

648L-III GRAPPLE SKIDDER



JOHN DEERE



A John Deere 648L-III Grapple Skidder is shown in a forest setting. The machine is green with yellow accents and is equipped with a large grapple attachment. It is positioned on a pile of logs and brush, with a dense forest of tall trees in the background. The machine's large, treaded tires are prominent. The John Deere logo is visible on the side of the cab.

648L-III GRAPPLE SKIDDER

RELIABLE WARRIOR IN THE WOODS.

When loggers like you tell us what they need to succeed in the woods and at the landing, we listen and then get to work putting ideas into action. Based on some of your best input, the John Deere 648L-III Grapple Skidder boasts new operator assistance, productivity awareness, and feedback features. And refinements in jobsite-mapping capability and machine maintenance help make it efficient to operate and reliable to own. The 648L-III is purpose-built to take on tough forestry tasks and come back for more.

Best of both worlds

Continuously Variable Transmission (CVT) combines the efficiency of direct drive with the smoothness and operating ease of hydrostatic drive. Automatically sensing the load, CVT delivers torque and tractive effort as needed to maintain the maximum speed the operator sets, helping reduce engine wear, optimize fuel economy, and eliminate manual shifting.

Take control in comfort

Spacious and quiet standard cab boasts an adjustable new durable-cloth seat and integrated TimberMatic™ Maps. Premium cab option includes set-and-forget Automatic Temperature Control system, cameras, secondary display unit, and other operator-assistance features. Optional premium leather seat that's heated, vented, and adjustable seven ways takes operator comfort to the next level. Operators are now able to select three different seat positions including facing the right-side door.

See things like never before

Available with the premium cab package, new blade-view camera enables clear visibility to attachments as you work the jobsite. Secondary touch-screen display provides intuitive access to cameras, slope details, and machine information.



**NEAR-REAL-TIME
PRODUCTIVITY DETAILS
HELP BOOST EFFICIENCY**

Protective cushioning

Steering sensors control articulation speed when nearing frame-to-frame contact, cushioning impact during full articulation and enhancing operator comfort.

Effortless operation

Armrest-mounted electrohydraulic controls provide easy, fingertip operation of all machine functions.

Stable and capable

Rock-solid stability provides excellent pulling power, especially when climbing hills, navigating adverse terrain, or hauling bigger payloads.

Large and in charge

Optional 1.63-square-meter (17.5 square foot) grapple on the 648L-III helps you deliver more wood to the landing with fewer skids.

Productive as you run

Digital solutions that monitor operator work statistics, travel/trip-meter capability, and advanced map layers help keep track of important operational basics. Near-real-time production and operator-performance reporting to business owners and managers allows informed analysis of owning and operating costs.

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PUT TECHNOLOGY TO WORK IN THE WOODS AND AT THE OFFICE.

Coordinate your operation and your team's productivity from wherever your work takes you with John Deere Precision Forestry and our core technology solutions.



FEATURES

Core intelligence

Your John Deere Forestry machine arrives from the factory equipped with a powerful set of technologies and capabilities already built in. Each plays an important role in managing the health and performance of your overall equipment fleet:

- **John Deere Connected Support**, utilizing advanced, forestry machine-specific data, helps your dealer take immediate action on any issues with your machine.
- **Remote Display Access** allows dealers to remotely see exactly what the operator is seeing and access the vast onboard diagnostics capabilities of the TimberMatic™ automation system. The ability to adjust the machine and assist the operator remotely helps keep machines up and running.
- The **Machine Health and Performance Monitoring** service is offered in conjunction with advanced John Deere Protect™ Service Agreements. By utilizing advanced forestry machine data and benchmarking capabilities, this service provides unparalleled insights into different machine functions and helps take corrective actions early, ensuring a consistently high-performing fleet.

Digital solutions

Take the guesswork out of planning, implementing, and monitoring your logging operation. The tools of our production-planning and -tracking system expand on the core technology features that come standard in every John Deere Forestry machine to unleash a powerful new array of possibilities:

- **TimberMatic™ Maps** is an innovative onboard software solution that helps you reimagine your jobsites. Near-real-time production views, optimized routes, and a shared cloud connection make it easier than ever before to take your forestry operation to the next level.
- **TimberManager™** is a web-based solution for PCs, tablets, and mobile phones that allows you to follow jobsite progress. Combined with TimberMatic Maps, this software provides complete visibility of your operation — from land harvested to specific machines — so you can streamline communication, analyze tasks, and increase productivity:
 - **Remote Monitoring** keeps tabs on the health and performance of your fleet from wherever you are.
 - **Precise Progress Tracking** lets you set goals for your team to meet throughout the day.
 - **Live Production View** displays progress including tree count, area harvested, and estimated tonnage.
 - **Simplified Mapping** of machine data and GPS-based location tracking shows precise stem and log counts.
 - **Real-Time Updates** let you adjust course or eliminate tasks if needed to maintain steady workflow.
 - **Fleet Optimization** goes beyond machine management to help improve the efficiency of your business.



