

EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash

Tests Public

XJ Development Crash Test

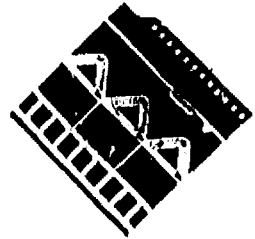
AM 1723 Public

Image Source Inc.

801 Front Street

Toledo Ohio 43605

419/4771111



DECLARATION OF INTENT AND PURPOSE

I Leslie Ferraro, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler AWC Vehicle Crash Tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 8 1994
Month Day

Place Toledo OH
City State

Leslie Ferraro
Signature

Men. EA12-005 - Chrysler 1001505
Title

801 Front St.
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1723

WRITTEN BY B. L. TURCO *BLS*
SENIOR TECHNICIAN

APPROVED BY I. R. HAYEK *S.R. Hayek*
PRINCIPAL ENGINEER

DATE EA12005, Chrysler - 201508 *January 2015*



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1723

SAFETY TEST REQUEST FORM

TEST TYPE: PERPENDICULAR FRONT REAR OTHER (SPECIFY)
 50 DEGREE LEFT FRONT LEFT SIDE
 30 DEGREE RIGHT FRONT RIGHT SIDE

PURPOSE: DEVELOPMENT CERTIFICATION OTHER

TEST TO: AM14046 AM14174 AM14216 FMVSS200
 AM14173 AM14187A OTHER (SPECIFY)

VEHICLE DATA: MODEL B475 ENGINE 2.5L I-4 TRANS AUTO. ID. 1JCUR7554ET
 OTHER EQUIPMENT P205/75R15 TIRES, A.C., TILT COLUMN, LOCKING GAS CAP.
 FUEL CAPACITY 20 VEHICLE HEIGHTS: FRONT _____ REAR _____
 VEHICLE WEIGHTS: FRONT _____ REAR _____ TOTAL _____

INSTRUMENTATION DEVIATIONS: _____

PHOTO COVERAGE DEVIATIONS: _____

SPECIAL INSTRUCTIONS _____

MODIFICATIONS AT ANTEK NONE

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES NONE

CHARGE TO: 566-297

EA12-005- Chrysler -001507

TEST REQUESTOR A. WOHLGEMUTH DATE 1/4/84 APPROVED H. R. KIRK DATE 1/9/84

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T. R. HAYEK DATE 1/6/84



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1723

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1984 JEEP MODEL 8476 WHICH WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 1/5/84. THIS VEHICLE WILL UNDERGO A 30 MPH PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST AND PERFORMANCE TESTED TO AM14046.

TEST RESULTS

THE TEST WAS PERFORMED ON 1/12/84 AT A SPEED OF 30.2 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046.

EA12-005- Chrysler -001508

TEST OBSERVATIONS

THE SPARE TIRE AND JACK REMAINED SECURED DURING THE TEST.

THE FUEL TANK BOLT TORQUE WAS 55 IN-LBS RIGHT AND 62 IN-LBS LEFT PRETEST;
THE BOLTS WERE NOT RETORQUED.



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1723

TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT MOVEABLE BARRIER

TEST SPEED 30.2 MPH. TEST DATE 1/12/84 VEHICLE MODEL 0475

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	<u>NONE</u> <u>NONE</u> <u>NONE</u>
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	<u>NONE</u> <u>NONE</u>
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	_____
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	<u>_____</u> DYNAMIC <u>_____</u> STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	_____
FMVSS 200 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	<u>_____</u> DRIVER <u>_____</u> PASS. <u>_____</u> <u>_____</u> <u>_____</u>

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

COMMENTS EA12-005- Chrysler -001510

SIGNATURE B. L. TURCO DATE 1/18/84



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1723

TEST CONDITIONS

TEST SPEED 30.2 MPH DATE 1/12/84 TIME 10:28 AM

AMBIENT TEMPERATURE 20 DEGREES F. WEATHER CLOUDY

WEIGHTS. BALLAST 300 LBS. @ CARGO AREA DUMMIES 330 LBS.

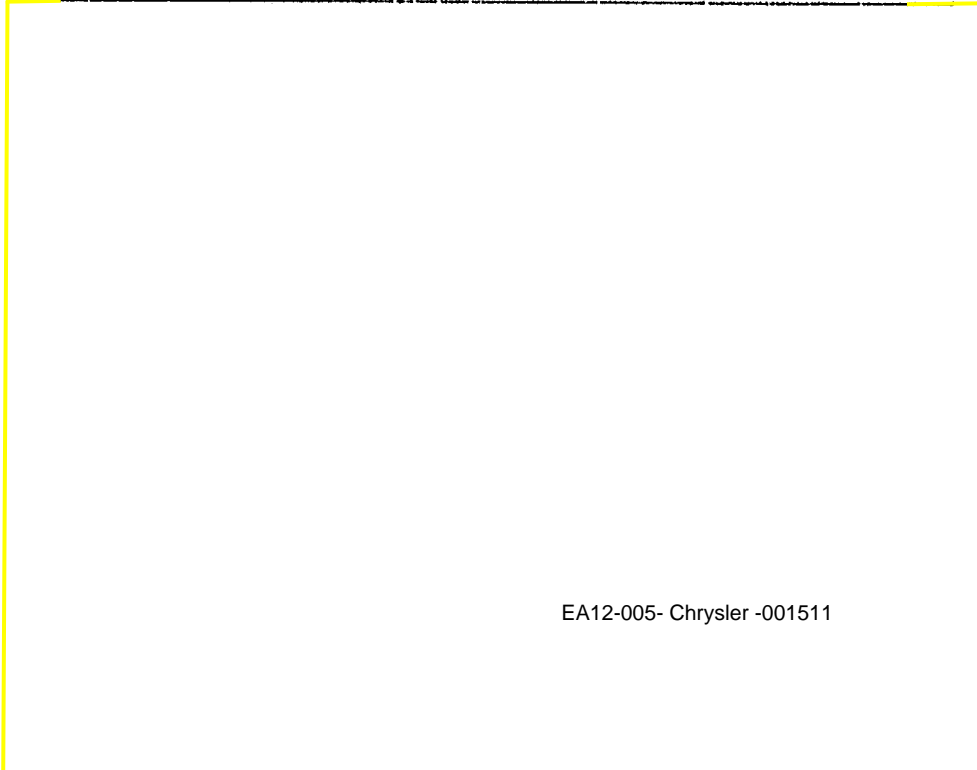
LBS. @ FUEL. 19 GALS (95%) 123 LBS.

LBS. @ EQUIPMENT 10 LBS.

TEST WEIGHT: FRONT 1911 LBS. REAR 1950 LBS. TOTAL 3861 LBS.

VEHICLE HEIGHTS: L.F. 28.25" R.F. 30.00" L.R. 27.50" R.R. 28.12"

AXLE TO STILL FENDER TO GROUND OTHER



EA12-005- Chrysler -001512

SFAM 14046 TEST RESULTS - REFERENCE FMVSS J01 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONETOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACTNONEMAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIODNONEROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES	NONE	NONE

 ROLL CLOCKWISE ROLL COUNTERCLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER3 HOURS

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

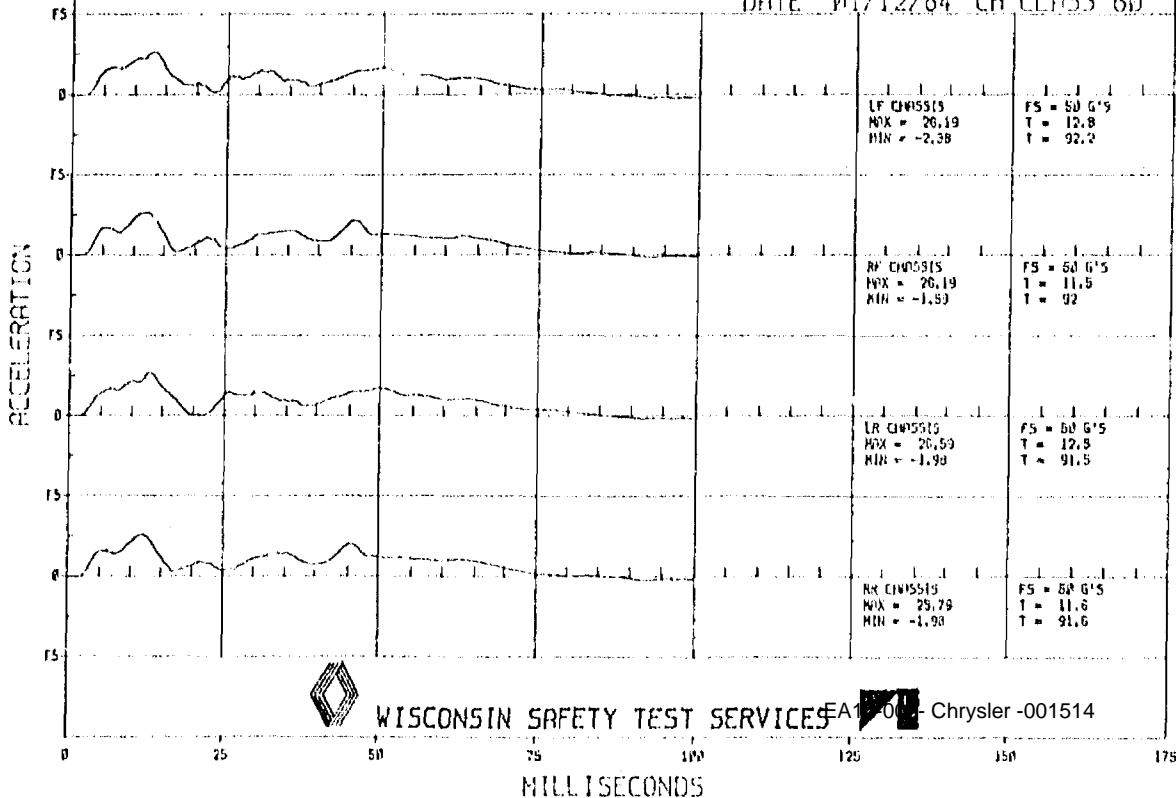
COMMENTS _____

EA12-005- Chrysler -001513

SIGNATURE D. CRUCIANELLIDATE 1/12/04

CHASSIS ACCEL

TEST# 1723
 MODEL 8475
 DATE 01/12/84 CH CLASS 60

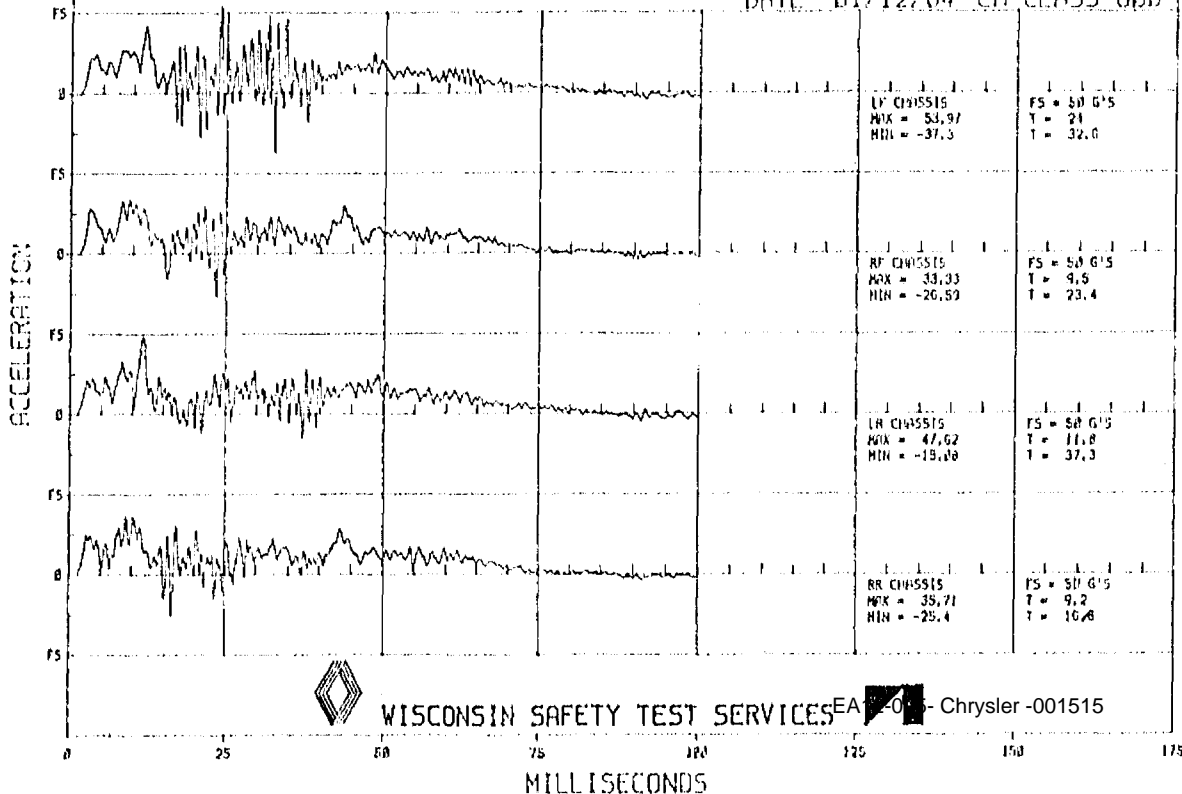


WISCONSIN SAFETY TEST SERVICES EAST - Chrysler -001514

MILLI SECONDS

CHASSIS ACCEL

TEST# 1723
 MODEL 8475
 DATE 01/12/84 CH CLASS 600

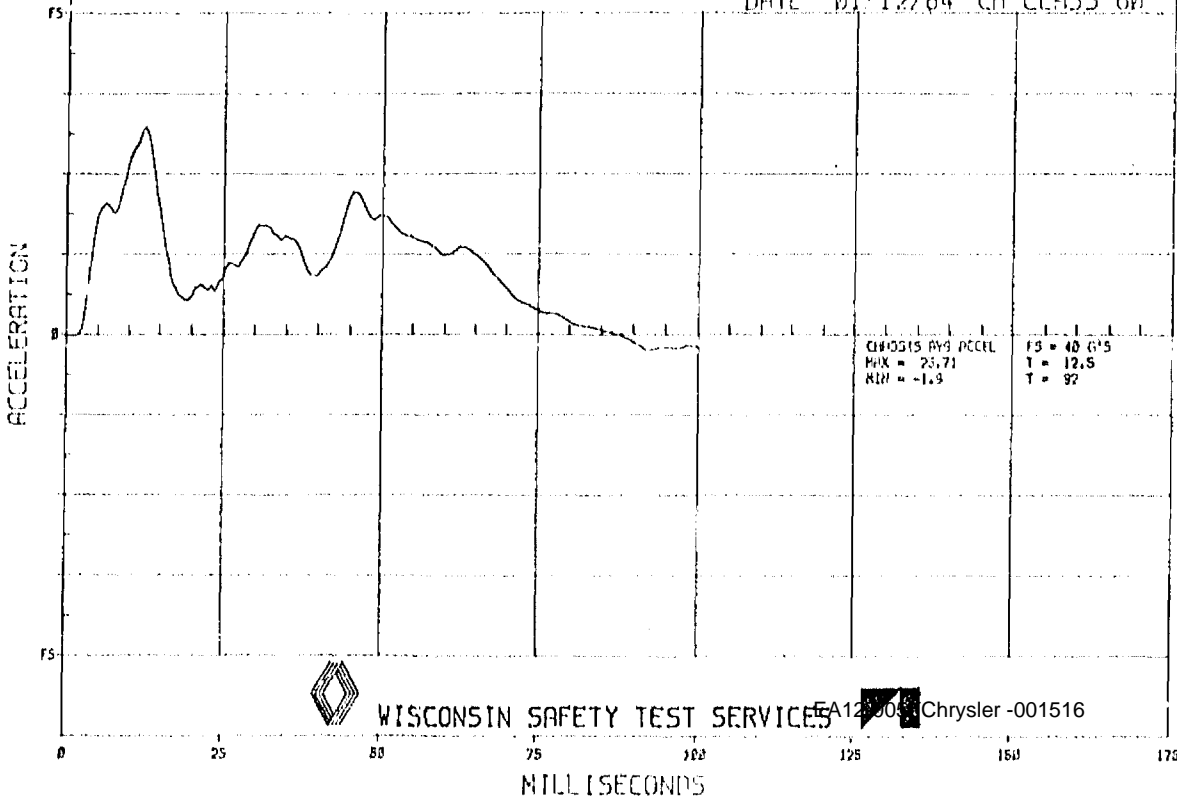


WISCONSIN SAFETY TEST SERVICES EA-015 - Chrysler -001515

MILLISECONDS

CHASSIS AVG ACCEL

TEST# 1723
MODEL 8475
DATE 01/12/84 CH CLASS 6H



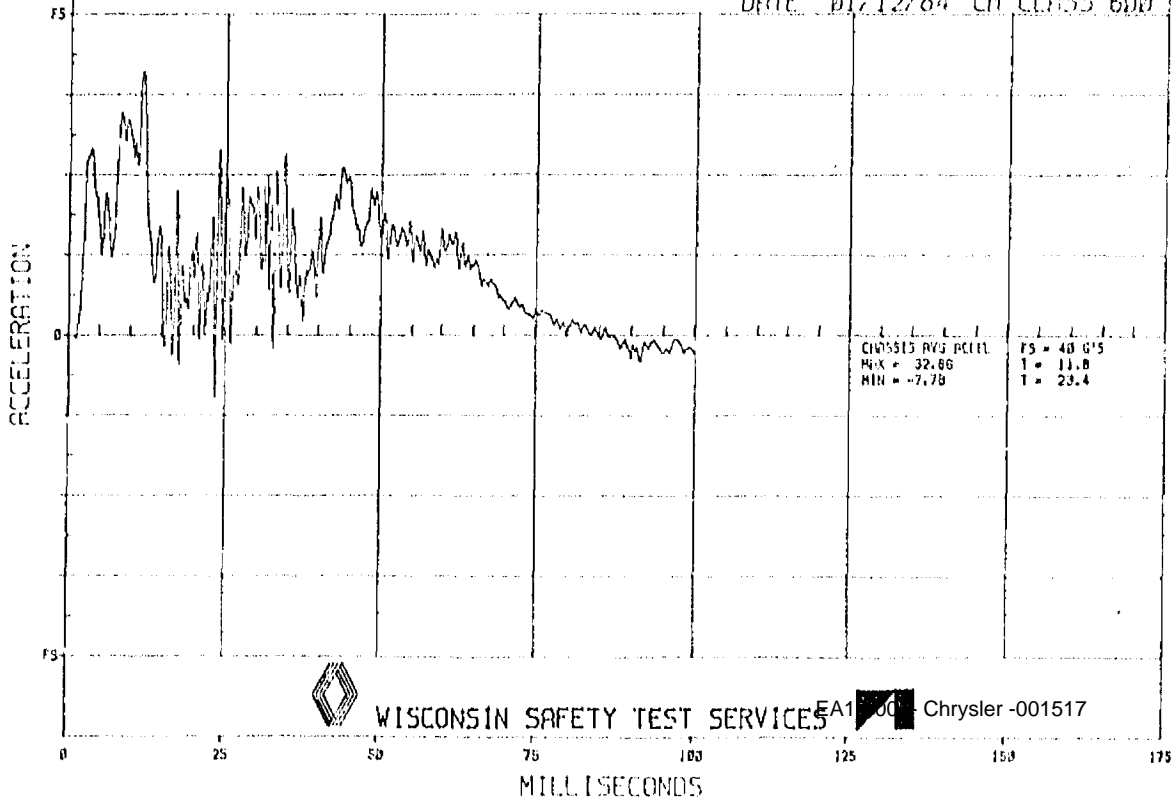
WISCONSIN SAFETY TEST SERVICES

FA12004

Chrysler -001516

CHASSIS AVG ACCEL

TEST# 1723
MODEL 847S
DATE 01/12/84 CH CLASS 600



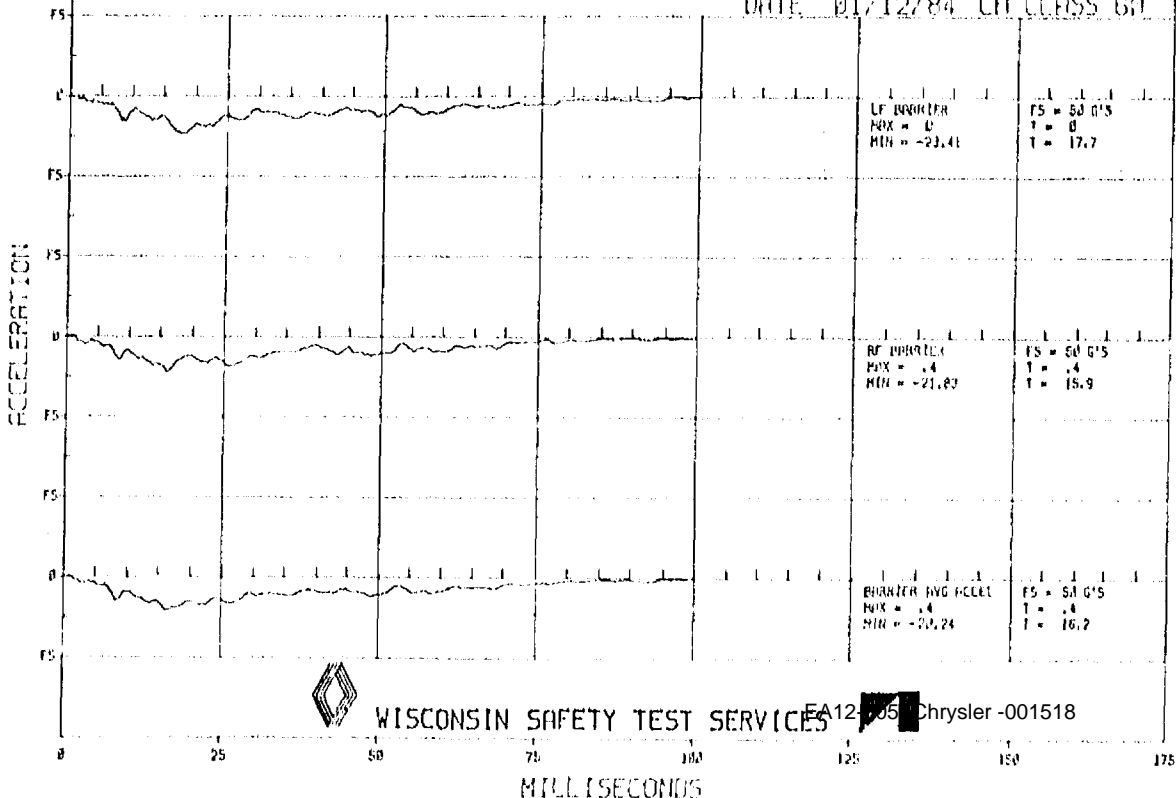
WISCONSIN SAFETY TEST SERVICES

EA1 600

Chrysler -001517

BARRIER ACCEL

TEST# 1723
MODEL 8475
DATE 01/12/84 CH CLASS 60

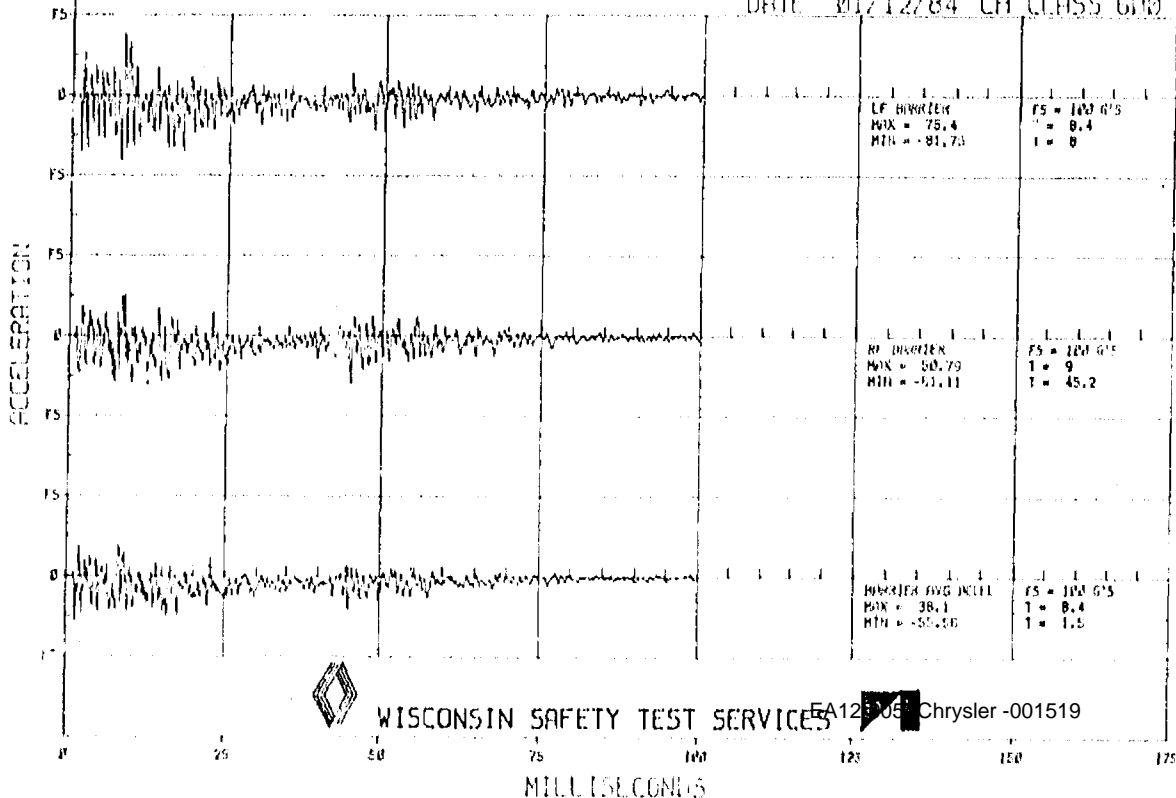


WISCONSIN SAFETY TEST SERVICES

FA12-065 Chrysler -001518

BARRIER ACCEL

TEST# 1723
 MODEL 8475
 DATE 01/12/84 CH CLASS 6110



WISCONSIN SAFETY TEST SERVICES EA12306 Chrysler -001519

MILLISECONDS

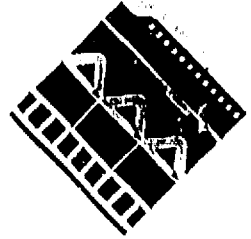
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1736 photos

Image Source Inc.

801 Front Street

Toledo Ohio 43605

4-1-67/1111



DECLARATION OF INTENT AND PURPOSE

I Thomas J. Carder, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp. AMC Vehicle Control tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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.

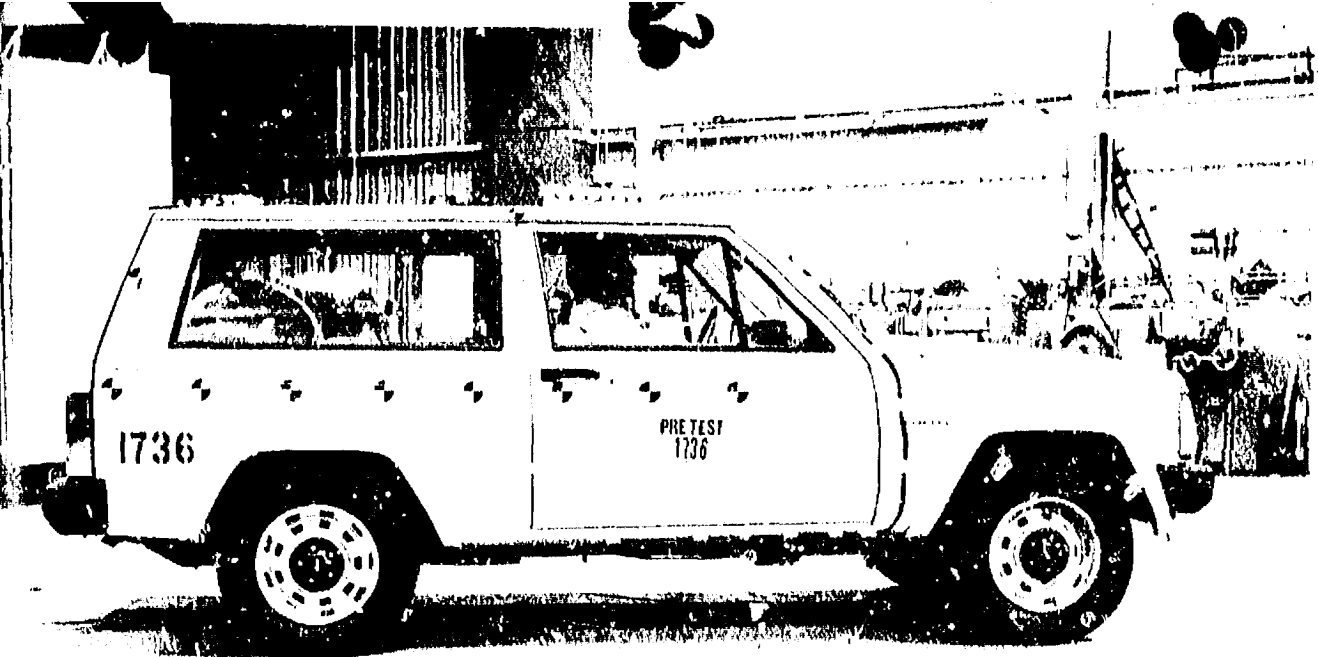
Date 4 6 1985
Month Day

Place Toledo Ohio
City State

Thomas J. Carder
Signature

Co. EA12-005- Chrysler-004846
Title

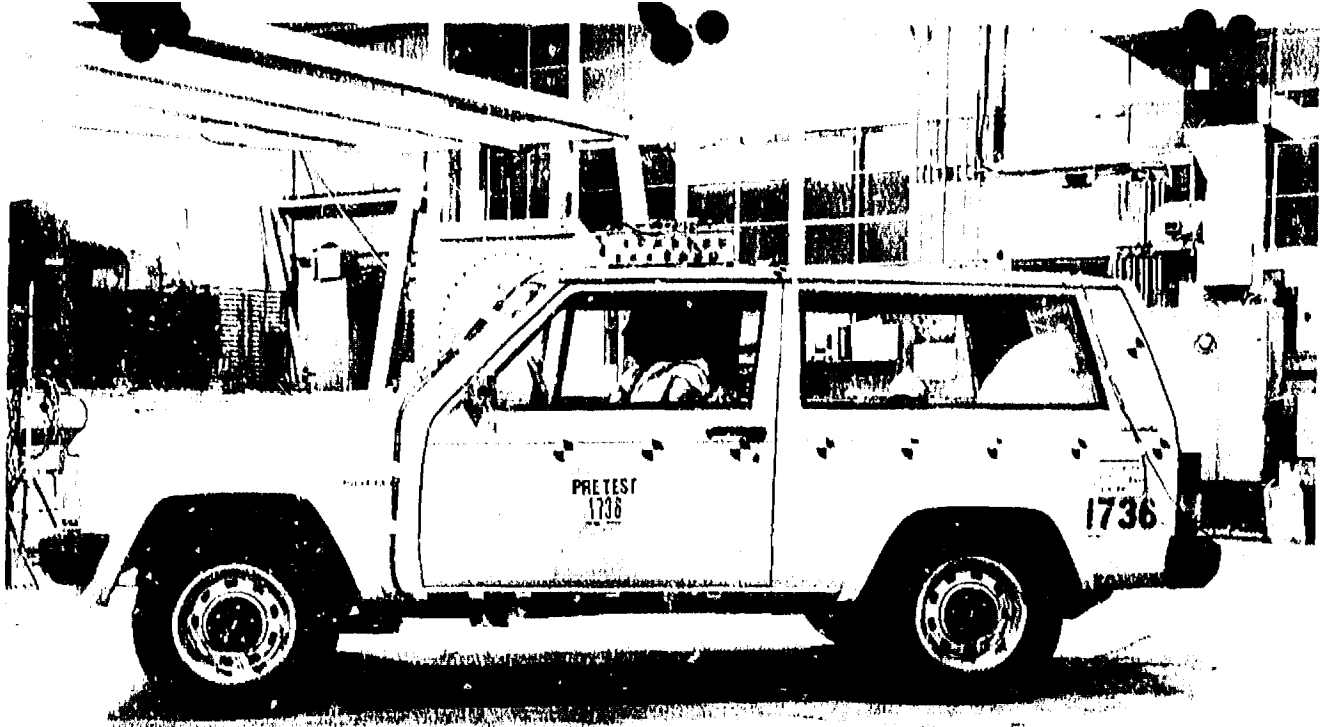
801 Front
Location



EA12-005- Chrysler -004347

W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004348



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EAT2-005- Chrysler -004349



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler-004350



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



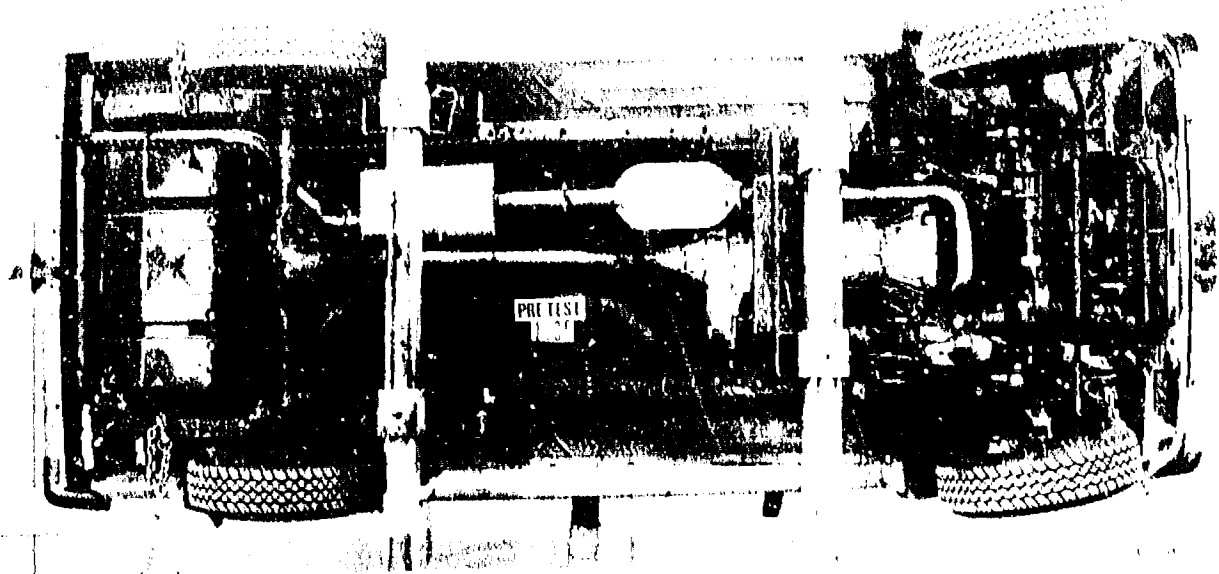


EA12-005- Chrysler -004351



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004352



RESERVED SAFETY TEST SERVICES



POST TEST

1736



WISCONSIN SAFETY TEST SERVICES

EA12-005- Chrysler -004353



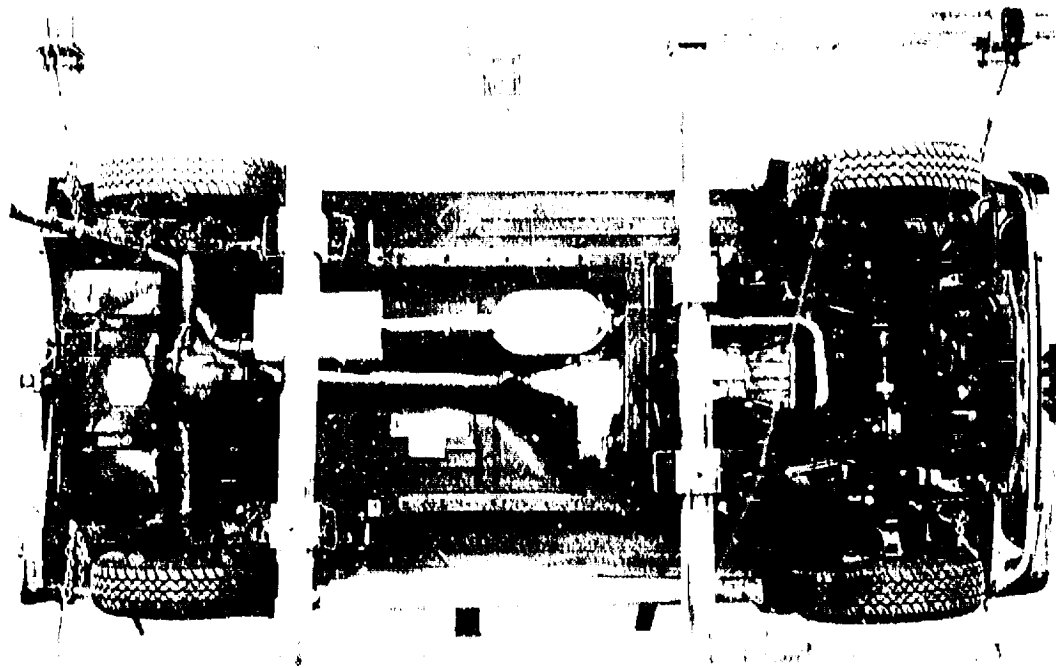


EA1Z-005- Chrysler-004354



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



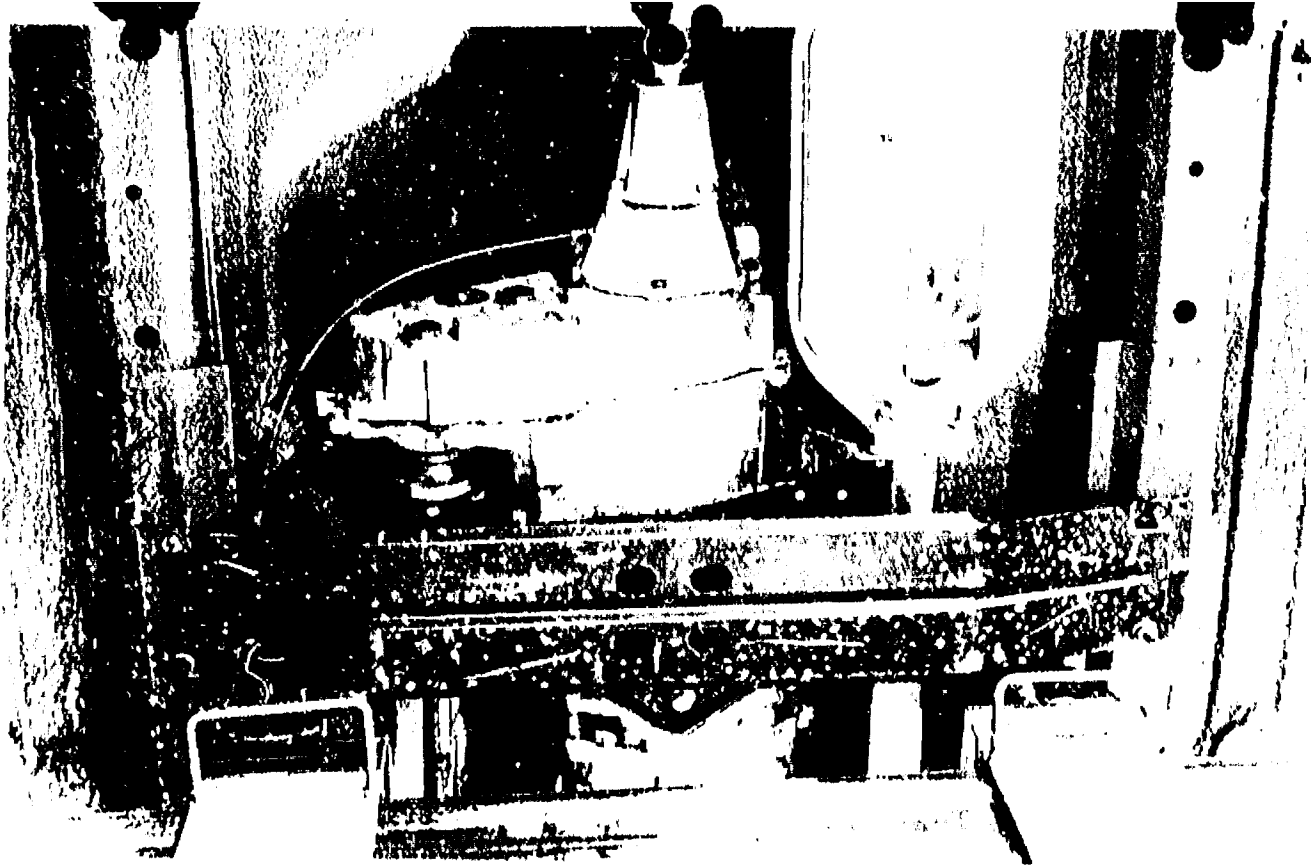


EA12-005- Chrysler -004355



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004356



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



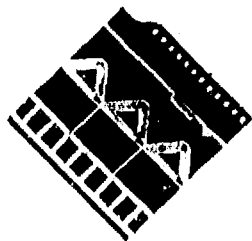
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1736 Public

Image Source Inc.

801 Front Street

Toledo, Ohio 43005

419/6971111



DECLARATION OF INTENT AND PURPOSE

I Leslie Ferraro, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler AMC Vehicle Crash Tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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:

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Date 12 8 1974
Month Day

Place Toledo OH
City State

Leslie Ferraro
Signature

Mr. EA12-005 - Chrysler DQ1520
Title

801 Front St.
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1736

WRITTEN BY

B. L. TURCO *BT*

SENIOR TECHNICIAN

APPROVED BY

T. R. HAYEK *T.R. Hayek*

PRINCIPAL ENGINEER

EA12-005- Chrysler -001521

DATE

February 21, 1984



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1736

SAFETY TEST REQUEST FORM

TEST TYPE: [] PERPENDICULAR FRONT [] REAR [] OTHER (SPECIFY)
[] 30 DEGREE LEFT FRONT [] LEFT SIDE
[] 30 DEGREE RIGHT FRONT [] RIGHT SIDE

PURPOSE: [] DEVELOPMENT [] CERTIFICATION [X] OTHER

TEST TO: [X] AH14016 [] AH1417A [] AH14216 [] FMVSS208
[] AH14173 [] AH14187A [] OTHER (SPECIFY)

VEHICLE DATA: MODEL 8477 ENGINE 2.0L V-6 TRANS 6 SPD. ID. 1JCML7729ET

OTHER EQUIPMENT A.C. AND P.S.

FUEL CAPACITY 13.5 VEHICLE HEIGHTS: FRONT REAR

VEHICLE WEIGHTS: FRONT REAR TOTAL

INSTRUMENTATION DEVIATIONS:

PHOTO COVERAGE DEVIATIONS: MOST TEST STILL PHOTOS - CLOSE UP OF UNDERBODY SHOWING FRONT SILL TO INTERMEDIATE SILL JOINT.

SPECIAL INSTRUCTIONS

MODIFICATIONS AT AMTEK

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES

EA12-005- Chrysler -001522

CHARGE TO: 566-297

TEST REQUESTOR A. WOHLGEMUTH DATE 2/7/84 APPROVED W. KIRK DATE 2/13/84

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T. R. HAYEK DATE 2/10/84

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1984 JEEP XJ MODEL 8477 WHICH WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 2/3/84. THIS VEHICLE WILL UNDERGO A 30 MPH PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST IN WHICH PERFORMANCE WILL BE TESTED TO AM14046.

TEST RESULTS

THE MOVEABLE BARRIER TEST WAS PERFORMED ON 2/10/94 AT A SPEED OF 30.2 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046.

TEST OBSERVATIONS

THE SPARE TIRE AND JACK REMAINED SECURED DURING THE TEST.
THE TAILGATE UNLATCHED AT IMPACT. THE LATCH DID NOT BREAK OUT OF THE TAILGATE.
THE FUEL TANK BOLT TORQUE PRETEST WAS 60 IN-LBS ON THE LEFT SIDE AND 50 IN-LBS
ON THE RIGHT SIDE. THE BOLTS WERE NOT RETORQUED.

TEST RESULTS SUMMARY SHEETTEST TYPE 30 MPH PERPENDICULAR REAR IMPACT MOVEABLE BARRIERTEST SPEED 30.2 MPH. TEST DATE 2/10/84 VEHICLE MODEL 8477

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE _____ NONE _____ NONE _____
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	NONE _____ NONE _____
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	_____
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	____ DYNAMIC ____ STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	_____
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL, NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	DRIVER PASS. _____ _____ _____ _____

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION. EA12-005- Chrysler -001525

COMMENTS _____

SIGNATURE

B. L. TURCO

DATE

2/17/84

EA12-005- Chrysler -001527

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONE

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACT

NONE

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD

NONE

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES	NONE	NONE

 ROLL CLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER 1 HOUR & 45 MIN. ROLL COUNTERCLOCKWISE

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

COMMENTS _____

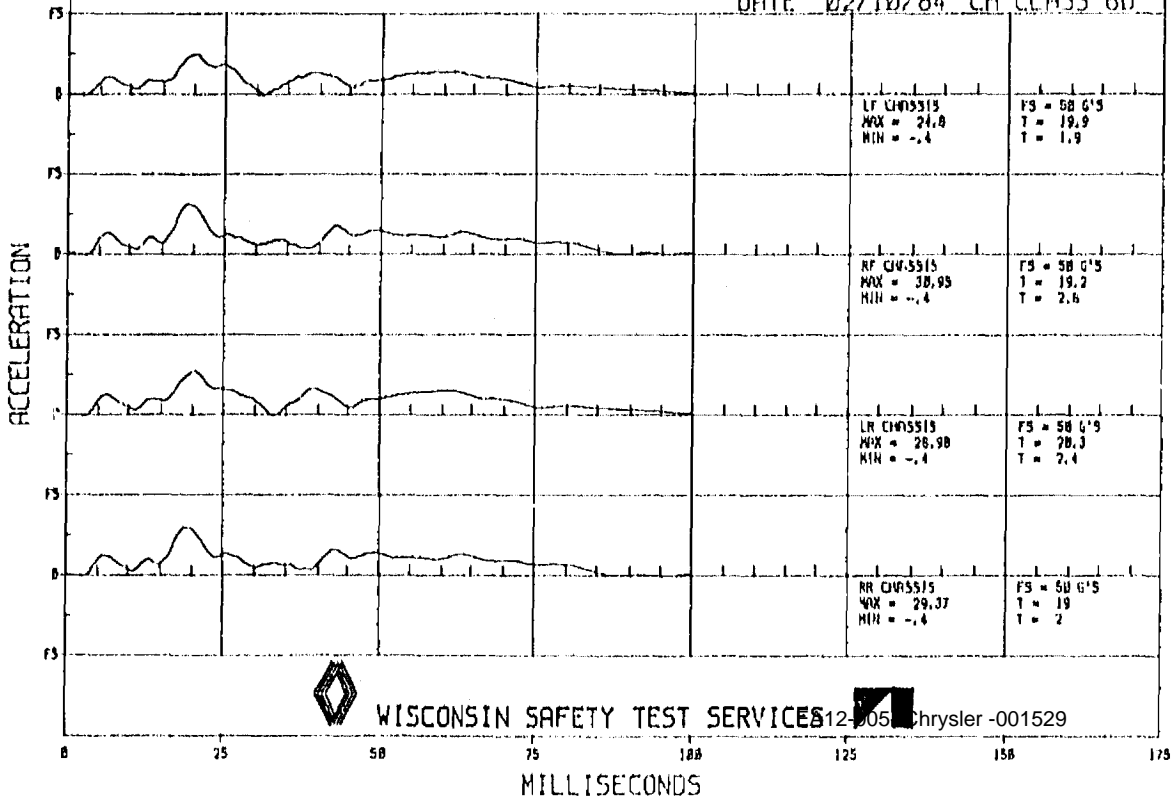
EA12-005- Chrysler-001528

SIGNATURE J. P. MCCARTHY

DATE 2/10/94

CHASSIS ACCEL

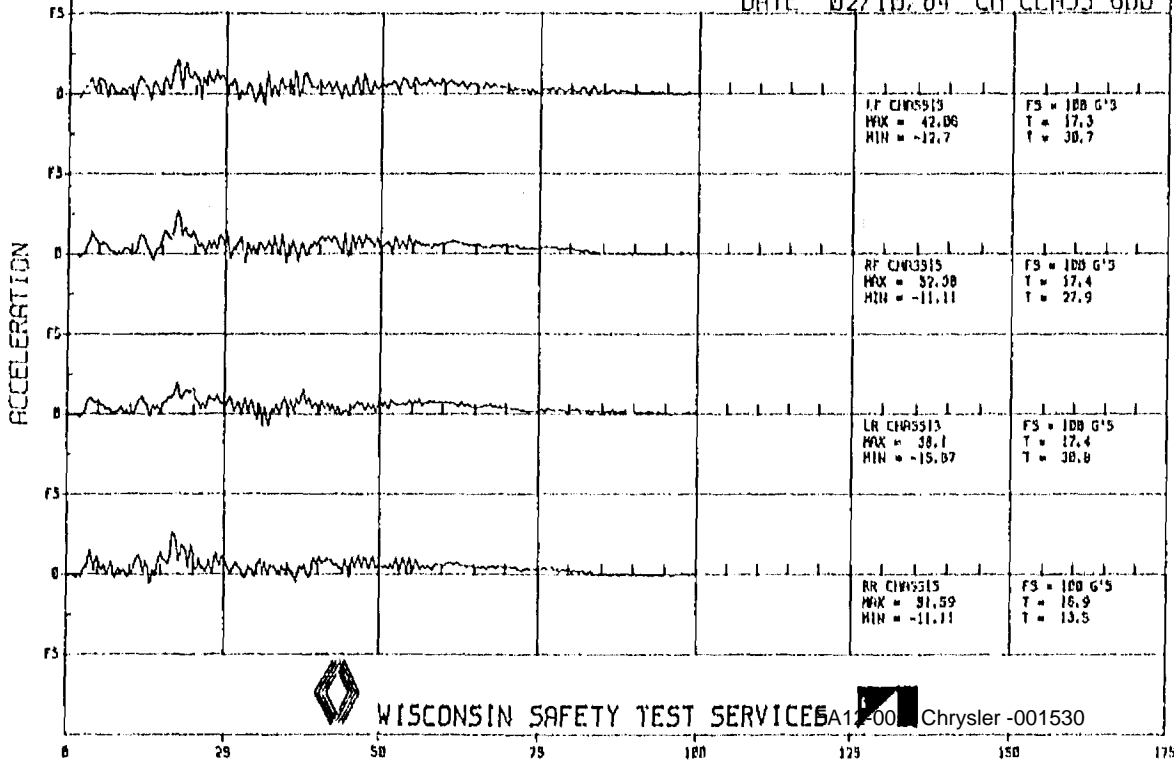
TEST# 1736
 MODEL 8477
 DATE 02/10/84 CH CLASS 60



WISCONSIN SAFETY TEST SERVICES 12-005 Chrysler -001529

CHASSIS ACCEL

TEST # 1736
 MODEL 8477
 DATE 02/10/84 CH CLASS 600



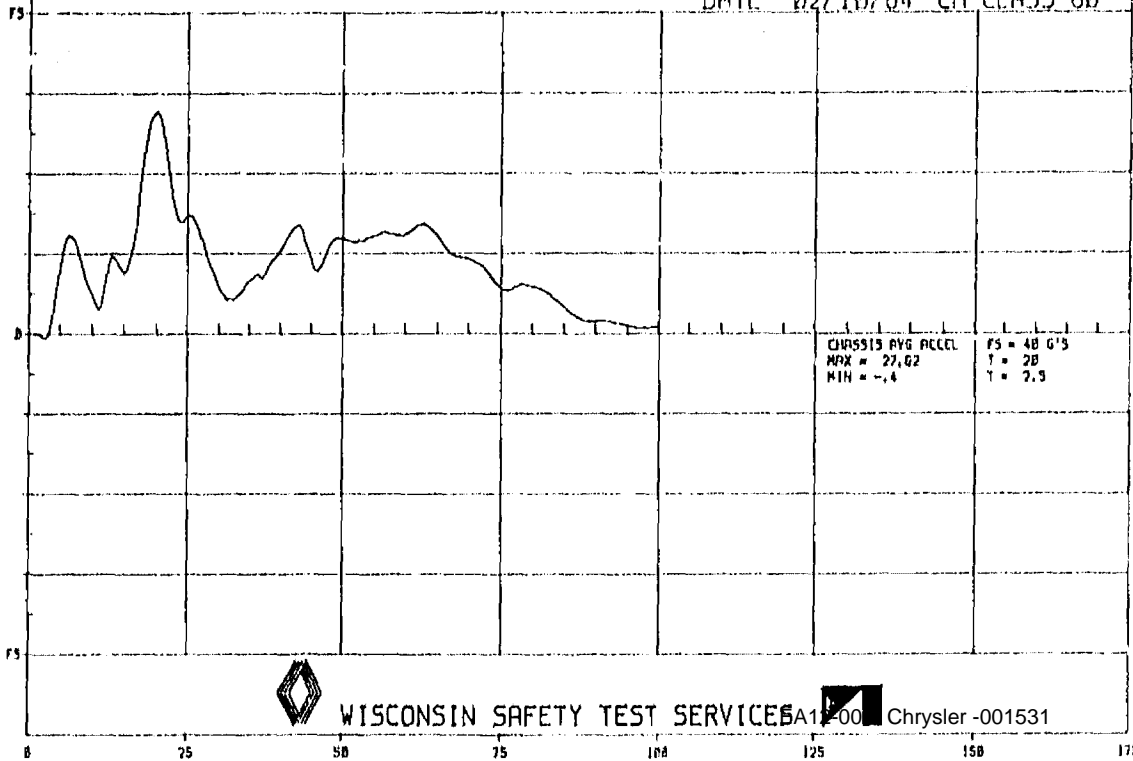
WISCONSIN SAFETY TEST SERVICES A1-00 Chrysler -001530

MILLISECONDS

CHASSIS AVG ACCEL

TEST# 1796
MODEL 8477
DATE 02/10/84 CH CLASS 60

ACCELERATION



CHASSIS AVG ACCEL
MAX = 27.02
MIN = -.4
FS = 48 G'S
T = 20
T = 7.5

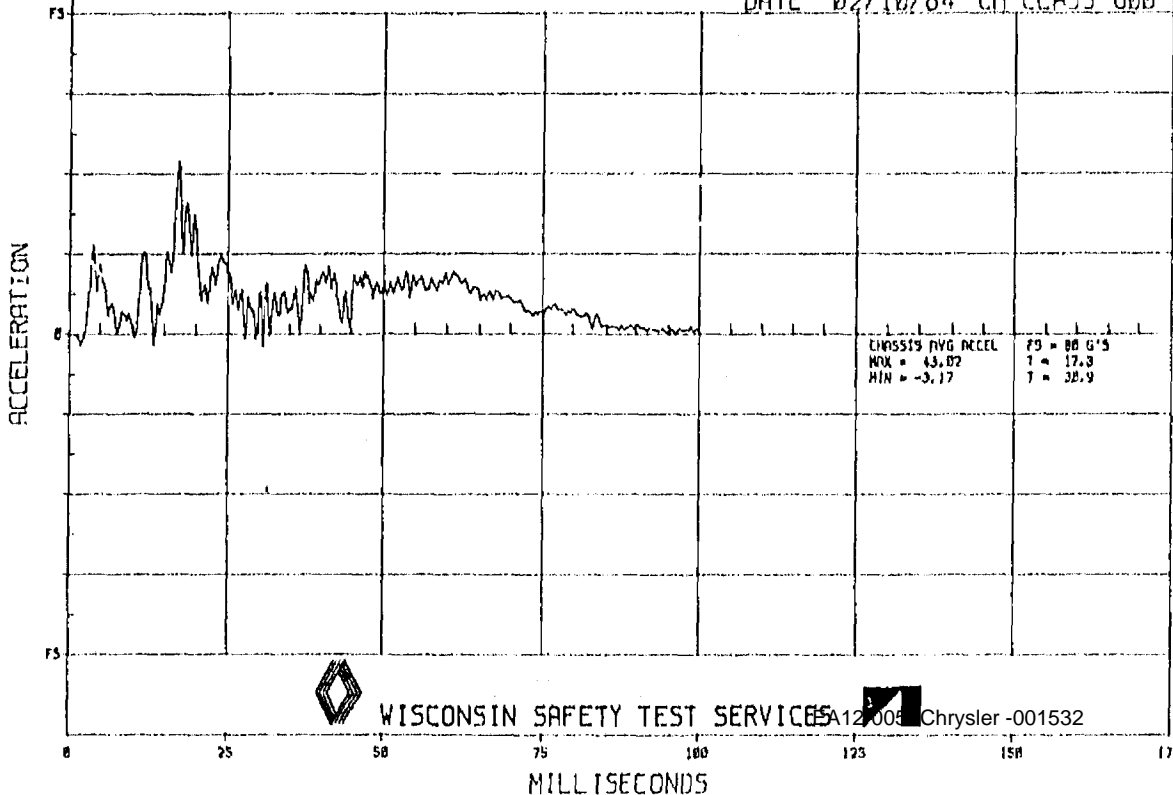


WISCONSIN SAFETY TEST SERVICES BA1-00 Chrysler -001531

MILLISECONDS

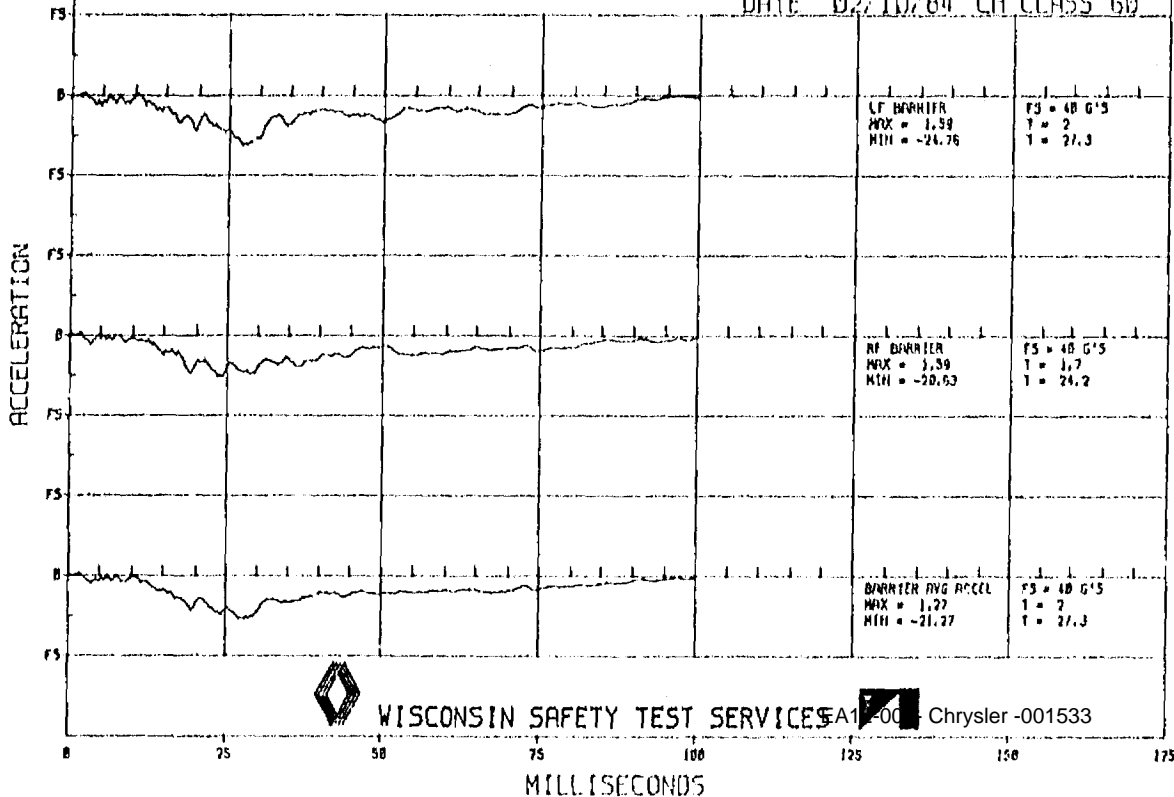
CHASSIS AVG ACCEL

TEST# 1736
MODEL 8477
DATE 02/10/84 CH CLASS 600



BARRIER ACCEL

TEST# 1736
MODEL 8477
DATE 02/10/84 CH CLASS 60



LF BARRIER
MAX = 1.59
MIN = -24.76

FS = 40 G'S
T = 2
T = 27.3

RF BARRIER
MAX = 1.59
MIN = -20.63

FS = 40 G'S
T = 1.7
T = 24.2

BARRIER AVG ACCEL
MAX = 1.27
MIN = -21.27

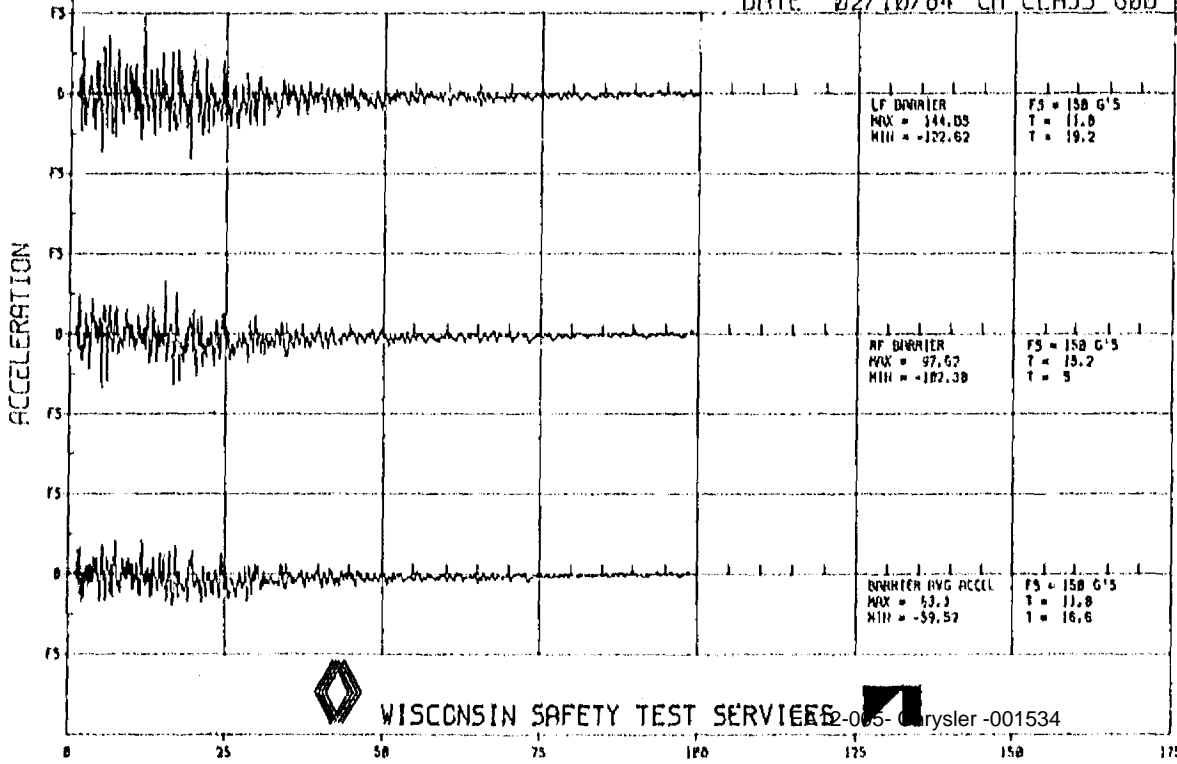
FS = 40 G'S
T = 2
T = 27.3



WISCONSIN SAFETY TEST SERVICES SA1-00 Chrysler-001533

BARRIER ACCEL

TEST# 1736
 MODEL 8477
 DATE 02/10/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES 2-065- Chrysler-001534



MILLISECONDS

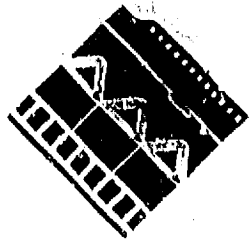
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1798 photos

Image Source Inc.

801 Front Street

Toledo Ohio 43625

419/627-1111



DECLARATION OF INTEREST AND PURPOSE

I Kimberly J. Candace, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp AMC Vehicle Control tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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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 4 16 1995
Month Day

Kimberly J. Candace
Signature

Place Toledo Ohio
City State

Case 20-005 Chrysler 004369
Title

801 Front
Location

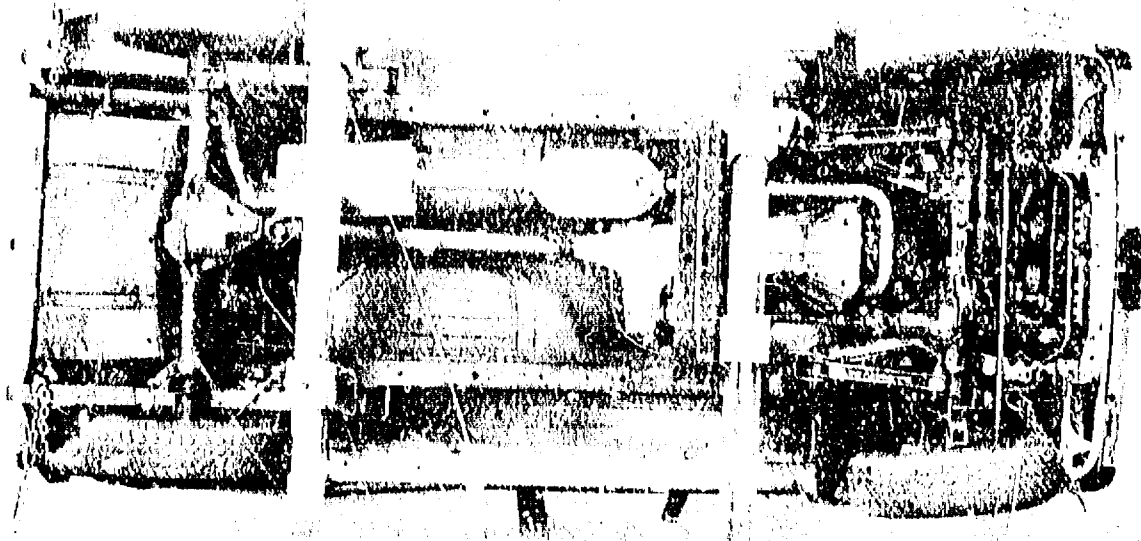
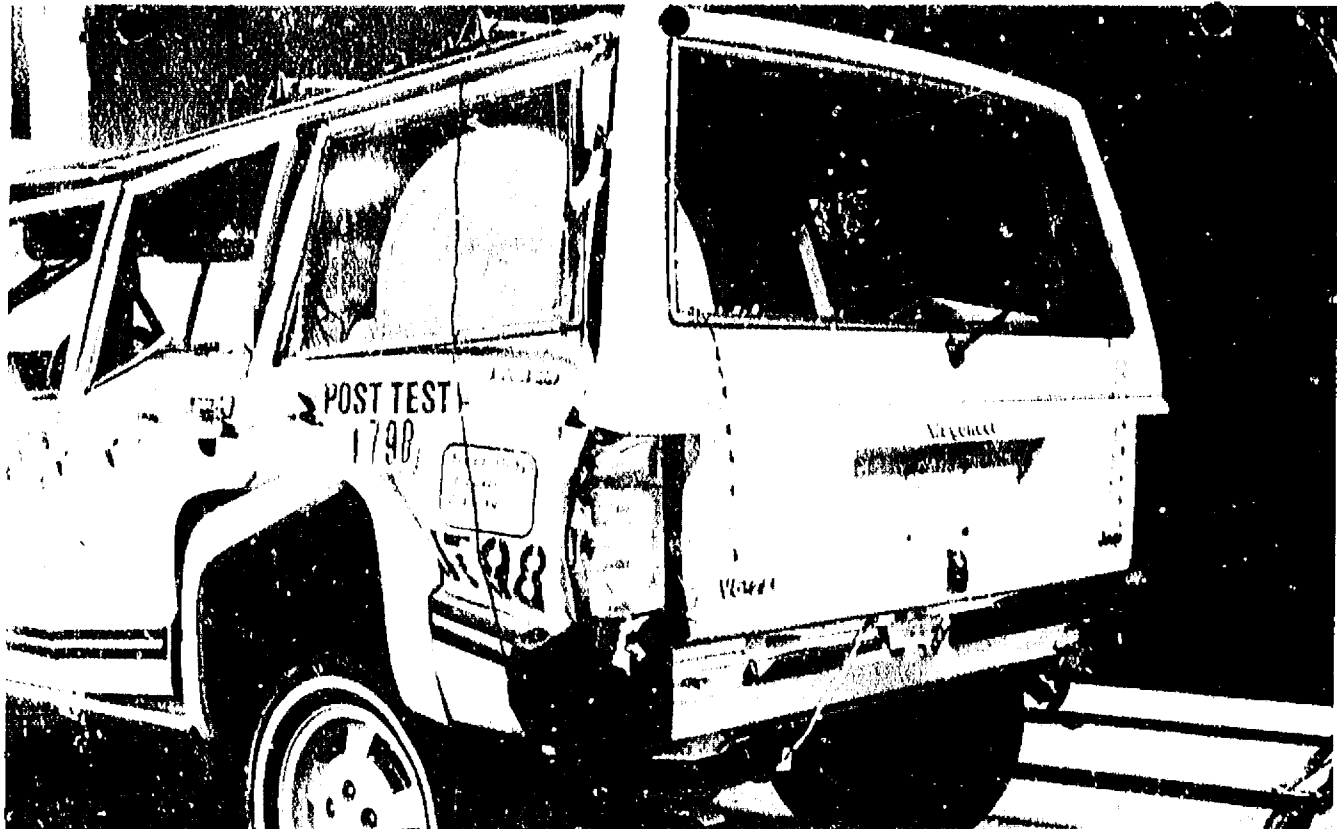


PHOTO
1

EA12-005- Chrysler -004370



EA12-005- Chrysler -004371



WISCONSIN SAFETY TEST SERVICE



POST TEST

1798

1798

EA12-005- Chrysler -004372



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004373



WISCONSIN SAFETY TEST SERVICES



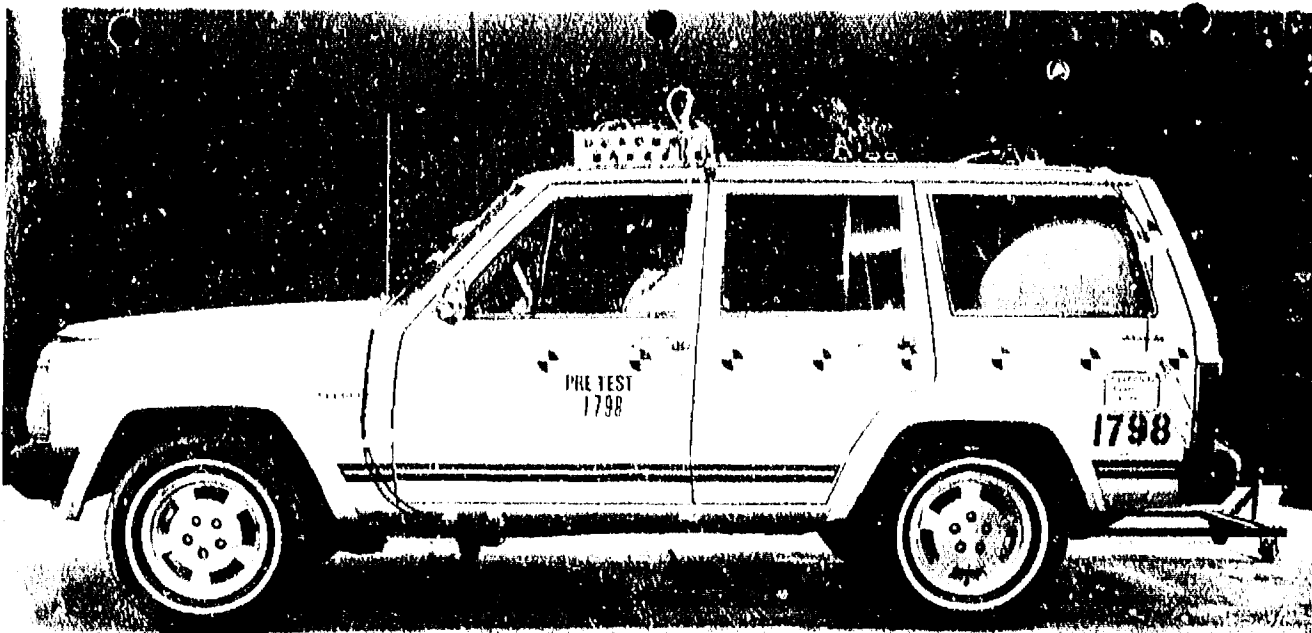


EA12-005- Chrysler -004374



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004375

WISCONSIN SAFETY TEST SERVICES



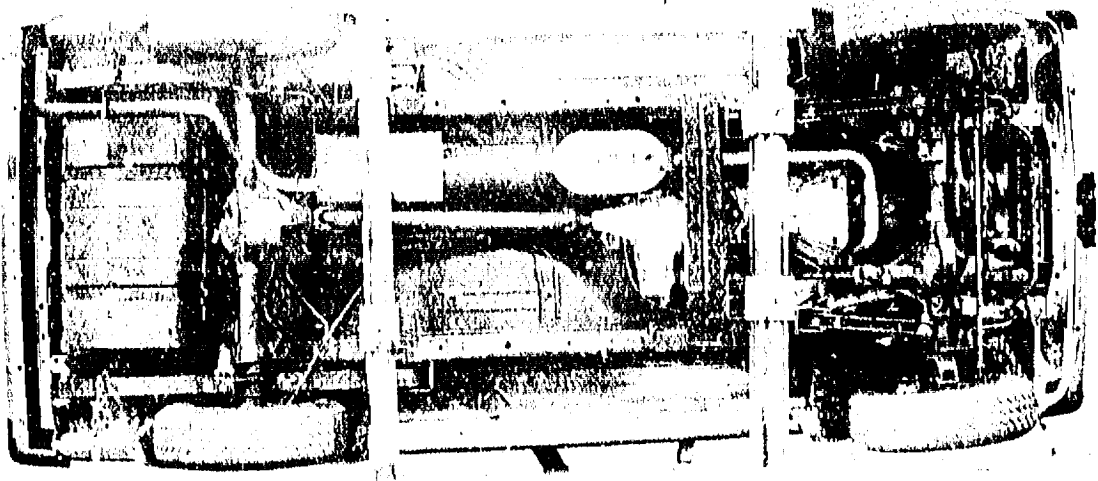


EA12-005- Chrysler -004376



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004377



EA12-005- Chrysler -004378



WISCONSIN SAFETY TEST SERVICES



EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1798 Public

Image Source, Inc.

P.O. Box 1000

Toledo Ohio 43602

419-247-7111



DECLARATION OF INTENT AND PURPOSE

I LESIE FERMAN, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the CHRYSLER AMC CRASH TEST created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 14 1994
Month Day
Place Toledo OH
City State

Leslie Ferman
Signature
Manager Chrysler 01565
Title
801 Front St
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1798

WRITTEN BY

B. L. TURCO *B.L.T.*

SENIOR TECHNICIAN - DATA SERVICES

APPROVED BY

T. R. HAYEK *T.R. Hayek*

MANAGER

EA12-005 - Chrysler - 001566

DATE

August 3, 1984



SAFETY TEST REQUEST FORM

TEST TYPE:

PERPENDICULAR FRONT
 30 DEGREE LEFT FRONT
 30 DEGREE RIGHT FRONT

REAR
 LEFT SIDE
 RIGHT SIDE

OTHER
 (SPECIFY)

PURPOSE:

DEVELOPMENT

CERTIFICATION

OTHER

TEST TO:

AM14016
 AM14173

AM14174
 AM14187A

AM14216
 OTHER (SPECIFY)

FMVSS208

VEHICLE DATA:

MODEL 8475 ENGINE 2.8L V-6 TRANS 5 SPEED ID. 1JCWL7555ET

OTHER EQUIPMENT CONVENTIONAL SPARE TIRE, TILT COLUMN, CRUISE CONTROL

FUEL CAPACITY 20.2 VEHICLE HEIGHTS: FRONT REAR

VEHICLE WEIGHTS: FRONT REAR TOTAL

INSTRUMENTATION DEVIATIONS:

PHOTO COVERAGE DEVIATIONS:

SPECIAL INSTRUCTIONS

MODIFICATIONS AT AMTEK

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES

EA12-005- Chrysler -001567

CHARGE TO: TOLEDO ACCT. #566-297

TEST REQUESTOR A. KOILGEMUTH DATE 5/22/84 APPROVED W.R. KIRK DATE 5/29/84

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T.R. HAYEK DATE 5/23/84

TEST OBJECTIVE

THE TEST VEHICLE WAS A JEEP XJ FOUR DOOR WAGON MODEL 8475. THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 5/23/84 AND UNDERWENT A PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 5/30/84 AT A SPEED OF 30.2 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE FAILED THE PERFORMANCE CRITERIA OF AM14046. THE FUEL SUPPLY LINE TO THE CARBURETOR WAS CUT BY THE ENGINE LEFT MOUNT BRACKET NEAR THE FUEL PUMP.

K-185 (12/83)



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1798

TEST OBSERVATIONS

THE SPARE TIRE AND JACK REMAINED SECURED DURING THE TEST.

THERE WAS 0.62 INCHES STATIC CLEARANCE BETWEEN THE FUEL LINE AND THE ENGINE MOUNTING BRACKET.

EA12-005- Chrysler -001569

TEST RESULTS SUMMARY SHEETTEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIERTEST SPEED 30.2 MPH. TEST DATE 5/30/84 VEHICLE MODEL 8475

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE _____ NONE _____ NONE _____
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	14 OZ. BY WT. _____ 2.8 OZ. BY WT. _____
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	_____
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	____ DYNAMIC ____ STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	DRIVER PASS. _____ _____
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMER LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMER LOAD NOT TO EXCEED 2250 LBS.	_____ _____ _____ _____

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

COMMENTS _____

EA12-005- Chrysler -001570

SIGNATURE B.L. TURCODATE 6/1/84

EA12-005- Chrysler -001572

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONE

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACT

NONE

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD

NONE

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	14 OZ. BY WT. FROM CUT FUEL LINE.	2.8 OZ. BY WT. FROM CUT FUEL LINE.
90 - 180 DEGREES	*	*
180 - 270 DEGREES	*	*
270 - 0 DEGREES	*	*

 ROLL CLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER _____ ROLL COUNTERCLOCKWISE

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

COMMENTS *TEST WAS TERMINATED AFTER THE 0-90 DEGREE POSITION. THE FUEL SUPPLY LINE
TO THE CARBURETOR WAS CUT BY THE ENGINE LEFT MOUNT BRACKET NEAR THE FUEL PUMP.

EA12-005- Chrysler -001573

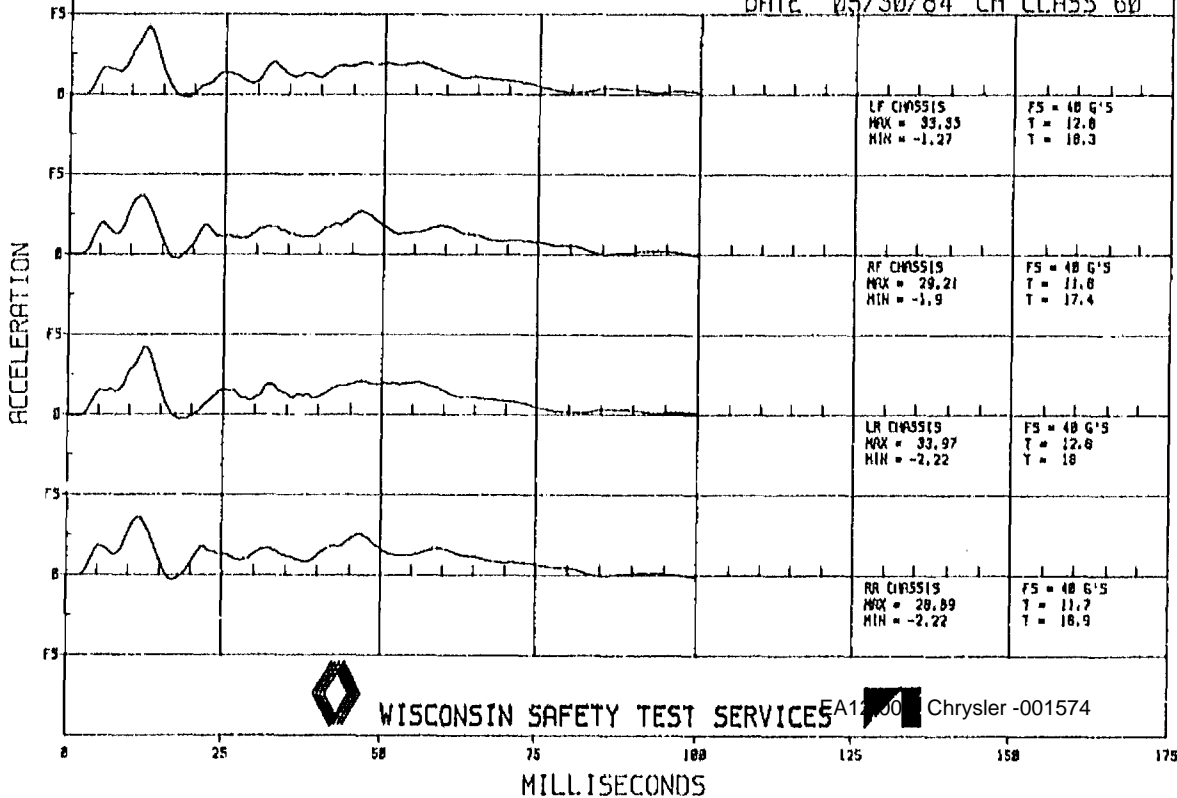
SIGNATURE J.P. McCARTHYDATE 5/30/84

CHASSIS ACCEL

TEST# 1798

MODEL 8475

DATE 05/30/84 CH CLASS 60



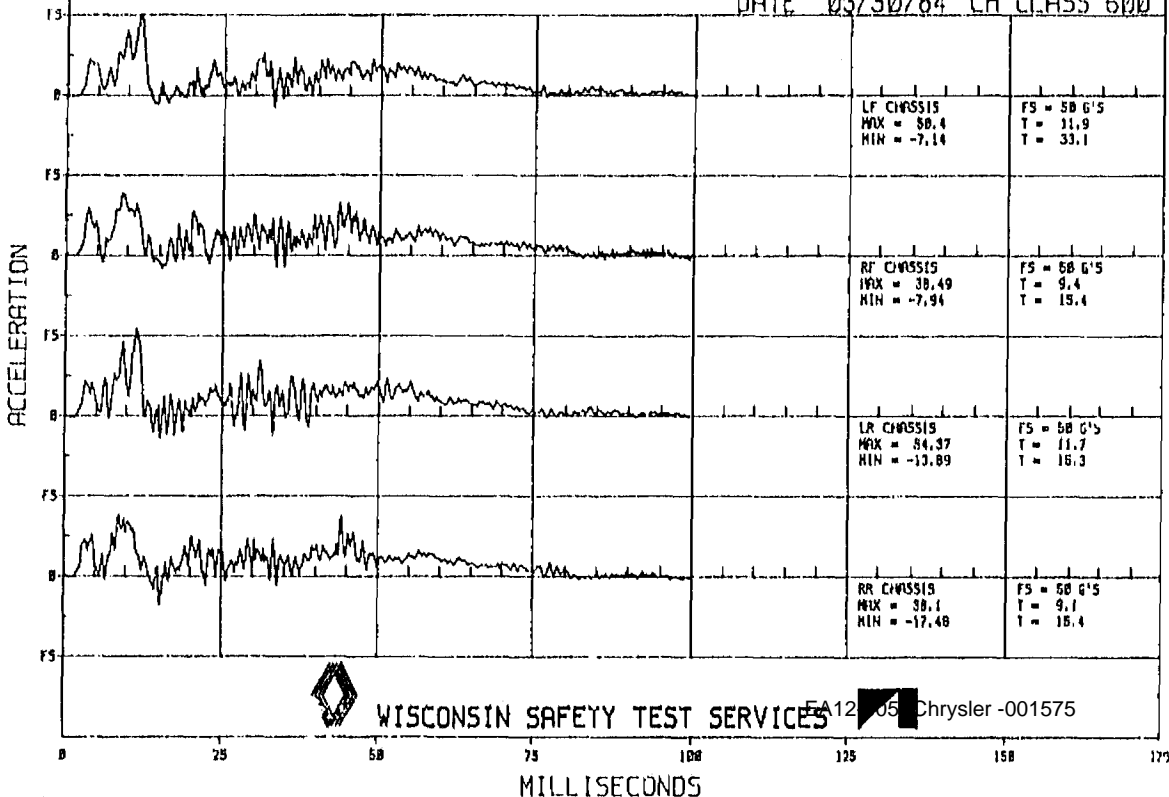
WISCONSIN SAFETY TEST SERVICES



Chrysler -001574

CHASSIS ACCEL

TEST# 1798
MODEL 8475
DATE 03/30/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

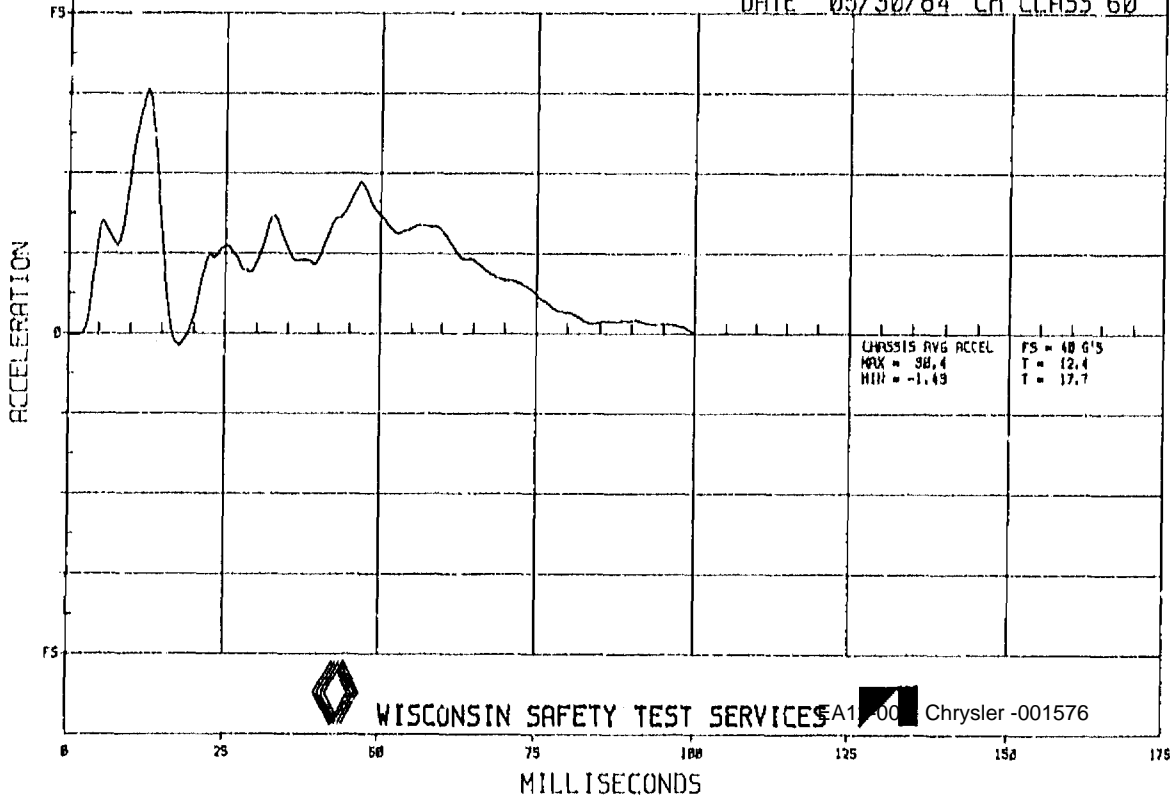
FA1205 Chrysler -001575

CHASSIS AVG ACCEL

TEST# 1798

MODEL 8475

DATE 05/30/84 CH CLASS 60



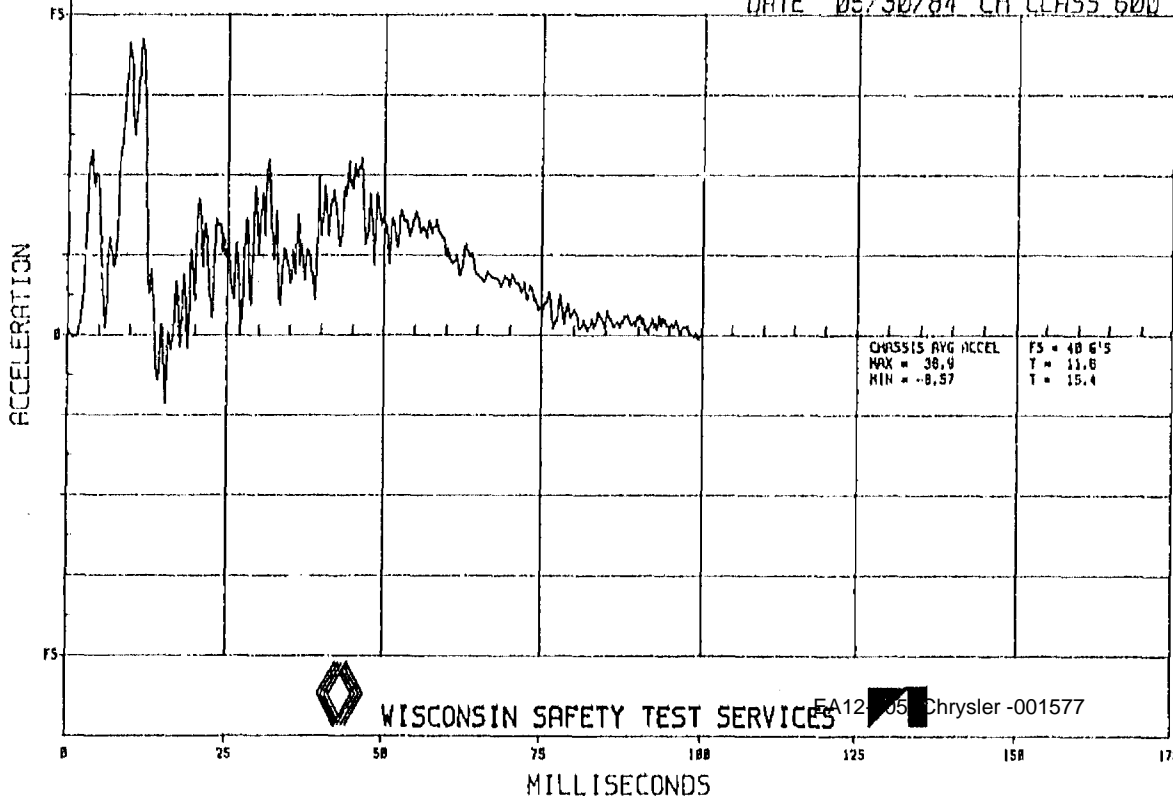
WISCONSIN SAFETY TEST SERVICES EA1-00 Chrysler -001576

CHASSIS AVG ACCEL

TEST# 1798

MODEL 8475

DATE 05/30/84 CH CLASS 600

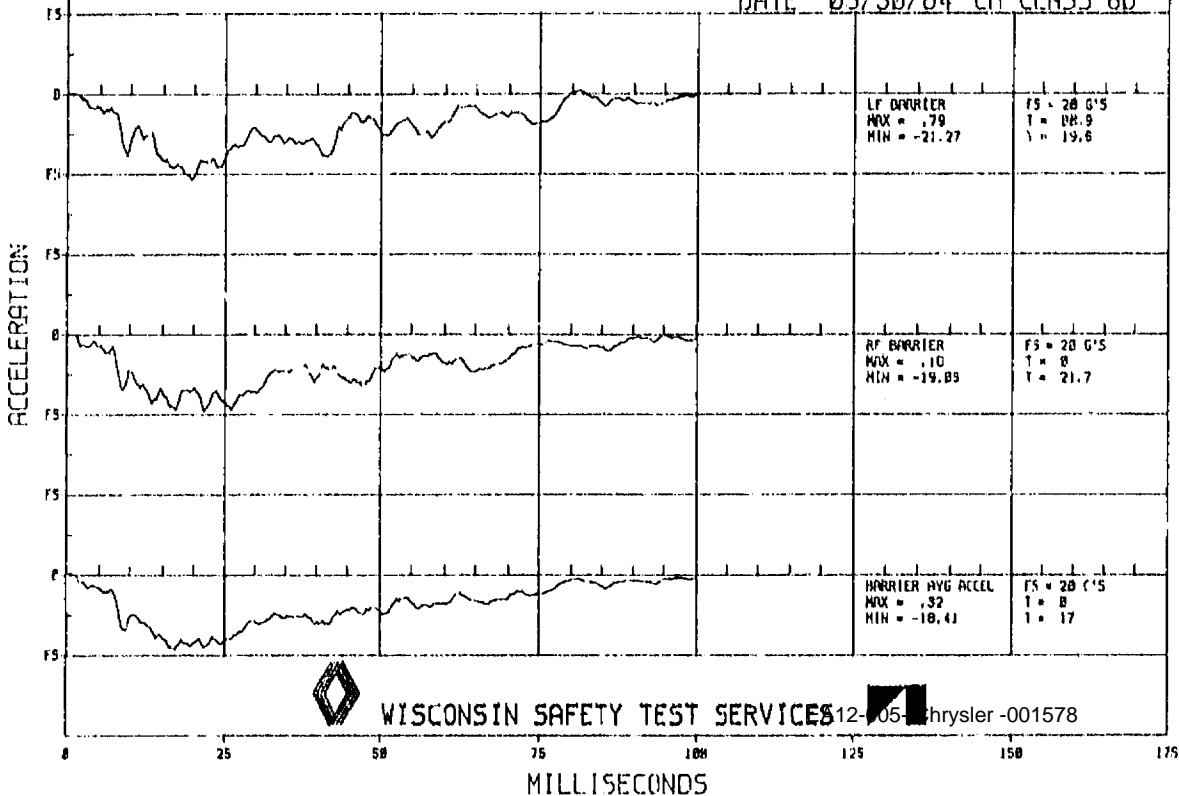


WISCONSIN SAFETY TEST SERVICES

EA12 05 Chrysler -001577

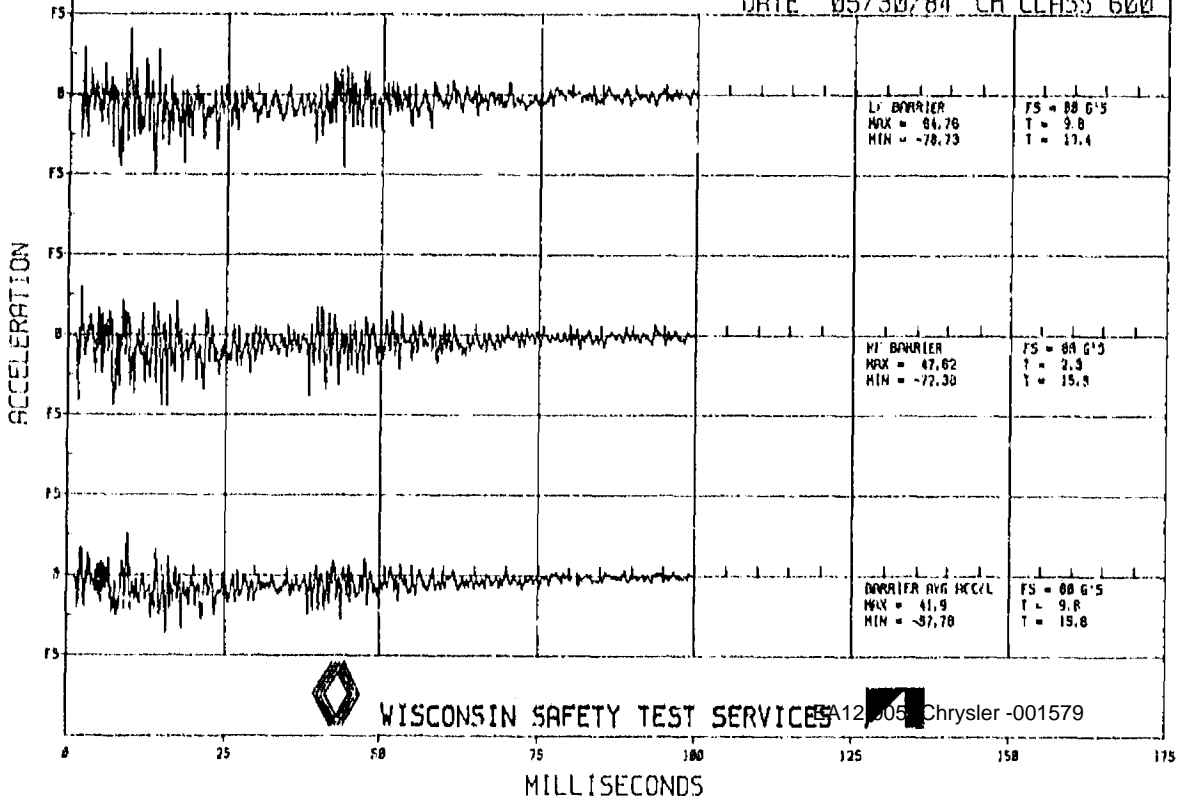
BARRIER ACCEL

TEST# 1798
MODEL 8475
DATE 05/30/84 CH CLASS 60

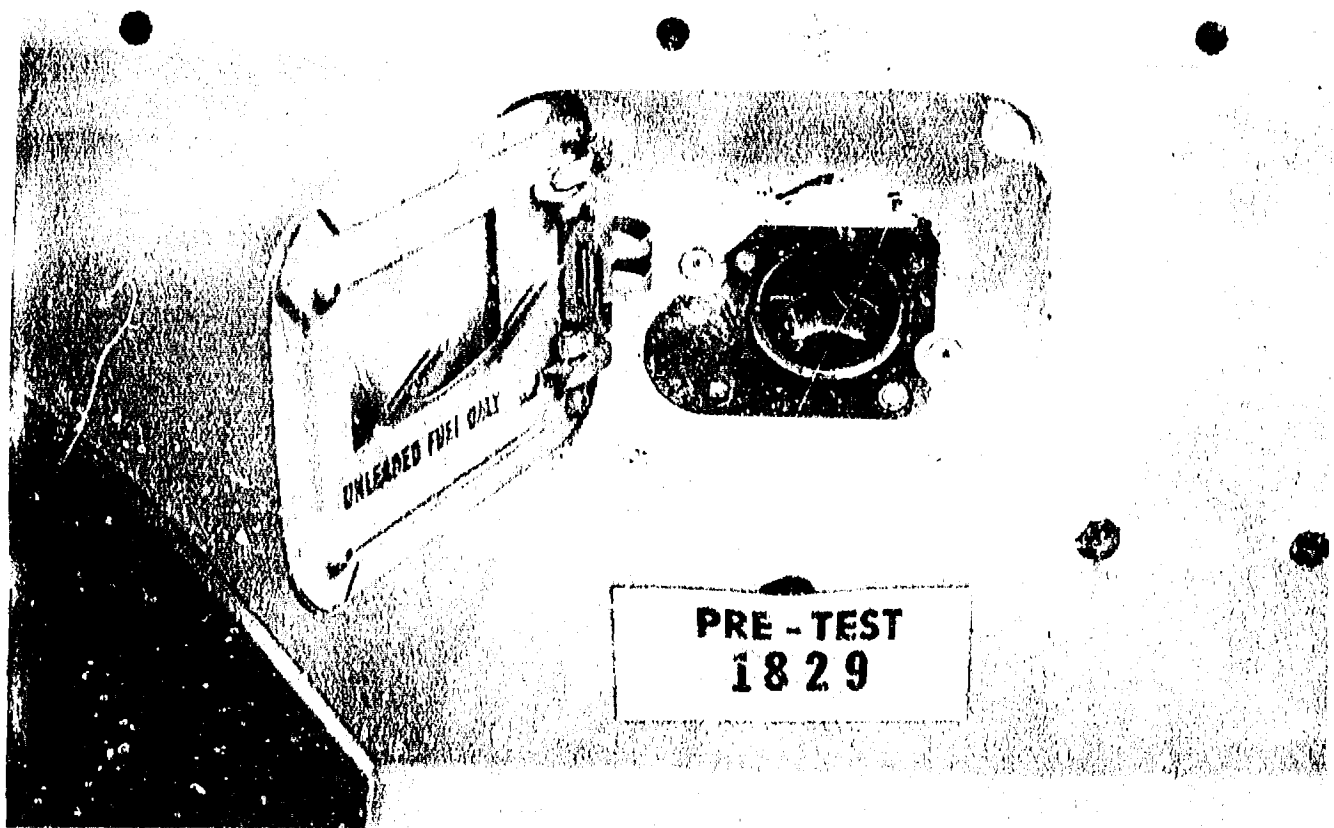


BARRIER ACCEL

TEST# 1798
MODEL 8475
DATE 05/30/84 CH CLASS 600



EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1829 photos



EA12-005- Chrysler -004379



WISCONSIN SAFETY TEST SERVICES

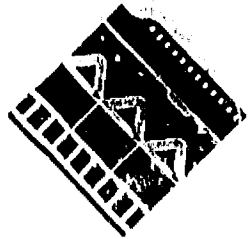


Image Source Inc.

