BID SUBMITTAL FORM
Alabama County Joint Bid Program
Heavy Equipment – Bid Item: Light Duty Motor Grader - Option B

Company Name: Warrior Tractor & Equipment Company, Inc.

Address: 6801 McFarland Blvd W., Northport, AL 35476

Bid Submitted by: David Schafer
(Name of company representative)

Title: Sales Manager E-mail address: dschafer@warriortractor.com

Phone: 205-339-0300 Fax: 205-333-0101

By submitting this bid, we agree:	Initials
The equipment model number identified below meets the bid specs for this bid item	DRS
That the bid price will be honored for all counties for the period from January 1, 2023 to December 31, 2023.	DRS
The equipment will be delivered at the bid price to all counties participating in the joint bid program.	DRS
The company acknowledges the freight preparation and delivery price is to be included in the total bid price for the standard machine.	DRS
The company representative listed above will be the contact person for purchasing this bid item under the joint bid program.	DRS
The bid is accompanied by a current catalog or model specification document for the model number identified below.	DRS
The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications.	DRS
The bid includes the e-verify documentation required by Alabama law.	DRS
If awarded the bid, a performance bond will be provided upon request.	DRS
The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine.**	DRS

Total Bid Price for Standard Machine: $ 348,433.00
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) *

Freight Preparation and Delivery: $ 8,500.00
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: $ 507,677.00

Equipment Model #: John Deere 670G

Description: Motor Grader

Signature of company representative submitting bid: David R Schafer

Title: Sales Manager

***NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

BID SUBMITTAL FORM: OPTION COST SHEET

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine* 10%

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the Standard Machine 10%

Equipment Model #: John Deere 670G

Description: Motor Grader

Signature of company representative submitting bid: David R. Schafer

Title: Sales Manager

***NOTE:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

BID SPECIFICATIONS
FOR
LIGHT DUTY MOTOR GRADER – OPTION B

GENERAL

These specifications shall be construed as the minimum acceptable standards for a light duty motor grader. Should the manufacturer's current production data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturers' equipment. The motor grader must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

The use of specific names or numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size, and quality of equipment considered best adapted to the uses of counties participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the Bid Submittal Form included in the invitation to bid package. All written warranties to be submitted shall be attached to the Bid Submittal Form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates and all other applicable costs and refunds.

MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one (1) copy of the repair manual and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment bid. If replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the County to use at no cost to the County until such time as the parts are delivered to the County so it can affect repairs to its machine.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of maximum of 36 hours within notification by county.

Yes X No ____
Page #_____
Attachment X

ENGINE

The engine shall be a four cycle, six cylinder turbocharger. Engine shall be in current production and the engine displacement shall not be less than **548 cu. in** and shall develop, as standard, a rated net power of at least **235 HP**.

Engine shall be designed and manufactured by the machine manufacture — Yes X No ___ Page # 18

STARTING SYSTEM

Shall be equipped with a **24-volt** electrical system.
130-amp alternator. — Yes X No ___ Page # 19

TRANSMISSION

Direct drive power shift — Yes X No ___ Page # 18

Eight speeds forward and **Eight speeds** reverse — Yes X No ___ Page # 18

Low effort inching pedal — Yes X No ___ Page # 18

Electronic overspeed protection to prevent engine and transmission damage from premature downshifting and grade-induced over-speeding — Yes X No ___ Page # 18

Also must be equipped with transmission guard — Yes X No ___ Page # 30 & 31 ATTACHMENT

FINAL DRIVE

The final drive shall be a tandem type with power being transmitted from the transmission to the ground all four rear tandem wheels. — Yes X No ___ Page # 18

The final drive shall include a lock/unlock differential. — Yes X No ___ Page # 18

CONTROLS AND HYDRAULICS

The hydraulic system shall be a load sensing closed center type with a variable displacement piston pump. — Yes X No ___ Page # 18

The hydraulic system shall have sufficient power to permit simultaneous operation of at least two components without loss of component travel speed and/or power and without requiring the engine speed to be increased.

Yes X No ___
Page # ATTACHMENT

Shall have an accumulator blade lift to protect against blade damage.

Yes X No ___
Page # ATTACHMENT

BLADES

The moldboard shall be **14' x 24" x 0.87"** with hydraulic power tilt, hydraulic power side shift and replaceable end bits

Yes X No ___
Page # 21 ATTACHMENT

The tilt angle of the moldboard shall not be less than 45 degrees

Yes X No ___
Page # 19

Moldboard blade range shall have minimum lift above ground of **19"** and minimum right and left side vertical cutting angle of **90 degrees**.

Yes X No ___
Page # 19

Shall also include reversible overlay end bits

Yes X No ___
Page # ATTACHMENT

DRAWBAR AND CIRCLE

Drawbar shall be a box section "A" frame type welded construction.

Yes X No ___
Page # 19

Drawbar shall be equipped with a slip clutch designed to protect the drawbar, circle and moldboard from horizontal shocks when the blade encounters hidden objects.

Yes X No ___
Page # ATTACHMENT

The circle shall be steel construction with 6 replaceable wear shoes.

Yes X No ___
Page # 19

FRAME

The main frame shall be of an all welded box type construction.

Yes X No ___
Page # 19

The frame must be capable of articulating **22 degrees** to both the right and left of center and the articulation joint shall be supported by four roller bearings.

Yes X No ___
Page # 18

The power train shall be completely contained within the rear frame with no drive shafts crossing the articulation joint.

Yes X No ___
Page # 18 ATTACHMENT

The articulation joint shall be equipped with a locking device to prevent frame articulation while servicing or transporting the machine.

Yes X No ___
Page # ATTACHMENT

STEERING

The motor grader shall have a hydraulic steering system capable of providing stopped engine steering as required by SAE codes, J53 and J1511.

Yes X No ___
Page # ATTACHMENT

TIRES

All six wheels shall be **10 in** by **24 in** size multi-piece tire rims and shall provide mounting for 14.00 R24 tires.

Yes X No ___
Page # ATTACHMENT & 21

Tires shall be Goodyear, Bridgestone/Firestone, or Michelin only 14.00 x R24 12PR Bias Tires.

Yes X No ___
Page # ATTACHMENT & 21

BRAKES

The service brakes shall be foot operated, hydraulic power boosted sealed oil disc brakes on all four rear tandem wheels.

Yes X No ___
Page # 18

The service brakes shall be a dual brake system with accumulators for a secondary braking system for stopped engine braking.

Yes X No ___
Page # 18 ATTACHMENT

WEIGHT (STANDARD OPERATING)

Minimum of **35,000** pounds which includes enclosed ROPS cab (low profile) with factory installed air conditioner/heater (standard arrangement). This is factory specified operating weight only. No additional weights may be added for purpose of meeting these specifications.

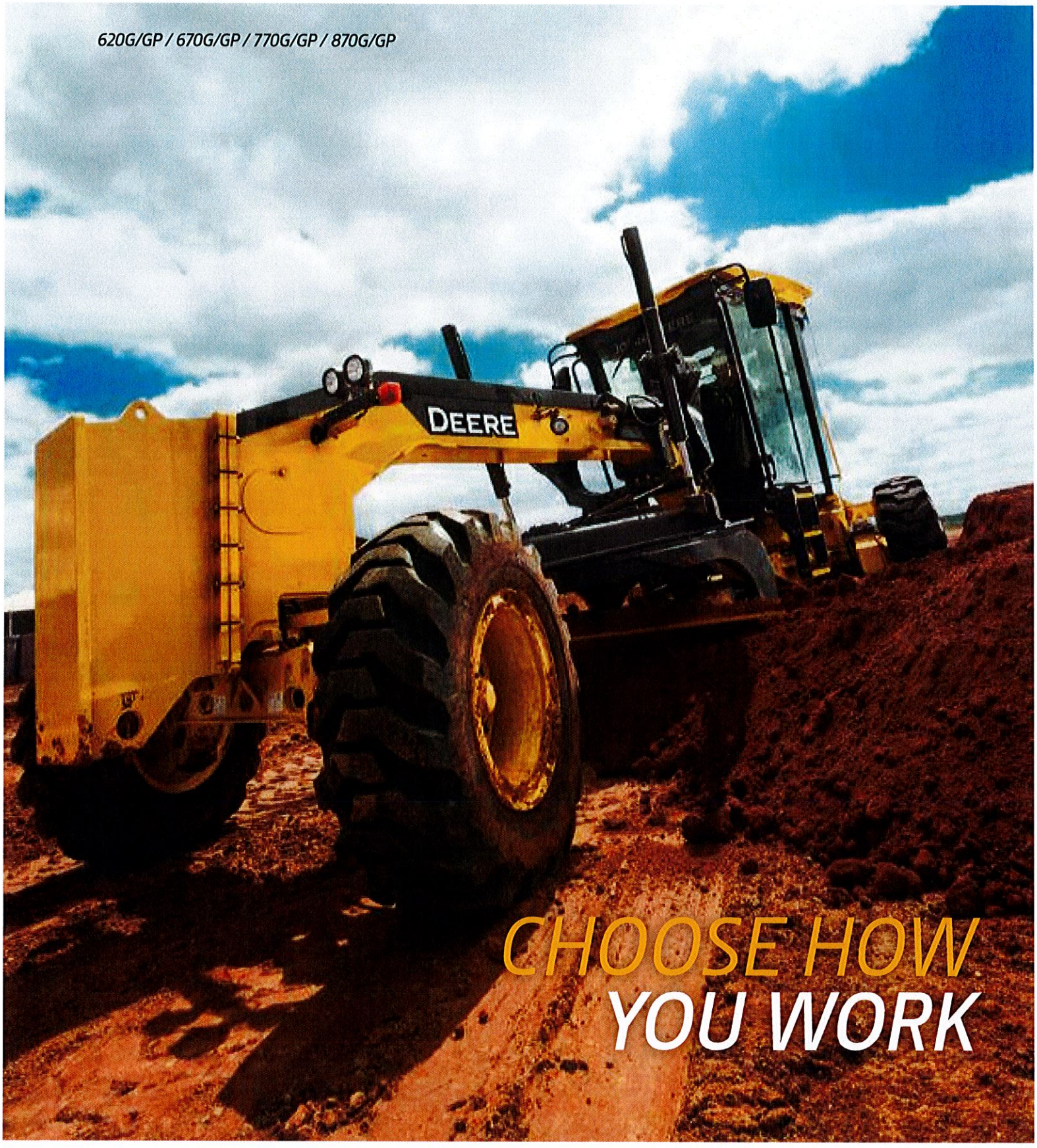
Yes X No ___
Page # 26

G-SERIES 4WD

MOTOR GRADERS

JOHN DEERE

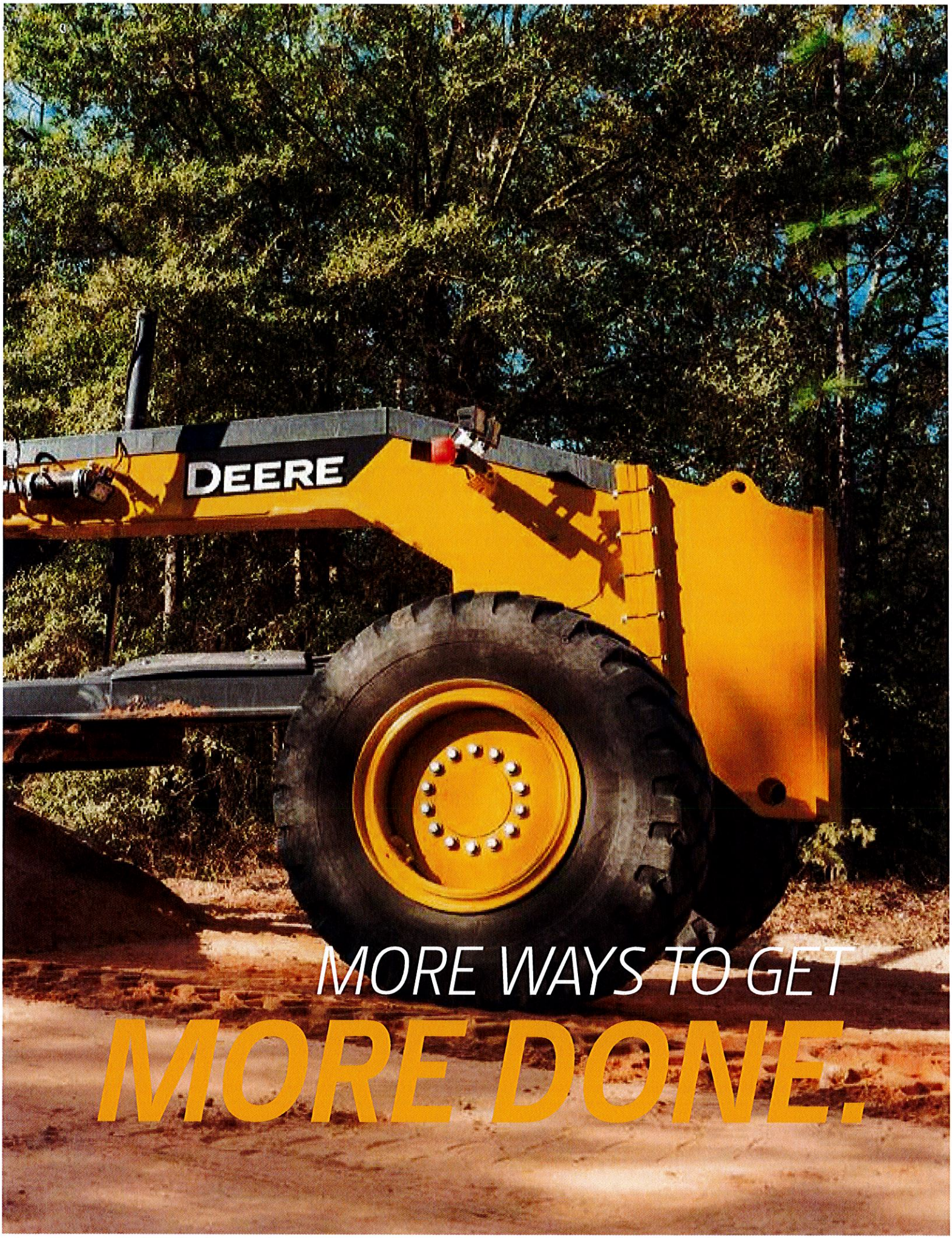
620G/GP / 670G/GP / 770G/GP / 870G/GP

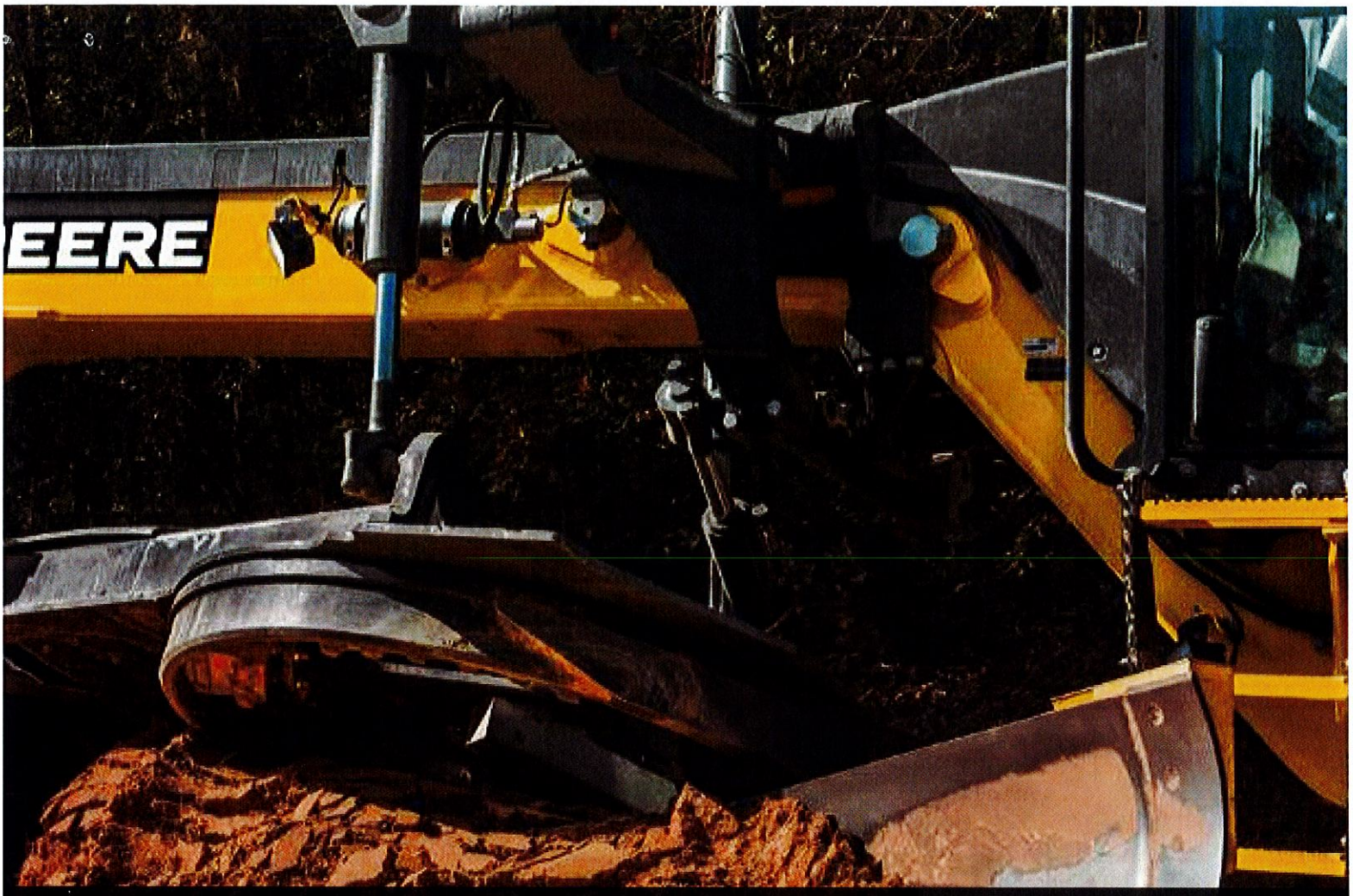


MORE CONTROL OPTIONS

+

FACTORY EQUIPPED WITH OPTIONAL SMARTGRADE™


DEERE
MORE WAYS TO GET
MORE DONE.



TAKING GRADING PERFORMANCE

TO THE NEXT LEVEL.

John Deere motor graders have earned a reputation for exceptional control and effortless grading precision. And now, thanks to the best ideas of customers like you, we've added exclusive automation on Grade Pro (GP) models to our list of featured firsts. Along with Customer Advocate Group-tested dual-joystick controls, wide-ranging grade-control system options including integrated SmartGrade models, and the small and economical 620G, it's just one more example of all the ways we're leading the way to move your operation in a whole new direction.

WHEN YOU ASK, WE LISTEN: THE 620G GRADER.

Our competitively priced 620G offers contractors, townships, and municipalities the grader they've been asking for, with just the right amount of power and fuel savings of up to 10 percent over our larger models. It's equipped — not stripped — with many of the same features found on its larger siblings, including a superior cooling package and ground-level service.

RIGHT ON THE MONEY

ENHANCED PERFORMANCE, MORE OPTIONS, LOWER COST.

Boasting exceptional balance, improved performance specs, and more maximum capability, G-Series Graders help you do your level best — whether you're a major contractor, working for the county, or running a land-leveling crew.

Innovation in action

New John Deere automation features designed to move you ahead in a big way include Machine-Damage Avoidance, Machine Presets, Auto-Articulation, Auto-Gain for Cross Slope, and Auto-Pass (available on GP models; see page 6 for all the details).

Go forward

Auto-Shift PLUS simplifies operation of both GP and G-Series models, for machine operation without using the inching pedal.

The right power for the job

G-Series Graders deliver the right amount of power when you need it. Horsepower and torque are optimized for each gear to maximize performance no matter your application.

Unlimited grade control

Industry-first John Deere SmartGrade Motor Graders are fully integrated and calibrated from the factory, arriving at your jobsite ready to work. In-cylinder position sensing allows the machine to stay on grade no matter what blade pitch, articulation angle, or circle offset you're running.

Improved horsepower and torque

Increased engine horsepower, torque, and blade pull produce generous power and lugging ability, to deliver more power to the ground, easily pull through tough spots, or tackle steep hills.

Smarter from day one

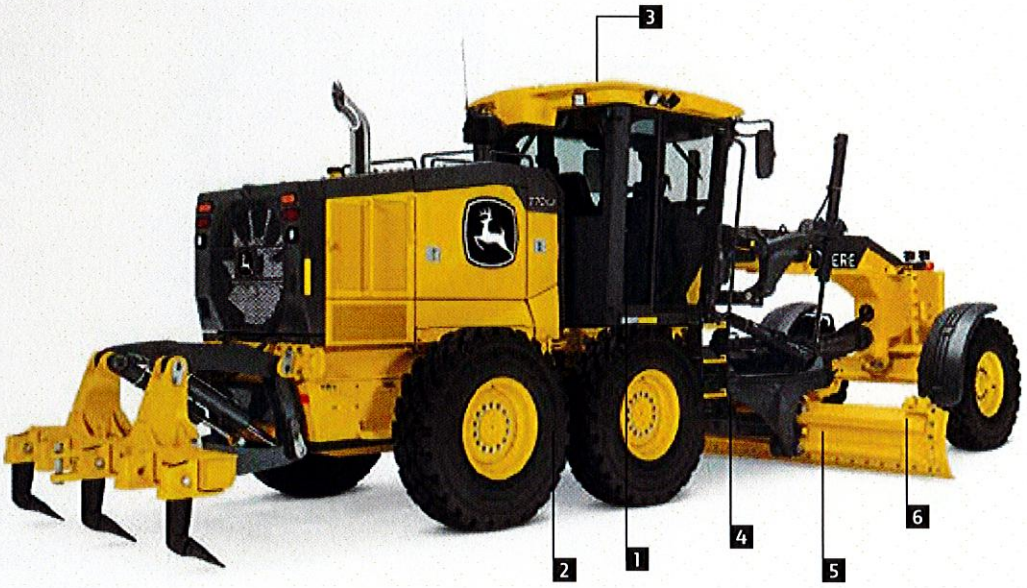
Integration of SmartGrade into the cabin and structures helps shield key grade-control components such as wire harnesses and sensors from damage and theft. And without external grade-control components to impede maneuverability, final-grade machines can be involved earlier and more effectively in site development.

