

PRODUCT SPECIFICATIONS FOR 798 AC



Gross Power - SAE J1995	2610 kW
--------------------------------	---------

Engine Model	Cat® C175-16
---------------------	--------------

Net Power - SAE J1349	2539 kW
------------------------------	---------

Optional Gross Power - SAE J1995	2312 kW
---	---------

Rated Speed	1800 r/min
--------------------	------------

Emissions Rating	Fuel Optimized
-------------------------	----------------

Bore	175 mm
-------------	--------

Stroke	220 mm
---------------	--------

Displacement	85 l
---------------------	------

Note (1)	Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.
-----------------	---

Note (2)	U.S. EPA Tier 4 Final / EU Stage V available for applicable markets.
-----------------	--

Note (3)	Additional fuel optimized selectable power ratings: 2312 kW / 3,100 hp
-----------------	--

Engine Model	Cat® C175-20
---------------------	--------------

Gross Power SAE J1995:2014	3095 kW
-----------------------------------	---------

Net Power - SAE	2983 kW
------------------------	---------

J1349:2011**Rated Speed** 1750 r/min**Emissions Rating** Fuel Optimized**Bore** 175 mm**Stroke** 220 mm**Displacement** 106 l**Note 1** Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.**Note 2** Additional fuel optimized selectable power rating: 2983 kW / 4,000 hp**Nominal Rated Payload** 372 t**Rated Gross Machine Weight** 623690 kg**Chassis Weight** 205852 kg**Body Weight Range** 38 833 - 43 275 kg (85,611 - 95,406 lb)**Note (1)** Consult your tire manufacturer for maximum tire load.**Note (2)** Chassis weight with 100% fuel, hoist, body mounting group, rims, and tires.**Note (3)** Body weight varies depending on how body is equipped.**Front Axle - Empty** 47 %**Rear Axle - Empty** 53 %

Front Axle - Loaded	33 %
Rear Axle - Loaded	67 %
Note	Weight distributions optimized with Cat body.
Total Reduction Ratio	35:01:00
Top Speed - Loaded	64 km/h
Generator/Alternator	Brushless, engine mounted, dual bearing
Controls	IGBT Inverter Technology, air cooled, pressurized cabinet with filtration
Wheel Motor	Cat high-torque AC induction, rear axle mounted
Cooling System	Cat variable speed, hydraulically driven cooling system
Rims	44" x 63" Rims
Standard Tires	59/80 R63
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.
Service Brakes	Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated
Front Wet Disc Brake Surface Area	146081 cm ²
Rear - Wet Disc Brake Surface Area	211163 cm ²

Standards		Service and Secondary: ISO 3450:2011
Electric Retarding		Radial Grid Design
Dynamic Retarding Power - Continuous		4086 kW
Parking Brakes		Four-corner, Multi-disc, Spring Applied, Hydraulically Released
Load Brake		Rear service brakes
Note		Anti-Lock Brake System (ABS) optional with CMD package
Struck	129-200 m ³ (168-261 yd ³)	
Heaped (SAE 2:1)	218-276 m ³ (285-361 yd ³)	
Note	Contact your local Cat dealer for body recommendations.	
Type	Twin, two-stage hydraulic cylinders with snubbing valve.	
Pump Flow - High Idle	964 l/min	
Relief Valve Setting - Raise	20884 kPa	
Body Raise Time - High Idle	21 s	
Body Lower Time - Float	22 s	
Body Power Down-High Idle	17.5 s	

Note (1)	Twin, two-stage hydraulic cylinders mounted outside main frame; double-acting cylinders in both stages.
Note (2)	Power raise in both stages; power down capability in both stages.
Note (3)	Automatic body-lower modulation reduces impact on frame.
Type	Self-contained nitrogen/oil cylinders, pin-to-pin mounting, top & bottom double shear clevis attachments
Effective Cylinder Stroke - Front	254 mm
Effective Cylinder Stroke - Rear	133.35 mm
Fuel Tank	4922 l
Fuel Tank (Tier 4)	4542 l
Diesel Exhaust Fluid Tank	379 l
Cooling System	799 l
Crankcase	310 l
Final Drive - Each	254 l
Hydraulic System - Including Tank	1458 l
Hydraulic Tank	1121 l
Grease Tank	41 kg
Note (1)	DEF Tank only available for U.S. EPA Tier 4 Final / EU Stage V

engine option

Fuel Tank	7571 l
Cooling System	1032 l
Crankcase	471 l
Hydraulic Tank	1032 l
Hydraulic System (includes tank)	1296 l
Air Conditioning	HFC - 134A refrigerant: 21,600 Btu/h
Heater / Defroster	24600 Btu/h
Note	Ambient capabilities down to -15C (5F) for heater/defroster and up to 50C (122F) for air conditioning.
ROPS Standards (1)	The operator sound pressure level, 75 dB(A), measured according to ISO 6394:2008 and ISO 6396:2008.
ROPS Standards (2)	ROPS (Rollover Protective Structure) meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer.
FOPS Standards	FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II for Operator and ISO 13459:2012 Level II for Trainer.
Steer Angle	39 °
Turning Diameter - Front	32.4 m
Steering Standards	Steering Standards: ISO 5010:2007

