


R0000558E Bench Assemble Base and Turntable

bench assembly instructions for main rotary base of saw

 Difficulty **Hard**

 Duration **6 hour(s)**

Contents

Introduction

Step 1 - Unless otherwise stated

Step 2 - Degreasing

Step 3 - Fit bearing to turntable shaft

Step 4 - Fit outer cage of bearing

Step 5 - Fit bearing assembly

Step 6 - Prepare gearbox for fitting

Step 7 - Fit gearbox to turntable housing

Step 8 - Finalise gearbox mounting

Step 9 - Apply grease

Step 10 - Continue to work instruction part 2

Comments

Introduction

Tools Required

Standard hex key set
Standard spanner set
Heat gun
Large Internal Circlip pliers
Standard circlip pliers
8mm hand reamer
Grease gun
Torque wrench

Parts Required

B0000028 Thrust Bearing 140 I/D 180 O/D 31 Long (FAG) x 1
B0000032 Linear Bearing: Ø30 x 50 Compact (Metal Case Only) x 4
B0001087 Angular Contact Bearing 70 I/D 125 O/D 24 Long x 1
B0001088 Circlip 125mm Internal x 1
C0001122K Servo Motor: Beckhoff AM8032-1E10 (Keyed) x 1
C0001179-100 Gearbox NPTO 100-1 x 1
D0004019E Turntable Mk5 (5334E) x 1
D0004033E Alignment Disc Mk5 x 1
D0004147E Turntable Shaft Mk5 x 1
D0004320E Thrust Bearing Housing Mk5 x 1
D0004336 Stay Bar x 2
D0004514E Turntable Base Mk5 x 1
D0004516 Front Bearing Block (5294) x 2

- D0010778 Turntable Stop Arm x 1
- D0010796 Turntable Housing Cover x 1
- H0004631 Shaft 30mm: Base Slide x 2
- M0001176 M6 Stainless lock washer x 4
- D0015663 SR Axis Motor Guard x 1

