

2D illustrates the assembly of FIG. 2A during its ascent back to the surface in accordance to certain exemplary methodologies of the present invention; and

FIG. 3 illustrates a three-dimensional view of an assembly having a first and second umbrella assembly according to certain exemplary embodiments of the present invention.

SUMMARY OF INVENTION

A first aspect of the present invention provides a method to determine placement of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the method comprising, deploying a sensing joint down through a tubular and into a BOP, the sensing joint comprising, a heavy weight fluid contained therein; and a hanger positioned along the sensing joint. The method also comprises landing the sensing joint adjacent the BOP using the hanger, closing at least one BOP ram upon the sensing joint, thereby providing an indication of a position of the at least one BOP ram, retracting the at least one BOP ram from the sensing joint, forcing the heavy weight fluid out of the sensing joint, allowing the sensing joint to move back up through the tubular, and determining a desired placement of an SSTT within the BOP based upon the indication of the position of the at least one BOP ram.

A second aspect of the present invention provides an assembly to determine placement of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the assembly comprising, a sensing joint comprising a first chamber housing a heavy weight fluid; and a piston configured to force the heavy weight fluid out of the sensing joint. The assembly also comprises a hanger positioned along the sensing joint.

A third aspect of the present invention provides a method to determine placement of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the method comprising landing a joint within a tubular adjacent a BOP, the joint comprising a heavy weight fluid, closing at least one BOP ram upon the joint, retracting the at least one BOP ram from the joint, forcing the heavy weight fluid out of the joint, moving the joint back up through the tubular, and utilizing the joint to determine a desired placement of an SSTT within the BOP.

A fourth aspect of the present invention provides a method to determine placement of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the method comprising, deploying a joint down through a tubular and into a BOP, the joint

comprising, a first umbrella assembly positioned at an upper end of the joint; and a hanger positioned along the joint. The method also comprises landing the joint adjacent the BOP using the hanger, closing at least one BOP ram upon the joint, thereby providing an indication of a position of the at least one BOP ram, activating the first umbrella
5 assembly, retracting the at least one BOP ram from the joint, causing fluid to flow up the tubular and into the activated first umbrella assembly, moving the joint back up through the tubular; and determining a desired placement of an SSTT within the BOP based upon the indication of the position of the at least one BOP ram.

A fifth aspect of the present invention provides an assembly to determine
10 placement of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the assembly comprising, a joint comprising a first umbrella assembly positioned at an upper end of the joint; and a fluid communication port providing fluid communication between the first umbrella assembly and a location outside the joint. The assembly also comprises a hanger positioned along the joint.

A sixth aspect of the present invention provides a method to determine placement
15 of a subsea test tree ("SSTT") within a blow out preventer ("BOP"), the method comprising, landing a joint within a tubular adjacent a BOP, the joint comprising a first umbrella assembly. The method also comprises closing at least one BOP ram upon the joint, activating the first umbrella assembly, retracting the at least one BOP ram from the
20 joint, moving the joint back up through the tubular; and utilizing the joint to determine a desired placement of an SSTT within the BOP.

DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

Illustrative embodiments and related methodologies of the present invention are described below as they might be employed in assemblies and methods for reducing the
25 time required to conduct dummy runs through utilization of an autonomous painted joint simulator. In the interest of clarity, not all features of an actual implementation or methodology are described in this specification. Also, the "exemplary" embodiments described herein refer to examples of the present invention. It will of course be appreciated that in the development of any such actual embodiment, numerous
30 implementation-specific decisions must be made to achieve the developers' specific goals, such as compliance with system-related and business-related constraints, which will vary from one implementation to another. Moreover, it will be appreciated that such a development effort might be complex and time-consuming, but would nevertheless be a

routine undertaking for those of ordinary skill in the art having the benefit of this disclosure. Further aspects and advantages of the various embodiments and related methodologies of the invention will become apparent from consideration of the following description and drawings.

5 FIG. 1A illustrates an exemplary embodiment of assembly 10 utilized to reduce the time associated with conducting a dummy run according to exemplary embodiments of the present invention. Although not shown in FIG. 1A, assembly 10 is deployed down through a tubular (a riser, for example) that extends down through a body of water from a surface vessel, and is connected to a BOP (now shown). Assembly 10 includes a sensing
10 joint 12 having a hanger 14 positioned along its body. Sensing joint 12 may be comprised of a buoyant material, aluminum or some other material suitable for downhole use. The outer diameter of sensing joint 12 matches the diameter of the real pipe that will be utilized during DST. In certain exemplary embodiments, hanger 14 may be a separate fluted hanger attached to the body of sensing joint 12. However, in other embodiments,