851 Front Street

Toledo, Ohio 43605

419/427-1111



DECLARATION OF INTENT AND PURPOSE

I Thomas J. Carden, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp. AMC Vehicle Crash tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 4 6 1995
Month Day

Thomas J. Carden
Signature

Place Toledo Ohio
City State

Camera Operator
Title

80191001
Location

2-005- Chrysler -004380




EA12-005- Chrysler -004381



WISCONSIN SAFETY TEST SERVICES

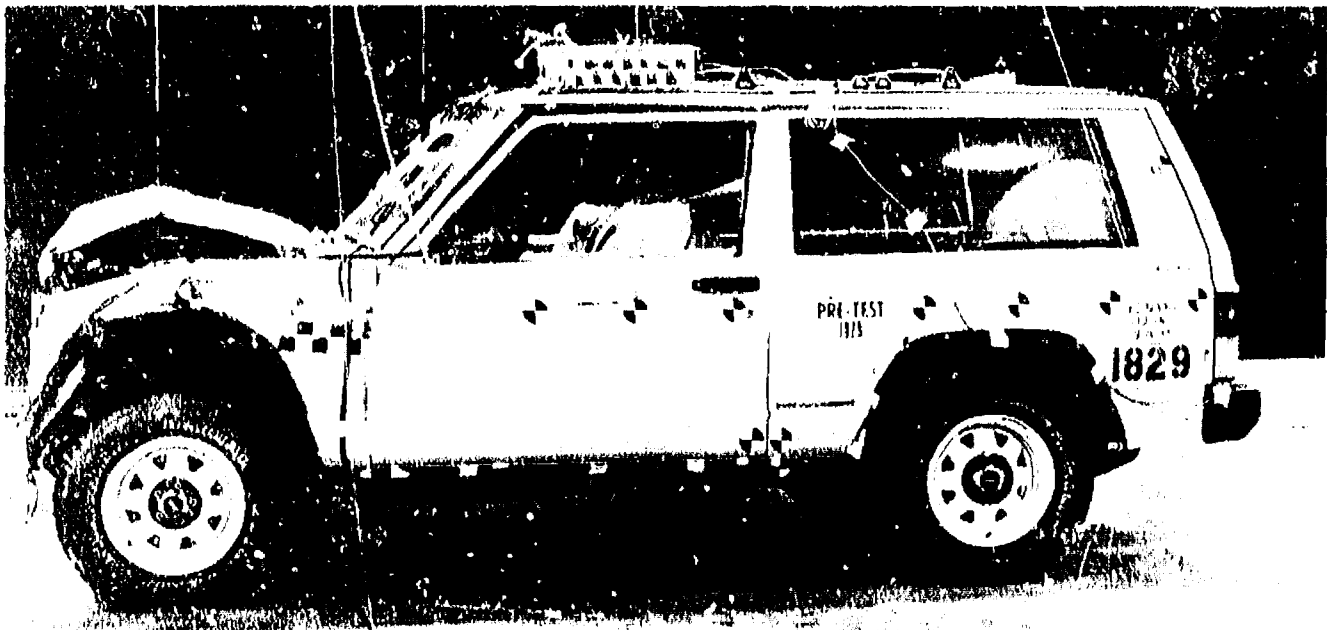




PRE - TEST
18 29

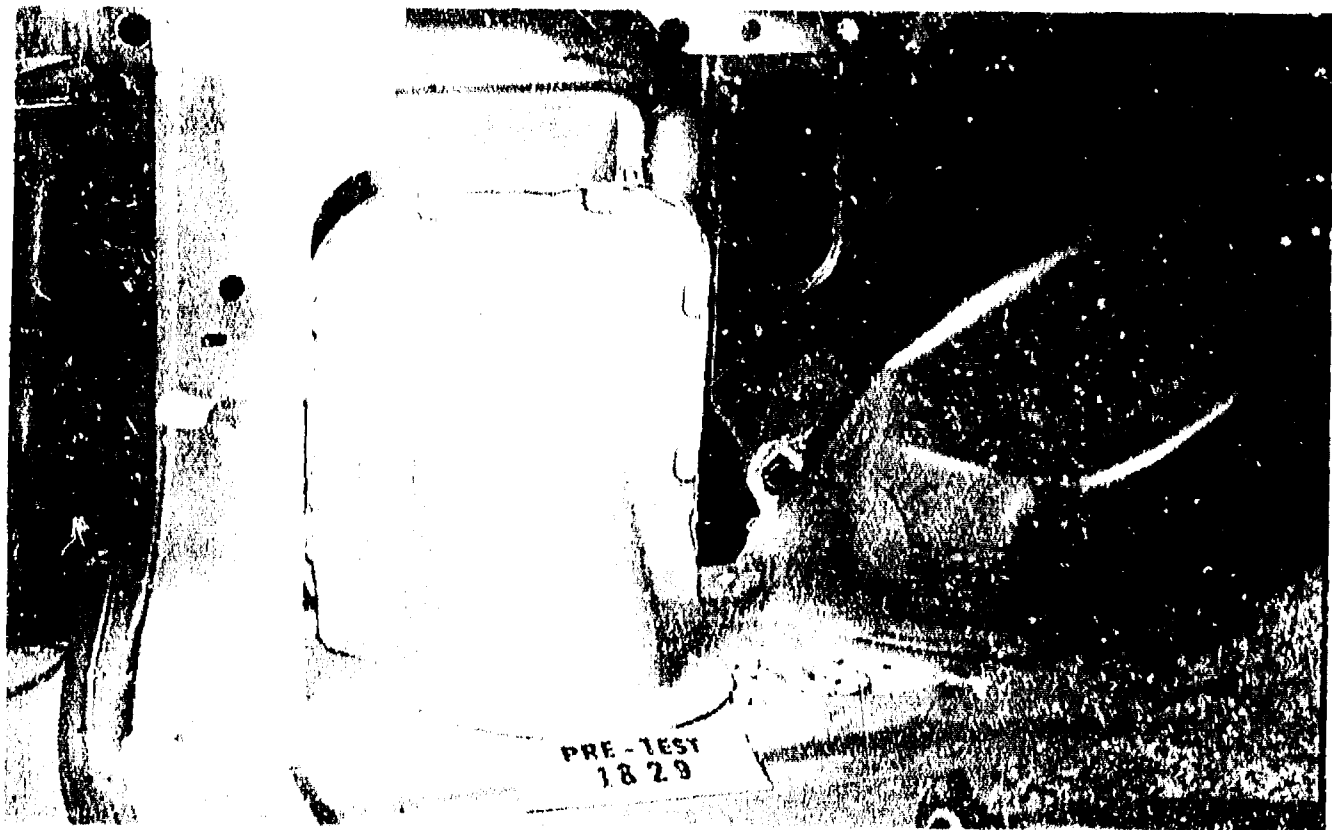
EA12-005- Chrysler -004382

71



EA12-005- Chrysler -004383





EA12-005- Chrysler -004384






EA12-005- Chrysler -004385



WISCONSIN SAFETY TEST SERVICES





POST - TEST
1829

EA12-005- Chrysler -004386

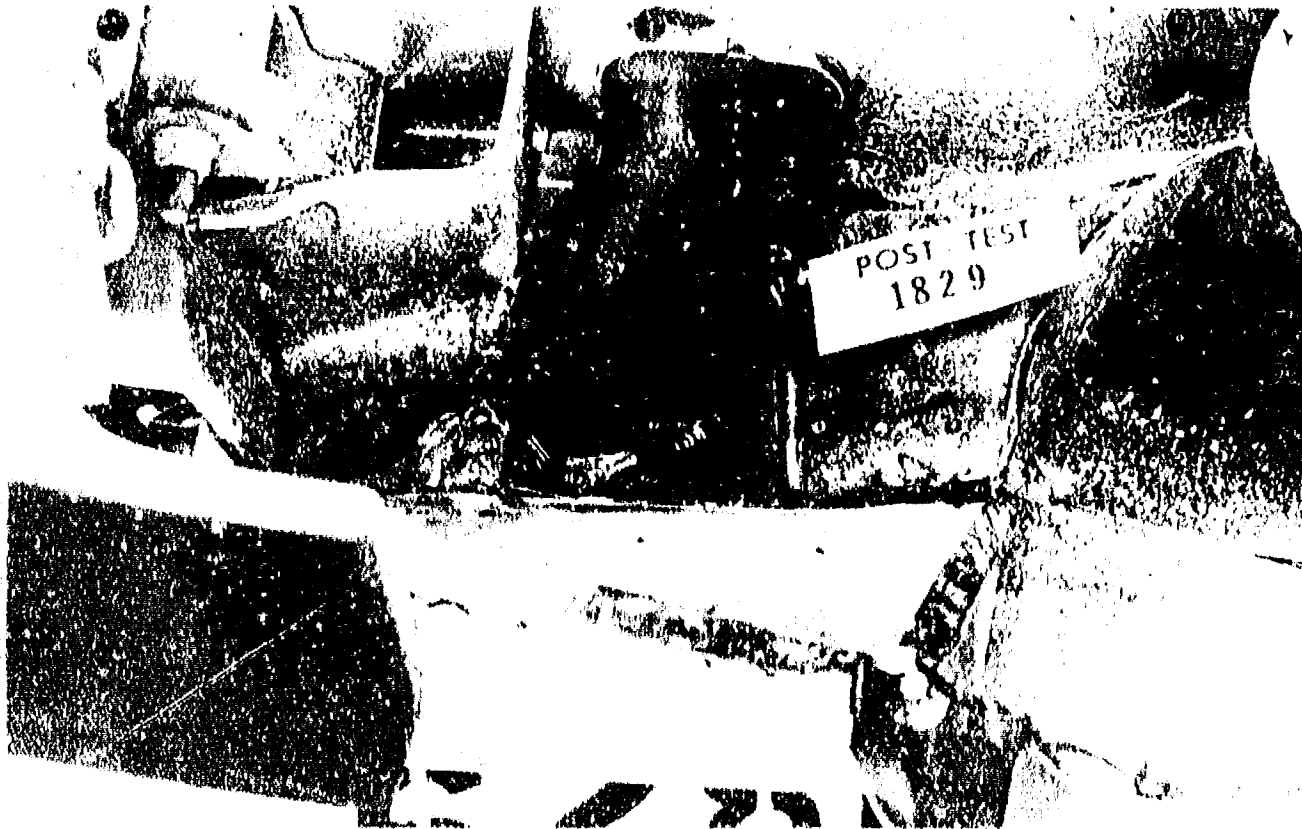


WISCONSIN SAFETY TEST SERVICES



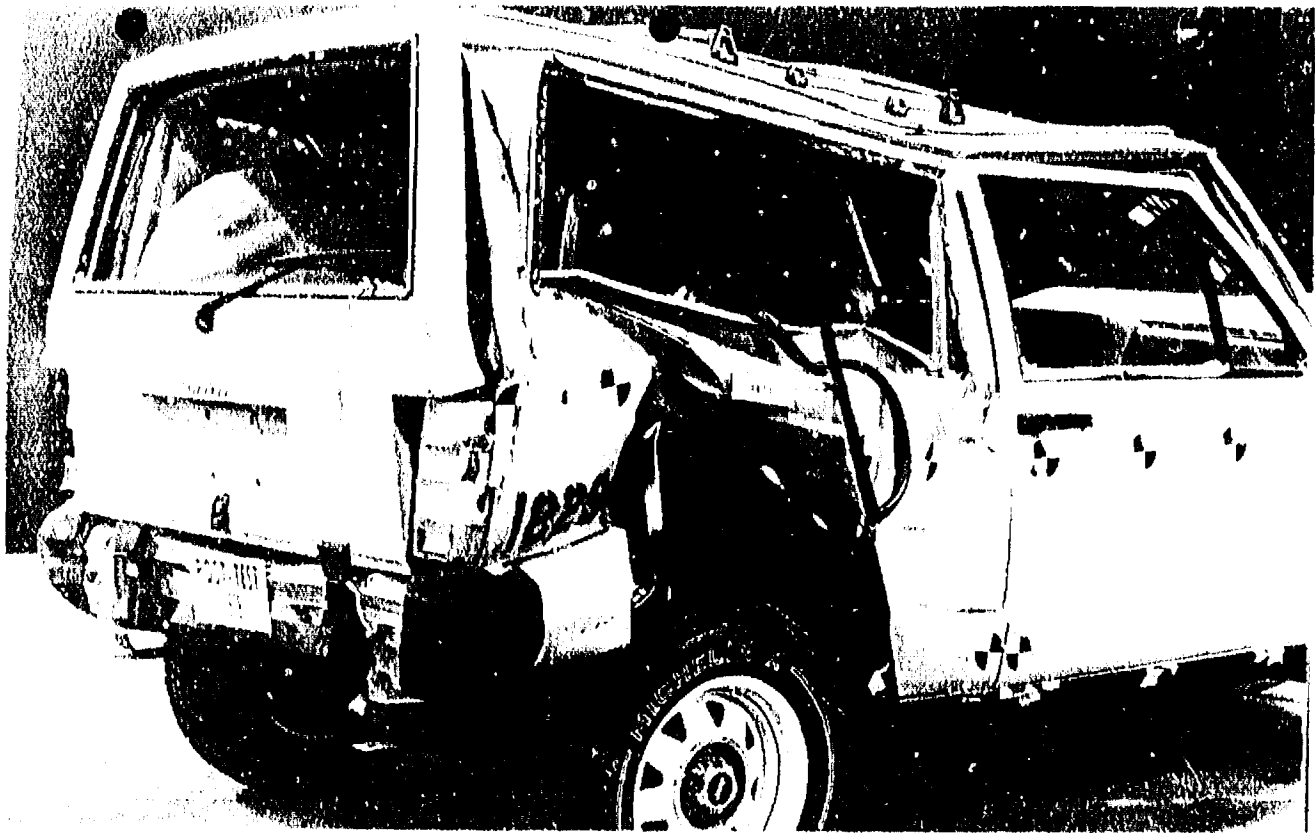


EA12-005- Chrysler -004387



EA12-005- Chrysler -004388



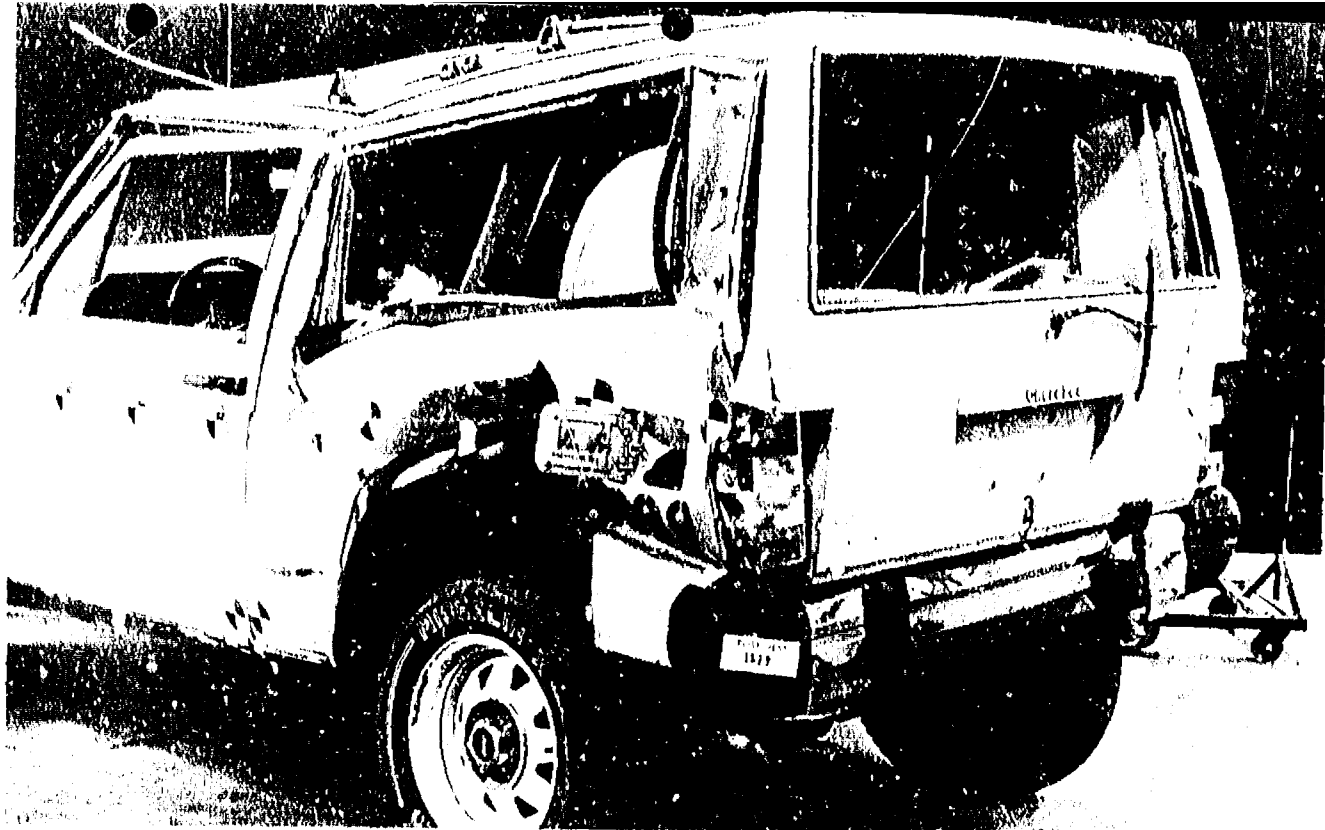


EA12-005- Chrysler -004389



RESEARCH SAFETY TEST SERVICES





EA12-005- Chrysler -004390



WISCONSIN SAFETY TEST SERVICES



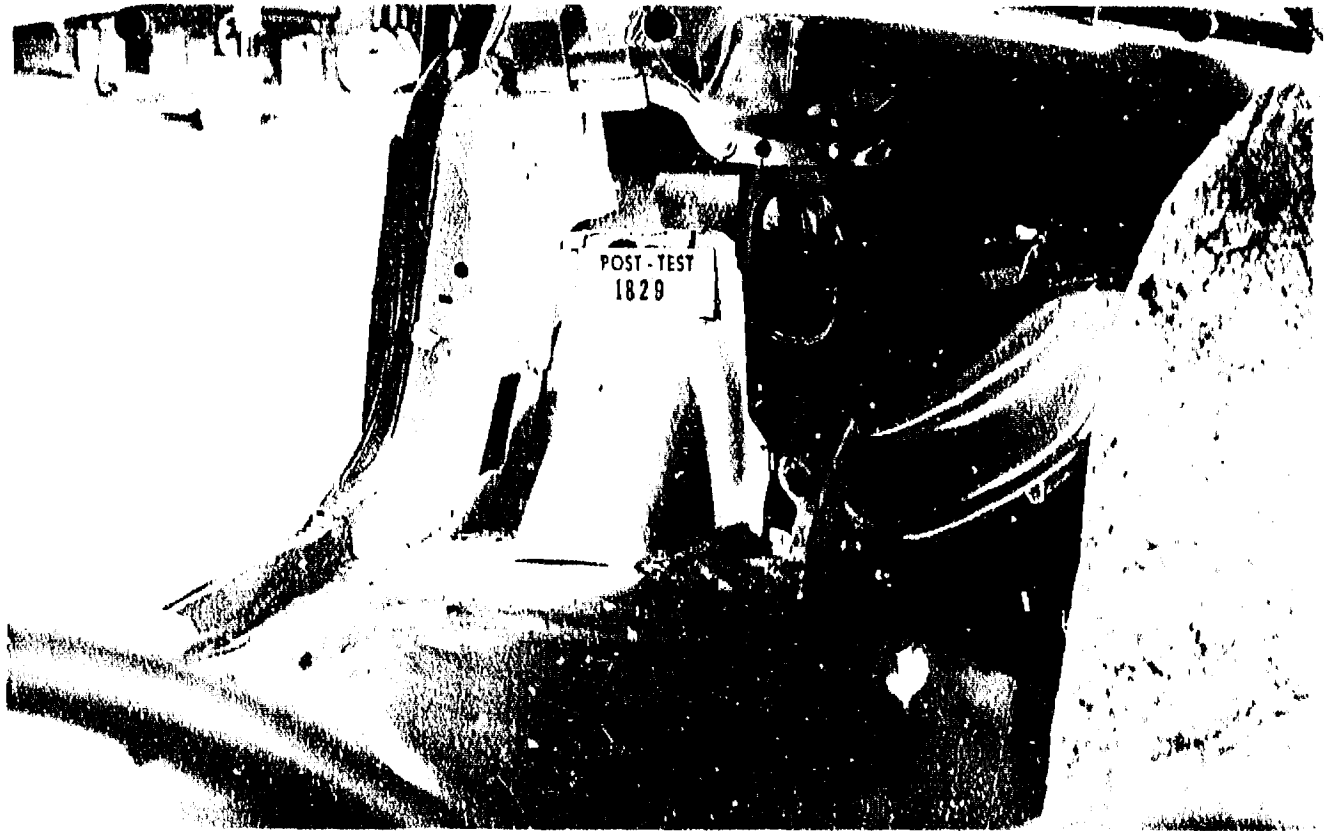


EA12-005- Chrysler -004391



KINROSS SAFETY TEST SERVICE



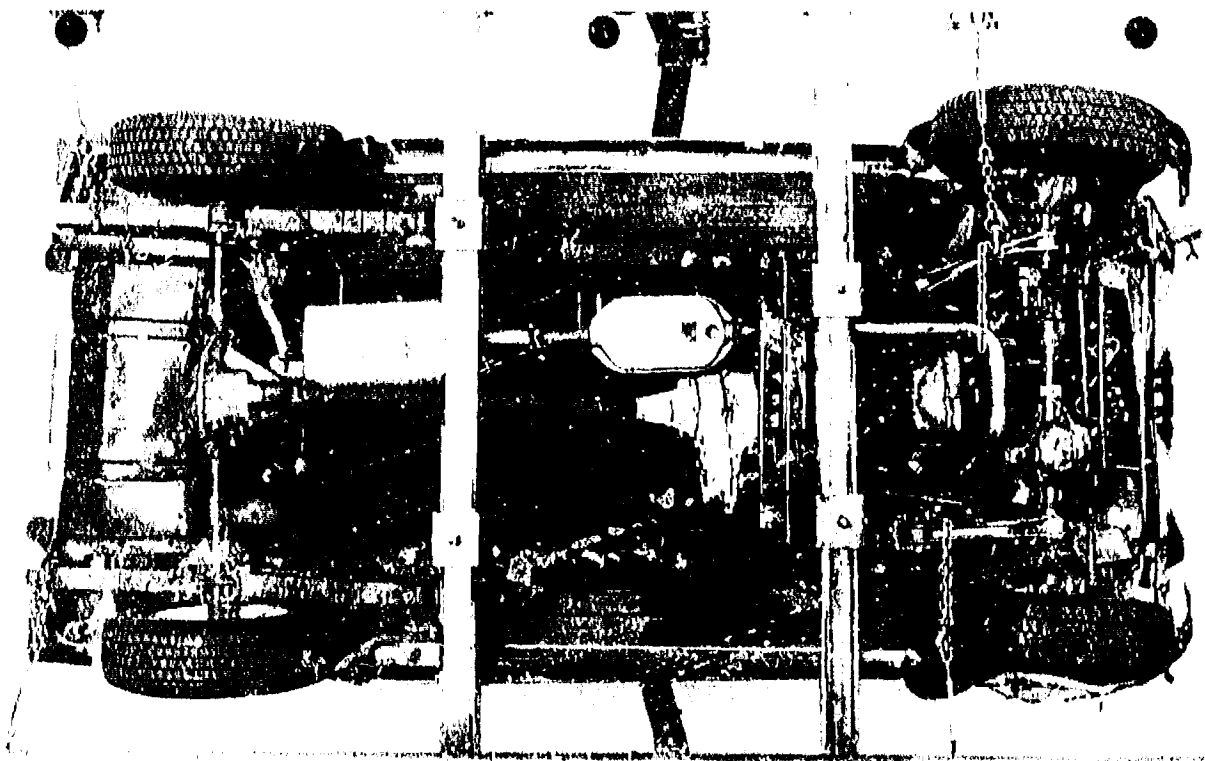


EA12-005- Chrysler -004392



WISCONSIN SAFETY TEST SERVICES

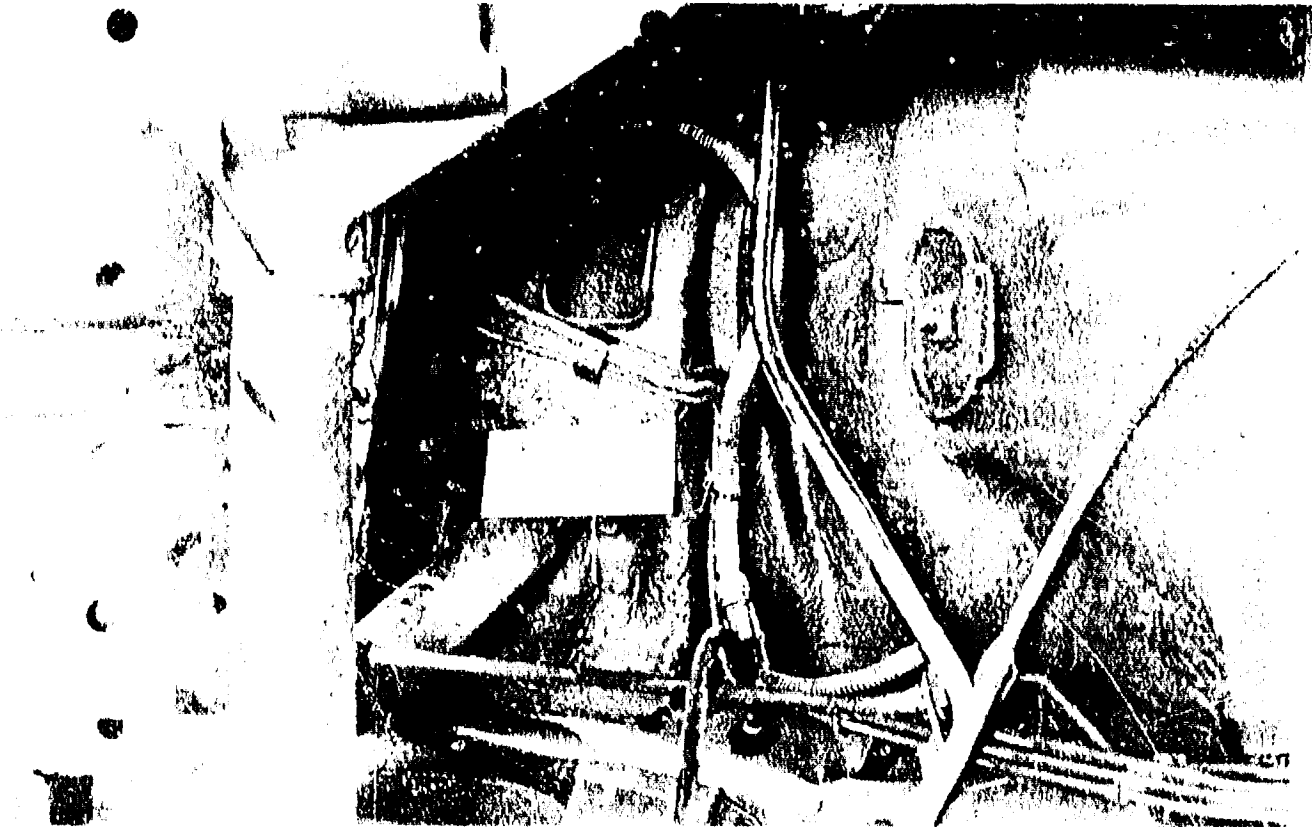




POST TEST
1879

EA12-005- Chrysler -004393

47 10000 10000 10000 10000 10000

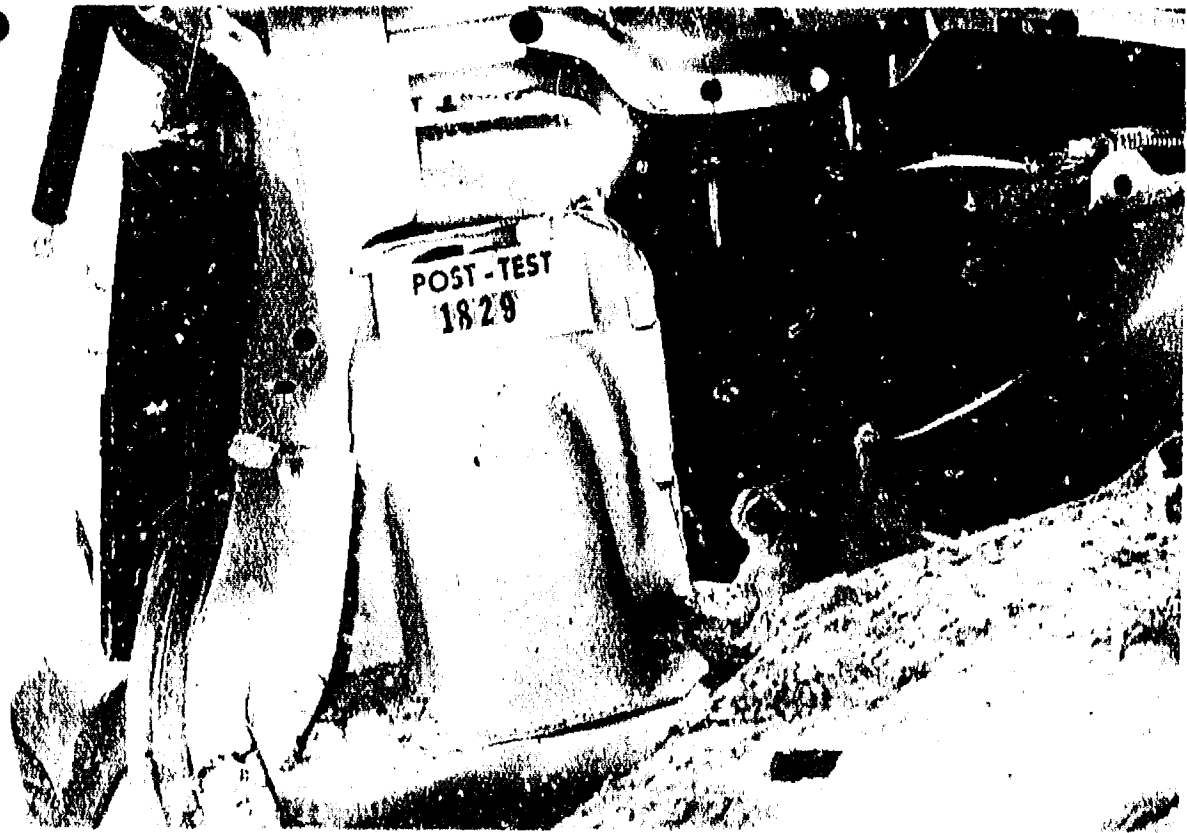


EA12-005- Chrysler -004394



CHRYSLER SAFETY SEAT BELT



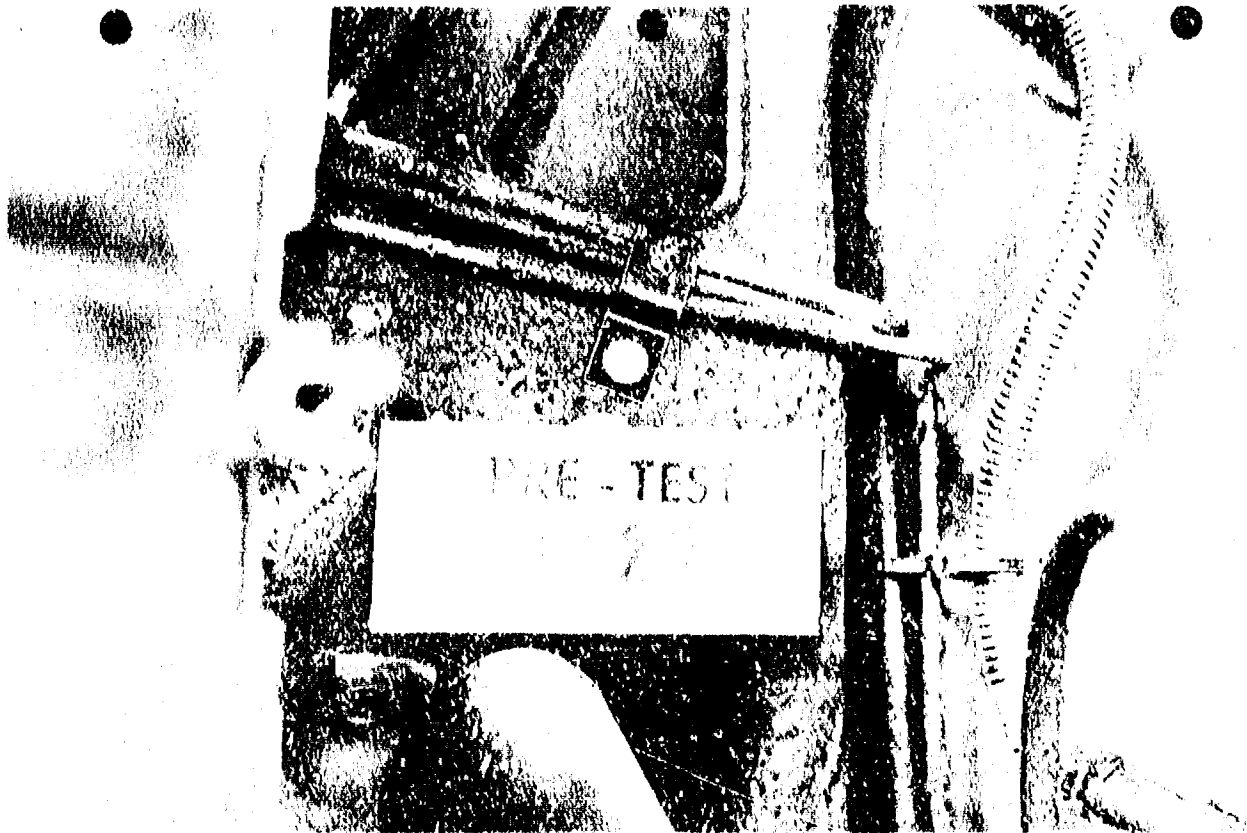


EA12-005- Chrysler -004395



SAFETY SEAT BELT





EA12-005- Chrysler -004396

RESEARCH SAFETY AND SERVICE



EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1829 Public

Image Source Inc.

401 Front Street

Toledo, Ohio 43605

407/2771131



DECLARATION OF INTENT AND PURPOSE

I LESIE FERMAN, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the

CHRYSLER AWC CRASH TEST

created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 14 1988
Month Day
Place Toledo OH
City State

Leslie Z Ferman
Signature
Manager, Chrysler 001580
Title
801 Front St
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1829

WRITTEN BY

K.E. ERIKSSON

K.E. Eriksson

TECHNICAL DATA ANALYST - DATA SERVICES

APPROVED BY

T.R. HAYEK

T.R. Hayek

MANAGER

DATE

EA12-005 Chrysler -001581

March 2, 1984



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1829

SAFETY TEST REQUEST FORM

REVISED 9/11/84

TEST TYPE: [] PERPENDICULAR FRONT [X] REAR [] OTHER (SPECIFY)
[] 30 DEGREE LEFT FRONT [] LEFT SIDE
[] 30 DEGREE RIGHT FRONT [] RIGHT SIDE

PURPOSE: [X] DEVELOPMENT [] CERTIFICATION [] OTHER

TEST TO: [X] AM14046 [] AM14174 [] AM14216 [] FMVSS200
[] AM14173 [] AM14107A [] OTHER (SPECIFY)

VEHICLE DATA: MODEL 8477 ENGINE V-6 TRANS AUTO ID. 1JCWB772BET D4C-74N
OTHER EQUIPMENT
FUEL CAPACITY 20.2 VEHICLE HEIGHTS: FRONT REAR
VEHICLE WEIGHTS: FRONT 2016 REAR 2130 TOTAL 4146

INSTRUMENTATION DEVIATIONS:
PHOTO COVERAGE DEVIATIONS:
SPECIAL INSTRUCTIONS DETERMINE CRASHWORTHINESS OF NEW XJ FULL FILLER HOUSING
STRUCTURE (1985 RUNNING CHANGE).

MODIFICATIONS AT AMTEK NONE

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES 1. REMOVE EXISTING STAMPINGS.
2. INSTALL NEW COMPONENTS PER PRINT AND INSTRUCTIONS. 3. INSTALL FUEL LINE CLIP
PER PHOTOS ENCLOSED. REMOVE OLD PLASTIC CLIP A12-005- Chrysler -001582

CHARGE TO:

TEST REQUESTOR H.G. PRUETT DATE 9/30/84 APPROVED W.R. KIRK DATE 9/4/84

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T.R. HAYEK DATE 9/5/84

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1984 JEEP XJ TWO DOOR WAGON 8477 EQUIPPED WITH A REVISED FUEL FILTER HOUSING STRUCTURE. THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 5/11/84 AND UNDERWENT A PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 9/20/84 AT A SPEED OF 30.0 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046.



TEST OBSERVATIONS.

THIS VEHICLE WAS SUBJECTED TO A FRONTAL IMPACT AS TEST 1788 PRIOR TO THIS REAR IMPACT.

THE FOLLOWING OBSERVATIONS WERE MADE AFTER THE TEST.

THE SPARE TIRE REMAINED SECURED.



TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIER

TEST SPEED 30.0 MPH. TEST DATE 9/20/84 VEHICLE MODEL 8477

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE _____ NONE _____ NONE _____
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	NONE _____ NONE _____
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	_____
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	_____ DYNAMIC _____ STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	_____
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	DRIVER PASS. _____ _____ _____ _____

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

EA12-005- Chrysler -001585

COMMENTS _____

SIGNATURE K.E. ERIKSSON

DATE 9/20/84

EA12-005- Chrysler -001587

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONETOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACTNONEMAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIODNONEROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES	NONE	NONE

 ROLL CLOCKWISE ROLL COUNTERCLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER 1 HR., 15 MIN.

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

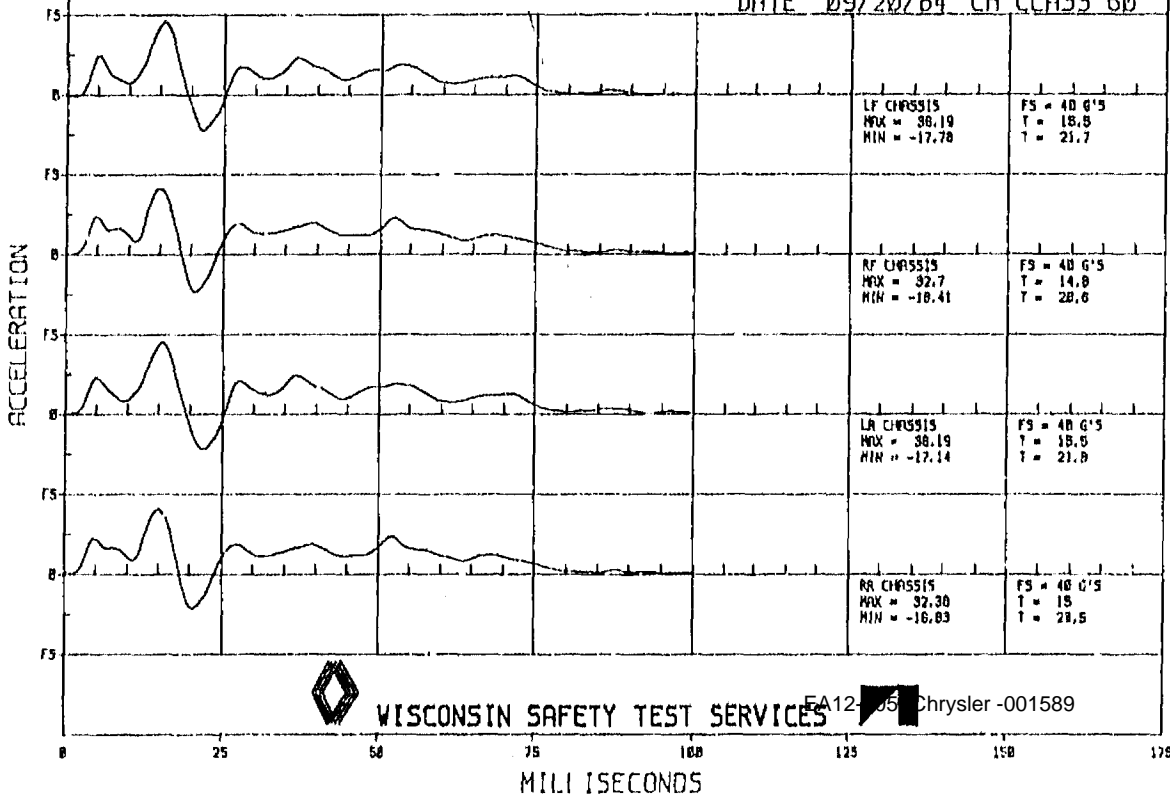
COMMENTS _____

EA12-005- Chrysler -001588

SIGNATURE J.P. McCARNEYDATE 9/20/84

CHASSIS ACCEL

TEST# 1829
 MODEL 8477
 DATE 09/20/84 CH CLASS 60



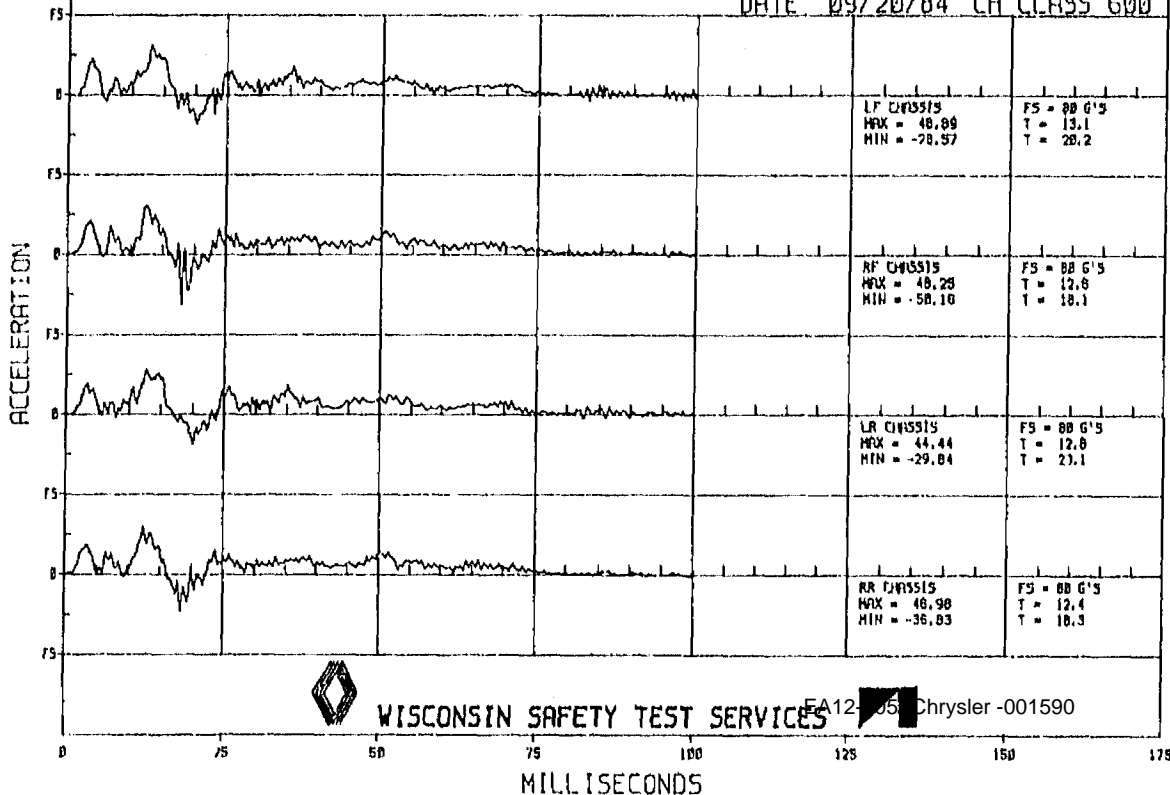
WISCONSIN SAFETY TEST SERVICES

FA12-05 Chrysler -001589

MILLISECONDS

CHASSIS ACCEL

TEST# 1829
MODEL 8477
DATE 09/20/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

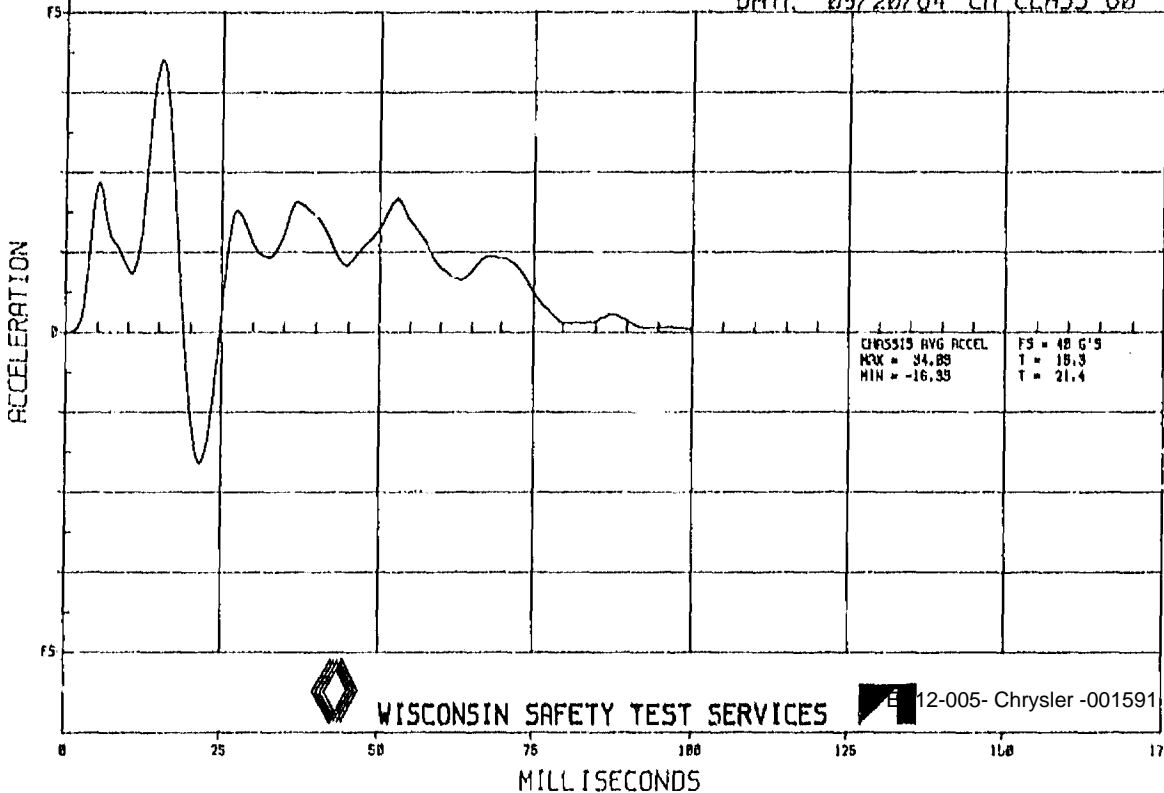
FA12-05 Chrysler -001590

0 25 50 75 100 125 150 175

MILLISECONDS

CHASSIS AVG ACCEL

TEST# 1829
MODEL 8477
DATE 09/20/84 CH CLASS 60



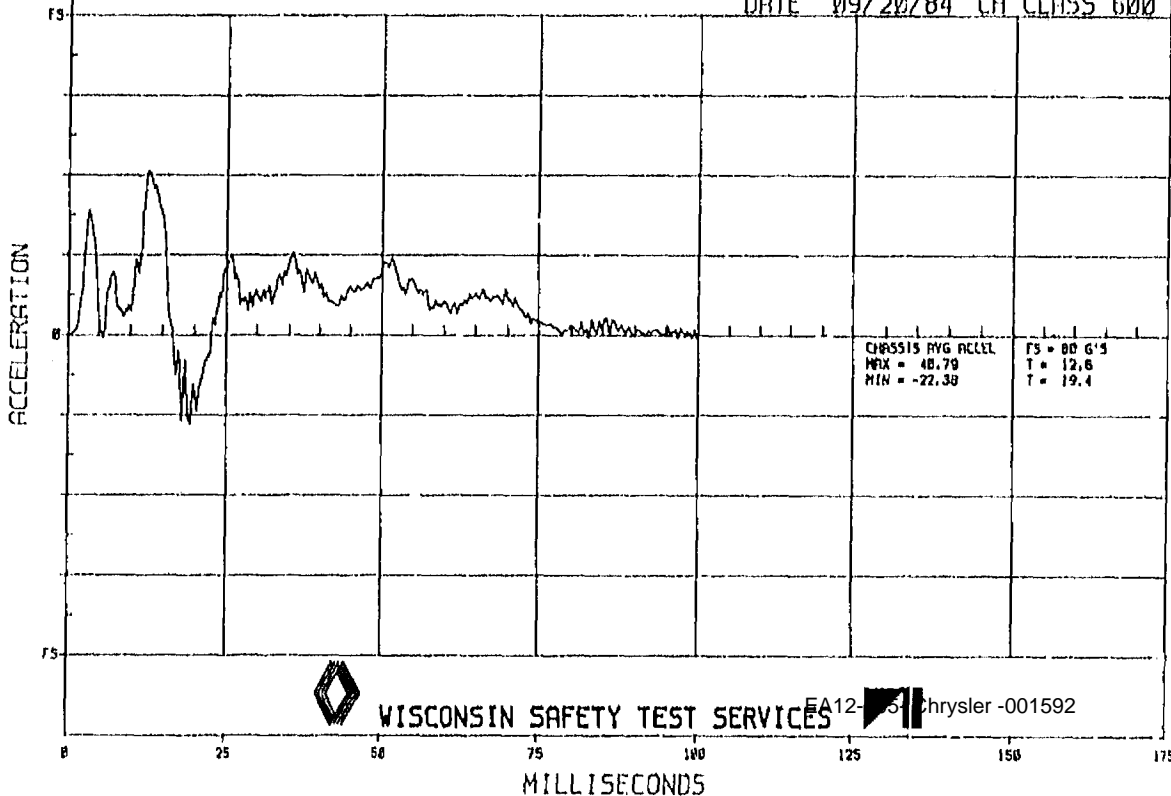
WISCONSIN SAFETY TEST SERVICES



12-005- Chrysler -001591

CHASSIS AVG ACCEL

TEST# 1829
MODEL 8477
DATE 09/20/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

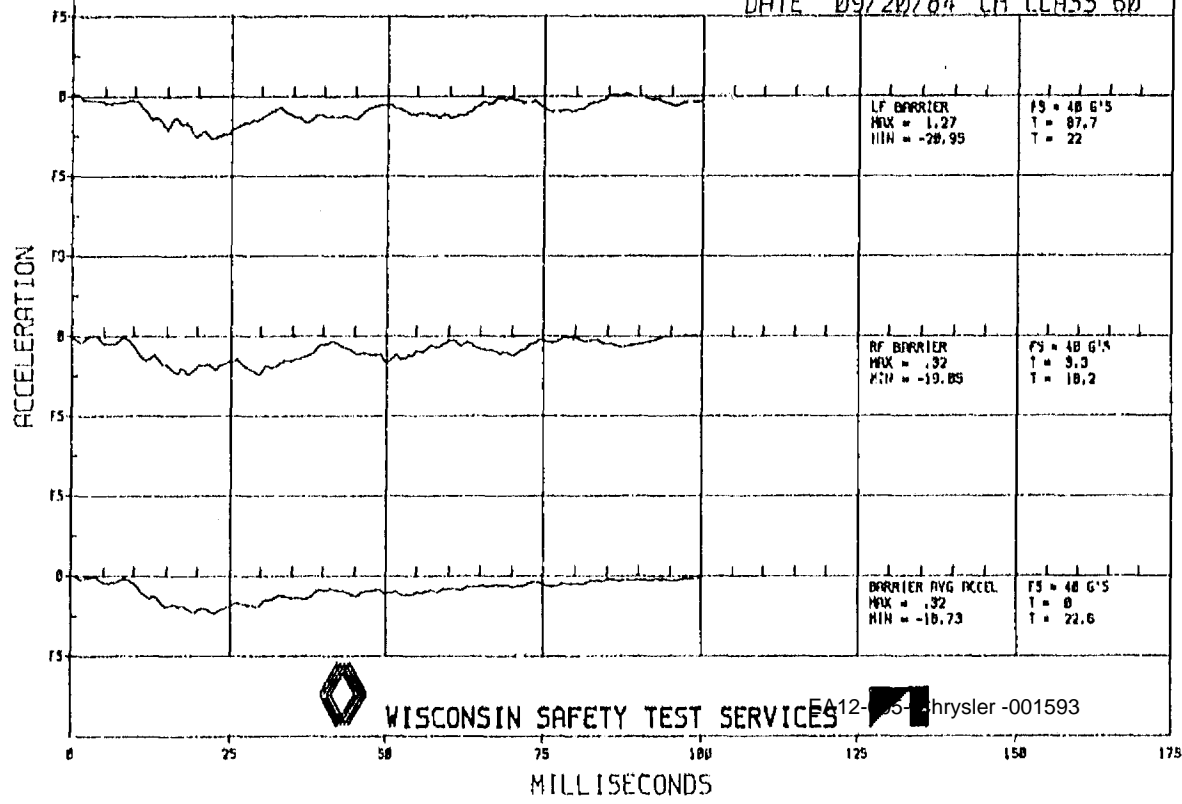
EA12-



Chrysler -001592

BARRIER ACCEL

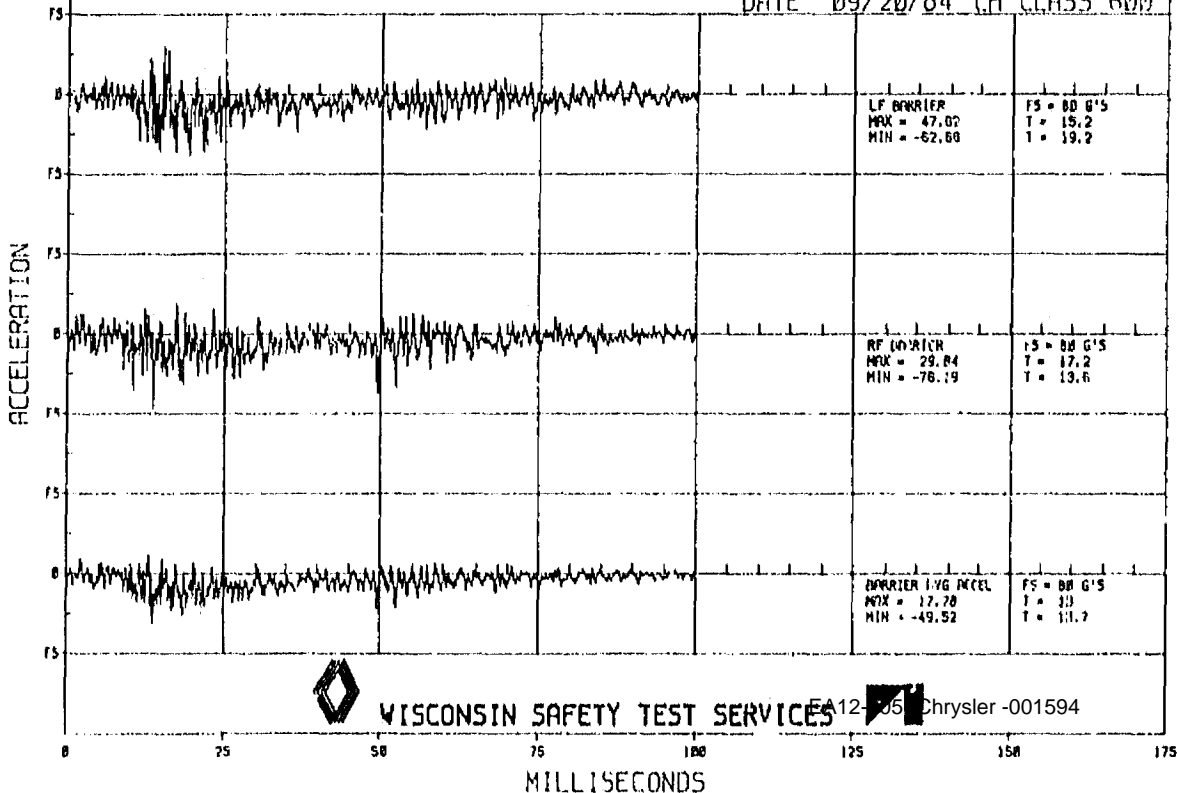
TEST# 1829
MODEL 8477
DATE 09/20/84 CH CLASS 60



WISCONSIN SAFETY TEST SERVICES EA12-75-1 Chrysler-001593

BARRIER ACCEL

TEST# 1829
MODEL 8477
DATE 09/20/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

EA12-05

Chrysler -001594

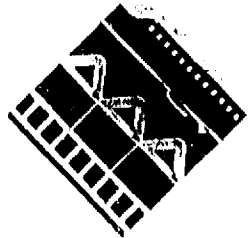
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1845 photos

Image Source Inc.

801 Front Street

Toledo, Ohio 43604

419/677-1111



DECLARATION OF INTENT AND PURPOSE

I Theresa J. Cardon, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp. AMC Vehicle Control tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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.

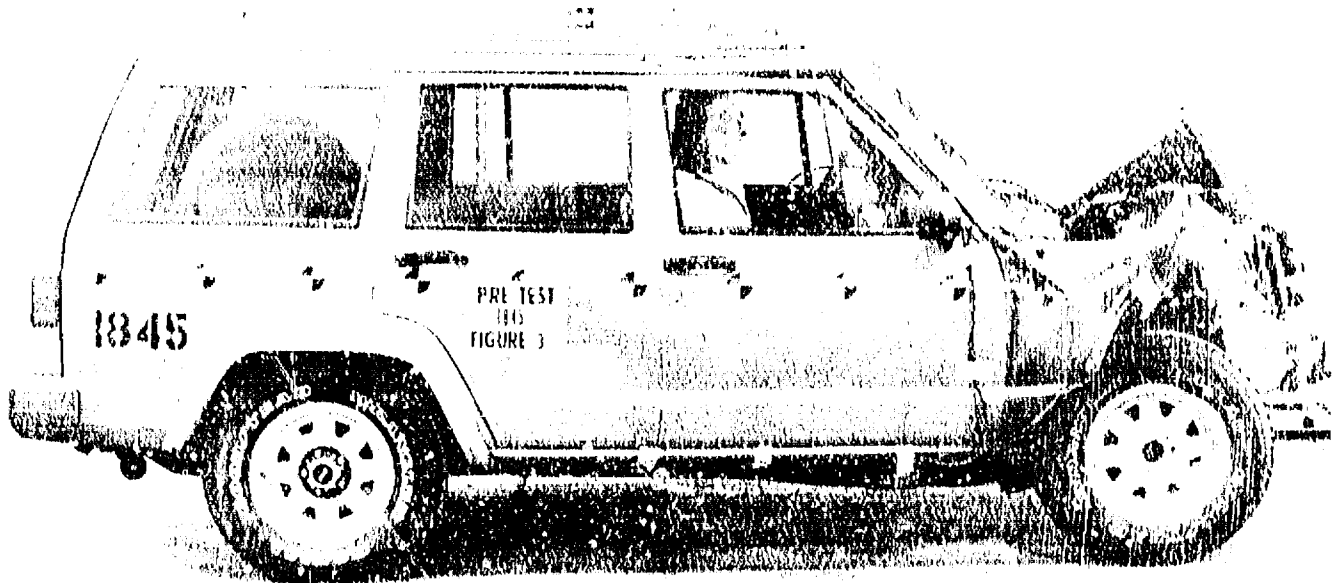
Date 4 6 1985
Month Day

Theresa J. Cardon
Signature

Place Toledo Ohio
City State

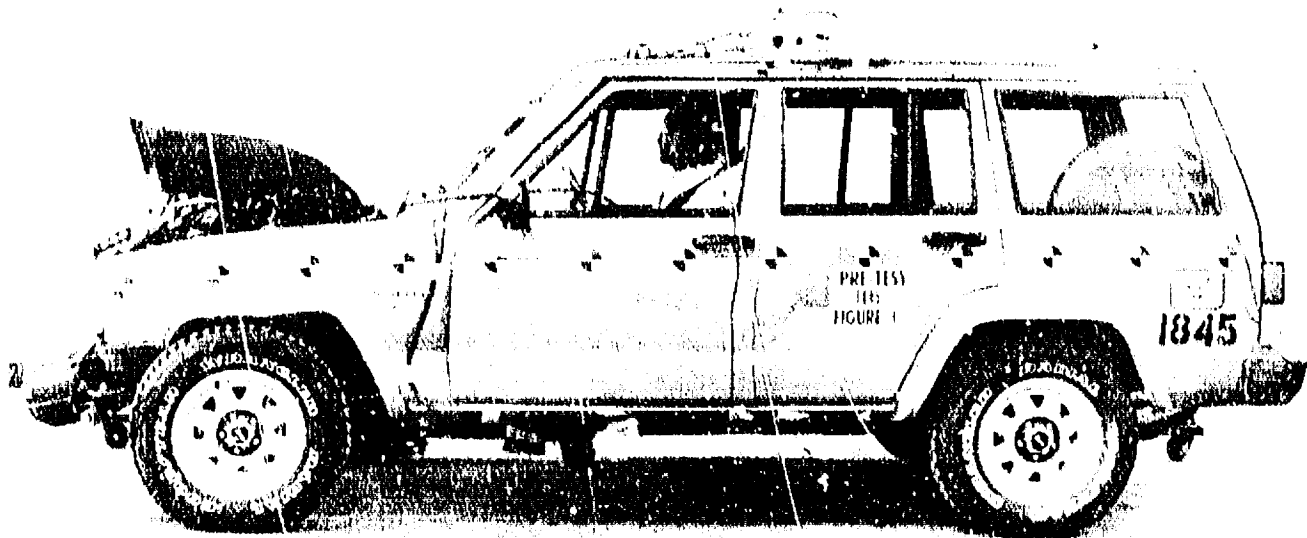
Camera Operator
Title

801 Front
Location 16-005- Chrysler -004397



EA12-005- Chrysler -004398

RESUMIR SATELITE DE SEGURIDAD

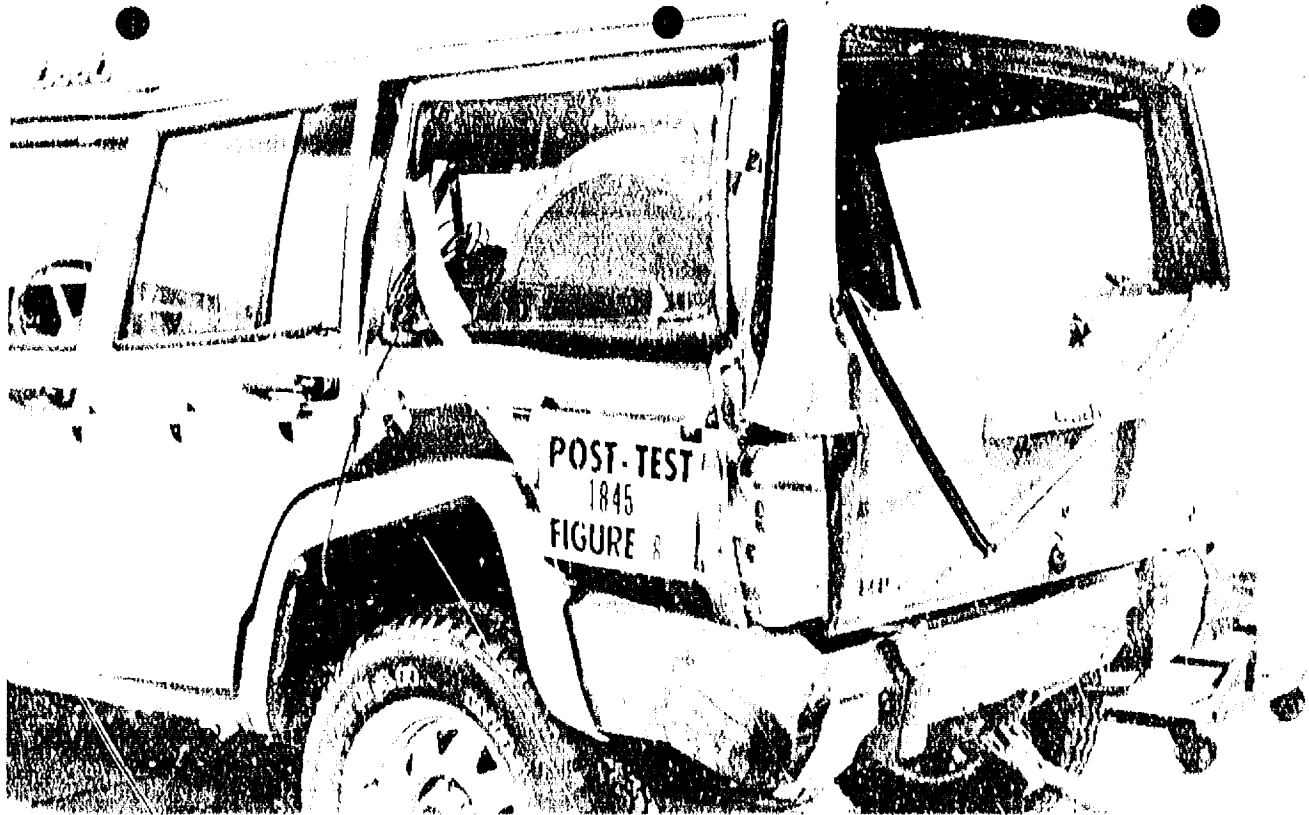


EA12-005- Chrysler -004399



CHRYSLER SALES TEST CENTER

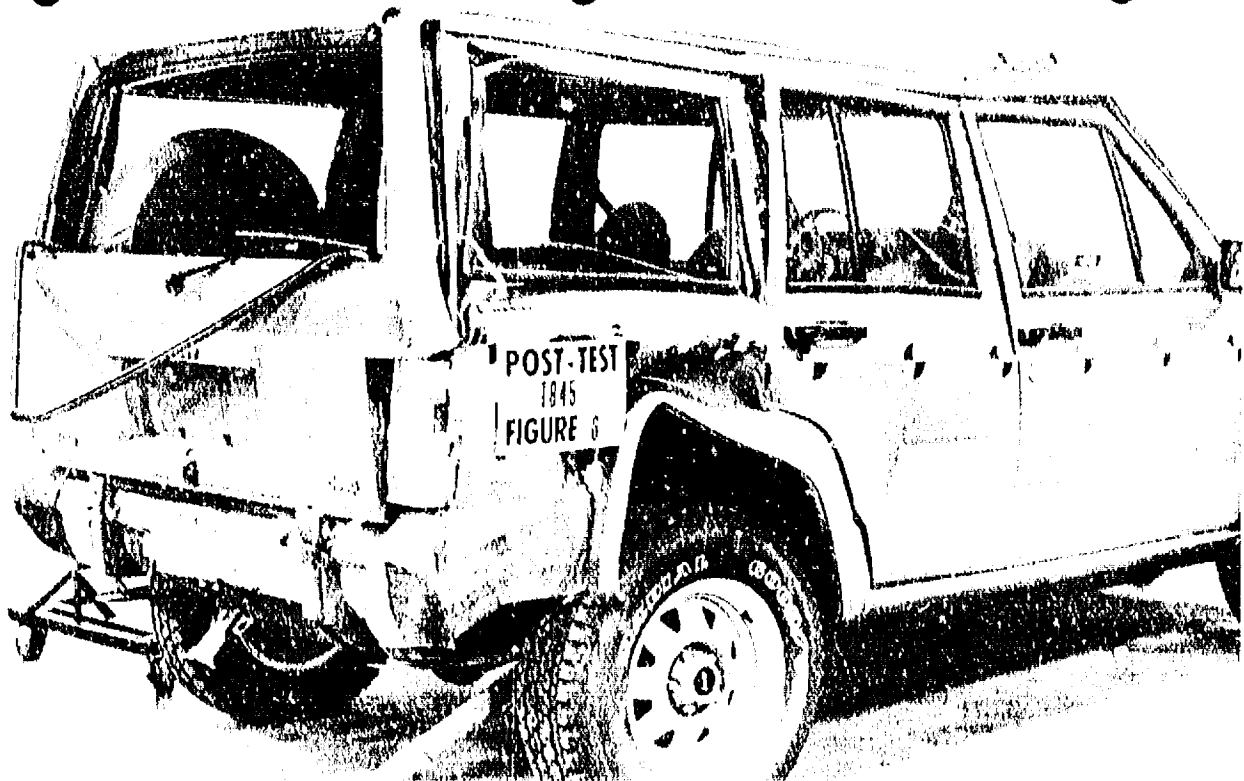




EA12-005- Chrysler -004400

41 DENNY STREET, NEW YORK, N.Y. 10014



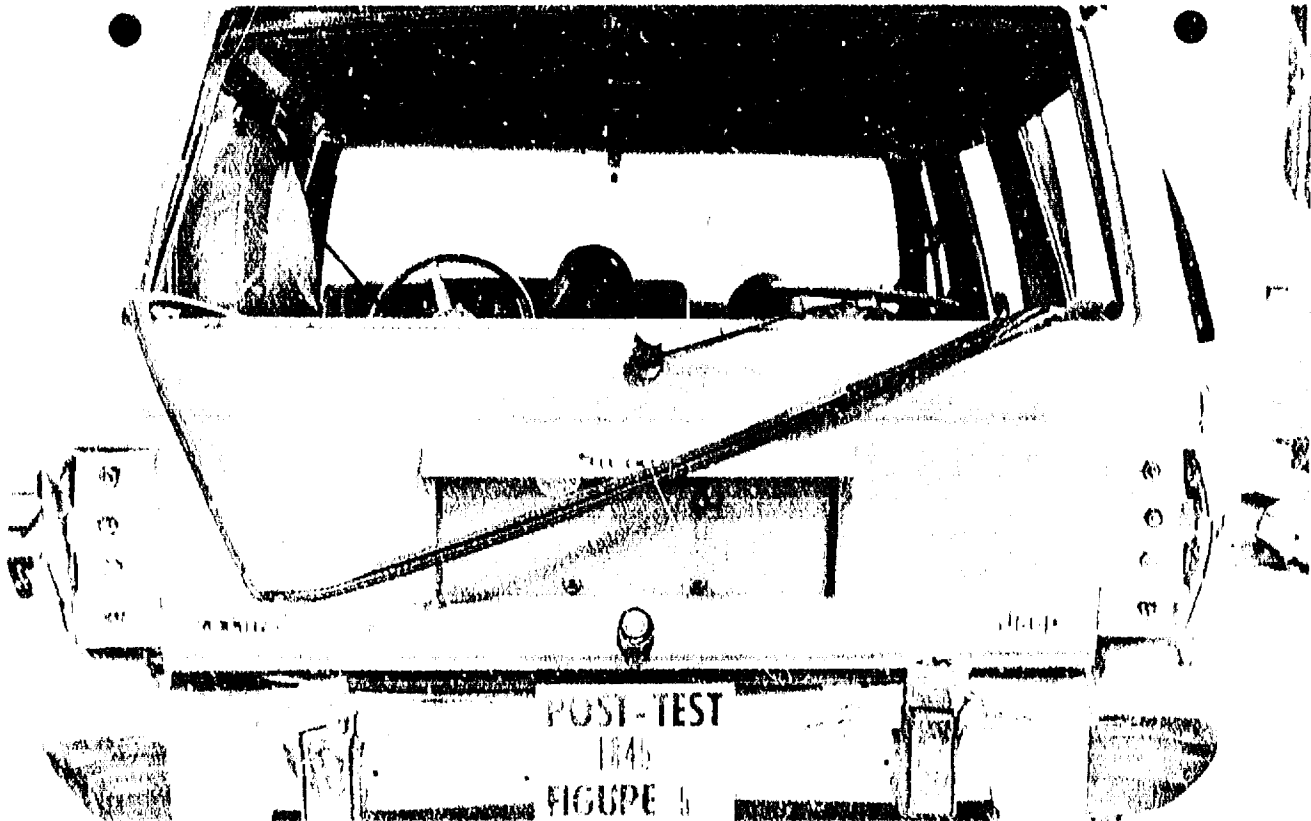


EA12-005- Chrysler -004401



WISCONSIN SAFETY TEST CENTER

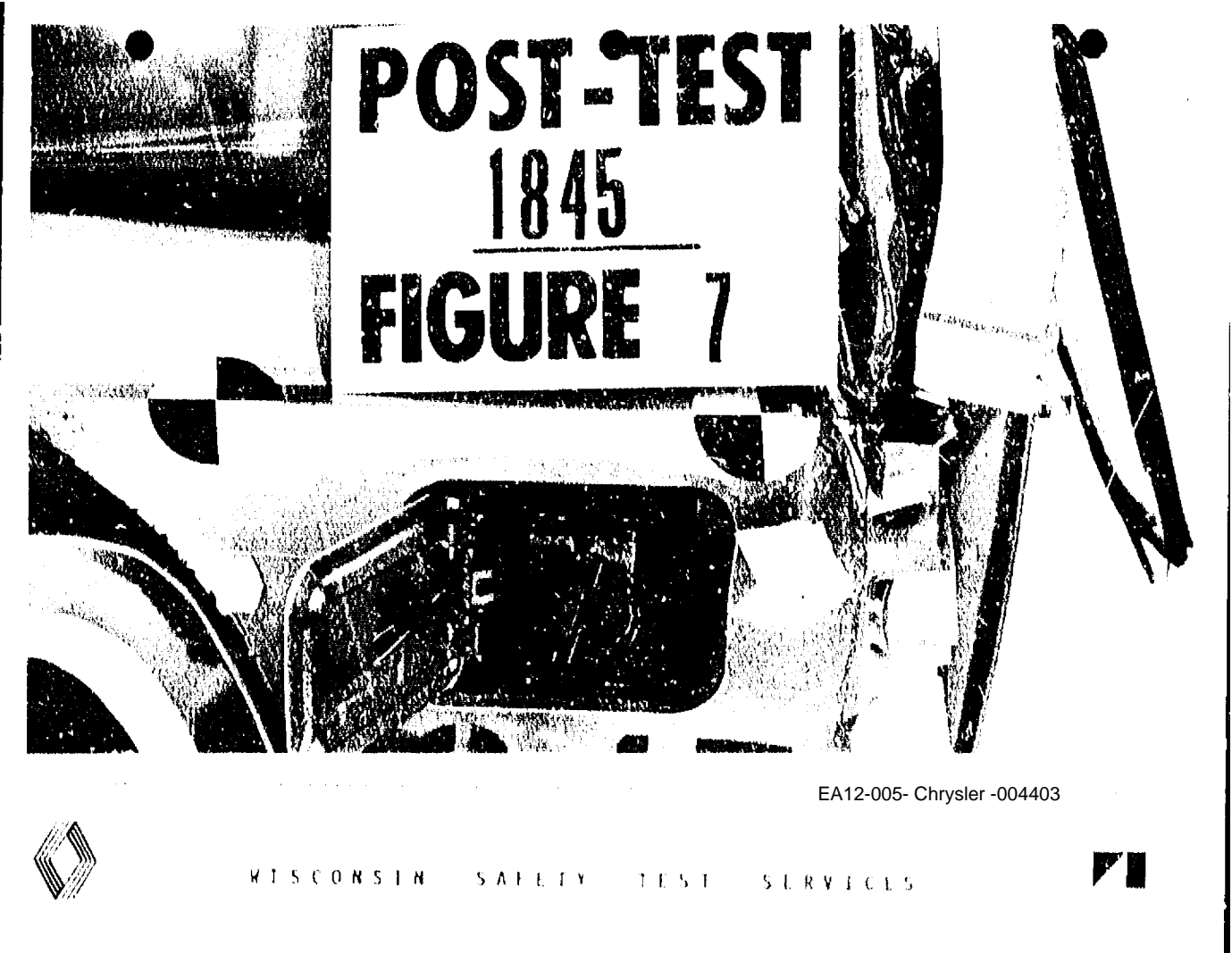




EA12-005- Chrysler -004402

MINICONSA SAFETY TEST SERVICE





POST-TEST
1845
FIGURE 7

EA12-005- Chrysler -004403



WISCONSIN SAFETY TEST SERVICES



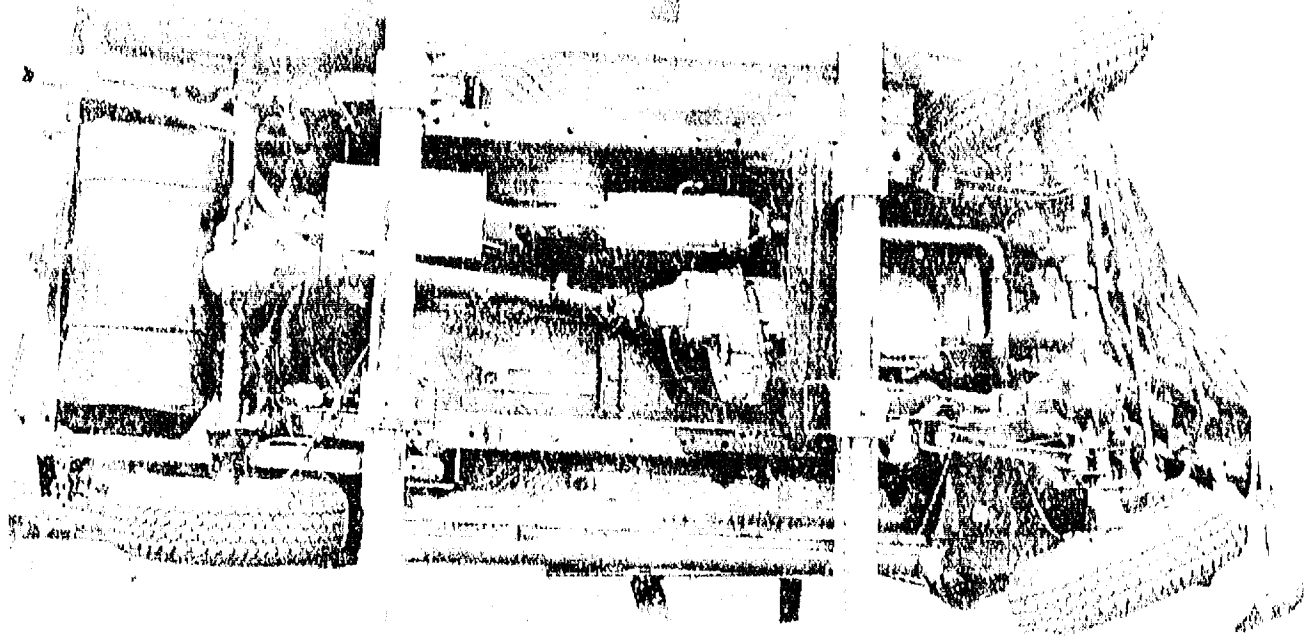


EA12-005- Chrysler -004404

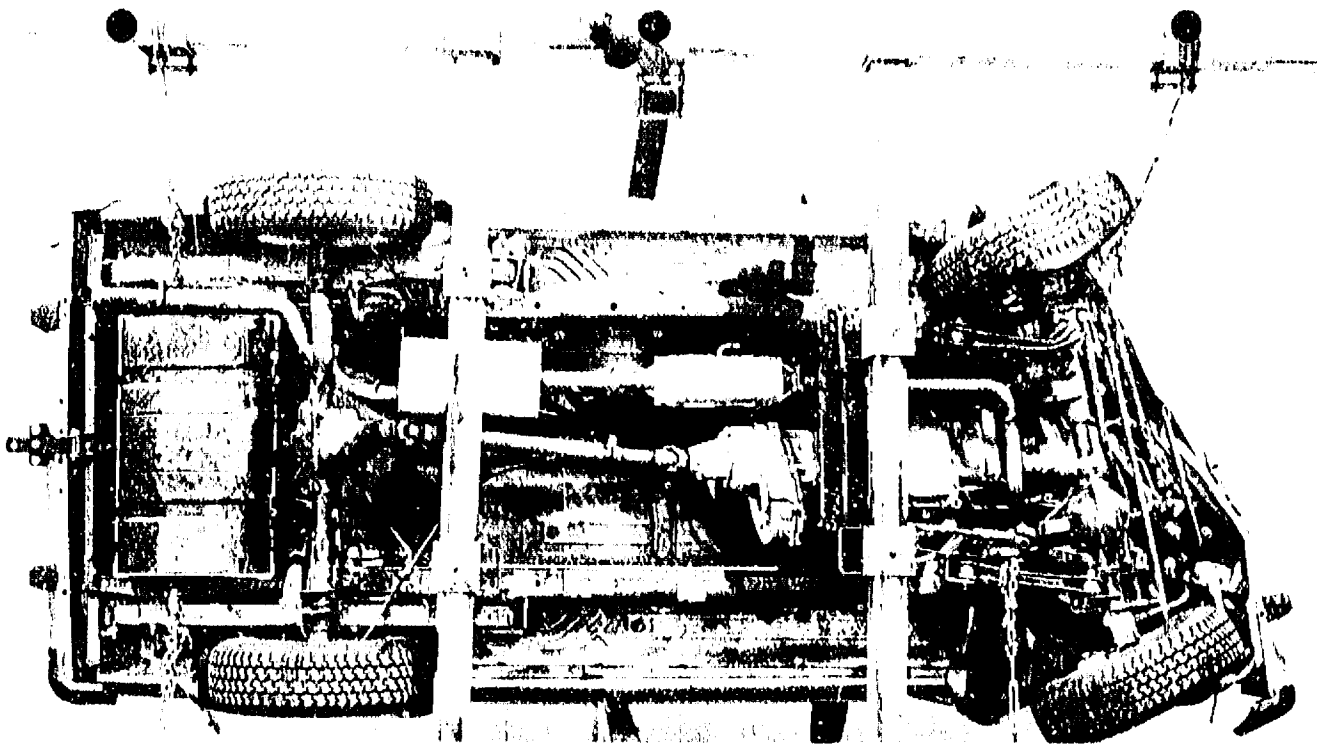


W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004405



PRE TEST
EUSCEN

EA12-005- Chrysler -004406



EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1845 PUBLIC

Image Source Inc.

801 Front Street

Toledo, Ohio 43606

419/697-1111



DECLARATION OF INTENT AND PURPOSE

I Leslie Ferman, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the

Chrysler AMC CRASH TEST

created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 14 1994
Month Day

Place Toledo OH
City State

Leslie Ferman
Signature

Manager Chrysler 001595
Title

801 Front St
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1845

WRITTEN BY K. E. ERIKSSON *K.E.E. 8/15*

TECHNICAL DATA ANALYST - DATA SERVICES

APPROVED BY T. R. HAYEK *T.R. Hayek*

MANAGER

DATA 12-005 *Chrysler* 1001596, 1785



WISCONSIN SAFETY TEST SERVICES

TEST NO. 1845SAFETY TEST REQUEST FORM

TEST TYPE: PERPENDICULAR FRONT REAR OTHER
 30 DEGREE LEFT FRONT LEFT SIDE (SPECIFY)
 30 DEGREE RIGHT FRONT RIGHT SIDE

PURPOSE: DEVELOPMENT CERTIFICATION OTHER

TEST TO: AM14046 AM14173 AM14174 AM14187A AM14216 OTHER (SPECIFY) FMVSS200

VEHICLE DATA: MODEL 8472 ENGINE 1-4 TRANS AUTO ID. 1JQCZ828ET (DAC-95)

OTHER EQUIPMENT _____

FUEL CAPACITY 20.2 VEHICLE HEIGHTS: FRONT _____ REAR _____VEHICLE WEIGHTS: FRONT 1964 REAR 2188 TOTAL 4152

INSTRUMENTATION DEVIATIONS: _____

PHOTO COVERAGE DEVIATIONS: _____

SPECIAL INSTRUCTIONS _____

MODIFICATIONS AT AMTEK NONE

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES FUEL PUMP SENDING UNIT MUST BE
 MOVED FROM VEHICLE TO VEHICLE.

EA12-005- Chrysler -001597

CHARGE TO: _____

TEST REQUESTOR L. O. BAKER DATE 11/6/84 APPROVED W. R. KIRK DATE 11/7/84WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T. R. HAYEK DATE 11/9/84



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1845

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1984 JEEP XJ FOUR DOOR WAGON 8478. THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 11/6/84 AND UNDERWENT A PERPENDICULAR REAR MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 12/20/84 AT A SPEED OF 30.0 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046. THERE WERE NO FUEL LEAKS POST-TEST.

TEST OBSERVATIONS

THE FOLLOWING OBSERVATIONS WERE MADE AFTER THE TEST,

THE SPARE TIRE REMAINED SECURED,

THE LEFT AND RIGHT AND RIGHT REAR DOORS HAD TO BE PRIED OPEN,

THE HOOD LATCH DID NOT HOLD DUE TO DAMAGE FROM THE PRIOR TEST #1844,



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1845

TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIER

TEST SPEED 30.0 MPH, TEST DATE 12/20/84 VEHICLE MODEL B478

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE NONE NONE
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	NONE NONE
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	DYNAMIC STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	DRIVER PASS.

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

COMMENTS

EA12-005- Chrysler -001600

SIGNATURE K. E. ERIKSSON

DATE 1/16/85

K-173 (12/83)



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1845

TEST CONDITIONS

TEST SPEED 30.0 MPH DATE 12/20/84 TIME 11:50 AM

AMBIENT TEMPERATURE 20 DEGREES F. WEATHER SUNNY

WEIGHTS: BALLAST 450 LBS. @ CARGO AREA DUMMIES 330 LBS.

80 LBS. @ TOE BOARD FUEL: 19.2 GALS (95%) 124 LBS.

LBS. @ EQUIPMENT 25 LBS.

TEST WEIGHT: FRONT 1974 LBS. REAR 2195 LBS. TOTAL 4169 LBS.

VEHICLE HEIGHTS: L.F. N/A R.F. N/A L.R. 28.96" R.R. 26.58"

 AXLE TO SILL
 FENDER TO GROUND
 OTHER

EA12-005- Chrysler -001601

EA12-005- Chrysler -001602



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1045

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONE

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACT

NONE

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD

NONE

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES	NONE	NONE

 ROLL CLOCKWISE ROLL COUNTERCLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER 20 HRS.

