

CAT® 745

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 745 chassis is available in standard wheel base or long wheel base.

PROVEN RELIABILITY

The Cat C18 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 emission systems allows excellent response and power.

COMFORTABLE OPERATOR ENVIRONMENT

New cab has 20% more interior space and is designed to make all aspects of machine operation as simple as possible for every operator. Increased glass area optimizes operator and trainer visibility. Simple, intuitive control and display layouts allow the operator to focus on safe machine operation while maintaining productivity.

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

Operator-presence detection system applies parking brake if gear is engaged and operator is not seated. Additional mirror increases visibility at front of machine; touchscreen displays feed from back-up camera (standard). Cat Detect with Stability Assist provides audible and visual alerts to the operator if the machine approaches 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)

745 ARTICULATED TRUCK BARE CHASSIS SPECIFICATIONS

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

Engine

Engine Model	Cat® C18	
Rated Engine Speed	1,700 rpm	
Gross Power (SAE J1995)	381 kW	511 hp
Net Power (SAE J1349)	370 kW	496 hp
Engine Power (ISO 14396)	376 kW	504 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,106 in^3
No Engine Derating Required Below	3050 m	10,000 ft
Peak Engine Torque Gross (SAE J1995:2014)	2618 N·m	1,931 lbf-ft
Peak Engine Torque Net (SAE J1349:2011)	2558 N·m	1,887 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

- 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 348 kW (467 hp) per the SAE reference conditions.
- Three engine emission options are available:
  1. U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V, and Japan 2014 emission standards.
  2. Meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
  3. Noncertified configuration that is equivalent to U.S. EPA Tier 2 and EU Stage II.

Operating Weights — with Hoist Cylinders (LRC)

Bare Chassis Weight	28 283 kg	62,353 lb
Payload	49 309 kg	108,708 lb
Front Axle Bare Chassis Weight	18 643 kg	41,101 lb
Front Axle Payload	6467 kg	14,257 lb
Center Bare Chassis Weight	4951 kg	10,915 lb
Center Axle Payload	21 421 kg	47,225 lb
Rear Axle Bare Chassis Weight	4689 kg	10,337 lb
Rear Axle Payload	21 421 kg	47,225 lb

Operating Weights — without Hoist Cylinders (LRC)

Bare Chassis Weight	27 678 kg	61,019 lb
Payload	49 914 kg	110,041 lb
Front Axle Bare Chassis Weight	18 405 kg	40,576 lb
Front Axle Payload	6705 kg	14,782 lb
Center Bare Chassis Weight	4768 kg	10,512 lb
Center Axle Payload	21 604 kg	47,629 lb
Rear Axle Bare Chassis Weight	4505 kg	9,932 lb
Rear Axle Payload	21 605 kg	47,631 lb

Operating Weights — without Hoist Cylinders (LRC) LWB

Bare Chassis Weight	28 535 kg	62,909 lb
Payload	49 057 kg	108,152 lb
Front Axle Bare Chassis Weight	18 590 kg	40,984 lb
Front Axle Payload	6520 kg	14,374 lb
Center Bare Chassis Weight	5087 kg	11,215 lb
Center Axle Payload	21 285 kg	46,925 lb
Rear Axle Bare Chassis Weight	4858 kg	10,710 lb
Rear Axle Payload	21 252 kg	46,853 lb

Operating Weights — with Hoist Cylinders (HRC)

Bare Chassis Weight	28 703 kg	63,279 lb
Payload	48 889 kg	107,782 lb
Front Axle Bare Chassis Weight	19 220 kg	42,373 lb
Front Axle Payload	5890 kg	12,985 lb
Center Bare Chassis Weight	4873 kg	10,743 lb
Center Axle Payload	21 499 kg	47,397 lb
Rear Axle Bare Chassis Weight	4610 kg	10,163 lb
Rear Axle Payload	21 500 kg	47,399 lb

Operating Weights — without Hoist Cylinders (HRC)

