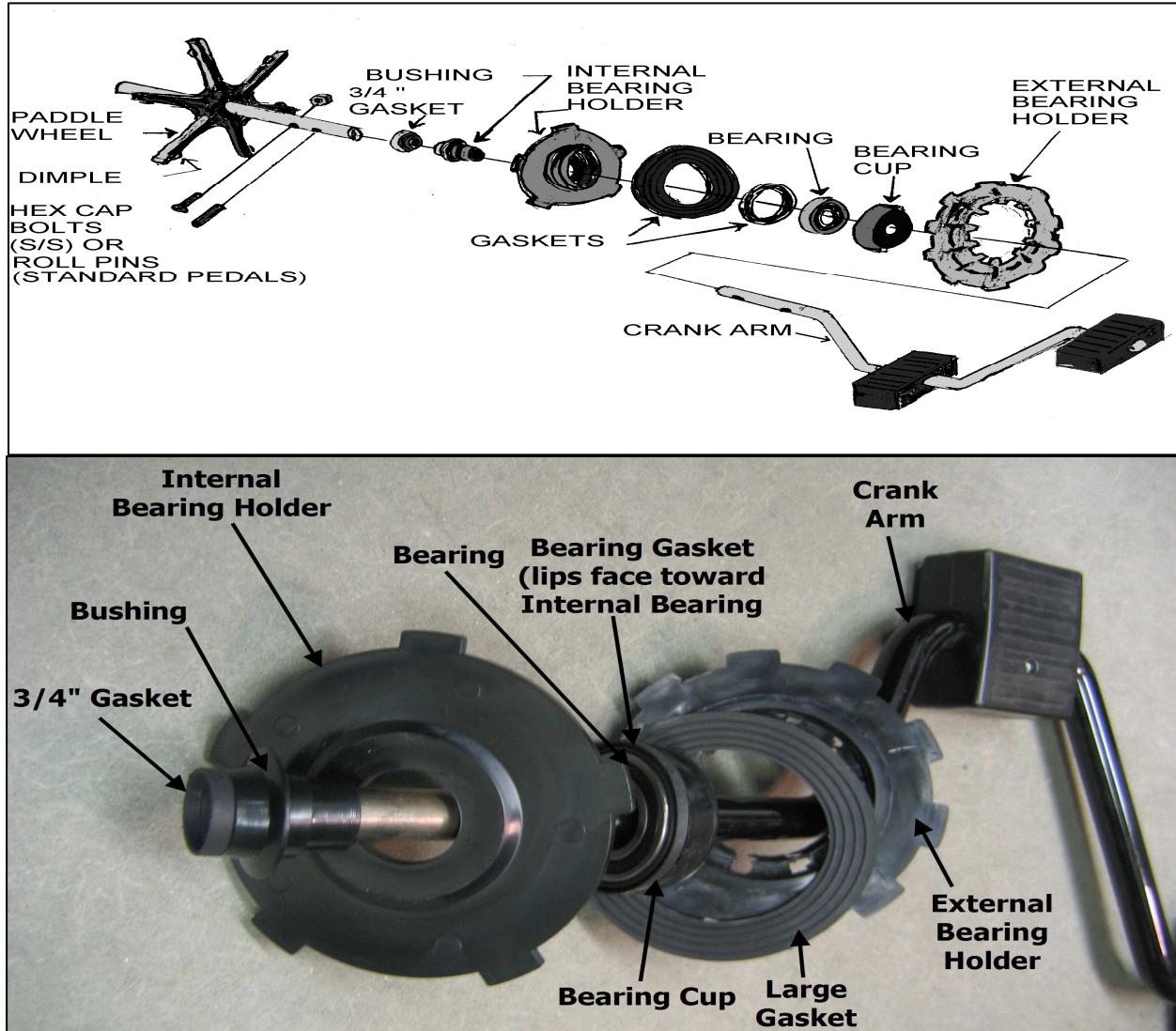


# INSTRUCTIONS FOR REPLACING DRIVE ASSEMBLY



1. Strip the boat of the old cranks, bearings, paddles etc. Remove the roll pins (or hex bolts) and then use a large rubber mallet on the crank arms to try and get them to rotate inside of the paddle wheel shaft. If the boat has had many years of service, it may be necessary to use heat (a propane torch or electric paint stripper) on the paddle wheel shaft, but use with caution! Several very wet rags wrapped around the paddle arms of the paddle wheel should keep them from melting. Once the crank arms are rotating exert an outward pressure on them to remove them. You will probably have to remove the threaded external-bearing holder, as the bearing will probably be stuck on the crank arm.
2. Assemble and insert from underneath the Internal Bearing Assembly (4" gasket, 2" gasket, sealed bearing and bearing cup), so that the threads are accessible on the outside of the boat.
3. Take the external bearing and hand tighten onto the threads of the internal bearing. With a blunt object (block of wood) and a hammer, tap in a clockwise direction until it feels tight. (Same on other side)

4. From underneath, insert the bushings into the internal bearing. (Tap in gently until it feels snug)
5. Place  $\frac{3}{4}$ " gaskets on the metal ends of the paddle wheel. **Ensure the dimple on the back of the black plastic paddle wheel is facing towards the back.** The dimple must be at the back because that is the way the paddle blades (fins) attach to the paddle wheel. Insert the ends of the paddle wheel with the  $\frac{3}{4}$ " gaskets into the bushings. First one side then the other. This may be difficult, but most important. Ensure the  $\frac{3}{4}$ " gasket are in properly, not distorted in any way; otherwise, leakage may occur. Spray on some WD-40 or apply some Vaseline on the friction surfaces to aid in assy
6. From above, insert cranks until completely in. Do one side at a time.
7. Once both cranks are in, line up holes by holding paddle wheel and turning the crank.
8. **FOR STAINLESS STEEL SHAFTS PEDAL BOATS:** Once lined up, drill through lined up holes with a  $1/4$ " bit. Drill one hole, insert hex cap bolt, tap through, being careful not to damage the threads on the bolt. After drilling, insert hex nut immediately, to ensure the crank and paddle wheel won't shift and misalign itself. Tap down all four bolts (two per side) until flush against the metal. Tighten the  $7/16$ " nuts. Install paddle blades and tap until snug.  
**FOR REGULAR PEDAL BOATS:** Once lined up, simply hammer in roll pins. Paint exposed steel with rust paint. Add on paddle blades and tap until snug.