

450C LC

EXCAVATOR

SPECIFICATIONS



CONSTRUCTION EQUIPMENT

Engine	450C LC
Type.....	John Deere 6125H with turbocharger and air-to-air charge air cooler; meets EPA Tier II non-road emissions regulations
Rated power	316 SAE net hp (236 kW) @ 1,800 rpm
Cylinders.....	6
Displacement.....	.763 cu. in. (12.5 L)
Maximum net torque.....	955 lb.-ft. (1295 Nm) @ 1,300 rpm
Fuel consumption, typical	8 to 14 gal./hr. (30 to 53 L/h)
Cooling fan	suction-type
Electrical system.....	24 volt with 45-amp alternator
Batteries (two 12 volt).....	reserve capacity: 180 min.
Off-level capacity.....	100% (45 deg.)

Hydraulic System

Main pumps.....	two variable-displacement axial-piston
Minimum flow	2 x 39 gpm (2 x 147 L/min.)
Maximum flow	2 x 100 gpm (2 x 379 L/min.)
Pilot pump	one gear
Maximum rated flow	9.3 gpm (35 L/min.)
Pressure setting	566 psi (3902 kPa)
System operating pressure	
Implement circuits.....	4,410 psi (30 406 kPa)
Travel circuits.....	5,050 psi (34 820 kPa)
Swing circuits.....	4,050 psi (27 923 kPa)
Power boost	4,620 psi (31 854 kPa)
Oil filtration.....	one 10-micron full-flow return filter with by-pass / one pilot oil filter / one suction filter

Cylinders

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

Swing Mechanism

Swing speed	0-9 rpm
Swing torque	107,004 lb.-ft. (145 189 Nm)

Undercarriage

Carrier rollers (per side)	3
Track rollers (per side)	9
Shoes (per side).....	53
Track guides	front and center
Track adjustment	hydraulic
Travel speed	
Low	0-2.1 mph (0-3.4 km/h)
High	0-3.4 mph (0-5.5 km/h)
Drawbar pull	79,590 lb. (36 100 kg)

Ground Pressure Data

Average ground pressure	
30-in. (750 mm) triple semi-grouser shoes	9.12 psi (62.9 kPa); recommended for rocky terrain and stumps
36-in. (900 mm) triple semi-grouser shoes	7.71 psi (53.2 kPa); recommended for general/soft terrain

Capacities

Fuel tank.....	171 gal. (650 L)
Cooling system	53 qt. (50 L)
Engine lubrication, including filter	44.5 qt. (42 L)
Hydraulic tank.....	74 gal. (280 L)

Capacities (continued)

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Hydraulic system	135 gal. (510 L)
Propel gearbox (each)	9.5 qt. (9 L)
Swing drive (each)	6.9 qt. (6.5 L)

Operating Weights

With full fuel tank; 175-lb. (79 kg) operator; 3.06-cu.-yd. (2.34 m³), 54-in. (1370 mm), 4,478-lb. (2031 kg) heavy-duty bucket; 12-ft. 10-in. (3.9 m) arm; 18,078-lb. (8200 kg) counterweight; 17-ft. 11-in. (5.47 m) undercarriage length with 9-ft. 6-in. (2.89 m) wide gauge

30-in. (750 mm) triple semi-grouser shoes	102,560 lb. (46 521 kg)
36-in. (900 mm) triple semi-grouser shoes	104,000 lb. (47 174 kg)

Component Weights

Undercarriage	
30-in. (750 mm) triple semi-grouser shoes	39,440 lb. (17 890 kg)
36-in. (900 mm) triple semi-grouser shoes	40,895 lb. (18 550 kg)
Upperstructure with full fuel tank (less front attachments and 18,078-lb. [8200 kg] counterweight)	
24,149 lb. (10 955 kg)	
Boom (with arm cylinder)	
One piece	9,017 lb. (4090 kg)
Heavy duty	9,458 lb. (4290 kg)
ME one piece	9,470 lb. (4296 kg)
Arm with bucket cylinder and linkage	
9 ft. 6 in. (2.9 m)	5,082 lb. (2305 kg)
11 ft. 2 in. (3.4 m)	5,004 lb. (2270 kg)
12 ft. 10 in. (3.9 m)	5,357 lb. (2430 kg)
16 ft. 1 in. (4.9 m)	5,137 lb. (2330 kg)
Boom lift cylinders (2) total weight	
1,851 lb. (840 kg)	
54-in. (1370 mm), 3.06-cu.-yd. (2.34 m ³) bucket	4,478 lb. (2031 kg)
Counterweight	18,078 lb. (8200 kg)