Step 1 - Unless otherwise stated

All bolts to have Loctite 243 adhesive applied unless otherwise stated

All Threaded Pneumatic connections to have Loctite 570 applied

All bolts to be pen marked once adhesive applied and correct tension added



Step 2 - Degreasing

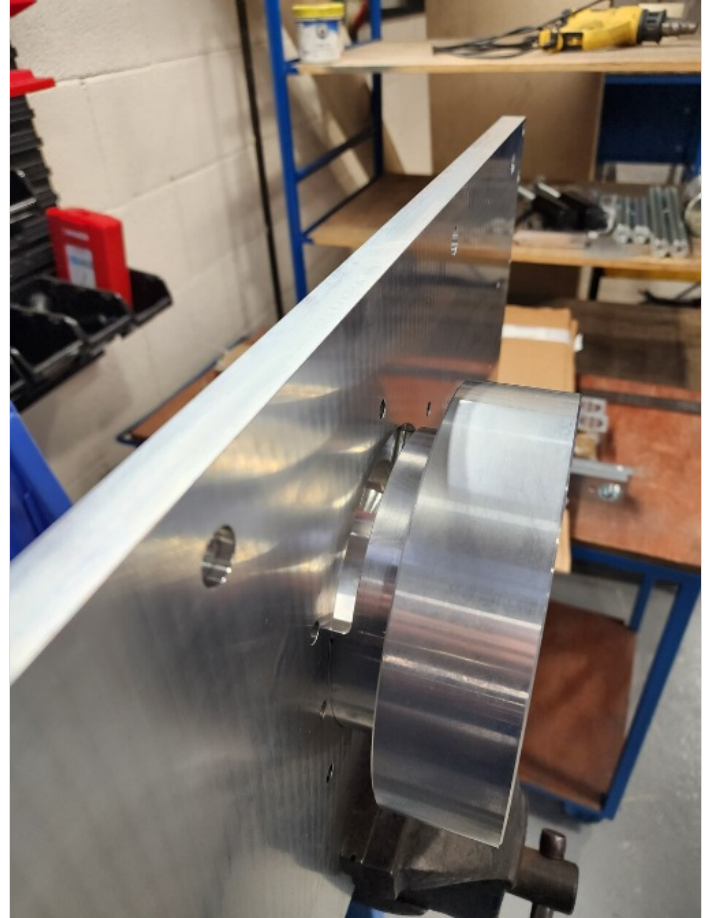
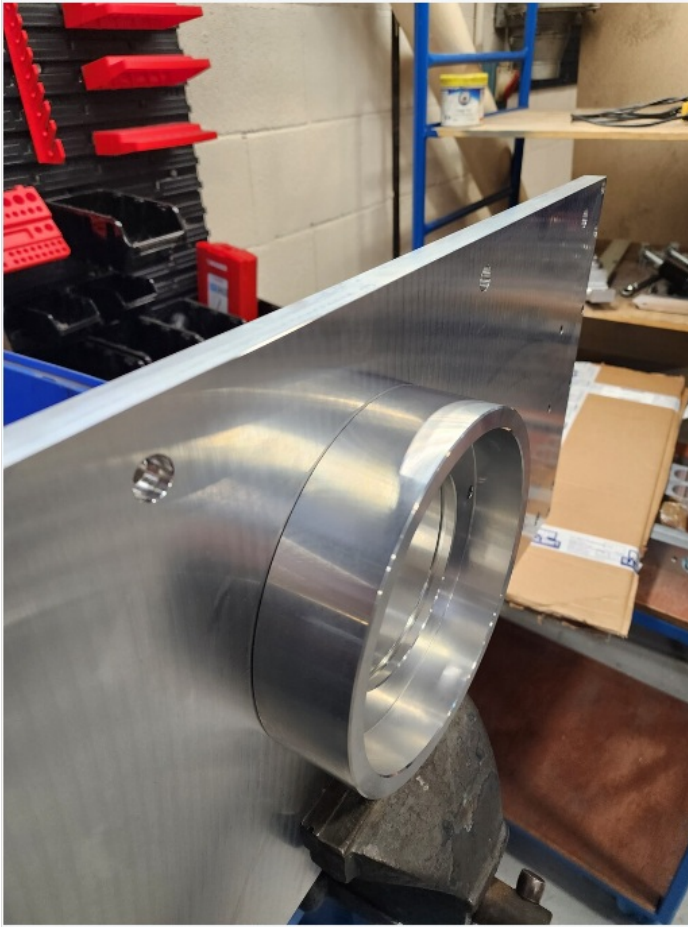
It is vital all components which accept bearings are degreased with Fe10

