



CAT[®] 770

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 9,000 gallons (34 000 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.

OPERATOR EXPERIENCE

A truck is only as productive as its operator — so we've updated the 770 with some key features to help old and new operators be comfortable and confident while operating the truck. Convenient automatic temperature control and powered left side window. Low-effort access getting in and out of the cab with ample stand up room. Cat Comfort Seat with air suspension and excellent adjustability.

FUEL SAVINGS

Fuel savings are achieved by reducing power between 0.15 to 15% during all phases of operation. Part throttle shifting has the benefit of saving fuel — it no longer needs to apply fuel towards overcoming lost momentum between shifts.

SAFETY BUILT IN

As we design a truck, we take the safety of the operator and personnel working on the ground very seriously. Ground level and platform accessible daily check points. Excellent visibility. Solid, stable walking/working platforms with good traction, material shedding, handrails. And the new Traction Control System, returns the truck to solid footing sooner.

SIMPLE SERVICE

This truck is designed to provide operators and technicians with easy access to common service points like engine lockout, machine system lockout, fluid level sight gauges, grease fittings, and access to the engine for regularly scheduled maintenance.

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)



770 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® C15	
Rated Engine Speed	1,700 rpm	
Gross Power - SAE J1995	384 kW	515 hp
Net Power - SAE J1349	356 kW	477 hp
Number of Cylinders	6	
Bore	137 mm	5.4 in
Stroke	171 mm	6.7 in
Displacement	15.2 L	927.6 in ³

- Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.
- 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 3000 m (9,843 ft) altitude.
- Meets U.S. EPA Tier 4 and EU Stage V emission standards.
- Meets Japan Small Volume Exemption.

Operating Weights – all configurations

Target Gross Machine Weight	71 214 kg	157,000 lb
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Operating Weights – with Hoist Cylinders (LRC)

Bare Chassis Weight	25 023 kg	55,166 lb
Payload	46 191 kg	101,834 lb
Front Axle Bare Chassis Weight	15 014 kg	33,100 lb
Front Axle Payload	9199 kg	20,280 lb
Rear Axle Bare Chassis Weight	10 009 kg	22,066 lb
Rear Axle Payload	36 988 kg	81,544 lb

Operating Weights – without Hoist Cylinders (LRC)

Bare Chassis Weight	24 656 kg	54,357 lb
Payload	46 558 kg	102,643 lb
Front Axle Bare Chassis Weight	14 794 kg	32,614 lb
Front Axle Payload	9419 kg	20,766 lb
Rear Axle Bare Chassis Weight	9862 kg	21,743 lb
Rear Axle Payload	37 139 kg	81,877 lb

Operating Weights – with Hoist Cylinders (HRC)

Bare Chassis Weight	25 546 kg	56,319 lb
Payload	45 668 kg	100,681 lb
Front Axle Bare Chassis Weight	15 328 kg	33,792 lb
Front Axle Payload	8885 kg	19,588 lb
Rear Axle Bare Chassis Weight	10 218 kg	22,528 lb
Rear Axle Payload	36 783 kg	81,092 lb

Operating Weights – without Hoist Cylinders (HRC)

Bare Chassis Weight	25 179 kg	55,510 lb
Payload	46 035 kg	101,490 lb
Front Axle Bare Chassis Weight	15 107 kg	33,306 lb
Front Axle Payload	9105 kg	20,074 lb
Rear Axle Bare Chassis Weight	10 072 kg	22,204 lb
Rear Axle Payload	36 930 kg	81,416 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

18.00R33 (E4)

- Productive capabilities of the 770G 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 evaluates all job conditions and consults the tire manufacturer for proper tire selection.

Weight Distributions – Approximate

Front Axle – Empty	49%
Front Axle – Loaded	34%
Rear Axle – Empty	51%
Rear Axle – Loaded	66%

Final Drives

Differential Ratio	1.92:1
Planetary Ratio	4.80:1
Total Reduction Ratio	9.26:1

Brakes

Brake Surface – Front	1395 cm ²	216 in ²
Brake Surface – Rear	40 225 cm ²	6,235 in ²
Brake Standards	ISO 3450:2011	

Transmission

Forward 1	11.9 km/h	7.4 mph
Forward 2	16.3 km/h	10.1 mph
Forward 3	22.2 km/h	13.8 mph
Forward 4	29.8 km/h	18.5 mph
Forward 5	40.4 km/h	25.1 mph
Forward 6	54.4 km/h	33.8 mph
Forward 7	73.7 km/h	45.8 mph
Reverse	14.2 km/h	8.8 mph

- Maximum travel speeds with standard 18.00R33 (E4) tires.

