



TECHNICAL BULLETIN

From: Tesco Products-Applications

Date: June 7 02

Re: End play/pre-load measurement HMI Topdrive

The following procedure is a guide for accurate measurement of endplay that may be present in the HMI Swivel and gearbox assemblies. The required preload for these assemblies is as follows:

Gearbox Quill Bearings

150/200/250 Ton HMI: **New bearings:** pre-load from .008" to .010"
 Used bearings: pre-load from .000" to .005"

Swivel Bearings

150/200/250 TSM/Rostel: **New bearings:** pre-load to .003"
 Used bearings: pre-load from .001" .003"

Quill shaft to drive hub float not to exceed .006" maximum.

If this measurement is in excess of the max value please contact Tesco Products Technical Support

Checking Swivel for Endplay

Remove the wash pipe attached to the top of the quill and the S-pipe. This is a left-hand thread.

- 1) Attach slings to a hoist and to the swivel link assemblies.

Note Lifting by the bonnet causes the metal to flex and gives an inaccurate reading.

- 2) Attach the magnetic base of a dial gauge to the underside of the bonnet, set the needle against the top of the quill and set the dial gauge to zero.
- 3) Hoist the top drive and record the dial gauge reading



Checking Gearbox and Quill for Endplay

- 1) To measure for endplay in the quill hub to spline, attach the magnetic base of the dial gauge to the quill, set the needle against the top of the quill spline hub, and set the dial gauge to zero.
- 2) Hoist the top drive from the swivel link assembly and record the dial gauge reading
To measure for endplay in the quill gear bearings, attach the magnetic base of a dial gauge to the gearbox, set the needle against the quill spline hub, and set the dial gauge to zero.
- 3) Hoist the top drive and record the dial gauge reading



***If there are any questions related to this Technical Bulletin please contact
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