Check that bearing housing fits turntable plate as shown

Ensure this is done to all bores in this assembly



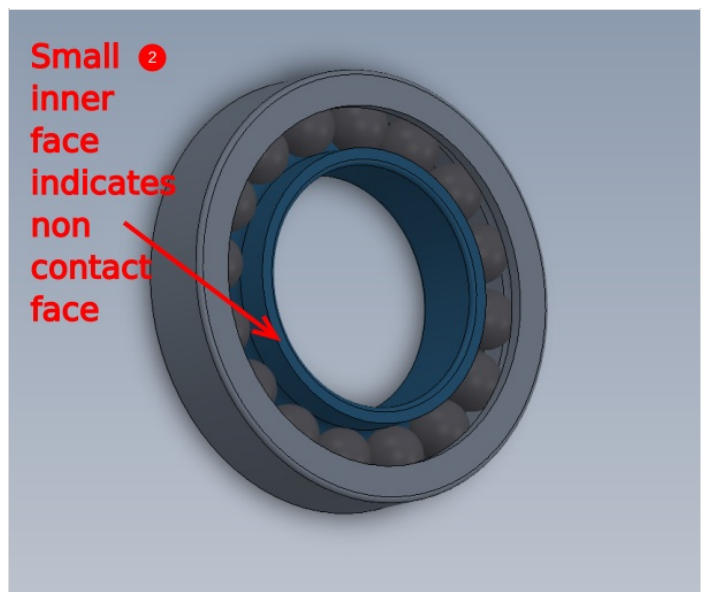
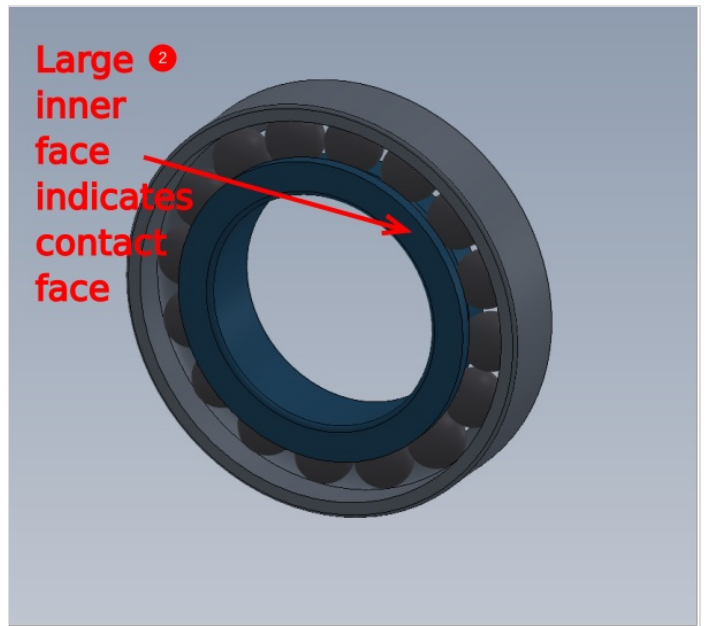
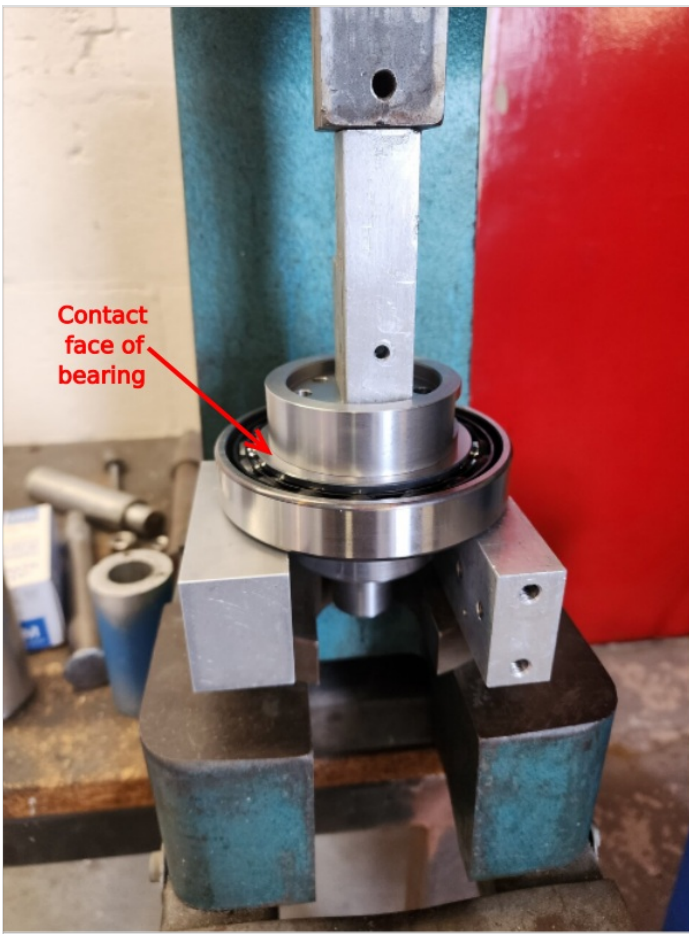




Step 3 - Fit bearing to turntable shaft

Fit D0004147E Turntable Shaft Mk5 to B0001087 Angular Contact Bearing 70 I/D 125 O/D 24 Long x 1 as shown

