



R1300G

Underground Mining Loader

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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R1300G Underground Mining Loader Specifications

Engine

Engine Model	Cat® 3306B DITA	
Engine Power – ISO 14396:2002	117 kW	157 hp
Bore	120.7 mm	4.75 in
Stroke	152.4 mm	6 in
Displacement	10.5 L	640.75 in ³

- Power ratings apply at a rated speed of 2,200 rpm when tested under the reference conditions for the specified standard.
- 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). 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).
- Engine derate will commence at an altitude of 4500 m (14,763.7 ft).

Operating Specifications

Rated Payload	6800 kg	14,991 lb
Gross Machine Mass	29 702 kg	65,842 lb
Static Tipping Load Straight Ahead Lift Arms Horizontal	20 575 kg	45,360 lb
Static Tipping Load Full Turn Lift Arms Horizontal	17 870 kg	39,397 lb
Breakout Force (SAE)	12 020 kg	26,504 lb

Weights

Operating Mass*	20 725 kg	45,691 lb
Front Axle	7625 kg	16,810 lb
Rear Axle	13 100 kg	28,881 lb
Operating Mass + Rated Payload*	27 525 kg	60,682 lb
Front Axle	18 645 kg	41,105 lb
Rear Axle	8880 kg	19,577 lb

*Calculated weights.

Transmission

Forward 1	4.5 km/h	2.8 mph
Forward 2	7.8 km/h	4.8 mph
Forward 3	15 km/h	9.3 mph
Forward 4	26.3 km/h	16.3 mph
Reverse 1	4.5 km/h	2.8 mph
Reverse 2	7.8 km/h	4.8 mph
Reverse 3	14.8 km/h	9.2 mph
Reverse 4	23 km/h	14.3 mph

Hydraulic Cycle Time

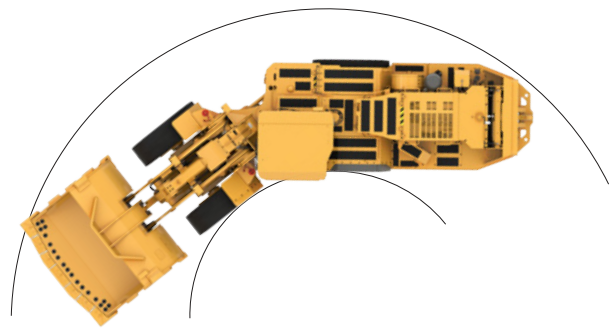
Raise	5 Seconds
Dump	2 Seconds
Lower, empty, float down	2.3 Seconds
Total Cycle Time	9.3 Seconds

Bucket Capacities

Dump Bucket – 1	2.5 m ³	3.2 yd ³
Dump Bucket – 2	2.8 m ³	3.7 yd ³
Dump Bucket – 3 (Standard Bucket)	3.1 m ³	4.1 yd ³
Dump Bucket – 4	3.4 m ³	4.4 yd ³
Ejector Bucket	2.4 m ³	3.1 yd ³

Turning Dimensions

Outside Clearance Radius	5717 mm	225.1 in
Inner Clearance Radius	2825 mm	111.2 in
Axle Oscillation	10°	
Articulation Angle	42.5°	



Tires

Tire Size	17.5 × R25
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Service Refill Capacities

Engine Crankcase with Filter	25 L	6.6 gal
Transmission	45 L	11.9 gal
Hydraulic Tank	88 L	23.2 gal
Cooling System	67 L	17.7 gal
Front Differential and Final Drives	38 L	10 gal
Rear Differential and Final Drives	42 L	11.1 gal
Fuel Tank	295 L	77.9 gal

