

245G LC



Engine	245G LC		
	<i>Base engine for use in the U.S., U.S. Territories, and Canada</i>		
Manufacturer and Model	Isuzu 4HK1		
Non-Road Emissions Standard	EPA Interim Tier 4/EU Stage IIIB		
Net Rated Power (ISO 9249)	119 kW (159 hp) at 1,900 rpm		
Cylinders	4		
Displacement	5.2 L (317 cu. in.)		
Off-Level Capacity	70% (35 deg.)		
Aspiration	Turbocharged, air-to-air charge-air cooler		
Cooling	Direct-drive suction-type fan		
Powertrain	2-speed propel with automatic shift		
Maximum Travel Speed			
Low	3.5 km/h (2.2 mph)		
High	5.5 km/h (3.4 mph)		
Drawbar Pull	20 700 kg (45,636 lb.)		
Hydraulics	Open center, load sensing		
Main Pumps	3 variable-displacement axial-piston pumps		
Maximum Rated Flow	212 x 2 + 189 L/m (56 x 2 + 50 gpm)		
Pilot Pump	One gear		
Maximum Rated Flow	30 L/m (7.9 gpm)		
Pressure Setting	3999 kPa (580 psi)		
System Operating Pressure			
Circuits			
Implement	34 336 kPa (4,980 psi)		
Travel	35 000 kPa (5,076 psi)		
Swing	32 600 kPa (4,728 psi)		
Power Boost	38 000 kPa (5,511 psi)		
Controls	Pilot levers, short stroke, low-effort hydraulic pilot controls with shutoff lever		
Cylinders	<i>Bore</i>	<i>Rod Diameter</i>	<i>Stroke</i>
Boom (2)	120 mm (4.72 in.)	85 mm (3.35 in.)	1330 mm (52.36 in.)
Arm (1)	135 mm (5.31 in.)	95 mm (3.74 in.)	1475 mm (58.07 in.)
Bucket (1)	115 mm (4.53 in.)	80 mm (3.15 in.)	1060 mm (41.73 in.)
Electrical	Number of Batteries (12 volt)		
	2		
Battery Capacity	651 CCA		
Alternator Rating	50 amp		
Work Lights	2 halogen (one mounted on boom, one on frame)		
Undercarriage	Rollers (each side)		
	Carrier		
	2		
	Track		
	8		
Shoes, Triple Semi-Grousers (each side)	49		
Track	Adjustment		
	Hydraulic		
	Guides		
	Center		
	Chain		
	Sealed and lubricated		
Ground Pressure	Triple Semi-Grouser Shoes		
	600 mm (24 in.)		
	51 kPa (7.40 psi)		
	700 mm (28 in.)		
	45 kPa (6.53 psi)		
	800 mm (32 in.)		
	40 kPa (5.80 psi)		



Swing Mechanism	245G LC
Speed	11.8 rpm
Torque	68 000 Nm (50,000 lb.-ft.)

Serviceability

Refill Capacities	
Fuel Tank	380 L (100 gal.)
Cooling System	25 L (26.4 qt.)
Engine Oil with Filter	23 L (24 qt.)
Hydraulic Tank	130 L (34.3 gal.)
Hydraulic System	240 L (63.4 gal.)
Gearbox	
Swing	6.2 L (6.6 qt.)
Propel (each)	6.8 L (7.2 qt.)
Pump Drive	1.6 L (1.7 qt.)

Operating Weights

With full fuel tank; 79-kg (175 lb.) operator; 1067-mm (42 in.), 0.8-m³ (1.04 cu. yd.), 649-kg (1,430 lb.) heavy-duty bucket; 2.91-m (9 ft. 7 in.) arm; 7480-kg (16,490 lb.) counterweight; and 800-mm (32 in.) triple semi-grouser shoes

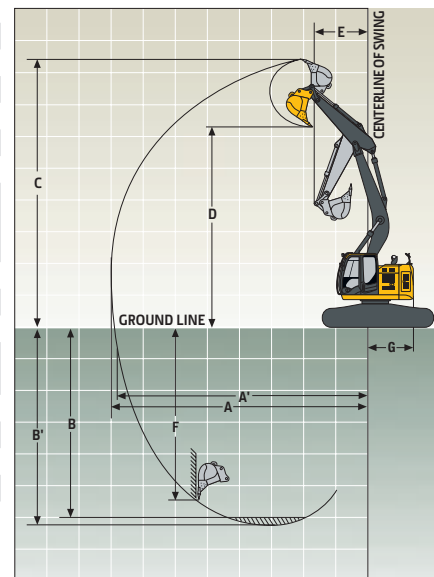
Operating Weight 25 500 kg (56,167 lb.)

