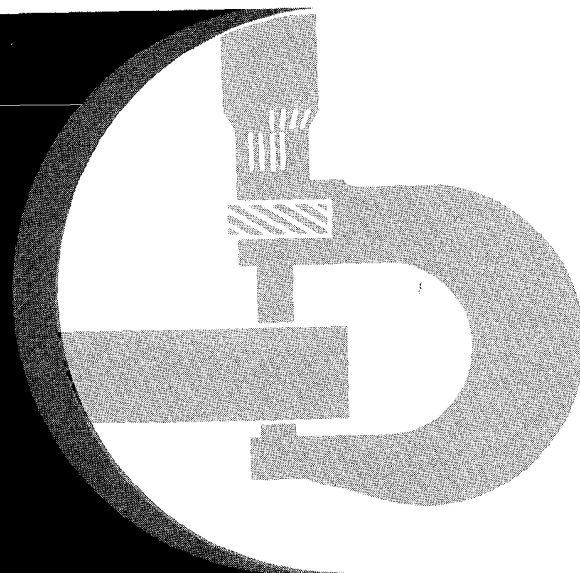


John Deere JD440-C Skidder- Grapple Skidder



TECHNICAL MANUAL

John Deere Dubuque Works
TM-1138 (Sep-82)



LITHO IN U.S.A.

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Group III GENERAL SPECIFICATIONS

SKIDDER

(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 Syncro-Range transmission, 18.4-26, 10-ply logging tires and standard equipment).

Power (@ 2200 engine rpm):	SAE	DIN
Gross	76 hp (56.7 kW*)	
Net	70 hp (52.2 kW)	71.0 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 feet (3000 m) altitude.

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

- Engine:** John Deere 4-cylinder-diesel, 4-stroke cycle
- Bore and stroke 4.19x5.00 in. (106.4x127 mm)
- Piston displacement 276 cu. in. (4523 cm³)
- Compression ratio 16.7 to 1
- Maximum torque (@ 1200 rpm) ... 220 lb-ft (298 Nm)
(30.4 kg-m)
- NACC or AMA (U.S. Tax) horsepower 28
- Lubrication Pressure system with full-flow filter
- Cooling Pressurized with thermostat and fixed bypass
- Fan Blower
- Air cleaner with restriction indicator Dry
- Electrical system 12-volt with alternator
- Batteries (2) ... Reserve capacity: 170 minutes each

- Differentials:**
- Front Full differential with hydraulic lock
- Rear Solid axle with no differential action

Transmission: Syncro-Range
Constant mesh with 6 speeds forward, 3 reverse. Three forward speed ranges with synchronized shifting between low and high within each range. Incorporates a brake lock for service brakes. Clutch is 11 in. (280 mm), dry, feramic-faced, foot-pedal-operated.

Travel Speeds (2200 engine rpm, no tire slip):
Forward: 2 mph (3.2 km/h) to 15 mph (24.1 km/h)
Reverse: 2 mph (3.2 km/h) to 10 mph (16.1 km/h)

Brakes:
Hydraulic power actuated, wet-disk service brakes on output shaft. Hand operated mechanical brake for parking.

Drive Axles:
Four-wheel drive with inboard planetary gears on all axles.
Front axle oscillates 15 degrees above and below horizontal.
18 in. (457 mm) total travel at tire center line.

Power Steering:
Articulated frame hydraulically actuated by dual cylinders.
Turning radius 16 ft. 4 in. (4.98 m)
Turning clearance 34 ft. 5 in. (10.49 m)

Hydraulic System:
Closed-center, constant-pressure. Variable-displacement pump driven from crankshaft 25 gpm (95 L/min), 2000 psi (137.9 bar) (140.6 kg/cm²) @2200 engine rpm. Full flow filtration. Oil to air cooler.

Tires:

- 18.4-26, 10-ply-rating, logging, LS2
- 16.9-30, 10-ply-rating, logging, LS2
- 23.1-26, 10-ply-rating, logging, LS2

Capacities:	U.S.	Liters
Fuel tank	26 gal.	98.4
Cooling system	8 gal.	30.3
Engine lubrication, including filter	15 qt.	14.2
Transmission case (includes hydraulic system)	8 gal.	30.3
Front differential	9 gal.	34.1
Rear differential	4.5 gal.	17.0
Winch	2.5 gal.	9.5

SAE Operating Weight 14,175 lb. (6430 kg)

Winch:

Live mechanical drive; hydraulically actuated clutch and brake.

Single-lever control.

Cable capacities*:

- 1/2-in. (12.7 mm) cable 217 ft. (66.1 m)
- 5/8-in. (15.8 mm) cable 142 ft. (43.3 m)
- 3/4-in. (19.1 mm) cable 100 ft. (30.5 m)

*Calculated: No allowance made for loose or uneven spooling.

Line pull (maximum engine torque):

- Bare drum 23,906 lb. (107.2 kN) (10844 kg)
- Full drum 14,711 lb. (66.0 kN) (6673 kg)

Line speed (2200 rpm):

- Bare drum 120 fpm (36.6 m/min)
- Full drum 194 fpm (59.1 m/min)

Blade: Hydraulic control

- Width 6 ft. (1.83 m)
- Height (ends) 1 ft. 8 in. (508 mm)
- Height (center) 2 ft. 3 in. (686 mm)
- Max. lift above ground level 4 ft. (1.22 m)
- Max. drop below ground level 9.5 in. (241 mm)

Arch:

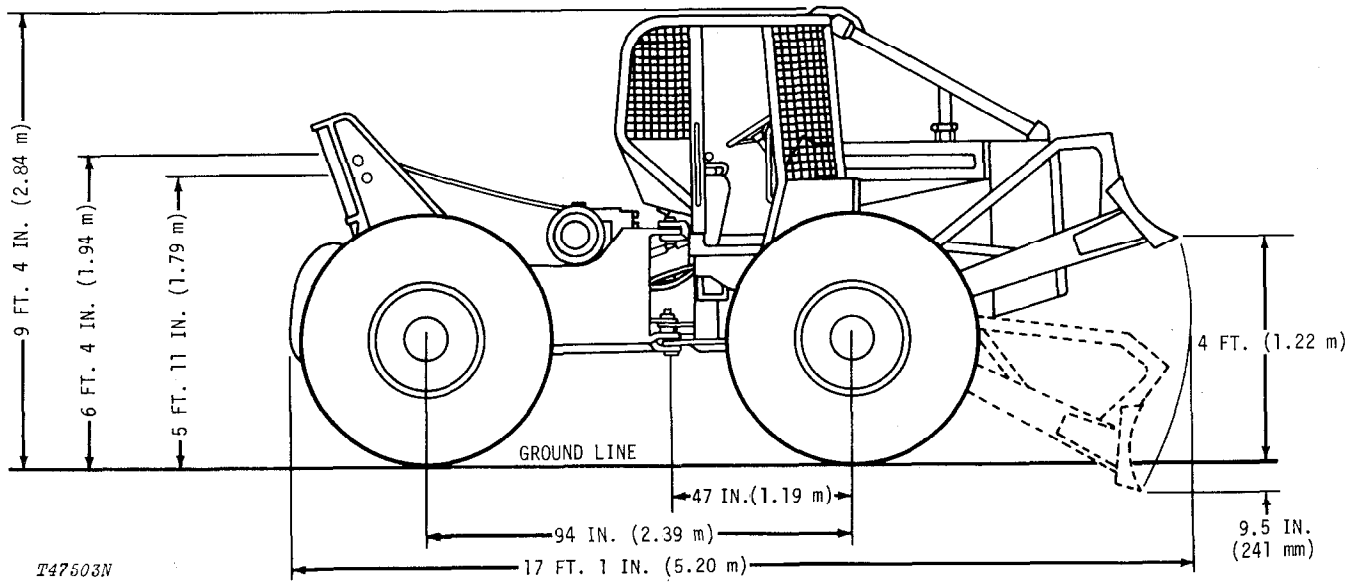
- Horizontal roller 6 in. dia. (152 mm)
- Vertical rollers (through-hardened steel) 4.5 in. dia. (114 mm)
- Working height (top of horizontal roller to ground):
Settings: Lower—5 ft. 11 in. (1.79 m)
Upper—6 ft. 4 in. (1.94 m)

Additional Standard Equipment:

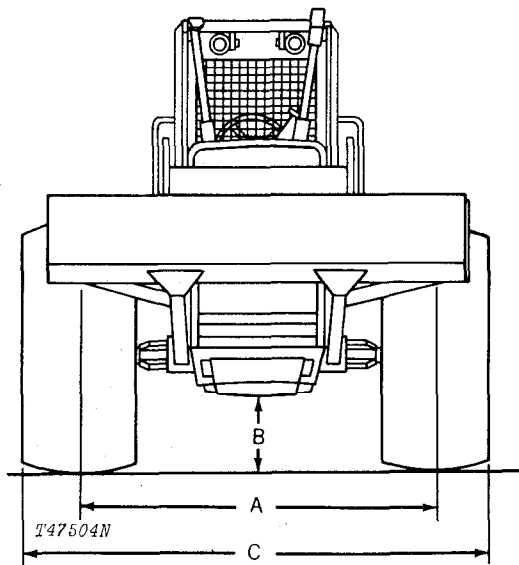
- Flanged axles
- Muffler
- Fuel gauge
- Engine oil pressure gauge
- Alternator charge warning light
- Water temperature gauge
- Parking brake warning light and buzzer
- Front axle differential lock
- Electric hour meter
- Key switch with push-button safety start
- Cigar lighter
- Horn
- Lights
- John Deere winch
- Heavy-duty starter
- Reinforced bottom guards
- Fire extinguisher
- Log arch
- Front throttle
- Hand throttle
- Front blade
- Cold weather starting aid
- Engine side shields
- Deluxe seat with suspension
- Roll-over protective structure (ROPS) with canopy, seat belt, brush screens, and limb risers
- Transistorized voltage regulator
- Vandal protection
- Altitude compensator

Special Equipment:

- Wheel weights
- Steering accumulator
- Engine coolant heater
- Cab with heater and noise treatment
- Windshield with wiper
- Seat belt, 3.00 in. (76 mm)
- Log arch with adjustable rollers
- Automatic fire suppression system



Side view dimensions are for skidder equipped with 18.4-26 tires and adjustable arch.



TIRE SIZE	A WHEEL TREAD	B GROUND CLEARANCE	C OVERALL WIDTH
16.9-30	74 in. (1.88 m)	1 ft. 7 in. (483 mm)	7 ft. 7 in. (2.31 m)
18.4-26	74 in. (1.88 m)	1 ft. 6 in. (457 mm)	7 ft. 8.4 in. (2.35 m)
23.1-26	74 in. (1.88 m)	1 ft. 9 in. (533 mm)	8 ft. 7.9 in. (2.64 m)

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Power Transmission, Brake, Steering, Frame and Wheel, Hydraulic, System, Functional Description, Electrical System and more.....

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