

Technical Bulletin

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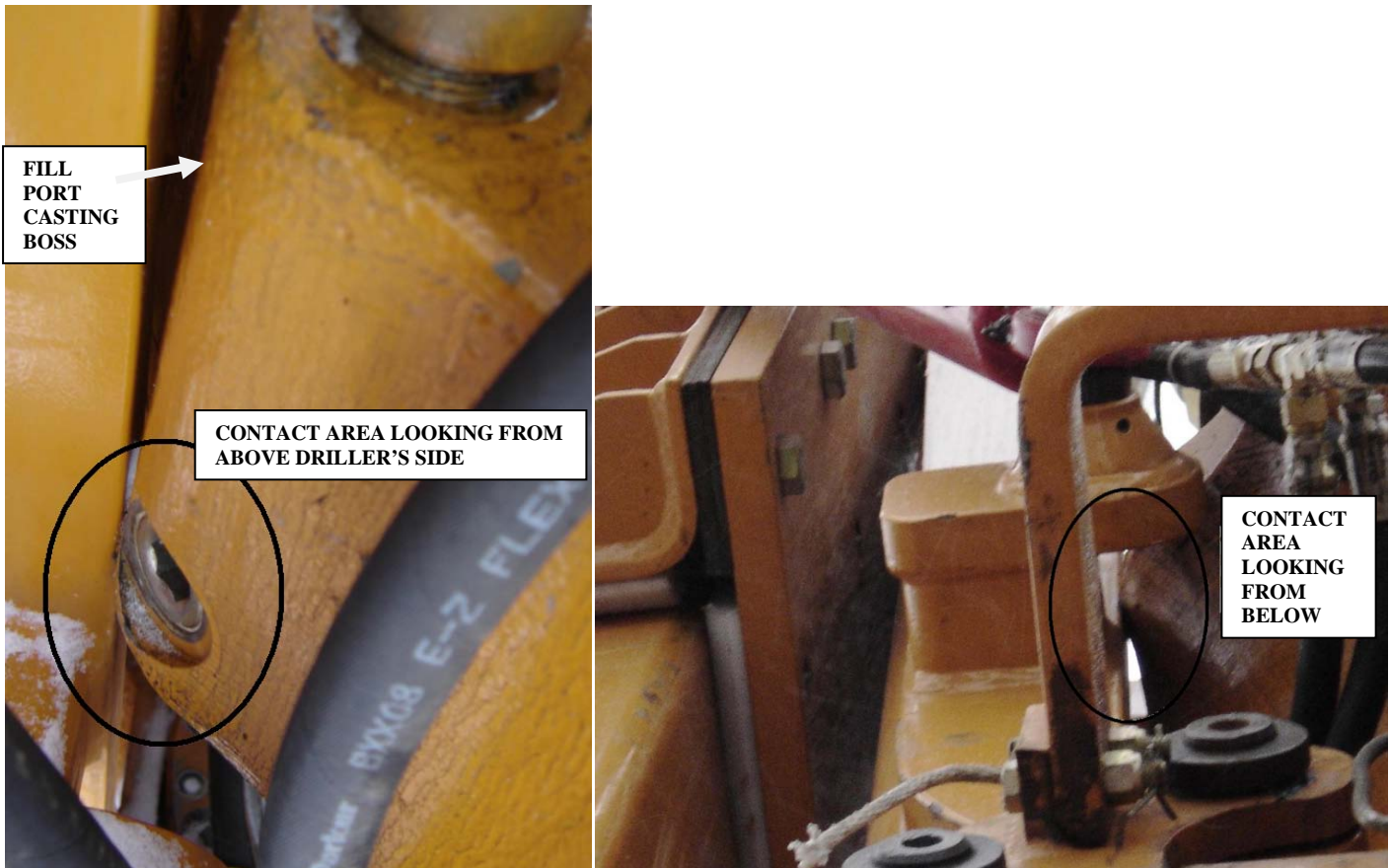
Description: HMI Swivel Body 180° Rotation to avoid interference with extend frame system



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BACKGROUND INFORMATION:

Incidents have occurred at rig-up where the swivel body was found to interfere/collide with the extend frame arm when Top Drive is brought back from extended to its retracted position against extend frame assembly. The interference occurred between Driller's side extend frame arm and the "fill port casting boss" of the swivel body (see Fig. 1 photos below).



