



## MEDIUM DUTY MOTOR GRADER - OPTION A

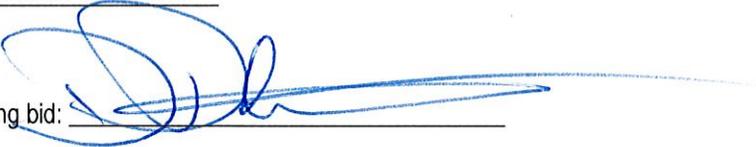
Total Bid Price for Standard Machine: \$ 218,988.00  
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs)

Freight Preparation and Delivery: \$ 6,350.00  
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 383,100.00

Equipment Model #: JOHN DEERE 670G

Description: MEDIUM DUTY MOTOR GRADER OPTION A

Signature of company representative submitting bid: 

Title: SALES MANAGER

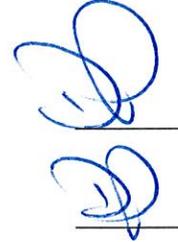
\* **NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining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

**BID SUBMITTAL FORM: OPTION COST SHEET  
MEDIUM DUTY MOTOR GRADER - OPTION A**

By submitting this bid, we agree:

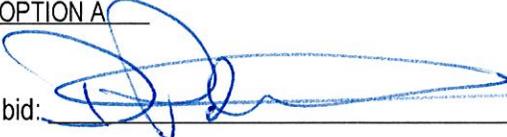
To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine\*

The bid documents include the Manufacturer's Suggested Retail Price Sheet (MSRP) with **any available Options** for the Standard Machine



Equipment Model #: JOHN DEERE 670G

Description: MEDIUM DUTY MOTOR GRADER OPTION A

Signature of company representative submitting bid: 

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  
MEDIUM DUTY MOTOR GRADER – OPTION A**

**GENERAL**

These specifications shall be construed as the minimum acceptable standards for a medium duty motor grader. Should the manufacturer's current published 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 manufacturer's equipment. The motor graders 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 a maximum of 36 hours within notification by county.

Yes  No   
Page # \_\_\_\_\_  
or  
Attachment

**ENGINE**

Engine shall be a turbo-charged, direct injection, four-stroke, **6-cylinder** diesel engine and shall be electronically controlled for more efficient fuel injection and fuel burn.

**Engine shall be designed and manufactured by the machine manufacture**

Yes X No \_\_\_  
Page # 18

Engine displacement shall not be less than **406 cu. In.** and shall develop, as standard, a rated net power of at least **218 HP.**

Yes X No \_\_\_  
Page # 18

Engine shall be isolation/resilient mounted to minimize sound and vibration and shall meet currently required EPA emission regulations for manufacturer.

Yes X No \_\_\_  
Page # 18,30-31

**STARTING SYSTEM**

Shall be equipped with a **24-volt** electrical system. **140-amp** alternator.

Yes X No \_\_\_  
Page # 19

**TRANSMISSION**

Shall be designed and built by the machine manufacturer and shall be a **dual-mode** direct drive, power shift, torque convertor type transmission. **Auto Shift.**

Yes X No \_\_\_  
Page # 18,30-31

Also, to be equipped with transmission guard.

Yes X No \_\_\_  
Page # 30-31

**TANDEM**

Machine to be equipped with differential lock/unlock electro-hydraulically controlled with a multi-disc design .

Yes X No \_\_\_  
Page # 18

**CONTROLS AND HYDRAULICS**

Hydraulics system shall be a closed center, load sensing type, with a variable Displacement, axial piston-type pump.

Yes X No \_\_\_  
Page # 18

**BLADES**

Machine shall be equipped with **14 ft.** long, **24 in** high and no less than **7/8** in thick moldboard with hydraulic side shift and tip control.

Yes X No \_\_\_  
Page # 19 & 21

Blade shall also include reversible overlay end bits.

Yes X No \_\_\_  
Page # 21, 30-31

All blade functions shall be hydraulically or electronically actuated.

Yes X No \_\_\_  
Page # 19

**DRAWBAR AND CIRCLE**

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

Yes  No   
Page # 19

**FRAME**

Articulated type main frame.

Yes  No   
Page # 18&19

Articulation joint shall have mechanical locking device to prevent frame articulation while servicing or transporting machine.

Yes  No   
Page # 30-31

**TIRES**

All six wheels shall be one-piece tire rims and shall provide mounting for **17.5 R25** tires.

Yes  No   
Page # 21

Tires shall be Goodyear, Bridgestone/Firestone, or Michelin only **17.5 x R25 12PR** Bias Tires.

Yes  No   
Page # 21 & ATTACH

**BRAKES**

Service brakes shall be multi-disc, oil-cooled and completely sealed.

Yes  No   
Page # 18

**WEIGHT (STANDARD OPERATING)**

Base machine weight shall not be less than **37,546 lbs.** Weight shall include standard machine configuration, lubricants, coolants, full fuel tank and operator of **200lbs** This is factory specified operating weight only. No additional weights may be added for purpose of meeting these specifications.

Yes  No   
Page # 20

# 670G MOTOR GRADER

30-Aug-2020



Code	Description		
8440T	670G MOTOR GRADER FOB Davenport, Ia.	1	\$299,576.00

As not all option codes have field kits, please review your order option codes and available kits prior to placing a machine order

Keep in mind that the following John Deere motor graders 770, 772, 870 & 872 offer optimized performance for high speed snow plowing applications.

### Option Codes

1140	John Deere PowerTech PSS 9.0L meets EPA FT4 Emi 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	1	\$47,902.00
1830	Engine Exhaust W/ Flat Black Stack (FT4 or Stage V o Requires engine code 1140.	1	No Added Cost
1410	Standard Fuel & Water Filtration	1	No Added Cost
1310	Quick Service Group	1	\$672.00
1010	Standard Antler Rack Hydraulic Controls	1	No Added Cost
5025	Low Cab w/ Fixed Lower Front and Side Opening Win	1	\$927.00
8830	Rear Camera (R4) Rear view camera with a dedicated monitor	1	No Added Cost

8210	Exterior Mounted Rearview Mirrors	1	No Added Cost
8420	No Radio	1	No Added Cost
8320	Less Lower Front Window Wiper & Wiper	1	No Added Cost
6030	No Powered Cab Air Precleaner	1	No Added Cost
6120	Standard Fabric Air Suspension Seat with Armrests an For use with cab codes 5020, 5025, 5030 & 5035	1	\$449.00
8730	No Sound Absorption Package Requires engine code 1140.	1	No Added Cost
6510	Base Hydraulics - 4 Function Controls Requires configuration code 1010. Base Functions: Rear Steer, Circle Side shift, Wheel Lean & RH Blade Lift w/ Float.	1	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	\$1,463.00
8510	Air Conditioner Refrigerant Charged	1	No Added Cost
5815	Hydrau Broad ambient operating temperatures. Operating range: -25°C to 50°C -13°F to 122°F	1	No Added Cost
1610	Hydraulic Pump Disconnect Required with engine code 1140.Required for Russia.	1	\$188.00

170C	<b>JDLink Ultimate - 5 Year Subscription</b> Includes JDLink hardware: integrated cab wiring harness, antenna, modular telematics gateway (MTG), and now includes all Ultimate Connectivity features – Wireless Data Transfer (WDT) enabling automatic data transfer from TimberMatic and Waratah H16 Measuring Systems to TimberManager and MyJohnDeere, supporting TimberOffice 5 Software. Additionally, Ultimate now includes Limited Internet features supporting optional ForestSight Solutions such as advance mapping systems and Remote Display Access (RDA) features supported by TeamViewer applications. JDLink utilizes cellular and satellite technology infrastructure that is outside the control of John Deere. Changes to that infrastructure may require customers to purchase compatible JDLink hardware to restore functionality. Includes 5 year subscription. Annual subscription renewal required after 5 years for continued functionality. JDLink customer account must be created to access JDLink Ultimate data. Go to <a href="http://www.StellarSupport.com">www.StellarSupport.com</a> to renew or update JDLink subscriptions. Use of this service, and all rights and obligations of John Deere and the Customer (as identified in the applicable agreement), are governed by the terms and conditions outlined in the applicable Services and Software agreements available at <a href="http://www.JohnDeere.com/Agreements">www.JohnDeere.com/Agreements</a> . If these terms and conditions are not agreeable do not proceed and do not use the service.	1	No Added Cost
1910	<b>Blade Impact Absorption System</b> Protects Moldboard and draft frame from impacts with Stationary objects	1	\$3,617.00
2060	<b>14 Ft. x 24 In. x 7/8 In. (4.27M x 610mm x 22mm) w/ 8</b>	1	\$1,568.00
2820	<b>Single Input Gearbox with Slip Clutch</b> 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.	1	\$2,751.00
9450	<b>Reversible Overlay End Bits</b> Not available for Russia.	1	\$510.00
1235	<b>130 amp Alternator</b> Requires engine code 1140.	1	\$412.00
7110	<b>Transporting Lights (6 Halogen Lights)</b> Includes 2-high and 2-low beam halogen headlights plus 2 - reversing lights on rear grill.	1	No Added Cost
8110	<b>24-to-12 Volt Converter (15 amps peak / 10 amps con</b>	1	No Added Cost
9298	<b>Beacon with Flip Down Cab Beacon Bracket (RH)</b> Includes beacon and bracket. Order codes 9298 and 9299 for dual beacons.	1	\$680.00

6750	Less Front Attachment	1	No Added Cost
6850	No Rear Attachment	1	No Added Cost
5510	Autoshift Transmission	1	\$1,874.00
5710	Transmission Solenoid Valve Guard Required with engine code 1140. Required for Russia. Recommended for snow plowing applications	1	\$213.00
4515	Firestone SGG	1	\$20,298.00
7820	No Front Fenders	1	No Added Cost
2605	English Manual W/ English Labels & Decals	1	No Added Cost
2575	No Grade Control Base Kit Installed	1	No Added Cost
2775	No Topcon 3D GPS Grade Control System installed	1	No Added Cost
<b>Total</b>			<b>\$383,100.00</b>

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.

