



CAT® 777 (05) OFF-HIGHWAY TRUCK BARE CHASSIS

Caterpillar offers off-highway truck bare chassis designed for specialty machines in a variety of applications — including water trucks, tow tractors, and fuel / lube trucks. When configured as a water truck, the tank capacity is 20,000 gallons (75 700 liters). These partial machine configurations allow construction, quarry, and mining customers to purchase complete 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.

APPLICATION-SPECIFIC CAB & ROPS CERTIFICATION

Cat Off-Highway Truck Bare Chassis ROPS is certified to ISO 3471 Tractor criteria, to provide a higher level of protection for towing applications.

EASY TO OPERATE

- » Best-in-class touchscreen display for the operator to navigate through machine control system during interaction and service of the machine.
- » Improved rear visibility for the operator with new mirror package on both sides of the machine.

ACHIEVE GREATER PRODUCTIVITY

- » Advanced Productivity Electronic Control Strategy (APECS) transmission controls carry more torque through the shifts, producing faster cycle times, most noticeably on grades.
- » Adaptive economy mode determines the most efficient engine operating point when the truck is operating at steady state condition. The most efficient operating point is determined by customer inputs on fuel saving to max expected production limitation.

DESIGNED FOR SAFETY

- » Integrated ladder access, extended catwalk, and aggressive tread plates on all steps ensure safe entry and egress.
- » Seat belt indicator implements both visual and audible alerts to the operator when seat belt is not fastened.
- » Cat Detect system with cameras and radar monitors objects that appear within designated machine blind spots, helps safe machine operation.

STREAMLINED SERVICEABILITY

- » Hydraulically actuated brake system improves brake component life and reduces maintenance costs.
- » Convenient filters and fluid refill help make servicing of the machine faster.

SUPPORTED BY THE CAT DEALER NETWORK

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



777 (05) Off-highway 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® C32B	
Rated Engine Speed	1,800 rpm	
Gross Power – SAE J1995	765 kW	1,026 hp
Net Power – SAE J1349/ISO 9249	711 kW	953 hp
Cylinders	12	
Bore	145 mm	5.7 in
Stroke	162 mm	6.4 in
Displacement	32.1 L	1,959 in ³
<ul style="list-style-type: none"> Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator. Power rating applies at 1,800 rpm when tested under the specified condition for the specified standard in effect at the time of manufacture. Ratings based on SAE J1349:2011 standard air conditions of 25°C (77°F) and 100 kPa (29.61 Hg) barometer. Power based on fuel having API gravity of 35 at 16°C (60°F) and an LHV of 42 780 kJ/kg (18,390 BTU/lb) when engine used at 30°C (86°F). No engine derating required up to 3048 m (10,000 ft) altitude. Meets China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 2. 		

Weights – Approximate

Rated Gross Machine Weight (RGMW)	98 211 kg	216,519 lbs
Nominal Rated Payload (NRP)	97.3 tonnes	107.2 tons
<ul style="list-style-type: none"> Consult your tire manufacturer for maximum tire load. 		

Tires

27.00R49 (E4)

- Productive capabilities of the 777 truck are such that, under certain job conditions, TKPH (TMMPH) capabilities of standard or optional tires could be exceeded and, therefore, limit production.
- Caterpillar recommends the customer evaluate all job conditions and consult the tire manufacturer for proper tire selection.

Weight Distributions – Approximate

Front Axle – Empty*	46 %
Front Axle – Loaded	30 %
Rear Axle – Empty*	54 %
Rear Axle – Loaded	70 %

*Depends on configuration.

Final Drives

Differential Ratio	2.74:1
Planetary Ratio	7.00:1
Total Reduction Ratio	19.16:1

Transmission

Forward 1	10.9 km/h	6.8 mph
Forward 2	14.8 km/h	9.2 mph
Forward 3	20.1 km/h	12.5 mph
Forward 4	27.1 km/h	16.9 mph
Forward 5	36.8 km/h	22.9 mph
Forward 6	49.4 km/h	30.7 mph
Forward 7	67.1 km/h	41.7 mph
Reverse	12.1 km/h	7.5 mph

• Maximum travel speeds with standard 27.00R49 (E4) tires.

