## **SKIDDERS**

640L / 648L / 748L / 848L / 948L









#### TO DESIGN OUR GAME-CHANGING L-SERIES SKIDDERS,

we went to the woods. We met with loggers — the ones who live it every day — and let them do the talking. *And we listened*.

Through Customer Advocate Groups (CAGs), we collected invaluable input. Our engineers then devoted 250,000 hours to designing prototypes based on these fresh ideas.

But we didn't stop there. We continued to refine these skidders until we got them exactly right, validating them in over 11,500 hours of testing in everyday, real-world conditions.

Built on 175 years of groundbreaking innovation. Backed by over a half-century of experience in the woods. And designed with proven components to withstand the toughest environments. Our new L-Series Skidders are our most reliable and productive ever — redefining your expectations of what a skidder can accomplish for your logging operation.



Deere is totally open to any opinion. 'How can we make it better?' is their mantra. And they've really applied our suggestions to these new machines. That's what you want in a company. It makes a huge difference.

**Oz Thorndike, CAG member** Maine-ly Trees, Strong, Maine

### **BUILT FOR THE LONG HAUL**

## Won't back down. Or let you down.

In the forest, uptime is the name of the game. And our L-Series Skidders aren't interested in playing nice.

#### **Durable drivetrain**

A constant engine speed ensures superb multifunction performance and dependability. It also eliminates sudden surges and engine overspeed, reducing component wear and extending engine life. The 640L, 648L, and 748L feature high-performance 6.8L diesel engines, while the 848L and 948L run powerful 9.0L engines.

#### Tougher grapples

New grapple design features boxstyle tongs for maximum strength and harder wear surfaces for long life. Components are easier to access, simplifying service.

#### Outstanding axle durability

All L-Series models feature more robust heavy-duty axles. New pressurized continuous-lube system and independent axle filters further improve durability and extend life — up to 15,000 hours. Axle oil-pressure monitoring alerts the operator if a leak occurs.

#### Outboard-Extreme™ axle

Our rugged new Outboard-Extreme rear axle (standard on the 848L and 948L, optional on the 748L) is the biggest, most rugged axle in the woods and sets a new standard for reliability.

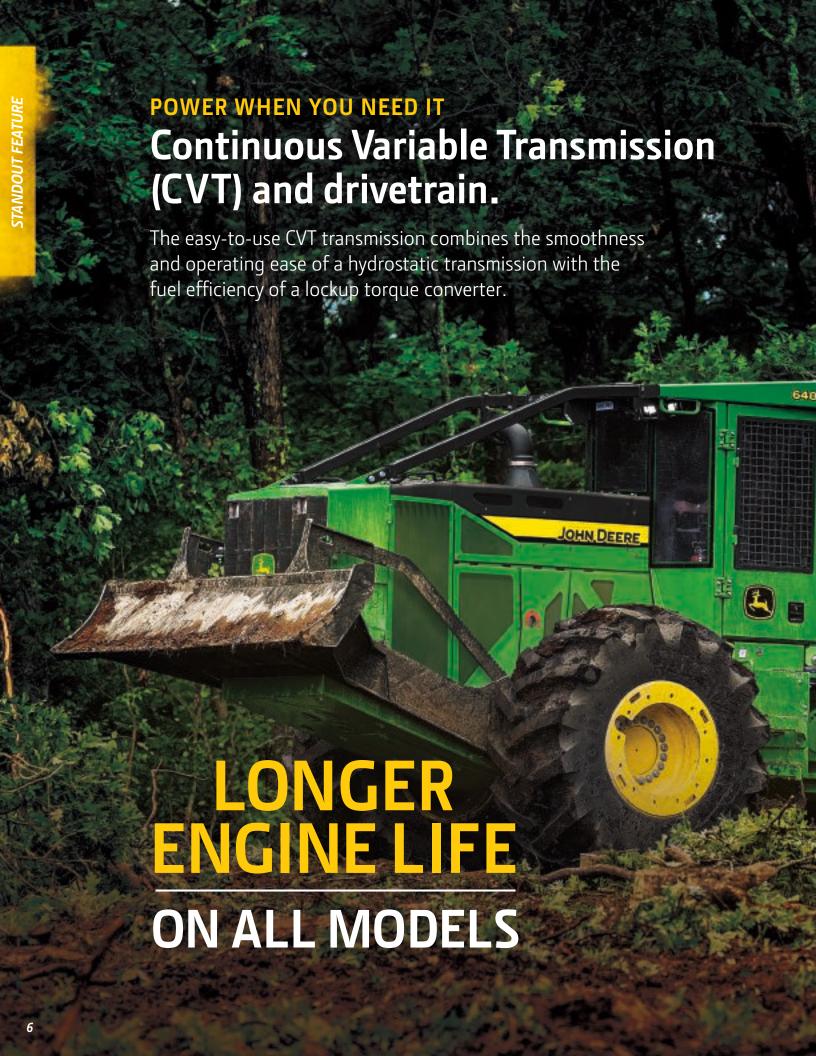
## Straight bushings with grease-thru pins

