

Crawler Loader

Case 82 net horsepower (61 kW) diesel
1.5 yd³ (1.15 m³) capacity general purpose bucket
4 speed power turn transmission

855D



case

Acco

855D Basic Tractor

Engine

Make and model **Case 6-590**
 6T-590
 Type of fuel No. 2 diesel
 No. of cylinders 6
 Bore and stroke 4" x 4.72"
 (102 mm x 120 mm)
 Displacement 359 in³ (5883 cm³)
 Compression ratio 17.0:1/17.5:1
 Fuel induction Open chamber —
 direct injection
 Fuel supply Injection pump
 Air cleaner Dry type — dual element
 with service indicator
 Oil filter Full flow, replaceable
 spin-on cartridge
 Lubrication Positive pressure
 Cooling system Pressurized — 15 psi
 (103 kPa)

Horsepower — Naturally Aspirated

(1) Gross 90 @ 2000 rpm
 (67 kW @ 2000 r/min)
 (2) SAE Net 82 @ 2000 rpm
 (61 kW @ 2000 r/min)

Horsepower — Turbocharged

(1) Gross 90 @ 2000 rpm
 (67 kW @ 2000 r/min)
 (2) SAE Net 82 @ 2000 rpm
 (61 kW @ 2000 r/min)

Max torque ft-lb—Naturally Aspirated

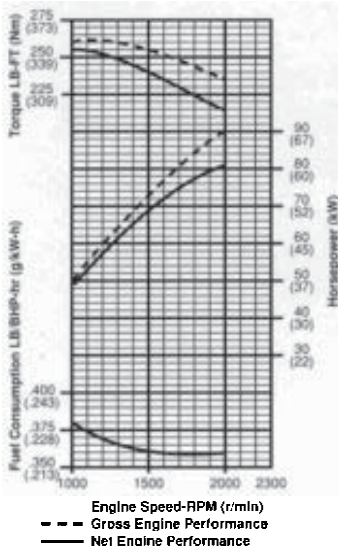
(1) Gross 253 @ 1500 rpm
 (344 Nm @ 1500 r/min)
 (2) SAE Net 240 @ 1500 rpm
 (325 Nm @ 1500 r/min)

Max torque ft-lb-Turbocharged

(1) Gross 253 @ 1500 rpm
 (344 Nm @ 1500 r/min)
 (2) SAE Net 240 @ 1500 rpm
 (325 Nm @ 1500 r/min)

(1) Gross engine horsepower or torque at flywheel per SAE Standard J1349.
 (2) Net engine horsepower or torque at flywheel per SAE Standard J1349.

Power Curve



Electrical

System voltage . . . 24 volt, negative ground
 Batteries (2) . . . 12 volt, low maintenance,
 650 cold cranking amps @ 0° F (-18° C)
 Alternator 42 amp

Steering

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

Power Train

Transmission: Constant mesh four speed powershift with dual range selector. Four speeds forward, four reverse. Modulation in high/low track speed, forward and reverse.

Torque converter: Single stage hydrokinetic type, 11.5" (292 mm) dia. with 2:1 ratio.

Brakes: Oil cooled, hydraulically activated disc brakes controlled by suspended foot pedals. Hand operated over-center parking brake.

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

Filtration: 10 micron, full flow spin-on replaceable element and tank mounted strainer.

Cooling: Side by side anti-sandblast radiator/oil cooler.

Travel Speeds — mph (km/h)

Engine at full throttle

	1st	2nd	3rd	4th
Forward	2.3 (3.7)	3.1 (5.0)	4.3 (6.9)	6.1 (9.8)
Reverse	2.5 (4.0)	3.4 (5.5)	4.7 (7.6)	6.7 (10.8)

Undercarriage

Sealed and lubricated track standard; sealed track optional. Permanently sealed and lubricated track rollers, carrier rollers, drum-type idlers, hydraulic track adjusters, solid disc hunting tooth sprockets.

Track frame Rigid
 Track rollers (each side) 5
 Carrier rollers (each side) 1
 Track gauge 60" (1.52 m)
 Length of track on ground . . . 78" (1.99 m)
 Shoes per track (each side) 35
 Track shoe width available . . . 15" (381 mm)
 Area track on ground . . . 2349 in² (1.52 m²)
 Ground pressure 8.43 psi (58 kPa)
 Height of track shoe 0.81" (20.6 mm)

Loader Hydraulic System

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

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

System relief pressure 2500 psi
 (17 240 kPa)

Filtration: 10 micron full-flow replaceable cartridge.