Braking System

Brake Surface – Front Dry	2787 cm ²	432 in ²
Brake Surface – Rear	102 116 cm ²	15,828 in ²
Brake Surface – Front Wet (optional)	40 225 cm ²	6,235 in ²
Brake Standard	ISO 3450:2011	

Operating Weights – with Hoist Cylinders

Bare Chassis Weight	51 321 kg	113,143 lb
Payload	112 039 kg	247,003 lb
Gross Vehicle Weight	163 360 kg	360,147 lb
Front Axle Bare Chassis Weight	27 097 kg	59,740 lb
Front Axle Payload	26 811 kg	59,109 lb
Front Axle Gross Vehicle Weight	53 909 kg	118,848 lb
Rear Axle Bare Chassis Weight	24 224 kg	53,404 lb
Rear Axle Payload	85 228 kg	187,895 lb
Rear Axle Gross Vehicle Weight	109 451 kg	241,298 lb

Operating Weights – without Hoist Cylinders

Bare Chassis Weight	49 747 kg	109,673 lb
Payload	113 613 kg	250,473 lb
Gross Vehicle Weight	163 360 kg	360,147 lb
Front Axle Bare Chassis Weight	26 266 kg	57,907 lb
Front Axle Payload	27 642 kg	60,941 lb
Front Axle Gross Vehicle Weight	53 909 kg	118,848 lb
Rear Axle Bare Chassis Weight	23 481 kg	51,766 lb
Rear Axle Payload	85 971 kg	189,533 lb
Rear Axle Gross Vehicle Weight	109 451 kg	241,298 lb

- The payload includes anything added to the bare chassis.
- Care must be taken when designing any attachments so that the axle weights are not exceeded.

777 (05) Off-highway Truck Bare Chassis Specifications

Body Hoists

Body Raise Time – High Idle	15 seconds
Body Lower Time – Float	13 seconds
Body Power Down – High Idle	13 seconds

Suspension

Effective Cylinder Stroke – Front	318 mm	12.5 in
Effective Cylinder Stroke – Rear	165 mm	6.5 in
Rear Axle Oscillation	±5.4°	

Service Refill Capacities

Fuel Tank	1140 L	300 gal
Cooling System	212 L	56 gal
Crankcase	115 L	30 gal
Differentials	222 L	59 gal
Final Drives (each)	42 L	11 gal
Steering System (includes tank)	60 L	16 gal
Brake/Hoist System	420 L	110 gal
Torque Converter/ Transmission System	125 L	33 gal
Front wheel (each)	7.5 L	2 gal

Steering

Steer Angle	30.5°	
Turning Diameter – Front	25.3 m	83 ft
Turning Circle Clearance Diameter	28.4 m	93.2 ft
Steering Standards	ISO 5010:2019	

Cab

Sound Standards	ISO 6396:2008	
ROPS Certification Rating	Tractor ROPS Rating	
777 WTR (Tractor)	55 000 kg	121,254 lb

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.0 kg (4.4 lbs) of refrigerant, which has a CO₂ equivalent of 2.86 metric tonnes (3.152 tons).
- The dynamic operator sound pressure level is 80 dB(A) as per ISO 6396:2008 for cab offered by Caterpillar. The cab was properly installed and maintained. The test was conducted with the cab doors and the cab windows closed.
- Rollover protective structure (ROPS) cab offered by Caterpillar meets ISO 3471:2008 for operator and ISO 13459:2012 for trainer.
- Falling objects protective structure (FOPS) meets ISO 3449:2005 Level II for operator and ISO 13459:2012 Level II FOPS for trainer.
- 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.

Cat® Water Delivery System (WDS) - optional

Operator selectable coverage	0.2-0.8 L/m ² (4 kph - 40 kph)	0.05-0.2 gal/ft ² (3 mph - 25 mph)
Maximum water flow	6814 L/min	1,800 gal/min
Water per spray head (minimum)	132.5 L/min	35 gal/min
Water per spray head (maximum)	2271 L/min	600 gal/min
Spray head opening range (minimum)	1 mm	0.04 in
Spray head opening range (maximum)	19 mm	0.75 in
Maximum size debris flushed through spray head	19 mm	0.75 in
Spray width per head (dependent on flow)	4.5-9.1 m	15-30 ft
Spray system hydraulic tank capacity	27.5 L	7.25 gal
Maximum number of rear spray heads	5	
Minimum number of rear spray heads (3 recommended)	2	
Maximum number of front/side spray heads	2	
Minimum number of front/side spray heads	0	
Maximum water from cannon (idle)*	2271 L/min	600 gal/min
Maximum water from cannon (high idle)*	6246 L/min	1,650 gal/min
Maximum cannon spray distance*	61 m	200 ft
Wet water pump/hydraulic motor coupling		

