



BOP & SUBSEA HANDLING EQUIPMENT

Beyond Integration
Seamless Solutions™





TSC offers a full range of options across the full scope of equipment. TSC will work in partnership with the client to establish the best technical and commercial solution to meet customer requirements. Whether TSC offers a new build, upgrade, refurbishment or spares package, TSC will apply the same degree of expertise, commitment and attention to detail.

New Build

TSC provides bespoke design and manufacture of the full range of TSC Mechanical Handling equipment to meet the exacting standards of today's oil and gas industry. The design, manufacture, testing and delivery of all TSC equipment is professionally managed by a dedicated team of Project Managers and Engineers who will work in conjunction with the supply chain to ensure that all deliverables are met or exceeded.

Upgrade

Should any of your TSC equipment need to be upgraded to give greater capacity or improved performance, TSC will evaluate the situation and propose a programme to meet the timescales required and minimise downtime. TSC will support this work with a full package of documentation, certification and manuals to reflect the new, improved profile of the equipment.

Refurbishment

TSC recognises that equipment used in this harsh environment needs to be regularly checked and/or refurbished. TSC offers a full surveying service to investigate the condition of all areas of your TSC equipment and recommend an efficient course of action to replace any worn or damaged parts. This can include NDT examinations to establish the condition of critical load-bearing components.

Spares

TSC will supply spares on a supply only basis if the part can be easily replaced by the rig personnel. TSC has built extremely strong relationships with our supply chain to ensure rapid supply and reliable service.



BOP Crane

BOP Crane

BOP Cranes provide solutions for handling the BOP Stack within and between the Moonpool area and BOP storage area.

Works in conjunction with BOP Transporter, BOP Skid and Guidance units for a complete handling system.

Key Features

- Robust design for enhanced performance, quality and safety;
- Goliath, Semi-Goliath and Gantry designs available;
- Span, height of lift and lift capacity are specific to client requirements;
- Suitable for hazardous area operation;
- Wire rope hoists with multi reeved arrangement terminating with lift blocks;
- Positive rack and pinion long travel drive;
- Optional auxiliary hoists for handling during maintenance;
- Control options available. Operators Cabin, Radio Control, Pendant Control or Control Station;
- PLC controlled. Hydraulically or electrically (VFD) powered;
- Synchronised long travel drives and synchronised hoisting units;
- Integrated Hydraulic Power Unit (HPU) if required. Fitted with hydraulic load sensing capability ensuring the HPU runs efficiently;
- Standard safety features including overload protection, emergency load lowering, fail to safe braking on all drives with dual braking on hoisting units, upper and lower limits, speed ramps for end of travel;
- Optional triple braking system on hoisting units;
- Optional collision protection if required.



Xmas Tree Crane

Xmas Tree Cranes, providing solutions for handling the Xmas Tree within and between the Moonpool area and Xmas Tree storage area.

Works in conjunction with Xmas Tree Carrier, Xmas Tree Skid and Guidance units for a complete handling system.

Key Features

- Robust design for enhanced performance, quality and safety;
- Goliath, Semi-Goliath and Gantry designs available;
- Span, height of lift and lift capacity are specific to client requirements;
- Suitable for hazardous area operation;
- Wire rope hoists with multi reeved arrangement terminating with lift blocks;
- Positive rack and pinion long travel drive;
- Optional auxiliary hoists for handling during maintenance;
- Control options available. Operators Cabin, Radio Control, Pendant Control or Control Station;
- PLC controlled. Hydraulically or electrically (VFD) powered;
- Synchronised long travel drives and synchronised hoisting units;
- Integrated Hydraulic Power Unit if required. Fitted with hydraulic load sensing capability ensuring the HPU runs efficiently;
- Standard safety features including overload protection, emergency load lowering, fail to safe braking on all drives with dual braking on hoisting units, upper and lower limits, speed ramps for end of travel;
- Optional triple braking system on hoisting units;
- Optional collision protection if required.



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Xmas Tree Carrier / Trolley

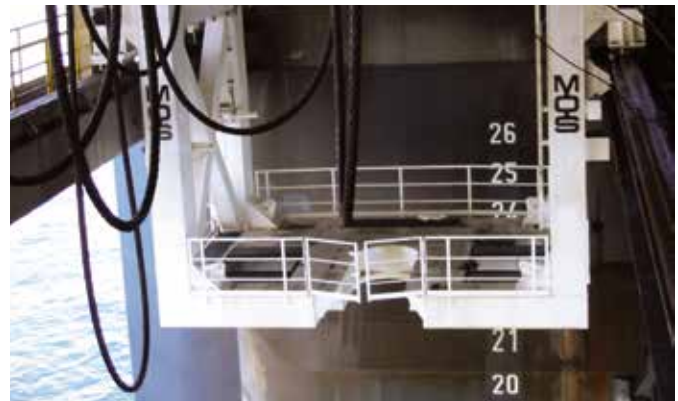
Xmas Tree Carrier / Trolley

Xmas Tree Carriers are used to transfer the Xmas Tree within the moonpool area between the Well Centre and parked positions.

