

REMOVAL FROM STORAGE

Do not start the engine until steps 1 through 14 have been done.

1. Change the fuel filters.
2. Put coolant in the engine cooling system.
3. Check the condition of the drive belts. Replace if required.
4. Check the engine oil level.
5. Check the hydraulic oil level.
6. Check the transmission oil level.
7. Check the oil level of the rear axle.
8. Check the oil level of the front drive axle (If equipped).
9. Lubricate the machine at all grease fittings.
10. Use petroleum base solvent and remove the Case Rust and Corrosion Preventive from the hydraulic cylinder rods.
11. Install the battery(ies).
12. Fill the fuel tank.
13. Remove the air from the fuel system.
14. Lubricate the turbocharger. It is important that you use the procedure on page 67 for priming the turbocharger lines with oil.
15. Start the engine.

SPECIFICATIONS

TABLE OF CONTENTS

580L Specifications	page 183
580 Super L Specifications	page 203
590 Super L Specifications	page 227

580L SPECIFICATIONS

ENGINE DATA - 580L

Make and model.....	Case 4-390
Firing order	1-3-4-2
Air induction	Naturally Aspirated
Bore and stroke	102 x 120 mm (4.02 x 4.72 inches)
Displacement	3.92 litres (239 cu in)
Compression ratio	17.0 to 1
Fuel	See page 146
Horsepower - rated	
SAE net	70.6 at 2200 rpm (52.6 kW at 2200 r/min)
SAE gross	75 at 2200 rpm (55.9 kW at 2200 r/min)
Engine speeds	
Full throttle - no load	2325 to 2425 rpm
Full throttle - full load	2200 rpm
Idle speed	900 to 975 rpm
Loader hydraulic stall	2000 to 2300 rpm
Torque converter stall	1850 to 2300 rpm
Combined stall	1040 to 1500 rpm
Valve clearance - engine cold	
Intake valves	0.010 inch (0.254 mm)
Exhaust valves	0.020 inch (0.508 mm)

BOLT TORQUES

Front wheel mounting bolts (2 wheel drive)	156 to 203 Nm (115 to 150 pound-feet)
Front wheel mounting nuts (4 wheel drive)	270 to 352 Nm (200 to 260 pound-feet)
Rear wheel mounting nuts	129 to 136 Nm (95 to 100 pound-feet)

Then turn in the tightening direction an additional 55 to 65 degrees. This applies to the rear wheel nuts only.

MAIN RELIEF VALVE PRESSURES - 580L

Loader and backhoe 207 + 7 - 0 bar
(3 000 + 100 - 0 psi)

(The loader control valve controls the loader and backhoe hydraulic pressure.)

TRAVEL SPEEDS - 580L**Measured with 17.5L x 24 Tires**

	1st km/h (mph)	2nd km/h (mph)	3rd km/h (mph)	4th km/h (mph)
Forward	5.54 (3.45)	10.00 (6.22)	19.22 (11.94)	38.39 (23.85)
Reverse	6.69 (4.16)	12.07 (7.50)	23.19 (14.41)	46.34 (28.79)

NOTE: (Travel speeds measured at 2 353 engine rpm with zero torque converter slip)

Measured with 19.5L x 24 Tires

	1st km/h (mph)	2nd km/h (mph)	3rd km/h (mph)	4th km/h (mph)
Forward	5.93 (3.68)	10.69 (6.64)	20.54 (12.76)	41.03 (25.50)
Reverse	7.15 (4.44)	12.90 (8.02)	24.78 (15.40)	49.53 (30.78)

NOTE: (Travel speeds measured at 2 353 engine rpm with zero torque converter slip)

OPERATING WEIGHTS - 580L**Lightest Configuration**

2 083 mm (82 inch) standard loader bucket, 2WD, 17.5L x 24 rear tires, 11L x 16 front tires, no front counterweight, standard dipper, 610 mm (24 inch) general purpose backhoe bucket, cast stabilizer pads, non-suspension seat, ROPS canopy, single battery, no operator 5 704 kg (12 575 pounds)

Heaviest Configuration

2 083 mm (82 inch) 4-in-1 loader bucket, 4WD, 19.5L x 24 rear tires, 12 x 16.5 front tires, 225 kg (500 pound) front counterweight, extendahoe, 610 mm (24 inch) HD backhoe bucket, flip over stabilizer pads, suspension seat, ROPS Cab, Air Conditioner, Dual Batteries, with a 79 kg (175 pound) operator, and mechanical front wheel drive guard 6 915 kg (15 244 pounds)

