

## ENGINE

It's John Deere-engineered and manufactured. Replaceable wet-type cylinder liners are spun cast and machined for uniform wall thickness to assure even heat dissipation. Piston spray cooling contributes to long component life. A dynamically-balanced crankshaft assures smooth operation. Turbocharged for maximum performance.

**Engine:** John Deere 6101A - Turbocharged and Aftercooled  
 Rated power at 2000 rpm.....285 SAE net hp (213 kW)  
 .....296 SAE gross hp (221 kW)  
 Cylinders .....6  
 Displacement .....619 cu. in. (10.145 L)  
 Maximum net torque at 1300 rpm .....955 lb.-ft. (1295 Nm)  
 Fuel consumption, typical .....6 to 10 gal./hr. (23 to 38 L/h)  
 Cooling fan .....suction type  
 Electrical system .....24-volt with 45-amp alternator  
 Batteries (two 12 volt).....reserve capacity: 180 min.

## HYDRAULIC SYSTEM

Sophisticated, yet simple; state-of-the-art, yet easy to operate. You get the best of both worlds with the 992E LC's hydraulic system. This open center system uses two axial piston pumps. A microprocessor ties the system with the engine to allow the operator to tailor hydraulic performance to particular job situations. A soft touch keypad control to the operator's right allows the desired performance to be tuned in with the touch of a button or two. This variable-flow system delivers smooth response even when the operator uses more than one function at the same time. The operator is in complete control at all times and can override any of the preset modes or engine settings with the simple touch of a button.

Main pumps .....2 variable-displacement axial pistons  
 Maximum rated flow .....2 x 95 gpm (2 x 360 L/min.)  
 Pilot pump .....one gear  
 Maximum rated flow .....9.3 gpm (35 L/min.)  
 Pressure setting .....655 psi (4510 kPa)  
 System operating pressure  
 Implement circuits .....4270 psi (29 440 kPa)  
 Travel circuits .....5050 psi (34 820 kPa)  
 Swing circuits .....3840 psi (26 480 kPa)  
 Power boost .....4480 psi (30 890 kPa)  
 Oil filtration  
 One 10-micron full-flow return filter with bypass  
 One pilot oil filter  
 One suction filter

Cylinders	Bore	Rod Diameter	Stroke
Boom (2).....	6.69 in. (170 mm)	4.53 in. (115 mm)	62.6 in. (1590 mm)
Arm (1).....	7.48 in. (190 mm)	5.12 in. (130 mm)	76.4 in. (1940 mm)
Bucket (1).....	6.69 in. (170 mm)	4.53 in. (115 mm)	52.2 in. (1325 mm)

## SWING MECHANISM

Multiple planetary gearing is driven by two axial-piston, high-torque hydraulic motors. Ring and pinion gears are induction hardened for long life. The multiple, wet-disk swing brake is spring applied, hydraulically released. The single 90-ball swing bearing is sealed top and bottom.

Swing speed.....0-9 rpm

## UNDERCARRIAGE

Heavy-duty rollers and chain are designed to stand up to the side-to-side stress of excavator work. The strong box-section track frame comes with three track guides.

Carrier rollers (per side) .....3  
 Track rollers (per side) .....9  
 Idlers (per side).....1  
 Shoes, triple semigrouser (per side).....53  
 Track guides .....3  
 Track adjustment.....hydraulic  
 Travel speed .....Low Medium High  
 mph 0-1.6 0-2.1 0-3.4  
 km/h (0-2.5) (0-3.4) (0-5.5)  
 Drawbar pull.....79,590 lb. (354 kN)  
 Tractive gradability .....140% (54 deg.)  
 Off-level operating limit for oil sump.....100% (45 deg.)

### Ground Pressure Data

Shoe Width/ Grouser	Average Ground Pressure	Recommended Application
30 in./triple (750 mm)	8.69 psi (59.9 kPa)	Rocky terrain and stumps
36 in./triple (900 mm)	7.26 psi (50.1 kPa)	General/soft terrain

