

643L-II WHEELED FELLER BUNCHER



JOHN DEERE



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READY TO WORK AS LONG AND HARD AS YOU DO.

Even with all you accomplish every day, you're never content to rest on your laurels. And neither are we. With over a half-century of experience in the woods, we thought our wheeled feller bunchers were ready for even more. So we strengthened the electrical harnesses, fittings, hoses, and cylinder guards. And we beefed it up under the hood, with redesigned component placement and streamlined electrical and hydraulic systems. Simple to run, easy to maintain, and reliable to own — the 643L-II is purpose-built to work through whatever the forest throws your way.

Rugged reliability

Routing of the electrical and hydraulic systems has been significantly simplified, to improve reliability and ease maintenance. Wiring and hoses are better protected against wear and bending. Durable electrical-harness components help extend wear life.

When the going gets tough

Optimal weight distribution and a long wheelbase enable excellent stability when climbing hills and controlling trees. Heavy-duty axles help deliver balance and hill-climbing power under the toughest forest conditions.

In the comfort zone

Spacious 2.94-cubic-meter (104 cubic foot) cab is comfortable and extremely quiet. Large expanse of front glass provides virtually unobstructed visibility from the seat.



STEERING SENSORS CONTROL ARTICULATION SPEED & CUSHION IMPACT

Easy does it

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

Productive consumption

High-performance EPA Final Tier 4 (FT4)/EU Stage V John Deere PowerTech™ 6.8-liter engine maintains productivity while minimizing total fluid consumption – diesel fuel plus diesel exhaust fluid.

Power through

Simply set the desired power to the felling head and drive motors, and the power-management system optimizes multifunction performance to suit the application and conditions.

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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:

- **JDLink™ connectivity and the John Deere Operations Center™** let you track your equipment, see which machines are working, and know if they're being utilized properly and at maximum productivity and efficiency.
- **John Deere Connected Support** leverages a suite of dealer and factory tools designed to deliver increased uptime and productivity, and lower daily operating costs.
- **Remote Diagnostics and Programming Capability** within John Deere Connected Support helps your dealer warn you of any issue with your machine — often before you know of the problem yourself — and initiate solutions without charging you for a technician's visit to your jobsite.
- Our advanced dual approach to **Machine Health** combines the expertise of the technology specialists at our dealerships with the data specialists at our central Machine Health Monitoring Center (MHMC). As part of John Deere Connected Support, information from thousands of connected machines flows through the MHMC, enabling our specialists to identify trends and develop new and improved preventative-maintenance and repair protocols.

Precision Forestry

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. Real-time production views, optimized routes, and shared wireless connections between machines 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

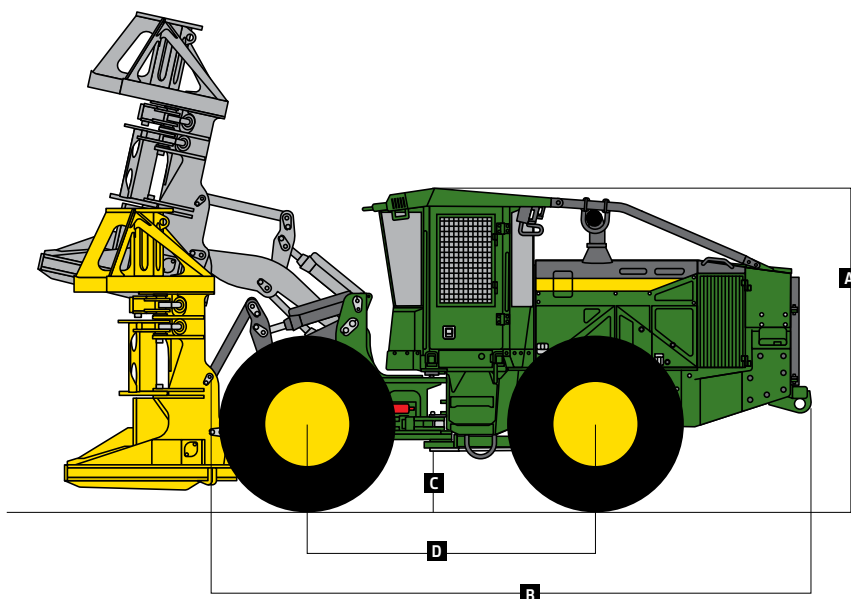
643L-II WHEELED FELLER BUNCHER SPECIFICATIONS

