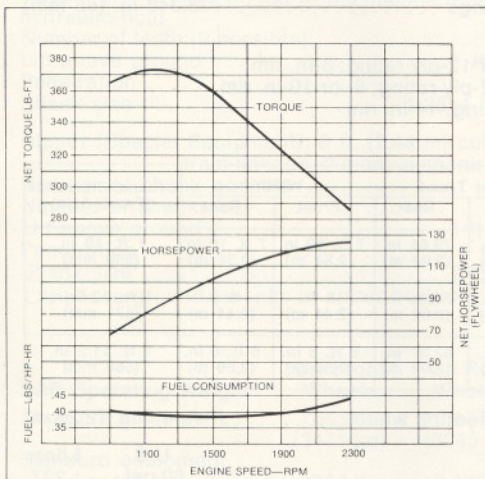




JD670 MOTOR GRADER



ENGINE PERFORMANCE



FEATURES

- 125 SAE net hp (126.7 PS)
- 12-ft. (3.66 m) blade standard; 13-ft. (3.96 m) and 14-ft. (4.27 m) blades and 2-ft. (610 mm) extensions available
- Power Shift transmission; 8 speeds forward, 4 reverse
- Articulated frame steering
- Differential lock-unlock
- 22-ft. (6.71 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
- Roll-over protective structure (ROPS) w/cab

ADD VERSATILITY WITH:

- Scarifier
- Rear-mounted ripper
- Snow plow and wing
- Bulldozer
- Automatic blade control

JD670 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, 8-ply rating, tubeless tires, 12 ft. (3.66 m) moldboard, and standard equipment.

Power (at 2300 engine rpm): SAE
 Gross 135 hp (100.7 kW*)
 Net 125 hp (93.2 kW) 126.7 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature, and DIN 70 020 conditions (non-corrected). No derating is required up to 10,000 ft. (3000 m) altitude.

*In the international system of units (SI), power is expressed in kilowatts (kW).

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

Bore and stroke 4.19x5 in. (106.5x127 mm)
 Piston displacement 414 cu. in. (6784 cm³)
 Compression ratio 16.2 to 1
 Maximum torque @ 1300 rpm .. 372 lb.-ft. (504 Nm)(51.4 kg/m)
 NACC or AMA (U.S. Tax) horsepower 42.1
 Main bearings 7
 Lubrication Pressure system w/full-flow filter
 Cooling Pressurized, w/thermostat and fixed bypass
 Fan Suction
 Air cleaner w/restriction indicator Dry
 Electrical system 24-volt w/alternator
 Batteries (2) 12-volt Reserve capacity: 180 minutes

Transmission: Power Shift, 8 forward and 4 reverse selections

Differential Lock: Foot-operated, hydraulically actuated

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

Shift Lever Position	mph	km/h
Forward 1	2.3	3.6
2	3.2	5.1
3	4.8	7.8
4	6.3	10.1
5	8.2	13.2
6	10.5	17.0
7	14.1	22.8
8	23.9	38.4
Reverse 1	2.8	4.5
2	3.9	6.3
3	5.9	9.5
4	7.6	12.3

Final Drives: Inboard planetary

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

Steering:
 Front Full hydraulic power system
 Range 47.5 deg. left or right
 Rear Hydraulically articulated frame steering (25 deg. left or right)
 Turning radius 22 ft. (6.71 m)

Hydraulic System: Closed-center
 Standby pressure 2250 psi (155.1 bar) (158.2 kg/cm²)
 Pump Variable-displacement, 35 gpm (132 l/min) @ 2300 engine rpm

Circle: 4 ft. 10 in. (1.47 m) dia., welded angle
 Rotation 360 deg.
 Drive Hydraulic motor and worm gear
 Sideshift, right and left 31.2 in. (792 mm)
Drawbar: Welded box, 3.5x7x0.38 in. (89x178x10 mm) wall, w/ball and socket pivot

Blade:
 Length 12 ft. (3.66 m)
 Height 24 in. (610 mm)
 Thickness 0.88 in. (22 mm)

Blade Lifting Mechanism:
 Control Dual-lever, hydraulic w/float position
 Cylinders ..(2) 3.25 in. (82.6 mm) dia. bore; 44.87 in. (1.14 m) stroke

Blade Range:
 Lift above ground 1 ft. 4.10 in. (409 mm)
 Blade side shift:
 Right or left 2 ft. 2.9 in. (683 mm)
 Shoulder reach outside wheels:
 Right or left 7 ft. (2.13 m)
 Pitch 35 deg. total

