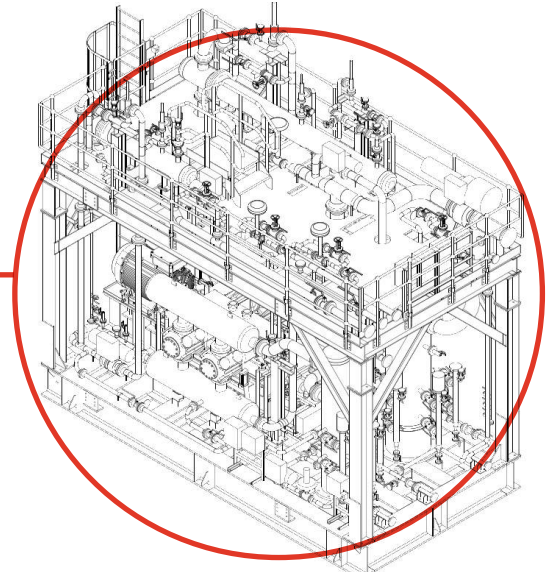


C214 | EnQuest | Producer FPSO Project

LP Compressor Package



Project: Producer FPSO

Contractor: AMEC

End User: EnQuest

Product: LP Compressor

Location: UK, Offshore

Year: 2013

Application

This Low Pressure Compressor Package will be used on the EnQuest Producer FPSO project in the UK North Sea. The project schedule was 28 weeks from receipt of the Purchase Order in order to meet the FPSO vessel build schedule. The LP Gas Compressor Package was assembled, tested, painted, prepared for transport and delivered Ex Works UK.

Description

The basic equipment consists of an Ariel JGR/4 compressor with two 15-3/4RU cylinders operating as stage 1, and two 9-3/4RU cylinders operating as stage 2.

The compressor is directly driven by an ABB electric motor at a maximum speed of 1,200 rpm.

The Motor and Compressor are mounted on a rigid steel base frame. This frame is designed to be positioned and mounted to the top deck of the FPSO. Inlet gas temperature is limited before each of the compressor stages using Shell and Tube heat exchangers.

All of the on-skid pipework, and skid bases were fabricated by OGS in our UK workshop, with the Knock out drums and pulsation bottles designed by OGS and manufactured by OGS approved vendors in the UK.

Valves and instruments were supplied from OGS approved manufacturers.

The package was painted to OGS standard North Sea offshore painting specifications.

The pre-assembled package was designed as a two tier skid to fit the available footprint dimensions on the FPSO, while maintaining the ability for road transportation to the shipyard.

Challenges

Some of the challenges OGS faced and overcame during execution of this project included:

- Limited timescale – 28 weeks from Purchase Order to delivery.
- Full acoustic analysis and pipe stress analysis was undertaken by OGS.
- Limited footprint availability for installation on the FPSO.
- Package design restricted by road transport limitations.
- Management of supply chain to ensure prompt arrival of sub vendors items.

