

# 85G SPECIFICATIONS



## Ground Pressure 85G

450-mm (18 in.) Rubber Crawler Pads	41.5 kPa (6.0 psi)
450-mm (18 in.) Continuous Rubber Belt	41.4 kPa (6.0 psi)
450-mm (18 in.) Triple Semi-Grouser Shoes	41.3 kPa (6.0 psi)
600-mm (24 in.) Triple Semi-Grouser Shoes	31.7 kPa (4.6 psi)

## Serviceability

### Refill Capacities

Fuel Tank	120 L (31.7 gal.)
Cooling System	9.7 L (2.6 gal.)
Engine Oil with Filter	12.3 L (3.2 gal.)
Hydraulic Tank	56 L (15 gal.)
Hydraulic System	103 L (27 gal.)
Propel Gearbox (each)	1.2 L (1.3 qt.)

## Operating Weights

With 0.31-m<sup>3</sup> (0.41 cu. yd.), 762-mm (30 in.), 313-kg (691 lb.) Bucket; 2.12-m (6 ft. 11 in.) Arm; 1408-kg (3,104 lb.) Counterweight; Full Fuel Tank; and 75-kg (165 lb.) Operator

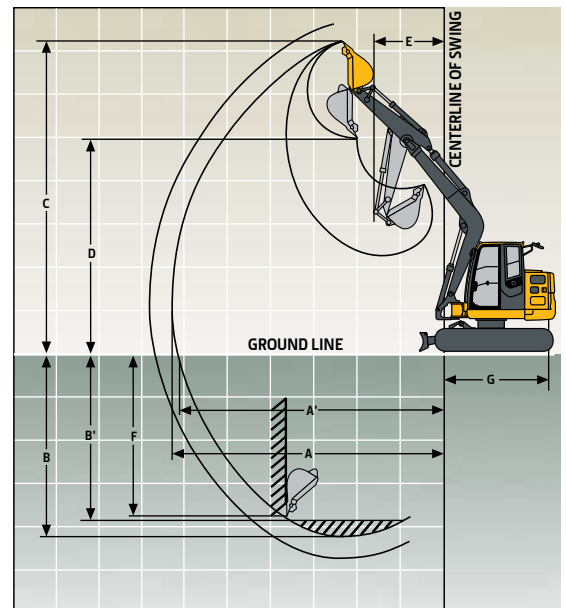
2220-mm (7 ft. 3 in.) Blade and 450-mm (18 in.) Rubber Crawler Pads	8729 kg (19,244 lb.)
2220-mm (7 ft. 3 in.) Blade and 450-mm (18 in.) Triple Semi-Grouser Shoes	8677 kg (19,130 lb.)
2470-mm (8 ft. 1 in.) blade and 600-mm (24 in.) Triple Semi-Grouser Shoes	8874 kg (19,564 lb.)
2220-mm (7 ft. 3 in.) Blade and 450-mm (18 in.) Continuous Rubber Belt	8701 kg (19,182 lb.)

## Optional Components

Undercarriage (with the following)	
450-mm (18 in.) Rubber Crawler Pads	2871 kg (6,329 lb.)
450-mm (18 in.) Continuous Rubber Belt	2843 kg (6,268 lb.)
450-mm (18 in.) Triple Semi-Grouser Shoes	2819 kg (6,215 lb.)
600-mm (24 in.) Triple Semi-Grouser Shoes	2970 kg (6,548 lb.)
1-Piece Boom (with arm cylinder)	491 kg (1,082 lb.)
2.12-m (6 ft. 11 in.) Arm with Bucket Cylinder and Linkage	275 kg (606 lb.)
Boom Lift Cylinder	89 kg (196 lb.)
0.49-m <sup>3</sup> (0.64 cu. yd.), 1219-mm (48 in.) Ditching Bucket	330 kg (728 lb.)
Counterweight (standard)	1408 kg (3,104 lb.)

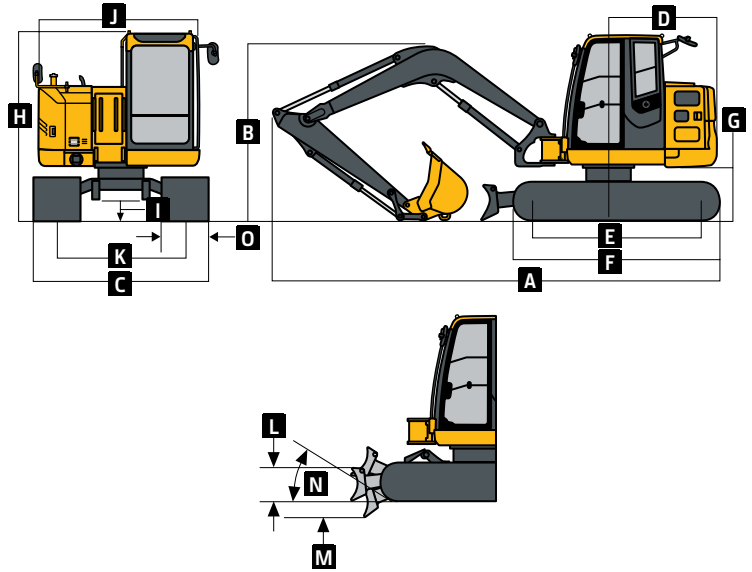
## Operating Dimensions

	<i>Arm Length 2.12 m (6 ft. 11 in.)</i>
Arm Digging Force (ISO)	30.7 kN (6,902 lb.)
Bucket Digging Force (ISO)	46.6 kN (10,476 lb.)
<b>A</b> Maximum Reach	7.70 m (25 ft. 3 in.)
<b>A'</b> Maximum Reach at Ground Level	7.55 m (24 ft. 9 in.)
<b>B</b> Maximum Digging Depth	4.51 m (14 ft. 10 in.)
<b>B'</b> Maximum Digging Depth at 2.44-m (8 ft.) Flat Bottom	4.20 m (13 ft. 9 in.)
<b>C</b> Maximum Cutting Height	7.14 m (23 ft. 5 in.)
<b>D</b> Maximum Dumping Height	5.08 m (16 ft. 8 in.)
<b>E</b> Minimum Swing Radius	2.89 m (9 ft. 6 in.)
<b>F</b> Maximum Vertical Wall	4.05 m (13 ft. 3 in.)
<b>G</b> Tail Swing Radius	1.49 m (4 ft. 11 in.)



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Machine Dimensions		85G
		<i>Arm Length 2.12 m (6 ft. 11 in.)</i>
A	Overall Length	6.82 m (22 ft. 5 in.)
B	Overall Height with 450-mm (18 in.) Rubber Crawler Pads	2.61 m (8 ft. 7 in.)
C	Undercarriage Width	
	With 450-mm (18 in.) Shoes	2.20 m (7 ft. 3 in.)
	With 600-mm (24 in.) Shoes	2.35 m (7 ft. 9 in.)
D	Rear-End Length/Swing Radius	1.49 m (4 ft. 11 in.)
E	Distance Between Idler/Sprocket Centerline	2.29 m (7 ft. 6 in.)
F	Undercarriage Length	2.92 m (9 ft. 7 in.)
G	Counterweight Clearance	0.72 m (28 in.)
H	Cab Height	2.53 m (8 ft. 4 in.)
I	Ground Clearance	360 mm (14 in.)
J	Upperstructure Width	2.32 m (7 ft. 7 in.)
K	Gauge Width	1.75 m (5 ft. 9 in.)
L	Blade Lift Height	340 mm (13 in.)
	Blade Height	460 mm (18 in.)
	Blade Width	
	With 450-mm (18 in.) Shoes	2200 mm (7 ft. 3 in.)
	With 600-mm (24 in.) Shoes	2350 mm (7 ft. 9 in.)
M	Blade Cut Below Grade	320 mm (13 in.)
N	Blade Lift Angle	26 deg.
O	Track Width	
	With 450-mm (18 in.) Shoes	0.45 m (18 in.)
	With 600-mm (24 in.) Shoes	0.60 m (24 in.)



**Lift Capacities**

**Boldface type** indicates hydraulically limited capacities; lightface type indicates stability-limited capacities, in kg (lb.). Ratings are at bucket lift hook, using standard counterweight, situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. All lift capacities are based on ISO 10567.

LOAD POINT HEIGHT	HORIZONTAL DISTANCE FROM CENTERLINE OF ROTATION							
	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 3.67-m (12 ft. 2 in.) boom, 2.12-m (6 ft. 11 in.) arm, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket, 450-mm (18 in.) rubber pads, and 2200-mm (7 ft. 3 in.) blade</i>								
4.5 m (15 ft.)					<b>1735</b> <b>(3,825)</b>	1656 (3,651)		
3.0 m (10 ft.)					<b>2044</b> <b>(4,506)</b>	1597 (3,521)	<b>1809</b> <b>(3,988)</b>	1022 (2,253)
1.5 m (5 ft.)					<b>2619</b> <b>(5,773)</b>	1488 (3,280)	<b>1968</b> <b>(4,339)</b>	986 (2,174)
Ground Line			<b>2577</b> <b>(5,682)</b>	2445 (5,391)	<b>2992</b> <b>(6,597)</b>	1403 (3,092)	<b>2069</b> <b>(4,561)</b>	952 (2,098)
-1.5 m (-5 ft.)	<b>2683</b> <b>(5,914)</b>	<b>2683</b> <b>(5,914)</b>	<b>4770</b> <b>(10,516)</b>	2448 (5,397)	<b>2868</b> <b>(6,322)</b>	1377 (3,036)		
-3.0 m (-10 ft.)			<b>3130</b> <b>(7,012)</b>	3130 (5,560)				
<i>With 3.67-m (12 ft. 2 in.) boom, 2.12-m (6 ft. 11 in.) arm, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket, 600-mm (24 in.) shoes, and 2470-mm (8 ft. 1 in.) blade</i>								
4.5 m (15 ft.)					<b>1735</b> <b>(3,825)</b>	1679 (3,702)		
3.0 m (10 ft.)					<b>2044</b> <b>(4,506)</b>	1620 (3,572)	<b>1809</b> <b>(3,988)</b>	1038 (2,289)
1.5 m (5 ft.)					<b>2619</b> <b>(5,773)</b>	1511 (3,332)	<b>1968</b> <b>(4,339)</b>	1002 (2,210)
Ground Line			<b>2577</b> <b>(5,682)</b>	2485 (5,479)	<b>2992</b> <b>(6,597)</b>	1426 (3,143)	<b>2069</b> <b>(4,561)</b>	968 (2,134)
-1.5 m (-5 ft.)	<b>2683</b> <b>(5,914)</b>	<b>2683</b> <b>(5,914)</b>	<b>4770</b> <b>(10,516)</b>	2488 (5,485)	<b>2868</b> <b>(6,322)</b>	1400 (3,087)		
-3.0 m (-10 ft.)			<b>3130</b> <b>(7,012)</b>	3130 (5,647)				

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**Lift Capacities (continued) 85G**

**Boldface type** indicates hydraulically limited capacities; lightface type indicates stability-limited capacities, in kg (lb.). Ratings are at bucket lift hook, using standard counterweight, situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. All lift capacities are based on ISO 10567.