Component Weights

Undercarriage with Triple Semi-Grouser Shoes	
600 mm (24 in.)	7490 kg (16,498 lb.)
700 mm (28 in.)	7900 kg (17,401 lb.)
800 mm (32 in.)	8170 kg (17,996 lb.)
One-Piece Boom (with arm cylinder)	1674 kg (3,687 lb.)
Arm with Bucket Cylinder and Linkage	
2.42 m (7 ft. 11 in.)	765 kg (1,685 lb.)
2.91 m (9 ft. 7 in.)	815 kg (1,795 lb.)
Boom-Lift Cylinders (2), Total Weight	340 kg (749 lb.)
1067-mm (42 in.), 0.8-m ³ (1.04 cu. yd.)	649 kg (1,430 lb.)
Bucket	
Counterweight, Standard	7480 kg (16,490 lb.)

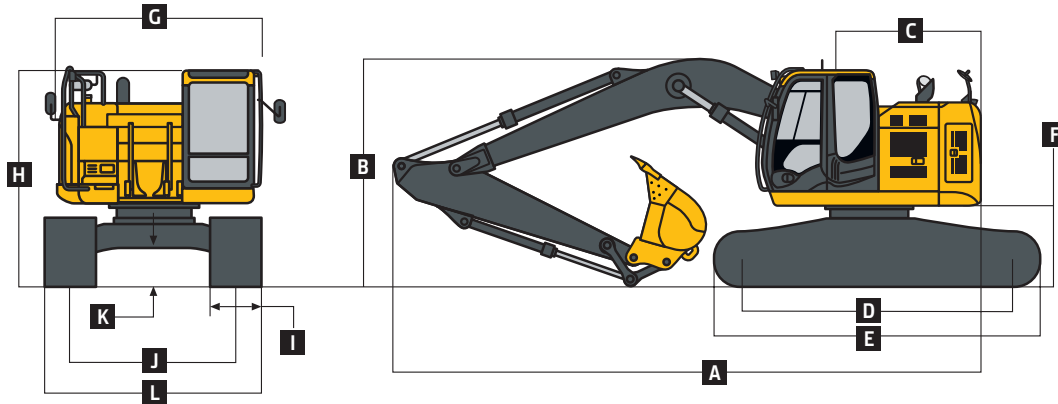
Operating Dimensions

Arm Length	<i>2.42 m (7 ft. 11 in.)</i>	<i>2.91 m (9 ft. 7 in.)</i>
Arm Digging Force		
SAE	133 kN (29,901 lb.)	110 kN (24,730 lb.)
ISO	140 kN (31,475 lb.)	114 kN (25,629 lb.)
Bucket Digging Force		
SAE	141 kN (31,700 lb.)	141 kN (31,700 lb.)
ISO	158 kN (35,522 lb.)	158 kN (35,522 lb.)
Lifting Capacity Over Front at Ground Level 6.1-m (20 ft. 0 in.) Reach (with power boost)	6855 kg (15,112 lb.)	7032 kg (15,504 lb.)
A Maximum Reach	9.62 m (31 ft. 7 in.)	10.11 m (33 ft. 2 in.)
A' Maximum Reach at Ground Level	9.40 m (30 ft. 10 in.)	9.90 m (32 ft. 6 in.)
B Maximum Digging Depth	6.12 m (20 ft. 1 in.)	6.62 m (21 ft. 9 in.)
B' Maximum Digging Depth at 2.44-m (8 ft. 0 in.) Flat Bottom	5.87 m (19 ft. 3 in.)	6.41 m (21 ft. 0 in.)
C Maximum Cutting Height	10.79 m (35 ft. 5 in.)	11.22 m (36 ft. 10 in.)
D Maximum Dumping Height	7.86 m (25 ft. 9 in.)	8.92 m (29 ft. 3 in.)
E Minimum Swing Radius	2.72 m (8 ft. 11 in.)	2.38 m (7 ft. 10 in.)
F Maximum Vertical Wall	5.19 m (17 ft. 0 in.)	5.81 m (19 ft. 1 in.)
G Tail-Swing Radius	1.68 m (5 ft. 6 in.)	1.68 m (5 ft. 6 in.)