If fit is loose, use loctite 641, if fit is tight inspect parts to drawings





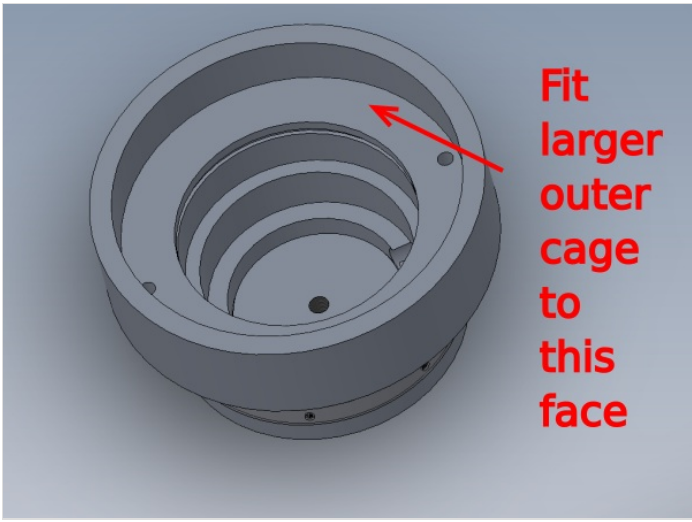
Step 4 - Fit outer cage of bearing

PICTURES REQUIRED

Identify larger diameter outer cage of bearing assembly B0000028 Thrust Bearing 140 I/D 180 O/D 31 Long (FAG)

This can be done easily by using the D0004320E Thrust Bearing Housing Mk5 as a reference. One outer cage will easily fit into the housing, and 1 will not.

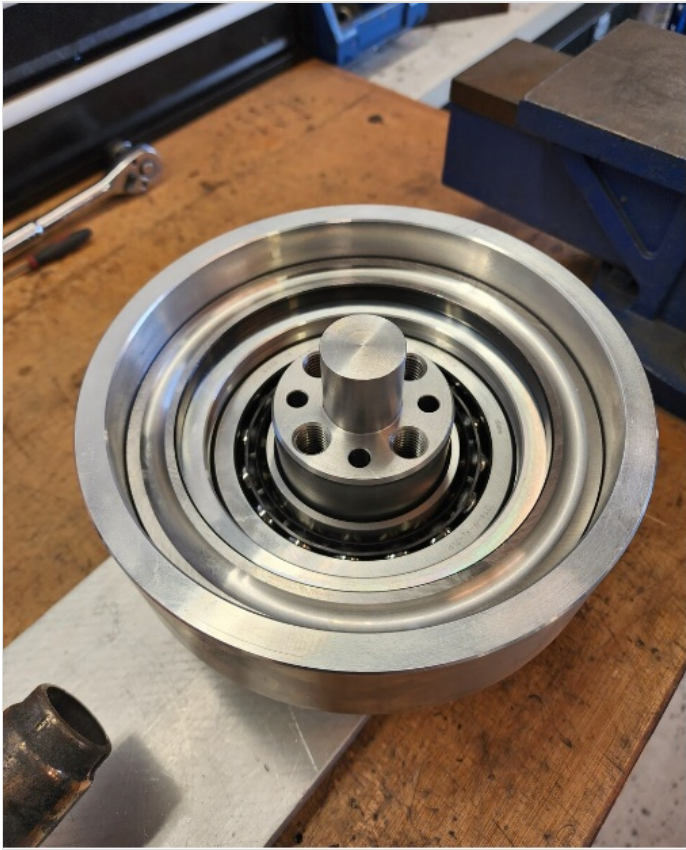
Clean then heat the bearing housing to expand, and then fit the larger outer bearing cage using loctite 641 . Ensure cage is sitting correctly on the bottom of the thrust housing



Step 5 - Fit bearing assembly

Whilst the housing is still hot, fit the bearing assembly orientated as shown . Add loctite 641 to bore when fitting

