SYSTEM, METHOD AND APPARATUS FOR A MODULAR PRODUCTION TREE ASSEMBLY TO REDUCE WEIGHT DURING TRANSFER OF TREE TO RIG

ABSTRACT

A modular tree production tree assembly (21) reduces the weight during transfer of the tree components from a barge to a production rig. The tree assembly (21) includes an upper tree module (23), a lower tree module (25), and a choke bridge module (27). The upper tree module (23) has a tree head (41), the lower tree module (25) has a guidance system (51) and ties in the flow lines to the in-field infrastructure (57), and the choke bridge module (27) has the choke and instrumentation bridge to link the three components together. Prior to delivery to the rig (31), the components of the modular tree assembly (21) may be joined together and tested on shore. Upon arrival at the rig (31), the components are individually lifted from the barge (29) onto the rig by a crane (33). After the tree components are on the rig (31), the modular tree (21) is reassembled and then deployed to the sea floor (35) via the draw works (37).

Fig. 1