

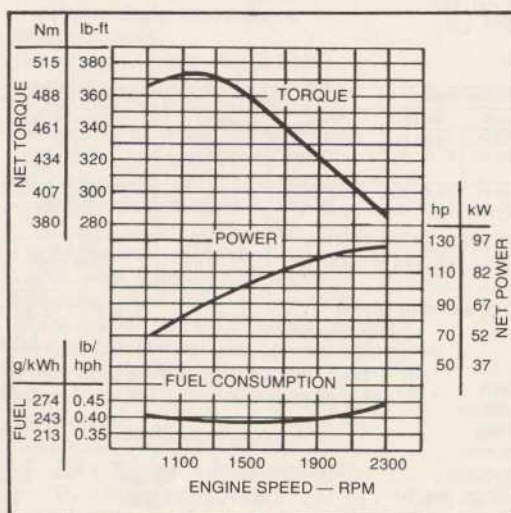


672A MOTOR GRADER



Model shown may include options

ENGINE PERFORMANCE



FEATURES

125 SAE net hp (93 kW)

12-ft. (3.65 m) moldboard with 0.62 x 6 in. (16 x 152 mm) through-hardened Dura-Max® cutting edge; 13- and 14-ft. (3.95 and 4.25 m) moldboards and 2-ft. (610 mm) extensions available

Power Shift transmission; 8 speeds forward, 4 reverse

Articulated frame steering

Differential lock-unlock

All-wheel drive, standard system to 6.3 mph (10.1 km/h), optional system to 10.5 mph (16.9 km/h), switch-controlled for two modes of operation

22-ft. 6 in. (6.86 m) turning radius

All-hydraulic control of blade and machine functions

Closed-center hydraulic system with built-in positive hydraulic locks provides instant response without blade drift or creep

Hydraulically controlled, 7-position lift arms let you position blade for 90-degree bank cuts, left or right, in approximately one minute, without leaving the seat

Oscillating front axle and rear tandem

Hydraulic front-wheel lean

Rollover protective structure (ROPS) w/cab

ADD VERSATILITY WITH:

Scarifier

Rear-mounted ripper

Snow plow and wing

Bulldozer

Automatic blade control

672A MOTOR GRADER SPECIFICATIONS

(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 a unit with 13.00-24, 12-PR, tubeless tires with 8 in. (203 mm) rims, 12-ft. (3.65 m) moldboard with 6-in. (152 mm) cutting edge, and standard equipment. Weights include lubricants, coolants, full fuel tank and 175 lb. (79 kg) operator.)

Rated Power @2300 rpm:	SAE	DIN 70 020
Net	125 hp (93 kW)	93 kW
Gross	135 hp (101 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel @35 API gravity. No derating is required up to 10,000 ft. (3050 m) altitude. Gross power is without cooling fan.

Engine: John Deere 6-414T

Type	4-stroke cycle, turbocharged diesel
Bore and stroke	4.19 x 5.00 in. (106.4 x 127 mm)
No. of cylinders	6
Displacement	414 cu. in. (6.785 L)
Compression ratio	16.2 to 1
Maximum net torque @1300 rpm	372 lb-ft (504 Nm) (51.4 kg-m)
Lubrication	Pressure system w/full-flow filter
Cooling fan	Suction
Air cleaner w/restriction indicator	Dry
Electrical system	25 volt w/42 amp alternator
Batteries (two 12-volt)	Reserve capacity: 360 minutes

Transmission Direct drive, full power shift with planetary gear reductions. Foot inching pedal.

Travel Speeds (2300 engine rpm, no tire slip):

Shift Lever Position	Forward		Reverse	
	mph	km/h	mph	km/h
1	2.3	3.7	2.8	4.5
2	3.2	5.1	3.9	6.3
3	4.8	7.7	5.9	9.5
4	6.3	10.1	7.6	12.2
5	8.2	13.2		
6	10.5	16.9		
7	14.1	22.7		
8	23.9	38.5		

Differential Lock Foot-operated hydraulically actuated

Rear Drive Inboard planetary final drives with heat-treated, splined steel torque shafts. Oscillating welded construction tandems; nodular cast sprockets driving 2 in. (51 mm) pitch roller chain in oil bath.

Front Drive Standard and optional systems are available to match different applications. Both use a variable-displacement pump, a reversible motor in each wheel, and a flow divider to assure front wheel traction. System has two operational modes and free-wheels at transport speeds or when not in use.

Standard system — effective in gears 1-4 .. 5.03 in³ (89 cm³) pump, 2.03 in³ (33 cm³) motors
High speed system — effective in gears 1-6 .. 6.00 in³ (98 cm³) pump, 2.03 in³ (33 cm³) motors

Front Axle: Fabricated steel box frame with planetary drive
Total oscillation 30 deg.
Wheel lean range (either direction) 20 deg.

