

CASE STUDY

ROV Inspection of Water Ballast Tanks
Maersk FPSO's—North Sea Producer



Client Work Scope

TRAC was requested to carry out Close Visual Inspection and Thickness Measurement in Water Ballast Tanks using a Remotely Operated Vehicle to meet the requirements of Lloyd's special survey for an FPSO under continuous survey programme.

Benefits

- Actual time and height in the tank is shown on screen for reference in inspection reports
- Thickness measurement device can be added to the ROV to take relevant readings for TM data
- Continual monitoring of known defects if tank access is restricted
- Less Safety Risks - No personnel entry to tank
- Reduced set up time prior to tank entry
- Fewer personnel required - Less bed space requirements
- Less equipment - No container required
- Footage can be transferred to HDD for further review and reporting

CASE STUDY



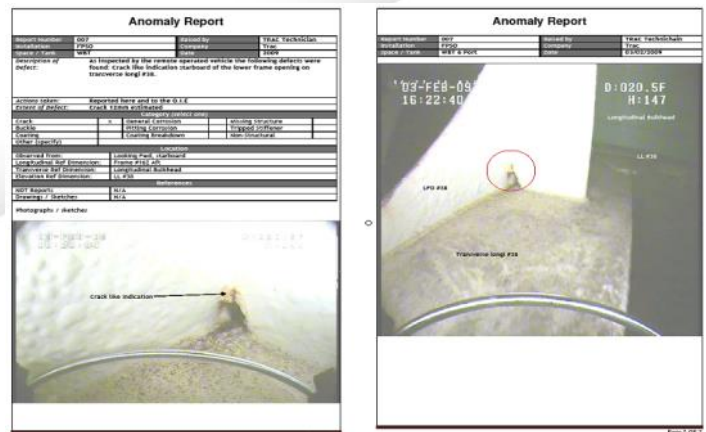
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Personnel

TRAC has an experienced pool of technicians, an ROV pilot and NDT Inspector mobilised to carry out this survey.

Solution

A lightweight self propelled ROV with attachments including Cygnus thickness measurement gauge. Various lengths of umbilical cable can be used to allow access to the furthest areas of a tank from the initial point of entry.



Further example work scopes include:

Full internal structural tank inspections:

- Thickness measurements of transverse bulkheads, transverse frames, longitudinal bulkheads, side shell (including wind & water strakes), bottom shell & upper deck
- Inspection of conditions of coatings
- Checking for Anode wastage

External Hull Inspection:

- Mooring chain inspection
- Thruster inspection
- Outer Hull visual inspection

Results

The ROV was used to record footage and inspection findings reported in the inspection plan from the inspection workbook. Where defects were found still images were taken from the recorded DVD footage and reported in separate anomaly reports. These reports allow onshore review to ascertain whether further action of known anomalies is required i.e. further inspection or immediate repair.