Bare Chassis Weight	28 098 kg	61,945 lb
Payload	49 494 kg	109,115 lb
Front Axle Bare Chassis Weight	18 982 kg	41,848 lb
Front Axle Payload	6128 kg	13,510 lb
Center Bare Chassis Weight	4689 kg	10,337 lb
Center Axle Payload	21 683 kg	47,803 lb
Rear Axle Bare Chassis Weight	4427 kg	9,760 lb
Rear Axle Payload	21 683 kg	47,803 lb

Operating Weights — without Hoist Cylinders (HRC) LWB

Bare Chassis Weight	28 955 kg	63,835 lb
Payload	48 637 kg	107,226 lb
Front Axle Bare Chassis Weight	19 139 kg	42,194 lb
Front Axle Payload	5971 kg	13,164 lb
Center Bare Chassis Weight	5023 kg	11,074 lb
Center Axle Payload	21 349 kg	47,066 lb
Rear Axle Bare Chassis Weight	4793 kg	10,567 lb
Rear Axle Payload	21 317 kg	46,996 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.

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Transmission

Forward 1	6.1 km/h	3.8 mph
Forward 2	8.1 km/h	5 mph
Forward 3	11.2 km/h	7 mph
Forward 4	14.1 km/h	8.8 mph
Forward 5	18.7 km/h	11.6 mph
Forward 6	22.9 km/h	14.2 mph
Forward 7	31.5 km/h	19.6 mph
Forward 8	37.9 km/h	23.5 mph
Forward 9	54.8 km/h	34 mph
Reverse 1	6.4 km/h	4 mph
Reverse 2	14.6 km/h	9.1 mph

Brakes

Brake Standards	ISO 3450:2011

Wheel Base

Standard Wheel Base	4590 mm	180.7 in
Long Wheel Base	5801 mm	228.4 in

Body Hoists

Raise Time (manual)	12 seconds
Raise Time (automatic)	13 seconds
Lower Time (manual)	10 seconds
Lower Time (automatic)	10 seconds

Service Refill Capacities

Fuel Tank	550 L	145.3 gal
Cooling System	90 L	23.7 gal
Braking Cooling Tank	67 L	17.7 gal
Steering/Hoist Hydraulic System	140 L	36.9 gal
Engine Crankcase	52 L	13.7 gal
Transmission/Output Transfer Gear (OTG)	75 L	19.8 gal
Final Drives (each)	5 L	1.3 gal
Axles (each)	60 L	15.8 gal
Diesel Exhaust Fluid (DEF) Tank	25 L	6.6 gal

Steering

Steering Standards	ISO 5010:2019	
Steer Angle	45°	
SAE Turning Radius	8625 mm	340 in
Clearance Radius	9082 mm	356 in
Inside Radius	4413 mm	174 in
Aisle Width	5917 mm	233 in
Lock to Lock	4.8 seconds @ 60 rpm	