## STANDARD WARRANTY FOR NEW JOHN DEERE CONSTRUCTION, UTILITY, CCE AND FORESTRY PRODUCTS – US & Canada

- **Construction, Forestry & Compact Construction Equipment (CCE) Products\***: 12 months Full Machine Standard Warranty
- **\* Compact Construction Equipment Products** Delivered and settled on or after 01 June 2018: 24 months or 2000 hours (whichever comes first) Full Machine Standard Warranty
- **C&E Series Pull-Type Scrapers**: 6 months Full Machine Standard Warranty
- **DC & DE Series 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
- **Frontier Equipment**: 6 months Full Machine Standard Warranty (90 days in rental applications)

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/labour, 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/labour; 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; 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 H-Series & J-Series 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. Diagnostic Time
6. Additional Labor/Labour Time - Above SPG/Labor/Labour Rate
7. Additional Cleaning - Above SPG/Labor/Labour Rate
8. Rental Fees
9. Depreciation or damage caused by normal wear or application, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, negligence, collision or other accidents.
10. Premiums charged for Overtime Labor/Labour
11. Transportation to and from the dealership.
12. Travel time, mileage or service calls by the dealer.
13. Non-John Deere components or modifications, Rotobec grapples, and attachments installed aftermarket.
14. Shop supplies and maintenance items such as, but not limited to: filters, fuels, oil, hydraulic fluid, lubricants, coolants, conditioners, shop towels, cleaners and degreasers. Note: Reimbursement for refills of oils/coolants lost due to a warrantable failure is covered when a system failure occurs outside the boundaries of a normal oil change (within 25% of specified change interval as provided in the Operator's Manual).
15. Torn, cut, or worn hoses.
16. 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.
17. Items such as cutting-edge parts, delimiting 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.
18. 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.
19. Secondary damage which occurs from continued operation of a product after recognition of the occurrence of a failure.
20. Parts supplied or modifications done by third party suppliers.
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).

#### **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. Service (other than normal maintenance and replacement of service items) is performed by someone other than an authorized John Deere dealer; or
2. The product is modified or altered in ways not approved by John Deere; or
3. 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).
4. 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](http://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](http://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/labour) 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, INCLUDING 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.**

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

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by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).

4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and non-citizens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

## **B. RESPONSIBILITIES OF DHS**

1. After SSA verifies the accuracy of SSA records for employees through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct, to the extent authorized by this MOU:

- Automated verification checks on employees by electronic means, and
- Photo verification checks (when available) on employees.

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

3. DHS agrees to make available to the Employer at the E-Verify Web site and on the E-Verify Web browser, instructional materials on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of employees' employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and

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Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees' employment eligibility within 3 Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

## **C. RESPONSIBILITIES OF THE EMPLOYER**

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.

A. The Employer agrees that all Employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify.

B. Failure to complete a refresher tutorial will prevent the Employer from continued use of the program.

5. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:

- If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 888-464-4218.

- If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The photocopy must be of sufficient quality to allow for verification of the photo

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and written information. The employer will use the photocopy to verify the photo and to assist DHS with its review of photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in good faith compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$550 and \$1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 and E-Verify system compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures for new employees within 3 Employer business days after each employee has been hired (but after the Form I-9 has been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual, or in the case of Federal contractors with the FAR E-Verify clause, the E-Verify User Manual for Federal Contractors. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. Employers may initiate verification by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer performs an E-Verify employment verification query using the employee's SSN as soon as the SSN becomes available.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer

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uses the E-Verify system for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.

9. The Employer agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees in private of the finding and providing them written notice of the findings, providing written referral instructions to employees, allowing employees to contest the finding, and not taking adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA, as applicable, by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-

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Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

12. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

13. The Employer agrees that it will use the information it receives from SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

14. The Employer acknowledges that the information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

## **D. RESPONSIBILITIES OF FEDERAL CONTRACTORS WITH THE FAR E-VERIFY CLAUSE**

1. The Employer understands that if it is a subject to the employment verification terms in Subpart 22.18 of the FAR, it must verify the employment eligibility of any existing employee assigned to the contract and all new hires, as discussed in the Supplemental Guide for Federal Contractors. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.

a. Federal contractors with the FAR E-Verify clause agree to become familiar with and comply with the most recent versions of the E-Verify User Manual for Federal Contractors and the E-Verify Supplemental Guide for Federal Contractors.

b. Federal contractors with the FAR E-Verify clause agree to complete a tutorial for Federal contractors with the FAR E-Verify clause.

c. Federal contractors with the FAR E-Verify clause not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify at the time of a contract award must enroll as a Federal contractor with the FAR E-Verify clause in E-Verify within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States,

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whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor with the FAR E-Verify clause, the Employer must initiate verification of employees assigned to the contract within 90 calendar days from the time of enrollment in the system and after the date and selecting which employees will be verified in E-Verify or within 30 days of an employee's assignment to the contract, whichever date is later.

d. Employers that are already enrolled in E-Verify at the time of a contract award but are not enrolled in the system as a Federal contractor with the FAR E-Verify clause: Employers enrolled in E-Verify for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. Employers enrolled in E-Verify as other than a Federal contractor with the FAR E-Verify clause, must update E-Verify to indicate that they are a Federal contractor with the FAR E-Verify clause within 30 days after assignment to the contract. If the Employer is enrolled in E-Verify for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor with the FAR E-Verify clause in E-Verify must initiate verification of each employee assigned to the contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

e. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors with the FAR E-Verify clause that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors with the FAR E-Verify clause may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II.D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a contract apply to such institutions of higher education, State, local and tribal governments, and sureties.

f. Verification of all employees: Upon enrollment, Employers who are Federal contractors with the FAR E-Verify clause may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only new employees and those existing employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.

g. Form I-9 procedures for existing employees of Federal contractors with the FAR E-Verify clause: Federal contractors with the FAR E-Verify clause may choose to complete new Forms I-9 for all existing employees other than those that are completely exempt from this process. Federal contractors with the FAR E-Verify clause may also update previously completed Forms I-9 to initiate E-Verify verification of existing employees who are not completely exempt as long as that Form I-9 is complete (including the SSN), complies with

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Article II.C.5, the employee's work authorization has not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee's stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.5, if the employee's basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.5, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.5, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.5, subject to any additional or superseding instructions that may be provided on this subject in the Supplemental Guide for Federal Contractors. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor with the FAR E-Verify clause.

2. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.

### **ARTICLE III**

## **REFERRAL OF INDIVIDUALS TO SSA AND DHS**

### **A. REFERRAL TO SSA**

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the notice as directed by the E-Verify system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation. The Employer must review the tentative nonconfirmation with the employee in private.

2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it

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determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

## **B. REFERRAL TO DHS**

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the E-Verify system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation. The Employer must review the tentative nonconfirmation with the employee in private.

2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding. The Employer must review the tentative nonconfirmation with the employee in private.

3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (paid for at employer expense).

7. If the Employer determines that there is a photo non-match when comparing the photocopied List B document described in Article II.C.5 with the image generated in E-Verify, the Employer must forward the employee's documentation to DHS using one of the means described in the preceding paragraph, and allow DHS to resolve the case.

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## ARTICLE IV

### SERVICE PROVISIONS

SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access E-Verify, an Employer will need a personal computer with Internet access.

## ARTICLE V

### PARTIES

A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual, the E-Verify User Manual for Federal Contractors or the E-Verify Supplemental Guide for Federal Contractors. Even without changes to E-Verify, DHS reserves the right to require employers to take mandatory refresher tutorials. An Employer that is a Federal contractor with the FAR E-Verify clause may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such a circumstance, the Federal contractor with the FAR E-Verify clause must provide written notice to DHS. If an Employer that is a Federal contractor with the FAR E-Verify clause fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to participants that are not Federal contractors with the FAR E-Verify clause, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

B. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, termination of this MOU by any party for any reason may negatively affect its performance of its contractual responsibilities.

C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

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D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

F. The Employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

G. The foregoing constitutes the full agreement on this subject between DHS and the Employer.

H. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.

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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.

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

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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
<b>Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:</b>	
<ul style="list-style-type: none"><li>• ALABAMA 1 site(s)</li></ul>	

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

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



**JOHN DEERE**

Current Date 26Aug2020

## 670G MOTOR GRADER

### 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:

#### 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

#### 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

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)  
14.0 x 24 In. 12 PR (G2)  
Bias Tires  
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 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

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

Inserts (All Nylon)  
Quick Change and Adjustable  
Heavy Duty Moldboard Side  
Shift Wear  
Inserts  
Single Input Circle Drive  
Gearbox (non-slip)  
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

BUILT-IN DIAGNOSTICS:  
 Diagnostic Code Details  
 Sensor Values  
 Calibrations  
 MENU DISPLAY:  
 Codes  
 Machine Settings  
 Diagnostics

Hydraulic, Transmission and  
 Axle Oils Vehicle  
 Side Reflectors

**Required** - *You must select one from each category*

▼ **BASE MACHINE**

FOB Davenport, Ia.

As not all option codes have field kits, please review your order option codes and available kits prior to placing a machine order

Description	Code	Price
670G MOTOR GRADER	8440T	\$299,576.00

Keep in mind that the following John Deere motor graders 770, 772, 870 & 872 offer optimized performance for high speed snow plowing applications.

▼ **ENGINE**

Description	Code	Price
John Deere PowerTech PSS 9.0L meets EPA FT4 Emissions	1140	\$47,902.00

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 Regeneration  
 Automatic Hydraulic Reversing Fan  
 Series Turbo Chargers  
 Cooled Exhaust Gas Recirculation  
 4 Valves / Cylinder  
 Wet Sleeve Cylinder Liners  
 ECO Mode  
 Auto-Idle and Programmable Auto-Shutdown  
 Automatic Starter Overload Protection  
 Electronically Controlled HPCR Fuel Delivery System, B20 Biodiesel Compatible  
 Electric Fuel Priming System  
 10-Micron Primary Fuel Filter/Water Separator, 500 hour  
 2-Micron Final Fuel Filter, 500 hour  
 Inline Fuel Strainer  
 Spin-on Oil Filter, 500 hour  
 Oil crankcase filter, Lifetime  
 Auto-Tensioned Serpentine Belt  
 Under Hood Dual Element Air Cleaner with Restriction Indicator  
 Engine Intake Rotary Ejector Precleaner

▼ **EXHAUST**

Description	Code	Price
Engine Exhaust W/ Flat Black Stack (FT4 or Stage V only)	1830	No Added Cost

Requires engine code 1140.

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Engine Exhaust W/ Chrome Stack (FT4 or Stage V only)	1840	\$703.00
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Requires engine code 1140.

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▼ FUEL FILTRATION

Description	Code	Price
Standard Fuel & Water Filtration	1410	No Added Cost
Severe Duty Fuel & Water Filtration System	1420	\$528.00

For use where fuel quality is questionable and/or additional water separation is required. Filter base contains fuel heater.

