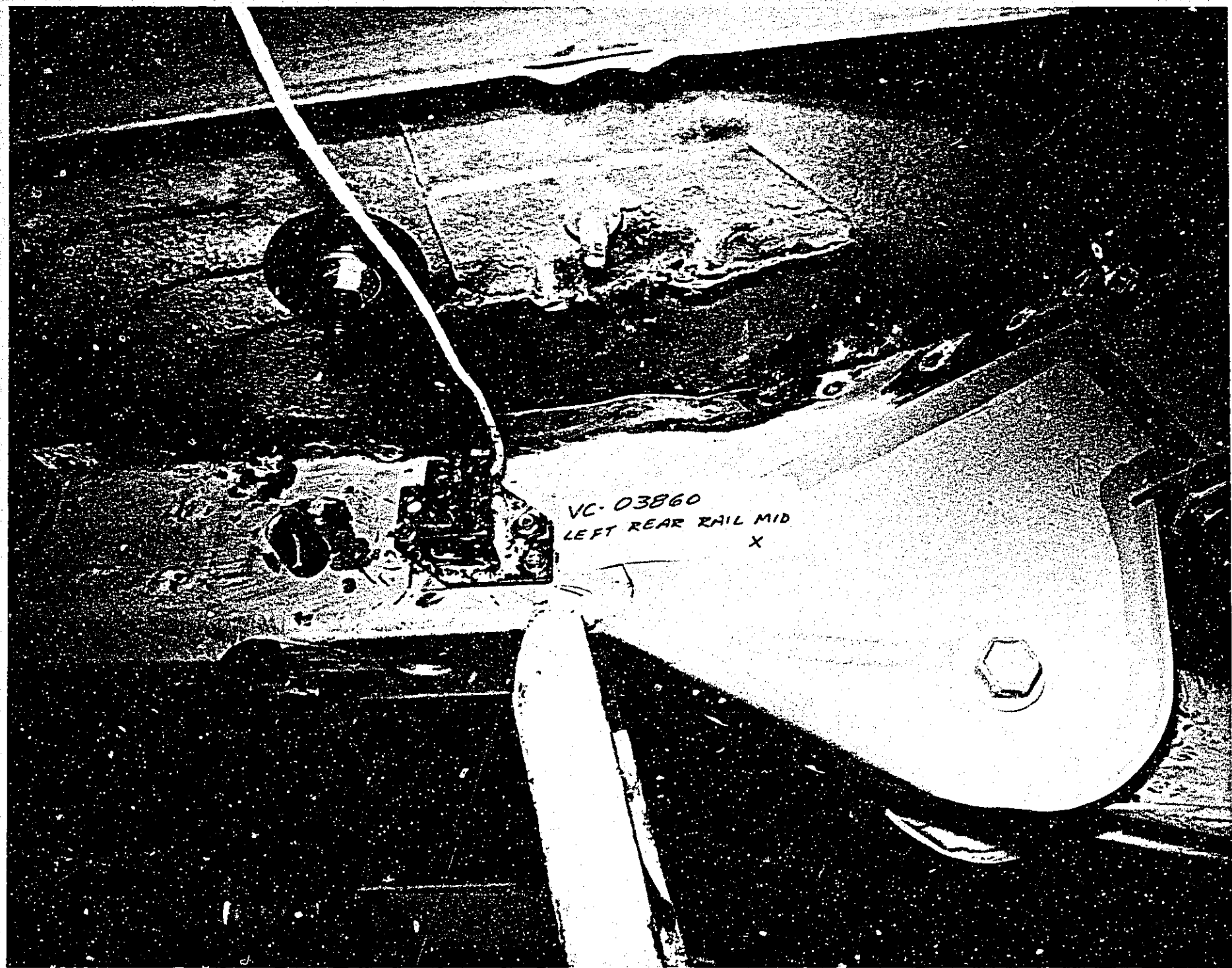
LEFT FRONT SILL

VC-3860

X

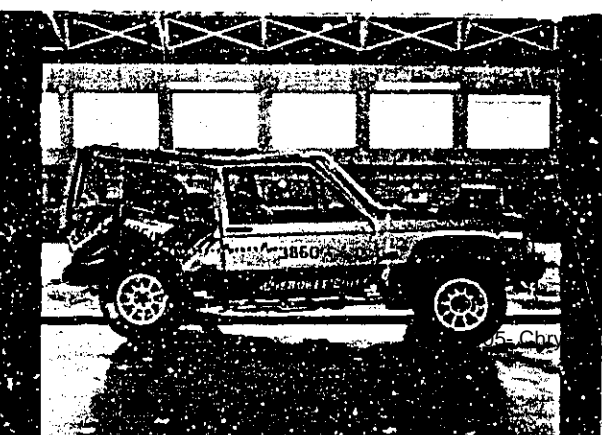
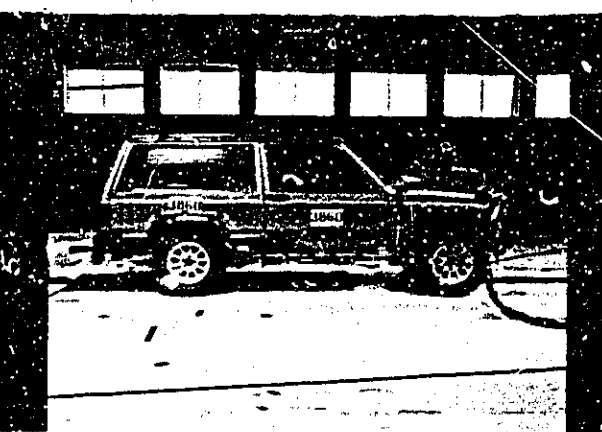
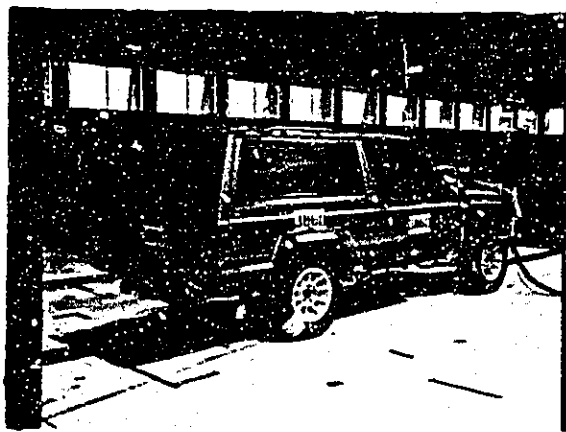
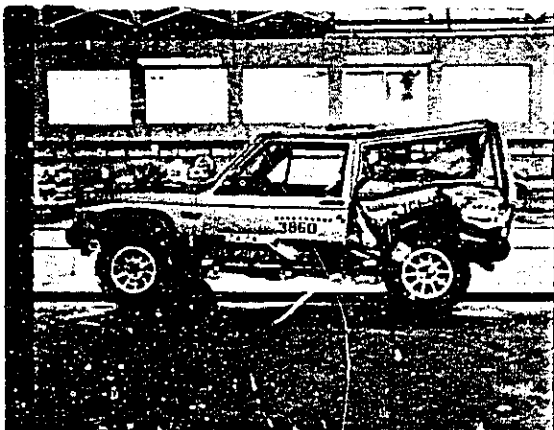
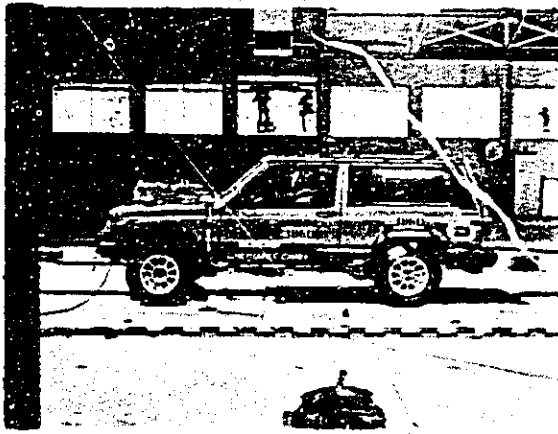
17

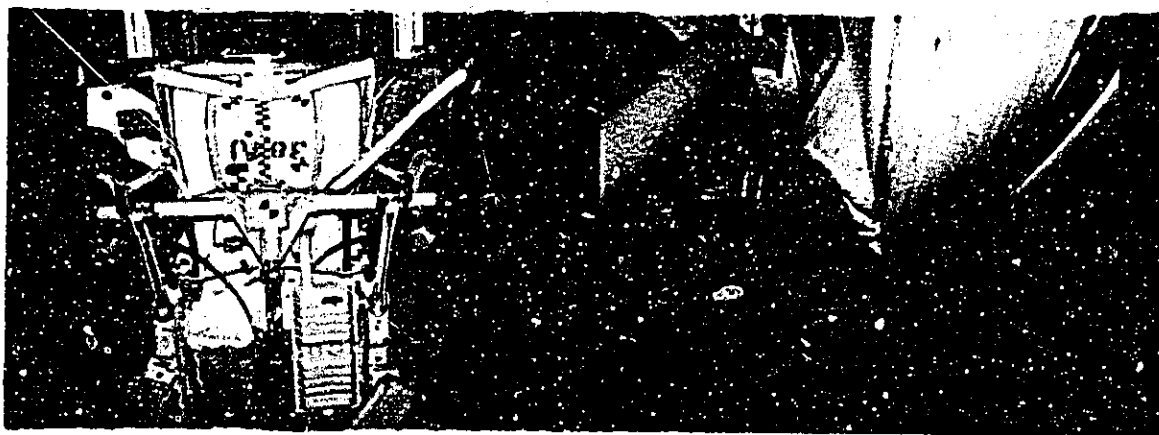
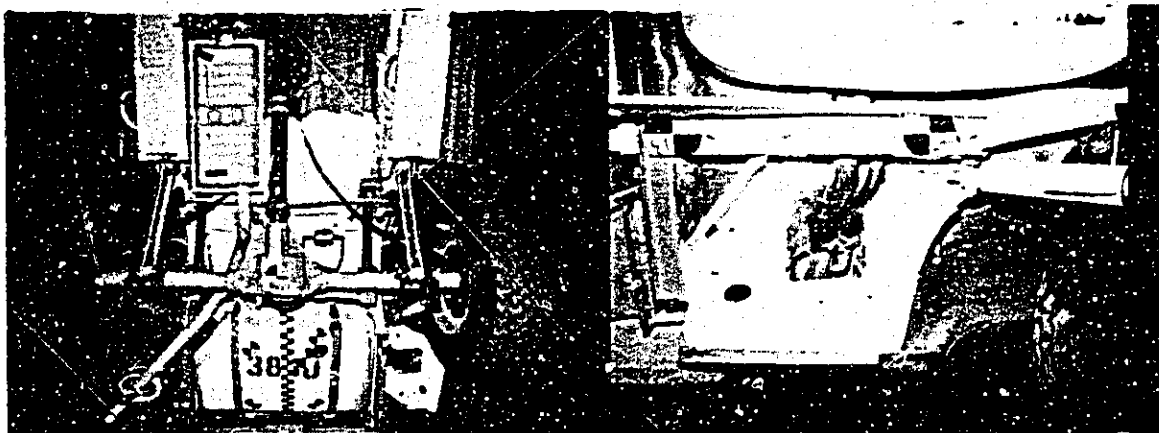
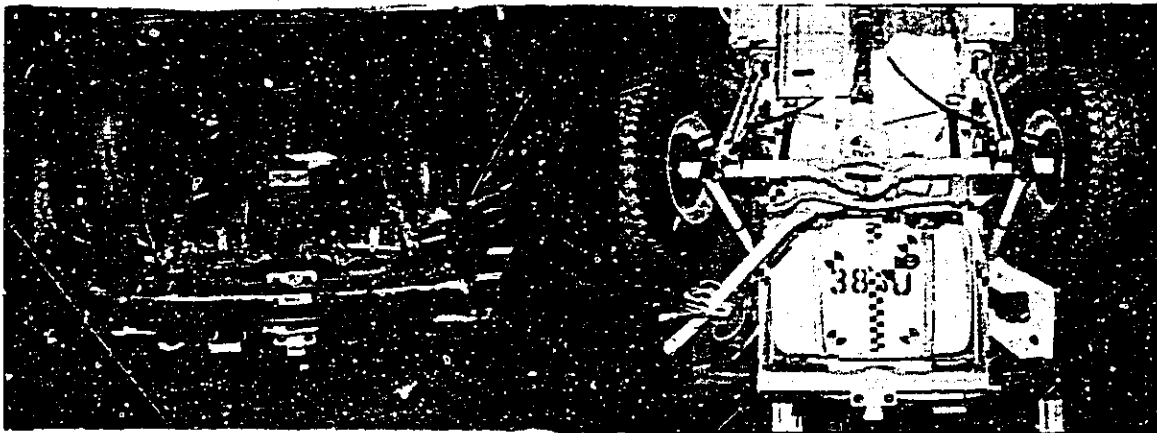
8789-2504

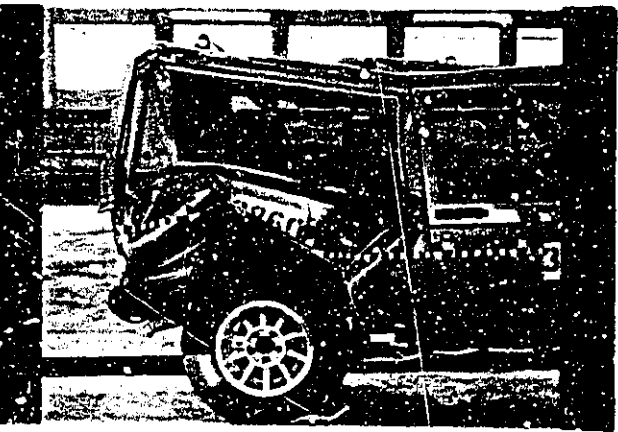
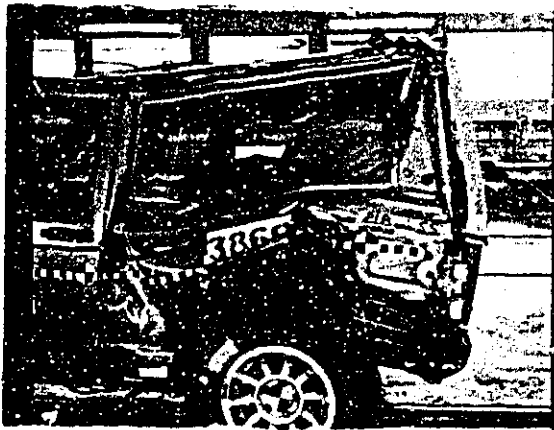
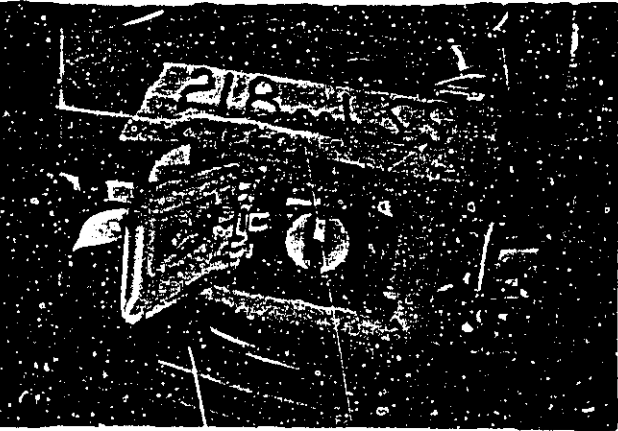
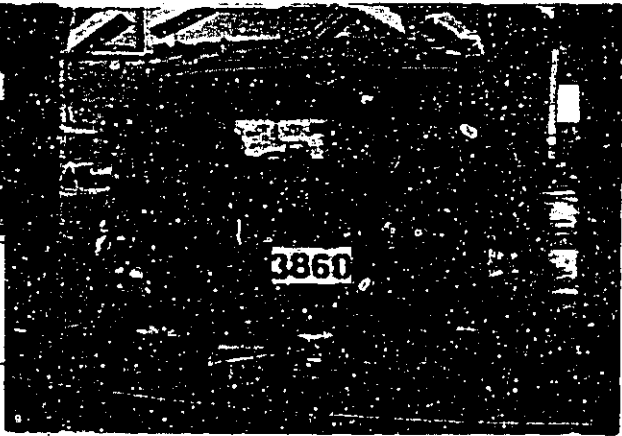


VC-03860
LEFT REAR RAIL MID
X

8789-2511







VC-386C

LEFT REAR SILL
Y. Z


EA12-006-Chrysler

8789-2507 - Duplicate # 383

VC-3860

LEFT REAR SILL
X. Z.

8789 - 2507 - Duplicate #283




VC-03860
LEFT REAR RAIL MID
X

8789-2511 - Duplicate #3 of 3

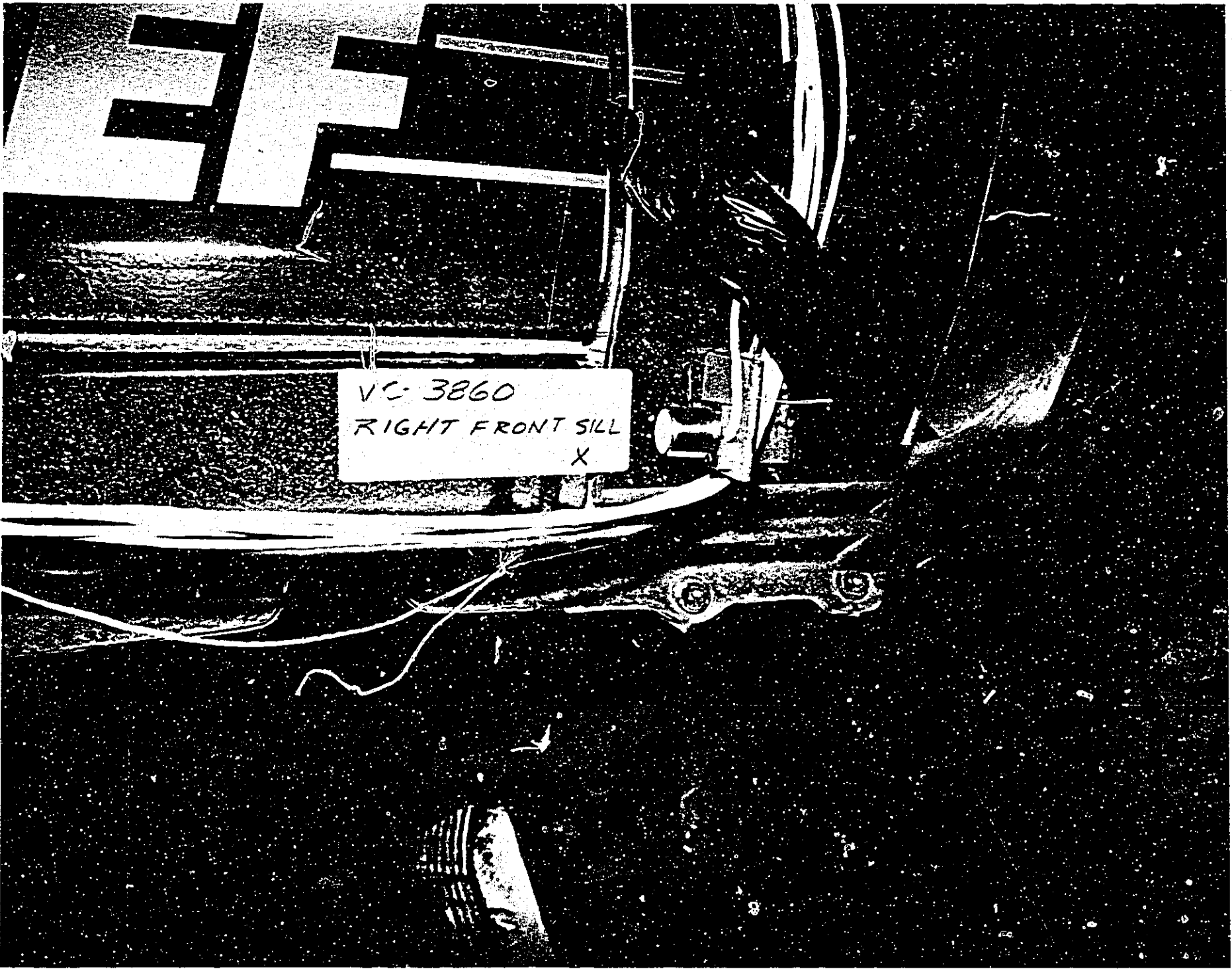
VC-03860
LEFT REAR RAIL MID
X

8789-2511 Duplexite #283

A high-contrast, black and white photograph showing the right front sill area of a vehicle. The image is heavily stylized, with most areas being either solid black or bright white. A white rectangular label is positioned in the center-left, containing the text "VC-3860", "RIGHT FRONT SILL", and "X". The label is pinned to a dark surface. To the right of the label, there are some mechanical components, possibly a hinge or a latch mechanism, with a cylindrical part. Below the label, a horizontal metal bar or beam is visible, featuring two circular fasteners or bolts. The background is mostly black, with some white lines and shapes suggesting the structure of the vehicle's body panels and window frame. The overall appearance is that of a forensic or technical photograph.

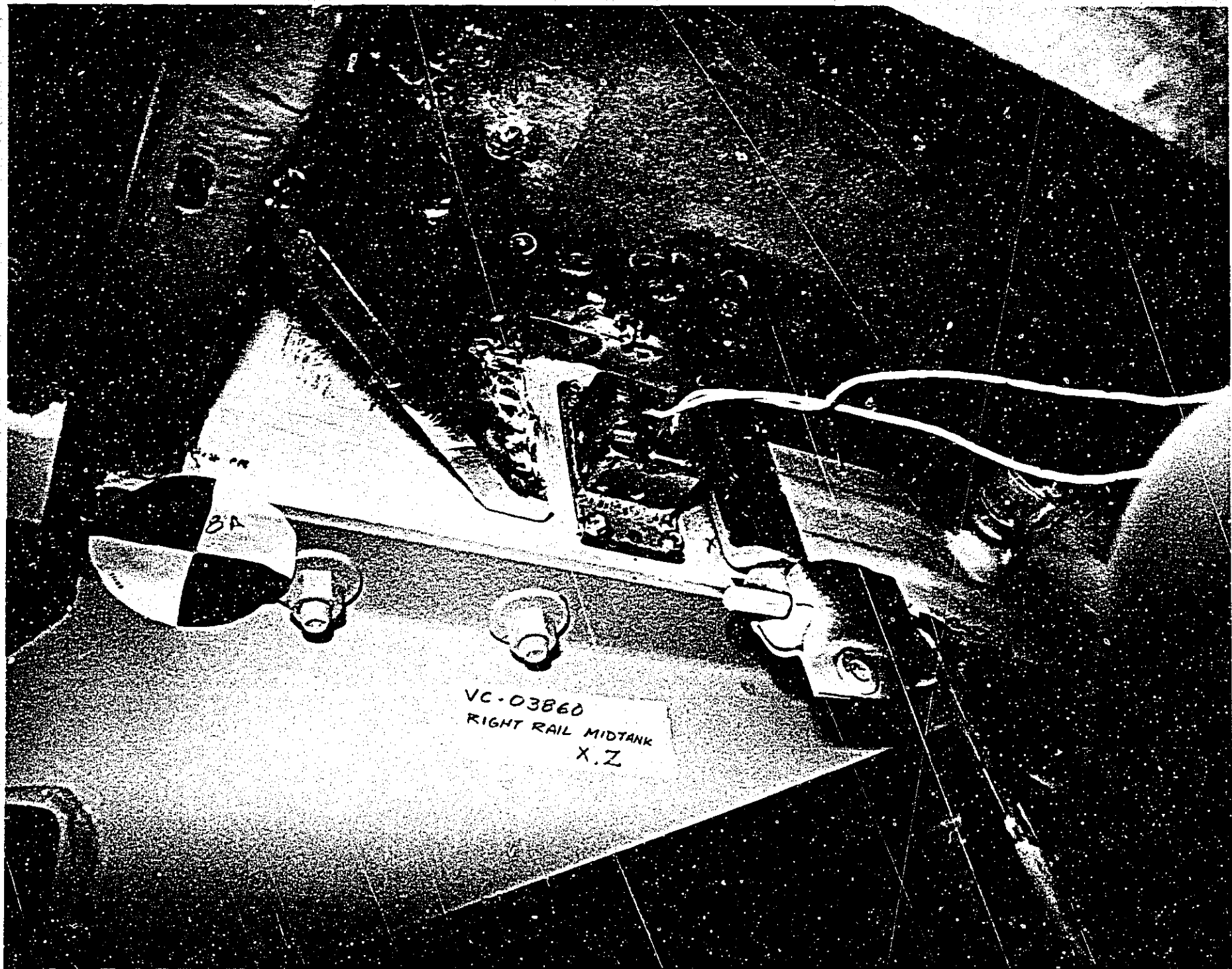
VC-3860
RIGHT FRONT SILL
X

8789-2505 - Duplicate # 3183



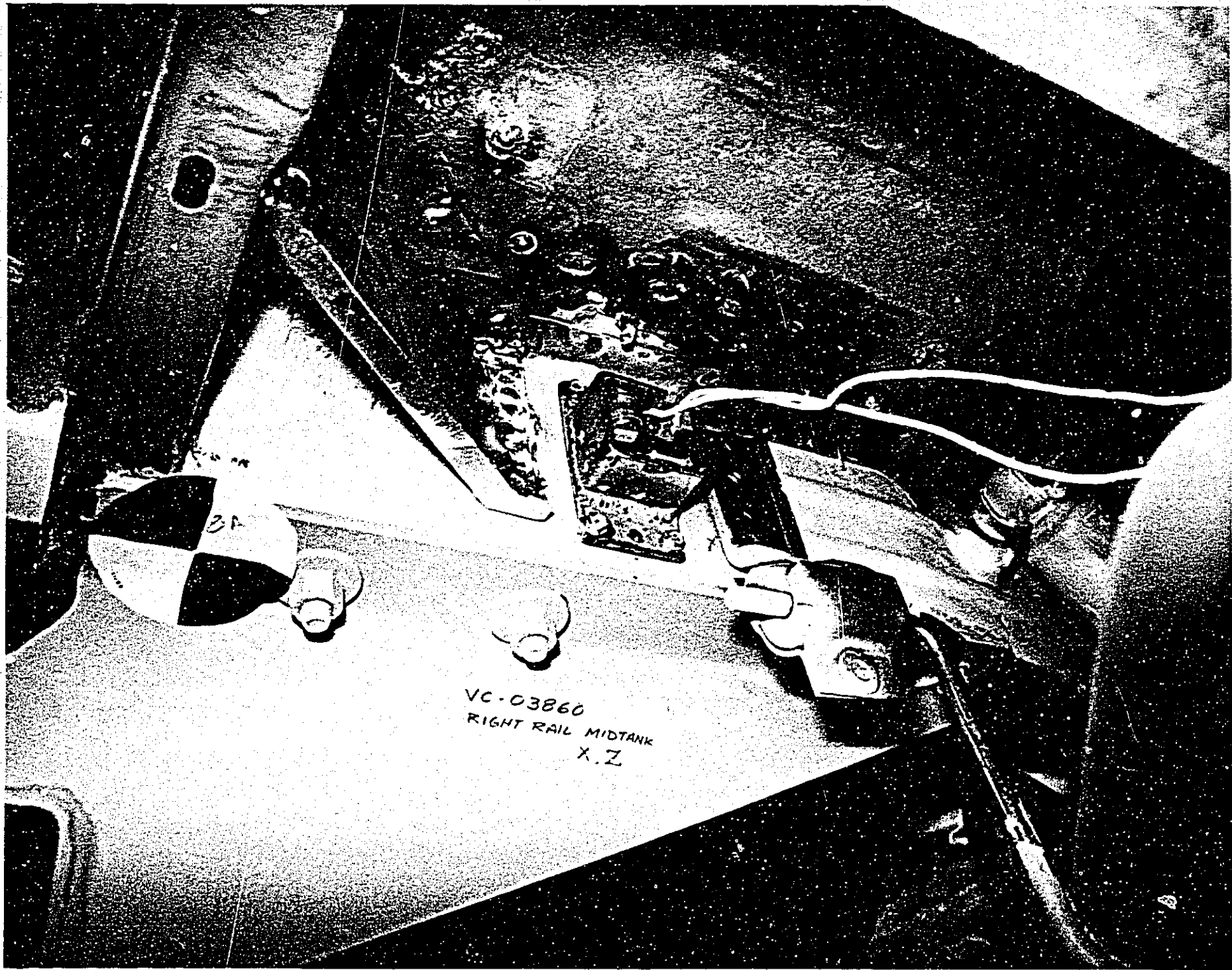
VC-3860
RIGHT FRONT SILL
X

8789-2505 - Duplicate #273



VC-03860
RIGHT RAIL MIDTANK
X.Z

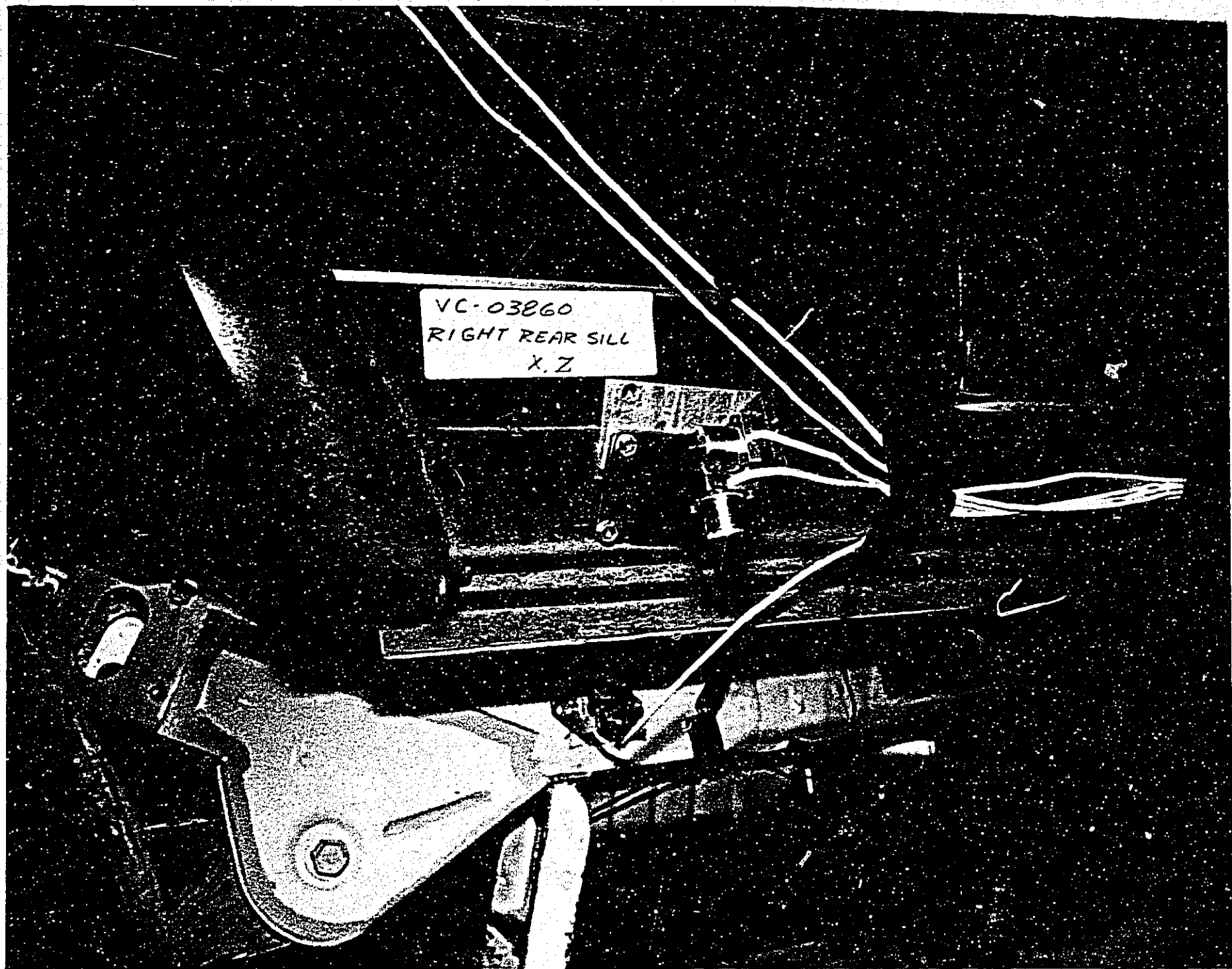
8789 - ~~2570~~ 2509 - Duplicate of 343



VC-03860
RIGHT RAIL MIDTANK
X.Z


8789 - 2509 - Duplicate #203

VC-03860
RIGHT REAR SILL
X.Z



8789-2506 - Duplicate

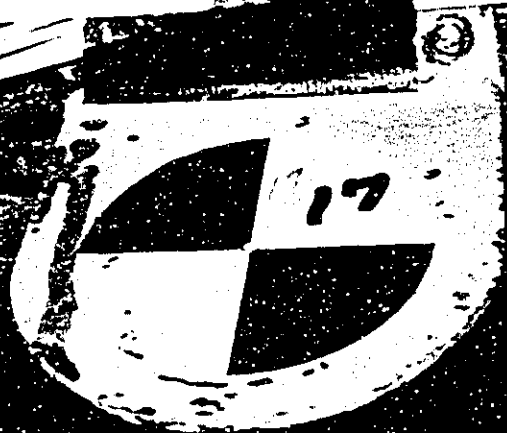
313



VC-03860
RIGHT REAR SILL
X.Z

8789-2506-Duplicate #283

LEFT FRONT SILL
VC-3860 X



8789 - - 2504 - Duplicate #383

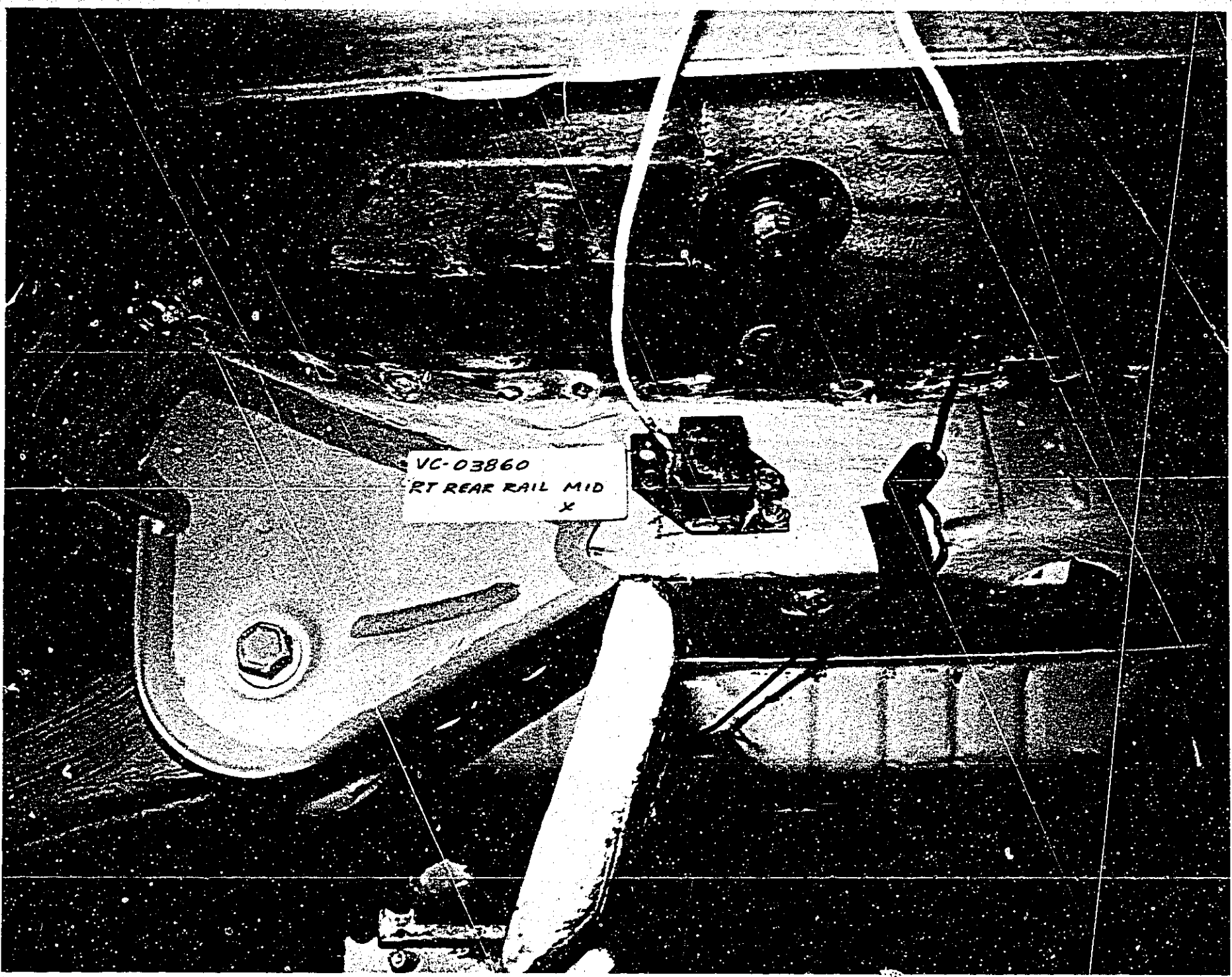
LEFT FRONT SILL

VC-3860

X

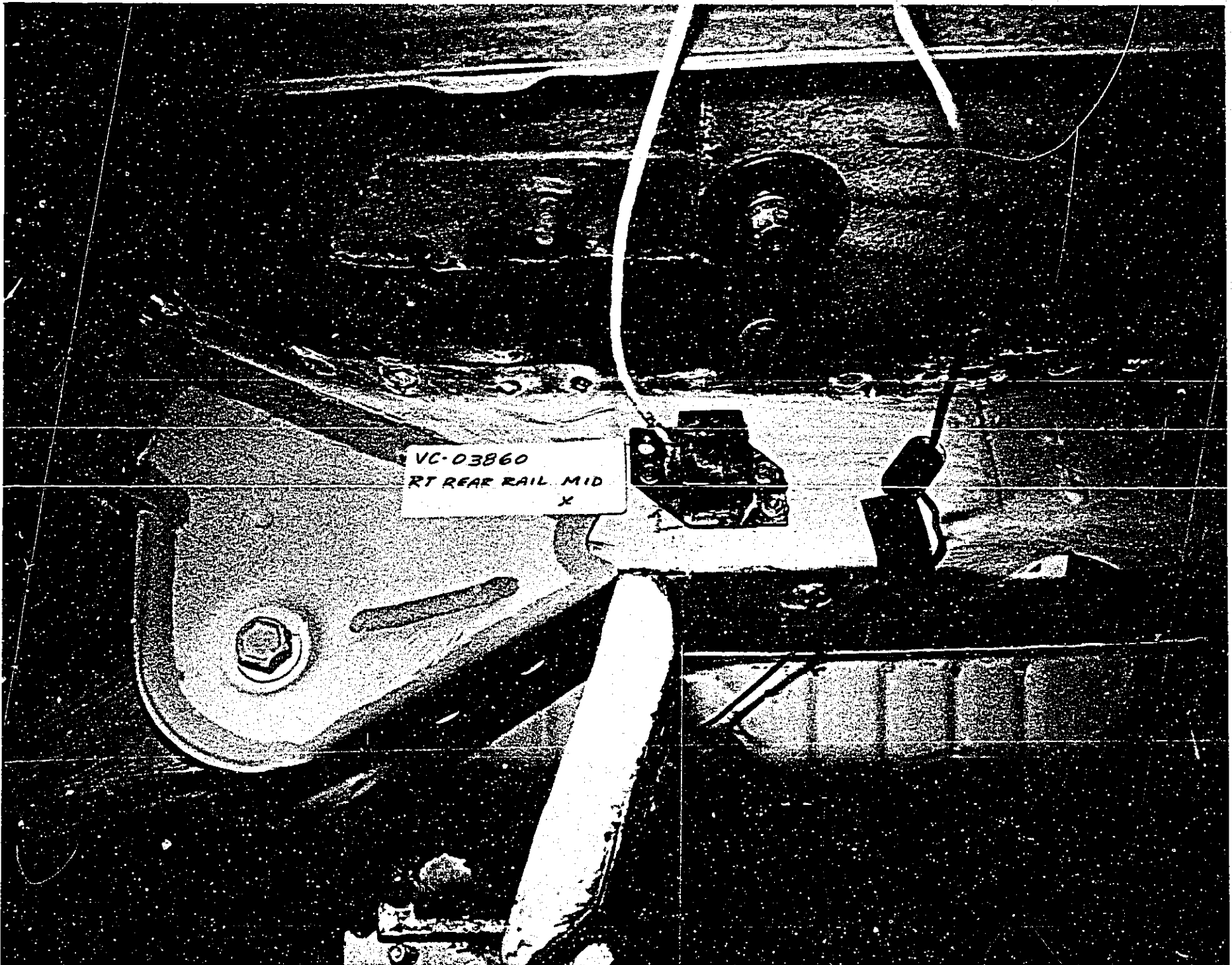
17

8789-2504 - Duplicate # 2073



VC-03860
RT REAR RAIL MID
X

8789-2508 Duplicate # 373



VC-03860
RT REAR RAIL MID
X

8789-2508 Duplicate #283

VC-03860
LEFT RAIL MIDTANK
X, Z

13

8789 - 2510 Duplicate #343

VC-03860
LEFT RAIL MIDTANK
X, Z

13

8789-2510 Duplicate #273

REVIEW TEST REQUEST

RUN (FORMS) AND (INST) PROGRAMS

3/22 ISSUE MECHANIC'S BUILD-UP FORMS

- * COPY OF TEST REQUEST AND TARGET SHEET(S)
- * MAY INCLUDE FORM 8620VC-B07-X

~~ISSUE INSTRUMENTATION FORMS TO TEST ASSURANCE~~ *Tom Informed - 3/22*

- * INCLUDE: INSTRUMENTATION SHEETS, TARGET SHEET, AND TEST ENGINEERS FORMS.

NOTE XENONS ON TARGET SHEET

NOTE IN-TANK PLMP OPERATION, IF REQ'D

3/22 ISSUE CAMERA LAY-OUT TO FILM ANALYSIS LIAISON (M. CROSSMAN)

3/22 ISSUE PHOTOGRAPHIC WORKORDERS

- * MOVIES (1 PRINT, PLUS ORIGINAL)
- * STILLS (2 EACH)

3/22 ISSUE DUMMY REQUEST (BALLAST AND INSTRUMENTED) TO J. BEPLINER

ASSEMBLE TEST ENGINEERS FORMS

- * INCLUDE TUBE DIMENS. ON SHEETS (REAR AND LATERAL IMPACTS)

~~COMPLETE SEC. VI PAGES 1,2,3,&4 -PRETEST INFO AS APPLICABLE~~

- * FUEL SYSTEM
- * POWER TRAIN, STRUCTURAL, STEERING
- * SEATS, RESTRAINTS, I/PNL, OCCUPANTS
- * W/SHLD, GLASS, HOOD

FOLLOW MECHANICAL AND ELECTRICAL BUILD-UP

TARGET MEASUREMENTS

FILL FUEL TANK, WEIGH AND BALLAST

RECORD BALLAST ADDED

~~ISSUE~~ OCCUPANT (J826) SEAT FOR DUMMY POSITION, IF REQUIRED

TURN VEHICLE OVER TO TECHS

~~DAY PRIOR TO TEST-~~

- PRETEST PHOTOS
- PREPARE TITLE BOARD
- * CHECK ON TEST SITE PREP.

~~TEST DAY~~

- * CHECK FINAL BUILD-UP
- * WEIGH VEHICLE AND RECORD
- * IMPACT
 - F/SYS- DO NOT MOVE VEHICLE FOR 30 MINUTES
 - W/SHLD- RECORD IMMEDIATELY FOLLOWING IMPACT
 - A/BAG- STAY CLEAR 15 FEET FOR 15 MINUTES
- * POST IMPACT PHOTOS

MOORE BUSINESS FORMS INC. 27

* POST TEST *

RETURN VEHICLE TO GARAGE

MAKE AND STORE POST TEST LETTER (VCREPOST)
(INCLUDE 204, 208, 212, 219, & 301 COMMENTS IN POST
TEST REMARKS, AS APPLICABLE.)

COPY TO M. CROSSMAN
 COPY TO FILE

PREPARE BUILD-DOWN CHECKLIST

FOLLOW BUILD-DOWN
 TARGET MEASUREMENTS
 STATIC ROLL
 PRESSURE CHECK

DATA PACK FOR FILM ANALYSIS (M. CROSSMAN)
* TEST REQUEST
* CAMERA L/O
* TARGET SHEETS
* DIMENSION SHEETS (X, Y, Z)
* TUBE DIMENSIONS
* DIMENSION LISTING FROM "TARGETS" PROGRAM
* DUMMY DIMENSION SHEET(S)
* MOVIE FILM

COMPLETE SEC. VI, PAGES 2, 3, AND 4

POST TEST PHOTOS

PICK UP BUILD SHEETS FROM GARAGE

SHIPPING RELEASE TO SHOP FOREMAN

VIEW FILM

STILL PHOTO LIST AND DISTRIBUTION

~~MM~~ POST TEST DUMMY RECERTIFICATION

~~MM~~ COMPLIANCE REPORT FOR MVSS (204) (208) (212) (219) (301)

COMPUTER LOAD SHEET

FILE TAB

[DOCVCFORMS(5320VC)CHECKLIST]

01/20/88

POST TEST CRITIQUE

ITEM NO 8XJ10 VEH TYPE XJ 72 4x4 ENG 4.0 TRANS 4sp AUTO

TEST NO 3860 DEV 91 VAL _____ COMP _____ RESC _____

FLRPOSE 204 _____ 208 _____ 212 _____ 219 _____ 301

TEST MODE FFF REAR _____ ANG _____ LAT _____ TEST WEIGHT A301

PERSONNEL CAL RISMUSSEN BOOTH _____

STRK VEH MANNEY MECH SEBERT LOTRIDGE

T/A ENG GRENKE TECH ECKET GUENTHER

TIME OUT 10:40 TEST VELOCITY 30.8 IMPACT TIME 1.45

TOW OPERATOR LOBDELL CAR WINCH _____

W/S INTRUSION UPR _____ LWR _____ S/C DISP _____

W/S RETENTION RT 1/2 _____ LT 1/2 _____ TOTAL _____

OCCUPANTS HYBRID II III RESTRAINTS

	OCCUPANTS		UB	ACTIVE		PASSIVE	
	1L	1R		1L	1R	1L	1R
95%							
50%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2 PT	---
5%			LB			3 PT	---
INST			UN/PES			A/B	---

OCCUPANT CONTACTS S/W RIM S/W HUB S/C COVER INST PNL W/S G/BOX

1L _____

1R _____

SEAT STATUS 1L _____ 1R _____

DOOR STATUS LT _____ RT _____

ANOMALIES- MECH _____ ELECT _____

FUEL SYSTEM PERFORMANCE LEAKAGE- IMPACT 0 STATIC POLL _____ PRESS/CK _____

FUEL SYSTEM TYPE- MPI

INSTRUMENTATION CONVENTIONAL ORDASH# _____

SUPPORT MECHS _____ TECHS _____ PHOTOGS _____

REPORT REQUIRED NO YES _____

EA12-005- Chrysler -000401

TEST-ENGINEER Wirth DATE 4/4/89

MOORE BUSINESS FORMS INC. 27

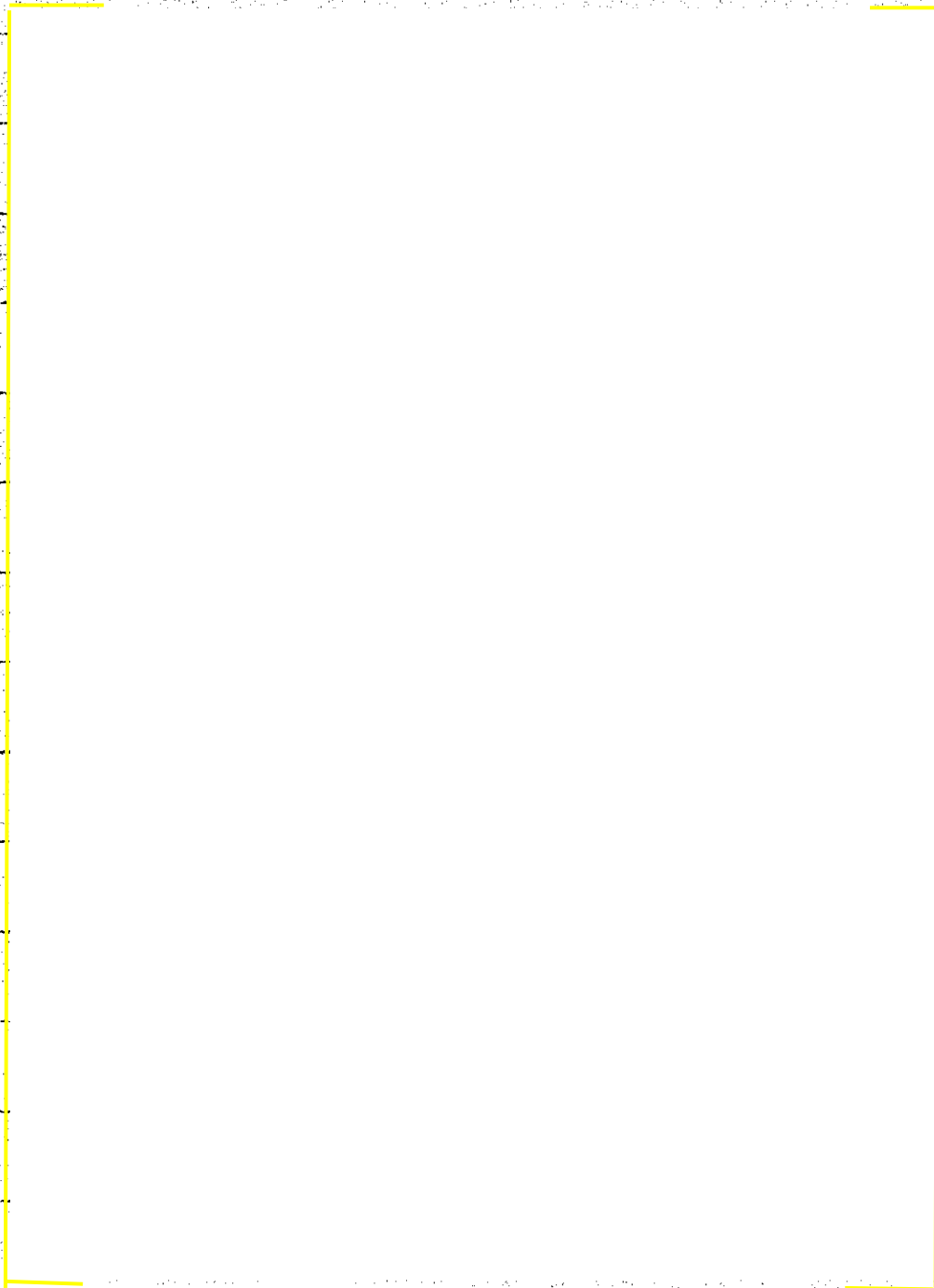
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST LETTER

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20	100
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.	110
TEST DATE 04/04/89	120
TEST PURPOSE	130
PRIMARY, 1991 MVSS 301 DEVELOPMENT.	140
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.	150
	160
	170
IMPACT TYPE	180
TARGET SPEED; 30.5 MPH	190
DAMAGE LOCATION; REAR	200
IMPACT TYPE; TYPE IV	210
BARRIER SURFACE; PLYWOOD	220
DIRECTION; 0 DEGREES	230
	240
VEHICLE	250
BODY CLASS; XJ	260
CAR LINE; J	270
BODY; 72	280
ENGINE; 4.0 LITRE	290
ENGINE NOTE; MPI	300
TRANSMISSION; 4 SPEED AUTO 4X4	310
TRANS. NOTE;	320
VIN AS TESTED; 1J4?J?7L?M* [REDACTED] MOD.	330
VIN AS BUILT; 1JCMT7737JT [REDACTED] MOD.	340
	350
TEST SPEED	360
30.8 MPH BY ELECTRONIC TRAP TIMER	370
	380
TEST WEIGHT (LBS)	390
4307 TOTAL, 2204 FRONT, 2103 REAR	400
	410
OCCUPANTS	420
LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-34	430
RESTRAINT-UNIBELT	440
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-67	450
RESTRAINT-UNIBELT	460
	470

MOTOR BUSINESS FORMS, INC. 27

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
TEST DATE 04/04/89

BUILD CONDITION



- 430
- 440
- 450
- 450
- 470
- 480
- 490
- 500
- 510
- 520
- 530
- 540
- 550
- 560
- 570
- 580
- 590
- 600
- 610
- 620
- 630
- 640
- 650
- 660
- 670
- 680
- 690
- 700
- 710
- 720
- 730
- 740
- 750
- 760
- 770
- 780
- 790
- 800
- 810
- 820
- 830
- 840
- 860

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST. 870
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT. 880
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA. 890
150 LBS BALLAST SECURED IN THE REAR SEAT FOOTWELL 900
POST TEST REMARKS THERE WAS NO FUEL LEAKAGE AT IMPACT NOR DURING THE THIRTY MINUTES IMMEDIATELY FOLLOWING IMPACT. 910
920
930
940
950

MAXXHE BUSINESS FORMS, INC. 27

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ20
1991 EMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY,
TEST DATE 04/04/89

REPORT CODES	A = TRANSDUCER DATA	B = ALL FILM DATA	960
	C = HIGH SPEED FILM	D = ENGINEER'S REPORT	970
	E = DUMMY KINEMATICS	F = STEERING COLUMN	980
	G = UNDERBODY	H = A-POST	990
	I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT	1000
	K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY	1010
	M = SPECIAL		1020

DISTRIBUTION	NAME	PHONE	EXT	NUMBER
	W.W. KOEBNICK	422-05-01	(AB)	1030
	H.G. POULEAU	422-05-01	(AB)	1040
	M.W. CROSSMAN	422-05-01	(B)	1050
	T.P. MAULE	422-05-01	(A)	1060
	J.M. BERLINER	422-05-01	(A)	1070
	J.W. HANIKA	418-42-22	(AB)	1080
	W.A. BREITMOSER	422-05-01	(AB)	1090
	W.R. HARBAUGH	418-42-22	(AB)	1100
	G.M. ABOUD	514-15-17	(AB)	1110
	A.J. REGAN	418-42-22	(AB)	1120
	L.C. MILLER	514-00-00	(AB)	1130
	E.A. ZYLIK	514-15-17	(AB)	1140
				1150

DATE 04/04/89 TIME 15.12.58.

SAVAGE BUSINESS FORMS, INC. 27

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

VC3860

SUPPLEMENT NO. 05

3-28-89

ITEM 8XJ20 CHARGE NO. 5328018 ISSUE DATE 03-03-89

VC3860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE

4/4/89
SPEED 30.8 MPH

ENGINEER

WIRTH

SOURCE ELECTRONIC TRAP

TEST PURPOSE

PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE

TARGET SPEED; 30.5 MPH
DAMAGE LOCATION; REAR
IMPACT TYPE; TYPE IV
BARRIER SURFACE; PLYWOOD
DIRECTION; 0 DEGREES

VEHICLE

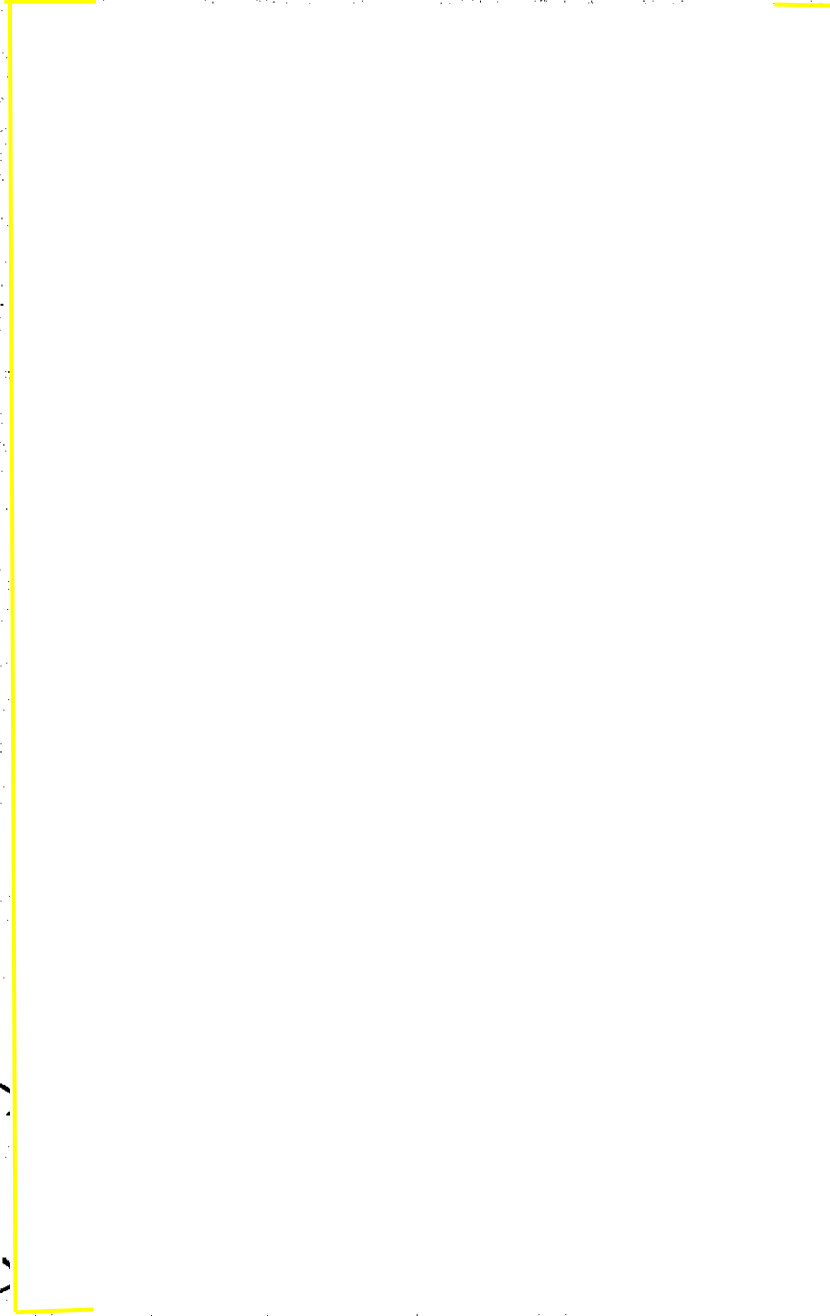
BODY CLASS; XJ
CAR LINE; J
BODY; 72
ENGINE; 4.0 LITRE
ENGINE NOTE; MPI
TRANSMISSION; 4 SPEED AUTO 4X4
TRANS. NOTE;
VIN AS TESTED; 1J47J77L7M* [REDACTED] MOD.
VIN AS BUILT; 1JCMT7737JT [REDACTED] MOD.

POST TEST REMARKS

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 05

BUILD CONDITION



TARGET WEIGHT (LBS) 3886 TOTAL, 2005 FRONT, 1861 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST WEIGHT (LBS) 4307 TOTAL, 2204 FRONT, 2103 REAR

FUEL BALLAST 21.8 GALLONS OF STODDARD SOLVENT.

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 05

LUGGAGE BALLAST 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

OTHER BALLAST

150 lbs Rear seat footwell

OCCUPANTS

LEFT FRONT 50TH MALE UNINSTRUMENTED. AD NO 34

RESTRAINT-UNIBELT

RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD NO 67

RESTRAINT-UNIBELT

MECHANICAL REQ

TARGET VELOCITY-30.5 MPH.

REQUIRED- PRESSURE CHECK FUEL SYSTEM PRE-TEST &
STATIC ROLLOVER POST-TEST.

ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

TETHER SPARE TIRE.

TARGET VEHICLE PER 3RD SHEET NO. 102.

PAINT SIDE OF FRAME RAILS AT KICK-UP IN SIDE
VIEW. PLEASE INCREASE LIGHTING.PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
TANK IN CONTRASTING COLORS.BALLAST OF THIS VEHICLE WILL BE MADE BY STRUCTURE
ENGINEERING "MUSTAFA KHALIFA" 6-2474 OR 6-3508.

PLEASE INFORM MUSTAFA ONE DAY AHEAD.

ADD EVENT MARKER TO INDICATE INITIAL IMPACT OF
FUEL TANK TO DIFFERENTIAL.FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
CHUCK ALANIZ (6-3871 OR 2-8185).

PLACE INCH TAPE ON CENTERLINE OF FUEL TANK.

HIGHLIGHT FUEL TANK TRANSVERSE CREASE AT TANK
ELEVATION CHANGE AS WELL AS TANK PERIMETER. SEE
VC 379.

INSTRUMENTATION REQ

SEE 3RD SHEET NO.102 FOR ACCELEROMETER REQMTS
AND LOCATIONS.

ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

CHRYSLER MOTORS
 IMPACT TEST AND DEVELOPMENT
 VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 05

PHOTOGRAPHIC REQ 1-OVERALL CAMERA, RT SIDE, TO VIEW VEHICLE AND BARRIER FACE AT IMPACT.
 1-CATWALK CAMERA TO VIEW ENTIRE VEH. AT IMPACT.
 1-LT SIDE CAMERA TO VIEW DYNAMIC CRUSH.
 1-LT SIDE CLOSE-UP VIEW OF THE DAMAGE AREA.
 2-PIT CAMERAS, ANGLED VIEWS OF FUEL TANK AND SURROUNDINGS.
 2-CLOSE-UP CAMERAS 1LT/1RT TO VIEW FRAME RAILS IN SIDE VIEW AT KICK-UP.
 1-PIT CAMERA FOR CLOSE-UP VIEW OF FUEL TANK.
 1-VELOCITY ANALYSIS CAMERA.
 1-PANNING CAMERA.

FILM ANALYSIS MOVING BARRIER VELOCITY, ONLY IF REQUESTED.
 UNDERBODY MOTION, ONLY IF REQUESTED.
 DYNAMIC CRUSH.

REMARKS TEST REQUEST ORIGINATOR: VIC HANNAWI 6-3378.
 PLEASE DO NOT REMOVE ANY PART OF VEHICLE PRE OR POST-TEST.

T. E. REPORT NOT REQUIRED.

REPORT CODES A = TRANSDUCER DATA B = ALL FILM DATA
 C = HIGH SPEED FILM D = ENGINEER'S REPORT
 E = DUMMY KINEMATICS F = STEERING COLUMN
 G = UNDERBODY H = A-POST
 I = DYNAMIC CRUSH J = ENGINE COMPARTMENT
 K = DOOR CRUSH L = FORCE/CRUSH/ENERGY
 M = SPECIAL

DISTRIBUTION W.W. KOEBNICK 422-05-01 (AB)
 H.G. ROULEAU 422-05-01 (AB)
 M.W. CROSSMAN 422-05-01 (B)
 T.P. MAULE 422-05-01 (A)
 J.M. BERLINER 422-05-01 (A)
 J.W. HANIKA 418-42-22 (AB)
 W.A. BREITMOSER 422-05-01 (AB)
 W.R. HARBAUGH 418-42-22 (AB)
 G.M. ABOUD 514-15-17 (AB)
 A.J. REGAN 418-42-22 (AB)
 L.C. MILLER 514-00-00 (AB)
 E.A. ZYLIK 514-15-17 (AB)

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 05

*****CHANGED 03/16/89 AT 09.27.11. SUPPLEMENT NO. 01

BUILD CONDITION

ADD PLASTIC QUICK CONNECT ARE USED ON FUEL SUPPLY
AND RETURN LINES TO SENDING UNIT NIPPLES.

MECHANICAL REQ

ADD PAINT REAR AXLE, STABILIZER BAR AND TRACK BAR
BRACKET IN CONTRASTING COLORS.
ADD FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
ADD CHUCK ALANIZ (6-3871 OR 2-8185).

*****CHANGED 03/21/89 AT 15.10.34. SUPPLEMENT NO. 02

MECHANICAL REQ

MODIFY PAINT REAR AXLE, STABILIZER BAR AND TRACK BAR
TO READ PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
ADD BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
ADD TANK IN CONTRASTING COLORS.
MODIFY BRACKET IN CONTRASTING COLORS.
TO READ BALLAST OF THIS VEHICLE WILL BE MADE BY STRUCTURE
ADD ENGINEERING "MUSTAFA KHALIFA" 6-2474 OR 6-3506.
ADD PLEASE INFORM MUSTAFA ONE DAY AHEAD.

*****CHANGED 03/22/89 AT 07.56.07. SUPPLEMENT NO. 03

PHOTOGRAPHIC REQ

ADD IN SIDE VIEW AT KICK-UP.
DELETE AT KICK-UP.

*****CHANGED 03/28/89 AT 09.32.28. SUPPLEMENT NO. 04

MECHANICAL REQ

ADD ELECTIC FUEL PUMP TO BE RUNNING DURING TEST.

INSTRUMENTATION REQ

DELETE 2-HYB II DUMMIES INSTRUMENTED WITH CHEST
MODIFY ACCELEROMETERS, ONLY.
TO READ ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

*****CHANGED 03/28/89 AT 09.34.54. SUPPLEMENT NO. 05

INSTRUMENTATION REQ

MODIFY ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.
TO READ ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC3860, ITEM NUMBER 8XJ20, TEST ENGINEER: WIRTH
 V.I.N. 1J4J37L3M- [REDACTED] TEST DATE 4/4/89, ROLL DATE 4/5/89
 FUEL TYPE AND QUANTITY - .767 S.G. STODDARD SOLVENT, 21.8 GALLONS
 TEST SPEED 30.0 MPH; TEST WEIGHT 4301 POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK - <u>23 GAL Plastic</u>	<u>Distorted, Contact w/ Rear axle & track Bar axle attach</u>
FILLER TUBE -	
CAP -	
FUEL FILTER -	
GERMMET -	
FUEL PUMP - <u>IN TANK</u>	
STRAPS -	
LINES -	
AIR CLEANER -	
VALVES -	

POST IMPACT LEAKAGE (OZ): AT IMPACT 0, 1ST 5 MIN. 0, NEXT 25 MIN. 0
 POST TEST PRESSURE CHECK

STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME	CARB PUMP	FUEL CLEAN	AIR TANK	FUEL TANK	FUEL FILT	GRO MET	FILL CAP	OTHER ***	TOTAL
0-90 !1ST 5 MIN!				18 ml					18 ml + 0.5 oz
2:30 !POST 5 MIN!				Drops ≈ 10 ml					≈ 10 ml ** per min 0.25 oz
90-180 !1ST 5 MIN!									*
2:25 !POST 5 MIN!									**
180-270 !1ST 5 MIN!				100 ml					100 ml + 2.6 oz
2:16 !POST 5 MIN!				18 ml					18 ml ** 0.5 oz per min
270-360 !1ST 5 MIN!				30 ml					30 ml 0.8 oz
2:19 !POST 5 MIN!				Trace					Trace **

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

0-90 !1ST 5 MIN!				17 ml					17 ml + 2 oz
2:14 !POST 5 MIN!				20 ml 1 min					20 ml ** 0.5 oz per min
90-180 !1ST 5 MIN!				20 ml					20 ml 0.5 oz
2:22 !POST 5 MIN!									**
180-270 !1ST 5 MIN!									*
2:22 !POST 5 MIN!									**
270-360 !1ST 5 MIN!									*
2:22 !POST 5 MIN!									**

EA12-005 Chrysler -000410

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

*** OTHER -

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POWER TRAIN AND STRUCTURAL DATA

TEST NUMBER VC3860

POWER TRAIN

ENGINE 4.0 (LITRE/CUBIC INCH); MODIFICATIONS MPI

ENGINE TEST DAMAGE

THROTTLE OR SHIFT LINKAGE MODIFICATIONS

LINKAGE TEST DAMAGE

TRANSMISSION 4SP AUTO, MANUAL. AXLE 4x4

DRIVE LINE DAMAGE

AIR CONDITIONING (YES OR NO) Yes BATTERY SIZE

OTHER MODIFICATIONS OR ACCESORIES (AIR PUMP, WATER PUMP...)

STRUCTURE

DOOR MODIFICATIONS

POST TEST DOOR OPENING EFFORT (X=AUXILIARY EQUIPMENT REQUIRED,

A=OPENS READILY, H=CAN BE OPENED MANUALLY BUT WITH MUCH DIFFICULTY)

L.F. A P.F. A L.R. P.R. TRUNK TAIL GATE

OTHER DOOR COMMENTS

MODIFICATIONS TO THE STANDARD STRUCTURE

STRUCTURAL TEST DAMAGE

SPARE TIRE AND JACK MODIFICATIONS

SPARE TIRE SIZE MWL

SPARE TIRE AND JACK RETENTION, AND OTHER RELATED COMMENTS Spare, mtd vertical inside

at left rear qtr pnl, Secure after impact

BUMPER SYSTEM MODIFICATIONS

BUMPER SYSTEM TEST DAMAGE

BRAKE SYSTEM MODIFICATIONS

BRAKE SYSTEM TEST DAMAGE

SUSPENSION SYSTEM MODIFICATIONS 1991 REAR COIL SPRING SUSPENSION

SUSPENSION SYSTEM TEST DAMAGE

TRAILER HITCH TYPE AND MODIFICATIONS 5000 lb Hitch Platform

MOORE BUSINESS FORMS INC. 37

TEST NUMBER VC3860

SEAT, RESTRAINT, INSTRUMENT PANEL, AND OCCUPANT DATA

SEATS

TYPE, MATERIAL, PRICE CLASS cloth Buckets

ADJUSTERS MANUAL

HEAD RESTRAINTS
POST TEST CONDITION SEAT BACKS ROTATED REARWARD

RESTRAINT SYSTEM

TYPE LT UNIBELT RT SIMULATED UNIBELT
POST TEST CONDITION

INSTRUMENT PANEL

MATERIAL: BASE PANEL AND COVER

GLOVEBOX

POST TEST CONDITION

OCCUPANT DATA

OCCUPANT DIMENSIONS RELATIVE TO TEMPLATE OR DRAWING #

	LEFT FRONT				RIGHT FRONT			
	X (INCHES)		Z (INCHES)		X (INCHES)		Z (INCHES)	
	FWD	RWD	UP	DOWN	FWD	RWD	UP	DOWN
HEAD								
HIP								
KNEE								

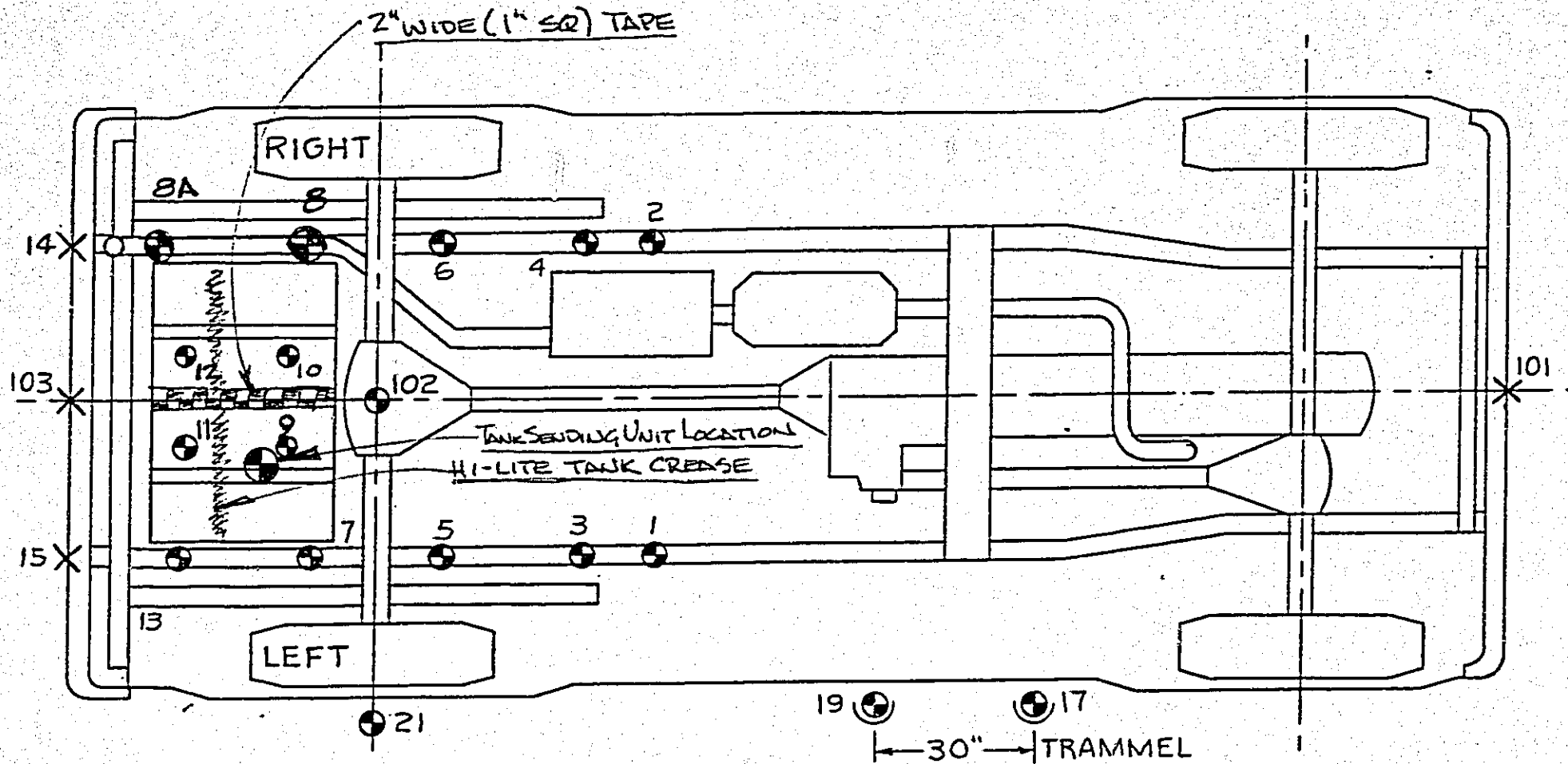
OCCUPANT WITNESS MARKS

SHOULDER BELT PAYOUT- LEFT ___ IN. RIGHT ___ IN.
LAP BELT PAYOUT- LEFT ___ IN. RIGHT ___ IN.

THIRD SHEET 102, ITEM 8TJ20, VC 3860
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS

XENONS REQ'D ON ROOF

ELECT FUEL PUMP TO
 BE RUNNING AT IMPACT



X PUNCH POINT
 ⊕ UNDERBODY
 ⊕ SIDE VIEW

LEGEND

ACCELEROMETERS - □ SINGLE AXIS, X
 ■ BIAXIAL, X & Z

NOTES -

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.

Y, LONGITUDINAL DIMENSIONS

TEST NUMBER VC3860, TEST ENGINEER: WIRTH TEST DATE 1/1/89
 TEST TYPE: 30 MPH REAR WITH V.I.N. 1J42J2712M+
 TYPE 4 MOV. BARR.

$\Delta = 100$

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101	0			102	126.2		
T1	98.5	XXXX		T2	96.5	XXXX	
T3	119.8	XXXX		T4	120.2	XXXX	
T5	132.1	XXXX		T6	130.4	XXXX	
T7	145.1	XXXX		T8	144.3	XXXX	
T9	139.3	XXXX		T10	141.6	XXXX	
T11	153.5	XXXX		T12	153.6	XXXX	
T13	158.4	XXXX		T14	165.3	150.5	
15	165.5	151.2		T16		XXXX	
43.5 ST17	56.5	XXXX	XXXX	18			
49.2 ST19	80.8	XXXX	XXXX	T			
T21	128.6	XXXX	XXXX	T _{BA}	158.1		
T				T			
T103	166.1	151.2		T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

SILL TRAMMEL DIMENSIONS (IN.): PRE-TEST LEFT 24.24
 OTHER TRAMMEL MEASUREMENTS (IN): T1 TO T2 = 35.04

FILL TUBE TO TANK ANGLE: PRE _____ POST _____ CHANGE = _____
 TEST WEIGHT (POUNDS): LF _____, RF _____, LR _____, RR _____

TEST WEIGHT EXPLANATION: _____

Y, LATERAL DIMENSIONS

TEST NUMBER VC3860, TEST ENGINEER: WIRTH
 TEST TYPE: 30 MPH REAR WITH V.I.N. 1J42J2712M-
 TYPE 4 MOV. BARR.
 TEST DATE 4/4/89

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101	0	0		102	+1.4		
T1	-17.5	-XXXX		T2	17.1	XXXX	
T3	-17.0	-XXXX		T4	16.5	XXXX	
T5	-16.4	-XXXX		T6	16.6	XXXX	
T7	-18.3	-XXXX		T8	18.5	XXXX	
T9	-5.5	-XXXX		T10	5.5	XXXX	
T11	-5.7	-XXXX		T12	5.7	XXXX	
T13	-18.3	-XXXX		T14	24.9	24.9	
T15	-25.1	25.2		T16		XXXX	
ST17	-31.7	XXXX	XXXX	18			
ST19	-31.8	-XXXX	-XXXX	T			
T21	-30.3	-XXXX	-XXXX	T 3A	18.4		
T				T			
T				T			
T				T			
T 103	0	0		T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

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2. VERTICAL DIMENSIONS

TEST NUMBER VC3860, TEST ENGINEER: WIRTH
 TEST TYPE: 30 MPH REAR WITH V.I.N. 1J42J?7L?M-
 TYPE 4 MOV. BARR.
 TEST DATE 4/4/89

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LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101		XXXX	XXXX	102	8.6	XXXX	XXXX
T1	12.1	XXXX	XXXX	T2	11.8	XXXX	XXXX
T3	16.5	XXXX	XXXX	T4	16.2	XXXX	XXXX
T5	18.9	XXXX	XXXX	T6	18.6	XXXX	XXXX
T7	18.3	XXXX	XXXX	T8	18.5	XXXX	XXXX
T9	11.4	XXXX	XXXX	T10	11.4	XXXX	XXXX
T11	13.3	XXXX	XXXX	T12	13.4	XXXX	XXXX
T13	18.4	XXXX	XXXX	T14		XXXX	XXXX
15	18.3	XXXX	XXXX	T15		XXXX	XXXX
ST17	14.5	XXXX	XXXX	18		XXXX	XXXX
ST19	13.9	XXXX	XXXX	T			
T21	13.3	XXXX	XXXX	T			
T				T8A	18.3		
T103				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

FRONT SILL

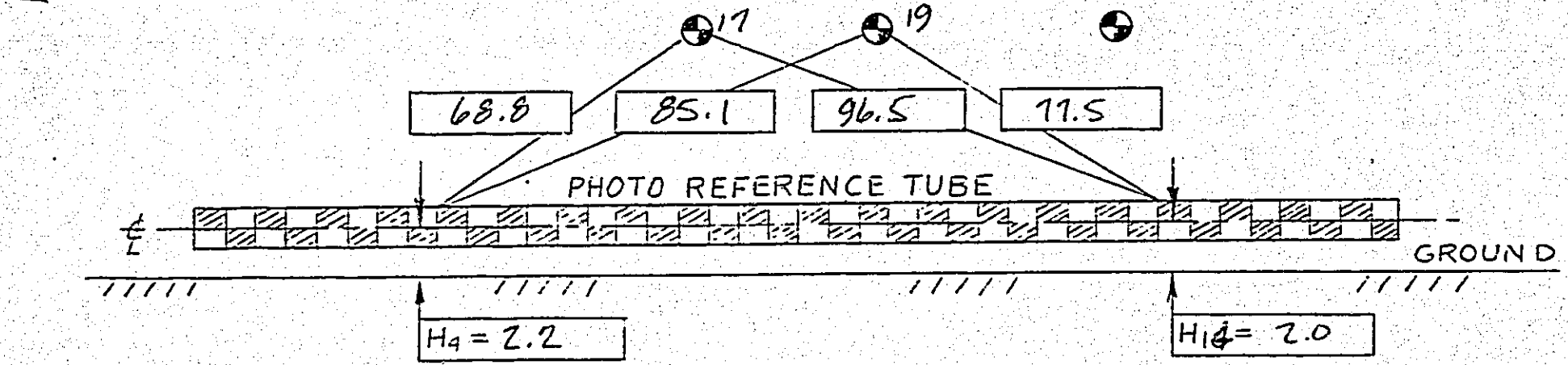
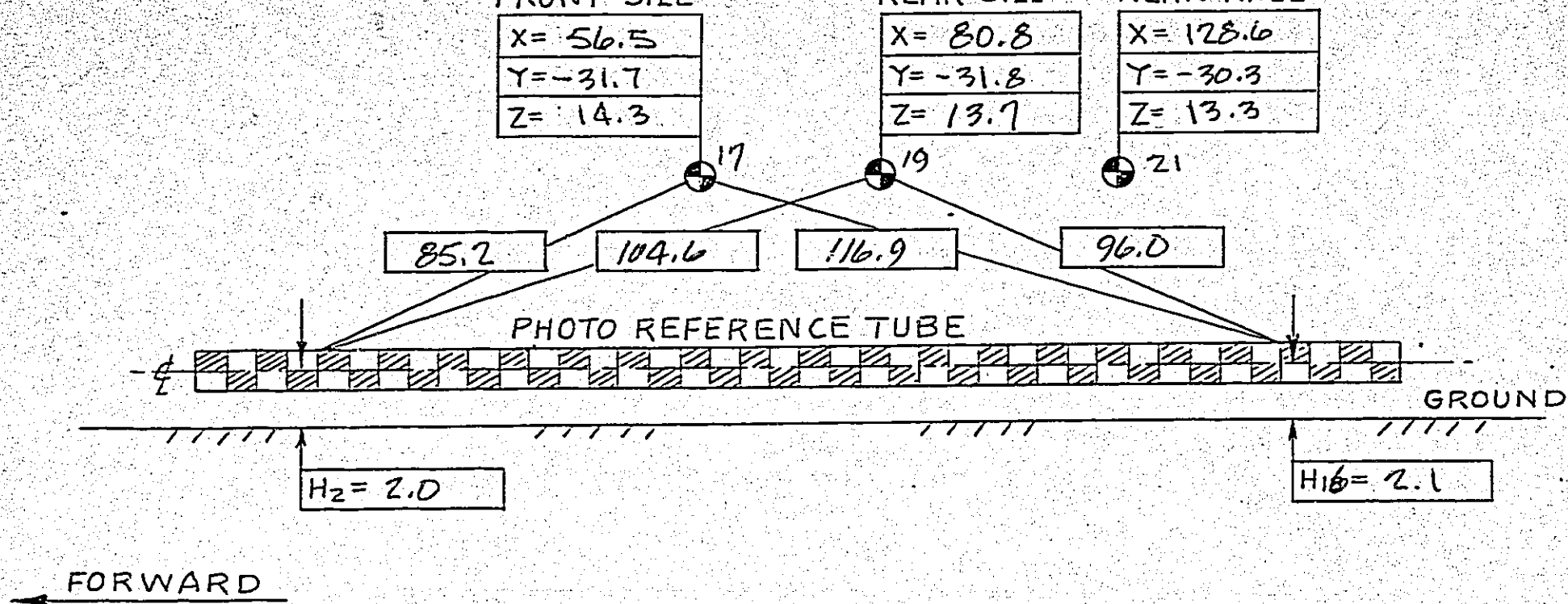
X = 56.5
Y = -31.7
Z = 14.3

REAR SILL

X = 80.8
Y = -31.8
Z = 13.7

REAR AXLE

X = 128.6
Y = -30.3
Z = 13.3



NOTES:

1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE.
2. IF OTHER TUBE POINTS ARE USED, SO INDICATE.