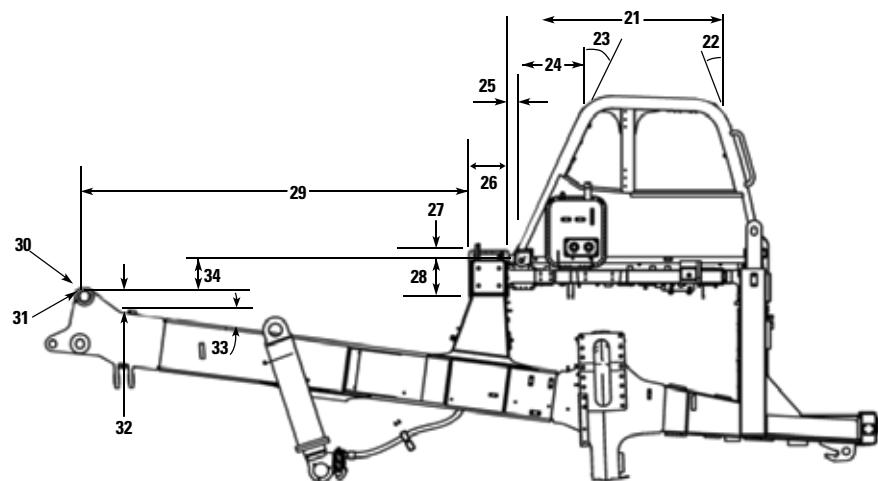
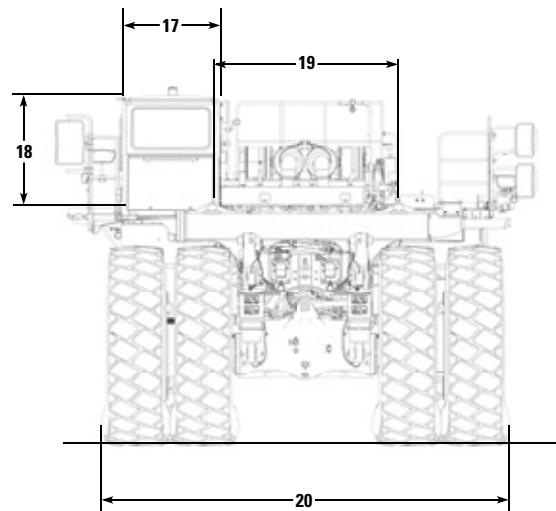
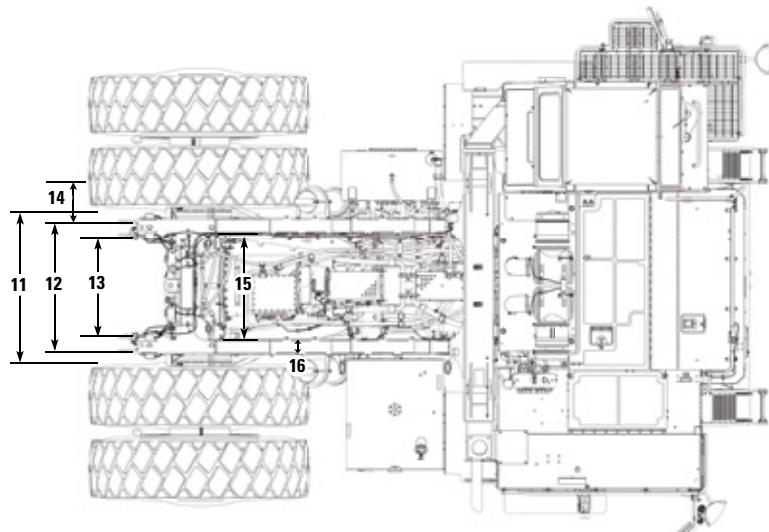
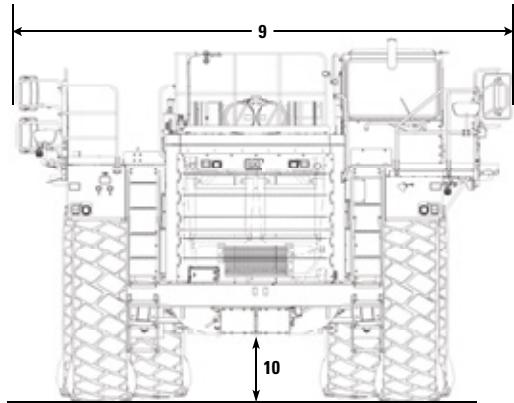
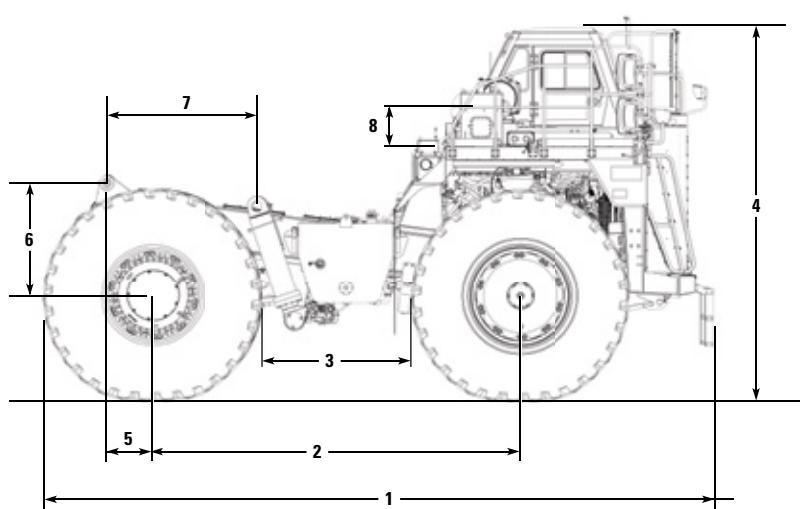
*Depends on nozzle orifice and pipe size.

