

Subject to Protective Order - Austin vs DaimlerChrysler Corporation



Chrysler Motors Corporation

## COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1997 'ZJ' BODY, JEEP "GRAND CHEROKEE" SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301 - Sections S3., S5., S6. and S7.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME            Title  
E.A. Zylik, Department Manager

Signature  
*E.A. Zylik*

Date  
6/7/96

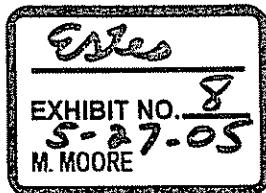
D.F. BUSER, Executive Engineer

*D.F. Buser*

Date  
6/7/96

Date Received by Safety Programs: \_\_\_\_\_

File No: 97-ZJ-301



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Safety Documentation Compliance Report



Chrysler Motors Corporation

INTRODUCTION

Subject: Fuel System Integrity - 1997 'ZJ' Body, Jeep "Grand Cherokee" Sport Utility

Object: Verification of design compliance with the requirements of Federal Motor Vehicle Safety Standard No. 301.

Procedure: CP-194, CP-232, CP-233, CP-234, CP-245 and CP-246.

Conclusions: The Chrysler Corporation 1997 'ZJ' Body Jeep "Grand Cherokee" Sport Utility with U.V.W. of 10,000 lbs. and under, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 8)

Prepared by: J.B. Estes 6/7/96  
J.B. Estes, Product Development Engineer, Dept. 1060 Date

Approved by: E.A. Zylik 6/7/96  
E.A. Zylik, Department Manager, Dept. 1060 Date

Issued by: Jeep, Vehicle Impact Development

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Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY  
1997 'ZJ' BODY JEEP "GRAND CHEROKEE" SPORT UTILITY

Federal Motor Vehicle Safety Standard No. 301 - Sections S3., S5., S6. and S7.

DISCUSSION

The Chrysler Corporation 1997 "ZJ-74" Body, Jeep "Grand Cherokee," Sport Utility vehicle is essentially carryover from the ~~1997~~ model. With exception of fuel filter relocated to the top of fuel sending unit module.

The "ZJ" is of unibody construction offered in 106 inch wheelbase.

The powertrain is comprised of a longitudinally mounted 4.0 litre (I6) and 5.2 litre (V8) multi-point injection (MPI) engines, 4-speed automatic transmission and 2 or 4-wheel drive configuration.

This vehicle is offered with four wheel Anti-Lock Brake System (ABS), as standard equipment.

Vehicle capacity including seating for five passengers, 23 gallon plastic fuel tank and 300 lbs. of luggage.

The fuel system consists of a 23 gallon plastic fuel tank with an in-tank electric fuel pump. The fuel tank is mounted aft of the rear axle. The filler neck is located on the left side of the vehicle.

The front bumper system consists of thermo plastic olefin (TPO) fascia with energy absorbing polypropylene foam supported by body integrated crossmember.

The rear bumper system consists of thermoplastic olefin (TPO) molded fascia supported by steel reinforcement beam and expanded polypropylene foam with energy absorbers in the guards area include a (TPO) step pad.

The rear structure of the 'ZJ' is available in four different build levels. The 'ZJ' can have a Trailer Hitch, a skid plate or a Reinforcing Bracket and a combination skid plate and Trailer Hitch.

Five vehicles were tested to demonstrate compliance of the "ZJ-74" to the requirements of FMVSS 301, Fuel System Integrity. Summaries I, II, III IV and V of these vehicles and test results are attached.

XT00649 & XT00652 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-194      "Fixed Collision Barrier 30 MPH Frontal Impact Test",  
Change 'K'.

VC's 4419, 4426, 4459, 4570, 4576 and 4724 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

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CP-232 "Fixed Collision Barrier, 30 mph Angled Frontal Impact Test," Change 'F'.

VC's 4449 and 4452 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-233 "Moving Barrier 20 mph Lateral Impact Test," Change 'H'.

VC's 4472 and 4561 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-234 "Moving Barrier 30 mph Rear Impact Test," Change 'H'.

The above test vehicles, did not experience fluid losses that exceeds the fuel spillage criteria specified in Chrysler Corporation Compliance Procedure:

CP-246 "Fuel System Integrity," Change 'G'.

Following barrier impact vehicles were further tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-245 "Fuel System Integrity - Static Rollover Test," Change 'F'.

Fluid leakage during and following impact and during static rollover in these tests were within the limit specified in FMVSS 301 - Sections S5.5 and S5.6.

