

# SKIDDERS

548G-III/648H/748H/848H GRAPPLE



JOHN DEERE





# Shifting productivity into high gear has never been easier.

You're always kicking it into high gear — why not choose a skidder that will do it for you? Our complete line of skidders features an Autoshift option that takes over the shifting, so your operator can focus on pulling the load. And they're loaded with other enhancements that make it easier to move more wood, more reliably, on less fuel. Like an electronic hand throttle that puts the skidder on "cruise control." A highly efficient cooling system with simple-to-clean swing-out coolers. Latched service doors and a tilting cab that speed access to conveniently located filters and key components. And production-boosting options such as larger grapples and enhanced heavy-duty axles. A host of other advantages help you maximize uptime, speed service, and keep operating costs down. Industry-leading productivity without a lot of extra effort. That's a John Deere skidder.



- Fuel-sipping EPA Tier 3 emission-certified PowerTech™ Plus (Tier 2 PowerTech™ on 548G-III) diesel engines deliver power without compromise in all conditions.
- Autoshift option automatically selects the optimum gear based on the load, so the operator can focus on running the grapple. Burns less fuel, too.
- Long-term durability is bolstered by enhanced heavy-duty axles, large-diameter arch pins, high-strength bushings, ultra-durable hydraulic pump, and severe-duty fuel filter, to list just a few.
- Increased cooling capacity keeps these skidders cool in even the most grueling forest conditions.
- Latched service panels speed access to components, while extended hydraulic and transmission oil and filter service intervals help keep maintenance time to a minimum.
- New larger grapple options on the 648H and 748H allow more wood to be delivered to the landing with fewer skids.

	548G-III Direct Drive	648H Direct Drive	648H Lockup Torque Converter	748H Direct Drive	848H Lockup Torque Converter
Engine	6.8L Tier 2 PowerTech 6068T	6.8L Tier 3 PowerTech Plus 6068H	6.8L Tier 3 PowerTech Plus 6068H	6.8L Tier 3 PowerTech Plus 6068H	6.8L Tier 3 PowerTech Plus 6068H
Gross Power	96 kW (129 hp)	128 kW (172 hp)	138 kW (185 hp)	144 kW (193 hp)	149 kW (200 hp)
Wheelbase	2920 mm (115 in.)	3680 mm (145 in.)	3740 mm (147 in.)	3785 mm (149 in.)	3787 mm (149 in.)
Weight with Dual Function	10 746 kg (23,690 lb.)*	14 638 kg (32,271 lb.)	14 798 kg (32,624 lb.)	17 028 kg (37,540 lb.)	17 826 kg (39,300 lb.)
Tong Opening at Tips	2159 mm (85 in.)	2921 mm (115 in.)	2921 mm (115 in.)	3225 mm (127 in.)	3302 mm (130 in.)
Grapple Area	0.7 m <sup>2</sup> (8 sq. ft.)	1.0 m <sup>2</sup> (10.4 sq. ft.)	1.0 m <sup>2</sup> (10.4 sq. ft.)	1.4 m <sup>2</sup> (14.9 sq. ft.)	1.5 m <sup>2</sup> (16.1 sq. ft.)
High-Capacity Option	N/A	1.2 m <sup>2</sup> (12.5 sq. ft.) or 1.4 m <sup>2</sup> (14.9 sq. ft.)	1.2 m <sup>2</sup> (12.5 sq. ft.) or 1.4 m <sup>2</sup> (14.9 sq. ft.)	1.5 m <sup>2</sup> (16.1 sq. ft.) or 1.7 m <sup>2</sup> (17.9 sq. ft.)	1.7 m <sup>2</sup> (17.9 sq. ft.)
Axles	1200 Inboard Planetary	1400 Extreme Duty, SWEDA™	1400 Extreme Duty, SWEDA	1400 Extreme Duty, SWEDA, SWEDA II	SWEDA II

\*Weight with single function.

# Skidding performance that moves you forward.

Looking to move the most wood at the lowest cost per ton? Choose a John Deere grapple skidder, which combines faster ground speed and load gathering with superior fuel efficiency. What really sets them apart is their ability to keep wood moving in any type of terrain — from steep slopes to swamp conditions to flat land. New larger grapple options and enhanced heavy-duty axle upgrades give you more flexibility than ever when configuring a machine that best fits your operation. For performance that will move your operators to do their best — and move a whole lot of wood.



- Large-diameter steering cylinders deliver even greater turning force when you opt for duals or floatation tires.
- Optional heavy-duty decking blades feature heavy cutting edges and optimum weight distribution for improved grading capability. Perfect for grading deck areas or road touchups.
- Field-proven PowerTech Plus EPA Tier 3 emission-certified diesels (Tier 2 PowerTech for 548G-III) deliver fuel economy that's second to none, while packing the horsepower you need to realize the lowest cost per ton.
- With a long wheelbase and wide stance, our skidders deliver unsurpassed stability. And with excellent power-to-weight ratio, they also give you unequalled ability.
- Optional LED lights provide a much brighter white light that is closer to the color of sunlight. They run cooler and last longer than the HID or xenon lights offered by the competition, too.
- Enhanced heavy-duty Super-Wide Extreme-Duty Axles (SWEDA™) are more robust to bolster long-term reliability and provide a solid foundation for the new larger grapple choices.
- Industry-leading grapples automatically detect and maintain clamp force if a load gets jarred. Upgrade the 648H to a huge 1.4-m<sup>2</sup> (14.9 sq. ft) area with a 3.2-m (127 in.) opening for even more productivity. Upgrade the 748H to a huge 1.7-m<sup>2</sup> (17.9 sq. ft.) area with a 3.4-m (134 in.) opening, and the 848H to a maximum 1.7-m<sup>2</sup> (17.9 sq. ft.) area with 3.4-m (134 in.) opening to deliver more wood to the landing with fewer skids.





