PROTEA®

STANDARD PRODUCTS • BESPOKE
DESIGN • UNIQUE SOLUTIONS

Heavy Lift Cranes

PROTEUS® HEAVY LIFT CRANES ARE IDEAL FOR OFFSHORE WIND FARM INSTALLATION AND MAINTENANCE OPERATIONS THANKS TO THEIR UNIQUE DESIGN.

IN-HOUSE TESTS

Cranes are constructed from relatively small modular elements, bolted together, allowing simple and rapid assembly and dis-assembly. This allows the crane to be fully assembled and tested at Protea's manufacturing facility prior to delivery, saving time and reducing costs when the crane is first mobilized at a work site.

EFFICIENT TRANSPORT

The size of individual system elements allows the crane to be shipped by road and no heavy lift shipyard equipment is required to assemble the crane. Protea believes that this is a unique feature for offshore cranes with a load capacity over 500t and again results in significant cost savings in both transportation and assembly.

SERVICE & MAINTAINCE

If damaged during operations, individual elements can be removed for repair reducing any crane downtime.

STRUCTURAL EFFICIENCY

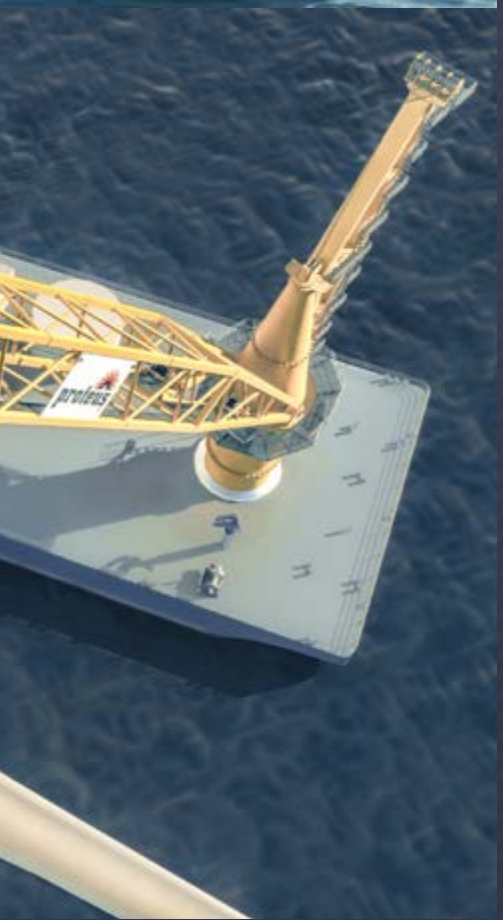
Proteus Heavy Lift Cranes use the strongest steel to give the lightest structural weight – a weight reduction of approx. 40% in comparison with heavy lift cranes built from standard grades of steel. This allows the cranes to be mounted on smaller and lighter floating vessels with faster transit speeds. A King Post type pedestal structure also minimises deck space requirements.

