

QUICK DISCONNECT CONNECTOR FOR SUBSEA TUBULAR MEMBERS

Abstract

A subsea connector includes first and second tubular members (11, 57), each having a forward end (13, 59) with an external first flange (17, 65). A guide basket (25) with an open forward end (27) extends around the first tubular member (11). A fluid cylinder assembly (43) moves the guide basket (25) axially relative to the first tubular member (11) between a rearward position and a forward position. Lock dogs (67) are carried by the second tubular member (57). Each of the dogs (67) has a first load shoulder (73) and a second load shoulder (75) and is mounted to a dog support (69). The dog support (69) has a forward portion that contracts and expands radially relative to the second tubular member (57). While the guide basket (25) is in the forward position, an interior (29) of the guide basket (25) engages outer sides of the dogs (67) to retain the first and second load shoulders (73, 75) of the dogs (67) in engagement with the first and second flanges (73, 75).

Figure 1