## CAPACITIES

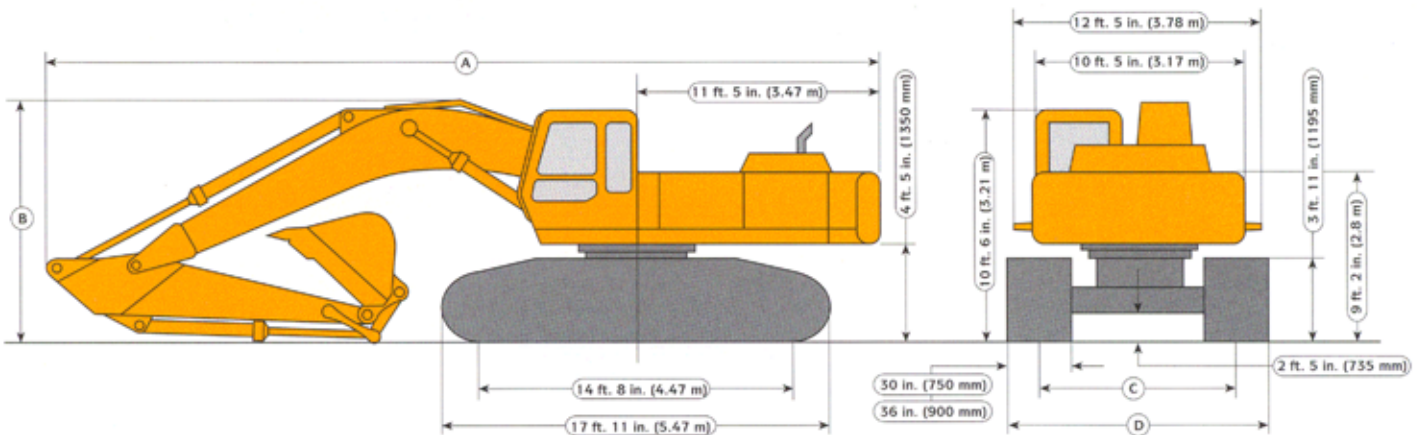
Fuel tank .....156 gal. (590 L)  
 Cooling system.....40 qt. (38 L)  
 Engine lubrication with filter .....36 qt. (34 L)  
 Hydraulic system .....137 gal. (520 L)  
 Hydraulic tank .....62 gal. (235 L)  
 Propel gearbox (each side) .....9 qt. (8.5 L)  
 Swing gear reduction (each).....6 qt. (5.7 L)  
 Pump drive gearbox.....2 qt. (1.9 L)

## OPERATING WEIGHTS

Weights	lb.	kg
Operating weight with full fuel tank, 175-lb. (79 kg) operator, 36-in. (900 mm) triple grouser shoes, 12 ft. 10 in. (3.9 m) arm, 2.45 cu. yd. (1.87 m <sup>3</sup> ) bucket	97,600	44 270
Undercarriage:		
30-in. (750 mm) shoes	39,242	17 800
36-in. (900 mm) shoes	39,462	17 900
<b>Component Weights:</b>		
Upperstructure with full fuel tank (less front attachments and 18,100 lb. [8200 kg] counterweight)	20,062	9100
One-piece boom (with arm cylinder)	9,017	4090
Arm, 9 ft. 6 in. (2.9 m) with bucket cylinder and linkage	5,082	2305
Arm, 12 ft. 10 in. (3.9 m) with bucket cylinder and linkage	5,357	2430
Arm, 16 ft. 1 in. (4.9 m) with bucket cylinder and linkage	5,137	2330
Boom lift cylinders (2) total weight	1,856	842
2.45 cu. yd. (1.87 m <sup>3</sup> ), 54-in. (1370 mm) bucket	3,578	1623
Counterweight	18,100	8200



## DIMENSIONS



- A) With 9 ft. 6 in. (2.9 m) arm ..... 39 ft. 0 in. (11.88 m)  
 With 12 ft. 10 in. (3.9 m) arm ..... 38 ft. 8 in. (11.79 m)  
 With 16 ft. 1 in. (4.9 m) arm ..... 38 ft. 5 in. (11.70 m)
- B) With 9 ft. 6 in. (2.9 m) arm ..... 11 ft. 10 in. (3.60 m)  
 With 12 ft. 10 in. (3.2 m) arm ..... 11 ft. 5 in. (3.48 m)  
 With 16 ft. 1 in. (4.9 m) arm ..... 15 ft. 3 in. (4.66 m)