Works in conjunction with Xmas Tree Crane, Xmas Tree Skid and Guidance units for a complete handling system.

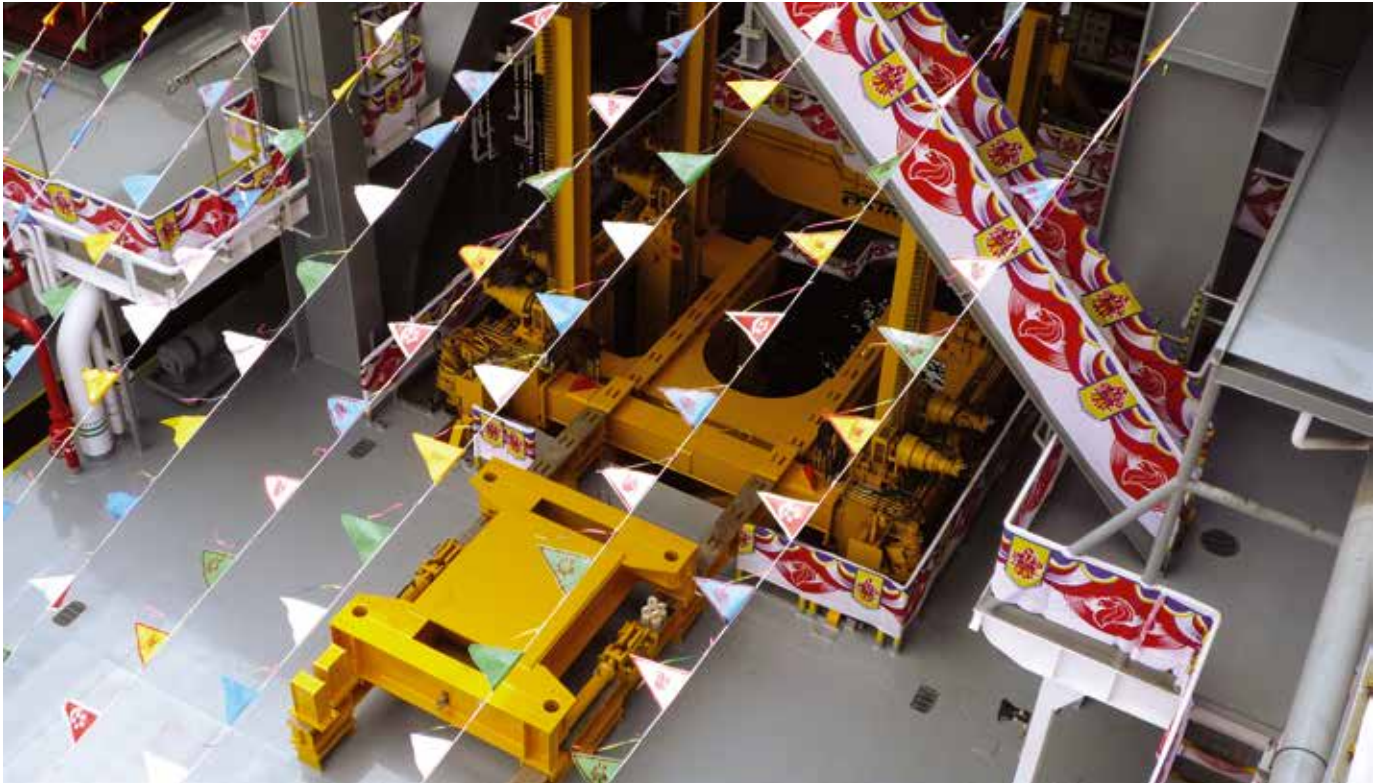
Key Features

- Robust design for enhanced performance, quality and safety;
- 'C' Frame, Flat Top, Sunken and Elevating Frame designs available;
- Span, height of lift and lift capacity are specific to client requirements;
- Suitable for hazardous area operation;
- Positive rack and pinion long travel drive;
- Elevation motion provided by rack and pinion or hydraulic cylinder
- Long Travel motion supported on Roller Wagons or suitable wheel assemblies;
- Option for Hang-Off facility to support Pipe or Casing Hang-Off. Hang-Off Spiders and Adaptors available;
- Option for integrated Test Stump, either fixed or retractable;
- Control options available. Radio Control, Pendant Control or Control Station;
- Hydraulically powered;
- Integrated Hydraulic Power Unit (HPU) if required. Fitted with hydraulic load sensing capability ensuring the HPU runs efficiently;
- Standard safety features including fail to safe braking on all drives and load holding valves on cylinders.



