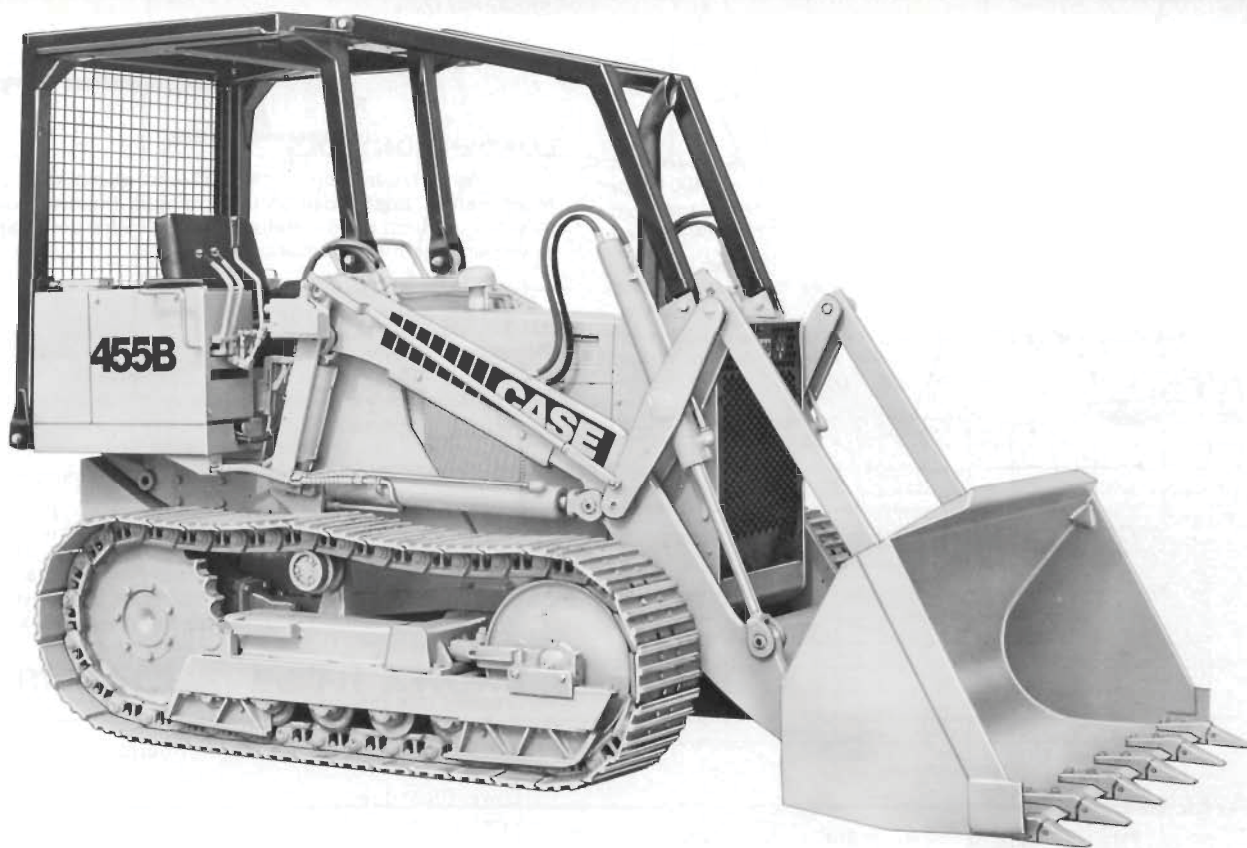




# 455B Loader



#### **CASE DIESEL ENGINE**

Four-cylinder, 207 in<sup>3</sup> (3392 cm<sup>3</sup>). Naturally aspirated 53 (39.5 kW) net horsepower, standard. Turbocharged 58 (43.3 kW) net horsepower, optional.

