

case

455C Loader



CASE DIESEL ENGINE

Four-cylinder, 239 in³ (3917 cm³). Naturally aspirated 63 (47 kW) net horsepower, standard. Altitude compensating turbocharger, 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.

J I Case

A Tenneco Company

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



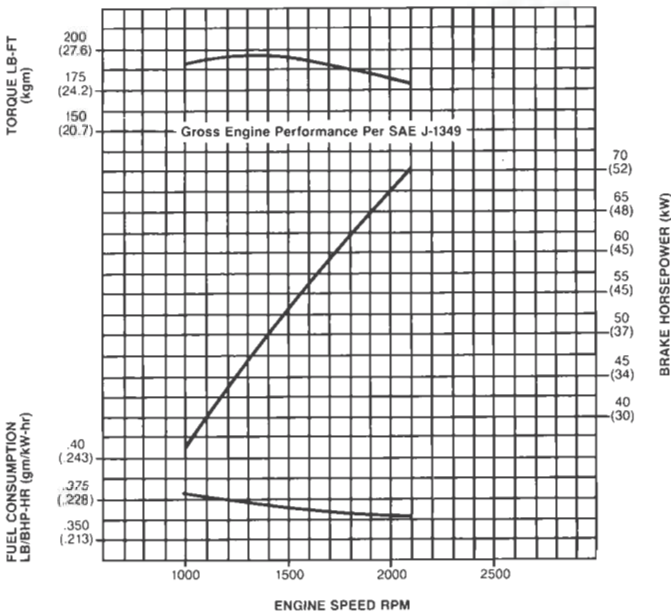
455C SPECIFICATIONS

ENGINE

Case Model 4-390, 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	71 @ 2100 rpm (53 kW @ 2100 r/min)	71 @ 2100 rpm (53 kW @ 2100 r/min)
(2) SAE net	63 @ 2100 rpm (47 kW @ 2100 r/min)	63 @ 2100 rpm (47 kW @ 2100 r/min)
Displacement	239 in ³ (3920 cm ³)	239 in ³ (3920 cm ³)
Number of cylinders	4	4
Bore and stroke	4" x 4.72" (102 mm x 105 mm)	4" x 4.72" (102 mm x 105 mm)
Compression ratio	17.5:1	17.5:1
Torque, Nominal Peak, lbs-ft (Nm)		
Gross	186 @ 1200 rpm (252 @ 1200 r/min)	190 @ 1500 rpm (257 @ 1500 r/min)
Net	178 @ 1200 rpm (241 @ 1200 r/min)	178 @ 1500 rpm (241 @ 1500 r/min)

- (1) SAE gross horsepower of engine as applied to this vehicle when equipped with fuel pump, oil pump, and water pump. Per SAE J-1349
- (2) SAE net flywheel horsepower of engine as applied to this vehicle when fully equipped with oil pump, water pump, air cleaner, muffler, fan, and alternator. Corrected to standard atmospheric conditions of 29.61" Hg (100 kPa) and 88°F (25°C) dry air.



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	4.3	6.9	6.3	10.2
Reverse	2.3	3.7	3.4	5.5	4.7	7.5	6.9	11.1

TORQUE CONVERTER

Single stage, hydrokinetic type, 11.5" (292 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. 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	53" (1.34 m)
Length of track on ground	71" (1.80 m)
Shoes per track	36
Track shoe widths available	14" (356 mm)
Area, track on ground. 14" (356 mm) shoe, 1904 in ²	(1.23 m ²)

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. Self-Leveling loader.

LOADER HYDRAULIC SYSTEM

Pump: gear type, front mounted, direct drive. 22 gpm @ 2100 rpm (82.5 lit/min @ 2100 r/min).

Control valve: two, three or four spool valve (depending on equipment).