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE

TEST ENGR VC 3860

TEST ASSURANCE PARAMETERS & POST TEST CRITIQUE

TEST TYPE 30MPH REAR TEST VEHICLE XJ72 4.0L I6

VC TEST 03860 TEST DATE 04-04-89 SHIFT X1ST 2ND

DATA CH. NO. 17 FAILED 0 OFFSET 0 SATUR. 0

OFFICIAL SPEED 30.8 (TO 1/10 MPH) ITEM NO. 8XJ20

	SYSTEM A		SYSTEM B	
COUNTER DESCRIPT.	FLUKE	FLUKE		
	<u>41289</u>	<u>41290</u>		
VEL. TRAP TIMES	<u>88.519 MS</u>	<u>88.637 MS</u>	MS	MS
VEL. TRAP SPEEDS	<u>30.81 MPH</u>	<u>30.77 MPH</u>	MPH	MPH

SPEED MPH
 DRIVER 30.5
 ACT. NULL
 SETTING 30.65

TEST PERSONNEL MANNEY
 ENGINEERS VC TEST RASMUSSEN/WIRTH
 ABORT: BOOTH RASMUSSEN TOW
 M.C.C. WIRTH CAL. RASMUSSEN
 WALKWAY MANNEY
 TECHS: VAN/OBDAS ECKERT
 VEL. TRAP/LOAD CELL GUENTHER
 MECH: TOW/WINCH DRIVER Lowdell

TIMING & EVENT
 M.C. CONSOLE
 VAN/OBDAS
 LOAD CELL N/A
 AD NO. 1L 34 1R 67

D.D.A.S. S/N
CONN. ORIENT. LT RT FT RR

NOTES ON TEST & FOLLOW-UP REQUIRED

GREAT TEST !!

CH 10, LT RAIL MIDTANK 'X' 14457; 1.9 G OFFSET CHECK IN LAB
CHECKED IN LAB COULD NOT DUPLICATE.

ALL CHANNELS SHOW DOUBLE WIDTH POST CAL APX. 130 msec.
 TRY TO REPRODUCE AND REPAIR PROBLEM APPEARS
 ON BOTH TAPE AND VISI
 WAS ABLE TO REPRODUCE BY TURNING OFF AND BACK ON THE
 CAL PANEL AND USING THE "FREE RUN" BUTTON TO SYNC
 CAL PANELS A 130 MS CAL PULSE WAS PRODUCED,
 IF THE MANUAL COMMAND BUTTON WAS USED TO SYNC
 THE CAL BOXES THE PROPER CAL PULSE WAS
 PRODUCED. LOOKS LIKE THE EQUIPMENT IS OK
 IT JUST DEPENDS ON HOW YOU SYNC THE CAL
 BOXES -

G. Eckert
 4-5-89

EA12-005- Chrysler -000419

(OVER FOR ADDITIONAL NOTES)

FILE:CRIT1 DSK:#2 01-04-89 T. A. ENGR B. GRENKE

04/03/89

PF=VC03860

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5320TA19

PG 1 OF 2

TEST # VC03860 TEST DATE 4-4-89 ITEM # 8XJ20 TEST ENG. WIRTH TEST ASSUR. ENG. GRENFIE TECH. ECKERT
 TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHARGE #5328018 OCCUPANTS, AD AT , AD AT , AD AT , AD AT , AD AT
 TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY 30-8 MPH. VIN 1J4?J?7L?M*

CHI	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE -CAL	TAPE RECORD/R		GAIN	VISICORDER		OFFSET ACT CAL	SPAN BK SPAN
							REQ SF	CHL /CAL		REQ SF	CHL CAL		
1	EVENT												
2	LEFT FRONT SILL	X		14288	+	402.16	500.0	2	1.0	500.0			
				141	FT	1740	628.9			628.9	.639		639.43 DUE
3	RIGHT FRONT SILL	X		73965	+	396.70	500.0	3	1.0	500.0			
				141	FT	1740	606.6			606.6	.654		653.93
4	LEFT REAR SILL	X		80428	-	198.08	300.0	4	2.0	300.0			
				141	RR	3740	310.3			310.3	.638		319.23
5	LEFT REAR SILL	Z		14274	-	196.52	300.0	5	2.0	300.0			
				141	UP	3740	306.3			306.3	.642		320.81
6	RIGHT REAR SILL	X		14523	+	198.57	300.0	6	2.0	300.0			
				141	FT	3740	310.2			310.2	.640		320.08 DUE
7	RIGHT REAR SILL	Z		14508	-	197.80	300.0	7	2.0	300.0			
				141	UP	3740	308.4			308.4	.641		320.71
8	LT REAR RAIL MID	X		97850	+	195.93	200.0	8	2.0	200.0			
				141	FT	3740	308.8			308.8	.635		317.30
9	RT REAR RAIL MID	X		14287	+	198.60	200.0	9	2.0	200.0			
				141	FT	3740	313.4			313.4	.634		316.79
10	LEFT RAIL MIDTANK	X		14457	-	396.20	500.0	10	1.0	500.0			
				141	RR	1740	625.2			625.2	.634		633.76
11	NOT USED							11					
12	RIGHT RAIL MIDTANK	X		80427	+	394.71	500.0	12	1.0	500.0			
				141	FT	1740	628.9			628.9	.628		627.57
13	RIGHT RAIL MIDTANK	Z		14332	-	393.51	400.0	13	1.0	400.0			
				141	UP	1740	615.3			615.3	.640		639.56
14	SENDING UNIT BRIDGE	EE				3.00	3.0	14	.1	3.0			
						0	3.0			3.0	1.000		10000.00

04/03/89

PF=VC03860

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5320TA19

PG 2 OF 2

TEST # VC03860 TEST DATE ITEM # BXJ20 TEST ENG. TEST ASSUR. ENG. TECH.
TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I5 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHARGE #5328018 OCCUPANTS AD AT , AD AT , AD AT , AD AT
TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY MPH. VIN 1J4?J?7L?M*

CHL	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE -CAL	TAPE RECORDER		GAIN	VISICORDER		OFFSET	SPAN
							REQ SF	ACT SF		CHL	CAL		
15	EVENT							1					
16	TANK/DIFF. CONTACT	EE				1.00		1.0	2	.2	1.0		
						0		1.7		.600	1.7		3000.00
17	LT RAIL MBAR MID	X		14501	+	201.62		200.0	3	2.0	200.0		
				141	FT	3740		316.6		.537	316.6		318.38
18	RT RAIL MBAR MID	X		14538	+	196.37		200.0	4	2.0	200.0		
				141	FT	3740		305.5		.643	305.5		321.36 DUE

MOORE BUSINESS FORMS, INC. 27

TEST # VC03860 TEST DATE 4-4-89 ITEM # 8XJ20 TEST ENG. WIRTH TEST ASSUR. ENG. GRENFKE TECH. ECKERT
TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
1991 FHVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHARGE #5328018 OCCUPANTS, AD AT , AD AT , AD AT , AD AT , AD AT
TARGET VELOCITY MFH. TRAP TIME MS. ACTUAL VELOCITY 30-8 MPH. VIN 1J4?J?7L?M* [REDACTED]

CHL	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE	TAPE RECORDER			VISICORDER			SPAN		
							REQ SF	GAIN	REQ SF	OFFSET	SPAN				
	UMP	MODEL	BASE	-CAL	OHMS	ACT SF	CHL	CAL	FILTER	ACT SF	CHL	CAL	ACT CAL	BK	SPAN
1	EVENT														
2	LEFT FRONT SILL	X		14288	+	402.16	500.0	2	1.0	500.0					
				141	FT	1740	628.9		.639	628.9		.639			639.43 DUE
3	RIGHT FRONT SILL	X		73865	+	396.70	500.0	3	1.0	500.0					
				141	FT	1740	606.6		.654	606.6		.654			653.93
4	LEFT REAR SILL	X		80428	-	198.08	300.0	4	2.0	300.0					
				141	RR	3740	310.3		.638	310.3		.638			319.23
5	LEFT REAR SILL	Z		14274	-	196.52	300.0	5	2.0	300.0					
				141	UP	3740	306.3		.642	306.3		.642			320.81
6	RIGHT REAR SILL	X		14523	+	198.57	300.0	6	2.0	300.0					
				141	FT	3740	310.2		.640	310.2		.640			320.08 DUE
7	RIGHT REAR SILL	Z		14508	-	197.80	300.0	7	2.0	300.0					
				141	UP	3740	308.4		.641	308.4		.641			320.71
8	LT REAR RAIL MID	X		97850	+	195.93	200.0	8	2.0	200.0					
				141	FT	3740	308.8		.635	308.8		.635			317.30
9	RT REAR RAIL MID	X		14287	+	198.60	200.0	9	2.0	200.0					
				141	FT	3740	313.4		.634	313.4		.634			316.79
10	LEFT RAIL MIDTANK	X		14457	-	396.20	500.0	10	1.0	500.0					
				141	RR	1740	625.2		.634	625.2		.634			633.76
11	NOT USED							11							
12	RIGHT RAIL MIDTANK	X		80427	+	394.71	500.0	12	1.0	500.0					
				141	FT	1740	628.9		.628	628.9		.628			627.57
13	RIGHT RAIL MIDTANK	Z		14332	-	393.51	400.0	13	1.0	400.0					
				141	UP	1740	615.3		.640	615.3		.640			639.56
14	SENDING UNIT BRIDGE	EE				3.00	3.0	14	.1	3.0					
						0	3.0		1.000	3.0		1.000			10000.00

04/03/89

PF=VC03860

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5320TA19

PG 2 OF 2

TEST # VC03860 TEST DATE ITEM # 8XJ20 TEST ENG. TEST ASSUR. ENG. TECH.
 TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHARGE #5328018 OCCUPANTS, AD AT • AD AT • AD AT • AD AT
 TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY MPH. VIN 1J4?J?7L?M*

CHI	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE -CAL	TAPE RECORDER			VISICORDER			OFFSET ACT CAL	SPAN BK SPAN
							REG SF	ACT SF	CHI	CAL	FILTER	ACT SF		
15	EVENT								1					
16	TANK/DIFF. CONTACT	EE				1.00	1.0	2		.2	1.0			
						0	1.7				1.7			3000.00
17	LT RAIL MBAR MID	X		14501	+	201.62	200.0	3		2.0	200.0			
				141	FT	3740	316.6				316.6			318.38
18	RT RAIL MBAR MID	X		14538	+	196.37	200.0	4		2.0	200.0			
				141	FT	3740	305.5				305.5			321.36 DUE

MOORE BUSINESS FORMS, INC. 27

VC386D - 8XJ20

Fuel Tank strap J-Bolt Torque 120 in-lb per
Hamamori

CAB
3/23/89

3/28
RIGHT FRONT UNIBELT JAMMED - WILL NOT PAY-OUT.
Vic - will remove requirement for instrumented dummies -
Secure R/F occupant w/ simulated belt.

VISITOR ADMITTANCE DOCUMENT
CHELSEA PROVING GROUNDS

Date 4/4/89

Requestor John Wirth

Tele. No. 5352

Visit Date(s) 4/4/89

Time 9:00 am am 4:00 pm pm

Visitor Type: Corporate Personnel - Who bring vehicles through the plant security gate for use on the road network. (NO VEHICLES)

Non-Corporate Personnel

Visitor Name	B/U	Dept. No./Company Name
<u>George Aboud</u>	<input type="checkbox"/>	<u>Jeep Truck</u>
<u>D. Spytman</u>	<input type="checkbox"/>	<u>Jeep Truck</u>
<u>J. Dzienkowski</u>	<input type="checkbox"/>	<u>Jeep Truck</u>
<u>R. Friday</u>	<input type="checkbox"/>	<u>Structures Lab</u>
<u></u>	<input type="checkbox"/>	<u></u>

Attach list of additional visitors and organizations, as required.

Vehicle Admittance
License

Make/Description

<u></u>	<u></u>
<u></u>	<u></u>
<u></u>	<u></u>
<u></u>	<u></u>

Reason For Visit Observe vehicle crash test

Authorized Locations (Roads, Buildings, Facilities) Impact Lab (office & garage); Covered Barrier

Special Arrangements/Remarks

- Distribution:
- Plant Security Manager
 - Human Resources Manager
 - Plant Manager
 - Facilities Coordinator
 - Receptionist

Concurrence: M. A. Bowen /d.
M. A. Bowen
Dept. Mgr. or Representative

DATE 04/22/89
 TIME 15.03.37

TEST VALUES
 PRELIMINARY EDP REPORT

IMPACT ANALYSIS
 DEPT 5320

WITH

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8X
 1991 FVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE _____ SPEED _____ TEST WT _____ PERSONNEL _____

LIBRARY PGRUND95D

ERRATA # 1 DATA SET 04/05/89PA VC03860 CH 05 14 30.8 REA VC03860
 ERRATA # 1 DATA SET 04/05/89PB VC03860 CH 15- 18 30.8 REA VC03860

CHL	TRANSDUCER LOCATION	PEAK AT	1000HZ	PEAK AT	600HZ	PEAK AT	180HZ	PEAK AT	60HZ	SPEED AT	30CMS
1	EVENT										
2	LEFT FRONT SILL	X 14288	-96.8	-77.8	-39.4	-22.2	-14.5				
3	RIGHT FRONT SILL	X 73965	-52.1	-48.2	-38.9	-23.1	-13.6				
4	LEFT REAR SILL	X 80428	-64.7	-61.1	-31.4	-20.5	-15.1				
5	LEFT REAR SILL	Z 14274	-100.3	96.9	71.8	-21.2	.4				
6	RIGHT REAR SILL	X 14523	-68.9	-63.8	-34.9	-22.4	-14.0				
7	RIGHT REAR SILL	Z 14508	-181.0	-163.9	-110.5	-13.7	13.0				
8	LT REAR RAIL MID	X 97850	-61.9	-50.2	-30.4	-20.4	-13.9				
9	RT REAR RAIL MID	X 14287	-136.2	-106.0	-35.8	-18.8	-17.4				
10	LEFT RAIL MDTANK	X 14457	-531.8	-486.4	-233.6	-146.7	-16.7				
12	RIGHT RAIL MDTANK	X 80427	-383.9	-353.9	-208.6	-155.2	-14.1				
13	RIGHT RAIL MDTANK	Z 14332	270.8	207.2	131.4	70.5	4.7				
14	SENDING UNIT BRIDGE										N
15	EVENT										
16	TANK/DIFF. CONTACT										N
17	LT RAIL MBAR MID	X 14501	63.3	51.4	33.0	27.4	17.0				
18	RT RAIL MBAR MID	X 14538	149.8	58.9	33.0	28.8	17.0				

CH # 10 *****1.9 G OFFSET OCCURED DURING TEST*****
 CH # 14 *****CONTINUITY WAS NOT LOST DURING TEST*****
 CH # 15 ***1ST CLOSURE OCCURED AT 31.7 MS LASTING 18.3 MS*****
 2ND CLOSURE OCCURED AT 128.9 MS LASTING 31.1 MS**

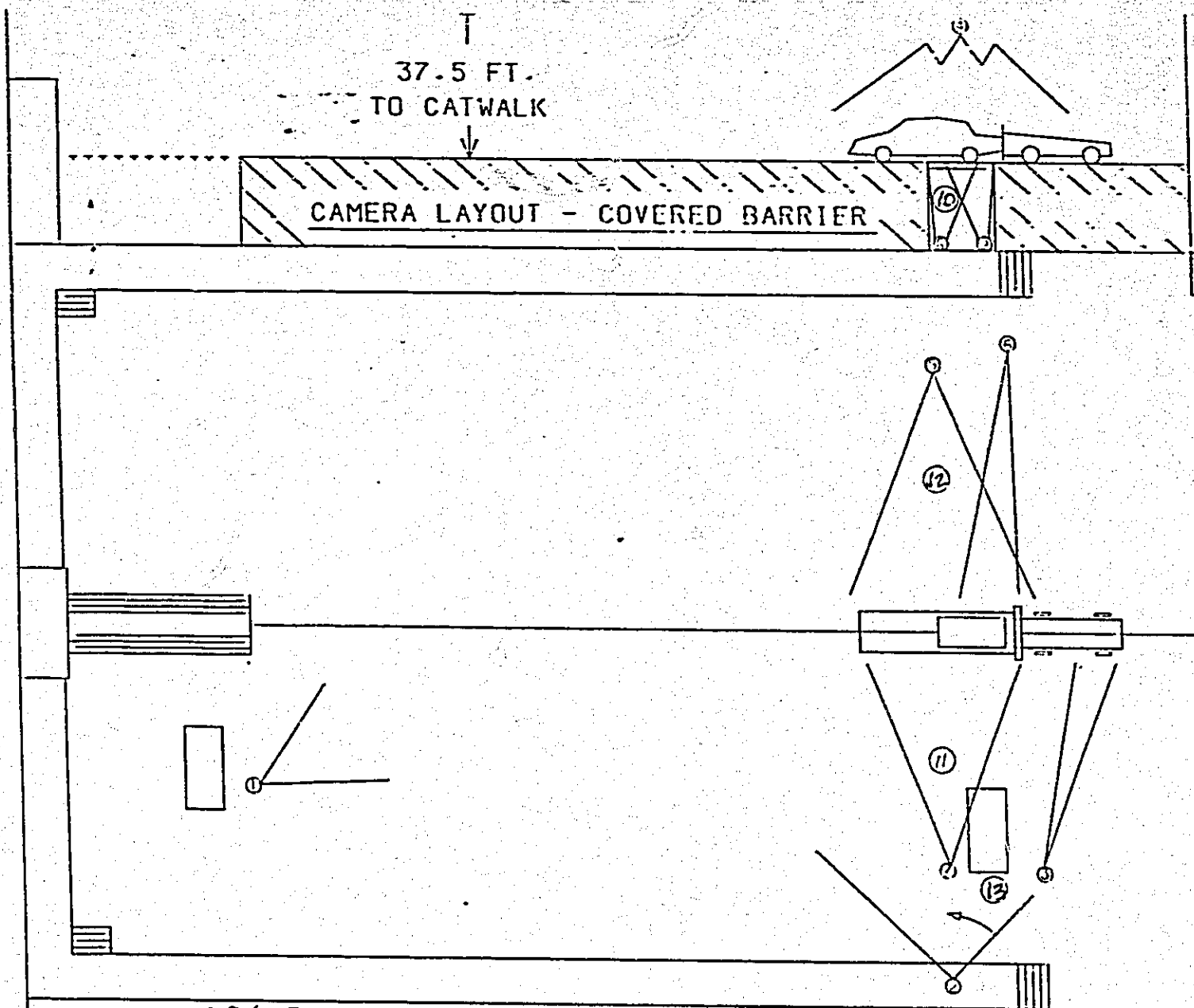
AVERAGE OF SILL CHANNEL'S 2 3 4 6 = -21.46'S AT 60HZ
 AVERAGE OF SILL CHANNEL'S 2 3 = -22.46'S AT 60HZ

MOORE BUSINESS FORMS INC. 27

7 1/4 from Frt.
12 1/4 from Lt.
4 1/2 DIA
Close

VC 3860
FUEL TANK TGT.


3/28




TEST NO. 3860 TEST TYPE REAR, TYPE IV MOVING BARRIER
 ENGINEER WIRTH REQUEST DATE 3-22-89 TEST VEHICLE BODY CLASS XJ

#	CAMERA TYPE	LENS F. L.	FPS	VIEW	PNL NO.	SCKT NO.	CBL NO.	LENS MEGR	LENS S/N	CAMERA S/N
1	POLAROID		STILL	LIGHTS						
2	B & H	1 IN.	64	PANNING						
3	LOCAM	4 IN.	500	VELOCITY	12			WOLLENSAK	D73487	
4	LOCAM	1 IN.	500	TOP-CATWALK	20			COSMICAR		
5	LOCAM	1/2 IN.	500	RT-OVERALL	8			COSMICAR		
6	LOCAM	2 IN.	500	RT-REAR HALF	8			COSMICAR		
7	LOCAM	1 IN.	500	LT-DYNAMIC CRUSH	12			COSMICAR		
8	LOCAM	13 MM	500	FT PIT-F.TANK	10			ILEX		
9	LOCAM	13 MM	500	RR PIT-F.TANK	10			ILEX		
10	LOCAM	13 MM	500	PIT-FUEL TANK						
11	LOCAM	25 MM	500	FRAME RAIL - LT						
12	LOCAM	25 MM	500	FRAME RAIL - RT						
13	LOCAM	2 IN.	500	LT-REAR HALF						
14										

EA12-005-Chrysler-000428

PHOTOGRAPHIC JOB NO. 21665	DEPT. NO. 2530	PHONE 5352	DATE ISSUED MAR 22 1989	CHARGE NUMBER 5328018					
		ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE	LOCATION OF WORK	
PROMISED DATE	LOC. CODE 1752	NUMBER OF PRINTS PER NEGATIVE:	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE	BLDG.	FLOOR
REQUESTED BY J. WIRTH	INSTRUCTIONS <u>MOVIES</u> - VC 3860							<input type="checkbox"/> CONFIDENTIAL	
RECEIVED BY _____			APPROVED _____			 CHRYSLER CORPORATION			
CUSTOMER COPY PHOTOGRAPHIC WORK ORDER									

PHOTOGRAPHIC JOB NO. 21667	DEPT. NO. 2530	PHONE 5352	DATE ISSUED MAR 22 1989	CHARGE NUMBER 5328018					
		ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE	LOCATION OF WORK	
PROMISED DATE	LOC. CODE 1752	NUMBER OF PRINTS PER NEGATIVE:	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE	BLDG.	FLOOR
REQUESTED BY J. WIRTH	INSTRUCTIONS <u>STILLS</u> - VC 3860							<input type="checkbox"/> CONFIDENTIAL	
RECEIVED BY _____			APPROVED _____			 CHRYSLER CORPORATION			
CUSTOMER COPY PHOTOGRAPHIC WORK ORDER									

REAR IMPACT TEST DAY CHECK LIST

IMPACT GARAGE

- 3/4/67
- ✓ TEST SITE PREPARED
- ✓ TITLE BOARD PREPARED
- ✓ VEHICLE FINAL BUILD-UP COMPLETE FRT 2204 LBS
- ✓ TEST CONFIRMED WITH PHOTOGRAPHIC RR 2103 LBS
- ✓ WEIGH VEHICLE - RF 1126 LBS, RR 1049 LBS
- LF 1078 LBS, LR 1054 LBS, TOTAL 4307 LBS
- ✓ VISUAL CHECK OF VEHICLE HOOK UP FOR TRANSPORTING TO BARRIER
- ✓ TIME OUT OF GARAGE 10:40 M.

overflow of 20.4 gal

COVERED BARRIER

- ✓ CHECK GUIDE RAIL FOR OBSTRUCTIONS
- ✓ POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- ✓ POSITION VEHICLE AT INTERSECTION
- ✓ POSITION PHOTOGRAPHIC REFERENCE TUBE
- ✓ POSITION TRAP FLAG ON MOVING BARRIER
- ✓ POSITION TRAP TIMER
- ✓ POSITION VELOCITY CAMERA FIDUCIAL TARGET
- ✓ ATTACH TOW CABLE (TOW CAR TEST)
- ✓ CHECK BRAKE ABORT ELECTRICAL CONTINUITY
- ✓ ASSURE TOW CABLE ROUTING
- ✓ POSITION MOVING BARRIER AT TEST START POSITION
- ✓ RETURN FORK LIFT TO BARRIER
- ✓ CALIBRATE TOW CAR
- ✓ CHECK HIGH INTENSITY LIGHT SWITCH POSITION AND FUNCTION (400 FEET FOR 30 MPH TEST)
- ✓ POSITION DUMMIES
- ✓ CHARGE FUEL LINES SPEED 30.8
- ✓ ASSURE VEHICLE IN NEUTRAL TOW Lowell
- ✓ SET BRAKE ABORT CAL Ragmussen
- ✓ CLOSE HOOD AND DECK LID
- ✓ IN-TANK FUEL PUMP RUNNING
- ✓ MEASURE CAR/REFERENCE TUBE(S) ABORT _____
- ✓ MOVING BARRIER ABORT ON BOOTH _____
- ✓ CLOSE SEMAPHORE GATES
- ✓ TURN OFF MERCURY VAPOR OVERHEAD LIGHTS
- ✓ TURN ON EXHAUST BLOWERS
- ✓ BRAKE ABORT REEL CONNECTED STRK VEH Manney
- ✓ ALL DOORS UP
- ✓ TOW CAR - 5 TH WHEEL DOWN
- ✓ LOCK APPROACH ROAD DOORS
- ✓ APPROACH ROAD LIGHTS ON
- ✓ WARNING LIGHT ON
- ✓ TEST PERSONNEL READY
- ✓ "PLEASE CLEAR TEST AREA"
- ✓ ASSURE CAMERA SWITCH ARMED
- ✓ ASSURE HIGH INTENSITY LIGHTS IN INTERSECTION MODE,
- TRIGGER RESET LIGHT ON AND ARMED
- INITIATE TEST, VIA VAN IF CONVENTIONAL INSTRUMENTATION
- VIA TOW CAR IF OBD'S
- TEST TIME 1:45 M.
- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- CALL M. A. BOWEN WITH TEST RESULTS
- POSITION VEHICLE FOR POST TEST PHOTOGRAPHS
- STORE TOW CABLE
- CLEAN UP TEST DEBRIS
- COVER EXPOSED PIT AREAS
- TURN OFF APPROACH ROAD LIGHTS

3860

2 1126

1 1049

4 1078
3204

3 1054
2103
2204
4307

1st Weir. 3666

300

378

4294

43

+1%

4337

STILL PHOTOGRAPHS

TEST NUMBER VC3860, V.I.N. 1J42J27L2M [REDACTED] TEST ENGINEER: WIRTH

NEGATIVE NUMBER	PRE COV.	POST COV.	DESCRIPTION
8789-2536	X		LEFT OVERALL VIEW
2542	X		RIGHT OVERALL VIEW
2537	X		LEFT REAR QUARTER VIEW
2541	X		RIGHT REAR QUARTER VIEW
2540	X		REAR VIEW
2550	X		REAR INTERIOR VIEW
2551	X		REAR UNDERBODY
2543	X		FUEL FILLER
2553	X		FUEL FILL TUBE
2551	X		FUEL TANK
2538		X	LEFT OVERALL VIEW
2546		X	RIGHT OVERALL VIEW
2539		X	LEFT REAR QUARTER VIEW
2545		X	RIGHT REAR QUARTER VIEW
2547		X	LEFT REAR SIDE VIEW
2548		X	RIGHT REAR SIDE VIEW
2544		X	REAR VIEW
2557		X	REAR INTERIOR VIEW
		X	REAR UNDERBODY
2549		X	FUEL FILLER
2556		X	FUEL FILL TUBE
2554		X	FUEL TANK
2555		X	TRACK BAR BKT / FUEL TANK CONTACT

TEST VEHICLE WEIGHT

TEST NUMBER VC3860

REAR IMPACTS

PROCEDURE:

1. DETERMINE BALLAST WEIGHT GOAL.
NOTE: INSTRUMENTATION WEIGHT MUST INCLUDE WHATEVER BATTERIES ARE REQUIRED. TARGET AND LUGGAGE WEIGHTS ARE SPECIFIED IN THE TEST REQUEST.
2. FUEL VEHICLE AND WEIGH.
3. *IF WEIGHT IS LESS THAN GOAL, ADD LEAD TO OBTAIN BEST AXLE DISTRIBUTION AND A WEIGHT SLIGHTLY OVER GOAL.
*IF WEIGHT IS OVER GOAL, REMOVE COMPONENTS (NOT INVOLVED IN TEST MODE/PURPOSE) TO REDUCE WEIGHT.
4. REWEIGH VEHICLE TO CONFIRM BALLAST WEIGHT.
5. CALCULATE TEST WEIGHT GOAL.
6. WEIGH VEHICLE IN TEST CONFIGURATION FOR TEST WEIGHT.
NOTE: TEST WEIGHT MUST NOT BE LESS THAN, NOR EXCEED BY MORE THAN 1.0%, THE CALCULATED TEST WEIGHT GOAL.

BALLAST WEIGHT GOAL:

TEST WEIGHT GOAL:

! TARGET-WEIGHT.....	<u>3666</u>	! TRGT WT	<u>3666</u>
! INSTRUMENTATION.....	- (<u>50</u>)	! LUGGAGE +	<u>300</u>
! BALLAST WT GOAL.....	= <u>3616</u>	! AD'S...	+ <u>378</u>
! NOTE: THE INSTRUMENTATION IS NOT		! TEST WT =	<u>4294</u>
! USED AS LUGGAGE WEIGHT, HENCE		! -----	
! BALLAST MUST BE INSTALLED IN TRUNK			
! FOR LUGGAGE.			

BALLAST PER: MUSTAFA KHALIFA - HP x 6-2474 OR 6-3506
WEIGHTS: DEPT 3560

1	727	1477	1	993
		1979		
3	750	<u>3456</u>	3	982
				<u>1975</u>
	<u>1477</u>			
		3616	2	1006
2	992	<u>3456</u>	4	967
		<u>(160)</u>		<u>1973</u>
4	987			1975
				<u>3948</u>
	<u>1979</u>			- 3916
				<u>(+32)</u>

BALLAST WEIGHTS ADDED AND LOCATION:

- 100# to L/GATE
- 50# Rear floor pan
- 50# Rear aperture
- 60# Lt side glass leader
- 40# Rt side glass leader
- 15# Rear seat footwell

MOORE BUSINESS FORMS INC. ST

ANTHROPOMORPHIC TEST DEVICE
REQUEST FORM

34

AD#
REQUEST DATE 03/28/89
REQUEST/ITEM # BXJ20
MAKE/MODEL HYBRID 2
CHARGE/CWO # 5328018
RESTRAINT J

AD POS. IL
REQUESTED BY WIRTH
TEST NO. VC03860
PERCENTILE/SEX 50%/MALE
DATE REQUIRED 03/29/89

COMMENTS:
NONE

MECHANIC _____
TECNICIAN _____

IMPACT TESTING
AND DEVELOPMENT
DEPARTMENT 5320
DATE 03/28/89
TIME: 11.16.09.
5320VC-M03-1
REV. 03/12/87

ANTHROPOMORPHIC TEST DEVICE
REQUEST FORM

67

AD#
REQUEST DATE 03/28/89
REQUEST/ITEM # BXJ20
MAKE/MODEL HYBRID 2
CHARGE/CWO # 53208018
RESTRAINT J

AD FOS. 1P
REQUESTED BY WIRTH
TEST NO. VC03860
PERCENTILE/SEX 50%/MALE
DATE REQUIRED 03/29/89

COMMENTS:
NONE

MECHANIC _____
TECHNICIAN _____

IMPACT TESTING
AND DEVELOPMENT
DEPARTMENT 5320
DATE 03/28/89
TIME: 11.18.04.
5320VC-M03-1
REV. 03/12/87

VEHICLE CRASH CHECK LIST FOR IMPACT BUILD-UP, REAR IMPACT

TEST NUMBER VC3860, V.I.N. 1J4?J?7L?M- [REDACTED] ITEM NUMBER 8XJ20

CHARGE # 5328018, TEST ENGINEER: WIRTH

TEST SPEED 30 MPH, TEST TYPE - REAR WITH TYPE 4 MOVING BARRIER

INITIAL WORK AS COMPLETED

CHECK CAR BRAKING WITH SPIKE STOP

CLEAN VEHICLE AS NECESSARY

VERIFY V.I.N. 1J4?J?7L?M- [REDACTED] ON-PLATE ON INSTRUMENT PANEL

IF DIFFERENT NOTIFY THE TEST ENGINEER

STENCIL TEST NUMBER ON CAR PER FORM 807

TIRE PRESSURE: FRONT 32, REAR 32.PLACE SEAT IN MID-TRACK SEATING POSITION AND MARK ON SILLSDRAIN VEHICLE FLUIDS: aw MASTER CYLINDER, aw RADIATOR,aw ENGINE, aw TRANSMISSION, aw AXLE(S), aw WASHER BOTTLE,aw OVERFLOW BOTTLE, aw POWER STEERING, aw A/C,

INSTALL NEW OIL FILTER

N/A REMOVE GASOLINE FROM FUEL TANK IF NOT PURGED IN HP.

H/S/W CHECK OPERATION OF ELECTRIC FUEL PUMP.

W/S INSPECT FUEL LINES AND SYSTEM FOR MISSING CLAMPS OR DEFECTS

W/S DRAIN BATTERY

CHECK SEAT BELT SYSTEMS FOR OBVIOUS ASSEMBLY ERRORS

INSTALL BRAKE ABORT SYSTEM NUMBER - BLEED & PRESSURIZE

REMOVE ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2

W/S PAINT ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2

W/S SEE SUPPLEMENTAL BUILD-UP FORM I-2 FOR SPECIAL INSTRUCTIONS

W/S INSTALL BRAKE ABORT CABLE FITTING LEFT FRONT FENDER

W/S INSTALL UMBILICAL CABLE FITTING RIGHT FRONT FENDER

W/S TAPE REAR WINDOWS, REAR SIDE WINDOWS, AND TAIL LIGHTS

W/S INSTALL TARGETS PER TARGET LAYOUT SHEET

W/S TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM.

SHEET

W/S TRAMMEL MEASURE ANALYSIS TARGETS AND RECORD ON FORM X (II-1) DIM.

SHEET

W/S TAKE X AND Y DIMENSIONS AND RECORD ON X (II-1) AND Y (II-2)

DIMENSION SHEETS

W/S FILL FUEL TANK WITH 21.8 GALLONS OF .767 SG STODDARD SOLVENT

W/S CHECK CAR BUILD UP WEIGHT AND ADJUST AS NECESSARY

W/S INSTALL 300 POUNDS OF LUGGAGE BALLAST

W/S PRESSURE CHECK FUEL SYSTEM

W/S TETHER SPARE TIRE

W/S PAINT OUTSIDE OF FRAME RAILS AT KICK-UP (YELLOW)

W/S INSTALL (AND FABRICATE) REAR SUSPENSION COIL SPRING
HOLD-DOWNS ON LOWER SPRING PLATES

SUPPLEMENTAL BUILD-UP FORM

TEST NUMBER VC3860

PAINT ITEMS AS SPECIFIED

REMOVE ITEMS AND SCRAP UNLESS NOTED

UNDERBODY - *W/S* WHITE

BODY X-MEMBER AND WEL *W/S*

TRAILER HITCH PLATFORM - *W/S* ORANGE

TANK BLOCKER - RED

RAILS AND E/A UNITS *W/S* YELLOW

REAR BODY CROSSMEMBER *W/S*
(REAR OF TIRE WELL) - RED

TRACKBAR AND ~~WEL~~ (STABILIZER BAR) BRACKET - *W/S* DARK BLUE

AXLE - *W/S* GREEN

TRACK BAR (DIAGONAL) BRACE - *W/S* YELLOW

FUEL TANK - *W/S* WHITE W/
FLO. RED OUTLINE

FUEL TANK STRAPS - *W/S* GREEN

MUFFLER - *W/S* LIGHT BLUE

SPARE TIRE WELL - WHITE

FILLER TUBE, FILL TUBE OPENING AND REAR WHEEL SPOT - FLO. RED

NOTE - PAINT FILL TUBE DOWN TO WITHIN 4 INCHES OF THE GROMMET. THEN MARK INCH DIVISIONS ON THE FILL TUBE, WITH A MAGIC MARKER, FOR 4 INCHES UP FROM THE GROMMET!

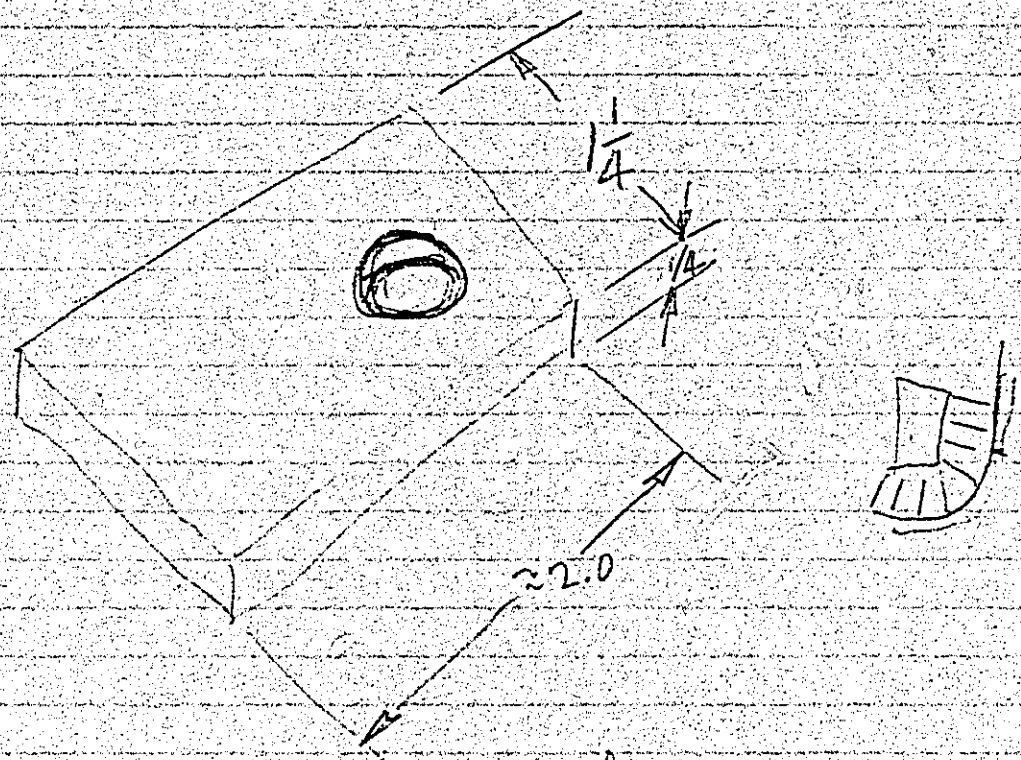
SHOCKS - LT BLUE *W/S*

TARGET WEIGHT; 3666 TOTAL, 2005 FRONT, 1661 REAR, MAX OPTION WEIGHT

OTHER INSTRUCTIONS;

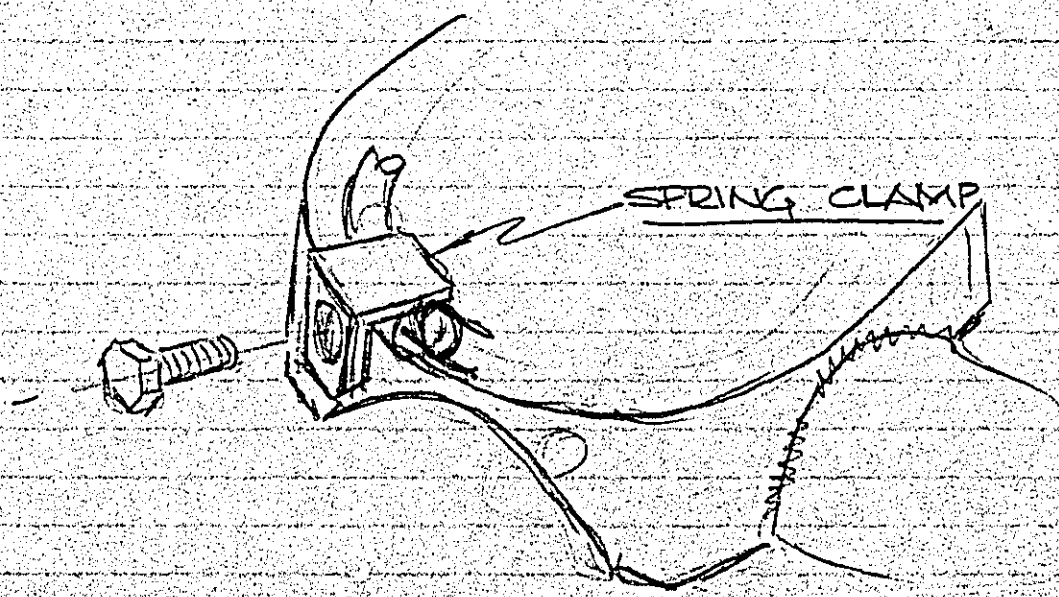
MOORE BUSINESS FORMS INC. 21

3860



Per John Landan

Done



VC3860 - 8XJ20

Fuel Tank strap J-Bolt Torque 120 in-lbs per
Hammer

left

GAB
3/23/89

FINAL BUILD-UP CHECK LIST FOR REAR IMPACT

TEST NUMBER VC3860, TEST ENGINEER: WIRTH

INITIAL WORK AS COMPLETED

INSTALL DUMMIES; LF AD-34, RF AD-62.

CHECK VEHICLE ATTITUDE

TAKE PRE-TEST 7 VERTICAL DIMENSIONS AND RECORD ON 7 (II-3) DIMENSION SHEET

PRE IMPACT PHOTOGRAPHS TAKEN (T.E. INITIAL)

SPECIAL INSTRUCTIONS

BRAKE ABORT SYSTEM MUST BE PURGED OF AIR AND PRESSURIZED ON TEST DAY.

ABORT UNIT NUMBER _____ INSTALLED

PURGE SYSTEM OF AIR

PRESSURIZE SYSTEM TO 1400 PSI

RECORD PRESSURE AFTER TEST FIRING; _____ PSI

RECORD ACCUMULATOR DROP-OFF PRESSURE; _____ PSI

BLEED SYSTEM AND PRESSURIZE TO 1400 PSI MINIMUM

RECORD SYSTEM PRESSURE _____ PSI AND DATE; _____

OPEN HAND VALVE TO ABORT

OPEN BLEEDER VALVE (VALVE MUST BE CLOSED FOR TEST)

VEHICLE READY FOR TEST (T.E. INITIAL)

MOORE BUSINESS FORMS INC. 27

VEHICLE CRASH TEST BUILD-DOWN CHECK LIST

TEST NUMBER VC3860 TEST ENGINEER: WIRTH DATE ___/___/___

INITIAL WORK AS COMPLETED

INSTRUMENTATION RELEASE FOR BUILD-DOWN (T.E. INITIAL)

- WSE* REMOVE DUMMIES
- WSE* REMOVE BRAKE ABORT SYSTEM
- WSE* REMOVE SWITCHES, SLOWBURNS, SLOWBURN BOARD, CABLES
- WSE* REMOVE BALLAST
- WSE* TAKE POST DIMENSIONS
- WSE* TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM. SHEET
- WSE* REMOVE SCREWED ON TARGETS
- WSE* PERFORM STATIC ROLL
- WSE* REMOVE HOOD, AIR CLEANER
- WSE* PRESSURE CHECK FUEL SYSTEM, _____ INCHES OF WATER FOR _____ MINUTES.
- DRAIN FUEL SYSTEM
- WSE* REINSTALL HOOD OR PLACE INSIDE VEHICLE
- PREPARE VEHICLE FOR SHIPMENT

SPECIAL INSTRUCTIONS-

MOORE BUSINESS FORMS INC. 27

VC03860

ELECTRONIC TRANSDUCER DATA

TEST DATE:
04/04/89

VC03860 30 MPH REAR IMPACT. XJ72, 4.0L 16 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

TEST PURPOSE: PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE: TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

VEHICLE: BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 4 SPEED AUTO 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4?J?7L?M- [REDACTED] MOD.
VIN AS BUILT: 1JCMT7737J [REDACTED] MOD.

TEST SPEED: 30.8 MPH BY ELECTRONIC TRAP TIMER

TEST WEIGHT (LBS): 4307 TOTAL, 2204 FRONT, 2103 REAR

OCCUPANTS: LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-34
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-67
RESTRAINT-UNIBELT

TEST DATE:
04/04/89

ELECTRONIC TRANSDUCER DATA

VC03860

ITEM NO 8XJ20
DATA SET
04/05/89PA

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 33 GRAPHS

VC03860

ELECTRONIC TRANSDUCER DATA

TEST DATE:
04/04/89

TEST DATE:
04/04/89

ELECTRONIC TRANSDUCER DATA

VC03860

ITEM NO 8XJ20

DATA SET
04/05/89PA

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

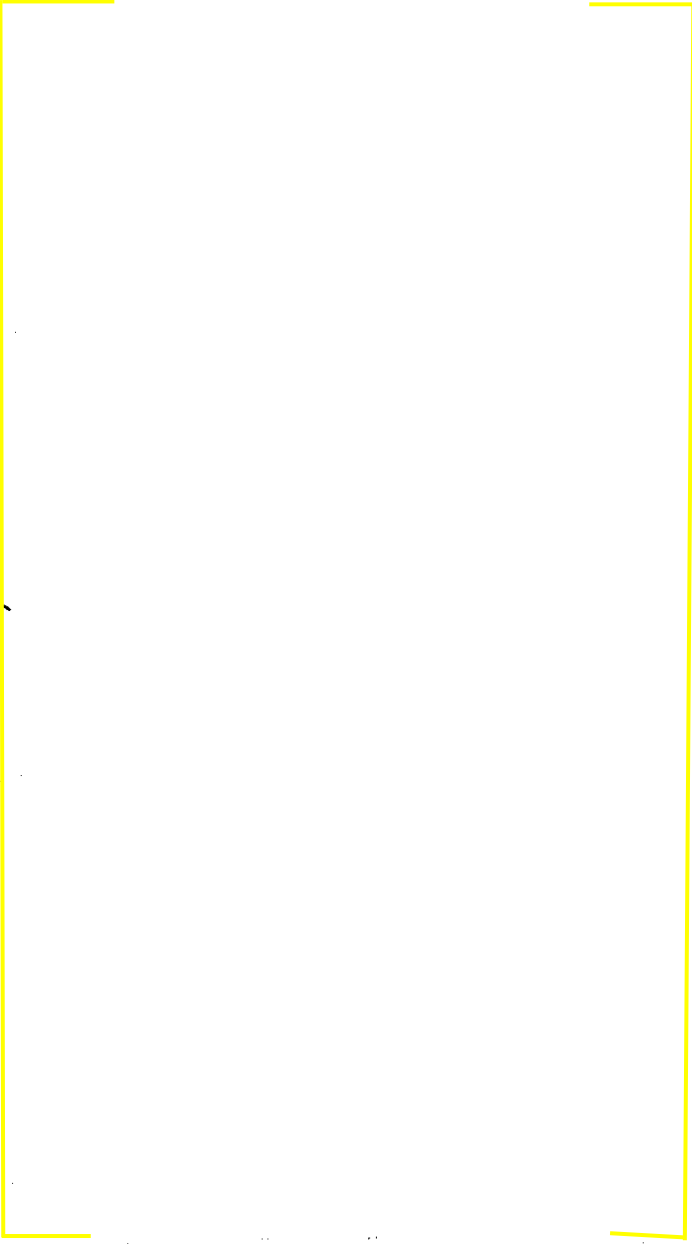
M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 33 GRAPHS

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

BUILD CONDITION



TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
150 LBS BALLAST SECURED IN THE REAR SEAT FOOTWELL

POST TEST REMARKS - THERE WAS NO FUEL LEAKAGE AT IMPACT NOR DURING THE
THIRTY MINUTES IMMEDIATELY FOLLOWING IMPACT.

VC03860

ELECTRONIC TRANSDUCER DATA

TEST DATE:
04/04/89

TEST DATE:
04/04/89

ELECTRONIC TRANSDUCER DATA

VC03860

ITEM NO 8XJ20

DATA SET
04/05/89PA

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 33 GRAPHS

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

A MICROFICHE HAS BEEN PREPARED AND IS AVAILABLE UPON
REQUEST WITH THE GRAPHS AT COORDINATES AS FOLLOWS:

A	4- 6	TRANSUCER SUMMARY REPORT	
A	7- 8	AVERAGE OF SILLS	
B	1. 2	LEFT FRONT SILL	X
B	3. 4	RIGHT FRONT SILL	X
B	5. 6	LEFT REAR SILL	X
B	7. 8	LEFT REAR SILL	Z
B	9. 10	RIGHT REAR SILL	X
B	11. 12	RIGHT REAR SILL	Z
B	13. 14	LT REAR RAIL MID	X
C	1. 2	RT REAR RAIL MID	X
C	3. 4	LEFT RAIL MIDTHANK	X
C	5. 6	RIGHT RAIL MIDTHANK	X
C	7. 8	RIGHT RAIL MIDTHANK	Z
C	9	SENDING UNIT BRIDGE	
C	10	TANK/DIFF. CONTACT	
C	11. 12	LT RAIL MBAR MID	X
C	13. 14	RT RAIL MBAR MID	X
CC	G. M. ABOUD		514-15-17
	J. M. BERLINER		422-05-01
	W. A. BREITMOSER		422-05-01
	J. W. HANIKA		418-42-22
	W. R. HARBAUGH		418-42-22
	W. W. KOEBNICK		422-05-01
	T. P. MAULE		422-05-01
	L. C. MILLER		514-00-00
	A. J. REGAN		418-42-22
	H. G. ROULEAU		422-05-01
	E. A. ZYLIK		514-15-17

TRANSDUCER SUMMARY REPORT

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

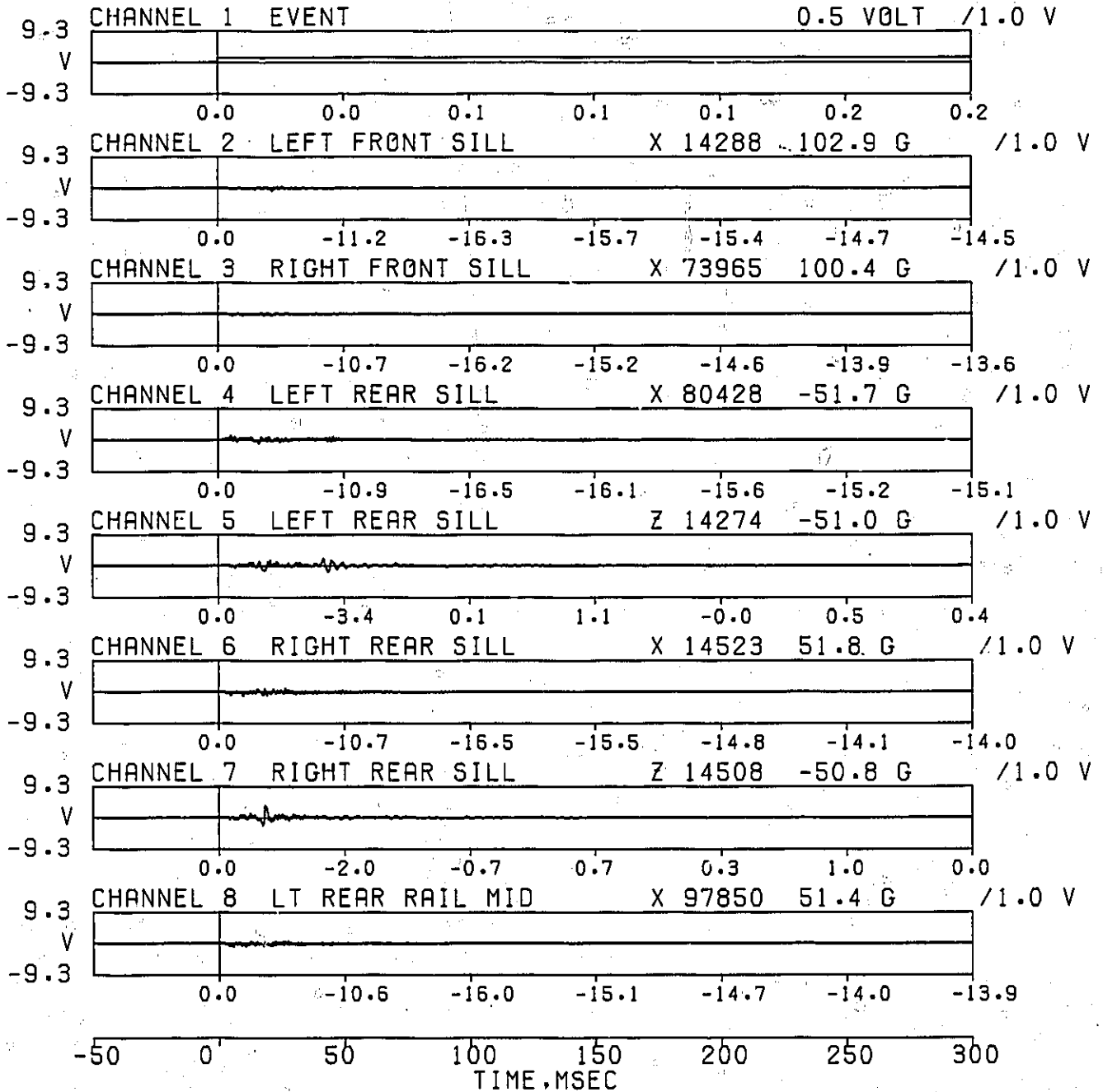
IMPACT ANALYSIS DEPT. 5320

DATA SET 04/05/89PA

APR 20.1989

ERRATA 1

-50 0 50 100 150 200 250 300



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

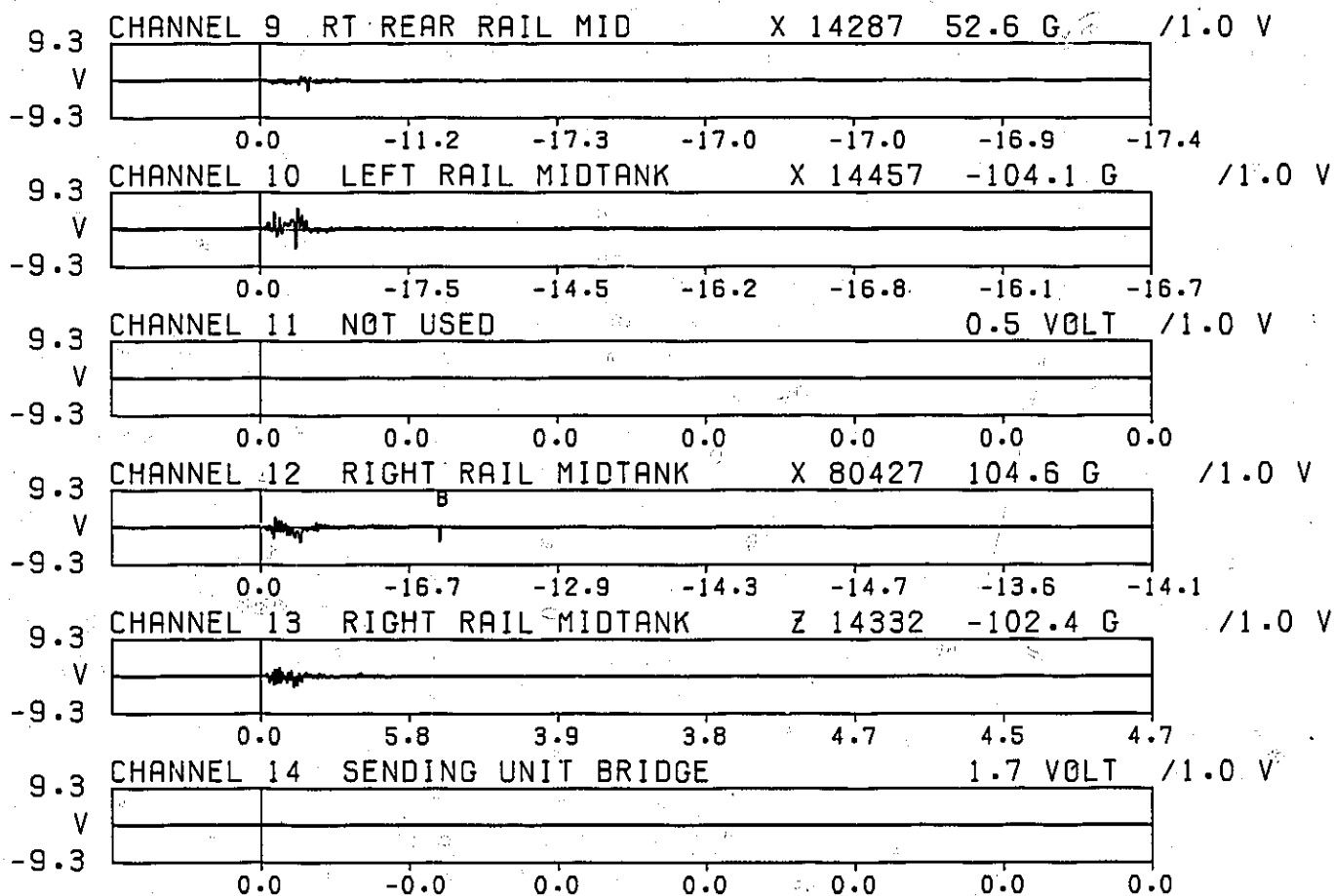
IMPACT ANALYSIS DEPT. 5320

DATA SET 04/05/89PA

APR 20.1989

ERRATA 1

-50 0 50 100 150 200 250 300



-50 0 50 100 150 200 250 300
 TIME.MSEC

NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC03860 30 MPH REAR IMPACT. XJ72. 4.0L 16 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

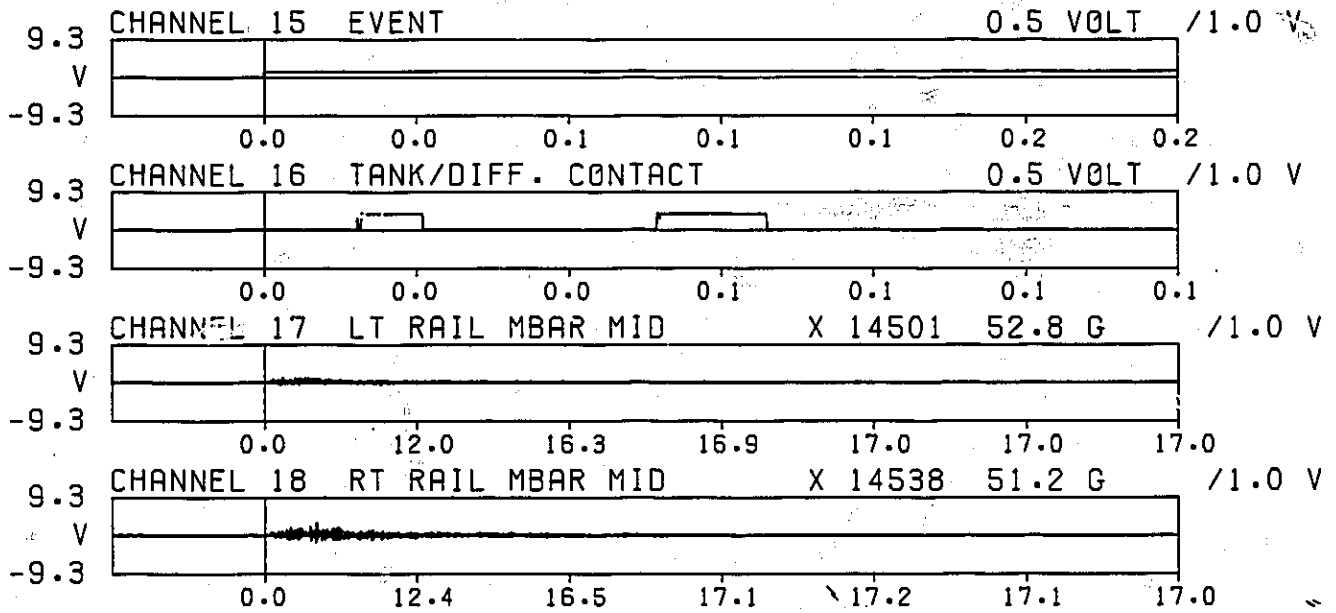
IMPACT ANALYSIS DEPT. 5320

DATA SET 04/05/89PB

APR 20.1989

ERRATA 1

-50 0 50 100 150 200 250 300



-50 0 50 100 150 200 250 300
 TIME.MSEC

NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
 EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

VC03860 30 MPH REAR IMPACT, XJ72. 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

AVERAGE OF

CHANNEL 2	LEFT FRONT SILL	X 14288
CHANNEL 3	RIGHT FRONT SILL	X 73965
CHANNEL 4	LEFT REAR SILL	X 80428
CHANNEL 6	RIGHT REAR SILL	X 14523

FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86

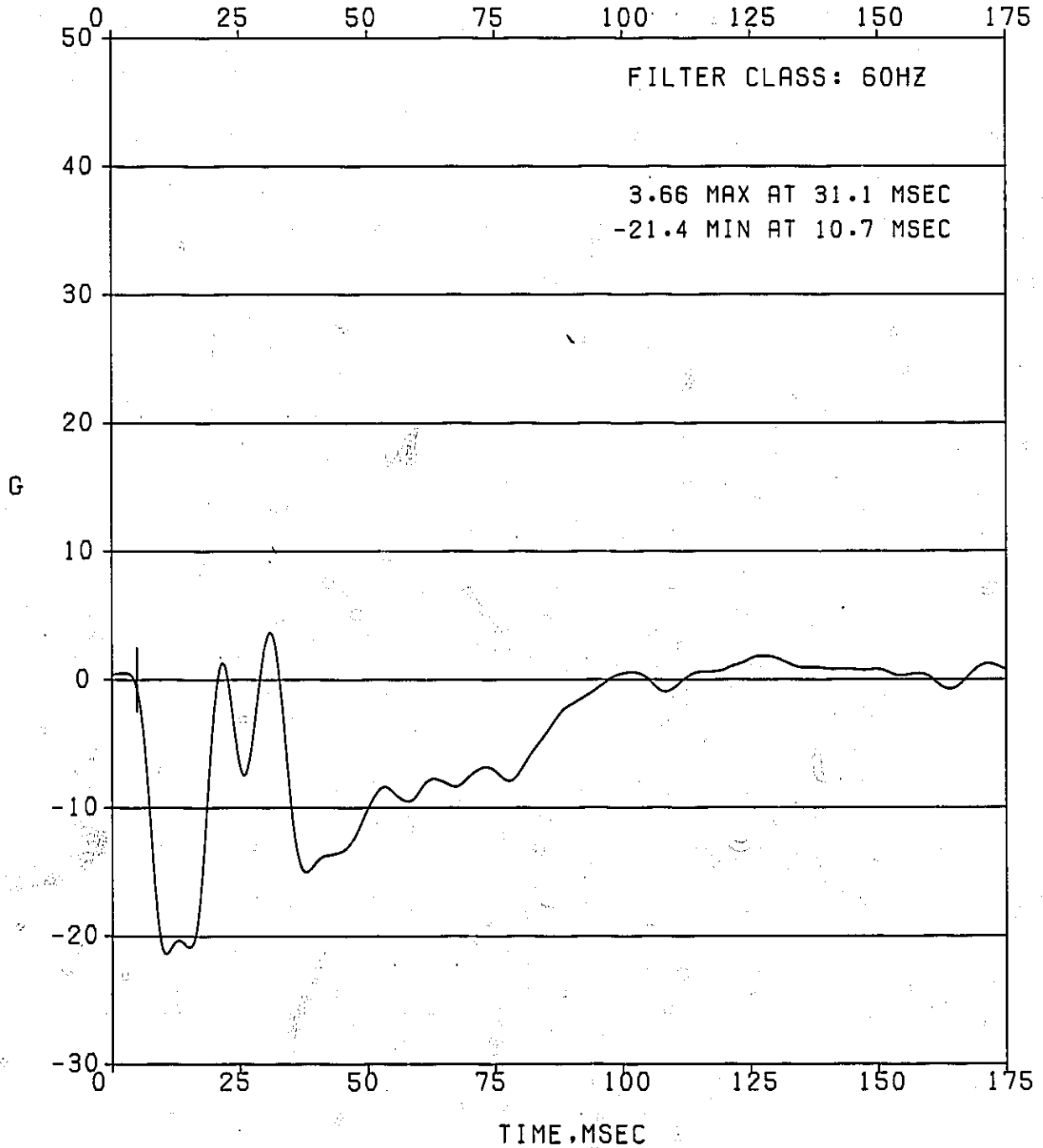
IMPACT ANALYSIS DEPT. 5320

DATA SET 04/05/89PA

APR 20, 1989

ERRATA

1



VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

AVERAGE OF

CHANNEL 2 LEFT FRONT SILL X 14288
CHANNEL 3 RIGHT FRONT SILL X 73965

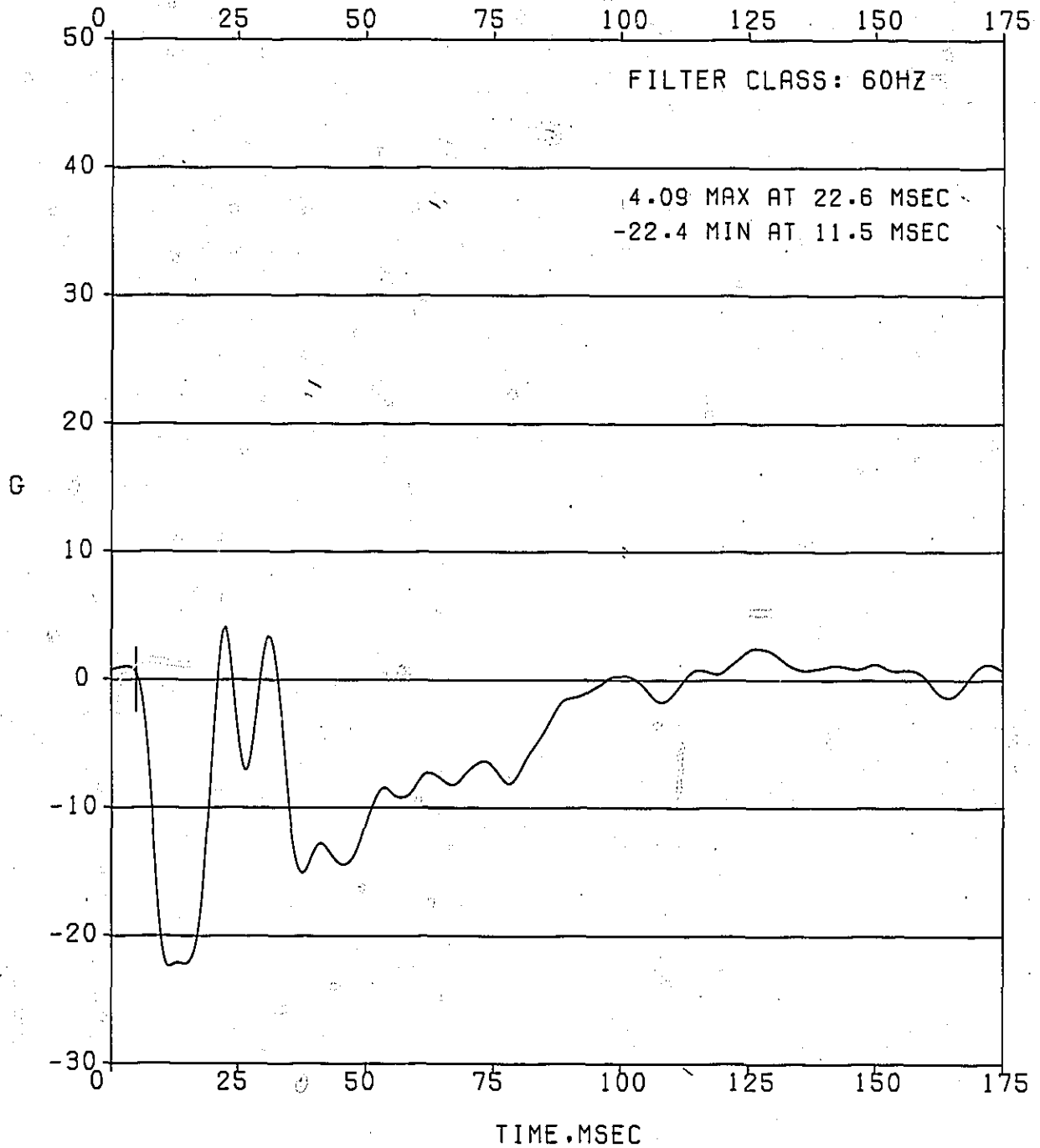
FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86

IMPACT ANALYSIS DEPT. 5320

DATA SET 04/05/89PA

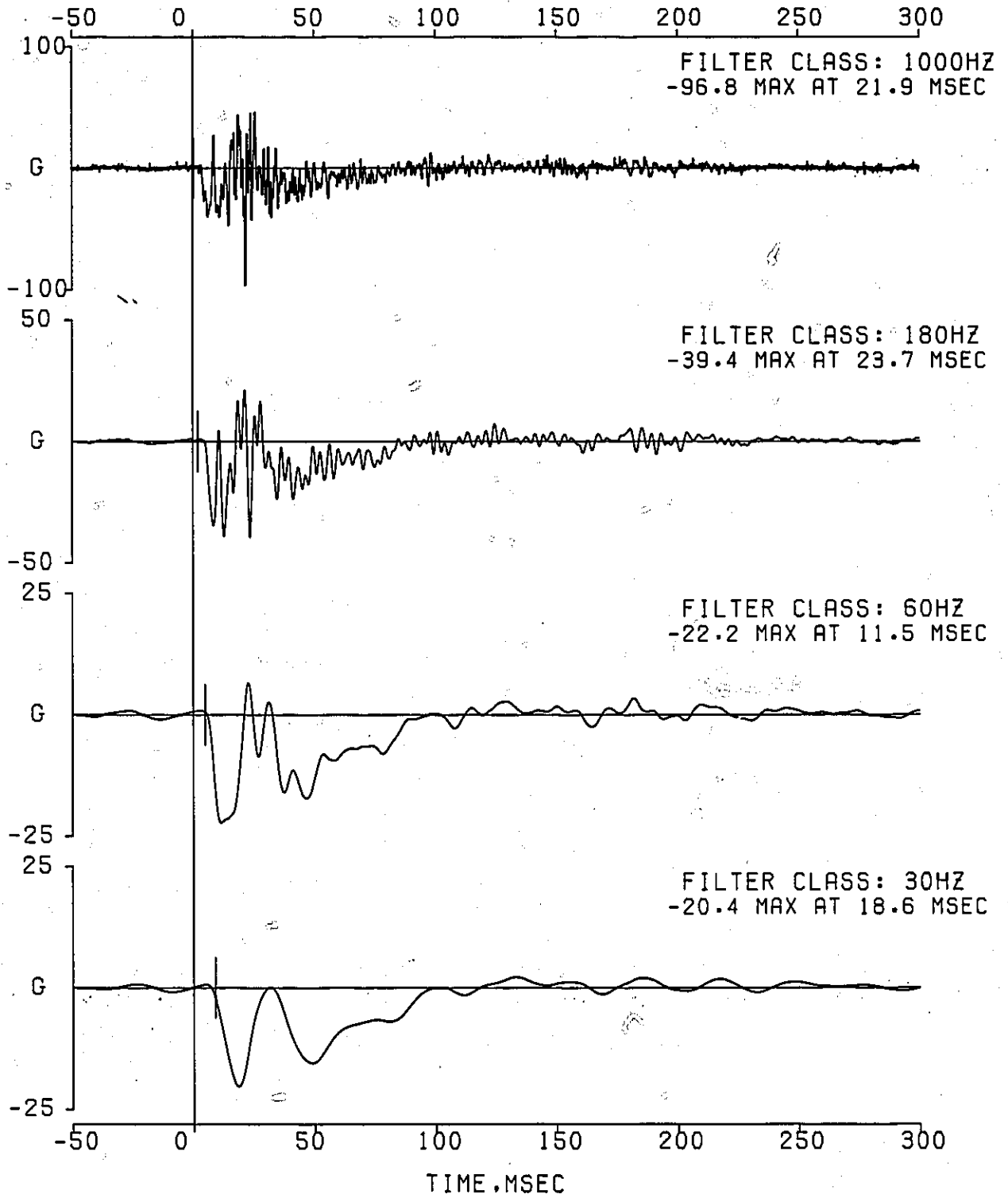
APR 20, 1989

ERRATA 1



VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 2 LEFT FRONT SILL X 14288
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20,1989

DATA SET 04/05/89PA
ERRATA 1

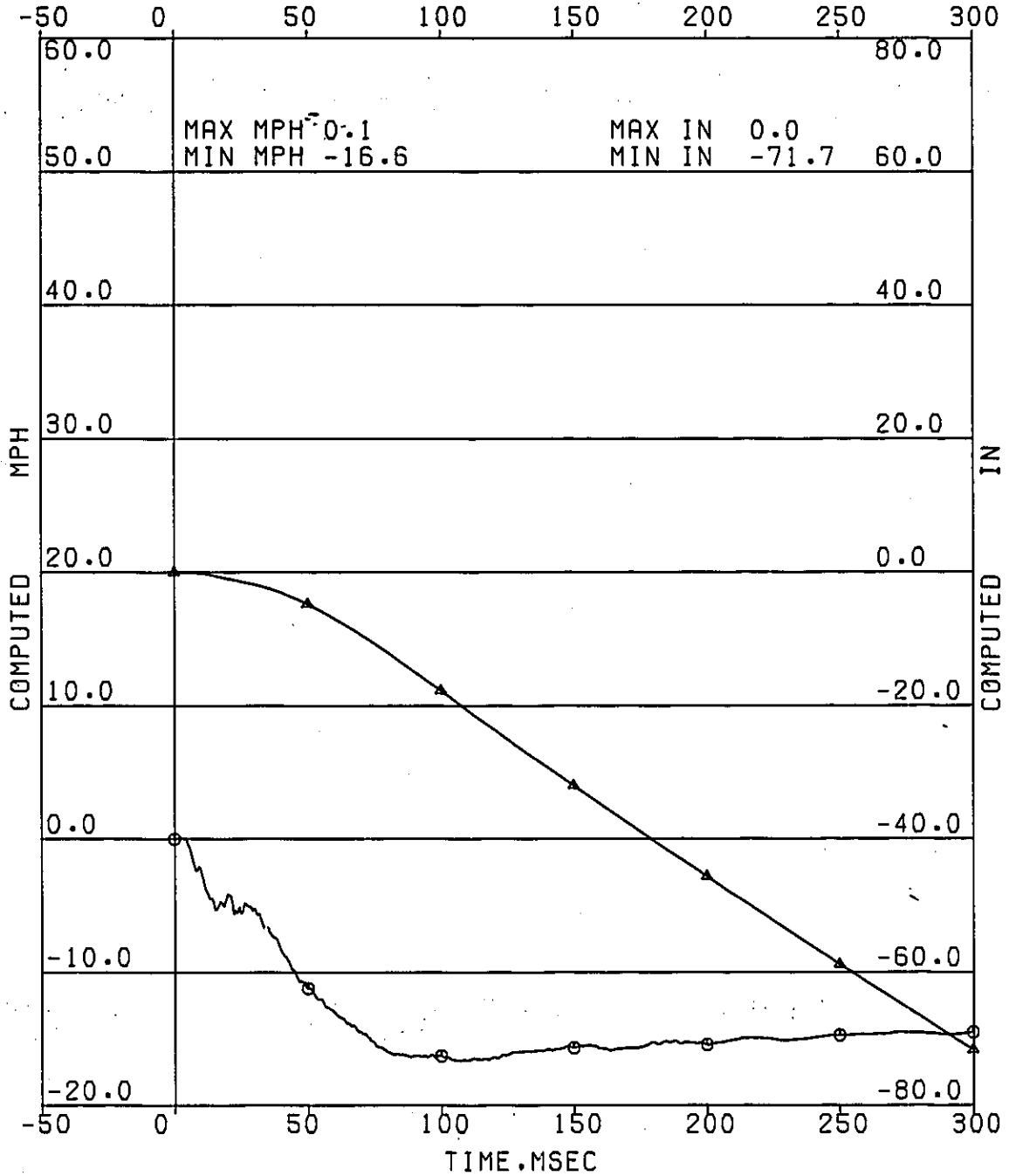


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 2 LEFT FRONT SILL X 14288

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20, 1989

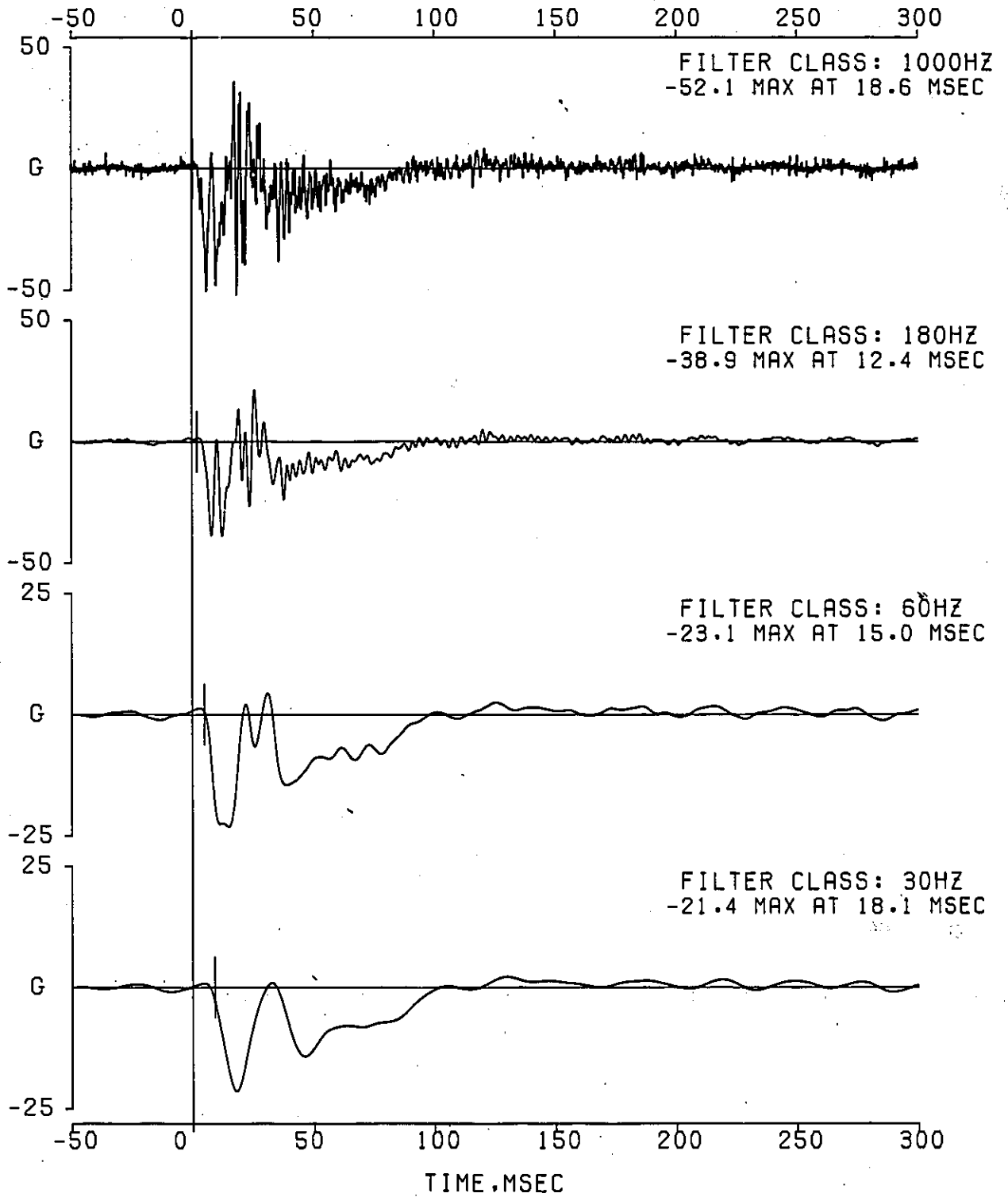
DATA SET 04/05/89PA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 3 RIGHT FRONT SILL X 73965
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

