EA12-005

CHRYSLER

12-13-2012

Enclosure 6D

301 Compliance Documents

KJ 2002 - 2007 Compliance Documentation

Information

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Model Year: 2004

Procedure: CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K

Federal, Canadian, & Other Standard Information

Standard: MVSS 301

Standard Title: Fuel System integrity

Requirements: Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Family Codes: KJ

Approvals

Approvals

Christopher J Nowak **Responsible Executive**	Approved by Christopher J Nowak 06/03/2003 10:44:22 AM **Approval Date**
John H Broomall **Approving Executive**	Approved by John H Broomall 06/03/2003 11:52:56 AM **Approval Date**

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard MVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The DaimlerChrysler 2004 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.2, S5.5, and S5.6.

Safety Documentation Compliance Report

Prepared By: Suzanne M Marsh **Date:** 05/30/2003

Approved By: Christopher J Nowak **Date:** 06/03/2003

Issued By: 1060 - Energy Management/NVH/Aero-Thermal (Jeep)

Discussion

DAIMLERCHRYSLER

The 2004 model year “KJ” series Jeep Liberty design features include:

Vehicle/Body:
? Four (4) door vehicle only
? Rear outside mounted spare tire on swing gate with rear flipper glass
? Trailer hitch (optional)

Capacity:
? Five (5) person seating capacity
? 400 pounds of luggage capacity
? Fuel tank capacity of 19.5 gallons

Drivetrain:
? 3.7L (6-cyl) engine with manual and automatic transmission or 2.4L (4-cyl) engine with manual transmission only are offered
? 4 wheel drive and 2 wheel drive are offered with either engine configuration

Occupant Restraint/Interior Systems:
? A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a pretensioner is the primary restraint for the driver.
? A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a pretensioner is the primary restraint for the passenger.
? Next generation airbags are controlled through a center module with front remote sensors (standard)
? A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel. Configuration: 28” dia, 230kPA inflator, 10” tether, 2X27.5mm venting
? A supplementary passenger restraint airbag is contained in the instrument panel. Configuration: 160L, PPI32S 50/50 LS2 inflator, 2X50mm venting
? Side inflatable curtains (left and right sides) are controlled through a center module with left and right remote sensors mounted at the b-pillar (optional)

Twelve (12) vehicles were tested to demonstrate compliance of the “KJ” to the requirements of FMVSS 301, Fuel System Integrity. A summary of these vehicles and test results are attached.

CONCLUSION:

Based on the testing and analysis conducted, the DaimlerChrysler 2004 model year “KJ” Body, Jeep “Liberty” Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.2, S5.5, S5.6.

Appendix

DAIMLERCHRYSLER

Test Mode Vehicle Crash Number and Date Tested Description of Vehicle Vehicle Identification Data (VIN)	At Impact	Leakage in the following 30 minutes	Leakage in the rollover fixture	Total Leakage
30mph Rear VC10546 on 3/10/03 3.7L 4x4, Manual, S1 Build 1J8GL38K74W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC10560 on 3/11/03 3.7L 4X4, Manual, S1 Build 1J8GL48K14W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Right VC10580 on 5/23/03 3.7L 4X4, Auto, S1 Build 1J8GL48K14W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Left VC10559 on 5/23/03 3.7L 4X4, Auto, S1 Build 1J8GL48K84W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10644 on 5/24/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W1[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal VC10589 on 5/25/03 2.4L 4X2, Manual, S1 Build 1J8FK48184W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal VC10532 on 5/24/03 3.7L 4X4, Auto, S1 Build 1J4GL58K44W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal VC10588 on 5/26/03 2.4L 4X2, Manual, S1 Build 1JFK48104W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal VC10579 on 5/26/03 2.4L 4X2, Manual, S1 Build 1JFK48174W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10800 on 5/26/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Left Lateral VC09071 tested 2/28/01 3.7L 4x4, Auto, S1 Build 1J8GL48K72W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Lateral VC09106 tested 3/17/01 3.7L 4x4, Auto, S2 Build 1J4GL48K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.

1J8GL48K72W[redacted] Right Lateral VC09106 tested 3/17/01 3.7L 4x4, Auto, S2 Build 1J4GL48K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.

Information

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Model Year: 2005

Procedure: CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K

Federal, Canadian, & Other Standard Information

Standard: MVSS 301

Standard Title: Fuel System integrity

Requirements: Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Family Codes: KJ

Approvals

Approvals

Christopher J Nowak **Responsible Executive**	Approved by Christopher J Nowak 06/01/2004 04:25:30 PM **Approval Date**
John H Broomall **Approving Executive**	Approved by John H Broomall 06/01/2004 04:31:00 PM **Approval Date**

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard MVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The Daimlerchrysler 2005 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Safety Documentation Compliance Report

Prepared By: Suzanne M Marsh **Date:** 05/28/2004

Approved By: Christopher J Nowak **Date:** 06/01/2004

Issued By: Energy Management/NVH (Jeep)

Discussion

The 2005 model year "KJ" series Jeep Liberty design features include:

Vehicle/Body:
? Four (4) door vehicle only
? Rear outside mounted spare tire on swing gate with rear flipper glass
? Trailer hitch (optional)

Capacity:
? Five (5) person seating capacity
? 400 pounds of luggage capacity
? Fuel tank capacity of 20.5 gallons

Drivetrain:
? 3.7L (6-cyl) engine with manual and automatic transmission, 2.4L (4-cyl) engine with manual transmission, or 2.8L Diesel (4-cyl) with automatic transmission are offered
? 4 wheel drive and 2 wheel drive are offered with the 3.7L and the 2.4L engine configurations. 4 wheel drive only is offered for the 2.8L engine configuration

Occupant Restraint/Interior Systems:
? A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a pretensioner is the primary restraint for the driver.
? A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a pretensioner is the primary restraint for the passenger.
? Next generation airbags are controlled through a center module with front remote sensors (standard)
? A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel. Configuration: 28" dia, 230kPA inflator, 9" tethers, 2X27.5mm venting
? A supplementary passenger restraint airbag is contained in the instrument panel. Configuration: 160L, PPI32S 50/50 V508 inflator, 2X50mm venting
? Side inflatable curtains (left and right sides) are controlled through a center module with left and right remote sensors mounted at the b-pillar (optional)

Ten (10) vehicles have been tested to demonstrate compliance of the "KJ" to the requirements of FMVSS 301, Fuel System Integrity. A summary of these vehicles and test results are attached.

CONCLUSION:

Based on the testing and analysis conducted, the DaimlerChrysler 2005 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Appendix

DAIMLERCHRYSLER

Test Mode Vehicle Crash Number and Date Tested Description of Vehicle Vehicle Identification Data (VIN)	At Impact	Leakage in the following 30 minutes	Leakage in the rollover fixture	Total Leakage
30mph Rear VC11711 on 5/13/04 3.7L 4x4, Manual, S1 Build 1J8GL38K65W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC11715 on 5/17/04 3.7L 4X4, Auto, S1 Build 1J8GL48K05W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
33.5mph Lateral / Left VC11713 on 5/15/04 3.7L 4X4, Manual, S1 Build 1J8GL48K25W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal Female VC11762 on 5/24/04 2.4L 4X2, Manual, S0PhC Build 1J8FK481X5W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Female VC11763 on 5/24/04 3.7L 4X4, Auto, S0PhC Build 1J8GL58K65W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Male VC11766 on 5/26/04 2.4L 4X4, Manual, S1 Build 1J8G6C8155W5[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Right VC10580 on 5/23/03 3.7L 4X4, Auto, S1 Build 1J8GL48K14W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Left VC10559 on 5/23/03 3.7L 4X4, Auto, S1 Build 1J8GL48K84W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10644 on 5/24/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10800 on 5/26/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.


VC11711.pdf
VC11715.pdf
VC11713.pdf
VC11762.pdf
VC11763.pdf
VC11766.pdf
VC10580.pdf
VC10559.pdf
VC10644.pdf
VC10800.pdf

Information

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Model Year: 2002

Procedure: CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K

Standard: MVSS 301

Standard Title: Fuel System integrity

Requirements: Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Family Codes: KJ

Approvals

Edward A Zylik **Department Manager**		03/21/2001 08:45:57 AM **Approval Date**
John H Broomall **Executive Engineer**		03/21/2001 09:20:45 AM **Approval Date**

EA12-005- Chrysler -006408

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard MVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The DaimlerChrysler 2002 model year 3.7 Litre 'KJ' Body Jeep "Liberty" Sport Utility Vehicle, as designed and released, complies with the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Safety Documentation Compliance Report

Prepared By: Anne Stefango **Date:** 03/21/2001
Approved By: Edward A Zylik **Date:** 03/21/2001

Issued By: 1060 - Impact Development (Jeep)

EA12-005- Chrysler -006409

Discussion

The “KJ” series Jeep is a new vehicle for the 2002 model year.

The following design features have been incorporated:

Vehicle/Body:
- Four (4) door vehicle only
- outside mounted swing gate with rear flipper glass and outside spare tire
- trailer hitch (optional)
- skid plate (optional)

Capacity
- Five (5) person seating capacity
- 300 pounds of luggage capacity
- fuel tank capacity of 18.5 gallons

Drivetrain
- 3.7L (6-cyl) engine with manual and automatic transmission or 2.4L (4-cyl) engine with manual transmission only are offered (The 2.4L is scheduled for launch in November 2001)
- 4 wheel drive and 2 wheel drive are offered with either engine configuration

Occupant Restraint/Interior Systems:
- A 3-point active seat belt with adjustable upper anchorage and a pretensioner is the primary restraint for the driver.
- A 3-point active seat belt with adjustable upper anchorage and a constant force retractor is the primary restraint for the passenger
- Next generation airbags controlled through a center module with front remote sensors (standard)
- A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel
- A supplementary passenger restraint airbag is contained in the instrument panel
- Side inflatable curtain controlled by autonomous sensors mounted at the b-pillar (optional)

Eight (8) of vehicles were tested to demonstrate compliance of the “KJ” to the requirements of FMVSS 301, Fuel System Integrity. A summary of these vehicles and the test results are attached.

CONCLUSION:

Based on the testing conducted, the DaimlerChrysler 2002 model year 3.7 Litre 'KJ' Body Jeep "Liberty" Sport Utility Vehicle, complies with the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Appendix

SUMMARY
FUEL SYSTEM INTEGRITY
2002 MODEL YEAR 'KJ' BODY JEEP "LIBERTY"

Test Mode Vehicle Crash Number and date tested Description of Vehicle Vehicle Identification Number	At Impact	Leakage in the followmg 30 minutes	Leakage in the rollover fixture	Total Leakage
Flat Frontal VC09108 tested 3/18/01 3.7Litre, 4x4, auto, S1 1J8GL58K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Flat Frontal VC09096 tested 3/17/01 3.7Litre, 4x2, auto, S1 1J8GK48K02W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Angular VC09027 tested 3/16/01 3.7Litre, 4x4, auto, S1 1J8GL58K82W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Left Angular VC09085 tested 3/9/01 3.7Litre 4x2, auto, S2 1J8GL58K22W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Rear VC09094 tested 3/12/01 3.7Litre, 4x4, auto, S1 1J8GL58K02W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Rear VC09026 tested 1/29/01 3.7Litre, 4x4, auto, S1 1J8GL48K92W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Left Lateral VC09071 tested 2/28/01 3.7Litre, 4x4, auto, S1 1J8GL48K72W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Lateral VC09106 tested 3/17/01 3.7Litre, 4x4, auto, S2 1J4GL48K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.

Allowable Leakage by Weight:
1. One Oz. at Impact.
2. Not more than one Oz. per minutre in the following thirty minutes.
3. Five Oz. for the first five minutes after each 90 degree rotation and not more than one Oz. per minute thereafter.

Attachments:

VC09026_301.pdf
vc09027_301.pdf
vc09071_301.pdf
vc09085_301.pdf
vc09094_301.pdf
vc09096_301.pdf
Vc09106_301.pdf
vc09108_301.pdf

Information

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Model Year: 2003

Procedure: CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K

Standard: MVSS 301

Standard Title: Fuel System integrity

Requirements: Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Family Codes: KJ

Approvals

Christopher J Nowak **Department Manager**		03/28/2002 02:04:14 PM **Approval Date**
John H Broomall **Executive Engineer**		03/28/2002 05:21:40 PM **Approval Date**

EA12-005- Chrysler -006412

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard MVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The DaimlerChrysler 2003 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S3, S5, S6, and S7.

Safety Documentation Compliance Report

Prepared By: Eric G Willis **Date:** 03/21/2002
Approved By: Christopher J Nowak **Date:** 03/28/2002

Issued By: 1060 - Energy Management/NVH/Aero-Thermal (Jeep)

Discussion

The 2003 model year “KJ” series Jeep Liberty is carry-over in terms of FMVSS 301 Fuel Loss Limitations and Static Rollover Test Procedures to Determine Vehicle Fuel Systems Integrity. No additional testing was conducted.

The following design features are carried over from the 2002 model year:

Vehicle/Body:
- Four (4) door vehicle only
- Rear outside mounted spare tire on swing gate with rear flipper glass
- Trailer hitch (optional)

Capacity:
- Five (5) person seating capacity
- 400 pounds of luggage capacity
- Fuel tank capacity of 18.5 gallons

Drivetrain:
- 3.7L (6-cyl) engine with manual and automatic transmission or 2.4L (4-cyl) engine with manual transmission only are offered
- 4 wheel drive and 2 wheel drive are offered with either engine configuration

Occupant Restraint/Interior Systems:
- A 3-point active seat belt with adjustable upper anchorage, a 3.3kN constant force retractor, and a pretensioner is the primary restraint for the driver.
- A 3-point active seat belt with adjustable upper anchorage and a 2.5kN constant force retractor is the primary restraint for the passenger.
- Next generation airbags are controlled through a center module with front remote sensors (standard)
- A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel. Configuration: 28” dia, 230kPA inflator, 11” tether, 2X30mm venting
- A supplementary passenger restraint airbag is contained in the instrument panel. Configuration: 125L, P6.3 HGI inflator, 2X65mm venting
- Side inflatable curtains (left and right sides) are controlled by autonomous sensors mounted at the b-pillar (optional)

CONCLUSION:

Based on the testing and analysis conducted on the 2002 model year, the DaimlerChrysler 2003 model year “KJ” Body, Jeep “Liberty” Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S3, S5, S6, and S7.

Appendix

Test Mode Vehicle Crash Number and date tested Description of Vehicle Vehicle Identification Number	At Impact	Leakage in the following 30 minutes	Leakage in the rollover fixture	Total Leakage
Flat Frontal VC09108 tested 3/18/01 3.7Litre, 4x4, auto, S1 1J8GL58K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Flat Frontal VC09096 tested 3/17/01 3.7Litre, 4x2, auto, S1 1J8GK48K02W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Angular VC09027 tested 3/16/01 3.7Litre, 4x4, auto, S1 1J8GL58K82W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Left Angular VC09085 tested 3/9/01 3.7Litre 4x2, auto, S2 1J8GL58K22W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Rear VC09094 tested 3/12/01 3.7Litre, 4x4, auto, S1 1J8GL58K02W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Rear VC09026 tested 1/29/01 3.7Litre, 4x4, auto, S1 1J8GL48K92W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Left Lateral VC09071 tested 2/28/01 3.7Litre, 4x4, auto, S1 1J8GL48K72W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Lateral VC09106 tested 3/17/01 3.7Litre, 4x4, auto, S2 1J4GL48K32W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Flat Frontal VC09373 tested 9/18/01 2.4Litre, 4x4, manual, S1 1J8GL48192W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Flat Frontal VC09386 tested 9/28/01 2.4Litre, 4x2, manual, S1 1J4FK48142W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
Right Angular VC09385 tested 9/28/01 2.4Litre, 4x4, manual, S1 1J4GL48172W[redacted]	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.

vc09108.pdf vc09096.pdf vc09027.pdf vc09085.pdf vc09094.pdf Vc09026.pdf vc09071.pdf vc09106.pdf vc09373.pdf Vc09386.pdf Vc09385.pdf

Information

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301 and GCC)

Model Year: 2006

Procedure: CP-246H

Standard Information

CMVSR Requirements

Standard #
301

Title
Fuel System integrity

Section
S5.1,S5.2,S5.5,S5.6

Requirements
Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

FMVSS Requirements

Standard #
301

Title
Fuel System integrity

Section
S5.1,S5.2,S5.5,S5.6

Requirements
Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Body Codes: KJ, KJ-Diesel

Approvals

Approvals

Lawrence E Brookes **Responsible Executive**	Approved by Lawrence E Brookes 02/09/2005 05:43:10 PM **Approval Date**
Jeffrey P Zyburt **Approving Executive**	Approved by Jeffrey P Zyburt 02/10/2005 08:03:35 AM **Approval Date**

EA12-005- Chrysler -006428

Summary

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301 and GCC)

Objective: Verification of design Compliance with the requirements of Vehicle Safety Standard CMVSR 301, FMVSS 301.

Conclusion: The DaimlerChrysler 2006 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Safety Documentation Compliance Report

Prepared By: Suzanne M Marsh **Date:** 02/07/2005
Approved By: Lawrence E Brookes **Date:** 02/09/2005

Issued By: Energy Management/NVH (Jeep)

Discussion

The 2006 model year "KJ" series Jeep Liberty is carry-over in terms of FMVSS 301 Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301). No additional testing was conducted.

The 2006 model year “KJ” series Jeep Liberty design features include:

Vehicle/Body:
- Four (4) door vehicle only
- Rear outside mounted spare tire on swing gate with rear flipper glass
- Trailer hitch (optional)

Capacity:
- Five (5) person seating capacity
- 400 pounds of luggage capacity
- Fuel tank capacity of 20.5 gallons

Drivetrain:
- 3.7L (6-cyl) engine with manual and automatic transmission or 2.8L Diesel (4-cyl) with automatic transmission are offered
- 4 wheel drive and 2 wheel drive are offered with the 3.7L engine configurations. 4 wheel drive only is offered for the 2.8L engine configuration

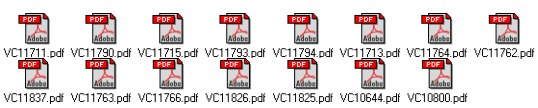
Occupant Restraint/Interior Systems:
- A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a retractor pretensioner is the primary restraint for the driver.
- A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a retractor pretensioner is the primary restraint for the passenger.
- Next generation airbags are controlled through a center module with front remote sensors (standard)
- A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel. Configuration: 28” dia, 230kPA inflator, 9” tethers, 2X27.5mm venting
- A supplementary passenger restraint airbag is contained in the instrument panel. Configuration: 160L, PPI32S 50/50 V508 inflator, 2X50mm venting
- Side inflatable curtains (left and right sides) are controlled through a center module with left and right remote sensors mounted at the b-pillar (optional)

CONCLUSION:

Based on the testing and analysis conducted on the 2005 model year, the DaimlerChrysler 2006 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Appendix

Test Mode Vehicle Crash Number and Date Description of Vehicle Vehicle Identification Data (VIN) Test Speed -- Test Weight	At Impact	Leakage in the following 30 minutes	Leakage in the rollover fixture	Total Leakage
30mph Rear VC11711 on 5/13/04 3.7L 4x4, Manual, S1 Build 1J8GL38K65W[redacted] 48.9 kph -- 2233.98 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Rear VC11790 on 6/14/04 2.8L 4x4, Auto, S1 Build 1J8GL58585W[redacted] 48.63 kph -- 2327.87 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC11715 on 5/17/04 3.7L 4X4, Auto, S1 Build 1J8GL48K05W[redacted] 48.63 kph -- 2201.77kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC11793 on 6/21/04 2.8L 4x4, Auto, S1 Build 1J8GL48585W[redacted] 48.79 kph -- 2308.37 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Right VC11794 on 6/22/04 2.8L 4x4, Auto, S1 Build 1J8GL485X5W[redacted] 48.63 kph -- 2302.47 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
33.5mph Lateral / Left VC11713 on 5/15/04 3.7L 4X4, Manual, S1 Build 1J8GL48K25W[redacted] 54.4 kph -- 2203.58kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
33.5mph Lateral / Left VC11764 on 6/10/04 2.8L 4x4, Auto, S1 Build 1J8GL48585W[redacted] 54.42 kph -- 2301.56 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal Female VC11762 on 5/24/04 2.4L 4X2, Manual, S0PhC Build 1J8FK481X5W[redacted] 48.63 kph -- 1928.7 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal Female VC11837 on 7/16/04 2.8L 4x4, Auto, S1 Build 1J8GL58545W[redacted] 48.6 kph -- 2273.9 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Female VC11763 on 5/24/04 3.7L 4X4, Auto, S0PhC Build 1J8GL58K65W[redacted] 40.41 kph -- 2160.0 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Male VC11766 on 5/26/04 2.4L 4X4, Manual, S1 Build 1J8G6C8155W[redacted] 40.57 kph -- 2066.6 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Right VC11826 on 6/24/04 2.8L 4x4, Auto, S1 Build 1J8GL58565W[redacted] 40.74 kph -- 2320.16 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Left VC11825 on 6/25/04 2.8L 4x4, Auto, S1 Build 1J8GL48565W[redacted] 40.57 kph -- 2298.39 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10644 on 5/24/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted] 32.69 kph -- 1962 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10800 on 5/26/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted] 32.53 kph -- 1918 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.



EA12-005- Chrysler -006431

Contact Info

Compliance Procedure Specialist: **Phone:**	**Vehicle Safety Certification Supervisor:** **Phone:**

Information

2007 Archive

DAIMLERCHRYSLER

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301 and GCC)

Model Year: 2007

Procedure: CP-246H

Standard Information

CMVSR Requirements

Standard #
301

Title
Fuel System integrity

Section
S5.1,S5.2,S5.5,S5.6

Requirements
Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

FMVSS Requirements

Standard #
301

Title
Fuel System integrity

Section
S5.1,S5.2,S5.5,S5.6

Requirements
Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Body Codes: KJ

Approvals

Approvals

Lawrence E Brookes **Responsible Executive**	Approved by Lawrence E Brookes 03/10/2006 09:37:34 AM **Approval Date**
Jeffrey P Zyburt **Approving Executive**	Approved by Jeffrey P Zyburt 03/10/2006 10:09:42 AM **Approval Date**

EA12-005- Chrysler -006433

Summary

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301 and GCC)

Objective: Verification of design Compliance with the requirements of Vehicle Safety Standard CMVSR 301, FMVSS 301.

Conclusion: The DaimlerChrysler 2007 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Safety Documentation Compliance Report

Prepared By: Suzanne M Marsh **Date:** 12/09/2005
Approved By: Lawrence E Brookes **Date:** 03/10/2006

Issued By: Energy Management/NVH (Jeep)

Discussion

The 2007 model year "KJ" series Jeep Liberty is carry-over in terms of FMVSS 301 Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301). No additional testing was conducted.

The 2007 model year “KJ” series Jeep Liberty design features include:

Vehicle/Body:
- Four (4) door vehicle only
- Rear outside mounted spare tire on swing gate with rear flipper glass
- Trailer hitch (optional)

Capacity:
- Five (5) person seating capacity
- 400 pounds of luggage capacity
- Fuel tank capacity of 20.5 gallons

Drivetrain:
- 3.7L (6-cyl) engine with manual and automatic transmission or 2.8L Diesel (4-cyl) with automatic transmission are offered
- 4 wheel drive and 2 wheel drive are offered with the 3.7L engine configurations. 4 wheel drive only is offered for the 2.8L engine configuration

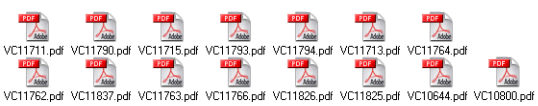
Occupant Restraint/Interior Systems:
- A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a retractor pretensioner is the primary restraint for the driver.
- A 3-point active seat belt with adjustable upper anchorage, a 9.5mm diameter torsion bar (3.3kN) constant force retractor, and a retractor pretensioner is the primary restraint for the passenger.
- Next generation airbags are controlled through a center module with front remote sensors (standard)
- A supplementary driver restraint airbag is contained in the four (4) spoke steering wheel. Configuration: 28” dia, 230kPA inflator, 9” tethers, 2X27.5mm venting
- A supplementary passenger restraint airbag is contained in the instrument panel. Configuration: 160L, PPI32S 50/50 V508 inflator, 2X50mm venting
- Side inflatable curtains (left and right sides) are controlled through a center module with left and right remote sensors mounted at the b-pillar (optional)

CONCLUSION:

Based on the testing and analysis conducted on the 2005 model year, the DaimlerChrysler 2007 model year "KJ" Body, Jeep "Liberty" Sport Utility vehicle, complies with the performance requirements of FMVSS 301, Sections S5.1, S5.5, and S5.6.

