

# PRODUCT SPECIFICATIONS FOR 994K



<b>Net Power</b>	1297 kW
<b>Engine Model</b>	Cat® 3516E
<b>Bore</b>	170 mm
<b>Stroke</b>	215 mm
<b>Displacement</b>	78.1 l
<b>Rated Speed</b>	1,600 rpm
<b>Emissions</b>	U.S. EPA Tier 4 Final/EU Stage IV* or U.S. EPA Tier 1/EU Stage I Equivalent
<b>Gross Power - SAE J1995</b>	1394 kW
<b>Peak Torque - 1,200 rpm - SAE J1995</b>	11591 N·m
<b>Gross Power - ISO 14396</b>	1377 kW
<b>Torque Rise</b>	39%
<b>Net Power - SAE J1349 - Standard Ambient</b>	1297 kW
<b>Note (4)</b>	*Tier 4 Final/EU Stage IV configuration is ready to meet Stage V emission requirements once in effect.
<b>Net Power - SAE J1349 - High Ambient</b>	1265 kW
<b>Note (1)</b>	The power ratings apply when tested under the reference conditions for the specified standard.

**Note (2)** The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner, and muffler.

**Note (3)** The gross power advertised is with the fan at maximum speed.

**Operating Weight** 242605 kg

**Bucket Capacity Range** 17.2 - 43.6 m<sup>3</sup> (22.3 - 57 yd<sup>3</sup>)

**Rated Payload - Standard Lift (Moderate to High Digging Resistance)** 40.8 t

**Rated Payload - Standard Lift (Low to Moderate Digging Resistance)** 54.4 t

**Rated Payload - High Lift (Moderate to High Digging Resistance)** 38.1 t

**Rated Payload - High Lift (Low to Moderate Digging Resistance)** 49.9 t

**Bucket Capacity Range - Iron Ore** 17.2 - 21.4 m<sup>3</sup> (22.3 - 28 yd<sup>3</sup>)

**Bucket Capacity Range - Rock** 19.1 - 29.1 m<sup>3</sup> (25 - 38 yd<sup>3</sup>)

**Bucket Capacity Range - Coal** 32.1 - 43.6 m<sup>3</sup> (42 - 57 yd<sup>3</sup>)

**Note** \*In Low to Moderate Digging Resistance: please contact your local dealer to determine if your application is suitable for this increased rated payload

**Transmission Type** Cat Planetary Power Shift

<b>Forward - 1</b>	7.4 km/h
<b>Forward - 2</b>	12.9 km/h
<b>Forward - 3</b>	21.9 km/h
<b>Reverse - 1</b>	8.1 km/h
<b>Reverse - 2</b>	14.1 km/h
<b>Reverse - 3</b>	24 km/h
<b>Direct Drive - Forward 3</b>	24.5 km/h
<b>Direct Drive - Reverse 3</b>	27 km/h
<b>Direct Drive - Reverse 1</b>	Lock-up disables
<b>Direct Drive - Forward 2</b>	14 km/h
<b>Direct Drive - Reverse 2</b>	15.5 km/h
<b>Direct Drive - Forward 1</b>	Lock-up disables
<b>Note</b>	Travel speeds based on 58/85-57 tires.
<b>Relief Valve Setting - Lift/Tilt</b>	32500 kPa
<b>Maximum Flow at 1,700 rpm Engine Speed</b>	2047 l/min
<b>Cylinders, Double Acting - Tilt, Bore and Stroke</b>	310 × 1086 mm (12.2 × 42.8 in)
<b>Cylinders, Double Acting - Lift, Bore and Stroke</b>	370 × 1713 mm (14.6 × 67.4 in)
<b>Pilot System</b>	Open Loop and Pressure Reducing