Shipping Weight

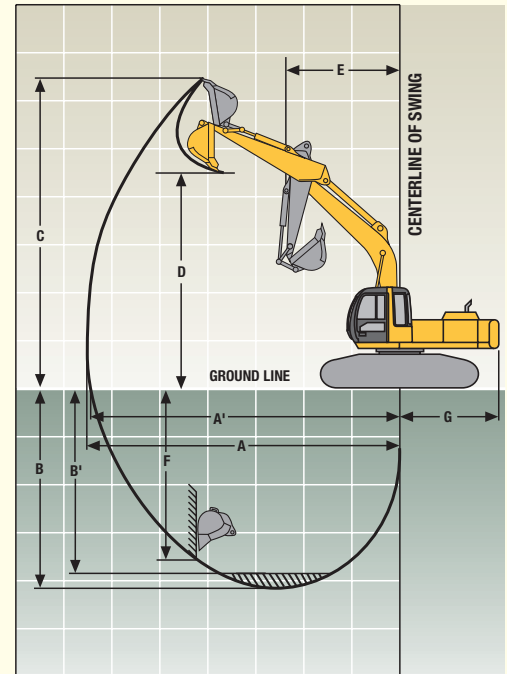
Upperstructure with full fuel tank, boom with arm cylinder, boom cylinders (2), and undercarriage with 36-in. (900 mm) triple semi-grouser shoes (less 18,078-lb. [8200 kg] counterweight; 5,357-lb. [2430 kg]), 12-ft. 10-in. [3.9 m] arm; 4,478-lb. [2031 kg], 54-in. [1370 mm], 3.06-cu.-yd. [2.34 m ³] bucket; and 175-lb. [79 kg] operator)	74,060 lb. (33 594 kg)
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Operating Information

	<i>Arm Length 9 ft. 6 in. (2.9 m) and Boom Length 23 ft. 0 in. (7.0 m)</i>	<i>Arm Length 11 ft. 2 in. (3.4 m) and Boom Length 23 ft. 0 in. (7.0 m)</i>	<i>Arm Length 12 ft. 10 in. (3.9 m) and Boom Length 23 ft. 0 in. (7.0 m)</i>	<i>Arm Length 16 ft. 1 in. (4.9 m) and Boom Length 23 ft. 0 in. (7.0 m)</i>	<i>ME Arm Length 9 ft. 6 in. (2.9 m) and ME Boom Length 19 ft. 8 in. (6.3 m)</i>
Arm force with 54-in. (1370 mm) heavy-duty bucket*	51,013 lb. (227 kN)	43,816 lb. (195 kN)	40,026 lb. (178 kN)	34,778 lb. (155 kN)**	51,013 lb. (227 kN)**
Bucket digging force with 54-in. (1370 mm) heavy-duty bucket*	53,028 lb. (236 kN)	53,028 lb. (236 kN)	53,028 lb. (236 kN)	40,505 lb. (180 kN)**	53,028 lb. (236 kN)
Lifting capacity over front @ ground level 20-ft. (6.1 m) reach*	36,200 lb. (16 420 kg)	36,500 lb. (16 556 kg)	35,800 lb. (16 239 kg)	35,100 lb. (15 921 kg)	35,900 lb. (16 284 kg)
A Maximum reach	37 ft. 4 in. (11.39 m)	39 ft. 6 in. (12.05 m)	40 ft. 11 in. (12.48 m)	43 ft. 11 in. (13.38 m)	35 ft. 7 in. (10.84 m)
A' Maximum reach @ ground level	36 ft. 7 in. (11.14 m)	38 ft. 9 in. (11.81 m)	40 ft. 3 in. (12.27 m)	43 ft. 3 in. (13.18 m)	34 ft. 9 in. (10.59 m)
B Maximum digging depth	23 ft. 10 in. (7.26 m)	25 ft. 6 in. (7.76 m)	27 ft. 1 in. (8.26 m)	29 ft. 11 in. (9.11 m)	20 ft. 5 in. (6.23 m)
B' Maximum digging depth @ 8-ft. (2.44 m) flat bottom	23 ft. 2 in. (7.06 m)	25 ft. 0 in. (7.62 m)	26 ft. 8 in. (8.13 m)	29 ft. 6 in. (9.00 m)	19 ft. 9 in. (6.03 m)
C Maximum cutting height	33 ft. 8 in. (10.27 m)	36 ft. 4 in. (11.08 m)	36 ft. 8 in. (11.18 m)	38 ft. 11 in. (11.85 m)	35 ft. 9 in. (10.89 m)
D Maximum dumping height	23 ft. 1 in. (7.04 m)	25 ft. 2 in. (7.66 m)	25 ft. 6 in. (7.78 m)	28 ft. 9 in. (8.77 m)	24 ft. 1 in. (7.34 m)
E Minimum swing radius	16 ft. 2 in. (4.92 m)	15 ft. 11 in. (4.84 m)	15 ft. 9 in. (4.81 m)	15 ft. 10 in. (4.82 m)	13 ft. 0 in. (3.95 m)
F Maximum vertical wall	17 ft. 6 in. (5.34 m)	21 ft. 10 in. (6.66 m)	23 ft. 1 in. (7.09 m)	27 ft. 9 in. (8.45 m)	16 ft. 9 in. (5.10 m)
G Tail swing radius	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)

