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### **The Casting of Cutlass Bearings:**

The Following ThistleBond section is concerned with the casting of Cutlass Bearings and should be read in conjunction with the Technical Data sheets of the following ThistleBond Products: Abrasion Resistant Ceramic Carbide Fluid, Flexiblised Ceramic Carbide Fluid, 60 Durometer Elastomer Fluid and 80 Durometer Elastomer Fluid.

#### **COMMON DEFECTS**

- A). Damage due to dry running.
- B). Loss of clearances due to damage from abrasive particles.
- C). Damage caused by shaft misalignment or vibration.

#### **PREPARATION**

All work should be carried out in strict accordance with the relevant ThistleBond Technical Data Sheet. Product selection and application should be based on the nature of the damage and the amount of time available for the repair to be carried out.

#### **SURFACE PREPARATION**

A suitable mould must be manufactured, this can be done by using one of the two techniques outlined below:

- a). Produce a centralising jig for the existing outer sleeve of the bearing and machine a suitable metal insert to the configuration of the internal dimensions of the bearing. This should then be centralised within the outer sleeve to produce a mould.
- b). Alternatively, ThistleBond Abrasion Resistant Ceramic Carbide Fluid and Flexiblised Ceramic Carbide Fluid can be used to cast an inner mould. This can be done by coating the internal surface of a new bearing/ bush with two coats of ThistleBond Release Agent. Once allowed to dry, the bearing can be centralised in a jig and one of the ThistleBond Ceramic Carbide coatings can be poured in a thin stream to fill the centre cavity. When the material has cured the original bearing may be removed leaving the cured core adhered and centralised in the jig.

Produce a new outer sleeve from suitable materials or alternatively, remove all existing rubber from the existing sleeve and prepare the internal surfaces by grit blasting to *Swedish Standard SA 21/2 ensuring a minimum profile of 75 microns, using an angular abrasive*. Clean the component thoroughly with ThistleBond Universal Cleaners and treat the surface of the former with a minimum of two coats of ThistleBond Release Agent and allow to dry.

