

7.5 - 8.5 METRIC TON



**JOHN DEERE**

**D**

**EXCAVATORS**

**75D 85D**





# Regular or swing boom. Steel or rubber tracks.

It's nice to have choices. Whether you're landscaping or doing light residential excavating, site development, or underground work, the conventional-boom 75D and swing-boom 85D will have an immediate impact on your bottom line. Neither too big nor too small, these right-sized machines deliver all the power, smoothness, control, and ease of operation you've come to expect from larger John Deere excavators in an easy-to-manuever package. Their compact size and reduced tail-swing design allow them to rotate freely within a small radius. So they're

more productive in confined spaces and around obstacles. With increased swing torque and drawbar pull, they produce like a big-time machine. And with a spacious, comfortable cab featuring an advanced LCD monitor, they operate like one, too. Rubber tracks are now optional on both models. Other enhancements including a high-efficiency cooling system; rugged, turbo-charged, fuel-efficient EPA Interim Tier 4 (IT4)/EU Stage IIIB diesel; and improved serviceability ensure the uptime and long-lasting durability you've come to expect from Deere.



Reduced tail swing allows operators to get closer to objects on congested jobsites, for extra versatility and maneuverability in close quarters.

The 75D features a standard boom while the 85D features a versatile swing boom for digging parallel to walls and foundations. Rubber tracks are optional on both models.

Spacious operating station with generous legroom and more glass delivers the comfort and visibility you'd expect from a large excavator, within the footprint of a small machine.

Quiet-running IT4 diesels deliver more torque with impressive fuel efficiency. Turbocharging lets them work at higher altitudes without sacrificing performance.

Extended engine and hydraulic oil-service intervals help maximize uptime and reduce daily operating costs.

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

Specifications	75D	85D
<b>Net Power</b>	40.5 kW (54 hp)	40.5 kW (54 hp)
<b>Operating Weight</b>	8048 kg (17,743 lb.)	8537 kg (18,821 lb.)
<b>Lift Capacity</b>	1927 kg (4,248 lb.)	1927 kg (4,248 lb.)
<b>Digging Depth</b>	4.11 m (13 ft. 6 in.)	3.97 m (13 ft. 0 in.)
<b>Arm Breakout Force</b>	38.1 kN (8,554 lb.)	38.1 kN (8,554 lb.)

For work that requires extra finesse, best-in-class metering and superb multifunction operation deliver the precise control you need and that John Deere excavators are known for.

Optional, durable rubber tracks let you cross driveways and sidewalks without damage — perfect for landscaping jobs on existing properties.

The 75D and 85D are sized to transport easily between jobsites.

Generous hydraulic flow combined with increased swing torque help you load more trucks and open more trench.

With their narrow width, reduced tail swing, and rubber track option, these excavators tackle tasks that used to be handwork.

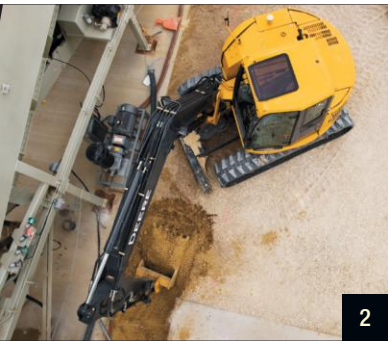
Choose from a variety of track widths, arm lengths, buckets, and other options to maximize your efforts.

Hydraulic recirculation system delivers more efficient flow to the boom and arm, speeding multifunction operation and cycle times.

Additional hydraulic capability a necessity? Optional high-pressure, high-flow auxiliary hydraulic packages meet the need.



**1.** Need even more digging depth or reach? Choose the long-arm option.



**2.** Why allow obstacles to dictate how you work? 360-degree rotation and independent-swing boom (on the 85D) let you get tight and dig parallel to walls.



**3.** Standard integral blade helps to conveniently accomplish backfill tasks. New shape moves more dirt and improves visibility.

**4.** High sideboards are no problem for these excavators. Plenty of lift height and reach make truck loading easy.



# These hard workers won't work their tails off.



Don't get us wrong. With outstanding digging force, swing torque, drawbar pull, and lift capability, the 75D and 85D are highly productive, hard-working machines. But with their tight tail swing, operators can concentrate on the work in front of them without worrying about damaging the machine or surroundings behind them — productivity in confined

areas soars. Control is smooth and effortless, with the Powerwise III management system delivering pinpoint metering. Highly maneuverable and easy to transport, they're perfect for landscapers and small contractors. Who says you have to work your tail off to be more productive?



# A comfortable environment for getting more done.

Climb aboard a D-Series Excavator, and you'll discover the many reasons why operators are more productive in a John Deere. A spacious, well-appointed cab with substantially more legroom and virtually unrestricted visibility. Ergonomically arranged controls and an intuitive, multifunction LCD monitor. And all

the creature comforts and conveniences that take the sting out of a long shift. Like automatic climate control, AM/FM radio, and deluxe-suspension multi-position seat. At the end of the day, your operators will be comfortably productive. And you'll feel comfortable about your bottom line.



Noise levels — and operator fatigue — have been significantly reduced. Noise-reducing muffler and isochronous high-idle speed help quiet things down.

Ergonomic short-throw pilot levers provide smooth, predictable fingertip control with less effort.

Go from backhoe- to excavator-style controls with just a twist of the optional control-pattern selector valve.

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

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

The specially designed cab on the 85D accommodates the swing boom without sacrificing comfort and visibility.

Intuitive, multi-language monitor with four-color LCD screen provides a wealth of info and control. Displays operating, diagnostic, and maintenance data with easy-on-the-eyes clarity.

**1.** A large expanse of glass on the right-hand side, narrow front cab posts, large tinted overhead hatch (window only on 85D), and numerous mirrors provide clear all-around visibility.

**2.** Both the 75D and 85D cabs include a cup holder, and the 75D also has a storage box for a cell phone, keys, and other small items.

**3.** Automatic, high-velocity bi-level climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable.

**4.** Deluxe-suspension multi-position seat features multiple adjustments to fit a variety of operators. It slides with, or independent of, the control console so it won't cramp the operator's style (75D shown).



Oil-impregnated bushings enhance durability and extend grease intervals to 500 hours (100 hours for the bucket joint). Reinforced resin plates increase boom-lube intervals to 500 hours.