Appendix

Test Mode Vehicle Crash Number and Date Description of Vehicle Vehicle Identification Data (VIN) Test Speed -- Test Weight	At Impact	Leakage in the following 30 minutes	Leakage in the rollover fixture	Total Leakage
30mph Rear VC11711 on 5/13/04 3.7L 4x4, Manual, S1 Build 1J8GL38K65W[redacted] 48.9 kph -- 2233.98 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Rear VC11790 on 6/14/04 2.8L 4x4, Auto, S1 Build 1J8GL58585W[redacted] 48.63 kph -- 2327.87 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC11715 on 5/17/04 3.7L 4X4, Auto, S1 Build 1J8GL48K05W[redacted] 48.63 kph -- 2201.77kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Left VC11793 on 6/21/04 2.8L 4x4, Auto, S1 Build 1J8GL48585W[redacted] 48.79 kph -- 2308.37 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Angular / Right VC11794 on 6/22/04 2.8L 4x4, Auto, S1 Build 1J8GL485X5W[redacted] 48.63 kph -- 2302.47 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
33.5mph Lateral / Left VC11713 on 5/15/04 3.7L 4X4, Manual, S1 Build 1J8GL48K25W[redacted] 54.4 kph -- 2203.58kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
33.5mph Lateral / Left VC11764 on 6/10/04 2.8L 4x4, Auto, S1 Build 1J8GL48585W[redacted] 54.42 kph -- 2301.56 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal Female VC11762 on 5/24/04 2.4L 4X2, Manual, S0PhC Build 1J8FK481X5W[redacted] 48.63 kph -- 1928.7 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
30mph Flat Frontal Female VC11837 on 7/16/04 2.8L 4x4, Auto, S1 Build 1J8GL58545W[redacted] 48.6 kph -- 2273.9 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Female VC11763 on 5/24/04 3.7L 4X4, Auto, S0PhC Build 1J8GL58K65W[redacted] 40.41 kph -- 2160.0 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Flat Frontal Male VC11766 on 5/26/04 2.4L 4X4, Manual, S1 Build 1J8G6C8155W[redacted] 40.57 kph -- 2066.6 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Right VC11826 on 6/24/04 2.8L 4x4, Auto, S1 Build 1J8GL58565W[redacted] 40.74 kph -- 2320.16 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
25mph Angular / Left VC11825 on 6/25/04 2.8L 4x4, Auto, S1 Build 1J8GL48565W[redacted] 40.57 kph -- 2298.39 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10644 on 5/24/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted] 32.69 kph -- 1962 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.
20mph Flat Frontal VC10800 on 5/26/03 2.4L 4X2, Manual, S1 Build 1J8FK48164W[redacted] 32.53 kph -- 1918 kg	Zero Oz.	Zero Oz.	Zero Oz.	Zero Oz.



EA12-005- Chrysler -006436

Contact Info

Compliance Procedure Specialist: **Phone:**	**Vehicle Safety Certification Supervisor:** **Phone:**

EA12-005

CHRYSLER

12-13-2012

Enclosure 6D

301 Compliance Documents

XJ 1984 - 1992 Compliance Documentation

1985

1985 JEEP XJ WAGONEER/CHEROKEE

FMVSS #301 - TEST STRATEGY

The 1985 XJ Wagoneer/Cherokee was certified to the requirements of FMVSS #301 "Fuel System Integrity" due to the inclusion of the 2.1L turbo diesel engine. Engine placement, fuel line routing and the operating environment in general are unique when compared to the gas engine models. Barrier Crash Test numbers 1801, 1802, 1803, 1805 and 1806 are shown here to demonstrate compliance with FMVSS #301.

*Gasoline engine models were not changed from 1984 and, therefore, were not retested for 1985.

1076L/9
07/19/84

1985

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: 1985 Cherokee (8577)

ENGINE TYPE: 2.1L Diesel VEHICLE TEST WEIGHT: 4207 Lbs.

TYPE OF BARRIER IMPACT: Front - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification Number SF AM-14046? Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.3 MPH

C. Was was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? None

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max., 0.5 oz./min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). N/A

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 5 min.

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position at 90°, 180°, 270°, and 360° (max: 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz./min.)? None

D. If fuel spillage occurred, describe location(s) and amount(s) N/A

Attach copy of Test Report No. 1801 (6/8/84)

1076L/8

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Frank C. Gonder Jr. 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (BIW)

E. Wojnar 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Underbody)

[signature] 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Tank)

R. L. Prichard 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Handling)

L. J. Baker 7/18/84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Cert. Services)

Vehicle, Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (Date)

1078L/4
07/10/84

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: 1985 Wagoneer/Cherokee (8575/78)

ENGINE TYPE: 2.1L Diesel VEHICLE TEST WEIGHT: 4258 Lbs.

TYPE OF BARRIER IMPACT: Left Side - Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification Number SF AM-14046? Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.3 MPH

C. Was was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? None

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max., 0.5 oz./min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). N/A

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 5 min.

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position at 90°, 180°, 270°, and 360° (max. 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz./min.)? None

D. If fuel spillage occurred, describe location(s) and amount(s) N/A

Attach copy of Test Report No. 1802 (6/13/84)

1076L/7

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Frank C. Gonda Jr. 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (BIW)

B. Wojna 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Underbody)

FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Tank)

R. H. Vorhert 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Handling)

L. O. Baker 7/18/84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Cert. Services)

Vehicle, Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (Date)

1078/1
07/10/84

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: 1985 Wagoneer/Cherokee (8575/78)

ENGINE TYPE: 2.1L Diesel VEHICLE TEST WEIGHT: 4258 Lbs.

TYPE OF BARRIER IMPACT: Right Side - Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification Number SF AM-140467 Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.4 MPH

C. Was was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? None

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max., 0.5 oz./min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). N/A

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 5 min.

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position at 90°, 180°, 270°, and 360° (max: 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz./min.)? None

D. If fuel spillage occurred, describe location(s) and amount(s) N/A

Attach copy of Test Report No. 1803 (6/13/84)

1076L/6

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Frank A. Goodale 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (BIW)

B. Wagner 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Underbody)

S R Kelly
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Tank)

R. L. Fochart 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Handling)

L. O. Baker 7/18/84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Cert. Services)

Vehicle, Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (Date)

1076L/4
07/10/84

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: 1985 Wagoneer/Cherokee (8575/78)

ENGINE TYPE: 2.1L Diesel VEHICLE TEST WEIGHT: 4260 Lbs.

TYPE OF BARRIER IMPACT: Right Oblique - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification Number SF AM-140467 Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.5 MPH

C. Was was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? None

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max., 0.5 oz./min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). N/A

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 5 min.

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position at 90°, 180°, 270°, and 360° (max: 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz./min.)? None

D. If fuel spillage occurred, describe location(s) and amount(s) N/A

Attach copy of Test Report No. 1805 (6/22/84)

1076L/1

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Frank G. Fonda Jr. 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (BIW)

B. Wojan 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Underbody)

J. Pfeiffer
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Tank)

R. E. Pochert 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Handling)

L. O. Baker 7/18/84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Cert. Services)

Vehicle, Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (Date)

1076L/4
07/10/84

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: 1985 Wagoneer/Cherokee (8575/78)

ENGINE TYPE: 2.1L Diesel VEHICLE TEST WEIGHT: 4254 Lbs.

TYPE OF BARRIER IMPACT: Left Oblique - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification Number SF AM-140467 Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.7 MPH

C. Was was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? None

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max., 0.5 oz./min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). N/A

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 5 min.

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position at 90°, 180°, 270°, and 360° (max: 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz./min.)? None

D. If fuel spillage occurred, describe location(s) and amount(s) N/A

Attach copy of Test Report No. 1806 (6/28/84)

1076L/5

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Charles C. Goodwin 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (BIW)

B. Wojan 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Underbody)

F. Kishline
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Tank)

R. G. Pochert 7-18-84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Fuel Handling)

L. O. Baker 7/18/84
FMVSS/CMVSS RESPONSIBLE ENGINEER (Date) (Cert. Services)

Vehicle, Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (Date)

1076L/4
07/10/84

FMVSS/CMVSS COMPLIANCE MANUAL
CARRYOVER, SIMILAR SYSTEM AND/OR PARTS STATEMENT

For the 1985 model year:

the XJ Wagoneer and Cherokee gas engine models.

(Part No(s): ---)

have the same or similar design and performance levels in the environment application pertaining to FMVSS/CMVSS No. 301; Fuel System Integri

AS the 1984 XJ Wagoneer & Cherokee gas engine models.

(Part No(s): ---)

which was tested and compliance demonstrated with the above Standard in Test Report No. --- date ---

and/or covered in Safety Compliance Check Sheet dated ---

Additional Comments:

Frank A. Gondek 7-18-84 (BIW)
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

B. Wojnar 7-18-84 (Underbody)
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

J. R. Kuhns (Fuel Tank)
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

R. G. Pochert 7-18-84 (Fuel Handling)
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

L. O. Baker 7/18/84 (Cert. Services)
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 07/20/84
VESA ENGINEER (DATE)

LOB/mm
1107L/1

1986

IntraCompany Correspondence

To: D. C. Mallett

Location: Amtek

Copy To: M. A. Lalinsky
R. G. Pochert

From: E. A. Zylik

Location — Ext: Safety Cert/32074

Subject: 8660/70
Fuel Line Revisions
FMVSS #301

Date: November 15, 1985

The 8660/70 XJ Series Jeeps equipped with a 2.5L TBI Engine have a running change to the fuel lines for the 8600 model year. The changes, as per ECR Q6J1036, signify an improvement from the previous design and therefore will not require recertification.

The changes as requested by ECR Q6J1036 improve accessibility for assembly as required by Manufacturing to assure quality control.

The change involves relocating the quick connect fittings by shortening the fuel supply and return lines within the engine compartment with a corresponding lengthening of the return hoses.

E. A. Zylik

Concur: W. R. Kirk

gg

Concur: D. B. Maru 15 Nov 85

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS/CMVSS #301 - "FUEL SYSTEM INTEGRITY"

XJ UTILITY

VEHICLE MODELS:	8677	8677	8677	8677	8678 (8578 Updated)
ENGINE TYPES:	2.5L/I4	2.5L/I4	2.5L/I4	2.5L/I4	2.8L/V6
TYPES OF BARRIER IMPACT:	Front	Rear	30°R/O	30°L/O	Rear
VEHICLE TEST WEIGHTS:	4078	4072	3786	4076	4201
TEST REPORTS:	1887	1888	1889	890	1932
TEST DATES:	05/13/85	05/21/85	04/25/85	06/10/85	06/04/85

ADDITIONAL COMMENTS:

L. C. Miller
FMVSS/CMVSS RESPONSIBLE ENGINEER — 8/27/85 (DATE)

Vehicle Environmental and Safety Affairs has reviewed the above information and found it to satisfactorily document compliance with the above Standard, and is acceptable for inclusion in the Certification Compliance Manual.

K. L. Morgan
VESA ENGINEER — 8/27/85 (DATE)

KLM/js
5959E/1626
08/08/85

1987

FMVSS/CMVSS #301
FUEL INTEGRITY
8760 XJ TRUCKS

Strategy

The 8760 Series XJ Jeep Trucks equipped with the 2.5L I-4 and the 2.1L Turbo Diesel are carry-over from the 8500 model year in terms of FMVSS 301 and therefore, will not require retesting.

However, the 4.0L MPI I-6, which is a new engine replacing the 2.8L V-6, will require testing to demonstrate compliance to FMVSS 301 - Fuel Systems Integrity. The 8760 test strategy calls for three (3) tests. The test modes will be rear, right side and left side.

The side impact tests will be conducted on a single vehicle with the left side hit first as the fuel filler neck is on the left side. The test vehicle will be a 6-ft. bed model which is new for the 8700 model year. The 7-ft. bed is carry-over from the 8600 model year.

A rear impact will be conducted on a 6-ft. bed vehicle because the fuel tank is closer to the rear axle. The 7-ft. bed is carry-over from the 8600 model year.

The XJ Truck, being structurally identical to the XJ Utility forward of the "A" pillar, has the same crash performance of the XJ Utility in terms of all frontal barrier impacts.

Development Status

- Product Group Responsibility: Fuel & Emissions Systems/Chassis Engineering
- Responsible Engineer: R.G. Pochert, D.B. Maru/W.E. Fedelem
- Development Component(s) Test Matrix:

Veh. No.	Model	Test Mode	Engine	Trans.		Remarks
SP7T-23	77(4WD)	Frontal	I-6	Manual	204	Wts. Tested 3/6/86
SP7T-23	77(4WD)	Rear	I-6	Manual		Re-Hit

- Design Release Date: July 8, 1985
- Development Component Order Date:
- Development Review Status & Date:
  08/19/85--Vehicle expected in Development Garage.
  10/16/85--Vehicle SP7T-23 received 9/10. Vehicle is in Development Garage. Pier Arrend is in process of acquiring necessary parts, i.e. 4.0L MPI Engine and Fuel System.
  03/06/86--Vehicle SP7T-23 underwent a frontal impact on 3/5/86. The vehicle had the latest supply line P/N 8953004686.

0031G/18
EAZ - 7/22/86

E C R CHANGES

ECR NUMBER	DESCRIPTION	DATE	REASON
G790347	Increase hose length (1.4L) Add upset bead on tubes (all)	4/11/86	Aid Assembly
G790443	Increase hose length (1.7L)	6/04/86	Aid Assembly

0028/3G
EAZ - 7/22/86

FMVSS/CMVSS #301
FUEL INTEGRITY
8760 XJ TRUCKS

Certification Requirement/Status

The FMVSS Standard requires fuel system integrity during barrier crash testing and static rollover.

- Certification Component Test Matrix:

Veh. No.	Model	Test Mode	Engine	Trans.	Test No./Date
PP764-059	64(2WD)	Rear	I-6	Man.	#2005 7/03
PP763-055	63(4WD)	R/Side	I-6	Man.	#2002 6/27
PP763-055	63(4WD)	L/Side	I-6	Man.	#2001 6/20
PP765-056	65(4WD)	L/Side	I-6	Man.	#2011 7/11

- Certification Component(s) Order Date: August 20, 1985

- Certification Component(s) Received Date: All test vehicles available as of 6/11/86.

- Certification Review Status: 6/11/86--Due to similarities of the Truck (60 series) and Utility (70 series) forward of the "A" pillar, as discussed in the strategy above, the perpendicular frontal test was cancelled.
7/02/86--Vehicle PP763-055, Test #2001-Left Side Impact, leaked fluid exceeding the amount allowed by FMVSS/CMVSS 301. Upon inspection, it was found that a fuel line locating clip was missing which permitted the fuel line to be pinched. Also, the thermal insulation sleeve was improperly located which also contributed to the leakage. The left side impact will be retested under Test #2011 on vehicle PP765-056.
7/21/86--Barrier crash testing completed and indicates the 8760/70 XJs are capable of meeting the performance requirements of FMVSS/CMVSS 301 - Fuel Integrity. ECR G7717470 releases a shield in place of "P" clip 4001718 to facilitate assembly. The new shield improves protection of the fuel supply line and therefore, will not require additional barrier testing.

- Certification Test Report Nos. & Dates testing completed: Test 2001 - 6/20/86, Test 2002 - 6/27/86, Test 2005 - 7/03/86, Test 2011 - 7/11/86.

- Sign-Off

Product Group
Responsible Engr.
R. G. Pochert

Safety Certification
Responsible Engr.
E. A. Zyrek

D. B. Maru

E. Fadelem

003 9
EAZ 22/86

Strategy

The 8770 Series XJ Utility Jeeps equipped with the 2.5L I-4 and the 2.1L Turbo Diesel are carry-over from the 8600 model year in terms of FMVSS 301, and therefore will not require retesting. However, the 4.0L MPI I-6, which is a new engine replacing the 5.9L V-8, will require testing to demonstrate compliance to FMVSS 301 - Fuel System Integrity. The 8770 test strategy calls for three (3) tests. The test modes will be perpendicular frontal, left oblique, and right oblique. No tests will be conducted in the right, left side or rear impact test modes since the vehicle structure as well as the fuel system rear of the "A" pillar, including the fuel tank, are carry-over from the 8600 model year.

Development Status

- Product Group Responsibility: Fuel & Emissions Systems/Chassis Engineering
- Responsible Engineer: R.G. Fechert, D.B. Marx/M.E. Fedelem
- Development Component(s) Test Matrix:

Test No.	Veh. No.	Model	Test Mode	Engine	Trans.	Remarks
1960	8J7C-18	77(4dr)	Frontal	I-6	Manual	204 wts. Tested 10/31/85 Met 301 Requt.

- Design Release Date: July 8, 1985
- Development Component Order Date: August 29, 1984
- Development Review Status & Date:
  8/19/85--Vehicle build in process in Development Garage.
  10/31/85--Vehicle 8J7C-18 shipped 10/16/85. Test 1949 not scheduled at this time.

Certification Requirement/Status

The FMVSS Standard requires fuel system integrity during barrier crash testing and static rollover.

Certification Component Test Matrix:

Test No.	Model	Test Mode	Engine	Trans.	Remarks
8J77-0047	77(4dr)	Frontal	I-6	Auto	@1950-Met 301 Requt.
8J77-0049	77(4dr)	R/Oblique	I-6	Auto	@1956-Met 301 Requt.
8J77-0051	77(4dr)	L/Oblique	I-6	Man.	@1953-Met 301 Requt.

CORRECTION

PREVIOUS DOCUMENT(S) REPHOTOGRAPHED TO ASSURE LEGIBILITY

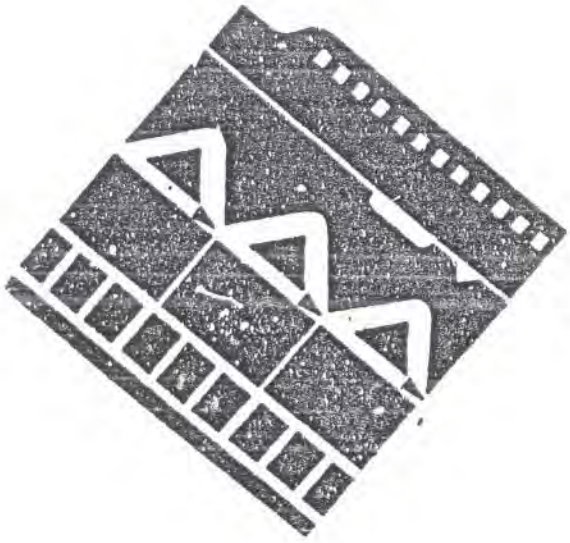


Image Source Inc.

FUEL INTEGRITY
8770 XJ UTILITY

Strategy

The 8770 Series XJ Utility Jeeps equipped with the 2.5L I-4 and the 2.1L Turbo Diesel are carry-over from the 8600 model year in terms of FMVSS 301, and therefore will not require retesting. However, the 4.0L MPI I-6, which is a new engine replacing the 2.5L I-6, will require testing to demonstrate compliance to FMVSS 301 - Fuel System Integrity. The 8770 test strategy calls for three (3) tests. The test modes will be perpindicular frontal, left oblique, and right oblique. The tests will be conducted in the right, left side or rear impact test modes since the vehicle structure as well as the fuel system rear of the "A" pillar, including the fuel tank, are carry-over from the 8600 model year.

Development Status

- Product Group Responsibility: Fuel & Emissions Systems/Chassis Engineering
- Responsible Engineers: R.G. Pachert, D.B. Marx/W.E. Fedelem
- Development Component(s) Test Matrix:

Test No.	Veh. No.	Model	Test Mode	Engine	Trans.	Remarks
1949	5P7C-18	77(XJ)	Frontal	I-6	Manual	2UK wts. Tested 10/31/85 Met 301 Requt.

- Vehicle Release Dates: July 8, 1985
- Development Component Order Date: August 29, 1984
- Development Program Status & Date:
  8/7/85--Vehicle build in process in Development Garage.
  10/31/85--Vehicle 5P7C-18 shipped 10/16/85. Test 1949 not scheduled at this time.

Certification Requirement/Status

The FMVSS Standard requires fuel system integrity during barrier crash testing and static rollover.

- Certification Component Test Matrix:

Test No.	Model	Test Mode	Engine	Trans.	Remarks
PW777-047	77(XJ)	Frontal	I-6	Auto	(1) Maximum 301 Requt.
PW777-049	77(XJ)	R/Oblique	I-6	Auto	(1) 90% Max. 301 Requt.
PW777-048	77(XJ)	L/Oblique	I-6	Man.	(1) 90% Max. 301 Requt.

ECR NUMBER	DESCRIPTION	DATE	[illegible]
6790347	Increase hose length (1.4L) Add upper hood on tubes (all)	6/11/96	[illegible]
6790443	Increase hose length (1.7L)	6/04/96	[illegible]

6020/96
EAZ - 7/22/96

1988

FMVSS/CMVSS 301
Fuel System Integrity
8860/70

Strategy

The 8860/70 Series Jeeps will have revised fuel return lines, necessitated by the Automatic Braking System (ABS), which has been canceled for the 8800 model year. The revised fuel line will be retained.

Engineering judgement, based on the evaluation of previous certification barrier crash tests as well as 8800 development crash tests with the revised fuel line, indicates further crash testing will not be required.

Requirements

FMVSS/CMVSS 301 requires fuel system integrity during barrier crash testing and post crash static rollover.

Development Status

- Product Group Responsibility:Chassis/Fuel & Emissions Systems/Body Eng'g
- Responsible Engineer: W.E.Fedelem,R.G.Pochert/D.B.Maru/G. .Tarian
- Design Release Date: 4/30/86
- Test Matrix:

Test	Vehicle	Model	Eng	Trans	Test Mode	Remarks
2025	SP7T-005	65	I-6	Auto.	204 Frt	88 ABS Devl.
2042	PP773-052	73	I-6	Auto.	204 Frt	88 ABS Devl.*
2061	PP777-053	77	I-6	Auto.	204 Frt	88 ABS Devl.*

* With revised fuel line

- Component(s) Order Date:
- Review Date & Status: 10/15/86 - 204 barrier crash scheduled for 10/19/86 which will monitor 301 performance.

Certification Status

- Test Matrix:
- Component(s) Order Date:
- Component(s) Received Date: Not Received
- Test Report Number(s):
- Review Date & Status:10/15/86 - Vehicle not received.
  5/28/87 - Based on the evaluation of previous certification barrier crash tests as well as 8800 development crash tests with the revised fuel line, further crash testing will not be required.

Sign Off

Testing Completed: 5/7/87

Product Group Engineer(s)

R.G.Pochert 6/1/87
R.G.Pochert Date

W.E.Fedelem 6/1/87
W.E.Fedelem Date

D.B.Maru 6/1/87
D.B.Maru Date

G.J.Tarian 6/4/87
G.J.Tarian Date

Safety Certification Engr.

E.A.Zylik 6/1/87
E.A.Zylik Date

5/29/87 1 of 1

1989

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301, - Section 81., 85., 86. and 87.

STANDARD TITLE: Fuel System Integrity

APPROVALS

Name (Print or Type)	Title	Signature	Date
H. G. Moulouan	Supervisor	H. G. Moulouan	9/28/88
M. A. Boyce	Department Manager	M A Boyce	9-28-88
M. L. PARKER	Chief Engineer	M L Parker	9/28/88

Date Received by Safety Programs and Plant Engineering SEP 29 1988 OPO

File No. 89-MJ/XJ-301

Option MJ-XJ-301-116

EA12-005- Chrysler -006498

INTRODUCTION

Subject: Fuel System Integrity - 1989 'MJ' Pickup Truck and 'XJ' 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: All Chrysler Motors 1989 'MJ' Pickup Truck and 'XJ' Sport Utility with G.V.W.R. of 10,000 lbs. and under, as design released, comply with the requirements of FMVSS 301.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 8)

Prepared by: _____ _____
R. G. Rouleau, Supervisor, Department 2530 Date

Approved by: M A Bowen 9-23-88
M. A. Bowen, Manager, Department 2530 Date

Issued by: Impact Test & Development Department

File No. 89-MJ/XJ-301

Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Federal Motor Vehicle Safety Standard No. 301 - Sections S1., S5., S6.1 thru S6.4.

DISCUSSION

The Chrysler Motors 1989 'MJ' Body Jeep "Comanche" - Base, Pioneer and Eliminator Pickup Truck and the 'XJ' Body Jeep "Cherokee" - Base, Pioneer, Laredo, Euro, Limited and Wagoneer Sport Utility vehicles (2 and 4-wheel drive), are essentially carryover from the 1988 model year with the exception of Anti-Lock Brake System (ABS) option, which is released for the Cherokee (XJ).

These vehicles are of unibody construction, offered in 113 and 129 inch wheelbase for the pickup with 6.0 and 7.0 foot double wall "Sweptline" cargo boxes. The sport utility is offered in 101 inch wheelbase.

All vehicles are powered by electronically fuel injected four cylinder (I4) engines with 2.5 litre or six cylinder (I6) engines with 4.0 litre displacement. The 2.5 litre and the 4.0 litre engines are available with either automatic or 5-speed manual transmission. The 2.5 litre engine is also available with 4-speed manual.

