

# PS-093 POWER STEERING LINKAGE INSTALLATION INSTRUCTIONS FOR 1955-59 CHEVROLET TRUCK 3000 SERIES

Prior to installing this power steering linkage, install the OEM generator/pump assembly or late model pump, pulleys, and brackets on your engine. Raise the driver side frame rail and place a jack stand under the frame rail. Remove driver side front tire. HOSES FROM PUMP ARE NOT INCLUDED IN THIS KIT BUT ARE SHOWN FOR CLARITY.

Place a floor jack directly under the front axle where the driver side leaf spring is attached. Position it so as to allow room for the U-bolts to be removed. Now engage jack just enough to support the driver side of the axle, but do not lift axle. Place a jack stand just to the passenger side of the floor jack as a precaution.



Remove both nuts on rear U-bolt of the driver side front axle assembly. Loosen the front U-bolt nuts.



Remove old spacer.



Find the long part of the L shape in the middle of the cylinder hoses and assemble hose grommets as shown.



Install new spacer and hoses on top of leaf spring and place U bolts on top, orient slits in grommets on top. Use new U bolt at rear if needed.



Underneath leaf spring, insert cylinder bracket onto rear U bolt, then reinstall all U bolt lockwashers and nuts.



Install one of the cylinder grommets on the stud of the cylinder bracket.



Install cylinder and the remaining cylinder grommet on bracket stud. Make sure the cylinder hose connections are ABOVE the shaft.



Install and tighten the large flat washer, lockwasher and nut on bracket stud.



Attach the cylinder hoses to the cylinder. Use line wrench to snug hose nuts.

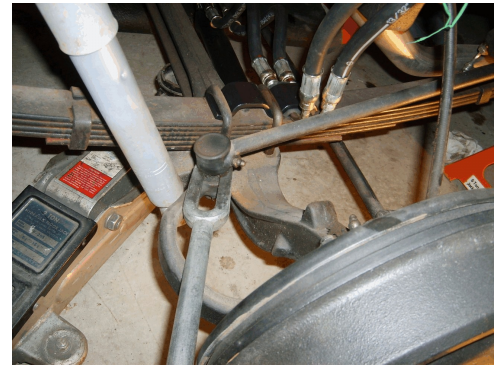




Place cylinder shaft bracket onto center link as shown and insert small U bolts.



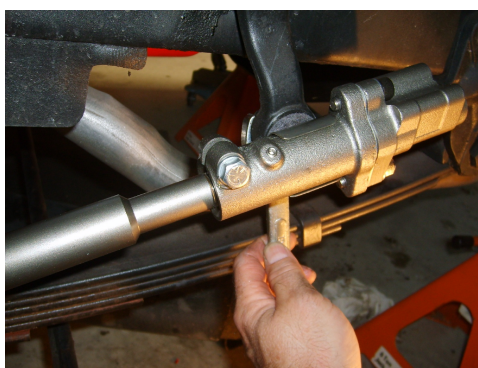
Orient U bolts on the back of the center link then loosely install all lockwashers and nuts onto U bolts, the bracket should be loose enough to slide along the center link. Don't install cylinder shaft onto bracket yet.



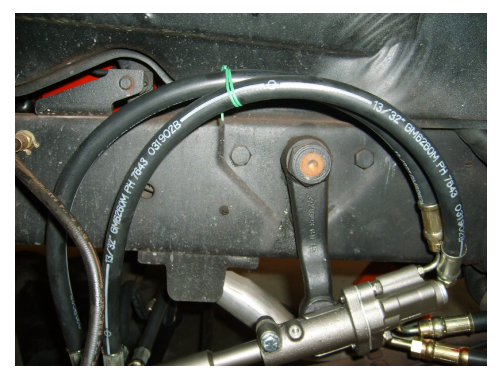
Remove the cotter pins and hardware at each end of the relay between the pitman arm and steering knuckle. Remove the old relay using a tie rod pickle fork.



Assemble the valve onto the turnbuckle and assemble the relay onto the turn buckle. Measure the distance between the centers of the two studs, it should be about 15 1/2 inches, verify by measuring your old manual steering relay. Orient the two studs to mimic the studs on your old manual relay. Tighten all hardware.



Install the valve assembly onto the pitman arm and the steering knuckle. Tighten nuts and insert cotter pins. Make sure valve stud at pitman arm is centered in the valve casting so it won't bind when operated.



