

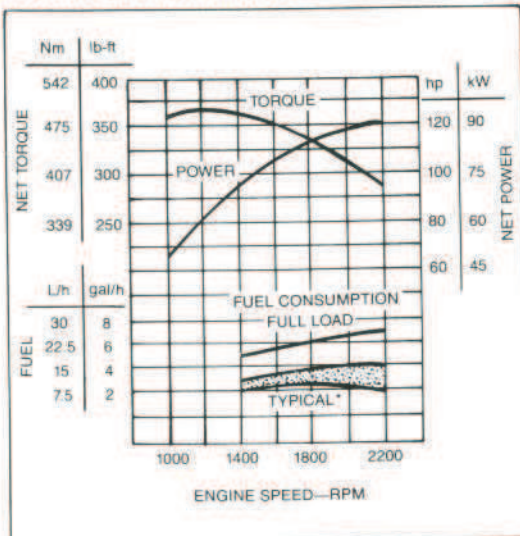


# 640D SKIDDER



Model shown may include options

## ENGINE PERFORMANCE



\*Depending on operating variables

## FEATURES

- 120 SAE net hp (90 kW) turbocharged John Deere diesel engine
- Articulated-frame steering
- Automotive-type, position-responsive steering
- Oscillating front axle
- Power Shift transmission
- Hydraulic-powered differential lock on both axles
- Enclosed, self-adjusting, wet-disk power brakes
- Hydraulically controlled winch

## ADD VERSATILITY WITH:

- Stacking blade
- Trail-building blade

## 640D SKIDDER SPECIFICATIONS

Specifications and design are 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 23.1-26, 10 PR, steel-ply tires, full fuel tank, 175-lb. (80 kg) operator and standard equipment.

<b>Rated Power @ 2200 rpm:</b>	<b>SAE</b>	<b>DIN 70 020</b>
Net .....	120 hp (90 kW)	90 kW
Gross .....	128 hp (95 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 feet (3050 m) altitude. Gross power is without cooling fan.

### Engine: John Deere 6-414T

Type .....	4-stroke cycle, turbocharged diesel
Bore and stroke .....	4.19 x 5.00 in. (106.5 x 127 mm)
No. of cylinders .....	6
Displacement .....	414 cu. in. (6.785 L)
Maximum net torque @ 1300 rpm .....	358 lb-ft (485 Nm) (50 kg-m)
Compression ratio .....	16.8 to 1
Cooling fan .....	Blower
Lubrication .....	Pressure system w/full-flow filter
Air cleaner w/restriction indicator and unloader valve .....	Dry
Electrical system .....	12-volt w/42-amp alternator
Batteries (2) .....	Reserve capacity: 320 minutes

### Differentials:

Front and rear ..... Full differentials with hydraulic lock

### Engine Clutch Disconnect:

Hand-operated, spring-loaded, dry disk. Single plate, 12 in. (305 mm).

### Transmission:

Power Shift with planetary gears, hydraulically actuated wet-disk clutches and brakes; provides 8 speeds forward, 4 reverse. Controlled by single lever on console. Air-to-oil cooler.

### Travel Speeds: (2200 engine rpm, no tire slip)

	<b>mph</b>	<b>km/h</b>
Forward .....	1.58-17.13	2.5-27.6
Reverse .....	2.03- 5.76	3.3- 9.3

### Drive Axles:

Four-wheel drive with inboard planetary gears on all axles. Front axle oscillates 15 degrees above and below horizontal. 21 in. (533 mm) travel at tire center line.

### Power Steering:

Articulated frame hydraulically actuated by two double-acting cylinders with cushioned stops. Steering system has hydraulic pressure priority.

Outside clearance circle w/o blade .....	38 ft. 4 in. (11.68 m)
Outside clearance circle w/blade .....	39 ft. 7 in. (12.07 m)

### Brakes:

Service ..... Wet-disk brakes.  
 Parking, winching and emergency stop ..... Hand-operated mechanical wet-disk. Brake located on driveline for braking front and rear axles. Has hydraulic release.

### Hydraulic System:

Closed center, constant pressure. Variable-displacement pump driven from crankshaft ..... 25 gpm (1.58 L/s), 2000 psi (13 790 kPa) (140.6 kg/cm<sup>2</sup>) @ 2200 engine rpm. Full-flow filtration.

	<b>Rod Dia.</b>	<b>Bore</b>	<b>Stroke</b>
<b>Hydraulic Cylinders:</b>			
Blade lift cylinders (2) ....	1.75 in. (44.5 mm)	4.00 in. (101.6 mm)	13.82 in. (351 mm)
Blade tilt cylinder (1) ....	2.25 in. (57.2 mm)	4.50 in. (114.3 mm)	3.00 in. (76.2 mm)
Steering cylinders (2) ...	1.75 in. (44.5 mm)	3.00 in. (76.2 mm)	15.75 in. (400 mm)

Cylinder rods are ground, heat-treated, chrome-plated and polished.