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

COMMENTS

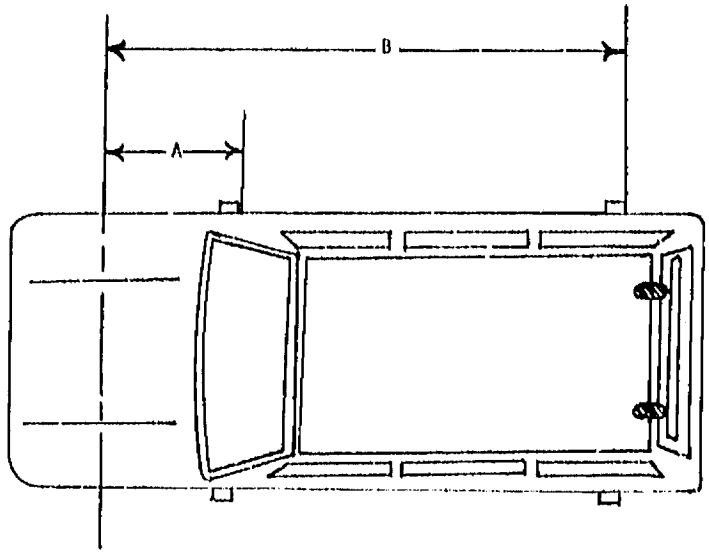
EA12-005- Chrysler -001603

SIGNATURE J. A. SHEPSTONE

DATE 12/21/84



INSTRUMENTATION LOCATION



DEMENSION

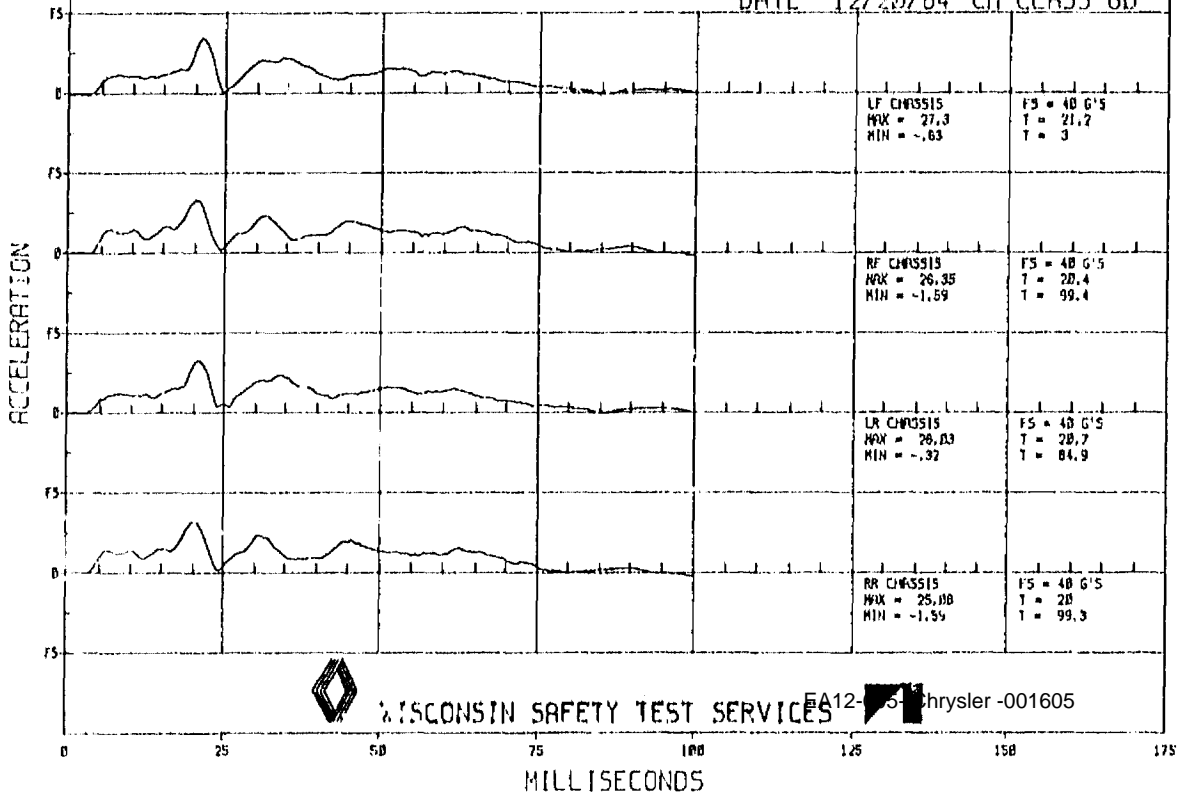
DISTANCE FROM AXLE CENTERLINE

A	"	35"
B	"	63"

EA12-005- Chrysler -001604

CHASSIS ACCEL

TEST# 1845
 MODEL 8478
 DATE 12/20/84 CH CLASS 60



WISCONSIN SAFETY TEST SERVICES

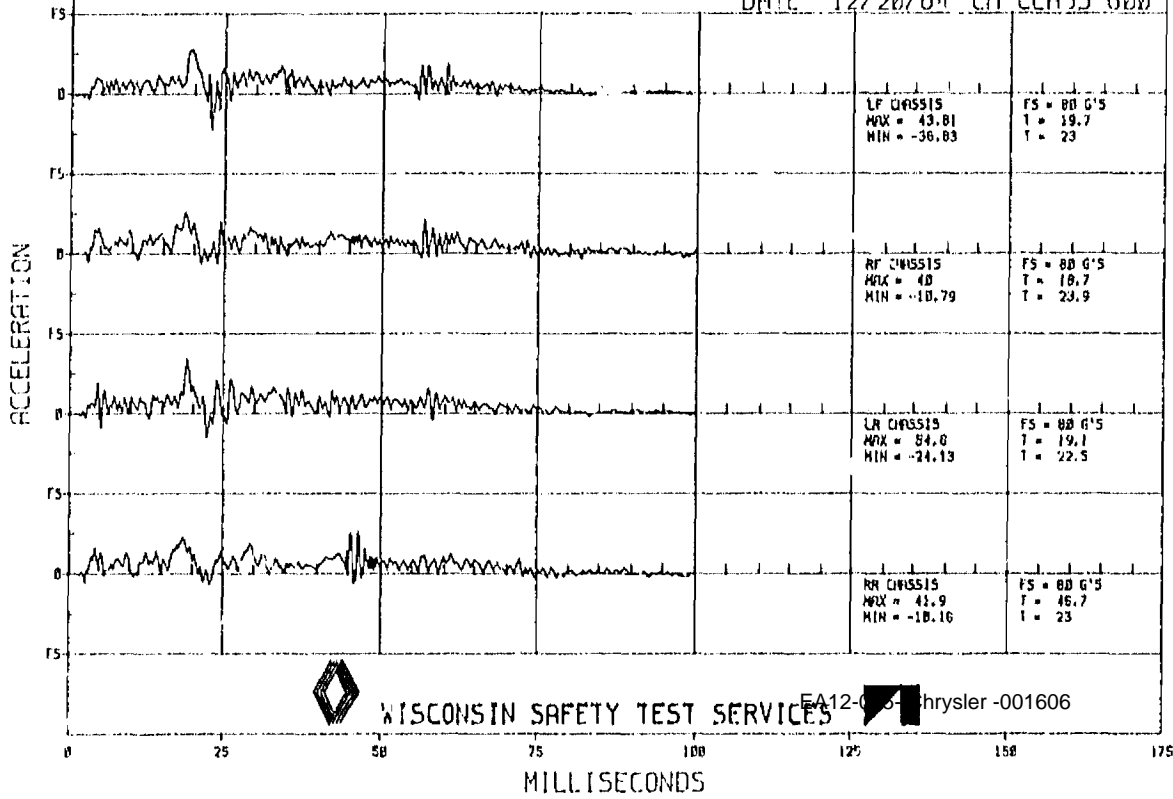
FA12-



Chrysler -001605

CHASSIS ACCEL

TEST# 1845
MODEL 8478
DATE 12/20/84 CH CLASS 600

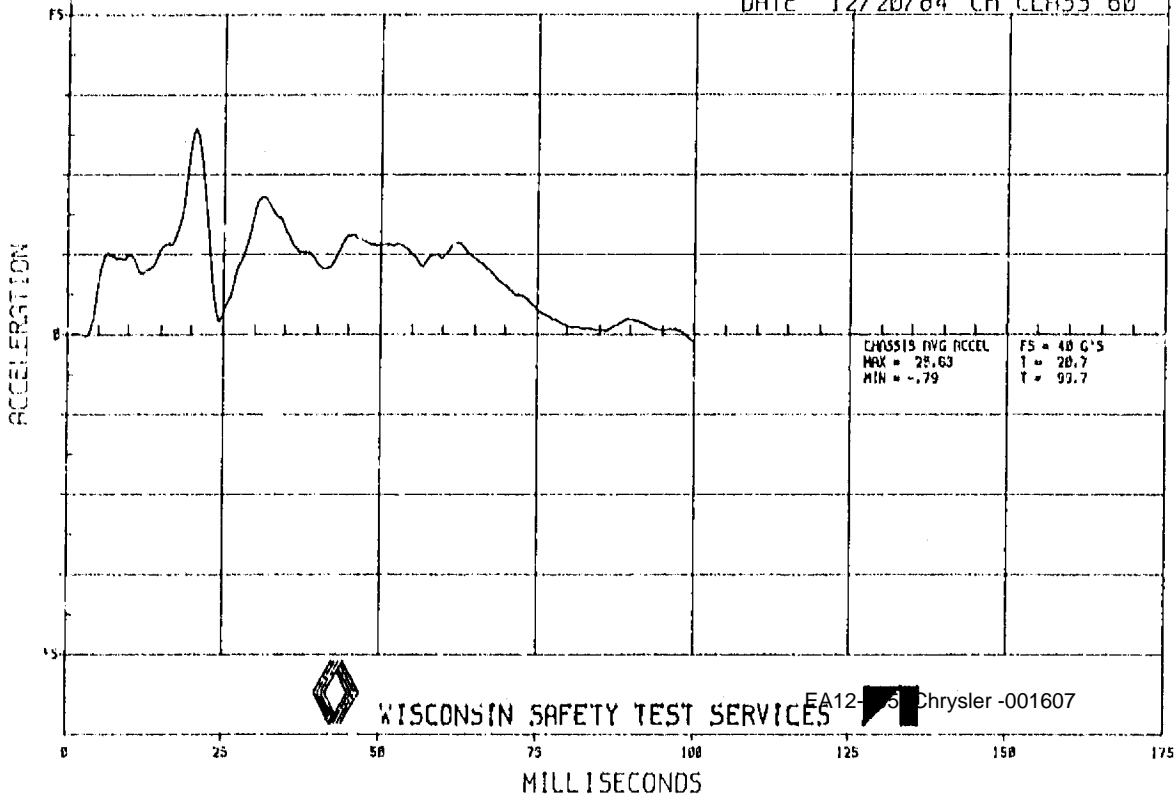


WISCONSIN SAFETY TEST SERVICES

EA12-06- Chrysler -001606

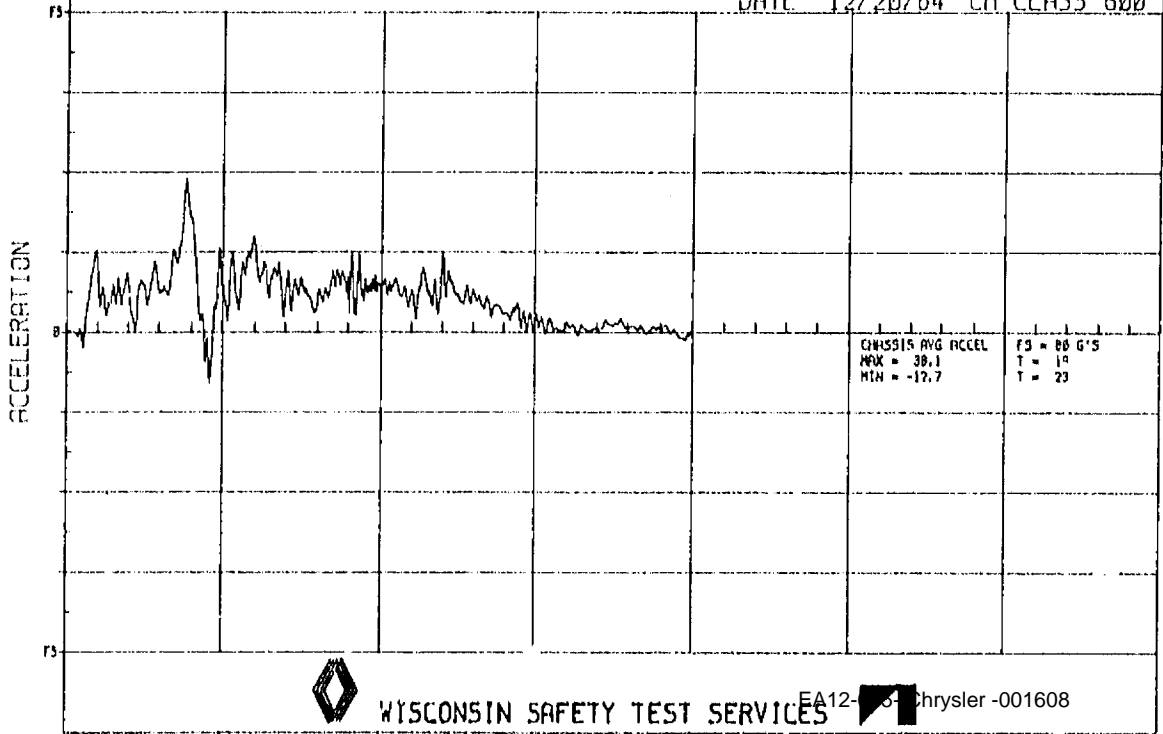
CHASSIS AVG ACCEL

TEST # 1845
MODEL 8478
DATE 12/20/84 CH CLASS 60



CHASSIS AVG ACCEL

TEST# 1845
MODEL 8478
DATE 12/20/84 CH CLASS 600



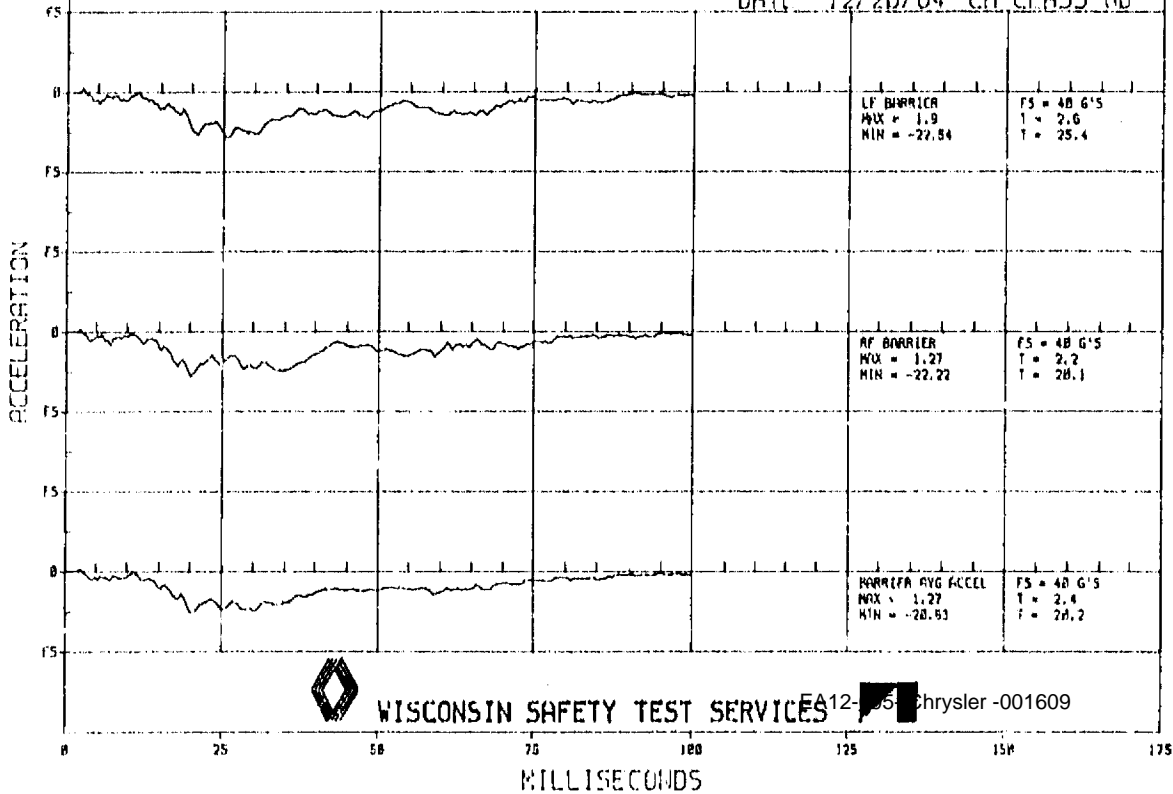
WISCONSIN SAFETY TEST SERVICES

EA12-61 Chrysler -001608

0 25 50 75 100 125 150 175
MILLISECONDS

BARRIER ACCEL

TEST# 1845
MODEL 8478
DATE 12/20/84 CH CLASS 80

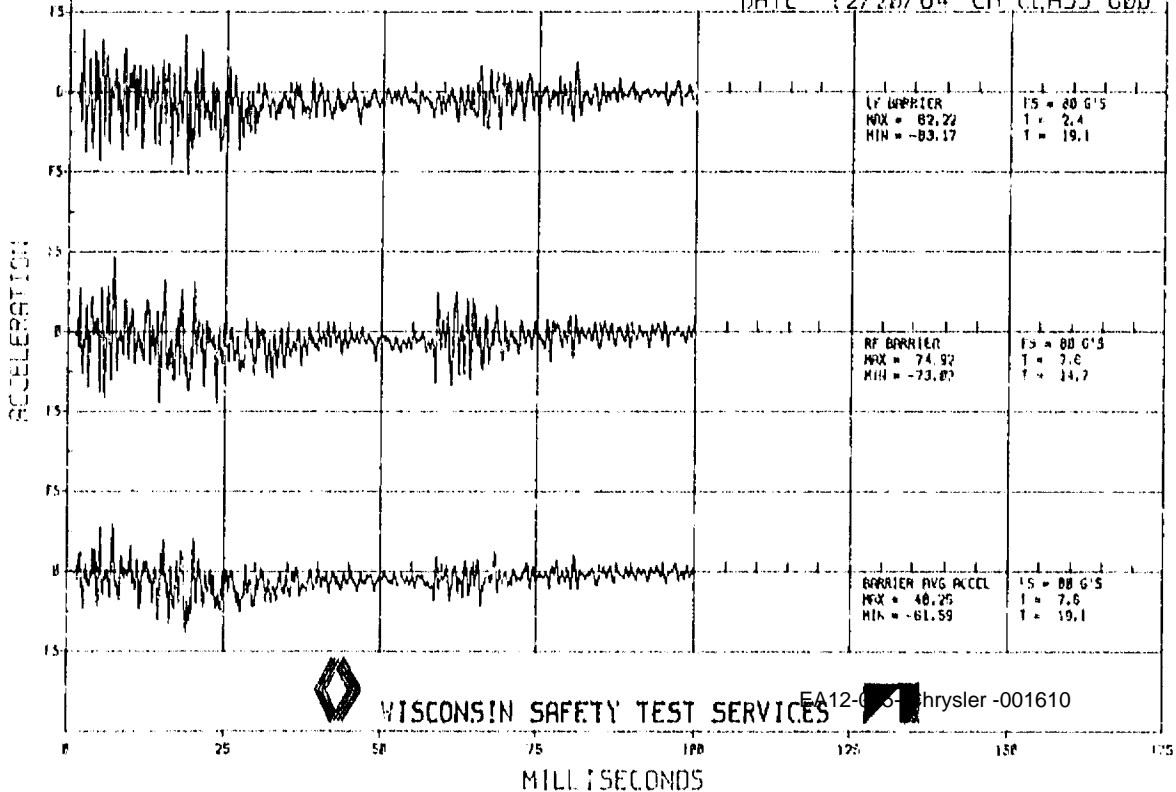


WISCONSIN SAFETY TEST SERVICES

EA12-165 Chrysler -001609

BARRIER ACCEL

TEST# 1845
MODEL 8478
DATE 12/20/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

EA12-03 Chrysler-001610



PHOTO INDEX

14046 REAR IMPACT

STANDARD PHOTOS

FIGURE

- 1 PRE-TEST UNDERSIDE ON ROLLOVER
- 2 PRE-TEST REAR
- 3 PRE-TEST RIGHT SIDE - WHOLE VEHICLE
- 4 PRE-TEST LEFT SIDE - WHOLE VEHICLE
- 5 POST-TEST REAR
- 6 POST-TEST 3/4 REAR RIGHT SIDE - SHOW 1/2 VEHICLE
- 7 POST-TEST FILLER AREA CLOSE UP
- 8 POST-TEST 3/4 REAR LEFT SIDE - SHOW 1/2 VEHICLE
- 9 POST-TEST UNDERSIDE ON ROLLOVER

EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1848 photos

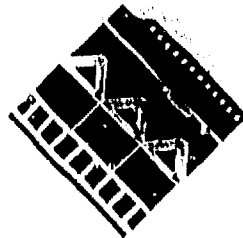
Image Source Inc.

801 Front Street

Toledo, Ohio 43605

419/249-1111

DECLARATION OF INTENT AND PURPOSE



I Theresa J. Carden, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp. AMC Vehicle Crash tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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.

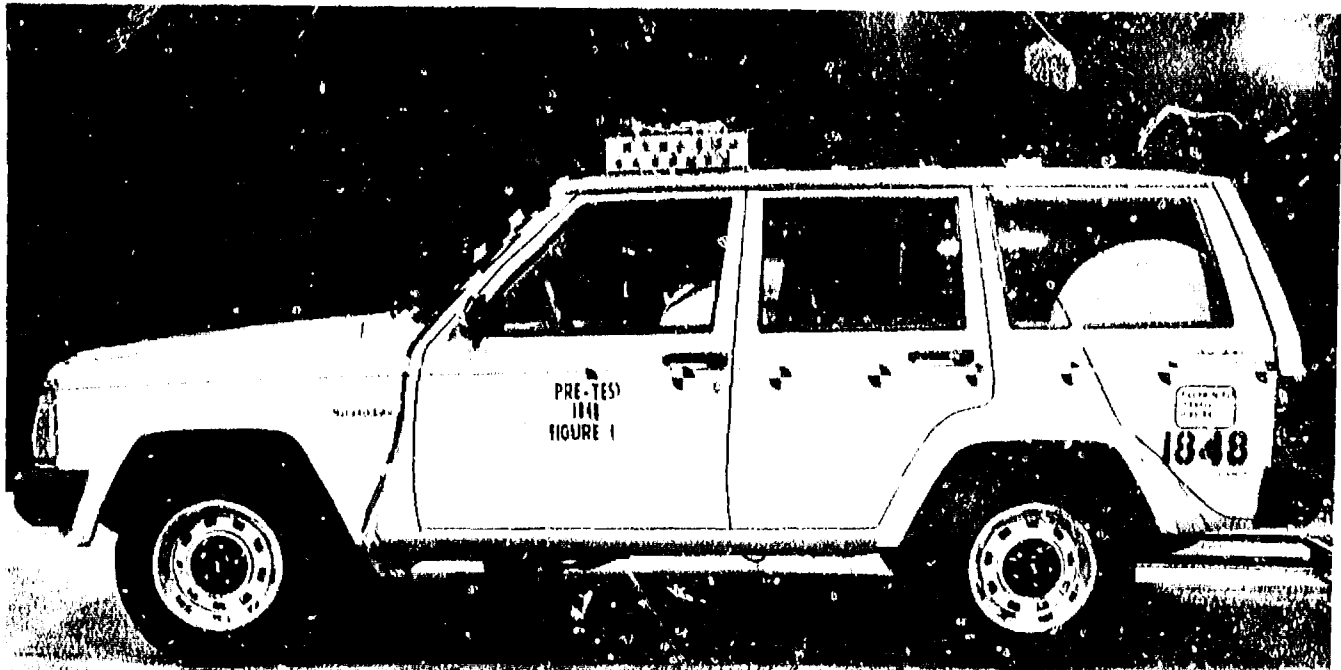
Date 4 16 1985
Month Day

Place Toledo Ohio
City State

Theresa J. Carden
Signature

Camera Operator (E) 12-005-Chrysler-004407
Title

801 Front Street
Location



EA12-005- Chrysler -004408



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004409



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004410

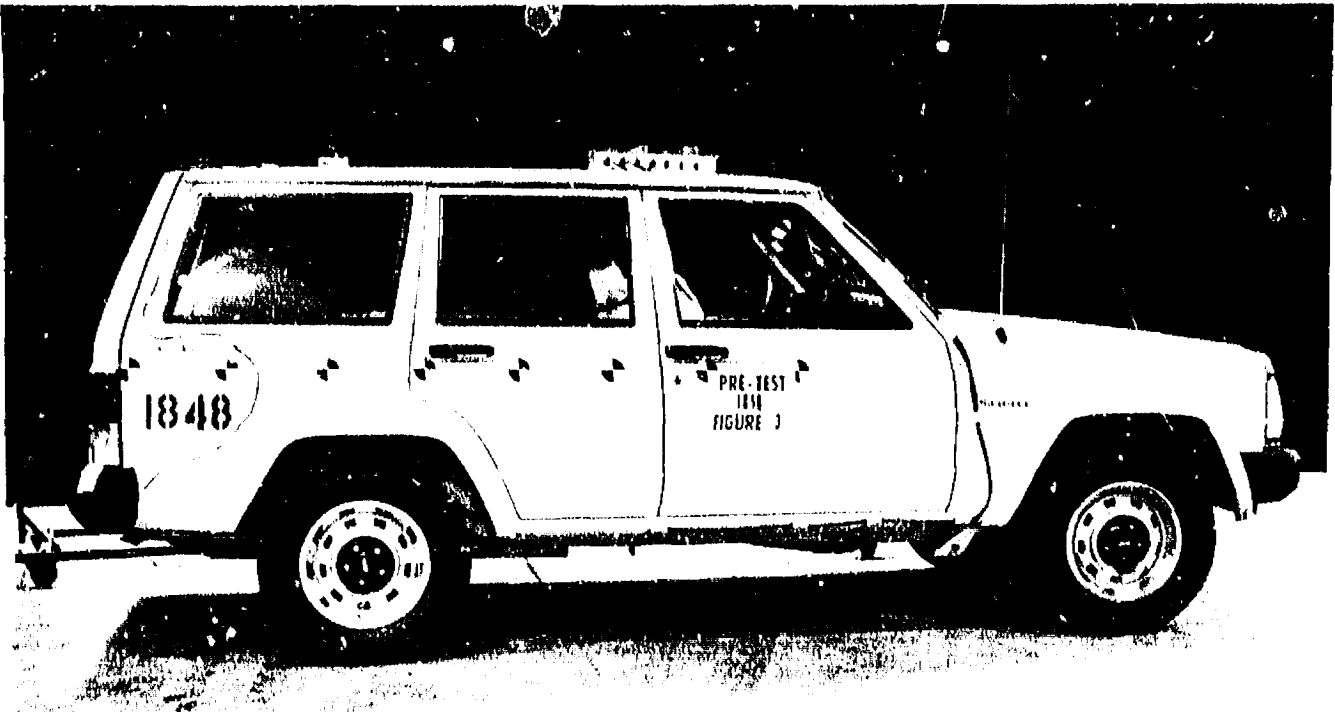


EA12-005- Chrysler -004411



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004412



WISCONSIN SAFETY TEST SERVICES





POST-TEST

1848

FIGURE 7

4-wheel drive

1848

EA12-005- Chrysler -004413



WISCONSIN SAFETY TEST SERVICES



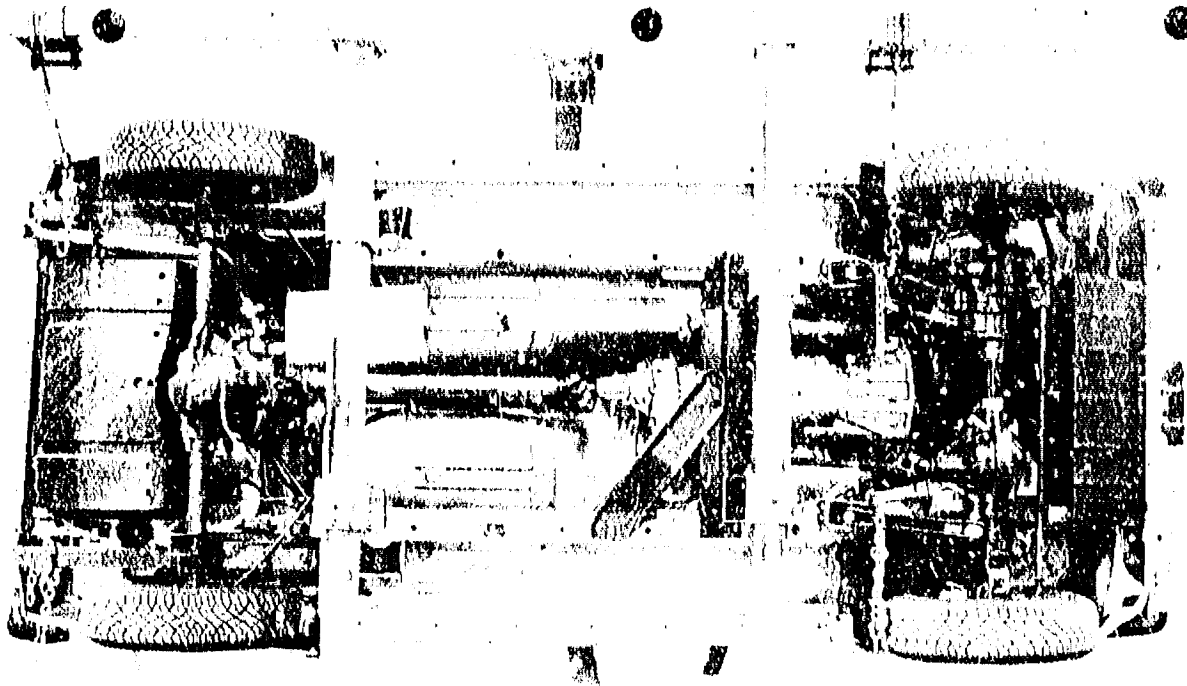


EA12-005- Chrysler -004414



WISCONSIN SAFETY TEST SERVICE

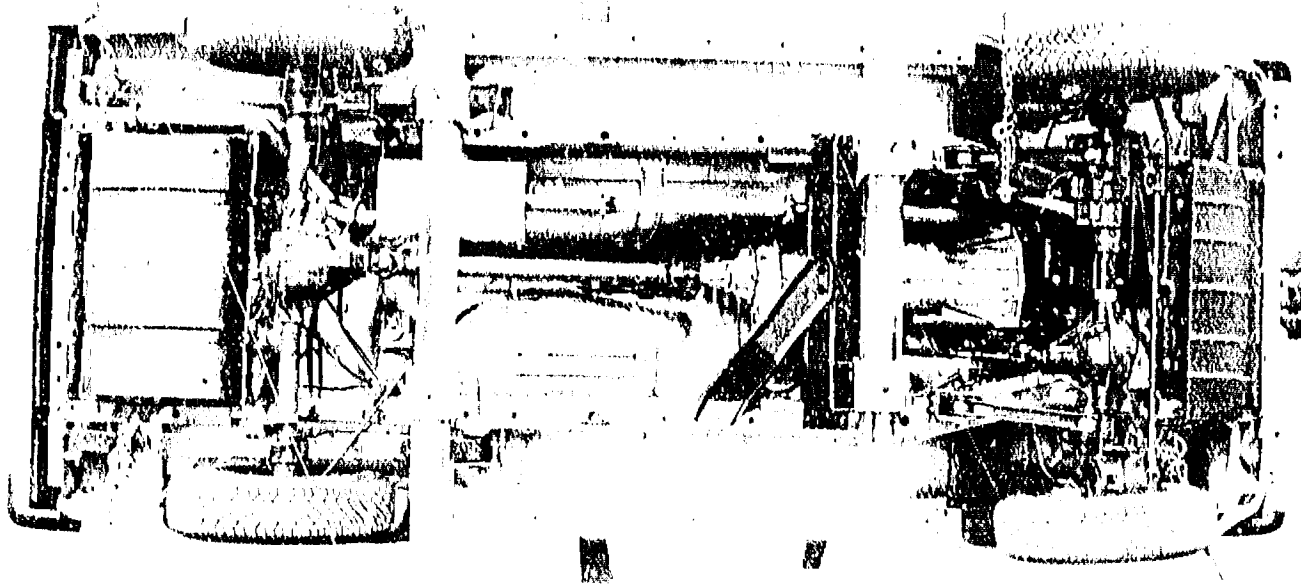




POST

0011

EA12-005- Chrysler -004415



PRO 1151

EA12-005- Chrysler -004416

ALWAYS WEAR YOUR SEATBELT

EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1848 Public

Image Source Inc.

271 Front St. W. #101

10480 Duro 6805

481/697-1111



DECLARATION OF INTENT AND PURPOSE

I LESLIE FERMAN, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the

CHRYSLER AMC CRASH TEST
created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 14 1984
Month Day
Place Toledo OH
City State

Leslie Ferman
Signature
Manager, Chrysler 001612
Title
801 Front St
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1848

WRITTEN BY

K. E. ERIKSSON

K. E. E.

TECHNICAL DATA ANALYST - DATA SERVICES

APPROVED BY

T. R. HAYEK

T. R. Hayek

MANAGER

DAF: A12-005- Chrysler -001613

4.1984



SAFETY TEST REQUEST FORM

TEST TYPE: PERPENDICULAR FRONT REAR OTHER
 30 DEGREE LEFT FRONT LEFT SIDE (SPECIFY)
 30 DEGREE RIGHT FRONT RIGHT SIDE

PURPOSE: DEVELOPMENT CERTIFICATION OTHER

TEST TO: AM1404G AM14173 AM14216 FMV5200
 AM14173 AM14187A OTHER (SPECIFY)

VEHICLE DATA: MODEL 8578 ENGINE 2.1 L DIESEL ^{TURBO} TRANS MANUAL ID. 1JCBL7B29FT XXXXXXXXXX
 OTHER EQUIPMENT SKID PLATE PACKAGE, POWER STEERING, PIONEER PACKAGE
 FUEL CAPACITY 20 GAL VEHICLE HEIGHTS: FRONT _____ REAR _____
 VEHICLE WEIGHTS: FRONT _____ REAR _____ TOTAL _____

INSTRUMENTATION DEVIATIONS: _____

PHOTO COVERAGE DEVIATIONS: _____

SPECIAL INSTRUCTIONS _____

MODIFICATIONS AT AMTEK _____

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES _____

EA12-005- Chrysler -001614

CHARGE TO: TOLEDO ACCT, #556-297

TEST REQUESTOR A. WOHLGEMUTH DATE 11/14/84 APPROVED W. R. KIRK DATE 11/19/84

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T. R. HAYEK DATE 11/19/84

R-186 (12/83)



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1848

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1985 TURBO DIESEL JEEP XJ FOUR DOOR WAGON 8578, THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 11/15/84 AND UNDERWENT A PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 11/28/84 AT A SPEED OF 30.5 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046.

EA12-005- Chrysler -001615



TEST OBSERVATIONS

THE FOLLOWING OBSERVATIONS WERE MADE AFTER THE TEST.

THE SPARE TIRE REMAINED SECURED.

THE LEFT FRONT AND LEFT AND RIGHT REAR DOORS HAD TO BE PRIED OPEN.



TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIER

TEST SPEED 30.5 MPH. TEST DATE 11/28/84 VEHICLE MODEL 8578

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE _____ NONE _____ NONE _____
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	NONE _____ NONE _____
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	_____
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	____ DYNAMIC _____ ____ STATIC _____
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	_____
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NIC NOT TO EXCEED 1000 CHEST ACCI. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	DRIVER PASS. _____ _____ _____ _____

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

COMMENTS

EA12-005- Chrysler -001617

SIGNATURE K. E. ERIKSSON

DATE 12/3/84

EA12-005- Chrysler -001619

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

____ NONE ____

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACT

____ NONE ____

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD

____ NONE ____

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES		

 ROLL CLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER

____ 20 HRS. ____

 ROLL COUNTERCLOCKWISE

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

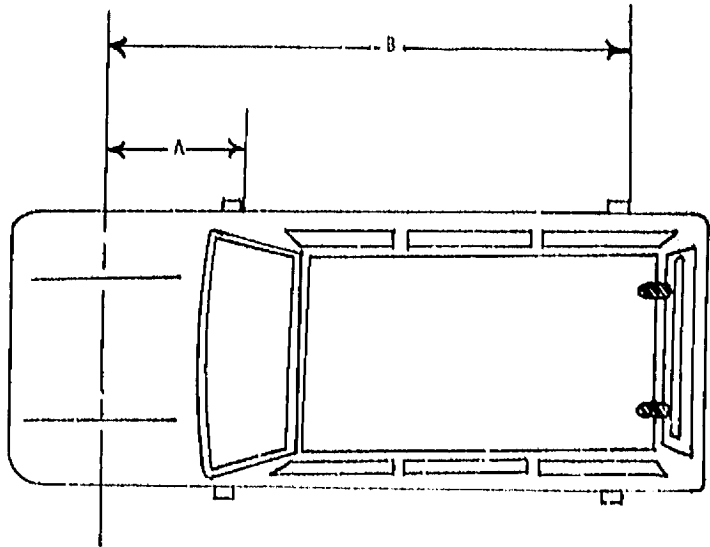
COMMENTS _____

EA12-005- Chrysler -001620

SIGNATURE B. A. SHEPSTONEDATE 11/20/84



INSTRUMENTATION LOCATION



DIMENSION

DISTANCE FROM AXLE CENTERLINE

A
B

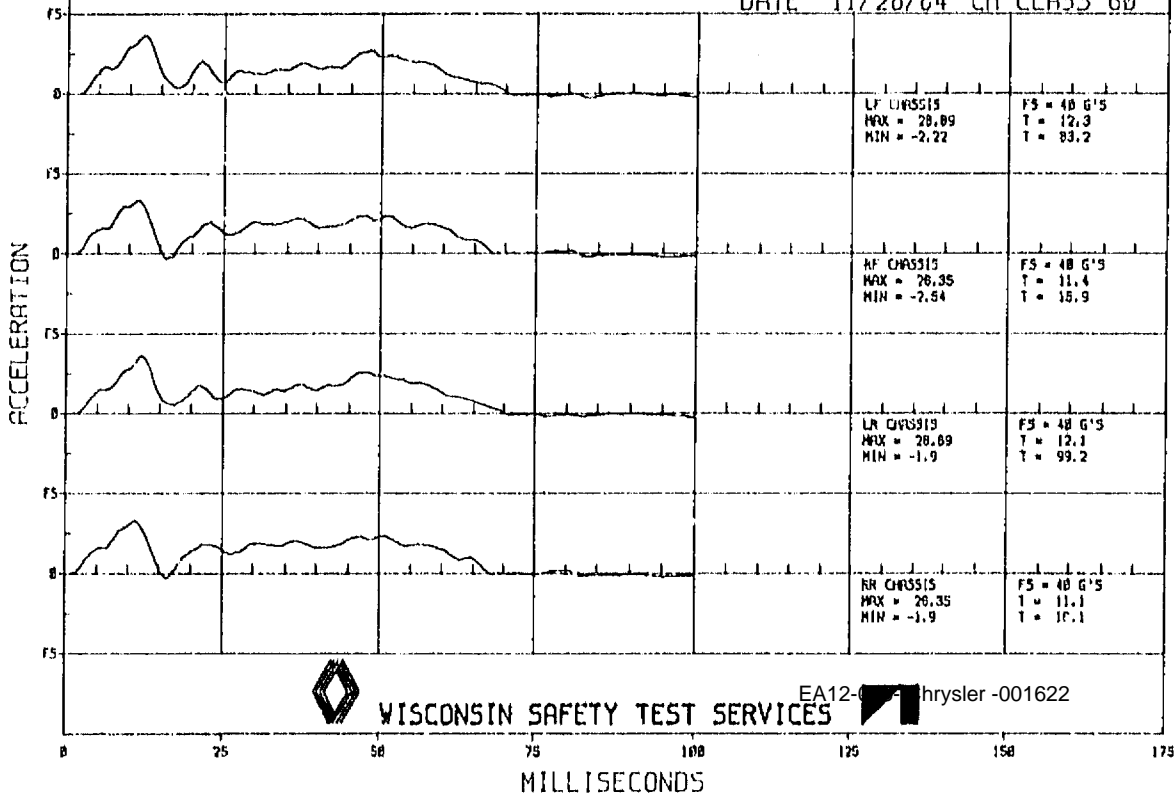
=
=

35"

6EA12-005- Chrysler -001621

CHASSIS ACCEL

TFST# 1048
 MODEL BS78
 DATE 11/28/64 CH CLASS 60

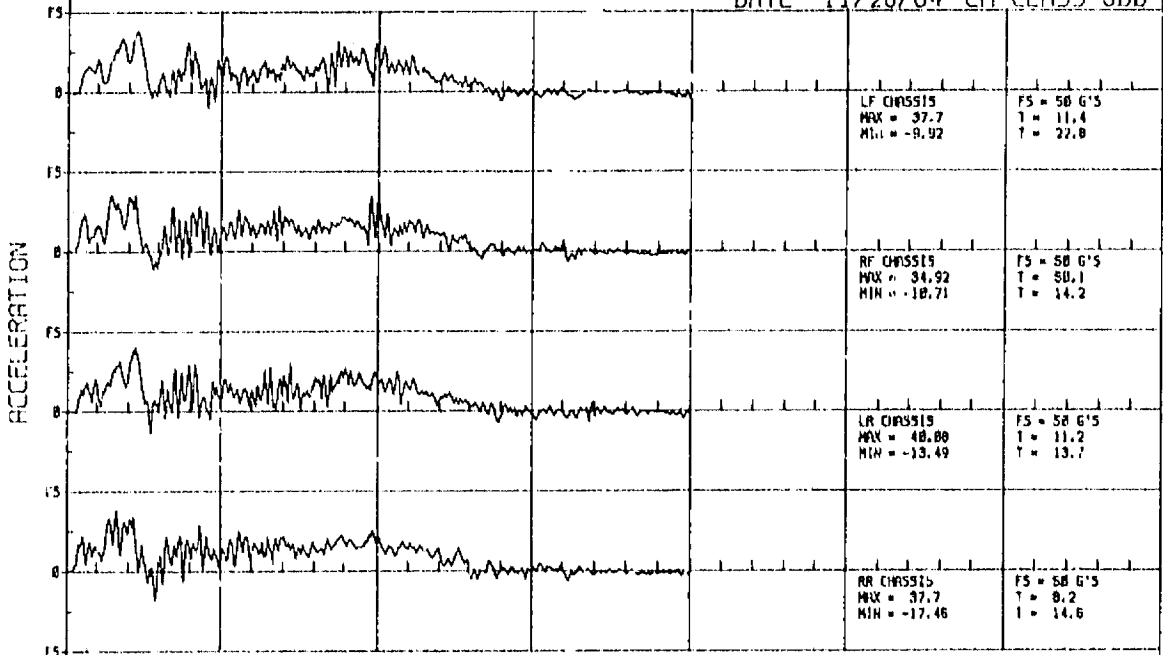


WISCONSIN SAFETY TEST SERVICES

EA12- Chrysler -001622

CHASSIS ACCEL

TEST# 1848
 MODEL 8578
 DATE 11/28/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

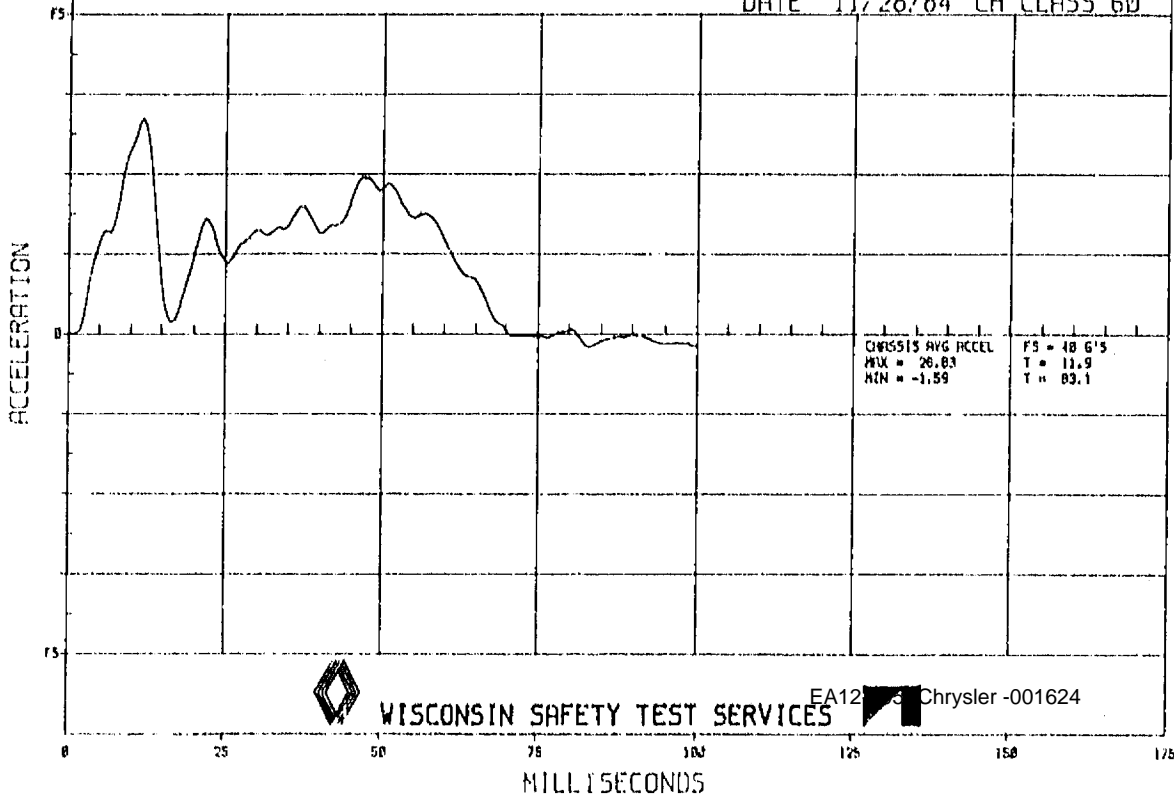
EA12 Chrysler -001623

0 25 50 75 100 125 150 175

MILLISECONDS

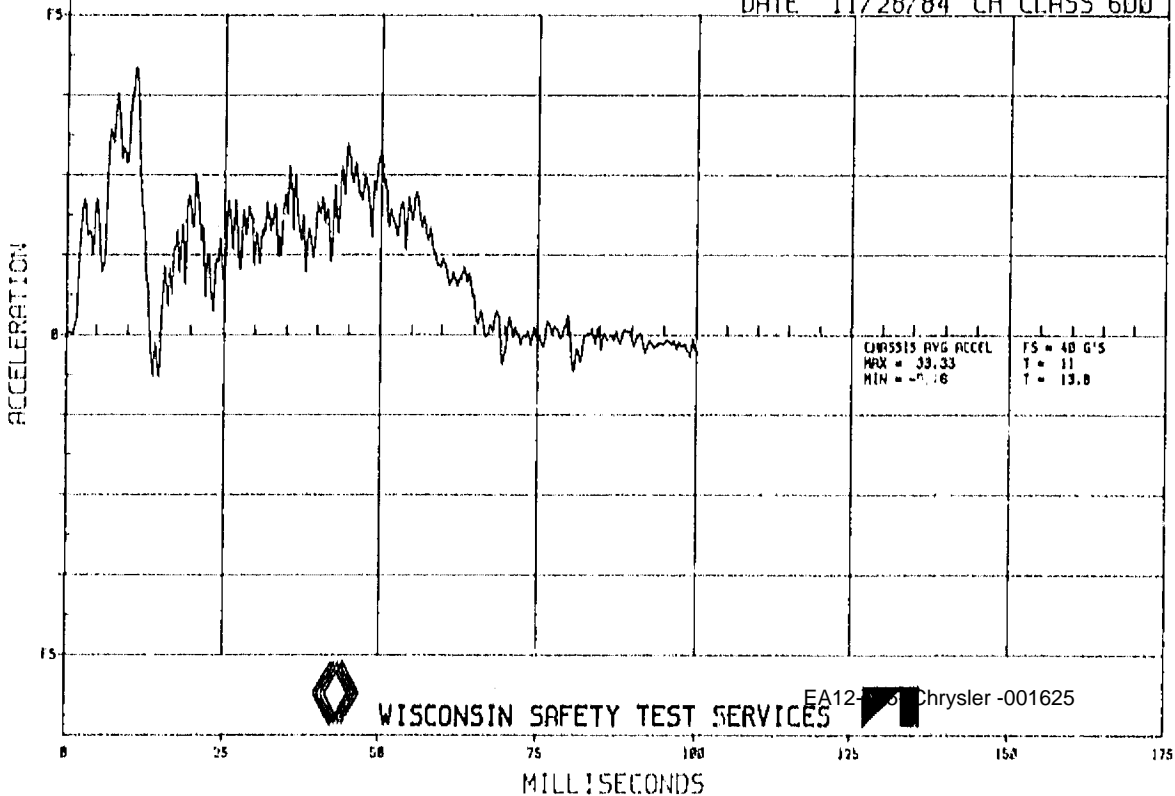
CHASSIS AVG ACCEL

TEST# 1843
MODEL 8578
DATE 11/28/84 CH CLASS 60



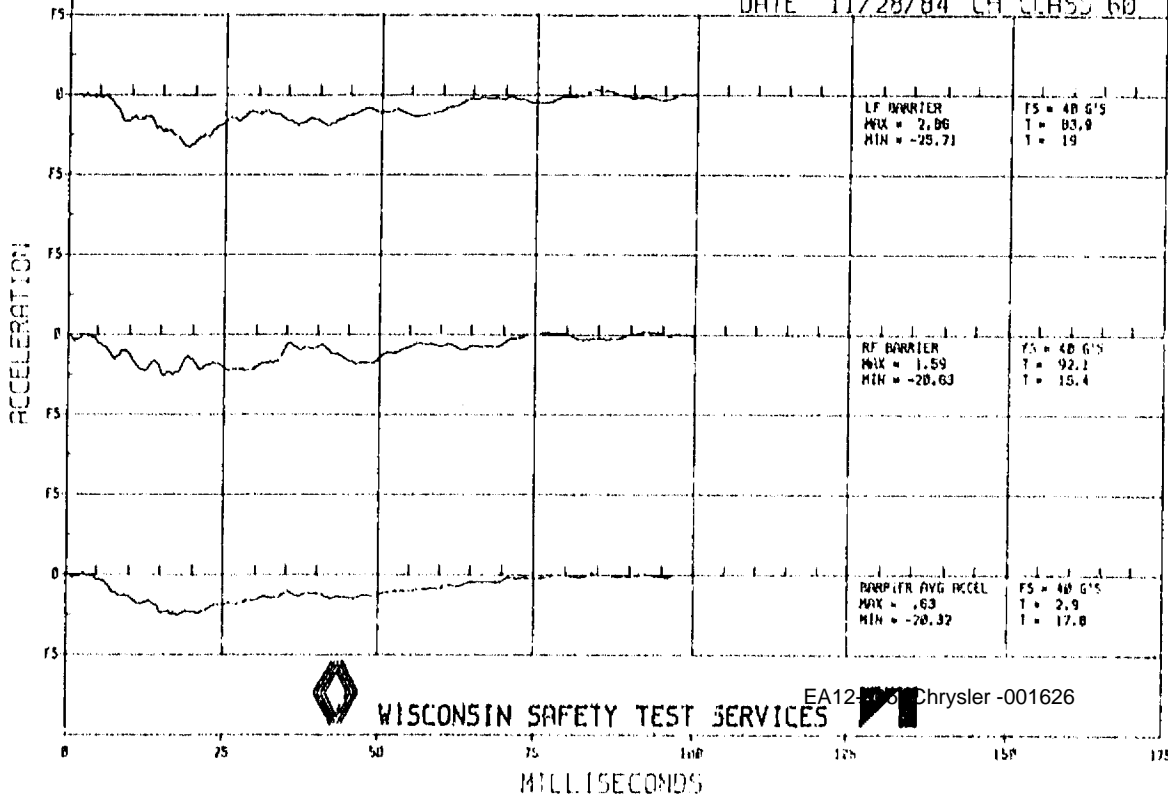
CHASSIS AVG ACCEL

TEST# 1848
MODEL 857B
DATE 11/28/84 CH CLASS 600



BARRIER ACCEL

TEST# 1848
MODEL 8578
DATE 11/28/84 CH CLASS 60



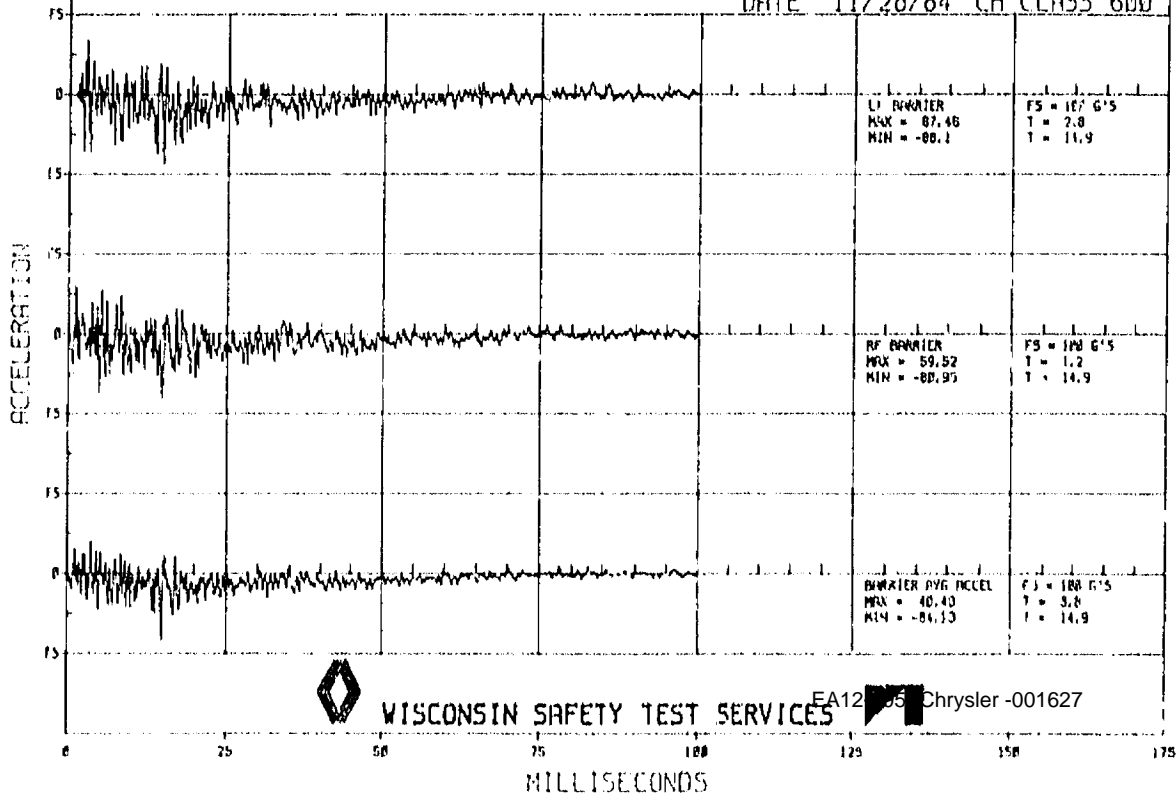
WISCONSIN SAFETY TEST SERVICES

EA12-106 Chrysler -001626

MILLISECONDS

BARRIER ACCEL

TEST# 1848
MODEL 857B
DATE 11/28/84 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

EA12 1985 Chrysler -001627



PHOTO INDEX

14046 REAR IMPACT

STANDARD PHOTOS

FIGURE

- 1 PRE-TEST UNDERSIDE ON ROLLOVER
- 2 PRE-TEST REAR
- 3 PRE-TEST RIGHT SIDE - WHOLE VEHICLE
- 4 PRE-TEST LEFT SIDE - WHOLE VEHICLE
- 5 POST-TEST REAR
- 6 POST-TEST 3/4 REAR RIGHT SIDE - SHOW 1/2 VEHICLE
- 7 POST-TEST FILLER AREA CLOSE UP
- 8 POST-TEST 3/4 REAR LEFT SIDE - SHOW 1/2 VEHICLE
- 9 POST-TEST UNDERSIDE ON ROLLOVER

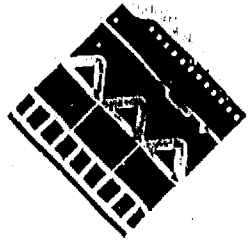
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1880 photos

Image Source Inc.

801 Front Street

Toledo Ohio 43205

419/877-1111



DECLARATION OF INTENT AND PURPOSE

I Thomas J. Carden, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp. AMC Vehicle Crush tests created during its normal course of business and that:

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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 4 6 1995
Month Day

Thomas J. Carden
Signature

Place Toledo Ohio
City State

Camera Operator
Title EA 12005-Chrysler-004417

801 Front
Location



EA12-005- Chrysler -004418



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





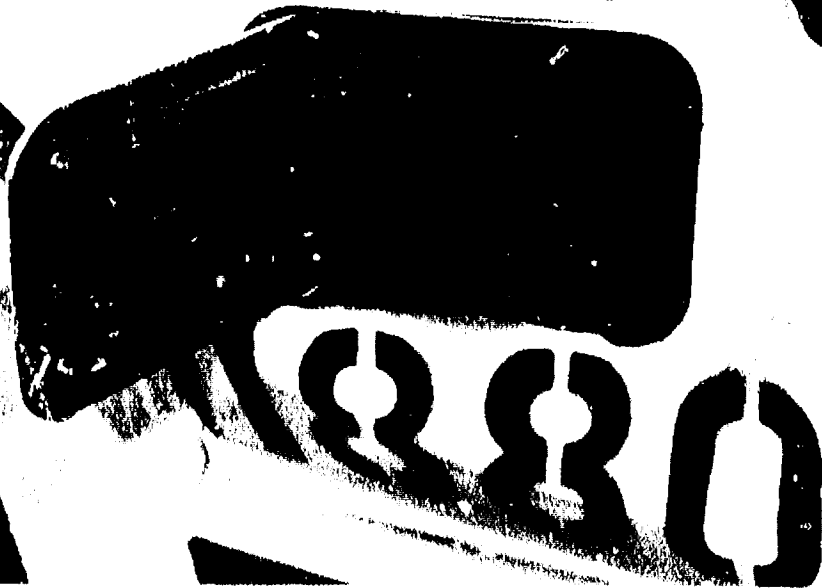
EA12-005- Chrysler -004419



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



POST - TEST
18 80
FIGURE 7



EA12-005- Chrysler -004420



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



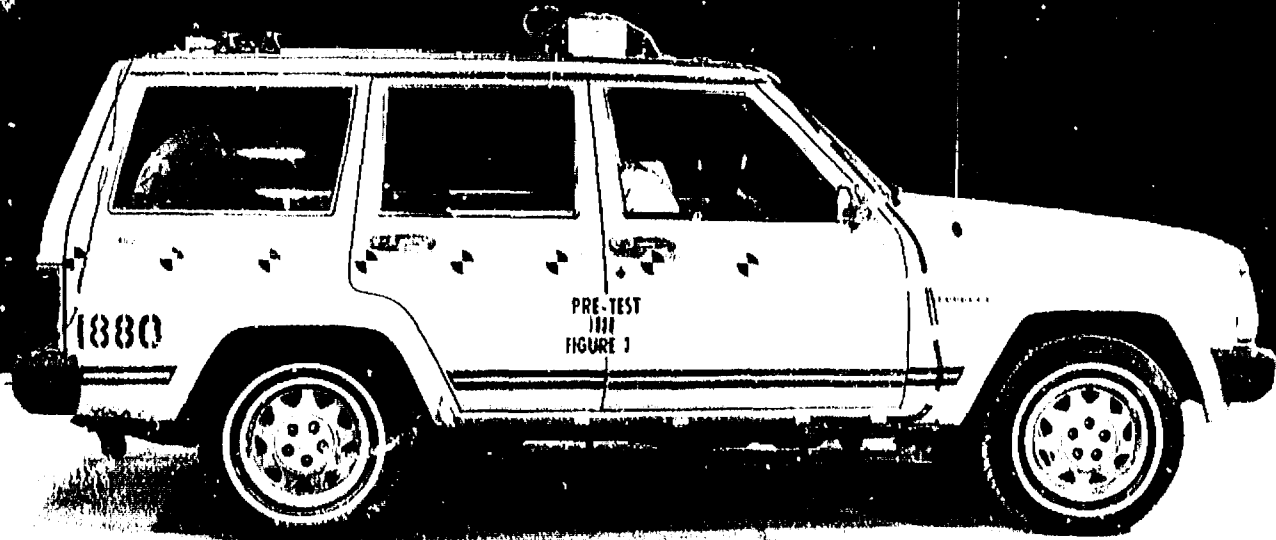


EA12-005- Chrysler -004421



WISCONSIN SAFETY TEST SERVICES



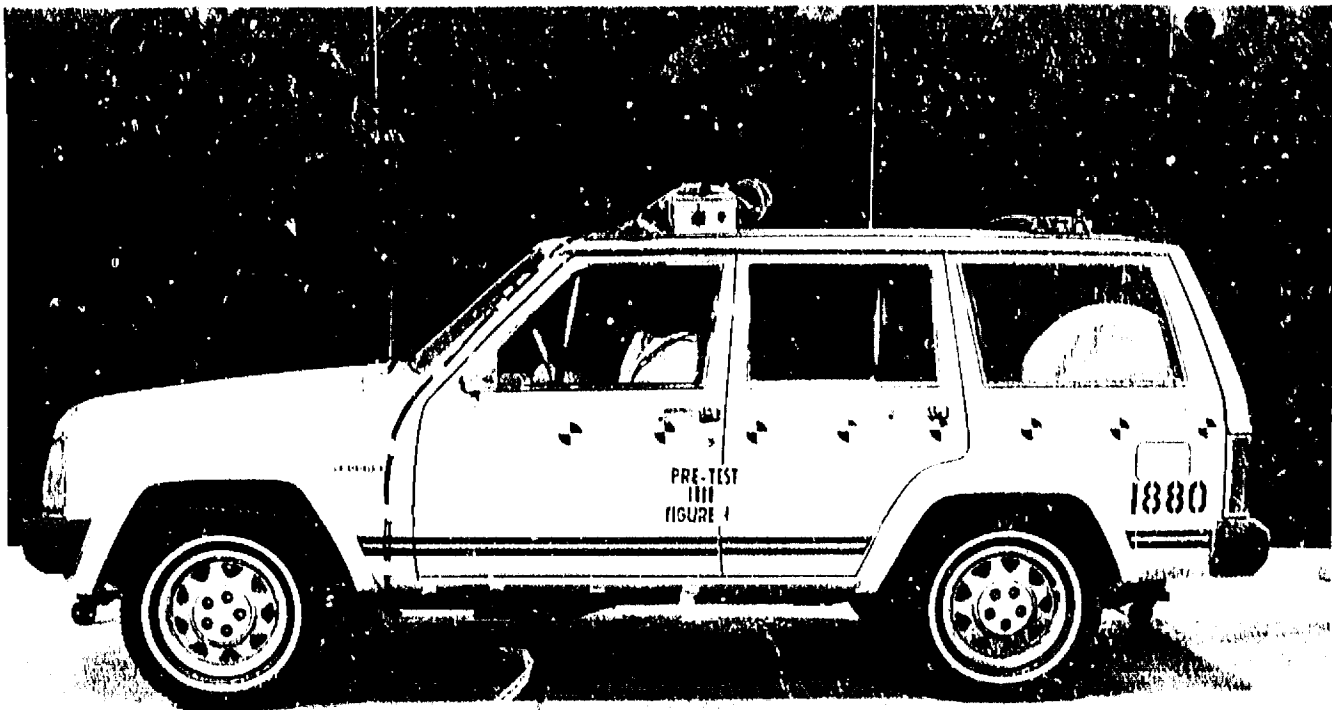


EA12-005- Chrysler -004422



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



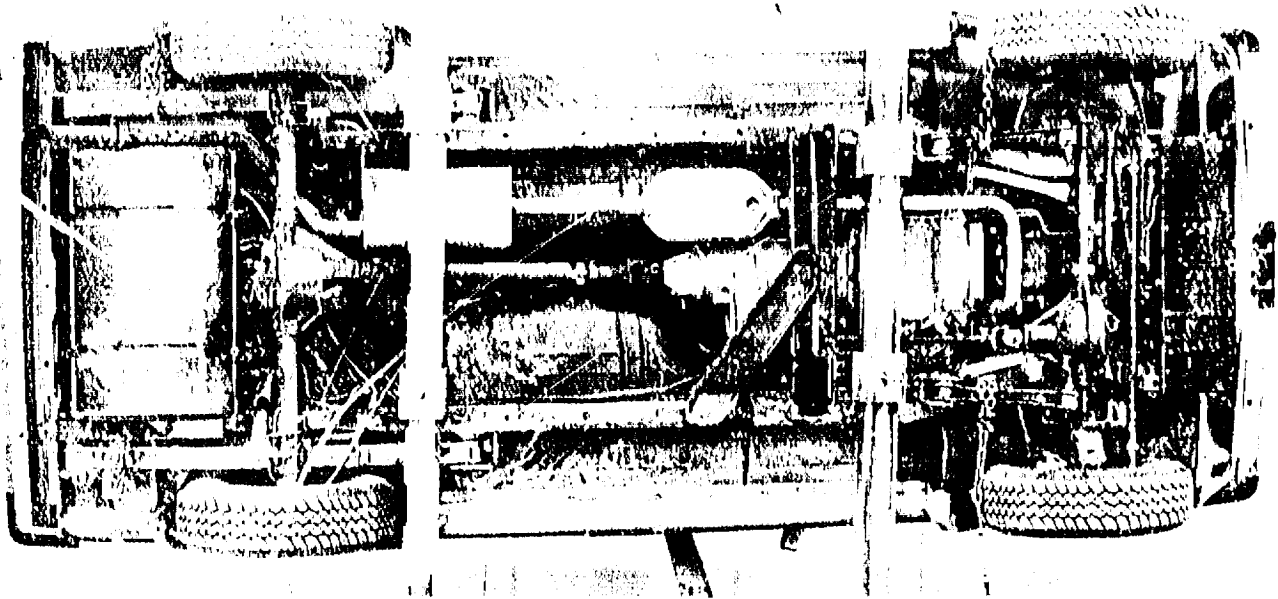


EA12-005- Chrysler -004423



WISCONSIN SAFETY TEST SERVICES





PRE TEST

FIGURE

EA12-005- Chrysler -004424



EA12-005- Chrysler -004425

GEORGIN SALLY M. 1972



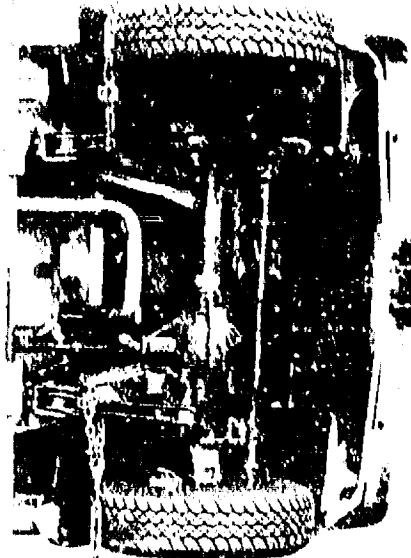
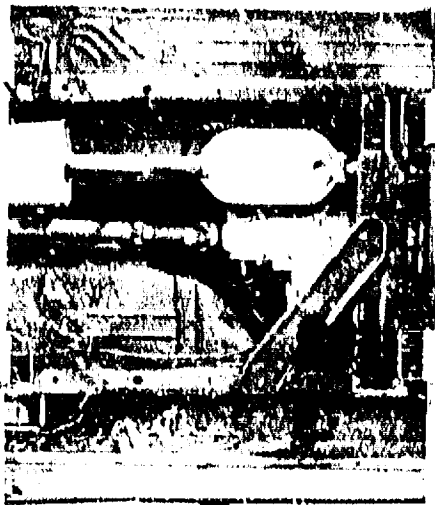
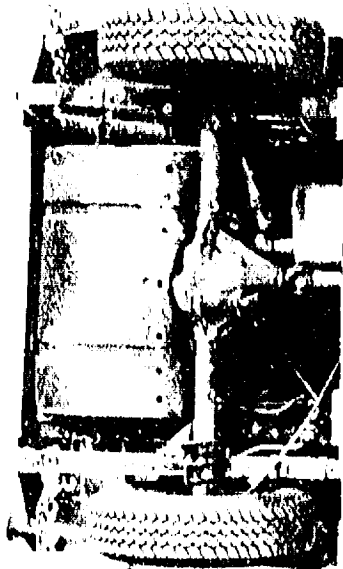


EA12-005- Chrysler -004426



WISCONSIN SAFETY TEST SERVICES





POST TEST
FIGURE

EA12-005- Chrysler -004427

EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1880 Public

Image Source Inc.

80, Front Street

Mobile, Alabama 36602

8916733



DECLARATION OF INTENT AND PURPOSE

I Leslie Thomas, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the

Chrysler Bank Book Tests
created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 12 10 19 68
Month Day

Leslie Thomas
Signature

Place Totolo, Ill
City State

Microfilm Clerk
Title FA12-005- Chrysler-001629

501 1/2 St
Location



WISCONSIN SAFETY TEST SERVICES



TEST REPORT NUMBER

1880

WRITTEN BY K. E. ERIKSSON *K.E.E.* *BJT*

TECHNICAL DATA ANALYST -- DATA SERVICES

APPROVED BY T. R. HAYEK *T.R. Hayek*

MANAGER

DATE *12/05/05* Chrysler #00103085

K-175 (12/83)



WISCONSIN SAFETY TEST SERVICES

TEST NO. 1880

SAFETY TEST REQUEST FORM

TEST TYPE: PERPENDICULAR FRONT REAR OTHER (SPECIFY)
 30 DEGREE LEFT FRONT LEFT SIDE
 30 DEGREE RIGHT FRONT RIGHT SIDE

PURPOSE: DEVELOPMENT CERTIFICATION OTHER

TEST TO: AM14046 AM14174 AM14216 FM55200
 AM14173 AM14187A OTHER (SPECIFY)

VEHICLE DATA: MODEL 8575 ENGINE 2.0L V-5 TRANS AUTO ID. 1JCWC755XFT (J-5)
 OTHER EQUIPMENT SKID PLATE PKG., AIR CONDITIONING, FILL WHEEL,
ROOF RACK, AND SYSTEM SENTRY
 FUEL CAPACITY 20.2 VEHICLE HEIGHTS: FRONT _____ REAR _____
 VEHICLE WEIGHTS: FRONT _____ REAR _____ TOTAL _____

INSTRUMENTATION DEVIATIONS: _____

PHOTO COVERAGE DEVIATIONS: _____

SPECIAL INSTRUCTIONS _____

MODIFICATIONS AT AMTEK _____

MODIFICATIONS AT WISCONSIN SAFETY TEST SERVICES _____

EA12-005- Chrysler -001631

CHARGE TO: TOLEDO ACCT. #566-297

TEST REQUESTOR A. WOLFGEMUTH DATE 1/28/95 APPROVED W. R. KIRK DATE 2/1/95

WISCONSIN SAFETY TEST SERVICES - RECEIVED AND REVIEWED T. R. HAYEK DATE 1/29/95



WISCONSIN SAFETY TEST SERVICES

TEST NO. 1880

TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIER

TEST SPEED 29.9 MPH. TEST DATE 2/26/85 VEHICLE MODEL 8575

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE 0.5 OZ. MAX DURING IMPACT 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE NONE NONE
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	POST TEST ROLLOVER 2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	5 OZ. BY WT. 1 OZ. BY WT.
SFAM 1417J REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 65% RETENTION	
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	DYNAMIC STATIC
SFAM 14216 REF. FMVSS 219 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED - SEE AM 14216	
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000 CHEST ACCL. NOT TO EXCEED 60 g's FOR OVER 3 MS. LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS. RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	DRIVER PASS.

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

EA12-005-Chrysler-001632
 COMMENTS THE ENGINE FRONT SUPPORT BRACKET ON THE SILL PUNCTURED THE FUEL PUMP OUTLET
 TUBE AT THE FUEL PUMP LINE FITTING.

SIGNATURE K. E. ERIKSSON DATE 3/8/85

K-1.86 (12/83)



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1800

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1985 JEEP XJ FOUR DOOR WAGON MODEL 8575, THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 1/29/85 AND UNDERWENT A PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 2/26/85 AT A SPEED OF 29.9 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE FAILED THE PERFORMANCE CRITERIA OF AM14046 WITH A FUEL LOSS OF 5 OZ. BY WT. DURING THE FIRST 5 MINUTES OF THE 0-90 DEGREE ROLLOVER AND 1 OZ. BY WT. DURING THE SUBSEQUENT 1 MINUTE INTERVAL. THE ENGINE FRONT SUPPORT BRACKET ON THE SILL PUNCTURED THE FUEL PUMP OUTLET TUBE AT THE FUEL PUMP LINE FITTING.

EA12-005- Chrysler -001633

K-185 (12/83)



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1880

TEST OBSERVATIONS

THE FOLLOWING OBSERVATIONS WERE MADE AFTER THE TEST.

THE SPARE TIRE AND JACK REMAINED SECURED DURING THE TEST.

THE RIGHT AND LEFT REAR DOORS HAD TO BE PRIED OPEN.

THE ENGINE MOUNTING BRACKET HAD THE LATEST RELEASED NOTCH IN THE CORNER.
(PHOTO FIGURE 10)

EA12-005- Chrysler -001634

EA12-005- Chrysler -001636



WISCONSIN SAFETY TEST SERVICES



TEST NO. 1880

SFAM 14046 TEST RESULTS - REFERENCE FMVSS 301 FUEL SYSTEM INTEGRITYON SITE

TOTAL FUEL LOSS DURING IMPACT

NONE

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING
CESSATION OF VEHICLE MOTION AFTER IMPACT

NONE

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD

NONE

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. - TOTAL WT.	1 MIN. INTERVAL - MAX RATE
0 - 90 DEGREES	5 OZ. BY WT. FROM FUEL LINE	1 OZ. BY WT. FROM FUEL LINE
90 - 180 DEGREES	TEST TERMINATED AT THIS POINT BECAUSE OF	
180 - 270 DEGREES	ABOVE FAILURES.	
270 - 0 DEGREES		

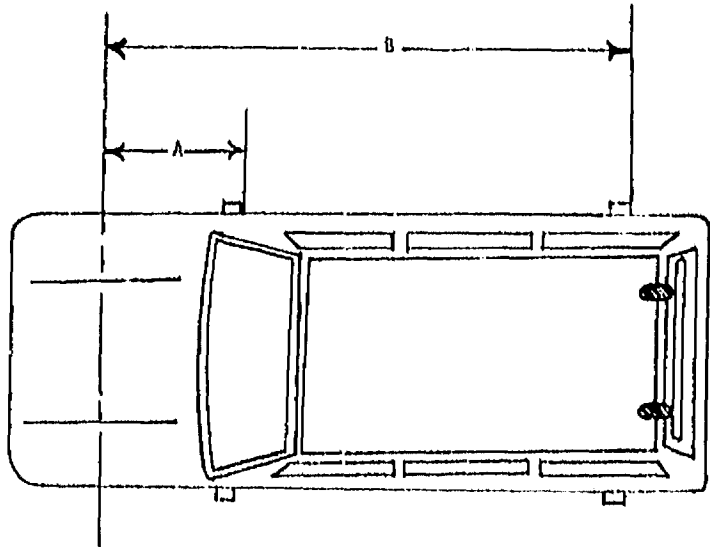
 ROLL CLOCKWISETIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER 3 HRS. ROLL COUNTERCLOCKWISE

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

COMMENTS THE ENGINE FRONT SUPPORT BRACKET ON THE SILL PUNCTURED THE FUEL PUMP OUTLET
TUBS AT THE FUEL PUMP LINE FITTING.

EA12-005-Chrysler-001637

SIGNATURE J. P. MCCARTHYDATE 2/27/85

INSTRUMENTATION LOCATIONDIMENSIONDISTANCE FROM AXLE CENTERLINEA
B"
"

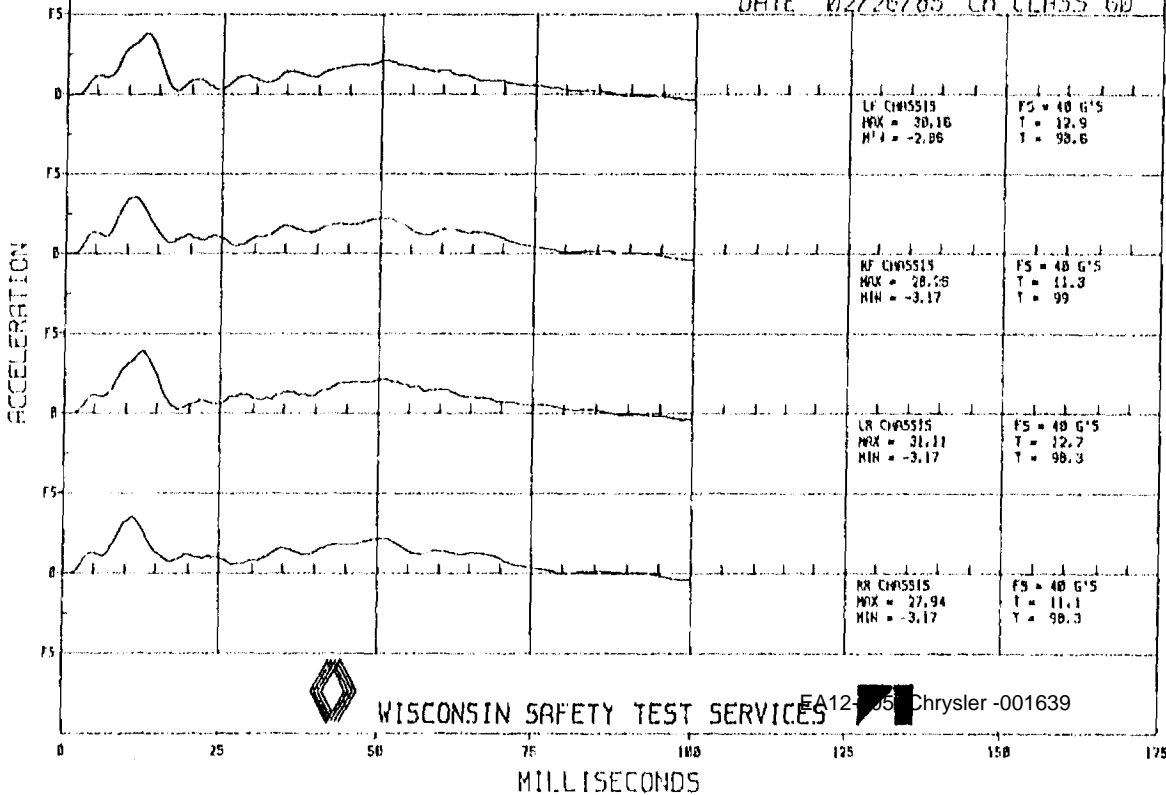
35"

63"

EA12-005- Chrysler -001638

CHASSIS ACCEL

TEST# 1890
 MODEL 8575
 DATE 02/26/85 CH CLASS 60

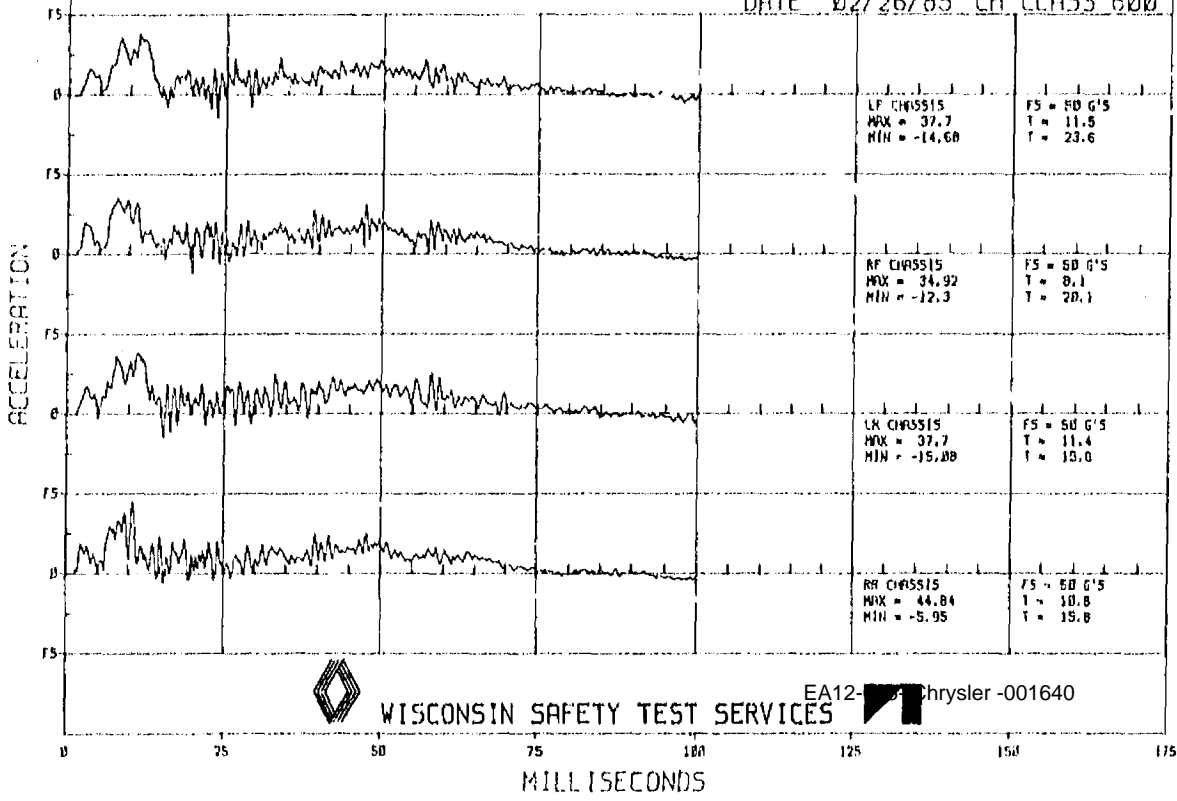


WISCONSIN SAFETY TEST SERVICES

EA12-05 Chrysler -001639

CHASSIS ACCEL

TEST# 1880
MODEL 8575
DATE 02/26/85 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

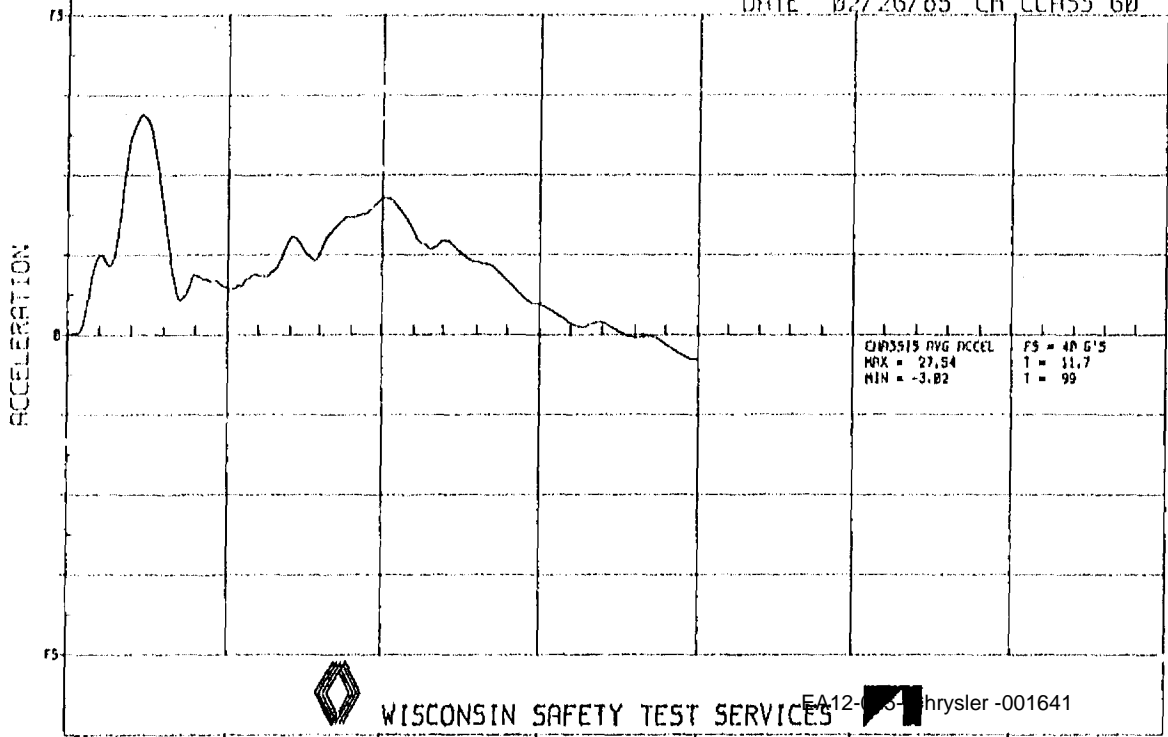
EA12- Chrysler -001640

0 25 50 75 100 125 150 175

MILLISECONDS

CHASSIS AVG ACCEL

TEST# 1800
MODEL 8575
DATE 02/26/85 CH CLASS 60



CHASSIS AVG ACCEL FS = 40 G'S
MAX = 27.54 1 = 11.7
MIN = -3.02 1 = 99



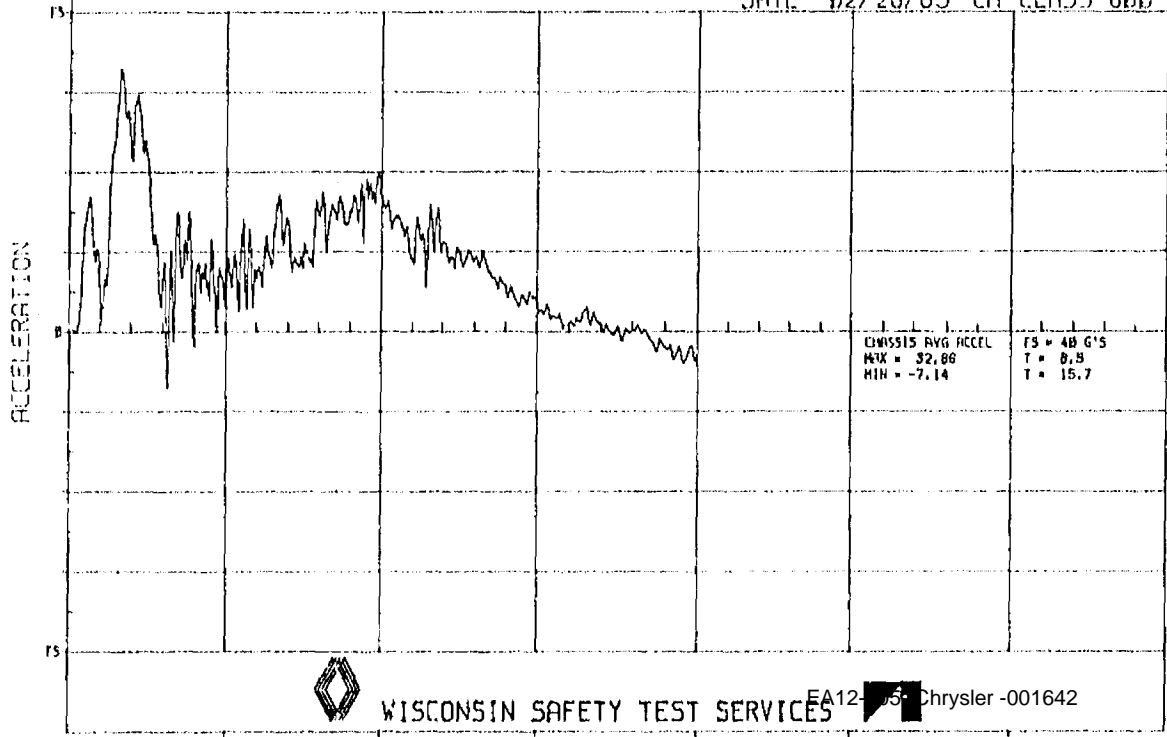
WISCONSIN SAFETY TEST SERVICES

EA12-031 Chrysler -001641

0 25 50 75 100 125 150 175
MILLISECONDS

CHASSIS AVG ACCEL

TEST# 1880
MODEL 8575
DATE 02/26/85 CH CLASS 600



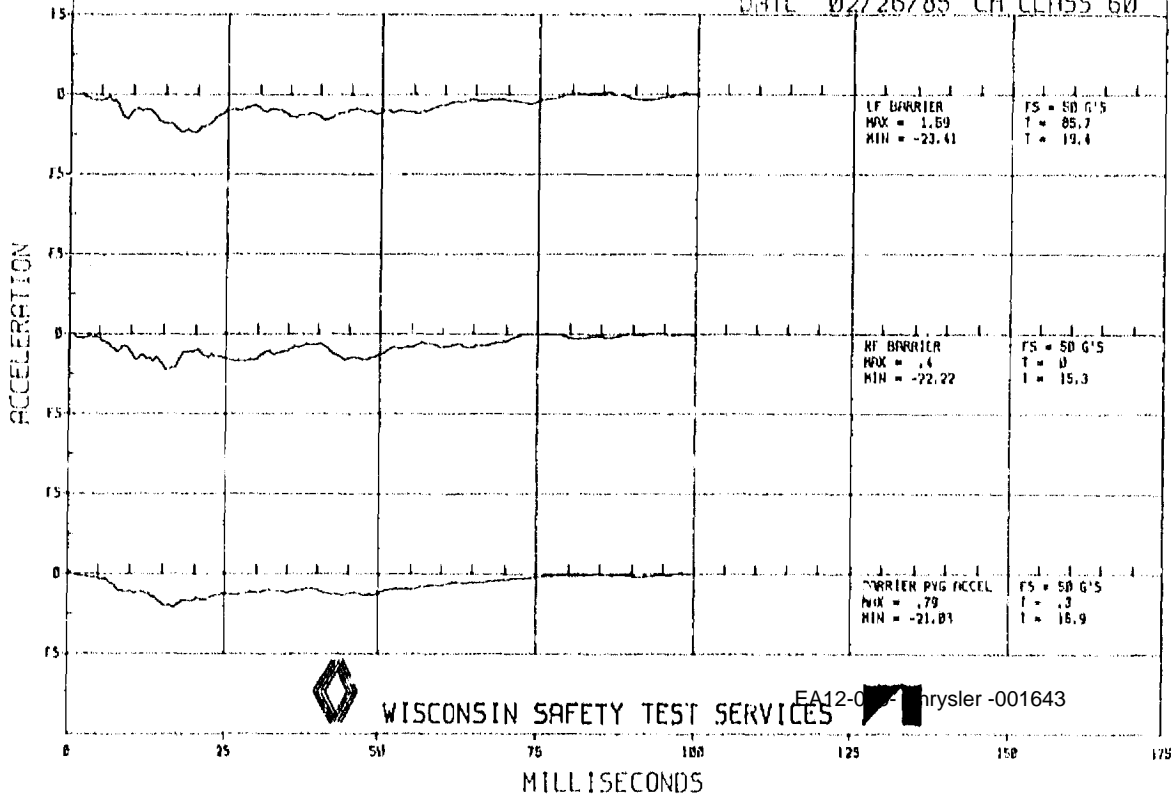
WISCONSIN SAFETY TEST SERVICES

EA12-85-Chrysler-001642

0 25 50 75 100 125 150 175
MILLISECONDS

BARRIER ACCEL

TEST# 1880
MODEL 8575
DATE 02/26/85 CH CLASS 60

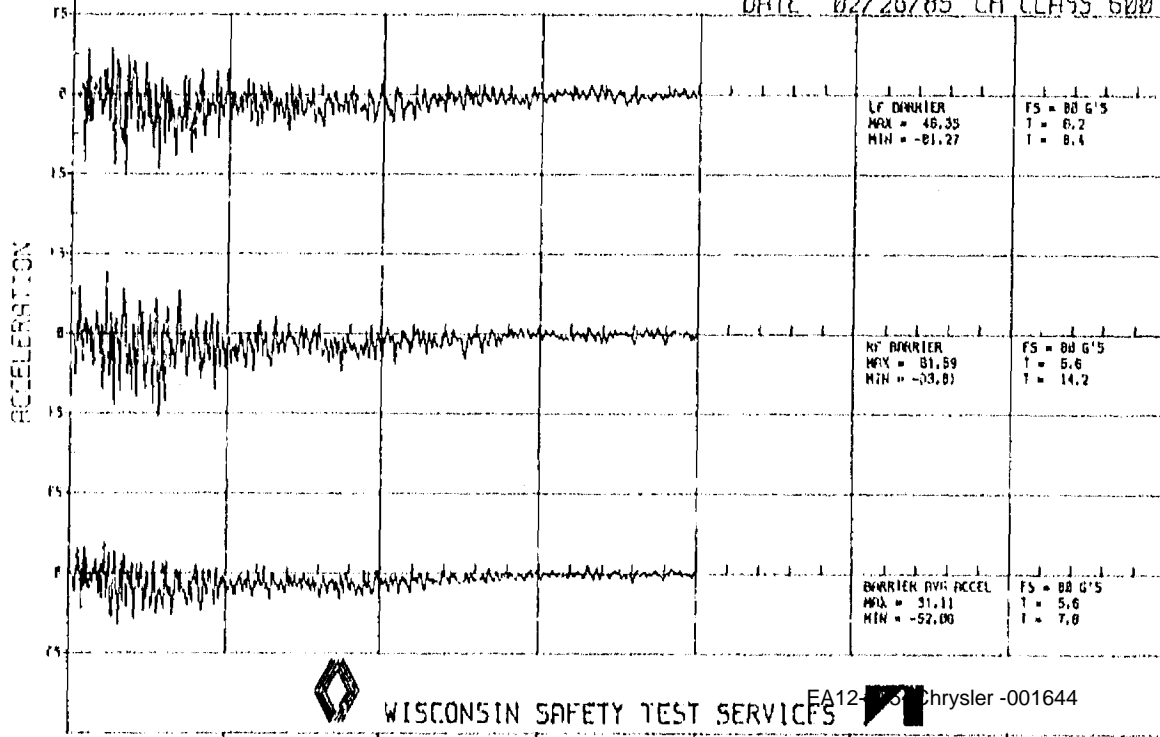


WISCONSIN SAFETY TEST SERVICES

EA12-0 Chrysler -001643

BARRIER ACCEL

TEST# 1880
MODEL 8575
DATE 02/20/85 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES

EA12-60

Chrysler -001644

MILLISECONDS



PHOTO INDEX

14046 REAR IMPACTSTANDARD PHOTOSFIGURE

- 1 PRE-TEST UNDERSIDE ON ROLLOVER
- 2 PRE-TEST REAR
- 3 PRE-TEST RIGHT SIDE - WHOLE VEHICLE
- 4 PRE-TEST LEFT SIDE - WHOLE VEHICLE
- 5 POST-TEST REAR
- 6 POST-TEST 3/4 REAR RIGHT SIDE - SHOW 1/2 VEHICLE
- 7 POST-TEST FILLER AREA CLOSE UP
- 8 POST-TEST 3/4 REAR LEFT SIDE - SHOW 1/2 VEHICLE
- 9 POST-TEST UNDERSIDE ON ROLLOVER

SUPPLEMENTAL PHOTOS

- 10 ARROW SHOWS CONTACT POINT BETWEEN MOUNTING BRACKET AND FUEL PUMP LINE.

EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1928 photos



EA12-005- Chrysler -004437



WISCONSIN SAFETY TEST SERVICES

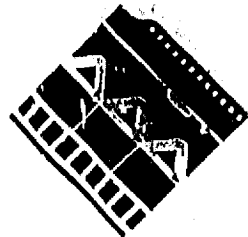


Image Source Inc.

801 Front Street

Toledo Ohio 43006

419/487-1111



DECLARATION OF INTENT AND PURPOSE

I Theresa J. Cardenas, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler Corp AMC Vehicle Crash tests created during its normal course of business and that:

It is the express intent and purpose of this organization to destroy or otherwise dispose of the original records microphotographed herein, and that:

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 4 16 1995
Month Day

Place Toledo Ohio
City State

Theresa J. Cardenas
Signature

Camera Operator
Title

801 Front
Location

12-005- Chrysler -004438



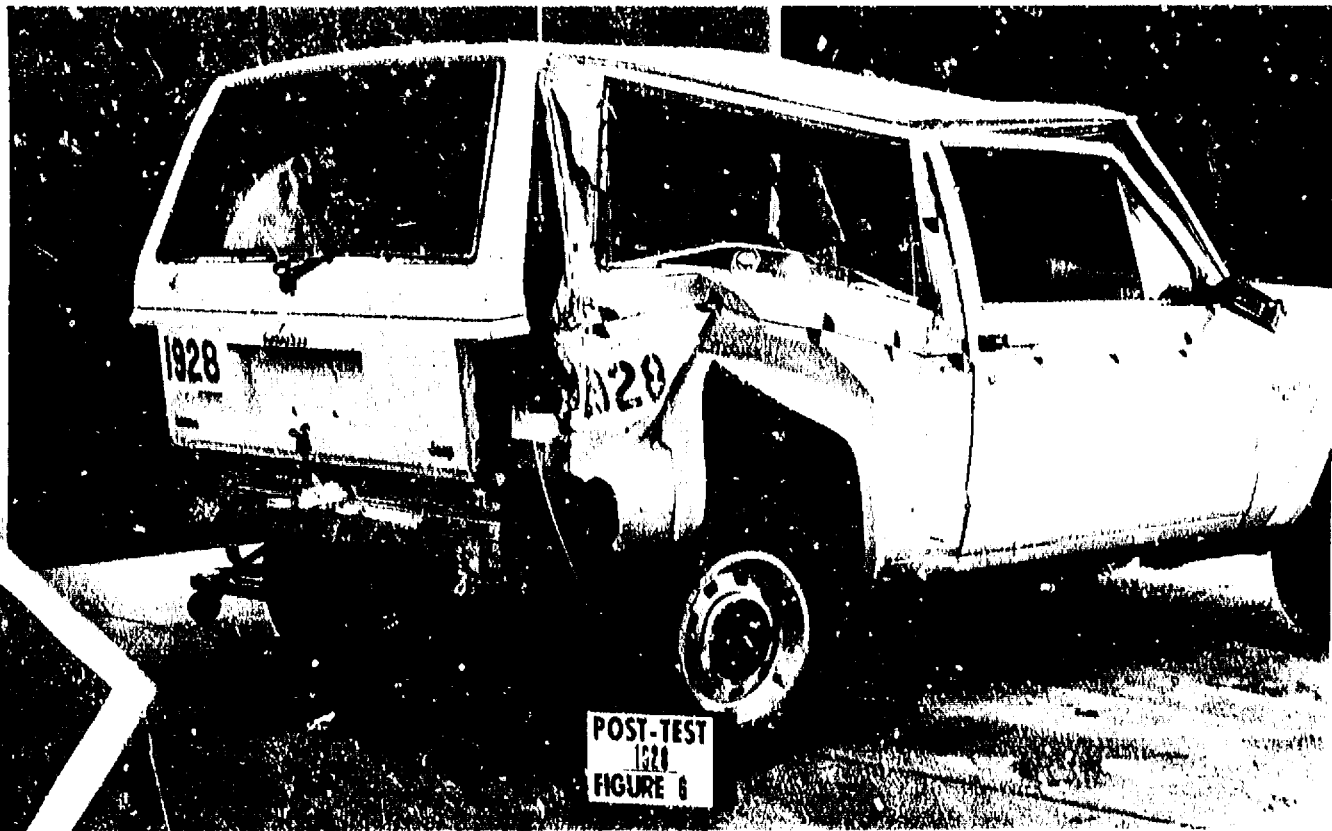
POST-TEST
1928
FIGURE 5

EA12-005- Chrysler -004439



W I S C O N S I N S A F E T Y T E S T S E R V I C E S





EA12-005- Chrysler -004440



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



**CORRECTION
PREVIOUS
DOCUMENT(S)
REPHOTOGRAPHED
TO ASSURE
LEGIBILITY**

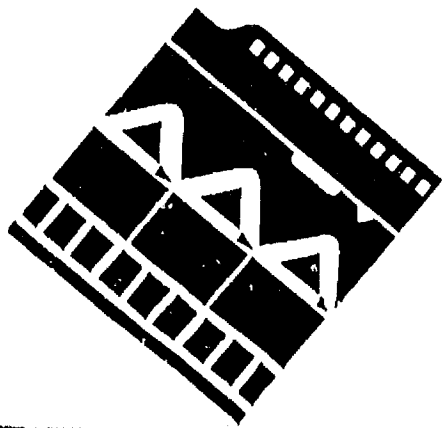
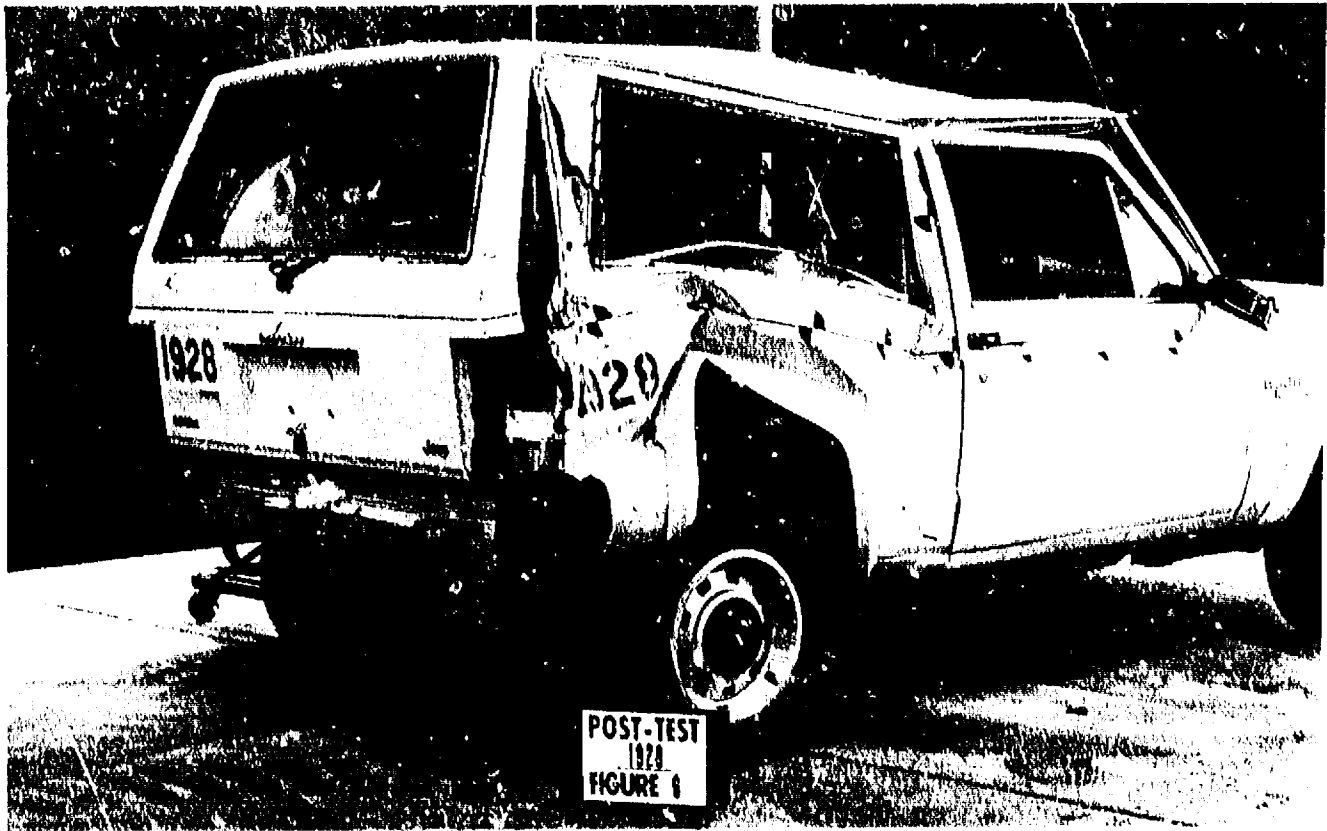


Image Source Inc.