LOADER BUCKETS - 580L

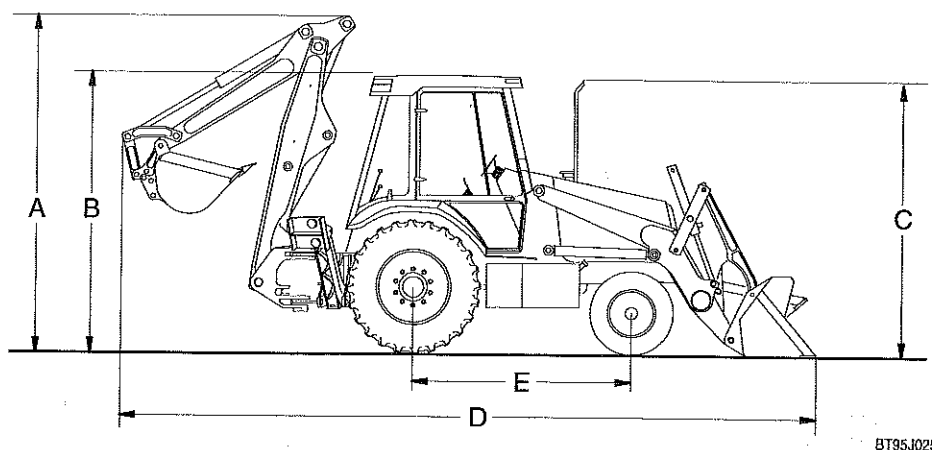
Width mm (Inch)	Type	Capacities SAE Heaped m ³ (cu yd)	Capacities Struck m ³ (cu yd)	Weight kg (lbs)
2083 (82)	Standard	0.79 (1.03)	0.67 (.87)	342 (650*)
2083 (82)	4-in-1	0.79 (1.04)	0.65 (.85)	663 (1462)

*Add 47 kg (103 lbs) for bolt on cutting edge.

BACKHOE BUCKETS - 580L

Width mm (Inch)	Type	Capacities SAE Heaped m ³ (cu feet)	Capacities Struck m ³ (cu feet)	Weight kg (lbs)
305 (12)	Universal HD	0.068 (2.41)	0.082 (2.90)	141 (311)
406 (16)	Universal HD	0.083 (2.92)	0.101 (3.60)	157 (346)
457 (18)	Universal HD	0.094 (3.33)	0.122 (4.30)	163 (359)
610 (24)	Universal HD	0.135 (4.78)	0.181 (6.40)	195 (429)
762 (30)	Universal HD	0.176 (6.22)	0.245 (8.65)	225 (496)
914 (36)	Universal HD	0.217 (7.67)	0.306 (10.80)	259 (571)
610 (24)	H.D. Hi Capacity	0.195 (6.90)	0.241 (8.50)	196 (430)
457 (18)	G.P. Trenching	0.010 (3.57)	0.133 (4.70)	115 (255)
610 (24)	G.P. Trenching	0.135 (4.76)	0.177 (6.26)	136 (300)
762 (30)	G.P. Trenching	0.168 (5.95)	0.222 (7.83)	172 (380)

BASIC MACHINE DIMENSIONS - 580L



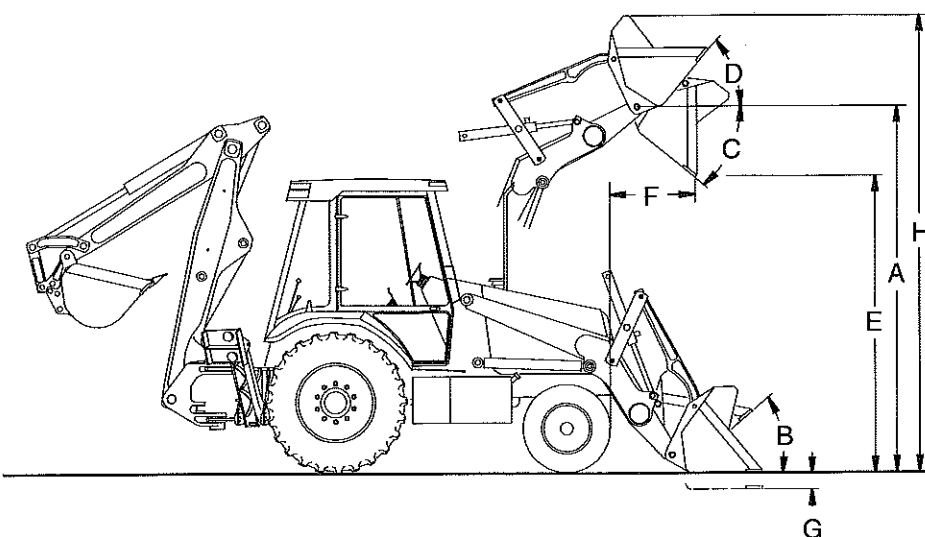
BT95J025

A Overall height - backhoe in transport position	
2 Wheel drive	3.41 m (11 ft 2.6 in)
4 Wheel drive	3.40 m (11 ft 2.4 in)
B Height to top of ROPS canopy	
2 Wheel drive	2.66 m (8 ft 9.2 in)
4 Wheel drive	2.66 m (8 ft 9.1 in)
B Height to top of ROPS cab	
2 Wheel drive	2.71 m (8 ft 11.1 in)
4 Wheel drive	2.72 m (8 ft 11 in)
C Height to top of exhaust stack	
2 Wheel drive	2.63 m (8 ft 7.9 in)
4 Wheel drive	2.62 m (8 ft 7.5 in)
D Overall length - backhoe in transport position	
2083 mm (82 inch) standard bucket	6.99 m (22 ft 11.9 in)
2083 mm (82 inch) 4-in-1 bucket	6.92 m (22 ft 9.3 in)
E Wheel base	
2 Wheel drive	2 134 mm (84.0 inches)
4 Wheel drive	2 146 mm (84.5 inches)
Width over tires	
11L x 16 tires	2 009 mm (79.3 inches)
12 x 16.5 tires	2 060 mm (81.1 inches)
19.5L x 24 tires	2 067 mm (81.4 inches)
17.5L x 24 tires	2 074 mm (81.7 inches)
Ground clearance at backhoe frame	
	375 mm (14.8 inches)