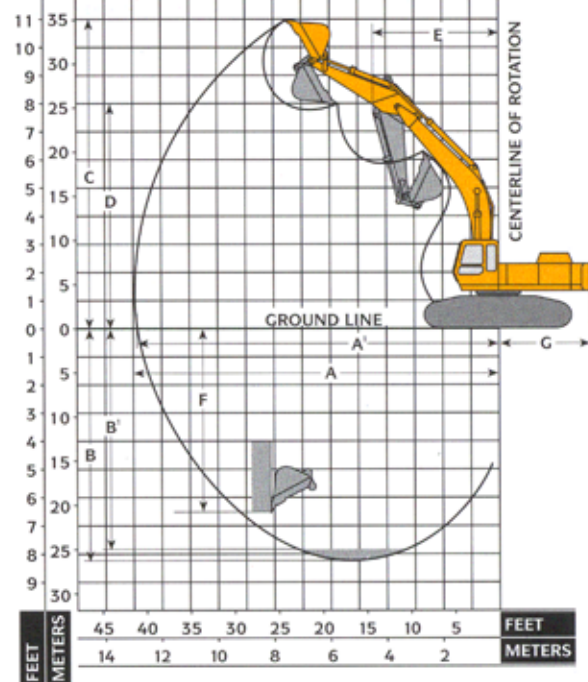
- C) Operating position ..... 9 ft. 6 in. (2.89 m)  
 Transport position ..... 7 ft. 10 in. (2.39 m)
- D) With 30-in. (750 mm) shoes:  
 Operating position ..... 11 ft. 11 in. (3.64 m)  
 Transport position ..... 10 ft. 4 in. (3.14 m)
- With 36-in. (900 mm) shoes:  
 Operating position ..... 12 ft. 5 in. (3.79 m)  
 Transport position ..... 10 ft. 10 in. (3.29 m)

## OPERATING INFORMATION

	9 ft. 6 in. (2.9 m) Arm Length	12 ft. 10 in. (3.9 m) Arm Length	16 ft. 1 in. (4.9 m) Arm Length
Arm force with 54-in. (1370 mm) heavy-duty bucket*	50,460 lb. (224 kN)	40,910 lb. (182 kN)	33,700 lb.** (150 kN)
Bucket tangential force with 54-in. (1370 mm) heavy-duty bucket*	52,980 lb. (236 kN)	52,980 lb. (236 kN)	39,190 lb.** (174 kN)
Lifting capacity over front @ ground level			
20-ft. (6.1 m) reach*	35,050 lb. (15 899 kg)	34,378 lb. (15 594 kg)	33,771 lb. (15 319 kg)
A Max. reach	37 ft. 4 in. (11.39 m)	40 ft. 11 in. (12.48 m)	43 ft. 11 in. (13.38 m)
A' Max. reach @ ground level	36 ft. 7 in. (11.16 m)	40 ft. 3 in. (12.27 m)	43 ft. 3 in. (13.18 m)
B Max. digging depth	23 ft. 10 in. (7.26 m)	27 ft. 1 in. (8.26 m)	29 ft. 11 in. (9.11 m)
B' Max. digging depth @ 8 ft. (2.44 m) flat bottom	23 ft. 2 in. (7.06 m)	26 ft. 8 in. (8.13 m)	29 ft. 6 in. (9.00 m)
C Max. cutting height	33 ft. 8 in. (10.27 m)	36 ft. 8 in. (11.18 m)	38 ft. 11 in. (11.85 m)
D Max. dumping height	23 ft. 1 in. (7.04 m)	25 ft. 6 in. (7.78 m)	28 ft. 9 in. (8.77 m)
E Min. swing radius	16 ft. 2 in. (4.92 m)	15 ft. 9 in. (4.81 m)	15 ft. 10 in. (4.82 m)
F Max. vertical wall	17 ft. 6 in. (5.34 m)	23 ft. 1 in. (7.04 m)	27 ft. 9 in. (8.45 m)
G Tail swing radius	11 ft. 5 in. (3.47 m)	11 ft. 5 in. (3.47 m)	11 ft. 5 in. (3.47 m)

\*Digging forces and lift capacities with power boost.  
 \*\*Equipped with 54-in. (1370 mm) general-purpose bucket.

## DIGGING DEPTH AND REACH





# LIFT CAPACITIES

Ratings at bucket lift hook, machine equipped with 30-in. (750 mm) or 36-in. (900 mm) shoes and standard counterweight, situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. **Boldface** type indicates hydraulic-limited capacities, lightface type indicates stability-limited capacities, in lb. (kg). Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine. All lift capacities are with power boost or in precision mode.