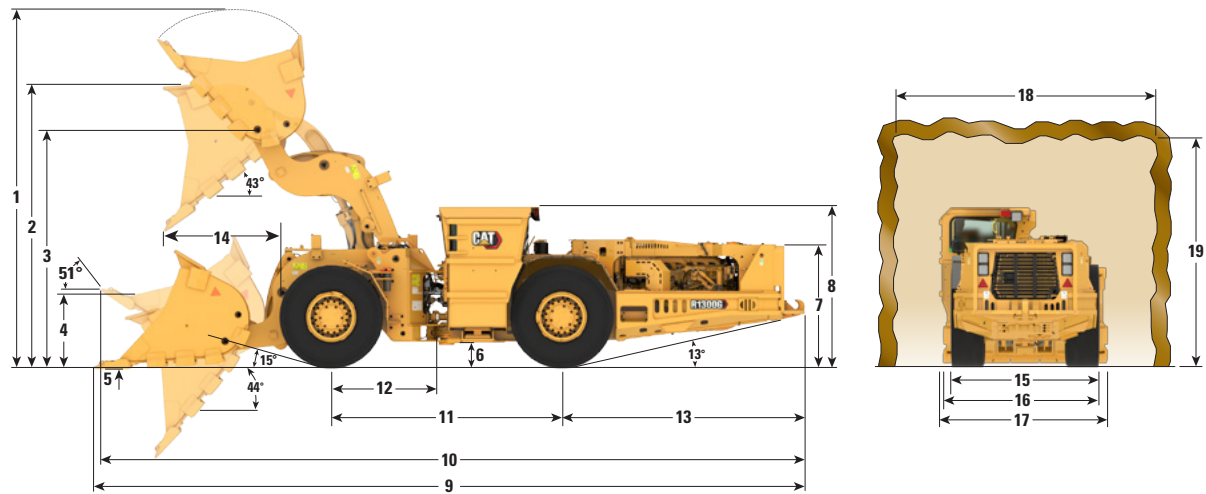
Standards

Rollover Protective Structure (ROPS)/
Falling Object Protective Structure
(FOPS) Certified Cab

R1300G Underground Mining Loader Specifications

Dimensions

All dimensions are approximate.



