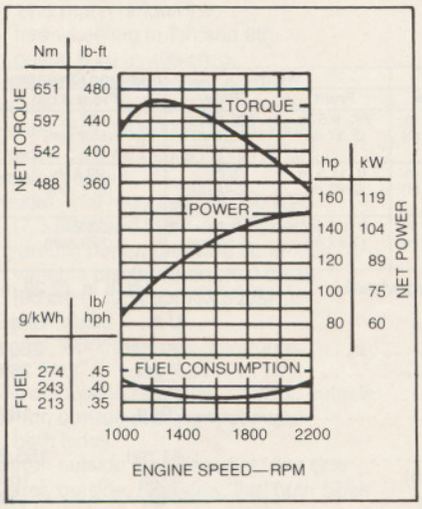
772A MOTOR GRADER

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.)

Rated Power @2300 rpm:	**SAE**	**DIN 70 020**
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 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 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 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 . . . . . 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 in³ (2343 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, 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	Rear	Front	Rear	(Front Axle)
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)

772A MOTOR GRADER SPECIFICATIONS

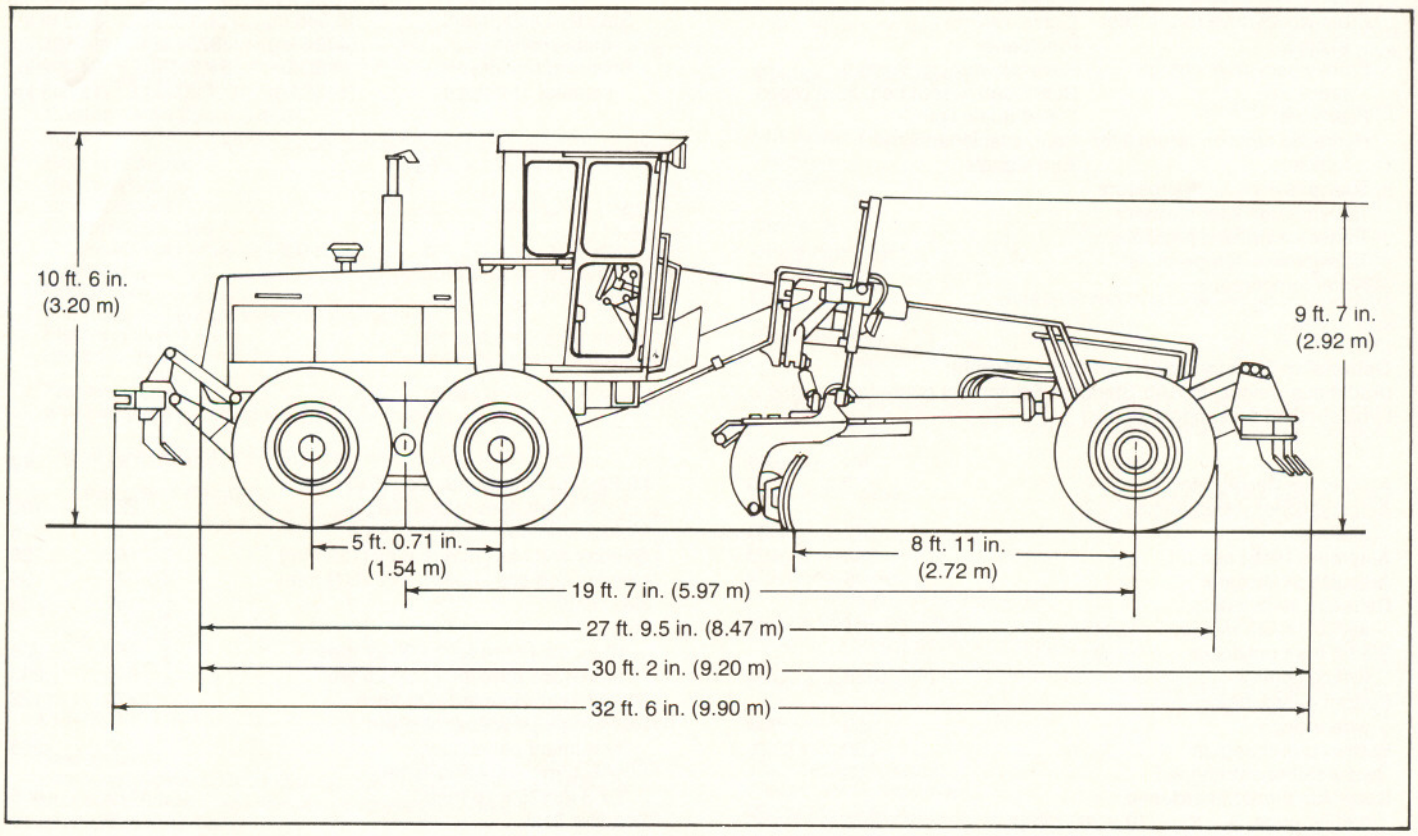
Additional Standard Equipment:

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
Reverse warning alarm
ROPS cab w/seat belt, front wiper and dome light
Seat, cushioned vinyl
Turn signals

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
Accelerator-decelerator	7	3
Air conditioner w/heavy-duty alternator	187	85
Automatic blade control	350	159
Articulation indicator	6	3
Batteries, heavy-duty w/620-minute reserve capacity	101	46
Blade, front bulldozer w/float control	1618	734
Bottom guard, heavy-duty w/rear hitch	459	208
Bottom guard, regular	160	73
Cold-weather starting aid	3	1
Dura-Max through-hardened cutting edge, 3/4 x 8 in. (19 x 203 mm)	8.5 lb/ft	(13 kg/m)
Engine disconnect, cold weather	30	14
Engine side shields	60	27
Fan, defroster	4	2
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^3) variable displacement pump	34	15
Heater, cab, 19,000 BTU (5.6 kW)	16	7
Heater, cab, 38,000 BTU (11.1 kW)	31	14
Heater, cab, 40,000 BTU (11.7 kW)	31	14
Heater coolant	1	0.5
Heater, roof-mounted, 25,000 BTU (7.3 kW) (add to air conditioner)	17	8
Hydraulic pump, pressure controlled, variable displacement, 6.0 cu. in. (98 cm^3), 52.4 gpm (3.3 L/s)	50	23
Lights, blade	4	2
Lights, work, 2 front/2 rear floods	12	5
Mat, floor	9	4
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 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
Moldboard extensions, 2-ft. (610 mm), right or left (less cutting edge)	220	100
Moldboard float	14	6
Overlay end bits (1 pair), 6 in. (152 mm)	62	28
Overlay end bits (1 pair), 8 in. (203 mm)	77	35
Rear hitch	61	28
Rims:		
10 in. (254 mm) for 14.00-24 tires	452	205
14 in. (356 mm) for 17.50-25 tires	645	293
Ripper, rear mounted with hitch	2474	1123
ROPS canopy w/seat belt and instrument panel cover	−447	−203
Scarifier, regular w/five teeth 1 x 3 in. (25 x 76 mm)	1115	506
Scarifier float	9	4
Seat belt, 3-in. (76 mm)	3	1
Seat, deluxe suspension, cloth covered	111	50
Seat, deluxe suspension, vinyl covered	58	26
Sound suppression package (includes bottom guard)	542	246
Sound suppression package (for use w/ripper)	295	134
Tires:		
14.00-24, 12 PR, G2	210	95
17.5-25, 12 PR, L2	468	213
Toolbox	11	5
Winter door cam for cab	4	2
Wiper, rear windshield	4	2

772A MOTOR GRADER DIMENSIONS