EA12-005- Chrysler -004441



W I S C O N S I N S A F E T Y T E S T S E R I E S E A 12-005 Chrysler -004442





POST-TEST
1928
FIGURE 5

EA12-005- Chrysler -004443



W I S C O N S I N S A F E T Y T E S T S E R V I C E S



4-wheel drive

POST-TEST
1928
FIGURE 7

UNLEADED FUEL ONLY

EA12-005- Chrysler -004444



WISCONSIN SAFETY TEST SERVICES





PRE-TEST
1928
FIGURE 2

EA12-005- Chrysler -004445



WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004446



WISCONSIN SAFETY TEST SERVICES



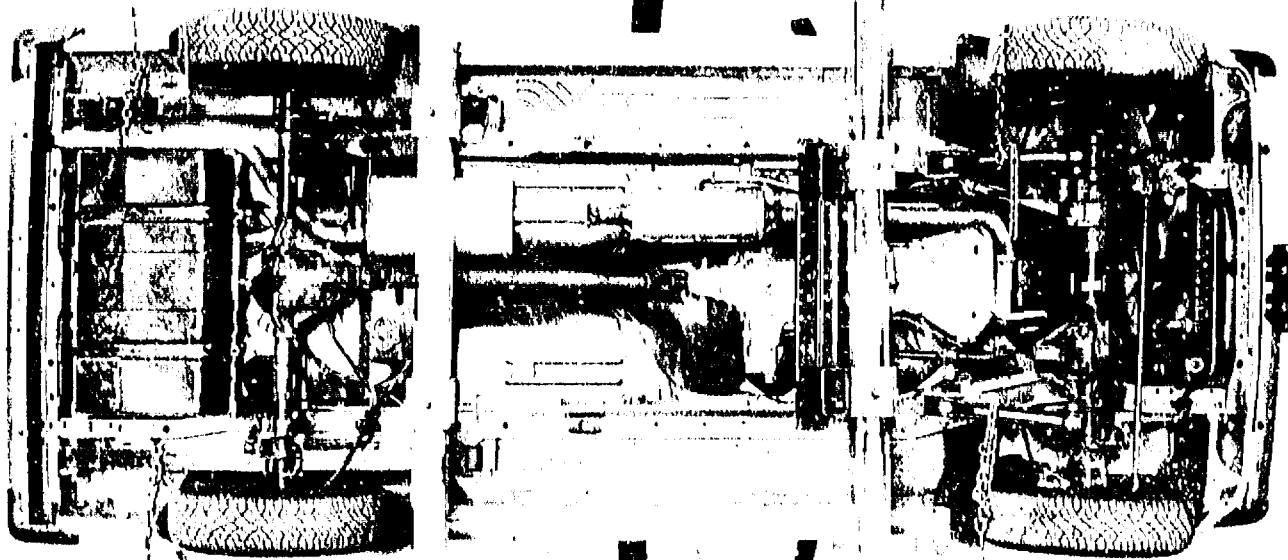


EA12-005- Chrysler -004447



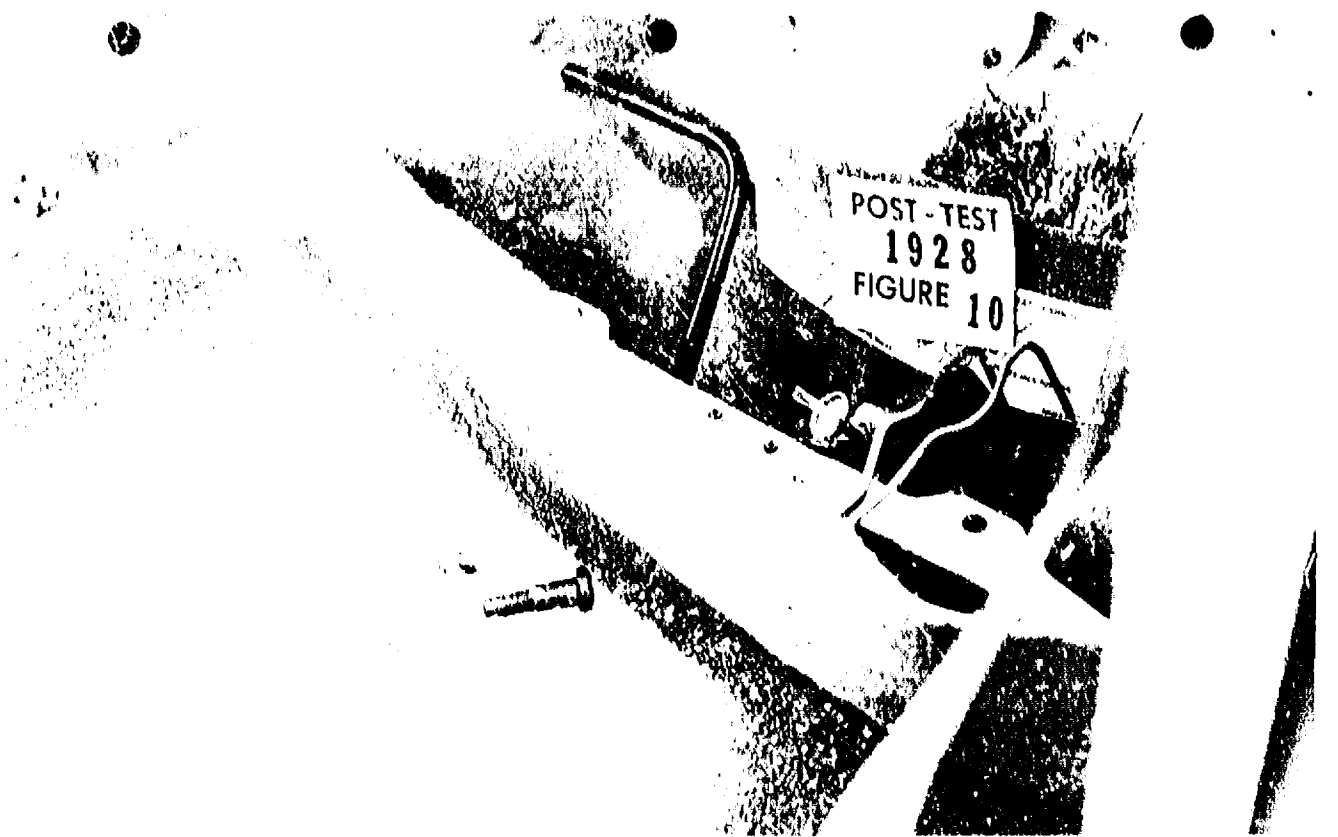
WISCONSIN SAFETY TEST SERVICES





EA12-005- Chrysler -004448

REPRODUCTION OF THIS DOCUMENT IS PROHIBITED



EA12-005- Chrysler -004449



RESPONSE SAFETY TEST SERVICES



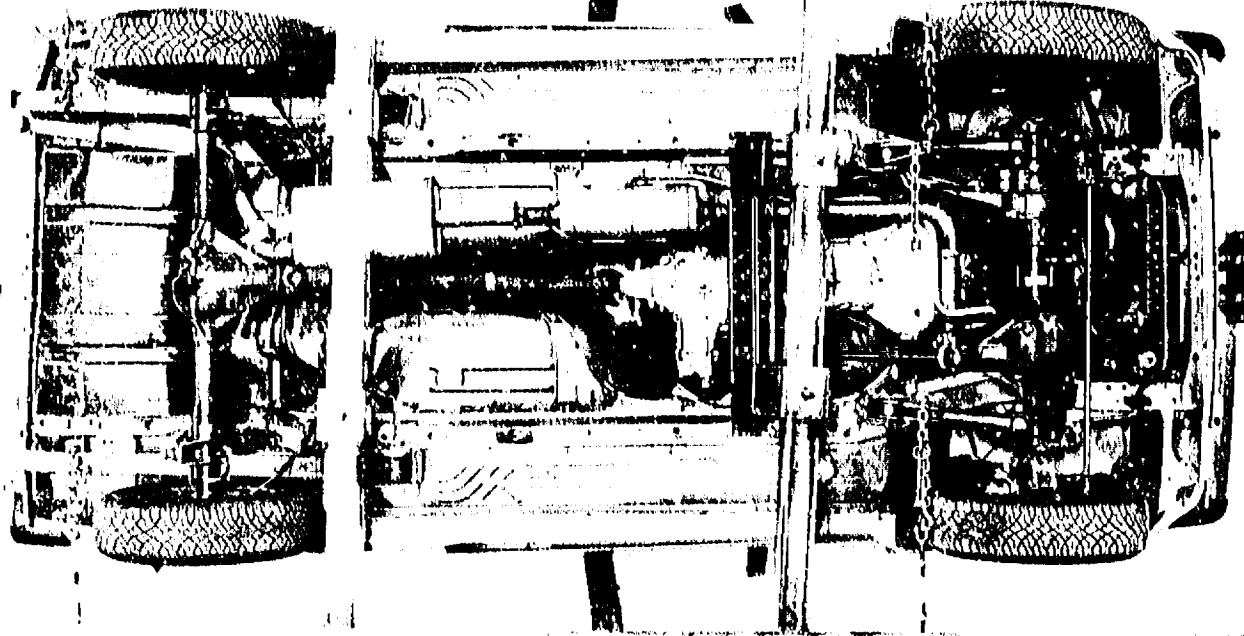


FIGURE 1

EA12-005- Chrysler -004450

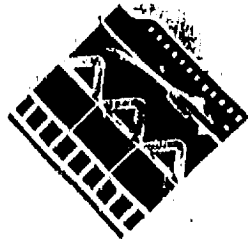
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
AM 1928 Public

Image Source Inc.

801 Front Street

Toledo, Ohio 43605

419/497-1111



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I LESLIE FERMAN, employed by The Image Source, Inc. do hereby declare that the records microfilmed herein are actual records of the Chrysler AMC Crash Tests created during its normal course of business and that:

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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 12-13 1994
Month Day
Place Toledo OH
City State

Leslie F. Ferman
Signature
EA1Z-005- Chrysler -001663
Micrographic Tech
Title
801 Front St.
Location

AMC | Jeep | RENAULT

WISCONSIN SAFETY TEST SERVICES

TEST REPORT NUMBER

1928

WRITTEN BY K. E. ERIKSSON *KEE* *BT*
TECHNICAL DATA ANALYST - DATA SERVICES

APPROVED BY T. R. HAYEK *T.R. Hayek*
MANAGER

DATE *May 29, 1985*
EA72-005- Chrysler -001664

EA12-005- Chrysler -001665

TEST OBJECTIVE

THE TEST VEHICLE WAS A 1986 JEEP XJ 4WD TWO DOOR WAGON MODEL 8577. THE VEHICLE WAS RECEIVED AT WISCONSIN SAFETY TEST SERVICES ON 4/18/05 AND UNDERWENT A PERPENDICULAR REAR IMPACT MOVEABLE BARRIER TEST DURING WHICH PERFORMANCE WAS TESTED TO AM14046.

TEST RESULTS

THE REAR IMPACT TEST WAS PERFORMED ON 5/23/85 AT A SPEED OF 30.1 MPH. ANALYSIS OF TEST RESULTS INDICATE THIS VEHICLE PASSED THE PERFORMANCE CRITERIA OF AM14046. THERE WERE NO FUEL LEAKS POST-TEST.

EA12-005- Chrysler -001666

TEST OBSERVATIONS

THE FOLLOWING OBSERVATIONS WERE AFTER THE TEST.

THE JACK RETAINER CAME LOOSE BUT THE JACK REMAINED IN PLACE. PHOTO FIGURE #10 ATTACHED.

THE REAR HATCH LATCH DID NOT HOLD.

DUMMY KINEMATICS, OTHER THAN HEAD WHICH IS COVERED ON SEPARATE SHEETS, WERE AS FOLLOWS:

DRIVER - ONLY HEAD CONTACT WAS MADE. SEE ATTACHED SHEET.

RIGHT FRONT PASSENGER - NO HEAD OR BODY CONTACT WAS MADE.

TEST RESULTS SUMMARY SHEET

TEST TYPE 30 MPH PERPENDICULAR REAR IMPACT FIXED BARRIER

TEST SPEED 30.1 MPH. TEST DATE 5/23/85 VEHICLE MODEL 8577

SPECIFICATION	NOT TESTED	PASS	FAIL	SPECIFICATION REQUIREMENTS	TEST RESULTS
SFAM 14046 REF. FMVSS 301 FUEL SYSTEM INTEGRITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON SITE	NONE
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.5 OZ. MAX DURING IMPACT	NONE
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.5 OZ. MAX IN FIRST 5 MIN.	NONE
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.5 OZ. MAX PER MIN. FOR NEXT 25 MIN.	NONE
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	POST TEST ROLLOVER	NONE
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.5 OZ. MAX IN FIRST 5 MIN. 0.5 OZ. MAX PER MIN. NEXT 3 MIN.	NONE
SFAM 14173 REF. FMVSS 212 WINDSHIELD RETENTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT LESS THAN 85% RETENTION	
SFAM 14174 REF. FMVSS 204 STEERING COLUMN INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOT TO EXCEED 4.0" DYNAMIC COLUMN INTRUSION	DYNAMIC
					STATIC
SFAM 14216 REF. FMVSS 210 WINDSHIELD ZONE INTRUSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PROTECTED ZONE MUST NOT BE VIOLATED — SEE AM 14216	
FMVSS 208 INJURY CRITERIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIC NOT TO EXCEED 1000	DRIVER PASS.
		<input type="checkbox"/>	<input type="checkbox"/>	CHEST ACCL. NOT TO EXCEED 60 g ₉ FOR OVER 3 MS.	
		<input type="checkbox"/>	<input type="checkbox"/>	LEFT FEMUR LOAD NOT TO EXCEED 2250 LBS.	
		<input type="checkbox"/>	<input type="checkbox"/>	RIGHT FEMUR LOAD NOT TO EXCEED 2250 LBS.	

NOTE: TEST RESULTS SHEETS INCLUDE DETAILED INFORMATION.

COMMENTS _____

EA12-005- Chrysler -001668

SIGNATURE K. E. ERIKSSON DATE 5/28/85

EA12-005- Chrysler -001669

**SFAM 14046 TEST RESULTS —
REFERENCE FMVSS 301 FUEL
SYSTEM INTEGRITY**

ON SITE

TOTAL FUEL LOSS DURING IMPACT NONE

TOTAL FUEL LOSS IN THE 5 MINUTE PERIOD FOLLOWING CESSATION
OF VEHICLE MOTION AFTER IMPACT NONE

MAXIMUM FUEL LOSS PER MINUTE DURING SUBSEQUENT
25 MINUTE PERIOD NONE

ROLLOVER

MODE	FUEL LOSS	
	FIRST 5 MIN. — TOTAL WT.	1 MIN. INTERVAL — MAX RATE
0 - 90 DEGREES	NONE	NONE
90 - 180 DEGREES	NONE	NONE
180 - 270 DEGREES	NONE	NONE
270 - 0 DEGREES		

ROLL CLOCKWISE

TIME DURATION FROM BARRIER
IMPACT TO POST TEST ROLLOVER 4 HOURS

ROLL COUNTERCLOCKWISE

NOTE: ALL FUEL LOSS MEASUREMENTS ARE IN OZ. BY WEIGHT.

COMMENTS _____

SIGNATURE J. P. McCARTHY DATE 5/24/85

EA12-005- Chrysler -001670

TEST CONDITIONS

TEST SPEED 30.1 MPH DATE 5/23/85 TIME 11:15 AM

AMBIENT TEMPERATURE 72 DEGREES F WEATHER SUNNY

WEIGHTS: BALLAST 300 LBS. @ CARGO AREA DUMMIES 330 LBS.

 LBS. @ FUEL: 12.8 GALS (95%) 82.9 LBS.

 LBS. @ EQUIPMENT 50 LBS.

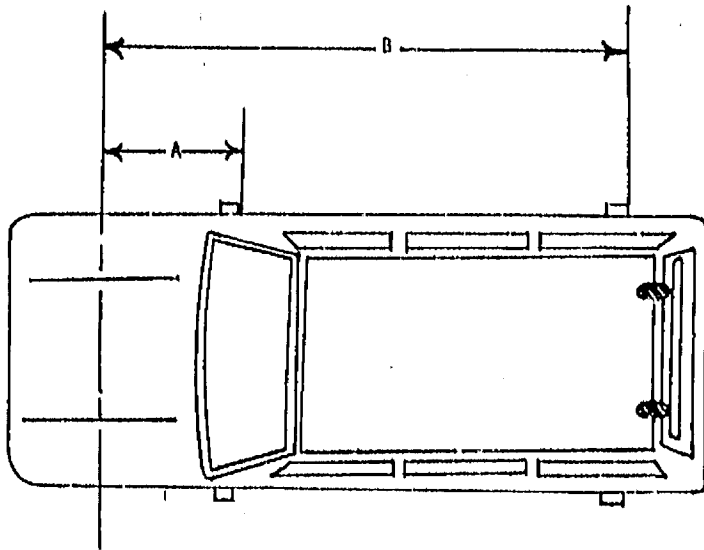
TEST WEIGHT: FRONT 1836 LBS. REAR 1834 LBS. TOTAL 3670 LBS.

VEHICLE HEIGHTS: L.F. 29.47 R.F. 29.69 L.R. 27.69 R.R. 27.76

AXLE TO SILL FENDER TO GROUND OTHER



INSTRUMENTATION LOCATION



DIMENSION

DISTANCE FROM AXLE CENTERLINE

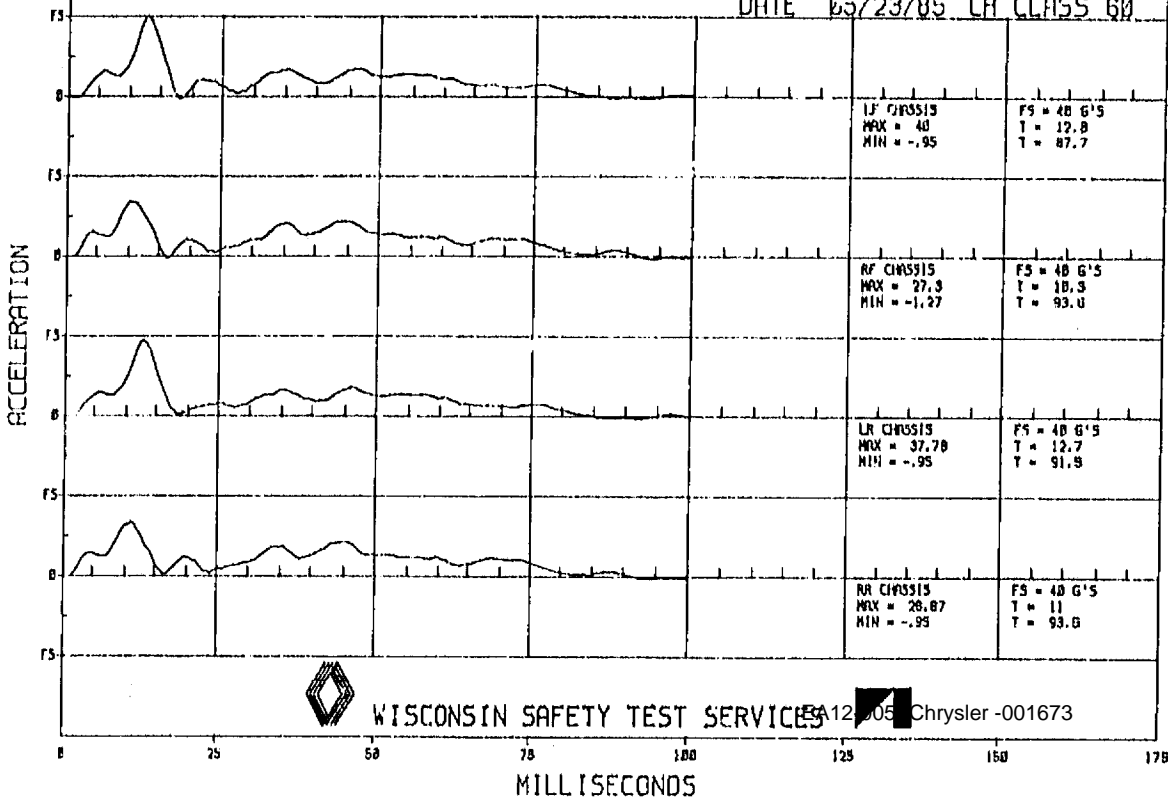
A
B

=
=

35"
63"

CHASSIS ACCEL

TEST# 1928
 MODEL 8577
 DATE 6/23/85 CH CLASS 60

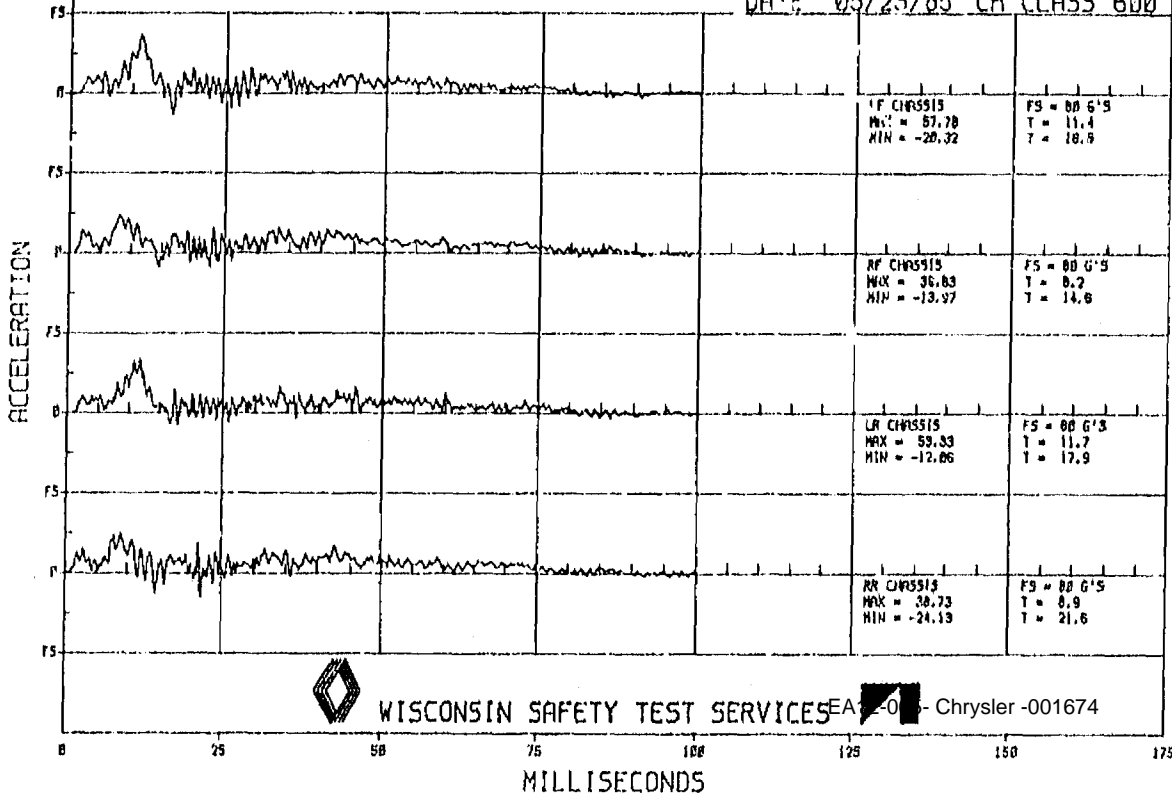


WISCONSIN SAFETY TEST SERVICES 12-05 Chrysler -001673

MILLISECONDS

CHASSIS ACCEL

TEST# 1928
 MODEL 8577
 DATE 05/23/85 CH CLASS 600



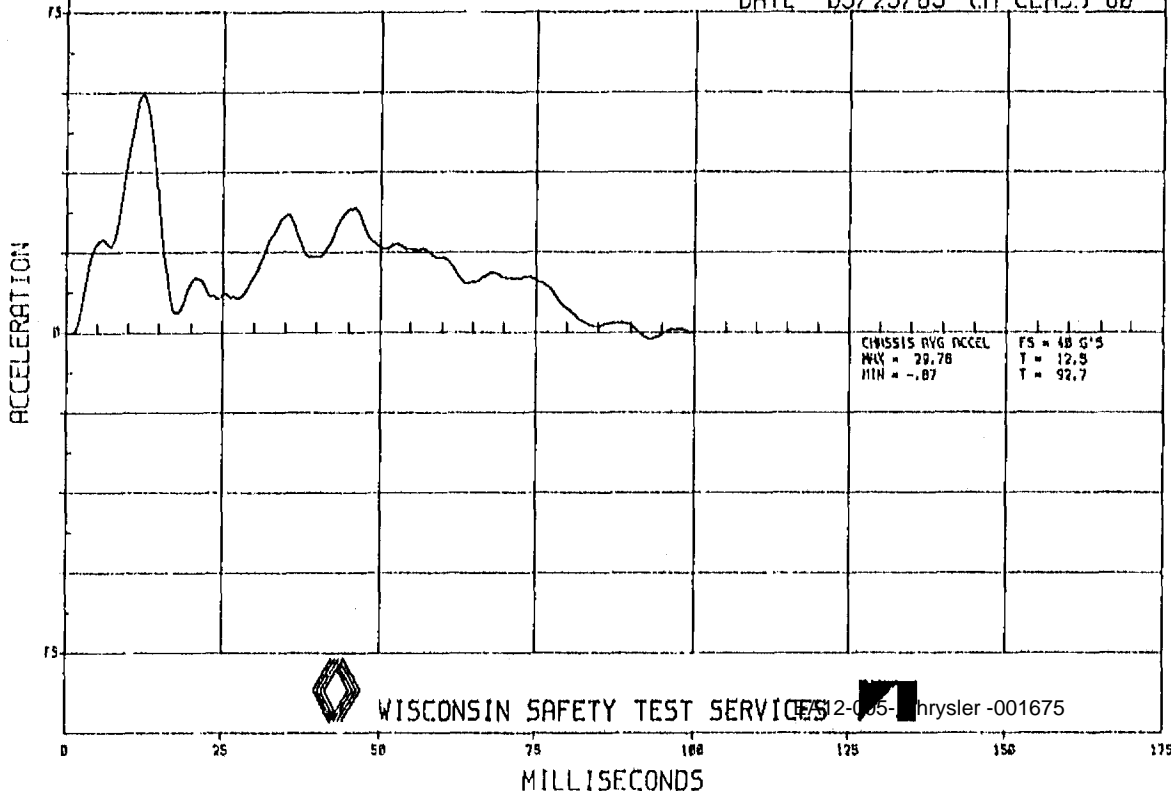
WISCONSIN SAFETY TEST SERVICES EA-015 - Chrysler -001674

0 25 50 75 100 125 150 175

MILLISECONDS

CHASSIS AVG ACCEL

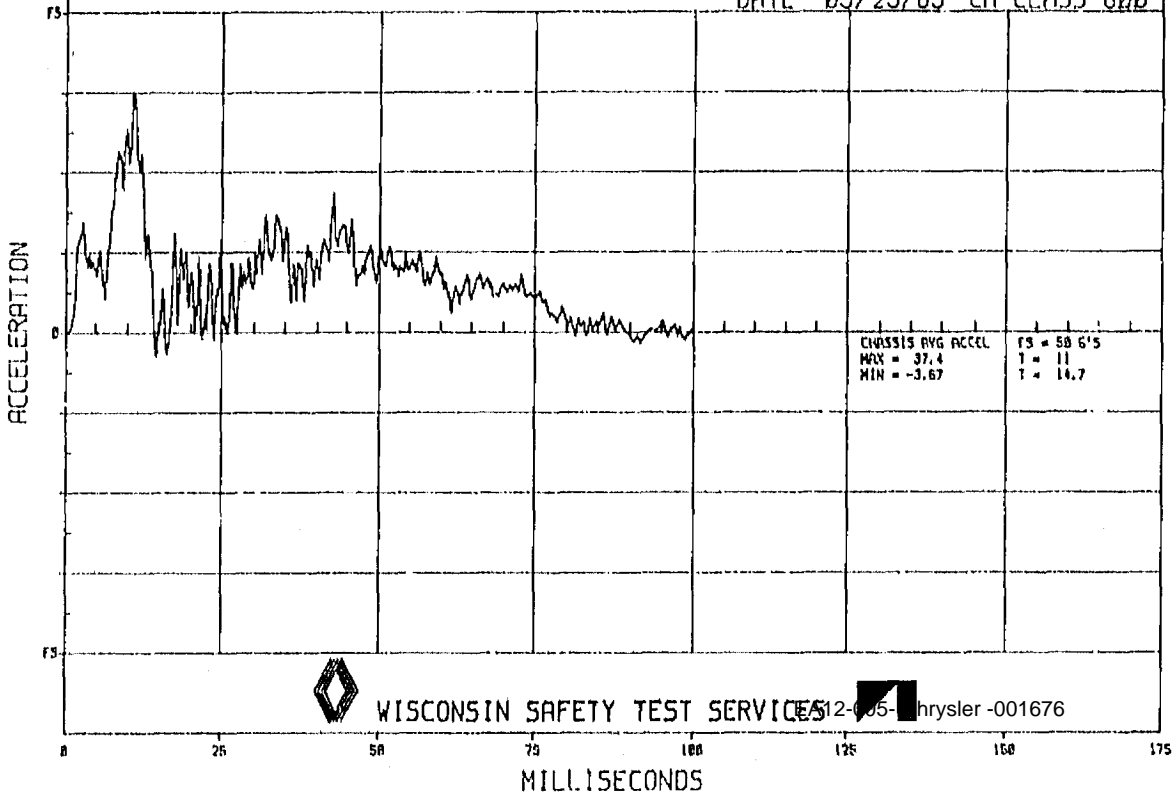
TEST# 1928
MODEL 8577
DATE 05/23/85 CH CLASS 60



WISCONSIN SAFETY TEST SERVICES 12-005- Chrysler-001675

CHASSIS AVG ACCEL.

TEST# 1928
MODEL 8577
DATE 05/23/85 CH CLASS 600

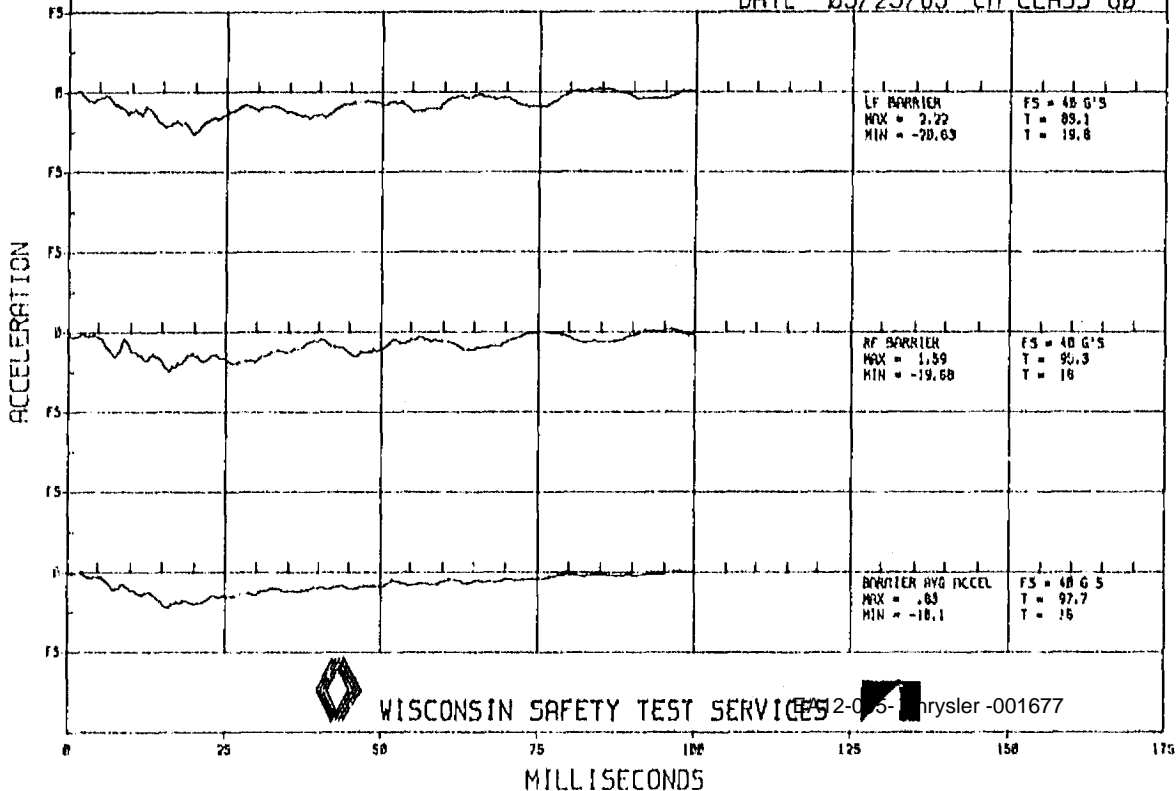


WISCONSIN SAFETY TEST SERVICES

512-005-1 Chrysler -001676

BARRIER ACCEL

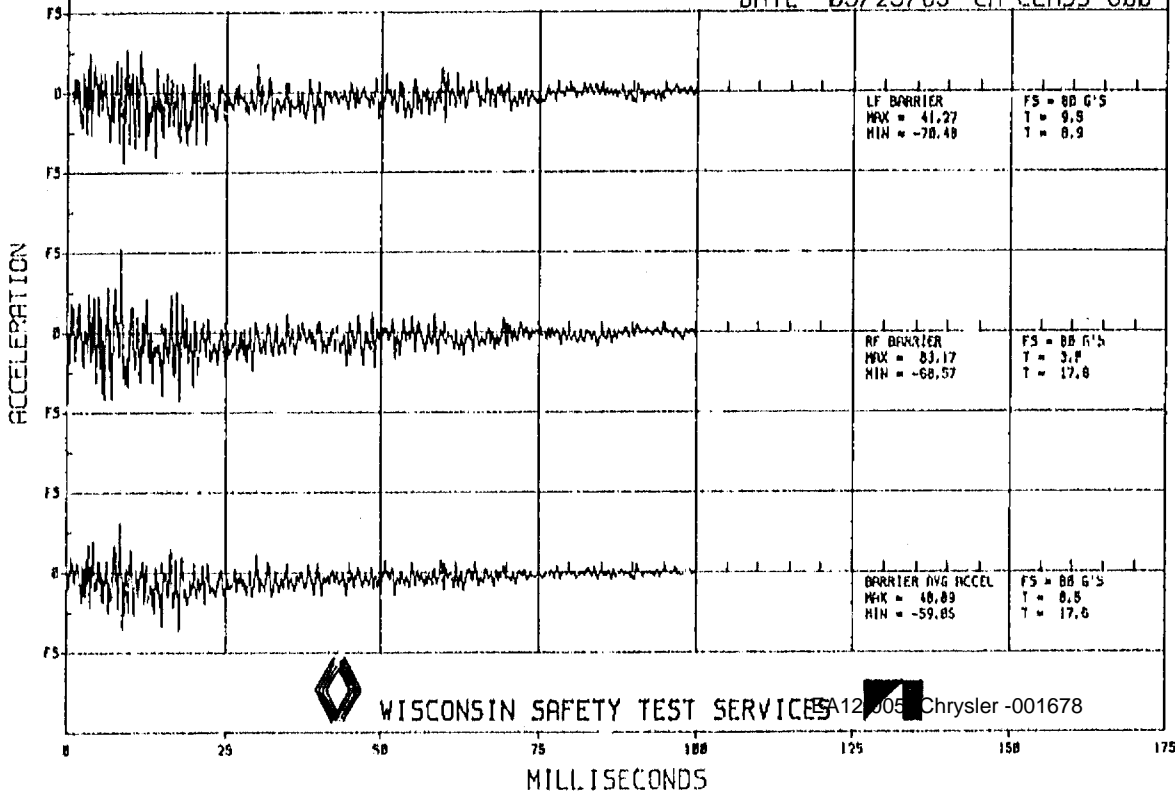
TEST# 1928
MODEL 8577
DATE 05/23/85 CH CLASS 60



WISCONSIN SAFETY TEST SERVICES 2-0-5-1 Chrysler -001677

BARRIER ACCEL

TEST# 1928
MODEL 8577
DATE 05/23/85 CH CLASS 600



WISCONSIN SAFETY TEST SERVICES SA12-006 Chrysler -001678

WISCONSIN SAFETY TEST SERVICES

**PHOTO INDEX
14046 REAR IMPACT****STANDARD PHOTOS****FIGURE**

- 1 PRE-TEST UNDERSIDE ON ROLLOVER
- 2 PRE-TEST REAR
- 3 PRE-TEST RIGHT SIDE -- WHOLE VEHICLE
- 4 PRE-TEST LEFT SIDE -- WHOLE VEHICLE
- 6 POST-TEST REAR
- 8 POST-TEST ¼ REAR RIGHT SIDE -- SHOW ¼ VEHICLE
- 7 POST-TEST FILLER AREA CLOSE UP
- 8 POST-TEST ¼ REAR LEFT SIDE -- SHOW ¼ VEHICLE
- 9 POST-TEST UNDERSIDE ON ROLLOVER

SUPPLEMENTAL PHOTO

- 10 POST-TEST- THE JACK RETAINER CAME LOOSE BUT THE JACK REMAINED IN PLACE.

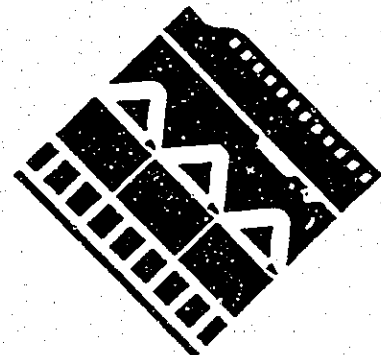
EA12-005
CHRYSLER
12-13-2012
Enclosure 6B
301 Developmental Crash
Tests Public
XJ Development Crash Test
vc-3790 Public

Image Source Inc

801 Front Street

Toledo Ohio 43605

419/697-1111



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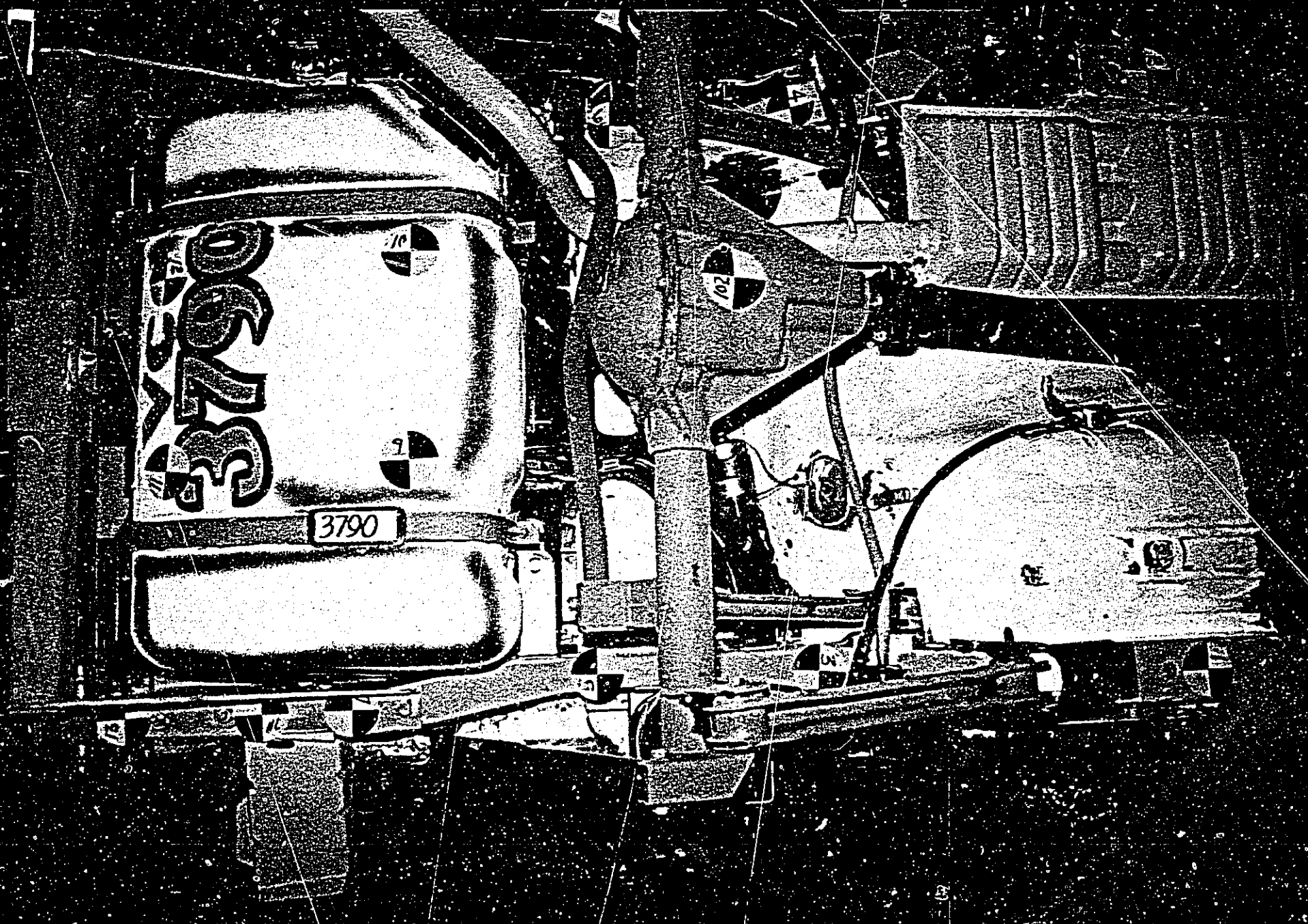
Date 8 25 19 94
Month Day

Place Toledo Ohio
City State

Trina J. Carder
Signature

Camera Operator
Title

801 Front St
Location



3790

3790

201

70

53

10

53

201

CHRYSLER

3-71150-3



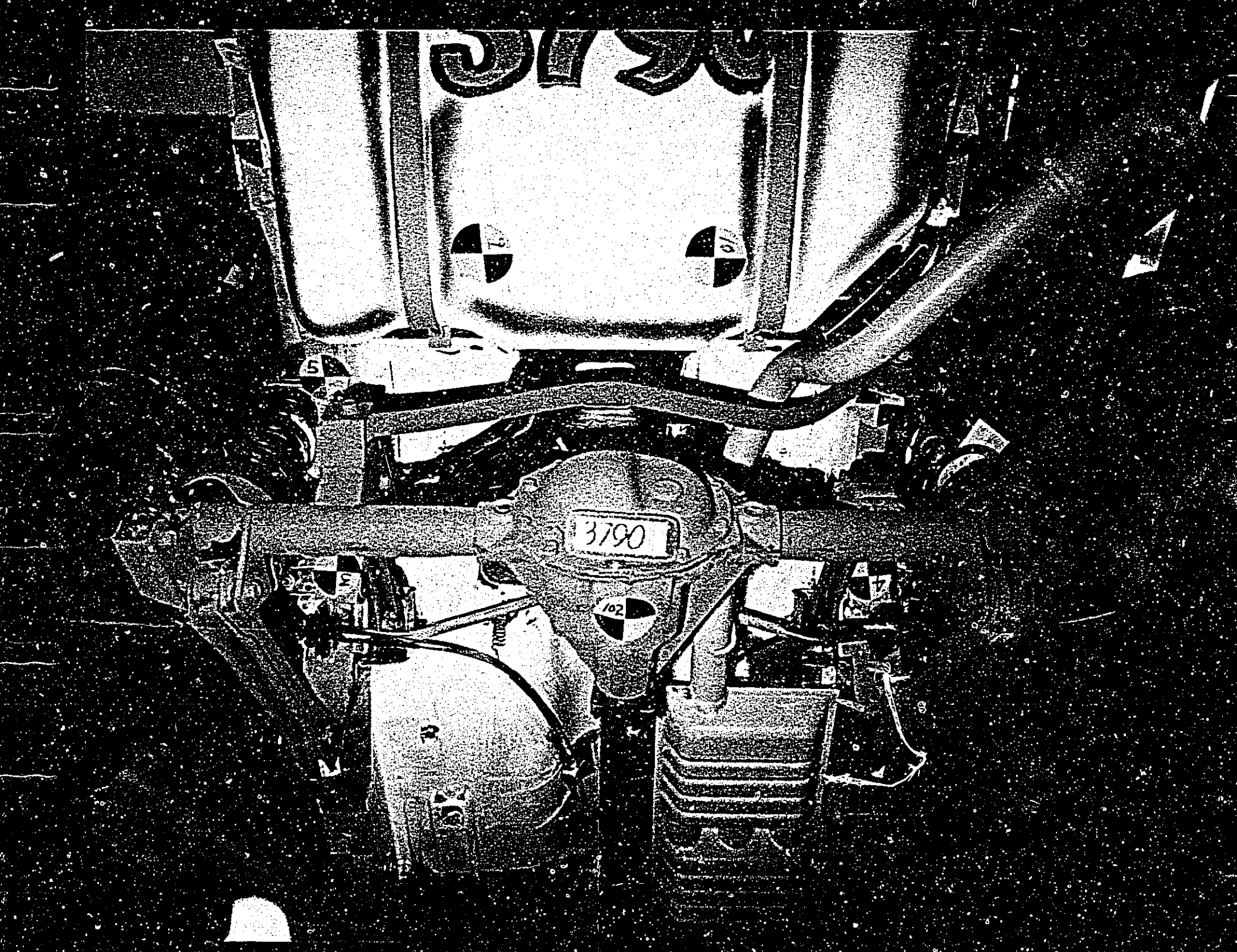
3790

3790

FOR
LAW
ENFORCEMENT

CHRYSLER

3-71150-2



3790

102

CHRYSLER

3-71150-5

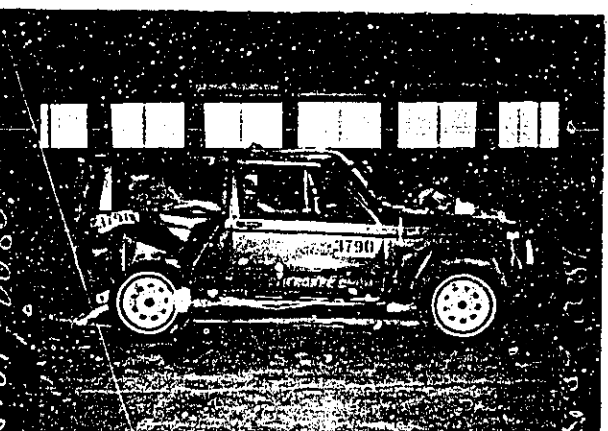
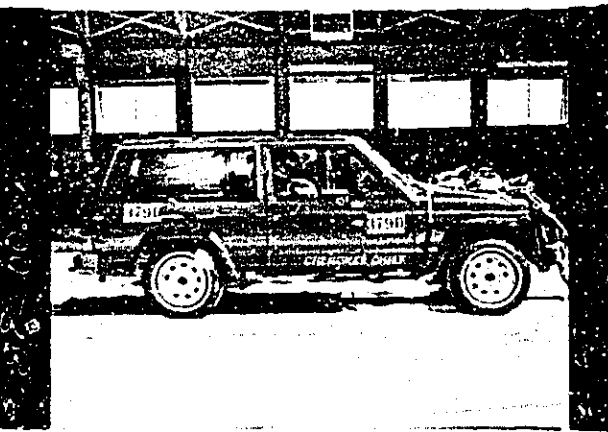
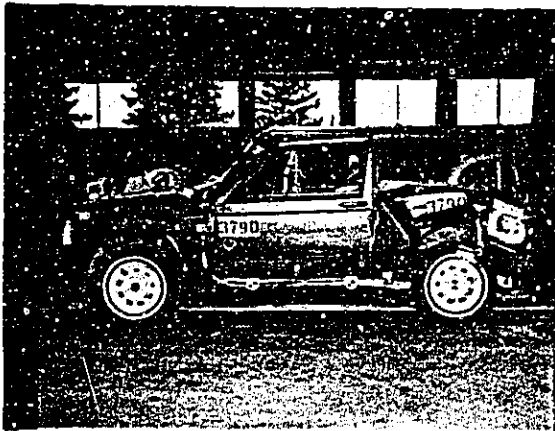
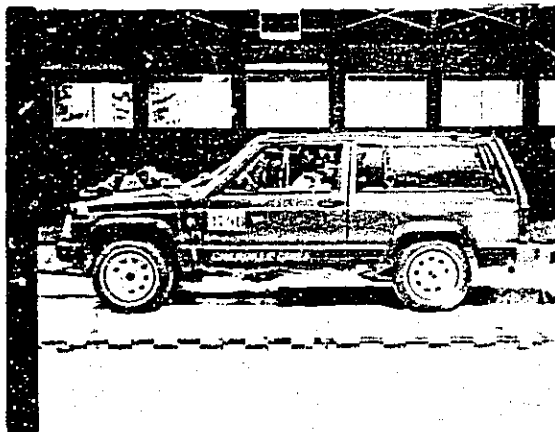


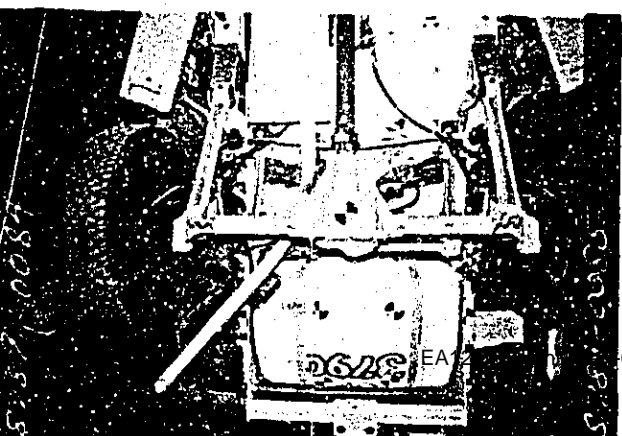
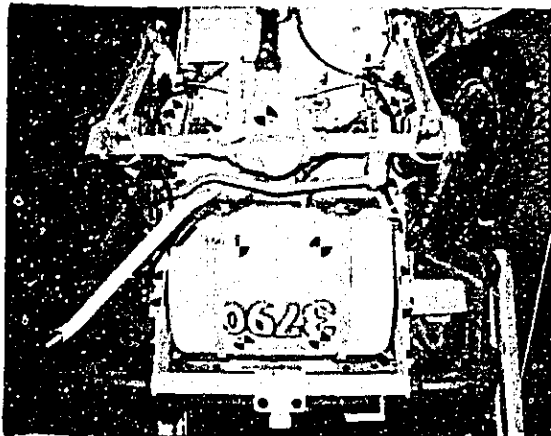
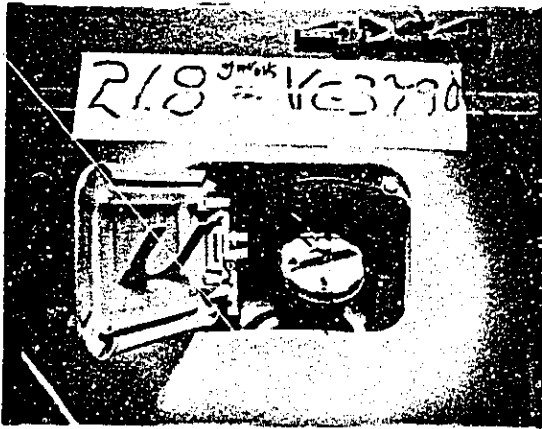
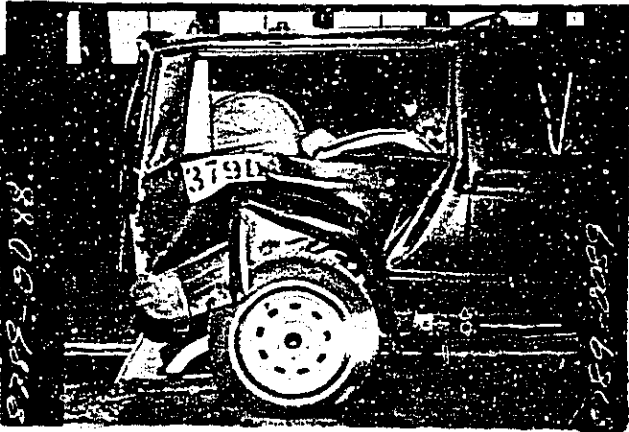
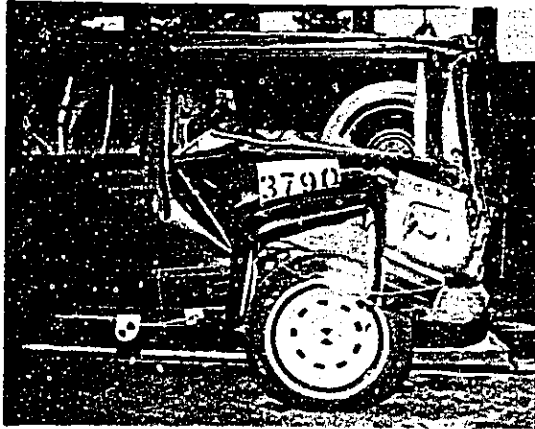
3790

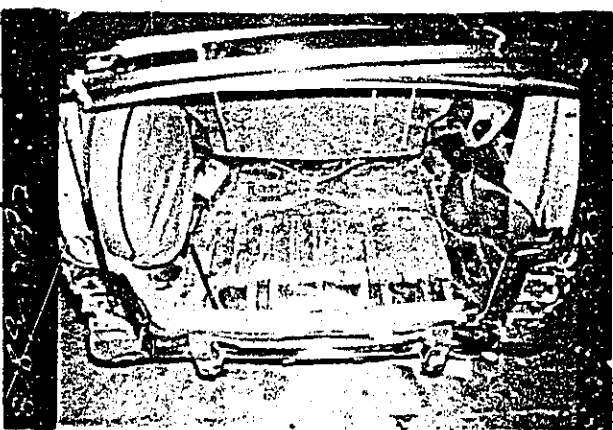
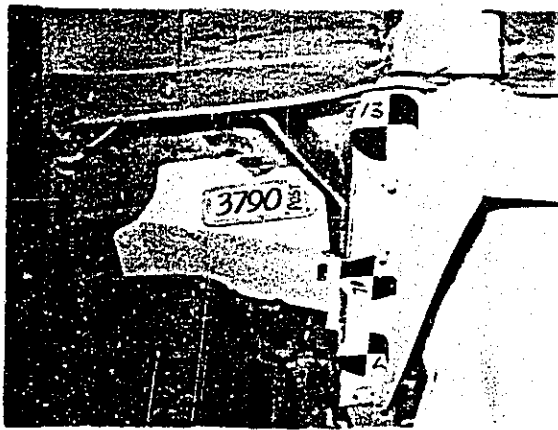
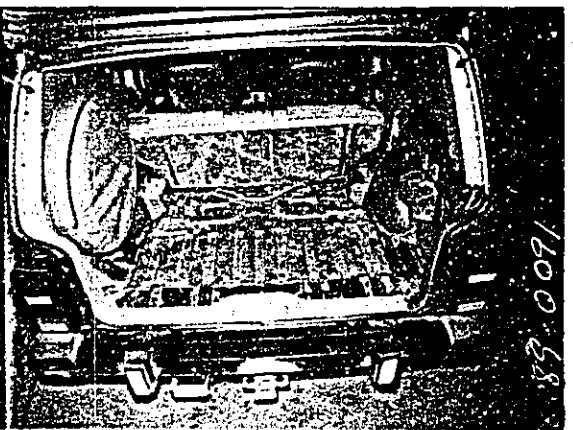
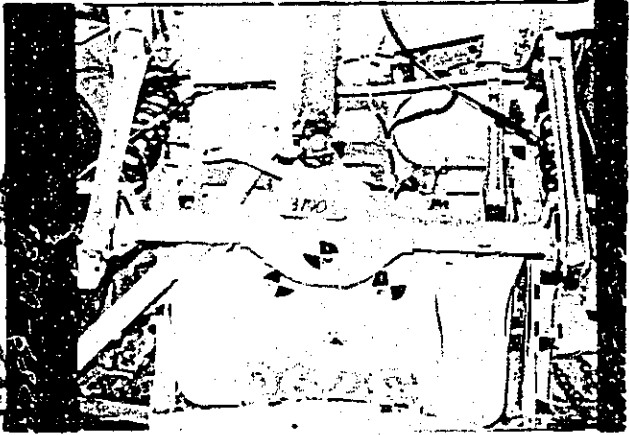
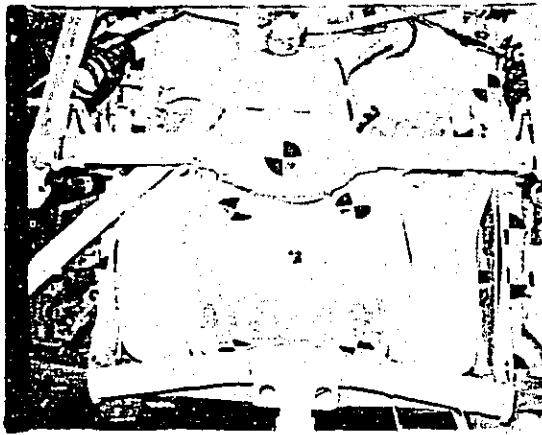
EA12-065 Chrysler

CHRYSLER

3-71150-4





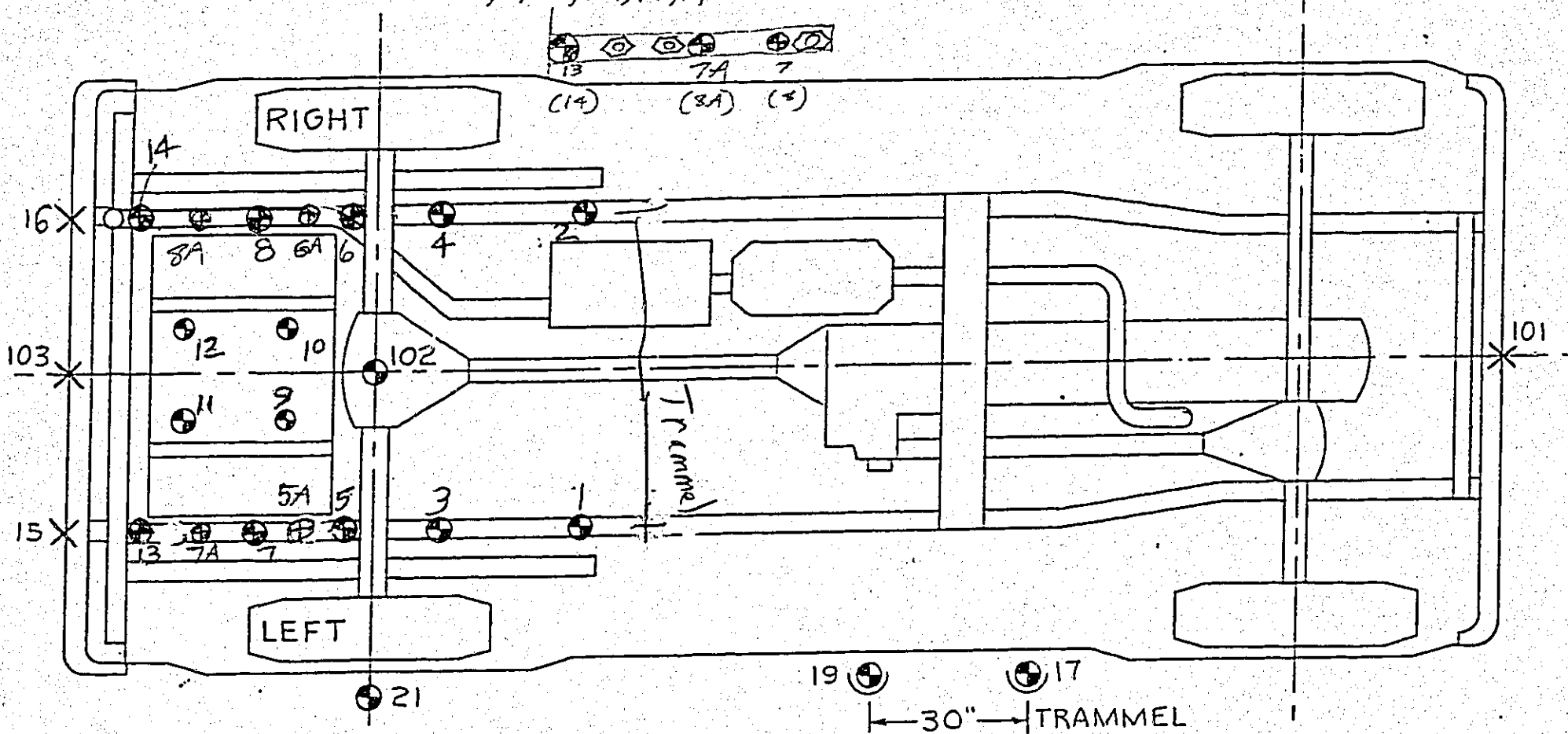


THIRD SHEET 102, ITEM 7XJ40, VC 3790
 JEEP CHEROKEE 4x4
 TARGET AND ACCELEROMETER LOCATIONS
 FOR REAR IMPACTS

1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 102 SAME AS VC-3741 PHOTOS

5A, 6A: 3" AHEAD OF SHOCK MOUNTS ON RAILS

7, 8, 7A, 8A, 13, 14 ON TRAILER HITCH AS FOLLOWS:



TARGETS

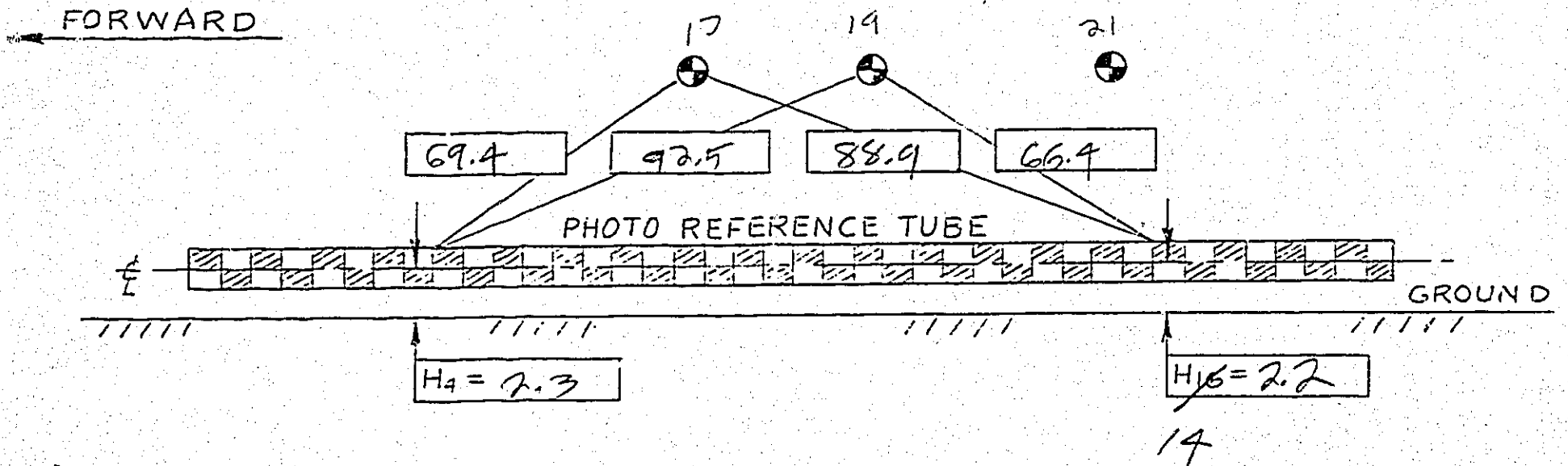
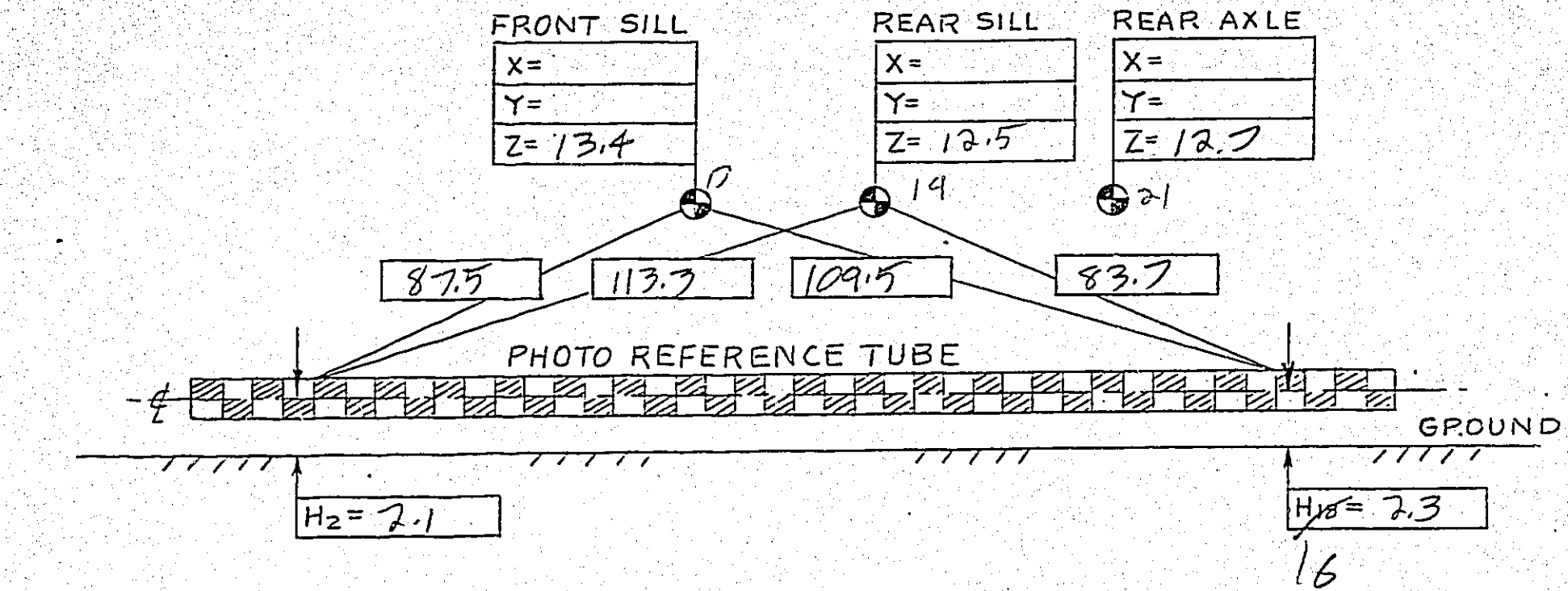
LEGEND

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

X PUNCH POINT
 ⊕ UNDERBODY
 ⊕ SIDE VIEW

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 J.P. MANNING

VC 3790

FORM EG-20VC-RC9-4

FA12-005-Ch. 1-000206

REVISED 03-23-85

X, LONGITUDINAL DIMENSIONS

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

BASE LINE AT 100.0

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
101				102	124.0		
T1	+36.8 -3.2			T2	+37.1 2.9		
T3	117.5			T4	117.5		
T5	129.9			T6	127.7		
T7	143.2			T8	144.0		
T9	139.2			T10	138.7		
T11	152.1			T12	152.1		
T13	155.9			T14	156.1		
T5	165.4	149.4		T15	165.4	149.6	
ST17	+51.4 -38.6	XXXX	XXXX	T16			
ST19	+91.5 -8.5	XXXX	XXXX	T18A	141.7		
T21	126.0	XXXX	XXXX	T			
T				T			
T				T			
T				T			
T				T			
T103	163.5	148.3		T			
T7A	148.0			T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

SILL TRAMMEL DIMENSIONS (IN.): PRE-TEST LEFT 30.20
 OTHER TRAMMEL MEASUREMENTS (IN): T1 TO T2 = 35.08
 T _____ TO T _____ = _____

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

Z, VERTICAL DIMENSIONS

TEST NUMBER VC3790 TEST ENGINEER _____
 TEST TYPE: 30 MPH REAR WITH V.I.N.
TYPE 4 MOV. BARR.
 TEST DATE 1/1

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
T01	XXXX	XXXX	XXXX	T02	8.0	XXXX	XXXX
T1	11.1	XXXX	XXXX	T2	10.7	XXXX	XXXX
T3	15.5	XXXX	XXXX	T4	15.1	XXXX	XXXX
T5	17.7	XXXX	XXXX	T6	17.5	XXXX	XXXX
T7	17.4	XXXX	XXXX	T8	17.1	XXXX	XXXX
T9	9.1	XXXX	XXXX	T10	9.0	XXXX	XXXX
T11	12.0	XXXX	XXXX	T12	12.1	XXXX	XXXX
T13	17.3	XXXX	XXXX	T14	17.1	XXXX	XXXX
T15	XXXX	XXXX	XXXX	T16	XXXX	XXXX	XXXX
ST17	13.6	XXXX	XXXX	T18	XXXX	XXXX	XXXX
ST19	12.9	XXXX	XXXX	T			
T21	12.8	XXXX	XXXX	T			
T5A	T			T6A	T		
T7A	17.3			T8A	17.2		
T				T			
T10B	XXXX	XXXX		T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			
T				T			

Y. LATERAL DIMENSIONS

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

LOCATION	BEFORE	AFTER	CHANGE	LOCATION	BEFORE	AFTER	CHANGE
T01	0	0		T02	41.3		
T1	-17.4	-	-	T2	17.8		
T3	-17.0	-	-	T4	16.7		
T5	-16.8	-	-	T6	16.5		
T7	-18.0	-	-	T8	18.1		
T9	-5.3	-	-	T10	5.2		
T11	-5.4	-	-	T12	5.2		
T13	-18.3	-	-	T14	18.0		
T15	-17.0	16.7		T16	16.4	16.5	
ST17	-32.2	XXXX	XXXX	T17			
ST19	-32.2	-XXXX	-XXXX	T18			
T21	-30.3	-XXXX	-XXXX	T2A	18.2		
T2				T3			
T7A	-18.0			T4			
T8				T5			
T9				T6			
T10	0	0		T7			
T11				T8			
T12				T9			
T13				T10			
T14				T11			
T15				T12			
T16				T13			
T17				T14			
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T92				T89			
T93				T90			
T94				T91			
T95				T92			
T96				T93			
T97				T94			
T98				T95			
T99				T96			
T100				T97			

TEST ASSURANCE PARAMETERS & POST TEST CRITIQUE

TEST TYPE 30 MPH REAR TEST VEHICLE XJ72 2.5 L

VC TEST 3790 TEST DATE 12-22-88 SHIFT ✓1ST 2ND
DATA CH. NO. 19 FAILED 1 OFFSET 1 SATUR. 0
OFFICIAL SPEED 30.4 (TO 1/10 MPH) ITEM NO. 7XJ40

	SYSTEM A		SYSTEM B	
COUNTER DESCRIPT.	FLUKE	FLUKE		
	<u>41289</u>	<u>41290</u>		
VEL. TRAP TIMES	<u>89.550 MS</u>	<u>89.778 MS</u>	_____ MS	_____ MS
VEL. TRAP SPEEDS	<u>30.46 MPH</u>	<u>30.38 MPH</u>	_____ MPH	_____ MPH

SPEED MPH
DRIVER _____
ACT. NULL _____
SETTING 30.55

TIMING & EVENT
M.C. CONSOLE ✓
VAN/OBDAS _____
LOAD CELL N/A
AD NO. 1L 61R62

TEST PERSONNEL MANNEY
ENGINEERS VC TEST RASMUSSEN/WIRTH
ABORT: BOOTH WIRTH TOW _____
M.C.C. MANNEY CAL. WIRTH
WALKWAY _____
TECHS: VAN/OBDAS BURKOWSKI
VEL. TRAP/LOAD CELL HANKERD
MECH: TOW/WINCH DRIVER SEEKERT

O.B.D.A.S. BOX NO. N/A

NOTES ON TEST & FOLLOW-UP REQUIRED

CH 9, RT FRF SILL 'X' 14268; VISI SHOWS AN OFFSET AND NOISY POST CAL. 10 MV OFFSET SENT FOR REPAIR
E.M.H

CH 18, CHEST AP AD61 14491; VISI SHOWS AN OFFSET AND A CHANGE IN SPAN SPAN WAS 163, FOUND NO OFFSET. E.M.H. 12/23/88

CH 6 5/11 73931 CABLE DAMAGED - SENT FOR REPAIR
ATB

(OVER FOR ADDITIONAL NOTES)

EA12-005- Chrysler -000210

12/22/88

PF-VC3790

IMPACT TESTING AND DEVELOPMENT
TEST INSTRUMENTATION & DATA REDUCTION FORM # 5020TA19

PG 1 OF 2

TEST # VC3790 TEST DATE ITEM # 7XJ40 TEST ENG. TEST ASSUR. ENG. TECH.
TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG.
1991 FNVSS 301 DEV. FUEL SYSTEM INTEGRITY.

CHARGE #5328018 OCCUPANTS, AD01 AT 1L, AD02 AT 1R, AD AT AD AT AD AT
TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY MPH. VIN 1J4?????M- [REDACTED]

CHI	TRANSDUCER LOCATION	AXIS	ATE	S/N	POL	SOURCE	TAP		GAIN	VISICORDER		OFFSET	SPAN
							REQ SF	CHL CAL		REQ SF	CHL CAL		
		MPH	MODEL	BASE	CHMS	ACT SF	CHL CAL	FILTER	ACT SF	CHL CAL	ACT CAL	PK	SPAN
1	EVENT												
2	LT RAIL MID	X		73973	+	389.41	400.0		1.0	400.0			
				141	FT	1740	612.2			612.2	.636		636.04
3	RT RAIL MID	X		80414	+	391.95	400.0		1.0	400.0			
				141	FT	1740	626.0			626.0	.626		626.09
4	NOT USED												
5	NOT USED												
6	RT RAIL MIDTANK	X		73931	+	394.18	600.0		1.0	600.0			
				141	FT	1740	618.8			618.8	.637		636.99
7	RT RAIL MIDTANK	Z		55967	+	394.50	600.0		1.0	600.0			
				141	DN	1740	617.9			617.9	.638		638.46
8	LEFT FRONT SILL	X		14477	+	199.18	300.0		2.0	300.0			
				141	FT	3740	311.6			311.6	.639		319.66
9	RIGHT FRONT SILL	X		14268	+	198.43	300.0		2.0	300.0			
				141	FT	3740	309.6			309.6	.641		320.40
10	LEFT REAR SILL	X		14439	+	198.27	300.0		2.0	300.0			
				141	FT	3740	310.4			310.4	.639		319.36
11	LEFT REAR SILL	Z		14353	+	198.74	300.0		2.0	300.0			
				141	DN	3740	306.7			306.7	.641		320.74
12	RIGHT REAR SILL	X		14562	-	198.56	300.0		2.0	300.0			
				141	RR	3740	312.0			312.0	.636		318.20
13	RIGHT REAR SILL	Z		133399	+	194.33	300.0		2.0	300.0			
				141	DN	3740	307.3			307.3	.632		316.22
14	NOT USED												

TEST # VC3790 TEST DATE ITEM # 7XJ40 TEST ENG. TEST ASSUR. ENG. TECH.
 TEST DESCRIPTION/OBJECTIVE 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG.
 1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.
 CHARGE #5328018 OCCUPANTS, AD61 AT 1L, AD62 AT 1R, AD AT , AD AT , AD AT
 TARGET VELOCITY MPH. TRAP TIME MS. ACTUAL VELOCITY MPH. VIN 1J4?????M-

CHI	TRANSDUCER LOCATION	AXIS	ATD	S/N	POL	SOURCE	TAPE RECORDER		GAIN	VISICORDER		OFFSET	SPAN
							REG SF	ACT SF		CHI	CAL		
15	EVENT												
16	LT RAIL MBAR MID	X		14501	+	201.62	300.0	2	2.0	300.0			
				141	FT	3740	316.6			316.6	.637		318.38
17	RT RAIL MBAR MID	X		14538	+	196.37	300.0	3	2.0	300.0			
				141	FT	3740	305.5			305.5	.643		321.36 DUE
18	1L CHEST		AP	AD61	14491	+	101.01	100.0	4	5.0	100.0		
				141	A	7680	124.3			124.3	.813		162.51
19	1L CHEST		IS	AD61	14527	-	98.30	100.0	5	5.0	100.0		
				141	S	7680	122.0			122.0	.805		161.09
20	1L CHEST		LR	AD61	80391	-	99.78	100.0	6	5.0	100.0		
				141	R	7680	123.3			123.3	.809		161.85
21	1R CHEST		AP	AD62	14407	+	100.35	100.0	7	5.0	100.0		
				141	A	7680	123.4			123.4	.813		162.58
22	1R CHEST		IS	AD62	14460	-	98.27	100.0	8	5.0	100.0		
				141	S	7680	124.1			124.1	.792		158.33
23	1R CHEST		LR	AD62	14274	-	98.20	100.0	9	5.0	100.0		
				141	R	7680	121.6			121.6	.808		161.54

PICTURES FROM TEST NUMBER VC3790

OF V.I.N. 1J4??? [REDACTED]

TEST DATE 12/23/88

TEST SPEED 30.4 MPH

TEST TYPE - 30 MPH REAR WITH TYPE 4 MOVING BARRIER

TEST PURPOSE 1991 MUSS 703 DEV.

PLEASE CIRCULATE ATTACHED PICTURES TO
W. W. KOEBNICK W. L. SHOLLENBERGER
H. G. ROULEAU PAT TO FILE

STILL PHOTOGRAPHS

TEST NUMBER VC 3790, V.I.N. 1J4 PTL7Mx [REDACTED], TEST ENGINEER J.P. MANNEY

NEGATIVE NUMBER	PRE COV.	POST COV.	DESCRIPTION
8789-0072	X		LEFT OVERALL VIEW
-0077	X		RIGHT OVERALL VIEW
-0073	X		LEFT REAR QUARTER VIEW
-0076	X		RIGHT REAR QUARTER VIEW
-0074	X		REAR VIEW
-0091	X		REAR INTERIOR VIEW
-0085	X		REAR UNDERBODY
-0082	X		FUEL FILLER
-0090	X		FUEL FILL TUBE
-0084	X		FUEL TANK
-0078		X	LEFT OVERALL VIEW
-0081		X	RIGHT OVERALL VIEW
-0079		X	LEFT REAR QUARTER VIEW
-0080		X	RIGHT REAR QUARTER VIEW
-0088		X	LEFT REAR SIDE VIEW
-0089		X	RIGHT REAR SIDE VIEW
-0075		X	REAR VIEW
-0093		X	REAR INTERIOR VIEW
-0087		X	REAR UNDERBODY
-0083		X	FUEL FILLER
-0092		X	FUEL FILL TUBE
-0086		X	FUEL TANK

DATE 01/17/89
TIME 15.53.58.

TEST VALUES
PRELIMINARY EDP REPORT

IMPACT ANALYSIS
MANNEY DEPT 5320

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

TEST DATE _____ SPEED _____ TEST WT _____ PERSONNEL _____

LIBRARY PGRUN357C

ERRATA # 2 DATA SET 12/22/88PC VC3790 30.4 FRO CH 01- 13 VC3790
ERRATA # 2 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 %G

CH#	TRANSDUCER LOCATION		PEAK AT 1000HZ	PEAK AT 600HZ	PEAK AT 180HZ	PEAK AT 60HZ	SPEED AT 300MS
1	EVENT						
2	LT RAIL MID	X 73973	-116.2	-94.5	-47.4	-19.3	-15.1
3	RT RAIL MID	X 80486	83.2	-64.2	-40.5	-22.5	-15.0
6	RT RAIL MIDTANK	X 73931	-372.7	-253.0	-133.8	-90.9	-18.9
7	RT RAIL MIDTANK	Z 55967	-149.9	-109.9	-48.4	-22.6	-5.3
8	LEFT FRONT SILL	X 14477	-80.5	-78.4	-56.6	-22.7	-14.9
9	RIGHT FRONT SILL	X 14268					N
10	LEFT REAR SILL	X 14439	-123.5	-116.2	-51.1	-20.8	-14.1
11	LEFT REAR SILL	Z 14353	84.1	86.7	47.3	18.0	.9
12	RIGHT REAR SILL	X 14562	68.9	-66.5	-47.6	-23.6	-14.5
13	RIGHT REAR SILL	Z 13339	-91.1	-82.0	-54.4	23.4	1.1
15	EVENT						
16	LT RAIL MBAR MID	X 14501	66.5	47.6	22.8	17.3	14.8
17	RT RAIL MBAR MID	X 14538	93.5	42.7	22.1	18.1	16.1
18	1L CHEST	AP AD61 14491	-14.9	-14.6	-14.4	-14.0	-22.7 N
19	1L CHEST	IS AD61 14527	-8.8	-8.3	-8.0	-7.8	-13.0
20	1L CHEST	LR AD61 80391	4.6	3.4	2.9	2.6	-.4
21	1R CHEST	AP AD62 14407	-13.0	-12.7	-12.5	-12.3	-18.8
22	1R CHEST	IS AD62 14460	-10.5	-9.2	-8.3	-7.5	-12.1
23	1R CHEST	LR AD62 14274	19.9	13.0	7.4	-3.1	-.5

CH # 8 10 12 *****RIGHT FRONT SILL X, INST. MALFUNCTION*****
CH # 9 *****INST. MALFUNCTION*****
CH # 18 19 20 *****1L CHEST AP, DATA IS NOISY*****
CH # 18 *****1L CHEST AP, DATA IS NOISY*****

AVERAGE OF SILL CHANNEL'S 8 10 12 = -22.4G'S AT 60HZ
*****RIGHT FRONT SILL X, INST. MALFUNCTION*****

RESULTANT OF 1L CHEST CHANNEL'S 18 19 20 = 15.16'S AT 180HZ
THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S
THE RESULTANT DATA SPENT 3.0MS OVER 14.2G'S.
*****1L CHEST AP, DATA IS NOISY*****

RESULTANT OF 1R CHEST CHANNEL'S 21 22 23 = 13.56'S AT 180HZ
THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S
THE RESULTANT DATA SPENT 3.0MS OVER 13.2G'S.

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

LIBRARY PGRUN357C

ERRATA # 2 DATA SET 12/22/86PC VC3790 30.4 FRO CH 01- 13 VC3790
 ERRATA # 2 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 XG

PARAMETER	FMVSS 208 LIMIT	AD61		AD62	
		50%/MALE HYBRID II 1L DRIVER	1C CT PASS	50%/MALE HYBRID II 1R RT PASS	1R RT PASS
		RESULTS	RESULTS	RESULTS	RESULTS
HEAD INJURY CRITERIA(HIC)	1000	N		N	
MAXIMIZING INTERVAL, MS	N/A	N		N	
CHEST 3 MS LEVEL, G'S	60	14.2 N		13.2	
NO. OF MS OVER 60 G'S	N/A	0.0		0.0	
CHEST RESULTANT PEAK, G'S	N/A	15.1		13.5	
LEFT FEMUR LOAD, + LBS.	2250	N		N	
RIGHT FEMUR LOAD, + LBS.	2250	N		N	
CHEST DEFLECTION AT 180HZ	/ /				

% OF 208 LIMIT DRIVER		% OF 208 LIMIT CT FRT PASSENGER		% OF 208 LIMIT RT FRT PASSENGER	
100 !	N	100 !		100 !	X
80 !	N	80 !		80 !	X
60 !		60 !		60 !	
40 !		40 !		40 !	
20 !		20 !		20 !	
0 !	N	0 !		0 !	X
	H C L R C		H C L R C		H C L R C
	E H T T		E H T T		E H T T
	A E D		A E D		A E D
	D S F F E		D S F F E		D S F F E
	T E E F		T E E F		T E E F
	M M L		M M L		M M L
	L U E		L U E		L U E
	R R C		R R C		R R C
	T		T		T

N - SEE NOTES BELOW.

- *** 1L HEAD CHL(S) FAILED OR NOT MEASURED. ***
- *** 1L LT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1L RT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1R HEAD CHL(S) FAILED OR NOT MEASURED. ***
- *** 1R LT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1R RT FEMUR CHL FAILED OR NOT MEASURED. ***
- *****1L CHEST AP. DATA IS NOISY*****

VC3790 30 MPH REAR IMPACT, XJ72, 2.5L I4 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

TEST DATE 12/22/88

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; 2.5 LITRE
ENGINE NOTE; THROTTLE BODY INJECTION
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1J4???7E?M [REDACTED] MOD.
VIN AS BUILT; 1JCHL77*9H [REDACTED] MOD.

TEST SPEED 30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS) 4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

EA12-005- Chrysler-000217

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

MOORE BUSINESS FORMS, INC. 17

I = DYNAMIC CRUSH
K = DOOR CRUSH
M = SPECIAL

J = ENGINE COMPARTMENT
L = FORCE/CRUSH/ENERGY

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.D. NIXON	422-42-22	(AB)
A.J. REGAN	418-42-22	(AB)
L.C. MILLER	514-00-00	(AB)
E.A. ZYLIK	514-15-17	(AB)

INTER COMPANY CORRESPONDENCE

FILE UBR010489

DATE 01/18/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
2530

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

REAR UNDERBODY MOTION ANALYSIS
VC3790 30 MPH REAR IMPACT, XJ72, 2.5L I4 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
TEST DATE 12/22/88

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: 2.5 LITRE
ENGINE NOTE: THROTTLE BODY INJECTION
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4????E?M? [REDACTED] MOD.
VIN AS BUILT: 1JCHL77?9HT [REDACTED] MOD.

TEST SPEED

30.4 MPH BY ELECTRONIC TRAP TIMER.

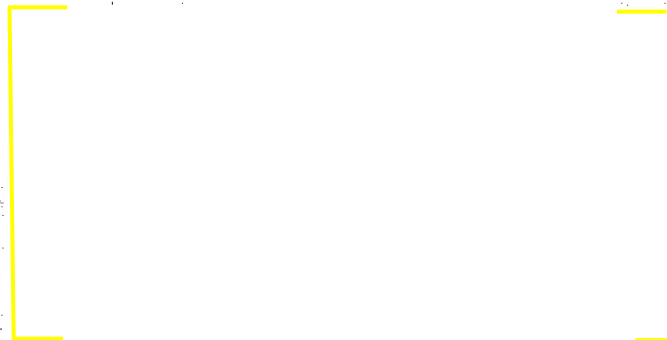
TEST WEIGHT (LBS)

4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS

LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
RESTRAINT-UNIBELT

BUILD CONDITION



ZJ '8' LEVEL FUEL TANK AND LINES (23 GALLONS).
5000# TRAILER HITCH.
SUN ROOF.

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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

THE RELATIVE MOTIONS OF SELECTED REAR UNDERBODY TARGETS HAVE BEEN
DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON CAMERA TIMING DATA.

Todd C. Williams
T. C. WILLIAMS

J. W. Hanika
J. W. HANIKA

CC	
W. A. BREITMOSER	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. W. KOEBNICK	422-05-01
L. C. MILLER	514-00-00
W. D. NIXON	422-42-22
A. J. REGAN	418-42-22
H. G. ROULEAU	422-05-01
E. A. ZYLIK	514-15-17

GRAPHS - 0

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

VC3790

ITEM 7XJ40

CHARGE NO. 5328018

ISSUE DATE 12-15-88

SUP # 2
1/14/89
GAB

VC 30 MPH REAR IMPACT, XJ72, 2.5L I4 ENG.
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

TEST DATE

12/22/88

ENGINEER

MANNSPEED 30.7 MPHSOURCE ELECTRONIC FRAP TIMER

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; 2.5 LITRE
ENGINE NOTE; THROTTLE BODY INJECTION
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1J47777E7M* XXXXXXXXXX MOD.
VIN AS BUILT; 1JCHL77*9HT MOD.

BUILD CONDITION



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

TEST WEIGHT (LBS)

4306 TOTAL, 2124 FRONT, 2182 REAR

FUEL BALLAST

21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST

300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

POST TEST REMARKS

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

OTHER BALLAST

front
200 lbs - nose front wall
200 lbs - rear front wall

OCCUPANTS

LEFT FRONT 50TH MALE, INSTRUMENTED.
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED.
RESTRAINT-UNIBELT

AD NO 61AD NO 62

MECHANICAL REQ

TARGET VELOCITY-30.5 MPH.
PRESSURE CHECK REQUIRED PRE AND POST TEST.
TETHER SPARE TIRE.
TARGET VEHICLE PER 3RD SHEET NO. 102.
LOOP SUPPLY TO RETURN FUEL LINES.

INSTRUMENTATION REQ

SEE 3RD SHEET NO. 102 FOR ACCELEROMETER REQMTS
AND LOCATIONS.
2-HYB II DUMMIES INSTRUMENTED WITH CHEST
ACCELEROMETERS, ONLY.

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.
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: CRAIG BELMONTE, X-2286.

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 = DOCR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	

CHRYSLER MOTORS
IMPACT TEST AND DEVELOPMENT
VEHICLE CRASH TEST REQUEST

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)
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J.W. HANIKA	418-42-22	(AB)
W.A. BREITMOSER	422-05-01	(AB)
W.D. NIXON	422-42-22	(AB)
A.J. REGAN	418-42-22	(AB)
L.C. MILLER	514-00-00	(AB)
E.A. ZYLIK	514-15-17	(AB)

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC3790, 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 -	BASE OF PUMP/SOUNDING UNIT CRACKED
FILLER TUBE -	OK
CAP -	OK
FUEL FILTER - <i>removed</i>	
GROMMET - <i>N/A</i>	
FUEL PUMP -	CRACKED (SEE ABOVE)
STRAPS -	OK
LINES - <i>removed</i>	
AIR CLEANER -	
VALVES -	

POST IMPACT LEAKAGE (OZ); AT IMPACT EX 1ST 5 MIN EX, NEXT 25 MIN. 0

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	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-000224

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

POWER TRAIN AND STRUCTURAL DATA

TEST NUMBER V03790
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. AD, R.F. RA, 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 REMENTION, 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 _____

SEAT, RESTRAINT, INSTRUMENT PANEL, AND OCCUPANT DATA

SEATS

TYPE, MATERIAL, PRICE CLASS cloth buckets

ADJUSTERS power

HEAD RESTRAINTS upright

POST TEST CONDITION

RESTRAINT SYSTEM

TYPE

POST TEST CONDITION

INSTRUMENT PANEL

MATERIAL; BASE PANEL AND COVER

GLOVEBOX

POST TEST CONDITION

OCCUPANT DATA

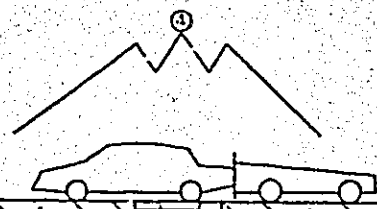
OCCUPANT DIMENSIONS RELATIVE TO TEMPLATE OR DRAWING #

	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.

