

# Li'l Red Express High Pressure Power Steering Hose Replacement

I recently had a new steering box put in my 1979 Li'l Red Express. I was very pleased with it. A short time later, after a ride, I noticed a light brown fluid all over the upper driver's side of the radiator shroud and horn relay flowing down and over the radiator support. But, there was nothing on top or underneath the dust shield mounted just above the pump.

There's always new challenges with this truck.

The fluid was a light brown oil and the oil level read slightly low on the PS pump dipstick. I checked the lines where they went into and out of the pump and box and there was hardly any oil on them. The black hose line looked a little dark but I figured it was from being taken off & reinstalled on the pump. I pulled the dust shield.

The oil must be coming out with the engine hot. As the pump puts out up to 1500 psi I wore a face shield and thick neoprene gloves. I did not want to chance being tattooed with hot oil. I fired up the engine and waited. After the engine warmed up I looked at the hose. There on the curve of the hose a 1 1/2" line appeared with oil seeping out of it. I shut the engine down and the crack closed to where it was again invisible. Can you imagine going down a highway spraying hot oil onto a hot exhaust manifold and having the power steering going out? + your pump and steering box would be running dry. *It was a relief to find it.* It also meant either it got fixed or I don't drive.

The next step was to find a new high pressure hose. I checked the net and there was a wide variety. The main source was Rockauto. I looked at each one. My choice was made by ACDelco. The part # was 36-35270. My cost with tax & shipping was \$28.86. I have always found that ACD parts were pretty good quality and in this instance that was a prime requirement. I did have a shipping problem. I was informed that it was shipped via FedEx and delivered to my front door on a Friday. Well I sure didn't see it and neither had the neighbors either side. On Monday I got the mail & it was in the box.

The packaging indicated it was made in Mexico. The packaging illustration showed an open end wrench. *On a flare/compression nut? Unbelievable.*

TOOLS- fiberglass pry to remove dust shield clips, 11/16" flare wrench, mirror, flashlight, small Ziploc or = bag with rubber band, a couple small wood wedges, lots of paper or cloth towels, and a jar to catch old fluid, turkey baster or = and power steering fluid.

SET UP- Remove the dust shield. Get your truck on jackstands or a lift. Take off the front driver tire. The passenger wheel has to be off the ground. See picture # 1. I have a Kwik Lift and an old 5 ton toe jack.

Pulling the old hose- The box fitting is reached from under the fender. It is horizontal & pretty easy to get to. As it was "supposedly" torqued to 30ft.# it came loose with a good yank. After the oil drained and was cleaned up the vertical pump fitting came loose. It was supposed to be 19 ft.#. I was concerned that the back of the pump body might twist like you were removing a petcock from a radiator. Didn't happen.

The two hoses looked quite a bit different. There were a lot more twists & tubing going to the pump on the old hose. The old one looks like it was designed by a former moonshiner who made stills. The hoses had compression fittings. There were no "O" rings. See picture # 2. The old hose is on top..

Next, clean up the oil mess as best possible.

Check for paint flakes in the pump, the box and on the fittings. This is where you use the mirror & light. If you get a paint chip on the sealing surface it **will** leak. I did find a chip. There must be some engineering standard that only flaky black paint can go on power steering parts.

Put the bag over the pump end of the hose and wrap it with the rubber band. See picture # 2.

Loosely thread the box end in first. You want the tube at the box end to be able to swivel.

Then go to the pump end and loosely install the other nut. As you twist it to fit, the whole hose will swivel. That's what you want. The less tension the better. I used the wedges at the start to be sure the hose wasn't against the frame. As I snugged the pump nut the hose centered itself between pump & frame. See pictures 3 & 4.

Next tighten down the box nut. I didn't know if it would leak but if so, tighten it more.

Then snug down the pump nut. Same thing. Good clearance everywhere. See picture # 5. Get the PS fluid and bring the level up to the cold mark. Put the top back on (until it clicks!) and with the engine off run the steering wheel back and forth at one second per turn. Do it a few times & then recheck the level. The people that made the steering box said 25 times so I did. It may be more than necessary. Try to get it to that mark and don't overfill it. I did and got oil burping out the cap. Use a turkey baster or tubing to remove excess oil. If you don't it goes all over. I know. Don't underfill it. Same thing.

Then run the engine & repeat (not 25 times though). Now measure against the hot mark. Check for leaks by the fittings. Mine were initially dry. Put the wheel back on, drop your truck and take a drive. Check again, clean things up & reinstall your dust shield. After driving the pump flare nut did leak slightly. I tightened it slightly. With flare nuts you try to tighten them just enough to not leak. Overtightening is bad news.

Final notes; The new hose had a 08 08 15 tag date. I wasn't too pleased until I realized hey, the tubing is silver and not that gross non rusting green. No painting!

The old hose had some real wear spots besides the crack. See picture # 6. I am glad it was changed and you should check your hoses. They work under extreme conditions. To me, they should be replaced on a time basis like tires. Mine was around 24 years old and as Homer would say "Its Due, its due!"

In closing, this is how it worked for me. It may be different for you. No two Li'l Reds are exactly alike and neither are the repairs. Use common sense and safety.

Dave Sperry