

MPI RESOLUTION



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MPI Resolution is the world's first purpose-built Wind Turbine Installation Vessel.

Designed to transport, lift, install and decommission components, the vessel's dynamic positioning system, jacking system, 3,200m² deck space, accommodation facilities and lifting capacity make her an efficient, effective and well-proven offshore installation vessel.

Built in 2003, MPI Resolution combines tested technologies applied in innovative ways to provide a single-vessel installation solution for the offshore construction industry.

MPI Resolution was specifically designed to overcome the challenges presented in construction of offshore wind farms. Since her commissioning, the vessel has been upgraded several times to meet the growing demands posed by next-generation components.

Supported by first-class engineering, project management, exacting quality-control and safety standards, MPI Resolution delivers bespoke optimum installation solutions.

OPERATING CAPABILITIES

JACKING SYSTEM

Capable of operating in water depths ranging from 5 to 32 metres*, MPI Resolution can be converted from vessel to stable working platform quickly and efficiently using two class-proven technologies:

- The Kongsberg dynamic positioning system allows the vessel to be manoeuvred into position.
- The 48 hydraulic cylinders allow the vessel to be jacked clear of the water at a rate of 0.50 metre/minute.

ACCOMMODATION

MPI Resolution provides excellent accommodation and rest-and-relaxation facilities for up to 40 client personnel, in addition to her regular crew.

CRANES & CURVES

Both cranes on MPI Resolution are of an offshore design capable of operating in wind speeds up to 20 metres/second.

The 600-tonne crane provides the capacity necessary to install wind turbine components to a height in excess of 93 metres above the main deck.

By utilising a combination of the main-crane hoist, or fly hoist and the two crane-mounted tugger winches, it is possible to optimise all lifting operations. MPI Resolution's crane is capable of operating well beyond the design parameters laid out in offshore turbine erection procedures.

GENERAL INFORMATION

CLASSIFICATION	Det Norske Veritas * 1A1 Self-elevating Offshore Support Unit Wind Turbine Installation Unit CRANE EO DYNPOS-AUT
NUMBER OF LEGS	6
FLAG STATE	Netherlands
YEAR BUILT	2003
ENDURANCE	60 Days (Maximum Speed) Minimum Crew (Water Reserves) 30 Days Maximum Crew
LIGHTSHIP	12,828t (Incl. Legs)
DRAFT	3.40m (Minimum Operational Depth)
OVERALL LENGTH	130.00m
BREADTH (MOULDED)	38.00m
DEPTH (MOULDED)	8.00m

CARGO CAPACITY

MAXIMUM DEADWEIGHT	4,000t
MAXIMUM CARGO AREA	3,200m ²
MAXIMUM DECK LOADING	10t/m ² (Areas of 20t/m ² and 10t/m ²)

OPERATING CONDITIONS & PERFORMANCE

SERVICE	Unrestricted (As per DNV Rules)
MAXIMUM OPERATING DEPTH*	32.25m
OPERATING DRAFT	4.30m
AIR DRAFT	68.20m with 72.50m Legs @ 4.30m Draft
CRANE OPERATIONS	20.00m/s Wind Speed
TRANSIT SPEED	11.00kn

* At 5.00m Leg Penetration and 7.50m Air Gap.

ACCOMMODATION

BERTHS	70
DOUBLE CABINS	21
SINGLE CABINS	28
OTHER FACILITIES	Four Offices, Hospital, Conference Room, Coffee Shop, Recreation/Reading Rooms, Locker Room/WCs, Galley & Stores, Laundry/Drying Room, Mess Room, Gymnasium

DYNAMIC POSITIONING: KONGSBERG K-POS DP-21

CONSISTING OF	Dual Operator Station Dual Controllers Bridge Wing DP Joystick Independent Joystick
REFERENCE SYSTEMS	3 Gyro Compasses 3 MRUs 3 Wind Sensors 2 DGPS 1 Fanbeam

JACKING SYSTEM & PERFORMANCE: IHC GUSTO HYDRAULIC

EFFECTIVE LEG LENGTH BELOW HULL	44.75m (Incl. Spudcans)
SYSTEM SUPPLIER	Gusto
LIFTING SPEED	0.50m per Minute
JACKING CAPACITY	2,850t/Leg
PRE-DRIVE CAPACITY	4,440t/Leg
HOLDING CAPACITY	5,700t/Leg

JACKING

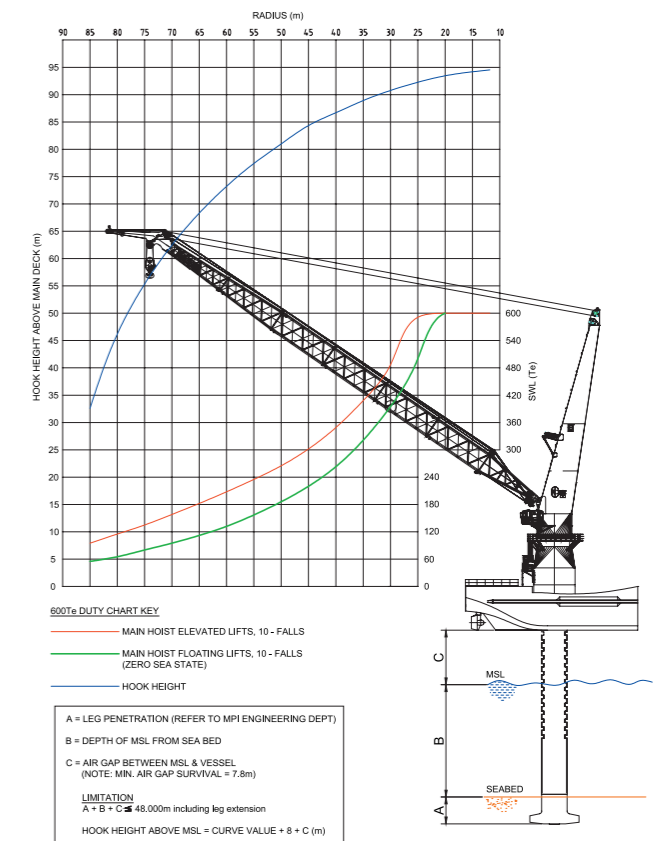
JACKING OPERATIONS (ALL CONCURRENT)

MAXIMUM WAVE HEIGHT	2.80m Hmax (@ 0 deg and 45 deg) 1.50m Hs (@ 0 deg and 45 deg)
ASSOCIATED PERIOD	16.05s
WIND SPEED	15.30m/s
CURRENT SPEED (TIDAL & WIND)	1.26m/s

JACKED SURVIVAL (ALL CONCURRENT)

MAXIMUM WAVE HEIGHT	Subject to Site Specific Assessment 10.00m Hmax 5.40m Hs
ASSOCIATED PERIOD	16.00s
WIND SPEED	36.10m/s
CURRENT SPEED (TIDAL & WIND)	1.61m/s

MAIN CRANE: HUISMAN 600T PEDESTAL MOUNTED



MAIN HOIST	600t @ 25.00m, min Radius 12.20m 93t @ 85.60m
AUXILIARY HOIST	30t @ 92.50m (Jacked up) Certified for Man Riding up to 3t

AUXILIARY CRANE KENZ EHC 50/3500 0.5

AUXILIARY CRANE MAIN HOIST	50t @ 35.00m
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Leaders in Safety



MACN
Maritime Anti-Corruption Network

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