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DAIMLERCHRYSLER AG
NHTSA C80306 - 2008 DODGE SPRINTER 2500 CRD CARGO VAN

FMVSS 105
HYDRAULIC BRAKE SYSTEM COMPLIANCE TEST
2008 DODGE SPRINTER 2500 CRD, 3-DR. TRUCK
NHTSA C80306

TRANSPORTATION RESEARCH CENTER INC.
East Liberty, Ohio 43319



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FINAL REPORT

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Enforcement
Office of Vehicle Safety Compliance
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1.0 INTRODUCTION

Tests were conducted on a 2008 Dodge Sprinter 2500 CRD Cargo Van, 3-dr. truck, manufactured by DaimlerChrysler AG, to determine compliance with FMVSS 105 "Hydraulic Brake Systems."

All tests were conducted in accordance with the U.S. DOT, NHTSA Laboratory Procedure TP-105-03 and/or the corresponding Transportation Research Center Inc. (TRC Inc.) test procedure, which was submitted to NHTSA for their approval. The test procedure was clearly described in the submitted document and has not been repeated in this report.

All stops were performed manually.

TRC Inc. personnel using the following TRC facilities conducted all tests:

7.5-Mile Test Track

Instrument Check
Burnish & Reburnish
Fade & Recovery

Skid Pad

Effectiveness Stops
Water Recovery
Failed Stops
Inoperative Power Assist

Brake Slope

Parking Brake

Brake Soak

Water Recovery

Average PFC during the test period was 0.95 (Skid Pad) and 0.95 (Test Track) utilizing the ASTM E1337 w/E1336 tire method.

The test vehicle met all the requirements of FMVSS 105.

2.0 FMVSS 105 VEHICLE INFORMATION SHEET Date: 08/08/08

Vehicle: Make: Dodge NHTSA No. C80306
Model: Sprinter 2500 CRD GVWR: 8,550 lbs.
Model Year: 2008 Manufacture Date: 11/2007
Body Style: 3-Door Truck (Van) Wheelbase: 145 in.
VIN: WD0PE745185254983
Buses Chassis Mfr.: NA GAWR: Front: NA
Only Manufacture Date: NA Rear: NA
Serial No.: NA No. of Seats: NA

Engine Type: Diesel, Direct Fuel Injection, V6, DOHC, Turbocharged, Piston
Displacement: 3.0 Liters HP: 156 – Manuf. Data
Engine Idle Speed: 680 RPM
Transmission Type: Automatic, 5-speed, RWD
No. of Axles: Two
GAWR: Front: 3,970 lbs. Rear: 5,360 lbs.
Tires: Size: LT 245/75R16E, 120/116Q Manufacturer: Continental
Type: Vanco 4 Season, M+S, Radial, Tubeless

Recommended Pressure at GVWR: front 47 psi rear 70 psi

Brakes: Front: () Drum (X) Disc
Rear: () Drum (X) Disc

Actuation: Describe Hydraulic Circuit Split: Diagonal

Power Unit: Hydraulic, Vacuum, etc. Vacuum

Brake Power Assist Unit: Yes X No

Brake Power Unit w/Accumulator: Yes No X

Power Assist or Power Unit w/Backup Yes No X

Variable Proportioning System: (Electronic) Yes X No

Antiskid Device: Mfg. Bosch Yes X No

Parking Mechanism: (see definition)

Description: Automatic transmission with park detent.

Master Cylinder: Not Measured; Prim. & Sec. = 1.063 in. – Manuf. Data

Pedal Ratio: 3.2:1

2.0 FMVSS 105 VEHICLE INFORMATION SHEET, continued

Front Brakes:

Wheel

Brake

Components: Type: Drum () Disc (X)

<u>MATERIAL</u>	<u>CONSTRUCTION</u>	<u>MATERIAL</u>	<u>CONSTRUCTION</u>
() Cast Iron	() Cast () Composite	(X) Cast Iron	(X) Integral Cast
() Steel	() Centrifuse	() Steel	() 2-piece
() Bi-Metal	() Pressed	() Bi-Metal	(X) Vented
() _____	() _____	() _____	() Unvented
			(X) <u>Bonded Linings</u>
Diameter:	Inside: <u>N/A</u>	Outside	<u>11.801 in.</u>
Thickness:	<u>Not Applicable</u>	Include Vent	<u>1.103 in.</u>
Lining Code:	Primary:* <u>N/A</u>	Inboard:	<u>T-3066 FF</u>
Or Color:	Secondary:* <u>N/A</u>	Outboard:	<u>T-3066 FF</u>
Shoe Cage:	Left: <u>N/A</u> Reset To: <u>N/A</u>	Not Applicable	<u>N/A</u>
Diameter:	Right: <u>N/A</u> Reset To: <u>N/A</u>	Not Applicable	<u>N/A</u>

Dimensions:

Width:	Primary: <u>N/A</u>	Inboard	<u>2.271 in.</u>
	Secondary: <u>N/A</u>	Outboard	<u>2.280 in.</u>
Length:	Primary: <u>N/A</u>	Inboard	<u>5.524 in.</u>
	Secondary: <u>N/A</u>	Outboard	<u>5.524 in.</u>
Thickness:	Primary: <u>N/A</u>	Inboard	<u>0.812 in.</u>
	Secondary: <u>N/A</u>	Outboard	<u>0.811 in.</u>
Hydraulic	Wheel	Disc	
Piston Diam:	Cylinder <u>N/A</u>	Caliper	<u>1.89 in. (x2)</u>

*May be Primary/Secondary or other: Not Applicable

Rear Brakes:

Wheel

Brake

Components: Type: Drum () Disc (X)

<u>MATERIAL</u>	<u>CONSTRUCTION</u>	<u>MATERIAL</u>	<u>CONSTRUCTION</u>
() Cast Iron	() Cast () Composite	(X) Cast Iron	(X) Integral Cast
() Steel	() Centrifuse	() Steel	() 2-piece
() Bi-Metal	() Pressed	() Bi-Metal	(X) Vented
() _____	() <u>Bonded Linings</u>	() _____	() Unvented
			(X) <u>Bonded Linings</u>

2.0 FMVSS 105 VEHICLE INFORMATION SHEET, continued

Rear Brakes:

Wheel

Brake

Components:	Type: Drum ()	Disc (X)
Diameter:	Inside: <u>N/A</u>	Outside <u>11.729 in.</u>
Thickness:	<u>N/A</u>	Include Vent <u>0.640 in.</u>
Lining Code	Leading*: <u>N/A</u>	Inboard <u>KOLBEN**</u>
Or Color:	Trailing*: <u>N/A</u>	Outboard <u>FINGERS 270.7**</u> <u>(A9064230210)</u>
Shoe Cage	Left <u>N/A</u> Reset To <u>N/A</u>	Not Applicable
Diameter:	Right <u>N/A</u> Reset To <u>N/A</u>	Not Applicable

Dimensions of Linings:

Width:	Primary <u>N/A</u>	Inboard <u>1.767 in.</u>
	Secondary <u>N/A</u>	Outboard <u>1.764 in.</u>
Length:	Primary <u>N/A</u>	Inboard <u>4.521 in.</u>
	Secondary <u>N/A</u>	Outboard <u>4.522 in.</u>
Thickness:	Primary <u>N/A</u>	Inboard <u>0.770 in.</u>
	Secondary <u>N/A</u>	Outboard <u>0.780 in.</u>
Hydraulic Piston Diam:	Wheel Cylinder <u>N/A</u>	Disc <u>2.007 in. (x1)</u> Caliper

*May be Primary/Secondary or other: Not Applicable

Other Component Information:

Friction-Type Parking Brake: () Hand-Operated
() Foot-Operated

Non-Service Brake Type: (X) Hand-Operated
Parking Brake: () Foot-Operated

Will adjusters be locked out for this test series? () Yes () No (X) Not Appl.

Describe method used to lock out adjusters: Not Applicable

Note: If at any time the test series has begun, any brake system part requires replacement or the brake system requires adjustments other than permitted in burnish and reburnish procedures, discontinue testing and notify the COTR immediately.

Comments: **Rear brake lining codes were not per the usual markings.

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 1 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Max. Speed in 2 miles	None	<u>84.0</u> mph avg.		<u>Not Appl.</u>
First Effectiveness:	30 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>69</u> ft. for one stop	<u>6</u> of six stops pass Best Stop: <u>45.9</u> ft., <u>105</u> lbs. PF (max)	<u>X</u>	<u> </u>
	60 mph: Pedal Force, 15-150 lb. Stopping distance, <u>267</u> ft. for one stop	<u>6</u> of six stops pass Best Stop: <u>159.9</u> ft., <u>128</u> lbs. PF (max)	<u>X</u>	<u> </u>
Second Effectiveness:	30 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>57</u> ft. for one stop	<u>6</u> of six stops pass Best Stop: <u>39.4</u> ft., <u>119</u> lbs. PF (max)	<u>X</u>	<u> </u>
	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>216</u> ft. for one stop	<u>6</u> of six stops pass Best Stop: <u>145.5</u> ft., <u>110</u> lbs. PF (max)	<u>X</u>	<u> </u>
	80 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>N/A</u> ft. for one stop	<u>N/A</u> of four stops pass Best Stop: <u>N/A</u> ft., <u>N/A</u> lbs. PF (max)		<u>Not Appl.</u>

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 2 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>	
Parking Brake REGULAR	Shall hold vehicle stationary for 5 minutes in both uphill and downhill direction on a 20% grade, both at LLVW and GVWR, with no more than 90 lbs. hand lever or 125 lbs. foot pedal force.	Held stationary for 5 minutes? Yes			
			Force (lbs.)		
		GVWR-Uphill	<u>71.3</u>	<u>X</u>	___
		GVWR-Downhill	<u>72.3</u>	<u>X</u>	___
		LLVW-Uphill	<u>55.5</u>	<u>X</u>	___
		LLVW-Downhill	<u>51.2</u>	<u>X</u>	___
		() Foot Pedal (X) Hand Lever			
Parking Brake	(1) Shall meet REGULAR PROCEDURE requirements with transmission in "Park." (2) Shall meet REGULAR PROCEDURE requirements on 20% slope with transmission in "Neutral." (3) Parking mechanism shall not disengage or suffer damage in front and rear 2 1/2 mph moving barrier impacts.	GVWR-30%-Uphill	<u>Not Appl.</u>	___	
		GVWR-30%-Downhill	" " "	___	
		GVWR-20%-Uphill	" " "	___	
		GVWR-20%-Downhill	" " "	___	
		LLVW-20%-Uphill	" " "	___	
		LLVW-20%-Downhill	" " "	___	
		LLVW-30%-Uphill	" " "	___	
		LLVW-30%-Downhill	" " "	___	
		MEETS MOVING BARRIER SPEC	<u>Not Appl.</u>	___	
Stability and Control	When stopped four consecutive times under conditions specified in S6, shall stop from 30 mph or 75% of drive-through speed, at least three times within the 12-ft. lane without any part of the vehicle leaving the roadway.	Number of stops within 12-ft. lane:	<u>Not Appl.</u>	___	

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 3 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Third Effectiveness LLVW	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>NA</u> ft. for one of six stops	<u> </u> of six stops pass Best Stop: <u> </u> ft., <u> </u> lbs. PF (max)		<u>Not Appl.</u>
Partial Failure LLVW	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>517</u> ft. for one of four stops with any sub-system failed.	<u>System #1</u> Inoperative: <u>4</u> of four stops pass Best Stop: <u>199.9</u> ft., <u>99</u> lbs. PF (max) <u>System #2</u> Inoperative: <u>4</u> of six stops pass Best Stop: <u>252.5</u> ft., <u>106</u> lbs. PF (max)	<u>X</u>	<u> </u>
Partial Failure GVWR	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>517</u> ft. for one of four stops with any sub-system failed.	<u>System #2</u> Inoperative: <u>4</u> of four stops pass Best Stop: <u>270.3</u> ft., <u>129</u> lbs. PF (max) <u>System #1</u> Inoperative: <u>4</u> of four stops pass Best Stop: <u>246.0</u> ft., <u>96</u> lbs. PF (max)	<u>X</u>	<u> </u>
Partial Failure Antilock and/or Variable Proportioning Brake Systems GVWR	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>517</u> ft. for one of four stops with any sub-system failed.	<u>ABS</u> Inoperative: <u>4</u> of four stops pass Best Stop: <u>180.6</u> ft., <u>74</u> lbs. PF (max) <u>Variable Prop.</u> Inoperative: <u> </u> of four stops pass Best Stop: <u> </u> ft., <u> </u> lbs. PF (max)	<u>X</u>	<u>Not Tested</u>

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 4 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Inoperative Power Unit #1	60 mph: Pedal Force, 15-150 lbs. 517 ft. for one of four stops with power disconnected and reserve depleted.	<u>4</u> of four stops pass Best Stop: Stopping distance, 450.4 ft., 145 lbs. PF (max)	<u>X</u>	<u> </u>

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Inoperative Power Unit #2	60 mph: Pedal Force, 15-150 lbs. 613 ft. for one of four stops with power disconnected and reserve depleted.	<u> </u> of four stops pass Best Stop: Stopping distance, <u> </u> ft., <u> </u> lbs. PF (max)	<u>Not Appl.</u>	<u> </u>

Inoperative Power Unit Optional (Brake Power Assist Units)	Six stops from 60 mph: at specified decels. Seventh stop at no less than seven fpsps (554 ft.).	7th Stop: <u> </u> fpsps <u> </u> decel <u> </u> lbs. PF	<u>Not Appl.</u>	
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Inoperative Power Unit - Optional Procedure (Accumulator Systems)	Ten stops from 60 mph, at specified decelerations Eleventh stop at not less than seven fpsps (554 ft.).	11th Stop: <u> </u> fpsps <u> </u> decel <u> </u> lbs. PF	<u>Not Appl.</u>	
---	--	--	------------------	--

Inoperative Power Unit - Optional Procedure (Backup Systems)	15 stops from 60 mph, at average deceleration of 12 fpsps (stopping distance 293 ft.) stops with any sub-system Failed.	<u> </u> of fifteen stops within 293 ft. Worst Stop: <u> </u> fpsps <u> </u> decel <u> </u> lbs. PF	<u>Not Appl.</u>	
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*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 5 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
First Fade and Recovery (Baseline)	30-0 mph: Three stops at 10 fpsps Pedal Force: 10-60 lbs.	Average Control Force (max) <u>29.0</u> lbs. PF	<u>X</u>	___
First Fade and Recovery (Fade)	60-0 mph: Pedal Force: 15-150 lbs. (min) Stops 1-5: 15 fpsps (min) Stops 6-10: 5-15 fpsps decel	Stops 1-5: <u>14.4</u> fpsps decel (min) <u>43.1</u> lbs. PF (max) Stops 6-10: <u>14.0</u> fpsps decel (min) <u>45.5</u> lbs. PF (max)	<u>X</u>	___
First Fade and Recovery (Recovery)	30-0 mph: Makes 5 stops at not less than 10 fpsps (1) a maximum for the first four recovery stops of 150 pounds, and for the fifth stop, of 20 pounds more than the average control force for the baseline check (but no more than 100 lbs.; and (2) a minimum of (a) the average control force for the baseline check minus 10 lbs., or (b) the baseline check times 0.6, whichever is lower (but in no case less than 5 lbs.). Allowable range: <u>17.4</u> to <u>49.0</u> pounds	Stops 1-4: <u>31.0</u> lbs. PF (max) <u>10.4</u> fpsps decel (min) Stop 5: <u>25.4</u> lbs. PF (max) <u>10.4</u> fpsps decel (min)	<u>X</u>	___

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 6 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Second Fade and Recovery (Baseline)	30-0 mph: Three stops at 10 fpsps Pedal Force: 10-60 lbs.	Average Control Force (max) <u>25.4</u> lbs. PF	<u>X</u>	___
Second Fade and Recovery (Fade)	60-0 mph: Pedal Force: 15-150 lbs. (min) Stops 1-5: 15 fpsps decel (min) Stops 6-15: 5-15 fpsps decel	Stops 1-5: <u>13.9</u> fpsps decel (min) <u>40.3</u> lbs. PF (max) Stops 6-15: <u>14.3</u> fpsps decel (min) <u>49.0</u> lbs. PF (max)	<u>X</u>	___
Second Fade and Recovery (Recovery)	30-0 mph: Makes 5 stops at not less than 10 fpsps (1) a maximum for the first four recovery stops of 150 pounds, and for the fifth stop, of 20 pounds more than the average control force for the baseline check (but no more than 100 lbs.; and (2) a minimum of (a) the average control force for the baseline check minus 10 lbs., or (b) the baseline check times 0.6, whichever is lower (but in no case less than 5 lbs.). Allowable range: <u>15.2</u> to <u>45.4</u> pounds	Stops 1-4: <u>34.4</u> lbs. PF (max) <u>9.6</u> fpsps decel (min) Stop 5: <u>26.2</u> lbs. PF (max) <u>10.5</u> fpsps decel (min)	<u>X</u>	___
			<u>X</u>	___

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 7 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Fourth Effectiveness bs.	30 mph: Pedal Force, 15-150 lbs. Best Stop: <u>65</u> ft. for one of six stops	<u>6</u> of six stops pass <u>38.6</u> ft., <u>141</u> lbs. PF (max)	<u>X</u>	<u> </u>
	60 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>267</u> ft. for one of six stops	<u>6</u> of six stops pass Best Stop: <u>142.5</u> ft., <u>128</u> lbs. PF (max)	<u>X</u>	<u> </u>
	80 mph: Pedal Force: 15-150 lbs. Stopping distance: <u>459</u> ft. for one of four stops	<u>4</u> of four stops pass Best Stop: <u>250.2</u> ft., <u>136</u> lbs. PF (max)	<u>X</u>	<u> </u>
	100 mph: Pedal Force, 15-150 lbs. Stopping distance, <u>N/A</u> ft. for one of four stops	<u> </u> of four stops pass Best Stop: <u> </u> ft., <u> </u> lbs. PF (max)	<u>Not Appl.</u>	<u> </u>

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 7 continued of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

		Avg. Sustained Control Force (max)	<u>P</u>	<u>F</u>
Water Recovery (Baseline)	30 mph: Three stops at 10 fpsps Pedal Force: 10-90 lbs.	<u>26.1</u> lbs. PF	<u>X</u>	___
Water Recovery (Recovery)	30 mph: Make 5 stops at not less than 10 fpsps (1) maximum for the first four recovery stops at 150 pounds, and for the fifth stop, of 60 pounds more than the average control force for the baseline check (but no more than 110 lbs.); and (2) a minimum of (a) the average control force for the baseline check minus 10 lbs. or (b) the baseline check times 0.6, whichever is lower (but in no case less than 5 lbs.). Allowable range:	Stops 1-4:		
		<u>30.6</u> lbs. PF (max)		
		<u>7.9</u> fpsps decel (min)	<u>X</u>	___
		Stop 5:		
		<u>29.2</u> lbs. PF (max)	<u>X</u>	___
		<u>8.6</u> fpsps decal (min)		
		<u>15.7</u> to <u>86.1</u> pounds	<u>X</u>	___

*Stopping Distance - Visual Data
Pedal Force - Visual Data

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 8 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Spike Stops	30 mph: Vehicle shall be capable of making 10 spike stops.	<u>10</u> stops completed Max. pedal force** <u>222</u> lbs. (peak) <u>153</u> lbs. avg.	<u>X</u>	<u> </u>
Post-Spike Effectiveness	60 mph: Pedal Force: 15-150 lbs. Stopping distance: <u>267</u> ft. for one of six stops	<u>6</u> of six stops pass Best Stop: <u>144.4</u> ft., <u>136</u> lb. PF (max.)	<u>X</u>	<u> </u>
Moving Barrier (For vehicles tested by the Optional Brake Procedure)	Parking mechanism shall not disengage or fracture when vehicle is subjected to front and rear 2-1/2 mph moving barrier impacts.	Front Impact: Vehicle Movement? Yes <u> </u> No <u> </u> Rear Impact: Vehicle Movement? Yes <u> </u> No <u> </u>	<u>Not Tested</u>	<u>N/A</u>

*Stopping Distance - Visual Data

Pedal Force - Visual Data

**Manual application.

3.0 Data Sheet No. 1.1 Summary of Tests (Sheet 9 of 9)

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 GVWR: 8,550 lbs.

<u>Test</u>	<u>Required Performance</u>	<u>Actual Performance*</u>	<u>P</u>	<u>F</u>
Final Inspect:				
Lining	Firmly attached to backing.	Yes <u>X</u> No ___	<u>X</u>	___
	Areas 90% of original.	Yes <u>X</u> No ___	<u>X</u>	___
	Working surface free of lubricant or fluid.	Yes <u>X</u> No ___	<u>X</u>	___
Mechanical	Components must be intact and functional.	Yes <u>X</u> No ___	<u>X</u>	___
Hydraulic	Components must be leak-free.	Yes <u>X</u> No ___	<u>X</u>	___
	Independent reservoirs must have adequate volume.	Yes <u>X</u> No ___	<u>X</u>	___
	Total reservoir volume must be adequate.	Yes <u>X</u> No ___	<u>X</u>	___
Indicator Lamp	Lit when key is ON or in "check" position.	Lit for check of function:		
	Lit when following occur either	Yes <u>X</u> No ___	<u>X</u>	___
	(A), (C), or (D):	Lit for (A):		
	or else	Yes ___ No <u>X</u>	<u>Not Appl.</u>	
	(B), (C), or (D):	Lit for (B):		
	(A) Gross pressure loss,	Yes <u>X</u> No ___	<u>X</u> ___	
	(B) Unsafe fluid level,	Lit for (C):		
(C) Electrical failure,	Yes <u>X</u> No ___	<u>X</u> ___		
(D) Parking brake on.	Lit for (D):			
		Yes <u>X</u> No ___	<u>X</u> ___	
	Color meets requirement	Yes <u>X</u> No ___	<u>X</u> ___	
	Lettering meets requirement	Yes <u>X</u> No ___	<u>X</u> ___	
(For vehicles without split service brake system)	Indicator lamp flashes and is accompanied by audible signal:	Yes ___ No ___	<u>Not Appl.</u>	
		N/A ___		

4.0 Data Sheet No. 1.2 Vehicle Weight

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 Date: 09/22/08
 TIRE PRESSURE (cold): FRONT 47 psi; REAR 70 psi
 ODO.: START 74 mi.; FINISH 84 mi.

SCALE(S) USED: TRC Toledo-Mettler Jag Platform

VEHICLE WEIGHT (9.0 - S6.1)

<u>Schedule</u>	<u>Requirements</u>
Obtain GVWR, LLVW, and axle weights within +0, -1%	None
GVWR <u>8,550 lbs.</u> GAWR: Front <u>3,970 lbs.</u> Target Front <u>3,638 lbs.</u> (front vehicle certification label) Rear <u>5,360 lbs.</u> Weight Rear <u>4,912 lbs.</u> GVWR = <u>8,550 lbs.</u>	

UNLOADED VEHICLE WEIGHT (UVW) - Actual Weight of Test Vehicle with Maximum Capacity of Engine Fuel, Oil, and Coolant.

Left Front 1,476 lbs. Right Front 1,486 lbs. Total Front 2,962 lbs.
 Left Rear 1,108 lbs. Right Rear 1,090 lbs. Total Rear 2,198 lbs. Veh. 5,160 lbs.

LIGHT LOADED VEHICLE WEIGHT (LLVW)

Note 1: LLVW = UVW + 400 lbs.

Note 2: Weight distributed in front passenger seat area.

Note 3: Neither axle load at LLVW less than at UVW; ballasted as required

Left Front 1,614 lbs. Right Front 1,628 lbs. Total Front 3,242 lbs.
 Left Rear 1,170 lbs. Right Rear 1,149 lbs. Total Rear 2,319 lbs. Veh. 5,561 lbs.

ACTUAL TEST LLVW

Left Front 1,627 lbs. Right Front 1,615 lbs. Total Front 3,242 lbs.
 Left Rear 1,181 lbs. Right Rear 1,137 lbs. Total Rear 2,318 lbs. Veh. 5,560 lbs.
 Load: Driver 160 lbs.+ Instrument 90 lbs. + Ballast 150 lbs. = 400 lbs.

4.0 Data Sheet No. 1.2 Vehicle Weight, continued

FULLY LOADED VEHICLE WEIGHT (GVWR)

Note 1: Vehicle loaded so axle loads proportional to GAWR shown above (target).

Note 2: But no axle weight to be less than at LLVW.

Load: Driver 160 lbs. + Instrument 90 lbs. + Ballast 3,140 lbs. = 3,390 lbs.
Left Front 1,850 lbs. Right Front 1,800 lbs. Total Front 3,650 lbs.
Left Rear 2,430 lbs. Right Rear 2,470 lbs. Total Rear 4,900 lbs. Veh. 8,550 lbs.

COMMENTS: None.

DATA INDICATES COMPLIANCE YES () NO () NO REQUIREMENTS (X)
DRIVER Karen Easterday OBSERVER None
RECORDED DATA PROCESSED BY K. Easterday DATE 08/28/08
APPROVING LABORATORY OFFICIAL R. Landes DATE 10/06/08

Symbols for Brake Components

4	-	4 Wheel	G	-	Groan	DL	-	Deceleration (State FPSPS)
X	-	Skid	SQ	-	Squeal	PF	-	Pedal on Floor
L	-	Left	SQK	-	Squeak	SCP	-	Shoe Scrape
R	-	Right	PO	-	Pinchout	RB	-	Rubber Banding
R	-	Rear	P	-	Pull	O	-	Odor
F	-	Front	R	-	Shudder	NOX	-	No Skid
B	-	Both	M	-	Momentary			

INCIP	-	Incipient
INT or INIT	-	Initial Part of Stop
MID	-	Middle of Stop
END	-	End of Stop

EXAMPLE

"BFMID" = Both front wheel lockup occurred at approximately middle of stop

Section 5.0 – Test Data
Data Sheets 4 through 23A

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 08/28/08

DATA SHEET 4 - SPEED VERSUS DISTANCE DETERMINATION

Testing Conditions: INV DATA, Section 0001, 08/28/08, 10:34:52

Weather Conditions: 63°F Wind: 3 mph 315° Start Odo.: 93 End Odo.: 95

Schedule:

GVWR, accelerate from 0 mph to maximum speed attainable in 2 miles or to 104 mph. Record times to speeds.

Performance Requirements:

Maximum Speed
First Run South
Second Run North

	0-40	0-60	0-80	AVE MPH
RUN #	MAX MPH	MPH	MPH	RUNS
	SPD	TIME	TIME	TIME
#	(mph)	(second)	(second)	(second)
1	84.0	10.0	20.1	38.7
2	84.0	10.2	20.5	41.0

INSTRUMENTATION CHECK (S7.2)

Testing Conditions: INV DATA, Section 0010, 08/28/08, 09:37:28

Schedule:

GVWR, 10 Stops, 30-0 mph, 10 fpsps in gear, 150-200 Deg F IBT

Performance Requirements: None

STOP #	INITIAL SPD	Ave IBT	AVG IBT	Stop Distance	AVE SUSTAINED PEDAL FORCE	AVERAGE SUSTAINED DECELERATION	MAX PEDAL FORCE
#	(mph)	Front (°F)	REAR (°F)	(feet)	(lb)	(ft/sec ²)	(lb)
1	29.4	137.5	166.5	107.5	25.4	8.8	42.0
2	29.4	155.5	182.5	99.7	27.6	9.6	41.4
3	29.3	172.5	199.0	99.1	29.0	10.1	37.8
4	30.0	140.0	176.0	95.6	25.1	9.8	40.9
5	29.6	171.5	198.0	100.2	26.0	9.9	37.2
6	29.7	178.5	194.5	104.9	26.0	9.2	34.7
7	29.7	183.5	196.0	99.1	27.4	9.7	33.5
8	29.8	182.5	193.0	106.5	25.3	9.5	32.7
9	30.0	186.5	191.5	104.0	24.9	9.3	32.7
10	30.0	194.5	198.0	110.9	24.0	8.7	29.8

Comments: Maximum vehicle speed is limited by engine governor.

DATA INDICATES COMPLIANCE: YES () NO () NO REQUIREMENTS (X)

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

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Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

Date Tested: 08/28/08

DATA SHEET 5 - FIRST EFFECTIVENESS AT GVWR (S7.3)

Testing Conditions: INV DATA, Section 0015, 08/28/08, 11:19:36

Weather Conditions: 69°F Wind: 5 mph 252° Start Odo.: 114 End Odo.: 125

Schedule:

GVWR, 150 - 200°F Initial brake temperatures,
Initial Speeds 30 & 60 mph to zero
6 stops each speed with transmission in neutral

Performance Requirements:

One Stop with:
Stopping Distance less than 69 ft@30mph
and less than 267 ft@60mph
Pedal force <150 lbs.
Lock-Up of one wheel or less
Vehicle Must stay in lane of 12 ft.

STOP #	INIT SPD (mph)	AVE. FRONT IBT (°F)	AVE. REAR TEMP (°F)	ACTUAL STOP DISTANCE (feet)	CORRECTED DISTANCE (SAE 299) (feet)	MAX. PEDAL FORCE (lb)	AVG. PEDAL FORCE (lb)	MAX. DECEL (ft/sec ²)	AVG. DECEL (ft/sec ²)
1	30.3	168.5	170.5	52.8	51.9	95.3	69.0	26.3	15.1
2	30.2	192.5	188.5	46.1	45.6	94.4	67.7	34.6	19.4
3	30.0	188.0	186.5	46.9	46.9	110.7	81.6	34.3	19.4
4	29.7	166.0	157.0	48.1	49.0	104.9	74.3	33.8	18.1
5	30.0	181.5	173.0	45.9	45.9	105.3	81.7	32.6	19.3
6	29.9	192.0	179.0	48.5	48.9	109.3	71.1	33.2	15.7
1	60.3	186.0	186.0	175.5	173.9	111.8	86.4	33.6	22.3
2	59.7	177.5	175.0	164.4	166.0	118.3	99.2	34.2	23.8
3	60.3	175.0	184.0	171.2	169.8	135.8	103.0	33.4	20.9
4	59.6	175.0	173.0	168.7	170.7	125.1	96.7	37.1	21.1
5	60.3	179.5	170.0	162.3	160.5	128.5	95.0	36.6	22.9
6	60.0	174.0	157.5	157.9	158.0	127.8	98.2	35.9	23.3

STOP #	DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)		
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 08/29/08

DATA SHEET 6 - BURNISH AT GVWR (S7.4)

Testing Conditions: INV DATA, Section 0002, 08/29/08, 09:02:17

Weather Conditions: 79°F Wind: 4 mph 118°

Start Odo.: 137 End Odo.: 362

Schedule:

GVWR, 200 stops in gear, 40 - 0 mph,
12 fpsps decel, 230 - 270°F IBT or
1 mile interval, whichever is shorter

Performance Requirements:

Lock-up <= 1 wheel, stay in 12
ft. lane. NOTE: Pedal Force
may exceed 150 lb.

STOP #	INIT SPD (mph)	LEFT	RIGHT	LEFT	RIGHT	MAX.	AVG.	AVG. DECEL (ft/sec ²)
		FRONT IBT (°F)	FRONT IBT (°F)	REAR IBT (°F)	REAR IBT (°F)	PEDAL FORCE (lb)	PEDAL FORCE (lb)	
1	39.9	236	234	251	235	35.6	21.9	9.5
25	40.0	285	285	404	384	39.2	23.9	12.3
50	39.9	262	260	390	365	35.7	20.7	11.1
75	40.2	267	270	382	367	38.0	20.9	10.9
100	40.5	269	273	377	358	35.1	22.0	11.5
125	40.5	270	282	369	343	35.7	21.6	10.9
150	40.1	260	266	373	356	34.9	21.0	10.1
175	40.1	251	253	354	340	35.2	19.4	10.7
200	40.6	256	262	372	363	32.5	20.3	11.4

BRAKE ADJUSTMENT

Schedule:

Adjust service brakes; record procedure and amount adjusted.

Left Front: DISC NONE
Right Front: DISC NONE
Left Rear: DISC NONE
Right Rear: DISC NONE

MANUFACTURER'S PROCEDURE: NO ADJUSTMENT REQUIRED.

COMMENTS:None.

DATA INDICATES COMPLIANCE: YES () NO () NO REQUIREMENTS (X)

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/02/08

DATA SHEET 7 - SECOND EFFECTIVENESS AT GVWR (S7.5)

Testing Conditions: INV DATA, Section 0030, 09/02/08, 11:28:39

Weather Conditions: 87°F Wind: 15 mph 142° Start Odo.: 365 End Odo.: 374

Schedule:

GVWR, 150 - 200°F Initial brake temperatures,
6 Stops in neutral, 30, 60,
4 Stops 80 - 0 mph

Performance Requirements:

One Stop with:
Stopping Distance less than 57 ft@30mph,
216 ft@60mph, and 0 @80mph
Pedal force <150 lbs.
Lock-Up of one wheel or less
Vehicle Must stay in lane of 12 ft.

STOP #	INIT SPD (mph)	LBFT	RIGHT	LEFT	RIGHT	ACTUAL DISTANCE (feet)	CORRECTED DISTANCE (SAB 299) (feet)	MAX.	AVG.	MAX. DECEL (ft/sec ²)	AVG.
		FRONT IBT (°F)	FRONT IBT (°F)	REAR IBT (°F)	REAR IBT (°F)			PEDAL FORCE (lb)	PEDAL FORCE (lb)		DECEL (ft/sec ²)
1	30.4	190	194	194	181	41.9	40.9	93.3	67.6	35.0	20.4
2	29.5	174	176	173	166	39.4	40.7	119.4	83.1	42.0	18.5
3	29.9	198	196	188	181	40.4	40.6	131.6	98.5	37.7	20.8
4	30.0	191	189	185	179	41.0	41.0	127.2	93.0	37.9	20.3
5	30.2	180	180	172	167	40.5	40.0	125.0	90.5	37.7	20.8
6	30.0	194	194	180	176	40.8	40.7	125.7	92.2	37.1	19.6
1	59.4	197	191	190	173	145.5	148.5	110.1	81.4	38.6	23.8
2	60.1	196	192	172	170	149.0	148.7	127.9	102.4	39.8	23.5
3	60.3	188	178	155	154	151.0	149.4	128.4	94.5	39.2	21.2
4	59.9	199	188	161	163	146.7	147.2	133.5	107.6	38.5	24.7
5	60.3	198	189	163	167	148.6	147.2	134.5	104.2	39.8	23.4
6	59.8	188	181	165	167	150.1	150.9	143.8	110.6	39.8	23.1

STOP #	DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)			
1	-	NOX	SOUTH	YES
2	-	NOX	SOUTH	YES
3	-	NOX	SOUTH	YES
4	-	NOX	SOUTH	YES
5	-	NOX	SOUTH	YES
6	-	NOX	SOUTH	YES
1	-	NOX	SOUTH	YES
2	-	NOX	SOUTH	YES
3	-	NOX	SOUTH	YES
4	-	NOX	SOUTH	YES
5	-	NOX	SOUTH	YES
6	-	NOX	SOUTH	YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/02/08

DATA SHEET 8 - FIRST REBURNISH AT GVWR (S7.6)

Testing Conditions: INV DATA, Section 0020, 09/02/08, 14:45:04

Weather Conditions: 89°F Wind:13 mph 152°

Start Odo.: 376

End Odo.: 413

Schedule:

GVWR, 35 stops in gear, 40 - 0 mph,
12 fpsps decel, 230 - 270°F IBT or
1 mile interval, whichever is shorter

Performance Requirements:

Lock-up <= 1 wheel, stay in 12
ft. lane. NOTE: Pedal Force
may exceed 150 lb.

STOP #	INIT SPD (mph)	LEFT FRONT IBT (°F)	RIGHT FRONT IBT (°F)	LEFT REAR IBT (°F)	RIGHT REAR IBT (°F)	MAX. PEDAL FORCE (lb)	AVG. PEDAL FORCE (lb)	AVG. DECEL (ft/sec ²)
1	40.2	240	227	218	218	27.8	19.0	9.8
10	40.5	349	325	389	384	32.4	20.5	10.9
20	40.2	333	325	433	427	37.8	18.7	11.0
30	40.5	316	306	429	415	33.0	18.3	11.2
35	39.9	320	317	435	421	31.7	21.2	11.3

BRAKE ADJUSTMENT

Schedule:

Adjust service brakes; record procedure and amount adjusted.

Left Front: DISC NONE
Right Front: DISC NONE
Left Rear: DISC NONE
Right Rear: DISC NONE

MANUFACTURER'S PROCEDURE: NO ADJUSTMENTS REQUIRED.

COMMENTS: NONE.

DATA INDICATES COMPLIANCE: YES () NO () NO REQUIREMENTS (X)

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

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Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

Date Tested: 09/03/08

DATA SHEET 9 - PARKING BRAKE AT GVWR & LLVW (S7.7.1)

Testing Conditions: INV DATA, Section 0090, 09/03/08, 11:16:26

Testing Conditions: INV DATA, Section 0085, 09/03/08, 09:59:03

Parking Mechanism: AUTOMATIC TR

Service type: N/A

Non-service type: HAND-OPERATED

Weather Conditions: 86°F Wind: 3 mph 15°

Start Odo.: 424

End Odo.: 427

Test Weight:

Schedule:

GVWR & LLVW, IBT <=150°F, neutral, Variable 20%-30% grade, vehicle held on grade with service brake pedal force <=150 lb., then parking brake applied and service brake released. 2 reapplications of force to service brake and parking brake allowed.

Performance Requirements:

Hold vehicle stationary for 5 minutes, GVWR & LLVW, uphill and downhill, park brake pedal force <=125 lb. foot lever, <=90 lb. hand lever.

NOTE: For vehicles with parking brake systems not utilizing the service brake friction elements, the friction elements of such systems are to be burnished prior to parking brake tests according to the manufacturer's published recommendation as furnished to the purchaser. If no recommendations are furnished, test the system in an unburnished condition. If recommendations are furnished, record method used.

GVWR	MAX SERVICE FORCE (lb)	MIN P-FORCE TO HOLD (lb)	LEFT IBT (°F)	RIGHT IBT (°F)	AVG REAR IBT (°F)	DRIVER VEHICLE STOP COMMENTS				
APPLY #						(No. Reapplications, Direction of Stop (Up/Down) - Brake holds/fails)				
1	142.9	71.3	145	132	138.5	-	0 REAPPLY	UPHILL	HOLDS	20%
2	145.7	72.3	146	133	139.5	-	0 REAPPLY	DOWNHILL	HOLDS	20%

LLVW	MAX SERVICE FORCE (lb)	MIN P-FORCE TO HOLD (lb)	LEFT IBT (°F)	RIGHT IBT (°F)	AVG REAR IBT (°F)	DRIVER VEHICLE STOP COMMENTS				
APPLY #						(No. of Reapplications Direction of Stop (Up/Down) - Brake holds/fails)				
1	145.6	55.5	124	123	123.5	-	0 REAPPLY	UPHILL	HOLDS	20%
2	145.8	51.2	132	125	128.5	-	0 REAPPLY	DOWNHILL	HOLDS	20%

Is brake system indicator lamp activated: YES (X) NO ()

MFR.'S BURNISH PROCEDURE FOR NON-SERVICE ELEMENTS: N/A

COMMENTS: Third Effectiveness not required-Data Sheet 10 not included. Data Sheet 11 not included.

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/04/08

DATA SHEET 12 - Partial Failure LLVW (S7.9)

Testing Conditions: INV DATA, Section 0050, 09/04/08, 08:59:10

Testing Conditions: INV DATA, Section 0055, 09/04/08, 11:18:43

Weather Conditions: 84°F

Wind: 13 mph 110°

Start Odo.: 434

End Odo.: 444

Schedule:

LLVW, 4 stops in gear with each subsystem inoperative, 60-0 mph, 150-200° IBT.

Non-split system vehicle: 10 stops.

Performance Requirements:

One stop, 60 mph, 517 ft. pedal force <150 lbs., lockup allowed, stay in 12 ft. lane.

Warning light on at 50 lbs. pedal force manual, 25 lbs. power, or 225 psi.

System #1 Inoperative

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	ACTUAL STOP	CORRECTED DISTANCE	AVG. PEDAL FORCE	MAX. DECEL	MAX. PEDAL FORCE	AVG. DECEL
	SPD (mph)	IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)	DISTANCE (feet)	(SAE 299) (feet)	(lb)	(ft/sec ²)	(lb)	(ft/sec ²)
1	59.8	193	125	118	160	215.4	216.6	72.3	29.1	95.0	17.5
2	60.8	197	133	109	148	219.1	213.7	78.2	32.4	98.6	16.5
3	60.5	188	126	104	136	280.9	276.0	86.9	22.4	117.6	14.0
4	59.9	188	104	93	129	199.9	200.9	70.8	31.6	98.7	17.0

STOP # DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)

1	-		NOX	SOUTH	YES
2	-		NOX	SOUTH	YES
3	-		NOX	SOUTH	YES
4	-		NOX	SOUTH	YES

System #2 Inoperative

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	ACTUAL STOP	CORRECTED DISTANCE	AVG. PEDAL FORCE	MAX. DECEL	MAX. PEDAL FORCE	AVG. DECEL
	SPD (mph)	IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)	DISTANCE (feet)	(SAE 299) (feet)	(lb)	(ft/sec ²)	(lb)	(ft/sec ²)
1	59.7	122	195	192	110	270.5	273.4	70.7	26.3	106.7	14.1
2	59.3	120	193	167	110	252.5	258.3	79.7	30.4	106.3	15.1
3	59.5	121	188	157	111	256.9	261.0	68.9	37.2	96.0	15.5
4	59.2	122	187	150	112	258.4	265.4	82.7	33.4	107.2	14.4

STOP # DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)

1	-		NOX	SOUTH	YES
2	-		NOX	SOUTH	YES
3	-		NOX	SOUTH	YES
4	-		NOX	SOUTH	YES

COMMENTS:

System #1: Warning light on at N/A lb.,M/C FWRD PRT DISCONNECTED RF&LR INOP

System #2: Warning light on at N/A lb.,M/C RWRD PRT DISCONNECTED,LF&RR INOP

FLUID LEVEL SENSOR? YES (X) NO () LAMP ON? YES (X) NO ()

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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East Liberty, Ohio 43319

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Date Tested: 09/08/08

DATA SHEET 13 - Partial Failure GVWR (S7.9.3)

Testing Conditions: INV DATA, Section 0060, 09/08/08, 09:21:15

Testing Conditions: INV DATA, Section 0065, 09/08/08, 11:31:44

Weather Conditions: 71°F Wind: 13 mph 142° Start Odo.: 453 End Odo.: 462

Schedule:

GVWR, 4 stops in gear with each subsystem inoperative, 60-0 mph, 150-200° IBT.

Performance Requirements:

One stop, 60 mph, 517 ft., pedal force <150 lbs., lockup allowed, stay in 12 ft. lane.

System #2 Inoperative

STOP #	INIT SPD (mph)	LEFT FRONT IBT (°F)	RIGHT FRONT IBT (°F)	LEFT REAR IBT (°F)	RIGHT REAR IBT (°F)	ACTUAL STOP DISTANCE (feet)	CORRECTED DISTANCE (SAE 299) (feet)	AVG. PEDAL FORCE (lb)	MAX. DECEL (ft/sec ²)	MAX. PEDAL FORCE (lb)	AVG DECEL (ft/sec ²)
1	60.0	114	164	199	120	316.4	316.1	78.2	20.1	106.8	12.6
2	59.9	90	153	170	98	273.9	275.3	97.7	25.3	121.2	13.7
3	60.4	93	179	196	97	275.4	271.5	94.7	26.6	121.4	15.2
4	59.3	93	181	197	95	270.3	276.3	102.8	26.5	128.7	14.5

STOP # DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)

1	-		NOX	SOUTH	YES
2	-		NOX	SOUTH	YES
3	-		NOX	SOUTH	YES
4	-		NOX	SOUTH	YES

System #1 Inoperative

STOP #	INIT SPD (mph)	LEFT FRONT IBT (°F)	RIGHT FRONT IBT (°F)	LEFT REAR IBT (°F)	RIGHT REAR IBT (°F)	ACTUAL STOP DISTANCE (feet)	CORRECTED DISTANCE (SAE 299) (feet)	AVG. PEDAL FORCE (lb)	MAX. DECEL (ft/sec ²)	MAX. PEDAL FORCE (lb)	AVG DECEL (ft/sec ²)
1	60.3	196	118	136	188	246.0	243.5	66.5	26.5	95.9	16.8
2	59.0	186	141	135	171	265.0	274.5	96.5	23.4	119.2	14.3
3	59.7	186	123	117	162	269.5	272.6	90.2	21.3	115.2	14.4
4	59.9	196	114	109	170	283.0	284.2	108.1	19.8	133.0	13.7

STOP # DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)

1	-		NOX	SOUTH	YES
2	-		NOX	SOUTH	YES
3	-		NOX	SOUTH	YES
4	-		NOX	SOUTH	YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/10/08

DATA SHEET 14-ANTILOCK OR VARIABLE PROPORTIONING BRAKE SYSTEM (S7.9.4)

Testing Conditions: INV DATA, Section 0040, 09/10/08, 09:35:24

Weather Conditions: 60°F Wind: 13 mph 82°

Start Odo.: 472 End Odo.: 475

Schedule:

GVWR, 4 stops in gear, 60-0 MPH,
antilock or variable prop failed, 150-200°F IBT

Performance Requirements:

One stop, 60 mph, 517 ft., pedal force <150 lbs.,
lockup allowed, stay in 12 ft. lane.

ABS FAILURE

STOP #	INIT SPD (mph)	LEFT FRONT IBT (°F)	RIGHT FRONT IBT (°F)	LEFT REAR IBT (°F)	RIGHT REAR IBT (°F)	ACTUAL DISTANCE (feet)	CORRECTED DISTANCE (SAE 299) (feet)	AVG. PEDAL FORCE (lb)	MAX PEDAL FORCE (lb)	AVG DECEL (ft/sec ²)	MAX DECEL (ft/sec ²)
1	58.8	152	134	185	183	247.0	257.0	42.0	53.5	17.1	23.8
2	59.7	175	164	177	172	180.6	182.6	51.8	74.4	21.5	28.2
3	59.9	192	184	189	175	197.9	198.9	46.4	53.9	20.0	26.4
4	59.7	181	177	171	155	180.8	182.5	53.4	75.6	21.8	34.0

STOP #	DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)			
1	-	NOX	SOUTH	YES
2	-	NOX	SOUTH	YES
3	-	NOX	SOUTH	YES
4	-	NOX	SOUTH	YES

COMMENTS: SIMULATED ABS FAILURES DISCONNECTED LF WHEEL SPEED SENSOR & REMOVED 25A FUSE.

See Appendix E.

ABS Indicator Light On Yes (X) No () N/A

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/10/08

DATASHEET 15-REGULAR PROCEDURE FOR FAILED BOOSTER OR PWR ASSIST(S7.10)

Testing Conditions: INV DATA, Section 0080, 09/10/08, 10:56:04

Weather Conditions: 63°F Wind: 9 mph 98° Start Odo.: 478 End Odo.: 482

Schedule:

GVWR, 4 stops in gear, 60-0 MPH,
antilock or variable prop failed, 150-200°F IBT

Performance Requirements:

One stop, 60 mph, 517 ft., pedal force <150 lbs.,
lockup allowed, stay in 12 ft. lane.

System #1 Inoperative

STOP #	INIT SPD (mph)	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	ACTUAL DISTANCE (feet)	CORRECTED DISTANCE (SAE 299) (feet)	MAX PEDAL FORCE (lb)	AVG.		
		IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)				PEDAL FORCE (lb)	MAX. DECEL (ft/sec ²)	AVE DECEL (ft/sec ²)
1	59.1	185	178	176	171	468.5	482.3	144.3	133.1	12.6	8.4
2	60.0	173	171	164	156	472.5	472.8	143.0	132.1	13.3	8.4
3	59.2	176	173	169	151	468.7	481.6	144.4	135.1	12.5	8.5
4	59.6	169	168	156	159	450.4	455.7	145.3	133.3	13.1	8.7

STOP # DRIVER VEHICLE STOP COMMENTS
(Wheel Lock up - Direction of Stop - Stay in Lane)

1	-		NOX	SOUTH	YES
2	-		NOX	SOUTH	YES
3	-		NOX	SOUTH	YES
4	-		NOX	SOUTH	YES

COMMENTS: Disconnected vacuum supply to booster.
Applied svc brake to deplete reserve.
DATA SHEET 16, OPTIONAL PROCEDURE, NOT PERFORMED.

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/10/08

DATA SHEET 17 - FIRST FADE AND RECOVERY (BASELINE) (S7.11)

Testing Conditions: INV DATA, Section 0100, 09/10/08, 13:29:58

Schedule:

GVWR, 3 stops in gear, 30-0 MPH,
150-200°F IBT, 10 fpsps decel

Performance Requirements:

Pedal Force 10-60 lb., lockup
=< 1 wheel, stay in 12 ft. lane.

STOP #	INIT SPD (mph)	LEFT	RIGHT	LEFT	RIGHT	MAX	AVG.	MAX. DECEL (ft/sec ²)	AVE	AVG MAX
		FRONT IBT (°F)	FRONT IBT (°F)	REAR IBT (°F)	REAR IBT (°F)	PEDAL FORCE (lb)	PEDAL FORCE (lb)		DECEL (ft/sec ²)	PEDAL FORCE (lb)
1	29.5	165	164	159	151	28.7	19.0	14.2	11.2	29.0
2	29.6	179	178	171	165	30.8	21.1	15.8	12.3	
3	29.3	189	190	178	175	27.4	20.6	14.3	11.7	

COMMENTS: NONE.

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/10/08

DATA SHEET 17A - FIRST FADE AND RECOVERY (FADE) (S7.11)

Testing Conditions: INV DATA, Section 0101, 09/10/08, 13:47:44

Schedule:

GVWR, 10 stops in gear, 60-0 MPH,
130-150°F IBT, 15 fpsps decel,
0.4 mile interval.

Performance Requirements:

5 stops at 15 fpsps, 5 stops at
5-15 fpsps, pedal force < 150 lbs.;
Terminate reading at 5 mph.

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	MAX PEDAL FORCE	AVG. PEDAL FORCE	MAX. DECEL	AVG SUSTAINED DECEL	APPLICATION TIME	TOTAL ELAPSED TIME
	SPD (mph)	IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)	(lb)	(lb)	(ft/sec ²)	(ft/sec ²)	(second)	(minute)
1	60.6	153	126	151	144	34.6	28.2	17.4	12.9	3.20	5.56
2	60.1	258	233	241	237	34.4	29.8	20.0	14.8	0.53	
3	60.2	370	329	325	323	39.4	34.3	17.8	14.4	1.32	
4	60.8	474	416	411	403	43.1	34.0	18.6	14.9	0.53	
5	60.3	545	467	491	473	40.5	34.3	20.8	14.5	0.91	
6	60.6	633	542	561	540	42.7	35.8	20.9	15.0	0.49	
7	59.7	701	608	624	605	45.5	36.3	20.7	14.8	0.47	
8	60.1	766	660	681	656	42.8	33.3	22.2	14.7	0.36	
9	60.1	819	713	728	706	45.3	31.1	19.9	14.6	0.44	
10	60.7	864	756	772	748	42.1	34.0	20.9	14.0	0.65	

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/10/08

DATA SHEET 17B - FIRST FADE AND RECOVERY (RECOVERY) (S7.11)

Testing Conditions: INV DATA, Section 0102, 09/10/08, 13:55:25

Weather Conditions: 68°F Wind: 11 mph 97°

Start Odo.: 485

End Odo.: 499

Schedule:

GVWR, 5 stops in gear, 30-0 MPH,
10 fpsps decel. 1.0 mile interval.

Performance Requirements:

5 stops at 10 fpsps, stops 1-4 pedal force
< 150 lbs., stop 5 pedal force +20
lb. to lesser of -10 or .6 times the
average baseline pedal force. Pedal force
range: Max. 49.0 lb. Min 17.0 lb.

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	MAX PEDAL FORCE	AVG. PEDAL FORCE	AVE DECEL
	SPD (mph)	IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)	(lb)	(lb)	(ft/sec ²)
1	30.1	706	669	723	696	31.0	19.3	10.7
2	29.7	539	535	619	582	27.8	17.7	10.5
3	30.2	435	439	541	507	25.6	15.7	10.4
4	30.2	360	363	477	449	24.2	16.2	10.9
5	30.3	315	313	432	410	25.4	15.7	10.4

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/11/08

DATA SHEET 18 - SECOND REBURNISH AT GVWR (S7.12)

Testing Conditions: INV DATA, Section 0025, 09/11/08, 08:22:58

Weather Conditions: 59°F Wind: 0 mph 0° Start Odo.: 514 End Odo.: 552

Schedule:

GVWR, 35 stops in gear, 40 - 0 mph,
12 fpsps decel, 230 - 270°F IBT or
1 mile interval, whichever is shorter

Performance Requirements:

Lock-up <= 1 wheel, stay in 12
ft. lane. NOTE: Pedal Force
may exceed 150 lb.

STOP #	LEFT		RIGHT		MAX.		AVG.	
	INIT SPD	FRONT IBT	FRONT IBT	REAR IBT	REAR IBT	PEDAL FORCE	PEDAL FORCE	AVG. DECEL
	(mph)	(°F)	(°F)	(°F)	(°F)	(lb)	(lb)	(ft/sec ²)
1	39.9	247	234	229	228	31.4	18.6	11.9
10	39.9	253	245	344	347	26.6	17.7	11.0
20	40.1	259	246	376	384	28.3	14.8	10.8
30	40.1	251	285	378	389	29.7	19.2	11.0
35	39.8	251	238	377	391	30.6	18.0	11.3

BRAKE ADJUSTMENT

Schedule:

Adjust service brakes; record procedure and amount adjusted.

Left Front: DISC NONE
Right Front: DISC NONE
Left Rear: DISC NONE
Right Rear: DISC NONE

MANUFACTURER'S PROCEDURE: ADJUSTMENT NOT REQUIRED.

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES () NO () NO REQUIREMENTS (X)

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/11/08

DATA SHEET 19 - SECOND FADE AND RECOVERY (BASELINE) (S7.13)

Testing Conditions: INV DATA, Section 0105, 09/11/08, 10:19:02

Schedule:

GVWR, 3 stops in gear, 30-0 MPH, 150-200°
IBT, 10 fpsps decel.

Performance Requirements:

Pedal force 10-60 lb., lockup
<= 1 wheel, stay in 12 ft. lane.

STOP #	INIT SPD (mph)	LEFT FRONT IBT (°F)	RIGHT FRONT IBT (°F)	LEFT REAR IBT (°F)	RIGHT REAR IBT (°F)	MAX PEDAL FORCE (lb)	AVG. PEDAL FORCE (lb)	AVE DECEL (ft/sec ²)	MAX DECEL (ft/sec ²)	AVG OF MAX PEDAL FORCE (lb)
1	30.1	162	161	163	158	30.0	15.1	10.7	15.4	25.4
2	29.4	179	180	174	173	24.2	15.2	10.5	15.3	
3	29.7	193	194	181	185	22.0	12.2	9.7	12.8	

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/11/08

DATA SHEET 19A - SECOND FADE AND RECOVERY (FADE) (S7.13)

Testing Conditions: INV DATA, Section 0106, 09/11/08, 10:40:28

Schedule:

GVWR, 15 stops in gear, 60-0 MPH,
150-200°F IBT, 15 fpsps decel,
0.4 mile interval.

Performance Requirements:

10 stops at 15 fpsps, 5 stops at
5-15 fpsps, pedal force <= 150lb;
terminate reading at 5 mph.

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	MAX PEDAL	AVG. PEDAL	MAX	AVG	APPLICATION	TOTAL
	SPD	IBT	IBT	IBT	IBT	FORCE	FORCE	DECEL	SUSTAINED	TIME	ELAPSED
	(mph)	(°F)	(°F)	(°F)	(°F)	(lb)	(lb)	(ft/sec ²)	(ft/sec ²)	(second)	(minute)
1	61.0	148	147	133	139	36.8	23.6	25.6	15.7	0.54	8.55
2	59.4	264	244	213	224	30.0	24.0	19.8	14.6	0.50	
3	60.6	375	336	293	304	40.3	27.9	18.9	14.0	1.46	
4	59.5	470	424	371	380	40.0	30.4	19.6	14.4	0.92	
5	60.2	541	492	441	447	37.4	29.4	18.7	13.9	0.93	
6	59.4	608	553	512	517	39.6	30.1	18.3	14.9	1.37	
7	60.4	660	600	580	580	44.2	32.7	23.6	15.7	0.88	
8	60.4	709	640	641	641	41.6	33.5	20.0	15.0	0.52	
9	61.0	756	680	697	697	40.8	35.3	20.5	14.8	1.83	
10	60.1	796	716	747	745	41.5	30.9	19.6	15.5	0.45	
11	58.1	840	752	790	791	40.6	29.1	19.7	14.5	0.67	
12	60.4	854	777	819	824	44.1	34.4	23.8	14.4	0.38	
13	59.7	891	805	850	855	49.0	34.7	23.1	14.4	0.58	
14	59.4	917	829	881	883	43.1	31.8	20.2	14.5	0.51	
15	60.1	931	848	907	908	42.0	31.7	20.7	14.3	0.32	

Comments: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/11/08

DATA SHEET 19B - SECOND FADE AND RECOVERY (RECOVERY) (S7.13)

Testing Conditions: INV DATA, Section 0107, 09/11/08, 10:51:18

Weather Conditions: 68°F Wind: 4 mph 94°

Start Odo.: 555

End Odo.: 569

Schedule:

GVWR, 5 stops in gear, 30-0 MPH,
10 fpsps decel. Pedal Force 10-60 lb.,
1 mile interval.

Performance Requirements:

5 stops at 10 fpsps, stops 1-4 pedal force
≤ 150lb; stop 5 pedal force +20
lb. to lesser of -10 or .6 X the
average baseline pedal force. Pedal force
range: Max. 45.0 lb. Min. 15.0 lb.

STOP #	INIT	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	MAX	AVG.	
	SPD	IBT	IBT	IBT	IBT	PEDAL FORCE	PEDAL FORCE	AVE DECEL
	(mph)	(°F)	(°F)	(°F)	(°F)	(lb)	(lb)	(ft/sec ²)
1	30.5	734	711	823	817	30.1	22.4	9.6
2	30.0	576	564	708	695	34.4	17.2	10.5
3	30.3	468	467	619	600	30.2	16.7	10.8
4	30.4	379	389	543	514	25.7	16.8	9.8
5	30.5	316	324	479	448	26.2	17.3	10.5

Comment: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

Transportation Research Center, Inc.

10820 State Route 347

East Liberty, Ohio 43319

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Date Tested: 09/11/08

DATA SHEET 20 - THIRD REBURNISH AT GVWR (S7.14)

Testing Conditions: INV DATA, Section 0110, 09/11/08, 11:15:12

Weather Conditions: 72°F Wind:10 mph 146°

Start Odo.: 572 End Odo.: 610

Schedule:

GVWR, 35 stops in gear, 40 - 0 mph,
12 fpsps decel, 230 - 270°F IBT or
1 mile interval, whichever is shorter

Performance Requirements:

Lock-up <= 1 wheel, stay in 12
ft. lane. NOTE: Pedal Force
may exceed 150 lb.

STOP #	INIT SPD (mph)	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	AVG. PEDAL FORCE (lb)	AVG. DECBL (ft/sec ²)
		IBT (°F)	IBT (°F)	IBT (°F)	IBT (°F)		
1	39.3	149	148	255	215	18.2	9.1
10	40.3	264	276	364	335	22.0	11.1
20	40.3	255	272	377	354	18.7	11.5
30	40.8	255	271	376	359	18.9	11.3
35	40.2	255	270	376	358	19.3	11.9

BRAKE ADJUSTMENT

Schedule:

Adjust service brakes; record procedure and amount adjusted.

Left Front: DISC NONE
Right Front: DISC NONE
Left Rear: DISC NONE
Right Rear: DISC NONE

MANUFACTURER'S PROCEDURE: NO ADJUSTMENT REQUIRED.

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES () NO () NO REQUIREMENTS (X)

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/11/08

DATA SHEET 21 - FOURTH EFFECTIVENESS AT GVWR (S7.15)

Testing Conditions: INV DATA, Section 0115, 09/11/08, 13:52:36

Weather Conditions: 65°F Wind: 3 mph 355° Start Odo.: 613 End Odo.: 646

Schedule:

GVWR, 150 - 200°F Initial brake temperatures,
Initial Speeds 30 & 60 mph to zero
6 stops each speed with transmission in neutral

Performance Requirements:

One Stop with:
Stopping Distance less than 65ft@30mph
and less than 267 ft@60mph
Pedal force <150 lbs.
Lock-Up of one wheel or less
Stay in lane of 12 ft.

STOP #	LEFT		RIGHT		ACTUAL STOP DISTANCE (feet)	CORRECTED (SAE 299) (feet)	MAX. PEDAL FORCE (lb)	AVG. PEDAL FORCE (lb)	MAX. DECEL (ft/sec ²)	AVG. DECEL (ft/sec ²)	
	INIT SPD (mph)	FRONT IBT (°F)	FRONT IBT (°F)	REAR IBT (°F)							REAR IBT (°F)
1	30.3	165	169	163	147	41.8	41.1	111.0	77.4	40.3	22.5
2	29.6	190	189	180	161	40.1	41.2	124.7	81.1	50.4	20.4
3	30.0	194	191	182	165	40.0	39.8	132.4	98.0	40.2	21.9
4	29.6	176	171	171	149	39.1	40.2	118.2	84.1	42.5	21.7
5	30.0	174	173	169	147	40.1	40.1	127.4	86.3	42.8	19.6
6	30.2	186	185	177	157	38.6	38.2	140.5	94.1	44.1	21.7
1	60.1	200	191	199	174	144.4	144.1	123.5	83.2	41.3	23.5
2	60.0	186	180	170	161	142.8	143.0	132.0	87.8	40.9	21.4
3	59.7	181	176	177	165	142.8	144.4	117.5	88.5	52.9	24.3
4	59.4	188	183	185	174	142.5	145.5	128.0	100.4	40.4	25.5
5	60.0	192	183	185	164	142.8	142.7	133.9	96.5	41.6	23.8
6	60.0	170	167	168	161	143.4	143.6	136.4	94.7	39.2	23.1

STOP #	DRIVER VEHICLE STOP COMMENTS		
#	(Wheel Lock up	- Direction of Stop	- Stay in Lane)
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/16/08

DATA SHEET 21 - FOURTH EFFECTIVENESS AT GVWR, CONTINUED (S7.15)

Testing Conditions: INV DATA, Section 0117, 09/16/08, 09:52:28

Schedule:

GVWR, 4 stops in neutral, 80 & 95 or 100 mph. 150-200°F IBT.

Performance Requirements:

One Stop with:
1 stop, 80 mph 459 ft, 95/100 mph, N/A ft.
pedal force =<150lb.,
lockup =<1 wheel, stay in 12 ft. lane.

STOP #	INIT SPD	LEFT FRONT IBT	RIGHT FRONT IBT	LEFT REAR IBT	RIGHT REAR IBT	ACTUAL DISTANCE	CORRECTED DISTANCE	MAX. PEDAL FORCE	AVG. PEDAL FORCE	MAX. DECEL	AVG. DECEL
	(mph)	(°F)	(°F)	(°F)	(°F)	(feet)	(feet)	(lb)	(lb)	(ft/sec ²)	(ft/sec ²)
1	80.1	154	135	201	171	268.9	268.5	118.9	78.0	41.6	26.5
2	80.1	157	157	195	174	264.7	264.0	111.5	77.2	53.1	25.3
3	79.8	172	175	186	165	254.1	255.4	133.0	97.3	48.7	26.6
4	79.5	175	172	185	153	250.2	253.5	135.6	101.6	40.7	27.2

STOP #	DRIVER VEHICLE STOP COMMENTS			
	(Wheel Lock up - Direction of Stop - Stay in Lane)			
1	-	NOX	SOUTH	YES
2	-	NOX	SOUTH	YES
3	-	NOX	SOUTH	YES
4	-	NOX	SOUTH	YES

COMMENTS: 95/100 MPH STOPS NOT APPLICABLE.

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/16/08

DATA SHEET 22 - WATER RECOVERY (BASELINE) (S7.16)

Testing Conditions: INV DATA, Section 0125, 09/16/08, 11:30:56

Schedule:

GVWR, 3 stops in gear, 30-0 mph,
150-200°F IBT, 10 fpsps decel.

Performance Requirements:

Pedal force 10-60 lb., lock-up
=<1 wheel, stay in 12 ft. lane.

STOP #	LEFT		RIGHT		MAX.		AVG.		AVG.	
	INIT SPD	FRONT IBT	FRONT IBT	REAR IBT	REAR IBT	PEDAL FORCE	PEDAL FORCE	MAX. DECEL	AVG. DECEL	MAX PF
#	(mph)	(°F)	(°F)	(°F)	(°F)	(lb)	(lb)	(ft/sec ²)	(ft/sec ²)	(lb)
1	29.5	154	152	152	146	25.2	17.3	12.6	8.7	26.1
2	29.6	175	170	172	166	26.8	16.2	15.0	9.5	
3	29.5	196	192	192	183	26.3	15.6	13.9	9.8	

STOP #	DRIVER VEHICLE STOP COMMENTS		
#	(Wheel Lock up - Direction of Stop - Stay in Lane)		
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/17/08

DATA SHEET 22A - WATER RECOVERY (RECOVERY) (S7.16)

Testing Conditions: INV DATA, Section 0130, 09/17/08, 08:33:54

Weather Conditions: 55°F Wind: 0 mph 0° Start Odo.: 648 End Odo.: 656

Schedule:

Drive for 2 min., at 5mph in any combination of forward and reverse directions in 6 inches of water

GVWR, 5 stops in gear, 30-0 mph, 10 fpsps decel. Stops initiated as soon as 30 mph is reached.

Performance Requirements:

5 stops at 10 fpsps, stops 1-4 pedal force <= 150lb; stop 5 pedal force +45 lb. max. Min. force (5th stop only) baseline -10 lb. or times .6, whichever is lower but >5 lb. Pedal force range: max71 lb min.16 lb.

STOP #	INIT SPD (mph)	MAX PEDAL FORCE (lb)		AVG. PEDAL FORCE (lb)		AVE DECEL (ft/sec ²)		Max Decel (ft/sec ²)	
		FORCE	FORCE	FORCE	FORCE	DECEL	DECEL	Decel	Decel
1	30.2	27.7	20.2	8.7	12.3				
2	29.4	28.7	18.9	9.1	14.1				
3	29.6	26.6	18.7	8.5	16.5				
4	29.7	30.6	22.0	7.9	10.8				
5	29.1	29.2	21.5	8.6	12.4				

STOP #	DRIVER VEHICLE STOP COMMENTS		
	(Wheel Lock up	- Direction of Stop	- Stay in Lane)
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY

Observer: NONE

Recorded Data Processed by: CHUCK JENKINS

Date: 09/24/08

Approving Laboratory Official: RANDY LANDES

Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/17/08

DATA SHEET 23 - SPIKE STOPS (S7.17)

Testing Conditions: INV DATA, Section 0120, 09/17/08, 08:46:29

Weather Conditions: 67°F Wind: 2 mph 286° Start Odo.: 656 End Odo.: 667

Schedule:

GVWR, 10 stops in neutral, 30-0 mph
200 lb. pedal force in .08 sec.,
150-200°F IBT, no rev. stops or brake adj.

Performance Requirements:

Complete stops without failure,
lock-up allowed.

STOP #	INIT SPD	LEFT FRONT	RIGHT FRONT	LEFT REAR	RIGHT REAR	MAX PEDAL FORCE	AVG.SUST. PEDAL FORCE	TIME TO 190 LBS	TIME TO 200 lbs	TIME TO MAX PF
	(mph)	(°F)	(°F)	(°F)	(°F)	(lb)	(lb)	(second)	(second)	(second)
1	30.2	157	149	177	158	221.6	152.7	0.88	0.90	0.97
2	30.6	180	168	188	169	178.3	139.2	0.00	0.00	1.16
3	30.3	199	185	194	179	199.2	142.7	0.97	0.00	1.08
4	30.5	201	189	192	172	197.0	144.4	1.05	0.00	1.11
5	30.8	196	183	182	165	193.5	141.2	1.29	0.00	1.30
6	30.1	198	185	178	164	197.3	133.0	1.37	0.00	1.43
7	30.7	193	178	195	175	205.1	158.6	1.00	1.08	1.47
8	30.2	197	182	185	170	199.4	146.2	1.19	0.00	1.30
9	30.4	197	183	180	165	195.9	137.5	1.23	0.00	1.28
10	30.2	196	182	175	156	211.0	159.0	0.34	1.11	1.19

STOP #	DRIVER VEHICLE STOP COMMENTS		
	(Wheel Lock up	- Direction of Stop	- Stay in Lane)
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES
7	-	RFX	SOUTH YES
8	-	NOX	SOUTH YES
9	-	NOX	SOUTH YES
10	-	LFX	SOUTH YES

COMMENTS: DEREK BEVIS - DRIVER. STOPS PERFORMED MANUALLY.

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Vehicle: 2008 DAIMLERCHRYSLER NHTSA NUMBER: C80306

Make: DODGE

Model: SPRINTER2500CRD

Body Style: 3 DR TRUCK VAN

Front Cold Tire Pressure: 47 (psi)

Rear Cold Tire Pressure: 70 (psi)

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Date Tested: 09/17/08

DATA SHEET 23A - POST SPIKE EFFECTIVENESS (S7.17)

Testing Conditions: INV DATA, Section 0135, 09/17/08, 09:39:48

Weather Conditions: 67°F Wind: 4 mph 286° Start Odo.: 656 End Odo.: 667

Schedule:

GVWR, 6 stops in neutral, 60-0 mph
150-200°F IBT.

Performance Requirements:

1 stop, 60 mph 267 ft., pedal force
=<150 lb., lockup =<1 wheel, stay in 12 ft. lane.

STOP #	INIT SPD (mph)	Ave. Front IBT (°F)	Ave. Rear Temp. (°F)	Stopping Distance (feet)	CORRECTED DISTANCE (SAE 299) (feet)	MAX PEDAL FORCE (lb)	AVG. PEDAL FORCE (lb)	AVE Decel (ft/sec ²)	MAX. DECEL (ft/sec ²)
1	60.6	174.5	164.5	152.0	148.9	111.1	87.5	24.8	38.5
2	60.3	186.5	176.0	145.6	144.2	131.5	102.2	25.3	53.1
3	59.6	170.0	187.0	144.4	146.1	135.5	106.6	25.8	41.6
4	59.9	184.0	182.0	149.1	149.8	124.9	102.9	24.8	40.6
5	59.1	164.5	157.5	145.1	149.4	141.4	106.7	25.4	44.0
6	59.0	173.0	162.5	147.0	151.8	142.4	119.7	25.5	42.7

STOP #	DRIVER VEHICLE STOP COMMENTS (Wheel Lock up - Direction of Stop - Stay in Lane)		
1	-	NOX	SOUTH YES
2	-	NOX	SOUTH YES
3	-	NOX	SOUTH YES
4	-	NOX	SOUTH YES
5	-	NOX	SOUTH YES
6	-	NOX	SOUTH YES

COMMENTS: NONE

DATA INDICATES COMPLIANCE: YES (X) NO ()

Driver: KAREN EASTERDAY Observer: NONE

Recorded Data Processed by: CHUCK JENKINS Date: 09/24/08

Approving Laboratory Official: RANDY LANDES Date: 10/03/08

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 Date: 09/19/08

TEST COMPLETION INSPECTION (S7.18)

Requirements: No fracture of any components such as brake springs, brake shoe or disc pads facing. All mechanical components shall be intact and functional. Friction facing tearout shall not exceed 10% of the lining on any single frictional element. No visible brake fluid or lubricant on the friction surface of the brake. No leakage at any system reservoir cover, seal, or filler opening.

Friction Material Condition:

Primary/Inner/Primary

LF Normal appearance and color
 RF Normal appearance and color
 LR Normal appearance and color
 RR Normal appearance and color

Secondary/Outer Secondary

LF Normal appearance and color
 RF Normal appearance and color
 LR Normal appearance and color
 RR Normal appearance and color

Drum (or Rotor) Condition:

LF Normal appearance and color
 RF Normal appearance and color
 LR Normal appearance and color
 RR Normal appearance and color

Brake Fluid/Lubricant Inside Brakes:

LF None
 RF None
 LR None
 RR None

Hydraulic Component Condition:

LF Normal appearance; no leakage
 RF Normal appearance; no leakage
 LR Normal appearance; no leakage
 RR Normal appearance; no leakage

Mechanical Component Condition:

Brake Pedal: Good
 Power Brake: Good
 Stoplights: Good
 Linkages: Good

Master Cylinder: Normal appearance; no leakage

Comments: None

Odometer: 677 mi.

DATA INDICATES COMPLIANCE Yes (X) No () No Requirements ()
 DRIVER Karen Easterday OBSERVER None
 RECORDED DATA PROCESSED BY K. Easterday DATE 09/19/08
 APPROVING LABORATORY OFFICIAL R. Landes DATE 10/06/08

 MASTER CYLINDER RESERVOIR

<u>Reservoir Compartments</u>		<u>P</u>	<u>F</u>
(1) Does master cylinder have a reservoir compartment for each subsystem?	Yes <u>X</u> No _____	Master cylinder shall have a reservoir compartment for each subsystem.	<u>X</u> _____
(2) Does loss of fluid in one compartment result in complete loss for another compartment?	Yes _____ No <u>X</u>	Loss of fluid from one compartment shall not cause complete loss from another compartment.	<u>X</u> _____

Reservoir Capacity

Shall conform to requirements (1) or (2), state units. (1) For reservoirs having completely separate compartments for each subsystem.

Subsystem 1

Subsystem reservoir capacity	<u>Not Appl.</u>	Shall have a minimum capacity equivalent to the fluid displacement resulting when all wheel cylinders or caliper pistons serviced by that portion of the reservoir move from a new lining, fully retracted position to a fully worn, properly adjusted, fully applied position.	<u>Not Appl.</u>
Fluid Displaced	<u>Not Appl.</u>		

Subsystem 2

Subsystem reservoir capacity		Same as above	<u>Not Appl.</u>
Fluid displaced	<u>Not Appl.</u>		

6.0 Data Sheet No. 1.23 - Test Completion Inspection, continued

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 Date: 09/22/08

(2) For reservoirs utilizing a portion of the reservoir for a common supply to two or more subsystems.

			<u>P</u>	<u>F</u>
Total minimum capacity for the entire master cylinder reservoir.	<u>651 ml</u>	Shall have total minimum capacity for entire reservoir for displacement resulting from all subsystem wheel cylinders or caliper positions moving from new lining to full worn condition as above. Shall have minimum reservoir volume in partial compartment equal to at least the volume displaced by the master cylinder piston servicing the subsystem.	<u>X</u>	_____
Fluid displaced	<u>254.6 ml*</u>		<u>X</u>	_____
<u>Subsystem 1</u> Minimum volume in partial compartment	<u>68 ml</u>	Same as above.	<u>X</u>	_____
Fluid displaced	<u>13.7 ml</u>		<u>X</u>	_____
<u>Subsystem 2</u> Minimum volume in partial compartment	<u>41 ml</u>	Same as above.	<u>X</u>	_____
Fluid displaced	<u>13.7 ml</u>		<u>X</u>	_____

*Reference Data Sheet 1.25 "Calculation of Minimum Reservoir Volume Requirements".

6.0 Data Sheet No. 1.23 - Test Completion Inspection, continued

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 Date: 09/22/08

Reservoir Labeling

P F

Exact copy of reservoir label:
On reservoir cap -*WARNING. CLEAN
FILLER CAP BEFORE REMOVING.
USE ONLY DOT 4 FLUID FROM
A SEALED CONTAINER.

Label shall read:
"Warning, clean filler
cap before removing;
use only *fluid from
a sealed container."

X ___

*Fluid type specified in
49 CFR 571.116.

Measure letter height Primary : 1/8 in.

Letters shall be at least
1/8 inch high.

X ___

Describe label attachment method
and location.
Primary: Embossed on top of the master
cylinder reservoir filler cap.

Label shall be
permanently
affixed, engraved, or
embossed and located
so as to be visible by
direct view either on or
within four inches of
the brake fluid reservoir
filler plug or cap.

X ___

Does the lettering contrast Yes X
with the background? No ___

If label is not
engraved or embossed,
letters shall be of a color
that contrasts with the
background.

X ___

Service brake systems acting on Yes X
ALL wheels? No ___

Must meet requirement.

X ___

Wear of the service brake is Yes X
Compensated for by means of No ___
a system of automatic adjustment?

Must meet requirement.

X ___

Each vehicle shall have a parking Yes X
brake system of a friction type No ___
a solely mechanical means to retain
engagement.

Must meet requirement.

X ___

Describe location of brake indicator lamp(s):
"Left, lower quadrant of the instrument cluster."

Must be in front and
clear view of driver.

X ___

Vehicles with a GVWR greater than 10,000 lbs.
ABS indicator light.

Must be separate
indicator light for ABS.

Not Appl. **

**Vehicle GVWR is less than 10,000 lbs. However, vehicle does possess ABS indicator lamp.

BRAKE SYSTEMS INDICATOR LAMP

Functional Requirement:

Split service brake systems - with ignition on, lamp must light either for conditions (a) and (d) or (b) and (d). If vehicle is so equipped, must also light for (c). DO NOT TEST BULB CHECK.

Non-split systems - same as for split systems plus for (a), must light and sound alarm when supply pressure falls to 50% normal.

<u>Condition:</u>	<u>Performance</u>	<u>P</u>	<u>F</u>
(a) In event of hydraulic leak, must meet 1 of 4 criteria below:			
(1) Pressure differential \leq 225 psi	<u>Not Appl.</u> psi	<u>Not Appl.</u>	
(2) Non power-assisted brakes, pedal force \leq 50 lbs.	<u>Not Appl.</u> lb.	" " " "	
(3) Power-assisted brakes, pedal force \leq 25 lbs.	<u>Not Appl.</u> lb.	" " " "	
(4) Supply pressure to brake power unit \leq 50% normal pressure	Normal psi <u>Not Appl.</u> psi	" " " "	
Lamp on @	<u>Not Appl.</u> psi	" " " "	
Lamp on psi/Normal psi x 100	<u>Not Appl.</u> %	" " " "	
(b) If any reservoir falls below safe level or 25% capacity, whichever is greater. (Lamp on cc/Full cc) x 100	Resvr. full <u>651 ml</u> Lamp on <u>355 ml</u> @ <u>55 %</u>	() @ safe lev. (X) above level <u>X</u> _____	
(c) If a malfunction that effects the generation or Transmission or response or control signals in ABS or a total electrical failure of anti-skid or variable proportioning system.	() not so eq () not so eq (X) varbl. propn. Electrical	<u>X</u> _____ <u>Not Appl.</u>	
(d) If parking brake applied		<u>X</u> _____	

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van

NHTSA No.: C80306

Date: 09/22/08

Labeling Requirement:

(For purposes of this inspection only): Lamps shall be noticeable to the driver in daylight when lighted, shall remain lighted (ignition on) as long as condition exists, and shall be labeled as indicated below.

<u>Condition:</u>	<u>Performance</u>	<u>P</u>	<u>F</u>
(a & b) Hydraulic failure indicator labeled Brake. Note: "BRAKE" w/one symbol.	(X) BRAKE,	<u>Info. only</u>	___
(1) Noticeable to the driver	(X) Y, () N	<u>X</u>	___
(2) Remain lighted (with leak, turn ign. off & on)	(X) Y, () N	<u>X</u>	___
(3) Lens or lettering shall be red - color of lens, coloring of lettering	<u>Black</u> <u>Red</u>	<u>X</u>	___
(4) Lettering at least 1/8" high (1/4" non-split) (for a & b only)	<u>5/16 in.</u>	<u>X</u>	___
(c) Antilock or electrical proportioning failure () ANTILOCK, <u>"ABS" within symbol</u> (1), (2), (3) may be yellow (X) Y, () N, & (4) OK () not so eq	() BRAKE,	<u>Info. only</u>	___
(d) Parking brake applied, indicator labeled () PARK BRAKE, (X) PARK, (X) w/Symbol. (1), (2), (3), (4) OK (X) Y, () N, & (4) OK	() BRAKE,	<u>X</u>	___
		<u>Info. only</u>	___
		<u>X</u>	___

Requirement

For vehicles with GVWR greater than 10,000 lbs.
ABS or variable proportioning malfunction stored
after ignition turned "off"?

Must remain Not Appl.
activated as long
condition exists
whenever ignition "on"
position whether or not
the engine is running.
Malfunction must be stored.

Vehicles with GVWR greater than 10,000 lbs., must
be equipped with ABS.equipped.

Not Appl.

Vehicle with GVWR greater than 10,000 lbs. the ABS
directly controls the wheels of at least one front axle
and the wheels of at least one rear axle.

Must meet Not Appl.
condition.

7.0 Data Sheet No. 1.25 Calculation of Minimum Reservoir Volume Requirements

Veh.: 2008 Dodge Sprinter 2500 CRD Cargo Van NHTSA No.: C80306 Date: 09/22/08

LOCATION	TYPE	DESCRIPTION	MIN. THICKNESS	THICKNESS TO FULLY WORN (1)
Left Front	Drum () Primary () Disc (X) Primary () Inboard (X)	Pre-Test	<u>0.551 in.</u>	<u>0.118 in.</u>
		Post-Test	<u>0.532 in.</u>	
		Δ	<u>0.019 in.</u>	
	Secondary () Secondary () Outboard (X)	Pre-Test	<u>0.549 in.</u>	<u>0.118 in.</u>
		Post-Test	<u>0.527 in.</u>	
		Δ	<u>0.022 in.</u>	

Lining Clearance:

Diametral⁽²⁾ Not Appl. Inboard Approx. 0 in. Outboard Approx. 0 in.

Wheel Cylinder Dia⁽³⁾ Not Appl. Caliper Piston Dia⁽³⁾ 1.890 in. (x2)
 Shoe Cage Dia⁽⁴⁾ Not Appl. Center Point of Brake Assembly to
 Center Point of W.C. Not Appl.

Right Rear	Drum () Primary () Disc (X) Leading () Inboard (X)	Pre-Test	<u>0.520 in.</u>	<u>0.118 in.</u>
		Post-Test	<u>0.500 in.</u>	
		Δ	<u>0.020 in.</u>	
	Secondary () Trailing () Outboard (X)	Pre-Test	<u>0.528 in.</u>	<u>0.118 in.</u>
		Post-Test	<u>0.506 in.</u>	
		Δ	<u>0.022 in.</u>	

Lining Clearance:

Diametral⁽²⁾ Not Appl. Inboard Approx. 0 in. Outboard Approx. 0 in.

Wheel Cylinder Dia⁽³⁾ Not Appl. Caliper Piston Dia⁽³⁾ 2.007 in. (x1)
 Shoe Cage Dia⁽⁴⁾ Not Appl. Center Point of Brake Assembly to
 Center Point of W.C. Not Appl.

7.0 Data Sheet No. 1.25 Calculation of Minimum Reservoir Volume Requirements, continued

Subsystem 1 consists of: LF () LR (X) RF (X) RR () Operative
 Subsystem 2 consists of: LF (X) LR () RF () RR (X) Operative

(1) Manufacturer's Recommendations
 Rear - 3.0 mm (0.118 in.)

(2) Drum Brakes, Measured At Horizontal Centerline
 Manufacturer's Data: Not Appl.

Front - 3.0 mm (0.118 in.)

(4) Reset Position

(3) Manufacturer's Data:
 Front - 48 mm (1.889 in.)
 Rear - 51 mm (2.008 in.)

Metal Lining Foundation Thickness
 Front - 0.550 in. (nominal)
 Rear - 0.525 in. (nominal)

Note: Manufacturer's new lining thickness specifications:
 Fronts - 14.65 mm (0.577 in.)
 Rears - 13.5 mm (0.531 in.)

No manufacturer's specifications were available.
 Thickness to Fully Worn (Linings) was not available.
 Therefore, defaulted to a zero measurement.

Procedure and Calculations for Determining Master Cylinder Volume Requirement

The procedure followed for determining the minimum volume requirements is outlined in the example shown below. The required data is taken from the previous page. Both measured and manufacturer's provided data utilized to obtain the greatest amount of fluid volume.

Disc Brake:
$$V_r = (\Delta t_i + t_{ic} + \Delta t_o + t_{oc}) \times \frac{\pi d^2}{4}$$

Where:
 V_r = Volume required per wheel
 Δt = Change in thickness (average)
 i = Inboard
 o = Outboard
 d = Caliper cylinder diameter
 C = Average radial drum-to-lining clearance

Front

Disc Brake:
$$V_r = (\Delta t_i + t_{ic} + \Delta t_o + t_{oc}) \times \frac{\pi d^2}{4}$$

$$\Delta t_i = 0.459 \text{ in.}$$

$$\Delta t_o = 0.459 \text{ in.}$$

$$t_{ic} + t_{oc} = 0 \text{ in.}$$

$$d = 2.358 \text{ in.}$$

$$V_r = (0.459 + 0 + 0.459 + 0) \times \frac{\pi (1.89)^2}{4}$$

$$= 0.918 (2.806)$$

$$= 2.575 \text{ in.}^3 = 42.212 \text{ ml, X2 Pistons per Caliper} = 84.42 \text{ ml}$$

Rear

Disc Brake:
$$V_r = (\Delta t_i + t_{ic} + \Delta t_o + t_{oc}) \times \frac{\pi d^2}{4}$$

$$\Delta t_i = 0.413 \text{ in.}$$

$$\Delta t_o = 0.413 \text{ in.}$$

$$t_{ic} + t_{oc} = 0 \text{ in.}$$

$$d = 2.008 \text{ in.}$$

$$V_r = (0.413 + 0 + 0.413 + 0) \times \frac{\pi (2.008)^2}{4}$$

$$= 0.826 (3.167)$$

$$= 2.616 \text{ in.}^3 = 42.872 \text{ ml, X1 Piston per Caliper} = 42.87 \text{ ml}$$

$$\text{Total Volume required } 2(127.29) + 2(127.29) = 254.6 \text{ ml}^*$$

APPENDIX A

Instrumentation
Pre- & Post-Test Calibrations
Daily Calibrations

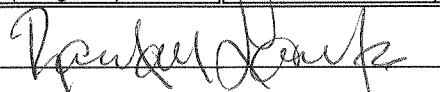
7.0 INSTRUMENT CALIBRATION (12 MONTH MAXIMUM INTERVAL)

VEHICLE: 2008 Dodge Sprinter 2500 CRD Cargo Van; NHTSA NO.: C80306;

DATE: 08/27/08

INSTRUMENT	SERIAL NUMBER	CALIBRATION DATE	NEXT CALIBRATION
Data Acquisition System - Link DAS 2060	2101	01/18/08	01/18/09
Computer – Toshiba/Link Engrg.	TRC-43366	Not Applicable	Not Applicable
Software - Link Engrg. Rev Data	TRC Propr.	NA	NA
LF Torque Wheel	Not Utilized		
RF Torque Wheel	Not Utilized		
LR Torque Wheel	Not Utilized		
RR Torque Wheel	Not Utilized		
Stopwatch – Fisher Scientific (Heating Snubs)	SW 97216633	08/07/08	08/07/09
Stopwatch – Accusplit (Daily Cals)	SW 41363960	10/13/07	10/08/08
Tire Pressure Gauge – WIKA	AG-101	07/09/08	10/07/08
Pedal Force Transducer – GSE	LC-981374	Each Test	Each Test
Asst. Pipe-Handle Steel Weights - Ohaus	LB-0001	06/04/08	06/04/09
Park Brake Force Transducer – LeBow	LC-42631	Each Test	Each Test
LF Hydraulic Pressure Transducer	Not Utilized		
RF Hydraulic Pressure Transducer	Not Utilized		
LR Hydraulic Pressure Transducer	Not Utilized		
RR Hydraulic Pressure Transducer	Not Utilized		
Accelerometer - Setra (+ or – 15 g) 141A	A-118555	Each Test	Each Test
Fifth Wheel – ADAT DSR-06 Radar	140.0119	Each Test	Each Test
Wind Velocity/Direct. – Davis Model 6410	050608N22	07/13/08	07/13/09
Ambient Temp. Gage–Davis Mod. 6152	050608N02	07/13/08	07/13/09
LF Brake Thermocouple - Temprel/Link	T52-0B-24K	Ea. Test w/Link	Ea. Test w/Link
RF Brake Thermocouple - Temprel/Link	T52-0B-24K	Ea. Test w/Link	Ea. Test w/Link
LR Brake Thermocouple - Temprel/Link	T52-0B-24K	Ea. Test w/Link	Ea. Test w/Link
RR Brake Thermocouple - Temprel/Link	T52-0B-24K	Ea. Test w/Link	Ea. Test w/Link
Lock-up Detection System	TRC Propr.	Each Test	Each Test
Vehicle Weight – Toledo/Mettler Scales JAGXTREME 3000000, (Bldg. 70)	SN 5225831-5JC	08/06/08	11/06/08

QUALITY ASSURANCE



PRE- TEST, POST-TEST AND DAILY CALIBRATIONS

DAILY CALIBRATIONS (1 of 3)

Vehicle: 2008 Dodge Sprinter 2500 CRD Cargo Van

NHTSA No.: C80306

Deceleration Calibration Data for Unit 8052

Desired full scale value is: 32.2 ft/s/s

Allowed deviation is: + or - 0.5 ft/s/s

Accelerometer Level to zero, then tilt to full scale

"Date"	"Time"	Zero	Cal
"stp"	"stp"	"Decel"	"Decel"
8/14/2008	9:19:55	0.01	32.19
8/28/2008	9:32:57	-0.04	32.07
8/28/2008	15:03:55	-0.06	32.12
8/29/2008	8:31:09	0.02	32.16
8/29/2008	15:32:00	0.07	32.18
9/2/2008	9:11:43	0.04	32.16
9/2/2008	15:53:38	-0.05	32.20
9/3/2008	9:11:33	0.07	32.19
9/4/2008	8:27:38	0.03	32.17
9/8/2008	9:10:36	0.04	32.25
9/10/2008	9:11:08	0.05	32.19
9/10/2008	14:49:41	0.04	32.16
9/11/2008	8:11:55	0.02	32.20
9/11/2008	15:39:06	0.03	32.23
9/17/2008	8:14:32	0.03	32.21
9/17/2008	11:06:13	-0.05	32.21
9/18/2008	8:57:14	-0.02	32.21

PRE-TEST CAL.

POST-TEST CAL.

Pre-Test Linearity Check 08/14/08

Actual (ft/s/s)	Rec. (ft/s/s)
0.0	0.0
10.0	10.0
20.0	20.0
25.0	25.0
32.2	32.2

Post-Test Linearity Check 09/17/08

Actual (ft/s/s)	Rec. (ft/s/s)
0.0	0.0
10.0	10.0
20.0	20.0
25.0	25.0
32.2	32.2

Distance Calibration Data for Unit 8052

Desired full scale value is: 1000 ft

Allowed deviation is: 10 ft

Light beam distance sensor Drive from 0 to 20 to 0 mi/h on a measured distance.