# Loads of comfort for skidding loads of wood.

From the vantage point of the fully adjustable seat, it's easy to see why your operator will be comfortably productive in these machines. The cab provides unsurpassed visibility to the blade and back to the grapple. Creature comforts include well-placed heating and air-conditioning vents, 12-volt power port, and optional AM/FM stereo with CD option. And the sealed-switch module provides easy pushbutton control of numerous machine functions. All the fatigue-beating comfort an operator could want. For the maximum productivity you need.



1. The button on top of the gear selector activates Forward-Neutral-Reverse (F-N-R), and then activates the diff-lock once you're in gear.
2. Sealed-switch module provides convenient fingertip operation of multiple machine functions, such as air conditioning, windshield wipers, hand-throttle settings, start-gear select, and Autoshift option.
3. Easy-to-read diagnostic monitor provides vital operating info at a glance, including engine temperature, transmission oil temperature, and fuel-level readings. The select button calls up engine hours, job timer, voltage, and hydraulic oil temp.



- Standard 12-volt outlet provides convenient power for cell phones and other electrical devices.
- The isolation-mounted cab helps smooth the ride in rough terrain, while keeping noise — and operator fatigue — to a minimum.

- All-around visibility is exceptional. Tinted glass, adjustable shades, and a sun visor reduce glare.
- The cooling system directs engine heat away from the cab, keeping the operator comfortable on hot summer days.



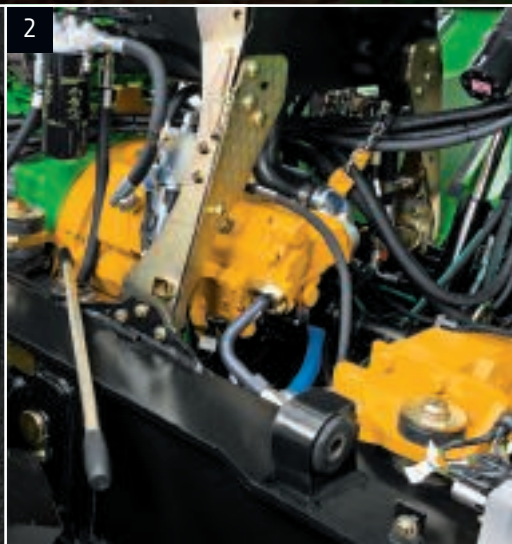
# Easygoing control. Serious results.

You won't find an easier-to-run skidder than a John Deere. Choose either a lockup torque converter (648H and 848H) or direct-drive (648H and 748H) transmission with brake declutch to simplify performance. Operators will enjoy intuitive, effortless control with an electronic hand throttle, start-gear select, and the Autoshift option. And get seriously productive with less fatigue.

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- Electronic hand throttle lets you dial in the speed you need. Set higher rpm levels for a quick morning warmup, make gear changes easier for less experienced operators, or put your skidder on "cruise control."
- Use the sealed-switch module to change the default starting gear. A lower starting gear gives you more drawbar pull at the beginning of a skid, and helps reduce tire spin on steep or wet ground.



1. The lockup torque converter delivers more power to the ground, boosting productivity without increased fuel burn.
2. The 748H comes with direct-drive transmission, while the 848H comes with lockup torque converter. The 648H gives you the choice of either.
3. With direct drive with brake declutch, operators don't have to work the clutch pedal or Forward-Neutral-Reverse (F-N-R) shifter when using the grapple, for easier operation.
4. Autoshift option reduces fatigue by automatically selecting the optimum gear for the load and eliminating manual shifting. Also frees the right hand to run the grapple.

# Nothing runs like a Deere because nothing is built like one.

You don't want the daily grind to grind your skidder — and operation — to a halt. Which is why our grapple skidders are loaded with durability-enhancing features that help ensure years of trouble-free service. Like the new, more durable hydraulic pump, standard severe-duty fuel filter, and sealed-switch module. And the features you've come to depend on, including best-in-class axles and frames, large-diameter arch pins, and high-strength bushings. When you know how they're built, you'll run a Deere.

- Our Deere skidders are built to the hilt, with large-diameter arch pins, high-strength bushings, and reinforced side mounts to withstand impact.
- Sealed and immersed in a cooling oil bath, the self-adjusting wet-disc brakes are virtually maintenance free.
- From the lights to the articulation joint to the cooling system, components are guarded to protect them from debris and impact damage.
- Sealed-switch module keeps out dust, moisture, and debris, and virtually never wears out. Proven marine-grade touchpad protects the electronics, and eliminates rocker switches, wires, and unsealed connections.
- The cooling system keeps the radiator clear of pine needles and debris while managing temperature throughout the machine.
- Sealed center articulation joint locks out abrasive debris.
- Axle's closed-center diff-lock cools itself in its own clean-oil reservoir to improve durability.
- Auto fan reverses every 30 min. or when the temperature exceeds certain limits, ejecting debris from the radiator and cooler cores. Or choose 15- or 45-min. cleaning cycles through the monitor, depending on debris conditions.

