



620G 4WD SPECIFICATIONS



ENGINE

Manufacturer and Model
John Deere PowerTech™ 6,8 L

Non-Road Emission Standard
EPA Tier 2/EU Stage II

Cylinders
6

Displacement
6,8 L (414 cu. in.)

Net Engine Power

Gear 1	108 kW (145 hp)
Gear 2	119 kW (160 hp)
Gear 3	131 kW (175 hp)
Gear 4	134 kW (180 hp)
Gear 5	138 kW (185 hp)
Gear 6	138 kW (185 hp)
Gear 7	138 kW (185 hp)
Gear 8	138 kW (185 hp)

Net Peak Torque
831 Nm (613 lb.-ft.)

Net Torque Rise
44%

Aspiration
Turbocharged, charge-air cooled

Lubrication
Full-flow spin-on filter and integral cooler

Air Cleaner with Restriction Indicator
Dual element, dry

COOLING

Engine Coolant, Extended Life, Rating:
-37 deg. C (-34 deg. F)

POWERTRAIN

Transmission
Direct-drive John Deere PowerShift Plus™, modulated shift-on-the-go, Event-Based Shifting (EBS), inching pedal; independent transmission reservoir with separate filtration and cooling system with 117-L/min. (31 gpm) gear pump

Gears
Forward 8
Reverse 8

Maximum Travel Speeds
No tyre slip at 2 180 rpm, 14.0-R24 tyres

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)

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.)

BLADE FUNCTION

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):
2 083 mm (82 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 Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II

Voltage
24 volt

Number of Batteries
2

Battery Capacity
950 CCA

Reserve Capacity
190 min.

Amp-Hour Rating
110 amp-hour

Alternator Rating
Base: 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.)

Modulus:

Minimum Vertical Section:
1 445 cm³ (88 cu. in.)

Average Vertical Section at Saddle:
2 245 cm³ (137 cu. in.)

DRAFT FRAME (DRAWBAR)

Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts

CIRCLE

Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts.

Circle Diameter:
1 524 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.)

MOLDBOARD

High-strength, pre-stressed for higher strength; wear-resistant, high-carbon steel and reversible end bits; blade side-shift wear system includes quick-change replaceable wear inserts and quick-adjust jackscrew system

Base Length:
4,27 (168 in.) (14 ft.)

Height (measured along arc, including cutting edge):
610 mm (24 in.)

Thickness:
22 mm (0.88 in.)

CUTTING EDGE

Dura-Max™ through-hardened steel edge

Thickness:
16 mm (0.62 in.)

Width:
152 mm (6 in.)

SCARIFIERS (620G 4WD)

Type

Front: V-type toolbar with manual 2-pitch positions and hydraulic float.

Mid-Mount: Radial linkage, with NeverGrease™ pin joints; V-type manual 3-pitch positions and hydraulic float

Width of Cut

Front: 1.20 m (48 in.) (4 ft. 0 in.)
Mid-Mount: 1.19 m (46.7 in.) (3 ft. 11 in.)

Number of Shanks/Teeth

Front: 5 (maximum capacity 9)

Mid-Mount: 11

Lift Above Ground

Front: 589 mm (23.2 in.)

Mid-Mount: 335 mm (13.2 in.)

Maximum Depth

Front: 335 mm (13.2 in.)

Mid-Mount: 325 mm (12.8 in.)

Shank: Spacing

Front: 146 mm (5.75 in.)

Mid-Mount: 117 mm (54.6 in.)

Shank: Size

Front: 25 x 76 mm (1 x 3 in.)

Mid-Mount: 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):
1 864 mm (73.4 in.)

Range:

988 mm (38.9 in.)

REAR RIPPER/SCARIFIER

Parallel linkage, with NeverGrease pin joints, hydraulic float, and integrated hitch

Width of Cut

Ripper: 2,21 m (87.2 in.) (7 ft. 3 in.)

Scarifier: 2,18 m (86 in.) (7 ft. 2 in.)

Number of Shanks/Teeth

Ripper: 3 (maximum capacity 5)

Scarifier: None standard (maximum capacity 9)

Lift Above Ground

Ripper: 602 mm (23.7 in.)

Scarifier: 810 mm (31.9 in.)

Maximum Depth

Ripper: 426 mm (16.8 in.)

Scarifier: 323 mm (12.7 in.)

Force at Typical FT4 Weight Penetration

Ripper: 9 296 kg (20,494 lb.)

Pry-Out

Ripper: 11 222 kg (24,740 lb.)

Shank Size

Ripper: 61,5 x 133 mm (2.42 x 5.25 in.)

Scarifier: 25 x 76 mm (1 x 3 in.)

OPERATOR STATION

Low-profile cab with ROPS (ISO 3471-2008) and FOPS (ISO 3449-2005)

TYRES/WHEELS

Optional:

13x24 on 254-mm (10 in.) Rim

- Wheel Tread on Ground: 2,08 m (82 in.)

- Overall Width: 2,49 m (98 in.)

- Ground Clearance (front axle): 557 mm (21.9 in.)

Optional:

14R24 on 254-mm (10 in.) Rim

- Wheel Tread on Ground: 2,08 m (82.0 in.)

- Overall Width: 2,49 m (98.0 in.)

- Ground Clearance (front axle): 587 mm (23.1 in.)

Standard:

17.5R25 on 356-mm (14 in.) Rim

- Wheel Tread on Ground: 2,16 m (85.0 in.)

- Overall Width: 2,64 m (104.0 in.)

- Ground Clearance (front axle): 587 mm (23.1 in.)