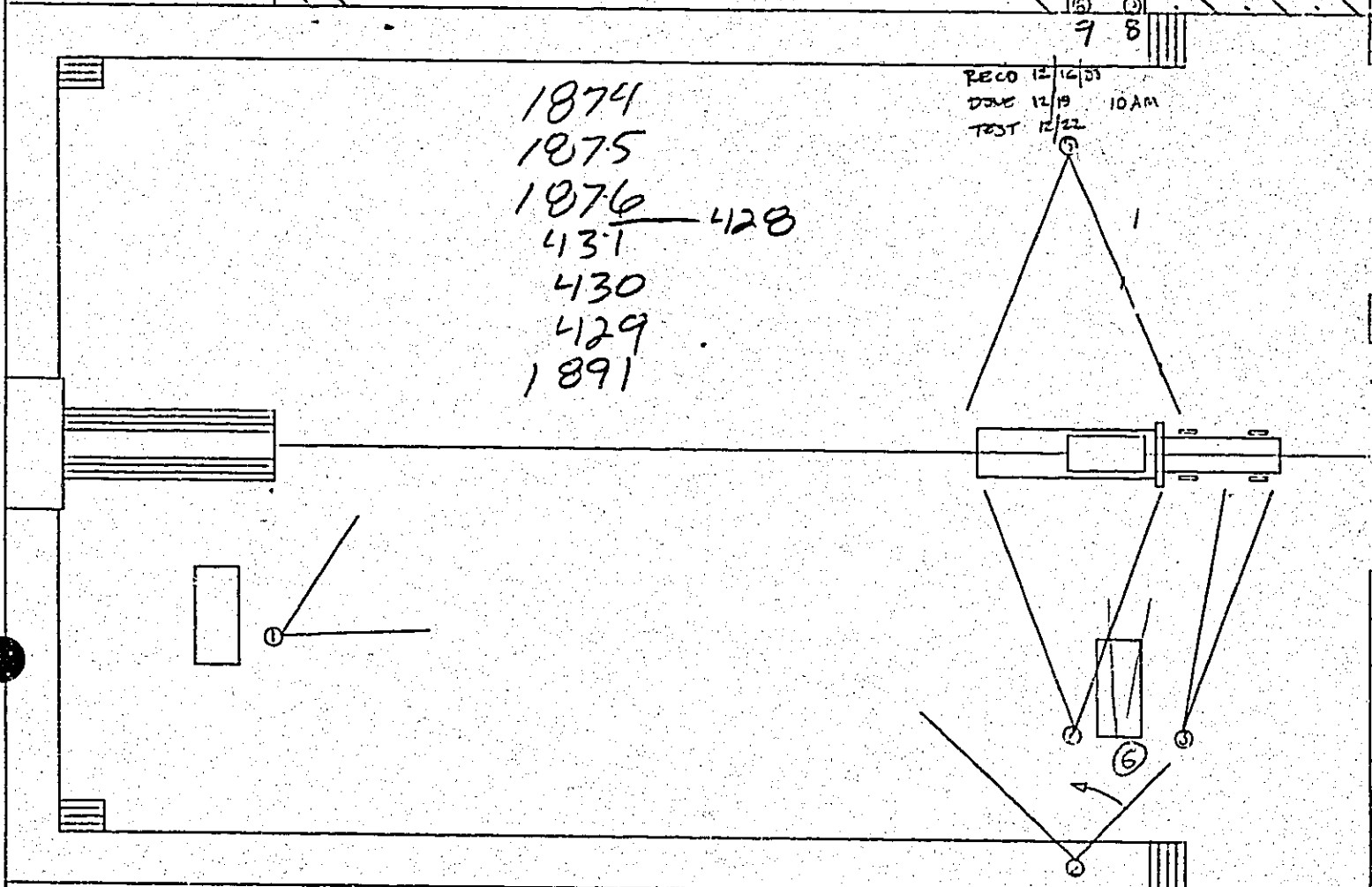
T
37.5 FT.
TO CATWALK



CAMERA LAYOUT - COVERED BARRIER

RECO 12/16/88
DIVE 12/19 10AM
TEST 12/22


1874
1875
1876 — 428
431
430
429
1891




TEST NO. VC3790 TEST TYPE REAR, TYPE IV MOVING BARRIER
ENGINEER J.P. MANNEY REQUEST DATE 12-16-88 TEST VEHICLE BODY CLASS ZJ

#	CAMERA TYPE	LENS F. L.	FPS	VIEW	PNL NO.	SCKT NO.	CSL 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	1891
4	LOCAM	1 IN.	500	TOP-CATWALK	20			KINOPTIK	107231	428
5	LOCAM	1 IN.	500	RT-OVERALL	8			COSMICAR	21275	1876
6	LOCAM	2 IN.	500	LT-REAR HALF	8			COSMICAR	19688	1875
7	LOCAM	1 IN.	500	LT-DYNAMIC CRUSH	12			COSMICAR	53848	1874
8	LOCAM	13 MM	500	FT PIT-F. TANK ^{5047H}	10			COS.	76405	431
9	LOCAM	13 MM	500	RR PIT-F. TANK ^{4027H}	10			COS.	21324	430
10	LOCAM	25 MM	500	PIT-FUEL TANK ^{CLOSE-UP}				COS.	53826	429
11										
12										
13										
14										
15										
16										

EA12-005-Chrysler-000227

PROMISED DATE	PHOTOGRAPHIC JOB NO. 15830	REQUESTED BY J.P. MANNEY	LOC. CODE 1252	DEPT. NO. 2530	PHONE 363	DATE ISSUED 12-16-88	CHARGE NUMBER 5328018					
					ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE	SLIDE SIZE	LOCATION OF WORK	
					NUMBER OF PRINTS PER NEGATIVE: 2	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE CONTACT	BLDG.	FLOOR
INSTRUCTIONS												
STILLS UC 3790												
RECEIVED BY _____ APPROVED _____												
CUSTOMER COPY PHOTOGRAPHIC WORK ORDER												
 CHRYSLER CORPORATION												

PROMISED DATE	PHOTOGRAPHIC JOB NO. 15831	REQUESTED BY J.P. MANNEY	LOC. CODE 1252	DEPT. NO. 2530	PHONE 363	DATE ISSUED 12-16-88	CHARGE NUMBER 5328018					
					ESTIMATED AMOUNT OF NEGATIVES	(B. & W.)	(COPY)	(COLOR)	MOVIE 1 PRINT	SLIDE SIZE	LOCATION OF WORK	
					NUMBER OF PRINTS PER NEGATIVE:	(PROOF)	(MATTE)	(GLOSSY)	(COLOR)	PRINT SIZE	BLDG.	FLOOR
INSTRUCTIONS												
MOVIES UC 3790												
RECEIVED BY _____ APPROVED _____												
CUSTOMER COPY PHOTOGRAPHIC WORK ORDER												
 CHRYSLER CORPORATION												

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

LITERARY PGRUN357C
 ERRATA # 1 DATA SET 12/22/88PC VC3790 30.4 FRO CH 01- 13 VC3790
 ERRATA # 1 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 XG

gpm

PARAMETER	FMVSS 208 LIMIT	AD&1 50%/MALE HYBRID II		AD&2 50%/MALE HYBRID II	
		1L DRIVER RESULTS	1C CT PASS RESULTS	1R RT PASS RESULTS	1G RESULTS
HEAD INJURY CRITERIA(HIC)	1000	N		N	
MAXIMIZING INTERVAL, MS	N/A	N		N	
CHEST 3 MS LEVEL, G'S	60	14.2 N		13.2	
NO. OF MS OVER 60 G'S	N/A	0.0		0.0	
CHEST RESULTANT PEAK, G'S	N/A	15.1		13.5	
LEFT FEMUR LOAD, + LBS.	2250	N		N	
RIGHT FEMUR LOAD, + LBS.	2250	N		N	
CHEST DEFLECTION AT 180HZ	/ /				

% OF 208 LIMIT		% OF 208 LIMIT		% OF 208 LIMIT	
DRIVER		CT FRT PASSENGER		RT FRT PASSENGER	
100	!	100	!	100	!
80	!	80	!	80	!
60	!	60	!	60	!
40	!	40	!	40	!
20	!	20	!	20	!
0	!	0	!	0	!
N				X	
N				X	
H	C	H	C	H	C
L	R	L	R	L	R
C		C		C	
E	H	E	H	E	H
H	T	H	T	H	T
T		T		T	
A	E	A	E	A	E
D		D		D	
D	S	D	S	D	S
S	F	S	F	S	F
F	F	F	F	F	F
F	E	F	E	F	E
T	E	T	E	T	E
E	E	E	E	E	E
F	E	F	E	F	E
F	E	F	E	F	E
F	E	F	E	F	E
M	M	M	M	M	M
L		L		L	
U	U	U	U	U	U
E		E		E	
R	R	R	R	R	R
R	C	R	C	R	C
C		C		C	
T		T		T	

N = SEE NOTES BELOW.

- *** 1L HEAD CHL(S) FAILED OR NOT MEASURED. ****
- *** 1L LT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1L RT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1R HEAD CHL(S) FAILED OR NOT MEASURED. ****
- *** 1R LT FEMUR CHL FAILED OR NOT MEASURED. ***
- *** 1R RT FEMUR CHL FAILED OR NOT MEASURED. ***

*****1L CHEST AP, DATA IS NOISY*****

DATE 01/04/89
TIME 16.10.20.

EDP LETTER
PRELIMINARY EDP REPORT

IMPACT ANALYSIS
DEPT 5320

VC3790 ITEM 7XJ40
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0 CL 16 ENG, ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.
TEST DATE 12/22/88

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; 2J
CAR LINE; J
BODY; 72
ENGINE; 4.0 LITRE
ENGINE NOTE; MPI
TRANSMISSION; 5 SPEED MANUAL 4X4
TRANS. NOTE;
VIN AS TESTED; 1J42227L2M [REDACTED] MOD.
VIN AS BUILT; 1JCHL77*9HT [REDACTED] MOD.

TEST SPEED 30.4 MPH BY ELECTRONIC IRAP TIMER.

TEST WEIGHT (LBS) 4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
RESTRAINT-UNIBELT

BUILD CONDITION [REDACTED]

TARGET WEIGHT (LBS) 3556 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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

DATE 01/04/89

EOP LETTER

IMPACT ANALYSIS

TIME 16.10.20.

PRELIMINARY EOP REPORT

DEPT 5320

VC3790 ITEM 7XJ40

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG, ITEM 7XJ40

1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

TEST DATE 12/22/88

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK WAS REMOVED POST - TEST.

CC

J. M. BERLINER	422-05-01
W. A. BREITMOSER	422-05-01
J. W. HANIKA	418-42-22
W. W. KOEBNICK	422-05-01
T. P. MAULE	422-05-01
L. C. MILLER	514-00-00
W. D. NIXON	422-42-22
A. J. REGAN	418-42-22
H. G. ROULEAU	422-05-01
E. A. ZYLIK	514-15-17

DATE 01/04/89

TEST VALUES

IMPACT ANALYSIS

TIME 16.10.12

PRELIMINARY EDP REPORT

DEPT 5320

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

TEST DATE 12-22-88 SPEED 30.4 TEST WT 4306 PERSONNEL GRENKE

LIBRARY PGRUN357C

ERRATA # 1 DATA SET 12/22/88PC VC3790 30.4 FRO CH 01- 13 VC3790

ERRATA # 1 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 %G

CHL	TRANSDUCER LOCATION		PEAK AT 1000HZ	PEAK AT 600HZ	PEAK AT 180HZ	PEAK AT 60HZ	SPEED AT 300MS
1	EVENT						
2	LT RAIL MID	X 73973	-116.2	-94.5	-47.4	-19.3	15.1
3	RT RAIL MID	X 80486	83.2	-64.2	-40.5	-22.5	15.0
6	RT RAIL MIDTANK	X 73931	-372.7	-253.0	-133.8	-90.7	18.9
7	RT RAIL MIDTANK	Z 55967	-149.9	-109.9	-48.4	-22.5	5.3
8	LEFT FRONT SILL	X 14477	-80.5	-78.4	-56.6	-22.7	14.9
9	RIGHT FRONT SILL	X 14268					N
10	LEFT REAR SILL	X 14439	-123.5	-116.2	-51.1	-20.8	14.1
11	LEFT REAR SILL	Z 14353	84.1	86.7	47.3	18.0	9
12	RIGHT REAR SILL	X 14562	68.9	-66.5	-47.5	-23.5	14.5
13	RIGHT REAR SILL	Z 13339	-91.1	-82.0	-54.4	23.4	1.1
15	EVENT						
16	LT RAIL MBAR MID	X 14501	66.5	47.6	22.8	17.3	14.8
17	RT RAIL MBAR MID	X 14538	93.5	42.7	22.1	18.1	16.1
18	1L CHEST	AP AD51 14491	-14.9	-14.6	-14.4	-14.0	22.7
19	1L CHEST	IS AD61 14527	-8.8	-8.3	-8.0	-7.8	13.0
20	1L CHEST	LR AD61 80391	4.6	3.4	2.9	2.6	0.4
21	1R CHEST	AP AD62 14407	-13.0	-12.7	-12.5	-12.3	18.8
22	1R CHEST	IS AD62 14460	-10.5	-9.2	-8.3	-7.5	12.1
23	1R CHEST	LR AD62 14274	19.9	13.0	7.4	-3.1	0.5

CH # 8 10 12 *****RIGHT FRONT SILL X, INST. MALFUNCTION*****
 CH # 9 *****INST. MALFUNCTION*****
 CH # 18 19 20 *****1L CHEST AP, DATA IS NOISY*****
 CH # 18 *****1L CHEST AP, DATA IS NOISY*****

AVERAGE OF SILL CHANNEL'S 8 10 12 = -22.4G'S AT 60HZ
 *****RIGHT FRONT SILL X, INST. MALFUNCTION*****

AVERAGE OF SILL CHANNEL'S 10 12 = -22.2G'S AT 60HZ

RESULTANT OF 1L CHEST CHANNEL'S 18 19 20 = 15.1G'S AT 180HZ

THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S

THE RESULTANT DATA SPENT 3.0MS OVER 14.2G'S

*****1L CHEST AP, DATA IS NOISY*****

RESULTANT OF 1R CHEST CHANNEL'S 21 22 23 = 13.5G'S AT 180HZ

THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S

THE RESULTANT DATA SPENT 3.0MS OVER 13.2G'S

DATE 01/04/89
TIME 16.10.12

TEST VALUES **HARVEY**
PRELIMINARY EDP REPORT

IMPACT ANALYSIS
DEPT 5323

VC3790 30 MPH REAR IMPACT, ZJ72, 4.9L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

TEST DATE _____ SPEED _____ TEST WT _____ PERSONNEL _____

LIBRARY PG FUN357C

ERRATA # 1 DATA SET 12/22/88PC VC3790 30.4 FRO CH 01- 13 VC3790

ERRATA # 1 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 %G

CHL	TRANSDUCER LOCATION		PEAK AT 1000HZ	PEAK AT 600HZ	PEAK AT 180HZ	PEAK AT 60HZ	SPEED AT 300MS
1	EVENT						
2	LT RAIL MID	X 73973	-116.2	-94.5	-47.4	-19.3	-15.1
3	RT RAIL MID	X 80485	83.2	-64.2	-40.5	-22.5	-15.0
6	RT RAIL MIDTANK	X 73931	-372.7	-253.0	-133.8	-90.9	-18.9
7	RT RAIL MIDTANK	Z 55967	-149.9	-109.9	-48.4	-22.6	-5.3
8	LEFT FRONT SILL	X 14477	-80.5	-78.4	-56.6	-22.7	-14.9
9	RIGHT FRONT SILL	X 14268					N
10	LEFT REAR SILL	X 14439	-123.5	-116.2	-51.1	-20.8	-14.1
11	LEFT REAR SILL	Z 14353	84.1	86.7	47.3	18.0	.9
12	RIGHT REAR SILL	X 14562	68.9	-66.5	-47.6	-23.6	-14.5
13	RIGHT REAR SILL	Z 13339	-51.1	-82.0	-54.4	23.4	1.1
15	EVENT						
16	LT RAIL MBAR MID	X 14501	66.5	47.6	22.8	17.3	14.8
17	RT RAIL MBAR MID	X 14538	93.5	42.7	22.1	18.1	15.1
18	1L CHEST	AP AD61 14491	-14.9	-14.6	-14.4	-14.0	-22.7 N
19	1L CHEST	IS AD61 14527	-8.8	-8.3	-8.0	-7.8	-13.0
20	1L CHEST	LR AD61 80391	4.6	3.4	2.9	2.6	-.4
21	1R CHEST	AP AD62 14407	-13.0	-12.7	-12.5	-12.3	-18.8
22	1R CHEST	IS AD62 14460	-10.5	-9.2	-8.3	-7.5	-12.1
23	1R CHEST	LR AD62 14274	19.9	13.0	7.4	-3.1	-.5

CH # 8 10 12 *****RIGHT FRONT SILL X, INST. MALFUNCTION*****

CH # 9 *****INST. MALFUNCTION*****

CH # 18 19 20 *****1L CHEST AP, DATA IS NOISY*****

CH # 18 *****1L CHEST AP, DATA IS NOISY*****

AVERAGE OF SILL CHANNEL'S 8 10 12 = -22.4G'S AT 60HZ

*****RIGHT FRONT SILL X, INST. MALFUNCTION*****

AVERAGE OF SILL CHANNEL'S 10 12 = -22.2G'S AT 60HZ

RESULTANT OF 1L CHEST CHANNEL'S 18 19 20 = 15.1G'S AT 180HZ

THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S

THE RESULTANT DATA SPENT 3.0MS OVER 14.2G'S

*****1L CHEST AP, DATA IS NOISY*****

RESULTANT OF 1R CHEST CHANNEL'S 21 22 23 = 13.5G'S AT 180HZ

THE RESULTANT DATA SPENT 0.0MS OVER 60.0G'S

THE RESULTANT DATA SPENT 3.0MS OVER 13.2G'S

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

LIBRARY PGRUN357C

ERRATA # 1 DATA SET 12/22/88PC VC3790 30.4 FRO CH 01- 13 VC3790
 ERRATA # 1 DATA SET 12/22/88PD VC3790 30.4 FRO CH 15- 23 VC3790 XG

PARAMETER	LIMIT	AD61		AD62	
		RESULTS	RESULTS	RESULTS	RESULTS
HEAD INJURY CRITERIA(HIC)	1000	N		N	
MAXIMIZING INTERVAL, MS	N/A	N		N	
CHEST 3 MS LEVEL, G'S	60	14.2 N		13.2	
NO. OF MS OVER 60 G'S	N/A	0.0		0.0	
CHEST RESULTANT PEAK, G'S	N/A	15.1		13.5	
LEFT FEMUR LOAD, + LBS.	2250	N		N	
RIGHT FEMUR LOAD, + LBS.	2250	N		N	
CHEST DEFLECTION AT 180HZ	/ /				

% OF 208 LIMIT		% OF 208 LIMIT		% OF 208 LIMIT	
DRIVER	CT FRT PASSENGER	FT FRT PASSENGER			
100 !	100 !	100 !			
80 !	80 !	80 !			
60 !	60 !	60 !			
40 !	40 !	40 !			
20 ! N	20 !	20 !	X		
0 ! N	0 !	0 !	X		
H C L R C	H C L R C	H C L R C			
E H T T	E H T T	E H T T			
A E D	A E D	A E D			
D S F F E	D S F F E	D S F F E			
T E E F	T E E F	T E E F			
M M L	M M L	M M L			
U U E	U U E	U U E			
R R C	R R C	R R C			
T	T	T			

N - SEE NOTES BELOW.
 **** 1L HEAD CHL(S) FAILED OR NOT MEASURED. ****
 **** 1L LT FEMUR CHL FAILED OR NOT MEASURED. ***
 **** 1L RT FEMUR CHL FAILED OR NOT MEASURED. ***
 *** 1R HEAD CHL(S) FAILED OR NOT MEASURED. ****
 **** 1R LT FEMUR CHL FAILED OR NOT MEASURED. ***
 **** 1R RT FEMUR CHL FAILED OR NOT MEASURED. ***
 *****1L CHEST AP. DATA IS NOISY*****

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

TEST NUMBER VC3790, V.I.N. 1J4?7L?M? [REDACTED] EM NUMBER TXJ40CHARGE # 530808, TEST ENGINEER J.P. MANNEY

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

INITIAL WORK AS COMPLETED

CLEAN VEHICLE AS NECESSARY

VERIFY V.I.N. [REDACTED] ON PLATE ON INSTRUMENT PANEL

IF DIFFERENT NOTIFY THE TEST ENGINEER

✓ STENCIL TEST NUMBER ON CAR QTA PANELS, DOORS, ROOFTIRE PRESSURE; FRONT 35, REAR 35PLACE SEAT IN MID TRACK SEATING POSITION AND MARK ON SILLS

DRAIN VEHICLE FLUIDS; MASTER CYLINDER, RADIATOR, ENGINE, TRANSMISSION, AXLE(S), WASHER BOTTLE, OVERFLOW BOTTLE, POWER STEERING, A/C,

DONE REMOVE GASOLINE FROM FUEL TANKDONE INSPECT FUEL LINES AND SYSTEM FOR MISSING CLAMPS OR DEFECTS (THEY ARE BAD)

✓ CHECK OPERABILITY OF FUEL PUMP (SHOULD SPIN WHEN ENERGIZED)

W DRAIN BATTERYW/S CHECK SEAT BELT SYSTEMS FOR OBVIOUS ASSEMBLY ERRORSW/S INSTALL BRAKE ABORT SYSTEM NUMBER 0SP REMOVE ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2SP PAINT ITEMS PER SUPPLEMENTAL BUILD-UP FORM I-2W/S SEE SUPPLEMENTAL BUILD-UP FORM I-2 FOR SPECIAL INSTRUCTIONSW/S INSTALL BRAKE ABORT CABLE FITTING LEFT FRONT FENDER

✓ TAPE REAR WINDOWS, REAR SIDE WINDOWS, AND TAIL LIGHTS

ATC INSTALL TARGETS PER TARGET LAYOUT SHEETJ.P.M. TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM. SHEETJ.P.M. TRAMMEL MEASURE ANALYSIS TARGETS AND RECORD ON FORM X (II-1) DIM. SHEETSIC/W TAKE X AND Y DIMENSIONS AND RECORD ON X (II-1) AND Y (II-2) DIMENSION SHEETSJ.P.M. FILL FUEL TANK WITH 21.8 GALLONS OF .767 SG STODDARD SOLVENTJ.P.M. CHECK CAR BUILD UP WEIGHT AND ADJUST AS NECESSARYJ.P.M. INSTALL 300 POUNDS OF LUGGAGE BALLASTLI TETHER SPARE TIREETS CONNECT FUEL SUPPLY & RETURN LINES INTO A LOOP

PRESSURE CHECK FUEL SYSTEM PRE TEST (WAIT UNTIL LINES ARE REPAIRED) 2 Leaks Wait for New Cap

SUPPLEMENTAL PUTCO-UP FORM

TEST NUMBER

V63790

PAINT ITEMS AS SPECIFIED

REMOVE ITEMS AND SCRAP UNLESS
NOTED

UNDERBODY-

WHITE

~~BODY MEMBER AND FUEL
TANK BLOCKER-~~~~RED~~CARPETING FROM CARGO
AREA

RAILS AND E/A UNITS-

YELLOW

~~REAR BODY CROSSMEMBER
(REAR OF TIRE WELL)~~~~RED~~~~TRACKBAR AND TRACKBAR
BRACKET-~~~~DARK BLUE~~

AXLE-

CARNAGE 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 90°)
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 PHOTO FOR ADDITIONAL
PAINTING

TRAILER HITCH - PINK

SPLASH GUARD OVER FILL TUBE - LT BLUE OR GREEN

TARGET WEIGHT: _____ TOTAL, _____ FRONT, _____ REAR, _____ OPTION WEIGHT

OTHER INSTRUCTIONS: _____

VEHICLE CRASH TEST BUILD-DOWN CHECK LIST

TEST NUMBER VC3790 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
- TRAMMEL MEASURE SILL TARGETS AND RECORD ON FORM X (II-1) DIM. SHEET
- REMOVE SCREWED ON TARGETS
- ~~200~~ PERFORM STATIC ROLL
- ~~100~~ PRESSURE CHECK FUEL SYSTEM, 30 INCHES OF WATER FOR 15 MINUTES
- DRAIN FUEL SYSTEM
- REMOVE DECK LID FOR PHOTOS
- PREPARE VEHICLE FOR SHIPMENT

SPECIAL INSTRUCTIONS- NO STATIC ROLL REQUIRED

FINAL BUILD-UP CHECK LIST FOR REAR IMPACT

TEST NUMBER VC3790, TEST ENGINEER _____

INITIAL WORK AS COMPLETED

- INSTALL DUMMIES; LF AD-____, RF AD-____.
- 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)

TEST VEHICLE WEIGHT

TEST NUMBER VC3790

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.....	-(50)
BALLAST WT GOAL.....	= <u>3616</u>
+ LUGGAGE	+ 300
	<u>3916</u>
+ 1/2% TEST WT	+ 220
BALLAST WT GOAL	<u>3936</u>

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

9333 MAX

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

AS IS

LF	878	LR	748
RP	860	RR	714
	<u>1738</u>		<u>1462</u>
	<u>1962</u>		
	<u>3190</u>		

WEIGHTS:

(2)

958	988	3936
<u>960</u>	<u>970</u>	<u>3876</u>
1918	1958	60
<u>1958</u>		
<u>3876</u>		

3936
3190
746
300 LUGG 446 BALL

(3)

940	1014
<u>966</u>	<u>1006</u>
1906	2020
<u>2020</u>	
<u>3926</u>	

TEST WT	
1072	1080
<u>1052</u>	<u>1102</u>
2124	2182
<u>2182</u>	
4306	

BALLAST WEIGHTS ADDED AND LOCATION:

200# front floorpan
200# rear footwells
50# tunnel

Luggage:
50# LR WHEELWELL
50# RR
50# TAILGATE
50# ROOF
50# RR QTR PANEL

* VC TEST CHECK LIST *

TEST NUMBER _____

✓ REVIEW TEST REQUEST

✓ RUN (FORMS) AND ✓ (INST) PROGRAMS

✓ 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
* 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 1,2,3,84 -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

✓ OSCAR (JB26) 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

* 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/O
 - * TARGET SHEETS
 - * DIMENSION SHEETS (X, Y, Z)
 - * TUBE DIMENSIONS
 - * DIMENSION LISTING FROM "TARGETS" PROGRAM
 - * DUMMY DIMENSION SHEET(S)
 - * MOVIE FILM
- COMPLETE SEC. V-4 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 SITE PREPARED
- TITLE BOARD PREPARED
- VEHICLE FINAL BUILD-UP COMPLETE FRT 2124 LBS
- TEST CONFIRMED WITH PHOTOGRAPHIC RR 5182 LBS
- WEIGH VEHICLE - RF 1052 LBS, RR 1102 LBS
- LF 1072 LBS, LR 1080 LBS, TOTAL 4306 LBS
- VISUAL CHECK OF VEHICLE HOOK UP FOR TRANSPORTING TO BARRIER
- TIME OUT OF GARAGE 8:45 AM.

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 (TO 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 _____
- ASSURE VEHICLE IN NEUTRAL TOW _____
- SET BRAKE ABORT
- CLOSE HOOD AND DECK LID
- IN-TANK FUEL PUMP RUNNING CAL _____
- MEASURE CAR/REFERENCE TUBE(S)
- MOVING BARRIER ABORT ON ABORT _____
- CLOSE SEMAPHORE GATES
- TURN OFF MERCURY VAPOR OVERHEAD LIGHTS BOOTH _____
- TURN OFF NIGHT LIGHT ABOVE PIT
- BRAKE ABORT REEL CONNECTED
- ALL DOORS UP STRK VEH _____
- 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 OBDAS

TEST TIME 11:07 AM.

- POSITION ROLLING GUARD RAIL AROUND PIT DOORS
- CALL W.L. SHOLLENBERGER 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
- TURN ON NIGHT LIGHT

5th WHEEL DOWN BALLAST SECURED

* POST TEST CRITIQUE *

* ITEM NO 2XJ40 * VEH TYPE 207z * ENG 4.0 * TRANS M5, 4x4

* TEST NO VC3790 * DEV 91 * VAL _____ * COMP _____ * RESC _____

* PURPOSE 204 _____ 208 _____ 212 _____ 219 _____ 301 D

* TEST MODE FFF V REAR _____ ANG _____ LAT _____ * TEST WEIGHT 4306

* PERSONNEL CAL Wentz BOOTH _____

STRK VEH Helmick MECH Sobdell Sanderson

T/A ENG Grenke TECH Harkerd Bonkowski

* TIME OUT 8:45 * TEST VELOCITY 30.4 * IMPACT TIME 11:07

* TOW OPERATOR Seepert 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	2 PT	1L	1R
95%	<u>✓</u>	<u>✓</u>			<u>✓</u>	<u>✓</u>	_____	_____	_____
50%	<u>✓</u>	<u>✓</u>			UB	_____	2 PT	_____	_____
5%	<u>✓</u>	<u>✓</u>			LB	_____	3 PT	_____	_____
INST	<u>✓</u>	<u>✓</u>			UN/RES	_____	A/B	_____	_____

* OCCUPANT CONTACTS

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

* SEAT STATUS both locked rearward

* DOOR STATUS LT opened OK RT opened OK

* ANOMALIES- MECH _____ ELECT _____

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

FUEL SYSTEM TYPE- MPI

* INSTRUMENTATION CONVENTIONAL ✓ OBDAS# _____

* SUPPORT MECHS EXC TECHS EXC PHOTOGS EXC

* REPORT REQUIRED NO ✓ YES _____

TEST-ENGINEER J. P. Manney DATE 12/22/85

INTER COMPANY CORRESPONDENCE

FILE DCR010489

DATE 01/17/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
2530

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:
DYNAMIC CRUSH ANALYSIS
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
TEST DATE 12/22/88

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: ZJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4??7L?M* [REDACTED] MOD.
VIN AS BUILT: 1JCHL77*9HT [REDACTED] MOD.

TEST SPEED 30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS) 4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
RESTRAINT-UNIBELT

BUILD CONDITION



'91 ZJ "B" LEVEL FUEL TANK AND LINES (23 GALLON).
5000# TRAILER HITCH.
SUN ROOF.

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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

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 20.9 +OR- 1 INCH AT 78. +OR- 5 MSEC.

W. J. MACINTYRE

J. W. HANIKA

CC	
W. A. BREITMOSER	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. W. KOEBNICK	422-05-01
L. C. MILLER	514-00-00
W. D. NIXON	422-42-22
A. J. REGAN	418-42-22
H. G. ROULEAU	422-05-01
E. A. ZYLIK	514-15-17

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
01/06/89 10.10
TEST VC3790

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

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

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

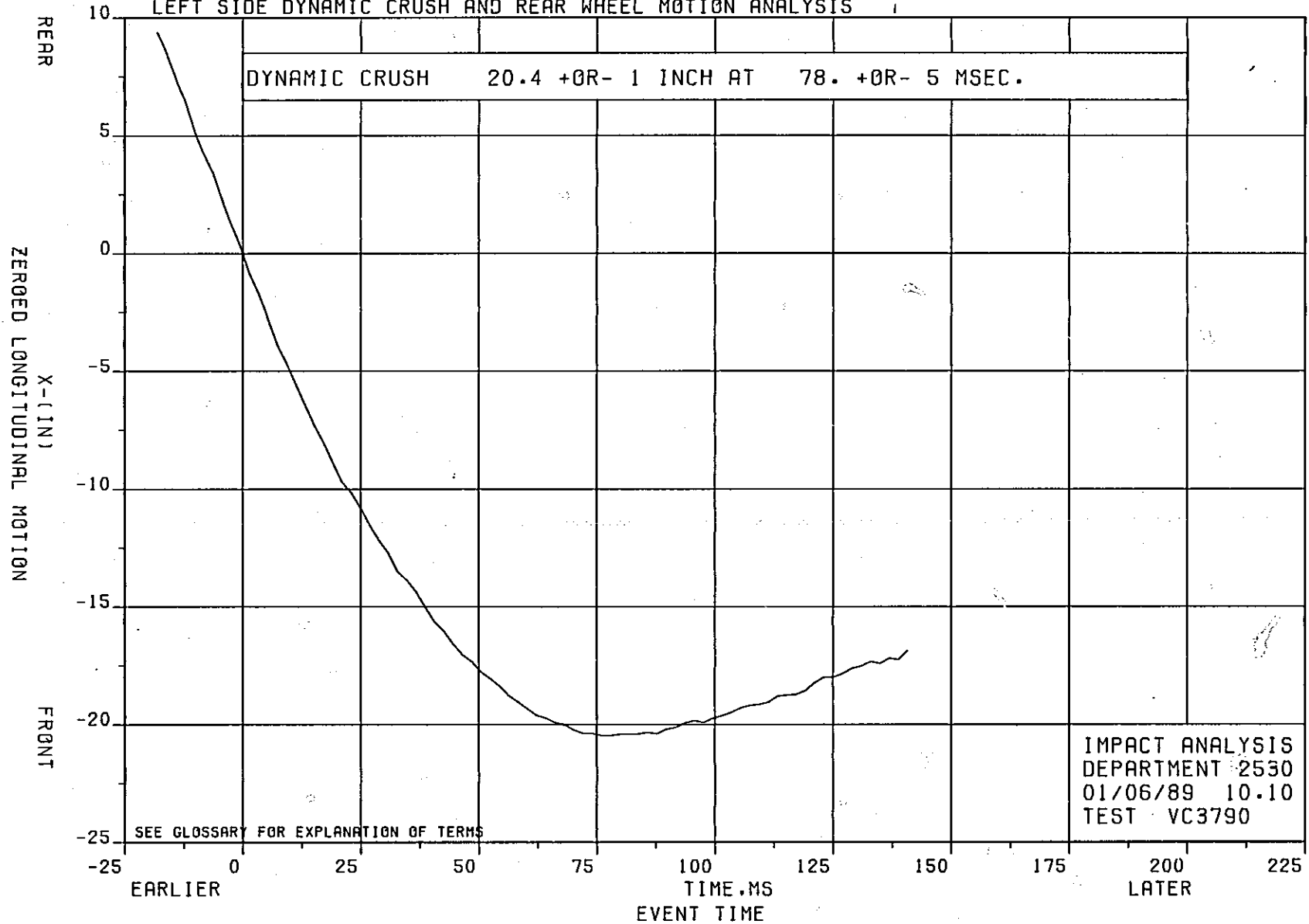


FIGURE 1

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. 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

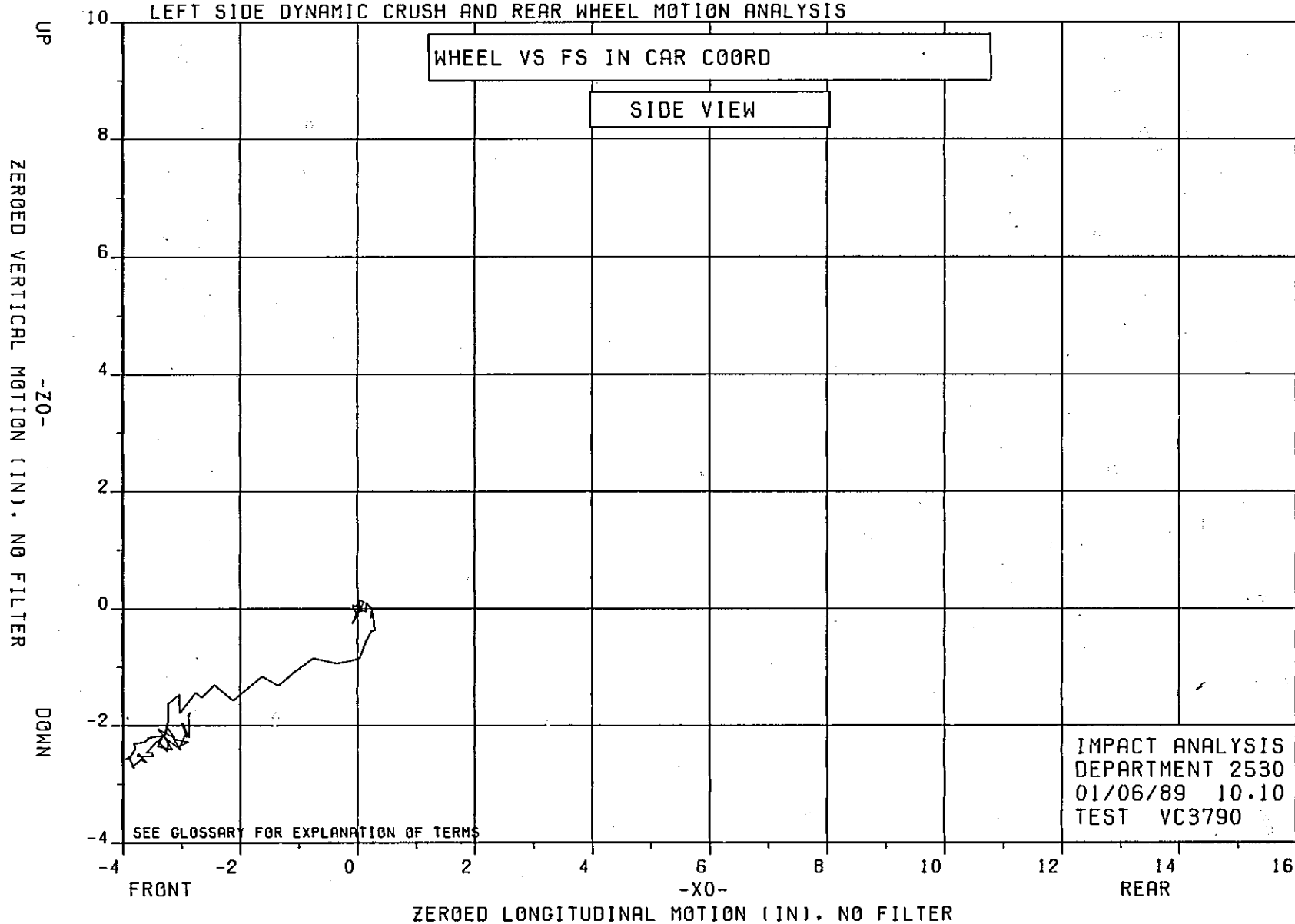


FIGURE 2

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, 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

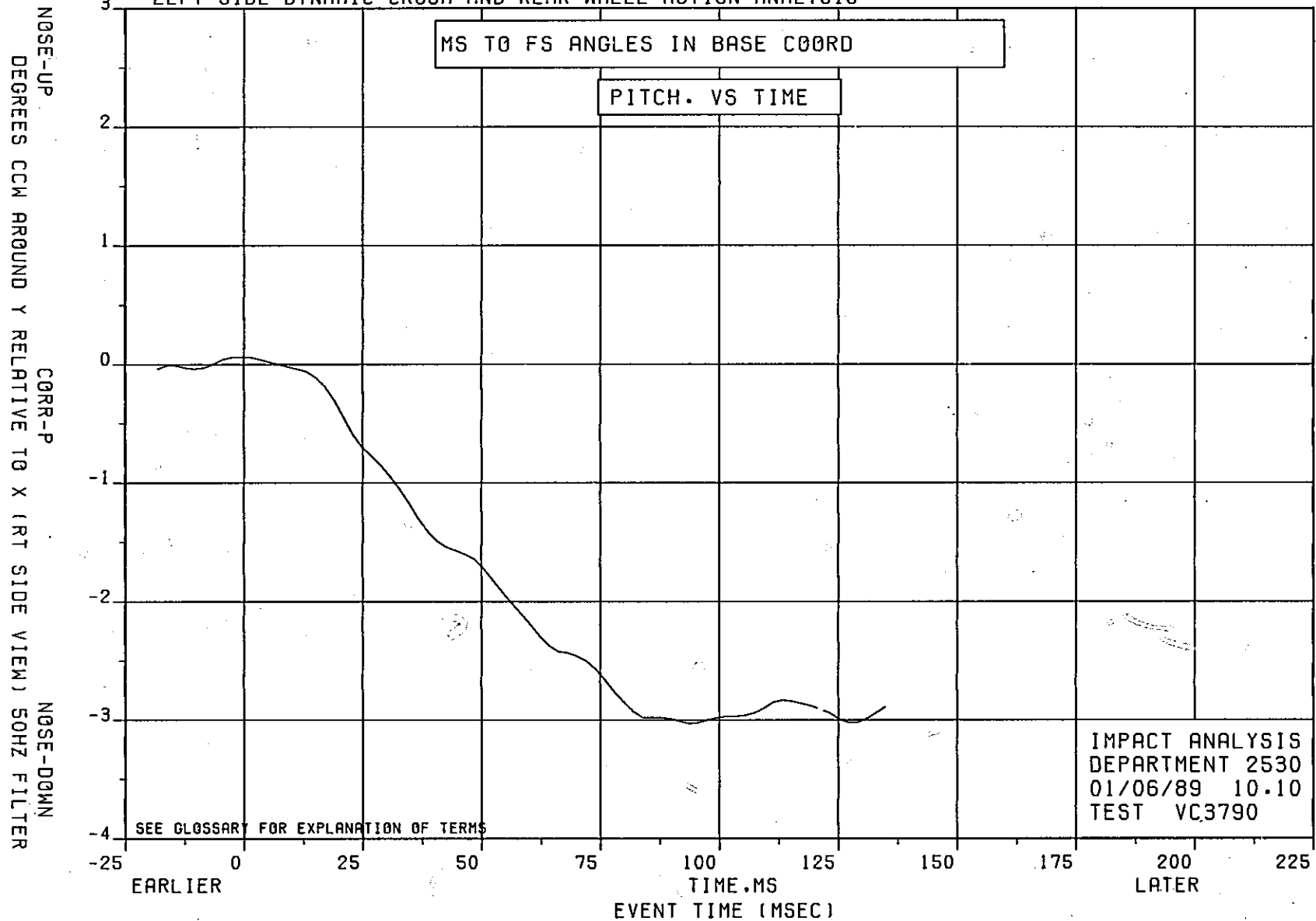


FIGURE 3

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

MS TO FS DISTANCE -30.20(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

LEFT SIDE DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

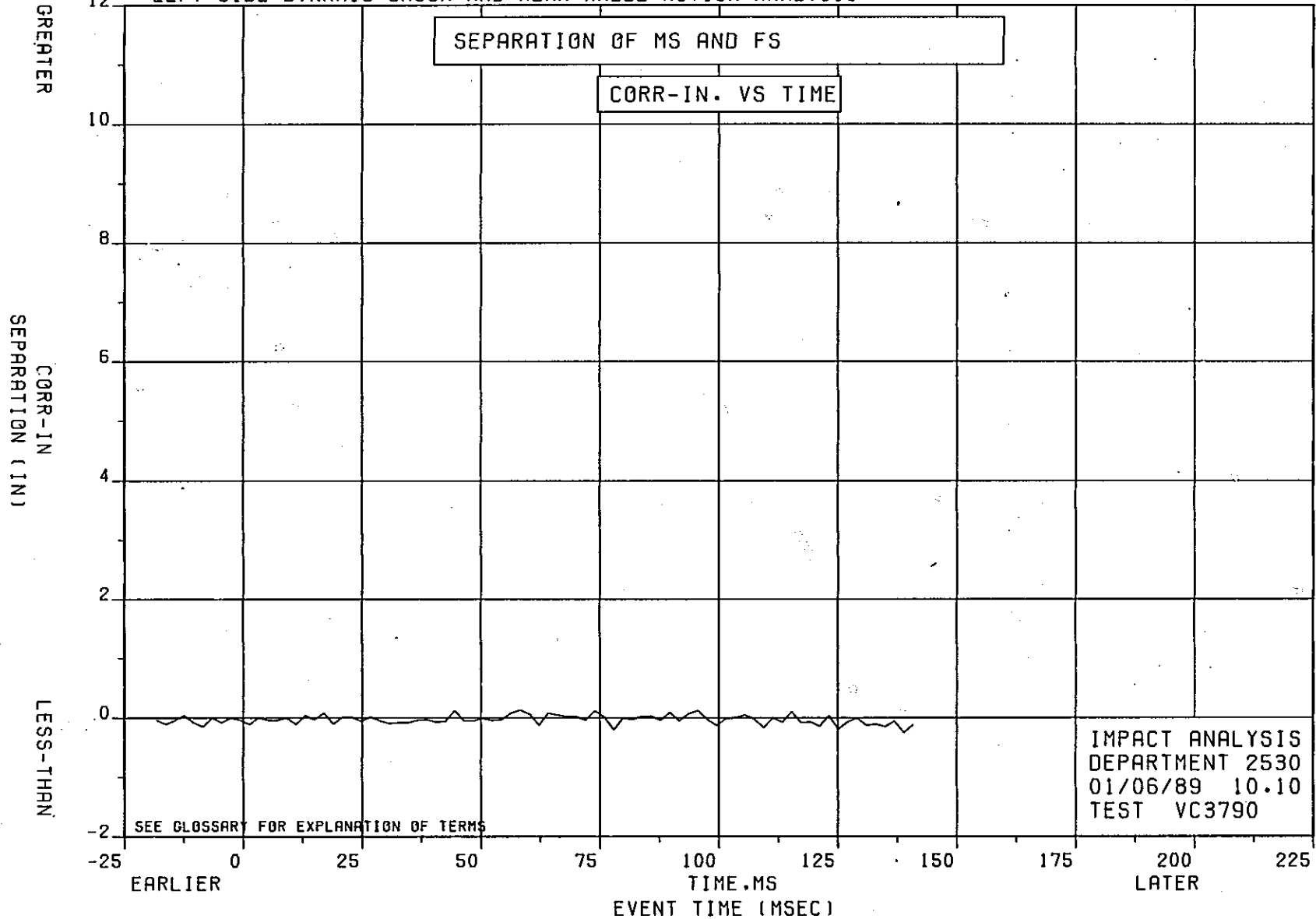


FIGURE 4

VC3790

ELECTRONIC TRANSDUCER DATA

TEST DATE:
12/22/88

TEST DATE:
12/22/88

ELECTRONIC TRANSDUCER DATA

VC3790

ITEM NO: 7XJ40

DATA SET
12/22/88PC

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 42 GRAPHS

VC3790 30 MPH REAR IMPACT, ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. 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: ZJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4??7L?M* [REDACTED] MOD.
VIN AS BUILT: 1JCHL77*9HT [REDACTED] MOD.

TEST SPEED: 30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS): 4306 TOTAL. 2124 FRONT. 2182 REAR

OCCUPANTS: LEFT FRONT 50TH MALE. INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE. INSTRUMENTED. AD-62
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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

VC3790

ELECTRONIC TRANSDUCER DATA

TEST DATE:
12/22/88

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

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

- A 5- 8 TRANSDUCER SUMMARY REPORT
- A 9- 10 AVERAGE OF SILLS
- B 7- 12 LEFT FRONT DUMMY'S CHEST PLOTS (CHEST AP. DATA NOISY)
- B 2- 13 RIGHT FRONT DUMMY'S CHEST PLOTS
- F.G 1 LT RAIL MID X
- F.G 2 RT RAIL MID X
- F.G 3 RT RAIL MIDTHANK X
- F.G 4 RT RAIL MIDTHANK Z
- F.G 5 LEFT FRONT SILL X
- F.G 6 RIGHT FRONT SILL X (INST. MALFUNCTION)
- F.G 7 LEFT REAR SILL X
- F.G 8 LEFT REAR SILL Z
- F.G 9 RIGHT REAR SILL X
- F.G 10 RIGHT REAR SILL Z
- F.G 11 LT RAIL MBAR MID X
- F.G 12 RT RAIL MBAR MID X

- CC J. M. BERLINER 422-05-01
- W. A. BREITMOSER 422-05-01
- J. W. HANIKA 418-42-22
- W. W. KOEBNICK 422-05-01
- T. P. MAULE 422-05-01
- L. C. MILLER 514-00-00
- W. D. NIXON 422-42-22
- A. J. REGAN 418-42-22
- H. G. ROULEAU 422-05-01
- E. A. ZYLIK 514-15-17

TEST DATE:
12/22/88

ELECTRONIC TRANSDUCER DATA

VC3790

ITEM NO:7XJ40

DATA SET
12/22/88PC

IMPACT ANALYSIS
DEPARTMENT 5320
CODE EDP

M. Y. TRUSEL

J. W. HANIKA

MICROFICHE INCLUDED 42 GRAPHS

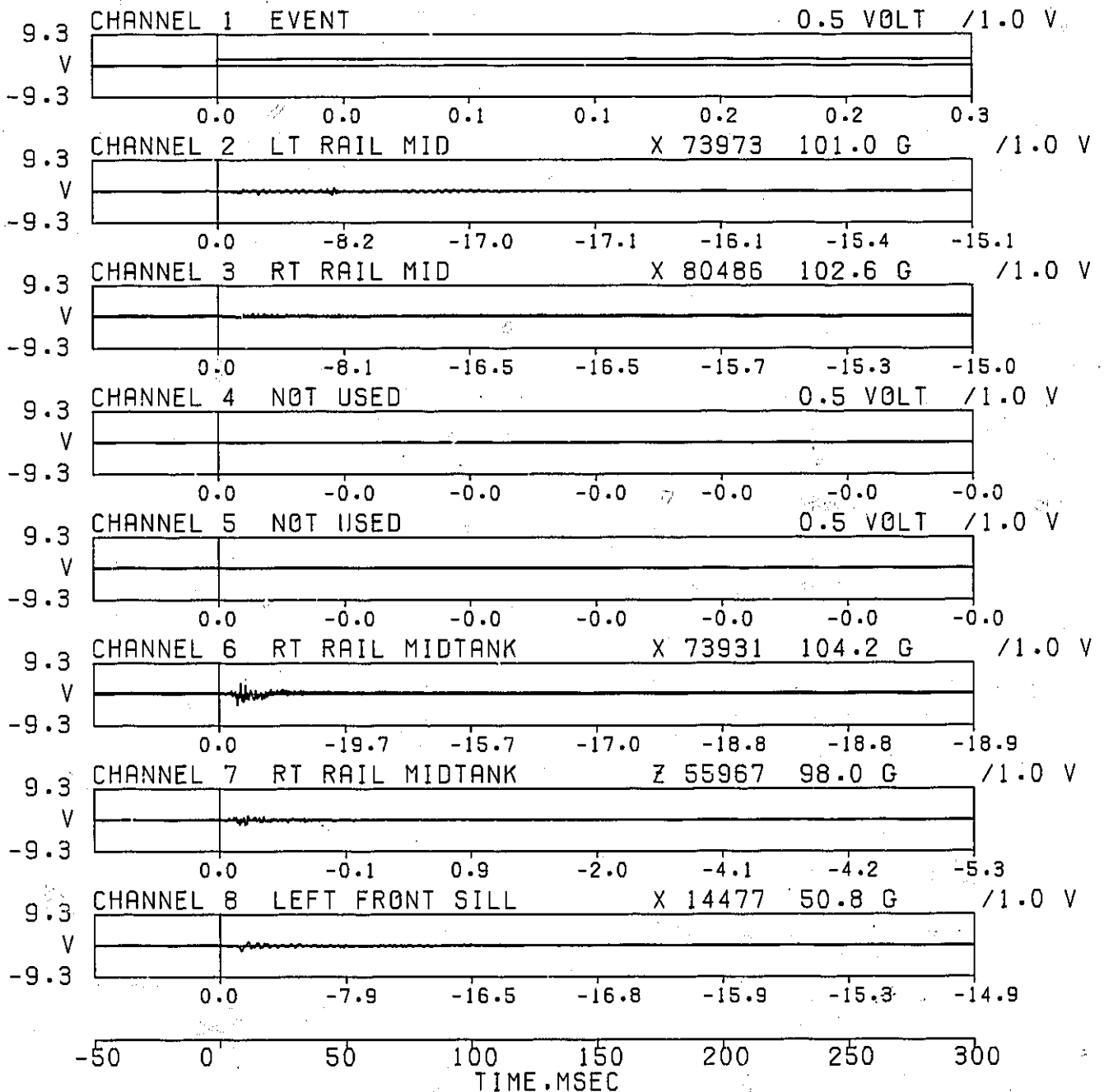
TRANSDUCER SUMMARY REPORT

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 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

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

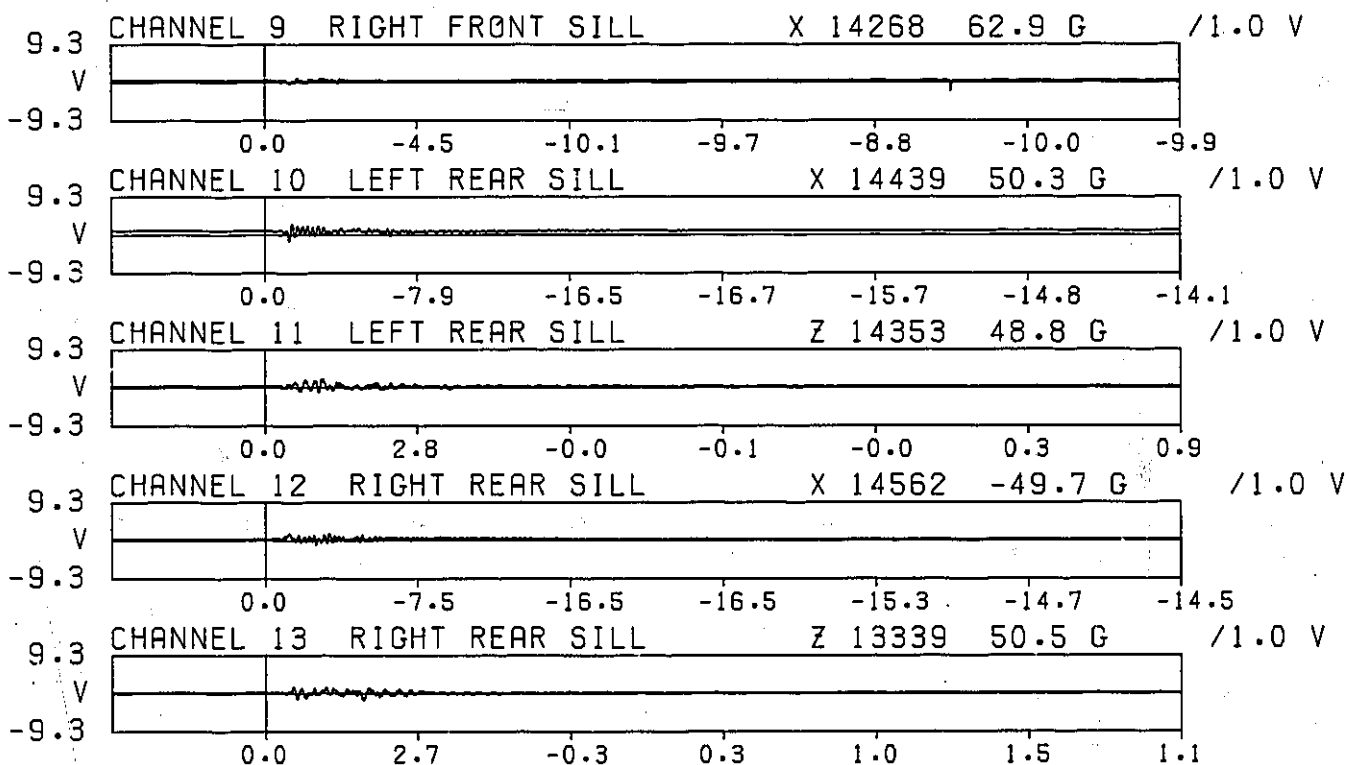
IMPACT ANALYSIS DEPT. 2530

DATA SET 12/22/88PC

JAN 4.1989

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-.

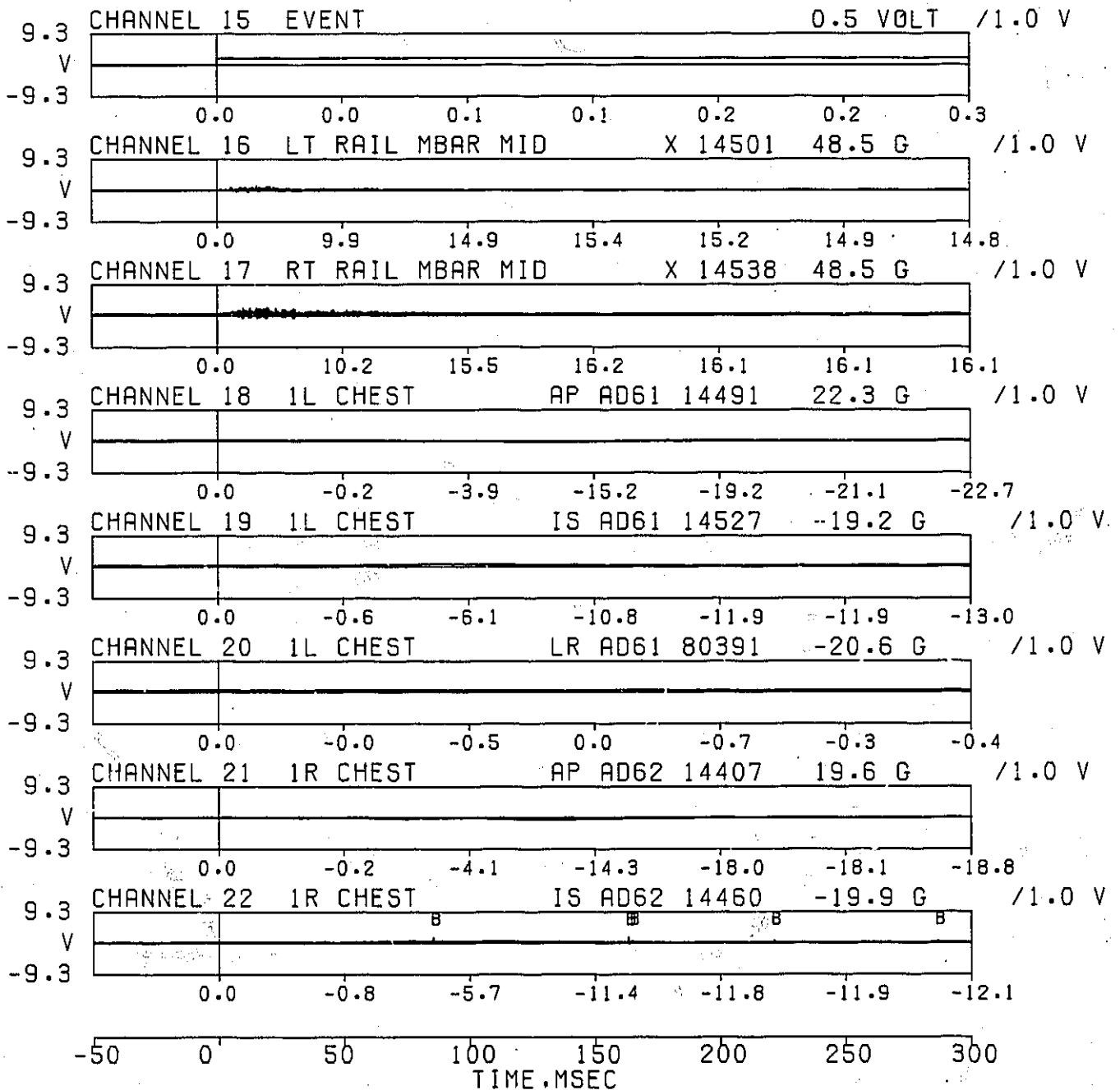
TRANSDUCER SUMMARY REPORT

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PD
 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

VC3790-30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

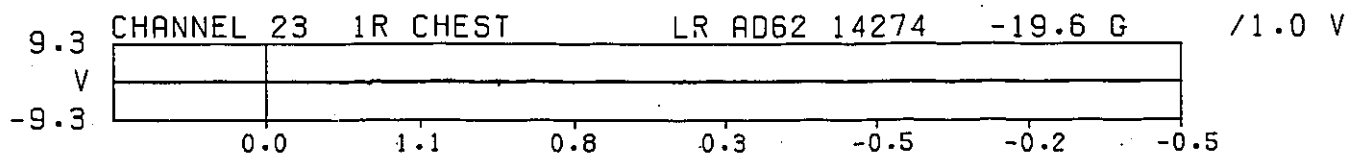
IMPACT ANALYSIS DEPT. 2530

DATA SET 12/22/88PD

JAN 4.1989

ERRATA 1

-50 0 50 100 150 200 250 300



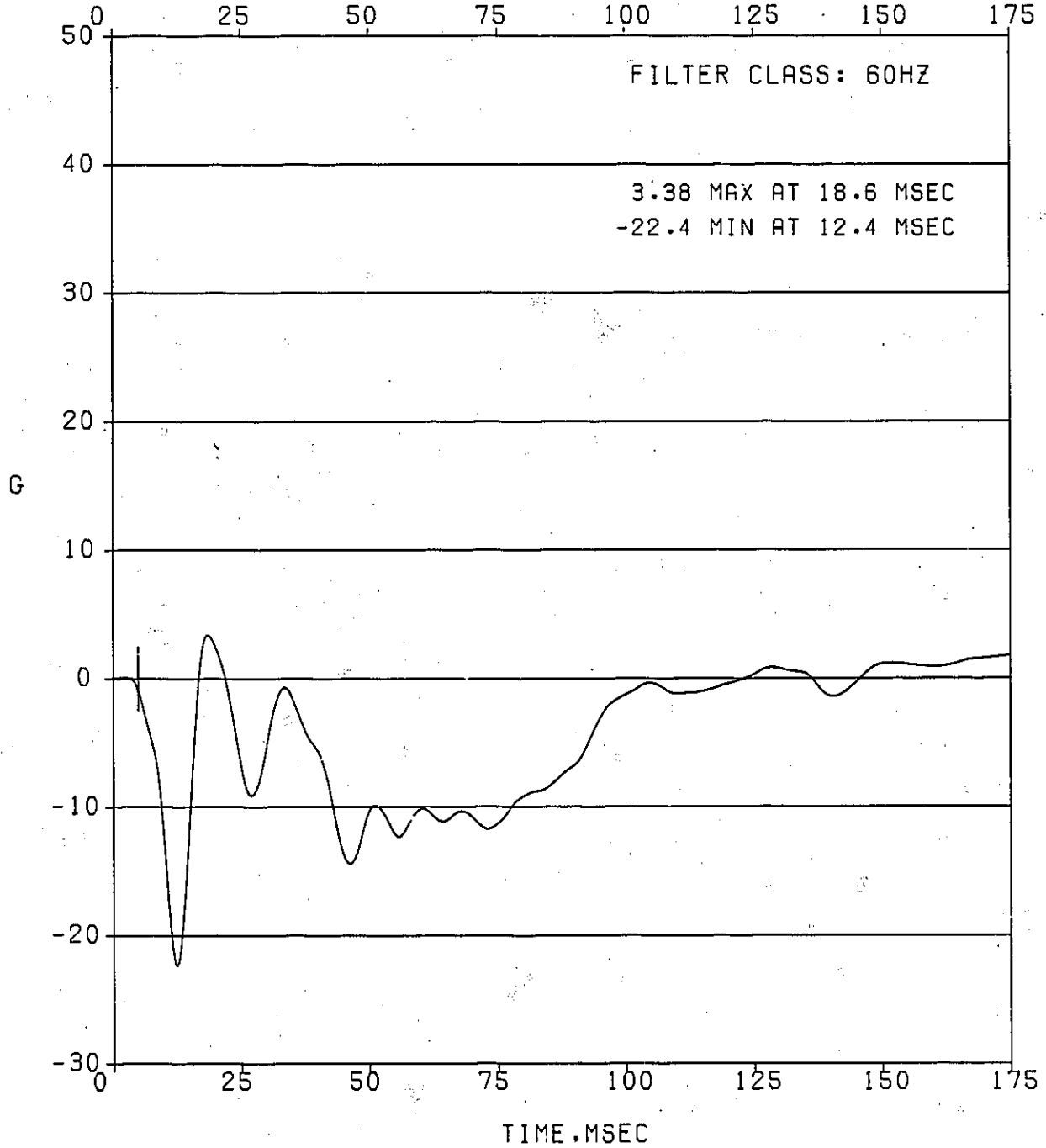
-50 0 50 100 150 200 250 300
TIME, MSEC

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

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

AVERAGE OF CHANNEL 8 LEFT FRONT SILL X 14477
CHANNEL 10 LEFT REAR SILL X 14439
CHANNEL 12 RIGHT REAR SILL X 14562

FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 2530 DATA SET 12/22/88PC
JAN 4, 1989 ERRATA 1



*****CAUTION*****
*****RIGHT FRONT SILL X. INST. MALFUNCTION*****

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

AVERAGE OF CHANNEL 10 LEFT REAR SILL X 14439
CHANNEL 12 RIGHT REAR SILL X 14562

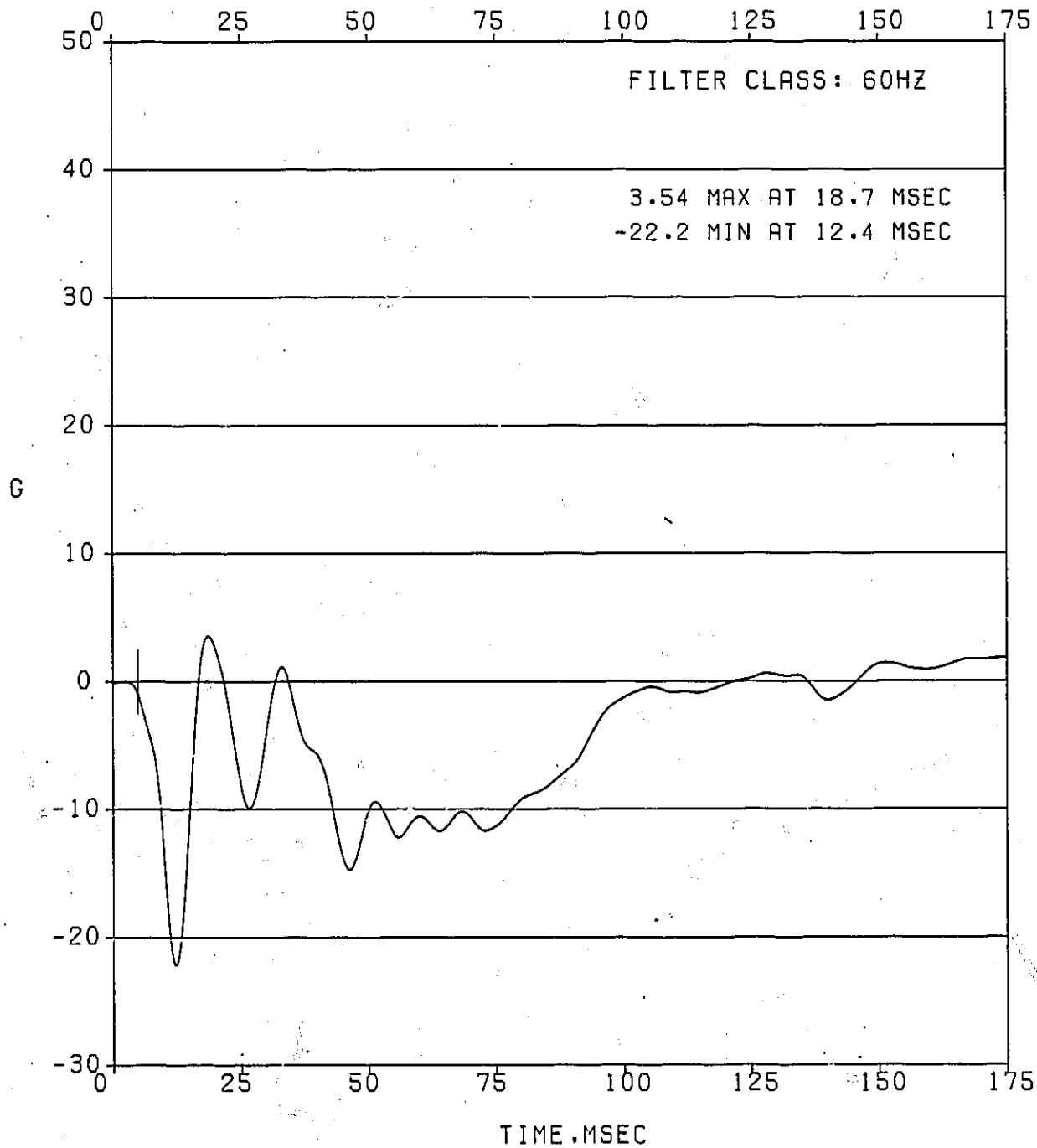
FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86

IMPACT ANALYSIS DEPT. 2530

DATA SET 12/22/88PC

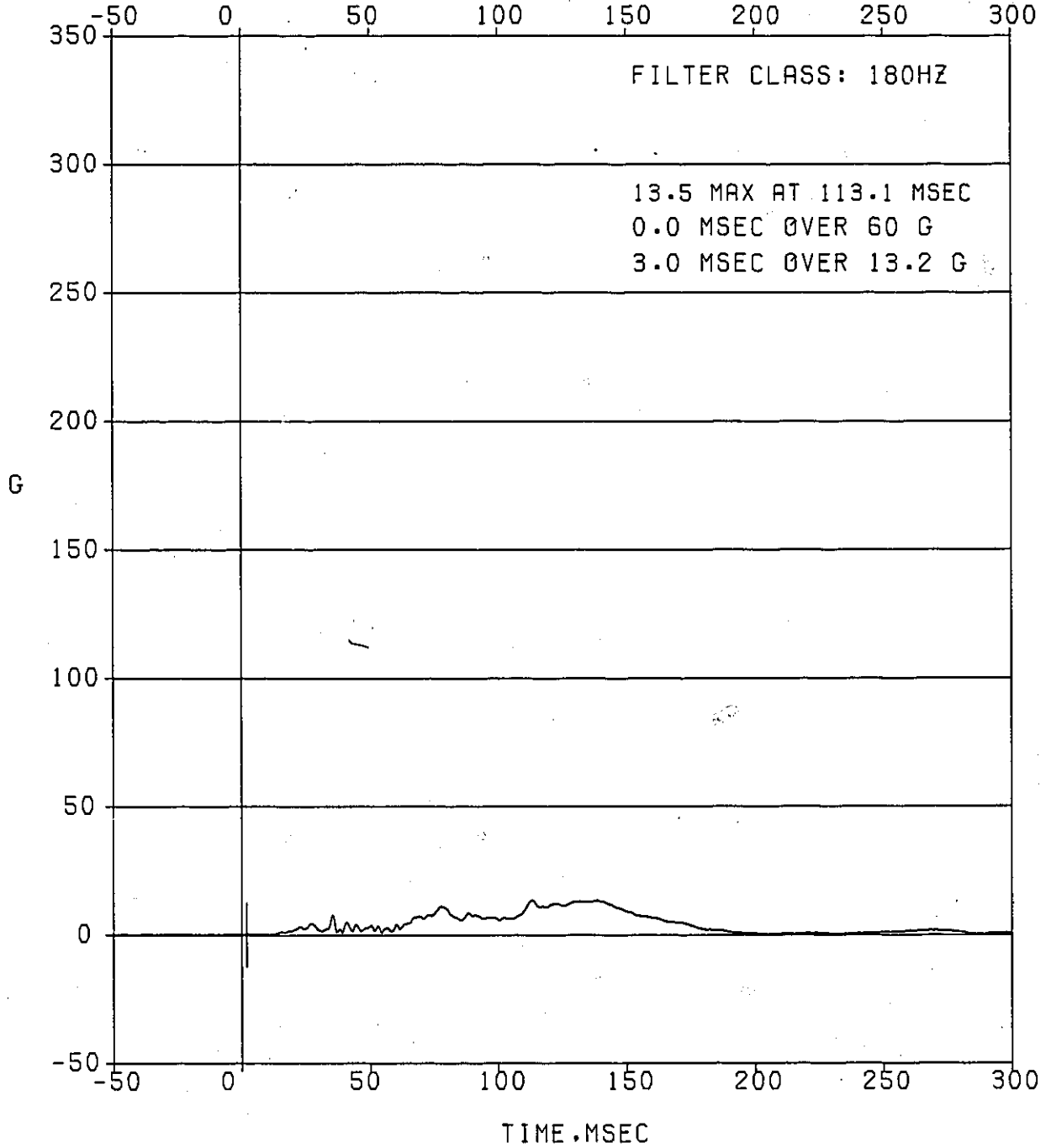
JAN 4.1989

ERRATA 1



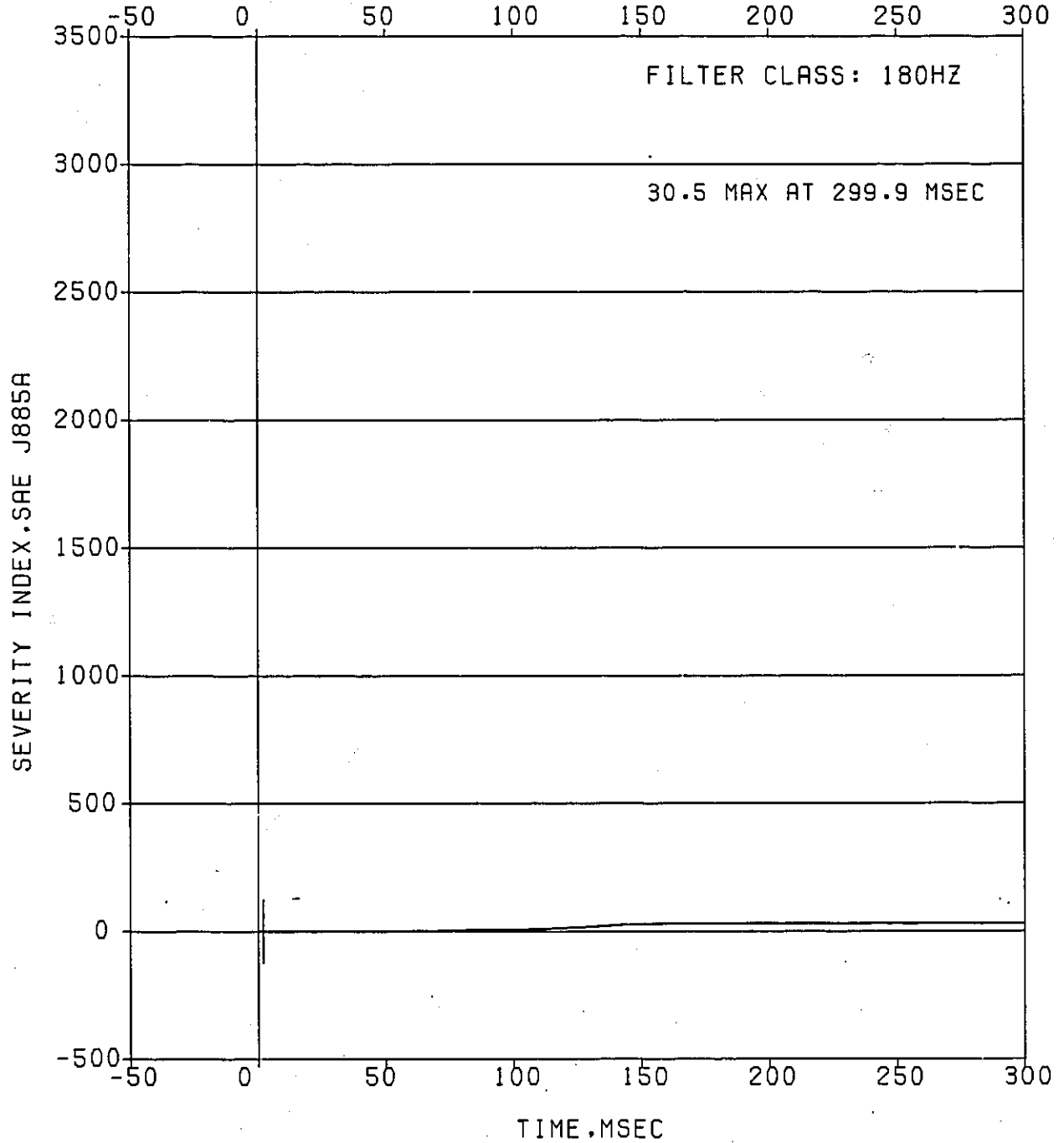
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
RESULTANT OF CHANNEL 21 1R CHEST AP AD62 14407
CHANNEL 22 1R CHEST IS AD62 14460
CHANNEL 23 1R CHEST LR AD62 14274

FILTER TYPE: SAE J211B/80 DC C180(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 2530 DATA SET 12/22/88PD
JAN 4.1989 ERRATA 1



VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
RESULTANT OF CHANNEL 21 1R CHEST AP AD62 14407
CHANNEL 22 1R CHEST IS AD62 14460
CHANNEL 23 1R CHEST LR AD62 14274

FILTER TYPE: SAE J211B/80 DC C180(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 2530 DATA SET 12/22/88PD
JAN 4.1989 ERRATA 1

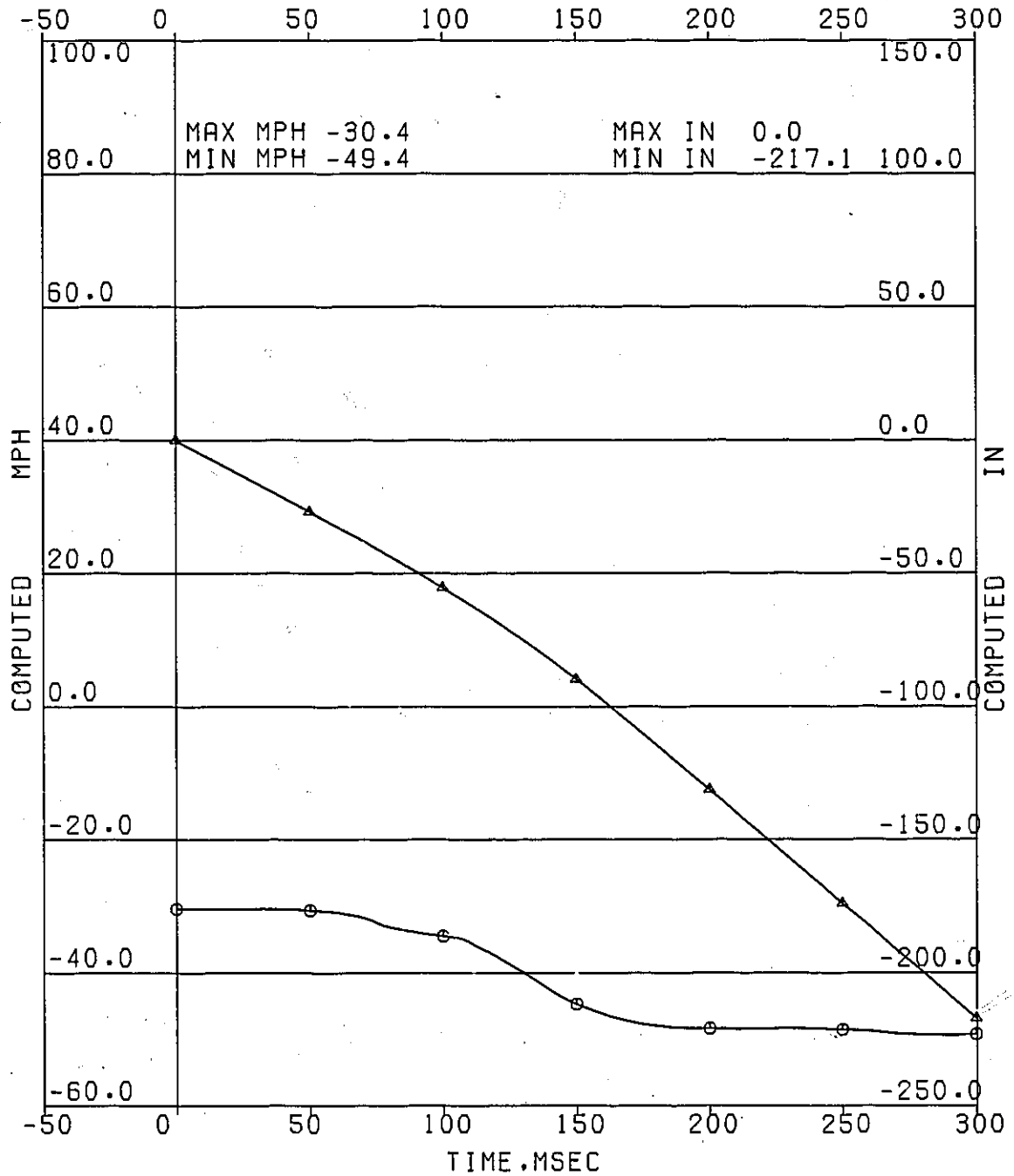


VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.
 CHANNEL 21 1R CHEST AP AD62 14407

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

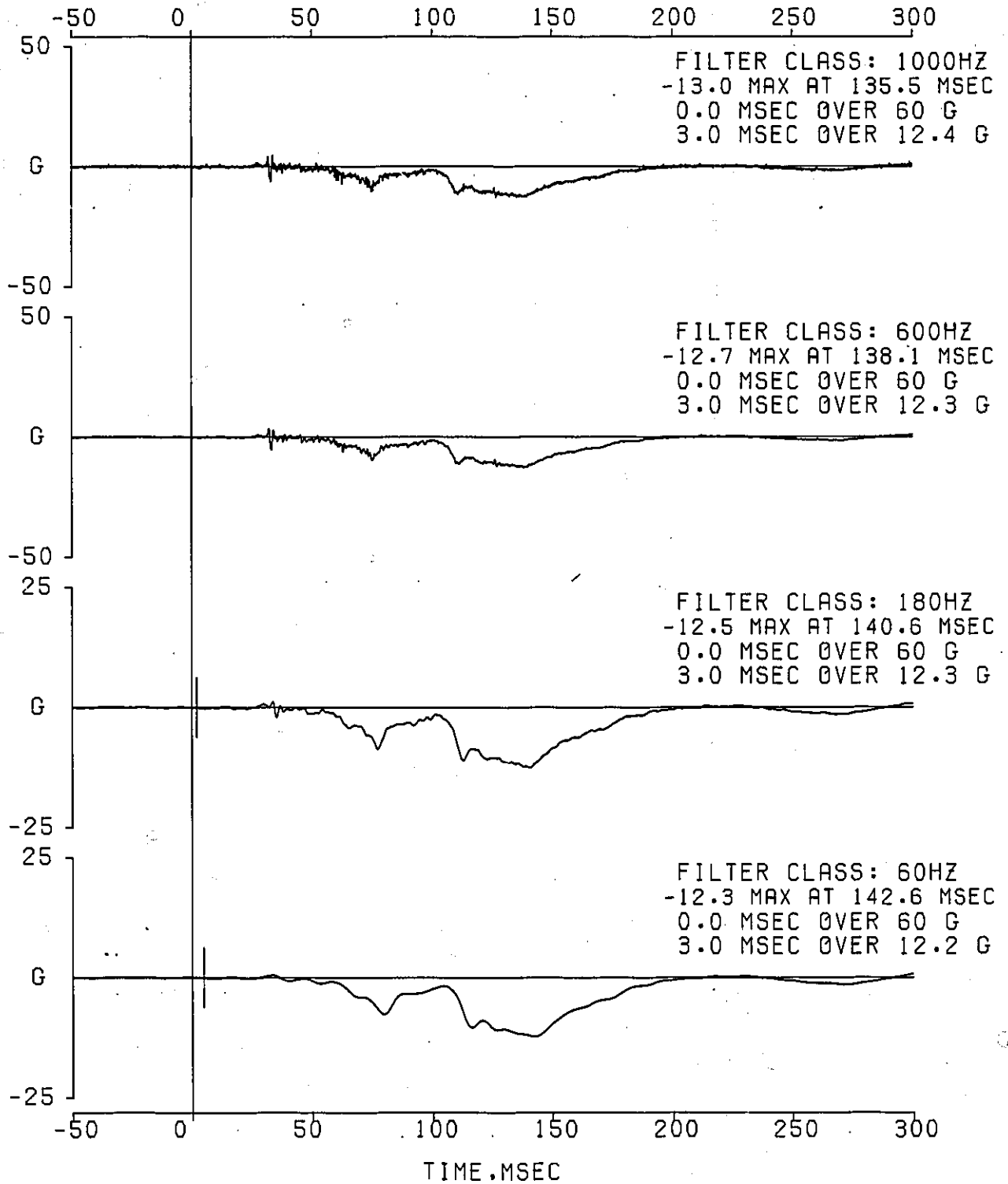
DATA SET 12/22/88PD
 ERRATA 1



○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

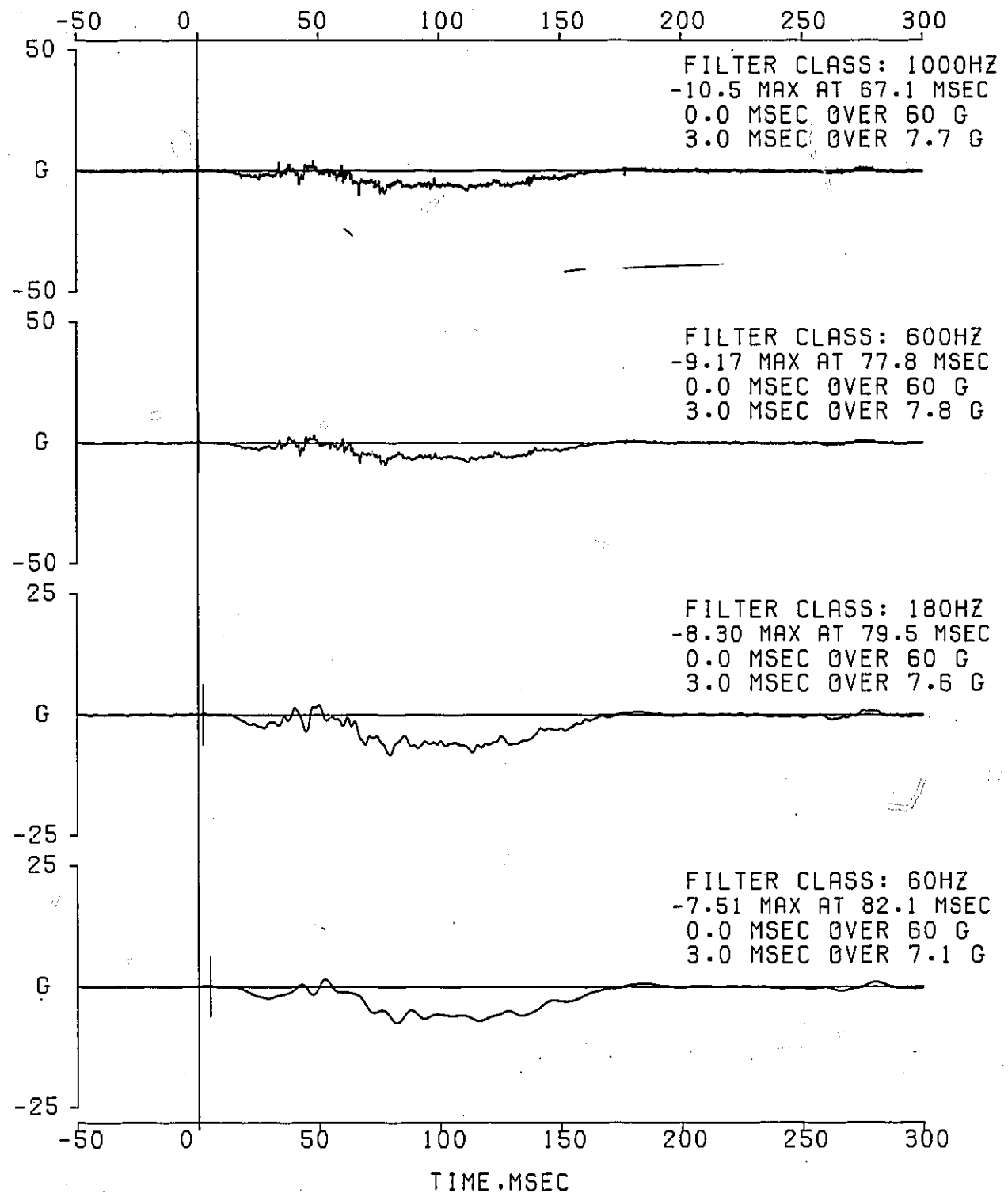
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 21 IR CHEST AP AD62 14407
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4,1989

DATA SET 12/22/88PD
ERRATA 1



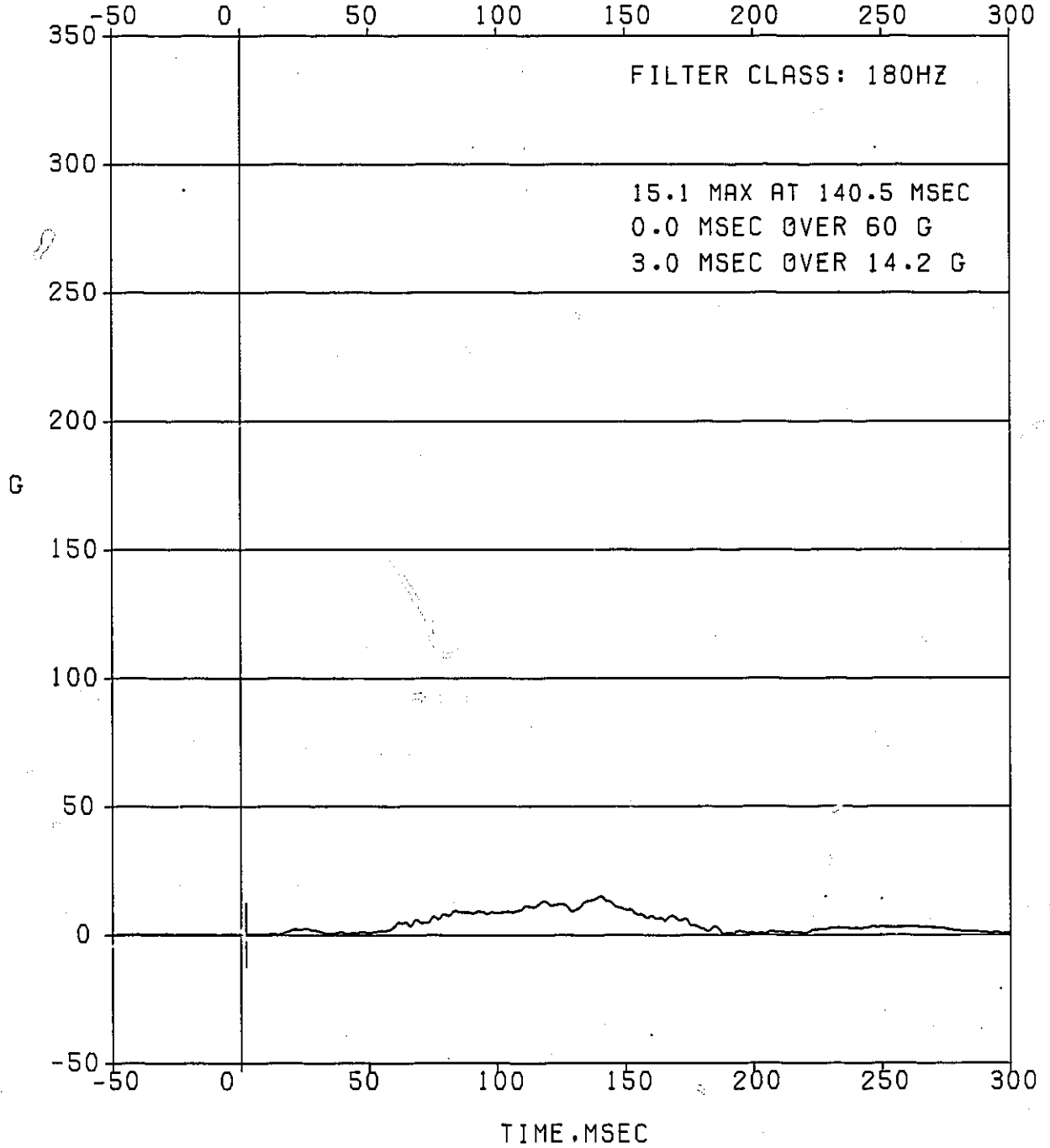
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 22 1R CHEST IS AD62 14460
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1



VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
RESULTANT OF CHANNEL 18 1L CHEST AP AD61 14491
CHANNEL 19 1L CHEST IS AD61 14527
CHANNEL 20 1L CHEST LR AD61 80391

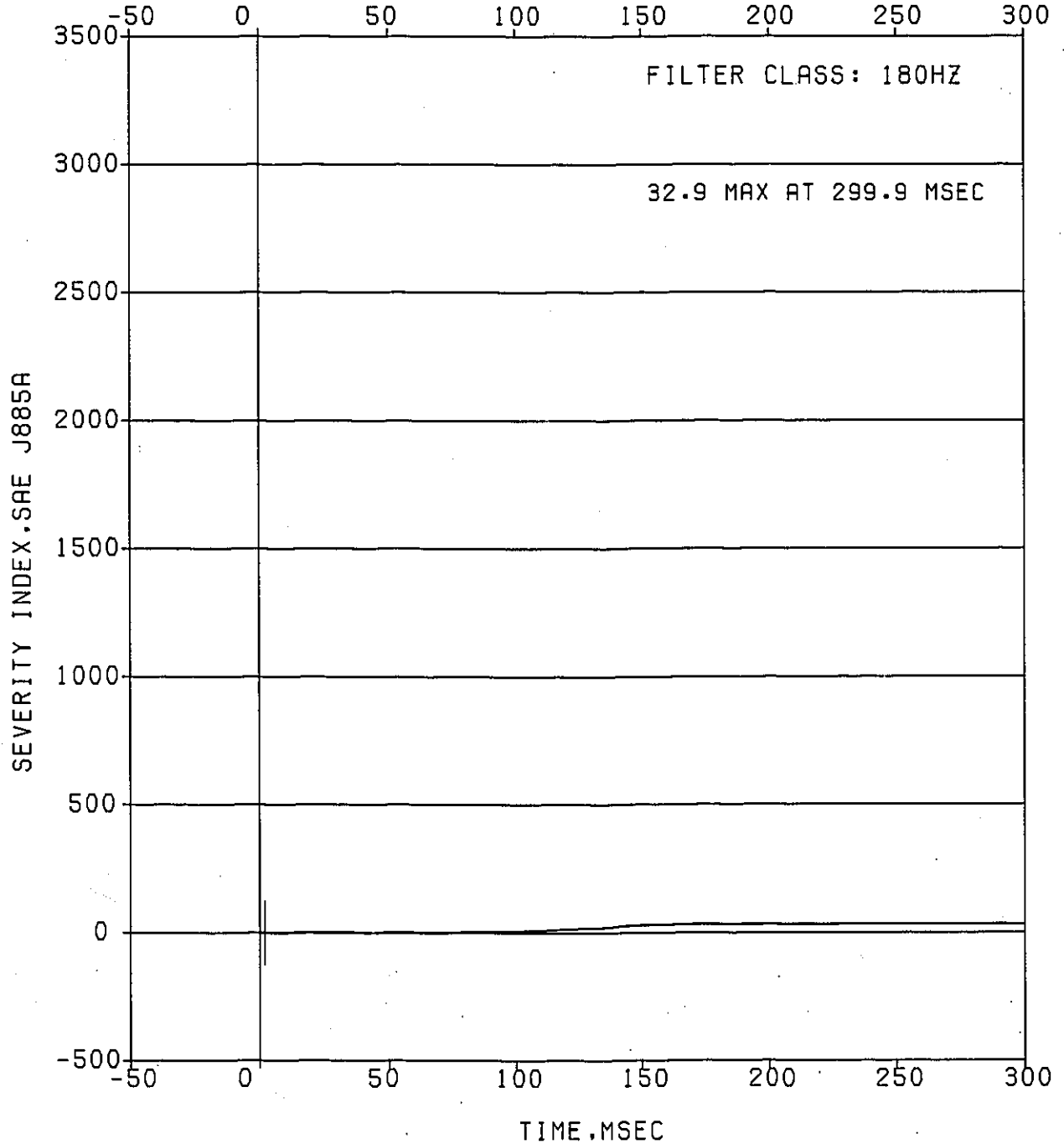
FILTER TYPE: SAE J211B/80 DC C180(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 2530 DATA SET 12/22/88PD
JAN 4.1989 ERRATA 1



*****CAUTION*****
*****1L CHEST AP. DATA IS NOISY*****

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 RESULTANT OF CHANNEL 18 1L CHEST AP AD61 14491
 CHANNEL 19 1L CHEST IS AD61 14527
 CHANNEL 20 1L CHEST LR AD61 80391

FILTER TYPE: SAE J211B/80 DC C180(TPF-R) EFF 3/24/86
 IMPACT ANALYSIS DEPT. 2530 DATA SET 12/22/88PD
 JAN 4.1989 ERRATA 1



