

620 G

4WD Motor Grader



JOHN DEERE





MAKE GRADE IN A BIG WAY

For almost six decades, John Deere motor graders have been building a reputation for outstanding control and effortless grading precision. Customer input has driven productivity boosters like onboard diagnostics within the primary in-cab display. Durable and jobsite-proven mechanical controls. Same-side service checkpoints designed to save time and effort. And the smaller, budget-friendly 620 G-Tier. Its exceptional balance, optimized performance specs, and reliable capability can help you take grading performance to the next level and your operation in a reimagined new direction.

Just your fit

Our competitively priced 620 G-Tier offers contractors, townships, and municipalities the grader they asked for, with just the right amount of power and fuel savings of up to 10 percent over our larger models.

Shift the focus

Optional Auto-Shift PLUS allows operators to move the machine and work without having to use the inching pedal.

The power to be productive

Balanced engine horsepower, torque, and blade pull produce generous force and lugging ability, to deliver power to the ground, easily pull through tough spots, and tackle steep hills. John Deere motor graders are designed with optimal weight distribution over each axle, for outstanding stability and grading performance.

Picture yourself here

All-around visibility is virtually unobstructed, with a clear view to the heel and toe as well as behind the moldboard. You can also see the area beneath the front axle, for increased awareness of oncoming obstacles. LCD hi-vis monitor provides intuitive, push-button access to vital machine data displayed via simple, easy-to-navigate icons and menus. High-resolution rearview camera with dedicated in-cab monitor comes standard.



Premium circle productivity

Featuring a fully sealed bearing and pinion that run smooth and quiet, the industry-leading design of the optional premium circle reduces operating costs while delivering 40-percent more torque and 15-percent more speed than a traditional circle. The premium circle eliminates having to compensate for wear in the circle. And greasing intervals of only four zerkers every 500 hours simplify maintenance of the premium circle. Durable dual-input and proven single-input circles are also available.



CHOOSE LEVER-OPERATED CONTROLS OR STEERING WHEEL

Take control

Conventional lever-operated mechanical controls are arranged in an ergonomic antler-rack configuration for intuitive use.

Uptime is everything

All daily service points, including fuel and diesel exhaust fluid (DEF), are grouped on the left side of the machine for convenient ground-level access. On the right, periodic-service points including the engine oil, hydraulic, transmission, differential, and fuel filter bank are within easy reach. Cooling package minus stacked coolers plus hinged swing-out fan simplifies core cleanout. Optional variable-speed hydraulically driven fan runs only as fast or as often as needed, to deliver quiet operation and help conserve power and fuel.

Working in tandem

Crab steering on the four-wheel-drive 620 G-Tier positions the tandems on firm ground, reduces side drift, and increases side-slope stability.

Connected machines

John Deere construction equipment comes with in-base connectivity — free from subscriptions or annual renewals. Analyze critical machine data, track utilization, review diagnostic alerts, and more from **the John Deere Operations Center™**. The Operations Center also enables John Deere Connected Support™, which uses data from thousands of connected machines to proactively identify issues and help keep you running. With your approval, your dealer can also remotely monitor machine health, diagnose problems, and even update machine software without a trip to the jobsite.*

*Availability varies by region and product. Options not available in every country.

620 G-TIER MOTOR GRADER SPECIFICATIONS

Engine	620 G-TIER		
Manufacturer and Model	John Deere PowerTech™ PSS 6.8L	John Deere PowerTech™ Plus 6.8L	John Deere PowerTech™ 6.8L
Non-Road Emission Standard	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA	EPA Tier 2/EU Stage II
Cylinders	6	6	6
Displacement	6.8L (414 cu. in.)	6.8L (414 cu. in.)	6.8L (414 cu. in.)
Net Engine Power			
Gear 1	112 kW (150 hp)	112 kW (150 hp)	112 kW (150 hp)
Gear 2	123 kW (165 hp)	123 kW (165 hp)	123 kW (165 hp)
Gear 3	134 kW (180 hp)	130 kW (175 hp)	130 kW (175 hp)
Gear 4	142 kW (190 hp)	134 kW (180 hp)	134 kW (180 hp)
Gear 5	149 kW (200 hp)	142 kW (190 hp)	138 kW (185 hp)
Gear 6	153 kW (205 hp)	146 kW (195 hp)	138 kW (185 hp)
Gear 7	157 kW (210 hp)	149 kW (200 hp)	138 kW (185 hp)
Gear 8	160 kW (215 hp)	149 kW (200 hp)	138 kW (185 hp)
Net Peak Torque	1005 Nm (741 lb.-ft.)	915 Nm (675 lb.-ft.)	831 Nm (613 lb.-ft.)
Net Torque Rise	40%	37%	44%
Aspiration	Series turbocharged, charge-air cooled	Turbocharged, charge-air cooled	Turbocharged, charge-air cooled
Lubrication	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler	Full-flow spin-on filter and integral cooler
Air Cleaner With Restriction Indicator	Dual element, dry	Dual element, dry	Dual element, dry
Cooling			
Engine Coolant, Extended Life, Rating	–37 deg. C (–34 deg. F)		
Powertrain			
Transmission	Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system		
Gears			
Forward	8		
Reverse	8		
Maximum Travel Speeds	No tire slip at 2,180 rpm, 14.0-R24 tires	Maximum Travel Speeds (continued)	No tire slip at 2,180 rpm, 14.0-R24 tires
Gear 1	4.0 km/h (2.5 mph)	Gear 5	16.4 km/h (10.2 mph)
Gear 2	5.6 km/h (3.5 mph)	Gear 6	23.2 km/h (14.4 mph)
Gear 3	7.7 km/h (4.8 mph)	Gear 7	32.3 km/h (20.1 mph)
Gear 4	10.9 km/h (6.8 mph)	Gear 8	45.5 km/h (28.3 mph)
Front Axle	Heavy-duty welded fabrication		
Oscillation (total)	32 deg.		
Wheel Lean Angle (each direction)	20 deg.		
Differentials	Spiral bevel; hydraulically actuated, clutch type can be applied on-the-go; selectable manual or automatic differential lock		
Steering (all models include steering wheel)	All-hydraulic power-frame articulation for maneuverability and productivity; crab steering reduces side drift, positions tandems on firm ground, and increases side-slope stability		
Turning Radius (front steer and articulation)	7.21 m (284 in.) (23 ft. 8 in.)		
Articulation (both right and left)	22 deg.		
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil		
Brakes	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled, filtered oil; both independent systems effective on all 4 tandem wheels		
Primary and Secondary Brakes	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450)		
Parking Brake	Automatically spring applied, hydraulically released, oil cooled, self-adjusting (ISO 3450)		
Hydraulics			
Type	Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump		
Maximum Pump Flow	212 L/min. (56 gpm)		
Maximum System Pressure	18 961 kPa (2,750 psi)		
Pump Displacement	90 cm³ (5.5 cu. in.)		

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620 G-TIER MOTOR GRADER SPECIFICATIONS

620

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Blade Function		620 G-TIER
All-hydraulic, industry-standard lever placement of blade-function controls; includes float position; 7 discrete saddle positions		
Blade Range		
Lift Above Ground		490 mm (19.3 in.)
Blade Side Shift (right or left)		683 mm (26.9 in.)
Pitch at Ground Line		
Forward		42 deg.
Back		5 deg.
Shoulder Reach Outside Wheels (frame straight, right or left)		2083 mm (82.0 in.) (6 ft. 10 in.)
Bank Cut Angle (right or left)		90 deg.
Blade Pull		
At Maximum Operating Weight		14 091 kg (31,066 lb.)
Electrical		
Solid-state load center and sealed-switch module	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II
Voltage	24 volt	24 volt
Number of Batteries	2	2
Battery Capacity	1,400 CCA	1,010 CCA
Optional	—	1,400 CCA
Reserve Capacity	440 min.	190 min.
Optional	—	440 min.
Amp-Hour Rating	224 amp-hour	110 amp-hour
Optional	—	224 amp-hour
Alternator Rating		
Base	130 amp	100 amp
Optional	—	130 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights	
Mainframe		
Type	Welded box construction	
Width (minimum)	307 mm (12.1 in.)	
Height (minimum)	307 mm (12.1 in.)	
Thickness		
Side	16 mm (0.63 in.)	
Top and Bottom Plate	23 mm (0.89 in.)	
Draft Frame (drawbar)		
Welded box construction machined for flatness with double ball-and-socket pivot connection		
Circle		
Welded construction, heat-treated, and machined for flatness		
	Standard Circle	Premium Circle
Circle Diameter	1524 mm (60 in.)	1524 mm (60 in.)
Rotation	360 deg.	360 deg.
Surface	Quick-change bronze or nylon wear inserts	Sealed and lubricated roller element slewing bearing
Pinion/Ring-Gear Connection	Adjustable backlash and open for serviceability	No adjustment; fully sealed and lubricated
Drive	Hydraulic motor and worm gear with positive lock	Hydraulic motor and worm gear with positive lock
Slip Clutch	Option	Standard
Circle Side Shift (right and left)	787 mm (31 in.)	787 mm (31 in.)
Moldboard		
High-strength, pre-stressed for higher strength; wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system		
Base Length	3.66 m (144 in.) (12 ft. 0 in.)	4.27 m (168 in.) (14 ft. 0 in.)
Height (measured along arc, including cutting edge)	610 mm (24 in.)	610 mm (24 in.)
Thickness	22 mm (0.88 in.)	22 mm (0.88 in.)