Tungsten-carbide coating creates an extremely wear-resistant surface to protect the all-important bucket-to-arm joint.

Optional rubber tracks feature a unique steel core that resists cracking.

With large idlers, rollers, and strutted links, the sealed and lubricated undercarriage delivers long and reliable performance.

Wet-disc swing brake delivers long-term maintenance-free performance.

Heavy-duty shields deflect material and impacts, protecting the propel motors and boom and blade cylinders.

O-ring face-seal couplers virtually eliminate leaks.

Heavy-duty welded x-frame provides a solid, stable platform that resists material buildup.

A linear clutch continuously adjusts to fan speed to reduce noise and fuel consumption. You'll be amazed how quietly and efficiently these machines run.



1. Wear-resistant hoses are protected and secured to prevent excessive tension.
2. Welded bulkheads within the boom resist torsional stress.
3. Rigid, reinforced D-channel side frames resist impact, providing maximum cab and component protection.
4. Box-section track frames, thick-plate single-sheet mainframe, and large swing bearing deliver rock-solid durability.







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

When you depend on your equipment to get the job done right and on schedule, downtime is not just a downer — it's not an option. That's why the 75D and 85D are built from the ground up to deliver unsurpassed reliability — from their durable sealed and lubricated undercarriages to their rugged

fuel-sipping diesels. Other uptime-boosting features include tungsten-carbide thermal-coated arm surfaces, oil-impregnated bushings, and a highly efficient, heavy-duty cooling system that keeps things running cool, even in tough environments or high altitudes. When you know how they're built, you'll run a Deere.

Large fuel tanks and 500- and 5,000-hour engine and hydraulic oil-service intervals help increase uptime and lower daily operating costs.

Remote fillers make fluid servicing fast and easy.

Large, easy-to-open doors provide quick access to service items. Lube banks, filters, and checkpoints are grouped for added convenience.

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

Using the easy-to-navigate LCD color monitor, you can easily keep tabs on up to 14 maintenance intervals and 32 machine operating parameters.



# We're open-minded when it comes to simplifying service.

We're always open to ideas that make our excavators simpler to service and lower cost to maintain. Like large, easy-to-open service doors that provide ample access to conveniently grouped service points. And extended service intervals and remote-mounted vertical oil and

fuel filters that speed periodic maintenance. So you can spend less time on machine upkeep, and more time doing the real work of increasing your bottom line. Industry-leading parts and service are easy to access, too, at more than 400 John Deere locations.

1. Vertical spin-on fuel/water filters are positioned in the right rear compartment, simplifying service.

2. Conveniently located sight gauges let you check coolant and hydraulic fluid levels at a glance.

3. The left-hand, rear compartment provides access to the battery, washer fluid, air filter, and side-by-side cooling cores.

4. The 75D's fresh-air cab filter is quickly serviced at ground level where it's more likely to get done.



Nobody backs you better than the 400-plus John Deere dealers throughout North America.

# Specifications

## Engine 75D

Manufacturer and Model . . . . .	Isuzu 4LE2X
Non-Road Emission Standards . . . . .	EPA Interim Tier 4/EU Stage IIIB
Net Power (ISO9249) . . . . .	40.5 kW (54 hp) @ 2,000 rpm
Cylinders . . . . .	4
Displacement . . . . .	2.2 L (133 cu. in.)
Off-Level Capacity . . . . .	70% (35 deg.)
Aspiration . . . . .	turbocharged with intercooler

## Cooling

Variable-speed fan directly driven by the engine through a linear clutch; nonreversible

## Powertrain

2-speed propel with automatic shift

Travel Speed (maximum)	
Low . . . . .	3.1 km/h (1.9 mph)
High . . . . .	5.0 km/h (3.1 mph)

## Hydraulics

Open center, load sensing	
<b>Main Pumps</b> . . . . .	3 variable-displacement axial pistons
Maximum Rated Flow . . . . .	2 x 79.2 lpm + 61.6 lpm (2 x 20.9 gpm + 16.3 gpm)
<b>Pilot Pump</b> . . . . .	one gear
Maximum Rated Flow . . . . .	20 L/m (5.3 gpm)
System Relief Pressure . . . . .	3900 kPa (566 psi)
<b>System Operating Pressure</b>	
Implement Circuits . . . . .	26 000 kPa (3,771 psi)
Travel Circuits . . . . .	31 400 kPa (4,554 psi)
Swing Circuits . . . . .	25 000 kPa (3,626 psi)
<b>Controls</b> . . . . .	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>
<b>Boom (1)</b> . . . . .	115 mm (4.5 in.)	65 mm (2.6 in.)	885 mm (34.8 in.)
<b>Arm (1)</b> . . . . .	95 mm (3.7 in.)	60 mm (2.4 in.)	900 mm (35.4 in.)
<b>Bucket (1)</b> . . . . .	85 mm (3.3 in.)	55 mm (2.2 in.)	730 mm (28.7 in.)

## Electrical

Batteries . . . . .	2 x 12 volt
Reserve Capacity . . . . .	100 min.
Alternator Rating . . . . .	50 amp
<b>Work Lights</b> . . . . .	halogen (2), one mounted on boom and one on frame

## Undercarriage

Carrier Rollers (per side) . . . . .	1
Track Rollers (per side) . . . . .	5
Shoes, Triple Semi-Grouser (per side) . . . . .	40
Drawbar Pull . . . . .	6650 kg (14,661 lb.)
Track	
Adjustment . . . . .	hydraulic
Chain . . . . .	sealed and lubricated

## Swing Mechanism

75D

Swing Speed	10.5 rpm
Swing Torque	16 600 Nm (12,244 lb.-ft.)

## Ground Pressure

600-mm (24 in.) Triple Semi-Grouser Shoes	26 kPa (3.7 psi)
450-mm (18 in.) Rubber Crawler Pads	34 kPa (4.9 psi)
450-mm (18 in.) Rubber Crawler Belt	34 kPa (4.9 psi)

## Serviceability

### Refill Capacities

Fuel Tank	135 L (35.7 gal.)
Cooling System	10.3 L (2.7 gal.)
Engine Oil with Filter	12.1 L (3.2 gal.)
Hydraulic Tank	56 L (15 gal.)
Hydraulic System	100 L (26 gal.)
Propel Gearbox (each)	1.2 L (1.3 qt.)

