



CAT[®] 775

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 15,000 gallons (56 775 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 775 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)



775 Off-highway Truck Bare Chassis Specifications

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

Engine (Tier 2 Equivalent) – LRC

| | | |
|-------------------------|-----------|-----------------------|
| Engine Model | Cat® C27 | |
| Rated Engine Speed | 2,000 rpm | |
| Gross Power - SAE J1995 | 615 kW | 825 hp |
| Net Power - SAE J1349 | 584 kW | 683 hp |
| Net Torque | 3896 N·m | 2,874 lb-ft |
| Bore | 137 mm | 5.4 in |
| Stroke | 152 mm | 6 in |
| Displacement | 27 L | 1,648 in ³ |

Engine (Tier 4/Stage V) – HRC

| | | |
|-------------------------|-----------|-----------------------|
| Engine Model | Cat® C27 | |
| Rated Engine Speed | 1,800 rpm | |
| Gross Power - SAE J1995 | 615 kW | 825 hp |
| Net Power - SAE J1349 | 572 kW | 768 hp |
| Net Torque | 4269 N·m | 3,148 lb-ft |
| Bore | 137 mm | 5.4 in |
| Stroke | 152 mm | 6 in |
| Displacement | 27 L | 1,648 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 3048 m (10,000 ft) for Tier 4/Stage V and 3810 m (12,500 ft) for Tier 2 Equivalent.

Operating Weights – all configurations

| | | |
|-----------------------------|------------|------------|
| Target Gross Machine Weight | 111 811 kg | 246,502 lb |
|-----------------------------|------------|------------|

Operating Weights – with Hoist Cylinders (LRC)

| | | |
|--------------------------------|-----------|------------|
| Bare Chassis Weight | 34 621 kg | 76,326 lb |
| Payload | 77 191 kg | 170,177 lb |
| Front Axle Bare Chassis Weight | 21 500 kg | 47,399 lb |
| Front Axle Payload | 27 017 kg | 59,562 lb |
| Rear Axle Bare Chassis Weight | 13 121 kg | 28,928 lb |
| Rear Axle Payload | 66 461 kg | 146,521 lb |

Operating Weights – without Hoist Cylinders (LRC)

| | | |
|--------------------------------|-----------|------------|
| Bare Chassis Weight | 34 073 kg | 75,118 lb |
| Payload | 77 739 kg | 171,385 lb |
| Front Axle Bare Chassis Weight | 21 159 kg | 46,648 lb |
| Front Axle Payload | 27 209 kg | 59,985 lb |
| Rear Axle Bare Chassis Weight | 12 914 kg | 28,470 lb |
| Rear Axle Payload | 50 530 kg | 111,400 lb |

Operating Weights – with Hoist Cylinders (HRC)

| | | |
|--------------------------------|-----------|------------|
| Bare Chassis Weight | 35 281 kg | 77,781 lb |
| Payload | 76 531 kg | 168,722 lb |
| Front Axle Bare Chassis Weight | 22 086 kg | 48,691 lb |
| Front Axle Payload | 26 786 kg | 59,053 lb |
| Rear Axle Bare Chassis Weight | 13 195 kg | 29,090 lb |
| Rear Axle Payload | 49 745 kg | 109,669 lb |

Operating Weights – without Hoist Cylinders (HRC)

| | | |
|--------------------------------|-----------|------------|
| Bare Chassis Weight | 34 733 kg | 76,573 lb |
| Payload | 77 079 kg | 169,930 lb |
| Front Axle Bare Chassis Weight | 21 743 kg | 47,935 lb |
| Front Axle Payload | 26 978 kg | 59,475 lb |
| Rear Axle Bare Chassis Weight | 12 990 kg | 28,638 lb |
| Rear Axle Payload | 50 101 kg | 110,454 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

24.00R35 (E4)

- Productive capabilities of the 775G 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 | 50 % |
| Front Axle – Loaded | 34 % |
| Rear Axle – Empty | 50 % |
| Rear Axle – Loaded | 66 % |

Final Drives

| | |
|-----------------------|---------|
| Differential Ratio | 3.64:1 |
| Planetary Ratio | 4.80:1 |
| Total Reduction Ratio | 17.49:1 |

775 Off-highway Truck Bare Chassis Specifications

Brakes

| | | |
|-----------------------|------------------------|-----------------------|
| Brake Surface – Front | 655 cm ² | 257 in ² |
| Brake Surface – Rear | 61 269 cm ² | 9,497 in ² |
| Brake Standards | ISO 3450:2011 | |