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▼ QUICK SERVICE GROUP

Description	Code	Price
Quick Service Group	1310	\$672.00
No Quick Service Group	1320	No Added Cost

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▼ MACHINE CONFIGURATION

Description	Code	Price
Standard Antler Rack Hydraulic Controls	1010	No Added Cost
Armrest Fingertip Controls	1020	\$33,489.00

Grade Pro Armrest Controls Include:

- \* Fingertip controls with industry standard control pattern
- \* Automated Cross Slope control
- \* 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.

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Dual Joystick Controls	1030	\$33,489.00
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Grade Pro Armrest Controls Include:

- \* Automated Cross Slope control
- \* 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.

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▼ OPERATOR'S STATION

ROPS/FOPS Air Conditioned Cab

Description	Code	Price
Low Cab w/ Fixed Lower Front and Side Windows	5020	No Added Cost
Low Cab w/ Fixed Lower Front and Side Opening Windows	5025	\$927.00

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Low Cab w/ Lower Front and Side Opening Windows	5030	\$1,243.00
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Includes Roof Wiring Harness for Lighting, Beacon, Precleaner and Heated Mirrors

Low Cab w/ Fixed Lower Front and Side Opening Windows, Laminated Glass	5035	\$3,087.00
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The advantage of laminated glass is that it resists shattering and strongly resists penetration by impacting objects.

Grade Pro Low Cab w/ Lower Front and Side Opening Windows	5060	No Added Cost
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Requires configuration code 1020 or code 1030 and seat code 6140.  
Requires (1) T244325 bracket to optionally move monitor to the RH door post.

Grade Pro Low Cab w/ Fixed Lower Front and Side Opening Windows, Laminated Glass	5070	\$2,190.00
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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 impacting objects.

Tall Cab with Lower Fixed Front and Side Opening Windows	50A1	\$2,555.00
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▼ CAMERA

Description	Code	Price
Rear Camera (R4)	8830	No Added Cost

Rear view camera with a dedicated monitor

Front & Rear Camera (R4)	8835	\$2,500.00
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▼ MIRRORS

Description	Code	Price
Exterior Mounted Rearview Mirrors	8210	No Added Cost

Heated Exterior Mounted Rearview Mirrors	8220	\$570.00
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▼ RADIO

Description	Code	Price
AM/FM Radio with Aux and Weather Band (WB)	8410	\$983.00

Premium AM/FM Radio with Bluetooth, Aux and Weather Band (WB).	8415	\$1,515.00
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Requires engine code 1140.

No Radio	8420	No Added Cost
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▼ WASHER AND WIPER

<b>Description</b>	<b>Code</b>	<b>Price</b>
Lower Front Intermittent Wiper & Washer	8310	\$670.00
Less Lower Front Window Wiper & Wiper	8320	No Added Cost

▼ CAB AIR PRECLEANER

<b>Description</b>	<b>Code</b>	<b>Price</b>
Powered Cab Air Precleaner	6010	\$925.00
Powered Cab Precleaner pre-filters outside air to significantly extend cab filter life.		
No Powered Cab Air Precleaner	6030	No Added Cost

▼ SEAT

<b>Description</b>	<b>Code</b>	<b>Price</b>
Standard Fabric Air Suspension Seat with Armrests and Headrest	6120	\$449.00
For use with cab codes 5020, 5025, 5030 & 5035		
Premium Heated, Leather/Fabric, High-Wide Back, Air Suspension Seat with Armrests	6130	\$1,191.00
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.		
Grade Pro Premium Heated, Leather/Fabric, High-Wide Back Air Suspension Seat	6140	No Added Cost
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.		

▼ SOUND ABSORPTION PACKAGE

<b>Description</b>	<b>Code</b>	<b>Price</b>
No Sound Absorption Package	8730	No Added Cost
Requires engine code 1140.		

▼ HYDRAULIC CONTROLS - RIGHT SIDE

<b>Description</b>	<b>Code</b>	<b>Price</b>
<b><u>Standard Hydraulic Controls</u></b>		
Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.		
Base Hydraulics - 4 Function Controls	6510	No Added Cost
Requires configuration code 1010. Base Functions: Rear Steer, Circle Side shift, Wheel Lean & RH Blade Lift w/ Float.		
Base Hydraulics w/ 1 Auxiliary Function Control	6520	\$1,663.00

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.

Mid Mount Scarifier Base Hydraulics w/ 1 Auxiliary Function Control	6525	\$1,885.00
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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.

Base Hydraulics w/ 2 Auxiliary Function Controls	6530	\$3,138.00
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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.

Base Hydraulics w/ 3 Auxiliary Function Controls	6540	\$4,611.00
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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.

**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.

Grade Pro Base Controls	6550	No Added Cost
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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)

Grade Pro Controls for Mid Mount Scarifier w/1 Auxiliary Function Control	6526	\$1,885.00
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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

Grade Pro Controls for Rear Ripper or 1 Rear Auxiliary Function	6555	\$1,665.00
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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

Grade Pro Controls for Front Scarifier or 1 Front Auxiliary Function	6560	\$1,665.00
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		
Grade Pro Controls w/1 Rear Auxiliary Function Control	6570	\$1,665.00
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		
Grade Pro Controls w/1 Front Auxiliary Function AND 2 Rear Auxiliary Functions	6580	\$4,988.00
Requires code 1020 OR 1030 Includes 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 control 4 independent proportional rollers are reconfigurable for auxiliary functions.		
Grade Pro Controls w/1 Front Auxiliary Function AND 1 Rear Auxiliary Function	6585	\$3,364.00
Requires code 1020 OR 1030 Includes 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 control 4 independent proportional rollers are reconfigurable for auxiliary functions.		
Grade Pro Controls w/1 Front Auxiliary Function AND 3 Rear Auxiliary Functions	6590	\$6,652.00
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.		
Grade Pro Controls w/3 Front Auxiliary Function AND 3 Rear Auxiliary Functions	6595	\$9,977.00
Requires code 1020 OR 1030 Includes 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 control 4 independent proportional rollers are reconfigurable for auxiliary functions.		

▼ HYDRAULIC CONTROLS - LEFT SIDE

Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.

Description	Code	Price
<b><u>Standard Hydraulic Controls</u></b>		

Industry standard manual hydraulic controls. Includes valves, control levers, and plumbing.

Base Hydraulics- 4 Function Controls 6610 No Added Cost

Requires code 1010.  
Base Functions: LH Blade Lift w/ Float, Blade Side shift, Circle Rotate, Blade Tilt.

Base Hydraulics w/ 1 Auxiliary Function Control 6620 \$1,463.00

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.

Base Hydraulics w/2 Auxiliary Function Control 6630 \$2,952.00

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.

Base Hydraulics w/ 3 Auxiliary Function Control 6640 \$4,425.00

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.

**Grade Pro Controls**

Grade Pro Controls - Left Side 6650 No Added Cost

Requires code 1020 or code 1030.  
Accompanies GRADE PRO CONTROLS - RIGHT SIDE order code selection.

▼ SHIPPING PREPARATION

<b>Description</b>	<b>Code</b>	<b>Price</b>
Air Conditioner Refrigerant Charged	8510	No Added Cost

▼ HYDRAULIC OIL

<b>Description</b>	<b>Code</b>	<b>Price</b>
Hydrau	5815	No Added Cost

Broad ambient operating temperatures.  
Operating range:  
-25°C to 50°C  
-13°F to 122°F

Hydrau XR	5830	\$731.00
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Optional factory fill.  
Broad ambient operating temperatures.  
Operating range:  
-40°C to 40°C  
-40°F to 104°F  
Intended for colder climates, provides all-season capability.  
Required for Russia.

▼ HYDRAULIC PUMP DISCONNECT

Description	Code	Price
Hydraulic Pump Disconnect	1610	\$188.00
Required with engine code 1140. Required for Russia.		

▼ MACHINE CONNECTIVITY

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.

Description	Code	Price
JDLink Ultimate - 5 Year Subscription	170C	No Added Cost

Includes JDLink hardware: integrated cab wiring harness, antenna, modular telematics gateway (MTG), and now includes all Ultimate Connectivity features Wireless Data Transfer (WDT) enabling automatic data transfer from TimberMatic and Waratah H16 Measuring Systems to TimberManager and MyJohnDeere, supporting TimberOffice 5 Software. Additionally, Ultimate now includes Limited Internet features supporting optional ForestSight Solutions such as advance mapping systems and Remote Display Access (RDA) features supported by TeamViewer applications. JDLink utilizes cellular and satellite technology infrastructure that is outside the control of John Deere. Changes to that infrastructure may require customers to purchase compatible JDLink hardware to restore functionality. Includes 5 year subscription. Annual subscription renewal required after 5 years for continued functionality. JDLink customer account must be created to access JDLink Ultimate data. Go to [www.StellarSupport.com](http://www.StellarSupport.com) to renew or update JDLink subscriptions. Use of this service, and all rights and obligations of John Deere and the Customer (as identified in the applicable agreement), are governed by the terms and conditions outlined in the applicable Services and Software agreements available at [www.JohnDeere.com/Agreements](http://www.JohnDeere.com/Agreements). If these terms and conditions are not agreeable do not proceed and do not use the service.

JDLink Ultimate Dual - 5 Year Subscription	170J	\$1,936.00
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Includes JDLink hardware: integrated cab wiring harness, antenna, modular telematics gateway (MTG), and now includes all cellular dependent Ultimate Connectivity features - Wireless Data Transfer (WDT) enabling automatic data transfer from TimberMatic and Waratah H16 Measuring Systems to TimberManager and MyJohnDeere, supporting TimberOffice 5 Software. Additionally, Ultimate Dual now includes Limited Internet features supporting optional ForestSight Solutions such as advance mapping systems and Remote Display Access (RDA) features supported by TeamViewer applications when cellular signal is available. JD Link Ultimate Dual works with the 4G LTE MTG to automatically transmit compressed summary data over a satellite network when a cellular network is not available. JDLink utilizes cellular and satellite technology infrastructure that is outside the control of John Deere. Changes to that infrastructure may require customers to purchase compatible JDLink hardware to restore functionality. Includes 5 year subscription. Annual subscription renewal required after 5 years for continued functionality. JDLink customer account must be created to access JDLink Ultimate data. Go to [www.StellarSupport.com](http://www.StellarSupport.com) to renew or update JDLink subscriptions. Use of this service, and all rights and obligations of John Deere and the Customer (as identified in the applicable agreement), are governed by the

terms and conditions outlined in the applicable Services and Software agreements available at [www.JohnDeere.com/Agreements](http://www.JohnDeere.com/Agreements). If these terms and conditions are not agreeable do not proceed and do not use the service.