The fuel system consists of a steel tank mounted at mid-frame for the pickup and rear mounted for the sport utility. The filler neck is located on the left side of the vehicle. Fuel tank capacities (in gal'ons) are as follows:

	MJ-Pickup 7.0' Box	MJ-Pickup 6.0' Box	XJ-Sport Utility
Standard	16.0	18.5	13.5
Option	23.5	-	20.2

These fuel tanks have a standard plastic stone shield and an optional skid plate.

The front and rear bumper systems consist of a steel beam with optional bumper guards.

All vehicles are offered with a compact spare tire or a conventional spare option.

Vehicle seating capacity for the 'MJ' is three or two passengers when vehicle is equipped with bench or bucket seats respectively. Seating capacity for the 'XJ' is five passengers.

The 'MJ' base payload is 1475 lbs. and maximum payload is 2205 lbs. The luggage capacity for the 'XJ' is 300 lbs.

Eighteen vehicles were tested to demonstrate compliance of the 'MJ' and 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I thru V.

File No. 89-MJ/XJ-301

Safety Documentation Compliance Report

DISCUSSION (Cont)

Test numbers 1551, 1906 and 2011 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-233 "Moving Barrier 20 MPH Lateral Impact Test", Change 'E', dated 2/20/85.

Test numbers 1853, 1889, 1890, 1901, 1985 and 1998 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-212 "Fixed Collision Barrier 30 MPH Angled Frontal Impact Test", Change 'O', dated 3/4/83.

Test numbers 1887, 1898, 1990 and 2029 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-194 "Fixed Collision Barrier 30 MPH Frontal Impact Test", Change 'O', dated 1/7/85.

Test numbers 1888, 1909, 2005, 2028 and 2041 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-234 "Moving Barrier 30 MPH Rear Impact Test", Change 'F', dated 2/20/85.

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

CP-249 "Fuel System Integrity", Change 'E', dated 2/3/84.

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

CP-245 "Fuel System Integrity - Static Rollover Test", Change 'C', dated 1/7/85.

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

Based on the above, the 1989 'MJ' and 'XJ' Bodies, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5. and S6.1 thru S6.4.

Prepared by: V. P. Hannawi

Date: June 21, 1988

File No. 89-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY I

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	Max. In Any Position (Oz./Min.)
1851 (12/10/84)	20 MPH Lateral Left	Jeep "Cherokee", 4-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5 Litre (14) TBI Engine.	1JC0X7822FT [redacted]	-0-	-0-	-0-	-0-
1853 (12/06/84)	30° Lt. Angle	Jeep "Cherokee", 4-Door, 2 Wheel Drive Sport Utility, Manual Transmission and 2.5 Litre (14) TBI Engine.	1JC0S7518FT [redacted]	-0-	-0-	-0-	-0-
1887 (05/13/85)	Flat Frontal	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5 Litre (14) TBI Engine.	No Vehicle Number	-0-	-0-	-0-	-0-
1888 (05/21/85)	Rear	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5 Litre (14) TBI Engine.	76C-0008	-0-	-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: V. P. Hannavi

Date: Sept. 12, 1985

File No. 89-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY II

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Numbers (Oz.) At Impact	Following 30 Minutes	Rollover (Oz.)	Max. In Any Position (Oz./Min.)
1889 (04/25/85)	30° Rt. Angle	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	PP6C-012	-0-	-0-	-0-	-0-
1890 (06/10/85)	30° Lt. Angle	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	P6C-017	-0-	-0-	-0-	-0-
1898 (05/13/85)	Flat Front	Jeep "Comanche", Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (I4) TBI Engine.	P6T-102	-0-	-0-	-0-	-0-
1901 (05/29/85)	30° Rt. Angle	Jeep "Comanche", Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	P6T-118	-0-	-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: V. P. Hannawi

Date: Sept 12, 1985

File No. 88-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY III

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover (Oz.)	Position (Oz./Min.)
1986 (05/02/85)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (14) TBI Engine.	#6T-108	-0-	-0-	-0-	-0-
1509 (04/18/85)	Rear	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (14) TBI Engine.	#6T-105	-0-	-0-	-0-	-0-
1985 (05/11/86)	30° Rt. Angle	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (16) TBI Engine.	1JCML7785KT [redacted]	-0-	-0-	-0-	-0-
1990 (07/21/86)	Flat Front	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 4.0 Litre (16) TBI Engine.	1JCMR7721MT [redacted]	-0-	-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: V. P. Ramniwi

Sept 12 1986

File No. 89-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY IV

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Rollover (Oz.)	Max. In Any Position (Oz./Min.)
1008 (06/04/86)	30° Lt. Angle	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (16) TBI Engine.	1JCML7?1XHT [redacted]	-0-	-0-	-0-	-0-
2005 (07/03/86)	Rear	Jeep "Comanche" Pickup Truck, 6.5 Ft. Cargo Box, 2-Wheel Drive, Manual Transmission and 4.0 Litre (16) TBI Engine.	1J7HW66*7HT [redacted]	-0-	-0-	-0-	-0-
2011 (07/11/86)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 4.0 Litre (16) TBI Engine.	1J7HL65A9HT [redacted]	-0-	-0-	-0-	-0-
2028 (03/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Automatic Transmission and 4.0 Litre (16) TBI Engine.	1JCMU7423HT [redacted]	-0-	-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: V. P. Hannawi

Date: [illegible]

File No. 89 MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY V

FUEL SYSTEM INTEGRITY
1989 'MJ' PICKUP TRUCK AND 'XJ' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Rollover (Oz.)	Max. In Any Position (Oz./Min.)
2029 (12/12/86)	Flat Front	Jeep "Cherokee" 4-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (16) TBI Engine.	1JCML7822HT [redacted]	-0-	-0-	-0-	-0-
2041 (03/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (16) TBI Engine.	1JCHW7828HT [redacted]	-0-	-0-	-0-	-0-

All tests are carryover from 1988 American Motors Corporation Compliance Report, Reference Report dated 12/09/87.

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: V. P. Hannawi

Date: Sept. 12, 1988

File No. 89-MJ/XJ-101

1990

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1990 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

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

STANDARD TITLE: Fuel System Integrity

APPROVALS

Name (Print or Type)	Title	Signature	Date
G. M. Aboud	Supervisor	G M Aboud	6-1-89
W. L. Shellumberger	Department Manager		
H. C. von RUSTEN	Executive Engineer	H C von Rusten	6/5/89

Date Received by Safety Programs and Fleet Engineering JUN 5 1989

File No. 90-MJ/XJ-301

INTRODUCTION

Subject: Fuel System Integrity - 1990 'MJ'-Body, Jeep "Comanche" Pickup Truck and 'XJ'-Body, Jeep "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

Conclusion: All Chrysler Motors 1990 'MJ'-Body "Comanche" Pickup Truck and 'XJ'-Body "Cherokee" Sport Utility with G.V.W.R. of 10,000 lbs. and under, as design released, comply with the requirements of FMVSS 301.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 8)

Approved by: G. H. Aboud, Supervisor, Department 1060 — Date 6-1-89

Approved by: W. L. Shollenberger, Manager, Department 1060 — Date

Issued by: Jeep/Truck Safety Department

File No. 90-MJ/XJ-301

Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Federal Motor Vehicle Safety Standard No. 301 - Sections S1., S5., S6.1 thru S6.4.

DISCUSSION

The Chrysler Motors 1990 'MJ'-Body, Jeep "Comanche" - Base, Pioneer and Eliminator Pickup Truck and the 'XJ'-Body, Jeep "Cherokee" - Base, Pioneer, Laredo, Euro, and Wagoneer Limited Sport Utility vehicles (2 and 4-wheel drive), are essentially carryover from the 1989 model year.

These vehicles are of unibody construction, offered in 113 and 120 inch wheelbase for the pickup with 6.0 and 7.0 foot double wall "Sweptline" cargo boxes. The sport utility is offered in 101 inch wheelbase.

All vehicles are powered by electronically fuel injected four cylinder (I4) engines with 2.5 litre or six cylinder (I6) engines with 4.0 litre displacement. The 2.5 litre and the 4.0 litre engines are available with either automatic or 5-speed manual transmission. The 2.5 litre engine is also available with 4-speed manual.

The fuel system consists of a steel tank mounted at mid-frame for the pickup and rear mounted for the sport utility. The filler neck is located on the left side of the vehicle. Fuel tank capacities (in gallons) are as follows:

	MJ-Pickup 7.0' Box	MJ-Pickup 6.0' Box	XJ-Sport Utility
Standard	16.0	18.5	13.5
Option	23.5	-	20.2

These fuel tanks have a standard plastic stone shield and an optional skid plate.

The front and rear bumper systems consist of a steel beam with optional bumper guards.

All vehicles are offered with a compact spare tire or a conventional spare option.

Vehicle seating capacity for the 'MJ' is three or two passengers when vehicle is equipped with bench or bucket seats respectively. Seating capacity for the 'XJ' is five passengers.

The 'MJ' base payload is 1475 lbs. and maximum payload is 2205 lbs. The luggage capacity for the 'XJ' is 300 lbs.

Eighteen vehicles were tested to demonstrate compliance of the 'MJ' and 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I thru V.

File No. 90-MJ/XJ-301

Safety Documentation Compliance Report

DISCUSSION (Continued)

Test numbers 1851, 1906 and 2011 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-231 "Moving Barrier 20 MPH Lateral Impact Test", Change 'K', dated 2/20/85.

Test numbers 1853, 1889, 1890, 1901, 1985 and 1998 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-232 "Fixed Collision Barrier 30 MPH Angled Frontal Impact Test", Change 'D', dated 3/4/83.

Test numbers 1887, 1898, 1990 and 2029 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-194 "Fixed Collision Barrier 30 MPH Frontal Impact Test", Change 'G', dated 1/7/85.

Test numbers 1888, 1909, 2005, 2028 and 2041 were prepared and tested in accordance with the following Chrysler Motors Corporation Compliance Procedure:

CP-234 "Moving Barrier 30 MPH Rear Impact Test", Change 'F', dated 2/20/85.

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

CP-246 "Fuel System Integrity", Change 'E', dated 2/3/84.

Following barrier impact [illegible] were further tested in accordance with the following Chrysler Motor[illegible]ation Compliance Procedure:

CP-245 "Fu[illegible]m Integrity - Static Rollover Test", Ch[illegible], dated 1/7/85.

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

Based on the above, the 1990 'MJ'-Body, Jeep "Comanche" Pickup Truck and 'XJ'-Body, Jeep "Cherokee" Sport Utility, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5. and S6.1 thru S6.4.

Prepared by: V. P. Hannawi

Date: May 30, 1989

File No. 90-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY I

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Mode & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
1851 (12/10/84)	20 MPH Lateral Left	Jeep "Cherokee", 4-Door, 4-Wheel Drive Sport Utility, Manual Trans. and 2.5L (14) TBI Engine.	1JCUX7822FT [redacted]	-0-	-0-	-0-	-0-
1853 (12/06/84)	30° L.T. Angle	Jeep "Cherokee", 4-Door, 2 Wheel Drive Sport Utility, Manual Trans. and 2.5L (I4) TBI Engine.	1JCUS7418FT [redacted]	-0-	-0-	-0-	-0-
1887 (05/13/85)	Flat Frontal	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Trans. and 2.5L (I4) TBI Engine.	No Vehicle Number	-0-	-0-	-0-	-0-
1888 (05/21/85)	Rear	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5L (I4) TBI Engine.	#6C-0008	-0-	-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: V. P. Hannawi

Date: May 30, 1989

File No. 90-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY II

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
1889 (04/25/85)	30° Rt. Angle	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	#P6C-012	-0-	-0-	-0-	-0-
1890 (06/10/85)	30° Lt. Angle	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	#6C-017	-0-	-0-	-0-	-0-
1898 (05/13/85)	Flat Front	Jeep "Comanche", Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (I4) TBI Engine.	#6T-102	-0-	-0-	-0-	-0-
1901 (05/29/85)	30° Rt. Angle	Jeep "Comanche", Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Automatic Transmission and 2.5 Litre (I4) TBI Engine.	#6T-118	-0-	-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: V. P. Hannawi

Date: May 31, 1989

File No. 90-MJ/XJ-301

SUMMARY III

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
1906 (05/02/85)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (14) TBI Engine.	#6T-108	-0-	-0-	-0-	-0-
1909 (04/18/85)	Rear	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (14) TBI Engine.	#6T-105	-0-	-0-	-0-	-0-
1985 (05/13/86)	30° Rt. Angle	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (16) TBI Engine.	1JCHL77*5HT [redacted]	-0-	-0-	-0-	-0-
1990 (07/21/86)	Flat Front	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Automatic Transmission and 4.0 Litre (16) TBI Engine.	1JCHR7712HT [redacted]	-0-	-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: [signature] R. P. Hanneman

Date: May 30, 1989

File No. 90 MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY IV

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	Max. In Any Rollover Position (Oz./Min.)
1998 (06/04/86)	30° Lt. Angle	Jeep "Cherokee" 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JCML7?1XHT [redacted]	-0-	-0-	-0-	-0-
2005 (07/03/86)	Rear	Jeep "Comanche" Pickup Truck, 6.0 Ft. Cargo Box, 2-Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1J7MW6A?JHT [redacted]	-0-	-0-	-0-	-0-
2011 (07/11/86)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1J7ML6AA0HT [redacted]	-0-	-0-	-0-	-0-
2028 (07/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Automatic Transmission and 4.0 Litre (I6) TBI Engine.	1JCMU7423HT [redacted]	-0-	-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: V. P. Hannawi

Date: May 30, 1989

File No. 90-M'/XJ-301

SUMMARY V

FUEL SYSTEM INTEGRITY
1990 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover (Oz.)	Max. In Any Position (Oz./Min.)
2029 (12/12/86)	Flat Front	Jeep "Cherokee" 4-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JCML7822HT [redacted]	-0-	-0-	-0-	-0-
2041 (01/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JCMR7828HT [redacted]	-0-	-0-	-0-	-0-

All tests are carryover from 1989 Compliance Report, Reference File No. 89-MJ/XJ-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 min. thereafter.

Prepared by: V. P. Hommel

Date: May 30, 1989

File No. 90-MJ/XJ-101

1991

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY 1991 'MJ'-BODY, JEEP 'COMANCHE' PICKUP TRUCK AND 'XJ'-BODY, JEEP 'CHEROKEE' SPORT UTILITY

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

STANDARD TITLE: Fuel System Integrity

APPROVALS

Name (Print or Type)	Title	Signature	Date
G.M. Abowd	Supervisor	G.M. Abowd	6-14-90
D.G. MacDonald	Departmental Manager	D.G. MacDonald	6-14-90
H.C. von RUSTEN	Executive Engineer	H.C. von Rusten	6-14-90

Date Received by Safety Programs and Fleet Engineering JUN 21 1990

File No. 91-MJ/XJ-301

INTRODUCTION

Subject: Fuel System Integrity - 1991 'MJ'-Body, Jeep 'Comanche' Pickup Truck and 'XJ'-Body, Jeep "Cherokee" Sport Utility

Qbjective: 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

Conclusion: All Chrysler Corporation 1991 'MJ'-Body 'Comanche' Pickup Truck and 'XJ'-Body "Cherokee" Sport Utility with G.V.W.R. of 10,000 lbs. and under, as design released, comply with the requirements of FMVSS 301.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 8)

Approved by: G.M. Abood — 6-19-90
G.M. Abood, Supervisor, Department 1060 — Date

Approved by: D.C. MacDonald — 6-14-90
D.C. MacDonald, Manager, Department 1060 — Date

Issued by: Jeep/Truck Safety Program Management

File No. 91-MJ/XJ-301

Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY
1991 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1991 'MJ'-Body, Jeep "Comanche" Pickup Truck and the 'XJ'-Body, Jeep 'Cherokee', 2 and 4 door model, Sport Utility vehicles (2 and 4-wheel drive), are essentially carryover from the 1990 model year with the exception of the following:

- The 2.5 litre (14) Throttle Body Injection engine (TBI) is revised to a Multi-Point Injection engine (MPI).
- Revised intake manifold.
- New fuel lines.

The 2.5 litre MPI and the 4.0 litre MPI (with a single board electronic control) engines are available with either 4-speed automatic or 5-speed manual transmission. The 2.5 litre engine is also available with 4-speed manual transmission.

These vehicles are of unibody construction, offered in 119.3 inch wheelbase for the pickup with 6.0 and 7.0 foot double wall "Sweptline" cargo boxes. The sport utility is offered in 101 inch wheelbase.

The fuel system consists of a steel tank mounted at mid-frame for the pickup and rear mounted for the sport utility. The filler neck is located on the left side of the vehicle. Fuel tank capacities (in gallons) are as follows:

	MJ-Pickup, 7.0' Box	MJ-Pickup 6.0' Box	XJ-Sport Utility
Standard	16.0	18.5	13.5
Option	23.5		20.2

These fuel tanks have a standard plastic stone shield and an optional skid plate.

The front and rear bumper systems consist of a steel beam with optional bumper guards.

All vehicles are offered with a compact spare tire or a conventional spare option.

Vehicle seating capacity for the 'MJ' is three or two passengers when vehicle is equipped with bench or bucket seats respectively. Seating capacity for the 'XJ' is five passengers.

The 'MJ' base payload is 1475 lbs. and maximum payload is 2205 lbs. The luggage capacity for the 'XJ' is 300 lbs.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

Thirteen vehicles were tested to demonstrate compliance of the 'MJ' and 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I thru V.

Safety Documentation Compliance Report

DISCUSSION (Continued)

Test numbers 1851, 1906 and 2011 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-233 'Moving Barrier 20 MPH Lateral Impact Test', Change 'E'.

Test numbers VC4010 and 4049 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-232 'Fixed Collision Barrier 30 MPH Angled Frontal Impact Test', Change 'D'.

Test numbers VC3999, 4011 and 4094 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

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

Test numbers 1886, 1909, 2005, 2028 and 2041 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-234 'Moving Barrier 30 MPH Rear Impact Test', Change 'F'.

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

CP-246 'Fuel System Integrity', Change 'O'.

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 'E'.

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

Based on the above, the 1991 'MJ'-Body, Jeep 'Comanche' Pickup Truck and 'XJ'- Body, Jeep 'Cherokee' Sport Utility, as design released, comply with the requirements of FMVSS 301 - Sections S4., S5., S6. and S7.

Prepared by: [signature] V.P. Hanawi

Date: June 13, 1990

File No. 91-MJ/XJ-301

SUMMARY I

FUEL SYSTEM INTEGRITY
1991 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	Max. in Any Rollover Position (Oz./Min.)
1851** (12/10/84)	20 MPH Lateral Left	Jeep 'Cherokee', 4-Door, 4-Wheel Drive Sport Utility, Manual Trans.and 2.5L (I4) TBI Engine.	1JCUX7822[redacted]	-0-	-0-	-0-	-0-
1888** (05/21/85)	Rear	Jeep 'Cherokee', 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5L (I4) TBI Engine.	#6C-0008	-0-	-0-	-0-	-0-
1906** (05/02/85)	20 MPH Lateral Left	Jeep 'Comanche' Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (I4) TBI Engine.	#6T-108	-0-	-0-	-0-	-0-

** Tests are carryover from 1990 Compliance Report, Reference File No. 90-MJ/XJ-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: V.P. Hanawi

Date: June 13, 1990

File No. 91-MJ/XJ-301

SUMMARY II

FUEL SYSTEM INTEGRITY
1991 "MJ"-BODY, JEEP "COMANCHE" PICKUP TRUCK AND "XJ"-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
1909** (04/18/85)	Rear	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (I4) TBI Engine.	#6T-105	-0-	-0-	-0-	-0-
2005** (07/03/86)	Rear	Jeep "Comanche" Pickup Truck, 6.0 Ft. Cargo Box, 2 Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JTMW64*7HT [redacted]	-0-	-0-	-0-	-0-
20[illegible]** (07/[illegible]/86)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JTML55*9HT [redacted]	-0-	-0-	-0-	-0-

** Tests are carryover from 1990 Compliance Report, Reference File No. 90-MJ/XJ-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: [signature] V.P. Harsaw/H

Date: June 13, 1990

File No. 91-MJ/XJ-301

SUMMARY III

FUEL SYSTEM INTEGRITY
1991 "MJ-BODY" JEEP "COMANCHE" PICKUP TRUCK AND
"XJ-BODY" JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Side	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	Max. In Any Rollover Position (Oz./Min.)
2020** (03/17/87)	Rear	Jeep 'Cherokee' 4-Door, 2-Wheel Drive Sport Utility, Automatic Transmission and 4.0 Litre (6) TBI Engine.	1JCMU7423HT [redacted]	-0-	-0-	-0-	-0-
2041** (03/17/87)	Rear	Jeep 'Cherokee' 4-Door, 2-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (6) TBI Engine.	1JCMW7828HT [redacted]	-0-	-0-	-0-	-0-
VC3999 (12/19/89)	Flat Front	Jeep "Comanche" Pickup Truck, 6.0 Foot Cargo Box, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 litre (4) MPI Engine.	7FJ26L7ML [redacted]	-0-	-0-	-0-	-0-

** Tests are carryover from 1990 Compliance Report, Reference File No. 90-MJ/XJ-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: V.P. Hannawi

Date: March 13, 1990

File No. 91-MJ/XJ-301

SUMMARY IV

FUEL SYSTEM INTEGRITY
1991 "MJ-BODY JEEP "COMANCHE" PICKUP TRUCK AND "XJ"-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VC4010 (01/10/90)	30° Lt. Angle	Jeep 'Cherokee' Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (16) MPI Engine.	1J4FJ37L?ML [redacted]	-0-	-0-	-0-	-0-
VC4011 (01/19/90)	Flat Front	Jeep 'Cherokee' Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (14) MPI Engine.	1J4FJ38?ML [redacted]	-0-	-0-	-0-	-0-
VC4049 (03/09/90)	30° Rt. Angle	Jeep 'Cherokee' Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (14) MPI Engine.	1J4FJ38?ML [redacted]	-0-	-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: [signature] V.P. Hanawi

Date: June 13, 1990

File No. 91-M/XJ-301

SUMMARY V

FUEL SYSTEM INTEGRITY
1991 'MJ-BODY JEEP 'COMANCHE' PICKUP TRUCK AND
'XJ-BODY JEEP 'CHEROKEE' SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC4094 (05/24/90)	Flat Front	Jeep 'Cherokee' Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (16) MPI Engine.	1J4FJ58L7ML [redacted]	-0-	-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: [signature] V.P. Hanawa

Date: June 13, 1990

File No. 91-MJ/XJ-301

1992

JTE# 609
MJ, XJ
(1 of 6)

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1992 'MJ' BODY, JEEP "COMANCHE" PICKUP TRUCK AND 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301 - Sections 81., 85., 86. and 87.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
G.M. Aboud,	Department Manager	G.M. Aboud	05-30-91
R.P. LUNDBERG,	Executive Engineer	R.P. Lundberg	5-30-91

Date received by Automotive Safety and Security _____

File No: 92-MJ/XJ-301

INTRODUCTION

Subject: Fuel System Integrity - 1b.' 'MJ' Body, Jeep 'Comanche" Pickup Truck and 'XJ' Body, Jeep "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: All Chrysler Corporation 1992 'MJ' Pickup Truck and 'XJ' Sport Utility with G.V.W.R. of 10,000 lbs and under, as design released, comply with the requirements of FMVSS 301 - Sections 53., 85., 86. and 87.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 7)

Prepared by: _____ May 16, 1991
V.F. Hannawi, Engineer, Department 1060 Date

Approved by: _____ 05-30-91
G.H. Aboud, Manager, Department 1060 Date

Issued by: Jeep/Truck Safety Program Management

File No: 92-MJ/XJ-301

FUEL SYSTEM INTEGRITY
1992 'MJ' BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1992 'MJ' Body, Jeep "Comanche" Pickup Truck and the 'XJ' Body, Jeep "Cherokee," 2 and 4 door model, Sport Utility vehicles (2 and 4-wheel drive), are essentially carryover in design from the 1991 model year.

These vehicles are offered with two power plants. The 2.5 litre MPI and 4.0 litre MPI engines are available with either 4-speed automatic or 5-speed manual transmission.

The 'MJ' and the 'XJ' vehicles are of unibody construction, offered in 113 and 120 inch wheelbase for the pickup with 6.0 and 7.0 foot double wall "Sweptline" cargo boxes. The Sport Utility if offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with optional bumper guards and nurf strip.

All vehicles are offered with a compact spare tire or a conventional spare option.

Vehicles seating capacity for the 'MJ' is three or two passengers when vehicle is equipped with bench or bucket seats respectively. Seating capacity of the 'XJ' is five passengers.

The 'MJ' base payload is 1475 lbs. and maximum payload is 2205 lbs. The luggage capacity for the 'XJ' is 300 lbs.

