

DAIMLERCHRYSLER

April 4, 2003

Mr. Jeff Quandt, Chief
Vehicle Control Group
Office of Defects Investigation
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

DaimlerChrysler Corporation
Stephen J. Speth
Director
Vehicle Compliance & Safety Affairs

Dear Mr. Quandt:

Reference: NSA -13 cat; EA02-029

DaimlerChrysler has continued to investigate the secondary hood latch assembly on 1996-1998 Jeep Grand Cherokee vehicles. In September 2002, a field study was conducted on 1993-1998 Jeep Grand Cherokee vehicles to evaluate the function of the hood latch system. This survey was part of our 'future plans' discussed in our initial response to NHTSA Inquiry PE02-045, dated July 16, 2002. The survey results were subsequently reported in a letter to the agency dated September 30, 2003.

A detailed dimensional inspection has been undertaken on a sample of the latches recovered from this survey to determine if there were any dimensional differences in the subject 1997 model year latches versus other vehicle model years. DaimlerChrysler conducted the enclosed inspection analysis on 11 latches from the vehicle survey and 1 new latch taken from Mopar Parts stock. The yellow highlighted data shown in the following Enclosures represent the latches recovered from vehicles within the subject population (September 1996 - January 1997).

- Enclosure 1 describes dimensional data obtained by laser-scanning the latch assemblies to accurately determine the clearances between moving parts of the latch. The clearance between the pivot pin, base bracket, and hook are documented in this Enclosure.
- Enclosure 2 describes dimensional data obtained by measuring the pivot pin of the same 12 pieces that were laser scanned.
- Enclosure 3 describes dimensional data when the same 12 latches were disassembled and re-measured using precision instruments. Additional data such as parallelism of the hook and bracket mating surfaces, and pin hole diameter and alignment were measured.

DaimlerChrysler Corporation
800 Chrysler Drive CIMS 482-00-91
Auburn Hills MI USA 48326-2757
Phone 248.512.4186
Fax 248.524.7321
e-mail: jae@daimlerchrysler.com

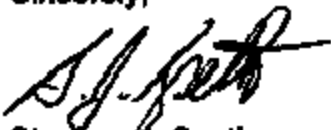
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DaimlerChrysler's review of this detailed dimensional information has not identified any dimensional factor with any of these latches which would cause abnormal latch performance.

DaimlerChrysler does not believe that an engineering change or manufacturing process deviation is responsible for the few reported hood fly-up conditions on the subject vehicles. Our analysis indicates that these latches would have safely retained the hood if the primary hood latch was not engaged. It continues to be our belief that the limited number of hood fly-up reports which exist on the 1997 Jeep Grand Cherokee are primarily due to customers who did not properly close the hood and engage the primary and secondary latches.

DaimlerChrysler will continue to evaluate the performance of the secondary hood latch system, and will provide NHTSA with any additional relevant findings which may relate to this investigation.

