

870 P

Excavator



JOHN DEERE



A large John Deere excavator is shown in a construction or mining environment. The excavator's arm, with the "DEERE" logo, is extended over a pile of dirt and rocks. In the background, there are snow-capped mountains and a forest of bare trees. A small wooden structure is visible on the left side of the image.

DEERE

EXPECT BIG THINGS

When the task demands serious muscle to get things done, get a John Deere 870 P-Tier Excavator. The highly productive hydraulic flow matched with its EPA Final Tier 4 (FT4)/EU Stage IV diesel speeds work cycles to move more material on a gallon of fuel than previous models. And a standard camera array with LED-surround lighting lets you see your work in a whole new way. These are just a few of the customer-inspired ways this mighty machine goes big and beyond for your operation.

870 P-TIER EXCAVATOR

FEATURES



AUTO-IDLE & AUTO SHUTDOWN HELP
CONSERVE FUEL



Seeing is believing

Standard camera array with LED-surround lighting integrated into the main monitor work together to supplement 270-degree visibility of the area around the machine.

Fuel savers

Auto-idle automatically reduces engine speed when hydraulics aren't in use. Auto shutdown further preserves precious fuel.

Balanced performance

Powerwise Plus™ perfectly balances engine performance and hydraulic flow for predictable operation. Three productivity modes allow you to choose the digging style that fits the job. **High productivity** delivers more power and faster hydraulic response to move more material. **Power** provides smooth and balanced metering for normal operation. **Economy** reduces engine rpm and helps save fuel.

The power of choice

Choose from a variety of track widths, boom and arm lengths, and other productivity-boosting options.

Precision mechanics

Short-throw low-effort pilot controls, unmatched metering, and smooth multifunction operation give you the precision you need for work that requires extra finesse.

Take control

Multi-language LCD monitor and rotary dial provide intuitive access to machine information and functions. Ergonomically correct short-throw pilot levers provide smooth, predictable fingertip control with less movement or effort.

It hardly seems like work

With a wide expanse of front, side, and overhead glass and mirrors, visibility to the sides and rear is virtually unobstructed. Automatic, high-velocity, bi-level climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable. Sculpted and heated air-suspension high-back seat with 12.5 inches of travel slides with or independent of the joystick console.

Dig in

Exceptional swing torque, lift capacity, and arm and bucket digging forces provide generous muscle for mass excavating or hot truck loading. When conditions call for a little extra, simply press the power-boost button on the right-hand control and muscle through.

No need to think about it

Highly efficient, hydraulically driven fans run only as fast as needed, reducing noise, fuel consumption, and operating costs. Reversing feature back-blows cooler cores to keep them clean at the touch of a button. Strutted links and large idlers and rollers help the sealed and lubricated heavy-duty undercarriage deliver long and reliable performance.



PRESS POWER BOOST FOR
MORE MUSCLE



870 P-TIER EXCAVATOR



Tough enough

Three welded bulkheads within the boom resist torsional stress for unsurpassed durability. Booms, arms, and mainframe are so tough, they're warranted for three years or 10,000 hours. Thick-plate single-sheet mainframe, box-section track frames, and double-seal swing bearing deliver rock-solid durability.

Precision Construction

This suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. In-base JDLink™ connectivity provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. To maximize uptime and lower costs, JDLink also enables **John Deere Connected Support™**. Dealers use Expert Alerts based on data from thousands of connected machines to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.*

*Availability varies by region. Options not available in every country.



870 P-TIER EXCAVATOR SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		870 P-TIER	
Manufacturer and Model		Isuzu 6WG1-FT4	
Non-Road Emission Standard		EPA Final Tier 4/EU Stage IV	
Net Peak Power (ISO 9249)		382 kW (512 hp) at 1,800 rpm	
Cylinders		6	
Displacement		15.7 L (957 cu. in.)	
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			
Powertrain			
2-speed propel with AutoShift			
Maximum Travel Speed			
Low		3.2 km/h (2.0 mph)	
High		4.7 km/h (2.9 mph)	
Drawbar Pull		57 085 kg (125,850 lb.)	
Hydraulics			
Open center, load sensing; in-cab mode selectors, illuminated: power modes (3), travel modes (2), and work modes (2)			
Main Pumps		2 variable-displacement pumps	
Maximum Rated Flow		566 L/m (150 gpm) x 2	
Pilot Pump		1 gear	
Maximum Rated Flow		30 L/m (7.9 gpm)	
Pressure Setting		3900 kPa (566 psi)	
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			
	Bore	Rod Diameter	Stroke
Boom (2)	215 mm (8.5 in.)	150 mm (5.9 in.)	1835 mm (72.2 in.)
Arm (1)	225 mm (8.9 in.)	160 mm (6.3 in.)	2225 mm (87.6 in.)
Bucket (1)	200 mm (7.9 in.)	140 mm (5.5 in.)	1555 mm (61.2 in.)
Electrical			
Number of Batteries (12 volt)		2	
Battery Capacity		500 CCA	
Alternator Rating		50 amp	
Work Lights		5 halogen (1 mounted on frame, 2 mounted on boom, and 2 mounted on top of cab)	
Undercarriage			
Planetary final drives with axial-piston motors			
Rollers (each side)		Track	
Carrier		3	
Track		9	
Shoes, Double-Bar Grousers (each side)		51	
Ground Pressure			
With 900-mm (36 in.) Double-Bar Grouser Shoes		84.8 kPa (12.0 psi)	
Swing Mechanism			
Speed		7.8 rpm	
Torque		269 000 Nm (198,404 lb.-ft.)	
Serviceability			
Refill Capacities		Refill Capacities (continued)	
Fuel Tank		1110 L (293 gal.)	
Cooling System		124 L (32.8 gal.)	
Engine Oil With Filter		57 L (15.1 gal.)	
Hydraulic Tank		500 L (132.1 gal.)	
Hydraulic System		1042 L (275.3 gal.)	
		Gearbox	
		Swing (each)	
		Travel (each)	
		Pump Drive	
		Diesel Exhaust Fluid (DEF) Tank	

870 P-TIER EXCAVATOR SPECIFICATIONS

870

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Operating Weights 870 P-TIER

With full fuel tank; 79-kg (175 lb.) operator; 3.49-m³ (4.57 cu. yd.), 1370-mm (54 in.), 3558-kg (7,845 lb.) bucket; 4.4-m (14 ft. 5 in.) arm; 12 400-kg (27,337 lb.) counterweight; counterweight-removal device; and 900-mm (36 in.) double-bar grouser shoes

SAE Operating Weight 85 600 kg (188,716 lb.)

Component Weights

Undercarriage With 900 mm (36 in.) 33 966 kg (74,882 lb.)

Double-Bar Grouser Shoes

1-Piece Boom (with arm cylinder)

8.4 m (27 ft. 7 in.) 8190 kg (18,056 lb.)

10.0 m (32 ft. 10 in.) 9390 kg (20,701 lb.)

7.1-m (23 ft. 4 in.) Mass Excavating

(ME) Boom (with arm cylinder) 7670 kg (16,909 lb.)

Component Weights (continued)

Arm With Bucket Cylinder and Linkage

3.7 m (12 ft. 1 in.) 4290 kg (9,458 lb.)

4.4 m (14 ft. 5 in.) 4630 kg (10,207 lb.)

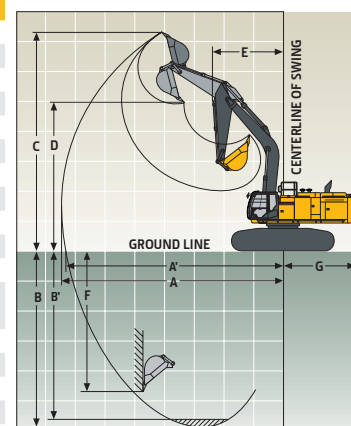
2.95-m (9 ft. 8 in.) ME 4620 kg (10,185 lb.)

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

Weight

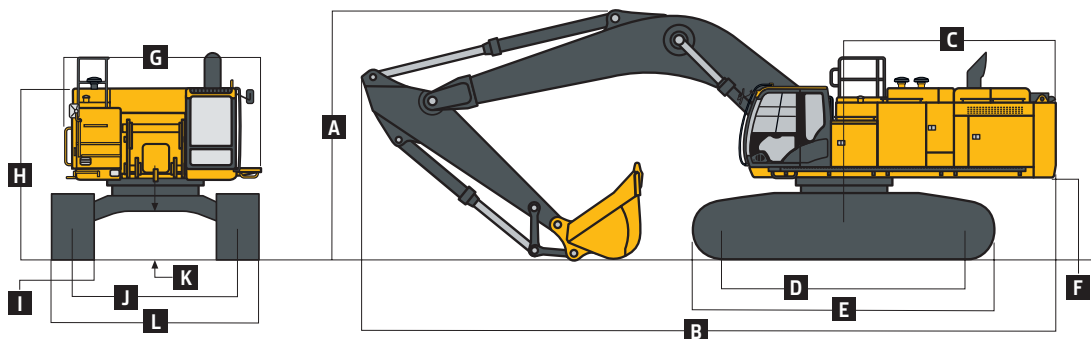
Operating Dimensions

Boom Length	8.4 m (27 ft. 7 in.)	8.4 m (27 ft. 7 in.)	7.1-m (23 ft. 4 in.) ME	10.0 m (32 ft. 10 in.)
Arm Length	3.7 m (12 ft. 2 in.)	4.4 m (14 ft. 5 in.)	2.95-m (9 ft. 8 in.) ME	4.4 m (14 ft. 5 in.)
Arm Digging Force				
SAE	315 kN (70,815 lb.)	273 kN (61,373 lb.)	378 kN (84,978 lb.)	273 kN (61,373 lb.)
ISO	323 kN (72,613 lb.)	280 kN (62,946 lb.)	394 kN (88,575 lb.)	280 kN (62,946 lb.)
Bucket Digging Force				
SAE	359 kN (80,706 lb.)	359 kN (80,706 lb.)	411 kN (92,396 lb.)	359 kN (80,706 lb.)
ISO	399 kN (89,699 lb.)	399 kN (89,699 lb.)	472 kN (106,110 lb.)	399 kN (89,699 lb.)
A Maximum Reach	14.10 m (46 ft. 3 in.)	14.91 m (48 ft. 11 in.)	12.34 m (40 ft. 6 in.)	16.55 m (54 ft. 4 in.)
A' Maximum Reach at Ground Level	13.82 m (45 ft. 4 in.)	14.64 m (48 ft. 0 in.)	12.02 m (39 ft. 5 in.)	16.32 m (53 ft. 7 in.)
B Maximum Digging Depth	8.87 m (29 ft. 1 in.)	9.57 m (31 ft. 5 in.)	7.14 m (23 ft. 5 in.)	11.16 m (36 ft. 7 in.)
B' Maximum Digging Depth at 2.44-m (8 ft. 0 in.) Flat Bottom	8.74 m (28 ft. 8 in.)	9.46 m (31 ft. 0 in.)	7.00 m (23 ft. 0 in.)	11.04 m (36 ft. 3 in.)
C Maximum Cutting Height	13.03 m (42 ft. 9 in.)	13.82 m (45 ft. 4 in.)	12.01 m (39 ft. 5 in.)	14.66 m (48 ft. 1 in.)
D Maximum Dumping Height	9.08 m (29 ft. 9 in.)	9.74 m (31 ft. 11 in.)	8.13 m (26 ft. 8 in.)	10.81 m (35 ft. 6 in.)
E Minimum Swing Radius	5.95 m (19 ft. 6 in.)	5.95 m (19 ft. 6 in.)	5.21 m (17 ft. 1 in.)	7.35 m (24 ft. 1 in.)
F Maximum Vertical Wall	7.17 m (23 ft. 6 in.)	8.48 m (27 ft. 10 in.)	4.10 m (13 ft. 5 in.)	9.87 m (32 ft. 5 in.)
G Tail-Swing Radius	4.60 m (15 ft. 1 in.)	4.60 m (15 ft. 1 in.)	4.60 m (15 ft. 1 in.)	4.60 m (15 ft. 1 in.)



Machine Dimensions

Arm Length	3.7 m (12 ft. 2 in.)	4.4 m (14 ft. 5 in.)	2.95-m (9 ft. 8 in.) ME With 7.1-m (23 ft. 4 in.) ME Boom
A Overall Height With Arm	4.77 m (15 ft. 8 in.)	5.13 m (16 ft. 10 in.)	5.20 m (17 ft. 1 in.)
B Overall Length With Arm	14.80 m (48 ft. 7 in.)	14.80 m (48 ft. 7 in.)	13.55 m (44 ft. 5 in.)
C Rear-End Length/Tail-Swing Radius	4.54 m (14 ft. 11 in.)	4.54 m (14 ft. 11 in.)	4.54 m (14 ft. 11 in.)
D Distance Between Idler/Sprocket Centerline	5.11 m (16 ft. 9 in.)	5.11 m (16 ft. 9 in.)	5.11 m (16 ft. 9 in.)
E Undercarriage Length	6.36 m (20 ft. 10 in.)	6.36 m (20 ft. 10 in.)	6.36 m (20 ft. 10 in.)
F Counterweight Clearance	1.68 m (5 ft. 6 in.)	1.68 m (5 ft. 6 in.)	1.68 m (5 ft. 6 in.)
G Upperstructure Width	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)	4.12 m (13 ft. 6 in.)
H Cab Height	3.69 m (12 ft. 1 in.)	3.69 m (12 ft. 1 in.)	3.69 m (12 ft. 1 in.)
I Track Width With Double-Bar Grouser Shoes	900 mm (36 in.)	900 mm (36 in.)	900 mm (36 in.)
J Track Gauge With 900-mm (36 in.) Double-Bar Grouser Shoes			
Operating Position	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
Transport Position	2.83 m (9 ft. 3 in.)	2.83 m (9 ft. 3 in.)	2.83 m (9 ft. 3 in.)
K Ground Clearance	0.89 m (35 in.)	0.89 m (35 in.)	0.89 m (35 in.)
L Width Over Track With 900-mm (36 in.) Double-Bar Grouser Shoes			
Operating Position	4.35 m (14 ft. 3 in.)	4.35 m (14 ft. 3 in.)	4.35 m (14 ft. 3 in.)
Transport Position	3.73 m (12 ft. 3 in.)	3.73 m (12 ft. 3 in.)	3.73 m (12 ft. 3 in.)

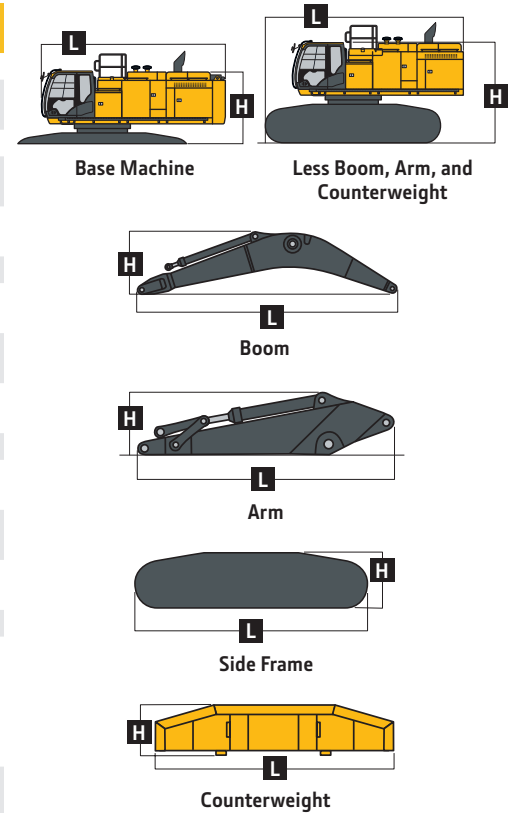


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Packing Dimensions and Weights for Transportation				
	870 P-TIER			
	Length (L at right)	Height (H at right)	Overall Width	Weight
Base Machine (without front attachment and side frame)*	6.50 m (21 ft. 4 in.)	2.96 m (9 ft. 9 in.)	3.42 m (11 ft. 3 in.)	29 000 kg (63,934 lb.)
Side Frame (each)				
With 900-mm (36 in.) Shoes	6.36 m (20 ft. 10 in.)	1.50 m (4 ft. 11 in.)	1.42 m (4 ft. 8 in.)	13 100 kg (28,881 lb.)
Counterweight, Standard	3.36 m (11 ft. 0 in.)	1.62 m (5 ft. 4 in.)	0.72 m (28 in.)	13 333 kg (29,394 lb.)
Boom				
7.1 m (23 ft. 4 in.)	7.49 m (24 ft. 7 in.)	2.70 m (8 ft. 10 in.)	1.45 m (4 ft. 9 in.)	7670 kg (16,909 lb.)
8.4 m (27 ft. 7 in.)	8.78 m (28 ft. 10 in.)	2.50 m (8 ft. 2 in.)	1.45 m (4 ft. 9 in.)	8190 kg (18,056 lb.)
10.0 m (32 ft. 10 in.)	10.37 m (34 ft. 0 in.)	2.70 m (8 ft. 10 in.)	1.45 m (4 ft. 9 in.)	9390 kg (20,701 lb.)
Arm				
2.95 m (9 ft. 8 in.)	4.46 m (14 ft. 8 in.)	1.66 m (5 ft. 5 in.)	0.85 m (33 in.)	4620 kg (10,185 lb.)
3.7 m (12 ft. 2 in.)	5.29 m (17 ft. 4 in.)	1.42 m (4 ft. 8 in.)	0.82 m (32 in.)	4290 kg (9,458 lb.)
4.4 m (14 ft. 5 in.)	5.88 m (19 ft. 3 in.)	1.42 m (4 ft. 8 in.)	0.82 m (32 in.)	4630 kg (10,207 lb.)
Base Machine (without front attachment)*				
With 900-mm (36 in.) Shoes	7.53 m (24 ft. 8 in.)	3.89 m (12 ft. 9 in.) / 3.86 m (12 ft. 8 in.) w/o exhaust stack	3.73 m (12 ft. 3 in.)	55 000 kg (121,254 lb.)

*Steps on the track frame and side hydraulic oil tank plus handrails on the upper battery box, upper fuel tank, and side hydraulic oil tank must be removed.



Lift Capacities

Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). Machine equipped with 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 ISO 10567 (with power boost).

HORIZONTAL DISTANCE FROM CENTERLINE OF ROTATION														
LOAD POINT HEIGHT	3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)		9.0 m (30 ft.)		10.5 m (35 ft.)		12.0 m (40 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 8.4-m (27 ft. 7 in.) boom, 3.7-m (12 ft. 2 in.) arm, and 900-mm (36 in.) double-bar grouser shoes, less bucket														
9.0 m (30 ft.)									16 340 (35,920)	16 340 (35,920)				
7.5 m (25 ft.)									17 020 (37,120)	17 020 (37,120)	15 360 (30,180)	14 800 (30,180)		
6.0 m (20 ft.)					25 080 (53,870)	25 080 (53,870)	20 720 (44,810)	20 720 (44,810)	18 230 (39,620)	18 230 (39,620)	16 730 (36,550)	14 530 (31,280)		
4.5 m (15 ft.)					29 830 (64,030)	29 830 (64,030)	23 280 (50,260)	23 280 (50,260)	19 710 (42,740)	17 840 (38,500)	17 540 (38,190)	14 160 (30,500)		
3.0 m (10 ft.)					33 730 (72,620)	30 270 (65,390)	25 630 (55,380)	22 190 (47,930)	21 160 (45,850)	17 180 (37,080)	16 010 (34,700)	13 760 (29,660)		
1.5 m (5 ft.)					28 830 (69,330)	28 770 (62,970)	27 300 (59,070)	21 380 (46,140)	22 300 (48,320)	16 630 (35,890)	19 070 (41,400)	13 410 (28,920)		
Ground					32 970 (69,330)	26 980 (59,070)	28 060 (59,070)	20 890 (46,140)	22 930 (48,320)	16 260 (35,890)	19 400 (41,400)	13 160 (28,920)		
Line					(53,870)	(61,950)	(60,790)	(45,050)	(49,680)	(35,070)	(42,050)	(28,400)		
-1.5 m (-5 ft.)			21 760 (49,770)	21 760 (49,770)	34 970 (75,890)	34 970 (75,890)	27 880 (60,430)	20 680 (44,590)	22 870 (49,520)	16 070 (34,680)	19 140 (41,330)	13 060 (28,200)		
-3.0 m (-10 ft.)	23 870 (53,800)	23 870 (53,800)	33 440 (76,230)	33 440 (76,230)	32 980 (71,540)	28 870 (62,130)	26 690 (57,790)	20 720 (44,680)	21 910 (47,300)	16 090 (34,730)				
-4.5 m (-15 ft.)			36 510 (79,120)	36 510 (79,120)	26 690 (64,180)	29 290 (63,060)	24 190 (52,110)	21 000 (45,320)	19 440 (41,390)	16 370 (35,420)				
-6.0 m (-20 ft.)			29 530 (63,300)	29 530 (63,300)	24 300 (51,890)	24 300 (51,890)	19 290 (40,520)	19 290 (40,520)						

