

SKIDDERS

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



JOHN DEERE



INTRODUCING THE
L-SERIES

***GAME
CHANGER.***





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 box-style 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 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, easier-to-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.

Simplified electrical system

The number of relays and switches has been greatly reduced, simplifying maintenance of the electrical system. Diagnostic software makes it easy to troubleshoot any wiring issues.



UP TO **15K** HOURS
AXLE LIFE*

*Not applicable to dual tire configurations.

POWER WHEN YOU NEED IT

Continuously Variable Transmission (CVT) and drivetrain.

The easy-to-use CVT transmission combines the smoothness and operating ease of a hydrostatic transmission with the fuel efficiency of a lockup torque converter.



LONGER ENGINE LIFE

ON ALL MODELS



Improved durability and impressive fluid economy

The new CVT transmission enables a constant engine speed, reducing engine wear while ensuring excellent fluid economy. Proven components, simplified electronics, and internally routed hoses further bolster durability.

Easy to operate

No more shifting — or “shift shocks” due to surging rpm. Simply set the maximum speed and let the transmission do the rest. Configurable speed ranges eliminate the need to hunt for the correct gear, shortening the learning curve for new operators while helping experienced operators maximize productivity.

More power to the ground

CVT automatically senses the load, delivering more torque and tractive effort as needed to maintain the desired speed.

Optimal engine speed

Engine speed remains at a constant 1,800 rpm, allowing consistent multifunction performance and lower fuel consumption.



60.5K

TEST HOURS TOWARDS FT4

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



DRAG MORE WOOD All business.

L-Series Skidders deliver more horsepower, stability, and grapple options — for the serious performance you need to stay on top of your game.



More grapple choices

New larger grapples — up to a massive 22.3 sq. ft. on the 948L (that's 25-percent larger than the largest H-Series machine) — give you more flexibility to configure a skidder to best match your application. The new arch design provides a better view to bunches for more efficient loading.

Increased power and stability

L-Series machines combine best-in-class horsepower and an impressive power-to-weight ratio with a constant engine speed — for superb responsiveness and maximum efficiency. Better machine balance optimizes pulling power, while improving stability when climbing hills, navigating adverse terrain, or hauling bigger payloads.

Independent axle diff lock

Engage all four tires, or just the front two or rear two as needed, to maneuver through tough terrain or out of tight spots.

Easy EH controls

Electrohydraulic (EH) controls deliver one-of-a-kind operating ease and smooth control for faster combined-function cycle times.



**UP TO
40% FASTER
CYCLE TIMES**
OF THE BOOM, ARCH, AND GRAPPLE

A white line diagram with arrows indicating the dimensions of the yellow grapple. A vertical double-headed arrow on the left indicates height, and a horizontal double-headed arrow at the bottom indicates width. The text is centered within the diagram's bounding box.

**LARGEST GRAPPLE IS
25%
LARGER**



25%
LARGER
OPERATOR
STATION

75%
LARGER
REAR
WINDOW



1/2 THE NOISE

OPERATE IN QUIET COMFORT
Strong, silent type.

Your operators will quietly go about their business with less fatigue in an L-Series Skidder. Designed by loggers for loggers, the cab is 25-percent roomier and 50-percent quieter. Other fatigue-beating creature comforts include a more efficient HVAC system, improved ergonomic controls, and plenty of storage space. Joystick steering and an optional rotating seat reduce strain on your back and neck.



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





ULTIMATE UPTIME, FORESTSIGHT™, TIMBERNAVI™

Because time is money.

As a logger, you demand more uptime. Fast, accurate diagnosis of machine problems. Rapid, effective service response and the right part, the first time. And closer tracking of machines and operators for efficient operation. John Deere forestry technology solutions are there to help you.



Ultimate Uptime

In addition to the base John Deere ForestSight features, our dealers work with you to build an uptime package that meets your specific needs, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.

John Deere ForestSight

With a JDLink™ subscription, alerts can be sent to your computer or mobile device — or your dealer, if you choose — to inform you of immediate machine issues. If downtime does occur, exclusive remote diagnostics and programming enable your Deere dealer to minimize the time and cost associated with sending a technician to the logging site for an initial diagnostic visit. You can also receive reminders of periodic scheduled maintenance on your computer or mobile device, or from your dealer.

