

ENGINE

John Deere engineered and manufactured 6-cylinder diesel engine. Replaceable wet-type cylinder liners help ensure superior heat dissipation, longer engine life. High-strength alloy heads include replaceable valve seat inserts. The forged steel, 7-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons reduce rod bearing loads and provide vital heat transfer; pistons are sprayed with cooling oil for longer life.

Engine: John Deere 6466A

Rated power at 1800 rpm	165 SAE net hp (123 kW)
	175 SAE gross hp (131 kW)
Turbocharger	aftercooled
Cylinders	6
Displacement	466 cu. in. (7.638 L)
Fuel consumption, typical	4.3 to 6.4 gal./hr. (16.3 to 24.2 L/h)
Maximum net torque at 1200 rpm	578 lb.-ft. (784 Nm)
Lubrication	pressure system with full-flow filters
Air cleaner	dry type with restriction indicator
Electrical system	24-volt with 40-amp alternator
Cooling fan	blower

TRANSMISSION

Automatic, dual-path, hydrostatic drive provides infinitely variable speeds to 6.5 mph (10.5 km/h). The transmission's load sensing feature automatically adjusts speed and power to match changing load conditions. Each track is powered by a variable displacement piston pump and motor combination. The speed and direction of each track can be individually controlled.

TRAVEL SPEEDS

Forward and reverseinfinite to 6.5 mph (0 to 10.5 km/h)

FINAL DRIVES

Double-reduction, planetary final drives transfer torque loads over three gear sets instead of one. The final drives are mounted independently of the track frames to isolate them from shock loads for increased life and reliability.

BRAKES

Hydrostatic (dynamic) braking stops the crawler when the transmission control lever is moved to neutral. Wet, multi-disk parking brakes are automatically applied when the engine stops, or can be operator-applied by engaging the center brake pedal.

STEERING

Steering is done hydrostatically by varying track speed and/or direction. Depressing a pedal slows or varies the speed of the track, all the way to a stop if desired. Continuing to depress the pedal will cause the track to reverse for counterrotation. Hydrostatic steering eliminates the need for steering clutches and steering brakes, as well as the need for cross-steering when working on steep slopes.

HYDRAULICS

System	open center
Pressure	2250 psi (15 514 kPa)
Pump	vane
Flow at 1800 rpm	44 gpm (166 L/min.)

TRACKS

7-roller, 107-in. (2720 mm) track frame with front and rear track guides and sprocket guard. Dura-Trax™ undercarriage features deep-heat-treated, sealed and lubricated track links and through-hardened sealed and lubricated rollers for maximum wear resistance.

Grouser	24 in. (610 mm)
Shoes, each side	40
Ground contact area with 24-in. (610 mm) shoes	5136 sq. in. (33 135 cm ²)
Ground pressure	7.65 psi (52.7 kPa)
Ground clearance, minimum	16.4 in. (417 mm)
Length of track on ground	107 in. (2720 mm)
Track gauge, standard	74 in. (1880 mm)
Oscillation	11.5 in. (292 mm)
Carrier rollers each side	2
Adjustment	hydraulic

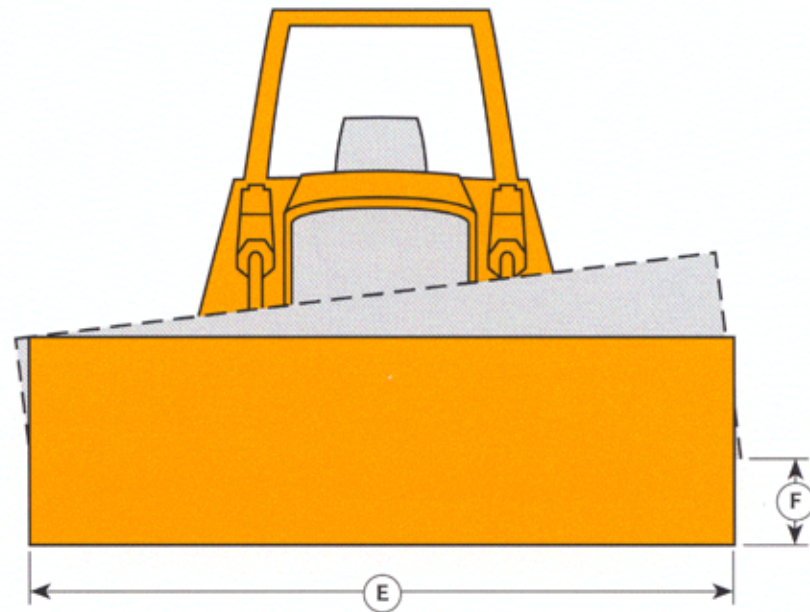
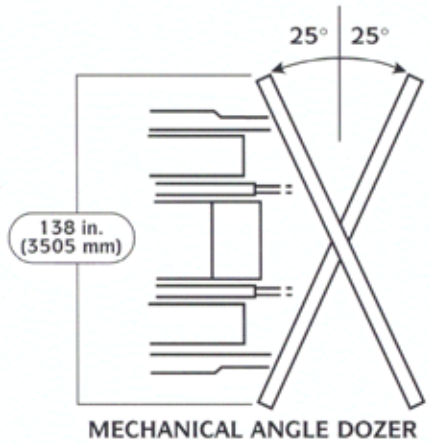
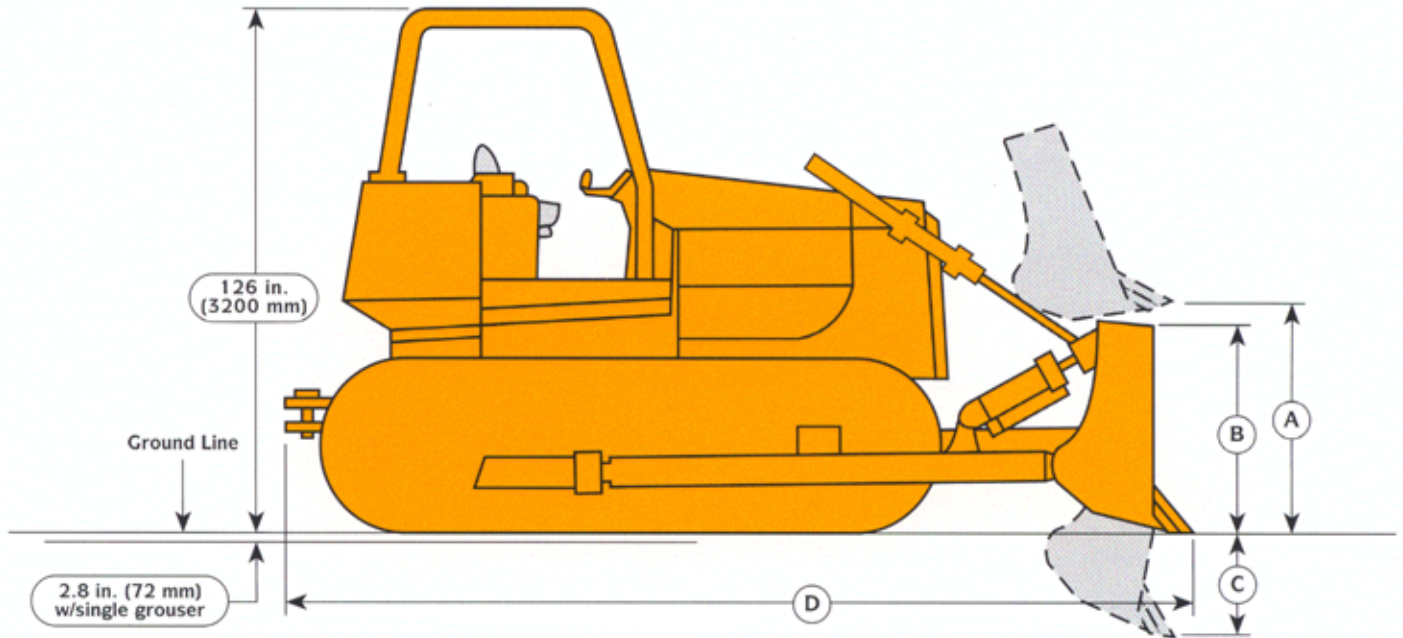
CAPACITIES

Fuel tank	82 gal. (310.4 L)
Cooling system	9 gal. (34 L)
Crankcase	32 qt. (30.3 L)
Crankcase, including filter	34 qt. (32.2 L)
Splitter drive	1.5 gal. (5.7 L)
Final drive each: Inner compartment	5.5 gal. (20.8 L)
Outer compartment	3.5 gal. (13.2 L)
Hydraulic system	35 gal. (132.5 L)
Hydrostatic drives	40 gal. (151.4 L)

OPERATING WEIGHT

850B Long-Track	39,315 lb. (17 833 kg)
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DIMENSIONS



DOZER SPECIFICATIONS

Blade	Blade Capacity per SAE J1265		A Blade Lift Height		B Blade Height		C Digging Depth		D Overall Length (Tractor with Blade)		E Overall Width* (Tractor with Blade)		F Maximum Tilt		Weight		Total Operating Weight (Tractor with Blade)	
	yd ³	(m ³)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	lb.	(kg)	lb.	(kg)
Straight	3.89	2.97	42.0	1067	44.5	1130	20.6	523	214	5436	127	3226	15.0	381	4600	2086	39,315	17,833
Semi U	5.40	4.13	43.0	1092	46.5	1181	20.2	513	222	5630	138	3500	15.0	381	5020	2277	39,700	17,995
Angle	3.77	2.88	38.8	985	40.0	1016	18.7	475	214	5436	152	3860	13.23	336	5035	2284	39,715	18,015

*Includes cupped end bit

HYDROSTATIC DRIVETRAIN

Dual-path hydrostatic drive provides many advantages over mechanical crawler drivetrains in the areas of machine performance and reliability.

Live power turns. Both tracks remain fully powered during turns. This affords greater maneuverability with larger loads and less ground disturbance. This feature also provides improved capability for working on soft ground, as well as the ability to counterbalance blade-corner loads when benching, ditching or backfilling.

Counterrotation. Separate control allows the two transmissions to be driven in opposite directions, permitting spot turns with excellent maneuverability. Quick blade position changes can be made.

Infinite speed selection. Infinitely variable ground speeds, from 0 to 6.5 mph (0–10.5 km/h), allow precise matching of machine speed to your application. Ground speed can be reduced without slowing engine rpm, so hydraulic power remains high and response time remains fast.

Automatic load sensing. As a load increases and engine rpm lessens, the transmission automatically reduces ground speed to

match load changes. This feature works at all throttle settings, providing full drawbar pull even at reduced engine speed.

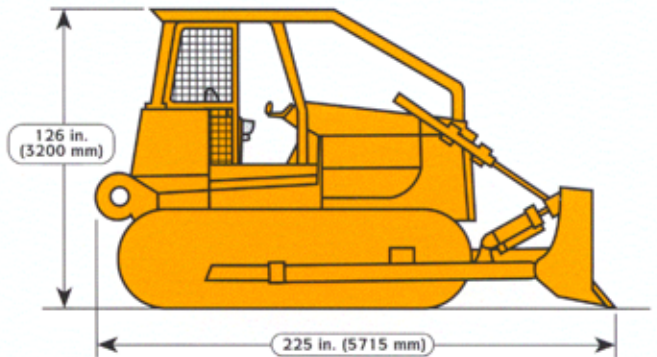
Dynamic braking. Positive speed reduction is provided on slopes. When shifted to neutral, oil flow between the pump and motor is blocked. The crawler stops without use of the service brakes.

Efficiency. Overall, hydrostatic drive is more efficient in delivering horsepower to the tracks than systems that use torque converters. The greatest efficiency advantages are in the 1.5 to 3.5 mph (2.4 to 5.6 km/h) range, the main work speed range of a crawler dozer.

Simplicity. Hydrostatic drive design uses, on the average, 150 fewer parts than the design of an ordinary drive system. Fewer parts mean increased reliability. Some of our hydrostatic drive crawlers have accumulated more than 35,000 hours of use without any major transmission repairs.

FORESTRY APPLICATION

The 850B Long-Track Dozer can be equipped for forestry applications with the addition of limb risers and screens for the rollover protective structure.



DRAWBAR PULL

Drawbar pull
 At 1.2 mph (1.9 km/h)33,500 lb. (149 kN)
 At 2.0 mph (3.2 km/h)21,000 lb. (93 kN)