Straight bushings at all grapple, arch, boom, and blade joints deliver longer, trouble-free life and are easier to replace. Grease-thru pins ensure even lubrication and are more resistant to dust, rust, and debris.

#### More durable, easierto-service components

The beefier roller-bearing articulation joint has been updated for longer life. Boom-arch hoses have been rerouted inside the arch where they are better protected and easier to access for fast repair.









#### FT4 COMPLIANCE

## Tiers without fears.

You asked for the best technology to meet EPA Final Tier 4/EU Stage IV emission regulations, and we listened. We understand your concerns, so we've always focused on adding the right engine technologies at the right time. This smart approach to meeting emission regulations doesn't compromise on power, reliability, or ease of operation.

#### FT4 engines

Our FT4/Stage IV diesel engines meet emission regulations without sacrificing power or torque. We built on our EPA Interim Tier 4 (IT4)/EU Stage IIIB solution to deliver the best combination of performance, efficiency, and reliability. These technologies are simple and fluid efficient.

#### Minimal impact on operation

During normal operating conditions, the engine's natural heat breaks down trapped particulate matter and cleans the exhaust filter without impacting machine operation.

Ash-service intervals for the diesel particulate filter (DPF) are condition based, meaning the machine will notify the operator before service is required. Typically, ash service is not necessary until the first engine overhaul. Machine application, regular maintenance practices, and type of lubricating oil impact ash-service intervals.

#### Low total fluid consumption

John Deere FT4 engines maintain engine performance while minimizing total fluid consumption — diesel fuel plus diesel exhaust fluid (DEF). The exceptionally low DEF consumption rate reduces the need for DEF by four to six times compared to some other FT4 systems.



One of the biggest fears everybody had with the FT4 components was where were we going to put them in a small space. Even with these new components, the serviceability has greatly increased. You can now reach the top of the motor easier.

**Derek Paternostro, General Manager** Doggett Machinery Services, Covington, Louisiana











### Rotating seat provides more comfortable rear view

Opt for a rotating high-backed seat with joystick steering. The rotating seat improves rearward visibility to the grapple and minimizes neck turn.

#### **Enhanced lighting options**

Six high-intensity halogen lights are standard when you need to extend your workday beyond daylight. For additional illumination, opt for a working-light or LED package.

#### Configurable controls

Multiple operators can adjust control settings to their individual preferences and save favorite configurations, reducing reprogramming time and helping keep operators productive and on the job.

#### **Effortless operation**

Armrest-mounted electrohydraulic (EH) controls provide fingertip control of all machine functions and turn with you when you use the optional rotating seat. Optional joystick steering is smooth and responsive, providing intuitive, low-effort control of steering, direction, and ground speed.

They've done pretty much everything we discussed. A big improvement is the size of the cab. The joystick controls are quite easy to use — they're great. And the rotating seat is a lot easier on operators. They'll work longer and happier without strain.

