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### **Reseating/ Isolating Bearing Bushes:**

The Following ThistleBond section is concerned with the Reseating and Isolating of Bearing Bushes and should be read in conjunction with the Technical Data sheets of the following ThistleBond Products: Super Metal Rebuilding System, Extended Life Super Metal Rebuilding System, Abrasion Resistant Ceramic Carbide Fluid, Flexiblised Ceramic Carbide Compound

### **COMMON DEFECTS**

Excessive movement of bush within housing caused by – electrolytic corrosion or impact wear.

### **PREPARATION**

All work should be carried out in strict accordance with the relevant ThistleBond Technical Data Sheet. The product selection and application techniques should be based on the nature and severity of the damage and the application technique. For in situ repairs a work area must be created in order to protect the repair area from the weather conditions. It may also be necessary to control the temperature within the work area in order to reduce humidity and prevent condensation. Specific attention should be given to the method used to align and centralise the bearing bush within the damaged housing and consequently jacking bolts, shims, jig or mandrel must be prefabricated. The techniques described below can be used to rebuild, realign and electrically isolate types of bearing bush housing, including,

***Rudder Bush Housing, Internal Stern Tube Bush Housings, A Frame Bracket, bush Housings, Stabilizer in Shaft Bearing Bush Housings, Oversized Cutlass Bearing Housings.***

### **SURFACE PREPARATION**

Wash down all components to be treated with ThistleBond Universal Cleaner to remove all dirt, grease and other surface contamination. Coat the entire surface of a new bearing bush or cutlass bearing and all centralising and aligning equipment with a minimum of 2 coats of ThistleBond Release Agent to prevent bonding.

Grit Blast the internal surfaces of the damaged Housing to give a surface finish of **Swedish Std Sa 2 1/2 ensuring a profile of 75 microns minimum** using angular abrasive. On completion of all preparation, rewash all blasted surfaces with ThistleBond Universal Cleaners.

### **APPLICATION TECHNIQUE**

There are two techniques available for rebuilding Housings.

## 1. SLIP METHOD

Mix the selected ThistleBond Product and using the flexible applicator provided apply a thin, even film to the prepared inside surface of the housing and also to the outside surface of the liner or bush. Ensure the product is pushed well into the prepared surface of the housing. Apply further material, in excess to the internal surface of the housing. The liner or bush must then be jacked into position in the housing and correctly aligned. Any excess product extruded during the assembly should be removed immediately.

## 2. INJECTION METHOD

The liner or bush should be aligned with the housing. Seal the annular space between the bush and the housing where required, to prevent loss of product during the injection process. This may be done by mechanical means or by the use of a fast curing grade of ThistleBond Product. Injection holes should be carefully positioned together with the vent holes to prevent formation of the air traps ideally, injection points should be spaced no more than 24" apart. The selected product should be loaded into disposable injection cartridges and injected using pneumatic equipment. The application should progress from the lowest injection point to the highest injection point. Material is injected until it is exuded from the next highest injection point. This process should be continued until the annular space between the bush and the housing has been completely filled with the product indicated by leakage of the product through small vent holed drilled at the highest point available.

## TECHNICAL SUMMARY

<b>PRODUCT</b>	<b>COMPRESSIVE STRENGTH</b>	<b>WORKING LIFE (20C)</b>	<b>FULL CURE (20C)</b>
<b>SUPER METAL REBUILDING SYSTEM</b>	15,500 PSI (ASTM D 965)	20 MINUTES	72 HOURS
<b>ABRASION RESISTANT CERAMIC CARBIDE FLUID</b>	13,000 PSI (ASTM D 965)	25 MINUTES	5 DAYS
<b>EXTENDED LIFE SUPER METAL REBUILDING SYSTEM</b>	10,000 PSI (ASTM D 965)	60 MINUTES	5 DAYS
<b>FLEXIBLISED CERAMIC CARBIDE COMPOUND</b>	2,800 PSI ELONGATION 35% (ASTM D412)	30 MINUTES	7 DAYS

### Main selection system

For General Applications	SUPER METAL REBUILDING SYSTEM
Application requiring extended work times	EXTENDED LIFE SUPER METAL
Applications on equipment subject to differential Movement	FLEXIBLISED CERAMIC CARBIDE COMPOUND
For applications by injection methods	ABRASION RESISTANT CERAMIC CARBIDE FLUID