

PRODUCT SPECIFICATIONS FOR R2900G

ENGINE

Engine Model	Cat® C15
Engine Power - VR Engine - ISO 14396:2002	299 kW
Bore	137.2 mm
Stroke	171.5 mm
Displacement	15.2 l
Rated Power	1800 r/min
Engine Power - Tier 3 Engine - ISO 14396:2002	299 kW

All rating conditions are based on ISO/TR14396:2002, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (0.295 in Hg), and 25° C (77° F).

Note (2)

Performance measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 97/68/EC with a density of 0.845-0.850 kg/L @ 15° C (7.05-7.09 lb/gal @ 59° F) and fuel inlet temperature 40° C (104° F).

Note (4)

Optional Ventilation Reduction Package available.

Note (1)

Power ratings apply at a rated speed of 1,800 rpm when tested under the reference conditions for the specified standard.

Note (3)

No engine derating required up to 591 m (1,938 ft) altitude.

Note (5)

Optional Tier 3 engine package emits equivalent to U.S. EPA Tier 3 and EU Stage IIIA.

OPERATING SPECIFICATIONS

Rated Payload	17200 kg
Gross Machine Mass	70350 kg
Static Tipping Load - Straight Ahead - Lift Arms Horizontal	39923 kg
Static Tipping Load - Full Turn - Lift Arms Horizontal	34069 kg
Breakout Force - SAE	27346 kg

TRANSMISSION

Forward - 1 5.4 km/h
Forward - 2 9.7 km/h
Forward - 3 17.3 km/h
Forward - 4 29.8 km/h
Reverse - 1 6.6 km/h
Reverse - 2 11.8 km/h
Reverse - 3 21 km/h
Reverse - 4 35.5 km/h

HYDRAULIC CYCLE TIMES

Raise	9.2 s
Dump	3.4 s
Lower, Empty, Float Down	3.1 s
Total Cycle Time	15.7 s

TURNING DIMENSIONS

Axle Oscillation	8°
Articulation Angle	42.5°
Outside Clearance Radius	7323 mm
Inner Clearance Radius	3383 mm

TIRES

Tire Size 29.5 × 29

SERVICE REFILL CAPACITIES

Rear Differential and Final Drives - With Axle Oil Cooling System	167 l
Front Differential and Final Drives - With Axle Oil Cooling System	159 l
Engine Crankcase	34 l
Front Differential and Final Drives	119 l
Transmission	62 l
Hydraulic Tank	140 l
Rear Differential and Final Drives	127 l

Fuel Tank - Dual	1425 l
Cooling System	75 l

STANDARDS

Cab - FOPS	ISO 3449, SAE J231, AS2294.3, EN13627
Brakes	ISO 3450, AS2958.1, CAN-CSA424.30-M90
Cab - ROPS	ISO 3471, SAE J1040, AS2294.2, EN13510

WEIGHTS

Note	*Calculated Weight.
Operating Mass + Rated Payload* - Rear Axle	17189 kg
Operating Mass*	50209 kg
Operating Mass + Rated Payload* - Front Axle	50220 kg
Operating Mass* - Front Axle	23057 kg
Operating Mass + Rated Payload*	67409 kg
Operating Mass* - Rear Axle	27152 kg

BUCKET CAPACITIES

Dump Bucket - 4	8.9 m ³
Dump Bucket - 2	7.2 m ³
Dump Bucket - 3	8.3 m ³
Dump Bucket - 1	6.3 m ³

R2900G STANDARD EQUIPMENT

ELECTRICAL

- Engine shutdown switch
- Lighting: Bucket lip
 - External, front, rear, stop light, dual halogen
- Receptacle Group, auxiliary start
- Starter, electric, 24-volt
- Starting and charging system

- Alarm, reversing
- Alternator, 95 amp
- Battery disconnect switch, ground level
- Batteries, low maintenance
- Diagnostic connector

OPERATOR ENVIRONMENT

- Automatic Brake Application (ABA)
- Cab:
 - Cab, open, ROPS/FOPS
- Caterpillar Electronic Monitoring System (CEMS), dash instrumental panels
- Horns, electric
- Instrumentation/gauges:
 - Speedometer/tachometer
 - Fuel level
 - Hydraulic oil temperature
 - Engine coolant temperature
- Operator presence system
- Light, warning, residual brake
- Mounting, ROPS
- Pilot hydraulic implement controls (single joystick)
- Seat:
 - Seat, suspension, vinyl
- Seat belt, retractable