Sincerely,



Stephan J. Speth
Director
Vehicle Compliance and Safety Affairs

Enclosures

Jeep Grand Cherokee Hood Secondary Latch P/N 65075322AB

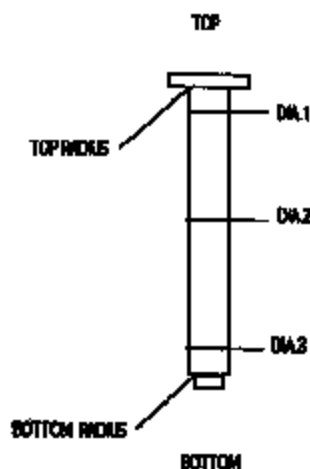
Attachment 1

Dim.	Description	Reference	LATCH #	via #												n/a
				rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	rc278901	
				built date	Jun-04	Aug-04	Feb-04	May-00	Dec-00	Oct-00	May-04	Mar-07	Apr-08	Nov-08	Oct-09	n/a
A	Width of Main Bolt Outside FV	Jpeg 1,2		1	32.38	31.88	n/a	32.28	32.18	32.53	32.30	31.51	32.04	32.08	32.01	31.97
B	Width of Main Bolt Inside FV	Jpeg 1,2			28.91	27.12	n/a		28.81	28.73	28.88	28.69	28.6	28.89		28.81
C	Width of Latch Outside FV	Jpeg 1,3			25.8		n/a	25.88		25.48	25.7	25.87		25.8		25.78
B-C	Deviation Between Main Bolt Outside & Main Bolt Inside FV	Jpeg 2			1.11		n/a			1.28	1.18	0.88		0.88		1.06
D	Width of Latch Inside FV	Jpeg 3			20.87	21.25	n/a	20.88	21.08	20.48	20.65	20.88		21.02	21.22	21.08
A	Width of Main Bolt Outside FV	Jpeg 1,2			32.44	31.88	n/a	32.2	32.08	32.4	32.52	31.88	32.11	32.38	32.14	31.79
B	Width of Main Bolt Inside FV	Jpeg 1,2			27.13		n/a	26.88	26.85	27.18	27.01	27.38	27.7			
C	Width of Latch Outside FV	Jpeg 3					n/a									
D	Width of Latch Inside FV	Jpeg 3			20.92	21.27	n/a	20.88	20.83	20.68	20.81	21.05	21.05	20.8	20.88	21.01
E	Angle of Latch Relative to Main Body SV	Jpeg 4			80.54	84.27	n/a	82.28	81.78	80.48	80.1	84.11	80.54	83.84	82.25	80.88

Jeep Grand Cherokee Hood Secondary Latch P/N 55075322AB

Attachment 2

vin #	rc319301	vc524721	rc274930	tc345868	vc628747	rc156751	rc322108	vc714922	vc341781	vc001168	vc598147	NEW
Build Date	Jun-94	Aug-96	Feb-94	May-96	Dec-96	Oct-93	May-94	Mar-97	Apr-98	Nov-96	Oct-96	Repair Parts
Latch #	1	2	5	7	8	9	10	13	16	99	100	NEW
DIA. # 1	8.28	8.35	8.31	8.33	8.35	8.32	8.3	8.31	8.32	8.29	8.27	8.24
DIA. # 2	8.29	8.28	8.31	8.31	8.25	8.29	8.28	8.28	8.31	8.22	8.24	8.23
DIA. # 3	8.3	8.37	8.35	8.29	8.33	8.29	8.28	8.33	8.28	8.27	8.25	8.24
Length	29.764	29.848	29.852	30.331	29.667	30.097	29.826	29.595	29.593	29.554	29.607	29.578
Top radius	0.628	0.265	0.539	0.294	0.465	0.467	0.453	0.441	0.29	0.492	0.866	0.422
Btm radius	1.791	1.779	1.787	1.756	1.801	1.759	1.7881	0.798	1.622	0.992	1.276	1.789

