

HOT TEST  
RUN TUE. 7/26

ITEM NO. ZJ8771

PAGE 01

CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

NO INST.  
FUEL PUMP  
RUNNING.

ITEM ZJ8771

CHARGE NO. 532003

ISSUE DATE 7/23/94

VC5208 30 MPH REAR MOVING BARR, ZJJ74, 4.0L MPI  
1995 MVSS 301 VALIDATION - FUEL SYSTEM INTEGRITY.

TEST DATE

7/23/94  
SPEED 30.2 MPH

ENGINEER  
SOURCE

Weigel

TEST PURPOSE

PRIMARY, 1995 MVSS 301 VALIDATION  
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE

TARGET SPEED; 30.2 MPH  
DAMAGE LOCATION; REAR  
IMPACT TYPE; BARRIER  
BARRIER SURFACE; PLYWOOD  
DIRECTION; 0 DEGREES

VEHICLE

BODY CLASS; ZJ  
CAR LINE; J  
BODY; 74  
ENGINE; 4.0 LITRE  
ENGINE NOTE; MPI  
TRANSMISSION; 5 SPEED MANUAL 4X4  
TRANS. NOTE;  
VIN AS TESTED; 1J4GZ58S5SC500013 MOD.  
VIN AS BUILT; 1J4GZ58S5SC500013 MOD.

BUILD CONDITION

1995 C1 PILOT - PRODUCTION BUILT. (P5ZJ-8771)  
4.0L I6, MANUAL TRANSMISSION, 4X4  
CLOTH SEATS, FULL CONSOLE, ROOF RACK, A/C,  
REAR FLIPPER GLASS.  
CO-EXTRUDED FUEL TANK WITH IN-TANK ELECTRIC  
FUEL PUMP. (KAUTEX)  
P225/75R15 TIRES ON ALUMINUM WHEELS,  
INSIDE MOUNT FULL SIZE SPARE.  
23 GALLON PLASTIC TANK CAPACITY.

TARGET WEIGHT (LBS)

4202 TOTAL, 2344 FRONT, 1858 REAR, REP MAX OPT WT.  
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST WEIGHT (LBS)

4202 TOTAL, 2344 FRONT, 1858 REAR

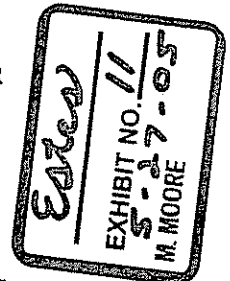
FUEL BALLAST

21.8 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST

300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.

TEST REMARKS



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

OTHER BALLAST

OCCUPANTS

LEFT FRONT HYB II, UNINSTRUMENTED.  
RESTRAINT-UNIBELT.AD NO 603RIGHT FRONT HYB II, UNINSTRUMENTED.  
RESTRAINT-UNIBELT.AD NO 53

MECHANICAL REQ

MEASURE VEHICLE ATTITUDE AS RECEIVED AND WHEN  
LOADED FOR TEST, ADJUST ACCORDINGLY.  
PAINT REAR STRUCTURE AND TANK FOR VISIBILITY.  
FUEL PUMP TO BE RUNNING.  
PRESSURE CHECK PRE-TEST, ROLL POST TEST.

NOTE: VEHICLE HAS NEW TANK WITHOUT GAS.  
VEHICLE HAS BEEN PRESSURE CHECKED AT JTE  
BUT NO STODDARD WAS INSTALLED.

INSTRUMENTATION REQ ELECTRIC FUEL PUMP TO BE RUNNING DURING TEST.

PHOTOGRAPHIC REQ

1-LEFT SIDE OVERALL CAMERA TO VIEW ENTIRE VEHICLE  
AT IMPACT.  
1-RIGHT SIDE OVERALL CAMERA TO VIEW ENTIRE VEHICLE  
AT IMPACT.  
1-CATWALK CAMERA TO VIEW ENTIRE VEHICLE.  
1-PIT CAMERA-OVERALL VIEW OF REAR STRUCTURE.  
1-PIT CAMERA-CLOSE-UP OF FUEL TANK AND AXLE.  
1-PIT CAMERA-CLOSE-UP OF TRACK BAR BRACKET ON  
AXLE.  
1-PIT CAMERA CLOSE-UP OF REAR BUMPER TO F/TANK.

