



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
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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.

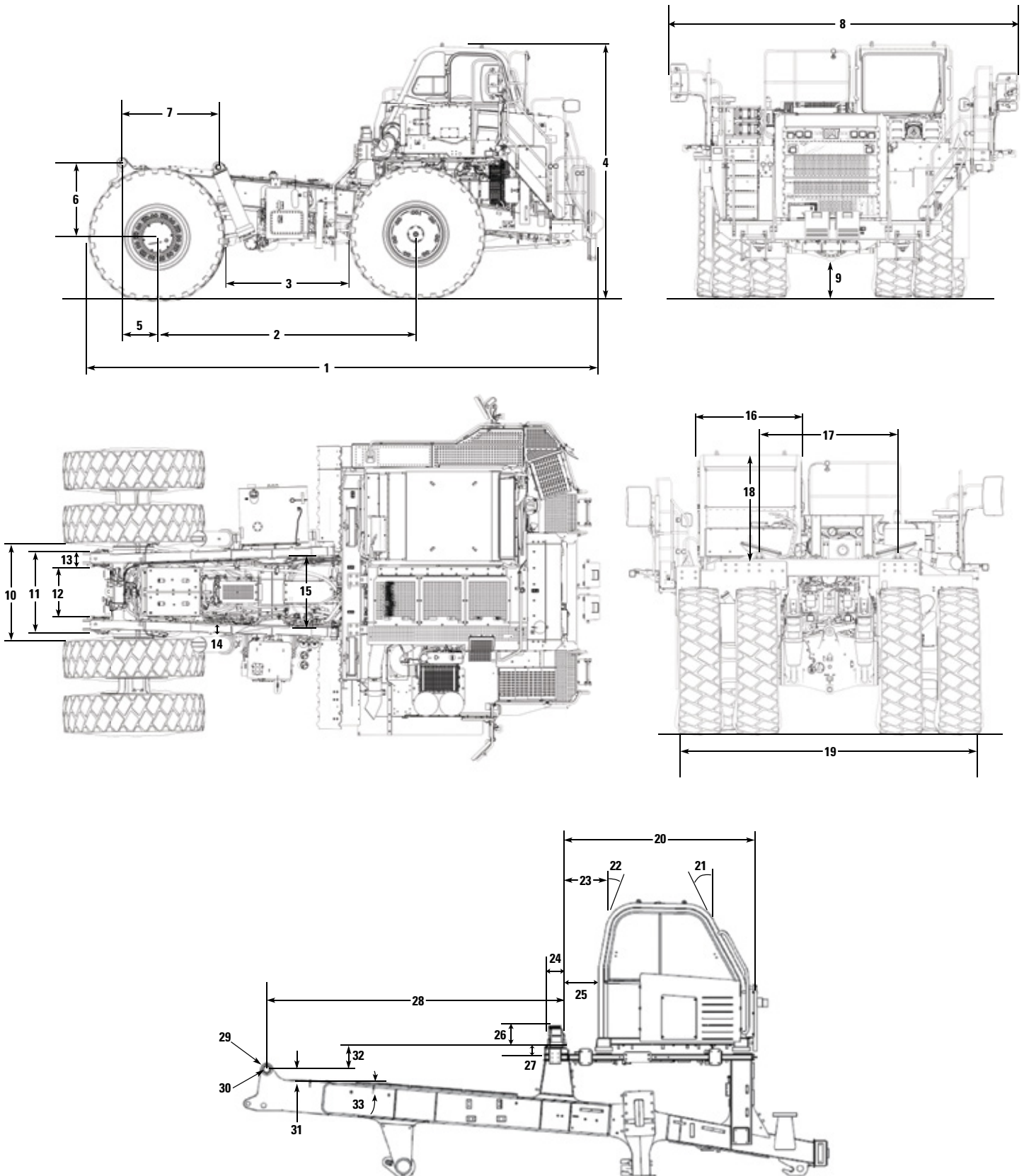
Suspension

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)	8248 mm	27 ft 1 in
2	Wheel Base	4215 mm	13 ft 10 in
3	Distance Between Tires	2023 mm	6 ft 8 in
4	Height to Top of ROPS **	4108 mm	13 ft 6 in
5	Rear Axle to Body Pivot	580 mm	1 ft 11 in
6	Vertical Distance Between Body Pivot and Rear Axle	1120 mm	3 ft 8 in
7	Distance Between Body Pivot and Hoist Cylinders - Horizontal	1586 mm	5 ft 2 in
8	Overall Width	5673 mm	18 ft 7 in
9	Engine Guard Clearance **	703 mm	2 ft 4 in
10	Distance Between Hoist Cylinders	1585 mm	5 ft 2 in
11	Distance Between Body Pivots - Outer	1187 mm	3 ft 11 in
12	Distance Between Body Pivots - Inner	890 mm	2 ft 11 in
13	Body Pin Bearing Width	148.5 mm	0 ft 6 in
14	Frame Rail Width	140 mm	0 ft 5 in
15	Distance Between Frame Rails	1086 mm	3 ft 7 in
16	Cab Width	1597 mm	5 ft 3 in
17	Distance Between Rocker Pads	2064 mm	6 ft 9 in
18	Height of the Cab from Main Beam	1555 mm	5 ft 1 in
19	Overall Tire Width	4411 mm	14 ft 6 in
20	Distance Between Main Beam and Cab Front	2350 mm	7 ft 8 in
21	Cab Front Angle		16 degrees
22	Cab Rear Angle		23 degrees
23	Distance Between Main Beam and Cab Roof	697 mm	2 ft 2 in
24	Main Beam Width	303 mm	1 ft 0 in
25	Distance Between Main Beam and Cab Rear	68.5 mm	0 ft 3 in
26	Rocker Pad Height	252.7 mm	0 ft 10 in
27	Main Beam Height	263.5 mm	0 ft 10 in
28	Distance Between Body Pivot and Main Beam	4025 mm	13 ft 2 in
29	Body Pivot Outer Radius	76.4 mm	0 ft 3 in
30	Body Pivot Pin Diameter	75.6 mm	0 ft 3 in
31	Distance Between Body Pivot and Frame	158 mm	0 ft 6 in
32	Distance Between Main Beam and Body Pivot Pin	82.5 mm	0 ft 3 in
33	Frame Slope Angle		5.5 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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