BOP & SUBSEA HANDLING EQUIPMENT

BOP and Xmas Tree Skid Units



BOP and Xmas Tree Skid Units

A wide and varied range of Skid Units are available to meet the specific requirements for moving Subsea packages around the vessel deck, between storage assembly location and moonpool.

Key Features

- Robust design for enhanced performance, quality and safety;
- Capacity to suit client requirement;
- Span to suit deck mounted skid beams;
- Flat top Skid designs to suit multiple packages;
- Low height Skid Unit to maximise available headroom;
- Low friction replaceable skid pads between Skid and Skid Beam;
- Hydraulic cylinder actuation to move Skid Unit along the Skid Beams;
- 2-Way or 4-Way skidding;
- Alternate designs for Skid Head; Locking Pawl, Hydraulic Gripper Pot or Locking Pin;
- Option for Test Stump mounting;
- Option for Guide Posts;
- Option for Keyhole Slot;
- Standard safety features including load holding valves on cylinders. Spring to centre (deadman) controls;
- Hydraulic Supply from dedicated package HPU or rig supply;
- Control options available. Deck mounted Control Console;
- Skids are also available for other Subsea equipment: Guide bases, Templates, Mud mats etc.

BOP Transporter / Carrier

BOP Transporter / Carrier

BOP Transporters are used to transfer the BOP Stack within the moonpool area between the Well Centre and parked positions.

Works in conjunction with BOP Crane, BOP Skid and Guidance units for a complete handling system.

Key Features

- Robust design for enhanced performance, quality and safety;
- 'C' Frame, Fixed Fork and Elevating Fork designs available;
- Span, height of lift and lift capacity are specific to client requirements;
- Suitable for hazardous area operation;
- Positive rack and pinion long travel drive;
- Elevation motion provided by rack and pinion or hydraulic cylinder;
- Long Travel motion supported on Roller Wagons;
- Option for Hang-Off facility to support Riser Spider and Gimbal;
- Option for integrated Test Stump, either fixed or retractable;
- Control options available. Radio Control, Pendant Control or Control Station;
- Hydraulically powered;
- Integrated Hydraulic Power Unit if required. Fitted with hydraulic load sensing capability ensuring the HPU runs efficiently;
- Standard safety features including fail to safe braking on all drives and load holding valves on cylinders.





BOP Chain Hoists

A range of BOP Chain Hoists are available to provide lift and transverse movements of the BOP Stack.

Key Features

- Robust design for enhanced performance, quality and safety;
- Capacity, Lift height and Speed of operation to suit client requirement;
- Low headroom designs to maximise the space envelope;
- Positive Rack and Pinion drive – no wheel spin;
- Secondary Hangoff points for added safety;
- Lift Block and / or Links to suit lifting application and BOP design;
- Hydraulic or pneumatic actuation. Festoon or catenary supply to unit;
- Filter, regulator and lubricator assembly supplied with pneumatic unit;
- Standard safety features including overload protection, upper and lower limits and spring to centre (deadman) controls;
- Hydraulic or Pneumatic Supply from rig;
- Control options available. Deck mounted Control Console, Pendant or Radio Control.

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Guidance System

Guidance System

The use of Guidance Systems is very important on a dynamic vessel. Without the systems in place the equipment has the potential to swing during lifting and cause damage or injury to personnel. A range of guidance systems are available to prevent this movement and stabilise the equipment.

TSC provides Horizontal and Vertical Guidance systems to suit the handling requirements.

The options for Guidance Systems are to either provide the system as part of another piece of equipment or to supply the system as a specialised unit, eg Splash Zone Guidance (SZG) and Bulkhead Guidance.

Examples of Guidance systems mounted to other equipment are:

- SZG mounted underneath BOP Transporters;
- SZG mounted underneath Spider Beams;
- Capture Arms mounted on BOP Cranes.

