

PRODUCT SPECIFICATIONS FOR 797F



WEIGHTS - APPROXIMATE

Nominal Rated Payload	363 t
Rated Gross Machine Weight	623690 kg
Chassis Weight	215217 kg
Body Weight	43000 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 (4)	Tier 4 Chassis Weight: 486263 lb (220565 kg)

ENGINE

Gross Power - SAE J1995	2983 kW
Engine Model	Cat® C175-20
Net Power - SAE J1349	2828 kW
Rated Speed	1750 r/min
Emissions	U.S. EPA Compliant. Where applicable, the Cat C175-20 engine is compliant with U.S. EPA emission standards. Tier 4 engine option available to meet Tier 4 Final emission standards.
Bore	175 mm
Stroke	220 mm

Displacement	106 l
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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.
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Note (2)	U.S. EPA Tier 4 Final available for applicable markets.
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Note (3)	High Altitude Low Maintenance Ratio Engine Configuration (4x4) option available.
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BODY HOISTS

Type	Twin, two-stage hydraulic cylinders with snubbing valve.
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Pump Flow - High Idle	1140 l/min
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Relief Valve Setting - Raise	24200 kPa
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Body Raise Time - High Idle	25 s
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Body Lower Time - Float	18 s
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Body Power Down- High Idle	18 s
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SUSPENSION

Type	Self-contained nitrogen/oil cylinders, rear strut pin-to-pin mounting, top & bottom double shear clevis attachments
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Effective Cylinder Stroke - Front	99.1 mm
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Effective Cylinder Stroke - Rear	93.2 mm
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Rear axle - Oscillation	±3.96 degrees
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SERVICE REFILL CAPACITIES

Fuel Tank	3785 l
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Fuel Tank (Tier 4)	4542 l
Diesel Exhaust Fluid Tank	375 l
Cooling System	1160 l
Crankcase	390 l
Front Wheels - Each	61 l
Differentials	1250 l
Steering Tank	254 l
Steering System - Including Tank	360 l
Brake/Hoist Tank	770 l
Brake Hoist System - Includes Tank	1850 l
Torque Converter Sump	303 l
Torque Converter/Transmission System - Including Sump	629 l
Note (1)	DEF Tank only available for EPA Tier 4 engine option.

WEIGHT DISTRIBUTIONS - APPROXIMATE

Front Axle - Empty	47.20%
Rear Axle - Empty	52.80%
Front Axle - Loaded	33.30%
Rear Axle - Loaded	66.70%
Note	Weight distributions optimized with Cat body.

FINAL DRIVES

Type	Double reduction, planetary with full floating axles.
Differential Ratio	1.276:1
Planetary Ratio	16.67:1
Total Reduction Ratio	21.26:1
Note	Double reduction, planetary with full floating axles.

TIRES

Tires	59/80 R63
Rims	44" x 63"
Note	Quick Change Rims optional.
Note (1)	Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities.

BRAKING SYSTEM

Service Brakes	Service Brakes: Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated
Front Wet Disc Brake Surface Area	132 259 cm ²
Rear - Wet Disc Brake Surface Area	198 388 cm ²
Standards	Service and Secondary: ISO 3450:2011
Parking Brake	Four-corner, Multi-disc, Spring Applied, Hydraulically Released
Load Brake	Rear service brakes

Note

Anti-Lock Brake System (ABS) optional with CMD package

CAPACITY - HP BODY - 100% FILL FACTOR

Struck	225 yd ³ / 172 m ³
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Heaped (SAE 2:1)*	330 yd ³ / 252 m ³
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Note (1)	Consult your local Cat dealer for body recommendations.
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CAB

Air Conditioning	HFC - 134A refrigerant: 24,300 Btu/h
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Heater / Defroster	38900 Btu/h
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Note	Ambient capabilities down to -30C (-22F) for heater/defroster and up to 50C (122F) for air conditioning.
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ROPS Standards (1)	The operator sound pressure level, 76 dB(A), complies with ISO 6394:2008 and ISO 6396:2008.
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ROPS Standards (2)	ROPS (Rollover Protective Structure) meets ISO 3471:1994 criteria.
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FOPS Standards	FOPS (Falling Objects Protective Structure) meets ISO 3449:1992 Level II criteria.
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STEERING

Steering Angle	40 °
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Turning Diameter - Front	37.4 m
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Steering Standards	ISO 5010:2007
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Note	Turning Diameter (ISO 7457:2009)
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TRANSMISSION

Forward - 1	10.7 km/h
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Forward - 2	14.4 km/h
Forward - 3	19.3 km/h
Forward - 4	26.1 km/h
Forward - 5	35 km/h
Forward - 6	47.3 km/h
Forward - 7	63.6 km/h
Reverse	11.9 km/h
Top Speed - Loaded	63.6 km/h

DIMENSIONS

Rear Axle - Clearance - Loaded	947 mm
Inside Body Depth - Maximum	3363 mm
Overall Height - Body Raised	15701 mm
Loaded Ground Clearance	786 mm
Loading Height - Empty	6998 mm
Engine Guard Clearance - Loaded	1025 mm
Height - Top of ROPS - Empty	6526 mm
Front Canopy Height - Empty	7709 mm
Overall Body Length	14802 mm
Inside Body Length	9976 mm

Overall Length	15080 mm
Wheel Base	7195 mm
Rear Axle - Tail	3944 mm
Dump Clearance	2017 mm
Centerline Front Tire Width	6534 mm
Overall Canopy Width	9116 mm
Outside Body Width	9755 mm
Inside Body Width	8513 mm
Centerline of Rear Dual Tire Width	6233 mm
Overall Tire Width	9529 mm

797F STANDARD EQUIPMENT

ELECTRICAL

Alarm, back-up

Brushless, alternator, 150 ampere

Batteries, 12V (2) 93 amp-hour

Converter, 12V electrical

Electrical system, 24V, 10, 20 and 25 amp

Battery charge receptacle

Lighting system:

- Back-up and hazard lights
- Directional signals (front, rear LED)
- Front stair access/Service deck
- Stop/tail lights (LED)
- Engine compartment
- VIMS, blue light (LED)
- Headlights with lo-hi beam selector

OPERATOR ENVIRONMENT

Standard cab:

- Standard optimized operator seats
- Suspension trainer seat
- Flip down front visor
- Standard side of cab access

Deluxe cab:

- Heated and ventilated seats
- Suspension trainer seat
- Retractable front visor
- Rear of cab access and standard side of cab access
- Power windows

Deluxe cold weather cab:

- Heated and ventilated seats
- Suspension trainer seat
- Retractable front visor
- Rear of cab access and standard side of cab access
- Power windows
- Heated mirrors

All cab options include the following features:

Air conditioner with automatic climate control

12V DC power supply (3)

Coat hook

Diagnostic connection port

Dome courtesy light

Entertainment radio ready 5 amp converter, speakers and wiring harness

Gauges/Indicators:

- Gauge panel: Transmission fluid temperature; Brake oil temperature; Engine coolant temperature; Fuel level; Torque converter oil temperature

- Electric engine control fault indicator

- Electric hour meter

- Speedometer

- Tachometer

- Transmission gear indicator

- VIMS message center with advisor

Heater/defroster (11 070 kCal/43,930 Btu)

Horn

Cat Detect System

Storage compartments

Hoist, body control (electric)

ROPS cab, insulated/sound suppressed

Seat, operator, air suspension

Seatbelt, operator, three-points, retractable

Seat, trainer, air suspension

Seatbelt, trainer, two-points, retractable

Stairway and walkway access, 600 mm (23.6 in)

Steering wheel, multi tilt, padded, telescopic

Tinted glass

Window, operator, electric powered

Windshield wiper, intermittent control and washer

Cup holder

Mirrors, right and left

POWER TRAIN

C175-20 emits equivalent to Tier 2 emission standards:

- Turbocharging (4)/Air-to-Air Aftercooler (ATAAC)

- Air cleaner with precleaner (4)

- Ground level engine shutdown

- Ether starting aid (automatic)

- Elevated low idle control

- Crankcase protection

- Multi-point oil pressure sensing

- Automatic starter protection

Braking system:

- Park brake integrated with gear selector
- Brake release motor (towing)
- Oil-cooled, multi-disc (front and rear) – service, retarding, parking, secondary
- Automatic Retarder Control, adjustable
- Engine overspeed protection
- Extended life brake disc material

Transmission:

- 7-speed, automatic powershift with electronic controls (ECPC)
- Body-up shift inhibitor
- Controlled throttle shifting
- Directional shift management
- Neutral coast inhibitor
- Neutral start switch
- Downshift/Reverse shift inhibitor
- Individual clutch modulation
- Body-up reverse neutralizer
- Programmable top speed
- Lock-up torque converter

Pre-lubrication/engine

Rear axle continuous lubrication/filtration

OTHER STANDARD EQUIPMENT

Traction Control System

Auto lubrication system

Aux “buddy” dumping quick connect

Aux steering quick connect (towing)

Driveline guard

Fast fill fuel system

Fuel filter with water separator

Ground level VIMS data port

Ground level battery lockout

Ground level transmission lockout

Ground level engine start lockout

Ground level engine shut-down

High-speed crankcase oil change

Reservoirs (3 separate):

- Brake/Hoist, Steering/Fan, Transmission/Converter

Rock ejectors

Supplemental steering (automatic)

Tie-down eyes

Center hitch and tow points (front), tow pin (rear)

Vandalism protection locks

Vital Information Management System (VIMS):

- Includes VIMS Payload Monitor with max payload and speed manager

Hydraulic filters, 1,000 hour

S•O•SSM sample ports

Service points, ground level

Sight level gauges for hydraulic/engine oil

ANTIFREEZE

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

797F OPTIONAL EQUIPMENT

OPTIONAL EQUIPMENT

Cat Detect System

Cabin air precleaner

Throttle lock

Engine delay shutdown timer

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

Fuel tank (7570 L/2,000 gal)

SL-V grease injectors

Body heat

Rear axle lubrication cooler

External digital payload display

Oil renewal system

Oil renewal system with 3 day tank

Engine coolant and oil heater for cold weather starts

Road Analysis Control (RAC)

Portable fire extinguisher

Torque converter guard

Brake wear indicator gauge

Rims (wedge)

Rim guard