

892D-LC EXCAVATOR SPECIFICATIONS

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with PCSA and SAE Standards. Except where otherwise noted, these specifications are based on a unit with 31-in. (800 mm) triple grouser shoes, counterweight, 13 ft. 1 in. (4.0 m) arm, 56-in. (1410 mm) bucket, full fuel tank, and 175-lb. (80 kg) operator.

Rated Power @ 2100 rpm:	SAE	DIN 6270B
Net	195 hp (145 kW)	145
Gross	205 hp (153 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 6270B, using No. 2-D fuel @ 35 API gravity. No derating is required up to 10,000 ft. (3050 m) altitude. Gross power is without cooling fan.

Engine: John Deere 6466A

Type	Four-cycle, turbocharged, aftercooled diesel
Bore and stroke	4.56 x 4.75 in. (116 x 121 mm)
No. of cylinders	6
Displacement	466 cu. in. (7.638 L)
Maximum net torque @ 1400 rpm ..	610 lb-ft (827 Nm) (84.3 kg-m)
Cooling fan	Suction
Compression ratio	14.9 to 1
Lubrication	Pressure system w/full-flow filter
Electrical system	24-volt
Batteries (2) 12-volt	Reserve capacity: 300 minutes

Hydraulic System: Open Center

Two variable-displacement axial-piston pumps and two control valves (5- and 4-spool) provide independent and combined operation of all functions. The 5-spool control valve has one spool for an auxiliary attachment function.

Main pumps	2 variable-displacement axial-piston
Minimum flow	2 x 18 gpm (2 x 68 L/min)
Max. oil flow	2 x 72.1 gpm (273 L/min)
Pilot pump	
Pressure setting	570 psi (3930 kPa) (40 kg/cm ²)
Max. oil flow	9.25 gpm (35 L/min)
System relief valves	
Travel	4980 psi (34 340 kPa) (350 kg/cm ²)
Front end	4050 psi (27 920 kPa) (285 kg/cm ²)
Circuit relief valves	
Boom	4270 psi (29 440 kPa) (300 kg/cm ²)
Arm	4270 psi (29 440 kPa) (300 kg/cm ²)
Bucket	4270 psi (29 440 kPa) (300 kg/cm ²)
Cross-over relief valves	
Travel	5050 psi (34 820 kPa) (355 kg/cm ²)
Swing	3560 psi (24 550 kPa) (250 kg/cm ²)
Oil filtration:	
One suction filter	
One 10-micron full-flow return filter w/bypass ..	

Cylinders:	Bore	Rod Diameter	Stroke
Boom (2)	5.7 in. (145 mm)	3.9 in. (100 mm)	60.2 in. (1530 mm)
Arm (1)	6.5 in. (165 mm)	4.3 in. (110 mm)	71.7 in. (1820 mm)
Bucket (1)	5.7 in. (145 mm)	3.7 in. (95 mm)	49.2 in. (1250 mm)

Boom and bucket cylinders have built-in hydraulic cushions on the extension side only. The arm cylinder has a built-in hydraulic cushion at each end of the stroke. All cylinder rods are ground, heat-treated, chrome plated and polished.

Swing Mechanism:

Swing speed	0-12.0 rpm
Swing brake	Automatic, hydraulic lock
Turntable bearing	Single-row, shear-type ball bearing with induction-hardened, lubricated internal gear and pinion. 500-hour lube interval.

Undercarriage: Long

Propel motors (one for each track)

Axial-piston, hydraulic motors with planetary drives. Multiple-disk brakes automatically release while propelling and apply when stationary. Independent drive to each track permits counterrotation. Excavator track-type undercarriage with heavy-duty frame and all-welded and stress-relieved structure. Side frames welded to track frame. Permanently lubricated track rollers and idlers with metal face seals.

Tracks:

Track chain	Sealed
Track adjustment ..	Hydraulic with shock absorbing recoil springs

Track Rollers and Shoes (each side):

Long undercarriage has two upper rollers, nine lower rollers and 50 track shoes. Track shoes are induction-hardened rolled alloy with heat-treated connecting pins. A single lower track guide is provided.

