



Case

W24C Loader



132 (98.4 kW) SAE NET FLYWHEEL HORSE-POWER

Case 504 in³ (8.26 litres) diesel engine

FULL POWERSHIFT TRANSMISSION

Four speeds forward, two reverse

MODULATED TRANSMISSION

On-the-go directional changes without decelerating or braking; keeps engine speed up, hydraulics cycling fast for added productivity

TWIN TURBINE TORQUE CONVERTER

Automatically shifts to meet changing load demands for optimum cycling productivity

IN-LINE LOADER LINKAGE

All linkage mounted in line with loader lift arms for good visibility to bucket work area

AIR/HYDRAULIC BRAKES

Four-wheel caliper disc

LONG 121.5" (3.09 m) WHEELBASE PLUS 40° ARTICULATION

Combines operational stability and balance with excellent turning radius

CENTER-PIVOT STEER

Allows rear and front tires to track at all times

Unit shown is equipped with optional items

JI Case

A Tenneco Company



Construction Equipment Division
700 State Street Racine, WI 53404 U.S.A.

LOADER SPECIFICATIONS

ENGINE

Make and model..... Case A504BD
 Fuel diesel
 Maximum rated horsepower
 (1) Gross..... 158 @ 2200 rpm
 (117.8 kW @ 2200 r/min)
 (2) SAE net..... 132 @ 2200 rpm
 (98.4 kW @ 2200 r/min)
 Torque, maximum
 At 500' (152 m) altitude,
 85°F (29°C)..... 372 lbs-ft @ 1400 rpm
 (51.41 kg-m @ 1400 r/min)
 Cylinders, number (valve-in-head)..... 6
 Bore and stroke..... 4.625" x 5"
 (117 mm x 127 mm)
 Displacement..... 504 in³ (8.26 litres)
 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" (9.7 mm) Hg vapor pressure 29.38" (746 mm) Hg observed barometer and 85°F (29°C).

ELECTRICAL SYSTEM

Voltage 24 Volt
 Standard alternator 40 Amp
 Batteries (2) 12 Volt
 System protected by circuit breakers

TRAVEL SPEEDS (with 20.5 x 25 tires)

	1st		2nd		3rd		4th	
	mph	km/h	mph	km/h	mph	km/h	mph	km/h
Forward	2.6	4.2	6.5	10.4	11.4	18.2	22.2	35.5
Reverse	3.6	5.8	8.7	13.9				

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 4.92 to 1 stall ratio.

AXLES (front and rear)

Front axle fixed. Rear axle oscillates up or down 11.5°, 23° total oscillation. One wheel can drop 16" (406 mm) with all wheels remaining on the ground for maximum traction. Axle shafts may be removed without disturbing the wheels or planetaries.

DIFFERENTIALS

Torque proportioning differentials, front and rear for maximum traction.

BRAKES

Air over hydraulic, 4-wheel, caliper disc. Air actuated mechanical parking brake. Automatically sets if air pressure drops below effective operating level. Red warning light indicates when parking brake is engaged.

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 r/min @ 176 kg/cm²)
 Steering cylinders 3" dia x 15" stroke
 (76 mm dia x 381 mm stroke).
 Turning circle—outside tires 36'6" (11.13 m)

LOADER HYDRAULIC SYSTEM

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

Lift (2)..... 5" dia x 34.63" stroke
 (127 mm dia x 880 mm stroke)
 Bucket (2) 4.5" dia x 29.5" stroke
 (114 mm dia x 749 mm stroke)

Pump: Dual-stage, gear-type, engine-driven, 52 gpm @ 2200 rpm @ 2300 psi (197 lit/min @ 2200 r/min @ 162 kg/cm³)

Control valve: Open-center, series parallel circuit.

Hydraulic lines: Steel tubing with brazed 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:

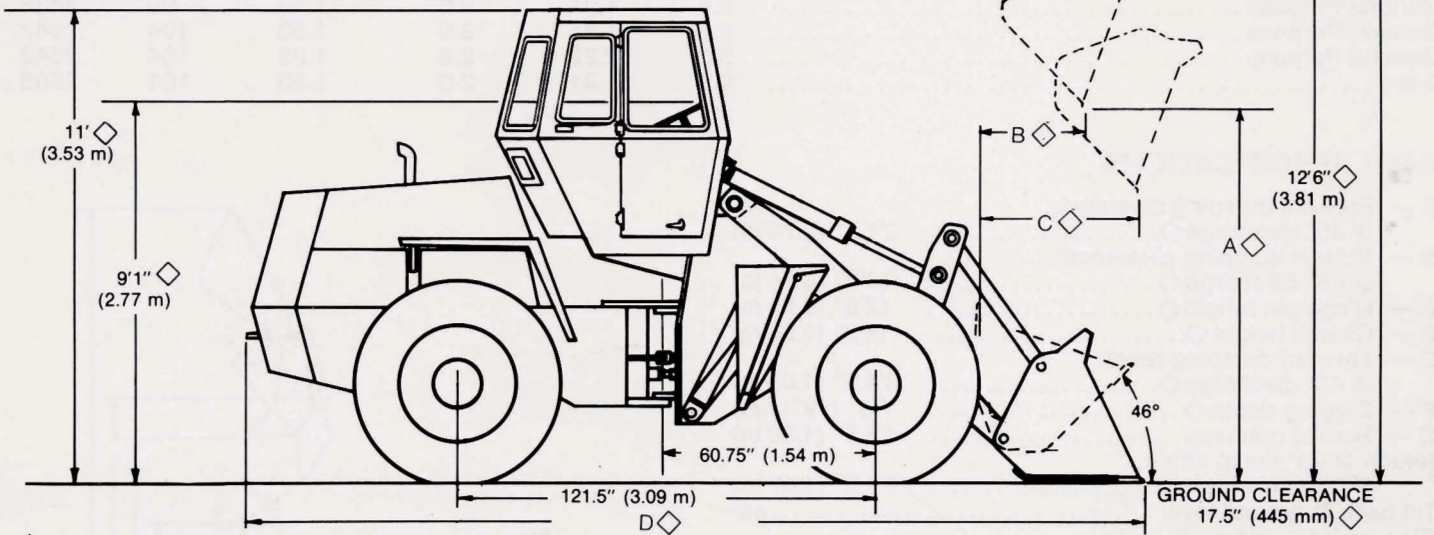
	Seconds
Rated load in bucket	
Raise.....	6.3
Lower.....	2.8
Dump.....	1.9
Total.....	11.0

SERVICE CAPACITIES

	U.S. Gals	Litres
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	17 qt	16
Rear	17 qt	16
Cooling system	6.75	25.5

OPERATING DIMENSIONS

	17.5 x 25, L2 tires	20.5 x 25, L2 tires
Tread	77" (1.96 m)	79" (2.01 m)
Width over tires	96" (2.44 m)	100" (2.54 m)
Decrease in vertical dimension	2.1" (53 mm)	None
Increase in horizontal dimensions	2.3" (58 mm)	None



◇ Varies with tire size

PERFORMANCE SPECIFICATIONS

Loader ratings are governed by SAE J732C and J742B

BUCKET TYPE - Capacity SAE Rated (normally heaped)	GENERAL PURPOSE 2.5 yd ³ (1.91 m ³)		GENERAL PURPOSE 3 yd ³ (2.29 m ³)		4-in-1 [®] 2.5 yd ³ (1.91 m ³)	
Struck Capacity	2.0 yd ³ (1.53 m ³)		2.6 yd ³ (1.99 m ³)		2.0 yd ³ (1.53 m ³)	
A—Dump Clearance @ 45° Dump — Full Height ◇	96" wide 9'2.5" (2.81 m)		104" wide 9'3" (2.82 m)		9'1" (2.77 m)	
B—Bucket Reach @ Full Height & 45° Dump	3' (.91 m)		2'11.5" (.90 m)		3'2" (.97 m)	
C—Bucket Reach @ 7' (2.13 m) Clearance 45° Dump	4'8.5" (1.44 m)		4'8" (1.42 m)		4'10" (1.47 m)	
D—Overall Length	22'3.5" (6.79 m)		22'1.5" (6.74 m)		22'5.5" (6.85 m)	
E—Overall Height ◇	16'2" (4.93 m)		16'0" (4.88 m)		16'4" (4.98 m)	
Loader Clearance — Bucket in Carry Position	37'3" (11.35 m)		39'5" (12.01 m)		39'9" (12.12 m)	
SAE Breakout Force, lbs	20,200 lbs (9163 kg)		21,200 lbs (9616 kg)		19,300 lbs (8754 kg)	
SAE Tipping Load, Straight*	19,403 lbs (8801 kg)		19,480 lbs (8836 kg)		19,153 lbs (8688 kg)	
35° Turn	17,648 lbs (8005 kg)		17,718 lbs (8037 kg)		17,421 lbs (7902 kg)	
40° Turn	17,134 lbs (7772 kg)		17,201 lbs (7802 kg)		16,913 lbs (7672 kg)	
SAE Operating Weight, lbs*	23,573 lbs (10 693 kg)		23,525 lbs (10 671 kg)		23,720 lbs (10 759 kg)	

* 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 20.5 x 25, L2 tires, fenders, and ROPS cab with operator.