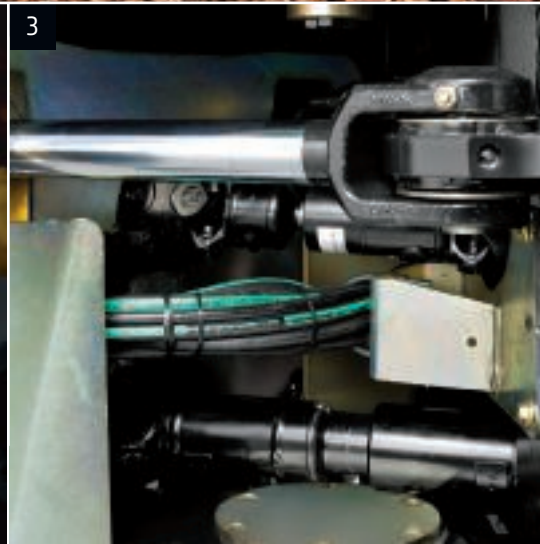




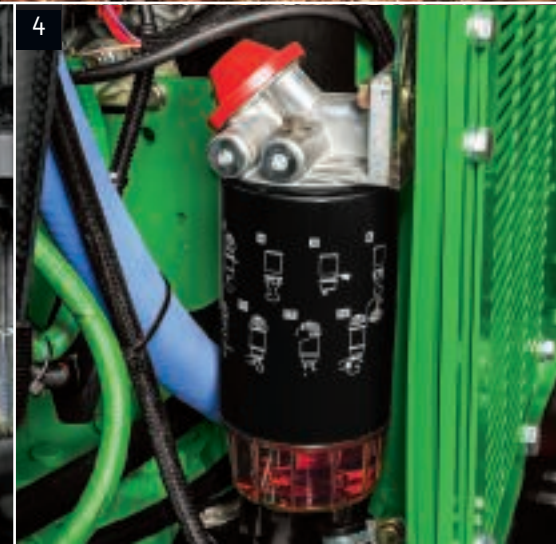
1. With its expansive, ribbed-inlet surface, the high-debris-resistant grille sheds cooling cores of leaves and other material even in the most hostile environments.
2. Master those muddy situations and keep operations moving when you order your skidder with a 4000 Winch.
3. Steering cylinder bushings are 30-percent stronger, and the arch pin is larger, for improved uptime.
4. The severe-duty fuel filter stands guard against contaminants. An optional fuel heater ensures proper fuel consistency in cold temperatures.



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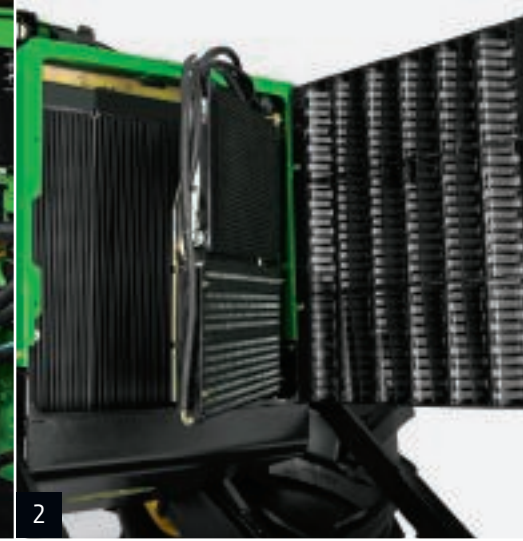
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# Unlatch for fast service, then unleash productivity.

Loggers work in remote areas, so skidders must be easy to service. Simply unlatch the large service panels — no tools needed — for fast, convenient access to filters and components. The cooling system provides wide-open access to the coolers, for simplified clean-out. If necessary, the operator station can be tilted in minutes, for easy access to the drivetrain. Extended service intervals and industry-leading fuel efficiency keep daily operating costs down. So you spend less time and expense getting ready for work, and more time profitably working.

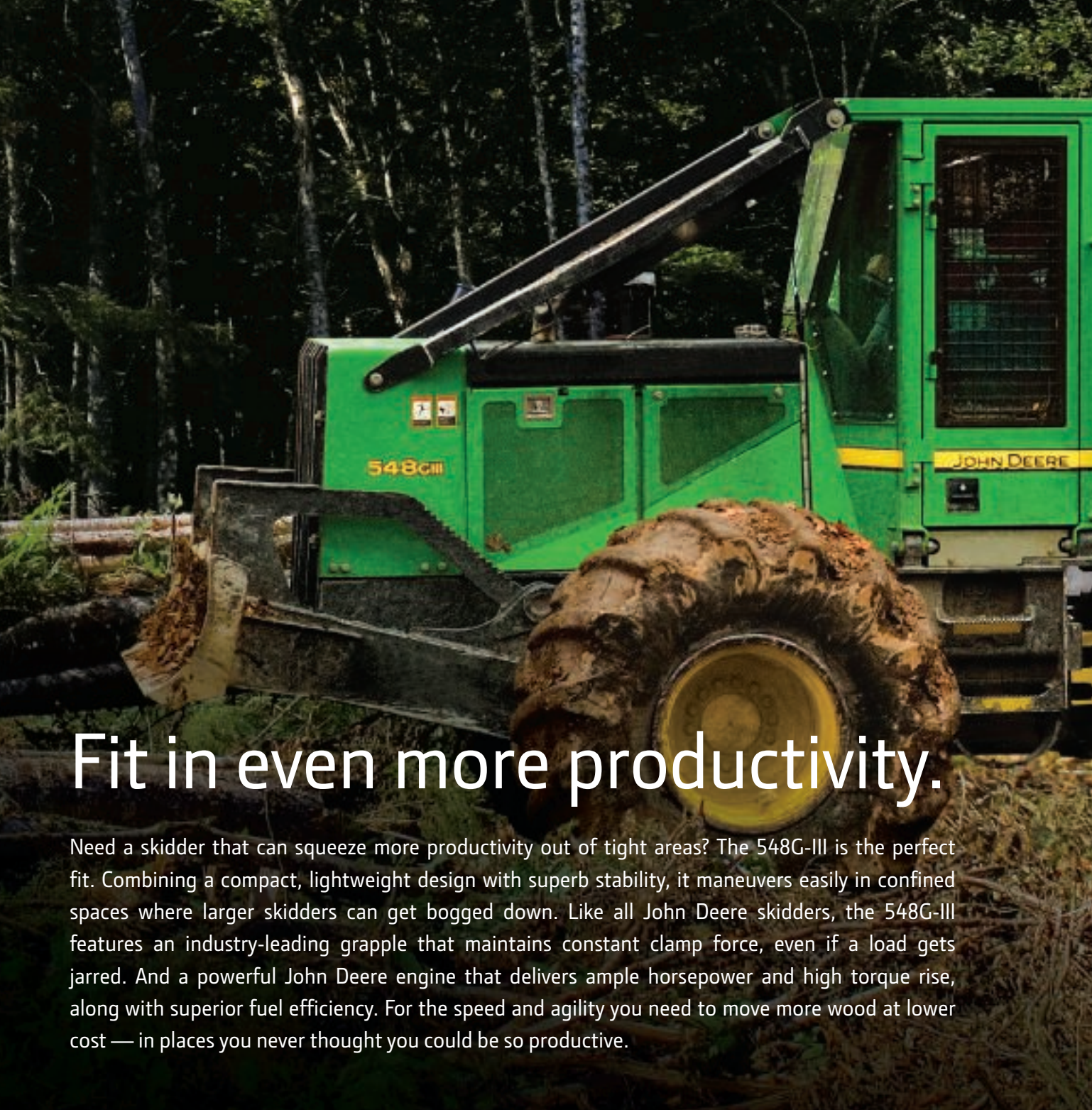
1. Maintenance personnel will appreciate the unique, easy-access engine, hydraulic, and transmission filter bank.
2. Both sides of all coolers are easily accessible, for quick and easy cleaning. Plus, the hydraulic oil cooler and A/C condenser swing out, further simplifying clean-out.
3. At service time, the operator station can be tilted in minutes, for wide-open access to internal components.