More visibility, more profitability

TimberNavi is an all-new jobsite mapping solution designed for full-tree logging operations. It gives you in-machine visibility of current position, harvesting area, points of interest, and more. It features alarm functionality to give operators increased awareness of cut-block boundaries and hazards, and a 10-in. high-resolution display that makes the entire jobsite visible at a glance. By delivering accurate location information in real time, TimberNavi enables operators to navigate confidently and efficiently through the jobsite.

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 maintenance time.

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 Continuously 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

Engine	640L / 648L		748L	
Manufacturer / Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ 6.8L	John Deere PowerTech PSS 6.8L	John Deere PowerTech 6.8L
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 ft.-lb.)	943 Nm (695 ft.-lb.)	1093 Nm (806 ft.-lb.)	1020 Nm (752 ft.-lb.)
Number of Cylinders	6			
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 cooled			
Air Cleaner	Dual stage with safety element and dust unloader valve			
Engine Cold-Start System	Glow plugs			
Cooling	640L / 648L / 748L			
Cooling System	Heavy-duty radiator with continuous deaeration tank and recovery reservoir			
Fan Drive	Hydraulic, variable speed, reversing			
Powertrain	640L / 648L		748L	
Transmission	Continuously Variable Transmission (CVT)		Continuously Variable Transmission (CVT)	
Speed Ranges, Forward and Reverse	6		6	
Maximum Travel Speed with 30.5-32 Tires	0–24.74 km/h (0–15.37 mph) — 6 speed-range configurations available			
Axles				
Front Axle Oscillation, Stop to Stop	30 deg.		30 deg.	
Options	1400 Extreme Duty and SWEDA™		1425 SWEDA and 1700 Outboard-Extreme™	
Differential (front and rear)	Hydraulic-locking, operated-on-the-go, closed-center differential lock			
Steering	Fully hydraulic, joystick or wheel		Fully hydraulic, joystick or wheel	
Articulation Angle	45 deg. each direction		45 deg. each direction	
Service Brakes	Inboard-mounted, wet-disc, oil-cooled, self-adjusting and self-equalizing front and rear axles			
Parking Brake	Automatically spring-applied, hydraulically released, sealed and lubricated, wet multi-disc			
Hydraulics	640L / 648L / 748L			
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	640L	648L	748L	
		<i>Single Function</i>	<i>Dual Function</i>	<i>Dual Function</i>
Standard Capacity				
Opening	N/A	3015 mm (118.7 in.)	3218 mm (126.7 in.)	3267 mm (128.6 in.)
Area	N/A	1.00 m ² (10.8 sq. ft.)	1.24 m ² (13.3 sq. ft.)	1.48 m ² (15.9 sq. ft.)
High Capacity				
Opening	N/A	N/A	3267 mm (128.6 in.)	3737 mm (147.1 in.)
Area	N/A	N/A	1.48 m ² (15.9 sq. ft.)	1.77 m ² (19.1 sq. ft.)
Control	N/A	Joystick	Joystick	Joystick
Refill Capacities				
Fuel Tank				
Standard	342.2 L (90.4 gal.)	342.2 L (90.4 gal.)	391.8 L (103.5 gal.)	391.8 L (103.5 gal.)
Optional	N/A	406.9 L (107.5 gal.)	457.7 L (120.9 gal.)	457.7 L (120.9 gal.)
Hydraulic Reservoir	123.6 L (32.6 gal.)	123.6 L (32.6 gal.)	123.6 L (32.6 gal.)	123.6 L (32.6 gal.)
Diesel Exhaust Fluid (DEF) Tank	20.9 L (5.5 gal.)	20.9 L (5.5 gal.)	20.9 L (5.5 gal.)	20.9 L (5.5 gal.)
Operating Weights				
Machine Weight	16 686 kg (36,787 lb.)	17 844 kg (39,340 lb.)	19 054 kg (42,009 lb.)	19 713 kg (43,460 lb.)
Dozer Blade				
		<i>Single Function</i>	<i>Dual Function</i>	<i>Dual Function</i>
Width	2192 mm (86.3 in.) or 2962.4 mm (116.6 in.)	2192 mm (86.3 in.) or 2962.4 mm (116.6 in.)	2192 mm (86.3 in.) or 2962.4 mm (116.6 in.)	2962.4 mm (116.6 in.)
Height	687.6 mm (27.1 in.)	687.6 mm (27.1 in.)	687.6 mm (27.1 in.)	687.6 mm (27.1 in.)

