



Cat[®] 796 AC

MINING TRUCK

FEATURES:

- **High Performance Engine** – The Cat[®] C175-16 engine offers reliability and durability with proven performance in the large mining truck application.
- **Focus on Safety** – Wide access stairways, service platforms for the engine, traction alternator and control cabinet, four corner wet disc brakes, and industry leading retarding.
- **Enhanced Serviceability** – Open engine and traction alternator access, simplified hydraulics, grouped electrical and hydraulic routing, ground level filters and service points.
- **Reliable AC Electric Drive System** – The Cat AC electric drive power train is Caterpillar designed, integrated and supported.
- **Comfortable Cab** – Operators find the spacious and quiet cab offers excellent visibility with intuitive, easy to learn controls.
- **Truck Body Options** – Caterpillar designed and built bodies provide optimal performance and reliability.

Specifications

Engine

Engine Model	Cat C175-16	
Gross Power – SAE J1995		
Standard	2610 kW	3,500 hp
Optional	2312 kW	3,100 hp
Rated Speed	1,800 rpm	
Net Power – SAE J1349	2539 kW	3,405 hp
Emissions Rating	Fuel Optimized	
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	85 L	5,187 in ³

- Contact factory for high altitude configuration.

Weights – approximate

Target Gross Machine Weight (TGMW)	576 072 kg	1,270,000 lb
Chassis Weight	204 623 kg	451,116 lb
Body Weight	37 564- 39 289 kg	82,814- 86,618 lb

- Consult your tire manufacturer for maximum tire load.
- Chassis weight with 100% fuel, hoist, body mounting group, rims, and tires.
- Body weight varies depending on how body is equipped.

Operating Specifications

Nominal Payload Capacity	327 tonnes	360 tons
Top Speed – Loaded	64 km/h	40 mph
Steer Angle	39 degrees	
Minimum Turning Radius	16.2 m	53 ft

- Payload assumes no debris, no extra options or attachments.
- Refer to the Cat Mining Truck 10/10/20 Overload Policy (AEXQ0250) for maximum gross machine weight limitations.

Final Drives

Total Reduction Ratio	35:1
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AC Drive System

Generator/Alternator	Brushless, engine mounted, dual bearing
Controls	IGBT Inverter Technology, air cooled, pressurized cabinet with filtration
Wheel Motor	Cat AC induction, rear axle mounted
Cooling System	Variable speed, hydraulically driven cooling system

Tires

- 59/80 R63.
- Production capabilities of the 796 AC truck are such that, under certain job conditions, TKPH (TMPH) capabilities could be exceeded and, therefore, limit production.
- Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection.



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Braking System

Front Wet Disc Brake Surface Area	131 473 cm ²	20,378 in ²
Rear Wet Disc Brake Surface Area	198 388 cm ²	30,750 in ²
Standards	ISO 3450:2011	
Electric Retarding – Radial Grid Design		
Dynamic Retarding Power		
Continuous	4086 kW	5,480 hp

Weight Distributions – approximate

Front Axle – Empty	47%
Rear Axle – Empty	53%
Front Axle – Loaded	33%
Rear Axle – Loaded	67%

Capacity – HE Body – 100% fill factor

Struck	101-147 m ³	133-192 yd ³
Heaped (SAE 2:1)	193-234 m ³	252-307 yd ³
Dump Body Plate Thickness Varies Depending on Body Selection		
Floor Plate	25.4 mm	1 in
Front Plate	12.7 mm	0.5 in
Side Plate	9.5 mm	0.38 in
Canopy Plate	5 mm	0.20 in

- Contact your local Cat dealer for body recommendations.

Service Refill Capacities

Fuel Tank	4922 L	1,300 gal
Cooling System	799 L	211 gal
Crankcase	310 L	82 gal
Final Drives, each	254 L	67 gal
Hydraulic Tank	1121 L	296 gal
Hydraulic System (includes tank)	1458 L	385 gal

ROPS

ROPS/FOPS Standards

- ROPS (Rollover Protective Structure) cab offered by Caterpillar meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer.
- FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 for Operator and ISO 13459:2012 Level II FOPS criteria for Trainer.

Sound

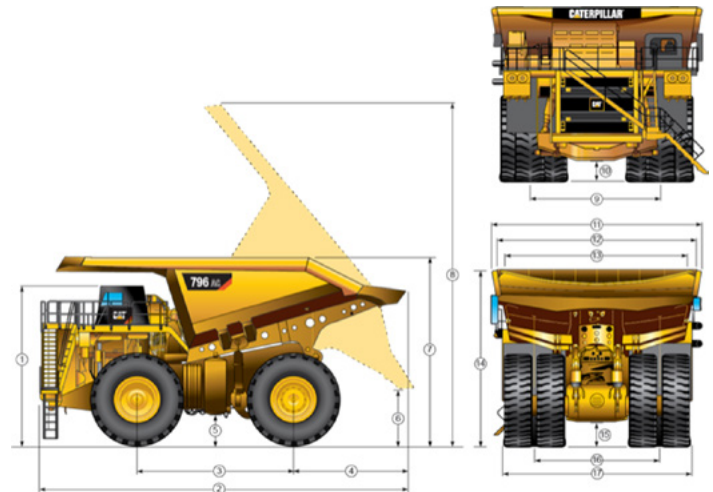
Sound Standard

- The operator sound pressure level measured according to work cycle procedures specified in ISO 6394:2008 and ISO 6396:2008 is 75 dB(A) for cab offered by Caterpillar when properly installed, 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
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- Target Gross Machine Weight is 576 072 kg (1,270,000 lb).



