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STABPLATE ASSEMBLY R.O.V. FLY-TO PLACE API17D CLASS 4 ISO 13628-8

Designed in accordance with API 17D ISO 13628-8 R.O.V. interfaces on subsea production equipment. The stabplate design incorporates the following features and can be supplied with electrical connectors.

Male Fixed Plate

Populated with male low force hydraulic couplings this plate is attached to the subsea structure via bolting. The fixed plate is recessed within the structure to prevent damage during intervention. The plate incorporates a plastic outer shroud which acts as a course alignment feature and includes a vertical guidance system. The fixed plate has a central locking receptacle and fine alignment dowl pins.

Female Free Plate

Populated with female low force dual resilient seal hydraulic couplings.

This plate is designed to be free fly to place by a work class R.O.V. using a class 4 rotary torque receptacle. The use of low force couplings enables smaller lighter plate design. The free plate incorporates a central locking device which can be overridden by the R.O.V. in the event of lock mechanism failure and retrieved to surface.

The stabplate assembly has a jumper (umbilical) carrier frame unit bolted to it which houses the end terminations between the hydraulic couplings and system distribution flying leads. Also incorporated in the design is a visual indicator for the R.O.V. pilot to view that the stabplates are in the fully locked (made up) position, this is in addition to the torque figure settings which can be applied by the R.O.V on intervention.

The installation method for the free stabplates will be 'fly to place' without docking. For this operation the R.O.V. carries the free stabplate to the connection port and whilst free flying, pushes the free stabplate into the fixed stabplate. As the stabplate halves are pushed together, the initial alignment device will align the stabplates sufficiently to allow the mechanical connection device to engage. At this point the individual couplers will be held apart, but will be appropriately aligned.

The R.O.V. will then operate the mechanical connection device using its torque tool. This device draws the two stabplate halves together, which will simultaneously finalise alignment, and allow individual couplers to engage. The load achieved by the device will overcome pressure and friction loads associated with individual couplers and with the fine alignment devices.

The R.O.V. will continue to function its torque tool, ensuring that the stabplate halves are fully mated, and sufficient pre-load is achieved to prevent separation under pressure loading. The R.O.V. then disengages from the free stabplate.

For more detailed information please contact us using the information below:-