



CAT[®] 777₍₀₇₎

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.

WORK IN COMFORT

Completely redesigned cab for a whole new standard in visibility, comfort, and productivity. The new operator seat placement provides easier operation and comfort to the operator. Improvements in visibility gain enlarged views of the work area and its surroundings.

POWER TO THE GROUND

Put more power to the ground with a 7% increase in torque. Advanced Productivity Electronic Control Strategy (APECS) transmission controls carry more torque through the shifts, producing faster cycle times, most noticeably on grades. Enjoy greater productivity while using a more responsive Traction Control System (TCS).

DESIGNED FOR SAFETY

Improvements in accessibility with safe ground-level access to fuel fill and daily maintenance points. Ensure three points of contact when entering and exiting the machine with strategically placed walkways and grab rails. Wet disc braking is standard on all four corners of the truck.

STREAMLINED SERVICEABILITY

Ground-level refueling requires no climbing on the machine to fill the fuel tank. Resolve problems before failure occurs with VIMS notifications. Hydraulic oil filter life is extended to 1,000 hours under normal operating conditions.

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 (07) 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 J1995:2014	765 kW	1,025 hp
Net Power – SAE J1349:2011/ISO 9249:2007	711 kW	953 hp
Cylinders	12	
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	85 L	5,187 in ³

- Net Power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator with engine speed at 1,800 rpm.
- Power rating applies at 1,800 rpm when tested under the specified condition for the specified standard.
- Ratings based on SAE J1995 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 2286 m (7,500 ft).
- Available as Tier 4 Final/Stage V equivalent, Tier 3/Stage IIIA equivalent, or Tier 2/Stage II equivalent emission standards.

Operating Weights – all configurations

Target Gross Machine Weight	164 654 kg	363,000 lb
Nominal Rated Payload (NRP)	91.7 tonnes	101.1 tons

Operating Weights – with Hoist Cylinders (LRC)

Bare Chassis Weight	51 740 kg	114,067 lb
Payload	112 914 kg	248,933 lb
Front Axle Bare Chassis Weight	26 698 kg	58,859 lb
Front Axle Payload	27 638 kg	60,931 lb
Rear Axle Bare Chassis Weight	24 990 kg	55,094 lb
Rear Axle Payload	85 328 kg	188,115 lb

Operating Weights – without Hoist Cylinders (LRC)

Bare Chassis Weight	50 578 kg	111,505 lb
Payload	114 076 kg	251,495 lb
Front Axle Bare Chassis Weight	26 098 kg	57,537 lb
Front Axle Payload	28 238 kg	62,253 lb
Rear Axle Bare Chassis Weight	24 429 kg	53,857 lb
Rear Axle Payload	85 889 kg	189,353 lb

Operating Weights – with Hoist Cylinders (HRC)

Bare Chassis Weight	52 262 kg	115,218 lb
Payload	112 392 kg	247,782 lb
Front Axle Bare Chassis Weight	26 976 kg	59,452 lb
Front Axle Payload	27 369 kg	60,337 lb
Rear Axle Bare Chassis Weight	25 243 kg	55,650 lb
Rear Axle Payload	85 076 kg	187,559 lb

Operating Weights – without Hoist Cylinders (HRC)

Bare Chassis Weight	51 100 kg	112,656 lb
Payload	113 550 kg	250,335 lb
Front Axle Bare Chassis Weight	26 368 kg	58,131 lb
Front Axle Payload	27 968 kg	61,659 lb
Rear Axle Bare Chassis Weight	24 681 kg	54,413 lb
Rear Axle Payload	85 637 kg	188,797 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.

Tires

27.00R49 (E4)

- Productive capabilities of the 777 truck are such that, under certain job conditions, TKPH (TMPH) 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	52%
Front Axle – Loaded	33%
Rear Axle – Empty	48%
Rear Axle – Loaded	67%

Final Drives

Differential Ratio	2.736:1
Planetary Ratio	7.0:1
Total Reduction Ratio	19.1576:1

Brakes

Brake Surface – Front	40 846 cm ²	6,331 in ²
Brake Surface – Rear	102 116 cm ²	15,828 in ²
Brake Standards	ISO 3450:2011	