Transmission (Tier 2 Equivalent)

| | | |
|-----------|-----------|----------|
| Forward 1 | 10.8 km/h | 6.7 mph |
| Forward 2 | 15.1 km/h | 9.4 mph |
| Forward 3 | 20.4 km/h | 12.7 mph |
| Forward 4 | 27.4 km/h | 17 mph |
| Forward 5 | 37 km/h | 23 mph |
| Forward 6 | 50.1 km/h | 31.1 mph |
| Forward 7 | 67.6 km/h | 42 mph |
| Reverse | 14.1 km/h | 8.8 mph |

Transmission (Tier 4/Stage V)

| | | |
|-----------|-----------|----------|
| Forward 1 | 10.6 km/h | 6.6 mph |
| Forward 2 | 15 km/h | 9.3 mph |
| Forward 3 | 20.3 km/h | 12.6 mph |
| Forward 4 | 27 km/h | 16.8 mph |
| Forward 5 | 36.7 km/h | 22.8 mph |
| Forward 6 | 49.4 km/h | 30.7 mph |
| Forward 7 | 66.9 km/h | 41.6 mph |
| Reverse | 14 km/h | 8.7 mph |

- Maximum travel speeds with standard 24.00R35 (E4) tires.

Body Hoists (Tier 2 Equivalent)

| | | |
|------------------------------|-------------|-------------|
| Pump Flow – High Idle | 448 L/min | 118 gal/min |
| Relief Valve Setting – Raise | 17 250 kPa | 2,502 psi |
| Relief Valve Setting – Lower | 3450 kPa | 500 psi |
| Body Raise Time – High Idle | 9.5 seconds | |
| Body Lower Time – Float | 13 seconds | |
| Body Power Down – High Idle | 13 seconds | |

Body Hoists (Tier 4/Stage V)

| | | |
|------------------------------|------------|-------------|
| Pump Flow – High Idle | 448 L/min | 118 gal/min |
| Relief Valve Setting – Raise | 17 250 kPa | 2,502 psi |
| Relief Valve Setting – Lower | 3450 kPa | 500 psi |
| Body Raise Time – High Idle | 10 seconds | |
| Body Lower Time – Float | 14 seconds | |
| Body Power Down – High Idle | 14 seconds | |

Service Refill Capacities

| | | |
|--|-------|----------|
| Fuel Tank | 795 L | 210 gal |
| Cooling System | 171 L | 45 gal |
| Crankcase | 90 L | 24 gal |
| Differentials and Final Drives | 145 L | 38 gal |
| Steering Tank | 36 L | 9.5 gal |
| Steering System (includes tank) | 54 L | 14 gal |
| Brake/Hoist Hydraulic Tank | 176 L | 46.5 gal |
| Brake/Hoist System | 322 L | 85 gal |
| Torque Converter/Transmission System (HRC) | 70 L | 18 gal |
| Torque Converter/Transmission System (LRC) | 61 L | 16 gal |

Steering

| | | |
|-----------------------------------|---------------|---------|
| Steering Standards | ISO 5010:2007 | |
| Steer Angle | 31° | |
| Turning Diameter – Front | 23.5 m | 77.1 ft |
| Turning Circle Clearance Diameter | 26.1 m | 85.6 ft |

Cab

| | | |
|---------------------------|---------------------|-----------|
| ROPS Certification Rating | Tractor ROPS Rating | |
| 775G WTR (Tractor) | 45 051 kg | 99,320 lb |

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

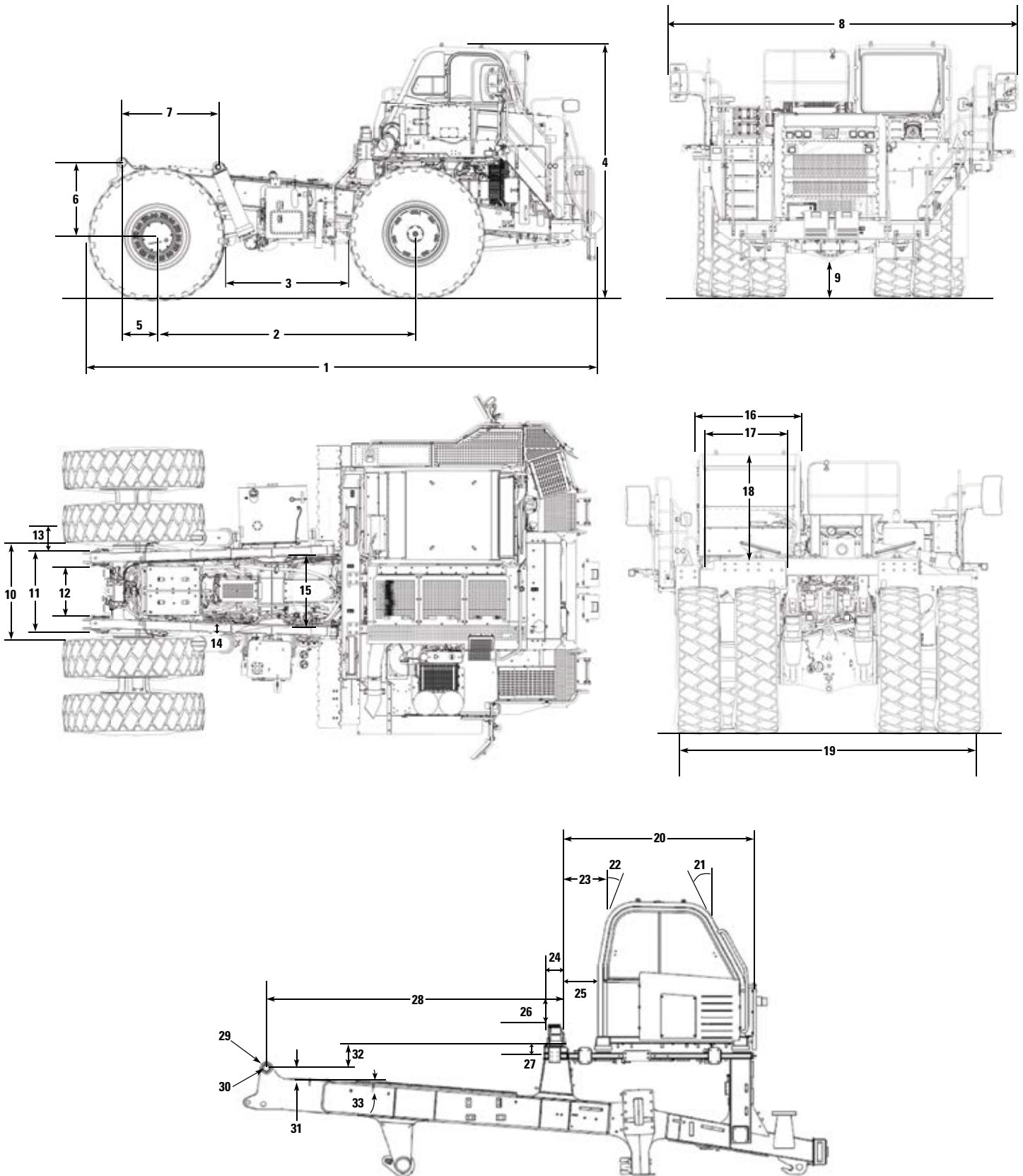
Suspension

| | | |
|------------------------------------|--------|--------|
| Empty Loaded Cylinder Stroke Front | 234 mm | 9.2 in |
| Empty Loaded Cylinder Stroke Rear | 149 mm | 5.8 in |
| Rear Axle Oscillation | 8.1° | |

775 Off-highway Truck Bare Chassis Specifications

Dimensions

All dimensions are approximate.



775 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 | Rear Axle to Body Pivot | 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.