## Operating Weights

With Full Fuel Tank; 79-kg (175 lb.) Operator;

0.41-m<sup>3</sup> (0.53 cu. yd.), 762-mm (30 in.),  
333-kg (735 lb.) Bucket; 1.62-m (5 ft. 4 in.)  
Arm; 1383-kg (3,049 lb.) Counterweight;  
and 2470-mm (8 ft. 1 in.) Blade

600-mm (24 in.) Triple Semi-Grouser Shoes	8048 kg (17,743 lb.)
450-mm (18 in.) Rubber Crawler Pads	7920 kg (17,461 lb.)
450-mm (18 in.) Rubber Crawler Belt	7898 kg (17,412 lb.)

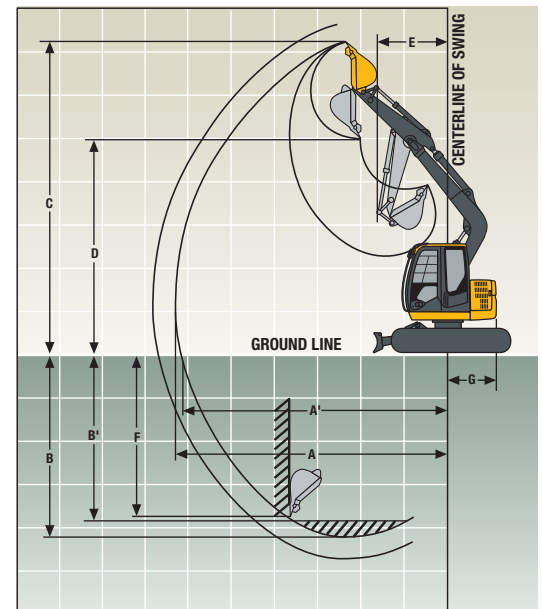
### Optional Components

Undercarriage

600-mm (24 in.) Triple Semi-Grouser Shoes	1527 kg (3,366 lb.)
450-mm (18 in.) Rubber Crawler Pads	1377 kg (3,036 lb.)
One-Piece Boom (with arm cylinder)	465 kg (1,025 lb.)
Arm with Bucket Cylinder and Linkage	
1.62 m (5 ft. 4 in.)	233 kg (514 lb.)
2.12 m (6 ft. 11 in.)	270 kg (595 lb.)
Boom Lift Cylinder	89 kg (196 lb.)
Counterweight (standard)	1383 kg (3,049 lb.)

## Operating Dimensions

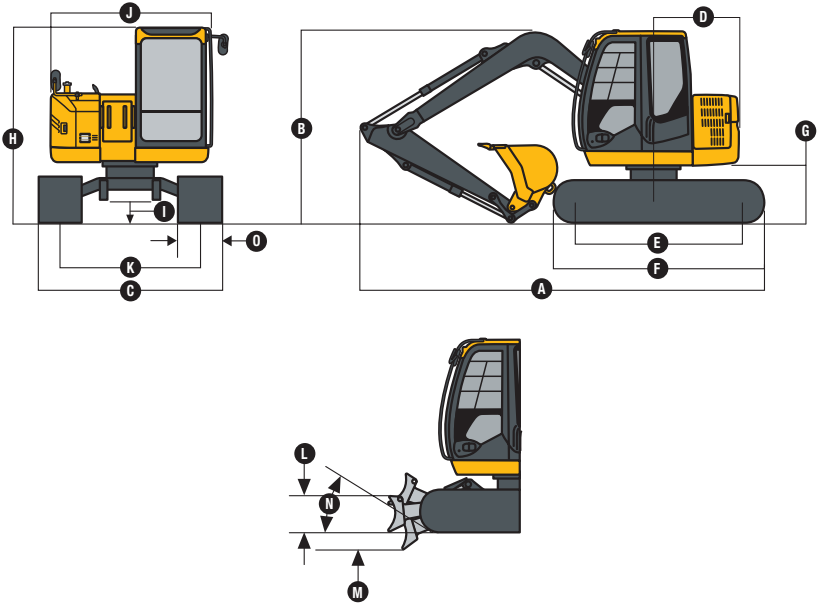
	Arm Length 1.62 m (5 ft. 4 in.)	Arm Length 2.12 m (6 ft. 11 in.)
Arm Force	38.1 kN (8,554 lb.)	32.1 kN (7,209 lb.)
Bucket Digging Force	55.0 kN (12,368 lb.)	55.0 kN (12,368 lb.)
Lifting Capacity Over Front at Ground Level		
6.1-m (20 ft.) Reach	1927 kg (4,248 lb.)	1883 kg (4,151 lb.)
<b>A</b> Maximum Reach	6.43 m (21 ft. 1 in.)	6.92 m (22 ft. 8 in.)
<b>A'</b> Maximum Reach at Ground Level	6.26 m (20 ft. 6 in.)	6.76 m (22 ft. 2 in.)
<b>B</b> Maximum Digging Depth	4.11 m (13 ft. 6 in.)	4.61 m (15 ft. 1 in.)
<b>B'</b> Maximum Digging Depth at 2.44-m (8 ft.) Flat Bottom	3.76 m (12 ft. 4 in.)	4.33 m (14 ft. 2 in.)
<b>C</b> Maximum Cutting Height	7.21 m (23 ft. 8 in.)	7.61 m (25 ft. 0 in.)
<b>D</b> Maximum Dumping Height	5.12 m (16 ft. 10 in.)	5.51 m (18 ft. 1 in.)
<b>E</b> Minimum Swing Radius	1.80 m (5 ft. 11 in.)	2.16 m (7 ft. 1 in.)
<b>F</b> Maximum Vertical Wall	3.67 m (12 ft. 0 in.)	4.22 m (13 ft. 10 in.)
<b>G</b> Tail Swing Radius	1.29 m (4 ft. 3 in.)	1.29 m (4 ft. 3 in.)



