

## Double Taper Drive Shaft Removal

1. Remove the propeller. We suggest using a prop puller to prevent damaging the propeller. Attempting to pound off the propeller with a hammer will very likely damage the propeller and should be avoided.
2. Loosen the stuffing box nut.
3. Loosen the safety collar.
4. Unbolt the shaft coupling from the engine.
5. Slide the drive shaft and shaft coupling away from the engine and remove the retaining nut from the end of the drive shaft.
6. Re-bolt the shaft coupling to the engine.
7. Attach the shaft puller, then hammer away until the drive shaft comes out of the coupling.
8. Remove the shaft coupling from the engine.

## Single Taper Drive Shaft Removal

1. Follow steps one through three of double taper drive shaft removal.
2. Remove the set screws from the shaft coupling. Do not remove the bolts attaching the shaft coupling to the engine.
3. Attach the shaft puller, then hammer away until the drive shaft is free of the shaft coupling. Before removal, it is a good idea to mark the drive shaft with a felt tip pen where it enters the shaft coupling to provide an indication of progress.
4. Once the drive shaft is out of the shaft coupling, check the transmission coupling end of the drive shaft for scoring. Smooth out any rough edges or burrs to avoid damaging the packing seal or strut bearings when removing the shaft.
5. Remove the drive shaft from the boat.
6. Remove the shaft coupling from the engine.

## Strut Bearing Removal/Installation

### I. Strut Bearing Removal

1. Remove drive shaft.
2. Determine appropriate bearing puller washer by measuring the OD of the strut bearing.
3. Slide puller coupler through strut (use sleeve for 1 1/8" ID bearings) and attach appropriate bearing puller washer with bolt.
4. Align bearing puller with strut bearing and hammer strut bearings out of the strut.

### II. Strut Bearing Installation

1. Determine appropriate bearing puller washer by measuring the OD of the strut bearing to be installed.
2. Slide puller coupler through strut, place strut bearing on puller coupler and secure with bearing puller and bolt.
3. Line up bearing with inside of strut barrel to assure correct orientation. If strut bearings are not pulled in straight, barrel damage may occur.
4. Hammer strut bearing through until back edge of strut bearing is aligned with shaft end of strut barrel.
5. Push puller back through strut and place second strut bearing on the puller coupler. Hammer until the front edge of the strut bearing is aligned with the forward end of strut barrel.
6. Remove puller from strut and re-install drive shaft.

## WARRANTY INFORMATION

A.R.E. MANUFACTURING, INC. drive shaft/strut bearing pullers are fully guaranteed against defects in material and workmanship for one year from the date of purchase.

Except as above stated, A.R.E. MANUFACTURING, INC. makes no other warranties of any kind, express or implied, and the extent of A.R.E. MANUFACTURING, INC.'s liability for any breach of warranty shall be limited to the replacement of the product.

A.R.E. MANUFACTURING, INC.'s warranty shall not apply to any other goods that have been repaired or altered by anyone other than A.R.E. MANUFACTURING, INC. The warranty shall not apply to any drive shaft/strut bearing puller subjected to misuse, common negligence, or accident.

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## DRIVE SHAFT/STRUT BEARING PULLER



Thank you for purchasing an A.R.E. MANUFACTURING, INC. drive shaft/strut bearing puller. This drive shaft/strut bearing puller has been manufactured of superior material with tight quality control to ensure high performance and reliability.

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