**Lift/Tilt System - Pump**

Variable Displacement Piston

**Lift/Tilt System - Circuit**

Positive Flow Control

**Raise**

12.6 s

**Dump**

3.1 s

**Rack Back**

4.9 s

**Lower Float Down**

4.2 s

**Total Hydraulic Cycle Time - Empty Bucket**

23.5 s

**Hydraulic Tank - Steering and Braking**

379 l

**Transmission**

416 l

**Fuel Tank - Standard**

3445 l

**Hydraulic Tank - Implement and Hydraulic Fan**

1022 l

**Engine Crankcase**

288 l

**Cooling System**

520 l

**Fuel Tank - With 24 hr Attachment**

5678 l

**Differential - Final Drives - Rear**

757 l

**Differential - Final Drives - Front**

833 l

**Oil Renewal System (ORS)\***

75.7 l

<b>Diesel Exhaust Fluid (DEF) (Tier 4 Final/Stage IV)</b>	519 l
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<b>Note</b>	*Not available on Tier 4 Final machines. Not available in all regions.
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<b>Bucket Capacities</b>	19.1-43.6 m <sup>3</sup> (25-57 yd <sup>3</sup> )
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<b>Front</b>	Fixed
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<b>Rear</b>	Trunnion
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<b>Oscillation Angle</b>	9°
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<b>Brakes</b>	ISO 3450:2011
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<b>Operator Sound Level (ISO 6396:2008) - Tier 1/EU Stage I Equivalent</b>	72 dB(A)
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<b>Machine Sound Level (ISO 6395:2008)</b>	119 dB(A)
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<b>Operator Sound Level (ISO 6396:2008) - Tier 4 Final/EU Stage IV*</b>	72 dB(A)
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<b>Sound Performance</b>	The measurement was conducted at 70 percent of the maximum engine cooling fan speed. Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
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<b>Note</b>	*EU Stage V ready.
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<b>Maximum Flow at 1,700 rpm Engine Speed</b>	980 l/min
<b>Relief Valve Setting - Steering</b>	31000 kPa
<b>Steering System - Circuit</b>	Pilot, Load Sensing
<b>Total Steering Angle</b>	80 degrees
<b>Steering System - Pump</b>	Piston, Variable Displacement
<b>Steering Cycle Times - Low Idle</b>	7.6 s
<b>Steering Cycle Times - High Idle</b>	4.3 s
<b>Ambient Capability Hydraulically Driven Demand Fan - Standard</b>	43 °C
<b>Ambient Capability Hydraulically Driven Demand Fan - High (Tier 4 Final)</b>	53 °C
<b>Ambient Capability Hydraulically Driven Demand Fan - High (Tier 1 equivalent)</b>	55 °C
<b>Front Axle Centerline to Bucket Tip</b>	6503 mm
<b>Rack Back Angle - Ground Level</b>	39.7 degrees
<b>Clearance at Maximum Lift</b>	6167 mm
<b>Ground to Top of ROPS</b>	7118.5 mm
<b>Maximum Overall Length</b>	19508 mm

<b>Maximum Overall Height - Bucket Raised</b>	11771 mm
<b>Reach - Maximum Lift</b>	2821 mm
<b>Rack Angle at Maximum Lift</b>	59.5 degrees
<b>Ground to Top of Exhaust Stacks</b>	7067 mm
<b>Ground to Bumper Clearance</b>	1355 mm
<b>Dump Angle at Maximum Lift</b>	-50 degrees
<b>Width - Over Tires - With Bulge</b>	5758 mm
<b>Ground to Center of Axles</b>	1820 mm
<b>Tread Width</b>	4300 mm
<b>Note</b>	Assumes 22.9 m <sup>3</sup> (30 yd <sup>3</sup> ) bucket for standard lift, and 21.4 m <sup>3</sup> (28 yd <sup>3</sup> ) bucket for high lift, fitted with Cat Advansys™ heavy duty tips. Assumes tire size 58/85-57.
<b>B-Pin Height - Maximum Lift</b>	8790 mm
<b>Rack Back Angle - Carry</b>	47.7 degrees
<b>Rear Axle - Centerline to Bumper</b>	6205 mm
<b>Ground to Lower Hitch Clearance</b>	898 mm