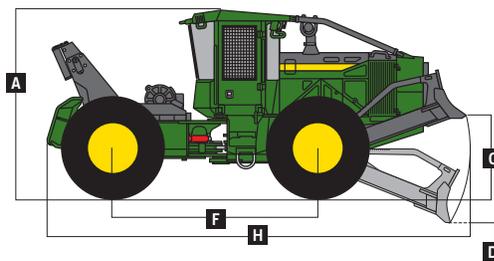
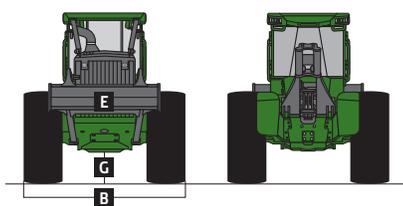


Winch		640L / 648L / 748L		
Winch Control	Joystick control, hydraulically driven			
Cable Capacity	4000 with 204-mm (8 in.) Drum	6000 with 279.5-mm (11 in.) Drum – 2 Speed		
15.8 mm (5/8 in.)	77.4 m (252 ft.)	119.0 m (390 ft.)		
19.1 mm (3/4 in.)	54.6 m (177 ft.)	81.4 m (267 ft.)		
22.2 mm (7/8 in.)	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.)		

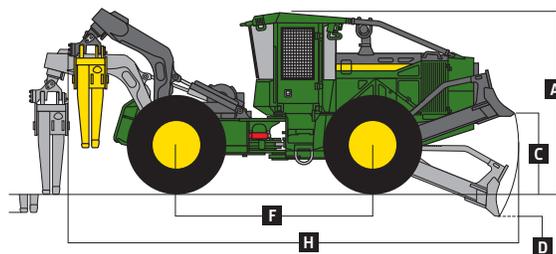
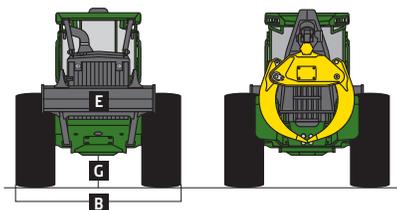
Winch		640L		648L / 748L	
Line Speed – 15.8-mm (5/8 in.) Cable	4000 with 204-mm (8 in.) Drum	6000 with 279.5-mm (11 in.) Drum – 2 Speed	4000 with 204-mm (8 in.) Drum	6000 with 279.5-mm (11 in.) Drum – 2 Speed	6000 with 279.5-mm (11 in.) Drum – 2 Speed
Standard Speed	19.2 m/min. (63 fpm)	N/A	14.0 m/min. (46 fpm)	N/A	N/A
Low Speed	N/A	18.2 m/min. (60 fpm)	N/A	13.4 m/min. (44 fpm)	N/A
High Speed	N/A	27.4 m/min. (90 fpm)	N/A	20.1 m/min. (66 fpm)	N/A

Machine Dimensions		640L		648L		748L	
		Single Function		Dual Function		Dual Function	
Tire Size		30.5-32		30.5-32		30.5-32	
A Overall Height		3365 mm (132.5 in.)		3365 mm (132.5 in.)		3365 mm (132.5 in.)	
B Overall Width		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.)	
D Maximum Blade Dig Below Ground		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.)		2962.4 mm (116.6 in.)	
Optional Dozer Blade Width		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.)		3925 mm (154.5 in.)	
G Ground Clearance		555 mm (21.8 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.)	

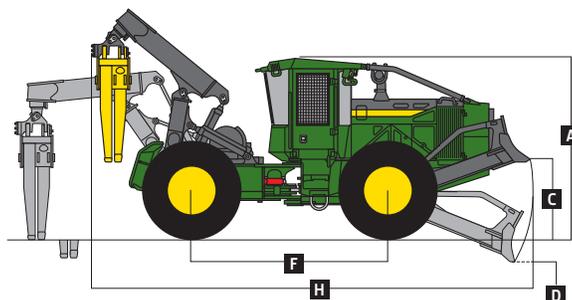
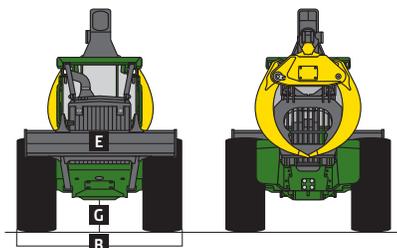
640L Skidder