#### **TORQUE CONVERTER**

Increases crowd power and automatically adjusts to load demand

#### **TRANSMISSION**

Four speed powershift with torque converter

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

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

#### **IN-LINE LOADER LINKAGE**

Excellent visibility of work area and bucket

#### **SINGLE LEVER LOADER CONTROL**

Low lever effort for easy operation and return-to-dig

#### **SEALED TRACK**

Extends pin and bushing life

Unit shown is equipped with non-standard items.

**JI Case**

A Tenneco Company

700 State Street Racine, WI 53404 U.S.A.



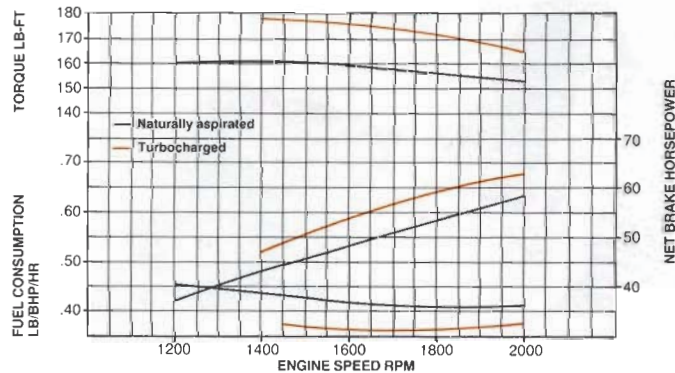
# 455B SPECIFICATIONS

## ENGINE

Case Model G207D, 4-cycle diesel. Open chamber design. Uses No. 2 diesel fuel. Five main bearings. Positive pressure oil lubrication with full flow filtering and internal cooling. Aluminum alloy pistons with full skirt, three ring design. 12-volt direct electric starting. Dry type, dual element air cleaner with service indicator. Two stage full flow replaceable element fuel filters.

	Naturally Aspirated	Turbocharged
Nominal Rated Horsepower		
(1) Gross	58 @ 2000 rpm (43.3 kW @ 2000 r/min)	63 @ 2000 rpm (47.0 kW @ 2000 r/min)
(2) SAE net	53 @ 2000 rpm (39.5 kW @ 2000 r/min)	58 @ 2000 rpm (43.3 kW @ 2000 r/min)
Displacement	207 in <sup>3</sup> (3392 cm <sup>3</sup> )	207 in <sup>3</sup> (3392 cm <sup>3</sup> )
Number of cylinders	4	4
Bore and stroke	4" x 4.125" (101.6 mm x 105 mm)	4" x 4.125" (101.6 mm x 105 mm)
Compression ratio	17:1	16.5:1
Torque, Nominal Peak, lbs-ft (Nm)		
Gross	162 @ 1400 rpm (219 @ 1400 r/min)	178 @ 1400 rpm (241 @ 1400 r/min)
Net	153 @ 1400 rpm (207 @ 1400 r/min)	169 @ 1400 rpm (229 @ 1400 r/min)

- (1) SAE gross horsepower of engine as applied to this vehicle when equipped with fuel pump, oil pump, and water pump. Observed at 500 feet (152.4 m) elevation (Per SAE J270).
- (2) SAE net flywheel horsepower of engine as applied to this vehicle when fully equipped with fuel pump, oil pump, water pump, air cleaner, muffler, fan, radiator, and alternator (Per SAE J270).



## TRAVEL SPEEDS

	1st		2nd		3rd		4th	
	mph	km/h	mph	km/h	mph	km/h	mph	km/h
Forward	2.1	3.4	3.1	5.0	4.2	6.8	6.2	10.0
Reverse	2.3	3.7	3.3	5.3	4.6	7.4	6.6	10.6

## TORQUE CONVERTER

Single stage, hydrokinetic type, 11" (279 mm) diameter with 2.1:1 ratio.

## TRANSMISSION

Constant mesh, four speed powershift with dual range selector. Four speeds forward and four speeds reverse.

## STEERING

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

## FINAL DRIVES

Spur and bull gear type, single reduction. One-piece line-bored case.

## BRAKES

Hydraulic actuated disc brakes controlled by two foot brake pedals that may be interlocked or used independently; and which neutralize power drive. Hand-operated over-center parking brake.

