

ABSTRACT

A subsea wellhead tieback connector operatively used to connect to a marine riser pipe or a well conductor in a manner that will not unthread or unloosen the joints of the riser pipe being unlocked. The tieback connector operates with a novel internal latching mechanism having a hydraulic piston, an inner body that stretches and deflects in a unique manner resulting in compression spring forces at two locations, an expanding lock ring, a threaded adjustment ring, and a reaction ring. During operation the tieback connector creates an enhanced mechanical advantage to originate a required pre-load force without the necessity of having to generate a large hydraulic force that would otherwise be needed.

