

SLASH BUNDLER

1490D

CUT-TO-LENGTH SYSTEM | HARVESTERS | FORWARDERS



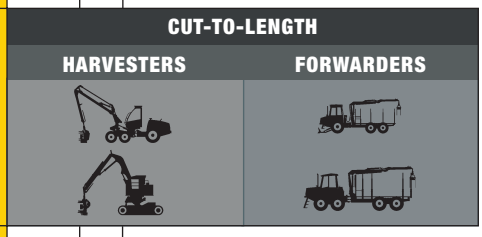


JOHN DEERE

NEW OPPORTUNITIES.
ENERGY FROM THE WOODS.



The John Deere 1490D Slash Bundler collects, compacts, and wraps the slash into bundles that can then be easily transported.



Residual, slash, and other by-products of your logging operations represent clean and renewable raw material for energy production. Similar raw material is also produced in connection with cleaning roadsides and power lines.

John Deere's energy wood-harvesting technology enables you to collect this valuable biomass and use it for efficient, productive, and environmentally sound energy production – thus gaining a significant competitive edge as a forest entrepreneur.









The 1490D collects the slash and residual left behind after harvesting and feeds it into the bundler, which compacts slash into compact logs. The bundling process is continuous, with no restrictions on the length or type of material bundled.

Each bundle contains approximately one MWh of energy, depending on the tree species and the moisture content. Amounts of slash per hectare vary between around 150 bundles per hectare in Scandinavia, while tests on heavily branched species in the UK have recorded around 200 bundles per hectare. Productivity can be in excess of 40 bundles per hour where the worksite has been prepared correctly, and even in unprepared areas the average is 20–30 bundles per hour.

The compression process is fully automated. The only thing the operator needs to do is use the boom to lift material onto the feed table. The bundler incorporates two fixed presses and one moving press. During compression, the volume of the material reduces by approximately 80 percent. The compression strength has been optimized for generating compact bundles, without crushing the material.

.

The moving press pulls the bundle forward and the machine bundles it firmly so that the string is tightened when the press detaches. The tying process is automatically adjusted. Parameters, such as length of the log, distance between ties, and compression periods, are configured in the TMC / Timbermatic 900. The computer calculates how many ties are required in order for the bundle to be able to withstand handling and transportation. The volume of one bundle is approximately 0.7 m^3, depending on the material.

PRODUCTIVITY. HIGH UPTIME. EASY MAINTE



The cab conforms to safety regulations and provides excellent visibility in all directions. The cab boasts efficient air conditioning and sound insulation. A CD player / radio is provided. The large windows are made from tinted polycarbonate safety glass, and blinds that provide shade from sunlight are available as optional equipment. The sturdy air-cushioned seat has various adjustments. The cab is equipped with halogen/xenon lights and a connection for a mobile telephone.

The TMC system governs all functions of the machine. The versatile and easy-to-use Windows-based Timbermatic 900 system is offered as an alternative.

The John Deere PowerTech™ JD6068 HTJ diesel engine has good fuel economy and high torque at low rpm. The cooling system for the engine and the hydraulics remains efficient in all conditions.

The efficient hydraulics system makes operating the machine effortless. The large-diameter hydraulic hoses and pipes reduce pressure loss. The high-grade filter system lengthens the life of the components.

The engine hood is light to lift, allowing for easy and safe maintenance access. Components that require daily or scheduled servicing are easily accessible. Accessories include a diesel heater, for example.

The strong belly pan can be lowered and raised using a winch. Access to all service points located underneath is easy, fast, and safe. The steep approach angle improves ground clearance and makes the machine more suitable for rough terrains.

The six-wheeled machine has rigid front axles. The eight-wheel version is equipped with a balanced-gear bogie unit. The ground clearance is excellent.

Access to service points located underneath the cab is easy, as the cab moves aside hydraulically. Service lights are provided on the bottom surface of the cab.



The CF5 boom is easy to control and has soft motions. The long reach and efficient trajectories enable continuous feed to the bundler.

The string used to tie the slash logs is the same nylon or sisal string that is used in agriculture. The tying unit has casings for nine reels. Once a reel runs out, the move to the next reel is automatic. The tying starts during compression — the slash log remains compact.

The slash log is cut automatically with a chain saw. The guide plate feed-control system automatically cuts back on the feeding action if there is hard wood in the slash bundle.

The operator can adjust the length of the slash log (usually between 3.0–3.2 m). The volume of the slash log is therefore approximately 0.7 m^3 depending on the material, and one slash log generates approximately one MWh of energy.