(a) Interference seen from above

(b) Interference seen from below

Figure 1

- This interference can cause misalignment/offset between Top Drive quill centerline and center of drill hole and can lead to undue stress on swivel bearing.
- The subsequent incident investigation identified improper swivel body orientation at assembly. Specifically, the swivel body must be installed with the fill casting boss towards the front of the Top Drive which positions the fill casting boss opposite to the extend frame assembly.
- In order to eliminate collision or interference between the swivel body and extend frame arm, the swivel body must be rotated 180 degrees around its axis.

Fig. 2a shows the INCORRECT swivel body installation, and Fig. 2b shows the CORRECT installation of the swivel body.

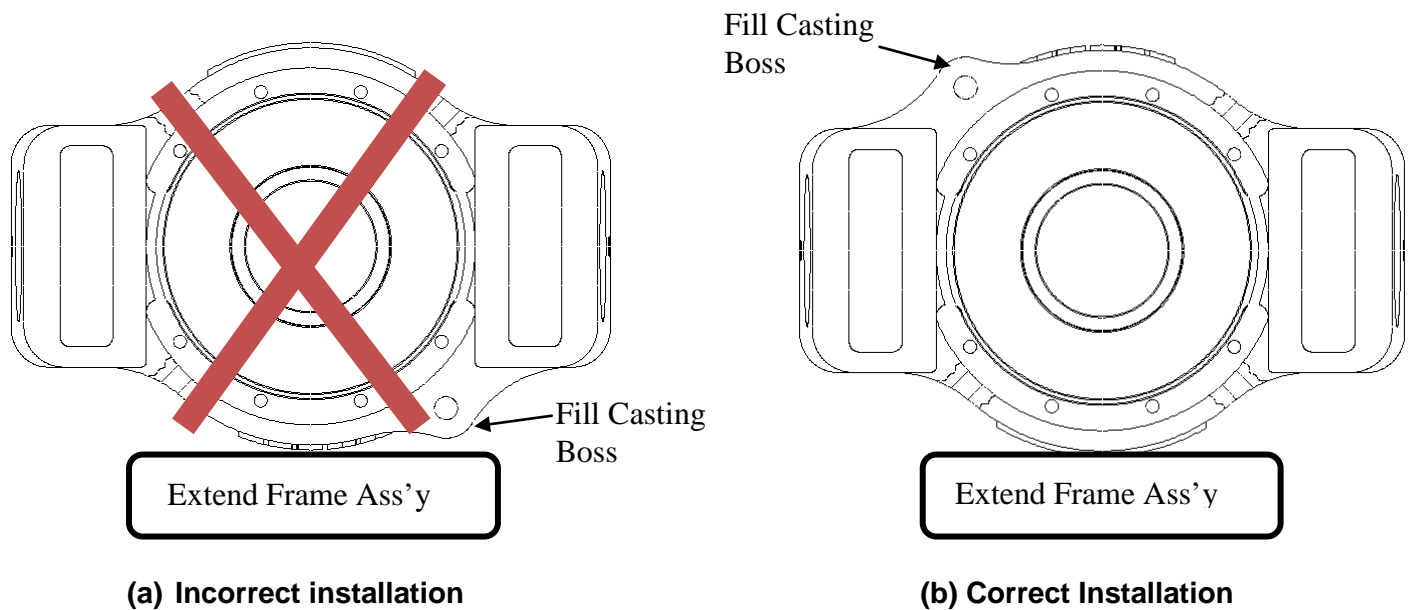


Figure 2

AFFECTED PRODUCT:

All TESCO HMI Top Drives incorporating extend frame systems. TESCO product reference:

1110316 – Top Drive, 2.19:1 Ratio, c/w Tesco Swivel, 250-HMIS-475, Module

1110327 – Top Drive, 1.64:1 Ratio, c/w Tesco Swivel, 250-HMIS-475, Module

14376-1 – Kit, Swivel Installation, 250-HMIS-475

19156 – Kit, Swivel Installation, w/o Mudsaver, 250-HMIS-475

ACTION REQUIRED:

1. Evaluate if there is any interference or collision between swivel body and extend frame system at full retracted Top Drive position. If interference or collision is detected, make provisions to rotate swivel body 180 degrees maintaining same initial position for bonnet and gooseneck.
2. Complete an inspection of the extend frame system and exercise extend function several times. Ensure that no interference or collision occurs when Top Drive is fully retracted against extend frame system. Visually inspect equipment for signs of impact damage, and check for excessive play in cylinder rod ends. Rod ends with more than 1/32" of free play in any direction are considered worn beyond service limits and should be replaced.

Contact your local TESCO Parts and Service Center for further information regarding this bulletin and or supply of affected components noted above.