

# TROUBLE SHOOTING POWER BRAKES

## BASIC TEST

ENGINE OFF. Depress and release brake pedal several times to remove vacuum from power section

Depress pedal and hold with light pressure, 15 to 25 lbs., and START ENGINE

If power section is operating, pedal will fall slightly and then hold. Less pressure will be needed to hold pedal down.

IF POWER SECTION IS NOT OPERATING disconnect vacuum hose from power section vacuum valve. Then, with ENGINE RUNNING, check vacuum supply with a vacuum gauge. There should be at least 14 inches of vacuum.

IF POWER SECTION IS OPERATING do the following VACUUM LEAK TEST.

## VACUUM LEAK TEST

Run engine to medium speed. Release accelerator and turn ENGINE OFF. This builds up vacuum.

Wait 90 seconds and apply brakes. Two or more applications should be power assisted.

IF VACUUM SUPPLY IS BELOW 14 INCHES replace or repair vacuum hose and vacuum fittings. Also, tune or repair engine as required.

IF VACUUM SUPPLY IS 14 INCHES OR MORE power section is defective and should be replaced.

When adequate vacuum supply is obtained, repeat BASIC TEST.

IF APPLICATIONS ARE NOT POWER ASSISTED disconnect vacuum hose from intake manifold or power section check valve, whichever is easier. If disconnected at check valve, attach a short length of hose to valve.

IF APPLICATIONS ARE POWER ASSISTED there is no vacuum leak. Do the following HYDRAULIC LEAK TEST.

Blow into hose attached to check valve. If air passes through, valve is defective.

## HYDRAULIC LEAK TEST

Depress and release brake pedal several times. Then hold pedal depressed with medium pressure, 25 to 35 lbs.

IF VALVE IS DEFECTIVE install new check valve and repeat the VACUUM LEAK TEST.

IF CHECK VALVE IS O.K. power section is leaking and should be replaced.

IF PEDAL DOES NOT FALL AWAY hydraulic system is not leaking.

IF PEDAL FALLS AWAY hydraulic system is leaking. Check for external leakage at wheel cylinders, hydraulic lines and hoses. If there is no external leak, there may be an internal leak (master cylinder cups).

### Dual Master Cylinder Test Procedure

Disc brake side of master requires min. 700 psi. Drum brake side requires min. 400 psi.

Insert T fitting in brake line at hose connection.

Good pressure. Test other system.

NO LOW PRESSURE

Disconnect T fitting. Connect gauge to feed line.

Good pressure. Pedal ratio too high or not enough master cylinder capacity.

NO LOW PRESSURE

Connect gauge directly to master cylinder outlet port.

Bad proportioning valve.

NO LOW PRESSURE

Bad master cylinder.

Bleed system and/or gauge line at each step. Make sure bleeder fitting is above gauge to eliminate all the air in the system.