

Tejas SteelWorks L83/L86 Power Steering Pump and Bracket Installation

Required Parts

Pump Support Plate	Power Steering Pump w/ reservoir and cap*
Pump Mounting Hardware	AC Delco 15909834 ('97-'99 GM Trucks)
1 - M10-1.5 x 100mm flange head hex bolt	
2 - M10-1.5 x 25mm flange head hex bolts	Power Steering Pump Pulley*
1 - M10-1.5 x 20mm flange head hex bolt	Dorman 300-200 (6.4")
3 - M10-1.5 serrated flange nuts	
2 - 3/8 inch inch spacers	Accessory Drive Belt*
1 - 3 inch spacer	Gates K060770 or equivalent
1 - 1/4 inch spacer	
Pump Mounting Bracket	Power Steering Hoses*
Bracket Mounting Hardware	Metric
	SAE
4 - M8-1.25 x 30mm flange head hex bolts	
2 - Engine Crankcase Plugs GM 11602943	(Items marked with * are only included with our
2 - M10 flat washers	complete Gen 5 kit, not with the bracket, alone)

Installation Instructions

Begin by removing the accessory drive belt and vacuum pump from your L83/L86 engine.

Install the engine crank case plugs into the two ports located behind the vacuum pump, and tighten to 18 lb/ft. Use care not to over-tighten. (pic A)

The cam sensor harness support bracket needs to be bent forward 180 degrees. It is helpful to remove the connector from the bracket and pry the bracket out enough to give some slack in the wire. When putting the connector back on the bracket, make sure nothing will pinch the wires or rub through them. (pic B)

Install the pump mounting bracket to the engine block using the four M8 x 30mm bolts. Leave them loose until all four have been installed, then torque to 18 lb/ft. (pic C)

Place the power steering pump face up your bench. Position the pump support plate so that it largely covers the reservoir, and both bolt holes on the inboard side of the pump. Loosely install the M10 x 20mm bolt in the upper hole on the outboard side, then slip a 3/8" spacer between the plate and pump as you install the two M10 x 25mm bolts on the inboard side of the shaft. Torque to 35 lb/ft. (pic D)

Lift the power steering pump into position on the engine bracket, aligning the two studs on the back of the pump with the holes in the bracket. (pic E) (NOTE: these studs should have a shoulder keeping the pump square to the front of the engine. If one is lacking that shoulder, use the 1/4" spacer provided on the stud missing the shoulder.) (pic F)

Loosely install two M10 flange nuts on the studs. Install the 3 inch spacer between the bracket and the pump support plate, while sliding the M10 x 100mm bolt through the pump support plate, spacer and bracket. (pic G) Install the remaining M10 flange nut on the back of the bracket. Tighten all three nuts to 35 lb/ft.

Install the power steering pulley with an appropriate installation tool until the front of the pulley is flush with the end of the pump shaft. (pic H) **DO NOT USE A HAMMER OR HYDRAULIC PRESS TO INSTALL PULLEY!**

