

PRODUCT SPECIFICATIONS FOR 950M

ENGINE

Emissions	Tier 4/Stage IV
Net Power - ISO 9249	230 HP
Maximum Power - 2,100 rpm - ISO 14396	249 HP
Peak Gross Torque - 1,300 rpm - SAE J1995	911 ft·lbf
Maximum Net Power - 2,100 rpm - ISO 9249 - Metric	232 HP
Maximum Power - 2,100 rpm - SAE J1995	250 HP
Note	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO2 equivalent of 2.288 metric tonnes.
Maximum Net Power - 2,100 rpm - ISO 9249	230 HP
Peak Gross Torque - 1,300 rpm - ISO 14396	908 ft·lbf
Displacement	428 in ³
Maximum Net Power - 2,100 rpm - SAE J1349	230 HP
Engine Model	Cat C7.1
Maximum Power - 2,100 rpm - ISO 14396 - Metric	253 HP
Maximum Net Torque - 1,300 rpm	858 ft·lbf

ENGINE - TIER 4 FINAL/STAGE IV

Emissions	Tier 4/Stage IV
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WEIGHTS

Operating Weight	42357 lb
Note	Weight based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link?, manual diff lock/open axles (front/rear), power train guard, secondary steering, sound suppression and a 3.1 m ³ (4.1 yd ³) general purpose bucket with BOCE.

BUCKETS

Bucket Capacities	2.5-9.2 m ³ (3.3-12 yd ³)
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DIMENSIONS - STANDARD LIFT

Height - Top of ROPS	11.33 ft
Centerline of Rear Axle to Edge of Counterweight	6.33 ft
Height - Top of Hood	8.83 ft
Note	All dimensions are approximate and based on Michelin 23.5R25 XHA2 L3 radial tires.
Centerline of Rear Axle to Hitch	5.5 ft
Overall Length - Without Bucket	22.67 ft
Hinge Pin Height at Maximum Lift	13.25 ft
Rack Back - Carry Height	49 degrees
Rack Back - Maximum Lift	59 degrees
Height - Top of Exhaust Pipe	11.17 ft
Maximum Width - Over Tires - Loaded	9.25 ft
Lift Arm Clearance at Maximum Lift	10.75 ft
Ground Clearance	1.17 ft
Hinge Pin Height at Carry Height	2.08 ft

Wheel Base	11 ft
Tread Width	7 ft
Rack Back at Ground	36 degrees

OPERATING SPECIFICATIONS

Note (1)	For a machine configuration as defined Weight?
Static Tipping Load - Full 40° Turn - With Tire Deflection	24262 lb
Breakout Force	40690 lbf
Static Tipping Load - Full 40° Turn - No Tire Deflection	25926 lb
Note (2)	Full compliance to ISO 143971:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

HYDRAULIC SYSTEM

Implement Pump Type	Variable Axial Piston
Implement System - Maximum Pump Output at 2,150 rpm	76 gal/min
Implement System - Maximum Operating Pressure	4250 psi
Hydraulic Cycle Time - Total	8.9 s

DIMENSIONS

Overall Length (without bucket)	272 in
Maximum Width over Tires (loaded)	111 in
Tread Width	84 in

Height - Top of ROPS	92 in
Height - Top of Hood	106 in
Height - Top of Exhaust Pipe	90 in
Hinge Pin Height at Carry Height	25 in
Hinge Pin Height at Maximum Lift	159 in
Ground Clearance	14 in
Centerline of Rear Axle to Edge of Counterweight	76 in
Centerline of Rear Axle to Hitch	66 in
Note	All dimensions are approximate and based on Michelin 23.5R25 XHA2 L3 radial tires.
Wheel Base	132 in

TRANSMISSION

Forward - 2	7.5 mile/h
Forward - 1	4.3 mile/h
Forward - 5	24.5 mile/h
Note	Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 787 mm (31 in) roll radius.
Reverse - 3	16 mile/h
Forward - 4	16 mile/h
Forward - 3	12 mile/h
Reverse - 2	7.5 mile/h
Reverse - 1	4.3 mile/h

SERVICE REFILL CAPACITIES

Fuel Tank	72.6 gal (US)
Differential - Final Drives - Front	11.4 gal (US)
Cooling System	15.6 gal (US)
Hydraulic Tank	33 gal (US)
Transmission	11.4 gal (US)
Differential - Final Drives - Rear	11.4 gal (US)
DEF Tank	4.2 gal (US)
Crankcase	5.8 gal (US)