## UNDERCARRIAGE

Sealed track, hydraulic track adjusters. Track rollers, carrier rollers and drum type idlers are permanently lubricated. Solid disc hunting tooth sprockets and three bar semi-grousers.

Track frame	Rigid
Track rollers (each side)	5
Carrier rollers (each side)	1
Track gauge	52" (1.32 m)
Length of track on ground	68" (1.73 m)
Shoes per track	36
Track shoe widths available	12" (305 mm), 14" (356 mm)
Area, track on ground	12" (305 mm) shoe, 1632 in <sup>2</sup> (1.05 m <sup>2</sup> ) 14" (356 mm) shoe, 1904 in <sup>2</sup> (1.23 m <sup>2</sup> )

## LOADER CONTROLS

Single lever control for bucket lift and dump with positive-hold regenerative "float" position in lift circuit. Positive-hold "rollback" position in dump circuit. Return-to-dig. Hydra-Leveling loader with power linkage mounting of cylinders.

## LOADER HYDRAULIC SYSTEM

**Pump:** gear type, front mounted, direct drive. 21 gpm @ 2000 rpm (80 lit/min @ 2000 r/min).

**Control valve:** two or three spool valve (depending on equipment).  
**System relief pressure:** 2200 psi (15 170 kPa)—naturally aspirated  
2400 psi (16 550 kPa)—turbocharged

**Hydraulic lines:** steel tubing with flared fittings and wire-braid high pressure hose with crimped full flow fittings.

**Cylinders:** double acting with hardened, chrome plated rods.

Lift (2)	3.5" dia x 31.0" stroke, 2.0" rod (88.9 mm dia x 787 mm stroke, 50.8 mm rod)
Bucket (2)	3.0" dia x 23.56" stroke, 1.5" rod (76.2 mm dia x 598 mm stroke, 38 mm rod)
Hydra-leveling® (1)	4.0" dia x 7.5" stroke 2.0" rod (102 mm dia x 190 mm stroke, 50.8 mm rod)

**Hydraulic cycle time:**

Rated load in bucket	Seconds
Raise	6.3
Dump	1.5
Lower (float down)	4.3
Lower (power down)	3.1