Machine Dimensions **245G LC**

A Overall Length with Arm	2.42 m (7 ft. 11 in.)	9.27 m (30 ft. 5 in.)
	2.91 m (9 ft. 7 in.)	9.11 m (29 ft. 11 in.)
B Overall Height with Arm	2.42 m (7 ft. 11 in.)	3.23 m (10 ft. 7 in.)
	2.91 m (9 ft. 7 in.)	2.98 m (9 ft. 9 in.)
C Rear-End Length/Swing Radius		1.68 m (5 ft. 6 in.)
D Distance Between Idler/Sprocket Centerline		3.66 m (12 ft. 0 in.)
E Undercarriage Length		4.46 m (14 ft. 8 in.)
F Counterweight Clearance		990 mm (3 ft. 3 in.)
G Upperstructure Width		2.97 m (9 ft. 9 in.)
H Cab Height		2.99 m (9 ft. 10 in.)
I Track Width with Triple Semi-Grouser Shoes		600 mm (24 in.) / 700 mm (28 in.) / 800 mm (32 in.)
J Gauge Width		2.39 m (7 ft. 10 in.)
K Ground Clearance		450 mm (17.72 in.)
L Overall Width with Triple Semi-Grouser Shoes		
	600 mm (24 in.)	2.99 m (9 ft. 10 in.)
	700 mm (28 in.)	3.09 m (10 ft. 2 in.)
	800 mm (32 in.)	3.19 m (10 ft. 6 in.)



Lift Capacities

Boldface type indicates hydraulically limited capacity; **lightface type** indicates stability-limited capacities, in kg (lb.). All lift capacities are based on ISO 10567 (with power boost). Machine equipped with 666-kg (1,468 lb.) bucket and standard counterweight; and situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)	
Horizontal Distance from Centerline of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 2.42-m (7 ft. 11 in.) arm and 800-mm (32 in.) triple semi-grouser shoes</i>										
6.0 m (20 ft.)					5856 (12,697)	5856 (12,697)	5314 (11,632)	4854 (10,426)		
4.5 m (15 ft.)					7356 (15,809)	7356 (15,809)	5896 (12,791)	4675 (10,063)	5235 (11,470)	3180 (6,815)
3.0 m (10 ft.)					9325 (20,020)	6879 (14,848)	6729 (14,555)	4430 (9,544)	5284 (11,359)	3082 (6,620)
1.5 m (5 ft.)					10 619 (22,909)	6462 (13,927)	7356 (15,823)	4213 (9,076)	5171 (11,122)	2979 (6,404)
Ground Line					10 770 (23,330)	6315 (13,588)	7213 (15,512)	4087 (8,800)	5101 (10,980)	2915 (6,275)
-1.5 m (-5 ft.)			9357 (21,373)	9357 (21,373)	10 088 (21,863)	6325 (13,603)	7187 (15,456)	4063 (8,751)		
-3.0 m (-10 ft.)			11 515 (24,935)	11 515 (24,935)	8532 (18,385)	6452 (13,887)	6113 (12,971)	4160 (8,983)		
-4.5 m (-15 ft.)					5093	5093				
<i>With 2.91-m (9 ft. 7 in.) arm and 600-mm (24 in.) triple semi-grouser shoes</i>										
6.0 m (20 ft.)					5131 (11,138)	5131 (11,138)	4817 (10,538)	4785 (10,278)	3943	3164
4.5 m (15 ft.)			9366 (19,787)	9366 (19,787)	6612 (14,220)	6612 (14,220)	5457 (11,841)	4597 (9,892)	4882 (10,672)	3107 (6,662)
3.0 m (10 ft.)					8647 (18,571)	6831 (14,735)	6363 (13,763)	4341 (9,348)	5138 (11,041)	2991 (6,422)
1.5 m (5 ft.)					10 250 (22,097)	6343 (13,669)	7165 (15,408)	4100 (8,828)	5006 (10,764)	2871 (6,168)
Ground Line			3940 (9,135)	3940 (9,135)	10 787 (23,339)	6115 (13,156)	6986 (15,018)	3941 (8,483)	4911 (10,565)	2785 (5,987)
-1.5 m (-5 ft.)	5334 (11,946)	5334 (11,946)	8390 (19,088)	8390 (19,088)	10 409 (22,542)	6072 (13,056)	6921 (14,879)	3884 (8,360)	4888 (10,525)	2763 (5,950)
-3.0 m (-10 ft.)	9750 (21,925)	9750 (21,925)	12 970 (28,063)	12 453 (26,661)	9180 (19,807)	6156 (13,244)	6655 (14,263)	3933 (8,476)		
-4.5 m (-15 ft.)			9184 (19,510)	9184 (19,510)	6591 (13,865)	6393 (13,787)				