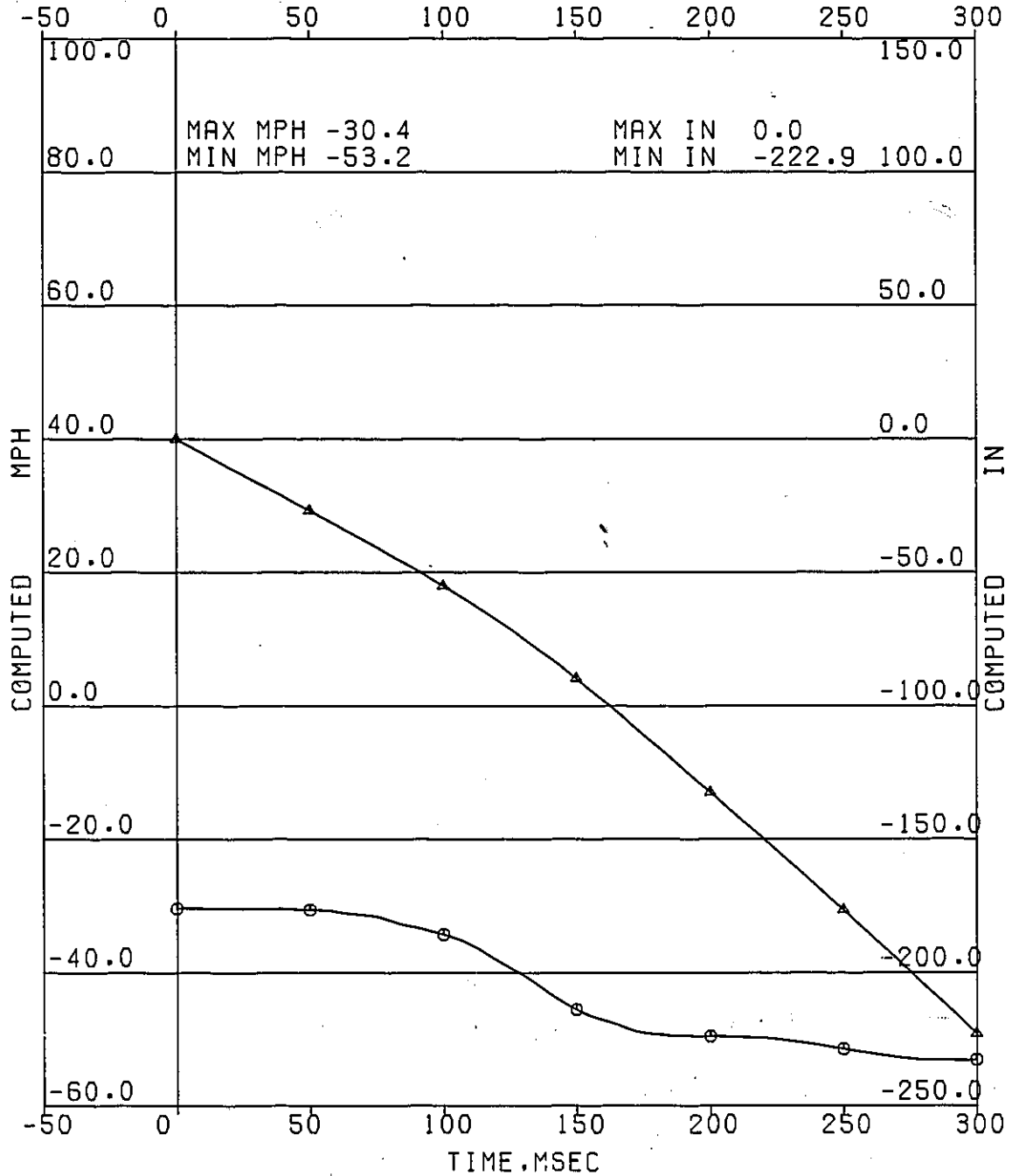
*****CAUTION*****
 *****1L CHEST AP. DATA IS NOISY*****

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 18 IL CHEST AP AD61 14491

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PD
 ERRATA 1



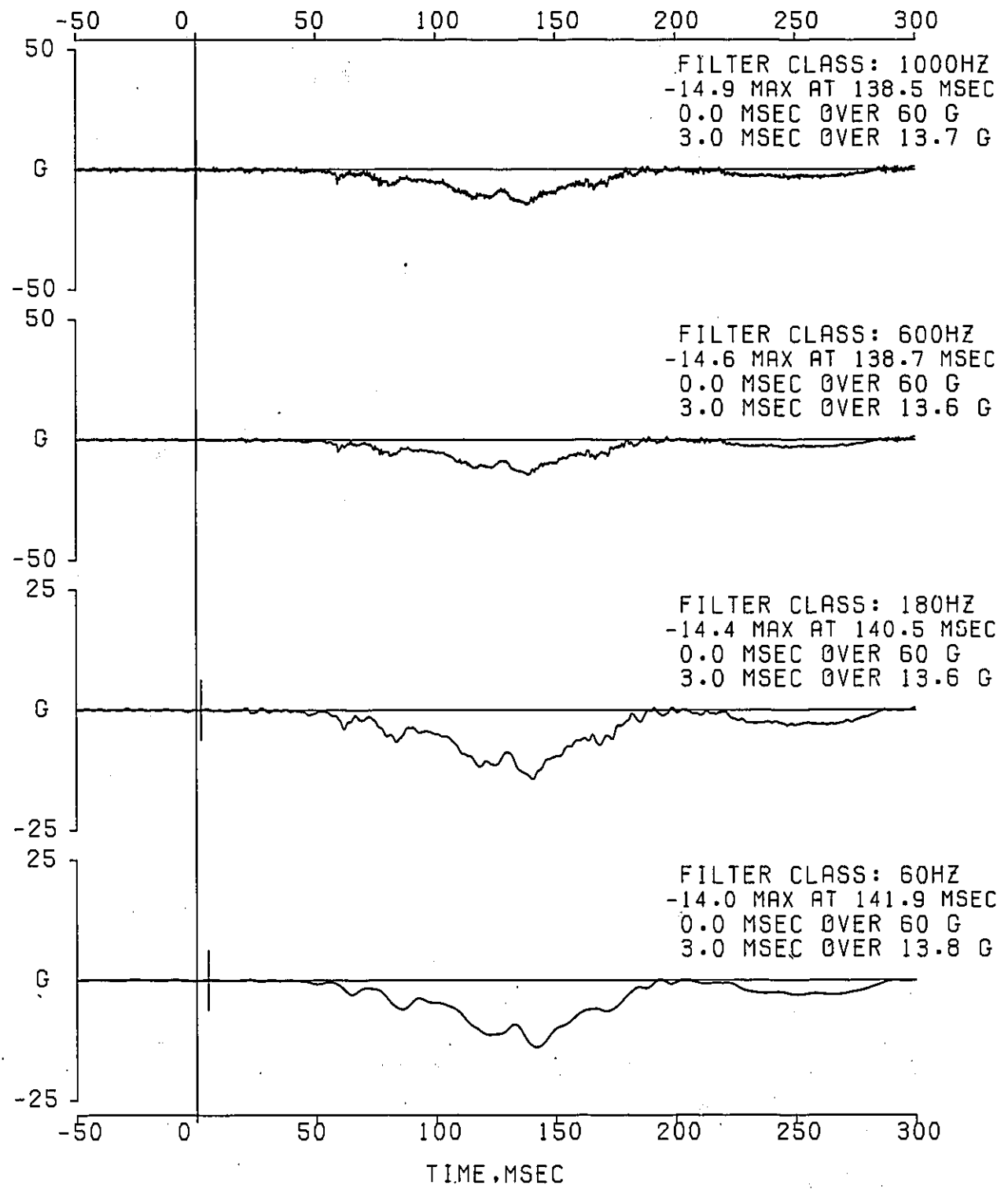
*****CAUTION*****
 *****IL CHEST AP. DATA IS NOISY*****

EA12-005- Chrysler -000266

○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 18 IL CHEST AP AD61 14491
 FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
 IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

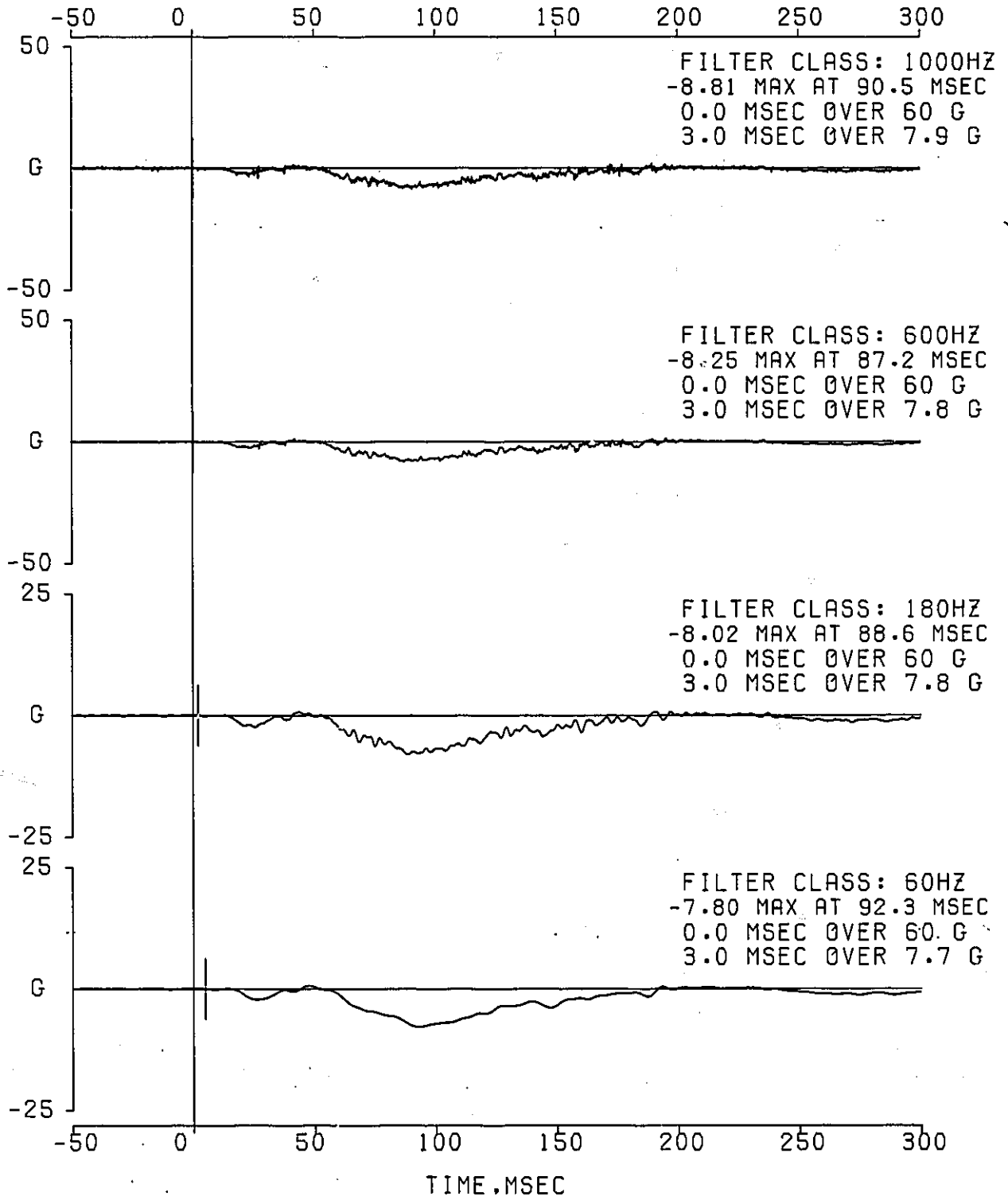
DATA SET 12/22/88PD
 ERRATA 1



*****CAUTION*****
 *****IL CHEST AP. DATA IS NOISY*****

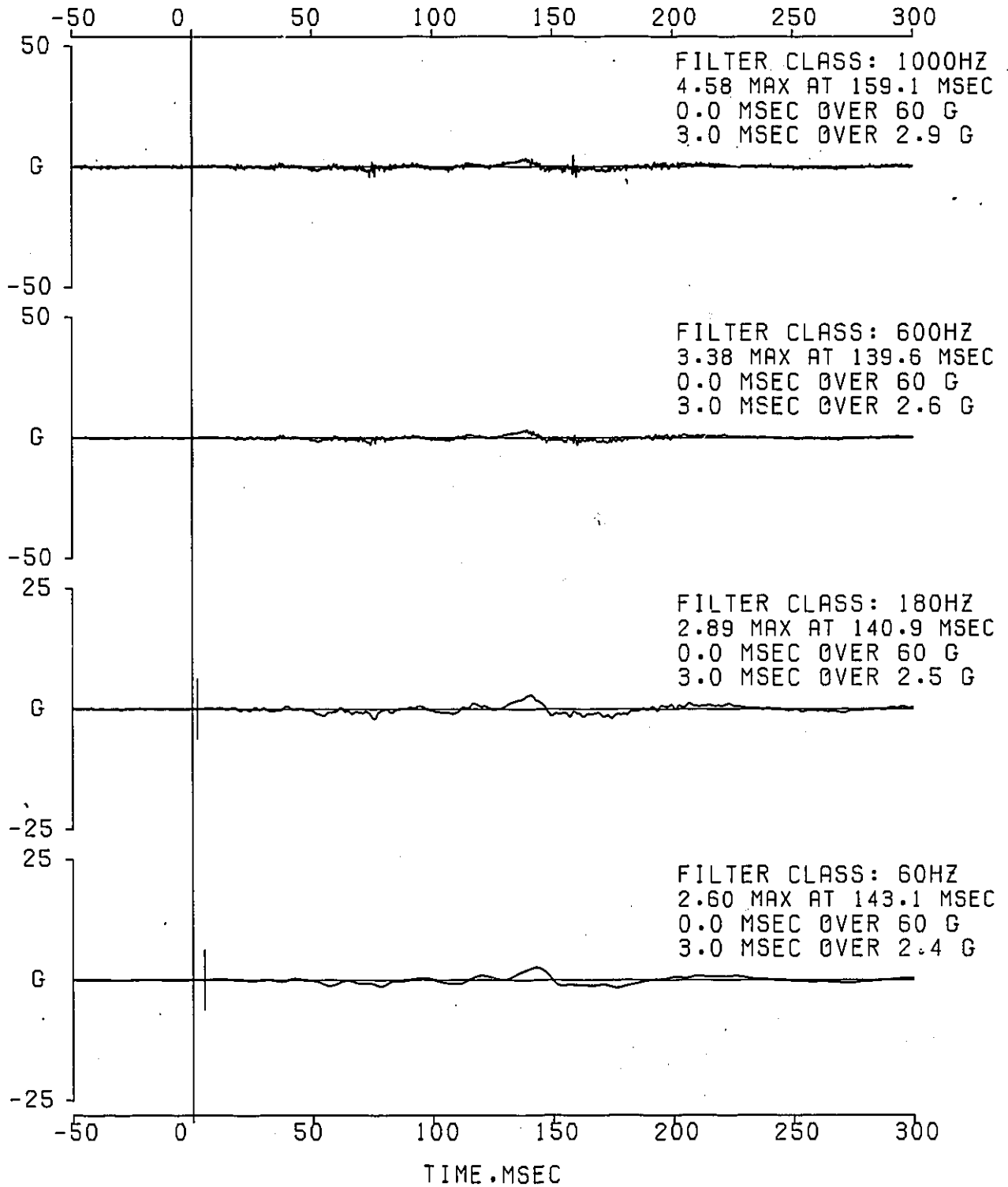
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 19 1L CHEST IS AD61 14527
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1



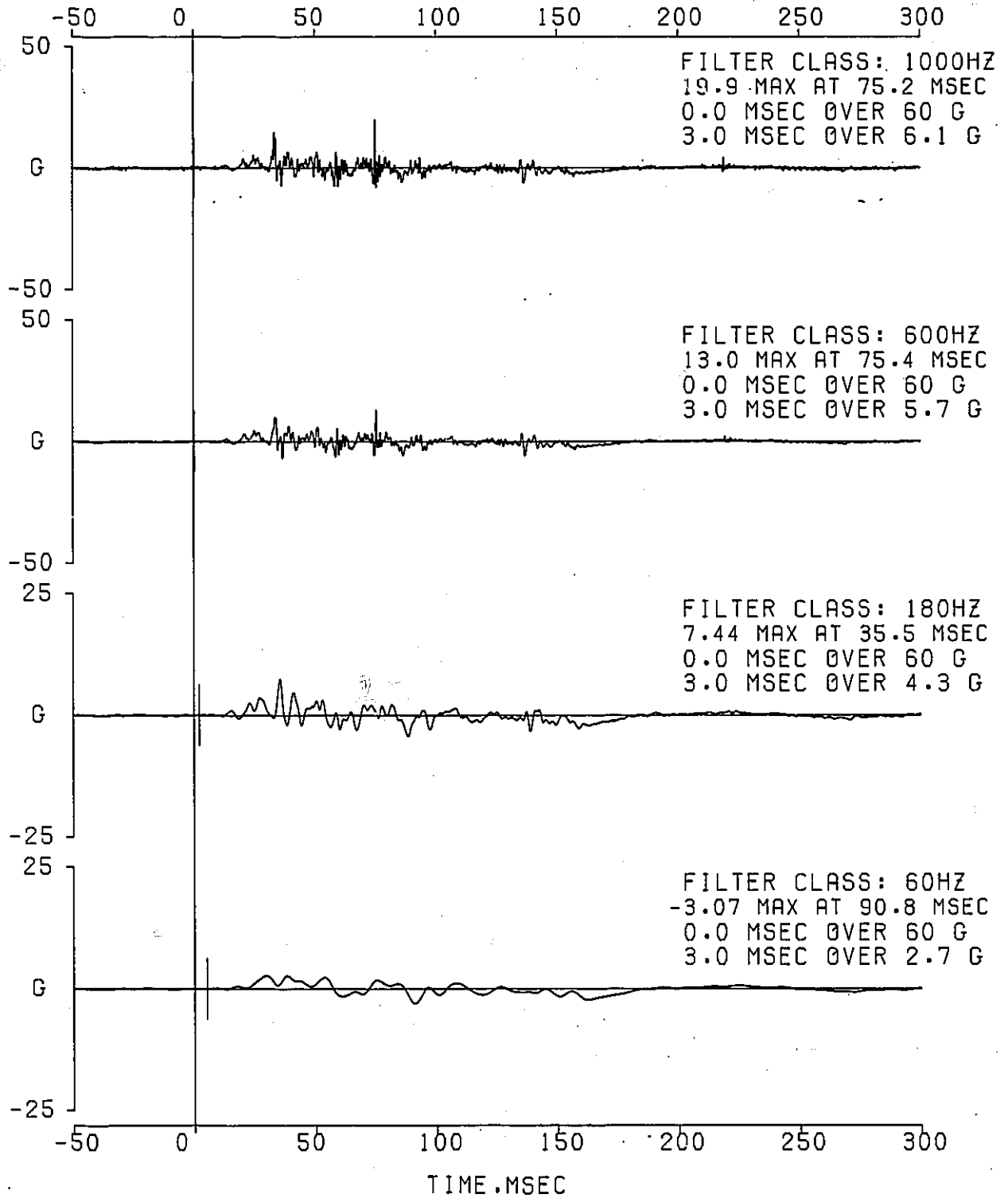
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 20 IL CHEST LR AD61 80391
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1



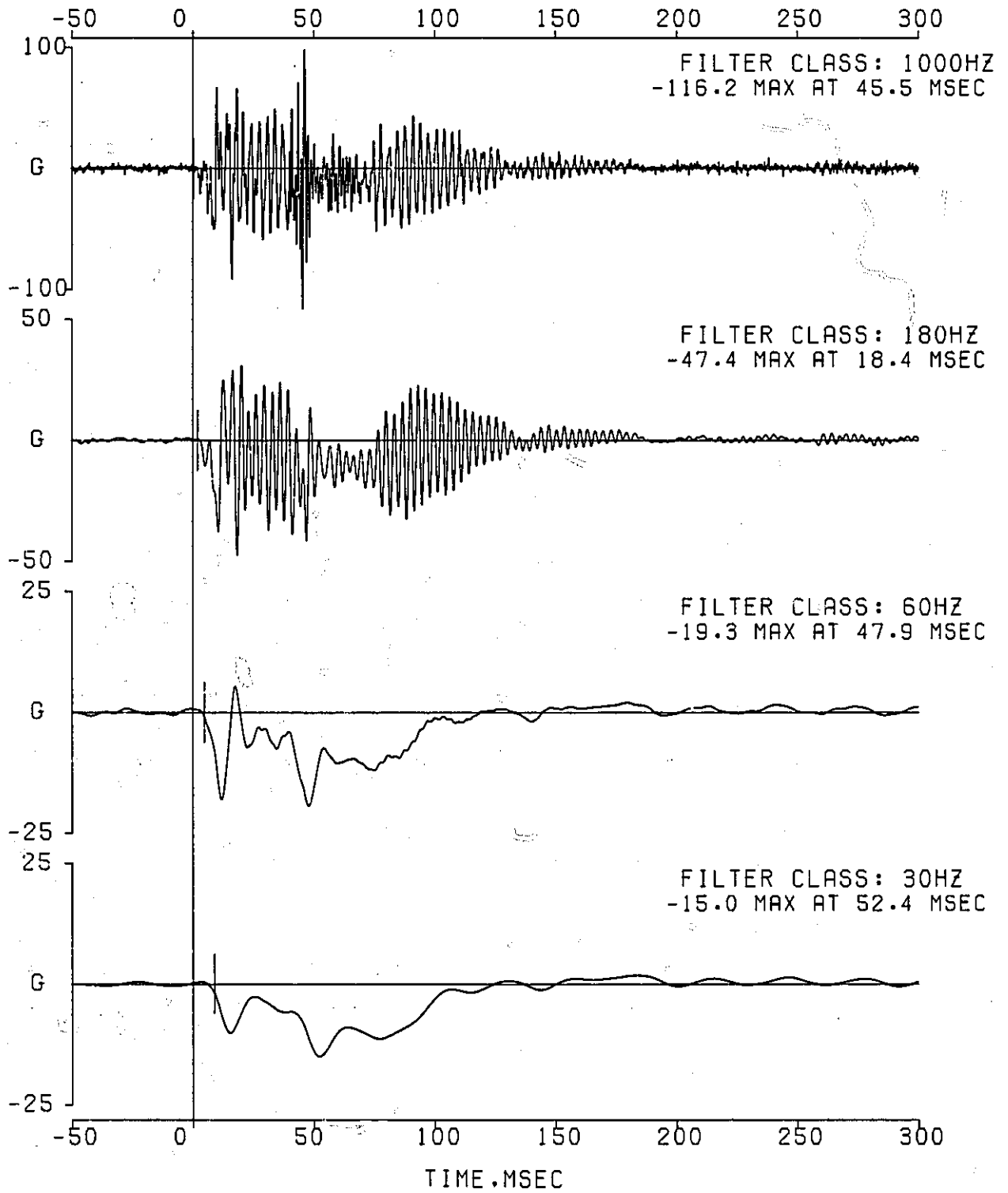
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 23 1R CHEST LR AD62 14274
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1



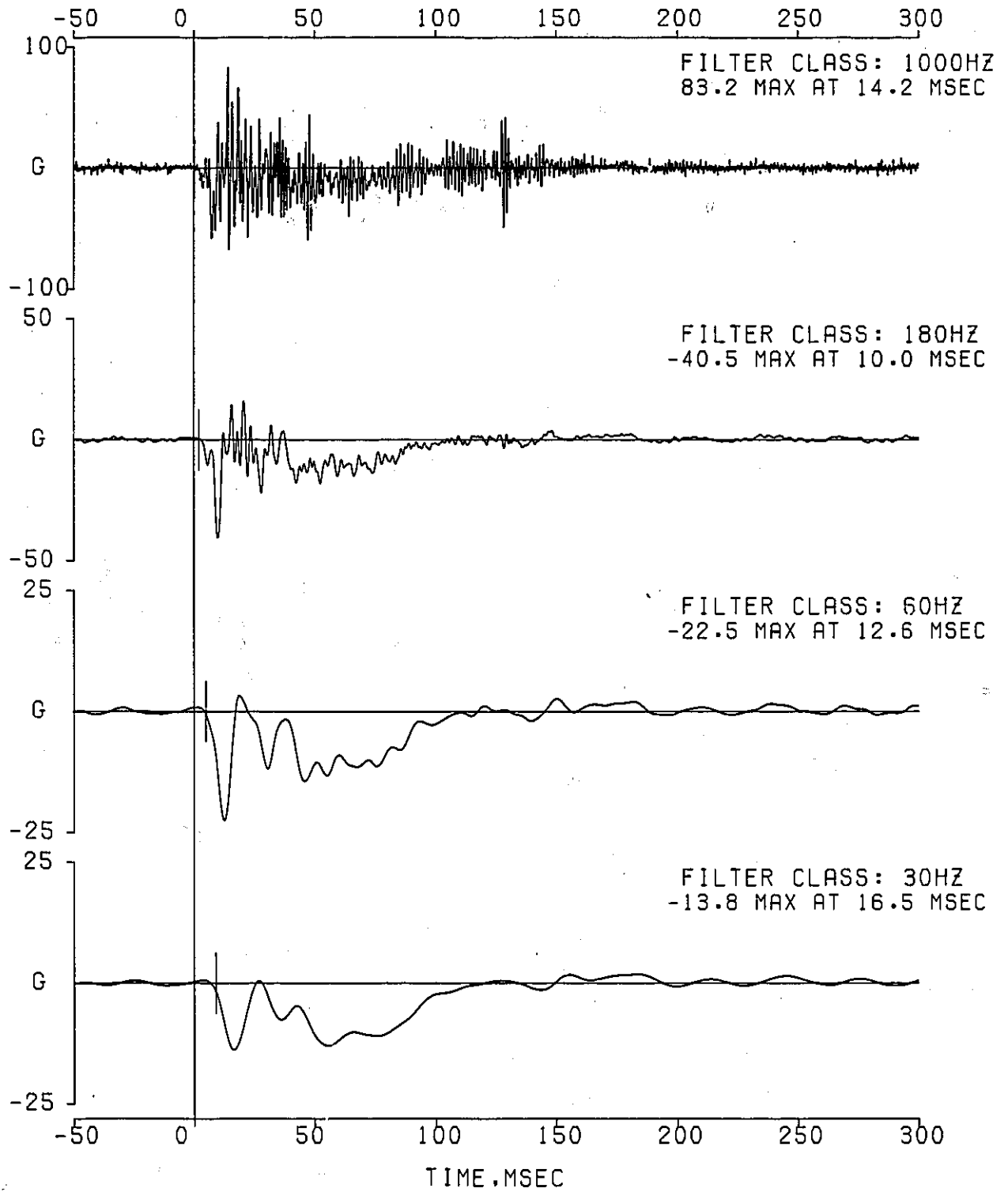
VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 2 LT RAIL MID X 73973
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PC
ERRATA 1



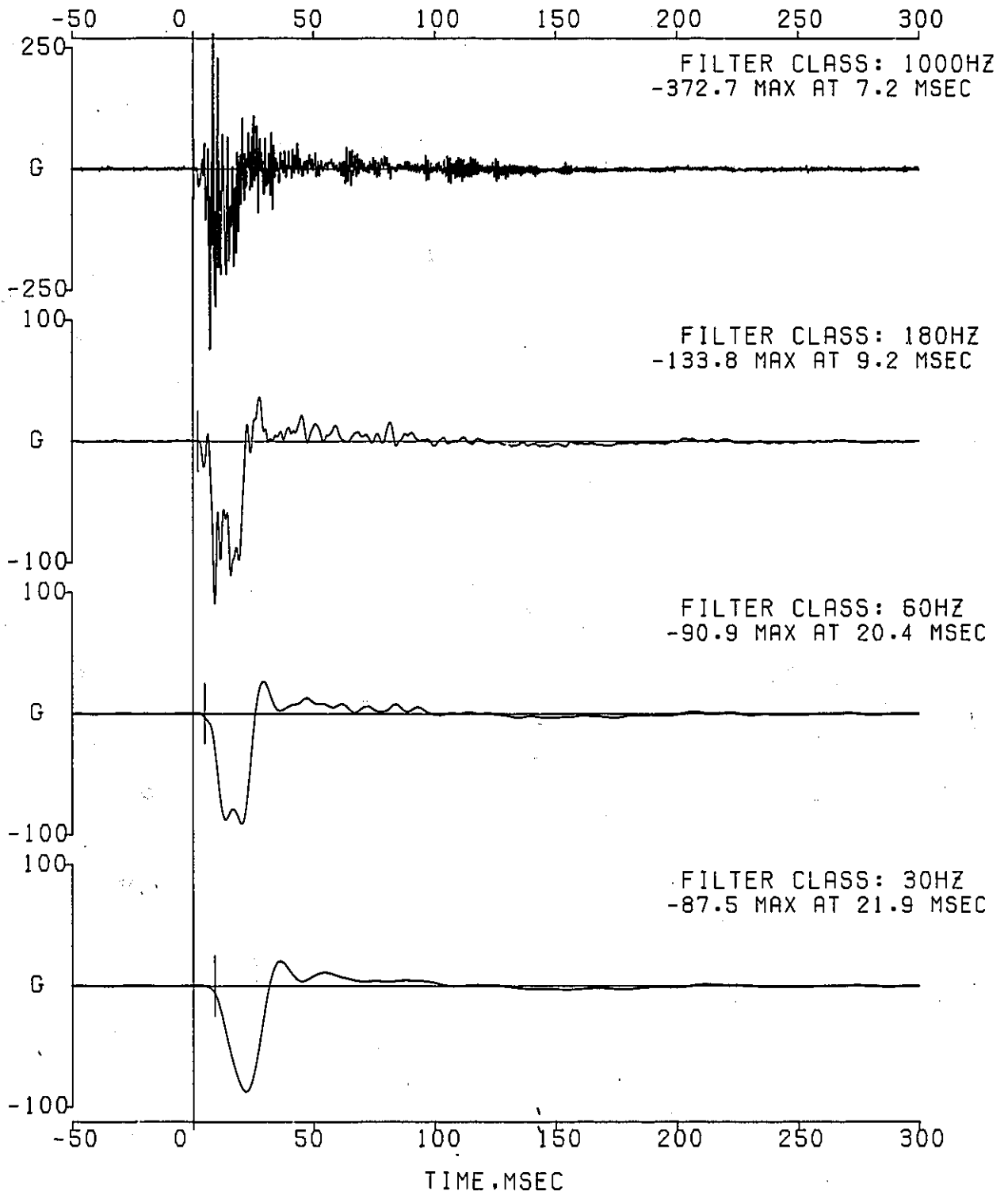
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 3 RT RAIL MID X 80486
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PC
ERRATA 1



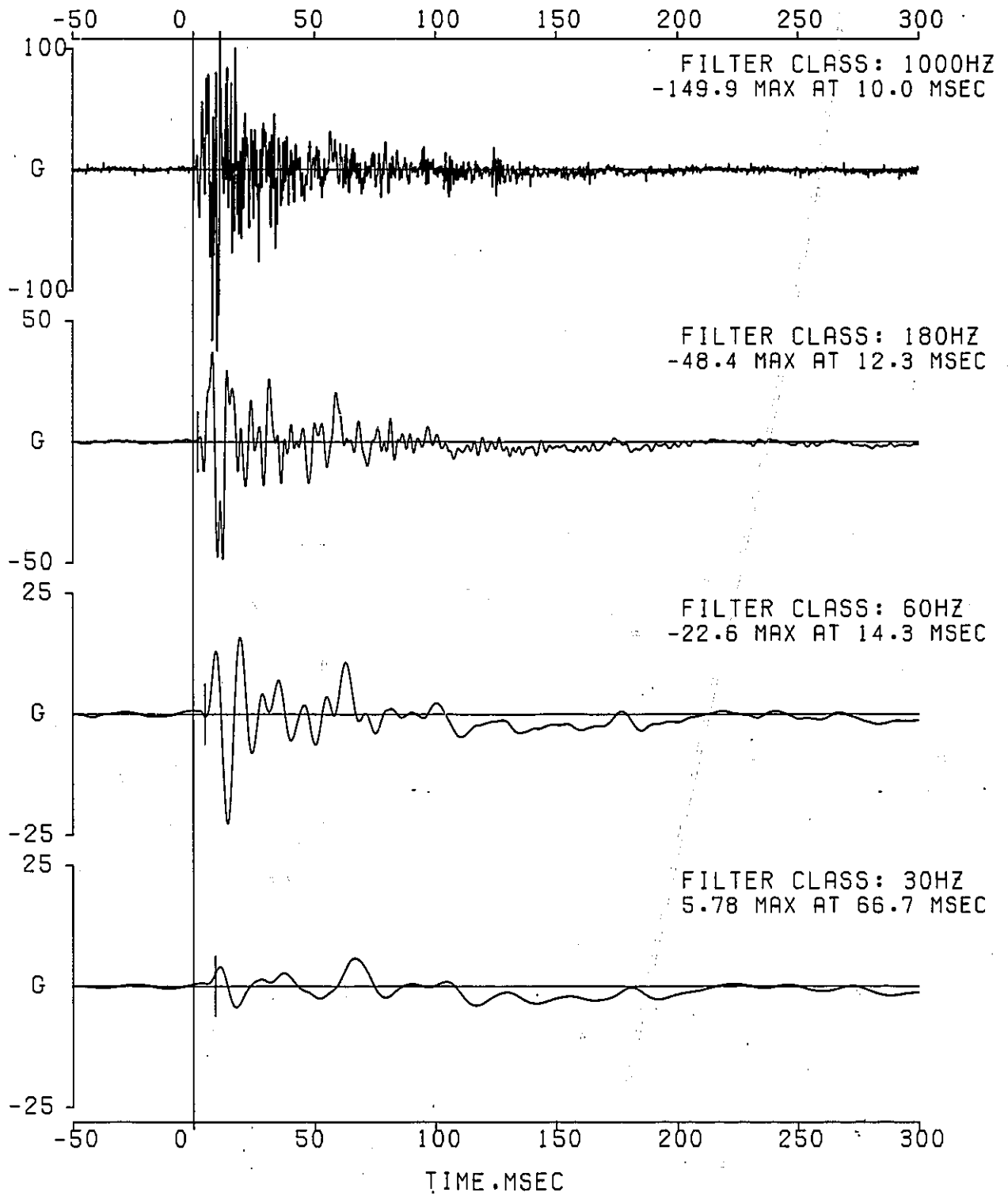
VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 6 RT RAIL MIDTANK X 73931
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4,1989

DATA SET 12/22/88PC
ERRATA 1



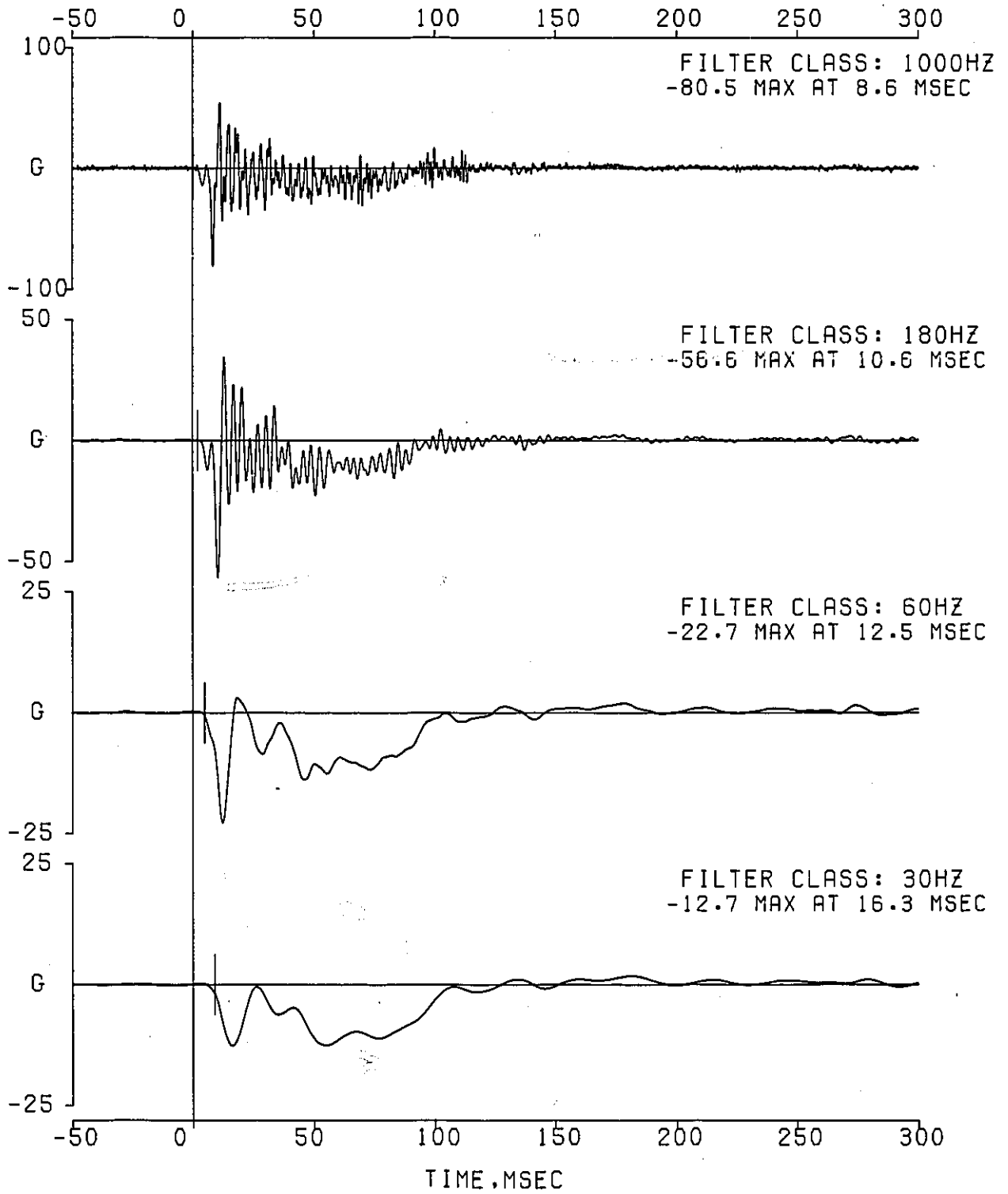
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 7 RT RAIL MIDTANK Z 55967
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4, 1989

DATA SET 12/22/88PC
ERRATA 1



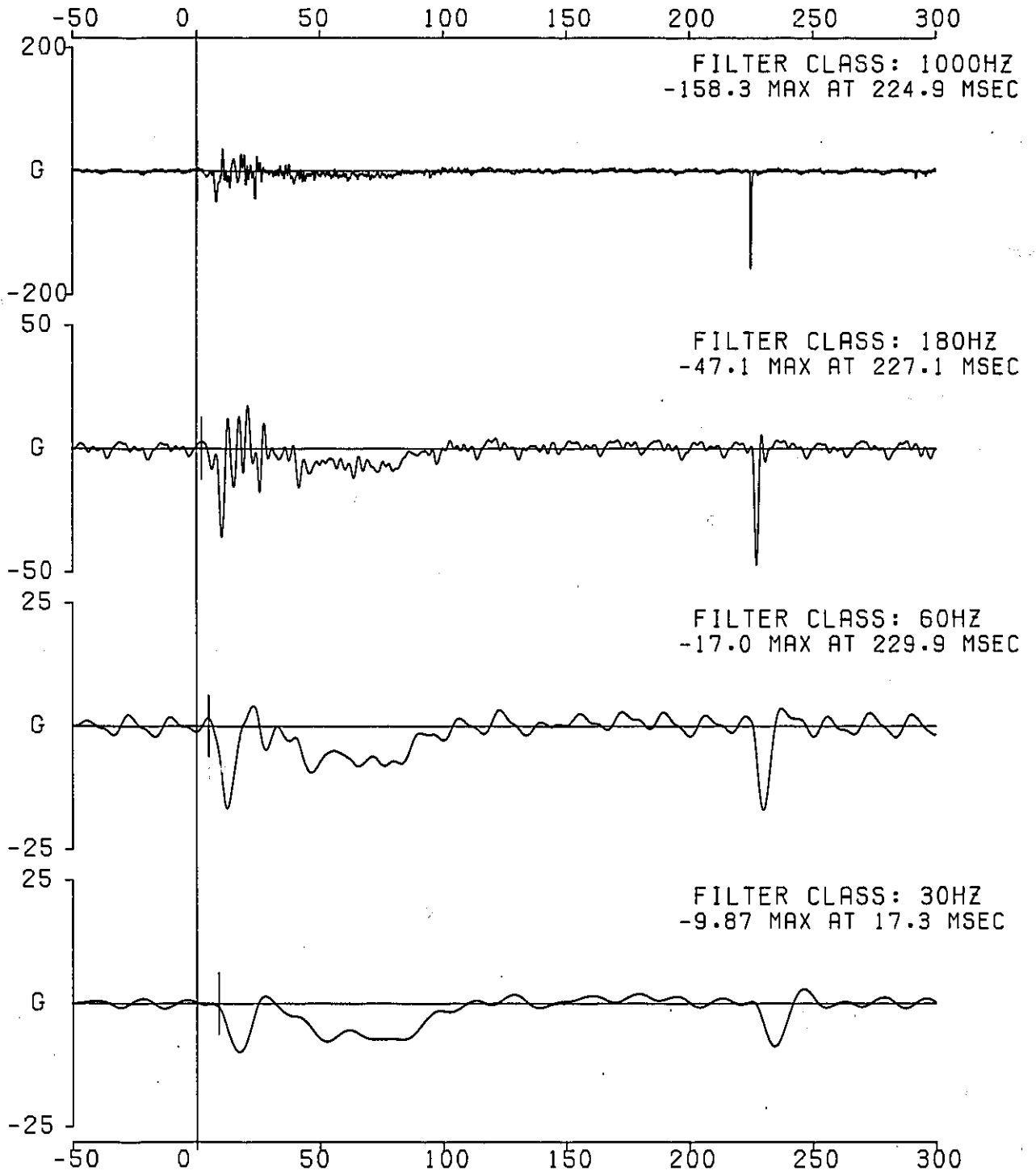
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 8 LEFT FRONT SILL X 14477
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4,1989

DATA SET 12/22/88PC
ERRATA 1



VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.
CHANNEL 9 RIGHT FRONT SILL X 14268
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4,1989

DATA SET 12/22/88PC
ERRATA 1

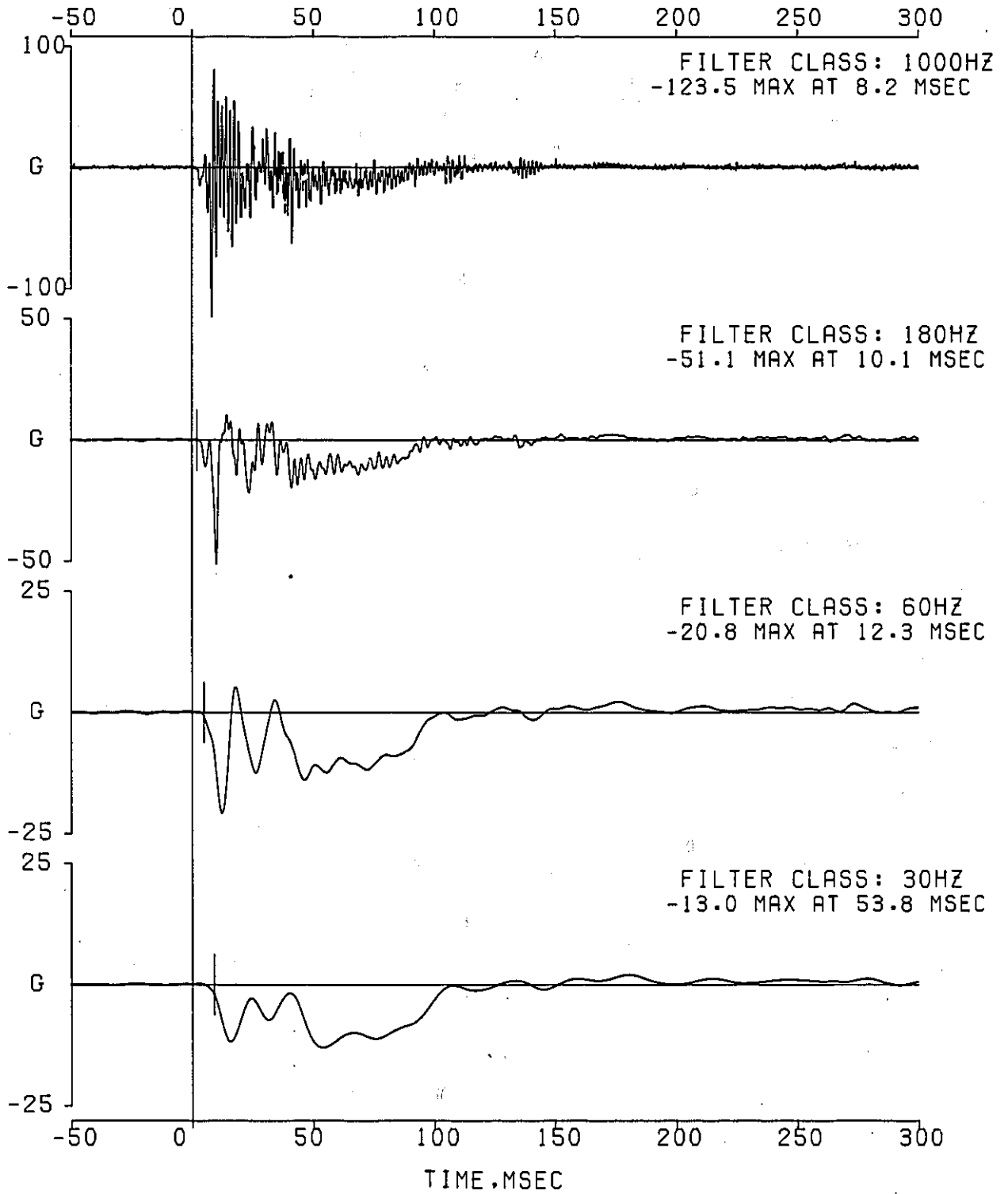


TIME,MSEC

*****MALFUNCTION*****
*****INST. MALFUNCTION*****

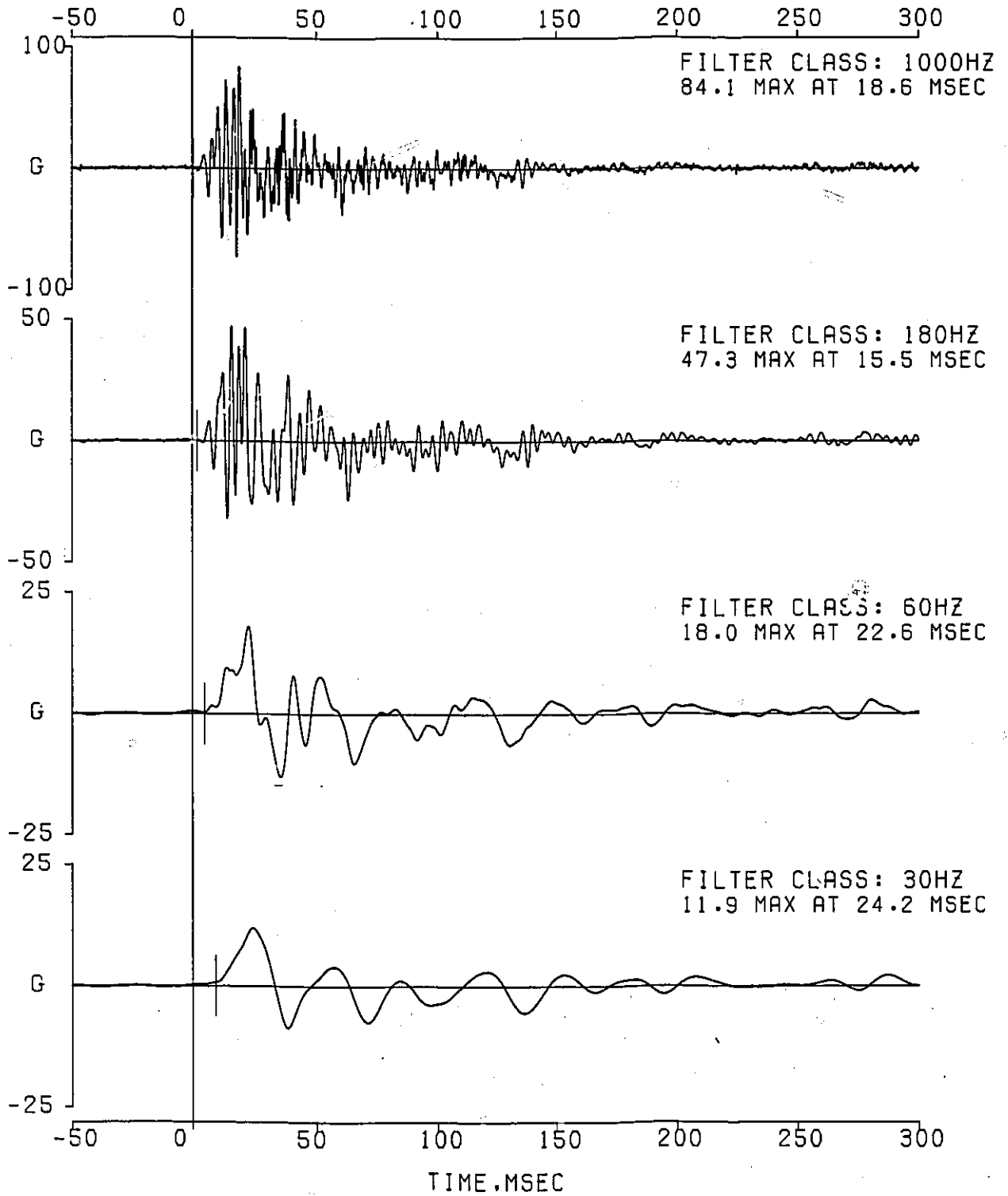
VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 10 LEFT REAR SILL X 14439
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PC
ERRATA 1



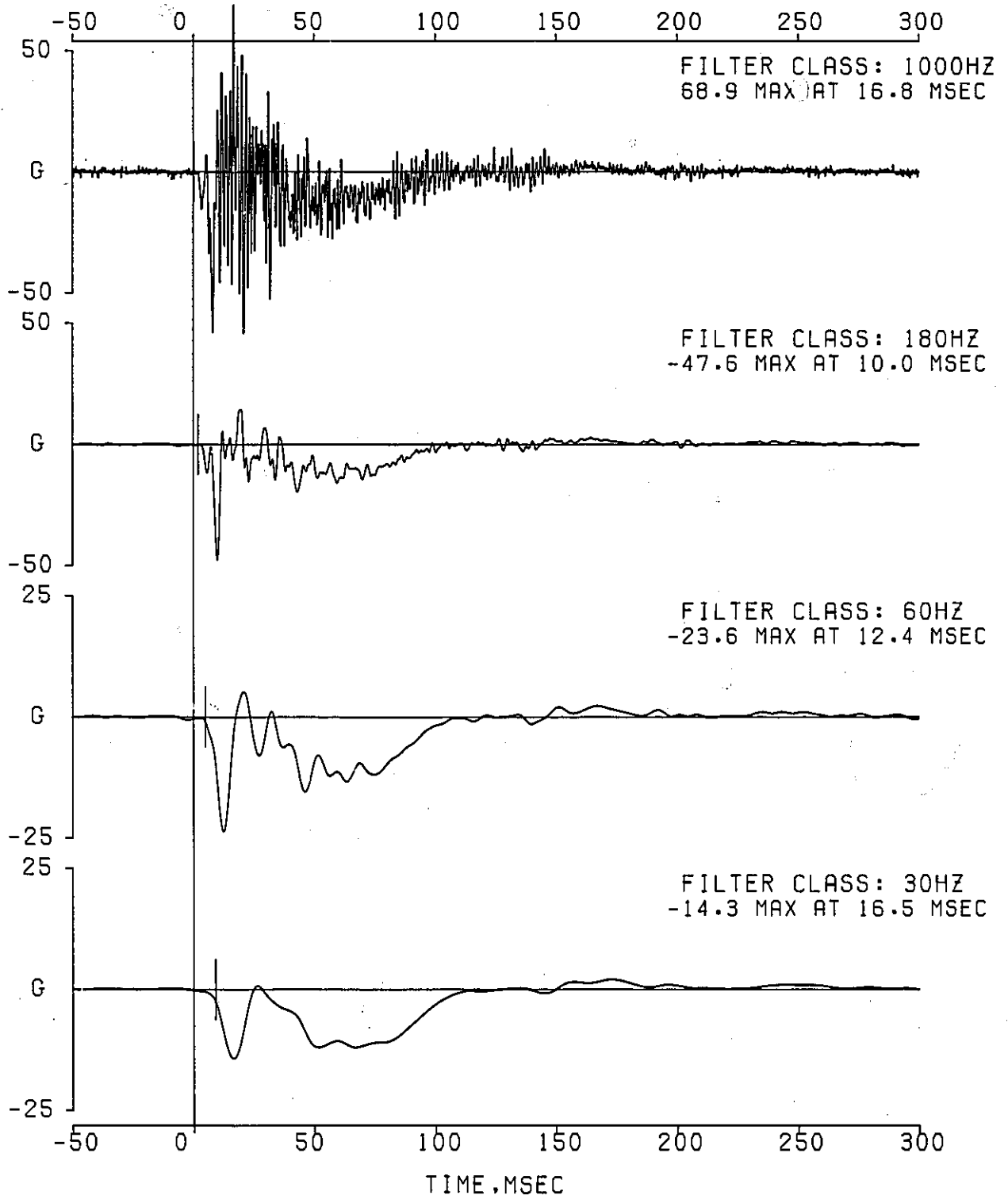
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 11 LEFT REAR SILL Z 14353
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PC
ERRATA 1



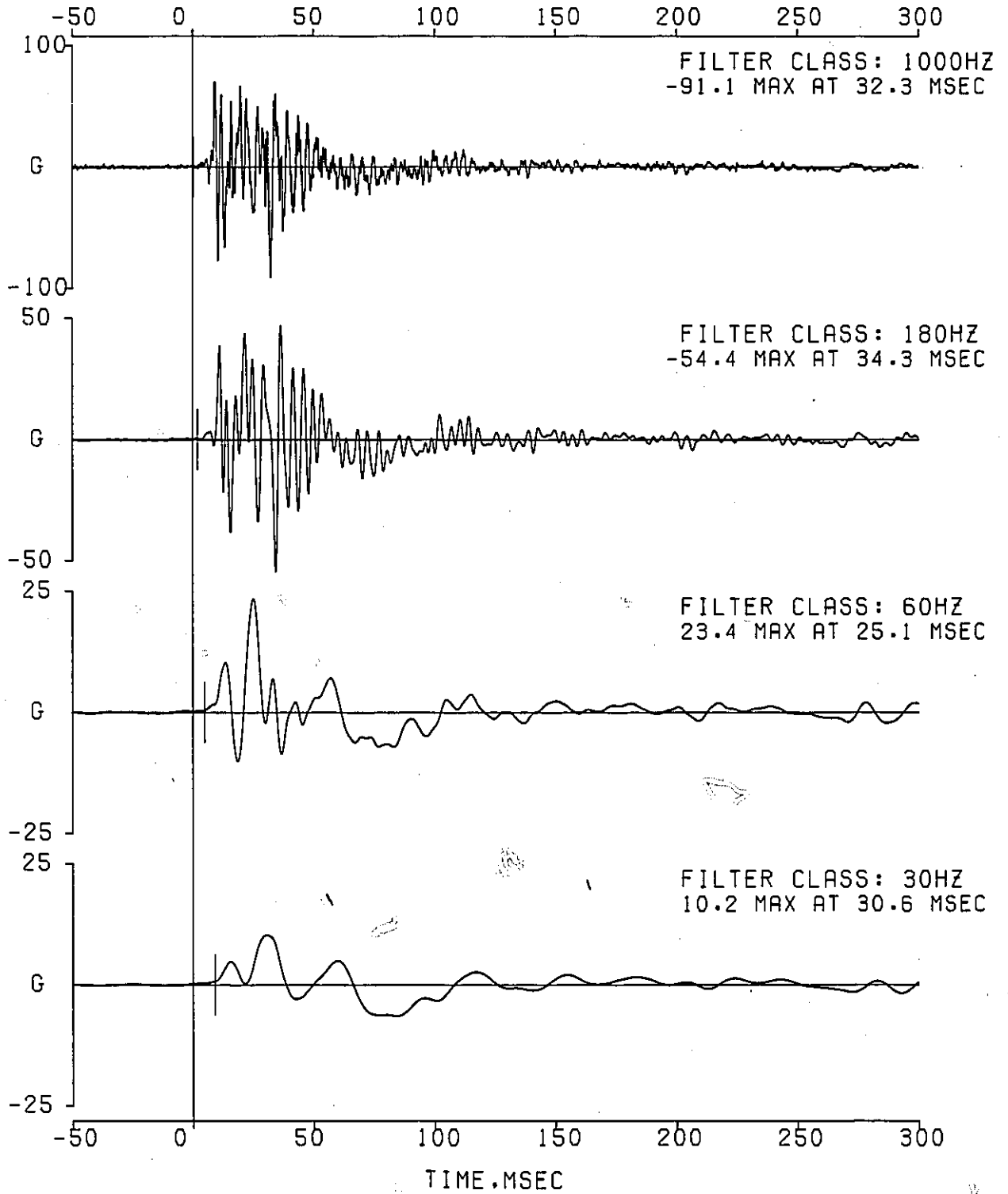
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 12 RIGHT REAR SILL X 14562
FILTER TYPE: SAE J211 DC,MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4,1989

DATA SET 12/22/88PC
ERRATA 1



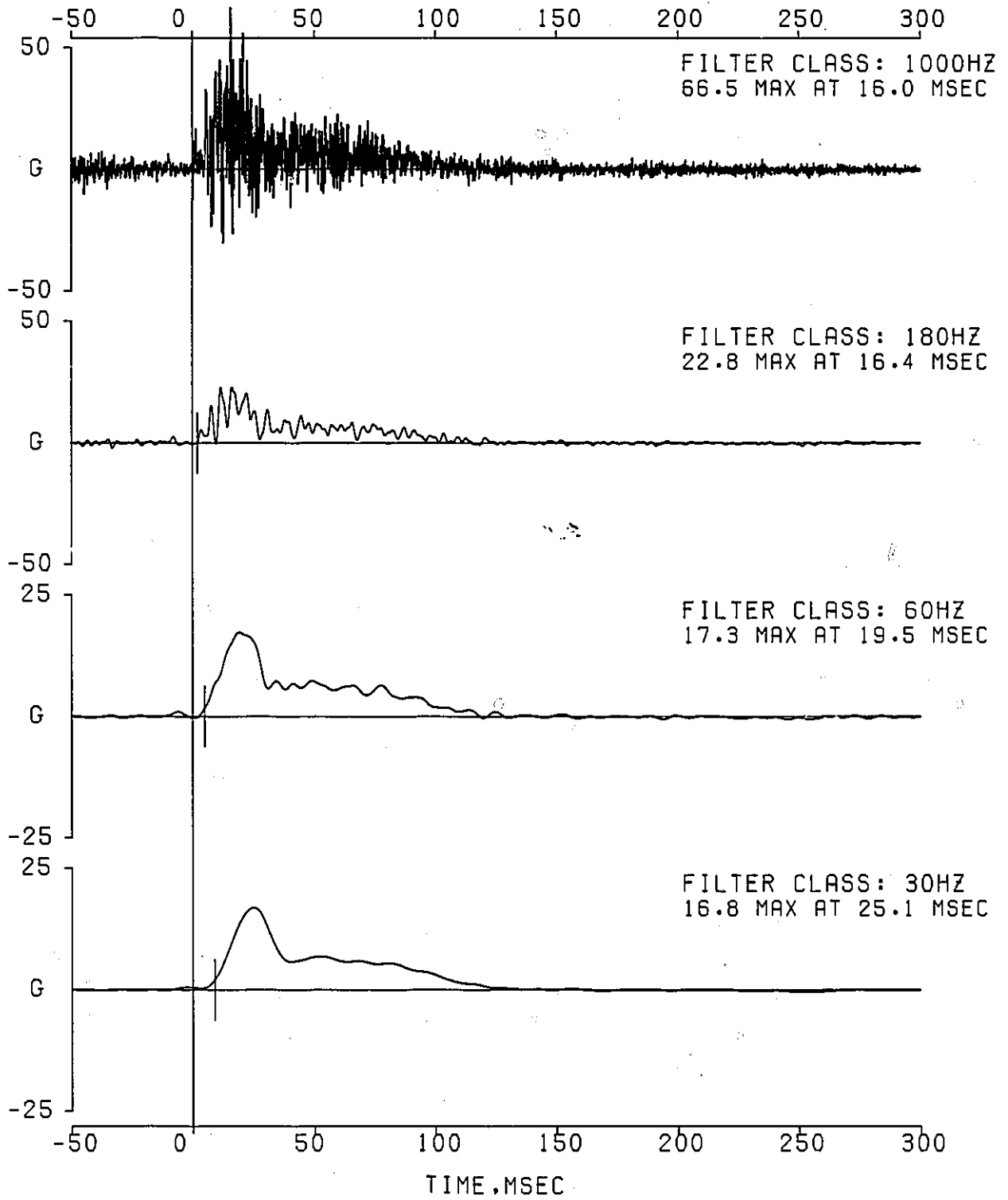
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 13 RIGHT REAR SILL Z 13339
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4, 1989

DATA SET 12/22/88PC
ERRATA 1



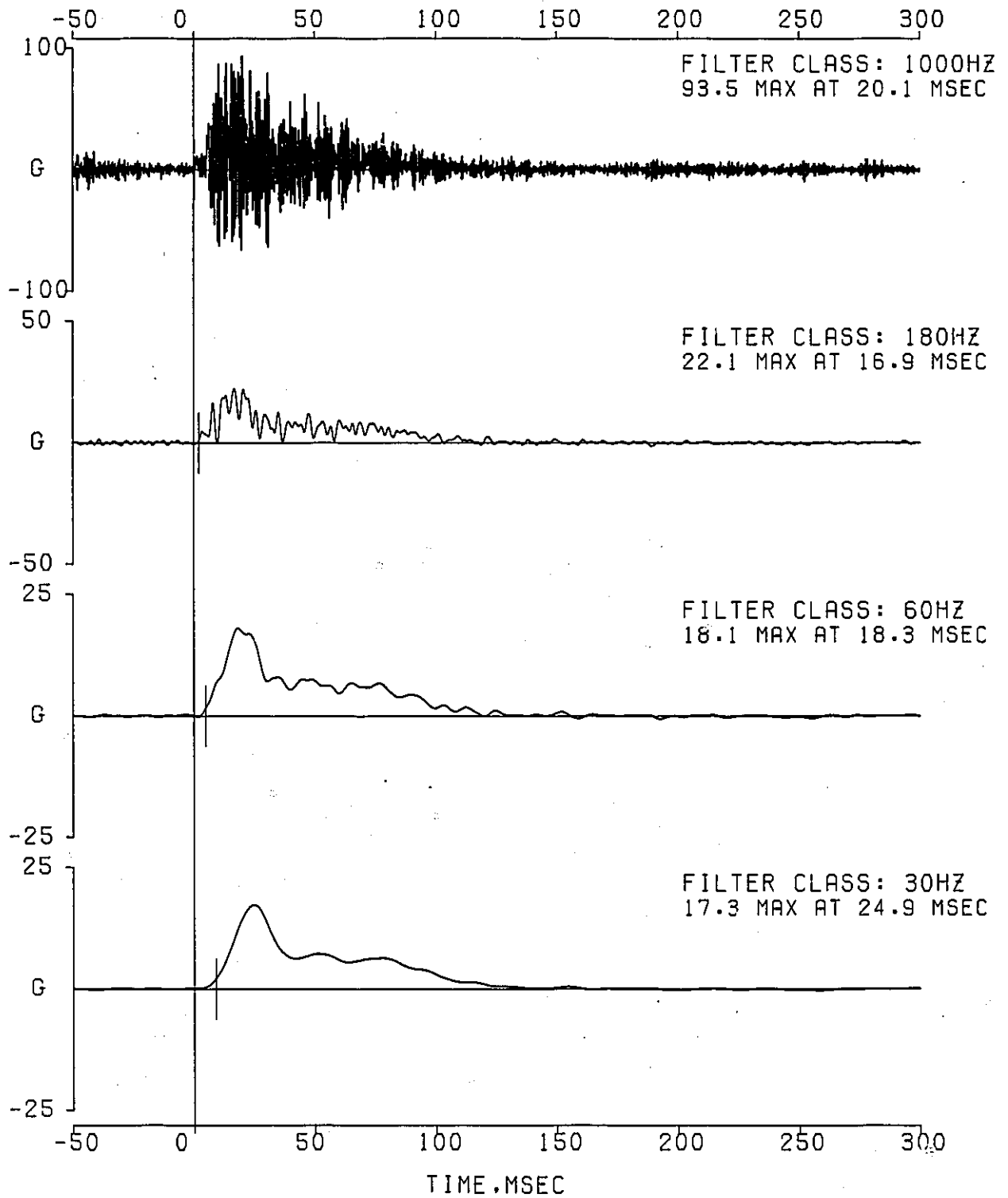
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 16 LT RAIL MBAR MID - X 14501
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1



VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
CHANNEL 17 RT RAIL MBAR MID X 14538
FILTER TYPE: SAE J211 DC.MAX ATT (TPF-R)
IMPACT ANALYSIS DEPT. 2530
JAN 4.1989

DATA SET 12/22/88PD
ERRATA 1

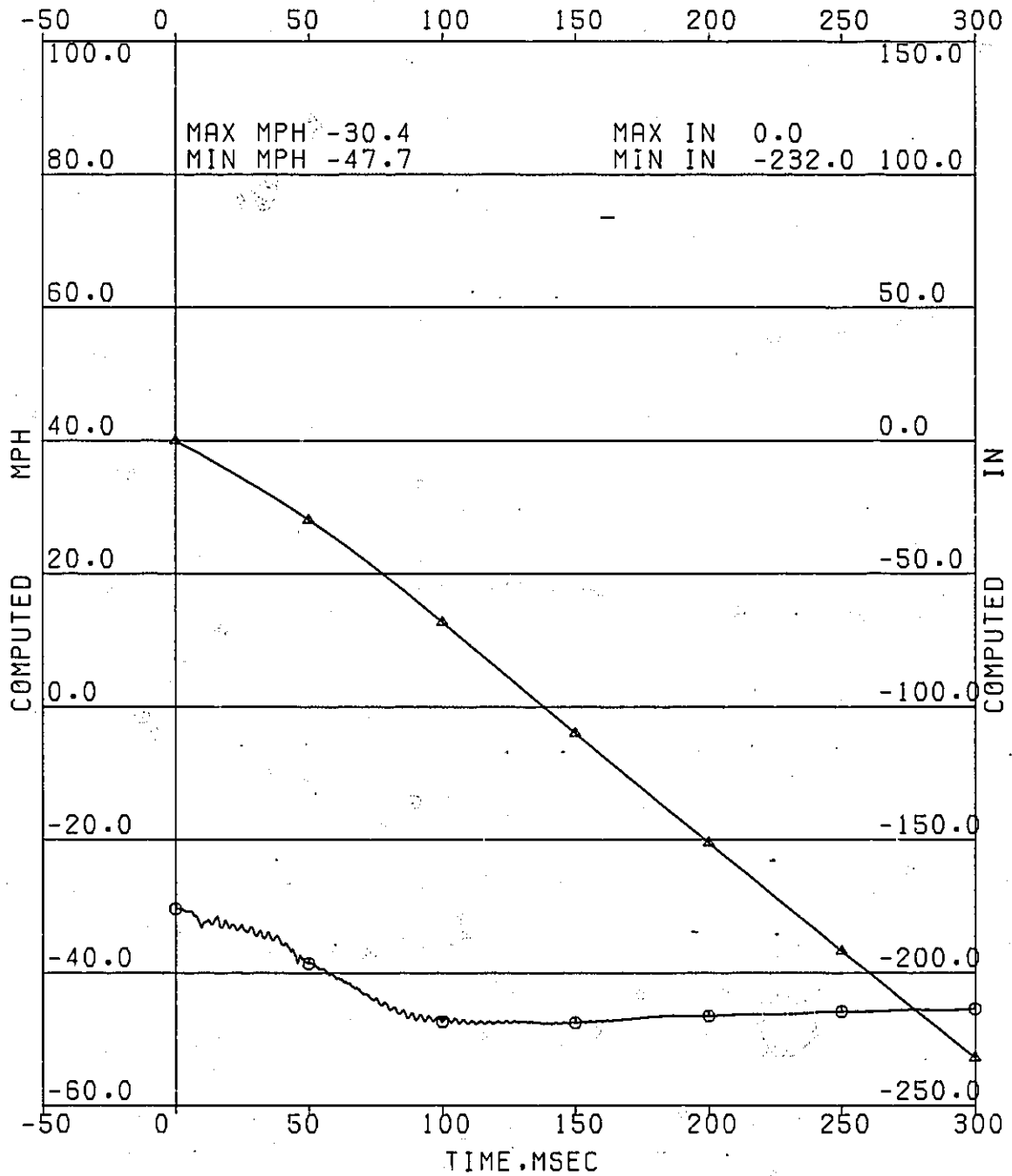


VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 2 LT RAIL MID X 73973

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 ERRATA 1



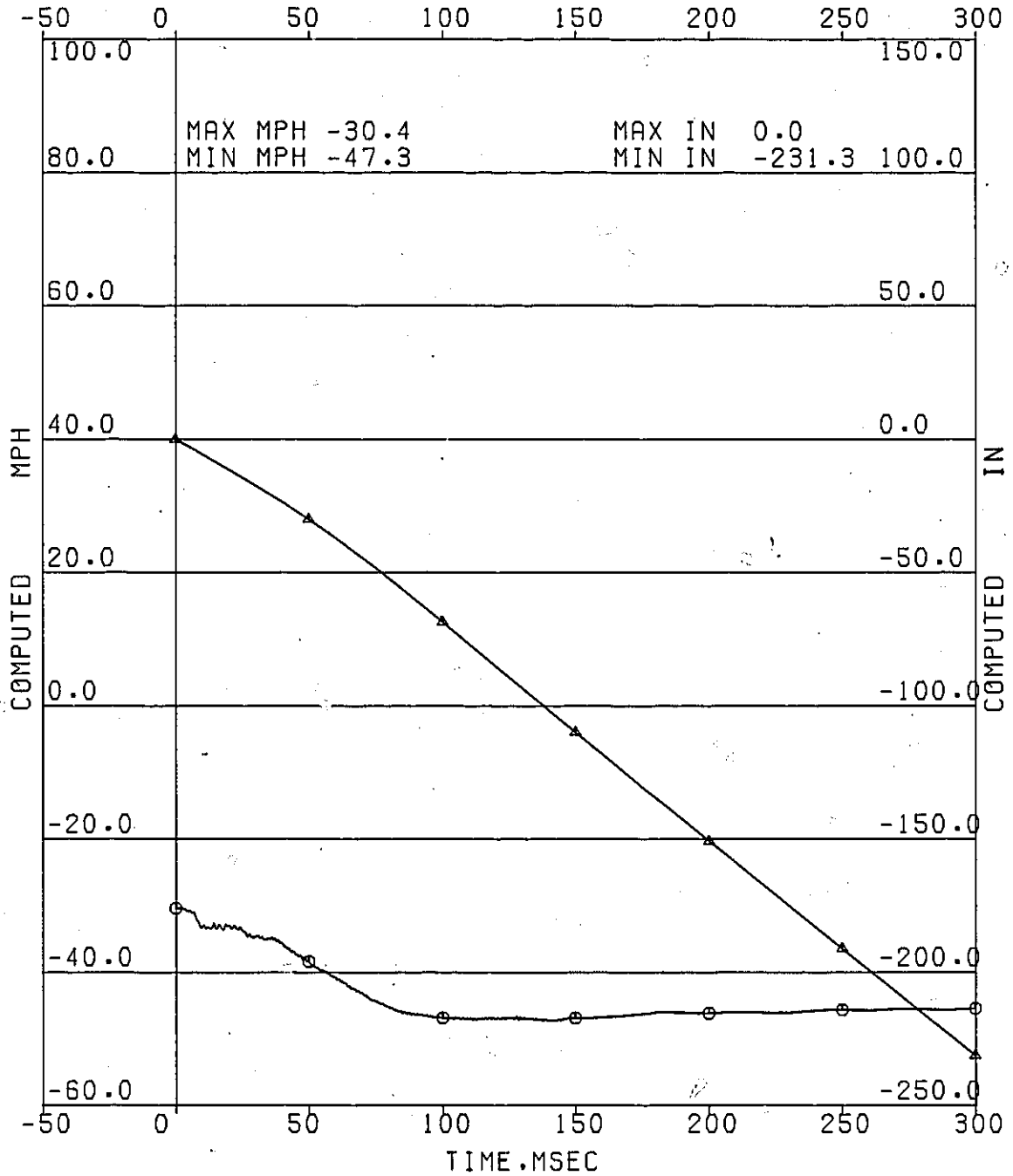
○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 3 RT RAIL MID X 80486

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

DATA SET 12/22/88PC
 ERRATA 1



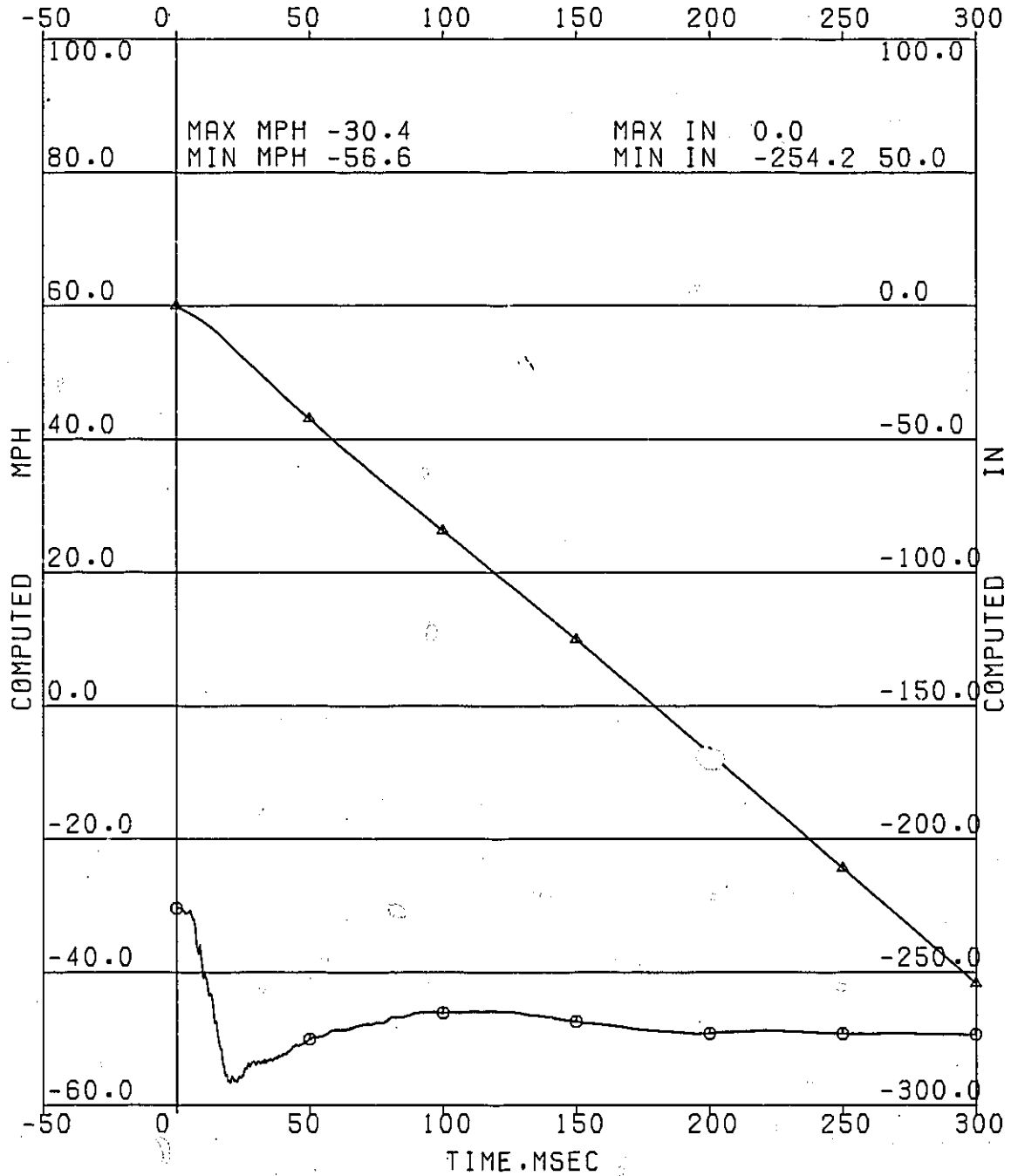
○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 6 RT RAIL MIDTANK X 73931

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

DATA SET 12/22/88PC
 ERRATA 1



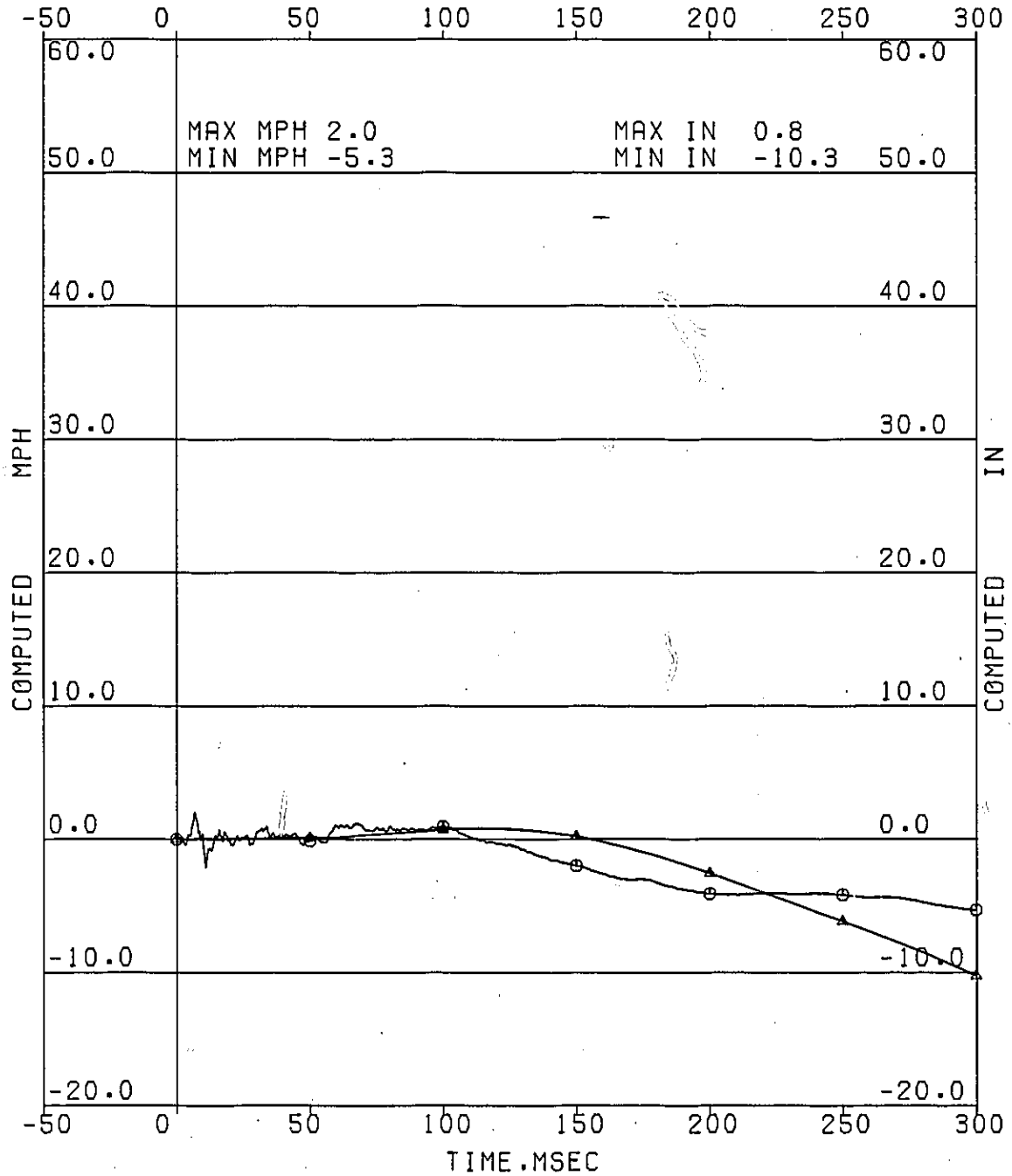
○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 7 RT RAIL MIDTANK Z 55967

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 ERRATA 1



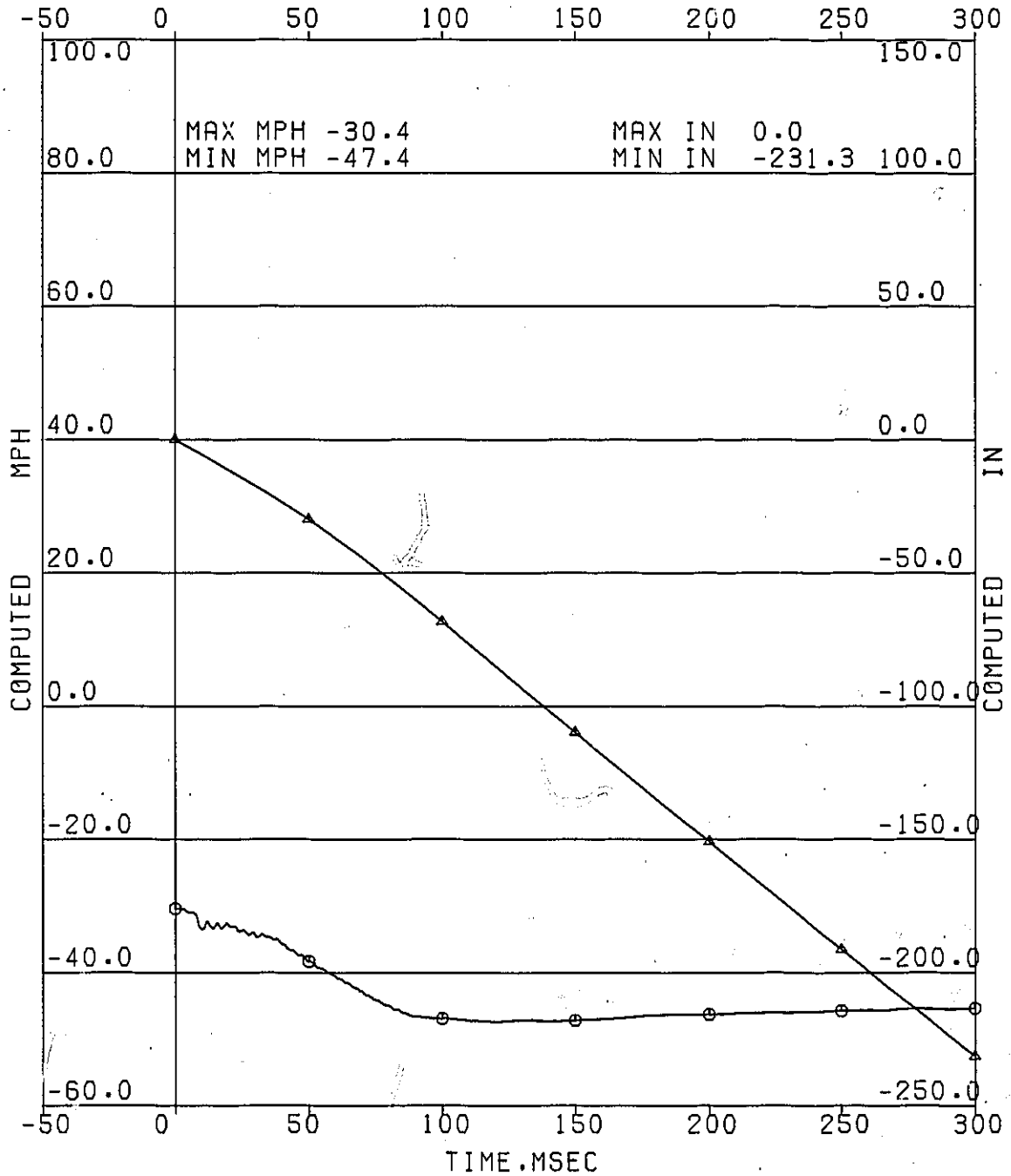
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 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.
 CHANNEL 8 LEFT FRONT SILL X 14477

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 ERRATA 1



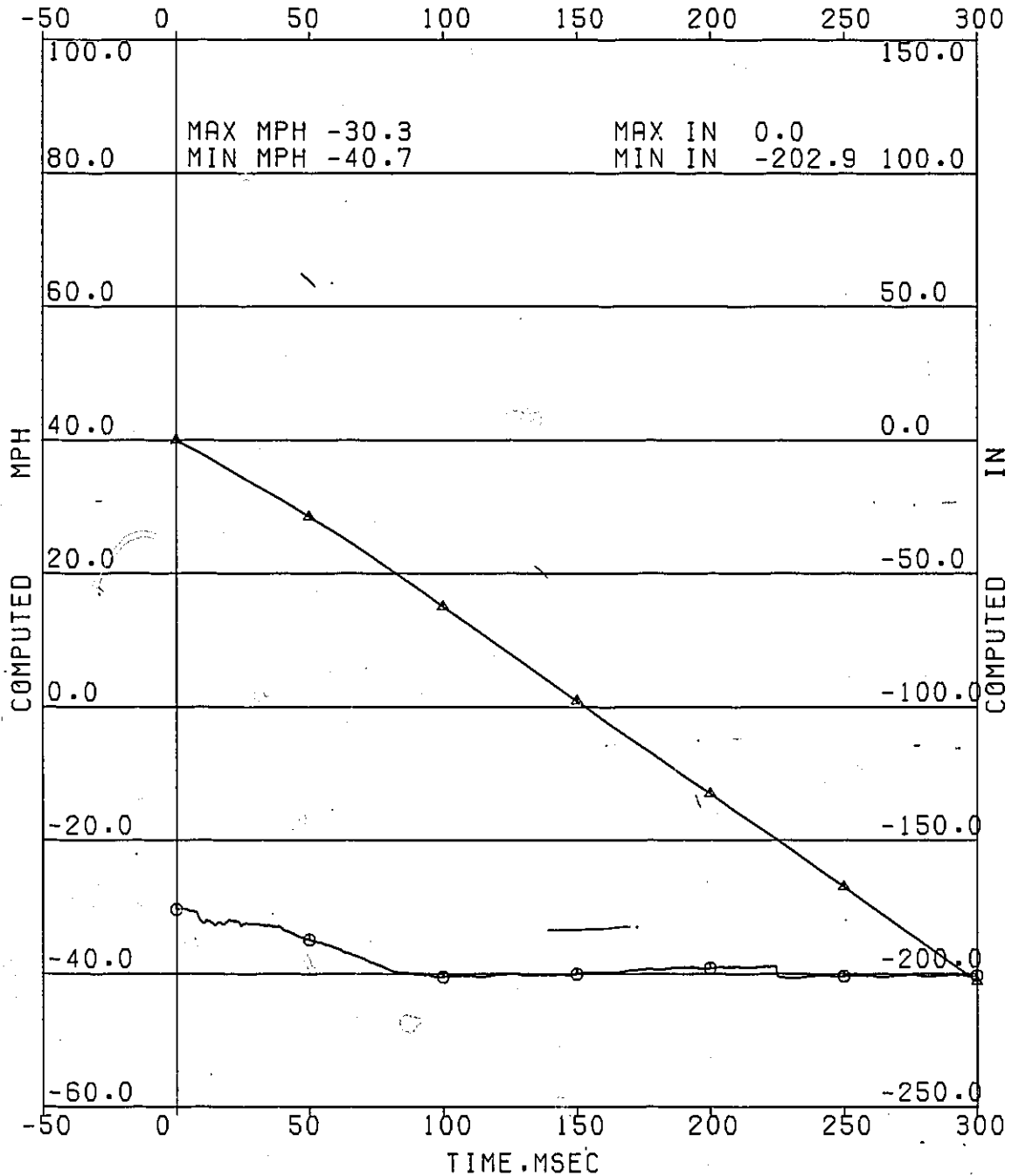
○ — ○ COMPUTED MPH
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VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 9 RIGHT FRONT SILL X 14268

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

DATA SET 12/22/88PC
 ERRATA 1



*****MALFUNCTION*****
 *****INST. MALFUNCTION*****

EA12-005- Chrysler -000288

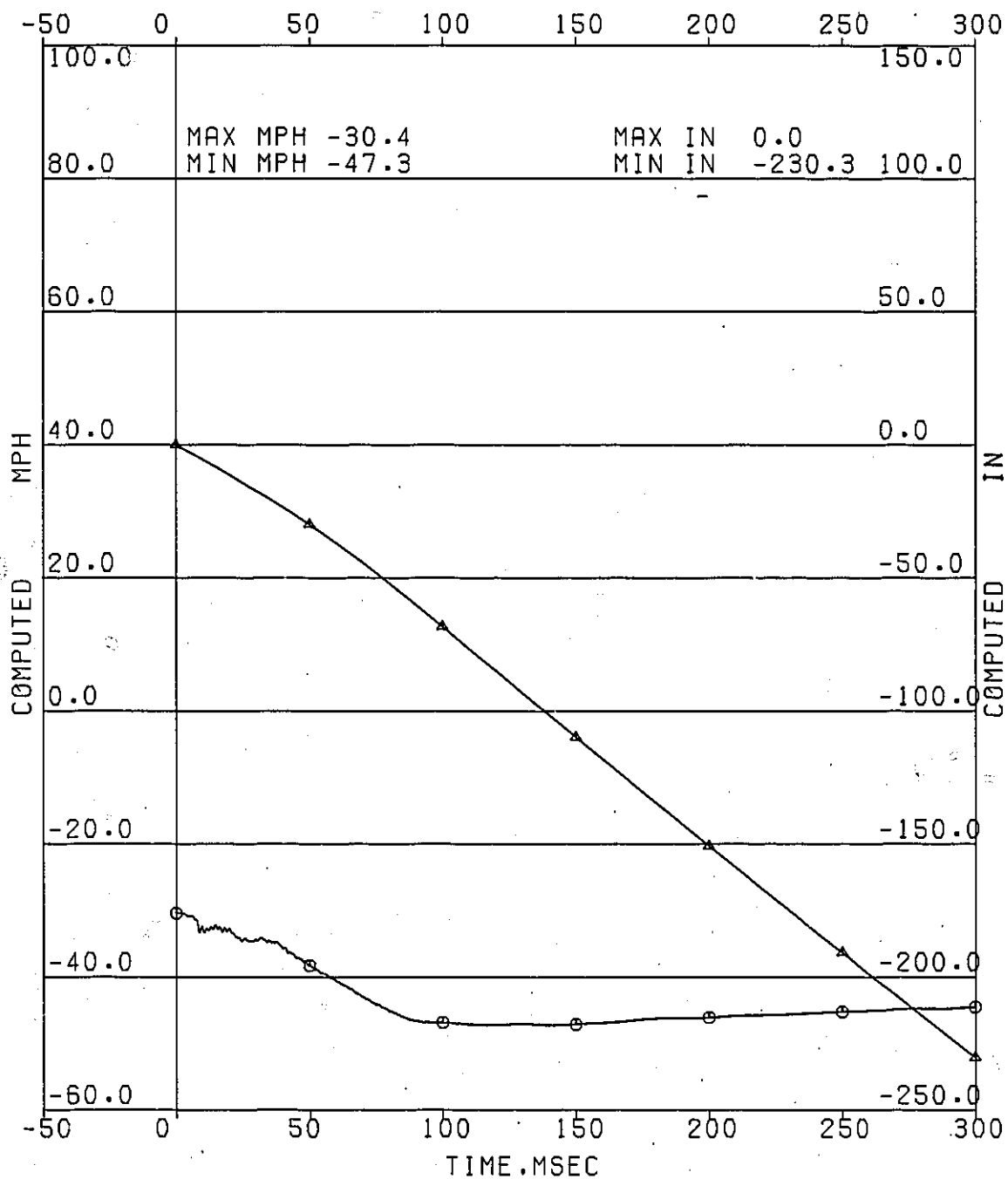
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VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 10 LEFT REAR SILL X 14439

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

DATA SET 12/22/88PC
 ERRATA 1



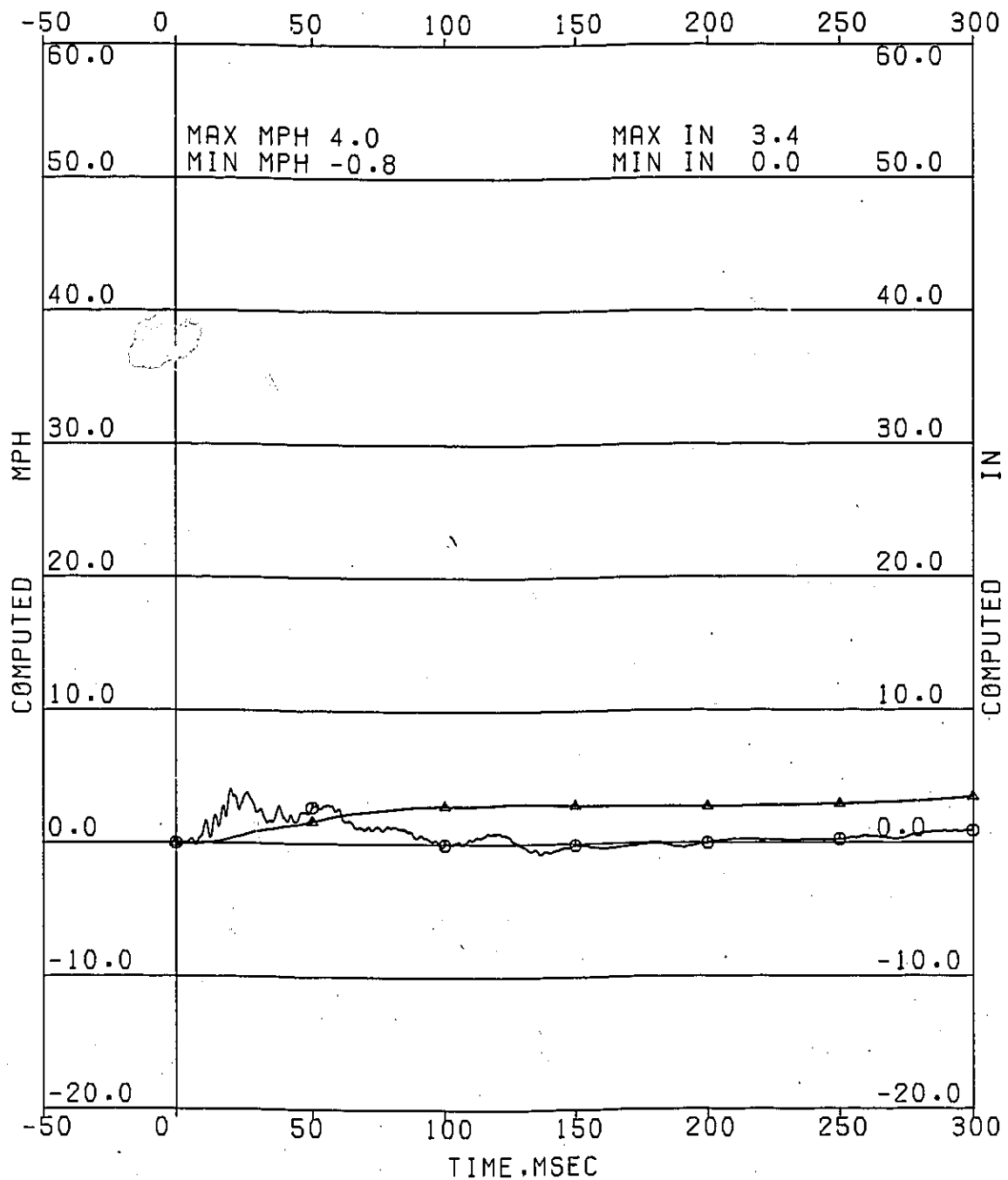
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VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 11 LEFT REAR SILL Z 14353

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 ERRATA 1



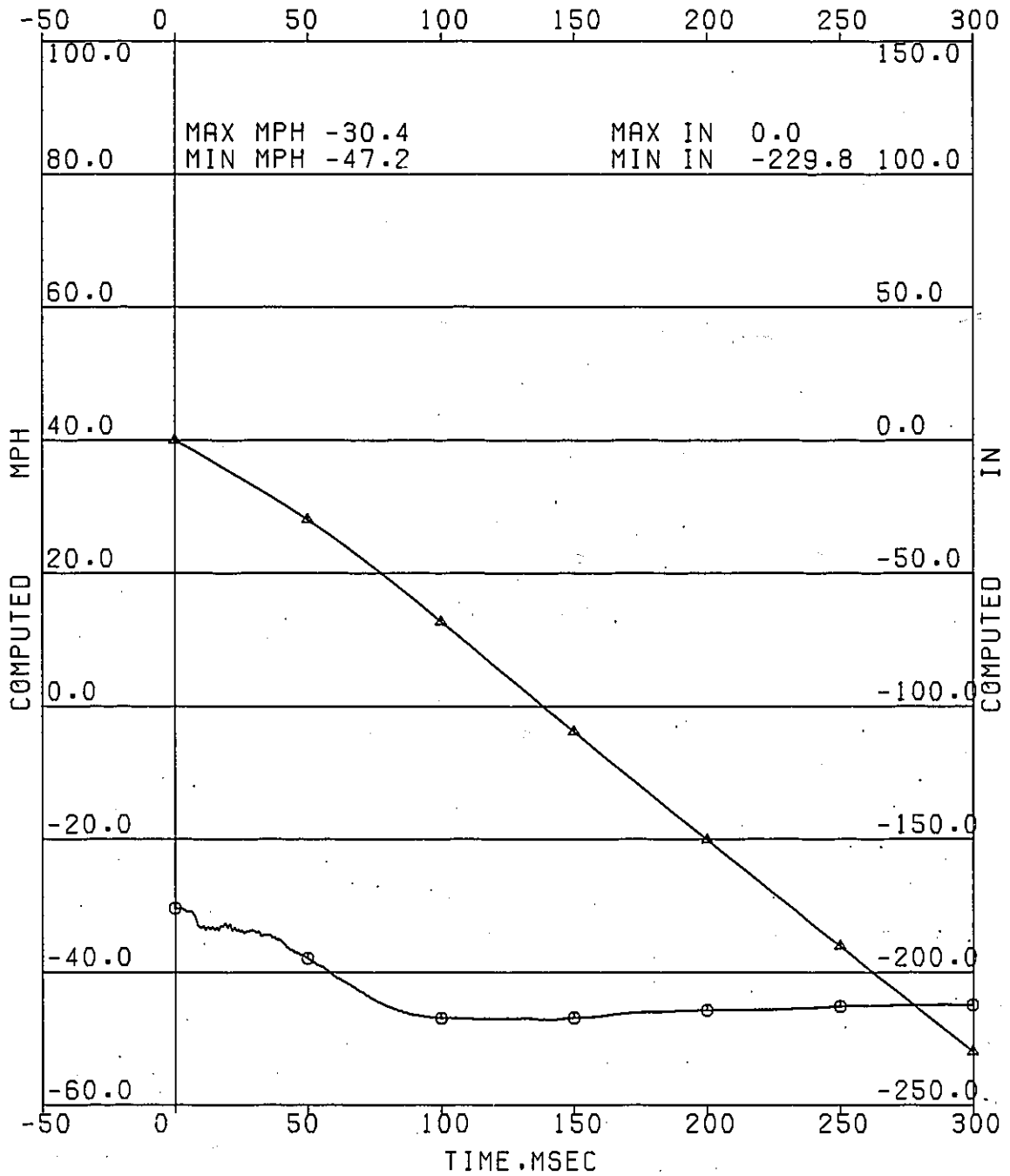
⊖ — ⊖ COMPUTED MPH
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VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 12 RIGHT REAR SILL X 14562

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4, 1989

DATA SET 12/22/88PC
 ERRATA 1



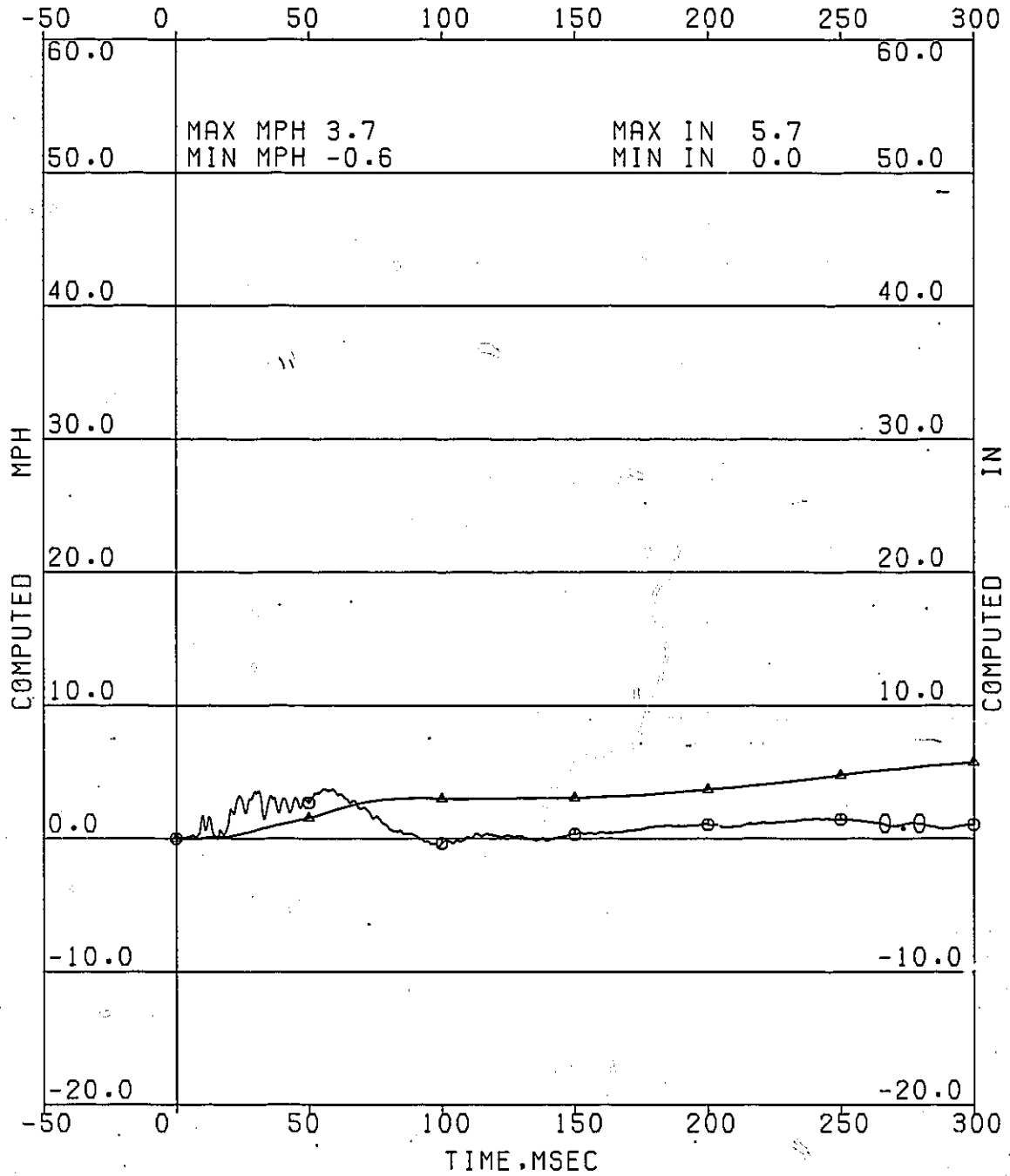
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VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 13 RIGHT REAR SILL Z 13339

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PC
 ERRATA 1



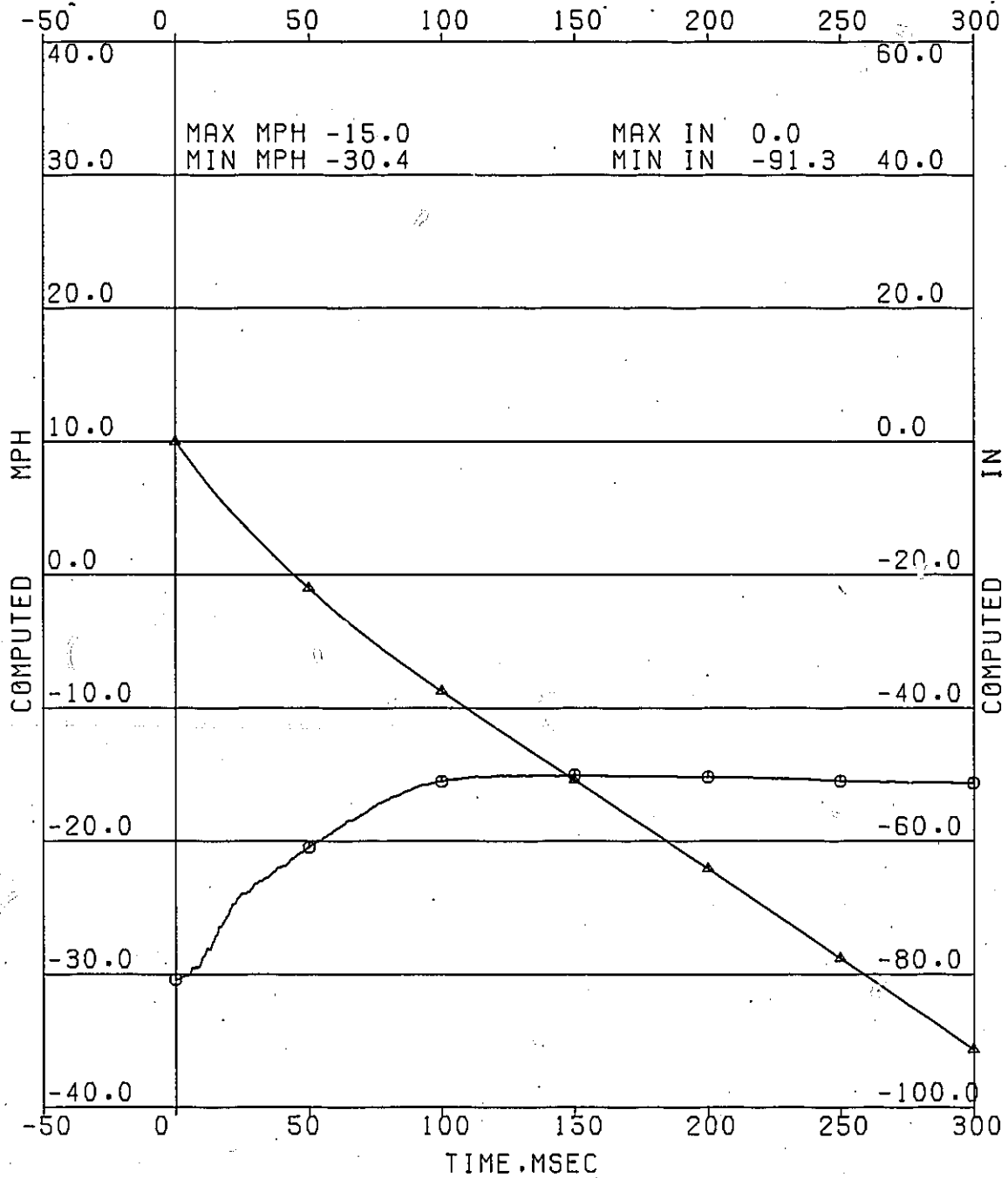
○ — ○ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 16 LT RAIL MBAR MID X 14501

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PD
 ERRATA 1



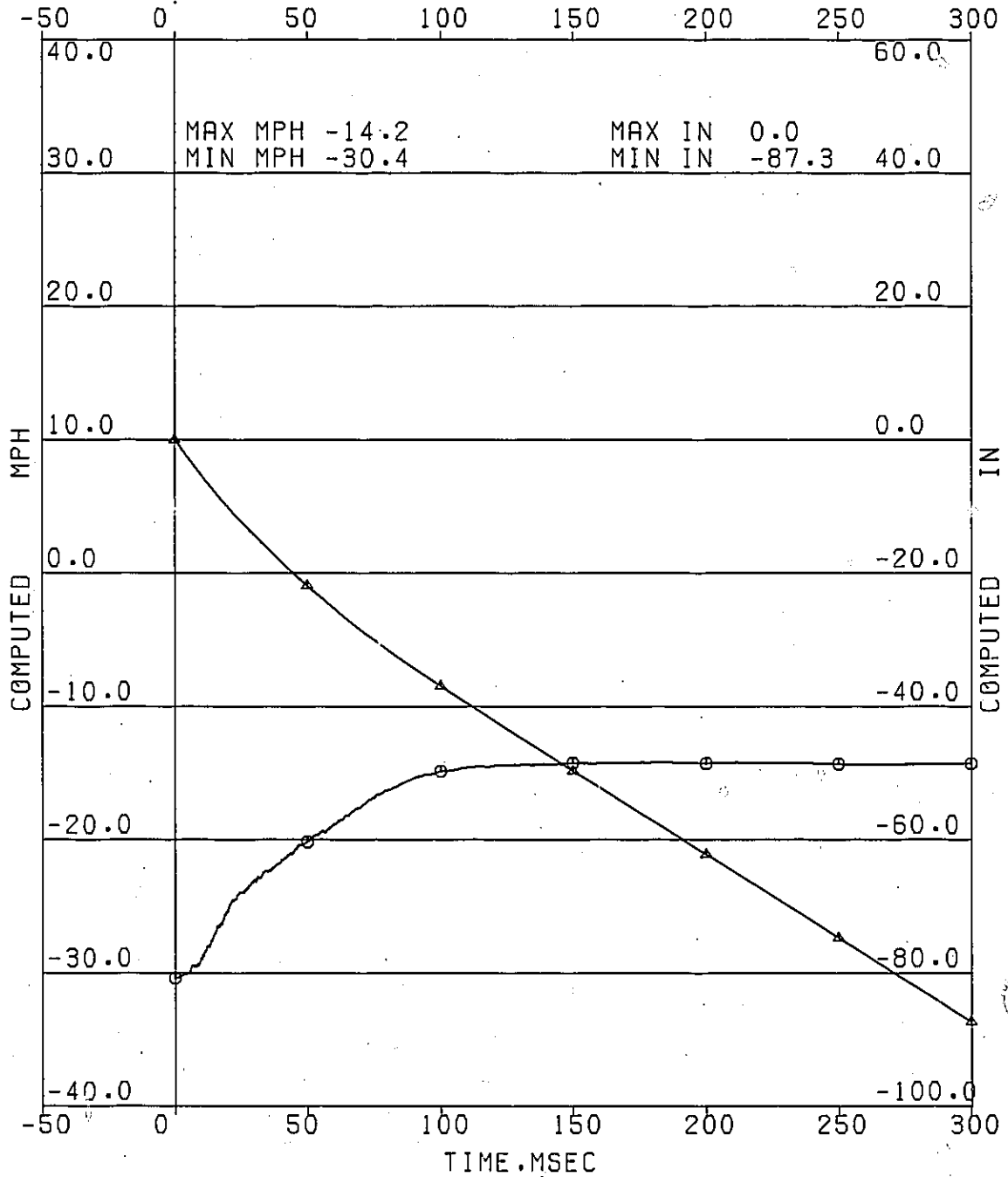
⊙ — ⊙ COMPUTED MPH
 ▲ — ▲ COMPUTED IN

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
 CHANNEL 17 RT RAIL MBAR MID X 14538

FILTER TYPE: SCALED AND EDITED (UNFILTERED)
 FILTER CLASS:

IMPACT ANALYSIS DEPT. 2530
 JAN 4.1989

DATA SET 12/22/88PD
 ERRATA 1



○ — ○ COMPUTED MPH
 △ — △ COMPUTED IN

INTER COMPANY CORRESPONDENCE

FILE UBR010489

DATE 01/07/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT PLANT/OFFICE
2530 CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

REAR UNDERBODY MOTION ANALYSIS
VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
TEST DATE 12/22/88

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: ZJ
CAR LINE: J
BODY: 72
ENGINE: 4.0 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4???7L?M* [REDACTED] MOD.
VIN AS BUILT: 1JCHL77*9HT [REDACTED] MOD.

