

872G/GP

Engine		872G/GP		
Manufacturer and Model	John Deere PowerTech™ PSX 9.0L	John Deere PowerTech™ Plus 9.0L	John Deere PowerTech™ 9.0L	
Non-Road Emissions Standard	EPA Interim Tier 4/EU Stage IIIB	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 Power				
Gear 1 (6WD on)	165 kW (221 hp)	160 kW (214 hp)	160 kW (214 hp)	
Gear 2 (6WD on)	169 kW (227 hp)	163 kW (219 hp)	163 kW (219 hp)	
Gear 3 (6WD on)	180 kW (241 hp)	180 kW (241 hp)	180 kW (241 hp)	
Gear 4 (6WD on)	186 kW (249 hp)	180 kW (241 hp)	180 kW (241 hp)	
Gear 5 (6WD on)	193 kW (259 hp)	186 kW (250 hp)	186 kW (250 hp)	
Gear 6 (6WD on)	204 kW (273 hp)	198 kW (265 hp)	198 kW (265 hp)	
Gear 7 (6WD on)	211 kW (283 hp)	205 kW (275 hp)	205 kW (275 hp)	
Gear 8	204 kW (273 hp)	198 kW (265 hp)	198 kW (265 hp)	
Net Peak Torque	1375 Nm (1,014 lb.-ft.)	1353 Nm (998 lb.-ft.)	1353 Nm (998 lb.-ft.)	
Net Torque Rise	51%	53%	53%	
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				
Cooling-on-demand, hydraulic-driven, variable-speed fan drive to optimize fuel consumption; auto-reversing fan to keep coolers clean; swing-out rear fan door and foldout or sliding coolers for easy cleaning of all cooling components				
Engine Coolant, Extended Life, Rating	-37 deg. C (-34 deg. F)			
Powertrain				
6-Wheel Drive		Automatic dual-path hydrostatic drive; increases tractive effort and front-end control; includes separate left and right systems with variable-displacement pumps, axial-piston wheel motors, and freewheel at transport speeds; operator-selectable 15-position rotary aggressiveness control and inching capability down to 0 mph; precision mode (propelled by front wheels only)		
6-Wheel-Drive Effective Gears		1-7 forward and reverse		
Precision Mode				
Effective Gears		1-3 forward only		
Operating Speeds		0.4-8.0 km/h (0.25-5.0 mph)		
Hydrostatic Pumps (2 each)		64 cm ³ (3.9 cu. in.)		
Wheel Motors		60 cm ³ (3.7 cu. in.)		
Final Reduction		38.7:1		
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>With no tire slip at 2,180 rpm, 14.00-R24 tires</i>		
Shift Lever Position 1		3.9 km/h (2.4 mph)		
Shift Lever Position 2		5.6 km/h (3.5 mph)		
Shift Lever Position 3		7.9 km/h (4.9 mph)		
Shift Lever Position 4		10.9 km/h (6.8 mph)		
Shift Lever Position 5		16.7 km/h (10.4 mph)		
Shift Lever Position 6		23.3 km/h (14.5 mph)		
Shift Lever Position 7		32.2 km/h (20.0 mph)		
Shift Lever Position 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		



Powertrain (continued)	
Steering (all models include steering wheel)	872G/GP 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 option
Turning Radius (front steer and articulation)	7.21 m (23 ft. 8 in.)
Articulation (both right and left)	22 deg.
Final Drives	Inboard-mounted planetary sealed in cooled, filtered oil
Drive-Chain Pitch	51 mm (2 in.)
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	
Closed-center, pressure-compensated load-sensing (PCLS), variable-displacement piston pump, O-ring face-seal fittings	
Maximum Pump Flow	217 L/min. (57.4 gpm)
Maximum System Pressure	18 961 kPa (2,750 psi)
Pump Displacement	90 cm ³ (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	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 (7 ft. 8 in.)
Bank Cut Angle (right or left)	90 deg.
Productivity	
Blade Pull (maximum weight [22 054 kg (48,620 lb.)], 0.9 coefficient of traction)	18 082 kg (39,864 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	100, 130, or 150 amp
Lights	Driving lights; 2 high- and 2 low-beam halogen headlights; front and rear LED turn signals and marker lights; LED brake and hazard warning lights
Mainframe	
Type	Welded box construction
Width (minimum)	307 mm (12.1 in.)
Height (minimum)	307 mm (12.1 in.)
Thickness	
Side	16 mm (0.63 in.)
Top and Bottom Plate	30 mm (1.17 in.)
Modulus	
Minimum Vertical Section	1770 cm ³ (108 cu. in.)
Average Vertical Section at Saddle	2635 cm ³ (161 cu. in.)
Draft Frame (drawbar)	
Welded box construction machined for flatness with double ball-and-socket pivot connection equipped with quick-change replaceable wear inserts	
Circle	
Welded construction, heat-treated, machined for flatness, equipped with quick-change replaceable wear inserts	
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.)

