

# PRODUCT SPECIFICATIONS FOR 938K

US      Metric

<b>Maximum Gross Power</b>	140 kW
<b>Maximum Gross Power - 1,800 rpm - ISO 14396 (Performance Power Mode: Range 1-4)</b>	140 kW
<b>Engine Model</b>	Cat® C7.1
<b>Maximum Gross Power - 1,600 rpm - ISO 14396 (Standard Power Mode: Range 1-3*)</b>	129 kW
<b>Note (2)</b>	*Range 4 power is boosted to be the same as Performance Mode.
<b>Note (1)</b>	Net power shown is the power available at the flywheel when the engine is equipped with alternator and air cleaner.
<b>Maximum Gross Power - 1,800 rpm - ISO 14396 (metric) (Performance Power Mode: Range 1-4)</b>	190 hp
<b>Net Power - 1,800 rpm - SAE J1349 (Performance Power Mode: Range 1-4)</b>	136 kW
<b>Net Power - 1,600 rpm - ISO 9249 (metric) (Standard Power Mode: Range 1-3*)</b>	173 hp
<b>Net Power - 1,800 rpm - ISO 9249 (metric) (Performance Power Mode: Range 1-4)</b>	188 hp
<b>Net Power - 1,600 rpm - SAE J1349 (Standard Power Mode: Range 1-3*)</b>	126 kW
<b>Maximum Gross Power - 1,600 rpm - ISO 14396 (metric) (Standard Power Mode: Range 1-3*)</b>	175 hp

**Range 1-3\*)**

**Maximum Gross Torque - ISO 14396  
(Standard Power Mode: Range 1-3\*)** 896 N·m

**Displacement (Standard Power Mode:  
Speed Range 1-3\*)** 7.01 l

**Maximum Net Torque - ISO 9249 (1977)/EEC  
80/1269 (Standard Power Mode: Range  
1-3\*)** 870 N·m

**Emissions** Engine meets U.S. EPA Tier 3/EU Stage IIIA/Brazil  
MAR-1 equivalent emission standards.

**Maximum Gross Torque - ISO 14396  
(Performance Power Mode: Range 1-4)** 912 N·m

**Maximum Net Torque - SAE J1349  
(Standard Power Mode: Range 1-3\*)** 860 N·m

**Maximum Net Torque - ISO 9249 (1977)/EEC  
80/1269 (Performance Power Mode: Range  
1-4)** 886 N·m

**Maximum Net Torque - SAE J1349  
(Performance Power Mode: Range 1-4)** 876 N·m

**Displacement (Performance Power Mode:  
Speed Range 1-4)** 7.01 l

**Bucket Capacities** 2.5-5 m<sup>3</sup> (3.2-6.5 yd<sup>3</sup>)

**Bucket Capacities - General Purpose** 2.5-3.2 m<sup>3</sup> (3.2-4.2 yd<sup>3</sup>)

**Bucket Capacities - Light Material** 3.1-5 m<sup>3</sup> (4.0-6.5 yd<sup>3</sup>)

**Operating Weight** 15282 kg

<b>ROPS</b>	SAE J1040 MAY94, ISO 3471-1994
<b>FOPS</b>	SAE J/ISO 3449 APR98, Level II, ISO 3449 1992 Level II
<b>Note (1)</b>	Cab and Rollover Protective Structures (ROPS) are standard.
<b>Note (2)</b>	A semi-cab option is available.
<b>Axles - Front</b>	35 l
<b>Engine Crankcase</b>	19.5 l
<b>Fuel Tank</b>	195 l
<b>Hydraulic Tank</b>	90 l
<b>Hydraulic System - Including Tank</b>	170 l
<b>Transmission - Gear Box</b>	11 l
<b>Axles - Rear</b>	35 l
<b>Cooling System</b>	32 l
<b>Number of Steering Wheel Turns - Full Left to Full Right or Full Right to Full Left</b>	3.1 turns
<b>Steering Cycle Times - Full Left to Full Right - At 1,800 rpm: 90 rpm Steering Wheel Speed</b>	2.2 s
<b>Maximum Working Pressure - Steering Pump</b>	24130 kPa
<b>Maximum Flow - Steering Pump</b>	130 l/min

