


# R0000299 Stroke assembly rebuild Part 2

Instructions for correct assembly and setting of stroke assembly gearboxes Original part numbers R0000728 and R0000729

 Difficulty Very Hard

 Duration 1 minute(s)

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Comments

## Introduction

The following instructions should be followed to ensure that correct assembly and setting are performed

### Tools / consumables Required

Standard hex key set

Standard spanner set

Large adjustable spanner

Drifts and punches

Ballpein hammer

Soft hammer

FE10 Solvent

Hylomar Gasket

### Parts Required

Kit R0000299 containing

B0000043 Double Angular bearing 15 I/D 35 O/D 15.9 long rubber seal 3 x 2

B0000105 Double Angular Bearing 15 I/D 35 O/D 15.9 Long x 1

B0000335 3ph Brake motor 2 pole 3000rpm x 1

B0000380 Double Angular Bearing 25 I/D 52 O/D 20.6 Long + rubber seal x 2

D0000059 Damper Bridge x 1

D0000062 Damper Bridge Boss x 2  
D0007730 ZX4 V Notch Mk1 Spindle Shaft x1  
D0007867 Bevel Gear (Left) x 1  
D0007868 Bevel Gear (Right ) x 1  
D0007873 Motor Gear x 1  
D0007874 Pinion Gear x 1  
D0007875 Pinion Shaft x 1  
P0000165 damper x 1

## Step 1 - Unless otherwise stated

Always use Loctite 243 on all fasteners fitted unless stated different  
All bearings should be an acceptable fit, with Loctite 641 and FE10 solvent used if required  
All fasteners should be marked once finalised



## Step 2 - Check components and fit

Ensure that keyway B0000041 passes through bevel gear D0007867.

Fit key to shaft

Fit Pinion gear to shaft

Secure with M5x16 socket cap and D0007721 washer. Do not use adhesive at this point . Do not fit shims at this point



## Step 3 - Mount spindle assembly

Position spindle assembly to main gearbox body as shown.

Rotate spindle as shown to expose counterbored holes used for fixing

Fit 2 off M6x 30 socket caps and tension . Do not apply adhesive at this point



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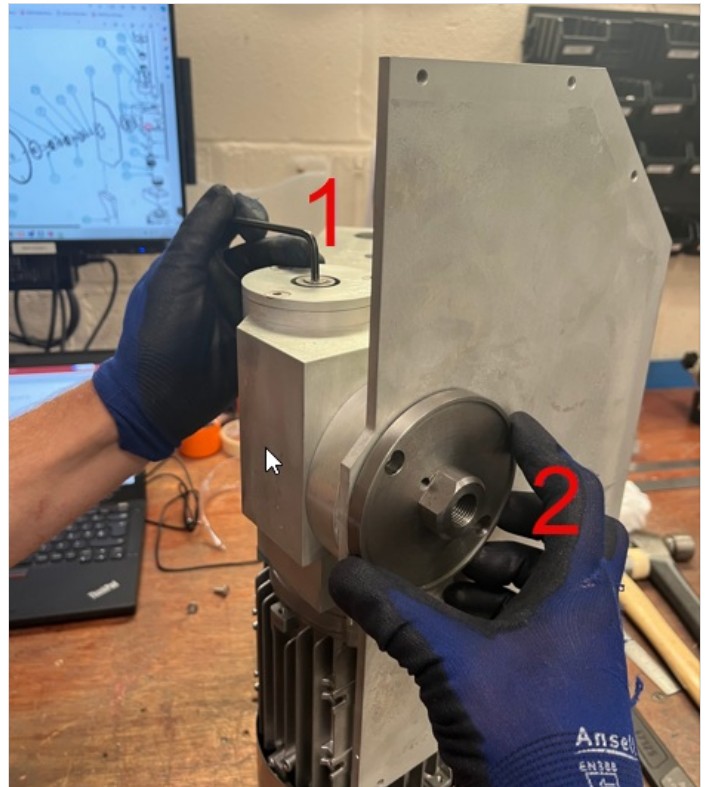
## Step 4 - Check backlash

Check backlash present by the following steps

1 Insert 4mm key into fastener shown and use to stop rotation of vertical shaft

2 Rock spindle clockwise and anti clockwise to gauge backlash present

Ideal backlash is 1mm movement in rotation of spindle (2)



## Step 5 - Adjusting backlash

Backlash can only be reduced, not increased. If no backlash is present when assembled with no shims, inform supervisor for correct route of action

To adjust backlash, shims can be used behind the bevel gear to move it closer to second bevel gear

As a general rule of thumb, the shims removed on stripdown of refurbished unit will be correct for rebuild. Work on this assumption but check when fitted that backlash setting is acceptable