### Tires:

23.1-26, 10 PR, steel-ply, LS2  
 24.5-32, 12 PR, steel-ply, LS2  
 28L-26, 14 PR, steel-ply, LS2  
 30.5-32, 12 PR, steel-ply, LS2, dual bead  
 67 x 34.00-26, 10 PR, steel-ply tubeless, LS3

### Capacities:

	<b>U.S.</b>	<b>Liters</b>
Fuel tank .....	46.5 gal.	176
Cooling system .....	8.5 gal.	32.2
Engine lubrication including filter .....	20 qt.	18.9
Transmission-hydraulic system .....	9 gal.	34.1
Winch .....	12 gal.	45.4
Front differential .....	4.5 gal.	17
Rear differential .....	4.5 gal.	17

### Additional Standard Equipment:

S4 Series axles	Foot throttle
Alternator warning light	Heavy-duty starter
Bottom guards	Hinge locking bar, 2-position
Canopy (ROPS) w/brush screens and limb risers	Horn
Cushion seat w/suspension, position adjustment and seat belt	Integral log bumper
Engine oil pressure warning light	Key switch w/pushbutton safety start
Engine sideshields	Log arch w/multiposition roller
Exhaust w/rain deflector	Muffler
Gauges:	Parking brake w/warning light and buzzer
Electric hourmeter	Solid-state voltage regulator
Engine coolant temperature	Transmission oil pressure warning light
Fuel	Winch
Transmission oil temperature	

**SAE Operating Weight w/Stacking Blade** ..... 20,180 lb. (9154 kg)  
**SAE Operating Weight w/o Stacking Blade** ..... 18,815 lb. (8534 kg)

### Winch:

Winch capacities*	
1/2-in. (12.7 mm) cable .....	569 ft. (173.4 m)
5/8-in. (15.8 mm) cable .....	373 ft. (114 m)
3/4-in. (19.1 mm) cable .....	263 ft. (80.2 m)
7/8-in. (22.2 mm) cable .....	189 ft. (58 m)
1-in. (25.4 mm) cable .....	147 ft. (45 m)

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

### Linepull\*\*:

Bare drum .....	32,100 lb. (143 kN) (14 600 kg)
Full drum .....	20,400 lb. (91 kN) (9300 kg)

\*\*Based on winch clutch capacity and .75 in. (19 mm) cable.

### Line speed (2200 rpm) and .75 in. (19 mm) cable:

Bare drum .....	145 fpm (44.2 m/min)
Full drum .....	228 fpm (69.6 m/min)

