



INSTALLATION AND PROCEDURE FOR BLEEDING AIR FROM POWER STEERING SYSTEMS

CAREFULLY READ THESE INSTRUCTIONS BEFORE ATTEMPTING ANY MODIFICATIONS!

Proper bleeding of the power steering pump is the responsibility of the installer. Improper modification or installation will void your warranty and may result in vehicle damage or personal injury. If you have any installation questions, refer to your factory shop manual or call our Tech Service personnel at 216-961-1800 from 7am to 4pm EDT.

BEFORE YOU BEGIN

Before installing new pump, flush the old power steering fluid from the entire system. Inspect and replace any cracked, damaged or leaking hoses. If reusing original pump pulley, use the correct pulley removal/installation tool. Do not hammer on pulley.

INSTALL POWER STEERING PUMP

We recommend you follow Original Equipment Manufacturers Remove & Replace procedure for your specific Year, Make and Model Vehicle. Follow factory torque specifications and pressure recommendations.

BEFORE BLEEDING

Verify that the power steering hoses do not touch any part of the vehicle and that there are no leaks or loose connections. When filling the power steering pump reservoir, use only new, OEM approved premium quality power steering pump fluid. DO NOT use transmission fluid.

BLEEDING PROCEDURE

- 1 - Do not start the engine until the power steering system is fully bled.
- 2 - Raise the front end of the vehicle so that the front wheels are free to turn left and right.
- 3 - Turn the steering wheel fully to the left.
- 4 - Fill the power steering pump reservoir to full cold level. Leave the cap off the reservoir.
- 5 - With an assistant watching the fluid level, turn the steering wheel slowly and smoothly from lock to lock until the fluid level drops in the reservoir. Once the fluid level drops, have your assistant refill the reservoir to full cold level.
- 6 - If the fluid level does not drop in the reservoir after a few lock to lock cycles, there is still air in the system. On systems with an oil cooler, you may need to turn the steering wheel slowly and smoothly from lock to lock 20 to 40 times.
- 7 - After the reservoir fluid level drops and the reservoir is refilled, turn the steering wheel slowly and smoothly from lock to lock and verify that there are no bubbles or fluid level drops.
- 8 - Disable the engine from starting, then crank the engine for a few seconds. If the reservoir fluid drops, there is air trapped in the system. Continue above steps until the fluid in the reservoir remains constant and no air bubbles are seen.
- 9 - Lower the front wheels to the ground, start the engine and verify that the power steering fluid is at the correct level. Add fluid if necessary then reinstall reservoir cap. With the engine running, turn the steering wheel lock to lock and verify that the power steering assist is working properly, that there are no system leaks and that the reservoir is at the proper level.

NOTE

The power steering fluid level should not rise in the reservoir when the engine is turned off. If the fluid level rises, there is still air trapped in the system. Repeat the above bleeding procedure. Bubbles in the reservoir indicate a loose hose connection, a bad O-ring or a bad hose end/flare seat. A properly working power steering system has no air bubbles.

