

CAT® 735

ARTICULATED TRUCK BARE CHASSIS

Cat® chassis are the right choice for specialty truck bodies (coal, trash), water trucks, fuel and lube, service vehicles, container carriers, hook lifts, and other machine derivatives. These partial machine configurations allow industrial, waste, material handling, quarry, and mining customers to purchase speciality solutions from our global Cat dealer network — with support every step of the way.

PROVEN CAT® TRUCK PLATFORM

Cat trucks are built for durability, reliability, and efficiency to deliver the performance you need in some of the toughest applications around the world. The 735 chassis is available in standard wheel base or long wheel base.

PROVEN RELIABILITY

The Cat C13 engine delivers proven reliability across a variety of platforms. 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. Engine compression brake retarder improves response and increases retarding power for controlled descent of grades.

COMFORTABLE OPERATOR ENVIRONMENT

Simple, intuitive control and display layouts allow operator to focus on safe machine operation, while maintaining productivity. Redesigned cab structure increases glass area, improving rear quarter visibility. Cab-mounted mirrors for excellent visibility, reduced vibration, and easy folding. Front visibility mirror gives an improved view immediately in front of the machine.

BOOST FUEL EFFICIENCY

Next generation machine design improves fuel economy with minimized maintenance costs and the same great power and response. Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.

BUILT-IN SAFETY FEATURES

Enter the machine safely with machine wakeup and new stairway lighting. Operator-presence detection system applies parking brake if gear is engaged and operator is not seated. Cat Detect with Stability Assist provides audible and visual alerts to the operator if the tractor and/or trailer unit is approaching an unstable angle during operation.

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.

SUPPORTED BY THE CAT DEALER NETWORK

- Full support of Cat dealer and parts network
- Eligible for Equipment Protection Plans (EPP) & Customer Value Agreements (CVAs)

735 ARTICULATED TRUCK BARE CHASSIS SPECIFICATIONS

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

Engine (LRC)

Engine Model	Cat® C13A	
Gross Power (SAE J1995)	306 kW	410 hp
Net Power (SAE J1349)	298 kW	400 hp
Engine Power (ISO 14396)	301 kW	404 hp
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 L	763 in^3
No Engine Derating Below	3810 m	12,500 ft
Peak Engine Torque Gross (SAE J1995:2014)	2192 N·m	1,617 lbf-ft
Peak Engine Torque Net (SAE J1349:2011)	2155 N·m	1,589 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

Engine (HRC)

Engine Model	Cat® 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	763 in^3
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	

- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Advertised power is tested at 1,800 rpm.
- Net power available at the flywheel when the engine is equipped with alternator, air cleaner, muffler, and fan at minimum speed.
- Equipped with the Cat C13A engine for lesser regulated countries, two engine emission options are available:
  1. Meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
  2. Noncertified configuration that is equivalent to U.S. EPA Tier 2 and EU Stage II.
- C13A net power when the fan is at maximum speed is 298 kW (400 hp) per the SAE reference conditions.
- Cat C13B engine meets U.S. EPA Tier 4 Final/EU Stage V, Japan 2014, and Korea Stage V emission standards.
- C13B net power when the fan is at maximum speed is 319 kW (427 hp) per the SAE reference conditions.
- Diesel exhaust fluid (DEF) used in Cat SCR systems must meet the requirements outlined in ISO 22241-1:2006. ISO 22241-1 requirements are met by many brands of DEF, including those that carry the AdBlue or API certifications.

Wheel Base

Standard Wheel Base	3979 mm	156.7 in
Long Wheel Base	5465 mm	215.2 in

Operating Weights – with Hoist Cylinders (LRC)

Bare Chassis Weight	20 510 kg	45,217 lb
Payload	36 070 kg	79,521 lb
Front Axle Bare Chassis Weight	14 230 kg	31,372 lb
Front Axle Payload	4404 kg	9,709 lb
Center Bare Chassis Weight	3250 kg	7,165 lb
Center Axle Payload	15833 kg	34,906 lb
Rear Axle Bare Chassis Weight	3030 kg	6,680 lb
Rear Axle Payload	15 833 kg	34,906 lb

