

Ideal Prime Rig



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Small changes, big differences

While boosting the power and drilling capacity of this 375-ton rig, we also engineered small design solutions that yield big savings, safer operations, higher efficiency, faster rig moves and assembly, improved logistics, reduced flat time and a rig that surpasses all others in total quality and performance.

Enhanced mobility

The Ideal™ Prime Rig with the Steel Toe™ walking system enables the rig to move further without use of a catch tank and without having to rig-down several pieces of equipment. These features translate to reduced downtimes, increased drilling time, and greater on-site mobility.

Unparalleled control

The Amphion™ drilling control system integrates rig systems, providing seamless control over rig operations.

Increased power and torque

NOV's equipment suite features several tools that deliver more power and torque, allowing for faster drilling and deeper wells.

Enhanced safety

Design updates provide better visibility, yield faster operations, and remove the crew from many hazardous locations.



We have taken a big step forward in overcoming today's drilling challenges with the newest addition to the Ideal rig series, the Ideal Prime rig. It builds on the legacy of the Ideal brand by incorporating field-proven, dependable equipment with the latest NOV innovations in land rig technology.

Steel Toe walking system

Our Steel Toe walking system includes lift and roll assemblies that pin into the substructure. Critical equipment remains stationary or mounted in place on the rig during walking operations

- System supports the weight of substructure, mast, full-rated setback, and drawworks
- Top drive and top drive guide beam stay in mast
- Drawworks mounted and remains on drill floor
- BOP trolley supports the BOP stack during well-to-well moving operations
- Festoon cable management system allows power house and backyard equipment to remain stationary

Grasshopper attaches to rig floor and is able to laterally adjust to accommodate well positions. Articulating, telescoping flowline and manifold allow 120 feet linear walking capability (six wells at 20 feet apart) without using a transfer tank. Wireless controls maintain crew safety during walking operations.

Benefits

- Enhanced mobility
- Faster rig moves
- Less time spent rigging up and down
- Safer operations

Walking Parameters

- Feet elevate rig 6 in.
- Wellheads cleared with ease
- Walking speed of 60 ft/hr
- Rig can walk in X or Y direction
- Rig can walk 120 ft along one linear axis without using transfer tank



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Major components of the Ideal Prime Rig



Substructure

- Greater setback capacity to rack more drill pipe for deeper wells and longer lateral drilling
- 100% spill containment system prevents environmental hazardous spillage
- Center drill floor can come in from any side for easier and faster rig-up
- Higher drill floor fits larger BOP stack
- Sub and mast cylinders have the same part number for easier tracking and reduced need for spares inventory
- Slingshot substructure
- Cylinder-raised
- 28-ft drill floor height, approx. 23 ft of clearance
- 575,000 lb, 224 stands of 5-in. pipe, setback capacity



Mast

Shoes connect easily; unique pin design allows mast to pin into sub without precise alignment for easier and faster rig-up.

- Three section, triples, cantilever mast
- Cylinder-raised
- 142-ft height



Amphion and driller's cabin

Integrated control system for managing, controlling, and monitoring rig floor equipment for safe and efficient operations.

- Three driller control screens and one CCTV screen
- Touchscreens are user-friendly, concise, respond quickly, and allow simultaneous monitoring of multiple pieces of equipment on one screen
- Ergonomic, adjustable, climate-controlled workstation
- Multi-tool control cabinet houses control module and network devices



Top drive – TDS-11SH

Our most powerful AC electric VFD-controlled top drive for its size, enabling it to run safer operations with faster and deeper drilling.

- 1,100 horsepower
- 500-ton rotating and hoisting capacity
- 51,000 ft-lb continuous drilling torque at 125 rpm



Drawworks – DSGD-375

Dual speed gear box offers better tripping efficiencies at lower hook loads.

Fewer drives required for better fuel efficiency

- 1,500 continuous HP
- 375-ton capacity
- Two air-cooled caliper disc brakes
- 750,000-lb capacity on 12 lines





Iron roughneck – ST100

- Greater torque and power for eXtreme™ torque connections and deeper drilling requirements
- Field approved torque and spin wrenches deliver unmatched performance and quality
- Most well center and mousehole extension patterns accommodated via an 8-ft reach
 - 100,000 ft-lb makeup and 120,000 ft-lb break-out torque
 - 4-to 9¾ in. tubular connection range

Mud system

Round-bottomed tanks allow for better circulation and more efficient mud flow. Shakers are reliable, maintaining constant G regardless of load.

- FD-1600 mud pumps – single motor drive, optional 7,500-psi fluid ends
- Three-cylinder, single-action, piston-type mud pump

BOP – Shaffer™ KXT 13⅝ in. 10,000 psi

- More compact, shorter, and lighter than competitors' BOPs
- Compatible with the superior low-force shear ram
- Easier maintenance and assembly of LXT ram
 - Only two hydraulic connections required
 - Boltless door locking system
 - LXT ram only requires single removal of two lock rods and is a one-piece block assembly
 - Optional 15¼x15¼ in. booster available for added power

PipeCat™ laydown system

Personnel removed from danger area while picking up and laying down pipe.