INDUSTRY-FIRST AUTOMATION FEATURES & SMARTGRADE CONFIGURATIONS

GET AHEAD OF IT

THE JOHN DEERE DIFFERENCE.

Set yourself apart from the competition. Because with industry-exclusive Auto-Gain for Cross Slope, Auto-Pass, and Auto-Shift PLUS, it's push-button easy to take the lead. Our automation advantages for all Grade Pro (GP) models are also available as field kits that can be unlocked on SmartGrade models.



1 Exclusive **Auto-Shift PLUS** – also available on all G-Series models – allows operators to work without using the inching pedal.

2 **Auto-Gain for Cross Slope** automatically adjusts gain settings based on ground speed to maximize performance.

3 **Auto-Articulation** allows the operator to increase the maneuverability of coordinated steering and articulation while using only the joystick-steering function to steer and operate other necessary functions without manually articulating the machine.

4 **Machine-Damage Avoidance** eliminates the risk of blade damage to machine structures during any operation, even complex orientations.

5 Exclusive **Auto-Pass** makes grading easy by automatically placing the blade on the ground and activating the grade-control system (when equipped) at the start of the pass, then automatically raising and resetting the blade at the end of it.

6 Preparing the machine for transport is push-button easy with **Machine Presets.** Stow the blade and ripper, turn on the lights including the hazards, and enable Auto-Shift with one button press, for speedy jobsite transitions.

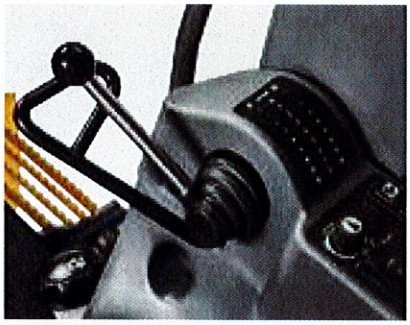
Optional premium circle

Featuring a fully sealed bearing and pinion that run smoother and quieter, this industry-leading design reduces operating costs while delivering 40-percent more torque and 15-percent more speed than a traditional circle. Contractors no longer have to compensate for wear in the circle, improving accuracy when using a grade-control system – especially impactful when coupled with the innovative John Deere SmartGrade™ system. And greasing intervals of only four zerks every 500 hours make the premium circle essentially maintenance free.

FREEDOM OF CHOICE

WITHOUT LIFTING A FINGER.

Our G-Series Graders give you more choice of how work gets done. On our GP models opt for dual-joystick controls or choose state-of-the-art fingertip armrest controls. Or have the best of both worlds — a field kit allows you to easily swap between the two. Our G models offer conventional lever-operated controls. And based on customer feedback, all models still have a steering wheel. The choice is yours.



Joystick option

Our dual-joystick controls provide intuitive control with minimal hand motion during direction changes and gear shifts. By eliminating the twisting wrist motion or uncomfortable combinations common to other joystick systems, dual-joystick controls help reduce operator fatigue.

Fine control with less fatigue

Articulation and circle-rotate functions are actuated using proportional roller switches instead of twisting the controller.

Return-to-straight

At the touch of a button, return-to-straight automatically straightens an articulated frame, for quicker work cycles.

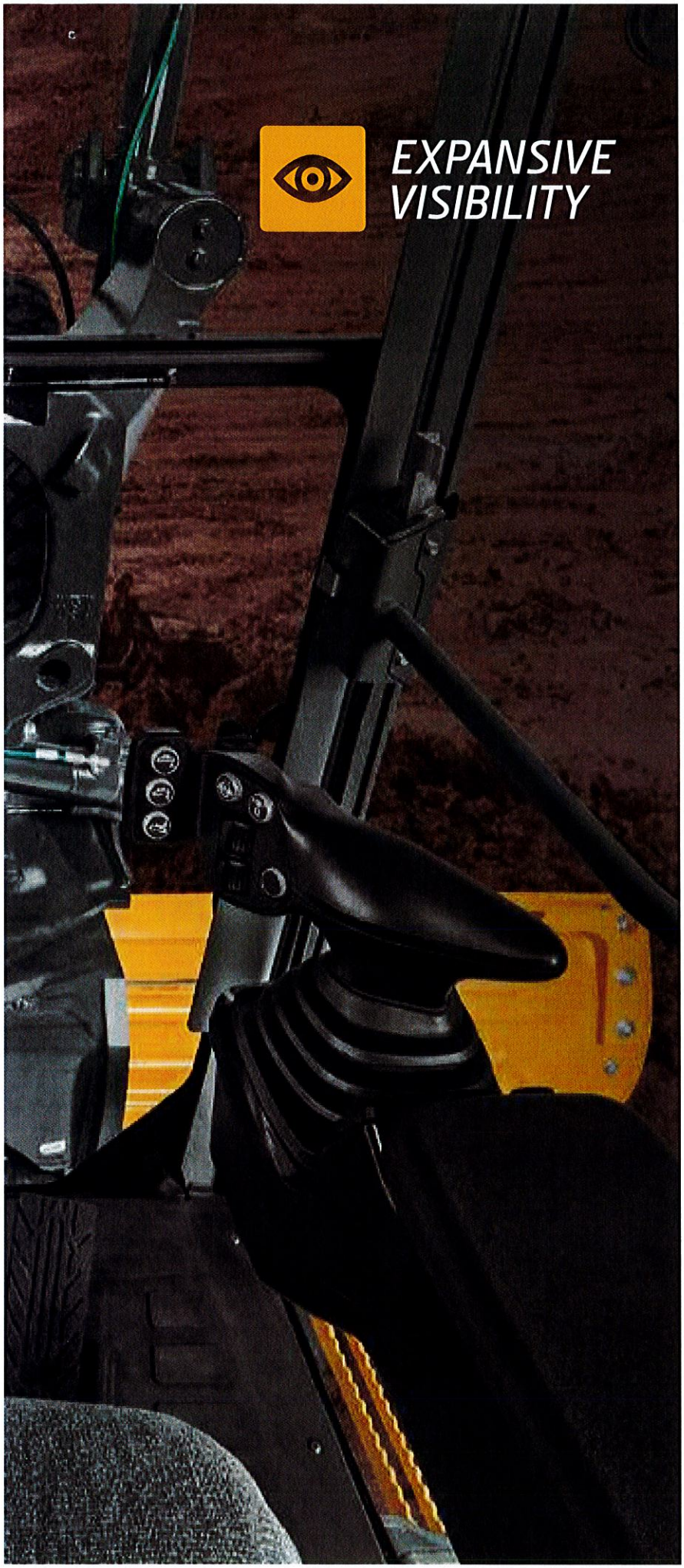
Automated cross slope

Dual-joystick controls and finger-tip armrest controls both come equipped with cross slope and are ready to run the grade-control system of your choice. Automated cross slope simplifies holding a consistent slope by reducing operation to a single lever. It's a GP feature that helps veteran operators be their best and new operators get up to speed more quickly.

CHOICE OF CONTROLS

- DUAL-JOYSTICK CONTROLS (GP MODELS)
- FINGERTIP ARMREST MOUNTED (GP MODELS)
- CONVENTIONAL LEVER OPERATED (G MODELS)
- STEERING WHEEL (STANDARD ON ALL MODELS)


CAUTION



SIGHT FOR SORE EYES

ENVISION MORE PRODUCTIVITY.

With their exceptional visibility, an LCD high-visibility monitor, and smooth gate-less shifting, it's easy to see why G-Series Graders have become a favorite on a wide range of jobsites.

Exceptional view

All-around visibility is virtually unobstructed, with a clear view to the heel and toe, and behind the moldboard. You can even see the area beneath the front axle, for increased awareness of oncoming obstacles.

Store your stuff

Generous storage space includes numerous overhead compartments, plus a place for a beverage, cooler, cell phone, and other carry-ons.

Lighting the way

Courtesy lighting stays on after machine shutdown and then automatically turns itself off, making it safer to exit the cab after dark, while conserving battery power.

Easy-access park brake

Sealed-switch module provides push-button control of key machine functions, including the parking brake, for more convenient access and easier operation.

LCD hi-vis monitor streamlines access to vital data

LCD hi-vis monitor provides intuitive, push-button access to vital machine information displayed via simple, easy-to-navigate icons and menus.

Now you see it

Contractors will benefit from improved visibility to the tandems on GP models while working around obstacles such as water mains and hubs.

SO MUCH TO DO, *SO LITTLE TIME*

Uptime isn't everything. It's the only thing. Which is why G-Series Graders are loaded with durability-enhancing advantages that help deliver years of trouble-free service.

Fuel-efficient, cool-on-demand fan with reversing option

Variable-speed hydraulically driven fan runs only as fast or as often as necessary to keep things cool. Helps conserve power and fuel, while reducing noise. Standard reversible fan (optional on 620G/GP) speeds core cleanout in high-debris applications.

Auto shutdown reduces fuel use and wear

Auto shutdown turns off the engine after an operator-determined period of idling. Saves fuel and reduces wear on engine, transmission, and hydraulic components.

Robust, easy-to-clean cooling package

Cooling package eliminates stacked coolers. Together with the hinged swing-out fan, access to the cores is quick and cleaning is easy.

Multipurpose for your multiple purposes

Redesigned heavy-duty front and rear axles combined with increased maximum operating weights enable more versatility and better blade pull for utilizing attachments.

Save fuel with Eco mode

When engaged, Eco mode reduces engine rpm in gears 1–5, optimizing fuel usage and decreasing operating costs by up to 10 percent.

Get valuable insight with

PRECISION CONSTRUCTION

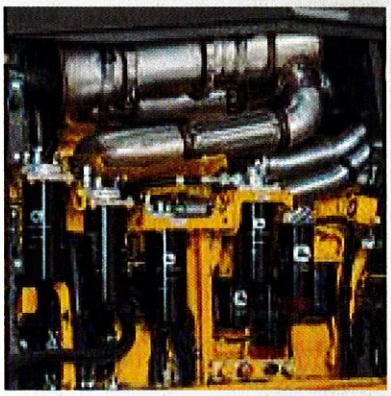
This suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. The in-base JDLink™ subscription provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. Other productivity solutions include grade-management options for multiple machine forms and payload weighing for wheel loaders and articulated dump trucks.

To maximize uptime and lower costs, JDLink also enables **John Deere Connected Support.™** John Deere's centralized Machine Health Monitoring Center analyzes data from thousands of connected machines, identifies trends, and develops recommended actions, called Expert Alerts, to help prevent downtime. Dealers use Expert Alerts to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.

GET IT DONE WITH EASE.

Fast, simple ground-level access

All daily service points, including fueling and diesel exhaust fluid (DEF), are grouped on the left side for quick and convenient ground-level access. On the right side, maintenance personnel will appreciate the easy-access engine oil, fuel, hydraulic, transmission, and differential filter bank.



620G / GP SPECIFICATIONS

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.

Engine	620G/GP		
Manufacturer and Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ Plus 6.8L	John Deere PowerTech™ 6.8L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Displacement	6.8L (414 cu. in.)	6.8L (414 cu. in.)	6.8L (414 cu. in.)
Net Engine Power			
Gear 1	112 kW (150 hp)	112 kW (150 hp)	112 kW (150 hp)
Gear 2	123 kW (165 hp)	123 kW (165 hp)	123 kW (165 hp)
Gear 3	134 kW (180 hp)	130 kW (175 hp)	130 kW (175 hp)
Gear 4	142 kW (190 hp)	134 kW (180 hp)	134 kW (180 hp)
Gear 5	149 kW (200 hp)	142 kW (190 hp)	138 kW (185 hp)
Gear 6	153 kW (205 hp)	146 kW (195 hp)	138 kW (185 hp)
Gear 7	157 kW (210 hp)	149 kW (200 hp)	138 kW (185 hp)
Gear 8	160 kW (215 hp)	149 kW (200 hp)	138 kW (185 hp)
Net Peak Torque	1005 Nm (750 lb.-ft.)	915 Nm (682 lb.-ft.)	831 Nm (620 lb.-ft.)
Net Torque Rise	40%	37%	44%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	Turbocharged, charge-air cooled
Lubrication	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler
Air Cleaner With Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry
Cooling			
Engine Coolant, Extended Life, Rating	–37 deg. C (–34 deg. F)		
Powertrain			
Transmission	Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system with 117-L/min. (31 gpm) gear pump		
Gears			
Forward	8		
Reverse	8		
Maximum Travel Speeds	*No tire slip at 2,180 rpm, 14.0-R24 tires*		*No tire slip at 2,180 rpm, 14.0-R24 tires*
Gear 1	4.0 km/h (2.5 mph)	Gear 5	16.4 km/h (10.2 mph)
Gear 2	5.6 km/h (3.5 mph)	Gear 6	23.2 km/h (14.4 mph)
Gear 3	7.7 km/h (4.8 mph)	Gear 7	32.3 km/h (20.1 mph)
Gear 4	10.9 km/h (6.8 mph)	Gear 8	45.5 km/h (28.3 mph)
Front Axle	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
Differentials	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
Steering (all models include steering wheel)	All-hydraulic power-frame articulation for maneuverability and productivity; crab steering reduces side drift, positions tandems on firm ground, and increases side-slope stability; return-to-straight control included in Grade Pro (GP) option		
Turning Radius (front steer and articulation)	7.21 m (284 in.) (23 ft. 8 in.)		
Articulation (both right and left)	22 deg.		
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil		
Brakes	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled, filtered oil; both independent systems effective on all 4 tandem wheels		
Primary and Secondary Brakes	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450)		
Parking Brake	Automatically spring applied, hydraulically released, oil cooled, self-adjusting (ISO 3450)		
Hydraulics			
Type	Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump		
Maximum Pump Flow	212 L/min. (56 gpm)		
Maximum System Pressure	18 961 kPa (2,750 psi)		
Pump Displacement	90 cm^3 (5.5 cu. in.)		

620G / GP SPECIFICATIONS

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Blade Function	**620G/GP**	
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
Blade Range		
Lift Above Ground	490 mm (19.3 in.)	
Blade Side Shift (right or left)	683 mm (26.9 in.)	
Pitch at Ground Line		
Forward	42 deg.	
Back	5 deg.	
Shoulder Reach Outside Wheels (frame straight, right or left)	2083 mm (82.0 in.) (6 ft. 10 in.)	
Bank Cut Angle (right or left)	90 deg.	
Blade Pull		
At Maximum Operating Weight	14 091 kg (31,066 lb.)	
Electrical		
Solid-state load center and sealed-switch module	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Voltage	24 volt	24 volt
Number of Batteries	2	2
Battery Capacity	1,400 CCA	950 CCA
Reserve Capacity	440 min.	190 min.
Amp-Hour Rating	224 amp-hour	110 amp-hour
Alternator Rating		
Base	130 amp	100 amp
Optional	200 amp	130 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights	
Mainframe		
Type	Welded box construction	
Width (minimum)	307 mm (12.1 in.)	
Height (minimum)	307 mm (12.1 in.)	
Thickness		
Side	16 mm (0.63 in.)	
Top and Bottom Plate	23 mm (0.89 in.)	
Modulus		
Minimum Vertical Section	1445 cm^3 (88 cu. in.)	
Average Vertical Section at Saddle	2245 cm^3 (137 cu. in.)	
Draft Frame (drawbar)		
Welded box construction machined for flatness and double ball-and-socket pivot connection		
Circle		
Welded construction, heat-treated, and machined for flatness		
	Standard Circle	*Premium Circle*
Circle Diameter	1524 mm (60 in.)	1524 mm (60 in.)
Rotation	360 deg.	360 deg.
Surface	Quick-change bronze or nylon wear inserts	Sealed and lubricated roller element slewing bearing
Pinion/Ring-Gear Connection	Adjustable backlash and open for serviceability	No adjustment; fully sealed and lubricated
Drive	Hydraulic motor and worm gear with positive lock	Hydraulic motor and worm gear with positive lock
Slip Clutch	Option	Standard
Circle Side Shift (right and left)	787 mm (31 in.)	787 mm (31 in.)
Moldboard		
High-strength, pre-stressed for higher strength; wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system		
Base Length	3.66 m (144 in.) (12 ft. 0 in.)	
Height (measured along arc, including cutting edge)	610 mm (24 in.)	
Thickness	22 mm (0.88 in.)	

620G/GP

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Cutting Edge	**620G/GP**		
Dura-Max™ through-hardened steel edge			
Thickness	16 mm (0.62 in.)		
Width	152 mm (6 in.)		
Scarifiers			
	Front	*Mid-mount*	
Type	V-type toolbar with 2-pitch positions and hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float	
Width of Cut	1.20 m (48 in.) (4 ft. 0 in.)	1.19 m (46.7 in.) (3 ft. 11 in.)	
Number of Shanks/Teeth	5 (maximum capacity 9)	11	
Lift Above Ground	589 mm (23.2 in.)	335 mm (13.2 in.)	
Maximum Depth	335 mm (13.2 in.)	325 mm (12.8 in.)	
Shank			
Spacing	146 mm (5.75 in.)	117 mm (4.6 in.)	
Size	25 x 76 mm (1 x 3 in.)	25 x 76 mm (1 x 3 in.)	
Front Lift Group (Balderson-style)			
Parallel linkage, mechanical pins, and hydraulic float			
Lift			
Above Ground (top of tube)	1864 mm (73.4 in.)		
Range	988 mm (38.9 in.)		
Rear Ripper/Scarifier			
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch			
	Ripper	*Scarifier*	
Width of Cut	2.21 m (87.2 in.) (7 ft. 3 in.)	2.18 m (86 in.) (7 ft. 2 in.)	
Number of Shanks/Teeth	3 (maximum capacity 5)	None standard (maximum capacity 9)	
Lift Above Ground	602 mm (23.7 in.)	810 mm (31.9 in.)	
Maximum Depth	426 mm (16.8 in.)	323 mm (12.7 in.)	
Force			
Penetration	9,302 kg (20,508 lb.)	—	
Pry-Out	11,253 kg (24,808 lb.)	—	
Shank Size	61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)	
Operator Station			
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)			
Tires/Wheels			
	13x24 on 254-mm (10 in.) Rim	*14R24 on 254-mm (10 in.) Rim*	*17.5R25 on 356-mm (14 in.) Rim*
Wheel Tread on Ground	2.08 m (82 in.)	2.08 m (82.0 in.)	2.16 m (85.0 in.)
Overall Width	2.49 m (98 in.)	2.49 m (98.0 in.)	2.64 m (104.0 in.)
Ground Clearance (front axle)	557 mm (21.9 in.)	587 mm (23.1 in.)	587 mm (23.1 in.)
Serviceability			
Refill Capacities	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*	
Fuel Tank	416.5 L (110 gal.)	303 L (80 gal.)	
Diesel Exhaust Fluid (DEF) Tank	22.5 L (6 gal.)	—	
Cooling System	51.0 L (13.5 gal.)	44.0 L (11.6 gal.)	
Engine Oil With Filter	31.5 L (8.3 gal.)	26.0 L (6.9 gal.)	
Transmission Fluid	28.4 L (7.5 gal.)	28.4 L (7.5 gal.)	
Differential Housing	38.0 L (10 gal.)	38.0 L (10 gal.)	
Tandem Housings (each)	74.0 L (19.5 gal.)	74.0 L (19.5 gal.)	
Circle Gearbox	5.7 L (1.5 gal.)	5.7 L (1.5 gal.)	
Hydraulic Reservoir	60.5 L (16 gal.)	53.0 L (14 gal.)	
Operating Weights			
With Full Fuel Tank, 3.66-m x 610-mm x 22-mm (12 ft. x 24 in. x 0.88 in.) Moldboard With 152-mm x 16-mm (6 in. x ⅝ in.) Cutting Edges, 14-24 Bias L2 Tires, and 79-kg (175 lb.) Operator	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*	
Front	4193 kg (9,243 lb.)	4222 kg (9,308 lb.)*	
Rear	11 577 kg (25,523 lb.)	10 681 kg (23,548 lb.)*	
Total	15 770 kg (34,767 lb.)	14 904 kg (32,857 lb.)*	
Typical Operating Weight With Front Push Block, Rear Ripper/Scarifier, and Other Equipment			
Front	4940 kg (10,890 lb.)	5096 kg (11,235 lb.)	
Rear	13 386 kg (29,510 lb.)	12 439 kg (27,423 lb.)	
Total	18 325 kg (40,400 lb.)	17 535 kg (38,658 lb.)	
Maximum Operating Weight	22 680 kg (50,000 lb.)	22 680 kg (50,000 lb.)	

**With 13-24 Bias L2 tires.*

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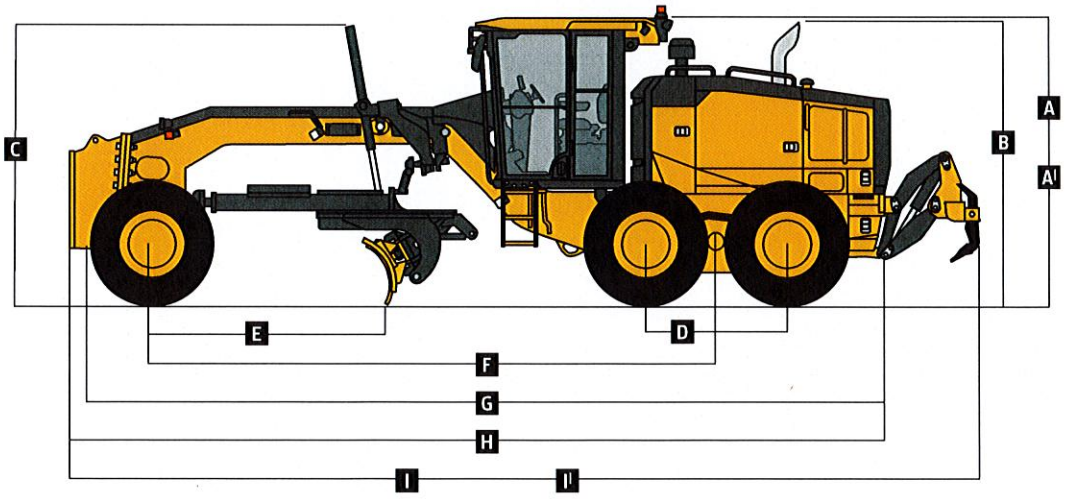
Option Weights	620G/GP
Moldboards With Through-Hardened Dura-Max Cutting Edge	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	45 kg (99 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	157.4 kg (347 lb.)
Extensions, 610 mm (2 ft.) (right or left)	
For Use With 610-mm (24 in.) Moldboards	116 kg (255 lb.)
Overlay End Bits, Reversible (one pair)	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
Circle-Drive Slip Clutch	9 kg (20 lb.)
Circle	
Standard	0 kg (0 lb.)
Premium	289 kg (638 lb.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper, 3 Shank, No Scarifier	1052 kg (2,319 lb.)
Ripper/Scarifier, Rear Mounted With Hitch and Ripper Shanks (3)	1139 kg (2,510 lb.)
Scarifier Shanks With Teeth (9 for rear ripper/scarifier)	68 kg (150 lb.)
Rear Counterweight With Integral Rear Hitch	727 kg (1,603 lb.)
Rear Hitch	54.4 kg (120 lb.)
Push Block, Front	907 kg (2,000 lb.)
Scarifier	
Front Mount With Teeth (5)	831 kg (1,833 lb.)
Mid-Mount With Teeth (11)	1481 kg (3,265 lb.)
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
AI Height to Top of Full-Height Cab	3.40 m (11 ft. 2 in.)
B Height to Top of Exhaust	3.10 m (10 ft. 2 in.)
C Height to Top of Blade-Lift Cylinders	3.05 m (10 ft. 0 in.)
D Tandem Axle Spacing	1.54 m (5 ft. 1 in.)
E Blade Base	2.57 m (8 ft. 5 in.)