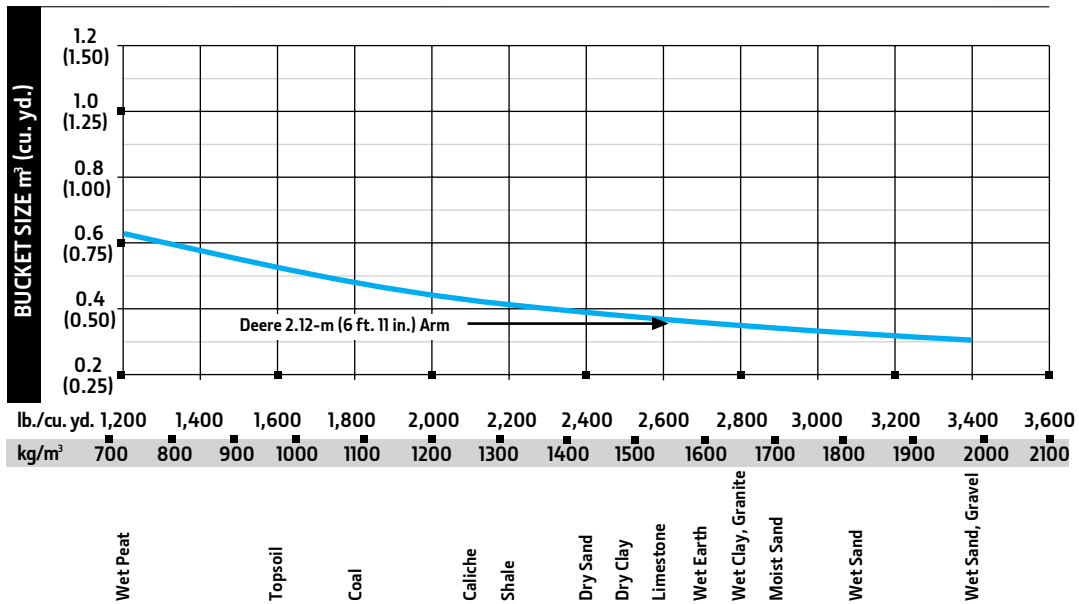
LOAD POINT HEIGHT	HORIZONTAL DISTANCE FROM CENTERLINE OF ROTATION								
	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	
<i>With 3.67-m (12 ft. 2 in.) boom, 2.12-m (6 ft. 11 in.) arm, less bucket, 450-mm (18 in.) continuous rubber belt, and 2200-mm (7 ft. 3 in.) blade</i>									
4.5 m (15 ft.)					1728 <b>(3,810)</b>		1579 <b>(3,480)</b>		
3.0 m (10 ft.)					2050 <b>(4,520)</b>		1520 <b>(3,350)</b>	1805 <b>(3,980)</b>	971 <b>(2,140)</b>
1.5 m (5 ft.)					2626 <b>(5,790)</b>		1411 <b>(3,110)</b>	1969 <b>(4,340)</b>	934 <b>(2,060)</b>
Ground Line			2595 <b>(5,720)</b>	2309 <b>(5,090)</b>	2994 <b>(6,600)</b>		1329 <b>(2,930)</b>	2068 <b>(4,560)</b>	903 <b>(1,990)</b>
-1.5 m (-5 ft.)	2708 <b>(5,970)</b>	2708 <b>(5,970)</b>	4758 <b>(10,490)</b>	2309 <b>(5,090)</b>	2862 <b>(6,310)</b>		1306 <b>(2,880)</b>		
-3.0 m (-10 ft.)			3139 <b>(6,920)</b>	2386 <b>(5,260)</b>					

**Buckets**

A full line of buckets is offered to meet a wide variety of applications. Replaceable cutting edges are available through John Deere Parts. Optional side cutters add 150 mm (6 in.) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity		Bucket Weight		Bucket Dig Force (ISO)		Arm Dig Force (ISO)		Bucket Tip Radius		Number of Teeth
	mm	in.	m <sup>3</sup>	cu. yd.	kg	lb.	kN	lb.	kN	lb.	mm	in.	
Heavy Duty	610	24	0.31	0.40	287	633	54	12,061	32	7,162	1087	42.80	5
	762	30	0.41	0.53	333	735	54	12,061	32	7,162	1087	42.80	6
	914	36	0.50	0.66	380	837	54	12,061	32	7,162	1087	42.80	7
Ditching	1219	48	0.49	0.64	330	727	64	14,344	33	7,473	907	35.69	0

**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-excavation 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.

# Additional equipment

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

75G	85G	Engine
●	●	Auto-idle system
●	●	Batteries (2 – 12 volt)
●	●	Coolant recovery tank
●	●	Single-element air filter
●	●	Electronic engine control
●	●	Enclosed fan guard (conforms to SAE J1308)
●	●	Engine coolant to –37 deg. C (–34 deg. F)
●	●	Fuel filter with water separator
●	●	Full-flow oil filter
●	●	Radiator and oil cooler with dust-protective net
●	●	Glow-plug start aid
●	●	500-hour engine oil-change interval
●	●	70% (35 deg.) off-level capacity
●	●	Isolation mounted
<b>Hydraulic System</b>		
●	●	Reduced-drift valve for boom down, arm in
●	●	Auxiliary hydraulic valve section
●	●	Spring-applied, hydraulically released automatic swing brake
●	●	5,000-hour hydraulic oil-change interval
●	●	Auxiliary hydraulics
●	●	Control pattern-change valve
▲	▲	Hydraulic filter restriction indicator kit
▲	▲	Load-lowering control device
▲	▲	Single-pedal propel control
<b>Undercarriage</b>		
●	●	Planetary drive with axial piston motors
●	●	Propel motor shields
●	●	Spring-applied, hydraulically released automatic propel brake
●	●	2-speed propel with automatic shift
●	●	Upper carrier roller (1)
●	●	Sealed and lubricated track chain
●	●	Undercarriage with blade
▲	▲	Triple semi-grouser shoes, 450 mm (18 in.)
▲	▲	Triple semi-grouser shoes, 600 mm (24 in.)
▲	▲	Rubber crawler pads, 450 mm (18 in.)
▲	▲	Rubber belt, continuous, 450 mm (18 in.)

75G	85G	Upperstructure
●	●	Counterweight, 1305 kg (2,877 lb.)
●	●	Counterweight, 1408 kg (3,104 lb.)
●	●	Right- and left-hand mirrors
●	●	Vandal locks with ignition key: Cab door / Engine hood / Fuel cap / Service doors
●	●	Remote-mounted fuel filters
<b>Front Attachments*</b>		
●	●	Centralized lubrication system
●	●	Dirt seals on all bucket pins
●	●	Oil-impregnated bushings
●	●	Reinforced resin thrust plates
●	●	Tungsten carbide thermal coating on arm-to-bucket joint
●	●	Arm, 2.12 m (6 ft. 11 in.)
▲	▲	Attachment quick-couplers
▲	▲	Buckets: Ditching / Heavy duty / Heavy-duty high capacity / Side cutters and teeth
<b>Operator's Station</b>		
●	●	Meets ISO 12117-2 for ROPS
●	●	Adjustable independent control positions (seat-to-pedals)
●	●	AM/FM radio
●	●	Auto climate control/air conditioner with heater and pressurizer
●	●	Built-in operator's manual storage compartment and manual
●	●	Cell-phone power outlet, 12 volt, 60 watt, 5 amp
●	●	Coat hook
●	●	Deluxe cloth suspension seat with adjustable armrests
●	●	Floor mat
●	●	Front windshield wiper with intermittent speeds
●	●	Gauges (illuminated): Engine coolant / Fuel
●	●	Horn, electric
●	●	Hour meter, electric
●	●	Hydraulic shutoff lever, all controls
●	●	Hydraulic warm-up control
●	●	Interior light

75G	85G	Operator's Station (continued)
●	●	Large cup holder
●	●	Machine Information Center (MIC)
●	●	Mode selectors (illuminated): Power modes (2) / Travel modes (2 with automatic shift) / Work mode (1)
●	●	Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / System monitoring with alarm features: Auto-idle indicator, engine air cleaner restriction indicator light, engine check, engine coolant temperature indicator light with audible alarm, engine oil pressure indicator light with audible alarm, low-alternator-charge indicator light, low-fuel indicator light, fault-code alert indicator, fuel-rate display, wiper-mode indicator, work-lights-on indicator, and work-mode indicator
●	●	Motion alarm with cancel switch (conforms to SAE J994)
●	●	Auxiliary hydraulic control switches in right console lever
●	●	SAE 2-lever control pattern
●	●	Seat belt, 51 mm (2 in.), retractable
●	●	Tinted glass
●	●	Transparent tinted overhead hatch
●	●	Transparent tinted overhead window
●	●	Hot/cold beverage compartment
▲	▲	Seat belt, 76 mm (3 in.), non-retractable
▲	▲	Protection screens for cab front, rear, and side
▲	▲	Window vandal-protection covers
<b>Electrical</b>		
●	●	50-amp alternator
●	●	Blade-type multi-fused circuits
●	●	Positive-terminal battery covers
<b>Lights</b>		
●	●	Work lights: Halogen / 1 mounted on boom / 1 mounted on frame

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on units with standard equipment; 0.31-m<sup>3</sup> (0.41 cu. yd.), 762-mm (30 in.), 313-kg (691 lb.) buckets; 450-mm (18 in.) rubber crawler pad shoes; 2.12-m (6 ft. 11 in.) arms; full fuel tanks; and 75-kg (165 lb.) operators; a 75G unit with 1305-kg (2,877 lb.) counterweight; and an 85G unit with 1408-kg (3,104 lb.) counterweight.