Operating Weights – without Hoist Cylinders (LRC)

Bare Chassis Weight	20 100 kg	44,313 lb
Payload	36 480 kg	80,425 lb
Front Axle Bare Chassis Weight	14 060 kg	30,997 lb
Front Axle Payload	4574 kg	10,084 lb
Center Bare Chassis Weight	3130 kg	6,900 lb
Center Axle Payload	15 953 kg	35,170 lb
Rear Axle Bare Chassis Weight	2910 kg	6,415 lb
Rear Axle Payload	15 953 kg	35,170 lb

Operating Weights – without Hoist Cylinders (LRC) LWB

Bare Chassis Weight	20 870 kg	46,010 lb
Payload	35 710 kg	78,727 lb
Front Axle Bare Chassis Weight	14 150 kg	31,195 lb
Front Axle Payload	4484 kg	9,886 lb
Center Bare Chassis Weight	3470 kg	7,650 lb
Center Axle Payload	15 613 kg	34,421 lb
Rear Axle Bare Chassis Weight	3250 kg	7,165 lb
Rear Axle Payload	15 613 kg	34,421 lb

Operating Weights – with Hoist Cylinders (HRC)

Bare Chassis Weight	20 640 kg	45,503 lb
Payload	36 070 kg	79,521 lb
Front Axle Bare Chassis Weight	14 430 kg	31,813 lb
Front Axle Payload	4404 kg	9,709 lb
Center Bare Chassis Weight	3220 kg	7,099 lb
Center Axle Payload	15 833 kg	34,906 lb
Rear Axle Bare Chassis Weight	2990 kg	6,592 lb
Rear Axle Payload	15 833 kg	34,906 lb

735 ARTICULATED TRUCK BARE CHASSIS SPECIFICATIONS

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

Operating Weights — without Hoist Cylinders (HRC)

Bare Chassis Weight	20 230 kg	44,599 lb
Payload	36 480 kg	80,425 lb
Front Axle Bare Chassis Weight	14 260 kg	31,438 lb
Front Axle Payload	4574 kg	10,084 lb
Center Bare Chassis Weight	3100 kg	6,834 lb
Center Axle Payload	15 953 kg	35,170 lb
Rear Axle Bare Chassis Weight	2870 kg	6,327 lb
Rear Axle Payload	15 953 kg	35,170 lb

Operating Weights — without Hoist Cylinders (HRC) LWB

Bare Chassis Weight	21 000 kg	46,297 lb
Payload	35 710 kg	78,727 lb
Front Axle Bare Chassis Weight	14 330 kg	31,592 lb
Front Axle Payload	4504 kg	9,930 lb
Center Bare Chassis Weight	3440 kg	7,584 lb
Center Axle Payload	15 613 kg	34,421 lb
Rear Axle Bare Chassis Weight	3230 kg	7,121 lb
Rear Axle Payload	15 593 kg	34,377 lb

- LRC = Lesser Regulated Countries. HRC = Highly Regulated Countries.
- Care must be taken when designing any attachments so that the axle weights are not exceeded.

Brakes

Brake Standards	ISO 3450:2011

Transmission

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

Body Hoists

Raise Time	12 seconds
Lower Time	11 seconds

Service Refill Capacities

Fuel Tank	400 L	105.7 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
Diesel Exhaust Fluid (DEF) Tank (Tier 4)	34 L	9 gal

Steering

Steering Standards	ISO 5010:2019	
Steer Angle	45°	
SAE Turning Radius	7470 mm	294 in
Clearance Radius	8075 mm	318 in
Inside Radius	3879 mm	153 in
Aisle Width	5332 mm	210 in
Lock to Lock	4.75 seconds at 60 rpm	

- Dimensions are for machines equipped with 750/65 R25 tires.

