

FIBRE ROPE CRANES (DDC50FR)



KONGSBERG



The dual draglink crane has a geometry providing unique lifting performance.

KONGSBERG SUBSEA CRANES

Fibre rope cranes (DDC50FR) Working better deeper

The crane is designed for continuous operation in a tough and corrosive offshore environment with focus on efficient and safe load handling.

Fibre rope cranes

A range of offshore cranes up to 400 tonnes load using field proven Kongsberg Maritime fibre rope handling technology is now launched. The cranes are fully integrated with our deck machinery handling and control systems and offer unparalleled performance as well as reliability and comfort. Through our cable traction control technology using fibre rope, our cranes can operate at virtually unlimited depths. Because the selected rope has neutral buoyancy, the crane can handle loads to its full rated capacity down to its maximum water depth. Cranes using heavy steel wire must begin derating at depths more than about 700m, so by 2,500m a 400t wire crane can only handle the same load as a 250t FRC.

The dual draglink crane can handle both fibre rope and steel wire and has a geometry providing unique lifting performance. The drag link geometry provides a good working height and allows for short radius operations to make use of the deck area near the pedestal. The horizontal boom provides active heave compensation (AHC), significantly increasing the life time of the lifting line compared to when AHC is performed by means of the winch.

The Kongsberg Maritime rope management system monitors rope condition enabling abraded or damaged sections to be easily repaired by splicing onboard.

OPTIONS

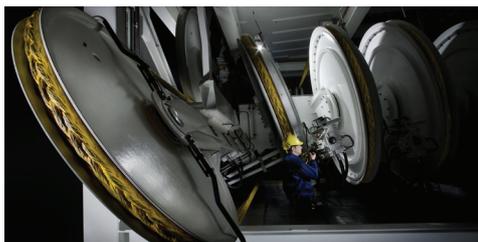
- Auxiliary winch
- Personnel lifting
- Tugger winches
- Remote access
- Anti-collision system
- Pedestal
- Heavy lift double fall arrangement
- Health monitoring

Cabin



A sound insulated state-of-the-art cabin houses the operator's chair with redundant touch screens, camera monitors, a writing desk and a co-pilot chair. Heating and air conditioning allows the operator to work comfortably and efficiently in all climates.

CTCU



Fibre rope handling is taken care of below deck, in a compact system using the field-proven Kongsberg Maritime cable traction control unit (CTCU), which assures reliable and predictable rope spooling and storage in all conditions.

General design features

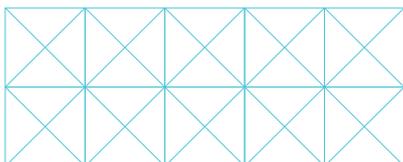
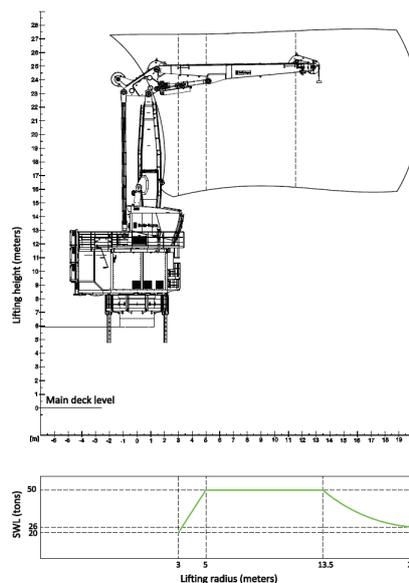
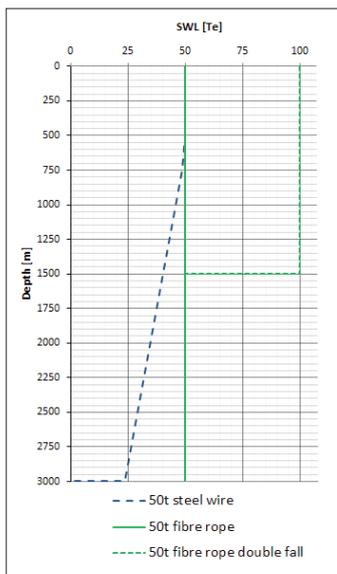
- Field proven CTCU technology for fibre rope handling
- Innovative crane structure – increased lifting height
- High-end control system
- Active heave compensation
- Constant tension, with auto landing and auto lift-off mode
- Pull limit and controlled emergency pay-out function
- State-of-the-art operator cabin
- High quality – low maintenance, robust and field proven technology
- Cost efficient logistics for rope replacement
- In-field splicing of rope
- Easy inspection of rope
- Rope management system – full wear traceability
- DNV GL certification – others upon request

SWL	50T
Operating depth	3000 m
Min outreach	3 m
Max outreach	20 m
AHC capacity (Peak to peak)	6 m at 8 s (50t, all depths)
Heavy lift capacity (double fall)	100t at 1500 m
Tugger winch capacity	3t
Swinging	360 degrees continuous
Peak power consumption	950 kW
Certification	DNVGL, others upon request

Approximate values, provided for information only. Specifications may vary for given applications.

The graphs to right compare the subsea lifting capacity of fibre rope vs. steel wire. Unlike steel wire, fibre rope suffers no depth derating as it has neutral buoyancy. In addition, the fibre rope's twist free construction enables deepwater operations in double fall which effectively doubles the crane's lifting capacity.

Use of steel wires practically stops at approx. 3000 m due to size of handling equipment and high water pressure causing wire core corrosion issues.



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