Lift Capacities (continued)

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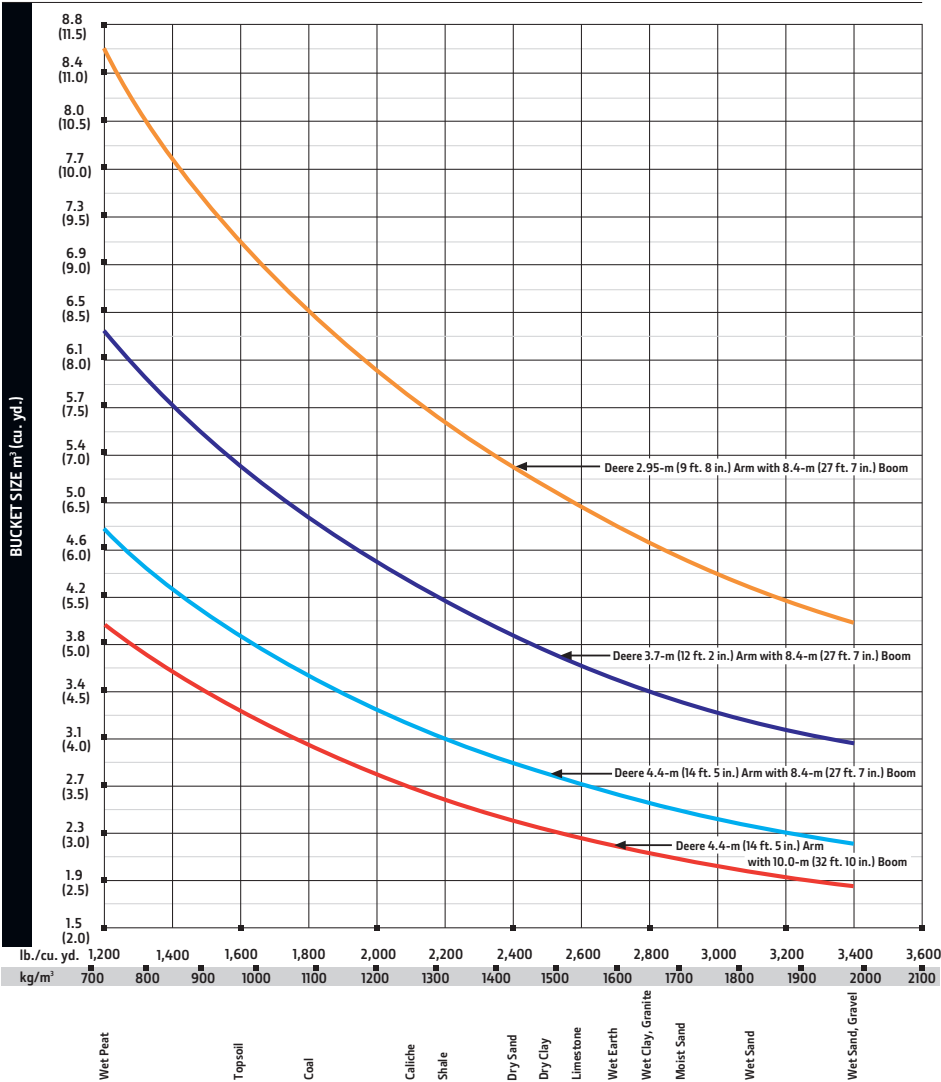
Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). Machine equipped with standard gauge and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine. All lift capacities are based on ISO 10567 (with power boost).

		HORIZONTAL DISTANCE FROM CENTERLINE OF ROTATION													
		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)		9.0 m (30 ft.)		10.5 m (35 ft.)		12.0 m (40 ft.)	
LOAD POINT	HEIGHT	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 8.4-m (27 ft. 7 in.) boom, 4.4-m (14 ft. 5 in.) arm, and 900-mm (36 in.) double-bar grouser shoes, less bucket															
9.0 m (30 ft.)										(32,290)	(32,290)	(24,390)	(24,390)		
7.5 m (25 ft.)										15 670 (34,180)	15 670 (34,180)	14 690 (31,160)	14 690 (31,160)		
6.0 m (20 ft.)							19 050 (41,210)	19 050 (41,210)	16 970 (36,870)	16 970 (36,870)	15 650 (34,160)	14 640 (31,510)	11 370 (21,130)	11 370 (21,130)	
4.5 m (15 ft.)						27 260 (58,560)	27 260 (58,560)	21 690 (46,850)	21 690 (46,850)	18 540 (40,210)	17 980 (38,770)	16 580 (36,090)	14 200 (30,600)	13 930 (27,770)	11 460 (24,630)
3.0 m (10 ft.)						31 600 (68,030)	30 790 (66,490)	24 250 (52,400)	22 390 (48,340)	20 130 (43,640)	17 240 (37,190)	17 560 (38,160)	13 740 (29,620)	15 840 (31,840)	11 200 (24,110)
1.5 m (5 ft.)						32 080 (74,310)	29 340 (63,280)	26 270 (56,830)	21 420 (46,220)	19 360 (41,870)	16 600 (35,810)	18 420 (39,980)	13 330 (28,740)	16 290 (33,630)	10 960 (23,600)
Ground Line						31 870 (74,870)	28 600 (61,600)	27 460 (59,460)	20 770 (44,800)	22 380 (48,510)	16 130 (34,790)	18 980 (41,160)	13 020 (28,070)	16 160 (30,710)	10 780 (23,250)
-1.5 m (-5 ft.)				19 200 (43,840)	19 200 (43,840)	35 270 (76,460)	28 320 (60,960)	27 740 (60,100)	20 430 (44,050)	22 670 (49,100)	15 850 (34,190)	19 060 (41,260)	12 830 (27,680)		
-3.0 m (-10 ft.)	19 330 (43,600)	19 330 (43,600)	27 850 (63,450)	27 850 (63,450)	33 890 (73,460)	28 360 (57,450)	27 060 (58,590)	20 360 (43,890)	22 170 (47,950)	20 360 (43,890)	15 770 (34,030)	18 390 (39,580)	12 810 (27,680)		
-4.5 m (-15 ft.)	28 260 (63,870)	28 260 (63,870)	39 180 (85,850)	39 180 (85,850)	29 280 (63,220)	28 660 (61,710)	25 240 (54,480)	20 530 (44,270)	20 570 (44,190)	15 920 (34,380)					
-6.0 m (-20 ft.)			33 610 (72,270)	33 610 (72,270)	26 970 (57,880)	26 970 (57,880)	21 710 (46,330)	20 980 (45,340)	16 690 (36,330)	16 420 (36,330)					
With 7.1-m (23 ft. 4 in.) ME boom, 2.95-m (9 ft. 8 in.) ME arm, and 900-mm (36 in.) double-bar grouser shoes, less bucket															
7.5 m (25 ft.)								21 750 (47,580)	21 750 (47,580)						
6.0 m (20 ft.)						26 920 (58,150)	26 920 (58,150)	23 190 (50,420)	23 190 (50,420)	21 180 (46,380)	18 690 (40,190)				
4.5 m (15 ft.)						31 060 (66,960)	31 060 (66,960)	25 250 (54,730)	24 060 (51,900)	22 050 (48,030)	18 230 (39,270)				
3.0 m (10 ft.)						34 780 (75,070)	31 880 (68,790)	27 280 (59,100)	23 070 (49,780)	23 060 (50,100)	17 690 (38,140)				
1.5 m (5 ft.)						36 830 (79,700)	30 640 (66,050)	28 690 (62,150)	22 270 (48,050)	23 750 (51,520)	17 220 (37,130)				
Ground Line						36 950 (80,120)	30 010 (64,620)	29 040 (62,920)	21 760 (46,930)	23 690 (51,270)	16 900 (36,460)				
-1.5 m (-5 ft.)			42 190 (97,220)	42 190 (97,220)	35 310 (76,570)	29 820 (64,180)	28 000 (60,580)	21 550 (46,480)	22 140 (46,480)	16 830 (36,480)					
-3.0 m (-10 ft.)	41 770 (94,710)	41 770 (94,710)	39 770 (86,290)	39 770 (86,290)	31 640 (68,380)	30 000 (64,590)	24 830 (53,200)	21 700 (46,850)							
-4.5 m (-15 ft.)			30 980 (66,410)	30 980 (66,410)	24 440 (51,760)	24 440 (51,760)									

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Bucket Selection Guide* 870 P-TIER



* Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted materials, and volume loading applications such as mass excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications, rocks, and uneven surfaces. Bucket capacity indicated is SAE heaped.