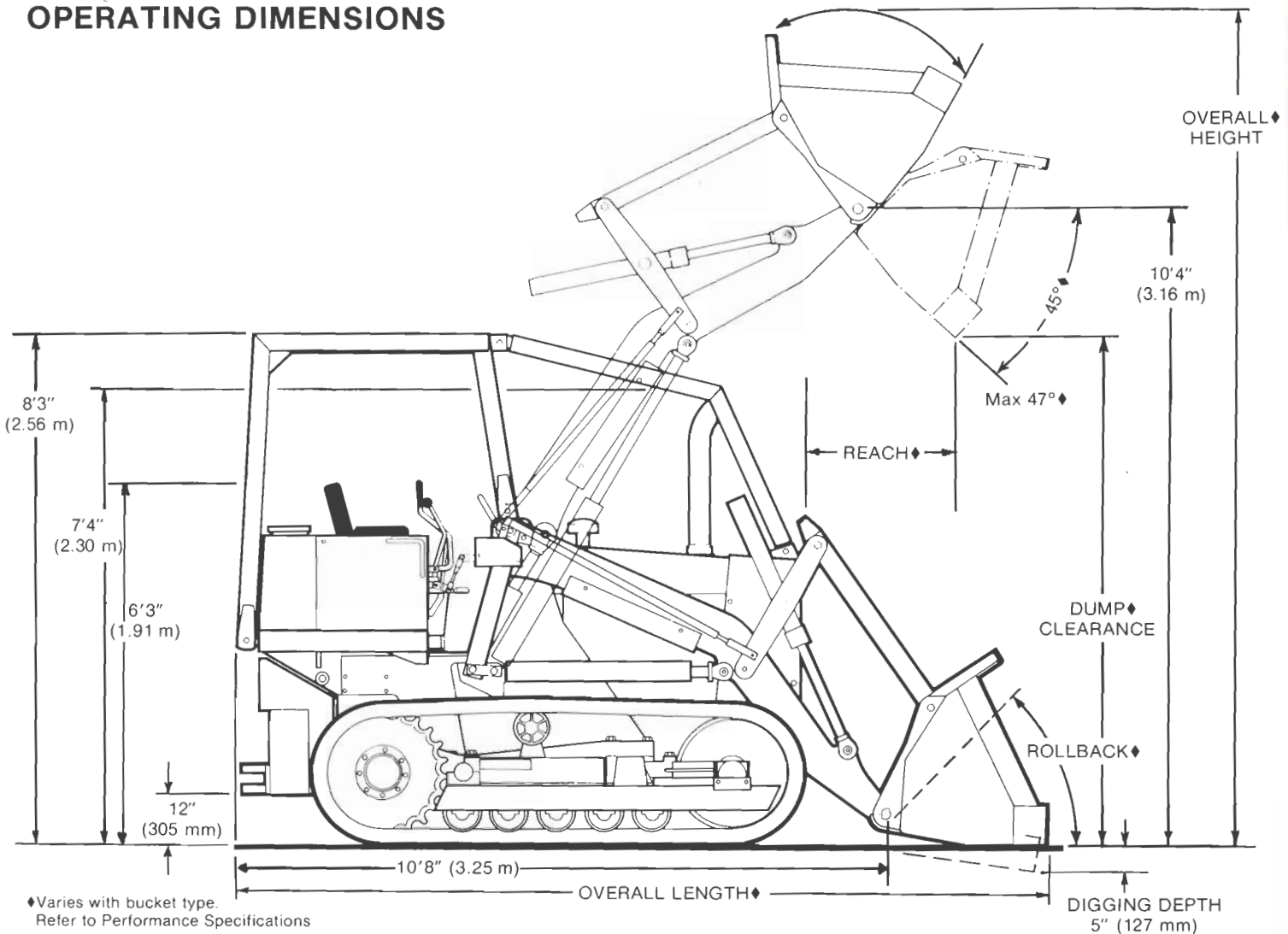
## SERVICE REFILL CAPACITIES

	U.S. Gals	Litres
Fuel tank	24.5	92.7
Engine crankcase (with filter) (naturally aspirated)	1.8	6.6
Engine crankcase (with filter) (turbocharged)	2.5	9.6
Hydraulic system	8	30.3
Transmission and torque converter	8	30.3
Final drives (each side)	1.5	5.7
Cooling system	4.1	15.6

## GENERAL DIMENSIONS

Overall width	
at track, 12" (305 mm) shoes	64" (1.63 m)
Ground clearance	12" (305 mm)
Turning clearance circle	
(pivot turn)	19'10" (6.05 m)
Grading angle	106°
Overall length	
Loader with ripper raised	15'0" (4.57 m)
Loader with winch	13'4" (4.06 m)