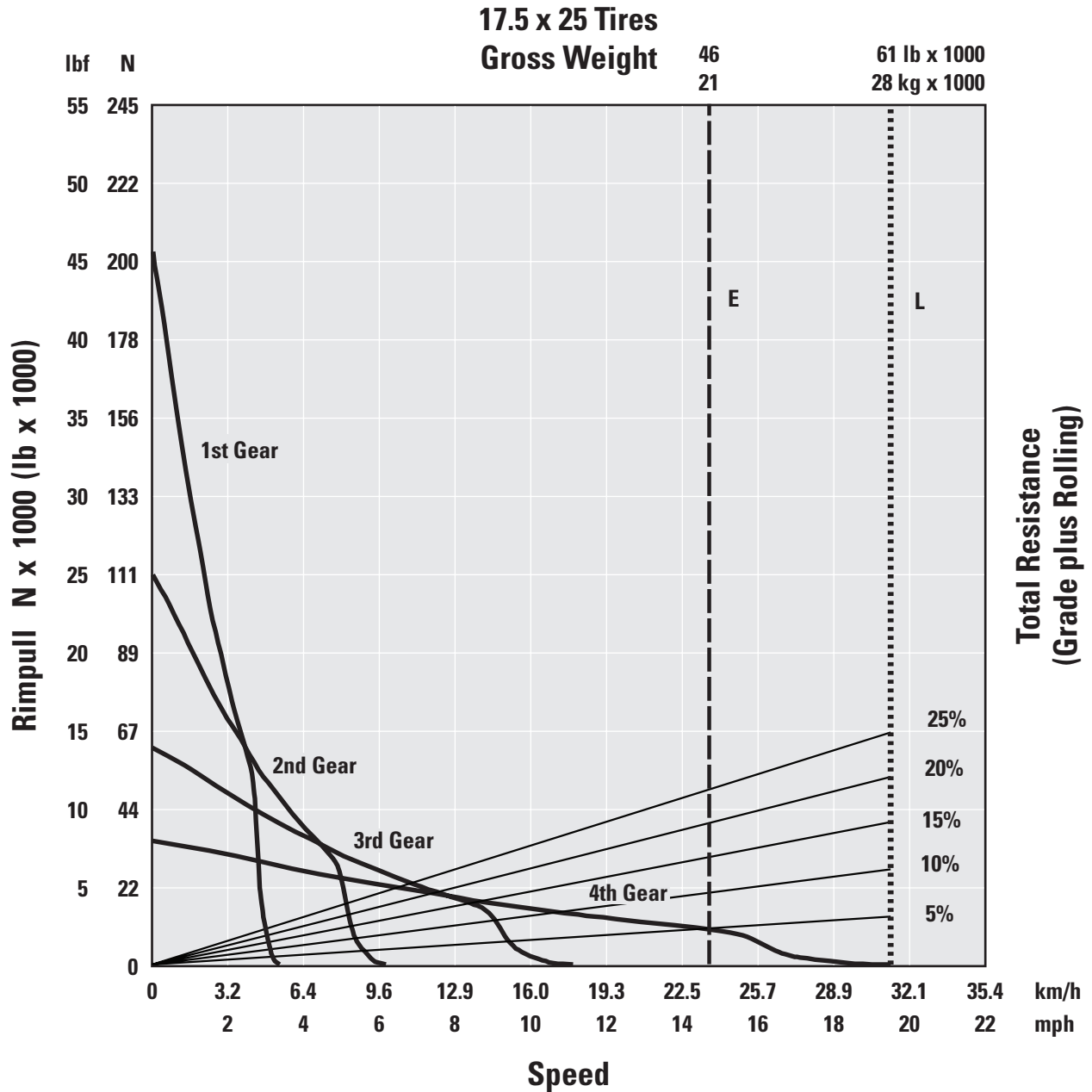
	513-7350		186-9278		243-6143		243-6224		157-3622	
	Dump Bucket		Dump Bucket		Dump Bucket		Dump Bucket		Ejector Bucket	
Bucket Capacity	2.5 m ³	3.2 yd ³	2.8 m ³	3.7 yd ³	3.1 m ³	4.1 yd ³	3.4 m ³	4.4 yd ³	2.4 m ³	3.1 yd ³
	mm	in	mm	in	mm	in	mm	in	mm	in
Bucket Width over Cutting Edge	2010	79.1	2010	79.1	2200	86.6	2400	94.5	2200	86.6
1 Height – Bucket Raised	4302	169.4	4302	169.4	4302	169.4	4302	169.4	4302	169.4
2 Height – Max Dump	3531	139.0	3531	139.0	3531	139.0	3531	139.0	3579	140.9
3 Height – Max Lift Bucket Pin	2918	114.9	2918	114.9	2918	114.9	2918	114.9	2918	114.9
4 Height – Dump Clearance at Max Lift	1695	66.7	1560	61.4	1560	61.4	1563	61.5	1563	61.5
5 Height – Digging Depth	21	0.8	36	1.4	34	1.3	36	1.4	36	1.4
6 Height – Ground Clearance	321	12.6	321	12.6	321	12.6	321	12.6	321	12.6
7 Height – Top of Hood	1628	64.1	1628	64.1	1628	64.1	1628	64.1	1628	64.1
8 Height – Top of ROPS	2120	83.5	2120	83.5	2120	83.5	2120	83.5	2120	83.5
9 Length – Overall (Digging)	8915	351.0	9100	358.3	9107	358.5	9095	358.1	9095	358.1
10 Length – Overall (Tramming)	8590	338.2	8707	342.8	8714	343.1	8704	342.7	8704	342.7
11 Length – Wheelbase	3050	120.1	3050	120.1	3050	120.1	3050	120.1	3050	120.1
12 Length – Front Axle to Hitch	1525	60.0	1525	60.0	1525	60.0	1525	60.0	1525	60.0
13 Length – Rear Axle to Bumper	2932	115.4	2932	115.4	2932	115.4	2932	115.4	2932	115.4
14 Length – Reach	1450	57.1	1588	62.5	1583	62.3	1584	62.4	1584	62.4
15 Width – Overall Tire	1900	74.8	1900	74.8	1900	74.8	1900	74.8	1900	74.8
16 Width – Machine without Bucket	2109	83.0	2109	83.0	2109	83.0	2109	83.0	2109	83.0
17 Width – Machine with Bucket	2195	86.4	2195	86.4	2290	90.2	2460	96.9	2290	90.2
18 Recommended Clearance Width	3000	118.1	3000	118.1	3000	118.1	3000	118.1	3000	118.1
19 Recommended Clearance Height	2800	110.2	2800	110.2	2800	110.2	2800	110.2	2800	110.2

R1300G Underground Mining Loader Specifications

Gradeability/Speed/Rimpull

To determine gradeability performance: Read from gross weight down to the percent of total resistance. Total resistance equals actual percent grade plus rolling resistance. As a general guide use 2% for rolling resistance in underground application or refer to the Caterpillar Performance Handbook. From the total resistance point, read horizontally to the curve with the highest obtainable gear, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.

- - - - - Typical Field Empty Weight
 Loaded Weight



E – Empty 20 725 kg (45,691 lb)
 L – Loaded 27 525 kg (60,682 lb)