Cylinders

Lift: (2) 4" dia x 32.33" stroke, 2" dia rod
 (102 mm dia x 819 mm stroke, 51 mm dia rod)

Bucket: (2) 3.5" dia x 37.3" stroke, 2" dia rod
 (89 mm dia x 946 mm stroke, 51 mm dia rod)

Hydraulic cycle time:

(Rated load in bucket)	Seconds
Raise	6.2
Lower (float down)	3.0
Dump	2.0
Total	11.2

Service Capacities

	U.S. Gal	Liters
Fuel tank	40	151.4
Hydraulic system	12	45.5
Transmission and torque converter	8	30.3
Engine crankcase	4	15.2
Final drives (each side)	7.5 qt.	7.1
Cooling system	5	18.9

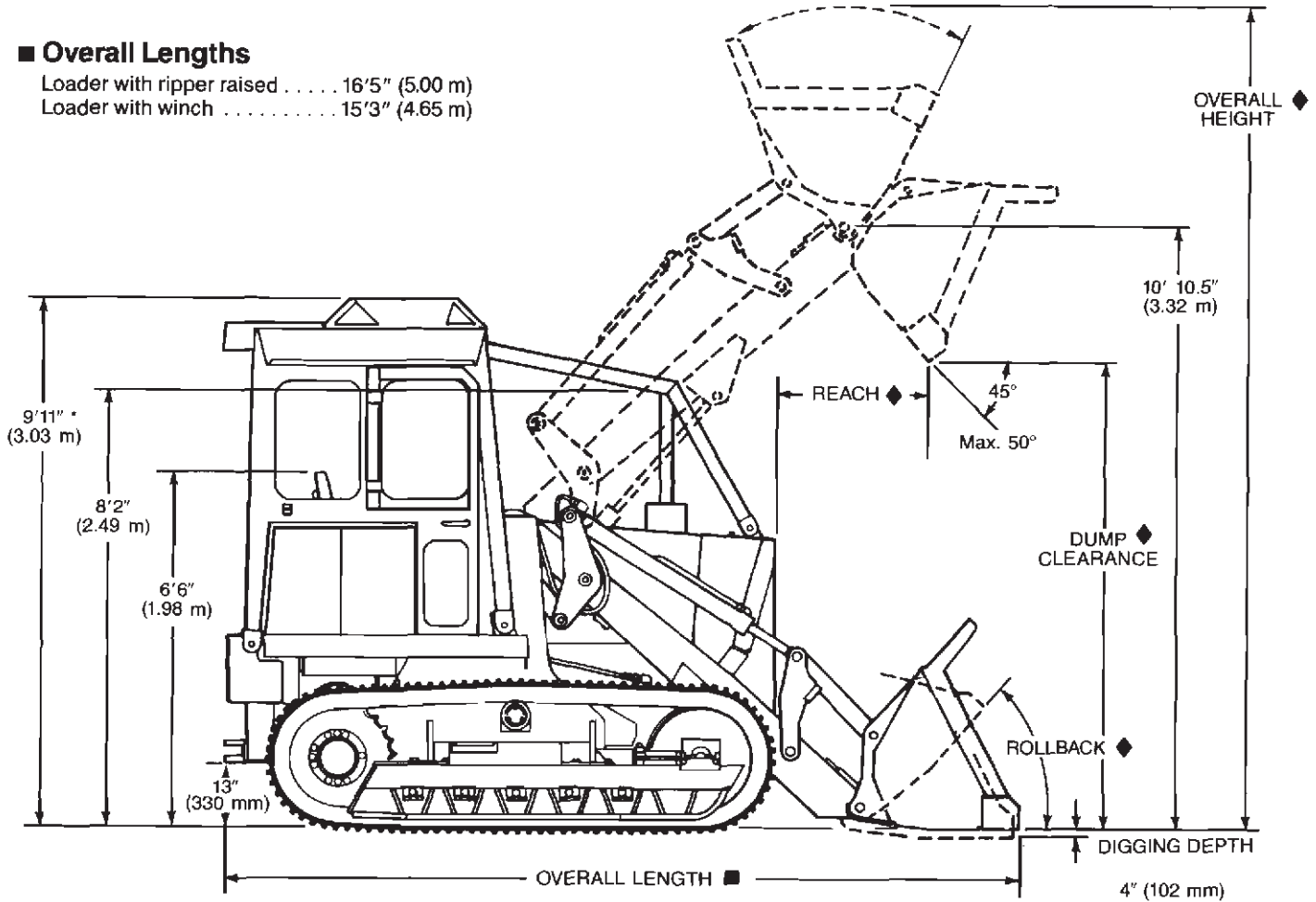
Standard Equipment

Adjustable suspension seat • Alternator and voltage regulator • Anti-sandblast radiator/oil cooler • Crankcase guard • Drawbar • Dry two-stage air cleaner with service-indicator • Engine side shields • Fuel gauge • Heavy duty grille • Hourmeter • Hydraulic track adjusters • Instrument panel gauges • Lock-up package • Master disconnect key switch • Muffler • Neutral safety start mechanism • Overcenter parking brake • Permanently lubricated track rollers • Pre-cleaner • Return-to-dig • Reversible fan • ROPS canopy with seat belt • Sealed and lubricated track.