Steering:

Front Full hydraulic power system. Steering capabilities without engine power
Rear Hydraulically articulated frame steering (25 deg. left or right)
Minimum turning radius 22 ft. 6 in. (6.86 m)

Brakes:

Service Foot-operated, hydraulically actuated, wet-disk, effective on 4 tandem wheels
Parking Foot-operated, mechanical, dry-disk, effective on 4 tandem wheels

Hydraulic System:

Closed-center w/pressure-controlled 4.0 cu. in. (65 cm³) variable-displacement pump 37.6 gpm (2.4 L/s) standard

Moldboard Wear-resistant high-carbon steel
Length 12 ft. (3.65 m)
Height 24 in. (610 mm)
Thickness 0.88 in. (22 mm)

Cutting Edge: Dura-Max® through-hardened curved steel
Thickness and width 0.62 x 6 in. (16 x 152 mm)

Blade Range:

Lift above ground 16.1 in. (409 mm)
Blade side shift:
Right or left 26.9 in. (683 mm)
Shoulder reach outside wheels (frame straight):
Right 84.6 in. (2.15 m)
Left 87.6 in. (2.22 m)
Pitch at ground line 44 deg. forward
10 deg. back

Blade Lifting Mechanism:

Control Dual-lever, hydraulic w/float position

Lift Arms: Nodular cast iron

Positions 7
Control Hydraulic, foot operated

Circle: Fabricated steel angle construction

Circle diameter 58 in. (1.47 m)
Rotation 360 deg.
Drive Hydraulic motor and worm gear w/positive position lock
Sideshift, right 30.0 in. (762 mm)
left 34.4 in. (874 mm)

Drawbar Welded box section, 3.5 x 7 x 0.375 in. (89 x 178 x 9.5 mm) wall, w/ball and socket draft connection

Frame:

Rear mainframe Welded box section from articulation joint to mainframe arch
Width, minimum 9.57 in. (243 mm)
Height, minimum 14.04 in. (357 mm)
Thickness, sides 0.63 in. (16 mm)
top 0.79 in. (20 mm)
bottom 0.87 in. (22 mm)
Weight per ft., minimum 119 lb. (177 kg/m)
Minimum vertical section modulus 125 in³ (2050 cm³)

Front mainframe Welded box section from mainframe arch to front hood
Width 10 in. (254 mm)
Height, minimum 13 in. (330 mm)
Thickness, minimum 0.63 in. (16 mm)
Weight per ft., minimum 110 lb. (164 kg/m)
Minimum vertical section modulus 118 in³ (1935 cm³)

Tires:

13.00-24, 8 PR, G2
13.00-24, 10 PR, G2
13.00-24, 12 PR, G2, standard
14.00-24, 10 PR, G2
14.00-24, 12 PR, G2
17.5-25, 12 PR, L2

Dimensions:

Tire Size	Wheel Tread		Width		Ground Clearance (Front Axle)
	Front	Rear	Front	Rear	
13.00-24 8" rim (203 mm)	76.15 in. (1.93 m)	79.61 in. (2.02 m)	7 ft. 9.5 in. (2.37 m)	7 ft. 10 in. (2.39 m)	22 in. (559 mm)
14.00-24 10" rim (254 mm)	76.15 in. (1.93 m)	79.61 in. (2.02 m)	7 ft. 11.5 in. (2.43 m)	8 ft. (2.44 m)	22.5 in. (572 mm)
17.5-25 14" rim (356 mm)	78.40 in. (1.99 m)	82.37 in. (2.09 m)	8 ft. 5 in. (2.57 m)	8 ft. 6 in. (2.59 m)	23.2 in. (589 mm)

Height to top of steering wheel 7 ft. 4.4 in. (2.25 m)

Capacities:

	U.S.	Liters
Fuel tank	60 gal.	227
Cooling system	7 gal.	26.5
Engine lubrication, including filter	20 qt.	18.9
Transmission and hydraulic system	38 gal.	143.8
Tandem housings (each)	5 gal.	18.9
Worm gearbox	3 qt.	2.8

Scarifier (Special Equipment):

V-type for 4 ft. (1.22 m) cut with 3 manual pitch positions and hydraulic float
Number of teeth 5 standard, 9 optional
Lift above ground 24 in. (610 mm)
Penetration 13.7 in. (350 mm)
Shank size 1 x 3 in. (25 x 76 mm) or 1 1/4 x 4 in. (32 x 102 mm)

Ripper (Special Equipment: 8 ft. (2.44 m) cut width, parallelogram linkage, 2 manual shank vertical positions)

Number of shank pockets 5
Number of shanks 3
Lift above ground 14.5 in. (368 mm)
Penetration 14 in. (356 mm)
Shank size 2 x 5 in. (51 x 127 mm)
Lift above ground (shank in upper position) 23.5 in. (597 mm)