Note

Turning Diameter (ISO 7457:1997)

Height - Top of ROPS	6720 mm
Overall Length	15679 mm
Wheel Base	6674 mm
Rear Axle - Tail	4898 mm
Dump Clearance - Empty	1744 mm
Loading Height - Empty	7784 mm
Overall Height - Body Raised	14890 mm
Centerline Front Tire Width	7028 mm
Front Axle Clearance - Loaded	855 mm
Overall Canopy Width (with rock deflectors)	10103 mm
Outside Body/Canopy Width (without rock deflectors)	9639 mm
Inside Body Width	8973 mm
Front Canopy Height - Empty	7928 mm
Rear Axle Clearance - Loaded	854 mm
Centerline of Rear Dual Tire Width	5943 mm
Overall Tire Width - Empty	9226 mm
Overall Length (High Altitude only)	15810 mm

Note

Dimensions listed includes canopy
deflectors

798 AC STANDARD EQUIPMENT

POWER TRAIN

Cat® C175-16 Diesel Engine: 2610 kW (3,500 hp) Fuel Optimized , U.S. EPA Tier 2 equivalent (available for applicable markets)

Cat® C175-16 Diesel Engine: 2610 kW (3,500 hp) U.S. EPA Tier 4 Final / EU Stage V (available for applicable markets)

C175-16 Diesel Engine

- Turbocharging (4) / Aftercooled (ATAAC)
- Centrifugal oil filter
- Self-cleaning oil filter
- Charging Alternator (225 amp), brushless
- Pre-lubrication/engine
- Air cleaner with precleaner (4)
- Multi-point oil pressure sensing
- Exhaust - Muffler, Right Side Exit

Cat C175-20 Diesel Engine (High Altitude Only)

- 3095 kW (4,150 hp) Fuel Optimized (available for applicable markets)
- Centrifugal oil filter
- Self-cleaning oil filter
- Charging Alternator (225 amp), brushless
- Pre-lubrication/engine
- Air cleaner with precleaner (4)
- Multi-point oil pressure sensing
- Exhaust - Muffler, Right Side Exit

Braking system:

- Electric dynamic retarding with blended low speed
- Oil-cooled, Multi-disc (front and rear) - Service, Parking, Secondary
- Load Brake (rear axle only)
- Extended Life Brake Disc Material
- Automatic Retarder Control (ARC)
- Brake Release Motor (towing)

Cat® AC Drivetrain:

- AC generator
- AC induction motors (high-torque)
- IGBT motor control
- Radial retarding grid with AC motor control
- Programmable top speed
- TorqueBoost technology
- Traction control system

Directional Shift Management:

- Body-up reverse neutralizer
- Body-up shift inhibitor
- Reverse shift inhibitor
- Neutral coast inhibitor
- Neutral start inhibitor

Additional Features:

- Rear axle continuous lubrication and filtration
- Rear axle continuous oil cooling

OPERATION AND CONTROLS

Integrated ROPS/FOPS cab, insulated/sound suppressed

Seat, operator, air suspension, adjustable, heated/cooled

Seatbelt, operator, three point

Seat, trainer, air suspension, adjustable

Seatbelt, trainer, two point

Steering wheel, tilt, telescopic, horn

Horn, electric

Directional shift lever

Single Pedal Retarding & oil-cooled brake control

Automatic Retard Control (ARC) toggle switch

Load brake switch

Windshield with tinted/safety glass

Window, electric powered, operator/passenger

Windshield Wipers (2), intermittent control and washer

Visor (2)

Storage rear of seats

Cup holder (2)

Dome courtesy light

Entertainment radio ready with speakers and wiring harnesses

Converter, 12V

12V DC power supply (1)

Mirrors, standard (Left-Flat, Right-Convex)

Fixed access ladder, left hand ground access

Fixed access ladder, right hand round access (High Altitude Only)

HVAC:

- Pressurized, filtered environment
- Air conditioner
- Heater/defroster

Metric or English gauges:

- Speedometer
- Tachometer
- Electric hour meter
- Fuel level
- DEF level (U.S. EPA Tier 4 Final / EU Stage V engines only)
- Hydraulic oil temperature
- Engine coolant temperature

Service & Information:

- Diagnostic connection port
- Electric engine control fault indicator
- Alarm, Park brake / open operator door
- Third party telematics port

- VIMS message center advisor

ELECTRICAL

Audible Alarm, backup

Electrical system, 24V with fuses and breakers

Batteries, 12V (8) 90 amp hour

Ground level Battery charge receptacle

Lighting, signals/service:

- Headlights (4 low beam, 4 high beam), LED
- Headlights (4 low beam, 2 high beam), LED (High Altitude only)
- Backup and marker/hazard, LED
- Directional signals (front and rear), LED
- Front stair access/service deck, LED
- Stop/tail lights, LED
- Engine compartment, LED
- Inverter energy warning lights, LED

Payload indicator, red/green

Payload, digital display

ADDITIONAL FEATURES AND EQUIPMENT

Accumulators (Steering & Brake) – Australian and Canadian certified

Automatic lubrication system

Rotating component guards

Mud Flaps

Tow hooks and pins (front)

Tow pin (rear) (empty truck only)

44 x 63 rims, six position (6)

Fueling:

- 4922 L (1,300 gal) fuel tank (Fuel optimized engines only)
- 4543 L (1,200 gal) fuel tank (U.S. EPA Tier 4 Final / EU Stage V engines only)
- 379 L (100 gallon) DEF tank (U.S. EPA Tier 4 Final / EU Stage V engines only)
- Fuel filter with water separator
- 210 GPM Fast fill fuel system (Left and Right)

Service:

- Engine service platforms (2)
- ANSI or ISO service instructions
- S•O•SSM sample points (hydraulic oil, engine coolant, engine oil)
- Ground level machine lockout (battery)
- Ground level engine shut-down
- Drivetrain lockout
- Drivetrain lockout at ground level (High Altitude only)
- Engine start lockout
- Auxiliary "buddy" dumping quick connect
- Auxiliary steering quick connect (towing)

CAT® TECHNOLOGY PRODUCTS

Cat® MineStar™ Detect (Radar and Camera) System

Cat® Product Link™ Elite (Cellular)

DUMP BODY

High Efficiency (HE) body, 218-276 m³ (285-361 yd³)

- HE Body Mounting Group
- Rock ejectors (chain)

ANTIFREEZE

Cat Extended Life Coolant (ELC) protects to -35° C (-30° F)

798 AC OPTIONAL EQUIPMENT

POWER TRAIN

Cat® C175-16 Diesel Engine: 2312 kW (3,100 hp) power setting (Fuel optimized / U.S. EPA Tier 2 equiv. engines only)

Cat C175-20 Diesel Engine (High Altitude only): 2983 kW (4,000 hp) power setting, Fuel Optimized (available for applicable markets)

Body heat exhaust

OPERATION AND CONTROLS

Throttle lock

Timer, engine shutdown

Heated mirrors (Left and Right)

Powered access ladder, left hand ground access

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

OPERATIONS AND CONTROLS

Powered access ladder, right hand ground access (High Altitude only)

ELECTRICAL

Lighting, signals/service:

- Fog lights, LED
- Work lights, LED
- Side profile lights, LED
- Dump body marker/stop lights, LED

Retarding indicator light, multi-color, cab exterior

Payload, digital display

ADDITIONAL FEATURES AND EQUIPMENT

ADDITIONAL FEATURES AND EQUIPMENT

Fueling: 300 GPM Fast fill fuel system (Left and Right)

Portable fire extinguisher

Front bumper single-point center tow

Wheel chocks (ANSI and ISO)

44 x 63 rims, quick change (2 quick change, 4 standard)

Service:

– Inverter platform (rear access)

– Service Center, fast-fill

CAT® TECHNOLOGY PRODUCTS

Cat® MineStar™ Detect (Camera Only) System

Cat® Product Link™ Elite (Satellite)

Cat® MineStar™ Health

Cat® MineStar™ Fleet

Cat® MineStar™ Terrain

Cat® MineStar™ Command-Ready

Cat® MineStar™ Command

Cat® Trolley Assist Attachment

DUMP BODY

HE rock box liner

HE canopy rock deflectors

HE rear tire rock deflectors

HE impact liner

Chain and solid bar

Canopy Extension

ANTIFREEZE

Antifreeze/coolant protects to -50° C (-58° F)