Lift Arms:
 Positions 7
 Control Hydraulic, foot operated

Frame:
 Rear mainframe Welded box section from articulation joint to mainframe arch
 Top and bottom plate, width 8.25 in. (210 mm)
 thickness 0.625 in. (16 mm)
 Side plates, minimum height 13.15 in. (334 mm)
 thickness 0.625 in. (16 mm)
 Weight per ft., min. 93 lb. (138.4 kg/m)
 Minimum vertical-section modulus 104.52 in. cubed (265 cm cubed)
 Front mainframe Formed box section from mainframe arch to front hood
 Width 8.25 in. (210 mm)
 Height, min. 12.3 in. (312 mm)
 Thickness 0.625 in. (16 mm)
 Weight per ft. (m), min. 75.6 lb. (112.5 kg/m)
 Minimum vertical section modulus 69.44 in. cubed (176 cm cubed)

Tandems: Welded steel box section, 27x7.56 in. (686x192 mm)
 Drive 2 in. (50.8 mm) pitch roller chain
 Axle dia. at bearings 3.63 in. (92 mm)
 3.35 in. (85 mm)

Front Axle: Fabricated steel box-frame with steel spindles, tapered roller bearings
 Diameter at bearing seats 3.54 in. (90 mm)
 1.87 in. (48 mm)
 Total oscillation 30 deg.
 Wheel lean (either direction) 20 deg.

Rear Drive Axle: Full floating with tapered roller bearings
 Diameter at bearings 3.348 in. (85 mm)

Tires
 13.00-24, 8-, 10- or 12-ply rating; 8-in. rim
 14.00-24, 10- or 12-ply rating; 8- or 10-in. rim
 17.5-25, 12-ply rating; 14-in. rim

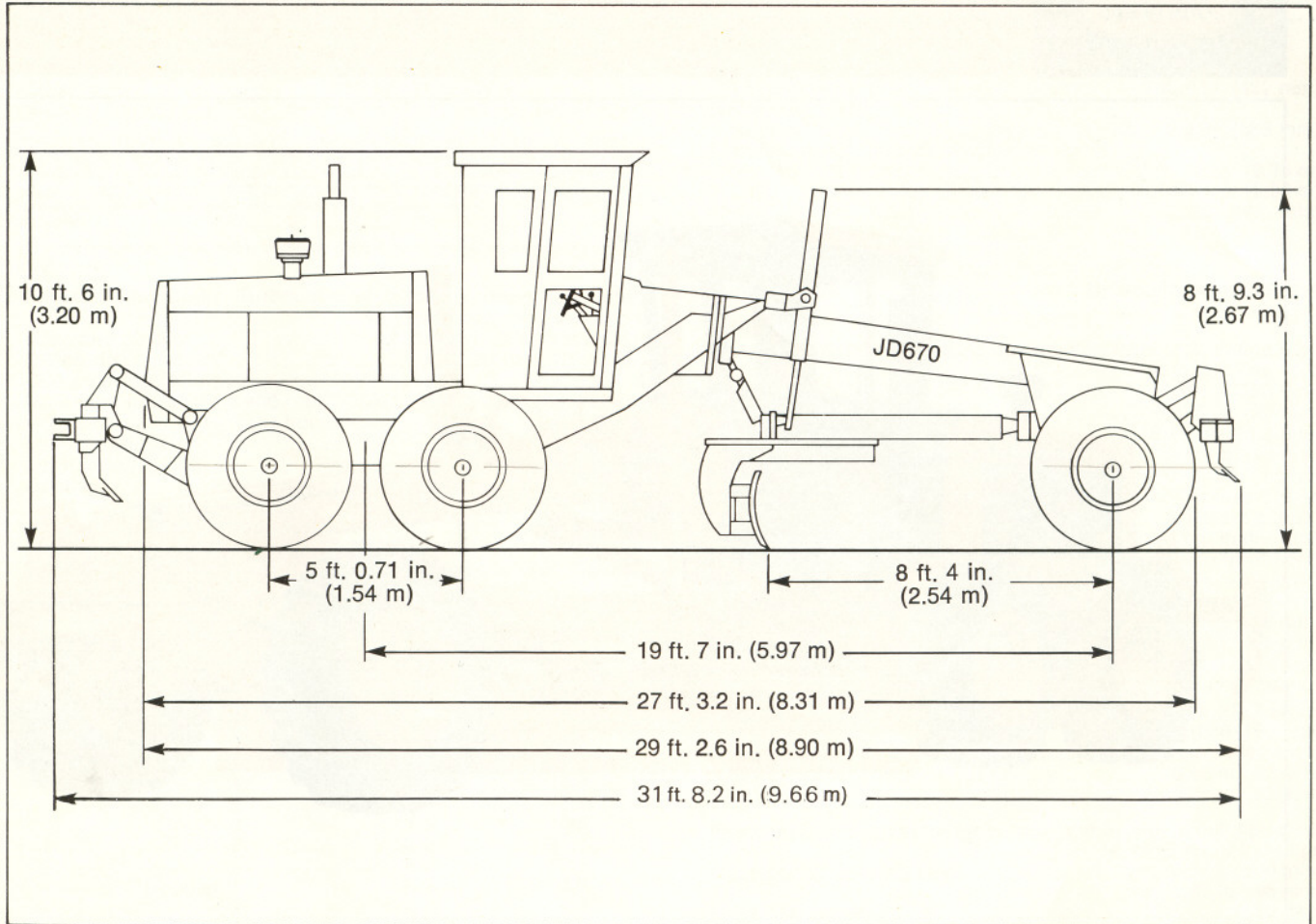
Dimensions:

Tire Size	Wheel Tread		Width		Ground Clearance (Front Axle)
	Front	Rear	Front	Rear	
13.00-24	76.60 in. (1.94 m)	79.61 in. (2.02 m)	7 ft. 10 in. (2.34 m)	7 ft. 10 in. (2.34 m)	1 ft. 10 in. (559 mm)
14.00-24	76.60 in. (1.94 m)	79.61 in. (2.02 m)	8 ft. (2.44 m)	8 ft. (2.44 m)	1 ft. 10.5 in. (571 mm)
17.5-25	79.36 in. (2.01 m)	82.37 in. (2.09 m)	8 ft. 6 in. (2.59 m)	8 ft. 6 in. (2.59 m)	1 ft. 11.2 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 28 gal. 106
 Tandem housings (each) 4 gal. 15.1
 Worm gearbox 3 qt. 2.8

JD670 MOTOR GRADER DIMENSIONS



Scarifier (Special Equipment):

V-type for 4 ft. (1.22 m) cut with 3 manual pitch positions and hydraulic float
 Number of teeth (9 possible) 5
 Lift above ground 1 ft. 10 in. (559 mm)
 Penetration 12 in. (305 mm)
 Shank size 1.25x4 in. (31.7x102 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 1 ft. 2.5 in. (368 mm)
 Penetration 1 ft. 2 in. (356 mm)
 Shank size 2x5 in. (51x127 mm)
 Lift above ground (shanks in upper position) 1 ft. 11.5 in. (597 mm)

SAE Operating Weight	On Front Wheels	On Rear Wheels	Total
Standard equipment . . .	7653 lb. (3471 kg)	18,177 lb. (8245 kg)	25,830 lb. (11 716 kg)
Standard equipment and scarifier	8767 lb. (3977 kg)	18,177 lb. (8245 kg)	26,944 lb. (12 222 kg)
Standard equipment, scarifier and ripper . .	7970 lb. (3615 kg)	21,474 lb. (9741 kg)	29,444 lb. (13 356 kg)

Additional Standard Equipment:

Transistorized voltage regulator
 Lights (2 white front w/stop and taillight)
 Work lights (2 front and 2 rear floods)
 Turn signals
 Cigarette lighter
 Horn
 Deluxe seat
 Air filter indicator
 Mechanical hourmeter
 Ether starting aid
 Vandal protection

Gauges:

Water temperature
 Transmission temperature
 Transmission lube
 Transmission pressure
 Engine oil pressure
 Fuel gauge
 Precleaner
 ROPS cab w/seat belt
 Front windshield wiper
 Rear windshield wiper
 Floor mat
 Engine side-shields

Special Equipment:

Scarifier
 Below-cab blade lights
 Bench seat
 Cab heater
 Cab defroster fan
 ROPS canopy w/seat belt
 Coolant heater
 2-ft. (610 mm) moldboard extensions, right or left
 13-ft. (3.96 m) and 14-ft. (4.27 m) moldboards
 Overlay end bits

Transmission bottom guard
 Rear-mounted ripper w/drawbar hitch
 Drawbar hitch
 Toolbox
 Articulation indicator
 Engine disconnect
 Reverse warning alarm
 Sound baffled engine side shields
 Heavy-duty cutting edges
 3-in. seat belt
 Automatic blade control