**Ground to Top of Hood** 5682 mm

**Wheel Base** 6800 mm

**Rack Back Angle - Carry** 53.7 degrees

**Reach - Maximum Lift** 2688 mm

**Ground to Lower Hitch Clearance** 898 mm

**Maximum Overall Length** 20102 mm

**Ground to Bumper Clearance** 1355 mm

**Rack Back Angle - Ground Level** 45 degrees

**Tread Width** 4300 mm

**Clearance at Maximum Lift** 7095 mm

**Dump Angle at Maximum Lift** -50 degrees

**Rear Axle - Centerline to Bumper** 6205 mm

**Ground to Center of Axles** 1820 mm

**Wheel Base** 6800 mm

**Maximum Overall Height - Bucket Raised** 12545 mm



<b>Ground to Top of Hood</b>	5682 mm
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<b>Width - Over Tires - With Bulge</b>	5760 mm
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<b>B-Pin Height - Maximum Lift</b>	9647 mm
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<b>Ground to Top of Exhaust Stacks</b>	7067 mm
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<b>Front Axle Centerline to Bucket Tip</b>	7097 mm
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<b>Rack Angle at Maximum Lift</b>	59.4 degrees
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<b>Ground to Top of ROPS</b>	7118.5 mm
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<b>Note</b>	Assumes 22.9 m <sup>3</sup> (30 yd <sup>3</sup> ) bucket for standard lift, and 21.4 m <sup>3</sup> (28 yd <sup>3</sup> ) bucket for high lift, fitted with Cat Advansys™ heavy duty tips. Assumes tire size 58/85-57.
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<b>Operator Sound Level (ISO 6396:2008) - Tier 4 Final/EU Stage IV*</b>	71 dB(A)
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<b>Note</b>	*EU Stage V ready.
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<b>Machine Sound Level (ISO 6395:2008)</b>	117 dB(A)
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<b>Sound Performance</b>	The measurement was conducted at 70 percent of the maximum engine cooling fan speed. Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
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**Operator Sound Level**            71 dB(A)  
**(ISO 6396:2008) - Tier 1/EU**  
**Stage I Equivalent**

# 994K STANDARD EQUIPMENT

## NOTE

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

## POWER TRAIN

Engine, 3516E High Displacement (HD) Mechanical Electronic Unit Injector (MEUI™-A), Air-to-Air Aftercooling (ATAAC) diesel, turbocharged/aftercooled

Engine prelube

Fuel priming pump (electric)

Ground-level engine shutoff

Engine air intake (above hood) precleaner

Aluminum Modular Radiator (AMR)

Automatic, ether starting aid

Electronic throttle lock

Impeller Clutch Torque Converter (ICTC) with Lock-Up Clutch and rimpull control system

Rimpull control system

Planetary powershift, 3F/3R electronic control transmission

Delayed engine shutdown

Oil-cooled, multi-disc, service brakes

Electro-hydraulic parking brake

## LINKAGE

Standard lift (40.8 tonnes/45 tons face, 54.4 tonnes/60 tons loose)

## ELECTRICAL

Alternator

Dry batteries

10/15 amp, 24V to 12V converter

Disconnect switch to bumper

LED warning lights (pattern selectable)

LED lighting system (working lights, access and service platform lights, turn signals/hazard lights)

Emergency jump-start receptacle

Starter and transmission lockout in bumper

24V starting and charging system

Electric starters

24V starting and charging system

Electric starters

## OPERATOR ENVIRONMENT

Bonded glass, tinted

Premium seat with heated and actively cooled leather, adjustable lumbar support, air adjustable bolsters on the seat and backrest, seat cushion tilt adjustment, and adjustable length seat cushion

Dual lever lift and tilt function controls

Implement kickouts

Air conditioner

Cab pressure indicator

Graphical touchscreen information display conveys real-time operating information and payload

measurement

Heater, defroster, auto temperature controls

Gauge instrumentation

- DEF Level, if equipped
- Coolant temperature
- Hydraulic oil temperature
- Fuel level
- Power train oil temperature
- Engine speed (tachometer)
- Transmission gear
- Ground speed
- Engine hour meter

Warning/indicator instrumentation

- Low DEF Level, if equipped
- Three category action alert system
- Brake malfunction
- Bucket float status
- Delayed engine shutdown status
- Engine idle shutdown status
- Engine malfunction
- Fuel economy mode enable status
- Hydraulic lockout
- Lockup clutch enable status
- Low fuel level
- Parking brake status
- Quick shift enable status
- Rimpull control enable status
- Seat belt warning
- Secondary steering
- Throttle lock status
- Transmission gear
- Turn signal

Keypad control with indicator lights

- Fuel economy mode
- Implement kickouts
- Lockup clutch
- Manual lube
- Quickshift enable
- Rimpull control system
- Side rearview mirror heater
- Throttle lock
- Turn signals
- Dash backlight control
- Hazard lights

Dome light in cab

Lunchbox and beverage holders  
Steering and Transmission Integrated Control (STIC™) system  
Sun screen, pull down (front and rear)

Vital Information Management System (VIMS™) with Information Display: external data port, Cycle Timer, integrated Cat Production Measurement (CPM)

Keypad, messenger, ET, VIMS

Coat hook

## **SAFETY**

Electric (field and shop) horns

Ground-access ladders

Rear-vision camera

Front frame access with steps

Front walkway around cab

Pump bay access ladders with T-handle and platform

Tie-offs on ROPS and radiator guards

Steering frame lock

Stairways on both sides of the machine

LED stairway and access lights

Toe kicks

Retractable seatbelt, 76 mm (3 in) wide

Trainer seat with lap belt, 76 mm (3 in) wide

Back-up alarm

Secondary steering

## **MACHINE CONTROL AND GUIDANCE**

CPM Payload Weighing System

## **FUEL TANK**

12 hour (3440 L/910 gal)

## **COOLING**

Standard ambient package (recommended for site conditions that do not exceed 43° C [110° F])