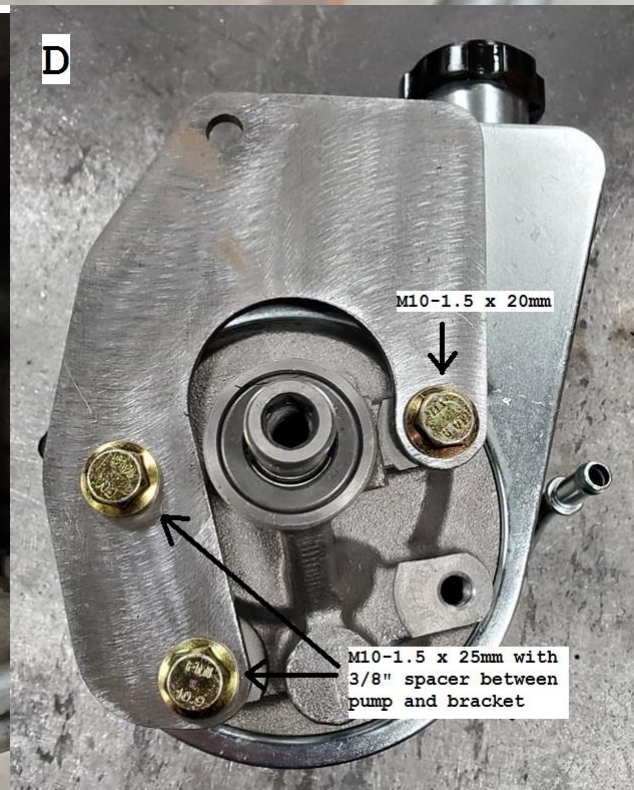
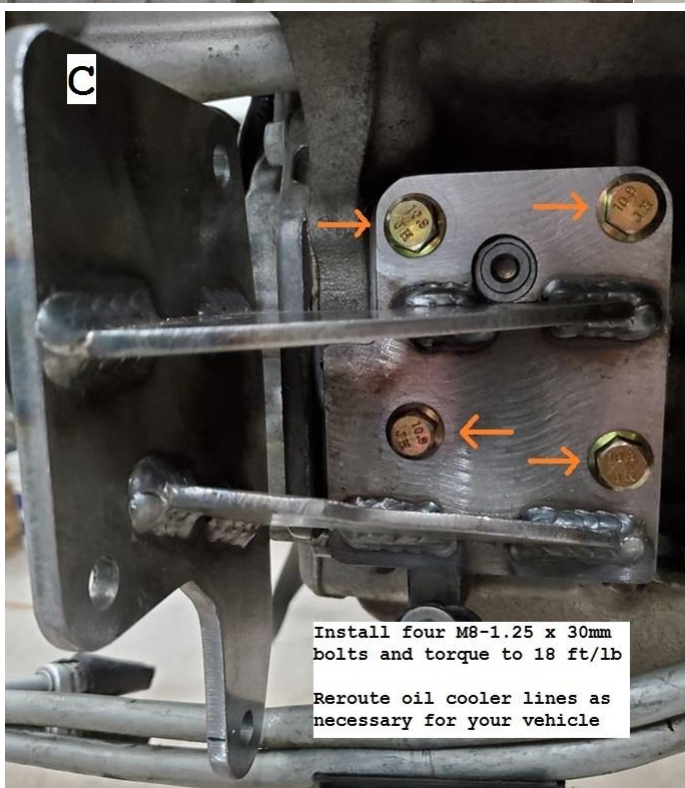
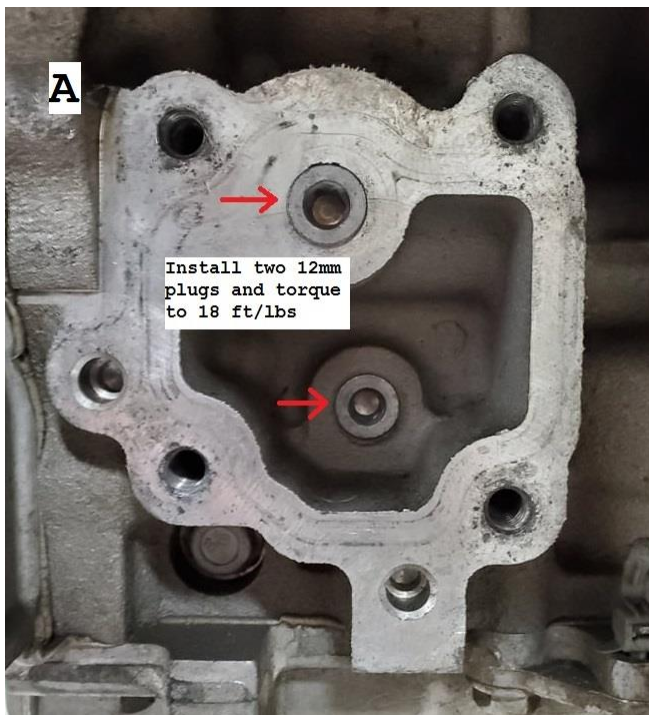
Before proceeding, check pulley alignment: Place a straight edge across the crank pulley, horizontally, and check the clearance at the edge of the power steering pulley. (pic J) The gap should be very close to the same on both sides. Place a straight edge across the water pump pulley, vertically, and check the gap at the top and bottom of the power steering pulley. (pic K) Again, they should be close to equal. If the gaps are wider at the top and inboard side of the power steering pulley, use the included M10 flat washers as shims between the 3" spacer and the engine bracket. (pic L) You may need one, two, or none. When you have the pulley aligned evenly, check the belt alignment and adjust the depth to which the pulley has been pressed onto the pump shaft accordingly. This kit will get you very close, but fine tuning may be required.