Attach the cylinder hoses to the valve. The hose on the cylinder closest to the FRONT attaches to the TOP valve connection, the REAR cyl hose attaches to the BOTTOM valve connection.



To install the pump hose clamp, wrap a thin wire around the attaching bolt.

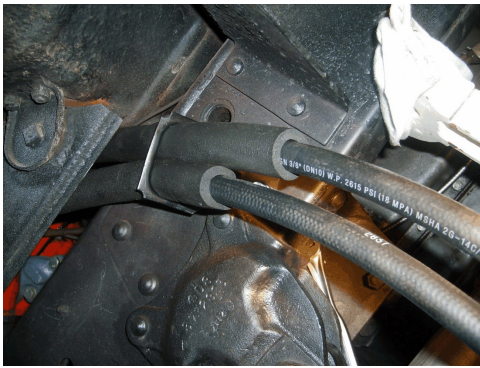


Find the hole in the frame side rail behind the rear leaf spring bracket. Insert the thin wire from the inside of this hole and pull bolt through.

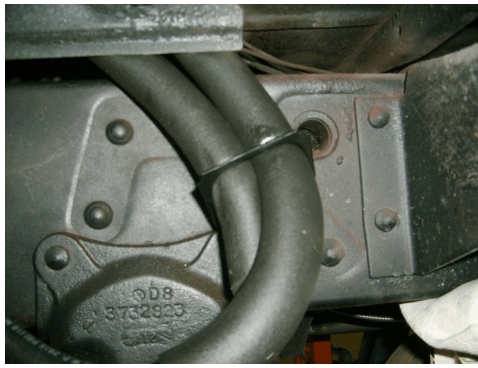


Attach the hose bracket onto the frame rail with provided nut and lockwasher. Orient the bracket as shown.

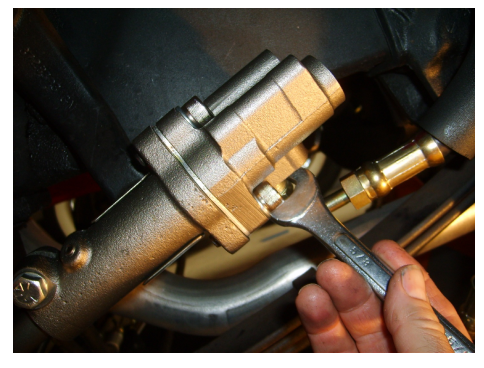




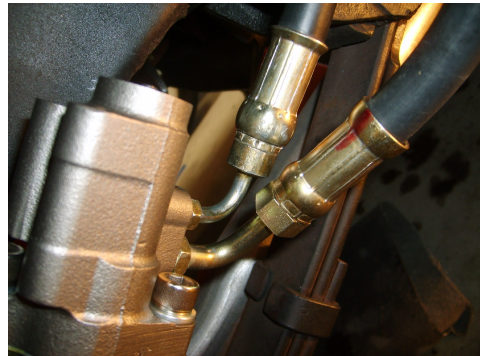
Insert both pump hoses through the bracket, adjusting the foam covers to protect the hoses as you pull the hoses through.



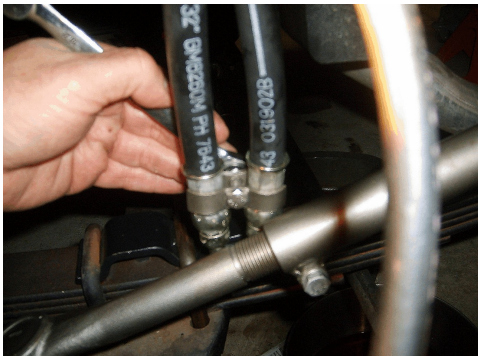
The hoses and bracket will look like this when installed correctly.



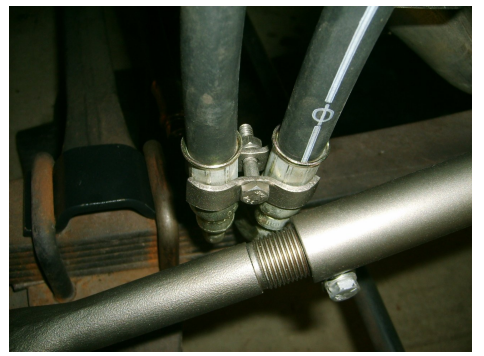
Attach both hoses to the valve. The SMALL hole in the valve is the PRESSURE port. The LARGE hole in the valve is the RETURN port.