Track Shoes:	Average Ground Contact	Average Ground Pressure
Width		
24 in. (600 mm) (optional)	Triple grousers (51 472 cm ²)	8.17 psi (56.3 kPa) (0.58 kg/cm ²)
31 in. (800 mm) (optional)	Triple grousers (69 032 cm ²)	6.29 psi (43.4 kPa) (0.44 kg/cm ²)

Cab:

Steel, independent, shock mounted and soundproofed. Tinted safety glass windows. Front window can be stored. Side windows slide open for ventilation. Front window wiper. Hydraulic system lockout for safety during operator entry and exit from the cab. Centralized monitoring with alarm system.

Seat:

Fully adjustable deluxe reclining seat with armrests.

Controls:

All hydraulic functions are controlled by low-effort direct acting linkage. Two short levers control swing, boom, arm and bucket functions. Right and left pedals control forward, reverse and counterrotation movements.

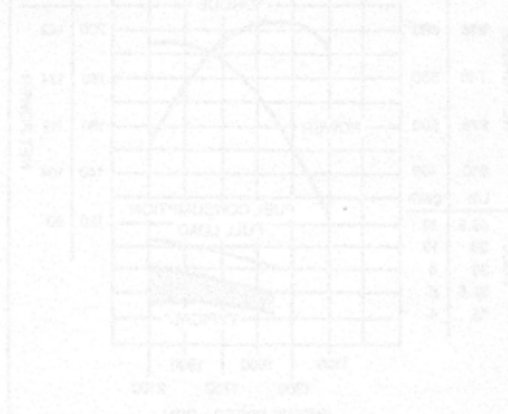
Boom and Arm:

Welded, low-stress, full box-section design. Centralized lubrication system. Front attachments with a long reach are available.

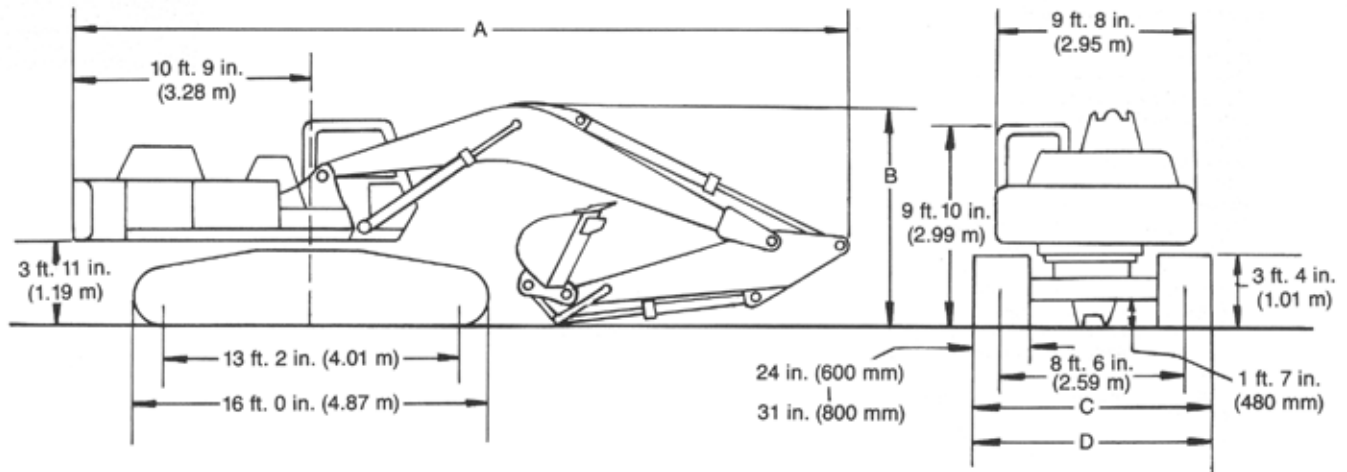
Servicing and Vandal Protection:

Non-slip steps and handrails allow easier servicing and maintenance. Easily accessible engine and hydraulic system covers. Machine covers, fuel cap, and cab door are lockable.

