



Cat[®] 735

Articulated Truck

The Cat[®] 735 features a world-class cab design based on operator feedback to advance comfort and ease of operation. Features include: hoist-assist system, advance automatic traction control system, automatic retarder control, stability-assist, dynamic rollover protection, height limiting feature, and auto wait brake.

Proven Reliability

- Cat C13B engine delivers proven reliability across a variety of applications.
- Terrain-based throttle control smooths throttle input over rough terrain to improve ride quality.
- Enhanced reliability through commonality and design simplicity with long life to overhaul.
- Minimized impact of emissions systems allows excellent response and ample power.
- Combination of engine compression brake and hydraulic retarder improves response and increases retarding power for controlled descent of grades.

Durability

- All structures and components are proven through extensive testing and customer experience.
- Advanced suspension allows for greater speed over rough terrain, while softening impact loads.
- Front suspension oscillates ± 6 degrees for a smooth ride.
- Frames are designed to handle torque loads, decrease hitch area stress, and optimize suspension geometry.
- Frames are robot-welded for maximum durability.
- Redesigned dump body provides reinforced top edge on side rail.
- Fully automatic retarder control helps prevent engine overspeed, protects powertrain components without any operator intervention.

Achieve Greater Productivity

- Advanced Automatic Traction Control (AATC) decreases wheel slippage, delivering maximum traction and productivity. Fully automatic, no operator action.
- Body Height Limiting allows operators to set upper and lower height parameters, helping to increase cycle efficiency and ensure the machine operates within jobsite constraints.
- Automatic Retarder Control (ARC) manages the retarder without any operator interaction. Fully automatic 100% of the time.
- Assisted Hoisting Control allows automatic tipping and lowering of the dump body at the flick of a switch.
- Combined hoist/transmission lever, exclusive to Caterpillar, places multiple controls on the transmission lever, incorporates park brake, and reduces operator interaction by as much as 50%.
- Optional body heat solution reduces carry back in specific applications.

Boost Fuel Efficiency

- Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.
- Next-generation machine design improves fuel economy with minimized maintenance costs and the same great power and response.
- Innovative air-management systems optimize airflow and enhance power and fuel efficiency.
- Advanced Mechanically-Actuated Electronically Controlled Unit Injection (MEUI)[™]-C injector platforms deliver increased injection pressures and more precise fuel rates.



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Easy, Comfortable Operator Environment

- Interior space is designed to make all aspects of machine operation as simple as possible for every operator.
- A keytouch pad enhances the operator experience, while a jog dial provides intuitive control of the updated touchscreen interface.
- Touchscreen display allows for easy monitoring and adjustment of systems.
- An optional system uses four discrete cameras to enhance operator visibility around the machine, while an integrated detection system provides both visual and audible alerts to indicate the presence of nearby objects.
- Tilt and telescopic steering column designed for operator comfort and control. This adjustable column allows drivers to fine-tune the steering wheel position for optimal ergonomics, especially during long shifts or rough terrain operations.
- Simple, intuitive control and display layouts allow the operator to focus on safe machine operation while maintaining productivity.
- Make and receive hands-free calls via the optional Bluetooth® equipped stereo.
- The HVAC system is now managed through the primary display, with controls accessible via the jog dial or touchscreen for enhanced operator convenience.
- The cab features dedicated storage solutions for everyday items, ensuring convenience and organization for the operator, granting comfort and room for movements.

Technology That Gets Work Done

- Integrated systems give you the ability to make timely, fact-based decisions to maximize efficiency, improve productivity, and lower costs.
- Product Link™ system connects to each machine wirelessly, allowing you to monitor location, hours, fuel use, productivity, idle time, and diagnostic codes.
- Improved payload technology allows operators to view real-time load weights on the integrated display. Updated software and sensors provide accurate data.
- External payload indicator lights alert the loader when to stop, reducing the risk of machine overloading.
- Stability Assist software reports information via online VisionLink™, increasing awareness of machine history if a rollover has occurred.

