

Cat[®] 797F

MINING TRUCK



Specifications

Engine

Engine Model	Cat [®] C175-20	
Gross Power – SAE J1995:2015	2983 kW	4,000 hp
Net Power – SAE J1349:2011	2981 kW	3,887 hp
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	106 L	6,469 in ³

- Power ratings apply at 1,750 rpm when tested under the specific conditions for the specified standard.
- Ratings based on SAE J1995 standard air conditions of 25° C (77° F) and 99 kPa (29.32 Hg) barometer. Power based on fuel having API gravity of 35 at 16° C (69° F) and an LHV of 42 780 kJ/kg (18,390 Btu/lb) when engine is used at 30° C (38° F).
- No low altitude arrangement (LAA) engine derating required up to 2134 m (7,000 ft) altitude.
- Emission Standards. The Cat C175-20 engine meets U.S. EPA Tier 4 Final emission standards.

Weights – Approximate

Target Gross Machine Operating Weight (GMW)	623 690 kg	1,375,000 lb
Body Weight Range	42 620-44 500 kg	93,960-98,110 lb
Chassis Weight Range	216 860-220 440 kg	478,100-486,000 lb

- Refer to the Cat Mining Truck 10/10/20 Payload Policy for maximum gross machine weight limitations.
- Body weight varies depending on body and liner configuration. Weight range for known applications.
- Chassis weight with 100 percent fuel, hoist, body mounting group, rims and tires.

Operating Specifications

Nominal Payload Capacity	363 tonnes	400 tons
Heaped 2:1 Capacity – ISO 6483:1980	240-267 m ³	314-350 yd ³
Top Speed – Loaded	67.6 km/h	42 mph
Steer Angle	40 Degrees	
Machine Clearance Turning Diameter	42 m	138 ft

Final Drives

Differential Ratio	1.276:1
Planetary Ratio	16.67:1
Total Reduction Ratio	21.26:1

- Double reduction, planetary with full floating axles.

Transmission

Forward 1	11.3 km/h	7 mph
Forward 2	15.2 km/h	9.5 mph
Forward 3	20.5 km/h	12.7 mph
Forward 4	27.7 km/h	17.2 mph
Forward 5	37.2 km/h	23.1 mph
Forward 6	50.3 km/h	31.2 mph
Forward 7	67.6 km/h	42 mph
Reverse	11.9 km/h	7.4 mph

Suspension

Effective Cylinder Stroke – Front	313.6 mm	12.3 in
Effective Cylinder Stroke – Rear	165.1 mm	6.5 in
Rear Axle Oscillation	±4.0 degrees	

Body Hoists

Pump Flow – High Idle	1200 L/min	317 gal/min
Relief Valve Setting – Raise	24 200 kPa	3,510 psi
Body Raise Time – High Idle	25 Seconds	
High Idle Body Lower Time – Float	19 Seconds	

Brakes

Number of Discs per Side – Front	10	
Number of Discs per Side – Rear	15	
Outside Diameter	1067 mm	42 in
Brake Surface	330 517 cm ²	51,243 in ²
Standards	ISO 3450:1996	

Approximate Weights – HP Body

Front Axle – Empty	47.2%
Front Axle – Loaded	33.3%
Rear Axle – Empty	52.8%
Rear Axle – Loaded	66.7%

Weight Distributions – Approximate

Front Axle – Empty	47.2%
Rear Axle – Empty	52.8%
Front Axle – Loaded	33.3%
Rear Axle – Loaded	66.7%



797F Mining Truck

Capacity – 100% Fill Factor

Struck	188-213 m ³	246-290 yd ³
Heaped 2:1 Capacity – ISO 6483:1980	240-267 m ³	314-350 yd ³

- Consult your local Cat dealer for truck body recommendations.

