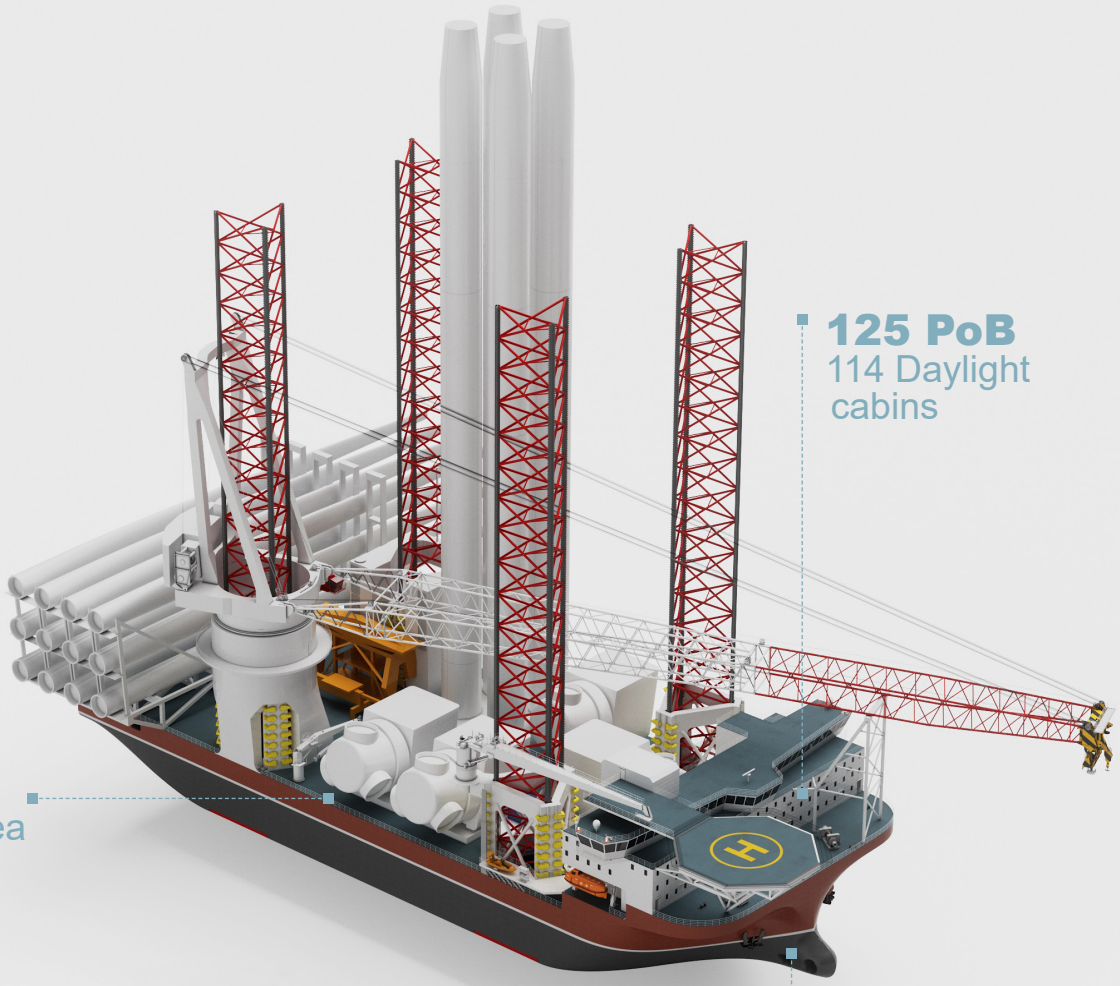
KNUD E. HANSEN
SHIP DESIGN SINCE 1937



125 PoB
114 Daylight cabins

16,000 t
Jacking deadweight

5,300 m²
Cargo deck area

70 m
Water depth

ATLAS A-CLASS WTIV

TAILORED FOR LARGE-SCALE WIND FARM INSTALLATIONS

KEY FEATURES

- 5,300 m2 cargo deck area
- 16,000 t jacking deadweight
- Optimal load balance for full utilization of the jacking capacity
- 1,600 t work-around-leg crane
- High-speed rack-and-pinion jacking system designed for 5,000 load cycles
- 114 daylight cabins for up to 125 PoB
- DP2 positioning system
- Hybrid battery pack and energy recovery
- Prepared for hydrogen and fuel cells for zero emission port calls

Designed for installation of the largest wind turbines, on pre-installed foundations – an optimized solution for large-scale wind farms, where turbine founda-tions are installed from a heavy-lift vessel. The KNUD E. HANSEN Atlas A-class is capable of installing all components which require jacked-up operation, without the additional capacity for handling heavy foundations. A tailored vessel with a purpose-specific, fully utilized crane and capacity to carry 4 sets of 14 MW wind turbines, for efficient wind farm installation in tandem with a heavy-lift vessel.

The vessel is designed to operate in the harshest environments like the North Sea on water depths of up to 70 m. KNUD E. HANSEN´S ATLAS A-Class is a base design, which can be customized to the exact needs of each individual client.

PRINCIPAL PARTICULARS	
Length over all on hull	155.40 m
Length extreme on helideck	166.90 m
Breadth, moulded	57.40 m
Hull depth to main deck	12.50 m
Design draught - moulded	6.20 m
Draught on spud cans	7.00 m
Service speed	12 knots
Accommodation	114 single cabins Up to 125 PoB
Helideck (enhanced safety)	D = 22 m

DEADWEIGHT AND CARGO DECK	
Jacking deadweight (variable load)	16,000 t
Cargo deck net area	5,300 m²
Uniformly distributed load	15 t/m²

TANK CAPACITIES	
MGO storage	2,000 m³
LO tanks	150 m³
FW potable	510 m³
Sewage – Black / grey	670 m³

CRANES	
Main crane main hoist	1600 t @ 45 m 1250 t @ 60 m
Max hook height above deck	155 m
Max load radius	140 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 2,400 kW
Bow tunnel thrusters	2 x 2,100 kW

LEGS AND JACKING SYSTEM	
Type of legs	3-chorded truss-work
Jacking system	Electrical opposed rack-and-pinion with VFD
Number of pinions	7 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	116 m
Length below bottom of ship	85 m
Spud can area	240 m²

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

SHIP DESIGN SINCE 1937 We are a leading independent consultancy providing a comprehensive range of design, engineering and project management services to shipyards and ship owners around the world. Our innovative, customized solutions cover areas ranging from concept, tender/contract & basic design, to supporting the building and conversion process of all types of maritime vessels and offshore structures, to energy optimization and services for the offshore wind industry. Since 1937, over 750 vessels have been built and over 350 conversions carried out to our designs.