**JOHN DEERE
CONNECTED SUPPORT™**

CONNECTS YOUR OPERATION
TO DEALER & FACTORY EXPERTISE

648L-III

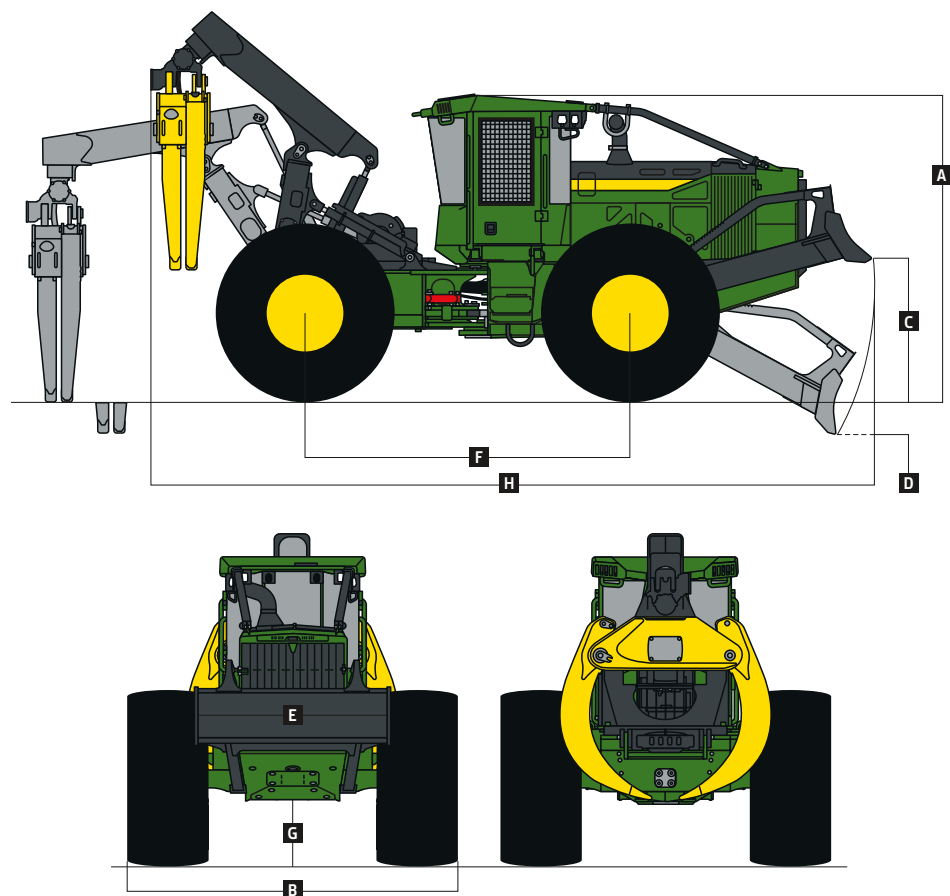
GRAPPLE SKIDDER SPECIFICATIONS

Engine		648L-III	
Manufacturer / Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ Plus 6.8L	
Non-Road Emission Standards	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	
Gross Power	177 kW (237 hp) at 1,800 rpm	163 kW (218 hp) at 1,800 rpm	
Gross Torque	1025 Nm (756 ft.-lb.) at 1,600 rpm	979 Nm (722 ft.-lb.) at 1,400 rpm	
Number of Cylinders	6	6	
Valves per Cylinder	4	4	
Engine Displacement	6.8 L (415 cu. in.)	6.8 L (415 cu. in.)	
Engine Bore and Stroke	106 x 127 mm (4.17 x 5.00 in.)	106 x 127 mm (4.17 x 5.00 in.)	
Fuel System	High-pressure common rail	High-pressure common rail	
Aspiration	Turbocharged and charge-air cooled	Turbocharged and charge-air cooled	
Air Cleaner	Dual stage with safety element	Dual stage with safety element	
Engine Cold-Start System	Glow plugs	Glow plugs	
Cooling			
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 30.5-32 Tires	Forward and Reverse		
Range 1 (factory settings for each speed range)	4.79 km/h (2.97 mph)		
Range 2	6.38 km/h (3.96 mph)		
Range 3	8.61 km/h (5.35 mph)		
Range 4	12.40 km/h (7.70 mph)		
Range 5	17.97 km/h (11.16 mph)		
Range 6	24.74 km/h (15.37 mph)		
Axles			
Front Axle Oscillation, Stop to Stop	30 deg.		
Options	1400 Extreme Duty and 1400 Super-Wide Extreme-Duty (SWEDA™)		
Differential (front and rear)	Hydraulic-locking, operated-on-the-go, open-center differential lock		
Steering	Fully hydraulic, joystick		
Articulation Angle	45-deg. each direction		
Service Brakes	Inboard-mounted, wet-disc, oil-cooled, 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	85 cc/rev (5.19 ci/rev)		
Electrical System			
Voltage	24 volt		
Number of Batteries (12 volt)	2		
Battery Capacity (each)	950 CCA		
Alternator Rating	150 amp		
Worklights	11 standard / 15 optional with 3 service lights		
Dual-Function Grapples			
Grapple Control	Joystick	Grapple Control (continued)	Joystick
Standard		Optional	
Opening	3226 mm (127 in.)	Opening	3886 mm (153 in.)
Area	1.24 m² (13.3 sq. ft.)	Area	1.63 m² (17.5 sq. ft.)
Optional			
Opening	3251 mm (128 in.)		
Area	1.48 m² (15.9 sq. ft.)		
Refill Capacities		Refill Capacities (continued)	
Skidder	Dual-Function	Hydraulic Reservoir	123.6 L (32.6 gal.)
Fuel Tank		Diesel Exhaust Fluid (DEF) Tank	19.9 L (5.2 gal.)
Standard	391.8 L (103.5 gal.)	Operating Weight	