## Machine Dimensions

## 75D

	<i>Arm Length</i> 1.62 m (5 ft. 4 in.)	<i>Arm Length</i> 2.12 m (6 ft. 11 in.)
<b>A</b> Overall Length . . . . .	6.30 m (20 ft. 8 in.)	6.37 m (20 ft. 11 in.)
<b>B</b> Overall Height . . . . .	2.60 m (8 ft. 6 in.)	2.83 m (9 ft. 3 in.)
<b>C</b> Undercarriage Width: 600-mm (24 in.) Triple Semi-Grouser Shoes . . . . .	2.47 m (8 ft. 1 in.)	
450-mm (18 in.) Rubber Crawler Pad . . . . .	2.37 m (7 ft. 9 in.)	
450-mm (18 in.) Continuous Rubber Belt . . . . .	2.37 m (7 ft. 9 in.)	
<b>D</b> Rear-End Length/Swing Radius . . . . .	1.29 m (4 ft. 3 in.)	
<b>E</b> Distance Between Idler/Sprocket Centerline . . . . .	2.29 m (7 ft. 6 in.)	
<b>F</b> Undercarriage Length . . . . .	2.92 m (9 ft. 7 in.)	
<b>G</b> Counterweight Clearance . . . . .	0.76 m (30 in.)	
<b>H</b> Cab Height . . . . .	2.69 m (8 ft. 10 in.)	
<b>I</b> Ground Clearance . . . . .	360 mm (14 in.)	
<b>J</b> Upperstructure Width . . . . .	2.25 m (7 ft. 5 in.)	
<b>K</b> Gauge Width . . . . .	1.87 m (6 ft. 2 in.)	
<b>L</b> Blade Height . . . . .	460 mm (18 in.)	
Blade Width . . . . .	2.47 m (8 ft. 1 in.)	
Blade Lift Height . . . . .	380 mm (15 in.)	
<b>M</b> Blade Cut Below Grade . . . . .	280 mm (11 in.)	
<b>N</b> Blade Lift Angle . . . . .	27 deg.	
Rear-End Length with Blade . . . . .	1.88 m (6 ft. 2 in.)	
<b>O</b> Track Width: 600-mm (24 in.) Triple Semi-Grouser Shoes . . . . .	600 mm (24 in.)	
450-mm (18 in.) Rubber Crawler Pad . . . . .	450 mm (18 in.)	
450-mm (18 in.) Continuous Rubber Belt . . . . .	450 mm (18 in.)	
Track Height (with triple grouser shoes) . . . . .	650 mm (26 in.)	



## Lift Capacities

**Loadface italic** type indicates hydraulic-limited capacities; **lightface** type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 3.72-m (12 ft. 8 in.) boom, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket; 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.

Load Point Height	3.05 m (10 ft.)		4.57 m (15 ft.)		6.10 m (20 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 1.62-m (5 ft. 4 in.) arm, either 450-mm (18 in.) rubber crawler pads or 450-mm (18 in.) rubber crawler belt, and 2.32-m (7 ft. 7 in.) blade on ground</i>						
3.05 m (10 ft.)	<b>1733 (3,821)</b>	<b>1733 (3,821)</b>	<b>1481 (3,265)</b>	1435 (3,163)		
1.52 m (5 ft.)	<b>2978 (6,566)</b>	2527 (5,570)	<b>1840 (4,056)</b>	1355 (2,987)		
Ground Line	<b>3482 (7,676)</b>	2398 (5,286)	<b>2136 (4,709)</b>	1289 (2,842)		
-1.52 m (-5 ft.)	<b>3288 (7,249)</b>	2397 (5,285)	<b>2112 (4,657)</b>	1273 (2,807)		
-3.05 m (-10 ft.)	<b>2386 (5,260)</b>	<b>2386 (5,260)</b>				
<i>With 2.12-m (6 ft. 11 in.) arm, either 450-mm (18 in.) rubber crawler pads or 450-mm (18 in.) rubber crawler belt, and 2.32-m (7 ft. 7 in.) blade on ground</i>						
4.57 m (15 ft.)			<b>1118 (2,464)</b>	<b>1118 (2,464)</b>		
3.05 m (10 ft.)	<b>1302 (2,871)</b>	<b>1302 (2,871)</b>	<b>1259 (2,775)</b>	<b>1259 (2,775)</b>		
1.52 m (5 ft.)	<b>2537 (5,593)</b>	<b>2537 (5,593)</b>	<b>1658 (3,656)</b>	1363 (3,006)	<b>1394 (3,073)</b>	834 (1,838)
Ground Line	<b>3357 (7,400)</b>	2397 (5,285)	<b>2032 (4,479)</b>	1281 (2,824)	<b>1277 (2,816)</b>	806 (1,776)
-1.52 m (-5 ft.)	<b>3396 (7,486)</b>	2360 (5,202)	<b>2141 (4,721)</b>	1246 (2,748)		
-3.05 m (-10 ft.)	<b>2806 (6,187)</b>	2409 (5,312)				
<i>With 1.62-m (5 ft. 4 in.) arm, 600-mm (24 in.) triple semi-grouser shoes, and 2.47-m (8 ft. 1 in.) blade on ground</i>						
3.05 m (10 ft.)	<b>1733 (3,821)</b>	<b>1733 (3,821)</b>	<b>1481 (3,265)</b>	1554 (3,426)		
1.52 m (5 ft.)	<b>2978 (6,566)</b>	2592 (5,714)	<b>1840 (4,056)</b>	1393 (3,070)		
Ground Line	<b>3482 (7,676)</b>	2463 (5,430)	<b>2136 (4,709)</b>	1326 (2,924)		
-1.52 m (-5 ft.)	<b>3288 (7,249)</b>	2463 (5,429)	<b>2112 (4,657)</b>	1311 (2,890)		
-3.05 m (-10 ft.)	<b>2386 (5,260)</b>	<b>2386 (5,260)</b>				

## Lift Capacities (continued)

75D

**Boldface italic** type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 3.72-m (12 ft. 8 in.) boom, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket; 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.

