

BLM

Jacking and Mooring Systems



NOV



Our BLM group built a reputation of excellence based on technical design experience in the rack-and-pinion jacking system. This, combined with a commitment to quality and safety, provides outstanding lifting and handling offshore solutions worldwide applications.

The BLM group is a leading supplier to the offshore Industry for Jacking system, anchoring winches, windlasses and fairleads.

NOV's worldwide reputation of excellence continues to prove itself and demonstrate its high level of development. Each year, new deep-water drilling records are exceeded without compromising safety or quality.

A worldwide reputation of excellence



BLM plant in Carquefou - Nantes, France

Jacking system for jackup rigs

We have a full range of elevating units with lifting capacities from 50 to 455 metric tons per pinion. Our systems can elevate the hull into position for drilling operations and for raising and supporting the legs while the rig is afloat.

The rack-and-pinion jacking system is designed, manufactured, and tested in our plant in Nantes, France. This includes the complete package, the heavy steel structures, gear trains, electric motors, and controls. Spare parts are available off-the-shelf on request. Our system is a successful integration of technologies designed to operate together as one complete system.



BLM Jacking Gear
Bearing grease exposed



BLM Jacking Units
Vertical D Series

BLM Jacking and Mooring Systems



NOV's BLM group provides a full range of jacking units

These can be arranged on the legs for several layers in order to meet the exact lifting requirement for the rig, and can match with square or triangular lattice legs as well as tubular legs. A jacking system typically consists of several jacking units that are equally distributed on leg chords. A greater flexibility is attained using the most

appropriate jacking unit arrangement. The jacking units are fitted in fixed or floating jacking frames. For the D series, the jacking units are mounted either vertically or horizontally, and are made of self-contained subassemblies which can be removed easily from the jacking frames.

Benefits

The jacking unit's performance enables the system to achieve:

- Lifting capacity by allowing lifting and lowering of the hull or legs
- Preload lifting by allowing lifting and lowering of the hull with a certain amount of water ballast
- Holding capacity without damage by allowing the unit to hold the hull in a fixed position
- Storm holding capacity, the extreme load that jacking units can withstand with possible permanent deformations.

Over 8,000 jacking units are installed on over 200 Jackups with our BLM Series B, C, D or with National Series NS400 or NS700

Specifications - Jacking Units Range (Metric Tons)

Jacking Type	Normal Jacking	Preload Lifting	Static Holding Capacity	Storm Holding
B6	55	-	110	147
C12	80	-	140	187
B36	135	-	270	360
B75	195	-	360	480
C50	180	-	290	387
NS400	200	-	320	454
C150E	454	590	727	969
C170	420	575	760	1013
D60H	200	260	320	454
D80H/V	220	290	400	540
D110	313	394	560	751
D110H	313	394	530	707





Skidding systems for the drilling system

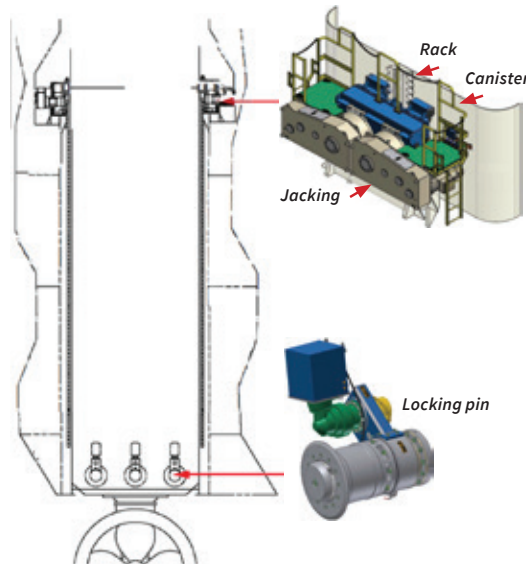
The skidding systems are used for moving the cantilever and the drill floor of a jackup rig in order to locate the drill center at the right position. During severe weather, tow conditions, and normal operations, the pinions of a proper skidding system are released. Consequently, the structure for both cantilever and drill floor are rigidly locked to the hull by an independent system.

Our lines of BLM Skidding Units are installed above the main deck. These rack-and-pinion designed units are based on the same proven technology used in jackup elevating systems.

Equipment for the drillship

NOV's BLM group also uses its electric rack and pinion jacking system technology to lift the canisters fitted with their thruster on-board the drill ship.

Over 13 drillships have been equipped with our solution.



BLM jacking systems D series are designed to:

- Not require any significant spares during the lifetime of the vessel.
- Offer high speeds for legs moving.
- Obtain a jacking system lighter than others and offer more variable load on deck.
- Develop high load for leg extraction and shift automatically to high speed when load reduces.
- Provide a high speed for lowering the leg even after leg soil contact so as to limit the pin-down effect to a very short time
- Absorb shocks which are distributed on all contact points (pinions).



Quality System Certification

Our international network of representatives and approved service stations involves 45 countries. Our customers can always contact a qualified technician that is ready to intervene at a moment's notice. In addition, our wide range of spare parts is in stock and always available.

From our operations base and factory in Nantes, France, our BLM group is the worldwide leader for pulling and lifting aboard. Our quality system is accredited as conforming to ISO9001: 2008, a globally recognized standard by classification organizations.



Windmill turbine installation vessel

Windmill installation vessels have specific needs:

- Intensive utilization (200 moving a year for 20 years)
- High lifting speed
- Space and weight limitations
- Repeated leg extraction
- Repeated pin-down effect
- Piling shock effect

Anchoring and mooring system for the semi-submersible rig

These systems can be adapted to any chain size and wire diameter.
More than 30 rigs have been equipped with a solution manufactured at our plant.



Double combined wire rope/chain mooring winch/windlass



Double combined wire rope winch



Double configured windlass with chain



photo: Thomas Aarhaugen

BLM also supplies
equipment for FPSOs



Electric chain tensioner



Mooring equipment



Load transfer transportation trolleys



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