## **SERVICE**

Ground-level service center including:

- Service center light
- Implement and cooling fan oil level indicator
- Steering and brake oil level indicator
- Window washer solvent level indicator
- Transmission oil level indicator
- DEF level indicator (if equipped)
- Fuel level indicator
- Engine oil level indicator
- Engine coolant level indicator
- Automatic lubrication system grease tank level indicator
- DEF purge indicator lamp
- Starter lockout and LED
- Heavy-duty battery disconnect switch
- Stairway light switch
- Service lighting switch (if equipped)
- Fuel shutoff engine shutdown switch
- Engine oil fast-fill port
- Transmission oil fast-fill port
- Steering and brake hydraulic oil fast-fill port
- Steering and brake hydraulic oil drain port
- Oil renewal system fast-fill port
- Engine coolant fast-fill port
- DEF fill port (HRC only)
- Implement and cooling fan hydraulic oil fast-fill port
- Implement and cooling fan hydraulic oil drain port
- Automatic lubrication system grease tank fill port
- 24V jump-start receptacle
- 240V jacket water and engine oil heater plug (if equipped)
- 12V power port
- VIMS key switch
- 14-pin machine data port
- VIMS Messenger display

In-tank mounted cartridge-type case drain filters with in-line magnetic plugs on implement, cooling fan, brake and steering pumps

High-pressure screens on the output side of implement, cooling fan, brake and steering pumps

Pump efficiency monitoring

Automatic lubrication system greases the linkage, hitch, steering and axle trunnion bearings

Electronic pressure control of the automatic lubrication system eliminates pressure adjustment and monitors grease thickness for temperature compatibility

Rock guards on linkage grease lines

Cat O-ring face seal couplings

Lockable service access doors

Ecology drains for engine, radiator, hydraulic tank, steering and brake tank, brake cooling tank and axles  
High-speed engine oil change system  
Ground-level fast-fill fuel system

Transmission guard  
Drawbar hitch with pin  
Cat XT™ hoses  
Left-side service center  
Oil sampling valves

## **EFFICIENCY**

Economy Mode  
Variable displacement implement pumps  
Variable displacement load sensing steering  
Variable displacement cooling fan pump  
Torque converter lock-up clutch









## **994K OPTIONAL EQUIPMENT**

### **NOTE**

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

### **SPARE RIMS**

1118 mm (44") 152 mm (44 \_ 57) (6") flange

1194 mm (47") 152 mm (44 \_ 57) (6") flange

1194 mm (47") 127 mm (47 \_ 57) (5") flange

### **SOUND**

Sound-suppression package

### **RIMS AND TIRES**

Rims – 1118 mm (44") (44 \_ 57) 152 mm (6") flange. For use with 53.5/85-5776PR L5 tires

Tires – 53.5/85-57 FS 76PR L5 (require 44" rims)

Rims – 1194 mm (47") (47 \_ 57) 127 mm (5") flange. For use with 60/80 R57L5R XMine D2 SR tires

Tires – 58/85-57 84PR I 4 (require 47" rims)

Rims - 1194 mm (47") (47 \_ 57) 152 mm (6") flange. For use with 58/85-5784PR L4 tires

## **ELECTRICAL**

Service lights

## **POWER TRAIN**

Oil Renewal System (ORS) (Not available on Tier 4 Final machines. Not available in all regions.)

## **LINKAGE**

High lift (38.1 tonnes/42 tons face, 49.9 tonnes/55 tons loose)

## **OPERATOR ENVIRONMENT**

Rubber-mounted, high-impact resistant solar control glass (Complies with AS/NZS 2080)

Joystick lift and tilt function controls

AM/FM/AUX radio

AM/FM/AUX/USB/BT/CD/SAT radio

## **SAFETY**

Powered ground-access stairs

Cat Detect (Rear Object Detection)

Wheel chocks

## **COLD WEATHER**

Cold-weather cooling fan bypass (recommended for temperatures below -29° C [-20° F])

Heavy-duty starter (provides an additional electric starter motor and two additional batteries for a total of three starter motors and six batteries) (recommended for temperatures below 0° C [32° F])

240V engine oil and coolant heating elements (recommended in conditions from -18° C to -30° C [0° F to -22° F])

Fuel heater (heated by recirculation using engine heat and a heat exchanger) (recommended in conditions from -18° C to -30° C [0° F to -22° F])

Heated mirrors (recommended for below-freezing temperatures)

## **MACHINE CONTROL AND GUIDANCE**

Cat Terrain ready

## **FUEL TANK**

24 hour (5700 L/1,506 gal)

## **COOLING**

High ambient package (recommended for site conditions that do not exceed 53° C [127° F])