775 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 | | |
| C27 diesel engine: air cleaner with precleaner (2), air-to-air aftercooler (ATAAC), electric start, engine idle shutdown, ether starting aid, exhaust muffler, NGMR radiator | • | | Advisor display: air cleaner service indicator, fluid level monitoring, fuel level monitoring, display languages (market based) | • | |
| Braking system: extended life brakes, automatic retarder control (ARC), manual retarder (utilizes rear oil-cooled, multiple disc brakes), brake release motor (towing), dry disc brakes (front), front brake disconnect switch (front), oil-cooled multiple disc brakes (rear), brake wear indicator (rear), parking brake, secondary brake, service brake | • | | Air conditioning/heat | • | |
| Cat® engine brake | | • | Ashtray and cigarette lighter | • | |
| Direct drive fan, MEUI™-A fuel system | • | | Automatic temperature control | • | |
| Engine idle shutdown | • | | Cab precleaner | | • |
| Radiator, next generation module | • | | Coat hook | • | |
| Transmission: 7-speed automatic powershift with – Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS); automatic neutral idle, autostall, second gear start | • | | Cup holders (4) | • | |
| | | | Diagnostic connection port, 24V | • | |
| | | | Foot rest | • | |
| | | | Entertainment radio ready: | | |
| | | | • 5 amp converter | • | |
| | | | • Speakers | • | |
| | | | • Antenna | • | |
| | | | • Wiring harness | • | |
| | | | Gauges and indicators panel: | | |
| | | | • Air cleaner service indicator | • | |
| | | | • Brake oil temperature gauge | • | |
| | | | • Coolant temperature gauge | • | |
| | | | • Hour meter | • | |
| | | | • Tachometer | • | |
| | | | • Engine overspeed indicator | • | |
| | | | • Fuel level | • | |
| | | | • Speedometer with odometer | • | |
| | | | • Transmission gear indicator | • | |
| | | | Hoist lever | • | |
| | | | Horn, electric | • | |
| | | | Light – dome | • | |
| | | | Light – courtesy | • | |
| | | | Mirrors (non-heated) | • | |
| | | | Mirrors (heated) | | • |
| | | | Power port, 24V and 12V (2) | • | |
| | | | Rollover protection (ROPS)/ Falling object protection (FOPS) | • | |
| | | | ROPS certification ISO tractor | • | |
| | | | Seat, Cat Comfort Series III: full air suspension, retractable 3-point seat belt with shoulder harness | • | |
| | | | Seat, training, with lap belt | • | |
| | | | Steering wheel, padded, tilt and telescopic | • | |
| | | | Storage compartment | • | |
| | | | Sun visor | • | |
| | | | Throttle lock | • | |
| | | | Visibility package (meets ISO 5006 requirements) | | • |
| | | | Window, hinged, right side (emergency exit) | • | |
| | | | Window, powered, left side | • | |
| | | | Windshield wiper (intermittent) and washer | • | |
| ELECTRICAL | | | | | |
| Alarm backup | • | | | | |
| Alternator, 120 amp | • | | | | |
| Autolube power supply ready | • | | | | |
| Batteries, maintenance-free, 12V (2), 1400 CCA combined | • | | | | |
| Electrical system, 25 AMP, 24V to 12V converter | • | | | | |
| Lighting system: backup light (halogen), directional signals/hazard warning (front and rear LED), engine compartment light, headlights (halogen) with dimmer, operator access courtesy lights, side profile lights, stop/tail lights (LED) | • | | | | |
| Service center containing: battery jump start, breakers with spare fuses, lockout switch, ports – ET and VIMS™, service lockout switch (power without engine start) | • | | | | |

775 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 EQUIPMENT | | |
| Guards: | | |
| • Driveline | • | |
| • Engine crankcase | • | |
| • Fan | • | |
| Antifreeze | • | |
| Body down indicator | • | |
| Body safety pin (secures body in up position) | • | |
| Center mounted rims | • | |
| Clustered grease fittings | | • |
| Cold weather packages | | • |
| Fluid fill service center | | • |
| Fuel tank, 795 L (210 gal) | • | |
| Ground level battery disconnect | • | |
| Ground level engine shutdown | • | |
| Ground level grease fittings | • | |
| Grouped ground-level filters | • | |
| Operator Maintenance Manual (OMM) | • | |
| Rims 17 × 35 | • | |
| Rock ejectors | • | |
| Secondary steering (electric) | • | |
| Spare rim | | • |
| Suspension, front and rear (EU compliant) | • | |
| Tie down eyes | • | |
| Tow hooks, front/tow pin, rear | • | |
| Wheel chocks | | • |
| Vandalism protection locks | • | |

| | Standard | Optional |
|--------------------------------------|----------|----------|
| CAT TECHNOLOGY PRODUCTS | | |
| Product Link™, cellular or satellite | • | |
| Economy modes, standard and adaptive | • | |
| Advanced Health | • | |
| Truck Production Management System | • | |
| Traction Control System (TCS) | • | |
| Work Area Vision System (WAVS) | | • |

| FLUIDS | | |
|--|---|--|
| Extended life coolant, -34° C (-30° F) | • | |

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