

Product Specifications For 993



Engine - Tier 4 Final

Engine Model	Cat C32B
Bore	145 mm
Displacement	32.1 l
Emissions	U.S. EPA Tier 4 Final, U.S. EPA Tier 2 Equivalent
Gross Power - SAE J1995	775 kW
Net Power - EEC 80/1269	726 kW
Net Power - ISO 14396	764 kW
Net Power - ISO 9249	726 kW
Net Power - SAE J1349	719 kW
Peak Torque - 1,250 rpm	5470 N·m
Rated Speed	1800 r/min
Stroke	162 mm
Torque Rise	33%
Note	Standard ambient cooling.

Operating Specifications

Operating Weight - Tier 4 Final*	133668 kg
Bucket Range	12.2-23.7 m ³ (16.0-31 yd ³)

Articulation Angle	43 °
Cat Truck Match - Standard Lift	777
Cat Truck Match - High Lift	777, 785
Operating Weight - Tier 2 Equivalent*	133668 kg
Rated Payload - High Lift	24.9 t
Rated Payload - Standard Lift	27.2 t
Note	*High lift, 50/65-51 (364-6315) tires, standard cooling, 13.8 m3 (18 yd3) bucket (496-9912).

Engine - Tier 2 Equivalent

Bore	145 mm
Displacement	32.1 l
Emissions	U.S. EPA Tier 4 Final, U.S. EPA Tier 2 Equivalent
Engine Model	Cat C32B
Gross Power - SAE J1995	767 kW
Net Power - EEC 80/1269	716 kW
Net Power - ISO 14396	757 kW
Net Power - ISO 9249	716 kW
Net Power - SAE J1349	710 kW
Peak Torque - 1,250 rpm	5470 N·m

Rated Speed	1800 r/min
Stroke	162 mm
Torque Rise	33%
Note	Standard ambient cooling.

Transmission

Transmission Type	Cat Planetary Power Shift
Forward - 1	6.8 km/h
Forward - 2	11.9 km/h
Forward - 3	20.5 km/h
Reverse - 1	7.5 km/h
Reverse - 2	13.1 km/h
Reverse - 3	22.5 km/h
Direct Drive - Forward 1	Lock-up disabled
Direct Drive - Forward 2	13 km/h
Direct Drive - Forward 3	22.8 km/h
Direct Drive - Reverse 1	8 km/h
Direct Drive - Reverse 2	14.2 km/h
Direct Drive - Reverse 3	25.2 km/h
Note	50/65-51 (364-6315) calculated speeds.

Hydraulic System - Lift/Tilt

Cylinders - Lift/Tilt	Double-acting
Lift Cylinder - Bore	267 mm
Lift Cylinder - Stroke	1682 mm
Lift/Tilt System - Circuit	Positive Flow Control
Lift/Tilt System - Pump	Variable Piston
Maximum Flow at 1,650 rpm	1180 L/min
Relief Valve Setting - Lift/Tilt	29500 kPa
Tilt Cylinder - Bore	235 mm
Tilt Cylinder - Stroke	1040 mm
Note	High Lift configuration.

Hydraulic Cycle Times

Dump	1.8 s
Lower	3.8 s
Lower Float Down	3.1 s
Rack Back	2.4 s
Raise	9.2 s
Total Hydraulic Cycle Time	17.2 s
Note	High Lift configuration, calculated speeds.

993 Standard Equipment

POWERTRAIN

Engine, C32B
Brakes, oil-cooled, multi-disc, service/secondary
Driveline parking brake
Fuel Priming Pump (electric)
Ground level engine shutoff
Precleaner, engine air intake (above hood)
Automatic, ether starting aid
Electronic throttle lock
Planetary powershift, 3F/3R electronic control transmission
Rimpull Control System
Standard ICTC

SERVICE

Case drain filters
VIMS download and Cat. Electronic
Technician service port in bumper
Axle ecology drain
Front walkway around cab
Ground-level fast-fill fuel system
Grouped hydraulic pressure ports
Guards, crankcase and power train
Drawbar hitch with pin
Linkage pins, maintenance free
Oil sampling valves
Product Link™
Service center with ground level electrical and fluid connections
Sight gauges for steering, implement and
transmission oil
Transmission lockout, bumper
Grease lines

COOLING

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

ELECTRICAL AND LIGHTING

150-amp alternator
Four 1400 CCA batteries
Deutsch terminal connectors
24V starting and charging system
Diagnostic connector starting and charging system
Electrical system, 24 volt
Electronic Service Center
Electronic Transmission Control
Lighting system, halogen (front and rear) lighting, access stairway
Starter receptacle for emergency start
Starter and transmission lockouts in bumper

COLD WEATHER

Heated Seat

SAFETY

Back-up alarm

Mirrors, rearview (externally mounted)

Seat, trainer with lap belt, 76 mm (3 in) wide

Seat belt, retractable, 76 mm (3 in) wide

Emergency platform egress

Implement lock switch

Stairway, left and right rear access

Steering and transmission lock lever, cab

Toe kicks

OPERATOR ENVIRONMENT

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

Advisor Display, displays real time operating information, performs calibrations and customizes operator settings

Air conditioner

Air precleaner

Cab, sound suppressed and pressurized, separate external Rollover Protective Structure (ROPS)/Falling Object Protective Structure (FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 10-amp) and power port

Cigar lighter, ashtray

Coat hook

Dual lever lift and tilt function controls

Digital display on center console: – Gear – Ground speed – Machine hours

Heater, defroster

Horn, electric

Instrumentation, gauges: – Coolant temperature – Fuel level – Hydraulic oil temperature – Power train oil temperature – Tachometer

Light, cab, dome

Lunchbox, beverage and manual holders

Wet-Arm wipers/washers (front and rear): – Intermittent front and rear wipers

Bonded glass, tinted

EFFICIENCY

Automatic bucket leveler

Automatic lift and lower bucket kickout

Positive Flow Control implement system

Load-sensing steering

LINKAGE

Standard lift (30 tons face)

993 Optional Equipment

POWERTRAIN

ICTC with lock up clutch
Engine Brake

SERVICE

Automatic Autolube

COOLING

High ambient package (recommended for site conditions that do not exceed 55° C [131°F])

ELECTRICAL AND LIGHTING

Product Link (Cellular)
Product Link (Satellite)

COLD WEATHER

Fuel heater (heated by recirculation using engine heat and a heat exchanger) (recommended in condition from -18° C to -30° C [0° F to -22° F])
-50° C (-58° F) antifreeze
Heated Mirrors
120V or 240V coolant heating elements (recommended in conditions from -18° C to -30° C [0° F to -22° F])

SAFETY

LED warning strobe
Object detection (radar)
Rear vision camera
Egress, powered rear access
Secondary Steering
Wheel Chocks

OPERATOR ENVIRONMENT

Joystick lift and tilt function controls
AM/FM/CD/MP3 radio
Cab precleaner
Satellite Sirius radio with Bluetooth.
Sun screen
Rubber-mounted, high-impact resistant solar control glass (Complies with AS/NZS 2080)

EFFICIENCY

ICTC with lock-up clutch

MACHINE CONTROL AND GUIDANCE

Cat Terrain ready

RIMS AND TIRES

40.00x51 spare rim

Tires – 50/65R51

Tires – 50/65-51

Axle oscillation limit stop

LOAD AND CARRY OR EXTENSIVE TRAMMING

Ride Control

Rear Rooding Fenders

LINKAGE

High lift (27.5 tons face)

SOUND SUPPRESSION

Sound-suppression package