## Step 6 - Adjust Backlash

1 Remove Bevel gear and key from assembly

2 Identify original shims fitted to gearbox

3 Fit shims to shaft

4 Refit bevel gear and parts to spindle

5 Refit assemble to main gearbox body and recheck backlash (step 4)

6 Repeat 1-5 and Add additional shims if backlash is still to much





## Step 7 - Finalise spindle assembly

Once backlash has been set, spindle assembly must be finalised

Ensure all threads are degreased with FE10 solvent

Use Loctite 243 on M5x 16 socket cap

Tension adequately, holding spindle as shown



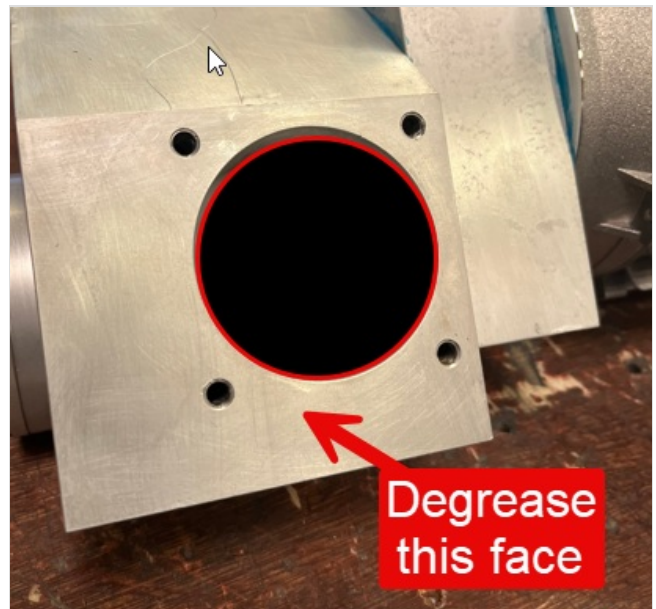
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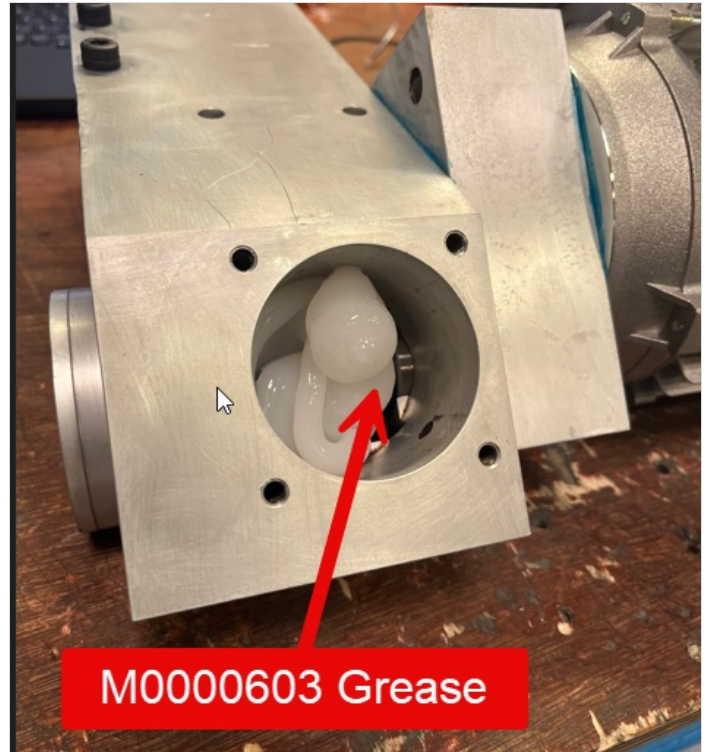
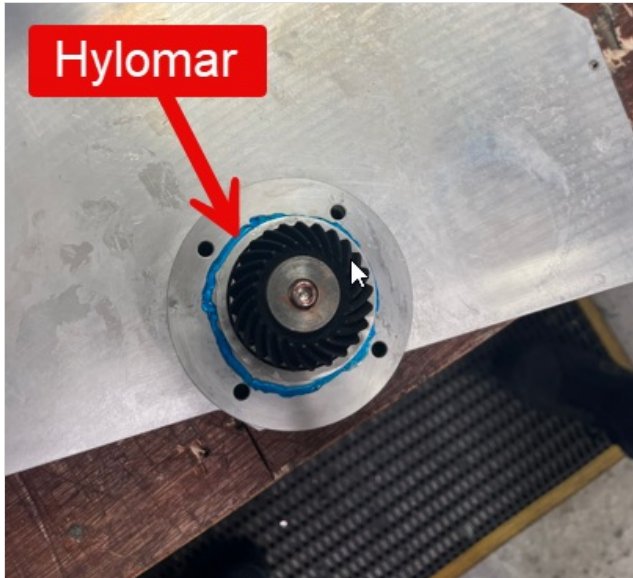
## Step 8 - Degrease mating faces and prepare