- Variable-speed hydraulic fan operates only as needed, reducing wear and tear on cooler cores, fuel consumption, and daily operating costs. Lowers sound levels, too.
- Fluid analysis tells you what's going on inside all of your machine's major components, so you make informed, proactive decisions on machine maintenance. That means less downtime and lower stress levels — and bigger numbers on your bottom line.

- Latches replace bolts on the service panels, for fast access to the transmission and secondary hydraulic filters, and other key components. The grapple-rotate valve is within easy reach.
- 500-hour engine oil/filter; 2,000-hour transmission and hydraulic filters; and 2,000-hour transmission, hydraulic, and winch oil-service intervals decrease planned downtime and expense. Engine valve lash adjustment has been extended to 2,000 hours.

- The easy-to-navigate diagnostic monitor displays information to help speed troubleshooting. It also delivers an audible warning to alert the operator of a critical issue.
- Access to spin-on oil and quick-release fuel filters couldn't be easier.
- Choosing a Deere skidder will save you thousands of dollars in fuel per year.



# Fit in even more productivity.

Need a skidder that can squeeze more productivity out of tight areas? The 548G-III is the perfect fit. Combining a compact, lightweight design with superb stability, it maneuvers easily in confined spaces where larger skidders can get bogged down. Like all John Deere skidders, the 548G-III features an industry-leading grapple that maintains constant clamp force, even if a load gets jarred. And a powerful John Deere engine that delivers ample horsepower and high torque rise, along with superior fuel efficiency. For the speed and agility you need to move more wood at lower cost — in places you never thought you could be so productive.





– Smooth-shifting direct-drive PowerShift™ transmission puts more power to the axles, so you can pull more wood out of close quarters. Autoshift option reduces fatigue by eliminating manual shifting and allowing the operator to focus on pulling the load.



1. The 548G-III's smaller size doesn't mean it comes up short on comfort. Fatigue-beating features include a swivel seat, ergonomic controls, and a highly efficient HVAC system that keeps the cab comfortable year-round.
2. Heavy-duty, inboard planetary axles feature self-equalizing wet-disc brakes that reduce wear and never need adjustment.

3. Numerous tire options let you fine-tune weight and balance to your application.
4. Periodic maintenance is quick and easy on a 548G-III, with quick-release fuel filters and separators, spin-on oil filters, and an oil-drain shutoff for spill-free oil changes.

