

65 - 85 METRIC TONS

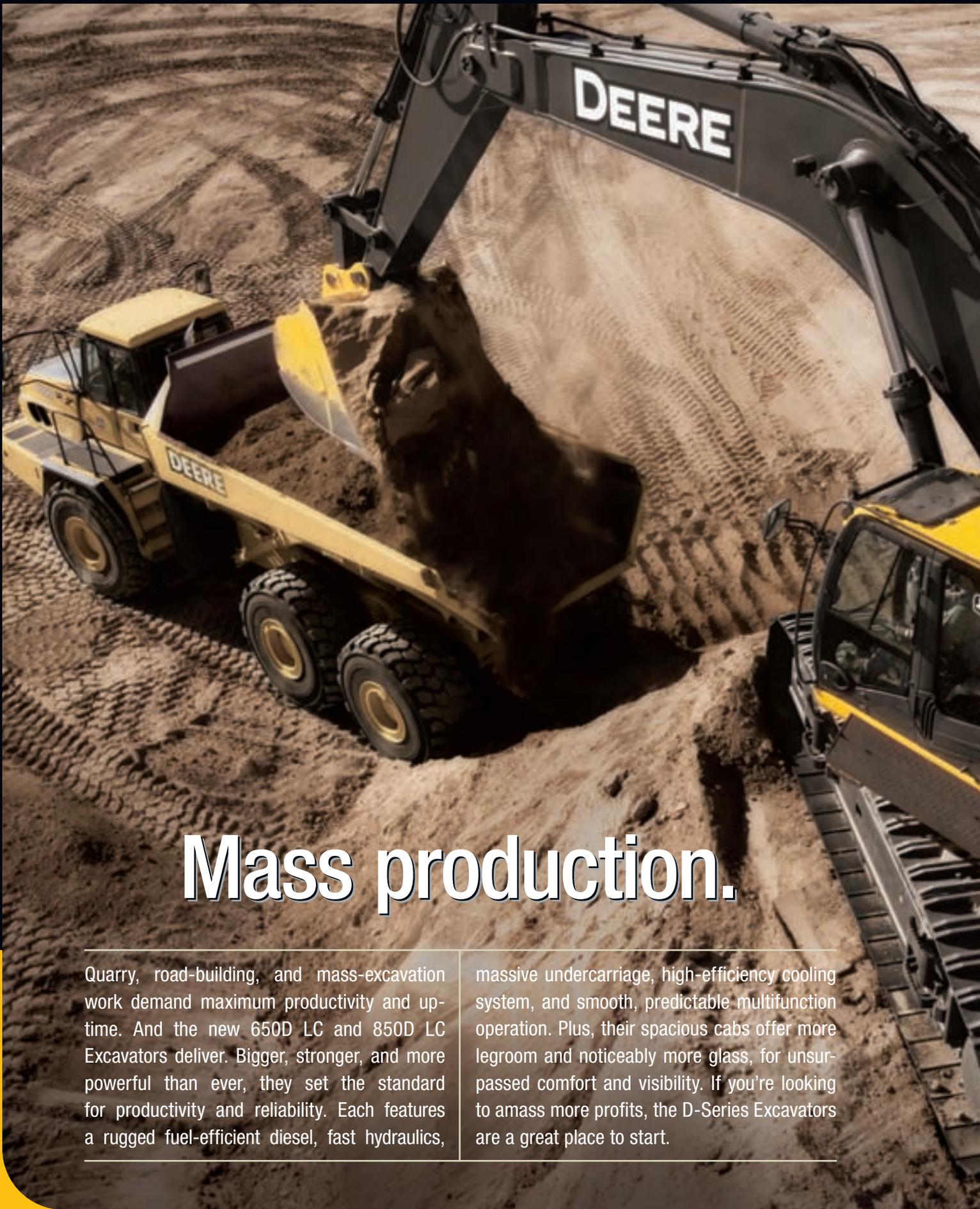


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EXCAVATORS

650D LC | 850D LC





Mass production.

Quarry, road-building, and mass-excavation work demand maximum productivity and up-time. And the new 650D LC and 850D LC Excavators deliver. Bigger, stronger, and more powerful than ever, they set the standard for productivity and reliability. Each features a rugged fuel-efficient diesel, fast hydraulics,

massive undercarriage, high-efficiency cooling system, and smooth, predictable multifunction operation. Plus, their spacious cabs offer more legroom and noticeably more glass, for unsurpassed comfort and visibility. If you're looking to amass more profits, the D-Series Excavators are a great place to start.



Redesigned cab combines more legroom with 47-percent more glass for unsurpassed comfort and visibility.

Extended engine and hydraulic fluid service intervals simplify maintenance and reduce daily operating costs.

Powerwise™ III engine/hydraulic management system maximizes power output, saves fuel, and delivers smooth multifunction hydraulic operation.

Hydraulically driven cooling fans run only as needed, reducing noise, fuel consumption, and operating costs.

Fuel-efficient Tier 3 emission-certified diesels deliver power without compromise in all conditions.

Specifications	650D LC	850D LC
Net Horsepower	463 hp	532 hp
Operating Weight	152,192 lb.	185,876 lb.
Lift Capacity	54,902 lb.	54,500 lb.
Digging Depth	30 ft.	31 ft. 5 in.
Arm Force	50,352 lb.	62,272 lb.

Variable-speed fans, redesigned mufflers, slow-running diesels, and isochronous high-idle speeds help keep things quiet.

15.7-L diesel meets Tier 3 emission standards without sacrificing power or fuel efficiency.

Machine Information Center (MIC) captures and stores vital machine performance and utilization data to help improve productivity, uptime, and profit.

Additional capability a necessity? High-pressure high-flow auxiliary hydraulic packages, plus a variety of arm lengths, buckets, track widths, and other options, enable you to meet your needs.

1. Low-effort short-throw pilot levers, best-in-class metering, and superb multifunction operation deliver big payloads with smooth finesse.
2. Powerwise III perfectly balances engine performance and hydraulic flow for fast cycles and predictable operation. When extra hydraulic muscle is needed, simply press the power-boost button to break through.
3. With more horsepower, weight, lift capacity, swing torque, arm force, bucket force, and drawbar pull than the models they replace, big productivity is a way of life for the D-Series.





Talks softly and carries a big stick.

If you want an excavator that quietly goes about its business of making you more productive, call on a John Deere D-Series. Their exceptional swing torque, lift capacity, and arm force provide the muscle needed for mass excavating or hot truck loading. Fast hydraulics boost productivity, while

the Powerwise III engine/hydraulic management system delivers smooth multifunction operation with expected Deere finesse. Perhaps best of all, noise levels and operator fatigue have been significantly reduced, letting the D-Series' impressive productivity do the talking.



Expand your horizons.

What operator wouldn't profit from the seat of a D-Series cab? Forty-seven-percent more glass provides a commanding view of the surrounding jobsite. There's plenty of wide-open space inside, too, with substantially more legroom and generous storage for cups, coolers, and other carry-ons.

Additional amenities include AM/FM radio, 12-volt power port, and heated air-suspension seat. Add to those automatic climate control, noticeably lower noise levels, and shorter low-effort controls, and your operators have everything they need to be their productive best.



Wide expanse of glass, large overhead hatch, narrow front cab posts, and numerous mirrors provide virtually unobstructed all-around visibility.

Convenient 12-volt port powers cell phones and other electronic devices.

Redesigned cab isn't just roomier, it's also noticeably quieter and more comfortable. Silicone-filled mounts effectively isolate your operator from noise and vibration.

Ergonomically designed short-throw pilot controls provide smooth, predictable fingertip operation with less movement and effort.

Automatic, high-velocity "blend-air" climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable.

1. Air suspension multi-position seat travels 10½ inches, together or independently of the control console. So it won't cramp an operator's style.
2. No shortage of storage in this cab. There's a place for a cooler, cup holders, and even a hot/cold beverage box that keeps refreshments at just the right temperature.
3. Intuitive, multi-language monitor provides a wealth of machine info and control. Its LCD four-color monitor displays operating, diagnostic, and maintenance info with easy-on-the-eyes clarity.



Machine Information Center, remote diagnostics, and fluid-sample ports help speed preventative maintenance and troubleshooting.

Booms, arms, and mainframes are so tough, they're warranted for three years or 10,000 hours.

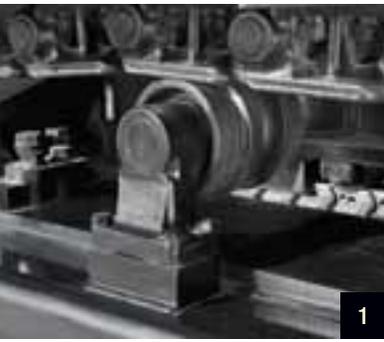
You can expect long life from the D-Series' big-displacement, slow-running sleeved diesels. Combined with large-capacity fuel tanks, they run longer between fill-ups, too.

Rigid, reinforced D-channel side frames resist impact, providing maximum cab and component protection.

Three welded bulkheads within the boom resist torsional stress for long-term durability.

Side-shield screens serve as a "first filter," helping prevent trash entry. Anything that passes through will also clear the cooler cores.

Optional reversing fan automatically back-blows cooler cores, reducing debris buildup for maximum uptime.



1. Heavy-duty sealed and lubricated undercarriages employ larger carrier and bottom rollers, stronger idler brackets, and thicker links to help keep them tracking longer.

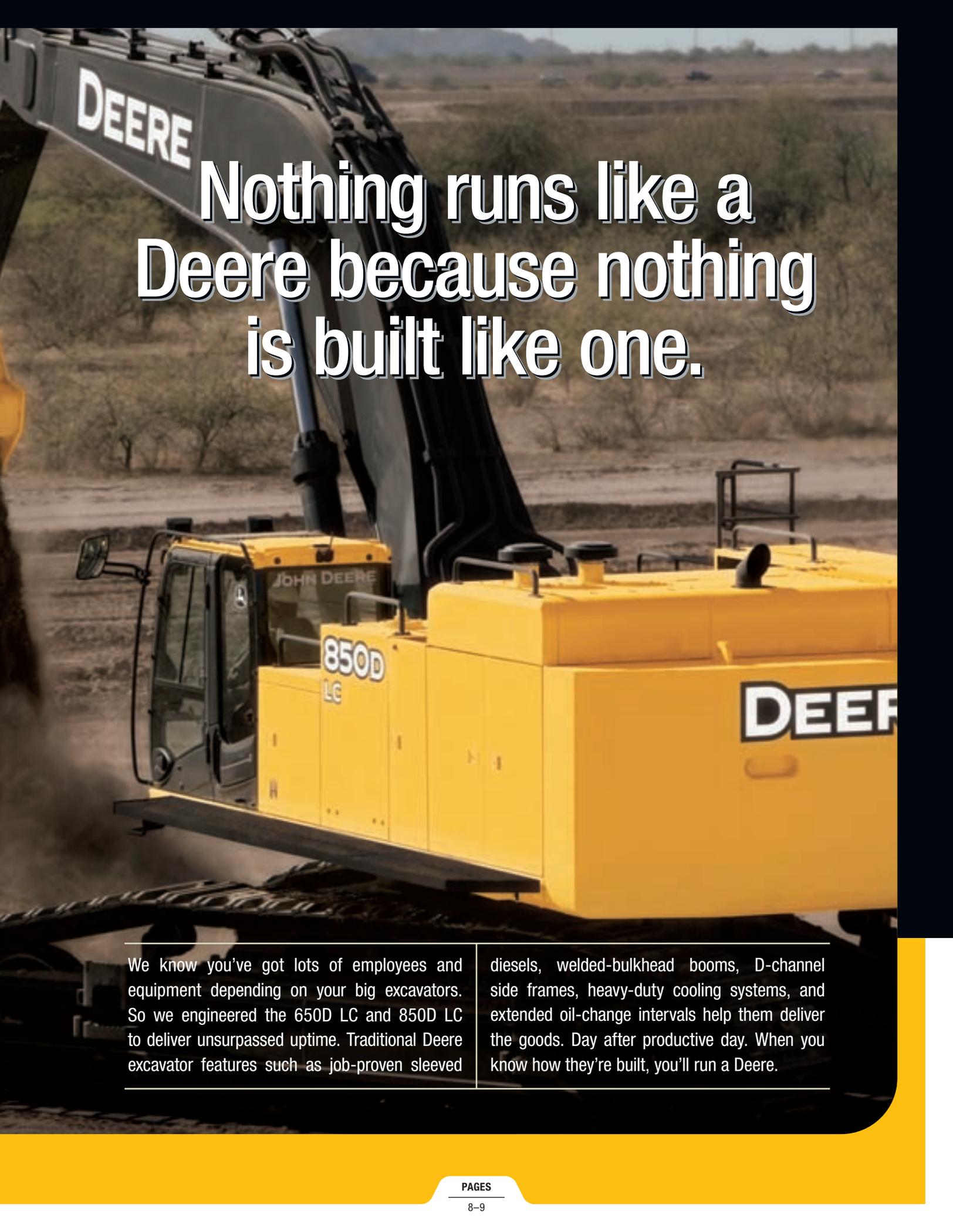


2. Large box-section track frames, thick-plate single-sheet mainframes, and massive swing bearings deliver rock-solid durability.

3. Highly efficient, heavy-duty cooling system keeps things cool, even in tough environments or high altitudes.

4. State-of-the-art multifunction diagnostic monitor helps troubleshoot problems and defeat downtime.



A yellow John Deere 850D LC excavator is shown in a field. The excavator's boom is raised, and the word "DEERE" is visible on the boom. The body of the excavator has "JOHN DEERE" and "850D LC" written on it. The background is a dry, open field with some trees in the distance.

Nothing runs like a Deere because nothing is built like one.

We know you've got lots of employees and equipment depending on your big excavators. So we engineered the 650D LC and 850D LC to deliver unsurpassed uptime. Traditional Deere excavator features such as job-proven sleeved

diesels, welded-bulkhead booms, D-channel side frames, heavy-duty cooling systems, and extended oil-change intervals help them deliver the goods. Day after productive day. When you know how they're built, you'll run a Deere.

Service doors open wide. Periodic maintenance points including lube, filters, and dipsticks are grouped for added convenience.

Easy-to-navigate monitor lets you reference maintenance intervals and even check engine oil and coolant levels at the touch of a button.

Auto-idle reduces engine speed when hydraulics aren't in use, helping make the most of every drop of precious fuel.

Convenient handrails and wide slip-resistant "Deere walk" provides easy one-side access to the engine service area.

Large fuel tanks and 500- and 4,000-hour engine and hydraulic oil service intervals help increase uptime.



Step up to easier service.

