

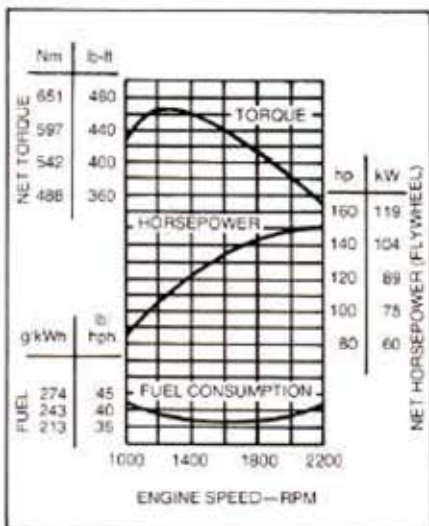


772A MOTOR GRADER



Model shown may include options

ENGINE PERFORMANCE



FEATURES

150 SAE net hp (112 kW)

12-ft. (3.65 m) moldboard with $\frac{5}{8} \times 6$ in. (16 x 152 mm) through-hardened Dura-Max[®] cutting edge guaranteed against breakage, standard; 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 6.7 mph (10.8 km/h), optional system to 11.5 mph (18.5 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 operational no-leak, drift-free poppet valves

Pushbutton control

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

Roll-over protective structure (ROPS) w/cab

ADD VERSATILITY WITH:

Scarifier

Rear-mounted ripper

Snow plow and wings

Bulldozer

Automatic blade control

772A MOTOR GRADER SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 13.00-24, 12-PR, tubeless tires on 8 in. (204 mm) rims; 12-ft. (3.66 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.)

Power (@ 2200 engine rpm):	SAE	DIN
Gross	160 hp (119 kW)	
Net	150 hp (112 kW)	112 kW

Net engine power is with standard equipment including air cleaner, exhaust system, alternator and cooling fan. Gross power is without cooling fan. Power ratings are at standard conditions per SAE J1349 and DIN 70 020. No derating is required up to 10,000 feet (3050 m) altitude.

Engine: John Deere turbocharged and intercooled diesel, vertical 6-cylinder, valve-in-head, 4-stroke cycle

Bore and stroke	4.56×4.75 in. (116×121 mm)
Piston displacement	466 cu. in. (7.638 L)
Compression ratio	14.9 to 1
Maximum torque @ 1300 rpm	465 lb-ft (630 Nm) (64.3 kg-m)
NACC or AMA (U.S. Tax) horsepower	49.9
Main bearings	7
Lubrication	Pressure system w/full-flow filter
Cooling	Pressurized w/thermostat and controlled bypass
Fan	Suction
Aspirated air cleaner w/restriction indicator	Dry
Electrical system	24-volt w/alternator
Batteries (2)	Reserve capacity: 360 minutes
Alternator	42 amp

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

Travel Speeds (2200 engine rpm, no tire slip, 14.00-24 tires):

Shift Lever Position	Forward		Reverse	
	mph	km/h	mph	km/h
1	2.3	3.7	3.0	4.8
2	3.3	5.3	4.2	6.8
3	5.2	8.9	6.6	10.6
4	6.7	10.8	8.6	13.9
5	8.8	14.2		
6	11.5	18.5		
7	14.6	23.6		
8	25.1	40.4		

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:

A 5.43 cu. in. (89 cm³) variable displacement pump driving a 2.03 cu. in. (33 cm³) reversible motor in each wheel. Optimum traction provided by a flow divider. Free-wheeling in gears 5 through 8. Switch controlled for two modes of operation.

Front Axle: Fabricated steel box frame with planetary drives

Total oscillation	30 deg.
Wheel lean (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: (Standard System)

Closed-center w/pressure controlled 4.0 cu. in. (65 cm³) variable-displacement pump .36 gpm (2.27 L/s) @ 2200 engine rpm

Moldboard

Wear-resistant high-carbon steel	
Length	12 ft. (3.66 m)
Height	24 in. (610 mm)
Thickness	0.88 in. (22 mm)

Cutting Edge: Dura-Max[®] through-hardened curved steel

Thickness and width	5/8×6 in. (16×152 mm)
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Blade Range:

Lift above ground	17 in. (432 mm)
Blade side shift:	
Right or left	26.9 in. (683 mm)
Shoulder reach outside wheels (frame straight):	
Right	88.4 in. (2.25 m)
Left	89.6 in. (2.28 m)
Pitch at ground line	44 deg. forward 10 deg. back

Blade Lifting Mechanism:

Control	Dual-lever, hydraulic
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Lift Arms: Nodular cast

Positions	7
Control	Hydraulic, foot operated

Circle Fabricated steel angle construction

Circle diameter	60 in. (1.5 m)
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Rotation 360 deg.