Optional Large	457.7 L (120.9 gal.)	Machine Weight (dual function)	19 283 kg (42,512 lb.)
Dozer Blade			
Type	Standard Stacking Blade	Heavy-Duty Stacking Blade	Heavy-Duty Replaceable Cutting Edge (RCE)
Width	2192.0 mm (86.3 in.)	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.)	691.0 mm (27.2 in.)
Blade Control	Joystick	Joystick	Joystick

Images and descriptions are for general information only. Some illustrations may depict product options or accessories NOT AVAILABLE in all regions or may require modifications to meet local regulations. Images of equipment models may be digitally or AI generated, are for illustration purposes only, and may not reflect actual products, features, options, or attachments. Equipment availability may be limited. For complete details, contact your John Deere dealer.

Boom Options		648L-III	
Size		2.6 m (8.5 ft.)	
Winch			
Winch Control		Joystick control, hydraulically driven	
Cable Capacity		2-Speed 6000 Winch With 279.5-mm (11 in.) Drum	2-Speed 4000 Winch With 204-mm (8 in.) Drum
15.8 mm (5/8 in.)		119.0 m (390 ft.)	77.4 m (252 ft.)
19.1 mm (3/4 in.)		81.4 m (267 ft.)	54.6 m (177 ft.)
22.2 mm (7/8 in.)		60.3 m (197 ft.)	39.3 m (128 ft.)
25.4 mm (1 in.)		46.0 m (150 ft.)	30.7 m (100 ft.)
Line Pull – 15.8-mm (5/8 in.) Cable		<i>Bare Drum at Stall With 2-Speed 6000 Winch</i>	<i>Bare Drum at Stall With 2-Speed 4000 Winch</i>
Low Speed		221.0 kN (49,696 lb.)	213.5 kN (47,997 lb.)
High Speed		147.3 kN (33,131 lb.)	142.3 kN (31,990 lb.)
Line Speed – 15.8-mm (5/8 in.) Cable		<i>Bare Drum at 1,800 rpm With 2-Speed 6000 or 4000 Winch</i>	
Low Speed		13.4 m/min. (44 fpm)	
High Speed		20.1 m/min. (66 fpm)	
Machine Dimensions		Machine Dimensions (continued)	
		<i>Dual Function</i>	<i>Dual Function</i>
Tire Size		30.5-32	30.5-32
A	Overall Height	3365 mm (132.5 in.)	557 mm (21.9 in.)
B	Overall Width	3233 mm (127.3 in.)	8129 mm (320.0 in.)*
C	Maximum Blade Lift Above Ground	1517 mm (59.7 in.)	
D	Maximum Blade Dig Below Ground	359 mm (14.1 in.)	
E	Dozer Blade Width	2192 mm (86.3 in.)	
	Optional Dozer Blade Width	2962.4 mm (116.6 in.)	
F	Wheelbase	3680 mm (144.8 in.)	
		Shipping Dimensions	
		Tire Size	30.5-32
		Overall Height	3365 mm (132.5 in.)
		Overall Width	3233 mm (127.3 in.)
		Shipping Length	9244 mm (363.9 in.)*
		<i>*Length based on 2.6-m (8.5 ft.) boom.</i>	

648L-III Grapple Skidder With Dual-Function Grapple



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