Servicing a big machine shouldn't be a big production. And it's not with the 650D LC and 850D LC. Both are loaded with features that simplify maintenance and keep daily operating costs low. Wide, slip-resistant steps and walkways, sturdy handrails, and large, easy-open service doors provide convenient access

to grouped service points and major components. Extended service intervals and remote-mounted oil and fuel filters help speed periodic maintenance. Plus a Machine Information Center and diagnostic monitor help you make timely, informed decisions about machine upkeep. To help keep costs under control.

1. Fresh-air cab filter is quickly serviced from outside the cab where it's more likely to get done.

4. Centralized lube banks place difficult-to-lube zerks within easy reach. The 850D LC's onboard system further simplifies greasing.

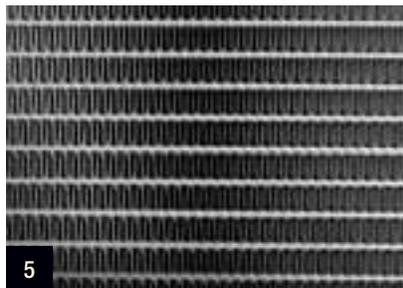
6. Remote-mounted vertical spin-on engine, hydraulic, and fuel filters simplify service and help minimize messes.

2. Hydraulically driven fans run only as needed, reducing fuel consumption and debris flow through the coolers.

5. Wide-fin spacing lets trash easily pass through cores to resist plugging. Hinged, swing-out coolers provide additional access.

7. Sight gauges let you check fuel, coolant, and hydraulic fluid levels at a glance.

3. Nobody backs you better than the 500-plus John Deere dealers throughout North America.



Specifications

650D
LC

Engine **650D LC**

Manufacturer and Model	Isuzu AH-6WG1XYSA-02
Non-Road Emission Standards	certified to EPA Tier 3 emissions
Cylinders	6
Displacement	957 cu. in. (15.681 L)
SAE Net Rated Power @ 1,800 rpm	463 hp (345 kW)
Off-Level Capacity	70% (35 deg.)
Aspiration	turbocharged, air-to-air charge air cooler

Cooling

Cool-on-demand hydraulic-driven, suction-type fan with remote-mounted drive	
Engine Coolant Rating	-34 deg. F (-37 deg. C)

Powertrain

Two-speed propel	
Travel Speed, Maximum	
Low	2.1 mph (3.4 km/h)
High	3.0 mph (4.9 km/h)
Drawbar Pull	101,666 lb. (46 115 kg)

Hydraulics

Open center, load sensing; in-cab mode selectors, illuminated: 3 power modes; 2 travel modes; 2 work modes	
Main Pumps	2 variable-displacement pumps
Pump Flow, Maximum x 2	120 gpm (456 L/m)
Pilot Pump	one gear
Maximum Rated Flow	7.9 gpm (30 L/m)
System Relief Pressure	566 psi (3900 kPa)
System Operating Pressure	
Implement Circuits	4,627 psi (31 900 kPa)
Travel Circuits	4,975 psi (34 300 kPa)
Swing Circuits	4,264 psi (29 400 kPa)
Power Boost	4,975 psi (34 300 kPa)
Controls	pilot levers, short stroke, low effort; hydraulic pilot controls with shutoff lever

Cylinders

Heat-treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins			
	<i>Bore</i>	<i>Rod Diameter</i>	<i>Stroke</i>
Boom (2)	7.5 in. (191 mm)	5.1 in. (130 mm)	71 in. (1806 mm)
Arm (1)	7.9 in. (201 mm)	5.5 in. (140 mm)	85 in. (2164 mm)
Bucket (1)	7.1 in. (180 mm)	5.1 in. (130 mm)	61 in. (1555 mm)

Electrical

Number of Batteries (12 volt)	2
Reserve Capacity	280 min.
Alternator Rating	50 amp
Work Lights	2 (one mounted on frame, one mounted on boom)

Undercarriage

Track chain sealed and lubricated; planetary final drives with axial piston motors	
Carrier Rollers (each side)	3
Track Rollers (each side)	8
Shoes, Double-Bar Grouser (each side)	47
Track Adjustment	hydraulic

Swing Mechanism

Swing Speed	9.5 rpm
Swing Torque	142,839 lb.-ft. (193 804 Nm)

Ground Pressure

650D LC

26-in. (650 mm) Double-Bar Grouser Shoes	13.6 psi (93.8 kPa)
30-in. (750 mm) Double-Bar Grouser Shoes	12.0 psi (82.4 kPa)
36-in. (900 mm) Double-Bar Grouser Shoes	10.1 psi (69.6 kPa)

Serviceability

Refill Capacities

Fuel Tank	238 gal. (900 L)
Cooling System	14.7 gal. (55.8 L)
Engine Oil with Filter	13.6 gal. (51.5 L)
Hydraulic Tank	102.5 gal. (388 L)
Hydraulic System	190.2 gal. (720 L)

Swing Bearing Gear	5.3 gal. (20.1 L)
Swing Gearbox (each)	19 qt. (18 L)
Travel Gearbox (each)	14 qt. (13.2 L)
Pump Drive Gearbox	4 qt. (3.8 L)

Operating Weights

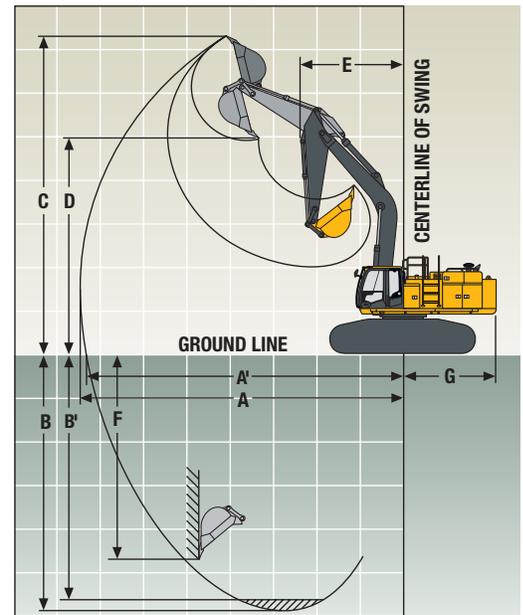
With Full Fuel Tank; 175-lb. (79 kg) Operator; 4.04-cu.-yd. (3.09 m³), 54-in. (1370 mm), 6,892-lb. (3126 kg) Bucket; 13-ft. 9-in. (4.2 m) Arm; 24,471-lb. (11 100 kg) Counterweight; and 36-in. (900 mm) Double-Bar Grouser Shoes

SAE Operating Weight 152,192 lb. (69 033 kg)

Optional Components

Undercarriage

26-in. (650 mm) Double-Bar Grouser Shoes	58,687 lb. (26 620 kg)
30-in. (750 mm) Double-Bar Grouser Shoes	60,054 lb. (27 240 kg)
36-in. (900 mm) Double-Bar Grouser Shoes	62,126 lb. (28 180 kg)
25-ft. 7-in. (7.8 m) One-Piece Boom (with arm cylinder)	14,440 lb. (6550 kg)
22-ft. 4-in. (6.8 m) One-Piece Mass-Excavating Boom (with arm cylinder)	13,470 lb. (6110 kg)
Arm with Bucket Cylinder and Linkage	
11 ft. 10 in. (3.6 m)	7,981 lb. (3620 kg)
13 ft. 9 in. (4.2 m)	8,664 lb. (3930 kg)
17 ft. 5 in. (5.3 m)	7,981 lb. (3620 kg)
9-ft. 6-in. (2.9 m) Mass-Excavating	8,422 lb. (3820 kg)
Boom Lift Cylinders (2) Total Weight	2,447 lb. (1110 kg)
4.04-cu.-yd. (3.09 m ³), 54-in. (1370 mm) Heavy-Duty High-Capacity Bucket	6,892 lb. (3126 kg)
Counterweight, Standard	24,471 lb. (11 100 kg)



Operating Dimensions

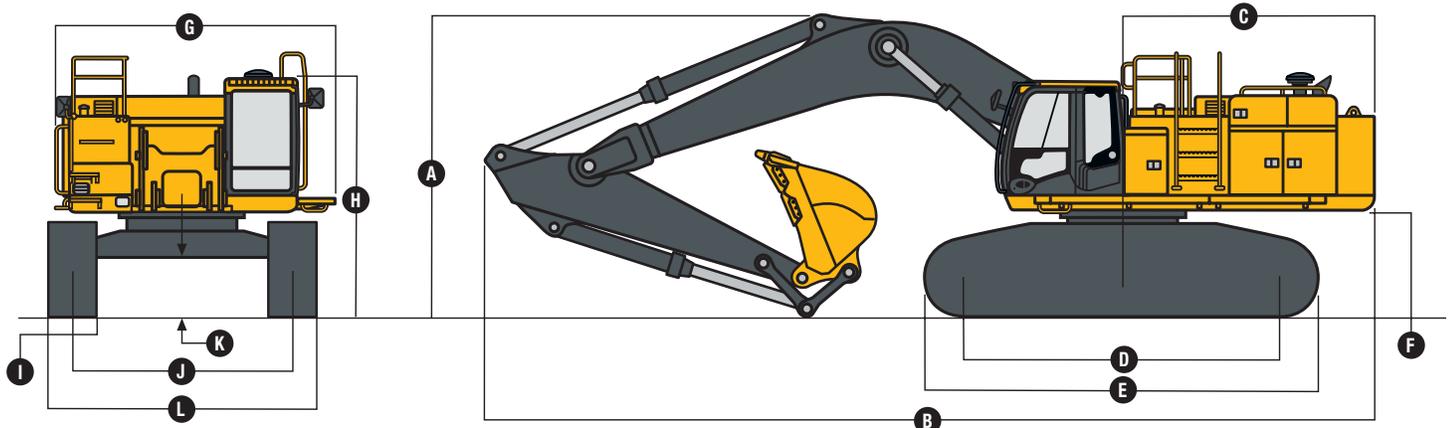
	25-ft. 7-in. (7.8 m) Boom with 11-ft. 10-in. (3.6 m) Arm	25-ft. 7-in. (7.8 m) Boom with 13-ft. 9-in. (4.2 m) Arm	25-ft. 7-in. (7.8 m) Boom with 17-ft. 5-in. (5.3 m) Arm	22-ft. 4-in. (6.8 m) Mass-Excavating Boom with 9-ft. 6-in. (2.9 m) Arm
Arm Force*	55,525 lb. (247 kN)	50,352 lb. (224 kN)	43,160 lb. (192 kN)	66,763 lb. (297 kN)
Bucket Digging Force*	65,189 lb. (290 kN)	65,189 lb. (290 kN)	55,073 lb. (245 kN)	74,630 lb. (332 kN)
Lifting Capacity Over Front at Ground Level				
20-ft. (6.1 m) Reach*	55,801 lb. (25 311 kg)	54,902 lb. (24 903 kg)	50,846 lb. (23 063 kg)	56,451 lb. (25 606 kg)
A Maximum Reach	43 ft. 6 in. (13.25 m)	45 ft. 5 in. (13.84 m)	48 ft. 4 in. (14.73 m)	38 ft. 9 in. (11.81 m)
A' Maximum Reach at Ground Level	42 ft. 8 in. (13.00 m)	44 ft. 8 in. (13.61 m)	47 ft. 7 in. (14.50 m)	37 ft. 9 in. (11.51 m)
B Maximum Digging Depth	28 ft. 0 in. (8.53 m)	30 ft. 0 in. (9.14 m)	32 ft. 11 in. (10.03 m)	23 ft. 4 in. (7.11 m)
B' Maximum Digging Depth at 8-ft. (2.44 m) Flat Bottom	27 ft. 7 in. (8.41 m)	29 ft. 8 in. (9.04 m)	32 ft. 7 in. (9.93 m)	22 ft. 10 in. (6.96 m)
C Maximum Cutting Height	39 ft. 1 in. (11.91 m)	40 ft. 2 in. (12.24 m)	41 ft. 6 in. (12.65 m)	36 ft. 9 in. (11.20 m)
D Maximum Dumping Height	26 ft. 5 in. (8.05 m)	27 ft. 4 in. (8.33 m)	30 ft. 1 in. (9.17 m)	24 ft. 1 in. (7.34 m)
E Minimum Swing Radius	19 ft. 0 in. (5.79 m)	18 ft. 11 in. (5.77 m)	18 ft. 4 in. (5.59 m)	17 ft. 2 in. (5.23 m)
F Maximum Vertical Wall	24 ft. 3 in. (7.39 m)	26 ft. 10 in. (8.18 m)	31 ft. 3 in. (9.53 m)	17 ft. 4 in. (5.28 m)
G Tail Swing Radius	12 ft. 8 in. (3.86 m)	12 ft. 8 in. (3.86 m)	12 ft. 8 in. (3.86 m)	12 ft. 8 in. (3.86 m)

*With power boost.