Load Point Height	3.05 m (10 ft.)		4.57 m (15 ft.)		6.10 m (20 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 2.12-m (6 ft. 11 in.) arm, 600-mm (24 in.) triple semi-grouser shoes, and 2.47-m (8 ft. 1 in.) blade on ground</i>						
4.57 m (15 ft.)			<b>1118 (2,464)</b>	<b>1118 (2,464)</b>		
3.05 m (10 ft.)			<b>1259 (2,775)</b>	<b>1259 (2,775)</b>		
1.52 m (5 ft.)	<b>2537 (5,593)</b>	<b>2537 (5,593)</b>	<b>1658 (3,656)</b>	1401 (3,089)	<b>1394 (3,073)</b>	860 (1,896)
Ground Line	<b>3357 (7,400)</b>	2463 (5,429)	<b>2032 (4,479)</b>	1319 (2,907)	<b>1277 (2,816)</b>	832 (1,834)
-1.52 m (-5 ft.)	<b>3396 (7,486)</b>	2425 (5,346)	<b>2141 (4,721)</b>	1284 (2,831)		
-3.05 m (-10 ft.)	<b>2806 (6,187)</b>	2475 (5,456)				

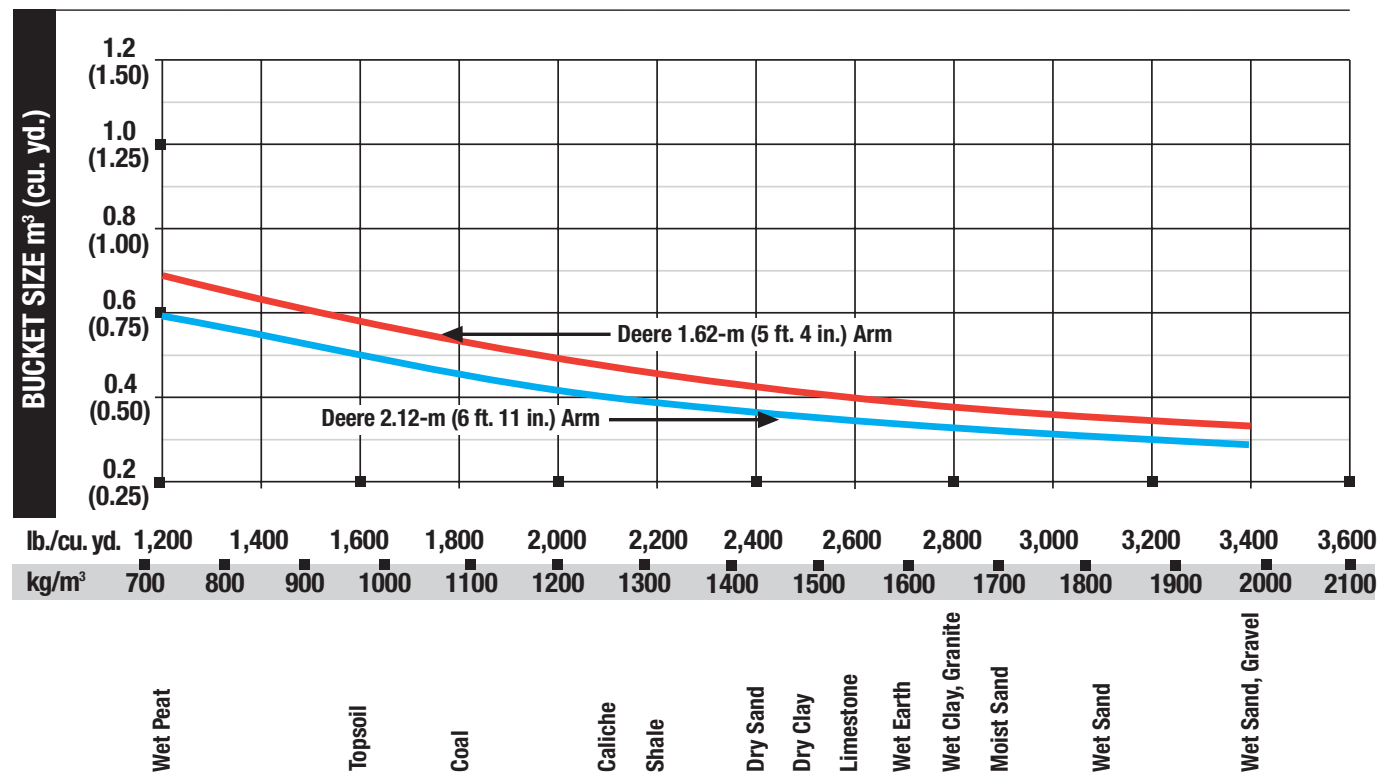
## Buckets

A full line of buckets is offered to meet a wide variety of applications. 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 150 mm (6 in.) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 1.62 m (5 ft. 4 in.)		Arm Dig Force 2.12 m (6 ft. 11 in.)		Bucket Tip Radius		No. Teeth
	mm	in.	m <sup>3</sup>	cu. yd.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	mm	in.	
Heavy-Duty	610	24	0.31	0.40	287	633	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	5
	762	30	0.41	0.53	333	735	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	6
	914	36	0.50	0.66	380	837	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	7
Ditching	1219	48	0.49	0.64	330	727	64.0	14,344	40.0	8,911	33.0	7,473	907	35.69	0

\*All capacities are SAE heaped ratings.

## Bucket Selection Guide\*



\*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

## Engine 85D

Manufacturer and Model	Isuzu 4LE2X
Non-Road Emission Standards	EPA Interim Tier 4/EU Stage IIIB
Net Power (ISO9249)	40.5 kW (54 hp) @ 2,000 rpm
Cylinders	4
Displacement	2.2 L (133 cu. in.)
Off-Level Capacity	70% (35 deg.)
Aspiration	turbocharged with intercooler

## Cooling

Variable-speed fan, directly driven by the engine through a linear clutch; nonreversible

## Powertrain

2-speed propel with automatic shift

Travel Speed (maximum)	
Low	3.1 km/h (1.9 mph)
High	5.0 km/h (3.1 mph)

## Hydraulics

Open center, load sensing

<b>Main Pumps</b>	3 variable-displacement axial pistons
Maximum Rated Flow	2 x 79.2 lpm + 61.6 lpm (2 x 20.9 gpm + 16.3 gpm)

<b>Pilot Pump</b>	one gear
Maximum Rated Flow	20 L/m (5.3 gpm)
System Relief Pressure	3900 kPa (566 psi)

### System Operating Pressure

Implement Circuits	26 000 kPa (3,771 psi)
Travel Circuits	31 400 kPa (4,554 psi)
Swing Circuits	25 000 kPa (3,626 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

	<i>Bore</i>	<i>Rod Diameter</i>	<i>Stroke</i>
<b>Boom (1)</b>	115 mm (4.5 in.)	65 mm (2.6 in.)	885 mm (34.8 in.)
<b>Arm (1)</b>	95 mm (3.7 in.)	60 mm (2.4 in.)	900 mm (35.4 in.)
<b>Bucket (1)</b>	85 mm (3.3 in.)	55 mm (2.2 in.)	730 mm (28.7 in.)

