

34 GDS Helpsheet



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Systems for Geotechnical Engineers and Geologists*

Hardware

Advanced Controller – High Pressure

Fixing Collar onto Ballscrew Connection to Gearbox

1. Introduction

Undo the end mounting screw of linear guide furthest away from the pressure cylinder so that the screw pokes up above the track. This will stop the carriage sliding off the guide during assembly and disassembly.

Tap out locating pin from the connection of the ballscrew and output shaft of the gearbox.

Remove 4 off mounting screws underneath gearbox mounting plate. Lift off gearbox.

Remove 5 off screws from captive ball nut. Turn ballscrew in clockwise rotation to draw out piston. Place a clean paper towel in end of pressure cylinder to keep out dirt. Remove clip from one end of tube provided. Place tube onto end of ballscrew. Hold in place with tape making sure that slot is covered by the tape so balls will not drop through. Unscrew ballnut onto tube and replace clip. Do not take tube out of ball nut as this will allow the balls to come out!!!

Close up slot in the ballscrew so that output shaft of gearbox is a sliding fit into ballscrew.

Measure position of locating hole for future reference.

Place ball screw in lathe and clock up to ensure running true.

Re-machine distorted part of ballscrew only the length of the slot so that collar supplied is a press fit onto it.

Press collar onto ballscrew. Drill collar in same position as existing holes (see 6 above).

Grease composite seal and piston and push back into the cylinder.

Offer up dummy shaft to ballscrew and wind ball nut back onto the ballscrew. Re-secure the captive ballnut.

Replace gearbox onto linear guide carriage. Leave mounting screws loose until gearbox and ballscrew are pinned together.

Reinsert output shaft into collar (this is a sliding fit) and drive in pin. You might wish to use the Loctite Metalset provided to fill any gaps. Tighten gearbox mounting screws.

Screw down end mounting screw of linear guide furthest away from the pressure cylinder so that the screw returns below the track!!!