Transmission

Forward 1	10.7 km/h	6.6 mph
Forward 2	14.6 km/h	9.1 mph
Forward 3	19.2 km/h	11.9 mph
Forward 4	26.7 km/h	16.6 mph
Forward 5	36.2 km/h	22.5 mph
Forward 6	48.6 km/h	30.2 mph
Forward 7	65.9 km/h	40.9 mph
Reverse	12.1 km/h	7.5 mph

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

777 (07) Off-highway Truck Bare Chassis Specifications

Body Hoists

Pump Flow – High Idle	458 L/min	120.9 gal/min
Relief Valve Setting – Raise	18 950 kPa	2,750 psi
Relief Valve Setting – Lower	3450 kPa	500 psi
Body Raise Time – High Idle	15.0 seconds	
Body Lower Time – Float	13.0 seconds	
Body Power Down – High Idle	13.0 seconds	

Service Refill Capacities

Fuel Tank	530 L	140 gal
Diesel Exhaust Fluid (DEF) Tank	21 L	6 gal
Cooling System	125 L	33 gal
Crankcase	64 L	17 gal
Differentials and Final Drives	180 L	47 gal
Steering Tank	55 L	14.5 gal
Steering System (includes tank)	87 L	23 gal
Brake/Hoist Hydraulic Tank	145 L	38 gal
Brake/Hoist System	227 L	60 gal
Torque Converter/Transmission System	64 L	17 gal

Steering

Steering Standards	ISO 5010:2007	
Steer Angle	40.5°	
Turning Diameter – Front	17.6 m	57.7 ft
Turning Circle Clearance Diameter	20.3 m	66.6 ft

Suspension

Empty Loaded Cylinder Stroke Front	234 mm	9.2 in
Empty Loaded Cylinder Stroke Rear	149 mm	5.9 in
Rear Axle Oscillation	8.9°	

Cab

ROPS Certification Rating	Tractor ROPS Rating	
777 WTR (Tractor)	60 365 kg	133,082 lb

- ROPS (Roll Over Protective Structure) for cab offered by Caterpillar meets ISO 3471:1994 ROPS criteria.
- FOPS (Falling Objects Protective Structure) meets ISO 3449:1992 Level II FOPS criteria.
- 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

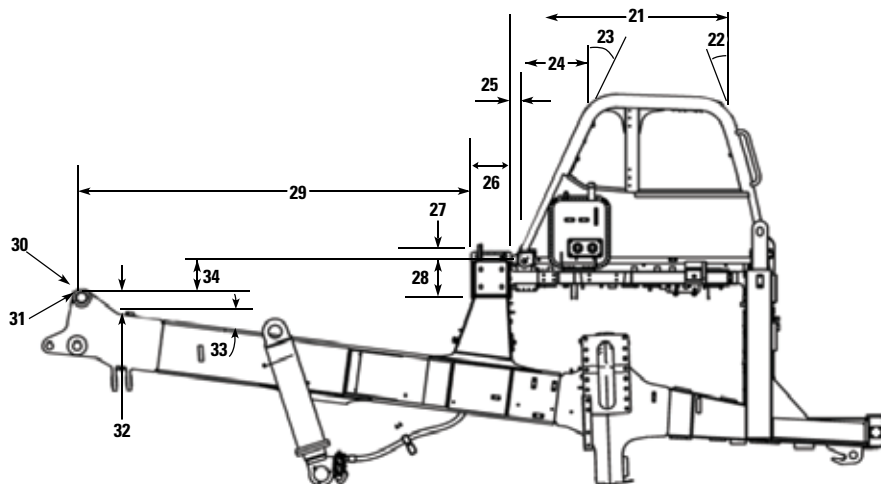
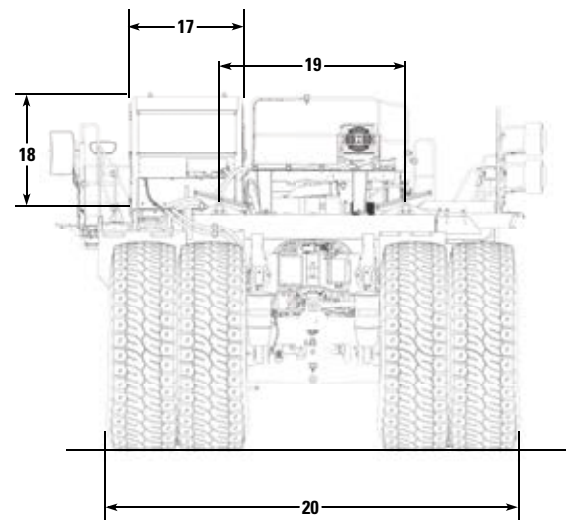
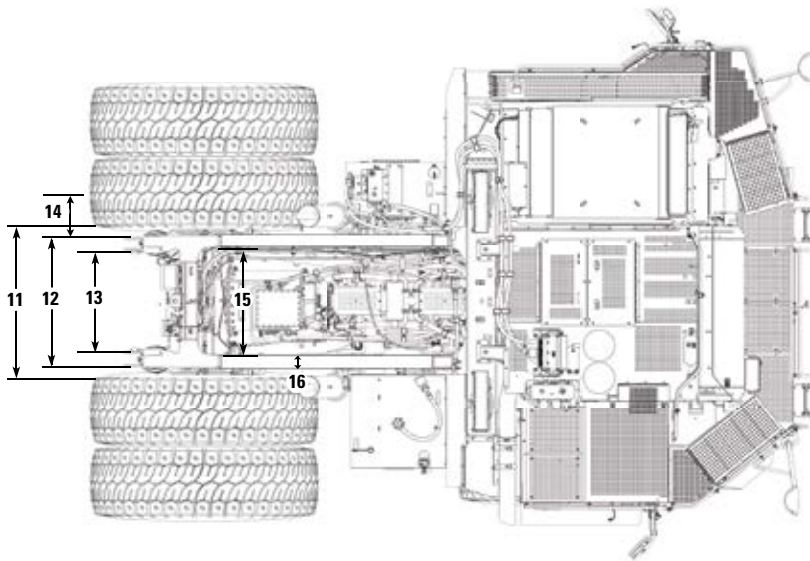
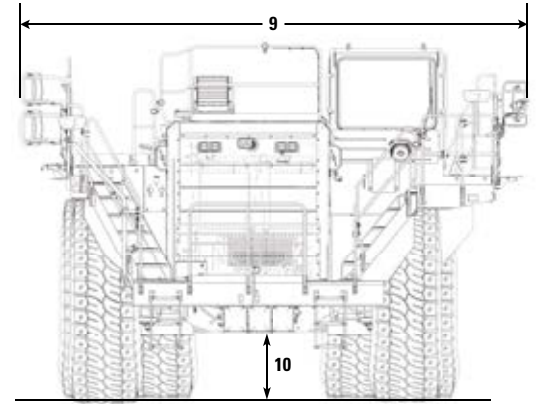
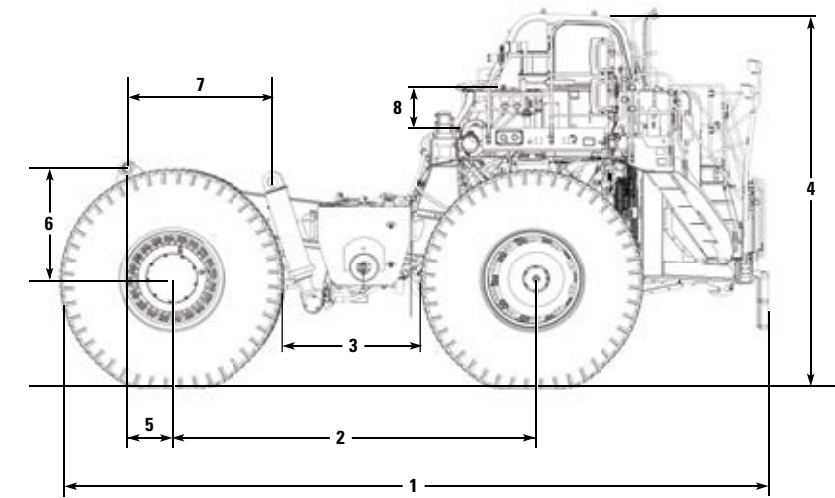
Operator selectable coverage	0.2-0.8 L/m ² (4 - 40 kph)	0.5-0.2 gal/ft ² (3 - 25 mph)
Maximum water flow	3785 L/min	1,200 gal/min
Water per spray head (minimum)	130 L/min	35 gal/min
Water per spray head (maximum)	2270 L/min	600 gal/min
Spray head opening range (minimum)	1 mm	0.04 in
Spray head opening 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	7	
Minimum number of rear spray heads	3	
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)	4732 L/min	1,250 gal/min
Maximum cannon spray distance	61 m	200 ft
Wet water pump/hydraulic motor coupling		

- Coverage rates above 0.6 L/m² may not be available at higher speeds depending on head count and configuration.
- Opening is automatically controlled by the system to achieve AutoMode Coverage or Manual Mode Flow Rate.
- AutoMode Spray controls water coverage automatically to the number of heads being used and ground speed achieved.
- Manual Mode allows the operator to set a water flow rate that is constant regardless of ground speed.
- 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.

777 (07) Off-highway Truck Bare Chassis Specifications

Dimensions

All dimensions are approximate.



777 (07) Off-highway Truck Bare Chassis Specifications

Dimensions		
1	Overall Length	8808 mm 346.8 in
2	Wheel Base	4557 mm 179.4 in
3	Distance Between Tires	1867 mm 73.7 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	1893 mm 74.5 in
8	Vertical Distance between main beam and engine hood	508 mm 20 in
9	Overall Width	6684 mm 263.1 in
10	Engine Guard Clearance	912 mm 35.9 in
11	Distance Between Hoist Cylinders	1987 mm 78.2 in
12	Distance Between Body Pivots -Outer	1634 mm 64.3 in
13	Distance Between Body Pivots -Inner	1160 mm 45.7 in
14	Body Pivot Bearing Width	237 mm 9.3 in
15	Distance Between Frame Rails	1324 mm 52.1 in
16	Frame Rail Width	165 mm 6.5 in
17	Cab Width	1500 mm 59.1 in
18	Height of the Cab from Main Beam	1619 mm 63.7 in
19	Distance between Rocker Pads	2508 mm 98.7 in
20	Overall Tire Width	5223 mm 205.63 in
21	Distance Between Main Beam and Cab Front	2204 mm 86.8 in
22	Cab Front Angle	17 degrees
23	Cab Rear Angle	25 degrees
24	Distance between Main Beam and Cab Roof	689 mm 27.1 in
25	Distance Between Main Beam and Cab Rear	103 mm 4.1 in
26	Main Beam Width	390 mm 15.4 in
27	Rocker Pad Height	78 mm 3.1 in
28	Main Beam Height	356 mm 14 in
29	Distance Between Body Pivot and Main Beam	3813 mm 150.1 in
30	Body Pivot Outer Radius	89 mm 3.5 in
31	Body Pivot Pin Diameter	117.5 mm 4.6 in
32	Distance Between Body Pivot and Frame	160 mm 6.3 in
33	Frame Slope Angle	7.5 degrees
34	Distance between Main Beam and Body Pivot Pin	361 mm 14.2 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 (07) 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					
Air-To-Air Aftercooler (ATAAC)	•		• Operator access courtesy lights	•	
Air cleaner with precleaner (1)	•		• Stop/tail lights, LED	•	
Automatic cold mode idle control	•		• Service lights	•	
Electric priming pump	•				
Engine idle shutdown	•		OPERATOR ENVIRONMENT		
Fuel filter / water separator	•		Air conditioning/heat	•	
Quick Evac	•		Ashtray and cigarette lighter	•	
Turbocharger (2)	•		Automatic temperature control	•	
Automatic Retarder Control (ARC)	•		Coat hook	•	
- utilizes oil-cooled, multiple disc breaks			Cup holders (4)	•	
Braking System			Diagnostic connection port, 24V	•	
• Manual retarder (utilizes rear oil-cooled, multiple disc brakes)	•		Entertainment radio ready:		
• Brake release motor (towing)	•		• 5 amp converter	•	
• Front brake disconnect switch (front)	•		• Speakers	•	
• Oil-cooled, multiple disc (front / rear)	•		• Antenna	•	
• Brake wear indicator	•		• Wiring harness	•	
• Parking	•		Gauges and indicators panel:		
• Secondary	•		• Air cleaner service indicator – electronic	•	
• Service	•		• Brake oil temperature gauge	•	
Transmission:			• Coolant temperature gauge	•	
• 7 speed automatic powershift with electronic clutch pressure control Advanced productivity electronic control strategy (APECS)	•		• Hour meter	•	
• Automatic neutral idle	•		• Tachometer	•	
• Autostall	•		• Engine overspeed indicator	•	
• Second gear start	•		• Fuel level	•	
APECS software: ECPC, part throttle shifting	•		• Speedometer with odometer	•	
Electronic clutch pressure control	•		• Transmission gear indicator	•	
Body upshift inhibitor	•		Hoist lever	•	
Directional shift management	•		Horn, electric	•	
Downshift inhibitor	•		Light – dome	•	
Neutral start switch	•		Light – courtesy	•	
Neutral cost inhibitor	•		Load counter, automatic	•	
Reverse shift inhibitor	•		Foot rest	•	
Reverse neutralizer during dumping	•		7-inch touchscreen display	•	
Programmable top gear selection	•		Mirrors (heated)	•	
			Power port, 24V and 12V	•	
			ROPS cab, insulated/sound suppressed	•	
			Cat Next Generation Deluxe Seat:		
			• full air suspension	•	
			• heated	•	
			• retractable 4 point seat belt with shoulder harness	•	
			Steering wheel, padded, tilt and telescopic	•	
			Storage compartment	•	
			Sun visor, tinted / laminated glass	•	
			Throttle lock	•	
			Window, sliding, right side(Emergency exit)	•	
			Window, powered, left side	•	
			Windshield wiper (intermittent) and washer	•	
ELECTRICAL					
Alarm backup	•				
Alternator, 115 amp	•				
Auxiliary jump start receptable	•				
Batteries, maintenance-free, 12V, 190 amp-hour	•				
Electrical system, 25 amp, 24V to 12V converter	•				
Lighting System:					
• Backup light (halogen)	•				
• Directional signals/hazard warning (front and rear LED)	•				
• Headlights with dimmer	•				
• Side profile lights	•				