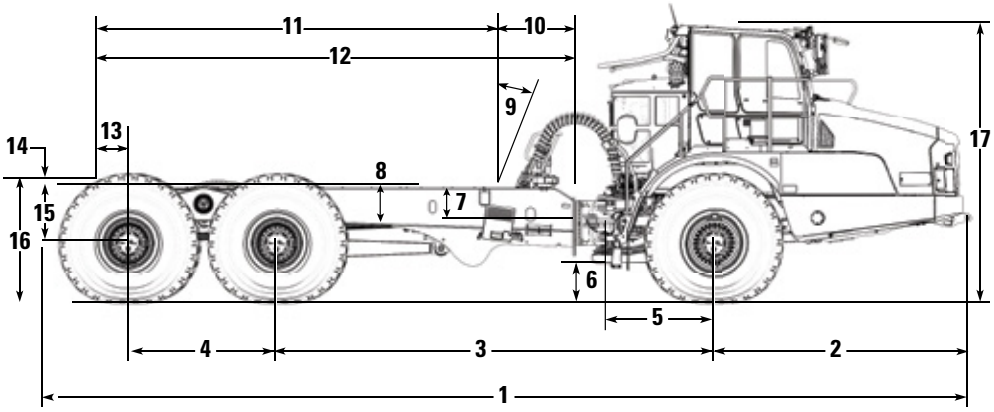
Cab

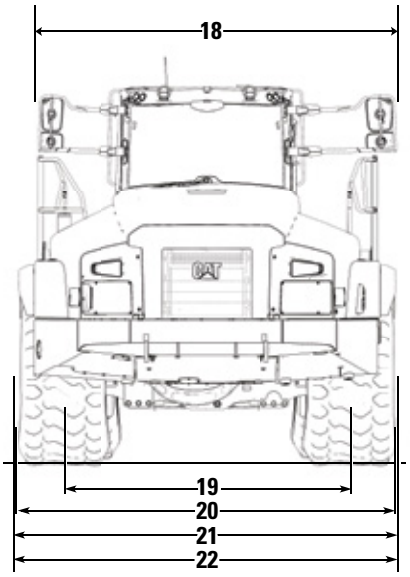
Sound Level	72 dB(A)
ROPS Certification Rating	ISO 3471:2008
FOPS Certification Rating	ISO 3449:2005 Level II

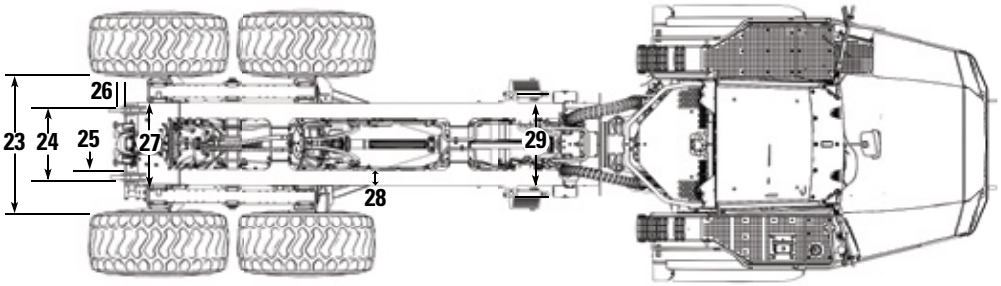
- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. See the label or instruction manual for identification of the gas.
- If equipped with R134a (Global Warming Potential = 1430), the system contains 1.1 kg (2.4 lb) of refrigerant which has a CO2 equivalent of 1.716 metric tonnes (1.891 tons).
- 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 maximum cooling fan's 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 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.

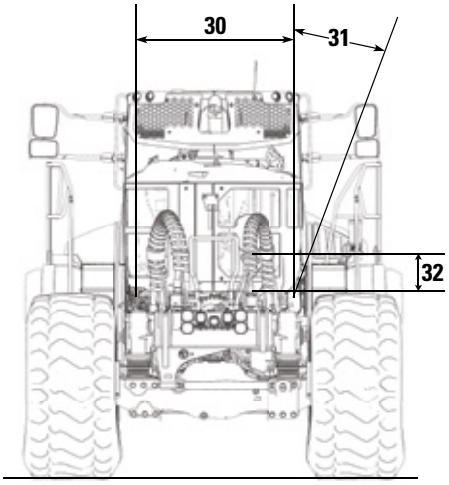
745 ARTICULATED TRUCK BARE CHASSIS DIMENSIONS

All dimensions are approximate.









745 ARTICULATED TRUCK BARE CHASSIS DIMENSIONS

All dimensions are approximate.

