



ATLAS C-CLASS SELF-PROPELLED JACK-UP VESSEL

THE TOOL OF THE FUTURE FOR
WIND TURBINE INSTALLATION

KEY FEATURES

- 6,800 m² cargo deck area
- 18,000 t jacking deadweight
- Optimal load balance for full utilization of the jacking capacity
- 3,000 t work-around-leg crane
- High-speed rack-and-pinion jacking system designed for 5000 load cycles
- 130 daylight cabins for up to 140 PoB
- DP2 positioning system
- Hybrid battery pack and energy recovery
- Prepared for hydrogen fuel cells.

KNUD E. HANSEN ATLAS C-Class is a self-propelled jack-up vessel designed for installation of the largest offshore wind turbines of today and of the future.

The vessel is among the largest vessels of its kind and currently the only one, which can carry 6 sets of 14 MW wind turbines. And with its long aft deck, it is prepared for modular blade racks, where the blades are not stacked in more than 3 layers. The vessel can also carry 4 sets of XXL monopile/TP foundations or 2 XXL jacket foundations.

The vessel is designed to operate in the harshest environments like the North Sea on water depths of up to 80 m. KNUD E. HANSEN'S ATLAS C-Class is intended as a base design, which can be customized to the exact needs of each individual client.

PRINCIPAL PARTICULARS	
Length over all on hull	170.00 m
Breadth, moulded	60.20 m
Hull depth to main deck	13.20 m
Design draught - moulded	6.70 m
Draught on spud cans	7.50 m
Service speed	12 knots
Accommodation	130 single cabins Up to 140 PoB
Helideck (enhanced safety)	D = 23 m

DEADWEIGHT AND CARGO DECK	
Jacking deadweight (variable load)	18,000 t
Cargo deck net area	6,800 m ²
Uniformly distributed load	15 t/m ²

TANK CAPACITIES	
MGO storage	2,700 m ³
LO tanks	150 m ³
FW potable	540 m ³
Sewage – Black / grey	700 m ³

CRANES	
Main crane main hoist	3,000 t @ 37 m
Max hook height above deck	162 m
Max load radius	144 m
Aux / provision crane	30 t @ 40 m
Knuckle-boom or telescopic crane for foundation services	2,5 t @ 35 m 5 t @ 15 m

POWER GENERATION	
Main generator sets	8 x 3,340 kWe
Emergency generator	500 kWe

THRUSTER CONFIGURATION	
Stern thrusters	4 x 3,100 kW
Retractable bow thrusters	2 x 3,000 kW
Bow tunnel thrusters	2 x 2,800 kW

LEGS AND JACKING SYSTEM	
Type of legs	3-chorded truss-work
Jacking system	Electrical opposed rack-and-pinion with VFD
Number of pinions	8 layers of 24 pinions
Design lifetime	5,000 load cycles
Jacking speed max hull lifting	0.8 m/min
Jacking speed leg handling	1.2 m/min
RFD monitoring	by daisywheels at all chords
Length of legs	126 m
Length below bottom of ship	94 m
Spud can area	290 m ²

ENVIRONMENTAL JACKING CONDITIONS		
	Normal jacking	Storm survival
Max. wind velocity	20 m/s	37 m/s
Max. significant wave height	2.5 m	20 m
Max current	2 knots	2 knots
Max. water depth	80 m	70 m
Air gap	10 m	20 m
Sea-bed penetration	4 m	4 m

CLASSIFICATION	
DNV GL*1A, Self-elevating unit for wind turbine installation	
IMO MODU CODE	



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