Machine Dimensions

650D LC

	Arm Length 11 ft. 10 in. (3.6 m)	Arm Length 13 ft. 9 in. (4.2 m)	Arm Length 17 ft. 5 in. (5.3 m)	22-ft. 4-in. (6.8 m) Mass-Excavating Boom with 9-ft. 6-in. (2.9 m) Arm
A Overall Height	14 ft. 8 in. (4.47 m)	16 ft. 4 in. (4.98 m)	17 ft. 4 in. (5.28 m)	16 ft. 3 in. (4.95 m)
B Overall Length	43 ft. 4 in. (13.21 m)	43 ft. 4 in. (13.21 m)	42 ft. 10 in. (13.06 m)	40 ft. 3 in. (12.27 m)
C Rear-End Length/Swing Radius	12 ft. 2 in. (3.71 m)			
D Distance Between Idler/Sprocket Centerline	15 ft. 1 in. (4.60 m)			
E Undercarriage Length	19 ft. 2 in. (5.84 m)			
F Counterweight Clearance	5 ft. 0 in. (1.52 m)			
G Upperstructure Width	13 ft. 5 in. (4.09 m)			
H Cab Height	11 ft. 4 in. (3.45 m)			
I Track Width (double-bar grouser shoes)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)
J 36-in. (900 mm) Double-Bar Grouser Shoes				
Operating Position	10 ft. 10 in. (3.30 m)			
Transport Position	9 ft. 3 in. (2.82 m)			
K Ground Clearance	34 in. (860 mm)			
L 36-in. (900 mm) Double-Bar Grouser Shoes				
Operating Position	13 ft. 9 in. (4.19 m)			
Transport Position	12 ft. 3 in. (3.73 m)			



Packing Dimensions and Weights For Transportation

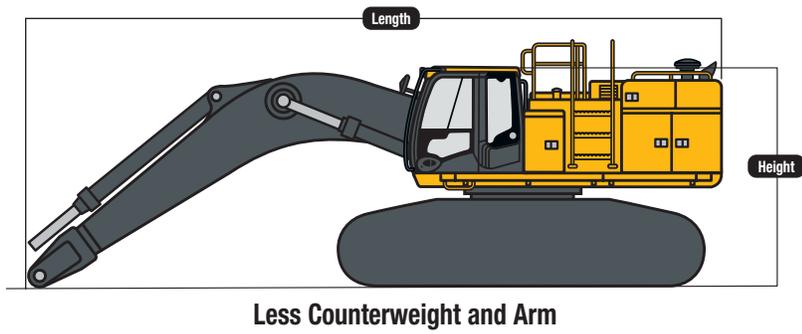
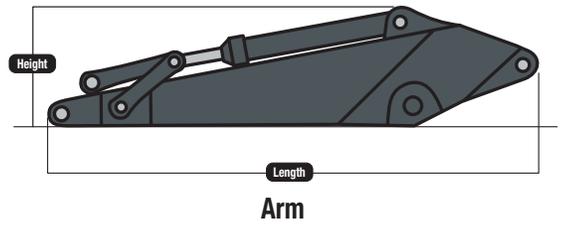
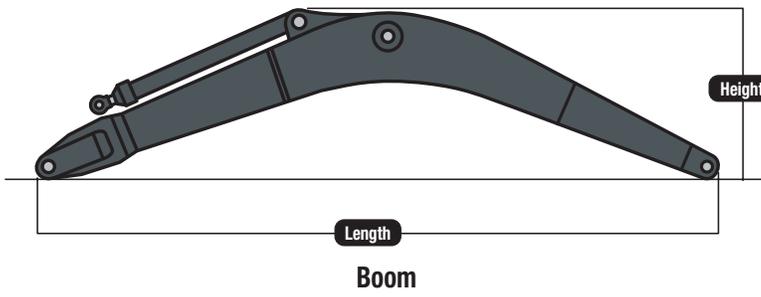
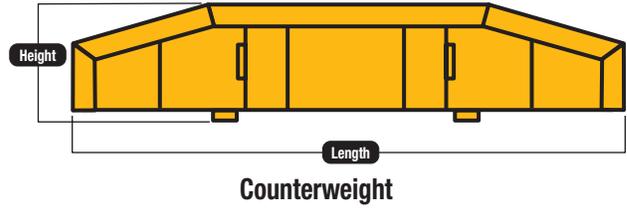
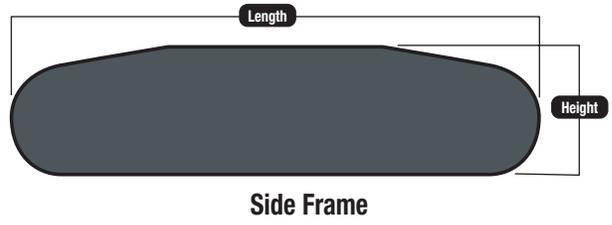
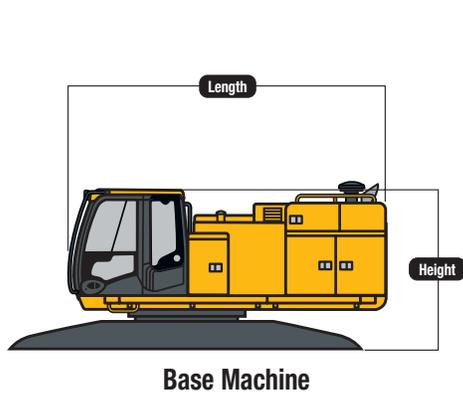
	Length	Height	Overall Width	Weight
Base Machine (without front attachment and side frame)*	16 ft. 7 in. (5.06 m)	8 ft. 11 in. (2.72 m)	11 ft. 5 in. (3.47 m)	43,900 lb. (19 900 kg)
Side Frame**				
26-in. (650 mm) Shoe Width	19 ft. 2 in. (5.84 m)	4 ft. 9 in. (1.45 m)	3 ft. 1 in. (1.19 m)	22,700 lb. (10 300 kg)
30-in. (750 mm) Shoe Width	19 ft. 2 in. (5.84 m)	4 ft. 9 in. (1.45 m)	4 ft. 1 in. (1.24 m)	23,600 lb. (10 600 kg)
36-in. (900 mm) Shoe Width	19 ft. 2 in. (5.84 m)	4 ft. 9 in. (1.45 m)	4 ft. 6 in. (1.315 m)	24,472 lb. (11 100 kg)
Counterweight	11 ft. 0 in. (3.36 m)	5 ft. 1 in. (1.55 m)	23 in. (590 mm)	24,471 lb. (11 100 kg)
Boom				
22 ft. 4 in. (6.8 m)	23 ft. 5 in. (7.14 m)	8 ft. 3 in. (2.51 m)	4 ft. 7 in. (1.39 m)	13,500 lb. (6110 kg)
25 ft. 7 in. (7.8 m)	26 ft. 8 in. (8.13 m)	7 ft. 8 in. (2.33 m)	4 ft. 7 in. (1.39 m)	14,450 lb. (6550 kg)
Arm				
9 ft. 6 in. (2.9 m)	14 ft. 4 in. (4.37 m)	5 ft. 7 in. (1.69 m)	31 in. (800 mm)	8,420 lb. (3820 kg)
11 ft. 10 in. (3.6 m)	16 ft. 9 in. (5.11 m)	4 ft. 9 in. (1.44 m)	31 in. (800 mm)	7,980 lb. (3620 kg)
13 ft. 9 in. (4.2 m)	18 ft. 9 in. (5.71 m)	4 ft. 7 in. (1.39 m)	31 in. (800 mm)	8,660 lb. (3930 kg)
17 ft. 1 in. (5.2 m)	22 ft. 1 in. (6.73 m)	4 ft. 2 in. (1.26 m)	31 in. (800 mm)	7,980 lb. (3620 kg)
Less Counterweight and Arm	36 ft. 0 in. (10.97 m)	11 ft. 4 in. (3.45 m)	11 ft. 5 in. (3.47 m)	112,163 lb. (50 876 kg)

*Steps on the track frame and the side hydraulic oil tank, handrails on the upper battery box, upper fuel tank, and the side hydraulic oil tank must be removed to comply with the overall width dimensions above.

**The dimensions and the weights indicate those of one side frame.

Packing Dimensions and Weights
For Transportation (continued)

650D LC



Lift Capacities

650D LC

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 24,471-lb. (11 100 kg) counterweight; standard gauge; and 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	15 ft. (4.6 m)		20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)	
	Over Front	Over Side	Over Front	Over Side						
<i>With 25-ft. 7-in. (7.8 m) boom, 13-ft. 9-in. (4.2 m) arm, 3.3-cu.-yd. (2.5 m³) bucket, and 26-in. (650 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)									12,460 (5652)	12,460 (5652)
20 ft. (6.1 m)								23,383 (10 606)	23,383 (10 606)	19,039 (8636)
15 ft. (4.6 m)					29,198 (13 244)	29,198 (13 244)	25,690 (11 653)	24,756 (11 229)	23,448 (10 636)	18,487 (8386)
10 ft. (3.0 m)			43,668 (19 807)	43,668 (19 807)	33,898 (15 376)	31,984 (14 508)	28,456 (12 907)	23,526 (10 671)	25,108 (11 389)	17,775 (8063)
5 ft. (1.5 m)			50,840 (23 061)	41,259 (18 715)	38,255 (17 352)	30,019 (13 616)	31,150 (14 129)	22,300 (10 129)	25,190 (11 426)	17,047 (7732)
Ground Line			54,883 (24 895)	39,720 (18 017)	41,395 (18 776)	28,537 (12 944)	31,626 (14 345)	21,345 (9682)	24,529 (11 126)	16,425 (7450)
-5 ft. (-1.5 m)	34,729 (15 753)	34,729 (15 753)	55,907 (25 359)	39,166 (17 765)	41,470 (18 810)	27,633 (12 534)	30,907 (14 019)	20,677 (9379)	24,080 (10 923)	16,002 (7258)
-10 ft. (-3.0 m)	53,233 (24 146)	53,233 (24 146)	54,498 (24 720)	39,207 (17 784)	41,057 (18 623)	27,256 (12 363)	30,577 (13 869)	20,370 (9240)	23,935 (10 857)	15,865 (7196)
-15 ft. (-4.6 m)	65,117 (29 537)	65,073 (29 517)	50,714 (23 003)	39,731 (18 022)	40,096 (18 187)	27,356 (12 408)	30,684 (13 918)	20,469 (9285)		
-20 ft. (-6.1 m)	55,231 (25 052)	55,231 (25 052)	43,833 (19 882)	39,629 (17 975)	34,568 (15 680)	27,983 (12 693)				
-25 ft. (-7.6 m)			31,420 (14 252)	31,420 (14 252)						
<i>With 22-ft. 4-in. (6.8 m) ME boom, 9-ft. 6-in. (2.9 m) arm, 4.6-cu.-yd. (3.5 m³) bucket, and 26-in. (650 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)					28,727 (13 030)	28,727 (13 030)				
20 ft. (6.1 m)					30,214 (13 705)	30,214 (13 705)	20,187 (9157)	20,187 (9157)		
15 ft. (4.6 m)			39,851 (18 076)	39,851 (18 076)	33,320 (15 114)	32,448 (14 718)	29,913 (13 568)	23,127 (10 490)		
10 ft. (3.0 m)			47,728 (21 649)	44,470 (20 171)	37,297 (16 918)	30,760 (13 953)	31,735 (14 395)	22,287 (10 109)		
5 ft. (1.5 m)			53,856 (24 429)	41,786 (18 954)	40,867 (18 537)	29,228 (13 258)	31,776 (14 413)	21,442 (9726)		
Ground Line			56,365 (25 567)	40,339 (18 297)	42,113 (19 102)	28,164 (12 775)	31,099 (14 106)	20,812 (9440)		
-5 ft. (-1.5 m)			55,421 (25 139)	39,859 (18 080)	41,586 (18 863)	27,666 (12 549)	30,831 (13 985)	20,564 (9328)		
-10 ft. (-3.0 m)	65,170 (29 561)	65,170 (29 561)	51,150 (23 201)	40,075 (18 178)	39,681 (17 999)	27,763 (12 593)				
-15 ft. (-4.6 m)	53,186 (24 125)	53,186 (24 125)	42,172 (19 129)	41,020 (18 606)	30,075 (13 642)	28,785 (13 057)				
<i>With 25-ft. 7-in. (7.8 m) boom, 13-ft. 9-in. (4.2 m) arm, 3.3-cu.-yd. (2.5 m³) bucket, and 30-in. (750 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)									12,460 (5652)	12,460 (5652)
20 ft. (6.1 m)								23,383 (10 606)	23,383 (10 606)	19,159 (8690)
15 ft. (4.6 m)					29,198 (13 244)	29,198 (13 244)	25,690 (11 653)	25,000 (11 340)	23,448 (10 636)	18,689 (8477)
10 ft. (3.0 m)			43,668 (19 807)	43,668 (19 807)	33,898 (15 376)	32,292 (14 647)	28,456 (12 907)	23,771 (10 782)	25,108 (11 389)	17,977 (8154)
5 ft. (1.5 m)			50,840 (23 061)	42,747 (19 390)	38,255 (17 352)	30,327 (13 756)	31,150 (14 129)	22,574 (10 239)	25,474 (11 555)	17,250 (7824)
Ground Line			54,883 (24 895)	40,664 (18 445)	41,395 (18 776)	28,845 (13 084)	31,973 (14 503)	21,589 (9793)	24,813 (11 255)	16,628 (7542)
-5 ft. (-1.5 m)	34,729 (15 753)	34,729 (15 753)	55,907 (25 359)	39,699 (18 007)	41,916 (19 013)	27,941 (12 674)	31,254 (14 177)	20,921 (9490)	24,364 (11 051)	16,205 (7350)
-10 ft. (-3.0 m)	53,233 (24 146)	53,233 (24 146)	54,498 (24 720)	39,465 (17 901)	41,503 (18 825)	27,564 (12 503)	30,923 (14 026)	20,614 (9350)	24,218 (10 985)	16,068 (7288)
-15 ft. (-4.6 m)	65,117 (29 537)	65,117 (29 537)	50,714 (23 003)	39,772 (18 040)	40,096 (18 187)	27,664 (12 548)	31,031 (14 075)	20,714 (9396)		
-20 ft. (-6.1 m)	55,231 (25 052)	55,231 (25 052)	43,833 (19 882)	40,622 (18 426)	34,568 (15 680)	28,291 (12 833)				
-25 ft. (-7.6 m)			31,420 (14 252)	31,420 (14 252)						
<i>With 25-ft. 7-in. (7.8 m) boom, 11-ft. 10-in. (3.6 m) arm, 3.79-cu.-yd. (2.9 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)							22,680 (10 287)	22,680 (10 287)		
20 ft. (6.1 m)							25,137 (11 402)	25,137 (11 402)	16,118 (7311)	16,118 (7311)
15 ft. (4.6 m)			38,720 (17 563)	38,720 (17 563)	31,383 (14 235)	31,383 (14 235)	27,263 (12 366)	24,783 (11 241)	23,789 (10 791)	18,535 (8407)
10 ft. (3.0 m)			47,021 (21 328)	45,286 (20 541)	35,854 (16 263)	31,962 (14 498)	29,815 (13 524)	23,631 (10 719)	26,185 (11 877)	17,911 (8124)
5 ft. (1.5 m)			53,211 (24 136)	42,304 (19 189)	39,766 (18 038)	30,173 (13 686)	32,211 (14 611)	22,543 (10 225)	25,591 (11 608)	17,274 (7835)
Ground Line			55,813 (25 316)	40,764 (18 490)	42,273 (19 175)	28,919 (13 117)	32,194 (14 603)	21,691 (9839)	25,041 (11 358)	16,756 (7600)
-5 ft. (-1.5 m)	34,921 (15 840)	34,921 (15 840)	55,541 (25 193)	40,211 (18 239)	42,388 (19 227)	28,240 (12 809)	31,632 (14 348)	21,169 (9602)	24,728 (11 216)	16,462 (7467)
-10 ft. (-3.0 m)	59,691 (27 075)	59,691 (27 075)	53,044 (24 060)	40,251 (18 258)	41,872 (18 993)	28,064 (12 730)	31,473 (14 276)	21,021 (9535)		
-15 ft. (-4.6 m)	60,038 (27 233)	60,038 (27 233)	48,138 (21 835)	40,775 (18 495)	38,371 (17 405)	28,363 (12 865)	30,060 (13 635)	21,341 (9680)		
-20 ft. (-6.1 m)	48,720 (22 099)	48,720 (22 099)	39,629 (17 975)	39,629 (17 975)	30,838 (13 988)	29,289 (13 285)				

Lift Capacities (continued)

650D LC

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 24,471-lb. (11 100 kg) counterweight; standard gauge; and 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	15 ft. (4.6 m)		20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)	
	Over Front	Over Side	Over Front	Over Side						
<i>With 25-ft. 7-in. (7.8 m) boom, 13-ft. 9-in. (4.2 m) arm, 3.27-cu.-yd. (2.5 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)									12,460 (5652)	12,460 (5652)
20 ft. (6.1 m)								23,383 (10 606)	23,383 (10 606)	19,159 (8690)
15 ft. (4.6 m)					29,198 (13 244)	29,198 (13 244)	25,690 (11 653)	25,386 (11 515)	23,448 (10 636)	18,994 (8616)
10 ft. (3.0 m)			43,668 (19 807)	43,668 (19 807)	33,898 (15 376)	32,756 (14 858)	28,456 (12 907)	24,139 (10 949)	25,108 (11 389)	18,282 (8293)
5 ft. (1.5 m)			50,840 (23 061)	43,375 (19 675)	38,255 (17 352)	30,791 (13 967)	31,150 (14 129)	22,942 (10 406)	25,891 (11 744)	17,555 (7963)
Ground Line			54,883 (24 895)	41,292 (18 730)	41,395 (18 776)	29,309 (13 294)	32,483 (14 734)	21,958 (9960)	25,230 (11 444)	16,933 (7681)
-5 ft. (-1.5 m)	34,729 (15 753)	34,729 (15 753)	55,907 (25 359)	40,327 (18 292)	42,572 (19 310)	28,405 (12 884)	31,764 (14 408)	21,290 (9657)	24,781 (11 240)	16,510 (7489)
-10 ft. (-3.0 m)	53,233 (24 146)	53,233 (24 146)	54,498 (24 720)	40,093 (18 186)	42,159 (19 123)	28,028 (12 713)	31,433 (14 258)	20,982 (9517)	24,636 (11 175)	16,373 (7427)
-15 ft. (-4.6 m)	65,117 (29 537)	65,117 (29 537)	50,714 (23 003)	40,400 (18 325)	40,096 (18 187)	28,128 (12 759)	31,541 (14 307)	21,082 (9563)		
-20 ft. (-6.1 m)	55,231 (25 052)	55,231 (25 052)	43,833 (19 882)	41,250 (18 711)	34,568 (15 680)	28,756 (13 044)				
-25 ft. (-7.6 m)			31,420 (14 252)	31,420 (14 252)						

<i>With 25-ft. 7-in. (7.8 m) boom, 17-ft. 5-in. (5.3 m) arm, 2.6-cu.-yd. (2.0 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>										
30 ft. (9.1 m)									10,700 (4853)	10,700 (4853)
25 ft. (7.6 m)									14,200 (6441)	14,200 (6441)
20 ft. (6.1 m)									16,300 (7394)	16,300 (7394)
15 ft. (4.6 m)							20,700 (9389)	20,700 (9389)	18,800 (8528)	18,800 (8528)
10 ft. (3.0 m)			37,100 (16 828)	37,100 (16 828)	29,600 (13 426)	29,600 (13 426)	25,300 (11 476)	24,500 (11 113)	22,500 (10 206)	18,500 (8391)
5 ft. (1.5 m)			45,100 (20 457)	44,300 (20 094)	34,400 (15 604)	31,200 (14 152)	28,300 (12 837)	23,100 (10 478)	24,400 (11 068)	17,500 (7938)
Ground Line	29,500 (13 381)	29,500 (13 381)	50,800 (23 042)	41,200 (18 688)	38,300 (17 373)	29,200 (13 245)	30,900 (14 016)	21,800 (9888)	25,000 (11 340)	16,700 (7575)
-5 ft. (-1.5 m)	35,200 (15 966)	35,200 (15 966)	53,700 (24 358)	39,400 (17 872)	40,800 (18 507)	27,800 (12 610)	31,300 (14 197)	20,800 (9435)	24,300 (11 022)	16,000 (7257)
-10 ft. (-3.0 m)	46,200 (20 956)	46,200 (20 956)	54,100 (24 539)	38,600 (17 509)	41,200 (18 688)	27,100 (12 292)	30,700 (13 925)	20,200 (9163)	23,900 (10 841)	15,700 (7121)
-15 ft. (-4.6 m)	62,300 (28 259)	62,300 (28 259)	52,200 (23 678)	38,600 (17 509)	40,700 (18 461)	26,900 (12 202)	30,500 (13 835)	20,100 (9117)	23,900 (10 841)	15,600 (7076)
-20 ft. (-6.1 m)	62,100 (28 168)	62,100 (28 168)	47,600 (21 591)	39,200 (17 781)	37,400 (16 964)	27,200 (12 338)	29,500 (13 381)	20,400 (9253)		
-25 ft. (-7.6 m)	50,400 (22 861)	50,400 (22 861)	39,200 (17 781)	39,200 (17 781)	30,300 (13 744)	28,200 (12 791)				

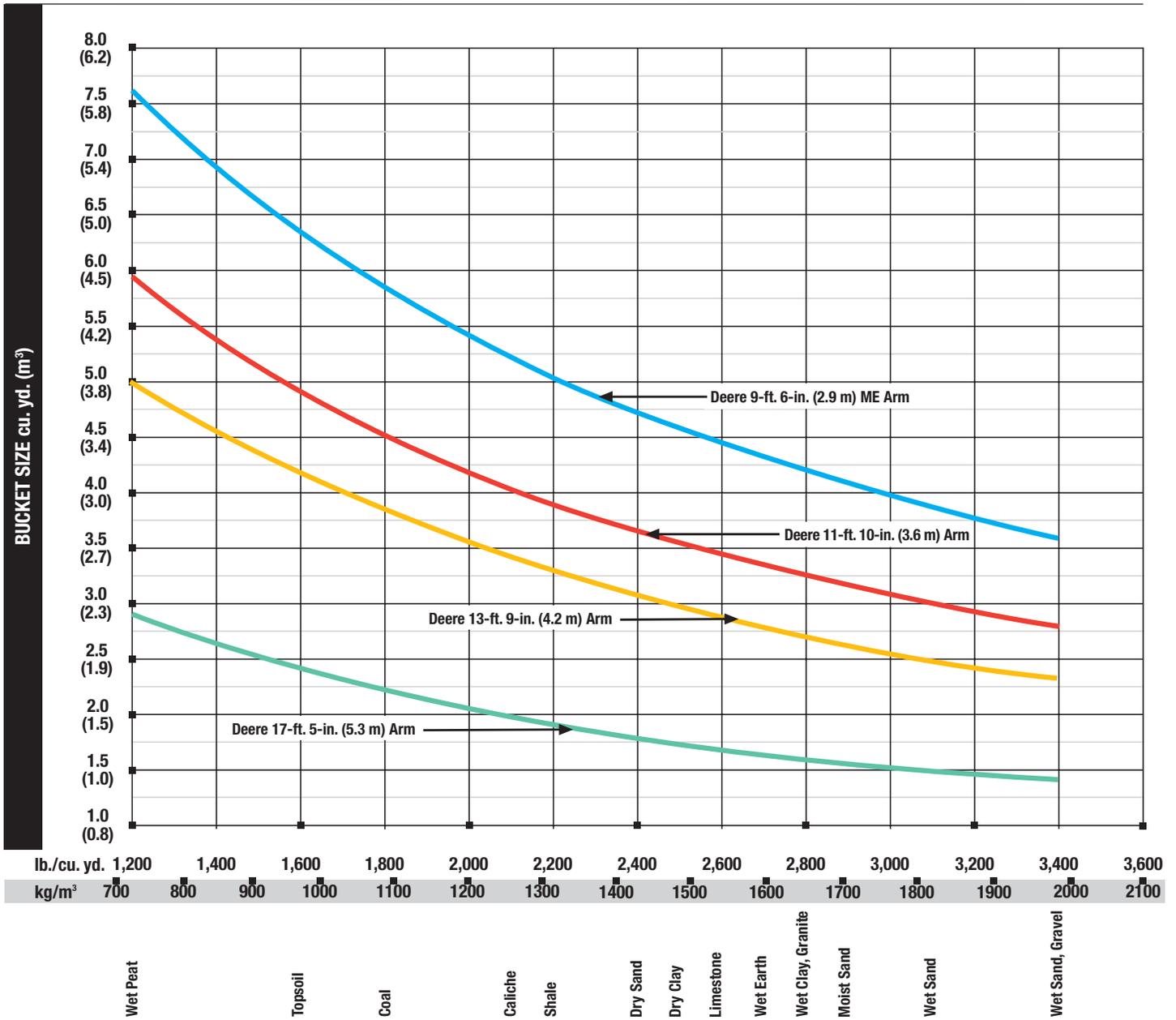
<i>With 22-ft. 4-in. (6.8 m) ME boom, 9-ft. 6-in. (2.9 m) arm, 4.58-cu.-yd. (3.5 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>										
25 ft. (7.6 m)					28,727 (13 030)	28,727 (13 030)				
20 ft. (6.1 m)					30,214 (13 705)	30,214 (13 705)	20,187 (9157)	20,187 (9157)		
15 ft. (4.6 m)			39,851 (18 076)	39,851 (18 076)	33,320 (15 114)	33,221 (15 069)	29,913 (13 568)	23,740 (10 768)		
10 ft. (3.0 m)			47,728 (21 649)	45,515 (20 645)	37,297 (16 918)	31,532 (14 303)	29,913 (13 568)	22,899 (10 387)		
5 ft. (1.5 m)			53,856 (24 429)	42,831 (19 428)	40,867 (18 537)	30,000 (13 608)	32,633 (14 802)	22,054 (10 004)		
Ground Line			56,365 (25 567)	41,384 (18 771)	42,945 (19 480)	28,936 (13 125)	31,955 (14 495)	21,425 (9718)		
-5 ft. (-1.5 m)			55,421 (25 139)	40,904 (18 554)	42,668 (19 354)	28,438 (12 899)	31,688 (14 373)	21,176 (9605)		
-10 ft. (-3.0 m)	65,170 (29 561)	65,170 (29 561)	51,150 (23 201)	41,119 (18 651)	39,681 (17 999)	28,535 (12 943)				
-15 ft. (-4.6 m)	53,186 (24 125)	53,186 (24 125)	42,172 (19 129)	42,065 (19 080)	30,075 (13 642)	29,558 (13 407)				

Buckets

650D LC

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. Capacities are SAE heaped ratings with side cutters.

Type Bucket	Bucket Width		Bucket Capacity		Weight		Bucket Dig Force		Arm Dig Force 11 ft. 10 in. (3.6 m)		Arm Dig Force 13 ft. 9 in. (4.2 m)		Arm Dig Force 17 ft. 5 in. (5.3 m)		ME Arm Dig Force 9 ft. 6 in. (2.9 m)		Bucket Tip Radius		No. Teeth
	in.	mm	cu. yd.	m³	lb.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	kN	lb.	kN	in.	mm	
Extreme-Duty Plate Lip	48	1219	3.5	2.65	7,487	3396	65,189	290	55,522	247	50,352	224					89.79	2281	3
	48	1219	3.5	2.68	7,407	3360	65,189	290					66,763	297	66,763	297	89.79	2281	3
	54	1372	4.0	3.06	7,817	3546	65,189	290									89.79	2281	5
	54	1372	4.0	3.06	7,817	3546	65,189	290	55,522	247	50,352	224					89.79	2281	3
	60	1524	4.6	3.53	8,368	3795	65,189	290									89.79	2281	3
Heavy-Duty High Capacity	36	914	2.4	1.80	5,873	2664	65,189	290	55,522	247	50,352	224					89.79	2281	3
	42	1067	2.9	2.22	6,320	2867	65,189	290	55,522	247	50,352	224					89.79	2281	3
	48	1219	2.7	2.06	6,540	2966	65,189	290	55,522	247	50,352	224					89.79	2281	4
	54	1372	4.0	3.09	6,898	3129	65,189	290	55,522	247	50,352	224					89.79	2281	5
	60	1524	4.6	3.54	7,280	3302	65,189	290	55,522	247	50,352	224					89.79	2281	5
	72	1829	5.8	4.44	7,921	3593	65,189	290	55,522	247	50,352	224					89.79	2281	6
	80	2032	6.6	5.05	8,634	3916	65,189	290	55,522	247	50,352	224					89.79	2281	6
High-Capacity Dirt	86	2184	6.0	4.59	8,688	3941	74,630	332									86.23	2190	6
Heavy-Duty Plate Lip	36	914	1.7	1.30	4,964	2252	55,073	245					43,160	192			75.75	1924	3
	42	1067	2.1	1.58	5,719	2594	55,073	245					43,160	192			75.75	1924	4
	48	1219	2.5	1.90	6,000	2722	55,073	245					43,160	192			75.75	1924	4
	54	1372	2.9	2.19	6,302	2858	55,073	245					43,160	192			75.75	1924	5
	60	1524	3.3	2.52	6,750	3062	55,073	245					43,160	192			75.75	1924	5
Truck Loading	76	1930	4.9	3.75	6,709	3043	67,897	302	57,829	257	52,474	233					86.20	2189	6
	82	2083	5.3	4.05	7,257	3292	67,897	302	57,829	257	52,474	233					86.20	2189	7



* 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.

Specifications

850D
LC

Engine	850D LC
Manufacturer and Model	Isuzu AH-6WG1XYSA-03
Non-Road Emission Standards	certified to EPA Tier 3 emissions
Cylinders	6
Displacement	957 cu. in. (15.681 L)
SAE Net Rated Power @ 1,800 rpm	532 hp (397 kW)
Off-Level Capacity	70% (35 deg.)
Aspiration	turbocharged, air-to-air charge air cooler

Cooling	
Cool-on-demand hydraulic-driven, suction-type fan with remote-mounted drive	
Engine Coolant Rating	-34 deg. F (-37 deg. C)

Powertrain	
Two-speed propel	
Travel Speed, Maximum	
Low	1.9 mph (3.1 km/h)
High	2.5 mph (4.1 km/h)
Drawbar Pull	126,193 lb. (57 240 kg)

Hydraulics	
Open center, load sensing; in-cab mode selectors, illuminated: 3 power modes; 2 travel modes; 2 work modes	
Main Pumps	2 variable-displacement pumps
Pump Flow, Maximum x 2	139 gpm (528 L/m)
Pilot Pump	one gear
Maximum Rated Flow	7.9 gpm (30 L/m)
System Relief Pressure	566 psi (3900 kPa)
System Operating Pressure	
Implement Circuits	4,627 psi (31 900 kPa)
Travel Circuits	4,975 psi (34 300 kPa)
Swing Circuits	4,264 psi (29 400 kPa)
Power Boost	4,975 psi (34 300 kPa)
Controls	pilot levers, short stroke, low effort; hydraulic pilot controls with shutoff lever

Cylinders			
Heat-treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins			
	<i>Bore</i>	<i>Rod Diameter</i>	<i>Stroke</i>
Boom (2)	8.5 in. (215 mm)	5.9 in. (150 mm)	72.2 in. (1835 mm)
Arm (1)	8.9 in. (225 mm)	6.3 in. (160 mm)	87.6 in. (2225 mm)
Bucket (1)	7.9 in. (200 mm)	5.5 in. (140 mm)	61.2 in. (1555 mm)

Electrical	
Number of Batteries (12 volt)	2
Reserve Capacity	280 min.
Alternator Rating	50 amp
Work Lights	4 (one mounted on frame, one mounted on boom, 2 mounted on top of cab)

Undercarriage	
Track chain sealed and lubricated; planetary final drives with axial piston motors	
Carrier Rollers (each side)	3
Track Rollers (each side)	9
Shoes, Double-Bar Grouser (each side)	51
Track Adjustment	hydraulic
Track Guides	front and center

Swing Mechanism

850D LC

Swing Speed	7.3 rpm
Swing Torque	182,362 lb.-ft. (247 250 Nm)

Ground Pressure

28-in. (700 mm) Double-Bar Grouser Shoes	16.1 psi (111.0 kPa)
32-in. (800 mm) Double-Bar Grouser Shoes	14.0 psi (96.5 kPa)
36-in. (900 mm) Double-Bar Grouser Shoes	11.8 psi (81.4 kPa)

Serviceability

Refill Capacities

Fuel Tank	296 gal. (1120 L)
Cooling System	21.5 gal. (81.4 L)
Engine Oil with Filter	13.9 gal. (52.6 L)
Hydraulic Tank	137.5 gal. (520.5 L)
Hydraulic System	208.7 gal. (790 L)

Swing Bearing Gear	5.8 gal. (22 L)
Swing Drive	13 qt. (12.3 L)
Propel Gearbox (each)	16 qt. (15.1 L)
Pump Drive Gearbox	4 qt. (3.8 L)

Operating Weights

With Full Fuel Tank; 175-lb. (79 kg) Operator; 4.57-cu.-yd. (3.49 m³), 54-in. (1370 mm), 7,845-lb. (3558 kg) Bucket; 14-ft. 5-in. (4.5 m) Arm; 29,321-lb. (13 300 kg) Counterweight; and 36-in. (900 mm) Double-Bar Grouser Shoes

SAE Operating Weight 185,876 lb. (84 312 kg)

Optional Components

Undercarriage

26-in. (650 mm) Double-Bar Grouser Shoes	71,320 lb. (32 350 kg)
30-in. (750 mm) Double-Bar Grouser Shoes	72,863 lb. (33 050 kg)
36-in. (900 mm) Double-Bar Grouser Shoes	74,935 lb. (33 990 kg)
27-ft. 7-in. (8.4 m) One-Piece Boom (with arm cylinder)	18,056 lb. (8190 kg)
23-ft. 4-in. (7.1 m) Mass-Excavating Boom (with arm cylinder)	16,909 lb. (7670 kg)
32-ft. 10-in. (10.0 m) One-Piece Boom (with arm cylinder)	20,701 lb. (9390 kg)

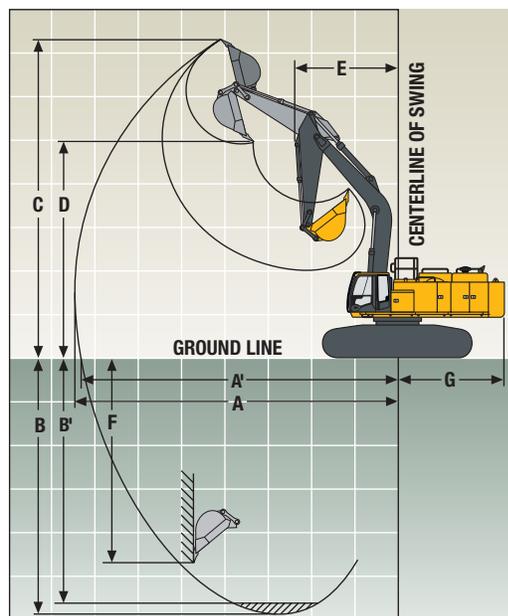
Arm with Bucket Cylinder and Linkage

12 ft. 2 in. (3.7 m)	9,546 lb. (4330 kg)
14 ft. 5 in. (4.4 m)	10,274 lb. (4660 kg)
17 ft. 9 in. (5.4 m)	10,913 lb. (4950 kg)
23-ft. 4-in. (7.1 m) Mass-Excavating Boom with 9-ft. 8-in. (2.95 m) Arm	10,251 lb. (4650 kg)

Boom Lift Cylinders (2) Total Weight 3,748 lb. (1700 kg)

4.57-cu.-yd. (3.49 m³), 54-in. (1370 mm) Heavy-Duty High-Capacity Bucket 7,844 lb. (3558 kg)

Counterweight, Standard 29,321 lb. (13 300 kg)



Operating Dimensions

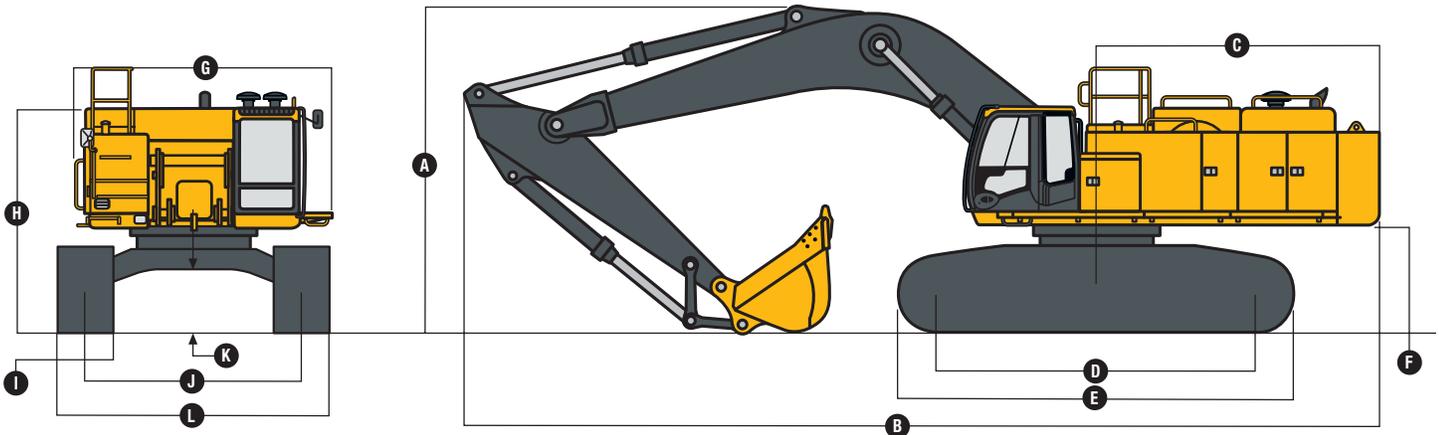
	27-ft. 7-in. (8.4 m) Boom with 12-ft. 2-in. (3.7 m) Arm	27-ft. 7-in. (8.4 m) Boom with 14-ft. 5-in. (4.4 m) Arm	27-ft. 7-in. (8.4 m) Boom with 17-ft. 9-in. (5.4 m) Arm	23-ft. 4-in. (7.1 m) Mass-Excavating Boom with 9-ft. 8-in. (2.95 m) Arm	32-ft. 10-in. (10.0 m) Boom with 14-ft. 5-in. (4.4 m) Arm	32-ft. 10-in. (10.0 m) Boom with 17-ft. 9-in. (5.4 m) Arm
Arm Force*	70,808 lb. (315 kN)	62,272 lb. (277 kN)	53,724 lb. (239 kN)	84,970 lb. (378 kN)	61,373 lb. (273 kN)	53,729 lb. (239 kN)
Bucket Digging Force*	80,699 lb. (359 kN)	81,381 lb. (362 kN)	64,964 lb. (289 kN)	92,388 lb. (411 kN)	81,706 lb. (359 kN)	64,970 lb. (289 kN)
Lifting Capacity Over Front at Ground Level 25-ft. (7.6 m) Reach*	55,702 lb. (25 266 kg)	54,500 lb. (24 721 kg)	51,500 lb. (23 360 kg)	56,500 lb. (25 628 kg)	42,442 lb. (19 251 kg)	49,828 lb. (22 602 kg)
A Maximum Reach	46 ft. 3 in. (14.10 m)	48 ft. 11 in. (14.91 m)	52 ft. 2 in. (15.91 m)	40 ft. 6 in. (12.34 m)	54 ft. 4 in. (16.55 m)	57 ft. 7 in. (17.56 m)
A' Maximum Reach at Ground Level	45 ft. 4 in. (13.82 m)	48 ft. 0 in. (14.64 m)	51 ft. 5 in. (15.67 m)	39 ft. 5 in. (12.02 m)	53 ft. 7 in. (16.32 m)	56 ft. 11 in. (17.34 m)
B Maximum Digging Depth	29 ft. 1 in. (8.87 m)	31 ft. 5 in. (9.57 m)	34 ft. 8 in. (10.57 m)	23 ft. 5 in. (7.14 m)	36 ft. 7 in. (11.16 m)	39 ft. 11 in. (12.16 m)
B' Maximum Digging Depth at 8-ft. (2.44 m) Flat Bottom	28 ft. 8 in. (8.74 m)	31 ft. 0 in. (9.46 m)	34 ft. 4 in. (10.46 m)	23 ft. 0 in. (7.00 m)	36 ft. 3 in. (11.04 m)	39 ft. 7 in. (12.06 m)
C Maximum Cutting Height	42 ft. 9 in. (13.03 m)	45 ft. 4 in. (13.82 m)	47 ft. 8 in. (14.53 m)	39 ft. 5 in. (12.01 m)	48 ft. 1 in. (14.66 m)	50 ft. 4 in. (15.34 m)
D Maximum Dumping Height	29 ft. 9 in. (9.08 m)	31 ft. 11 in. (9.73 m)	34 ft. 2 in. (10.41 m)	26 ft. 8 in. (8.13 m)	35 ft. 6 in. (10.81 m)	36 ft. 11 in. (11.26 m)
E Minimum Swing Radius	19 ft. 6 in. (5.95 m)	19 ft. 6 in. (5.94 m)	19 ft. 6 in. (5.94 m)	17 ft. 1 in. (5.21 m)	24 ft. 1 in. (7.35 m)	24 ft. 0 in. (7.32 m)
F Maximum Vertical Wall	23 ft. 6 in. (7.17 m)	27 ft. 10 in. (8.48 m)	32 ft. 0 in. (9.75 m)	13 ft. 5 in. (4.10 m)	32 ft. 5 in. (9.87 m)	37 ft. 2 in. (11.34 m)
G Tail Swing Radius	15 ft. 1 in. (4.60 m)	15 ft. 1 in. (4.60 m)	15 ft. 1 in. (4.60 m)			

*With power boost.

Machine Dimensions

850D LC

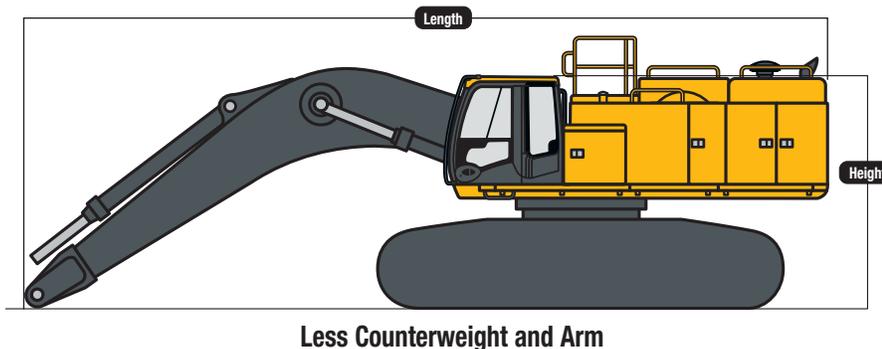
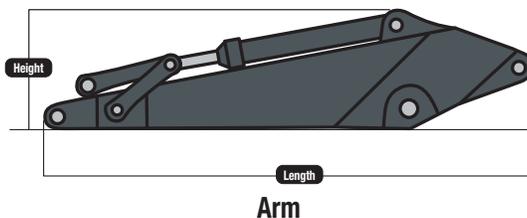
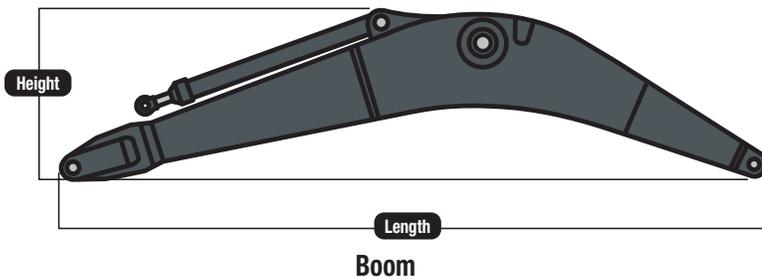
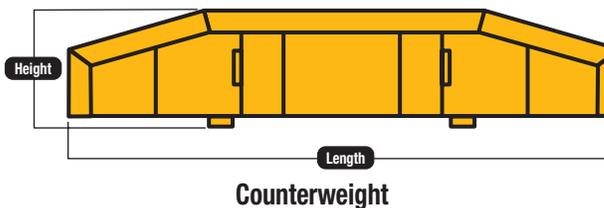
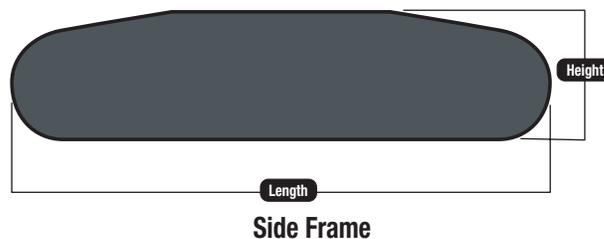
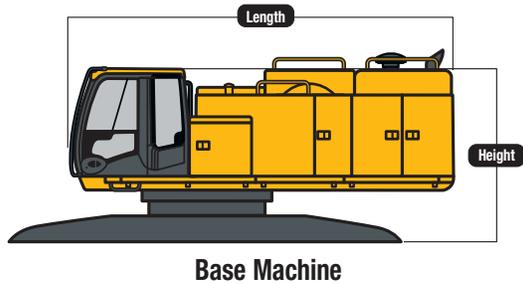
	Arm Length 12 ft. 2 in. (3.7 m)	Arm Length 14 ft. 5 in. (4.4 m)	Arm Length 17 ft. 9 in. (5.4 m)	9-ft. 8-in. (2.95 m) Mass-Excavating Arm and Mass-Excavating Boom
A Overall Height	15 ft. 0 in. (4.57 m)	15 ft. 9 in. (4.81 m)	18 ft. 6 in. (5.64 m)	17 ft. 1 in. (5.21 m)
B Overall Length	48 ft. 6 in. (14.78 m)	48 ft. 8 in. (14.83 m)	47 ft. 11 in. (14.61 m)	44 ft. 4 in. (13.51 m)
C Rear-End Length/Swing Radius	14 ft. 10 in. (4.52 m)			
D Distance Between Idler/Sprocket Centerline	16 ft. 9 in. (5.11 m)			
E Undercarriage Length	20 ft. 10 in. (6.35 m)			
F Counterweight Clearance	5 ft. 6 in. (1.68 m)			
G Upperstructure Width	13 ft. 6 in. (4.11 m)			
H Cab Height	11 ft. 11 in. (3.63 m)			
I Track Width (double-bar grouser shoes)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)	26 in. (650 mm) / 30 in. (750 mm) / 36 in. (900 mm)
J 36-in. (900 mm) Double-Bar Grouser Shoes				
Operating Position	11 ft. 4 in. (3.45 m)			
Transport Position	9 ft. 3 in. (2.82 m)			
K Ground Clearance	35 in. (890 mm)			
L 36-in. (900 mm) Double-Bar Grouser Shoes				
Operating Position	14 ft. 3 in. (4.34 m)			
Transport Position	12 ft. 3 in. (3.73 m)			