Retain with B0001088 Circlip 125mm Internal using large circlip pliers to fit



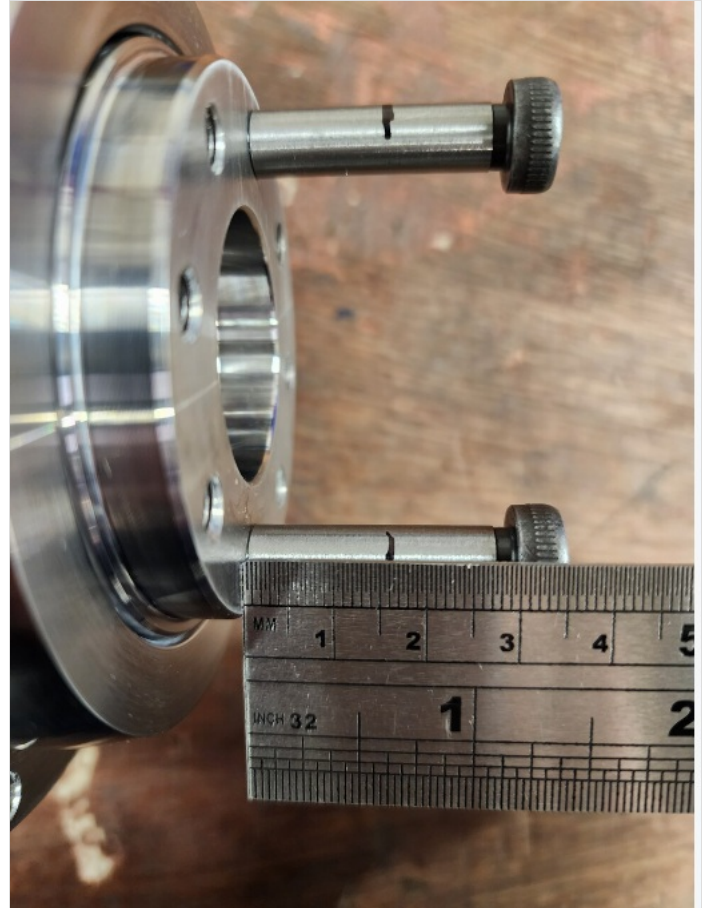
Step 6 - Prepare gearbox for fitting

2 off shoulder bolts need fitting and modifying on gearbox before the gearbox can be fitted

Use loctite 270 and fit 2 off shoulder bolts M6 x 8 x 30 to two opposing fixing points on gearbox mounting flange