Selected Items

Operating Weight Adjustment

Tipping Load Adjustment

	Operating Weight Adjustment		Straight		35° Turn		40° Turn	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg
W/ROPS Canopy	- 530	-240	- 434	- 197	- 434	- 197	- 434	- 197
17.5 x 25, L2	- 672	-305	- 551	- 250	- 501	- 227	- 486	- 221
20.5 x 25, L3	+ 372	+169	+ 284	+ 129	+ 248	+ 112	+ 243	+ 110
17.5 x 25, L2 w/75% CaCl₂	+ 522	+237	+1406	+ 638	+1279	+ 580	+1242	+ 563
20.5 x 25, L2 w/75% CaCl₂	+1970	+894	+3228	+1464	+2936	+1332	+2851	+1293
Counterweight	+1000	+454	+2320	+1053	+2049	+ 929	+1969	+ 893
W/O Fenders	- 277	-126	- 231	- 105	- 210	- 95	- 204	- 93

EQUIPMENT ATTACHMENTS

BUCKETS

TYPE	Capacity				Cutting Edge Width	
	SAE Rated		Struck		inches	mm
	yd ³	m ³	yd ³	m ³		
General Purpose	2.5	1.91	2.0	1.53	96	2438
General Purpose	2.5	1.91	2.0	1.53	104	2642
General Purpose	3.0	2.29	2.6	1.99	104	2642
4-in-1	2.5	1.91	2.0	1.53	101	2565

4-in-1 SPECIFICATIONS

A — Forward dumping clearance @ 45° discharge ◊	9'1.5" (2.78 m)
B — Bottom dumping clearance @ 45° discharge ◊	12'2" (3.71 m)
C — Hinge pin height ◊	12'6" (3.81 m)
D — Overall height ◊	18'3" (5.56 m)
E — Forward dumping reach @ 45° discharge ◊	3'4.5" (1.03 m)
F — Digging depth ◊	7.5" (191 mm)
G — Bucket opening	4'5.5" (1.36 m)
Reach @ 45° dump angle, 7' (2.13m) clearance ◊	4'7.5" (1.41 m)
Tilt back @ ground level	45°
Closure force, clamp to cutting edge	10,000 lb (4536 kg)
Weight	2450 lb (1111 kg)

NOTE: SAE code adhered to, 20.5 x 25 L2, 12 PR tires used

◊Varies with tire size — refer to operating dimensions

STANDARD EQUIPMENT

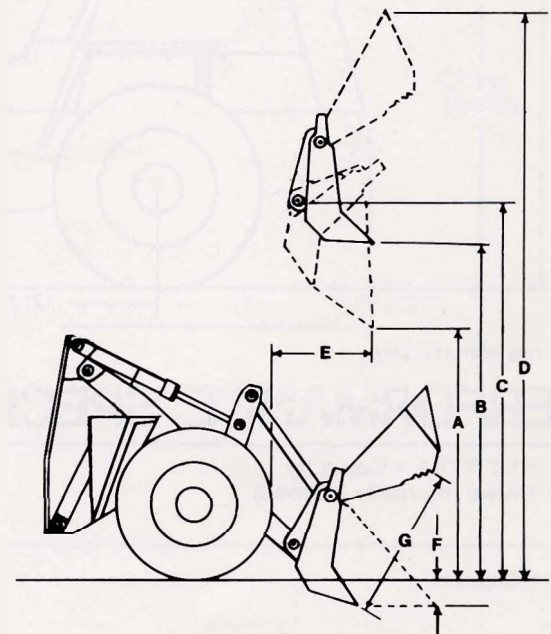
ROPS canopy with seat belts. Alternator with voltage regulator. Batteries. 24 volt start. Front and rear flood lights. Taillight and stop light. Pusher fan. Two element, dry-type air cleaner with service indicator. Air horn. 4-wheel air over hydraulic caliper disc brakes. Parking brake. Alternator warning light, engine oil pressure warning light, engine water temperature gauge, fuel gauge, converter oil temperature gauge, clutch pressure warning light, air pressure gauge, parking brake light, hourmeter, tachometer. Automatic, adjustable bucket height kick-out. Automatic return-to-dig mechanism. Drawbar. Anti-freeze solution to -40°F (-40°C). Bucket positioning indicator. Front engine side panels. Adjustable bucket seat. Torque proportioning front and rear axles. Hydrostatic steering.

OPTIONAL EQUIPMENT

ROPS cab with air pressurization and sound suppression, seat belt accompanies ROPS. Buckets. Log forks. Pallet forks. Three spool valve. Power train guard. Engine side panels. Four fenders. Heater. 36,000 Btu. Defroster. Cold weather starting equipment. Lockup kit. Tire inflation kit. Turn signals. Additional driving lights. Flood lights. Spark arresting muffler. Air conditioning, (24,400 Btu/H). Suspension seat. Backup alarm. Auxiliary steering. Rotating beacon. 65 amp alternator. Two rear wipers. Lift and tie-down brackets. Rear counterweight. Bucket teeth.

TIRES (front and rear)

Standard	17.5 x 25, 12 PR, traction-type, L2
Optional	20.5 x 25, 12 or 16 PR, traction-type, L2
	17.5 x 25, 12 PR, rock-type, L3
	20.5 x 25, 16 PR, rock-type, L3



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: