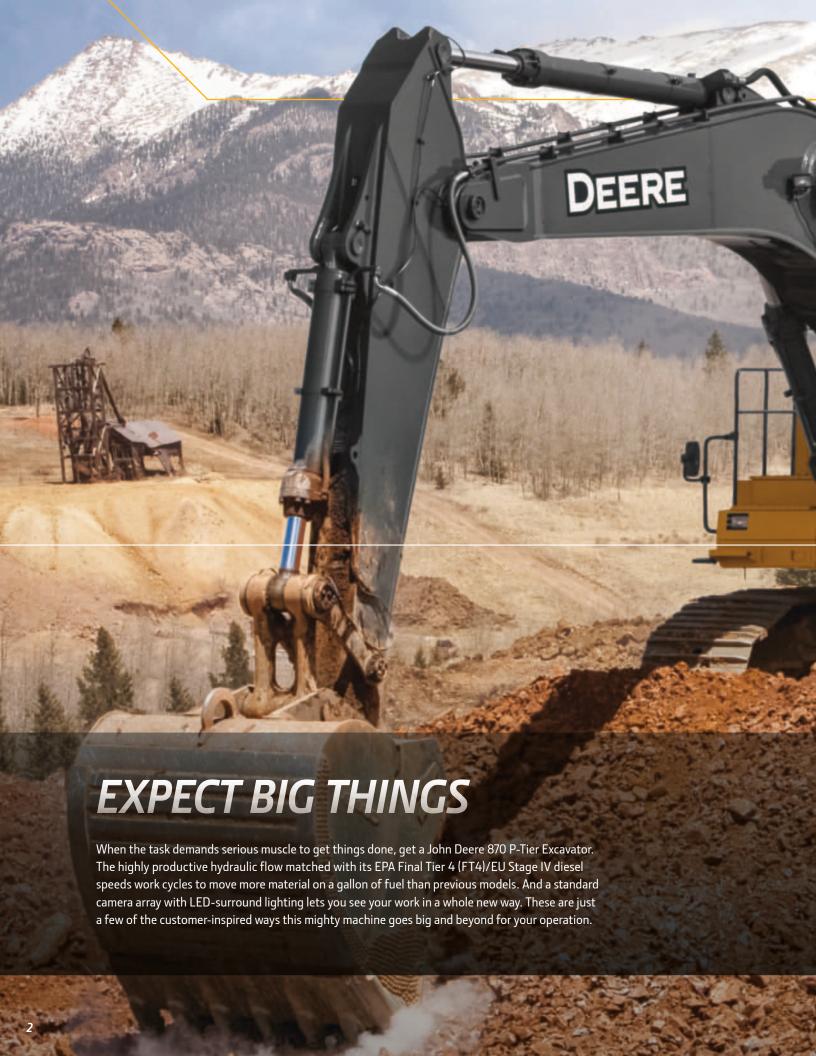


**Excavator** 











870 P-TIER EXCAVATOR

#### 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

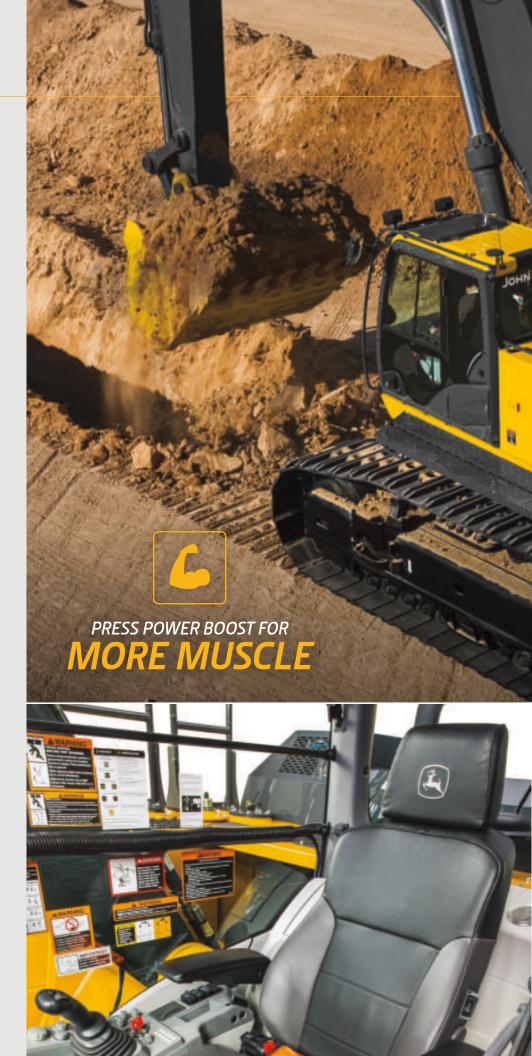
With a wide expanse of front, side, and overhead glass and mirrors, visibility to the sides and rear is virtually unobstructed. Automatic, high-velocity, bi-level climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable. Sculpted and heated air-suspension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