*Digging forces and lift capacities with power boost.

**Equipped with 54-in. (1370 mm) general-purpose bucket.



Dimensions

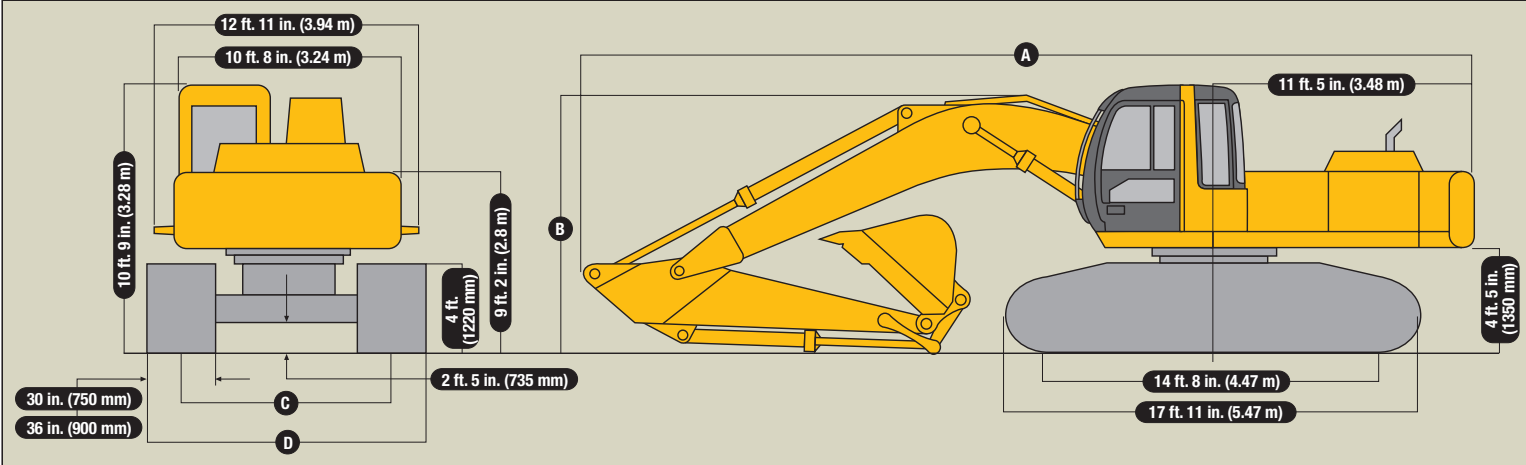
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- A** With 9-ft. 6-in. (2.9 m) arm39 ft. 1 in. (11.91 m)
 With 11-ft. 2-in. (3.4 m) arm39 ft. 1 in. (11.92 m)
 With 12-ft. 10-in. (3.9 m) arm39 ft. 1 in. (11.92 m)
 With 16-ft. 1-in. (4.9 m) arm38 ft. 6 in. (11.73 m)
 With 9-ft. 6 in. (2.9 m) ME arm and ME boom34 ft. 2 in. (10.41 m)

- B** With 9-ft. 6-in. (2.9 m) arm11 ft. 10 in. (3.60 m)
 With 11-ft. 2-in. (3.4 m) arm11 ft. 5 in. (3.48 m)
 With 12-ft. 10-in. (3.9 m) arm11 ft. 5 in. (3.48 m)
 With 16-ft. 1-in. (4.9 m) arm15 ft. 3 in. (4.66 m)
 With 9-ft. 6-in. (2.9 m) ME arm and ME boom12 ft. 3 in. (3.74 m)

- C** Operating position9 ft. 6 in. (2.89 m)
 Transport position7 ft. 10 in. (2.39 m)

- D** With 30-in. (750 mm) triple semi-grouser shoes
 Operating position11 ft. 11 in. (3.64 m)
 Transport position10 ft. 4 in. (3.14 m)
 With 36-in. (900 mm) triple semi-grouser shoes
 Operating position12 ft. 5 in. (3.79 m)
 Transport position10 ft. 10 in. (3.29 m)



450C LC Lift Capacities

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). 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. 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. Ratings are based on SAE J1097.