Capacities:	U.S.	Liters
Fuel tank	135 gal.	510
Cooling system	36 qt.	34
Engine lubrication w/filter	25 qt.	24
Hydraulic system	87 gal.	330
Hydraulic reservoir	42 gal.	160
Planetary propel drive (ea. side)	9 qt.	8
Swing drive	11 qt.	10
Hydraulic pump drive	1 qt.	1



892D-LC EXCAVATOR SPECIFICATIONS AND DIMENSIONS



A. W/short arm—36 ft. 2 in. (11.03 m)
 W/standard arm—35 ft. 10 in. (10.92 m)
 W/long arm—36 ft. 1 in. (10.99 m)

B. W/short arm—11 ft. 2 in. (3.40 m)
 W/standard arm—10 ft. 10 in. (3.30 m)
 W/long arm—11 ft. 5 in. (3.49 m)

C. W/24 in. (600 mm) shoes—10 ft. 6 in. (3.19 m)
 D. W/31 in. (800 mm) shoes—11 ft. 1 in. (3.39 m)

D Max. dumping height	22 ft. 4 in. (6.80 m)	23 ft. 4 in. (7.11 m)	24 ft. 6 in. (7.47 m)
E Min. swing radius	14 ft. 11 in. (4.55 m)	14 ft. 8 in. (4.47 m)	14 ft. 5 in. (4.39 m)
F Max. vertical wall	18 ft. 5 in. (5.61 m)	21 ft. 3 in. (6.48 m)	24 ft. 2 in. (7.37 m)

Weights:

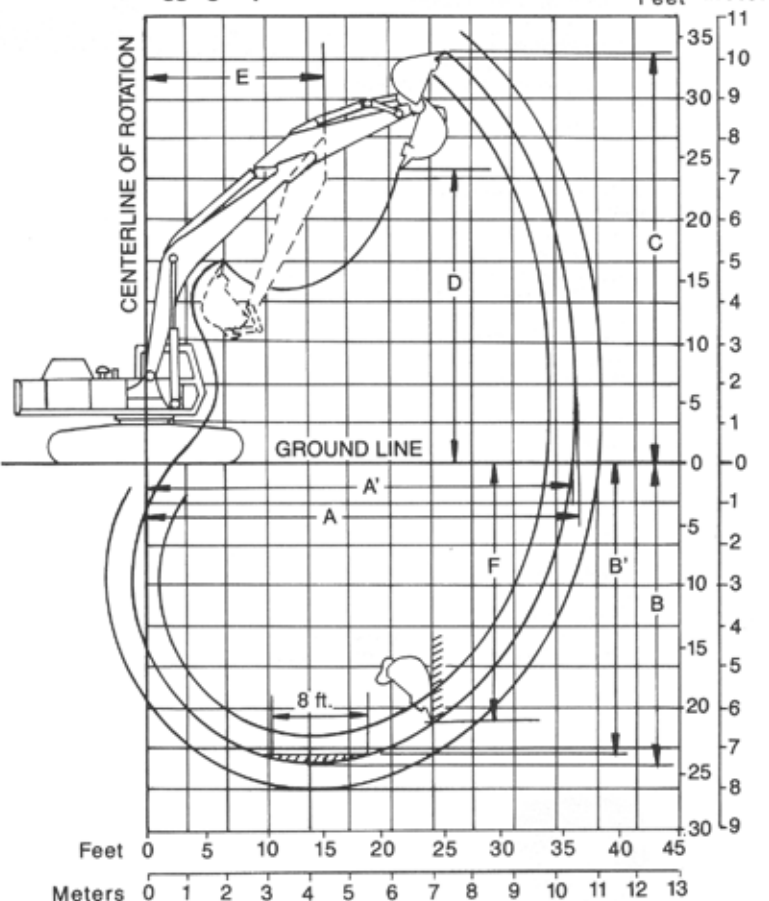
	lb.	kg
Operating weight with full fuel tank, 175-lb. (80 kg) operator, long undercarriage, 31-in. (800 mm) triple grouser shoes, 13 ft. 1 in. (4.0 m) arm, 1-3/4 cu. yd. (1.3 m ³) bucket	67,590	30 658
Upperstructure with counterweight and full fuel tank, less all front attachments	29,901	13 563
Undercarriage with:		
24-in. (600 mm) shoes	22,575	10 240
31-in. (800 mm) shoes	24,361	11 050
Boom, one piece, with two boom cylinders and arm cylinder	7,010	3 180
Boom lift cylinders (2) without pins	1,323	600
Arm, optional short 8 ft. 8 in. (2.66 m), w/bucket cylinder and linkage	3,307	1 500
Arm, standard 10 ft. 6 in. (3.20 m), w/bucket cylinder and linkage	3,505	1 590
Arm, optional long 13 ft. 1 in. (4.0 m), w/bucket cylinder and linkage	3,803	1 725
Arm cylinder without pins	970	440
Bucket cylinder without pins and linkage	573	260
Counterweight	13,670	6 200