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620 G-TIER

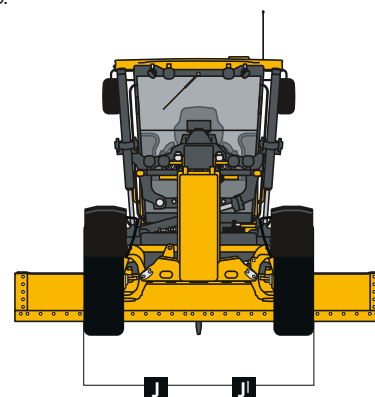
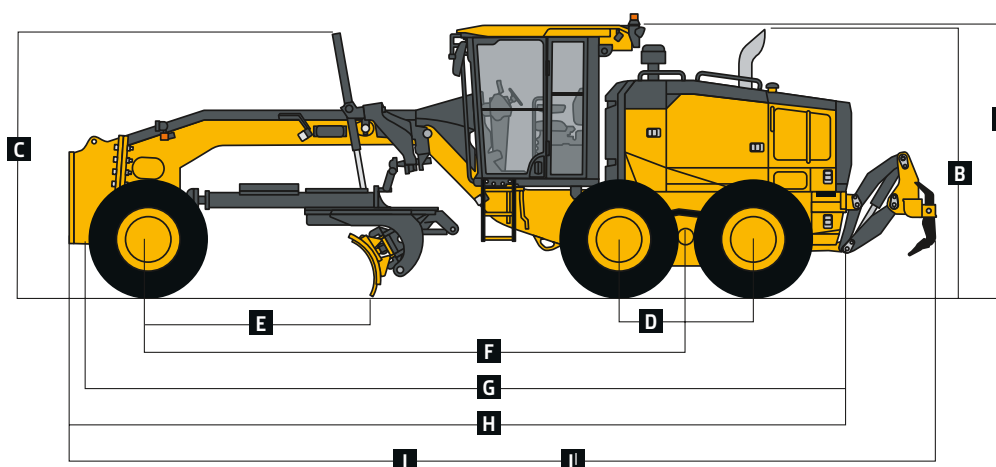
Cutting Edge		620 G-TIER	
Dura-Max™ through-hardened steel edge			
Thickness	16 mm (0.62 in.)		
Width	152 mm (6 in.)		
Scarifiers			
	Front	Mid-mount	
Type	V-type toolbar with 2-pitch positions and hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float	
Width of Cut	1.20 m (48 in.) (4 ft. 0 in.)	1.19 m (46.7 in.) (3 ft. 11 in.)	
Number of Shanks/Teeth	5 (maximum capacity 9)	11	
Lift Above Ground	589 mm (23.2 in.)	335 mm (13.2 in.)	
Maximum Depth	335 mm (13.2 in.)	325 mm (12.8 in.)	
Shank			
Spacing	146 mm (5.75 in.)	117 mm (4.6 in.)	
Size	25 x 76 mm (1 x 3 in.)	25 x 76 mm (1 x 3 in.)	
Front Lift Group (Balderson-style)			
Parallel linkage, mechanical pins, and hydraulic float			
Lift			
Above Ground (top of tube)	1864 mm (73.4 in.)		
Range	988 mm (38.9 in.)		
Front Dozer Blade			
Parallel linkage and hydraulic float			
Lift Above Ground	706 mm (27.8 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 (86.0 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.)	
Shank Size	61.5 x 133 mm (2.42 x 5.25 in.)	25 x 76 mm (1 x 3 in.)	
Operator Station			
Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)			
Tires/Wheels			
	14R24 on 254-mm (10 in.) Rim	17.5R25 on 356-mm (14 in.) Rim	
Wheel Tread on Ground	2.08 m (82.0 in.)	2.16 m (85.0 in.)	
Ground Clearance (front axle)	587 mm (23.1 in.)	587 mm (23.1 in.)	
Serviceability			
Refill Capacities	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II	
Fuel Tank	397.0 L (105 gal.)	303.0 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			
	EPA Final Tier 4/EU Stage V	EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II	
With Full Fuel Tank, 3.66 m x 610-mm x 22-mm (12 ft. x 24 in. x 7/8 in.) Moldboard With 152-mm x 16-mm (6 in. x 5/8 in.) Cutting Edge, 14-24 Bias L2 Tires, and 79-kg (175 lb.) Operator			
Front	4200 kg (9,259 lb.)	4248 kg (9,365 lb.)*	
Rear	11 568 kg (25,503 lb.)	10 773 kg (23,750 lb.)*	
Total	15 768 kg (34,762 lb.)	15 021 kg (33,115 lb.)*	
Typical Operating Weight With Front Push Block, Rear Ripper/Scarifier, and Other Equipment			
Front	4980 kg (10,978 lb.)	5122 kg (11,292 lb.)	
Rear	13 361 kg (29,455 lb.)	12 531 kg (27,626 lb.)	
Total	18 340 kg (40,433 lb.)	17 653 kg (38,918 lb.)	
Maximum Operating Weight	22 680 kg (50,000 lb.)	22 680 kg (50,000 lb.)	
*With 13-24 Bias L2 tires.			