SERVICEABILITY

Refill Capacities:

EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II

Fuel Tank:

303 L (80 gal.)

Cooling System:

44,0 L (11.6 gal.)

Engine Oil with Filter:

26,0 L (6.9 gal.)

Transmission Fluid:

28,4 L (7.5 gal.)

Differential Housing:

38,0 L (10 gal.)

Tandem Housings (each):

74,0 L (19.5 gal.)

Circle Gearbox:

5,7 L (1.5 gal.)

Hydraulic Reservoir:

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, 13-24 Bias L2 Tyres, and 79-kg (175 lb.)

Operator:

EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II

Front: 4 207 kg (9,275 lb.)

Rear: 10 671 kg (23,525 lb.)

Total: 14 878 kg (32,800 lb.)

- Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment

Front: 5 080 kg (11,200 lb.)

Rear: 12 428 kg (27,400 lb.)

Total: 17 509 kg (38,600 lb.)

Maximum Operating Weight:
22 680 kg (50,000 lb.)

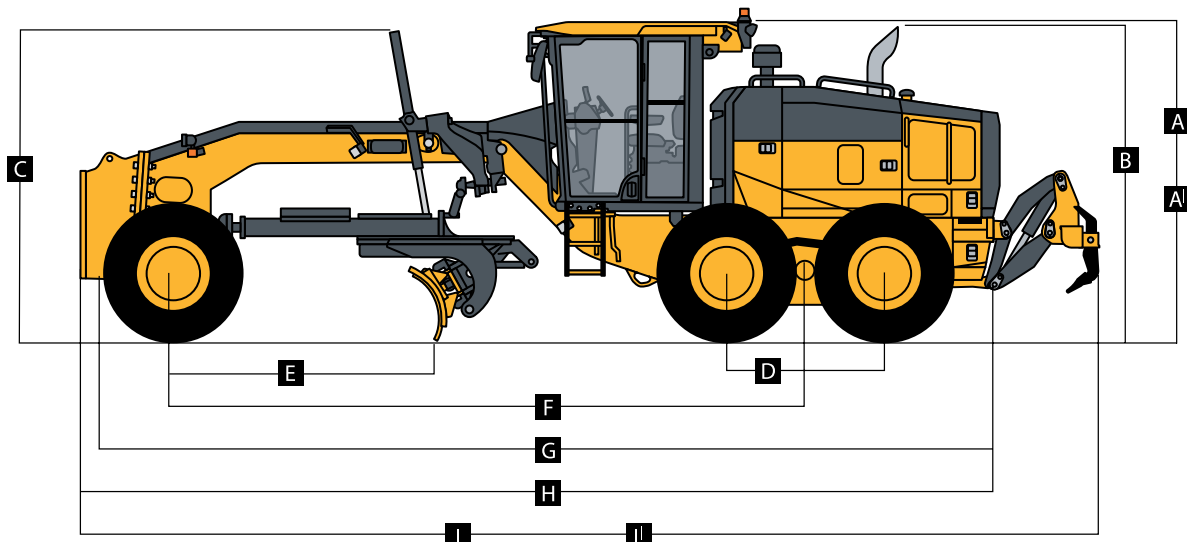
MACHINE DIMENSIONS

A	Height to Top of Cab	3,18 m (10 ft. 5 in.)
AI	Height to Top of Full-Height Cab	3,40 m (11 ft. 2 in.)
B	Height to Top of Exhaust	3,10 m (10 ft. 2 in.)
C	Height to Top of Blade-Lift Cylinders	3,05 m (10 ft. 0 in.)
D	Tandem Axle Spacing	1,54 m (5 ft. 1 in.)
E	Blade Base	2,57 m (8 ft. 5 in.)

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F	Wheelbase	6,16 m (20 ft. 3 in.)
G	Height to Top of Full-Height Cab	8,89 m (29 ft. 2 in.)
H	Height to Top of Exhaust	9,69 m (31 ft. 9 in.)
I	Height to Top of Blade-Lift Cylinders	9,99 m (32 ft. 9 in.)
I'	Tandem Axle Spacing	10,59 m (34 ft. 9 in.)

For Overall Width see Tyres/Wheels



Option Weights	670G 4WD
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.)
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.)
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.)
Moldboard Impact-Absorption System	43 kg (95 lb.)
Ripper, 3 Shank, No Scarifier	1 052 kg (2,139 lb.)
Ripper/Scarifier, Rear Mounted with Hitch and Ripper Shanks (3)	1 139 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	907 kg (2,000 lb.)
Scarifier	
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.)
Tyres	
13.00-24, 12 PR G2	-79 kg (1174 lb.)
14.00-24, 12 PR G2	0 kg (0 lb.)
17.5-25, 12 PR G2/L2	114 kg (252 lb.)
14.00-R24, Radial, G2/L2 General Purpose	220 kg (486 lb.)
14.00-R24, Radial, G2/L2 Snow	261 kg (576 lb.)
17.5-R25, Radial, L2 General Purpose	272 kg (600 lb.)
17.5-R25, Radial, G2/L2 Snow	316 kg (696 lb.)
17.5-R25, Radial, G3/L3 General Purpose	362 kg (798 lb.)
1-Piece Rims	
229 mm x 610 mm (9 in. x 24 in.)	0 kg (0 lb.)
330 mm x 635 mm (13 in. x 25 in.)	65 kg (144 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	180 kg (396 lb.)
356 mm x 635 mm (14 in. x 25 in.)	267 kg (588 lb.)
Fenders	
Front	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.)