

Product Specifications For 450



Engine

Net Power - SAE J1349:2011	131 hp
Bore	4.13 in
Stroke	5 in
Displacement	268 in ³
Ratings at 2,200 rpm - Gross Power ISO 14396	143 hp
Net Power - 2,200 rpm - SAE J1349	68 hp
Net Peak Power Rating - SAE J1349	134 hp
Net Power Rating at 2,200 rpm - SAE J1349	131 hp
Net Peak Power Rating - ISO 9249	134 hp
Net Torque Rise - 1,200 rpm	88 %
Net Peak Power - 1,800 rpm - SAE J1349	72 hp
Gross Power - SAE J1995:2014	74 hp
Net Peak Power - 1,800 rpm - ISO 9249	73 hp
Rated Net Power - 2,200 rpm - ISO 9249	68 hp
Net Peak Power - 1,800 rpm - EEC 80/1269	73 hp
Rated Net Power - 2,200 rpm - EEC 80/1269	69 hp
Ratings at 2,200 rpm - Gross Power SAE J1995	146 hp

Net Torque Rise - 1,400 rpm - SAE J1349	400 ft·lbf
Gross Power - ISO 14396	74 hp
Net Torque Rise - 1,400 rpm	29%
Power Rating Conditions - No De-Rating Required Up To	7500 ft
Net Power Rating at 2,200 rpm - ISO 9249	131 hp
Engine Model	C4.4 ACERT 106 kW (143 hp) Electronic – Turbo Intercooled
Net Peak Torque SAE J1349	307 ft·lbf
Emissions	Engine meets U.S. EPA Tier 4 Final emission standards.
Note	No derating required up to 2286 m (7,500 ft).

Backhoe

Dig Depth - Standard	17 ft
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Weights

Operating Weight - Maximum	29321 lb
Cab - ROPS/FOPS	359 lb
Air Conditioning	101 lb
Front Counterweight - Counterweights - Option 2	530 lb
Operating Weight - Estimated*	24039 lb

Backhoe Quick Coupler	+151 kg (+333 lb)
Note (5)	ED = Extreme Duty
Operating Weight - Maximum - ROPS Capacity	29321 lb
Note (1)	*Machine equipped with 15-19.5 12 ply front and 21L-24 16 ply rear, AWD, OROPS, 1.34 m ³ (1.75 yd ³) general purpose bucket with bolt-on cutting edge, standard stick, 610 mm (24"") heavy-duty backhoe bucket.
Cab, ROPS/FOPS	+243 kg (+536 lb)
Loader Bucket - 1.34 m³ (1.75 yd³) GP (Hook-On)	−150 kg (−331 lb)
MP Bucket (1.00 m³/1.31 yd³) - With Fold-Over Forks	2018 lb
Loader Bucket - 1.34 m³ (1.75 yd³) MP ED (Hook-On)	+160 kg (+353 lb)
Note (4)	HD = Heavy Duty
Note (2)	GP = General Purpose
Counterweight	2147 lb
Loader Bucket - 1.34 m³ (1.75 yd³) MP HD (Hook-On)	+85 kg (+187 lb)
MP Bucket (1.00 m³/1.31 yd³) - Without Fold-Over Forks	3622 lb
Loader Bucket - 1.34 m³ (1.75 yd³) MP ED (Pin-On)	+290 kg (+639 lb)
Loader Bucket - 1.34 m³ (1.75 yd³) MP HD (Pin-On)	+214 kg (+472 lb)

Loader Bucket - 1.53 m³ (2.0 yd³) GP (Pin-On)	+80 kg (+176 lb)
Front Counterweight - Counterweights - Option 1	255 lb
Loader Bucket - 1.53 m³ (2.0 yd³) GP (Hook-On)	−73 kg (−162 lb)
Extendible Stick	+338 kg (+745 lb)
Loader Quick Coupler	+250 kg (+551 lb)
Note (3)	MP = Multi Purpose
Rear Counterweight	198 lb
Front Counterweight - Counterweights - Option 3	1015 lb

Hydraulic System

Pump Type	Variable Flow, Axial Piston
Pump Capacity at 2,200 rpm	58.1 gal/min
System Pressure - Loader	3800 psi
System Pressure - Hitch/Box Scraper	2973 psi
Type	Closed Center
System Pressure - Backhoe	3800 psi

Loader Bucket

Dig Depth - Standard	3 in
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Transmission

Autoshift Transmission - Forward - 6th	25.2 mile/h
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Autoshift Transmission - Reverse - 3rd	16.9 mile/h
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Power Shuttle Transmission - Forward 3rd	13 mile/h
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Autoshift Transmission - Reverse - 2nd	7.8 mile/h
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Autoshift Transmission - Forward - 5th	16.9 mile/h
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Power Shuttle Transmission - Reverse 4th	23 mile/h
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Power Shuttle Transmission - Forward 1st	3.4 mile/h
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Autoshift Transmission - Forward - 4th	12.3 mile/h
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Power Shuttle Transmission - Reverse 2nd	5.5 mile/h
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Power Shuttle Transmission - Forward 2nd	5.5 mile/h
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Power Shuttle Transmission - Reverse 3rd	13 mile/h
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Power Shuttle Transmission - Reverse 1st	3.4 mile/h
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Autoshift Transmission - Forward - 1st	3.7 mile/h
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Autoshift Transmission - Forward - 2nd	6 mile/h
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Autoshift Transmission - Reverse - 1st	3.7 mile/h
Autoshift Transmission - Forward - 3rd	7.8 mile/h
Power Shuttle Transmission - Forward 4th	23 mile/h

Note

Travel speeds of two wheel drive backhoe loader at full throttle, when equipped with 21×24 rear tires.

Service Refill Capacities

Rear Axle (Center Housing)	5 gal (US)
Cooling System with Cab Heater	6 gal (US)
Cooling System with Air Conditioning	4.4 gal (US)
Front Axle (4WD)	2.9 gal (US)
Transmission (Autoshift) - AWD, Autoshift	4.8 gal (US)
Hydraulic Tank (Nominal)	14.3 gal (US)
Fuel Tank	42.3 gal (US)
Front Axle (Center Housing)	2.9 gal (US)
Planetaries	0.2 gal (US)
Diesel Exhaust Fluid (DEF)	5 gal (US)
Rear Axle - Planetaries	0.4 gal (US)
Front Axle (4WD) - Planetaries	0.2 gal (US)

Transmission - Power Shuttle - 2WD	4 gal (US)
Hydraulic System (Minimum)	34.4 gal (US)
Transmission - Power Shuttle - 4WD	4 gal (US)
Engine Oil - With Filter	2.3 gal (US)
Rear Axle	4.4 gal (US)
Hydraulic System	23.8 gal (US)
Hydraulic Tank	10.6 gal (US)
Note	Requires ultra-low sulfur fuel less than or equal to 15 ppm fuel sulfur

Steering

Stroke	9.29 in
Rod Diameter	1.65 in
Turning Circle (inner wheel not braked) - Outside Widest Loader Bucket	37.75 ft
Turning Circle (inner wheel not braked) - Outside Front Wheels	27.55 ft
Note	AWD cylinder, one (1) double-acting.
Bore	3.35 in
Power Steering	Hydrostatic HMU
Type	Front Wheel
Turning Circle - (inner wheel not braked) - Outside Front Wheels	26.8 ft

Turning Circle - (inner wheel not braked) - Outside Widest Loader Bucket	36 ft
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Axle Oscillation	11°
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Axle Ratings

Rear Axle - Static	47756 lb
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Rear Axle - Dynamic	19103 lb
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Front Axle (4WD) - Dynamic	20233 lb
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Front Axle (4WD) - Static	50582 lb
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Front Axle, AWD - Static	50565 lb
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Front Axle, AWD - Dynamic	20225 lb
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Counterweights - Front - Minimum Recommendations

Standard Stick - MP Loader Bucket - 4WD	no counterweight
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Standard Stick - GP Loader Bucket - 4WD	255 lb
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Tires

Standard Configuration of Front/Rear Tires	Front: 12.5 80/16.9; Rear: 16.9-24
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450 Standard Equipment

STANDARD EQUIPMENT

5185 mm (17 ft) center pivot excavator style backhoe

Adjustable auxiliary flow controls, loader and backhoe

Air cleaner

Alarm, back-up

Alternator, 150 amp

Audible system fault alarm

Automatic Engine Speed Control (AESC)

Autoshift transmission with six (6) forward and three (3) reverse gears and neutral safety switch

Backhoe Safety Manual

Battery Box, external, lockable

Battery disconnect switch
Battery, maintenance-free, 1,000 CCA
Boom transport lock
Brace, lift cylinder
Brake, SAHR secondary parking
Brakes, hydraulically boosted, oil disc, dual pedals, interlocking
Canopy, ROPS/FOPS
Cat cushion swing system
CD-ROM Parts Manual
Coat restraint
Coolant/antifreeze, extended life
Counterweight, bumper, 974 kg (2,147 lb)
Diagnostic port for engine, machine and gauge cluster Electronic Control Modules
Differential lock, loader joystick
Dome light (cab only)
Engine enclosure, sound suppression removal panels
Engine, Cat C4.4 ACERT (Direct Injection Turbocharged), meets Tier 4 Final/Stage IV emission standards, selective catalyst reduction, diesel oxidation catalyst (DOC)
Face seals, O-ring
Fan, suction and guard
Fast reversing shuttle, all gears
Fenders, rear
Filters, bowl and cartridge: fuel, hydraulic fluid
Filters, spin-on: engine oil, transmission oil, water separator
Flashing hazards/signal lights
Floor mat
Four Wheel Drive/Brake Mode Selector
Fuel tank, fully enclosed
Fully hinged front grill for cooling package cleaning access
Ground level fuel fill and DEF fill
Guard, boom protection plate
Guards, stabilizer, rock
Hammer cup
High ambient cooling package
Hood lock, inside cab
Hydraulic hose, XT™
Hydraulic oil cooler
Hydraulic oil level sight gauge
Hydraulic valves, backhoe six (6) function
Hydraulic valves, loader three (3) function
Hydraulics, load sensing with variable displacement piston pump and flow sharing valve
Indicator lights: hydraulic implement lockout, hydraulic filter bypass, water in fuel, operator presence, remote dial throttle active, air filter blocked, engine warning, machine locked (if equipped), warning lamp emissions module malfunction, low battery/charging system warning, high hydraulic oil temperature; LCI warnings: engine oil pressure, service due, high coolant temperature, auto idle shutdown, high torque converter temperature
Instrument panel lights
Joystick controls: electrohydraulic controls with pattern changer valve

Key start/stop system
LCD operator screen
Lights, working (four [4] front, four [4] rear)
Loader joystick, self-leveling, return-to-dig, transmission disconnect switch, Forward/Neutral/Reverse Switch, MP Auxiliary roller
Loader, single tilt
Machine Security System integrated into LCD operator display
Mirror, rearview
One-touch low idle
Open circuit breather
Operations and Maintenance Manual
Pattern changer, in cab
Power receptacle, 12 volt, one (1) internal + one (1) USB, two (2) external
Product Link™
Radio ready (Cab)
Ride Control
Rubber impact strips on radiator guards
Seat belt, retractable, 51 mm (2 in)
Seat mounted controls
Seat, air suspension with armrest
Stabilizer shoes, reversible
Stabilizers, electrohydraulic, auto-up function
Starting system, glow plugs
Steering knob
Steering, hydrostatic
Stop and tail lights
Storage compartment (Cab/Canopy), lockable
Storage tray, electronics and miscellaneous items
Swing transport lock
Throttle, hand and foot, electronic
Tilt steering wheel (Canopy), Tilt/telescoping (Cab)
Tire Valve Stem Protection
Tires
Torque converter
Transmission neutralizer switch
Transport tie-downs
Vandalism locks, four (4)
Vandalism protection, gauge cover (Canopy)
Warning horn, electric

450 Optional Equipment

OPTIONAL EQUIPMENT

Battery, additional, 1,000 CCA
Cab, deluxe with air conditioning
Cold weather fuel (–30° C/–22° F)
Cold weather package, including additional battery, engine block heater, radiator antifreeze, cold weather fuel (–30° C/–22° F) and mounting for an ether bottle

Fenders, front with integral steps

Guard, stabilizer, stab leg bottom

Hydraulic lines, combined function auxiliary

Hydraulic valves, loader quick coupler

Lights, LED work lights, wide and spot

Loader, Quick Coupler

Quick Coupler, backhoe, hydraulic, dual lock

Radio and CD player, Bluetooth®

Rotating beacon, magnetic mount

Seat belt, 75 mm (3 in)

Seat, heated

Stick, extendible

Work Tool Attachments such as buckets, flip over forks, hammers and vibratory plate compactors. See your Cat dealer for more information.