777 (07) Off-highway Truck Bare Chassis Specifications

Standard and Optional Equipment

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

	Standard	Optional
OTHER STANDARD EQUIPMENT		
Guards:		
• Driveline	•	
• Engine crankcase	•	
• Fan and air conditioner	•	
Body down indicator	•	
Center mounted rims	•	
Ground level battery disconnect	•	
Ground level engine shutdown	•	
Ground level grease fittings	•	
Reservoirs (separate):		
• Brake/hoist	•	
• Steering	•	
• Transmission/torque converter	•	
Rims 19.5 x 49	•	
Supplemental steering (automatic)	•	
Tie down eyes	•	
Tow hooks, front/tow pin, rear	•	
Vandalism protection locks	•	
Wiggins fast fuel	•	
Attachment zone	•	

CAT TECHNOLOGY PRODUCTS

Product Link Ready	•	
Adaptive Economy Mode	•	
Object Detection	•	
Vital Info Management System (VIMS)	•	
Product Link		•
Traction Control System		•

FLUIDS

Extended life coolant, -35° C (-30° F)	•	
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OPTIONAL EQUIPMENT

Rear vision camera (WAVS)		•
Wheel chocks		•
Payload indicator (lights only)		•
Payload indicator (display)		•
Fire suppression arrangement		•

CAT WATER DELIVERY SYSTEM (WDS) - OPTIONAL ATTACHMENT

	Standard	Optional
Controls:		
• Factory installed	•	
• Integrated into cab	•	
Water System Monitor:		
• Integrated into cab	•	
• Programmable spray configurations	•	
• Automatic diagnostic messages	•	
Variable Hydraulic Pump Drive:		
• 1,200 gpm at speeds of 3 to 25 mph	•	
• Auto shut-off	•	
• Soft startup	•	
Stainless Steel Spray Heads:		
• Resists corrosion	•	
• Maintenance free	•	
• Patented design	•	
Independent Hydraulic Cooling System:		
• Minimizes overheating	•	
Water Cannon:		
• Hydraulically controlled	•	
• Optional nozzles		•
• Integrated joystick with cab controls	•	
WDS Camera System: includes three cameras, three camera washers and cable assemblies		
		•

Parts & service available through global Cat dealer network

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

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

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