**Roger Ferguson, CAG member** Sika Logging, Taupo, New Zealand







#### Quick and easy serviceability

Filters and critical components are conveniently located for fast service. Large panels are easily removed for wide-open access to the engine compartment, and the cab tilts to provide a quick route to other components. Grease points for boom and arch are easily reached from ground level, while extended service intervals help to further reduce

#### Auto-idle and shutdown

Auto-idle automatically reduces engine speed after an operator-configurable interval of inactivity, reducing fuel consumption and noise, while extending component life. Auto shutdown turns off the engine after a preset length of time, further reducing engine wear and fuel costs.

#### Reliable fuel economy

Efficient Continuous Variable Transmission (CVT) keeps engine speed constant to reduce fuel consumption, while maintaining a smooth ride and providing optimal power to the ground.



# SERVICE MA

#### Hydraulic reversing fan

Auto-reversing fan reverses airflow at 30-min. intervals, or can be activated by the operator as needed, to eject debris from the cooler cores. Variable-speed fan runs only as fast as needed, or if conditions demand more frequent cleaning, simply press a button to actuate the reversing cycle.

## Extended filter-change interval

Hydraulic filter service has been extended from 2,000 to 4,000 hours, decreasing planned downtime and expense. Most customers will be able to work a whole season without a change interrupting production.

## Wide-open access to cooling package

Cooling fan and other cooling system components swing out for quick and easy cleaning. Cooling fan reverse times are programmable to alternate settings to meet specific applications or conditions.