- Coverage rates above 0.6 L/m² may not be available at higher speeds depending on head count and configuration.
- The Auto Mode setting controls water coverage and automatically adjusts to the number of spray heads being used — independent of ground speed. This is an exclusive feature designed into the Cat® WDS software to help water more efficiently.
- Alternatively, manual mode allows the operator to set a water flow rate that is constant regardless of ground speed. This mode is not recommended for daily operation and will reduce watering efficiency and may increase fuel usage.
- Spray head opening is automatically controlled by the system to achieve Auto Mode Coverage or manual mode flow rate.
- Spray heads on competitive water distribution systems require tools and maintenance to change flow and spray pattern. Caterpillar is the only company to have variable active spray heads to regulate water spray.
- Water flow is continually adjusted during operation to conserve water and achieve desired coverage and flow rate.
- Water tanks are offered by local 3rd party providers with customization based on water application and regional customer requirements. Please contact your local Cat dealer, regional OEM Solutions Account manager, or email OEM_Solutions@cat.com for more information on water tank options and attachments.

777 (05) Off-highway Truck Bare Chassis Specifications

Dimensions

All dimensions are approximate.



777 (05) Off-highway Truck Bare Chassis Specifications

Dimensions

1 Overall Length	8315 mm	327.4 in
2 Wheel Base	4570 mm	179.9 in
3 Distance Between Tires	1875 mm	73.8 in
4 Height to Top of ROPS	4730 mm	186.2 in
5 Rear Axle to Body Pivot	591 mm	23.3 in
6 Vertical Distance Between Body Pivot and Rear Axle	1393 mm	54.8 in
7 Distance Between Body Pivot and Hoist Cylinders - Horizontal	1886 mm	74.2 in
8 Vertical Distance between main beam and engine hood	477 mm	18.8 in
9 Overall Width	6973 mm	274.5 in
10 Engine Guard Clearance	864 mm	34 in
11 Distance Between Hoist Cylinders	1946 mm	76.6 in
12 Distance Between Body Pivot -Outer	1613 mm	63.5 in
13 Distance Between Body Pivot -Inner	1232 mm	48.5 in
14 Body Pivot Bearing Width	540 mm	21.2 in
15 Distance Between Frame Rails	1320 mm	51.9 in
16 Frame Rail Width	165 mm	6.5 in
17 Cab Width	1310 mm	51.6 in
18 Height of the Cab from Main Beam	1534 mm	60.4 in
19 Distance between Rocker Pads	1705 mm	67.1 in
20 Overall Tire Width	5262 mm	207.12 in
21 Distance Between Main Beam and Cab Front	1965 mm	77.3 in
22 Cab Front Angle		18 degrees
23 Cab Rear Angle		25 degrees
24 Distance between Main Beam and Cab Roof	874 mm	34.5 in
25 Distance Between Main Beam and Cab Rear	151 mm	5.9 in
26 Main Beam Width	335 mm	13.1 in
27 Rocker Pad Height	327 mm	12.8 in
28 Main Beam Height	335 mm	13.1 in
29 Distance Between Body Pivot and Main Beam	3841 mm	151 in
30 Body Pivot Outer Radius	89 mm	3.5 in
31 Body Pivot Pin Diameter	101.2 mm	4.0 in
32 Distance Between Body Pivot and Frame	292 mm	11.5 in
33 Frame Slope Angle		7.5 degrees
34 Distance between Main Beam and Body Pivot Pin	266 mm	10.4 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.