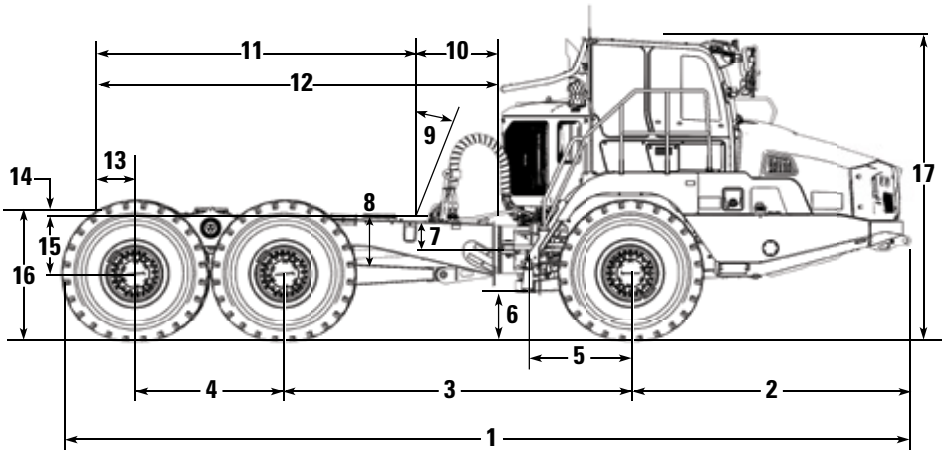
Cab

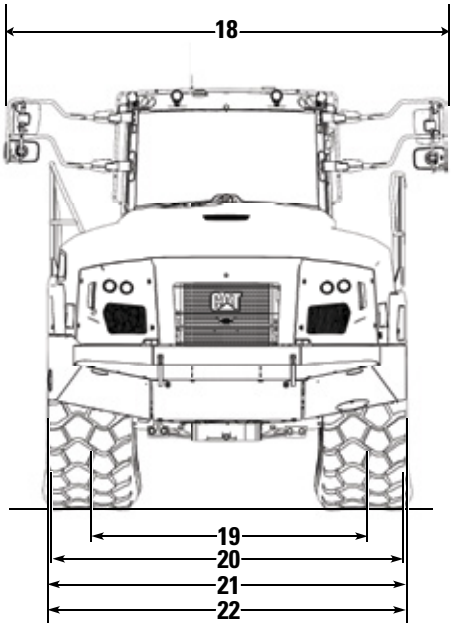
ROPS Certification Rating	ISO 3471:2008
FOPS Certification Rating	ISO 3449:2005 Level II
Sound Levels	72 dB(A)

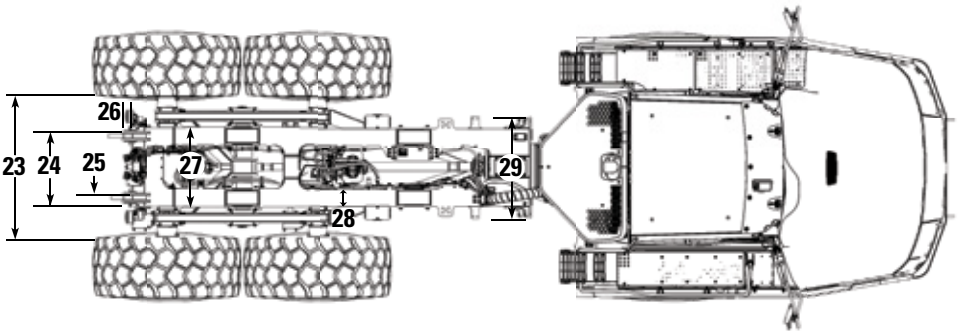
- The declared dynamic operator sound pressure level is 72 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the cooling fan's maximum speed. The sound level may vary at different cooling fan speeds. The measurement was conducted with the 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.
- Note: Welding on ROPS or making modifications to the ROPS may void the ROPS certification. Please contact Caterpillar OEM Solutions if the application requires welding on the machine frame.

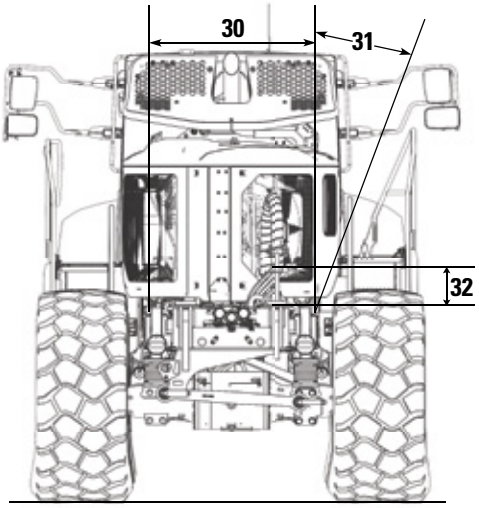
735 ARTICULATED TRUCK BARE CHASSIS DIMENSIONS

All dimensions are approximate.









