

300 Ton Port Handling Mobile Crane - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

As global trade dynamics intensify and port infrastructure evolves, the demand for robust, high-capacity material handling solutions has never been more critical. The 300 Ton Port Handling Mobile Crane is engineered to be the cornerstone of modern heavy-lift operations in the world's busiest ports, shipyards, and heavy industrial complexes. This machine redefines operational efficiency, offering unparalleled mobility and raw lifting power to handle project cargo, containers, and bulk materials with ease. It represents a strategic investment for enterprises seeking to maximize throughput and ensure reliable uptime in the most demanding logistical environments.

Engineered with a focus on durability and operational excellence, this mobile crane offers a distinct advantage for applications including infrastructure development, heavy civil engineering, and large-scale mining logistics. Its ability to navigate tight port environments while delivering a 300-ton capacity makes it an indispensable asset. Designed for a long service life, it provides a superior return on investment through reduced operational costs, enhanced safety features, and the versatility to adapt to a wide variety of lifting tasks, solidifying its position as the premier choice for heavy industry professionals.



STRUCTURAL INTEGRITY & POWERTRAIN

The backbone of the 300 Ton Port Handling Mobile Crane is its exceptionally durable chassis, fabricated from high-yield-strength steel to withstand the immense torsional stresses of heavy lifting and the corrosive nature of marine environments. This robust construction ensures a stable platform for precision lifts and guarantees structural integrity over decades of service. To combat the harsh saltwater conditions prevalent in port operations, the machine features a premium, multi-layer anti-corrosion coating system, safeguarding critical components and extending the operational lifespan significantly beyond industry standards.

At the heart of its powertrain is a high-performance diesel engine, chosen for its reliability and adherence to stringent emissions regulations. The engine is

coupled with an advanced hydraulic system designed for superior efficiency and control. This system utilizes a closed-center, load-sensing architecture that provides proportionate hydraulic flow on demand. This results in exceptional fuel economy, reduced heat generation, and precise modulation of boom and hoist functions. The combination of this robust powertrain and intelligent hydraulics ensures smooth, controlled, and efficient handling of maximum-rated loads, even in the busiest operational cycles.

KEY FEATURES & OPERATOR COMFORT

- **Advanced Load-Sensing Hydraulics:** The crane features a sophisticated load-sensing hydraulic system that optimizes power distribution, allowing for precise, simultaneous control of multiple functions. This provides the operator with unmatched control sensitivity for handling delicate or heavy cargo with equal precision, enhancing safety and reducing cycle times.
- **High-Strength Steel Construction:** The main boom and structure are fabricated using high-strength, fine-grained steel (e.g., ASTM A572 Grade 50). This material choice provides an exceptional strength-to-weight ratio, allowing for maximum lifting capacity while minimizing the machine's overall weight for better mobility and reduced ground pressure.
- **Spacious ROPS/FOPS Certified Cabin:** The ergonomically designed cab meets ROPS (Roll-Over Protective Structure) and FOPS (Falling Object Protective Structure) safety standards. It features a large, tinted glass area for exceptional

all-around visibility, an adjustable, climate-controlled seat, and an intuitive multi-function joystick control system to minimize operator fatigue during extended shifts.

- Smart Control & Diagnostic Panel: The operator interface is a centralized, high-resolution color display that provides real-time data on crane operations. This includes load charts, outrigger status, hydraulic system pressures, and engine diagnostics. The integrated smart system allows for quick troubleshooting and preventative maintenance scheduling, ensuring maximum machine availability.

- Modular Design for Maintenance: The crane's components are designed with a modular approach, enabling easy access to critical service points and simplifying major repairs. This design philosophy drastically reduces downtime by allowing the rapid replacement or maintenance of key assemblies like the winch or hydraulic pumps, ensuring the crane returns to service as quickly as possible.

COMPLIANCE & SAFETY STANDARDS

The 300 Ton Port Handling Mobile Crane is manufactured in strict accordance with the most rigorous international standards for safety and quality. It is fully compliant with ISO 9001 and ISO 14001 management standards, ensuring quality and environmental responsibility are core to its design and

manufacturing process. For the European market, the crane carries CE certification, confirming it meets all essential health, safety, and environmental protection requirements.

Safety is paramount in the engineering of this machine. It is equipped with a multi-layered safety system that includes an advanced Rated Capacity Indicator (RCI) with audible and visual alarms to prevent overload conditions. Furthermore, the powertrain complies with EPA Tier 4 Final and EU Stage V emission standards, underscoring the manufacturer's commitment to reducing the environmental footprint of heavy industry. The optional HVO (Hydrotreated Vegetable Oil) fuel compatibility further allows operators to reduce carbon emissions by up to 90%, aligning with global sustainability goals.

TECHNICAL SPECIFICATIONS

The following specifications provide a comprehensive overview of the 300 Ton Port Handling Mobile Crane's core dimensions, capacities, and performance metrics. These figures reflect the machine's engineering excellence and capability to perform in the most demanding operational scenarios.

Parameter	Specification
Overall Dimensions (L x W x H)	30m x 12m x 4.5m
Rated Capacity	300,000 kg (300 Tons)
Max. Lifting Height	45m
Travel Speed	0-100m/min
Fuel Consumption	150L/hr (at 100m/min)
Engine Power	1,500 kW
Max. Travel Distance	100km
Max. Travel Time	10h
Max. Travel Fuel Consumption	150L/hr
Max. Travel Emissions	150kg/hr
Max. Travel Noise	100dB(A)
Max. Travel Vibration	0.5mm/s
Max. Travel Acceleration	0.5g
Max. Travel Deceleration	0.5g
Max. Travel Jerk	0.5g/s
Max. Travel Shock	0.5g
Max. Travel Vibration	0.5mm/s
Max. Travel Acceleration	0.5g
Max. Travel Deceleration	0.5g
Max. Travel Jerk	0.5g/s
Max. Travel Shock	0.5g

Parameter	Specification
Maximum Lifting Capacity	300 tons (Metric) / 330 US tons (at 3m radius)
Max. Standard Boom Length	61 m (200 ft)
Engine Model (Superstructure)	Cummins / Mercedes-Benz Diesel, EPA Tier 4 Final
Engine Power (Superstructure)	194 kW (260 hp)
Engine Model (Undercarriage)	Cummins / Mercedes-Benz Diesel, EPA Tier 4 Final
Engine Power (Undercarriage)	420 kW (563 hp) / 2700 Nm Torque
Load Moment (Max.)	9,526 kNm (7,026,000 lb-ft)
Max. Travel Speed	75 km/h (47 mph)

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#ddd;'>Number of Axles</td><td style='padding: 8px; border: 1px solid
#ddd;'>7 (14x8x10 configuration)</td></tr><tr><td style='padding: 8px;
border: 1px solid #ddd;'>Outrigger Spacing (LxW)</td><td style='padding:
8px; border: 1px solid #ddd;'>8.7 m x 9.2 m (28.5 ft x 30.2
ft)</td></tr></table>
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