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Offshore Platform Underwater Inspection and Repair Training Course

14 – 18 November 2027
Cairo

Offshore Platform Underwater Inspection and Repair Training Course

Ref: 2852_109256 **Date:** 14 – 18 November 2027 **Location:** Cairo **Fees:** 4000 GBP

Offshore platform underwater inspection and repair is a 1-week training course for structural integrity engineers, inspection coordinators and offshore asset engineers and ends with a structural inspection and repair plan for one platform. Fixed platforms now run well past their first design life, so every crack, dent and scoured pile needs a defensible response. Jupiter Prime Training delivers this course on offshore platform underwater inspection and repair.

Why Offshore Platform Underwater Inspection and Repair Matters Now

Three forces shape this work today. Life extension of fixed platforms keeps steel jackets in service decades beyond their original intent, so fatigue and corrosion damage accumulate below the splash zone. Remote vehicles increasingly replace divers. Partners and insurers expect each anomaly to be graded and answered. Handled well, production continues with clear repair records; handled badly, it brings unplanned shutdowns and emergency diving.

Who Gains Most from Offshore Platform Underwater Inspection and Repair

- Engineers responsible for judging the structural condition of jacket members, nodes and piles
- Coordinators who scope diver and remote vehicle survey campaigns and review the footage
- Asset engineers who balance repair spend against production and remaining platform life
- Offshore supervisors who manage subsea work spreads and marine contractors on site

An operator's structural integrity group gains most when its engineers, survey coordinators and repair specialists attend together and agree one way of grading and answering underwater findings.

Offshore Platform Underwater Inspection and Repair Capabilities

Participants move from footage and survey sheets to graded anomalies and costed repair choices for steel jackets.

- Specify a diver and remote vehicle survey scope for a jacket — campaign approval
- Assess fatigue cracks, dents and bowed members from survey evidence — repair priority
- Calculate marine growth and scour effects on member and pile loads — structural reserve
- Weigh clamps, grouted sleeves and member removal against each other — repair selection
- Design an underwater repair method statement with hold points — contractor instruction
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Communicate anomaly grades and repair decisions to asset leadership — budget approval

Key Offshore Platform Underwater Inspection and Repair Terms

- Anomaly — any recorded departure from the as-built condition of a jacket.
- Flooded member detection — an ultrasonic or radiographic check that shows whether a tubular brace has filled with water.
- Close visual inspection — a cleaned-surface examination of a weld or node at close range.
- Scour — removal of seabed sediment around piles or mudmats by currents, reducing lateral pile support.
- Grouted clamp — a steel split sleeve bolted around a damaged member or node and filled with cementitious grout to transfer load.
- Cathodic protection survey — measurement of anode wastage and steel potential to confirm the jacket remains protected against corrosion.

Offshore Platform Underwater Inspection and Repair Day by Day

Day 1: Jacket Condition and Life Extension Context

- Fixed Jacket Load Paths And Critical Nodes — Where Damage Matters Most
- Degradation Mechanisms Below The Splash Zone — Expected Defect Types
- Structural Integrity Management Cycle — Linking Survey Findings To Action
- Baseline Survey Records And As-Built Data — Measuring Change Over Time
- Life Extension Drivers For Ageing Platforms — Repair Spend Justification

Day 2: Diver and Remote Vehicle Survey Methods

- General Visual And Close Visual Inspection — Choosing Survey Depth Per Member
- Remote Vehicle Versus Diver Deployment — Safety, Access And Campaign Cost
- Flooded Member Detection And Magnetic Particle Testing — Crack Confirmation
- Marine Growth Thickness And Cleaning Methods — Survey Quality And Loading
- Seabed, Scour And Debris Mapping — Pile Support And Dropped Object Risk

Day 3: Grading Anomalies and Judging Reserve

- Anomaly Grading Criteria For Cracks, Dents And Bows — Response Timescale
- Fatigue Crack Growth Estimation At Tubular Joints — Monitor Or Repair
- Dented Member Residual Strength Checks — Acceptance Or Strengthening
- Anode Wastage And Potential Readings — Cathodic Protection Retrofit Need
- Reserve Strength And Redundancy Screening — Platform Risk Ranking

Day 4: Underwater Repair and Strengthening Options

- Bolted And Grouted Clamps For Damaged Nodes — Load Transfer Selection
- Grout-Filled Members And Leg Sleeves — Stiffening Without Hot Work
- Crack Grinding And Wet Or Habitat Welding — Repair Quality Limits
- Scour Protection With Rock Dump And Mattresses — Pile Support Restoration
- Member Removal And Load Redistribution Checks — Removing Redundant Braces

Day 5: Practising the Structural Inspection and Repair Plan

- Survey Scope Selection For A Case Jacket — Applying Survey Method Choices
- Anomaly Register Grading Exercise — Applying Crack And Dent Criteria
- Repair Option Comparison For Three Findings — Applying Clamp And Grout Choices
- Underwater Repair Method Statement And Hold Points — Contractor Briefing
- Structural Inspection And Repair Plan Completion — Asset Leadership Sign-Off

Applying Offshore Platform Underwater Inspection and Repair After the Course

- Regrade the open anomaly register for one platform using the crack, dent and scour criteria.
- Prepare a clamp or grouted sleeve option comparison for the highest-priority jacket finding with a draft method statement.

Offshore Platform Underwater Inspection and Repair Questions FAQ

What is offshore platform underwater inspection and repair, and why does it matter now?

It is the survey, grading and repair of damage to existing steel jackets below the waterline. It matters now because many fixed platforms run beyond their first design life, so damage must be found and answered before it erodes structural reserve.

Which roles gain most from offshore platform underwater inspection and repair?

Structural integrity engineers, survey coordinators and asset engineers gain most. You will grade underwater findings and choose between clamp, grout and member removal options.

How does offshore platform underwater inspection and repair differ from jacket design or inspection interval planning?

It works on platforms already standing, not new structures. Design courses cover sizing and installation, and interval planning ranks whole facilities by risk; here individual underwater findings become graded anomalies and specified repairs.

What do you bring back from offshore platform underwater inspection and repair?

You return with a structural inspection and repair plan for one jacket that sets the survey scope, grades each anomaly, compares repair options and lists method statement hold points.

Offshore Platform Underwater Inspection and Repair: The Way Forward

The structural inspection and repair plan first informs which underwater findings receive repair funding in the next diving or remote vehicle campaign. Integrity engineers and asset leaders use it to brief contractors. After its first use, revisit the anomaly grading criteria against what the repaired members and clamps actually show at the following survey.