#### Dig in

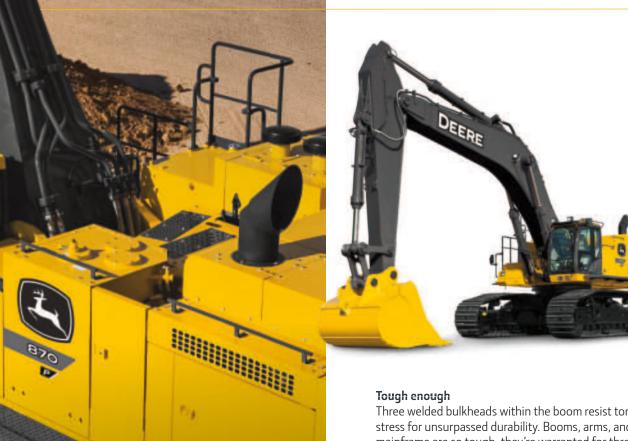
Exceptional swing torque, lift capacity, and arm and bucket digging forces provide generous muscle for mass excavating or hot truck loading. When conditions call for a little extra, simply press the power-boost button on the right-hand control and muscle through.

#### 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 backblows 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.







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 timeconsuming 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 deq.)  |  |                        |  |  |  |  |  |  |  |
| Aspiration                                  | Turbocharged, air-to-air charge-air coo  | oler   |                        |  |  |  |  |  |  |  |
| Cooling                                     | rarbochargea, an to an charge an coc   | one i  |                        |  |  |  |  |  |  |  |
| Cool-on-demand hydraulic-driven, suctio     | n type fan with remote mounted drive   |  |                        |  |  |  |  |  |  |  |
| Powertrain                                  | ni-type fair with remote-mounted drive   |  |                        |  |  |  |  |  |  |  |
| 2-speed propel with AutoShift               |  |  |                        |  |  |  |  |  |  |  |
| Maximum Travel Speed                        |  |  |                        |  |  |  |  |  |  |  |
| Low   | 3.2 km/h (2.0 mph)   |  |                        |  |  |  |  |  |  |  |
| High  |  |  |                        |  |  |  |  |  |  |  |
| <u> </u>                                    | 4.7 km/h (2.9 mph)   |  |                        |  |  |  |  |  |  |  |
| Drawbar Pull                                | 57 085 kg (125,850 lb.)  |  |                        |  |  |  |  |  |  |  |
| Hydraulics                                  | plastore illuminatod (a) .   | avel modes (2) and                           |                        |  |  |  |  |  |  |  |
| Open center, load sensing; in-cab mode so   |  |  |                        |  |  |  |  |  |  |  |
| Main Pumps                                  | 2 variable-displacement pumps  | System Operating Pressure                    | 21 000 LD // 627 :)    |  |  |  |  |  |  |  |
| Maximum Rated Flow                          | 566 L/m (150 gpm) x 2  | Implement Circuits                           | 31 900 kPa (4,627 psi) |  |  |  |  |  |  |  |
| Pilot Pump                                  | l gear   | Travel Circuits                              | 34 300 kPa (4,975 psi) |  |  |  |  |  |  |  |
| Maximum Rated Flow                          | 30 L/m (7.9 gpm)   | Swing Circuits                               | 29 400 kPa (4,264 psi) |  |  |  |  |  |  |  |
| Pressure Setting                            | 3900 kPa (566 psi)   | Power Boost                                  | 34 300 kPa (4,975 psi) |  |  |  |  |  |  |  |
| Controls                                    | Pilot levers, short stroke, low-effort hy                                      | draulic pilot controls with shutoff lever    |                        |  |  |  |  |  |  |  |