Based on the above, the 1997 "ZJ-74" Body, Jeep "Grand Cherokee" Sport Utility vehicle, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by:  
J.B. Estes,  
Date:

Judson B Estes  
6/7/96

**SUMMARY I**  
**FUEL SYSTEM INTEGRITY**  
**1997 'ZJ' BODY JEEP "GRAND CHEROKEE" SPORT UTILITY**

Test No. (Date)	Impact Mode	Vehicle Model & Description	Identification No.	Leakage Summary (oz)		
				At Impact	Following 30 Mins.	Max in Any Rollover Position
X XT00649 (5/6/96)	Flat Front	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, 23 Gallon Fuel Tank, Tilt Steering Column, Auto. Transmission and 5.2 Litre (V8) MPI Engine.	1J4GZ78Y0VC 500022	-0-	-0-	-0-
X XT00650 (5/6/96)	Flat Front	Jeep "Grand Cherokee" Sport Utility, 2-Wheel Drive, Tilt Steering Column, 23 Gallon Fuel Tank, Auto Trans. and 5.2 Litre (V8) MPI Engine.	1J4GZ58SS5VC 500033	-0-	-0-	-0-
X XT00651 (5/7/96)	30° Lt. Angle	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, Tilt Steering Column, Auto Transmission and Jeep Engine.	1J4GZ78SXNA 996129	-0-	-0-	-0-

## Allowable Leakage by Weight

1. One (oz) at impact.
2. Not more than one (oz) per minute following 30 minutes.
3. Five (oz) for first 5 minutes after each 90° rotation and not more than one (oz) per minute thereafter.

Prepared by:  
 J.B. Estes,  
 Date: 6/7/96

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**SUMMARY II**  
**FUEL SYSTEM INTEGRITY**  
**1997 'ZJ' BODY JEEP "GRAND CHEROKEE" SPORT UTILITY**

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (oz)		
				At Impact	Following 30 Mins.	Max in Any Position (oz/min)
YXT00652 (5/8/96)	30° Rt. Angle	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, 23 Gallon Fuel Tank, Tilt Steering Column, Auto. Transmission and 5.2 Litre (V8) MPI Engine.	1J4GZ78Y2VC 500023	-0-	-0-	-0-
VC4449* (11/21/91)	20 MPH Lateral Left	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, 23 Gallon Fuel Tank, Tilt Steering Column, Auto. Transmission and 4.0 Litre (I6) MPI Engine.	1J4GZ88V2PC 100008	-0-	-0-	-0-

\* Tests are carryover from 1996 Compliance Report, Reference File No. ZJ-SUPL-301.

## Allowable Leakage by Weight

1. One (oz) at impact.
2. Not more than one (oz) per minute following 30 minutes.
3. Five (oz) for first 5 minutes after each 90° rotation and not more than one (oz) per minute thereafter.

Prepared by:  
J.B. Estes  
 Date: 9/7/96

File No: 97-ZJ-301

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**SUMMARY III**  
**FUEL SYSTEM INTEGRITY**  
**1997 'ZJ' BODY JEEP "GRAND CHEROKEE" SPORT UTILITY**

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (oz)		
				At Impact	Following 30 Mins.	Max in Any Position (oz/min)
VC4452*	20 MPH (11/22/91)	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, 23 Gallon Fuel Tank, Tilt Steering Column, Auto. Transmission and 4.0 Litre (16) MPI Engine.	1J4GZ88V2PC 1000008	-0-	-0-	-0-
VC5967	Rear (06/06/96)	Jeep "Grand Cherokee" Sport Utility, 4-Wheel Drive, 23 Gallon Fuel Tank, Tilt Steering Column, Auto. Transmission and 5.2 Litre (V8) MPI Engine & Reinforcing Bracket.	1J4GZ78Y3VC 5000001	-0-	-0-	-0-

\* Tests are carryover from 1996 Compliance Report, Reference File No. ZJ-SUPL-301.

## Allowable Leakage by Weight

1. One (oz) at impact.
2. Not more than one (oz) per minute following 30 minutes.
3. Five (oz) for first 5 minutes after each 90° rotation and not more than one (oz) per minute thereafter.

Prepared by:  
 J.B. Estes,  
 Date: 12/19/96

1998-301 CPs.txt

301 Compliance Procedures Provided for 1998

Procedure	File Name
CP 194k	98-301-cp194k.pdf
CP 232f	98-301-cp232f.pdf
CP 233h	98-301-cp233h.pdf
CP 234i	98-301-cp234i.pdf
CP 245f	98-301-cp245f.pdf
CP 246g	98-301-cp246g.pdf
CP 394	98-301-cp394.pdf
CP 399	98-301-cp399.pdf