Indicated faces should be degreased with FE10 solvent

Apply Hylomar as shown

Add remainder of M0000603 grease as shown





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## Step 9 - Final assemble

Final fit spindle housing to main gearbox body

Use 4 off M6 x 30 socket caps with Loctite 243

Rotate spindle as shown to allow access to all fixing points

Smooth any excess hylomar with a clean rag





## Step 10 - Quality Check

Double check rotation is smooth and backlash is still correct after final fixings

Motor fitted is a braked variant, so rotation will have resistance, But should be smooth and consistent when rotated as shown

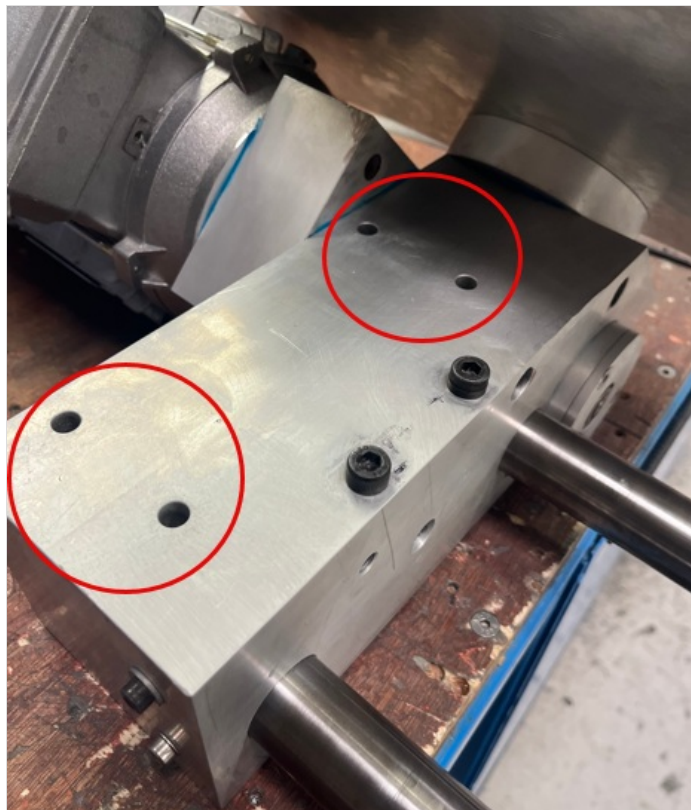
Report any discrepancies to supervisor



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## Step 11 - Fit Shafts

Fit 2 off shafts H0007754 using 4 off M8x 20 kcp grub screws with Loctite 243

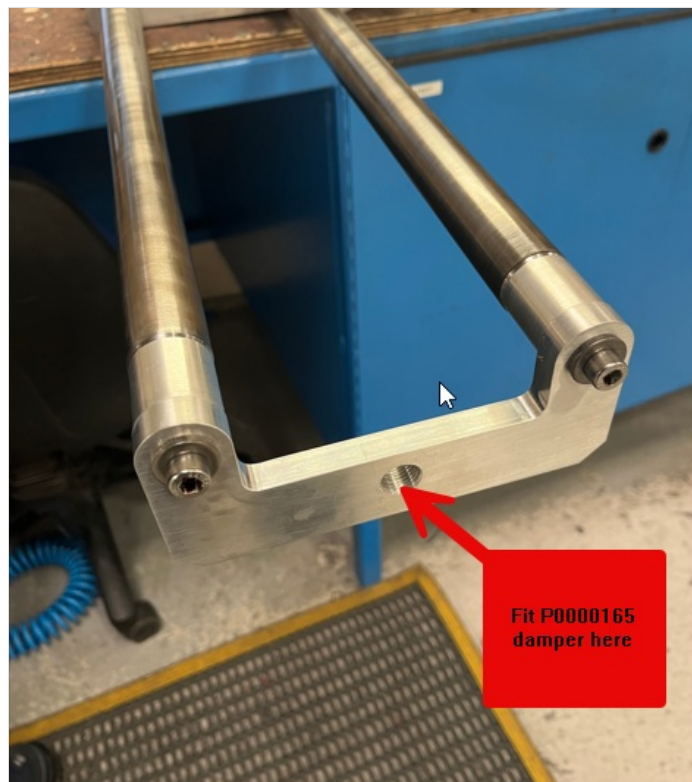




## Step 12 - Fit damper bridge

Fit damper bridge D000000059, Spacers D0000062 and damper P0000165 as shown

Use 2 off M8 60 socket caps with M8 motor plate washers to fix



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## Step 13 - Fit hard stop

Refit D0007838 hardstop



## Step 14 - Fit front flange components

Fit front flange D0007728, Washer D0004031 with NEW M16x 1.5 x 25 set bolt



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## Step 15 - Fit Blade cowl

Fit H0007621 blade guard , secure using M5x10 socket caps and M5 A Form washer



## Step 16 - Electrical Testing

Once mechanical build has been completed, unit should be passed to Electrical department for function testing