| Cylinders                                   |  |  |                        |  |  |  |  |  |  |  |
| Heat-treated, chrome-plated, polished cy    | linder rods; hardened steel (replaceable ا                                     | oushings) 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 me | otors  |  |                        |  |  |  |  |  |  |  |
| Rollers (each side)                         |  | Track  |                        |  |  |  |  |  |  |  |
| Carrier                                     | 3  | Adjustment                                   | Hydraulic              |  |  |  |  |  |  |  |
| Track                                       | 9  | Guides                                       | Front and center       |  |  |  |  |  |  |  |
| Shoes, Double-Bar Grousers (each side)      | 51   | Chain  | Sealed and lubricated  |  |  |  |  |  |  |  |
| Ground Pressure                             |  | <u>'                                    </u> |                        |  |  |  |  |  |  |  |
| With 900-mm (36 in.) Double-Bar             | 84.8 kPa (12.0 psi)  |  |                        |  |  |  |  |  |  |  |
| Grouser Shoes                               | •  |  |                        |  |  |  |  |  |  |  |
| Swing Mechanism                             |  |  |                        |  |  |  |  |  |  |  |
| Speed                                       | 7.8 rpm  |  |                        |  |  |  |  |  |  |  |
| Torque                                      | 269 000 Nm (198,404 lbft.)   |  |                        |  |  |  |  |  |  |  |
| Serviceability                              |  |  |                        |  |  |  |  |  |  |  |
| Refill Capacities                           |  | Refill Capacities (continued)                |                        |  |  |  |  |  |  |  |
| Fuel Tank                                   | 1110 L (293 gal.)  | Gearbox                                      |                        |  |  |  |  |  |  |  |
| Cooling System                              | 124 L (32.8 gal.)  | Swing (each)                                 | 15.7 L (16.6 qt.)      |  |  |  |  |  |  |  |
| Engine Oil With Filter                      | 57 L (15.1 gal.)   | Travel (each)                                | 19 L (20.1 qt.)        |  |  |  |  |  |  |  |
| Hydraulic Tank                              | 500 L (132.1 gal.)   | Pump Drive                                   | 6.2 L (6.6 qt.)        |  |  |  |  |  |  |  |
| Hydraulic System                            | 1042 L (275.3 gal.)  | Diesel Exhaust Fluid (DEF) Tank              | 95 L (25.1 gal.)       |  |  |  |  |  |  |  |
| riyaraulic System                           | 1072 L (2/3.3 gal.)  | Piezei Extianzi Linin (DEL) IqIIK            | JJ L (2).1 yal.)       |  |  |  |  |  |  |  |

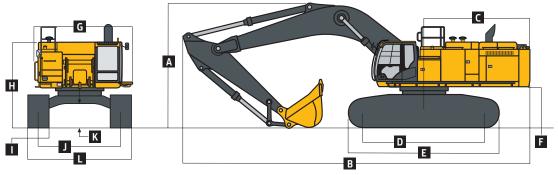
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## 870 P-TIER EXCAVATOR SPECIFICATIONS