FILM ANALYSIS

VEHICLE VELOCITY, ONLY IF REQUESTED.  
DYNAMIC CRUSH.

REMARKS

TEST REQUEST ORIGINATOR: ED ZYLIK TL 733-2074.  
VEHICLE TO BE STORED IN BONEYARD POST TEST.  
MAKE ONE (1) COPY OF FOILM, SEND TO:  
E.A. ZYLIK 514-15-58

T. E. REPORT

MVSS 301 REPORT REQUIRED.

REPORT CODES

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

CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

## DISTRIBUTION

W.A. BREITMOSER, JR.	422-05-01	(AB)
E.A. ZYLIK	514-15-58	(AB)
D.T. MCKENZIE	422-05-01	(AB)

SAFETY TEST  
VEHICLE CRASH TEST LETTER

PAGE 01

VC05208 30 MPH REAR MOVING BARR, ZJJ74, 4.0L MPI ITEM ZJ8771  
1995 MVSS 301 VALIDATION - FUEL SYSTEM INTEGRITY.  
TEST DATE 07/26/94

TEST PURPOSE PRIMARY, 1995 MVSS 301 VALIDATION.  
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.2 MPH  
DAMAGE LOCATION; REAR  
IMPACT TYPE; BARRIER  
BARRIER SURFACE; PLYWOOD  
DIRECTION; 0 DEGREES

VEHICLE BODY CLASS; ZJ  
CAR LINE; J  
BODY; 74  
ENGINE; 4.0 LITRE  
ENGINE NOTE; MPI  
TRANSMISSION; 5 SPEED MANUAL 4X4  
TRANS. NOTE;  
VIN AS TESTED; 1J4GZ58S5SC500013 MOD.  
VIN AS BUILT; 1J4GZ58S5SC500013 MOD.

TEST SPEED 30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS) 4849 TOTAL, 2596 FRONT, 2243 REAR.

OCCUPANTS LEFT FRONT HYB II, UNINSTRUMENTED. AD-60  
RESTRAINT-UNIBELT.  
RIGHT FRONT HYB II, UNINSTRUMENTED. AD-55  
RESTRAINT-UNIBELT.

BUILD CONDITION 1995 C1 PILOT - PRODUCTION BUILT. (P5ZJ-8771)  
4.0L I6, MANUAL TRANSMISSION, 4X4  
CLOTH SEATS, FULL CONSOLE, ROOF RACK, A/C,  
REAR FLIPPER GLASS.  
CO-EXTRUDED FUEL TANK WITH IN-TANK ELECTRIC  
FUEL PUMP. (KAUTEX)  
P225/75R15 TIRES ON ALUMINUM WHEELS,  
INSIDE MOUNT FULL SIZE SPARE.  
23 GALLON PLASTIC TANK CAPACITY.

TARGET WEIGHT (LBS) 4202 TOTAL, 2344 FRONT, 1858 REAR, REP MAX OPT WT.  
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

DC 04404

SAFETY TEST  
VEHICLE CRASH TEST LETTER

PAGE 02

VC05208 30 MPH REAR MOVING BARR, ZJJ74, 4.0L MPI ITEM ZJ8771  
1995 MVSS 301 VALIDATION - FUEL SYSTEM INTEGRITY.  
TEST DATE 07/26/94

FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.  
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.  
100 LBS SECURED TO LT FT FLOOR PAN.  
200 LBS SECURED TO RT FT FLOOR PAN.  
248 LBS SECURED TO REAR FLOOR PAN.

POST TEST REMARKS THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR  
DURING THE SUBSEQUENT THIRTY MINUTES.  
THERE WAS FUEL LEAKAGE DURING THE STATIC ROLL  
IN EXCESS OF THE FEDERAL STANDARD.