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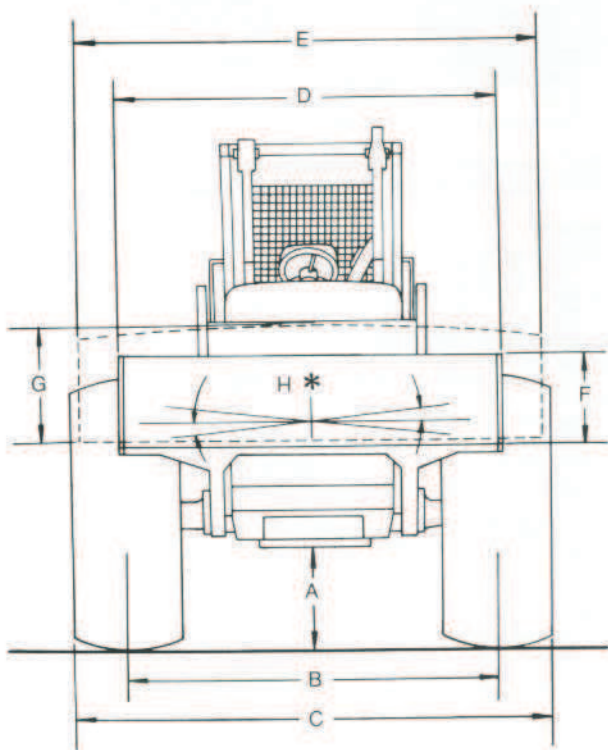
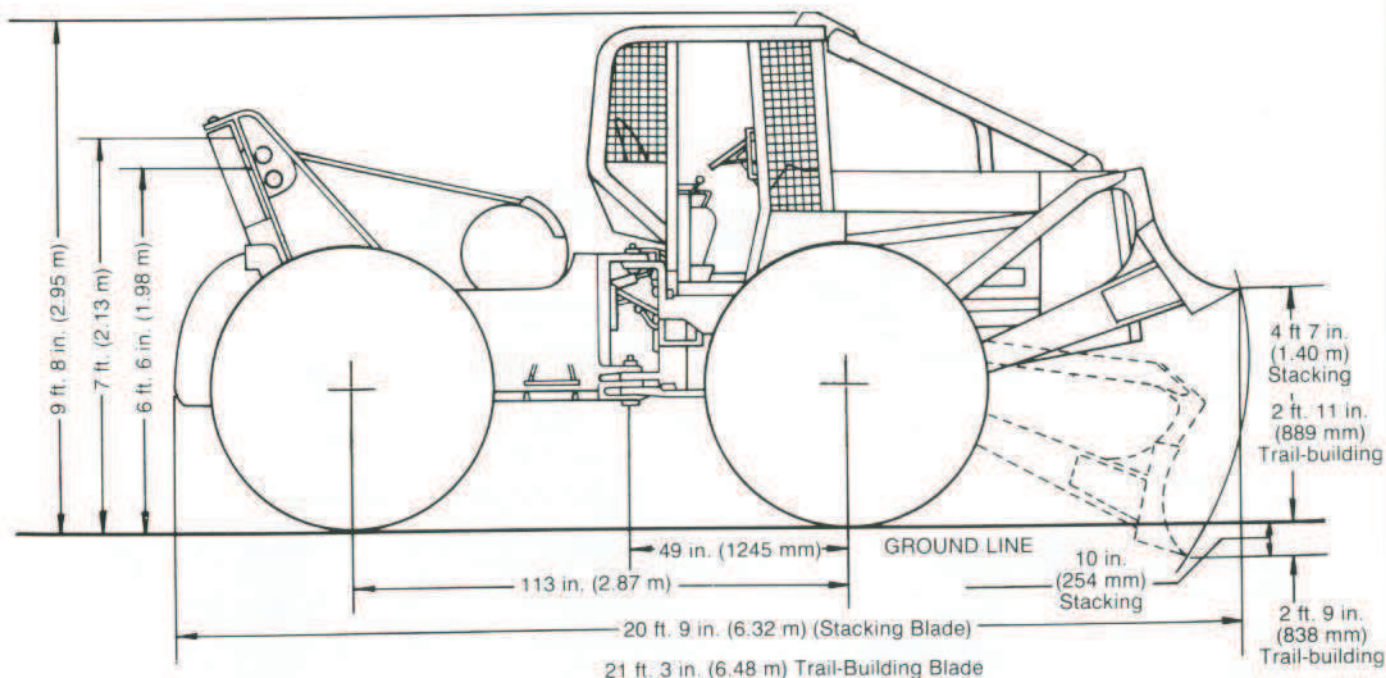
Horizontal rollers ..... 6 in. (152 mm) dia.  
 Vertical rollers ..... 4.5 in. (114 mm) dia.  
 Working height (top of horizontal roller to ground): Adjustable to two positions.

### Optional or Special Equipment:

S5 Series axles  
 Cab (ROPS) w/noise treatment, windshield washer and wiper, limb risers  
 Cab heater  
 Canopy (ROPS) screened door, windshield and wiper, brush screens, right window, limb risers  
 Cold-weather starting package  
 Emergency steering system (field only)  
 Engine coolant heater (field only)

Fire extinguisher  
 Hand throttle (field only)  
 Lights (field only)  
 Stacking blade  
 3-in. (76 mm) seat belt  
 Trail-building blade  
 Vandal protection (field only)  
 Windshield washer

Sideview dimensions are for skidder equipped with 23.1-26 tires.



\* ± 7° Trail-building blade oscillation from horizontal

TIRE SIZE	A GROUND CLEARANCE	B WHEEL TREAD	C OVERALL WIDTH
23.1-26	19.2 in. (488 mm)	80.2 in. (2.04 m)	8 ft. 8 in. (2.64 m)
24.5-32	23.8 in. (605 mm)	84.2 in. (2.14 m)	9 ft. 0.7 in. (2.76 m)
28L-26	20 in. (508 mm)	87.5 in. (2.22 m)	9 ft. 8 in. (2.95 m)
30.5-32	24.4 in. (620 mm)	90.2 in. (2.29 m)	9 ft. 11.6 in. (3.04 m)
67 x 34.00-26	20.6 in. (523 mm)	97.5 in. (2.48 m)	10 ft. 11.3 in. (3.34 m)

**BLADES**

D WIDTH Stacking	E WIDTH Trail-Building	F HEIGHT Stacking	G HEIGHT Trail-Building
7 ft. 2 in. (2.18 m)	9 ft. 4 in. (2.84 m)	1 ft. 9 in. (533 mm) Ends	2 ft. 8 in. (813 mm)
		2 ft. 4 in. (711 mm) Middle	