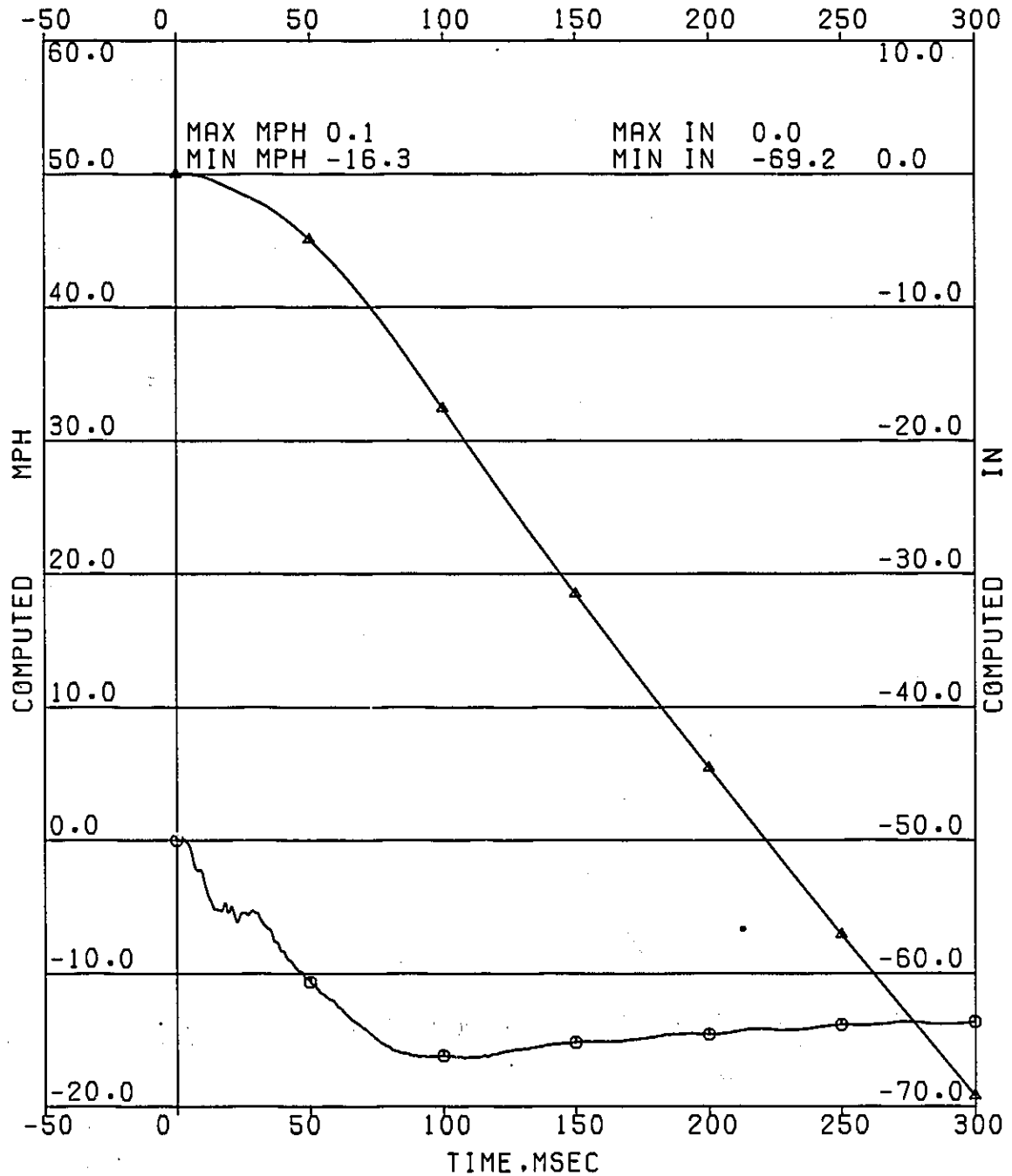


VC03860 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 3 RIGHT FRONT SILL X 73965

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20.1989

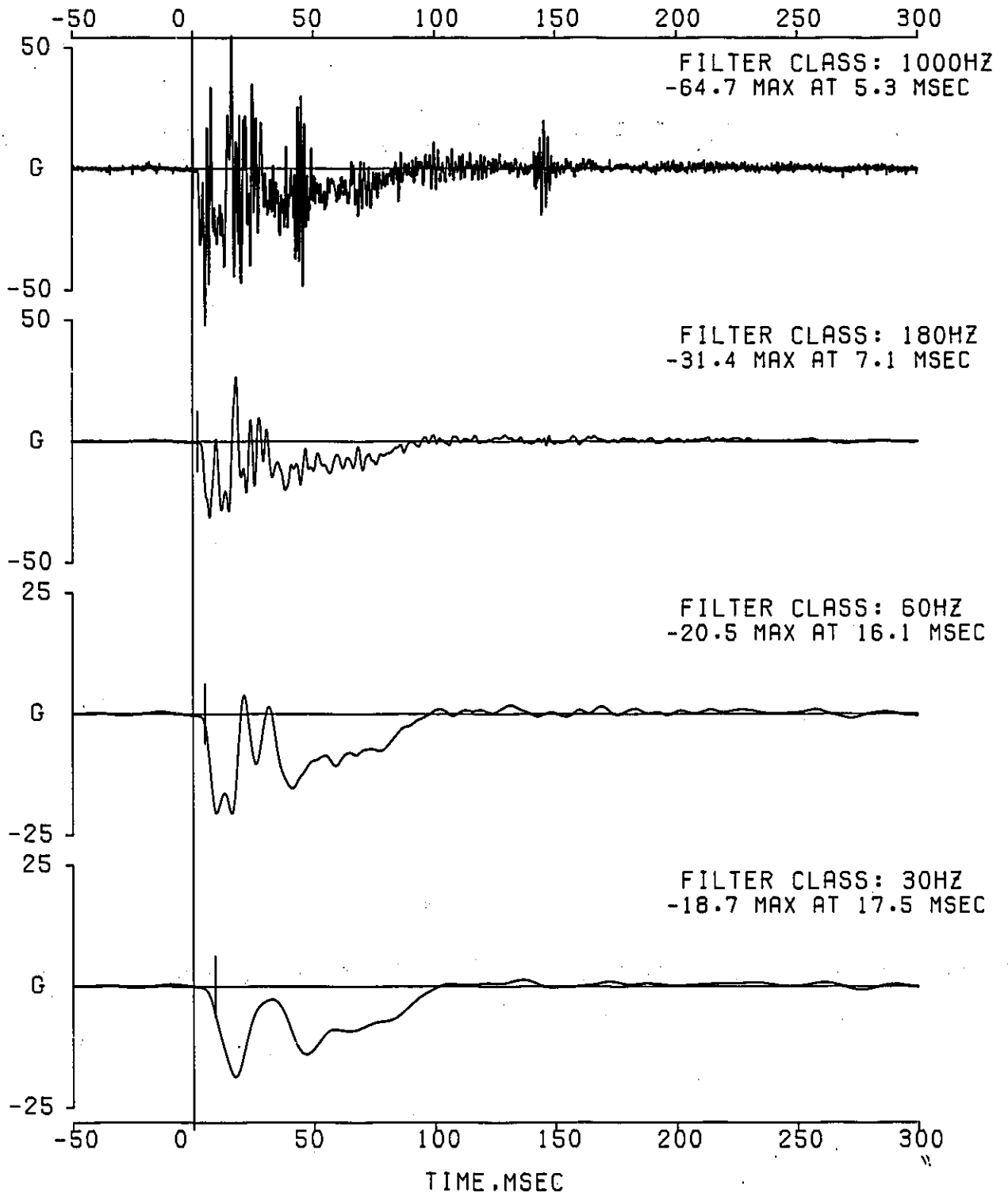
DATA SET 04/05/89PA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT. XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
CHANNEL 4 LEFT REAR SILL X 80428
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20.1989

DATA SET 04/05/89PA
ERRATA 1

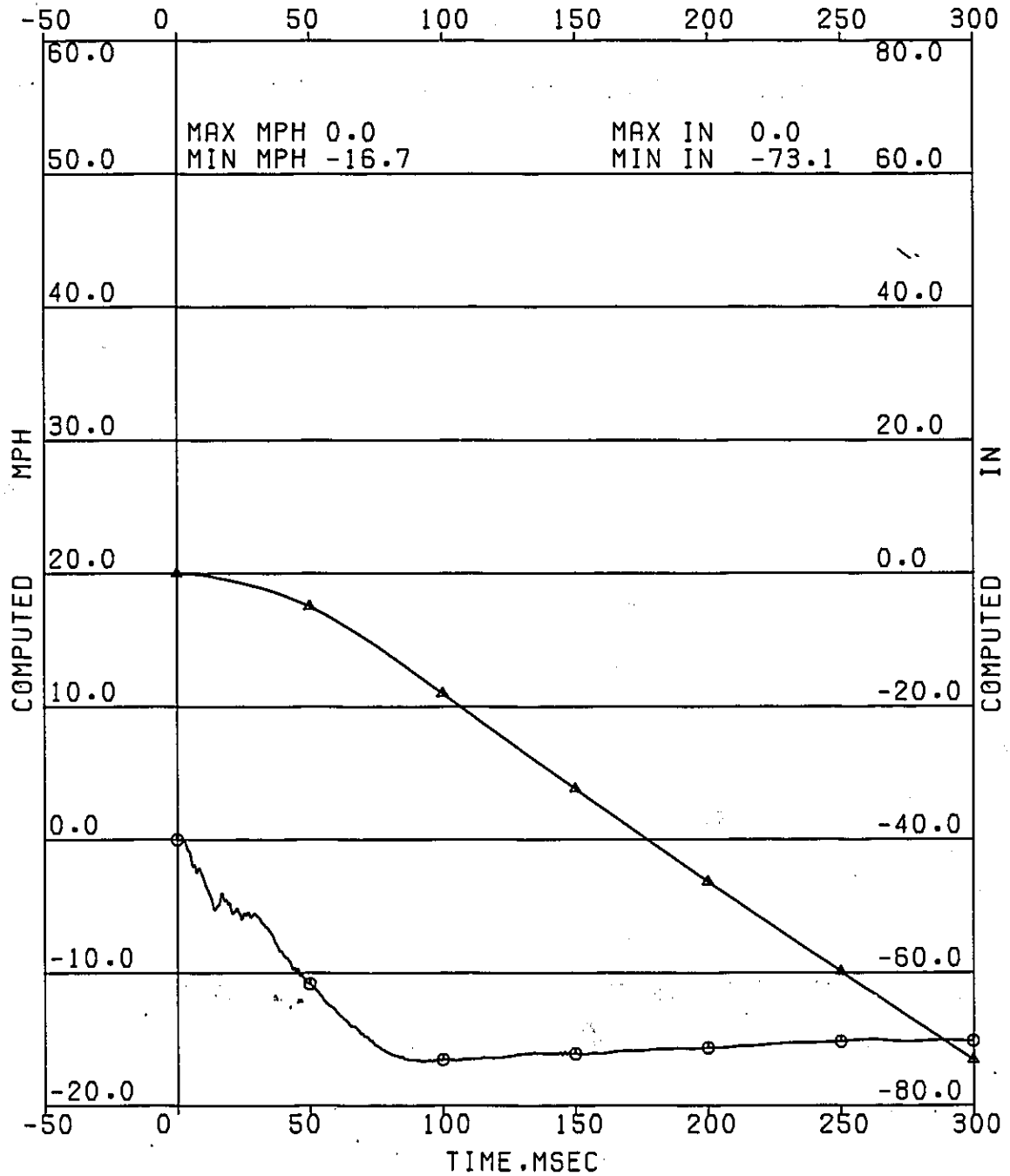


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 4 LEFT REAR SILL X 80428

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20.1989

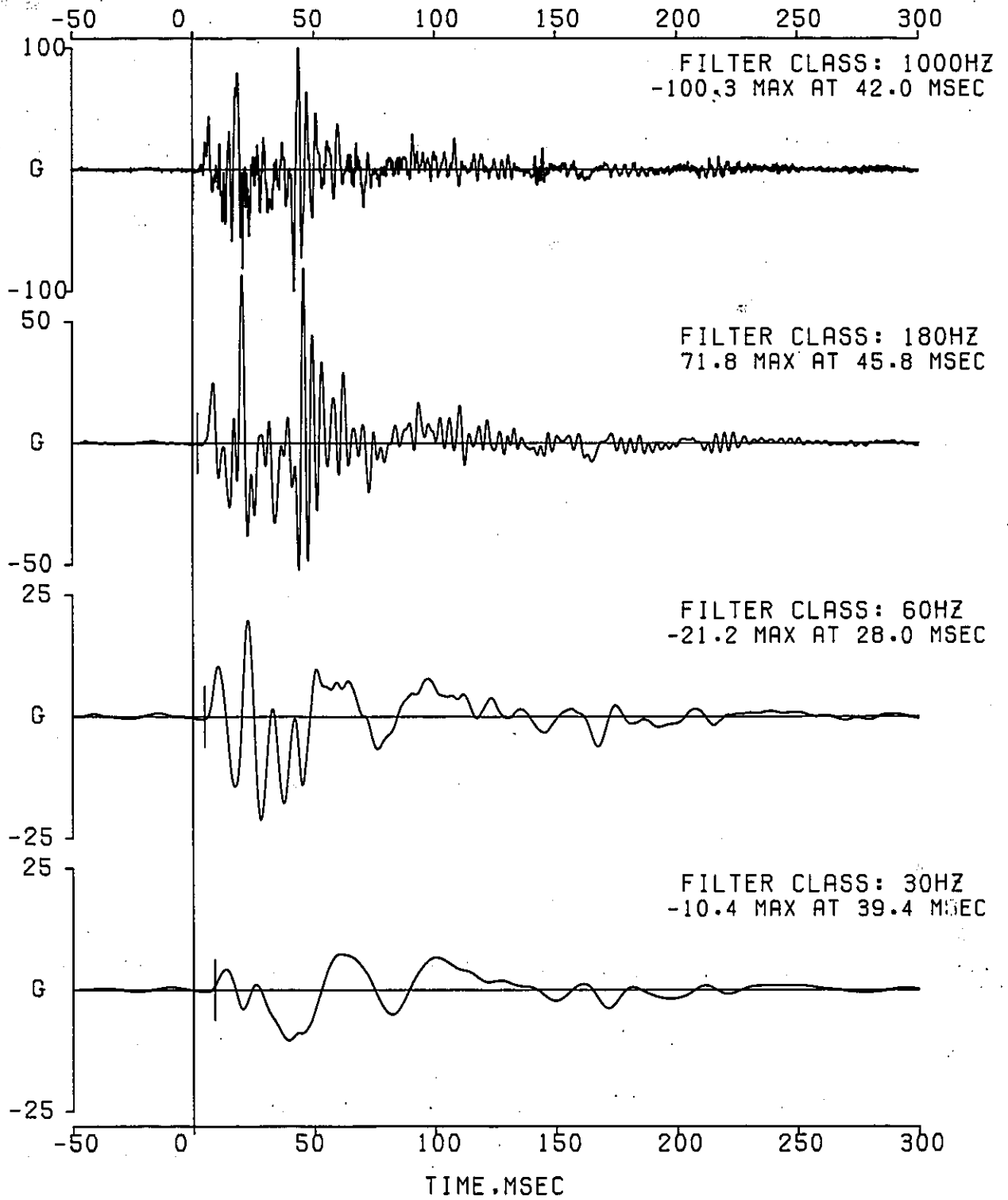
DATA SET 04/05/89PA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 5 LEFT REAR SILL Z 14274
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

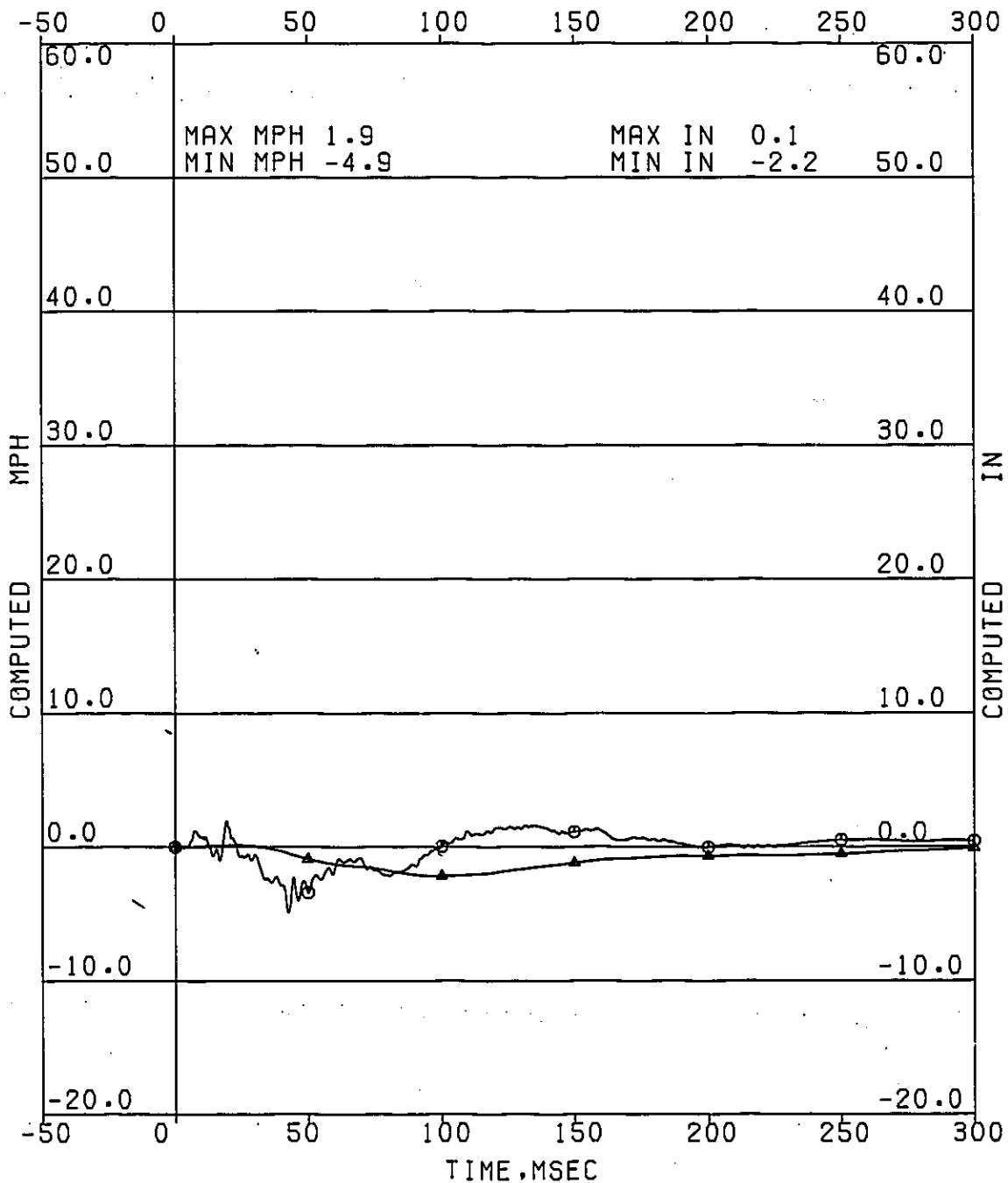


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 5 LEFT REAR SILL Z 14274

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20,1989

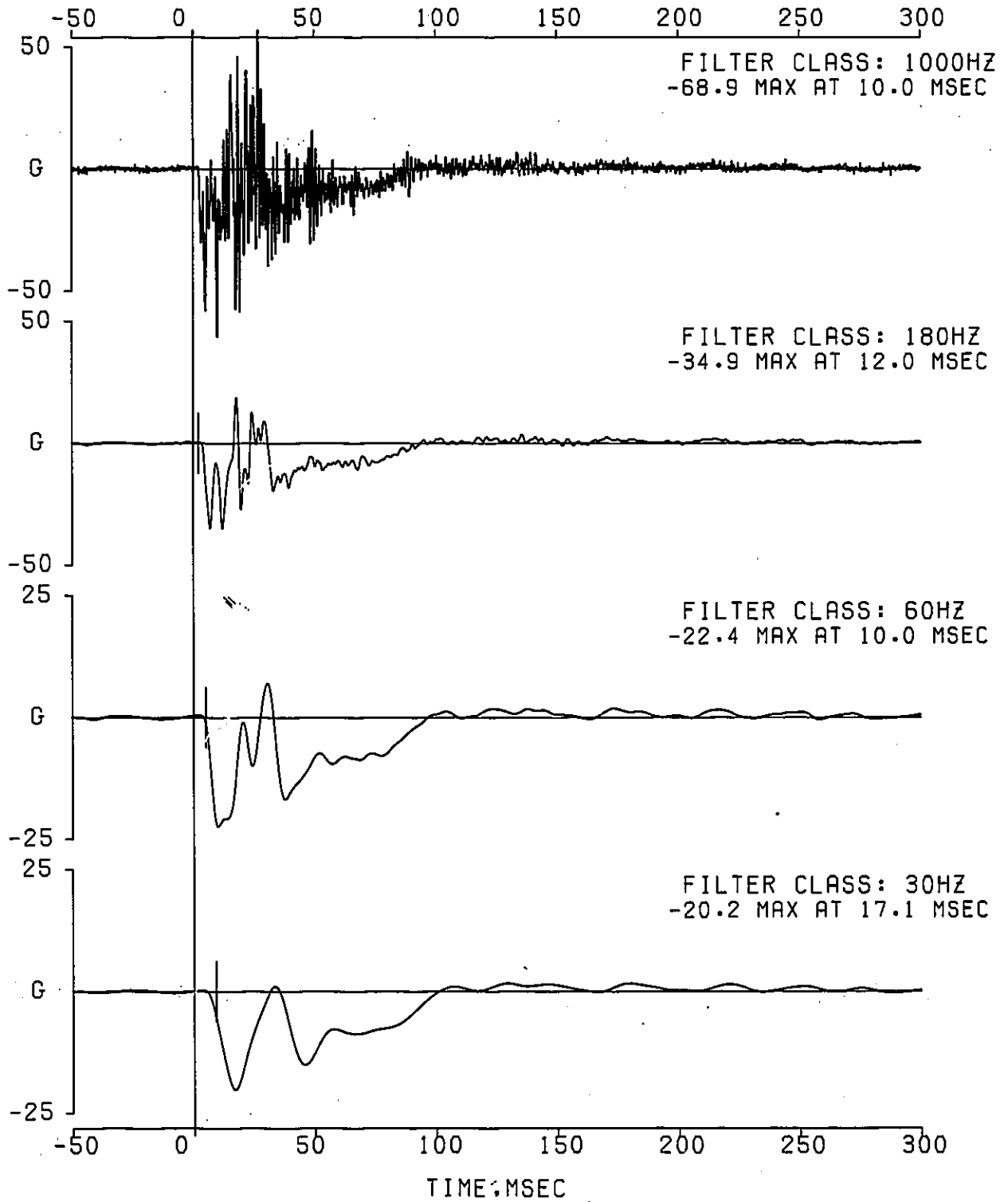
DATA SET 04/05/89PA
 ERRATA 1



○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 6 RIGHT REAR SILL X 14523
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

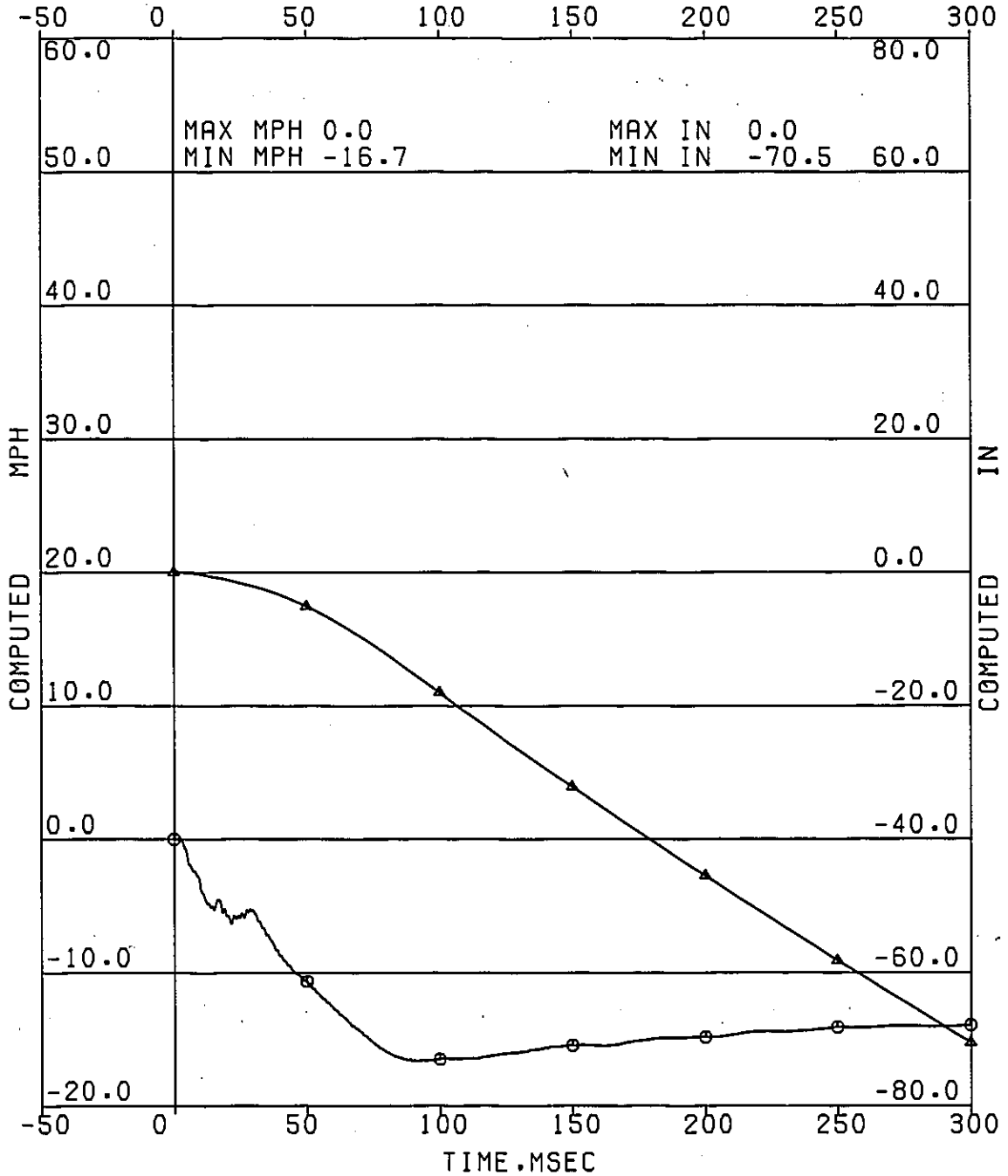


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 6 RIGHT REAR SILL X 14523

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20,1989

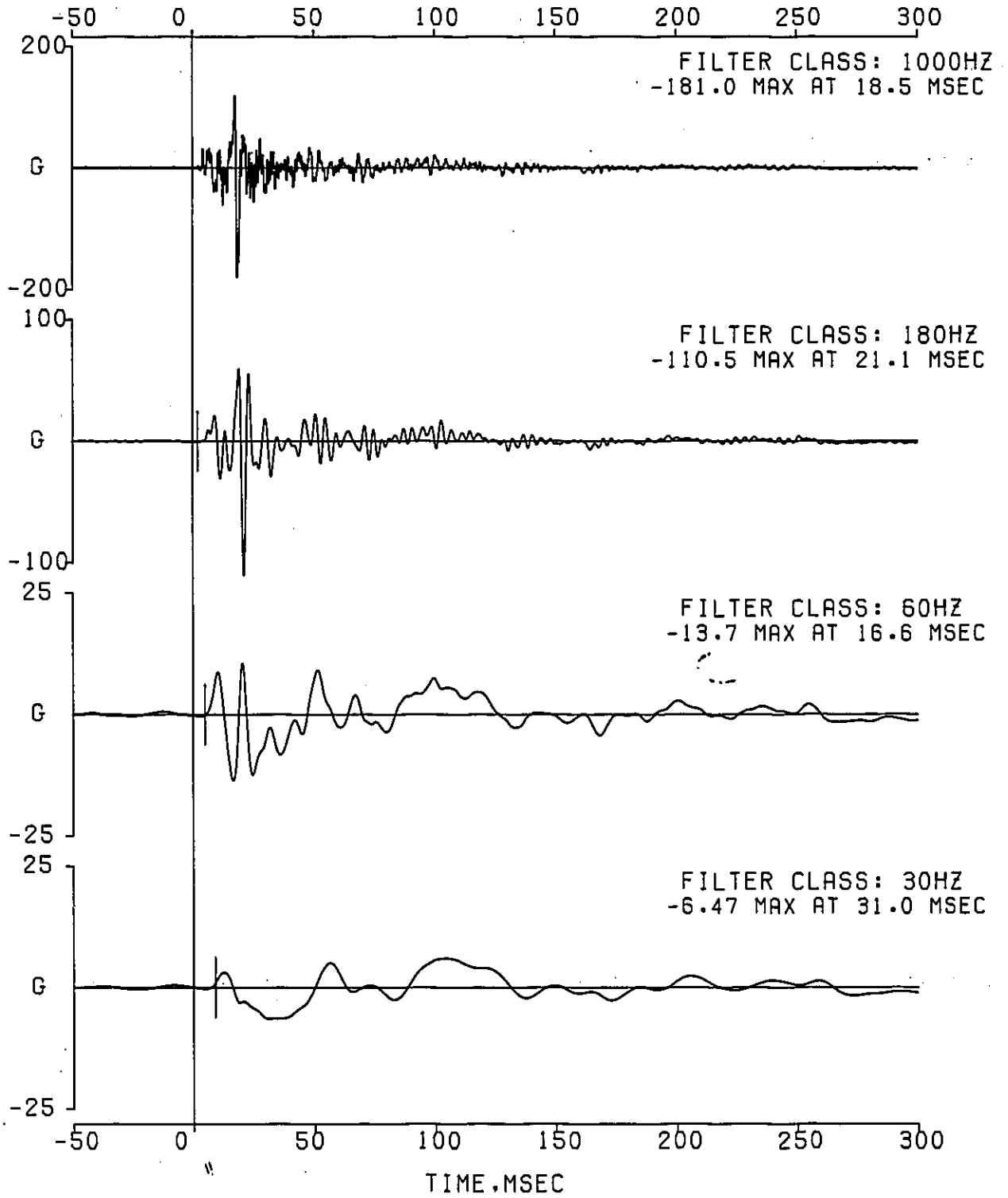
DATA SET 04/05/89PA
 ERRATA 1



○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 7 RIGHT REAR SILL Z 14508
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20,1989

DATA SET 04/05/89PA
ERRATA 1

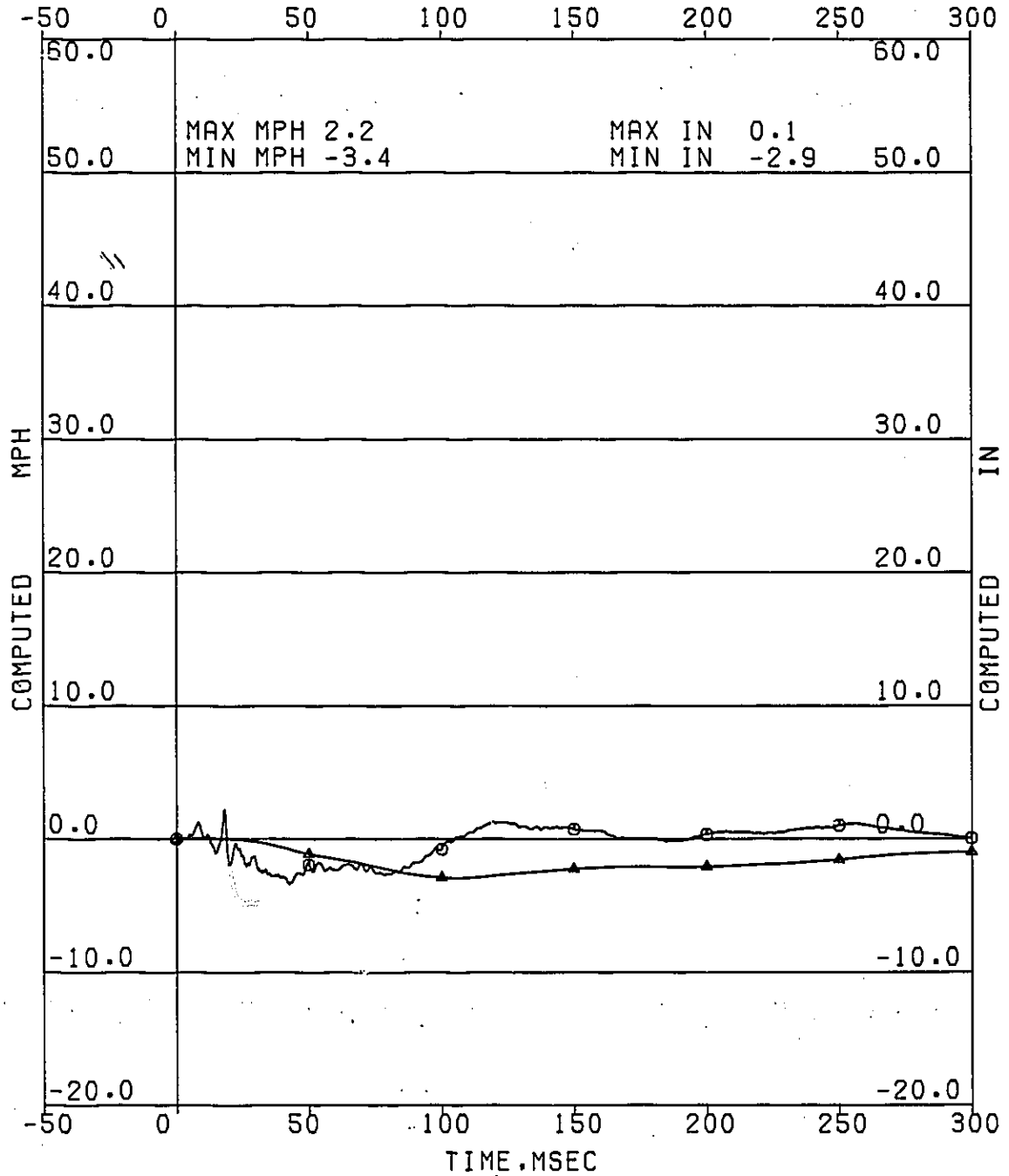


VC03860 30 MPH REAR IMPACT.- XJ72. 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 7 RIGHT REAR SILL Z 14508

FILTER TYPE: SAF J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20.1989

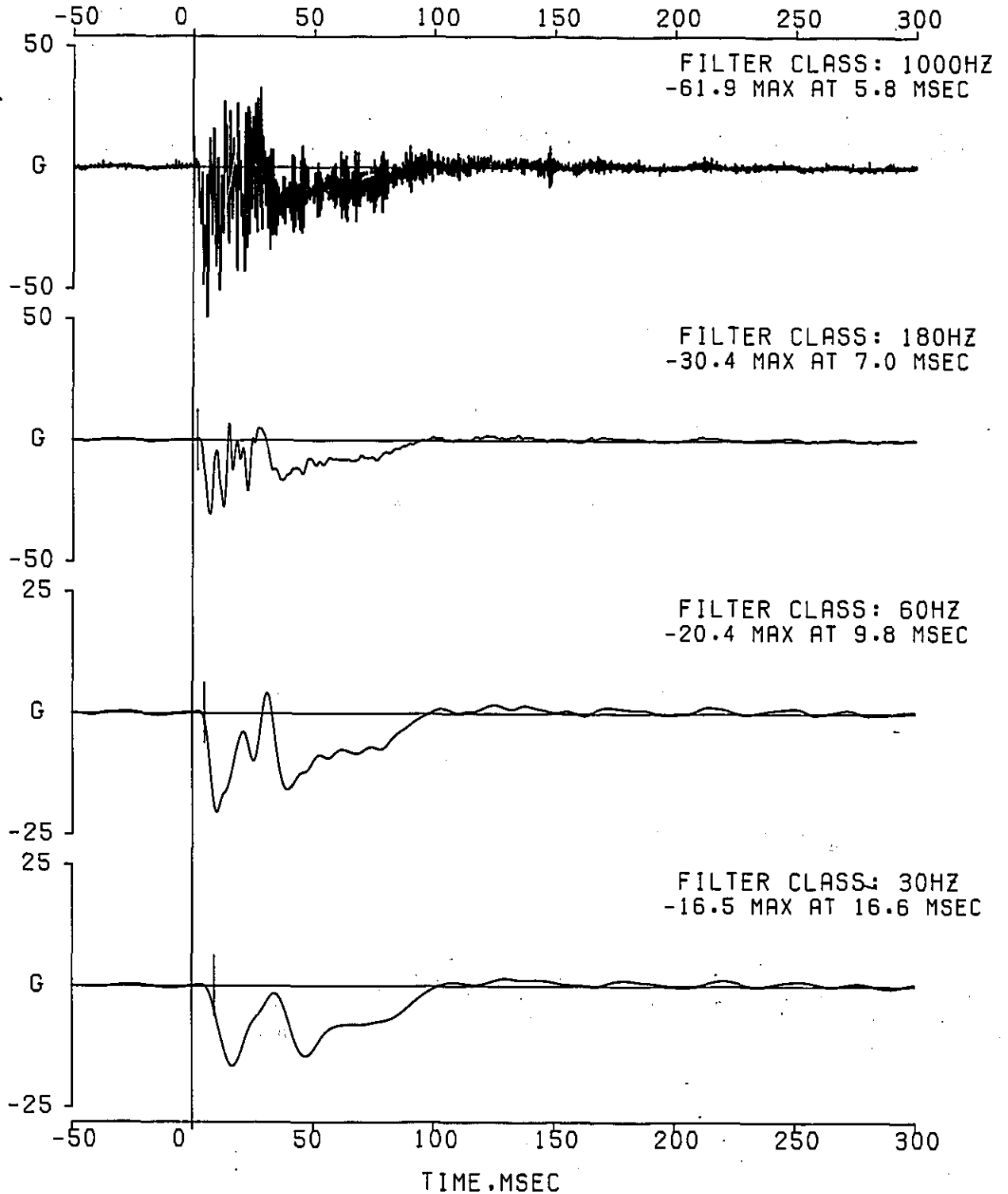
DATA SET 04/05/89PA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 8 LT REAR RAIL MID X 97850
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

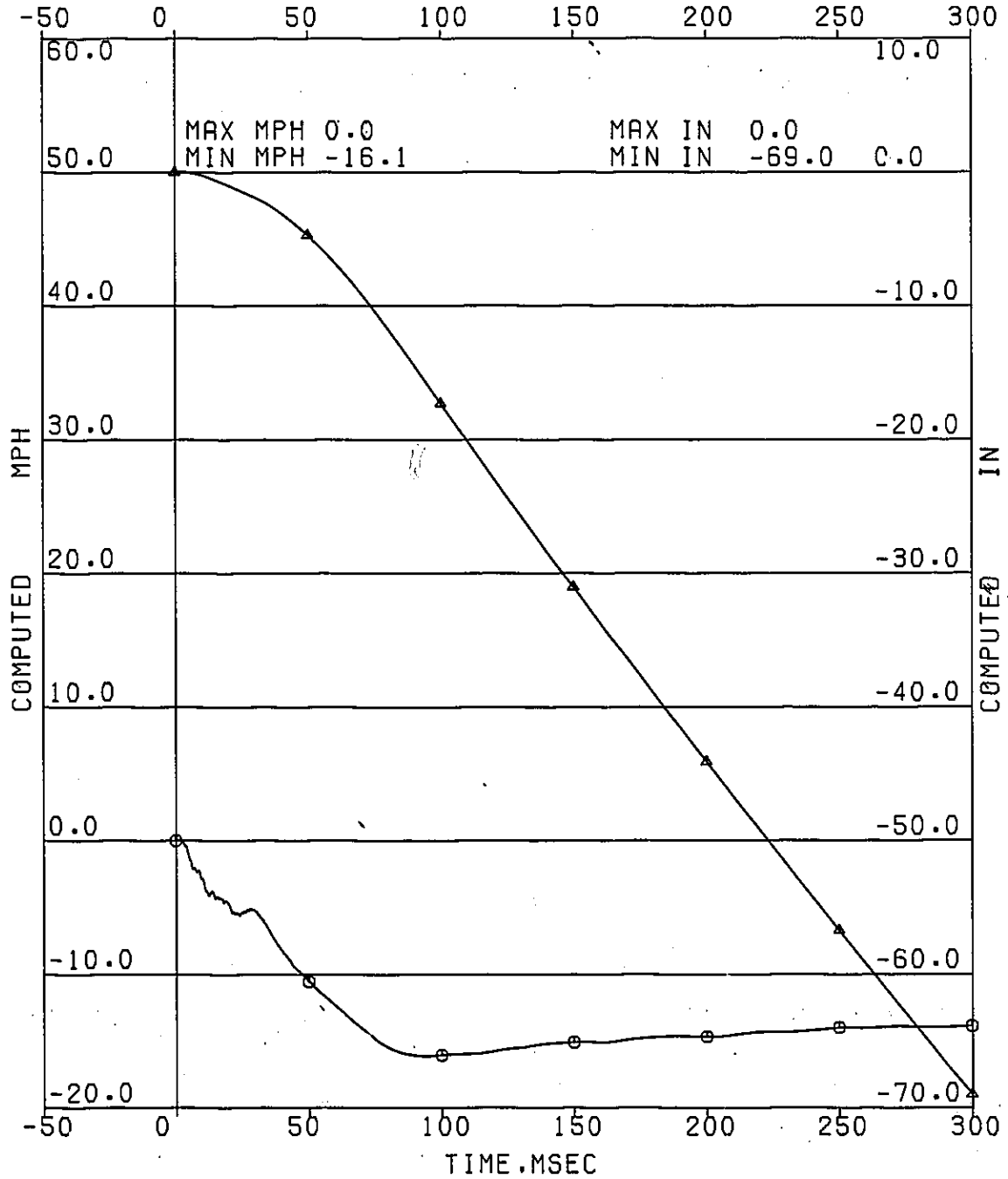


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 8 LT REAR RAIL MID X 97850

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20.1989

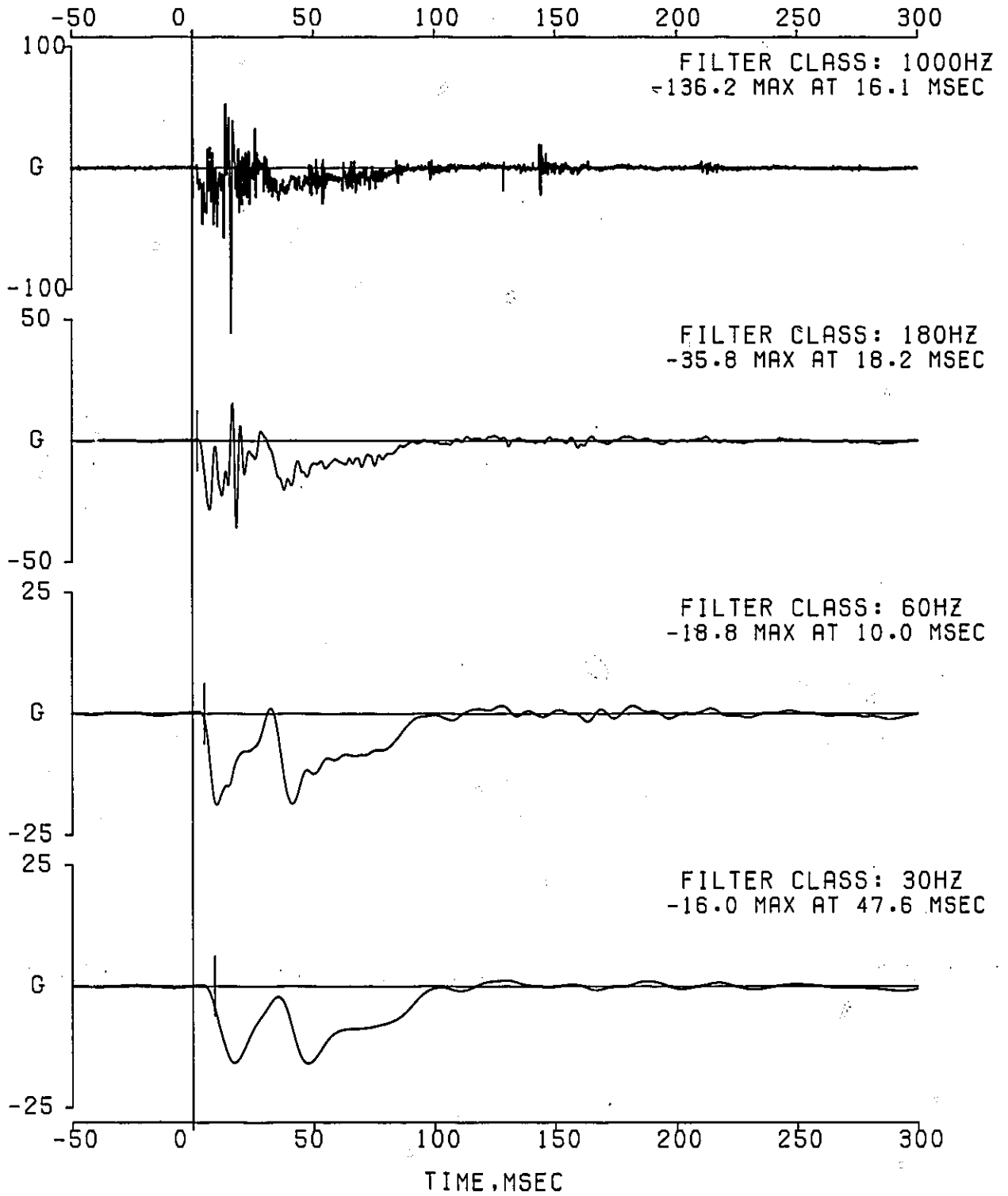
DATA SET 04/05/89PA
 ERRATA 1



○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 9 RT REAR RAIL MID X 14287
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

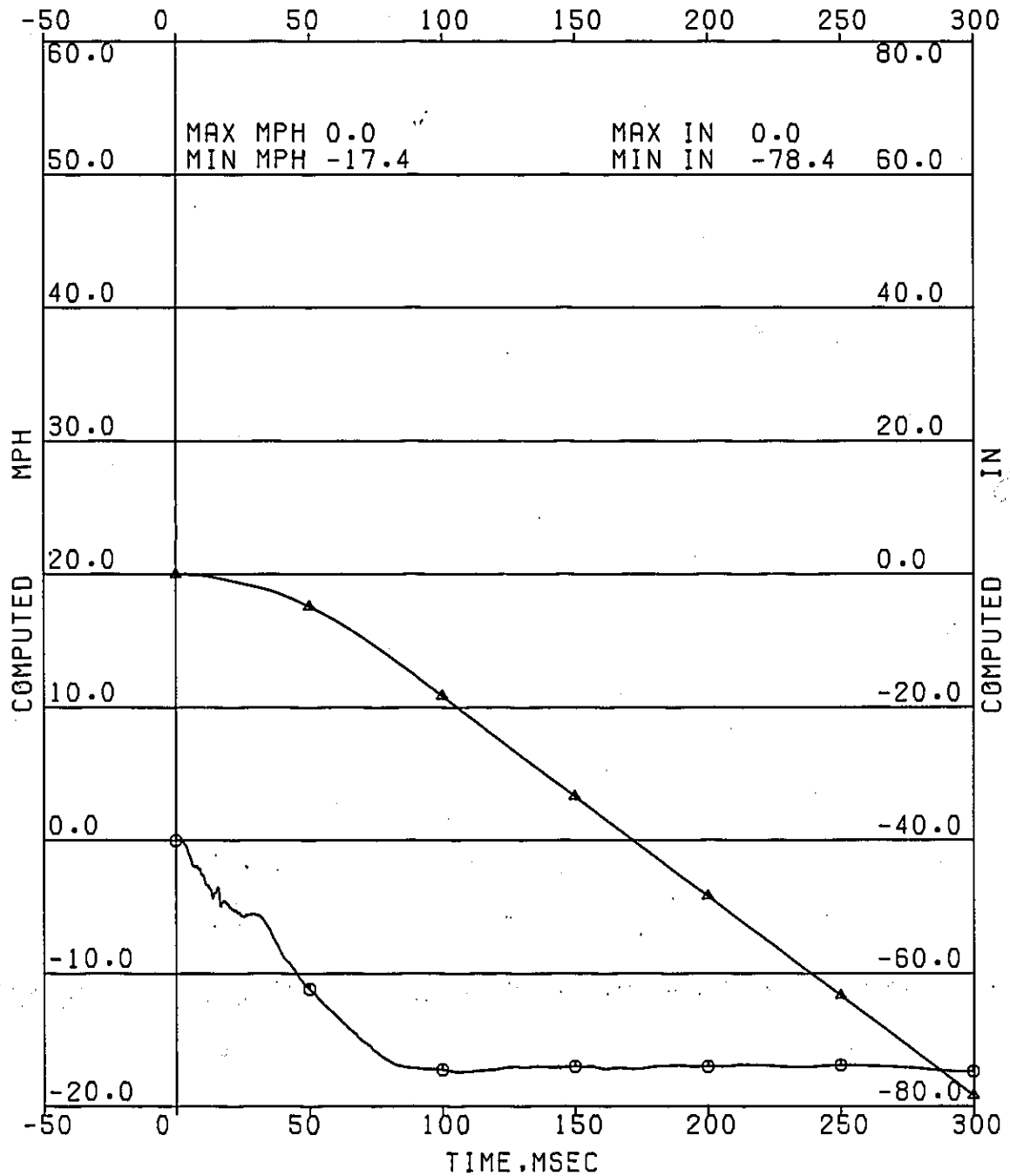


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 9 RT REAR RAIL MID X 14287

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20,1989

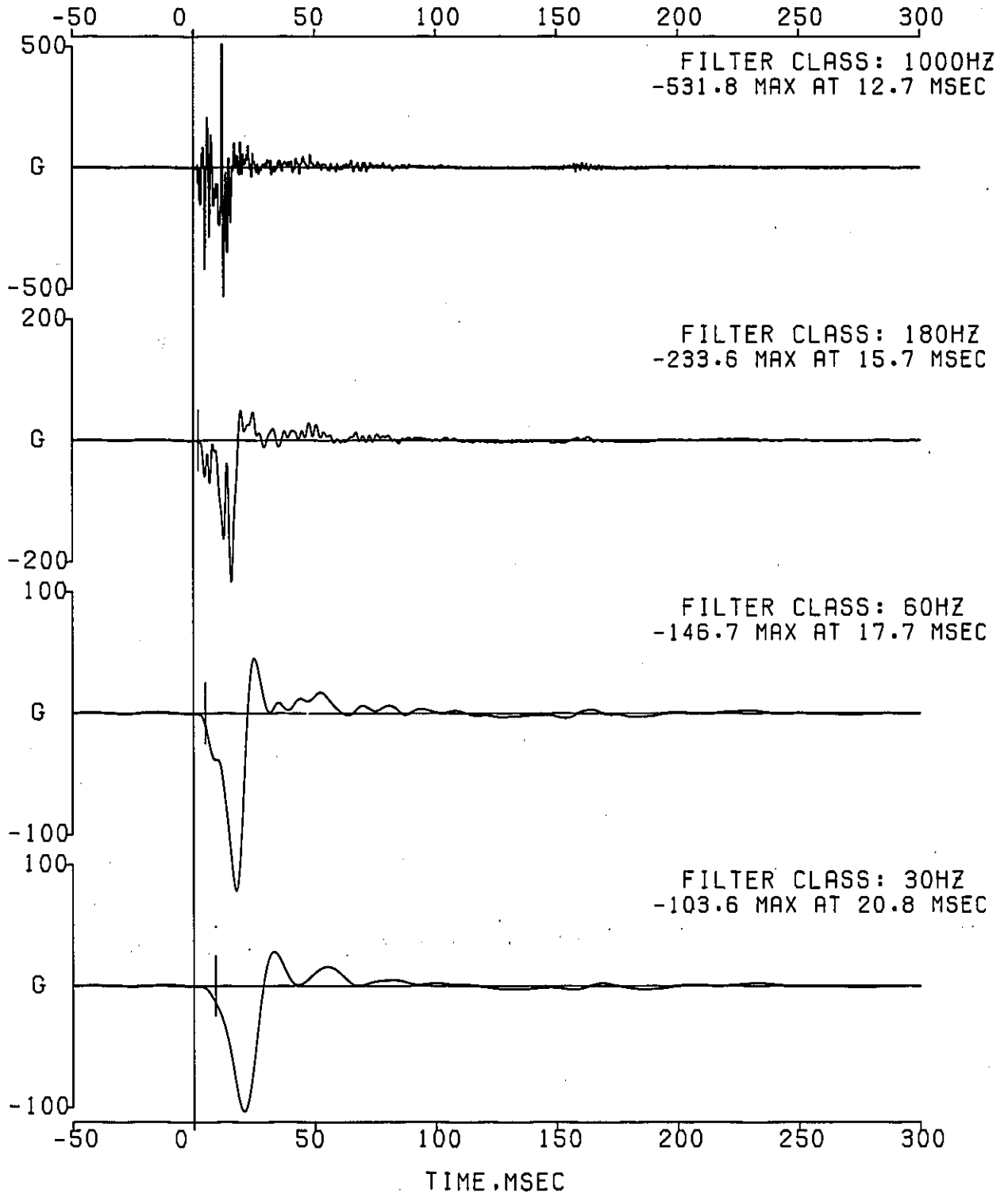
DATA SET 04/05/89PA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
CHANNEL 10 LEFT RAIL MIDTANK X 14457
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20.1989

DATA SET 04/05/89PA
ERRATA 1



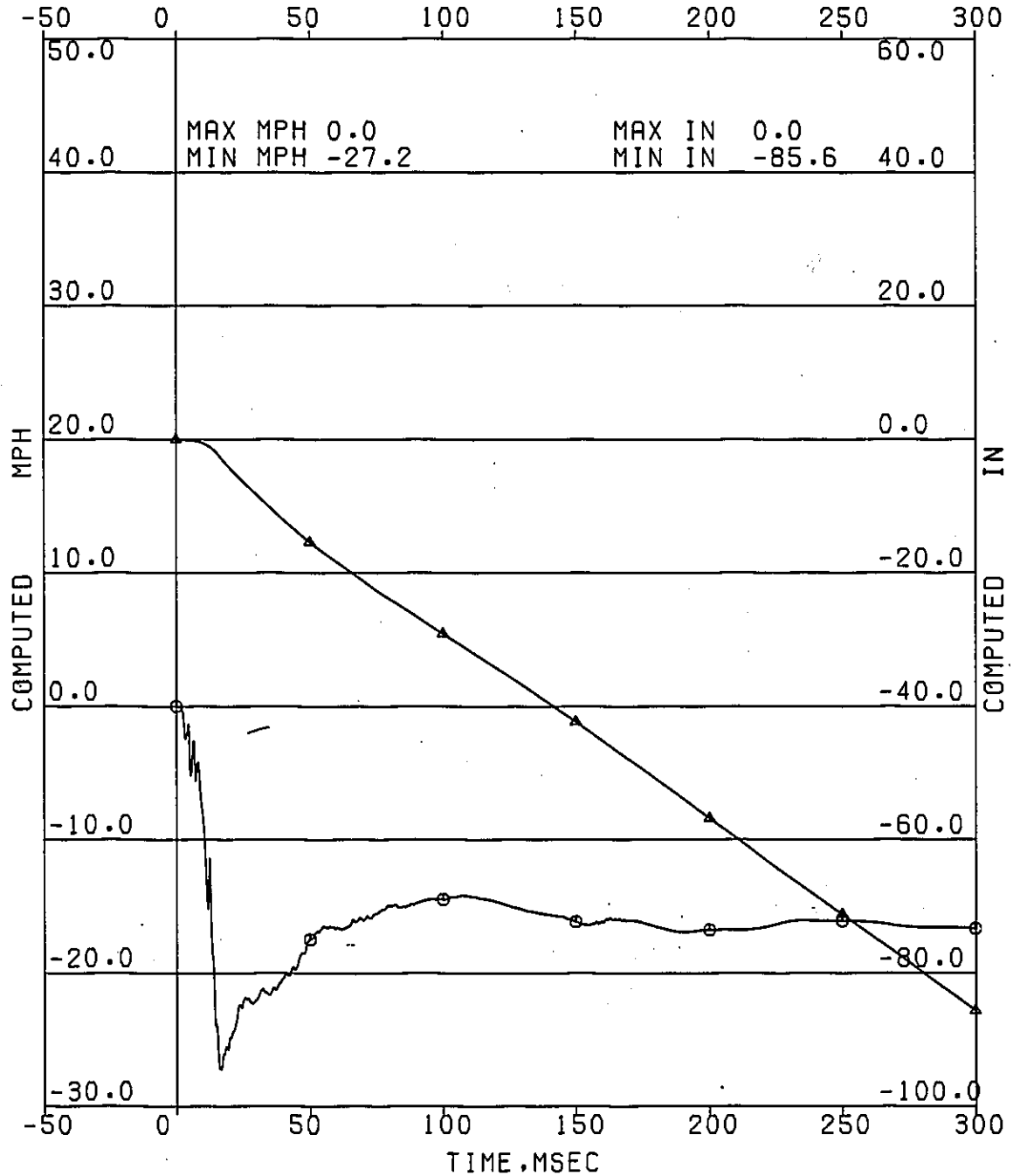
*****CAUTION*****
*****1.9 G OFFSET OCCURED DURING TEST*****

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 10 LEFT RAIL MIDTANK X 14457

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20, 1989

DATA SET 04/05/89PA
 ERRATA 1



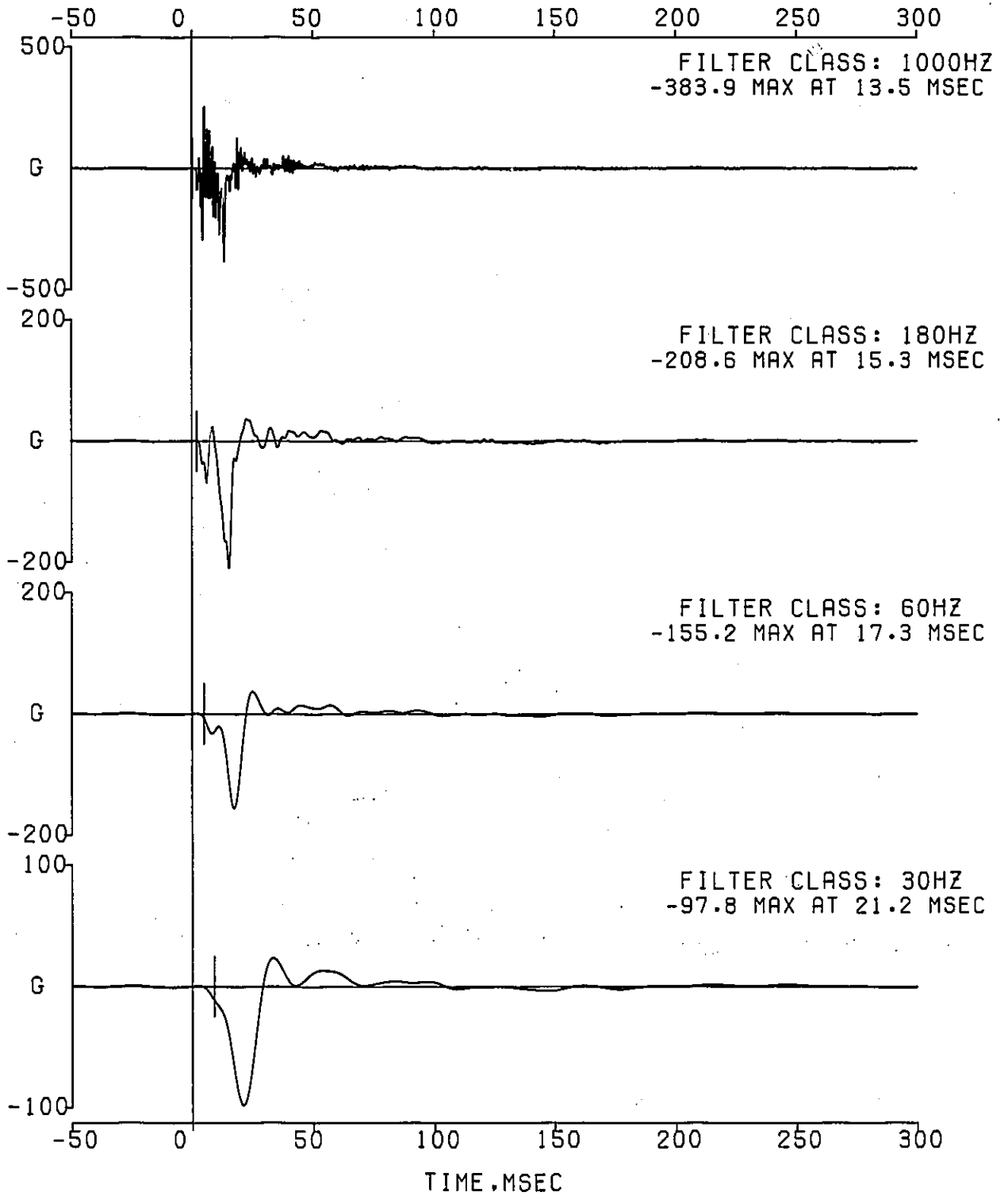
*****CAUTION*****
 *****1.9 G OFFSET OCCURED DURING TEST*****

EA12-005- Chrysler -000467

⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 12 RIGHT RAIL MIDTANK X 80427
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

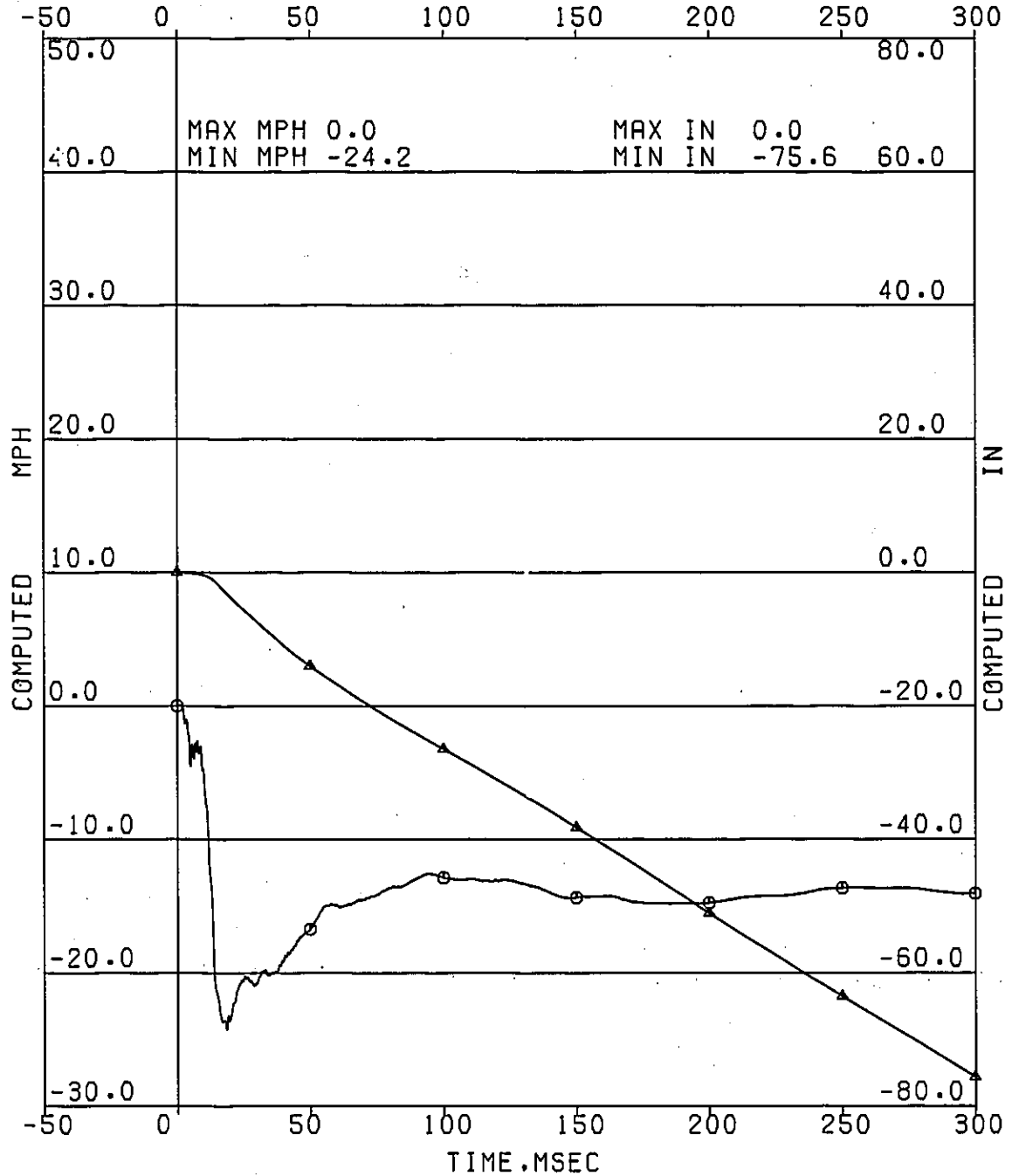


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 12 RIGHT RAIL MIDTANK X 80427

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20, 1989

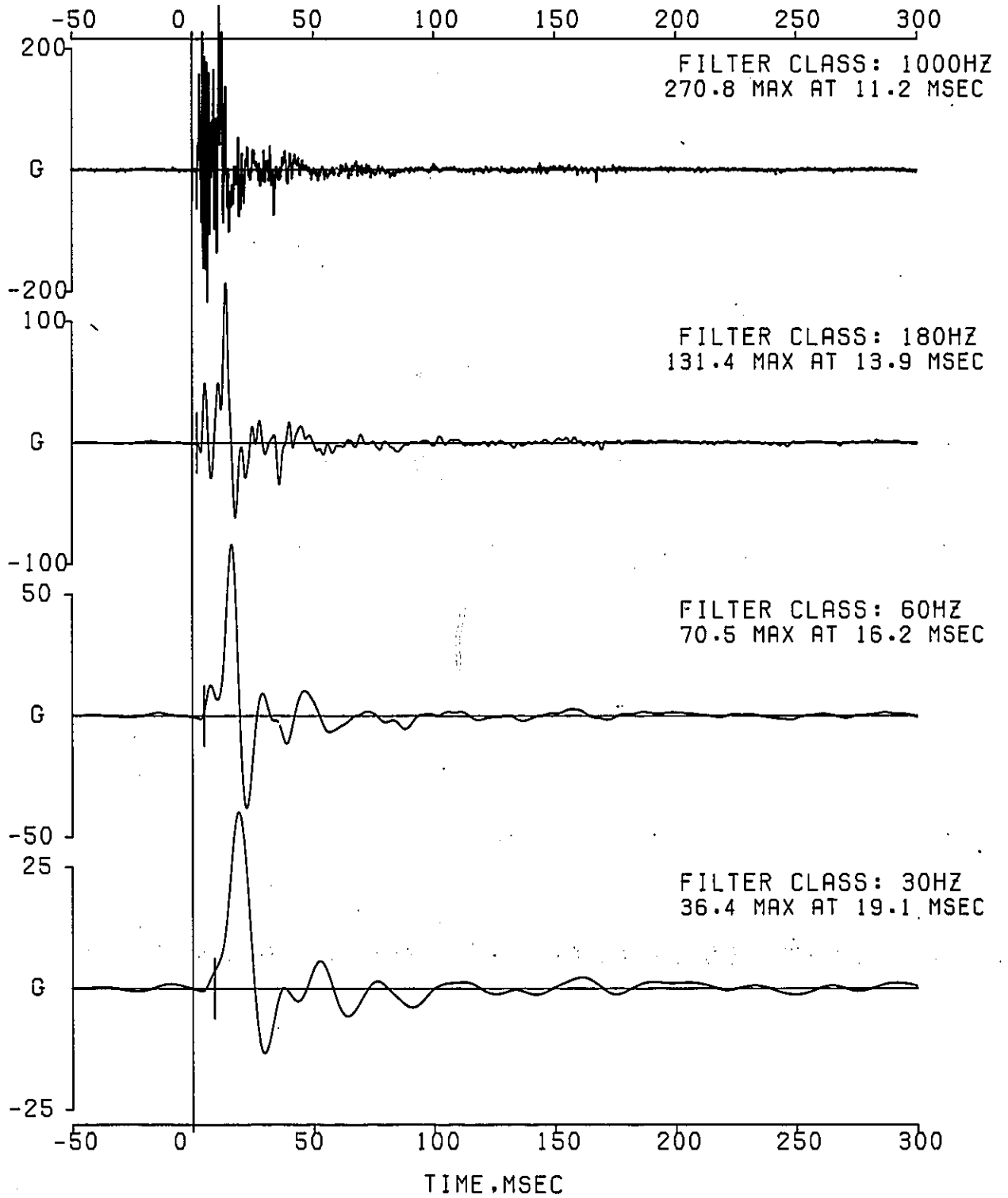
DATA SET 04/05/89PA
 ERRATA 1



⊙—⊙ COMPUTED MPH
 ▲—▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 13 RIGHT RAIL MIDTANK Z 14332
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20, 1989

DATA SET 04/05/89PA
ERRATA 1

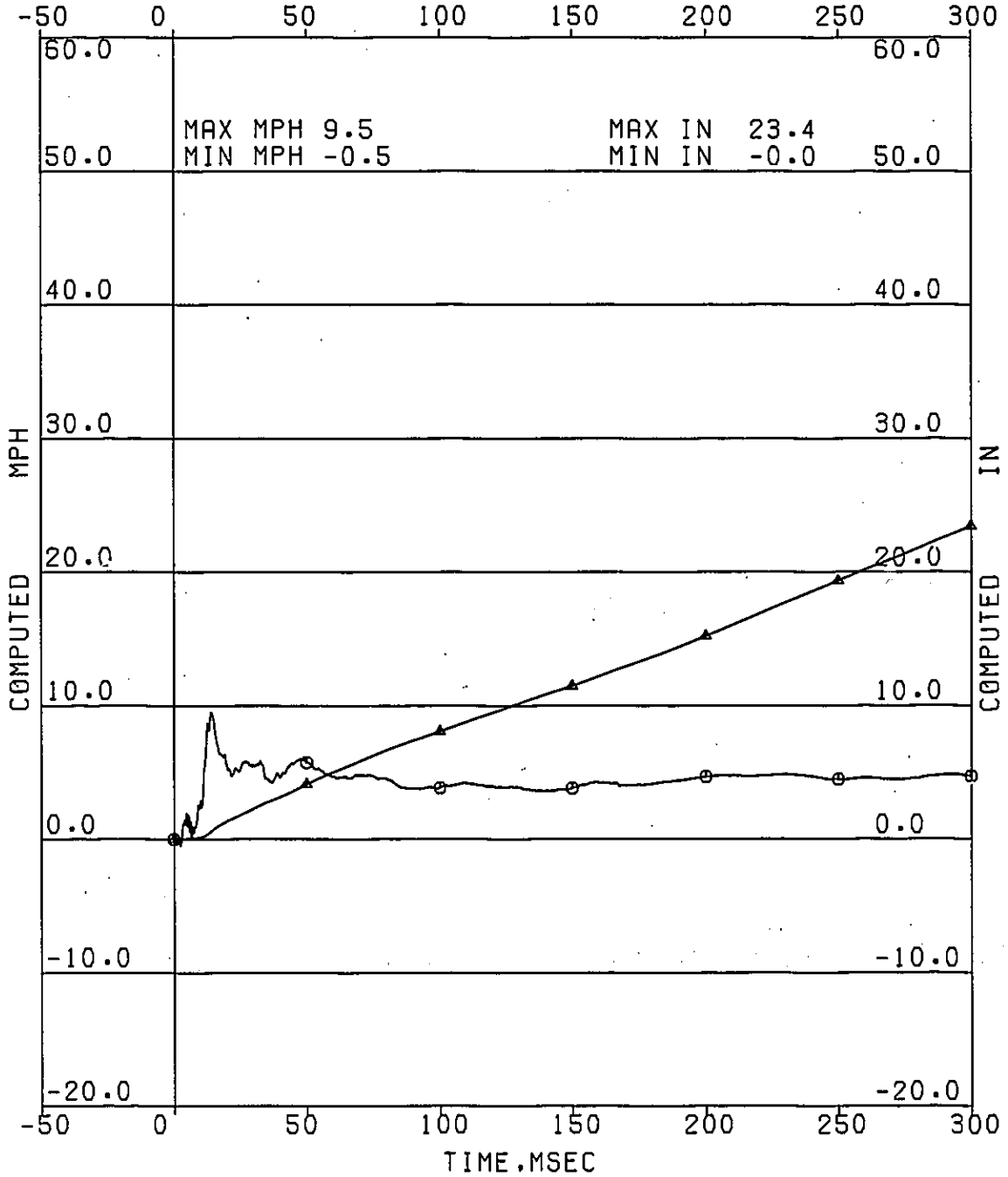


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 13 RIGHT RAIL MIDTANK Z 14332

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20,1989

DATA SET 04/05/89PA
 ERRATA 1



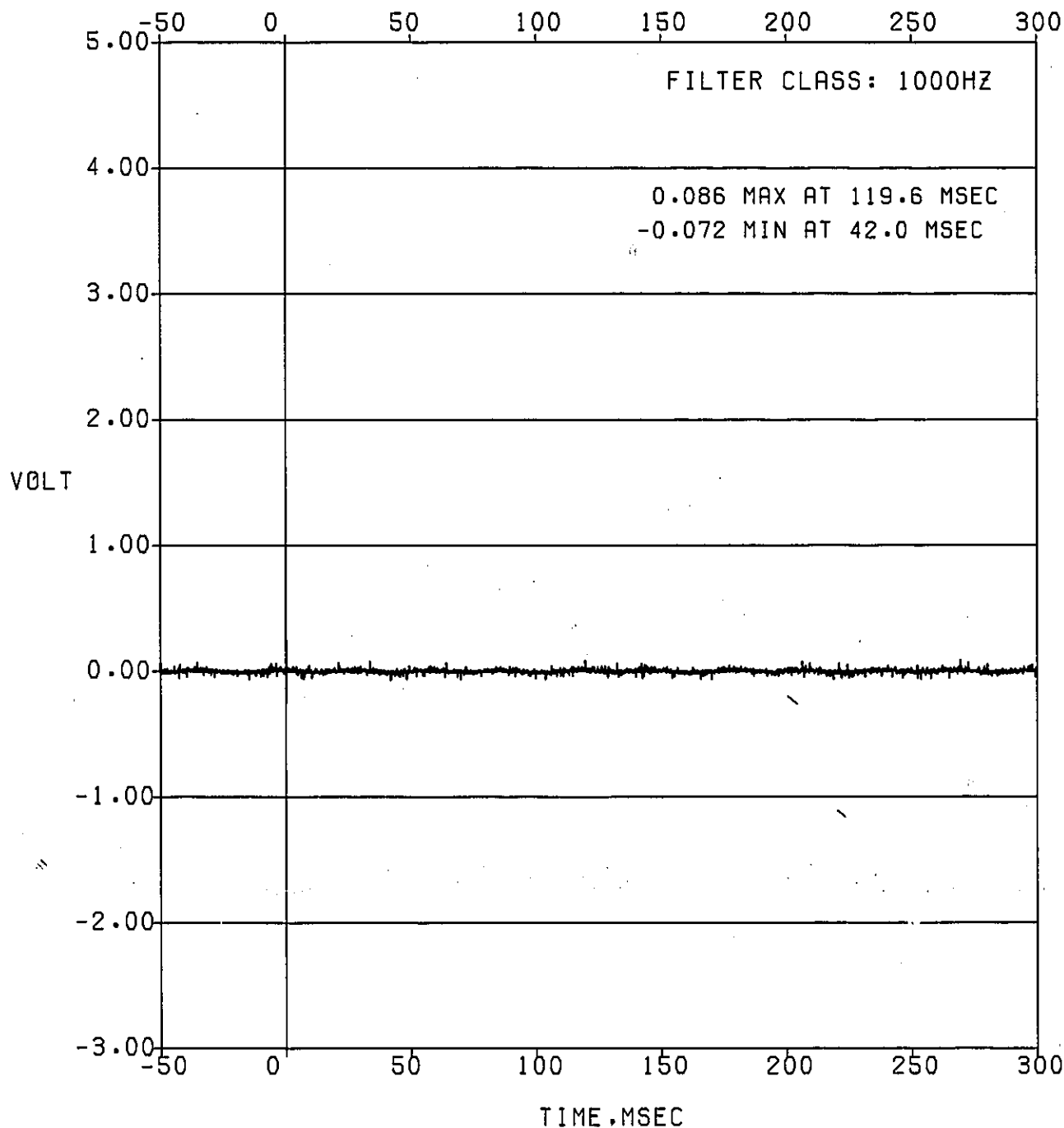
⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHANNEL 14 SENDING UNIT BRIDGE

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20,1989

DATA SET 04/05/89PA
ERRATA 1



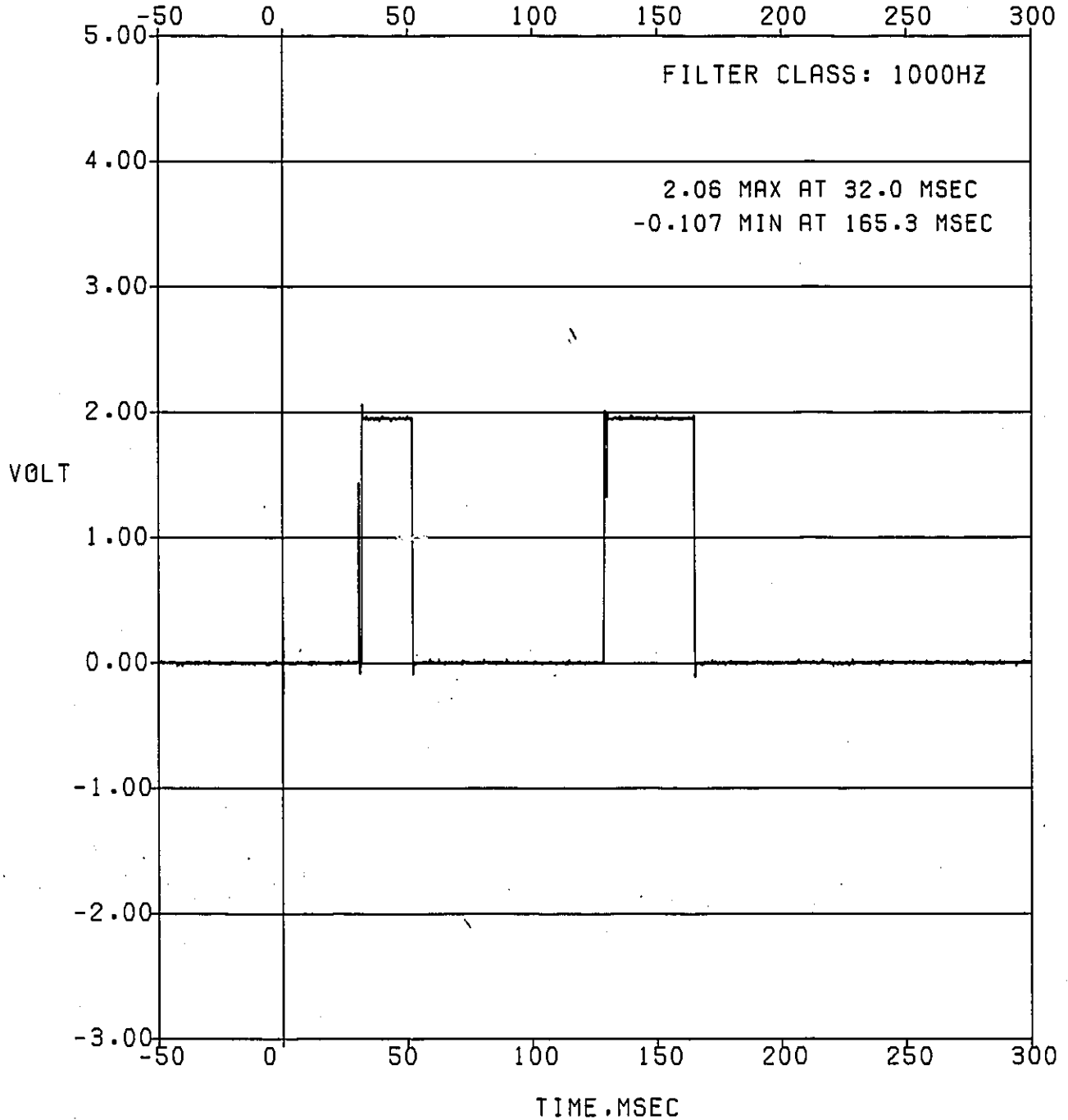
*****CAUTION*****
*****CONTINUITY WAS NOT LOST DURING TEST*****

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHANNEL 16 TANK/DIFF. CONTACT

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20,1989

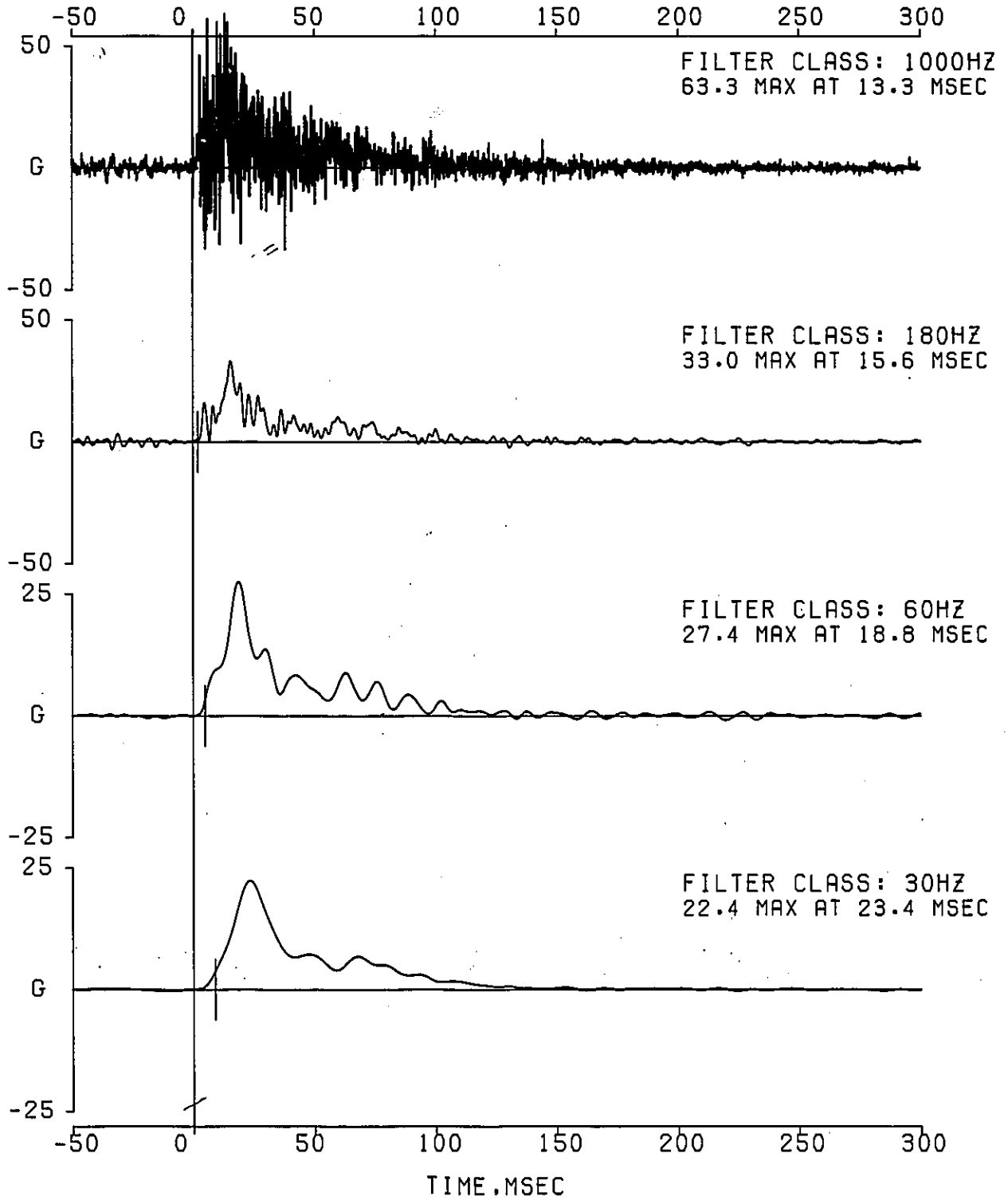
DATA SET 04/05/89PB
ERRATA 1



*****NOTE*****
*****1ST CLOSURE OCCURED AT 31.7 MS LASTING 18.3 MS*****
*****2ND CLOSURE OCCURED AT 128.9 MS LASTING 31.1 MS*****