648L Single-Function Grapple



648L / 748L Dual-Function Grapple



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
Off-Road Emission Standards	EPA Final Tier 4 / EU Stage IV	EPA Tier 2 / EU Stage II
Gross Power	198 kW (265 hp)	210 kW (281 hp)
Gross Torque	1191 Nm (878 ft.-lb.)	1276 Nm (941 ft.-lb.)
Number of Cylinders	6	
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 cooled	
Air Cleaner	Dual stage with safety element and dust unloader valve	
Engine Cold-Start System	Auto ether	
Cooling	848L / 948L	
Cooling System	Heavy-duty radiator with continuous deaeration tank and recovery reservoir	
Fan Drive	Hydraulic, variable speed, reversing	
Powertrain		
Transmission	Continuously Variable Transmission (CVT)	
Speed Ranges, Forward and Reverse	6	
Maximum Travel Speed with 35.5-32 Tires	0–25.0 km/h (0–15.53 mph) — 6 speed-range configurations available	
Axes	1700 Outboard-Extreme™	
Front Axle Oscillation, Stop to Stop	30 deg.	
Differential (front and rear)	Hydraulic-locking, operated-on-the-go, closed-center differential lock	
Steering	Fully hydraulic, joystick or wheel	
Articulation Angle	45 deg. each direction	
Service Brakes	Inboard-mounted, wet-disc, oil-cooled, self-adjusting and self-equalizing front and rear axles	
Parking Brake	Automatically spring-applied, hydraulically released, sealed and lubricated, wet multi-disc	
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
	<i>Dual Function</i>	<i>Dual Function</i>
Capacity		
Opening	3737 mm (147.1 in.)	3851 mm (151.6 in.)
Area	1.77 m ² (19.1 sq. ft.)	2.07 m ² (22.3 sq. ft.)
Control	Joystick	Joystick
Refill Capacities	848L / 948L	
Fuel Tank		
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
Machine Weight	22 384 kg (49,349 lb.)	22 416 kg (49,420 lb.)
Dozer Blade	848L / 948L	
Width	2962.4 mm (116.6 in.)	
Height	691.0 mm (27.2 in.)	

Specifications are subject to change without notice.

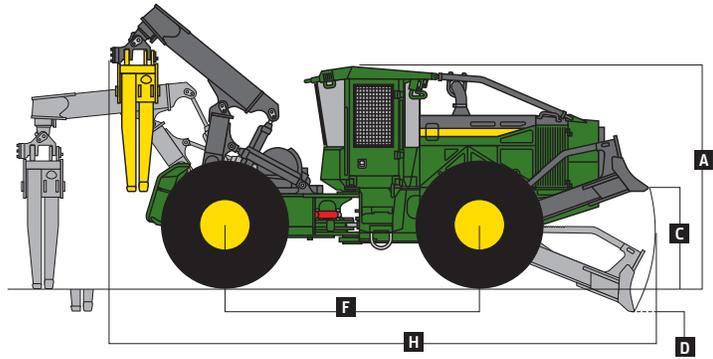
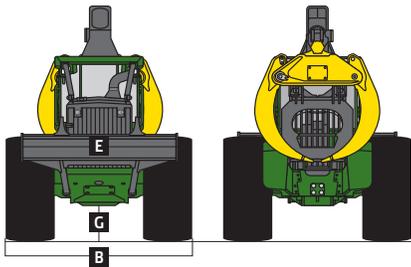


Winch		848L / 948L	
Winch Control	Joystick control, hydraulically driven		
Cable Capacity	4000 with 204-mm (8 in.) Drum	6000 with 279.5 mm (11 in.) Drum – 2 Speed	
15.8 mm (5/8 in.)	77.4 m (252 ft.)	119.0 m (390 ft.)	
19.1 mm (3/4 in.)	54.6 m (177 ft.)	81.4 m (267 ft.)	
22.2 mm (7/8 in.)	39.3 m (128 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	<i>Bare Drum</i>		
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	<i>Bare Drum</i>		
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

Machine Dimensions		<i>Dual Function</i>	
Tire Size	35.5-32		
A Overall Height	3454 mm (136.0 in.)		
B Overall Width	3575 mm (140.7 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.)		
F Wheelbase	3975 mm (156.5 in.)		
G Ground Clearance	542 mm (21.3 in.)		
H Overall Length	8469 mm (333.4 in.)		

848L / 948L Dual-Function Grapple



Machine not exactly as shown. Illustrations for dimensioning purposes only.



What you provide keeps the rest of the world working. And your passion for the woods keeps you working long after most people have called it a day. Since 1965 when we introduced our 440 Skidder, we've continued to change the game for loggers with safer and more comfortable machines. To make your tough job just a little bit easier. Today that same customer-inspired commitment to quality lives on in the L-Series Skidders. Because when you talk, we listen.

We're for Loggers



JOHN DEERE