



ISO 9001 CERTIFIED

# BAR'S LEAKS TECHNICAL BULLETIN

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Bar's Leaks Power Steering Repair

Part #: 1600

## POWER STEERING REPAIR

Bar's Leaks Power Steering Repair is a unique dual cavity bottle containing a combination of the best performance additives to repair the most common power steering fluid related problems. For most vehicles, this is your last chance before paying an expensive repair bill or replacing the vehicle. Power Steering Repair can be used to top-off the existing fluid when low, or add a bottle when changing fluid. Works on all vehicles, domestic and import. Compatible with ALL types of power steering fluid, including petroleum, mineral oil and synthetic formulas. Use one bottle to top off or restore fluid level. Depending on the power steering problem, results will either be immediate or noticeable within 2 (two) days or 100 miles of driving.

The common element between all of the power steering components is the fluid. The fluid touches everything inside the pump, gearbox and rack & pinion. This fluid must lubricate, cool, clean and pressurize for the system to function. In newer systems, the power steering fluid can easily perform these functions. As the vehicle ages and gains more miles, the fluid alone can't do the job. Internally, pumps whine, gears have play in them, valves stick, seals leak and the fluid quickly breaks down. When installed, Bar's Leaks Power Steering Repair helps to stop and prevent these problems and enhances the useful life of your power steering system.



### DIRECTIONS

#### Adding to Power Steering Fluid

- Remove power steering dipstick and check reservoir fluid level. Tip. On most vehicles, this is on or near the belt driven power steering pump. Consult owners' manual for location. If fluid is low, pour equal amounts from the two chambers into reservoir. At least half of bottle should be used. Do not overfill. Tip. If necessary to prevent overfilling, drain or siphon some power steering fluid from reservoir. Check fluid level again. Top off with manufacturer's recommended power steering fluid as needed. Replace dipstick and drive 5 to 10 minutes to circulate fluid. Depending on the power steering problem, results will either be immediate or noticeable within (2) days or 100 miles of driving. In seriously damaged power steering systems, a second treatment may be required. In this case, it is suggested that the power steering fluid be changed and a second application of Power Steering Repair be added.

#### Changing Fluid

- If using Power Steering Repair when changing power steering fluid, add entire contents of bottle. Then top off with manufacture's recommended fluid to proper level. Drive vehicle and recheck fluid level.

Part Number:	1600
UPC Item:	0 46087 01600 8
UPC Case:	1 00 46087 01600 5
Bottle Size:	16 fl. oz. (473 ml)
Bottle Dimensions:	3.6 x 1.8 x 8.4375
Bottle Cube:	55
Case Pack:	4 bottles
Case Size:	7.25 x 3.875 x 8.875
Case Cube:	249
Case Weight:	5 pounds
Pallet:	TI 60 HI 5 Total 300

### DOSAGE

One bottle treats 2 to 3 quarts of fluid. For larger systems use one bottle for every 2.5 quarts of capacity.

<b>MOST COMMON POWER STEERING PROBLEMS</b>	<b>THE SOLUTION, BAR'S LEAKS POWER STEERING REPAIR</b>
<p><b>Stiff Steering</b></p> <ul style="list-style-type: none"> <li>● Hard “Stiff” Steering</li> <li>● Sluggish “Lazy” Steering</li> <li>● Morning Sickness</li> </ul> <p><b>NOISE</b></p> <ul style="list-style-type: none"> <li>● Whining</li> <li>● Grinding</li> <li>● Squeal</li> </ul> <p><b>Fluid Loss “Leaks”</b></p> <ul style="list-style-type: none"> <li>● Gaskets</li> <li>● O-Rings</li> <li>● Seals</li> </ul>	<p><b>RESTORES STEERING PERFORMANCE</b></p> <ul style="list-style-type: none"> <li>● Smooths Out Hard Steering</li> <li>● Reduces Sluggish Steering</li> <li>● Stops Morning Sickness</li> </ul> <p><b>QUIETS NOISE</b></p> <ul style="list-style-type: none"> <li>● Quiets Squeal &amp; Noisy Pumps</li> <li>● Reduces Friction &amp; Wear</li> <li>● Stabilizes Fluid</li> </ul> <p><b>STOPS “LEAKS”</b></p> <ul style="list-style-type: none"> <li>● Conditions Seals &amp; O-Rings</li> <li>● Reduces Fluid Loss</li> <li>● Prevents Future Leaks</li> </ul>

### WHAT IS A POWER STEERING SYSTEM?

#### There Are Two Basic Types of Power Steering Systems

##### **Gearbox (Re-circulating-Ball)**

Most Rear-Wheel & 4-Wheel Drive. The gearbox contains a grooved metal shaft called a worm gear. This gear is threaded into a metal block with ball bearings between the threads to reduce friction. The block turns a pitman arm which is connected by the rods to each front wheel.

##### **Rack & Pinion**

Most Front-Wheel & All-Wheel Drive. The steering shaft connects to a pinion gear inside the metal housing. This pinion gear has teeth on it that mesh with the teeth on the rack. This rack is connected to each front wheel with the rod ends.

### Steering Components

Power steering systems are combination of mechanical, hydraulic and some electrical parts.

#### **Mechanical**

Many mechanical parts are required to operate a power steering system. Some of the more important parts are steering shaft, rack & pinion or gearbox and fluid pump.

#### **Hydraulic**

The hydraulic system uses a belt-driven fluid pump to create pressure and send this fluid through a high pressure hose to either the rack & pinion or gearbox.

#### **Electrical**

Some later model vehicles use electronic sensors to detect the power steering fluid pressure and send information to the vehicle computer.

<b>TEST</b>	<b>ASTM</b>	<b>TYPICAL PROPERTIES</b>
Specific Gravity @ 15.6°C	D-1298	0.866
Density @ 15.6°C	D-1298	7.21
Flash Point PMCC	D-93	214°C / 417°F
Viscosity, cSt. @ 40°C	D-445	43
Viscosity, cSt. @ 100°C	D-445	9
Pour Point °C	D-97	<-9°C