

Product Specifications For M319 - Tier 4 / Stage V



Engine

Engine Power - ISO 14396 174 hp

Engine Power - ISO 14396 (DIN) 176 hp (metric)

Engine Model Cat® C4.4

Net Power - ISO 9249 171 hp

Net Power - ISO 9249 (DIN) 174 hp (metric)

Bore 4.1 in

Stroke 5 in

Displacement 268.5 in³

Biodiesel Capability Up to B20¹

Emissions Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.

Note (1) Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, Clean Emission Module (CEM) exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed. Rated speed 2,200 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

Note (2)

¹Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to: 20% biodiesel FAME (fatty acid methyl ester)* or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details. *Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer). **Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

Drive

Maximum Travel Speed	21.7 mile/h
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Hydraulic System

Main System - Maximum Flow - Implement	67 gal/min
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Maximum Pressure - Implement Circuit - Normal	5076 psi
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Maximum Pressure - Implement Circuit - Heavy Lift	5366 psi
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Maximum Pressure - Implement Circuit - Travel Circuit	5076 psi
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Swing Mechanism

Maximum Swing Speed*	9.4 r/min
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Maximum Swing Torque	34739 lbf·ft
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Note (1)	*For CE-marked machine default value may be set lower.
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Machine Weight

Operating Weight Maximum	46410 lb
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Operating Weight Minimum	41890 lb
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Note (1)

Operating weight includes full fuel tank, operator, bucket 700 kg (1,540 lb) and dual pneumatic tires. Weight varies depending on configuration. Typical configurations include 2.5 m (8'2") stick, bucket and 220 kg (485 lb) quick coupler.

Service Refill Capacities

Fuel Tank	76.6 gal (US)
Diesel Exhaust Fluid (DEF)	5.3 gal (US)
Cooling System	9.2 gal (US)
Hydraulic Tank	31.7 gal (US)
Hydraulic System - Including Tank	74 gal (US)

Dimensions

Boom	Variable Adjustable Boom 5.2 m (17'1")
Stick	2.5 m (8'2")
Bucket	GD 0.91 m ³ (1.19 yd ³)
Shipping Height - Top of Cab	11 ft
Shipping Length	26.6 ft
Support Point	11.5 ft
Tail Swing Radius	6.2 ft
Counterweight Clearance	4.3 ft
Ground Clearance	1.4 ft
Undercarriage Length	16.6 ft

Wheel Base

8.9 ft

Working Ranges And Forces

Boom	Variable Adjustable Boom 5.2 m (17'1")
Stick	2.5 m (8'2")
Bucket	GD 0.91 m ³ (1.19 yd ³)
Maximum Cutting Height	35.2 ft
Maximum Loading Height	25.6 ft
Maximum Digging Depth	18.9 ft
Maximum Vertical Wall Digging Depth	14.6 ft
Maximum Reach at Ground Line	30.2 ft
Stick Forces (ISO)	16861 lbf
Bucket Forces (ISO)	26752 lbf
Note (1)	Range values are with dual pneumatic tires (10.00-20). Range values are calculated with a GD bucket (CW) and CW quick coupler with a tip radius of 1484 mm (4'10"). Force values are calculated with heavy lift on, a GD bucket (pin-on) and a tip radius of 1378 mm (4'6").

Air Conditioning System

Note The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1 kg (2.2 lb) of refrigerant which has a CO₂ equivalent of 1.43 metric tonnes (1.576 tons).

M319 - Tier 4 / Stage V Standard Equipment

NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

BOOM AND STICKS

5.2 m (17'1") Variable Adjustable Boom

CAB

Sound-suppressed ROPS cab
Keyless push-to-start engine control
Height-adjustable console, infinite with no tool
High-resolution 254 mm (10 in) LCD touchscreen monitor

CAT TECHNOLOGY

VisionLink
Remote Flash and Remote Troubleshoot

ENGINE

Power mode selector
One-touch low idle with auto engine speed control
Automatic engine idle shutdown
52°C (125°F) high-ambient cooling capacity
Cold start capability -18°C (0°F)
Double element air filter with integrated pre-cleaner

ELECTRICAL SYSTEM

LED lights on chassis (left-hand, right-hand) and counterweight
Programmable time-delay LED working lights
Roading and indicator lights, front and rear
Maintenance-free batteries
Centralized electrical disconnect switch

HYDRAULIC SYSTEM

Boom, stick and bucket drift reduction valves
Automatic hydraulic oil warm up
Heavy lift mode
One-slider joysticks

SAFETY AND SECURITY

Rear and right-side-view cameras
Wide angle mirrors
Lockable disconnect switch
Anti-skid plate and countersunk bolts on service platform

SERVICE AND MAINTENANCE

Scheduled Oil Sampling (S·O·SSM) ports
Integrated vehicle health management system

UNDERCARRIAGE AND STRUCTURES

All wheel drive
Automatic brake/axle lock
5000 kg (11,020 lb) counterweight

M319 - Tier 4 / Stage V Optional Equipment

NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

BOOM AND STICKS

2.2 m (7'3") stick (Europe only)
2.5 m (8'2") stick
2.9 m (9'6") stick

CAB

Operator Protective Guard (OPG)

CAT TECHNOLOGY

Cat Grade with 2D
Cat Grade with 2D with Attachment Ready Option (ARO)
Laser catcher
Cat Grade 3D Ready
Cat Grade Connectivity
Cat Grade with Assist
Cat Payload
Cat Tiltrotator (TRS) Integration

ELECTRICAL SYSTEM

Electrical refueling pump

HYDRAULIC SYSTEM

Boom/stick lowering check valves
Bucket cylinder check valves
Two-slider joysticks
Joystick steering

SAFETY AND SECURITY

360° visibility
Signal/warning horn
Inspection lighting
2D E-fence
Cab avoidance

SERVICE AND MAINTENANCE

Automatic lubrication system for implement and swing system

UNDERCARRIAGE AND STRUCTURES

10.00-20 16 PR, dual tires
11.00-20 16 PR, dual tires
315/70R22.5, no gap dual tires
445/70R 19.5, single tires
300-80-22.5 dual pneumatic, spacerless tires (Europe only)