# 548G-III

<b>Engine</b>		<b>548G-III</b>		
Manufacturer and Model	John Deere PowerTech™ 6068T			
Non-Road Emission Standards	EPA Tier 2			
Engine Displacement	6.8 L (414 cu. in.)			
Gross Power (ISO 14396) at 2,200 rpm	96 kW (129 hp)			
Aspiration	Altitude-compensating spark-arresting turbocharger			
Slope Operation, Maximum Angle	45 deg. fore/aft and 35 deg. side/side			
Engine Cold-Start System	Ether starting aid			
<b>Cooling</b>				
Fan Drive	Direct drive			
Fan Type	Blower			
<b>Powertrain</b>				
Transmission Type	Direct-drive PowerShift™ with automatic option			
<b>Steering</b>	Power, fully hydraulic, orbitrol			
Optional	Gerotorless			
Articulation Angle	45 deg. each direction			
Number of Gears				
Forward	8			
Reverse	7			
Maximum Travel Speed (no tire slip) with 23.1-26 Tires at 2,000 rpm				
Forward	18.6 km/h (11.57 mph)			
Reverse	14.0 km/h (8.72 mph)			
<b>Axles</b>	1200 inboard planetary			
Differentials (front and rear)	Hydraulic-locking, operated-on-the-go, closed-center differential lock			
Front Axle Oscillation, Stop to Stop	30 deg.			
Final Drive	Heavy-duty planetary, mounted inboard			
Differential Pressure	1862 kPa (270 psi)			
<b>Service Brakes</b>	Long-life, inboard-mounted, wet-disc, oil-cooled, self-adjusting and self-equalizing front and rear axles			
<b>Parking Brake</b>	Automatically spring-applied, hydraulically released, sealed and lubricated, wet multi-disc, integrally mounted in transmission			
<b>Hydraulics</b>				
<b>Main Pump</b>	Open circuit, variable-displacement, axial piston			
<b>Grapple</b>				
Control	Joystick pilot			
Grapple				
Opening Tip to Tip	2159 mm (85 in.)			
Area	0.7 m <sup>2</sup> (8 sq. ft.)			
Turning Radius	5456 mm (214.8 in.)			
<b>Winch</b>				
Winch Control	Mechanical			
Cable Capacity	4000 with 203.2-mm (8 in.) Drum			
15.8 mm (5/8 in.)	77.4 m (252 ft.)		4000 with 254-mm (10 in.) Drum	
19.1 mm (3/4 in.)	54.6 m (177 ft.)		60.6 m (197 ft.)	
22.2 mm (7/8 in.)	39.3 m (128 ft.)		43.0 m (140 ft.)	
25.4 mm (1 in.)	30.7 m (100 ft.)		30.8 m (100 ft.)	
	30.7 m (100 ft.)		23.8 m (77 ft.)	
Line Pull at 1,400 rpm – 15.8-mm (5/8 in.) Cable	<i>Bare Drum</i>	<i>Full Drum</i>	<i>Bare Drum</i>	<i>Full Drum</i>
High Speed	147.0 kN (33,065 lb.)	88.2 kN (19,839 lb.)	139.0 kN (31,269 lb.)	102.8 kN (23,112 lb.)
Standard Speed	171.3 kN (38,520 lb.)	102.8 kN (23,112 lb.)	N/A	N/A
Line Speed at 2,200 rpm – 15.8-mm (5/8 in.) Cable				
High Speed	43.2 m/min. (142 fpm)	72.0 m/min. (236 fpm)	45.72 m/min. (150 fpm)	61.8 m/min. (203 fpm)
Standard Speed	37.1 m/min. (122 fpm)	61.8 m/min. (203 fpm)	N/A	N/A
<b>Serviceability</b>				
<b>Refill Capacities</b>				
Fuel Tank	189.3 L (50.0 gal.)			
Hydraulic Reservoir	30.3 L (8.0 gal.)			

Specifications are subject to change without notice.

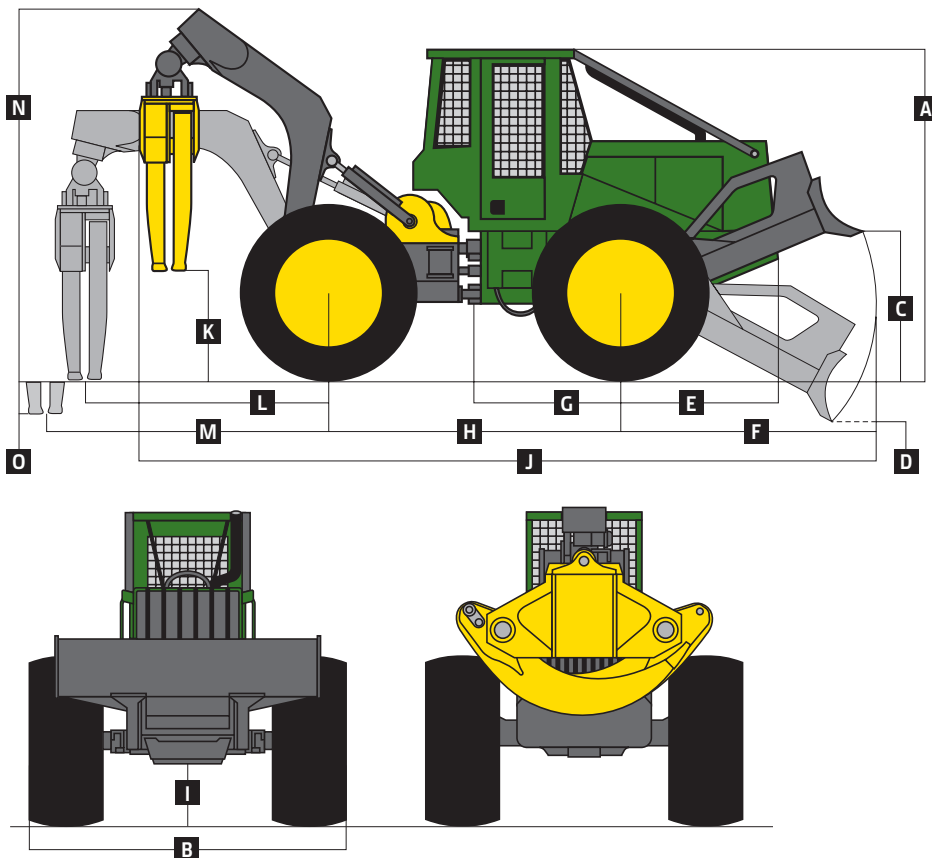




<b>Operating Weight</b>	<b>548G-III</b>
<b>Single Function</b>	10 746 kg (23,690 lb.)
<b>Machine Dimensions</b>	
<b>Tire Size</b>	23.1-26 (narrow)
<b>A Overall Height*</b>	3008 mm (118.4 in.)
<b>B Overall Width</b>	2643 mm (104 in.)
<b>C Maximum Blade Lift Above Ground</b>	1204 mm (47.4 in.)
<b>D Maximum Blade Dig Below Ground</b>	295 mm (11.6 in.)
<b>Dozer Blade Width</b>	2184 mm (86 in.)
<b>E Front Axle to Front of Machine</b>	1507 mm (59 in.)
<b>F Front Axle to Blade Cutting-Edge Arc</b>	2112 mm (83 in.)
<b>G Front Axle to Articulation Joint</b>	1575 mm (62 in.)
<b>H Wheelbase</b>	2920 mm (115 in.)
<b>I Ground Clearance</b>	493 mm (19.4 in.)
<b>J Overall Length</b>	6330 mm (249 in.)
<b>K Height of Grapple from Ground Level</b>	849 mm (33.4 in.)
<b>L Reach of Grapple at Ground Level</b>	1970 mm (77.6 in.)
<b>M Reach of Grapple at Full Reach</b>	2158 mm (85 in.)
<b>N Maximum Height of Boom</b>	2976 mm (117.2 in.)
<b>O Below Ground Reach of Grapple at Full Reach</b>	888 mm (34.9 in.)

