Diverless Pipe Recovery Systems

Two efficient solutions for lifting deepwater pipelines to the surface

Oil States offers two diverless methods for attaching to and retrieving pipelines dropped during lay operations or in need of repair at the surface.

Diverless Pipe Recovery System – based on proven Hydro-Tech technology
The Diverless Pipe Recovery System is sized and built for a given pipeline and is deployed on an emergency standby basis. The key component of the system is the Diverless Pipe Recovery Tool (PRT), which is a modified Hydro-Tech Grip & Seal HydroCouple connector. The PRT is installed over a pipeline end and is actuated hydraulically. No special cleaning of the pipe OD is required except for concrete-weight-coat removal. Longitudinal weld seams and fusion-bonded epoxy (FBE) coating do not present a problem.

The Pipe Recovery Tool is used in conjunction with a Diverless Pipe Lift Frame (DPLF), which is deployed to the seafloor where it straddles the pipeline. The ROV, by means of a torque bucket, lowers a clamp assembly that captures the pipeline. The ROV then activates the lifting mechanism to raise the pipe end several feet off bottom so that the PRT can be stabbed onto it. After the PRT is installed and tested, the pipe is lowered to the seafloor and the DPLF is retrieved. The PRT is then used to lift the pipeline to the surface.

The PRT is rigged to hang under a heave-compensating buoy, so the ROV can guide it easily over the pipe end. Once the PRT is stabbed over the pipe end, the tool’s grips and seals are hydraulically actuated. The ROV then uses a test port to verify that the gripping segments are locked and that the seals are pressure-tight. To lift the pipeline, the ROV guides a Master Link over the A&R hook on the PRT, and the derrick barge or lay vessel raises the pipe to the surface. If the pipeline must be dry for lifting, the PRT can be made to serve as either a pig launcher or pig receiver.

Lifting without a lift frame – the Drop-On Pipe Recovery Saddle
The Pipe Recovery Saddle (PRS) is a simple, easy-to-use lifting device that requires no excavation, pipe lift frames, or pipe end preparation. It can be attached to a pipeline at any point. The drop-on PRS is a saddle-shaped device with a lifting yoke. As the tool is lowered onto the pipe, spring-loaded steel balls on each side of the saddle capture the pipe (smaller PRTs have one ball on each side; larger tools have two on each side). As the tool and pipe are lifted by the surface line, the tool rolls along the pipe until it reaches the nearest buckle arrestor, which serves as a stop. The pipe can then be lifted to the surface.
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Sizes and pressure ratings
Diverless Pipe Recovery Tools meet the requirements of API 6H and are designed in accordance with ASME Pressure Vessel Code, Section VIII, Division 2, unless otherwise specified.

Ordering Information
Please provide the following information on any purchase order or request for quotation:

- Nominal pipe diameter, wall thickness, and grade
- Design lift requirement
- Pipeline product (sealing-type tools): oil or gas, sweet or sour