

ABSTRACT

METHOD AND APPARATUS FOR BIT RUN AND RETRIEVED CASING HANGER LOCKING DEVICE

An apparatus and methods for installing and selectively retrieving a casing hanger locking device within a wellhead system during the bit run and retrieval operations are provided. An embodiment is an apparatus comprising: a bit sub comprising a tong neck, a cylindrical portion below the tong neck, and at least one stabilizing fin below the cylindrical section, wherein the at least one stabilizing fin comprises a keyway; a casing hanger locking device comprising an annular structure and an expandable ring disposed around an upper portion of the annular structure, the casing hanger locking device disposed around the bit sub; an actuation sleeve that engages with the casing hanger locking device; and a selective retrieval collar comprising a segmented retrieval ring, wherein the selective retrieval collar is attached to the bit sub, the actuation sleeve, and the casing hanger locking device.

Fig 1