

Product Specifications For 794 AC



Weights - Approximate

Nominal Rated Payload	297 t
Rated Gross Machine Weight	521631 kg
Chassis Weight	193338 kg
Body Weight	29187 kg
Note (1)	Consult your tire manufacturer for maximum tire load.
Note (2)	Chassis weight with full fuel and fluids, standard & mandatory attachments, hoist, body mounting group, rims, and tires
Note (3)	Refer to Cat Mining Truck 10/10/20 Overload Policy (AEXQ0250) for maximum gross machine weight limitations.
Note (4)	Tier 4 Final / Stage V chassis weight: 426312 lb (193372 kg)

Engine

Gross Power - SAE J1995	2610 kW
Standard Gross Power - SAE J1995	2610 kW
Engine Model	Cat® C175-16
Optional Gross Power - SAE J1995	2312 kW
Optional Gross Power - SAE J1995 (Option 2)	2051 kW
Rated Speed	1800 r/min
Net Power - SAE J1349	2539 kW

Emissions Rating	Fuel Optimized
Bore	175 mm
Stroke	220 mm
Displacement	85 l
Note (1)	Contact factory for high altitude configuration.
Note (2)	Tier 4 / EU Stage V option available for regions that require these emissions standards.
Note (3)	Tier 4 / EU Stage V engine option Net Power - SAE J1349: 3434 HP (2561 kW)

Final Drives

Total Reduction Ratio	35:01:00
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Tires

Standard Tires	53/80 R63
Rims	36" x 63"
Note (1)	Quick Change Rims optional.
Note (2)	Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities.

AC Drive System

Total Reduction Ratio	35:01:00
Top Speed - Loaded	60 km/h
Generator/Alternator	Brushless, engine mounted, dual bearing
Controls	IGBT Inverter Technology, air cooled, pressurized cabinet with filtration

Wheel Motor	High-torque AC induction, rear axle mounted
Cooling System	Variable speed, hydraulically driven cooling system

Braking System

Service Brakes	Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated
Front Wet Disc Brake Surface Area	131473 cm ²
Rear - Wet Disc Brake Surface Area	198388 cm ²
Standards	ISO 3450:2011
Parking Brake	Four-corner, Multi-disc, Spring applied, Hydraulically Released
Load Brake	Rear service brakes
Dynamic Retarding Power - Continuous	4086 kW

Weight Distributions - Approximate

Front Axle - Empty	49 %
Rear Axle - Empty	51 %
Front Axle - Loaded	33 %
Rear Axle - Loaded	67 %

Body Hoists

Pump Flow - High Idle (HAA at 1,800 rpm)	840 L/min
Pump Flow - High Idle (LAA at 1,960 rpm)	910 L/min

Relief Valve Setting - Raise	20884 kPa
Body Raise Time - High Idle	24 s
High Idle Body Lower Time - Float	20 s
Total Cycle Time	44 s
Note (1)	Twin, two-stage hydraulic cylinders mounted inside main frame; double-acting cylinders in both stages.
Note (2)	Power raise in both stages; power down in both stages possible.
Note (3)	Automatic body-lower modulation reduces impact on frame.

Capacity - HE Body - 100% Fill Factor

Struck	108-133 m ³ (142-175 yd ³)
Heaped (SAE 2:1)	180-222 m ³ (236-290 yd ³)
Dump Body Plate Thickness Varies Depending on Body Selection - Floor Plate	16 mm
Dump Body Plate Thickness Varies Depending on Body Selection - Front Plate	9 mm
Dump Body Plate Thickness Varies Depending on Body Selection - Side Plate	8 mm
Dump Body Plate Thickness Varies Depending on Body Selection - Canopy Plate	5 mm
Note	Contact your local Cat dealer for body recommendations.

Service Refill Capacities

Fuel Tank	4922 l
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Cooling System	799 l
Crankcase	310 l
Final Drive - Each	254 l
Hydraulic Tank	1121 l
Hydraulic System - Including Tank	1458 l
Diesel Exhaust Fluid Tank	378 l
Note (1)	DEF Tank only available for EPA Tier 4 / EU Stage V engine option.