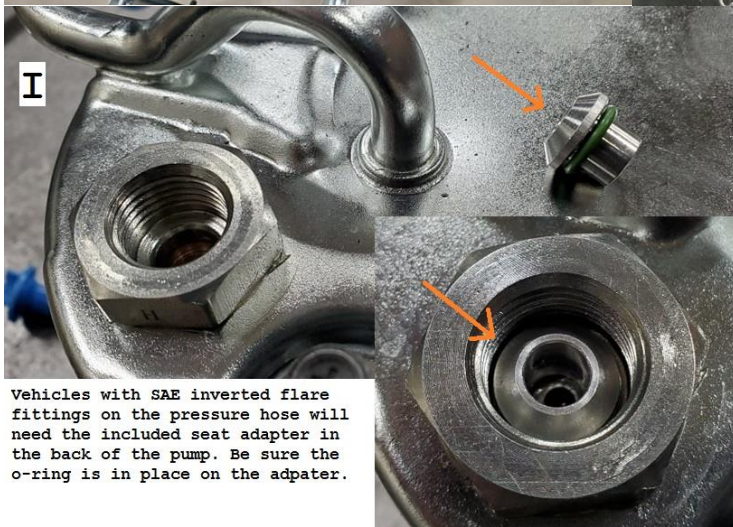
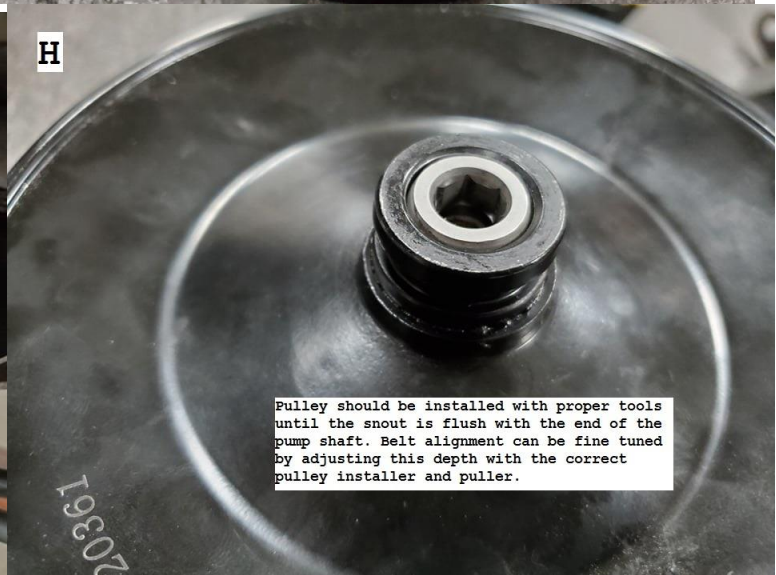
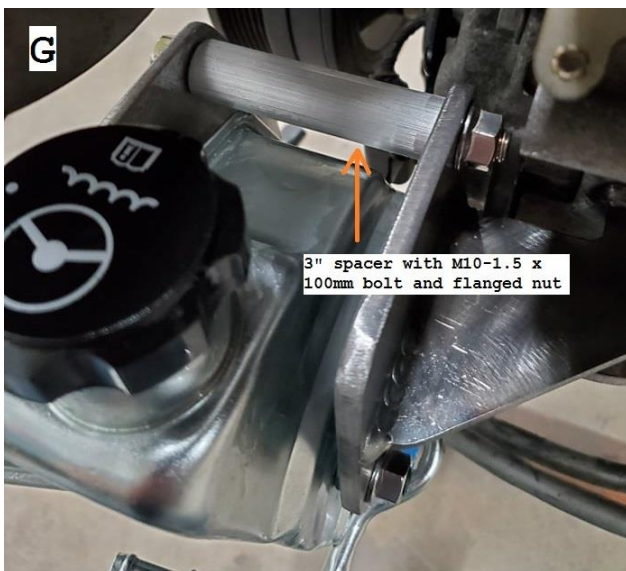
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Install the pressure and return hoses, then fill the reservoir. (Metric hoses are a direct fit for the pump. When using SAE hoses, insert the included flare seat adapter into the pressure fitting on the pump, pic I) Spin the pump by hand a few turns, then cycle the steering wheel from lock to lock to bleed the lines. This is best done with the front wheels off the ground, and the engine off.