Moldboard		872G/GP	
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			
Length	4.27 m (14 ft. 0 in.)		
Height (measured along arc, including cutting edge)	686 mm (27 in.)		
Thickness	25 mm (1.00 in.)		
Cutting Edge			
Dura-Max™ through-hardened steel edge			
Thickness	19 mm (0.75 in.)		
Width	203 mm (8 in.)		
Scarifiers			
Type	<i>Front</i>	<i>Mid-mount</i>	
	V-type toolbar with manual 2-pitch positions, with hydraulic float	Radial linkage, with NeverGrease™ pin joints; V-type toolbar with manual 3-pitch positions, with hydraulic float	
Width of Cut	1.20 m (4 ft. 0 in.)	1.19 m (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 Penetration	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			
	<i>Ripper</i>	<i>Scarifier</i>	
Width of Cut	2.21 m (7 ft. 3 in.)	2.18 m (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 Penetration	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			
	<i>14.00-24 on 254-mm (10 in.) Rim</i>	<i>17.5-25 on 356-mm (14 in.) Rim</i>	<i>550/65R25 on 432-mm (17 in.) Rim</i>
Wheel Tread on Ground (front and rear)	2.08 m (82 in.)	2.16 m (85 in.)	2.21 m (87 in.)
Overall Width (top of tires, front and rear)	2.49 m (98 in.)	2.64 m (104 in.)	2.77 m (109 in.)
Ground Clearance (front axle, front and rear)	587 mm (23.1 in.)	587 mm (23.1 in.)	612 mm (24.1 in.)
Serviceability			
Refill Capacities			
Fuel Tank	416.4 L (110 gal.)		
Cooling System	57.9 L (15.3 gal.)		
Engine Oil with Filter	28.0 L (7.4 gal.)		
Transmission Fluid (refill)	28.4 L (7.5 gal.)		
Differential Housing	37.9 L (10 gal.)		
Tandem Housings (each)	73.8 L (19.5 gal.)		
Circle Gearbox	5.7 L (1.5 gal.)		
Hydraulic Reservoir	60.6 L (16 gal.)		
Operating Weights			
With Full Fuel Tank, 4.27-m x 686-mm x 25-mm (14 ft. x 27 in. x 1.0 in.) Moldboard with 203-mm x 19-mm (8 in. x 3/4 in.) Cutting Edges, 17.5 R 25 L2 Tires, and 79-kg (175 lb.) Operator			
	<i>EPA Interim Tier 4/EU Stage IIIB</i>	<i>EPA Tier 3/EU Stage IIIA and EPA Tier 2/EU Stage II</i>	
Front	5094 kg (11,230 lb.)	5103 kg (11,250 lb.)	
Rear	12 891 kg (28,420 lb.)	12 242 kg (26,990 lb.)	
Total	17 985 kg (39,650 lb.)	17 345 kg (38,240 lb.)	
Typical Operating Weight with Front Push Block, Rear Ripper/Scarifier, and Other Equipment			
Front	6323 kg (13,940 lb.)	6407 kg (14,124 lb.)	
Rear	14 864 kg (32,770 lb.)	14 036 kg (30,944 lb.)	
Total	21 187 kg (46,710 lb.)	20 443 kg (45,068 lb.)	
Maximum Operating Weight	22 054 kg (48,620 lb.)	22 054 kg (48,620 lb.)	

Option Weights	872G/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	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	120.2 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	23.1 kg (51 lb.)
Extended-Wear Circle Wear Inserts	19.5 kg (43 lb.)
Circle-Drive Slip Clutch	9.1 kg (20 lb.)
Moldboard Impact-Absorption System	43.1 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	727.1 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)	831.4 kg (1,833 lb.)
Mid-Mount with Teeth (11)	1481 kg (3,265 lb.)
Front Lift Group (Balderson-style)	762.9 kg (1,682 lb.)
Tires	
14.00-24, 12 PR G2	- 272.2 kg (- 600 lb.)
17.5-25, 12 PR G2/L2	- 157.9 kg (- 348 lb.)
14.00-R24, Radial, G2/L2 General Purpose	- 51.7 kg (- 114 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	3.13 m (10 ft. 3 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)	872G/GP
Tires (continued)	
14.00-R24, Radial, G2/L2 Snow	- 10.9 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	89.8 kg (198 lb.)
550/65R25 XLD70 G3/L3 Radial, General Purpose	443.6 kg (978 lb.)
Multi-Piece Rims	
254 mm x 610 mm (10 in. x 24 in.)	- 85.3 kg (- 188 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.)	46.3 kg (102 lb.)
Fenders	
Front	76.7 kg (169 lb.)
Rear	140.6 kg (310 lb.)
Cab	
Low with Opening Front and Side Windows	14.5 kg (32 lb.)
Tall with Fixed Front and Side Windows	58.5 kg (129 lb.)
With Opening Front and Side Windows	73 kg (161 lb.)
Premium Air-Suspension, Heated Seat with Adjustable Arm- and Headrests	12.7 kg (28 lb.)
Coolant Heater	4.1 kg (9 lb.)
Fast-Fill Fuel System	13.6 kg (30 lb.)
Quick Service	10.9 kg (24 lb.)
Sound-Absorption Package (machines equipped with Tier 3/Stage IIIA and Tier 2/Stage II engines only)	14.1 kg (31 lb.)
Secondary Steering	26.3 kg (58 lb.)
Beacon Bracket	8.2 kg (18 lb.)
Fire Extinguisher	14.5 kg (32 lb.)
Lighting Packages	
10 Halogen Lights	4.53 kg (10 lb.)
16 Halogen Lights	7.25 kg (16 lb.)
18 Halogen Lights	8.2 kg (18 lb.)
High-Front Light Bar for Snowplowing	20 kg (44 lb.)
24- to 12-Volt, 30-Amp Converter	1.4 kg (3 lb.)
Auxiliary Hydraulic Control Valve Section and Controls	6.8 kg (15 lb.)
Hydraulics For Front-Mounted Equipment	8.6 kg (19 lb.)
Wipers/Washers, Lower-Front Windows	4.1 kg (9 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 38.