DIMENSIONS - HIGH LIFT

Height - Top of Hood	8.83 ft
Hinge Pin Height at Carry Height	2.58 ft
Height - Top of ROPS	11.33 ft
Lift Arm Clearance at Maximum Lift	11.92 ft
Centerline of Rear Axle to Hitch	5.5 ft
Hinge Pin Height at Maximum Lift	14.83 ft
Rack Back - Carry Height	49 degrees
Ground Clearance	1.17 ft
Centerline of Rear Axle to Edge of Counterweight	6.33 ft
Overall Length - Without Bucket	24.58 ft
Note	All dimensions are approximate and based on Michelin 23.5R25 XHA2 L3 radial tires.
Maximum Width - Over Tires - Loaded	9.25 ft
Tread Width	7 ft
Rack Back at Ground	40 degrees
Rack Back - Maximum Lift	59 degrees

Wheel Base	11 ft
Height - Top of Exhaust Pipe	11.17 ft

SOUND

Note (1)	*Distance of 15 m (49.2 ft), moving forward in second gear ratio.
With Cooling Fan Speed at 70% of Maximum Value - Operator Sound Pressure Level (ISO 6396:2008)**	69 dB(A)
With Cooling Fan Speed at Maximum Value - Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)
Note (2)	**For machines in European Union countries and in countries that adopt the ?EU Directives.?
Note (3)	***European Union Directive ?2000/14/EC? as amended by ?2005/88/EC.?
With Cooling Fan Speed at Maximum Value - Operator Sound Pressure Level (ISO 6396:2008)	70 dB(A)
With Cooling Fan Speed at Maximum Value - Exterior Sound Pressure Level (SAE J88:2013)	75 dB(A)*
With Cooling Fan Speed at 70% of Maximum Value - Exterior Sound Power Level (ISO 6395:2008)**	104 LWA***

BUCKET CAPACITIES

Bucket Range	2.5-9.2 m ³ (3.3-12 yd ³)
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950M STANDARD EQUIPMENT

NOTE

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

POWER TRAIN

Engine, Cat C7.1 meets Stage IV emission standards

Cat Clean Emissions Module (CEM) with Diesel Particulate Filter (DPF) and Diesel Exhaust Fluid (DEF) tank and pump

Fuel priming pump (electric)

Fuel/water separator

Precleaner, engine air intake

Economy Mode (selectable)

Transmission, automatic countershaft power shift (5F/3R)

Torque converter, locking clutch with free wheel stator

Switch, transmission neutralizer lockout

Axles, manually actuated differential lock front axle, open differential rear axle

Axles, ecology drains

Brakes, full hydraulic enclosed wet-disc with Integrated Braking System (IBS)

Brake wear indicators

Parking brake, disc and caliper

Fan, radiator, electronically controlled, hydraulically driven, temperature sensing, on demand

Radiator, high debris with wide fin spacing

OPERATOR ENVIRONMENT

Cab, pressureized and sound suppressed (ROPS/FOPS)

Viscous mounts

Multi-function 18 cm color LCD touch-screen display for rear vision camera image display (reverse travel activated) and machine status, setting and health parameters

EH controls, SAL (single axis lever) lift and tilt function

Steering, steering wheel

Radio ready (entertainment) includes antenna, speakers and converter (12V, 10-amp)

Air conditioner, heater, and defroster (auto temp and fan)

EH parking brake

Beverage holders (2) with storage compartment for cell phone/MP3 player

Bucket/work tool function lockout

Coat hook (2)

Cab air filter

Ergonomic cab access ladders and handrails

Horn, electric

Light, two dome (cab)

Mirrors, rearview external with integrated spot mirrors

Post mounted membrane 16 switch keypad

2 receptacles, 12V

Seat, Cat Comfort (cloth) air suspension

Seat belt, 51 mm retractable, with indicator

Sun visor, front

Wet-arm wipers/washers front and rear, intermittent front wiper

Window, sliding (left and right sides)

Cab tie-off

COMPUTERIZED MONITORING SYSTEM

With following gauges: Speedometer/tachometer; Digital gear range indicator; Diesel Exhaust Fluid (DEF) level; Temperature: engine coolant, hydraulic oil, transmission oil; Fuel level

With following warning indicators: Temperature: axle oil, engine intake manifold; Pressure: engine oil, fuel pressure hi/low, primary steering oil, service brake oil; Battery voltage hi/low; Engine air filter restriction; Hydraulic oil filter restriction; Hydraulic oil low; Parking brake; DEF low level; Transmission filter bypass