## Electrical

Batteries	2 x 12 volt
Reserve Capacity	100 min.
Alternator Rating	50 amp
<b>Work Lights</b>	halogen (2), one mounted on boom and one on frame

## Undercarriage

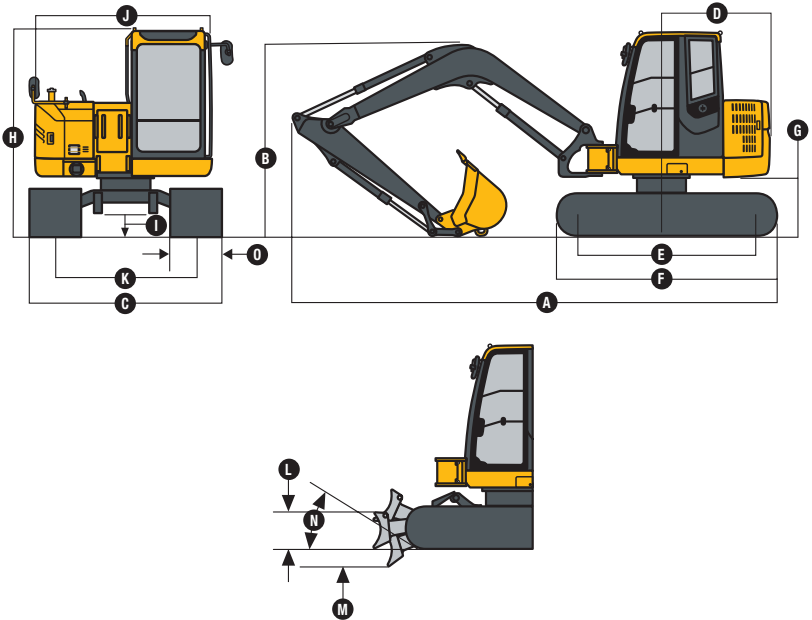
Carrier Rollers (per side)	1
Track Rollers (per side)	5
Shoes, Triple Semi-Grouser (per side)	40
Drawbar Pull	6650 kg (14,661 lb.)
Track	
Adjustment	hydraulic
Chain	sealed and lubricated



## Machine Dimensions

## 85D

	<i>Arm Length</i> 1.62 m (5 ft. 4 in.)	<i>Arm Length</i> 2.12 m (6 ft. 11 in.)
<b>A</b> Overall Length . . . . .	6.70 m (22 ft. 0 in.)	6.81 m (22 ft. 4 in.)
<b>B</b> Overall Height . . . . .	2.26 m (7 ft. 5 in.)	2.55 m (8 ft. 4 in.)
<b>C</b> Undercarriage Width: 600-mm (24 in.) Triple Semi-Grouser Shoes . . . . .	2.47 m (8 ft. 1 in.)	
450-mm (18 in.) Rubber Crawler Pad . . . . .	2.37 m (7 ft. 9 in.)	
450-mm (18 in.) Continuous Rubber Belt . . . . .	2.37 m (7 ft. 9 in.)	
<b>D</b> Rear-End Length/Swing Radius . . . . .	1.49 m (4 ft. 11 in.)	
<b>E</b> Distance Between Idler/Sprocket Centerline . . . . .	2.29 m (7 ft. 6 in.)	
<b>F</b> Undercarriage Length . . . . .	2.92 m (9 ft. 7 in.)	
<b>G</b> Counterweight Clearance . . . . .	0.76 m (30 in.)	
<b>H</b> Cab Height . . . . .	2.69 m (8 ft. 10 in.)	
<b>I</b> Ground Clearance . . . . .	360 mm (14 in.)	
<b>J</b> Upperstructure Width . . . . .	2.32 m (7 ft. 7 in.)	
<b>K</b> Gauge Width . . . . .	1.87 m (6 ft. 2 in.)	
<b>L</b> Blade Height . . . . .	460 mm (18 in.)	
Blade Width . . . . .	2.47 m (8 ft. 1 in.)	
Blade Lift Height . . . . .	380 mm (15 in.)	
<b>M</b> Blade Cut Below Grade . . . . .	280 mm (11 in.)	
<b>N</b> Blade Lift Angle . . . . .	27 deg.	
Rear-End Length with Blade . . . . .	1.88 m (6 ft. 2 in.)	
<b>O</b> Track Width: 600-mm (24 in.) Triple Semi-Grouser Shoes . . . . .	600 mm (24 in.)	
450-mm (18 in.) Rubber Crawler Pad . . . . .	450 mm (18 in.)	
450-mm (18 in.) Continuous Rubber Belt . . . . .	450 mm (18 in.)	
Track Height (with triple grouser shoes) . . . . .	650 mm (26 in.)	



## Lift Capacities

**Boldface italic** type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 3.67-m (12 ft. 2 in.) boom, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket; 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.