Lift Capacities (continued)

245G LC

Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). All lift capacities are based on ISO 10567 (with power boost). Machine equipped with 666-kg (1,468 lb.) bucket and standard counterweight; and situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

Load Point Height 1.5 m (5 ft.) 3.0 m (10 ft.) 4.5 m (15 ft.) 6.0 m (20 ft.) 7.5 m (25 ft.)

Horizontal Distance from Centerline of Rotation

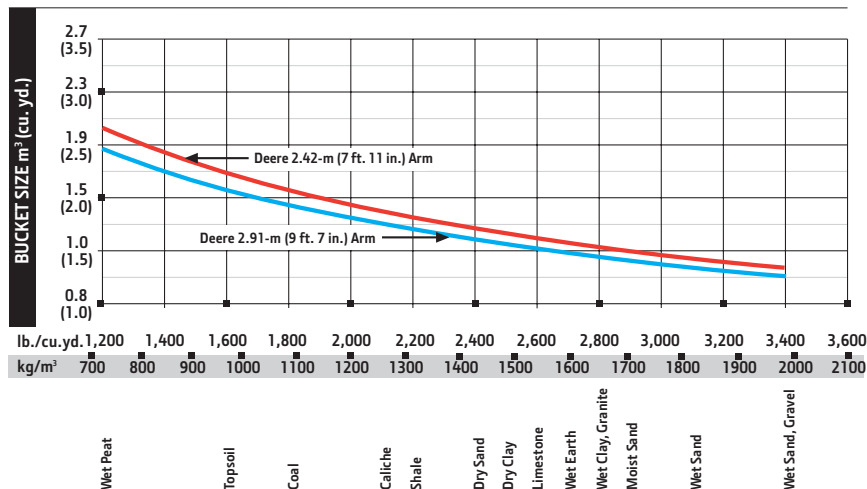
of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 2.91-m (9 ft. 7 in.) arm and 700-mm (28 in.) triple semi-grouser shoes</i>										
6.0 m (20 ft.)					5131 (11,138)	5131 (11,138)	4817 (10,538)	4817 (10,413)	3943 (8,687)	3212 (7,080)
4.5 m (15 ft.)			9366 (19,787)	9366 (19,787)	6612 (14,220)	6612 (14,220)	5457 (11,841)	4660 (10,028)	4882 (10,672)	3154 (6,765)
3.0 m (10 ft.)					8647 (18,571)	6923 (14,933)	6363 (13,763)	4404 (9,484)	5211 (11,201)	3038 (6,525)
1.5 m (5 ft.)					10 250 (22,097)	6435 (13,867)	7190 (15,548)	4162 (8,963)	5080 (10,923)	2918 (6,271)
Ground Line			3940 (9,135)	3940 (9,135)	10 787 (23,339)	6207 (13,355)	7086 (15,235)	4004 (8,618)	4985 (10,724)	2832 (6,090)
-1.5 m (-5 ft.)	5334 (11,946)	5334 (11,946)	8390 (19,088)	8390 (19,088)	10 409 (22,542)	6164 (13,255)	7022 (15,095)	3947 (8,495)	4961 (10,684)	2810 (6,053)
-3.0 m (-10 ft.)	9750 (21,925)	9750 (21,925)	12 970 (28,063)	12 625 (27,030)	9180 (19,807)	6248 (13,442)	6655 (14,263)	3996 (8,612)		
-4.5 m (-15 ft.)			9184 (19,510)	9184 (19,510)	6591 (13,865)	6485 (13,865)				
<i>With 2.91-m (9 ft. 7 in.) arm and 800-mm (32 in.) triple semi-grouser shoes</i>										
6.0 m (20 ft.)					5131 (11,138)	5131 (11,138)	4817 (10,538)	4817 (10,538)	3943 (8,687)	3270 (7,205)
4.5 m (15 ft.)			9366 (19,787)	9366 (19,787)	6612 (14,220)	6612 (14,220)	5457 (11,841)	4736 (10,192)	4882 (10,672)	3212 (6,891)
3.0 m (10 ft.)					8647 (18,571)	7035 (15,174)	6363 (13,763)	4480 (9,648)	5275 (11,399)	3096 (6,650)
1.5 m (5 ft.)					10 250 (22,097)	6547 (14,108)	7190 (15,548)	4239 (9,128)	5172 (11,121)	2976 (6,397)