Built-In Safety Features

- Unique safety feature Dynamic Roll Protection supports rollover prevention and works in parallel with the already successful Cat Detect with Stability Assist, reducing downtime and safety repairs from machine rollover events.
- Enter the machine safely with machine wakeup and new stairway lighting.
- Grab rail allows for easier and safer machine access.
- Operator-presence detection system applies parking brake if gear is engaged and operator is not seated.
- In-cab tertiary brake switch allows the operator to bring the machine to a safe stop in the unlikely event of both main and secondary brake circuits failing.
- Electro-hydraulic secondary steering activates automatically if low pressure is sensed in primary system.
- Hill Assist reduces potential roll-back on grades.
- Auto Wait Brake applies the service brakes when neutral is selected and button is pressed, allowing quick and easy control of the machine while dumping and loading.
- Ground-level fuel fill and diesel exhaust fluid (DEF) fill tanks.

Reduced Maintenance Costs

- Durable design and easier servicing mean maximized uptime and reduced service costs.
- Universal joints are lubricated for life, eliminating any maintenance.
- Coolant formula improves component life by reducing corrosion.
- Entire machine is designed for greater ease of maintenance with side-tilting cab, electrically raised hood, access panels, and Cat Data Link connector.
- Extended service intervals for the engine and transmission: 1,000 and 2,000 hours, respectively. Doubled from previous models and industry leading, resulting in lower total cost of ownership.

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			POWERTRAIN		
10 in touchscreen display with Cat® rearview camera	✓		Auto shift six-speed forward and single-speed reverse transmission	✓	
Air conditioning	✓		Cat C13B engine	✓	
Auto Wait Brake	✓		CX31 transmission	✓	
Combined gear selection and hoist control lever	✓		Clean Emission Module (CEM) and exhaust aftertreatment package	✓	
Electronic OMM	✓		Differentials: standard with automatic clutched inter- and cross-axle differential locks	✓	
Heater and defroster with four-speed fan	✓		Dual circuit oil immersed, enclosed brakes – all wheels	✓	
Infrared glass, high ambient cab		✓	Automatic Retarder: engine compression brake and hydraulic	✓	
Mirrors: exterior	✓		Three axle, six-wheel drive	✓	
Mirrors, heated motorized		✓	SAFETY		
Machine operation monitoring system	✓		Body Height Limiting	✓	
Operator seat belt, four-point		✓	Dynamic Rollover Protection	✓	
Radio, Bluetooth stereo system		✓	Machine Speed Limiting	✓	
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	✓		Multi-view camera with object detect		✓
Seat, heated/cooled		✓	Reverse alarm	✓	
Secondary steering – electro hydraulic	✓		Rearview camera	✓	
Sun visor	✓		Rollover protective structure (ROPS)/falling objects protective structure (FOPS) cab	✓	
Tilt and telescopic steering wheel	✓		GUARDS		
Windshield wiper and washer, two speed, intermittent (front)	✓		Crankcase	✓	
Window blinds		✓	Radiator	✓	
Windows (tinted) opening both sides	✓		Rear window	✓	
Window wiper and washer, two-speed (rear)	✓		OTHER		
TECHNOLOGY			Auto lube installation for automatic greasing of bearings		✓
Cat Detect with Stability Assist	✓		Bare chassis (no body) standard wheel base		✓
Cat Payload monitoring system		✓	Bare chassis (no body) long wheel base		✓
Object Detection with Multiview Camera		✓	Body liners		✓
Operator Coaching		✓	Cold weather coolant -51°C (-60°F)		✓
Product Link Elite: Cellular PLE643	✓		Exhaust heated body		✓
Product Link Elite: Dual PLE683		✓	Fast fuel fill		✓
Push to Start with Operator ID	✓		Fuel additive – anti-waxing		✓
VisionLink™	✓		Mud flaps: wheel arch and body mounted with transportation tiebacks	✓	
ELECTRICAL AND LIGHTING			Scissor tailgate		✓
Batteries x2 maintenance-free	✓		S-O-S SM sampling valves	✓	
Cold weather start attachment (2 additional batteries)		✓	Sound suppression (standard in some countries*)		✓
Daylight Running Lights	✓		Tires, six 750/65 R25, radial	✓	
LED Rear Step Lights	✓		Vandalism protection: lockable caps	✓	
LED Rear Work Lights		✓	Wheel chocks		✓
Engine block heater		✓			
Ether start		✓			
Electrical system: 24V, 10A 24V to 12V converter	✓				
Flashing LED beacon		✓			
Lighting systems: cab interior, two head lamps, two width marker, two reversing, work light/cab access light, two stop/tail lights, front and rear direction indicators	✓				
Main disconnect switch	✓				
Roof-mounted LED work lights		✓			

* Countries are EU countries plus Iceland, Norway, Lichtenstein, Switzerland, Türkiye and UK.

