

Supporting Today's Vehicle Technician

Not All Power Steering Fluids are Created Equal

Application

All vehicles equipped with hydraulic steering systems.

Problem

The extreme premature failure of the power steering pump. The failure is characterized by noise, shaft seal leak, reservoir boil-over, foaming in the reservoir or unexplained sideload (even with an automatic belt tensioner). Please note that failure can occur as quickly as 20-30 minutes after pump installation.

Cause

Use of substandard power steering fluid that lacks the additives necessary for proper lubrication of the power steering pump; more specifically additives such as viscosity improver, friction modifiers and anti-foaming agents. Use of substandard fluids causes both the fluid and system to overheat, and the pump bushing to breakdown. At this point the pump is no longer capable of holding pressure, resulting in total loss of assist.

On-Car Test Results



Caused by Improper Lubrication (Substandard Fluid)

Normal Bushing Wear when Properly Lubricated (OE Recommended Fluid)

Solution

Use an OE recommended or equivalent fluid for complete system replacement and top-offs! Refer to the vehicle manual or an OE vehicle information system (Mitchell's, Alldata, etc.) to find the recommended fluid for your application. A fluid that meets OE standard typically has specifics printed on the label (Fig. 1). A general statement claiming the fluid meets OE requirements does not guarantee good fluid quality (Fig. 2). Power steering fluid does not have an API (American Petroleum Institute) certification, and therefore does not have minimum standards associated with its production. The only standards established for power steering fluid come from the OEM.



Fig. 1

Fig. 2

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