Ground Line			3940 (9,135)	3940 (9,135)	10 787 (23,339)	6319 (13,596)	7211 (15,504)	4080 (8,783)	5077 (10,922)	2890 (6,215)
-1.5 m (-5 ft.)	5334 (11,946)	5334 (11,946)	8390 (19,088)	8390 (19,088)	10 409 (22,542)	6276 (13,496)	7147 (15,365)	4023 (8,660)	5053 (10,882)	2868 (6,178)
-3.0 m (-10 ft.)	9750 (21,925)	9750 (21,925)	12 970 (28,063)	12 834 (27,479)	9180 (19,807)	6360 (13,683)	6655 (14,263)	4072 (8,777)		
-4.5 m (-15 ft.)			9750 (19,510)	9184 (19,510)	12 970 (13,865)	6591 (13,865)	9180 (13,865)		6655 (13,865)	

Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Buckets are equipped with John Deere Fanggs™ or ESCO teeth standard. Replaceable cutting edges and a variety of teeth are available through John Deere Parts. Optional side cutters add 150 mm (6 in.) to bucket widths. Capacities are SAE heaped ratings.

Type Bucket	Bucket Width		Bucket Capacity		Bucket Weight		Bucket Dig Force (SAE)		Arm Dig Force 2.42 m (7 ft. 11 in.)		Arm Dig Force 2.91 m (9 ft. 7 in.)		Bucket Tip Radius		Number of Teeth
	mm	in.	m ³	cu. yd.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	mm	in.	
Heavy Duty	915	36	0.69	0.90	708	1,559	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	5
	1065	42	0.83	1.09	786	1,731	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	5
	1220	48	0.99	1.29	872	1,921	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	6
Heavy Duty High Capacity	610	24	0.43	0.56	646	1,424	135.0	30,349	129.9	29,197	106.8	24,016	1473	58.0	4
	760	30	0.58	0.76	723	1,593	135.0	30,349	129.9	29,197	106.8	24,016	1473	58.0	4
	915	36	0.74	0.97	809	1,782	135.0	30,349	129.9	29,197	106.8	24,016	1473	58.0	5
	1065	42	0.91	1.19	886	1,951	135.0	30,349	129.9	29,197	106.8	24,016	1473	58.0	5

Bucket Selection Guide*



* Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted materials, and volume loading applications such as mass-excitation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications, rocks, and uneven surfaces. Bucket capacity indicated is SAE heaped.