\*Add 160 mm (6.29 in.) when equipped with water tank.

### 548G-III with Single-Function Grapple



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

# 648H/748H/848H

Engine	648H Grapple – Direct Drive	648H Grapple – Lockup Torque Converter	748H Grapple – Direct Drive	848H Grapple – Lockup Torque Converter
Manufacturer and Model	John Deere PowerTech™ Plus 6068H			
Non-Road Emission Standards	EPA Tier 3			
Engine Displacement	6.8 L (415 cu. in.)			
Gross Power (ISO 14396) at 2,200 rpm	128 kW (172 hp)	138 kW (185 hp)	144 kW (193 hp)	149 kW (200 hp)
Aspiration	Turbocharged, air-to-air intercooled			
Slope Operation, Maximum Angle	45 deg. fore/aft and 35 deg. side/side			
Engine Cold-Start System	Glow plug			
<b>Cooling</b>	<b>648H / 748H / 848H</b>			
Fan Drive	Hydraulic, variable speed, reversing			
Fan Type	Sucker			
Powertrain	648H Grapple – Direct Drive	648H Grapple – Lockup Torque Converter	748H Grapple – Direct Drive	848H Grapple – Lockup Torque Converter
Transmission Type	Direct drive	Lockup torque converter	Direct drive	Lockup torque converter
<b>Steering</b>	Power, fully hydraulic, orbitrol			
Articulation Angle	45 deg. each direction			
Number of Gears				
Forward	8	6	8	6
Reverse	7	5	7	3
Maximum Travel Speed (no tire slip) at 2,200 rpm				
Forward	30.5-32 Tires 22.0 km/h (13.6 mph)	30.5-32 Tires 20.2 km/h (12.6 mph)	30.5-32 Tires 22.0 km/h (13.6 mph)	35.5-32 Tires 21.4 km/h (13.3 mph)
Reverse	16.5 km/h (10.3 mph)	14.7 km/h (9.1 mph)	16.5 km/h (10.3 mph)	15.6 km/h (9.7 mph)
<b>Axles</b>	Inboard planetary			
Differential (front and rear)	Hydraulic-locking, operated-on-the-go, closed-center differential lock			
Front Axle Oscillation, Stop to Stop	30 deg.			
Options	1400 extreme duty, SWEDA™	1400 extreme duty, SWEDA	1400 extreme duty, SWEDA, SWEDA II	SWEDA II
<b>Service Brakes</b>	Inboard-mounted, wet-disc, oil-cooled, self-adjusting and self-equalizing front and rear axles			
<b>Parking Brake</b>	Automatically spring-applied, hydraulically released, sealed and lubricated, wet multi-disc, integrally mounted in transmission			
<b>Hydraulics</b>	<b>648H / 748H / 848H</b>			
<b>Main Pump</b>	Open circuit, variable-displacement, axial piston			
Grapples	648H Grapple – Direct Drive	648H Grapple – Lockup Torque Converter	748H Grapple – Direct Drive	848H Grapple – Lockup Torque Converter
Control	Joystick pilot			
Grapple, Standard Capacity				
Opening	2921 mm (115 in.)	2921 mm (115 in.)	3225 mm (127 in.)	3302 mm (130 in.)
Area	1.0 m² (10.4 sq. ft.)	1.0 m² (10.4 sq. ft.)	1.4 m² (14.9 sq. ft.)	1.5 m² (16.1 sq. ft.)
Grapple, High Capacity				
Opening	3175 mm (125 in.) or 3226 mm (127 in.)	3175 mm (125 in.) or 3226 mm (127 in.)	3302 mm (130 in.) or 3404 mm (134 in.)	3404 mm (134 in.)
Area	1.2 m² (12.5 sq. ft.) or 1.4 m² (14.9 sq. ft.)	1.2 m² (12.5 sq. ft.) or 1.4 m² (14.9 sq. ft.)	1.5 m² (16.1 sq. ft.) or 1.7 m² (17.9 sq. ft.)	1.7 m² (17.9 sq. ft.)
<b>Serviceability</b>				
<b>Refill Capacities</b>				
Fuel Tank				
Single Function	297 L (78.5 gal.)	297 L (78.5 gal.)	N/A	N/A
Dual Function	297 L (78.5 gal.)	297 L (78.5 gal.)	329 L (87.0 gal.)	329 L (87.0 gal.)
Hydraulic Reservoir	63.0 L (16.6 gal.)	63.0 L (16.6 gal.)	63.0 L (16.6 gal.)	63.0 L (16.6 gal.)

Specifications are subject to change without notice.



Winch			
Winch Control	Mechanical		
Cable Capacity	<b>4000 with 203.2-mm (8 in.) Drum</b>	<b>4000 with 254-mm (10 in.) Drum</b>	<b>6000 with 279.4-mm (11 in.) Drum</b>
15.8 mm (5/8 in.)	77.4 m (252 ft.)	60.6 m (197 ft.)	119.0 m (390 ft.)
19.1 mm (3/4 in.)	54.6 m (177 ft.)	43.0 m (140 ft.)	81.4 m (267 ft.)
22.2 mm (7/8 in.)	39.3 m (128 ft.)	30.8 m (100 ft.)	60.3 m (197 ft.)
25.4 mm (1 in.)	30.7 m (100 ft.)	23.8 m (77 ft.)	46.0 m (150 ft.)