# DE SIMPLE.

## 640L/648L/748L

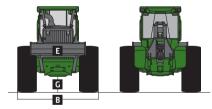
JOHN DEERE

Engine	640L / 648L		748L	
Manufacturer / Model	John Deere PowerTech™ PSS 6.8L	John DeerePowerTech™ 6.8L	John Deere PowerTech PSS 6.8L	John Deere PowerTech 6
Off-Road Emission Standards	EPA Final Tier 4 / EU Stage IV	EPA Tier 2 / EU Stage II	EPA Final Tier 4 / EU Stage IV	EPA Tier 2 / EU Stage II
Gross Power	163 kW (218 hp)	157 kW (210 hp)	181 kW (243 hp)	172 kW (231 hp)
Gross Torque	979 Nm (722 ftlb.)	943 Nm (695 ftlb.)	1093 Nm (806 ftlb.)	1020 Nm (752 ftlb.)
Number of Cylinders	6	(10.0 )	(0.10,00.1)	(
Valves per Cylinder	4			
Engine Displacement	6.8 L (414 cu. in.)			
Engine Bore and Stroke	106 x 127 mm (4.19 X 5.00 in.)			
Fuel System	High-pressure common rail			
Aspiration	Turbocharged and charge-air coo	lad		
Air Cleaner	Dual stage with safety element ar			
		id dust dilloader valve		
Engine Cold-Start System	Glow plugs			
Cooling	640L / 648L / 748L			
Cooling System	Heavy-duty radiator with continu		reservoir	
Fan Drive	Hydraulic, variable speed, reversir	ng	7/01	
Powertrain	640L / 648L		748L	
Transmission	Continuous Variable Transmission	ı (CVT)	Continuous Variable Transmission	n (CVT)
Speed Ranges, Forward	6		6	
and Reverse				
Maximum Travel Speed with	0-24.74 km/h (0-15.37 mph) -	6 speed-range configurations avai	lable	
30.5-32 Tires				
Axles				
Front Axle Oscillation, Stop	30 deg.		30 deg.	
to Stop	5		<u> </u>	
Options	1400 Extreme Duty and SWEDA™		1425 SWEDA and 1700 Outboard	I-Fxtreme™
Differential (front and rear)	Hydraulic-locking, operated-on-tl	he-go closed-center differential lo		LACICITIC
Directinal (mont and rear)	Fully hydraulic, joystick or wheel	ne go, crosed center differential ic	Fully hydraulic, joystick or wheel	
Stooring				
3			/LE dog oach direction	
Steering Articulation Angle	45 deg. each direction	6 :	45 deg. each direction	
Articulation Angle Service Brakes	45 deg. each direction Inboard-mounted, wet-disc, oil-co	ooled, self-adjusting and self-equa	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd	ooled, self-adjusting and self-equa Iraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake Hydraulics	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake <b>Hydraulics</b> Main Pump	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake <b>Hydraulics</b> Main Pump Maximum Displacement	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake <b>Hydraulics</b> Main Pump Maximum Displacement Electrical System	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake <b>Hydraulics</b> Main Pump Maximum Displacement <b>Electrical System</b> Voltage	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt)	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake <b>Hydraulics</b> Main Pump Maximum Displacement <b>Electrical System</b> Voltage	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt)	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA	fraulically released, sealed and lub	llizing front and rear axles	
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional)	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp	fraulically released, sealed and lub	llizing front and rear axles	748L
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional)	45 deg. each direction Inboard-mounted, wet-disc, oil-cc Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11	Iraulically released, sealed and lub e displacement 648L	llizing front and rear axles	<b>748L</b> <i>Dual Function</i>
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples	45 deg. each direction Inboard-mounted, wet-disc, oil-cc Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11	Iraulically released, sealed and lub	ilizing front and rear axles ricated, wet multi-disc	
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity	45 deg. each direction Inboard-mounted, wet-disc, oil-cc Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L	Iraulically released, sealed and lub e displacement  648L Single Function	lizing front and rear axles ricated, wet multi-disc  Dual Function	Dual Function
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening	45 deg. each direction Inboard-mounted, wet-disc, oil-cc Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L N/A	Iraulically released, sealed and lub e displacement  648L Single Function 3015 mm (118.7 in.)	Dual Function 3218 mm (126.7 in.)	Dual Function 3267 mm (128.6 in.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area	45 deg. each direction Inboard-mounted, wet-disc, oil-cc Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L	Iraulically released, sealed and lub e displacement  648L Single Function	lizing front and rear axles ricated, wet multi-disc  Dual Function	Dual Function