Operating Information:

Gradability	91% (42°)
Drawbar pull	45,410 lb. (202 kN)
Tail swing clearance	130 in. (3.30 m)
Swing speed	12 rpm
Infinitely variable travel speed, forward and reverse	0-2.5 mph (0-4.2 km/h)

	ARM		
	Opt. Short	Standard	Opt. Long
Arm length	8 ft. 8 in. (2.66 m)	10 ft. 6 in. (3.20 m)	13 ft. 1 in. (4.00 m)
Arm force	34,458 lb. (153 kN) (15 630 kg)	28,748 lb. (128 kN) (13 040 kg)	24,736 lb. (110 kN) (11 220 kg)
Lifting capacity over front or rear @ ground level 20 ft. (6.1 m) reach	21,805 lb. (9891 kg)	21,115 lb. (9578 kg)	19,965 lb. (9056 kg)
A Max. reach	34 ft. 8 in. (10.57 m)	36 ft. 5 in. (11.10 m)	38 ft. 11 in. (11.86 m)
A'Max. reach @ ground level	34 ft. 0 in. (10.36 m)	35 ft. 9 in. (10.90 m)	38 ft. 4 in. (11.68 m)
B Max. digging depth	22 ft. 5 in. (6.83 m)	24 ft. 3 in. (7.39 m)	26 ft. 10 in. (8.18 m)
B'Max. digging depth @ 8 ft. (2.44 m) flat bottom	21 ft. 10 in. (6.65 m)	23 ft. 8 in. (7.21 m)	26 ft. 5 in. (8.05 m)
C Max. cutting height	32 ft. 3 in. (9.83 m)	33 ft. 6 in. (10.21 m)	34 ft. 9 in. (10.59 m)

Digging Depth and Reach:



892D-LC EXCAVATOR LIFT CAPACITIES

Ratings at bucket lift hook, machine equipped with 31-in. (800 mm) shoes, 1-3/4 cu. yd. (1.3 m³) SAE heaped bucket and standard counterweight, situated on firm, level, uniform supporting surface. **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. Lift capacity is decreased by approximately 3 percent if machine is equipped with optional 24-in. (600 mm) triple grouser shoes.

