JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Single-Point Mooring Buoy Maintenance Training Course

1 – 5 March 2027
Singapore

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Single-Point Mooring Buoy Maintenance Training Course

Ref: 2924_111244 **Date:** 1 – 5 March 2027 **Location:** Singapore **Fees:** 9300 GBP

Single-Point Mooring Buoy Maintenance is a 1-week training course for marine terminal, offshore loading and maintenance staff who keep buoys, product swivels, floating and subsea hoses, anchor legs and hawsers fit for tanker loading, and who leave with a buoy mooring inspection and maintenance schedule. A single failed hose string or seized swivel can stop exports for days, so buoy upkeep now sits high on terminal risk registers. Jupiter Prime Training delivers this course on single-point mooring buoy maintenance.

Why Single-Point Mooring Buoy Maintenance Matters Now

Two forces shape single-point mooring buoy maintenance today. Larger tankers and longer loading windows place higher, more frequent loads on hawsers, chains and swivel bearings. Many buoys installed decades ago are reaching the end of their design life, so operators must choose between refurbishment, component change-out and replacement. A terminal that maintains its buoy well keeps loading on schedule; one that defers inspection faces hose bursts, mooring breakouts and unplanned shutdowns.

Who Gains Most from Single-Point Mooring Buoy Maintenance

- Marine terminal staff responsible for buoy readiness before each tanker arrival
- Offshore loading crews who connect, monitor and release hoses and hawsers during cargo transfer
- Maintenance technicians who service swivels, turntable bearings, valves and buoy hull fittings
- Diving and subsea inspection coordinators who plan anchor leg, chain and subsea hose surveys
- Fuel import terminal staff at coastal power stations and storage depots that receive cargo by buoy

Terminal groups gain most when loading crews and maintenance technicians attend together and agree one shared inspection routine.

Single-Point Mooring Buoy Maintenance Capabilities

Participants trace each load path from tanker bow to seabed anchor and tie every component to an inspection task.

- Assess buoy, turntable and product swivel condition from bearing play, seal leakage and rotation torque — change-out timing
- Specify floating and subsea hose test, retirement and spares rules — hose string replacement decisions
- Calculate hawser and chafe chain wear allowances against observed loads — mooring hardware renewal
- Plan anchor leg, chain and pile surveys with diving or remote vehicle teams — subsea inspection budgets
- Apply weather and sea-state limits to connection, loading and emergency release — loading master decisions
- Build an inspection and maintenance schedule linked to tanker calls — terminal managers and charterers

Key Single-Point Mooring Buoy Maintenance Terms

- Product swivel — a rotating fluid joint on the buoy that lets cargo flow while the moored tanker weathervanes around it.
- Turntable — the rotating upper deck of the buoy, carrying the hawser arm and hose connections, mounted on a main bearing.
- Hose string — the chain of floating hose sections linking the buoy to the tanker manifold.
- Under-buoy hose — a flexible hose hanging between the seabed manifold and the buoy, shaped to absorb buoy motion.
- Anchor leg — one chain or cable line, with its anchor or pile, holding the buoy on station.
- Chafe chain — the heavy chain section at the tanker end of the hawser that resists wear at the fairlead.

Single-Point Mooring Buoy Maintenance Day by Day

Day 1: Buoy Systems and Load Paths

- Buoy Types and Anchoring Arrangements — Matching Upkeep to Configuration
- Load Path from Bow Stopper to Seabed — Locating Critical Wear Points
- Pipeline End Manifold and Subsea Valves — Isolation Before Hose Work
- Environmental Loads From Wind, Waves and Current — Operating Envelope Limits
- Failure History Review — Learning from Hose Bursts and Breakouts

Day 2: Swivels, Turntables and Buoy Hull

- Main Bearing Inspection and Rotation Torque Checks — Bearing Life Calls
- Product Swivel Seal Leakage Monitoring — Seal Change-Out Timing
- Buoy Hull Coating, Compartments and Fenders — Corrosion and Buoyancy Control
- Navigation Aids and Buoy Electrical Systems — Marking and Power Reliability
- Onboard Valves and Hydraulic Systems — Remote Isolation Readiness

Day 3: Hoses and Hawsers

- Floating Hose Pressure and Vacuum Testing — Hose Acceptance and Retirement
- Under-Buoy Hose Configuration Surveys — Kinking, Abrasion and Buoyancy Module Checks
- Breakaway Couplings and Marine Breakaway Valves — Spill Limitation on Release
- Hawser Rope, Chafe Chain and Support Buoy Wear — Renewal Intervals
- Hose and Hawser Spares Holding — Avoiding Loading Delays

Day 4: Anchor Legs and Operations Interface

- Anchor Chain Wear and Tension Surveys — Leg Re-Tensioning Decisions
- Diving and Remote Vehicle Inspection Planning — Subsea Survey Scope
- Tanker Connection and Disconnection Sequence — Crew Roles at the Buoy
- Weather Windows and Emergency Release Criteria — Stopping Loading Safely
- Oil Spill Response Readiness at the Buoy — Equipment and Drills

Day 5: Practising the Buoy Mooring Inspection and Maintenance Schedule

- Component Register for a Study Buoy — Applying Load Path and Wear Points
- Inspection Intervals by Component — Applying Swivel, Hose and Hawser Criteria
- Subsea Survey Calendar — Applying Anchor Leg and Under-Buoy Checks
- Maintenance Windows Around Tanker Calls — Balancing Uptime and Upkeep
- Buoy Mooring Inspection and Maintenance Schedule — Completing the Terminal Deliverable

Applying Single-Point Mooring Buoy Maintenance After the Course

- Review the current hose string test records against retirement criteria and flag sections due for replacement.
- Lead a walk-down of the buoy turntable and swivel with the loading crew, logging findings in the new schedule.

Single-Point Mooring Buoy Maintenance Questions FAQ

What is single-point mooring buoy maintenance and why does it matter now?

Single-point mooring buoy maintenance is the inspection and servicing of the buoy, swivels, hoses, hawsers and anchor legs that moor tankers offshore. It matters now because ageing buoys and larger tankers raise the cost of any unplanned stop.

Which roles gain most from single-point mooring buoy maintenance?

Marine terminal staff, offshore loading crews and maintenance technicians gain most.

How does single-point mooring buoy maintenance differ from marine terminal berth or loading master courses?

Single-point mooring buoy maintenance centres on the buoy hardware and its upkeep. Berth and loading master courses deal with quayside mooring, ship-shore procedures and cargo transfer rather than swivels, hose strings and anchor legs.

What do you bring back from single-point mooring buoy maintenance training?

You bring back a buoy mooring inspection and maintenance schedule that sets intervals for every major component.

Single-Point Mooring Buoy Maintenance: The Way Forward

The buoy mooring inspection and maintenance schedule first informs which hose sections and swivel seals to renew before the next loading period. Terminal managers, maintenance planners and subsea contractors use it to book work and spares. Revisit the intervals once real wear findings and tanker call patterns are known.