

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 reverse infinite 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 independent 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. Pedal steering is standard; lever steering is available. 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 counter-rotation. 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

6-roller, 95-in. (2413 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 37

Ground contact area with 24-in.

(610 mm) shoes 4560 sq. in. (29 419 cm²)

Ground pressure 8.3 psi (57.2 kPa)

Ground clearance, minimum 16.4 in. (417 mm)

Length of track on ground 95 in. (2413 mm)

Track gauge, standard 74 in. (1880 mm)

Oscillation 10 in. (254 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)

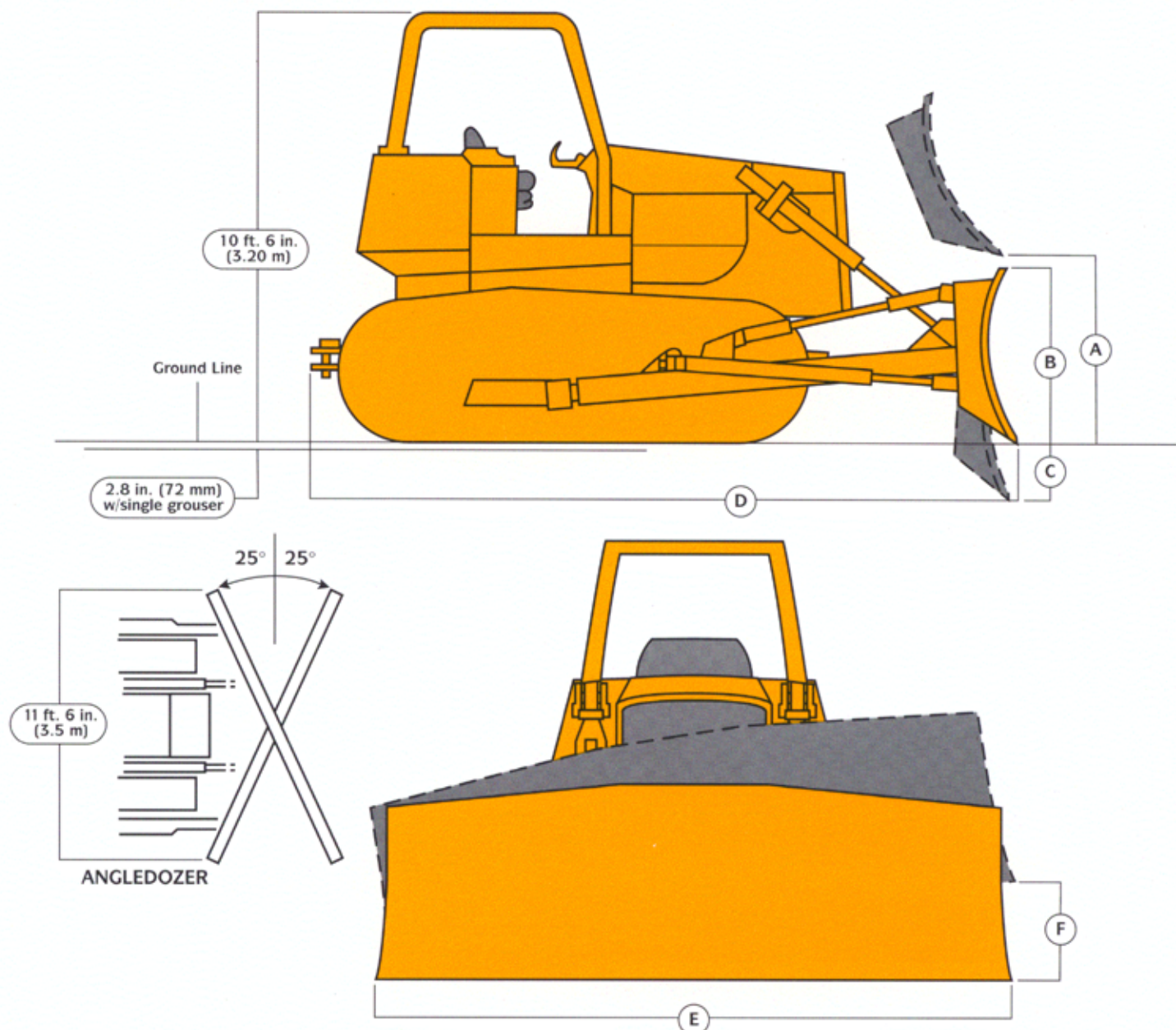
Hydraulic system 35 gal. (132.5 L)

Hydrostatic drives 40 gal. (151.4 L)

OPERATING WEIGHT

850B 37,915 lb. (17 198 kg)

DIMENSIONS *



*Drawing based on 850B with 6540 Angledozer

DOZER SPECIFICATIONS

	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)	
Blade	yd ³	(m ³)	in.	(mm)	in.	(mm)	in.	(mm)	ft.-in.	(mm)	ft.-in.	(mm)	in.	(mm)	lb.	(kg)	lb.	(kg)
Straight	3.89	2.97	44.5	1130	42	1067	20.6	523	16' 10"	5130	10' 3"	3124	15.0	381	4600	2086	37,515	17 016
Semi U	5.44	4.16	46.5	1181	43	1092	20.2	513	17' 6"	5334	11' 6"	3505	15.0	381	5020	2277	37,900	17 192
Angle	3.77	2.88	44.0	1118	40	1016	17.2	437	16' 10"	5130	12' 8"	3860	13.25	336	5035	2284	37,915	17 198

**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.

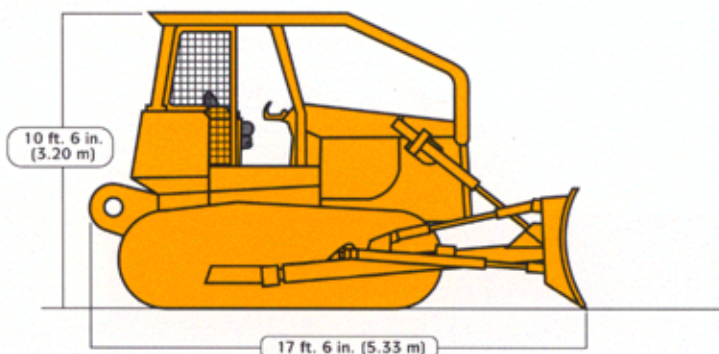
Dynamic braking. Positive speed reduction is provided on slopes. When shifted to neutral, oil flow between the pump and motor is blocked. The crawler stops without use of the service brakes.

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 Crawler 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)