The fuel system consists of a plastic tank mounted at mid-frame for the pickup and rear mounted for the sport utility. The filler neck is located on the left side of the vehicle. Fuel tank capacities (in gallons) are as follows:

MJ-Pickup 7.0' Box	23
MJ-Pickup 6.0' Box	18
XJ-Sport Utility	20

These fuel tanks have a standard plastic stone shield and an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

File No: 92-MJ/XJ-301

DISCUSSION (cont'd)
Eleven vehicles were tested to demonstrate compliance of the 'MJ' and 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I thru IV.

Test numbers 1851 and 2011 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-233 "Mounting Barrier 20 mph Lateral Impact Test," Change 'F,' dated 04/09/90.

Test numbers VC4010 and 4049 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-232 "Fixed Collision Barrier 30 mph Angled Front Impact Test," Change 'E,' dated 04/09/90.

Test numbers VC3999, 4011 and 4094 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-194 "Fixed Collision Barrier 30 mph Frontal Impact Test," Change 'I,' dated 05/30/90.

Test numbers 1888, 1909, 2005 and 2041 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-234 "Moving Barrier 30 mph Rear Impact Test," Change 'G,' dated 04/09/90.

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

CP-246 "Fuel System Integrity," Change 'G,' dated 03/26/90.

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 'E,' dated 03/23/90.

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

Based on the above, the 1992 'MJ' Body, Jeep "Comanche" Pickup Truck and 'XJ' Body, Jeep "Cherokee" Sport Utility, as design released, comply with the requirements of FMVSS 301 - Sections S1., S5., S6. and S7.

Prepared by: V.P. Hannawi

Date: May 16, 1991

File No: 92-MJ/XJ-301

SUMMARY I

FUEL SYSTEM INTEGRITY
1992 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	Max. In Any Rollover Position (Oz./Min.)
1851** (12/10/84)	20 MPH Lateral Left	Jeep "Cherokee", 4-Door, 4-Wheel Drive Sport Utility, Manual Trans.and 2.5L (14) TBI Engine.	1JCUX7822FT [redacted]	-0-	-0-	-0-	-0-
1888** (05/21/85)	Rear	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5L (14) TBI Engine.	#6C-0008	-0-	-0-	-0-	-0-
1909** (04/10/85)	Rear	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (14) TBI Engine.	#6T-105	-0-	-0-	-0-	-0-

** Tests are carryover from 1991 Compliance Report, Reference File No. 91-MJ/KJ-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: V.P. Hannawi

Date: May 16, 1991

File No: 92-MJ/KJ-301

SUMMARY II

FUEL SYSTEM INTEGRITY
1992 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
2005** (07/03/86)	Rear	Jeep "Comanche" Pickup Truck, 6.0 ft. Cargo Box, 2-Wheel Drive, Manual Tranemission and 4.0 Litre (I6) TBI Engine.	1JTHM84*7HT [redacted]	-0-	-0-	-0-	-0-
2011** (07/11/86)	20 MPH Lateral Left	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Tranemission and 4.0 Litre (I6) TBI Engine.	1JTHL64*9HT [redacted]	-0-	-0-	-0-	-0-
2041** (03/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Manual Tranemission and 4.0 Litre (I6) TBI Engine.	1JCNW7820HT [redacted]	-0-	-0-	-0-	-0-

** Tests are carryover from 1991 Compliance Report, Reference File No. 91-MJ/XJ-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: V.P. Hannawi

Date: May 16, 1991

File No: 92-MJ/XJ-301

SUMMARY III

FUEL SYSTEM INTEGRITY
1992 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VQ3999** (12/19/89)	Flat Front	Jeep "Comanche" Pickup Truck, 6.0 Foot Cargo Box, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (I4) MPI Engine.	1J7FJ26L7HL [redacted]	-0-	-0-	-0-	-0-
VQ4010** (01/10/90)	30° Lt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (I6) MPI Engine.	1J4FJ37L7HL [redacted]	-0-	-0-	-0-	-0-
VQ4C114** (01/19/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (I4) MPI Engine.	1J4FJ18R7HL [redacted]	-0-	-0-	-0-	-0-

** Tests Are carryover from 1991 Compliance Report, Reference File No. 91-MJ/XJ-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: V.P. Hannawi

Date: May 16, 1991

File No: 92-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY IV

FUEL SYSTEM INTEGRITY
1992 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC4049** (03/09/90)	30° Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (I4) MPI Engine.	1J4FJ28P7ML [redacted]	-0-	-0-	-0-	-0-
VC4094** (05/24/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (I6) MPI Engine.	1J4FJ38L7HL [redacted]	-0-	-0-	-0-	-0-

** Tests are carryover from 1991 Compliance Report, Ref. File No: 91-MJ/XJ-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: V.F. Hannawi

Date: May 16, 1991

File No: 92-MJ/XJ-301

1993

EA12-005- Chrysler -006533

CHRYSLER CORPORATION

Chrysler Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1993 'MJ' BODY, JEEP "COMANCHE" PICKUP TRUCK AND 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301 - Sections 83., 85., 86. and 87.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
G.M. Aboud,	Department Manager	G M Aboud	06-18-92
R.P. LUNDBERG,	Executive Engineer	R P Lundberg	6-18-92

Date received by Automotive Safety and Security _____

File No: 93-MJ/XJ-301

14250 Plymouth Road
Box 33614
Detroit MI 48232-5614

Safety Documentation Compliance Report

INTRODUCTION

Subject: Fuel System Integrity - 1993 'MJ' Body, Jeep "Comanche" Pickup Truck and 'XJ' Body, Jeep "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-734, CP-245 and CP-246.

Conclusions: All Chrysler Corporation 1993 'MJ' Pickup Truck and 'XJ' Sport Utility with G.V.W.R. 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 7)

Prepared by: V.P. Hannawi 06/15/92
V.P. Hannawi, Safety Specialist, Dept. 1060 Date

Approved by: G.M. Aboud 06-18-92
G.M. Aboud, Manager, Department 1060 Date

Issued by: Jeep/Truck Safety Program Management

File No: 93-MJ/XJ-301

FUEL SYSTEM INTEGRITY
1993 'MJ' BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1993 'MJ' Body, Jeep "Comanche" Pickup Truck and the 'XJ' Body, Jeep "Cherokee," 2 and 4 door model, Sport Utility vehicles (2 and 4-wheel drive), are essentially carryover in design from the 1992 model year. However, the XJ will also be offered in right hand drive (RHD) configuration for commercial and postal carrier use.

These vehicles are offered with two power plants. The 2.5 litre (I4) MPI and 4.0 litre (I6) MPI engines are available with either 4-speed automatic or 4-/5-speed manual transmission.

The 'MJ' and the 'XJ' vehicles are of unibody construction, offered in 113 and 120 inch wheelbase for the pickup with 6.0 and 7.0 foot double wall "Sweptline" cargo boxes. The Sport Utility if offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with optional bumper guards and nerf strip.

All vehicles are offered with a compact spare tire or a conventional spare option.

Vehicles seating capacity for the 'MJ' is three or two passengers when vehicle is equipped with bench or bucket seats respectively. Seating capacity of the 'XJ' is five passengers.

The 'MJ' base payload is 1675 lbs. and maximum payload is 2205 lbs. The luggage capacity for the 'XJ' is 300 lbs.

The fuel system consists of a plastic tank mounted at mid-frame for the pickup and rear mounted for the sport utility. The filler neck is located on the left side of the vehicle. Fuel tank capacities (in gallons) are as follows:

MJ-Pickup 7.0' Box	23
MJ-Pickup 6.0' Box	18
XJ-Sport Utility	20

These fuel tanks have a standard plastic stone shield and an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front

DISCUSSION (cont'd)

passenger location and with 300 lbs. of luggage ballast.

Twelve vehicles were tested to demonstrate compliance of the 'MJ' and 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I thru IV.

Test numbers 1851 and 2011 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-233 "Mounting Barrier 20 mph Lateral Impact Test," Change G.

Test numbers VC4010 and 4049 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-232 "Fixed Collision Barrier 30 mph Angled Front Impact Test," Change E.

Test numbers VC3999, 4011, 4094 and XTA168 were prepared and tested in accordance with the following Chrysler Corporation Compliance Procedure:

CP-194 "Fixed Collision Barrier 30 mph Frontal Impact Test," Change J.

Test numbers 1886, 1909, 2005 and 2041 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 exceed 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 limits specified in FMVSS 301, Sections S5.5 and S5.6.

Based on the above, the 1993 'MJ' Body, Jeep "Comanche" Pickup Truck and 'XJ' Body, Jeep "Cherokee" Sport Utility, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: V.P. Hannawi

Date: 06/15/92

File No: 93-MJ/XJ-301

Safety Documentation Compliance Report

SUMMARY I

FUEL SYSTEM INTEGRITY
1993 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
1851 (12/10/84)	20 MPH Lateral Left	Jeep "Cherokee", 4-Door, 4-Wheel Drive Sport Utility, Manual Trans. and 2.5L (I4) TBI Engine.	1JCUK7822FT [redacted]	-0-	-0-	-0-	-0-
1888 (05/21/85)	Rear	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.5L (I4) TBI Engine.	66C-0008	-0-	-0-	-0-	-0-
1909 (04/18/85)	Rear	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 2.5 Litre (I4) TBI Engine.	86T-105	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1992 Compliance Report, Reference File No. 92-MJ/XJ-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: V.P. Hannawi

Date: 06/15/93

File No: 93-MJ/XJ-301

EA12-005- Chrysler -006537

SUMMARY II

FUEL SYSTEM INTEGRITY
1993 'MJ'-BODY, JEEP "COMANCHE" PICKUP TRUCK AND 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	Max. in Any Rollover Position (Oz./Min.)
2005 (07/03/86)	Rear	Jeep "Comanche" Pickup Truck, 6.0 Ft. Cargo Box, 2-Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JTHW66*7HT [redacted]	-0-	-0-	-0-	-0-
2011 (07/11/86)	20 MPH Lateral Loft	Jeep "Comanche" Pickup Truck, 7.0 Ft. Cargo Box, 4-Wheel Drive, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JTHL6[redacted]*9HT	-0-	-0-	-0-	-0-
2041 (03/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JCMW7828HT [redacted]	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1992 Compliance Report, Reference File No. 92-MJ/XJ-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: [signature]
V.P. Honnawi

Date: 06/15/92

File No: 93-MJ/XJ-301

SUMMARY FII

FUEL SYSTEM INTEGRITY
1993 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification (No.	Leakage Summary (Oz) At Impact	Following 10 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VC3999 (12/13/89)	Flat Front	Jeep "Comanche" Pickup Truck, 6.0 Foot Cargo Box, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning And 2.5 Litre (2E) MPI Engine.	1J7FJ26L7HL [redacted]	-0-	-0-	-0-	-0-
VC4010 (01/10/90)	30° Lt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (T4) MPI Engine.	1J4FJ37L7HL [redacted]	-0-	-0-	-0-	-0-
VC4011 (01/10/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (T4) MPI Engine.	1J4FJ38R7HL [redacted]	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1992 Compliance Report, Reference File No. 92-MJ/XJ-301.

Allowable Leakage by Weight

1. One (Oz.) at impact.
2. Not more than one (Oz.) per minute following 10 minutes.
3. Five (Oz.) for first 5 minutes after each 90° rotation and not more than one (Oz.) per minute thereafter.

Prepared by: [redacted]
V.P. Hallmark

Date: 06/15/92

File No: 93-MJ/XJ-301

SUMMARY IV
FUEL SYSTEM INTEGRITY
1993 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz.) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VC4049 (03/09/90)	30° Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (I4) MPI Engine.	1J4FJ28P7ML [redacted]	-0-	-0-	-0-	-0-
VC4094 (05/24/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, MAnual Transmission, Power Steering, Air Conditioning and 4.0 Litre (I6) MPI Engine.	1J4FJ18L7ML [redacted]	-0-	-0-	-0-	-0-
XTR160 (12/30/91	Flat Front	Jeep "Cherokee" Sport Utility 4-Wheel Drive, 4-speed Automatic Transmission, Power Steering (Tilt), 4.0 Litre MPI engine, Air Conditioning and Right Hand Drive (RHD).	1J4FJ28S8ML [redacted]	-0-	-0-	-0-	-0-

Tests Are carryover from 1992 Compliance Report, Ref. File No: 92-MJ/XJ-301, except XTR160.

Note: Based on development tests conducted the XJ Right Hand Drive was judged to be capable to meet All performance requirements of MVSS301.

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 6 minutes after each 90° rotation and not more than one (Oz.) per minute thereafter.

Prepared by: [signature]
V.P. Hannavi

Date: 06/18/92
File No: 93-MJ/XJ-301

SUMMARY IV
FUEL SYSTEM INTEGRITY
1993 'MJ'-BODY JEEP "COMANCHE" PICKUP TRUCK AND
'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VC4049 (03/09/90)	30° Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 7.5 Litre (14) MPI Engine.	1J4FJ38P7ML [redacted]	-0-	-0-	-0-	-0-
VC4094 (05/24/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (16) MPI Engine.	1J4FJ38L7ML [redacted]	-0-	-0-	-0-	-0-
XTR168 (12/30/91	Flat Front	Jeep "Cherokee" Sport Utility 4-Wheel Drive, 4-speed Automatic Transmission, Power Steering (Tilt), 4.0 Litre MPI engine, Air Conditioning and Right Hand Drive (RHD).	1J4FJB858ML [redacted]	-0-	-0-	-0-	-0-

Tests are carryover from 1992 Compliance Report, Ref. File No: 92-MJ/XJ-101, except XTR168.

Note: Based on development tests conducted the XJ Right Hand Drive was judged to be capable to meet all performance requirements of MVSS301.

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: V.P. Kannawi

Date: 06/15/92

File No: 93-MJ/XJ-301

1994

JJ (601)
(615)

CHRYSLER CORPORATION

Chrysler Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1994 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301 - Sections 83., 85., 86. and 87.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
R.A. Rider,	Department Manager	R A Rider	6-3-93
D.G. MINK,	Executive Engineer	D. G. Mink	6-8-93

Date Received by Safety Programs: JUN 17 1993

File No: 94-XJ-301

14250 Plymouth Road
Box 33A14
Detroit MI 48232 5514

Safety Documentation Compliance Report

INTRODUCTION

Subject: Fuel System Integrity - 1994 'XJ' Body, Jeep "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: All Chrysler Corporation 1994 'XJ' Sport Utility with G.V.W.R. of 10,000 lbs and under, as design released, comply with the requirements of FMVSS 301 - Sections S1., S5., S6. and S7.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 6)

Prepared by: _____ 06/03/93
V.P. Hannawi, Safety Specialist, Dept. 1760 Date

Approved by: _____ 6-3-93
R.A. Rider, Manager, Department 1060 Date

Issued by: Jeep/Truck, Vehicle Impact Development

File No: 94-XJ-301

FUEL SYSTEM INTEGRITY
1994 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

Federal Motor Vehicle Safety Standard No. 301 - Sections 83., 85., 86. and 87.

DISCUSSION

The Chrysler Corporation 1994 'XJ' Body, Jeep "Cherokee," Sport Utility vehicles, 2 and 4-door model, 2 and 4-wheel drive, are essentially carryover from the 1993 model year. The XJ is also offered in right hand drive (RHD) configuration.

This vehicle is offered with two power plants. The 2.5 litre (I4) MPI engine is available with either 3-speed automatic or 5-speed manual transmission. The 4.0 litre (I6) MPI engine is availabin with either 4-speed overdrive automatic or 5-speed manual transmission. The vehicle is also offered with Anti-Lock Brake System (ABS) for the 4.0 litre only as an optional feature.

The "XJ" is of unibody construction, offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with optional bumper guards and nerf strip.

All "XJ" vehicles are offered with a compact spare tire or a conventional spare option.

Vehicles capacity including seating for five passengers, 300 lbs. of luggage and 20 gallons of fuel.

The fuel system consists of a 20 gallon plastic tank rear mounted. The filler neck is located on the left side of the vehicle. Vehicle is equipped with a standard plastic stone shield and an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

Eight vehicles were tested to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on Summaries I, II, and III.

Test number 1851 was procured and tested in accordance with the following Chrysler Corporation Compliance Procedure:

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

File No: 94-XJ-301

DISCUSSION (cont'd)

Test numbers VC4010 and 4049 were procured and tested in accordance with the following Chrysler Corporation Compliance Procedure:

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

Test numbers 4011, 4094 and KTR168 were procured and tested in accordance with the following Chrysler Corporation Compliance Procedure:

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

Test numbers 1888, and 2041 were procured 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 exceed 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-248 "Fuel System Integrity-Static Rollover Test," Change 'F'.

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

Based on the above, the 1994 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, comply with the requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: V.P. Hannawi

Date: 06/03/93

File No: 94-XJ-101

SUMMARY I

FUEL SYSTEM INTEGRITY
1994 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Survey (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
1851 (12/10/84)	20 MPH Lateral Left	Jeep "Cherokee", 4-Door, 4-Wheel Drive Sport Utility, Manual Trans. and 2.5L (I4) TBI Engine.	1JCMX7822WT [redacted]	-0-	-0-	-0-	-0-
1888 (05/21/85)	Rear	Jeep "Cherokee", 2-Door, 4-Wheel Drive Sport Utility, Manual Transmission and 2.3L (I4) TBI Engine.	#6C-0008	-0-	-0-	-0-	-0-
2041 (03/17/87)	Rear	Jeep "Cherokee" 4-Door, 2-Wheel Drive Sport Utility, Manual Transmission and 4.0 Litre (I6) TBI Engine.	1JCMN7828HT [redacted]	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1993 Compliance Report, Reference File No. 93-XJ-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: V.S. Hannawi

Date: 06/03/93

File No: 94-XJ-301

Safety Documentation Compliance Report

SUMMARY II

FUEL SYSTEM INTEGRITY
1994 'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	Max. In Any Position (Oz./Min.)
VC4010 (01/10/90)	30° Lt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (16) MPI Engine.	1J4FJ37L?ML [redacted]	-0-	-0-	-0-	-0-
VC4011 (01/19/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (14) MPI Engine.	1J4FJ38H?ML [redacted]	-0-	-0-	-0-	-0-
VC4049 (03/09/90)	30° Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 2.5 Litre (14) MPI Engine.	1J4FJ38P?ML [redacted]	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1993 Compliance Report, Reference File No. 93-XJ-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: V.P. Hannawi

Date: 06/03/93

File No: 94-XJ-301

SUMMARY III
FUEL SYSTEM INTEGRITY
1994 'XJ'-BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. /Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. In Any Rollover Position (Oz.)	(Oz./Min.)
VC4094 (05/26/90)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Transmission, Power Steering, Air Conditioning and 4.0 Litre (I6) MPI Engine.	1J4FJ38L7NL [redacted]	-0-	-0-	-0-	-0-
XTR168 (12/30/91	Flat Front	Jeep "Cherokee" Sport Utility 4-Wheel Drive, 4-speed Automati Transmission, Power Steering (Tilt), 4.0 Litre MVI engine, Air Conditioning and Right Hand Drive (RHD).	1J4FJB8S5NL [redacted]	-0-	-0-	-0-	-0-

All test vehicles are carryover from 1993 Compliance Report, Ref. File No: 93-XJ-301.

Notes: Based on development tests conducted the XJ Right Hand Drive was judged to be capable to meet all performance requirements of MVSS301.

(4) Test letters included as Attachment "A".

(4) Fuel System and Static Rollover Summary as Attachment "B".

Allowable Leakage by Weight

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

Prepared by: V.P. Hannavi

Date: 06/03/93

File No: 94-XJ-301

ATTACHMENT "A"

ATTACHMENT A 1 OF 4

SAFETY TEST PAGE 01
VEHICLE CRASH TEST LETTER

VC04010 30 MPH 30 DEG LT ANG IMPACT, XJ72, 4.0MPI ITEM 0XJ03
1 1 FMVSS 301 VALIDATION, FUEL SYSTEM PERFORMANCE.
TEST DATE 01/10/00

TEST PURPOSE	PRIMARY, 1991 MVSS 301 VALIDATION. OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.	
	SECONDARY, 1992 MVSS,208 DEVELOPMENT. OBSERVE AND DETERMINE LT AND RT FRONT DUMMY INJURY CRITERIA.	
IMPACT TYPE	TARGET SPEED;	30.5 MPH
	DAMAGE LOCATION;	LEFT FRONT
	IMPACT TYPE;	30 DEGREE
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	72
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	5 SPEED MANUAL 4X4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ37L?ML[redacted] MOD.
	VIN AS BUILT;	1J4FJ37L1KL[redacted] MOD.
TEST SPEED	30.7 MPH BY ELECTRONIC TRAP TIMER	
TEST WEIGHT (LBS)	4307 TOTAL, 2037 FRONT, 2270 REAR	
OCCUPANTS	RIGHT FRONT, HYBRID III, INSTRUMENTED. AD-80 RESTRAINT-UNIBELT ONLY.	
	LEFT FRONT, HYBRID III, INSTRUMENTED. AD-80 RESTRAINT-UNIBELT ONLY.	
BUILD CONDITION	1990 PRODUCTION JEEP CHEROKEE MODIFIED TO REPRESENT 1991 BUILD CONDITION.	
	POWER STR'G, POWER BRAKES, AND AIR CONDITIONING	
	101.4 INCH WHEELBASE.	
	20.2 GAL STEEL FUEL TANK, WITH IN TANK FUEL PUMP. MOUNTED REAR OF THE AXLE.	
	P205/75R15 TIRES MOUNTED ON STEEL WHEELS WITH FULL SIZE SPARE MOUNTED INSIDE -LT. REAR.	
	FIXED COLUMN, SAGINAW	
TARGET WEIGHT (LBS)	3655 TOTAL, 2022 FRONT, 1633 REAR, REF MAK OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC[illegible]4010 30 MPH 30 DEG LT ANG .MPACT, XJ72, 4.0MPI ITEM 0XJ03
1 1 FMVSS 301 VALIDATION, FUEL SYSTEM PERFORMANCE.
TEST DATE 01/10/90

FUEL AND BALLAST
19.2 GALLONS OF STODDARD SOLVENT.
300 LBS. OF LUGGAGE BALLAST SECURED IN CARGO AREA.
200 LBS BALLAST SECURED ON THE REAR FLOORPAN.
140 LBS BALLAST SECURED IN THE REAR SEAT FOOTWELL.
80 LBS BALLAST SECURED ON THE REAR SEAT PLATFORM.

POST TEST REMARKS
THERE WAS NO FUEL LEAKAGE AT IMPACT NOR DURING THE THIRTY MINUTES IMMEDIATELY FOLLOWING IMPACT.
THE DRIVER DUMMY, RESTRAINED BY A UNIBELT, CONTACTED THE STEERING WHEEL RIM AND HUB WITH HIS HEAD AND CHIN, AND HIS KNEES CONTACTED THE LOWER INSTRUMENT PANEL. SHOULDER BELT PAYOUT MEASURED 1.4 IN. ON THE B-PILLAR.
THE PASSENGER DUMMY, RESTRAINED BY A UNIBELT, CONTACTED THE LOWER INSTRUMENT PANEL WITH HIS KNEES. SHOULDER BELT PAYOUT MEASURED 1.9 IN. ON THE B-PILLAR.

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

T.P. MAULE	422-06-01	(A)
J.M. BERLINER	422-06-01	(A)
J.W. HANIKA	418-42-22	(AB)
W.A. BREITMOSER	422-06-6	(AB)
W.R. HARBAUGH	418-42-22	(AB)

DATE 01/10/90 TIME 15.11.25.

SAFETY TEST
VEHICLE CRASH TEST LETTER

" 4011 30 MPH FRONT BARR IMPACT, XJ74, 2.5L MPI ITEM 9XJ30
1 .1 MVSS 301 VALIDATION, FUEL SYSTEM INTEGRITY.
TEST DATE 01/10/90

TEST PURPOSE	PRIMARY, 1991 MVSS 301 VALIDATION. OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY. SECONDARY, 1992 MVSS 208 DEVELOPMENT. OBSERVE AND DETERMINE PERFORMANCE IN TERMS OF MVSS 208 INJURY CRITERIA.	
IMPACT TYPE	TARGET SPEED;	30.5 MPH
	DAMAGE LOCATION;	FRONT
	IMPACT TYPE;	BARRIER
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	2.5 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	5 SPEED MANUAL 4X4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ38E7ML[redacted] MOD.
	VIN AS BUILT;	1J4FJ38E8KL[redacted] MOD.
TEST SPEED	30.1 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4174 TOTAL, 1938 FRONT, 2230 REAR	
OCCUPANTS	LEFT FRONT 50TH MALE HYB III INSTRUMNTD. AD-60 RESTRAINT-3-PT UNIBELT ONLY. RIGHT FRT 50TH MALE HYB III INSTRUMENTD. AD-87 RESTRAINT-3-PT UNIBELT ONLY.	
BUILD CONDITION	1989 PRODUCTION JEEP CHEROKEE MODIFIED TO REPRESENT 1991 PRODUCTION. 2.5 LITRE MPI ENGINE, 5-SPEED MAN., POWER STEERING POWER BRAKES AND AIR CONDITIONING. SAGINAW STEERING COLUMN - FIXED. 101.4 INCH WHEELBASE. 20 GALLON STEEL FUEL TANK W/ELEC IN-TANK FUEL PUMP. P205/75R15 TIRES ON STEEL WHEELS AND FULL SIZE SPARE MOUNTED INSIDE LT. SIDE. DRIVER AND PASSENGER UNIBELTS WITH FREE FALLING TIP.	
TARGET WEIGHT (LBS)	3616 TOTAL, 1876 FRONT, 1640 REAR REP MAX OPT WT. NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

9?94011 30 MPH FRONT BARR IMPACT, XJ74, 2.5L MPI ITEM 6XJ30
- J1 MVSS 301 VALIDATION, FUEL SYSTEM INTEGRITY.
TEST DATE 01/10/90

FUEL AND BALLAST
19 GALLONS OF STODDARD SOLVENT.
300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA.
NOTE: CALL ED ZYLIK TO RESOLVE ANY QUESTIONS ABOUT BALLAST DISTRIBUTION.
100 LB ON REAR SEAT FLOOR PAN AND 200 LB ON FRONT END OF CARGO AREA.

POST TEST REMARKS
DRIVER CONTACT WITH VEHICLE; NOSE ON UPPER RIM OF STEERING WHEEL RIM, LOWER CHEST ON LOWER RIM OF STEERING WHEEL AND KNEES ON THE STEERING COVER RIGHT FRONT PASSENGER CONTACT WITH THE VEHICLE; KNEES ON THE GLOVE BOX DOOR. THE LEFT REAR CORNER OF THE HOOD DEFORMED AND CRACKED THE WINDSHIELD. THE SPARE TIRE WAS RETAINED IN PLACE.

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)
J.W. HANIKA	418-42-27	(AB)
T.P. MAULE	422-05-01	(A)
E.A. ZYLIK	514-17-31	(AB)
S.P. GIERAK	418-22-23	(ABEIG)
M. KHALIFA	418-22-23	(AB)
W.R. HARBAUGH	422-05-01	(AB)

DATE 01/10/90 TIME 14.31.02.

ITEM NO. 0X428 PAGE 01

CHRYSLER MOTORS
SAFETY TEST
VEHICLE CRASH TEST REQUEST

ITEM 0X428 CHARGE NO. 8321001 ISSUE DATE 2/27/90

VC 4049 30 MPH R/ANG. BARR. IMPACT XJ74,2.5L MPI
19[illegible] FMVSS 301 VALIDATION, FUEL SYSTEM PERFORMANCE.

TEST DATE 03/09/90 ENGINEER _____
SPEED 30.5 MPH SOURCE _____

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

SECONDARY, 1992 MVSS 208 DEVELOPMENT.
OBSERVE AND DETERMINE LT AND RT FRONT DUMMY INJURY CRITERIA.

IMPACT TYPE
TARGET SPEED: 30.5 MPH
DAMAGE LOCATION: RIGHT FRONT
IMPACT TYPE: 30 DEGREE
BARRIER SURFACE: PLYWOOD
30 DEGREES

VEHICLE
BODY CLASS: XJ
CAR LINE: J
BODY: 74
ENGINE: 2.5 LITRE
ENGINE NOTE: MPI
TRANSMISSION: 5 SPEED MANUAL 4X4
TRANS. NOTE:
VIN AS TESTED: 1J4FJ38P?HL[redacted] MOD
VIN AS BUILT: 1J4FJ38E9LL[redacted] MOD.

BUILD CONDITION
1990 PRODUCTION JEEP CHEROKEE MODIFIED TO REPRESENT 1991 BUILD CONDITION.
POWER STR'G, POWER BRAKES, AND AIR CONDITIONING
101.4 INCH WHEELBASE.
20.2 GAL STEEL FUEL TANK, WITH IN TANK FUEL PUMP. MOUNTED REAR OF THE AXLE.
P205/75R15 TIRES MOUNTED ON STEEL WHEELS WITH FULL SIZE SPARE MOUNTED INSIDE - LT. REAR.
FIXED COLUMN, SAGINAW

TARGET WEIGHT (LBS) 3370 TOTAL, 1802 FRONT, 1568 REAR, REP MAX OPT WT NCF INCLUDING OCCUPANTS OR LUGGAGE BALLAST.

TEST WEIGHT (LBS) 4022 TOTAL, 1916 FRONT 2106 REAR

FUEL BALLAST 19.2 GALLONS OF STODDARD SOLVENT.

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

POST TEST REMARKS _____

INTER COMPANY CORRESPONDENCE

FILE CHL082290 DATE 08/29/90

TO
DISTRIBUTION

FROM	DEPARTMENT	PLANT/OFFICE	CIMS NUMBER
J. W. HANIKA	6320	CHRYSLER CENTER	418-42-27

SUBJECT:
DRIVER LT SIDE HEAD MOTION
VC04094 30 MPH FRONT BARR IMPACT, XJ74, 4.0L MPI ITEM 0XJ30
1991 MVSS 301 VALIDATION. FUEL SYSTEM INTEGRITY.
TEST DATE 08/29/90

TEST PURPOSE	PRIMARY, 1991 MVSS 301 VALIDATION. OBSERVE AND DETERMINE FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED: DAMAGE LOCATION: IMPACT TYPE: BARRIER SURFACE: DIRECTION:	30.2 MPH FRONT BARRIER PLYWOOD 0 DEGREES
VEHICLE	BODY CLASS: CAR LINE: BODY: ENGINE: ENGINE NOTE: TRANSMISSION: TRANS. NOTE: VIN AS TESTED: VIN AS BUILT:	XJ J 74 4.0 LITRE MPI 5 SPEED MANUAL 4X4 1J4FJ38L7ML[redacted] MOD: 1J4PJ38L3LL MOD:
TEST SPEED	30.7 MPH BY ELECTRONIC TRAP TIMER	
TEST WEIGHT (LBS)	4232 TOTAL, 2068 FRONT, 2164 REAR	
OCCUPANTS	LEFT FRONT BOTH MALE HYB II UNINSTRUMNTD AD-96 RESTRAINT- 3-PT. UNIBELT. RIGHT FRT. BOTH MALE HYB II UNINSTRUMNTD AD-87 RESTRAINT- 3-PT UNIBELT.	
BUILD CONDITION	1990 PRODUCTION JEEP CHEROKEE MODIFIED TO REPRESENT 1991 PRODUCTION. 4.0L ENGINE, 5-SPEED MAN., POWER STEERING, POWER BRAKES AND AIR CONDITIONING. BASIAN STEERING COLUMN - FIXED. 101.4 INCH WHEELBASE. 20 GALLON STEEL FUEL TANK W/ELEC IN-TANK FUEL PUMP. P205/75R15 TIRES ON STEEL WHEELS AND FULL SIZE SPARE MOUNTED INSIDE LT. SIDE.	
TARGET WEIGHT (LBS)	3811 TOTAL, 1993 FRONT, 1818 REAR REP MAX OPT WT.	

ATTACHMENT 'B'

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC4010, ITEM NUMBER 9XJ83, TEST ENGINEER WIRTH
" N. 1J4FJ37L1KL[redacted] TEST DATE 1/12/90 BUILD DATE 1/11/90
TEST TYPE AND PURPOSE
FUEL: TYPE AND QUANITY - .787 S.G. STODDARD SOLVENT, 19.2 GALLONS
TEST SPEED 30.1 MPH, TEST WRIGHT 4282 POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK - 360 GAL	
FILLER TUBE -	
CAP -	
FUEL FILTER -	
GROMMET -	
FUEL PUMP - LO PRESS	
STRAPS -	
LINES -	
AIR CLEANER -	
CARBURETOR - MPFI	

POST IMPACT LEAKAGE(OZ): AT IMPACT 0, 1ST 5 MIN. 0, NEXT 25 MIN 0
POST TEST PRESSURE CHECK
STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME		CARB	FUEL PUMP	AIR CLEAN	FUEL TANK	FUEL FILT	GRO-MET	FILL CAP	OTHER ***	TOTAL	
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								0		*
2:24	POST 5 MIN								0		**
90-180	1ST 5 MIN								0		*
2:19	POST 5 MIN								0		**
180-270	1ST 5 MIN								0		*
2:15	POST 5 MIN								0		**
270-360	1ST 5 MIN								0		*
2:13	POST 5 MIN								0		**

* OUNCES IN 5 MINUTES, ** OUNCES PER 30 MINUTES
*** OTHER

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC1011 ITEM NUMBER 9130 TEST ENGINEER RASMUSSEN
V.I.N. 1[redacted] TEST DATE 5/12/90 ROLL DATE 5/13/90
TEST TYPE AND PURPOSE 30 MPH FRONT BARR. - 129 | MVSS 301 VALIDATION
FUEL: TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS
TEST SPEED 30.1 MPH, TEST WEIGHT 4174 POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK -	THESE COMPONENTS DID NOT
FILLER TUBE -	SUSTAIN ANY SIGNIFICANT
CAP -	DAMAGE.
FUEL FILTER -	
GROMMET -	
FUEL PUMP -	
STRAPS -	
LINES -	
AIR CLEANER -	
CARBURETOR -	

POST IMPACT LEAKAGE (0211) AT IMPACT 0, 1ST 5 MIN. 0, NEXT 25 MIN. 0
POST TEST PRESSURE CHECK
STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME		CARB PUMP	FUEL AIR CLEAN	FUEL TANK	FUEL FILT	GRO-MET	FILL CAP	OTHER ***	TOTAL	
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								0	*
2'17"	POST 5 MIN								0	**
90-180	1ST 5 MIN								0	*
2'18"	POST 5 MIN								0	**
180-270	1ST 5 MIN								0	*
2'11"	POST 5 MIN								0	**
270-360	1ST 5 MIN								0	*
2'11"	POST 5 MIN								0	**

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

PAGE VI-1

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC4049, ITEM NUMBER 0X178 TEST ENGINEER RASMUSSEN
V.I.N. 1J4FJ38F[redacted] TEST DATE 03/02/90, ROLL DATE 03/13/90
TEST TYPE AND PURPOSE 30° RT ANG BARR, - 1991 MISS 90 VAL
FUEL; TYPE AND QUANITY - 7ST 8 O. STODDARD SOLVENT, 15.2 GALLONS
TEST SPEED 30.5 MPH, TEST WEIGHT 4421 POUNDS.

FUEL SYSTEM DATA	POST TEST CONDITION
TANK -	
FILLER TUBE -	
CAP -	
FUEL FILTER -	
GROMMET -	
FUEL PUMP -	NONE
STRAPS -	
LINES -	
AIR CLEANER -	
CARBURETOR -	

POST IMPACT LEAKAGE(OZ): AT IMPACT 0, 1ST 5 MIN 0, NEXT 25 MIN 0
POST TEST PRESSURE CHECK
STATIC ROLL LEAKAGE WITH VEHICLE RIGHT SIDE DOWN FIRST

ROLL TIME		CARB	FUEL PUMP	AIR CLEAN	FUEL TANK	FUEL FILT	[illegible]	FILL CAP	OTHER ***	TOTAL
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								0	*
2:20	POST 5 MIN								0	**
90-180	1ST 5 MIN								0	*
2:18	POST 5 MIN								0	**
180-270	1ST 5 MIN								0	*
2:11	POST 5 MIN								0	**
270-360	1ST 5 MIN								0	*
2:11	POST 5 MIN								0	**

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

1984

IntraCompany Correspondence

To: Mr. D. A. Spytman

Location: AMTEK

Copy To: R. C. Lunn
J. A. Seidl
L. K. McDonald

From: A. J. Rock

Location - Ext: Vehicle Safety/33170

Subject: 1984 Compliance Manual
Jeep XJ
FMVSS/CMVSS/FMVSR 301-75

Date: August 2, 1982

The 1984 model year Compliance Manual for FMVSS/CMVSS/FMVSR 301-75, Fuel System Integrity, has been prepared to reflect the documentation necessary to assure compliance with this standard or regulation.

The Jeep XJ is a new vehicle and complete certification information is required.

Please complete the attached compliance manual and return it to the Vehicle Safety office by March 11, 1983. Additional check sheets are available in our office.

If you should need any assistance or have any questions, please feel free to call.

A. J. Rock

A. J. Rock

AJR/ag

1619v

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477)

ENGINE TYPE: 4-cylinder VEHICLE TEST WEIGHT: 3008 lbs

TYPE OF BARRIER IMPACT: 30 mph perpendicular front impact - fixed barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-14046? yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.1 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased - max. 0.5 oz.)? none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1633

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 12-2-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER Archie J. Rock 12/2/83 (DATE)

Rev. 1/81
1/82

1517P

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477)

ENGINE TYPE: V-6 VEHICLE TEST WEIGHT: 4159

TYPE OF BARRIER IMPACT: 30 MPH 30° Right Front Impact - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.2 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1662

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane R. Taylor 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477) With Type A Trailer Hitch

ENGINE TYPE: V-6 VEHICLE TEST WEIGHT: 4122

TYPE OF BARRIER IMPACT: 30MPH Perpendicular Rear Impact Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.52 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s). ____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s)

Attach copy of Test Report No. 1669

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane A. Santmann 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477)

ENGINE TYPE: 4-Cylinder VEHICLE TEST WEIGHT: 4091

TYPE OF BARRIER IMPACT: 20 MPH Right Side Impact - Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140-15? YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.6 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s).

ROLLOVER

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s)

Attach copy of Test Report No. 1658

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane A. Sutton 1-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8478)

ENGINE TYPE: AMC I-4 VEHICLE TEST WEIGHT: 4060

TYPE OF BARRIER IMPACT: 30 mph Perpendicular Rear Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.0 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has cased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s).

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s)

Attach copy of Test Report No. 1635

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER Archie J. Rock 12/02/83 (DATE)

Rev. 1/81
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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS 301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport 8477

ENGINE TYPE: 4 Cylinder VEHICLE TEST WEIGHT: 3986

TYPE OF BARRIER IMPACT: 30 mph 30° Left Front Impact Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.2 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). none

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive pos... of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) none

Attach copy of Test Report No. 1656

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Donna A. Tantillo 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477)

ENGINE TYPE: 4 Cylinder VEHICLE TEST WEIGHT: 3999 lbs.

TYPE OF BARRIER IMPACT: 30 mph 30° Right Front Impact Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.2

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). —

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) none

Attach copy of Test Report No. 1624

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Anne A. Sexton 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477)

ENGINE TYPE: 4 Cylinder VEHICLE TEST WEIGHT: 4041 lbs.

TYPE OF BARRIER IMPACT: 20 mph Left Side Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-14046? Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.9 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) none

Attach copy of Test Report No. 1657

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER Archie J. Rock 12/02/83 (DATE)

Rev. 1/81
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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Sport (8477) 9473

ENGINE TYPE: AMC I-4 VEHICLE TEST WEIGHT: 4008

TYPE OF BARRIER IMPACT: 30 mph Perpendicular Rear Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-14046? yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.5 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has cased (max. 0.5 oz.) none

D. What is the total fuel spillag (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1623

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Donna A. Sayton 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (8478)

ENGINE TYPE: 4-Cylinder VEHICLE TEST WEIGHT: 4119

TYPE OF BARRIER IMPACT: 30MPH Perpendicular Front Impact - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.3 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has cased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1655

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER Archie J. Rock 12/02/83 (DATE)

Rev. 1/81
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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (8478)

ENGINE TYPE: 4-Cylinder VEHICLE TEST WEIGHT: 4023

TYPE OF BARRIER IMPACT: 20MPH Left Side Impact - Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 Yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 21.0 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1645

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane R. Engstrom 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family 8478

ENGINE TYPE: V6 VEHICLE TEST WEIGHT: 4199

TYPE OF BARRIER IMPACT: 30 mph Perpendicular Front Impact - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in Al Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.4

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has cased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 180° trace

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? 270° trace

D. If fuel spillage occurred, describe location(s) and amount(s) Trace from air cleaner at 180° and 270°.

Attach copy of Test Report No. 1682

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

R A Santee 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family with Type B Trailer Hitch

ENGINE TYPE: V6 VEHICLE TEST WEIGHT: 4183

TYPE OF BARRIER IMPACT: 30 mph Perpendicular Rear Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.7 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1665

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER Archie J. Rock 12/02/83 (DATE)

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family 0478

ENGINE TYPE: I-4 VEHICLE TEST WEIGHT: 4051

TYPE OF BARRIER IMPACT: 30 mph 30° Right Front Impact Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.3 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? 90°-180° 1.2 oz.

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? 90°-180° 1.2 oz.

D. If fuel spillage occurred, describe location(s) and amount(s) 1.2 oz. from Carb. Bowl Vent, 0°-90° (.7 oz. from Carb. Bowl Vent)

Attach copy of Test Report No. 1636

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane A. Saylor 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Arthur J. Bock 12/02/83
VSP ENGINEER (DATE)

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VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (8478)

ENGINE TYPE: V6 VEHICLE TEST WEIGHT: 4121

TYPE OF BARRIER IMPACT: 20 mph Right Side Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.5 mph

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has cased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s).

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 5 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s) none

Attach copy of Test Report No. 1664

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Dana A. Spurlock 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

1517P

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (7478)

ENGINE TYPE: V6 VEHICLE TEST WEIGHT: 4112

TYPE OF BARRIER IMPACT: 30 mph Perpendicular Rear Impact Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.5

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? none

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? none

F. If fuel spillage occurred, describe location(s) and amount(s). none

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max. 2.5 oz.)? none

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? none

D. If fuel spillage occurred, describe location(s) and amount(s)

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (5478)

ENGINE TYPE: V-6 VEHICLE TEST WEIGHT: 4121

TYPE OF BARRIER IMPACT: 20 MPH Left Side Impact - Moveable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 20.9 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s).

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s)

Attach copy of Test Report No. 1663

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

Duane A. Sayler 11-15-83
FMVSS/CMVSS RESPONSIBLE ENGINEER (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

1517P

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (8478)

ENGINE TYPE: 4 Cylinder VEHICLE TEST WEIGHT: 4023

TYPE OF BARRIER IMPACT: 20 mph Right Side Impact - Movable Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-140467 yes

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 21.0

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) none

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? None

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? None

F. If fuel spillage occurred, describe location(s) and amount(s). _____

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? None

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? None

D. If fuel spillage occurred, describe location(s) and amount(s) _____

Attach copy of Test Report No. 1639

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

Archie J. Rock 12/02/83
VSP ENGINEER (DATE)

Rev. 1/81
1/82

1517P

VEHICLE SAFETY COMPLIANCE INFORMATION

FMVSS #301, "FUEL SYSTEM INTEGRITY"

VEHICLE MODELS: Family (8478)

ENGINE TYPE: V-6 VEHICLE TEST WEIGHT: 4199

TYPE OF BARRIER IMPACT: 30 MPH 30° Left Front Impact - Fixed Barrier

A. Does the vehicle fuel system meet the requirements specified in AM Specification No. SF AM-14046? YES

B. What was the actual crash speed? (30.5/32.0 front or rear, 20.5/21.5 lateral) 30.6 MPH

C. What was the fuel spillage (by weight) during impact (from impact until motion of the vehicle has ceased (max. 0.5 oz.) NONE

D. What is the total fuel spillage (by weight) after a 5-minute period following cessation of motion (max. 5 oz.)? NONE

E. What is the fuel spillage (by weight) during any 1-minute interval for the subsequent 25-minute period (max. 0.5 oz/min.)? NONE

F. If fuel spillage occurred, describe location(s) and amount(s).

ROLLOVER:

A. What were the time durations for each successive position of 90°, 180°, 270°, 360° (req'd 5 minutes)? 8 minutes

B. From the onset of rotational motion, what was the fuel spillage (by weight) for the first 5-minutes of testing for each successive position of 90°, 180°, 270°, and 360° (max: 2.5 oz.)? NONE

C. For the remaining testing period, for each successive position of 90°, 180°, 270°, and 360°, what was the fuel spillage (by weight) during any 1-minute interval (max. 0.5 oz/min)? NONE

D. If fuel spillage occurred, describe location(s) and amount(s)

Attach copy of Test Report No. 1659

This fuel system as it applies to models and applications noted conforms to Federal Motor Vehicle Safety Standard No. 301.

FMVSS/CMVSS RESPONSIBLE ENGINEER 11-15-83 (DATE)

Vehicle Safety Programs has reviewed the above information and found it to satisfactorily document demonstration of compliance with the above Regulation, Requirement or Standard, and is therefore acceptable for inclusion in the Certification Compliance Manual.

VSP ENGINEER 12/02/83 (DATE)

Rev. 1/81
1/82

1517P

EA12-005

CHRYSLER

12-13-2012

Enclosure 6D

301 Compliance Documents

XJ 1993 - 2001 Compliance Documentation

Information

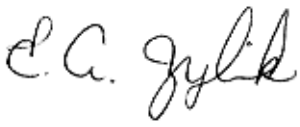
DAIMLERCHRYSLER

Report #:

Compliance Report

Subject:	Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)
Model Year:	2000
Procedure:	CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K
Standard:	MVSS 301
Standard Title:	Fuel System integrity
Requirements:	Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity
Vehicle Type:	MPV
Family Codes:	XJ

Approvals

Edward A Zylik **Department Manager**		05/24/99 08:20:19 AM **Approval Date**
John H Broomall **Executive Engineer**		05/24/99 08:48:37 AM **Approval Date**

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard FMVSS 301 and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The 2000 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, meet the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Safety Documentation Compliance Report

Prepared By: Edward A Zylik **Date:** 05/24/99
Approved By: Edward A Zylik **Date:** 05/24/99

Issued By: 1060 - Vehicle Impact & Safety Development (Jeep)

Discussion

The 2000 MY XJ is essentially carryover from the 1999 & 1998 model year.

The following design features remain standard as carryover from the 1999 & 1998 M.Y.;

Vehicle/Body:
- Left hand drive and right hand drive models.
- 2-door and 4-door body style (4-door only in right hand drive).
- 101 inch wheelbase and unibody construction.
- The front bumper system consists of a steel bumper with foam filled bumperettes.

Capacity:
- Five (5) person seating capacity - front bucket seats.
- 300 lbs. of luggage capacity.
- 20 gallon rear mounted plastic fuel tank with a filler neck located on the left side of the vehicle. A fuel tank skid plate is optional.

Drivetrain:
- 2.5L (I4) or 4.0L (I6) multi-point injection (MPI) (I6 only in right hand drive).
- Rear or 4 wheel drive.
- 5-speed manual transmission or automatic transmission (3-speed (I4)or 4-speed (I6))(automatic only in right hand drive)).

Occupant Restraint/Interior Systems:
- Corporate energy absorbing steering column (shear capsule design non-tilt and torsion bar design tilt with a floor console shifter.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the driver.
- A supplementary driver restraint airbag is contained in the two spoke luxury steering wheel.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the passenger
- An airbag is provided as a supplementary restraint for the passenger.
- A single point electronic sensor is used to control the supplemental restraint airbag system.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

A total of nine vehicles were tested (for the 1997 & 1998 model year) to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

Test were conducted according to the following test procedure:

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

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

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

The test vehicles met the performance requirements of FMVSS 301 and did not experience fluid losses that exceed 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'.

Based on the above, the 2000 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Appendix

DAIMLERCHRYSLER

SUMMARY I

FUEL SYSTEM INTEGRITY
2000 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Leakage Summary (Oz) At 30 Minutes (Oz.)	Following (Oz./Min.)	Max. in Any Rollover Position Impact
VC 6156 (11/05/96)	Left Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6156R (11/06/96)	Right Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep “Cherokee” Sport Utility, 4-Wheel Drive,Manual Trans., 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	-0-	-0-	-0-
VC06229	Flat	Jeep "Cherokee"	-0-	-0-	-0-

(12/09/96)	Front	Sport Utility, 4-Wheel Drive, Auto Transmission Right Hand Drive, 4.0 Litre(I6)MPI Engine	
XT00716 30 Lt.		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/05/97)	Angle	Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	
XT00717 30 Rt.		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/06/97)	Angle	Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	
XT00718 Flat		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/07/97)	Front	Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Non-Tilt Wheel.	
XT00719 Flat		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/08/97)	Front	Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt,Tilt Wheel.	

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 90o rotation and not more than one (Oz.) per minute thereafter.

Attached are copies of the test report information demonstrating compliance.

FMVSS 301.pdf

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; LEFT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted]	MOD. MOD.
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS ON FRONT FLOORPAN.	