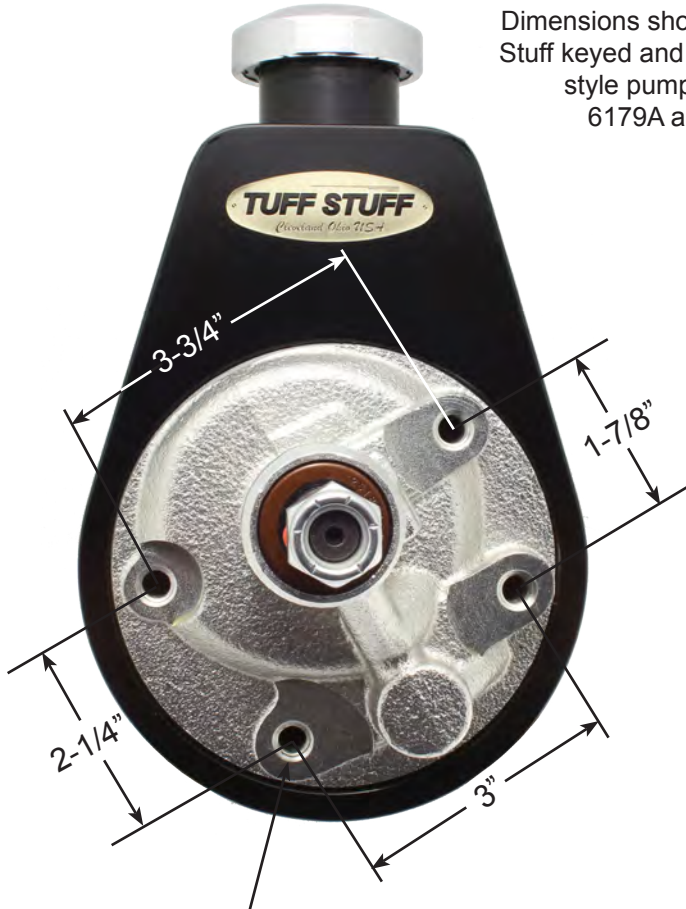


SAGINAW POWER STEERING PUMP DIMENSIONS ALL EXCEPT 6179A AND 6179B

Tuff Stuff Saginaw style power steering pumps are available in two designs, the newer 'Teardrop' and the older 'Banjo' design in either chrome plated, black or powder coated colors. Both pumps feature 100% new components and most have a 1200 PSI pressure rating @ 3 GPM. An optional 850 PSI pressure valve that flows 2 GPM is available separately.

Pumps have either a 5/8" keyed shaft or a 3/4" press fit shaft. Specific pumps include an AN-6 adapter fitting which is also available separately. A new brass fitting which permits the use of OE style pressure hose is also available.

For complete product information or to watch our [power steering pump video](#), visit our web site www.tuffstuffperformance.com



Dimensions shown are for all Tuff Stuff keyed and press-fit Saginaw style pumps except for 6179A and 6179B.



3/8" OD
return
tube

SAE Pumps have 3/8"-16 threaded holes,
Metric pumps have M10 x 1.5 threaded holes

#6176B With 5/8"
keyed shaft style shown

Pressure port is 5/8"-18 inverted flare
Remove pressure port to change pressure valve

Overall pump height is 9.00", width is 5.50", depth of pump and reservoir is 6.25" and exposed shaft length is 1.00".

ADAPTER FITTINGS



5553A



5557

- Adapts 5/8"-18 inverted flare to 9/16"-18 NA-6.
Chrome plated 5553A, Plain finish 5553
- Adapts 5/8"-18 inverted flare to 5/8"-18 Male SAE flare,
Plain brass finish 5557

Saginaw pump mounting **Bracket Kits** for small and big block Chevrolet engines are available in chrome plated or black powder coat along with single and dual groove **Pulleys**, replacement **Reservoirs** and billet aluminum **Cap** w/dipstick. Visit tuffstuffperformance.com for complete information.



SAGINAW POWER STEERING PUMP DIMENSIONS

6179A AND 6179B

#6179B With 3/4" press-fit shaft style shown



SAE Pumps have 3/8"-16 threaded holes,
Metric pumps have M10 x 1.5 threaded holes



Remove pressure port to change pressure valve

Overall pump height is 9.00", width is 5.50", depth of pump and reservoir is 6.25" and exposed shaft length is 1.00".

PRESSURE VALVES FOR SAGINAW PUMPS



Low pressure valve reduces pressure to 850PSI for use with Mustang II style rack and pinion steering systems. Exclusively for use with Tuff Stuff Saginaw pumps. Does NOT fit factory GM Saginaw pumps.

- 850 PSI low pressure valve (replaces 850PSI VALVE) 5556
- 1200 PSI high pressure valve 5554

Saginaw pump mounting **Bracket Kits** for small and big block Chevrolet engines are available in chrome plated or black powder coat along with single and dual groove **Pulleys**, replacement **Reservoirs** and billet aluminum **Cap** w/dipstick. Visit tuffstuffperformance.com for complete information.