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Attention: STAN
Email Add: schoynacky@cardone.com

Feedback ID: **1927372**
Additional Request: N
Action: MISSING
Product:

 # Pages: 2 **LRS:** bs **Bus. #:** 215-912-3873

Fax #: **215-912-3869**

CSR: mcano

Year	Make	Model	Engine	Trans
1900	Unlisted	Vehicle	-	A

Toc Zone: 39 - Steering and Suspension

Component/Path: Steering
Power Steering
Power Steering Pump

Info Type: 28 - Specifications

Additional Info:

Problem: 1957 Ford Custom Sedan V8 292 - Stan is looking for pressure specifications for the Power Steering system / pump

LRS Comments:

If the data received does not meet your needs please let us know

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2. FLUID PRESSURE TEST

A fluid pressure test will show whether the pump or some other unit in the power steering system is causing trouble in the system.

Testing Tool Installation

1. Disconnect the pressure line hose from the pump outlet, and install the pressure testing tool between the hose and the pump outlet (Fig. 5). ***Be sure that the pressure gauge is between the pump and the shut-off valve on the tool.***

2. Open the shut-off valve on the testing tool, then run the engine at idle speed. ***If the pump normally operates quietly, ignore the louder pump noise when the pressure testing tool is connected to the system.*** Allow at least two minutes for the fluid to warm up before starting the pressure tests.

Pressure Checks

1. Turn the front wheels all the way to the right, then to the left, and note the fluid pressure reading on the gauge when the wheels are against the stops. Normal fluid pressure at both positions is 700-900 p.s.i. ***Do not hold the wheels against the stops for more than 30 seconds at a time as the fluid may overheat.***

2. If the fluid pressure, with the wheels against the stops, is less than 700 p.s.i., turn the wheels off the stops. Slowly close the testing tool shut-off valve, and watch the gauge for an increase in pressure. ***Do not leave the valve closed for more than 15 seconds.***

3. If the fluid pressure, with the shut-off valve fully closed, is less than 700 p.s.i., the pump is causing the trouble. If the pressure increases but does not reach 700 p.s.i., the pump, control valve, and power cylinder should all be inspected. If the pressure increases to 700-900 p.s.i., the trouble is in either the control valve or power cylinder.

4. After the fluid pressure test is completed, shut off the engine and remove the pressure testing tool. Make the necessary repairs or replacements to eliminate the trouble in the system.

3. POWER STEERING SYSTEM OPERATION

The pump produces the fluid pressures needed to operate the power steering system. The control valve, operated by turning the steering wheel, directs the flow of fluid pressure in the system. The power cylinder moves the steering linkage to turn the front wheels.

Straight-Ahead Driving

When the steering wheel and front wheels are in the straight-ahead position, the control valve spool (Fig. 6) is held in the center (neutral) position by the centering spring. Fluid from the pump flows through the space between the valve lands and returns to the reservoir.

In the straight-ahead position, the system offers very little fluid pressure resistance. Both lines to the power cylinder are open, and the pump delivers just enough pressure to maintain a balance between both sides of the power cylinder piston.

Left Turn

When about 4 pounds of turning force is exerted on the steering wheel, the control valve spool overcomes the resistance of the centering spring and moves toward the right-hand end of the valve. This movement opens the fluid passages in the valve so that pressure from the pump is directed to the right-hand end of the power cylinder, and fluid in the left-hand end of the cylinder is directed back to the pump reservoir (Fig. 7).

The fluid pressure against the right-hand face of the power cylinder piston increases until it is high enough to force the cylinder and the steering linkage toward the right, providing the power assist for the left turn. The fluid in the left-hand end of the power cylinder is under lower pressure and is forced out of the cylinder.

When the turning force on the steering wheel is reduced to less than 4 pounds, the centering spring forces the control valve spool back to the center (neutral) position to stop the power assist.

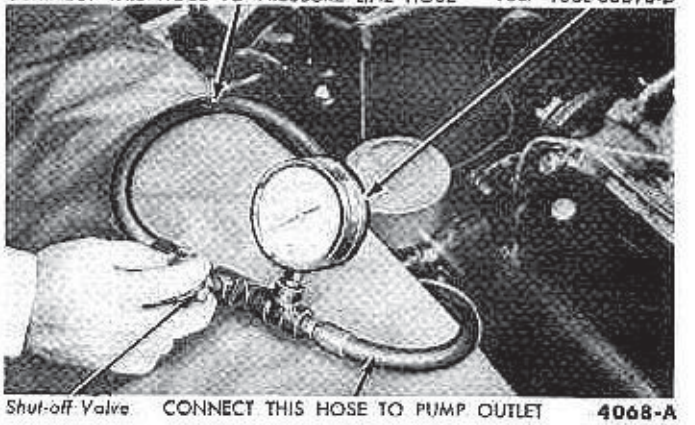

Fig. 5—Pressure Testing Tool Installation