POWER TRAIN

- Brakes, full hydraulic enclosed wet multiple-disc (SAFR)
- Engine:
 - Cat C15 six cylinder diesel
 - Air-to-air aftercooler (ATAAC)
- Exhaust:
 - Exhaust, purifier, muffler
- Filter, engine, remote mounted
- Fuel adapters:
 - Standard fill, dual, rubber coated, double steel braided fuel lines

- Fuel priming pump
- Park Brake Switch Engagement (choose between):
 - Push to Apply
 - Pull to Apply
- Pre-cleaner, engine air intake
- Torque converter, lock-up clutch (LUC)
- Transmission:
 - Electronic Clutch Pressure Control (ECPC)
 - Auto planetary powershift (4F/4R)
 - Transmission neutralizer

OTHER STANDARD EQUIPMENT

- Brake axle cooling
- Cap, radiator, manual release
- Catalytic exhaust purifier/muffler
- Dump bucket
- Bucket lip:
 - Lip weldings – full weld edge or tack weld edge and corners
- Decals, International Picto Graphics
- Fenders, front, rear
- Firewall
- Guards, engine and transmission
- Handholds
- Lift arm positioner for return to dig
- Radiator grill, swing out
- Service oil sample
- Valve, drain, transmission oil filter
- Valve, hydraulic, standard
- Windows:
 - Single pane

TIRES, RIMS, AND WHEELS

- Tires arrangements: tires must be selected from the Mandatory Attachments section, choose between:

- Tire, 29.5 × R29 VSMS 2 Bridgestone
- Tire, 29.5 × R29 VSDL L5 Bridgestone
- Rims (set of four): five piece, tubeless

R2900G OPTIONAL EQUIPMENT

ELECTRICAL

- Battery disconnect switch, in cab
- Lighting:
 - Cat LED work lights
 - Truck loading light

OPERATOR ENVIRONMENT

- Cab:
 - Cab, enclosed, ROPS/FOPS
- Camera, color rear facing
- Duct, air, flow diverter
- Idle timer (enclosed cab)
- Instrumentation/gauges:
 - Brake pressure
- Seat:
 - Seat, suspension, tee, vinyl
 - Seat, suspension, air, vinyl
 - Seat covers, tee, air and standard

TECHNOLOGY PRODUCTS

- Command for Underground*
- Vital Information Management System (VIMS) Gen 3
- Payload system, Loadrite
- Remote Control Interface (excludes transmitter and receiver) – RCT
- Note: *Please consult with your Regional Commercial or Technology Representative prior to upgrading your machine to Command for Underground.

TIRES, RIMS, AND WHEELS

- Rim identification numbering
- Spare rim (tubeless)

POWER TRAIN

- Exhaust:
 - Particulate filter, Flow Thru
 - Particulate filter, Wall Flow
- Fuel adapters:
 - Standard fill, dual, stainless steel covered, single braided fuel lines
 - Fast fill, dual, rubber coated, double steel braided fuel lines
 - Fast fill, dual, stainless steel covered, single braided fuel lines
- Secondary Steering System
- Engine Options:
 - Engine, Ventilation Reduction (VR)
 - VR engine, Flow Thru Ready
 - Engine, Tier 3

OTHER OPTIONAL EQUIPMENT

- Brake Release Arrangements:
 - Recovery hook
 - Recovery bar
- Buckets:
 - Various sizes, dump (6.3 m³/8.2 yd³ to 8.9 m³/11.6 yd³)
 - Light materials, dump, uninstalled (10.5 m³/13.7 yd³, 11.6 m³/15.2 yd³)
- Bucket lip:
 - Modular weld-on
 - Bolt-on lips
 - Durilock™
- Ground Engaging Tools:
 - Cutting edge, Cat weld-on
 - Cutting edge, bolt-on half arrow
 - Cutting edge, shrouds, Durilock
 - MAWPS – bucket lip protection
 - Heel shrouds
 - Wear bars
 - Liners
 - Overflow guard
- Faster fill and evacuation systems:
 - Engine, Fast Fill
 - Radiator, Fast Fill
 - Hydraulic, Fast Fill
 - Transmission, Fast Fill
- Draw bar attachment, bolt-on
- Fire Suppression System:
 - Ansul, dry powder
 - Foam, water based

- Fluids:
 - Arctic coolant
 - Arctic fuel
- Guard, light and window
- Handrails
- Lubrication System:
 - Automatic
 - Centralized
- Mine Transfer
- Reversible steering
- Reflective tape
- Ride Control System
- Service tools:
 - Collet jacking bolts
 - Recovery bar
- Vandalism protection
- Windows
 - Dual pane
- Wear protection bars:
 - Cab/ROPS
 - Hydraulic tank
 - Radiator