# OPERATING DIMENSIONS



# PERFORMANCE SPECIFICATIONS

**BUCKET TYPE** — Capacity  
SAE rated nominally heaped

**GENERAL PURPOSE**  
1 yd<sup>3</sup> (0.76 m<sup>3</sup>)

**4-IN-1<sup>®</sup>**  
1 yd<sup>3</sup> (0.76 m<sup>3</sup>)

Struck capacity	.800 yd <sup>3</sup> (0.61 m <sup>3</sup> )	.800 yd <sup>3</sup> (0.61 m <sup>3</sup> )
Bucket weight (less teeth)	715 lbs (324 kg)	1165 lbs (528 kg)
Bucket width	67.8" (1.72 m)	70.8" (1.80 m)
Breakout force —		
naturally aspirated	8160 lbf (36.3 kn)	8500 lbf (37.8 kn)
turbocharged	8900 lbf (39.6 kn)	9270 lbf (41.2 kn)
Maximum lift capacity to full height		
naturally aspirated	5200 lbs (2359 kg)	4620 lbs (2096 kg)
turbocharged	5670 lbs (2572 kg)	5040 lbs (2286 kg)
Bucket rollback @ ground line	39°	41°
@ 18" (457 mm) carry	47°	48°
Dump clearance @ full lift — 45° discharge	8'2" (2.49 m)	8'2" (2.49 m)
Reach @ 45° discharge angle, 7' (2.13 m) clearance	3'2" (965 mm)	3'6.5" (1.08 m)
Reach @ full lift, 45° discharge	2'4" (711 mm)	2'8" (813 mm)
Overall length	13'2" (4.01 m)	13'7" (4.14 m)
Overall height	13'7" (4.14 m)	13'7" (4.14 m)
Static tipping load*	9600 lbs (4355 kg)	8800 lbs (3992 kg)
Operating weight (approx.)**	14,525 lbs (6589 kg)	14,975 lbs (6793 kg)

\*Operating weight and weight distribution may vary with the addition of optional equipment

\*\*Includes ROPS, full fuel tank and 170 lb (77.1 kg) operator

## OPTIONAL EQUIPMENT

	Approximate add-on weight	
	lbs	kg
Backhoe, 14' (4.27 m).....	3425	1554
Bucket teeth .....	60	27.2
Counterweight.....	1600	726
Drawbar .....	33	15
Grille, heavy duty.....	11	5
Hook, front pull .....	10	4.5
Lockout for clutch cutoff.....	5	2.3
Lockup kit .....	78.5	35.7
Muffler, spark arresting .....	8.75	4
Noise suppression kit .....	26	11.8
Ripper, three tooth .....	1270	576
Rock guards .....	250	113
ROPS, front sweeps .....	110	49.9
Side shields, engine .....	56.5	25.7
Track guides, front and rear.....	150	68
Winch.....	1111	504
Winch, arch .....	555	252
Winch, fairlead (three roller) .....	284	129
Fourth roller.....	24	10.8

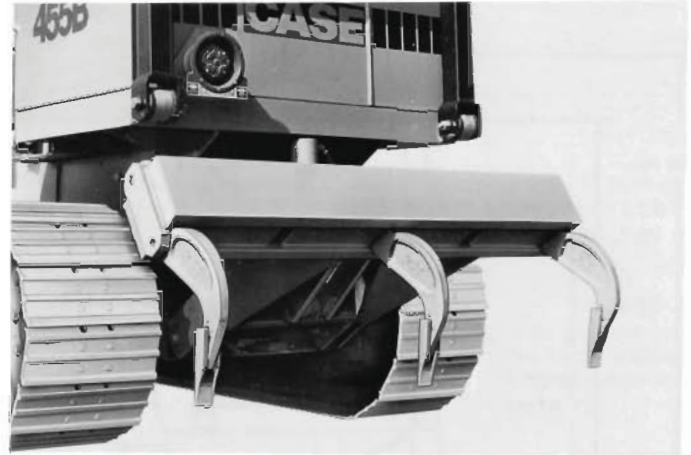
\*Included in operating weight

## STANDARD EQUIPMENT

Dry air cleaner with service indicator. Alternator and voltage regulator. Pusher fan. Key switch. Neutral safety start mechanism. Adjustable seat. Over-center parking brake. Tool tray. Permanently lubricated track rollers. Sealed track. Hydraulic track adjusters. Torque converter and driveshaft guard. Crankcase guard. Radiator guard. Muffler. Return-to-dig. Hourmeter. Instrument panel gauges. ROPS canopy with seat belt.

## RIPPER

Overall width .....	57" (1.45 m)
Maximum penetration.....	13.5" (343 mm)
Ground clearance (at carry).....	12" (305 mm)
Number of shanks .....	3 std — 5 opt
Shank spacing .....	3 — 27" (686 mm)
	5 — 13.6" (345 mm)
Ripper tips .....	Replaceable
Hydraulic cylinder .....	3.0" dia × 10.5" stroke, 1.5" rod (76 mm dia × 267 mm stroke, 38 mm rod)
Weight .....	1270 lbs (576 kg)



**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:**