770 Off-highway Truck Bare Chassis Specifications

Body Hoists

Pump Flow – High Idle	448 L/min	118 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	7.5 seconds	
Body Lower Time – Float	10 seconds	
Body Power Down – High Idle	10 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

Cab

ROPS Certification Rating	Tractor ROPS Rating	
770G WTR (Tractor)	35 122 kg	77,430 lb

- ROPS (Roll Over Protective Structure) for cab offered by Caterpillar meets ISO 3471:1994 ROPS criteria.
- Falling Objects Protective Structure (FOPS) meets ISO 3449:2005 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.

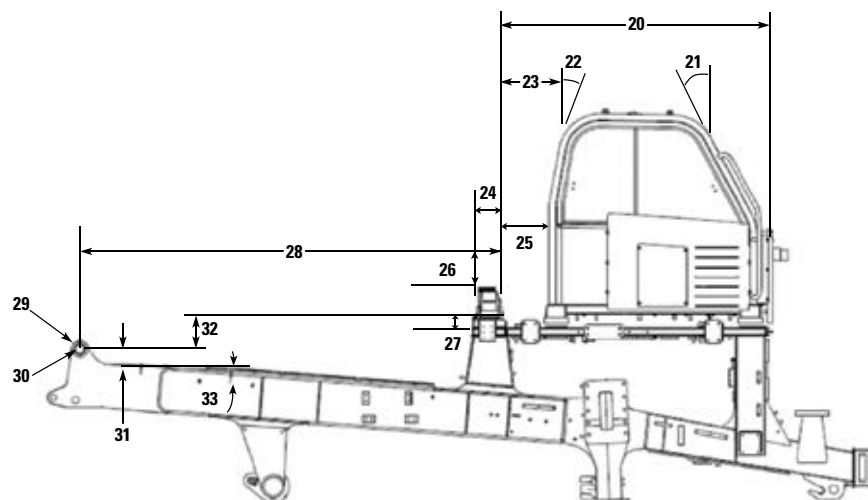
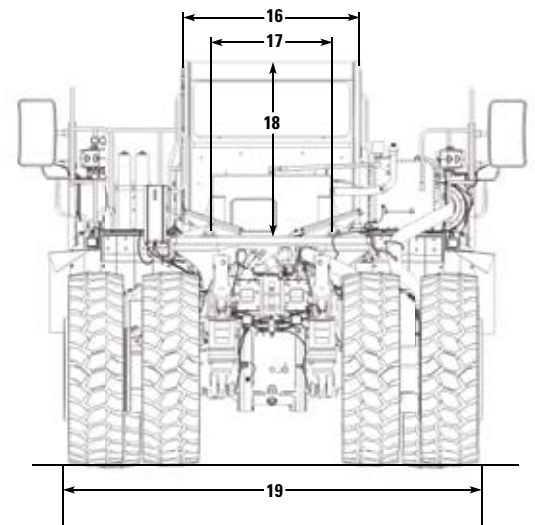
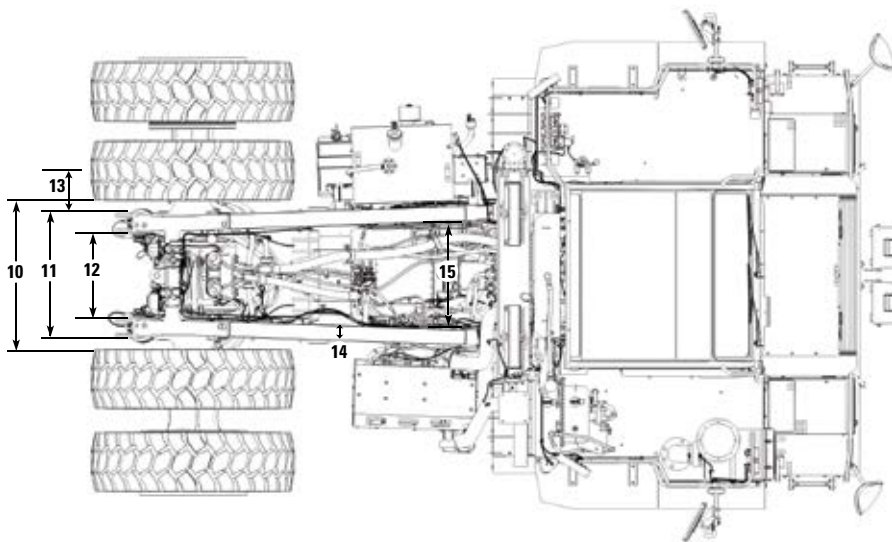
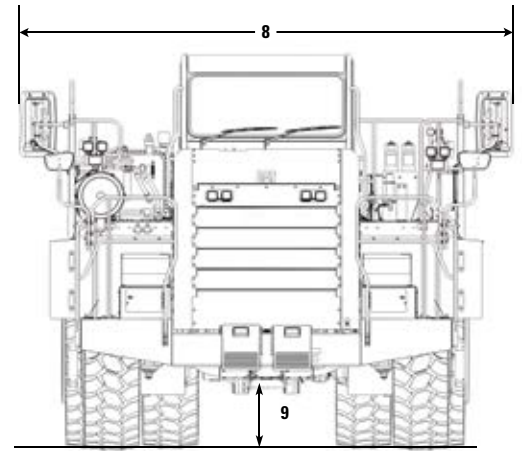
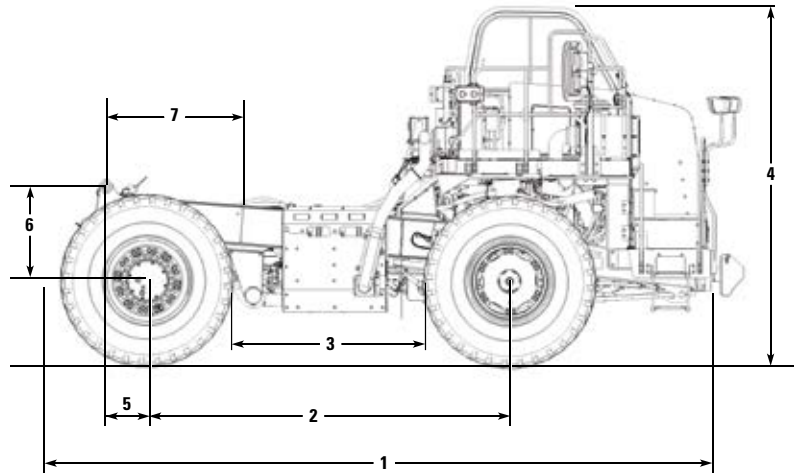
Suspension

