

## BRAKE TESTING MACHINES

These types of brake testers measure braking force at each wheel. The dimensions of these brake testers do not permit simultaneous testing of combination vehicles. The front axles of combination vehicles shall be tested in the first stop. The vehicle shall then be instructed to move forward and the trailer brakes tested. The simulated road surface of this equipment will occasionally exhibit much higher coefficients of friction than is possible on the highway. Excessive braking should therefore be avoided, because braking distribution information can be distorted. See Specifications for "Hunter B-400T Plate Brake Testing Machine"

The vehicle is driven on the pads at speeds of 4 to 8 mph. When the brakes are applied at the time the vehicle is moving on the pads, the braking effort at each wheel causes a proportionate movement of the pad against the measuring system. The braking force on the pads is measured by the equipment.

### BRAKE INSPECTION- HEAVY VEHICLES

The vehicle or combination of vehicles can be extremely heavy; too much stress cannot be put upon the safety of the inspector and others when testing the stopping ability of such vehicles. These tests must be conducted with extreme care in order to prevent possible skidding, jackknifing, and over-turning. In particular, vehicles carrying a load must not be inspected. The brake equipment will not endure the testing of loaded heavy vehicles.

Using the brake machine, weigh trailers and heavy vehicles that are entering the state or are having the title transferred.

### HUNTER BRAKE MACHINE SPECIFICATIONS

<b>Approved</b>	<b>Effective Date</b> <b>5-6-96</b> <b>Page</b> <b>1 of 4</b>	<b>Number</b> <b>DMV 9601</b> <b>Revision</b> <b>- 01</b>
<b>SUBJECT: Specification: Hunter B-400T Plate Brake Testing Machine</b>		

- 1.0** The following describes the "Delaware" specification(s) to be used for all Hunter Engineering Co. Model B-400T Flat Plate Brake Testing Machines in service at Inspection Facilities operated by the Division of Motor Vehicles (DMV).
- 2.0** Specification(s):
- 2.1** Vehicle Type: Passenger cars and light duty trucks and vans (<10001 lb. GVWR)  
Each wheel must have a minimum of 75% brake pressure

<u>Parameter</u>	<u>Units</u>	<u>Specification Limits</u>
Deceleration	%	40.0 - 95.0
Velocity	mph	4.0 - 12.0

Front/Rear Ratio

Absolute	%	40.0 - 95.0
Front Bias	%	Nominal + 25.0
Rear Bias	%	Nominal - 15.0

Left/Right Ratio

Front Axle	%	0 - 35.0
Rear Axle	%	0 - 45.0

Pedal Force*	lbf	0 - 100.0
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Parking Brake

Deceleration*	%	20.0 - 95.0
Left/Right Ratio*	%	0 - 75.0
Velocity*	mph	2.0 - 10.0
Pedal Force*	lbf	0 - 100.0

\* Not used in current pass/fail criteria but available if required.

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## 2.2 Vehicle Type: Straight Truck and Bus (2 Axle Vehicle)

<u>Parameter</u>	<u>Units</u>	<u>Specification Limits</u>
Deceleration	%	40.0 - 95.0
Velocity	%	2.0 - 10.0
GVWR	lbs	29,000 (typical)

Axle 1 (Steering Axle)

Left/Right Ratio	%	0 - 35.0
<u>Adhesion Utilization (F/R Force)</u>		
Absolute	%	0 - 100.0
Max. Tolerance	%	Nominal + 20.0
Min. Tolerance	%	Nominal - 20.0
GAWR	lb.	12,000 (max.)

Axle 2

Left/Right Ratio	%	45.0 Max.
<u>Adhesion Utilization</u>		
Absolute	%	100.0 Max.
Max. Tolerance	%	Nominal + 20.0
Min. Tolerance	%	Nominal - 20.0