TEST SPEED

30.4 MPH BY ELECTRONIC TRAP TIMER.

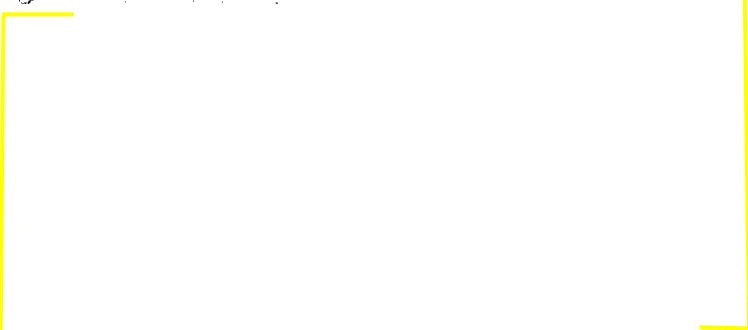
TEST WEIGHT (LBS)

4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS

LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
RESTRAINT-UNIBELT

BUILD CONDITION



'91 ZJ 'B' LEVEL FUEL TANK AND LINES (23 GALLON).
5000# TRAILER HITCH.
SUN ROOF.

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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

THE RELATIVE MOTIONS OF SELECTED REAR UNDERBODY TARGETS HAVE BEEN
DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON CAMERA TIMING DATA.

T. C. WILLIAMS

J. W. HANIKA

CC	
W. A. BREITMOSER	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. W. KOEBNICK	422-05-01
L. C. MILLER	514-00-00
W. D. NIXON	422-42-22
A. J. REGAN	418-42-22
H. G. ROULEAU	422-05-01
E. A. ZYLIK	514-15-17

GRAPHS - 22

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

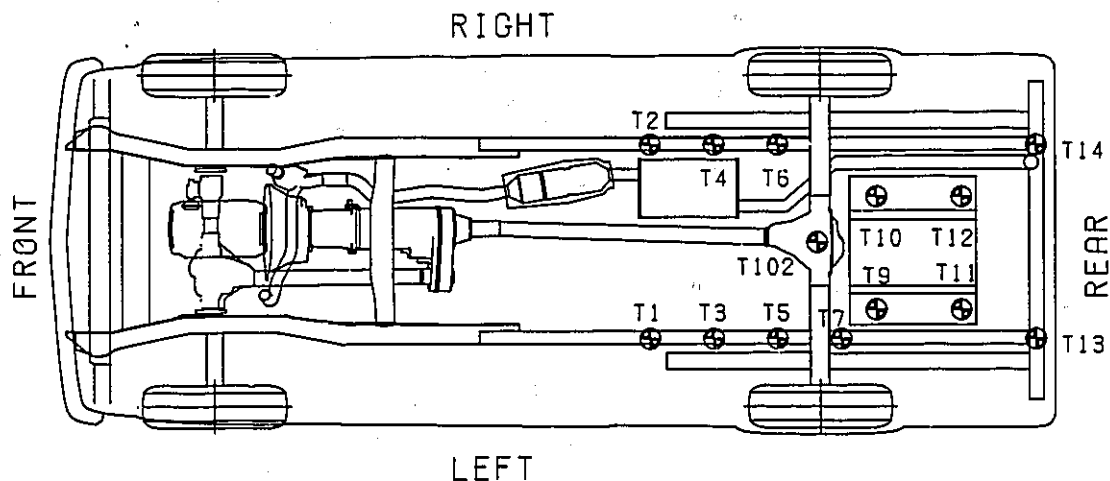
U S E D I N S T A N D A R D R E P O R T S

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
01/07/89 11.15
TEST VC3790

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

PLAN VIEW



LEGEND OF STANDARD ZJ-BODY FRONT U/B TARGETS

TARGET DESIGNATION	TARGET DESCRIPTION
T1	LEFT FORE RAIL TARGET
T2	RIGHT FORE RAIL TARGET
T3	LEFT MID RAIL TARGET
T4	RIGHT MID RAIL TARGET
T5	LEFT HEEL TARGET
T6	RIGHT HEEL TARGET
T7	LEFT KICKUP TARGET
T9	LEFT FORE TANK COVER TARGET
T10	RIGHT FORE TANK COVER TARGET
T11	LEFT AFT TANK COVER TARGET
T12	RIGHT AFT TANK COVER TARGET
T13	LEFT REAR RAIL TARGET
T14	RIGHT REAR RAIL TARGET
T102	REAR DIFFERENTIAL TARGET

IMPACT ANALYSIS
 DEPARTMENT 2530
 01/07/89 11.15
 TEST VC3790

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO T1 IN BASE COORD
VERSUS TIME IN MILLISECONDS

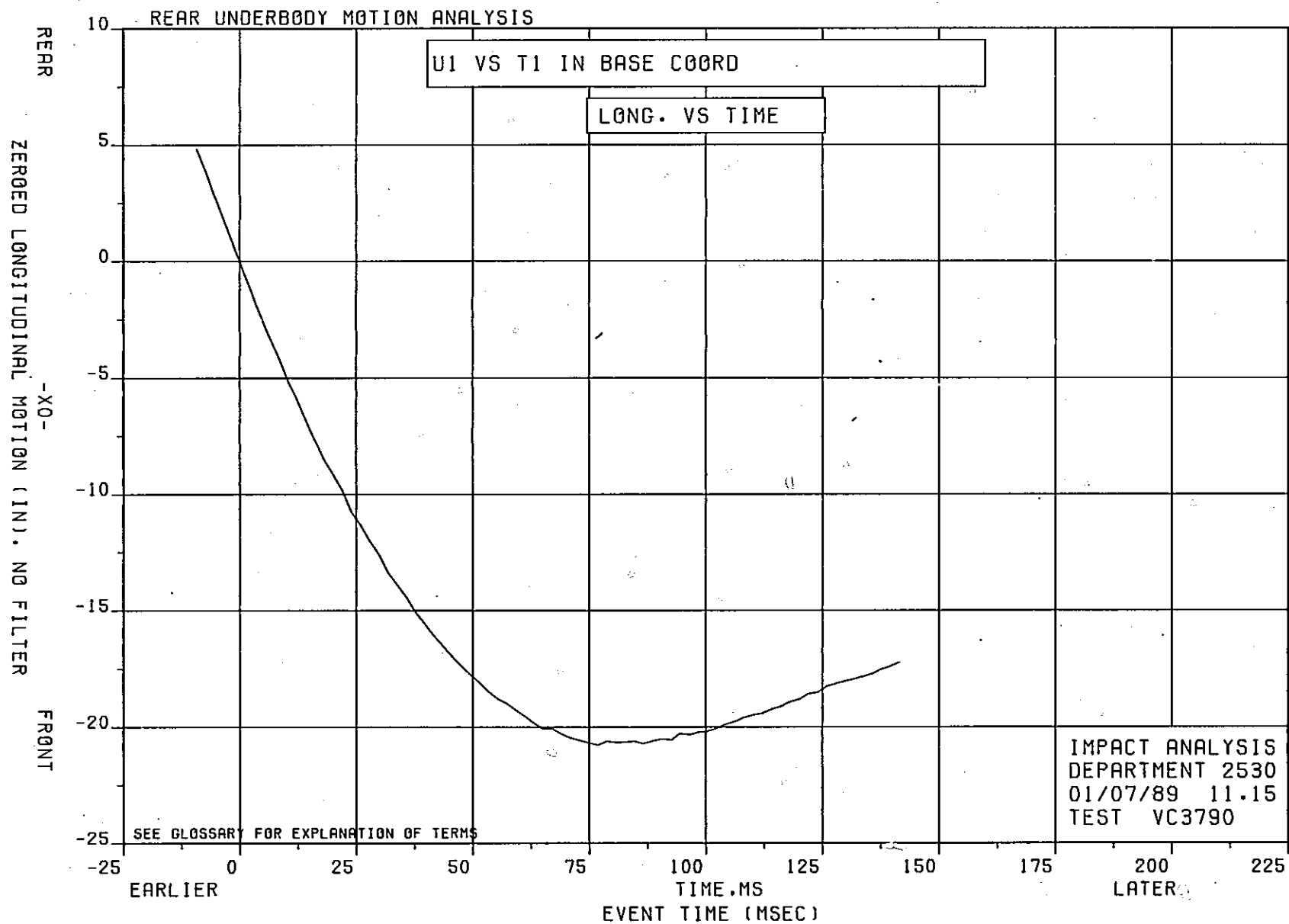


FIGURE 1

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U2 RELATIVE TO T1 IN BASE COORD
VERSUS TIME IN MILLISECONDS

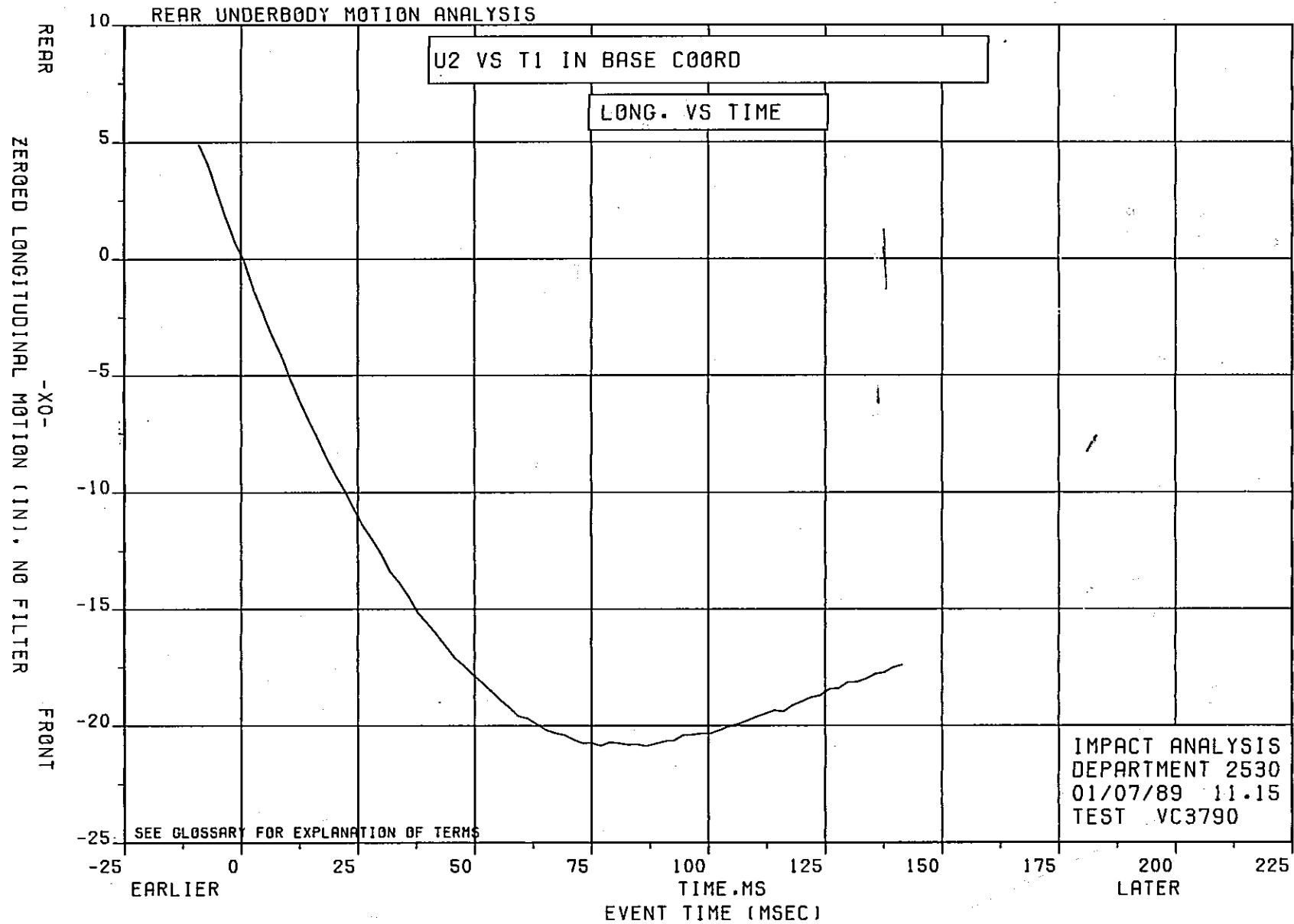


FIGURE 2

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U2 RELATIVE TO T12 IN CAR COORD.
VERSUS TIME IN MILLISECONDS

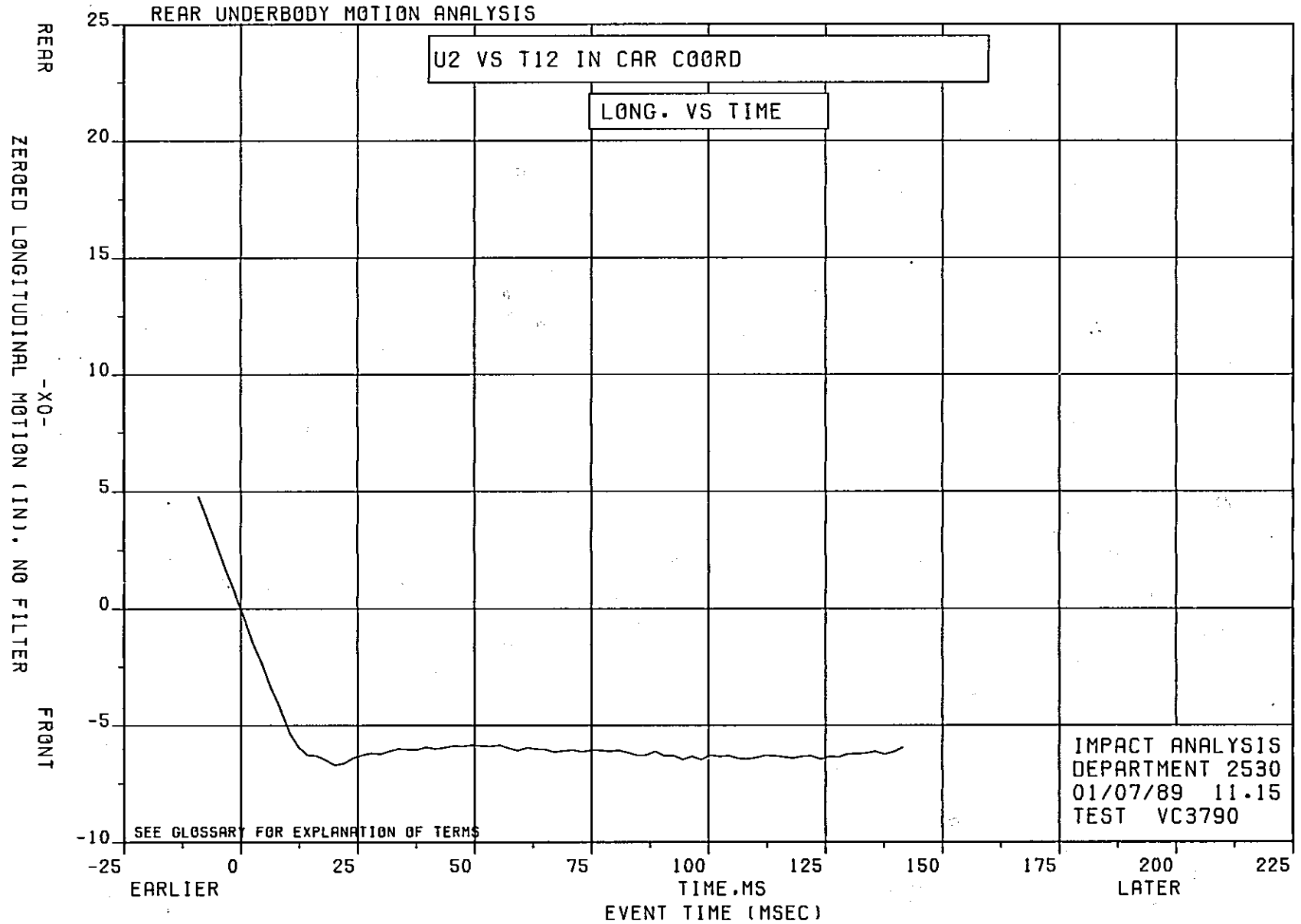


FIGURE 3

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T12 RELATIVE TO T2 IN CAR COORD
VERSUS TIME IN MILLISECONDS

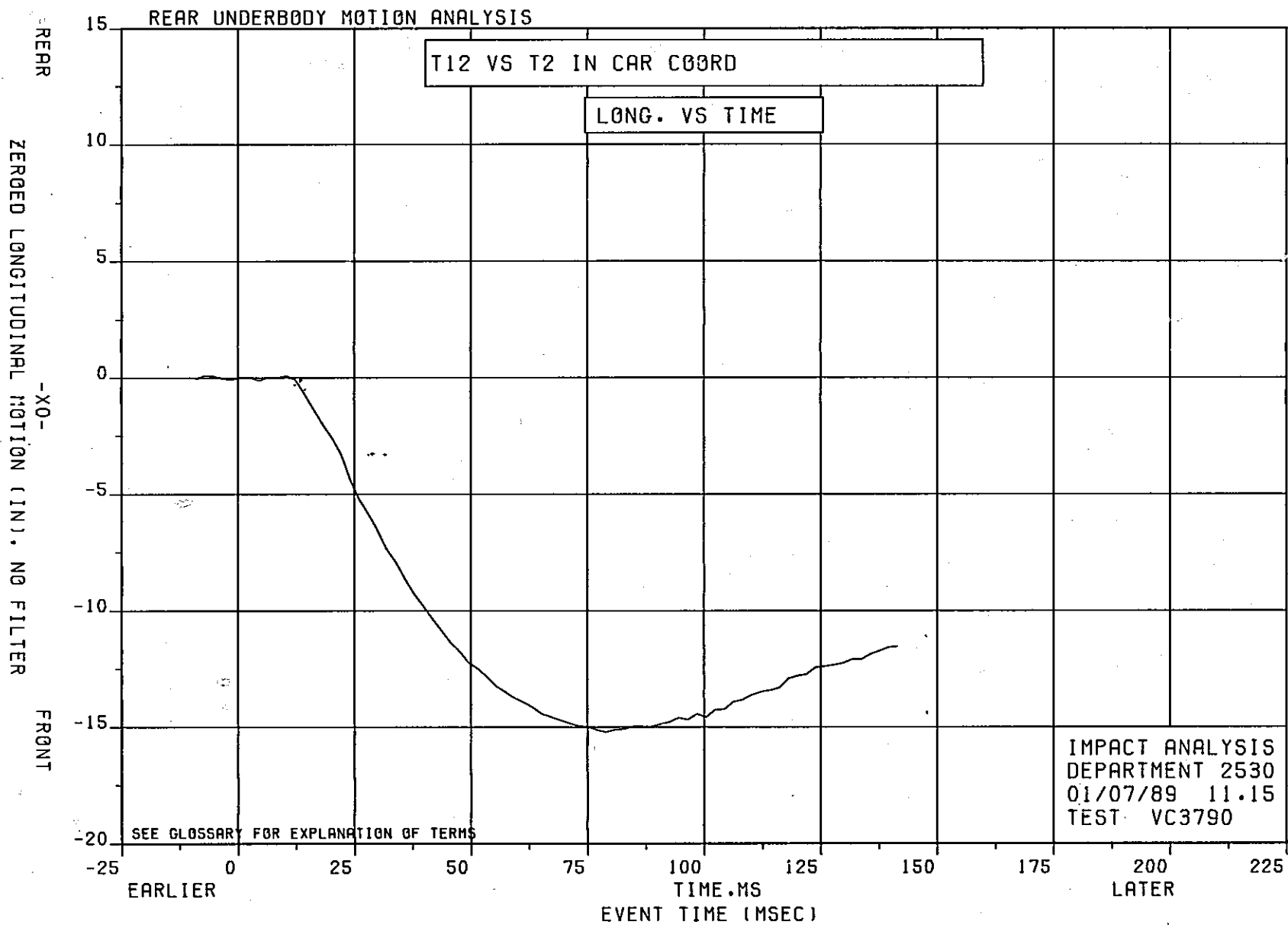


FIGURE 4

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T10 RELATIVE TO T2 IN CAR COORD
VERSUS TIME IN MILLISECONDS

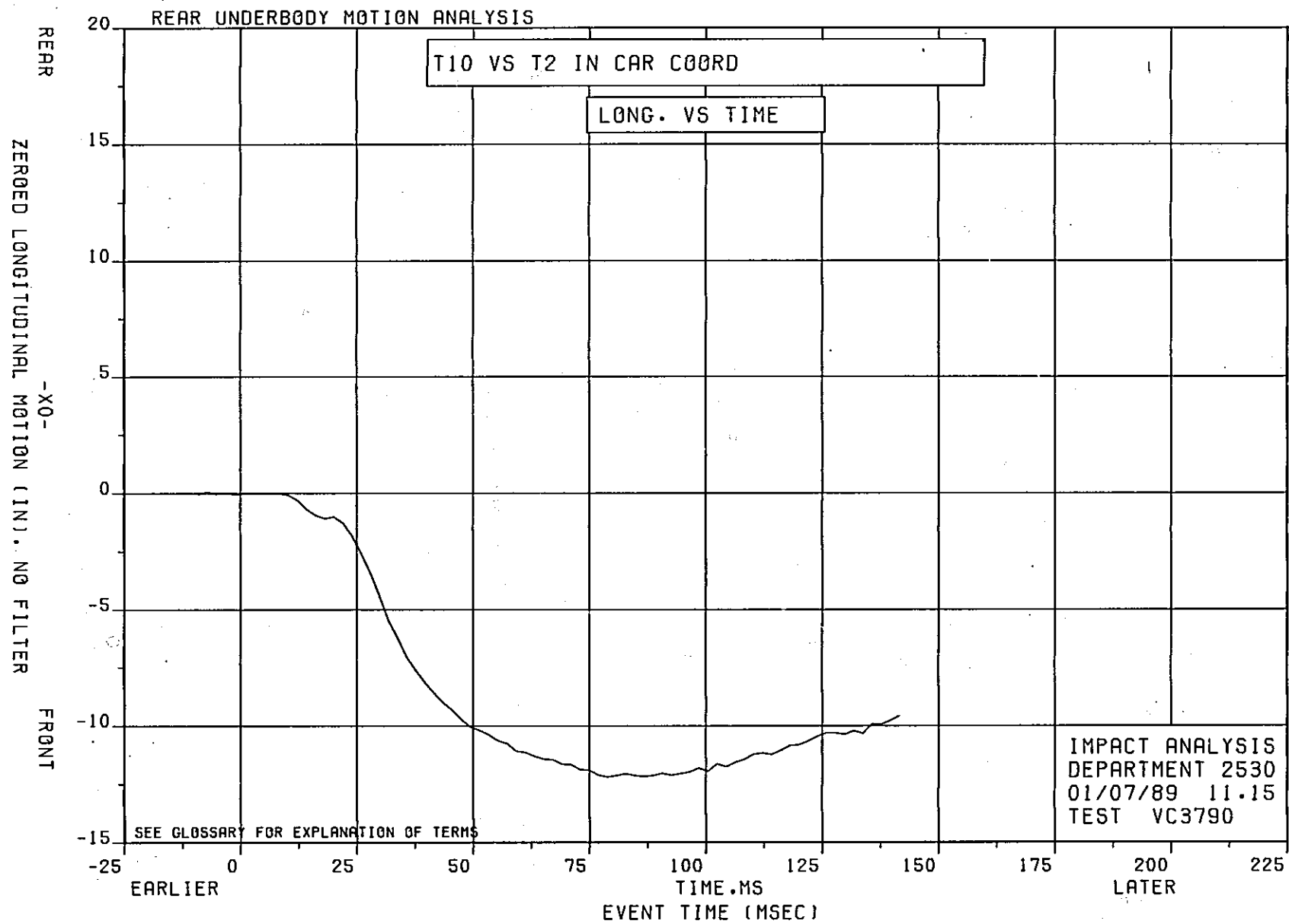


FIGURE 5

EA12-005-Chrysler-000303

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO T11 IN CAR COORD
VERSUS TIME IN MILLISECONDS

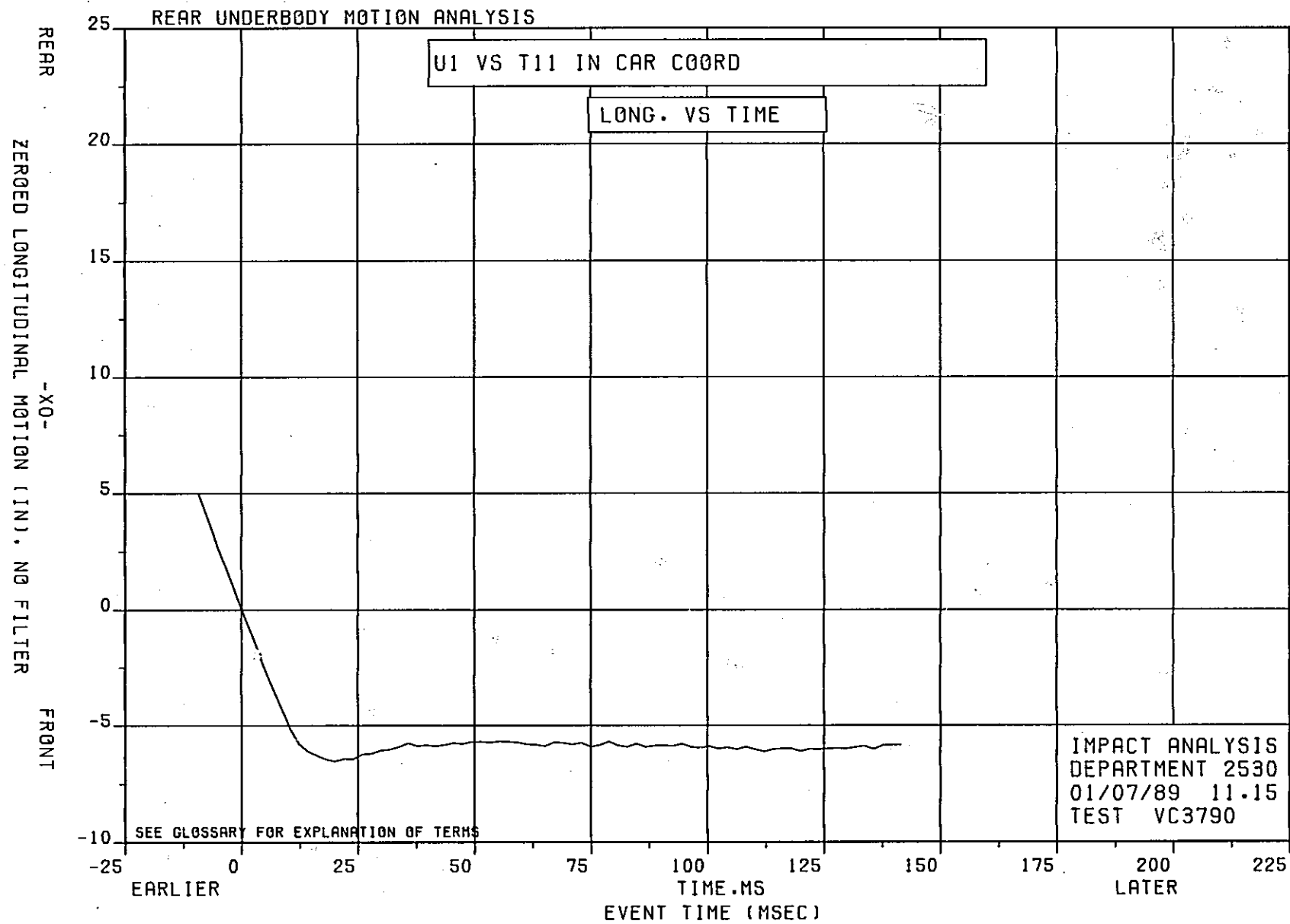


FIGURE 6

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T11 RELATIVE TO T1 IN CAR COORD
VERSUS TIME IN MILLISECONDS

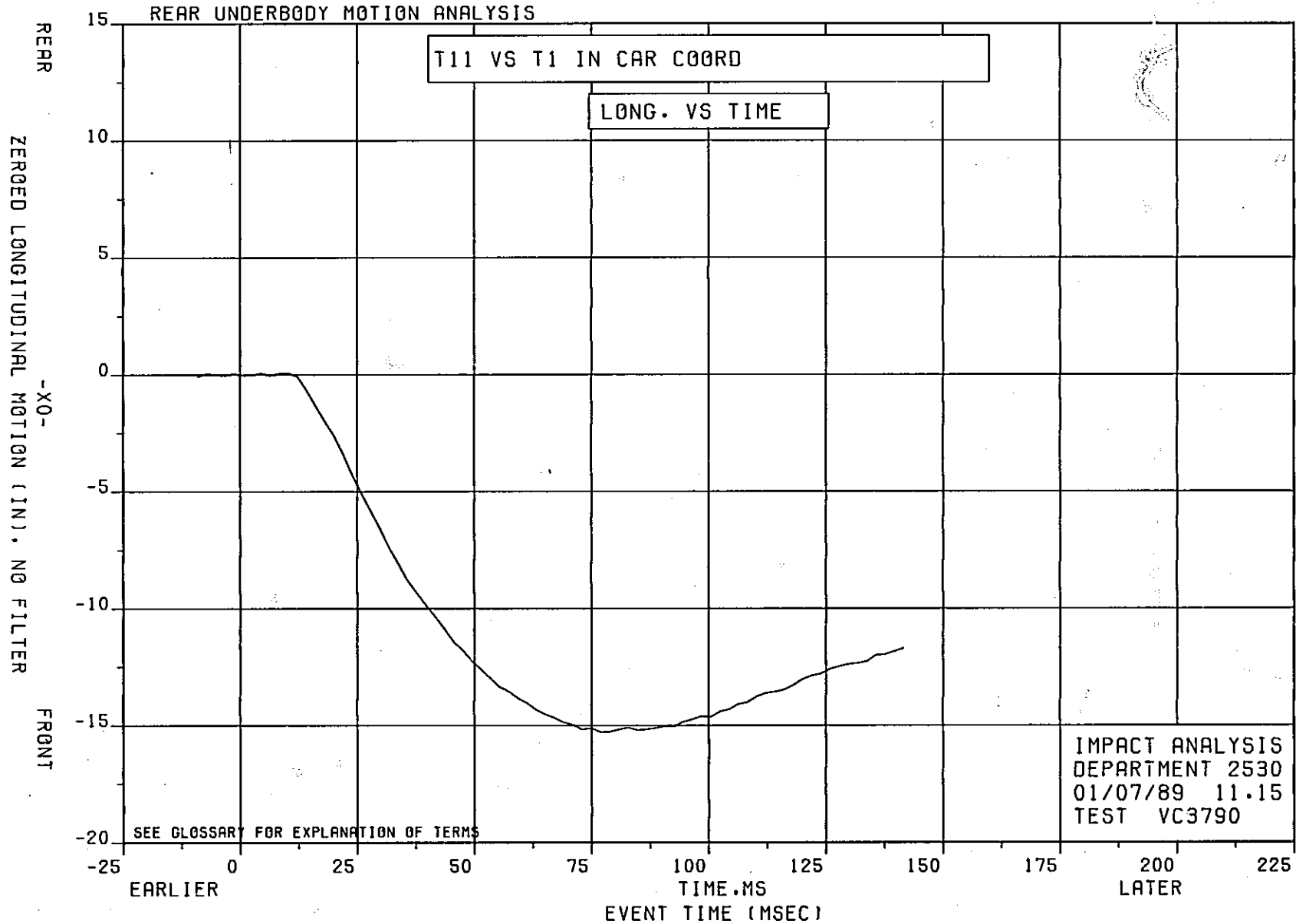


FIGURE 7

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T9 RELATIVE TO T1 IN CAR COORD
VERSUS TIME IN MILLISECONDS

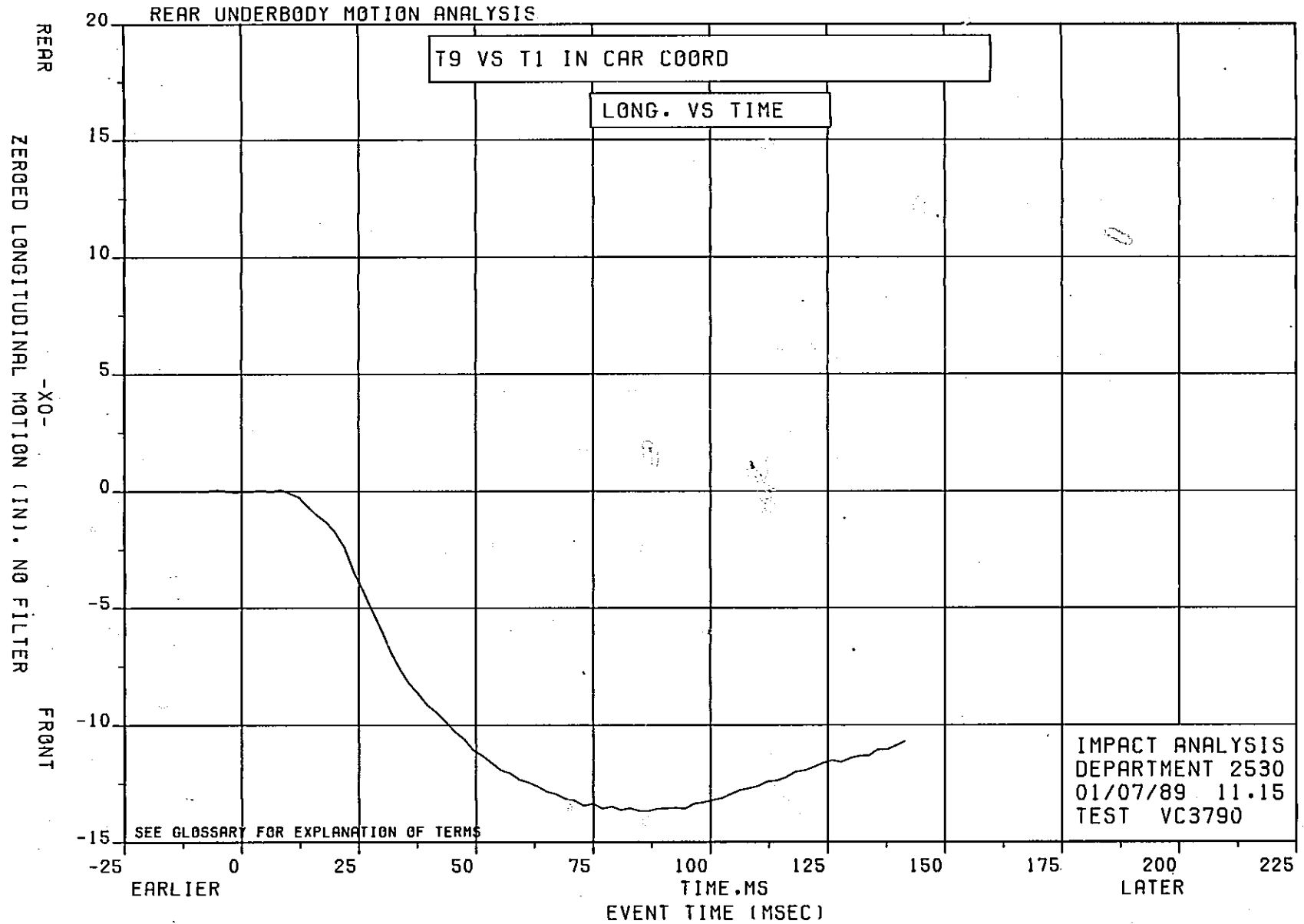


FIGURE 8

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF 102 RELATIVE TO T1 IN CAR COORD
VERSUS TIME IN MILLISECONDS

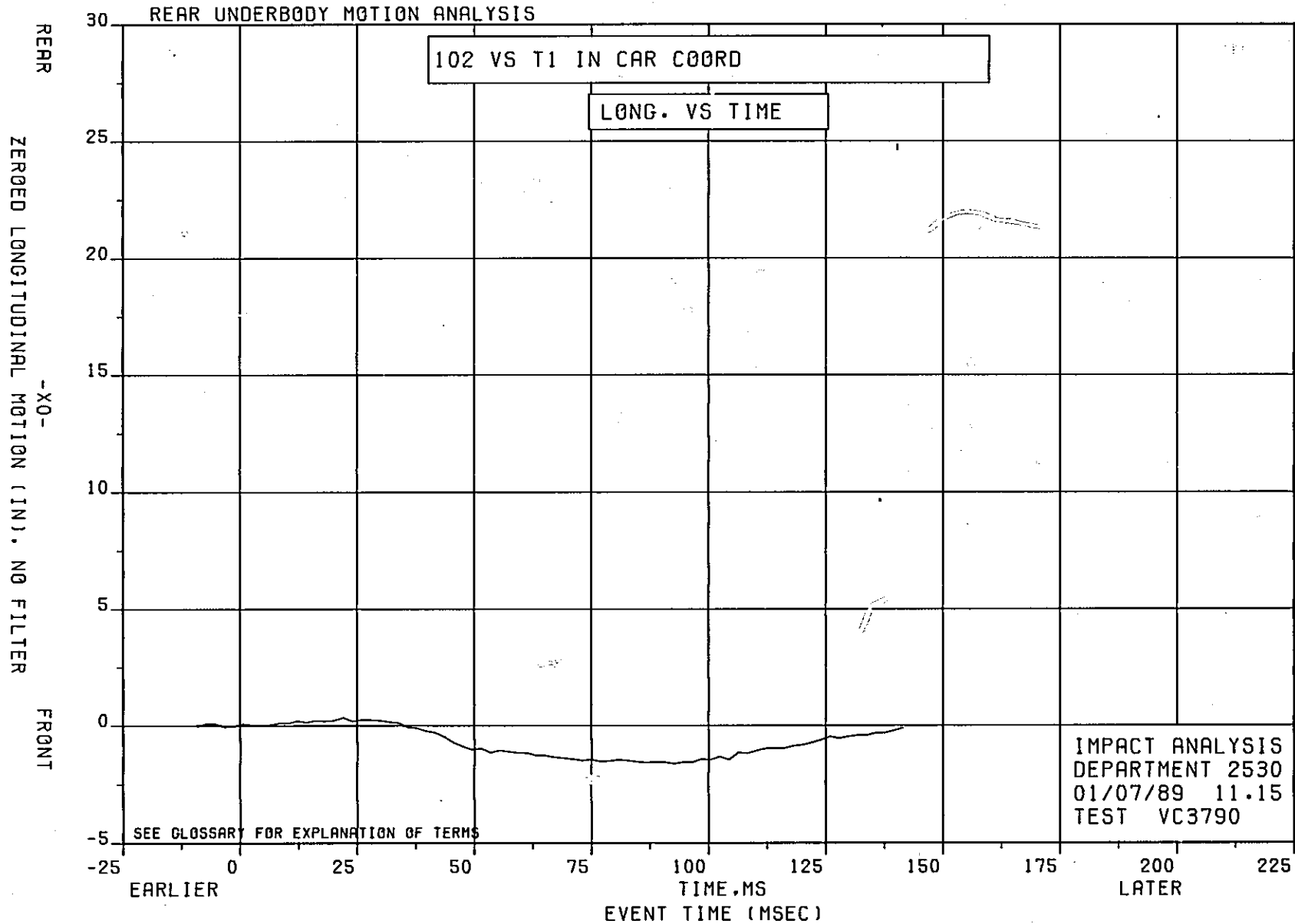


FIGURE 9

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

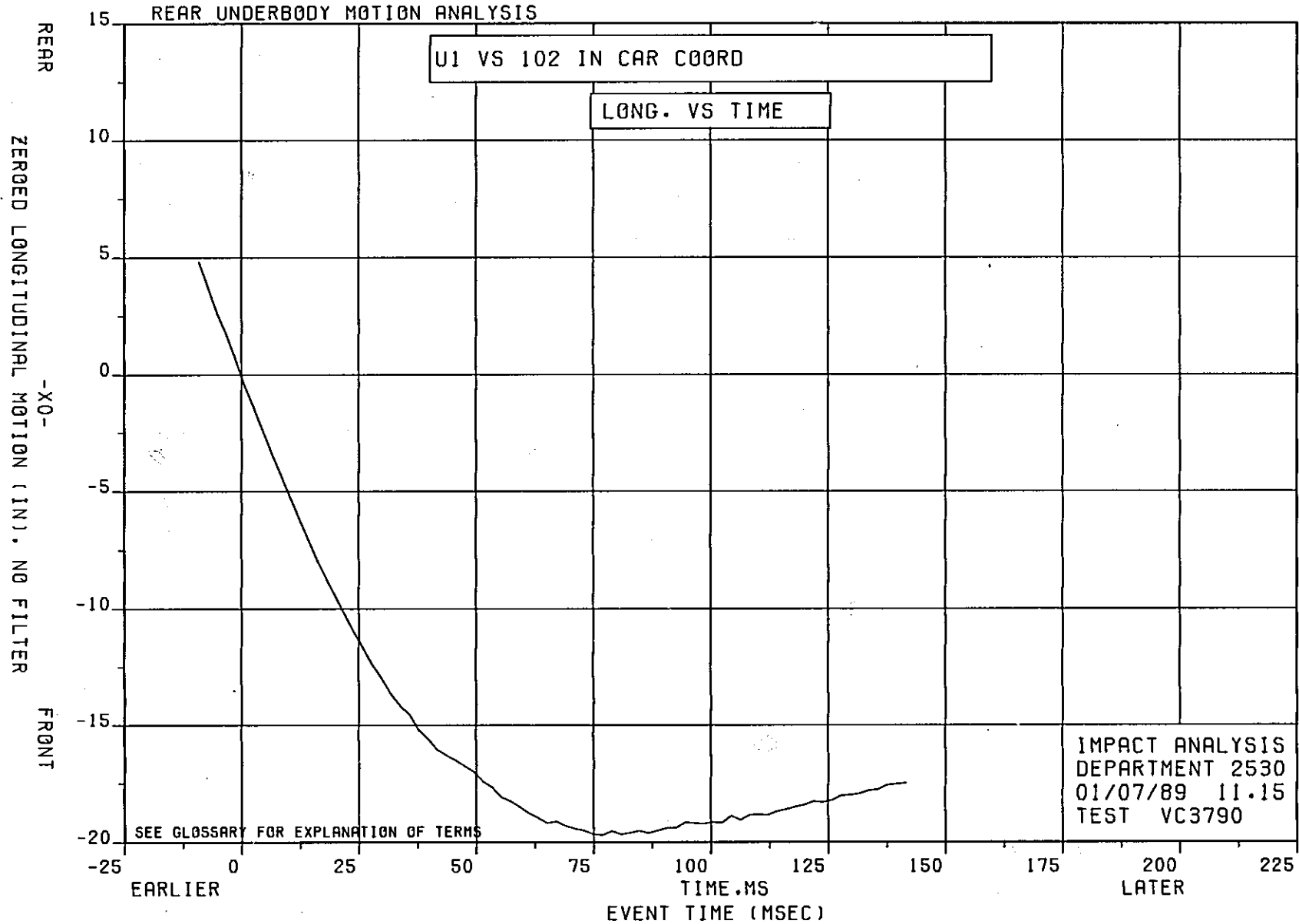


FIGURE 10

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERGED X OF T12 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

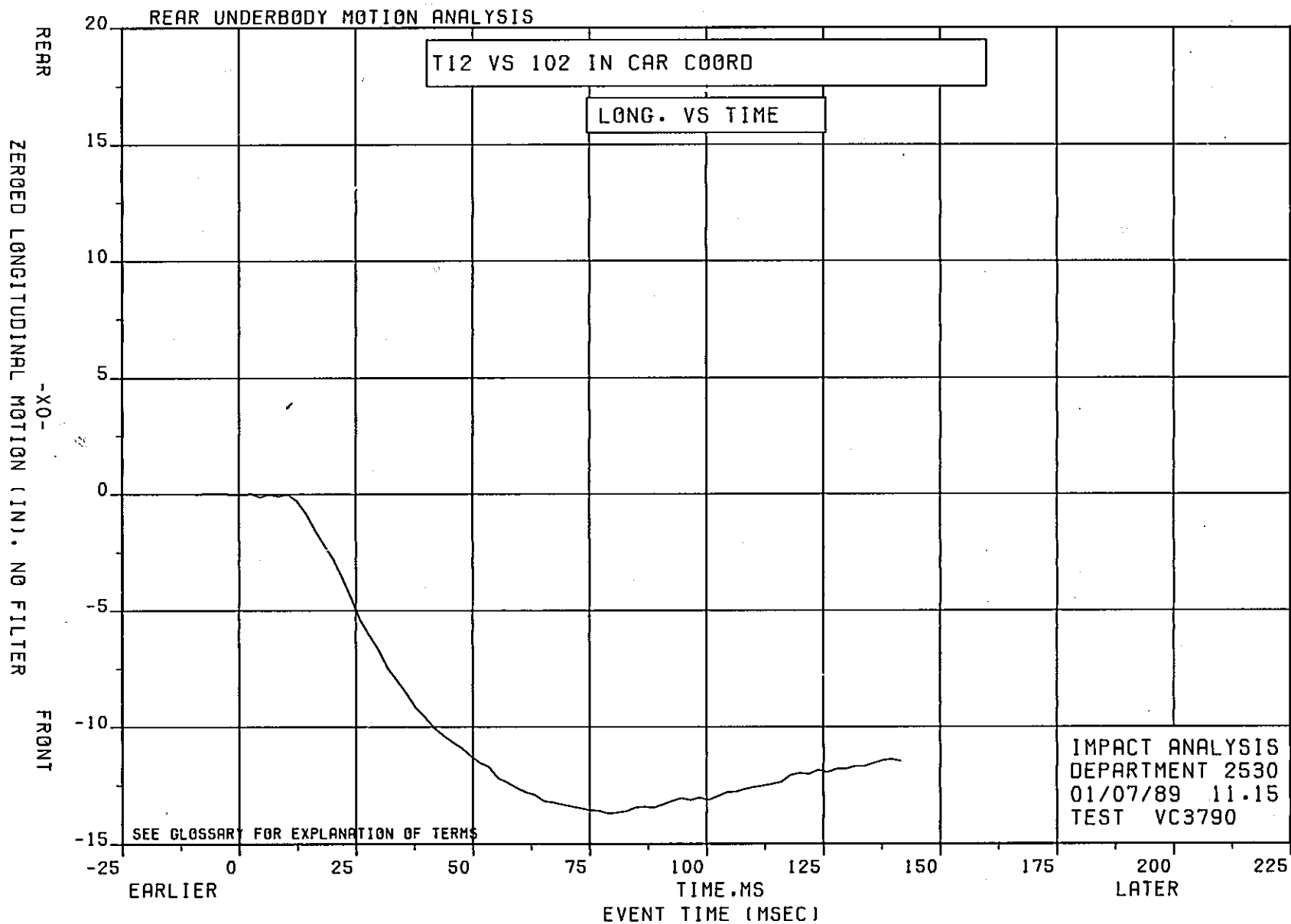


FIGURE 11

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T10 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

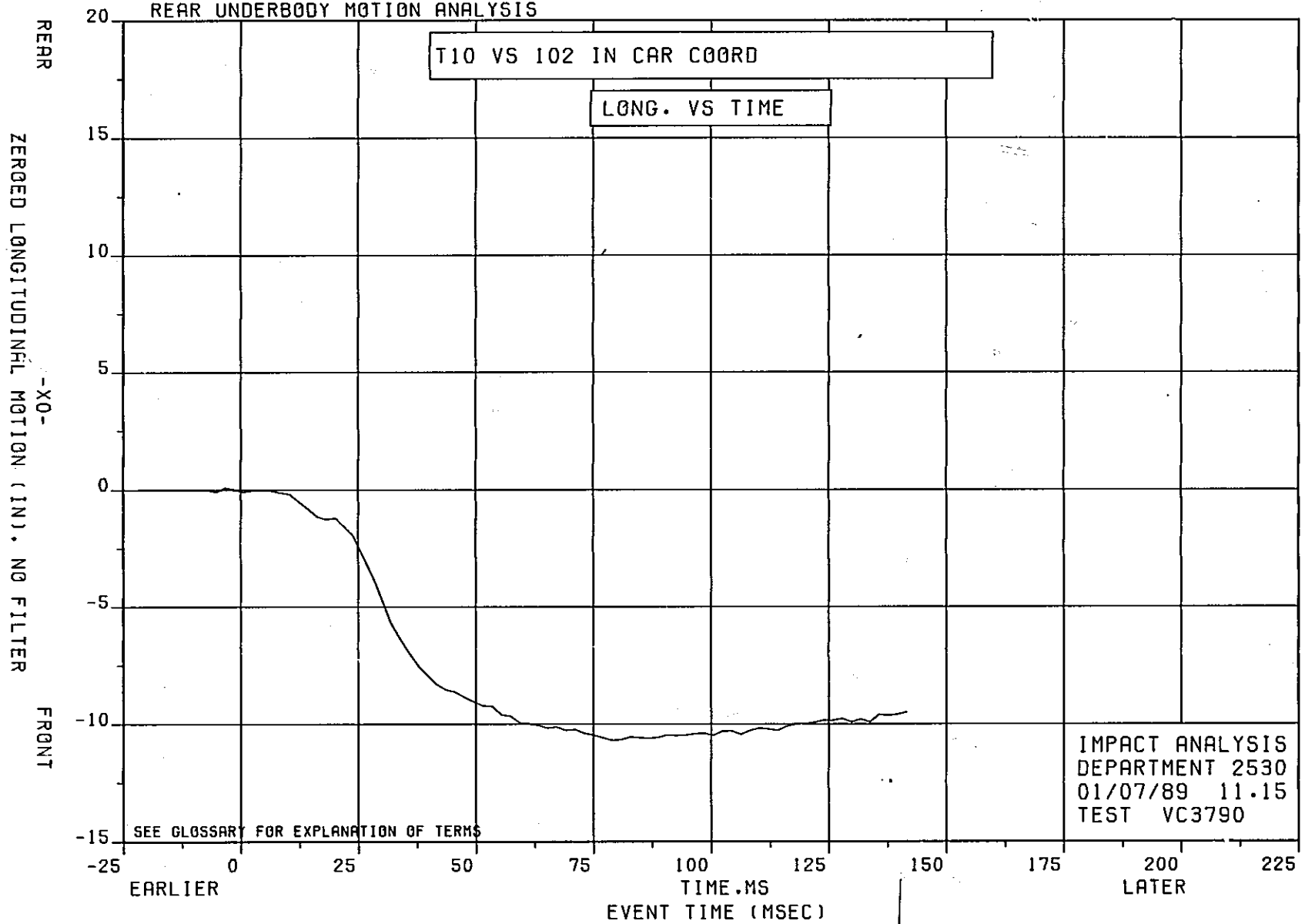


FIGURE 12

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T11 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

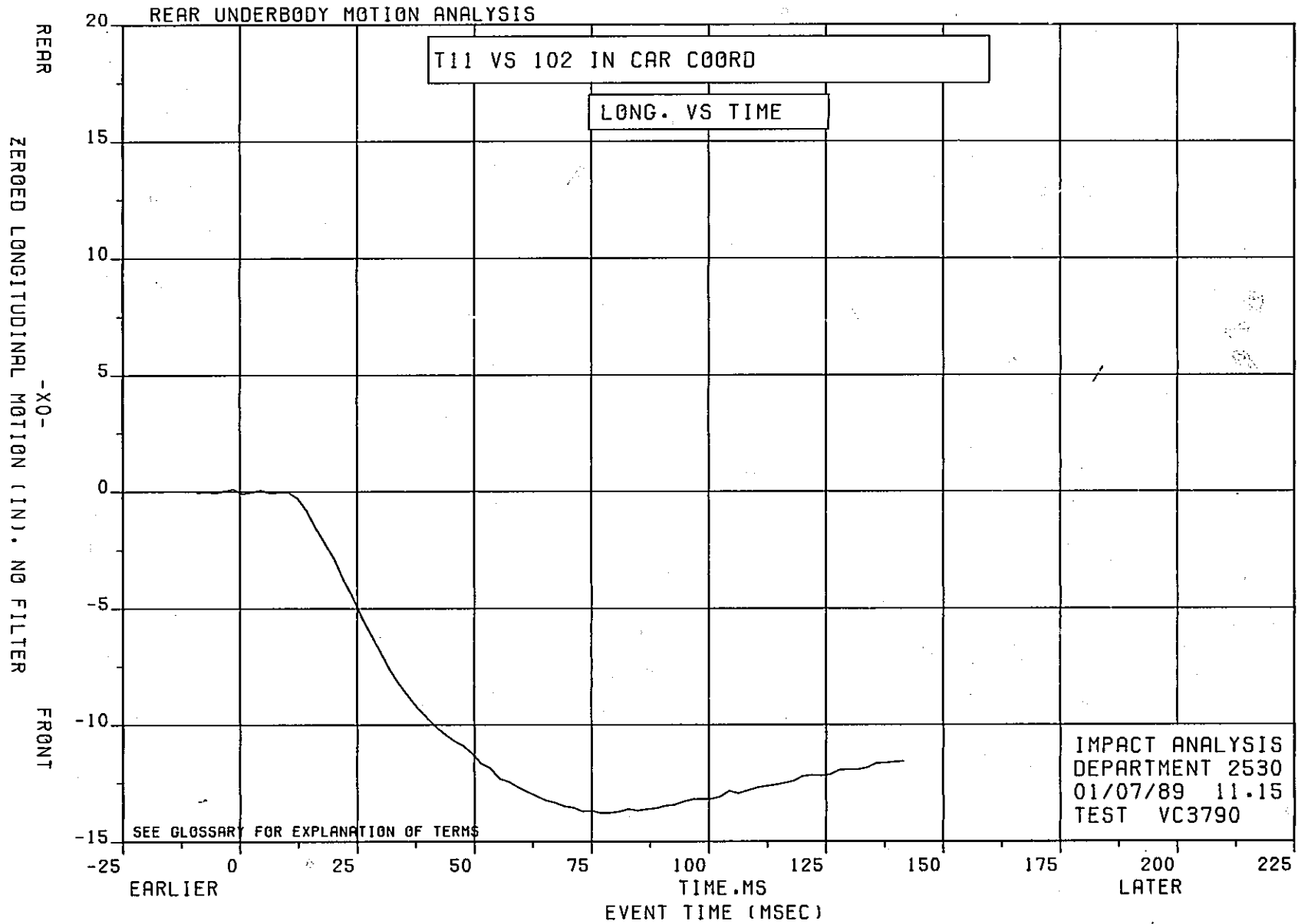


FIGURE 13

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T9 RELATIVE TO 102 IN CAR COORD.
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

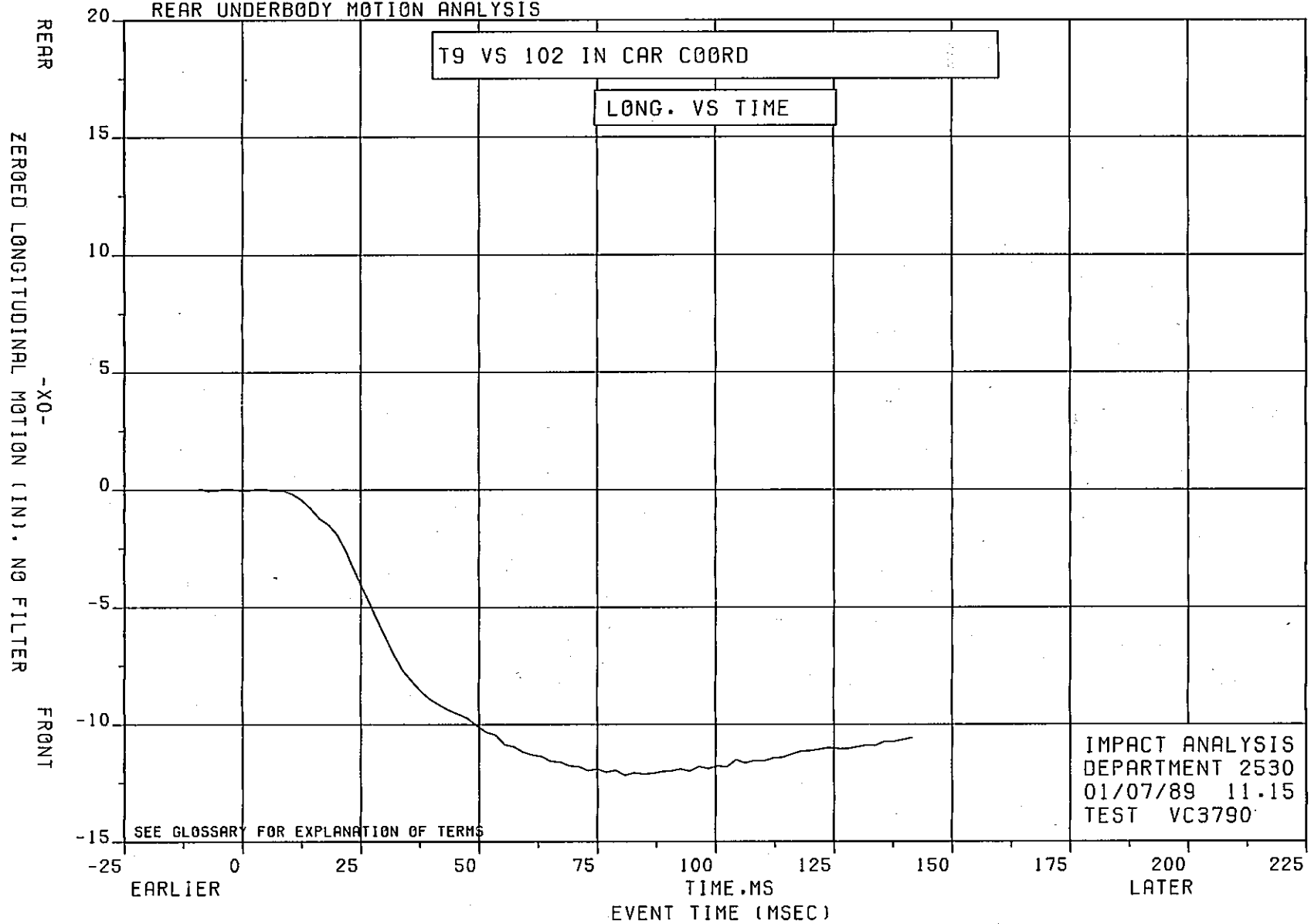


FIGURE 14

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØD PITCH OF T12 TO T10 IN CAR COORD SYSTEM
VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

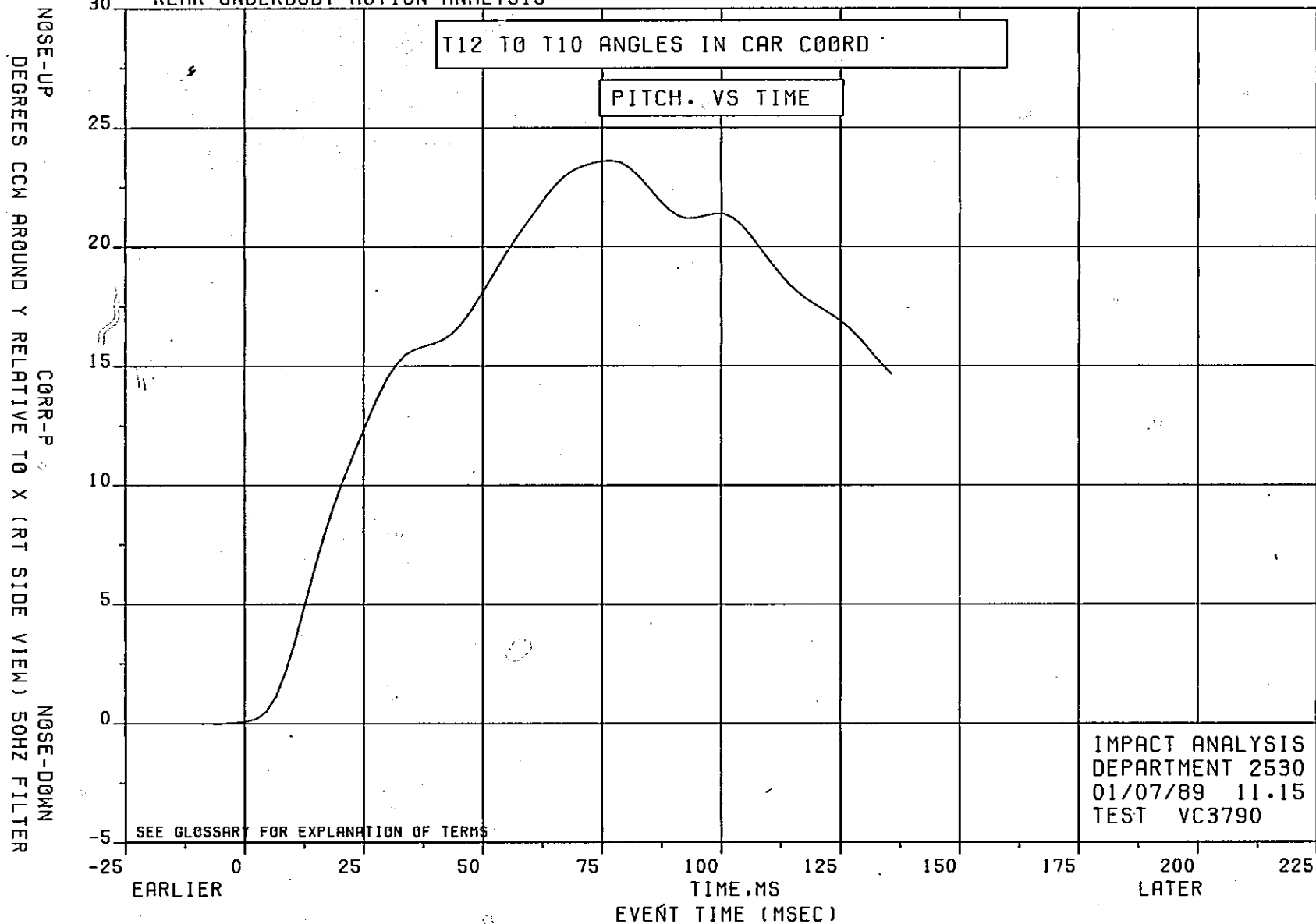


FIGURE 15

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF T11 TO T9 IN CAR COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

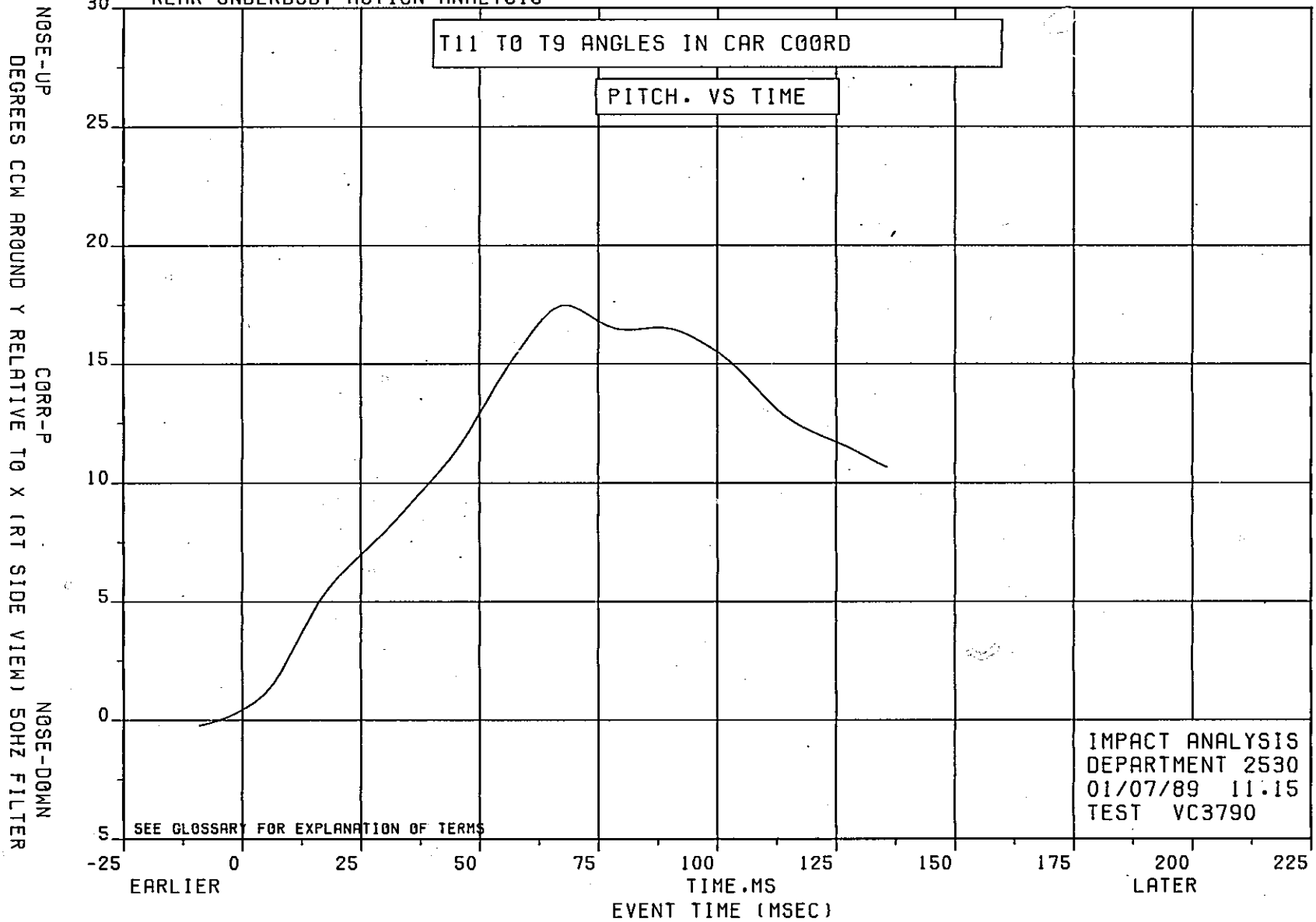


FIGURE 16

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED SEPARATION OF T12 AND T10 (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

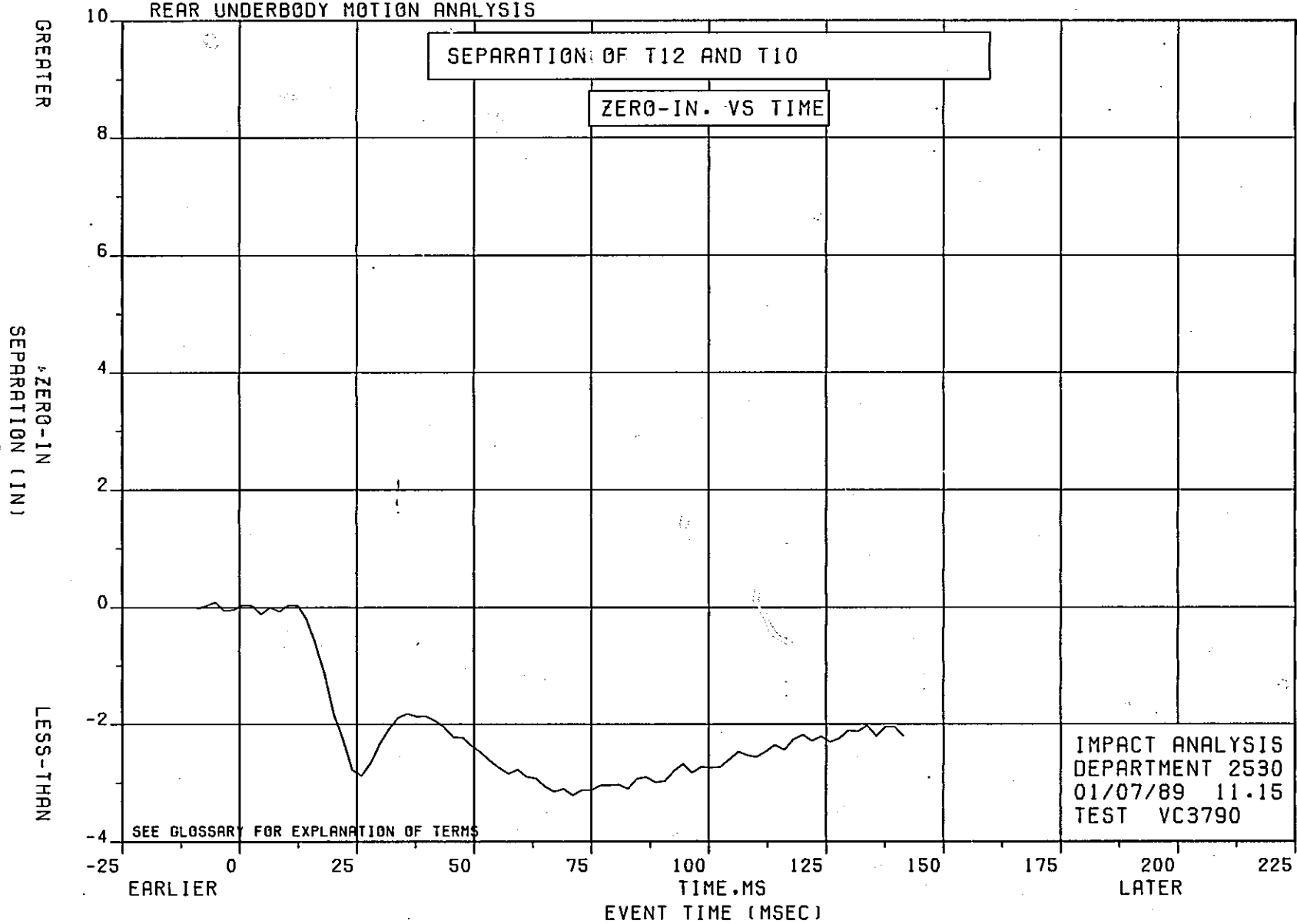


FIGURE 17

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED SEPARATION OF T11 AND T9 (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

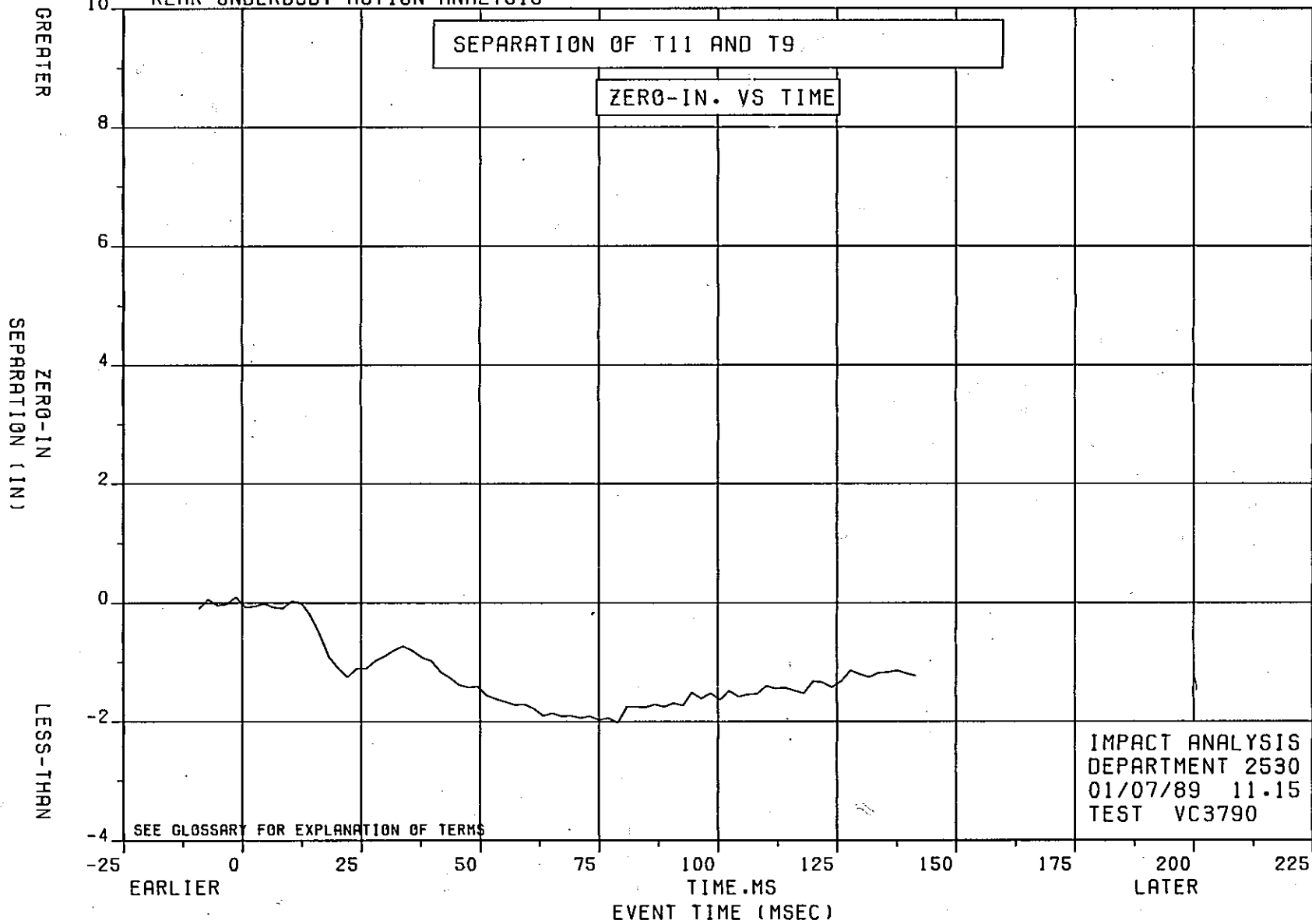


FIGURE 18

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED YAW OF T1 TO T2 IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

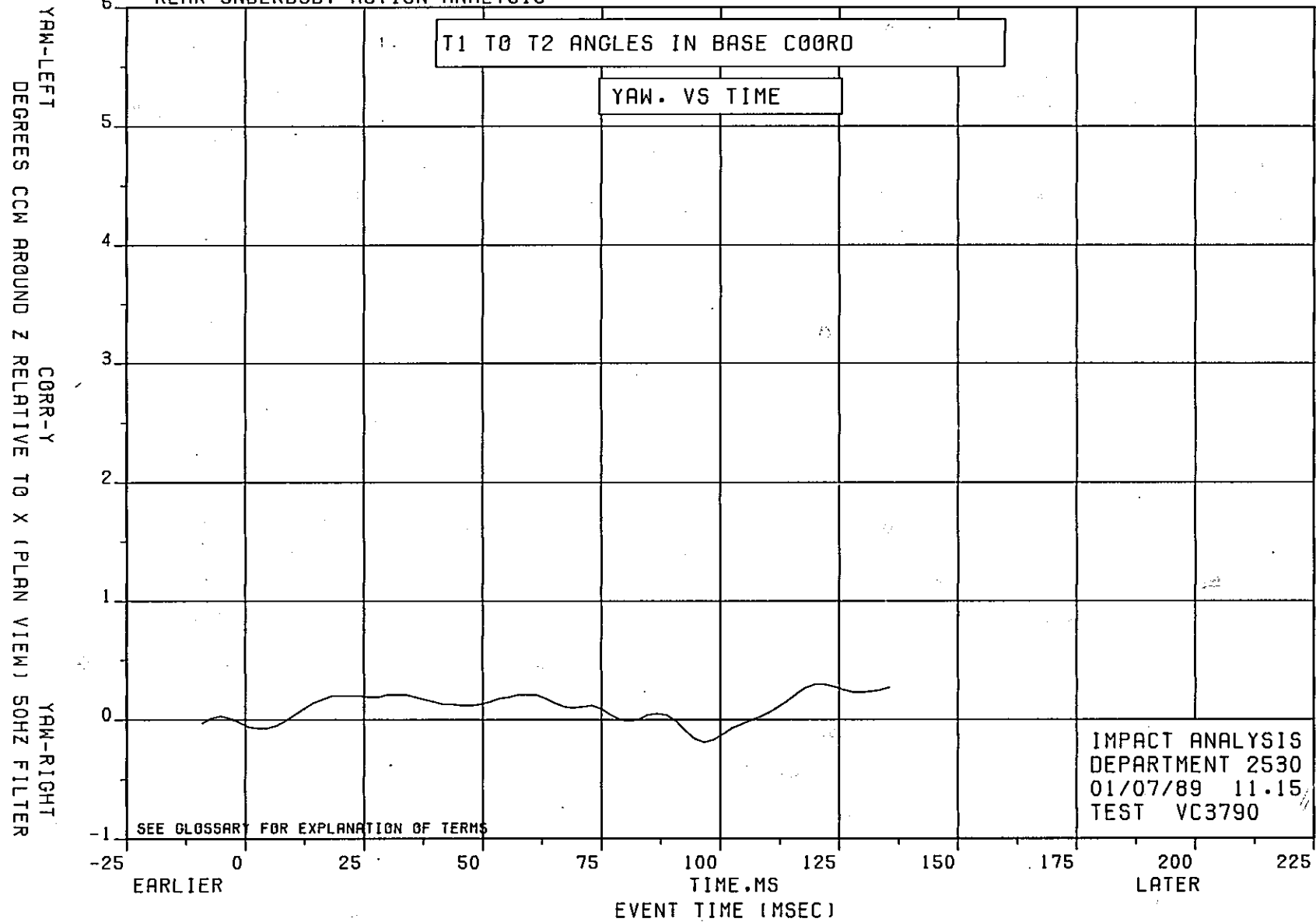


FIGURE 19

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF SILL VECTOR IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

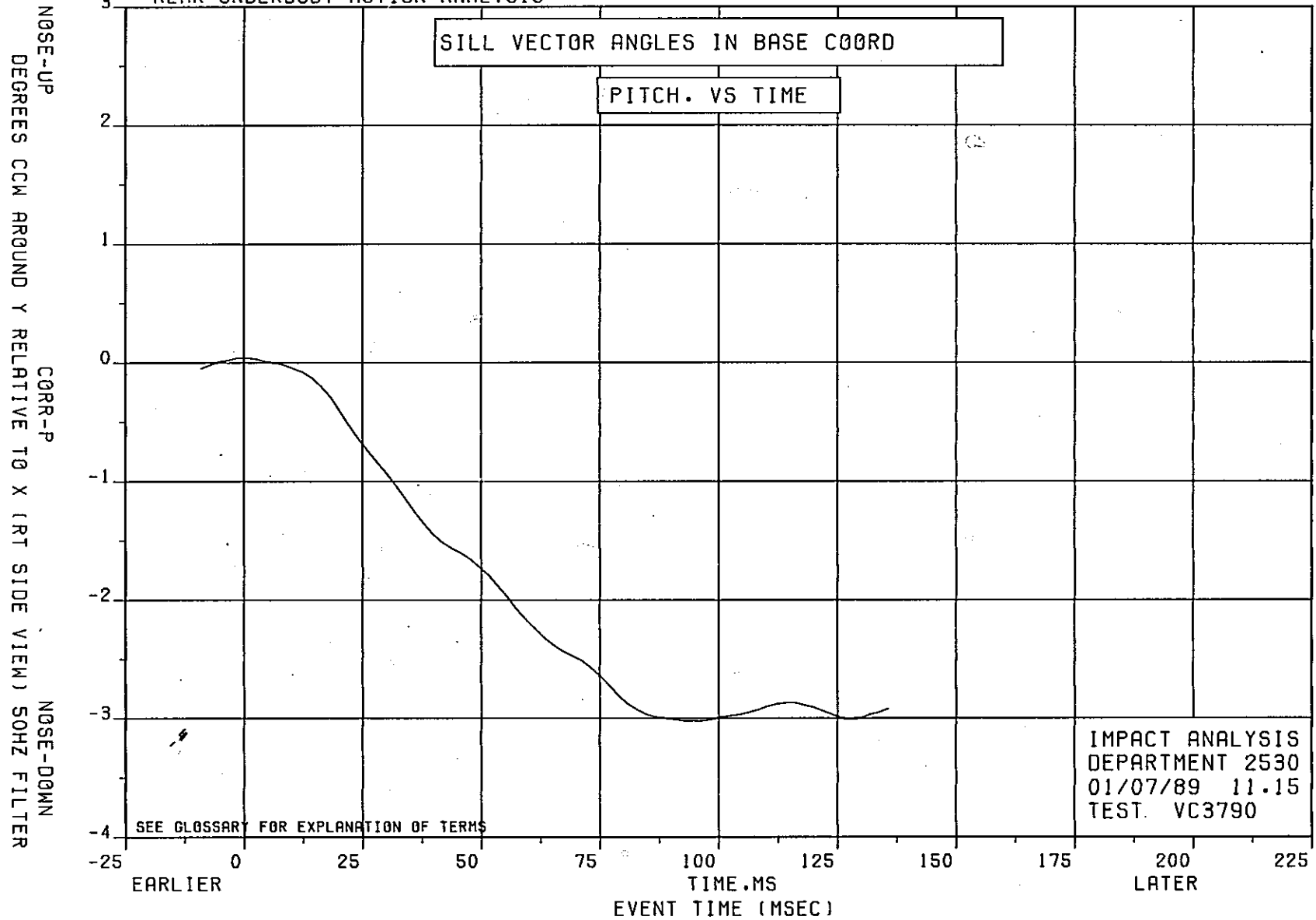


FIGURE 20

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

T1 TO T2 DISTANCE -35.08(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

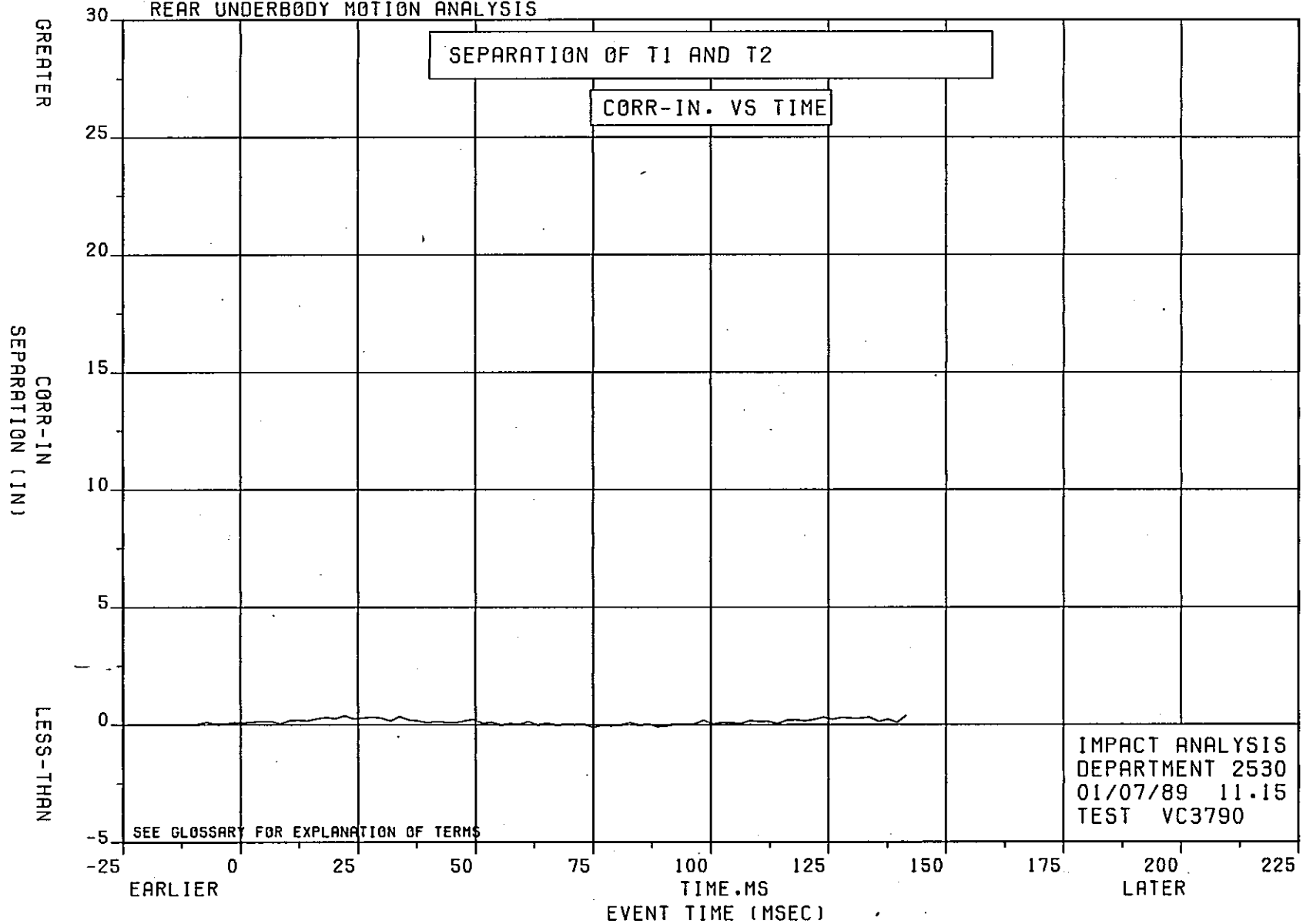


FIGURE 21

VC3790 30 MPH REAR IMPACT. ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

U1 TO U2 DISTANCE -37.66(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

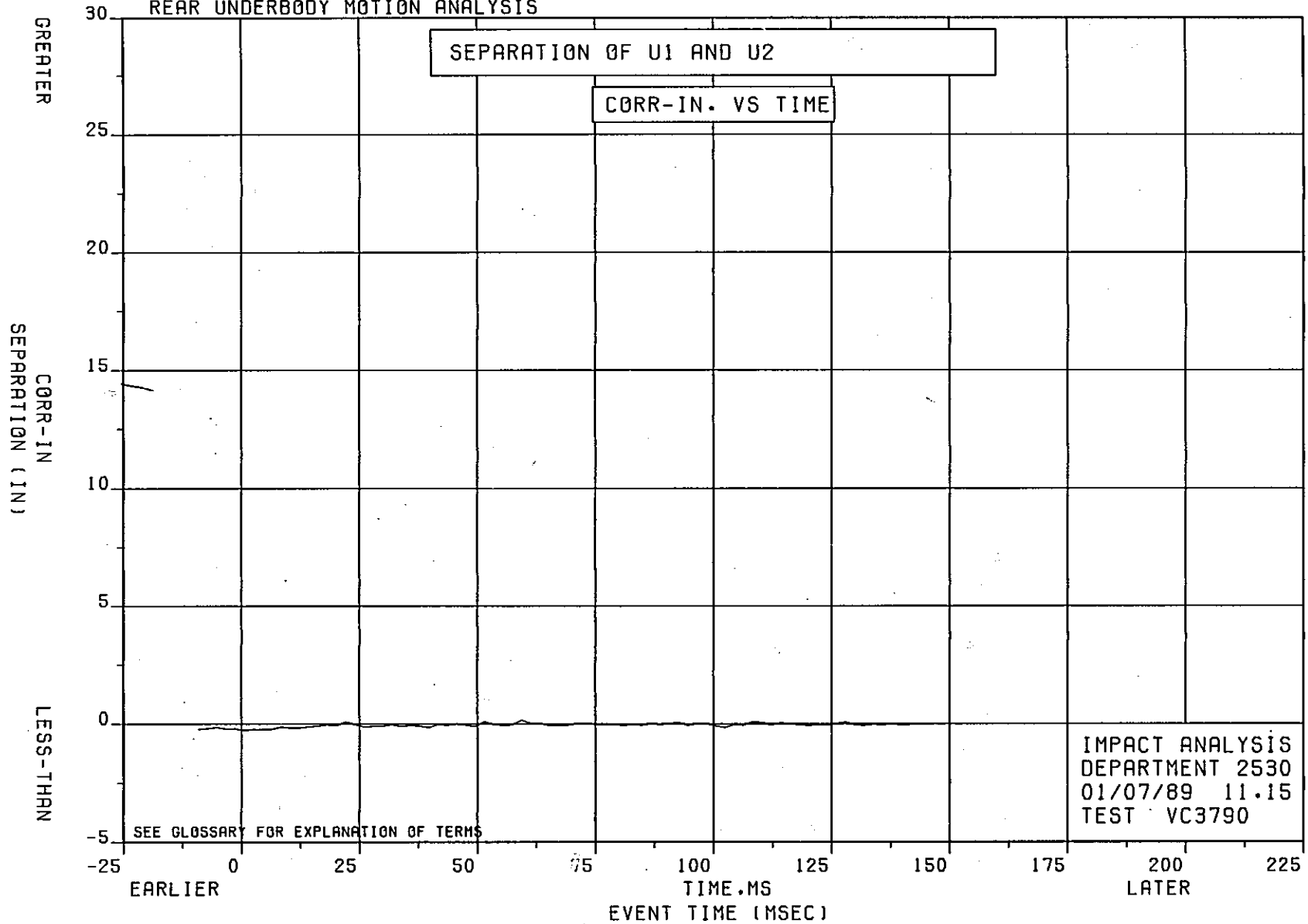


FIGURE 22

INTER COMPANY CORRESPONDENCE

FILE UBR010489

DATE 01/18/89

TO
DISTRIBUTION

FROM
J. W. HANIKA

DEPARTMENT
2530

PLANT/OFFICE
CHRYSLER CENTER

CIMS NUMBER
418-42-27

SUBJECT:

REAR UNDERBODY MOTION ANALYSIS
VC3790 30 MPH REAR IMPACT, XJ72, 2.5L I4 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.
TEST DATE 12/22/88

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: 2.5 LITRE
ENGINE NOTE: THROTTLE BODY INJECTION
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4???7E?M* [REDACTED] MOD.
VIN AS BUILT: 1JCHL77*9HT [REDACTED] MOD.