LIFTING OVER FRONT OR REAR

8 ft. 8 in. (2.66 m) Short Arm

Horizontal distance from centerline of rotation:	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)					10,711 (4859)		
15 ft. (4.57 m)				13,361 (6061)	11,780 (5343)	11,280 (5117)	
10 ft. (3.05 m)				16,830 (7634)	13,482 (6115)	11,938 (5415)	
5 ft. (1.52 m)				20,007 (9075)	15,243 (6914)	12,273 (5567)	
Ground level				21,805 (9891)	16,067 (7288)	12,039 (5461)	
- 5 ft. (- 1.52 m)			21,034 (9541)	22,150 (10 047)	15,877 (7202)	11,983 (5435)	
- 10 ft. (- 3.05 m)		30,667 (13 911)	19,101 (8664)	21,127 (9583)	15,970 (7244)		
- 15 ft. (- 4.57 m)			23,316 (10 576)	18,112 (8216)			

LIFTING OVER SIDE

Horizontal distance from centerline of rotation:	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)					10,711 (4859)		
15 ft. (4.57 m)				13,361 (6061)	11,680 (5298)	8322 (3775)	
10 ft. (3.05 m)				15,756 (7147)	11,082 (5027)	8075 (3663)	
5 ft. (1.52 m)				14,701 (6668)	10,508 (4766)	7786 (3532)	
Ground level				14,138 (6413)	10,106 (4584)	7570 (3434)	
- 5 ft. (- 1.52 m)			21,034 (9541)	13,979 (6341)	9935 (4507)	7518 (3410)	
- 10 ft. (- 3.05 m)		30,667 (13 911)	19,101 (8664)	14,109 (6400)	10,019 (4545)		
- 15 ft. (- 4.57 m)			23,101 (10 479)	14,553 (6601)			

LIFTING OVER FRONT OR REAR

10 ft. 6 in. (3.20 m) Standard Arm

Horizontal distance from centerline of rotation:	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)					9496 (4307)	7084 (3213)	
15 ft. (4.57 m)					10,698 (4853)	10,230 (4640)	
10 ft. (3.05 m)			22,337 (10 132)	15,364 (6969)	12,507 (5673)	11,103 (5036)	
5 ft. (1.52 m)				18,815 (8535)	14,431 (6546)	12,158 (5515)	
Ground level			19,024 (8629)	21,115 (9578)	15,973 (7245)	11,954 (5422)	
- 5 ft. (- 1.52 m)		13,105 (5944)	18,346 (8322)	21,990 (9975)	15,761 (7149)	11,805 (5355)	
- 10 ft. (- 3.05 m)		24,525 (11 125)	23,437 (10 631)	21,510 (9757)	15,748 (7143)		
- 15 ft. (- 4.57 m)		17,795 (8072)	25,305 (11 478)	19,343 (8774)	14,490 (6573)		

LIFTING OVER SIDE

Horizontal distance from centerline of rotation:	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)					9496 (4307)	7084 (3213)	
15 ft. (4.57 m)					10,698 (4853)	8394 (3808)	
10 ft. (3.05 m)			22,337 (10 132)	15,364 (6969)	11,180 (5071)	8089 (3669)	
5 ft. (1.52 m)				14,883 (6751)	10,547 (4784)	7751 (3516)	
Ground level			19,024 (8629)	14,149 (6418)	10,067 (4566)	7477 (3392)	
- 5 ft. (- 1.52 m)		13,110 (5944)	18,346 (8322)	13,853 (6284)	9812 (4451)	7339 (3329)	
- 10 ft. (- 3.05 m)		24,525 (11 125)	22,120 (10 034)	13,880 (6296)	9800 (4445)		
- 15 ft. (- 4.57 m)		17,795 (8072)	22,644 (10 271)	14,203 (6443)	10,105 (4584)		
- 20 ft. (- 6.10 m)							

LIFTING OVER FRONT OR REAR

13 ft. 1 in. (4.00 m) Long Arm

Horizontal distance from centerline of rotation:	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)						8395 (3808)	
15 ft. (4.57 m)						8983 (4075)	
10 ft. (3.05 m)			17,908 (8123)	13,217 (5995)	11,135 (5051)	10,041 (4555)	8047 (3650)
5 ft. (1.52 m)			25,409 (11 526)	17,011 (7716)	13,270 (6019)	11,284 (5118)	9463 (4292)
Ground level			26,098 (11 838)	19,965 (9056)	15,140 (6868)	12,044 (5463)	9183 (4165)
- 5 ft. (- 1.52 m)		14,327 (6499)	24,755 (11 228)	21,587 (9792)	15,805 (7169)	11,791 (5348)	
- 10 ft. (- 3.05 m)	17,272 (7835)	19,681 (8927)	27,092 (12 289)	21,872 (9921)	15,648 (7098)	11,722 (5317)	
- 15 ft. (- 4.57 m)		20,449 (9276)	27,720 (12 574)	20,700 (9390)	15,773 (7155)		
- 20 ft. (- 6.10 m)		28,753 (13 042)	22,940 (10 406)	17,235 (7818)			