Cut shoulder bolt to 16mm with disc cutter and deburr and clean





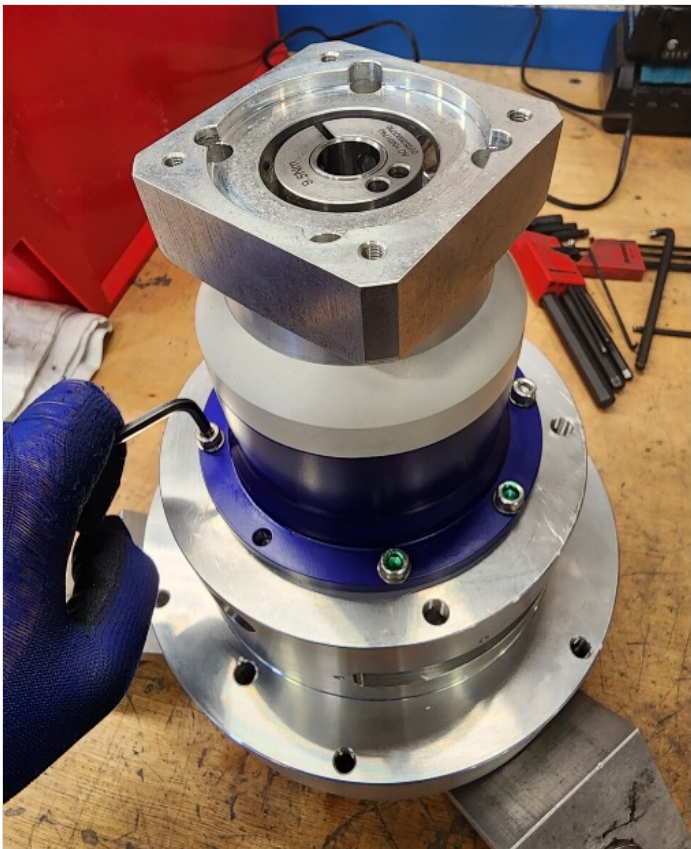
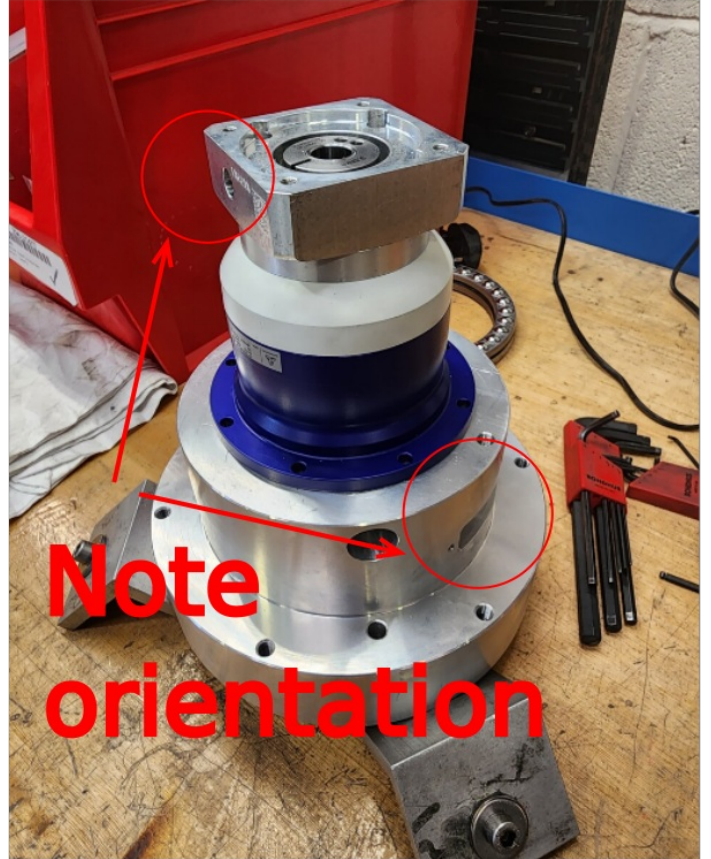
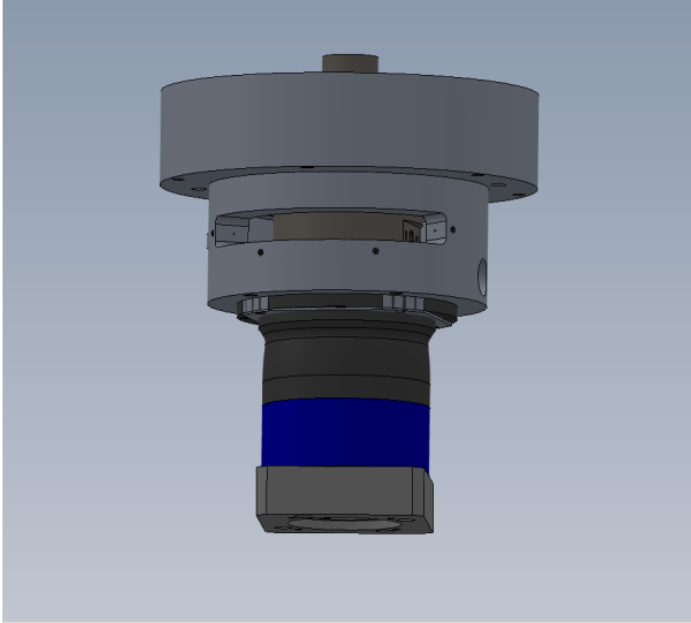
Step 7 - Fit gearbox to turntable housing