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A	draulically released, sealed and lube edisplacement  648L  Single Function  3015 mm (118.7 in.)  1.00 m² (10.8 sq. ft.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Opening	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A	draulically released, sealed and lube edisplacement  648L  Single Function  3015 mm (118.7 in.)  1.00 m² (10.8 sq. ft.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.) 3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Sectrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A	draulically released, sealed and lube edisplacement  648L  Single Function  3015 mm (118.7 in.)  1.00 m² (10.8 sq. ft.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)	Dual Function  3267 mm (128.6 in.)  1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Sectrical System Joltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.) 3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Sectrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.) 3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick	3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) 3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Sectrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.) 3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick  391.8 L (103.5 gal.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Selectrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.) 406.9 L (107.5 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.)	3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) 3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick 391.8 L (103.5 gal.) 457.7 L (120.9 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.) 3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick  391.8 L (103.5 gal.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.) 406.9 L (107.5 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.)  N/A N/A Joystick  342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.)	Dual Function  3267 mm (128.6 in.)  1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.)  1.77 m² (19.1 sq. ft.)  Joystick  391.8 L (103.5 gal.)  457.7 L (120.9 gal.)  123.6 L (32.6 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Sectrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.)  N/A N/A Joystick  342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) 3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick 391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples  Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights Machine Weight	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.)  N/A N/A Joystick  342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.)	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.)  N/A N/A Joystick  342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)	3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) 3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick 391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples  Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights Machine Weight Dozer Blade	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 16 061 kg (35,410 lb.)	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 17 844 kg (39,340 lb.) Single Function	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)  19 054 kg (42,009 lb.)  Dual Function	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)  19 713 kg (43,460 lb.)  Dual Function
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples  Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights Machine Weight	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 16 061 kg (35,410 lb.)	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick  342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 17 844 kg (39,340 lb.)  Single Function 2192 mm (86.3 in.) or	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)  19 054 kg (42,009 lb.)  Dual Function 2192 mm (86.3 in.) or	3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) 3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick 391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)
Articulation Angle Service Brakes Parking Brake Hydraulics Main Pump Maximum Displacement Electrical System Voltage Number of Batteries (12 volt) Battery Capacity (each) Alternator Rating Lights (optional) Grapples  Standard Capacity Opening Area High Capacity Opening Area Control Refill Capacities Fuel Tank Standard Optional Hydraulic Reservoir Diesel Exhaust Fluid (DEF) Tank Operating Weights Machine Weight Dozer Blade	45 deg. each direction Inboard-mounted, wet-disc, oil-co Automatically spring-applied, hyd 640L / 648L / 748L Open circuit, axial piston, variable 60 cc/rev (3.66 ci/rev)  24 volt 2 950 CCA 150 amp 11 640L  N/A N/A N/A N/A N/A N/A N/A 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 16 061 kg (35,410 lb.)	648L Single Function 3015 mm (118.7 in.) 1.00 m² (10.8 sq. ft.) N/A N/A Joystick 342.2 L (90.4 gal.) 406.9 L (107.5 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.) 17 844 kg (39,340 lb.) Single Function	Dual Function  3218 mm (126.7 in.) 1.24 m² (13.3 sq. ft.)  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)  19 054 kg (42,009 lb.)  Dual Function	Dual Function  3267 mm (128.6 in.) 1.48 m² (15.9 sq. ft.)  3737 mm (147.1 in.) 1.77 m² (19.1 sq. ft.) Joystick  391.8 L (103.5 gal.) 457.7 L (120.9 gal.) 123.6 L (32.6 gal.) 20.9 L (5.5 gal.)  19 713 kg (43,460 lb.)  Dual Function

