Poly Flex AUSTRALIA

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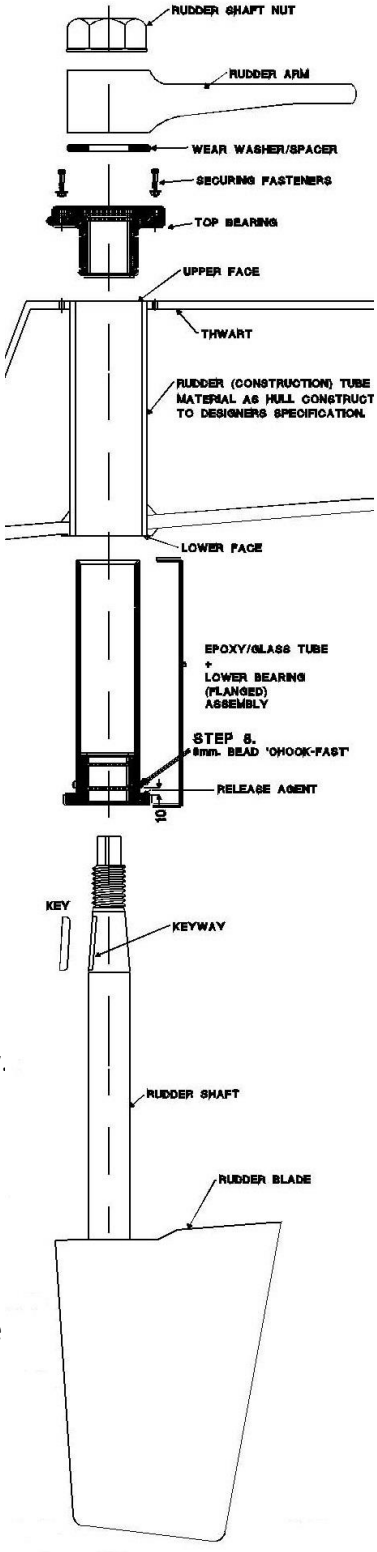
ADVANCED POLYMER TECHNOLOGY FOR VIBRATION CONTROL

Rudder Bearing and Seal Assembly Installation Procedure

Aluminium, Steel, Timber & Ferro-Cement Vessels



Materials and Tools Required:
- Securing fasteners pan head self-tapers or socket headed cap screws.
- Sand paper or emery cloth – 80 grit.
- File.
- Angle grinder.
- 'Chock-Fast' epoxy filler or approved alternative.
- Water proof grease.
- Hand operated grease gun.

Recommended Installation Procedure:

1. Make sure that the upper and lower faces (as shown) are square and true.
2. Mark and drill holes (or drill and tap) for the fasteners.
3. Prepare rudder tube by roughening the internal surface (80 Grit) thoroughly, clean, make sure that no residual dust, grit, or oil is present.
4. Locate Epoxy/Glass tube and lower bearing assembly into the rudder tube, mark and cut top of Epoxy/Glass tube approx. 10mm above the upper face.
5. Roughen the outer surface of the Epoxy/Glass tube (80 Grit), clean thoroughly.
6. Prepare a small amount of 'Chock-Fast' sufficient for an 5/16" (8mm) bead around the base of the Epoxy/Glass tube and to fill the keyway of the rudder shaft.
7. Apply a release agent (eg Vaseline) to the upper surface of the lower flanged bearing.
8. Apply an 5/16" (8mm) wide bead of 'Chock-Fast' around the Epoxy/Glass tube approx. 10mm above the bottom edge where it meets the flanged lower bearing (as shown)
9. Place the Epoxy/Glass tube and lower bearing assembly into the rudder tube and locate centrally, ensuring that the assembly is also centrally located in the (ie: using wedges) – leave to cure.

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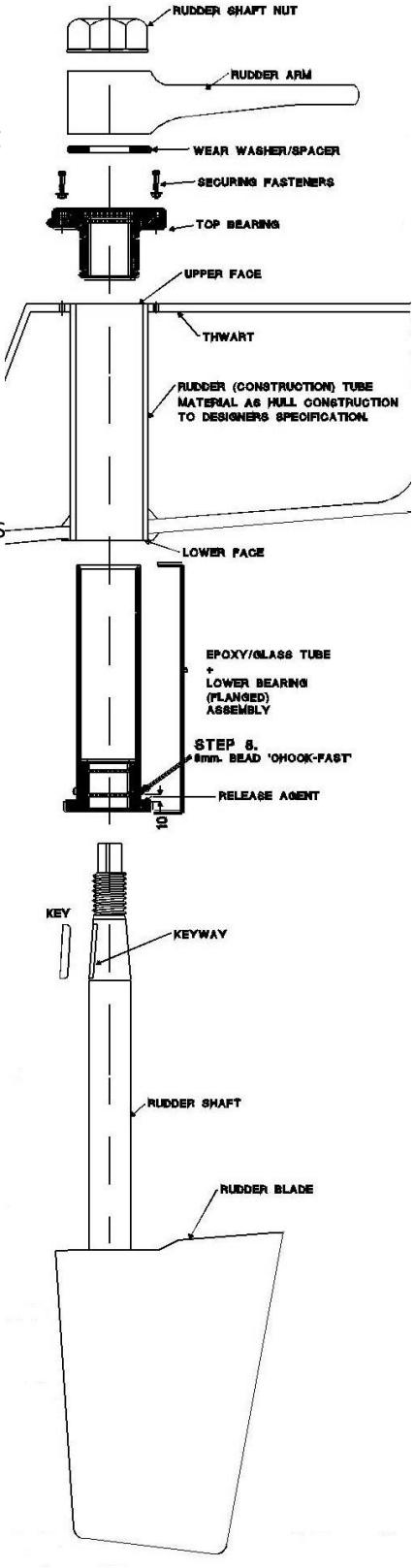
10. After applying release agent to the rudder shaft keyway, with the remaining 'Chock-Fast' over fill the keyway – leave to cure. (To be sand flush later).
    Apply electrical tape or similar over the treaded portion of the shaft.
    Note: This is done to prevent cutting the O-ring when fitting the rudder.
11. After 'Chock-Fast' has cured, mask the top of Epoxy/Glass tube to prevent any filler entering the tube.
12. Prepare sufficient 'Chock-Fast' to fill half of the volume between the two tubes – inject into void – leave to cure.
13. Repeat the above – filling the remainder of the void – leave to cure. This is done in two steps to avoid excessive heat build up during the curing process
14. After the filler has completely cured, grind the Epoxy/Glass tube flush with the upper face.
15. File and sand a chamfer (2mm min) on the inside top edge of Epoxy/Glass tube.
16. Smear grease over the O-ring and the outside of the top bearing and push into place.
17. Fasten top bearing to thwart.
    Note: Do Not Overtighten
18. Sand the 'Chock-Fast' in the rudder shaft keyway flush with the surface.
    Note: this is done to prevent cutting the O-ring when fitting the rudder.
19. Smear grease over the rudder shaft and internal top and bottom O-ring, fit rudder, ensuring that the internal O-rings are not damaged in any way, fit wear washer/spacer (If required), remove tape from thread and filler from keyway and fit steering mechanism.
20. Grease top bearing with a hand operated grease gun.
    Note: Do Not Over Pressurise.



Note: The Above Procedure Is a Guide Only, Specification Are Subject To Change Without Notice.