Packing Dimensions and Weights For Transportation

	Length	Height	Overall Width	Weight
Base Machine (without front attachment; side frame; steps on the hydraulic oil tank side; and handrails on the right-hand frame, the fuel tank upper, and the lubricator upper)	19 ft. 10 in. (6.04 m)	9 ft. 9 in. (2.96 m)	11 ft. 6 in. (3.50 m)	60,000 lb. (27 200 kg)
Side Frame*				
26-in. (650 mm) Shoe Width	20 ft. 10 in. (6.36 m)	4 ft. 11 in. (1.50 m)	4 ft. 3 in. (1.30 m)	26,700 lb. (12 100 kg)
30-in. (750 mm) Shoe Width	20 ft. 10 in. (6.36 m)	4 ft. 11 in. (1.50 m)	4 ft. 4 in. (1.33 m)	27,600 lb. (12 500 kg)
36-in. (900 mm) Shoe Width	20 ft. 10 in. (6.36 m)	4 ft. 11 in. (1.50 m)	4 ft. 8 in. (1.425 m)	28,418 lb. (12 890 kg)
40-in. (1020 mm) Shoe Width	20 ft. 10 in. (6.36 m)	4 ft. 11 in. (1.50 m)	4 ft. 10 in. (1.46 m)	29,366 lb. (13 320 kg)
Counterweight	11 ft. 0 in. (3.36 m)	5 ft. 4 in. (1.62 m)	28 in. (720 mm)	29,321 lb. (13 300 kg)
Boom				
23 ft. 4 in. (7.1 m)	24 ft. 7 in. (7.49 m)	8 ft. 10 in. (2.70 m)	4 ft. 9 in. (1.45 m)	16,900 lb. (7670 kg)
27 ft. 1 in. (8.4 m)	28 ft. 10 in. (8.78 m)	8 ft. 2 in. (2.50 m)	4 ft. 9 in. (1.45 m)	18,100 lb. (8200 kg)
32 ft. 10 in. (10.0 m)	34 ft. 0 in. (10.37 m)	8 ft. 10 in. (2.70 m)	4 ft. 9 in. (1.45 m)	20,701 lb. (9390 kg)
Arm				
9 ft. 8 in. (2.95 m)	14 ft. 8 in. (4.46 m)	5 ft. 5 in. (1.66 m)	34 in. (850 mm)	10,300 lb. (4650 kg)
12 ft. 2 in. (3.7 m)	17 ft. 4 in. (5.29 m)	4 ft. 8 in. (1.42 m)	32 in. (820 mm)	9,500 lb. (4330 kg)
14 ft. 5 in. (4.4 m)	19 ft. 4 in. (5.88 m)	4 ft. 8 in. (1.42 m)	32 in. (820 mm)	10,300 lb. (4660 kg)
17 ft. 9 in. (5.4 m)	22 ft. 5 in. (6.83 m)	4 ft. 10 in. (1.48 m)	31 in. (800 mm)	10,913 lb. (4950 kg)
Less Counterweight and Arm	41 ft. 8 in. (12.70 m)	11 ft. 11 in. (3.63 m)	11 ft. 6 in. (3.50 m)	138,434 lb. (62 973 kg)

*The dimensions and the weights indicate those of one side frame. The dimensions include the travel piping cover.



Lift Capacities

850D LC

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 29,321-lb. (13 300 kg) counterweight; standard gauge; and 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)		40 ft. (12.2 m)	
	Over Front	Over Side	Over Front	Over Side						
With 27-ft. 7-in. (8.4 m) boom, 14-ft. 5-in. (4.4 m) arm, 3.79-cu.-yd. (2.9 m ³) bucket, and 26-in. (650 mm) double-bar grouser shoes										
30 ft. (9.1 m)							18,700 (8482)	18,700 (8482)		
25 ft. (7.6 m)							23,001 (10 433)	23,001 (10 433)		
20 ft. (6.1 m)					28,001 (12 701)	28,001 (12 701)	26,299 (11 929)	26,299 (11 929)	19,701 (8936)	19,701 (8936)
15 ft. (4.6 m)	48,500 (21 999)	48,500 (21 999)	38,400 (17 418)	38,400 (17 418)	32,699 (14 832)	32,699 (14 832)	29,101 (13 200)	26,601 (12 066)	24,101 (10 932)	20,600 (9344)
10 ft. (3.0 m)	60,901 (27 624)	60,901 (27 624)	45,100 (20 457)	44,500 (20 185)	36,700 (16 647)	33,199 (15 059)	31,601 (14 334)	25,501 (11 567)	28,199 (12 791)	19,906 (9029)
5 ft. (1.5 m)			50,799 (23 042)	41,800 (18 960)	40,400 (18 325)	31,500 (14 288)	34,000 (15 422)	24,401 (11 068)	29,701 (13 472)	19,200 (8709)
Ground Line	47,501 (21 546)	47,501 (21 546)	54,500 (24 721)	39,899 (18 098)	43,100 (19 550)	30,199 (13 698)	35,801 (16 239)	23,499 (10 659)	29,899 (13 562)	18,700 (8482)
-5 ft. (-1.5 m)	61,701 (27 987)	55,400 (25 129)	55,799 (25 310)	38,901 (17 645)	44,500 (20 185)	29,299 (13 290)	36,599 (16 601)	22,899 (10 387)	29,500 (13 381)	18,301 (8301)
-10 ft. (-3.0 m)	69,900 (31 706)	55,499 (25 174)	55,100 (24 993)	38,601 (17 509)	44,300 (20 094)	28,900 (13 109)	36,299 (16 465)	22,600 (10 251)	25,100 (11 385)	18,199 (8255)
-15 ft. (-4.6 m)	65,001 (29 484)	56,000 (25 401)	52,100 (23 632)	38,799 (17 599)	42,201 (19 142)	29,000 (13 154)	34,101 (15 468)	22,701 (10 297)		
-20 ft. (-6.1 m)	57,100 (25 900)	57,001 (25 855)	46,299 (21 001)	39,500 (17 917)	37,099 (16 828)	29,599 (13 426)				
-25 ft. (-7.6 m)	44,600 (20 230)	44,600 (20 230)	35,699 (16 193)	35,699 (16 193)						

Lift Capacities

850D LC

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 29,321-lb. (13 300 kg) counterweight; standard gauge; and 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)		40 ft. (12.2 m)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 23-ft. 4-in. (7.1 m) ME boom, 9-ft. 8-in. (2.95 m) ME arm, 5.89-cu.-yd. (4.5 m³) bucket, and 26-in. (650 mm) double-bar grouser shoes</i>										
30 ft. (9.1 m)			34,800 (15 785)	34,800 (15 785)						
25 ft. (7.6 m)			36,500 (16 556)	36,500 (16 556)	24,701 (11 204)	24,701 (11 204)				
20 ft. (6.1 m)			39,099 (17 735)	39,099 (17 735)	36,101 (16 375)	34,800 (15 785)				
15 ft. (4.6 m)	54,500 (24 721)	54,500 (24 721)	43,901 (19 913)	43,901 (19 913)	38,200 (17 327)	33,799 (15 331)				
10 ft. (3.0 m)			49,600 (22 498)	44,200 (20 049)	41,101 (18 643)	32,399 (14 696)	28,700 (13 018)	24,200 (10 977)		
5 ft. (1.5 m)			54,201 (24 585)	41,901 (19 006)	43,601 (19 777)	30,999 (14 061)	32,900 (14 923)	23,501 (10 660)		
Ground Line			56,500 (25 628)	40,400 (18 325)	45,001 (20 412)	30,001 (13 608)				
-5 ft. (-1.5 m)	71,600 (32 477)	57,100 (25 900)	55,799 (25 310)	39,599 (17 962)	44,200 (20 049)	29,401 (13 336)				
-10 ft. (-3.0 m)	65,400 (29 665)	57,199 (25 945)	51,701 (23 451)	39,500 (17 917)	39,800 (18 053)	29,401 (13 336)				
-15 ft. (-4.6 m)	54,300 (24 630)	54,300 (24 630)	42,099 (19 096)	40,199 (18 234)						

With 27-ft. 7-in. (8.4 m) boom, 14-ft. 5-in. (4.4 m) arm, 3.79-cu.-yd. (2.9 m³) bucket, and 30-in. (750 mm) double-bar grouser shoes

30 ft. (9.1 m)							18,700 (8482)	18,700 (8482)		
25 ft. (7.6 m)							23,001 (10 433)	23,001 (10 433)		
20 ft. (6.1 m)					28,001 (12 701)	28,001 (12 701)	26,299 (11 929)	26,299 (11 929)	19,701 (8936)	19,701 (8936)
15 ft. (4.6 m)	48,500 (21 999)	48,500 (21 999)	38,400 (17 418)	38,400 (17 418)	32,699 (14 832)	32,699 (14 832)	29,101 (13 200)	26,901 (12 202)	24,101 (10 932)	20,801 (9435)
10 ft. (3.0 m)	60,901 (27 624)	60,901 (27 624)	45,100 (20 457)	44,800 (20 321)	36,700 (16 647)	33,499 (15 195)	31,601 (14 334)	25,699 (11 657)	28,199 (12 791)	20,100 (9117)
5 ft. (1.5 m)			50,799 (23 042)	42,099 (19 096)	40,400 (18 325)	31,799 (14 424)	34,000 (15 422)	24,701 (11 204)	29,701 (13 472)	19,401 (8800)
Ground Line	47,501 (21 546)	47,501 (21 546)	54,500 (24 721)	40,301 (18 280)	43,100 (19 550)	30,501 (13 835)	35,801 (16 239)	23,801 (10 796)	30,199 (13 698)	18,900 (8573)
-5 ft. (-1.5 m)	61,701 (27 987)	56,000 (25 401)	55,799 (25 310)	39,300 (17 826)	44,500 (20 185)	29,599 (13 426)	36,800 (16 692)	23,100 (10 478)	29,800 (13 517)	18,499 (8391)
-10 ft. (-3.0 m)	69,900 (31 706)	56,000 (25 401)	55,100 (24 993)	39,000 (17 690)	44,300 (20 094)	29,200 (13 245)	36,401 (16 511)	22,899 (10 387)	25,100 (11 385)	18,400 (8346)
-15 ft. (-4.6 m)	65,001 (29 484)	56,500 (25 628)	52,100 (23 632)	39,200 (17 781)	42,201 (19 142)	29,299 (13 290)	34,101 (15 468)	23,001 (10 433)		
-20 ft. (-6.1 m)	57,100 (25 900)	57,100 (25 900)	46,299 (21 001)	39,899 (18 098)	37,099 (16 828)	29,899 (13 562)				
-25 ft. (-7.6 m)	44,600 (20 230)	44,600 (20 230)	35,699 (16 193)	35,699 (16 193)						

With 27-ft. 7-in. (8.4 m) boom, 12-ft. 2-in. (3.7 m) arm, 4.58-cu.-yd. (3.5 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes

25 ft. (7.6 m)					28,900 (13 109)	28,900 (13 109)	24,401 (11 068)	24,401 (11 068)		
20 ft. (6.1 m)					31,400 (14 243)	31,400 (14 243)	28,900 (13 109)	27,500 (12 474)		
15 ft. (4.6 m)	54,701 (24 812)	54,701 (24 812)	41,700 (18 915)	41,700 (18 915)	34,899 (15 830)	34,899 (15 830)	30,900 (14 016)	26,601 (12 066)	21,499 (9752)	20,501 (9299)
10 ft. (3.0 m)			48,100 (21 818)	44,200 (20 049)	38,700 (17 554)	33,199 (15 059)	33,100 (15 014)	25,600 (11 612)	27,500 (12 474)	20,000 (9072)
5 ft. (1.5 m)			53,101 (24 086)	41,901 (19 006)	42,000 (19 051)	31,700 (14 379)	35,100 (15 921)	24,599 (11 158)	30,600 (13 880)	19,401 (8800)
Ground Line			55,700 (25 265)	40,400 (18 325)	44,099 (20 003)	30,600 (13 880)	36,500 (16 556)	23,900 (10 841)	30,400 (13 789)	18,999 (8618)
-5 ft. (-1.5 m)	67,700 (30 708)	57,001 (25 855)	56,000 (25 401)	39,800 (18 053)	44,800 (20 321)	29,899 (13 562)	36,901 (16 738)	23,400 (10 614)		
-10 ft. (-3.0 m)	67,199 (30 481)	57,300 (25 991)	54,099 (24 539)	39,701 (18 008)	43,799 (19 867)	29,701 (13 472)	35,699 (16 193)	23,301 (10 569)		
-15 ft. (-4.6 m)	61,099 (27 714)	57,999 (26 308)	49,899 (22 634)	40,100 (18 189)	40,499 (18 370)	30,001 (13 608)				
-20 ft. (-6.1 m)	51,599 (23 405)	51,599 (23 405)	42,300 (19 187)	40,704 (18 463)	32,900 (14 923)	30,999 (14 061)				