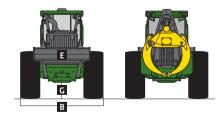


Winch	640L / 648L / 748L			
Winch Control	Joystick control, hydraulically	driven		
Cable Capacity	4000 with 204-mm (8 in.) Drum		6000 with 279.5-mm (11 in.) Drum – 2 Speed	
15.8 mm (5/8 in.)	77.4 m (252 ft.)		119.0 m (390 ft.)	
19.1 mm (3/4 in.)	54.6 m (177 ft.)		81.4 m (267 ft.)	
22.2 mm (7/8 in.)	39.3 m (128 ft.)		60.3 m (197 ft.)	
25.4 mm (1 in.)	30.7 m (100 ft.)		46.0 m (150 ft.)	
Line Pull at Stall – 15.8-mm (5/8 in.) Cable	Bare Drum		Bare Drum	
Standard Speed	182.3 kN (41,000 lb.)		N/A	
Low Speed	N/A		221.0 kN (49,696 lb.)	
High Speed	N/A		147.3 kN (33,131 lb.)	
Winch	640L		648L / 748L	
Line Speed – 15.8-mm (5/8 in.) Cable	4000 with 204-mm	6000 with 279.5-mm (11 in.)	4000 with 204-mm	6000 with 279.5-mm (11 in.)
·	(8 in.) Drum	Drum – 2 Speed	(8 in.) Drum	Drum – 2 Speed
Standard Speed	19.2 m/min. (63 fpm)	N/A	14.0 m/min. (46 fpm)	N/A
Low Speed	N/A	18.2 m/min. (60 fpm)	N/A	13.4 m/min. (44 fpm)
High Speed	N/A	27.4 m/min. (90 fpm)	N/A	20.1 m/min. (66 fpm)
Machine Dimensions	640L	648L		748L
		Single Function	Dual Function	Dual Function
Tire Size	30.5-32	30.5-32	30.5-32	30.5-32
A Overall Height	3318 mm (130.6 in.)	3318 mm (130.6 in.)	3318 mm (130.6 in.)	3318 mm (130.6 in.)
B Overall Width	3233 mm (127.3 in.)	3233 mm (127.3 in.)	3233 mm (127.3 in.)	3239 mm (127.5 in.)
C Maximum Blade Lift Above Ground	1517 mm (59.7 in.)	1517 mm (59.7 in.)	1517 mm (59.7 in.)	1517 mm (59.7 in.)
D Maximum Blade Dig Below Ground	359 mm (14.1 in.)	359 mm (14.1 in.)	359 mm (14.1 in.)	359 mm (14.1 in.)
E Dozer Blade Width	2192 mm (86.3 in.)	2192 mm (86.3 in.)	2192 mm (86.3 in.)	2962.4 mm (116.6 in.)
Optional Dozer Blade Width	2962.4 mm (116.6 in.)	2962.4 mm (116.6 in.)	2962.4 mm (116.6 in.)	N/A
F Wheelbase	3680 mm (144.8 in.)	3680 mm (144.8 in.)	3680 mm (144.8 in.)	3925 mm (154.5 in.)
<b>G</b> Ground Clearance	555 mm (21.8 in.)	557 mm (21.9 in.)	557 mm (21.9 in.)	557 mm (21.9 in.)
H Overall Length	7591 mm (298.9 in.)	7685 mm (302.5 in.)	8029 mm (316.1 in.)	8384 mm (330.0 in.)

