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## TECHNICAL BULLETIN # 1009

**WARRANTY:** ONE (1) YEAR FROM DATE OF PURCHASE. REPLACEMENT OF PRODUCT DEEMED DEFECTIVE BY THE FACTORY. *ANY LABOR INCURRED IS SPECIFICALLY EXCLUDED.*

**STEERING BOX INSTALLATION INSTRUCTIONS** – Vega Gear Box Kit Installation FR1494, FR1495, FR1495-1, FR1496

### **Kit Includes:**

Pitman Arm, NEW Vega steering box, 1-universal joint (5/8"-36 x 3/4"-36), Stub shaft

### **Tools Required:**

Pitman arm puller, 3/8" drive socket set, Needle-nose pliers, Open/Closed box wrench set, hack saw, 3/8" power drill, 1/4" & 5/16" high speed twist drill bits, torque wrench, red threadlocker, floor jack, 4 jack stands

**Needed parts** (not supplied): 5/16" Grade 8 bolt, 5/16" lock washer, 5/16" nut, cotter pin

**IMPORTANT:** Make sure your wheels are straight ahead before beginning and the vehicle is properly supported on jack stands. With the wheels straight ahead, mark the top center of the steering wheel with a piece of tape around the grip to assure the wheel is centered.

**NOTE:** All boxes are pre-lubricated and pre-adjusted to factory specifications.  
**DO NOT ADJUST THE STEERING BOX!!!**

## PREPARATION

1. Remove the bolt securing the steering drag link to the pitman arm. (SAVE THE BOLT, NUT, WASHER; DISCARD COTTER PIN)
2. Remove the original pitman arm, using the pitman arm puller tool
3. Remove the original steering shaft from column and steering box (SAVE FOR REINSTALLATION)
4. Remove the original steering box (SAVE MOUNTING BOLTS)
5. If the car is equipped with power steering, remove the hoses, pump, etc.

## INSTALLATION

**IMPORTANT!** Before installing, center the box! Refer to the attached enclosed Technical Bulletin #1001 before proceeding.

1. Using the original steering box mounting bolts, install the new Flaming River Vega steering box to the frame. Torque mounting bolts to 50-65 ft-lb.
2. Install the pitman arm furnished with this kit to the sector shaft. Using the torque wrench, tighten the sector shaft bolt to 115 ft-lb.
3. Install the steering shaft as follows:
  - a) Attach the 5/8"-36 x 3/4"-36 u-joint to the input shaft of the steering box. The top of the input shaft should be flush with the bottom of the universal joint yoke – the shaft **MUST NOT** extend past the bottom of the yoke.

- b) Place the OEM steering shaft in a bench vise and using a hacksaw, cut the shaft as close as possible to the rag joint. Discard the rag joint. Drill a 1/4 " (0.250") pilot hole through the shaft, 1" from the cut.
  - c) Install the Flaming River stub shaft (supplied) with the splined end into the universal joint that is installed onto the steering box. The end of the stub shaft should be flush with the bottom of the universal joint yoke – the shaft MUST NOT extend past the bottom of the yoke. Snug the setscrew tight enough to make a mark on the shaft splines.
  - d) Reinstall the original shaft to the column shaft. Mark the position of the end of OEM steering shaft to the stub shaft.
  - e) After marking the OEM shaft, remove it from the car.
  - f) Loosen the setscrew on the yoke and remove the stub shaft.
  - g) Slide the stub shaft into the OEM steering shaft; slide the stub shaft into OEM steering shaft, up to the mark made in step 4d above.
  - h) Place the steering shaft and stub shaft into a bench vise and using a 5/16" drill bit, drill a hole completely through the steering shaft and stub shaft at the pilot hole. Install the 5/16" Grade 8 bolt. Apply red threadlocker to the threads of the bolt; install the lock washer and nut. Torque to 25 ft-lb.
  - i) Before removing the shaft assembly from the vise, dimple the splined end of the stub shaft at the mark left by the setscrew with a 1/4" drill bit.
  - j) Reinstall the modified steering shaft to the u-joint yoke. Align the yoke setscrew to the dimple made on the splined shaft. Apply red threadlocker to the setscrew threads. Align the u-joint to allow the setscrew to bed into the dimple made on the splined shaft. Torque the setscrew to 25 ft-lb. Tighten jam nut.
4. Reattach the center link to the pitman arm. Install washer and nut. Tighten nut to 40-45 ft-lb, install new cotter pin, and bend over ends.
  5. Check the center position of steering. Should adjustment be necessary, remove and rotate the universal joint on the steering box input shaft one (1) spline to the left or right to center the steering. Retorque the setscrew to 25 ft-lb.; retighten the jam nut.

**NOTE:** Front-end alignment by a service professional following installation is advised.

**NOTE:** Flaming River recommends periodic inspection of all u-joint setscrews for tightness.

#### **Warranty Disclaimer**

Because of their intended usage, the manufacturer makes no warranties whatsoever expressed or implied, oral or written, to purchasers of their products regarding performance, safety, fit, merchantability, or length of service. Purchasers are responsible for selection of proper goods and must rely on their own skill or judgment that such goods are suitable for the purchaser's application.