▼ **BLADE IMPACT ABSORPTION SYSTEM**

<b>Description</b>	<b>Code</b>	<b>Price</b>
Blade Impact Absorption System	1910	\$3,617.00
Protects Moldboard and draft frame from impacts with Stationary objects		
No Blade Impact Absorption System	1920	No Added Cost

▼ **MOLDBOARDS WITH DURA-MAX CUTTING EDGES AND END BITS**

<b>Description</b>	<b>Code</b>	<b>Price</b>
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	2010	No Added Cost
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	2020	\$400.00
13 Ft. x 27 In. x 1 In. (3.96M x 686mm x 25mm) with 8 In. x 3/4 In. (203 x 19mm) Cutting Edge & 5/8 in. (16mm) Hardware	2040	\$1,215.00
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	2050	\$1,354.00
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	2060	\$1,568.00
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	2070	\$1,997.00
Requires engine code 1120 or 1140.		
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	2080	\$2,042.00
Requires engine code 1120 or 1140.		

▼ **CIRCLE**

<b>Description</b>	<b>Code</b>	<b>Price</b>
Single Input Gearbox without Slip Clutch	2810	No Added Cost
Single Input Gearbox with Slip Clutch	2820	\$2,751.00

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.

Heavy Duty Dual Input Gearbox without Slip Clutch	2830	\$1,573.00
<p>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.</p>		
Heavy Duty Dual Input Gearbox with Slip Clutch	2840	\$4,324.00
<p>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.</p> <p>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.</p>		
Premium Circle	2850	\$19,000.00
<p>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. Combine with SmartGrade for the most innovative and effective Grade Control system in the industry. Slip Clutch is included at no additional cost.</p>		

ALTERNATOR

Description	Code	Price
130 amp Alternator	1235	\$412.00
Requires engine code 1140.		
Dual 100 Amp Alternators (200 Amp total)	1240	\$954.00
Requires engine code 1140.		

LIGHTING

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.

Description	Code	Price
Transporting Lights (6 Halogen Lights)	7110	No Added Cost
Includes 2-high and 2-low beam halogen headlights plus 2 - reversing lights on rear grill.		

Grading Lights (10 Halogen Lights)	7130	\$763.00
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Includes light code 7110 Transporting Lights plus (4) additional work lights (2 - bottom cab, 2 - mid-frame).

Deluxe Grading Lights (18 Halogen Lights)	7160	\$1,399.00
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Includes light code 7130 Grading Lights plus (8) additional work lights (4 - corner cab, 2 - front cab, and 2 - right-side cab roof).

Premium Grading Lights (18 LED Lights)	7180	\$4,134.00
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Same lighting locations as light code 7160 Deluxe Grading Lights, all Premium Grading Lights are LED.

▼ CONVERTER

Description	Code	Price
24-to-12 Volt Converter (15 amps peak / 10 amps continuous)	8110	No Added Cost

24-to-12 Volt Converter (30 amps peak / 25 amps continuous)	8120	\$470.00
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Recommend code 8120 for additional 12 volt needs, such as business band or CB radios

▼ FRONT ATTACHMENTS

Description	Code	Price
Front Push Block	6710	\$4,189.00

2,950 lbs.

Front Scarifier	6720	\$9,033.00
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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.

Mid-Mount Scarifier with Integrated Front Push Plate	6730	\$16,103.00
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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.

Balderson Style Front Lift Group	6740	\$7,660.00
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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.

Less Front Attachment	6750	No Added Cost
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Front-Mounted Dozer Blade, 97 in. x 37.6 in. (2464 mm x 955 mm)	6770	\$9,870.00
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Requires hydraulic controls on the right side with a minimum 1 front

auxillary function.  
Requires 14.0 24 or 14.0 R24 tires

Front-Mounted Dozer Blade, 105 in. x 37.6 in. (2667 mm x 955 mm) 6780 \$10,055.00

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.

▼ REAR ATTACHMENTS

Description	Code	Price
Rear Mounted Ripper/Scarifier Combination with Rear Hitch and Pin	6810	\$17,774.00

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.

Rear Counterweight with Rear Hitch and Pin 6820 \$2,650.00

1600 lbs.(725.7 kg.) Rear Counterweight.  
Recommend for use with Front / Mid Scarifier.

Rear Hitch and Pin 6830 \$511.00

Not for use with Rear Ripper/Scarifier.

No Rear Attachment 6850 No Added Cost

▼ TRANSMISSION

Description	Code	Price
Autoshift Transmission	5510	\$1,874.00

Manual Shift Transmission (no Autoshift) 5520 No Added Cost

▼ TRANSMISSION SOLENOID GUARD

Description	Code	Price
Transmission Solenoid Valve Guard	5710	\$213.00

Required with engine code 1140.  
Required for Russia.  
Recommended for snow plowing applications

▼ WHEELS AND TIRES

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.

<b>Description</b>	<b>Code</b>	<b>Price</b>
<b><u>14.0-24 16 PR G2 Bias Tires With 1 Piece Rims</u></b>		
Firestone SGG	4315	\$16,252.00
<b><u>14.0-24 16 PR G2 Bias Tires With 3 Piece Rims</u></b>		
Firestone SGG	4316	\$18,253.00
<b><u>14.0R24 G2/L2 Single Star Radial Tires With 1 Piece Rims</u></b>		
No Brand Preference	4917	\$19,950.00
Michelin XGLA2	4411	\$22,308.00
Bridgestone VUT	4412	\$21,078.00
<b><u>14.0R24 G2/L2 Single Star Radial Snow Tires With 1 Piece Rims</u></b>		
No Brand Preference	4915	\$25,321.00
Michelin SnoPlus	4421	\$27,113.00
Bridgestone Snow Wedge	4422	\$26,449.00
<b><u>14.0R24 G2/L2 Single Star Radial Tires With 3 Piece Rims</u></b>		
No Brand Preference	4918	\$22,153.00
Bridgestone VKT	4415	\$23,993.00
Michelin XGLA2	4416	\$24,501.00
Bridgestone VUT	4417	\$23,275.00
<b><u>14.0R24 G2/L2 Single Star Radial Snow Tires With 3 Piece Rims</u></b>		
No Brand Preference	4916	\$27,494.00

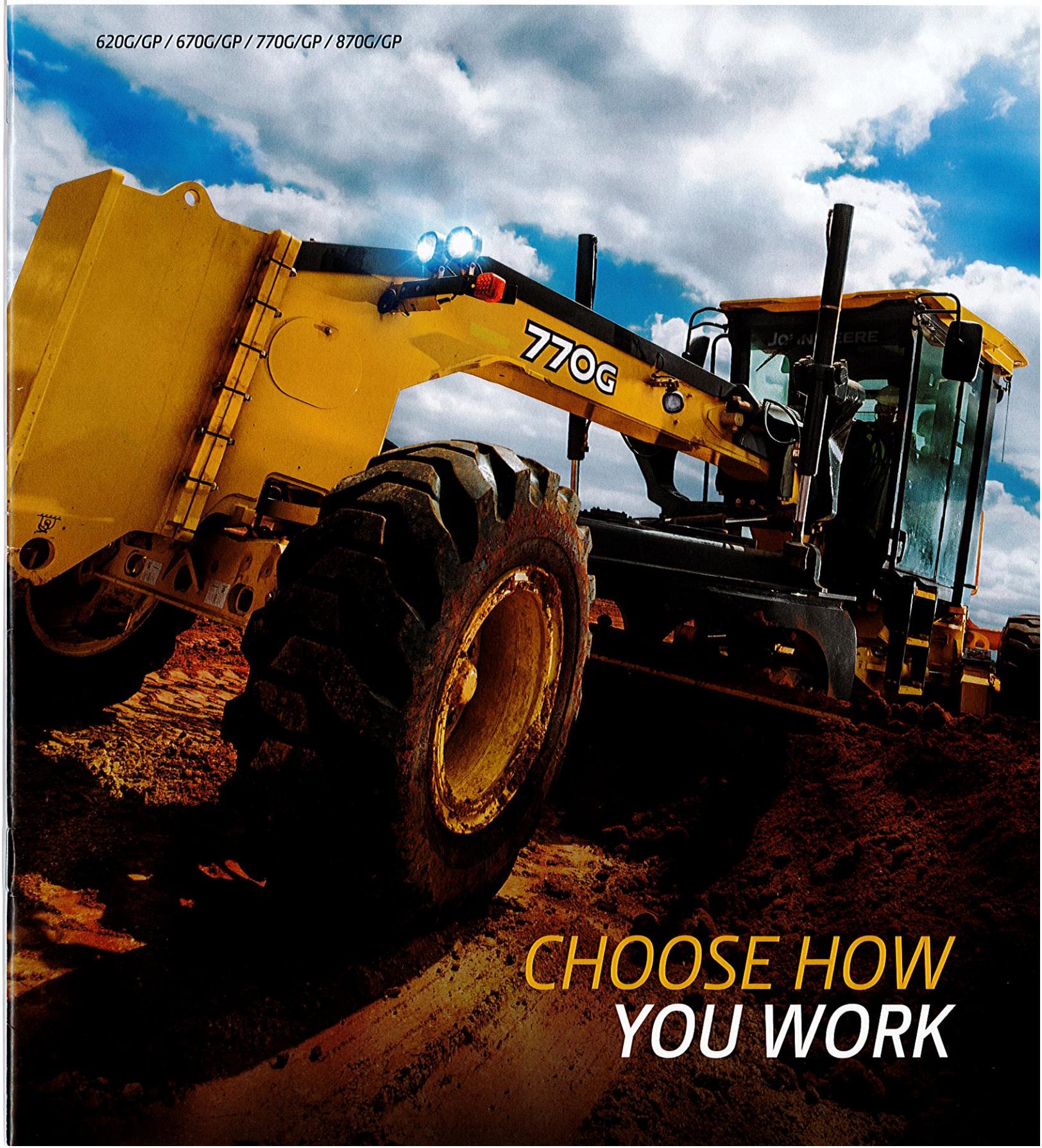
Michelin SnoPlus	4426	\$29,278.00
Bridgestone Snow Wedge	4427	\$28,617.00
<b><u>17.5-25 16 PR G2/L2 Bias Tires With 1 Piece Rims</u></b>		
Firestone SGG	4515	\$20,298.00
<b><u>17.5-25 16 PR G2/L2 Bias Tires With 3 Piece Rims</u></b>		
Firestone SGG	4516	\$22,276.00
<b><u>17.5R25 L2 Single Star Radial Tires With 1 Piece Rims</u></b>		
No Brand Preference	4923	\$21,217.00
Michelin XTLA	4611	\$25,894.00
Bridgestone VUT	4612	\$24,239.00
<b><u>17.5R25 L2 Single Star Radial Tires With 3 Piece Rims</u></b>		
No Brand Preference	4924	\$24,929.00
Bridgestone VKT	4615	\$27,610.00
Michelin XTLA	4616	