R1300G Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
POWER TRAIN			OPERATOR ENVIRONMENT (continued)		
Brakes, full hydraulic enclosed wet multiple-disc (SAFR)	✓		Caterpillar Electronic Monitoring System (CEMS), (dash instrument panels)	✓	
Engine			Horns, electric	✓	
– Cat 3306B six cylinder, diesel	✓		Instrumentation/gauges		
– DITA (Direct Injection, Turbocharged, Aftercooled)	✓		– Speedometer/tachometer	✓	
– After-Treatment Options – DPF (Flow Through)		✓	– Fuel level	✓	
Fuel Priming Aid	✓		– Hydraulic oil temperature	✓	
Heat Shields	✓		– Engine coolant temperature	✓	
Park Brake Automatic Activation		✓	– Brake pressures		✓
Park Brake Switch Engagement – Push to Apply/Pull to Apply		✓	Light, warning, residual brake	✓	
Precleaner, engine air intake	✓		Pilot hydraulic implement controls (single joystick)	✓	
Radiator, High Efficiency		✓	Seat, Suspension Tee with retractable seat belt	✓	
Reversible Steering		✓	Secondary Steering System		✓
Torque converter	✓		Steering and Transmission Integrated Control (STIC™) Steering	✓	
Transmission, automatic planetary power shift (4F/4R)	✓		TECHNOLOGY		
Transmission Neutralizer	✓		Remote Control Interface (excludes Transmitter and Receiver), includes Warning Lights (Green)		✓
ELECTRICAL			– Cattron		✓
Alarm, reversing	✓		– RCT		✓
Alternator, 75 amp	✓		Ride Control System		✓
Battery disconnect switch, ground level	✓		TIRES, RIMS, AND WHEELS		
Batteries, low maintenance	✓		Tires must be selected from the Mandatory Attachments section, choose between:	✓	
Diagnostic connector	✓		– Tire, 17.5 × R25 VSMS L5S		
Engine shutdown switch	✓		– Tire, 17.5 × R25, VSDL Bridgestone		
Lighting			Rims		
– External, front, rear	✓		– Tubeless, set of four	✓	
– Stop, single	✓		– Tube, set of four		✓
Receptacle group, auxiliary start	✓		– Spare (Tube or Tubeless)		✓
Starter, electric, 24-volt	✓		– Rim Identification Numbering		✓
Starting and charging system	✓				
OPERATOR ENVIRONMENT					
Cab, ROPS and/or FOPS certified	✓				
Operator's Station ROPS/FOPS Enclosed		✓			
– Air Conditioning		✓			
– Cab Pressurizer and Filter		✓			
– Dome Light		✓			
– Door Strut		✓			
– Heater		✓			
– Radio Ready Compartment for Radio and Speakers		✓			
– Wiper Control, Intermittent		✓			

(continued on next page)

R1300G Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
OTHER STANDARD AND OPTIONAL EQUIPMENT			OTHER STANDARD AND OPTIONAL EQUIPMENT <i>(continued)</i>		
Cap, radiator, manual release	✓		Fenders, front, rear	✓	
Catalytic exhaust purifier/muffler	✓		Firewall	✓	
Brake Release Arrangements, includes Steering Release			Fire Suppression System – Ansul, Powder Based		✓
– Recovery Hook		✓	Fluids		
– Recovery Bar		✓	– Arctic Fuel		✓
Bucket Dump (3.1 m ³ /4.1 yd ³)	✓		– Arctic Coolant		✓
Bucket			Guards, engine and transmission	✓	
– Cutting Edge, Bolt-On		✓	Handholds	✓	
– Cutting Edge, Cat Weld On		✓	Hydraulic oil cooler, swing out	✓	
– Heel Shrouds, Ejector and Dump Buckets		✓	Lifting Group, Mine Transfer		✓
– Lip Fully Welded or Tack Welded		✓	Lubrication System		
– Mechanically Attached Wear Plate System (MAWPS)		✓	– Semi central	✓	
– Various Sizes, Dump (2.5 m ³ /3.2 yd ³ , 2.8 m ³ /3.7 yd ³ , 3.4 m ³ /4.4 yd ³), Ejector (2.4 m ³ /3.1 yd ³)		✓	– Centralized		✓
– Standard Lip or Bolt-On Lip		✓	– Automatic		✓
– Wear Bars, Ejector and Dump Buckets		✓	Protection bars, rear frame	✓	
– Wear Liner		✓	Radiator grill, swing out	✓	
Covers			Reflective Tape		✓
– Guard, for lift arm and front frame lights		✓	Service Tools		✓
– Rear Grill (Additional Bolt-On Guard)		✓	Switches		
Decals, International Picto Graphics	✓		– Idle Timer		✓
Draw Bar Attachment, Bolt-On		✓	– Lift Arm Positioner		✓
Fast Fill System			– Transmission Neutralizer Override Switch		✓
– Coolant		✓	– Transmission Pressure Automatic Brake Application (ABA) Park Brake Engagement		✓
– Engine Oil		✓	Service oil sample	✓	
– Fuel		✓	Valve, drain, transmission oil filter	✓	
– Hydraulic Oil		✓			
– Transmission Oil		✓			

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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