

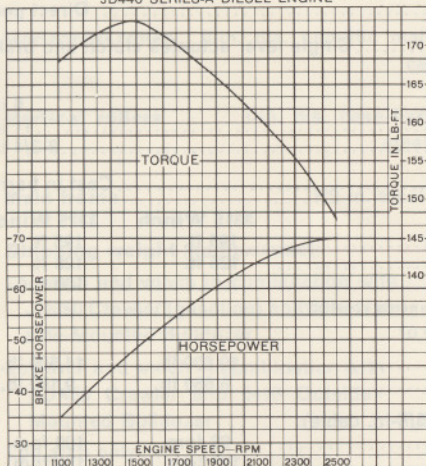


JD440 SERIES-A SKIDDER



ENGINE PERFORMANCE

JD440 SERIES-A DIESEL ENGINE



CURVES SHOWN ARE FOR AN ENGINE COMPLETE WITH FUEL SYSTEM, WATER PUMP, LUBRICATING PUMP, AIR CLEANER, ALTERNATOR, FAN AND MUFFLER.
 DATA SHOWS PERFORMANCE OBSERVED AT CONDITIONS OF 29.38 INCHES OF MERCURY BAROMETRIC PRESSURE (500 FEET) AND 85° FAHRENHEIT AIR TEMPERATURE.

FEATURES

TRACTOR

- 4-wheel drive and oscillating front axle with differential lockout.
- Power steering controlled by steering wheel. Pivot steering actuated by dual cylinders.
- 8 forward speeds with high of 16 mph; 4 reverse.
- Power-Shift or Syncro High-Low Transmission available.
- 4-wheel disk-type hydraulic brakes on Power-Shift model.
- Disk-type power brake on Syncro High-Low model runs in oil.
- 70 flywheel h.p. John Deere 4-cylinder Diesel engine.
- Large-diameter tires available on Power-Shift model.
- Deluxe seat. Complete operator protection.
- Integrated blade, winch, arch, canopy, and log bumper.

(Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with IEMC and SAE Standards.)



WINCH

- Mechanical drive; power-actuated clutch and brake. Single-lever hydraulic control.
- Holds, winches, and free-spools, with tractor standing or on-the-go.
- Produces 17,300 lb. bare drum line-pull; line speeds to 159 fpm.

JD440 SERIES-A SKIDDER SPECIFICATIONS

Horsepower (at 2,500 engine rpm, 500-ft. altitude, and 85-deg. F temp.):

Gross engine flywheel..... 75.5
 Net engine flywheel. (Engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, and alternator). 70

Travel Speeds (mph at 2,500 engine rpm, based on 16.9-30 tires, without slip):

Shift Lever Position	2,500 rpm	
	Syncro High-Low	Power-Shift
1	2.0	1.5
2	3.1	2.2
3	4.0	3.4
4	5.2	4.4
5	6.4	5.7
6	8.5	7.3
7	10.7	9.7
8	17.5	16.1
Rev. 1	2.0	1.8
Rev. 2	3.1	2.5
Rev. 3	5.2	3.9
Rev. 4	8.5	5.1

Engine: Vertical, 4-cylinder, valve-in-head, 4-stroke cycle Diesel.
 Bore and stroke..... 4 x 4-1/3 in.
 Piston displacement..... 219 cu. in.
 Compression ratio..... 16.3 to 1
 Governed speed range..... 1,500-2,500 rpm
 Maximum torque..... 173 lb. ft.
 RPM at maximum torque..... 1,500
 Lubrication..... Pressure system with full-flow filter.
 Crankshaft... Induction-hardened, counterbalanced, statically and dynamically balanced.
 Main and connecting-rod bearings..... Steel-backed, aluminum-lined, removable.

Syncro High-Low Transmission:

Type... Constant-mesh with 8 forward and 4 reverse speeds. Four shift stations. Synchronized shifting within stations except reverse gears.
 Clutch..... 12-inch, dry-disk, feramic-faced, foot-operated.

Power-Shift Transmission:

Type... Planetary gears, hydraulically actuated wet disk clutches and brakes. 8 forward and 4 reverse speeds hydraulically shifted and controlled by a single lever.
 Disconnect clutch... 12-inch, dry-type clutch operated by a hand disconnect lever.

Differentials:

Front..... Full differential with hydraulic lock.
 Rear..... Solid axle with no differential action.

Drive Axles:

Four-wheel drive with planetary gears on all axles.
 Oscillating front axle to 15 degrees above and below horizontal, 18-inch travel at tire center line.

Brakes:

Syncro High-Low... Power operated disk-type on output shaft with mechanical winching brake for parking and winching.
 Power-Shift... Power four-wheel axle-mounted single-disk brakes hydraulically operated with single-pedal control. Mechanical winching brake for parking and winching.

Steering... Power, hydraulically actuated by steering wheel. Pivot steering, dual cylinder controlled.

	16.9-30 tires	18.4-34 tires
Turning radius.....	16 ft. 8 in.	19 ft. 2 in.
Turning clearance circle w/blade....	35 ft. 6 in.	38 ft. 8 in.
Cooling... Pressurized with water pump, thermostat, and fixed bypass.		

Governor..... Flyweight, integral with injection pump.
 Fuel-injection pump... Opposed-plunger, inlet metering, single-cylinder distributor type.

Air cleaner..... Dry type
 Electrical system..... 12-volt with 12-volt electric starter.

Hydraulic System... Closed center, constant pressure. Variable-displacement pump driven from front of engine; 28 gpm at 2,500 rpm; 2,000 psi operating pressure. Oil supplied from transmission.

Tires:

16.9-30, 8-ply "Logger Special" 18.4-34, 10-ply "Logger Special"
 18.4-26, 10-ply "Logger Special" 23.1-26, 10-ply "Logger Special"
 and Nylon

Wheel Treads (center-to-center):

Tire Size	Syncro High-Low	Power-Shift
16.9-30	72 in.	74 in.
18.4-26	73 in.	75 in.
18.4-34	76.5 in.
23.1-26	84 in.

Dimensions:

	Syncro High-Low (16.9-30 tires)	Power-Shift (18.4-34 tires)
Height (top of canopy).....	105-1/2 in.	105-1/2 in.
Width.....	89 in.	91 in.
Length with blade.....	206 in.	232 in.
Wheelbase.....	89 in.	103-1/2 in.
Ground clearance.....	18 in.	22 in.

Capacities (U.S. Standard Measures):

Fuel tank.....	24 gal.
(Power-Shift w/ Long Frame).....	42 gal.
Cooling system.....	4 gal.
Engine lubrication (including filter).....	9 qt.
Transmission case (includes hydraulic system):	
Syncro High-Low.....	8 gal.
Power-Shift.....	9 gal.
Front differential.....	9 gal.
Rear axle case.....	4-1/2 gal.

Weight (approximate): Shipping (with blade)

Syncro High-Low—16.9-30 tires.....	11,900 lb.
Power-Shift w/ 18.4-30 tires.....	14,000 lb.

Base Equipment:

Hydraulic system	Suction fan
Power steering	Engine side-shields
Power brake	Air cleaner (dry type)
Muffler	140-amp. hour battery installation (two 70 amp. batteries)
Fuel gauge	Canopy
Oil-pressure indicator light	Winch
Alternator-charge indicator light	Log arch and fairlead
Water-temperature gauge	Log bumper
Differential lock for front axle	Seat: Deluxe with suspension
Transistorized voltage regulator	Seat belt
Speed-hour meter	Foot throttle
Key-ignition switch with safety start	Hand throttle
Alternator	16.9-30, 8-ply "Logger Special" tires
Syncro High-Low transmission	

Special Equipment:

Wheel weights	Auxiliary hydraulic outlets
Cigarette lighter	Lights: Front, rear, and panel
Drawbar	Front blade
Automotive-type horn	Engine coolant heater
Power-Shift transmission	Spark arrester muffler
18.4-26, 10-ply "Logger Special" and Nylon	Blower fan
18.4-34, 10-ply "Logger Special"—w/ Power-Shift only	
23.1-26, 10-ply "Logger Special"—w/ Power-Shift only	

Winch

Drive: "Live" mechanical; power-actuated clutch and brake. Single lever, hydraulic control.

Cable Capacities*: 1/2-in. wire rope.....	195 ft.
5/8-in. wire rope.....	125 ft.
3/4-in. wire rope.....	100 ft.

Line Pull (at 2,200 rpm):

Bare drum.....	17,300 lb.
Full drum.....	10,800 lb.

Line Speed (at 2,200 rpm):

Bare drum.....	100 fpm
Full drum.....	159 fpm

*Calculated capacities—allowance must be made for loose or uneven spooling.

Blade

	Syncro Range	Power-Shift
Width	72 in.	72 in.
Height	20 in.	20 in.
Lift (max.)	Deluxe 58-1/2 in. Regular 47-1/2 in.	58-1/2 in.
Drop below ground level	Deluxe 12 in. Regular 9-3/4 in.	12 in.

Arch

Working height (top of horizontal roller to ground level with 16.9-30 tires)..... 70 in.

Horizontal roller..... 6 in. dia.

Vertical rollers:

Through-hardened steel..... 4-1/2 in. dia.