Load Point Height	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)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 9-ft. 6-in. (2.9 m) arm and 3,578-lb. (1623 kg), 54-in. (1370 mm), 2.45-cu. yd. (1.87 m³) bucket</i>										
25 ft. (7.62 m)					19,900 (9027)	19,900 (9027)				
20 ft. (6.10 m)					20,400 (9253)	20,400 (9253)				
15 ft. (4.57 m)	36,300 (16 466)	36,300 (16 466)	26,800 (12 156)	26,800 (12 156)	22,300 (10 115)	19,600 (8891)	19,700 (8936)	14,100 (6396)		
10 ft. (3.05 m)			31,500 (14 288)	26,500 (12 020)	24,600 (11 158)	18,600 (8437)	20,800 (9435)	13,600 (6169)		
5 ft. (1.52 m)			35,000 (15 876)	24,800 (11 249)	26,700 (12 111)	17,600 (7983)	21,800 (9888)	13,100 (5942)		
Ground Line			36,200 (16 420)	23,900 (10 841)	27,800 (12 610)	17,000 (7711)	22,100 (10 024)	12,700 (5761)		
-5 ft. (-1.52 m)	44,700 (20 276)	38,200 (17 327)	35,300 (16 012)	23,700 (10 750)	27,500 (12 474)	16,700 (7575)	21,700 (9843)	12,500 (5670)		
-10 ft. (-3.05 m)	40,100 (18 189)	38,600 (17 509)	32,400 (14 697)	23,800 (10 796)	25,400 (11 521)	16,700 (7575)				
-15 ft. (-4.57 m)	32,800 (14 878)	32,800 (14 878)	26,900 (12 202)	24,400 (11 068)	20,200 (9163)	17,300 (7847)				
<i>With 11-ft. 2-in. (3.4 m) arm and 3,578-lb. (1623 kg), 54-in. (1370 mm), 2.45-cu. yd. (1.87 m³) bucket</i>										
20 ft. (6.10 m)					19,500 (8845)	19,500 (8845)	18,400 (8346)	15,000 (6804)		
15 ft. (4.57 m)			25,400 (11 521)	25,400 (11 521)	21,400 (9707)	20,300 (9208)	19,200 (8709)	14,600 (6623)		
10 ft. (3.05 m)			30,300 (13 744)	27,400 (12 429)	24,000 (10 886)	19,200 (8709)	20,400 (9253)	14,100 (6396)		
5 ft. (1.52 m)			34,400 (15 604)	25,600 (11 612)	26,300 (11 930)	18,200 (8255)	21,700 (9843)	13,500 (6124)		
Ground Line	25,400 (11 521)	25,400 (11 521)	36,500 (16 556)	24,500 (11 113)	27,900 (12 655)	17,400 (7893)	22,500 (10 206)	13,000 (5897)		
-5 ft. (-1.52 m)	43,100 (19 550)	38,400 (17 418)	36,300 (16 466)	24,100 (10 932)	28,100 (12 746)	17,000 (7711)	22,200 (10 070)	12,800 (5806)		
-10 ft. (-3.05 m)	43,700 (19 822)	38,700 (17 554)	34,100 (15 468)	24,100 (10 932)	26,700 (12 111)	17,000 (7711)	20,700 (9389)	12,800 (5806)		
-15 ft. (-4.57 m)	37,100 (16 828)	37,100 (16 828)	29,600 (13 426)	24,500 (11 113)	22,900 (10 387)	17,300 (7847)				
-20 ft. (-6.10 m)	26,500 (12 020)	26,500 (12 020)	20,900 (9480)	20,900 (9480)						
<i>With 12-ft. 10-in. (3.9 m) arm and 3,578-lb. (1623 kg), 54-in. (1370 mm), 2.45-cu. yd. (1.87 m³) bucket</i>										
25 ft. (7.62 m)							11,200 (5080)	11,200 (5080)		
20 ft. (6.10 m)							17,200 (7802)	15,200 (6895)		
15 ft. (4.57 m)					20,100 (9117)	20,100 (9117)	18,100 (8210)	14,800 (6713)	10,100 (4581)	10,100 (4581)
10 ft. (3.05 m)	40,200 (18 235)	40,200 (18 235)	28,400 (12 882)	28,000 (12 701)	22,800 (10 342)	19,500 (8845)	19,600 (8891)	14,200 (6441)	15,300 (6940)	10,500 (4763)
5 ft. (1.52 m)	35,300 (16 012)	35,300 (16 012)	33,000 (14 969)	26,000 (11 794)	25,400 (11 521)	18,400 (8346)	21,000 (9526)	13,500 (6124)	17,700 (8029)	10,200 (4627)
Ground Line	32,600 (14 787)	32,600 (14 787)	35,800 (16 239)	24,600 (11 158)	27,300 (12 383)	17,500 (7938)	22,100 (10 024)	13,000 (5897)	17,400 (7893)	9,900 (4491)
-5 ft. (-1.52 m)	44,000 (19 958)	38,000 (17 237)	36,400 (16 511)	24,000 (10 886)	28,000 (12 701)	17,000 (7711)	22,100 (10 024)	12,700 (5761)		
-10 ft. (-3.05 m)	45,900 (20 820)	38,200 (17 327)	34,900 (15 831)	23,800 (10 796)	27,200 (12 338)	16,800 (7620)	21,400 (9707)	12,600 (5715)		
-15 ft. (-4.57 m)	40,100 (18 189)	38,800 (17 600)	31,300 (14 198)	24,100 (10 932)	24,300 (11 022)	17,000 (7711)				
-20 ft. (-6.10 m)	30,800 (13 971)	30,800 (13 971)	24,300 (11 022)	24,300 (11 022)	17,300 (7847)	17,300 (7847)				
<i>With 16-ft. 1-in. (4.9 m) arm and 2,215-lb. (1005 kg), 54-in. (1370 mm), 2.30-cu. yd. (1.76 m³) bucket</i>										
20 ft. (6.10 m)							16,000 (7258)	16,000 (7258)	13,500 (6124)	12,500 (5670)
15 ft. (4.57 m)							17,300 (7847)	16,300 (7394)	16,200 (7348)	12,200 (5534)
10 ft. (3.05 m)					21,600 (9798)	21,200 (9616)	19,000 (8618)	15,600 (7076)	17,300 (7847)	11,900 (5398)
5 ft. (1.52 m)	44,100 (20 004)	43,400 (19 686)	31,100 (14 107)	28,000 (12 701)	24,600 (11 158)	19,900 (9027)	20,800 (9435)	14,900 (6759)	18,300 (8301)	11,400 (5171)
Ground Line	43,800 (19 868)	40,400 (18 325)	35,100 (15 921)	26,300 (11 930)	27,200 (12 338)	18,900 (8573)	22,400 (10 161)	14,200 (6441)	18,600 (8437)	11,000 (4990)
-5 ft. (-1.52 m)	44,400 (20 140)	39,200 (17 781)	37,200 (16 874)	25,200 (11 431)	28,700 (13 018)	18,100 (8210)	23,200 (10 523)	13,700 (6214)	18,300 (8301)	10,800 (4899)
-10 ft. (-3.05 m)	50,300 (22 816)	38,800 (17 600)	37,200 (16 874)	24,700 (11 204)	28,900 (13 109)	17,700 (8029)	22,900 (10 387)	13,500 (6124)	18,100 (8210)	10,600 (4808)
-15 ft. (-4.57 m)	46,400 (21 047)	39,000 (17 690)	35,100 (15 921)	24,700 (11 204)	27,500 (12 474)	17,700 (8029)	21,800 (9888)	13,500 (6124)		
-20 ft. (-6.10 m)	39,500 (17 917)	39,500 (17 917)	30,500 (13 835)	25,100 (11 385)	23,600 (10 705)	18,000 (8165)				
-25 ft. (-7.62 m)	28,100 (12 746)	28,100 (12 746)	21,600 (9798)	21,600 (9798)						

