

## VEHICLE INFORMATION / TEST SPECIFICATIONS

FMVSS No. 135  
(Specify Units)

Vehicle Make/Model/Year: \_\_\_\_\_

### **MANUFACTURER RECOMMENDED BRAKE ADJUSTMENT PERFORMED AFTER 200 STOP BURNISH:**

Making stops, define: \_\_\_\_\_

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### **BRAKE SYSTEM INDICATOR LAMP LABELING, OPERATION & IGNITION KEY CHECK:**

Single lamp

Multiple lamps

CONDITION(S) INDICATED:

Pressure differential      or

Drop in fluid level

LAMP ON AT:

Pressure \_\_\_\_\_

Pedal Force \_\_\_\_\_

OR

LOW FLUID:

Reservoir full \_\_\_\_\_

Lamp on at \_\_\_\_\_

Manufacturer recommended safe level of reservoir \_\_\_\_\_

ELECTRICAL FAILURE:

Antilock

Variable Proportioning

PARKING BRAKES ON:

Ignition Key Check – All Lamps       Yes       No  
ELECTRICALLY ACTUATED SERVICE BRAKES:

Failure of power source       Yes       No

ELECTRIC TRANSMISSION OF SERVICE BRAKE CONTROL SIGNAL:

Yes       No

EV WITH RBS, FAILURE OF RBS:

Yes       No

**POWER BRAKES:**

Not Available       Vacuum  
 Hydraulic       Power Assist Unit  
 Brake Power Unit       Accumulator  
 Electrically Actuated       Electrical Backup

**MASTER CYLINDER PISTON DIAMETER:**

Primary \_\_\_\_\_      Secondary \_\_\_\_\_

**SERVICE BRAKE PEDAL RATIO:** \_\_\_\_\_ to 1

**PARKING BRAKE:**

Front Wheels       Rear Wheels  
 Drive Shaft Brake       Service Brake Linings  
 Non-service Brake Linings

**Note:** For non-service brake linings, submit a copy of the burnish instructions provided to vehicle owners.

Hand Control       Foot Control      Ratio \_\_\_\_\_ to 1

Parking Mechanism       Yes       No

Describe: \_\_\_\_\_

**PRESSURE VALVE:** Metering \_\_\_\_\_  Reblend \_\_\_\_\_ Proportioning \_\_\_\_\_

Ratio \_\_\_\_\_ to 1

 Variable Proportioning --  Mechanical  Electrical**Note:** For either, submit procedure to render inoperative: \_\_\_\_\_  
\_\_\_\_\_**HYDRAULIC SPLIT:** Diagonal  Front/Rear  Other**ANTISKID SYSTEM:** Not Available  4-wheels  Rears Only Other Manufacturer \_\_\_\_\_

> **Submit procedure for rendering ABS inoperative** (provide sufficient detail for laboratory personnel including step by step, schematics, wiring diagrams, photos, etc...)

**MASTER CYLINDER RESERVOIR:**

Reservoir Capacity: \_\_\_\_\_

Fluid displaced new to worn linings: \_\_\_\_\_

Subsystem 1 capacity: \_\_\_\_\_

Subsystem 2 capacity: \_\_\_\_\_

Primary system fluid output for single stroke of master cylinder: \_\_\_\_\_

Secondary system fluid output for single stroke of master cylinder: \_\_\_\_\_

**FOR VEHICLES EQUIPPED WITH REGNERATIVE BRAKING SYSTEM (RBS):**

Additional Manufacturer Recommended Procedures:

- > ***Submit procedure for rendering RBS inoperative*** (provide sufficient detail for laboratory personnel including step by step, schematics, wiring diagrams, photos, etc...)
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**FOR VEHICLES EQUIPPED WITH BATTERIES FOR PROPULSION OR BRAKING:**

- > ***Submit procedure for depletion or disconnection of batteries*** (provide sufficient detail for laboratory personnel including step by step, schematics, wiring diagrams, photos, etc...)
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**FRONT BRAKES:**DRUM:

- Cast                       Composite  
 Duo Servo               Leading/Trailing  
 Finned                       Leading/Leading

## SIZE:

Drum Inside Diameter \_\_\_\_\_

## LINING SIZE:

## Primary Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

## Secondary Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

Fully Worn Pad Thickness: \_\_\_\_\_

## LINING INSTALLED DIMENSIONS (Nominal Production Values):

 Drum Shoe Cage Diameter \_\_\_\_\_  
 (Outside Diameter of Shoe Cage Diameter)

 Diametral Clearance \_\_\_\_\_  
 (Drum Diameter – Shoe Cage Diameter)

## LINING CODES:

Primary \_\_\_\_\_

Secondary \_\_\_\_\_

## LINING ATTACHMENT:

	BONDED	RIVETED
Primary	<input type="checkbox"/>	<input type="checkbox"/>
Secondary	<input type="checkbox"/>	<input type="checkbox"/>

Wheel Cylinder Diameter: \_\_\_\_\_

DISC:

- Cast                       Fixed Caliper  
 Multi-piece               Float Caliper  
 Vented                       Pin       Slider

Disc Diameter \_\_\_\_\_

Disc Thickness \_\_\_\_\_

## Inboard Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

## Outboard Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

Fully Worn Pad Thickness: \_\_\_\_\_

## Disc-Clearance To Lining:

Inboard \_\_\_\_\_

Outboard \_\_\_\_\_

Inboard \_\_\_\_\_

Outboard \_\_\_\_\_

	BONDED	RIVETED
Inboard	<input type="checkbox"/>	<input type="checkbox"/>
Outboard	<input type="checkbox"/>	<input type="checkbox"/>

Caliper Bore Diameter: \_\_\_\_\_

Calipers Per Wheel: \_\_\_\_\_

Non-Service Parking Brake Type and Size (specify) \_\_\_\_\_

**REAR BRAKES:**DRUM:

- Cast                       Composite  
 Duo Servo               Leading/Trailing  
 Finned                       Leading/Leading

## SIZE:

Drum Inside Diameter \_\_\_\_\_

## LINING SIZE:

## Primary Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

## Secondary Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

Fully Worn Pad Thickness: \_\_\_\_\_

## LINING INSTALLED DIMENSIONS (Nominal Production Values):

 Drum Shoe Cage Diameter \_\_\_\_\_  
 (Outside Diameter of Shoe Cage Diameter)

 Diametral Clearance \_\_\_\_\_  
 (Drum Diameter – Shoe Cage Diameter)

## LINING CODES:

Primary \_\_\_\_\_

Secondary \_\_\_\_\_

## LINING ATTACHMENT:

	BONDED	RIVETED
Primary	<input type="checkbox"/>	<input type="checkbox"/>
Secondary	<input type="checkbox"/>	<input type="checkbox"/>

Wheel Cylinder Diameter: \_\_\_\_\_

DISC:

- Cast                       Fixed Caliper  
 Multi-piece               Float Caliper  
 Vented                       Pin       Slider

Disc Diameter \_\_\_\_\_

Disc Thickness \_\_\_\_\_

## Inboard Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

## Outboard Pad:

Length \_\_\_\_\_

Width \_\_\_\_\_

Thickness \_\_\_\_\_

Fully Worn Pad Thickness: \_\_\_\_\_

## Disc-Clearance To Lining:

Inboard \_\_\_\_\_

Outboard \_\_\_\_\_

Inboard \_\_\_\_\_

Outboard \_\_\_\_\_

	BONDED	RIVETED
Inboard	<input type="checkbox"/>	<input type="checkbox"/>
Outboard	<input type="checkbox"/>	<input type="checkbox"/>

Caliper Bore Diameter: \_\_\_\_\_

Calipers Per Wheel: \_\_\_\_\_

Non-Service Parking Brake Type and Size (specify) \_\_\_\_\_

## FMVSS No. 135 DATA SUMMARY - MANUFACTURER TEST RESULTS

(Use sample table below or similar to provide results)

MY: \_\_\_\_\_ / Make: \_\_\_\_\_ / Model: \_\_\_\_\_

GVWR: \_\_\_\_\_ LLVW: \_\_\_\_\_

TEST	Loading Condition	Specification and Limit				TEST RESULTS (In compliance if one stop meets requirement)		
		Speed (km/h)	Min. Pedal Force (N)	Max. Pedal Force (N)	Stopping Distance Requirement (m)	Shortest Stop Minimum Pedal Force (N)	Shortest Stop Maximum Pedal Force (N)	Shortest Stop Stopping Distance (m)
Vehicle Maximum Speed	LLVW							
Cold Effectiveness	GVWR	100	65	500	70 m			
High Speed Effectiveness	GVWR		65	500	speed dependant			
Stops with Engine Off	GVWR	100	65	500	70 m			
Cold Effectiveness	LLVW	100	65	500	70			
High Speed Effectiveness	LLVW		65	500	speed dependant			
Failed Antilock	LLVW	100	65	500	85			
Failed Proportioning Valve	LLVW	100	65	500	110			
Failed Hydraulic Circuit #1	LLVW	100	65	500	168			
Failed Hydraulic Circuit #2	LLVW	100	65	500	168			
Failed Hydraulic Circuit #1	GVWR	100	65	500	168			
Failed Hydraulic Circuit #2	GVWR	100	65	500	168			
Failed Antilock	GVWR	100	65	500	85			
Failed Proportioning Valve	GVWR	100	65	500	110			
Signal Transmitted Electrically, RBS, Electrically Actuated Brakes								
Power Brake Unit Failure	GVWR	100	65	500	168			
Depleted EV batteries								
Parking Brake - Uphill	GVWR	B	B	B	B			
Parking Brake - Downhill	GVWR	B	B	B	B			
Hot Performance Stop #1	GVWR	100	65					
Hot Performance Stop #2	GVWR	100	65	500	89			
Recovery Performance Stop	GVWR	100	65					