Service Refill Capacities

Fuel Tank	4540 L	1,200 gal
DEF Tank	375 L	99 gal
Cooling System	1160 L	306 gal
Crankcase	319 L	84 gal
Front Wheels, Each	61 L	16 gal
Final Drives, Each	185 L	49 gal
Differentials	1176 L	311 gal
Steering Tank	254 L	67 gal
Steering System (Includes Tank)	355 L	94 gal
Brake/Hoist Hydraulic Lines	830 L	219 gal
Brake/Hoist System (Includes Tank)	1600 L	441 gal
Brake/Hoist Tank	770 L	203 gal
Torque Converter Sump	303 L	80 gal
Torque Converter/Transmission System (Includes Sump)	629 L	166 gal

Tires

Tire	59/80R63 – Michelin or Bridgestone
------	------------------------------------

- Productive capabilities of the 797F are such that, under certain job conditions, TKPH (TMPH) capabilities of standard tires could be exceeded and, therefore, limit production.

ROPS

ROPS Standards

- ROPS (Rollover 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.

Sound

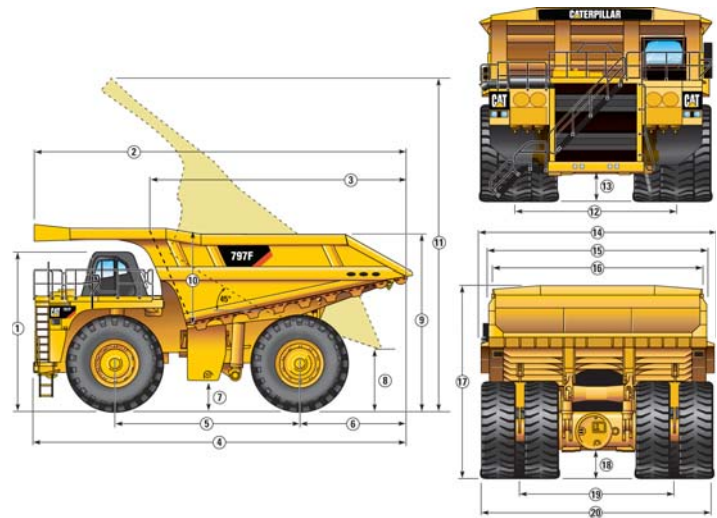
Sound Standards

- The operator sound pressure level measured according to work cycle procedures specified in ISO 6394:2008 is 74 dB(A) and 6396:2008 is 75.5 dB(A) for cab offered by Caterpillar when properly installed and maintained and tested with doors and windows closed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

Steering

Steering Standards

ISO 5010:2007



Dimensions (All dimensions are approximate)

Dimensions are with body 507-1580.

1 Height to Top of ROPS – Empty	6526 mm	21 ft 5 in
2 Overall Body Length	15 583 mm	51 ft 2 in
3 Inside Body Length	9976 mm	32 ft 9 in
4 Overall Length	15 583 mm	51 ft 2 in
5 Wheelbase	7195 mm	23 ft 7 in
6 Rear Axle to Tail	3944 mm	12 ft 11 in
7 Loaded Ground Clearance	786 mm	2 ft 7 in
8 Dump Clearance	1768 mm	5 ft 10 in
9 Loading Height – Empty	6786 mm	22 ft 3 in
10 Inside Body Depth – Maximum	3363 mm	11 ft 0 in
11 Overall Height – Body Raised	15 485 mm	50 ft 10 in
12 Centerline Front Tire Width	6534 mm	21 ft 5 in
13 Engine Guard Clearance – Loaded	1025 mm	3 ft 4 in
14 Outside Body Width	10 393 mm	34 ft 1 in
15 Overall Canopy Width	10 393 mm	34 ft 1 in
16 Inside Body Width	9036 mm	29 ft 8 in
17 Front Canopy Height – Empty	7630 mm	25 ft 0 in
18 Rear Axle Clearance – Loaded	947 mm	3 ft 1 in
19 Centerline Rear Dual Tire Width	6233 mm	20 ft 5 in
20 Overall Tire Width	9529 mm	31 ft 3 in

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

AEHQ8159 (01-2019)

© 2019 Caterpillar
All rights reserved

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

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