450C LC Lift Capacities (continued)

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). 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. 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. Ratings are based on SAE J1097.

Load Point Height	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)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With ME 9-ft. 6-in. (2.9 m) arm; ME 19-ft. 8-in. (6.3 m) boom; and 3,578-lb. (1623 kg), 54-in. (1370 mm), 2.45-cu. yd. (1.87 m³) bucket</i>										
20 ft. (6.10 m)			23,000 (10 433)	23,000 (10 433)	21,300 (9662)					
15 ft. (4.57 m)	32,900 (14 924)	32,900 (14 924)	26,100 (11 839)	26,100 (11 839)	22,500 (10 206)					
10 ft. (3.05 m)			30,400 (13 790)	27,100 (12 293)	24,500 (11 114)	18,700 (8483)	17,600 (7984)	13,300 (6033)		
5 ft. (1.52 m)			34,100 (15 468)	25,300 (11 477)	26,400 (11 976)	17,700 (8029)	21,700 (9844)	12,900 (5852)		
Ground Line	49,700 (22 745)	38,100 (17 282)	35,900 (16 285)	24,200 (10 978)	27,500 (12 474)	17,000 (7711)	20,000 (9072)	12,500 (5670)		
-5 ft. (-1.52 m)	46,700 (21 184)	38,000 (17 237)	35,200 (15 967)	23,700 (10 751)	27,000 (12 248)	16,700 (7575)				
-10 ft. (-3.05 m)	40,900 (18 553)	38,500 (17 464)	31,700 (14 380)	23,900 (10 841)	23,900 (10 841)	16,800 (7621)				
-15 ft. (-4.57 m)	31,100 (14 108)	31,100 (14 108)	24,000 (10 887)	24,000 (10 887)						