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 17 LT RAIL MBAR MID X 14501
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20,1989

DATA SET 04/05/89PB
ERRATA 1

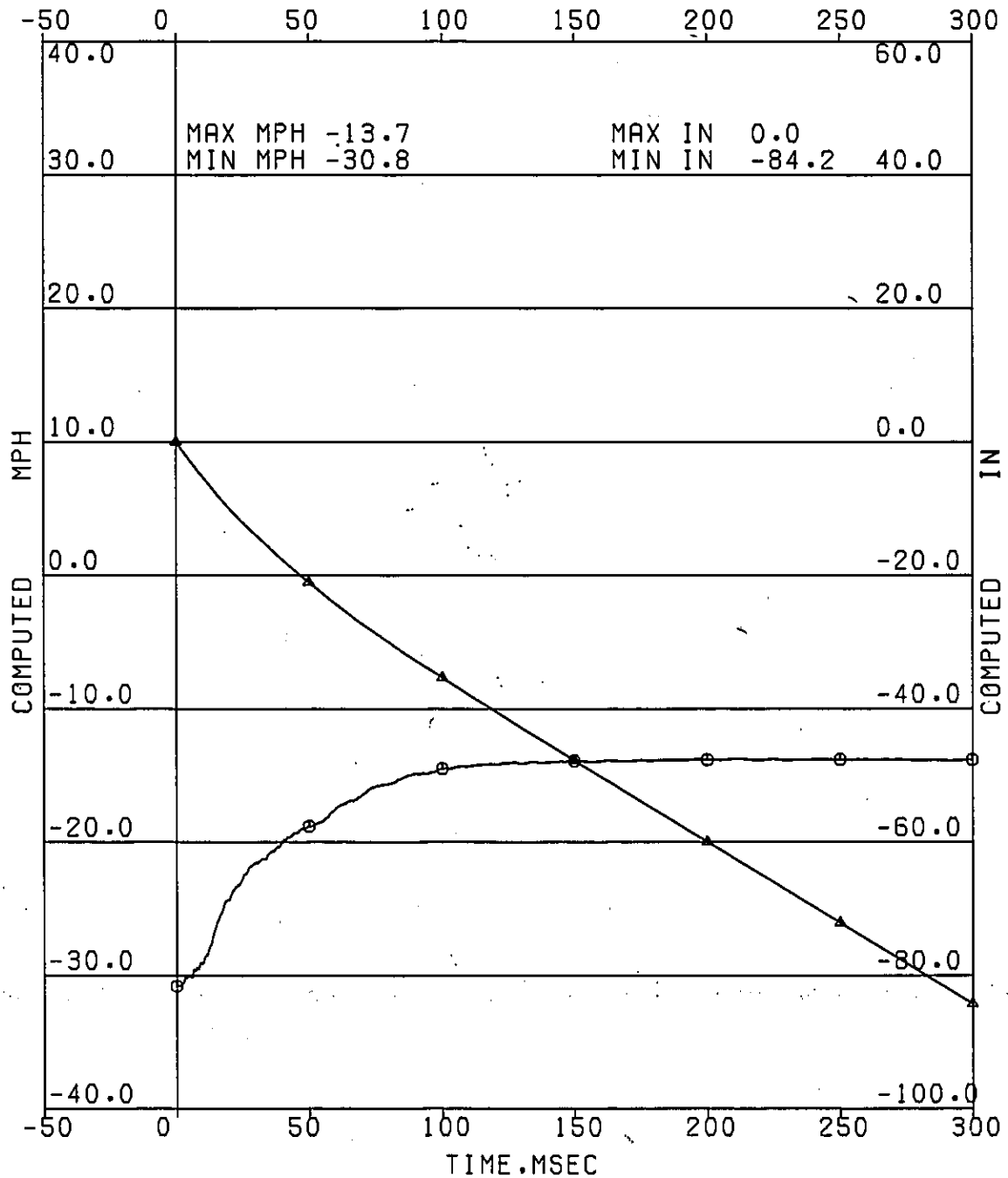


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 17 LT RAIL MBAR MID X 14501

FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20,1989

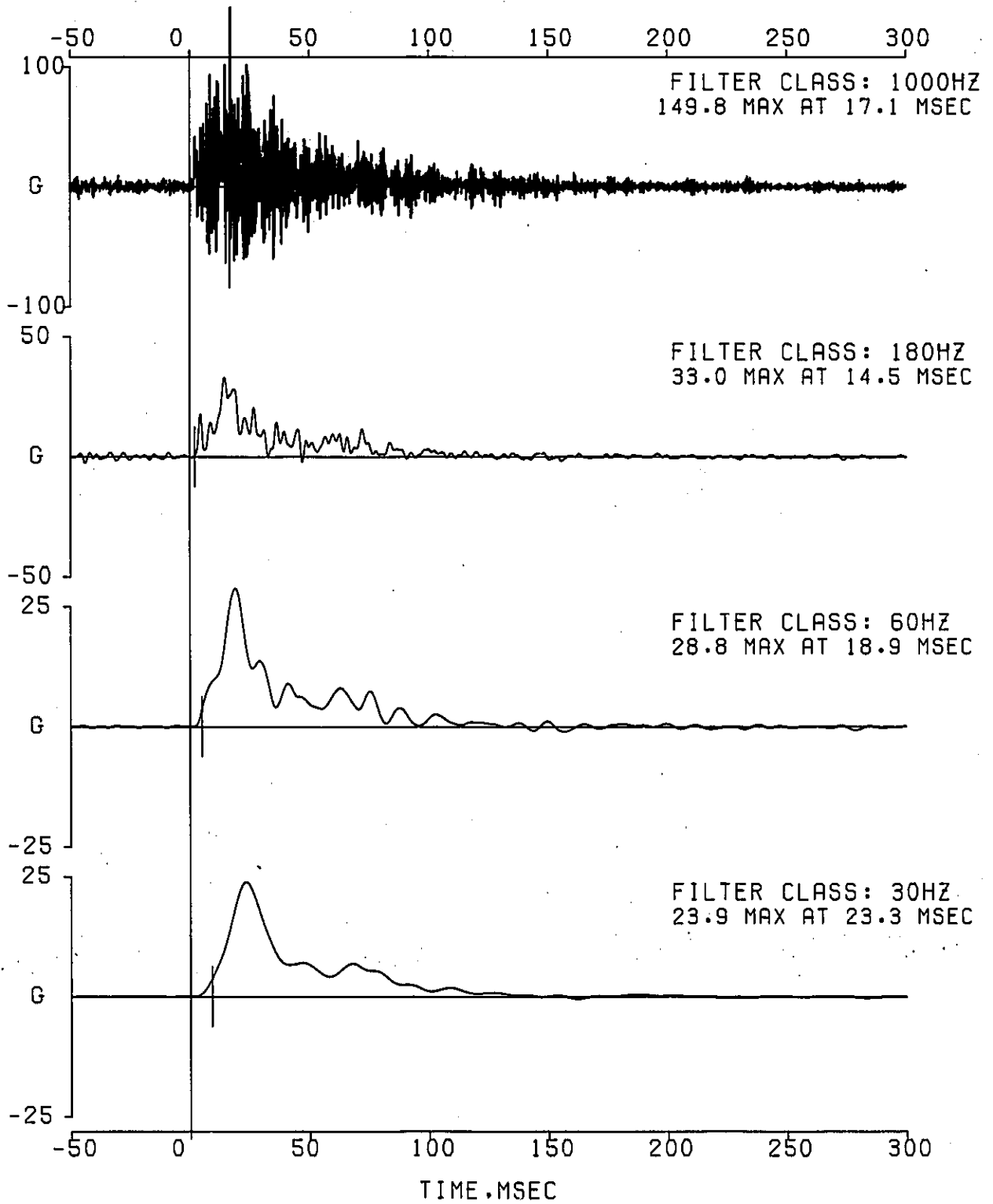
DATA SET 04/05/89PB
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03860 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
CHANNEL 18 RT RAIL MBAR MID X 14538
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 5320
APR 20.1989

DATA SET 04/05/89PB
ERRATA 1

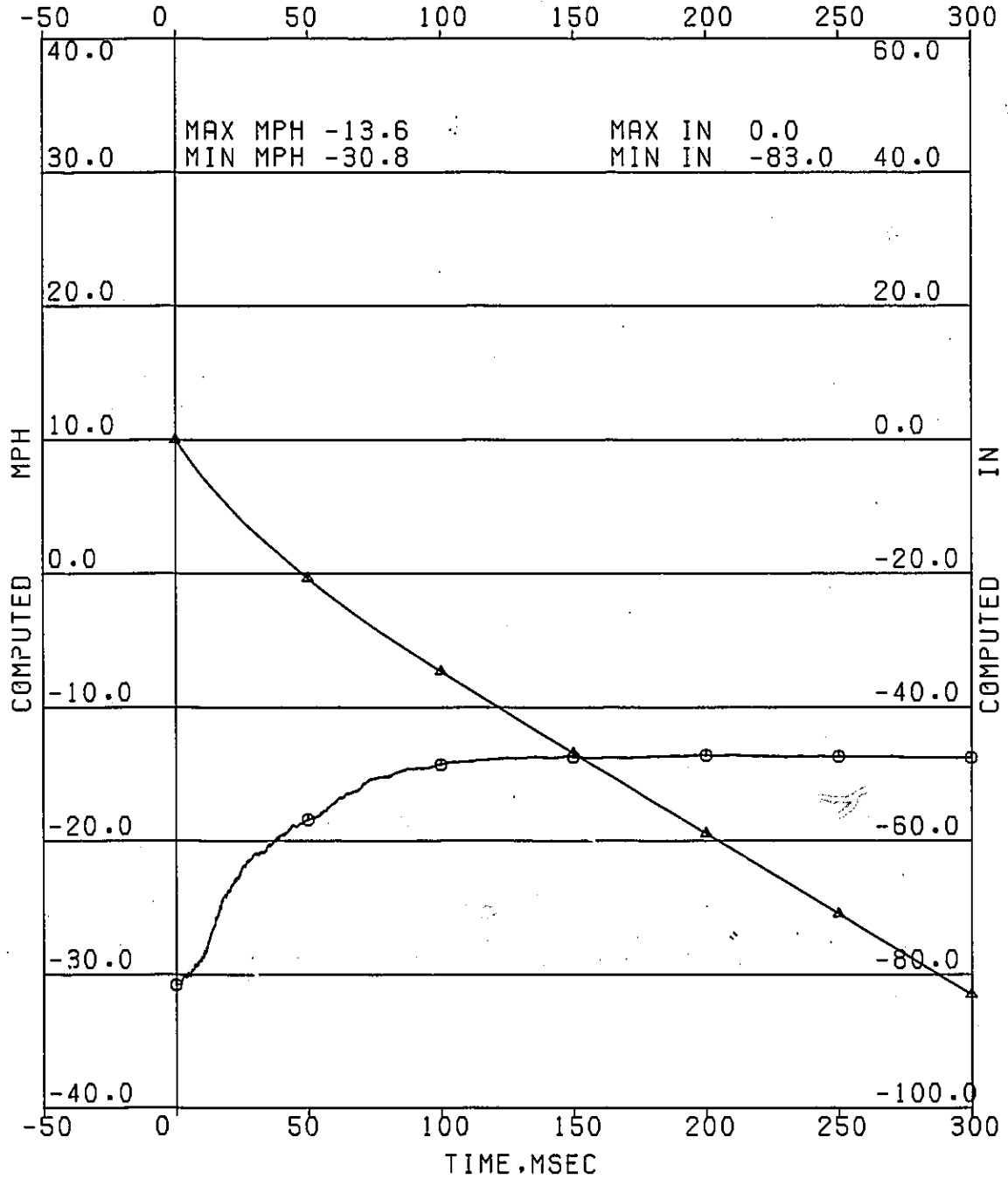


VC03860 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 18 RT RAIL MBAR MID X 14538

FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 APR 20, 1989

DATA SET 04/05/89PB
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

INTER COMPANY CORRESPONDENCE

FILE DCR041089

DATE 04/13/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
2530

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

DYNAMIC CRUSH ANALYSIS
VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
TEST DATE 04/04/89

TEST PURPOSE PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

VEHICLE BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 4 SPEED AUTO 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4?J?7L?M* [REDACTED] MOD.
VIN AS BUILT: 1JCMT7737JT [REDACTED] MOD.

TEST SPEED 30.8 MPH BY ELECTRONIC TRAP TIMER

TEST WEIGHT (LBS) 4307 TOTAL, 2204 FRONT, 2103 REAR

OCCUPANTS LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-34
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-67
RESTRAINT-UNIBELT

BUILD CONDITION



TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
150 LBS BALLAST SECURED IN THE REAR SEAT FOOTWELL

POST TEST REMARKS THERE WAS NO FUEL LEAKAGE AT IMPACT NOR DURING THE
THIRTY MINUTES IMMEDIATELY FOLLOWING IMPACT.

DYNAMIC CRUSH, PITCH, AND REAR WHEEL MOTION RELATIVE TO THE FRONT
SILL HAVE BEEN DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON
CAMERA TIMING DATA.

DYNAMIC CRUSH 16.8 +OR- 1 INCH AT 80. +OR- 5 MSEC.

D. S. GAVLINSKI

TEST VC03860 04/13/89 11.24 PAGE 2 OF 3

J. W. HANIKA

CC

W. A. BREITMOSE	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. R. HARBAUGH	418-42-22
W. W. KOEBNICK	422-05-01
J. C. LITTMAN	514-00-00
A. J. REGAN	418-42-22
H. G. ROULEAU	422-05-01

GRAPHS - 4

G L O S S A R Y O F T E R M S

U S E D I N S T A N D A R D R E P O R T S

AD	ANTHROPOMORPHIC DEVICE
ADT	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
BCD	BINARY CODED DECIMAL
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCW	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MM (MINUS INITIAL LENGTH)
CORR-P	CORRECTED (ZEROED) PITCH
CORR-R	CORRECTED (ZEROED) ROLL
CORR-Y	CORRECTED (ZEROED) YAW
CW	CLOCKWISE
EFI	ELECTRONIC FUEL INJECTOR
ENG	ENGINE
ENGPY	ENGINE PITCH AND YAW
FESM	FRONT END SHEET METAL
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
LBS	POUNDS
LT	LEFT
MS	MID SILL TARGET
NORMALIZE	PUT ON A COMMON BASIS
NOSE-DOWN	LEADING END BELOW TRAILING
NOSE-UP	LEADING END ABOVE TRAILING
PERF	PERFORMANCE
REF	REFERENCE
REL	RELATIVE TO (ONE-DIMENSIONAL)
ROLL-LEFT	LEFT SIDE LOWER THAN RIGHT
ROLL-RIGHT	RIGHT SIDE LOWER THAN LEFT
RS	REAR SILL TARGET
RT	RIGHT
SEP	SEPARATION OF (THREE-DIMENSIONAL)
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME.MS	TIME IN MILLISECONDS
U/B	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
XF	X-FILTERED
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW-RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

IMPACT ANALYSIS
DEPARTMENT 2530
04/13/89 11.24
TEST VC03860

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZERGED X MOTION OF F3 REL TO FS IN BASE COORD SYS
VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

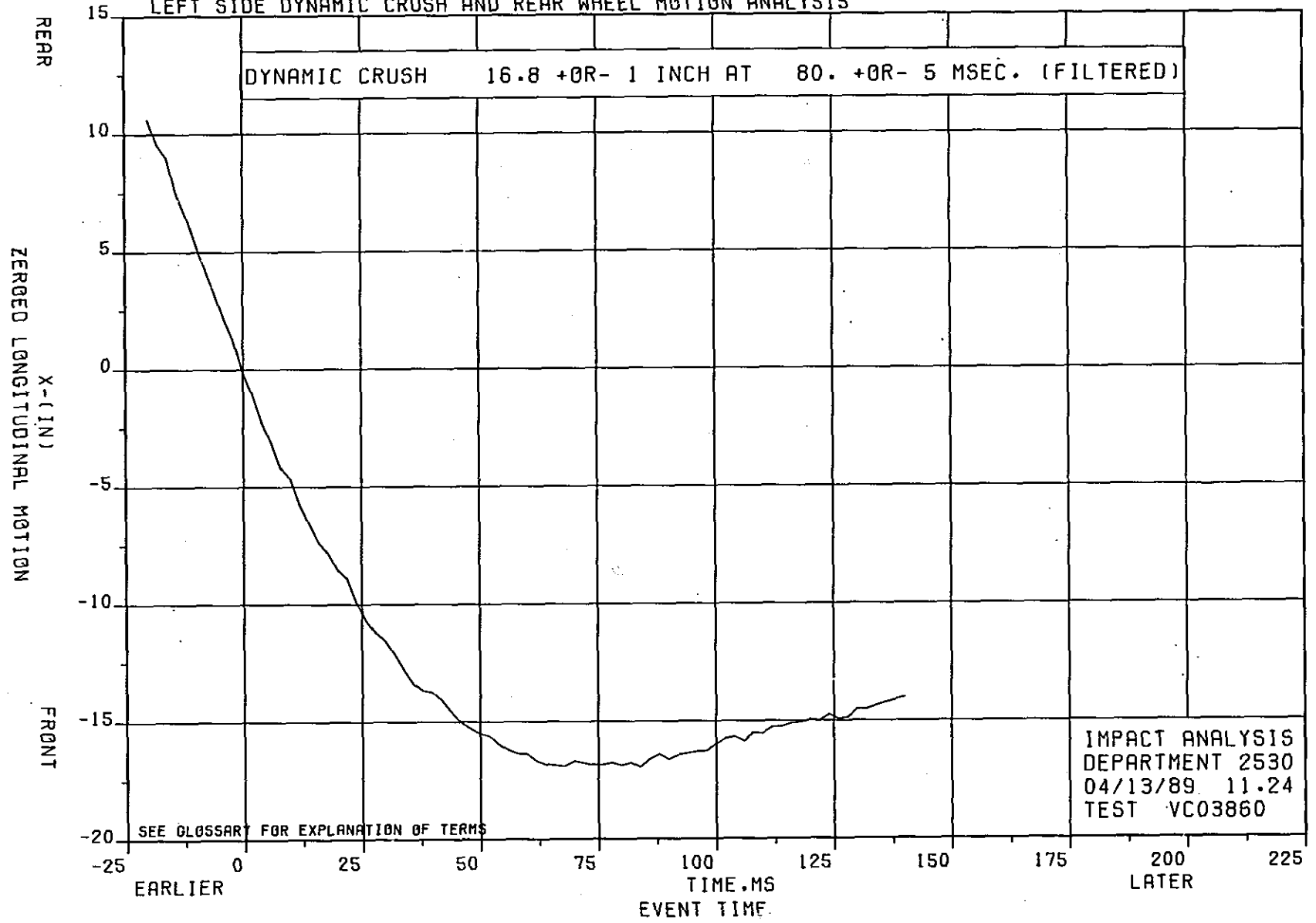


FIGURE 1

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
1991 FMVSS 901 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZEROED Z OF WHEEL RELATIVE TO FS IN CAR COORD
VERSUS ZEROED X OF WHEEL RELATIVE TO FS IN CAR COORD

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

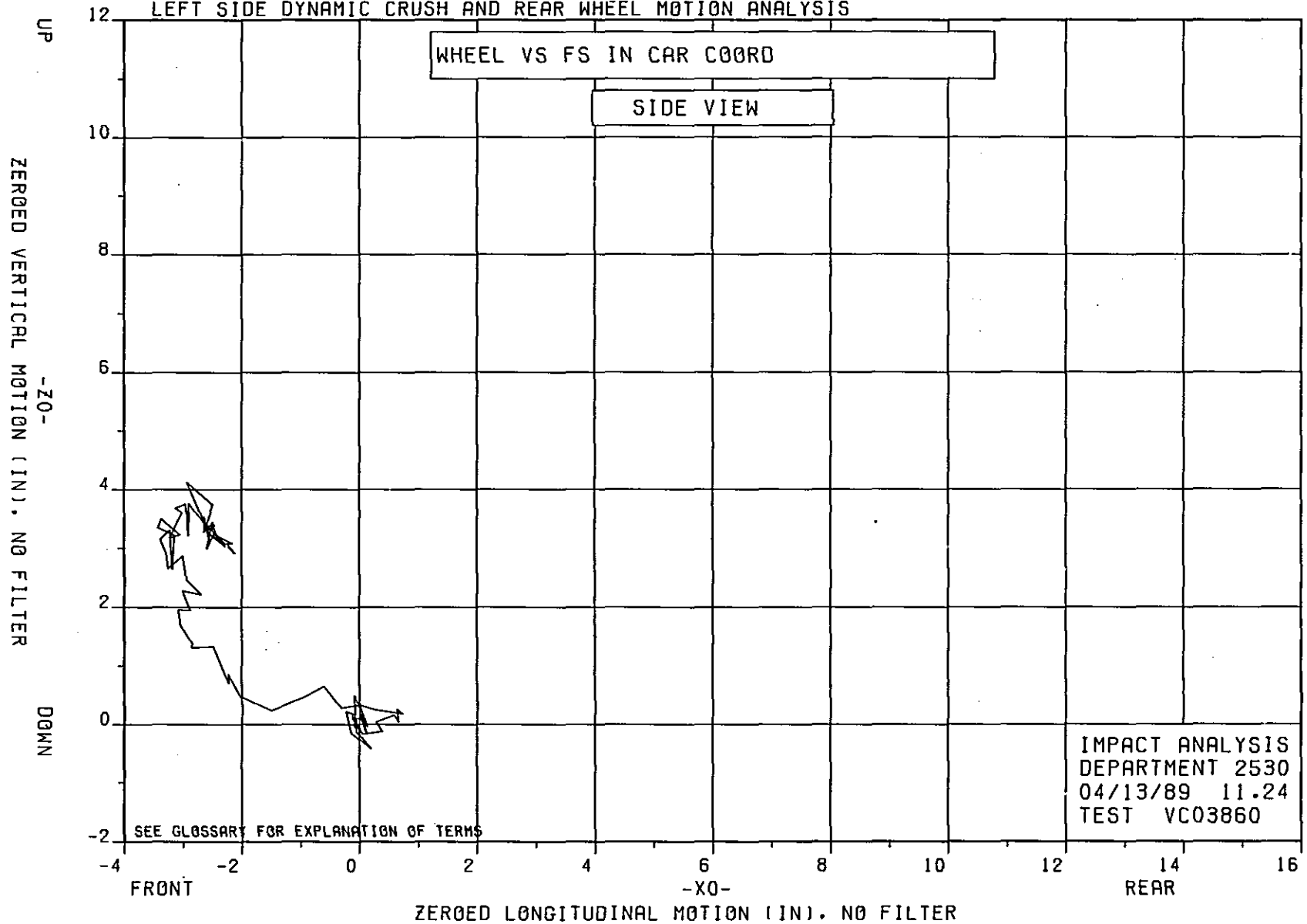


FIGURE 2

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ20
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF MS TO FS IN BASE COORD SYSTEM
 VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

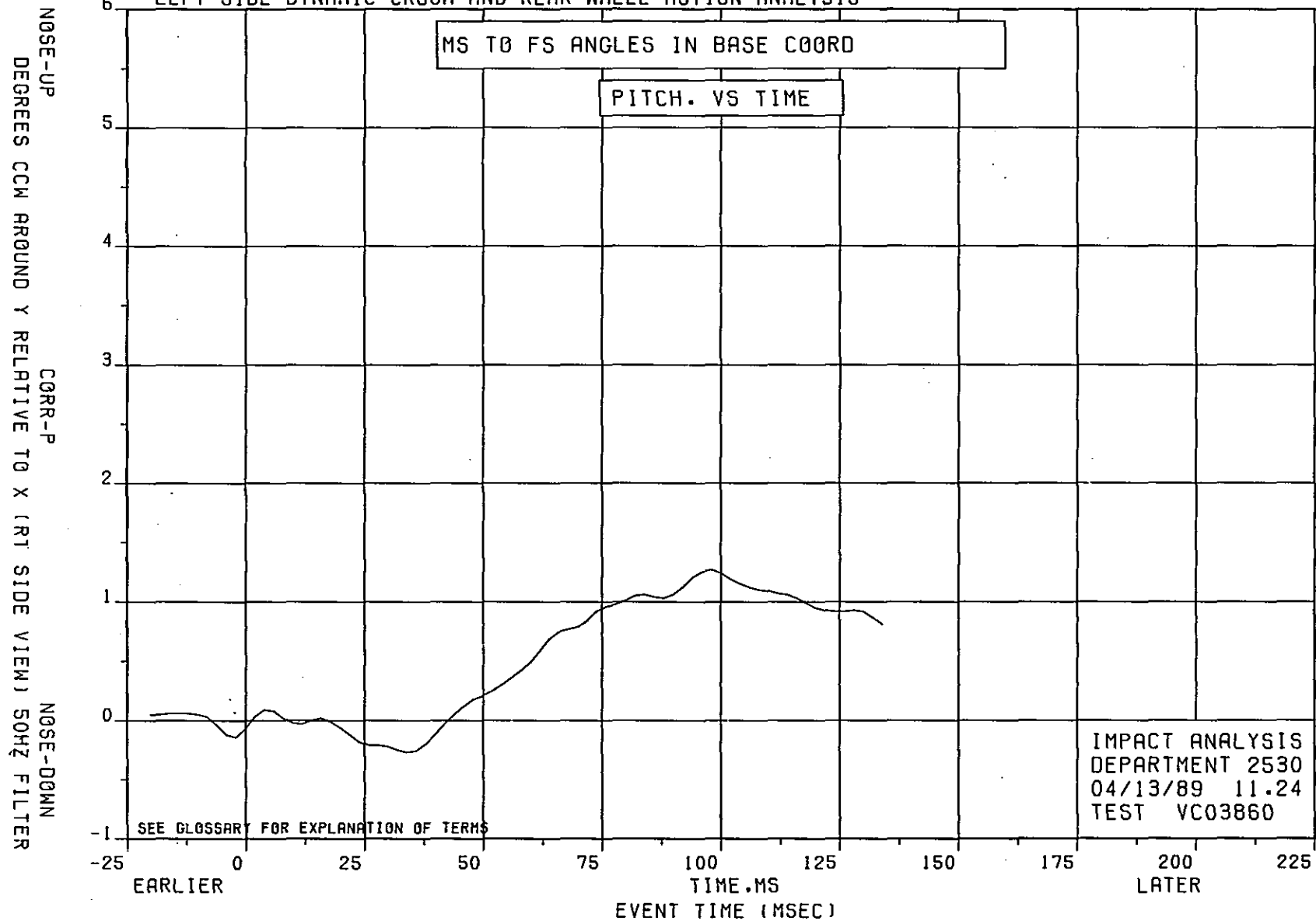


FIGURE 3

VC03860 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ20
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

MS TO FS DISTANCE -24.24(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

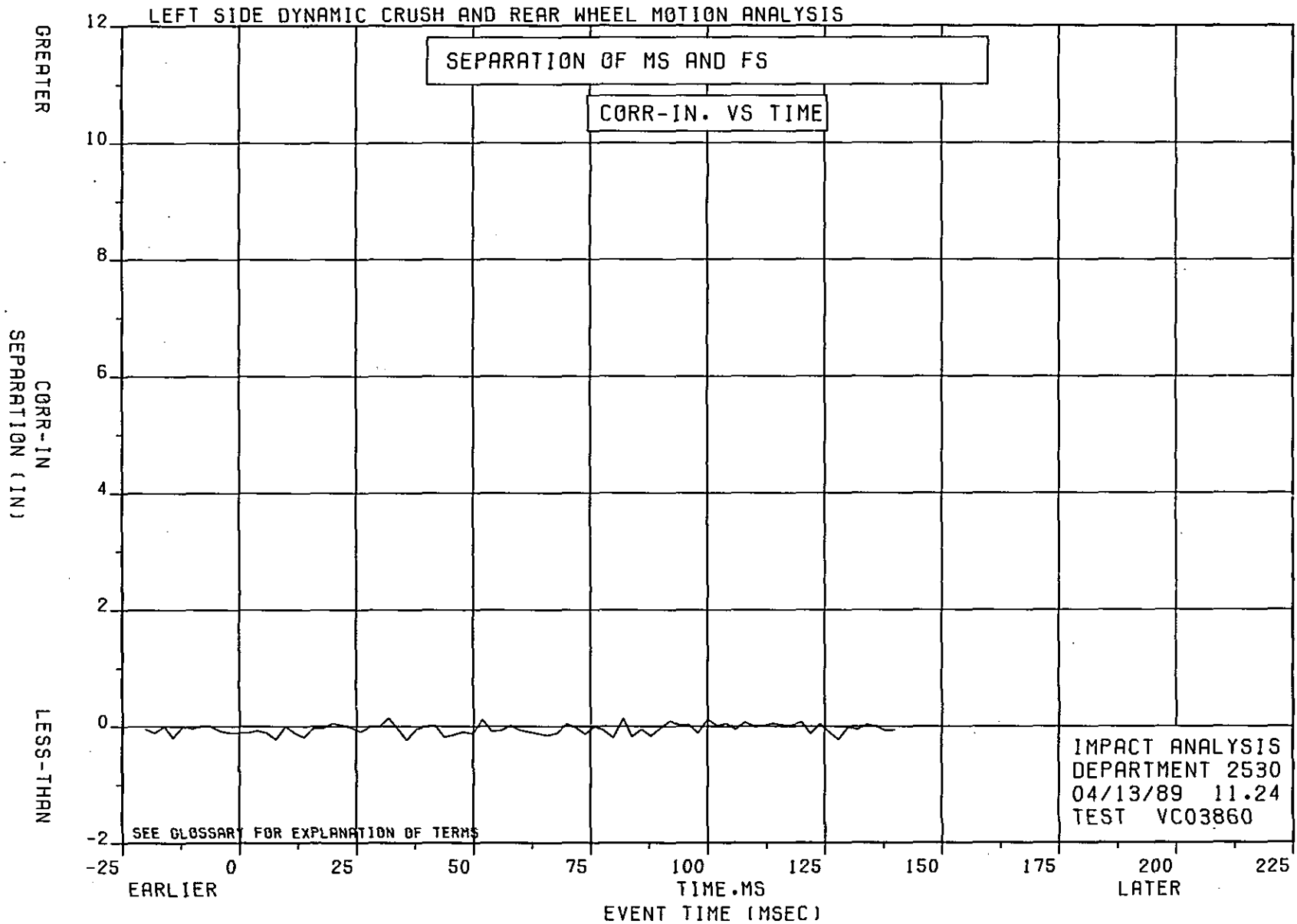


FIGURE 4

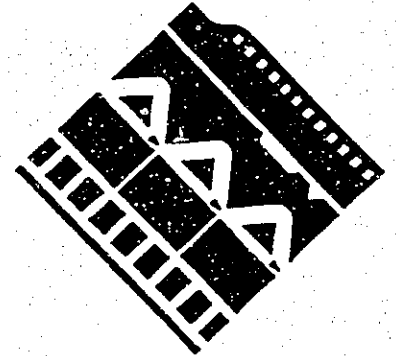
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
vc-3918 Public

Image Source Inc.

801 Front Street

Toledo, Ohio 43605

419/697-1111



DECLARATION OF INTENT AND PURPOSE

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The destruction or disposition of the records microphotographed on this reel is only to be accomplished after inspection of the microfilm to assure completeness of coverage, and that:

It is the policy of this organization to microfilm and dispose of original records in accordance with customer authorization or as part of the planned organizational operation procedure.

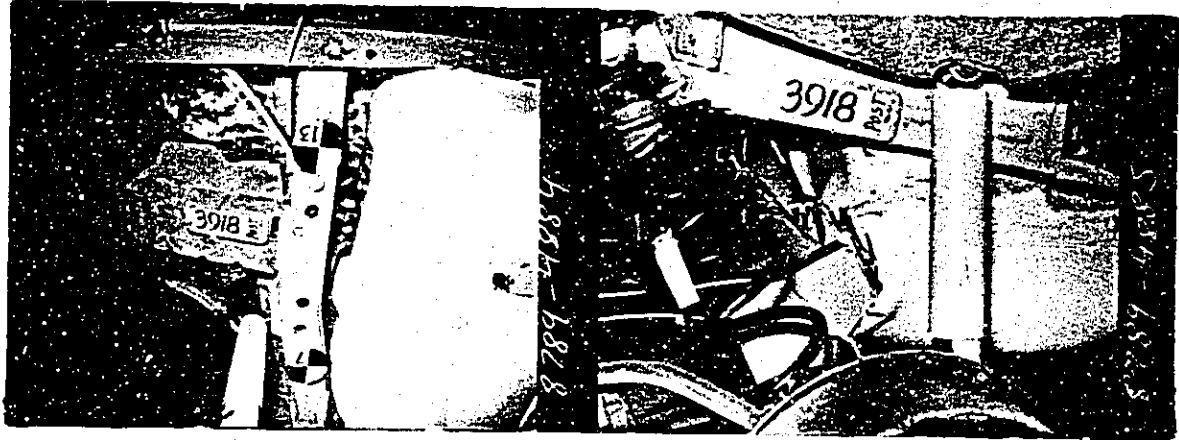
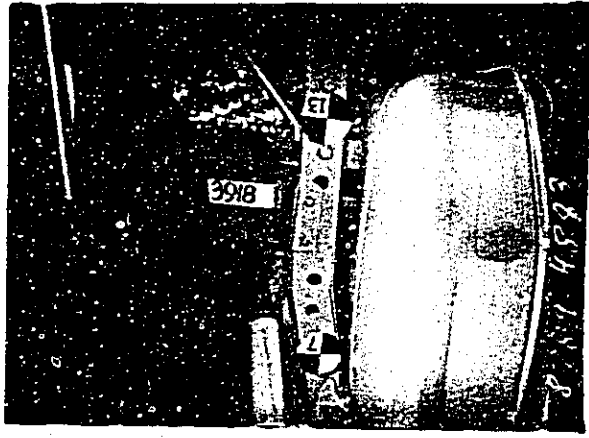
Date 8 25 19 94
Month Day

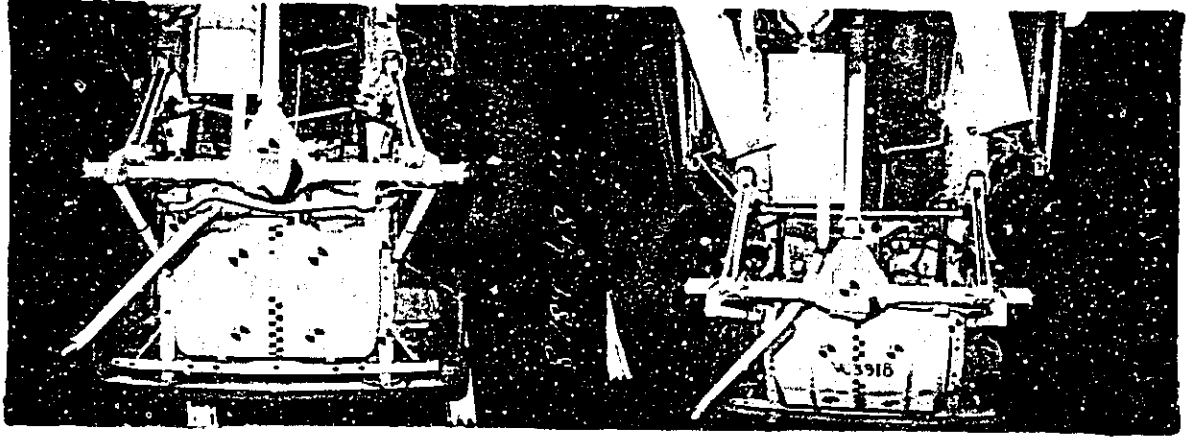
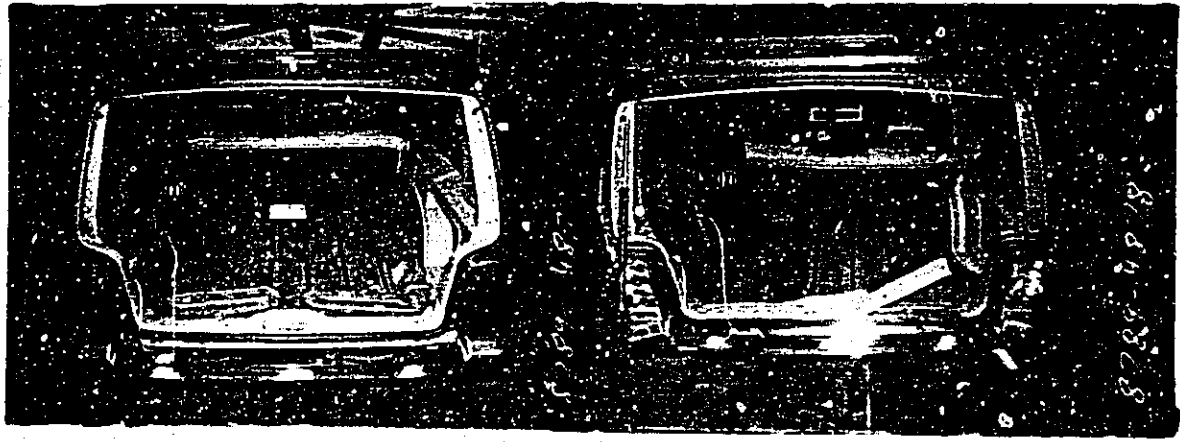
Trina J. Carder
Signature

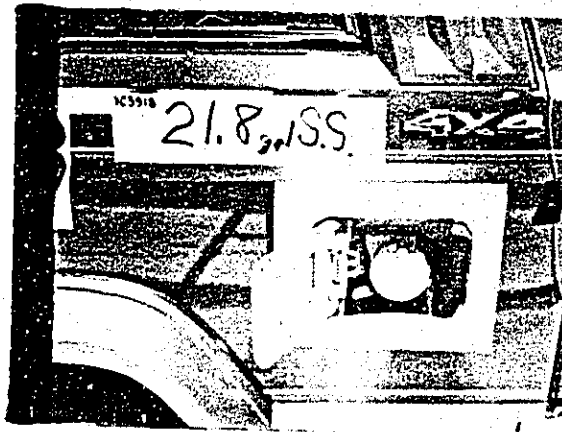
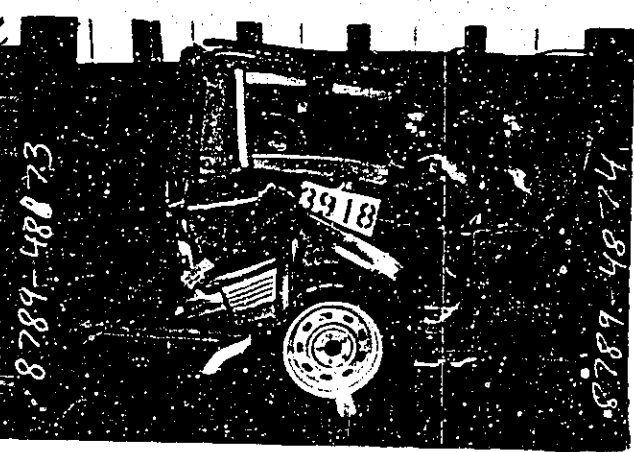
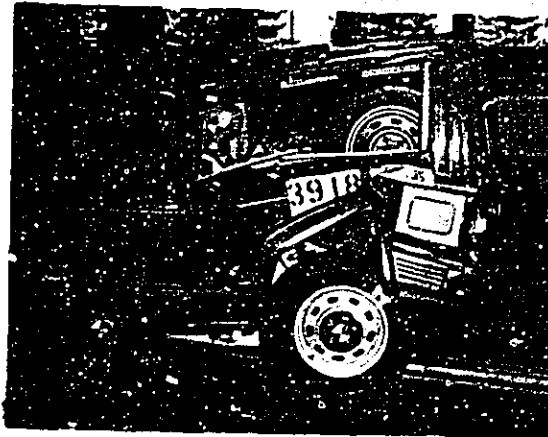
Place Toledo Ohio
City State

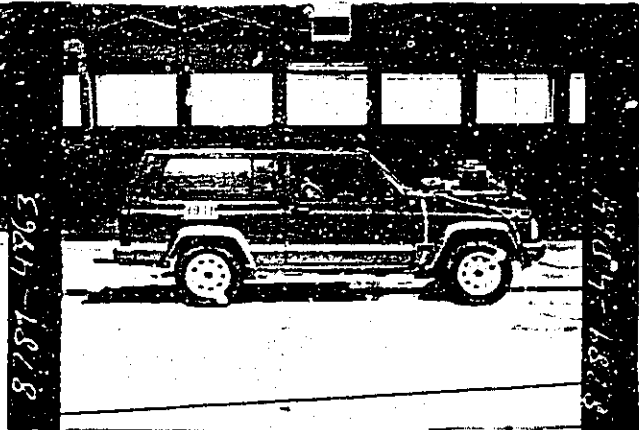
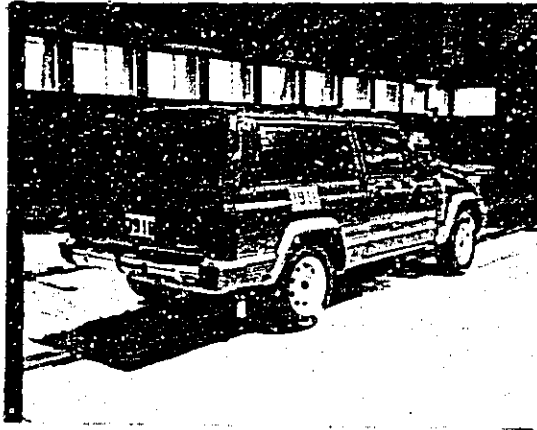
Camera Operator
Title

801 Front St.
Location



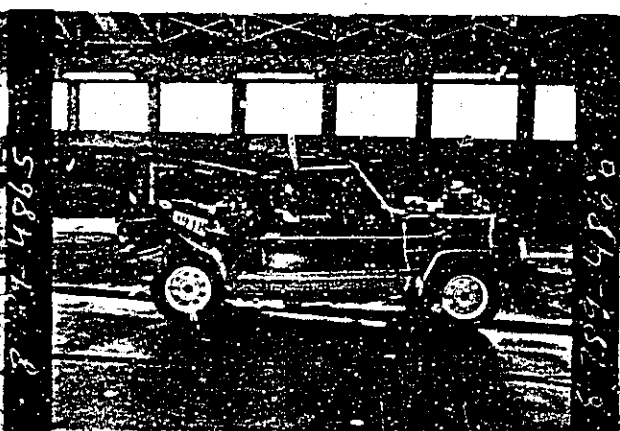
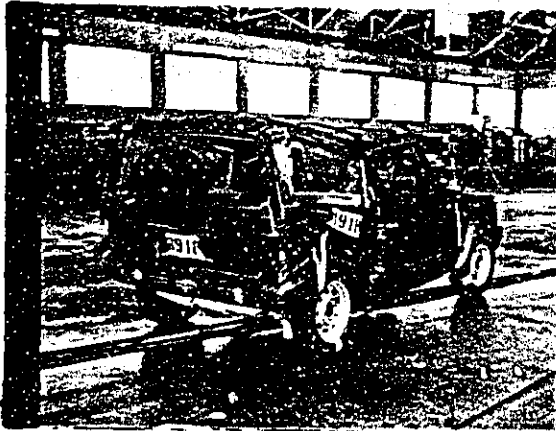






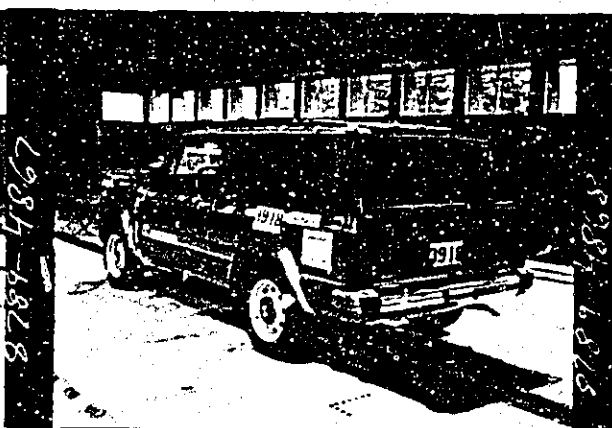
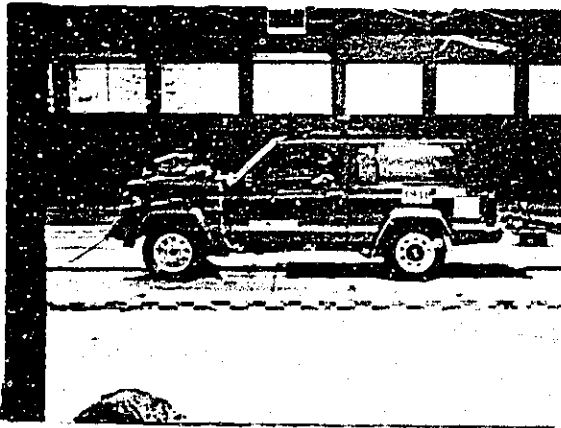
8789-4863

8789-4863



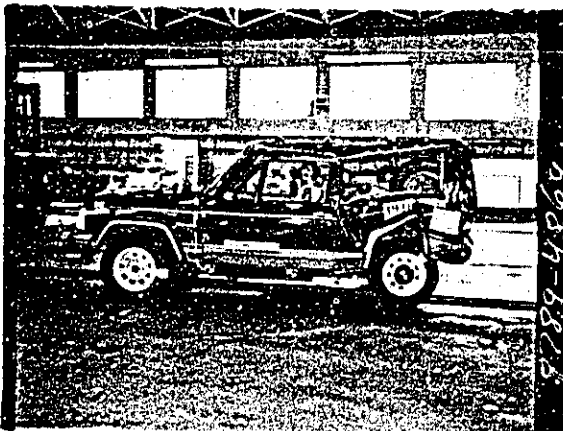
8789-4865

8789-4865



8789-4867

8789-4867



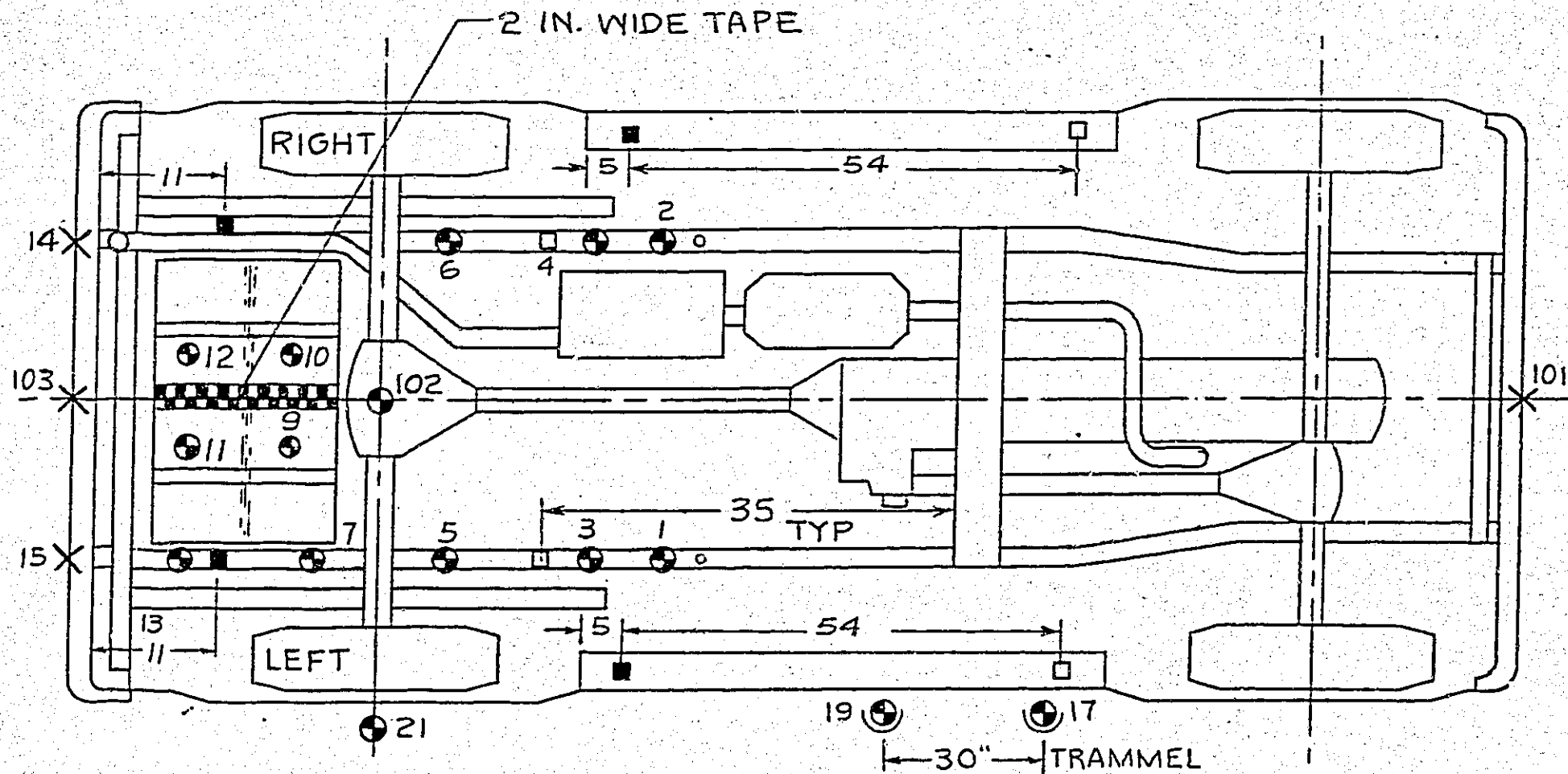
8789-4864

8789-4864

THIRD SHEET 102, ITEM 8X129, VC 83918
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS

ZENONS REQD ON ROOF

ELEC FUEL PUMP TO BE
 RUNNING DURING IMPACT



X PUNCH POINT NOTES -

TARGETS

- ⊕ UNDERBODY
- ⊕ SIDE VIEW

LEGEND

ACCELEROMETERS - □ SINGLE AXIS, X
 ■ BIAXIAL, X & Z

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.

EA12-005 Chrysler-000401



EMPLOYEE NEWS DAILY

Tuesday, August 8, 1989

Telephone News: 6-2345

Got a news tip? Call 6-3147

A service of Employee Communication Programs, a department of Chrysler Corporate Communications. Printed and distributed by Printing Services.

Chrysler expects to add metal stamping presses to three plants, including the Bramalea, Ont., plant for production of a new model in the mid-90s, said James Lyijynen, General Manager--Stamping Operations, at the University of Michigan Management Briefing Seminar in Traverse City (MI). Metal stamping operations increase company investment but reduce defects, inventory and transportation costs. Lyijynen also said Chrysler believes it can keep its existing Detroit-area stamping plants in operation by restoring production of some parts that had been sent to outside suppliers when the company trimmed its production capacity in the early 1980s. *(Detroit News)*

Chrysler announced that Thomas Osborn has been named Executive Director--Corporate Planning, reporting to Thomas Denomme, Vice President--Corporate Planning and External Affairs. Osborn is responsible for identifying and analyzing major strategic issues affecting Chrysler's operations. He most recently served as General Manager--Dealer Operations.

The new Corrado sports coupe unveiled by Volkswagen last week offers several standard features, such as power windows and air conditioning, previously sold as options. The company also said it will include several extras as standard equipment in its 1990 European models without raising sticker prices as a strategy to retain its leading position in Europe's auto market. *(WI Str Jrnl)*

Anti-lock brakes will be available on 26 of Chrysler's car and truck lines in the 1990 model year--double the number in 1989.

EA12-005- Chrysler -000492

At 10:10, the Dow Jones 30 leading industrials totalled 2692.71, down 2.28. Chrysler stock stood at 25-1/8, it closed Monday at 24-7/8, up 3/8 for the day.

ED ZYLIK

8-733 4107 TIE

493 4107 OUTSIDE

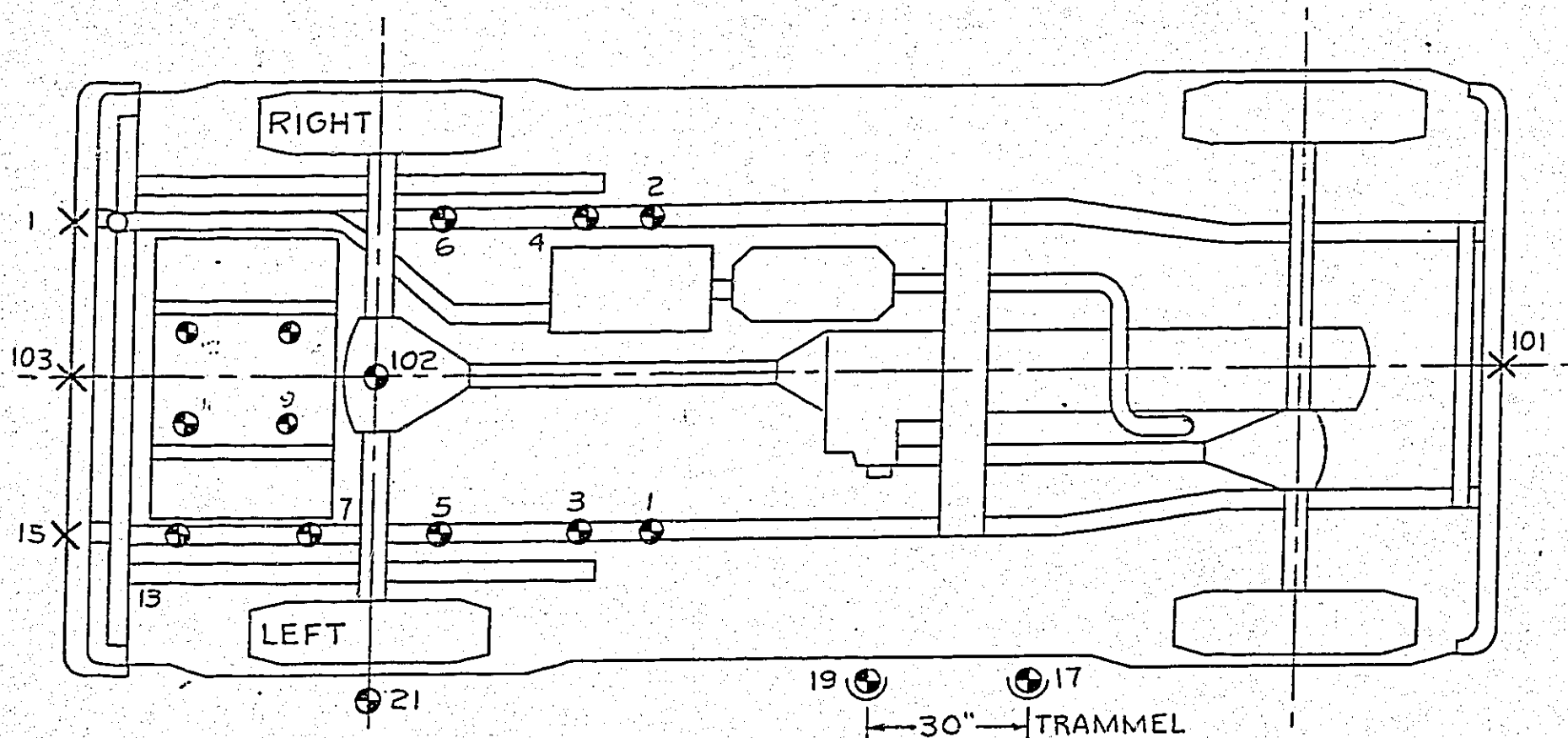
** TX CONFIRMATION REPORT **

AS OF AUG 10 '99 14:11 PAGE 01

CHELSEA IMPACT LAB

DATE	TIME	TO/FROM	MOLE	MIN	SEC	PGE	STATUS
01	8/10	14:09 JTE	VEH. SAFETY PROG.	UF--S	02	10 07	OK

THIRD SHEET 102, ITEM 8XJ29, VC 3.8
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS



TARGETS X PUNCH POINT
 ⊙ UNDERBODY
 ⊙ SIDE VIEW

LEGEND

ACCELEROMETERS □ SINGLE AXIS, X
 ■ BIAXIAL, X & Z

NOTES -

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

*****CHANGED 06/09/89 AT 09.13.59. SUPPLEMENT NO. 01

VEHICLE

MODIFY	VIN AS TESTED;	1JCML774*	[REDACTED]	MOD.
	TO READ VIN AS TESTED;	1J4FJ57L7M*	[REDACTED]	MOD.

BUILD CONDITION

--	--	--

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

T. E. REPORT

NOT REQUIRED.

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	

DISTRIBUTION

W.W. KOEBNICK	422-05-01	(AB)
H.G. ROULEAU	422-05-01	(AB)
M.W. CROSSMAN	422-05-01	(B)
T.P. MAULE	422-05-01	(A)
J.M. BERLINER	422-05-01	(A)
J.W. HANIKA	418-42-22	(AB)
W.A. BREITMOSER	422-05-01	(AB)
W.R. HARBAUGH	418-42-22	(AB)
G.M. ABOUD	514-15-17	(AB)
A.J. REGAN	418-42-22	(AB)
L.C. MILLER	514-00-00	(AB)
E.A. ZYLIK	514-15-17	(AB)

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

MECHANICAL REQ

TARGET VELOCITY-30.5 MPH.
REQUIRED- PRESSURE CHECK FUEL SYSTEM PRE-TEST &
STATIC ROLLOVER POST-TEST.
ELECTIC FUEL PUMP TO BE RUNNING DURING TEST.
TETHER SPARE TIRE.
TARGET VEHICLE PER 3RD SHEET NO. 102.
PAINT SIDE OF FRAME RAILS AT KICK-UP IN SIDE
VIEW. PLEASE INCREASE LIGHTING.
PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
TANK IN CONTRASTING COLORS.
BALLAST OF THIS VEHICLE WILL BE MADE BY STRUCTURE
ENGINEERING "MUSTAFA KHALIFA" 6-2474 OR 6-3506.
PLEASE INFORM MUSTAFA ONE DAY AHEAD.
ADD EVENT MARKER TO INDICATE INITIAL IMPACT OF
FUEL TANK TO DIFFERENTIAL.
FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
CHUCK ALANIZ (6-3871 OR 2-8185).
PLACE INCH TAPE ON CENTERLINE OF FUEL TANK.
HIGHLIGHT FUEL TANK TRANSVERSE CREASE AT TANK
ELEVATION CHANGE AS WELL AS TANK PERIMETER, SEE
VC 3790.

INSTRUMENTATION REQ

SEE 3RD SHEET NO.102 FOR ACCELEROMETER REQMTS
AND LOCATIONS.
ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

PHOTOGRAPHIC REQ

1-OVERALL CAMERA, RT SIDE, TO VIEW VEHICLE AND
BARRIER FACE AT IMPACT.
1-CATWALK CAMERA TO VIEW ENTIRE VEH. AT IMPACT.
1-LT SIDE CAMERA TO VIEW DYNAMIC CRUSH.
1-LT SIDE CLOSE-UP VIEW OF THE DAMAGE AREA.
2-PIT CAMERAS, ANGLED VIEWS OF FUEL TANK AND SUR-
ROUNDINGS.
2-CLOSE-UP CAMERAS 1LT/1RT TO VIEW FRAME RAILS
IN SIDE VIEW AT KICK-UP.
1-PIT CAMERA FOR CLOSE-UP VIEW OF FUEL TANK.
1-VELOCITY ANALYSIS CAMERA.
1-PANNING CAMERA.

FILM ANALYSIS

MOVING BARRIER VELOCITY, ONLY IF REQUESTED.
UNDERBODY MOTION, ONLY IF REQUESTED.
DYNAMIC CRUSH.

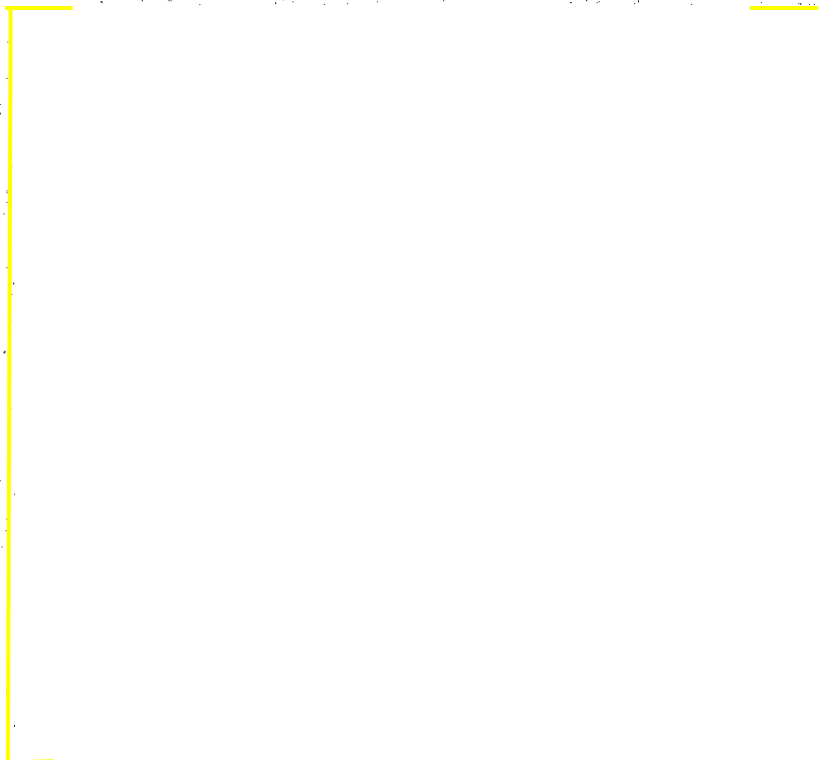
REMARKS

TEST REQUEST ORIGINATOR: JOHN SCHERDEN 822-9075.
PLEASE DO NOT REMOVE ANY PART OF VEHICLE PRE OR
POST-TEST.

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

BUILD CONDITION

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.TEST WEIGHT (LBS) 4286 TOTAL, 2240 FRONT, 2046 REAR

FUEL BALLAST 21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

OTHER BALLAST 70^{LB} LT FT FOOTWELL, 70^{LB} RT FT FOOTWELL
150^{LB} REAR FOOTWELL

OCCUPANTS

LEFT FRONT 50TH MALE UNINSTRUMENTED. AD NO 46
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD NO 67
RESTRAINT-UNIBELT

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

ITEM 8XJ29 **3918** CHARGE NO. 5328018 ISSUE DATE 6-6-89

VC 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE 06/15/89 ENGINEER RASMUSSEN
SPEED 30.7 MPH SOURCE ELEC TRAP

TEST PURPOSE PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.5 MPH
DAMAGE LOCATION; REAR
IMPACT TYPE; TYPE IV
BARRIER SURFACE; PLYWOOD
DIRECTION; 0 DEGREES

VEHICLE BODY CLASS; XJ
CAR LINE; J
BODY; 72
ENGINE; 4.0 LITRE
ENGINE NOTE; MPI
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1J4FJ57L7M* [REDACTED] MOD.
VIN AS BUILT; 1JCML7744JT [REDACTED] MOD.

POST TEST REMARKS _____



**** TELECOPIER COVER SHEET ****

DATE: 08-10-89

TO: ED ZYLIK

TELEFAX NUMBER 8-733-4107

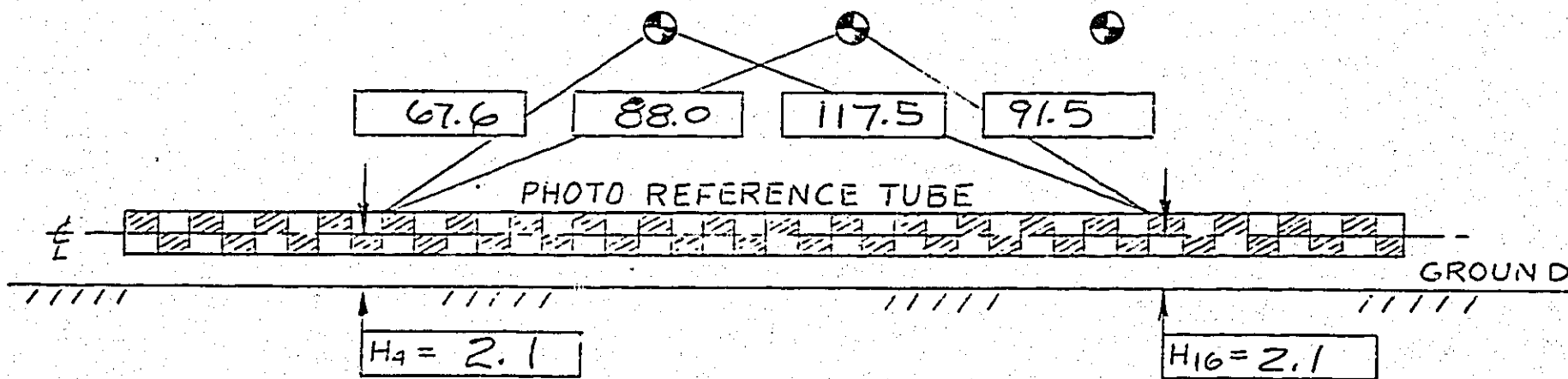
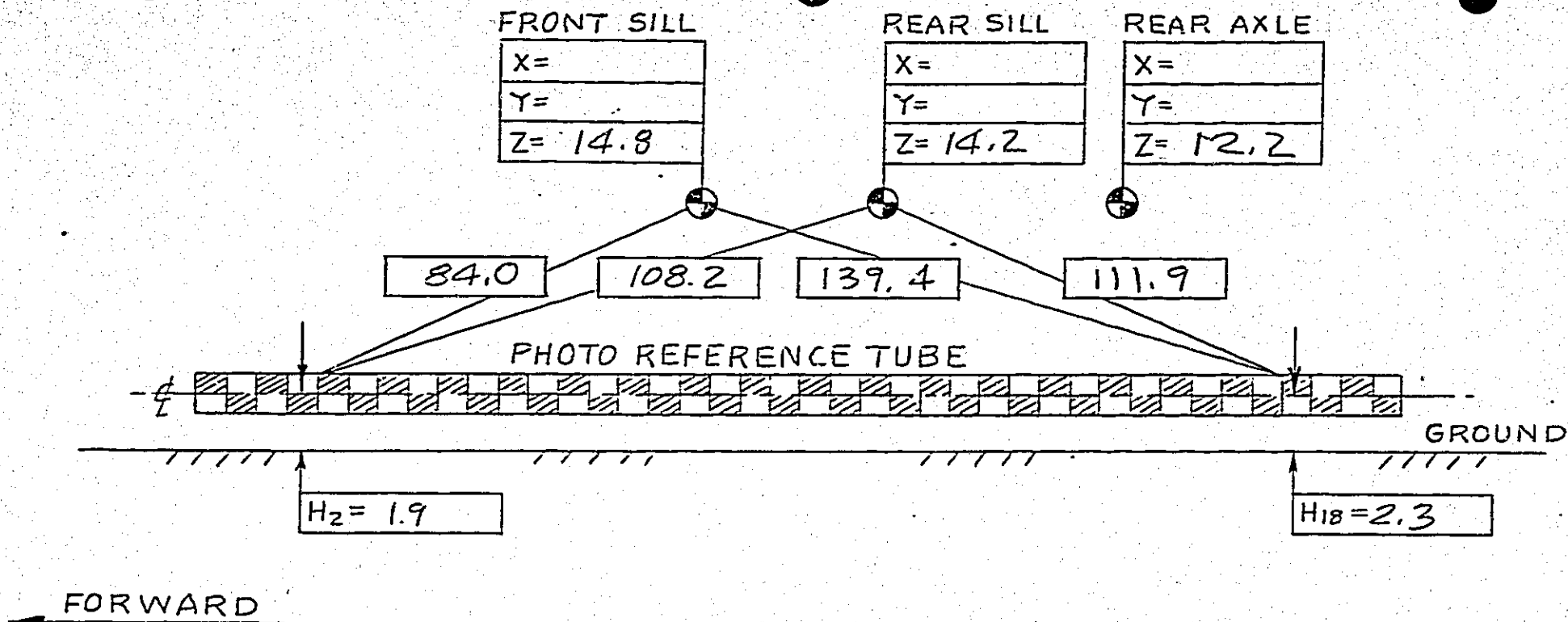
FROM RASMUSSEN

TELEPHONE NO. 8-836-5310

TOTAL NUMBER OF PAGES 7

FAX NO. - (313) 475-5557

/INCLUDING COVER SHEET/



NOTES:

1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE.
2. IF OTHER TUBE POINTS ARE USED, INDICATE

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE
 TEST ENGR RASMUSSEN
 VC 3918

X, LONGITUDINAL DIMENSIONS

TEST NUMBER 3918 TEST ENGINEER RASMUSSEN TEST DATE / /
 TEST TYPE: 30 MPH REAR WITH V.I.N.
 TYPE 4 MOV. BARR.

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101	0.0	0.0		#103	165.0	148.1	
T1	102.8	XXXX	XXXX	T2	102.6	XXXX	XXXX
T3	124.6	XXXX	XXXX	T4	123.5	XXXX	XXXX
T5	131.2	XXXX	XXXX	T6	135.0	XXXX	XXXX
T7	138.9	XXXX	XXXX	T8	<u>---</u>	XXXX	XXXX
T9	140.3	XXXX	XXXX	T10	140.5	XXXX	XXXX
T11	152.3	XXXX	XXXX	T12	151.9	XXXX	XXXX
T13	153.6			T14	164.6	148.9	
#15	164.7	149.4	XXXX	T			
ST17	54.6	XXXX	XXXX	T			
ST19	85.0	XXXX	XXXX	T			
T21	128.3			T			
T				T			
T				T102	126.4		
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

SILL TRAMMEL DIMENSIONS (IN.): PRE-TEST LEFT 29.96
 OTHER TRAMMEL MEASUREMENTS (IN.): T1 TO T2 = 34.99

FILL TUBE TO TANK ANGLE: PRE --- POST --- CHANGE = ---
 TEST WEIGHT (POUNDS): LF --- RF --- LR --- RR ---
 TEST WEIGHT EXPLANATION: ---

Y, LATERAL DIMENSIONS

TEST NUMBER 3916, TEST ENGINEER RASMUSSEN
 TEST TYPE: 30 MPH REAR WITH V.I.N.
TYPE 4 MOV. BARR.
 TEST DATE / /

MOORE BUSINESS FORMS INC. 27

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
T01	0.0	0.0		T03 T03	0.0	0.0	
T1	-17.3	-XXXX	-XXXX	T2	17.4	XXXX	XXXX
T3	-16.2	-XXXX	-XXXX	T4	16.4	XXXX	XXXX
T5	-15.7	-XXXX	-XXXX	T6	16.6	XXXX	XXXX
T7	-17.8	-XXXX	-XXXX	T8		XXXX	XXXX
T9	-6.2	-XXXX	-XXXX	T10	5.2	XXXX	XXXX
T11	-5.9	-XXXX	-XXXX	T12	5.0	XXXX	XXXX
T13	-18.4	-	-	T14	18.1	18.1	
T15 T15	-18.3	-18.2	-XXXX	T___			
ST17	-32.0	XXXX	XXXX	T___			
ST19	-32.3	-XXXX	-XXXX	T___			
T21	-32.3			T___			
T___				T___			
T___				T102	1.0		
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			
T___				T___			

Z, VERTICAL DIMENSIONS

TEST NUMBER 3918, TEST ENGINEER RASMUSSEN
 TEST TYPE: 30 MPH REAR WITH V.I.N.
 TYPE 4 MOV. BARR.
 TEST DATE / /

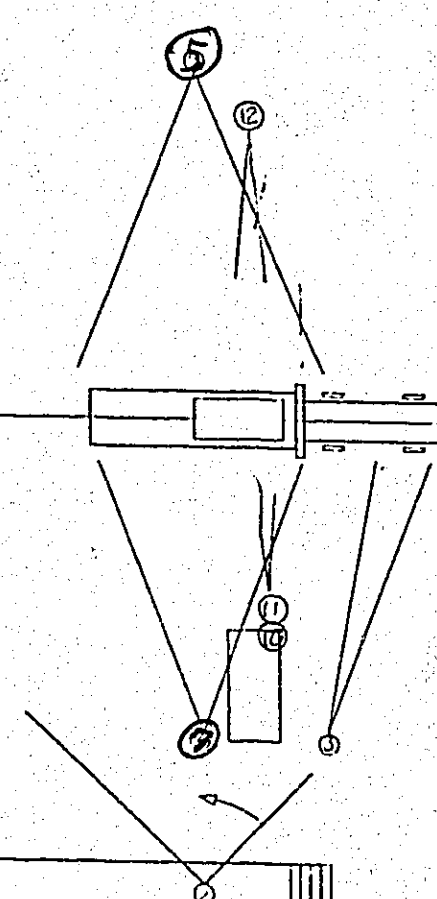
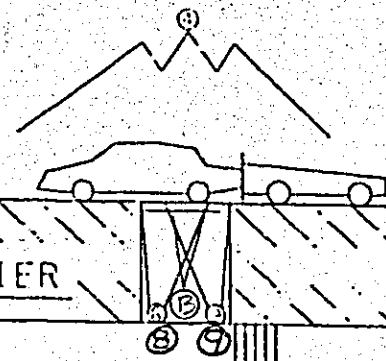
LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101		XXXX	XXXX	103		XXXX	XXXX
T1	10.7	XXXX	XXXX	T2	10.8	XXXX	XXXX
T3	17.6	XXXX	XXXX	T4	17.2	XXXX	XXXX
T5	17.9	XXXX	XXXX	T6	17.9	XXXX	XXXX
T7	17.8	XXXX	XXXX	T8	—	XXXX	XXXX
T9	9.7	XXXX	XXXX	T10	9.7	XXXX	XXXX
T11	11.5	XXXX	XXXX	T12	11.7	XXXX	XXXX
T13	17.9	XXXX	XXXX	T14	—	XXXX	XXXX
T15	—	XXXX	XXXX	T16			
ST17	14.5	XXXX	XXXX	T17			
ST19	14.3	XXXX	XXXX	T18			
T21	12.2			T19			
T20				T20			
T22				T102	7.6		
T23				T21			
T24				T22			
T25				T23			
T26				T24			
T27				T25			
T28				T26			
T29				T27			
T30				T28			
T31				T29			
T32				T30			
T33				T31			
T34				T32			
T35				T33			
T36				T34			

SAFARI BUSINESS FORMS INC. 27

37.5 FT.
TO CATWALK

CAMERA LAYOUT - COVERED BARRIER

1876
1877
1878
1879
1890
424
426
427
428
1891



TEST NO. VC3918 TEST TYPE REAR, TYPE IV MOVING BARRIER
ENGINEER RASMUSSEN REQUEST DATE: _____ TEST VEHICLE BODY CLASS JEEP

#	CAMERA TYPE	LENS F. L.	FPS	VIEW	PNL NO.	SCKT NO.	CBL NO.	LENS MFG	LENS S/N	CAMERA S/N
1	POLAROID		STILL	LIGHTS						
2	B & W	1 IN.	64	PANNING						
A 3	LOCAM	4 IN.	500	VELOCITY	12			WOLI	D73487	1891
4	LOCAM	18mm.	500	TOP-CATWALK	20			KIN.	107231	424
5	LOCAM	1 IN.	500	RT-OVERALL	8			KIN.	89162	1879
A 7	LOCAM	1 IN.	500	LT-DYNAMIC CRUSH	12			COSY	53848	1876
A 8	LOCAM	13 MM	500	FT PIT-F. TANK	10		32	COS.	14546	427
A 9	LOCAM	13 MM	500	RR PIT-F. TANK	10		31	COS.	20361	426
10	LOCAM	2 IN	500	LT SIDE CLOSE UP OF DAMAGE AREA				COS.	19688	1877
11	LOCAM	25mm	500	LT SIDE FRAME RAILS AT KICK UP				KIN 5.6 1/2	106481	1878
12	LOCAM	460mm	500	RT SIDE FRAME RAILS AT KICK UP				KIN 5.6 1/4	105330	1890
13	LOCAM	1 IN.	500	PIT - CLOSE UP OF FUEL TANK		3	33	COS.	18739	428

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER 3918 ITEM NUMBER 8XJ29, TEST ENGINEER RASMUSSEN
 V.I.N. 1J4FJ57L7M TEST DATE 06/15/87, ROLL DATE 1/1
 FUEL: TYPE AND QUANTITY - .767 S.G. STODDARD SOLVENT, 21.8 GALLONS
 TEST SPEED 30.7 MPH, TEST WEIGHT 4286 POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK -	
FILLER TUBE -	
CAP -	
FUEL FILTER -	
GROMMET -	
FUEL PUMP -	
STRAPS -	
LINES -	
AIR CLEANER -	
CARBURETOR -	
VALVES -	

POST IMPACT LEAKAGE(OZ); AT IMPACT , 1ST 5 MIN. , NEXT 25 MIN.
 POST TEST PRESSURE CHECK

STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME	CARB	FUEL	AIR	FUEL	FUEL	GRO-	FILL	OTHER	TOTAL
	PUMP	TANK	CLEAN	FILT	TANK	MET	CAP	***	
0-90 !1ST 5 MIN !									*
!POST 5 MIN!									**
90-180 !1ST 5 MIN !									*
!POST 5 MIN!									**
180-270 !1ST 5 MIN !									*
!POST 5 MIN!									**
270-360 !1ST 5 MIN !									*
!POST 5 MIN!									**

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

0-90 !1ST 5 MIN !									*
!POST 5 MIN!									**
90-180 !1ST 5 MIN !									*
!POST 5 MIN!									**
180-270 !1ST 5 MIN !									*
!POST 5 MIN!									**
270-360 !1ST 5 MIN !									*
!POST 5 MIN!									**

40cc
18cc/min
18cc
1250cc
greater than

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE
 *** OTHER -

* POST TEST CRITIQUE *

*ITEM NO 8XJ29 *VEH TYPE XJJ72 *ENG 4.0 *TRANS M5 4X4

*TEST NO 3918 *DEV 91 *VAL _____ *COMP _____ *RESC _____

*PURPOSE 204 _____ 208 _____ 212 _____ 219 _____ 301

*TEST MODE FFP REAR _____ ANG _____ LAT _____ *TEST WEIGHT 4286

*PERSONNEL CAL MANNEY BOOTH MANNEY
STRK VEH _____ MECH COOK SEEGERT
T/A ENG WELKER TECH ECKERT

*TIME OUT 8:45 *TEST VELOCITY 30.7 *IMPACT TIME 12:35

*TOW OPERATOR LOBDELL CAR WINCH _____

*W/S INTRUSION UPR ~ LWR ~ *S/C DISP ~

*W/S RETENTION RT 1/2 ~ LT 1/2 ~ TOTAL ~

*OCCUPANTS		HYBRID II III			*RESTRAINTS				
1L	1R				ACTIVE		PASSIVE		
95%					1L	1R	1L	1R	
<u>II</u>	<u>II</u>				UB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2 PT	_____
50%					LB	_____	_____	3 PT	_____
5%					UN/RES	_____	_____	A/B	_____
INST									

*OCCUPANT CONTACTS

	S/W RIM	S/W HUB	S/C COVER	INST PML	W/S	G/BOX
1L	_____	_____	_____	_____	_____	_____
1R	_____	_____	_____	_____	_____	_____

*SEAT STATUS
1L _____ 1R _____
*DOOR STATUS
LT _____ RT _____

*ANOMALIES- MECH _____ ELECT ODDAS 3

*FUEL SYSTEM PERFORMANCE
LEAKAGE- IMPACT DROPS STATIC ROLL REQD PRESS/CK _____

FUEL SYSTEM TYPE- MPI

*INSTRUMENTATION CONVENTIONAL _____ OBDAS 3/5 *memory #2*

*SUPPORT MECHS E TECHS E PHOTOCS E

*REPORT REQUIRED NO YES _____

TEST-ENGINEER RASMUSSEN [Signature] DATE 06/15/89 EA12-005-Chrysler-000508

SAFETY TEST
VEHICLE CRASH TEST LETTER

MOORE BUSINESS FORMS INC. 27

VCD3918 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ29	100
1991 FVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.	110
TEST DATE 06/15/89	120
TEST PURPOSE	130
PRIMARY, 1991 FVSS 301 DEVELOPMENT.	140
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.	150
	160
	170
IMPACT TYPE	180
TARGET SPEED; 30.5 MPH	190
DAMAGE LOCATION; REAR	200
IMPACT TYPE; TYPE IV	210
BARRIER SURFACE; PLYWOOD	220
DIRECTION; 0 DEGREES	230
	240
VEHICLE	250
BODY CLASS; XJ	260
CAR LINE; J	270
BODY; 72	280
ENGINE; 4.0 LITRE	290
ENGINE NOTE; MPI	300
TRANSMISSION; 5 SPEED MANUAL 4X4	310
TRANS. NOTE;	320
VIN AS TESTED; 1J4FJ57L?H- [REDACTED] MOD.	330
VIN AS BUILT; 1JCKL77A4JT [REDACTED] MOD.	340
	350
TEST SPEED	360
30.7 MPH BY ELECTRONIC TRAP TIMER	370
	380
TEST WEIGHT (LBS)	390
4286 TOTAL, 2240 FRONT, 2046 REAR	400
	410
OCCUPANTS	420
LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-45	
RESTRAINT-UNIBELT	
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-67	
RESTRAINT-UNIBELT	

VCG3918 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ29
 1991 EMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 TEST DATE 06/15/89

BUILD CONDITION



430
 440
 450
 460
 470
 480
 490
 500
 510
 520
 530
 540
 550
 560
 570
 580
 590
 600
 610
 620
 630
 640
 650
 660
 670
 680

TARGET WEIGHT (LBS) 3656 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
 NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST. 690
 FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT. 710
 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA. 720
 70 LB ON FRONT LEFT FOOTWELL AND 70 LB ON RIGHT 730
 FRONT FOOTWELL AND 150 LB ON REAR FOOTWELL 740
 750

REPORT CODES A = TRANSDUCER DATA B = ALL FILM DATA 760
 C = HIGH SPEED FILM D = ENGINEER'S REPORT 770
 E = DUMMY KINEMATICS F = STEERING COLUMN 780
 G = UNDERBODY H = A-POST 790
 I = DYNAMIC CRUSH J = ENGINE COMPARTMENT 800
 K = DOOR CRUSH L = FORCE/CRUSH/ENERGY 810
 M = SPECIAL 820
 830

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SAFETY TEST
VEHICLE CRASH TEST LETTER

PAGE 03

VC03918 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
TEST DATE 06/15/89

DISTRIBUTION				
	W.W. KOEBNICK	422-05-01	(AB)	840
	H.G. ROULEAU	422-05-01	(AB)	850
	M.W. CROSSMAN	422-05-01	(B)	860
	T.P. MAULE	422-05-01	(A)	870
	J.M. BERLINER	422-05-01	(A)	880
	J.W. HANIKA	418-42-22	(AB)	890
	W.A. BREITMCSEF	422-05-01	(AB)	900
	W.R. HARBAUGH	418-42-22	(AB)	910
	G.M. ABOUD	514-15-17	(AB)	920
	A.J. REGAN	418-42-22	(AB)	930
	L.C. MILLER	514-00-00	(AB)	940
	E.A. ZYLIK	514-15-17	(AB)	950

DATE 06/15/89 TIME 13.29.01.