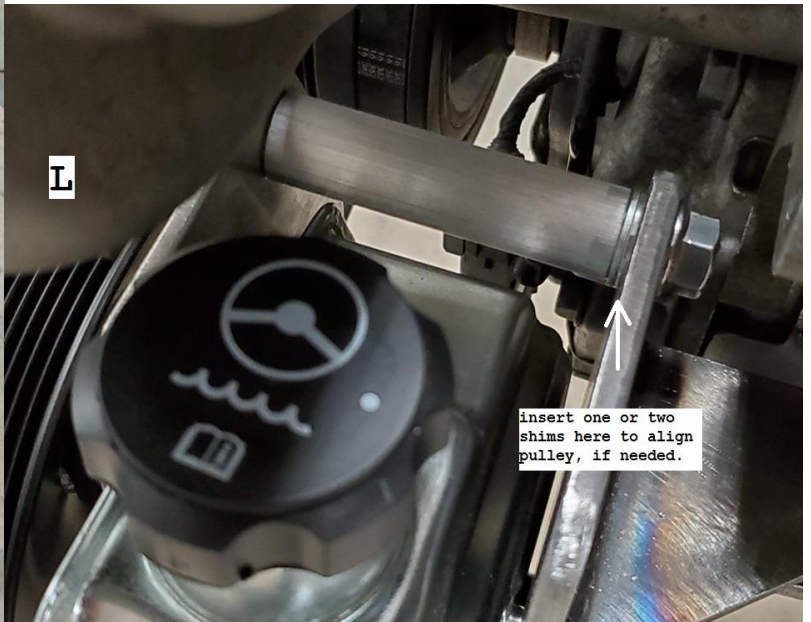
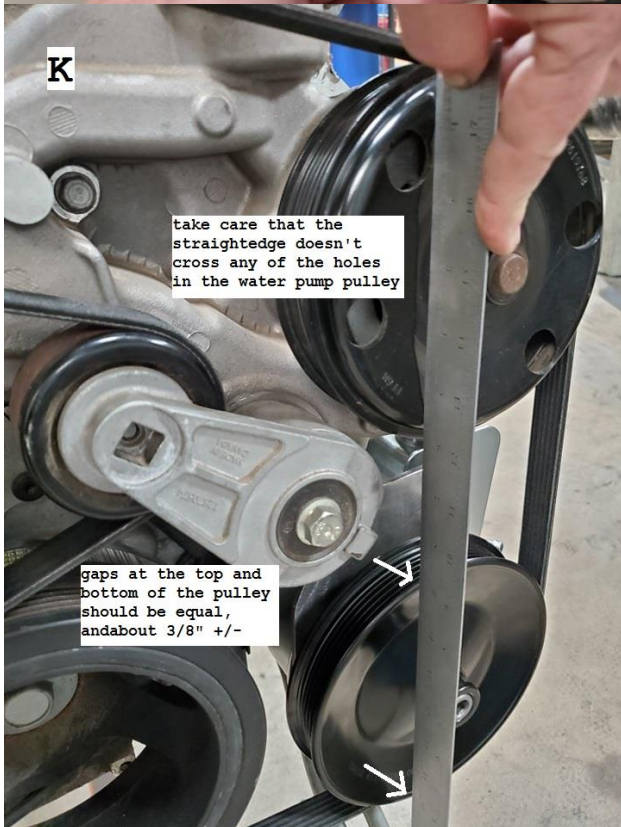
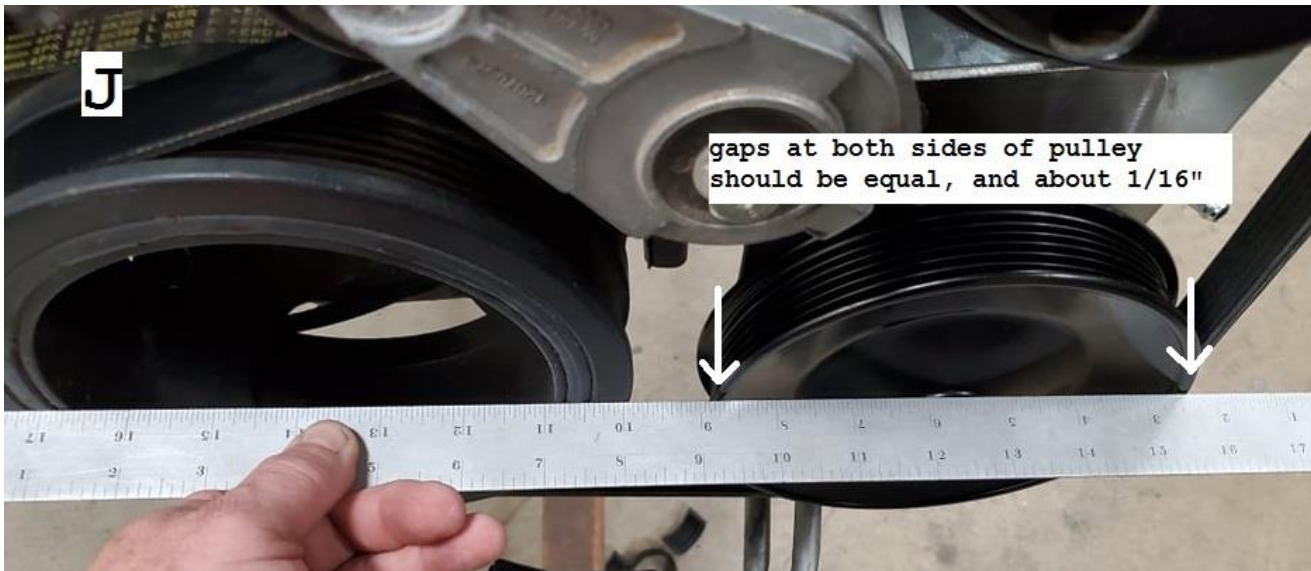
Lastly, install the accessory drive belt. Be sure to check fluid level and check for leaks before driving the vehicle.

Installation Pics on following pages...





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Thanks, again, for choosing Tejas SteelWorks!
 Don't hesitate to call if you have any issues.
 We want to ensure your success!