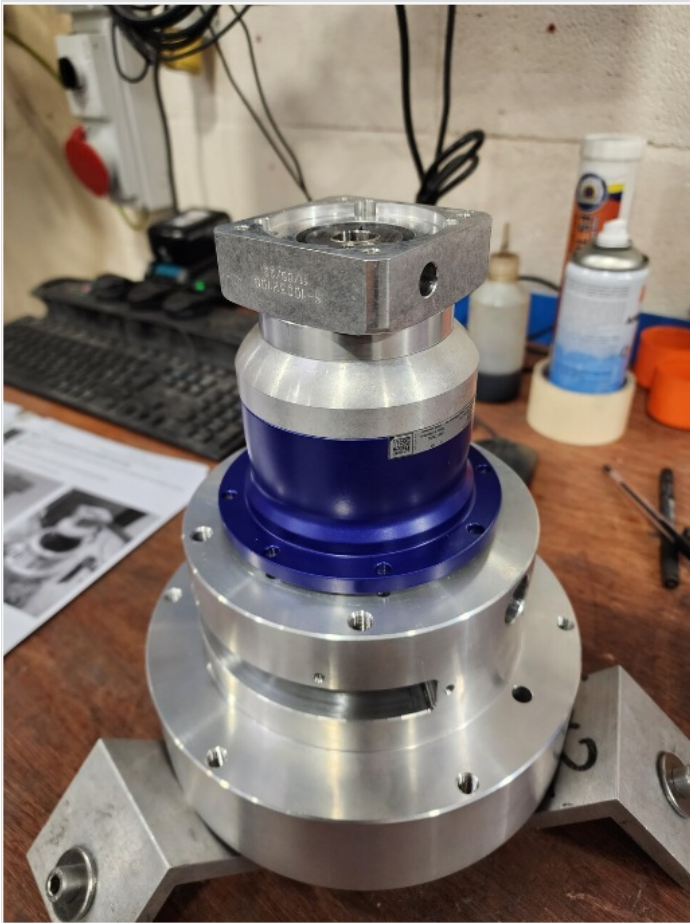
Align two previous fitted shoulder bolts to the 2 off 8mm diameter holes in the turntable shaft , this will align mounting holes for next step

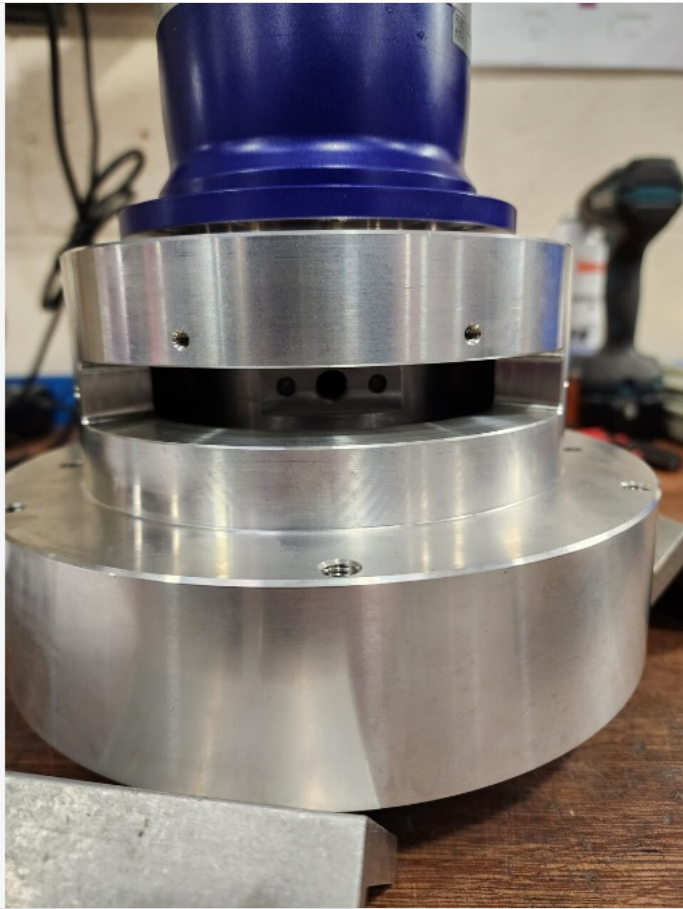
Ensure when fitting shoulder bolt dowels, avoid dowel hole that will align With M10 fixing bolt **(Ethan can you please elaborate on this and take a picture to explain)**

