

**APPARATUS AND METHOD FOR MEASURING WEIGHT AND TORQUE AT
DOWNHOLE LOCATIONS WHILE LANDING, SETTING, AND TESTING SUBSEA
WELLHEAD CONSUMABLES**

Abstract of the Disclosure

A dynamometer measures applied weight and torque at a running tool location and transmits the measured information to a drilling rig operator. The system includes a dynamometer stem having a bidirectional torque and weight sensor coupled inline to the drill string, and further coupled to the running tool, so that the dynamometer stem will measure an applied torque and weight at the running tool and produce a signal in response. The dynamometer stem communicatively couples to a receptor stem, so that the receptor stem may receive the signal from the dynamometer stem. The receptor stem couples inline to the drill string at a rotary table of the drilling rig, and further communicatively couples to a display located proximate to an operator of the drilling rig, so that the receptor stem may transmit the signal to the display. The display presents the signal in real time to the operator.

[Fig.2]