450C LC Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. The buckets have an adjustable bushing 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 tooth, 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.		Arm Dig Force 11 ft.		Arm Dig Force 12 ft.		Arm Dig Force 16 ft.		Bucket Tip Radius		No. Teeth	
	in.	mm	cu. yd.	m³	lb.	kg		lb.	kN	lb.	kN	lb.	kN	lb.	kN	in.	mm		
General-Purpose	54	1370	2.30	1.76	2,215	1005	40,505	180.2							34,778	155.0	69.5	1765	7
Plate Lip	84	2135	5.00	3.82	4,905	2224	53,028	236.0	51,013	227.0							74.0	1880	7
Heavy-Duty	36	915	1.56	1.19	2,888	1310	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	4
Plate Lip	42	1065	1.85	1.41	3,124	1417	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	5
	48	1220	2.15	1.64	3,320	1505	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	6
	54	1370	2.45	1.87	3,578	1623	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	6
	60	1525	2.74	2.10	3,771	1710	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	7
	66	1675	3.01	2.30	3,825	1735	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	7
	72	1830	3.29	2.52	4,061	1842	54,900	244.0	51,705	230.0	44,354	197.0	40,474	180.0			71.5	1816	8
Truck Loading	72	1830	4.18	3.20	4,340	2041	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	6
Heavy-Duty	36	915	1.96	1.50	3,375	1530	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	4
High Capacity	42	1065	2.32	1.77	3,812	1729	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	4
	48	1220	2.69	2.06	3,969	1800	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	5
	54	1370	3.06	2.34	4,478	2031	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	5
	60	1525	3.43	2.62	5,131	2327	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	6
	66	1675	3.80	2.91	5,003	2269	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	6
	72	1830	4.18	3.20	5,865	2660	53,028	236.0	51,013	227.0	43,816	195.0	40,026	178.0			74.0	1880	7
Severe-Duty	42	1065	1.80	1.38	3,189	1446	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	5
Cast Lip	48	1220	2.15	1.64	3,510	1592	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	5
Severe-Duty	36	915	1.56	1.19	3,024	1372	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	3
Plate Lip	42	1065	1.85	1.41	3,470	1574	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	4
	48	1220	2.15	1.64	3,522	1597	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	5
	54	1370	2.45	1.87	3,719	1686	54,507	242.0	55,078	245.0	44,243	197.0	40,382	180.0			72.0	1829	5
Ditching	84	2135	2.40	1.84	2,730	1238	74,066	329.0	54,374	242.0	48,745	217.0	44,100	196.0			53.0	1346	0

*All capacities are SAE heaped ratings.