Drive Hydraulic motor and worm gear w/positive position lock

Sideshift, right	32.0 in. (813 mm)
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left	33.5 in. (851 mm)
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Drawbar Welded box section, 3.5×7×0.5 in. (89×178×13mm)

wall w/ball and socket draft connection

Frame:

Rear mainframe Welded flanged box section from articulation joint to mainframe arch

Width, minimum	12.03 in. (306 mm)
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Height, minimum	11.95 in. (304 mm)
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Thickness, sides	0.47 in. (12 mm)
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top and bottom (min.)	0.87 in. (22 mm)
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Weight per ft., minimum	120 lb. (179 kg/m)
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Minimum vertical section modulus	143 inches cubed (2343 cm cubed)
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Front mainframe Welded box section from mainframe arch to front hood

Width	10 in. (254 mm)
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Height, minimum	13 in. (330 mm)
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Thickness, minimum	0.63 in. (16 mm)
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Weight per ft., minimum	110 lb. (164 kg/m)
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Minimum vertical section modulus	118 inches cubed (1935 cm cubed)
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Tires:

13.00-24, 12-PR, G2, standard

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. (2.34 m)	22.00 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. 6 in. (2.29 m)

Capacities

	U.S.	Liters
Fuel tank	70 gal.	265.0
Cooling system	7 gal.	26.5
Engine lubrication, including filter	20 qt.	18.9
Transmission and hydraulic system	41 gal.	155.2
Tandem housings (each)	5 gal.	18.9
Worm gearbox	4 qt.	3.8

Scarifier (Special Equipment):

V-type for 4 ft. (1.22 m) cut with 3 manual pitch positions	
Number of teeth (9 possible)	5
Lift above ground	24.0 in. (610 mm)
Penetration	13.7 in. (348 mm)
Shank size	1×3 in. (25×76 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	2×5 in. (51×127 mm)
Lift above ground (shank in upper position)	23.5 in. (597 mm)

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Additional Standard Equipment:

Gauges:
 Air filter indicator
 Engine oil pressure
 Front-wheel-drive return filter indicator
 Front-wheel-drive charge pressure
 Fuel level
 Hydraulic function return filter indicator
 Transmission clutch pressure
 Transmission filter indicator
 Transmission lube pressure
 Transmission temperature
 Water temperature
 Horn
 Hourmeter
 Lights, stop and tail
 Lights, driving
 Precleaner
 ROPS cab w/seat belt, front wiper and dome light
 Seat, cushioned vinyl
 Transistorized voltage regulator

SAE Operating Weight	On Front Wheels	On Rear Wheels	Total
Standard equipment	9237 lb. (4190 kg)	21,666 lb. (9827 kg)	30,903 lb. (14,017 kg)
Standard equipment and scarifier	10,548 lb. (4784 kg)	21,470 lb. (9739 kg)	32,018 lb. (14,523 kg)
Standard equipment, scarifier and ripper	9780 lb. (4436 kg)	24,712 lb. (11,209 kg)	34,492 lb. (15,645 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	187	85	Moldboard float	14	6
Automatic blade control	350	159	Overlay end bits (1 pair), 6 in. (152 mm)	62	28
Articulation indicator	6	3	Overlay end bits (1 pair), 8 in. (203 mm)	77	35
Batteries, heavy-duty w/620-minute reserve capacity	101	46	Rear hitch	61	28
Blade, front bulldozer w/float control	1618	734	Reverse warning alarm	6	3
Bottom guard, heavy-duty w/rear hitch	459	208	Rims: 10 in. (254 mm) for 14.00-24 tires	452	205
Bottom guard, regular	160	73	14 in. (356 mm) for 17.5-25 tires	645	293
Cold-weather starting aid	3	1	Ripper, rear mounted with hitch	2474	1123
Dura-Max® through-hardened cutting edge, 3/4×8 in. (19×203 mm)	8.5	(13	ROPS canopy w/seat belt and instrument panel cover	-447	-203
Engine disconnect	30	14	Scarifier, regular w/five teeth 1×3 in. (25×76 mm)	1115	506
Engine side shields	60	27	Scarifier float	9	4
Fan, defroster	4	2	Seat belt, 3-in. (76 mm)	3	1
Front wheel drive in 1st through 6th gears, 11.5 mph (19 km/h), free wheeling in 7th and 8th gears, 6 cu. in. (98 cm³) variable displacement pump	34	15	Seat, deluxe suspension, cloth covered	111	50
Heater, cab, 19,000 BTU (5.6 kW)	16	7	Seat, deluxe suspension, vinyl covered	58	26
Heater, cab, 38,000 BTU (11.1 kW)	31	14	Sound suppression package (includes bottom guard)	542	246
Heater, cab, 40,000 BTU (11.7 kW)	31	14	Sound suppression package (for use w/ripper)	295	134
Heater, coolant	1	0.5	Tires: 14.00-24, 12 PR, G2	210	95
Heater, roof-mounted, 25,000 BTU (7.3 kW) (add to air conditioner)	17	8	17.5-25, 12 PR, L2	468	213
Hydraulic pump, pressure controlled, variable displacement, 6.0 cu. in. (98 cm³), 52.4 gpm (3.3 L/s)	50	23	Toolbox	11	5
Lights, blade	4	2	Turn signals	4	2
Lights, work, 2 front/2 rear floods	12	5	Winter door cam for cab	4	2
Mat, floor	9	4	Wipers, rear windshield	4	2
Mirror, outside rear view, convex, outside	6	3			
Mirror, 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/3/4×8 in. (19×203 mm) through-hardened, Dura-Max cutting edge	106	48			
13-ft. (3.96 m) w/5/8×6 in. (16×152 mm) through-hardened, Dura-Max cutting edge	60	27			
13-ft. (3.96 m) w/3/4×8 in. (19×203 mm) through-hardened, Dura-Max cutting edge	116	53			
14-ft. (4.27 m) w/5/8×6 in. (16×152 mm) through-hardened, Dura-Max cutting edge	146	66			
14-ft. (4.27 m) w/3/4×8 in. (19×203 mm) through-hardened, Dura-Max cutting edge	155	70			

772A MOTOR GRADER DIMENSIONS

