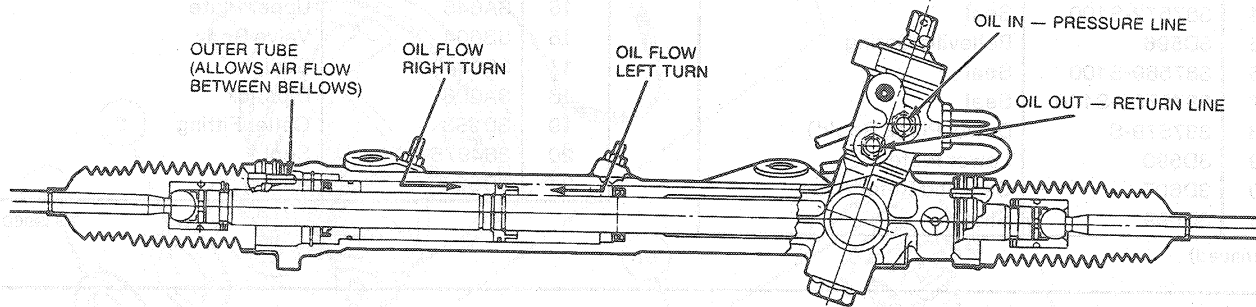


OPERATION

DESCRIPTION (Continued)

Rotary Valve

The rotary design control valve uses relative rotational motion of the input shaft and valve sleeve to direct fluid flow.



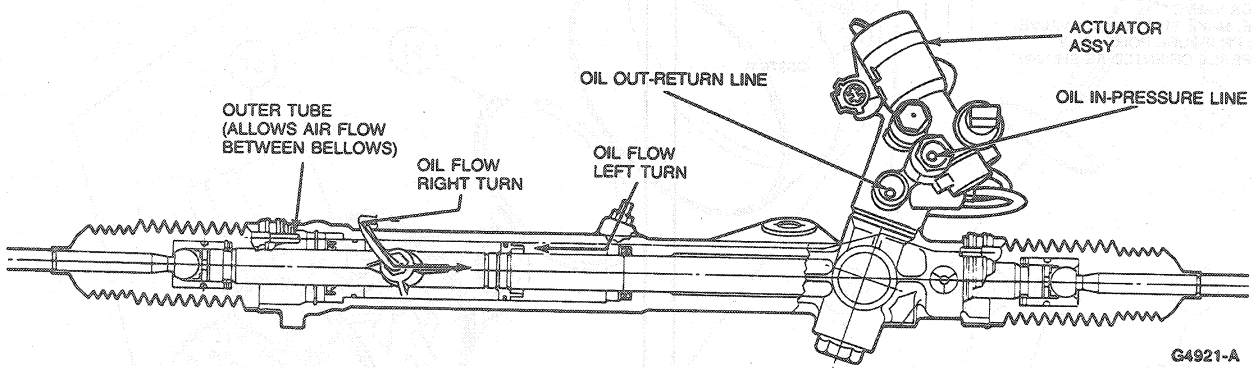
G4429-B

When the steering wheel is turned, resistance of the wheels and the weight of the vehicle cause a torsion bar to deflect. This deflection changes the position of the valve spool and sleeve ports, directing fluid under pressure to the appropriate end of the power cylinder. The difference in pressure forces on the piston helps move the rack to assist turning effort. The piston is attached directly to the rack, and the housing functions as the power cylinder. The oil in the opposite end of the power cylinder is forced to the control valve and back to the pump reservoir.

When the driver stops applying steering effort, the valve is forced back to a centered position by the torsion bar. When this occurs, pressure is equalized on both sides of the piston, and the front wheels tend to return to a straight-ahead position.

Rotary Valve, VAPS

The rotary design control valve directs fluid flow using relative rotational motion of the input shaft and valve sleeve.



G4921-A