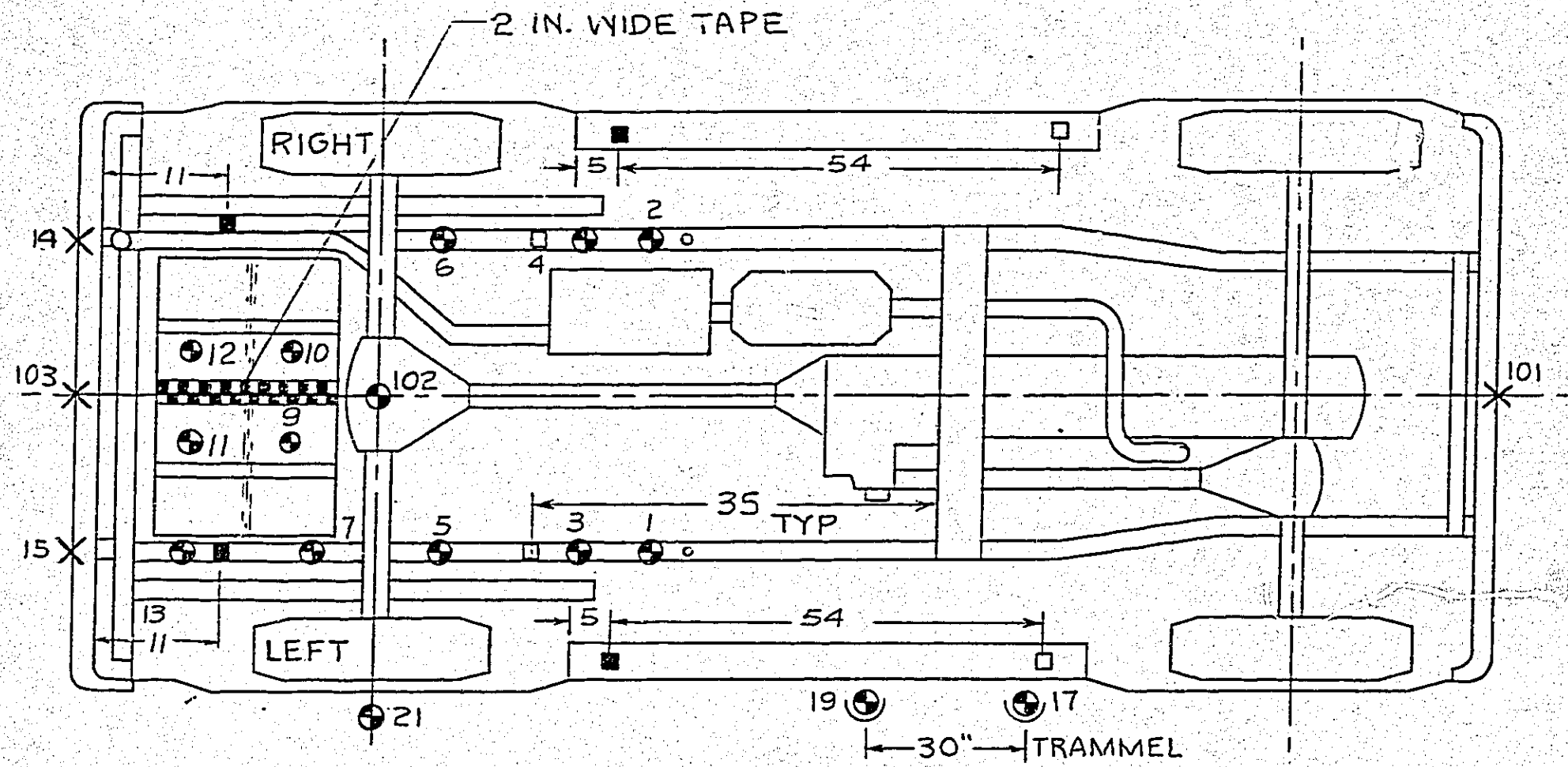
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JEEP CHEROKEE 4x4

TARGET AND ACCELEROMETER LOCATIONS FOR REAR IMPACTS

ZENONS REQD ON ROOF

ELEC FUEL PUMP TO BE RUNNING DURING IMPACT



X PUNCH POINT
 ● UNDERBODY
 ⊕ SIDE VIEW

N O T E S -

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.

LEGEND

ACCELEROMETERS

□ SINGLE AXIS, X
 ■ BIAXIAL, X & Z

TEST VEHICLE SHIPPING

RELEASE FORM

VEHICLE TEST NUMBER _____

VEHICLE ITEM NUMBER _____

VEHICLE V.I.N. _____

BUILD DOWN COMPLETE _____

STATIC ROLL COMPLETE _____

POST TEST PHOTOS _____

PRESSURE CHECK _____

REMARKS:

TEST ENGINEER _____

DATE _____

MOORE BUSINESS FORMS INC. 27

NON-INSTRUMENTED ANTHROPOMORPHIC TEST DEVICE REQUEST

TEST NUMBER _____
REQUEST DATE ___/___/___
DATE REQUIRED ___/___/___

CHARGE # _____
TEST ENGINEER _____

AD- _____
MAKE/MODEL: PART 572
RESTRAINT: UNIBELT

AD POSITION: 1L
PERCENTILE/SEX: 50TH/M
TARGETS BALLAST

AD- _____
MAKE/MODEL: PART 572
RESTRAINT: UNIBELT

AD POSITION: 1R
PERCENTILE/SEX: 50TH/M
TARGETS BALLAST

MOORE & JOHNSON FORMS INC. 87

POWER TRAIN AND STRUCTURAL DATA

TEST NUMBER _____

POWER TRAIN _____

ENGINE _____ (LITRE/CUBIC INCH); MODIFICATIONS _____

ENGINE TEST DAMAGE _____

THROTTLE OR SHIFT LINKAGE MODIFICATIONS _____

LINKAGE TEST DAMAGE _____

TRANSMISSION _____ AUTO, _____ MANUAL. AXLE _____

DRIVE LINE DAMAGE _____

AIR CONDITIONING (YES OR NO) _____ BATTERY SIZE _____

OTHER MODIFICATIONS OR ACCESORIES (AIR PUMP, WATER PUMP....) _____

STRUCTURE _____

DOOR MODIFICATIONS _____

POST TEST DOOR OPENING EFFORT (X=AUXILIARY EQUIPMENT REQUIRED, A=OPENS READILY, H=CAN BE OPENED MANUALLY BUT WITH MUCH DIFFICULTY)

L.E. _____, R.E. _____, L.R. _____, R.R. _____, TRUNK _____, TAIL GATE _____

OTHER DOOR COMMENTS _____

MODIFICATIONS TO THE STANDARD STRUCTURE _____

STRUCTURAL TEST DAMAGE _____

SPARE TIRE AND JACK MODIFICATIONS _____

SPARE TIRE SIZE _____

SPARE TIRE AND JACK RETENTION, AND OTHER RELATED COMMENTS _____

BUMPER SYSTEM MODIFICATIONS _____

BUMPER SYSTEM TEST DAMAGE _____

BRAKE SYSTEM MODIFICATIONS _____

BRAKE SYSTEM TEST DAMAGE _____

SUSPENSION SYSTEM MODIFICATIONS _____

SUSPENSION SYSTEM TEST DAMAGE _____

TRAILER HITCH TYPE AND MODIFICATIONS _____

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TEST NUMBER

SEAT, RESTRAINT, INSTRUMENT PANEL, AND OCCUPANT DATA

SEATS

TYPE, MATERIAL, PRICE CLASS

ADJUSTERS

HEAD RESTRAINTS

POST TEST CONDITION

RESTRAINT SYSTEM

TYPE

POST TEST CONDITION

INSTRUMENT PANEL

MATERIAL; BASE PANEL AND COVER

GLOVEBOX

POST TEST CONDITION

OCCUPANT DATA

OCCUPANT DIMENSIONS RELATIVE TO TEMPLATE OR DRAWING #

	LEFT FRONT				RIGHT FRONT			
	X (INCHES)	Z (INCHES)	X (INCHES)	Z (INCHES)	X (INCHES)	Z (INCHES)	X (INCHES)	Z (INCHES)
	FWD	RWD	UP	DOWN	FWD	RWD	UP	DOWN
HEAD								
HIP								
KNEE								

OCCUPANT WITNESS MARKS

SHOULDER BELT PAYOUT- LEFT IN. RIGHT IN.
 LAP BELT PAYOUT- LEFT IN. RIGHT IN.

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WITH ALL ENTRIES EXCEPT TITLE LINES, TEST-NOTES, V.I.N., AND A.T.V.,
 BLANKS AND COMMAS ARE USED AS DELIMITERS AND OTHERWISE IGNORED. IN
 TITLE LINES AND V.I.N. EVERYTHING IS ACCEPTED TO THE LENGTH LIMITATIONS
 INDICATED ON THE LOAD SHEET (TITLE LINES AND TEST-NOTES- 60 CHARACTERS;
 V.I.N. AND A.T.V.- 20 CHARACTERS).

ABBREVIATIONS: SER=SERIES, SN=SERIAL NUMBER, F=FAULT, I=INSTRUMENTED,
 P=PHOTOGRAPHIC COVERAGE, Y=YES, N=NO

ENTRIES FOR DATA ITEMS HAVE A MAXIMUM NUMBER OF ALLOWABLE CHARACTERS
 AND ARE EITHER NUMERIC(N) OR ALPHANUMERIC(A). EACH LOAD SHEET ENTRY IS
 FOLLOWED BY A NUMBER AND LETTER WHICH SPECIFIES THE MAXIMUM NUMBER OF
 CHARACTERS AND FORMAT, "A" ALPHANUMERIC OR "N" NUMERIC, FOR THAT ITEM.

NOTE - ALL REFERENCES TO "V.I.N." ARE TO THE 17 CHARACTER VEHICLE
 IDENTIFICATION NUMBER, WHICH WAS INITIATED WITH THE 1981 MODEL YEAR.

TEST-NOTE - NON STANDARD ITEMS THAT WOULD NOT APPLY TO (OR FIT) ANY
 OTHER ENTRIES, E.G. NO INSTRUMENT PANEL, VEHICLE TESTED AT 2.6L WEIGHT,
 VEHICLE TESTED AT LIMO WEIGHT, NO DUMMIES BUT VEHICLE TEST WEIGHT
 ADJUSTED FOR DUMMY WEIGHT, H-BODY MULE MADE FROM K-BODY ETC....

BODY-CLASS - ALL DOMESTIC PASSENGER CARS (V.I.N. POSITION #1 = "1", "2"
 OR "3", AND V.I.N. POSITION #3 = "3") ARE CODED WITH A SINGLE LETTER
 WHICH IS DEFINED IN THE "PASSENGER CAR MODEL CHARTS" I.E. L = L-BODY,
 E = E-BODY, K = K-BODY, G = G-BODY, ETC.... ALL DOMESTIC BUILT TRUCKS
 (V.I.N. POSITION #1 = "1", "2" OR "3" AND POSITION #3 OF V.I.N. = "4",
 "5", "6", OR "7") ARE CODED "T". COMPETIVE, AND FOREIGN BUILT VEHICLES
 (CURRENTLY JAPAN, V.I.N. POSITION #1 = "J"), ARE CODED "BLANK".

CAR-LINE - FOR CHRYSLER BUILT DOMESTIC PASSENGER CARS AND FRONT WHEEL
 DRIVE TRUCKS (T115), A SINGLE LETTER FROM V.I.N. POSITION #5 IS USED,
 I.E. D=ARIES, Z=OMNI, K=CARAVAN, ETC.... **!*EXCEPTIONS*!**; V.I.N.
 POSITION #5="S" OR "U" OR "X" AND POSITION #2="B", CAR-LINE="D".
 V.I.N. POSITION #5="A" AND POSITION #2="B", CAR-LINE="V". V.I.N.
 POSITION #5="J" OR "U" OR "H" AND POSITION #2="C", CAR-LINE="C". V.I.N.
 POSITION #5="S" AND POSITION #2="P", CAR-LINE="P". REAR WHEEL DRIVE
 TRUCKS ARE IDENTIFIED BY THE TWO(2) CHARACTERS FROM V.I.N. POSITIONS #5
 & #6, I.E. B1=B100(150), D1=D100(150) ETC.... **!*EXCEPTIONS*!**; SPORT
 UTILITY (RAMCHARGER AND TRAILDUSTER, POSITION #3= "4" AND POSITIONS #5
 & #6= D1 OR W1, CODED AD1 OR AW1 RESPECTIVELY); N-BODY (DAKOTA 2X2 AND
 4X4, WHERE POSITION #3= "7" AND POSITION #5= "N" OR "R", CODED N1 OR N5
 RESPECTIVELY). PRE-PROTOTYPE "MULE" CARS AND NON-CHRYSLER BUILT
 VEHICLES MAY USE UP TO TEN(10) CHARACTERS FOR CAR-LINE, E.G. L-MULE,
 CHEVY, W/K-MEXICO ETC.... SEE "VCRECORDS USER MANUAL", APPENDIX 3, FOR
 DETAILS.

BODY - FOR PASSENGER CARS AND FRONT WHEEL DRIVE TRUCKS (T115) THE BODY
 IS TWO DIGITS CONVERTED FROM V.I.N. POSITION #7, I.E. 21, 22, 41,...
 35(T115)... 48(LIMO/EXEC. SEDAN). BODY FOR REAR WHEEL DRIVE TRUCKS IS
 ONE (1) CHARACTER TAKEN DIRECTLY FROM V.I.N. POSITION #7.

TEST-WEIGHT - INCLUDES ALL DUMMIES, INSTRUMENTATION, CAMERAS, FUEL,
 LUGGAGE, BALLAST.

TEST-PURPOSE- THE FIRST TWO(2) CHARACTERS ARE THE TEST-PURPOSE MODEL
 YEAR (80,81,85...). THE THIRD CHARACTER IDENTIFIES THE TEST PURPOSE AS
 DEVELOPMENT(D), VALIDATION (V), OR COMPLIANCE (C). THE FOURTH DIGIT
 SIGNIFIES A PRIMARY (1) OR SECONDARY (2) TEST-PURPOSE.

ENGINE - ENGINE DISPLACEMENT IN LITERS.

ENGINE-NOTE - STANDARD ENTRIES; HP=HIGH PERFORMANCE, TBI=THROTTLE BODY INJECTION, TC=TURBOCHARGED, TCI=LOW COST TURBO(MMC), TCII=TURBO II, TCIII=16 VALVE LOTUS ENGINE, MPI=MULTIPOINT INJECTION, EFI=ELECTRONIC FUEL INJECTION, 1B=1 BARREL CARB..., 4B=4 BARREL CARB., DIE=DIESEL, LPG=LIQUID PROPANE GAS, FED=FEDERAL EMISSION, CAL=CALIFORNIA EMISSION. FOR NON-STANDARD; UP TO 10 CHARACTER DESCRIPTOR ACCEPTABLE.

TRANSMISSION - STANDARD ENTRIES; A2=2 SPEED AUTO, A3=3 SPEED AUTO, M3=3 SPEED MANUAL, M4=4 SPEED MANUAL, M5=5 SPEED MANUAL. A "F" AS THE THIRD CHARACTER INDICATES FOUR WHEEL DRIVE, I.E. A3F,...M5F, ETC.

TRANS-NOTE - OTHER TRANSMISSION COMMENTS UP TO 10 CHARACTERS.

OPTIONAL-EQUIPMENT - Y IF WAS ON VEHICLE, N IF WAS NOT ON VEHICLE "BLANK" IF QUESTIONABLE.

OPT-EQUIP-NOTE - OPTIONAL EQUIPMENT NOTE UP TO 10 CHARACTERS.

IMPACT-TYPE - BA=BARRIER, CA=CAR-TO-CAR, RO=ROLLOVER, TR=TREE, TD=TOP DROP, MOVING BARRIERS; 1T=TYPE I, 2T=TYPE II, 3T=TYPE III, 4T=TYPE IV. WEDGE ANGLES; 10=10 DEGREE, 15=15 DEGREE, 20=20 DEGREE 25=25 DEGREE, 30=30 DEGREE.

BARRIER-SURFACE; C=CONCRETE, S=STEEL, P=PLYWOOD

DAMAGE-LOCATION - FT=FRONT, LF=LEFT FRONT, LC=LEFT CENTER, LR=LEFT REAR RF=RIGHT FRONT, RC=RIGHT CENTER, RR=RIGHT REAR, RE=REAR, TO=TOP

DIRECTION

A	DIRECTION REFERS TO THE DIRECTION OF
D A	MOTION BEFORE IMPACT. NOTE THAT THE
! ! ! ! !	DIRECTION OF BOTH 'THIS VEHICLE' AND
! FRT !	'OTHER VEHICLE' OR MOVING BARRIER ARE
<<<< !L! RT! >>>>	EXPRESSED RELATIVE TO 'THIS VEHICLE'
270 ! ! 90	
! REAR !	
! ! ! ! !	
V	
180 V	
V	

OCCUPANTS:

-LOC(LOCATION)- 1L=FRONT LEFT, 1C=FRONT CENTER, 1R=FRONT RIGHT, 2L=2ND SEAT LEFT, 2C=2ND SEAT CENTER, 2R=2ND SEAT RIGHT,... 5L,5LC,5RC,5R(LAST SEAT IN MAXIVAN). -TYP(DUMMY TYPE)- H5=HYBRID II(50TH MALE), T5=HYBRID III(50TH MALE), V9=ALDERSON 95TH MALE, FE=FEMALE, CH=CHILD, HU=HUMAN.

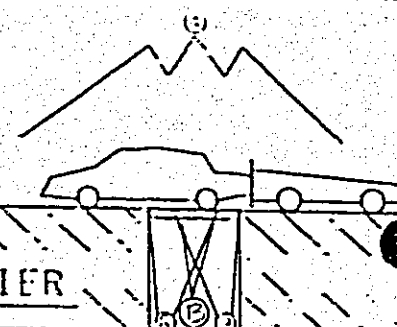
-SN- CHRYSLER ASSIGNED DUMMY NUMBER. -RES(RESTRAINT TYPE)- LB=LAP BELT ONLY, 3S=3-PT. LAP & SHOULDER, 4S=4-PT. LAP & SHOULDER, UI=UNIBELT, 2P=2-PT. PASSIVE, 3P=3-PT. PASSIVE, PC=COMBINATION PASSIVE SHOULDER & ACTIVE LAP, MC=COMBINATION MOTORIZED SHOULDER & 2-PT LAP BELT, 2M=2-PT. MOTORIZED SHOULDER, 3M=3-PT MOTORIZED, AB=AIR BAG ONLY, PL=AIR BAG & LAP BELT, AU=AIR BAG & UNIBELT, BE=INFLATABAND, BO=INSTRUMENT PANEL BOLSTER, SR=SHOULDER BELT & KNEE BLOCKER, UN=UNRESTRAINED.

TEST-COMPONENT - THE SERIES OF THE TEST-COMPONENT SHOULD BE CODED AS THE MODEL YEAR FOR WHICH THAT TEST COMPONENT IS BEING TESTED. THE SERIES OF THE TEST-COMPONENT DEFAULTS TO THE MODEL YEAR OF THE VEHICLE UNLESS AN ENTRY IS MADE.

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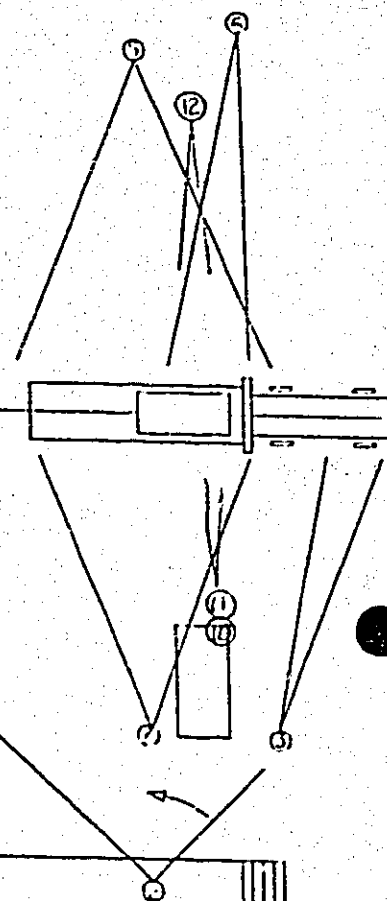
37.5 FT.
TO CATWALK

CAMERA LAYOUT - COVERED BARRIER



1156
1106
2262
2074
4336
1016
1060
2074
4286

1130
1110
2240
2046
4286
992
1054
2046



TEST NO. VC3918 TEST TYPE REAR, TYPE IV MOVING BARRIER
 ENGINEER RASMUSSEN REQUEST DATE _____ TEST VEHICLE BODY CLASS JEEP

#	CAMERA TYPE	LENS F. L.	FPS	VIEW	PNL NO.	SCKT NO.	CBL NO.	LENS MFG	LENS S/N	CAME S/I
1	POLAROID		STILL	LIGHTS						
2	R & H	1 IN.	64	PANNING						
3	LOCAM	4 IN.	500	VELOCITY	12			WOLLENSAK	D73487	
4	LOCAM	1 IN.	500	TOP-CATWALK	20			COSMICAR		
5	LOCAM	1/2 IN.	500	RT-OVERALL	8			COSMICAR		
6	LOCAM	2 IN.	500	RT-REAR HALF	8			COSMICAR		
7	LOCAM	1 IN.	500	LT-DYNAMIC CRUSH	12			COSMICAR		
8	LOCAM	13 MM	500	FT PIT-F.TANK	10			ILEX		
9	LOCAM	13 MM	500	RR PIT-F.TANK	10			ILEX		
10	LOCAM	2 IN	500	LT SIDE CLOSE UP OF DAMAGE AREA						
11	LOCAM	2 IN	500	LT SIDE FRAME RAILS AT KICKUP						
12	LOCAM	2 IN	500	RT SIDE-FRAME RAILS AT KICKUP						
13	LOCAM	1 IN.	500	PIT- CLOSE UP OF FUEL TANK						

EA12-005-Chrysler-000519

PROMISED DATE

PHOTOGRAPHIC JOB NO.

24568

REQUESTED BY
RH RASMUSSEN
LOC. CODE 1252 DEPT. NO. 5320

PHONE	5310	DATE ISSUED	06/06/89	CHARGE NUMBER	5328018	
ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE	LOCATION OF WORK
						GARAGE
NUMBER OF PRINTS PER NEGATIVE	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE	BLDG. & FLOOR
			2		COMPOSITE	CB

INSTRUCTIONS

CONFIDENTIAL

PROVIDE STILL PHOTOS
OF VC 3918

RECEIVED BY _____

APPROVED *R. Rasmussen*

CUSTOMER COPY PHOTOGRAPHIC WORK ORDER



PROMISED DATE

PHOTOGRAPHIC JOB NO.

24569

REQUESTED BY
RH RASMUSSEN
LOC. CODE 1252 DEPT. NO. 5320

PHONE	5310	DATE ISSUED	06/06/89	CHARGE NUMBER	5328018	
ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE	LOCATION OF WORK
			✓	✓		
NUMBER OF PRINTS PER NEGATIVE	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE	BLDG. & FLOOR
						CB

INSTRUCTIONS

CONFIDENTIAL

PROVIDE COLOR MOVIES
OF VC 3918
MAKE 1 PRINT

RECEIVED BY _____

APPROVED *R. Rasmussen*

CUSTOMER COPY PHOTOGRAPHIC WORK ORDER



6-14

VC 3918

Ballast Dummies

Driver - AD46

Passenger - AD67

JMB

VC 3860

100 lb left gate

50 lb rear floor pan

50 lb rear aperture

60 lb left side glass header

40 lb right " " "

150 lb rear seat footwell

Rec'd

12/6/06

VC3918

4286 T.W.
~~388~~
~~4286~~

3886
~~300~~
~~250~~
4476

36

3666
300 LUG
3966
- 80 INST
3886

948 956 3886
926 944 3774
1874 1900
1900
3774

992 964
950 902
1952 1926
1926
3878

300 LUG (50 LB EACH RR WINDOW HEADER
50 LB RT RR CORNER OF CARGO AREA
50 LB FT CTR OF CARGO AREA
100 LB REAR HATCH

70 ~~200~~ LB FT FOOT WELL 70 LB PASS SIDE
150 + 50 ~~200~~ LB RR FOOT WELL
~~100~~

REAR IMPACT TEST DAY CHECK LIST

IMPACT GARAGE

- TEST SITE PREPARED
- TITLE BOARD PREPARED
- VEHICLE FINAL BUILD-UP COMPLETE 992 FRT 2240 LBS
- TEST CONFIRMED WITH PHOTOGRAPHIC 1054 RR 2046 LBS
- WEIGH VEHICLE - RF 1130 LBS, RR 1014 LBS
- LF 1110 LBS, LR 760 LBS, TOTAL 4286 LBS
- VISUAL CHECK OF VEHICLE HOOK UP FOR TRANSPORTING TO BARRIER
- TIME OUT OF GARAGE 8:45AM.

3666
300
308
4274
42

COVERED BARRIER

- CHECK GUIDE RAIL FOR OBSTRUCTIONS
- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- POSITION VEHICLE AT INTERSECTION
- POSITION PHOTOGRAPHIC REFERENCE TUBE
- POSITION TRAP FLAG ON MOVING BARRIER
- POSITION TRAP TIMER
- POSITION VELOCITY CAMERA FIDUCIAL TARGET
- ATTACH TOW CABLE (TOW CAR TEST)
- CHECK BRAKE ABORT ELECTRICAL CONTINUITY
- ASSURE TOW CABLE ROUTING
- POSITION MOVING BARRIER AT TEST START POSITION
- RETURN FORK LIFT TO BARRIER
- CALIBRATE TOW CAR
- CHECK HIGH INTENSITY LIGHT SWITCH POSITION AND FUNCTION (400 FEET FOR 30 MPH TEST)
- POSITION DUMMIES

- ~~ASSURE FUEL LINES~~ SPEED 30.7 TRAP
- ASSURE VEHICLE IN NEUTRAL
- SET BRAKE ABORT TGW LOBDELL
- CLOSE HOOD AND DECK LID
- IN-TANK FUEL PUMP RUNNING CAL MANNEY
- MEASURE CAR/REFERENCE TUBE(S)
- MOVING BARRIER ABORT ON ABORT WIRTH MANNEY
- CLOSE SEMAPHORE GATES
- TURN OFF MERCURY VAPOR OVERHEAD LIGHTS BOOTH MANNEY
- TURN ON EXHAUST BLOWERS
- BRAKE ABORT REEL CONNECTED STRK VEH WIRTH
- ALL DOORS UP
- LOCK APPROACH ROAD DOORS
- APPROACH ROAD LIGHTS ON
- WARNING LIGHT ON
- TOW CAR 5TH WHEEL DOWN?
- TEST PERSONNEL READY
- "PLEASE CLEAR TEST AREA"
- ASSURE CAMERA SWITCH ARMED
- ASSURE HIGH INTENSITY LIGHTS IN INTERSECTION MODE, TRIGGER RESET LIGHT ON AND ARMED
- INITIATE TEST, VIA VAN IF CONVENTIONAL INSTRUMENTATION VIA TOW CAR IF OBDAS

ABORT READY
TA
PHOTO
INTES
HI INT LITES AT BARR
TRIGGER RESET
LITES ARMED

TEST TIME 12:34P.M.

- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- CALL M. A. BOWEN WITH TEST RESULTS
- POSITION VEHICLE FOR POST TEST PHOTOGRAPHS
- STORE TOW CABLE
- CLEAN UP TEST DEBRIS
- COVER EXPOSED FIT AREAS
- TURN OFF APPROACH ROAD LIGHTS

MOORE BUSINESS FORMS INC. 27

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

RHR

ITEM 8XJ29 CHARGE NO. 5328018 ISSUE DATE 6-6-89


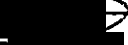

VC 3918 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE / / ENGINEER RASMUSSEN
SPEED MPH SOURCE

TEST PURPOSE PRIMARY. 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.5 MPH
DAMAGE LOCATION; REAR
IMPACT TYPE; TYPE IV
BARRIER SURFACE; PLYWOOD
DIRECTION; 0 DEGREES

PROBABLY 5 FOR PREMIUM TRIM LEVEL.

VEHICLE BODY CLASS; XJ
CAR LINE; J
BODY; 72 1J4FJ57L?M* 
ENGINE; 4.0 LITRE
ENGINE NOTE; MPI
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1JCML774*2  MOD.
VIN AS BUILT; 1JCML7744J  MOD.

1991

BUILD CONDITION



POST TEST REMARKS

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST WEIGHT (LBS) _____ TOTAL, _____ FRONT, _____ REAR

FUEL BALLAST 21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

OTHER BALLAST _____

OCCUPANTS

LEFT FRONT 50TH MALE UNINSTRUMENTED. AD NO _____
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD NO _____
RESTRAINT-UNIBELT

MECHANICAL REQ

TARGET VELOCITY-30.5 MPH.
REQUIRED- PRESSURE CHECK FUEL SYSTEM PRE-TEST &
STATIC ROLLOVER POST-TEST.
ELECTIC FUEL PUMP TO BE RUNNING DURING TEST.
TETHER SPARE TIRE.
TARGET VEHICLE PER 3RD SHEET NO. 102.
PAINT SIDE OF FRAME RAILS AT KICK-UP IN SIDE
VIEW. PLEASE INCREASE LIGHTING.
PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
TANK IN CONTRASTING COLORS.
BALLAST OF THIS VEHICLE WILL BE MADE BY STRUCTURE
ENGINEERING "MUSTAFA KHALIFA" 6-2474 OR 6-3506.
PLEASE INFORM MUSTAFA ONE DAY AHEAD.
* ADD EVENT MARKER TO INDICATE INITIAL IMPACT OF
FUEL TANK TO DIFFERENTIAL.
* FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
CHUCK ALANIZ (6-3871 OR 2-8185).
PLACE INCH TAPE ON CENTERLINE OF FUEL TANK.
HIGHLIGHT FUEL TANK TRANSVERSE CREASE AT TANK
ELEVATION CHANGE AS WELL AS TANK PERIMETER, SEE
VC 3790.

INSTRUMENTATION REQ

SEE 3RD SHEET NO.102 FOR ACCELEROMETER REQMTS
AND LOCATIONS.
ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

Place 1
TARGET ON

TANK, AT

SENDING UNIT, LIKE VC3790

~~VC 3790~~

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

PHOTOGRAPHIC REQ 1-OVERALL CAMERA, RT SIDE, TO VIEW VEHICLE AND BARRIER FACE AT IMPACT.
1-CATWALK CAMERA TO VIEW ENTIRE VEH. AT IMPACT.
1-LT SIDE CAMERA TO VIEW DYNAMIC CRUSH.
1-LT SIDE CLOSE-UP VIEW OF THE DAMAGE AREA.
2-PIT CAMERAS, ANGLED VIEWS OF FUEL TANK AND SURROUNDINGS.
2-CLOSE-UP CAMERAS 1LT/1RT TO VIEW FRAME RAILS IN SIDE VIEW AT KICK-UP.
1-PIT CAMERA FOR CLOSE-UP VIEW OF FUEL TANK.
1-VELOCITY ANALYSIS CAMERA.
1-PANNING CAMERA.

FILM ANALYSIS MOVING BARRIER VELOCITY, ONLY IF REQUESTED.
UNDERBODY MOTION, ONLY IF REQUESTED.
DYNAMIC CRUSH.

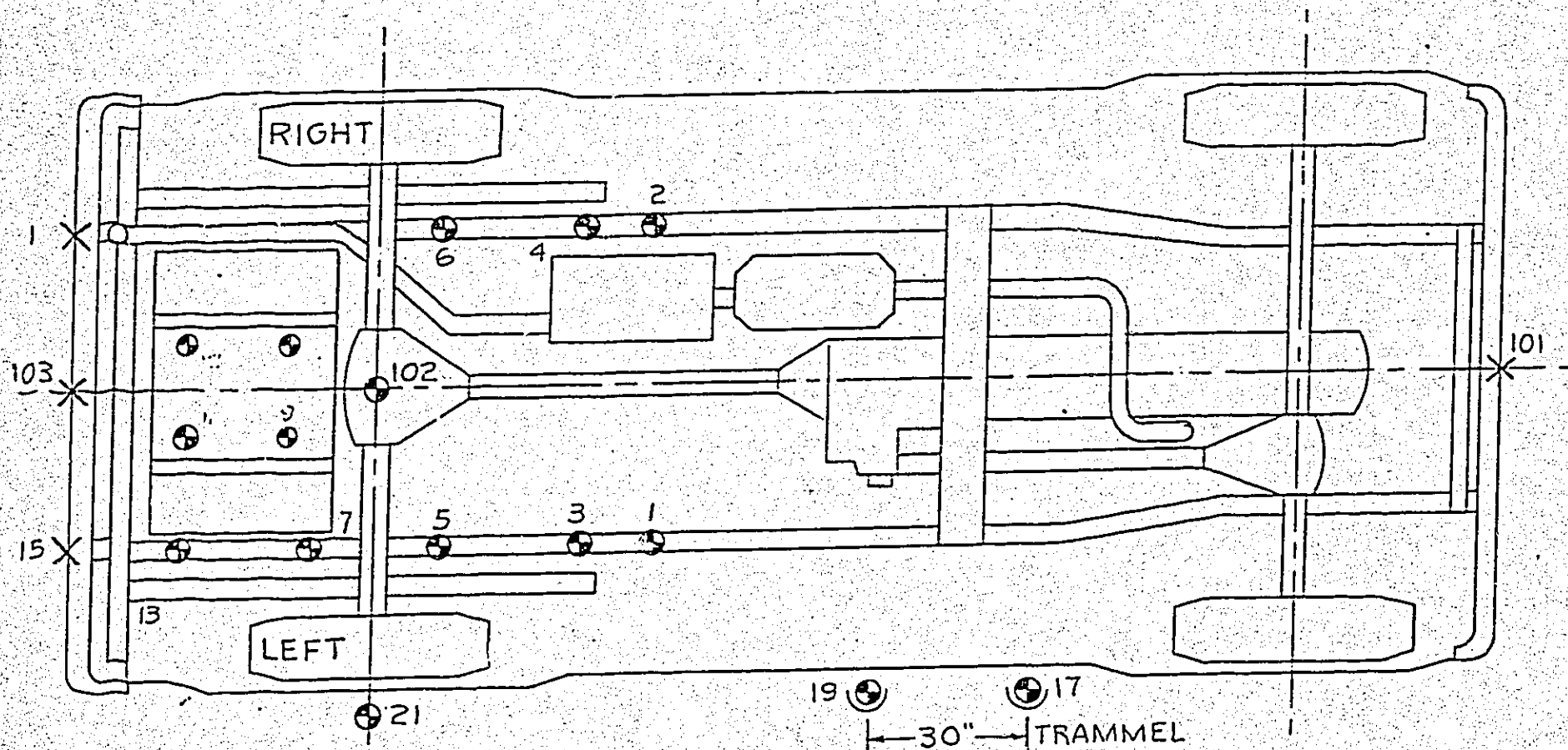
REMARKS TEST REQUEST ORIGINATOR: JOHN SCHERDEN 822-9075.
PLEASE DO NOT REMOVE ANY PART OF VEHICLE PRE OR POST-TEST.

T. E. REPORT NOT REQUIRED.

REPORT CODES A = TRANSDUCER DATA B = ALL FILM DATA
C = HIGH SPEED FILM D = ENGINEER'S REPORT
E = DUMMY KINEMATICS F = STEERING COLUMN
G = UNDERBODY H = A-POST
I = DYNAMIC CRUSH J = ENGINE COMPARTMENT
K = DOOR CRUSH L = FORCE/CRUSH/ENERGY
M = SPECIAL

DISTRIBUTION W.W. KOEBNICK 422-05-01 (AB)
H.G. ROULEAU 422-05-01 (AB)
M.W. CROSSMAN 422-05-01 (B)
T.P. MAULE 422-05-01 (A)
J.M. BERLINER 422-05-01 (A)
J.W. HANIKA 418-42-22 (AB)
W.A. BREITMOSER 422-05-01 (AB)
W.R. HARBAUGH 418-42-22 (AB)
G.M. ABOUD 514-15-17 (AB)
A.J. REGAN 418-42-22 (AB)
L.C. MILLER 514-00-00 (AB)
E.A. ZYLIK 514-15-17 (AB)

THIRD SHEET 102, ITEM 8XJ29, VC 3918
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS



TARGETS

X PUNCH POINT
 ⊕ UNDERBODY
 ⊙ SIDE VIEW

LEGEND

ACCELEROMETERS - □ SINGLE AXIS, X
 ■ BIAxIAL, X & Z

NOTES -

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH

06/15/89

PF=VC03918D

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5320TA19

PG 1 OF 1

TEST # VC03918 TEST DATE 6/15/89 ITEM # 8XJ29 TEST ENG. RASMUSSEN TEST ASSUR. ENG. TW TECH. GDE
TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.

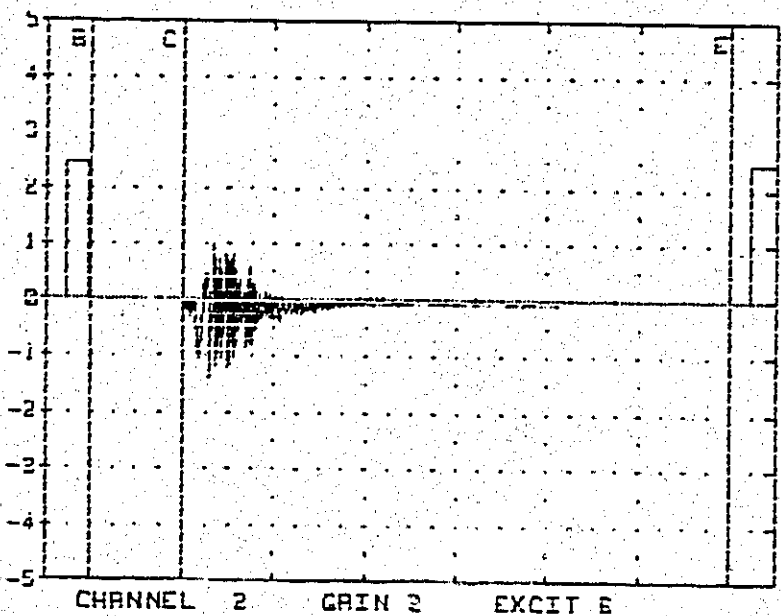
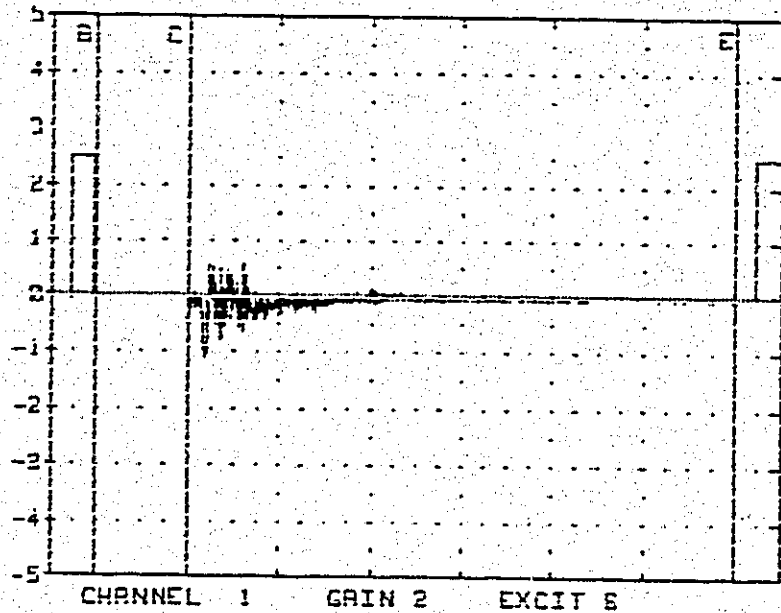
1991 FVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHARGE #5328018 OCCUPANTS, AD AT , AD AT , AD AT , AD AT
TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY 30.7 MPH. VIN 1JCML774*

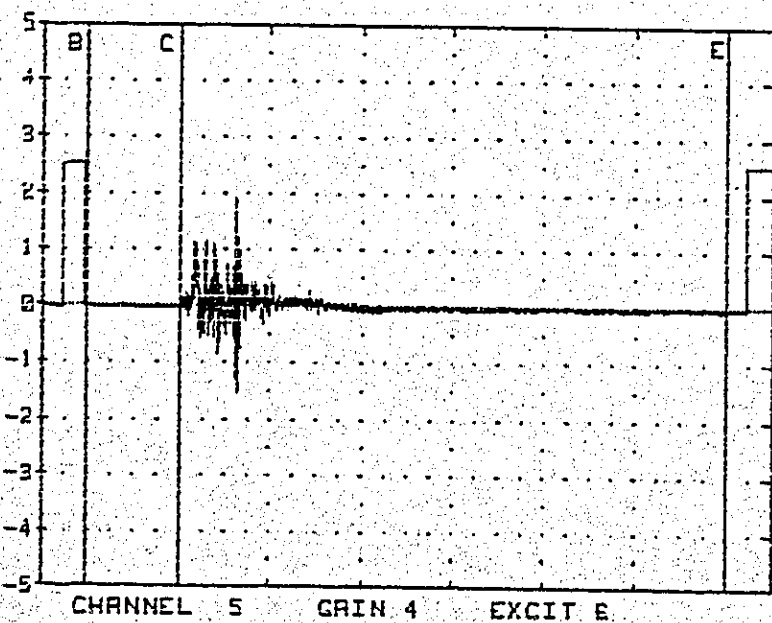
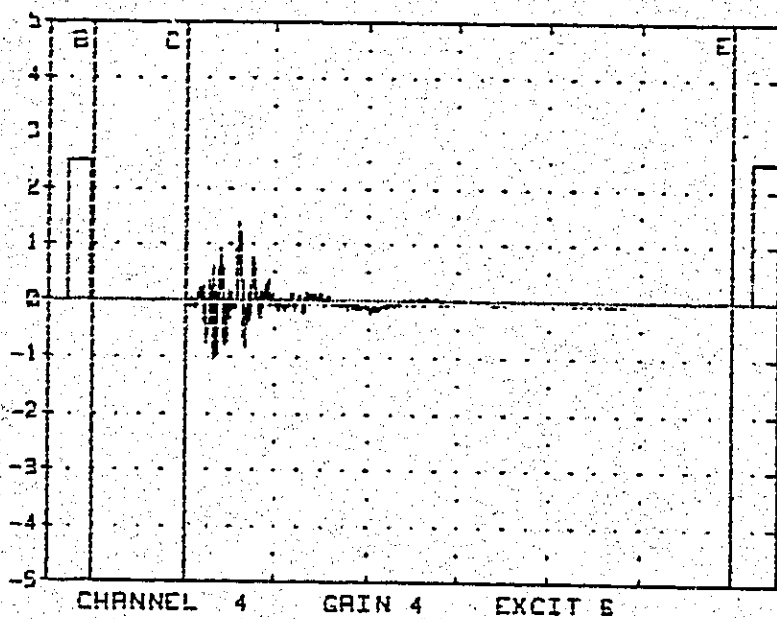
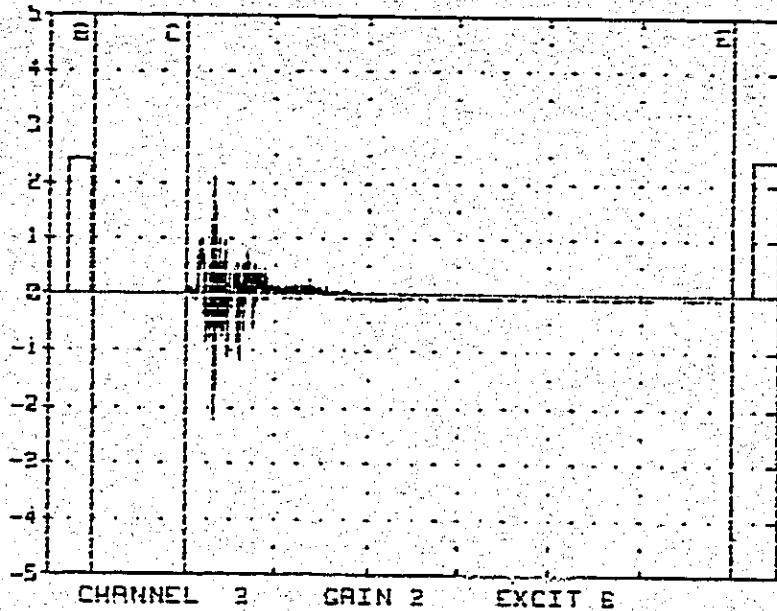
CHI	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE		REQ	PEAK	CH #	GAIN	SPAN	OFFSET
						-CAL	OHMS						
1	LEFT FRONT SILL	X		14358	+	195.34	3740	300.0	381.2	0	4.0	320.28	
				141	FT	3740				2	1.281		
2	RIGHT FRONT SILL	X		73941	+	200.40	3740	300.0	390.3	1	4.0	320.93	
				141	FT	3740				2	1.284		
3	LEFT REAR SILL	X		80458	-	199.64	3740	300.0	399.0	2	4.0	312.75	
				141	RR	3740				2	1.251		
4	LEFT REAR SILL	Z		14376	-	196.49	3740	300.0	383.1	3	4.0	320.52	
				141	UP	3740				2	1.282		
5	RIGHT REAR SILL	X		14424	-	197.99	3740	300.0	378.9	4	4.0	326.57	DUE
				141	RR	3740				2	1.306		
6	RIGHT REAR SILL	Z		80435	-	194.60	3740	300.0	380.7	5	4.0	319.45	
				141	UP	3740				2	1.278		
7	LT RAIL TRAIL ARM PIV	X		14446	+	196.99	3740	400.0	382.0	6	4.0	322.29	
				141	FT	3740				2	1.289		
8	RT RAIL TRAIL ARM PIV	X		14455	+	197.95	3740	400.0	387.2	7	4.0	319.53	DUE
				141	FT	3740				2	1.278		
9	RT RAIL MIDTANK	X		80424	+	391.23	1740	600.0	776.7	8	2.0	628.63	
				141	FT	1740				1	1.259		
10	RT RAIL MIDTANK	Z		14316	+	199.56	3740	400.0	389.1	9	4.0	320.55	
				141	DN	3740				2	1.282		
11	FUEL SEND UNIT-EVENT	EE				3.00		3.0	2.5	10	1.0	3000.00	
						0				0	3.000		
12	FUEL TANK/DIFF-EVENT	EE				3.00		3.0	2.5	11	1.0	3000.00	
						0				0	3.000		
13	LT RAIL MBAR MID	X		14400	+	204.57	3740	400.0	382.9	12	4.0	333.89	
				141	FT	3740				2	1.336		
14	RT RAIL MSAR MID	X		73938	+	208.60	3740	400.0	392.3	13	4.0	332.31	
				141	FT	3740				2	1.329		

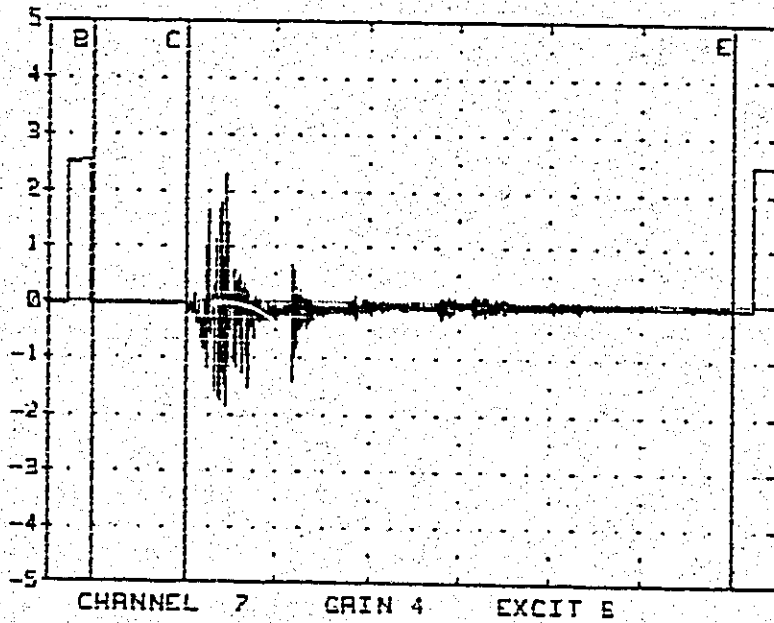
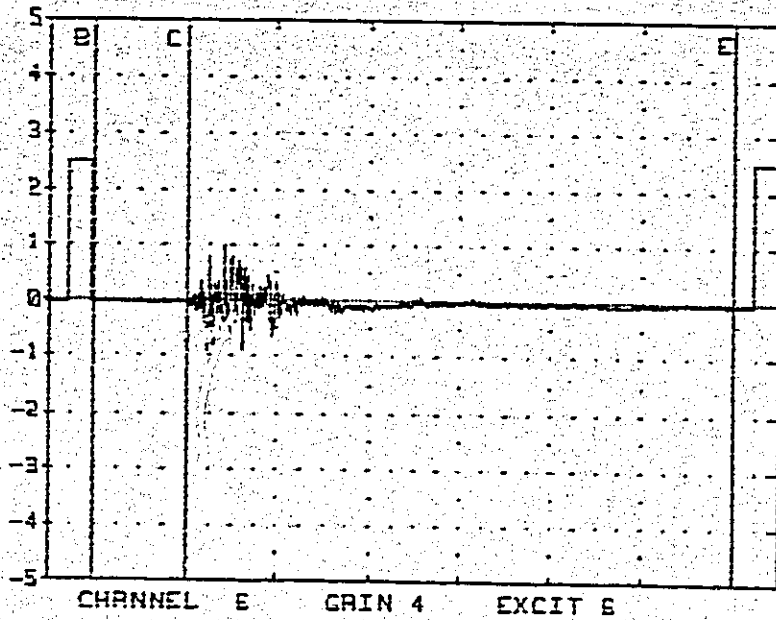
06/15/89 02:09

DATA SET - 06/15/89BH
CHANNELS - 14
OBDAS UNIT - 05 TEST-VC03918
LOG FILE - 06/15/89BH
MNEMONIC - VC03918 CH001-014 30.7 REA VC03918D

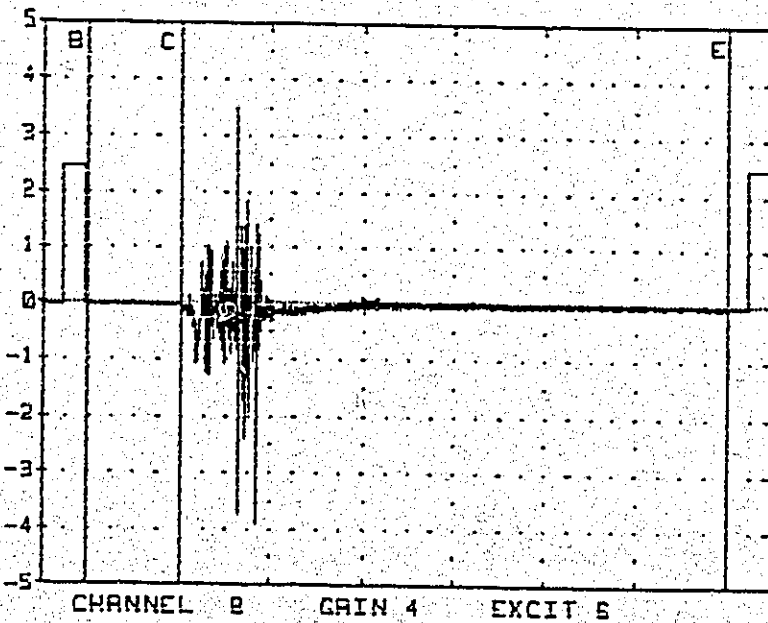
4096 SAMPLES/CHANNEL 10000 SAMPLES/SECOND

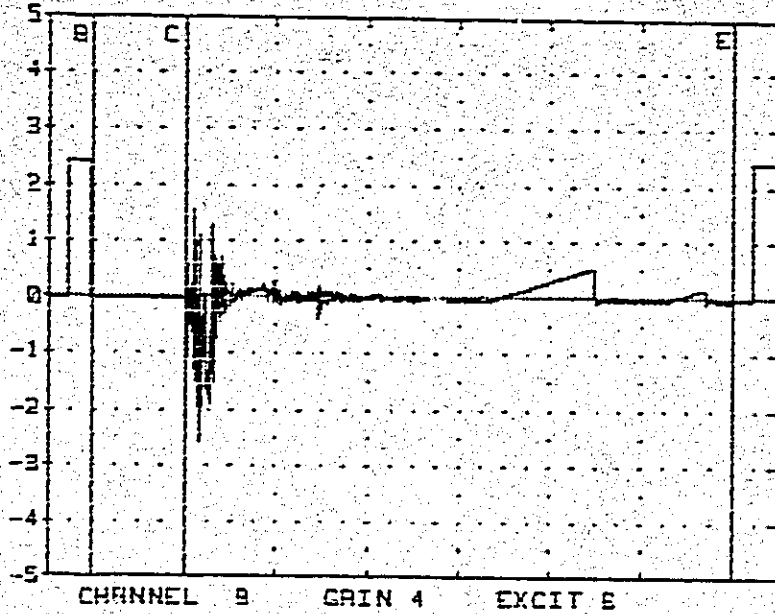




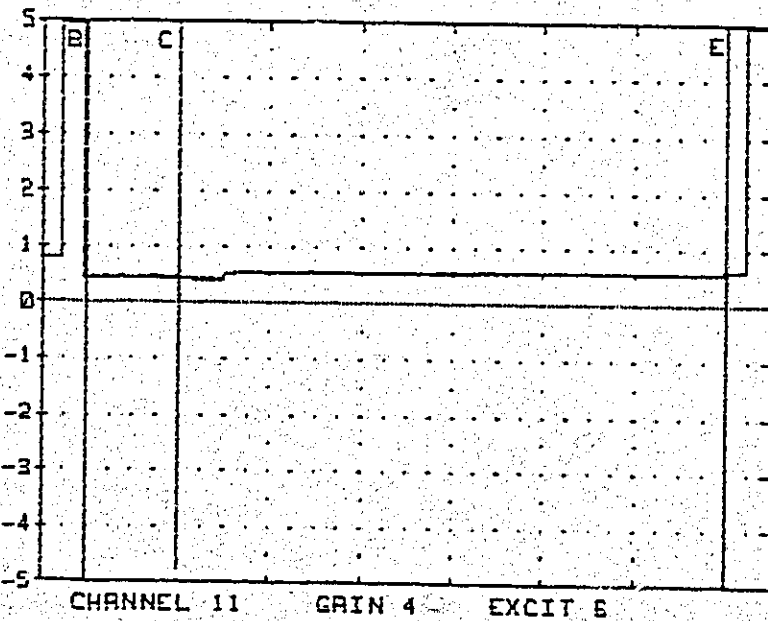
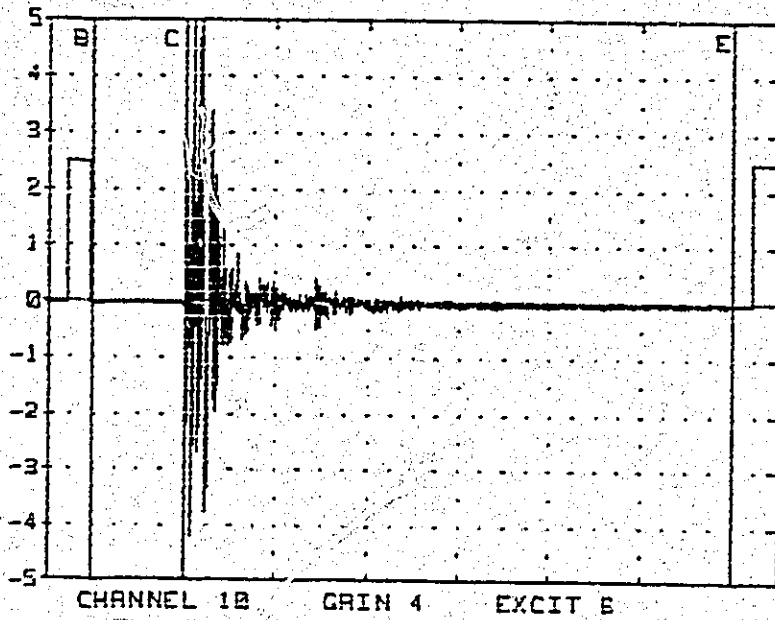


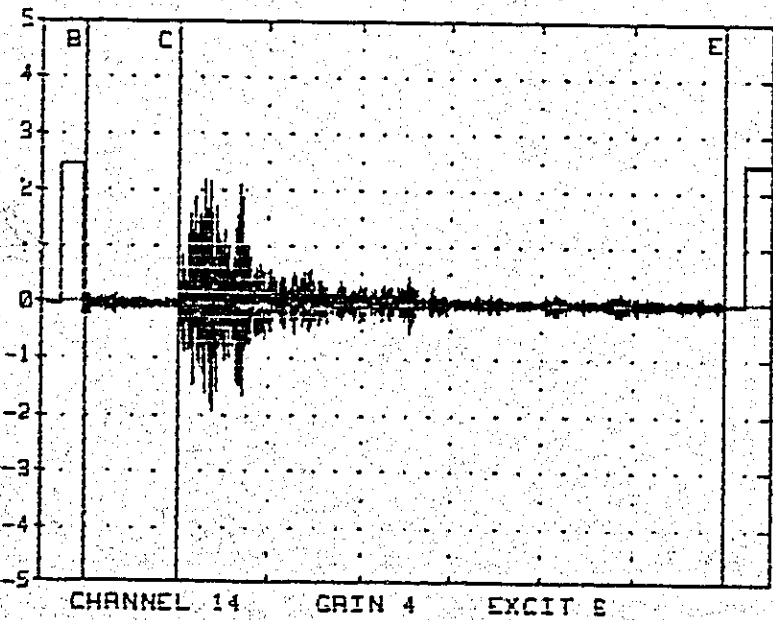
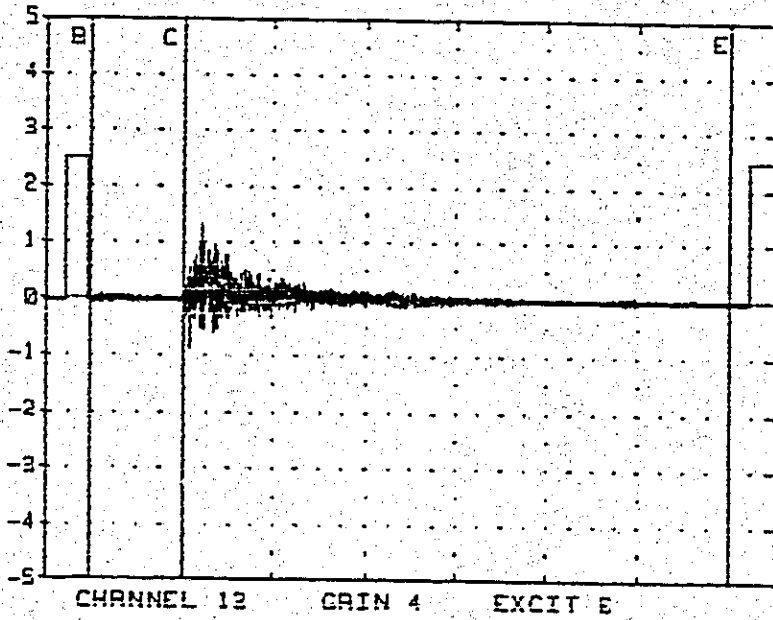
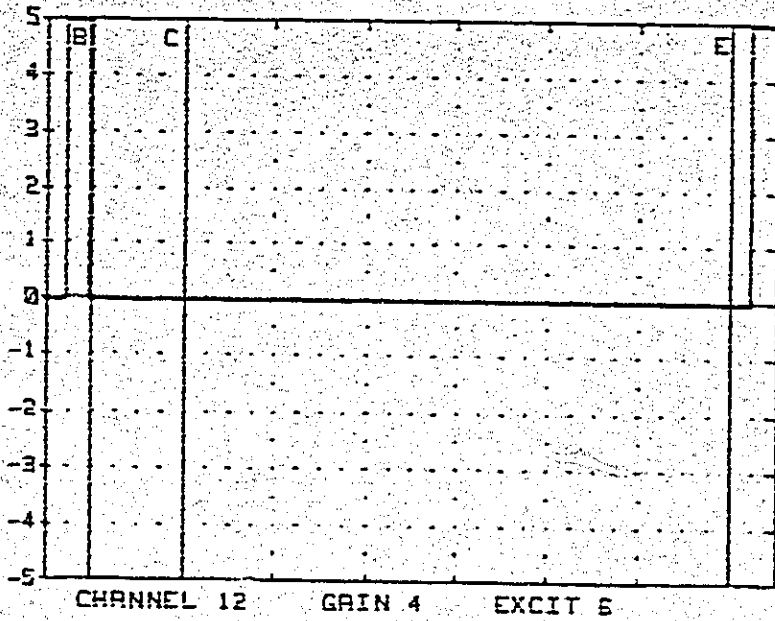
ACCEL. OFFSET





ACCEL IN-LINE AMP
WAVE PRODUCING 60HZ
3.7V_{p-p} NOISE WHEN
SHOCKED.





FINAL BUILD-UP CHECK LIST FOR REAR IMPACT

TEST NUMBER 3918, TEST ENGINEER RASMUSSEN

INITIAL WORK AS COMPLETED

- INSTALL DMMIES; LF AD-46, RF AD-67.
- CHECK VEHICLE ATTITUDE
- TAKE PRE-TEST Z, VERTICAL DIMENSIONS AND RECORD ON Z (II-3) DIMENSION SHEET
- PRE IMPACT PHOTOGRAPHS TAKEN (T.E. INITIAL)

SPECIAL INSTRUCTIONS

BRAKE ABORT SYSTEM MUST BE PURGED OF AIR AND PRESSURIZED ON TEST DAY.

- ABORT UNIT NUMBER 3 INSTALLED
- PURGE SYSTEM OF AIR
- PRESSURIZE SYSTEM TO 1400 PSI (700)
- RECORD PRESSURE AFTER TEST FIRING; 1500 PSI
- RECORD ACCUMULATOR DROP-OFF PRESSURE; 600 PSI
- BLEED SYSTEM AND PRESSURIZE TO 1400 PSI MINIMUM
- RECORD SYSTEM PRESSURE _____ PSI AND DATE; _____
- OPEN HAND VALVE TO ABORT
- OPEN BLEEDER VALVE (VALVE MUST BE CLOSED FOR TEST)
- VEHICLE READY FOR TEST (T.E. INITIAL)

STYRENE BUSINESS FORMS INC 27

VEHICLE CRASH TEST BUILD-DOWN CHECK LIST

TEST NUMBER 3918 TEST ENGINEER RASMUSSEN DATE 1/1

INITIAL WORK AS COMPLETED

INSTRUMENTATION RELEASE FOR BUILD-DOWN (T.E. INITIAL)

e/s

REMOVE DUMMIES

e/s

REMOVE BRAKE ABORT SYSTEM

e/s

REMOVE SWITCHES, SLOWBURNS, SLOWBURN BOARD, CABLES

e/s

REMOVE BALLAST

e/s

TAKE POST DIMENSIONS

W

~~TRAIL MEASUREMENTS SILL TARGETS AND RECORD ON FORM X (II-1) DIM)~~

W

~~BUCKET~~

Cool

REMOVE SCREWED ON TARGETS

Cool

PERFORM STATIC ROLL

W

~~REMOVE HOSE AIR CLEANER~~

~~W~~

~~PRESSURE CHECK FUEL SYSTEM, 2 INCHES OF WATER~~

~~W~~

~~FOR 2 MINUTES.~~

~~W~~

~~RUN ELECTRIC FUEL PUMP FOR 2 MINUTES, CHECK FOR FUEL~~

~~W~~

~~LEAKS~~

Cool

DRAIN FUEL SYSTEM

Cool

REINSTALL ROD OR PLACE INSIDE VEHICLE

Cool

PREPARE VEHICLE FOR SHIPMENT

SPECIAL INSTRUCTIONS-

MOORE BUSINESS FORMS INC. 27

VEHICLE CRASH CHECK LIST FOR IMPACT BUILD-UP, REAR IMPACT

TEST NUMBER 3918, V.I.N. 1JCML774* [REDACTED] ITEM NUMBER 8XJ29CHARGE # 5328Q18 TEST ENGINEER RASMUSSENTEST SPEED 30 MPH, TEST TYPE - REAR WITH TYPE 4 MOVING BARRIER

INITIAL WORK AS COMPLETED

- CHECK CAR BRAKING WITH SPIKE STOP
- CLEAN VEHICLE AS NECESSARY
- VERIFY V.I.N. 1JCML774JJ [REDACTED] PLATE ON INSTRUMENT PANEL
IF DIFFERENT NOTIFY THE TEST ENGINEER
- LL STENCIL TEST NUMBER ON CAR PER FORM 807
- L4K TIRE PRESSURE; FRONT ..3.3, REAR ..3.3
- PLACE SEAT IN TRACK SEATING POSITION AND MARK ON SILLS
- L-K DRAIN VEHICLE FLUIDS; MASTER CYLINDER, RADIATOR,
 ENGINE, TRANSMISSION, AXLE(S), WASHER BOTTLE,
 OVERFLOW BOTTLE, POWER STEERING, A/C, TRANSFER CASE ✓
- INSTALL NEW OIL FILTER
- REMOVE GASOLINE FROM FUEL TANK
- INSPECT FUEL LINES AND SYSTEM FOR MISSING CLAMPS OR DEFECTS
- LL DRAIN BATTERY
- LL CHECK SEAT BELT SYSTEMS FOR OBVIOUS ASSEMBLY ERRORS
- LL INSTALL BRAKE ABORT SYSTEM NUMBER 3
- LL REMOVE ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2
- LL PAINT ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2
- LL SEE SUPPLEMENTAL BUILD-UP FORM I-2 FOR SPECIAL INSTRUCTIONS
- LL INSTALL BRAKE ABORT CABLE FITTING LEFT FRONT FENDER
- LL INSTALL UMBILICAL CABLE FITTING RIGHT FRONT FENDER
- LL TAPE REAR WINDOWS, REAR SIDE WINDOWS, AND TAIL LIGHTS
- LL INSTALL TARGETS PER TARGET LAYOUT SHEET
- LL TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM.
SHEET
- LL TRAMMEL MEASURE ANALYSIS TARGETS AND RECORD ON FORM X (II-1) DIM.
SHEET
- ✓ TAKE X AND Y DIMENSIONS AND RECORD ON X (II-1) AND Y (II-2)
DIMENSION SHEETS
- ✓ FILL FUEL TANK WITH 21.8 GALLONS OF .767 SG STODDARD SOLVENT
OR
- ✓ CHECK CAR BUILD UP WEIGHT AND ADJUST AS NECESSARY
- ✓ INSTALL 300 POUNDS OF LUGGAGE BALLAST
- LL PRESSURE CHECK FUEL SYSTEM PRE-TEST
- LL TETHER SPARE TIRE
- LL PLACE INCH TAPE ON ϕ OF FUEL TANK
- ✓ MUSTAFA KHALIFA WILL BALLAST THIS VEHICLE

SUPPLEMENTAL BUILD-UP FORM

TEST NUMBER 3918

PAINT ITEMS AS SPECIFIED REMOVE ITEMS AND SCRAP UNLESS NOTED

SPARE TIRE MOUNTING BRACKETS - BLUE

SPARE TIRE INSIDE VEHICLE

REAR RAILS - YELLOW

REAR AXLE - ORANGE

FUEL TANK - WHITE W/FLO. RED OUTLINE ALSO TRANSVERSE CREASE (VC 3790)

FUEL TANK STRAPS - GREEN

FILLER TUBE, FILL TUBE OPENING AND REAR WHEEL SPOT - FLO. RED

NOTE PAINT FILL TUBE DOWN TO WITHIN 4 INCHES OF THE GROMMET THEN MARK WITH A MAGIC MARKER 1/4 INCH DIVISIONS UP THE FILL TUBE 4 INCHES FROM THE GROMMET

NOT POSSIBLE WITH TANK-FILLER ON JEEP

REAR AXLE SWAY BAR - GREEN

INSIDE OF FRAME RAILS - YELLOW

STABILIZER BAR - GREEN

SHOCKS BLUE

TRACK BAR - FLO RED

TRACK BAR BRKT - YELLOW

TARGET WEIGHTS: 3666 TOTAL, 2005 FRONT, 1661 REAR, MAX OPTION WEIGHT

OTHER INSTRUCTIONS:

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

ITEM 8XJ29 CHARGE NO. 5328018 ISSUE DATE 6-6-89

VC **3918** 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE _____ ENGINEER **RASMUSSEN**
SPEED _____ MPH SOURCE _____

TEST PURPOSE PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.5 MPH
DAMAGE LOCATION; REAR
IMPACT TYPE; TYPE IV
BARRIER SURFACE; PLYWOOD
DIRECTION; 0 DEGREES

VEHICLE BODY CLASS; XJ
CAR LINE; J
BODY; 72
ENGINE; 4.0 LITRE
ENGINE NOTE; MPI
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1JCML774*7 [REDACTED] MOD.
VIN AS BUILT; 1JCML7744JT [REDACTED] MOD.

BUILD CONDITION

POST TEST REMARKS

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST WEIGHT (LBS) _____ TOTAL, _____ FRONT, _____ REAR

FUEL BALLAST 21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

OTHER BALLAST _____

OCCUPANTS LEFT FRONT 50TH MALE UNINSTRUMENTED. AD NO _____
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD NO _____
RESTRAINT-UNIBELT

MECHANICAL REQ TARGET VELOCITY-30.5 MPH.
REQUIRED- PRESSURE CHECK FUEL SYSTEM PRE-TEST &
STATIC ROLLOVER POST-TEST.
ELECTIC FUEL PUMP TO BE RUNNING DURING TEST.
TETHER SPARE TIRE.
TARGET VEHICLE PER 3RD SHEET NO. 102.
PAINT SIDE OF FRAME RAILS AT KICK-UP IN SIDE
VIEW. PLEASE INCREASE LIGHTING.
PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
TANK IN CONTRASTING COLORS.
BALLAST OF THIS VEHICLE WILL BE MADE BY STRUCTURE
ENGINEERING "MUSTAFA KHALIFA" 6-2474 OR 6-3506.
PLEASE INFORM MUSTAFA ONE DAY AHEAD.
ADD EVENT MARKER TO INDICATE INITIAL IMPACT OF
FUEL TANK TO DIFFERENTIAL.
FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
CHUCK ALANIZ (6-3871 OR 2-8185).
PLACE INCH TAPE ON CENTERLINE OF FUEL TANK.
HIGHLIGHT FUEL TANK TRANSVERSE CREASE AT TANK
ELEVATION CHANGE AS WELL AS TANK PERIMETER, SEE
VC 3790.

INSTRUMENTATION REQ SEE 3RD SHEET NO.102 FOR ACCELEROMETER REQMS
AND LOCATIONS.
ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

PHOTOGRAPHIC REQ 1-OVERALL CAMERA, RT SIDE, TO VIEW VEHICLE AND
BARRIER FACE AT IMPACT.
1-CATWALK CAMERA TO VIEW ENTIRE VEH. AT IMPACT.
1-LT SIDE CAMERA TO VIEW DYNAMIC CRUSH.
1-LT SIDE CLOSE-UP VIEW OF THE DAMAGE AREA.
2-PIT CAMERAS, ANGLED VIEWS OF FUEL TANK AND SUR-
ROUNDINGS.
2-CLOSE-UP CAMERAS 1LT/1RT TO VIEW FRAME RAILS
IN SIDE VIEW AT KICK-UP.
1-PIT CAMERA FOR CLOSE-UP VIEW OF FUEL TANK.
1-VELOCITY ANALYSIS CAMERA.
1-PANNING CAMERA.

FILM ANALYSIS MOVING BARRIER VELOCITY, ONLY IF REQUESTED.
UNDERBODY MOTION, ONLY IF REQUESTED.
DYNAMIC CRUSH.

REMARKS TEST REQUEST ORIGINATOR: JOHN SCHERDEN 822-9075.
PLEASE DO NOT REMOVE ANY PART OF VEHICLE PRE OR
POST-TEST.

T. E. REPORT NOT REQUIRED.

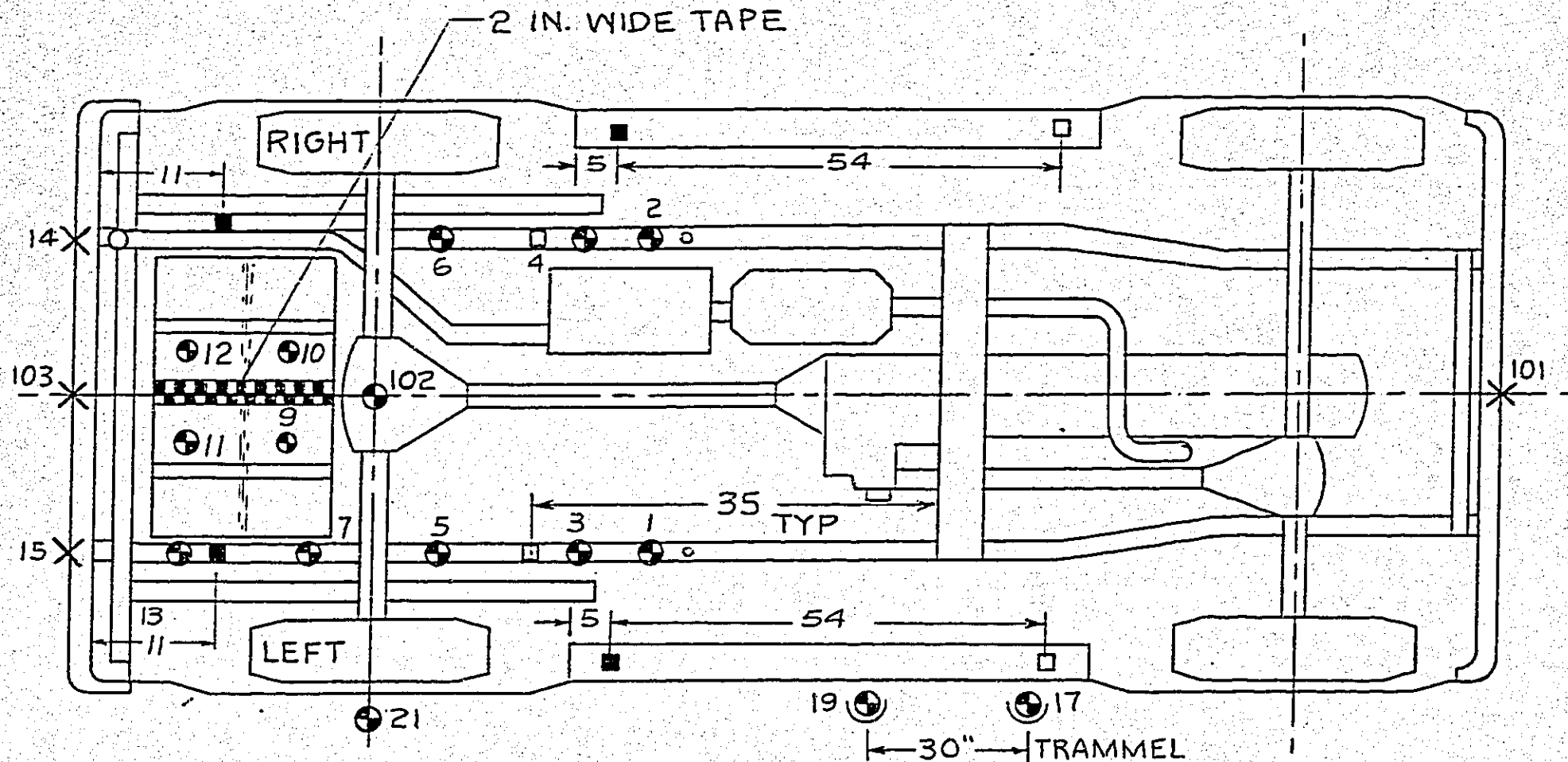
REPORT CODES A = TRANSDUCER DATA B = ALL FILM DATA
C = HIGH SPEED FILM D = ENGINEER'S REPORT
E = DUMMY KINEMATICS F = STEERING COLUMN
G = UNDERBODY H = A-POST
I = DYNAMIC CRUSH J = ENGINE COMPARTMENT
K = DOOR CRUSH L = FORCE/CRUSH/ENERGY
M = SPECIAL

DISTRIBUTION W.W. KOEBNICK 422-05-01 (AB)
H.G. ROULEAU 422-05-01 (AB)
M.W. CROSSMAN 422-05-01 (B)
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L.C. MILLER 514-00-00 (AB)
E.A. ZYLIK 514-15-17 (AB)

THIRD SHEET 102, ITEM 8XJ29, VC 3918
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS

ZENONS REQD ON ROOF

ELEC FUEL PUMP TO BE
 RUNNING DURING IMPACT



TARGETS X PUNCH POINT
 ⊕ UNDERBODY
 ⊕ SIDE VIEW

N O T E S -

1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
3. TARGETS MAY BE DELETED BY NUMBER PER TR.
4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.

LEGEND

ACCELEROMETERS □ SINGLE AXIS, X
 ■ BIAXIAL, X & Z

DAILY VEHICLE CRASH LOST TIME (PONC) LOG
FOR MECHANICAL BUILD UP AND BUILD DOWN

TEST VC- 3918

TEST ENGINEER- RASMUSSEN

DATE ___/___/___ THROUGH ___/___/___

TIME LOST TO NEAREST 10TH	REASON (SEE EXAMPLES BELOW)	OTHER PERSONNEL AFFECTED

EXAMPLES OF LOST TIME; WAITING FOR DIRECTION FROM ENGINEER,
WAITING FOR DIRECTION FROM DESIGN AREA, NEEDED ADDITIONAL
TECHNICIAN SUPPORT BUT TECHNICIAN WAS NOT AVAILABLE, JOB
ASSIGNMENT CHANGED....

(VCLOST)

PHOTOGRAPHS FROM TEST NUMBER VC3918
OF V.I.N. 1J4FJ57L3M8
TEST DATE 06/15/89
TEST SPEED 30.7 MPH
TEST TYPE: 30 MPH REAR TYPE IV MOVING BARRIER
TEST PURPOSE 1991 MVSS 301 DEVELOPMENT

PLEASE CIRCULATE ATTACHED PHOTOGRAPHS TO
W. W. KOEBNICK M. A. BOWEN
H. G. ROULEAU PAT TO FILE

MOORE BUSINESS FORMS INC. 27

TEST NUMBER VC3918 V.I.N. 1J4FJ57L7M* [REDACTED] EST. ENGINEER RASMUSSEN

NEGATIVE NUMBER	PRE COV.	POST COV.	DESCRIPTION
8789-4863	✓		RIGHT REAR QUARTER
4864	✓		RIGHT SIDE OVERALL
4865		✓	RIGHT REAR QUARTER
4866		✓	RIGHT SIDE OVERALL
4867	✓		LEFT SIDE OVERALL
4868	✓		LEFT REAR QUARTER
4869		✓	RIGHT SIDE OVERALL
4870		✓	LEFT REAR QUARTER
4871	✓		REAR
4872		✓	REAR
4873		✓	LEFT REAR CRUSH
4874		✓	RIGHT REAR CRUSH
4875	✓		FUEL FILL TUBE CAP
4876		✓	FUEL FILL TUBE CAP
4877	✓		CARGO AREA
4878		✓	CARGO AREA
4879	✓		REAR UNDERBODY
4880	✓		REAR UNDERBODY
4881		✓	REAR UNDERBODY
4882		✓	REAR UNDERBODY
4883	✓		LEFT REAR RAIL UNDERBODY DETAIL
4884		✓	LEFT REAR RAIL UNDERBODY DETAIL
4885		✓	LEFT REAR RAIL UNDERBODY DETAIL SIDE VIEW

TEST ASSURANCE PARAMETERS & POST TEST CRITIQUE

TEST TYPE: 30 MPH, REAR TEST VEHICLE XJ72, 4.0L I6

VC TEST 03918 TEST DATE 06/15/89 SHIFT 1ST 2ND

DATA CH. NO. 14 FAILED 2 OFFSET 1 SATUR. 1

OFFICIAL SPEED 30.7 (TO 1/10 MPH) ITEM NO. 8XJ29

	SYSTEM A		SYSTEM B	
COUNTER DESCRIPT.	FLUKE	FLUKE		
	<u>41289</u>	<u>41290</u>		
VEL. TRAP TIMES	<u>2</u> MS	<u>28.70</u> MS	MS	MS
VEL. TRAP SPEEDS	MPH	<u>30.747</u> MPH	MPH	MPH

SPEED MPH
 DRIVER 30.5
 ACT. NULL
 SETTING 30.65

TEST PERSONNEL ~~MANNEY~~
 ENGINEERS VC TEST RASMUSSEN/WIRTH
 ABORT: BOOTH J. MANNEY TOW
 M.C.C. R. RASMUSSEN CAL. J. MANNEY
 WALKWAY J. WIRTH
 TECHS: VAN/OBDAS G. ECKERT
 VEL. TRAP/LOAD CELL
 MECH: TOW/WINCH DRIVER J.P. LOBDELL

TIMING & EVENT
 M.C. CONSOLE ✓
 VAN/OBDAS ✓
 LOAD CELL N/A
 AD NO. 1L 461R 67

D.D.A.S. S/N 25
CONN. ORIENT. LT RT **(FT)** RR

PRELIMINARY, do not return equipment to service
 FINAL, return equipment to service after check out
NOTES ON TEST & FOLLOW-UP REQUIRED

- 1) CHANNEL 9 (RT RAIL MIDTANK X-AXIS S/N 80424) RAMP SIGNAL CHARACTERISTIC IN DATA AT ~170 MSEC. INSPECT ACCEL CABLING & INTERCONNECT SHOCK TEST ACCEL & IN-LINE AMP. TAGGED FOR OFFSET REPAIR *leg*
- 2) PLEASE WRITE-UP BATTERY BOX (OBDAS) FOR A SPLIT WELD SEAM. INFORM EARL KLEMER [SIN 8P01]
- 3) CHANNEL 7 (LT RAIL TRAIL ARM PIV X-AXIS S/N 14446) DATA IS OFFSET. SHOCK TEST ACCEL. TAGGED FOR OFFSET REPAIR *leg*
- 4) BAD IN-LINE AMP PRODUCES MM 60 HZ (3.7 V_{p-p}) SAWTOOTH WAVE FORM WHEN SHOCK TESTED. ALSO HAS AN ACCEL. OFFSET. UNIT HAS BEEN TAGGED FOR REPAIR. *tmw*

(OVER FOR ADDITIONAL NOTES)

INTER COMPANY CORRESPONDENCE

FILE DCR062289

DATE 06/27/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
5320

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

DYNAMIC CRUSH ANALYSIS
VC03918 30 MPH REAR IMPACT. XJ72, 4.0L 16 MPI. ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
TEST DATE 06/15/89

TEST PURPOSE PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

VEHICLE BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4FJ57L?M* [REDACTED] MOD.
VIN AS BUILT: 1JCML7744JT [REDACTED] MOD.


TEST SPEED 30.7 MPH BY ELECTRONIC TRAP TIMER

TEST WEIGHT (LBS) 4286 TOTAL, 2240 FRONT, 2046 REAR

OCCUPANTS LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-46
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-67
RESTRAINT-UNIBELT

BUILD CONDITION





TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
70 LB ON FRONT LEFT FOOTWELL AND 70 LB ON RIGHT
FRONT FOOTWELL AND 150 LB ON REAR FOOTWELL

DYNAMIC CRUSH, PITCH, AND REAR WHEEL MOTION RELATIVE TO THE FRONT
SILL HAVE BEEN DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON
CAMERA TIMING DATA.

DYNAMIC CRUSH 18.1 +0R- 1 INCH AT 83. +0R- 5 MSEC.

M. Y. TRUSEL

W. J. MACINTYRE

J. W. HANIKA

CC	
G. M. ABUD	514-15-17
W. A. BREITMOSER	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. R. HARBAUGH	418-42-22
W. W. KOEBNICK	422-05-01
L. C. MILLER	514-00-00
E. A. ZYLIK	514-15-17
M. D. HAFELEIN	422-05-01

GRAPHS - 4

G L O S S A R Y O F T E R M S

U S E D I N S T A N D A R D R E P O R T S

AD	ANTHROPOMORPHIC DEVICE
ADT	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
BCD	BINARY CODED DECIMAL
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCW	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MM (MINUS INITIAL LENGTH)
CORR-P	CORRECTED (ZEROED) PITCH
CORR-R	CORRECTED (ZEROED) ROLL
CORR-Y	CORRECTED (ZEROED) YAW
CW	CLOCKWISE
EFI	ELECTRONIC FUEL INJECTOR
ENG	ENGINE
ENGPY	ENGINE PITCH AND YAW
FESM	FRONT END SHEET METAL
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
LBS	POUNDS
LT	LEFT
MS	MID SILL TARGET
NORMALIZE	PUT ON A COMMON BASIS
NOSE-DOWN	LEADING END BELOW TRAILING
NOSE-UP	LEADING END ABOVE TRAILING
PERF	PERFORMANCE
REF	REFERENCE
REL	RELATIVE TO (ONE-DIMENSIONAL)
ROLL-LEFT	LEFT SIDE LOWER THAN RIGHT
ROLL-RIGHT	RIGHT SIDE LOWER THAN LEFT
RS	REAR SILL TARGET
RT	RIGHT
SEP	SEPARATION OF (THREE-DIMENSIONAL)
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME.MS	TIME IN MILLISECONDS
U/B	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
XF	X-FILTERED
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW-RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

IMPACT ANALYSIS
DEPARTMENT 5320
06/27/89 07.31
TEST VC03918

VC03918 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZERØED X MOTION OF F3 REL TO FS IN BASE COORD SYS
VERSUS TIME IN MILLISECOND

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

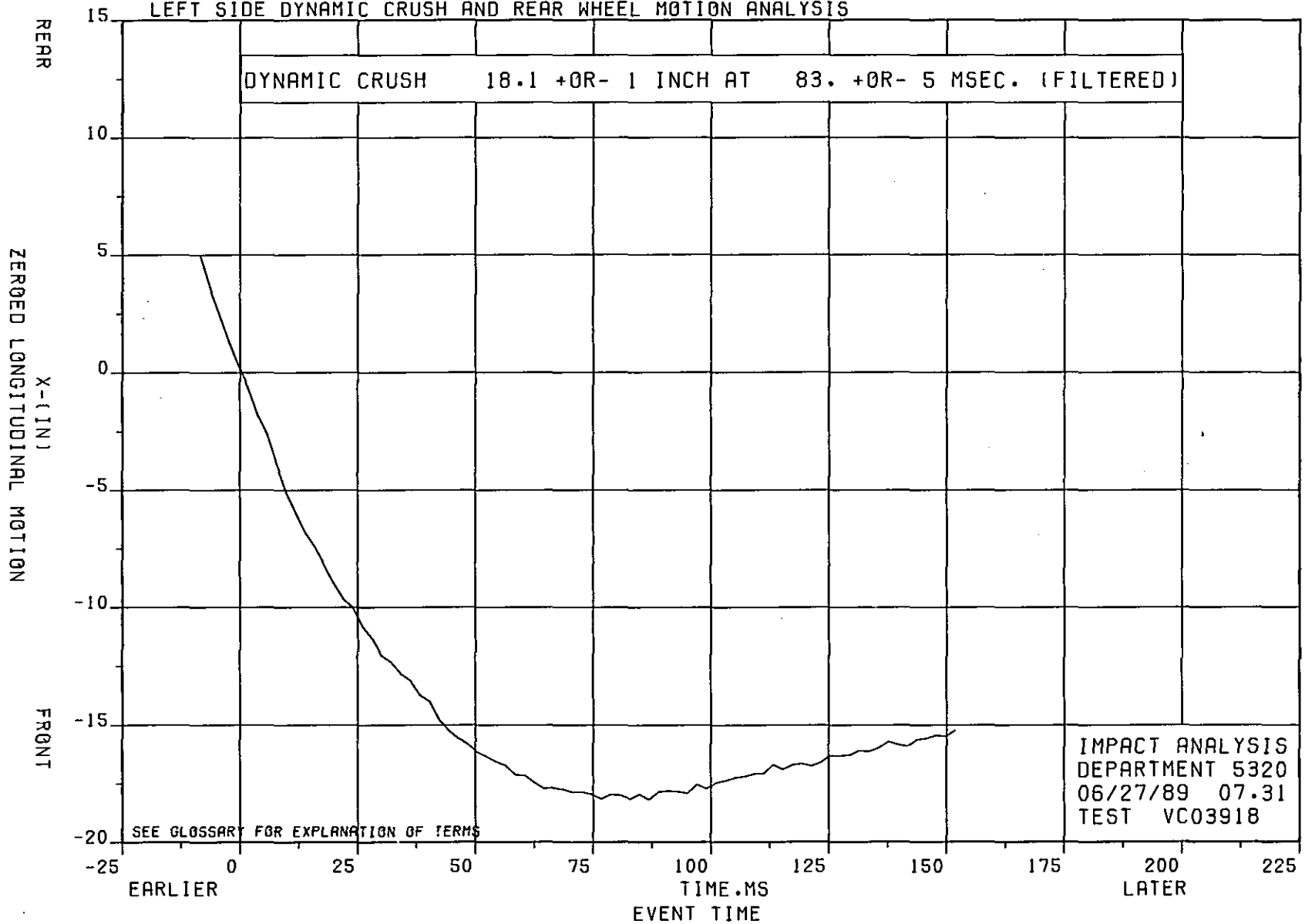


FIGURE 1

VC03918 30 MPH REAR IMPACT. XJ72, 4.0L 16 MPI. ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

ZERØED Z OF WHEEL RELATIVE TO FS IN CAR COØRD
VERSUS ZERØED X OF WHEEL RELATIVE TO FS IN CAR COØRD

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

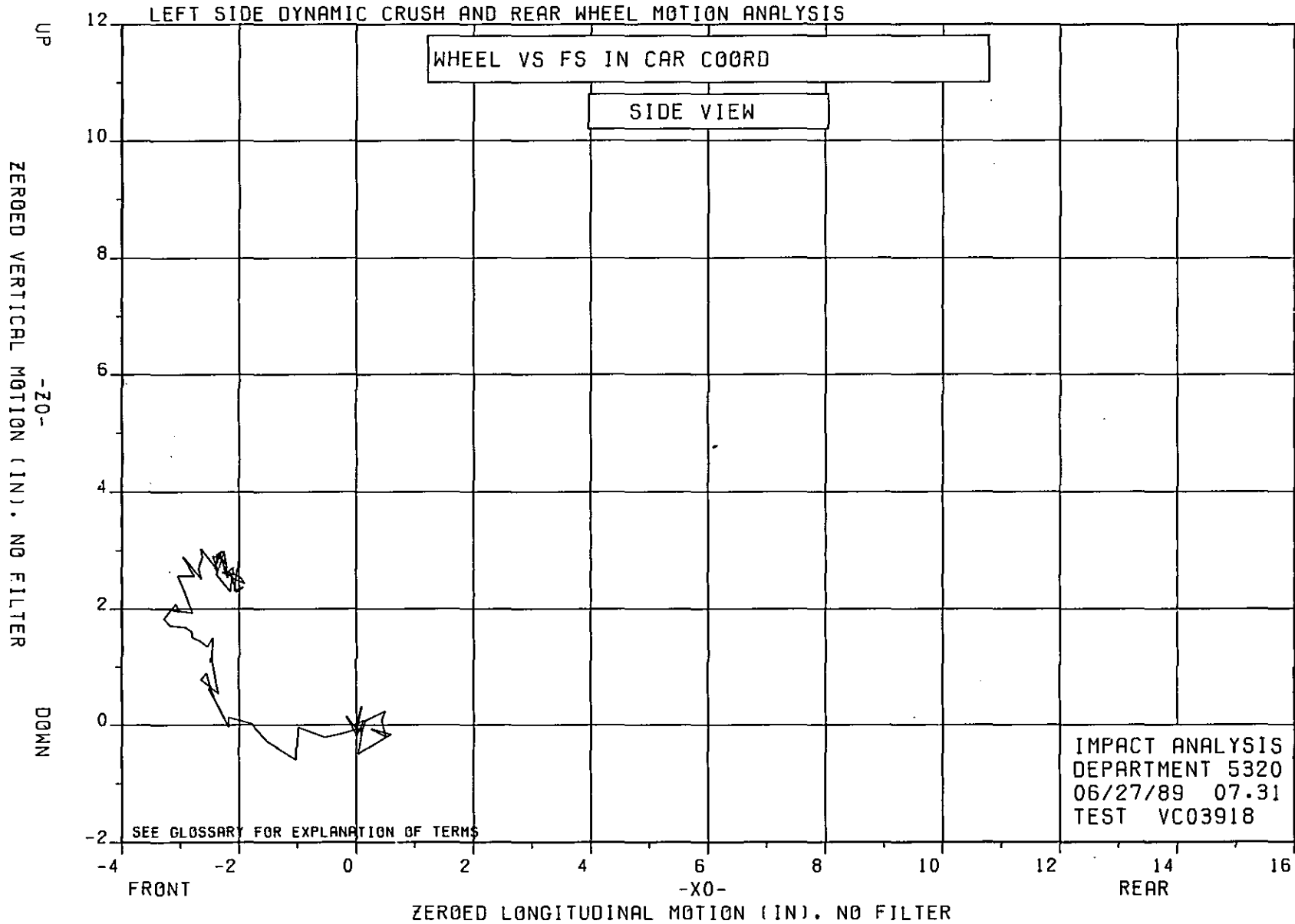


FIGURE 2

VC03918 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF MS TO FS IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

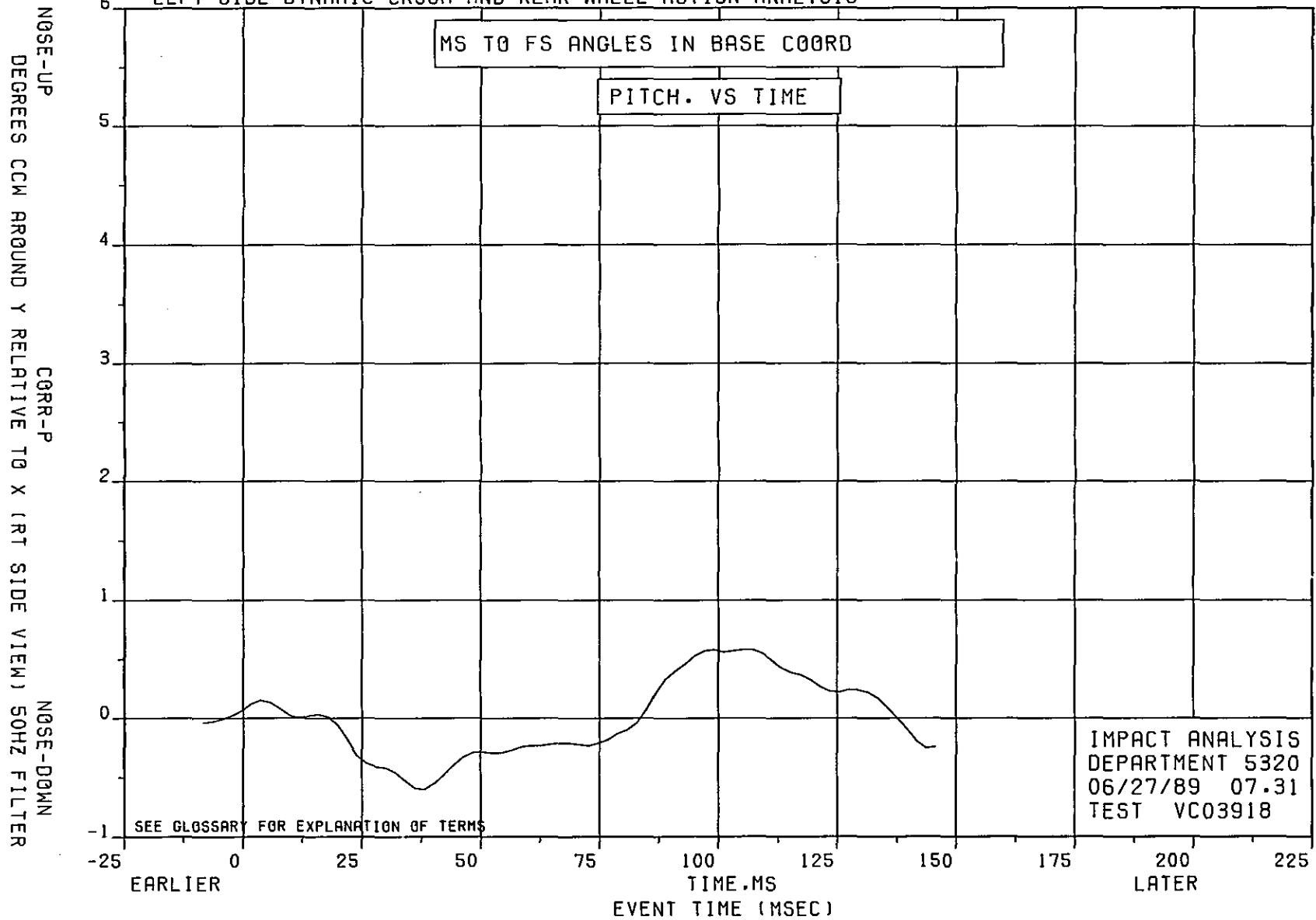


FIGURE 3

VC03918 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ29
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

MS TO FS DISTANCE -29.96 INCHES (INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

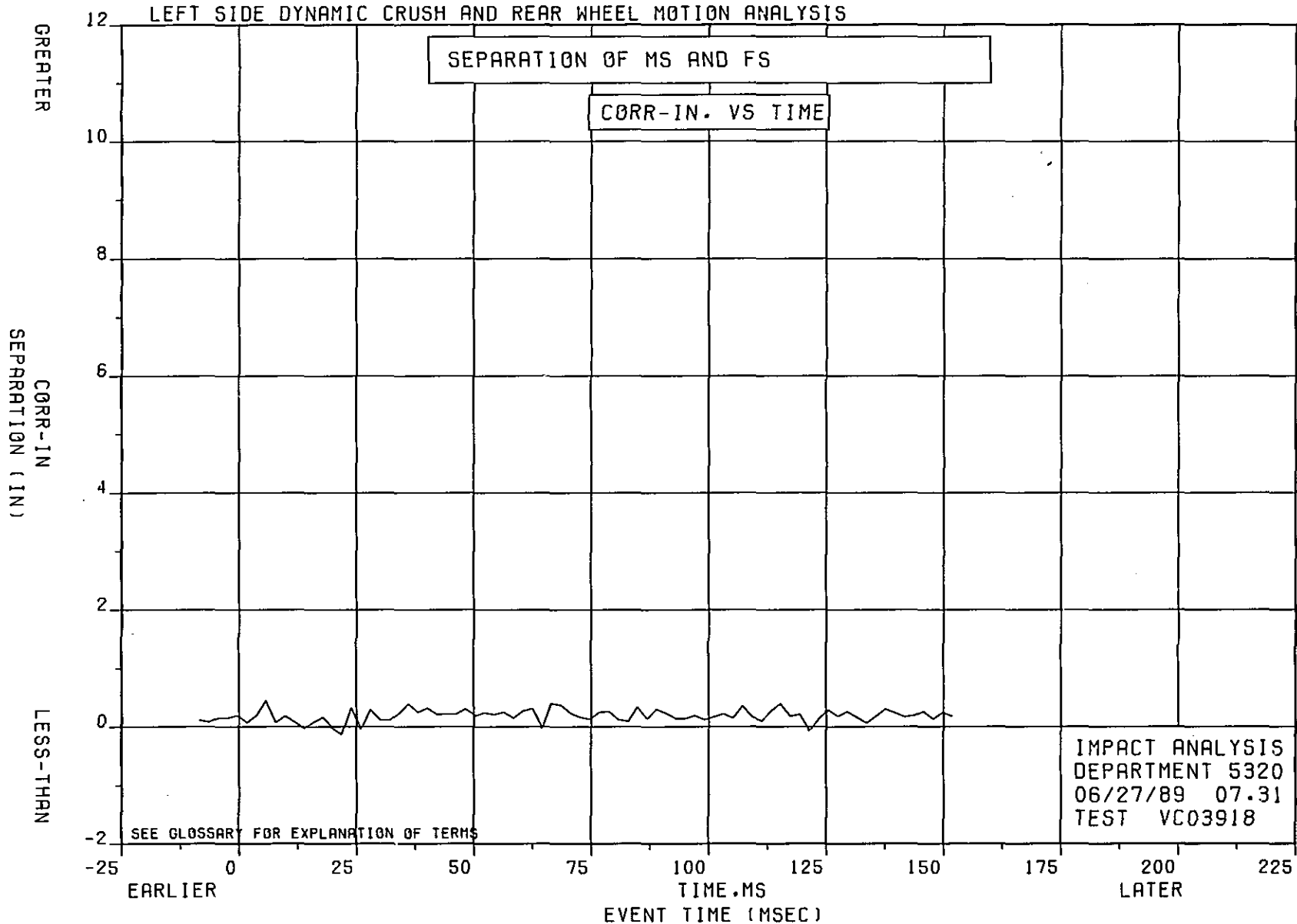


FIGURE 4

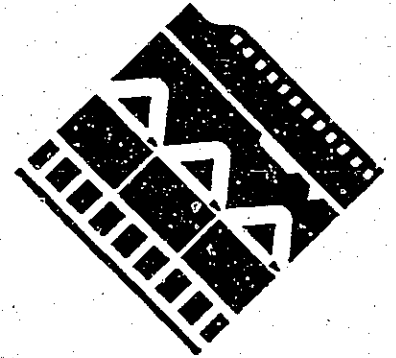
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
vc-3960 Public

Image Source Inc.

801 Front Street

Toledo Ohio 43605

419/697-1111



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Month Day

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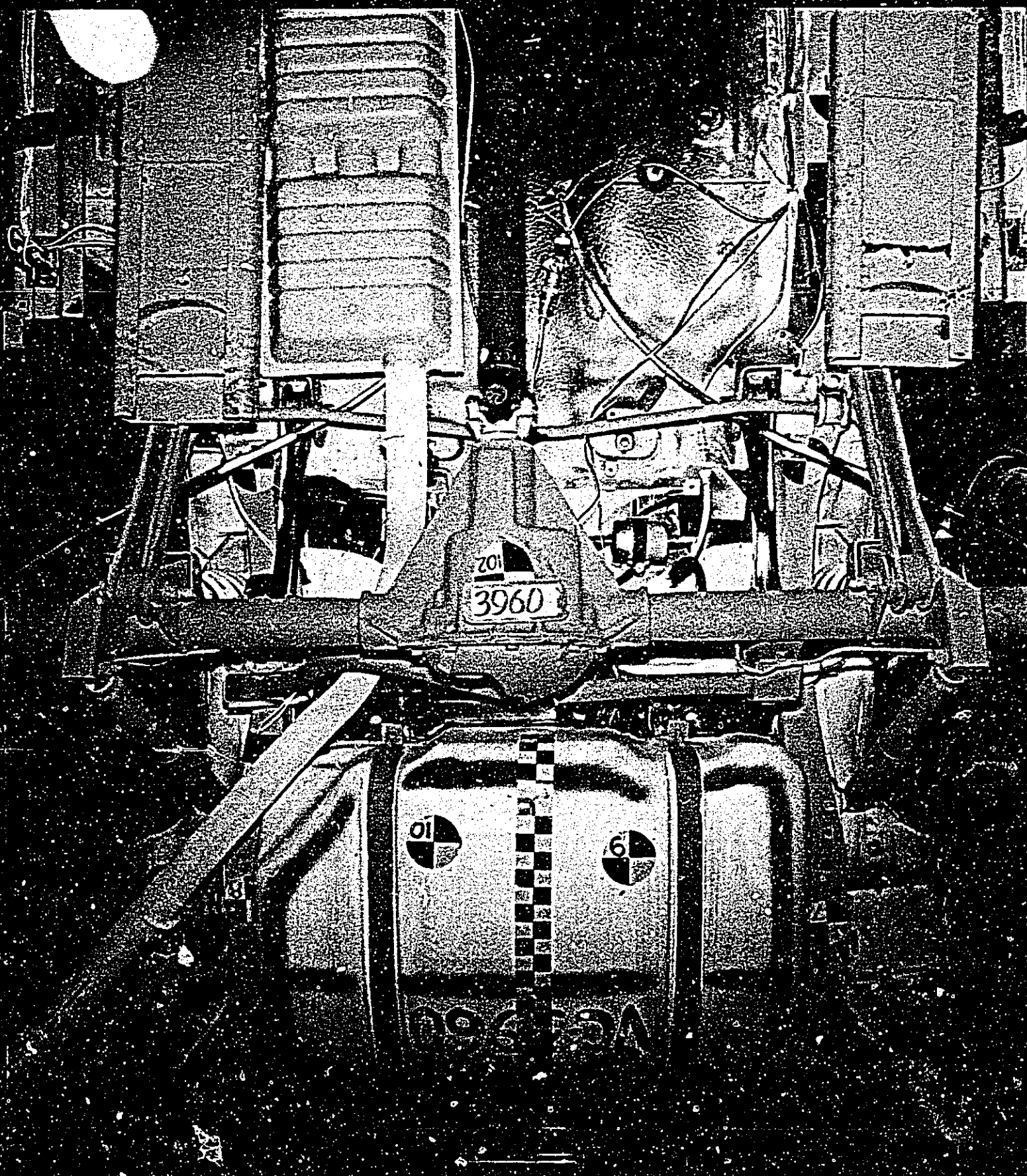
Trina J. Cardee
Signature

Camera Operator
Title

801 Front St.
Location

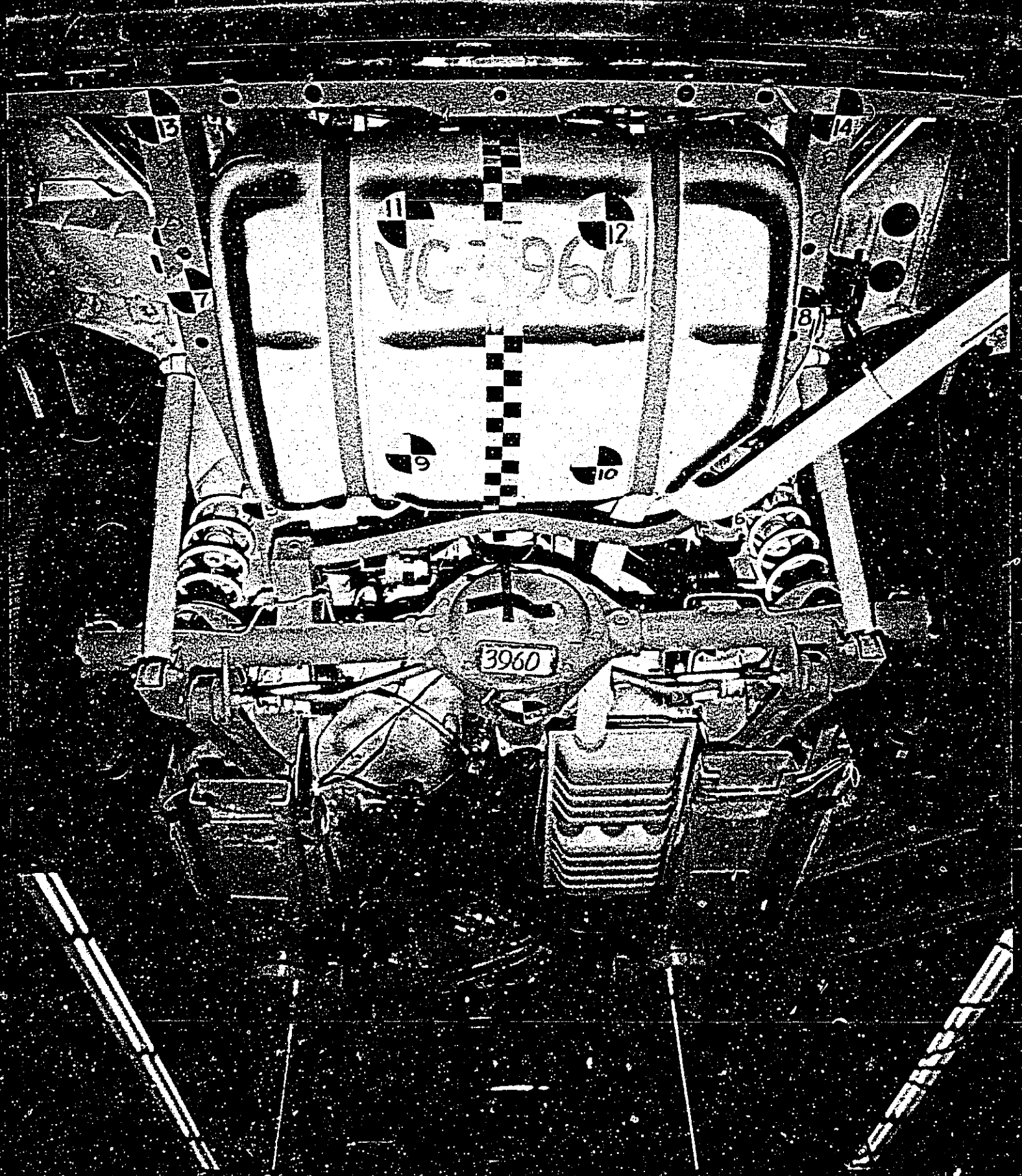
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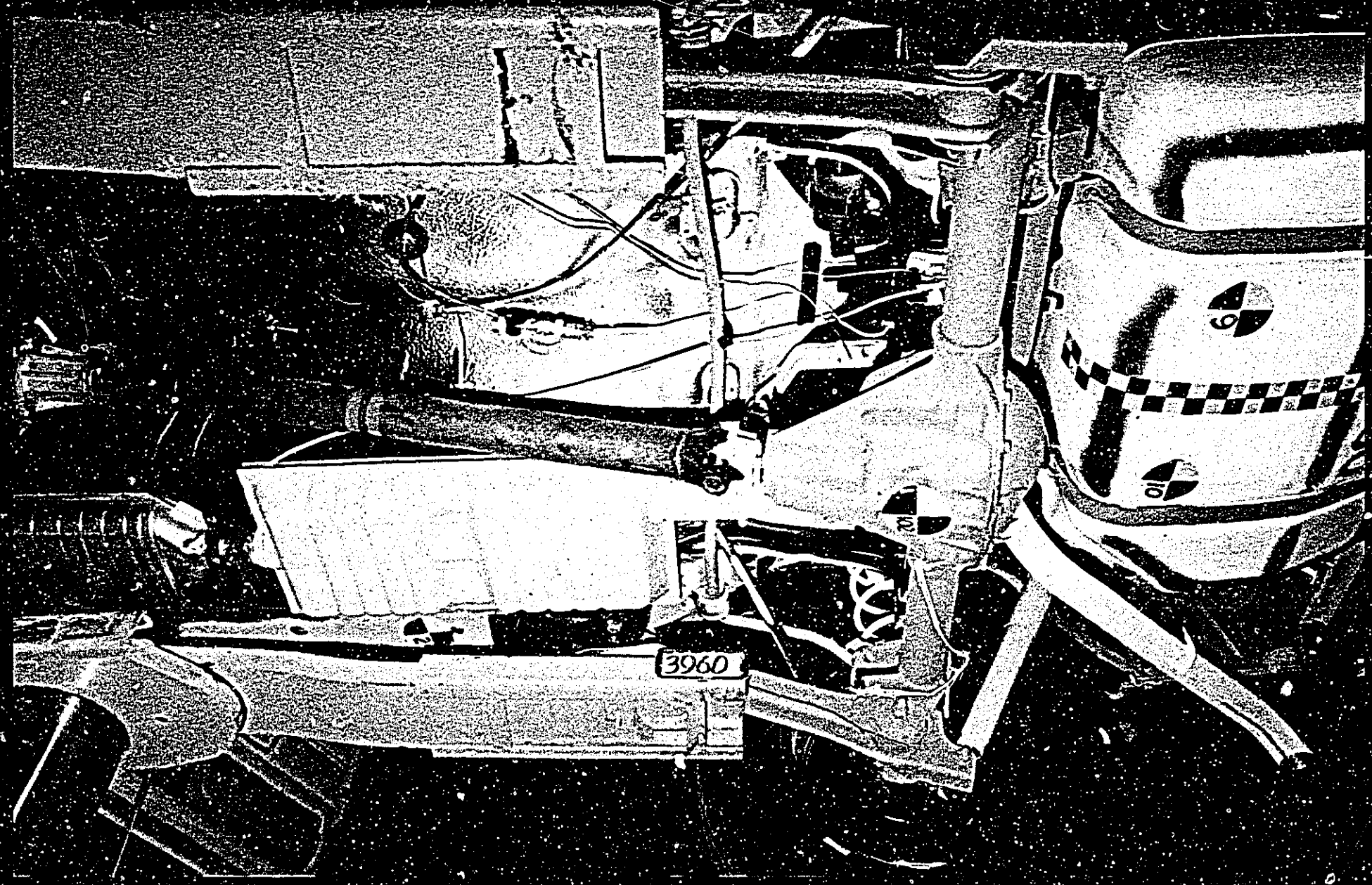
CHRYSLER

89 6363C-05



CHRYSLER

89 63630-04

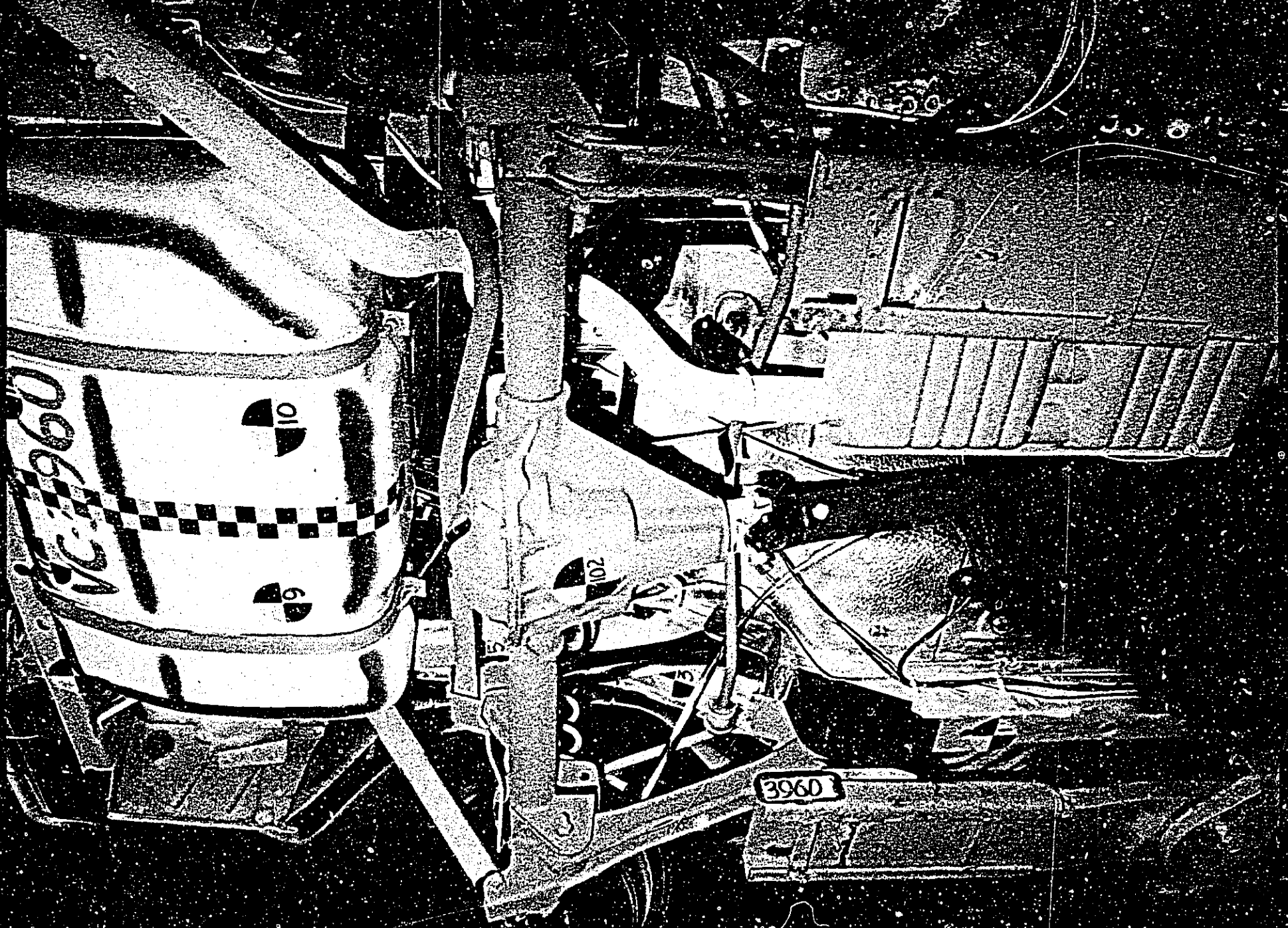


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CHRYSLER

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CHRYSLER

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CHRYSLER

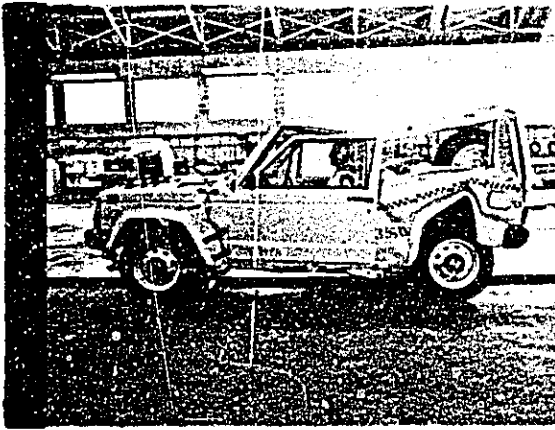
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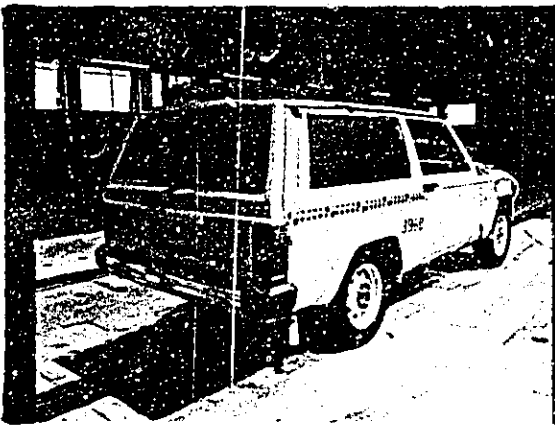
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8789-6561



8789-6562



8789-6564



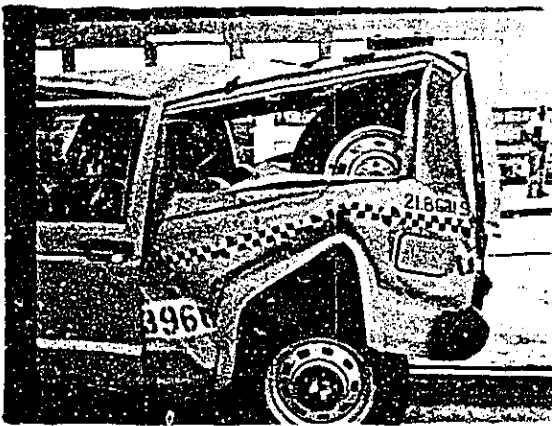
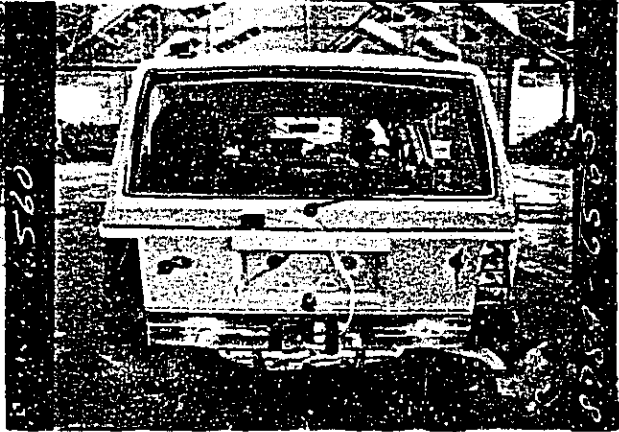
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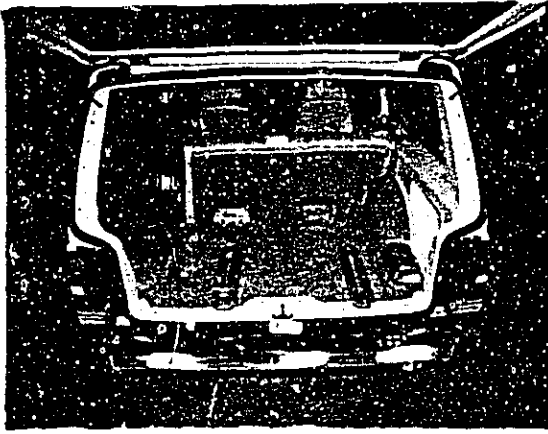


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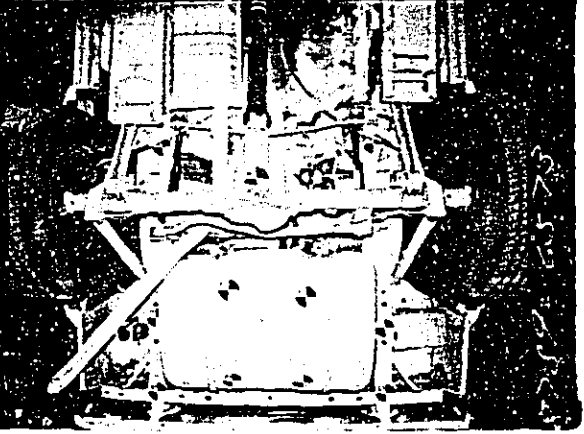


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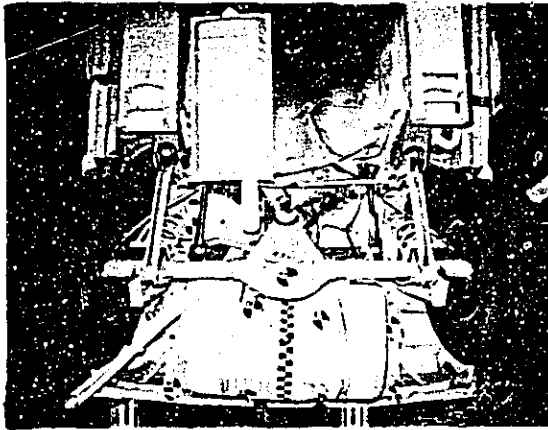




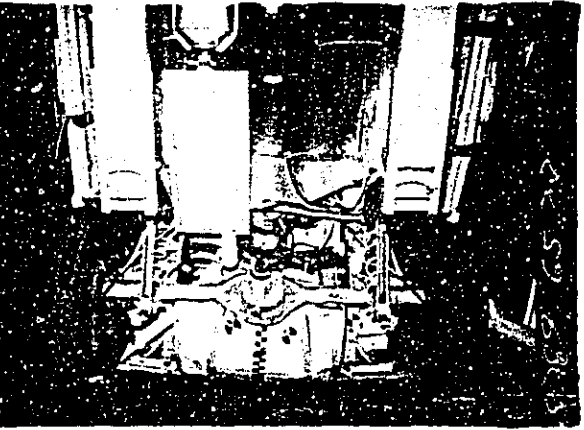
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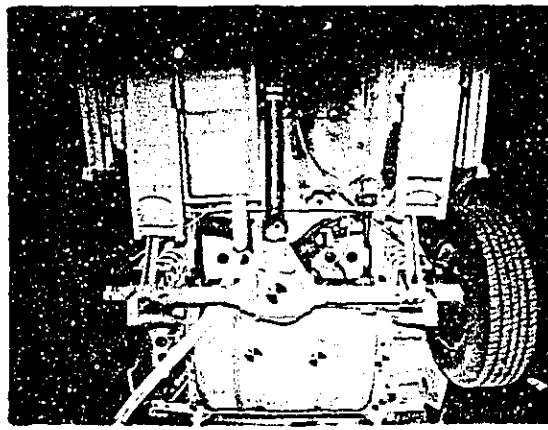
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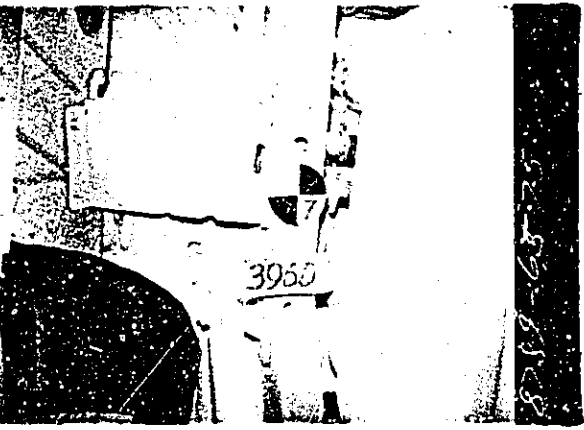
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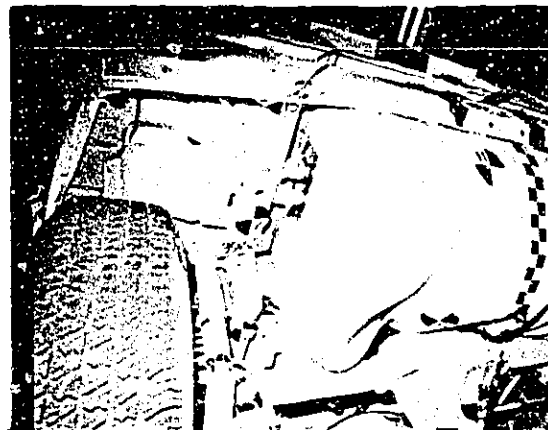
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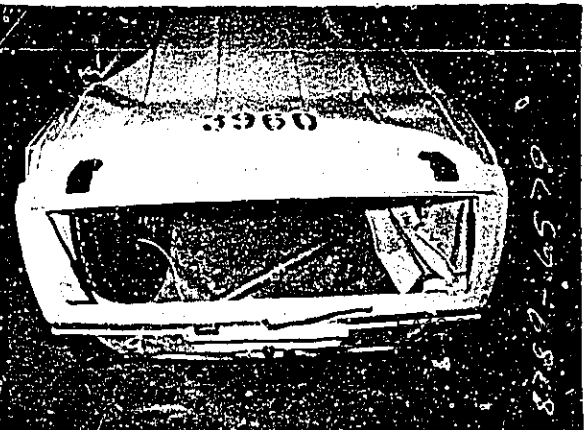
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8789-6575



8789-6578



8789-6579

SAFETY TEST
VEHICLE CRASH TEST LETTER

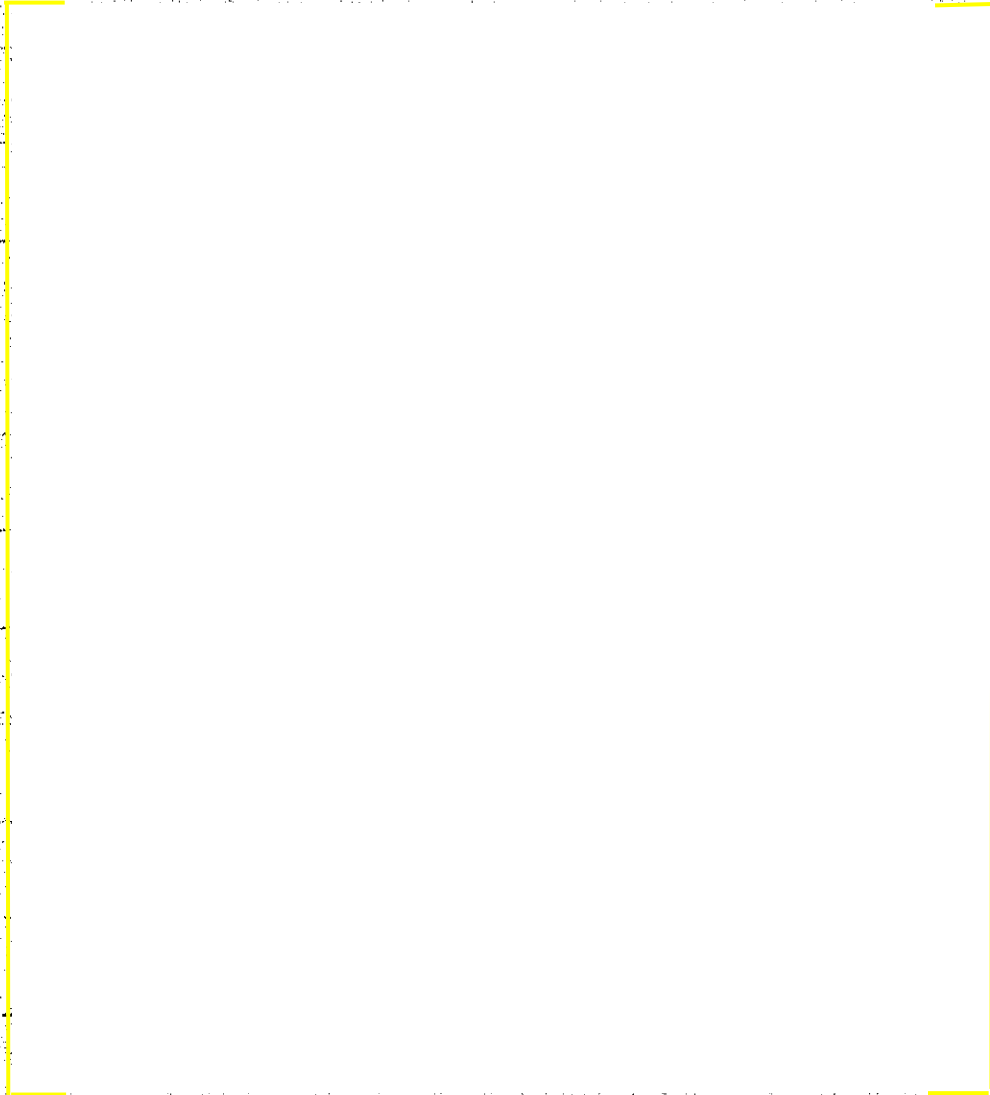
PAGE 01

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64	100
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.	110
TEST DATE 08/25/89	120
TEST PURPOSE	130
PRIMARY, 1991 MVSS 301 DEVELOPMENT.	140
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.	150
	160
	170
IMPACT TYPE	180
TARGET SPEED; 30.5 MPH	190
DAMAGE LOCATION: REAR	200
IMPACT TYPE; TYPE IV	210
BARRIER SURFACE; PLYWOOD	220
DIRECTION; 0 DEGREES	230
VEHICLE	240
BODY CLASS; XJ	250
CAR LINE; J	260
BODY; 72	270
ENGINE; 4.0 LITRE	280
ENGINE NOTE; MPI	290
TRANSMISSION; 5 SPEED MANUAL 4X4	300
TRANS. NOTE;	310
VIN AS TESTED; 1J4FJ37L?M [REDACTED] MOD.	320
VIN AS BUILT; 1J4FJ37L3K [REDACTED] MOD.	330
TEST SPEED	340
30.2 MPH BY ELECTRONIC TRAP TIMER	350
TEST WEIGHT (LBS)	360
4274 TOTAL, 2220 FRONT, 2054 REAR	370
OCCUPANTS	380
LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-27	390
RESTRAINT-UNIBELT	400
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-60	410
RESTRAINT-UNIBELT	420

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
TEST DATE 08/25/89

BUILD CONDITION



430
440
450
460
470
480
490
500
510
520
530
540
550
560
570
580
590
600
610
620
630
640
650
660
670
680
690
700
710
720
730
740
750
760
770
780
790
800
810
820
830
840
850
860
870

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST. 770
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT. 780
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA. 790
100 LB ON REAR FLOOR PAN, 70 LB ON LEFT FRONT FLOOR 800
PAN, 70 LB ON RIGHT FRONT FLOOR PAN AND 25 LB ON 810
TOP OF EACH C POST. 820
830
840
POST TEST REMARKS AN UNKNOWN AMOUNT OF FUEL LEAKED FROM THE UPPER 850
SURFACE OF THE FUEL TANK, THEN STOPPED. 860
870

SAFETY TEST
VEHICLE CRASH TEST LETTER

PAGE 03

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
TEST DATE 08/25/89

REPORT CODES	A = TRANSDUCER DATA	B = ALL FILM DATA	880
	C = HIGH SPEED FILM	D = ENGINEER'S REPORT	890
	E = DUMMY KINEMATICS	F = STEERING COLUMN	900
	G = UNDERBODY	H = A-POST	910
	I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT	920
	K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY	930
	M = SPECIAL		940

DISTRIBUTION	W.W. KOEBNICK	422-05-01 (AB)	950
	H.G. ROULEAU	422-05-01 (AB)	970
	M.W. CROSSMAN	422-05-01 (B)	980
	T.P. MAULE	422-05-01 (A)	990
	J.M. BERLINER	422-05-01 (A)	1000
	J.W. HANIKA	418-42-22 (AB)	1010
	W.A. BREITMOSER	422-05-01 (AB)	1020
	W.R. HARBAUGH	418-42-22 (AB)	1030
	G.M. ABOUD	514-15-17 (AB)	1040
	A.J. REGAN	418-42-22 (AB)	1050
	E.A. ZYLIK	514-15-17 (AB)	1060

DATE 08/25/89 TIME 12.56.10.

MOORE BUSINESS FORMS INC. 27

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

ITEM ~~8XJ64~~ **3960** CHARGE NO. 5328018 ISSUE DATE 8/11/89

VC 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

TEST DATE 08/25/89 ENGINEER MANNEY
SPEED 30.2 MPH SOURCE EEPC-FRAP

TEST PURPOSE PRIMARY, 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

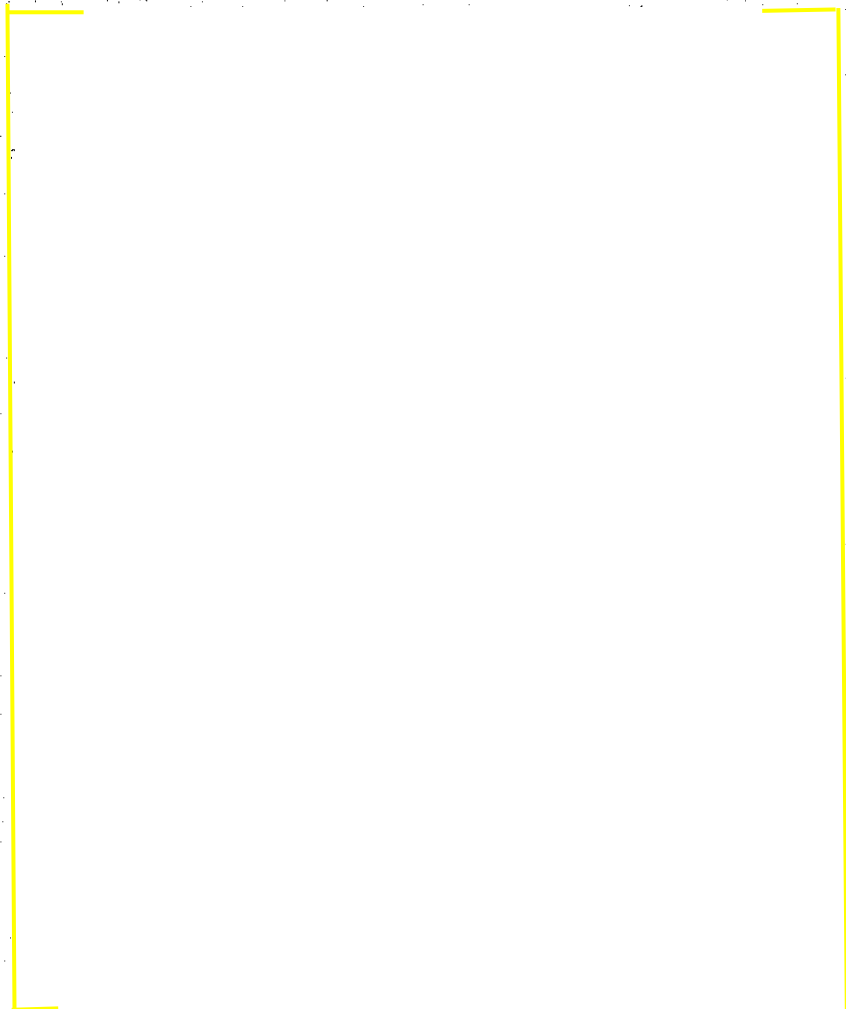
VEHICLE BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4FJ37L7M* MOD.
VIN AS BUILT: 1J4FJ37L3KL MOD.

POST TEST REMARKS AN UNKNOWN AMOUNT OF FUEL LEAKED
FROM THE FUEL TANK UPPER SURFACE
THEN STOPPED.

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

BUILD CONDITION

TARGET WEIGHT (LBS) 3666 TOTAL, 2005 FRONT, 1661 REAR, REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.TEST WEIGHT (LBS) 4274 TOTAL, 2220 FRONT, 2054 REAR

FUEL BALLAST 21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

OTHER BALLAST 100^{LB} ON REAR FLOOR PAN, 70^{LB} LF FRONT
FLOOR PAN, 70^{LB} RT FRONT FLOOR PAN
& 25^{LB} TOP OF EACH 'C' POST

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

OCCUPANTS

LEFT FRONT 50TH MALE UNINSTRUMENTED. AD NO 27
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD NO 60
RESTRAINT-UNIBELT

MECHANICAL REQ

TARGET VELOCITY-30.5 MPH.
REQUIRED- PRESSURE CHECK FUEL SYSTEM PRE-TEST &
STATIC ROLLOVER POST-TEST.
ELECTIC FUEL PUMP TO BE RUNNING DURING TEST.
TETHER SPARE TIRE.
TARGET VEHICLE PER 3RD SHEET NO. 102.
PAINT SIDE OF FRAME RAILS AT KICK-UP IN SIDE
VIEW.
PAINT REAR AXLE, STABILIZER BAR, SHOCKS, TRACK
BAR, TRACK BAR BRACKET, SIDE RAILS AND FUEL
TANK IN CONTRASTING COLORS.
BALLAST VEHICLE SAME AS VC 3918, CALL MUSTAFA
KHALIFA X-62474 OR X-63506 WITH ANY QUESTIONS
ABOUT BALLASTING.
PLACE INCH TAPE ON CENTERLINE OF FUEL TANK.
HIGHLIGHT FUEL TANK TRANSVERSE CREASE AT TANK
ELEVATION CHANGE AS WELL AS TANK PERIMETER, SEE
VC 3790.

INSTRUMENTATION REQ

SEE 3RD SHEET NO.102 FOR ACCELEROMETER REQMTS
AND LOCATIONS.
ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.
EVENT MARKER TO INDICATE INITIAL IMPACT OF FUEL
TANK TO DIFFERENTIAL.
FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
CHUCK ALANIZ (6-3871 OR 2-8185).
MONITOR TANK PRESSURE DURING IMPACT UTILIZING
VENT LINE SUPPLIED BY JTE. (VENT LINE INSTALLED
AT JTE).

PHOTOGRAPHIC REQ

1-OVERALL CAMERA, RT SIDE, TO VIEW VEHICLE AND
BARRIER FACE AT IMPACT.
1-CATWALK CAMERA TO VIEW ENTIRE VEH. AT IMPACT.
1-LT SIDE CAMERA TO VIEW DYNAMIC CRUSH.
1-LT SIDE CLOSE-UP VIEW OF THE DAMAGE AREA.
2-PIT CAMERAS, ANGLED VIEWS OF FUEL TANK AND SUR-
ROUNDINGS.
2-CLOSE-UP CAMERAS 1LT/1RT TO VIEW FRAME RAILS
IN SIDE VIEW AT KICK-UP.
1-PIT CAMERA FOR CLOSE-UP VIEW OF FUEL TANK.
1-VELOCITY ANALYSIS CAMERA.
1-PANNING CAMERA.

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

FILM ANALYSIS

MOVING BARRIER VELOCITY, ONLY IF REQUESTED.
UNDERBODY MOTION, ONLY IF REQUESTED.
DYNAMIC CRUSH.

REMARKS

TEST REQUEST ORIGINATOR: ED ZYLIK 733-2074.

PLEASE DO NOT REMOVE ANY PART OF VEHICLE PRE OR
POST-TEST.
NEW FUEL TANK - NO TRACES OF GASOLINE.

T. E. REPORT

NOT REQUIRED.

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	

DISTRIBUTION

W.W. KOEBNICK	422-05-01	(AB)
H.G. ROULEAU	422-05-01	(AB)
M.W. CROSSMAN	422-05-01	(B)
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A.J. REGAN	418-42-22	(AB)
E.A. ZYLIK	514-15-17	(AB)

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

*****CHANGED 08/21/89 AT 14.03.22. SUPPLEMENT NO. 01

MECHANICAL REQ

DELETE EVENT MARKER TO INDICATE INITIAL IMPACT OF
DELETE FUEL TANK TO DIFFERENTIAL.
DELETE FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
DELETE CHUCK ALANIZ (6-3871 OR 2-8185).

INSTRUMENTATION REQ

ADD EVENT MARKER TO INDICATE INITIAL IMPACT OF FUEL
ADD TANK TO DIFFERENTIAL.
ADD FOR SENDING UNIT BRIDGE CIRCUIT, PLEASE CONTACT
ADD CHUCK ALANIZ (6-3871 OR 2-8185).
ADD MONITOR TANK PRESSURE DURING IMPACT UTILIZING
ADD VENT LINE SUPPLIED BY JTE. (VENT LINE INSTALLED
ADD AT JTE).

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER V6396, ITEM NUMBER _____, TEST ENGINEER _____
 V.I.N. _____, TEST DATE ___/___/___, ROLL DATE ___/___/___
 FUEL: TYPE AND QUANTITY - .767 S.G. STODDARD SOLVENT, _____ GALLONS
 TEST SPEED _____ MPH, TEST WEIGHT _____ POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK -	
FILLER TUBE -	
CAP -	
FUEL FILTER -	
GROMMET -	
FUEL PUMP -	
STRAPS -	
LINES -	
AIR CLEANER -	
VALVES -	<u>ROLLOVER VALVE POPPED OUT, PER ED 2YLIK</u>

POST IMPACT LEAKAGE(OZ): AT IMPACT X, 1ST 5 MIN. 12, NEXT 25 MIN. 0
 POST TEST PRESSURE CHECK NONE

EXCESSIVE

STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME	CARB	FUEL	AIR	FUEL	FUEL	GRO	FILL	OTHER	TOTAL
	PUMP	CLEAN	TANK	FILT	MET	CAP	***		
0-90 !1ST 5 MIN!									*
!POST 5 MIN!									**
90-180 !1ST 5 MIN!									*
!POST 5 MIN!									**
180-270 !1ST 5 MIN!									*
!POST 5 MIN!									**
270-360 !1ST 5 MIN!									*
!POST 5 MIN!									**

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

0-90 !1ST 5 MIN!									*
!POST 5 MIN!									**
90-180 !1ST 5 MIN!									*
!POST 5 MIN!									**
180-270 !1ST 5 MIN!									*
!POST 5 MIN!									**
270-360 !1ST 5 MIN!									*
!POST 5 MIN!									**

EA12-005-Chrysler-009579

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE
 *** OTHER -

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POWER TRAIN AND STRUCTURAL DATA

TEST NUMBER _____
POWER TRAIN _____

ENGINE _____ (LITRE/CUBIC INCH); MODIFICATIONS _____

ENGINE TEST DAMAGE _____
THROTTLE OR SHIFT LINKAGE MODIFICATIONS _____
LINKAGE TEST DAMAGE _____

TRANSMISSION _____ AUTO, _____ MANUAL. AXLE _____
DRIVE LINE DAMAGE _____

AIR CONDITIONING (YES OR NO) _____ . BATTERY SIZE _____
OTHER MODIFICATIONS OR ACCESORIES (AIR PUMP, WATER PUMP....) _____

STRUCTURE

DOOR MODIFICATIONS _____
POST TEST DOOR OPENING EFFORT (X=AUXILIARY EQUIPMENT REQUIRED,
A=OPENS READILY, H=CAN BE OPENED MANUALLY BUT WITH MUCH DIFFICULTY)
L.F. . R.F. . L.R. . R.R. . TRUNK . TAIL GATE

OTHER DOOR COMMENTS _____
MODIFICATIONS TO THE STANDARD STRUCTURE _____

STRUCTURAL TEST DAMAGE _____

SPARE TIRE AND JACK MODIFICATIONS _____
SPARE TIRE SIZE _____
SPARE TIRE AND JACK RETENTION, AND OTHER RELATED COMMENTS _____

BUMPER SYSTEM MODIFICATIONS _____
BUMPER SYSTEM TEST DAMAGE _____

BRAKE SYSTEM MODIFICATIONS _____

BRAKE SYSTEM TEST DAMAGE _____

SUSPENSION SYSTEM MODIFICATIONS _____
SUSPENSION SYSTEM TEST DAMAGE _____

TRAILER HITCH TYPE AND MODIFICATIONS _____

MOORE BUSINESS FORMS INC. 27

TEST NUMBER _____

SEAT, RESTRAINT, INSTRUMENT PANEL, AND OCCUPANT DATA

SEATS

TYPE, MATERIAL, PRICE CLASS _____

ADJUSTERS _____

HEAD RESTRAINTS

POST TEST CONDITION _____

RESTRAINT SYSTEM

TYPE _____

POST TEST CONDITION _____

INSTRUMENT PANEL

MATERIAL; BASE PANEL AND COVER _____

GLOVEBOX

POST TEST CONDITION _____

OCCUPANT DATA

OCCUPANT DIMENSIONS RELATIVE TO TEMPLATE OR DRAWING # _____

	LEFT FRONT		RIGHT FRONT	
	X (INCHES)	Z (INCHES)	X (INCHES)	Z (INCHES)
	FWD	RWD	UP	DOWN
HEAD				
HIP				
KNEE				

OCCUPANT WITNESS MARKS _____

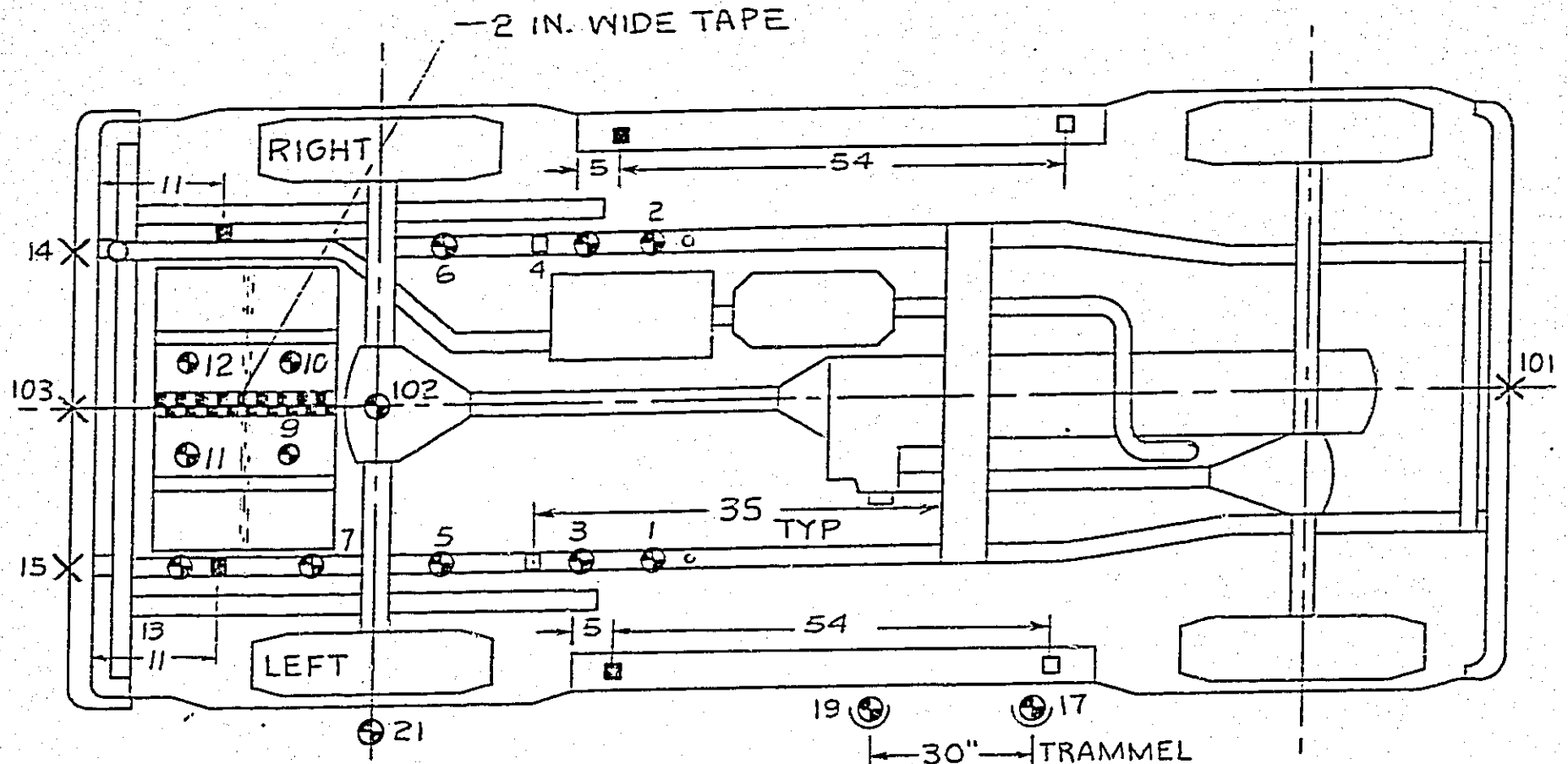
SHOULDER BELT PAYOUT- LEFT _____ IN. RIGHT _____ IN.
 LAP BELT PAYOUT- LEFT _____ IN. RIGHT _____ IN.

MOORE BUSINESS FORMS INC. 27

THIRD SHEET 102, ITEM BX164: VC 3960
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS

ZENONS REQD ON ROOF

ELEC FUEL PUMP TO BE
 RUNNING DURING IMPACT



LEGEND

TARGETS

XPUNCH POINT

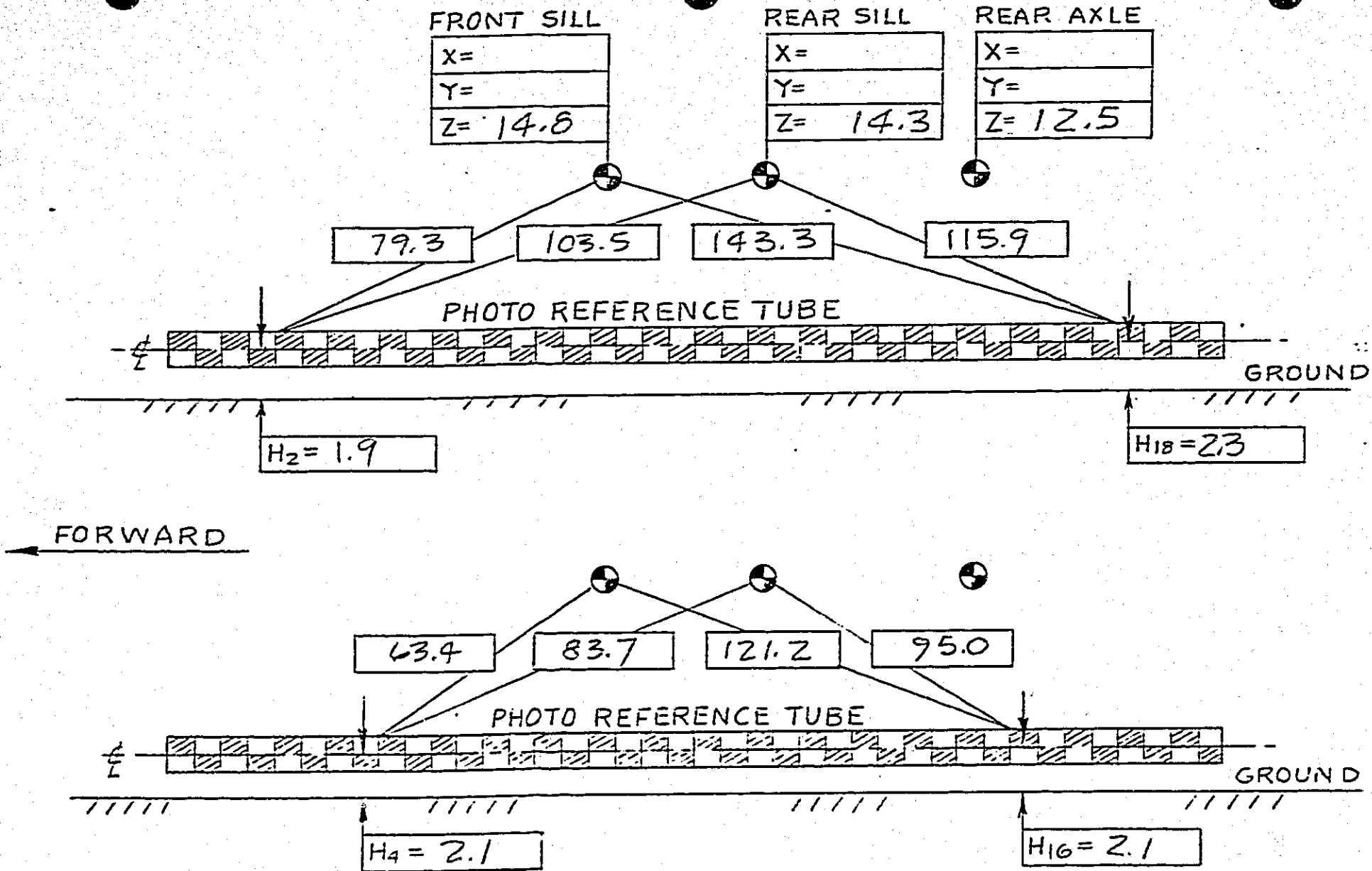
⊕ UNDERBODY

⊙ SIDE VIEW

□ SINGLE AXIS, X

■ BIAXIAL, X & Z

- NOTES -
1. PRE AND POST DIMENSIONS ARE REQUIRED PER BREITMOSER LETTER OF 01-04-88
 2. NUMBERS ASSIGNED TO EACH TARGET ARE PERMANENT.
 3. TARGETS MAY BE DELETED BY NUMBER PER TR.
 4. ADDITIONAL TARGETS MAY BE REQUESTED BY TR.
 5. LOCATIONS SHOWN ARE APPROX TO ± 0.5 IN. ACTUAL MEASUREMENT TO ± 0.1 INCH.



NOTES:

1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE.
2. IF OTHER TUBE POINTS ARE USED, SO INDICATE.

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE

TEST ENGR _____

VC 3960

EA 12-605 Chrysler-000584

TEST ASSURANCE PARAMETERS & POST TEST CRITIQUE

TEST TYPE 30 MPH REAR TEST VEHICLE XJ72 4.0L I6 MPI

VC TEST 03960 TEST DATE 8-25-89 SHIFT X1ST 2ND

DATA CH. NO. 15 FAILED 0 OFFSET 2 SATUR. 0

OFFICIAL SPEED 30.2 (TO 1/10 MPH) ITEM NO. 8XJ64

	SYSTEM A		SYSTEM B	
COUNTER DESCRIPT.	FLUKE	FLUKE		
	<u>41289</u>	<u>41290</u>		
VEL. TRAP TIMES	<u>0</u> MS	<u>90.346</u> MS	<u> </u> MS	<u> </u> MS
VEL. TRAP SPEEDS	<u> </u> MPH	<u>30.19</u> MPH	<u> </u> MPH	<u> </u> MPH

SPEED MPH

DRIVER
ACT. NULL
SETTING 30.65

TEST PERSONNEL

ENGINEERS	VC TEST	<u>RASMUSSEN/WIRTH</u>
ABORT:	BOOTH	<u>WIRTH</u>
	TOW	<u> </u>
	M.C.C.	<u>RASMUSSEN CAL. WIRTH</u>
	WALKWAY	<u>BUSS N/A</u>
TECHS:	VAN/OBDAS	<u>GRENKE</u>
	VEL. TRAP/LOAD CELL	<u> </u>
MECH:	TOW/WINCH DRIVER	<u>LORDWELL</u>

TIMING & EVENT
M.C. CONSOLE ✓
VAN/OBDAS ✓
LOAD CELL N/A
AD NO. 1L 27 1R 60

D.D.A.S.	S/N	<u>03</u>	<u> </u>	<u> </u>
MEMORY	S/N	<u>03</u>	<u> </u>	<u> </u>
CONN. ORIENT.		<u>LT</u>	<u>RT</u>	<u>FD</u>
		<u>RR</u>		

 PRELIMINARY, do not return equipment to service
X FINAL, return equipment to service after check out

NOTES ON TEST & FOLLOW-UP REQUIRED

CH 7, LT RAIL TRAIL ARM PIV 'X' 97857; HIGH VELOCITY, TEST FOR OFFSET
Checks OK

CH 8, RT RAIL TRAIL ARM PIV 'X' 80405; OFFSET 3.46 G, TEST IN LAB
Bad Cable

CH 9, RT RAIL MID TANK 'X' 14439; HIGH VELOCITY, TEST FOR OFFSET
checks OK

CH 15, RT RAIL MBAR MID 'X' 73938; OFFSET, REPLACE ON MOVING
BARRIER AND TEST IN LAB
checks OK sent in to repair to check

M6

08/24/89

PF=VC039600

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5320TA19

PG 1 OF 1

TEST # VC03960 TEST DATE *8-25-89* ITEM # BXJ64 TEST ENG *Rasmussen* TEST ASSUR. ENG. *Grenke* TECH. *Garley*
TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI.
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

CHARGE #5328018 OCCUPANTS, AD AT , AD AT , AD AT , AD AT , AD AT , AD AT
TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY *30.2* MPH. VIN 1J4FJ37L?M*

CHL	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE		REQ	PEAK	CH #	GAIN	SPAN	OFF SET
						-CAL	OHMS						
1	LEFT FRONT SILL	X		14380	+	101.39	200.0	0	8.0				
				141	FT	7680	196.0	5	1.293		161.61		
2	RIGHT FRONT SILL	X		14441	+	100.67	200.0	1	8.0				
				141	FT	7680	195.0	5	1.291		161.35		
3	LEFT REAR SILL	X		80446	+	196.33	300.0	2	4.0				
				141	FT	3740	383.8	2	1.279		319.70		
4	LEFT REAR SILL	Z		80455	-	198.03	300.0	3	4.0				
				141	UP	3740	385.7	2	1.284		320.92		
5	RIGHT REAR SILL	X		73932	+	195.08	300.0	4	4.0				
				141	FT	3740	378.7	2	1.288		321.97		
6	RIGHT REAR SILL	Z		213619	-	200.66	300.0	5	4.0				
				141	UP	3740	390.4	2	1.285		321.23		
7	LT RAIL TRAIL ARM PIV	X		97857	+	194.52	400.0	5	4.0				
				141	FT	3740	388.8	2	1.251		312.71		
8	RT RAIL TRAIL ARM PIV	X		80405	+	194.53	400.0	7	4.0				
				141	FT	3740	388.1	2	1.253		313.30		
9	RIGHT RAIL MIDTANK	X		14439	+	396.43	500.0	8	2.0				
				141	FT	1740	778.8	1	1.272		636.24		
10	RIGHT RAIL MIDTANK	Z		51119	-	392.67	500.0	9	2.0				
				141	UP	1740	768.1	1	1.278		639.07		
11	FUEL SEND. UNIT-EVENT	EE				12.00	12.0	10	4.0				
						1740	15.0	2	2.000		500.00		
12	FUEL TANK/DIFF-EVENT	EE				12.00	12.0	11	4.0				
						174G	15.0	2	2.000		500.00		
13	FUEL TANK PRESSURE			5877		15.90	100.0	12	32.0				
				CEC		127000	149.5	8	.266		8.31		
14	LT RAIL MBAR MID	X		80487	+	103.99	200.0	13	8.0				
				141	FT	7680	198.4	5	1.310		163.76		
15	RT RAIL MBAR MID	X		73938	+	104.99	200.0	14	8.0				
				141	FT	7680	196.2	5	1.338		167.25		

PICTURES FROM TEST NUMBER VC3960

OF V.I.N. 1J9FFJ37L9M3

TEST DATE 8/25/89

TEST SPEED 30.2 MPH

TEST TYPE - 30 MPH REAR WITH TYPE 4 MOVING BARRIER

TEST PURPOSE 1991 MUSS 301 DEV.

PLEASE CIRCULATE ATTACHED PICTURES TO
W. W. KOEBNICK M. A. BOWEN
H. G. ROULEAU PAT TO FILE

HOCCE BUSINESS FORMS INC. 27

STILL PHOTOGRAPHS

TEST NUMBER VC390, V.I.N. 1J4FJ37L7M9

ST. ENGINEER J. P. MANNEY

Negative Number	PRE COV.	POST COV.	DESCRIPTION
8789-6558	X		LEFT OVERALL VIEW
-6565	X		RIGHT OVERALL VIEW
-6559	X		LEFT REAR QUARTER VIEW
-6564	X		RIGHT REAR QUARTER VIEW
-6560	X		REAR VIEW
-6572	X		REAR INTERIOR VIEW
-6573	X		REAR UNDERBODY
-6568	X		FUEL FILLER
-6575	X		FUEL FILL TUBE
-6574	X		FUEL TANK
-6561		X	LEFT OVERALL VIEW
-6567		X	RIGHT OVERALL VIEW
-6562		X	LEFT REAR QUARTER VIEW
-6566		X	RIGHT REAR QUARTER VIEW
-6570		X	LEFT REAR SIDE VIEW
-6571		X	RIGHT REAR SIDE VIEW
-6563		X	REAR VIEW
-6579		X	REAR INTERIOR VIEW
-6576		X	REAR UNDERBODY
-6569		X	FUEL FILLER
-6575		X	FUEL FILL TUBE
-6578		X	FUEL TANK

UPDRE BUSINESS FORMS INC. 27

Per ~~AS~~^{AS} ZYLK-VC3960

Rollerover valve in
top of fuel tank "popped"
out causing fuel leakage
to exceed standard

GAB
8/31/89

VEHICLE CRASH CHECK LIST FOR IMPACT BUILD-UP, REAR IMPACT

TEST NUMBER VC3460, V.I.N. 1J4FJ37L?Mx, ITEM NUMBER 8XJ64CHARGE # 5705018, TEST ENGINEER J.P. MANNEY

TEST SPEED 30 MPH, TEST TYPE - REAR WITH TYPE 4 MOVING BARRIER

INITIAL WORK AS COMPLETED

LL CLEAN VEHICLE AS NECESSARYJ.P.M. LL VERIFY V.I.N. [REDACTED] ON PLATE ON INSTRUMENT PANEL

IF DIFFERENT NOTIFY THE TEST ENGINEER

LL STENCIL TEST NUMBER ON CAR ROOF, REAR, DOORS, FUEL TANKLL TIRE PRESSURE; FRONT 35, REAR 35LL PLACE SEAT IN MID -TRACK SEATING POSITION AND MARK ON SILLSLL DRAIN VEHICLE FLUIDS; MASTER CYLINDER, RADIATOR,
 ENGINE, TRANSMISSION, AXLE(S), WASHER BOTTLE,
 OVERFLOW BOTTLE, POWER STEERING, A/C,LL REMOVE GASOLINE FROM FUEL TANKLL INSPECT FUEL LINES AND SYSTEM FOR MISSING CLAMPS OR DEFECTSLL CHECK OPERABILITY OF FUEL PUMP (SHOULD SPIN WHEN ENERGIZED)LL DRAIN BATTERY - BEING DISCHARGEDLL CHECK SEAT BELT SYSTEMS FOR OBVIOUS ASSEMBLY ERRORSLL INSTALL BRAKE ABORT SYSTEM NUMBER 60 TEST FIRE & BLEED DOWNLL REMOVE ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2 1500-1300-600LL PAINT ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2LL SEE SUPPLEMENTAL BUILD-UP FORM I-2 FOR SPECIAL INSTRUCTIONSLL INSTALL BRAKE ABORT CABLE FITTING LEFT FRONT FENDERLL TAPE REAR WINDOWS, REAR SIDE WINDOWS, AND TAIL LIGHTSLL INSTALL TARGETS PER TARGET LAYOUT SHEETLL TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM. SHEETLL TRAMMEL MEASURE ANALYSIS TARGETS AND RECORD ON FORM X (II-1) DIM. SHEETLL TAKE X AND Y DIMENSIONS AND RECORD ON X (II-1) AND Y (II-2)LL DIMENSION SHEETSJ.P.M. LL FILL FUEL TANK WITH 21.8 GALLONS OF .767 SG STODDARD SOLVENTLL CHECK CAR BUILD UP WEIGHT AND ADJUST AS NECESSARYLL INSTALL 300 POUNDS OF LUGGAGE BALLASTLL PRESSURE CHECK FUEL SYSTEM BEFORE FILLINGLL TETHER SPARE TIRE

SUPPLEMENTAL BUILD-UP FORM

TEST NUMBER VC3960

! PAINT ITEMS AS SPECIFIED ! REMOVE ITEMS AND SCRAP UNLESS !
! NOTED !

! UNDERBODY- WHITE !

! BODY MEMBER AND FUEL TANK BLOCKER RED !

! RAILS AND E/A UNITS- YELLOW !

! REAR BODY CROSSMEMBER (REAR OF TIRE WELL) RED !

! TRACKBAR AND TRACKBAR BRACKET- DARK BLUE !

! AXLE- GREEN !

! TRACK BAR (DIAGONAL) BRACE- YELLOW !

! FUEL TANK- WHITE W/ FLO. RED OUTLINE !

! FUEL TANK STRAPS- GREEN !

! MUFFLER- LIGHT BLUE !

! SPARE TIRE WELL- WHITE !

! FILLER TUBE, FILL TUBE OPENING (INSIDE & OUT), AND REAR WHEEL SPOT - FLO. RED !

! NOTE - PAINT FILL TUBE DOWN TO WITHIN 4 INCHES OF THE GROMMET. THEN MARK INCH DIVISIONS ON THE FILL TUBE WITH A MAGIC MARKER, FOR 4 INCHES UP FROM THE GROMMET !

SEE VC-374 PHOTOS. ALSO, HIGHLIGHT FUEL TANK TRANSVERSE CREASE.

TARGET WEIGHT; TOTAL, FRONT, REAR, OPTION WEIGHT

OTHER INSTRUCTIONS;

MOORE BUSINESS FORMS INC. 37

VEHICLE CRASH TEST BUILD-DOWN CHECK LIST

TEST NUMBER VC3960 TEST ENGINEER _____ DATE / /

INITIAL WORK AS COMPLETED

INSTRUMENTATION RELEASE FOR BUILD-DOWN (T.E. INITIAL)

- REMOVE DUMMIES
- REMOVE BRAKE ABORT SYSTEM
- REMOVE BALLAST
- TAKE POST DIMENSIONS
- REMOVE SCREWED ON TARGETS

~~PERFORM STATIC ROLL~~

PRESSURE CHECK FUEL SYSTEM, _____ INCHES OF WATER FOR _____ MINUTES.

DRAIN FUEL SYSTEM

~~REMOVE DECK LID FOR PHOTOS~~

PREPARE VEHICLE FOR SHIPMENT

SPECIAL INSTRUCTIONS-

MOORE BUSINESS FORMS INC. 27

FINAL BUILD-UP CHECK LIST FOR REAR IMPACT

TEST NUMBER VC3960, TEST ENGINEER _____

INITIAL WORK AS COMPLETED

- INSTALL DUMMIES; LF AD-27, RF AD-60.
- CHECK VEHICLE ATTITUDE
- TAKE PRE-TEST Z, VERTICAL DIMENSIONS AND RECORD ON Z (II-3) DIMENSION SHEET
- PRE IMPACT PHOTOGRAPHS TAKEN (T.E. INITIAL)

SPECIAL INSTRUCTIONS _____

BRAKE ABORT SYSTEM MUST BE PURGED OF AIR AND PRESSURIZED ON TEST DAY.

- ABORT UNIT NUMBER _____ INSTALLED
- PURGE SYSTEM OF AIR
- PRESSURIZE SYSTEM TO 1400 PSI
- RECORD PRESSURE AFTER TEST FIRING; _____ PSI
- RECORD ACCUMULATOR DROP-OFF PRESSURE; _____ PSI
- BLEED SYSTEM AND PRESSURIZE TO 1400 PSI MINIMUM
- RECORD SYSTEM PRESSURE _____ PSI AND DATE; _____
- OPEN HAND VALVE TO ABORT
- OPEN BLEEDER VALVE (VALVE MUST BE CLOSED FOR TEST)
- VEHICLE READY FOR TEST (T.E. INITIAL)

MOORE BUSINESS FORMS, INC. 27

ANTHROPOMORPHIC TEST DEVICE NON-INSTRUMENTED REQUEST

TEST NUMBER VC-3960
REQUEST DATE 8/7/79
DATE REQUIRED 1/1

CHARGE # 5328018
TEST ENGINEER J.P. MANNEY

AD- 27
MAKE/MODEL: HYB II
RESTRAINT: UNIBELT

AD POSITION: 1L
PERCENTILE/SEX: 50TH/M
TARGETS BALLAST

AD- 60
MAKE/MODEL: HYB II
RESTRAINT: UNIBELT

AD POSITION: 1R
PERCENTILE/SEX: 50TH/M
TARGETS BALLAST

John Wirth will ^{also} use
these dummies for
VC 3961 this test day

MOORE BUSINESS FORMS, INC. 27

TEST VEHICLE WEIGHT

TEST NUMBER VC3960

REAR IMPACTS

PROCEDURE:

1. DETERMINE BALLAST WEIGHT GOAL.
NOTE: INSTRUMENTATION WEIGHT MUST INCLUDE WHATEVER BATTERIES ARE REQUIRED. TARGET AND LUGGAGE WEIGHTS ARE SPECIFIED IN THE TEST REQUEST.
2. FUEL VEHICLE AND WEIGH.
3. *IF WEIGHT IS LESS THAN GOAL, ADD LEAD TO OBTAIN BEST AXLE DISTRIBUTION AND A WEIGHT SLIGHTLY OVER GOAL.
*IF WEIGHT IS OVER GOAL, REMOVE COMPONENTS (NOT INVOLVED IN TEST MODE/PURPOSE) TO REDUCE WEIGHT.
4. REWEIGH VEHICLE TO CONFIRM BALLAST WEIGHT.
5. CALCULATE TEST WEIGHT GOAL.
6. WEIGH VEHICLE IN TEST CONFIGURATION FOR TEST WEIGHT.
NOTE: TEST WEIGHT MUST NOT BE LESS THAN, NOR EXCEED BY MORE THAN 1.0%, THE CALCULATED TEST WEIGHT GOAL.

BALLAST WEIGHT GOAL:

TEST WEIGHT GOAL:

! TARGET WEIGHT.....	<u>3666</u>	!
! INSTRUMENTATION.....	-(<u>100</u>)	!
! BALLAST WT GOAL.....	= <u>3566</u>	!
! + LUGGAGE	+300	!
	<u>3866</u>	!

! TRGT WT	<u>3666</u>	!
! LUGGAGE	+ <u>300</u>	!
! AD'S...	+ <u>324</u>	!
! TEST WT =	<u>4290</u>	!

4773 MAX

! NOTE: THE INSTRUMENTATION IS NOT USED AS LUGGAGE WEIGHT, HENCE BALLAST MUST BE INSTALLED IN TRUNK FOR LUGGAGE.

AS IS

LF 938	LR 706
RF 870	RR 690
<u>1808</u>	<u>1396</u>
1396	
<u>3204</u>	

WEIGHTS:

3866
3204
662

984	906
954	924
<u>1938</u>	<u>1830</u>
1830	
<u>3768</u>	

100# to go

BALLAST WEIGHTS ADDED AND LOCATION:

MOORE BUSINESS FORMS INC. 27

MCC-RE BUSINESS FORMS INC. 27

- REVIEW TEST REQUEST
- RUN (FORMS) AND *M* (INST) PROGRAMS
- ISSUE MECHANIC'S BUILD-UP FORMS
 - * COPY OF TEST REQUEST AND TARGET SHEET(S)
 - * MAY INCLUDE FORM 8620VC-807-X
- M* ISSUE INSTRUMENTATION FORMS TO TEST ASSURANCE
 - * INCLUDE: INSTRUMENTATION SHEETS, TARGET SHEET, AND TEST ENGINEERS FORMS.
 - * NOTE XENONS ON TARGET SHEET
 - * NOTE IN-TANK PUMP OPERATION, IF REQ'D
- ISSUE CAMERA LAY-OUT TO FILM ANALYSIS LIAISON (M. CROSSMAN)
- ISSUE PHOTOGRAPHIC WORKORDERS
 - * MOVIES (1 PRINT, PLUS ORIGINAL)
 - * STILLS (2 EACH)
- ISSUE DUMMY REQUEST (BALLAST AND INSTRUMENTED) TO J. BERLINER
- ASSEMBLE TEST ENGINEERS FORMS
 - * INCLUDE TUBE DIMENSION SHEETS (REAR AND LATERAL IMPACTS)
- COMPLETE SEC. VI PAGES 1,2,3,&4 -PRETEST INFO AS APPLICABLE
 - * FUEL SYSTEM
 - * POWER TRAIN, STRUCTURAL, STEERING
 - * SEATS, RESTRAINTS, I/PNL, OCCUPANTS
 - * W/SHLD, GLASS, HOOD
- FOLLOW MECHANICAL AND ELECTRICAL BUILD-UP
- TARGET MEASUREMENTS
- FILL FUEL TANK, WEIGH AND BALLAST
 - * RECORD BALLAST ADDED
- M* OSCAR (J825) SEAT FOR DUMMY POSITION, IF REQUIRED
- TURN VEHICLE OVER TO TECHS
- DAY PRIOR TO TEST-
 - PRETEST PHOTOS
 - PREPARE TITLE BOARD
 - CHECK ON TEST SITE PREP.
- TEST DAY
 - * CHECK FINAL BUILD-UP
 - * WEIGH VEHICLE AND RECORD
 - * IMPACT
 - W/SHLD- RECORD IMMEDIATELY FOLLOWING IMPACT
 - A/BAG- STAY CLEAR 15 FEET FOR 15 MINUTES
 - * POST IMPACT PHOTOS

• POST TEST •

- RETURN VEHICLE TO GARAGE
- MAKE AND STORE POST TEST LETTER (VCREGST)
 - * COPY TO M. CROSSMAN
 - * COPY TO FILE
- COPY OF COMPLETED CAMERA LAYOUT TO MARK CROSSMAN
- PREPARE BUILD-DOWN CHECKLIST
- FOLLOW BUILD-DOWN
 - * TARGET MEASUREMENTS
 - ~~* STATIC ROLL~~
 - ~~* PRESSURE CHECK~~
- DATA PACK FOR FILM ANALYSIS (M. CROSSMAN)
 - * TEST REQUEST
 - * CAMERA L/L
 - * TARGET SHEETS
 - * DIMENSION SHEETS (X,Y,Z)
 - * TUBE DIMENSIONS
 - * DIMENSION LISTING FROM "TARGETS" PROGRAM
 - * DUMMY DIMENSION SHEET(S)
 - * MOVIE FILM
- COMPLETE SEC. VI, PAGES 2, 3, AND 4
- POST TEST PHOTOS
- PICK UP BUILD SHEETS FROM GARAGE
- SHIPPING RELEASE TO SHOP FOREMAN
- VIEW FILM
- STILL PHOTO LIST AND DISTRIBUTION
- POST TEST DUMMY RECERTIFICATION
- COMPLIANCE REPORT FOR MVSS (204) (208) (212) (219) (301)
- COMPUTER LOAD SHEET
- FILE TAB

REAR IMPACT TEST DAY CHECK LIST

IMPACT GARAGE

TEST WT

- TEST SITE PREPARED
- TITLE BOARD PREPARED
- VEHICLE FINAL BUILD-UP COMPLETE FRT 2220 LBS 3666
- TEST CONFIRMED WITH PHOTOGRAPHIC RR 2054 LBS 300
- WEIGH VEHICLE - RF 1114 LBS, RR 1064 LBS 308
- LF 1106 LBS, LR 990 LBS, TOTAL 4274 LBS 4274
- VISUAL CHECK OF VEHICLE HOOK UP FOR TRANSPORTING TO BARRIER
- TIME OUT OF GARAGE 8:30 M.

COVERED BARRIER

- CHECK GUIDE RAIL FOR OBSTRUCTIONS
- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- POSITION VEHICLE AT INTERSECTION
- POSITION PHOTOGRAPHIC REFERENCE TUBE
- CHARGE MOVING BARRIER BATTERY
- POSITION TRAP FLAG ON MOVING BARRIER
- POSITION TRAP TIMER
- POSITION VELOCITY CAMERA FIDUCIAL TARGET
- ATTACH TOW CABLE (TOW CAR TEST)
- CHECK BRAKE ABORT ELECTRICAL CONTINUITY
- ASSURE TOW CABLE ROUTING
- POSITION MOVING BARRIER AT TEST START POSITION
- RETURN FORK LIFT TO BARRIER
- CALIBRATE TOW CAR
- CHECK HIGH INTENSITY LIGHT SWITCH POSITION AND FUNCTION (400 FEET FOR 30 MPH TEST)
- POSITION DUMMIES
- CHARGE FUEL LINES SPEED 30.2
- ASSURE VEHICLE IN NEUTRAL TOW LOBDELL
- SET BRAKE ABORT CAL WIRTH
- CLOSE HOOD AND DECK LID
- IN-TANK FUEL PUMP RUNNING
- MEASURE CAR/REFERENCE TUBE(S) ABORT -----
- MOVING BARRIER ABORT ON
- CLOSE SEMAPHORE GATES BOOTH WIRTH
- TURN OFF MERCURY VAPOR OVERHEAD LIGHTS STRK VEH BUSS
- BRAKE ABORT REEL CONNECTED
- ALL DOORS UP
- LOCK APPROACH ROAD DOORS ABORTS
- APPROACH ROAD LIGHTS ON PHOTOG
- TOW CAR - 5TH WHEEL DOWN? T/A EMER
- WARNING LIGHT ON
- TEST PERSONNEL READY
- "PLEASE CLEAR TEST AREA" TRIGGER RESET
- ASSURE CAMERA SWITCH ARMED LITES ARMED
- ASSURE HIGH INTENSITY LIGHTS IN INTERSECTION MODE,
- TRIGGER RESET LIGHT ON AND ARMED
- INITIATE TEST, ~~VIA VAL IF CONVENTIONAL INSTRUMENTATION~~ VIA TOW CAR IF OBDAS
- TEST TIME 10:40 AM.
- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- CALL M. A. BOWEN WITH TEST RESULTS
- POSITION VEHICLE FOR POST TEST PHOTOGRAPHS
- STORE TOW CABLE
- CLEAN UP TEST DEBRIS
- COVER EXPOSED PIT AREAS
- TURN OFF APPROACH ROAD LIGHTS

MOORE BUSINESS FORMS INC. 27

* POST TEST CRITIQUE *

* ITEM NO 8XJ64 * VEH TYPE XJJ72 * ENG 4.0 * TRANS MSF

* TEST NO 3960 * DEV 91 * VAL _____ * COMP _____ * RESC _____

* PURPOSE 204 _____ 208 _____ 212 _____ 219 _____ 301

* TEST MODE FFF REAR _____ ANG _____ LAT _____ * TEST WEIGHT 4279

* PERSONNEL CAL WIRTH _____ BOOTH _____

STRK VEH BUSS _____ MECH _____

T/A ENG GRENKE _____ TECH _____

* TIME OUT 8:30 * TEST VELOCITY 30.2 * IMPACT TIME 10:40

* TOW OPERATOR LOBDELL _____ CAR WINCH _____

* W/S INTRUSION UPR ~~~~ LWR ~~~~ * S/C DISP ~~~~

* W/S RETENTION RT 1/2 ~~~~ LT 1/2 ~~~~ TOTAL ~~~~

* OCCUPANTS		HYBRID	II	III	* RESTRAINTS			
1L	1R				ACTIVE		PASSIVE	
					1L	1R	1L	1R
95%								
50%	<input checked="" type="checkbox"/>				UB	<input checked="" type="checkbox"/>	2 PT	_____
5%					LB		3 PT	_____
INST					UN/RES		A/B	_____

* OCCUPANT CONTACTS

	A/B	S/W RIM	S/W HUB	S/C COVER	INST PNL	W/S	G/BOX
1L	_____	_____	_____	_____	_____	_____	_____
1R	_____	_____	_____	_____	_____	_____	_____

* SEAT STATUS
1L _____ 1R _____

* DOOR STATUS
LT _____ RT _____

* ANOMALIES- MECH _____ ELECT _____

* FUEL SYSTEM PERFORMANCE

LEAKAGE- _____ IMPACT EXCESSIVE STATIC ROLL REQD PRESS/CK REQD
 ROLLOVER VALUE POPPED OUT, PER ED 24LIK

FUEL SYSTEM TYPE- MPI

* INSTRUMENTATION CONVENTIONAL _____ OBDAS# _____

* SUPPORT MECHS _____ TECHS _____ PHOTOGS _____

* REPORT REQUIRED NO YES _____

TEST-ENGINEER RASMUSSEN DATE 8/25/89

E/12-005- Chrysler-000602

MOORE BUSINESS FORMS INC. 27

24862

REQUESTED BY
J.P. MANNEY
LOC. CODE
1252
DEPT. NO.
5320

PHONE	5363	DATE ISSUED	8-21-89	CHARGE NUMBER	5328018
ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE
				1 PRINT	
NUMBER OF PRINTS PER NEGATIVE:	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE

INSTRUCTIONS

MOVIES
VC-3960

CONFIDENTIAL

RECEIVED BY _____ APPROVED _____

CUSTOMER COPY PHOTOGRAPHIC WORK ORDER



24861

REQUESTED BY
J.P. MANNEY
LOC. CODE
1252
DEPT. NO.
5320

PHONE	5363	DATE ISSUED	8-21-89	CHARGE NUMBER	5328018
ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE
NUMBER OF PRINTS PER NEGATIVE:	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE
	2				CONTACT

INSTRUCTIONS

STILLS
VC-3960

CONFIDENTIAL

RECEIVED BY _____ APPROVED _____

CUSTOMER COPY PHOTOGRAPHIC WORK ORDER



VC03960

ELECTRONIC TRANSDUCER DATA

TEST DATE:
08/25/89

TEST DATE:
08/25/89

ELECTRONIC TRANSDUCER DATA

VC03960

ITEM NO 8XJ64

DATA SET
08/25/89BA

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 31 GRAPHS

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

TEST PURPOSE PRIMARY. 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

VEHICLE BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4FJ37L?M [REDACTED] MOD.
VIN AS BUILT: 1J4FJ37L3KL [REDACTED] MOD.

TEST SPEED 30.2 MPH BY ELECTRONIC TRAP TIMER

TEST WEIGHT (LBS) 4274 TOTAL. 2220 FRONT. 2054 REAR

OCCUPANTS LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-27
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-60
RESTRAINT-UNIBELT

VC03960

ELECTRONIC TRANSDUCER DATA

TEST DATE:
08/25/89

TEST DATE:
08/25/89

ELECTRONIC TRANSDUCER DATA

VC03960

ITEM NO 8XJ64
DATA SET
08/25/89BA
IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 31 GRAPHS

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

BUILD CONDITION

TARGET WEIGHT (LBS) 3666 TOTAL. 2005 FRONT. 1661 REAR. REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
100 LB ON REAR FLOOR PAN. 70 LB ON LEFT FRONT FLOOR
PAN. 70 LB ON RIGHT FRONT FLOOR PAN AND 25 LB ON
TOP OF EACH C POST.

POST TEST REMARKS AN UNKNOWN AMOUNT OF FUEL LEAKED FROM THE UPPER
SURFACE OF THE FUEL TANK. THEN STOPPED.

VC03960

ELECTRONIC TRANSDUCER DATA

TEST DATE:
08/25/89

TEST DATE:
08/25/89

ELECTRONIC TRANSDUCER DATA

VC03960

ITEM NO 8XJ64

DATA SET
08/25/89BA

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 31 GRAPHS

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

A MICROFICHE HAS BEEN PREPARED AND IS AVAILABLE UPON
REQUEST WITH THE GRAPHS AT COORDINATES AS FOLLOWS:

A	4- 5	TRANSDUCER SUMMARY REPORT	
A	6- 7	AVERAGE OF SILLS	
B	1. 2	LEFT FRONT SILL	X
B	3. 4	RIGHT FRONT SILL	X
B	5. 6	LEFT REAR SILL	X
B	7. 8	LEFT REAR SILL	Z
B	9. 10	RIGHT REAR SILL	X
B	11. 12	RIGHT REAR SILL	Z
B	13. 14	LT RAIL TRAIL ARM PIV	X
C	1. 2	RT RAIL TRAIL ARM PIV	X
C	3. 4	RIGHT RAIL MIDTANK	X
C	5. 6	RIGHT RAIL MIDTANK	Z
C	7	FUEL SEND UNIT-EVENT	
C	8	FUEL TANK/DIFF-EVENT	
C	9	FUEL TANK PRESSURE	
C	10. 11	LT RAIL MBAR MID	X
C	12. 13	RT RAIL MBAR MID	X
CC	G. M. ABOUD		514-15-17
	J. M. BERLINER		422-05-01
	W. A. BREITMOSE		422-05-01
	J. W. HANIKA		418-42-22
	W. R. HARBAUGH		418-42-22
	K. W. KOEBNICK		422-05-01
	T. P. MAULE		422-05-01
	A. J. REGAN		418-42-22
	H. G. ROULEAU		422-05-01
	E. A. ZYLIK		514-15-17

TRANSDUCER SUMMARY REPORT

VC03960 30 MPH REAR IMPACT: XJ72. 4.0L 16 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT: FUEL SYSTEM INTEGRITY.

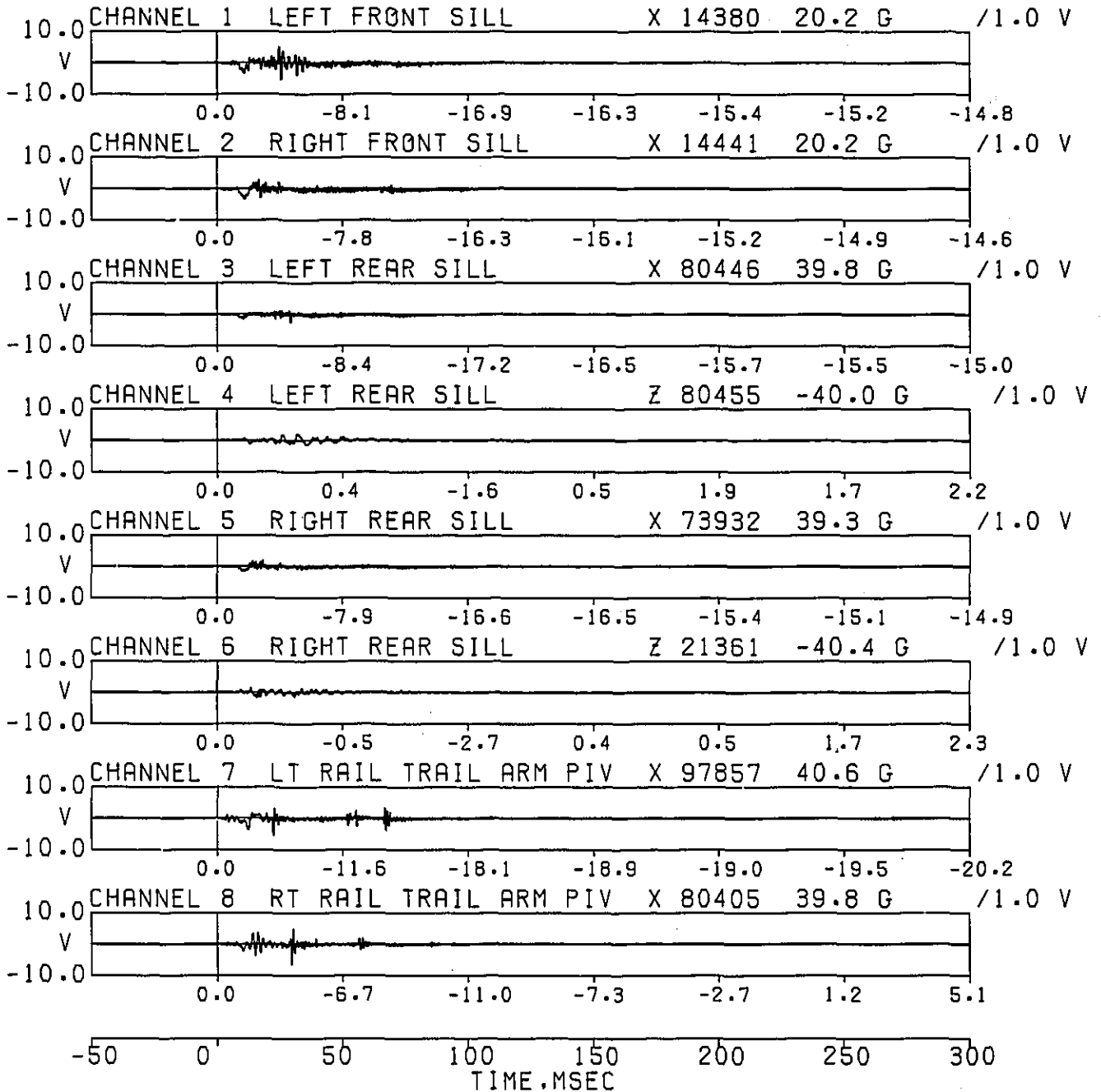
IMPACT ANALYSIS DEPT. 5320

DATA SET 08/25/89BA

AUG 28.1989

ERRATA 1

-50 0 50 100 150 200 250 300



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC03960 30 MPH REAR IMPACT; XJ72. 4.0L 16 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT; FUEL SYSTEM INTEGRITY.

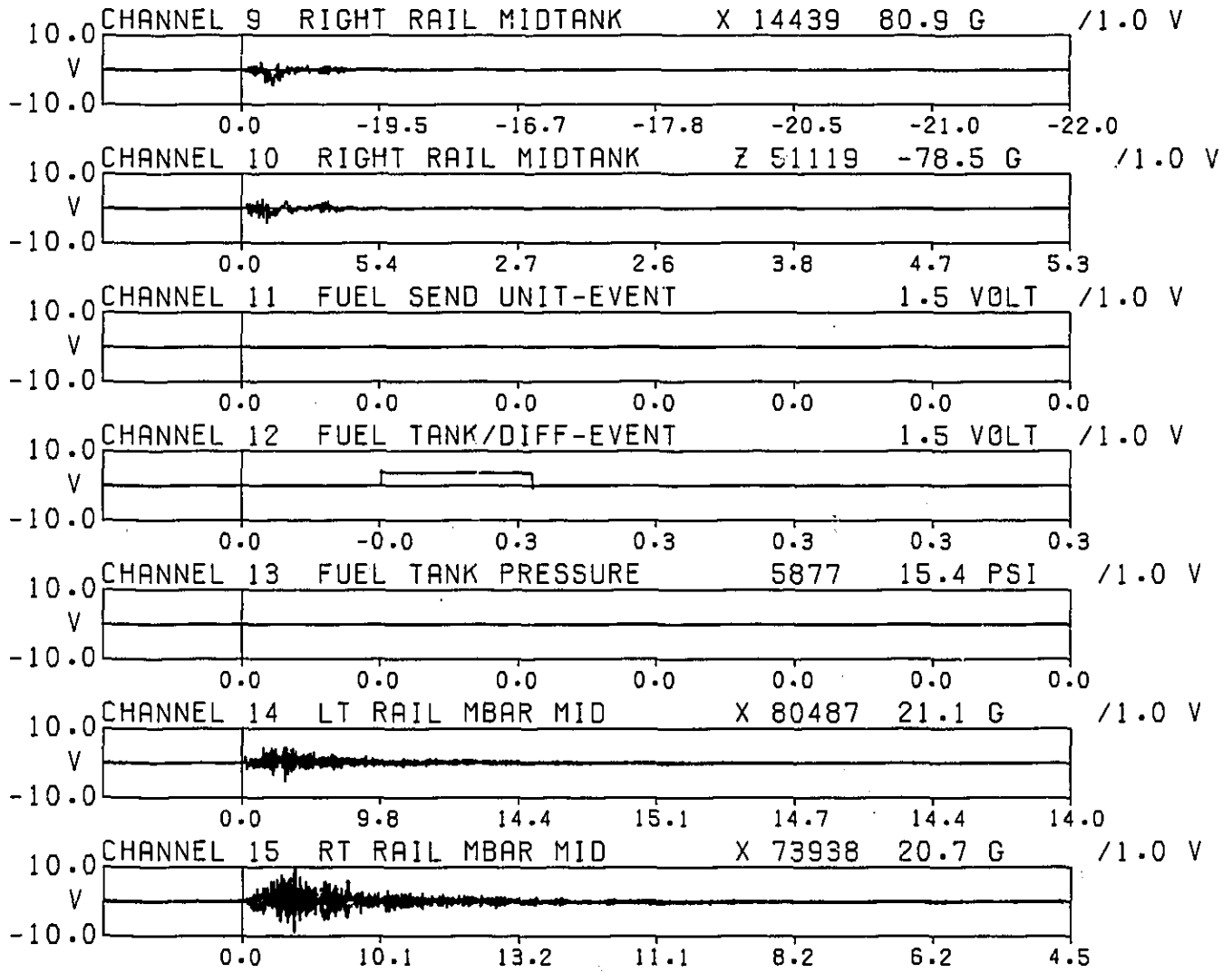
IMPACT ANALYSIS DEPT. 5320

DATA SET 08/25/89BA

AUG 28.1989

ERRATA 1

-50 0 50 100 150 200 250 300



-50 0 50 100 150 200 250 300
 TIME.MSEC

NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
 EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

AVERAGE OF

CHANNEL 1	LEFT FRONT SILL	X 14380
CHANNEL 2	RIGHT FRONT SILL	X 14441
CHANNEL 3	LEFT REAR SILL	X 80446
CHANNEL 5	RIGHT REAR SILL	X 73932

FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86

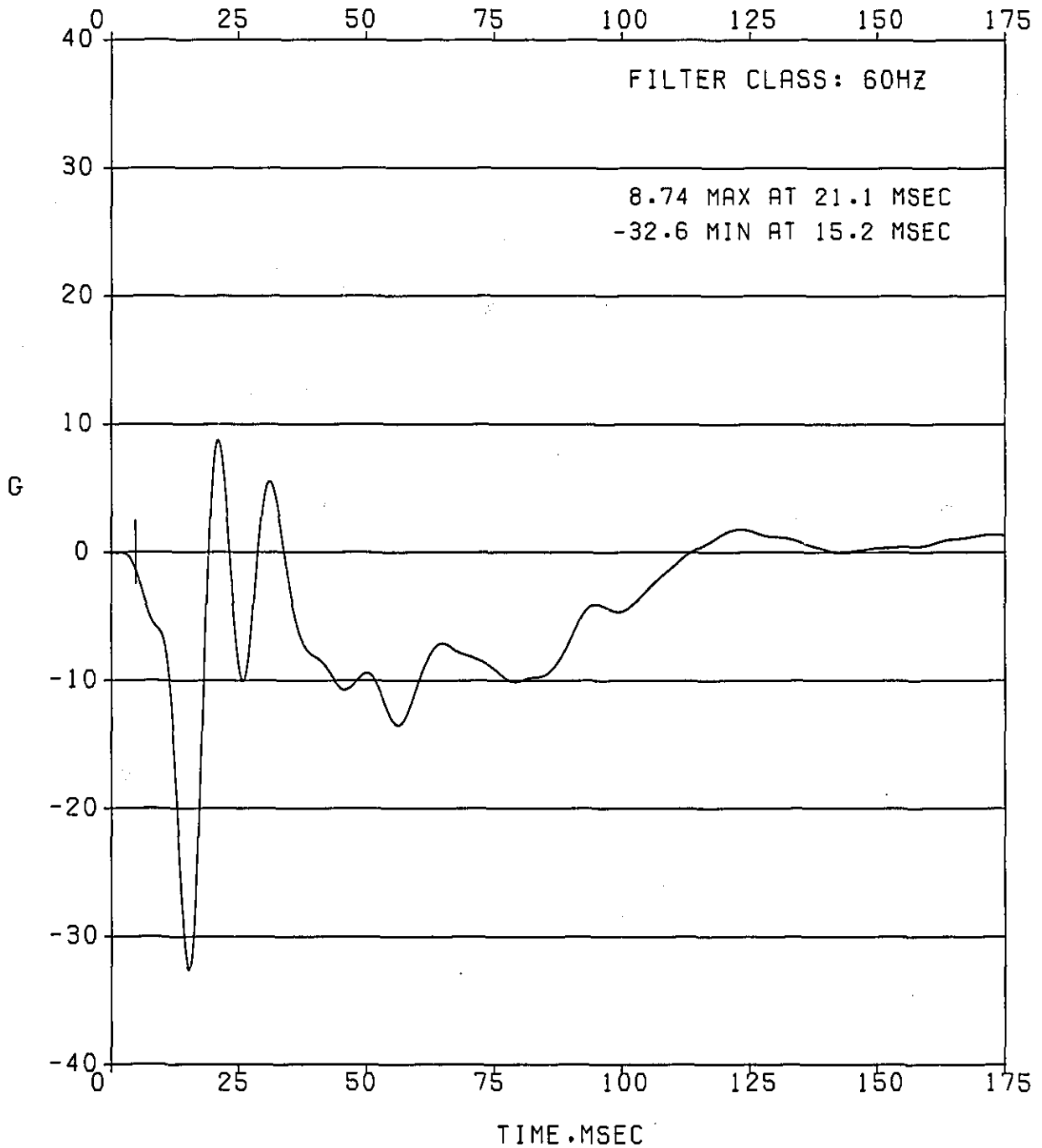
IMPACT ANALYSIS DEPT. 5320

DATA SET 08/25/89BA

AUG 28, 1989

ERRATA

1



VC03960 30 MPH REAR IMPACT. XJ72. 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

AVERAGE OF

CHANNEL 1	LEFT FRONT SILL	X 14380
CHANNEL 2	RIGHT FRONT SILL	X 14441

FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86

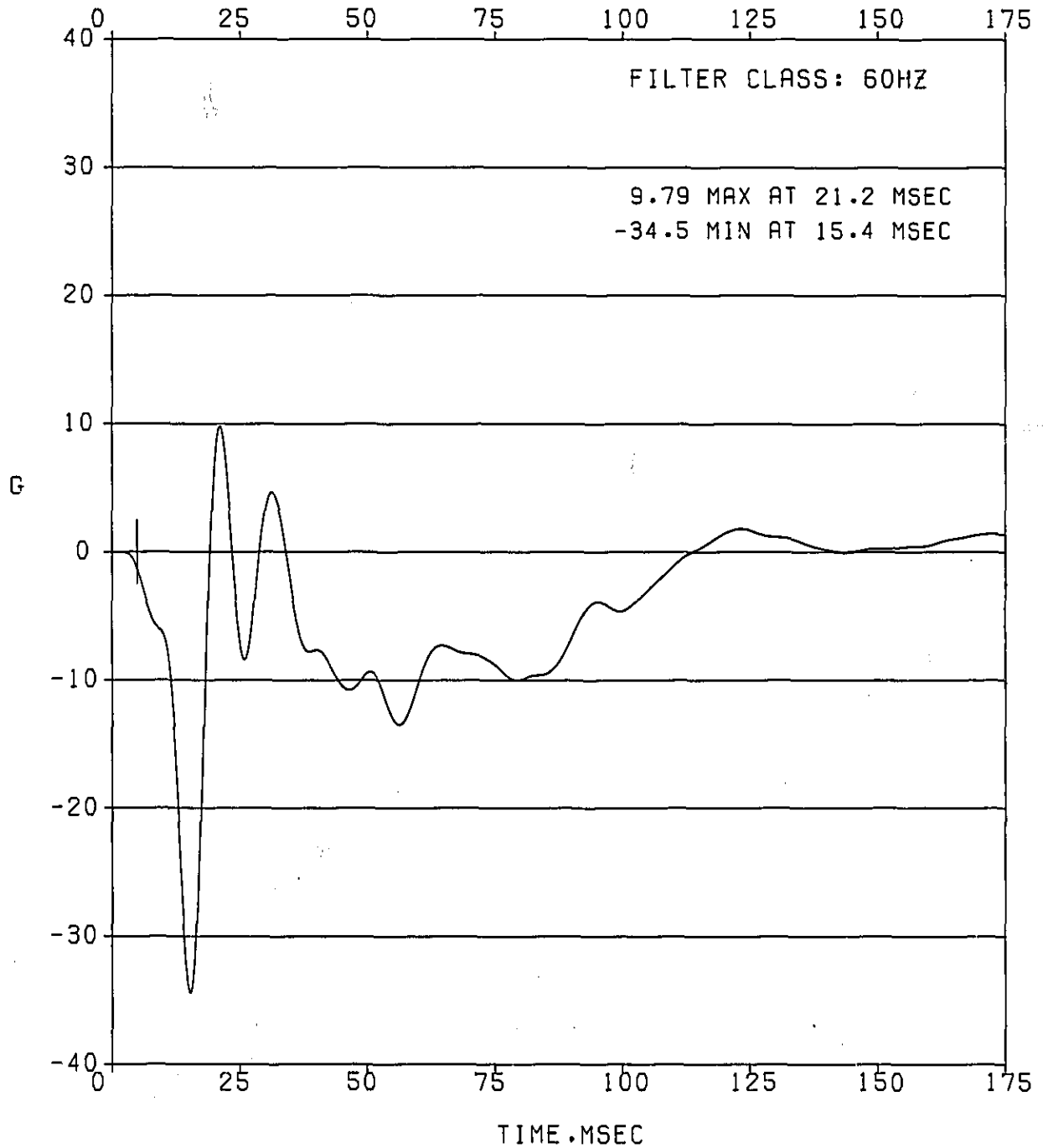
IMPACT ANALYSIS DEPT. 5320

DATA SET 08/25/89BA

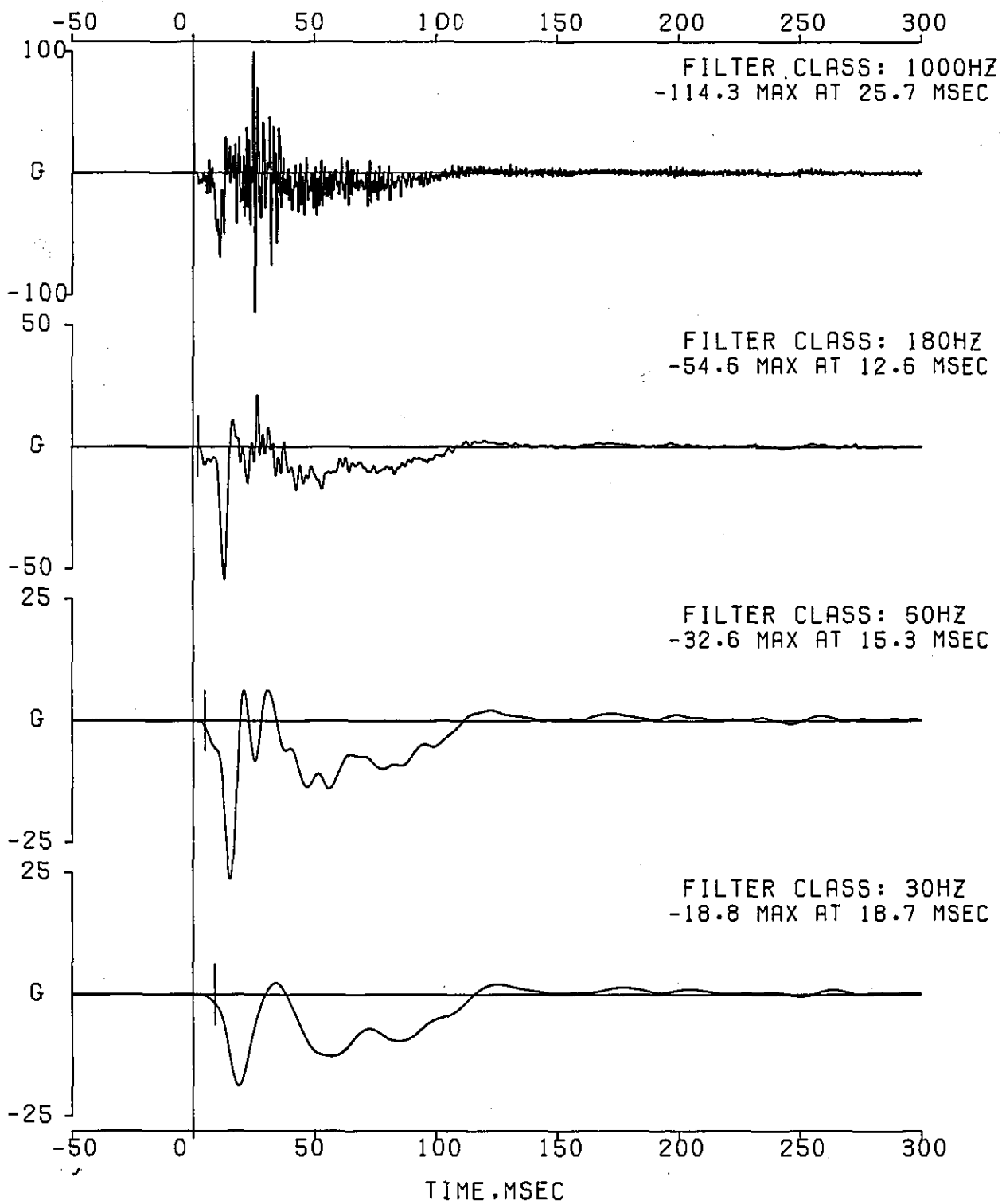
AUG 28.1989

ERRATA

1



VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 1 LEFT FRONT SILL X 14380
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28,1989 ERRATA 1

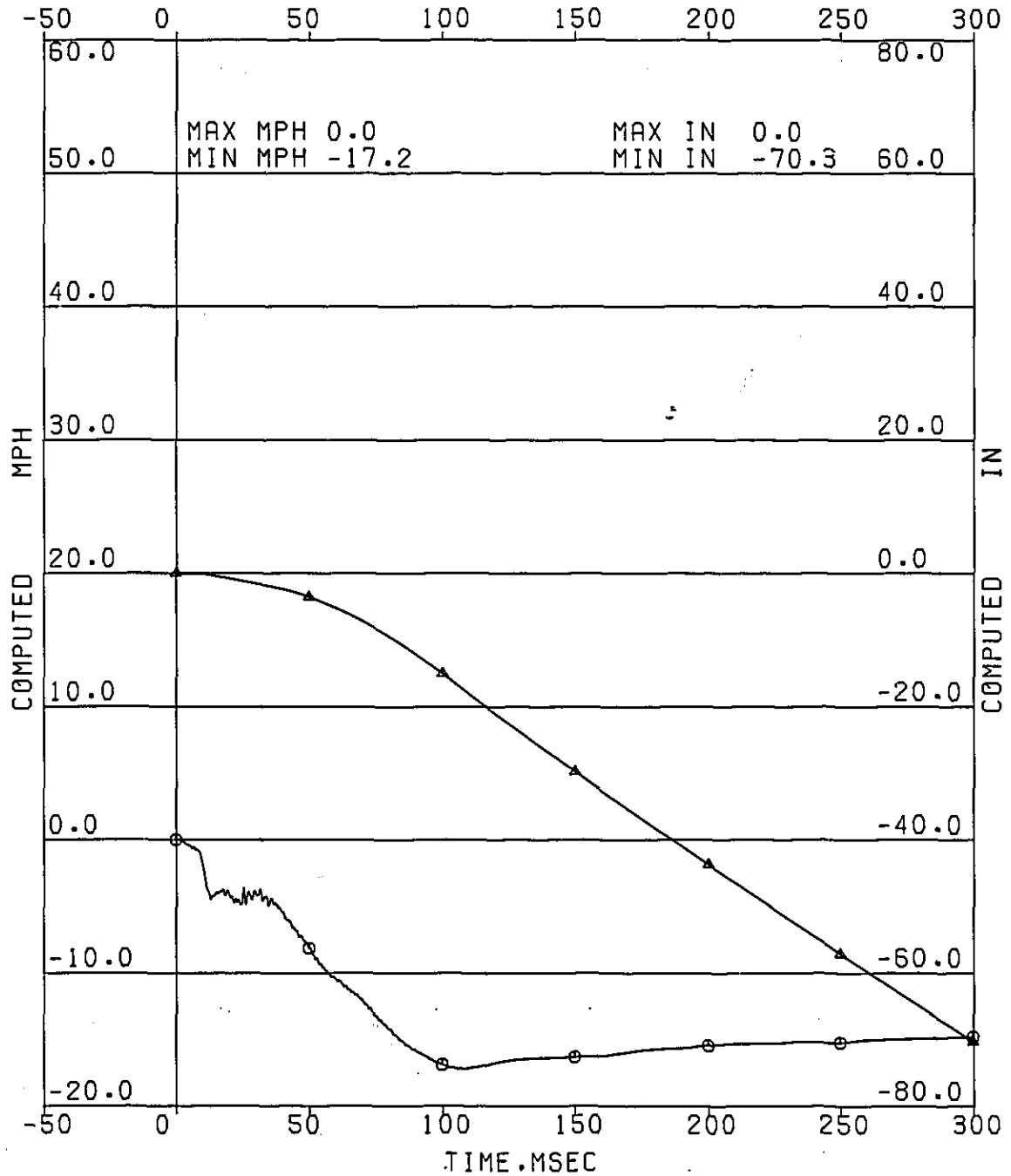


VC03960 30 MPH REAR IMPACT. XJ72, 4.0L 16 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 1 LEFT FRONT SILL X 14380

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

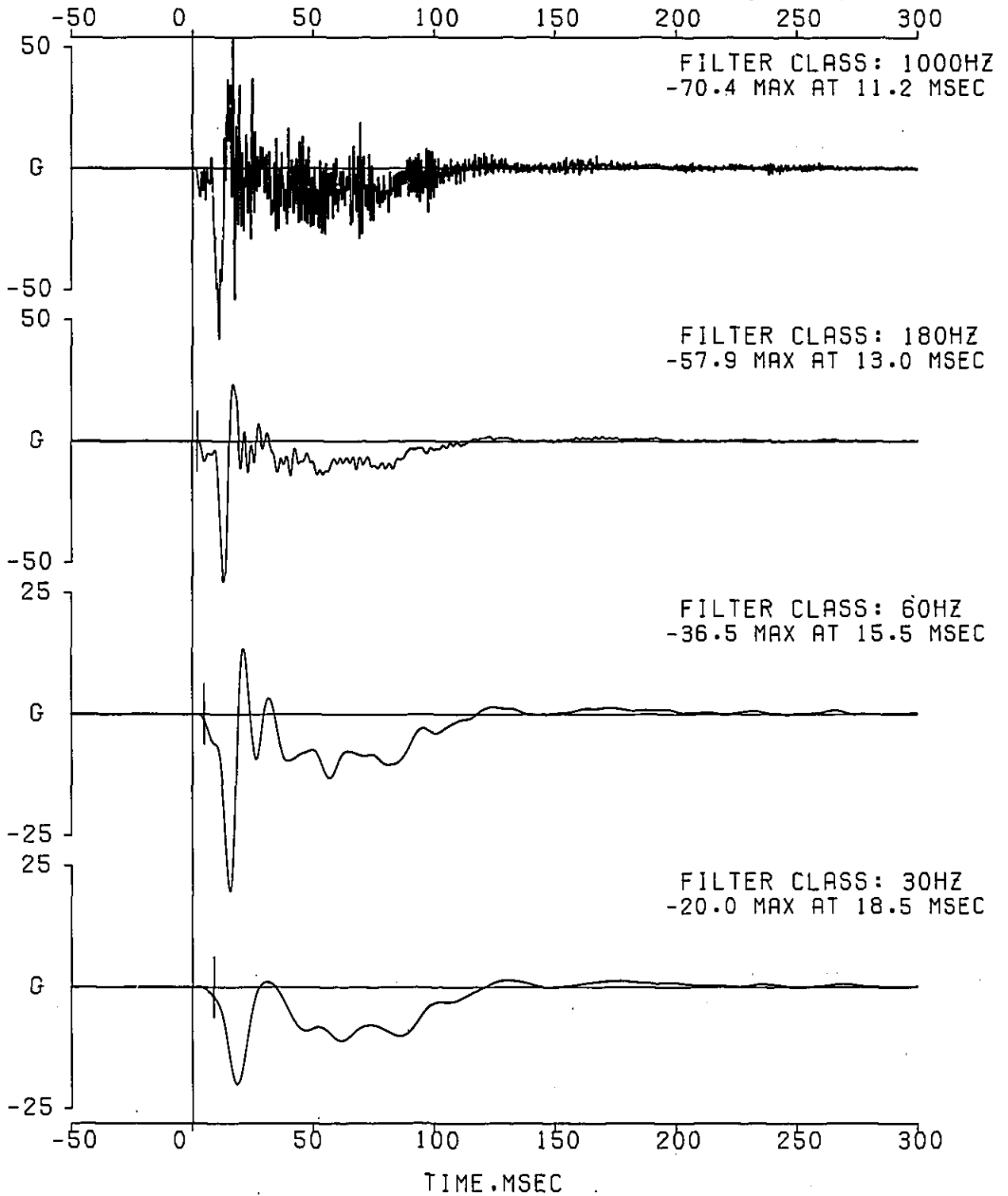
IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 2 RIGHT FRONT SILL X 14441
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28,1989 ERRATA 1

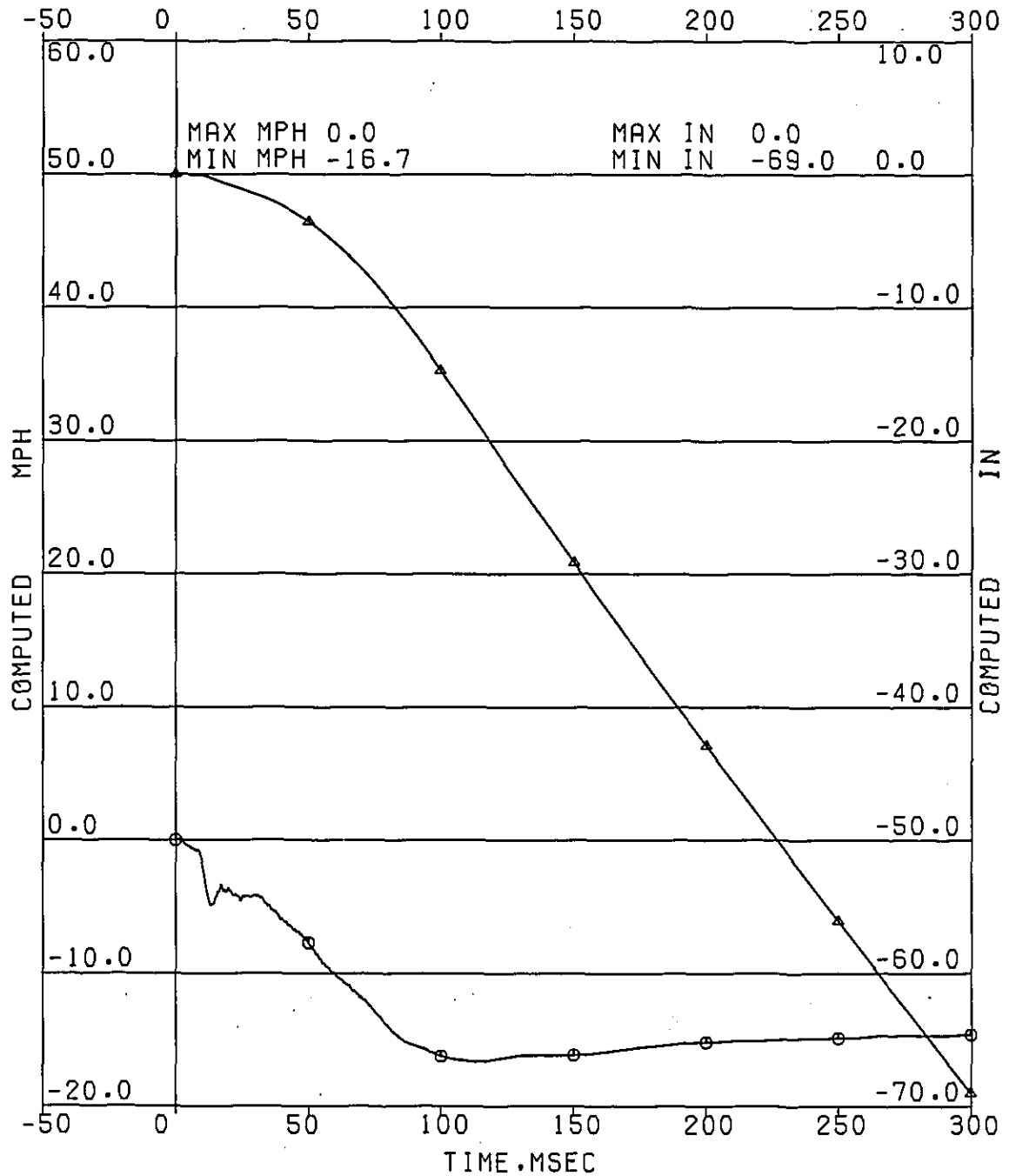


VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 2 RIGHT FRONT SILL X-14441

FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

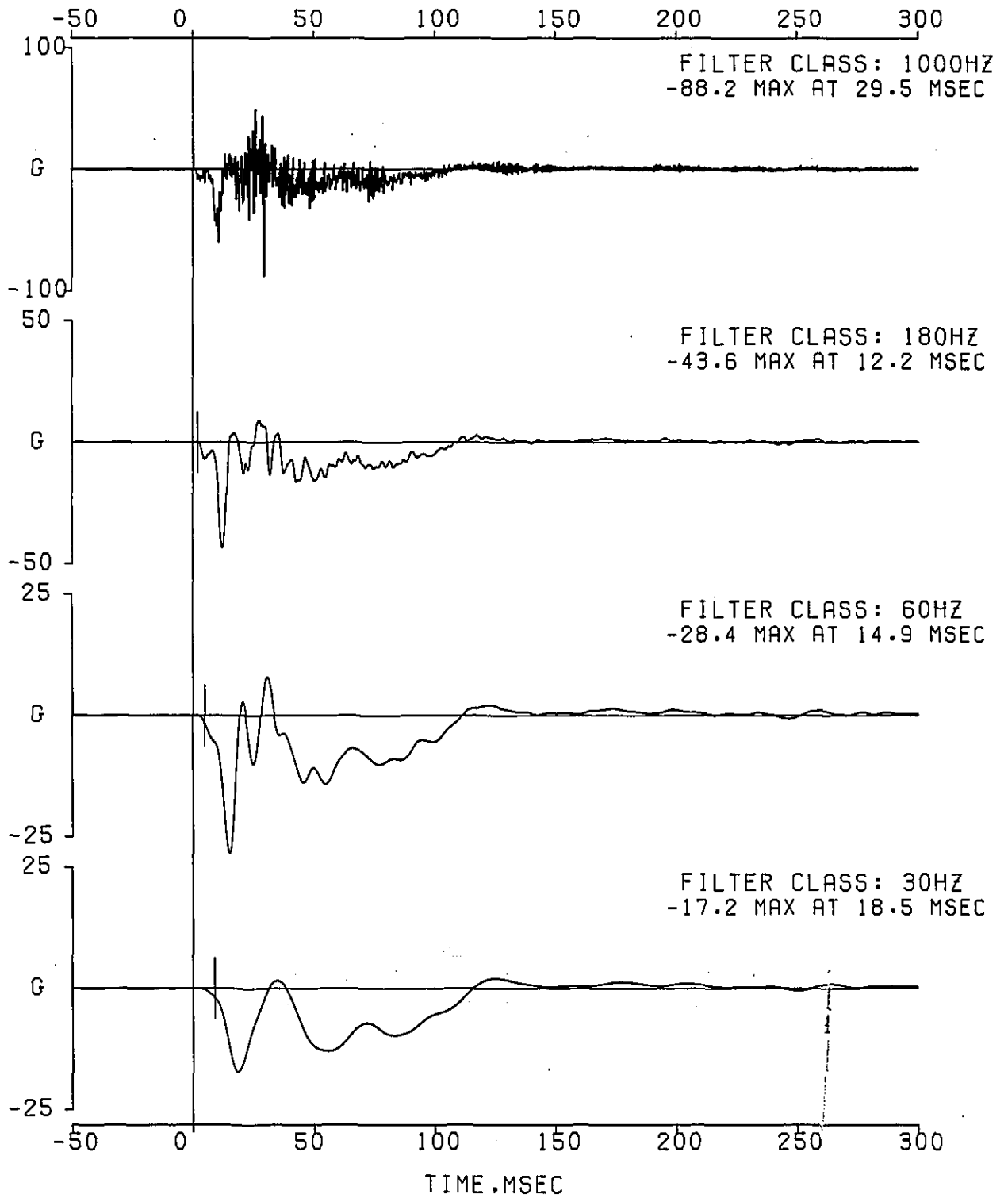
IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 3 LEFT REAR SILL X 80446
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28.1989 ERRATA 1

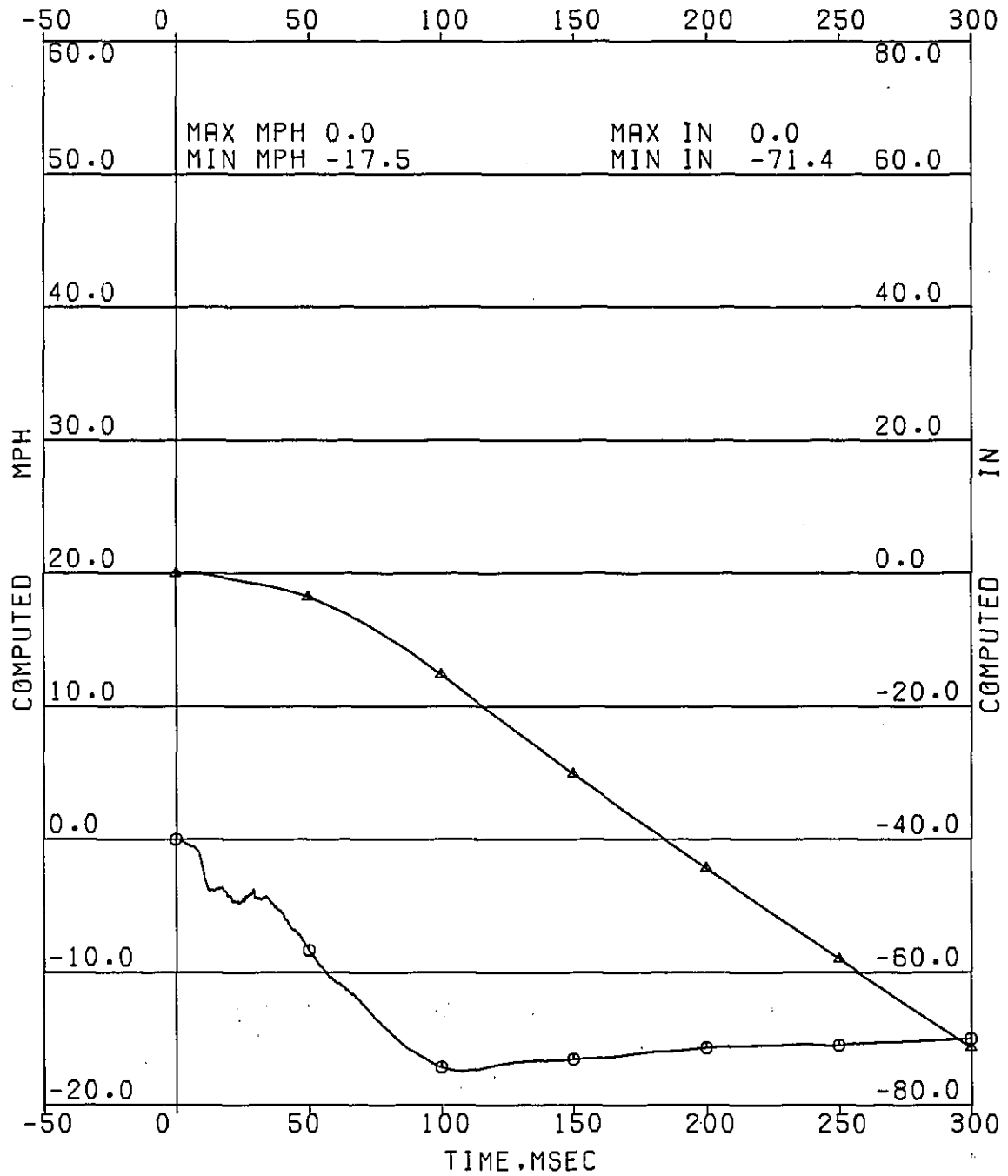


VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 3 LEFT REAR SILL X 80446

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

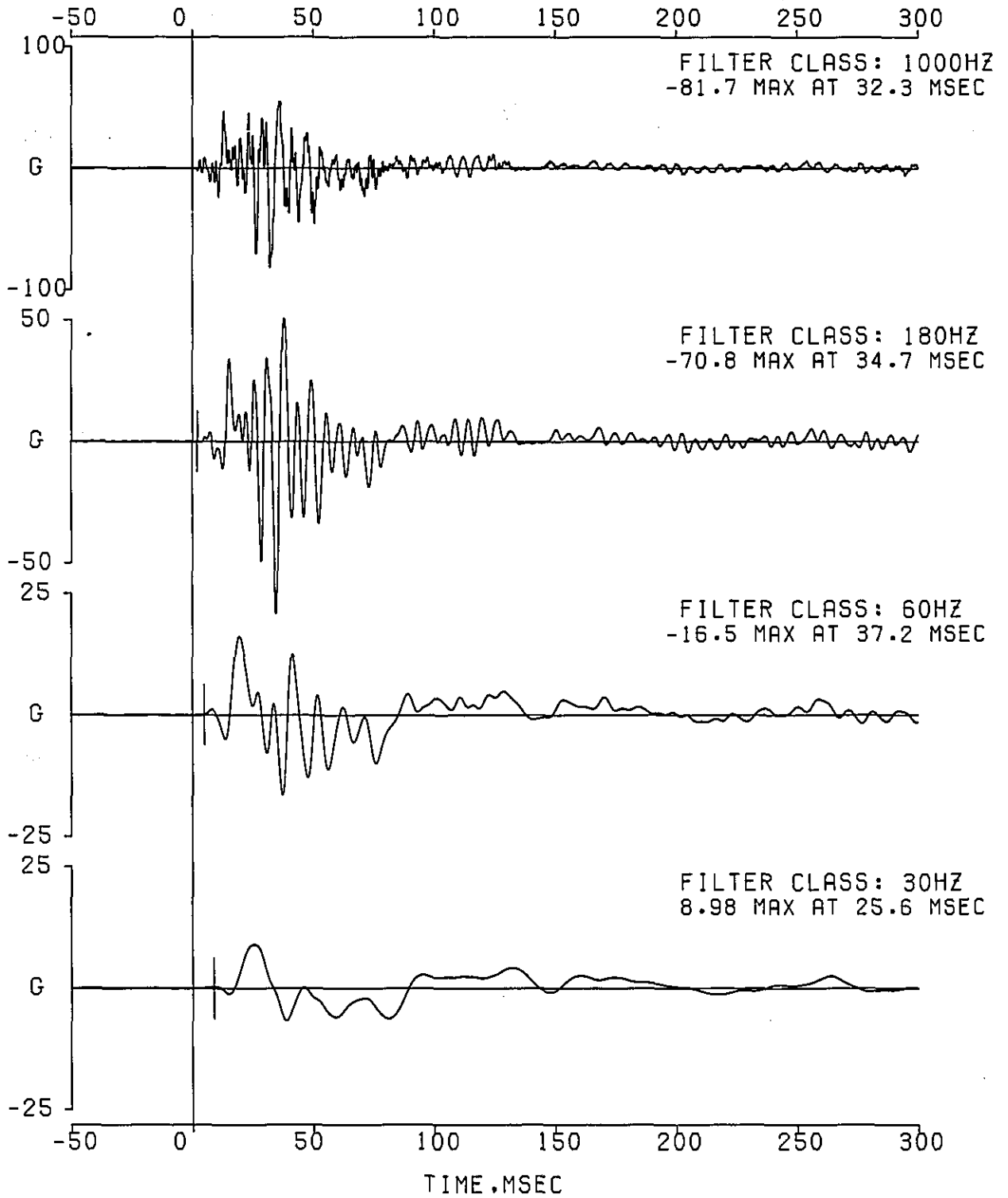
IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
CHANNEL 4 LEFT REAR SILL Z 80455
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28.1989 ERRATA 1

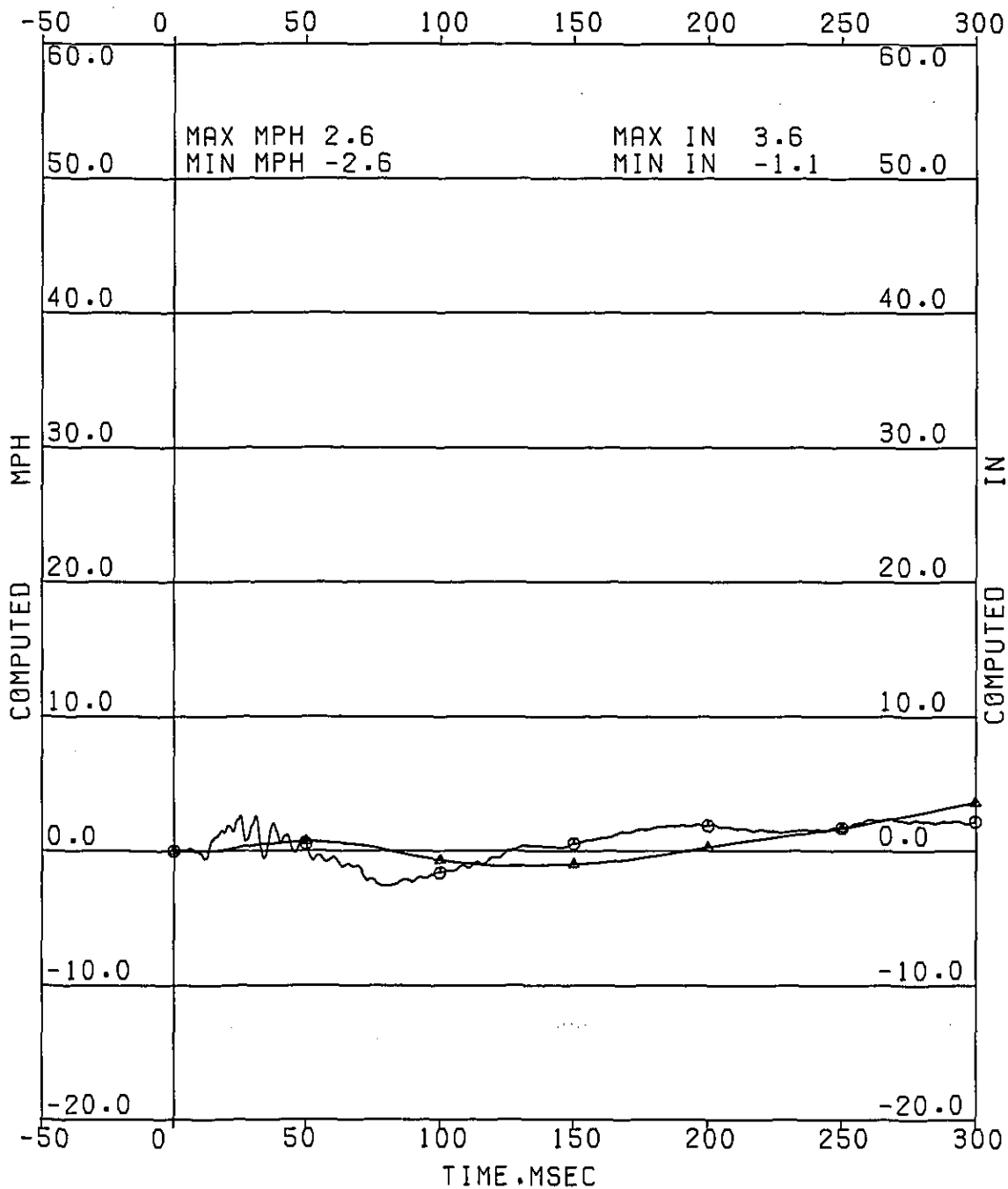


VC03960 30 MPH REAR IMPACT. XJ72. 4.0L 16 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 4 LEFT REAR SILL Z-80455

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

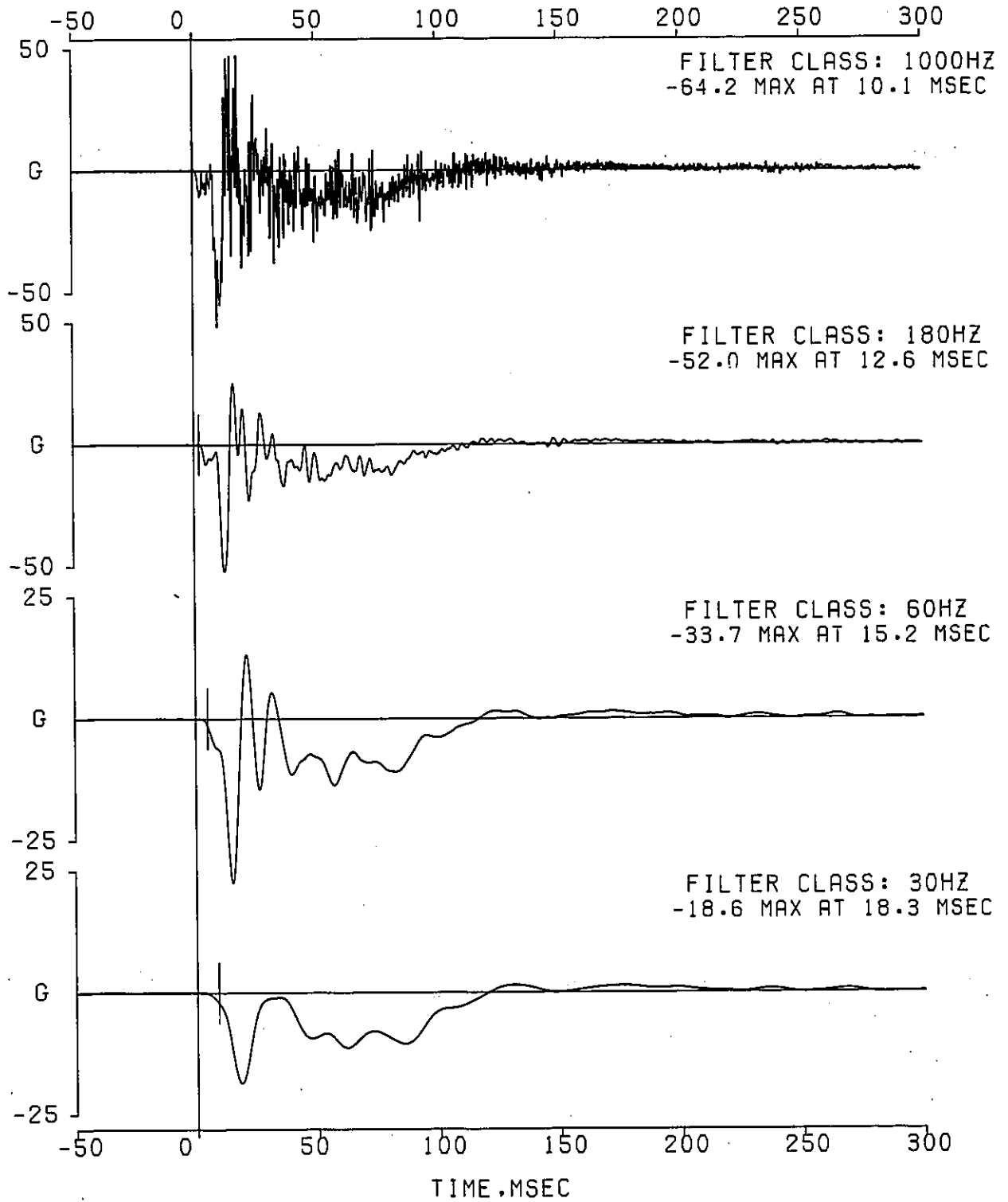
IMPACT ANALYSIS DEPT. 5320
 AUG 28, 1989

DATA SET 08/25/89BA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 5 RIGHT REAR SILL X 73932
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28,1989 ERRATA 1

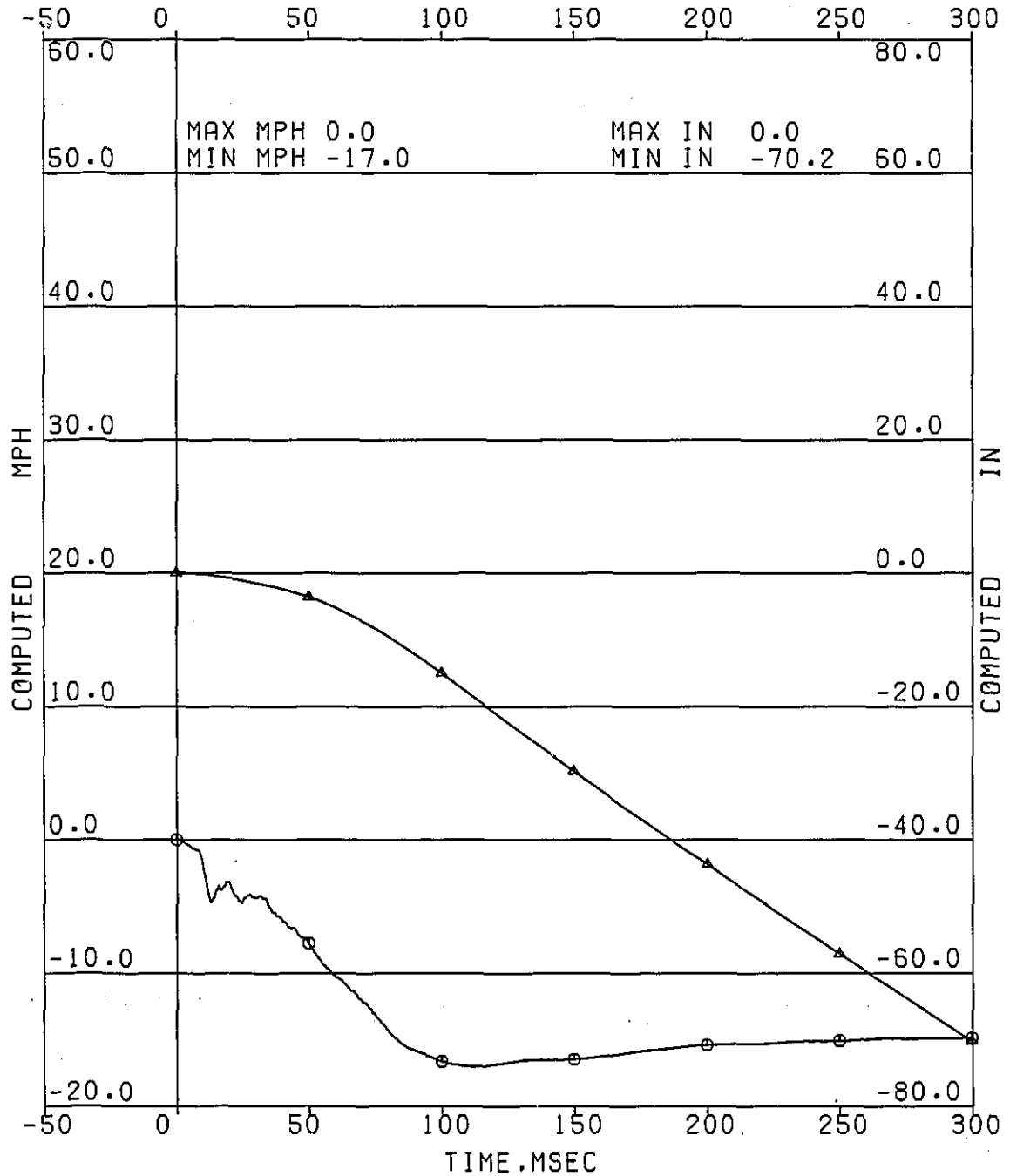


VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 5 RIGHT REAR SILL X 73932

FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

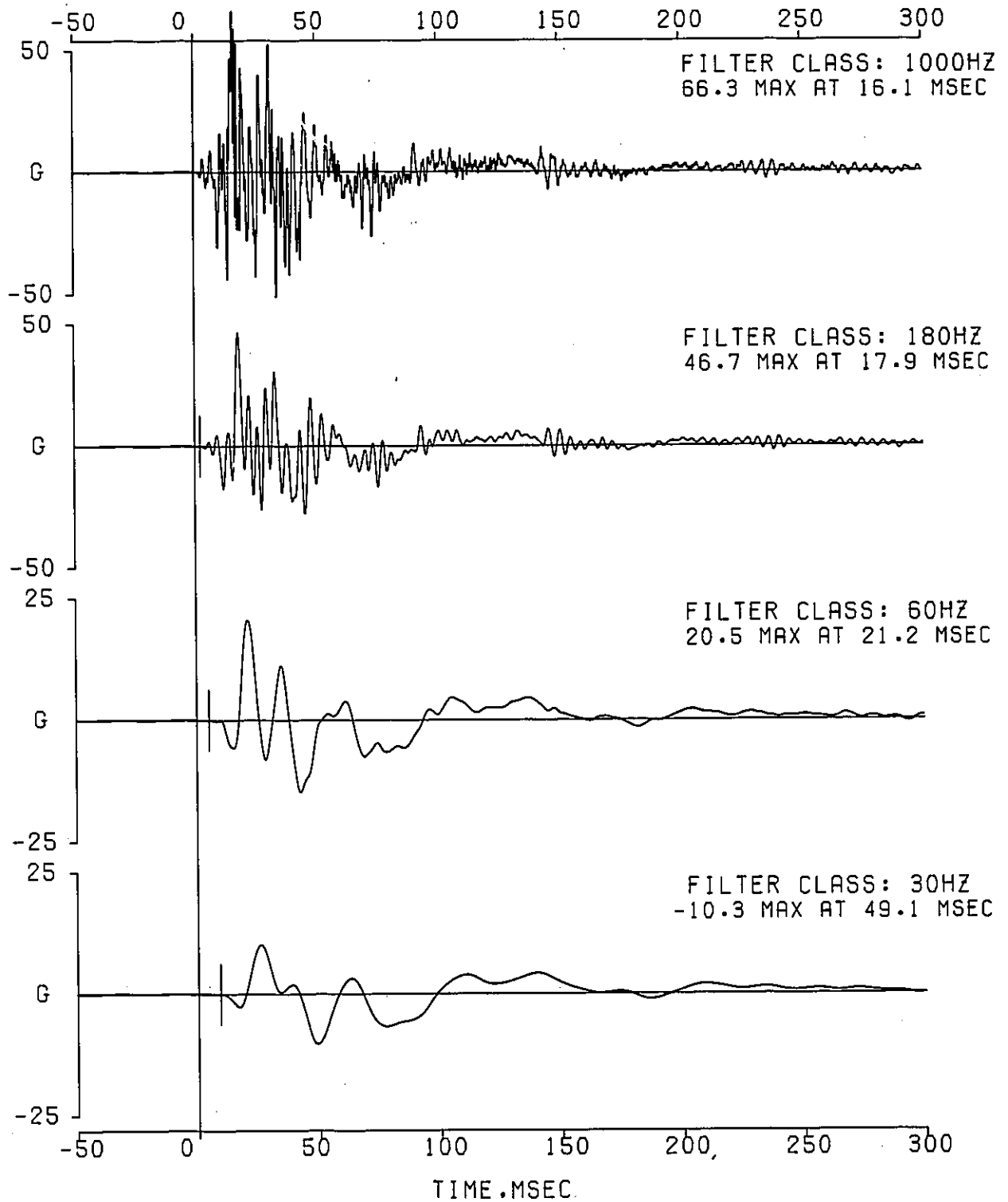
IMPACT ANALYSIS DEPT. 5320
 AUG 28, 1989