TEST SPEED

30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS)

4306 TOTAL, 2124 FRONT, 2182 REAR

OCCUPANTS

LEFT FRONT 50TH MALE, INSTRUMENTED. AD-61
RESTRAINT-UNIBELT
RIGHT FRONT 50TH MALE, INSTRUMENTED. AD-62
RESTRAINT-UNIBELT

BUILD CONDITION



ZJ "B" LEVEL FUEL TANK AND LINES (23 GALLONS).
5000# TRAILER HITCH.
SUN ROOF.

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.
200 LBS SECURED TO FRONT FOOTWELLS.
240 LBS SECURED TO REAR FOOTWELLS.

POST TEST REMARKS THERE WAS EXCESSIVE FUEL LEAKAGE AT IMPACT FROM
THE TOP OF THE FUEL TANK. THE FUEL PUMP / SENDING
UNIT HOUSING WAS FOUND TO BE CRACKED WHEN THE TANK
WAS REMOVED POST - TEST.

THE RELATIVE MOTIONS OF SELECTED REAR UNDERBODY TARGETS HAVE BEEN
DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON CAMERA TIMING DATA.

T. C. WILLIAMS

J. W. HANIKA

CC	
W. A. BREITMOSER	422-05-01
M. W. CROSSMAN	422-05-01
J. W. HANIKA	418-42-22
W. W. KOEBNICK	422-05-01
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E. A. ZYLIK	514-15-17

GRAPHS - 0

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

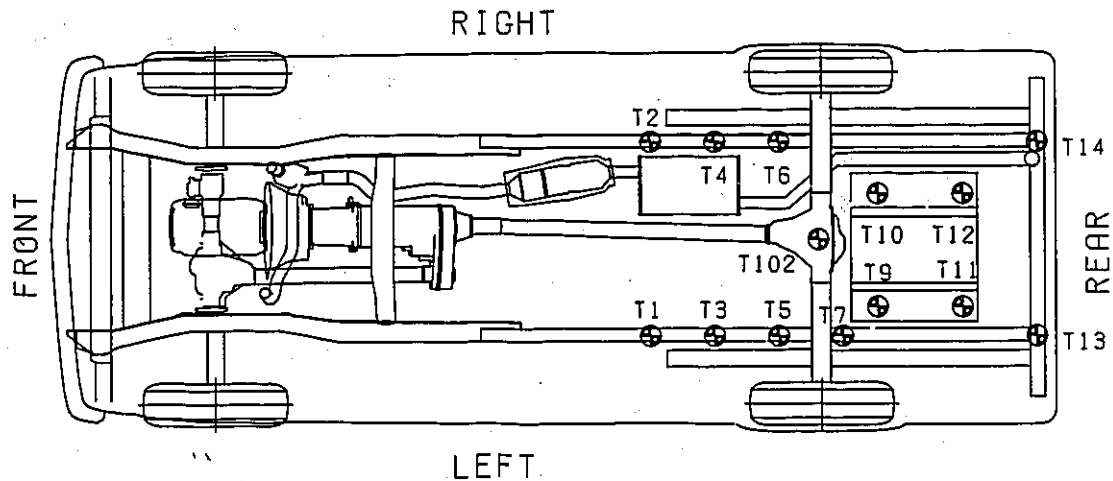
U S E D I N S T A N D A R D R E P O R T S

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CORR-R	CORRECTED (ZEROED) ROLL
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SEP	SEPARATION OF (THREE-DIMENSIONAL)
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TBI	THROTTLE BODY INJECTOR
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U/B	UNDERBODY
VS	VERSUS
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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
01/07/89 11.15
TEST VC3790

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
 1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

PLAN VIEW



LEGEND OF STANDARD ZJ-BODY FRONT U/B TARGETS

TARGET DESIGNATION	TARGET DESCRIPTION
T1	LEFT FORE RAIL TARGET
T2	RIGHT FORE RAIL TARGET
T3	LEFT MID RAIL TARGET
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T7	LEFT KICKUP TARGET
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T11	LEFT AFT TANK COVER TARGET
T12	RIGHT AFT TANK COVER TARGET
T13	LEFT REAR RAIL TARGET
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T102	REAR DIFFERENTIAL TARGET

IMPACT ANALYSIS
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 TEST VC3790

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO T1 IN BASE COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

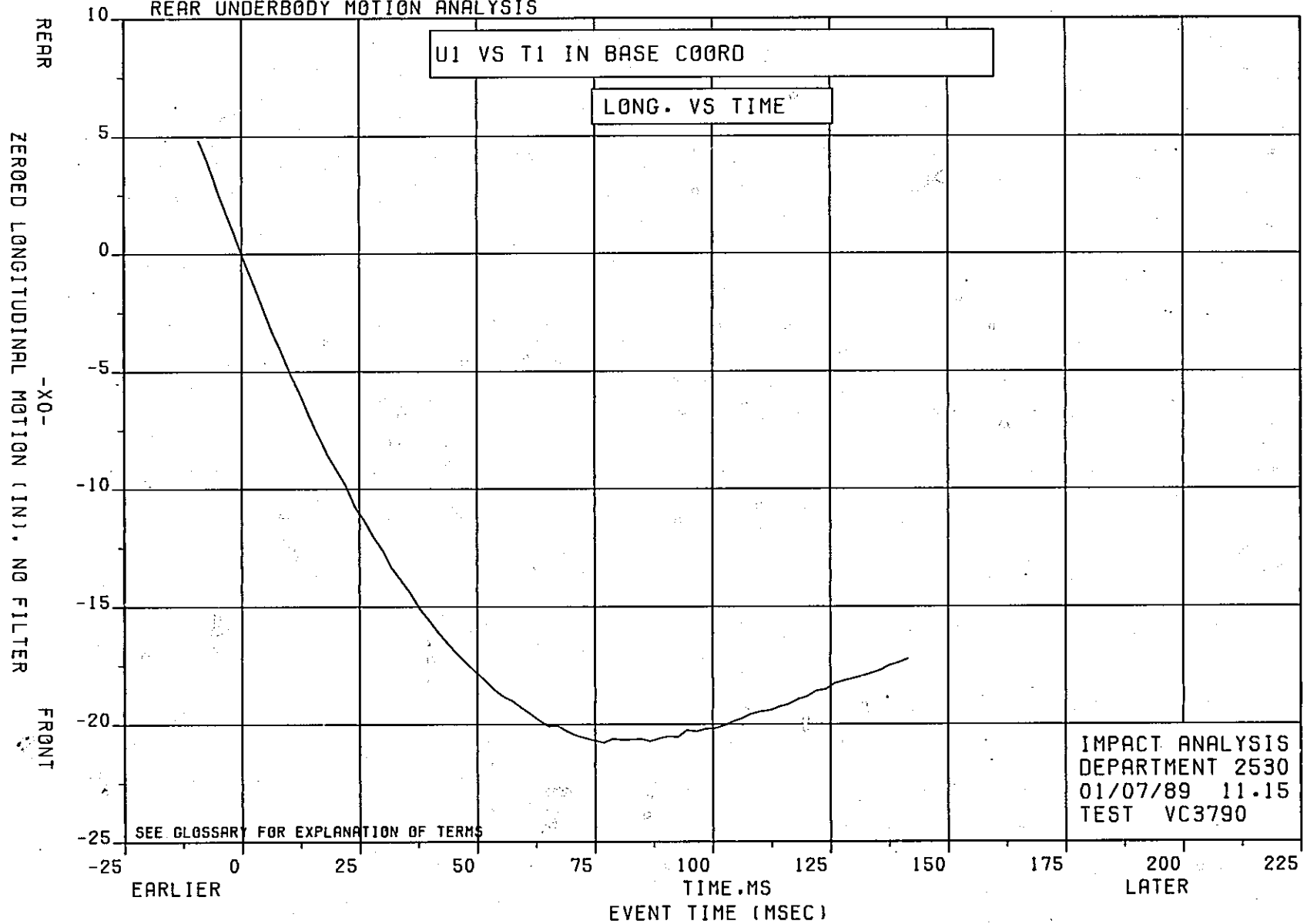


FIGURE 1

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØED X OF U2 RELATIVE TO T1 IN BASE COORD
VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

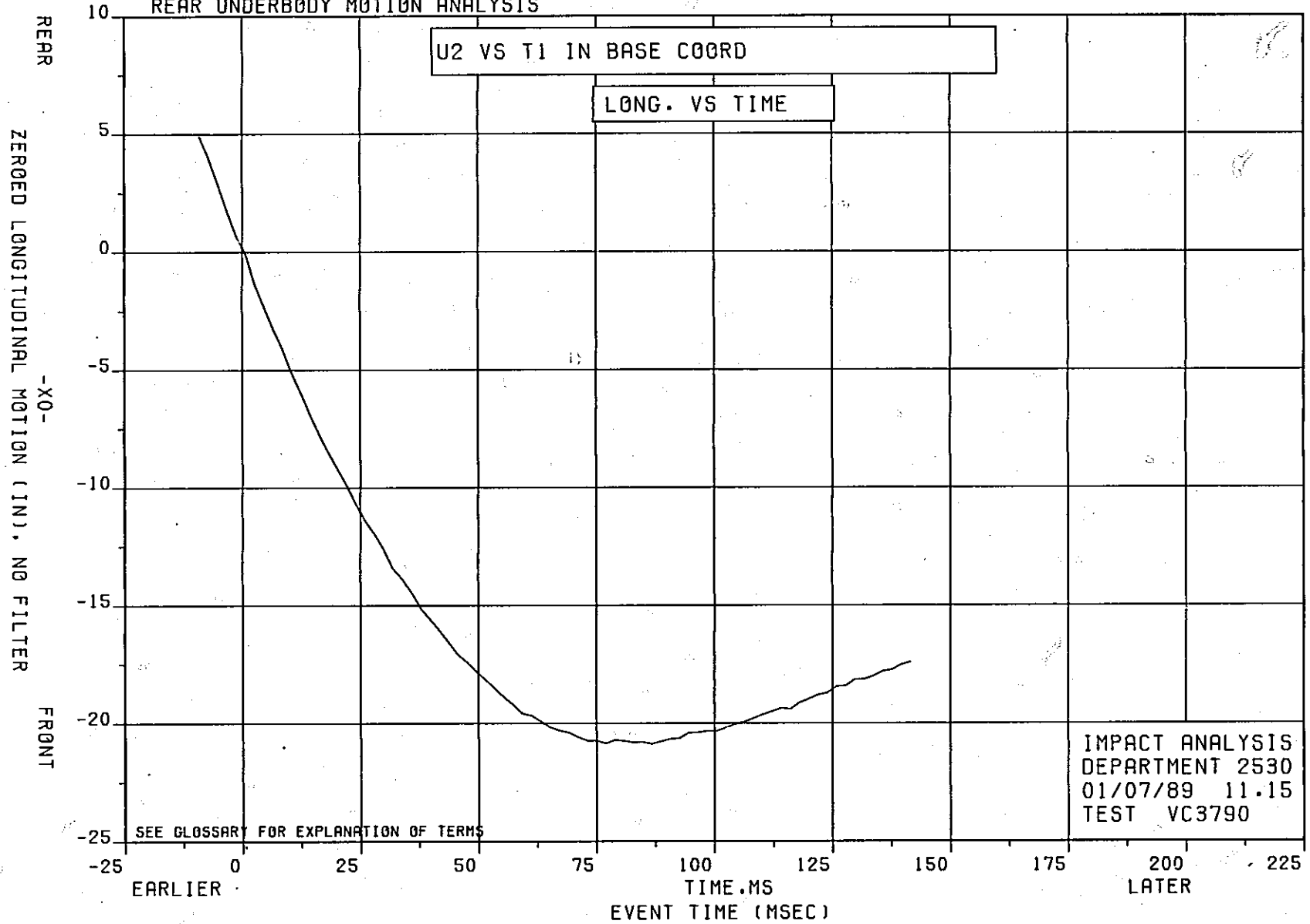


FIGURE 2

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L 16 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

ZEROED X OF U2 RELATIVE TO T12 IN CAR COORD
VERSUS TIME IN MILLISECONDS

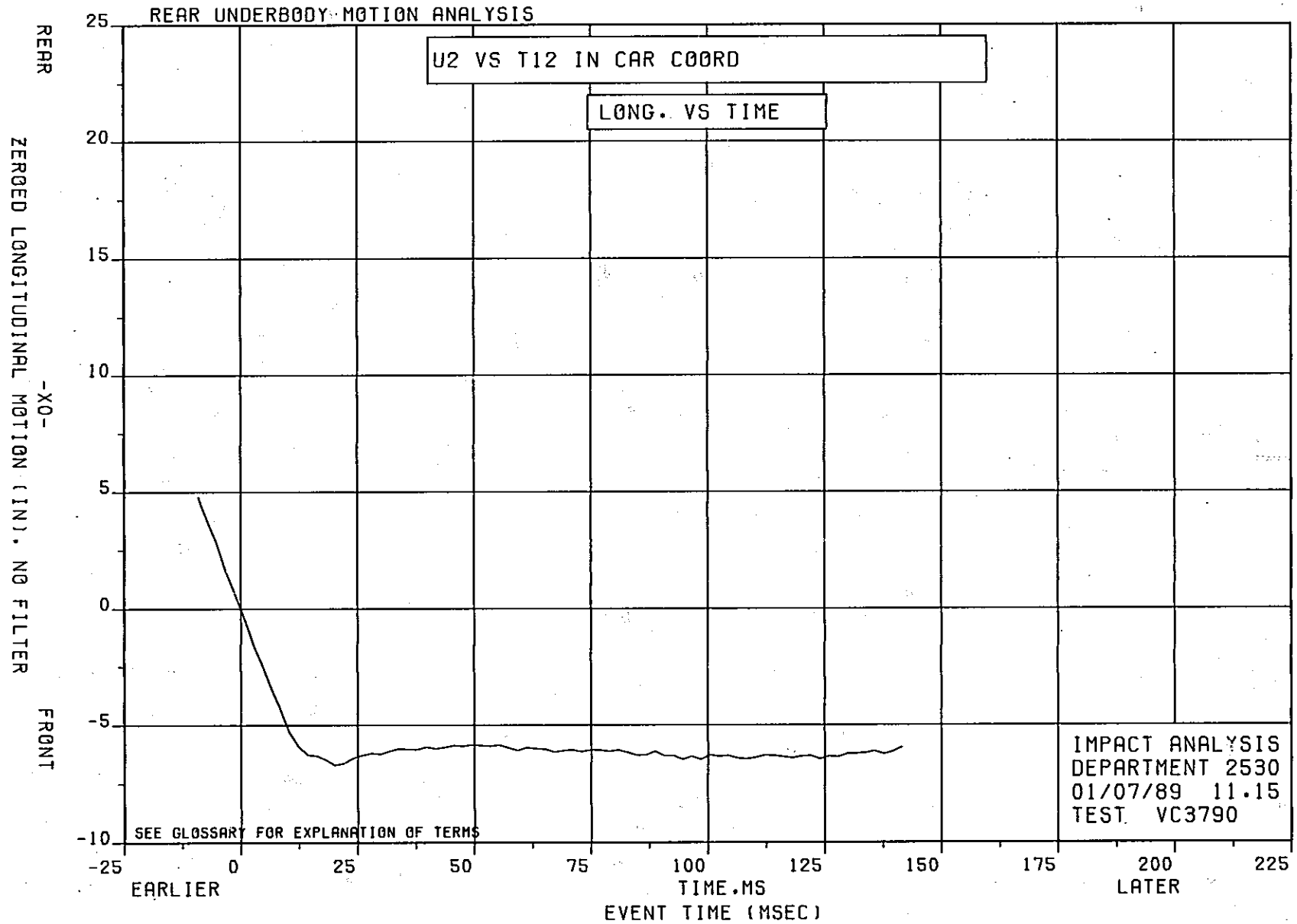


FIGURE 3

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØED X OF T12 RELATIVE TO T2 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

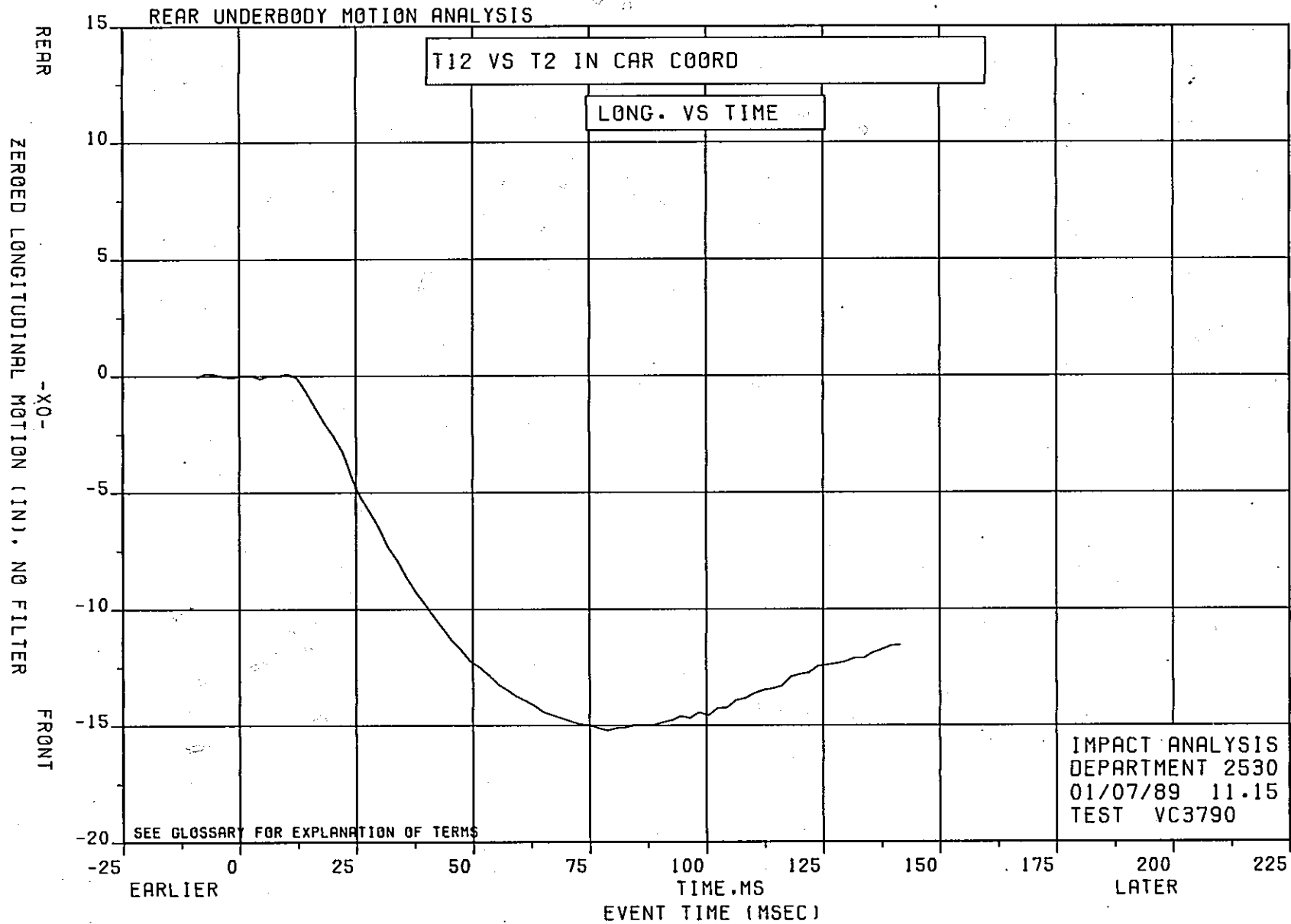


FIGURE 4

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T10 RELATIVE TO T2 IN CAR COORD
VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

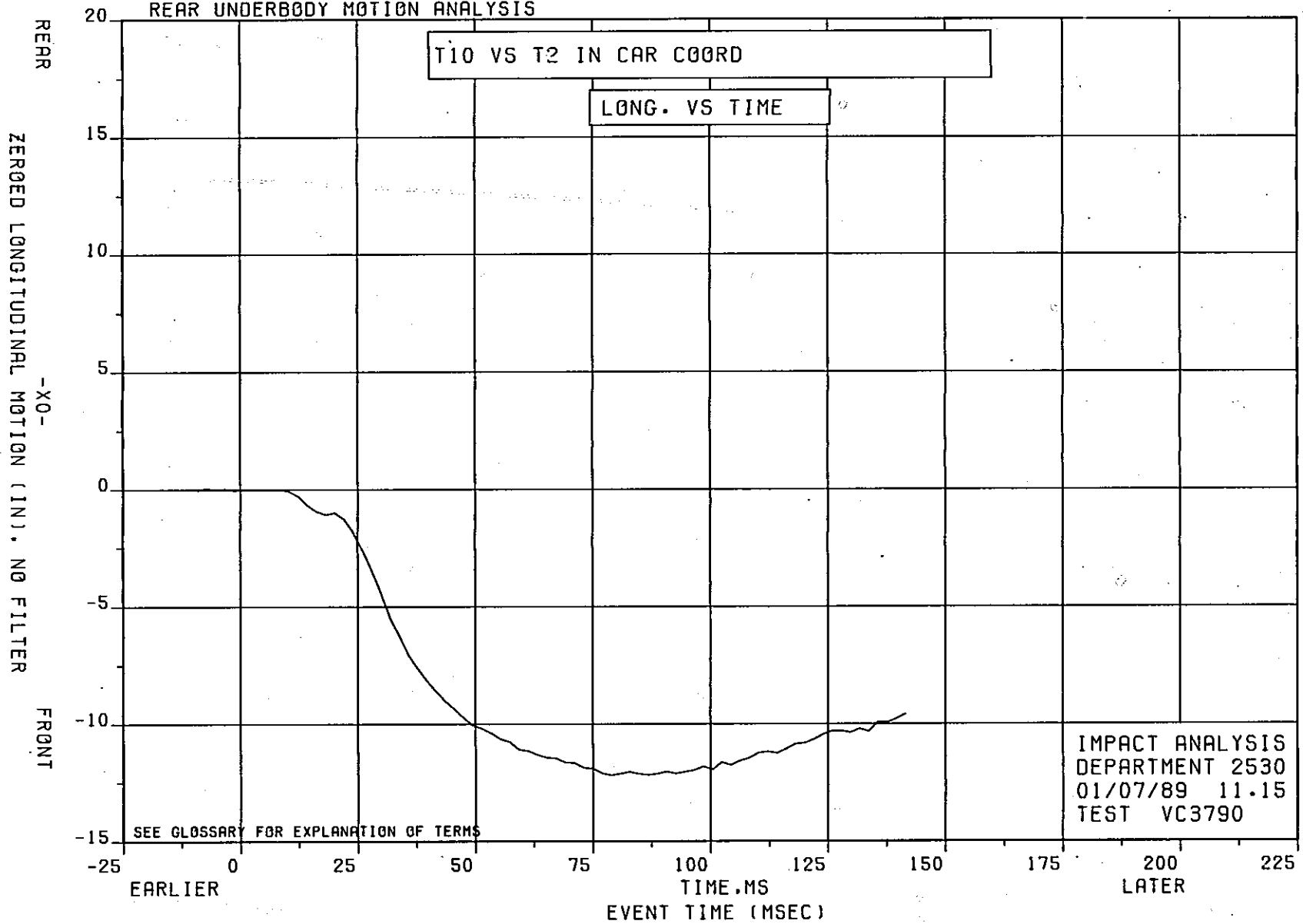


FIGURE 5

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO T11 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

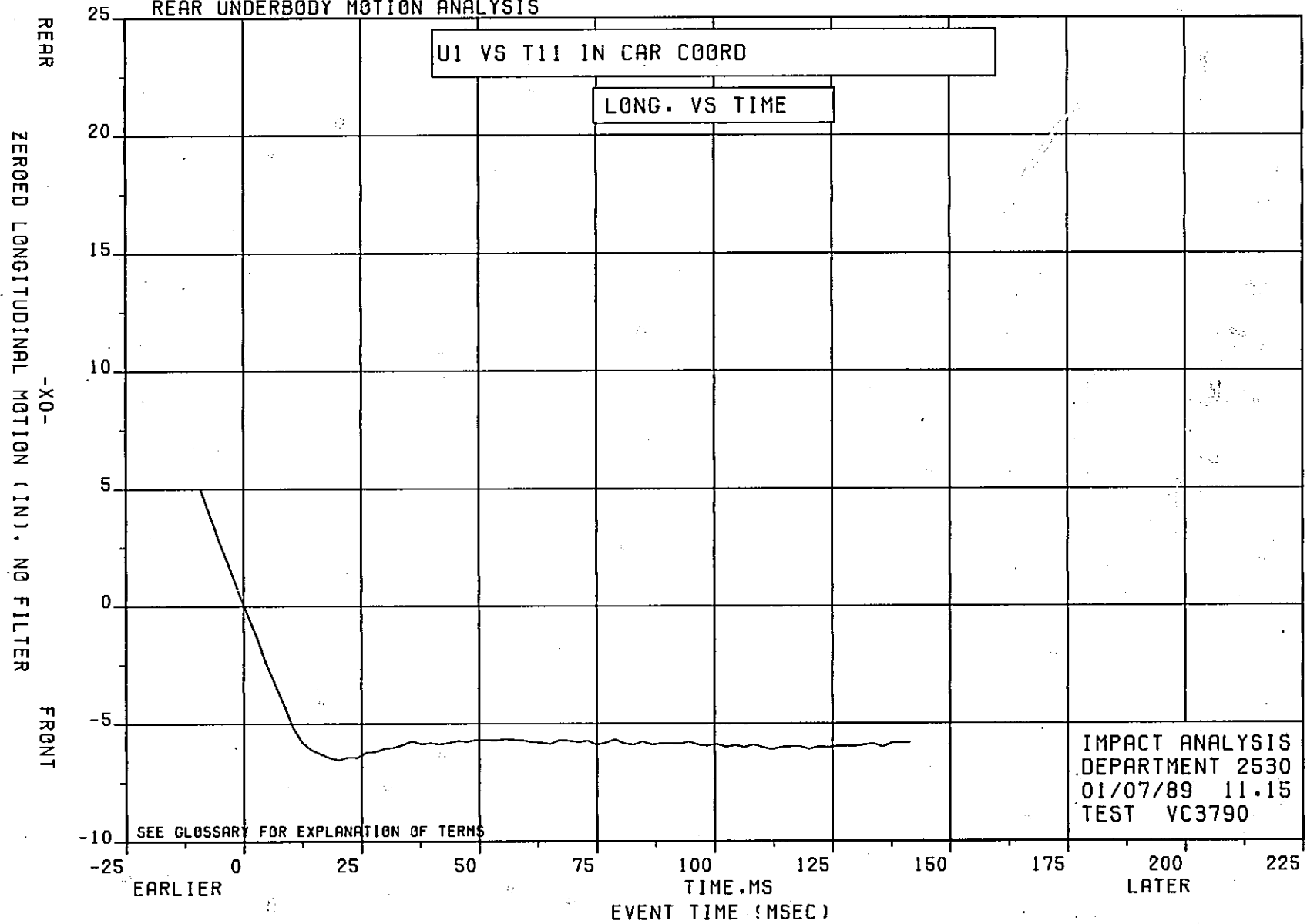


FIGURE 6

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØED X OF T11 RELATIVE TO T1 IN CAR CØORD
VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

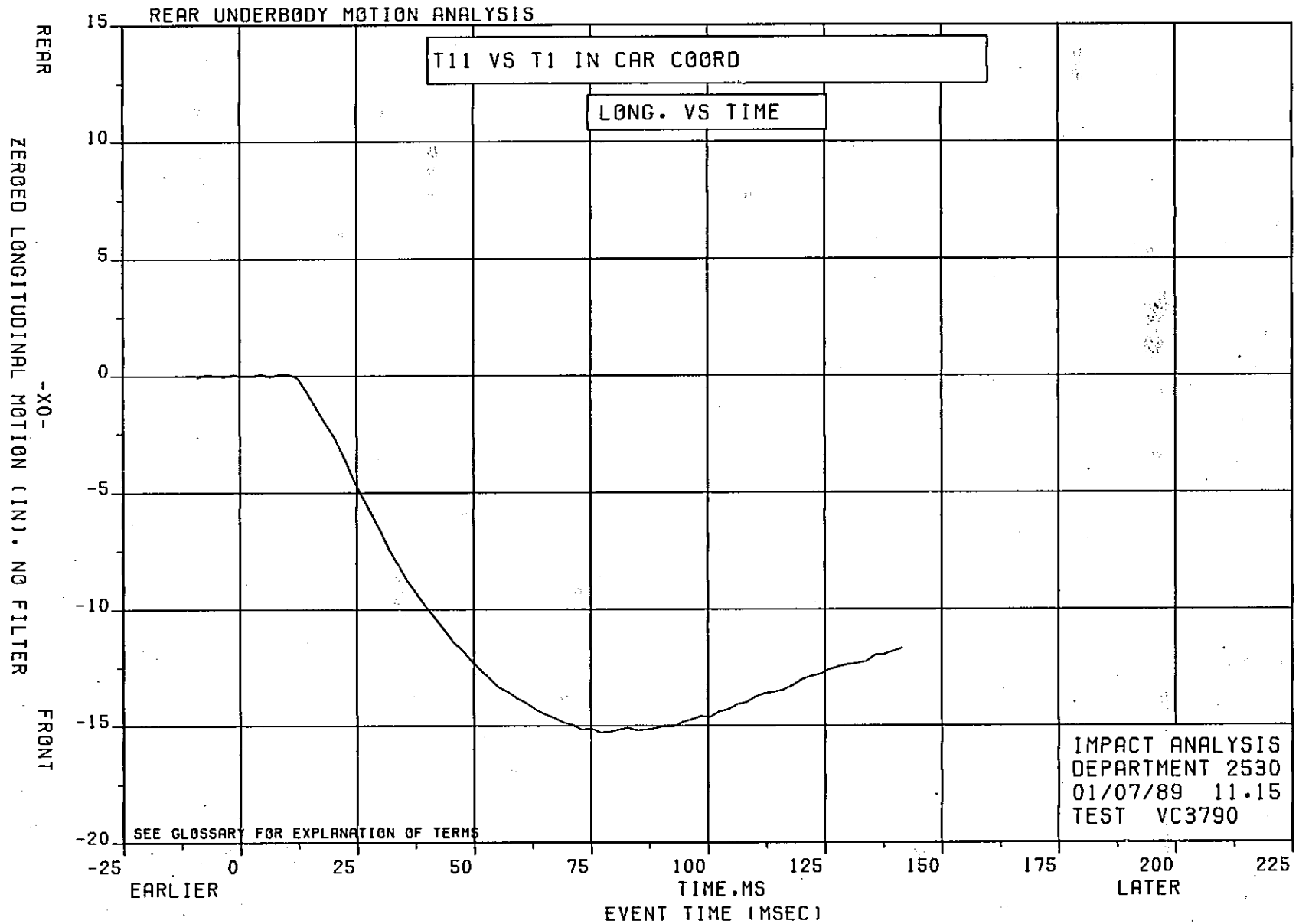


FIGURE 7

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T9 RELATIVE TO T1 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

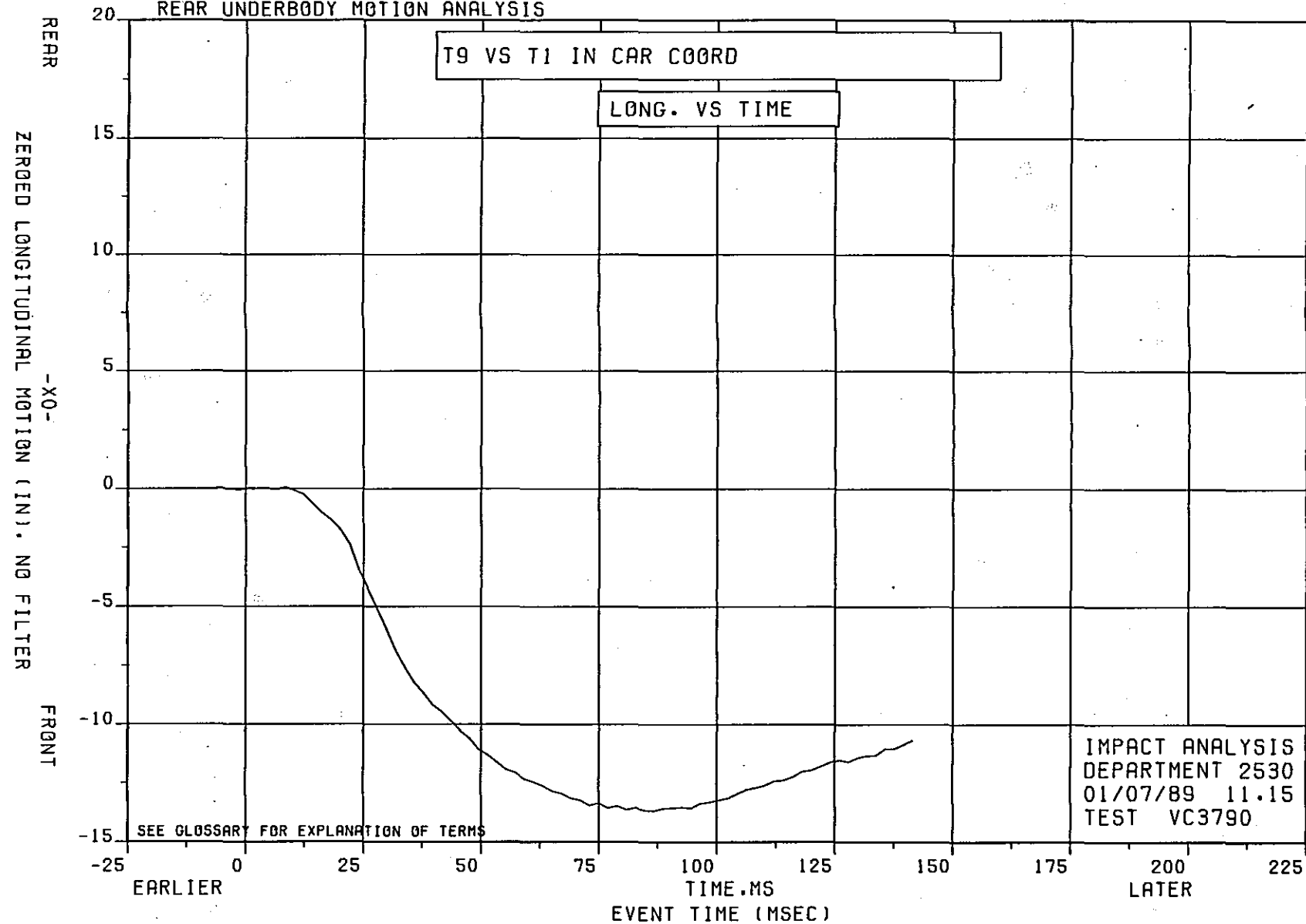


FIGURE 8

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF 102 RELATIVE TO T1 IN CAR COORD
VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

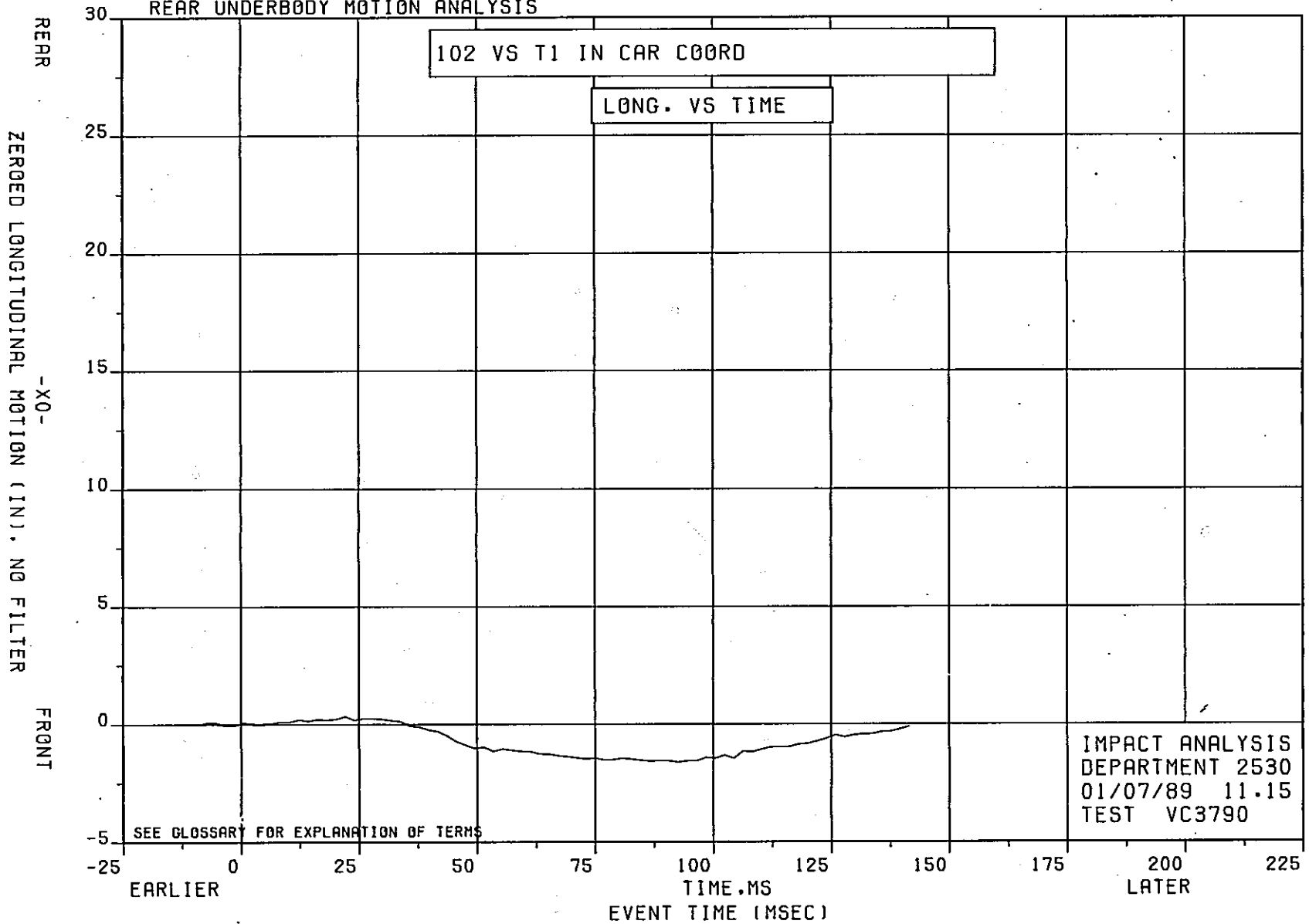


FIGURE 9

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

ZEROED X OF U1 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

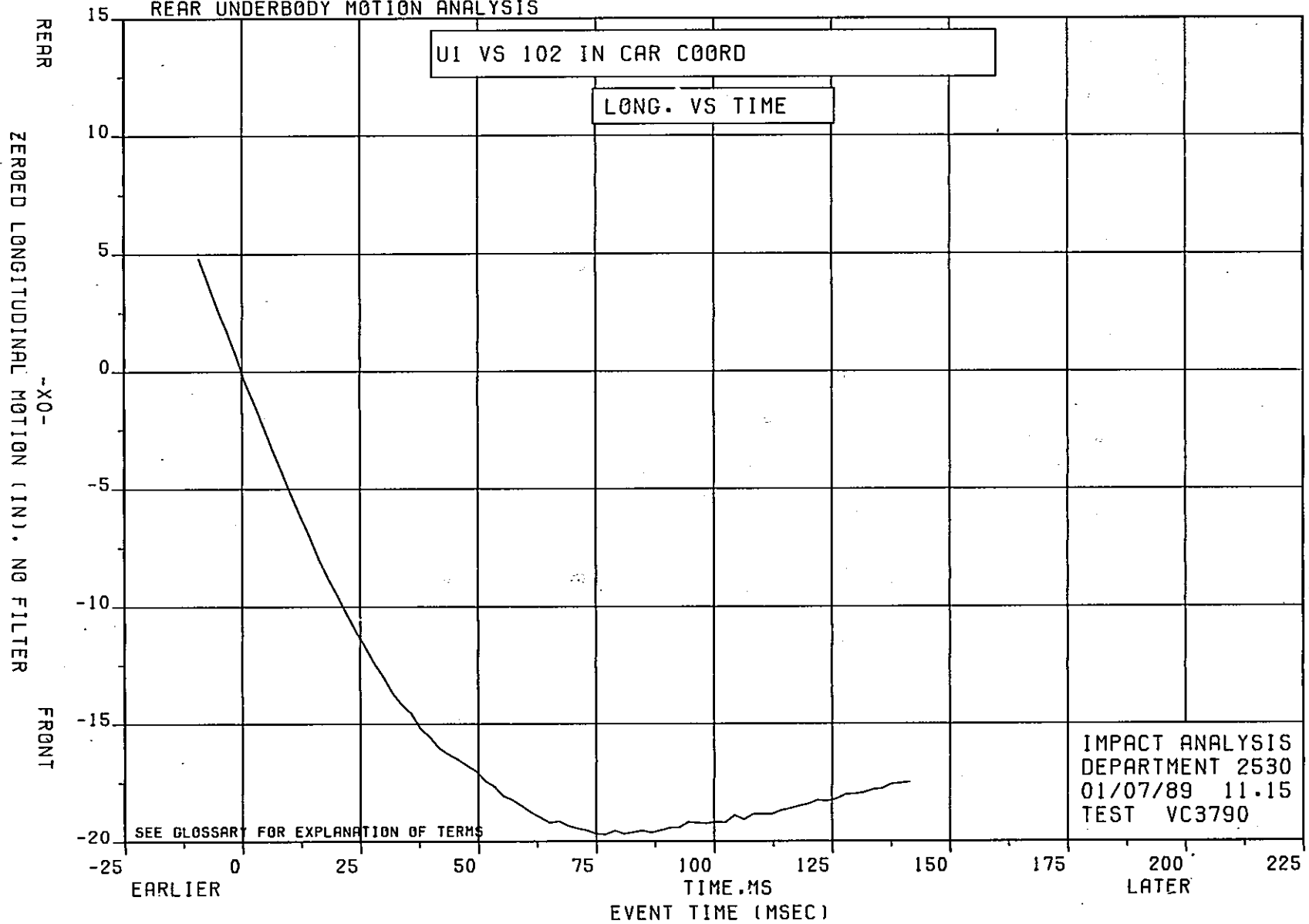


FIGURE 10

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T12 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

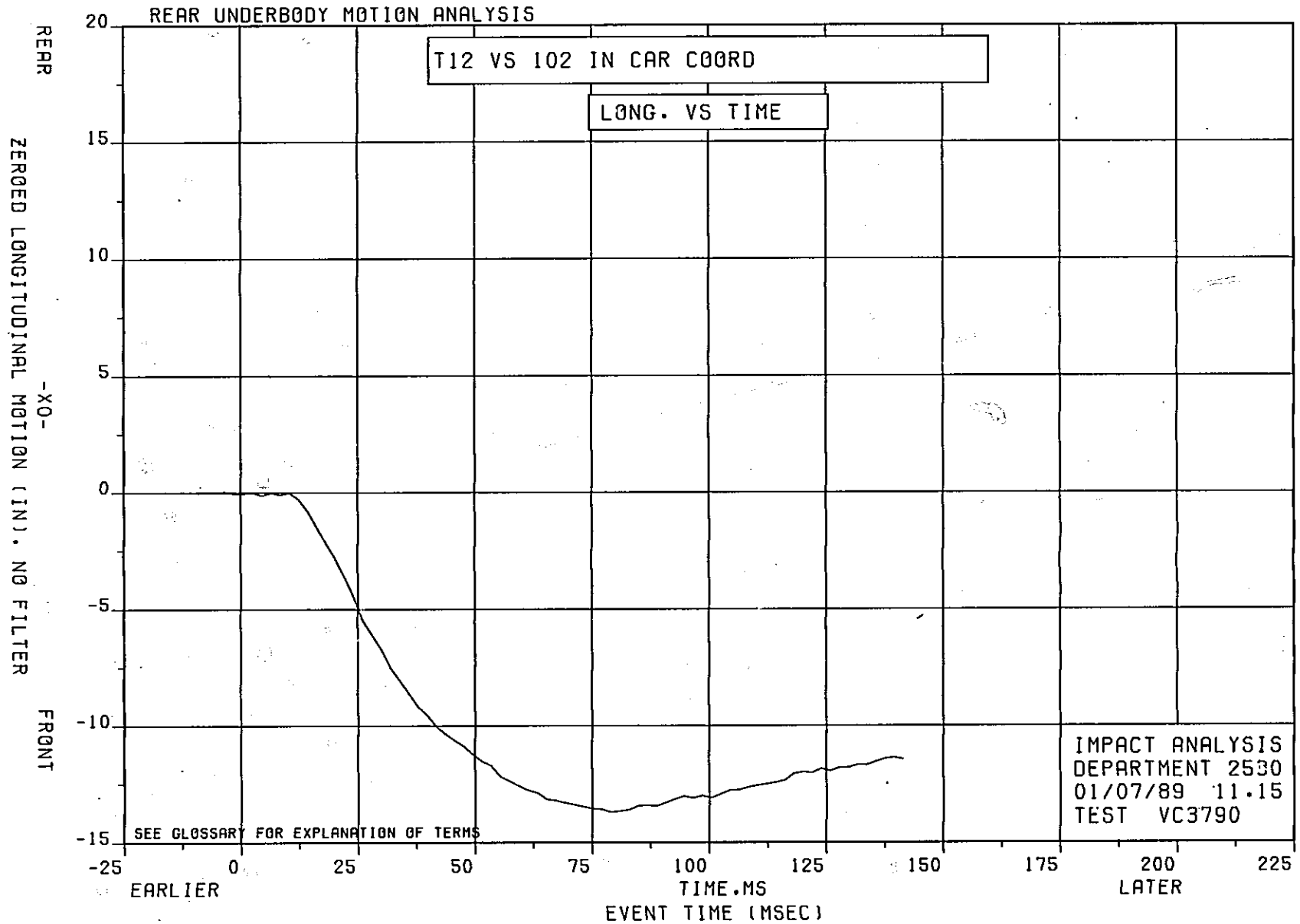


FIGURE 11

VC3790 30 MPH REAR IMPACT, ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED X OF T10 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

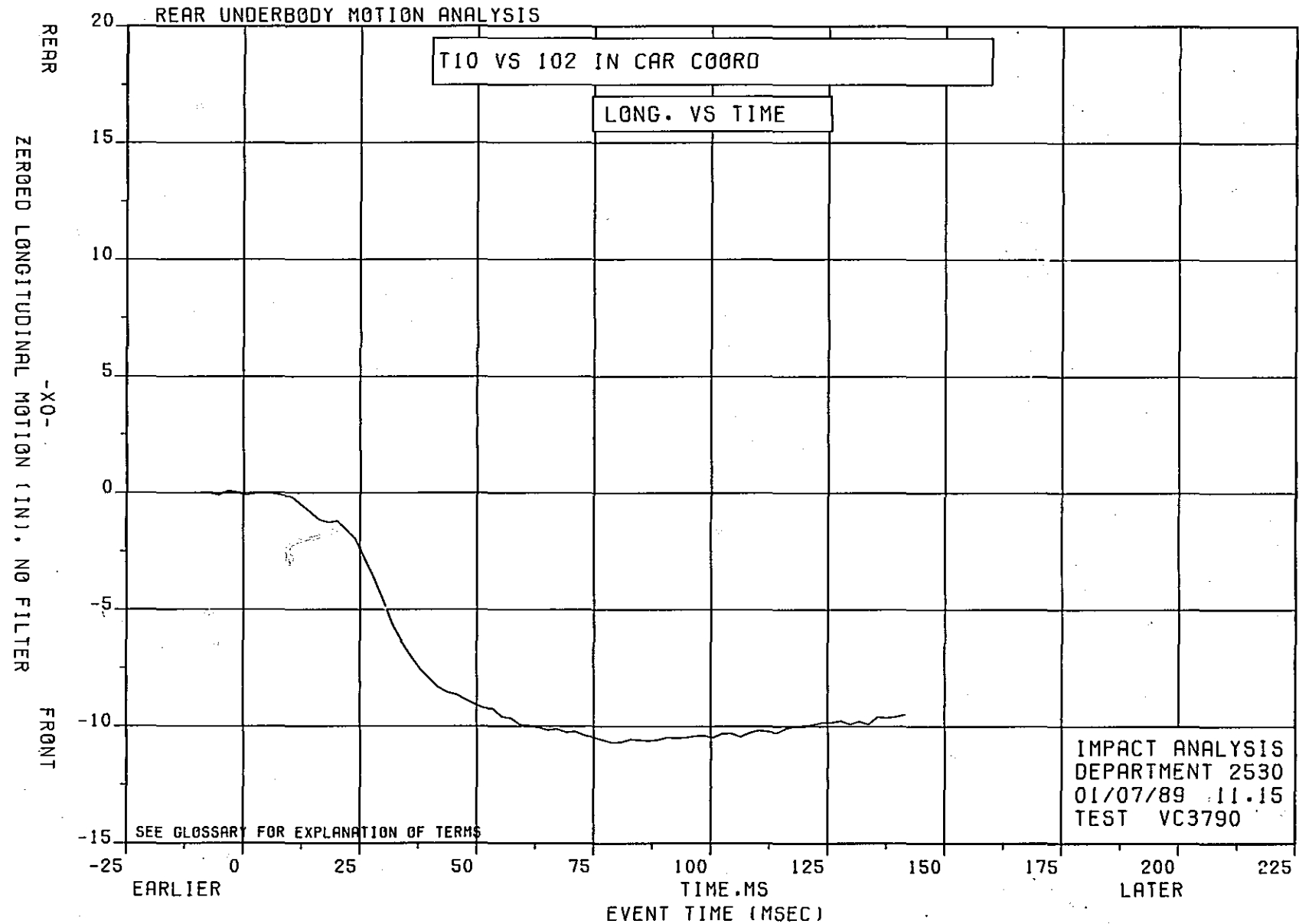


FIGURE 12

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØED X OF T11 RELATIVE TO 102 IN CAR COORD
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

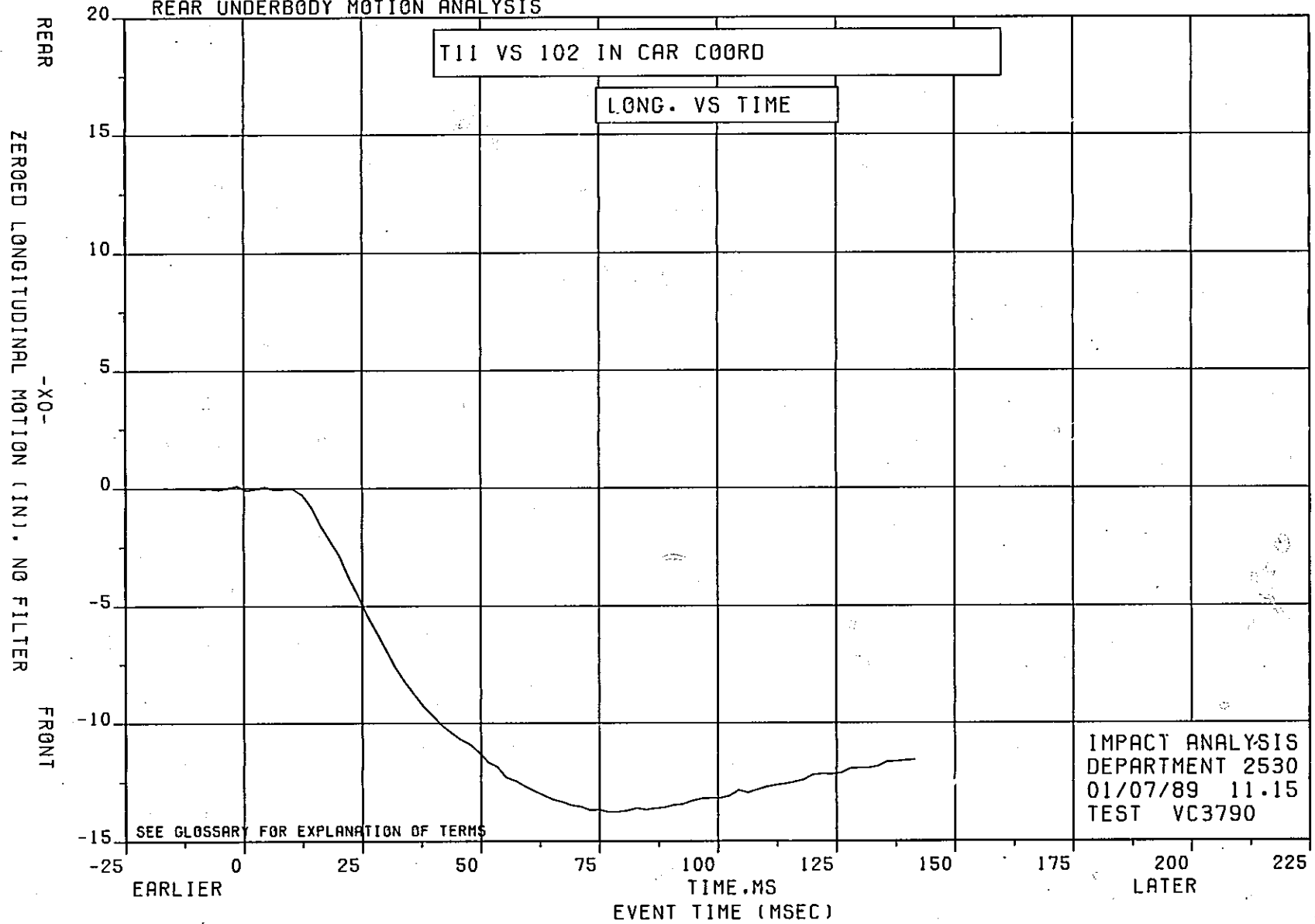


FIGURE 13

EA12-005-Chrysler-000337

IMPACT ANALYSIS
DEPARTMENT 2530
01/07/89 11.15
TEST VC3790

SEE GLOSSARY FOR EXPLANATION OF TERMS

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERØED X OF T9 RELATIVE TO 102 IN CAR COØRD
VERSUS TIME IN MILLISECØNDS

REAR UNDERBODY MOTION ANALYSIS

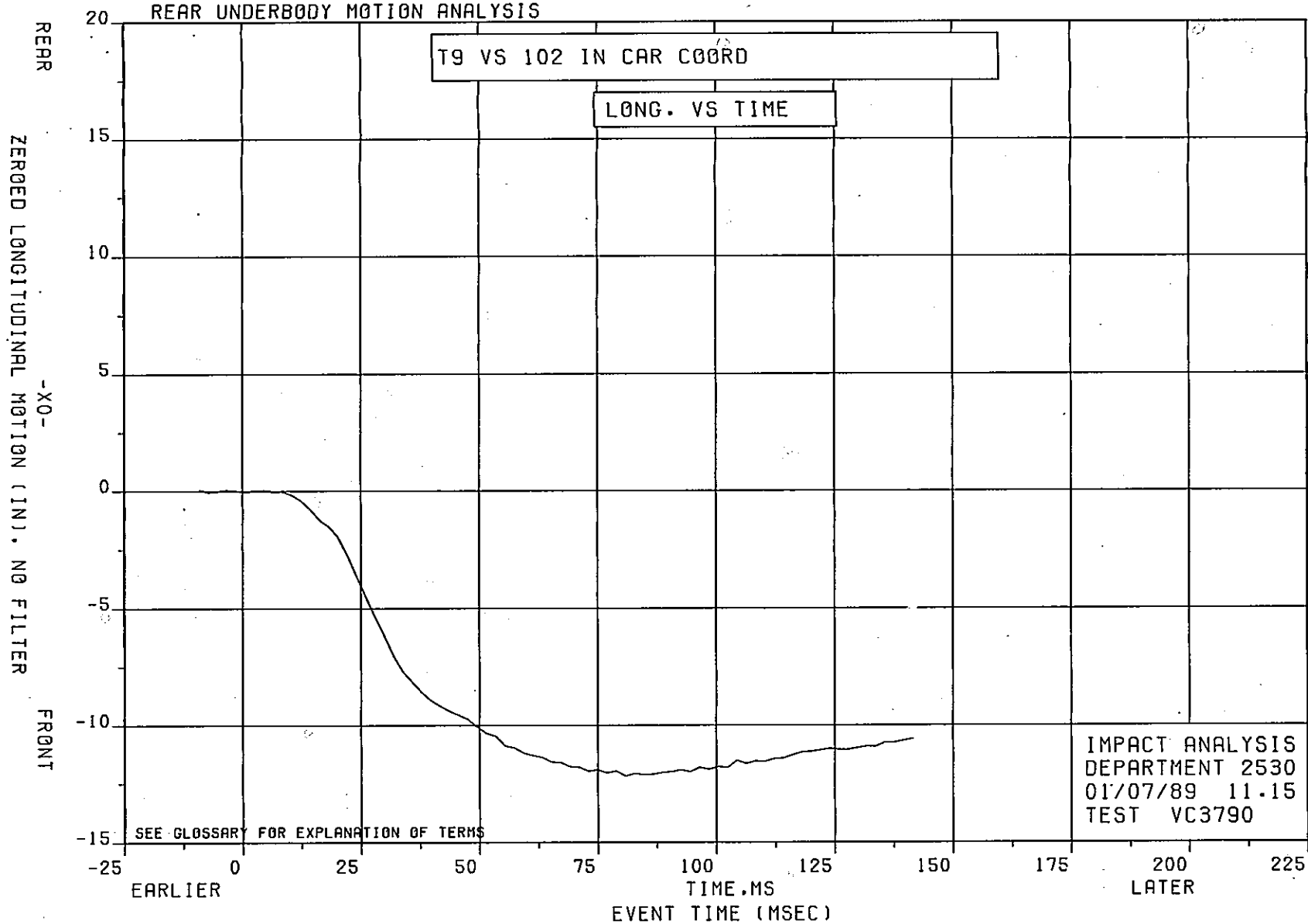


FIGURE 14

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF T12 TO T10 IN CAR COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

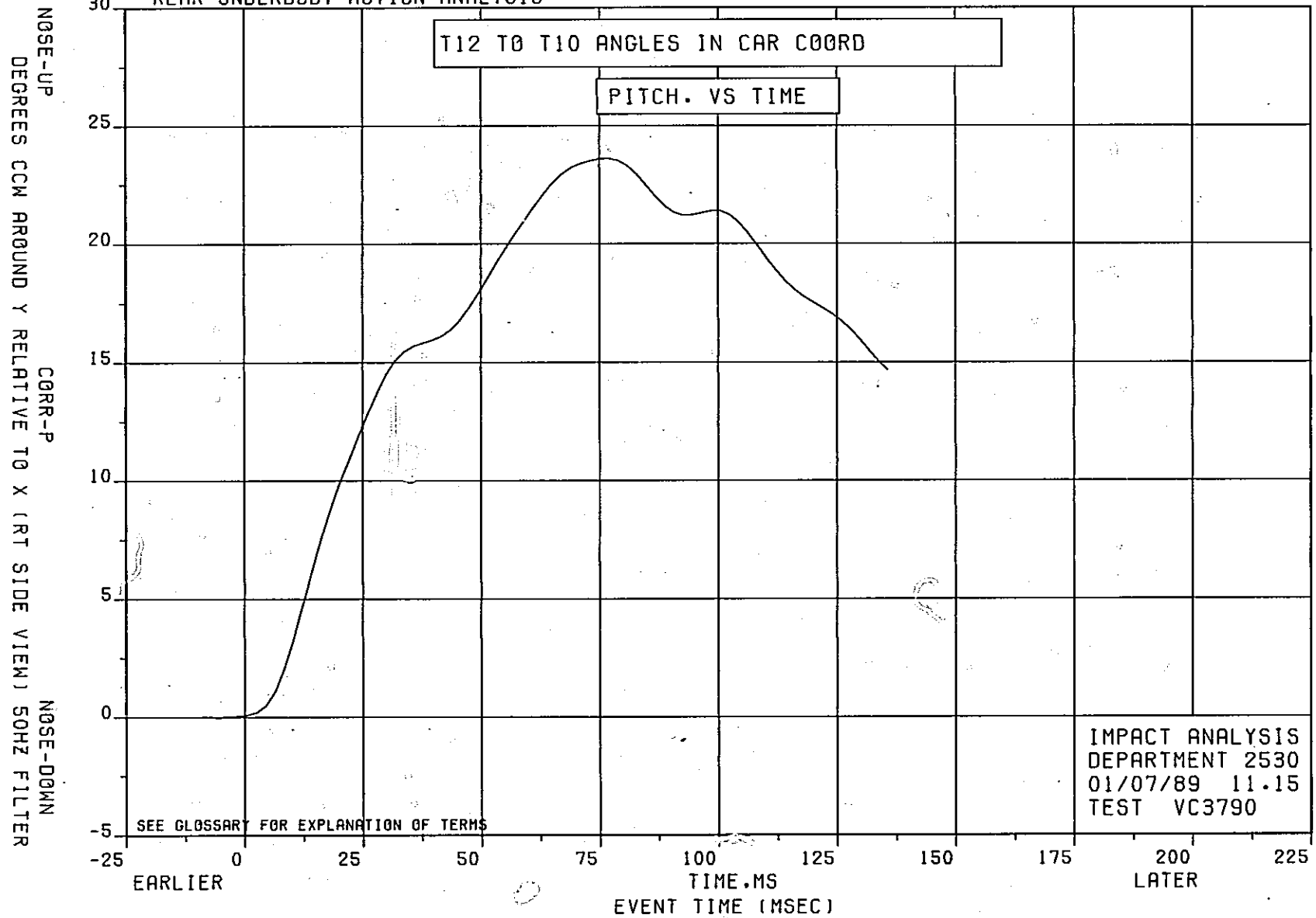


FIGURE 15

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZERGED PITCH OF T11 TO T9 IN CAR COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

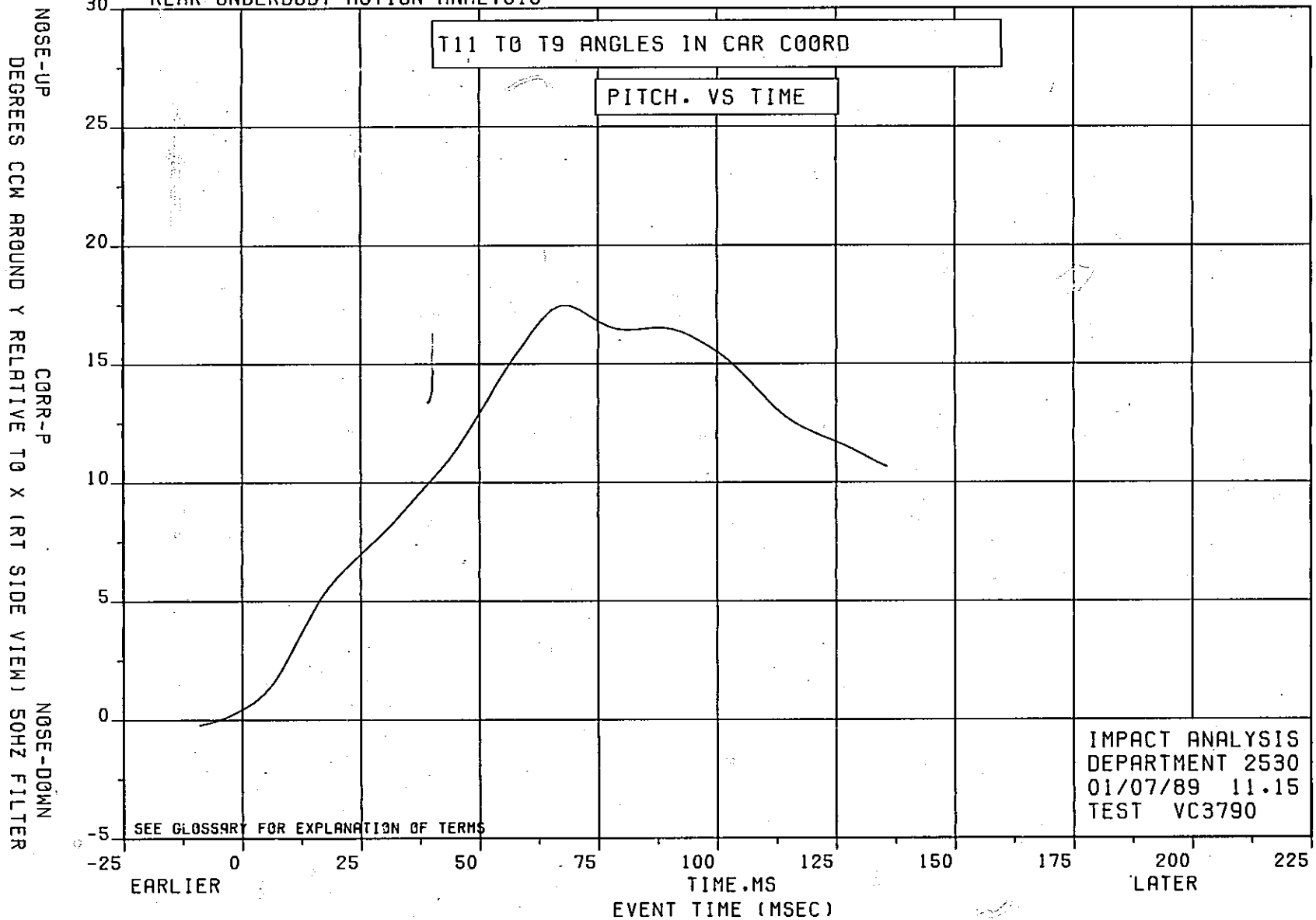


FIGURE 16

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL-SYSTEM INTEGRITY.

ZEROED SEPARATION OF T12 AND T10 (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

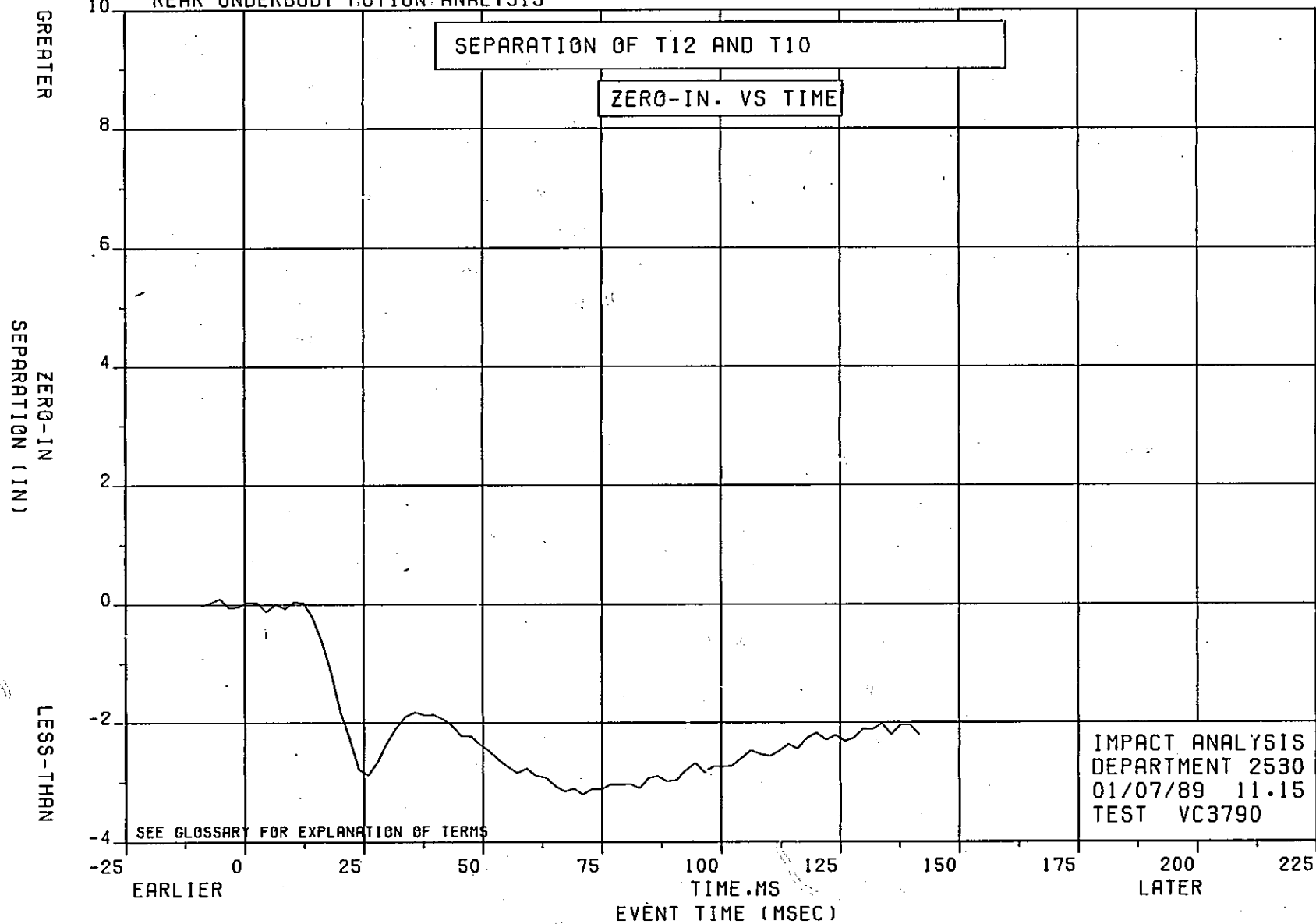


FIGURE 17

VC3790 30 MPH REAR IMPACT. ZJ72. 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED SEPARATION OF T11 AND T9 (IN)
VERSUS TIME IN MILLISECONDS

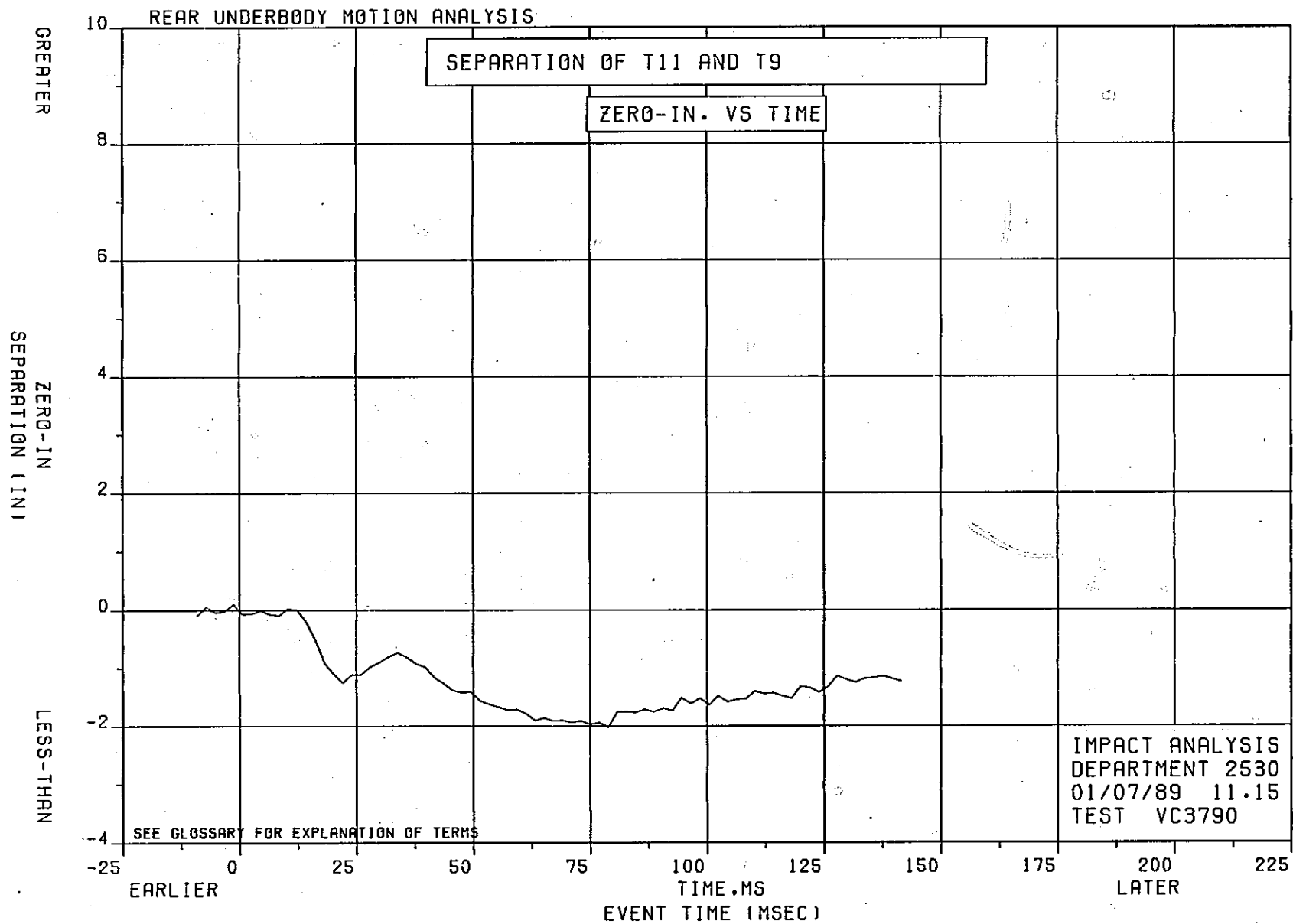


FIGURE 18

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

ZEROED YAW OF T1 TO T2 IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

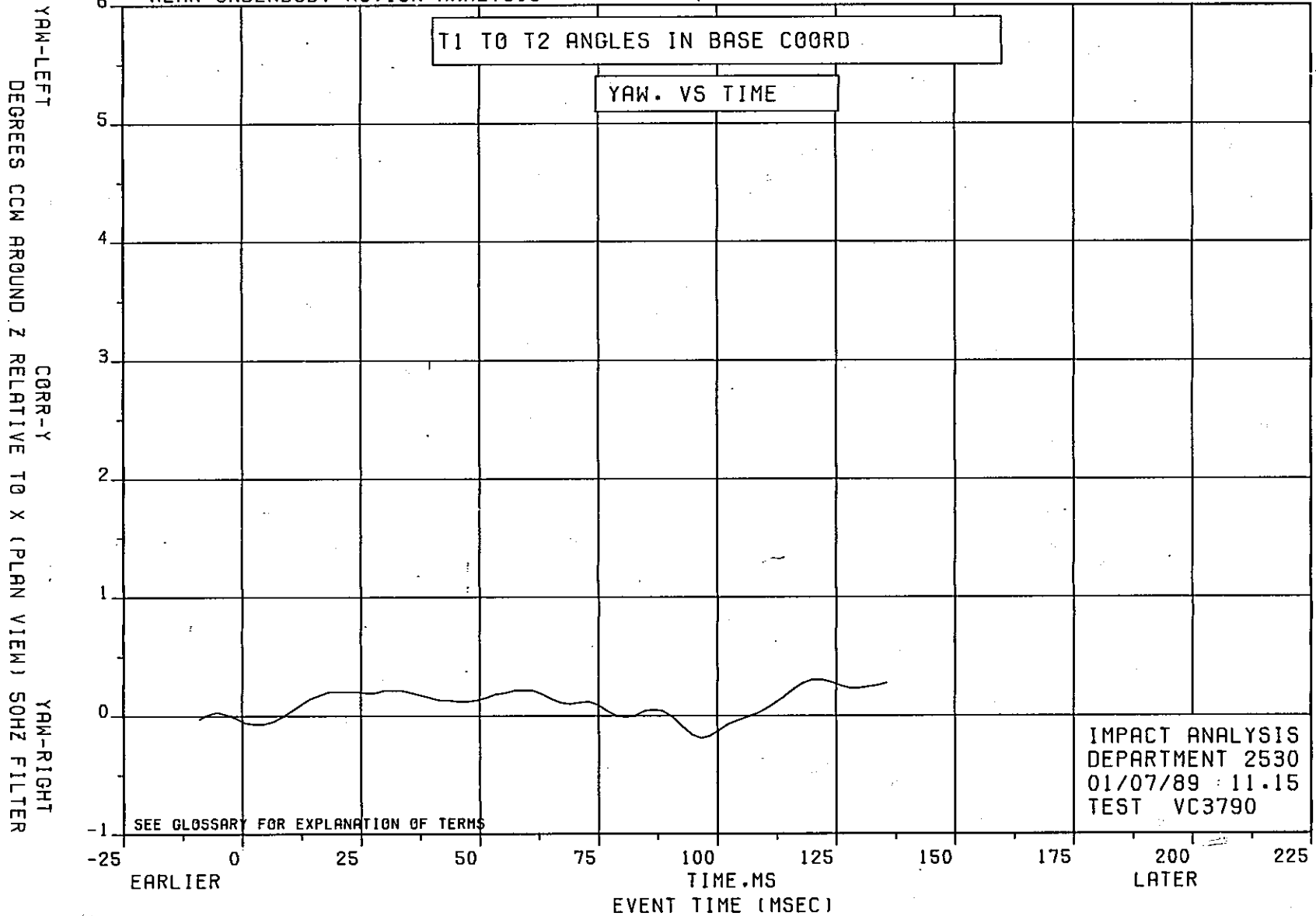


FIGURE 19

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

ZEROED PITCH OF SILL VECTOR IN BASE COORD SYSTEM
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

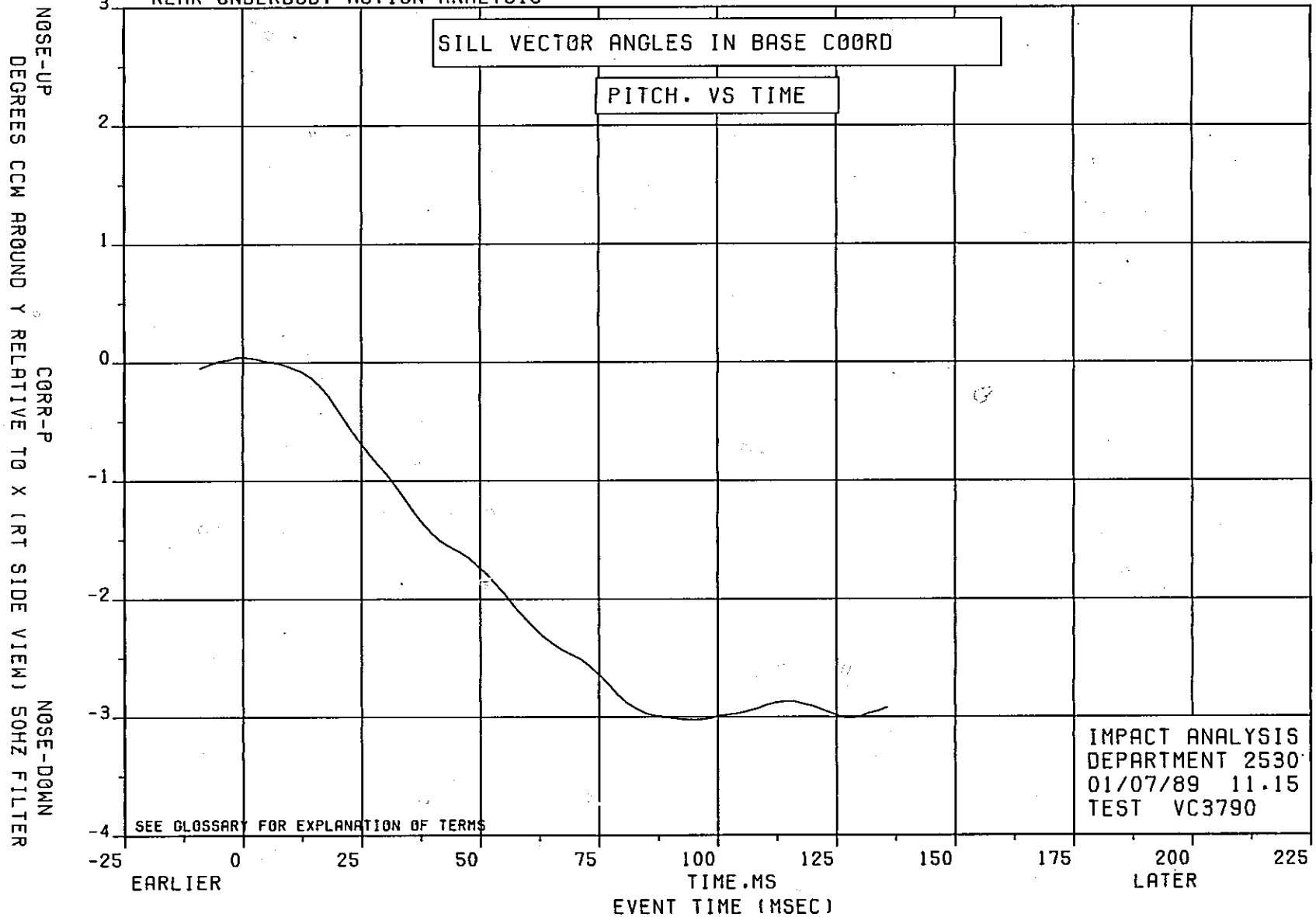


FIGURE 20

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV. FUEL SYSTEM INTEGRITY.

T1 TO T2 DISTANCE -35.08(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

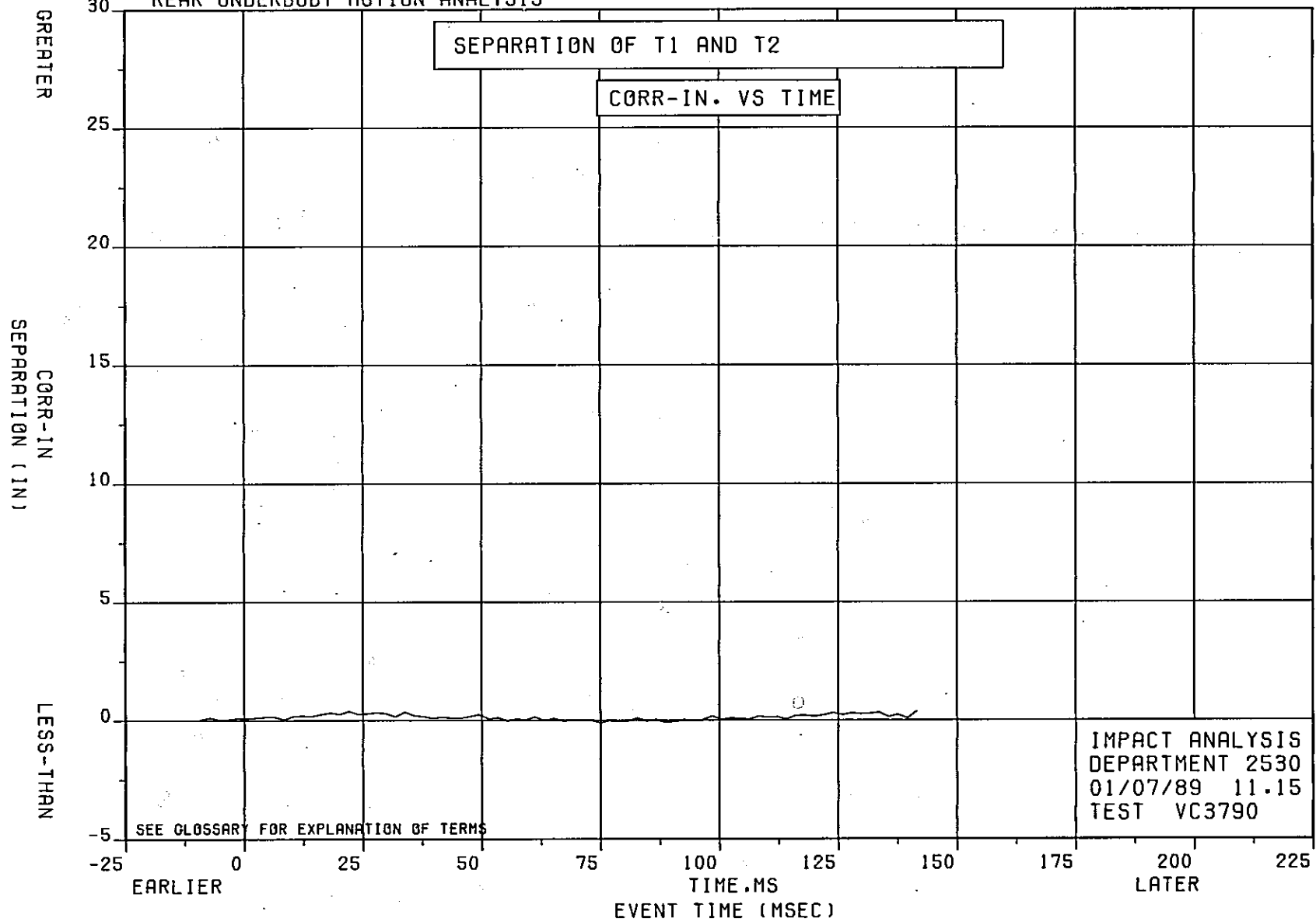


FIGURE 21

VC3790 30 MPH REAR IMPACT, ZJ72, 4.0L I6 ENG. ITEM 7XJ40
1991 FMVSS 301 DEV, FUEL SYSTEM INTEGRITY.

U1 TO U2 DISTANCE -37.66(INITIAL DIST) (IN)
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

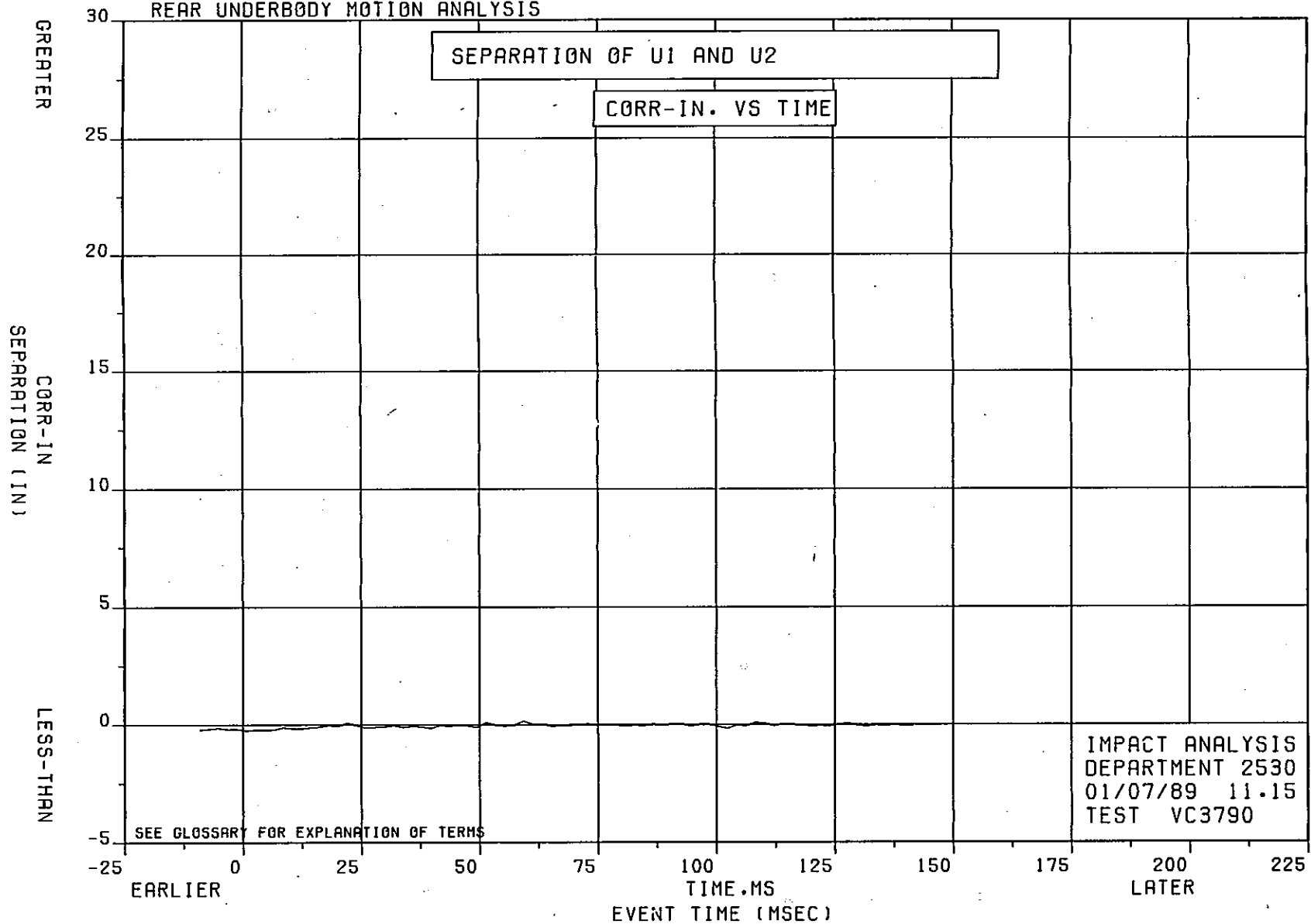


FIGURE 22