



Cat[®] 797F

MINING TRUCK

Specifications

Engine

| | | |
|-------------------------|-------------|-----------------------|
| Engine Model | Cat C175-20 | |
| Gross Power – SAE J1995 | 2983 kW | 4,000 hp |
| Net Power – SAE J1349 | 2828 kW | 3,793 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.
- No high altitude arrangement (HAA) engine derating required up to 4877 m (16,000 ft) altitude.
- Emission Standards. Where applicable, the Cat C175-20 engine is compliant with current U.S. EPA emission standards.

Weights – Approximate

| | | |
|---|--------------------|--------------------|
| Target Gross Machine Operating Weight (GMW) | 623 690 kg | 1,375,000 lb |
| Body Weight Range | 41 368-61 235 kg | 91,200-135,000 lb |
| Chassis Weight Range | 210 630-219 146 kg | 464,359-483,134 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 SAE (2:1) Capacity | 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 3450:2011 | |

Approximate Weights – MSD II

| | |
|---------------------|-------|
| 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 – MSD II – 100% Fill Factor

| | | |
|------------------|------------------------|-------------------------|
| Struck | 188-213 m ³ | 246-290 yd ³ |
| Heaped (SAE 2:1) | 240-267 m ³ | 314-350 yd ³ |

- Consult your local Cat dealer for truck body recommendations.

Service Refill Capacities

| | | |
|--|--------|-----------|
| Fuel Tank | 3785 L | 1,000 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 3471:2008 ROPS criteria.
- FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II FOPS criteria.

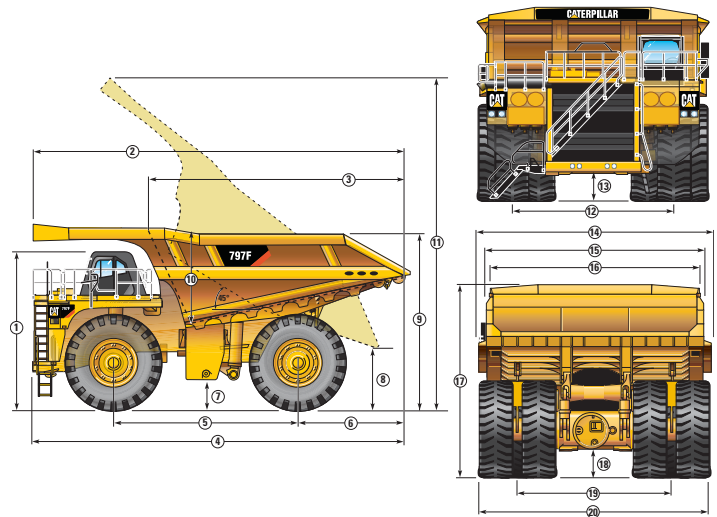
Sound

Sound Standards

- The operator sound pressure level measured according to work cycle procedures specified in ISO 6394:2008 and 6396:2008 is 76 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 standard body 290-6420.

| | | |
|------------------------------------|-----------|-------------|
| 1 Height to Top of ROPS – Empty | 6526 mm | 21 ft 5 in |
| 2 Overall Body Length | 14 802 mm | 48 ft 7 in |
| 3 Inside Body Length | 9976 mm | 32 ft 9 in |
| 4 Overall Length | 15 080 mm | 49 ft 6 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 | 2017 mm | 6 ft 7 in |
| 9 Loading Height – Empty | 6998 mm | 23 ft 0 in |
| 10 Inside Body Depth – Maximum | 3363 mm | 11 ft 0 in |
| 11 Overall Height – Body Raised | 15 701 mm | 51 ft 6 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 | 9755 mm | 32 ft 0 in |
| 15 Overall Canopy Width | 9116 mm | 29 ft 11 in |
| 16 Inside Body Width | 8513 mm | 27 ft 11 in |
| 17 Front Canopy Height – Empty | 7709 mm | 25 ft 4 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

© 2017 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, SAFETY.CAT.COM, their respective logos, “Caterpillar Yellow” and the “Power Edge” trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEHQ5884-07 (05-2017)
Replaces AEHQ5884-06