- Need for manual handling eliminated
- Tubulars transferred from catwalk level to drill floor
- Wireless radio control or local control
- Manual V-Door ramp functionality

Stand Transfer Vehicle™ (STV)

Derrickman removed from diving board for increased safety, improved crew interaction and training, and reduction of crew fatigue. Intuitive, user-friendly, ergonomic controls, and larger screens for easier viewing and interface.

- Tripping speed maintained with greater consistency
- Two cameras to aid control system
- Manual racking possible
- Easy transport in and out of mast while handling tubulars



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Small change	Big difference	Details
Engineering of cabling, lines and hydraulics	<ul style="list-style-type: none"> Increases safety Improves rig-up and rig-down times Reduced chances of error 	<ul style="list-style-type: none"> Multi-quick disconnect plates and weldless joints reduce number of connection points Wiring and cables and their connection points clearly labeled and organized
Engineering of mast shoes	Improves rig-up and rig-down times	<ul style="list-style-type: none"> Shoes connect easily Unique pin design allows mast to pin into sub without precise alignment
Streamlined top drive-to-traveling block connections	Improves rig-up and rig-down times	Instead of traditional bail connection, newly engineered connections "snap" into and out of traveling block
Dragchains	Extends equipment life	Service loops are better protected and need not be replaced as often
Larger drill floor	Optimizes operations	More space for crew to work
Efficient, engineered stair locations	<ul style="list-style-type: none"> Increases safety Optimizes operations 	Newly designed driller's cabin allows two end exit routes
Specialized equipment suite	<ul style="list-style-type: none"> Increases rig and crew safety Optimizes operations 	Equipment suite selected after careful engineering evaluations to determine most optimal and safest rig configurations
Improved communication systems	<ul style="list-style-type: none"> Increases safety Optimizes operations 	<ul style="list-style-type: none"> Improved intercom system Built-in video system
BOP controls are compliant to safety standards and easily accessible	<ul style="list-style-type: none"> Increases safety Optimizes operations 	<ul style="list-style-type: none"> NOV's Koomey™ unit is easily accessible in event of emergency Well control can be controlled manually via our Koomey accumulator unit or remotely via stand-alone unit in driller's cabin



Uptime and reliability are key to your success

Field Service

Our growing staff of proven field service personnel is available 24/7 to support all NOV products. Knowledgeable field service technicians can quickly deploy to your operating site to resolve your equipment issues, whether structural, mechanical, electrical, or software related. Our FAST solution service trucks are pre-stocked with an extensive list of NOV's top drive, iron roughneck, BOP, EDS, and Amphion replacement parts, filters, consumables, and tools to get your NOV equipment running at OEM specifications. Expert on-call technicians are ready to provide FAST, on-site service and repair.

Training

Field technicians train extensively on NOV Rig Technologies product lines, including competency training and evaluations through our NOV technical colleges, and training facilities to ensure the highest quality service and support for your equipment repairs on site.

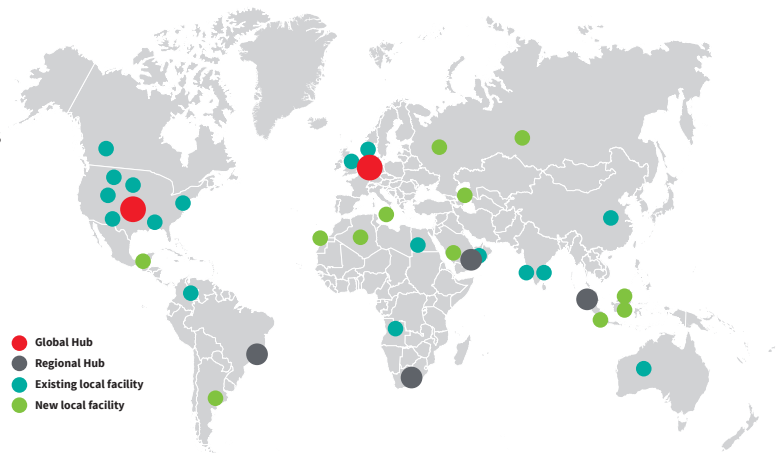
Repair

Our highly skilled shop technicians overhaul, repair, rebuild, and re-certify a wide range of NOV equipment to the NOV Quality Assurance and OEM specifications using only OEM parts. Our worldwide network of repair centers provides unrivaled quality customer service, on-time delivery, and unmatched technical integrity. In addition, equipment exchange programs are available at various facilities. Through the Used Equipment Refurbishment Program, we provide viable, short turnaround solutions to immediate capital equipment needs, complete with data books and certificates of conformance as required.

Technical Support

One phone call to one of our technical support centers initiates a technical support team of multi-skilled backgrounds to troubleshoot and resolve your worldwide equipment needs, 24/7/365. Our team of highly skilled and experienced technical support members work together with our global pool of qualified field service technicians and subject matter experts to keep your rigs operating. The technical support team utilizes our web-based application "Tracker" to record, manage, and resolve issues.

For 24/7 Support Services: +1 281 569 3050



Comprehensive Aftermarket Operations products and services



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