

Wirth Single Gear Drawworks

Next generation offshore hoisting system

Our single gear drawworks combine a compact and maintenance-friendly design with maximum availability to excel in the offshore drilling industry.

Product description

HMH's field-proven drawworks are the hoisting system which raises and lowers the travelling block and the equipment underneath. Our compact single gear drawworks set new standards for a well-balanced ratio between load and speed performance. Single gear technology eliminates the need to change gears resulting in smooth round tripping and stand building operations. This provides a comfortable handling environment for the operator.

A reduced number of moving parts and a simple hydraulic system are part of the low-maintenance design. Our skid-mounted Human Machine Interface (HMI) enables maintenance and feedback directly on the drawworks and our unique rope-clamping device eases cut and slip operations, and scales back non-productive time and risk. The intuitive and flexible-to-configure HMI of our drawworks' control system allows the driller to focus on the most critical information. This results in higher drilling efficiency and safer working conditions.

Our unique and interchangeable AC water jacket motors (standard for our GH 4500 upwards) can be used both on mud pumps and on drawworks, keeping your spare parts stock at a minimum. These motors reduce noise to less than 85 dB(A) and feature market leading vibration levels.

Benefits

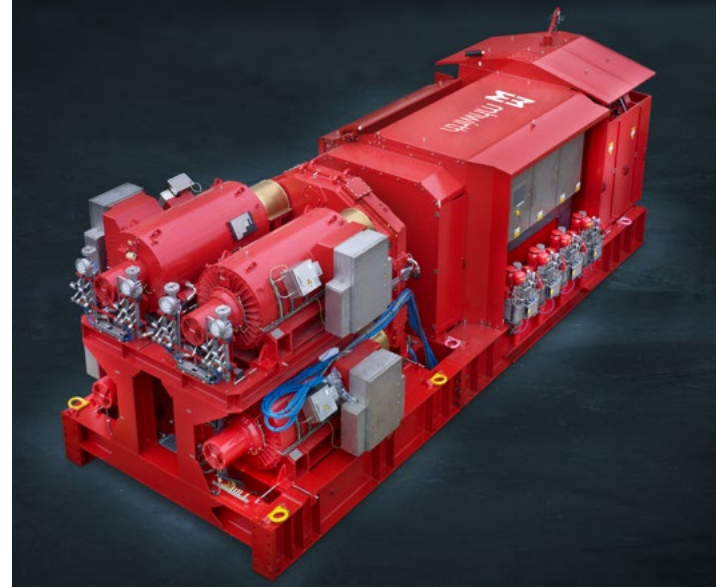
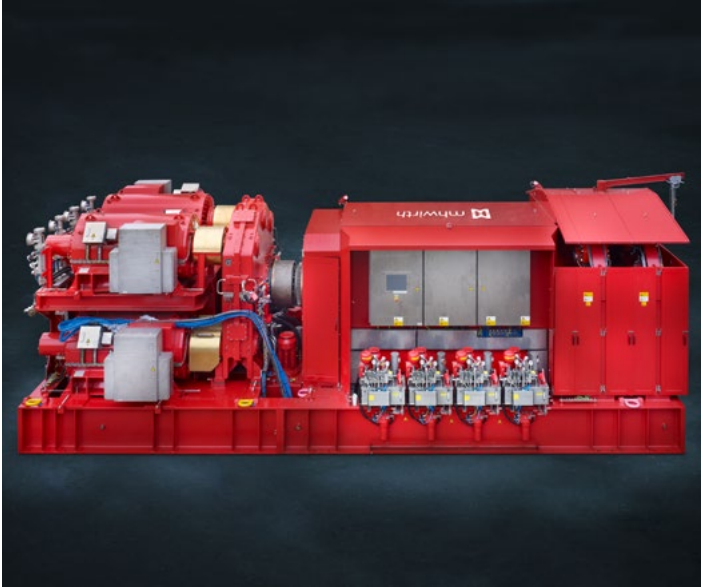
- Low-maintenance design and CBM capabilities maximize availability and uptime, resulting in lowest operational costs
- Strong HSSE performance with removable rope-clamping device and control system
- Up to 30 % reduced noise level with AC water jacket motor compared to traditional AC motors in the market
- Well-balanced ratio between load and speed performance
- Extended in-house testing facilities

Our single gear drawworks are accredited in accordance with API-7K.

Additional Options

- Reduced motor mode to operate the drawworks with one motor out of service
- Secondary crown saver for additional crown protection
- Redundant lubrication system with independent pumps, pressure lines and instrumentation/sensors reduces the risk of single point failures and maximizes uptime
- Third party certifications such as ABS and DNV possible
- Automated single calipers brake test to simplify brake performance testing
- Automated greasing functionality for main bearings to ease maintenance
- Online system allows our 24/7 technical service to diagnose and assist remotely
- Extended verification of drawworks and its control system on our unique in-house test facilities
- Condition based maintenance (CBM) system





Technical specifications

Our single gear drawworks for offshore applications are available with hoisting capacities ranging from 700 to 1 500 short tons (635 to 1 360 mT). The typical variants shown in the table below can be selected depending on rig requirements.

		GH 3000 EG-AC-1G	GH 3000 EG-AC-1G*	GH 4500 EG-AC-1G*	GH 6000 EG-AC-1G*	GH 9000 EG-AC-1G*
Rig performance rating, max.		3 000 hp (2 237 kW)		4 500 hp (3 356 kW)	6 000 hp (4 479 kW)	9 000 hp (6 711 kW)
Rig capacity, max.		750 short tons (680 mT)		1 000 short tons (907 mT)	1 500 short tons (1 361 mT)	2 000 short tons (1 814 mT)
Standard main motors		Two AC, forced ventilated		Two AC, water jacket	Three AC, water jacket	Four AC, water jacket
Lifting capacity first layer, max.		888 short tons (1 776 lbs x 1 000) with 12 lines		1 036 short tons (2 072 lbs x 1 000) with 14 lines	1 485 short tons (2 970 lbs x 1 000) with 16 lines	1 920 short tons (3 840 lbs x 1 000) with 16 lines
Lifting capacity fourth layer, max.		711 short tons (1 422 lbs x 1 000) with 12 lines		857 short tons (1 714 lbs x 1 000) with 14 lines	1 240 short tons (2 480 lbs x 1 000) with 16 lines	1 585 short tons (3 170 lbs x 1 000) with 16 lines
Block speed, max.		175 ft/min (0.89 m/sec) with 12 lines		169 ft/min (0.86 m/sec) with 14 lines	191 ft/min (0.97 m/sec) with 16 lines	207 ft/min (1.05 m/sec) with 16 lines
Dry weight		74 957 lb (34 000 kg)	83 775 lb (38 000 kg)	158 733 lb (72 000 kg)	209 439 lb (95 000 kg)	23 589 lb (107 000 kg)
Dimensions	Length	227 in (5 764 mm)	264 in (6 730 mm)	346 in (8 800 mm)	371 in (9 435 mm)	391 in (9 925 mm)
	Width	106 in (2 700 mm)	106 in (2 700 mm)	138 in (3 500 mm)	138 in (3 500 mm)	138 in (3 500 mm)
	Height	98 in (2 492 mm)	98 in (2 492 mm)	147 in (3 726 mm)	147 in (3 726 mm)	147 in (3 726 mm)

* Equipped with second disk brake

Data is subject to confirmation by the manufacturer.