Dimensions (Approximate)

Height - Top of ROPS	6779 mm
Overall Length	15463.5 mm
Wheel Base	6644.5 mm
Rear Axle - Tail	4716 mm
Ground Clearance	906 mm
Dump Clearance	1555 mm
Loading Height - Empty	6995 mm
Overall Height - Body Raised	14747 mm
Centerline Front Tire Width	7024 mm
Front Axle Clearance	969 mm
Canopy Width (without optional rock deflectors)	9068 mm

Outside Body Width	9062 mm
Inside Body Width	8560 mm
Front Canopy Height	8024 mm
Rear Axle - Clearance	934 mm
Centerline of Rear Dual Tire Width	5727 mm
Overall Tire Width	8738 mm
Overall Canopy Width	9611 mm

Cab

ROPS Standards (1)	Rollover Protective Structure (ROPS) meets ISO 3471:2008 criteria for operator and ISO 13459:2012 for trainer.
FOPS Standards	Falling Object Protective Structure (FOPS) meets ISO 3449:2005 Level II for operator and ISO 13459:2012 Level II for trainer.

Sound

Sound Standards (1)	The operator sound pressure level measured according to work cycle procedures specified in ISO 6394 and 6396 is 75 dB(A) for cab offered by Caterpillar when properly installed, maintained, and tested with doors and windows closed.
Sound Standards (2)	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 5010:2019
Note	Gross Machine Operating Weight is 521 631 kg (1,150,000 lb).
Steer Angle	39 °

794 AC Standard Equipment

POWER TRAIN

C175-16 Diesel Engine

- Turbocharging (4)/aftercooled
- Air to air after cooler (ATAAC)
- Air cleaner (4) with precleaner
- Elevated low idle control
- 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

Reverse shift inhibitor

Directional shift management

Neutral coast inhibitor

Body-up shift inhibitor

Neutral start inhibitor

ELECTRICAL

Alarm, backup

Brushless alternator 150 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:

- Halogen 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
- DEF level (Tier 4 / Stage V only)
- 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 (LH and RH side)

Fast fill DEF system (RH side) - Tier 4 / Stage V only

Fuel filter with water separator

Ground level battery lockout

Machine lockout

Engine start lockout

ECM cabinet lockout

Ground level engine shut-down

Rock ejectors (chain)

Tow hooks and pin (front)
Tow pin (rear) (empty truck only)
Mudflaps
Coolant level gauge (on radiator)
Automatic lubrication system
S•O•SSM sample points (hydraulic, cooling, engine)

794 AC Optional Equipment

OPTIONAL EQUIPMENT

2050 kW (2,750 hp) and 2312 kW (3,100 hp) options available
HAA arrangements available
Throttle lock
Timer, engine shutdown
Body heat exhaust
Gel batteries (8)
High Intensity Discharge (HID) lighting package
LED lighting package
Fog lights
LED work lights
English or Metric gauges
Payload, digital display
Powered access ladder
Inverter platform
Fast fill fuel system (front and right)
Rims: Six (6) position and quick change
ANSI and ISO service instructions
Retarding indicator light
Cab pedestal for additional display
Radio/CD player
Front bumper center tow attachment
Brake wear indicator tool
Coolant -50° C (-58° F)
HE dump body rock box liner
HE dump body canopy rock deflectors
Heated mirrors (LH and RH)
Rear axle oil cooler
Standard accumulators and Australia/Canada certified accumulators
Hot start, for cold weather
Diesel fuel warmer
Wheel chocks (ANSI or ISO)
Portable fire extinguisher
Murphy gauge
High efficiency dump body
– 1543 kg/m³ (2,600 lb/yd³) density body
– 1721 kg/m³ (2,900 lb/yd³) density body
– 1839 kg/m³ (3,100 lb/yd³) density body
– 2076 kg/m³ (3,500 lb/yd³) density body

Canopy extension

Body rock box

Side profile lighting

Central service

Language monitors – English, Spanish, Italian, Portuguese, Dutch, Norwegian, Swedish, Estonian, Latin, Lithuanian, Slovakian, Slovenian, Greek, Romanian, Russian, Polish, Czech, Hungarian, Icelandic, Finnish, Danish, Thai, Indonesian, Vietnam, Malaysian, Chinese