

Contour Repairs Pitting on a Jetty

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United Kingdom

Pipe Details

- 457-mm (18-inch) line transporting gas oil
- External corrosion 6 mm (0.24 in) deep, leaving 24% wall thickness remaining.
- 80 mm (3 in) x 80 mm (3 in) pit
- 17.6 Bar (255.2 psi) operating pressure
- 40°C (104°F) operating temperature

Summary

- A 457-mm (18-inch) line transporting gas oil on an over-water jetty required repair
- The line was damaged by external corrosion that had created pitting 6 mm (0.24 in) deep
- 2 local Clock Spring trained technicians completed the Contour installation in 2 days
- The line remained in service during repair
- No hot work was required
- No negative impact on operations

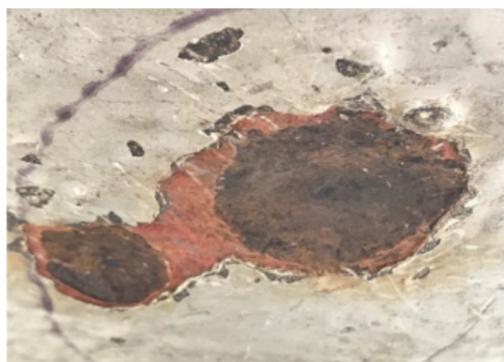
During a planned routine inspection of a 457-mm (18-in) gas oil line on a jetty at a UK terminal, the company discovered a 6-mm (0.24-in) pit that left only 24% wall thickness remaining. An engineering assessment to the local assessment code confirmed a repair was required for the line to remain fit for service.

Having worked with Clock Spring Company for several years, the operator was aware a composite solution could ensure the line was fit for service. One of the major reasons for using Clock Spring composite repairs is that they enable the terminal to function normally while repairs are being made and that the installation would introduce no hot work risks.

Clock Spring engineers designed a repair for the jetty to ISO 24817:2017 standard, which outlines requirements and recommendations for the qualification, design, installation, testing and inspection for externally applied composite repair systems to corroded or damaged pipework, pipelines, tanks and vessels used in the petroleum, petrochemical and natural gas industries.



A planned inspection of a 457-mm (18-in) gas oil line on a jetty at a UK terminal uncovered a pit on a gas oil line.



The damaged line had developed a 6-mm (0.24-in) pit that left only 24% wall thickness remaining.



A team of 2 installers completed the Contour repair over the course of 2 days, restoring the line to safety without interrupting terminal operations.

The repair team, made up of local technicians who were trained in the UK by Clock Spring Company over an 18-month period, executed the Contour composite installation in an area with restricted access to the line that was carrying gas oil at 40°C (104°F).

The 2 installers completed the repair over the course of 2 days, restoring the line to safety without interrupting terminal operations, executing an installation that was less expensive and longer lasting than alternative solutions.

There are nearly 3,000 trained Clock Spring installers around the world who are qualified to provide repairs with Clock Spring products. Clock Spring regularly offers [training classes](#) for installers and can custom design training for individual company needs.