<b>Maximum Steering Torque - 40° (Full Turn)</b>	42570 N·m
<b>Maximum Steering Torque - 0° (Straight Machine)</b>	57630 N·m
<b>Steering Articulation Angle - Each Direction</b>	40°
<b>Front</b>	Fixed; Open differential (standard); Locking differential (optional)
<b>Rear</b>	Oscillating ±11 degrees; Open differential (standard); Limited slip differential (optional in some regions)
<b>Hydraulic Cycle Time - Performance Mode at 1,800 rpm - Float Down, Maximum Lift to Ground Level</b>	2.7 s
<b>Maximum Working Pressure - Implement Pump</b>	28000 kPa
<b>Hydraulic Cycle Time - Standard Mode at 1,600 rpm - Total Cycle Time</b>	10.6 s
<b>Maximum Flow - Implement Pump</b>	190 l/min
<b>Relief Pressure - Tilt Cylinder - 4th Function Maximum Working Pressure</b>	28000 kPa
<b>Hydraulic Cycle Time - Standard Mode at 1,600 rpm - Dump, at Maximum Lift Height</b>	1.7 s
<b>Maximum Flow - Implement Pump - 4th Function Maximum Flow*</b>	150 l/min
<b>Hydraulic Cycle Time - Performance Mode at 1,800 rpm - Dump, at Maximum Lift Height</b>	1.5 s
<b>Hydraulic Cycle Time - Performance Mode at</b>	0.7 s

<b>Hydraulic Cycle Time - Performance Mode at 1,800 rpm - Total Cycle Time</b>	5.7 s
<b>Relief Pressure - Tilt Cylinder - 3rd Function Maximum Working Pressure</b>	28000 kPa
<b>Hydraulic Cycle Time - Standard Mode at 1,600 rpm - Raise, Ground Level to Maximum Lift</b>	6.2 s
<b>Relief Pressure - Tilt Cylinder</b>	30000 kPa
<b>Hydraulic Cycle Time - Standard Mode at 1,600 rpm - Float Down, Maximum Lift to Ground Level</b>	2.7 s
<b>Note</b>	*Adjustable from 20% to 100% of maximum flow through the secondary display, when equipped.
<b>Hydraulic Cycle Time - Performance Mode at 1,800 rpm - Raise, Ground Level to Maximum Lift</b>	5.5 s
<b>Maximum Flow - Implement Pump - 3rd Function Maximum Flow*</b>	190 l/min
<b>Forward and Reverse - Range 2</b>	13 km/h
<b>Forward and Reverse - Range 4</b>	40 km/h
<b>Forward and Reverse - Range 3</b>	27 km/h
<b>Note</b>	*Creeper control allows maximum speed range adjustability from 1 km/h (0.6 mph) to 13 km/h (8 mph) in Range 1 through the secondary display, when equipped. Factory default is 7 km/h (4.4 mph).
<b>Forward and</b>	1-13 km/h (0.6-8 mph)

## Reverse - Range 1\*

**Note (1)** Other tire choices are available. Contact your Cat dealer for details.

**Other Choices Vary by Region (1)** 20.5-25 16 PR (L-3)

**Note (3)** Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model.

**Note (2)** In certain applications, the loader's productive capabilities may exceed the tire's tonnes-km/h (ton-mph) capabilities.

**Standard Size** 20.5 R25, radial (L-3)

**Note (3)** The declared exterior sound power level is 104 dB(A) when the value is measured according to the dynamic test procedures and the conditions that are specified in "ISO 6395:2008."

**Note (1)** The declared dynamic operator sound pressure level is 72 dB(A) when "ISO 6396:2008" is used to measure the value for an enclosed cab.