Equipped with 9 ft. 6 in. (2.9 m) arm and 2.45 cu. yd. (1.87 m<sup>3</sup>) 54 in. (1370 mm) wide, 3578 lb. (1623 kg) bucket

○ OVER SIDE

□ OVER FRONT

Load Point Height	5 ft. (1.52 m) ○	10 ft. (3.05 m) □	15 ft. (4.57 m) ○	20 ft. (6.10 m) □	25 ft. (7.62 m) ○	30 ft. (9.15 m) □	35 ft. (10.67 m) ○
25 ft. (7.62 m)					<b>19,359</b> (8781)	<b>19,359</b> (8781)	
20 ft. (6.10 m)					19,162 (8692)	<b>19,861</b> (9009)	
15 ft. (4.57 m)			<b>35,116</b> (15 929)	<b>35,116</b> (15 928)	<b>26,001</b> (11 794)	<b>26,001</b> (11 794)	18,328 (8314)
10 ft. (3.05 m)				24,661 (11 186)	<b>30,473</b> (13 823)	17,296 (7845)	<b>23,845</b> (10 816)
5 ft. (1.52 m)				22,990 (10 428)	<b>33,877</b> (15 367)	16,348 (7415)	<b>25,818</b> (11 711)
Ground Line				22,113 (10 030)	<b>35,050</b> (15 899)	15,691 (7117)	<b>26,880</b> (12 193)
- 5 ft. (- 1.52 m)			35,345 (16 032)	<b>43,076</b> (19 539)	21,855 (9913)	<b>34,149</b> (15 490)	15,389 (6980)
- 10 ft. (- 3.05 m)		<b>44,367</b> (20 125)	<b>44,367</b> (20 125)	35,770 (16 225)	<b>38,823</b> (17 610)	22,018 (9987)	<b>31,353</b> (14 222)
- 15 ft. (- 4.57 m)			<b>31,846</b> (14 445)	<b>31,846</b> (14 445)	22,589 (10 246)	<b>26,054</b> (11 818)	15,973 (7245)
							13,092 (5939)
							<b>19,193</b> (8706)
							12,590 (5710)
							<b>20,193</b> (9160)
							21,074 (9563)
							20,655 (9369)
							11,686 (5301)
							20,476 (9288)

Equipped with 12 ft. 10 in. (3.9 m) arm and 2.45 cu. yd. (1.87 m<sup>3</sup>) 54 in. (1370 mm) wide, 3578 lb. (1623 kg) bucket

Load Point Height	5 ft. (1.52 m) ○	10 ft. (3.05 m) □	15 ft. (4.57 m) ○	20 ft. (6.10 m) □	25 ft. (7.62 m) ○	30 ft. (9.15 m) □	35 ft. (10.67 m) ○
25 ft. (7.62 m)						<b>10,811</b> (4904)	<b>10,811</b> (4904)
20 ft. (6.10 m)						14,016 (6358)	<b>16,440</b> (7457)
15 ft. (4.57 m)					19,045 (8639)	<b>19,328</b> (8767)	13,579 (6159)
10 ft. (3.05 m)			<b>38,671</b> (17 541)	<b>38,671</b> (17 541)	25,927 (11 760)	<b>27,343</b> (12 403)	17,938 (8137)
5 ft. (1.52 m)			<b>34,037</b> (15 439)	<b>34,037</b> (15 439)	23,946 (10 862)	<b>31,732</b> (14 394)	16,843 (7640)
Ground Line			<b>31,484</b> (14 281)	<b>31,484</b> (14 281)	22,608 (10 255)	<b>34,378</b> (15 594)	15,980 (7249)
- 5 ft. (- 1.52 m)		<b>18,734</b> (8498)	<b>18,734</b> (8498)	34,984 (15 869)	<b>42,548</b> (19 300)	21,953 (9958)	<b>34,936</b> (15 847)
- 10 ft. (- 3.05 m)		<b>35,517</b> (16 610)	<b>35,517</b> (16 610)	35,173 (15 954)	<b>44,069</b> (19 990)	21,813 (9894)	<b>33,534</b> (15 211)
- 15 ft. (- 4.57 m)		<b>49,144</b> (22 291)	<b>49,144</b> (22 291)	35,776 (16 228)	<b>38,473</b> (17 451)	22,086 (10 018)	<b>29,992</b> (13 604)
- 20 ft. (- 6.10 m)			<b>29,542</b> (13 400)	<b>29,542</b> (13 400)	22,829 (10 355)	<b>23,241</b> (10 542)	16,174 (7337)
							15,452 (7009)
							<b>26,850</b> (12 179)
							11,475 (5205)
							20,432 (9268)
							11,816 (5360)
							<b>26,192</b> (11 881)
							12,345 (5600)
							<b>24,396</b> (11 066)
							12,345 (5600)
							<b>20,150</b> (9140)
							9,223 (4184)
							<b>14,770</b> (6700)
							9,545 (4330)
							<b>9,694</b> (4397)
							<b>9,694</b> (4397)
							8,946 (4058)
							16,074 (7291)

Equipped with 16 ft. 1 in. (4.9 m) arm and 2.30 cu. yd. (1.76 m<sup>3</sup>) 54 in. (1370 mm) wide, 2215 lb. (1005 kg) bucket

Load Point Height	5 ft. (1.52 m) ○	10 ft. (3.05 m) □	15 ft. (4.57 m) ○	20 ft. (6.10 m) □	25 ft. (7.62 m) ○	30 ft. (9.15 m) □	35 ft. (10.67 m) ○
20 ft. (6.10 m)						<b>15,386</b> (6979)	<b>15,386</b> (6979)
15 ft. (4.57 m)						15,066 (6834)	<b>16,604</b> (7532)
10 ft. (3.05 m)					19,605 (8893)	<b>20,744</b> (9409)	14,386 (6525)
5 ft. (1.52 m)			40,281 (18 271)	<b>42,410</b> (19 237)	25,971 (11 780)	<b>29,927</b> (13 575)	18,384 (8339)
Ground Line			37,329 (16 932)	<b>40,970</b> (18 584)	24,228 (10 990)	<b>33,771</b> (15 319)	17,328 (7860)
- 5 ft. (- 1.52 m)		<b>18,373</b> (8334)	<b>18,373</b> (8334)	36,040 (16 348)	<b>41,898</b> (19 005)	23,155 (10 503)	<b>35,716</b> (16 201)
- 10 ft. (- 3.05 m)	<b>20,796</b> (9433)	<b>20,796</b> (9433)	<b>28,862</b> (13 092)	<b>28,862</b> (13 092)	35,696 (16 192)	<b>48,326</b> (21 921)	22,669 (10 283)
- 15 ft. (- 4.57 m)	<b>31,760</b> (14 406)	<b>31,760</b> (14 406)	<b>42,089</b> (19 092)	<b>42,089</b> (19 092)	35,935 (16 300)	<b>44,537</b> (20 202)	22,648 (10 273)
- 20 ft. (- 6.10 m)		<b>50,912</b> (23 094)	<b>50,912</b> (23 094)	<b>36,678</b> (16 637)	<b>37,911</b> (17 196)	23,055 (10 458)	<b>29,254</b> (13 270)
- 25 ft. (- 7.62 m)			<b>26,897</b> (12 200)	<b>26,897</b> (12 200)	<b>20,578</b> (9334)	<b>20,578</b> (9334)	
							16,580 (7521)
							<b>27,544</b> (12 494)
							12,517 (5678)
							21,482 (9744)
							9,745 (4420)
							<b>16,860</b> (7648)
							16,176 (7338)
							<b>27,745</b> (12 585)
							12,247 (5555)
							21,185 (9610)
							9,635 (4370)
							<b>16,741</b> (7594)
							16,112 (7308)
							<b>26,366</b> (11 960)
							12,248 (5556)
							<b>20,830</b> (9448)
							16,427 (7451)
							<b>22,636</b> (10 268)