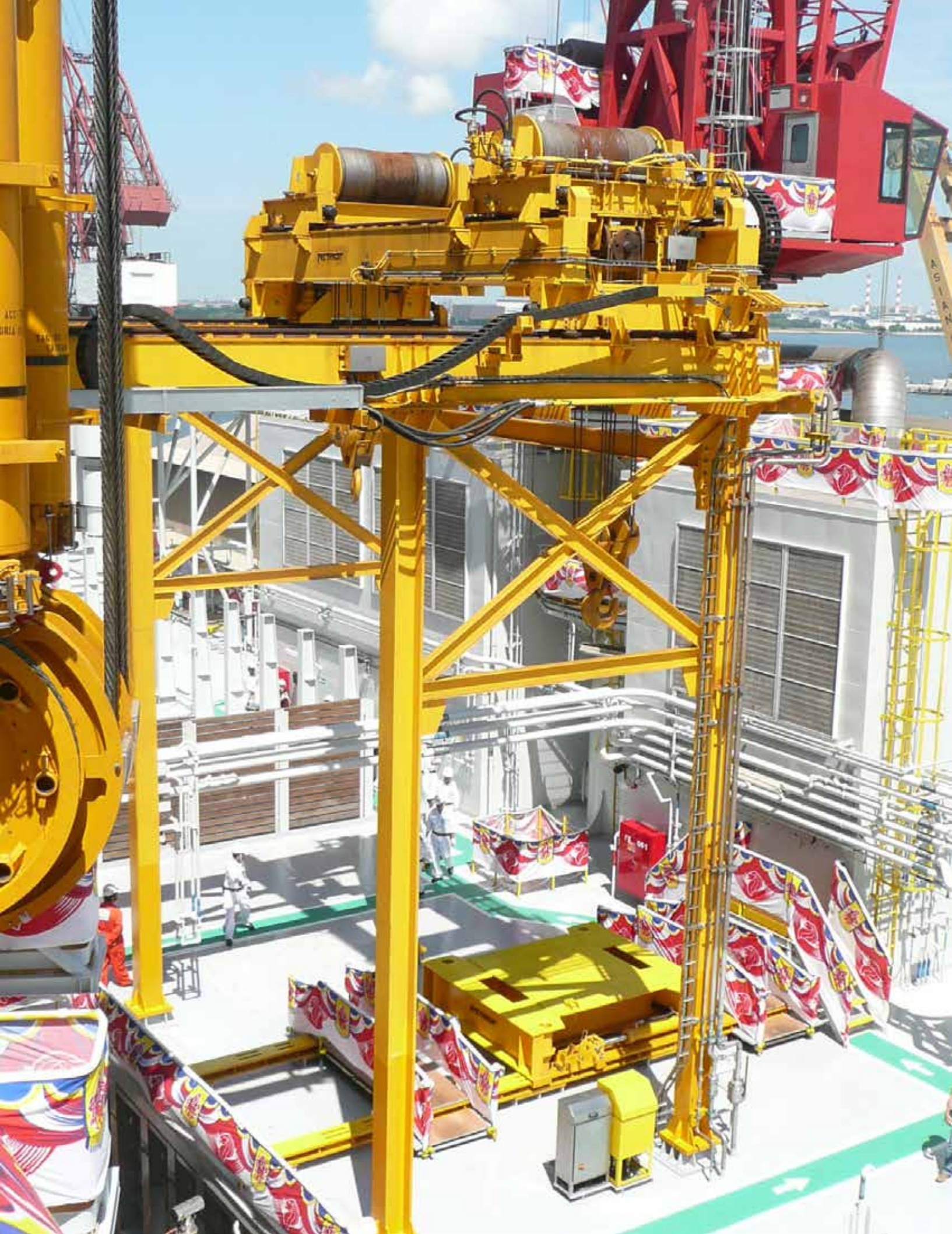
Key Features - Splash Zone Guidance

- Robust design for enhanced performance, quality and safety;
- The size and capacity of any Guidance System depends on the equipment being handled;
- Extend and retract to capture and release the equipment;
- Retractable skirt to fold away when not in use;
- Hydraulic cylinder actuation;
- Fixed Parking position for Operation and Storage;
- Standard safety features including load holding valves on all cylinders;
- Hydraulic Supply from rig;
- Control options available. Deck mounted Control Console;

Key Features - Bulkhead Guidance

- Robust design for enhanced performance, quality and safety;
- The size and capacity of any Guidance System depends on the equipment being handled;
- Capture Arms to latch onto equipment;
- Positive Rack and Pinion Drive;
- Standard safety features include load holding valves on all cylinders and fail to safe brakes on drives;
- Hydraulic Supply from rig;
- Control options available: Deck mounted Control Console, Pendant or Radio Control;
- Independent operation or synchronised with other equipment.





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Hoisting Equipment

Drill Floor Equipment

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Deck Crane

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Pumps

Mud System

Well Control System Equipment

Jacking Systems

Lifting, Mooring & Winch Packages

Land Rig Solutions