LIFTING OVER SIDE

Horizontal distance from centerline of rotation:	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)						8395 (3808)	
15 ft. (4.57 m)						8671 (3933)	
10 ft. (3.05 m)			17,908 (8123)	13,217 (5995)	11,135 (5051)	8308 (3769)	6080 (2758)
5 ft. (1.52 m)			23,637 (10 883)	15,388 (6980)	10,814 (4905)	7906 (3586)	5882 (2668)
Ground level			22,206 (10 073)	14,418 (6540)	10,223 (4637)	7555 (3427)	5706 (2588)
- 5 ft. (- 1.52 m)		14,327 (6499)	21,782 (9880)	13,906 (6308)	9845 (4466)	7321 (3321)	
- 10 ft. (- 3.05 m)	17,272 (7835)	19,681 (8927)	21,823 (9899)	13,762 (6242)	9703 (4401)	7258 (3292)	
- 15 ft. (- 4.57 m)		20,449 (9276)	22,185 (10 063)	13,919 (6314)	9816 (4453)		
- 20 ft. (- 6.10 m)		28,753 (13 042)	22,918 (10 396)	14,427 (6544)			

892D-LC EXCAVATOR BUCKETS

Bite Width Without Side Cutters	With Side Cutters or Wear Shrouds*	SAE (Heaped)	CECE (Heaped)	Weight
Regular duty				
46 in. (1178 mm)	48 in. (1230 mm)	1½ cu. yd. (1.1 m³)	(1.0 m³)	2120 lb. (960 kg)
53 in. (1358 mm)	56 in. (1410 mm)	1¾ cu. yd. (1.3 m³)	(1.2 m³)	2340 lb. (1060 kg)
Heavy duty				
35 in. (890 mm)	35 in. (890 mm)*	1½ cu. yd. (.9 m³)		2390 lb. (1084 kg)
41 in. (1040 mm)	41 in. (1040 mm)*	1¾ cu. yd. (1.1 m³)		2700 lb. (1225 kg)
47 in. (1190 mm)	47 in. (1190 m)*	1¾ cu. yd. (1.2 m³)		2751 lb. (1248 kg)

Bucket Digging Force (Tangential Penetrating Force)

Regular Duty - SAE Heaped

1½ cu. yd. (1.1 m³) 37,880 lb. (168 kN) (17 180 kg)
 1¾ cu. yd. (1.3 m³) 37,880 lb. (168 kN) (17 180 kg)

Heavy-Duty

1½ cu. yd. (.9 m³) 37,560 lb. (167 kN) (17 037 kg)
 1¾ cu. yd. (1.1 m³) 38,060 lb. (169 kN) (17 264 kg)
 1¾ cu. yd. (1.2 m³) 37,560 lb. (167 kN) (17 037 kg)

BUCKET SELECTION CHART Recommended Bucket Size**

lb/yd³	kg/m³	MATERIAL	8 ft. 8 in. (2.66 m) Arm***		10 ft. 6 in. (3.20 m) Arm		13 ft. 1 in. (4.0 m) Arm***	
			Regular Duty	Heavy Duty	Regular Duty	Heavy Duty	Regular Duty	Heavy Duty
700	420	Wood chips	8¾ yd³ (6.4 m³)	—	—	—	4¾ yd³ (3.7 m³)	—
800	470	Peat, dry	7¼ yd³ (5.5 m³)	—	—	—	4¼ yd³ (3.2 m³)	—
1250	740	Peat, wet	4¾ yd³ (3.6 m³)	—	3¾ yd³ (2.8 m³)	—	2¾ yd³ (2.1 m³)	—
1450	860	Cinders	4.0 yd³ (3.1 m³)	—	3¾ yd³ (1.8 m³)	—	2¾ yd³ (1.8 m³)	—
1600	950	Topsoil, loose	2¾ yd³ (2.2 m³)	—	2½ yd³ (2.0 m³)	—	2½ yd³ (1.8 m³)	—
2300	1360	Top soil, heavy packed	2½ yd³ (1.9 m³)	—	2.0 yd³ (1.5 m³)	—	1½ yd³ (1.1 m³)	—
2300	1360	Coal, natural bed	2½ yd³ (1.9 m³)	2¼ yd³ (1.7 m³)	2.0 yd³ (1.5 m³)	1¾ yd³ (1.3 m³)	1½ yd³ (1.1 m³)	1¼ yd³ (.9 m³)
2600	1540	Earth, dry loam	2¼ yd³ (1.7 m³)	2.0 yd³ (1.5 m³)	1¾ yd³ (1.3 m³)	1½ yd³ (1.1 m³)	1¾ yd³ (1.0 m³)	1¼ yd³ (.9 m³)
2700	1600	Sand, dry	2½ yd³ (1.6 m³)	2.0 yd³ (1.5 m³)	1¾ yd³ (1.3 m³)	1½ yd³ (1.1 m³)	1¾ yd³ (1.0 m³)	1.0 yd³ (.8 m³)
3200	1900	Earth, moist loam	1¾ yd³ (1.3 m³)	1½ yd³ (1.2 m³)	1¾ yd³ (1.3 m³)	1¼ yd³ (.9 m³)	1½ yd³ (.8 m³)	¾ yd³ (.7 m³)
3250	1930	Sand, gravel, dry	1¾ yd³ (1.3 m³)	1½ yd³ (1.2 m³)	1½ yd³ (1.1 m³)	1¼ yd³ (.9 m³)	1.0 yd³ (.8 m³)	¾ yd³ (.7 m³)
3300	1960	Sand, moist	1¾ yd³ (1.3 m³)	1½ yd³ (1.2 m³)	1½ yd³ (1.1 m³)	1¼ yd³ (.9 m³)	1.0 yd³ (.8 m³)	¾ yd³ (.7 m³)
3500	2080	Sand, wet	1½ yd³ (1.2 m³)	1½ yd³ (1.1 m³)	1¼ yd³ (.9 m³)	1½ yd³ (.8 m³)	¾ yd³ (.7 m³)	¾ yd³ (.6 m³)
3500	2080	Shale	1½ yd³ (1.2 m³)	1½ yd³ (1.1 m³)	1¼ yd³ (.9 m³)	1½ yd³ (.8 m³)	¾ yd³ (.7 m³)	¾ yd³ (.6 m³)
3600	2100	Clay, wet	1¾ yd³ (1.0 m³)	1¼ yd³ (.9 m³)	1.0 yd³ (.8 m³)	¾ yd³ (.7 m³)	¾ yd³ (.6 m³)	¾ yd³ (.5 m³)
4200	2490	Limestone, broken	—	1¼ yd³ (.9 m³)	—	¾ yd³ (.7 m³)	—	¾ yd³ (.3 m³)
4600	2730	Rock, granite, blasted	—	1¼ yd³ (.9 m³)	—	¾ yd³ (.7 m³)	—	¾ yd³ (.5 m³)

**Contact your John Deere dealer for optimum bucket and arm selection. The use of larger than recommended buckets in heavy materials and tough conditions should be carefully analyzed for digging force and load capacity. Bucket capacity indicated is SAE heaped.

***Select 8 ft. 8 in. (2.66 m) arm for maximum digging force.
 Select 13 ft. 1 in. (4.0 m) arm for maximum digging depth and reach.