Pump hoses will be angled slightly to allow for full range of valve movement.



Attach cylinder hose clamp.



Orient hose clamp hardware as shown. This clamp will keep the cylinder hoses in an upright position.



By hand, extend cylinder shaft completely out of cylinder.



Install one shaft washer, the sleeve and one shaft grommet onto shaft. Be careful to keep cylinder shaft fully extended.

**THE NEXT STEP MUST BE FOLLOWED PRECISELY!**



Turn the steering wheel completely to the left, then back about 1/4 turn. Orient the cylinder shaft bracket so the angled part (with the hole for the shaft) points forward, then slide the cylinder shaft bracket onto the cylinder shaft and attach the remaining shaft grommet, washer and nut. BE CAREFUL TO KEEP THE SHAFT EXTENDED. Tighten the shaft nut and insert cotter pin. Now tighten the cylinder shaft bracket nuts.

**FOLLOW BLEEDING AND VALVE CENTERING INSTRUCTIONS ON NEXT SHEET.**

# BLEEDING AND VALVE CENTERING INSTRUCTIONS

## USE TYPE A OR Dexron AUTOMATIC TRANSMISSION FLUID OR EQUIVALENT

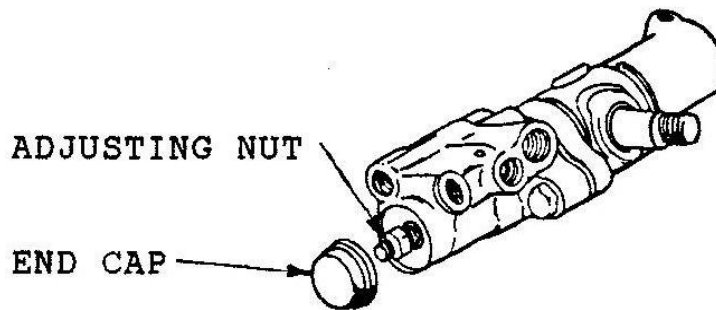
When performing the bleeding process, both front wheels must be completely off the ground. Under loaded conditions (wheels on the ground), the PS fluid is injected into the cylinder under extreme high pressure. If any air is present, this will cause a foaming action with the fluid. It will take several hours, even overnight, to bleed out the air in the system if this foaming has occurred.

**DO NOT PUT ARMS OR HANDS THROUGH STEERING WHEEL WHEN PERFORMING BLEEDING AND CENTERING PROCEDURE. STEERING WHEEL MAY TURN VIOLENTLY IN EITHER DIRECTION.**

Jack up front wheels and place car on stands. Do not use ramps. Wheels must be free to turn.

## DO NOT START ENGINE

Fill pump with fluid. USE TYPE A or Dexron ATF or equivalent. **BEFORE STARTING ENGINE**, turn the steering wheel lock to lock several times. Refill pump with fluid. Again turn steering wheel lock to lock several times. Check fluid level and refill as needed. **DO NOT PUT ARMS OR HANDS THROUGH STEERING WHEEL.** Start and run engine for five seconds. Shut off engine and check fluid level, adding as needed.



Pry off the end cap on the valve, under it is a 7/16" adjusting nut.

**Disconnect the cylinder shaft from the mounting bracket on center link.** Position the cylinder so that the shaft will not be obstructed even at full extension. **Position the cylinder shaft about halfway out of the cylinder** and have a helper start the car.

**IF THE SHAFT MOVES OUTWARD:** Turn the adjusting nut **counter-clockwise** until the rod begins to retract. Now turn the nut clockwise while counting the number of turns necessary to make the rod move outward again. Divide the number in half and turn the adjusting nut counterclockwise by this amount.

**IF THE SHAFT MOVES INWARD:** Turn the adjusting nut **clockwise** until the rod begins to move outward. Now turn the nut counterclockwise while counting the number of turns necessary to make the rod retract again. Divide this number in half and turn the adjusting nut clockwise by this amount.

Attach end of cylinder shaft onto the center link bracket, **see installation instructions.**

Pack end of valve with chassis lube and install end cap.

Start and run engine for at least 10 seconds, then turn wheels in both directions **LIGHTLY** against stops.

Refill pump with fluid to correct level.

Let down front wheels and test drive vehicle. Check fluid level.

Refer to Shop Manual for troubleshooting chart if necessary.