DATA SET 08/25/89BA
 ERRATA 1



⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 6 RIGHT REAR SILL Z 21361
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28,1989 ERRATA 1

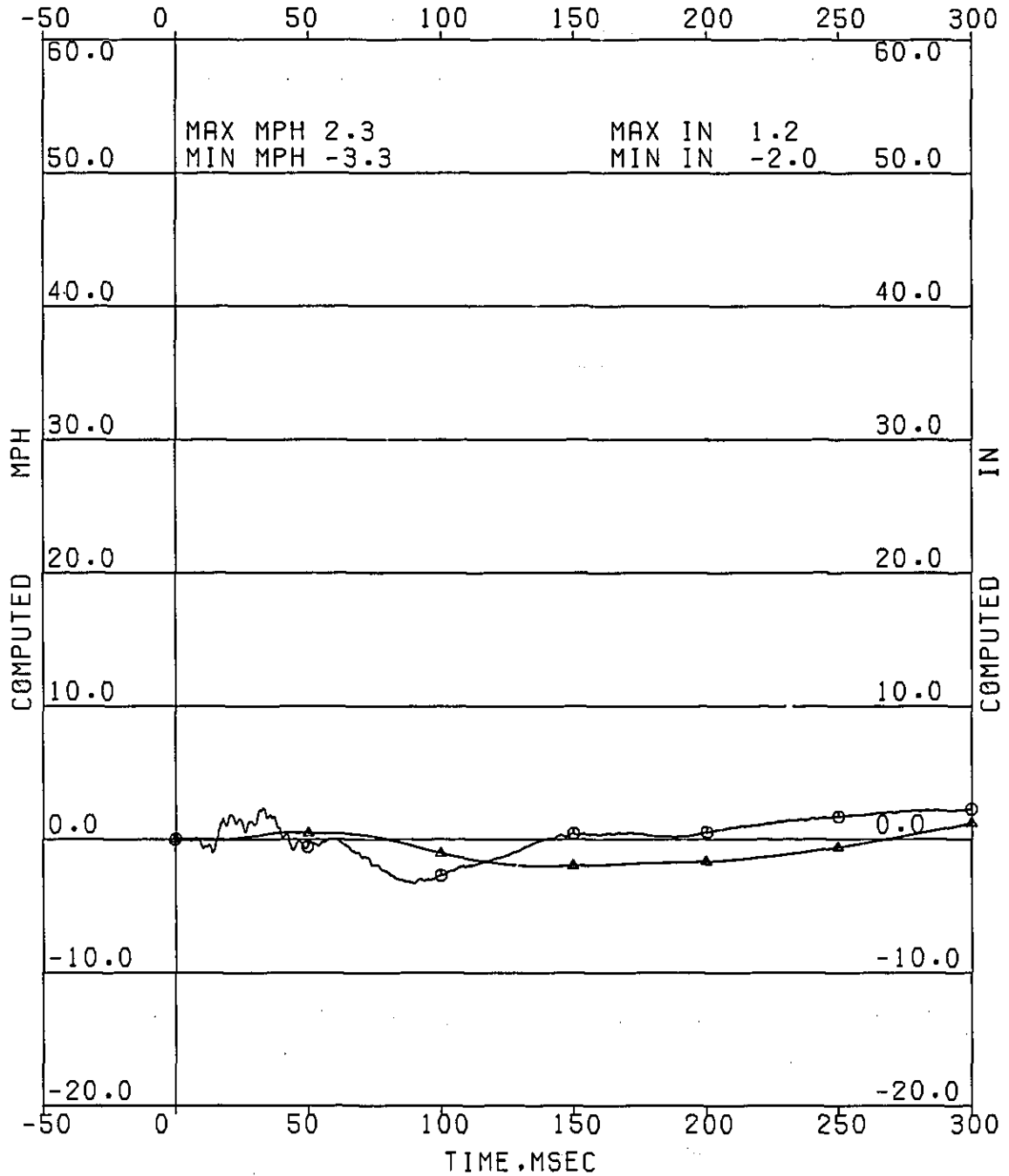


VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 6 RIGHT REAR SILL Z 21361

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

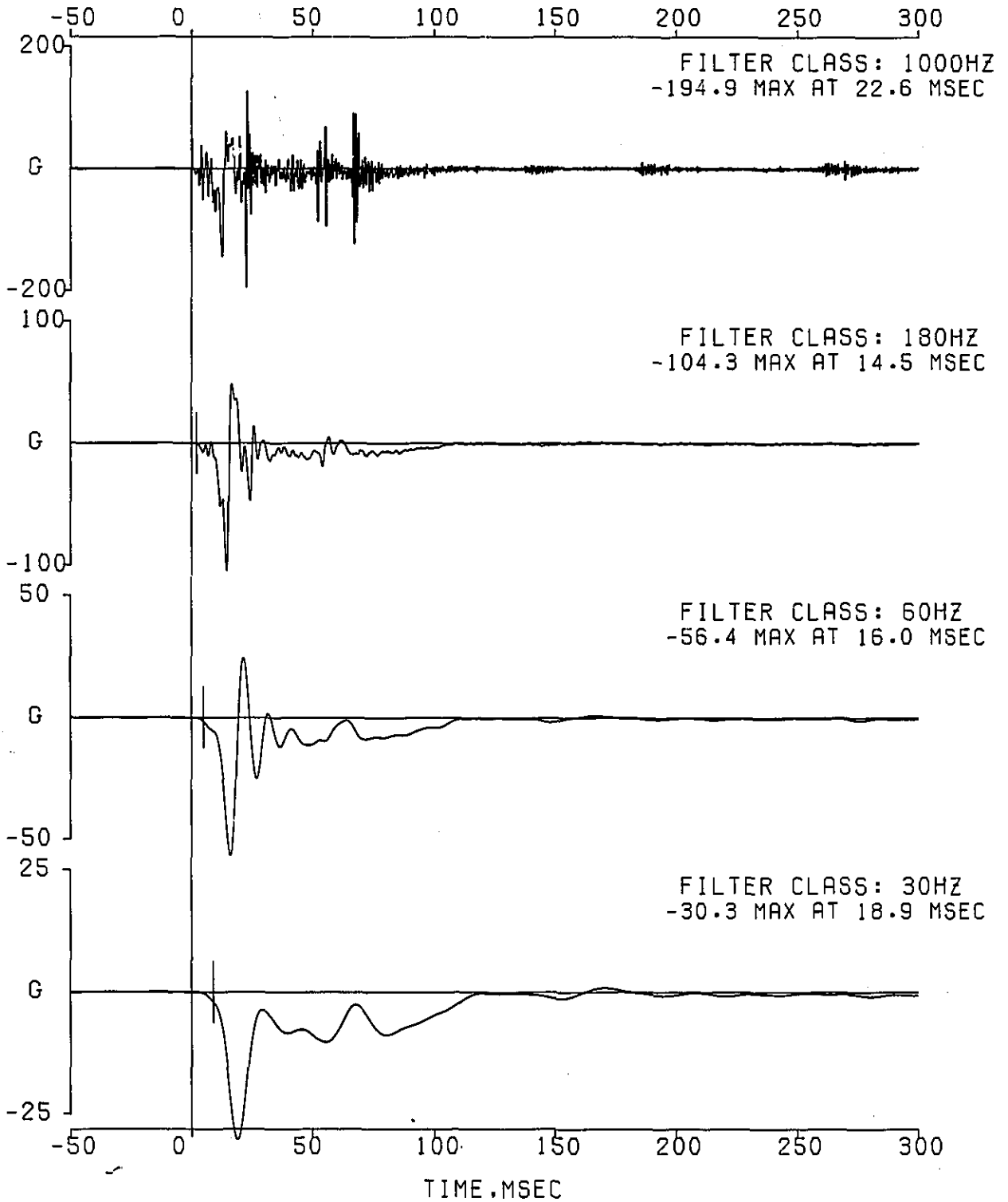
IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 7 LT RAIL TRAIL ARM PIV X 97857
 FILTER TYPE: OBDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
 AUG 28,1989 ERRATA 1



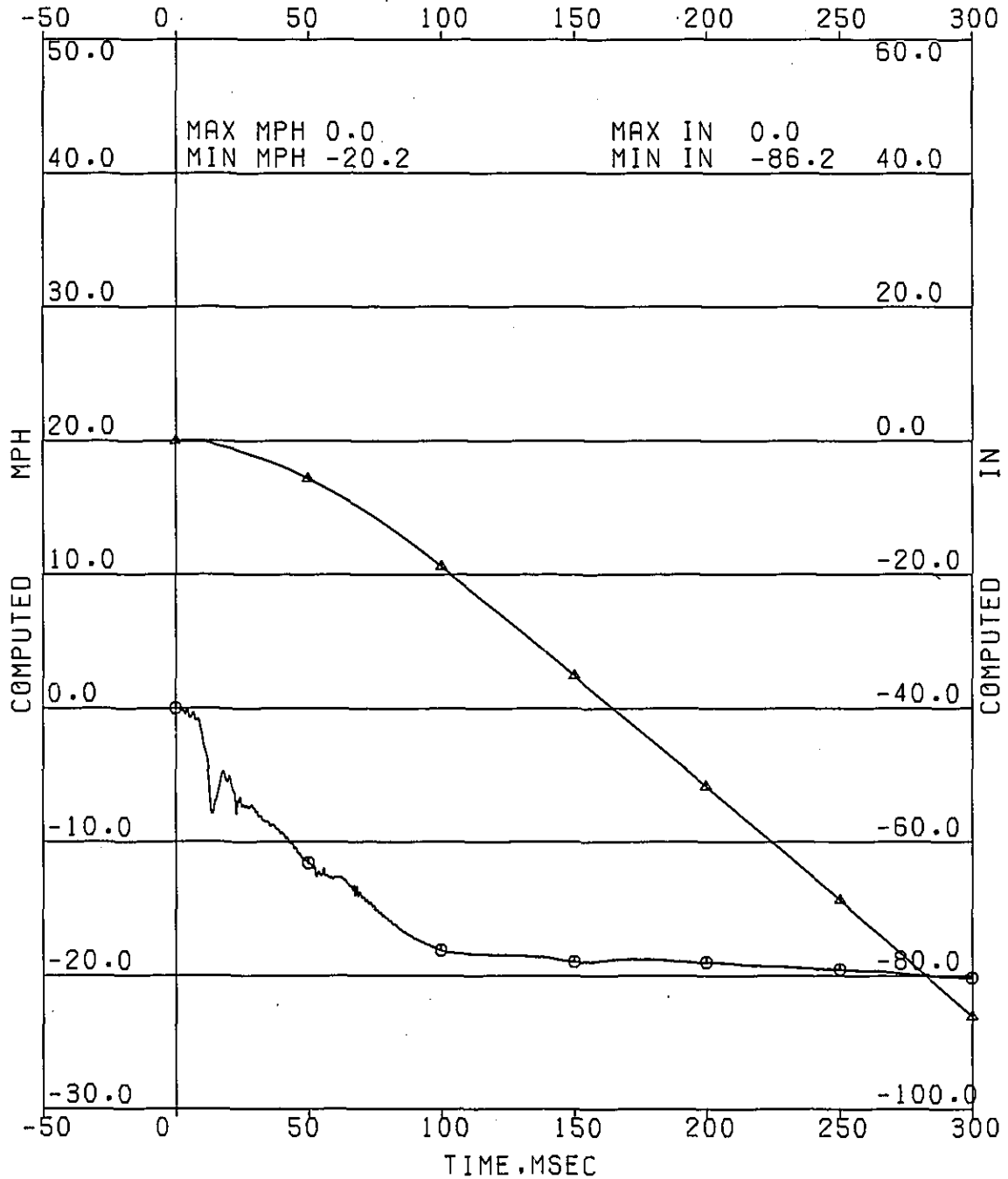
*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI, ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 7 LT RAIL TRAIL ARM PIV X 97857

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 AUG 28, 1989

DATA SET 08/25/89BA
 ERRATA 1

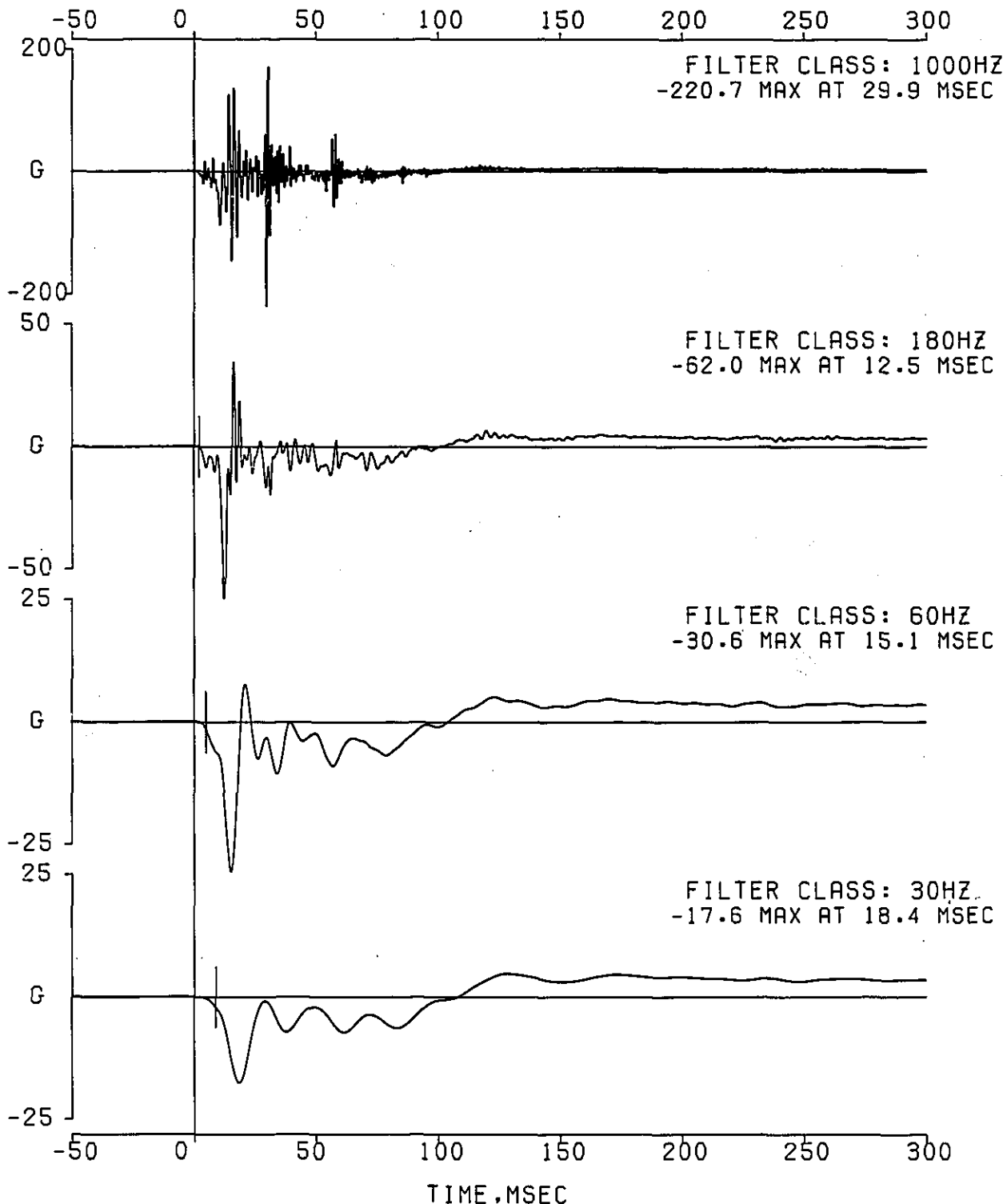


*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

EA12-005- Chrysler -000624

⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 8 RT RAIL TRAIL ARM PIV X 80405
 FILTER TYPE: QBDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
 AUG 28.1989 ERRATA 1



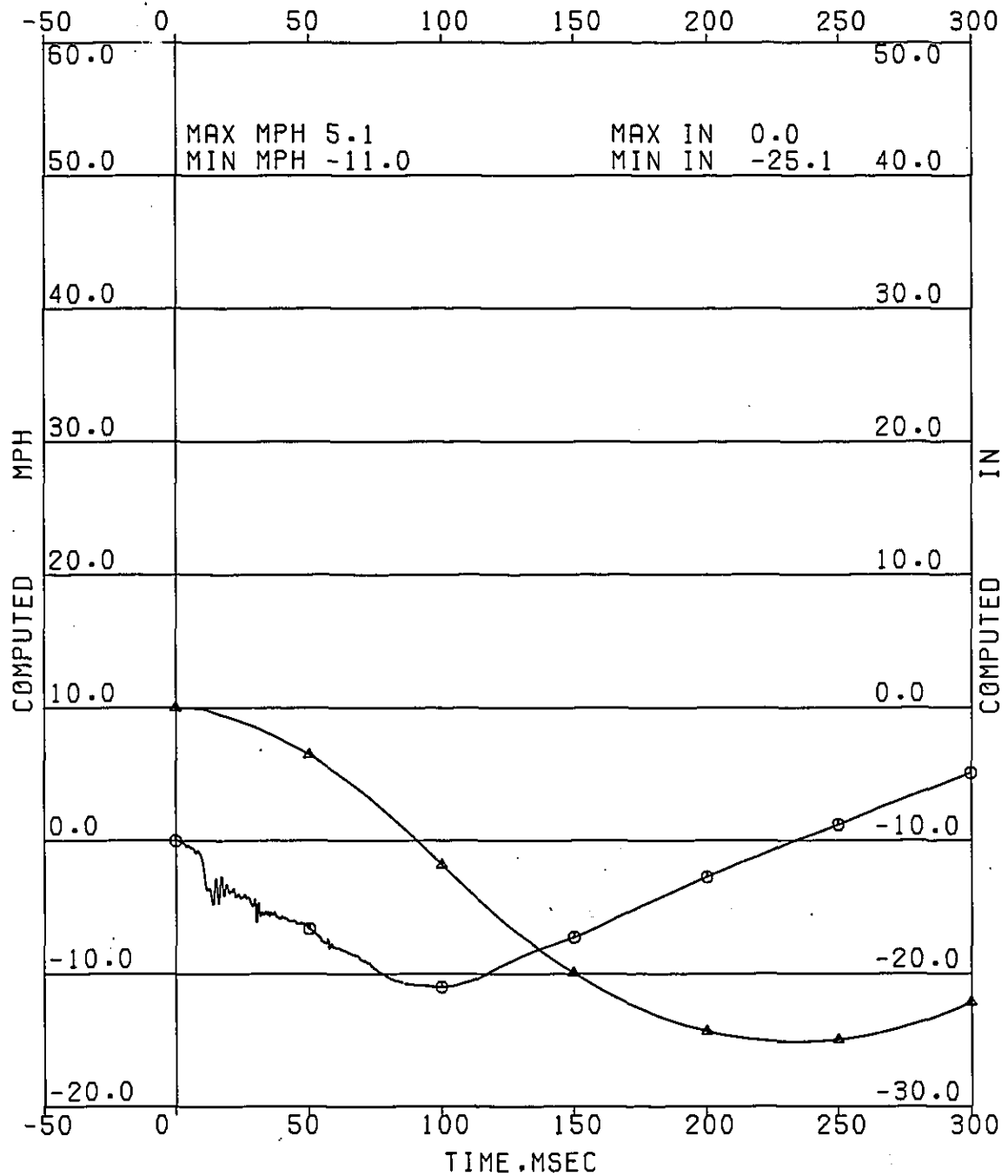
*****CAUTION*****
 *****DATA IS OFFSET*****

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 8 RT RAIL TRAIL ARM PIV X 80405

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

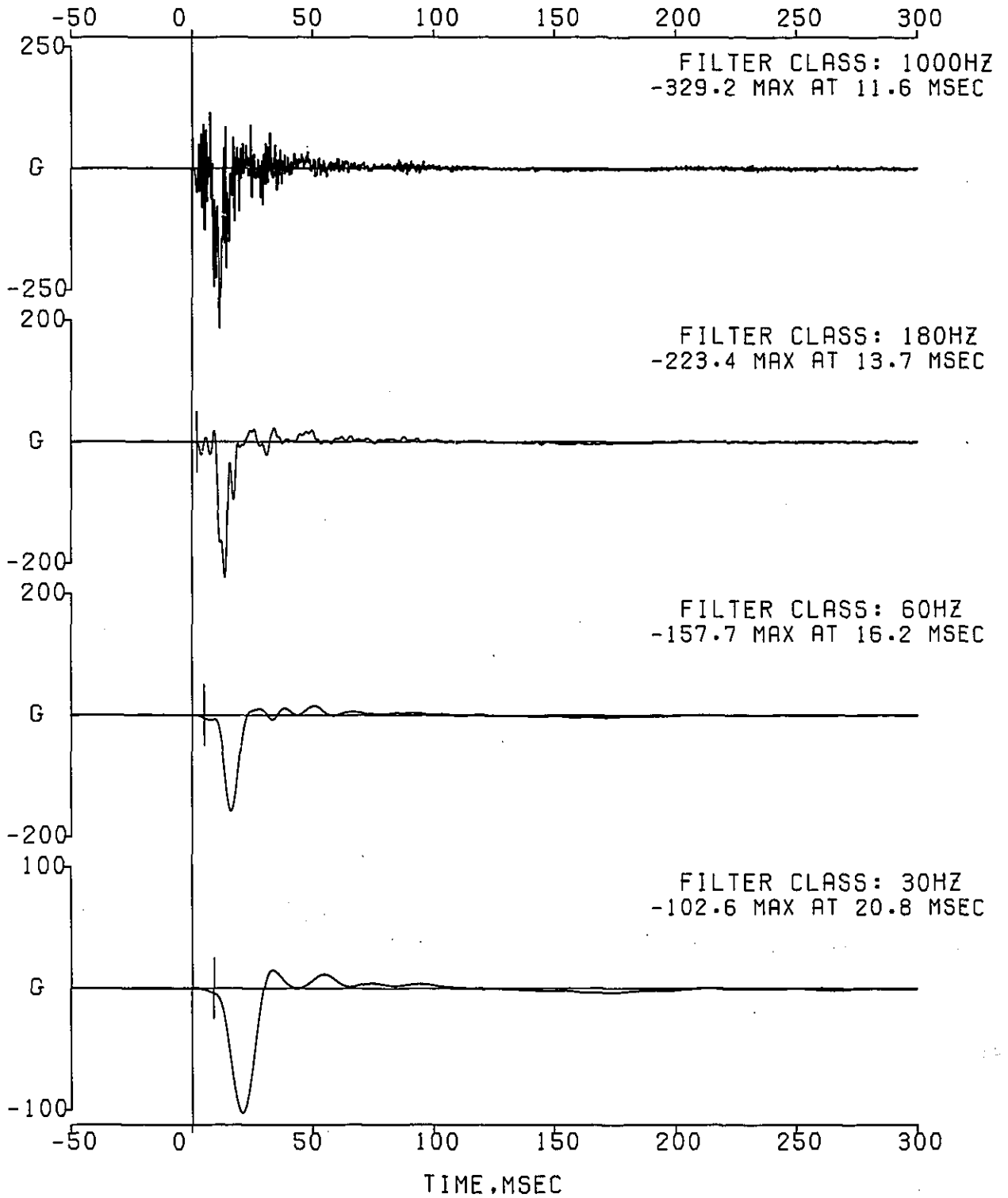
DATA SET 08/25/89BA
 ERRATA 1



*****CAUTION*****
 *****DATA IS OFFSET*****

○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 9 RIGHT RAIL MIDTANK X 14439
 FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
 AUG 28.1989 ERRATA 1



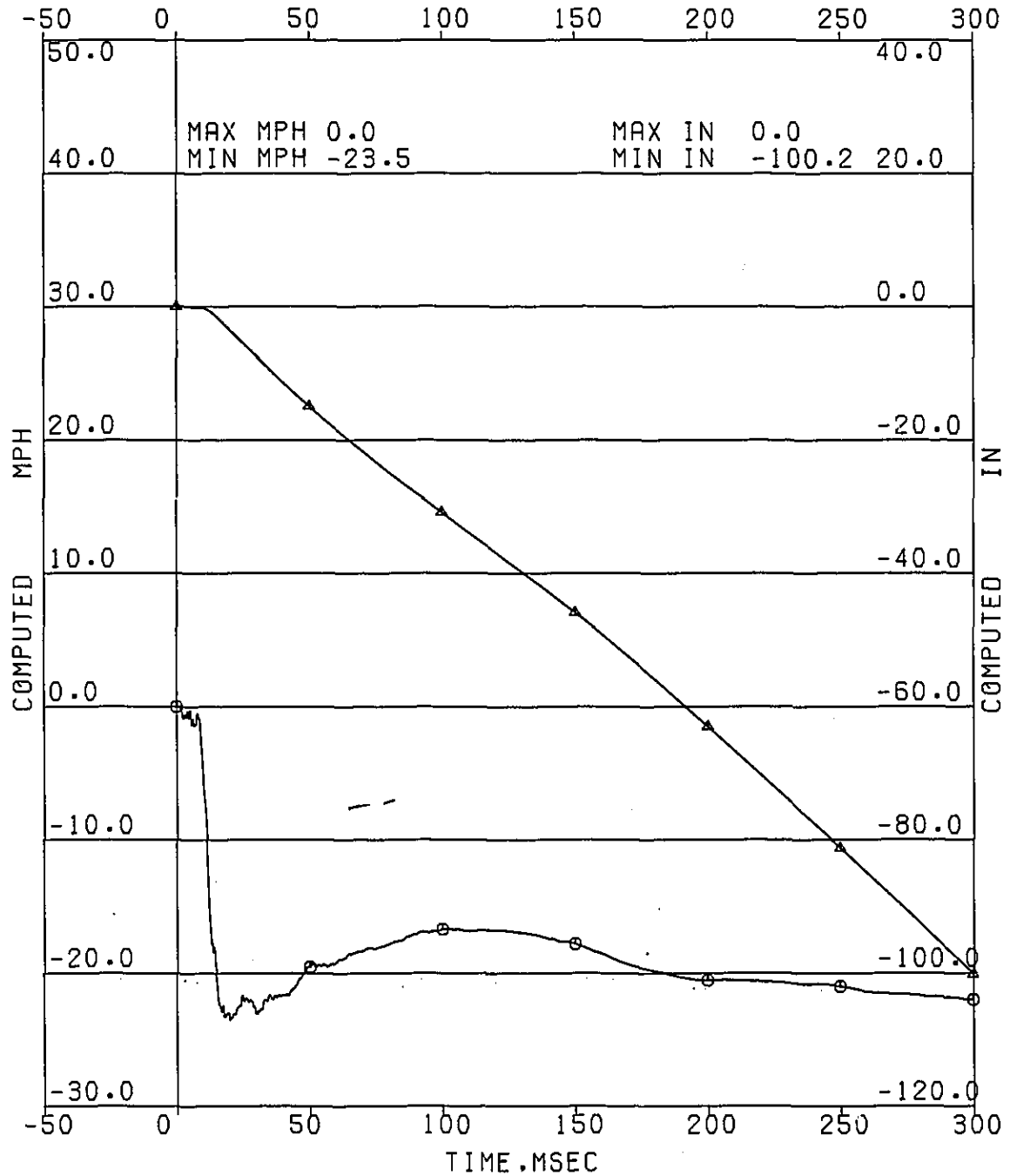
*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 9 RIGHT RAIL MIDTANK X 14439

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 AUG 28, 1989

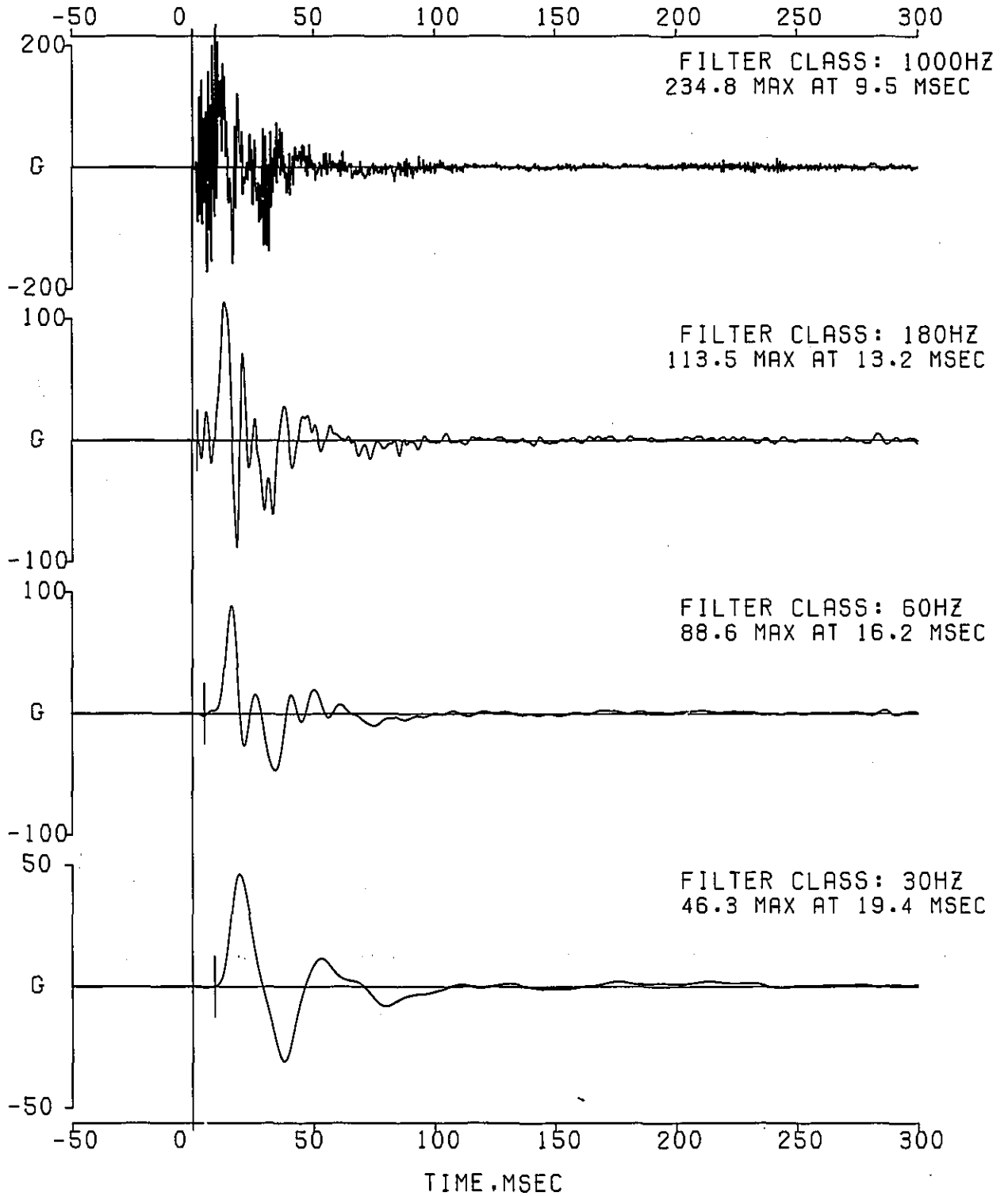
DATA SET 08/25/89BA
 ERRATA 1



*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 10 RIGHT RAIL MIDTANK Z 51119
 FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
 AUG 28,1989 ERRATA 1



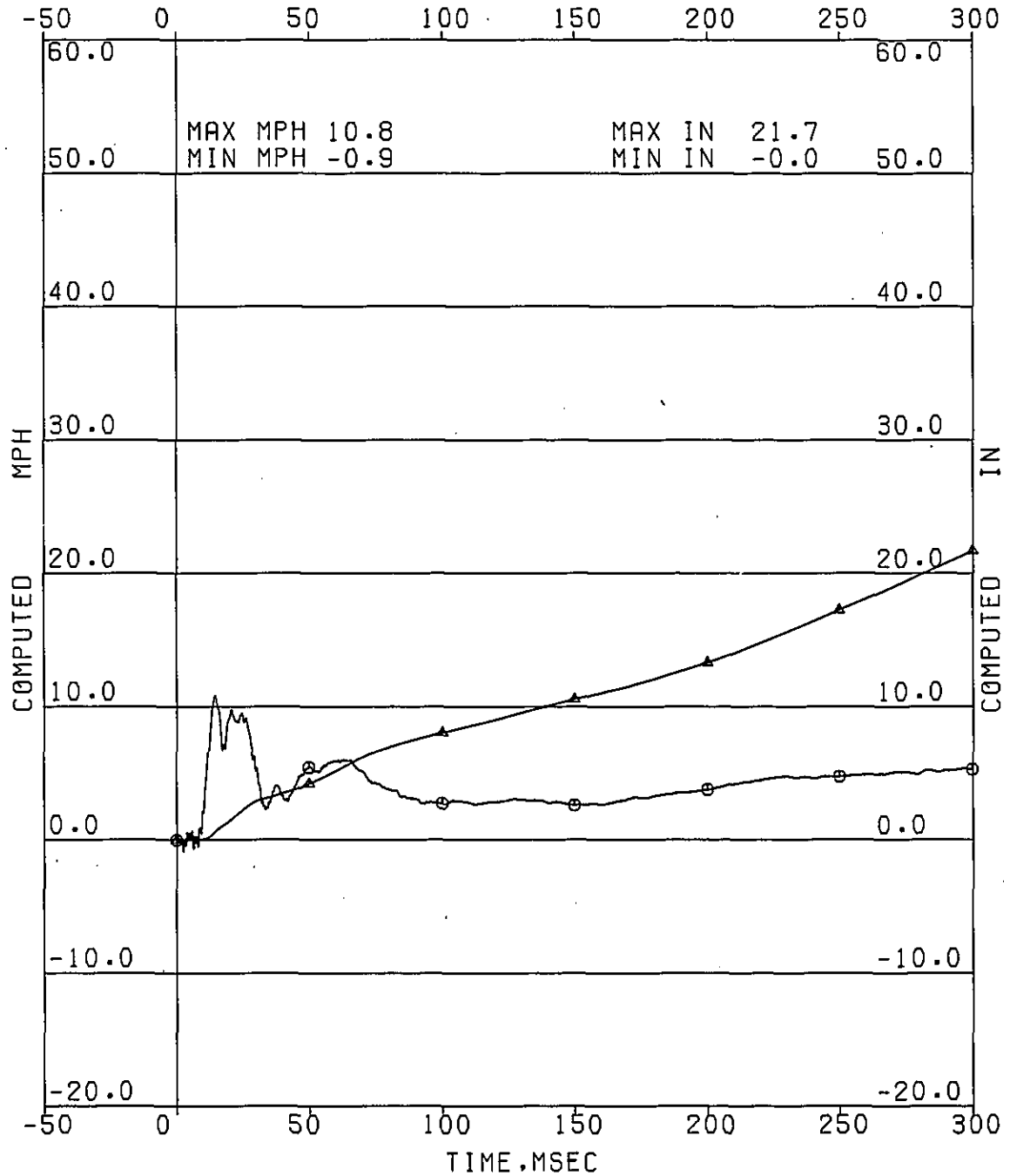
*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 10 RIGHT RAIL MIDTANK Z 51119

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



*****CAUTION*****
 *****SEVERE ORIENTATION CHANGE*****

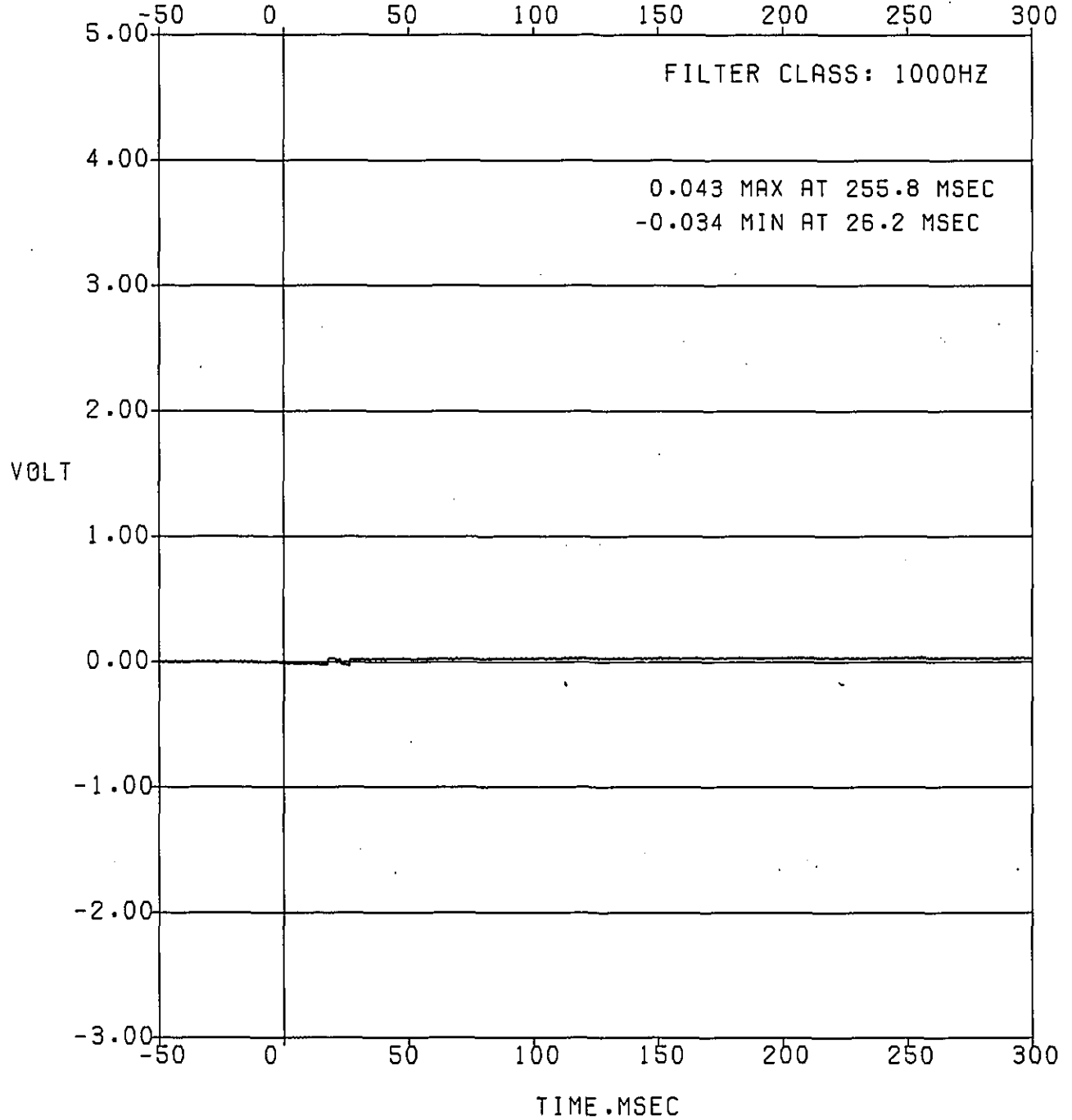
EA12-005- Chrysler -000630

○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT. XJ72. 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

CHANNEL 11 FUEL SEND UNIT-EVENT

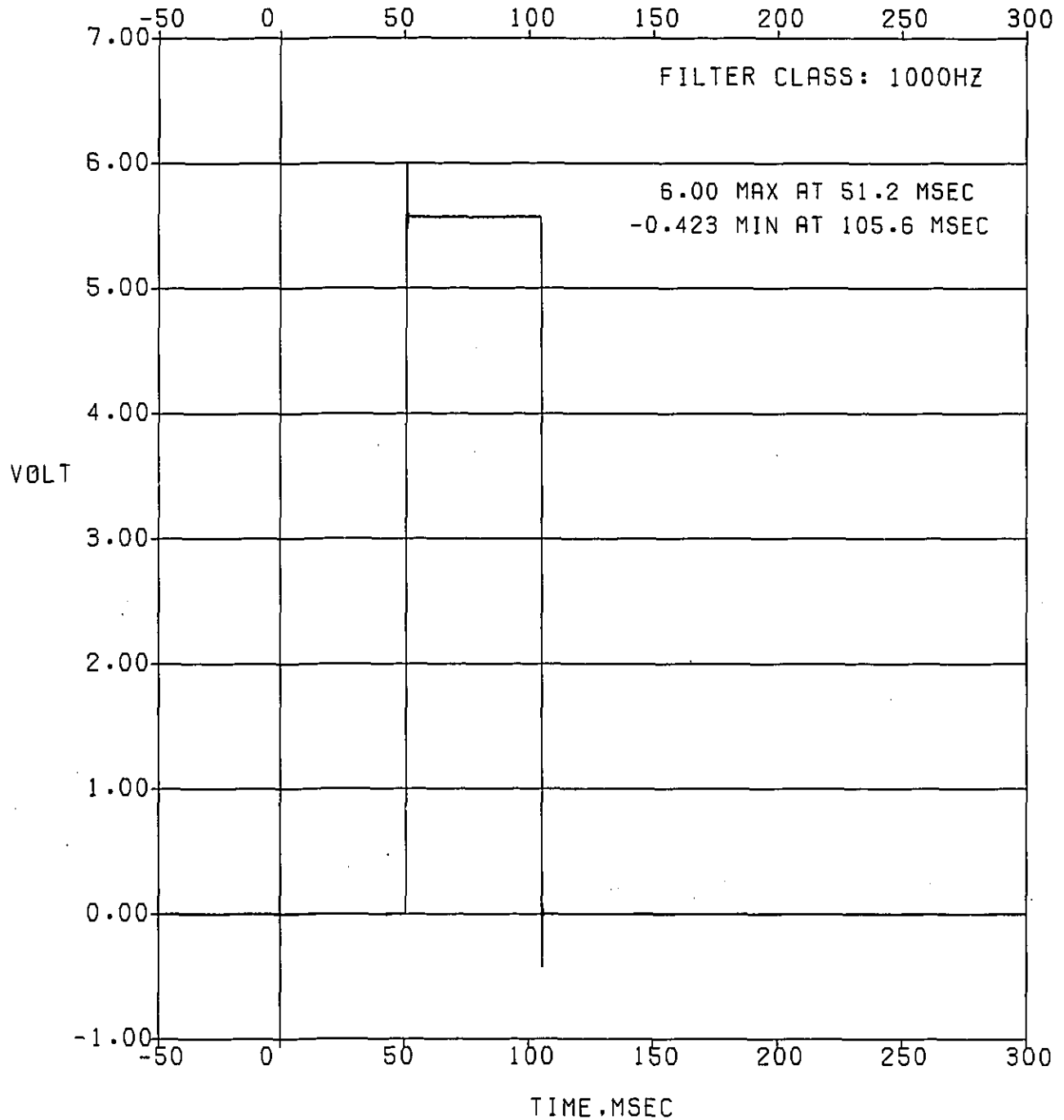
FILTER TYPE: OBDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28.1989 ERRATA 1



VC03960 30 MPH REAR IMPACT. XJ72. 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

CHANNEL 12 FUEL TANK/DIFF-EVENT

FILTER TYPE: OBDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28.1989 ERRATA 1

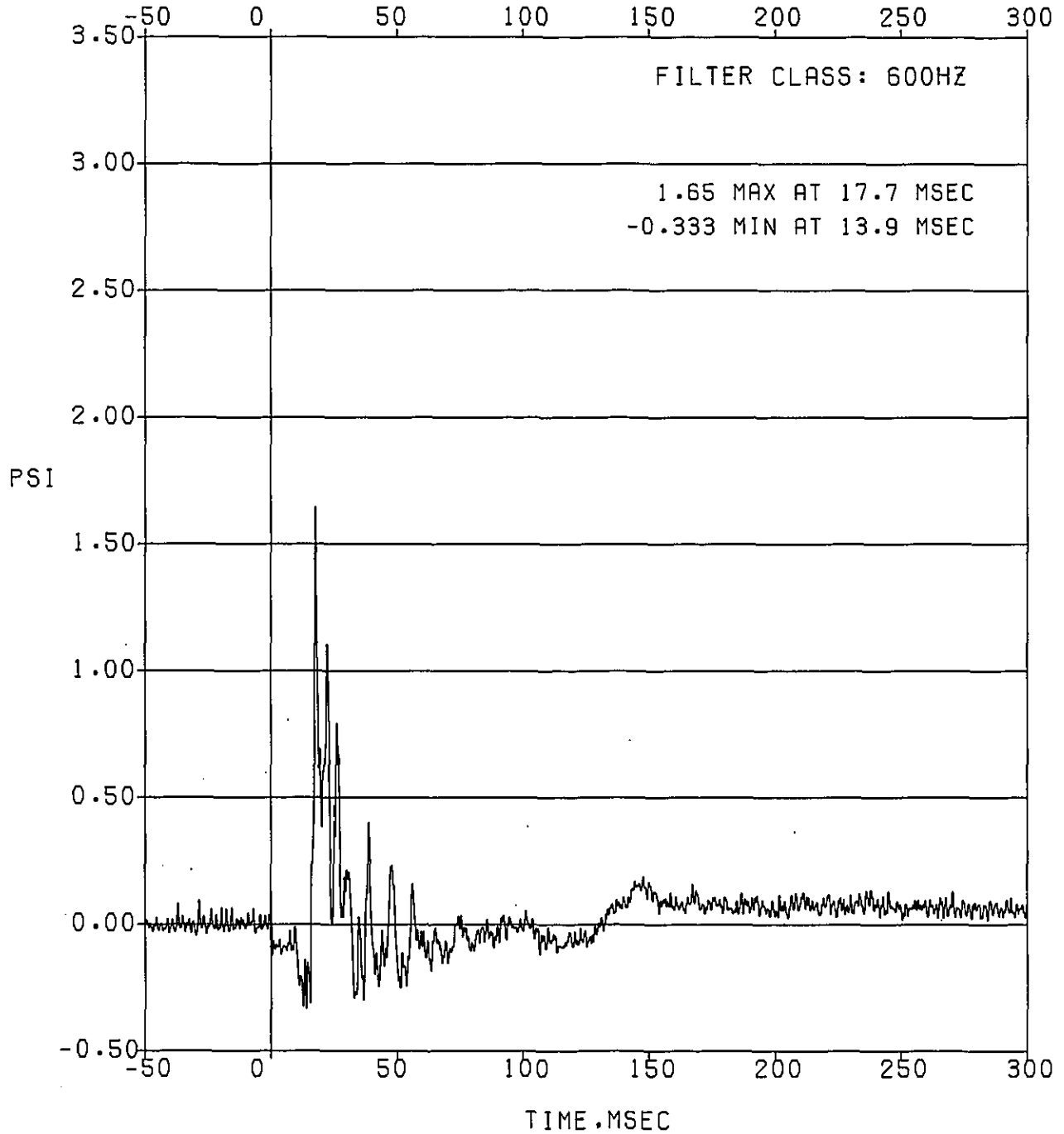


*****NOTE*****
*****CONTACT AT 50.8 MS LASTING 54.5 MS*****

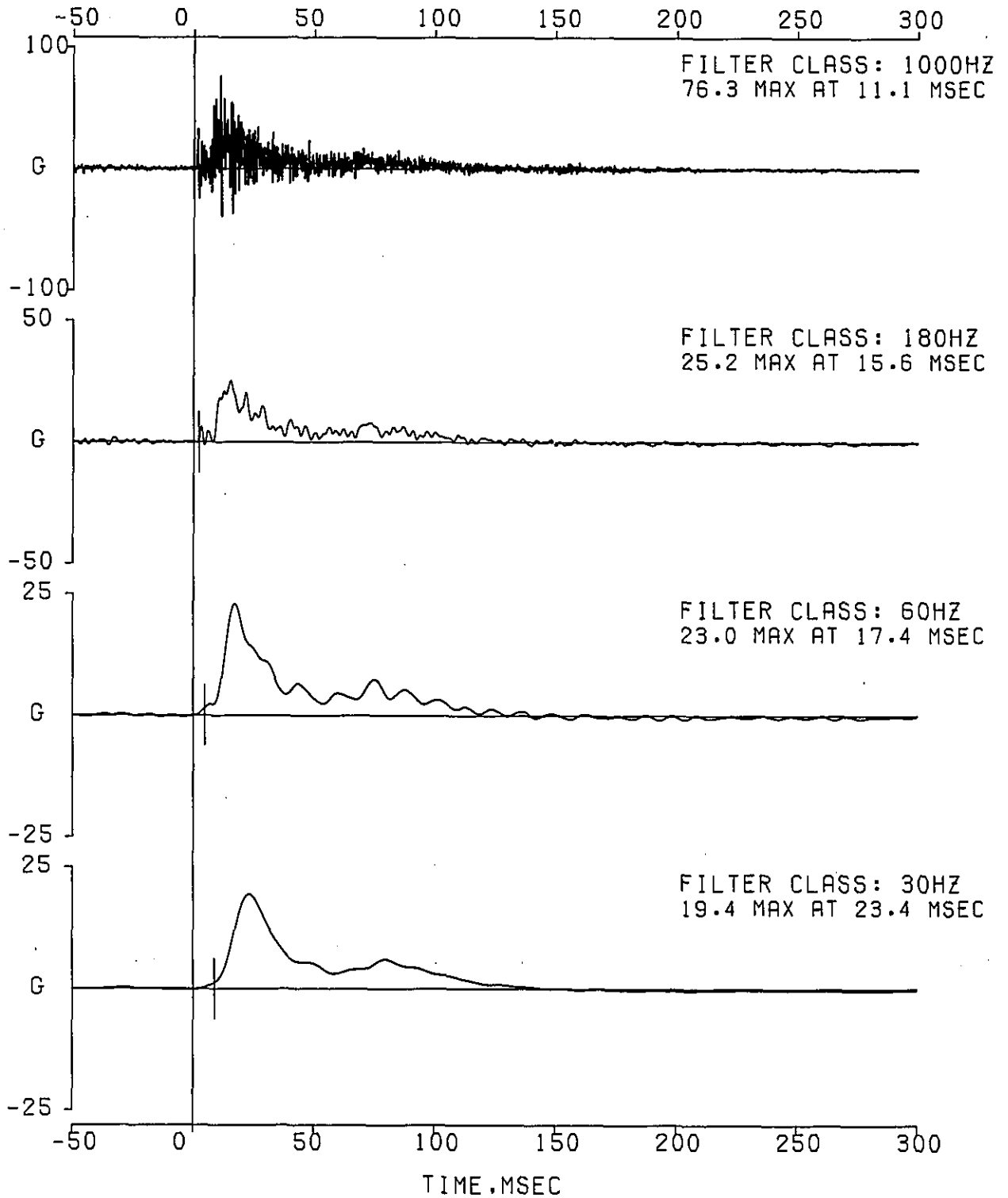
VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.

CHANNEL 13 FUEL TANK PRESSURE 5877

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 600 HZ CLASS FILTER(1000)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28, 1989 ERRATA 1



VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
CHANNEL 14 LT RAIL MBAR MID X 80487
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
AUG 28.1989 ERRATA 1

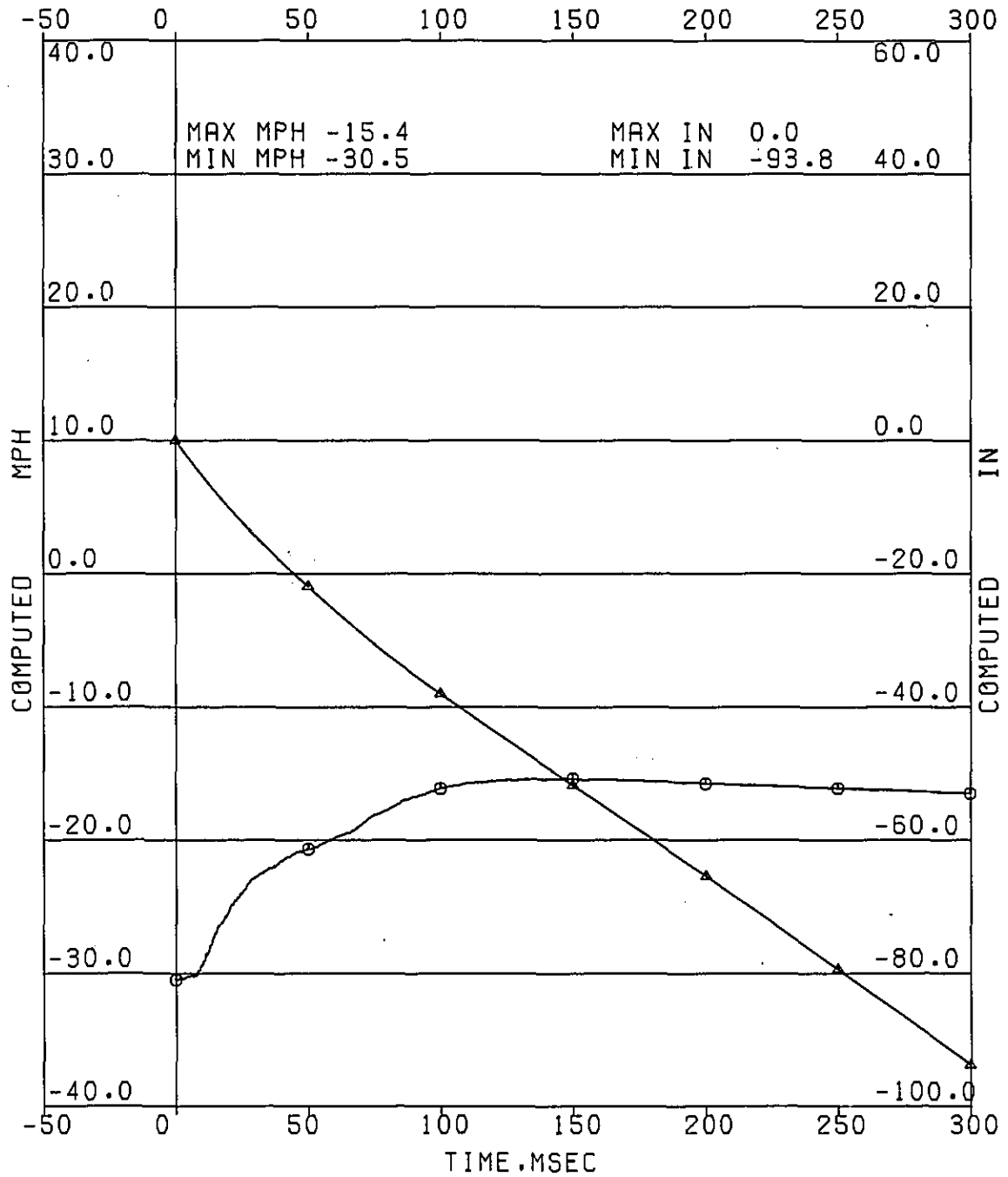


VC03960 30 MPH REAR IMPACT. XJ72. 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
 CHANNEL 14 LT RAIL MBAR MID X 80487

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION. 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

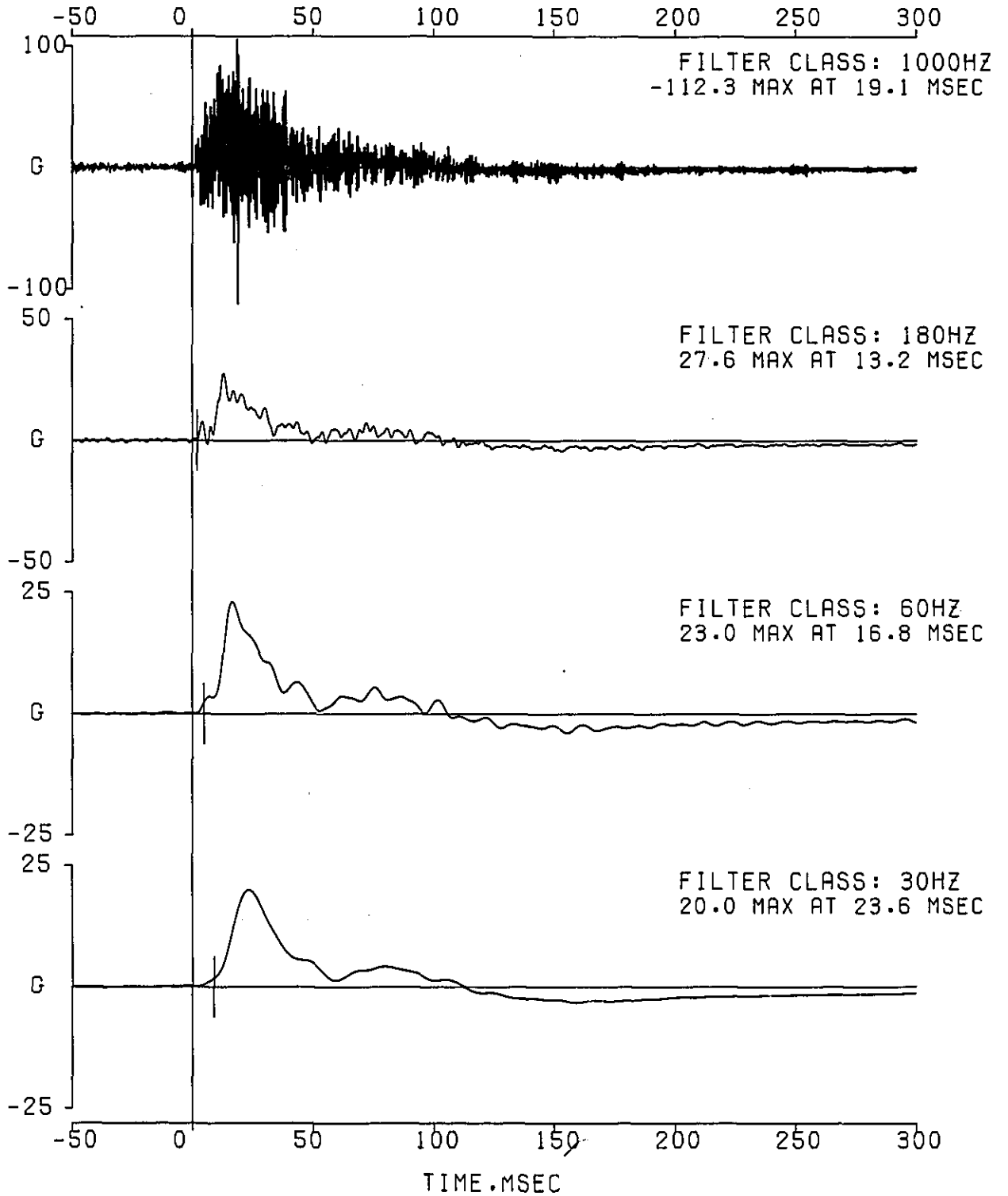
IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 15 RT RAIL MBAR MID X 73938
 FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 IMPACT ANALYSIS DEPT. 5320 DATA SET 08/25/89BA
 AUG 28,1989 ERRATA 1



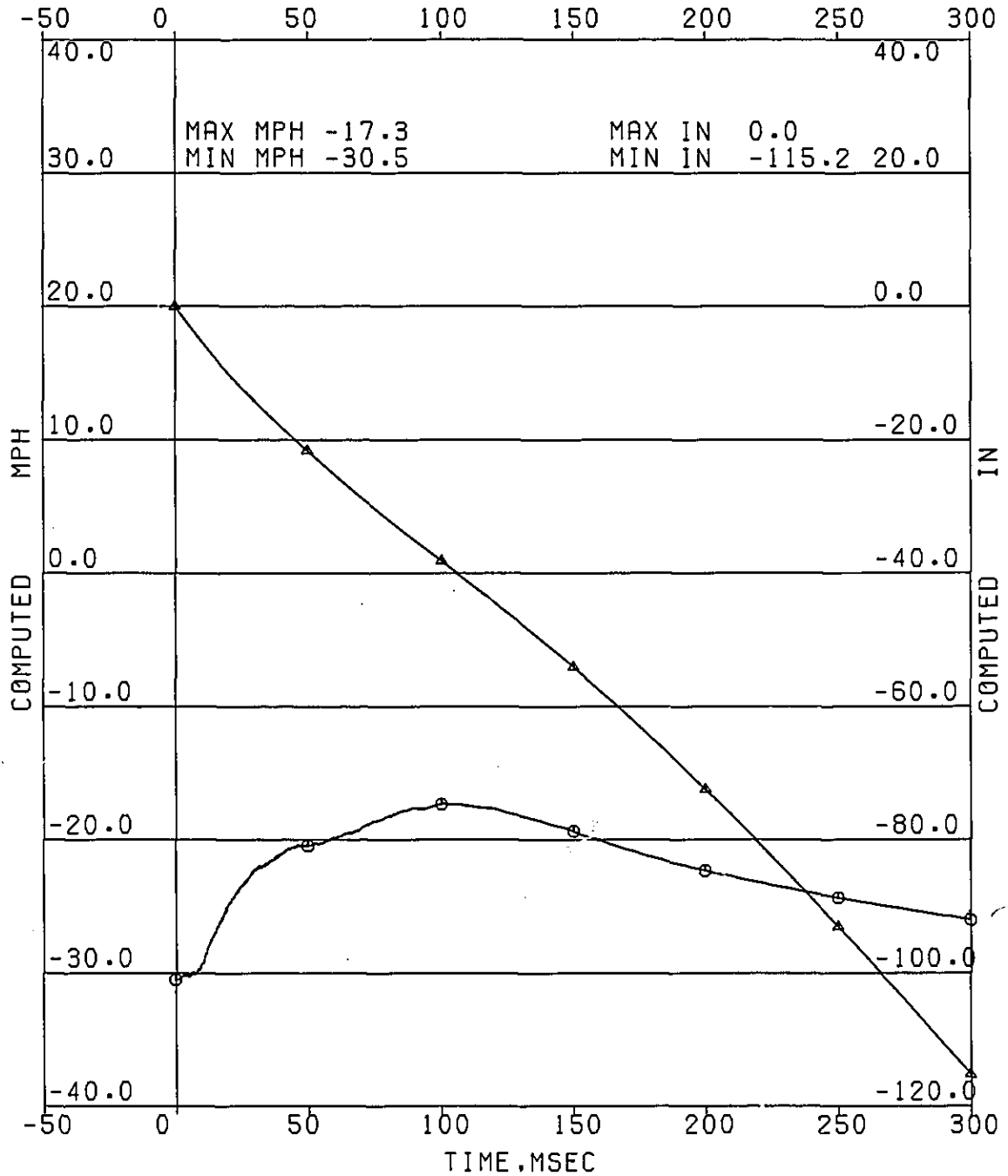
*****CAUTION*****
 *****DATA IS OFFSET*****

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L 16 MPI. ITEM 8XJ64
 1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.
 CHANNEL 15 RT RAIL MBAR MID X 73938

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, 1000 HZ CLASS FILTER(1650)
 FILTER CLASS: 1000HZ

IMPACT ANALYSIS DEPT. 5320
 AUG 28.1989

DATA SET 08/25/89BA
 ERRATA 1



*****CAUTION*****
 *****DATA IS OFFSET*****

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○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

INTER COMPANY CORRESPONDENCE

FILE DCR083189

DATE 08/31/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
5320

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

DYNAMIC CRUSH ANALYSIS
VC03960 30 MPH REAR IMPACT. XJ72, 4.0L I6 MPI. ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT. FUEL SYSTEM INTEGRITY.
TEST DATE 08/25/89

TEST PURPOSE PRIMARY. 1991 MVSS 301 DEVELOPMENT.
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: REAR
IMPACT TYPE: TYPE IV
BARRIER SURFACE: PLYWOOD
DIRECTION: 0 DEGREES

VEHICLE BODY CLASS: XJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4FJ37L?M* [REDACTED] MOD.
VIN AS BUILT: 1J4FJ37L3KL [REDACTED] MOD.

TEST SPEED 30.2 MPH BY ELECTRONIC TRAP TIMER

TEST WEIGHT (LBS) 4274 TOTAL, 2220 FRONT, 2054 REAR

OCCUPANTS LEFT FRONT 50TH MALE UNINSTRUMENTED. AD-27
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE UNINSTRUMENTED. AD-60
RESTRAINT-UNIBELT

BUILD CONDITION

TARGET WEIGHT (LBS) 3666 TOTAL. 2005 FRONT. 1661 REAR. REP MAX OPT WT
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.
FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
100 LB ON REAR FLOOR PAN. 70 LB ON LEFT FRONT FLOOR
PAN. 70 LB ON RIGHT FRONT FLOOR PAN AND 25 LB ON
TOP OF EACH C POST.

POST TEST REMARKS AN UNKNOWN AMOUNT OF FUEL LEAKED FROM THE UPPER
SURFACE OF THE FUEL TANK. THEN STOPPED.

DYNAMIC CRUSH, PITCH, AND REAR WHEEL MOTION RELATIVE TO THE FRONT
SILL HAVE BEEN DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON
CAMERA TIMING DATA.

DYNAMIC CRUSH 20.1 +0R- 1 INCH AT 84. +0R- 5 MSEC.

S. A. HELQUIST

T. C. WILLIAMS

TEST VC03960 08/31/89 13.27 PAGE 2 OF 3

J. W. HANIKA

GRAPHS - 4

TEST VC03960 08/31/89 13.27 PAGE 3 OF 3

EA12-005- Chrysler -000640

G L O S S A R Y O F T E R M S

U S E D I N S T A N D A R D R E P O R T S

AD	ANTHROPOMORPHIC DEVICE
ADT	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
BCD	BINARY CODED DECIMAL
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCW	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MM (MINUS INITIAL LENGTH)
CORR-P	CORRECTED (ZEROED) PITCH
CORR-R	CORRECTED (ZEROED) ROLL
CORR-Y	CORRECTED (ZEROED) YAW
CW	CLOCKWISE
EFI	ELECTRONIC FUEL INJECTOR
ENG	ENGINE
ENGPY	ENGINE PITCH AND YAW
FESM	FRONT END SHEET METAL
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
LBS	POUNDS
LT	LEFT
MS	MID SILL TARGET
NORMALIZE	PUT ON A COMMON BASIS
NOSE-DOWN	LEADING END BELOW TRAILING
NOSE-UP	LEADING END ABOVE TRAILING
PERF	PERFORMANCE
REF	REFERENCE
REL	RELATIVE TO (ONE-DIMENSIONAL)
ROLL-LEFT	LEFT SIDE LOWER THAN RIGHT
ROLL-RIGHT	RIGHT SIDE LOWER THAN LEFT
RS	REAR SILL TARGET
RT	RIGHT
SEP	SEPARATION OF (THREE-DIMENSIONAL)
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME.MS	TIME IN MILLISECONDS
U/B	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
XF	X-FILTERED
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW-RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

IMPACT ANALYSIS
DEPARTMENT 5320
08/31/89 13.27
TEST VC03960

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZERGED X MOTION OF F3 REL TO FS IN BASE COORD SYS
VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

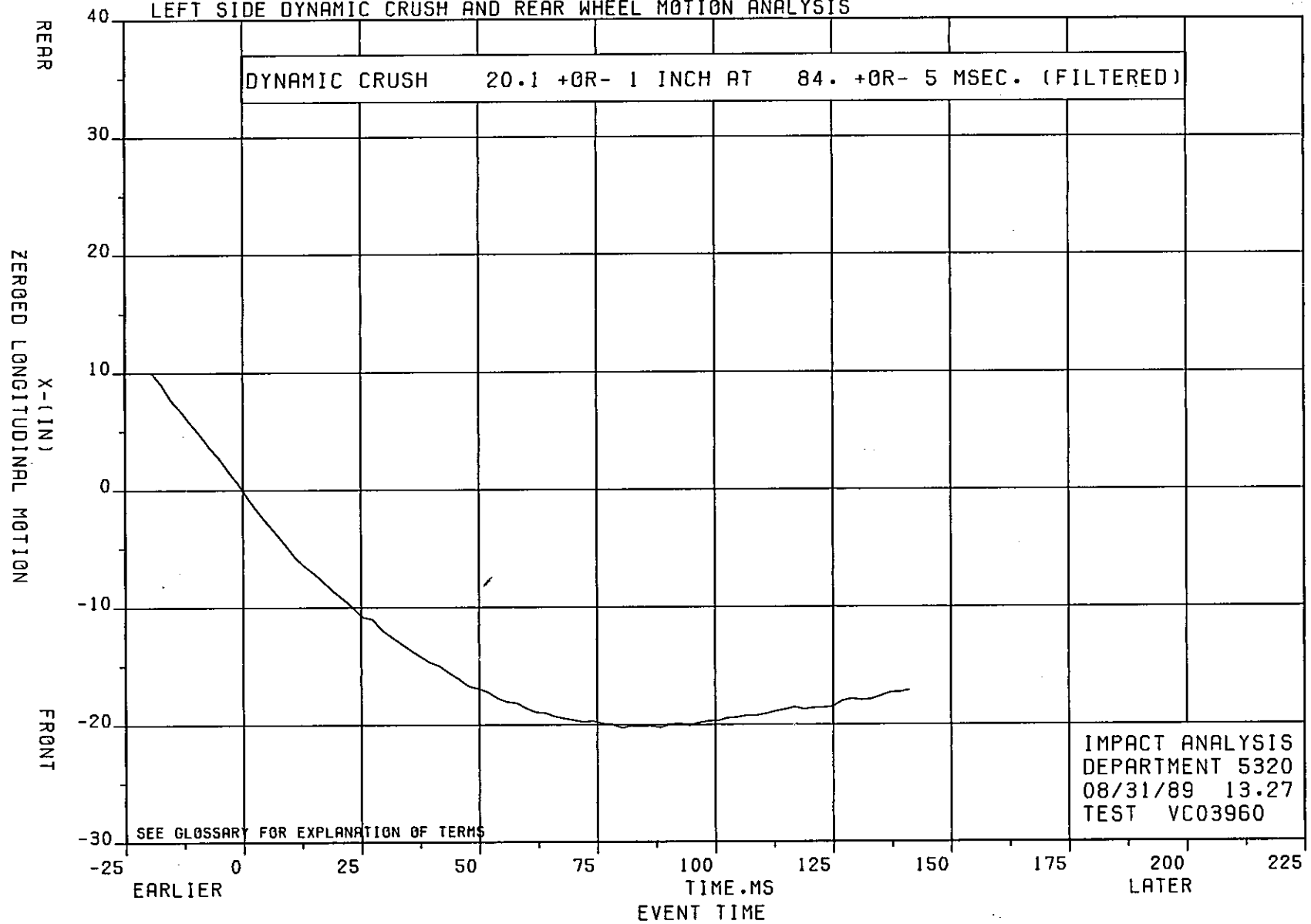


FIGURE 1

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZERØED Z OF WHEEL RELATIVE TO FS IN CAR COØRD
VERSUS ZEROED X OF WHEEL RELATIVE TO FS IN CAR COØRD

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

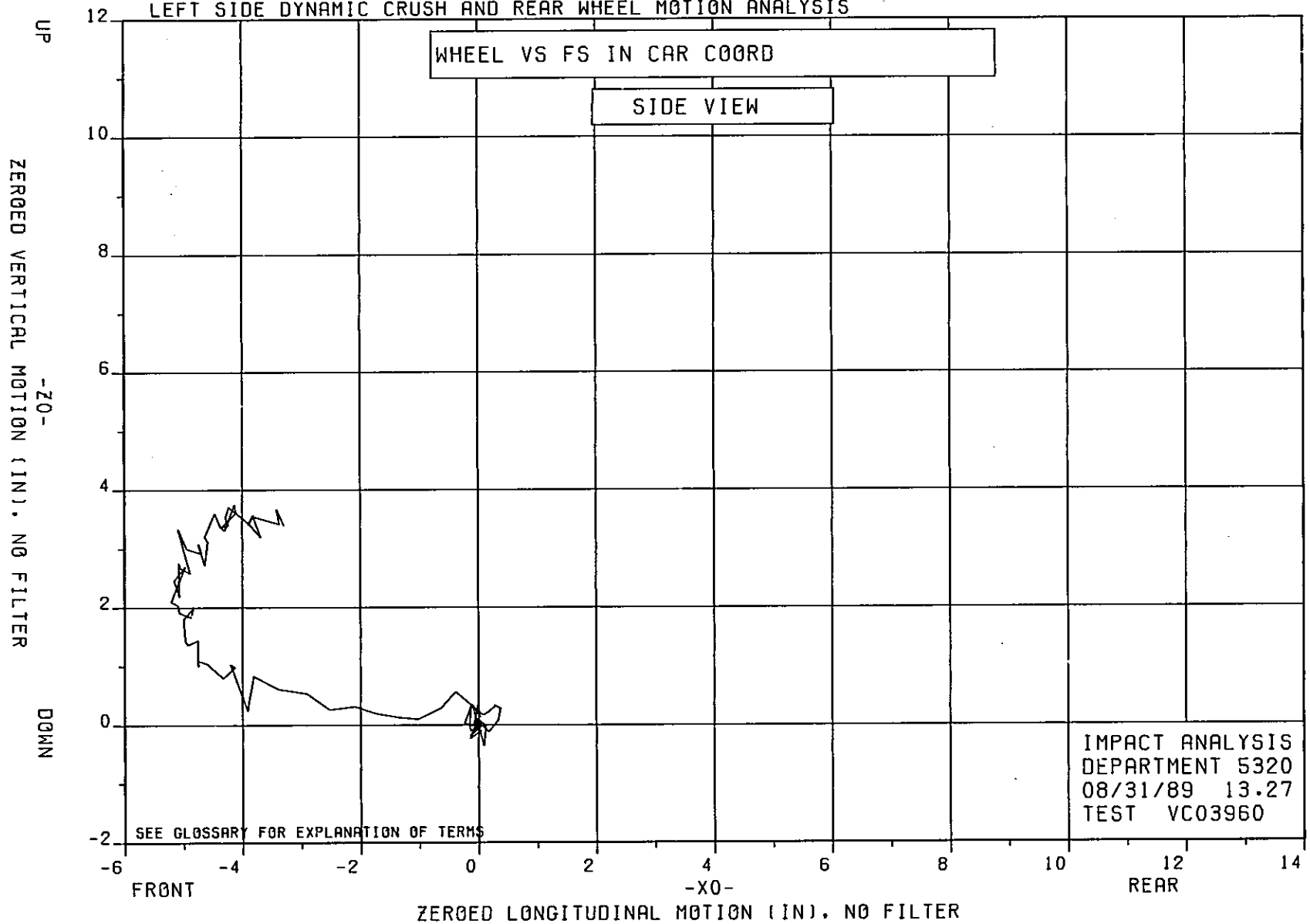
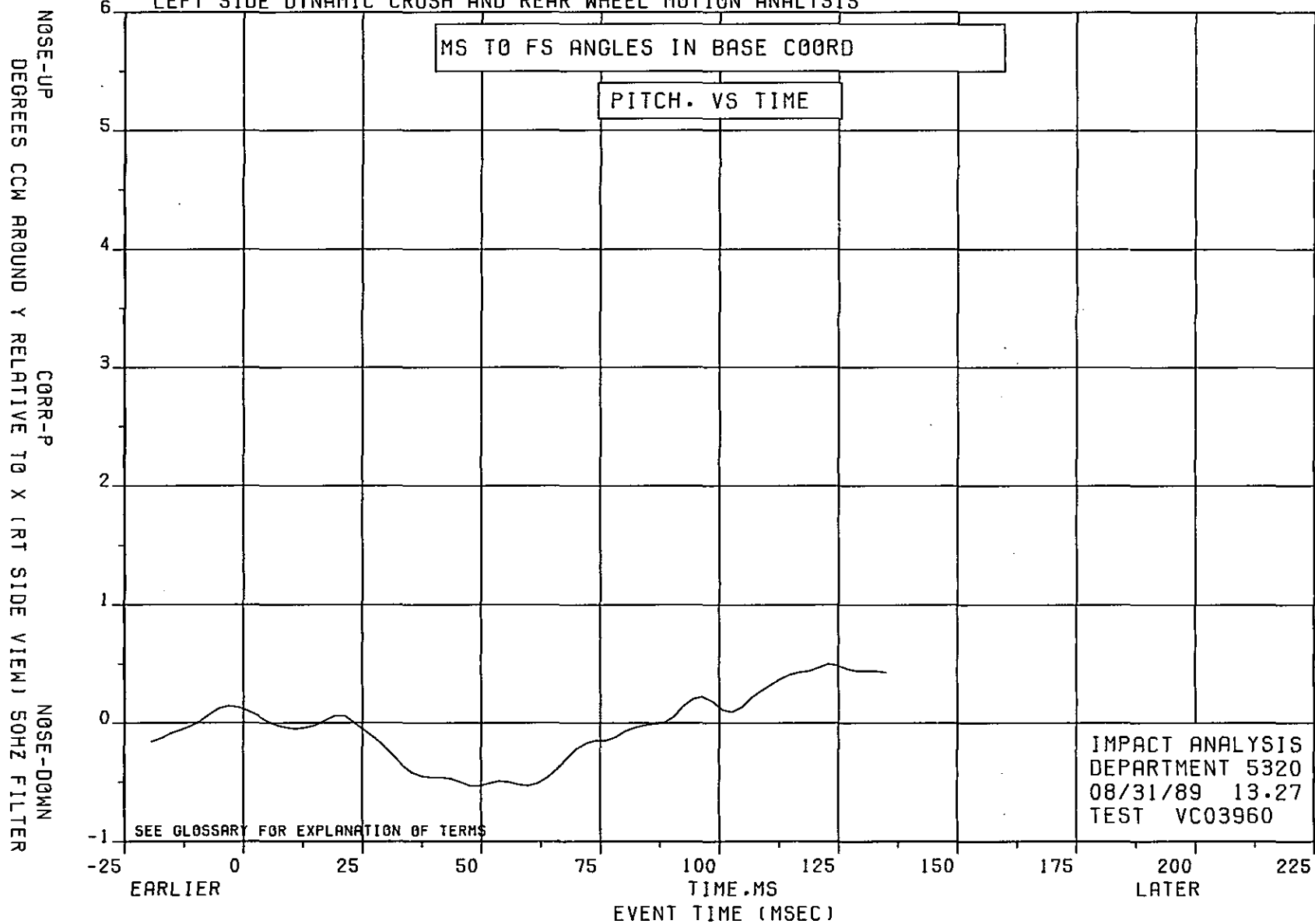


FIGURE 2

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF MS TO FS IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECOND

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS



IMPACT ANALYSIS
DEPARTMENT 5320
08/31/89 13.27
TEST VC03960

FIGURE 3

VC03960 30 MPH REAR IMPACT, XJ72, 4.0L I6 MPI, ITEM 8XJ64
1991 FMVSS 301 DEVELOPMENT, FUEL SYSTEM INTEGRITY.

MS TO FS DISTANCE -29.96 INCHES (INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

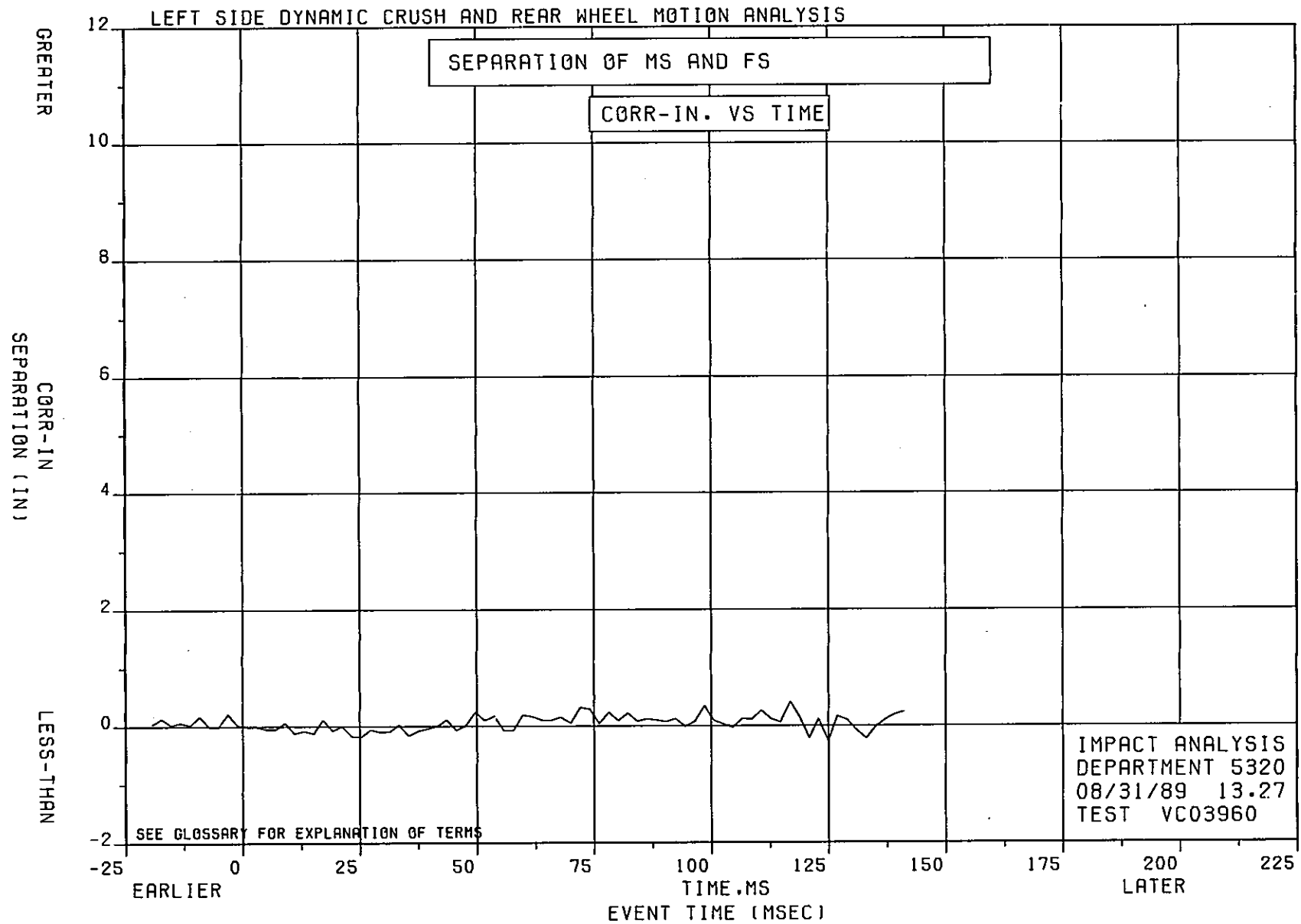


FIGURE 4