



#### INSTRUCTIONS FOR COLUMN SAVER KIT **BORGESON #990044**

1) This kit is designed to be used with any steering column which has a  $\frac{3}{4}$ " diameter actual steering shaft encased in a  $1\frac{1}{2}$ " outside diameter mast jacket, or column outer tube. We will cutting both tubes, then adding a plastic lower bushing to the column mast jacket which will locate the inner  $\frac{3}{4}$ " shaft. Then the inner  $\frac{3}{4}$ " shaft will be cut off back inside the mast jacket, short enough so that the 3/4DD shaft (flattened sides) extension can be welded to your original  $\frac{3}{4}$ " steering shaft. That weld must be far enough inside the mast jacket so that the weld does not interfere with the new plastic lower bushing. Then the 3/4DD U joint will allow connecting your steering while it also serves as a shaft collar to prevent the main  $\frac{3}{4}$ " steering shaft from pulling up from the column. In case you end up with too much end play on that shaft, we have included a  $\frac{3}{4}$ " washer that can be used as a shim.

We will be showing a sample installation on a 49-51 Ford using our new PS box swap mated to an original column while retaining the column shift levers.

#### PARTS INCLUDED:

- (1) plastic lower mast jacket bushing
- (1)  $\frac{3}{4}$ " DD shaft extension 5" overall length
- (1) Universal Joint  $\frac{3}{4}$ "DD X  $1\frac{1}{16}$ "-36 to connect top Borgeson Conversion Box.
- (2)  $\frac{3}{4}$ " flat washer for shim





2) Mock up your column to your steering box and determine the length of the complete column including the new U joint. Mark the top of that U joint where it will mate to your  $\frac{3}{4}$ " steering shaft. Cut that  $\frac{3}{4}$ " shaft  $\frac{3}{4}$ " longer to provide  $\frac{3}{4}$ " engagement of that joint. Then mark the mast jacket 1" shorter than the  $\frac{3}{4}$ " shaft and cut it off square. Deburr the inside of the mast jacket and check the fit of the new plastic lower bushing.



3) Next set the  $\frac{3}{4}$ " shaft from the kit next to your  $\frac{3}{4}$ " main steering shaft. As shown below, mark that original shaft  $3 \frac{5}{8}$ " above the trimmed shaft for cutoff. The turned down end of the new shaft end will be inserted into the old shaft with a  $\frac{1}{8}$ " gap for welding. The overall length should match the length calculated earlier before this cut off.

4) Align the shafts using a lathe or a short length of angle iron used as a weld fixture. Weld the connection securely, then grind or file the joint round to allow it to fit through the new lower bushing.



5) For final assembly the lower mast jacket bushing should be secured by either a short sheetmetal screw or pop rivet, being sure that the  $\frac{3}{4}$ " shaft will not be bound from free rotation. Then insert the steering shaft through the bushing and add the U joint, positioning it to limit end play of the  $\frac{3}{4}$ " steering shaft. If necessary the  $\frac{3}{4}$ " washer can be used as a shim. Install the column in the car as you connect to your new steering box or U joint connection to a rack and pinion.

