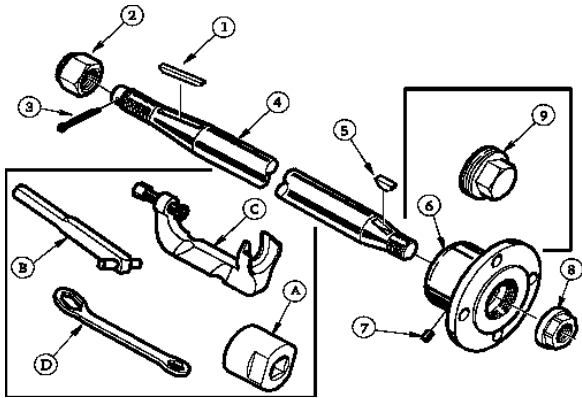


A.R.E. DOUBLE TAPER DRIVE SHAFT SYSTEM

DRIVE SHAFT REMOVAL

1. Remove the propeller. We suggest using a prop puller (C) 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. Using a 5/32 hex key, loosen the locking set screw (7) two full turns.
5. Unbolt the coupling (6) from the engine.
6. Slide the drive shaft (4) away from the engine and insert the coupling wrench (B) into the coupling bolt holes. Using a 1-1/16" socket wrench (A), remove the retaining nut (8) from the end of the drive shaft.
7. Thread the separator (9) into the coupling and tighten to separate the coupling from the drive shaft.



DRIVE SHAFT INSTALLATION

1. Inspect the coupling. The keyway must not be worn, loose, or dinged. The flange of the coupling must not be bent or dented. The bore for the drive shaft must be smooth and round. Replace the coupling if worn or damaged.
2. Inspect the woodruff key (5) for wear. The key should fit snugly in the coupling and drive shaft. Replace the woodruff key if worn or damaged.
3. Assemble the drive shaft and the coupling without the woodruff key. Use a felt tip pen to mark the location of the coupling on the drive shaft.
4. Disassemble the drive shaft and the coupling and reassemble with the woodruff key. If the coupling does not reseat on the drive shaft in the same location, then the coupling is seated on the key and not the drive shaft. Adjust the size, fit, and location of the woodruff key until the coupling seats in the proper location.
5. Remove the coupling from the shaft.
6. Slide the drive shaft into the boat. Replace the stuffing box nut and the safety collar.
7. Place the coupling on the drive shaft while checking that the coupling seats properly.
8. Using the 1-1/16" socket wrench and coupling wrench (B), tighten the retaining nut (8) to 60-70 ft./lbs. of torque.
9. Using a 5/32 hex key, securely tighten the locking set screw.
10. Apply a liberal coat of multi-purpose grease to the threaded portion of the coupling to prevent corrosion.

11. **Check the engine alignment.** The engine must be aligned to within .003". This is a very critical part of drive shaft installation. Improper alignment can result in tragic drive shaft failure. Refer to your owner's manual or contact your boat dealer's service department for information on engine alignment for your particular boat model.
12. Insert and tighten the coupling mounting bolts.
13. Tighten the stuffing box nut.
14. Tighten the safety collar.
15. Install the propeller on the drive shaft without the key. Use a felt tip pen to mark the location of the propeller on the drive shaft.
16. Remove the propeller from the drive shaft and reinstall with the key. If the propeller does not reseat on the drive shaft in the same location, the propeller is seated on the key and not the drive shaft. Adjust the size, fit, and location of the key until the propeller seats in the proper location.
17. Replace and tighten the propeller nut.
18. Replace the cotter pin.
19. Test run the boat to check for vibration.

WARRANTY INFORMATION

A.R.E. MANUFACTURING, INC. drive shafts 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 subjected to misuse, common negligence, or accident.

ELBERT'S

A DIVISION OF A.R.E. MANUFACTURING, INC.

DRIVE SHAFT



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

ELBERT'S



A DIVISION OF A.R.E. MANUFACTURING, INC.
518 S. SPRINGBROOK RD.
NEWBERG, OR 97132
503-538-9438
503-538-5148 FAX
800-541-4962

WARNING: Improper installation will damage the drive shaft and/or the boat. Improper installation could also void the warranty. Please read and follow the installation instructions carefully. The use of this product shall be at the sole risk and responsibility of the user with no liability of any nature whatsoever on the part of A.R.E. MANUFACTURING, INC.