Dimensions

All dimensions are approximate.
Shown with 193.6 m³ (253 yd³) HE Body.

1	Height to Top of ROPS	6742 mm	22'1"
2	Overall Length	15 724 mm	51'7"
3	Wheelbase	6658 mm	21'10"
4	Rear Axle to Tail	4916 mm	16'2"
5	Ground Clearance	1026 mm	3'4"
6	Dump Clearance	1809 mm	5'11"
7	Loading Height – Empty	7342 mm	24'1"
8	Overall Height – Body Raised	15 011 mm	49'3"
9	Centerline Front Tire Width	7024 mm	23'1"
10	Front Axle Clearance	1026 mm	3'4"
11	Canopy Width (without optional rock deflectors)	9637 mm	31'7"
12	Outside Body Width	9637 mm	31'7"
13	Inside Body Width	9160 mm	30'1"
14	Front Canopy Height	7928 mm	26'0"
15	Rear Axle Clearance	1094 mm	3'7"
16	Centerline Rear Dual Tire Width	5943 mm	19'6"
17	Overall Tire Width	9243 mm	30'4"

STANDARD EQUIPMENT

POWER TRAIN

- C175-16 Diesel Engine
 - Turbocharging (4)/aftercooled
 - Air to air after cooler (ATAAC)
 - Air cleaner (4) with precleaner
 - Multi-point oil pressure sensing
 - Pre-lubrication/engine
- Braking system:
 - Brake release towing
 - Oil-cooled, multi-disc (front and rear) (service, retarding, parking, secondary)
 - Automatic Retarder Control
 - Electric dynamic retarding with blended low speed
 - Extended life brake disc material
- Cat AC drive train:
 - IGBT controlled AC induction motors
 - AC generator
 - AC cooled radial grid
- Body-up reverse neutralizer
- Programmable top speed
- Rear axle continuous lube/filtration
- Rear axle oil cooler
- Reverse shift inhibitor
- Directional shift management
- Standard accumulator – Australian and Canadian certified
- Neutral coast inhibitor
- Body-up shift inhibitor
- Neutral start inhibitor

ELECTRICAL

- Alarm, backup
- Brushless alternator 225 amp charging
- Batteries – 12V (8) 90 amp hour
- Converter, 12V electrical
- Electrical system, 24V, 10, 15, 20 amp fuses and breakers
- Battery charge receptacle
- Lighting, signals/service:
 - LED lighting package
 - Backup and hazard lighting
 - Directional signals (front and rear LED)
 - Front stair access/service deck
 - Stop/tail lights (LED)
 - Engine compartment
 - Inverter energy LED warning lights

OPERATOR ENVIRONMENT

- Air conditioner
- 12V DC power supply (1)
- Cup holder (2)
- Diagnostic connection port
- Dome courtesy light
- Entertainment radio ready:
 - 20 amp switched/10 amp memory converter
 - Speakers, and wiring harnesses
- Gauges/indicators
- Gauge panel:
 - Hydraulic oil temperature
 - Engine coolant temperature
 - Fuel level
 - Electric engine control fault indicator
 - Electric hour meter
 - Speedometer
 - Tachometer
 - VIMS message center advisor
- Heater/defroster
- Storage space behind seat
- ROPS cab, insulated/sound suppressed
- Seat, operator, air suspension
- Seatbelt, operator, three points
- Seat, trainer, air suspension
- Seatbelt, trainer, two point
- Steering wheel, tilt, telescopic
- Tinted glass
- Window, electric powered, operator/passenger
- Wiper, windshield, intermittent control and washer
- Fixed access ladder

FLUIDS

- Extended life coolant to –35° C (–30° F)

OTHER STANDARD EQUIPMENT

- Traction control system
- Auxiliary “buddy” dumping quick connect
- Auxiliary steering quick connect (towing)
- Rotating component guards
- Fast fill fuel system (RH side)
- Fuel filter with water separator
- Ground level battery lockout
- Machine lockout
- Engine start lockout
- Ground level engine shut-down
- Rock ejectors (chain)
- Tow hooks and pin (front)
- Tow pin (rear) (empty truck only)
- Mudflaps
- Automatic lubrication system
- S-O-SSM sample points (hydraulic, cooling, engine)
- Payload red/green indicator
- Cat DETECT radar and camera system
- Product LinkTM Elite
- 4922 L (1,300 gal) fuel tank and fast fill system (right hand fill)

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OPTIONAL EQUIPMENT

- 2312 kW (3,100 hp) setting available
- Throttle lock
- Timer, engine shutdown
- Body heat exhaust
- Fog lights
- LED work lights
- English or Metric gauges
- Payload, digital display
- Powered access ladder
- Inverter platform
- Fast fill fuel system (front and left)
- Rims: Six (6) position and quick change
- ANSI and ISO service instructions
- Retarding indicator light
- Front bumper center tow attachment
- Brake wear indicator tool
- Coolant -50°C (-58°F)
- HE dump body rock box liner
- Heated mirrors (LH and RH)
- Wheel chocks (ANSI and ISO)
- Portable fire extinguisher
- Murphy gauge
- High efficiency dump body
 - 1530 kg/m³ (2,580 lb/yd³) density body
 - 1650 kg/m³ (2,780 lb/yd³) density body
 - 1770 kg/m³ (2,980 lb/yd³) density body
- Side profile lighting
- Central service

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