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

DISTRIBUTION W.A. BREITMOSER, JR. 422-05-01 (AB)  
E.A. ZYLIK 514-15-58 (AB)  
D.T. MCKENZIE 422-05-01 (AB)

DATE 07/27/94

TIME 14.56.57.

DC 04405

INTER COMPANY CORRESPONDENCE

TO  
DISTRIBUTION

FILE DCR072694

DATE 08/03/94

FROM  
B. D. CARLISLE

DEPARTMENT  
5320

PLANT/OFFICE  
CHRYSLER CENTER

CIMS NUMBER  
481-02-18

SUBJECT:

REAR DYNAMIC CRUSH ANALYSIS  
VC05208 30 MPH REAR MOVING BARR. ZJJ74. 4.0L MPI ITEM ZJ8771  
1995 MVSS 301 VALIDATION - FUEL SYSTEM INTEGRITY.  
TEST DATE 07/26/94

TEST PURPOSE

PRIMARY, 1995 MVSS 301 VALIDATION.  
OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE

TARGET SPEED: 30.2 MPH  
DAMAGE LOCATION: REAR  
IMPACT TYPE: BARRIER  
BARRIER SURFACE: PLYWOOD  
DIRECTION: 0 DEGREES

VEHICLE

BODY CLASS: ZJ  
CAR LINE: J  
BODY: 74  
ENGINE: 4.0 LITRE  
ENGINE NOTE: MPI  
TRANSMISSION: 5 SPEED MANUAL 4X4  
TRANS. NOTE:  
VIN AS TESTED: 1J4GZ58S5SC500013 MOD.  
VIN AS BUILT: 1J4GZ58S5SC500013 MOD.

TEST SPEED

30.4 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS)

4849 TOTAL. 2596 FRONT. 2243 REAR.

OCCUPANTS

LEFT FRONT HYB II, UNINSTRUMENTED. AD-60  
RESTRAINT-UNIBELT.  
RIGHT FRONT HYB II, UNINSTRUMENTED. AD-53  
RESTRAINT-UNIBELT.

BUILD CONDITION

1995 C1 PILOT - PRODUCTION BUILT. (P5ZJ-8771)  
4.0L I6, MANUAL TRANSMISSION, 4X4  
CLOTH SEATS, FULL CONSOLE, ROOF RACK, A/C.  
REAR FLIPPER GLASS.  
CO-EXTRUDED FUEL TANK WITH IN-TANK ELECTRIC  
FUEL PUMP. (KAUTEX)  
P225/75R15 TIRES ON ALUMINUM WHEELS.  
INSIDE MOUNT FULL SIZE SPARE.  
23 GALLON PLASTIC TANK CAPACITY.

TARGET WEIGHT (LBS)

4202 TOTAL. 2344 FRONT. 1858 REAR. REP MAX OPT WT.  
NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST VC05208

08/03/94 14.00

PAGE 1 OF 2

DC 04411

FUEL AND BALLAST 21.8 GALLONS OF STODDARD SOLVENT.  
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.  
100 LBS SECURED TO LT FT FLOOR PAN.  
200 LBS SECURED TO RT FT FLOOR PAN.  
248 LBS SECURED TO REAR FLOOR PAN.

POST TEST REMARKS THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR  
DURING THE SUBSEQUENT THIRTY MINUTES.  
THERE WAS FUEL LEAKAGE DURING THE STATIC ROLL  
IN EXCESS OF THE FEDERAL STANDARD.

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 19 +OR- 1 INCH AT 74. -OR- 5 MSEC.

*S.A. Helquist*  
-----  
S. A. HELQUIST

*Bryan D. Carlisle*  
-----  
B. D. CARLISLE

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
ATD	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCW	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MILLIMETERS (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
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
IP	INSTRUMENT PANEL
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
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)
SG	STEERING GEAR
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME.MS	TIME IN MILLISECONDS
U/B	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW-RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

IMPACT ANALYSIS  
DEPARTMENT 5320  
08/03/94 14.00  
TEST VC05208

DC 04413