# BUCKETS

A full line of buckets is offered to meet a wide variety of applications. All capacities are SAE heaped\* ratings. Digging forces are with power boost. The buckets have an adjustable bushing feature for side clearance, with the exception of the ditching bucket. Tooth selection includes either the John Deere Fanggs®, Standard, Tiger, Twin Tiger, Abrasion panel or Flare, or the ESCO (Vertalok) Standard, Tiger, Twin Tiger or Flare tooth. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 6 inches (150 mm) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 9 ft. 6 in. (2.9 m)		Arm Dig Force 12 ft. 10 in. (3.9 m)		Arm Dig Force 16 ft. 1 in. (4.9 m)		Bucket Tip Radius		No. Teeth
	in.	mm	yd <sup>3</sup>	m <sup>3</sup>	lb.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	kN	in.	mm	
General Purpose Plate Lip	54	1370	2.30	1.76	2215	1005	39,190	174.3					33,700	149.9	69.5	1765	7
	84	2135	5.00	3.82	4905	2224	51,190	227.7	49,790	221.5					74.0	1880	7
Heavy-Duty Plate Lip	36	915	1.56	1.19	2888	1310	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	4
	42	1065	1.85	1.41	3124	1417	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	5
	48	1220	2.15	1.64	3320	1505	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	6
	54	1370	2.45	1.87	3578	1623	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	6
	60	1525	2.74	2.10	3771	1710	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	7
	66	1675	3.01	2.30	3825	1735	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	7
	72	1830	3.29	2.52	4061	1842	52,980	235.7	50,460	224.4	40,910	182.0			71.5	1816	8
Truck Loading	72	1830	4.18	3.20	4340	2041	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	6
Heavy-Duty High Capacity	36	915	1.96	1.50	3375	1530	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	4
	42	1065	2.32	1.77	3812	1729	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	4
	48	1220	2.69	2.06	3969	1800	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	5
	54	1370	3.06	2.34	4478	2031	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	5
	60	1525	3.43	2.62	5131	2327	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	6
	66	1675	3.80	2.91	5003	2269	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	6
	72	1830	4.18	3.20	5865	2660	51,190	227.7	49,790	221.5	40,460	180.0			74.0	1880	7
Severe-Duty Cast Lip	42	1065	1.80	1.38	3189	1446	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	5
	48	1220	2.15	1.64	3510	1592	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	5
Severe-Duty Plate Lip	36	915	1.56	1.19	3024	1372	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	3
	42	1065	1.85	1.41	3470	1574	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	4
	48	1220	2.15	1.64	3522	1597	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	5
	54	1370	2.45	1.87	3719	1686	52,610	234.0	50,325	223.8	40,820	181.6			72.0	1829	5
Ditching	84	2135	2.40	1.84	2730	1238	71,475	317.9	56,050	249.3	44,565	198.2			53.0	1346	0

## BUCKET SELECTION CHART

### RECOMMENDED BUCKET SIZE\*

lb/yd <sup>3</sup>	kg/m <sup>3</sup>	MATERIAL (loose weight)	GENERAL PURPOSE BUCKET		HEAVY DUTY BUCKET	
			cu. yd.	m <sup>3</sup>	cu. yd.	m <sup>3</sup>
700	420	Wood chips	11.00	8.4	—	—
750	440	Peat, dry	10.00	7.6	—	—
950	560	Cinders	8.00	6.1	—	—
1170	690	Peat, wet	7.00	5.4	—	—
1600	950	Topsoil	6.00	4.6	—	—
1780	1050	Coal	5.00	3.8	—	—
2100	1250	Caliche	2.75-4.00	2.1-3.1	2.50-3.75	1.9-2.9
2100	1250	Earth, loam	4.00	3.1	3.75	2.9
2250	1330	Shale	4.00	3.1	3.75	2.9
2400	1420	Sand, dry	4.00	3.1	3.75	2.9
2500	1480	Clay, dry	3.00-3.75	2.3-2.9	3.25	2.5
2550	1510	Earth, dry	3.00-3.50	2.3-2.7	3.25	2.5
2600	1540	Limestone, broken or crushed	2.50-3.50	1.9-2.7	2.25-3.25	1.7-2.5
2700	1600	Earth, wet	3.50	2.7	3.25	2.5
2800	1660	Clay, wet	3.50	2.7	3.25	2.5
2800	1660	Rock, granite, blasted and broken	2.75-4.00	2.1-3.1	2.50-3.75	1.9-2.9
2850	1690	Sand, moist	3.50	2.7	3.25	2.5
2900	1720	Sand and gravel, dry	3.50	2.7	3.25	2.5
3100	1840	Sand, wet	3.00	2.3	2.75	2.1
3400	2020	Sand and gravel, wet	3.00	2.3	2.75	2.1

\*Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Larger buckets may be possible when using light buckets, 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 and uneven surfaces. Bucket capacity indicated is SAE heaped.