Post-it® Fax Note 7671	Date	# of pages ▶ 6
To MARK LEVINE	From JOHN MANNEY	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

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	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

DISTRIBUTION

D.J. MCKENZIE	422-05-01 (AB)
M.P. LEVINE	422-05-01 (AB)

DATE 11/06/96 TIME 10.54.47.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6186, ITEM NUMBER XJ6356, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/05/96 ROLL DATE 11/05/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER LT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:51	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:49	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS

No fuel leaks during Static Roll.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; RIGHT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted]	MOD. MOD.
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS SANDBAGS ON FRONT FLOORPAN.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

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
N = CATALOG EDP DATA
* = REPORT REQUESTOR

DISTRIBUTION

D.J. MCKENZIE 422-05-01 (AB)
M.P. LEVINE 422-05-01 (AB)

DATE 11/06/96 TIME 10.57.56.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6187, ITEM NUMBER XJ6356R, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted], TEST DATE 11/6/96, ROLL DATE 11/6/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER RT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:47	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS _____

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; LEFT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted] MOD. VIN AS BUILT; 1J4FT68S1VL[redacted] MOD.	
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS ON FRONT FLOORPAN.	

Post-it® Fax Note 7671	Date	# of pages ▶ 6
To MARK LEVINE	From JOHN MANNEY	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

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	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	D.J. MCKENZIE	422-05-01 (AB)
	M.P. LEVINE	422-05-01 (AB)

DATE 11/06/96 TIME 10.54.47.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6186, ITEM NUMBER XJ6356, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/05/96 ROLL DATE 11/05/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER LT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

| | NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:51	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:49	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS

No fuel leaks during Static Roll.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; RIGHT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted] MOD. VIN AS BUILT; 1J4FT68S1VL MOD.	
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS SANDBAGS ON FRONT FLOORPAN.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L 1TEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

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
N = CATALOG EDP DATA
* = REPORT REQUESTOR

DISTRIBUTION

D.J. MCKENZIE 422-05-01 (AB)
M.P. LEVINE 422-05-01 (AB)

DATE 11/06/96 TIME 10.57.56.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6187, ITEM NUMBER XJ6356R, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/6/96, ROLL DATE 11/6/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER RT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:47	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS _____

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

VEHICLE CRASH TEST LETTER

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

TEST PURPOSE	PRIMARY, 1997 USA 208 COMPLIANCE.	
	PRIMARY, 1997 USA 212 COMPLIANCE	
	PRIMARY, 1997 USA 219 COMPLIANCE	
	PRIMARY, 1997 USA 301 COMPLIANCE.	
IMPACT TYPE	TARGET SPEED;	30 MPH
	DAMAGE LOCATION;	FRONT
	BARRIER TYPE;	FLAT FIXED
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	4 SPEED AUTO 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FN28S6VL[redacted] MOD.
	VIN AS BUILT;	1J4FN28S6VL[redacted] MOD.
TEST SPEED	30.3 MPH BY ELECTRONIC TRAP.	
TEST WEIGHT (LBS)	4300 TOTAL, 2189 FRONT, 2111 REAR	
OCCUPANTS	LEFT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-93	
	RESTRAINT-AIRBAG AND SEAT BELT	
	RIGHT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-95	
	RESTRAINT-AIRBAG AND SEAT BELT	
BUILD CONDITION	1997 XJ, PVP, 4DR, AUTO TRANS, RHD 4.0L VEHICLE	
	4.0L ENGINE, AUTO TRANS,. P/S, P/B, A/C, NON-TILT COLUMN.	
	P215/75R15 TIRES ON STEEL WHEELS.	
TARGET WEIGHT (LBS)	3662 TOTAL, 1996 FRONT, 1666 REAR REP MAX OPT WT.	
	FOR A 4.0L 4-DR 4X4 DOMESTIC RHD VEHICLE.	
	NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

FUEL AND BALLAST	19.0 GALLONS STODDARD TOTAL.
	300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA.
	175 LBS OF BALLAST SECURED TO LR FLOORPAN.
	75 LBS OF BALLAST SECURED TO RR FLOORPAN.
	25 LBS OF BALLAST SECURED TO RR WHEELWELL.

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	M.P. LEVINE	514-17-41 (AB)
	D.R. BAILEY	514-18-03 (AB)
	M. STEBELTON	422-05-01 (AB)

DATE 12/10/96 TIME 10.04.58.

OCCUPANT DATA

TEST NUMBER VC6229 ITEM NUMBER XJ6406 TEST ENGINEER COLLINGS

OCCUPANT DIMENSIONS RELATIVE TO XJ TEMPLATE RHD

TEMPLATE LOCATION DATA - **SHOULD BE SAME AS WHAT IS ON "J826" SHEET**

**"X" 6.0 INCHES FORWARD OF STRIKER MOUNTING VERTICAL SURFACE 5.9

"Z" 12.1 INCHES ABOVE SILL SURFACE 12.2

1R

OCCUPANT LOCATION DATA

	LEFT FRONT X (INCHES)		LEFT FRONT Z (INCHES)		RIGHT FRONT X (INCHES)		RIGHT FRONT Z (INCHES)		HYBRID III PELVIC ANG	
	FWD	RWD	UP	DOWN	FWD	RWD	UP	DOWN	LT	RT
HEAD	0.0		1.4		0.4		1.2		23°	22°
HIP	0.8		0.4		0.3		0.3			
KNEE	0.9		0.2			0.2	1.2			

KNEE CLEARANCE	LT	RT
1L	3.3	3.3
1R	4.1	3.9

NOW 1,1+

STEERING WHEEL ANGLE MEASURED FROM HORIZONTAL 62.7 DEGREES

SILL ANGLE 1.4 DEGREES --| | FRONT HIGH |X| FRONT LOW

THE FOLLOWING DIMENSIONS CORRESPOND TO INTERIOR MEASUREMENTS DEFINED BY NHTSA;

DRIVER - "NR" 15.8 TIP OF NOSE TO TOP REAR SURFACE OF UPPER STEERING WHEEL RIM

1R "NH" 16.1 TIP OF NOSE TO CENTER OF STEERING WHEEL HUB

"CH" 10.9 CHEST 9 INCHES DOWN FROM CHIN TO CENTER OF STEERING WHEEL HUB

PASSENGER - "A" 21.3 BRIDGE OF NOSE FORWARD TO WINDSHIELD

"B" 24.6 EAR TARGET FORWARD TO WINDSHIELD

1L "C" 20.3 CHEST 9 INCHES DOWN FROM CHIN FORWARD TO INSTRUMENT PANEL

SHOULDER BELT PAYOUT- LEFT 3.4 IN. RIGHT 3.5 IN.

LAP BELT PAYOUT- LEFT N/A IN. RIGHT N/A IN.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

TEST NUMBER VC6229, ITEM NUMBER XJ6406, TEST ENGINEER COLLINGS

CAR LINE XJ DATE _____ MECHANIC(S) _____

TEMPLATE LOCATION DATA FOR XJ TEMPLATE

"X" 6.0 INCHES FORWARD OF STRIKER MOUNTING VERTICAL SURFACE

"Z" 12.1 INCHES ABOVE SILL SURFACE

******CHECK OR FILL IN APPROPRIATE BOXES**********

DRIVER - SEAT DESCRIPTION

	✓ BUCKET		✓ MANUAL
	BENCH		ELECTRIC
SEAT LOCATION			
	✓ MID TRACK		OTHER #

#DESCRIPTION OF "OTHER"

SEAT BACK ANGLE | | CHECK IF NOT DESIGN LOCATION | 7° DEGREES | MEASURED FROM VERTICAL PLANE (TYPICAL 18 TO 24 DEGREES IF 66 TO 72 SUBTRACT FROM 90)

"OSCAR" DIMENSIONS AND ANGLES

H-POINT "X"	0.9 INCHES	FORWARD OF TEMPLATE POINTER
	INCHES	REARWARD OF TEMPLATE POINTER
H-POINT "Z"	INCHES	ABOVE TEMPLATE POINTER
	1.2 INCHES	BELOW TEMPLATE POINTER

HIP ANGLE 105° DEGREES, BACK ANGLE 25° DEGREES

LEFT KNEE ANGLE 128° DEGREES, RIGHT KNEE ANGLE 124° DEGREES

RIGHT FRONT - SEAT DESCRIPTION

	BUCKET		MANUAL
	BENCH		ELECTRIC
SEAT LOCATION			
	MID TRACK		OTHER #

#DESCRIPTION OF "OTHER"

SEAT BACK ANGLE | | CHECK IF NOT DESIGN LOCATION | 7° DEGREES | MEASURED FROM VERTICAL PLANE (TYPICAL 18 TO 24 DEGREES IF 66 TO 72 SUBTRACT FROM 90)

"OSCAR" DIMENSIONS AND ANGLES

H-POINT "X"	0.8 INCHES	FORWARD OF TEMPLATE POINTER
	INCHES	REARWARD OF TEMPLATE POINTER
H-POINT "Z"	1.1 INCHES	ABOVE TEMPLATE POINTER
	INCHES	BELOW TEMPLATE POINTER

HIP ANGLE 102 DEGREES, BACK ANGLE 24° DEGREES

LEFT KNEE ANGLE 122° DEGREES, RIGHT KNEE ANGLE 124° DEGREES

LAST FORM MODIFICATION 8/22/96 - GAB (DOCVCFORMS,MASTER,OSCAR896.DAT)

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6229, ITEM NUMBER XJ6406, TEST ENGINEER COLLINGS

V.I.N. 1J4FN28S6VL[redacted] TEST DATE 12/09/96, ROLL DATE 12/10/96

TEST TYPE; 30 MPH FRONT FLAT FIXED BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.3 MPH, TEST WEIGHT 4300 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK 10min - No leaks

ELECTRIC FUEL PUMP RUN 2min - no leaks

| | NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
2.01	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
2.03	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
2.00	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2.03	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks at impact or after impact. No fuel leaks during Static Roll. No fuel leaks during post impact testing. Fuel System integrity was maintained.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

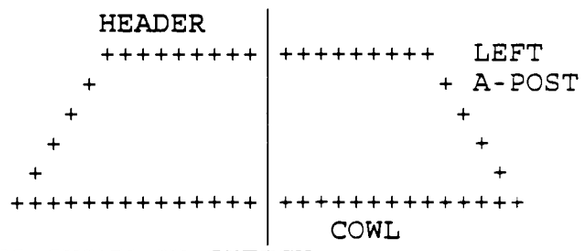
WINDSHIELD AND HOOD DATA

TEST NUMBER VC6229 ITEM NUMBER XJ6406 TEST ENGINEER COLLINGS

AMBIENT TEMPERATURE AT TEST TIME ____ DEG-F READY ROOM

WINDSHIELD RETENTION INFORMATION

RETENTION PERCENTAGE - 100 % LEFT
100 % RIGHT
100 % TOTAL



RETENTION LOST, LOCATIONS AND LENGTHS SHOWN ON SKETCH

____ IN. FENCE/RETENTION MATERIAL

0 IN. GLASS/RETENTION MATERIAL

WINDSHIELD INTRUSION INFORMATION

INTRUSION ZONE IDENTIFICATION;

|__| NONE, |X| LINE ONLY, |__| 3-DIMENSIONAL STYROFOAM UPPER ZONE

LOWER ZONE INTRUSION - |X| NO, |__| YES

UPPER ZONE INTRUSION - |X| NO, |__| YES

POST TEST OBSERVATIONS No windshield zone intrusion.

No loss of windshield retention.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

VEHICLE ATTITUDE

TEST NUMBER VC6229 TEST ENGINEER COLLINGS

ITEM NUMBER XJ6406 TEST DATE 12/09/96

__X__ FENDER/WHEELWELL HEIGHTS _____ SILL HEIGHTS

	LF	LR	RF	RR
AS RECEIVED	32.0	31.9	32.0	31.9
AS BUILT-UP	30.3	30.9	30.3	31.0
AS TESTED	30.3	30.9	30.3	31.0

DATE 08/28/96 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 12.28.18. EDP TEST LETTER DEPT 5320

VC06062 ITEM XJ6205
VC06062 30 MPH TYPE IV REAR IMPACT, XJTL72, 4.0L ITEM XJ6205
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 08/20/96

TEST PURPOSE	PRIMARY, 1997 USA 301 VALIDATION. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED;	30.1 MPH
	DAMAGE LOCATION;	REAR
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	72
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	4 SPEED AUTO 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ6759VL[redacted] MOD.
	VIN AS BUILT;	1J4FJ6759VL[redacted] MOD.
TEST SPEED	31.0 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4010 TOTAL, 2343 FRONT, 1667 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-65
	RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-63
BUILD CONDITION	1997 XJ P0 2-DR, 4X4, AUTO TRANS, 4.0L ENGINE. PRODUCTION INTENT 20 GALLON PLASTIC FUEL TANK. 4.0L ENGINE, AUTO TRANS., P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3369 TOTAL, 1816 FRONT, 1553 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA.	
POST TEST REMARKS	THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR DURING THE SUBSEQUENT THIRTY MINUTES. A POST-TEST STATIC ROLLOVER WAS CONDUCTED WITHOUT FUEL LEAKAGE. A POST-TEST PRESSURE CHECK WAS CONDUCTED WITHOUT FUEL LEAKAGE.	

DATE 08/28/96 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 12.28.18. EDP TEST LETTER DEPT 5320

VC06062 ITEM XJ6205
VC06062 30 MPH TYPE IV REAR IMPACT, XJTL72, 4.0L ITEM XJ6205
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 08/20/96

EDP TECHNICIAN S. MARCHENIA

No. of Pages 49
CC

M. P. LEVINE 422-05-01
D. J. MCKENZIE 422-05-01

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06146 30 MPH TYPE IV REAR IMPACT, XJJL74, 4.0L ITEM XJ6359
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 10/16/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED;	30.1 MPH
	DAMAGE LOCATION;	REAR
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	5 SPEED MANUAL 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ28S3VL[redacted] MOD.
	VIN AS BUILT;	1J4FJ28S3VL[redacted] MOD.
TEST SPEED	30.1 MPH BY ELECTRONIC TRAP.	
TEST WEIGHT (LBS)	4315 TOTAL, 2270 FRONT, 2045 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. AD-67 RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. AD-65 RESTRAINT-UNIBELT ONLY.	
BUILD CONDITION	1997 XJ C1 4-DR, 4X4, MAN. TRANS, 4.0L ENGINE. FACTORY TRAILER HITCH INSTALLED. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3677 TOTAL, 2006 FRONT, 1671 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19.0 GALLONS OF STODARD SOLVENT. 300 LBS OF LUGGAGE BALLAST SECURED IN REAR SEATING AREA. 125 LBS OF BALLAST SECURED IN REAR SEATING AREA. (425 LBS TOTAL BALLAST.)	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06146 30 MPH TYPE IV REAR IMPACT, XJJL74, 4.0L ITEM XJ6359
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 10/16/96

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	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	D.J. MCKENZIE	422-05-01 (AB)
	M.P. LEVINE	422-05-01 (AB)

DATE 10/17/96 TIME 08.50.55.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6146, ITEM NUMBER XJ6359 , TEST ENGINEER COLLINGS

V.I.N. 1J4FJ28S3VL[redacted] TEST DATE 10/16/96, ROLL DATE 10/17/96

TEST TYPE; 30 MPH TYPE IV MOVING BARRIER REAR IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.1 MPH, TEST WEIGHT 4315 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK _____

ELECTRIC FUEL PUMP RUN _____

|___| NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:46	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:38	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:36	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks At impact.

No fuel leaks during static roll.
Fuel System Integrity was maintained.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

Information

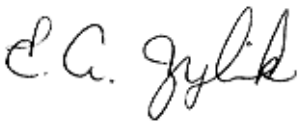
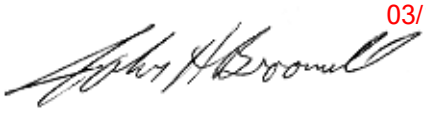
DAIMLERCHRYSLER

Report #:

Compliance Report

Subject:	Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)
Model Year:	2001
Procedure:	CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K
Standard:	MVSS 301
Standard Title:	Fuel System integrity
Requirements:	Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity
Vehicle Type:	MPV
Family Codes:	XJ

Approvals

Edward A Zylik **Department Manager**		03/01/2000 03:52:21 PM **Approval Date**
John H Broomall **Executive Engineer**		03/13/2000 05:45:31 PM **Approval Date**

Summary

DAIMLERCHRYSLER

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For CMVSR or FMVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard MVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301

Conclusion: The 2001 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, meet the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Safety Documentation Compliance Report

Prepared By: Mark P Levine **Date:** 02/29/2000
Approved By: Edward A Zylik **Date:** 03/01/2000

Issued By: 1060 - Impact Development (Jeep)

Discussion

The 2001 MY XJ is essentially carryover from the 2000, 1999 & 1998 model year.

The following design features remain standard as carryover from the 2000, 1999 & 1998 M.Y.;

Vehicle/Body:
- Left hand drive and right hand drive models.
- 2-door and 4-door body style (4-door only in right hand drive).
- 101 inch wheelbase and unibody construction.
- The front bumper system consists of a steel bumper with foam filled bumperettes.

Capacity:
- Five (5) person seating capacity - front bucket seats.
- 300 lbs. of luggage capacity.
- 20 gallon rear mounted plastic fuel tank with a filler neck located on the left side of the vehicle. A fuel tank skid plate is optional.

Drivetrain:
- 2.5L (I4) or 4.0L (I6) multi-point injection (MPI) (I6 only in right hand drive).
- Rear or 4 wheel drive.
- 5-speed manual transmission or automatic transmission (3-speed (I4)or 4-speed (I6))(automatic only in right hand drive)).

Occupant Restraint/Interior Systems:
- Corporate energy absorbing steering column (shear capsule design non-tilt and torsion bar design tilt with a floor console shifter.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the driver.
- A supplementary driver restraint airbag is contained in the two spoke luxury steering wheel.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the passenger
- An airbag is provided as a supplementary restraint for the passenger.
- A single point electronic sensor is used to control the supplemental restraint airbag system.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

A total of nine vehicles were tested (for the 1997 & 1998 model year) to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

Test were conducted according to the following test procedure:

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

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

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

The test vehicles met the performance requirements of FMVSS 301 and did not experience fluid losses that exceed 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'.

Based on the above, the 2001 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Appendix

DAIMLERCHRYSLER

SUMMARY I

FUEL SYSTEM INTEGRITY
2001 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode 30 Minutes	Vehicle Model & Description (Oz.)	Leakage Summary (Oz) At (Oz./Min.)	Following	Max. in Any Rollover Position Impact
VC 6156 (11/05/96)	Left Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6156R (11/06/96)	Right Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep “Cherokee” Sport Utility, 4-Wheel Drive,Manual Trans., 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	-0-	-0-	-0-
VC06229 (12/09/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel	-0-	-0-	-0-

		Drive, Auto Transmission Right Hand Drive, 4.0 Litre(I6)MPI Engine	
XT00716 30 Lt.		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/05/97)	Angle	Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	
XT00717 30 Rt.		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/06/97)	Angle	Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	
XT00718 Flat		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/07/97)	Front	Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Non-Tilt Wheel.	
XT00719 Flat		Jeep "Cherokee"	-0-
-0-	-0-	-0-	
(05/08/97)	Front	Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt,Tilt Wheel.	

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 90o rotation and not more than one (Oz.) per minute thereafter.

Attached are copies of the test report information demonstrating compliance.

FMVSS 301.pdf

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; LEFT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted]	MOD. MOD.
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS ON FRONT FLOORPAN.	

Post-it® Fax Note 7671	Date	# of pages ▶ 6
To MARK LEVINE	From JOHN MANNEY	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

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	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

DISTRIBUTION

D.J. MCKENZIE	422-05-01 (AB)
M.P. LEVINE	422-05-01 (AB)

DATE 11/06/96 TIME 10.54.47.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6186, ITEM NUMBER XJ6356, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/05/96 ROLL DATE 11/05/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER LT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:51	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:49	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS

No fuel leaks during Static Roll.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; DAMAGE LOCATION; BARRIER TYPE; BARRIER SURFACE;	20.2 MPH RIGHT CENTER LEFT TYPE IV PLYWOOD
VEHICLE	BODY CLASS; CAR LINE; BODY; ENGINE; ENGINE NOTE; TRANSMISSION; TRANS. NOTE; VIN AS TESTED; VIN AS BUILT;	XJ J 74 4.0 LITRE ELECTRONIC FUEL INJECTION 5 SPEED MANUAL 1J4FT68S1VL[redacted] MOD. 1J4FT68S1VL[redacted] MOD.
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS SANDBAGS ON FRONT FLOORPAN.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

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	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	D.J. MCKENZIE	422-05-01 (AB)
	M.P. LEVINE	422-05-01 (AB)

DATE 11/06/96 TIME 10.57.56.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6187, ITEM NUMBER XJ6356R, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/6/96, ROLL DATE 11/6/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER RT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:47	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS _____

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; DAMAGE LOCATION; BARRIER TYPE; BARRIER SURFACE;	20.2 MPH LEFT CENTER LEFT TYPE IV PLYWOOD
VEHICLE	BODY CLASS; CAR LINE; BODY; ENGINE; ENGINE NOTE; TRANSMISSION; TRANS. NOTE; VIN AS TESTED; VIN AS BUILT;	XJ J 74 4.0 LITRE ELECTRONIC FUEL INJECTION 5 SPEED MANUAL 1J4FT68S1VL[redacted] MOD. 1J4FT68S1VL[redacted] MOD.
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS ON FRONT FLOORPAN.	

Post-it® Fax Note 7671	Date	# of pages ▶ 6
To MARK LEVINE	From JOHN MANNEY	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

VC06186 20 MPH LEFT LATERAL IMPACT, XJTL74, 4.0L ITEM XJ6356
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/05/96

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	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	D.J. MCKENZIE	422-05-01 (AB)
	M.P. LEVINE	422-05-01 (AB)

DATE 11/06/96 TIME 10.54.47.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6186, ITEM NUMBER XJ6356, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/05/96 ROLL DATE 11/05/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER LT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL				
ROLL TIME						TOTAL
0-90	1ST 5 MIN					0 *
1:51	POST 5 MIN					0 **
90-180	1ST 5 MIN					0 *
1:49	POST 5 MIN					0 **
180-270	1ST 5 MIN					0 *
1:40	POST 5 MIN					0 **
270-360	1ST 5 MIN					0 *
1:42	POST 5 MIN					0 **

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS

No fuel leaks during Static Roll.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L ITEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 20.2 MPH DAMAGE LOCATION; RIGHT CENTER BARRIER TYPE; LEFT TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 74 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 5 SPEED MANUAL TRANS. NOTE; VIN AS TESTED; 1J4FT68S1VL[redacted] MOD. VIN AS BUILT; 1J4FT68S1VL[redacted] MOD.	
TEST SPEED	20.2 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4064 TOTAL, 2060 FRONT, 2004 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-76 AD-65
BUILD CONDITION	1997 XJ C1 4-DR, RWD, MAN. TRANS, 4.0L ENGINE. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3433 TOTAL, 1834 FRONT, 1599 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 100 LBS SANDBAGS ON FRONT FLOORPAN.	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06187 20 MPH RIGHT LATERAL IMP., XJTL74, 4.0L 1TEM XJ6356R
1997 FMVSS 301 COMPLIANCE, FUEL SYSTEM INTEGRITY.
TEST DATE 11/06/96

REPORT CODES

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

DISTRIBUTION

D.J. MCKENZIE 422-05-01 (AB)
M.P. LEVINE 422-05-01 (AB)

DATE 11/06/96 TIME 10.57.56.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6187, ITEM NUMBER XJ6356R, TEST ENGINEER MANNEY

V.I.N. 1J4FT68S1VL[redacted] TEST DATE 11/6/96, ROLL DATE 11/6/96

TEST TYPE; 20 MPH TYPE IV MOVING BARRIER RT. LATERAL IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 20.2 MPH, TEST WEIGHT 4064 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

[ ] NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:47	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:40	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS _____

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

TEST PURPOSE	PRIMARY, 1997 USA 208 COMPLIANCE.	
	PRIMARY, 1997 USA 212 COMPLIANCE	
	PRIMARY, 1997 USA 219 COMPLIANCE	
	PRIMARY, 1997 USA 301 COMPLIANCE.	
IMPACT TYPE	TARGET SPEED;	30 MPH
	DAMAGE LOCATION;	FRONT
	BARRIER TYPE;	FLAT FIXED
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	4 SPEED AUTO 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FN28S6VL[redacted] MOD.
	VIN AS BUILT;	1J4FN28S6VL[redacted] MOD.
TEST SPEED	30.3 MPH BY ELECTRONIC TRAP.	
TEST WEIGHT (LBS)	4300 TOTAL, 2189 FRONT, 2111 REAR	
OCCUPANTS	LEFT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-93	
	RESTRAINT-AIRBAG AND SEAT BELT	
	RIGHT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-95	
	RESTRAINT-AIRBAG AND SEAT BELT	
BUILD CONDITION	1997 XJ, PVP, 4DR, AUTO TRANS, RHD 4.0L VEHICLE	
	4.0L ENGINE, AUTO TRANS,. P/S, P/B, A/C, NON-TILT COLUMN.	
	P215/75R15 TIRES ON STEEL WHEELS.	
TARGET WEIGHT (LBS)	3662 TOTAL, 1996 FRONT, 1666 REAR REP MAX OPT WT.	
	FOR A 4.0L 4-DR 4X4 DOMESTIC RHD VEHICLE.	
	NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

FUEL AND BALLAST	19.0 GALLONS STODDARD TOTAL. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA. 175 LBS OF BALLAST SECURED TO LR FLOORPAN. 75 LBS OF BALLAST SECURED TO RR FLOORPAN. 25 LBS OF BALLAST SECURED TO RR WHEELWELL.