Load Point Height	3.05 m (10 ft.)		4.57 m (15 ft.)		6.10 m (20 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 1.62-m (5 ft. 4 in.) arm, either 450-mm (18 in.) rubber crawler pads or 450-mm (18 in.) rubber crawler belt, and 2.32-m (7 ft. 7 in.) blade on ground</i>						
4.57 m (15 ft.)			<b>1631 (3,595)</b>	1563 (3,446)		
3.05 m (10 ft.)			<b>1894 (4,176)</b>	1502 (3,311)	<b>1599 (3,525)</b>	897 (1,978)
1.52 m (5 ft.)			<b>2513 (5,540)</b>	1369 (3,018)	<b>1796 (3,959)</b>	860 (1,895)
Ground Line			<b>2834 (6,247)</b>	1280 (2,822)	<b>1890 (4,167)</b>	822 (1,813)
-1.52 m (-5 ft.)	<b>2869 (6,326)</b>	2446 (5,393)	<b>2587 (5,703)</b>	1268 (2,796)		
<i>With 2.12-m (6 ft. 11 in.) arm, either 450-mm (18 in.) rubber crawler pads or 450-mm (18 in.) rubber crawler belt, and 2.32-m (7 ft. 7 in.) blade on ground</i>						
3.05 m (10 ft.)			<b>1635 (3,604)</b>	1555 (3,429)	<b>1499 (3,304)</b>	938 (2,069)
1.52 m (5 ft.)			<b>2321 (5,117)</b>	1431 (3,155)	<b>1711 (3,772)</b>	895 (1,973)
Ground Line			<b>2821 (6,219)</b>	1329 (2,931)	<b>1896 (4,179)</b>	851 (1,876)
-1.52 m (-5 ft.)	<b>3961 (8,733)</b>	2473 (5,452)	<b>2775 (6,117)</b>	1298 (2,861)	<b>1809 (3,989)</b>	835 (1,841)
-3.05 m (-10 ft.)	<b>3130 (6,901)</b>	2537 (5,593)	<b>2029 (4,473)</b>	1327 (2,926)		
<i>With 1.62-m (5 ft. 4 in.) arm, 600-mm (24 in.) triple semi-grouser shoes, and 2.47-m (8 ft. 1 in.) blade on ground</i>						
4.57 m (15 ft.)			<b>1631 (3,595)</b>	1603 (3,534)		
3.05 m (10 ft.)			<b>1894 (4,176)</b>	1542 (3,399)	<b>1599 (3,525)</b>	925 (2,040)
1.52 m (5 ft.)			<b>2513 (5,540)</b>	1409 (3,106)	<b>1796 (3,959)</b>	888 (1,957)
Ground Line			<b>2834 (6,247)</b>	1320 (2,910)	<b>1890 (4,167)</b>	850 (1,875)
-1.52 m (-5 ft.)	<b>2869 (6,326)</b>	2515 (5,545)	<b>2587 (5,703)</b>	1308 (2,884)		

## Lift Capacities (continued)

85D

**Boldface italic** type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 3.67-m (12 ft. 2 in.) boom, 0.28-m<sup>3</sup> (0.37 cu. yd.) bucket; 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.

Load Point Height	3.05 m (10 ft.)		4.57 m (15 ft.)		6.10 m (20 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 2.12-m (6 ft. 11 in.) arm, 600-mm (24 in.) triple semi-grouser shoes, and 2.47-m (8 ft. 1 in.) blade on ground</i>						
3.05 m (10 ft.)			<b>1635 (3,604)</b>	1561 (3,441)	<b>1499 (3,304)</b>	942 (2,077)
1.52 m (5 ft.)			<b>2321 (5,117)</b>	1437 (3,167)	<b>1711 (3,772)</b>	899 (1,981)
Ground Line			<b>2821 (6,219)</b>	1334 (2,942)	<b>1896 (4,179)</b>	855 (1,885)
-1.52 m (-5 ft.)	<b>3961 (8,733)</b>	2482 (5,472)	<b>2775 (6,117)</b>	1303 (2,873)	<b>1809 (3,989)</b>	839 (1,849)
-3.05 m (-10 ft.)	<b>3130 (6,901)</b>	2546 (5,613)	<b>2029 (4,473)</b>	1333 (2,938)		

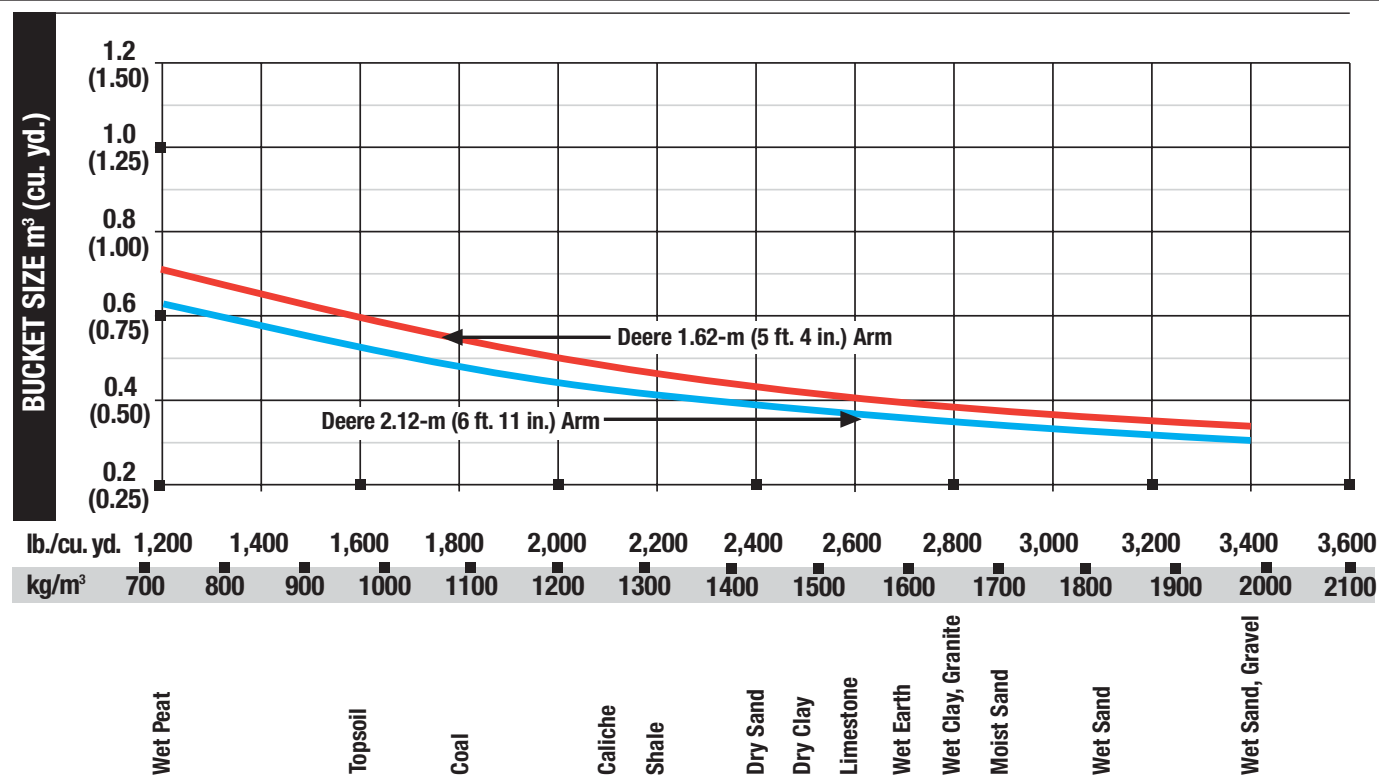
## Buckets

A full line of buckets is offered to meet a wide variety of applications. 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 150 mm (6 in.) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 1.62 m (5 ft. 4 in.)		Arm Dig Force 2.12 m (6 ft. 11 in.)		Bucket Tip Radius		No. Teeth
	mm	in.	m <sup>3</sup>	cu. yd.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	mm	in.	
Heavy-Duty	610	24	0.31	0.40	287	633	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	5
	762	30	0.41	0.53	333	735	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	6
	914	36	0.50	0.66	380	837	54.0	12,061	38.0	8,491	32.0	7,162	1087	42.80	7
Ditching	1219	48	0.49	0.64	330	727	64.0	14,344	40.0	8,911	33.0	7,473	907	35.69	0

\*All capacities are SAE heaped ratings.