G-SERIES 4WD  
**MOTOR GRADERS**



**JOHN DEERE**

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



**CHOOSE HOW  
YOU WORK**



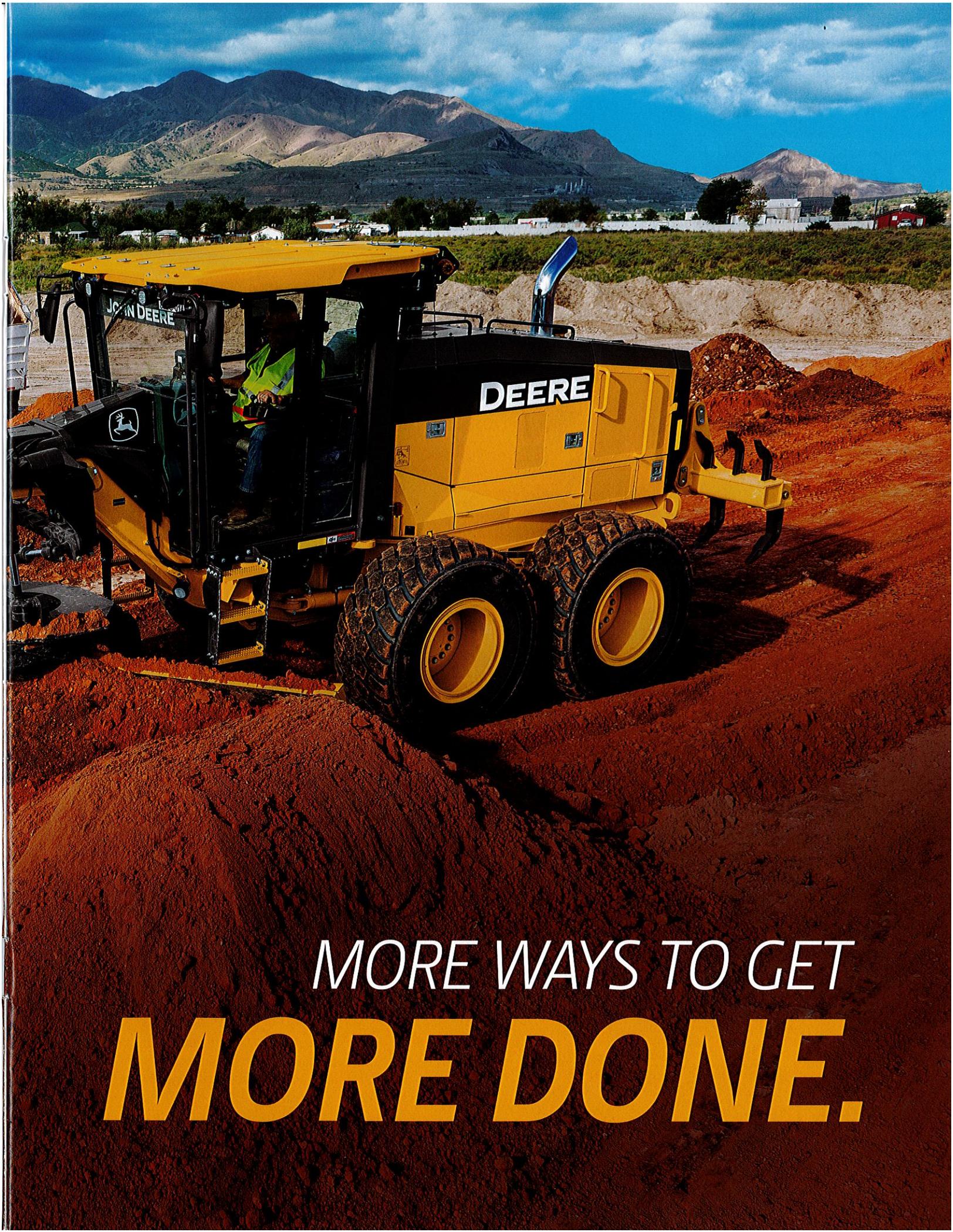
**870GP**



**MORE  
CONTROL  
OPTIONS**



**MORE  
GRADE-CONTROL  
PROVIDERS**



MORE WAYS TO GET  
**MORE DONE.**



## TAKING GRADING PERFORMANCE **TO THE NEXT LEVEL.**

Our motor graders have earned a reputation for exceptional control and grading precision without a lot of extra effort. Inspired by thoughts and ideas from you, our customers, our latest G-Series Graders take it to the next level. With more choices, including our Customer Advocate Group-tested dual-joystick controls. Expanded grade-control system options. And a smaller, more economical machine, the 620G. Existing models boast even more performance, along with a host of proven features to help you boost productivity and maximize uptime while lowering daily operating costs.



### 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.

## 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.

## 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.

## 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 jobsite 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.

## Grade-control system ready

Adding your preferred grade-control system is quick and noninvasive. Grade Pro (GP) models come factory equipped with bulkhead connectors, sensor mounts, electrical wiring harnesses, integrated controls, and universal moldboard-mast mounts. Factory-installed options on GP models now also include Leica as well as Topcon and Trimble.



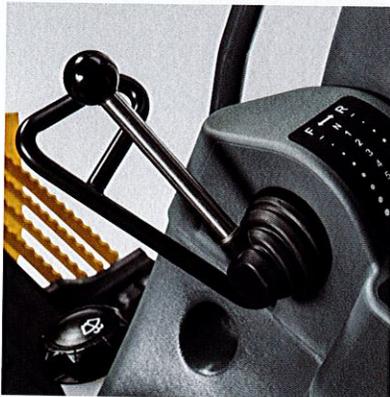
## GRADE-CONTROL SYSTEM READY

OPTIONAL FROM THE FACTORY



# FREEDOM OF CHOICE

**WITHOUT LIFTING A FINGER.**



## **SEISMIC SHIFT**

Gate-less shifter builds upon proven Deere Event-Based Shifting technology to allow operators to directly move the machine from forward to reverse, in any gear, at any time. It's included on all G and Grade Pro (GP) models with fingertip controls.



## **CONTROL FREAK**

An available option on all GP models (not available on G machines), Deere dual-joystick controls require significantly less wrist motion to articulate the motor grader than competitive joystick controls.



## **AT YOUR COMMAND**

Eight armrest-mounted, fingertip-actuated controls, including lever steer, are arranged in the industry-standard pattern on each side of the standard steering wheel. No extra levers are required for grade control. Instead, knob-integrated push buttons provide convenient, fingertip activation.



## CHOICE OF CONTROLS:

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

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 fingertip 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.



**CAUTION**  
AVOID DEATH OR SERIOUS INJURY  
Read and understand Operator's Manual before operating this machine.  
• Operate machine only from operator's seat.  
• Do not work on machine's belt, flywheel, moving parts or ground.  
• Do not touch the engine, cooling fan, belts or other moving parts.  
• Do not touch the engine or flywheel.  
• Do not touch the machine's pump or other parts.  
• Do not touch the machine's pump or other parts.  
• Do not touch the machine's pump or other parts.

**WARNING**  
Avoid crushing  
DO NOT JUMP  
off machine type  
**USE  
SEAT  
BELT**



**EXPANSIVE  
VISIBILITY**

## ***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.

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### **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, which now also include 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.



# *KEEP DOWNTIME DOWN.*

## *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. When you know how they're built, you'll run these Deere.



**STANDARD  
REVERSING FAN**  
(OPTIONAL ON 620G/GP)



**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.

**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.

**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.

Keep downtime down with  
**JOHN DEERE ULTIMATE UPTIME**

John Deere Ultimate Uptime, featuring John Deere WorkSight™, is a customizable support solution available exclusively from your Deere dealer. This flexible offering maximizes equipment availability with standard John Deere WorkSight capabilities that can help prevent future downtime and speed repairs when needed. In addition to the base John Deere WorkSight features, our dealers work with you to build an uptime package that meets the specific needs of your machine, fleet, project, and business, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.

Get valuable insight with  
**JOHN DEERE WORKSIGHT**

John Deere WorkSight is an exclusive suite of telematics solutions that increases uptime while lowering operating costs. At its heart, JDLink™ Ultimate machine monitoring provides real-time utilization data and alerts to help you maximize productivity and efficiency while minimizing downtime. Remote diagnostics enable your dealer to read codes and record performance data without a trip to the jobsite.



**GET IT DONE WITH EASE.**

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### 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 hydraulic, transmission, and differential filter bank.





# 620G / GP SPECIFICATIONS

Engine		620G/GP		
Manufacturer and Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ Plus 6.8L	John Deere PowerTech™ 6.8L	John Deere PowerTech™ 6.8L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	EPA Tier 2/EU Stage II
Cylinders	6	6	6	6
Displacement	6.8L (414 cu. in.)	6.8L (414 cu. in.)	6.8L (414 cu. in.)	6.8L (414 cu. in.)
Net Engine Power				
Gear 1	112 kW (150 hp)	108 kW (145 hp)	108 kW (145 hp)	108 kW (145 hp)
Gear 2	123 kW (165 hp)	116 kW (155 hp)	119 kW (160 hp)	119 kW (160 hp)
Gear 3	134 kW (180 hp)	127 kW (170 hp)	131 kW (175 hp)	131 kW (175 hp)
Gear 4	142 kW (190 hp)	134 kW (180 hp)	134 kW (180 hp)	134 kW (180 hp)
Gear 5	149 kW (200 hp)	142 kW (190 hp)	138 kW (185 hp)	138 kW (185 hp)
Gear 6	153 kW (205 hp)	146 kW (195 hp)	138 kW (185 hp)	138 kW (185 hp)
Gear 7	157 kW (210 hp)	149 kW (200 hp)	138 kW (185 hp)	138 kW (185 hp)
Gear 8	160 kW (215 hp)	149 kW (200 hp)	138 kW (185 hp)	138 kW (185 hp)
Net Peak Torque	1005 Nm (741 lb.-ft.)	915 Nm (675 lb.-ft.)	831 Nm (613 lb.-ft.)	831 Nm (613 lb.-ft.)
Net Torque Rise	49%	46%	44%	44%
Aspiration	Series turbocharged, charge-air cooled	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	Full-flow spin-on filter and integral cooler
Air Cleaner with Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry	Dual element, dry
<b>Cooling</b>				
Engine Coolant, Extended Life, Rating	-37 deg. C (-34 deg. F)			
<b>Powertrain</b>				
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	<i>No tire slip at 2,180 rpm, 14.0-R24 tires</i>			
Gear 1	4.0 km/h (2.5 mph)			
Gear 2	5.6 km/h (3.5 mph)			
Gear 3	7.7 km/h (4.8 mph)			
Gear 4	10.9 km/h (6.8 mph)			
Gear 5	16.4 km/h (10.2 mph)			
Gear 6	23.2 km/h (14.4 mph)			
Gear 7	32.3 km/h (20.1 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)			
<b>Hydraulics</b>				
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 cm³ (5.5 cu. in.)			