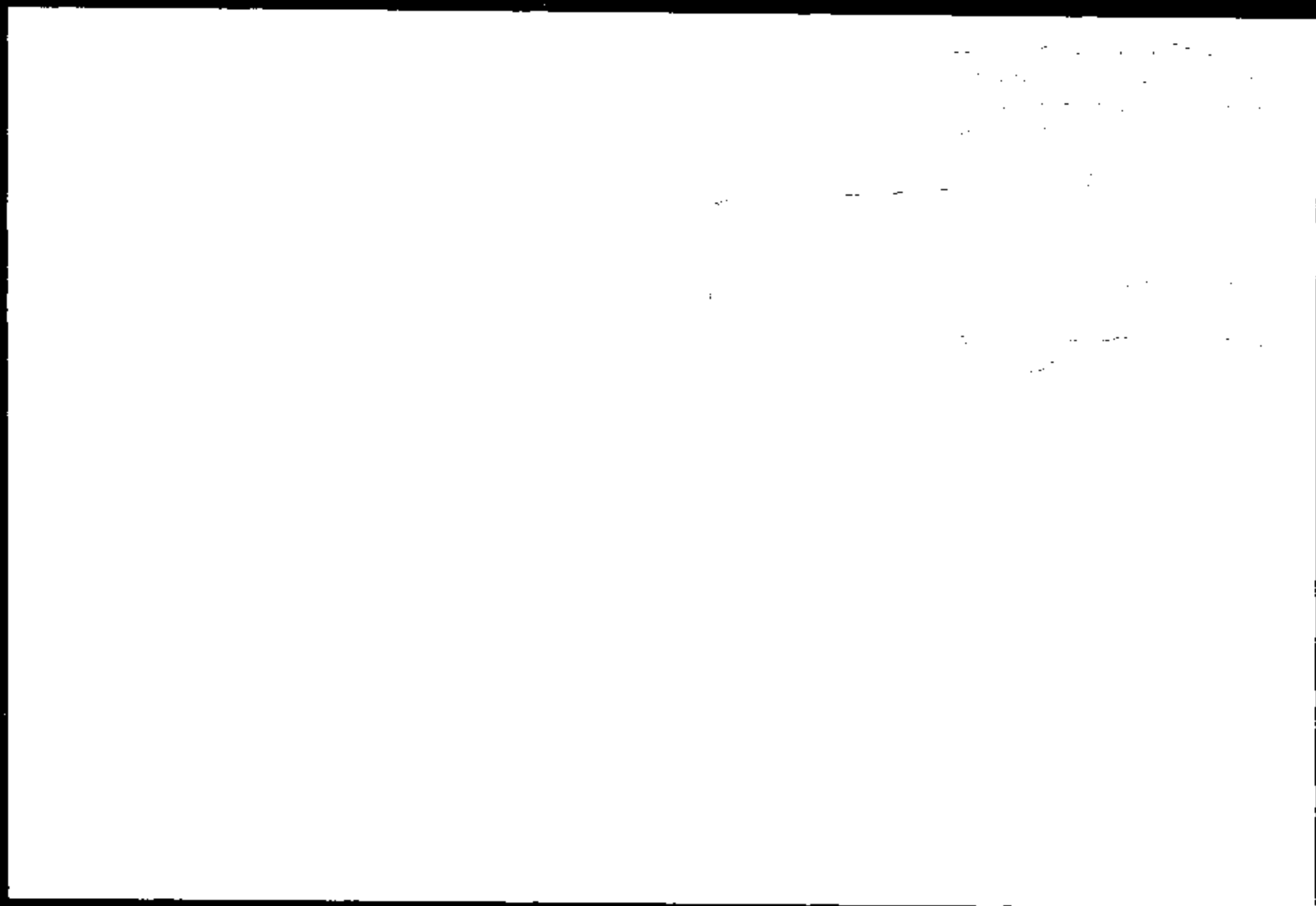


Cherokee Hood Secondary Latch P/N 55075322AB

Attachment 3

			vin #	rc319881	rc319881	rc274830	rc319881	rc319881	rc319881	rc319881	rc319881	rc319881	rc319881	rc319881	rc319881	rc319881
			build date	Jun-04	Jun-04	Feb-04	May-05	Dec-05	Oct-05	May-04	Mar-07	Apr-08	Nov-05	Oct-08	n/a	
Dim	Description	Reference	latch #	1	2	5	7	8	9	10	13	15	55	750	n/a	
	MATL THICKNESS MNT BRAK			2.84	2.82	2.80	2.73	2.85	2.80	2.71	2.81	2.87	2.81	2.70	2.81	
A-A	Parallelism Mnt Bracket A (X plane)	Jpeg 5		0.47	0.50	0.39	0.34	0.51	0.53	0.30	0.87	0.43	0.52	0.47	0.50	
A	Width of Main Brkt Outside	Jpeg 2,5		32.52	32.36	32.42	32.95	31.98	32.72	32.49	32.27	32.23	32.45	32.51	32.55	
B	Width of Main Brkt Inside	Jpeg 2,5		27.01	26.88	26.86	26.76	26.30	27.25	26.99	26.54	26.75	27.08	26.93	27.12	
F-G	True Position Hole Dat C Mnt Brak To Opp Hole Mnt Brak	Jpeg 1		0.56	0.60	0.44	0.58	0.84	0.44	0.49	1.25	0.68	1.03	0.66	0.35	
F-G	Y axis Deviation Hole Dat C Mnt Brak To Opp Hole Mnt Brak	Jpeg 1		0.26	0.30	0.22	0.28	0.27	0.03	0.18	0.08	0.15	0.43	0.28	0.13	
F-G	Z axis Deviation Hole Dat C Mnt Brak To Opp Hole Mnt Brak	Jpeg 1		-0.11	0.00	0.01	-0.08	0.32	0.22	-0.17	0.62	0.27	0.39	-0.08	0.10	
F	Diameter Hole Dat C Mnt Brak	Jpeg 1		8.85	8.88	8.94	8.87	8.86	8.96	8.96	8.95	8.82	8.93	8.88	8.83	
G	Diameter Opp Hole Mnt Brak	Jpeg 1		8.79	8.81	8.81	8.80	8.82	8.79	8.78	8.51	8.77	8.82	8.85	8.78	
	MATL THICKNESS LATCH 3d			2.95	2.87	2.93	2.65	2.95	2.71	2.68	2.61	2.64	2.63	2.65	2.61	
C-C	Parallelism Latch C (X plane)	Jpeg 5		0.37	0.48	0.23	0.64	1.49	1.05	0.28	1.40	0.40	0.55	0.42	0.48	
C	Width of Latch Inside	Jpeg 4		20.92	21.77	n/a	20.85	20.88	20.88	20.81	21.05	21.08	20.9	20.98	21.01	
D	Width of Latch Outside	Jpeg 3,5		25.65	26.18	26.04	25.01	24.04	25.22	25.01	24.40	25.08	25.37	25.38	25.78	