ELECTRICAL AND LIGHTING

Batteries (2), maintenance free 1,400 CCA

Ignition key; start/stop switch

Starter, electric, heavy duty

Starting and charging system (24V)

Lighting system: Four halogen work lights (cab mounted); Two LED stop, turn, tail lights; Two halogen roading lights (with signals); Two halogen rear vision lights (hood mounted)

Alarm, back-up

Alternator, 145-amp brushed

Main disconnect switch

Receptacle start (cables not included)

Secondary steering

CAT CONNECT TECHNOLOGIES

Link technologies: Product Link

Detect technologies: rear vision camera

LINKAGE

Linkage, optimized Z-bar, cast crosstube/tilt lever

Kickout, lift and tilt, automatic (adjustable in cab)

HYDRAULICS

Hydraulic system, load sensing

Steering, load sensing

Ride control, 2V

Remote diagnostic pressure taps

Hoses, Cat XT™

Couplings, Cat O-ring face seal

Hydraulic oil cooler (swing out)

Oil sampling valves

FLUIDS

Premixed extended life coolant with freeze protection to -34° C

OTHER STANDARD EQUIPMENT

Hood, non-metallic power tilting

Service centers (electrical and hydraulic)

Auto idle shutdown

Fenders with mud-flap/rear with extension

Ecology drains for engine, transmission, and hydraulics

Grill, airborne debris

Filters: fuel, engine air, engine oil, hydraulic oil, transmission

Fuel cooler

Grease zerks

Hitch, drawbar with pin

Precleaner rain cap

Sight gauges: engine coolant, hydraulic oil, and transmission oil level

Toolbox

Vandalism protection caplocks

950M OPTIONAL EQUIPMENT

NOTE

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

POWER TRAIN

Axles: Automatic front/rear differential locks; Axle oil cooler; Seal guards

Fan, VPF (variable pitch fan), automatic and manual control

Radiator, high debris with wider fin spacing

OPERATOR ENVIRONMENT

Door, remote opening system

Cover, HVAC metallic

EH controls, joystick lift and tilt - Additional roller switch for 4th function

EH controls, joystick lift and tilt - Additional integrated roller switched for 3rd and 4th functions

Filter, carbon fresh air

Mirrors, heated rearview external with integrated spot mirrors

Precleaner, HVAC

Precleaner, HVAC (RESPA)

Radio, AM/FM/CD/USB/MP3 Bluetooth with Satellite Sirius and XM

Radio, CB ready

Seat, heated air suspension

Seat belt, 76 mm (3 in) retractable, with indicator

Steering, EH wheel with directional FNR shifter and gear selector - Additional FNR with implement controls

Roof, metallic

Steering, secondary

Sun visor, rear

Windows, rubber mounted

Windows, with front guard

Windows, with heavy duty front guard

Windows, with full guards front, rear and sides

ELECTRICAL AND LIGHTING

Four additional auxiliary halogen cab mounted work lights or

Two additional auxiliary front HI LED and two additional auxiliary rear LED cab mounted work lights with 2 LED work lights in the radiator grill and LED front turn signals also includes replacement of the standard four halogen cab mounted work lights with four LED work lights (standard offering and only roading light available is the halogen roading light)

Warning amber strobe beacon

Reversing strobes

External seat belt indicator light

Speed limiter - 20 km/h (Europe only)

STARTERS, BATTERIES, AND ALTERNATORS

Cold start - 120V

Cold start - 240V

CAT CONNECT TECHNOLOGIES

Link technologies: VIMS™

Payload technologies: Advanced Productivity subscription; Cat Production Measurement 2.0; Printer; Aggregate Autodig

Detect technologies: Cat Rear Object Detection

Machine Security System

WORK TOOLS

Fusion quick coupler

Performance Series buckets

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Millyard forks

Grapple forks

Logging forks

Log and lumber forks

Pallet forks

Millyard pole forks

Woodchip buckets

High dump buckets

HYDRAULICS

3rd function with Ride Control

4th function with Ride Control

FLUIDS

Premixed extended life coolant with freeze protection to -50° C (-58° F)

OTHER OPTIONAL EQUIPMENT

Cat Autolube System

Fenders, roading

Guard, power train

Oil change, high speed engine

Precleaner, turbine

Precleaner, trash

Wheel chocks

Low profile tires

Auto idle shutdown

PURPOSE BUILT SPECIALTY MODELS

Industrial & Waste

Forestry

Corrosion Resistance