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	M.P. LEVINE	514-17-41 (AB)
	D.R. BAILEY	514-18-03 (AB)
	M. STEBELTON	422-05-01 (AB)

DATE 12/10/96 TIME 10.04.58.

OCCUPANT DATA

TEST NUMBER VC6229 ITEM NUMBER XJ6406 TEST ENGINEER COLLINGS

OCCUPANT DIMENSIONS RELATIVE TO XJ TEMPLATE RHD

TEMPLATE LOCATION DATA - **SHOULD BE SAME AS WHAT IS ON "J826" SHEET**

**"X" 6.0 INCHES FORWARD OF STRIKER MOUNTING VERTICAL SURFACE 5.9

"Z" 12.1 INCHES ABOVE SILL SURFACE 12.2

1R

OCCUPANT LOCATION DATA

	LEFT FRONT X (INCHES)		LEFT FRONT Z (INCHES)		RIGHT FRONT X (INCHES)		RIGHT FRONT Z (INCHES)		HYBRID III PELVIC ANG	
	FWD	RWD	UP	DOWN	FWD	RWD	UP	DOWN	LT	RT
HEAD	0.0		1.4		0.4		1.2		23°	22°
HIP	0.8		0.4		0.3		0.3			
KNEE	0.9		0.2			0.2	1.2			

KNEE CLEARANCE	LT	RT
1L	3.3	3.3
1R	4.1	3.9

NOW 1,1+

STEERING WHEEL ANGLE MEASURED FROM HORIZONTAL 62.7 DEGREES

SILL ANGLE 1.4 DEGREES --| | FRONT HIGH |X| FRONT LOW

THE FOLLOWING DIMENSIONS CORRESPOND TO INTERIOR MEASUREMENTS DEFINED BY NHTSA;

DRIVER - "NR" 15.8 TIP OF NOSE TO TOP REAR SURFACE OF UPPER STEERING WHEEL RIM

1R "NH" 16.1 TIP OF NOSE TO CENTER OF STEERING WHEEL HUB

"CH" 10.9 CHEST 9 INCHES DOWN FROM CHIN TO CENTER OF STEERING WHEEL HUB

PASSENGER - "A" 21.3 BRIDGE OF NOSE FORWARD TO WINDSHIELD

"B" 24.6 EAR TARGET FORWARD TO WINDSHIELD

1L "C" 20.3 CHEST 9 INCHES DOWN FROM CHIN FORWARD TO INSTRUMENT PANEL

SHOULDER BELT PAYOUT- LEFT 3.4 IN. RIGHT 3.5 IN.

LAP BELT PAYOUT- LEFT N/A IN. RIGHT N/A IN.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

TEST NUMBER VC6229, ITEM NUMBER XJ6406, TEST ENGINEER COLLINGS

CAR LINE XJ DATE _____ MECHANIC(S) _____

TEMPLATE LOCATION DATA FOR XJ TEMPLATE

"X" 6.0 INCHES FORWARD OF STRIKER MOUNTING VERTICAL SURFACE

"Z" 12.1 INCHES ABOVE SILL SURFACE

******CHECK OR FILL IN APPROPRIATE BOXES**********

DRIVER - SEAT DESCRIPTION

	✓ BUCKET		✓ MANUAL
	BENCH		ELECTRIC
SEAT LOCATION		✓ MID TRACK	OTHER #

#DESCRIPTION OF "OTHER"

SEAT BACK ANGLE | | CHECK IF NOT DESIGN LOCATION | 7° DEGREES | MEASURED FROM VERTICAL PLANE (TYPICAL 18 TO 24 DEGREES IF 66 TO 72 SUBTRACT FROM 90)

"OSCAR" DIMENSIONS AND ANGLES

H-POINT "X"	0.9 INCHES	FORWARD OF TEMPLATE POINTER
	INCHES	REARWARD OF TEMPLATE POINTER
H-POINT "Z"	INCHES	ABOVE TEMPLATE POINTER
	1.2 INCHES	BELOW TEMPLATE POINTER

HIP ANGLE 105° DEGREES, BACK ANGLE 25° DEGREES

LEFT KNEE ANGLE 128° DEGREES, RIGHT KNEE ANGLE 124° DEGREES

RIGHT FRONT - SEAT DESCRIPTION

	BUCKET		MANUAL
	BENCH		ELECTRIC
SEAT LOCATION		MID TRACK	OTHER #

#DESCRIPTION OF "OTHER"

SEAT BACK ANGLE | | CHECK IF NOT DESIGN LOCATION | 7° DEGREES | MEASURED FROM VERTICAL PLANE (TYPICAL 18 TO 24 DEGREES IF 66 TO 72 SUBTRACT FROM 90)

"OSCAR" DIMENSIONS AND ANGLES

H-POINT "X"	0.8 INCHES	FORWARD OF TEMPLATE POINTER
	INCHES	REARWARD OF TEMPLATE POINTER
H-POINT "Z"	INCHES	ABOVE TEMPLATE POINTER
	1.1 INCHES	BELOW TEMPLATE POINTER

HIP ANGLE 102 DEGREES, BACK ANGLE 24° DEGREES

LEFT KNEE ANGLE 122° DEGREES, RIGHT KNEE ANGLE 124° DEGREES

LAST FORM MODIFICATION 8/22/96 - GAB (DOCVCFORMS,MASTER,OSCAR896.DAT)

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6229, ITEM NUMBER XJ6406, TEST ENGINEER COLLINGS

V.I.N. 1J4FN28S6VL[redacted] TEST DATE 12/09/96, ROLL DATE 12/10/96

TEST TYPE; 30 MPH FRONT FLAT FIXED BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.3 MPH, TEST WEIGHT 4300 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK 10min - No leaks

ELECTRIC FUEL PUMP RUN 2min - no leaks

| | NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
2.01	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
2.03	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
2.00	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2.03	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks at impact or after impact.
No fuel leaks during Static Roll.
No fuel leaks during post impact testing.
Fuel System integrity was maintained.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

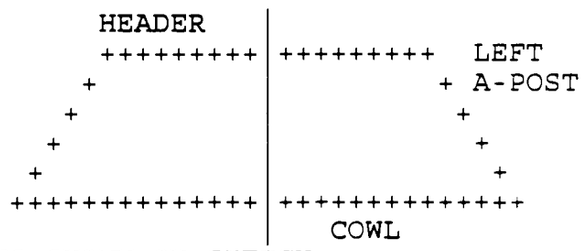
WINDSHIELD AND HOOD DATA

TEST NUMBER VC6229 ITEM NUMBER XJ6406 TEST ENGINEER COLLINGS

AMBIENT TEMPERATURE AT TEST TIME ____ DEG-F READY ROOM

WINDSHIELD RETENTION INFORMATION

RETENTION PERCENTAGE - 100 % LEFT
100 % RIGHT
100 % TOTAL



RETENTION LOST, LOCATIONS AND LENGTHS SHOWN ON SKETCH

____ IN. FENCE/RETENTION MATERIAL

0 IN. GLASS/RETENTION MATERIAL

WINDSHIELD INTRUSION INFORMATION

INTRUSION ZONE IDENTIFICATION;

|__| NONE, |X| LINE ONLY, |__| 3-DIMENSIONAL STYROFOAM UPPER ZONE

LOWER ZONE INTRUSION - |X| NO, |__| YES

UPPER ZONE INTRUSION - |X| NO, |__| YES

POST TEST OBSERVATIONS No windshield zone intrusion.

No loss of windshield retention.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

VEHICLE ATTITUDE

TEST NUMBER VC6229 TEST ENGINEER COLLINGS

ITEM NUMBER XJ6406 TEST DATE 12/09/96

__X__ FENDER/WHEELWELL HEIGHTS _____ SILL HEIGHTS

	LF	LR	RF	RR
AS RECEIVED	32.0	31.9	32.0	31.9
AS BUILT-UP	30.3	30.9	30.3	31.0
AS TESTED	30.3	30.9	30.3	31.0

DATE 08/28/96 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 12.28.18. EDP TEST LETTER DEPT 5320

VC06062 ITEM XJ6205
VC06062 30 MPH TYPE IV REAR IMPACT, XJTL72, 4.0L ITEM XJ6205
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 08/20/96

TEST PURPOSE	PRIMARY, 1997 USA 301 VALIDATION. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; 30.1 MPH DAMAGE LOCATION; REAR BARRIER TYPE; REAR TYPE IV BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; XJ CAR LINE; J BODY; 72 ENGINE; 4.0 LITRE ENGINE NOTE; ELECTRONIC FUEL INJECTION TRANSMISSION; 4 SPEED AUTO 4x4 TRANS. NOTE; VIN AS TESTED; 1J4FJ6759VL[redacted] MOD. VIN AS BUILT; 1J4FJ6759VL[redacted] MOD.	
TEST SPEED	31.0 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4010 TOTAL, 2343 FRONT, 1667 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. RESTRAINT-UNIBELT ONLY.	AD-65 AD-63
BUILD CONDITION	1997 XJ P0 2-DR, 4X4, AUTO TRANS, 4.0L ENGINE. PRODUCTION INTENT 20 GALLON PLASTIC FUEL TANK. 4.0L ENGINE, AUTO TRANS., P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3369 TOTAL, 1816 FRONT, 1553 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS OF STODARD SOLVENT. 300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA.	
POST TEST REMARKS	THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR DURING THE SUBSEQUENT THIRTY MINUTES. A POST-TEST STATIC ROLLOVER WAS CONDUCTED WITHOUT FUEL LEAKAGE. A POST-TEST PRESSURE CHECK WAS CONDUCTED WITHOUT FUEL LEAKAGE.	

DATE 08/28/96 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 12.28.18. EDP TEST LETTER DEPT 5320

VC06062 ITEM XJ6205
VC06062 30 MPH TYPE IV REAR IMPACT, XJTL72, 4.0L ITEM XJ6205
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 08/20/96

EDP TECHNICIAN S. MARCHENIA

No. of Pages 49
CC

M. P. LEVINE 422-05-01
D. J. MCKENZIE 422-05-01

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06146 30 MPH TYPE IV REAR IMPACT, XJJL74, 4.0L ITEM XJ6359
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 10/16/96

TEST PURPOSE	PRIMARY, 1997 USA 301 COMPLIANCE. FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED;	30.1 MPH
	DAMAGE LOCATION;	REAR
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	5 SPEED MANUAL 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ28S3VL[redacted] MOD.
	VIN AS BUILT;	1J4FJ28S3VL[redacted] MOD.
TEST SPEED	30.1 MPH BY ELECTRONIC TRAP.	
TEST WEIGHT (LBS)	4315 TOTAL, 2270 FRONT, 2045 REAR	
OCCUPANTS	LEFT FRONT, HYB II, UNINSTRUMENTED. AD-67 RESTRAINT-UNIBELT ONLY. RIGHT FRONT, HYB II, UNINSTRUMENTED. AD-65 RESTRAINT-UNIBELT ONLY.	
BUILD CONDITION	1997 XJ C1 4-DR, 4X4, MAN. TRANS, 4.0L ENGINE. FACTORY TRAILER HITCH INSTALLED. 4.0L ENGINE, MAN. TRANS, P/S, P/B, A/C. P225/75R15 TIRES ON STEEL WHEELS & FULL SPARE. FUEL SYSTEM PRODUCTION INTENT.	
TARGET WEIGHT (LBS)	3677 TOTAL, 2006 FRONT, 1671 REAR REP MAX OPT WT NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19.0 GALLONS OF STODARD SOLVENT. 300 LBS OF LUGGAGE BALLAST SECURED IN REAR SEATING AREA. 125 LBS OF BALLAST SECURED IN REAR SEATING AREA. (425 LBS TOTAL BALLAST.)	

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC06146 30 MPH TYPE IV REAR IMPACT, XJJL74, 4.0L ITEM XJ6359
1997 FMVSS 301, FUEL SYSTEM INTEGRITY.
TEST DATE 10/16/96

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	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	D.J. MCKENZIE	422-05-01 (AB)
	M.P. LEVINE	422-05-01 (AB)

DATE 10/17/96 TIME 08.50.55.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6146, ITEM NUMBER XJ6359 , TEST ENGINEER COLLINGS

V.I.N. 1J4FJ28S3VL[redacted] TEST DATE 10/16/96, ROLL DATE 10/17/96

TEST TYPE; 30 MPH TYPE IV MOVING BARRIER REAR IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.1 MPH, TEST WEIGHT 4315 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK _____

ELECTRIC FUEL PUMP RUN _____

|___| NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:54	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:46	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:38	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:36	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks At impact.

No fuel leaks during static roll.
Fuel System Integrity was maintained.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

1995

CHRYSLER CORPORATION

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1995 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

STANDARD IDENTIFICATION: FMVSS 301 : Sections S1., S5., S6. and S7.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A. Zylik	Supervisor	[signature]	8-18-94
D.F. BUHER	Executive Engineer	[signature]	8/18/94

Date Received by Safety Programs: AUG 19 1994

File No. 95-XJ-[illegible]

INTRODUCTION

Subject: Fuel System Integrity - 1995 'XJ' Body, Jeep "Cherokee" Sport Utility

Objective: 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: All Chrysler Corporation 1995 'XJ' Sport Utility with G.V.W.R of 10,000 lbs and under, as design released, comply with the requirements of FMVSS 301 - Sections S1., S5., S6. and S7.

SAFETY DOCUMENTATION COMPLIANCE REPORT (Page 1 of 4)

Prepared by: _____ C. C. Cardenas, Engineer Dept. 1860 Date

Approved by: _____ E. A. Zyzda, Supervisor Dept. 1860 Date

Issued by: Jeep/Truck, Vehicle Impact Development

File No. 95-B3-302

G = UNDERBODY
I = DYNAMIC CRUSH
H = A-PILLAR
J = ENGINE COMPARTMENT

FUEL SYSTEM INTEGRITY
1995 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1995 'XJ' Body, Jeep "Cherokee," Sport Utility vehicles, 2 and 4-door model, 2 and 4 wheel drive, are essentially carryover from the 1994 model year. The XJ is also offered in right hand drive (RHD) configuration. However, there is a new fuel tank sending unit locking ring for 1995. Therefore, testing was conducted to confirm compliance to FMVSS 301

This vehicle is offered with two power plants. The 2.5 litre (I4) MPI engine is available with either 3-speed automatic or 5-speed manual transmission. The 4.0 litre (I6) MPI engine is available with either 4-speed overdrive automatic or 5-speed manual transmission. The vehicle is also offered with Anti-Lock Brake System (ABS) for the 4.0 litre only as an optional feature.

The "XJ" is of unibody construction, offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with optional bumper guards and nerf strip.

All "XJ" vehicles are offered with a compact spare tire or a conventional spare option.

Vehicles capacity including seating for five passengers, 300 lbs. of luggage and 20 gallons of fuel.

The fuel system consists of a 20 gallon rear mounted steel tank. The filler neck is located on the left side of the vehicle. Vehicle is equipped with a standard plastic stone shield or an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

Four vehicles were tested to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

File No. 95[illegible]

DISCUSSION (cont'd)

Tests were conducted according to the following test procedure:

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

CP-194 "Fixed Collision Barrier 30 mph Frontal Impact Test," Change 'R'

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

The test vehicles, did not experience fluid losses that exceed 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'.

Based on the above, the 1995 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, DID MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: C.C. Corneau
C.C. Corneau

Date: 3-17-94

SUMMARY I

FUEL SYSTEM INTEGRITY
1995 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
[illegible]	[illegible] Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ68S8SL[redacted]	-0-	-0-	-0-	-0-
[illegible] (8/2/94)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S5SL[redacted]	-0-	-0-	-0-	-0-
[illegible] (8/3/94)	[illegible] Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S5SL[redacted]	-0-	-0-	-0-	-0-
[illegible] (8/5/94)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S6SL[redacted]	-0-	-0-	-0-	-0-

Allowable Leakage by Weight

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

Prepared by: C.E. Corneau

Date: [illegible]

File No. 95-XJ-01

SUMMARY I

FUEL SYSTEM INTEGRITY
1995 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage S: At Impact	Following 30 Minutes	Ro (Oz
VC5208 (7/28/94)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ68S8S[redacted]	-0-	-0-	-0
VC5211 (8/2/94)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S6S[redacted]	-0-	-0-	-0
VC5212 (8/4/94)	Right Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S3SL[redacted]	-0-	-0-	-0
VC5214 (8/5/94)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S6S[redacted]	-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 t

Prepared by: _____

C.

Date: [illegible]

EA12-005-Chrysler-006564

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC05211 30 MPH REAR IMPACT, XJJL74, 4.0L ITEM XJ6864
1995 MVSS 301 COMPLIANCE.
TEST DATE 08/02/94

TEST PURPOSE	PRIMARY, 1995 MVSS 301 COMPLIANCE. 1995 COMPLIANCE - FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED; DAMAGE LOCATION; IMPACT TYPE; BARRIER SURFACE; DIRECTION;	30.2 MPH RIGHT REAR BARRIER PLYWOOD 0 DEGREES
VEHICLE	BODY CLASS; CAR LINE; BODY; ENGINE; ENGINE NOTE; TRANSMISSION; TRANS. NOTE; VIN AS TESTED; VIN AS BUILT;	XJ J 74 4.0 LITRE MPI 4 SPEED AUTO 4X4 1J4FJ78S6SL[redacted] MOD. 1J4FJ78S6SL[redacted] MOD.
TEST SPEED	30.4 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4273 TOTAL, 1924 FRONT, 2349 REAR.	
OCCUPANTS	LEFT FRONT, BALLAST DUMMY, UNINSTRUMNTD. AD-52 RESTRAINT-AIR BAG AND 3-POINT SEAT BELT (ACTIVE). RIGHT FRONT, BALLAST DUMMY, UNINSTRMNTD. AD-67 RESTRAINT-3-POINT SEAT BELT (ACTIVE).	
BUILD CONDITION	1995 PRODUCTION CHEROKEE SPORT (D5XJ-6864). 1995 PRODUCTION FUEL SYSTEM WHICH INCLUDES NEW FUEL SENDING UNIT LOCKING RING. 4.0L ENGINE, AUTO TRANS., P/S, P/B, A/C.	
TARGET WEIGHT (LBS)	3627 TOTAL, 2001 FRONT, 1626 REAR REP MAX OPT. WT. NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS TOTAL STODDARD. 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA. 170 LBS SECURED TO REAR FLOOR PAN.	

VC09211 30 MPH REAR IMPACT, XJJL74, 4.0L ITEM XJ6864
1995 MVSS 301 COMPLIANCE.
TEST DATE 08/02/94

POST TEST REMARKS THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR DURING THE SUBSEQUENT THIRTY MINUTES.
THERE WAS NO FUEL LEAKAGE DURING THE POST TEST STATIC ROLLOVER.

NOTE: THE LIFTGATE WAS LATCHED BUT NOT LOCKED.

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	422-05-01	(AB)
C.C. CORNEAU	514-15-58	(AB)
D.T. MCKENZIE	422-05-01	(AB)

DATE 08/03/94 TIME 15.09.45.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC5211, ITEM NUMBER XJ6864, TEST ENGINEER WEIGEL

V.I.N. 1J4FJ78S6LS[redacted] TEST DATE 8/2/94 ROLL DATE 8/2/94

TEST TYPE: 30 MPH FRONT FLAT FIXED BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.4 MPH, TEST WEIGHT 4273 POUNDS.

POST TEST FUEL SYSTEM OBSERVATIONS _____

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

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN _____

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
2:08	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
2:14	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
2:05	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2:06	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

LAST FORM MODIFICATION 5/27/93 - CAB

JTE# 419
(1 of 3)

CHRYSLER CORPORATION

Chrysler Corporation

COMPLIANCE REPORT

SUBJECT: FUEL SYSTEM INTEGRITY - 1996 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A. Zylik,	Manager	E.A. Zylik	6-27-95
D.F. BUSER,	Executive Engineer	D F Buser	6/27/95

Date Received by Safety Programs: JUN 2 9 1995

File No: 96-XJ-301

EA12-005- Chrysler -006568

14250 Plymouth Road
Detroit MI 48227-3086

INTRODUCTION

Subject: **Fuel System Integrity - 1996 'XJ' Body, Jeep "Cherokee" Sport Utility**

Objective: 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: All Chrysler Corporation 1996 'XJ' Sport Utility with G.V.W.R. 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 4)

Prepared by: J.B. Estes, Product Engineer Dept. 1060 Date 6-27-95

Approved by: E.A. Zyrek, Manager Dept. 1060 Date 6-27-95

Issued by: Jeep Vehicle Impact Development

File No: 96-XJ-301

FUEL SYSTEM INTEGRITY
1996 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1996 'XJ' Body, Jeep "Cherokee," Sport Utility vehicles, 2 and 4-door model, 2 and 4-wheel drive, are essentially carryover from the 1995 model year. The XJ is also offered in right hand drive (RHD) configuration. This report contains the proper documentation for the testing of the 1995 fuel tank sending unit locking ring to confirm compliance to FMVSS 301.

This vehicle is offered with two engines. The 2.5 litre (I4) MPI engine is available with either 3-speed automatic or 5-speed manual transmission. The 4.0 litre (I6) MPI engine is available with either 4-speed overdrive automatic or 5-speed manual transmission. The vehicle is also offered with Anti-Lock Brake System (ABS) for the 4.0 litre only as an optional feature.

The "XJ" is of unibody construction, offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with optional bumper guards and nerf strip.

All "XJ" vehicles are offered with a compact spare tire or a conventional spare option.

Vehicles capacity including seating for five passengers, 300 lbs. of luggage and 20 gallons of fuel.

The fuel system consists of a 20 gallon rear mounted steel tank. The filler neck is located on the left side of the vehicle. Vehicle is equipped with a standard plastic stone shield or an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

Four vehicles were tested to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

DISCUSSION (cont'd)

Test were conducted according to the following test procedure:

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

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

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

The test vehicles, did not experience fluid losses that exceed 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'.

Based on the above, the 1996 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, DID MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: J B Estes
J.B. Estes

Date: 6-25-95

SUMMARY I
FUEL SYSTEM INTEGRITY
1996 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC5206 (7/22/94)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ6858SL[redacted]	-0-	-0-	-0-	-0-
VC5211 (8/2/94)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ7856SL[redacted]	-0-	-0-	-0-	-0-
VC5212 (8/4/94)	Right Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S5SL[redacted]	-0-	-0-	-0-	-0-
VC5214 (8/5/94)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Trans., Power Steering (tilt) 4.0L litre MPI Engine, air conditioning.	1J4FJ78S6SL[redacted]	-0-	-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
J. B. Estes

Date: 6-27-95

SAFETY TEST
VEHICLE CRASH TEST LETTER

VC05211 30 MPH REAR IMPACT, XJJL74, 4.0L ITEM XJ6864
1995 MVSS 301 COMPLIANCE.
TEST DATE 08/02/94

TEST PURPOSE	PRIMARY, 1995 MVSS 301 COMPLIANCE. 1995 COMPLIANCE - FUEL SYSTEM INTEGRITY.	
IMPACT TYPE	TARGET SPEED;	30.2 MPH
	DAMAGE LOCATION;	RIGHT REAR
	IMPACT TYPE;	BARRIER
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	4 SPEED AUTO 4X4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FJ78S6SL[redacted] MOD.
	VIN AS BUILT;	1J4FJ78S6SL[redacted] MOD.
TEST SPEED	30.4 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4273 TOTAL, 1924 FRONT, 2349 REAR.	
OCCUPANTS	LEFT FRONT, BALLAST DUMMY, UNINSTRUMNTD. AD-52 RESTRAINT-AIR BAG AND 3-POINT SEAT BELT (ACTIVE). RIGHT FRONT, BALLAST DUMMY, UNINSTRMNTD. AD-67 RESTRAINT-3-POINT SEAT BELT (ACTIVE).	
BUILD CONDITION	1995 PRODUCTION CHEROKEE SPORT (D5XJ-6864). 1995 PRODUCTION FUEL SYSTEM WHICH INCLUDES NEW FUEL SENDING UNIT LOCKING RING. 4.0L ENGINE, AUTO TRANS., P/S, P/B, A/C.	
TARGET WEIGHT (LBS)	3627 TOTAL, 2001 FRONT, 1626 REAR REP MAX OPT. WT. NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	
FUEL AND BALLAST	19 GALLONS TOTAL STODDARD. 300 LBS OF LUGGAGE BALLAST SECURED IN CARGO AREA. 170 LBS SECURED TO REAR FLOOR PAN.	