Dimensions		SWB		LWB	
1	Overall Length	10 912 mm	35 ft 10 in	12 123 mm	39 ft 9 in
2	Front Axle to Bumper	3418 mm	11 ft 3 in	3418 mm	11 ft 3 in
3	Front Axle to Center Axle	4590 mm	15 ft 1 in	5801 mm	19 ft 0 in
4	Center Axle to Rear Axle	1966 mm	6 ft 5 in	1966 mm	6 ft 5 in
5	Articulation Joint to Front Axle	1450 mm	4 ft 9 in	1450 mm	4 ft 9 in
6	Clearance	590 mm	1 ft 11 in	588 mm	1 ft 11 in
7	Pivot Pin to Frame Bottom	407 mm	1 ft 4 in	-	-
8	Frame Height Rear	344 mm	1 ft 2 in	-	-
9	Front Body Angle		22 degrees		22 degrees
10	Body Pivot Clearance	987 mm	3 ft 3 in	987 mm	3 ft 3 in
11	Body Clearance	4157 mm	13 ft 8 in	5368 mm	17 ft 7 in
12	Body Guides	3942 mm	12 ft 11 in	5105 mm	19 ft 9 in
13	Rear Axle to Pivot Pin (horizontal)	383 mm	1 ft 3 in	383 mm	1 ft 3 in
14	Pivot Pin to Top of Frame Rail	104 mm	0 ft 4 in	104 mm	0 ft 4 in
15	Rear Axle to Pivot Pin (vertical)	665 mm	2 ft 2 in	665 mm	2 ft 2 in
16	Top of Frame Rail	1669 mm	5 ft 6 in	1666 mm	5 ft 6 in
17	Top of Cab	3762 mm	12 ft 4 in	3762 mm	12 ft 4 in
18	Mirror Width	3801 mm	12 ft 6 in	3676 mm	12 ft 1 in
19	Track Width	2687 mm	8 ft 10 in	2275 mm	7 ft 6 in
20	Over Free Width of Tire	3439 mm	11 ft 3 in	2877 mm	9 ft 5 in
21	Fender Width	3370 mm	11 ft 1 in	2950 mm	9 ft 8 in
22	Max Unladen Over Tire Bulge	3500 mm	11 ft 6 in	3500 mm	11 ft 6 in
23	Tire Clearance	1920 mm	6 ft 4 in	1920 mm	6 ft 4 in
24	Pivot Casting Width	1031 mm	3 ft 5 in	1031 mm	3 ft 5 in
25	Pivot Bearing to Rear Frame	108 mm	0 ft 4 in	108 mm	0 ft 4 in
26	Pivot Bearing Width	134 mm	0 ft 5 in	134 mm	0 ft 5 in
27	Frame Width (rear)	1110 mm	3 ft 8 in	1110 mm	3 ft 8 in
28	Beam Width	206 mm	0 ft 8 in	206 mm	0 ft 8 in
29	Frame Width	1096 mm	3 ft 7 in	1096 mm	3 ft 7 in
30	Body Width	3422 mm	11 ft 3 in	-	-
31	Truck Body Angle		45 degrees		45 degrees
32	Tire Height to Chassis	497 mm	1 ft 8 in	497 mm	1 ft 8 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
Air conditioning	•	
Adjustable air vents	•	
Combined gear selection and hoist control lever	•	
Glass windows, laminated and tinted front, toughened and tinted rear	•	
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		○
Seat, heated/cooled		○
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	•	
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		○
Window wiper and washer, two speed (rear)		○
Windows (tinted) opening both sides	•	
Windshield wiper and washer, two speed, intermittent (front)	•	

POWERTRAIN	Standard	Optional
Auto shift nine-speed forward and two-speed reverse transmission	•	
Cat C18 engine	•	
Cat Clean Emissions Module (CEM) and exhaust aftertreatment package	•	
CX38 transmission	•	
Differentials: standard with automatic clutched inter- and cross-axle differential locks	•	
Dual circuit oil immersed, enclosed brakes – all wheels	•	
Retarder: engine compression brake and hydraulic	•	
Three axle, six-wheel drive	•	

ELECTRICAL AND LIGHTING	Standard	Optional
Batteries (two) maintenance free	•	
Cold weather start attachment		○
Engine block heater		○
Ether start		○
Electrical system: 24-volt, 5A 24- to 12-volt converter	•	
Flashing LED beacon		○
Horn	•	
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	•	
Remote starting receptacle (cables not included)	•	
Roof mounted LED work lights		○

SAFETY	Standard	Optional
Rearview camera	•	
Reverse alarm	•	
Rollover protective structure/falling objects protective structure (ROPS/FOPS) cab	•	

GUARDS	Standard	Optional
Crankcase	•	
Radiator	•	
Rear window	•	

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 29.5 R25	●	
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		○
Machine Security System (MSS)		○
Product Link Cellular PLE643	●	
Product Link Dual PLE683		○
Software enabled attachment for tow applications		○

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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