"Date"	"Time"	Distance for
"stp"	"stp"	1000 meters
8/28/2008	9:02:55	999.8
8/28/2008	9:06:23	500.2
8/28/2008	9:07:45	250.0
8/28/2008	9:09:22	99.5
8/28/2008	9:18:23	581.3
8/28/2008	9:21:16	286.7
8/28/2008	15:11:21	999.7
8/29/2008	8:35:17	999.5
8/29/2008	15:36:47	998.1
9/2/2008	9:13:37	1000.6
9/2/2008	15:55:50	999.2
9/3/2008	9:28:58	1000.3
9/4/2008	8:35:42	1000.7
9/8/2008	9:12:43	1000.3
9/10/2008	9:27:41	1000.0
9/10/2008	14:57:43	1000.2
9/11/2008	8:12:59	1000.2
9/11/2008	15:43:35	999.4
9/16/2008	9:41:15	999.2
9/17/2008	8:16:37	1000.2
9/17/2008	11:11:14	999.6
9/17/2008	11:14:31	500.0
9/17/2008	11:15:54	249.7
9/17/2008	11:17:20	99.6

PRE-TEST CAL. 100

PRE-TEST CAL. 500

PRE-TEST CAL. 250

PRE-TEST CAL. 100

PRE-TEST CAL. 60

PRE-TEST CAL. 30

POST-TEST CAL. 10

POST-TEST CAL. 50

POST-TEST CAL. 25

POST-TEST CAL. 10

DAILY CALIBRATIONS CONTINUED (2 of 3)

Vehicle: 2008 Dodge Sprinter 2500 CRD Cargo Van

NHTSA No.: C80306

Wheel Tachometer Calibrations for Unit 8052

Wheel tachometer calibrations: all wheel speeds should be 10 mi/h

"Date"	"Time"	Zero	@10mi/h	Zero	@10mi/h	Zero	@10mi/h	Zero	@10mi/h			
stp	stp	LF	LF	RF	RF	LR	LR	RR	RR			
Wheel lock detector While at a standstill, check zeros. Drive vehicle at approx. 10 mi/h and engage zero speed switch for each wheel	8/28/2008	9:26:43	0.0	10.3	-0.2	10.4	-0.2	10.2	-2.5	10.5	PRE-TEST CAL.	
	8/28/2008	15:13:27	0.0	10.9	-1.2	11.0	-0.1	10.8	-1.1	13.4		
	8/29/2008	8:33:49	0.0	10.3	-0.4	10.3	-0.2	10.2	0.0	12.7		
	8/29/2008	15:35:45	0.0	10.3	-0.4	10.2	-1.4	8.8	-0.4	12.5		
	9/2/2008	9:12:54	0.0	10.9	-1.9	11.0	-1.8	10.8	-2.2	13.5		
	9/2/2008	15:55:00	0.0	10.2	-1.1	10.1	0.0	9.9	-0.5	12.2		
	9/3/2008	9:26:02	0.0	10.4	-0.4	10.4	-0.1	10.3	-0.2	12.7		
	9/4/2008	8:31:56	0.0	10.5	-0.7	10.5	-0.5	10.4	-0.1	12.9		
	9/8/2008	9:07:15	0.0	10.5	0.0	10.5	-0.1	10.5	-0.3	13.0		
	9/10/2008	9:09:36	0.0	10.2	0.0	10.2	0.0	10.0	-0.3	12.5		
	9/10/2008	14:59:01	0.0	10.8	0.0	10.7	-0.2	10.6	0.0	13.1		
	9/11/2008	8:07:25	0.0	10.7	-0.3	10.5	-0.3	10.6	0.0	12.9		
	9/11/2008	15:42:23	0.0	10.5	-1.4	10.4	0.0	10.4	-0.6	12.8		
	9/16/2008	9:28:43	0.0	10.8	-1.0	10.6	0.0	10.7	-0.1	13.0		
	9/17/2008	8:11:04	0.0	10.2	-0.2	10.2	0.0	10.2	-0.1	12.5		
	9/17/2008	11:08:00	0.0	10.5	-3.3	10.4	-10.1	10.3	-18.6	12.7		POST-TEST CAL.

When driven over 10 mi/hr and the wheel tack generators are shunted to zero volts, does the graphical screen indicate wheel lock at each wheel position? Yes No. Performed for Pre/Post and Daily cal.

Pedal Force Meter Calibration for Unit 8052

Target shunt calibration is 179.0 lb.

Desired recorded value is: 179.0 lb.

Desired recorded actual force calibration check value is: 179.0

Pre/Post Cal check at a 200 lb. transducer load.

Allowed deviation is: 1.5 lb.

"Date"	"Time"	Zero	Cal Val	
stp	stp	Force	Force lb	
8/14/2008	10:07:31	-0.1	200.3	PRE-TEST CAL.
8/28/2008	9:31:32	-0.1	178.7	
8/28/2008	15:09:07	0.3	179.3	
8/29/2008	8:32:18	-0.1	178.7	
8/29/2008	15:33:52	-0.8	178.9	
9/2/2008	9:10:20	-0.1	179.6	
9/2/2008	15:52:55	-1.6	179.2	
9/3/2008	9:10:45	0.1	178.9	
9/4/2008	8:26:34	0.0	179.5	
9/8/2008	9:05:19	0.0	179.1	
9/10/2008	9:08:02	-0.2	179.1	
9/10/2008	14:51:23	-0.1	179.3	
9/11/2008	8:05:42	-0.1	179.1	
9/11/2008	15:40:23	0.1	179.3	
9/16/2008	9:15:19	-1.0	179.2	
9/17/2008	8:10:02	-0.1	178.7	
9/17/2008	11:05:05	-0.1	179.0	
9/18/2008	10:09:10	-0.1	200.8	

Pre-Test Linearity Check - 08/14/08

Actual Force (lb.)	Recorded Force (lb.)
0.0	0.0
25.0	25.0
50.0	50.0
75.0	75.0
100.0	101.0
125.0	125.0
150.0	151.0
175.0	175.0
200.0	200.0

Post-Test Linearity Check - 09/17/08

Actual Force (lb)	Recrdd Frc(lb)
0.0	0.0
25.0	25.0
50.0	50.0
75.0	75.0
100.0	101.0
125.0	126.0
150.0	151.0
175.0	176.0
200.0	200.0

DAILY CALIBRATIONS CONTINUED (3 of 3)

Vehicle: 2008 Dodge Sprinter 2500 CRD Cargo V: NHTSA No.: C80306

Dynamic Speed Calibration for Unit 8052

Desired speed value is: 60 mi/h

Allowed deviation is: 1.6 km/h

Desired time value is: 60 seconds

Allowed deviation is: + or - 1.0 seconds

Light beam Drive vehicle
speed sensor at a steady
60 mi/h
through a
mile.

"Date"	"Time"	"Speed"	Time"
stp	stp	km/h	sec
8/28/2008	15:15:50	59.7	60.00
8/29/2008	8:38:42	59.8	60.18
8/29/2008	15:40:06	59.8	60.09
9/2/2008	9:17:16	59.9	60.34
9/2/2008	15:58:19	60.0	60.12
9/3/2008	9:32:44	60.4	NA
9/4/2008	8:39:17	60.2	60.25
9/8/2008	9:16:39	60.0	60.03
9/10/2008	9:30:37	60.4	60.12
9/10/2008	15:00:55	59.8	60.18
9/11/2008	8:16:06	60.1	60.00
9/11/2008	15:46:48	59.8	60.03
9/16/2008	9:48:03	43.4	60.28
9/17/2008	8:19:22	59.9	60.12
9/17/2008	11:21:04	60.0	60.21
9/17/2008	11:23:52	30.0	120.12

POST-TEST CAL. 60

POST-TEST CAL. 30

APPENDIX B

Photographs

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
NHTSA No. C80306
October 2008

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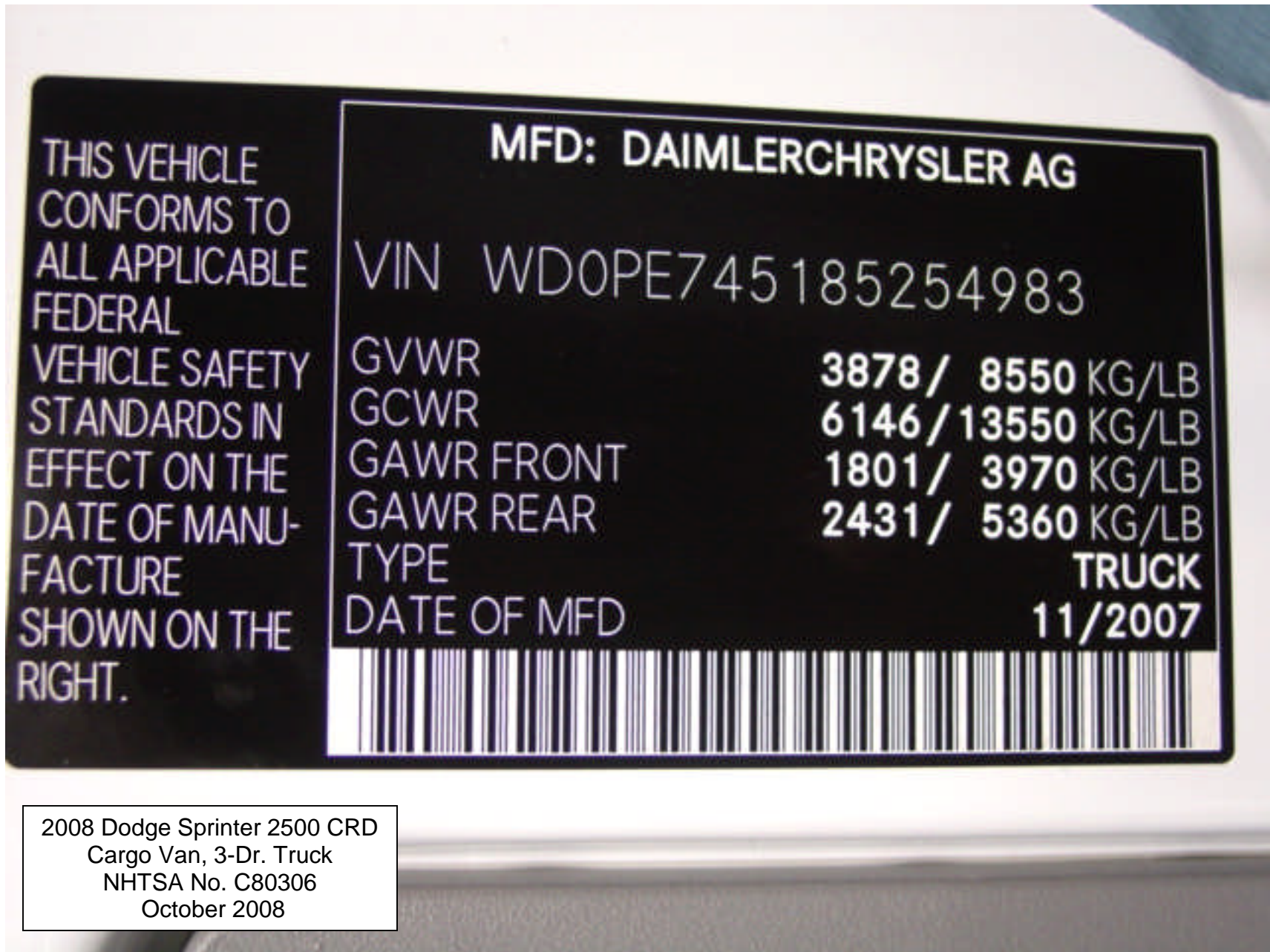
Left Front 3/4 View

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Right Rear 3/4 View



2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Vehicle Certification Placard

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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TIRE AND LOADING INFORMATION

SEATING CAPACITY - TOTAL **3** FRONT **3** REAR **0**

THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD
NEVER EXCEED **1523 KG** OR **3359 LBS.**

TIRE	FRONT	REAR	SPARE
ORIGINAL TIRE SIZE	LT 245/75 R16	LT 245/75 R16	LT 245/75 R16
COLD TIRE INFLATION PRESSURE	320kPa/47PSI	480kPa/70PSI	480kPa/70PSI

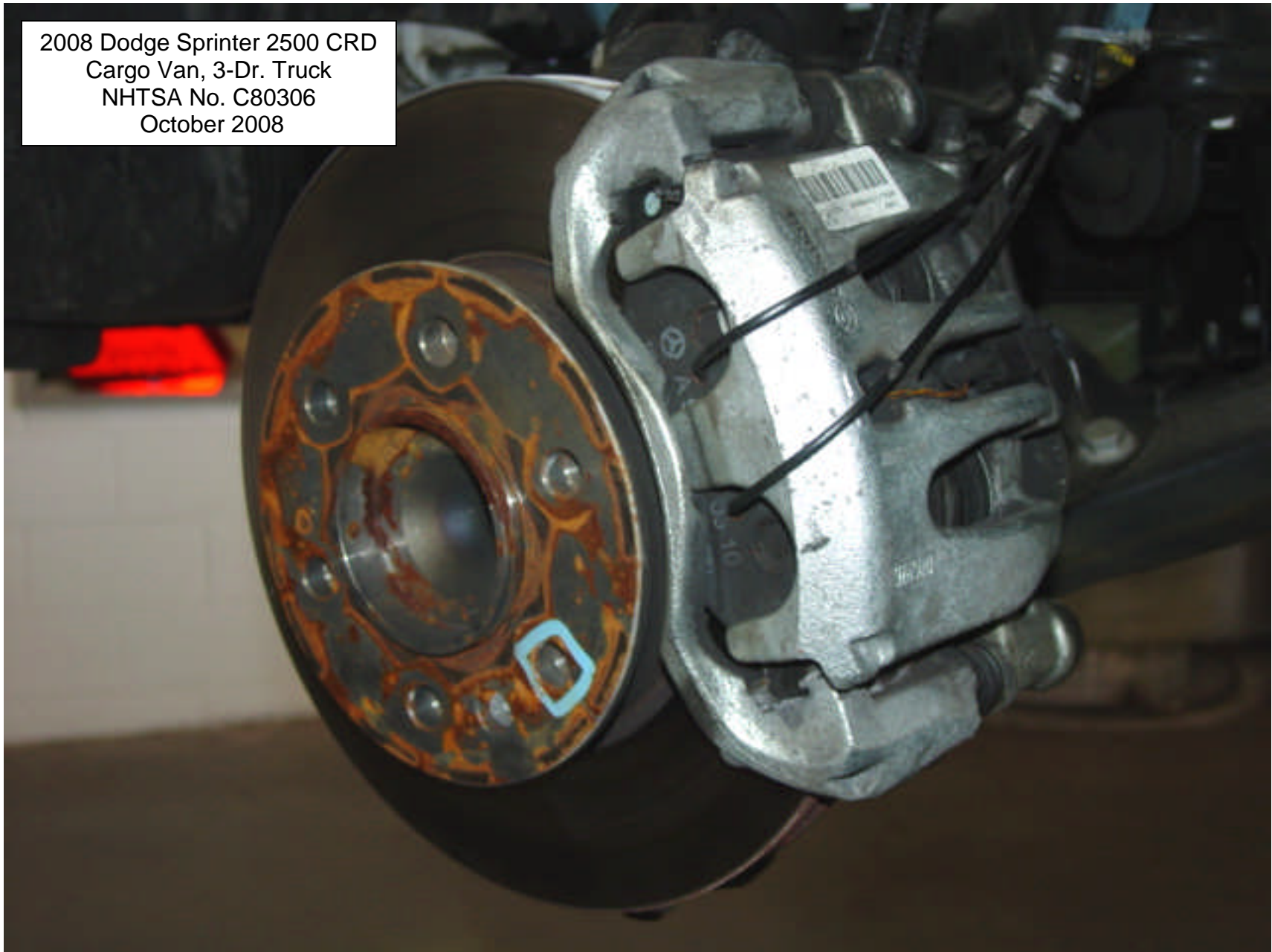
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

A 901 584 00 15

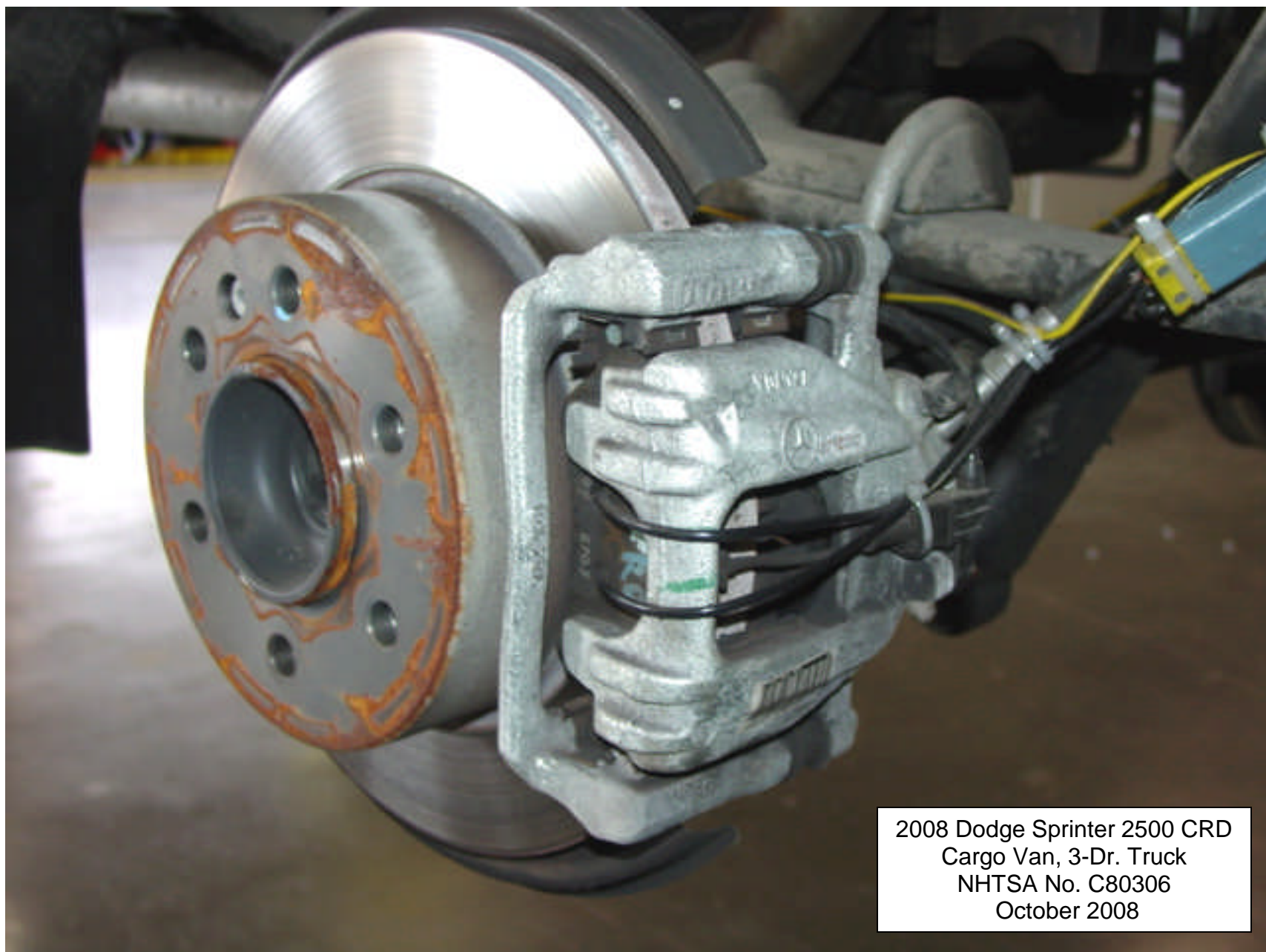
Vehicle Tire Information Label

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Left Front Thermocouple Installation

