

SOFT LANDING SYSTEM AND METHOD OF ACHIEVING SAME

Abstract

A subsea wireline system for soft landing equipment during installation. The subsea soft landing wireline system includes coarse alignment members (14) that can be part of a tree (10) and interact with a funnel (54, 84) located on the equipment (40, 80) to be installed by the soft landing system. Smaller alignment members (20) can provide fine alignment and also interact with a funnel (56, 88) located on the equipment (40, 80) to be installed. The funnels (56, 84, 88) are used to trap sea water that provides a cushion for the equipment (40, 80) being installed. Once in alignment, trapped water can be released from the funnel or funnels (56, 84, 88) via a restricted orifice (58, 86, 90) and/or a control valve (76, 94) located on an ROV. The system achieves soft landing without the use of a running tool, thus reducing expense.

Figure 2