450C LC Bucket Selection Guide

Material (loose weight)	Recommended Bucket Size*	
	General-Purpose Bucket	Heavy-Duty Bucket
Wood chips – 700 lb./cu. yd. (420 kg/m ³)	11.00 cu. yd. (8.4 m ³)	—
Peat, dry – 750 lb./cu. yd. (440 kg/m ³)	10.00 cu. yd. (7.6 m ³)	—
Cinders – 950 lb./cu. yd. (560 kg/m ³)	8.00 cu. yd. (6.1 m ³)	—
Peat, wet – 1,170 lb./cu. yd. (690 kg/m ³)	7.00 cu. yd. (5.4 m ³)	—
Topsoil – 1,600 lb./cu. yd. (950 kg/m ³)	6.00 cu. yd. (4.6 m ³)	—
Coal – 1,780 lb./cu. yd. (1050 kg/m ³)	5.00 cu. yd. (3.8 m ³)	—
Caliche – 2,100 lb./cu. yd. (1250 kg/m ³)	2.75–4.00 cu. yd. (2.1–3.1 m ³)	2.50–3.75 cu. yd. (1.9–2.9 m ³)
Earth, loam – 2,100 lb./cu. yd. (1250 kg/m ³)	4.00 cu. yd. (3.1 m ³)	3.75 cu. yd. (2.9 m ³)
Shale – 2,250 lb./cu. yd. (1330 kg/m ³)	4.00 cu. yd. (3.1 m ³)	3.75 cu. yd. (2.9 m ³)
Sand, dry – 2,400 lb./cu. yd. (1420 kg/m ³)	4.00 cu. yd. (3.1 m ³)	3.75 cu. yd. (2.9 m ³)
Clay, dry – 2,500 lb./cu. yd. (1480 kg/m ³)	3.00–3.75 cu. yd. (2.3–2.9 m ³)	3.25 cu. yd. (2.5 m ³)
Earth, dry – 2,550 lb./cu. yd. (1510 kg/m ³)	3.00–3.50 cu. yd. (2.3–2.7 m ³)	3.25 cu. yd. (2.5 m ³)
Limestone, broken or crushed – 2,600 lb./cu. yd. (1540 kg/m ³)	2.50–3.50 cu. yd. (1.9–2.7 m ³)	2.25–3.25 cu. yd. (1.7–2.5 m ³)
Earth, wet – 2,700 lb./cu. yd. (1600 kg/m ³)	3.50 cu. yd. (2.7 m ³)	3.25 cu. yd. (2.5 m ³)
Clay, wet – 2,800 lb./cu. yd. (1660 kg/m ³)	3.50 cu. yd. (2.7 m ³)	3.25 cu. yd. (2.5 m ³)
Rock, granite, blasted and broken – 2,800 lb./cu. yd. (1660 kg/m ³)	2.75–4.00 cu. yd. (2.1–3.1 m ³)	2.50–3.75 cu. yd. (1.9–2.9 m ³)
Sand, moist – 2,850 lb./cu. yd. (1690 kg/m ³)	3.50 cu. yd. (2.7 m ³)	3.25 cu. yd. (2.5 m ³)
Sand and gravel, dry – 2,900 lb./cu. yd. (1720 kg/m ³)	3.50 cu. yd. (2.7 m ³)	3.25 cu. yd. (2.5 m ³)
Sand, wet – 3,100 lb./cu. yd. (1840 kg/m ³)	3.00 cu. yd. (2.3 m ³)	2.75 cu. yd. (2.1 m ³)
Sand and gravel, wet – 3,400 lb./cu. yd. (2020 kg/m ³)	3.00 cu. yd. (2.3 m ³)	2.75 cu. yd. (2.1 m ³)

*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 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.

450C LC Excavator

Key: ● Standard equipment ▲ Optional or special equipment

*See your John Deere dealer for further information.

Engine

- Auto-idle system
- Automatic belt tension device
- Batteries (two 12 volt), 180-min. (1,250 CCA) reserve capacity
- Charge air cooler
- Dual element dry-type air filter
- Electronic engine control with diagnostics capability
- Enclosed fan guard (conforms to SAE J1308)
- Engine coolant to -34°F (-37°C)
- Fuel filter with water separator
- Full-flow oil filter
- Radiator trash screen
- Meets EPA Tier II non-road emissions regulations
- Turbocharger
- Underhood muffler with vertical curved end exhaust stack
- ▲ Electric ether starting aid
- ▲ Engine coolant heater

Hydraulic System

- Auxiliary valve section
- Hydraulic pilot controls
- Reduced-drift valve for boom down, arm in
- Spring-applied, hydraulically released automatic swing brake
- ▲ Auxiliary hydraulic and electric pilot controls
- ▲ Hydraulic filter restriction indicator kit
- ▲ Load-lowering control device
- ▲ Single pedal propel control

Undercarriage

- Planetary final drive with axial piston motors
- Propel motor shields
- Track guides, front idler and center
- Triple semi-grouser shoes, 36 in. (900 mm)
- ▲ Triple semi-grouser shoes, 30 in. (750 mm)
- Two-speed propel
- Upper carrier rollers (3)

Upperstructure

- Counterweight, 18,078 lb. (8200 kg)
- ▲ Counterweight removal system
- Right- and left-hand mirrors
- Toolbox

Upperstructure (continued)

- Vandal locks with ignition key: Cab door / Engine hood / Fuel cap / Service doors / Toolbox

Front Attachments

- Bucket-to-arm clearance adjustable bushing (except ditching buckets)
- Centralized lubrication system
- Dirt seals on all bucket pins
- No-boom-arm
- ▲ Arm, 9 ft. 6 in. (2.9 m)
- ▲ Arm, 11 ft. 2 in. (3.4 m)
- ▲ Arm, 12 ft. 10 in. (3.9 m)
- ▲ Arm, 16 ft. 1 in. (4.9 m)
- ▲ Auxiliary hydraulic lines with shutoff valve
- ▲ Boom cylinder with plumbing to mainframe
- ▲ Buckets: Ditching / General purpose / General-purpose high capacity / Heavy duty / Heavy-duty high capacity / Severe-duty cast lip / Severe-duty plate lip / Side cutters and teeth
- ▲ Heavy-duty boom
- ▲ Heavy-duty grapple
- ▲ Hydraulic bucket material clamps
- ▲ Hydraulic coupler
- ▲ Mass-excavating (ME) 19-ft. 8-in. (6.3 m) boom and ME 9-ft. 6-in. (2.9 m) arm
- ▲ Super-long front

Operator's Station

- Adjustable seat with independent control positions (levers-to-seat, seat-to-pedals)
- AM/FM stereo
- Auto climate control/air conditioner, 20,000 Btu/hr. (5.9 kW), heater and pressurizer
- Cell-phone power outlet, 12 volt, 60 watt, 5 amp
- Coat hook
- Deluxe suspension cloth seat with 4-in. (100 mm) adjustable armrests and lumbar support
- Front windshield wiper with intermittent speed
- Gauges (illuminated): Engine coolant / Fuel
- Horn, electric on left control lever
- Hot/cold-box compartment

Operator's Station (continued)

- Hourmeter, electric
- Hydraulic shutoff lever, all controls
- Interior light
- Large cup holder
- Machine Information Center (MIC)
- Mode selectors (illuminated): Power modes – three / Travel modes – two / Work modes – three
- Mode selectors (non-illuminated): Boom / Precision
- Monitor system with alarm features: Auto-idle/auto-acceleration indicator light / Engine air cleaner restriction indicator light / 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 / Wiper-mode indicator / Work-lights-on indicator / Work-mode indicator
- Motion alarm with cancel switch (conforms to SAE J994)
- Power boost switch on right control lever
- Propel pedals and levers
- Seat belt, 2 in. (51 mm), retractable
- ▲ Seat belt, 3 in. (76 mm), non-retractable
- Tinted glass
- Transparent tinted overhead hatch
- ▲ Alternate pilot control pattern
- ▲ Circulation fan
- ▲ ISO standard Falling Object Protective (FOPS) cab with integrated headguard
- ▲ Protection screens for cab front, rear, and side
- ▲ Window vandal protection covers
- ▲ 24- to 12-volt D.C. radio converters, 10 amp

Electrical

- 45-amp alternator
- Blade-type multi-fused circuits
- Positive terminal battery covers
- ▲ Cab extension wiring harness
- ▲ Machine Information Center (MIC)

Lights

- Halogen work lights: One mounted on boom / One mounted on frame

Control Owing and Operating Costs

Customer Personal Service (CPS) is part of John Deere's proactive, fix-before-fail strategy on machine maintenance that will help control costs, increase profits, and reduce stress. Included in this comprehensive lineup of ongoing programs and services are:

Fluid analysis program – tells you what's going on inside *all* of your machine's major components so you'll know if there's a problem *before* you see a decline in performance. Fluid analysis is included in most extended coverage and preventive-maintenance agreements.

Component life-cycle data – gives you vital information on the projected life span of components and lets you make informed decisions on machine maintenance by telling you approximately how many hours of use you can expect from an engine, transmission, or hydraulic pump. This information can be used to preempt catastrophic downtime by servicing major components at about 80 percent of their life cycle.

Preventive Maintenance (PM) agreements – give you a fixed cost for maintaining a machine for a given period of time. They also help you avoid downtime by ensuring that critical maintenance work

gets done right and on schedule. On-site preventive maintenance service performed where and when you need it helps protect you from the expense of catastrophic failures and lets you avoid waste-disposal hassles.

Extended coverage – gives you a fixed cost for machine repairs for a given period of time so you can effectively manage costs. Whether you work in a severe-service setting or just want to spread the risk of doing business, this is a great way to custom-fit coverage for your operation. And an extended coverage contract also travels well because it's backed by John Deere and is honored by *all* Deere construction dealers.

Customer Support Advisors (CSAs) – Deere believes the CSA program lends a *personal* quality to Customer Personal Service (CPS). Certified CSAs have the knowledge and skills for helping make important decisions on machine maintenance and repair. Their mission is to help you implement a plan that's right for *your* business and take the burden of machine maintenance off your shoulders.



JOHN DEERE

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 at 35 API gravity. No derating is required up to 10,000-ft. (3050 m) altitude. Gross power is without cooling fan.

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 a unit with 54-in. (1370 mm) bucket, 36-in. (900 mm) triple semi-grouser shoes, 18,078-lb. (8200 kg) counterweight, full fuel tank, and 175-lb. (79 kg) operator.