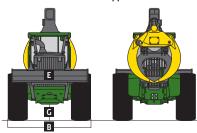
#### 640L Skidder



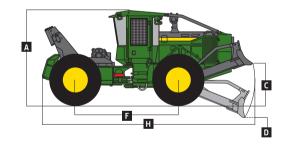
#### 648L Single-Function Grapple

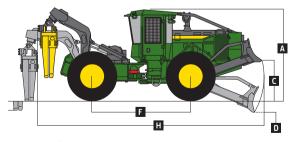


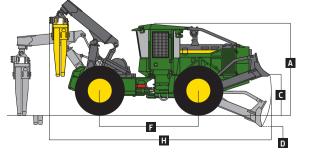
#### 648L / 748L Dual-Function Grapple



 $\label{lem:machine} Machine not exactly as shown. Illustrations for dimensioning purposes only. Specifications are subject to change without notice.$ 







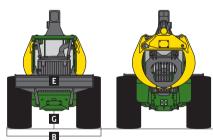
## 848L/948L

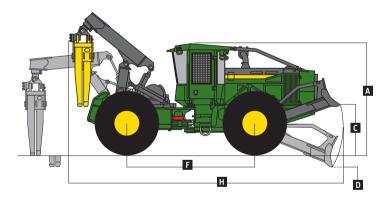
Engine	848L		948L	
Manufacturer / Model	John Deere PowerTech™ PSS 9.0L	John Deere PowerTech™ 9.0L	John Deere PowerTech PSS 9.0L	John Deere PowerTech S
Off-Road Emission Standards	EPA Final Tier 4 / EU Stage IV	EPA Tier 2 / EU Stage II	EPA Final Tier 4 / EU Stage IV	EPA Tier 2 / EU Stage II
Gross Power	198 kW (265 hp)	198 kW (265 hp)	210 kW (281 hp)	210 kW (281 hp)
Gross Torque	1191 Nm (878 ftlb.)	1191 Nm (878 ftlb.)	1276 Nm (941 ftlb.)	1276 Nm (941 ftlb.)
Number of Cylinders	6		1270 1011 (5 11 101 101)	12/011111 (51111111111)
Valves per Cylinder	4			
Engine Displacement	9.0 L (548 cu. in.)			
Engine Bore and Stroke	118 x 136 mm (4.66 X 5.35 in.)			
Fuel System	High-pressure common rail			
Aspiration	Turbocharged and charge-air cool	lad		
Air Cleaner	Dual stage with safety element an			
Engine Cold-Start System	Auto ether	id dust dilloader valve		
Cooling	848L / 948L			
Cooling System		ous deaeration tank and recovery i	rocarvoir	
2 2			ezervon	
Fan Drive	Hydraulic, variable speed, reversir	ig		
Powertrain Transmission	Continuous Variable Transmission	(C)/T)		
	6	(CVI)		
Speed Ranges, Forward and Reverse				
Maximum Travel Speed with 35.5-32 Tires	0–25.0 km/h (0–15.53 mph) — 6	speed-range configurations availa	able	
Axles	1700 Outboard-Extreme™			
Front Axle Oscillation,	30 deg.			
Stop to Stop				
Differential (front and rear)	Hydraulic-locking, operated-on-th	ne-go, closed-center differential lo	ock	
Steering	Fully hydraulic, joystick or wheel			
Articulation Angle	45 deg. each direction			
Service Brakes		ooled, self-adjusting and self-equa	lizing front and rear axles	
Parking Brake		raulically released, sealed and lubi		
Hydraulics	, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,		
Main Pump	Open circuit, axial piston, variable	displacement		
Maximum Displacement	60 cc/rev (3.66 ci/rev)			
Electrical System	,			
Voltage	24 volt			
Number of Batteries (12 volt)	2			
Battery Capacity (each)	950 CCA			
Alternator Rating	150 amp			
Lights (optional)	11			
Grapples	848L		948L	
отаррісэ	Dual Function		Dual Function	
Capacity	Dadi i diletion		Dadi i diletion	
	3737 mm (147.1 in.)		3851 mm (151.6 in.)	
Opening				
Area	1.77 m <sup>2</sup> (19.1 sq. ft.)		2.07 m <sup>2</sup> (22.3 sq. ft.)	
Control  Pofill Conscision	Joystick		Joystick	
Refill Capacities	848L / 948L			
Fuel Tank	201.01./102.5			
Standard	391.8 L (103.5 gal.)			
Optional	457.7 L (120.9 gal.)			
Hydraulic Reservoir	123.6 L (32.6 gal.)			
Diesel Exhaust Fluid (DEF) Tank	20.9 L (5.5 gal.)			
Operating Weights	848L		948L	
	22 384 kg (49,349 lb.)		22 416 kg (49,420 lb.)	
Machine Weight	3. , ,			
Machine Weight  Dozer Blade	848L / 948L			



Winch	848L / 948L	
Winch Control	Joystick control, hydraulically driven	
Cable Capacity	4000 with 204-mm (8 in.) Drum	6000 with 279.5 mm (11 in.) Drum – 2 Speed
15.8 mm (5/8 in.)	77.4 m (252 ft.)	119.0 m (390 ft.)
19.1 mm (3/4 in.)	54.6 m (177 ft.)	81.4 m (267 ft.)
22.2 mm (7/8 in.)	39.3 m (128 ft.)	60.3 m (197 ft.)
25.4 mm (1 in.)	30.7 m (100 ft.)	46.0 m (150 ft.)
Line Pull at Stall – 15.8-mm (5/8 in.) Cable	Bare Drum	Bare Drum
Standard Speed	182.3 kN (41,000 lb.)	N/A
Low Speed	N/A	221.0 kN (49,696 lb.)
High Speed	N/A	147.3 kN (33,131 lb.)
Line Speed – 15.8-mm (5/8 in.) Cable		
Standard Speed	14.0 m/min. (46 fpm)	N/A
Low Speed	N/A	13.4 m/min. (44 fpm)
High Speed	N/A	20.1 m/min. (66 fpm)
Machine Dimensions		
	Dual Function	
Tire Size	35.5-32	
A Overall Height	3379 mm (133.0 in.)	
B Overall Width	3485 mm (137.2 in.)	
C Maximum Blade Lift Above Ground	1578 mm (62.1 in.)	
D Maximum Blade Dig Below Ground	298 mm (11.7 in.)	
E Dozer Blade Width	2962.4 mm (116.6 in.)	
<b>F</b> Wheelbase	3975 mm (156.5 in.)	
<b>G</b> Ground Clearance	542 mm (21.3 in.)	
H Overall Length	8469 mm (333.4 in.)	

#### 848L / 948L Dual-Function Grapple









DKDLSKDR Litho in U.S.A. (15-04)

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