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Technical Specifications

Engine		
Engine Model	C13B	
Gross Power (SAE J1995)	325 kW	436 hp
Net Power (SAE J1349)	319 kW	427 hp
Engine Power (ISO 14396)	322 kW	431 hp
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 L	736 in³
- Advertised power is tested per the specified standard in effect at the time of manufacture. - The net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, aftertreatment, and fan at minimum speed. - Net power when the fan is at maximum speed is 319 kW (427 hp) per the SAE reference conditions. - Meets U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, and Korea Stage V emission standards. - Diesel exhaust fluid (DEF) used in Cat SCR systems must meet the requirements outlined in ISO 22241-1. ISO 22241-1 requirements are met by many brands of DEF, including those that carry the AdBlue or API certifications.		
No Engine Derating Below	3810 m	12,500 ft
Peak Engine Torque Gross (SAE J1995:2014)	2206 N·m	1,627 lbf·ft
Peak Engine Torque Net (SAE J1349:2011)	2185 N·m	1,612 lbf·ft
Peak Engine Torque Speed	1,200 rpm	

Weights		
Rated Payload	32 tonnes	35.3 tons

Body Capacities		
Heaped SAE 2:1	20 m³	26.2 yd³
Struck	16 m³	20.9 yd³
Tailgate Heaped SAE 2:1	21.7 m³	28.4 yd³
Tailgate Struck	17 m³	22.2 yd³

Transmission		
Speed	km/h	mph
Forward 1	8	5
Forward 2	15	9
Forward 3	23	14
Forward 4	35	22
Forward 5	48	30
Forward 6	57	35
Reverse 1	9	6

Standards	
Brakes	ISO 3450:2011
Cab/FOPS	ISO 3449:2005 Level II
Cab/ROPS	ISO 3471:2008
Steering	ISO 5010:2019

Sound Levels	
Interior Cab	72 dB(A)
- The declared dynamic operator sound pressure level is 72 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the cooling fan's maximum speed. The sound level may vary at different cooling fan speeds. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained. - Hearing protection may be needed when operating with an open operator station and cab or when not properly maintained or with doors/windows open for extended periods or in noisy environments.	

Operating Weights		
Front Axle – Empty	14 780 kg	32,584 lb
Center Axle – Empty	5080 kg	11,199 lb
Rear Axle – Empty	4850 kg	10,692 lb
Total – Empty	24 710 kg	54,476 lb
Front Axle – Rated Load	4054 kg	8,938 lb
Center Axle – Rated Load	13 973 kg	30,805 lb
Rear Axle – Rated Load	13 973 kg	30,805 lb
Total – Rated Load	32 000 kg	70,548 lb
Front Axle – Loaded	18 834 kg	41,522 lb
Center Axle – Loaded	19 053 kg	42,005 lb
Rear Axle – Loaded	18 823 kg	41,498 lb
Total – Loaded	56 710 kg	125,024 lb

Body Plate	
High strength Brinell HB450 wear resistant steel	

Body Plate Thickness		
Front Plate	7 mm	0.28 in
Base Plate	13 mm	0.51 in
Side Plates	11 mm	0.43 in

Service Refill Capacities		
Fuel Tank	400 L	105.7 gal
DEF Tank	34 L	9 gal
Cooling System	83 L	21.9 gal
Hydraulic System	123 L	32.5 gal
Engine Crankcase	43 L	11.4 gal
Transmission	47 L	12.3 gal
Final Drives/Differential	125 L	33 gal
Output Transfer Gear Box	25 L	6.6 gal

Body Hoist	
Raise Time	12 seconds
Lower Time	11 seconds



オフロード法2014年
基準適合

AEXQ4411-00 (11-2025)
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(Aus-NZ, Europe, Japan, N Am)