H-H	True Position Ctr Latch Side1 To Cyl Latch Side 2	Jpeg 1		1.34	2.24	1.80	1.44	0.83	1.55	2.62	1.27	2.19	1.32	1.58	1.15	
H-H	Y axis Deviation Ctr Latch Side1 To Cyl Latch Side 2	Jpeg 1		-0.03	-0.83	-0.82	-0.71	-0.08	-0.29	-0.47	0.34	-0.49	0.02	-0.20	-0.04	
H-H	Z axis Deviation Ctr Latch Side1 To Cyl Latch Side 2	Jpeg 1		-0.62	-0.98	-0.88	0.11	0.41	0.78	-1.17	0.54	-0.98	-0.85	-0.78	-0.57	
I	Diameter Cyl Latch Side 2	Jpeg 1		8.71	8.88	8.71	8.78	8.85	8.70	8.70	8.72	8.87	8.88	8.87	8.88	
H	Diameter Ctr Latch Side 1	Jpeg 1		8.65	8.89	8.87	8.87	8.86	8.70	8.85	8.71	8.86	8.88	8.88	8.88	
E	Angle of Latch Relative to Main Body at Center Line of Latch	Jpeg 1,4		80.54	84.27	n/a	82.29	81.75	80.43	80.1	84.11	80.54	83.34	82.25	80.58	
	LATCH TO MNT CLEAR (A-D)/2			0.55	0.35	0.41	0.97	1.09	1.01	0.54	1.07	0.39	0.33	0.34	0.67	

1. The first group of people who are interested in the study of the history of the United States are the people who are interested in the history of the United States. They are interested in the history of the United States because they want to know more about the United States. They want to know more about the United States because they want to know more about the United States.



1. The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom. It is shown that the structure of the atom is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles.

2. The second part of the paper is devoted to a discussion of the structure of the nucleus. It is shown that the structure of the nucleus is determined by the laws of quantum mechanics, which are based on the principle of the uncertainty of the position and momentum of the particles.

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