Winch	648H			
Direct Drive	4000 with 203.2-mm (8 in.) Drum		4000 with 254-mm (10 in.) Drum	
Line Pull at 1,400 rpm – 15.8-mm (5/8 in.) Cable	<i>Bare Drum</i>	<i>Full Drum</i>	<i>Bare Drum</i>	<i>Full Drum</i>
High Speed	208.2 kN (46,827 lb.)	124.0 kN (28,096 lb.)	196.9 kN (44,283 lb.)	145.0 kN (32,731 lb.)
Standard Speed	242.6 kN (54,552 lb.)	145.0 kN (32,731 lb.)	N/A	N/A
Line Speed at 2,200 rpm – 15.8-mm (5/8 in.) Cable				
High Speed	43.2 m/min. (142 fpm)	72.0 m/min. (236 fpm)	45.7 m/min. (150 fpm)	61.8 m/min. (203 fpm)
Standard Speed	37.1 m/min. (122 fpm)	61.8 m/min. (203 fpm)	N/A	N/A

Lockup Torque Converter				
Line Pull at stall – 15.8-mm (5/8 in.) Cable	<i>Bare Drum</i>	<i>Full Drum</i>	<i>Bare Drum</i>	<i>Full Drum</i>
High Speed	184.5 kN (41,499 lb.)	110.0 kN (24,899 lb.)	174.5 kN (39,245 lb.)	129.0 kN (29,007 lb.)
Standard Speed	215.0 kN (48,346 lb.)	129.0 kN (29,007 lb.)	N/A	N/A
Line Speed at 2,200 rpm – 15.8-mm (5/8 in.) Cable				
High Speed	90.2 m/min. (296 fpm)	150.2 m/min. (493 fpm)	95.4 m/min. (313 fpm)	128.9 m/min. (423 fpm)
Standard Speed	77.4 m/min. (254 fpm)	128.9 m/min. (423 fpm)	N/A	N/A

Winch	748H			
	4000 with 203.2-mm (8 in.) Drum		6000 with 279.4-mm (11 in.) Drum	
	<i>Bare Drum</i>	<i>Full Drum</i>	<i>Bare Drum</i>	<i>Full Drum</i>
Line Pull at 1,400 rpm – 15.8-mm (5/8 in.) Cable	266.1 kN (59,824 lb.)	159.0 kN (35,894 lb.)	231.7 kN (52,101 lb.)	144.0 kN (32,516 lb.)
Line Speed at 2,200 rpm – 15.8-mm (5/8 in.) Cable	37.1 m/min. (122 fpm)	61.8 m/min. (203 fpm)	42.6 m/min. (140 fpm)	68.2 m/min. (224 fpm)

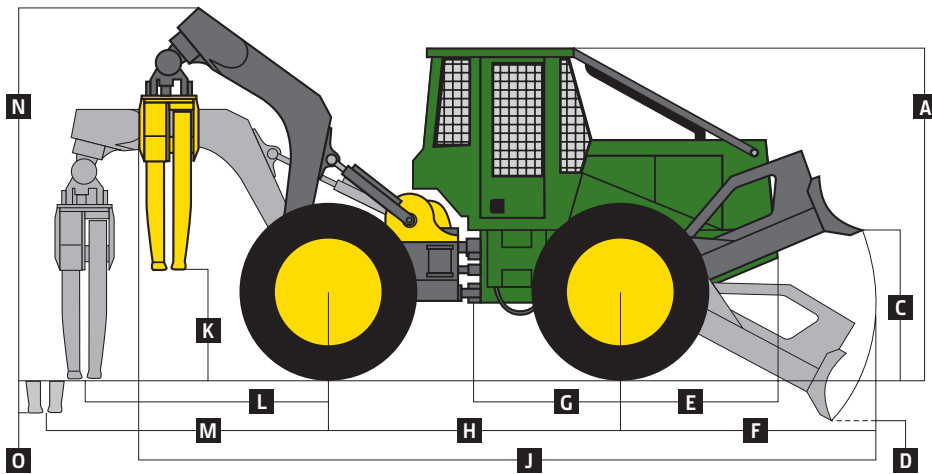
Winch	848H			
	4000 with 203.2-mm (8 in.) Drum		6000 with 279.4-mm (11 in.) Drum	
	<i>Bare Drum</i>	<i>Full Drum</i>	<i>Bare Drum</i>	<i>Full Drum</i>
Line Pull at stall – 15.8-mm (5/8 in.) Cable	215.2 kN (48,386 lb.)	129.0 kN (29,007 lb.)	187.2 kN (42,104 lb.)	116.9 kN (26,277 lb.)
Line Speed at 2,200 rpm – 15.8-mm (5/8 in.) Cable	77.4 m/min. (254 fpm)	128.9 m/min. (423 fpm)	88.6 m/min. (291 fpm)	142.3 m/min. (467 fpm)