The frame structure and middle joint have a strong composition. The result is a well-balanced unit with a powerful frame brake. The position of the middle joint, the slewing angle of ± 42 degrees, and the generous ground clearance give the machine a small turning radius, agility, and excellent tracking.

The balanced-gear bogie unit is sturdy. Strong traction ensures drive even in the roughest of terrains. Several chain and track options are available.

EASY TRANSPORTATION AND STORAGE.

FOR DIFFERENT TYPES OF WOOD, FOR CHANGING CONDITIONS.





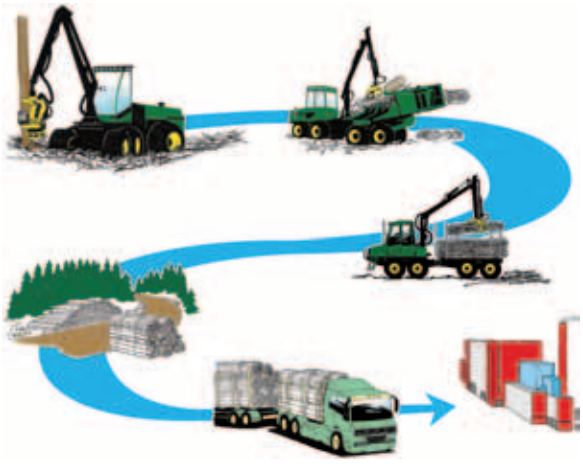


Thanks to compression and bundling, slash can be transported out of the forest with normal forwarders or log lorries. The slash logs can be delivered directly to a power plant or stored temporarily in the forest. The latest communication technology ensures efficient logistics and fast data transfer.

Bundled biomass is easy to process throughout the year. The compact slash logs are not subject to rotting; therefore, they can be stored in the forest or at a power plant in preparation for the peak seasons of energy production. The logs can be dried easily while they are piled up. As opposed to woodchips, a pile of slash logs will not ignite on its own.

John Deere wood energy technology is already used in Finland, Sweden, Spain, Italy, Switzerland, Czech Republic, and the U.S. In addition, the method has been successfully tested in Austria, France, Germany, and the UK, among others. Tests show that the bundling method is well-suited for different species of trees and various operating conditions.

The basic 1490D Slash Bundler features the same properties that have made John Deere the preferred supplier of forestry professionals worldwide. The bundling process, as well as the other functions of the machine are controlled via the Total Machine Control® (TMC) system. The machine is powered by an efficient John Deere engine with low emission levels and high torque at low rpm. The comfortable, well-equipped cab provides the operator with excellent visibility in all directions.



TECHNICAL DATA 1490D

WEIGHT

Depending on accessories, from

6-wheel	47,399.4 lb	21 500 kg
8-wheel	50,706.3 lb	23 000 kg

DIESEL ENGINE

John Deere 6068 HTJ

Power output	182.4 hp @ 1,900 rpm	136 kw
Torque	574.6 lb.-ft. @ 1400 rpm	779 Nm
Fuel tank	43.6 gal.	165 l
Reserve fuel tank	68.7 gal.	260 l

TRANSMISSION

Hydrostatic-mechanical two-speed gearbox/release of rear-wheel drive

Tractive force	39,340 lb.	175 kN
Speed, mode 1	0–5 mph	0–8 km/h
mode 2	0–13.7 mph	0–22 km/h

STEERING

Proportional frame steering; steering angle ± 42 deg.

BRAKES

Service and working brakes are hydraulically actuated, oil-immersed multi-disc brakes; spring-actuated parking and emergency brakes ISO 11169

AXLES/BOGIES

Hydromechanical differential lock at the front and the rear

6-wheel	Rigid axles at the front; balanced gear bogies axles at the rear
8-wheel	Balanced gear bogies axles at the front and rear

ELECTRICAL SYSTEM

Voltage	24 volts	24 volts
Batteries	2 x 145 Ah	2 x 145 Ah
Alternator	140 amp (28 volts)	140 amp (28 volts)
Working lights	10 x 140-watt twin power, xenon lights also available	

HYDRAULICS

Load-sensing, with power control

Pump volume	11.6 cu. in.	190 cm^3
Working pressure	24 Mpa	24 Mpa
Hydraulic tank	37 gal.	140 l

BOOM

CF5

Maximum reach lengths	32.8 ft.	10 m
Gross lifting torque	75,230 lb	102 kNm
Slewing torque	18,000 lb.-ft.	24, 4 kNm
Slewing angle	380 deg	380 deg.