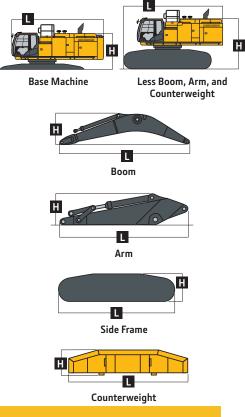


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| Operating Weights 870 P-TIER  With full fuel tank; 79-kg (175 lb.) operator; 3.49-m³ (4.57 cu. yd.), 1370-mm (54 in.), 3558-kg (7,845 lb.) bucket; 4.4-m (14 ft. 5 in.) arm; 12 400-kg (27,337 lb.) counter counterweight-removal device; and 900-mm (36 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  Component Weights (continued)  Arm With Bucket Cylinder and Linkage          |
|--|
| 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.)  Component Weights (continued)  Arm With Bucket Cylinder and   |
| SAE Operating Weight 85 600 kg (188,716 lb.)  Component Weights Undercarriage With 900 mm (36 in.) 33 966 kg (74,882 lb.)  Component Weights (continued)  Arm With Bucket Cylinder and   |
| Component Weights Undercarriage With 900 mm (36 in.) 33 966 kg (74,882 lb.)  Component Weights (continued)  Arm With Bucket Cylinder and   |
| Undercarriage With 900 mm (36 in.) 33 966 kg (74,882 lb.)  Arm With Bucket Cylinder and  |
|  |
| Double-Bar Grouser Shoes Linkage   |
| 1 Di   |
| 1-Piece Boom (with arm cylinder) 3.7 m (12 ft. 1 in.) 4290 kg (9,458 lb.)  |
| 8.4 m (27 ft. 7 in.) 8190 kg (18,056 lb.) 4.4 m (14 ft. 5 in.) 4630 kg (10,207 lb.)  |
| 10.0 m (32 ft. 10 in.) 9390 kg (20,701 lb.) 2.95-m (9 ft. 8 in.) ME 4620 kg (10,185 lb.)   |
| 7.1-m (23 ft. 4 in.) Mass Excavating 7670 kg (16,909 lb.) Boom-Lift Cylinders (2), Total 1700 kg (3,748 lb.)   |
| (ME) Boom (with arm cylinder) 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.)  |
| 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       250 kN (62,765 lb.)       250 kN (62,765 lb.)       250 kN (62,765 lb.)       250 kN (62,765 lb.) |
| SAE 359 KN (80,/06 lb.) 359 KN (80,/06 lb.) 411 KN (92,396 lb.) 359 KN (80,/06 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.)   |
| Al 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 <sup>I</sup> Maximum Digging Depth at 2.44-m 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.) 8 8 F (8 ft. 0 in.) Flat Bottom  |
| 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.)  |
| Machine Dimensions   |
| 2.95-m (9 ft. 8 in.) ME With   |
| Arm Length         3.7 m (12 ft. 2 in.)         4.4 m (14 ft. 5 in.)         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>B</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 5.11 m (16 ft. 9 in.) 5.11 m (16 ft. 9 in.) 5.11 m (16 ft. 9 in.)  |
| <b>E</b> 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 900 mm (36 in.) 900 mm (36 in.) 900 mm (36 in.)  |
| Grouser Shoes  |
| 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.)  |
| <b>K</b> 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.)   |
|  |



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



<sup>\*</sup>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).