735 ARTICULATED TRUCK BARE CHASSIS DIMENSIONS

All dimensions are approximate.

Dimensions		SWB			LWB		
1	Overall Length	9694 mm	31 ft	10 in	11 180 mm	36 ft	8 in
2	Front Axle to Bumper	3210 mm	10 ft	6 in	3210 mm	10 ft	6 in
3	Front Axle to Center Axle	3979 mm	13 ft	1 in	5475 mm	18 ft	0 in
4	Center Axle to Rear Axle	1700 mm	5 ft	7 in	1700 mm	5 ft	7 in
5	Articulation Joint to Front Axle	1210 mm	4 ft	0 in	1210 mm	4 ft	0 in
6	Clearance	530 mm	1 ft	9 in	531 mm	1 ft	9 in
7	Pivot Pin to Frame Bottom	363 mm	1 ft	2 in	-		-
8	Frame Height Rear	449 mm	1 ft	5.6 in	485 mm	1 ft	7 in
9	Front Body Angle		22 degrees			22 degrees	
10	Body Pivot Clearance	847 mm	2 ft	9 in	871 mm	2 ft	10 in
11	Body Clearance	3678 mm	12 ft	1 in	5144 mm	16 ft	11 in
12	Body Guides	4408 mm	14 ft	6 in	6015 mm	19 ft	9 in
13	Rear Axle to Pivot Pin (horizontal)	423 mm	1 ft	5 in	423 mm	1 ft	5 in
14	Pivot Pin to Top of Frame Rail	90 mm	0 ft	3 in	90 mm	0 ft	3 in
15	Rear Axle to Pivot Pin (vertical)	640 mm	2 ft	1 in	638 mm	2 ft	1 in
16	Top of Frame Rail	1501 mm	4 ft	11 in	1510 mm	4 ft	11 in
17	Top of Cab	3489 mm	11 ft	5.3 in	3482 mm	11 ft	5 in
18	Mirror Width	3676 mm	12 ft	1 in	3676 mm	12 ft	1 in
19	Track Width	2275 mm	7 ft	6 in	2275 mm	7 ft	6 in
20	Width Over Tire	2950 mm	9 ft	8 in	2950 mm	9 ft	8 in
21	Fender Width	3013 mm	9 ft	11 in	3013 mm	9 ft	11 in
22	Max Unladen Over Tire Bulge	3083 mm	10 ft	1 in	3083 mm	10 ft	1 in
23	Tire Clearance	1537 mm	5 ft	1 in	1537 mm	5 ft	1 in
24	Pivot Casting Width	833 mm	2 ft	9 in	833 mm	2 ft	9 in
25	Pivot Bearing to Rear Frame	134 mm	0 ft	5 in	134 mm	0 ft	5 in
26	Pivot Bearing Width	93 mm	0 ft	4 in	93 mm	0 ft	4 in
27	Frame Width (rear)	910 mm	3 ft	0 in	910 mm	2 ft	0 in
28	Beam Width	196 mm	0 ft	8 in	196 mm	0 ft	8 in
29	Frame Width	896 mm	2 ft	11 in	896 mm	2 ft	11 in
30	Body Width	2914 mm	9 ft	7 in	-		-
31	Truck Body Angle		45 degrees			45 degrees	
32	Tire Height to Chassis	98 mm	0 ft	4 in	98 mm	0 ft	4 in

These dimensions may vary based on tire size, pressure and load. All dimensions are for reference only and may change for different machine configurations.