CAB

Conforms to ISO standards

MEASURING AND CONTROL SYSTEM

TMC or PC/Windows-based Timbermatic 900

OPTIONAL ACCESSORIES

Information on accessories is available from your local dealer.

MEASUREMENTS

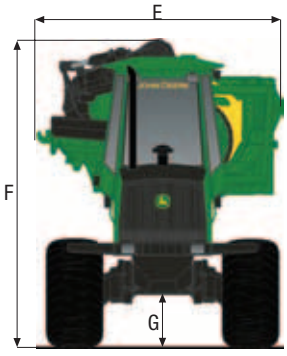
A	Transportation length	437.2 in.	11 105 mm
	Working position	478.9 in.	12 165 mm
B	Front axle — middle joint	72.8 in.	1850 mm
C	Middle joint — bogie boss	133.9 in.	3400 mm
D	Bogie boss — rear		
	Transportation position	135.2 in.	3435 mm
	Working position	177 in.	4495 mm
E	Transportation width	116.5 in.	2958 mm
F	Transportation height	150.2 in.	3816 mm
G	Ground clearance	23.8 in.	605 mm

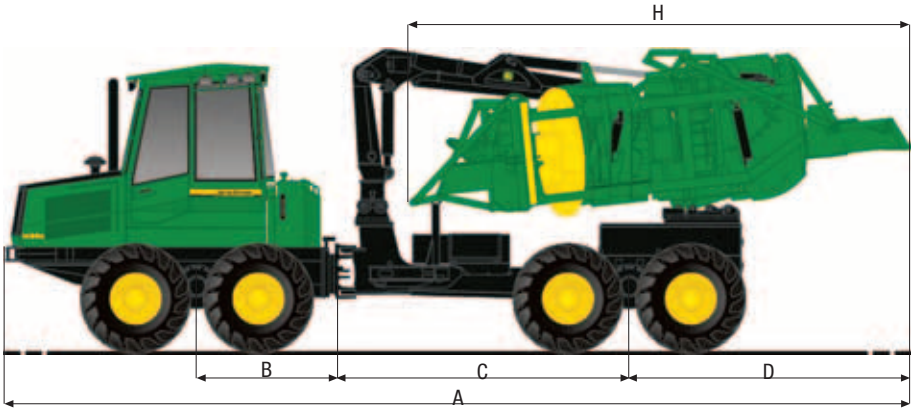
BUNDLING UNIT

Integrated TMC control for bundling process

H	Length	244.0 in.	6200 mm
Feed Opening			
	Height	31.5 in.	800 mm
	Width	40.2 in.	1020 mm
Turning of turntable		300 deg.	300 deg.
Tilting of turntable		10 deg.	10 deg.
Bundling string		Agricultural nylon and sisal strings, 9 reels	
Bundle length		94.5–126 in.	2400–3200 mm
Bundle diameter		27.6–31.5 in.	700–800 mm
Cutting		Automated chainsaw	
Saw engine		2 cu. in.	32 cm^3
Saw bar length		39.4 in.	1000 mm
Saw guide		3/4 in.	3/4"
Yield		20–30 bundles/hour	

*Note: The measurements are nominal and may vary depending on manufacturing tolerances.





The manufacturer reserves the right to make changes.

SLASH BUNDLER

1490D



NOTHING RUNS LIKE A DEERE.

Maybe those words are the reason why almost every other professional logger is a John Deere customer.

They're just five simple words. Yet they have profound impact on your company. Because at their heart they mean equipment that is built forest tough, meaning greater productivity, more uptime, and lower daily operating costs. They mean a dealer network over 380 locations strong, with immediate access to parts and experts that understand your industry. They mean a dedicated lender in John Deere Credit, committed to helping loggers succeed with competitive financing to enhance cash flow. And they mean a global forestry equipment leader that invests more in research and development than any other manufacturer.

But most of all, these words represent the confidence that comes with over 168 years of experience.

Your world is logging. So is ours. John Deere Forestry. Leading the way, worldwide.

FULL TREE SYSTEM | CUT-TO-LENGTH SYSTEM



PRODUCTIVITY | UPTIME | LOW DAILY OPERATING COSTS

www.JohnDeere.com

JOHN DEERE

Nothing Runs Like A Deere

DKA1490D Litho in U.S.A. (06-06)