777 (05) Off-highway Truck Bare Chassis Specifications

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
POWERTRAIN			OPERATOR ENVIRONMENT		
Cat C32B Engine	•		Advisor, touchscreen display	•	
Auto electric fuel priming pump	•		Ash tray	•	
Biodiesel compatibility, B40	•		Coat hook	•	
Brake release motor (towing)	•		Combined gear shift/hoist/park brake lever	•	
Braking system: Hydraulically actuated brakes with oil cooled multiple disc (rear) and caliper disc (front), hydraulically applied and spring released	•		Cup/bottle holder	•	
Cat transmission: 7F/1R speed planetary powershift, ECPC control, APECS software, programmable top gear/speed selection, body upshift inhibitor, directional shift management, neutral start switch, neutral coast inhibitor, reverse shift inhibitor, body-up reverse neutralizer, 2nd gear drive, torque shift management, and part throttle shifting	•		Diagnostic connection port	•	
Economy mode/adaptive economy mode	•		Horn electric	•	
Emergency/parking brake, spring applied and hydraulically released	•		HVAC	•	
Engine overspeed protection	•		Liquid crystal display (LCD), cluster gauge: brake oil temperature, transmission oil temperature, engine coolant temperature, hour meter, tachometer, fuel level gauge, speedometer	•	
Retarder control – manual	•		Left side power window	•	
Water/fuel separator	•		Mirrors, left and right	•	
Front oil cooled disc brake	•		Radio ready	•	
Traction control system	•		Right side access door	•	
Retarder control – automatic	•		ROPS/FOPS cabin	•	
ELECTRICAL			Seat, trainer with lap belt	•	
Alternator, 150 amp	•		Seat: operator – fully adjustable, air suspension, 4-point seat belt with reminder	•	
Auxiliary jump start receptacle	•		Storage compartment	•	
Backup alarm	•		Sun visor	•	
Backup light, LED	•		Switches: throttle lock, wipers/washers, hazard lights, headlights, secondary steering, back light adjust, AC on/off, spare, economy mode, egress lamp, Product Link™ disconnect	•	
Directional signal/hazard warning, LED lights	•		Tilt and telescopic steering wheel	•	
Electrical system, 10 amp, 24V to 12V converter	•		Blind spot mirror	•	
Four batteries, 12V, 190 amp-hour	•		Heated mirror	•	
Ground-level battery disconnect switch	•		CAT TECHNOLOGY PRODUCTS		
Ground-level engine shutdown switch	•		Cat Detect system	•	
Headlights with dimmer, LED	•		Product Link™	•	
Operator courtesy lights, LED	•		Camera system	•	
Stop/tailights, LED	•		Truck production management system (TPMS)	•	
Switch, engine lockout	•		Vital Information Management System (VIMS™)	•	
Switch, machine lockout	•				
Two starter motors	•				
Working lights, LED	•				
Audio visual backup alarm	•				
Fog lamp	•				

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Standard and Optional Equipment

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

	Standard	Optional
OTHER EQUIPMENT		
Body down indicator	•	
Body mounting group	•	
Body safety pin	•	
Driveline guard	•	
Engine crankcase guard	•	
Exhaust body heat system	•	
Extended life coolant to -35°C (-30°F)	•	
Ground-level grease fittings		•
Hydropneumatic suspension	•	
Load counter	•	
Rock ejectors	•	
Tie down eyes/tow down hooks	•	
Vandalism protection lock	•	
Automatic lubrication system (27 kg/40 kg)		•
Cluster/grouped lubrication system	•	
Cold weather package		•
Exhaust muffler		•
Fast fluid fill system		•
Fast fuel fill system		•
Fire extinguisher		•
Fuel tank 1325 L		•
Hoist quick disconnect		•
Oil change system – high speed		•
Spare rim		•
Wheel chocks		•

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

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

AEXJ0143-01 (01-2026)

Build Number: 05

(Afr-ME, Asia Pacific, SE Asia, S. Am)

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

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