Option Weights *(continued)*	620G/GP
Tires	
13.00-24, 12 PR G2	–79 kg (–174 lb.)
14.00-24, 12 PR G2	0 kg (0 lb.)
17.5-25, 12 PR G2/L2	114 kg (252 lb.)
14.00-R24, Radial, G2/L2 General Purpose	220 kg (486 lb.)
14.00-R24, Radial, G2/L2 Snow	261 kg (576 lb.)
17.5-R25, Radial, L2 General Purpose	272 kg (600 lb.)
17.5-R25, Radial, G2/L2 Snow	316 kg (696 lb.)
17.5-R25, Radial, G3/L3 General Purpose	362 kg (798 lb.)
1-Piece Rims	
229 mm x 610 mm (9 in. x 24 in.)	0 kg (0 lb.)
330 mm x 635 mm (13 in. x 25 in.)	65 kg (144 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	180 kg (396 lb.)
356 mm x 635 mm (14 in. x 25 in.)	267 kg (588 lb.)
Fenders	
Front	99 kg (218 lb.)
Rear	141 kg (310 lb.)
Low Cab With Opening Front and Side Windows	14.5 kg (32 lb.)
Premium Air-Suspension, Heated Seat With Adjustable Arm- and Headrests	13 kg (28 lb.)
Coolant Heater	4 kg (9 lb.)
Quick Service	11 kg (24 lb.)
Sound-Absorption Package (machines equipped with Tier 3/Stage IIIA and Tier 2/Stage II engines only)	14 kg (31 lb.)
Secondary Steering	26 kg (58 lb.)
Beacon Bracket	8 kg (18 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.5 kg (10 lb.)
18 Halogen Lights	8 kg (18 lb.)
18 LED Lights	7 kg (16 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	7 kg (15 lb.)
Hydraulics for Front-Mounted Equipment	9 kg (19 lb.)

Machine Dimensions *(continued)*	
F Wheelbase	6.16 m (20 ft. 3 in.)
G Overall Length	8.89 m (29 ft. 2 in.)
H Overall Length With Scarifier	9.69 m (31 ft. 9 in.)
I Overall Length With Push Block and Ripper	9.99 m (32 ft. 9 in.)
II Overall Length With Scarifier and Ripper	10.59 m (34 ft. 9 in.)

For Overall Width see Tires/Wheels on page 16.



670G / GP SPECIFICATIONS

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Engine	**670G/GP**		
Manufacturer and Model	John Deere PowerTech™ PSS 9.0L	John Deere PowerTech™ Plus 9.0L	John Deere PowerTech™ 9.0L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Displacement	9.0L (548 cu. in.)	9.0L (548 cu. in.)	9.0L (548 cu. in.)
Net Engine Power			
Gear 1	134 kW (180 hp)	134 kW (180 hp)	134 kW (180 hp)
Gear 2	142 kW (190 hp)	142 kW (190 hp)	142 kW (190 hp)
Gear 3	153 kW (205 hp)	149 kW (200 hp)	149 kW (200 hp)
Gear 4	157 kW (210 hp)	153 kW (205 hp)	153 kW (205 hp)
Gear 5	164 kW (220 hp)	157 kW (210 hp)	157 kW (210 hp)
Gear 6	168 kW (225 hp)	164 kW (220 hp)	164 kW (220 hp)
Gear 7	172 kW (230 hp)	168 kW (225 hp)	168 kW (225 hp)
Gear 8	175 kW (235 hp)	172 kW (230 hp)	172 kW (230 hp)
Net Peak Torque	1225 Nm (913 lb.-ft.)	1196 Nm (892 lb.-ft.)	1196 Nm (892 lb.-ft.)
Net Torque Rise	56%	56%	56%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	Turbocharged, charge-air cooled
Lubrication	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler
Air Cleaner With Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry
Cooling			
Engine Coolant, Extended Life, Rating	–37 deg. C (–34 deg. F)		
Powertrain			
Transmission	Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system with 117-L/min. (31 gpm) gear pump		
Gears			
Forward	8		
Reverse	8		
Maximum Travel Speeds	*No tire slip at 2,180 rpm, 14.0-R24 tires*		*No tire slip at 2,180 rpm, 14.0-R24 tires*
Gear 1	4.0 km/h (2.5 mph)	Gear 5	16.4 km/h (10.2 mph)
Gear 2	5.6 km/h (3.5 mph)	Gear 6	23.2 km/h (14.4 mph)
Gear 3	7.7 km/h (4.8 mph)	Gear 7	32.3 km/h (20.1 mph)
Gear 4	10.9 km/h (6.8 mph)	Gear 8	45.5 km/h (28.3 mph)
Front Axle	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
Differentials	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
Steering (all models include steering wheel)	All-hydraulic power-frame articulation for maneuverability and productivity; crab steering reduces side drift, positions tandems on firm ground, and increases side-slope stability; return-to-straight control included in Grade Pro (GP) option		
Turning Radius (front steer and articulation)	7.21 m (284 in.) (23 ft. 8 in.)		
Articulation (both right and left)	22 deg.		
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil		
Brakes	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled, filtered oil; both independent systems effective on all 4 tandem wheels		
Primary and Secondary Brakes	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450)		
Parking Brake	Automatically spring applied, hydraulically released, oil cooled, self-adjusting (ISO 3450)		
Hydraulics			
Type	Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump		
Maximum Pump Flow	212 L/min. (56 gpm)		
Maximum System Pressure	18 961 kPa (2,750 psi)		
Pump Displacement	90 cm^3 (5.5 cu. in.)		

670G / GP SPECIFICATIONS

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Blade Function	**670G/GP**	
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
Blade Range		
Lift Above Ground	490 mm (19.3 in.)	
Blade Side Shift (right or left)	683 mm (26.9 in.)	
Pitch at Ground Line		
Forward	42 deg.	
Back	5 deg.	
Shoulder Reach Outside Wheels (frame straight, right or left)	2083 mm (82.0 in.) (6 ft. 10 in.)	
Bank Cut Angle (right or left)	90 deg.	
Blade Pull		
At Maximum Operating Weight	15 501 kg (34,173 lb.)	
Electrical		
Solid-state load center and sealed-switch module	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Voltage	24 volt	24 volt
Number of Batteries	2	2
Battery Capacity	1,400 CCA	1,400 CCA
Reserve Capacity	440 min.	440 min.
Amp-Hour Rating	224 amp-hour	224 amp-hour
Alternator Rating		
Base	130 amp	100 amp
Optional	200 amp	130 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights	
Mainframe		
Type	Welded box construction	
Width (minimum)	307 mm (12.1 in.)	
Height (minimum)	307 mm (12.1 in.)	
Thickness		
Side	16 mm (0.63 in.)	
Top and Bottom Plate	23 mm (0.89 in.)	
Modulus		
Minimum Vertical Section	1445 cm^3 (88 cu. in.)	
Average Vertical Section at Saddle	2245 cm^3 (137 cu. in.)	
Draft Frame (drawbar)		
Welded box construction machined for flatness with double ball-and-socket pivot connection		
Circle		
Welded construction, heat-treated, machined for flatness		
	Standard Circle	*Premium Circle*
Circle Diameter	1524 mm (60 in.)	1524 mm (60 in.)
Rotation	360 deg.	360 deg.
Surface	Quick-change bronze or nylon wear inserts	Sealed and lubricated roller element slewing bearing
Pinion/Ring-Gear Connection	Adjustable backlash and open for serviceability	No adjustment; fully sealed and lubricated
Drive	Hydraulic motor and worm gear with positive lock	Hydraulic motor and worm gear with positive lock
Slip Clutch	Option	Standard
Circle Side Shift (right and left)	787 mm (31 in.)	787 mm (31 in.)
Moldboard		
High-strength, pre-stressed for higher strength; wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system		
Base Length	3.66 m (144 in.) (12 ft. 0 in.)	
Height (measured along arc, including cutting edge)	610 mm (24 in.)	
Thickness	22 mm (0.88 in.)	

670G/GP

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Cutting Edge	**670G/GP**	
Dura-Max™ through-hardened steel edge		
Thickness	16 mm (0.62 in.)	
Width	152 mm (6 in.)	
Scarifiers		
	Front	*Mid-mount*
Type	V-type toolbar with 2-pitch positions and hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float
Width of Cut	1.20 m (48 in.) (4 ft. 0 in.)	1.19 m (46.7 in.) (3 ft. 11 in.)
Number of Shanks/Teeth	5 (maximum capacity 9)	11
Lift Above Ground	589 mm (23.2 in.)	335 mm (13.2 in.)
Maximum Depth	335 mm (13.2 in.)	325 mm (12.8 in.)
Shank		
Spacing	146 mm (5.75 in.)	117 mm (4.6 in.)
Size	25 x 76 mm (1 x 3 in.)	25 x 76 mm (1 x 3 in.)
Front Lift Group (Balderson-style)		
Parallel linkage, mechanical pins, and hydraulic float		
Lift		
Above Ground (top of tube)	1864 mm (73.4 in.)	
Range	988 mm (38.9 in.)	
Rear Ripper/Scarifier		
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch		
	Ripper	*Scarifier*
Width of Cut	2.21 m (87.2 in.) (7 ft. 3 in.)	2.18 m (86 in.) (7 ft. 2 in.)
Number of Shanks/Teeth	3 (maximum capacity 5)	None standard (maximum capacity 9)
Lift Above Ground	602 mm (23.7 in.)	810 mm (31.9 in.)
Maximum Depth	426 mm (16.8 in.)	323 mm (12.7 in.)
Force		
Penetration	9526 kg (21,000 lb.)	–
Pry-Out	12 580 kg (27,734 lb.)	–
Shank Size	61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)
Operator Station		
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)		
Tires/Wheels		
	14R24 on 254-mm (10 in.) Rim	*17.5R25 on 356-mm (14 in.) Rim*
Wheel Tread on Ground	2.08 m (82.0 in.)	2.16 m (85.0 in.)
Overall Width	2.49 m (98.0 in.)	2.64 m (104.0 in.)
Ground Clearance (front axle)	587 mm (23.1 in.)	587 mm (23.1 in.)
Serviceability		
Refill Capacities	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Fuel Tank	416.5 L (110 gal.)	416.5 L (110 gal.)
Diesel Exhaust Fluid (DEF) Tank	22.5 L (6 gal.)	–
Cooling System	55.0 L (14.5 gal.)	48.5 L (12.8 gal.)
Engine Oil With Filter	28.4 L (7.5 gal.)	28.0 L (7.4 gal.)
Transmission Fluid	28.4 L (7.5 gal.)	28.4 L (7.5 gal.)
Differential Housing	38.0 L (10 gal.)	38.0 L (10 gal.)
Tandem Housings (each)	74.0 L (19.5 gal.)	74.0 L (19.5 gal.)
Circle Gearbox	5.7 L (1.5 gal.)	5.7 L (1.5 gal.)
Hydraulic Reservoir	60.5 L (16 gal.)	53.0 L (14 gal.)
Operating Weights		
With Full Fuel Tank, 3.66-m x 610-mm x 22-mm (12 ft. x 24 in. x 0.88 in.) Moldboard With 152-mm x 16-mm (6 in. x ⅝ in.) Cutting Edges, 14-24 Bias L2 Tires, and 79-kg (175 lb.) Operator	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Front	4193 kg (9,245 lb.)	4203 kg (9,265 lb.)
Rear	11 807 kg (26,030 lb.)	11 327 kg (24,972 lb.)
Total	16 000 kg (35,275 lb.)	15 530 kg (34,237 lb.)
Typical Operating Weight With Front Push Block, Rear Ripper/Scarifier, and Other Equipment		
Front	5522 kg (12,175 lb.)	5488 kg (12,100 lb.)
Rear	13 708 kg (30,220 lb.)	13 063 kg (28,800 lb.)
Total	19 230 kg (42,395 lb.)	18 552 kg (40,900 lb.)
Maximum Operating Weight	24 948 kg (55,000 lb.)	24 948 kg (55,000 lb.)

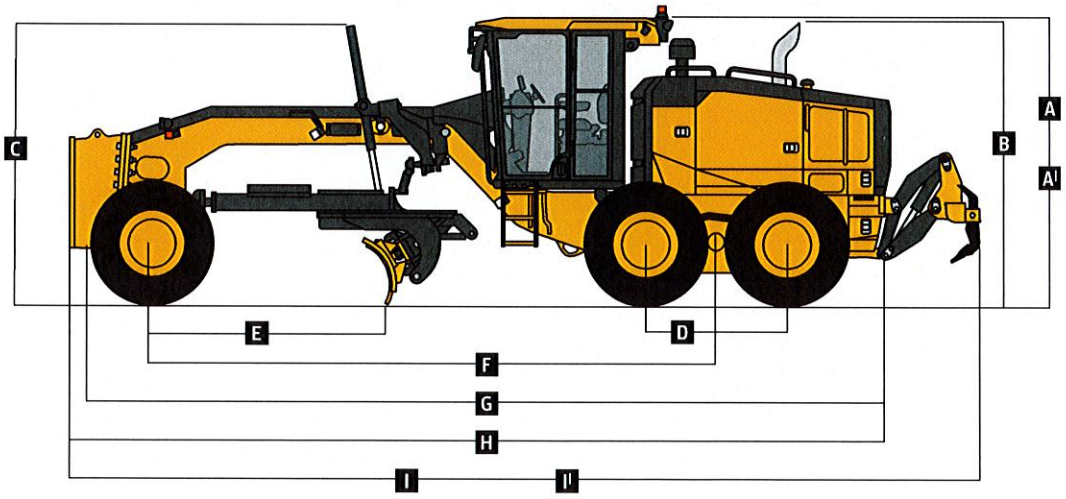
Option Weights	670G/GP
Moldboards With Through-Hardened Dura-Max Cutting Edge	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	45 kg (99 lb.)
3.96 m x 686 mm x 25 mm (13 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	180 kg (396 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	157.4 kg (347 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	251 kg (554 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 19-mm (¾ in.) hardware	261 kg (575 lb.)
Extensions, 610 mm (2 ft.) (right or left)	
For Use With 610-mm (24 in.) Moldboards	116 kg (255 lb.)
For Use With 686-mm (27 in.) Moldboards	120 kg (265 lb.)
Overlay End Bits, Reversible (one pair)	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
Heavy-Duty Dual-Input Circle-Drive Gearbox	14 kg (31 lb.)
Circle-Drive Slip Clutch	9 kg (20 lb.)
Circle	
Standard	0 kg (0 lb.)
Premium	289 kg (638 lb.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper/Scarifier, Rear Mounted With Hitch and Ripper Shanks (3)	1139 kg (2,510 lb.)
Scarifier Shanks With Teeth (9 for rear ripper/scarifier)	68 kg (150 lb.)
Ripper Shanks and Teeth (2)	63 kg (139 lb.)
Rear Counterweight With Integral Rear Hitch	727 kg (1,603 lb.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A[1] Height to Top of Full-Height Cab	3.40 m (11 ft. 2 in.)
B Height to Top of Exhaust	3.10 m (10 ft. 2 in.)
C Height to Top of Blade-Lift Cylinders	3.05 m (10 ft. 0 in.)
D Tandem Axle Spacing	1.54 m (5 ft. 1 in.)
E Blade Base	2.57 m (8 ft. 5 in.)

Option Weights *(continued)*	670G/GP
Rear Hitch	54.4 kg (120 lb.)
Push Block, Front	1338 kg (2,950 lb.)
Scarifier	
Front Mount With Teeth (5)	831 kg (1,833 lb.)
Mid-Mount With Teeth (11)	1481 kg (3,265 lb.)
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
Tires	
14.00-24, 12 PR G2	0 kg (0 lb.)
17.5-25, 12 PR G2/L2	114 kg (252 lb.)
14.00-R24, Radial, G2/L2 General Purpose	220 kg (486 lb.)
14.00-R24, Radial, G2/L2 Snow	261 kg (576 lb.)
17.5-R25, Radial, L2 General Purpose	272 kg (600 lb.)
17.5-R25, Radial, G2/L2 Snow	316 kg (696 lb.)
17.5-R25, Radial, G3/L3 General Purpose	362 kg (798 lb.)
1-Piece Rims	
229 mm x 610 mm (9 in. x 24 in.)	0 kg (0 lb.)
330 mm x 635 mm (13 in. x 25 in.)	65 kg (144 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	180 kg (396 lb.)
356 mm x 635 mm (14 in. x 25 in.)	267 kg (588 lb.)
Fenders	
Front	99 kg (218 lb.)
Rear	141 kg (310 lb.)
Low Cab With Opening Front and Side Windows	14.5 kg (32 lb.)
Premium Air-Suspension, Heated Seat With Adjustable Arm- and Headrests	13 kg (28 lb.)
Coolant Heater	4 kg (9 lb.)
Quick Service	11 kg (24 lb.)
Sound-Absorption Package (machines equipped with Tier 3/Stage IIIA and Tier 2/Stage II engines only)	14 kg (31 lb.)
Secondary Steering	26 kg (58 lb.)
Beacon Bracket	8 kg (18 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.5 kg (10 lb.)
18 Halogen Lights	8 kg (18 lb.)
18 LED Lights	7 kg (16 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	7 kg (15 lb.)
Hydraulics for Front-Mounted Equipment	9 kg (19 lb.)

Machine Dimensions *(continued)*	
F Wheelbase	6.16 m (20 ft. 3 in.)
G Overall Length	8.89 m (29 ft. 2 in.)
H Overall Length With Scarifier	9.69 m (31 ft. 9 in.)
I Overall Length With Push Block and Ripper	9.99 m (32 ft. 9 in.)
I[1] Overall Length With Scarifier and Ripper	10.59 m (34 ft. 9 in.)

For Overall Width see Tires/Wheels on page 20.



770G / GP SPECIFICATIONS

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Engine	770G/GP		
Manufacturer and Model	John Deere PowerTech™ PSS 9.0L	John Deere PowerTech™ Plus 9.0L	John Deere PowerTech™ 9.0L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Displacement	9.0L (548 cu. in.)	9.0L (548 cu. in.)	9.0L (548 cu. in.)
Net Engine Power			
Gear 1	149 kW (200 hp)	149 kW (200 hp)	149 kW (200 hp)
Gear 2	157 kW (210 hp)	157 kW (210 hp)	157 kW (210 hp)
Gear 3	168 kW (225 hp)	164 kW (220 hp)	164 kW (220 hp)
Gear 4	172 kW (230 hp)	168 kW (225 hp)	168 kW (225 hp)
Gear 5	179 kW (240 hp)	172 kW (230 hp)	172 kW (230 hp)
Gear 6	183 kW (245 hp)	179 kW (240 hp)	179 kW (240 hp)
Gear 7	187 kW (250 hp)	183 kW (245 hp)	183 kW (245 hp)
Gear 8	190 kW (255 hp)	187 kW (250 hp)	187 kW (250 hp)
Net Peak Torque	1314 Nm (980 lb.-ft.)	1288 Nm (961 lb.-ft.)	1288 Nm (961 lb.-ft.)
Net Torque Rise	54%	55%	55%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	Turbocharged, charge-air cooled
Lubrication	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler
Air Cleaner With Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry
Cooling			
Engine Coolant, Extended Life, Rating	–37 deg. C (–34 deg. F)		
Powertrain			
Transmission	Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system with 117-L/min. (31 gpm) gear pump		
Gears			
Forward	8		
Reverse	8		
Maximum Travel Speeds	*No tire slip at 2,180 rpm, 14.0-R24 tires*		*No tire slip at 2,180 rpm, 14.0-R24 tires*
Gear 1	4.0 km/h (2.5 mph)	Gear 5	16.4 km/h (10.2 mph)
Gear 2	5.6 km/h (3.5 mph)	Gear 6	23.2 km/h (14.4 mph)
Gear 3	7.7 km/h (4.8 mph)	Gear 7	32.3 km/h (20.1 mph)
Gear 4	10.9 km/h (6.8 mph)	Gear 8	45.5 km/h (28.3 mph)
Front Axle	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
Differentials	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
Steering (all models include steering wheel)	All-hydraulic power-frame articulation for maneuverability and productivity; crab steering reduces side drift, positions tandems on firm ground, and increases side-slope stability; return-to-straight control included in Grade Pro (GP) option		
Turning Radius (front steer and articulation)	7.21 m (284 in.) (23 ft. 8 in.)		
Articulation (both right and left)	22 deg.		
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil		
Brakes	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled, filtered oil; both independent systems effective on all 4 tandem wheels		
Primary and Secondary Brakes	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450)		
Parking Brake	Automatically spring applied, hydraulically released, oil cooled, self-adjusting (ISO 3450)		
Hydraulics			
Type	Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump		
Maximum Pump Flow	212 L/min. (56 gpm)		
Maximum System Pressure	18 961 kPa (2,750 psi)		
Pump Displacement	90 cm^3 (5.5 cu. in.)		