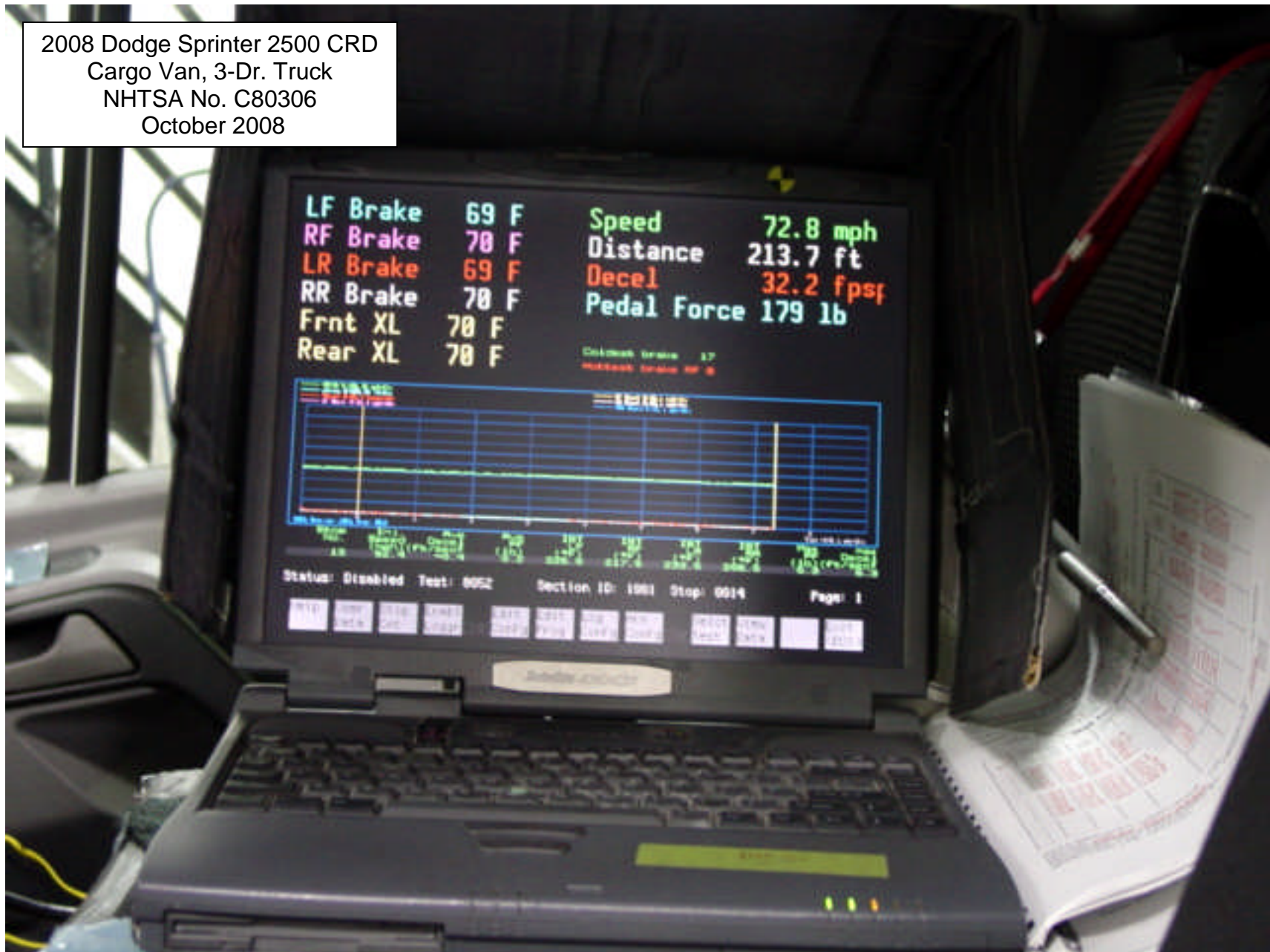


2008 Dodge Sprinter 2500 CRD
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Right Rear Thermocouple Installation

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Test Instrumentation in Vehicle

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Test Instrumentation in Vehicle

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Cargo Van, 3-Dr. Truck
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Test Instrumentation in Vehicle

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Vehicle Being Weighed

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Ballast in Test Vehicle

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Ballast in Test Vehicle

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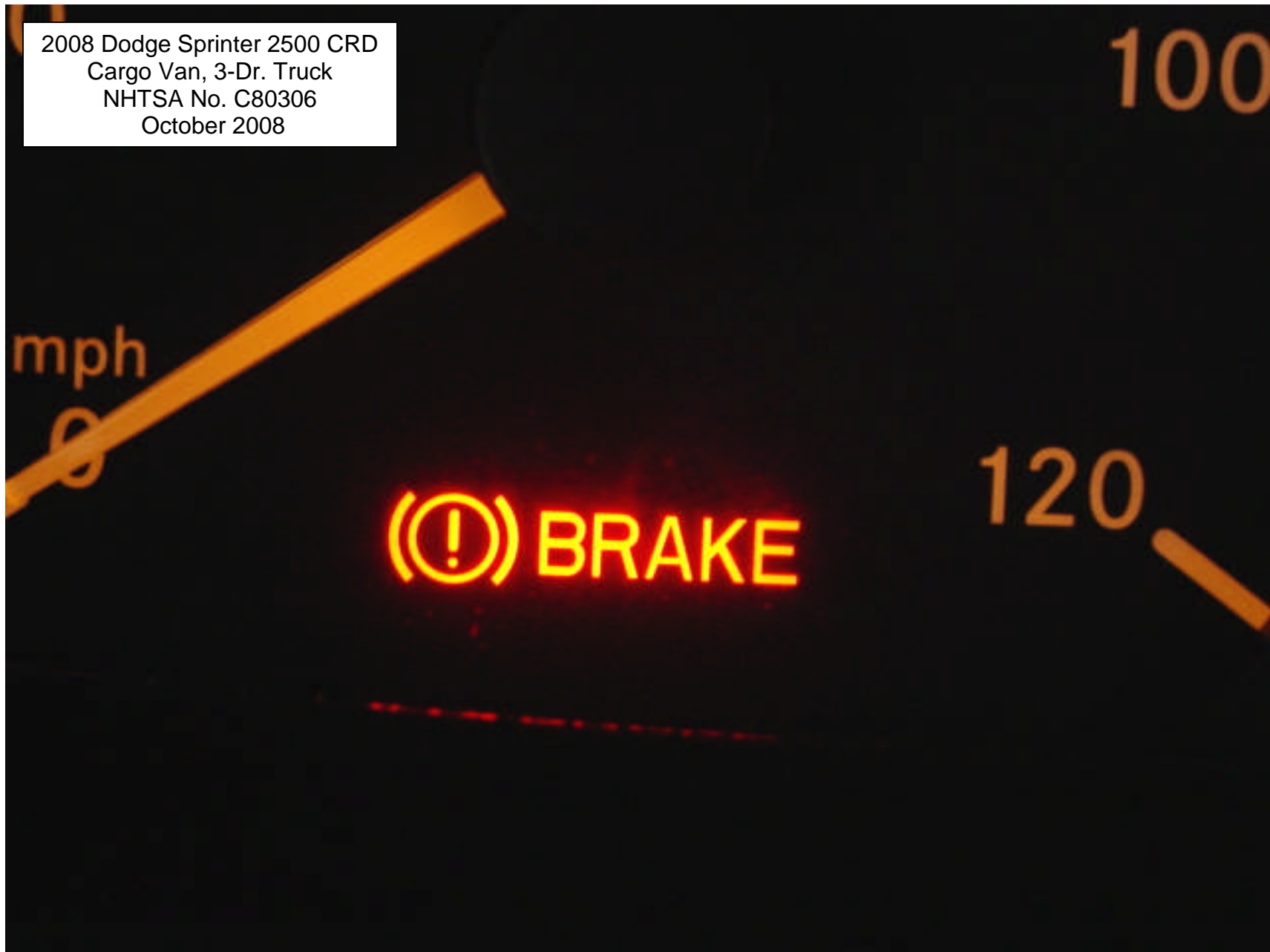


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Ballast in Test Vehicle

2008 Dodge Sprinter 2500 CRD
Cargo Van, 3-Dr. Truck
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Brake System Indicator (Warning) Lamp

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ABS (Warning) Lamp

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Parking Brake (Warning) Lamp

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Cargo Van, 3-Dr. Truck
NHTSA No. C80306
October 2008



Brake Fluid (Master Cylinder) Reservoir Warning Label

APPENDIX C

Copy of Manufacturer's Sticker



**2008 MODEL YEAR
SPRINTER 2500 CARGO VAN**

Chrysler Motors LLC

For more information visit: www.dodge.com
or call 1-800-4ADODGE

THIS VEHICLE IS MANUFACTURED TO MEET SPECIFIC UNITED STATES REQUIREMENTS. THIS VEHICLE IS NOT MANUFACTURED FOR SALE OR REGISTRATION OUTSIDE OF THE UNITED STATES.

MANUFACTURER'S SUGGESTED RETAIL PRICE OF THIS MODEL INCLUDING DEALER PREPARATION

Base Price: **\$35,205**

DODGE SPRINTER 2500 VAN 144" WB
Exterior Color: Arctic White Exterior Paint
Interior Color: Gray Interior Color
Interior: Black Cloth Bucket Seats
Engine: 3.0-L V6 Turbo Diesel Engine
Transmission: 5-Speed Automatic Transmission

STANDARD EQUIPMENT (UNLESS REPLACED BY OPTIONAL EQUIPMENT)

FUNCTIONAL / SAFETY FEATURES

- Driver Air Bag Only
- Passenger Air Bag
- 4-Wheel Anti-Lock Brakes
- Adaptive Electronic Stability Program
- Traction Control
- Front Heavy Duty Stabilizer Bar
- Rear Stabilizer Bar
- Power Rack-and-Pinion Steering
- Keyless Entry
- Power Locks
- Power Windows
- Starting Aid Contact Under Hood
- High Clearance Sliding Door
- 100-Ampere Battery
- Tool Kit
- Hydraulic Jack
- Electric-Powered Auxiliary Heater
- 26-Gallon Fuel Tank

INTERIOR FEATURES

- Air Conditioning w/Automatic Temperature Control
- Front Passenger Seat
- Sound 5 AM/FM Radio with Single Disc CD
- Front Speakers
- 4-Spoke Steering Wheel
- Tachometer
- Temperature Gauge
- Tire Pressure Monitor and Warning Signal
- Rear View Day/Night Mirror
- *Headlamps On* Warning Chimes
- 12-Volt Power Outlet Mounted in Instrument Panel
- Front Rubber Floor Covering

EXTERIOR FEATURES

- Exterior Manual Mirrors

Assembly Point/Port of Entry: LARSON, S. CAROLINA, U.S.A.

VIN: WDD0-PE746185-254983

WARRANTY PLAN: 1330



- Tow Hooks
- 270 Degree Door Opening
- Front Mud Flaps
- Roof Rails
- Tinted Windshield Glass
- 16" x 6.5" Steel Wheels
- L7245/75R16 Tires
- Rear Mud Flaps
- Full-Size Spare Tire

OPTIONAL EQUIPMENT

- Customer Preferred Package 22A \$145
- Light Group
- Overhead Console with Two Reading Lamps
- Courtesy Lamps
- Window Group II \$255
- Right Side Forward Fixed Glass
- Rear Door Windows
- Storage Net in Rear Doors
- Dual Passenger Seat \$415
- Power Heated Mirrors \$205
- 2 Additional Keys \$95
- Locking Glove Box \$20
- Daytime Running Headlamps \$45
- Rear Bumper with Step Pad \$135
- Speed Control \$275
- Suspension with Heavy Duty Front/Rear Stabilization -\$160
- Rear Backup Alarm \$75
- Parametric Special Module \$235
- Cargo Partition Provisions \$110

DESTINATION CHARGE

\$980

TOTAL PRICE: * \$38,035

WARRANTY COVERAGE

- 3-year or 36,000-mile Basic Limited Warranty.
- 3-year or 36,000-mile 24-hour towing assistance.
- Certain restrictions apply. Ask Dealer for a copy of the limited warranties or see your owner's manual for details.

SHIP TO: 4440 32 AVON, INDIANAPOLIS, IN 46144

SHIP FROM: 1885 INTERSTATE DRIVE, AVON, IN 46144

DEALER: GENESSEE VALLEY CHRYSLER DODGE JEEP

1885 INTERSTATE DRIVE, AVON, IN 46144

THIS LABEL IS ADDED TO THIS VEHICLE TO COMPLY WITH FEDERAL LAW. THE LABEL CANNOT BE REMOVED.

IF YOU ARE THE BUYER OF THIS VEHICLE, YOU MUST SIGN AND RETURN THIS LABEL TO THE DEALER WITHIN 90 DAYS OF PURCHASE.

*MSRP. EXcludes options and accessories. MSRP does not include destination charge, tax, title, license, and dealer fees. MSRP is based on price of options if purchased separately.

EPA Fuel Economy Estimates

These estimates reflect new EPA methods beginning with 2008 models.

CITY MPG

HIGHWAY MPG

Estimated Annual Fuel Cost

Expected range for most drivers to MPG

Expected range for most drivers to MPG

Combined Fuel Economy

Your actual mileage will vary depending on how you drive and maintain your vehicle.

This vehicle



See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov

GOVERNMENT SAFETY RATINGS

This vehicle has not been rated by the government for frontal crash, side crash or rollover risk. Source: National Highway Traffic Safety Administration (NHTSA).

www.safercar.gov or 1-888-327-4236

APPENDIX D

Discussion on Data

DISCUSSION ON DATA

Any discrepancies in brake temperature from visual to recorded data are probably due to the fact that the visual temperatures were taken prior to accelerating to speed, and the recorder was not turned on until just before starting the stop.

Symbols for Brake Components

4	-	4 Wheel	G	-	Groan	DL	-	Deceleration (State FPSPS)
X	-	Skid	SQ	-	Squeal	PF	-	Pedal on Floor
L	-	Left	SQK	-	Squeak	SCP	-	Shoe Scrape
R	-	Right	PO	-	Pinchout	RB	-	Rubber Banding
R	-	Rear	P	-	Pull	O	-	Odor
F	-	Front	R	-	Shudder	NOX	-	No Skid
B	-	Both	M	-	Momentary			

INT or INIT	-	Initial Part of Stop
MID	-	Middle of Stop
END	-	End of Stop

All stops were performed manually.

APPENDIX E

Contractor's Comments
Procedure Modifications
and
Test Facility

Comments for vehicle C80306.

For all recorded decelerations:

The recorded average deceleration values for the tests are slightly lower than that which is required or targeted for certain test sections. However, in all cases and in reality, the driver maintained the correct required/target deceleration values for the majority of time for each of those stops. The recorded deceleration is acquired from the moment the service brake pedal is moved until the vehicle reaches zero speed. Therefore, the time needed to achieve the target deceleration (rise time) and the time the vehicle goes from the target deceleration to zero (fall time) is included in the average deceleration calculation. The rise and fall times were added to the entire length of the stops. Hence the recorded average deceleration values were always less than the required/target deceleration values.

For Data Sheet 14, “Anitlock or Variable Proportioning Brake System [Failure] (S7.9.4), the driver removed a 5A fuse from the driver’s side foot well fuse panel. That fuse was the only one referencing the ABS. Warning lamps for the “ABS,” “ESP,” “BRAKE” and “BAS” appeared, as well as a pictogram denoted by an exclamation point within a triangle all alighted. The driver attempted to drive to the test area, but the vehicle would not exceed 29 mph and would not shift beyond first gear. Additionally, a pictogram denoted by an outline of an engine, check lamp, alighted. The driver returned to the garage and contacted both the TRC Inc. Project Manager and the OVSC Standard’s Engineer.

The Standard’s Engineer contacted the manufacturer who faxed to TRC Inc. a response indicating their method for simulating an ABS failure. Just prior to this, however, the driver tried several methods of re-installing the 5A fuse (i.e., engine running/engine off) and, by doing so, was able to extinguish all warning lamps/symbols.

The driver failed the ABS per the method provided by the manufacturer and then performed the test in the typical manner without difficulty. However, one other issue was noted

. The manufacturer provided in their response a method of failing only the electronic variable proportioning. The lab did not take notice and, therefore, the test was not performed. The lab’s experience is that, for the vast majority of tests, the electronic variable proportioning systems are integral with the ABS and cannot be failed separately, or the information to separately fail it is not provided.

7.5-MILE TEST TRACK

The 7.5-mile test track encloses a 1,600 acre area, one mile wide and 3.5 miles long.

The track has a downward grade, north to south, of 0.228 percent and a cross slope in the straight-aways of 3/16 inch per foot. The 1.88 mile long straight-aways flow into transition areas 2,300 feet in length and then into 5,275 foot long curves with a constant radius of 2,400 feet. The 36-foot wide straight-aways and the 42-foot wide curves provide three test lanes. Paved berms, 16 feet in width, border the straight-aways and the inside of the curves.

As a vehicle moves toward the outside of the track in the curves, it encounters a progressively steeper bank. The inside lane (or "slow" lane) has a bank of 10 degrees allowing a neutral speed of 80 mph with no side forces. In the center lane, the slope increases to 19 degrees resulting in a neutral speed of 110 mph. The outside lane's 28-degree bank allows a 140 mph neutral speed. Rimming the outer lane is a seven-foot safety lane culminating in a 36-degree slope at the guardrail.

The facility is paved with Portland cement concrete. It carries a maximum single axle load of 36,000 pounds and a maximum tandem axle load weight of 48,000 pounds. Special provisions can be made for heavier weight loads.

With 22.5 lane miles, our track will accommodate many vehicles simultaneously. Research which utilizes the track includes component performance and durability studies, brake tests, aerodynamic studies, fuel economy studies, drive line efficiency tests, and the determination of vehicular acceleration and cruise characteristics. In addition, it supports maximum speed determination, road load power, noise and emission measurements and tire durability test programs.

The 7.5- mile test track can be used in conjunction with other facilities at TRC. It provides an excellent area for pre-test conditioning of equipment such as brake burnishing, tire break-in, and vehicle warm-up.

TRC SKID PAD

The Skid Pad is a test facility which is utilized primarily for the evaluation of tire and brake systems.