With 27-ft. 7-in. (8.4 m) boom, 14-ft. 5-in. (4.4 m) arm, 3.79-cu.-yd. (2.9 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes

30 ft. (9.1 m)							18,700 (8482)	18,700 (8482)		
25 ft. (7.6 m)							23,001 (10 433)	23,001 (10 433)		
20 ft. (6.1 m)					28,001 (12 701)	28,001 (12 701)	26,299 (11 929)	26,299 (11 929)	19,701 (8936)	19,701 (8936)
15 ft. (4.6 m)	48,500 (21 999)	48,500 (21 999)	38,400 (17 418)	38,400 (17 418)	32,699 (14 832)	32,699 (14 832)	29,101 (13 200)	27,201 (12 338)	24,101 (10 932)	21,100 (9571)
10 ft. (3.0 m)	60,901 (27 624)	60,901 (27 624)	45,100 (20 457)	45,100 (20 457)	36,700 (16 647)	33,900 (15 377)	31,601 (14 334)	26,101 (11 839)	28,202 (12 792)	20,399 (9253)
5 ft. (1.5 m)			50,799 (23 042)	42,600 (19 323)	40,400 (18 325)	32,201 (14 606)	34,000 (15 422)	25,000 (11 340)	29,701 (13 472)	19,701 (8936)
Ground Line	47,501 (21 546)	47,501 (21 546)	54,500 (24 721)	40,801 (18 507)	43,100 (19 550)	30,900 (14 016)	35,801 (16 239)	24,101 (10 932)	30,600 (13 880)	19,101 (8664)
-5 ft. (-1.5 m)	61,701 (27 987)	56,599 (25 673)	55,799 (25 310)	39,800 (18 053)	44,500 (20 185)	30,001 (13 608)	36,800 (16 692)	23,499 (10 659)	30,199 (13 698)	18,801 (8528)
-10 ft. (-3.0 m)	69,900 (31 706)	56,701 (25 719)	55,100 (24 993)	39,500 (17 917)	44,300 (20 094)	29,599 (13 426)	36,401 (16 511)	23,199 (10 523)	25,100 (11 385)	18,700 (8482)
-15 ft. (-4.6 m)	65,001 (29 484)	57,199 (25 945)	52,100 (23 632)	39,599 (17 962)	42,201 (19 142)	29,701 (13 472)	34,101 (15 468)	23,301 (10 569)		
-20 ft. (-6.1 m)	57,100 (25 900)	57,100 (25 900)	46,299 (21 001)	40,301 (18 280)	37,099 (16 828)	30,300 (13 744)				
-25 ft. (-7.6 m)	44,600 (20 230)	44,600 (20 230)	35,699 (16 193)	35,699 (16 193)						

Lift Capacities (continued)

850D LC

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 29,321-lb. (13 300 kg) counterweight; standard gauge; and 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)		40 ft. (12.2 m)		
	Over Front	Over Side	Over Front	Over Side							
<i>With 27-ft. 7-in. (8.4 m) boom, 17-ft. 9-in. (5.4 m) arm, 3.01-cu.-yd. (2.3 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>											
30 ft. (9.1 m)										11,199 (5080)	11,199 (5080)
25 ft. (7.6 m)								19,299 (8754)	19,299 (8754)	16,200 (7348)	16,200 (7348)
20 ft. (6.1 m)								21,200 (9616)	21,200 (9616)	18,999 (8618)	18,999 (8618)
15 ft. (4.6 m)					26,200 (11 884)	26,200 (11 884)	24,701 (11 204)	24,701 (11 204)	21,700 (9843)		21,400 (9707)
10 ft. (3.0 m)	52,300 (23 723)	52,300 (23 723)	40,301 (18 280)	40,301 (18 280)	33,601 (15 241)	33,601 (15 241)	29,299 (13 290)	26,500 (12 020)	25,100 (11 385)		20,600 (9344)
5 ft. (1.5 m)	62,699 (28 440)	61,599 (27 941)	46,701 (21 183)	43,700 (19 822)	37,600 (17 055)	32,699 (14 832)	32,000 (14 515)	25,300 (11 476)	28,100 (12 746)		19,800 (8981)
Ground Line	65,700 (29 801)	58,101 (26 354)	51,500 (23 360)	41,299 (18 733)	40,999 (18 597)	31,101 (14 107)	34,200 (15 513)	24,200 (10 977)	29,599 (13 426)		19,101 (8664)
-5 ft. (-1.5 m)	65,400 (29 665)	56,401 (25 583)	54,399 (24 675)	39,800 (18 053)	43,200 (19 595)	30,001 (13 608)	35,801 (16 239)	23,400 (10 614)	30,100 (13 653)		18,600 (8437)
-10 ft. (-3.0 m)	71,600 (32 477)	55,700 (25 265)	55,100 (24 993)	39,000 (17 690)	44,099 (20 003)	29,299 (13 290)	36,299 (16 465)	22,899 (10 387)	29,701 (13 472)		18,301 (8301)
-15 ft. (-4.6 m)	68,700 (31 162)	55,700 (25 265)	53,799 (24 403)	38,799 (17 599)	43,200 (19 595)	29,101 (13 200)	35,300 (16 012)	22,701 (10 297)	25,000 (11 340)		18,400 (8346)
-20 ft. (-6.1 m)	63,101 (28 622)	56,401 (25 583)	50,001 (22 680)	39,200 (17 781)	40,199 (18 234)	29,299 (13 290)	32,000 (14 515)	23,100 (10 478)			
-25 ft. (-7.6 m)	53,799 (24 403)	53,799 (24 403)	42,801 (19 414)	40,100 (18 189)	33,301 (15 105)	30,199 (13 698)					

<i>With 23-ft. 4-in. (7.1 m) ME boom, 9-ft. 8-in. (2.95 m) ME arm, 5.89-cu.-yd. (4.5 m³) bucket, and 36-in. (900 mm) double-bar grouser shoes</i>											
30 ft. (9.1 m)			34,800 (15 785)	34,800 (15 785)							
25 ft. (7.6 m)			36,500 (16 556)	36,500 (16 556)	24,701 (11 204)	24,701 (11 204)					
20 ft. (6.1 m)			39,099 (17 735)	39,099 (17 735)	36,101 (16 375)	35,501 (16 103)					
15 ft. (4.6 m)	54,500 (24 721)	54,500 (24 721)	43,901 (19 913)	43,901 (19 913)	38,200 (17 327)	34,401 (15 604)					
10 ft. (3.0 m)			49,600 (22 498)	45,100 (20 457)	41,101 (18 643)	33,100 (15 014)	28,700 (13 018)	24,701 (11 204)			
5 ft. (1.5 m)			54,201 (24 585)	42,801 (19 414)	43,601 (19 777)	31,700 (14 379)	32,900 (14 923)	24,101 (10 932)			
Ground Line			56,500 (25 628)	41,200 (18 688)	45,001 (20 412)	30,699 (13 925)					
-5 ft. (-1.5 m)	71,600 (32 477)	58,299 (26 444)	55,799 (25 310)	40,400 (18 325)	44,200 (20 049)	30,100 (13 653)					
-10 ft. (-3.0 m)	65,400 (29 665)	58,400 (26 490)	51,701 (23 451)	40,301 (18 280)	39,800 (18 053)	30,100 (13 653)					
-15 ft. (-4.6 m)	54,300 (24 630)	54,300 (24 630)	42,099 (19 096)	41,101 (18 643)							

<i>With 32-ft. 10-in. (10.0 m) boom, 14-ft. 5-in. (4.4 m) arm, 2.63-cu.-yd. (2.0 m³) bucket, 36-in. (900 mm) double-bar grouser shoes, and standard counterweight</i>											
35 ft. (10.7 m)										14,783 (6705)	14,783 (6705)
30 ft. (9.1 m)										19,967 (9057)	19,967 (9057)
25 ft. (7.6 m)								21,642 (9817)	21,642 (9817)	20,526 (9310)	20,526 (9310)
20 ft. (6.1 m)					26,871 (12 188)	26,871 (12 188)	23,740 (10 768)	23,740 (10 768)	21,746 (9864)		21,484 (9745)
15 ft. (4.6 m)			38,834 (17 615)	38,834 (17 615)	30,886 (14 010)	30,886 (14 010)	26,270 (11 916)	26,123 (11 849)	23,344 (10 589)		20,532 (9313)
10 ft. (3.0 m)					34,916 (15 838)	31,367 (14 228)	28,902 (13 110)	24,612 (11 164)	25,081 (11 377)		19,539 (8863)
5 ft. (1.5 m)					38,304 (17 374)	29,459 (13 362)	31,287 (14 192)	23,281 (10 560)	26,726 (12 123)		18,623 (8447)
Ground Line			42,442 (19 251)	36,754 (16 671)	40,626 (18 428)	28,150 (12 769)	33,139 (15 032)	22,252 (10 093)	28,069 (12 732)		17,875 (8108)
-5 ft. (-1.5 m)			52,445 (23 789)	36,263 (16 449)	41,789 (18 955)	27,401 (12 429)	34,273 (15 546)	21,572 (9785)	28,789 (13 058)		17,353 (7871)
-10 ft. (-3.0 m)	34,530 (15 663)	34,530 (15 663)	51,577 (23 395)	36,226 (16 432)	41,841 (18 979)	27,102 (12 293)	34,567 (15 679)	21,233 (9631)	28,509 (12 931)		17,091 (7752)
-15 ft. (-4.6 m)	58,098 (26 353)	53,373 (24 210)	49,585 (22 491)	36,530 (16 570)	40,768 (18 492)	27,175 (12 326)	33,864 (15 360)	21,228 (9629)	28,332 (12 851)		17,130 (7770)
-20 ft. (-6.1 m)	55,718 (25 273)	54,281 (24 621)	46,257 (20 982)	37,169 (16 860)	38,361 (17 400)	27,605 (12 521)	31,815 (14 431)	21,583 (9790)	25,844 (11 723)		17,595 (7981)
-25 ft. (-7.6 m)	49,005 (22 228)	49,005 (22 228)	41,033 (18 612)	38,219 (17 336)	34,003 (15 424)	28,469 (12 913)	27,367 (12 413)	22,464 (10 189)			
-30 ft. (-9.1 m)	38,894 (17 642)	38,894 (17 642)	32,532 (14 756)	32,532 (14 756)	25,583 (11 604)	25,583 (11 604)					

<i>With 32-ft. 10-in. (10.0 m) boom, 17-ft. 9-in. (5.4 m) arm, 2.48-cu.-yd. (1.9 m³) bucket, 36-in. (900 mm) double-bar grouser shoes, and standard counterweight</i>											
40 ft. (12.2 m)										12,285 (5572)	12,285 (5572)
35 ft. (10.7 m)										17,439 (7910)	17,439 (7910)
30 ft. (9.1 m)										17,933 (8134)	17,933 (8134)
25 ft. (7.6 m)										18,772 (8515)	18,772 (8515)
20 ft. (6.1 m)								21,806 (9891)	21,806 (9891)	20,137 (9134)	20,137 (9134)
15 ft. (4.6 m)			34,351 (15 581)	34,351 (15 581)	28,196 (12 789)	28,196 (12 789)	24,375 (11 056)	24,375 (11 056)	21,843 (9908)		21,177 (9606)
10 ft. (3.0 m)			40,832 (18 521)	40,832 (18 521)	32,282 (14 643)	32,282 (14 643)	27,103 (12 294)	25,470 (11 553)	23,701 (10 751)		20,112 (9123)
5 ft. (1.5 m)			46,234 (20 971)	39,756 (18 033)	35,992 (16 326)	30,524 (13 845)	29,691 (13 468)	23,978 (10 876)	25,517 (11 574)		19,089 (8659)
Ground Line			49,828 (22 602)	37,571 (17 042)	38,897 (17 643)	28,829 (13 077)	31,871 (14 456)	22,739 (10 314)	27,102 (12 293)		18,206 (8258)
-5 ft. (-1.5 m)			51,654 (23 430)	36,375 (16 499)	40,795 (18 504)	27,697 (12 563)	33,448 (15 172)	21,830 (9902)	28,288 (12 831)		17,528 (7951)
-10 ft. (-3.0 m)	33,830 (15 345)	33,830 (15 345)	52,023 (23 597)	35,875 (16 273)	41,644 (18 889)	27,073 (12 280)	34,286 (15 552)	21,269 (9647)	28,535 (12 943)		17,097 (7755)
-15 ft. (-4.6 m)	49,052 (22 250)	49,052 (22 250)	51,121 (23 188)	35,873 (16 272)	41,418 (18 787)	26,881 (12 193)	34,255 (13 057)	21,051 (9549)	28,370 (12 868)		16,943 (7685)
-20 ft. (-6.1 m)	60,801 (27 579)	52,560 (23 841)	48,903 (22 182)	36,286 (16 459)	39,992 (18 140)	27,079 (12 283)	33,128 (15 027)	21,180 (9607)	27,529 (12 487)		17,118 (7765)
-25 ft. (-7.6 m)	55,400 (25 129)	53,814 (24 410)	45,056 (20 437)	37,115 (16 835)	37,007 (16 786)	27,684 (12 557)	30,385 (13 782)	21,719 (9852)	24,006 (10 889)		17,818 (8082)
-30 ft. (-9.1 m)	47,393 (21 497)	47,393 (21 497)	38,799 (17 599)	38,469 (17 449)	31,509 (14 292)	28,831 (13 078)	24,224 (10 988)	22,967 (10 418)			

Lift Capacities (continued)

