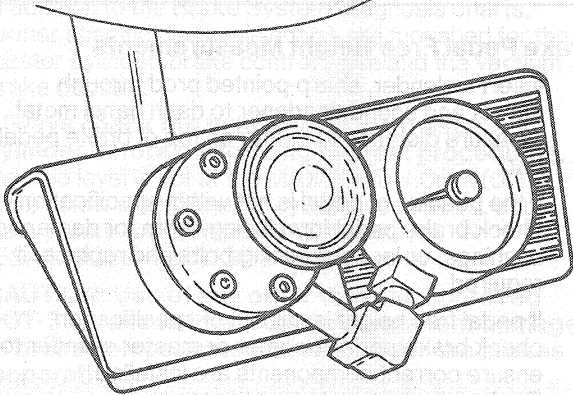


## DIAGNOSIS AND TESTING (Continued)

2. Install Rotunda Brake Pedal Effort Gauge 021-00001 or equivalent on the brake pedal pad.

BRAKE PEDAL EFFORT GAUGE  
ROTUNDA MODEL 021-00001



H3669-C

3. Hook a steel measuring tape to the brake pedal. Measure and record the distance from the brake pedal free height position to the reference point, which is at the six o'clock position on the steering wheel rim.
4. With steel tape still hooked to brake pedal, depress brake pedal by pressing downward on Rotunda Brake Pedal Effort Gauge 021-00001 or equivalent. Apply a 111N (25 lb) load to center of pedal. Maintain the pedal load, and measure the distance from brake pedal to the fixed reference point on steering wheel rim parallel to centerline of steering column.
5. If pedal travel is more than the maximum specification on vehicles with self-adjusting / drum brakes, make several reverse stops with a forward stop before each. Move vehicle in reverse and forward for approximately 10 feet. Then, apply brakes and hold brake pedal down until vehicle is completely stopped. This will actuate brake self-adjusters. If these stops do not bring brake pedal travel within specification, make several additional forward and reverse stops as outlined above.
6. On self-adjusting rear drum brakes, if the second series of stops does not bring brake pedal travel within specification, remove brake drums, and check brake adjusters to ensure they are functioning. Check brake lining for wear or damage. Service or replace all worn or damaged components. Adjust brake. Refer to Section 06-02.

7. If all drum brake adjusters, brake drums and brake shoe linings are functional, and brake travel is not within specification, check pedal assembly for missing or loose attachments.
8. If above Steps do not bring brake travel within specification, bleed brake system.

## Power Brake Functional Test

## Vacuum Booster

Inspect all hoses and connections. All unused vacuum connectors should be capped. Hoses and their connections should be properly secured and in good condition with no holes or collapsed areas. Inspect check valve on power unit for damage.

## Booster Operation Check

1. Check hydraulic brake system for leaks or insufficient fluid.
2. With transmission in NEUTRAL, stop engine and apply parking brake. Depress brake pedal several times to exhaust all vacuum in the system.
3. Depress pedal and hold it in the applied position. Start engine. If vacuum system is operating, pedal will tend to move downward under constant foot pressure. If no motion is felt, the vacuum booster system is not functioning.
4. Remove vacuum hose from brake booster check valve connection. Manifold vacuum should be available at the check valve end of the hose with engine at idle speed and transmission in NEUTRAL. If manifold vacuum is available to the booster, connect vacuum hose to booster and repeat Steps 2 and 3. If no downward movement of brake pedal is felt, replace brake booster.
5. Operate engine a minimum of 10 seconds at fast idle. Stop engine, and let vehicle stand for 10 minutes. Then, depress brake pedal with approximately 89N (20 lbs) of force. Pedal feel should be the same as that noted with engine operating. If pedal feels hard (no power assist), replace check valve and retest.

If brake pedal feels spongy, bleed hydraulic system to remove air. Refer to Section 06-06.

Refer to Vacuum Brake Diagnosis chart to assist in vacuum booster diagnosis.