| _              |                |            | '              |             | HORIZO     | NTAL DIST    | ANCE FRO    | M CENTER    | LINE OF RO  | DTATION  |          |          |          |         |
|----------------|----------------|------------|----------------|-------------|------------|--------------|-------------|-------------|-------------|----------|----------|----------|----------|---------|
|                | 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     | Over           | Over       | Over           | Over        | Over       | Over         | Over        | Over        | Over        | Over     | Over     | Over     | Over     | Over    |
| HEIGHT         | Front          | Side       | Front          | Side        | Front      | Side         | Front       | Side        | Front       | Side     | Front    | Side     | Front    | Side    |
| With 8.4-m (2) | 7 ft. 7 in.) b | oom, 3.7-n | n (12 ft. 2 in | .) arm, and | 1 900-mm ( | 36 in.) doul | ble-bar gro | user shoes, | less bucket | :        |          |          |          |         |
| 9.0 m          |                |            |                |             |            |              |             |             | 16 340      | 16 340   |          |          |          |         |
| (30 ft.)       |                |            |                |             |            |              |             |             | (35,920)    | (35,920) |          |          |          |         |
| 7.5 m          |                |            |                |             |            |              |             |             | 17 020      | 17 020   | 15 360   | 14 800   |          |         |
| (25 ft.)       |                |            |                |             |            |              |             |             | (37,120)    | (37,120) | (30,180) | (30,180) |          |         |
| 6.0 m          |                |            |                |             | 25 080     | 25 080       | 20 720      | 20 720      | 18 230      | 18 230   | 16 730   | 14 530   |          |         |
| (20 ft.)       |                |            |                |             | (53,870)   | (53,870)     | (44,810)    | (44,810)    | (39,620)    | (39,620) | (36,550) | (31,280) |          |         |
| 4.5 m          |                |            |                |             | 29 830     | 29 830       | 23 280      | 23 280      | 19 710      | 17 840   | 17 540   | 14 160   |          |         |
| (15 ft.)       |                |            |                |             | (64,030)   | (64,030)     | (50,260)    | (50,260)    | (42,740)    | (38,500) | (38,190) | (30,500) |          |         |
| 3.0 m          |                |            |                |             | 33 730     | 30 270       | 25 630      | 22 190      | 21 160      | 17 180   | 16 010   | 13 760   |          |         |
| (10 ft.)       |                |            |                |             | (72,620)   | (65,390)     | (55,380)    | (47,930)    | (45,850)    | (37,080) | (34,700) | (29,660) |          |         |
| 1.5 m          |                |            |                |             | 28 830     | 28 770       | 27 300      | 21 380      | 22 300      | 16 630   | 19 070   | 13 410   |          |         |
| (5 ft.)        |                |            |                |             | (69,330)   | (62,970)     | (59,070)    | (46,140)    | (48,320)    | (35,890) | (41,400) | (28,920) |          |         |
| Ground         |                |            |                |             | 32 970     | 26 980       | 28 060      | 20 890      | 22 930      | 16 260   | 19 400   | 13 160   |          |         |
| Line           |                |            |                |             | (53,870)   | (61,950)     | (60,790)    | (45,050)    | (49,680)    | (35,070) | (42,050) | (28,400) |          |         |
| –1.5 m         |                |            | 21 760         | 21 760      | 34 970     | 28 700       | 27 880      | 20 680      | 22 870      | 16 070   | 19 140   | 13 060   |          |         |
| (–5 ft.)       |                |            | (49,770)       | (49,770)    | (75,890)   | (61,760)     | (60,430)    | (44,590)    | (49,520)    | (34,680) | (41,330) | (28,200) |          |         |
| −3.0 m         | 23 870         | 23 870     | 33 440         | 33 440      | 32 980     | 28 870       | 26 690      | 20 720      | 21 910      | 16 090   |          |          |          |         |
|                | (53,800)       | (53,800)   | (76,230)       | (76,230)    | (71,540)   | (62,130)     | (57,790)    | (44,680)    | (47,300)    | (34,730) |          |          |          |         |
| –4.5 m         |                |            | 36 510         | 36 510      | 26 690     | 29 290       | 24 190      | 21 000      | 19 440      | 16 370   |          |          |          |         |
| (–15 ft.)      |                |            | (79,120)       | (79,120)    | (64,180)   | (63,060)     | (52,110)    | (45,320)    | (41,390)    | (35,420) |          |          |          |         |
| -6.0 m         |                |            | 29 530         | 29 530      | 24 300     | 24 300       | 19 290      | 19 290      |             |          |          |          |          |         |
| (-20 ft.)      |                |            | (63,300)       | (63,300)    | (51,890)   | (51,890)     | (40,520)    | (40,520)    |             |          |          |          |          |         |

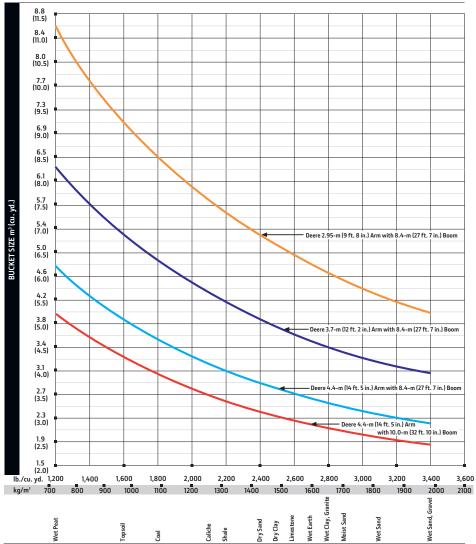
#### Lift Capacities (continued) 870 P-TIER