770G / GP SPECIFICATIONS

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Blade Function	**770G/GP**	
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
Blade Range		
Lift Above Ground	490 mm (19.3 in.)	
Blade Side Shift (right or left)	683 mm (26.9 in.)	
Pitch at Ground Line		
Forward	42 deg.	
Back	5 deg.	
Shoulder Reach Outside Wheels (frame straight, right or left)	2083 mm (82.0 in.) (6 ft. 10 in.)	
Bank Cut Angle (right or left)	90 deg.	
Blade Pull		
At Maximum Operating Weight	15 501 kg (34,173 lb.)	
Electrical		
Solid-state load center and sealed-switch module	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Voltage	24 volt	24 volt
Number of Batteries	2	2
Battery Capacity	1,400 CCA	1,400 CCA
Reserve Capacity	440 min.	440 min.
Amp-Hour Rating	224 amp-hour	224 amp-hour
Alternator Rating		
Base	130 amp	100 amp
Optional	200 amp	130 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights	
Mainframe		
Type	Welded box construction	
Width (minimum)	307 mm (12.1 in.)	
Height (minimum)	307 mm (12.1 in.)	
Thickness		
Side	16 mm (0.63 in.)	
Top and Bottom Plate	23 mm (0.89 in.)	
Modulus		
Minimum Vertical Section	1770 cm^3 (108 cu. in.)	
Average Vertical Section at Saddle	2245 cm^3 (137 cu. in.)	
Draft Frame (drawbar)		
Welded box construction machined for flatness with double ball-and-socket pivot connection		
Circle		
Welded construction, heat-treated, machined for flatness		
	Standard Circle	*Premium Circle*
Circle Diameter	1524 mm (60 in.)	1524 mm (60 in.)
Rotation	360 deg.	360 deg.
Surface	Quick-change bronze or nylon wear inserts	Sealed and lubricated roller element slewing bearing
Pinion/Ring-Gear Connection	Adjustable backlash and open for serviceability	No adjustment; fully sealed and lubricated
Drive	Hydraulic motor and worm gear with positive lock	Hydraulic motor and worm gear with positive lock
Slip Clutch	Option	Standard
Circle Side Shift (right and left)	787 mm (31 in.)	787 mm (31 in.)
Moldboard		
High-strength, pre-stressed for higher strength, wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system		
Base Length	3.66 m (144 in.) (12 ft. 0 in.)	
Height (measured along arc, including cutting edge)	610 mm (24 in.)	
Thickness	22 mm (0.88 in.)	

770G/GP

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Cutting Edge	**770G/GP**	
Dura-Max™ through-hardened steel edge		
Thickness	16 mm (0.62 in.)	
Width	152 mm (6 in.)	
Scarifiers		
	Front	*Mid-mount*
Type	V-type toolbar with 2-pitch positions and hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float
Width of Cut	1.20 m (48 in.) (4 ft. 0 in.)	1.19 m (46.7 in.) (3 ft. 11 in.)
Number of Shanks/Teeth	5 (maximum capacity 9)	11
Lift Above Ground	589 mm (23.2 in.)	335 mm (13.2 in.)
Maximum Depth	335 mm (13.2 in.)	325 mm (12.8 in.)
Shank		
Spacing	146 mm (5.75 in.)	117 mm (4.6 in.)
Size	25 x 76 mm (1 x 3 in.)	25 x 76 mm (1 x 3 in.)
Front Lift Group (Balderson-style)		
Parallel linkage, mechanical pins, and hydraulic float		
Lift		
Above Ground (top of tube)	1864 mm (73.4 in.)	
Range	988 mm (38.9 in.)	
Rear Ripper/Scarifier		
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch		
	Ripper	*Scarifier*
Width of Cut	2.21 m (87.2 in.) (7 ft. 3 in.)	2.18 m (86 in.) (7 ft. 2 in.)
Number of Shanks/Teeth	3 (maximum capacity 5)	None standard (maximum capacity 9)
Lift Above Ground	602 mm (23.7 in.)	810 mm (31.9 in.)
Maximum Depth	426 mm (16.8 in.)	323 mm (12.7 in.)
Force		
Penetration	9616 kg (21,200 lb.)	–
Pry-Out	12 730 kg (28,066 lb.)	–
Shank Size	61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)
Operator Station		
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)		
Tires/Wheels		
	14R24 on 254-mm (10 in.) Rim	*17.5R25 on 356-mm (14 in.) Rim*	*550/65R25 on 432-mm (17 in.) Rim*
Wheel Tread on Ground	2.08 m (82.0 in.)	2.16 m (85.0 in.)	2.21 m (87.0 in.)
Overall Width	2.49 m (98.0 in.)	2.64 m (104.0 in.)	2.82 m (111.0 in.)
Ground Clearance (front axle)	587 mm (23.1 in.)	587 mm (23.1 in.)	612 mm (24.1 in.)
Serviceability		
Refill Capacities	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Fuel Tank	416.5 L (110 gal.)	416.5 L (110 gal.)
Diesel Exhaust Fluid (DEF) Tank	22.5 L (6 gal.)	–
Cooling System	55.0 L (14.5 gal.)	48.5 L (12.8 gal.)
Engine Oil With Filter	28.4 L (7.5 gal.)	28.0 L (7.4 gal.)
Transmission Fluid	28.4 L (7.5 gal.)	28.4 L (7.5 gal.)
Differential Housing	38.0 L (10 gal.)	38.0 L (10 gal.)
Tandem Housings (each)	74.0 L (19.5 gal.)	74.0 L (19.5 gal.)
Circle Gearbox	5.7 L (1.5 gal.)	5.7 L (1.5 gal.)
Hydraulic Reservoir	60.5 L (16 gal.)	53.0 L (14 gal.)
Operating Weights		
With Full Fuel Tank, 3.66-m x 610-mm x 22-mm (12 ft. x 24 in. x 0.88 in.) Moldboard With 152-mm x 16-mm (6 in. x ⅝ in.) Cutting Edges, 14R24 L2 Tires, and 79-kg (175 lb.) Operator	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Front	4320 kg (9,525 lb.)	4330 kg (9,545 lb.)
Rear	12 095 kg (26,665 lb.)	11 451 kg (25,245 lb.)
Total	16 416 kg (36,190 lb.)	15 780 kg (34,790 lb.)
Typical Operating Weight With Front Push Block, Rear Ripper/Scarifier, and Other Equipment		
Front	5588 kg (12,320 lb.)	5625 kg (12,400 lb.)
Rear	13 837 kg (30,505 lb.)	13 186 kg (29,070 lb.)
Total	19 425 kg (42,825 lb.)	18 810 kg (41,470 lb.)
Maximum Operating Weight	24 948 kg (55,000 lb.)	24 948 kg (55,000 lb.)

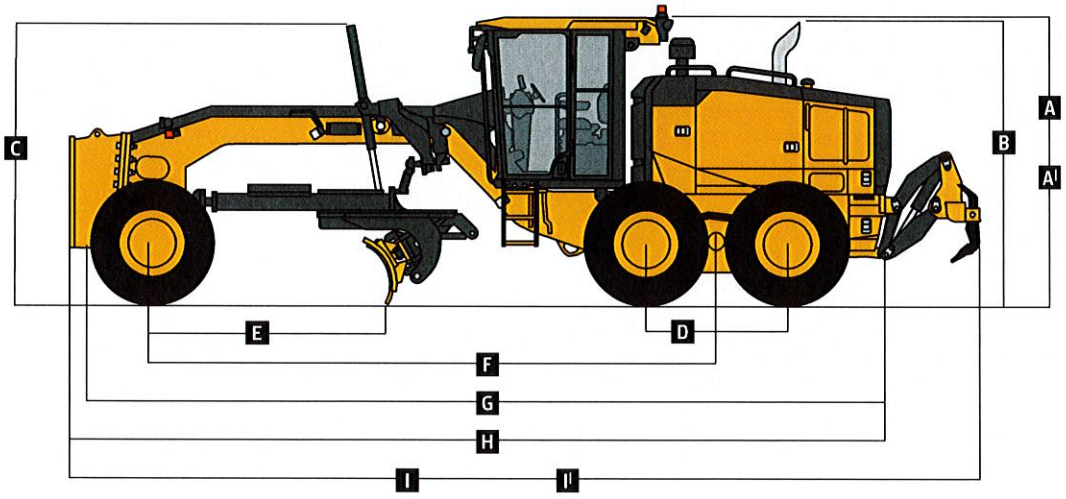
Option Weights	770G/GP
Moldboards With Through-Hardened Dura-Max Cutting Edge	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	45 kg (99 lb.)
3.96 m x 686 mm x 25 mm (13 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	180 kg (396 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 152-mm x 16-mm (6 in. x ⅝ in.) cutting edge and 16-mm (⅝ in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	157.4 kg (347 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	251 kg (554 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 19-mm (¾ in.) hardware	261 kg (575 lb.)
Extensions, 610 mm (2 ft.) (right or left)	
For Use With 610-mm (24 in.) Moldboards	116 kg (255 lb.)
For Use With 686-mm (27 in.) Moldboards	120 kg (265 lb.)
Overlay End Bits, Reversible (one pair)	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
Heavy-Duty Dual-Input Circle-Drive Gearbox	14 kg (31 lb.)
Circle-Drive Slip Clutch	9 kg (20 lb.)
Circle	
Standard	0 kg (0 lb.)
Premium	289 kg (638 lb.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper/Scarifier, Rear Mounted With Hitch and Ripper Shanks (3)	1139 kg (2,510 lb.)
Scarifier Shanks With Teeth (9 for rear ripper/scarifier)	68 kg (150 lb.)
Ripper Shanks and Teeth (2)	63 kg (139 lb.)
Rear Counterweight With Integral Rear Hitch	727 kg (1,603 lb.)
Rear Hitch	54.4 kg (120 lb.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A^{I} Height to Top of Full-Height Cab	3.40 m (11 ft. 2 in.)
B Height to Top of Exhaust	3.10 m (10 ft. 2 in.)
C Height to Top of Blade-Lift Cylinders	3.05 m (10 ft. 0 in.)
D Tandem Axle Spacing	1.54 m (5 ft. 1 in.)
E Blade Base	2.57 m (8 ft. 5 in.)

Option Weights *(continued)*	770G/GP
Push Block, Front	1338 kg (2,950 lb.)
Scarifier	
Front Mount With Teeth (5)	831 kg (1,833 lb.)
Mid-Mount With Teeth (11)	1481 kg (3,265 lb.)
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
Tires	
14.00-24, 12 PR G2	–220.4 kg (–486 lb.)
17.5-25, 12 PR G2/L2	–106 kg (–234 lb.)
14.00-R24, Radial, G2/L2 General Purpose	0 kg (0 lb.)
14.00-R24, Radial, G2/L2 Snow	40.8 kg (90 lb.)
17.5-R25, Radial, L2 General Purpose	51.7 kg (114 lb.)
17.5-R25, Radial, G2/L2 Snow	95.3 kg (210 lb.)
17.5-R25, Radial, G3/L3 General Purpose	141.5 kg (312 lb.)
550/65R25 XLD70 G3/L3 Radial, General Purpose	495.3 kg (1,092 lb.)
1-Piece Rims	
229 mm x 610 mm (9 in. x 24 in.)	0 kg (0 lb.)
330 mm x 635 mm (13 in. x 25 in.)	65.3 kg (144 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	179.6 kg (396 lb.)
356 mm x 635 mm (14 in. x 25 in.)	266.7 kg (588 lb.)
432 mm x 635 mm (17 in. x 25 in.)	321.1 kg (708 lb.)
Fenders	
Front	99 kg (218 lb.)
Rear	141 kg (310 lb.)
Low Cab With Opening Front and Side Windows	14.5 kg (32 lb.)
Premium Air-Suspension, Heated Seat With Adjustable Arm- and Headrests	13 kg (28 lb.)
Coolant Heater	4 kg (9 lb.)
Quick Service	11 kg (24 lb.)
Sound-Absorption Package (machines equipped with Tier 3/Stage IIIA and Tier 2/Stage II engines only)	14 kg (31 lb.)
Secondary Steering	26 kg (58 lb.)
Beacon Bracket	8 kg (18 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.5 kg (10 lb.)
18 Halogen Lights	8 kg (18 lb.)
18 LED Lights	7 kg (16 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	7 kg (15 lb.)
Hydraulics for Front-Mounted Equipment	9 kg (19 lb.)

Machine Dimensions *(continued)*	
F Wheelbase	6.16 m (20 ft. 3 in.)
G Overall Length	8.89 m (29 ft. 2 in.)
H Overall Length With Scarifier	9.69 m (31 ft. 9 in.)
I Overall Length With Push Block and Ripper	9.99 m (32 ft. 9 in.)
I^{I} Overall Length With Scarifier and Ripper	10.59 m (34 ft. 9 in.)

For Overall Width see Tires/Wheels on page 24.



870G / GP SPECIFICATIONS

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Engine	870G/GP		
Manufacturer and Model	John Deere PowerTech™ PSS 9.0L	John Deere PowerTech™ Plus 9.0L	John Deere PowerTech™ 9.0L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Displacement	9.0L (548 cu. in.)	9.0L (548 cu. in.)	9.0L (548 cu. in.)
Net Engine Power			
Gear 1	168 kW (225 hp)	164 kW (220 hp)	164 kW (220 hp)
Gear 2	175 kW (235 hp)	172 kW (230 hp)	172 kW (230 hp)
Gear 3	187 kW (250 hp)	179 kW (240 hp)	179 kW (240 hp)
Gear 4	190 kW (255 hp)	183 kW (245 hp)	183 kW (245 hp)
Gear 5	198 kW (265 hp)	187 kW (250 hp)	187 kW (250 hp)
Gear 6	201 kW (270 hp)	194 kW (260 hp)	194 kW (260 hp)
Gear 7	205 kW (275 hp)	198 kW (265 hp)	198 kW (265 hp)
Gear 8	209 kW (280 hp)	201 kW (270 hp)	201 kW (270 hp)
Net Peak Torque	1430 Nm (1,066 lb.-ft.)	1330 Nm (991 lb.-ft.)	1330 Nm (991 lb.-ft.)
Net Torque Rise	53%	48%	48%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	Turbocharged, charge-air cooled
Lubrication	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler
Air Cleaner With Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry
Cooling			
Engine Coolant, Extended Life, Rating	–37 deg. C (–34 deg. F)		
Powertrain			
Transmission	Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system with 121-L/min. (32 gpm) gear pump		
Gears			
Forward	8		
Reverse	8		
Maximum Travel Speeds	*No tire slip at 2,180 rpm, 17.5-R25 tires*		*No tire slip at 2,180 rpm, 17.5-R25 tires*
Gear 1	3.9 km/h (2.4 mph)	Gear 5	16.7 km/h (10.4 mph)
Gear 2	5.6 km/h (3.5 mph)	Gear 6	23.3 km/h (14.5 mph)
Gear 3	7.9 km/h (4.9 mph)	Gear 7	32.2 km/h (20.0 mph)
Gear 4	10.9 km/h (6.8 mph)	Gear 8	45.0 km/h (28.0 mph)
Front Axle	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
Differentials	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
Steering (all models include steering wheel)	All-hydraulic power-frame articulation for maneuverability and productivity; crab steering reduces side drift, positions tandems on firm ground, and increases side-slope stability; return-to-straight control included in Grade Pro (GP) option		
Turning Radius (front steer and articulation)	7.21 m (284 in.) (23 ft. 8 in.)		
Articulation (both right and left)	22 deg.		
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil		
Brakes	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled, filtered oil; both independent systems effective on all 4 tandem wheels		
Primary and Secondary Brakes	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450)		
Parking Brake	Automatically spring applied, hydraulically released, oil cooled, self-adjusting (ISO 3450)		
Hydraulics			
Type	Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump		
Maximum Pump Flow	218 L/min. (57.5 gpm)		
Maximum System Pressure	18 961 kPa (2,750 psi)		
Pump Displacement	90 cm^3 (5.5 cu. in.)		

870G / GP SPECIFICATIONS

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Blade Function	**870G/GP**	
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
Blade Range		
Lift Above Ground	452 mm (17.8 in.)	
Blade Side Shift (right or left)	683 mm (26.9 in.)	
Pitch at Ground Line		
Forward	42 deg.	
Back	5 deg.	
Shoulder Reach Outside Wheels (frame straight, right or left)	2329 mm (91.7 in.) (7 ft. 8 in.)	
Bank Cut Angle (right or left)	90 deg.	
Blade Pull		
At Maximum Operating Weight	15 501 kg (34,173 lb.)	
Electrical		
Solid-state load center and sealed-switch module	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Voltage	24 volt	24 volt
Number of Batteries	2	2
Battery Capacity	1,400 CCA	1,400 CCA
Reserve Capacity	440 min.	440 min.
Amp-Hour Rating	224 amp-hour	224 amp-hour
Alternator Rating		
Base	130 amp	100 amp
Optional	200 amp	130 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights	
Mainframe		
Type	Welded box construction	
Width (minimum)	307 mm (12.1 in.)	
Height (minimum)	307 mm (12.1 in.)	
Thickness		
Side	16 mm (0.63 in.)	
Top and Bottom Plate	30 mm (1.17 in.)	
Modulus		
Minimum Vertical Section	1770 cm^3 (108 cu. in.)	
Average Vertical Section at Saddle	2635 cm^3 (161 cu. in.)	
Draft Frame (drawbar)		
Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts		
Circle		
Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts		
	Standard Circle	*Premium Circle*
Circle Diameter	1524 mm (60 in.)	1524 mm (60 in.)
Rotation	360 deg.	360 deg.
Surface	Quick-change bronze or nylon wear inserts	Sealed and lubricated roller element slewing bearing
Pinion/Ring-Gear Connection	Adjustable backlash and open for serviceability	No adjustment; fully sealed and lubricated
Drive	Hydraulic motor and worm gear with positive lock	Hydraulic motor and worm gear with positive lock
Slip Clutch	Option	Standard
Circle Side Shift (right and left)	787 mm (31 in.)	787 mm (31 in.)
Moldboard		
High-strength, pre-stressed for higher strength, wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system		
Base Length	4.27 m (168 in.) (14 ft. 0 in.)	
Height (measured along arc, including cutting edge)	686 mm (27 in.)	
Thickness	25 mm (1 in.)	

870G/GP

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Cutting Edge	**870G/GP**	
Dura-Max™ through-hardened steel edge		
Thickness	19 mm (0.75 in.)	
Width	203 mm (8 in.)	
Scarifiers		
	Front	*Mid-mount*
Type	V-type toolbar with 2-pitch positions and hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float
Width of Cut	1.20 m (48 in.) (4 ft. 0 in.)	1.19 m (46.7 in.) (3 ft. 11 in.)
Number of Shanks/Teeth	5 (maximum capacity 9)	11
Lift Above Ground	589 mm (23.2 in.)	335 mm (13.2 in.)
Maximum Depth	335 mm (13.2 in.)	325 mm (12.8 in.)
Shank		
Spacing	146 mm (5.75 in.)	117 mm (4.6 in.)
Size	25 x 76 mm (1 x 3 in.)	25 x 76 mm (1 x 3 in.)
Front Lift Group (Balderson-style)		
Parallel linkage, mechanical pins, and hydraulic float		
Lift		
Above Ground (top of tube)	1864 mm (73.4 in.)	
Range	988 mm (38.9 in.)	
Rear Ripper/Scarifier		
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch		
	Ripper	*Scarifier*
Width of Cut	2.21 m (87.2 in.) (7 ft. 3 in.)	2.18 m (86 in.) (7 ft. 2 in.)
Number of Shanks/Teeth	3 (maximum capacity 5)	None standard (maximum capacity 9)
Lift Above Ground	602 mm (23.7 in.)	810 mm (31.9 in.)
Maximum Depth	426 mm (16.8 in.)	323 mm (12.7 in.)
Force		
Penetration	10 240 kg (22,574 lb.)	—
Pry-Out	13 623 kg (30,034 lb.)	—
Shank Size	61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)
Operator Station		
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)		
Tires/Wheels		
	17.5R25 on 356-mm (14 in.) Rim	*550/65R25 on 432-mm (17 in.) Rim*	*20.5R25 on 432-mm (17 in.) Rim*
Wheel Tread on Ground	2.16 m (85.0 in.)	2.21 m (87.0 in.)	2.32 m (92 in.)
Overall Width	2.64 m (104.0 in.)	2.82 m (111 in.)	2.8 m (110 in.)
Ground Clearance (front axle)	587 mm (23.1 in.)	612 mm (24.1 in.)	640 mm (25.2 in.)
Serviceability		
Refill Capacities	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Fuel Tank	416.5 L (110 gal.)	416.5 L (110 gal.)
Diesel Exhaust Fluid (DEF) Tank	22.5 L (6 gal.)	—
Cooling System	55.0 L (14.5 gal.)	48.5 L (12.8 gal.)
Engine Oil With Filter	28.4 L (7.5 gal.)	28.0 L (7.4 gal)
Transmission Fluid	23.5 L (6.2 gal.)	28.4 L (7.5 gal.)
Differential Housing	38.0 L (10 gal.)	38.0 L (10 gal.)
Tandem Housings (each)	74.0 L (19.5 gal.)	74.0 L (19.5 gal.)
Circle Gearbox	5.7 L (1.5 gal.)	5.7 L (1.5 gal.)
Hydraulic Reservoir	60.5 L (16 gal.)	53.0 L (14 gal.)
Operating Weights		
With Full Fuel Tank, 4.27-m x 686-mm x 25-mm (14 ft. x 27 in. x 1.0 in.) Moldboard With 203-mm x 19-mm (8 in. x ¾ in.) Cutting Edges, 17.5R25 L2 Tires, and 79-kg (175 lb.)		
Operator	*EPA Final Tier 4/EU Stage V*	*EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II*
Front	4547 kg (10,025 lb.)	4556 kg (10,045 lb.)
Rear	12 499 kg (27,555 lb.)	11 854 kg (26,134 lb.)
Total	17 046 kg (37,580 lb.)	16 410 kg (36,179 lb.)
Typical Operating Weight With Front Push Block, Rear Ripper/Scarifier, and Other Equipment		
Front	5980 kg (13,184 lb.)	6035 kg (13,305 lb.)
Rear	14 734 kg (32,484 lb.)	13 805 kg (30,435 lb.)
Total	20 715 kg (45,668 lb.)	19 840 kg (43,740 lb.)
Maximum Operating Weight	24 948 kg (55,000 lb.)	24 948 kg (55,000 lb.)

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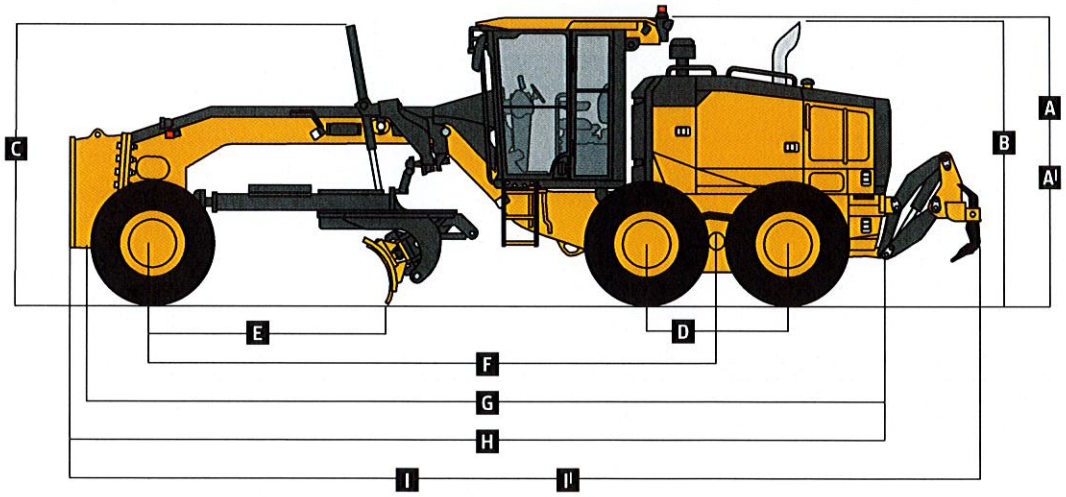
Option Weights	870G/GP
Moldboards With Through-Hardened Dura-Max Cutting Edge	
3.96 m x 686 mm x 25 mm (13 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	–72 kg (–159 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 16-mm (⅝ in.) hardware	0 kg (0 lb.)
4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 19-mm (¾ in.) hardware	9.5 kg (21 lb.)
4.88 m x 686 mm x 25 mm (16 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x ¾ in.) cutting edge and 19-mm (¾ in.) hardware	137 kg (302 lb.)
Extensions, 610 mm (2 ft.) (right or left)	
For Use With 686-mm (27 in.) Moldboards	120 kg (265 lb.)
Overlay End Bits, Reversible (one pair)	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
Heavy-Duty Dual-Input Circle-Drive Gearbox	14 kg (31 lb.)
Circle-Drive Slip Clutch	9 kg (20 lb.)
Circle	
Standard	0 kg (0 lb.)
Premium	255 kg (562 lb.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper/Scarifier, Rear Mounted With Hitch and Ripper Shanks (3)	1139 kg (2,510 lb.)
Scarifier Shanks With Teeth (9 for rear ripper/scarifier)	68 kg (150 lb.)
Ripper Shanks and Teeth (2)	63 kg (139 lb.)
Rear Counterweight With Integral Rear Hitch	727 kg (1,603 lb.)
Rear Hitch	54.4 kg (120 lb.)
Push Block, Front	1338 kg (2,950 lb.)
Scarifier	
Front Mount With Teeth (5)	831 kg (1,833 lb.)
Mid-Mount With Teeth (11)	1481 kg (3,265 lb.)

Option Weights *(continued)*	870G/GP
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
Tires	
17.5-R25, Radial, L2 General Purpose	0 kg (0 lb.)
17.5-R25, Radial, G2/L2 Snow	43.5 kg (96 lb.)
17.5-R25, Radial, G3/L3 General Purpose	90 kg (198 lb.)
550/65R25 XLD70 G3/L3 Radial, General Purpose	444 kg (978 lb.)
20.5-R25, Radial, G2/L2 Snow	414 kg (913 lb.)
20.5-R25, Radial, G3/L3 General Purpose	474 kg (1,045 lb.)
1-Piece Rims	
330 mm x 635 mm (13 in. x 25 in.)	–201.4 kg (–444 lb.)
Multi-Piece Rims	
356 mm x 635 mm (14 in. x 25 in.)	0 kg (0 lb.)
432 mm x 635 mm (17 in. x 25 in.)	54.4 kg (120 lb.)
Fenders	
Front	99 kg (218 lb.)
Rear	141 kg (310 lb.)
Low Cab With Opening Front and Side Windows	14.5 kg (32 lb.)
Premium Air-Suspension, Heated Seat With Adjustable Arm- and Headrests	13 kg (28 lb.)
Coolant Heater	4 kg (9 lb.)
Quick Service	11 kg (24 lb.)
Sound-Absorption Package (machines equipped with Tier 3/Stage IIIA and Tier 2/Stage II engines only)	14 kg (31 lb.)
Secondary Steering	26 kg (58 lb.)
Beacon Bracket	8 kg (18 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.5 kg (10 lb.)
18 Halogen Lights	8 kg (18 lb.)
18 LED Lights	7 kg (16 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	7 kg (15 lb.)
Hydraulics for Front-Mounted Equipment	9 kg (19 lb.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A[1] Height to Top of Full-Height Cab	3.40 m (11 ft. 2 in.)
B Height to Top of Exhaust	3.10 m (10 ft. 2 in.)
C Height to Top of Blade-Lift Cylinders	3.05 m (10 ft. 0 in.)
D Tandem Axle Spacing	1.54 m (5 ft. 1 in.)
E Blade Base	2.53 m (8 ft. 4 in.)

Machine Dimensions *(continued)*	
F Wheelbase	6.16 m (20 ft. 3 in.)
G Overall Length	8.89 m (29 ft. 2 in.)
H Overall Length With Scarifier	9.69 m (31 ft. 9 in.)
I Overall Length With Push Block and Ripper	9.99 m (32 ft. 9 in.)
I[1] Overall Length With Scarifier and Ripper	10.59 m (34 ft. 9 in.)

For Overall Width see Tires/Wheels on page 28.



Additional equipment

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

620	670	770	870	Operator's Station
●	●	●	●	Low-profile ROPS/FOPS cab with HVAC (ROPS ISO 3471 / FOPS SAE 3449 Level II)
▲	▲	▲	▲	Low-profile ROPS/FOPS cab utilizing laminated glass with fixed lower front and side opening windows
▲	▲	▲	▲	Opening front and side windows (standard with Grade Pro)
●	●	●	●	Keyless start with multiple security modes
●	●	●	●	Fabric air-suspension seat with armrests and headrest
▲	▲	▲	▲	Premium heated, leather/fabric, high-wide-back, air-suspension seat with armrests (standard with Grade Pro)
●	●	●	●	Sealed-switch module with function indicators
●	●	●	●	Electric rear-window defroster
●	●	●	●	Upper front windshield washers with intermittent wipers
▲	●	●	●	Upper rear windshield washers with intermittent wipers
▲	▲	▲	▲	Lower front intermittent wiper and washer
▲	▲	▲	▲	Powered cab precleaner
▲	▲	▲	▲	Decelerator pedal
▲	▲	▲	▲	Flip-down, right- and/or left-hand cab beacon with bracket
●	●	●	●	Cab prewired for beacon, radio, and auxiliary circuit
●	●	●	●	Front window sun visor
▲	▲	▲	▲	Retractable rear sunshade
●	●	●	●	Rearview mirrors, exterior (2) (SAE J985)
▲	▲	▲	▲	Heated exterior mirrors (2) (SAE J985)
▲	▲	▲	▲	Fire extinguisher
●	●	●	●	High-resolution rear camera with dedicated in-cab monitor (in some markets)
▲	▲	▲	▲	High-resolution front/rear-camera combination with dedicated in-cab monitor
●	●	●	●	Retractable seat belt, 76 mm (3 in.) (SAE 386)
▲	▲	▲	▲	AM/FM radio with auxiliary and Weather Band (WB)
▲	▲	▲	▲	AM/FM radio with Bluetooth®, auxiliary, and WB ready
●	●	●	●	Push-button-activated cruise control

620	670	770	870	Electrical
●	●	●	●	100-amp alternator (Tier 3/Stage IIIA and Tier 2/Stage II)
●	●	●	●	130-amp alternator (FT4/Stage V [optional for Tier 3/Stage IIIA and Tier 2/Stage II])
▲	▲	▲	▲	200-amp alternator (FT4/Stage V)
●	●	●	●	Batteries (2), 1,400 CCA with 440-min. reserve capacity
▲	●	●	●	Left-hand engine compartment service-check light
▲	▲	▲	▲	Right-hand engine compartment service-check light
●	●	●	●	Transporting lights (4 halogen)
▲	▲	▲	▲	Grading lights (10 halogen lights)
▲	▲	▲	▲	Deluxe grading lights (18 halogen lights)
▲	▲	▲	▲	Premium grading lights (18 LED lights)
	▲	▲	▲	Tall front snowplow light bar
●	●	●	●	Multifunction/multi-language diagnostic LCD color monitor
●	●	●	●	Reverse warning alarm (SAE J994)
●	●	●	●	LED brake and turn lights
				Moldboard
				Patented pre-stressed, high strength, wear resistant:
●	●	●		3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x ⅞ in.)
	▲	▲	▲	3.96 m x 686 mm x 25 mm (13 ft. x 27 in. x 1 in.)
▲	▲	▲		4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x ⅞ in.)
	▲	▲	●	4.27 m x 686 mm x 25 mm (14 ft. x 27 in. x 1 in.)
			▲	4.88 m x 686 mm x 25 mm (16 ft. x 27 in. x 1 in.)
●	●	●	●	Quick-change and jackscrew-adjustable moldboard side-shift extreme-duty wear inserts
▲	▲	▲		610-mm (24 in.) left- or right-hand extensions for 610-mm (24 in.) moldboard
		▲	▲	610-mm (24 in.) left- or right-hand extensions for 686-mm (27 in.) moldboard
▲	▲	▲	▲	Reversible overlay endbits
				Overall Vehicle
●	●	●	●	JDLink™ wireless communication system (available in specific countries; see your dealer for details)
●	●	●	●	Ground-level fuel and diesel exhaust fluid (DEF) filling
▲	●	●	●	Fluid-sampling ports for engine oil and coolant, hydraulic oil, and axle and transmission fluids

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on units with standard equipment; 14.0 x 610-mm (24 in.) 12 PR G2, Bias tires and 3.66-m x 610-mm x 22-mm (12 ft. x 24 in. x ⅞ in.) high-strength, wear-resistant moldboards with 16-mm x 152-mm (0.63 in. x 6 in.) Dura-Max® through-hardened-steel cutting edges for the 620G, 670G, and 770G; and 17.5 R 635-mm (25 in.) L2, Radial tires and 4.27-m x 688-mm x 25-mm (14 ft. x 27 in. x 1 in.) high-strength, wear-resistant moldboards with 16-mm x 152-mm (0.63 in. x 6 in.) Dura-Max through-hardened-steel cutting edges for the 870G. Weights include lubricants, coolants, full fuel tanks, and 79-kg (175 lb.) operators.

Additional equipment *(continued)*

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

620	670	770	870	Overall Vehicle *(continued)*
●	●	●	●	Vandal-protection locking for: Cab doors / Top tank radiator-access door / Engine coolant surge tank / Hydraulic reservoir cap / Battery-disconnect switch / Ground-level electrical master disconnect switch / Fuel-tank door and cap / Toolbox
●	●	●	●	Environmental drains with hoses for engine, transmission, hydraulic, differential fluids, and engine coolant
▲	●	●	●	Hydraulically driven cool-on-demand reversing fan
●	●	●	●	Banked easy-access vertical spin-on filters for hydraulic, transmission, and axle fluids
●	●	●	●	Engine rotary ejector precleaner
●	●	●	●	Automatic differential lock
●	●	●	●	Engine-stall prevention and auto shutdown
▲	▲	▲	▲	Adjustable rotary engine precleaner (FT4/Stage V)
	▲	●	●	Heavy-duty air cleaner (FT4/Stage V)
●	●	●		Single-input circle drive
▲	▲	▲		Single-input circle drive with slip clutch
	▲	▲	●	Heavy-duty dual-input circle drive without slip clutch
	▲	▲	▲	Heavy-duty dual-input circle drive with slip clutch
▲	▲	▲	▲	Premium circle
▲	▲	▲	▲	Auto-Shift transmission
▲	▲	▲	▲	Auto-Shift PLUS transmission
▲	▲	▲	▲	Blade-impact-absorption system
▲	▲	▲	▲	Front and/or rear wheel fenders
▲	▲	▲	▲	Quick-service bank for transmission, hydraulic, engine oil, and engine coolant fluid changes
▲	▲	▲	▲	Secondary steering
	▲	▲	▲	Sound-absorption package (Tier 3/Stage IIIA and Tier 2/Stage II)
▲	▲	▲	▲	Wheel chocks
				Automation (standard on SmartGrade™ models, optional on GP models)
▲	▲	▲	▲	Automation Suite
▲	▲	▲	▲	Auto-Articulation
▲	▲	▲	▲	Auto-Gain for Cross Slope
▲	▲	▲	▲	Auto-Pass
▲	▲	▲	▲	Blade Flip
▲	▲	▲	▲	Machine Presets
▲	▲	▲	▲	Machine-Damage Avoidance

620	670	770	870	Front Attachments
▲	▲	▲	▲	Front push block
▲	▲	▲	▲	V-type front scarifier with float position, 5 shanks
▲	▲	▲	▲	Mid-mount scarifier with float position, 11 shanks
▲	▲	▲	▲	Front Balderson-style lift group with float position
▲	▲	▲	▲	Front-mounted dozer blades
				Rear Attachments
●	●	●	●	Full bottom guard with access panel and side guards for rear vehicle protection
▲	▲	▲	▲	Rear-mounted ripper/scarifier combination with rear hitch and pin, 3 ripper shanks
▲	▲	▲	▲	Rear counterweight with rear hitch and pin
▲	▲	▲	▲	Rear hitch and pin
▲	▲	▲	▲	Extra scarifier shanks (9) with teeth for rear ripper scarifier
	▲	▲	▲	Extra ripper shanks (2) with teeth for rear ripper/ scarifier
				Grade Pro (GP) Option
●	●	●	●	Low-profile GP cab with opening lower front and side windows
▲	▲	▲	▲	Low-profile GP cab utilizing laminated glass with fixed lower front and side opening windows
●	●	●	●	Premium heated, leather/fabric, high-wide-back, air-suspension seat with armrests
▲	▲	▲	▲	Dual-joystick controls
▲	▲	▲	▲	Fingertip armrest-mounted controls including steering lever
●	●	●	●	Steering wheel
●	●	●	●	Cross slope
●	●	●	●	Return to straight
				Grade Control
▲	▲	▲	▲	SmartGrade available on GP models
▲	▲	▲	▲	Mast mounts
▲	▲	▲	▲	Topcon ready available on G and GP models
▲	▲	▲	▲	Trimble ready available on G and GP models

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Take control with more options

Inspired by input from customers like you, John Deere G-Series Motor Graders include a host of innovative options like dual-joystick controls and exclusive automation advantages on Grade Pro (GP) models. Factory-integrated SmartGrade™ configurations. And Precision mode on six-wheel-drive machines. The smaller, more economical 620G and 622G deliver practical power at up to 10-percent fuel savings over their larger siblings. We give you the power of choice to match your application. So you can choose to **Run Your World.**

SAFETY live with it DKAGGDR (21-04)

670G MOTOR GRADER

27-Dec-2022

Code	Description	QTY	List Price (USD)
8440T	670G MOTOR GRADER	1	$452,847.00

670G Standard Equipment

VEHICLE COOLING:
Swing-Out, Cool-On-Demand, Hydraulic Fan (32 In.)
Enclosed Engine Fan and Fan Drive Guarding (Conforms to ISO 3457)
Heavy Duty Aluminum Coolers for Transmission, Axle, Hydraulic, Fuel, Charge Air, Radiator and A/C Condenser.
Engine Coolant Surge Tank
Cool-Gard II Extended Life Engine Coolant -34 Degrees F (-37 Degrees C)

TRANSMISSION:
John Deere Powershift Plus
Direct Drive, Countershaft Powershift
Event Based Shifting (EBS) - Load Sensing Electronic Shift Modulation
Over speed Protection
Quick Disconnect Pressure Ports
Matched 8 Forward and 8 Reverse Speeds
Industry Standard U-Shape Shift Pattern
Transmission Neutral Lock with Park Start Safety Switch
Rubber Isolation Mounting to Reduce Noise and Vibration
Independent Oil Reservoir, Filtration and Cooling System with:
31 GPM Transmission Hydraulic Gear Pump
2000 Hour Vertical Spin-On Filter

AXLE, BRAKES AND TANDEMS:
Teammate II Axle
Planetary Single Reduction Final Drives
Internal Self-Adjusting Maintenance Free Wet Multi-Disk Brakes Inboard of Tandem Pivot
Continuous Pressurized Filtered Oil Cooled Brakes
Independent Oil Reservoir, Filtration and Cooling System with:
6.7 GPM Axle Hydraulic Gear Pump
2000 Hour Vertical Spin-On Filter
Primary and Secondary Service Brakes (Conforms to ISO 3450)
Automatic Differential Lock with Override
Automatic Spring-Applied Hydraulic Released Parking Brake (Conforms to SAE J1026)
Slip Resistant Platforms on Tandems

OPERATORS STATION:
Low ROPS/FOPS Air Conditioned Cab (Conforms ROPS ISO 3471 / FOPS ISO 3449 Level II)
Rubber Isolation Frame Mounted
Keyless Start with Multiple Security Modes
Anti-Skid 3 Step Cab Access
Fabric Air Suspension Seat with Armrests and Headrest 3 In., (76 mm) Seat Belt w/Retractors (Conforms to SAE J386)
Tilt Wheel and Control Console with 5 Lock to Lock Power

OVERALL VEHICLE:
Left Side Daily Service
Engine and Service Compartment Lights
Hinged Engine Side Shields
Tool Box with Tray
Articulation Joint Grease Bank
Articulated frame with Safety (ISO 10570) locking pin
Radiator Surge Tank Access Panel
DEF Tank Door and Cap (FT4 Only)
Bottom/Side Guards with Access Panels
(6) D.O.T. (392&393) Permanent Tie Downs for transport
Single Key Locks for Entire Vehicle
Ground Level Fuel Tank Filling (FT4 Only)
Fluid Sampling Ports for Engine Oil, Engine Coolant, Hydraulic, Axle and Transmission Oils
Vandal Protection Locking for:
Service Compartments
Cab Doors
Radiator Surge Tank Access Door
DEF Tank Door and Cap (FT4 Only)
Hydraulic Reservoir Cap
Battery Disconnect Switch
Fuel Tank Door and Cap
Tool Box
Fuel tank, 110 gallon (416 L)
Environmental Drains with Hoses for Engine, Transmission, Hydraulic, Axle Oils and Engine Coolant
Remote Filter Bank for Hydraulic, Transmission and Axle Oils
Vehicle Side Reflectors

Steering
Electronic Throttle Control with Auto / Manual Modes
ECO Mode: limits engine rpms to 1900 in gears 1-5
15 Amp (24 V to 12 V W/ Continuous 10 amps) Converter and (2) Power Ports
(1) Interior and (2) Exterior Mounted Rearview Mirrors (Conforms to SAE J985)
Air Vents on all Front and side Tinted Windows
Fixed Lower Front Tinted Window
Rear Window Electric Defroster
Laminated Upper Front Tinted Window w/ Sun Shade Band
Upper Front and Rear Windshield Washers with Intermittent Wipers
Molded Floor Mat
Coat Hook
Universal RH & LH Mounting Bracket
Cooler/Lunch Box Storage with Cup Holder
Operator Manual Storage
Front Sun Visor

ELECTRICAL:
24 Volt System
Alternator (dependent on engine emission and optional equipment)
Bypass Start Safety Cover on Starter
All Light and Wiper Switches have Solid State Electrical Power Distribution System
Batteries (2), 1400 CCA with 440 Minute Reserve Capacity
Positive Terminal Battery Covers
Ground Level Electrical Master Disconnect Switch
Electric Fuel Shut off Switch
Transporting Lights w/LED Signal and Marker Lights (4 Halogen Transport lights) Transporting Lights (4 Halogen Transport Lights). Includes LED turn signals on front frame, LED rear turn signals mounted on rear grille, front and rear LED marker lights, LED brake lights and LED hazard warning lights.
Cab Pre-Wired (10 amp) for Beacon, Radio and Auxiliary Circuit
Electric Forward Warning Horn (Conforms to ISO 9533)
Back up Warning Alarm (Conforms to ISO 9533)
Sealed Switch Module with Function Indicators
Multi-Function / Multi-Language LCD Color Monitor includes:
DIGITAL INSTRUMENTS
ANALOG Display:
Hydraulic Oil Temperature
Engine Coolant Temperature
Transmission Oil Temperature
Rear Steer Articulation Angle
Fuel Level
DEF Level (FT4 Only)
DIGITAL Display:
Engine RPM
Transmission Gear Indicator
Hour Meter
Speedometer
Odometer
Outside Ambient Temperature
Integrated Job Timer and Stop Watch
INDICATOR LIGHTS for Standard and Selected Options

INDICATOR LIGHTS for Amber Caution and Red Stop
OPERATOR WARNING MESSAGES
BUILT-IN DIAGNOSTICS:
Diagnostic Code Details
Sensor Values
Calibrations
MENU DISPLAY:
Codes
Machine Settings
Diagnostics
Monitor Settings

HYDRAULIC SYSTEM:
PCLS (Pressure Compensating Load Sensing) Hydraulic System
Independent Hyd. Reservoir with Sight Glass
Independent Main Hydraulic filtration cooling system with:
56 GPM Main Hydraulic Axial Piston Pump
O-Ring Face Seal Connectors
Float control included with blade lifts
2000 Hour Vertical Spin-On Filter

STRUCTURE:
Main Frame with:
Double Ball-N-Socket Pivot Connection
Snow Wing Ready Frame
Midmount Scarifier Ready
Grade Control Mount Ready
Tapered Roller Bearing in Bottom Articulation Joint
Tapered Roller Bearing King Pins on Front Axle
Lift Eyes
Tiedowns
(20) NeverGrease Pin Joints for Saddle Linkage, Blade Tilt, Rear Steering and Lean Cylinders

MOLDBOARD:
Patented Pre-Stressed 12 Ft. x 24 In. x 7/8 In. (3.66 M x 610 mm x 22 mm)
Moldboard with:
6 In. x 5/8 In. (152 x 16 mm) Cutting Edge with 5/8 in. Reversible End Bits
Quick Change Circle Wear Inserts (All Nylon)
Quick Change and Adjustable Heavy Duty Moldboard Side Shift Wear Inserts
Single Input Circle Drive Gearbox (non-slip)

8440T	670G MOTOR GRADER	1	$452,847.00

ENGINE

Engine		Basic Factory Options - Required
1120	John Deere PowerTech Plus 9.0L meets Tier 3 / EU Stage IIIA emissions	No Added Cost

230 Net Peak hp
For use in areas where EPA Tier 3/EU Stage IIIA is required.Requires severe duty filter code 1420.Requires engine exhaust code 1820.Variable-Geometry TurbochargerCooled Exhaust Gas RecirculationCharge Air Cooler (Air to Air)4 Valves / CylinderWet Sleeve Cylinder LinersECO ModeProgrammable Auto-ShutdownAutomatic Starter Overload Protection Electronically Controlled HPCR Fuel Delivery SystemElectric Fuel Priming System10-Micron Primary Fuel Filter/Water

Code	Description	QTY	List Price (USD)

Separator, 500 hour2-Micron Final Fuel Filter, 500 hourInline Fuel StrainerSpin-on Oil Filter, 500 hourAuto-Tensioned Serpentine Belt Under Hood Dual Element Air Cleaner with Restriction IndicatorEngine Intake Rotary Ejector PrecleanerSelf Draining Muffler with Curved Stack

1140	John Deere PowerTech PSS 9.0L meets EPA FT4 Emissions 235 Net Peak hp For use only in areas where EPA Final Tier 4 is required.Requires engine exhaust code 1830 or 1840.Automatic Exhaust Filter RegenerationAutomatic Hydraulic Reversing FanSeries Turbo ChargersCooled Exhaust Gas Recirculation4 Valves / CylinderWet Sleeve Cylinder LinersECO ModeAuto-Idle and Programmable Auto-ShutdownAutomatic Starter Overload Protection Electronically Controlled HPCR Fuel Delivery System, B20 Biodiesel CompatibleElectric Fuel Priming System10-Micron Primary Fuel Filter/Water Separator, 500 hour2-Micron Final Fuel Filter, 500 hourInline Fuel StrainerSpin-on Oil Filter, 500 hourOil crankcase filter, LifetimeAuto-Tensioned Serpentine Belt Under Hood Dual Element Air Cleaner with Restriction IndicatorEngine Intake Rotary Ejector Precleaner	$50,297.00
	Exhaust	Basic Factory Options - Required
1820	Engine Exhaust with Flat Black Muffler for 9.0L Requires engine code 1112 or 1120.	No Added Cost
1830	Engine Exhaust W/ Flat Black Stack (FT4 or Stage V only) Requires engine code 1140.	No Added Cost
1840	Engine Exhaust W/ Chrome Stack (FT4 or Stage V only) Requires engine code 1140.	$738.00
	Fuel Filtration	Basic Factory Options - Required
1410	Standard Fuel & Water Filtration	No Added Cost
1420	Severe Duty Fuel & Water Filtration System For use where fuel quality is questionable and/or additional water separation is required. Filter base contains fuel heater.	$554.00
	Quick Service Group	Basic Factory Options - Required
1310	Quick Service Group	$706.00
1320	No Quick Service Group	No Added Cost

Code	Description	QTY	List Price (USD)
	Cold Start Packages	Field Installed Attachments - Optional	
9340	Engine Air Intake Manifold Pre-Heater Requires code 1120 9.0 L Engine. Cannot be used with code 9370 ether start aid.		$608.00
9360	Engine Block Heater Recommended for use on machines that will be operating above 8,000 feet (2440 meters) in altitude, and/or colder than 0 degrees F (-18 degrees C). Includes all weather receptacle conveniently located at ground level Requires: Code 1610 Hydraulic Pump Disconnect		$365.00
9365	Engine Block Coolant Heater (220V)		$205.00
9370	Ether Starting Aid Requires 9.0L engine, codes 1112, 1120 or 1140 Cannot be used with code 9340, Engine Air Intake Manifold Pre-Heater Ether is not included.		$492.00
9620	Cold Weather Control Valve Covers Plastic covers that mount below the cab, shielding the control valve from snow and slowing down hydraulic heat loss in winter. Requires code 1010 standard hydraulics.		$217.00
	Air Cleaner	Field Installed Attachments - Optional	
9380	Heavy Duty Air Cleaner - 9.0L 14 in Engine code 1140 only 15% larger capacity		$1,059.00
9395	Adjusting Rotary Ejector Precleaner Ability to raise engine pre-cleaner to improve air filter performance. Requires code 9380		$584.00
	OPERATOR'S STATION		
	Machine Configuration	Basic Factory Options - Required	

Code	Description	QTY	List Price (USD)
1010	Standard Antler Rack Hydraulic Controls		($21,000.00)
1020	Armrest Fingertip Controls Grade Pro Armrest Controls Include: * Fingertip controls with industry standard control pattern * Automated Cross Slope control with exclusive Auto-Gain * Integrated grade control (Contact TOPCON, Trimble, or Leica for full install requirements) * Return-to-Straight * Armrest steering control AND conventional steering wheel Requires alternator code 1220 or 1240 and cab code 5060 or 5070. Includes seat code 6140 and grade pro controls code 6650.		No Added Cost
1030	Dual Joystick Controls Grade Pro Armrest Controls Include: * Automated Cross Slope control with exclusive Auto-Gain * Integrated grade control (Contact TOPCON, Trimble, or Leica for full install requirements) * Return-to-Straight * Armrest steering control AND conventional steering wheel Requires alternator code 1220 or 1240 and cab code 5060 or 5070. Includes seat code 6140 and grade pro controls code 6650.		No Added Cost
	Operator's Station	Basic Factory Options - Required	
	ROPS/FOPS Air Conditioned Cab		
5020	Low Cab w/ Fixed Lower Front and Side Windows		No Added Cost
5025	Low Cab w/ Fixed Lower Front and Side Opening Windows		$973.00
5030	Low Cab w/ Lower Front and Side Opening Windows Includes Roof Wiring Harness for Lighting, Beacon, Precleaner and Heated Mirrors		$1,305.00
5035	Low Cab w/ Fixed Lower Front and Side Opening Windows, Laminated Glass The advantage of laminated glass is that it resists shattering and strongly resists penetration by impacting objects.		$3,241.00
5060	Grade Pro Low Cab w/ Lower Front and Side Opening Windows Requires configuration code 1020 or code 1030 and seat code 6140. Requires (1) T244325 bracket to optionally move monitor to the RH door post.		No Added Cost
5070	Grade Pro Low Cab w/ Fixed Lower Front and Side Opening Windows, Laminated Glass Requires configuration code 1020 or code 1030 and seat code 6140.Requires (1) T244325 bracket to optionally move monitor to the RH door post.The advantage of laminated glass is that it resists shattering and strongly resists penetration by		$2,300.00

Code	Description	QTY	List Price (USD)
impacting objects.			
50A1	Tall Cab with Lower Fixed Front and Side Opening Windows		$2,683.00
	Camera		Basic Factory Options - Required
8830	Rear Camera (R4) Rear view camera with a dedicated monitor		No Added Cost
8835	Front & Rear Camera (R4)		$2,625.00
	Mirrors		Basic Factory Options - Required
8210	Exterior Mounted Rearview Mirrors		No Added Cost
8220	Heated Exterior Mounted Rearview Mirrors		$599.00
	Radio		Basic Factory Options - Required
8410	AM/FM Radio with Aux and Weather Band (WB)		$1,032.00
8415	Premium AM/FM Radio with Bluetooth, Aux and Weather Band (WB). Requires engine code 1140.		$1,591.00
8420	No Radio		No Added Cost
	Washer and Wiper		Basic Factory Options - Required

Code	Description	QTY	List Price (USD)
8310	Lower Front Intermittent Wiper & Washer		$704.00
8320	Less Lower Front Window Wiper & Wiper		No Added Cost
	Cab Air Precleaner		Basic Factory Options - Required
6010	Powered Cab Air Precleaner Powered Cab Precleaner pre-filters outside air to significantly extend cab filter life.		$971.00
6030	No Powered Cab Air Precleaner		No Added Cost
	Seat		Basic Factory Options - Required
6120	Standard Fabric Air Suspension Seat with Armrests and Headrest For use with cab codes 5020, 5025, 5030 & 5035		No Added Cost
6130	Premium Heated, Leather/Fabric, High-Wide Back, Air Suspension Seat with Armrests For use with cab codes 5020, 5025, 5030 & 5035. This seat does not include a headrest. If a headrest is desired, please order AT361342 from service parts.		$779.00
6140	Grade Pro Premium Heated, Leather/Fabric, High-Wide Back Air Suspension Seat For use with cab codes 5060 & 5070. This seat does not include a headrest. If a headrest is desired, please order AT361342 from service parts.		No Added Cost
	Sound Absorption Package		Basic Factory Options - Required
8720	No Sound Absorption Package Requires engine code 1111, 1112, 1115 or 1120.		No Added Cost
	Hydraulic Controls - Right Side		Basic Factory Options - Required

Code	Description	QTY	List Price (USD)
	Standard Hydraulic Controls		
	Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.		
6510	Base Hydraulics - 4 Function Controls Requires configuration code 1010. Base Functions: Rear Steer, Circle Side shift, Wheel Lean & RH Blade Lift w/ Float.		No Added Cost
6520	Base Hydraulics w/ 1 Auxiliary Function Control Requires configuration code 1010. Base functions plus 1 function w/float control - front plumbing and hoses for Scarifier or auxiliary application. For use with front scarifier.		$1,746.00
6525	Mid Mount Scarifier Base Hydraulics w/ 1 Auxiliary Function Control Requires Mid Mount Scarifier code 6730 and configuration code 1010. Midmount scarifier base hydraulics with 1 auxiliary function control with float control for mid mount scarifier. For use with mid mount scarifier.		$1,979.00
6530	Base Hydraulics w/ 2 Auxiliary Function Controls Requires configuration code 1010. Base functions plus 2 functions w/float control - front plumbing and hoses for Scarifier and/or auxiliary application. For use with front scarifier.		$3,295.00
6540	Base Hydraulics w/ 3 Auxiliary Function Controls Requires code 1010. Base Functions plus 3 functions-(2) with and (1) w/o float control, front plumbing and hoses for Scarifier and/or auxiliary application. For use with front scarifier.		$4,842.00
	Grade Pro Controls		
	1020 - Finger-tip armrest mounted controls, consistent with the industry standard pattern. Includes armrest mounted lever steering plus the traditional steering wheel. All Auxiliary codes include front and rear plumbing for each function except code 6595. 1030 - Dual Joystick armrest mounted controls. Includes armrest mounted lever steering plus the traditional steering wheel. All Auxiliary codes include front and rear plumbing for each function except code 6595.		
6550	Grade Pro Base Controls Requires code 1020 OR 1030 Includes the following Base Hydraulic Functions: Rear Steer Circle Side shift Wheel Lean Right and Left hand Blade Lift w/ Float Circle Rotate Blade Side Shift Blade Tilt Speed-sensitive Lever Steer (also includes traditional steering wheel)		No Added Cost
6526	Grade Pro Controls for Mid Mount Scarifier w/1 Auxiliary Function Control		$1,979.00

Code	Description	QTY	List Price (USD)
	Requires codes 1020 OR 1030 AND Mid Mount Scarifier code 6730. Includes base functions plus mid-mount scarifier/auxiliary hoses that run to front of machine Fingertip controls include right hand lever control		
6555	Grade Pro Controls for Rear Ripper or 1 Rear Auxiliary Function		$1,748.00
	Requires code 1020 OR 1030 Includes Base functions plus 1 rear auxiliary function w/float control - Rear plumbing and hoses for Ripper or auxiliary application. Fingertip controls include left hand lever control		
6560	Grade Pro Controls for Front Scarifier or 1 Front Auxiliary Function		$1,748.00
	Requires code 1020 OR 1030 Include Base functions plus 1 front auxiliary function w/float control - front plumbing and hoses for Scarifier and/or auxiliary application. Fingertip controls include right hand lever control		
6570	Grade Pro Controls w/1 Rear Auxiliary Function Control		$1,748.00
	Requires code 1020 OR 1030 Includes Base functions plus 1 rear auxiliary function w/float control - Rear plumbing and hoses for auxiliary application. Fingertip controls include right hand lever control		
6580	Grade Pro Controls w/1 Front Auxiliary Function AND 2 Rear Auxiliary Functions		$5,237.00
	Requires code 1020 OR 1030Includes Base functions plus 3 auxiliary - 1 front and 2 rear auxiliary functions w/ float control and rear plumbing for Scarifier / Ripper and/or front, mid or rear auxiliary applications.Fingertip controls include left AND right hand lever control4 independent proportional rollers are reconfigurable for auxiliary functions.		
6585	Grade Pro Controls w/1 Front Auxiliary Function AND 1 Rear Auxiliary Function		$3,532.00
	Requires code 1020 OR 1030Includes Base functions plus 2 auxiliary - 1 front and 1 rear auxiliary functions w/ float control and plumbing for Scarifier / Ripper applications.Fingertip controls include left AND right hand lever control4 independent proportional rollers are reconfigurable for auxiliary functions.		
6590	Grade Pro Controls w/1 Front Auxiliary Function AND 3 Rear Auxiliary Functions		$6,985.00
	Requires code 1020 OR 1030 Includes Base functions plus 4 auxiliary - 1 front and 3 rear auxiliary functions w/ float control and rear plumbing for Scarifier / Ripper and/or front, mid or rear auxiliary applications. Fingertip controls include left AND right hand lever control 4 independent proportional rollers are reconfigurable for auxiliary functions.		
6595	Grade Pro Controls w/3 Front Auxiliary Function AND 3 Rear Auxiliary Functions		$10,476.00
	Requires code 1020 OR 1030Includes Base functions plus 6 auxiliary - 3 front and 3 rear with float control on 4 functions, and front and rear plumbing for 2 functions each.Fingertip controls include left AND right hand lever control4 independent proportional rollers are reconfigurable for auxiliary functions.		
	Hydraulic Controls - Left Side		Basic Factory Options - Required
	Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.		
	Standard Hydraulic Controls		
	Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.		

Code	Description	QTY	List Price (USD)
6610	Base Hydraulics- 4 Function Controls Requires code 1010. Base Functions: LH Blade Lift w/ Float, Blade Side shift, Circle Rotate, Blade Tilt.		No Added Cost
6620	Base Hydraulics w/ 1 Auxiliary Function Control Requires code 1010. Base Functions plus 1 function w/float control and lines for Ripper or auxiliary application. For Use with Rear Ripper/Scarifier Combination.		$1,536.00
6630	Base Hydraulics w/2 Auxiliary Function Control Requires code 1010. Base functions plus 2 functions w/float control and lines for Ripper and/or auxiliary application. For Use with Rear Ripper/Scarifier Combination.		$3,100.00
6640	Base Hydraulics w/ 3 Auxiliary Function Control Requires code 1010. Base Functions plus 3 functions-(2) with and (1) w/o Float Control, and lines for Ripper and/or auxiliary application. For Use with Rear Ripper/Scarifier Combination.		$4,646.00
	Grade Pro Controls		
6650	Grade Pro Controls - Left Side Requires code 1020 or code 1030. Accompanies GRADE PRO CONTROLS - RIGHT SIDE order code selection.		No Added Cost
	Shipping Preparation		Basic Factory Options - Required
8510	Air Conditioner Refrigerant Charged		No Added Cost
	Sun Protection		Field Installed Attachments - Optional
9130	Rear Retractable Sun Shade		$237.00
	Miscellaneous		Field Installed Attachments - Optional

Code	Description	QTY	List Price (USD)
9210	Decelerator		$318.00
	GRADE CONTROL		
	Grade Control Factory Base Kits		Basic Factory Options - Required
	The following options are for GP graders only and require code 1020 or 1030. See field attachments for G (code 1010) grade control ready kits		
2500	Topcon Grade Control Base Kit for GP Graders Base kit is factory installed and includes additional brackets & wiring harnesses that further enhance and simplify the addition of a Topcon Grade Control System. Requires code 1020 or 1030		$7,467.00
2530	Trimble Earthworks Grade Control Base Kit for GP Graders Supports the latest Trimble Earthworks system and includes factory installation of all harnesses and brackets on the machine and inside the cab to reduce the install time of an aftermarket Trimble Earthworks system. Not compatible with the previous Trimble GCS900 system. Requires additional main components to be sourced from Trimble distributor for fully functional Earthworks system.		$7,467.00
2575	No Grade Control Base Kit Installed		No Added Cost
	Grade Control System		Basic Factory Options - Required
2740	SMARTGRADE 3D GNSS MASTLESS GRADE CONTROL Requires code 1020 or 1030. Not compatible with grade control factory base kits. Example: Topcon Ready (2500) Mastless 3D GNSS grade control system fully integrated into the cab and structures. Consists of Topcon UR-1 radio that is capable of doing both UHF and 915 MHz, sensors, in-cab display and Topcon software compatible with Topcon file formats. Includes Automation Suite (Auto-Articulation, Blade Flip, Machine Preset, and Auto-Pass) and Machine Damage Avoidance. SmartGrade option includes Premium Circle option 2850. After selecting SmartGrade, 2850 will be automatically selected.		$79,600.00
2775	No Topcon 3D GPS Grade Control System installed		No Added Cost
	Grade Control System		Field Installed Attachments - Optional
9215	AUTOMATION SUITE Requires code 1020 or 1030. Includes Auto-Articulation, Blade Flip, Machine Preset, and Auto-Pass.		$5,500.00

Code	Description	QTY	List Price (USD)
9225	BLADE FLIP Requires code 1020 or 1030. Enables the operator to automatically circle the blade to a preset angle by double tapping the circle rotate control.		$1,526.00
9230	MACHINE PRESET Requires code 1020 or 1030. Single button on the SSM activates multiple functions (Return-to-Straight, Auto-shift, lights, etc.). Configurable in monitor. Now includes auto Blade Stow.		$1,526.00
9235	AUTO ARTICULATION Requires code 1020 or 1030. Automatically articulates the grader when steering the front wheels. Can be turned on and off by the SSM. Can be operated in forward only or forward and reverse.		$2,035.00
9250	AUTO PASS Requires code 1020 or 1030. Auto Pass reduces operator input of repetitive functions at the beginning and end of grading passes. Auto Pass is programmable through the monitor. At the beginning of a pass, options include lowering the blade to a pre-determined elevation and enabling SmartGrade automatically (if equipped). At the end of a pass, options include raising the blade, automatically engaging blade flip (if equipped) to rotate the blade to a pre-determined angle, and stowing the ripper. Joystick controls enable beginning of pass and end of pass capabilities. Fingertip controls enable beginning of pass capabilities only.		$1,526.00
	Automation		Field Installed Attachments - Optional
9245	Machine Damage Avoidance Requires code 1020 or 1030 Prevents the moldboard from contacting the tires, cab and cab steps. In addition, prevents the saddle linkage from contacting the top of the draft frame. Operator can override as needed.		$6,000.00
	HYDRAULICS		
	Hydraulic Oil		Basic Factory Options - Required
5815	Hydrau Broad ambient operating temperatures. Operating range: -25°C to 50°C -13°F to 122°F		No Added Cost
5830	Hydrau XR Optional factory fill. Broad ambient operating temperatures. Operating range: -40°C to 40°C		$768.00

-40°F to 104°F
Intended for colder climates, provides all-season capability.
Required for Russia.

	Hydraulic Pump Disconnect	Basic Factory Options - Required
1610	Hydraulic Pump Disconnect Required with engine code 1140.Required for Russia.	$197.00
1620	No Hydraulic Pump Disconnect	No Added Cost
	Hydraulic Fan	Field Installed Attachments - Optional
9480	Hydraulic Reversing Fan	$801.00
	JOHN DEERE WORKSIGHT™	
	Machine Connectivity	Basic Factory Options - Required
	Machine connectivity functions require cellular coverage. Usage of JDLink System requires customer's acceptance of the terms of the John Deere Telematics System Contract. Option availability limited by specific geographical regions. Please refer to region specific price pages for appropriate ordering codes.	
1741	No JDLink Ultimate	($1,232.00)
170K	JDLink™ Includes integrated cab wiring harness, antenna, and JDLink Modem (MTG). JDLink connectivity is enabled separately through the JDLink website. Connectivity service is subject to country availability.	No Added Cost
170R	JDLink™ Satellite Includes integrated cab wiring harness, antenna, JDLink Modem's (Cellular MTG & Satellite MTG). JDLink connectivity is enabled separately through the JDLink website. Connectivity service is subject to country availability.	$3,000.00
	BLADE	

Code	Description	QTY	List Price (USD)
	Blade Impact Absorption System		Basic Factory Options - Required
1910	Blade Impact Absorption System Protects Moldboard and draft frame from impacts with Stationary objects		$3,798.00
1920	No Blade Impact Absorption System		No Added Cost
	Moldboards with Dura-Max™ Cutting Edges and End Bits		Basic Factory Options - Required
2010	12 Ft. x 24 In. x 7/8 In. (3.66M x 610mm x 22mm) w/ 6 In. x 5/8 In. (152 x 16mm) Cutting Edge & 5/8 in. (16mm) Hardware		No Added Cost
2020	12 Ft. x 24 In. x 7/8 In. (3.66M x 610mm x 22mm) w/ 8 In. x 3/4 In. (203 x 19mm) Cutting Edge & 5/8 in. (16mm) Hardware		$441.00
2050	14 Ft. x 24 In. x 7/8 In. (4.27M x 610mm x 22mm) w/ 6 In. x 5/8 In. (152 x 16mm) Cutting Edge & 5/8 in. (16mm) Hardware		$1,493.00
2060	14 Ft. x 24 In. x 7/8 In. (4.27M x 610mm x 22mm) w/ 8 In. x 3/4 In. (203 x 19mm) Cutting Edge & 5/8 in. (16mm) Hardware		$1,729.00
2070	14 Ft. x 27 In. x 1 In. (4.27M x 686mm x 25mm) w/ 8 In. x 3/4 In. (203 x 19mm) Cutting Edge & 5/8 in. (16mm) Hardware Requires engine code 1120 or 1140.		$2,202.00
2080	14 Ft. x 27 In. x 1 In. (4.27M x 686mm x 25mm) w/ 8 In. x 3/4 In. (203 x 19mm) Cutting Edge & 3/4 in. (19mm) Hardware Requires engine code 1120 or 1140.		$2,252.00
	CIRCLE		Basic Factory Options - Required
2810	Single Input Gearbox without Slip Clutch		No Added Cost
2820	Single Input Gearbox with Slip Clutch		$3,033.00

Code	Description	QTY	List Price (USD)
	Slip clutch protects circle, circle drive gearbox and draft frame from damage when end of moldboard comes in contact with stationary objects. Slip clutch is integral to the circle drive gearbox assembly and allows the circle frame to rotate, avoiding damage to the machine, when the end of the moldboard comes in contact with an immovable object.		
2830	Heavy Duty Dual Input Gearbox without Slip Clutch Heavy duty dual input gearbox is an industry exclusive and provides significant improvements in circle drive component durability. The heavy duty dual input circle drive gearbox provides comparable circle torque and circle rotate speed as the single input circle drive gearbox. The heavy duty dual input circle drive gearbox will significantly enhance uptime for the customer and is recommended for applications that frequently use the circle rotate function while under heavy load.		$1,735.00
2840	Heavy Duty Dual Input Gearbox with Slip Clutch Heavy duty dual input gearbox is an industry exclusive and provides significant improvements in circle drive component durability. The heavy duty dual input circle drive gearbox provides comparable circle torque and circle rotate speed as the single input circle drive gearbox. The heavy duty dual input circle drive gearbox will significantly enhance uptime for the customer and is recommended for applications that frequently use the circle rotate function while under heavy load. Slip clutch protects circle, circle drive gearbox and draft frame from damage when end of moldboard comes in contact with stationary objects. Slip clutch is integral to the circle drive gearbox assembly and allows the circle frame to rotate, avoiding damage to the machine, when the end of the moldboard comes in contact with an immovable object.		$4,768.00
2850	Premium Circle Replaces the circle gearbox drive and circle with a fully sealed bearing. Customers will benefit from lower operating costs with no wear inserts to replace or maintain over the life of the machine. Maintenance takes just minutes by greasing the bearing every 500 hours. A 40% increase in circle torque and 15% increase in circle speed compared to the traditional gearbox will reduce cycle times and improve productivity. Grade control customers will appreciate the smoothness and tightness of the circle increasing accuracy without having to shim inserts. Included with SmartGrade for the most innovative and effective Grade Control System in the industry. Slip Clutch is included at no additional cost.		$23,000.00
	Moldboard and Circle Additional Equipment	Field Installed Attachments - Optional	
9450	Reversible Overlay End Bits Not available for Russia.		$563.00
9460	Left Hand Moldboard Extension, 2 foot in length By selecting this option, the 2 foot extension is automatically sized (height, thickness and hardware size) to match the moldboard. Requires moldboard code 2060, 2070, 2080 or 2081. Not available with 9465 (right hand moldboard extension) on the same machine. Not available for Russia.		$2,444.00
9465	Right Hand Moldboard Extension, 2 foot in length By selecting this option, the 2 foot extension is automatically sized (height, thickness and hardware size) to match the moldboard. Requires moldboard code 2060, 2070, 2080 or 2081. Not available with 9460 (left hand moldboard extension) on the same machine.		$2,444.00
	ELECTRICAL		

Code	Description	QTY	List Price (USD)
	Alternator		Basic Factory Options - Required
1210	100 amp Alternator Requires engine codes 1111, 1112, 1115 or 1120.		No Added Cost
1220	130 amp Alternator Requires engine code 1111, 1112, 1115 or 1120.		$433.00
1235	130 amp Alternator Requires engine code 1140.		$433.00
1240	Dual 100 Amp Alternators (200 Amp total) Requires engine code 1140.		$1,002.00
	Lighting		Basic Factory Options - Required
	For raised front lights order code 9270 Tall Front Light Bar. All lighting packages include LED turn signals on front frame, LED rear turn signals mounted on rear grille, front and rear LED marker lights, LED brake lights and LED hazard warning lights.		
7110	Transporting Lights (6 Halogen Lights) Includes 2-high and 2-low beam halogen headlights plus 2 - reversing lights on rear grill.		No Added Cost
7130	Grading Lights (10 Halogen Lights) Includes light code 7110 Transporting Lights plus (4) additional work lights (2 - bottom cab, 2 - mid-frame).		$801.00
7160	Deluxe Grading Lights (18 Halogen Lights) Includes light code 7130 Grading Lights plus (8) additional work lights (4 - corner cab, 2 - front cab, and 2 - right-side cab roof).		$1,469.00
7180	Premium Grading Lights (18 LED Lights) Same lighting locations as light code 7160 Deluxe Grading Lights, all Premium Grading Lights are LED.		$4,341.00
	Converter		Basic Factory Options - Required
8110	24-to-12 Volt Converter (15 amps peak / 10 amps continuous)		No Added Cost

Code	Description	QTY	List Price (USD)
8120	24-to-12 Volt Converter (30 amps peak / 25 amps continuous) Recommend code 8120 for additional 12 volt needs, such as business band or CB radios		$494.00
	Lighting	Field Installed Attachments - Optional	
9270	Tall (26in.(660mm) higher than Standard Frame Lights) Front Snow Plow Light Bar Not for use with code 6730 Mid Mount Scarifier.		$373.00
9271	Front & Rear Light Extensions (Non-EU Countries) Includes rear license plate bracket & light		$406.00
9273	Right Side Engine Compartment Work Light		$247.00
9275	License Plate Bracket and Light		$169.00
9276	Front License Plate Bracket Bracket is mounted to the front center of the operator station roof. Does not include a light		$39.00
	Beacon Lighting	Field Installed Attachments - Optional	
9290	Flip Down Cab Beacon Bracket (RH) Order codes 9290 and 9295 for dual beacon brackets.		$166.00
9295	Flip Down Cab Beacon Bracket (LH) Order codes 9290 and 9295 for dual beacon brackets.		$166.00
9298	Beacon with Flip Down Cab Beacon Bracket (RH) Includes beacon and bracket. Order codes 9298 and 9299 for dual beacons.		$714.00
9299	Beacon with Flip Down Cab Beacon Bracket (LH) Includes beacon and bracket. Order codes 9298 and 9299 for dual beacons.		$714.00
	FRONT AND REAR COMPONENTS		

Code	Description	QTY	List Price (USD)
	Front Attachments		Basic Factory Options - Required
6710	Front Push Block 2,950 lbs.		$4,619.00
6720	Front Scarifier Includes Front Hydraulics, plumbing and hoses Scarifier with 2 pitch positions and 9 shank pockets Five 1 x 3 inch Scarifier Shanks w/teeth If additional shanks are desired order (1) each of T6Y5230 Tooth, T114792 Shank and T104223 Retainer for each set. Can not be used with 6550 Hydraulics.		$9,959.00
6730	Mid-Mount Scarifier with Integrated Front Push Plate Requires hydraulic code 6525 or 6526 Mid-Mount Scarifier with Push Block Can not be used with Front Scarifier. Not for use with Front Fenders Code 7810. Recommend Rear Counterweight for better machine balance.		$17,754.00
6740	Balderson Style Front Lift Group Requires hydraulic code 6520, 6530, 6540, 6560, 6580, 6585, 6590, or 6595. (2) AT367896 Mating Hooks from Parts are available to convert old front attachments to the Bladerson-style lift group.		$8,445.00
6750	Less Front Attachment		No Added Cost
6770	Front-Mounted Dozer Blade, 97 in. x 37.6 in. (2464 mm x 955 mm) Requires hydraulic controls on the right side with a minimum 1 front auxillary function. Requires 14.0 24 or 14.0 R24 tires		$10,882.00
6780	Front-Mounted Dozer Blade, 105 in. x 37.6 in. (2667 mm x 955 mm) Requires hydraulic controls on the right side with a minimum 1 front auxillary function. Requires 14.0 24, 14.0 R24, 17.5 25, or 17.5 R 25 tires.		$11,086.00
	Rear Attachments		Basic Factory Options - Required
6810	Rear Mounted Ripper/Scarifier Combination with Rear Hitch and Pin Includes Rear mounted Ripper/Scarifier with rear hitch and pin. NeverGrease Pin Joints. Three 2 x 5 in. Ripper Shanks w/teeth. Does not include Scarifier Shanks w/teeth (offered in code 9430: (9) Extra Scarifier Shanks w/Teeth For Rear Ripper/Scarifier) Can not be used with codes 6550, 6560 or 6610. Recommend Front Push Block (or other front equipment) for proper weight distribution and performance.		$19,596.00
6820	Rear Counterweight with Rear Hitch and Pin		$2,922.00

Code	Description	QTY	List Price (USD)
	1600 lbs.(725.7 kg.) Rear Counterweight. Recommend for use with Front / Mid Scarifier.		
6830	Rear Hitch and Pin Not for use with Rear Ripper/Scarifier.		$564.00
6850	No Rear Attachment		No Added Cost
	Scarifier and Ripper Attachments	Field Installed Attachments - Optional	
9430	(9) Extra Scarifier Shanks w/Teeth For Rear Ripper/Scarifier Requires Code 6810 Ripper/Scarifier.		$1,600.00
9440	(2) Extra Ripper Shanks w/Teeth For Rear Ripper/Scarifier Requires Code 6810 Ripper/Scarifier.		$1,350.00
	SAFETY		
	Fire Extinguisher	Field Installed Attachments - Optional	
9220	5.0 lbs. multi purpose (ABC) Dry Chemical Fire Extinguisher		$137.00
	Signs	Field Installed Attachments - Optional	
9280	Slow Moving Vehicle (SMV) Sign		$90.00
	Miscellaneous	Field Installed Attachments - Optional	
9625	Secondary Steering (EU)		$4,969.00

Code	Description	QTY	List Price (USD)
9630	Secondary Steering		$4,541.00
9820	Wheel Chocks		$694.00
	TRANSMISSION		
	Transmission		Basic Factory Options - Required
5510	Autoshift Transmission		$1,968.00
5515	Autoshift Plus Transmission Auto-Shift Plus allows operators to seamlessly transition from a stop to full speed without shifting or using the inching pedal. This is achieved by modulating the torque through the transmission, instead of the transmission acting as a direct drive.		$3,150.00
5520	Manual Shift Transmission (no Autoshift)		No Added Cost
	Transmission Solenoid Guard		Basic Factory Options - Required
5710	Transmission Solenoid Valve Guard Required with engine code 1140. Required for Russia. Recommended for snow plowing applications		$224.00
5720	NO Transmission Solenoid Valve Guard		No Added Cost
	WHEELS/TIRES/TRACKS		
	Wheels and Tires		Basic Factory Options - Required
	Tire selection should be made with consideration for the machine weight and all planned attachments (OEM and aftermarket). Each tire has a maximum load rating that is not to be exceeded. Failure to abide by the load ratings of the tires without first consulting the local tire supplier could result in nullification of the tire warranty. Max load rating is shown next to each tire size and type below Each selection includes a set of 6 tire/rim assemblies.		

NOTE: If a No Brand Preference code is selected a 9000 code in the Attachment- Order as Desired section will automatically be selected as well. This is required to enable the factory to source this order.
All Tires are tubeless unless stated differently.
All wheels on 6WD models are 3 piece rims.

Bias Ply:
13.0-24 12 ply tire, maximum per tire load 6000 lbs.
14.0-24 12 ply tire, maximum per tire load 6800 lbs.
17.5-25 12 ply tire, maximum per tire load 6400 lbs.

13.0-24 16 ply tire, maximum per tire load 7160 lbs.
14.0-24 16 ply tire, maximum per tire load 8040 lbs.
17.5-25 16 ply tire, maximum per tire load 7380 lbs.

Radial:
14.0R24 radial tire, maximum per tire load 8050 lbs.
17.5R25 radial tire, maximum per tire load 8048 lbs.
20.5R25 radial tire, maximum per tire load 10,200 lbs.
550/65R25 radial tire maximum per tire load 10,055 lbs.
Radial Tires: Recommended for puncture resistance, fuel economy and increased traction.

	14.0-24 16 PR G2 Bias Tires With 1 Piece Rims	
4315	Firestone SGG	$17,065.00
	14.0-24 16 PR G2 Bias Tires With 3 Piece Rims	
4316	Firestone SGG	$19,166.00
	14.0R24 G2/L2 Single Star Radial Tires With 1 Piece Rims	
4917	No Brand Preference	$20,948.00
4411	Michelin XGLA2	$23,423.00
4412	Bridgestone VUT	$22,132.00

Code	Description	QTY	List Price (USD)
	14.0R24 G2/L2 Single Star Radial Snow Tires With 1 Piece Rims		
4915	No Brand Preference		$26,587.00
4421	Michelin SnoPlus		$28,469.00
4422	Bridgestone Snow Wedge		$27,771.00
	14.0R24 G2/L2 Single Star Radial Tires With 3 Piece Rims		
4918	No Brand Preference		$23,261.00
4415	Bridgestone VKT		$25,193.00
4416	Michelin XGLA2		$25,726.00
4417	Bridgestone VUT		$24,439.00
	14.0R24 G2/L2 Single Star Radial Snow Tires With 3 Piece Rims		
4916	No Brand Preference		$28,869.00
4426	Michelin SnoPlus		$30,742.00
4427	Bridgestone Snow Wedge		$30,048.00

Code	Description	QTY	List Price (USD)
	17.5-25 16 PR G2/L2 Bias Tires With 1 Piece Rims		
4515	Firestone SGG		$21,313.00
	17.5-25 16 PR G2/L2 Bias Tires With 3 Piece Rims		
4516	Firestone SGG		$23,390.00
	17.5R25 L2 Single Star Radial Tires With 1 Piece Rims		
4923	No Brand Preference		$22,278.00
4611	Michelin XTLA		$27,189.00
4612	Bridgestone VUT		$25,451.00
	17.5R25 L2 Single Star Radial Tires With 3 Piece Rims		
4924	No Brand Preference		$26,175.00
4615	Bridgestone VKT		$28,991.00
4616	Michelin XTLA		$30,058.00

Code	Description	QTY	List Price (USD)
4617	Bridgestone VUT		$28,330.00
	17.5R25 G3/L3 Single Star Radial Tires With 1 Piece Rims		
	17.5R25 G3/L3 Single Star Radial Tires With 3 Piece Rims		
4626	Michelin XHA2		$33,800.00
	17.5R25 G2/L2 Single Star Radial Tires With 1 Piece Rims		
4631	Michelin SnoPlus		$31,974.00
4632	Bridgestone Snow Wedge		$29,952.00
4919	No Brand Preference		$28,773.00
	17.5R25 G2/L2 Single Star Radial Tires With 3 Piece Rims		
4636	Michelin SnoPlus		$35,445.00
4637	Bridgestone Snow Wedge		$33,420.00
4920	No Brand Preference		$32,243.00

Code	Description	QTY	List Price (USD)
	LESS WHEELS AND TIRES		
4000	Less Tires & Wheels Not available for Russia.		No Added Cost
	Fenders		Basic Factory Options - Required
7810	Front Fenders		$2,271.00
7820	No Front Fenders		No Added Cost
	Wheels and Tires		Field Installed Attachments - Optional
9415	Spare Tire and Rim - 14.0R24 BRIDGESTONE VUT SINGLE STAR RADIAL TIRE W/3 PC RIM Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine		$3,148.00
9416	Spare Tire and Rim - 14.0R24 Michelin XGLA2 Single Star Radial Tire With 3 Piece Rim Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine.		$3,447.00
9425	Spare Tire and Rim - 14.0R24 BRIDGESTONE SNOW WEDGE SINGLE STAR RADIAL SNOW TIRE W/3 PC RIM Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine		$3,796.00
9426	Spare Tire and Rim - 14.0R24 Michelin SnoPlus Single Star Radial Snow Tire With 3 Piece Rim Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine.		$4,132.00
9615	Spare Tire and Rim - 17.5R25 BRIDGESTONE VUT SINGLE STAR RADIAL TIRE W/3 PC RIM Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine		$3,626.00
9616	Spare Tire and Rim - 17.5R25 Michelin XTLA Single Star Radial Tire With 3 Piece Rim		$4,099.00

Code	Description	QTY	List Price (USD)
	Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine.		
9635	Spare Tire and Rim - 17.5R25 BRIDGESTONE SNOW WEDGE SINGLE STAR RADIAL SNOW TIRE W/3 PC RIM Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine		$4,274.00
9636	Spare Tire and Rim - 17.5R25 Michelin SnoPlus Single Star Radial Snow Tire With 3 Piece Rim Fits both tandem and 6WD machines, front and rear. Not ideal for 6WD performance if used as a front tire due to rim offset but will work as a temporary. Tire is NOT attached to the grader. Limit 1 per machine.		$4,775.00
9715	14.0R24 G2/L2 1 STAR SNOW NO BRAND PREFERRED WITH 1PC RIM		No Added Cost
9716	14.0R24 G2/L2 1 STAR SNOW NO BRAND PREFERRED WITH 3PC RIM		No Added Cost
9717	14.0R24 G2/L2 1 STAR NO BRAND PREFERRED WITH 1PC RIM		No Added Cost
9718	14.0R24 G2/L2 1 STAR NO BRAND PREFERRED WITH 3PC RIM		No Added Cost
9719	17.5R25 G2/L2 1 STAR SNOW NO BRAND PREFERRED WITH 1PC RIM		No Added Cost
9720	17.5R25 G2/L2 1 STAR SNOW NO BRAND PREFERRED WITH 3PC RIM		No Added Cost
9723	17.5R25 L2 1 STAR NO BRAND PREFERRED WITH 1PC RIM		No Added Cost
9724	17.5R25 L2 1 STAR NO BRAND PREFERRED WITH 3PC RIM		No Added Cost
	Fenders	Field Installed Attachments - Optional	
9005	Rear Wheel Fenders 18.75 in.(476mm) Rear Wheel Fenders Fenders are not for use with 550 tires. Fenders can only be used with chains that are designed for 3" of radial clearance and 1.75" of sidewall clearance.		$3,708.00

Code	Description	QTY	List Price (USD)

Use of Tire chains permitted in accordance with SAE J683, and requires removal of front mud flap on rear fenders.

DESTINATION AND LANGUAGE

Operator's Manual and Decals — Basic Factory Options - Required

2605	English Manual W/ English Labels & Decals	No Added Cost
2610	Spanish Manual W/ Spanish Labels & Decals	No Added Cost
2615	French Manual W/ French Labels & Decals	No Added Cost
2620	Russian Manual W/ No Text Labels & Decals Required for Russia.	No Added Cost
2625	Portuguese Manual W/ No Text Labels & Decals	No Added Cost
2635	English Manual W/ No Text Labels & Decals	No Added Cost

Operator's Manual and Decals — Field Installed Attachments - Optional

9330	Finish Paint Less Decals For use when custom paint is required Decals packaged with machine.Some decals installed.	No Added Cost

MISCELLANEOUS

Overall Vehicle — Field Installed Attachments - Optional

BYT10416	Front Wheel Fenders - 4WD	$2,224.00

Code	Description	QTY	List Price (USD)
	18.75 in.(476mm) Front Wheel Fenders Not for use with 550 Tires. Use of Tire chains permitted in accordance with SAE J683. S/N 678818 and after.		
AT367585	Secondary Steering - S2, T3, iT4 Average installation, 12.0 hours. S/N 678817 and before.		$2,312.00
AT370909	Slow Moving Vehicle Emblem for all T3, IT4 and FT4 Machines		$104.00
BYT10458	RH Beacon Bracket		$166.00
AT400762	Rear Wheel Fenders 18.75 in.(476mm) Rear Wheel Fenders Fenders are not for use with 550 tires. Fenders are not recommended for use with tires chains and are designed for a maximum of 3" of radial clearance and 1.75" of sidewall clearance. Use of Tire chains is permitted in accordance with SAE J683.		$5,420.00
BYT10457	Heated Mirror		$208.00
AT408630	Beacon Strobe kit Light Only		$242.00
AT345815	Front Wheel Fenders 18.75 in.(476mm) Front Wheel Fenders Not for use with 550 Tires. Use of Tire chains permitted in accordance with SAE J683. S/N 678817 and before.		$1,822.00
BYT10459	LH Beacon Bracket		$166.00
AT399788	Single LED work light with high beam lens Replacement for both 12V & 24V work and drive lamps.		$434.00
AT399789	Single LED work light with symmetric lens Replacement for both 12V & 24V work and drive lamps.		$434.00
BYT11475	Secondary Steering Field Kit - FT4, S5 Compatible with all Stage 5 units and FT4 serial number: 706229 +. Please order/download AT514472 Software from JD Point.		$2,312.00
BYT12858	Air Compressor Field Kit - S2, T3 with Installation		$8,580.00

Code	Description	QTY	List Price (USD)
	S2/T3 serial number: 693169 – current. Includes Installation by Paladin Custom Works Requires AT542931 software ordered through JDPoint.		
BYT12247	Air Compressor Field Kit - S2, T3 S2/T3 serial number: 693169 - current Parts only. Does not include installation. For parts & installation see BYT12858		$4,070.00
BYT12165	Secondary Steering Field Kit - FT4 FT4 serial number: 678818 - 706228 (average installation, 12.0 hours)		$2,312.00
BYT12158	Secondary Steering Field Kit - S2, T3 S2/T3 serial number: 678818 - 706228 (average installation, 12.0 hours)		$2,312.00
AT542931	S2/T3 Air Compressor Field Kit Software (JDPoint Service Part)		See Parts
	Operator Environment	Field Installed Attachments - Optional	
AT439193	Rear Camera Field Kit (S2/T3) S/N 678817 and before.		$2,617.00
BYT10358	Fingertip Control to Dual Joystick Conversion Kit S/N 678818 and after		$5,576.00
BYT10357	Dual Joystick to Fingertip Control Conversion Kit S/N 678818 and after		$5,576.00
BYT10340	Secondary Monitor Mounting Field Kit This bracket is required to move the monitor to the RH door post when a customer adds (IGC) Integrated Grade Control. S/N 678818 and after.		$111.00
BYT10366	GP Armrest Extension Field Kit Extends GP armrests up 100 MM forward. Widens armrests up to 20 mm each side.		$313.00
BYT10509	Slope Meter Field Kit For G models only, not compatible with GP. Requires code 1010.		$52.00
AT411106	Premium AM/FM Radio with Bluetooth, Aux, Weather Band (WB), and XM Ready		$1,535.00

Code	Description	QTY	List Price (USD)
	Moldboard & Circle		Field Installed Attachments - Optional
AT307731	Moldboard Extension, 24 x 24 x 5/8 In. Right Hand 5/8 in. (16mm) thick Includes 5/8 in. (17mm) Hardware) Cutting Edge is not included. - Also available for D-series machines		$2,726.00
AT307730	Moldboard Extension, 24 X 24 x 5/8 in. Left Hand 5/8 in. (16mm) thick. Includes 5/8 in. (17mm) Hardware Cutting Edge is not included. - Also available for D-series machines		$2,726.00
AT341306	Moldboard Extension, 27X 24 X 5/8 In. Left Hand 5/8 in. (16mm) thick Includes 3/4 in. (19mm) Hardware Cutting Edge is not included.		$2,726.00
AT307732	Moldboard Extension, 27 X 24 X 5/8 In. Left Hand 5/8 in. (16mm) thick Includes 5/8 in. (17mm) Hardware Cutting Edge is not included.		$2,726.00
AT307733	Moldboard Extension, 27 X 24 X 5/8 In. Right Hand 5/8 in. (16mm) thick Includes 5/8 in. (17mm) Hardware. Cutting Edge is not included.		$2,726.00
AT341307	Moldboard Extension, 27 X 24 X 5/8 In. Right Hand 5/8 in. (16mm) thick Includes 3/4 in. (19mm) Hardware Cutting Edge is not included.		$2,726.00
BYT10145	Dual Input Circle Drive Gearbox (with Slip Clutch) for Grade Pro Controls Protects circle, circle drive gearbox and draft frame from damage when end of moldboard comes in contact with stationary objects. Slip clutch is integral to the circle drive assembly and utilizes a wet clutch system. Cannot be used with code 2220 inserts. For use with G-series (code 1020 OR 1030 "Grade Pro" Electro Hydraulic Controls).		$7,129.00
BYT12036	Dual Circle Drive Kit		$5,887.00
BYT12180	GP Blade Impact - Field Kit		$3,827.00
BYT12181	GX Blade Impact - Field Kit		$4,155.00

Code	Description	QTY	List Price (USD)
	Powertrain	Field Installed Attachments - Optional	
BYT10514	Severe Duty Fuel Filter & Water Filtration kit FT4 - 9L Final Tier 4, 9.0L engines only US, Canada, Puerto Rico, Guam		$615.00
BYT12426	FT4/S5 Auto Shift Plus - Field Kit Please visit JD Point to order software AT524675		$198.00
BYT12427	S2/T3 Auto Shift Plus - Field Kit Please visit JD Point to order software AT524675		$198.00
AT524675	Auto Shift Plus (JDPoint Service Part) Auto-shift Plus allows operators to seamlessly transition from a stop to full speed without shifting or using the inching pedal. This is achieved by modulating the torque through the transmission, instead of the transmission acting as a direct drive. Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT12224 available through online Bookstore. Suggested list price only.		$3,180.00
AT431337	Autoshift Transmission Field Kit See JDPoint for pricing		$1,986.44
	Hydraulics	Field Installed Attachments - Optional	
BYT12182	5 Function valve section and linkage Left Kit Includes detented float. Installation instructions T213708		$974.00
BYT12185	7 Function valve section and linkage Left Kit		$843.00
BYT12184	6 Function valve section and linkage Left Kit		$937.00
BYT12192	7 Function valve section and linkage Right Kit		$843.00
BYT12183	Grade Pro EH Controls Hydraulics Auxiliary Section		$1,702.00

Code	Description	QTY	List Price (USD)
	For only Grade Pro G-Series Graders. Requires mini joystick and or dual control levers.		
BYT12191	6 Function valve section and linkage Right Kit		$1,205.00
BYT12189	5 Function valve section and linkage Right Kit Includes detented float. Installation instructions T213708		$1,199.00
BYT12190	One Hand Blade Lift with Control Valve Kit To convert two-handed blade lift controls to one-handed controls on the right side, when the machine is NOT already equipped with a RH 5th function valve. Installation instructions T213709.		$1,137.00
	Rear Attachments	Field Installed Attachments - Optional	
AT415551	Rear Scarifier Shanks (9) Includes nine (9) each of shanks, retainers, and holders.		$1,295.00
AT339398	Rear Hitch and Pin		$666.00
BYT10801	Rear Mounted Ripper/Scarifier Combination Rear Mounted Ripper/Scarifier Combination Includes rear mounted ripper/scarifier with rear hitch and pin, three 2 x 5 inch ripper shanks, cylinders and hoses for rear ripper/scarifier. When not equipped with front mounted equipment, requires ripper hydraulics. Cannot be used with rear hitch. Requires 5th section valve code 6620 or order AT458173. Average installation, 8 hours.		$11,706.00
	Grade Control	Field Installed Attachments - Optional	
BYT10506	TopCon Grade Control Ready Installed for G models, JRB or Paladin Installed G (antler rack) machines only (requires code 1010). Includes installation of parallel EH valves.		$22,613.00
BYT10476	Trimble Grade Control Ready Installed for G Models, JRB or Paladin Installed G(Antler Rack) machines only. Includes installation of parallel EH valves.		$22,613.00
AT497134	Software, Auto Articulation (JDPoint Service Part) Requires code 1020 or 1030. Automatically articulate the grader when steering the front wheels. Can be turned on and off by the SSM. Can be operated in forward only or forward and reverse. S/N 693168 and newer Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT11065 available through online Bookstore.		$2,157.10

Suggested list price only.

AT497136	Software, Automation Suite (JDPoint Service Part) Requires code 1020 or 1030 Includes Auto-Articulation, Auto-Pass, Blade Flip and Machine Preset. S/N 693168 and newer Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT11067 available through online Bookstore Suggested list price only.	$5,500.00
AT524673	Software, Auto Pass (JDPoint Service Part) Auto Pass reduces operator input of repetitive functions at the beginning and end of grading passes and is programmable through the monitor. Beginning of pass options include: lowering the blade to a pre-determined elevation and enabling SmartGrade automatically (if equipped). End of pass options include: raising the blade, automatically engaging blade flip (if equipped) to rotate the blade to a pre-determined angle, and stowing the ripper. Joystick controls enable beginning of pass and end of pass capabilities. Fingertip controls enable beginning of pass capabilities only. Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT12214 available through online Bookstore. Suggested list price only.	$1,617.56
AT497132	Software, Blade Flip (JDPoint Service Part) Requires code 1020 or 1030. Enables the operator to automatically circle the blade to a preset angle by double tapping the circle rotate control. S/N 693168 and newer. Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT11064 available through online Bookstore. Suggested list price only.	$1,617.56
AT524674	Software, Machine Damage Avoidance (JDPoint Service Part) Requires code 1020 or 1030 Prevents the moldboard from contacting the tires, cab and cab steps. In addition, prevents the saddle linkage from contacting the top of the draft frame. Operator can override as needed. S/N 693168 and newer. Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT12216 available through online Bookstore Suggested list price only.	$6,000.00
AT497135	Software, Machine Presets (JDPoint Service Part) Requires code 1020 or 1030. Single button on the SSM activates multiple functions (Return-to-Straight, Auto-shift, lights, etc.). Configurable in monitor. Now includes auto Blade Stow. S/N 693168 and newer. Note: This software can only be purchased through JDPoint. For installation instructions refer to BYT11066 available through online Bookstore. Suggested list price only.	$1,617.56

Front Attachments — Field Installed Attachments - Optional

AT363681	Front Push Block	$5,694.00

Code	Description	QTY	List Price (USD)
	2,950 lbs.		
BYT12161	Mid Scarifier - Field Kit		$17,813.00
BYT12159	Front Scarifier - Field Kit		$9,558.00
BYT12160	Front Balderson-Style Lift - Field Kit		$8,150.00
BYT12162	Front Dozer Blade - Field Kit		$10,445.00
BYT12163	Front Larger Dozer Blade - Field Kit		$10,638.00

Manufacturer's Suggested List Price shown. Retail prices may vary by dealer. Unless stated otherwise, taxes, freight, setup, delivery and other dealer specific charges not included in the pricing. Options/items noted with anything other than price will have additional costs. Pricing, availability, and specifications subject to change without notice. Special program pricing may be available on certain models. See dealer for details. Prices shown are in U.S. dollars and valid only in the U.S.

JOHN DEERE

STANDARD WARRANTY FOR NEW JOHN DEERE CONSTRUCTION, COMPACT CONSTRUCTION (CCE) FORESTRY, AND UTILITY PRODUCTS – US & CANADA

- **Construction & Forestry Products:** 12 months/unlimited hours (whichever occurs first) Full Machine Standard Warranty
- **Compact Construction Equipment (CCE) Products:** 24 months or 2000 hours (whichever occurs first) Full Machine Standard Warranty
- **C&E Series Pull-Type Scrapers:** 6 months Full Machine Standard Warranty
- **DC & DE Pull-Type Scrapers**: 12 months Full Machine Standard Warranty
- **Scraper Tractors:** 24 Months or 2000 Hours (whichever occurs first) Full Machine Standard Warranty
- **Forestry Attachments:** 12 Months or 2000 Hours (whichever occurs first) Full Machine Standard Warranty

The "Standard Warranty" is part of the warranty protection package available from John Deere Construction & Forestry Company (John Deere Limited in Canada) ("John Deere") to purchasers of new John Deere products ("product"):

STANDARD Warranty is John Deere's standard new product warranty, described in this document, provided at no additional charge to the purchaser.

EXTENDED Warranty is a separate repair contract made available by John Deere for purchasers who wish to complement their Standard Warranty coverage. Complete Extended Warranty details, including coverage options and limitations, are set forth in the Application for Extended Warranty, which is available from authorized John Deere dealers.

STRUCTURALL Warranty applies to certain structural components as listed below and as described in this document.

FACTORY-INSTALLED UNDERCARRIAGE Warranty applies to certain undercarriage components as listed below and as described in this document.

A. STANDARD WARRANTY - GENERAL PROVISIONS

John Deere will repair or replace, at its option, any parts (except those specified below) of a new John Deere product that, as delivered to the original retail purchaser(s), are defective in material or workmanship. Performance of this warranty will be free of charge for parts and labor, except as otherwise stated below. Standard Warranty applies only to purchases from John Deere and authorized John Deere dealers and, except as otherwise provided in the next sentence and section L below, is extended only to the original retail purchaser of the product. Remaining Standard Warranty applicable to a used John Deere product is transferred to a subsequent purchaser of the product only if the subsequent purchaser requests a transfer from an authorized John Deere dealer before the product's Standard Warranty expires. Coverage begins on the date of delivery of the product to the original retail purchaser. For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. Warranty statements required by law covering engine emissions-related parts and components are found on a separate written warranty certificate provided to the purchaser at the time of the original retail purchase.

B. WHAT IS COVERED BY STANDARD WARRANTY

All parts of a new John Deere product (except those noted in Sections D and E below) are covered during the Standard Warranty period set out above.

C. EXCLUSIVE REMEDY

The repair or replacement of covered parts or components that are defective, as provided in Sections A, B, D.2 and D.3 herein, shall be the purchaser's exclusive remedy for any defect in the product. However, if after repeated attempts such repair or replacement fails to correct the performance problem caused by the defect, the purchaser's sole remedy shall be a refund of the amount paid for the product (in exchange for a return of the product), excluding any transportation charges, license fees, taxes and insurance premiums, and less a reasonable allowance for use of the product prior to its return. In no event will the dealer, John Deere or any company affiliated with John Deere be liable for any incidental or consequential damages, including but not limited to loss of profits, rental of substitute equipment or other commercial loss. Correction of defects in the manner provided above shall constitute fulfillment of

all liabilities of the Dealer, John Deere, or any company affiliated with John Deere to the purchaser or any other person, whether based upon contract, tort, strict liability, or otherwise. This limitation does not apply to claims for personal injury.

D. ITEMS COVERED SEPARATELY -

1. Standard Warranty does not apply to batteries, radios, tires, cameras, or to Cummins, MTU or Detroit Diesel Engines installed in John Deere products, which are covered by separate written warranties.
2. Factory-Installed Undercarriage Warranty covers all non-rubberized factory-installed undercarriage wear components for 3 years or 4,000 hours from the date of delivery to the original retail purchaser, whichever occurs first (unless terminated earlier under Section F, below). For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. In addition to the items listed in section E below, Factory-Installed Undercarriage Warranty does not cover: failures due to wear, machine application, maintenance practices, or improper machine configuration; removal and installation labor; transportation or hauling costs; unapproved parts; non-wear items; and rubberized undercarriage components such as rubber tracks. Warranty claims will be pro-rated based upon wear of the failed component and whether track shoe width is approved by John Deere. Factory-Installed Undercarriage Warranty does not apply to Scraper Tractors.
3. StructurALL Warranty for new John Deere Products (except Compact Excavators & Loaders, Skid-Steer Loaders, Compact Track Loaders, Scraper Tractors, Pull-Type Scrapers, and Forestry Attachments, which are not eligible for StructurALL Warranty) begins at the date of delivery to the original retail purchaser and ends (unless terminated earlier under Section F, below) after three (3) years, or 10,000 hours (whichever occurs first). For purposes of this warranty, a product that has been rented, used for demonstration purposes for 150 or more hours, or otherwise used prior to its original retail purchase has been "used" for the total duration of such use. **StructurALL Warranty applies only to the following structural components listed below as installed on the product at the time of original manufacture.** If a particular component is not listed below it is not covered by StructurALL Warranty.

   Arm; Articulation Joint (incl. pins & bushings); Bin Frame; Boom; Carbody; C-Frame*; Circle Frame; Coupler (John Deere built ONLY); Dipperstick; Draft Frame; Engine Frame; Equipment Frame; Grapple Arch and Grapple Boom; Loader Arm; Loader Frame; Mainframe; Moldboard Lift Arm; Pushbeam, NeverGrease™ Pin Joints [Includes steering pin and bushing joints (standard equipment), roller elements (roller bearings) in bucket to boom joints and sliding elements (bushing) for boom and linkage joints (optional equipment)]; Rollover Protection Structure (ROPS); Side Frame; Swing Frame; Track Frame; Undercarriage Frame; X-Frame; Z-bar loader linkage (including bell crank and bucket driver link); Specialty booms and arms marketed as "heavy duty" by John Deere.

   Items Covered by StructurALL for Cut-to-Length Forestry Machines: Front frame (welded assembly); Rear frame (welded assembly); Crane king post with basement; Middle joint frame; Cabin swing frame; Main Boom

   StructurALL Warranty does not apply to:
   1. Any product used primarily in extreme duty or severe duty applications such as but not limited to: demolition and wrecking, chemical plant (including fertilizer plants), salt mines, steel mill, land fill and transfer stations, scrap handling, scarifying and other applications that are similarly destructive or similarly heavy duty except specialty booms and arms as stated in Section D.3 above.
   2. C-Frames on Crawlers equipped with root rakes or used in forestry applications unless equipped with an "extreme duty" reinforcement package.
   3. Cut-to-Length Forestry Heads and Slash Bundler Units.
   4. Crawlers equipped with optional side booms.
   5. Cut-to-Length Forestry, Excavator, and Log Loader swing bearings.
   6. Motor Graders equipped with front- or rear-mounted snow wings.

E. ITEMS NOT COVERED -

John Deere is NOT responsible for the following:

1. Freight.
2. Adjustments to compensate for wear, for periodic maintenance or adjustments that result from normal wear and tear.
3. Damage caused by unapproved adjustments (electronic or mechanical) to machine or machine components outside of published specifications including but not limited to engine, hydraulic components and relief valves.
4. Program updates, calibrations, and pressure adjustments.
5. Additional Labor Time - Above Dealer Labor Rate.
6. Additional Cleaning - Above Dealer Labor Rate.
7. Rental Fees.
8. Depreciation or damage caused by normal wear or application, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, lack of proper protection during storage, vandalism, negligence, collision, expenses to seek reinstatement of warranty following theft or loss of Product, or other accidents.
9. Premiums charged for Overtime Labor.
10. Transportation to and from the dealership.
11. Travel time, mileage, or service calls by the dealer.
12. Non-John Deere components or modifications, Rotobec grapples, and attachments installed aftermarket.
13. Shop supplies and maintenance items such as, but not limited to: filters, fuels, oil, hydraulic fluid, lubricants, coolants, conditioners, shop towels, cleaners and degreasers.
14. Torn, cut, or worn hoses.
15. Wear items, such as, but not limited to: body liner, belts, blades, bulbs, lubricated joints (including pins and bushings), dry brakes, brake linings, dry clutch linings, saw blades, chains, skidder grapple shocks, color marking nozzles, and articulation bumpers.
16. Items such as cutting-edge parts, delimbing knives, bucket teeth and rubber track are not warranted for depreciation or damage caused by normal wear, lack of proper maintenance, misuse, failure to follow operating instructions, the elements or accident.
17. Any defect in a non-covered component, or damage to or failure of a covered component caused by a defect in a non-covered component.
18. Secondary damage which occurs from continued operation of a product after recognition of the occurrence of a failure.
19. Parts supplied by or repairs, maintenance or modifications performed by someone other than an authorized John Deere dealer, including any damage caused by such use of parts, repairs, maintenance, or modifications not performed by an authorized John Deere dealer.
20. The use of "track type" tire chains on Feller Bunchers and Skidders is an unapproved modification. Warranty will be void on these machines using "track type" tire chains.
21. Topping off fluids when fluid levels fall in the range between low and full
22. Parts/Kits not ordered on machine and installed aftermarket. These parts will be covered by any applicable parts warranty.
23. Attachments installed aftermarket – i.e., Winch not installed at factory.
24. Custom options installed outside the factory – i.e., G.R. Manufacturing option packages.
25. Used Products (except as otherwise provided in section L below).
26. Lost or stolen Products.

F. TERMINATION OF WARRANTY-

John Deere is relieved of its obligations under Standard Warranty, StructurALL Warranty, Factory-Installed Undercarriage Warranty and/or Extended Warranty if:

1. The product is modified or altered in ways not approved by John Deere; or
2. Any unapproved or improperly sized attachment is installed on the product. Approval and attachment size shall be at John Deere's sole discretion. (Consult dealer prior to installing attachments or product modification).
3. The product is moved outside the US and/or Canada.

G. PARTS REPLACED UNDER WARRANTY -

Only new or remanufactured parts or components furnished or approved by John Deere, will be used if John Deere elects to repair the product. If any such part or component is defective in material or workmanship when installed in the product, John Deere will repair or replace, as it elects, such defective part or component, provided the defect is reported to an authorized John Deere dealer within 90 days of installation or before expiration of the applicable Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty whichever is later.

H. TELEMATICS

NOTICE: Products may be equipped with telematics hardware and software ("Telematics") that transmit data to John Deere/ Dealer. Purchaser may deactivate Telematics at www.jdlink.com.

Notwithstanding Purchaser's right, title or interest in the Products, Purchaser agrees that John Deere and Dealer (their affiliates, successors and assigns), without further notice to Purchaser have the right to:

1. Access, use, collect and disclose any data generated by, collected by, or stored in, Products or any hardware or devices interfacing with Products ("Machine Data");
2. Access Machine Data directly through data reporting devices integrated within, or attached to, Products, including Telematics ("Data Reporting Systems"); and
3. Update the Data Reporting Systems software from time to time. Machine Data will only be used in accordance with John Deere's Machine Data Policy, located at www.JohnDeere.com/MachineDataPolicy.

I. OBTAINING WARRANTY SERVICE -

To obtain warranty service, the purchaser must request warranty service from a John Deere dealer authorized to sell the product to be serviced. When making such a request, the purchaser must present evidence of the product's delivery date, make the product available at the dealer's place of business, and inform the dealer in what way the purchaser believes the product to be defective. Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty repairs may be made in the field if the purchaser and servicing dealer so desire. However, John Deere will not be responsible for any charges (such as dealer travel time, mileage or extra labor) that would not have been incurred had the product been repaired at the dealer's place of business.

J. NO IMPLIED WARRANTY, CONDITIONS OR OTHER REPRESENTATION -

Where permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations, conditions or promises, express or implied, as to the quality, performance, or freedom from defect of its products, other than those set forth in this document and **NO IMPLIED WARRANTY OF MERCHANTABILITY, CONDITIONS OR FITNESS IS MADE.**

K. NO DEALER WARRANTY -

The selling dealer makes no warranty of its own on any item covered by this warranty and makes no warranty on other items unless the dealer delivers to the purchaser a separate written warranty certificate specifically warranting the item. **The dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.**

L. USED JOHN DEERE PRODUCTS ONLY -

John Deere will transfer remaining Standard Warranty, Factory-Installed Undercarriage Warranty and/or StructurALL Warranty to the purchaser of a used John Deere construction and/or forestry product that has been used for less than the full warranty period provided at the product's original retail purchase. This transfer is not effective until change of ownership is registered by a John Deere dealer. **ALL THE TERMS, INLCUDING LIMITATIONS AND EXCLUSIONS, OF THE JOHN DEERE STANDARD WARRANTY, FACTORY-INSTALLED UNDERCARRIAGE WARRANTY, AND/OR STRUCTURALL WARRANTY ORIGINALLY PROVIDED FOR THE PRODUCT REMAIN IN EFFECT AND APPLICABLE.**

E-Verify

Company ID Number: 513478

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and **Warrior Tractor & Equipment Co., Inc.** (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts or to verify the entire workforce if the contractor so chooses.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.

2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.

3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed

E-Verify

Company ID Number: 513478

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

Employer Warrior Tractor & Equipment Co., Inc. Stanley McCracken	
Name (Please Type or Print) *Electronically Signed*	Title 03/01/2012
Signature	Date
Department of Homeland Security – Verification Division **USCIS Verification Division**	
Name (Please Type or Print) **Electronically Signed**	Title **03/01/2012**
Signature	Date

Information Required for the E-Verify Program

Information relating to your Company:

Company Name:	**Warrior Tractor & Equipment Co., Inc.**
Company Facility Address:	**6801 McFarland Blvd**
	Northport, AL 35476
Company Alternate Address:	**P O Box 412**
	Northport, AL 35476
County or Parish:	**TUSCALOOSA**
Employer Identification Number:	**630588737**

E-Verify

Company ID Number: 513478

North American Industry Classification Systems Code:	423
Administrator:	Warrior Tractor and Equipment Co., Inc.
Number of Employees:	100 to 499
Number of Sites Verified for:	1

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

- ALABAMA 1 site(s)

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	**Stanley N McCracken**		
Telephone Number:	**(205) 339 - 0300**	Fax Number:	**(205) 333 - 0101**
E-mail Address:	**wte024@warriortractor.com**		