System relief pressure: 2500 psi (17 240 kPa)

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 29.75" stroke, 1.5" rod
(76.2 mm dia x 756 mm stroke, 38 mm rod)

Hydraulic cycle time:

Rated load in bucket	Seconds
Raise	6.3
Dump	1.7
Lower (float down)	4.5
Lower (power down)	3.6

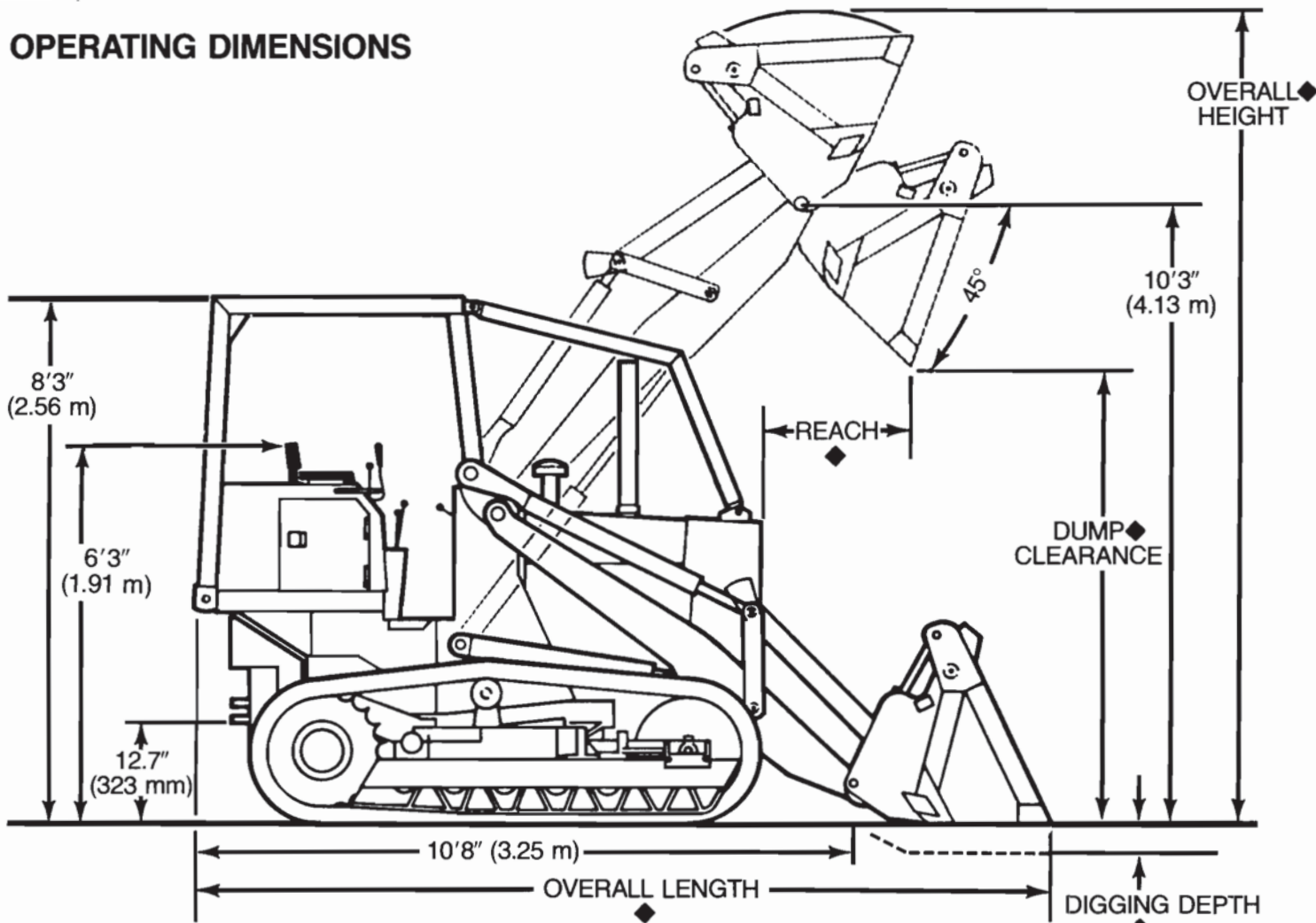
SERVICE REFILL CAPACITIES

	U.S. Gals	Litres
Fuel tank	27.5	104.1
Engine crankcase (with filter)	2.8	10.4
Hydraulic system	8.5	32.2
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, 14" (355 mm) shoes	66" (1.67 m)
Ground clearance	12.7" (323 mm)
Turning clearance circle	
(pivot turn)	21' (6.4 m)
Grading angle	113°
Overall length	
Loader with ripper raised	15'5" (4.58 m)
Loader with winch	14'3" (4.35 m)