**Note (2)** The measurement was conducted at 70% of the maximum engine cooling fan speed, with the cab doors and cab windows closed. The cab was properly installed and maintained. The sound level may vary at different engine cooling fan speeds.

## **938K STANDARD EQUIPMENT**

### **POWER TRAIN**

Auto idle shut down feature

Cat C7.1 engine

Power modes (Standard and Performance)

Power by range (High Power in Range 4)

Turbocharged and aftercooled

Filtered crankcase breather

Coded start (requires secondary display)

Coolant protection to -34° C (-29° F)

Enclosed wet disc full hydraulic brakes

Fuel priming pump, automatic

Hydraulically driven demand cooling fan

Hydrostatic transmission with electronic control

Operator modes (Default, TC, Hystat, and Ice)

Directional Shift Aggressiveness (fast, medium, slow)

Rimpull control, adjust wheel torque

Creeper control, adjust ground speed

Parking brake, electric

Single plane cooling package wide six fins per inch density

Throttle lock and max speed limiter

### **HYDRAULICS**

Automatic lift and bucket kickouts, adjustable in-cab

Bucket and fork modes, adjustable in-cab

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Cylinder damping at kickout and mechanical end stops  
Fine mode control (fast, medium, slow) in fork mode  
Hydraulic response setting (fast, medium, slow)  
Hydraulic diagnostic connectors and S·O·SSM ports  
Load sensing hydraulics and steering

## **ELECTRICAL**

Alternator, 115 amp, heavy duty  
12V power supply in cab (2)  
Batteries, 1,000 CCA (2) 24V system, disconnect switch  
Back-up alarm  
Emergency shutdown switch  
Halogen work and roading lights, LED rear tail lights  
Remote jump start post  
Resettable main and critical function breakers

## **OPERATOR ENVIRONMENT**

75 mm (3 in) retractable seat belt, with audible alarm and indicator  
Automatic temperature control  
External mirrors with lower parabolic  
Hydraulic control lockout  
Interior cab lighting, door and dome  
Interior rear view mirrors (2)  
Lunch box storage  
Radio ready speakers  
Seat-mounted electronic implement controls, adjustable  
Column mounted multi function control – lights, wipers, turn signal  
Tilt and telescopic steering wheel  
Tinted front glass

## **OTHER STANDARD EQUIPMENT**

Large-access enclosure doors with adjustable close/open force  
Parallel lift loader linkage



**938K OPTIONAL EQUIPMENT**  
**OPTIONAL EQUIPMENT**

Auto lube, integrated in secondary display  
Auxiliary flow, third and fourth function, adjustable through secondary display  
Beacon light, strobe  
Cab, deluxe  
Camera, roof mounted, front view with separate display\*  
Rear window defroster (standard in Europe)  
Secondary display to adjust settings (standard in Europe)  
Sunscreen, front and rear  
Wet arm wiper/washer, front and rear  
\*Forward facing camera system may be required for local EU requirements. Consult your local Cat dealer for additional information.  
Camera, rear view (standard in Europe)  
Cold start package  
Corrosion protection package  
Counterweight, (heavy and logger)  
Coupler, (Fusion™ and ISO 23727)  
Debris packages (low, medium, high)  
Differential lock, front axle  
Fenders (extended cover and full coverage)  
Guarding (machine and operator)  
Linkage, high lift  
Lights, auxiliary, halogen or LED with engine compartment lights  
Lights, LED front roading  
Load check valves  
Object Detection  
Product Link™ PRO and ELITE with capabilities for software push, data logging, histogram and trend mapping  
Radio packages  
Rear wiper  
Ride Control System, adjustable through secondary display  
Seats  
Deluxe seat – fully adjustable fabric air suspension seat with mid backrest and mechanical lumbar support  
Premium seat – fully adjustable leather and fabric air suspension with high backrest and air lumbar support. Seat is heated and ventilated on bottom cushion and backrest.  
Steering  
Dual mode and secondary  
CE Certification (standard in Europe)  
NOTE: Not all features are available in all regions.