850D LC

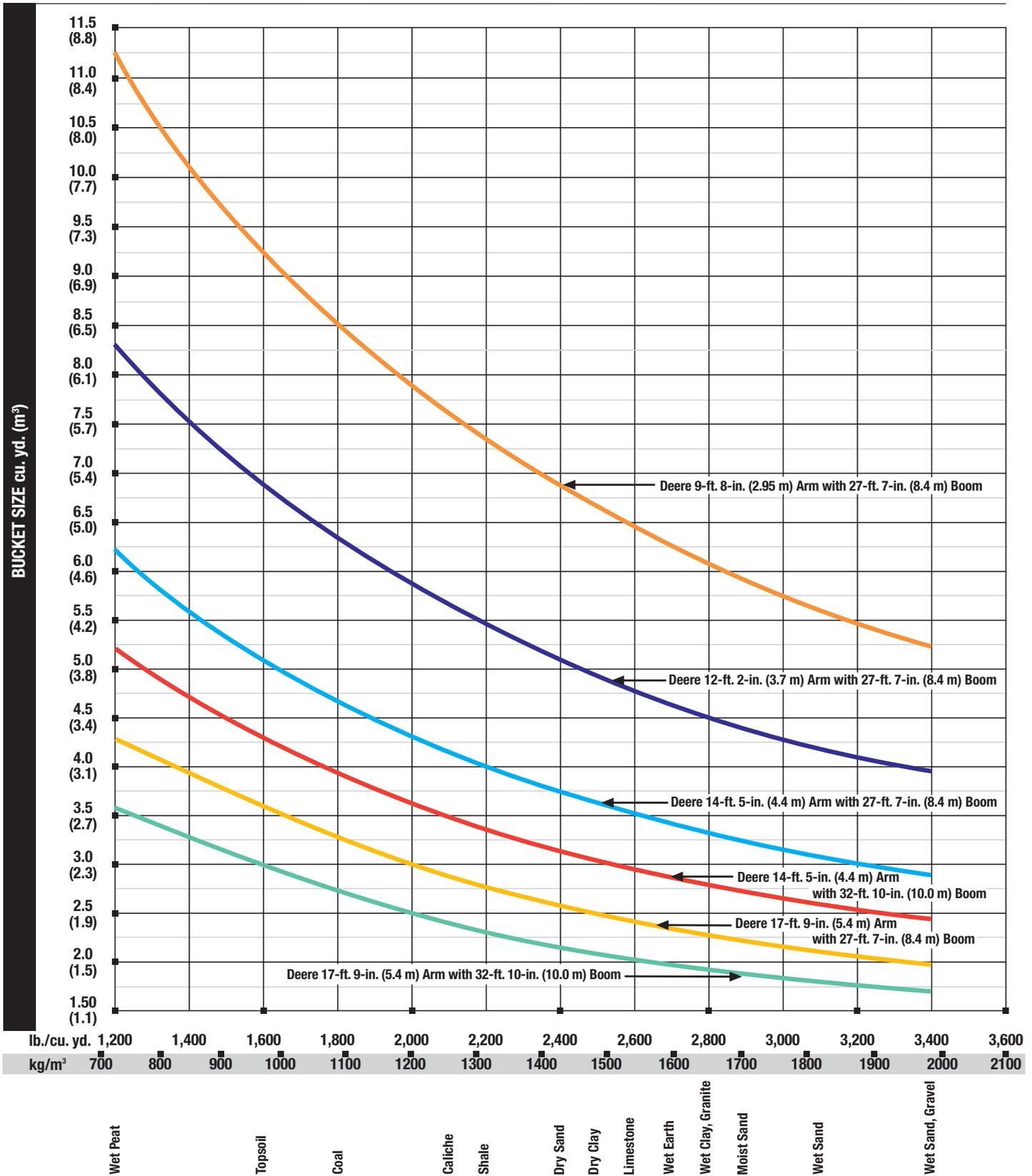
Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 29,321-lb. (13 300 kg) counterweight; standard gauge; and situated on firm, uniform supporting surface. Total load includes 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 based on SAE J1097. Lift capacities for the most popular shoe and arm configurations are included. Lift capacities for other configurations are available from your dealer.

Load Point Height	20 ft. (6.1 m)		25 ft. (7.6 m)		30 ft. (9.1 m)		35 ft. (10.7 m)		40 ft. (12.2 m)	
	Over Front	Over Side	Over Front	Over Side						
<i>With 32-ft. 10-in. (10.0 m) boom, 14-ft. 5-in. (4.4 m) arm, 2.63-cu.-yd. (2.0 m³) bucket, 40-in. (1020 mm) double-bar grouser shoes, and standard counterweight</i>										
35 ft. (10.7 m)									14,783 (6705)	14,783 (6705)
30 ft. (9.1 m)									19,967 (9057)	19,967 (9057)
25 ft. (7.6 m)								21,642 (9817)	21,642 (9817)	20,526 (9310)
20 ft. (6.1 m)					26,871 (12 188)	26,871 (12 188)	23,740 (10 768)	23,740 (10 768)	21,746 (9864)	21,746 (9864)
15 ft. (4.6 m)			38,834 (17 615)	38,834 (17 615)	30,886 (14 010)	30,886 (14 010)	26,270 (11 916)	26,270 (11 916)	23,344 (10 589)	20,775 (9423)
10 ft. (3.0 m)					34,916 (15 838)	31,711 (14 384)	28,902 (13 110)	24,896 (11 293)	25,081 (11 377)	19,782 (8973)
5 ft. (1.5 m)					38,304 (17 374)	29,803 (13 518)	31,287 (14 192)	23,565 (10 689)	26,726 (12 123)	18,865 (8557)
Ground Line			42,442 (19 251)	37,189 (16 869)	40,626 (18 428)	28,494 (12 925)	33,139 (15 032)	22,536 (10 222)	28,069 (12 732)	18,117 (8218)
-5 ft. (-1.5 m)			52,445 (23 789)	36,697 (16 645)	41,789 (18 955)	27,745 (12 585)	34,273 (15 546)	21,856 (9914)	28,926 (13 121)	17,595 (7981)
-10 ft. (-3.0 m)	34,530 (15 663)	34,530 (15 663)	51,577 (23 395)	36,661 (16 629)	41,841 (18 979)	27,446 (12 449)	34,567 (15 679)	21,518 (9760)	28,858 (13 090)	17,333 (7862)
-15 ft. (-4.6 m)	58,098 (26 353)	53,965 (24 478)	49,585 (22 491)	36,964 (16 767)	40,768 (18 492)	27,519 (12 482)	33,864 (15 360)	21,512 (9758)	28,332 (12 851)	17,372 (7880)
-20 ft. (-6.1 m)	55,718 (25 273)	54,872 (24 890)	46,257 (20 982)	37,603 (17 056)	38,361 (17 400)	27,949 (12 677)	31,815 (14 431)	21,867 (9919)	25,844 (11 723)	17,838 (8091)
-25 ft. (-7.6 m)	49,005 (22 228)	49,005 (22 228)	41,033 (18 612)	38,654 (17 533)	34,003 (15 424)	28,813 (13 069)	27,367 (12 413)	22,748 (10 318)		
-30 ft. (-9.1 m)	38,894 (17 642)	38,894 (17 642)	32,532 (14 756)	32,532 (14 756)	25,583 (11 604)	25,583 (11 604)				

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. Capacities are SAE heaped ratings with side cutters.

Type Bucket	Bucket Width		Bucket Capacity		Weight		Bucket Dig Force		Arm Dig Force 12 ft. 2 in. (3.7 m)		Arm Dig Force 14 ft. 5 in. (4.4 m)		Arm Dig Force 17 ft. 9 in. (5.4 m)		ME Arm Dig Force 9 ft. 8 in. (2.95 m)		Bucket Tip Radius		No. Teeth
	in.	mm	cu. yd.	m³	lb.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	kN	lb.	kN	in.	mm	
Heavy-Duty	36	914	2.7	2.09	6,100	2767	80,699	359	70,808	315	62,272	277					95.53	2426	3
High Capacity	42	1067	3.3	2.55	6,552	2972	80,699	359	70,808	315	61,727	275					95.53	2426	4
	48	1219	3.9	3.02	7,004	3177	80,699	359	70,808	315	62,272	277					95.53	2426	4
	54	1372	4.6	3.49	7,844	3558	80,699	359	70,808	315	62,272	277					95.53	2426	5
	60	1524	5.2	3.98	7,875	3572	80,699	359	70,808	315	62,272	277					95.53	2426	5
	72	1829	6.5	4.96	8,346	3786	80,699	359	70,808	315	61,727	275					95.53	2426	6
	80	2032	7.4	5.63	9,963	4519	80,699	359	70,808	315	61,727	275					95.53	2426	6
High-Capacity Dirt	90	2286	7.6	5.81	9,471	4296	92,388	411						84,970	378		90.66	2303	7
Heavy Duty	36	914	2.0	1.51	5,534	2510	64,964	289					53,724	239			83.19	2113	3
	42	1067	2.4	1.86	6,087	2761	64,964	289					53,724	239			83.19	2113	4
	48	1219	2.9	2.22	6,471	2935	64,964	289					53,724	239			83.19	2113	4
	54	1372	3.4	2.58	6,814	3091	64,964	289					53,724	239			83.19	2113	5
	60	1524	3.9	2.95	7,125	3232	64,964	289					53,724	239			83.19	2113	5
Truck Loading	84	2134	5.5	4.21	7,242	3285	92,653	412	73,959	329	64,181	285					85.22	2165	6
	92	2337	6.0	4.63	7,932	3598	92,653	412	73,959	329	64,181	285					85.22	2165	8



* 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.

650D LC / 850D LC EXCAVATORS

Key: ● Standard equipment ▲ Optional or special equipment

See your John Deere dealer for further information.

650D 850D Engine

- Certified to EPA Tier 3 emissions
- Auto-idle system
- Batteries (two 12 volt), 280-min. reserve capacity
- Coolant recovery tank
- Dual-element dry-type air filter
- Electronic engine control
- Enclosed fan guard (conforms to SAE J1308)
- Engine coolant to -34°F (-37°C)
- Fuel filter with water separator
- Full-flow oil filter
- Turbocharger with charge air cooler
- Muffler, under hood, with vertical curved end exhaust stack
- Cool-on-demand hydraulic-driven fan
- Glow-plug start aid
- 500-hour engine-oil-change interval
- 70% (35 deg.) off-level capability
- ▲ Engine-oil-sampling valve
- Hydraulic fan reverser

Hydraulic System

- Reduced-drift valve for boom down, arm in
- Auxiliary hydraulic valve section
- Spring-applied, hydraulically released automatic swing brake
- Auxiliary hydraulic-flow adjustments through monitor
- Auto power lift
- 4,000-hour hydraulic-oil-change interval
- ▲ Hydraulic-oil-sampling valve
- ▲ Auxiliary hydraulic lines
- ▲ Auxiliary pilot and electric controls
- ▲ Hydraulic filter restriction indicator kit
- ▲ Load-lowering control device
- ▲ Single-pedal propel control
- ▲ Pattern changer

Undercarriage

- Planetary drive with axial piston motors
- Propel motor shields
- Spring-applied, hydraulically released automatic propel brake
- Track guides, front idler and center
- Two-speed propel
- Upper carrier rollers (3)
- Sealed and lubricated track chain
- ▲ Double-bar grouser shoes, 24 in. (600 mm)
- ▲ Double-bar grouser shoes, 26 in. (650 mm)
- ▲ Double-bar grouser shoes, 30 in. (750 mm)
- ▲ Double-bar grouser shoes, 36 in. (900 mm)
- ▲ Double-bar grouser shoes, 40 in. (1020 mm)

650D 850D Upperstructure

- ▲ Counterweight-removal system
- Right- and left-hand mirrors
- Vandal locks with ignition key: Cab door / Fuel cap / Service doors / Toolbox
- Debris-screening side panel
- Service platform, left side
- Remote-mounted engine oil and fuel filters

Front Attachments

- Centralized lubrication system
- Dirt seals on all bucket pins
- Lubricator with hose reel and grease gun
- No-boom-arm option
- ▲ Boom, 25 ft. 7 in. (7.8 m)
- ▲ Boom, 27 ft. 1 in. (8.25 m)
- ▲ Boom, mass excavating, 21 ft. 8 in. (6.6 m)
- ▲ Boom, mass excavating, 23 ft. 4 in. (7.1 m)
- ▲ Boom, reach, 32 ft. 10 in. (10.0 m)
- ▲ Arm, mass excavating, 9 ft. 6 in. (2.9 m)
- ▲ Arm, mass excavating, 9 ft. 8 in. (2.95 m)
- ▲ Arm, 11 ft. 10 in. (3.6 m)
- ▲ Arm, 12 ft. 2 in. (3.7 m)
- ▲ Arm, 13 ft. 9 in. (4.2 m)
- ▲ Arm, 14 ft. 5 in. (4.4 m)
- ▲ Arm, 17 ft. 5 in. (5.3 m)
- ▲ Arm, 17 ft. 9 in. (5.4 m)
- ▲ Attachment quick-couplers
- ▲ Boom cylinder with plumbing to mainframe for no-boom-arm option
- ▲ Buckets: Ditching / Heavy duty / Heavy-duty high capacity / Severe-duty plate lip / Side cutters and teeth
- ▲ Buckets: General purpose / General-purpose high capacity / Severe-duty cast lip
- ▲ Material clamps
- ▲ Super-long fronts

Operator's Station

- Adjustable independent control positions (levers-to-seat, seat-to-pedals)
- AM/FM radio
- Auto climate control/air conditioner, 20,000 Btu/hr. (5.9 kW) 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 air-suspension heated cloth seat with 4-in. (100 mm) adjustable armrests
- Floor mat
- Front windshield wiper with intermittent speeds
- Gauges (illuminated): Engine coolant / Fuel
- Horn, electric

650D 850D Operator's Station (continued)

- Hourmeter, electric
- Hydraulic shut-off lever, all controls
- Hydraulic warm-up control
- Interior light
- Large cup holder
- Machine Information Center (MIC)
- Mode selectors (illuminated): Power modes – three / Travel modes – two / Work mode – one / Boom mode
- Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / Theft-deterrent system / System monitoring with alarm features: Auto-idle, 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
- Fluid-level switch and indicator light for engine coolant and engine oil
- ▲ Monitor system with alarm features: Hydraulic oil filter restriction indicator light
- Motion alarm with cancel switch (conforms to SAE J994)
- Power-boost switch on right console lever
- Propel pedals and levers
- SAE two-lever control pattern
- Seat belt, 2 in. (51 mm), retractable
- ▲ Seat belt, 3 in. (76 mm), non-retractable
- Tinted glass
- Transparent tinted overhead hatch
- Hot/cold beverage compartment
- ▲ 24- to 12-volt D.C. radio converters, 10 amp
- ▲ Circulation fan
- ▲ Protection screens for cab front, rear, and side
- ▲ Window vandal protection covers

Electrical

- 50-amp alternator
- Blade-type multi-fused circuits
- Positive terminal battery covers
- JDLink™ Ultimate wireless communication system with 3 years of service
- ▲ Cab extension wiring harness

Lights

- Work lights: Halogen / One mounted on frame
- Work lights: One mounted on boom
- Work lights: Two mounted on boom / Two mounted on cab

CONTROL OWNING 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

DKAX650850 Litho in U.S.A. (08-11)

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO9249. No derating is required up to 10,000-ft. (3050 m) 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 a unit with 54-in. (1370 mm) bucket, 36-in. (900 mm) triple semi-grouser shoes, full fuel tank, and 175-lb. (79 kg) operator; a 650D unit with 24,471-lb. (11 100 kg) counterweight; and an 850D unit with 29,321-lb. (13 300 kg) counterweight.