OPERATING DIMENSIONS



◆Varies with bucket type.
Refer to Performance Specifications

PERFORMANCE SPECIFICATIONS

BUCKET TYPE — Capacity
SAE rated nominally heaped

GENERAL PURPOSE
1 yd³ (0.76 m³)

4-IN-1[®]
1 yd³ (0.76 m³)

Struck capacity	.84 yd ³ (.67 m ³)	.82 yd ³ (.63 m ³)
Bucket weight (less teeth)	871 lbs (395 kg)	1165 lbs (528 kg)
Bucket width	67.8" (1.72 m)	69.3" (1.76 m)
Breakout force	10860 lbf (48.3 kn)	10640 lbf (47.3 kn)
Maximum lift capacity to full height	6410 lbs (2908 kg)	6220 lbs (2821 kg)
Digging depth below ground	3.8" (96.5 mm)	5.8" (147.3 mm)
Bucket rollback @ ground line	39°	41°
@ 18" (457 mm) carry	44°	43°
Dump clearance @ full lift — 45° discharge	8'2" (2.49 m)	8'3" (2.51 m)
Reach @ 45° discharge angle, 7' (2.13 m) clearance	3'6" (1.06 m)	3'9" (1.13 m)
Reach @ full lift, 45° discharge	2'5" (749 mm)	2'8" (813 mm)
Overall length	13'2" (4.01 m)	13'7" (4.14 m)
Overall height	13'7" (4.14 m)	13'4" (4.05 m)
SAE static tipping load*	9210 lbs (4178 kg)	8850 lbs (4014 kg)
Operating weight (approx.)**	14,433 lbs (6546 kg)	14,727 lbs (6680 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, 12' (3.65 m)	2750	1247
Battery, heavy duty	75	34.1
Bucket teeth	60	27.2
Counterweight*	1600	726
Grille, heavy duty	11	5
Hook, front pull	10	4.5
Lockout for clutch cutoff	5	2.3
Muffler, spark arresting	8.75	4
Noise suppression kit	26	11.8
Ripper, three tooth with drawbar	1305	592
Rock guards	250	113
ROPS, front sweeps	110	49.9
ROPS, side screens	75	34.1
Track guides, front and rear	150	68
Winch with drawbar	1141	517
Winch, arch	555	252
Winch, fairlead (three roller)	284	129
Fourth roller	24	10.8

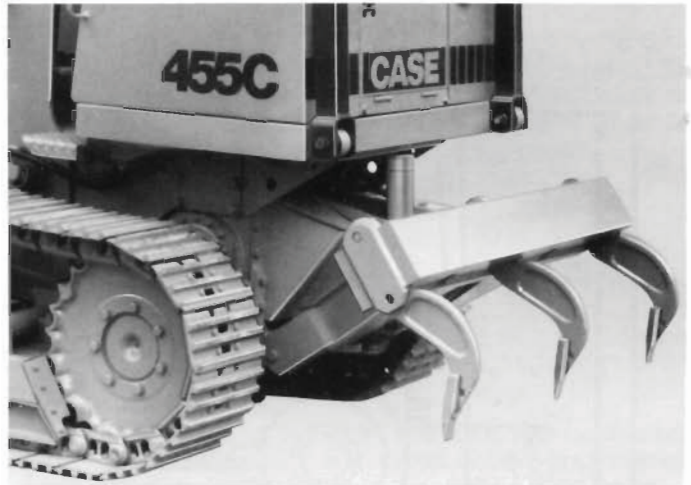
*Included in operating weight

STANDARD EQUIPMENT

Dual element dry air cleaner with service indicator. 42 amp alternator and voltage regulator. Pusher fan. Key switch. Neutral safety start mechanism. Adjustable seat. Over-center parking brake. 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. Lights. Engine side shields, lockup kit. Rear drawbar.

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 x 10.5" stroke, 1.5" rod (76 mm dia x 267 mm stroke, 38 mm rod)
Weight	1305 lbs (592 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: