





1. Brake Knob and Shaft P/N: 960-G-230-A



7. <u>Needle Bearing 1-1/8</u>" P/N: 960-A-140-1.1



2. Lock Nut 5/8"-18



3. 3/16" Woodruff Key P/N: 684-187W



4. Snap Ring P/N: 960-A-660

5. <u>1" Washer</u> P/N: 960-A-729





9. Brake Shoe P/N: 960-A-1793

8. Nylon Washer P/N: 960-A-137

10. Cross-Pin P/N: 960-A-2069



11. <u>11 Tooth Sprocket</u> P/N: 855-2-11-TSB



## Shaft Assembly, 408 Shelf Steerer

## Wheel Shaft Removal For a video tutorial go here.

- 1. Remove forward snap ring that is flush with the end of the steerer shaft. Some steerers may have an extended shaft that has an autopilot sprocket.
- 2. Loosen set screws on the sprocket.

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- 3. At the brake collar, the drive pin should be indented on one side and flush on the other. Use a hammer and punch to hit the indented side of the pin. If the steerer is on a work bench the shelf steerer will have to be raised off the surface otherwise the pin will bottom out on the workbench before being removed. If the steerer is installed on the boat at this point be careful not to drop the pin out the bottom.
- 4. Find "Edson" stamped on the sprocket. This marks the key way, and needs to be lined with the indent on the nylon washer found between the aft side of the sprocket and the steerer housing. The indent marks an opening on the nylon washer that allows the key stock to pass through.
- 5. Pull out the wheel shaft while keeping "Edson" in line with the nylon washer.
- 6. With the wheel shaft out, the remaining snap ring or 3/16" woodruff key needs to be removed before the second needle bearing can slide off.
- 7. If you are not replacing the brake collar you can start to reassemble the steerer in the reverse order of steps 1-6. Continue for brake replacement instructions.

## **Brake Replacement**

- 1. Remove the 4 mounting screws holding the brake plate in. Take note of which side the brake plate is attached to. Becareful not to drop the sprocket or brake plate. The brake plate can only be removed from the bottom of the housing.
- 2. Replace the brake collar with the brake pad facing the brake plate and over the knurled side of the sprocket.
- 3. Mount it back to the housing on the side with the rounded top for the needle bearing housing.

To reassemble: Reverse the above procedure. Lubricate the bearings by inserting the nozzle of a tube of teflon grease into the hole in the casting above the bearings and squeezing the tube as you rotate the shaft. Don't forget to re-tension the steering cables.

## Rebuild Kits: Needle Bearings (314-408) & Brake Kit (316-336-402-TSB)

Have a side break and/or a brass sprocket?

Follow along this video on rebuilding the wheel shaft on a 335 classic pedestal to see tips on how to remove a side break assembly and a brass sprocket.

NOTE: For shelf steerers that have a straight shaft there is an additional 1/4" key in place of the woodruff key. It has a washer and heavy duty cir-clip aft of the wheel hub holding the wheel in place from sliding forward. The locknut is replaced by part F1-FJN a 1"-14 hex nut.