Engine		643L-II	
Manufacturer and Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ Plus 6.8L	John Deere PowerTech™ 6.8L
Off-Road Emission Standards	EPA Final Tier 4/EU Stage V	EPA Tier 3 / EU Stage IIIa	EPA Tier 2 / EU Stage II
Gross Power	163 kW (219 hp) at 1,900 rpm	179 kW (240 hp) at 1,900 rpm	157 kW (211 hp) / 179 kW (240 hp) at 1,900 rpm
Gross Torque	923 Nm (680 ft.-lb.) at 1,600 rpm	1000 Nm (737 ft.-lb.) at 1,600 rpm	923 Nm (680 ft.-lb.) / 1000 Nm (737 ft.-lb.) at 1,600 rpm
Number of Cylinders	6	6	6
Valves per Cylinder	4	4	4
Engine Displacement	6.8L (415 cu. in.)	6.8L (415 cu. in.)	6.8L (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.)	106 x 127 mm (4.17 x 5.00 in.)
Fuel System	High-pressure common rail	High-pressure common rail	High-pressure common rail
Aspiration	Turbocharged and charge-air cooled	Turbocharged and charge-air cooled	Turbocharged and charge-air cooled
Air Cleaner	Dual stage with safety element and dust-unloader valve		
Engine Cold-Start System	Glow plugs	Glow plugs	Glow plugs
Cooling		Heavy-duty radiator with continuous deaeration tank and recovery reservoir	
Cooling System			
Fan Drive	Hydraulic, variable speed, reversing		
Powertrain		Infinitely variable hydrostatic with 2-speed gearbox	
Transmission			
Speed Ranges, Forward and Reverse	2		
Maximum Speed With 28L-26 Tires			
Low Gear	8.0 km/h (5.0 mph)		
High Gear	17.5 km/h (10.8 mph)		
Front Axle Oscillation, Stop to Stop	30 deg.		
Axles			
Options	1400 Extreme Duty and 1400 Super Wide Extreme Duty (SWEDA™)		
Differential (front and rear)	Hydraulic-locking, operated-on-the-go, closed-center differential lock		
Steering	Fully hydraulic, joystick		
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		Open circuit, axial piston, variable displacement	
Main Pump			
Maximum Displacement	90 cc/rev (5.49 ci/rev)		
Electrical System		24 volt	
Voltage			
Number of Batteries (12 volt)	2		
Battery Capacity (each)	950 CCA		
Alternator Rating	150 amp		
Lights (optional)	10		
Refill Capacities		396 L (104.6 gal.)	
Fuel Tank			
Hydraulic Reservoir	169.1 L (44.7 gal.)		
Diesel Exhaust Fluid (DEF) Tank	19.9 L (5.2 gal.) / N/A for EPA Tier 3 / EU Stage IIIa and EPA Tier 2 / EU Stage II		
Operating Weights		13 910 kg (30,704 lb.)	
Machine Weight (less felling head)			
With Saw			
FD45	16 383 kg (36,120 lb.)		
FD22B	17 081 kg (37,659 lb.)		
FD55	17 000 kg (37,480 lb.)		

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Machine Dimensions		643L-II
Tire Size		28L-26
A	Overall Height	3216 mm (126.6 in.)
	Overall Width (with 711-mm [28 in.] tires [1400 axles])	2913 mm (114.7 in.)
B	Overall Length (less felling head)	6293 mm (247.7 in.)
C	Ground Clearance	484 mm (19 in.)
D	Wheelbase	3023 mm (119 in.)

643L-II Wheeled Feller Buncher



Shipping Dimensions			
Tire Size	28L-26		
Felling Head	FD45		
Overall Height	3216 mm (126.6 in.)		
Overall Width (with 711-mm [28 in.] tires [1400 axles])	2913 mm (114.7 in.)		
Overall Length (with felling head)	7340 mm (289.0 in.)		
Felling Head Information			
Head	<i>FD45 DSFH – Twin Post</i>	<i>FD22B DSFH – Single Post</i>	<i>FD55 DSFH – Twin Post</i>
Maximum Cutting Capacity	508.0 mm (20.0 in.)	559.0 mm (22.0 in.)	584.2 mm (23.0 in.)
Maximum Accumulation Capacity	0.65 m ² (7.0 sq. ft.)	0.48 m ² (5.2 sq. ft.)	0.63 m ² (6.8 sq. ft.)
Opening at Front of Housing	863.60 mm (34.0 in.)	1290.32 mm (50.8 in.)	1033.02 mm (40.7 in.)
Blade Diameter	1346.20 mm (53.0 in.)	1422.40 mm (56.0 in.)	1473.20 mm (58.0 in.)
Number of Teeth	18	18	18
Width at Saw Housing	1582.42 mm (62.3 in.)	1617.98 mm (63.7 in.)	1651.00 mm (65.0 in.)
Height	2514.60 mm (99.0 in.)	3068.32 mm (120.8 in.)	2954.02 mm (116.3 in.)
Weight (no blade cover or tilt links)	2424.48 kg (5,345 lb.)	3070.85 kg (6,770 lb.)	2971.06 kg (6,550 lb.)



MWFB643LIU (23-06)

Contact us to learn more.
JohnDeere.com/WheeledFellerBunchers



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