Standard and Optional Equipment

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

OPERATOR ENVIRONMENT	Standard	Optional
10-inch touchscreen with Cat® rearview camera	•	
Adjustable air vents	•	
Air conditioning	•	
Combined gear selection and hoist control lever	•	
Glass windows: front, laminated and tinted; sides and rear, toughened and tinted	•	
Heater and defroster with four-speed fan	•	
Infrared glass – high ambient cab		○
Liquid Crystal Display (LCD): alert indicator, selected gear and direction, speed or auto shift, Operation and Maintenance Manual (OMM), primary steering failure (warning), seat belt warning, secondary steering failure, Diesel Particulate Filter (DPF) regeneration filter, secondary steering energy source engaged, hour meter, retarder active	•	
Machine operation monitoring system: action lamp, engine oil pressure, primary steering system, left and right turn signal, high beam, coolant temperature, tachometer, parking brake, fuel level, transmission oil temperature, brake system, transmission hold, hoist control, hydraulic system, charging system, transmission fault, traction control system, check engine lamp	•	
Mirrors: exterior	•	
Mirrors: heated motorized		○
Operator seat belt, four-point		○
Radio, Bluetooth® stereo system		○
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	•	
Seat, heated/cooled		○
Secondary steering – electro hydraulic	•	
Storage: cup holder, flask receptacle (under the secondary seat), under seat storage, door pocket, behind seat storage, coat hook	•	
Sun visor	•	
Tilt and telescopic steering wheel	•	
Touchscreen display incorporating the rearview camera video feed	•	
Window blinds		○
Windows (tinted) opening side	•	
Windshield wiper and washer, two speed, intermittent (front)	•	
Window wiper and washer, two speed (rear)	•	

GUARDS	Standard	Optional
Crankcase	•	
Radiator	•	
Rear window	•	

SAFETY	Standard	Optional
Dynamic Rollover Protection	•	
Machine Speed Limiting	•	
Multi-view camera with object detection		○
Rearview camera	•	
Reverse alarm	•	
Rollover protective structure/falling objects protective structure (ROPS/FOPS) cab	•	

POWERTRAIN	Standard	Optional
Auto shift six-speed forward and single-speed reverse transmission	•	
Automatic Retarder: engine compression brake	•	
Cat C13A (LRC) or C13B (HRC) engine	•	
CX31 transmission	•	
Cat Clean Emissions Module (CEM) and exhaust aftertreatment package	•	
Differentials: standard with automatic clutched inter- and cross-axle differential locks	•	
Dual circuit oil immersed, enclosed brakes – all wheels	•	
Three axle, six-wheel drive	•	

ELECTRICAL AND LIGHTING	Standard	Optional
Batteries (x2) maintenance free	•	
Cold weather start attachment (2 additional batteries)		○
Daylight running lights	•	
Electrical system: 24-volt, 10A 24- to 12-volt converter	•	
Engine block heater		○
Ether start		○
Flashing LED beacon		○
Horn	•	
LED Rear Step Lights	•	
LED Rear Work Lights		○
Lighting systems: cab interior, two head lamps, two width marker, two reversing, work light/cab access light, two stop/taillights, front and rear direction indicators	•	
Main disconnect switch	•	
Remote starting receptacle (cables not included)	•	
Roof-mounted LED work lights		○

Standard and Optional Equipment

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

OTHER EQUIPMENT	Standard	Optional
Auto lube installation for automatic greasing of bearings		○
Bare chassis (no body) standard wheel base	●	
Bare chassis (no body) long wheel base		○
Cold weather coolant -51°C (-60°F)		○
Fast fuel fill		○
Fuel additive, anti-waxing		○
Hoist Cylinders		○
S·O·S℠ sampling valves	●	
Sound suppression (standard in some countries*)		○
Tires, six 750/65R25, radial	●	
Vandalism protection: lockable caps	●	
Wheel chocks		○

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

CAT TECHNOLOGY	Standard	Optional
Cat Detect with Stability Assist	●	
Cat Payload monitoring system		○
Operator Coaching		○
Product Link™ Cellular PLE643	●	
Product Link Dual PLE683		○
Push to Start with Operator ID	●	
VisionLink™	●	

For more information on Cat Articulated Truck Bare Chassis, contact OEM Solutions:

oem_solutions@cat.com | www.cat.com/oemsolutions

Materials and specifications are subject to change without notice. Featured products in photos may include additional equipment. See your Cat dealer for available options.

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