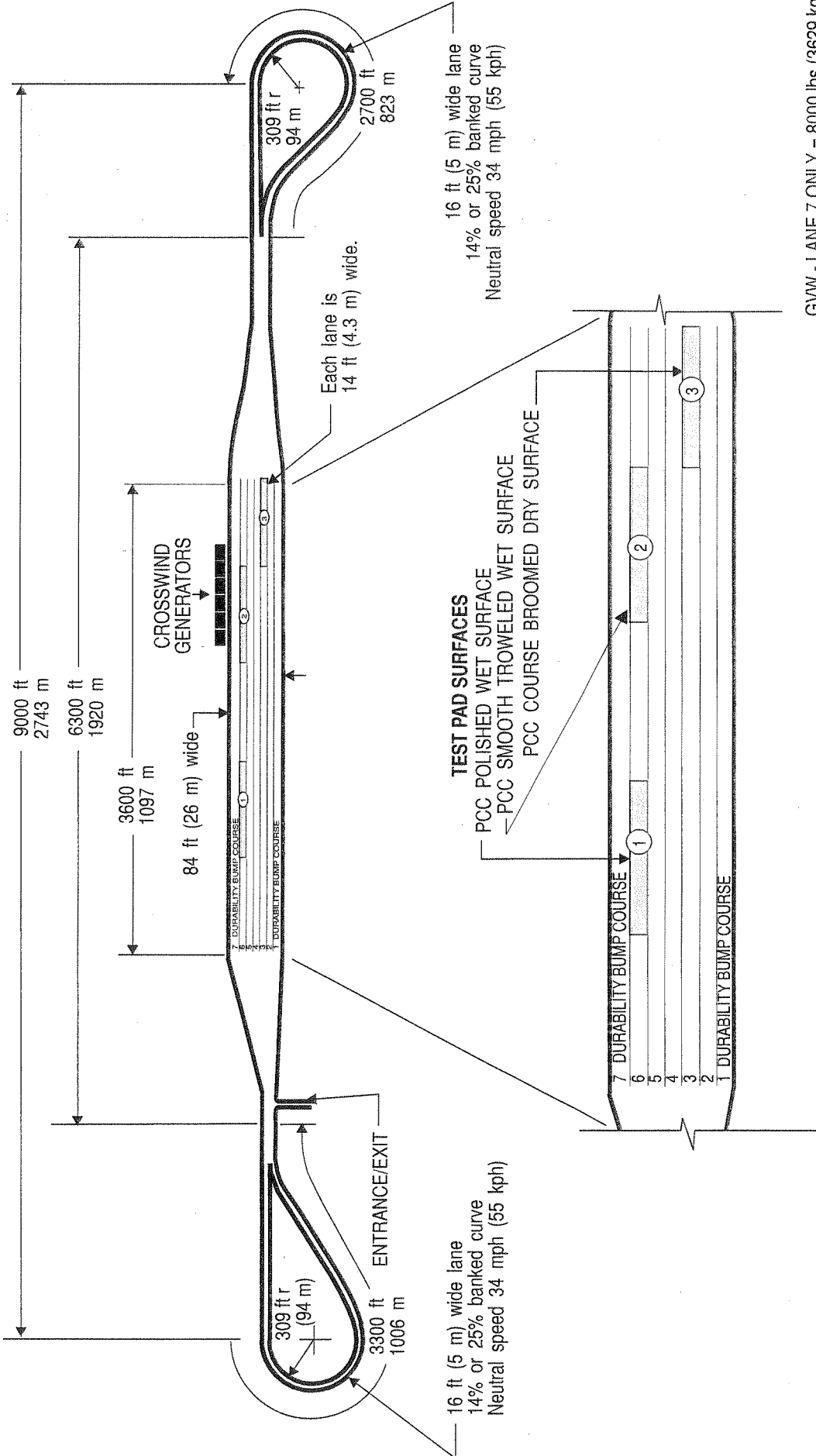
The overall dimensions of the pad are 9,000 feet by 84 feet with loops on the north and south ends. Both turnaround loops have a 309-foot radius and are 16 feet wide with a 25 percent super elevation. They will accommodate speeds of 45 mph with zero side force and 60 mph with .5 g's lateral acceleration. The acceleration/deceleration lanes at each end are 3,280 feet in length.

A test area of 210,000 square feet is situated in the center of the skid pad containing several test pads with varying surface textures. Skid numbers in this area range from 30 (wet) to 80 (dry).

The skid pad is paved with Portland cement. The load capacity of the skid pad is 36,000 pounds maximum single axle weight and 48,000 pounds maximum tandem axle weight.

Varying surface textures in the main test area are ideal for testing tire and/or brake system performance on different surfaces as characterized by "skid numbers." The skid pad is also used for acceleration studies, aerodynamics, rolling resistance, noise testing, and vehicle top-speed determination.

ALL CONCRETE BROOMED SURFACE
1 LAP = APPROXIMATELY 4 MILES (6.4 KILOMETERS)



GVW - LANE 7 ONLY = 8000 lbs (3629 kgs)
GVW - ALL OTHER LANES = 80,000 LBS (36,298 kgs)

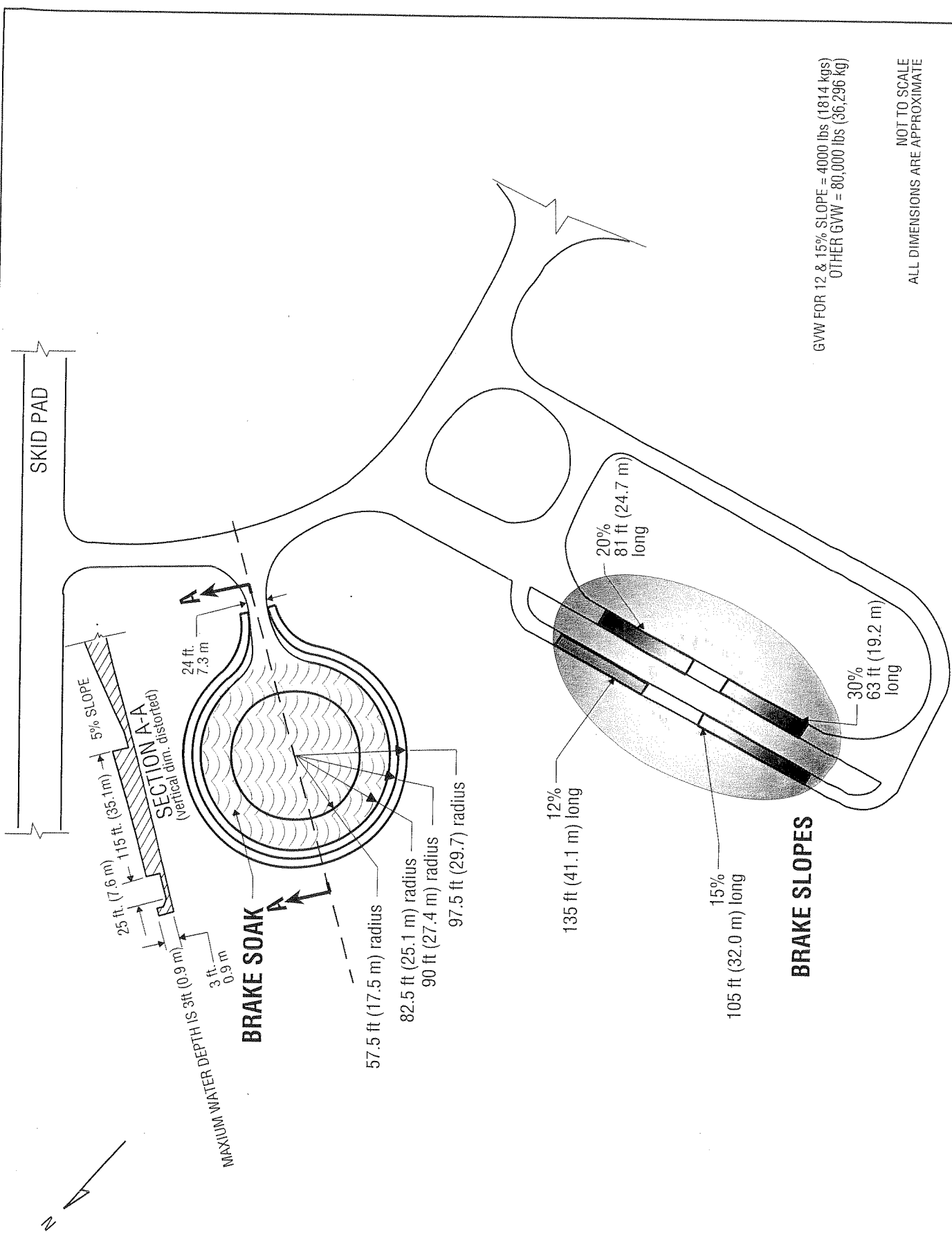
Not to scale
All dimensions are approximate



SKID PAD

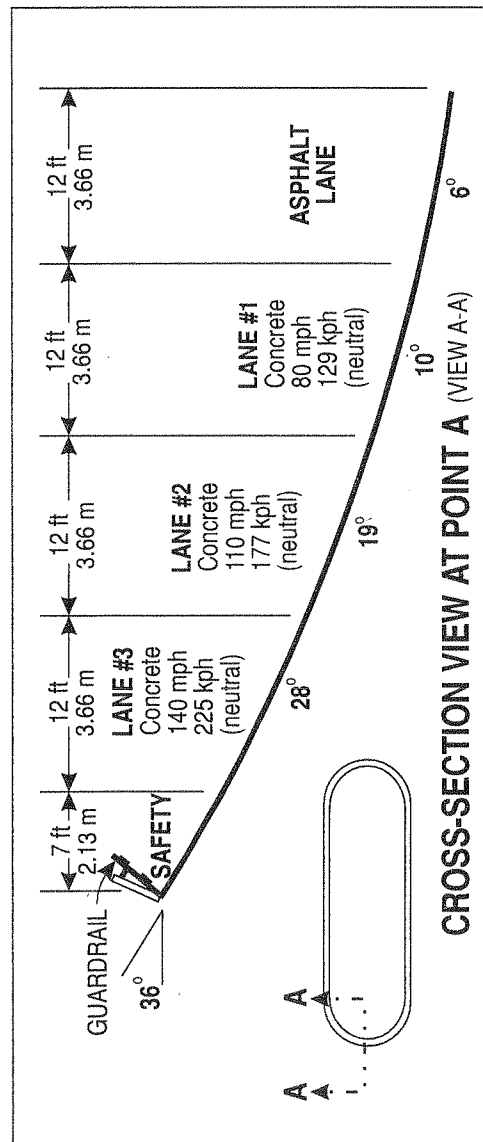
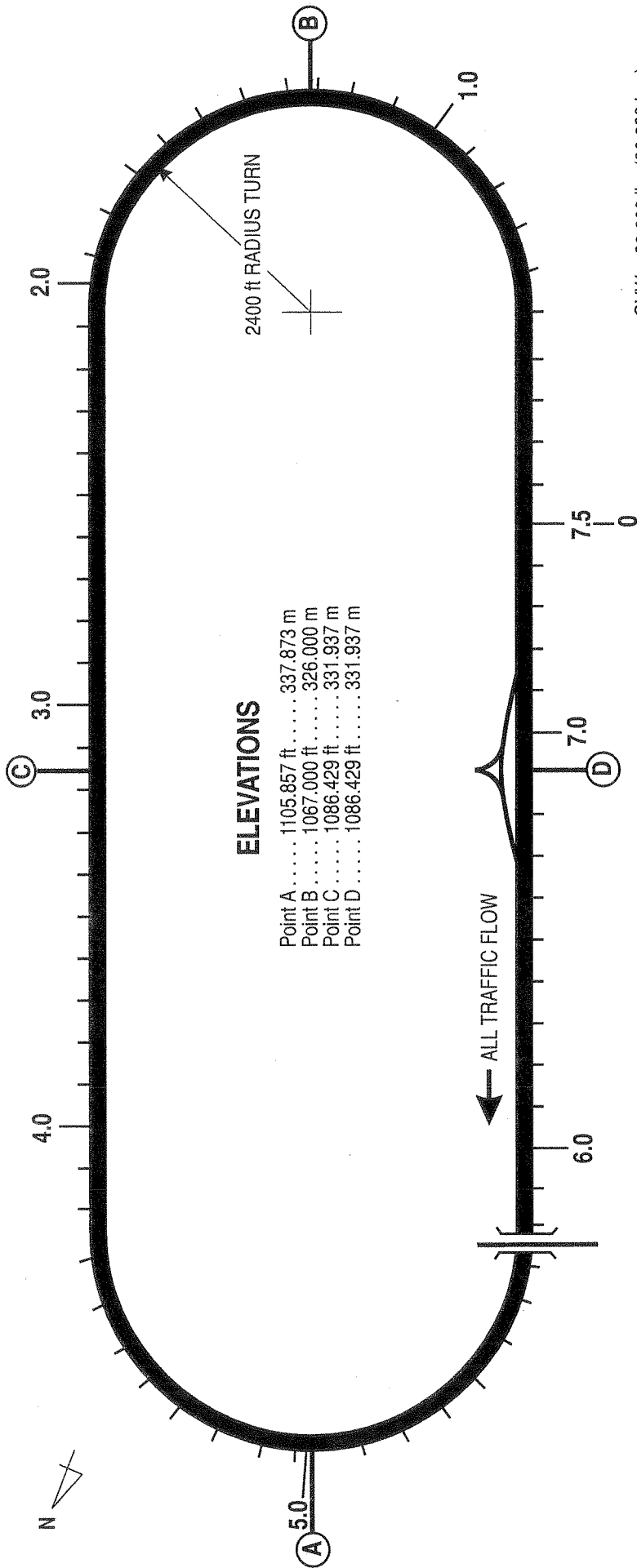
TRANSPORTATION RESEARCH CENTER INC.
EAST LIBERTY, OHIO 43319-0367

F-13.0605



GWW FOR 12 & 15% SLOPE = 4000 lbs (1814 kgs)
 OTHER GWW = 80,000 lbs (36,296 kg)

NOT TO SCALE
 ALL DIMENSIONS ARE APPROXIMATE



DISTANCES

Lane 3	7.539 mi	12.133 km
Lane 2	7.521 mi	12.104 km
Lane 1	7.507 mi	12.081 km

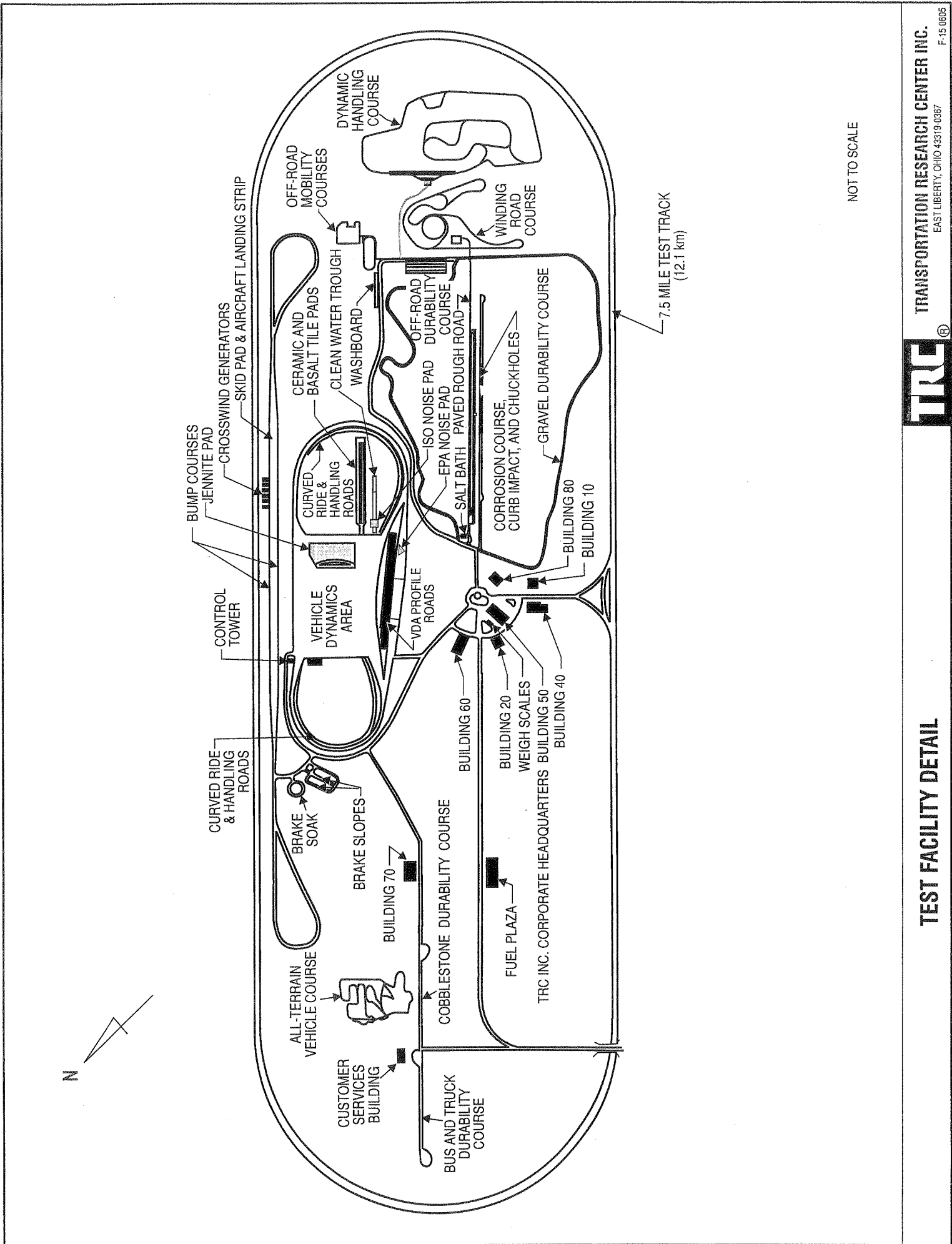
Point A to Point B	3.333 mi	5.364 km
Point C to Point D	.947 mi	1.524 km

NOT TO SCALE



7.5-MILE TEST TRACK

TRANSPORTATION RESEARCH CENTER INC.
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F-10 0605



NOT TO SCALE



TEST FACILITY DETAIL

TRANSPORTATION RESEARCH CENTER INC.
 EAST LIBERTY, OHIO 43319-0367
 F-15 0605

APPENDIX F

Notice of Possible Non-Compliance

This vehicle (C80306) complied with the standard.

APPENDIX G
Conversion Sheet

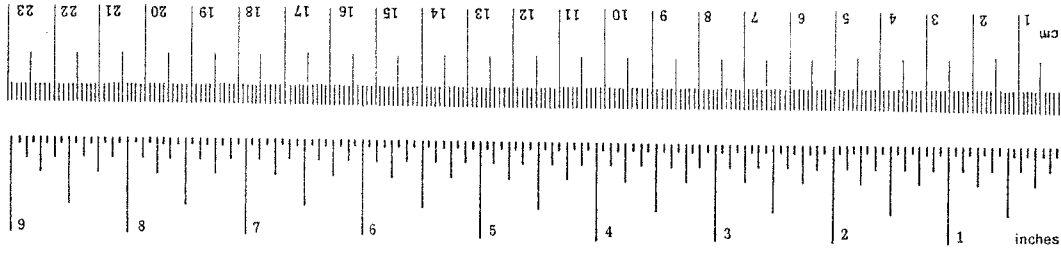
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
mi	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



* 1 m = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.