

TUBING HANGER ALIGNMENT DEVICE

ABSTRACT

Systems and methods for landing a tubing hanger in a wellhead and then orienting a tree (or spool, or flowline connection body) relative to the tubing hanger while landing the tree on the wellhead are provided. This alignment is accomplished without the use of either a tubing spool or a BOP stack with an orientation pin. The tubing hanger alignment devices may be used to orientate the tree as the tree is landed so that the couplings and stabs between the tree and the tubing hanger line up with each other just at the moment of landing.

FIGURE 4B