Use 6 off M5 x 16 socket caps and fix gearbox to housing orientated as shown

Ensure gearbox access hole is oriented as shown





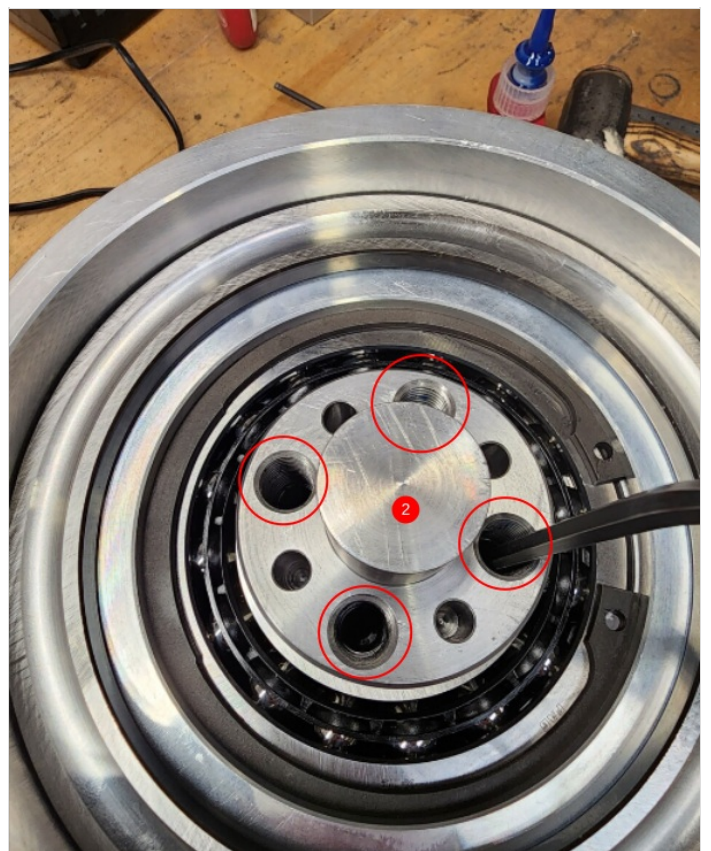


Step 8 - Finalise gearbox mounting

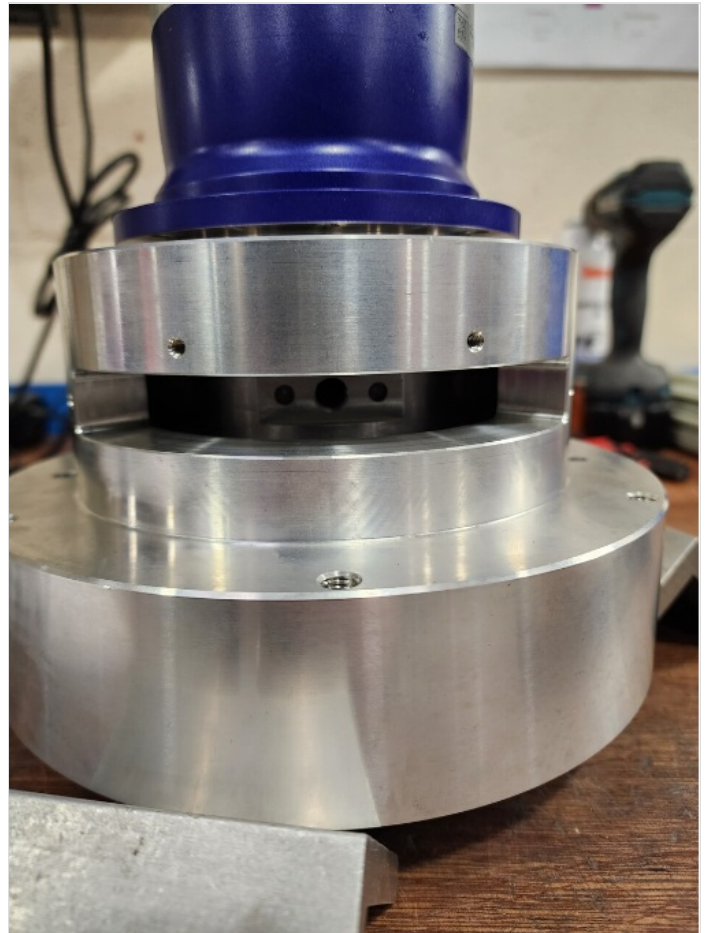
1 Use 4 off M6 x 20 blackadised Umbrako socket caps and 4 off M0001176 stainless lock washers.

2 Apply loctite 243 and fit to indicated bores

3 Tension to 15 nm using torque wrench







Step 9 - Apply grease

1 Apply liberal grease to indicated area

2 Apply a bead of grease to the circumference of the indicated area



Step 10 - Continue to work instruction part 2
