

# Service and inspection of mooring winch hydraulic system

ASSET FPSO Thailand

Service and inspection of mooring winch hydraulic system and provision of operational support for six turret mooring wire rope change-outs

### **BENEFITS**

Confidence in the integrity and reliability of their full hydraulic system

Full management of hydraulic system and winch operation during replacement

Successful mooring wire replacement due to reliable mooring winch system



# **CHALLENGE**

Hydraulic system inspection and servicing are critical to ensure the technical integrity and reliability of this critical equipment.

Our client in Thailand contracted us to perform the service and inspection of their mooring winch hydraulic system and provide operational support for six turret mooring wire rope change-outs which were ABS witnessed.

### SOLUTION

- Conducted inspection on three winch gear boxes and assessed drive splines and brake packs.
- Assessed condition of winch braking system and adjusted brake pad tolerances as necessary.
- Inspected condition of complete hydraulic circuit, flow and pressure test pumps and motors, and upgraded un-serviceable components.
- Serviced main Hydraulic Power Unit (HPU).
- Supplied and replaced oil, filters and consumable components.
- Assessed electrical system and cabling and liaised with on-board electrician to advise replacement of damaged, deteriorated and un-serviceable components.

- Conducted hose integrity management inspection and compiled detailed hose register.
- Re-commissioned and tested complete winch hydraulic system in preparation for mooring wire change-out.
- Re-inspected hydraulic system and conducted full pressure and flow test.
- Load tested winches to ensure they are functioning within Original Equipment Manufacturer (OEM) technical parameters.
- Assisted with the installation of sheave assembly and wire deflector.
- Assisted crews in the recovery and replacement of six mooring wires from the turret to the sea-bed.

# **SUMMARY**

- Hydraulic maintenance and repairs
- Equipment operation and condition monitoring
- Load testing and certification
- Non-Destructive Testing (NDT) inspection
- Technical support and commissioning
- Portable flow meters and hydraulic test gear
- Diagnostic equipment and specialised tooling





 Servicing of hydraulic power unit

2.
Mooring wires
and chains