**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).

| of weight nee     |                |             |               |             |                    |                        | ANCE FRO           |                    | LINE OF RO         | TATION             |                    |                    |                    |                    |
|-------------------|----------------|-------------|---------------|-------------|--------------------|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| ·                 | 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        | Over           | Over        | Over          | Over        | Over               | Over                   | Over               | Over               | Over               | Over               | Over               | Over               | Over               | Over               |
| HEIGHT            | Front          | Side        | Front         | Side        | Front              | Side                   | Front              | Side               | Front              | Side               | Front              | Side               | Front              | Side               |
| With 8.4-m (2     | 7 ft. 7 in.)   | boom, 4.4-l | m (14 ft. 5 i | n.) arm, an | d 900-mm           | (36 in.) doι           | ıble-bar gro       | ouser shoes        | , less bucke       | t                  |                    |                    |                    |                    |
| 9.0 m             |                |             |               |             |                    |                        |                    |                    |                    |                    | 12 210             | 12 210             |                    |                    |
| (30 ft.)          |                |             |               |             |                    |                        |                    |                    | (32,290)           | (32,290)           | (24,390)           | (24,390)           |                    |                    |
| 7.5 m             |                |             |               |             |                    |                        |                    |                    | 15 670             | 15 670             | 14 690             | 14 690             |                    |                    |
| (25 ft.)          |                |             |               |             |                    |                        | 10.050             | 10.050             | (34,180)           | (34,180)           | (31,160)           | (31,160)           | 11.270             | ** 250             |
| 6.0 m             |                |             |               |             |                    |                        | 19 050             | 19 050             | 16 970             | 16 970             | 15 650             | 14 640             | 11 370             | 11 370             |
| (20 ft.)          |                |             |               |             | 27.200             | 27.200                 | (41,210)           | (41,210)           | (36,870)           | (36,870)           | (34,160)           | (31,510)           | (21,130)           | (21,130)           |
| 4.5 m             |                |             |               |             | 27 260             | 27 260                 | 21 690             | 21 690             | 18 540             | 17 980             | 16 580             | 14 200             | 13 930             | 11 460             |
| (15 ft.)          |                |             |               |             | (58,560)<br>31 600 | <b>(58,560)</b> 30 790 | (46,850)           | (46,850)           | (40,210)<br>20 130 | (38,770)           | (36,090)<br>17 560 | (30,600)           | (27,770)           | (24,630)           |
| 3.0 m             |                |             |               |             |                    |                        | 24 250             | 22 390             |                    | 17 240             |                    | 13 740             | 15 840             | 11 200             |
| (10 ft.)<br>1.5 m |                |             |               |             | (68,030)<br>32 080 | (66,490)<br>29 340     | (52,400)<br>26 270 | (48,340)<br>21 420 | (43,640)<br>19 360 | (37,190)<br>16 600 | (38,160)<br>18 420 | (29,620)<br>13 330 | (31,840)<br>16 290 | (24,110)<br>10 960 |
| 1.5 m<br>(5 ft.)  |                |             |               |             |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |
| (5 ft.)<br>Ground |                |             |               |             | (74,310)<br>31 870 | (63,280)<br>28 600     | (56,830)<br>27 460 | (46,220)<br>20 770 | (41,870)<br>22 380 | (35,810)<br>16 130 | (39.980)<br>18 980 | (28,740)<br>13 020 | (33,630)<br>16 160 | (23,600)<br>10 780 |
| Line              |                |             |               |             | (74,870)           | (61,600)               | (59,460)           | (44,800)           | (48,510)           | (34,790)           | (41,160)           | (28,070)           | (30,710)           | (23,250)           |
| –1.5 m            |                |             | 19 200        | 19 200      | 35 270             | 28 320                 | 27 740             | 20 430             | 22 670             | 15 850             | 19 060             | 12 830             | (30,710)           | (23,250)           |
| (-5 ft.)          |                |             | (43,840)      | (43,840)    | (76,460)           | (60,960)               | (60,100)           | (44,050)           | (49,100)           | (34,190)           | (41,260)           | (27,680)           |                    |                    |
| -3.0 m            | 19 330         | 19 330      | 27 850        | 27 850      | 33 890             | 28 360                 | 27 060             | 20 360             | 22 170             | 15 770             | 18 390             | 12 810             |                    |                    |
| (–10 ft.)         | (43,600)       | (43,600)    |               | (63,450)    | (73,460)           | (57,450)               | (58,590)           | (43,890)           | (47,950)           | (34,030)           | (39,580)           | (27,680)           |                    |                    |
| -4.5 m            | 28 260         | 28 260      | 39 180        | 39 180      | 29 280             | 28 660                 | 25 240             | 20 530             | 20 570             | 15 920             | (33,300)           | (27,000)           |                    |                    |
| (–15 ft.)         | (63,870)       | (63,870)    | (85,850)      | (85,850)    | (63,220)           | (61,710)               | (54,480)           | (44,270)           | (44,190)           | (34,380)           |                    |                    |                    |                    |
