BAR'S LEAKS® TECHNICAL BULLETIN

Tech Bulletin #: TB-1600	Part Number: 1600
Date Issued: November 1, 2019	Date Revised: November 26, 2019
Bar's Leaks® High Mileage Power Steering Repair	Size: 16.9 fl. oz. (500 mL)

Power Steering Repair

Bar's Leaks High Mileage 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 many 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 or ATF, including petroleum, mineral oil and synthetic formulas. Use one bottle to top off or restore fluid level.

America's Most Trusted Repair Brand Since 1947

Dual Action Formula—*Twice the performance*

Safe And Easy To Use

Guaranteed To Seal & Stop Leaks Plus...

Restores Performance—*Reduces noise and smoothes out hard steering.*

- Hi-Tech Additives
- Viscosity Improvers
- Friction Modifiers

Adds Protection—*Stops leaks and reconditions rack & pinion.*

- Fluid Stabilizer
- Lubrication Additives
- Seal Conditioners

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 High Mileage Power Steering Repair helps to stop and prevent these problems and enhances the useful life of your power steering system. The result is smoother steering with no leaks.

SATISFACTION GUARANTEED

If not satisfied, purchase price will be refunded by mail. Send original sales receipt and UPC to:
BAR'S PRODUCTS
Dept. 207, PO Box 187,
Holly, MI 48442

BAR'S LEAKS® TECHNICAL BULLETIN (CONTINUED)

Power Steering Repair

INSTRUCTIONS:

Adding to existing Power Steering Fluid

Using to seal leaks—Remove power steering dipstick and check reservoir fluid level. On most vehicles, the reservoir is on or near the belt driven power steering pump. Consult owners' manual for location if needed. If fluid is low, pour equal amounts from the two chambers into reservoir. At least half of bottle should be used. Do not overfill . 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.

To control slack, reduce noise & squeals, and smooth out hard & tight steering (morning sickness), the entire bottle should be used. **TIP:** If necessary to prevent overfilling, drain or siphon some power steering fluid from reservoir before using.

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.

DOSAGE:

One bottle is designed to treat 1.5 to 3 quarts of fluid capacity, which is the normal size for most vehicles. For smaller systems from 0.5 to 1.4 quarts, only use half bottle, pouring equal amounts from each side. For larger systems use one bottle for every 2.5 quarts of capacity.

TEST	ASTM	TYPICAL PROPERTIES
API Gravity @ 15.6°C	D-1298	24.1
Specific Gravity @ 15.6°C	D-4052	0.86
Density @15.6°C	D-1298	7.18
Flash Point	D-92	257°C / 494°F
Viscosity, cSt. @ 40°C	D-445	51.6
Viscosity, cSt. @ 100°C	D-445	7.6
Viscosity Index	D-2270	111
Pour Point °C	D-5949	-18°C

BAR'S LEAKS® TECHNICAL BULLETIN (CONTINUED)

Power Steering Repair

What Is Your Power Steering Problem?

Small Leaks—Need to add fluid 1X per month
Medium Leaks—Need to add fluid 1X per week
Leaks—Pump, Gearbox and Rack & Pinion
Noise—Whining, Squeals and Growling
Slack or Loose Steering
Morning Sickness—Hard or tight steering when cold
Worn Parts—Renews worn rack & pinion

WE CAN HELP!!!

Safe For— Domestic / Import, Cars, Trucks, SUV's
Fluid—Regular Petroleum, Mineral Oil and Synthetic Power Steering Fluids

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.