



670G PLUS 4WD SPECIFICATIONS



ENGINE

Manufacturer and Model

John Deere PowerTech™ 9.0 L

Non-Road Emission Standard

EPA Tier 2/EU Stage II

Cylinders

6

Displacement

9,0 L (548 cu. in.)

Net Engine Power

Gear 1	123 kW (165 hp)
Gear 2	134 kW (180 hp)
Gear 3	146 kW (195 hp)
Gear 4	153 kW (205 hp)
Gear 5	157 kW (210 hp)
Gear 6	164 kW (220 hp)
Gear 7	168 kW (225 hp)
Gear 8	172 kW (230 hp)

Net Peak Torque

1 204 Nm (888 lb.-ft.)

Net Torque Rise

63%

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

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 (82.0 in.) (6 ft. 10 in.)

Bank Cut Angle (right or left):

90 deg.

BLADE PULL

At Maximum Operating Weight:

15 501 kg (34,173 lb.)

ELECTRICAL

Solid-state load center and sealed switch module

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 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 m (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 (670G 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: 9 520 kg (20,987 lb.)

Pry-Out

Ripper: 12 544 kg (27,656 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

Standard:

17.5x25 L4

• 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:

9,0L engine

Fuel Tank:

416,5 L (110 gal.)

Cooling System:

48,5 L (12.8 gal.)

Engine Oil with Filter:

28,0 L (7.4 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.)

Operator:

Front: 4 188 kg (9,232 lb.)

Rear: 11 316 kg (24,948 lb.)

Total: 15 504 kg (34,180 lb.)

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

Front: 5 476 kg (12,072 lb.)

Rear: 13 053 kg (28,778 lb.)

Total: 18 529 kg (40,850 lb.)

Maximum Operating Weight:
24 948 kg (55,000 lb.)

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, 14-24 Bias L2 Tyres, and 79-kg (175 lb.)

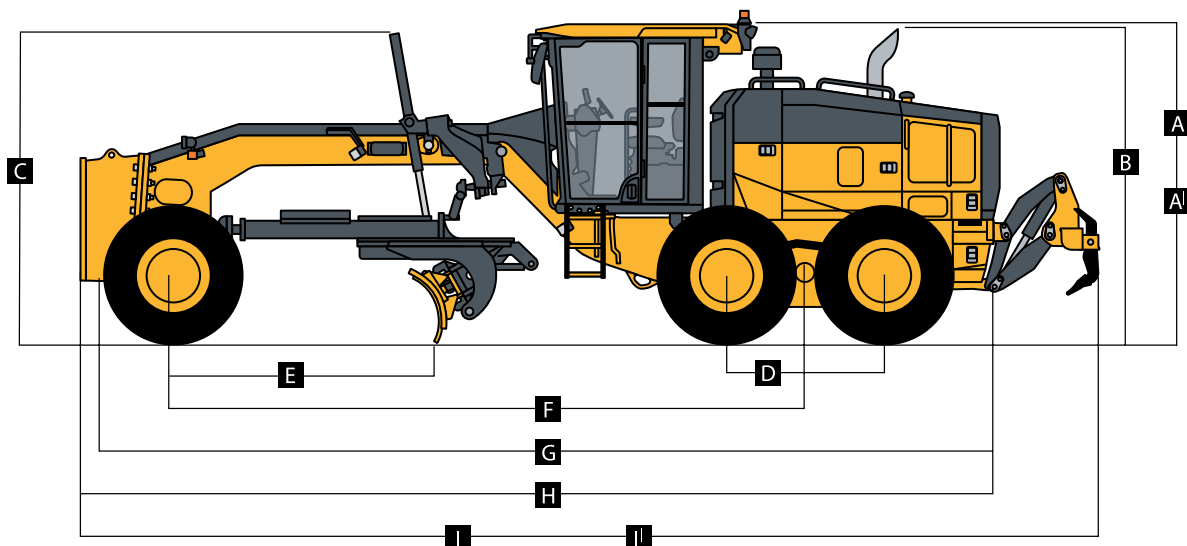
MACHINE DIMENSIONS

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.)

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 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.)
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).....	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	1 338 kg (2,950 lb.)

Scarifier

Teeth (5).....	831 kg (1,833 lb.)
Mid-Mount with Teeth (11)	1 481 kg (3,265 lb.)

Front Lift Group (Balderson-style)	763 kg (1,682 lb.)
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Tyres

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.)