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Additional Standard Equipment:

Gauges:	Horn
Air filter indicator	Hourmeter
Engine oil pressure	Moldboard float
Front-wheel-drive return	Lights, stop and tail
filter indicator	Lights, driving
Front-wheel-drive charge	Precleaner
pressure	Reverse warning alarm
Fuel level	ROPS cab w/seat belt, front wiper
Transmission clutch pressure	and dome light
Transmission filter indicator	Seat, cushioned vinyl
Transmission lube pressure	Turn signals
Transmission temperature	
Water temperature	

SAE Operating Weight	On Front Wheels	On Rear Wheels	Total
Standard equipment	8702 lb. (3947 kg)	18,650 lb. (8460 kg)	27,352 lb.
Standard equipment	9861 lb.	18,477 lb.	28,338 lb.
and scarifier	(4473 kg)	(8381 kg)	(12 854 kg)
Standard equipment,	9128 lb.	21,726 lb.	30,854 lb.
scarifier and ripper	(4140 kg)	(9855 kg)	(13 995 kg)

Optional or Special Equipment with Weights:

(Add these weights to SAE Standard Equipment operating weights to obtain total operating weights.)

	lb.	kg		lb.	kg
Accelerator-decelerator	7	3	Moldboard extensions, 2-ft. (610 mm), right or left (less cutting edge)	220	100
Air conditioner w/heavy-duty alternator	177	80	Overlay end bits (1 pair), 6 in. (152 mm)	62	28
Articulation indicator	5	2	Overlay end bits (1 pair), 8 in. (203 mm)	77	35
Automatic blade control	355	161	Rear hitch	67	30
Auxiliary function valve	114	52	Rims:		
Blade, front bulldozer w/float control	1489	675	10 in. (254 mm) for 14.00-24 tires	472	214
Bottom guard, heavy-duty			14 in. (356 mm) for 17.50-25 tires	674	306
w/rear hitch	665	302	Ripper, rear mounted with hitch	2516	1141
Bottom guard, regular	170	77	ROPS canopy w/seat belt and instrument panel cover	-442	-200
Cold-weather starting aid	10	5	Scarifier, regular w/five teeth		
Dura-Max through-hardened	8.5	(13	1 x 3 in. (25 x 76 mm)		
cutting edge, 3/4 x 8 in. (19 x 203 mm)	lb/ft	kg/m)	w/float control	986	447
Engine disconnect, cold weather	27	12	Seat belt, 3-in. (76 mm)	3	1
Engine side shields	46	21	Seat, deluxe suspension, cloth covered	111	50
Fan, defroster	4	2	Seat, deluxe suspension, vinyl covered	49	22
Front wheel drive in 1st through 6th gears, to 10.5 mph (16.9 km/h); free wheeling in 7th and 8th gears; 6 cu. in. (98 cm ³) variable-displacement pump	34	15	Sound suppression package (includes bottom guard)	761	345
Heater, coolant	1	.5	Sound suppression package (for use w/ripper)	248	112
Heater, cab, 19,000 BTU (5.6 kW)	16	7	Tires:		
Heater, cab, 38,000 BTU (11.1 kW)	31	14	13.00-24, 8 PR, G2	-60	-27
Heater, cab, 40,000 BTU (11.7 kW)	31	14	13.00-24, 10 PR, G2	-42	-19
Heater, roof-mounted, 25,000 BTU (7.3 kW) (add to air conditioner)	17	8	14.00-24, 10 PR, G2	194	88
Hydraulic pump, pressure controlled, variable displacement, 6.0 cu. in. (98 cm ³), 52.4 gpm (3.3 L/s)	44	20	14.00-24, 12 PR, G2	270	122
Lights, blade	4	2	17.50-25, 12 PR, L2	528	239
Lights, work, 2 front/2 rear floods	12	5	Toolbox	12	5
Mat, floor	9	4	Winter door cam for cab	4	2
Mirror, outside rear view, convex, outside	6	3	Wiper, rear windshield	4	2
Mirrors, outside rear view, convex, both sides	12	5			
Mirror, outside rear view, flat, one side	6	3			
Mirror, outside, rear view, flat, both sides	12	5			
Moldboards:					
12-ft. (3.66 m) w/3/4 x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	106	48			
13-ft. (3.96 m) w/5/8 x 6 in. (16 x 152 mm) through-hardened Dura-Max cutting edge	60	27			
13-ft. (3.96 m) w/3/4 x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	116	53			
14-ft. (4.27 m) w/5/8 x 6 in. (16 x 152 mm) through-hardened Dura-Max cutting edge	146	66			
14-ft. (4.27 m) w/3/4 x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	155	70			

672A MOTOR GRADER DIMENSIONS