| -6.0 m            | (05,0.0)       | (02)0.01    | 33 610        | 33 610      | 26 970             | 26 970                 | 21710              | 20 980             | 16 690             | 16 420             |                    |                    |                    |                    |
| (-20 ft.)         |                |             |               | (72,270)    |                    | (57,880)               | (46,330)           | (45.340)           |                    |                    |                    |                    |                    |                    |
| With 7.1-m (23    | 8 ft. 4 in.) N | ИЕ boom, 2  |               |             |                    |                        |                    | . , ,              | er shoes, les      | s bucket           |                    |                    |                    |                    |
| 7.5 m             |                |             |               |             |                    |                        | 21 750             | 21 750             |                    |                    |                    |                    |                    |                    |
| (25 ft.)          |                |             |               |             |                    |                        | (47,580)           | (47,580)           |                    |                    |                    |                    |                    |                    |
| 6.0 m             |                |             |               |             | 26 920             | 26 920                 | 23 190             | 23 190             | 21 180             | 18 690             |                    |                    |                    |                    |
| (20 ft.)          |                |             |               |             | (58,150)           | (58,150)               | (50,420)           | (50,420)           | (46,380)           | (40,190)           |                    |                    |                    |                    |
| 4.5 m             |                |             |               |             | 31 060             | 31 060                 | 25 250             | 24 060             | 22 050             | 18 230             |                    |                    |                    |                    |
| (15 ft.)          |                |             |               |             | (66,960)           | (66,960)               | (54,730)           | (51,900)           | (48,030)           | (39,270)           |                    |                    |                    |                    |
| 3.0 m             |                |             |               |             | 34 780             | 31 880                 | 27 280             | 23 070             | 23 060             | 17 690             |                    |                    |                    |                    |
| (10 ft.)          |                |             |               |             | (75,070)           | (68,790)               | (59,100)           | (49,780)           | (50,100)           | (38,140)           |                    |                    |                    |                    |
| 1.5 m             |                |             |               |             | 36 830             | 30 640                 | 28 690             | 22 270             | 23 750             | 17 220             |                    |                    |                    |                    |
| (5 ft.)           |                |             |               |             | (79,700)           | (66,050)               | (62,150)           | (48,050)           | (51,520)           | (37,130)           |                    |                    |                    |                    |
| Ground            |                |             |               |             | 36 950             | 30 010                 | 29 040             | 21 760             | 23 690             | 16 900             |                    |                    |                    |                    |
| Line              |                |             | 12105         | (2100       | (80,120)           | (64,620)               | (62,920)           | (46,930)           | (51,270)           | (36,460)           |                    |                    |                    |                    |
| –1.5 m            |                |             | 42 190        | 42 190      | 35 310             | 29 820                 | 28 000             | 21 550             | 22 140             | 16 830             |                    |                    |                    |                    |
| (–5 ft.)          | (1.770         | (1770       | (97,220)      | (97,220)    | (76,570)           | (64,180)               | (60,580)           | (46,480)           |                    |                    |                    |                    |                    |                    |
| -3.0 m            | 41 770         | 41 770      | 39 770        | 39 770      | 31 640             | 30 000                 | 24 830             | 21 700             |                    |                    |                    |                    |                    |                    |
| (–10 ft.)         | (94,710)       | (94,710)    | (86,290)      | (86,290)    | (68,380)           | (64,590)               | (53,200)           | (46,850)           |                    |                    |                    |                    |                    |                    |
| -4.5 m            |                |             | 30 980        | 30 980      | 24 440             | 24 440                 |                    |                    |                    |                    |                    |                    |                    |                    |
| (–15 ft.)         |                |             | (66,410)      | (66,410)    | (51,760)           | (51,760)               |                    |                    |                    |                    |                    |                    |                    |                    |

Bucket Selection Guide\*

870 P-TIER



<sup>\*</sup>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 first 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 of Flevel applications, rocks, and uneven surfaces. Bucket capacity indicated & Reaged.

# Additional equipment

#### 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
- 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.)

#### 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
- Front windshield wiper with intermittent
- 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)

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

#### Operator's Station (continued)

- Mode selectors (illuminated): Power modes (3) / Travel modes (2) / Work modes (2) /
- 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<sup>™</sup> wireless communication system (available in specific countries; see your dealer for details)
- Cab extension wiring harness

LED work lights



