



Riser Turret Flange Protection – Offshore Oil Offloading Tower

Case Study



Corrosion Prevention On Riser Turret Flanges

Location	F3-FB-1-OLT, Netherlands
Local Environment	Offshore Oil Offloading Tower
Date	August 2018
Condition	Dry
Total Coatings	9
Substrate Type	Flanges With Bolts
Duration	2 Days

Summary

Oxifree TM198 was used to protect 9 flanges on the F3-FB-1 OLT Riser Turret for Neptune Energy. The flanges had suffered extensive corrosion due to the environment. Oxifree provided the perfect solution being applied with minimal preparation and offering immediate protection. The flanges would then be protected from further damage.

Introduction

The F3-FB-1 OLT is an unmanned oil offloading tower owned and operated by Neptune Energy in the Dutch sector of the North Sea. The offshore location means the assets are subjected to changing weather conditions; salt spray, humidity, rain/sun, all accelerants of corrosion. Due to the asset being unmanned the asset needs to maintain functionality with very little or infrequent monitoring for corrosion.

Objective

Oxifree were requested to carry out the coating of Oxifree TM 198 on 9 flanges to halt existing corrosion and protect the bolted connections and gaskets.

The client was keen to halt the existing corrosion and prevent further with minimal interruption to production.

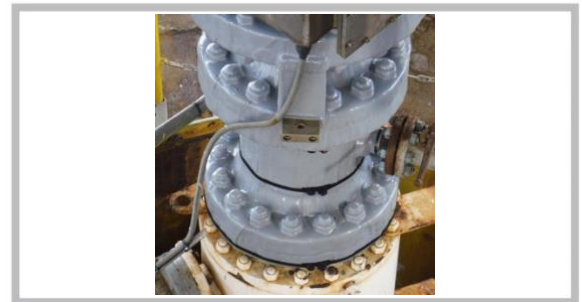
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METAL PROTECTION

The photos show the state of corrosion the flanges were experiencing.



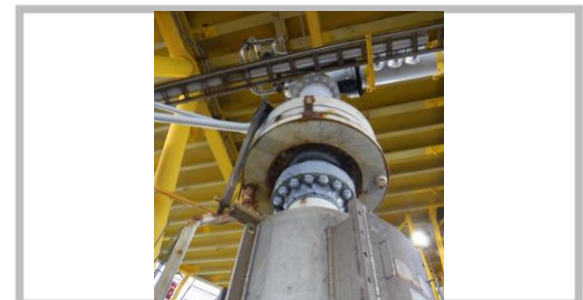
After



Before



After



Case Study

Process

A small team of 2 personnel were mobilised via a 'walk to work' system provided by a service support vessel. With bedspace at a premium a small team was a major advantage.

Our application technician completed the project in just 2 days, applying TM198 directly onto each of the flange assemblies as requested by the client.

Nine flanges were coated in total using the new Polymelt 50 application machine with a 15 metre hose. This machine has a small footprint making it ideal for the platform size.

The surface preparation was minimal, a wire brush was used to remove the loose debris, no degreasing or blasting was required and no habitat needed to catch any coating or blasting materials.

A 4mm coat was applied to each flange assembly which equated to approximately 25kg of material and the combined man hours for the coating equated to 16 hours for all flanges.

Solution

Nine flanges were coated in total with TM198 providing immediate protection against corrosion and contamination.

The coating, as approved by the operator, will ensure the flanges and bolts are protected for many years to come in the harsh offshore environment.

The durability and longevity of the product is a major advantage for the client given the unmanned nature of the platform and infrequent monitoring. The client can be confident their assets are protected.

The client was happy with the outcome.

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The coatings took place over 2 days and will provide protection immediately.

