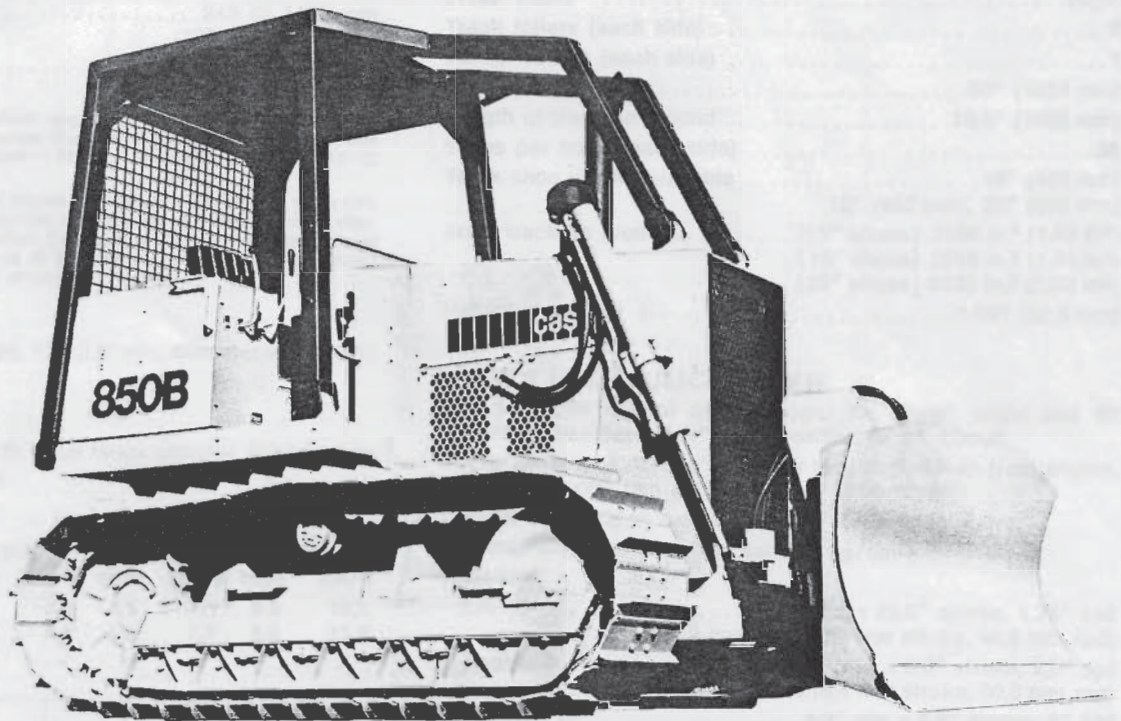




# 850B Hydraulic Angle/Tilt Dozer



#### **75 NET FLYWHEEL HORSEPOWER**

Four cylinder, 336 c.i.d. Case diesel engine

#### **POWERSHIFT TRANSMISSION**

Four speed powershift with torque converter

#### **ANGLE/TILT/DOZER**

Hydraulically angle or tilt blade to match job conditions

#### **CONTROLLED TRANSMISSION STEERING OR BRAKE STEERING**

Choice of power turns or brake turns for operator convenience and performance

#### **DOZER**

Dozer designed to match varying soil conditions with a choice of shoes

Unit shown is equipped with non-standard items.  
Manufactured by J I Case Company, Racine Wisconsin USA.

**J I Case**  
A Tenneco Company





## JOB SPECIFICATIONS

### ENGINE

Case model A336BD, 4 cycle, naturally aspirated diesel. Open chamber design. Uses No. 2 diesel fuel. Five main bearings. Positive pressure oil lubrication with full flow filtering and internal cooling. Multiple cylinder heads. Aluminum alloy pistons with full skirt, 3-ring design. 24-volt direct electric starting. Dry type, dual element air cleaner with service indicator. Two-stage full flow spin-on fuel filters.

Maximum rated horsepower

- (1) Gross ..... 83 @ 2000 rpm  
(62 kW @ 2000 r/min)
- (2) SAE net ..... 75 @ 2000 rpm  
(56 kW @ 2000 r/min)

Displacement ..... 336 in.<sup>3</sup> (5506 cm<sup>3</sup>)

Number cylinders ..... 4

Bore and stroke ..... 4.625" x 5"  
(117 mm x 127 mm)

Compression ratio ..... 16.5:1

Torque, maximum, lbs.-ft. (N.m)

- Sea level, 60° F ..... 243 @ 1400 rpm  
(328 @ 1400 r/min)
- 500' altitude, 85° F ..... 230 @ 1400 rpm  
(311 @ 1400 r/min)

(1) Manufacturer's rating of maximum engine horsepower at flywheel when equipped with oil and water pumps. Fuel set at maximum quantity for this application. Corrected to sea level — 29.92" (760 mm) Hg. and 60° F (15° C) dry air.

(2) SAE net flywheel horsepower of engine as applied to this vehicle when fully equipped with operating accessories including oil and water pumps, alternator, air cleaner, fan and muffler. Corrected to 500' (152 m) altitude with .38" (9.5 mm) Hg. vapor pressure 29.38" (746 mm) Hg. observed barometer and 85° F (29° C) air (per SAE J816b).

### TORQUE CONVERTER

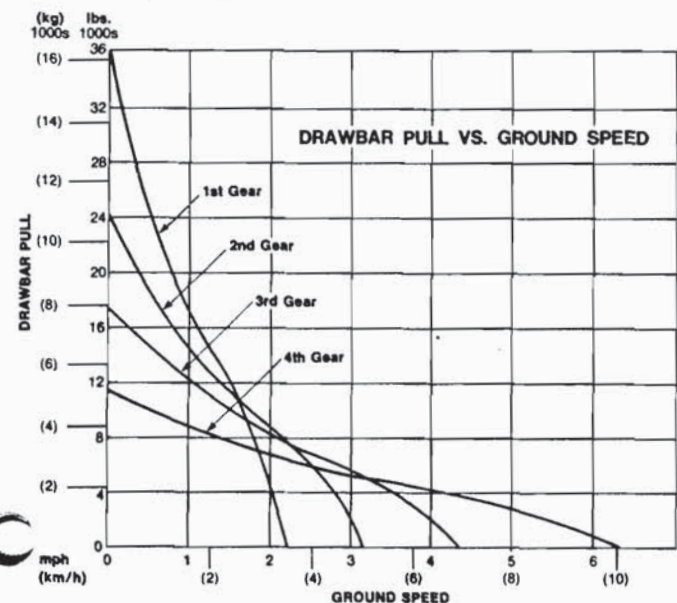
Single stage, hydrokinetic type, 13" (330 mm) diameter with 2.92:1 ratio.

### TRANSMISSION

Constant mesh, powershift with Hi-Lo range selector. Four speeds forward, four speeds reverse.

### TRAVEL SPEEDS

	1st		2nd		3rd		4th	
	mph	km/h	mph	km/h	mph	km/h	mph	km/h
Forward	2.3	3.7	3.2	5.2	4.4	7.1	6.3	10.1
Reverse	2.5	4.0	3.5	5.6	4.8	7.7	6.9	11.1



Maximum drawbar pull depends on traction and weight of equipped tractor.

### STEERING

Steering controlled by independent hydraulic clutches in transmission or by hydraulic actuated disc brakes. Three types of turns: power, gradual, and brake.

### FINAL DRIVES

Spur and bull gear type, single reduction. One-piece line-bored case with final drive seal guards.

### BRAKES

Hydraulic actuated disc brakes controlled by two foot pedals that may be interlocked or used independently; and which neutralize power drive. Separate pedal provides braking without disengaging transmission. Hand-operated over-center parking brake.

### UNDERCARRIAGE

Sealed track, hydraulic track adjusters. Track rollers, carrier rollers, drum type idlers permanently lubricated. Solid disc hunting tooth sprockets. Channel section roller frame.

Track frame	Rigid
Track rollers (each side)	5
Carrier rollers (each side)	1
Track gauge	60" (1524 mm)
Length of track on ground	78.3" (1989 mm)
Shoes per track (each side)	38
Track shoe widths available	16" (406 mm), 18" (457 mm), 20" (508 mm)
Area, track on ground	(16" shoes) 2506 in. <sup>2</sup> (1.62 m <sup>2</sup> ) (18" shoes) 2819 in. <sup>2</sup> (1.81 m <sup>2</sup> ) (20" shoes) 3132 in. <sup>2</sup> (2.02 m <sup>2</sup> )
Height of grouser	2.06" (52.3 mm)

### DOZER HYDRAULIC SYSTEM

Full hydraulic control of moldboard lift, lower, angle and tilt functions. Positive-hold "float" position in lift circuit.

**Pump:** Gear type, torque converter mounted, driven from engine, 31 gpm @ 2000 rpm (117 lit/min @ 2000 r/min).

**Control valve:** Open center, parallel. Three spool valve.

**System relief pressure:** 1800 psi (126 kg/cm<sup>2</sup>)

#### Cylinders:

Lift (2)	3" dia. x 29.6" stroke, 1.75" rod (76.2 mm dia. x 752 mm stroke, 44.5 mm rod)
Angle (2)	4.5" dia. x 8.6" stroke, 2.0" rod (114.3 mm dia. x 218.4 mm stroke, 50.8 mm rod)
Tilt (1)	4.0" dia. x 9.9" stroke, 2" rod (102 mm dia. x 252 mm stroke, 50.8 mm rod)

### SERVICE REFILL CAPACITIES

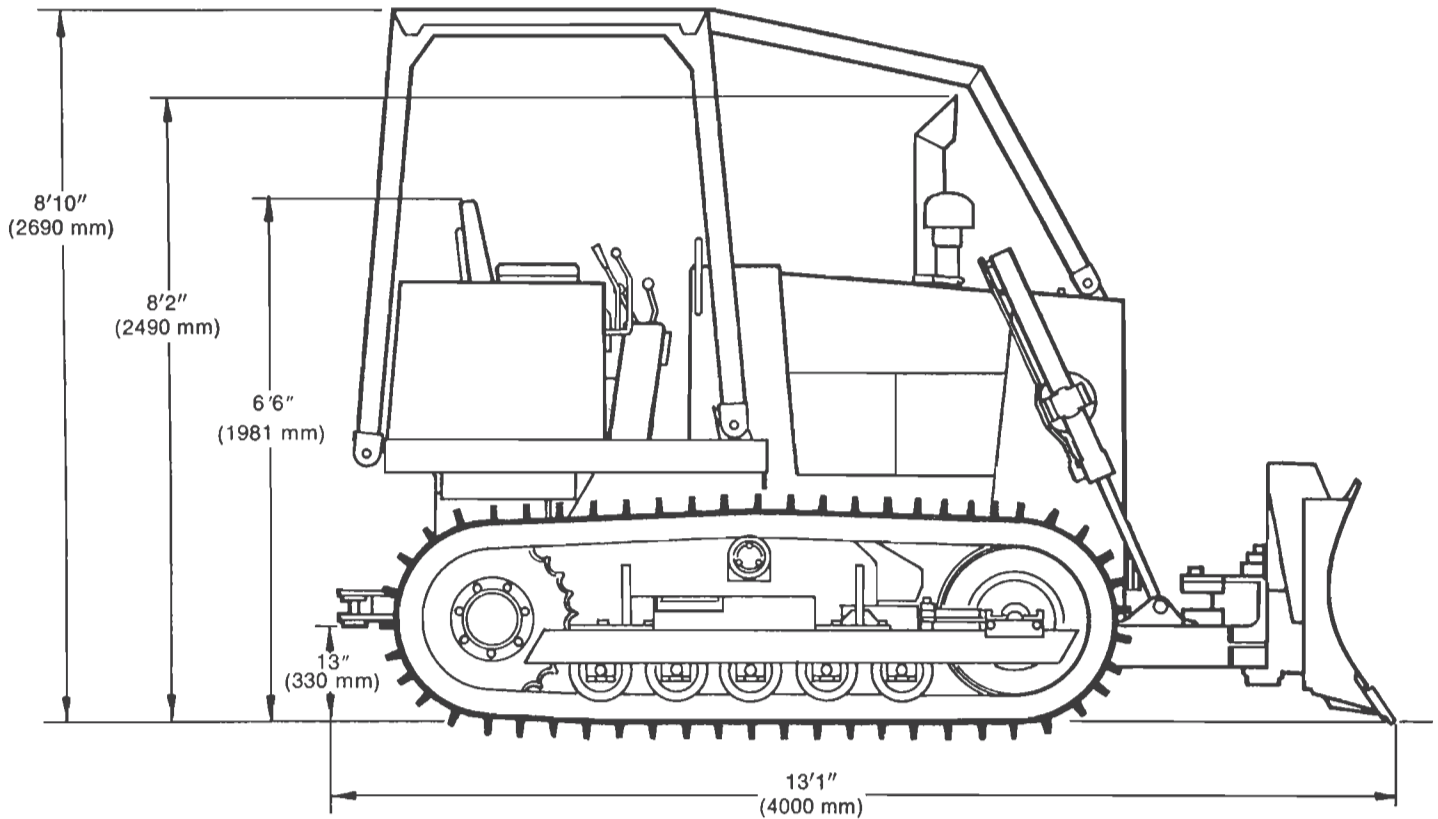
	U.S. Gals.	Liters
Fuel tank	40	151
Engine crankcase (with filter)	2.5	9.5
Hydraulic system	12	45.4
Transmission and torque converter	8	30.3
Final drives (each side)	1	3.8
Cooling system	11	41.6

## OPERATING DIMENSIONS

### OVERALL LENGTH:

Dozer with ripper raised ..... 15'5" (4690 mm)  
 Dozer with winch ..... 14'3" (4340 mm)

Ground clearance ..... 13" (330 mm)  
 Turning clearance circle (brake turn) ..... 20'10" (6350 mm)  
 Overall width (at track, 16" shoes) ..... 76" (1930 mm)  
 Height dimensions taken from bottom face of shoe.



## DOZER SPECIFICATIONS

**Dozer, hydraulic** ..... Angle/Tilt

### Blade

Width ..... 102" (2591 mm)  
 Height ..... 36" (914 mm)  
 Lift above ground ..... 36" (914 mm)  
 Drop below ground ..... 18" (457 mm)  
 Angle, hyd. — both directions ..... 0°-25°  
 Tilt, hyd. — either end ..... 15" (381 mm)  
 Pushbeam ..... Inside

### End Bits (Replaceable)

#### Standard Duty

Length ..... 13.5" (343 mm)  
 Width ..... 6" (152 mm)  
 Thickness ..... 0.625" (16 mm)

#### Cast Heavy Duty

Length ..... 16" (406 mm)  
 Width ..... 7.6" (194 mm)  
 Thickness ..... 0.625" (16 mm)

### Cutting Edge (Reversible)

Length ..... 75" (1905 mm)  
 Width ..... 6" (152 mm)  
 Thickness ..... 0.625" (16 mm)

**Maximum track shoe allowable** ..... 20" (508 mm)

### Tractor dozer dimensions

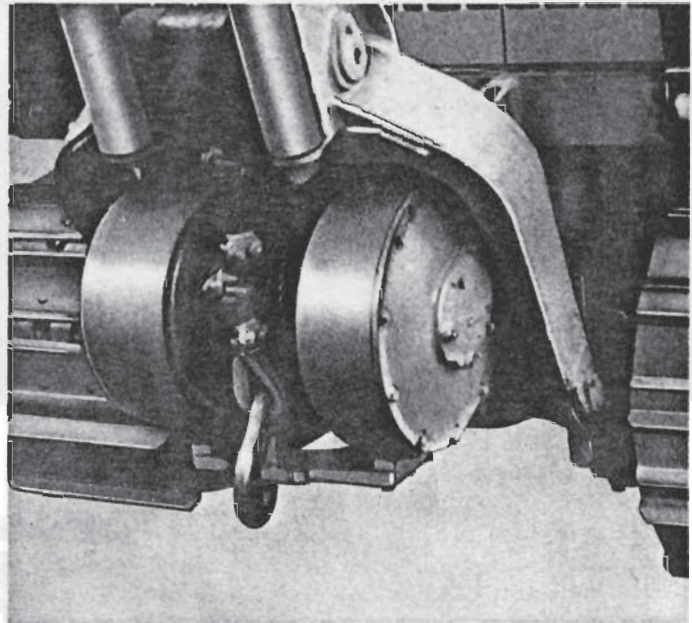
**Overall length**  
 (blade straight) ..... 13'1" (4000 mm)  
 (blade angled) ..... 14'9" (4496 mm)  
**Overall width**  
 (blade straight) ..... 102" (2591 mm)  
 (blade angled) ..... 95" (2413 mm)

**Operating weight (approx.)** ..... 16,200 lbs. (7348 kg)



## OPTIONAL EQUIPMENT

	Approximate add-on weight	
	lbs.	kg.
Backhoe (14')	3575	1622
Extendahoe (14'-18')	4070	1846
Blade, end bits cast	4	1,8
Drawbar	95	43,1
Drawbar (for ripper)	60	27
Drawbar (for winch)	30	13,6
Fan, reversible	3	1,4
Fan, suction	N.C.	N.C.
Front brush screen	13	5,9
Grille, heavy duty	35	15,9
Hook, front pull	20	9,7
Lockup kit	8	3,6
Muffler, spark arresting	15	6,8
Noise suppression kit	110	50
Normalizing turbocharger	25	11,3
Ripper, five tooth	1430	649
Rockguards	440	200
ROPS, front sweeps	134	61
Side shields, engine	40	18,1
Suspension seat	40	18,1
Track guides, front and rear	250	113,4
Transmission guard	90	40,8
Winch	1111	504
Winch, arch	575	261
Winch, fairlead (3 roller)	200	90,7
Fourth roller	24	11



### WINCH

Type	Gearmatic Model 19
Winch drive	Mechanical
Control	Hydraulic
Cable drum capacity	0.56" (14,3 mm) 290' (88,4 m) 0.625" (15,9 mm) 235' (71 m)
Drum rotation	Overwind
Drum diameter	8.5" (216 mm)
Rated line pull	39,500 lbs. (17,917 kg)
Weight	1111 lbs. (504 kg)

### STANDARD EQUIPMENT

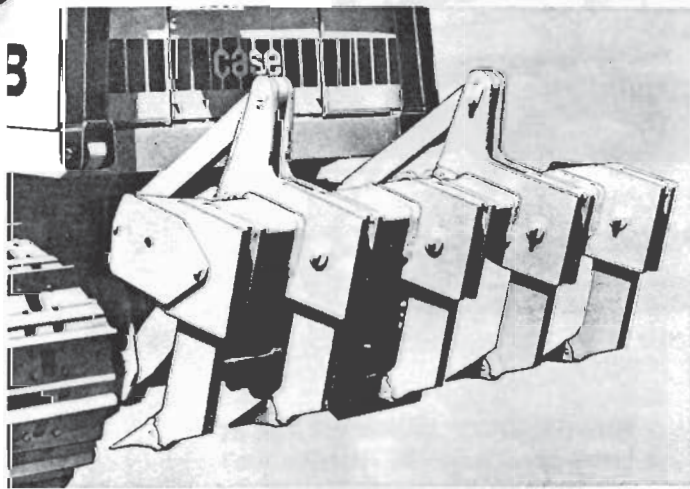
Dry air cleaner with service indicator. Alternator and voltage regulator. Pusher fan. Master disconnect key switch. Neutral safety start mechanism. Adjustable seat. Over-center parking brake. Tool box. Permanently lubricated track rollers. Sealed track. Hydraulic track adjusters. Bottom transmission guard. Crankcase guard. Radiator guard. Muffler. Hourmeter. Instrument panel gauges. Tachometer. Fuel gauge. ROPS canopy with seat belt.

NOTE: All specifications are stated in accordance with ICED Definitions or SAE Standards or Recommended Practices, where applicable.

### IMPORTANT

J I Case Company reserves the right to change these specifications without notice and without incurring any obligation relating to such changes.

**Sold and serviced by:**



### RIPPER

Type	Parallelogram
Overall width	72.4" (1839 mm)
Maximum penetration	15" (381 mm)
Ground clearance (at carry)	12" (307 mm)
Number of shanks	5
Shank spacing	17.8" (452 mm) inner shanks 16.2" (411 mm) outer shanks
Ripper tips	Replaceable
Hydraulic cylinders (2)	3.25" dia. x 8.4" stroke, 1.75" rod (82,6 mm dia. x 213 mm stroke, 44,5 mm rod)
Weight	1430 lbs. (649 kg)