

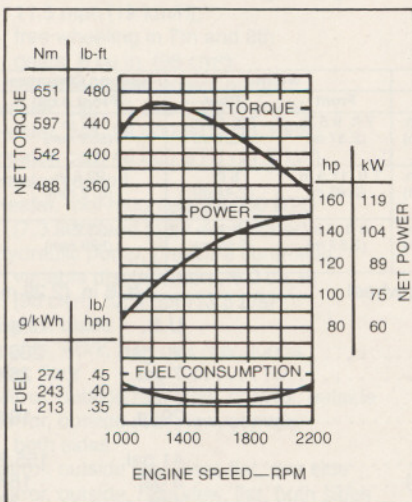


# 772A MOTOR GRADER



Model shown may include options

## ENGINE PERFORMANCE



## FEATURES

150 SAE net hp (112 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 6.7 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

Rollover 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 SAE Standards. Except where otherwise noted, these specifications are based on a unit with 13.00-24, 12-PR, tubeless tires on 8 in. (254 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.)

<b>Rated Power @2300 rpm:</b>	<b>SAE</b>	<b>DIN 70 020</b>
Net .....	150 hp (112 kW)	112 kW
Gross .....	160 hp (119 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 6-466A

Type ..... 4-stroke cycle, turbocharged and intercooled diesel  
 Bore and stroke ..... 4.56 x 4.75 in. (116 x 121 mm)  
 No. of cylinders ..... 6  
 Displacement ..... 466 cu. in. (7.638 L)  
 Compression ratio ..... 14.9 to 1  
 Maximum net torque @1300 rpm ..... 465 lb-ft (630 Nm) (64 kg-m)  
 Lubrication ..... Pressure system w/full-flow filter  
 Cooling fan ..... Suction type  
 Aspirated air cleaner w/restriction indicator ..... Dry  
 Electrical system ..... 24 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 (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** ..... 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 in<sup>3</sup> (89 cm<sup>3</sup>) pump, 2.03 in<sup>3</sup> (33 cm<sup>3</sup>) motors

High speed system — effective in gears 1-6 6.00 in<sup>3</sup> (98 cm<sup>3</sup>) pump, 2.03 in<sup>3</sup> (33 cm<sup>3</sup>) motors

**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:

Closed center w/pressure controlled 4.0 cu. in. (65 cm<sup>3</sup>) 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 ..... 0.62 x 6 in. (16 x 152 mm)

### 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 Lift Mechanism:

Control ..... Dual-lever, hydraulic

### Lift Arms: Nodular cast iron

Positions ..... 7  
 Control ..... Hydraulic, foot operated

### Circle: ..... Fabricated steel angle construction

Circle diameter ..... 60 in. (1.5 m)  
 Rotation ..... 360 deg.  
 Drive ..... Hydraulic motor and worm gear w/positive position lock  
 Sideshift, right ..... 32.0 in. (813 mm)  
 left ..... 33.5 in. (851 mm)

**Drawbar** .. Welded box section, 3.5 x 7 x 0.5 in. (89 x 178 x 13 mm) wall w/ball and socket draft connection

### Frame:

Rear mainframe ..... Welded box section from articulation joint to mainframe arch  
 Width, minimum ..... 12.03 in. (306 mm)  
 Height, minimum ..... 11.95 in. (304 mm)  
 Thickness, sides ..... 0.47 in. (12 mm)  
 top and bottom (min.) ..... 0.87 in. (22 mm)  
 Weight per ft., minimum ..... 120 lb. (179 kg/m)  
 Minimum vertical section modulus ..... 143 in<sup>3</sup> (2343 cm<sup>3</sup>)

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 in<sup>3</sup> (1935 cm<sup>3</sup>)

### 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 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 ..... 5 standard, 9 optional  
 Lift above ground ..... 24.0 in. (610 mm)  
 Penetration ..... 13.7 in. (348 mm)  
 Shank size ..... 1 x 3 in. (25 x 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 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	Lights, stop and tail
Front-wheel-drive return filter indicator	Lights, driving
Front-wheel-drive charge pressure	Precleaner
Fuel level	Reverse warning alarm
Hydraulic function return filter indicator	ROPS cab w/seat belt, front wiper and dome light
Transmission clutch pressure	Seat, cushioned vinyl
Transmission filter indicator	Turn signals
Transmission lube pressure	
Transmission temperature	
Water temperature	

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	Rims:		
Bottom guard, heavy-duty w/rear hitch	459	208	10 in. (254 mm) for 14.00-24 tires	452	205
Bottom guard, regular	160	73	14 in. (356 mm) for 17.50-25 tires	645	293
Cold-weather starting aid	3	1	Ripper, rear mounted with hitch	2474	1123
Dura-Max through-hardened cutting edge, 3/4 x 8 in. (19 x 203 mm)	8.5 lb/ft (13 kg/m)		ROPS canopy w/seat belt and instrument panel cover	-447	-203
Engine disconnect, cold weather	30	14	Scarifier, regular w/five teeth 1 x 3 in. (25 x 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 cm <sup>3</sup> ) 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:		
Heater, roof-mounted, 25,000 BTU (7.3 kW) (add to air conditioner)	17	8	14.00-24, 12 PR, G2	210	95
Hydraulic pump, pressure controlled, variable displacement, 6.0 cu. in. (98 cm <sup>3</sup> ), 52.4 gpm (3.3 L/s)	50	23	17.5-25, 12 PR, L2	468	213
Lights, blade	4	2	Toolbox	11	5
Lights, work, 2 front/2 rear floods	12	5	Winter door cam for cab	4	2
Mat, floor	9	4	Wiper, 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 <sup>3</sup> / <sub>4</sub> x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	106	48			
13-ft. (3.96 m) w <sup>5</sup> / <sub>8</sub> x 6 in. (16 x 152 mm) through-hardened Dura-Max cutting edge	60	27			
13-ft. (3.96 m) w <sup>3</sup> / <sub>4</sub> x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	116	53			
14-ft. (4.27 m) w <sup>5</sup> / <sub>8</sub> x 6 in. (16 x 152 mm) through-hardened Dura-Max cutting edge	146	66			
14-ft. (4.27 m) w <sup>3</sup> / <sub>4</sub> x 8 in. (19 x 203 mm) through-hardened Dura-Max cutting edge	155	70			

# 772A MOTOR GRADER DIMENSIONS