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°	

770 Off-highway Truck Bare Chassis Specifications

Dimensions

All dimensions are approximate.



770 Off-highway Truck Bare Chassis Specifications

Dimensions

1	Overall Length ** (does not include Wheel Chocks)	7449 mm	293.27 in
2	Wheel Base	3952 mm	155.59 in
3	Distance between Tires	2091 mm	82.32 in
4	Height to Top of ROPS **	3958 mm	155.83 in
5	Rear Axle to Body Pivot	454 mm	17.87 in
6	Vertical Distance Between Body Pivot and Rear Axle	1023 mm	40.28 in
7	Distance between Body Pivot and Hoist Cylinders - Horizontal	1224 mm	48.19 in
8	Overall Width	4971 mm	195.71 in
9	Engine Guard Clearance **	542 mm	21.34 in
10	Distance Between Hoist Cylinders	1144 mm	45.04 in
11	Distance Between Body Pivots - Outer	784 mm	30.87 in
12	Distance Between Body Pivots - Inner	551 mm	21.69 in
13	Body Pivot Bearing Width	180 mm	7.09 in
14	Frame Rail Width	139 mm	5.47 in
15	Distance Between Frame Rails	1006 mm	39.61 in
16	Cab Width	1691 mm	66.57 in
17	Distance between Rocker Pads	1200 mm	47.24 in
18	Height of the Cab from Main Beam	1695 mm	66.73 in
19	Overall Tire Width	3693 mm	145.39 in
20	Distance Between Main Beam and Cab Front	2208 mm	86.93 in
21	Cab Front Angle		28.5 degrees
22	Cab Rear Angle		10 degrees
23	Distance between Main Beam and Cab Roof	437 mm	17.20 in
24	Main Beam Width	283 mm	11.14 in
25	Distance Between Main Beam and Cab REAR	314 mm	12.36 in
26	Rocker Pad Height	268 mm	10.55 in
27	Main Beam Height	80 mm	3.15 in
28	Distance Between Body Pivot and Main Beam	3273 mm	128.86 in
29	Body Pivot Outer Radius	133.7 mm	5.26 in
30	Body Pivot Pin Diameter	75.6 mm	2.98 in
31	Distance Between Body Pivot and Frame	112 mm	4.41 in
32	Distance between Main Beam and Body Pivot Pin	249 mm	9.80 in
33	Frame Slope Angle		4.1 degrees