Operating Weights	648H Grapple – Direct Drive	648H Grapple – Lockup Torque Converter	748H Grapple – Direct Drive	848H Grapple – Lockup Torque Converter
Single Function, Long Frame	14 258 kg (31,433.5 lb.)	14 417 kg (31,784 lb.)	N/A	N/A
Dual Function	14 638 kg (32,271.2 lb.)	14 798 kg (32,624 lb.)	17 028 kg (37,540 lb.)	17 826 kg (39,300 lb.)
Machine Dimensions				
Tire Size	30.5-32	30.5-32	30.5-32	35.5-32
<b>A</b> Overall Height*	3125 mm (123 in.)	3125 mm (123 in.)	3127 mm (123 in.)	3186 mm (125.4 in.)
<b>B</b> Overall Width	3234 mm (127.3 in.)	3234 mm (127.3 in.)	3239 mm (128 in.)	3485 mm (137.2 in.)
<b>C</b> Maximum Blade Lift Above Ground	1397 mm (55 in.)	1397 mm (55 in.)	1499 mm (59 in.)	1560 mm (61.4 in.)
<b>D</b> Maximum Blade Dig Below Ground	329 mm (9 in.)	329 mm (9 in.)	360 mm (14 in.)	295 mm (11.6 in.)
Dozer Blade Width	2184 mm (86 in.)	2184 mm (86 in.)	2950 mm (116 in.)	2950 mm (116 in.)
<b>E</b> Front Axle to Front of Machine	1727.3 mm (68 in.)	1744.6 mm (68.7 in.)	1778 mm (70 in.)	1778 mm (70 in.)
<b>F</b> Front Axle to Blade Cutting-Edge Arc	2358 mm (92.8 in.)	2518 mm (99.1 in.)	2558 mm (101 in.)	2558 mm (101 in.)
<b>G</b> Front Axle to Articulation Joint	1726 mm (68 in.)	1787 mm (70 in.)	1787 mm (70 in.)	1787 mm (70 in.)
<b>H</b> Wheelbase	3680 mm (145 in.)	3740 mm (147 in.)	3785 mm (149 in.)	3787 mm (149 in.)
<b>I</b> Ground Clearance	585 mm (23 in.)	585 mm (23 in.)	587 mm (23.1 in.)	587 mm (23.1 in.)
<b>J</b> Overall Length				
Dual Function	7655.34 mm (301.4 in.)	7874.97 mm (310.1 in.)	8072 mm (318 in.)	8072 mm (318 in.)
Single Function	7765.35 mm (305.8 in.)	7984.98 mm (314.4 in.)	N/A	N/A
<b>K</b> Height of Grapple from Ground Level	889 mm (35 in.)	889 mm (35 in.)	1556 mm (61 in.)	1552 mm (61.1 in.)
<b>L</b> Reach of Grapple at Ground Level	2152 mm (84.7 in.)	2152 mm (84.7 in.)	3113 mm (123 in.)	3111 mm (122.5 in.)
<b>M</b> Reach of Grapple at Full Reach	2369 mm (93.3 in.)	2369 mm (93.3 in.)	2699 mm (106 in.)	2699 mm (106.3 in.)
<b>N</b> Maximum Height of Boom	3505 mm (138 in.)	3505 mm (138 in.)	4289 mm (169 in.)	4351 mm (171.3 in.)
<b>O</b> Below Ground Reach of Grapple at Full Reach	940 mm (37 in.)	940 mm (37 in.)	1114 mm (44 in.)	1121 mm (44.1 in.)

\*Add 160 mm (6.29 in.) when equipped with water tank.

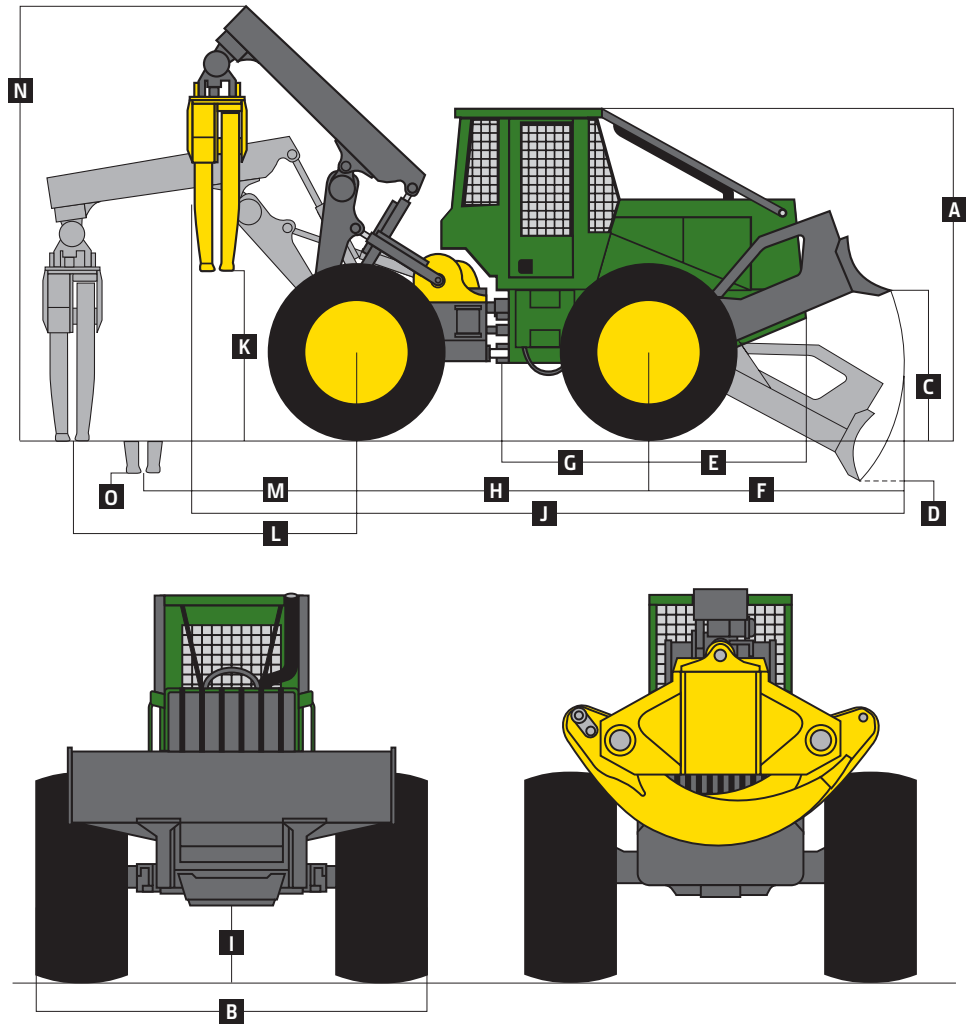
#### 648H with Single-Function Grapple



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



648H / 748H / 848H with Dual-Function Grapple



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



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