

6 TON COMPACT LOADER - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Engineered for the rigorous demands of construction, mining, and large-scale agricultural operations, the 6 TON COMPACT LOADER establishes a new benchmark in the 6-tonne (5.5-metric ton) equipment class . This machine delivers the raw power and high productivity of a full-sized wheel loader or track loader, packaged within a compact footprint that provides exceptional maneuverability in confined job sites. The platform is purpose-built for operators who demand not only high lifting and breakout forces but also the long-term durability and low operating costs that drive project profitability .

As a versatile and indispensable asset, the 6 TON COMPACT LOADER excels at material handling, excavation, site preparation, and grading tasks. Its robust powertrain and advanced hydraulic system provide the necessary muscle to tackle heavy-duty attachments, from buckets and pallet forks to high-flow hydraulic tools like mulchers and trenchers . Whether loading trucks on a busy construction site, managing feedlots in agriculture, or handling aggregate in a quarry, this machine delivers class-leading performance and unrivaled operator confidence .



STRUCTURAL INTEGRITY & POWERTRAIN

The 6 TON COMPACT LOADER is built on a foundation of high-yield strength steel, engineered to withstand the punishing stresses of heavy lifting and harsh terrain . The main chassis and loader frame undergo rigorous finite element analysis (FEA) to optimize strength and distribute stress evenly, preventing premature fatigue and ensuring a long service life . This robust construction is complemented by a reinforced boom design, available in both vertical-lift and radial-lift configurations to suit specific applications, providing high dump heights and maximum reach .

At the heart of the machine is a powerful, turbocharged diesel engine, compliant with stringent emission standards such as U.S. EPA Tier 4 Final and EU Stage V . Models feature industry-leading powerplants with up to 134

horsepower (100 kW) and substantial torque reserves of 406 lbf-ft (551 N·m), ensuring instant responsiveness and sustained pushing power even in demanding conditions . This engine is mated to an efficient hydrostatic transmission system that delivers infinite speed control and seamless direction changes, maximizing productivity during short load-and-carry cycles . The machine ' s high-efficiency hydraulic system utilizes a load-sensing, piston pump design to precisely match hydraulic flow and pressure to the task at hand, reducing fuel consumption and improving overall machine control.

KEY FEATURES & OPERATOR COMFORT

- Load-Sensing Hydraulics with High-Flow Option: The advanced load-sensing hydraulic system optimizes power distribution for superior lifting and breakout forces, with cycle times designed to boost daily productivity. An optional high-flow auxiliary circuit provides increased hydraulic flow (up to 27 gpm / 102 L/min), allowing the use of demanding attachments like cold planers, snow blowers, and high-torque augers .
- ROPS/FOPS Certified Spacious Cab: The pressurized, sound-suppressed cab meets international standards for Roll-Over Protective Structure (ROPS) and Falling Object Protective Structure (FOPS), ensuring a safe working environment . It features excellent all-around visibility, an automatic climate control system, and an air-suspension heated seat to reduce operator fatigue during long shifts .

- Smart Control & Monitoring Panel: Operators benefit from an intuitive, multi-functional display that provides real-time data on machine vitals, such as engine RPM, fuel level, hydraulic oil temperature, and active fault codes . The system offers customizable performance modes to match the machine's response to the application, and its integrated rear-view camera display enhances job site safety by eliminating blind spots .
- Superior Maneuverability & Traction: The machine's compact design enables a tight turning radius, allowing for precise operation in tight urban construction sites and narrow agricultural facilities. The tracked undercarriage option provides outstanding flotation and traction on soft, muddy, or uneven terrain, with a ground pressure as low as 4.9 psi (33.5 kPa), minimizing ground disturbance .
- Advanced Attachment Management: Equipped with a universal quick-coupler system, the 6 TON COMPACT LOADER allows operators to switch between a wide array of attachments, including buckets, pallet forks, grapples, sweepers, and trenchers, in under a minute . Features like automatic boom height kickout and bucket return-to-dig further streamline repetitive loading tasks.

COMPLIANCE & SAFETY STANDARDS

The 6 TON COMPACT LOADER is designed and manufactured in accordance with the most stringent global safety and environmental standards. It fully

complies with ISO 9001:2015 quality management standards and is certified under the European CE and EAC directives, ensuring it meets all necessary safety regulations for operation in international markets . The powertrain adheres to U.S. EPA Tier 4 Final and EU Stage V emission regulations, incorporating advanced aftertreatment technologies to significantly reduce exhaust emissions .

Operator safety is paramount; the cab is certified to ISO 3471:2008 for ROPS and ISO 3449:2005 for FOPS, providing robust protection in the event of a rollover or falling debris . Additional safety features include a full-time automatic parking brake, a backup alarm, and easily accessible emergency shut-off switches . The machine's design prioritizes maintenance safety with wide-opening engine hoods, ground-level service points, and non-slip surfaces, ensuring safe and efficient servicing .

TECHNICAL SPECIFICATIONS

The following parameters represent the baseline for the standard 6 TON COMPACT LOADER. Actual specifications may vary based on configuration, approved attachments, and production date. Please consult your local dealer for precise machine data specific to your model variant.

Parameter	Specification
Engine Model	Cat® C3.6TA / Cummins QSB 3.3 (Tier 4 Final/EU Stage V Compliant)
Engine Power (Gross)	Up to 134 hp (100 kW) @ 2,400 rpm
Peak Torque	Up to 406 lbf-ft (551 N·m)
Operating Weight	~11,500 - 20,000 kg (Varies by configuration)
Rated Operating Capacity (ROC)	> 1,500 kg (35% tipping load)
Bucket Capacity (Std. / Heaped)	1.0 - 1.2 m³ (Varies by model)
Auxiliary Hydraulic Flow (Standard / High-Flow)	Up to 27 gpm (102 L/min)

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#ddd;'>Up to 24 mph (39 km/h) </td></tr></table>
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