Additional equipment

Key: ● Standard ▲ Optional or special
See your John Deere dealer for further information.

870 P Engine

- Auto-idle system
- Automatic belt-tension device
- Batteries (2 – 12 volt)
- Coolant recovery tank
- Dual-element dry-type air filter
- Electronic engine control
- Enclosed fan guard (conforms to SAE J1308)
- Engine coolant to –37 deg. C (–34 deg. F)
- Engine oil-sampling valve
- Programmable auto shutdown
- Fuel filter with water separator
- Full-flow oil filter
- Turbocharger with charge air cooler
- Underhood selective catalytic reduction (SCR) aftertreatment device less diesel particulate filter (DPF)
- Cool-on-demand hydraulic-driven fan
- Glow-plug start aid
- 500-hour engine-oil-change interval
- 70% (35 deg.) off-level capability
- 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 pilot and electric controls
- ▲ 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
- 2-speed propel with AutoShift
- Upper carrier rollers (3)
- Sealed and lubricated track chain
- Double-bar grouser shoes, 900 mm (36 in.)

870 P Upperstructure

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

Front Attachments

- Centralized lubrication system
- Dirt seals on all bucket pins
- Lubricator with hose reel and grease gun
- No-boom-arm option
- ▲ Boom, 8.4 m (27 ft. 7 in.)
- ▲ Boom, mass excavating (ME), 7.1 m (23 ft. 4 in.)
- ▲ Boom, reach, 10.0 m (32 ft. 10 in.)
- ▲ Arm, 3.7 m (12 ft. 2 in.)
- ▲ Arm, 4.4 m (14 ft. 5 in.)
- ▲ Arm, ME, 2.95 m (9 ft. 8 in.)
- ▲ Boom cylinder with plumbing to mainframe for no-boom-arm option

Operator's Station

- Adjustable independent-control positions (levers-to-seat, seat-to-pedals)
- AM/FM radio
- Auto climate control/air conditioner/heater/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 100-mm (4 in.) adjustable armrests
- Floor mat
- Front windshield wiper with intermittent speeds
- Gauges (illuminated): Diesel Exhaust Fluid (DEF) / Engine coolant / Fuel
- Horn, electric
- Hourmeter, electric
- Hydraulic shutoff lever, all controls
- Hydraulic warm-up control
- Interior light
- Large cup holder
- Machine Information Center (MIC)

870 P Operator's Station (continued)

- Mode selectors (illuminated): Power modes (3) / Travel modes (2) / Work modes (2) / Boom mode
- Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / System monitoring with alarm features: Auto-idle indicator, engine air cleaner restriction indicator light, engine check, engine coolant temperature indicator light with audible alarm, engine oil pressure indicator light with audible alarm, low-alternator-charge indicator light, low-fuel indicator light, low DEF indication with audible alarm, 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
- Motion alarm with cancel switch (conforms to SAE J994)
- Power-boost switch on right console lever
- Propel pedals and levers
- SAE 2-lever control pattern
- Seat belt, 51 mm (2 in.), retractable
- Tinted glass
- Transparent tinted overhead hatch
- Hot/cold beverage compartment
- ▲ Monitor system with alarm features: Hydraulic oil filter restriction indicator light
- ▲ Protection screens for cab front, rear, and side
- ▲ Seat belt, 76 mm (3 in.), non-retractable
- ▲ Window vandal-protection covers

Electrical

- Right rear left 270-deg. camera system with LED surround lighting
- 50-amp alternator
- Blade-type multi-fused circuits
- Positive-terminal battery covers
- JDLink™ wireless communication system (available in specific countries; see your dealer for details)
- ▲ Cab extension wiring harness

Lights

- LED work lights

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at test conditions specified per ISO 9249. No derating is required up to 2000-m (6,560 ft.) altitude. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with 1370-mm (54 in.) bucket, 12 400-kg (27,337 lb.) counterweight, 900-mm (36 in.) double-bar grouser shoes, full fuel tank, and 79-kg (175 lb.) operator.



ME870PAJ (22-08)



JOHN DEERE