VC05211 30 MPH REAR IMPACT, XJJL74, 4.0L ITEM XJ6864
1995 MVSS 301 COMPLIANCE.
TEST DATE 08/02/94

POST TEST REMARKS THERE WAS NO FUEL LEAKAGE DURING IMPACT, NOR DURING THE SUBSEQUENT THIRTY MINUTES.
THERE WAS NO FUEL LEAKAGE DURING THE POST TEST STATIC ROLLOVER.

NOTE: THE LIFTGATE WAS LATCHED BUT NOT LOCKED.

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	422-05-01	(AB)
C.C. CORNEAU	514-15-58	(AB)
D.T. MCKENZIE	422-05-01	(AB)

DATE 08/03/94 TIME 15.09.45.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC5211, ITEM NUMBER XJ6864, TEST ENGINEER WEIGEL

V.I.N. 1J4FJ78S6L[redacted], TEST DATE 8/2/94 ROLL DATE 8/2/94

TEST TYPE; 30 MPH FRONT FLAT FIXED BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.4 MPH, TEST WEIGHT 4273 POUNDS.

POST TEST FUEL SYSTEM OBSERVATIONS _____

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

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN _____

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
2:18	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
2:14	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
2:05	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2:06	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

LAST FORM MODIFICATION 5/27/93 - GAB

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT
AMENDED
8-17-96

SUBJECT: Fuel System Integrity - Multipurpose Passenger Vehicles - 1996 "XJ" Body (Amended for reintroduction of a fuel rail mounted pressure regulator for 2.5L engine equipped vehicles only.)

STANDARD: FMVSS 301 - Sections S3., S5., S6., and S7.
CMVSS 301 - Sections S2., S3., S4., S5., S6., S7. and S8.

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A Zylik	Manager	E.A. Zylik	9-23-96
D. Buser	Executive Engineer	D J Buser	9-24-96

Date received by Safety and Security JAN 15 1997

EA12-005- Chrysler -006576

File No: XJ-96-301

14250 Plymouth Road
Box 33514
Detroit MI 48232-5514

INTRODUCTION

Subject: Fuel System Integrity - Multipurpose Passenger Vehicles - 1996 "XJ' Body (Amended for reintroduction of a fuel rail mounted pressure regulator for 2.5L engine vehicles only)

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

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

Conclusions: The 1996 "XJ" Sport Utility with a 2.5L engine and a returnless fuel system which includes a fuel rail mounted pressure regulator complies with the requirements of MVSS 301.

Discussions: The fuel system for the 1996 "XJ" body Sport Utility vehicle was essentially carryover from the 1995 model with the exception that the 1996 system was of a returnless design that did not require nor include a fuel rail mounted pressure regulator. A fuel rail mounted pressure regulator is reintroduced to improve driveability for late production model year 1996 vehicles and as a service part for 1996 model year "XJ" body vehicles equipped with 2.5L engines. The location and design of the reintroduced fuel rail with attached pressure regulator is similar to that of the 1995 model year "XJ" vehicle.

Based upon the above, the compliance documentation utilized for the 1995 and 1996 model year vehicle as design released are also valid to ensure compliance of the 1996 vehicle with the addition of the fuel rail mounted pressure regulator.

Prepared by: _____ 5-16-96
Date

Issued by: Jeep Impact Engineering, Dept. 1060

File No: XJ-96-301

CHRYSLER MOTORS

Chrysler Motors Corporation

COMPLIANCE REPORT

SUBJECT: **FUEL SYSTEM INTEGRITY - 1997 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY**

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

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A. Zylik	Manager	E.A. Zylik	11-8-96
D.F. BUSER	Executive Engineer	D F Buser	11/8/96

Date Received by Safety Programs: _____

File No: CP97XJ00379

14250 Plymouth Road
Box 33514
Detroit MI 48232-5514

INTRODUCTION

Subject: **Fuel System Integrity - 1997 'XJ' Body, Jeep "Cherokee" Sport Utility**

Objective: 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: All Chrysler Corporation 1997 'XJ' Sport Utility with G.V.W.R. 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 4)

Prepared by: M.P. Levine, Dept. 1060 11/8/96 Date

Approved by: _____
E.A. Zylik, Manager, Dept. 1060 Date

Issued by: Jeep/Truck, Vehicle Impact Development

Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY
1997 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1997 'XJ' Body, Jeep "Cherokee", Sport Utility vehicles, 2 and 4-door model, 2 and 4-wheel drive, are essentially carryover from the 1996 model year. However, there is a new 20 gallon plastic fuel tank for 1997. Therefore, testing was conducted to confirm compliance to FMVSS 301

This vehicle is offered with two engines, a 2.5L inline 4 cylinder and a 4.0L inline 6 cylinder engine. The 2.5 litre (I4) MPI engine is available with a 5-speed manual transmission. The 4.0 litre (I6) MPI engine is available with either 4-speed overdrive automatic or 5-speed manual transmission. The vehicle is also offered with Anti-Lock Brake System (ABS) for the 4.0 litre only as an optional feature.

The "XJ" is of unibody construction, offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with foam filled bumperettes.

All "XJ" vehicles are offered with a compact spare tire or a conventional spare option.

The vehicle's capacity includes seating for five passengers, 300 lbs. of luggage and 20 gallons of fuel.

The fuel system consists of a 20 gallon rear mounted plastic tank. The filler neck is located on the left side of the vehicle. Vehicle can be equipped with an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

Five vehicles were tested to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

DISCUSSION (cont'd)

Test were conducted according to the following test procedure:

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

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

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

The test vehicles, did not experience fluid losses that exceed 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'.

Based on the above, the 1997 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, DID MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: M P Levine

M.P Levine

Date: 11/8/96

SUMMARY I

FUEL SYSTEM INTEGRITY
1997 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning.	1J4Fj6759vl[redacted]	-0-	-0-	-0-	-0-
VC 6148 (10/15/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 2.5L litre MPI Engine, Air Conditioning.	1J4FJ27PXVL[redacted]	-0-	-0-	-0-	-0-
VC 6144 (10/15/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning.	1J4FJ68S0VL[redacted]	-0-	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	1J4FJ28S3VL[redacted]	-0-	-0-	-0-	-0-
VC 6190 (11/[illegible]96)	Right Angle	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans., Power Steering 2.5L litre MPI Engine, Air Conditioning.	1J4FT27P2VL[redacted]	-0-	-0-	-0-	-0-

EA12-005-Chrysler-006583

File No: 97-XJ-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: M.P. Levine

Date: 11/8/96

File No: 97-XJ-301

CHRYSLER CORPORATION

Chrysler Corporation

COMPLIANCE REPORT
AMENDED
1/15/97

SUBJECT: Fuel System Integrity - 1997 "XJ" Body (Amended for the domestic reintroduction of a 4-door right-hand-drive special purpose Cherokee (Rural Letter Carrier) equipped with either 2 or 4 wheel drive and a 4.0L engine with a 4-speed automatic transmission.)

STANDARD: FMVSS 301

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A Zylik	Manager	E.A. Zylik	3-11-97
D. Buser	Executive Engineer	D.D. Buser	3/11/97

Date received by Safety and Security _____

EA12-005- Chrysler -006585

14250 Plymouth Road
Detroit MI 48227-3086

Printed on Recycled Paper

INTRODUCTION

Subject: Fuel System Integrity - 1997 'XJ' Body (Amended for the domestic reintroduction of a 4-door right-hand-drive special purpose Cherokee (Rural Letter Carrier) equipped with either 2 or 4 wheel drive and a 4.0L engine with a 4-speed automatic transmission.)

Object: Verification of design compliance with the requirements of 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 Right-Hand-Drive Special Purpose (Rural Letter Carrier) 'XJ' Body Sport Utility with a 4.0L engine, automatic transmission, 4 doors and either 2 or 4 wheel drive, as design released, complies with the performance requirements of MVSS 301 Sections S3., S5., S6. and S7.

Discussions:

The 1997 MY Right Hand Drive 'XJ' is essentially the same as the 1997 Left-Hand-Drive 'XJ' and the fuel system is essentially the same in both models. The 1997 MY 'XJ' is also essentially a carryover from the 1996 model year. There are noted the following changes:

A new instrument panel design that contains a new electronically operated driver and passenger airbag (replacing the mechanical driver side-only airbag system)and updated kneeblockers on the driver and passenger sides.

A new energy absorbing steering column (shear capsule design non-tilt column and torsion bar design tilt column).

A new 20 gallon plastic fuel tank - rear mounted.

Adjustable upper anchorages for the front outboard seating position seat belts.

Front seat belt in board anchorages that are seat mounted and thus travels with the seat.

The following design features remain standard as carryover from the 1996 M.Y.;

- Five (5) person seating capacity - front bucket seats.
- 4-door body style.
- 300 lbs. of luggage.
- 101 inch wheelbase and unibody construction.

The powertrain is comprised of a 4.0L (I6) multi-point injection (MPI) engine, 4-speed automatic transmission and 2 or 4-wheel drive configuration.

A Corporate energy absorbing steering column (sheer capsule design non-tilt and torsion bar design tilt) is released with a floor console shifter. A two spoke luxury steering wheel with driver airbag is a supplementary restraint and 3-point active seat belt with adjustable upper anchorage is a primary restraint. A passenger airbag is provided as a supplementary restraint and 3-point active seat belt with adjustable upper anchorage is a primary restraint. The driver and passenger airbag supplemental restraint system is an electronic system with a single point sensor mounted under the front left (Passenger) seat.

The front bumper system consists of a steel bumper with foam filled bumperettes.

The five vehicles tested to confirm compliance of the Left-Hand-Drive 1997 "XJ" also are valid for the Right-Hand-Drive vehicles. One Right-Hand-Drive vehicle was tested in addition to these five vehicles to confirm compliance of the 1997 "XJ" to the performance requirements of FMVSS 301, Fuel System Integrity. Summary I of these vehicles and test results are attached.

VC06229 was prepared and tested in accordance with the following Chrysler Corporation Compliance Procedures:

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

CP-370 "Steering Control Rearward Displacement," Change "B".

Based on testing conducted, the 1997 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, DID MEET the performance requirements of FMVSS 301 Sections S3., S5., S6. and S7.

Prepared by: _____ 3-10-97
Date

Issued by: Jeep Impact Engineering, Dept. 1060

File No: XJ-97-301

SUMMARY I

OCCUPANT CRASH PROTECTION
1997 'XJ' BODY JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning.	1J4Fj6759v1[redacted]	-0-	-0-	-0-	-0-
VC 6148 (10/15/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 2.5L litre MPI Engine, Air Conditioning.	1J4FJ27PXVL[redacted]	-0-	-0-	-0-	-0-
VC 6144 (10/15/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning.	1J4FJ68S0VL[redacted]	-0-	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Manual Trans., Power Steering 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	1J4FJ28S3VL[redacted]	-0-	-0-	-0-	-0-
VC 6190 (11/7/96)	Right Angle	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans., Power Steering 2.5L litre MPI Engine, Air Conditioning.	1J4FT27P2VL[redacted]	-0-	-0-	-0-	-0-
VC06129 (12/02/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission Right Hand Drive, 4.0 Litre(I6)MPI Engine	1J4FN28S6VL[redacted]	-0-	-0-	-0-	-0-

VEHICLE CRASH TEST LETTER

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

TEST PURPOSE	PRIMARY, 1997 USA 208 COMPLIANCE.	
	PRIMARY, 1997 USA 212 COMPLIANCE	
	PRIMARY, 1997 USA 219 COMPLIANCE	
	PRIMARY, 1997 USA 301 COMPLIANCE.	
IMPACT TYPE	TARGET SPEED;	30 MPH
	DAMAGE LOCATION;	FRONT
	BARRIER TYPE;	FLAT FIXED
	BARRIER SURFACE;	PLYWOOD
	DIRECTION;	0 DEGREES
VEHICLE	BODY CLASS;	XJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	4.0 LITRE
	ENGINE NOTE;	MPI
	TRANSMISSION;	4 SPEED AUTO 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J4FN28S6VL[redacted] MOD.
	VIN AS BUILT;	1J4FN28S6VL[redacted] MOD.
TEST SPEED	30.3 MPH BY ELECTRONIC TRAP.	
TEST WEIGHT (LBS)	4300 TOTAL, 2189 FRONT, 2111 REAR	
OCCUPANTS	LEFT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-93	
	RESTRAINT-AIRBAG AND SEAT BELT	
	RIGHT FRNT, CERT 50TH% HIII H&AROM 9-CH AD-95	
	RESTRAINT-AIRBAG AND SEAT BELT	
BUILD CONDITION	1997 XJ, PVP, 4DR, AUTO TRANS, RHD 4.0L VEHICLE	
	4.0L ENGINE, AUTO TRANS, P/S, P/B, A/C, NON-TILT COLUMN.	
	P215/75R15 TIRES ON STEEL WHEELS.	
TARGET WEIGHT (LBS)	3662 TOTAL, 1996 FRONT, 1666 REAR REP MAX OPT WT.	
	FOR A 4.0L 4-DR 4X4 DOMESTIC RHD VEHICLE.	
	NOT INCLUDING OCCUPANTS OR LUGGAGE BALLAST.	

VC06229 30 MPH BARRIER IMPACT XJUL74, 4.0L ITEM XJ6406
1997 MVSS 208, 212, 219, 301 COMPLIANCE
TEST DATE 12/09/96

FUEL AND BALLAST
19.0 GALLONS STODDARD TOTAL.
300 LBS LUGGAGE BALLAST SECURED IN CARGO AREA.
175 LBS OF BALLAST SECURED TO LR FLOORPAN.
75 LBS OF BALLAST SECURED TO RR FLOORPAN.
25 LBS OF BALLAST SECURED TO RR WHEELWELL.

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

M.P. LEVINE	514-17-41 (AB)
D.R. BAILEY	514-18-03 (AB)
M. STEBELTON	422-05-01 (AB)

DATE 12/10/96 TIME 10.04.58.

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC6229, ITEM NUMBER XJ6406, TEST ENGINEER COLLINGS

V.I.N. 1J4FN28S6VL[redacted] TEST DATE 12/09/96, ROLL DATE 12/10/96

TEST TYPE; 30 MPH FRONT FLAT FIXED BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 19.0 GALLONS

TEST SPEED 30.3 MPH, TEST WEIGHT 4300 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK 10min - No leaks

ELECTRIC FUEL PUMP RUN 2 min - no leaks

| | | NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
2:01	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
2:03	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
2:00	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2:03	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks at impact or after impact.
No fuel leaks during Static Roll.
No fuel leaks during post impact testing.
Fuel System integrity was maintained.

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

CHRYSLER CORPORATION

Chrysler Corporation

COMPLIANCE REPORT

SUBJECT: **FUEL SYSTEM INTEGRITY - 1998 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY**

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

STANDARD TITLE: Fuel System Integrity

APPROVALS:

NAME	Title	Signature	Date
E.A. Zylik	Manager	E.A. Zylik	5-19-97
D.F. BUSER	Executive Engineer	D F Buser	5-19-97

Date Received by Safety Programs: _____

File No: 98-XJ-301

EA12-005- Chrysler -006592

14250 Plymouth Road
Detroit MI 48227-3086

CHRYSLER CORPORATION

Chrysler Corporation

INTRODUCTION

Subject: **Fuel System Integrity - 1998 'XJ' Body, Jeep "Cherokee" Sport Utility**

Objective: 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: All Chrysler Corporation 1998 'XJ' Sport Utility vehicles with G.V.W.R. 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 4)

Prepared by: M P Levine 5/19/97
M.P. Levine, Engineer Dept. 1060 Date

Approved by: E.A. Zylik 5-19-97
E.A. Zylik, Manager Dept. 1060 Date

Issued by: Jeep Vehicle Impact Development

EA12-005- Chrysler -006593
File No: 98-XJ-301

14250 Plymouth Road
Detroit MI 48227-3086

Safety Documentation Compliance Report

FUEL SYSTEM INTEGRITY
1998 'XJ' BODY, JEEP "CHEROKEE" SPORT UTILITY

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

DISCUSSION

The Chrysler Corporation 1998 'XJ' Body, Jeep "Cherokee", Sport Utility vehicles, 2 and 4-door model, 2 and 4-wheel drive, left and right hand drive are essentially carryover from the 1997 model year.

This vehicle is offered with two engines, a 2.5L inline 4 cylinder and a 4.0L inline 6 cylinder engine. The 2.5 litre (I4) MPI engine is available with a 5-speed manual transmission or a 3 speed automatic transmission. The 4.0 litre (I6) MPI engine is available with either 4-speed overdrive automatic or 5-speed manual transmission. The vehicle is also offered with Anti-Lock Brake System (ABS) for the 4.0 litre only as an optional feature. The right hand drive vehicle is available only with the 4.0L 4-speed overdrive automatic in a 4-door body style with either rear or 4-wheel drive.

The "XJ" is of unibody construction, offered in 101 inch wheelbase.

The front bumper system consists of a steel beam with foam filled bumperettes.

All "XJ" vehicles are offered with a compact spare tire or a conventional spare option.

The vehicle's capacity includes seating for five passengers, 300 lbs. of luggage and 20 gallons of fuel.

The fuel system consists of a 20 gallon rear mounted plastic tank. The filler neck is located on the left side of the vehicle. The vehicle can be equipped with an optional skid plate.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

A total of nine vehicles were tested (for the 1997 & 1998 model year) to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

DISCUSSION (cont'd)

Test were conducted according to the following test procedure:

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

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

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

The test vehicles, did not experience fluid losses that exceed 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'.

Based on the above, the 1998 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, DID MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Prepared by: M.P Levine

Date: 5/19/97

SUMMARY I

FUEL SYSTEM INTEGRITY
1998 'XJ'-BODY, JEEP "CHEROKEE" SPORT UTILITY

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC 6156 (11/05/96)	Left Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	1J4FT6851VL[redacted]	-0-	-0-	-0-	-0-
VC 6156R (11/06/96)	Right Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	1J4FT6851VL[redacted]	-0-	-0-	-0-	-0-
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	1J4FJ6759VL[redacted]	-0-	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive,Manual Trans., 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	1J4FJ28S3VL[redacted]	-0-	-0-	-0-	-0-

Test No. (Date)	Impact Mode	Vehicle Model & Description	Vehicle Identification No.	Leakage Summary (Oz) At Impact	Following 30 Minutes	Max. in Any Rollover Position (Oz.)	(Oz./Min.)
VC 6229 (12/09/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission Right Hand Drive, 4.0 Litre(I6)MPI Engine	1J4FN28S6VL[redacted]	-0-	-0-	-0-	-0-
XT00716 (05/07/97)	30 Lt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	1J4FJ28P4VL[redacted]	-0-	-0-	-0-	-0-
XT00717 (05/08/97)	30 Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt, Tilt Wheel.	1J4FJ68S6VL[redacted]	-0-	-0-	-0-	-0-
XT00718 (05/05/97)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag with Belt, Non-Tilt Wheel.	1J4FJ28P0VL[redacted]	-0-	-0-	-0-	-0-
XT00719 (05/06/97)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag with Belt,Tilt Wheel.	1J4FJ68S8VL[redacted]	-0-	-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: _____
M.P. Levine

Date: _____

File No: 97-XJ-301

Information

CHRYSLER CORPORATION

Report #:

Compliance Report

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For MVSS 301)

Model Year: 1999

Procedure: CP-246G CP-245F CP-234I CP-233H CP-232F CP-194K

Standard: MVSS 301

Standard Title: Fuel System integrity

Requirements: Fluid Loss Limitation and Static Rollover Test Procedures to Determine Vehicle Fuel System Integrity

Vehicle Type: MPV

Family Codes: XJ

Approvals

Edward A Zylik **Department Manager**		05/13/98 01:24:13 PM **Approval Date**
Donald F Buser **Executive Engineer**		05/14/98 07:13:39 AM **Approval Date**

Summary

CHRYSLER CORPORATION

Subject: Fuel Loss Limitations and Static Rollover Test Procedures (For MVSS 301)

Objective: Verification of design Compliance with the Requirements of Federal Motor Vehicle Safety Standard
FMVSS 301, and Canada Motor Vehicle Safety Regulation CMVSR 301.

Conclusion: All Chrysler Corporation 1999 `XJ' Sport Utility Vehicles with G.V.W.R. of 10,000 lbs and under, as design released, comply with the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Safety Documentation Compliance Report

Prepared By: Mark P Levine **Date:** 05/13/1998

Approved By: Edward A Zylik **Date:** 05/13/1998

Issued By: 1060 - Vehicle Impact & Safety Development (Jeep)

Discussion

CHRYSLER CORPORATION

The 1999 MY XJ is essentially carryover from the 1998 model year.

The following design features remain standard as carryover from the 1998 M.Y.;

Vehicle/Body:

- Left hand drive and right hand drive models.
- 2-door and 4-door body style (4-door only in right hand drive).
- 101 inch wheelbase and unibody construction.
- The front bumper system consists of a steel bumper with foam filled bumperettes.

Capacity:

- Five (5) person seating capacity - front bucket seats.
- 300 lbs. of luggage capacity.
- 20 gallon rear mounted plastic fuel tank with a filler neck located on the left side of the vehicle. A fuel tank skid plate is optional.

Drivetrain:

- 2.5L (I4) or 4.0L (I6) multi-point injection (MPI) (I6 only in right hand drive).
- Rear or 4 wheel drive.
- 5-speed manual transmission or automatic transmission (3-speed (I4)or 4-speed (I6))(automatic only in right hand drive)).

Occupant Restraint/Interior Systems:

- Corporate energy absorbing steering column (sheer capsule design non-tilt and torsion bar design tilt with a floor console shifter.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the driver.
- A supplementary driver restraint airbag is contained in the two spoke luxury steering wheel.
- A 3-point active seat belt with adjustable upper anchorage is a primary restraint for the passenger
- An airbag is provided as a supplementary restraint for the passenger.
- A single point electronic sensor mounted under the front left occupant seat is used to control the supplemental restraint airbag system.

All tests were conducted with two restrained dummies at driver and right front passenger location and with 300 lbs. of luggage ballast.

A total of nine vehicles were tested (for the 1997 & 1998 model year) to demonstrate compliance of the 'XJ' to the requirements of FMVSS 301, Fuel System Integrity. These vehicles and test results are shown on the attached summary.

Test were conducted according to the following test procedure:

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

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

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

The test vehicles met the performance requirements of FMVSS 301 and did not experience fluid losses that exceed 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'.

Based on the above, the 1999 'XJ' Body, Jeep "Cherokee" Sport Utility vehicles, as design released, MEET the performance requirements of FMVSS 301 - Sections S3., S5., S6. and S7.

Appendix

CHRYSLER CORPORATION

Leakage Summary (Oz)

Test No. (Date)	Impact Mode	Max. in Any Vehicle Model & Description	At Impact	Following 30 Minutes	Rollover Position (Oz.)	(Oz./Min.)
VC 6156 (11/05/96)	Left Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-	-0-
VC 6156R (11/06/96)	Right Side	Jeep "Cherokee" Sport Utility, 2-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-	-0-
VC 6062 (08/19/96)	Rear	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Trans. 4.0L litre MPI Engine, Air Conditioning.	-0-	-0-	-0-	-0-
VC 6146 (10/16/96)	Rear	Jeep ACherokee@ Sport Utility, 4-Wheel Drive,Manual Trans., 4.0L litre MPI Engine, Air Conditioning, Factory Trailer Hitch.	-0-	-0-	-0-	-0-
VC06229 (12/09/96)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission Right Hand Drive, 4.0 Litre(I6)MPI Engine	-0-	-0-	-0-	-0-

XT00716 (05/05/97)	30 Lt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag w ith Belt, Tilt Wheel.	-0-	-0-		-0-		-0-
XT00717 (05/06/97)	30 Rt. Angle	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag w ith Belt, Tilt Wheel.	-0-	-0-		-0-		-0-
XT00718 (05/07/97)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Man. Transmission 2.5 Litre(I4)MPI Engine and Driver & Passenger Air Bag w ith Belt, Non-Tilt Wheel.	-0-	-0-		-0-		-0-
XT00719 (05/08/97)	Flat Front	Jeep "Cherokee" Sport Utility, 4-Wheel Drive, Auto Transmission 4.0 Litre(I6)MPI Engine and Driver & Passenger Air Bag w ith Belt, Tilt Wheel.	-0-	-0-		-0-		-0-

Allowable Leakage by Weight

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

Full details (test reports) of the tests can be found in the test report files for each test.