SAGINAW STEERING CONVERSIONS

Since the steering conversion for both Jeeps and Toyota Land Cruisers are similar, this section will cover both applications.

The Saginaw steering conversions for these vehicles is a proven advantage. The problem with stock steering on both of these vehicles is excessive play or backlash. In addition to offering a sound positive means of controlling your vehicle, it can be performed at a reasonable cost. Additional advantages include exhaust clearance, engine positioning, and custom steering columns.

Before you consider this conversion we recommend that you thoroughly read and understand the complete installation procedure. For detailed procedures, obtain one of our installation manuals (JP001 for Jeeps or TLC001 for Land Cruisers). Do not take shortcuts on steering installations. We recommend that these conversions be installed by a qualified technician. The control of your vehicle depends on your steering performance. Failure of your steering system can result in severe damage and possible injury.

SAGINAW STEERING KITS:

Jeeps prior to 1971 & Toyota Land Cruiser FJ40 series (up to 1980) both had basically the same stock configuration. It is simply a gear box at the base of the steering column which controls a drag link towards the front of the vehicle. The bell crank is mounted on the front crossmember or axle and uses a push-pull affect for steering. Because there are many motions and joints on this system, excessive free play and backlash develops.

The Saginaw steering system requires the elimination of the stock gear box and bell crank. The new steering box is mounted on the inside of the left front frame rail, just behind the bumper. Although this sounds simple, there are several things that must be considered before the installation can be completed. Such things include power or manual steering, steering column type, steering box location, motor mount clearance on steering shaft, tie rod size & length, and winch clearance.

We offer 4 conversion kits for each vehicle. These kits are either power or manual steering conversions, and either a Flaming River / Borgeson yoke design or Spicer yoke design. None of these kits supply the steering box (manual or power), or steering pump and hoses (power applications). To help identify the kit necessary for your conversion, please consider the following information. Note: Full steering kits should not be ordered when converting Jeep Pickups & Wagons, since special tie rods will be required.

POWER & MANUAL STEERING BOX SELECTION:

Make sure the box that you select has the same basic configuration as the ones illustrated. Both Power & Manual boxes can be found in the 1960s & early 1970 GM cars or Jeep vehicles 1972 & newer. When using power steering, we recommend obtaining the pump and hoses off of the same vehicle. We now offer boxes & pumps listed at the end of the Steering section.

The location of the Saginaw steering box will require a spud shaft. This shaft couples & extends the steering box shaft into the engine compartment. Both Power and Manual boxes have two spline sizes that mate to our spud shaft. Our manual steering kits are supplied with a .730” dia. 30 spline spud shaft. If your steering box has .730” dia. 36 spline, Part No. 716834-36 can be substituted. On power steering kits, we supply the most common spud shaft which is a .800” dia. 36 spline. On some of the newer Saginaw boxes, we have found them to have a .730” dia. 30 spline. Part No. 716834-30 can be substituted.
Both the Jeep (JP001) & Land Cruiser (TLC001) manuals cover Saginaw steering in great detail.

STEERING COLUMNS:
The stock steering column is the easiest option when installing the Saginaw steering. Our kits include the necessary column bushings and firewall mounting plates for your installation. If you are planning to use a custom steering column, some fabrication will be necessary for mounting a custom column on a Jeep. We now offer a custom column mount for the Toyota Land Cruisers. P/N 716865 and 716866 fit GM 2” and 2-1/2” columns. We offer special yoke assemblies to connect a custom steering column shaft to our Saginaw steering components.

- P/N 716848 - 1” 48 spline Universal yoke (GM columns)
- P/N 716849 - 1” DD Universal yoke (GM and Ford)
- P/N 716850 - 3/4” x 36 spline Universal yoke (GM and Ford)
(The dimensions represent the column side of these yokes only. The opposite side of these yokes is a 3/4” DD)

Land Cruisers Columns ONLY:
There are 3 different column configurations used on FJ40 Land Cruisers. The steering kits that we offer provide coverage to retain the stock column by supplying either a support bushing (for vehicles up 1972), or a 4-bolt support bearing (for vehicles 1973 to 1979). On FJ40s 1980 & newer, we have seen a change on the column mounting to a 3-bolt mount and an increase in the steering shaft diameter. We currently do not offer a support bushing or bearing to fit these model years.

BORGESEON / FLAMING RIVER:
These kits are the newest and most recommended style that we manufacture. The steering shaft assembly connects directly to our steering spud shaft. This collapsible slip steering shaft extends to the firewall and can be adjusted to any length. With a 3/4” DD connection (round shaft having 2 flat surfaces), it is easily coupled to any of the yokes supplied in the kit or listed under the Custom Steering Column subheading. These kits require welding on the steering box mounting plate, frame enclosures, and firewall mounting plate.

- P/N 716805 - Jeep conversion kit, Manual Saginaw box
- P/N 716806 - Jeep conversion kit, Power Saginaw box
- P/N 716807 - Land Cruiser kit, Manual Saginaw box
- P/N 716808 - Land Cruiser kit, Power Saginaw box
(These kits do not include boxes or pumps)

SPICER KITS:
These kits utilize Spicer yokes and crosses. We have used this design for many years and it works well for both vehicles. The yokes use a key-way or spline connection from the steering shaft to the yoke. On these applications, the steering column yoke must be welded. Welding is also required on the steering box mounting plate, frame enclosures, and firewall mounting plate.

- P/N 716801-NS - Jeep conversion kit, Manual Saginaw box
- P/N 716802-NS - Jeep conversion kit, Power Saginaw box
- P/N 716803-NS - Land Cruiser kit, Manual Saginaw box
- P/N 716804-NS - Land Cruiser kit, Power Saginaw box
(The kits do not include boxes or pumps)
SAGINAW POWER STEERING BOXES & PUMPS

Although we manufacture and sell complete kits for Saginaw steering conversions, we do offer the individual components.

P/N 716810 - Stock Jeep column bushing
P/N 716811 - Stock Land Cruiser column bushing (up to 1972)
P/N 716812 - Tie rod clamp
P/N 716814 - Spud shaft clamp
P/N 716816 - Manual pitman arm
P/N 716817 - Power pitman arm
P/N 716819 - Center socket tie rod end
P/N 716820 - Left hand thread tie rod end
P/N 716821 - Right hand thread tie rod end
P/N 716822 - Land Cruiser column mounting plate
P/N 716823 - Jeep column mounting plate
P/N 716824 - Jeep frame enclosures
P/N 716826 - Manual steering box mounting plate (Jeeps)
P/N 716829 - Jeep tie rod 22-1/2"
P/N 716830 - Jeep tie rod 35-1/2"

(custome tie rods can be made for longer lengths)
P/N 716831 - Land Cruiser tie rod 25-1/2"
P/N 716832 - Manual box mounting plate gusset
P/N 716833 - Land Cruiser column bushing (1972 & newer)
P/N 716834-30 - Spud shaft .730" dia. x 30T (manual & power)
P/N 716834-36 - Spud shaft .730" dia. x 36T (manual)
P/N 716835 - Spud shaft .800" dia. x 36T (power)
P/N 716836 - Land Cruiser ( Spicer) steering shaft 29"
P/N 716837 - Jeep (Spicer) steering shaft 32"
P/N 716838 - Power steering mounting plate for Jeeps
P/N 716839 - Power & manual steering box mounting plate for Land Cruisers
P/N 716840 - Land Cruiser (Spicer) steering shaft 26-1/2"
P/N 716842 - Land Cruiser 6 cylinder power steering pump bracket
P/N 716847 - Jeep column shaft x 3/4" DD (Flaming River)
P/N 716851 - Land Cruiser column shaft x 3/4" DD (Flaming River)
P/N 716860 - Steering shaft support bushing
P/N 716862 - Flaming River slip yoke steering shaft & yoke assembly
P/N 716865 - 2" dia. steering column floor mount (TLC only)
P/N 716866 - 2-1/2" dia. steering column floor mount (TLC only)

We stock Saginaw power steering boxes from AGR, Inc. These steering boxes are ideal for the offroad enthusiast that uses their vehicle as a daily driver. This unit uses a large piston and has a variable 17:1 to 13:1 turning ratio. The valving is designed for a more firm and precise steering effort. This gives you more stability and control at highway speeds, and less oversteer offroad. This unit also helps stabilize larger tires giving the vehicle a more stable feel on the highway. We offer two styles of steering boxes depending on the year of the pump being used.

P/N 716880 - Saginaw power steering box Pre-1980 with flare fittings (.800 dia., 36 spline input shaft)  Price - $355.00
P/N 716881 - Saginaw power steering box After 1980 with o-ring fittings (.800 dia., 36 spline input shaft)  Price - $355.00

We now have an additional option for a power steering box. We carry a 16-13 to 1 variable ratio box that has a 3-3/8 lock to lock turning radius.

P/N 716882 - Saginaw power steering box After 1980 with o-ring fittings (.730 dia., 30 spline input shaft)  Price - $278.00

We also offer a complement power steering pump from AGR, Inc. These pumps work well when combined with the steering boxes mentioned above. Larger cam packed with a larger rotor and vanes enables these pumps to flow 3.4 gallons per minute, and produce 1500 psi. The custom ported housing makes for less flow restriction, allowing the pump to run stronger and cooler. These pumps, when used in conjunction with the AGR power steering boxes, will increase the amount of steering force to your tires by approximately 65%. Each unit is assembled with all new internal parts and high temperature Hydrogenated Nitrile seals. These pumps are fully tested to ensure trouble free performance. (Units are sold without reservoir, brackets & pulley).

P/N 716884 - Power steering pump Pre-1980 with flare fittings, press on pulley & SAE mounting holes  Price - $144.00
P/N 716885 - Power steering pump After 1980 with o-ring fitting, press on pulley & metric mounting holes  Price - $144.00

Land Cruisers keeping the stock 6 cylinder engine can now install a power steering pump onto the stock 6 cylinder. We now offer a bracket to install the Saginaw pump to the straight 6 cylinder.  P/N 716842