DUNHAM 50M CENTRIC SPINDLE ASSEMBLY: OPERATING INSTRUCTIONS

INSTALLING 5C COLLET INTO SPINDLE:

1 - Make sure the 5C collet to be used is clean, free from dirt and chips on threads, body diameter and angle.

2 - Clean 50M centric spindle I.D. bore and angle. Dirt and chips will cause eccentric collet runout, collet sticking or damage to collet and spindle.

3 - 5C collets have a keyway or slot machined through the threads into the body diameter. This keyway prevents the collet from rotating during use. The 50M centric spindle has an internal pin or key to match the keyway of the collet. Align the internal pin or key in spindle with keyway of collet and insert the collet up to the taper.

USE OF DUNHAM COLLET CLOSER DEVICES:

1 - DUNHAM LEVER COLLET CLOSERS 50DLC and 50DLCT:
* Back off on Set Screw located in the Closer Ring of the Dunham Lever Closer; this permits the Lever /Drawtube Assembly to rotate independently of the Spindle;
** Place the Collet in the Spindle with the Lever in position as shown; turn the Lever/Drawtube in a clockwise direction to tighten Collet until the desired Collet closed position is obtained.
***After adjusting Collet, tighten Set Screw to secure the Lever Closer Assembly to the Spindle.

2 - DUNHAM CLOSING NUT CLOSERS 50CN and 50CNT:
* Turn closing nut in clockwise direction by gripping knurled end to tighten the collet. Hold outboard end of spindle shaft by hand or secure with strap wrench to prevent spindle rotation when tightening or loosening the collet.

3 - DUNHAM AIR COLLET CLOSERS:
* See Dunham Air Collet Closer Instructions attached (reference Dunham Drawing MB244).

MAINTENANCE:

The 50M centric spindle is a precision preloaded ball bearing spindle that is permanently lubricated at the factory. No lubrication is required by the customer. The spindle is equipped with end caps, flingers and nylos seals to reduce the possibility of dirt and liquid from entering the bearing area. Located on the side of the housing body is a large pipe plug screw. Do not remove this screw. It is for manufacturing purposes only. Removal can cause contaminates to enter ball bearing area causing premature failure.

CLEANING:

Inspect and clean, each time spindle is used, all ground surfaces. Also clean bore and collet I.D. form. Dirt and chips in spindle will cause eccentric runout of collets, collet sticking and damage to both spindle and collet. A rust preventative such as LPS should be applied to all ground surfaces to protect the spindle from rust and corrosion.

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Four (4) 5/16-18 threaded holes are provided in the bottom of spindle housing for customer use in mounting to fixture plates, benches or machine bases for building special machines.

Troubleshooting

1 - Collet is difficult to get in and out of spindle.
Correction - check collet for burrs, dirt and chips. Check pin or key inside spindle for damage. Also clean internal bore of spindle and threads on draw tubes of collet closing mechanisms.

2 - Loss of spindle accuracy
Correction - check collet for burrs, dirt and chips. Use special accuracy collet for best results. If problem persists, there could be a bearing problem. Return unit to Dunham for inspection and repair.

3 - Spindle rough during rotation by hand, or bound up resisting rotation.
Correction - bearings need to be replaced. Return unit to Dunham for repair.

Repairing spindles

Customer should not attempt to disassemble and repair spindles. Doing so will negate any warranty on the spindle if the unit is still under warranty.

Return spindles to Dunham tool for repair. The Dunham Tool Company will supply a written quotation for new parts and labor before proceeding with repairs.