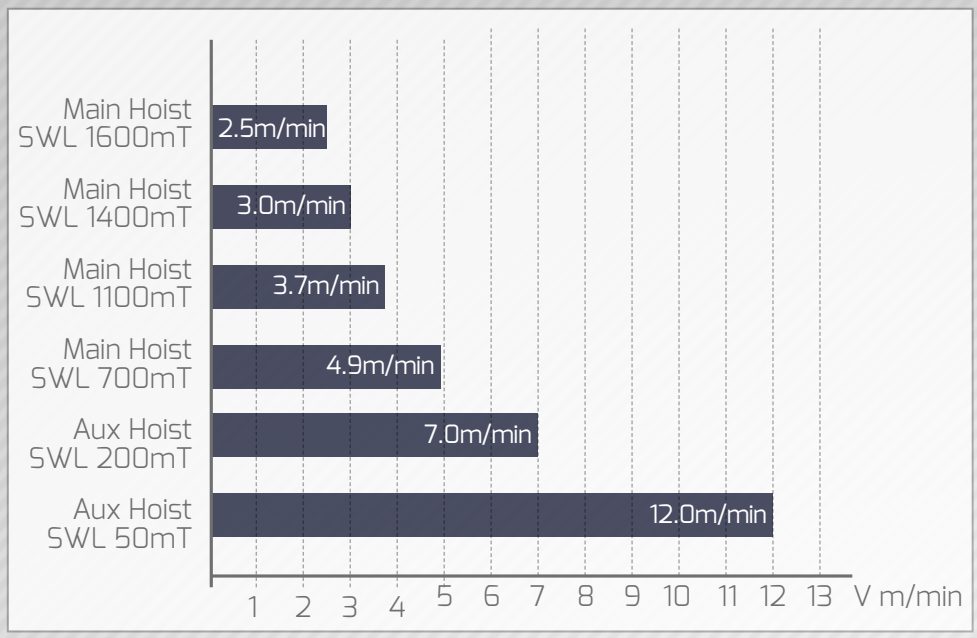
INNOVATIVE DESIGN FEATURES

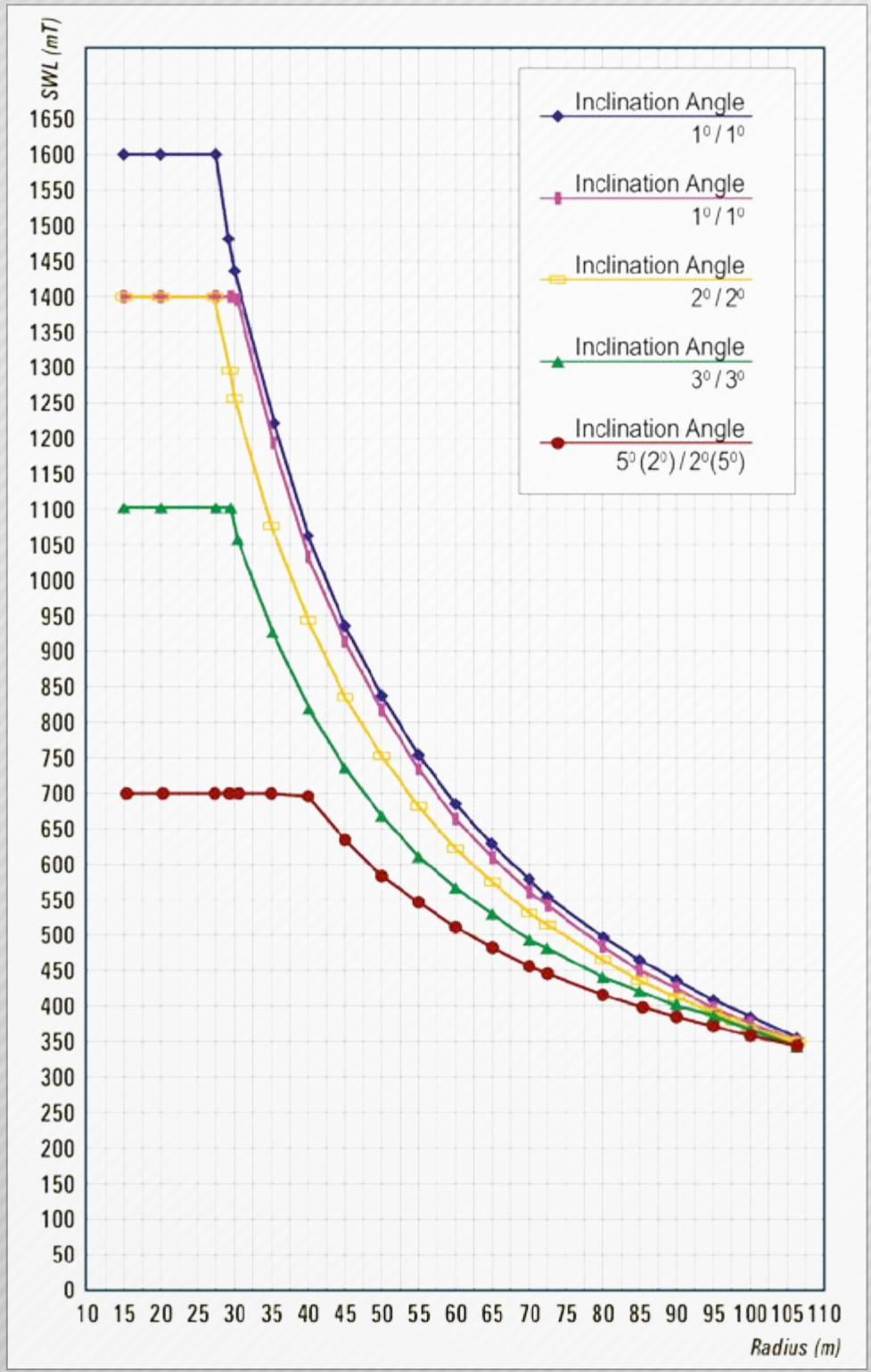
Another significant feature of Proteus Heavy Lift Cranes is a folding crane tower, permitting easy passage under bridges, grid lines and other low height structures.

When operational, Proteus Heavy Lift Cranes have a wide range of working outreach - of particular importance for offshore wind farm operations is that the crane has the capacity to work with a relatively short and long outreach but covering a large radius, due to the positioning of the main boom joints toward the main axis of the tower.

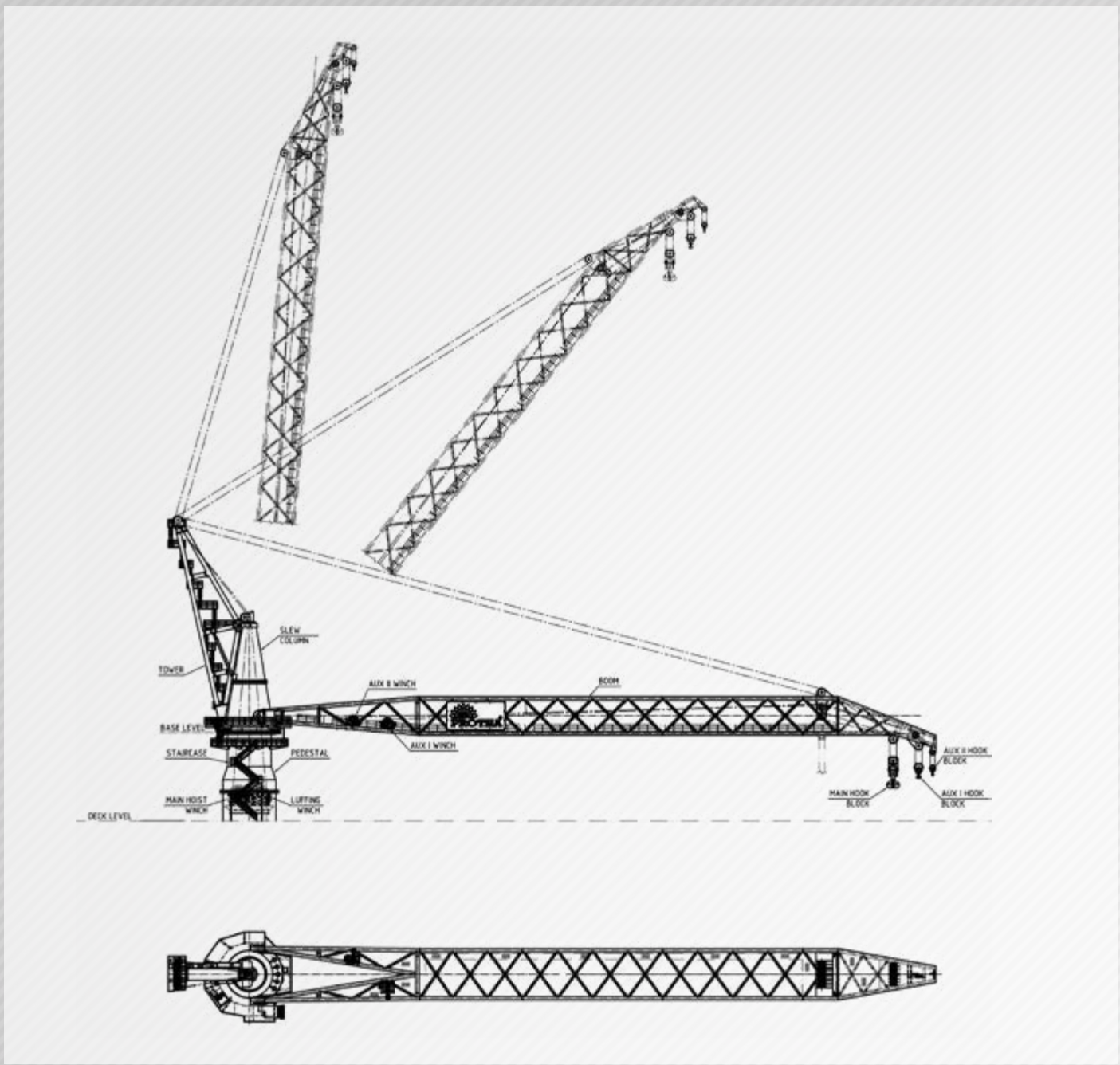
The main winches and drives are located in the crane pedestal adapter or under the main deck reducing the crane C.O.G and allowing the very short tail radius.




Main Hoist SWL 1600mT
2.5m/min
Main Hoist SWL 1400mT
3.0m/min
Main Hoist SWL 1100mT
3.7m/min
Main Hoist SWL 700mT
4.9m/min
Aux Hoist SWL 200mT
7.0m/min
Aux Hoist SWL 50mT
12.0m/min
1 2 3 4 5 6 7 8 9 10 11 12 13 V m/min


SWL (mT)
1650 1600 1550 1500 1450 1400 1350 1300 1250 1200 1150 1100 1050 1000 950 900 850 800 750 700 650 600 550 500 450 400 350 300 250 200 150 100 50 0
10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110
Radius (m)
Inclination Angle 1° / 1°
Inclination Angle 1° / 1°
Inclination Angle 2° / 2°
Inclination Angle 3° / 3°
Inclination Angle 5° (2°) / 2° (5°)

TYPCIAL CRANE ARRANGEMENT



TYPCIAL OPTIONS

- Designed in accordance with EN 13852, DNV, API or ABS
- Electro-hydraulic drive
- Diesel-hydraulic drive
- Complete explosion protection according to ATEX guidelines
- Man-riding winch
- AOPS Automatic Overload Protection System
- MOPS Manual Overload Protection System
- Rope Tensioning Systems - Constant Tension
- AHC Active Heave Compensator
- Complete pedestal

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