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Option Weights	620 G-TIER
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.)	0 kg (0 lb.)
With 152-mm x 16-mm (6 in. x 5/8 in.) Cutting Edge and 16-mm (5/8 in.) Hardware	
3.66 m x 610 mm x 22 mm (12 ft. x 24 in. x 7/8 in.)	45 kg (99 lb.)
With 203-mm x 19-mm (8 in. x 3/4 in.) Cutting Edge and 16-mm (5/8 in.) Hardware	
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.)	105 kg (231 lb.)
With 152-mm x 16-mm (6 in. x 5/8 in.) Cutting Edge and 16-mm (5/8 in.) Hardware	
4.27 m x 610 mm x 22 mm (14 ft. x 24 in. x 7/8 in.)	157.4 kg (347 lb.)
With 203-mm x 19-mm (8 in. x 3/4 in.) Cutting Edge and 16-mm (5/8 in.) Hardware	
Extensions, 610 mm (2 ft.) (right or left)	
For Use With 610-mm (24 in.) Moldboards	116 kg (255 lb.)
Overlay End Bits, Reversible (one pair)	
For 152-mm (6 in.) Cutting Edge	19.5 kg (43 lb.)
For 203-mm (8 in.) Cutting Edge	23 kg (51 lb.)
Circle-Drive Slip Clutch	9 kg (20 lb.)
Circle	
Standard	0 kg (0 lb.)
Premium	289 kg (638 lb.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper/Scarifier, Rear Mounted With Hitch and Ripper Shanks (3)	1139 kg (2,510 lb.)
Scarifier Shanks With Teeth (9 for rear ripper/scarifier)	68 kg (150 lb.)
Rear Counterweight With Integral Rear Hitch	727 kg (1,603 lb.)
Rear Hitch	54.4 kg (120 lb.)
Push Block, Front	907 kg (2,000 lb.)
Scarifier	
Front Mount With Teeth (5)	831 kg (1,833 lb.)
Mid-Mount With Teeth (11)	1481 kg (3,265 lb.)
Machine Dimensions	
A Height to Top of Cab	3.18 m (10 ft. 5 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.)
F Wheelbase	6.16 m (20 ft. 3 in.)
G Overall Length	8.89 m (29 ft. 2 in.)

Option Weights (continued)	620 G-TIER
Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
Tires	
14.00-24, 16 PR G2	0 kg (0 lb.)
17.5-25, 16 PR G2/L2	114 kg (252 lb.)
14.00-R24, Radial, G2/L2 General Purpose	220 kg (486 lb.)
14.00-R24, Radial, G2/L2 Snow	261 kg (576 lb.)
17.5-R25, Radial, L2 General Purpose	272 kg (600 lb.)
17.5-R25, Radial, G2/L2 Snow	316 kg (696 lb.)
17.5-R25, Radial, G3/L3 General Purpose	362 kg (798 lb.)
1-Piece Rims	
229 mm x 610 mm (9 in. x 24 in.)	0 kg (0 lb.)
330 mm x 635 mm (13 in. x 25 in.)	65 kg (144 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	180 kg (396 lb.)
356 mm x 635 mm (14 in. x 25 in.)	267 kg (588 lb.)
Fenders	
Front	99 kg (218 lb.)
Rear	158 kg (348 lb.)
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.)
Secondary Steering	26 kg (58 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.5 kg (10 lb.)
18 Halogen Lights	8 kg (18 lb.)
18 LED Lights	7 kg (16 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	7 kg (15 lb.)
Hydraulics for Front-Mounted Equipment	9 kg (19 lb.)
Machine Dimensions (continued)	
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.)
J Overall Length With Scarifier and Ripper	10.59 m (34 ft. 9 in.)
Overall Length With Front-Mounted Blade and Ripper	10.60 m (34 ft. 9 in.)
J Overall Width With 14.00-R24 Tires*	2.49 m (8 ft. 2 in.)
J Overall Width With 17.5-R25 Tires*	2.64 m (8 ft. 8 in.)

*Also see Tires/Wheels on page 6.



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MG620GAB (25-11)



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