# 620G / GP SPECIFICATIONS



<b>Blade Function</b>		<b>620G/GP</b>
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
<b>Blade Range</b>		
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.	
<b>Blade Pull</b>		
At Maximum Operating Weight	14 091 kg (31,066 lb.)	
<b>Electrical</b>		
Solid-state load center and sealed-switch module		
	<i>EPA Final Tier 4/EU Stage IV</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
Voltage	24 volt	
Number of Batteries	2	
Battery Capacity	1,400 CCA	
Reserve Capacity	440 min.	
Amp-Hour Rating	224 amp-hour	
Alternator Rating		
Base	130 amp	
Optional	200 amp	
<b>Lights</b>	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	
<b>Mainframe</b>		
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 <sup>3</sup> (88 cu. in.)	
Average Vertical Section at Saddle	2245 cm <sup>3</sup> (137 cu. in.)	
<b>Draft Frame (drawbar)</b>		
Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts		
<b>Circle</b>		
Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts		
Circle Diameter	1524 mm (60 in.)	
Rotation	360 deg.	
Drive	Hydraulic motor and worm gear with positive lock	
Circle Side Shift (right and left)	787 mm (31 in.)	
<b>Moldboard</b>		
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.)	
<b>Cutting Edge</b>		
Dura-Max™ through-hardened steel edge		
Thickness	16 mm (0.62 in.)	
Width	152 mm (6 in.)	

# 620G/GP

Scarifiers			
620G/GP			
	Front	Mid-mount	
Type	V-type toolbar with manual 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 at Typical FT4 Weight			
Penetration	9296 kg (20,494 lb.)	—	
Pry-Out	11 222 kg (24,740 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 IV	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 5/8 in.) Cutting Edges, and 79-kg (175 lb.) Operator			
	EPA Final Tier 4/EU Stage IV*	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II'	
Front	4178 kg (9,210 lb.)	4207 kg (9,275 lb.)	
Rear	11 567 kg (25,500 lb.)	10 671 kg (23,525 lb.)	
Total	15 744 kg (34,710 lb.)	14 878 kg (32,800 lb.)	
Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment			
Front	4926 kg (10,860 lb.)	5080 kg (11,200 lb.)	
Rear	13 376 kg (29,490 lb.)	12 428 kg (27,400 lb.)	
Total	18 302 kg (40,350 lb.)	17 509 kg (38,600 lb.)	
Maximum Operating Weight	22 680 kg (50,000 lb.)	22 680 kg (50,000 lb.)	
*With 14R24 L2 tires. / 'With 13-24 Bias L2 tires.			

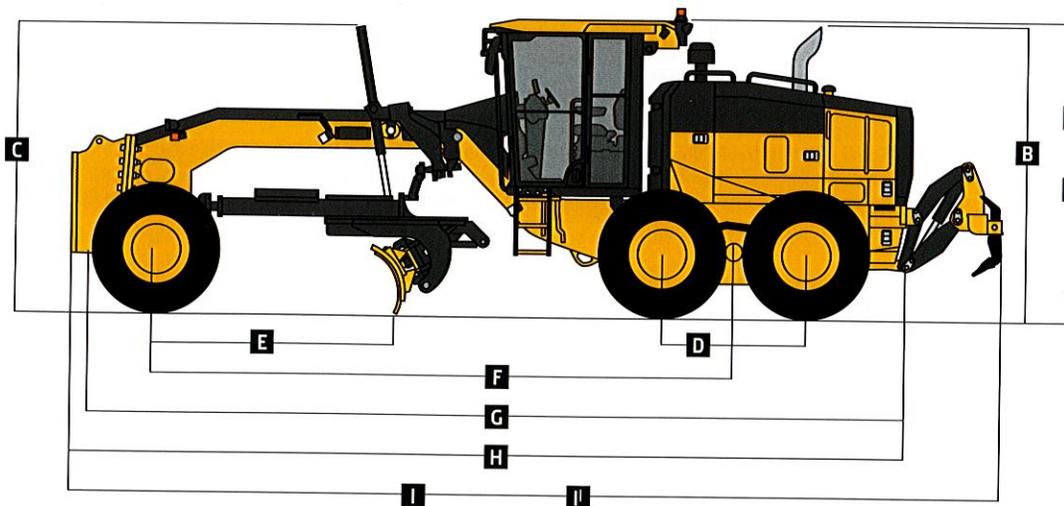
Option Weights	620G/GP
<b>Moldboards with Through-Hardened Dura-Max Cutting Edge</b>	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	45 kg (99 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	157.4 kg (347 lb.)
<b>Extensions, 610 mm (2 ft.) (right or left)</b>	
For Use with 610-mm (24 in.) Moldboards	116 kg (255 lb.)
<b>Overlay End Bits, Reversible (one pair)</b>	
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.)
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.)
<b>Scarifier</b>	
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.)
<b>Tires</b>	
13.00-24, 12 PR G2	-79 kg (-174 lb.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A' 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
<b>Tires (continued)</b>	
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.)
<b>1-Piece Rims</b>	
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.)
<b>Multi-Piece Rims</b>	
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.)
<b>Fenders</b>	
Front	77 kg (169 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.)
<b>Lighting Packages</b>	
10 Halogen Lights	4.5 kg (10 lb.)
16 Halogen Lights	7 kg (16 lb.)
18 Halogen Lights	8 kg (18 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' 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

Engine		670G/GP			
Manufacturer and Model	John Deere PowerTech™ PSS 9.0L	John Deere PowerTech™ Plus 9.0L	John Deere PowerTech™ 9.0L	John Deere PowerTech Plus 6.8L	John Deere PowerTech 6.8L
Non-Road Emission Standard	EPA Final Tier 4/ EU Stage IV	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6	6	6
Displacement	9.0L (548 cu. in.)	9.0L (548 cu. in.)	9.0L (548 cu. in.)	6.8L (414 cu. in.)	6.8L (414 cu. in.)
Net Engine Power					
Gear 1	127 kW (170 hp)	123 kW (165 hp)	123 kW (165 hp)	116 kW (155 hp)	116 kW (155 hp)
Gear 2	138 kW (185 hp)	134 kW (180 hp)	134 kW (180 hp)	119 kW (160 hp)	119 kW (160 hp)
Gear 3	149 kW (200 hp)	146 kW (195 hp)	146 kW (195 hp)	131 kW (175 hp)	131 kW (175 hp)
Gear 4	157 kW (210 hp)	153 kW (205 hp)	153 kW (205 hp)	138 kW (185 hp)	134 kW (180 hp)
Gear 5	160 kW (215 hp)	157 kW (210 hp)	157 kW (210 hp)	142 kW (190 hp)	138 kW (185 hp)
Gear 6	168 kW (225 hp)	164 kW (220 hp)	164 kW (220 hp)	146 kW (195 hp)	138 kW (185 hp)
Gear 7	172 kW (230 hp)	168 kW (225 hp)	168 kW (225 hp)	149 kW (200 hp)	138 kW (185 hp)
Gear 8	175 kW (235 hp)	172 kW (230 hp)	172 kW (230 hp)	153 kW (205 hp)	138 kW (185 hp)
Net Peak Torque	1230 Nm (907 lb.-ft.)	1204 Nm (888 lb.-ft.)	1204 Nm (888 lb.-ft.)	915 Nm (675 lb.-ft.)	831 Nm (613 lb.-ft.)
Net Torque Rise	63%	63%	63%	42%	44%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	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	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	Dual element, dry	Dual element, dry
<b>Cooling</b>					
Engine Coolant, Extended Life, Rating	-37 deg. C (-34 deg. F)				
<b>Powertrain</b>					
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	<i>No tire slip at 2,180 rpm, 14.0-R24 tires</i>				
Gear 1	4.0 km/h (2.5 mph)				
Gear 2	5.6 km/h (3.5 mph)				
Gear 3	7.7 km/h (4.8 mph)				
Gear 4	10.9 km/h (6.8 mph)				
Gear 5	16.4 km/h (10.2 mph)				
Gear 6	23.2 km/h (14.4 mph)				
Gear 7	32.3 km/h (20.1 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)				
<b>Hydraulics</b>					
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 cm³ (5.5 cu. in.)				

# 670G / GP SPECIFICATIONS



<b>Blade Function</b>		<b>670G/GP</b>	
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions			
<b>Blade Range</b>			
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.		
<b>Blade Pull</b>			
At Maximum Operating Weight	15 501 kg (34,173 lb.)		
<b>Electrical</b>			
Solid-state load center and sealed-switch module			
	<i>EPA Final Tier 4/EU Stage IV</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>	
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	
<b>Lights</b>	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		
<b>Mainframe</b>			
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 <sup>3</sup> (88 cu. in.)		
Average Vertical Section at Saddle	2245 cm <sup>3</sup> (137 cu. in.)		
<b>Draft Frame (drawbar)</b>			
Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts			
<b>Circle</b>			
Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts			
Circle Diameter	1524 mm (60 in.)		
Rotation	360 deg.		
Drive	Hydraulic motor and worm gear with positive lock		
Circle Side Shift (right and left)	787 mm (31 in.)		
<b>Moldboard</b>			
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.)		
<b>Cutting Edge</b>			
Dura-Max™ through-hardened steel edge			
Thickness	16 mm (0.62 in.)		
Width	152 mm (6 in.)		

# 670G/GP

Scarifiers		670G/GP	
		<i>Front</i>	<i>Mid-mount</i>
Type		V-type toolbar with manual 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.)
<b>Front Lift Group (Balderson-style)</b>			
Parallel linkage, mechanical pins, and hydraulic float			
Lift			
Above Ground (top of tube)		1864 mm (73.4 in.)	
Range		988 mm (38.9 in.)	
<b>Rear Ripper/Scarifier</b>			
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch			
		<i>Ripper</i>	<i>Scarifier</i>
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 at Typical FT4 Weight			
Penetration		9520 kg (20,987 lb.)	—
Pry-Out		12 544 kg (27,656 lb.)	—
Shank Size		61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)
<b>Operator Station</b>			
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)			
<b>Tires/Wheels</b>			
		<i>14R24 on 254-mm (10 in.) Rim</i>	<i>17.5R25 on 356-mm (14 in.) Rim</i>
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.)
<b>Serviceability</b>			
		<i>EPA Final Tier 4/EU Stage IV</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
<b>Refill Capacities</b>		<i>9.0L engine</i>	<i>9.0L engine</i> <i>6.8L engine</i>
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.)	44.0 L (11.6 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.)
<b>Operating Weights</b>			
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 5/8 in.) Cutting Edges, 14-24 Bias L2 Tires, and 79-kg (175 lb.) Operator			
		<i>EPA Final Tier 4/EU Stage IV</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
Front		4178 kg (9,210 lb.)	4188 kg (9,232 lb.)
Rear		11 798 kg (26,010 lb.)	11 316 kg (24,948 lb.)
Total		15 976 kg (35,220 lb.)	15 504 kg (34,180 lb.)
Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment			
Front		5507 kg (12,140 lb.)	5476 kg (12,072 lb.)
Rear		13 698 kg (30,200 lb.)	13 053 kg (28,778 lb.)
Total		19 205 kg (42,340 lb.)	18 529 kg (40,850 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 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	45 kg (99 lb.)
3.66 m x 686 mm x 25 mm (12 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	126 kg (277 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 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	180 kg (396 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 19-mm (3/4 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.)
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 <sup>1</sup> 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.)

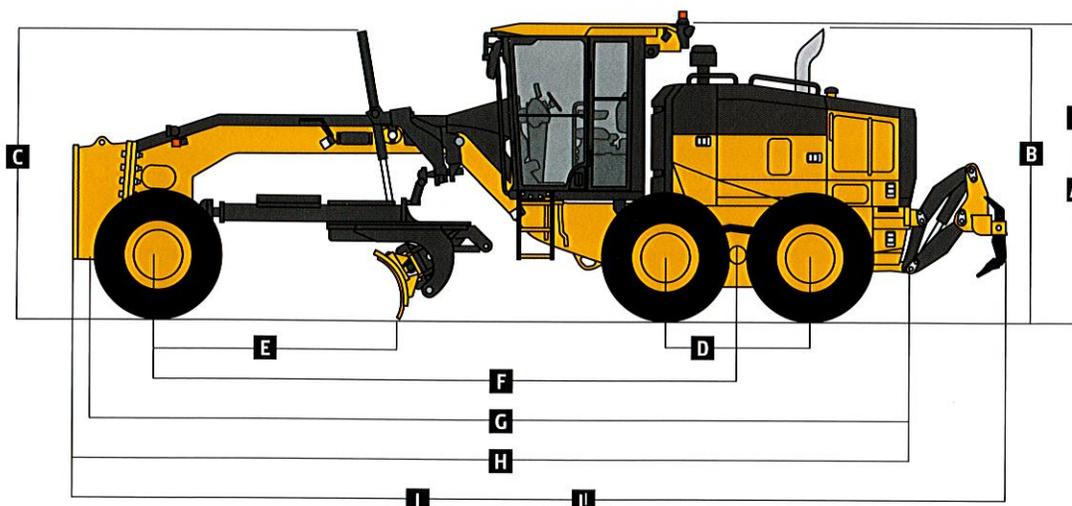
## Option Weights (continued) 670G/GP

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	77 kg (169 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.)
16 Halogen Lights	7 kg (16 lb.)
18 Halogen Lights	8 kg (18 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 <sup>1</sup> 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

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 IV	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.)
<b>Net Engine Power</b>			
Gear 1	142 kW (190 hp)	138 kW (185 hp)	138 kW (185 hp)
Gear 2	153 kW (205 hp)	149 kW (200 hp)	149 kW (200 hp)
Gear 3	164 kW (220 hp)	160 kW (215 hp)	160 kW (215 hp)
Gear 4	172 kW (230 hp)	168 kW (225 hp)	168 kW (225 hp)
Gear 5	175 kW (235 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	186 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	1318 Nm (972 lb.-ft.)	1291 Nm (952 lb.-ft.)	1291 Nm (952 lb.-ft.)
Net Torque Rise	64%	64%	64%
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
<b>Cooling</b>			
Engine Coolant, Extended Life, Rating	-37 deg. C (-34 deg. F)		
<b>Powertrain</b>			
<b>Transmission</b>	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		
<b>Gears</b>			
Forward	8		
Reverse	8		
<b>Maximum Travel Speeds</b>	<i>No tire slip at 2,180 rpm, 14.0-R24 tires</i>		
Gear 1	4.0 km/h (2.5 mph)		
Gear 2	5.6 km/h (3.5 mph)		
Gear 3	7.7 km/h (4.8 mph)		
Gear 4	10.9 km/h (6.8 mph)		
Gear 5	16.4 km/h (10.2 mph)		
Gear 6	23.2 km/h (14.4 mph)		
Gear 7	32.3 km/h (20.1 mph)		
Gear 8	45.5 km/h (28.3 mph)		
<b>Front Axle</b>	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
<b>Differentials</b>	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
<b>Steering (all models include steering wheel)</b>	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.		
<b>Final Drives</b>	Inboard-mounted planetary sealed in cooled, filtered oil		
<b>Brakes</b>	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)		
<b>Hydraulics</b>			
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 cm³ (5.5 cu. in.)		

# 770G / GP SPECIFICATIONS



<b>Blade Function</b>	<b>770G/GP</b>	
	All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions	
<b>Blade Range</b>		
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.	
<b>Blade Pull</b>		
At Maximum Operating Weight	15 501 kg (34,173 lb.)	
<b>Electrical</b>		
Solid-state load center and sealed-switch module	<i>EPA Final Tier 4/EU Stage IV</i>	
	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>	
Voltage	24 volt	
Number of Batteries	2	
Battery Capacity	1,400 CCA	
Reserve Capacity	440 min.	
Amp-Hour Rating	224 amp-hour	
Alternator Rating		
Base	130 amp	
Optional	200 amp	
<b>Lights</b>	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	
<b>Mainframe</b>		
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 <sup>3</sup> (108 cu. in.)	
Average Vertical Section at Saddle	2245 cm <sup>3</sup> (137 cu. in.)	
<b>Draft Frame (drawbar)</b>		
	Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts	
<b>Circle</b>		
	Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts	
Circle Diameter	1524 mm (60 in.)	
Rotation	360 deg.	
Drive	Hydraulic motor and worm gear with positive lock	
Circle Side Shift (right and left)	787 mm (31 in.)	
<b>Moldboard</b>		
	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.)	
<b>Cutting Edge</b>		
	Dura-Max™ through-hardened steel edge	
Thickness	16 mm (0.62 in.)	
Width	152 mm (6 in.)	

# 770G/GP

Scarifiers	770G/GP	
	Front	Mid-mount
Type	V-type toolbar with manual 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 at Typical FT4 Weight		
Penetration	9608 kg (21,182 lb.)	—
Pry-Out	12 689 kg (27,974 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.)	2.77 m (109.0 in.)
Ground Clearance (front axle)	587 mm (23.1 in.)	587 mm (23.1 in.)	612 mm (24.1 in.)

## Serviceability

	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II
<b>Refill Capacities</b>		
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.)	27.0 L (7.1 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 5/8 in.) Cutting Edges, 14R24 L2 Tires, and 79-kg (175 lb.)

	EPA Final Tier 4/EU Stage IV	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II
<b>Operator</b>		
Front	4305 kg (9,490 lb.)	4314 kg (9,510 lb.)
Rear	12 084 kg (26,640 lb.)	11 440 kg (25,220 lb.)
Total	16 388 kg (36,130 lb.)	15 753 kg (34,730 lb.)
<b>Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment</b>		
Front	5570 kg (12,280 lb.)	5605 kg (12,358 lb.)
Rear	13 825 kg (30,480 lb.)	13 175 kg (29,047 lb.)
Total	19 396 kg (42,760 lb.)	18 781 kg (41,405 lb.)
<b>Maximum Operating Weight</b>	24 948 kg (55,000 lb.)	24 948 kg (55,000 lb.)

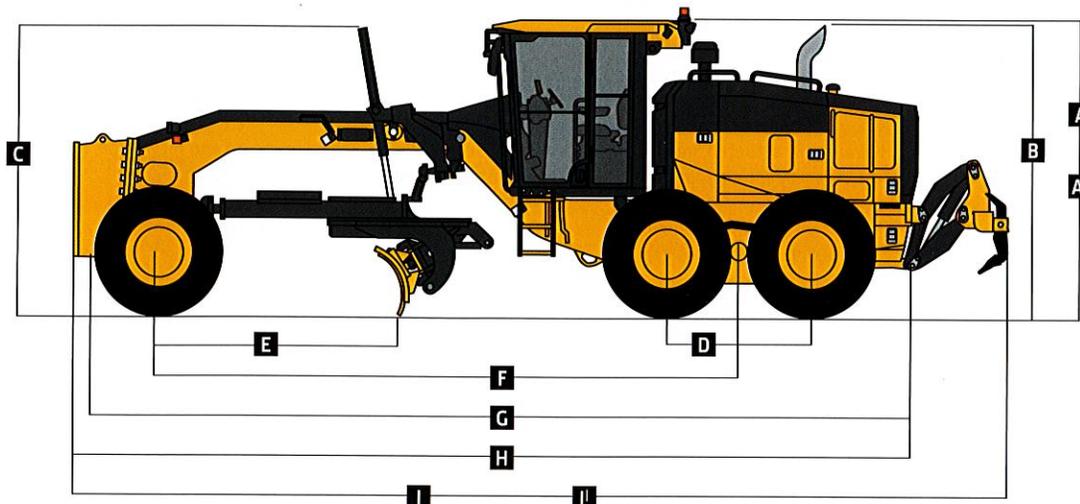
Option Weights	770G/GP
<b>Moldboards with Through-Hardened Dura-Max Cutting Edge</b>	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	0 kg (0 lb.)
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	45 kg (99 lb.)
3.66 m x 686 mm x 25 mm (12 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	126 kg (277 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 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	180 kg (396 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 152-mm x 16-mm (6 in. x 5/8 in.) cutting edge and 16-mm (5/8 in.) hardware	105 kg (231 lb.)
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 19-mm (3/4 in.) hardware	261 kg (575 lb.)
<b>Extensions, 610 mm (2 ft.) (right or left)</b>	
For Use with 610-mm (24 in.) Moldboards	116 kg (255 lb.)
For Use with 686-mm (27 in.) Moldboards	120 kg (265 lb.)
<b>Overlay End Bits, Reversible (one pair)</b>	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
<b>Heavy-Duty Dual-Input Circle-Drive Gearbox</b>	
Circle-Drive Slip Clutch	9 kg (20 lb.)
<b>Moldboard Impact-Absorption System</b>	
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.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A' 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
<b>Scarifier</b>	
Front Mount with Teeth (5)	831 kg (1,833 lb.)
Mid-Mount with Teeth (11)	1481 kg (3,265 lb.)
<b>Front Lift Group (Balderson-style)</b>	
Tires	763 kg (1,682 lb.)
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.)
<b>1-Piece Rims</b>	
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.)
<b>Multi-Piece Rims</b>	
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.)
<b>Fenders</b>	
Front	77 kg (169 lb.)
Rear	141 kg (310 lb.)
<b>Low Cab with Opening Front and Side Windows</b>	
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.)
<b>Lighting Packages</b>	
10 Halogen Lights	4.5 kg (10 lb.)
16 Halogen Lights	7 kg (16 lb.)
18 Halogen Lights	8 kg (18 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 24.





# 870G / GP SPECIFICATIONS

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 IV	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	160 kW (215 hp)	153 kW (205 hp)	153 kW (205 hp)
Gear 2	172 kW (230 hp)	164 kW (220 hp)	164 kW (220 hp)
Gear 3	183 kW (245 hp)	175 kW (235 hp)	175 kW (235 hp)
Gear 4	190 kW (255 hp)	183 kW (245 hp)	183 kW (245 hp)
Gear 5	194 kW (260 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	1428 Nm (1,053 lb.-ft.)	1329 Nm (980 lb.-ft.)	1329 Nm (980 lb.-ft.)
Net Torque Rise	62%	57%	57%
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
<b>Cooling</b>			
Engine Coolant, Extended Life, Rating	-37 deg. C (-34 deg. F)		
<b>Powertrain</b>			
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	<i>No tire slip at 2,180 rpm, 14.0-R24 tires</i>		
Gear 1	3.9 km/h (2.4 mph)		
Gear 2	5.6 km/h (3.5 mph)		
Gear 3	7.9 km/h (4.9 mph)		
Gear 4	10.9 km/h (6.8 mph)		
Gear 5	16.7 km/h (10.4 mph)		
Gear 6	23.3 km/h (14.5 mph)		
Gear 7	32.2 km/h (20.0 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)		
<b>Hydraulics</b>			
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 cm³ (5.5 cu. in.)		

# 870G / GP SPECIFICATIONS



<b>Blade Function</b>		<b>870G/GP</b>
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
<b>Blade Range</b>		
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.	
<b>Blade Pull</b>		
At Maximum Operating Weight	15 501 kg (34,173 lb.)	
<b>Electrical</b>		
Solid-state load center and sealed-switch module		
	<i>EPA Final Tier 4/EU Stage IV</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
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
<b>Lights</b>	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	
<b>Mainframe</b>		
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 <sup>3</sup> (108 cu. in.)	
Average Vertical Section at Saddle	2635 cm <sup>3</sup> (161 cu. in.)	
<b>Draft Frame (drawbar)</b>		
Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts		
<b>Circle</b>		
Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts		
Circle Diameter	1524 mm (60 in.)	
Rotation	360 deg.	
Drive	Hydraulic motor and worm gear with positive lock	
Circle Side Shift (right and left)	787 mm (31 in.)	
<b>Moldboard</b>		
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.)	
<b>Cutting Edge</b>		
Dura-Max™ through-hardened steel edge		
Thickness	19 mm (0.75 in.)	
Width	203 mm (8 in.)	

# 870G/GP

Scarifiers		870G/GP		
		<i>Front</i>		<i>Mid-mount</i>
Type		V-type toolbar with manual 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.)
<b>Front Lift Group (Balderson-style)</b>				
Parallel linkage, mechanical pins, and hydraulic float				
Lift				
Above Ground (top of tube)		1864 mm (73.4 in.)		
Range		988 mm (38.9 in.)		
<b>Rear Ripper/Scarifier</b>				
Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch				
		<i>Ripper</i>		<i>Scarifier</i>
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 at Typical FT4 Weight				
Penetration		10 087 kg (22,238 lb.)		—
Pry-Out		13 185 kg (29,068 lb.)		—
Shank Size		61.5 x 133 mm (2.42 x 5.25 in.)		25 x 76 mm (1 x 3 in.)
<b>Operator Station</b>				
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)				
<b>Tires/Wheels</b>				
		<i>14R24 on 254-mm (10 in.) Rim</i>	<i>17.5R25 on 356-mm (14 in.) Rim</i>	<i>550/65R25 on 432-mm (17 in.) Rim</i>
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.)	2.77 m (109.0 in.)
Ground Clearance (front axle)		587 mm (23.1 in.)	587 mm (23.1 in.)	612 mm (24.1 in.)
<b>Serviceability</b>				
<b>Refill Capacities</b>		<i>EPA Final Tier 4/EU Stage IV</i>		<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
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.)		27.0 L (7.1 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.)
<b>Operating Weights</b>				
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 3/4 in.) Cutting Edges, 17.5R25 L2 Tires, and 79-kg (175 lb.) Operator				
		<i>EPA Final Tier 4/EU Stage IV</i>		<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>
Front		4531 kg (9,990 lb.)		4540 kg (10,010 lb.)
Rear		12 487 kg (27,530 lb.)		11 843 kg (26,110 lb.)
Total		17 019 kg (37,520 lb.)		16 384 kg (36,120 lb.)
Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment				
Front		5788 kg (12,760 lb.)		5869 kg (12,940 lb.)
Rear		14 515 kg (32,000 lb.)		13 689 kg (30,179 lb.)
Total		20 303 kg (44,760 lb.)		19 558 kg (43,119 lb.)
Maximum Operating Weight		24 948 kg (55,000 lb.)		24 948 kg (55,000 lb.)

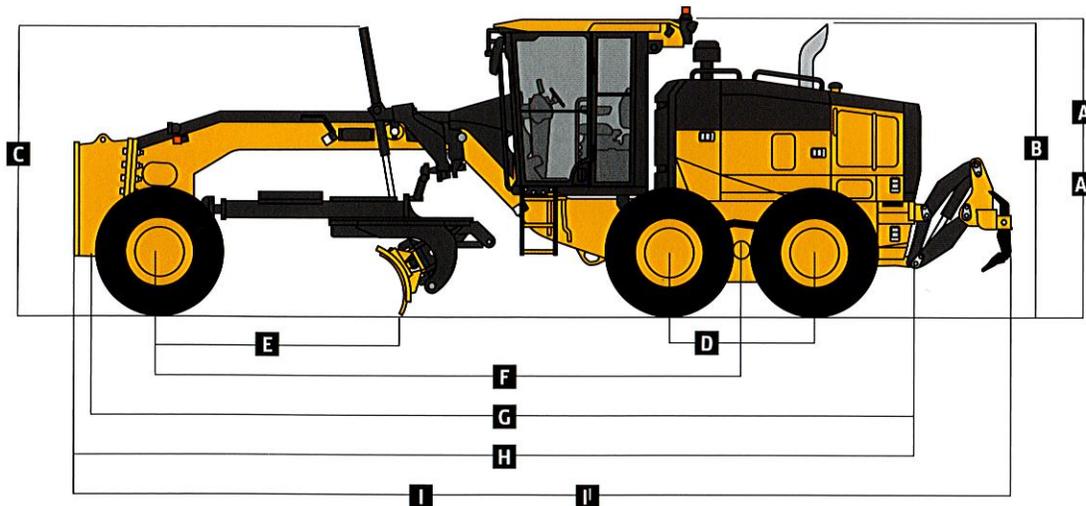
Option Weights	870G/GP
Moldboards with Through-Hardened Dura-Max Cutting Edge	
3.66 m x 686 mm x 25 mm (12 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 in.) hardware	- 126 kg (- 278 lb.)
3.96 m x 686 mm x 25 mm (13 ft. x 27 in. x 1 in.) with 203-mm x 19-mm (8 in. x 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 16-mm (5/8 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 3/4 in.) cutting edge and 19-mm (3/4 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 3/4 in.) cutting edge and 19-mm (3/4 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.)
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.)

Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 in.)
A' 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.)

Option Weights (continued)	870G/GP
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
Tires	
14.00-24, 12 PR G2	- 272 kg (- 600 lb.)
17.5-25, 12 PR G2/L2	- 158 kg (- 348 lb.)
14.00-R24, Radial, G2/L2 General Purpose	- 52 kg (- 114 lb.)
14.00-R24, Radial, G2/L2 Snow	- 11 kg (- 24 lb.)
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.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	- 87 kg (- 192 lb.)
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	77 kg (169 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.)
16 Halogen Lights	7 kg (16 lb.)
18 Halogen Lights	8 kg (18 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' 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 rearview camera with dedicated 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, WB, and XM Satellite Radio™ ready
●	●	●	●	Push-button-activated cruise control

620	670	770	870	Electrical
●	●	●	●	100-amp alternator
▲	▲	▲	▲	130-amp alternator
▲	▲	▲	▲	200-amp alternator (FT4/Stage IV)
●	●	●	●	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
<b>Moldboard</b>				
<b>Patented pre-stressed, high strength, wear resistant:</b>				
●	●	●		3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.)
	▲	▲	▲	3.66 m x 686 mm x 25 mm (12 ft. x 27 in. x 1 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 7/8 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

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 7/8 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 175 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
●	●	●	●	JDLINK™ Ultimate 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
●	●	●	●	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 IV)
	▲	●	●	Heavy-duty air cleaner (FT4/Stage IV)
●	●	●		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
▲	▲	▲	▲	AutoShift 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)

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-ready package
Grade Control				
▲	▲	▲	▲	Mast mounts
▲	▲	▲	▲	Topcon ready on GP models*
▲	▲	▲	▲	Trimble ready on GP models*
▲	▲	▲	▲	Leica ready on GP models*

\*Available soon on G models.

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