Dimensional Data

Overall Lengths

- Loader with ripper raised 16'5" (5.00 m)
- Loader with winch 15'3" (4.65 m)



- *Height w/ROPS 8'10" (2.69 m)
- *Height w/cab 9'5" (2.87 m)

■ Varies with rear attachments
 ◆ Varies with bucket size.
 Refer to Performance Specifications

Performance Specifications

Bucket Type — Capacity	General Purpose	4-in-1 [®]
SAE rated nominally heaped	1.5 yd ³ (1.15 m ³)	1.375 yd ³ (1.05 m ³)
Struck capacity	1.25 yd ³ (.95 m ³)	1.15 yd ³ (.88 m ³)
Bucket weight (less teeth)	1260 lb (572 kg)	1860 lb (844 kg)
Bucket width	79" (2.01 m)	81.6" (2.07 m)
Breakout force	14,500 lbf (6.45 kN)	14,000 lbf (6.23 kN)
Operating weight ¹	20,090 lb (9132 kg)	21,090 lb (9586 kg)
Maximum lift capacity to full height	7500 lb (3402 kg)	6600 lb (2994 kg)
Digging depth below ground	4" (102 mm)	4" (102 mm)
Bucket rollback @ ground line	40°	45°
@ 18" (457 mm) carry	44°	48°
Dump clearance @ full lift — 45° discharge	8'6" (2.59 m)	8'6" (2.59 m)
Reach @ 45° discharge angle, 7' (2.13 m) clearance	4'1" (1.23 m)	4'6" (1.37 m)
Reach @ full lift, 45° discharge	35" (889 mm)	40.2" (1.07 mm)
Overall length	14'2" (4.32 m)	14'7" (4.45 m)
Overall height	14'10" (4.52 m)	14'5" (4.39 m)
SAE static tipping load ¹	12,975 lb (5886 kg)	12,570 lb (5702 kg)

¹ Includes ROPS, full tank of fuel and 170 lb (77 kg) operator.

NOTE: Operating weight and weight distribution may vary with the addition of optional equipment. 2400 lb (1088 kg) counterweight included for general purpose bucket, 2800 lb (1269 kg) counterweight included for 4-in-1 bucket.

Equipment Data

Optional Equipment

	Approximate add-on	
	Weight	Tipping Load
Backhoe, 14' (4.2 m)	4000 lb (1814 kg)	8200 lb (371 kg)
Extendahoe® 14' - 18' (4.25 m-5.5 m)	4500 lb (2041 kg)	9295 lb (4216 kg)
Bucket teeth	100 lb (45.4 kg)	-130 lb (-59 kg)
Cab	900 lb (408 kg)	1000 lb (454 kg)
*Counterweight— 2,000 lb	-2000 lb (-907 kg)	-3115 lb (-1413 kg)
*Counterweight, each 400 lb	-400 lb (-182 kg)	-675 lb (-306 kg)
Hook, front pull	21 lb (10 kg)	N.C.
Lights	10 lb (4.5 kg)	N.C.
Muffler, spark arresting	27 lb (12 kg)	N.C.
Noise suppression	36 lb (16 kg)	N.C.
Ripper—3 tooth	1400 lb (635 kg)	2660 lb (1207 kg)
Ripper w/475 lb (215 kg) cwt	1875 lb (850 kg)	3565 lb (1617 kg)
Rockguards	440 lb (200 kg)	285 lb (129 kg)
*ROPS	-430 lb (-195 kg)	-480 lb (-218 kg)
*Rear screen	57 lb (25.8 kg)	N.C.
Side screens	90 lb (41 kg)	110 lb (50 kg)
Sweeps	134 lb (61 kg)	N.C.
Track guides, front and rear	250 lb (113 kg)	150 lb (68 kg)
Winch	1111 lb (504 kg)	1785 lb (810 kg)
Fairlead (three roller)	189 lb (86 kg)	340 lb (154 kg)
Fairlead (four roller)	213 lb (97 kg)	390 lb (177 kg)
Log arch	575 lb (261 kg)	990 lb (449 kg)

*Included in operating weight.

Note: Subtract weight of ROPS when installing cab and counterweight when installing rear mounted attachment.



4-in-1 Bucket

Width of moldboard cutting edge 79" (2.01 m)
 Moldboard height 40" (1.02 m)
 Maximum clam opening 47.3" (1.20 m)
 Dump clearance @ full lift (using clam) 10'10" (3.30 m)

Ripper

Type Parallelogram
 Overall width 72.4" (1.84 m)
 Maximum penetration 15" (381 mm)
 Ground clearance (at carry) 12" (307 mm)
 Number of shanks 3 standard,
 5 optional
 Shank spacing
 with 3 shanks 34" (863 mm)
 with 5 shanks
 inner shanks 17.8" (452 mm)
 outer shanks 16.2" (411 mm)
 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 1,430 lb (638 kg)



Note: All specifications are stated in accordance with 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 change. Unit illustrated is equipped with non-standard items.

J I Case

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