



# W24-B LOADER



**132 FLYWHEEL HORSEPOWER**  
Case diesel engine

**FULL POWERSHIFT TRANSMISSION**  
Four speeds forward, two reverse

**SINGLE LEVER SHIFT CONTROL**  
Modulated transmission clutching for fast, smooth directional changes

**HYDRAULIC LIFT CAPACITY**  
23,700 lbs (10,750 kg)

**IN-LINE-PLANE LOADER LINKAGE**  
Excellent view of bucket work area

**LONG WHEEL BASE**  
Good operational stability

**CENTER-PIVOT STEER**  
Allows rear and front tires to track at all times

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

**J I Case**  
A Tenneco Company



# LOADER SPECIFICATIONS

## ENGINE

Make and model .....	Case A504BD
Fuel .....	diesel, No. 1 or 2
Maximum rated horsepower	
(1) Gross .....	158 @ 2200 rpm
(2) SAE net .....	132 @ 2200 rpm
Torque, maximum	
At 500' (152 m) altitude, 85°F (29°C) .....	372 lbs/ft @ 1400 rpm (51.41 kg/m @ 1400 tr/mn)
Cylinders, number (valve-in-head) ..	6
Bore and stroke .....	4 $\frac{5}{8}$ " x 5" (117 mm x 127 mm)
Displacement .....	504 cu/in (8,21 lit)
Starting .....	24 volt electric
Air cleaner (with service indicator)	two element, dry type
Oil filter .....	full-flow type
(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 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) per SAE J816a specifications.	

## TRAVEL SPEEDS

	1st	2nd	3rd	4th
	mph (km/h)	mph (km/h)	mph (km/h)	mph (km/h)
Forward	2.9 (4.6)	6.7 (10.78)	12.7 (20.44)	25.4 (40.87)
Reverse	4.0 (6.44)	9.1 (14.64)		

## TRANSMISSION

Four speeds forward, two speeds reverse, powershift. Single lever control. Modulated clutching. First low to first high and second low to second high is done automatically.

## TORQUE CONVERTER

Twin turbine integral with transmission. 5.1 to 1 stall ratio.

## AXLES (front and rear)

Front axle fixed. Rear axle oscillates up or down 11 $\frac{1}{2}$ °, 23° total oscillation. One wheel can drop 16" (406.4 mm) with all wheels remaining on the ground for maximum traction. Axles may be removed without disturbing the wheels or planetaries.

## DIFFERENTIALS

Torque proportioning differentials, front and rear for maximum traction.

## BRAKES

Air over hydraulic, internal-expanding, 4-wheel. Air actuated mechanical parking brake. Automatically sets if air pressure drops below safe operating level.

## STEERING

Center pivot articulated design with hydrostatic power steering. Front and rear wheels always track.

Steering angle—each direction from center ...

40°

Steering pump ..... 21 gpm @ 2200 rpm @ 2500 psi  
(79.5 lit/min @ 2200 tr/mn @  
176 kg/cm<sup>2</sup>)

Steering cylinders ..... 3" dia. x 15" stroke, 1 $\frac{1}{2}$ " rod  
(76 mm dia. x 381 mm stroke,  
38 mm rod)

## LOADER HYDRAULIC SYSTEM

**Cylinders:** Double-acting with hardened and chrome-plated rods to increase strength and resist corrosion.

Lift (2) ..... 5" dia. x 34 $\frac{1}{2}$ " stroke, 3" rod  
(127 mm dia. x 870 mm stroke,  
76 mm rod)

Bucket (2) ..... 4 $\frac{1}{2}$ " dia. x 29 $\frac{1}{2}$ " stroke, 2 $\frac{1}{2}$ " rod  
(114 mm dia. x 749 mm stroke,  
64 mm rod)

**Pump:** Dual-stage, gear-type, converter-driven, 50 gpm @ 2200 rpm @ 2300 psi (189 lit/min @ 2200 tr/mn @ 162 kg/cm<sup>2</sup>).

**Control valve:** Open-center, parallel circuit.

**Hydraulic lines:** Steel tubing with soldered fittings and wire-braid, high-pressure hose with swaged fittings.

**Reservoir:** Positive pressurized, inlet filtered hydraulic oil system sealed for dirt exclusion. Full time micron filter furnishes only clean oil to all components of the hydraulic system.

### Hydraulic cycle time:

Rated load in bucket	Seconds
Raise .....	6.3
Lower .....	2.8
Dump .....	3.8
Total .....	12.9

## SERVICE CAPACITIES

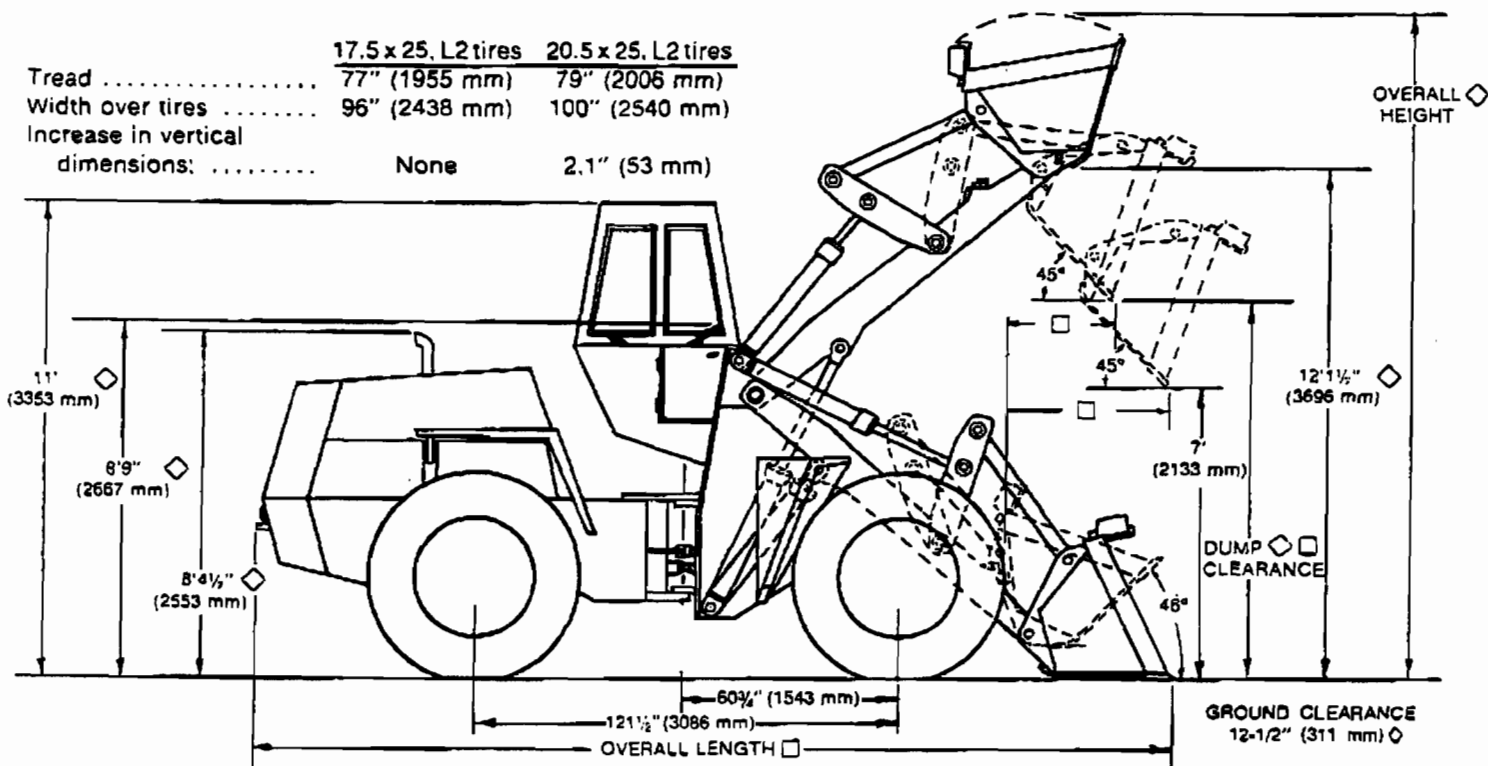
	U.S. gallons (liters)	
Fuel tank .....	58	(219.5)
Hydraulic system .....	35	(132.5)
Transmission and torque converter .....	9	(34.1)
Engine crankcase .....	3.25	(12.3)
Differentials and final drives		
Front .....	6.5	(24.6)
Rear .....	6.5	(24.6)
Cooling system .....	6.75	(25.5)

**NOTE:** Specifications herein are in accordance with all Society of Automotive Engineers' standards (SAE). The applicable Loader Standard is SAE J732C and is denoted by §.

# OPERATING DIMENSIONS

◇ Varies with tire size.  
 □ Varies with bucket size, refer to performance specifications.

	17.5 x 25, L2 tires	20.5 x 25, L2 tires
Tread .....	77" (1955 mm)	79" (2006 mm)
Width over tires .....	96" (2438 mm)	100" (2540 mm)
Increase in vertical dimensions: .....	None	2.1" (53 mm)



## PERFORMANCE SPECIFICATIONS §

BUCKET TYPE - Capacity SAE Rated (nominally heaped) §	EXCAVATING 2 Cu/Yds (1.53 m³)	GENERAL PURPOSE 2½ Cu/Yds (1.91 m³)	LIGHT MATERIAL 3 Cu/Yds (2.29 m³)	LIGHT MATERIAL 4 Cu/Yds (3.06 m³)	4-IN-1 2½ Cu/Yds (1.91 m³)	
Struck Capacity §	1.6 cu/yds (1.22 m³)	2.0 cu/yds (1.53 m³)	2.6 cu/yds (1.99 m³)	3.5 cu/yds (2.68 m³)	2.0 cu/yds (1.53 m³)	
Dump Clearance @ 45° Dump — Full Height § ◇	9' ¼"	96" wide 8' 8½"	104" wide 8' 10½"	8' 6¾"	8' 1¾"	8' 9½"
Bucket Reach @ Full Height & 45° Dump §	3' 1"	3' 5"	3' 2½"	3' 6¾"	3' 11¾"	3' 8"
Bucket Reach @ 7' Clearance 45° Dump §	4' 4½"	4' 8½"	4' 6"	4' 10½"	5' 3"	4' 7½"
Loader Clearance Circle — Bucket in Carry Position §	38' 9"	39' 2"	39' 4"	39' 8"	40'	40' 4"
Overall Length §	22' ½"	22' 6"	22' 2½"	22' 8½"	23' 3½"	23'
Overall Height § ◇	15' 8"	15' 11"	15' 9"	16'	16' 2"	16' 4"
Tipping Load, Straight**	17,300 (7847 kg)	17,100 (7758 kg)	17,100 (7756 kg)	17,200 (7802 kg)	17,300 (7847 kg)	16,800 (7620 kg)
35° Turn	15,800 (7167 kg)	15,600 (7076 kg)	15,600 (7076 kg)	15,700 (7121 kg)	15,800 (7167 kg)	15,300 (6940 kg)
40° Turn	14,700 (6667 kg)	14,500 (6577 kg)	14,500 (6577 kg)	14,600 (6622 kg)	14,700 (6667 kg)	14,200 (6441 kg)
Operating Weight**	23,000 (10433 kg)	23,276 (10558 kg)	23,275 (10550 kg)	23,400 (10614 kg)	23,660 (10732 kg)	23,635 (10721 kg)

\*\*Machine stability can be improved through the use of larger tires, CA C12, or counterweights. For select items, add the amount to the machine operating weight and tipping loads as given in the chart. All dimensions and specifications based upon unit with 2½ cu. yd. bucket and 17.5 x 25, L2 tires, unballasted.

Added Weight Items	Increase in Operating Weight		Increase in Tipping Load					
	lbs	(kg)	Straight		35° Turn		40° Turn	
ROPS enclosed cab	625	(283)	510	(231)	470	(214)	450	(204)
20.5 x 25, L2	625	(283)	510	(231)	470	(214)	450	(204)
17.5 x 25, L2 w/75% CA C12	1194	(542)	1930	(875)	1890	(857)	1800	(816)
20.5 x 25, L2 w/75% CA C12	2600	(1179)	3700	(1678)	3500	(1590)	3340	(1515)
Counterweight	1000	(454)	2300	(1043)	2100	(952)	2000	(907)

# EQUIPMENT ATTACHMENTS

## BUCKETS

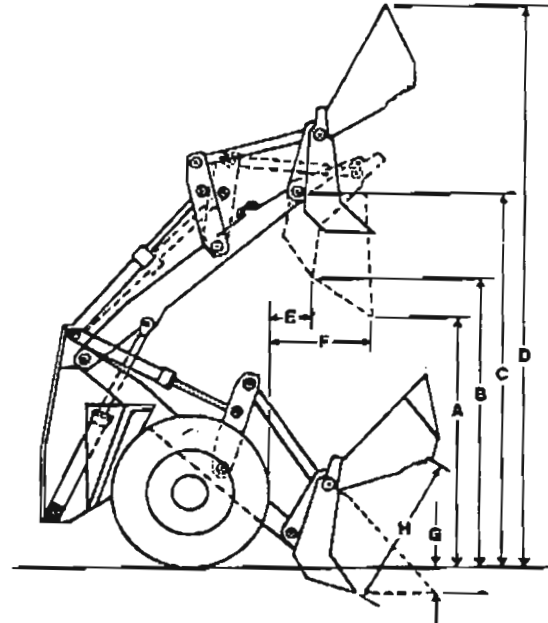
TYPE	Material Weight lbs (kg) per cu/yd (m <sup>3</sup> )	Capacity cu/yd (m <sup>3</sup> )		Cutting Edge Width-Inches (mm)
		SAE Rated	Struck	
Excavating .....	3400 (1542 kg)	2 (1.53 m <sup>3</sup> )	1.6 (1.27 m <sup>3</sup> )	96" (2438 mm)
General Purpose .....	3000 (1361 kg)	2.5 (1.91 m <sup>3</sup> )	2.0 (1.53 m <sup>3</sup> )	96" (2438 mm)
General Purpose .....	3000 (1361 kg)	2.5 (1.91 m <sup>3</sup> )	2.0 (1.53 m <sup>3</sup> )	104" (2642 mm)
Light Material .....	2400 (1089 kg)	3.0 (2.29 m <sup>3</sup> )	2.6 (1.99 m <sup>3</sup> )	104" (2642 mm)
Light Material .....	1800 (816 kg)	4.0 (3.06 m <sup>3</sup> )	3.5 (2.68 m <sup>3</sup> )	104" (2642 mm)
4-in-1 .....	3000 (1361 kg)	2.5 (1.91 m <sup>3</sup> )	2.0 (1.53 m <sup>3</sup> )	101" (2565 mm)

### 4-in-1 SPECIFICATIONS:<sup>§</sup>

<b>A</b> —Forward dumping clearance @ 45° discharge ◇ .....	8' 9½" (2680 mm)
<b>B</b> —Bottom dumping clearance @ 45° discharge ◇ .....	12' (3658 mm)
<b>C</b> —Hinge pin height ◇ .....	12' 2" (3708 mm)
<b>D</b> —Overall height ◇ .....	18' 1" (5639 mm)
<b>E</b> —Bottom dumping reach @ 45° discharge .....	14" (356 mm)
<b>F</b> —Forward dumping reach @ 45° discharge .....	3' 6" (1067 mm)
<b>G</b> —Digging depth .....	9½" (244 mm)
<b>H</b> —Bucket opening .....	4' 5½" (1359 mm)
Reach @ 45° dump angle, 7' (2130 mm) clearance .....	4' 7½" (1410 mm)
Tilt back @ ground level .....	45°
Closure force, clamp to cutting edge .....	10,000 lb (4536 kg)
Weight .....	2600 lb (1134 kg)

<sup>§</sup> SAE code adhered to, 17.5 x 25,  
L2, 12 PR tires used

◇ Varies with tire size - refer to  
performance specifications.



**Sold and serviced by:**

### STANDARD EQUIPMENT

Alternator. Voltage regulator. Batteries. 24 volt start. Front and rear flood lights. Taillight and stop light. Pusher fan. Two-element, dry-type air cleaner. Air horns. Powershift transmission. Transmission oil cooler. Air-over hydraulic brakes. Parking brake. Voltmeter, engine oil pressure gauge, engine water temperature gauge, fuel level gauge, converter oil temperature gauge, clutch pressure gauge, air pressure gauge, tachometer. Automatic, adjustable bucket height kickout. Automatic return-to-dig mechanism. Drawbar.

### OPTIONAL EQUIPMENT

Cab. ROP cab, ROP canopy, seat belt accompanies ROPS. Buckets. Log forks. Pallet forks. Power train guard. Engine side panels. Fenders. Heater and defroster. Cold weather starting equipment. Lockup kit. Tire inflation kit. Turn signals. Additional driving lights. Spark arresting muffler.

### TIRES (front and rear)

17.5 x 25, 12PR traction-type, L2  
17.5 x 25, 12PR, rock-type, L3  
20.5 x 25, 12PR, rock-type, L3  
20.5 x 25, 12PR, traction-type, L2