## Bucket Selection Guide\*



\*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.

## 75D / 85D EXCAVATORS

**Key:** ● Standard equipment ▲ Optional or special equipment

See your John Deere dealer for further information.

### 75D 85D Engine

- ● Meets EPA Interim Tier 4/EU Stage IIIB emissions
- ● Auto-idle system
- ● Batteries (2 – 12 volt), 100-min. reserve capacity
- ● Coolant recovery tank
- ● Single-element air filter
- ● Electronic engine control
- ● Enclosed fan guard (conforms to SAE J1308)
- ● Engine coolant to -37 deg. C (-34 deg. F)
- ● Fuel filter with water separator
- ● Full-flow oil filter
- ● Turbocharger with charge air cooler
- ● Muffler, under hood, with vertical curved end exhaust stack
- ● Radiator, oil cooler, and intercooler with dust-protective net
- ● Glow-plug start aid
- ● 500-hour engine oil-change interval
- ● 70% (35 deg.) off-level capacity
- ● Isolation mounted
- ● Engine oil-drain coupler

### 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
- ● 5,000-hour hydraulic oil-change interval
- ▲ ▲ Auxiliary hydraulic lines
- ▲ ▲ Auxiliary pilot and electric controls
- ▲ ▲ Hydraulic filter restriction indicator kit
- ▲ ▲ Load-lowering control device
- ▲ ▲ Single-pedal propel control
- ▲ ▲ Control pattern-change valve

### Undercarriage

- ● Planetary drive with axial piston motors
- ● Propel motor shields
- ● Spring-applied, hydraulically released automatic propel brake
- ● Track guides, front idler
- ● 2-speed propel with automatic shift
- ● Upper carrier roller (1)
- ● Sealed and lubricated track chain
- ● Triple semi-grouser shoes, 600 mm (24 in.)

### 75D 85D Undercarriage (continued)

- ● Undercarriage with blade
- ▲ ▲ Rubber crawler pads, 450 mm (18 in.)
- ▲ ▲ Rubber belt, continuous, 450 mm (18 in.)

### Upperstructure

- ● Counterweight, 1383 kg (3,049 lb.)
- ● Counterweight, 1483 kg (3,269 lb.)
- ● Right- and left-hand mirrors
- ● Vandal locks with ignition key: Cab door / Engine hood / Fuel cap / Service doors
- ● Remote-mounted engine oil and fuel filters

### Front Attachments

- ● Centralized lubrication system
- ● Dirt seals on all bucket pins
- ● Less boom and arm
- ● Oil-impregnated bushings
- ● Reinforced resin thrust plates
- ● Tungsten carbide thermal coating on arm-to-bucket joint
- ▲ ▲ Arm, 1.62 m (5 ft. 4 in.)
- ▲ ▲ Arm, 2.12 m (6 ft. 11 in.)
- ▲ ▲ Attachment quick-couplers
- ▲ ▲ Buckets: Ditching / Heavy duty / Heavy-duty high capacity / Side cutters and teeth
- ▲ ▲ Material clamps

### Operator's Station

- ● Adjustable independent control positions (seat-to-pedals)
- ● AM/FM radio
- ● Auto climate control/air conditioner, 5.9 kW (20,000 Btu/hr.), 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 suspension cloth seat with 100-mm (4 in.) adjustable armrests
- ● Deluxe suspension cloth seat with 76-mm (3 in.) adjustable armrests
- ● Floor mat
- ● Front windshield wiper with intermittent speeds
- ● Gauges (illuminated): Engine coolant / Fuel
- ● Horn, electric
- ● Hour meter, electric
- ● Hydraulic shutoff lever, all controls
- ● Hydraulic warm-up control

### 75D 85D Operator's Station (continued)

- ● Interior light
- ● Large cup holder
- ● Machine Information Center (MIC)
- ● Mode selectors (illuminated): Power modes (2) / Travel modes (2 with automatic shift) / Work mode (1)
- ● 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, fault-code alert indicator, fuel-rate display, wiper-mode indicator, work-lights-on indicator, and work-mode indicator
- ● Motion alarm with cancel switch (conforms to SAE J994)
- ● Auxiliary hydraulic control switches in right console lever
- ● SAE 2-lever control pattern
- ● Seat belt, 51 mm (2 in.), retractable
- ● Tinted glass
- ● Transparent tinted overhead hatch
- ● Transparent tinted overhead window
- ● Hot/cold beverage compartment
- ▲ ▲ Seat belt, 76 mm (3 in.), non-retractable
- ▲ ▲ Monitor system with alarm features: Hydraulic oil filter restriction indicator light
- ▲ ▲ 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™ wireless communication system (available in specific countries; see your dealer for details)

### Lights

- ● Work lights: Halogen / One mounted on boom / One mounted on frame

## CONTROL OWNING AND OPERATING COSTS

**Customer Personal Service (CPS)** is part of our 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:

**Customer Support Advisors (CSAs)** lend a *personal* touch 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.

**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.



JOHN DEERE

01-02-13

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 3050-m (10,000 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 standard equipment; 0.41-m<sup>3</sup> (0.53 cu. yd.), 762-mm (30 in.), 333-kg (735 lb.) bucket; 600-mm (24 in.) triple semi-grouser shoes; 1.62-m (5 ft. 4 in.) arm; full fuel tank; and 79-kg (175 lb.) operator; a 75D unit with 1383-kg (3,049 lb.) counterweight; and an 85D unit with 1483-kg (3,269 lb.) counterweight.