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

770 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		
Air-To-Air Aftercooler (ATAAC)	•		Air conditioning/heat	•	
Air cleaner with precleaner (1)	•		Ashtray and cigarette lighter	•	
Automatic cold mode idle control	•		Automatic temperature control	•	
Electric start	•		Coat hook	•	
Engine idle shutdown	•		Cup holders (4)	•	
Ether started aided	•		Diagnostic connection port, 24V	•	
Exhaust muffler	•		Entertainment radio ready:		
Global off-highway aluminium radiator	•		• 5 amp converter	•	
Braking System			• Speakers	•	
• Automatic Retarder Control (ARC)	•		• Antenna	•	
• Manual retarder (utilizes rear oil-cooled, multiple disc brakes)	•		• Wiring harness	•	
• Brake release motor (towing)	•		Gauges and indicators panel:		
• Dry disc brakes (front)	•		• Air cleaner service indicator – electronic	•	
• Front brake disconnect switch (front)	•		• Brake oil temperature gauge	•	
• Oil-cooled, multiple disc (rear)	•		• Coolant temperature gauge	•	
• Brake wear indicator	•		• Hour meter	•	
• Parking, secondary, service brake	•		• Tachometer	•	
Transmission:			• Engine overspeed indicator	•	
• 7 speed automatic powershift with electronic clutch pressure control	•		• Fuel level	•	
• Advanced productivity electronic control strategy (APECS)	•		• Speedometer with odometer	•	
• Automatic neutral idle	•		• Transmission gear indicator	•	
• Autostall	•		Hoist lever	•	
• Second gear start	•		Horn	•	
ELECTRICAL			Light – dome	•	
Alarm backup	•		Light – courtesy	•	
Alternator, 120 amp	•		Load counter, automatic	•	
Auxiliary jump start receptacle	•		Mirrors (heated)	•	
Batteries, maintenance-free, 12V, 1400 CCA combined	•		Power port, 24V and 12V	•	
Electrical system, 25 amp, 24V to 12V converter	•		ROPS cab, insulated/sound suppressed	•	
Lighting System:			Cat Deluxe Seat:		
• Backup light (halogen)	•		• full air suspension	•	
• Directional signals/hazard warning (front and rear LED)	•		• heated/ventilated	•	
• Engine compartment light	•		• retractable 4 point seat belt with shoulder harness	•	
• Headlights with dimmer	•		Seat (training) with lap belt		
• Side profile lights	•		Steering wheel, padded, tilt and telescopic	•	
• Operator access courtesy lights	•		Storage compartment	•	
• Stop/tail lights, LED	•		Sun visor	•	
Battery jump start	•		Throttle lock	•	
Breakers, electrical	•		Window, sliding, right side(Emergency exit)	•	
Lockout switch	•		Window, powered, left side	•	
Ports, ET and VIMS	•		Windshield wiper (intermittent) and washer	•	
Service lockout switch (power without engine start)	•				

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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	•	
Rims 13 x 33	•	
Secondary steering (electric)	•	
Tie down eyes	•	
Tow hooks, front/tow pin, rear	•	
Vandalism protection locks	•	

CAT TECHNOLOGY PRODUCTS		
Product Link Ready	•	
Economy Modes (standard and adaptive)	•	
Payload System (TPMS)	•	
Vital Info Management System (VIMS)	•	
Tire monitoring system (TKPH/TMPH)	•	
Product Link		•
Traction Control System		•

FLUIDS & FILTERS		
Extended life coolant, -35° C (-30° F)	•	
Grouped ground-level filters	•	

	Standard	Optional
OPTIONAL EQUIPMENT		
Auto Lube		•
Rear vision camera (WAVS)		•
Wheel chocks		•
Payload readout		•
Payload indicator (display)		•

For more information on Cat Truck Bare Chassis, contact OEM Solutions:
oem_solutions@cat.com | www.cat.com/oemsolutions

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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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