NOTE: Specifications on 2 wheel drive machines are measured with 11L x 16 front tires and 19.5L x 24 rear tires. Specifications on 4 wheel drive machines are measured with 12 x 16.5 front tires and 19.5L x 24 rear tires.

LOADER OPERATING DATA AND DIMENSIONS - 580L

2 083 mm (82 Inch) Standard Bucket

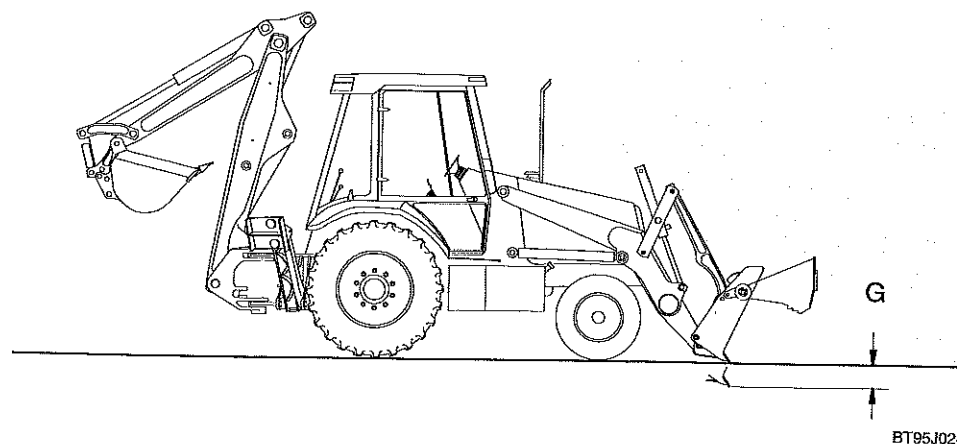
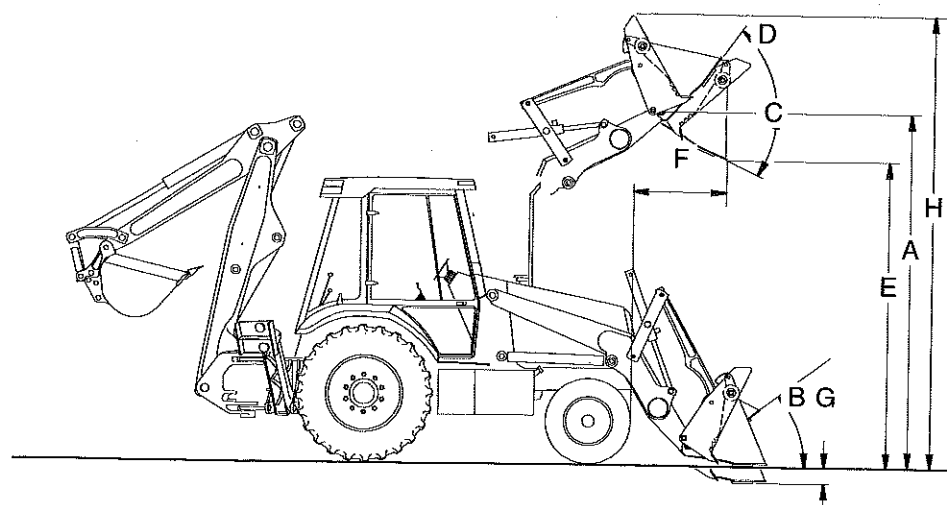


BT95J023

Lift capacity to full height		2 401 kg (5 293 pounds)
A Height to bucket hinge pin - raised		
2 Wheel drive		3.40 m (11 ft 2.4 in)
4 Wheel drive		3.39 m (11 ft 2 in)
B Bucket rollback at groundline		40°
C Dump angle at full height		46°
D Rollback at full height		Adjustable
Maximum grading angle		116°
E Dump clearance at full height - 45° dump		
2 Wheel drive		2.64 m (8 ft 8 in)
4 Wheel drive		2.63 m (8 ft 7.7 in)
F Dump reach at full height - 45° dump		660 mm (26 inches)
G Digging depth below ground line with bucket flat		
2 Wheel drive		191 mm (7.5 inches)
4 Wheel drive		199 mm (7.8 inches)
H Overall height		
2 Wheel drive		4.16 m (13 ft 8 in)
4 Wheel drive		4.17 m (13 ft 8.2 in)

LOADER OPERATING DATA AND DIMENSIONS - 580L

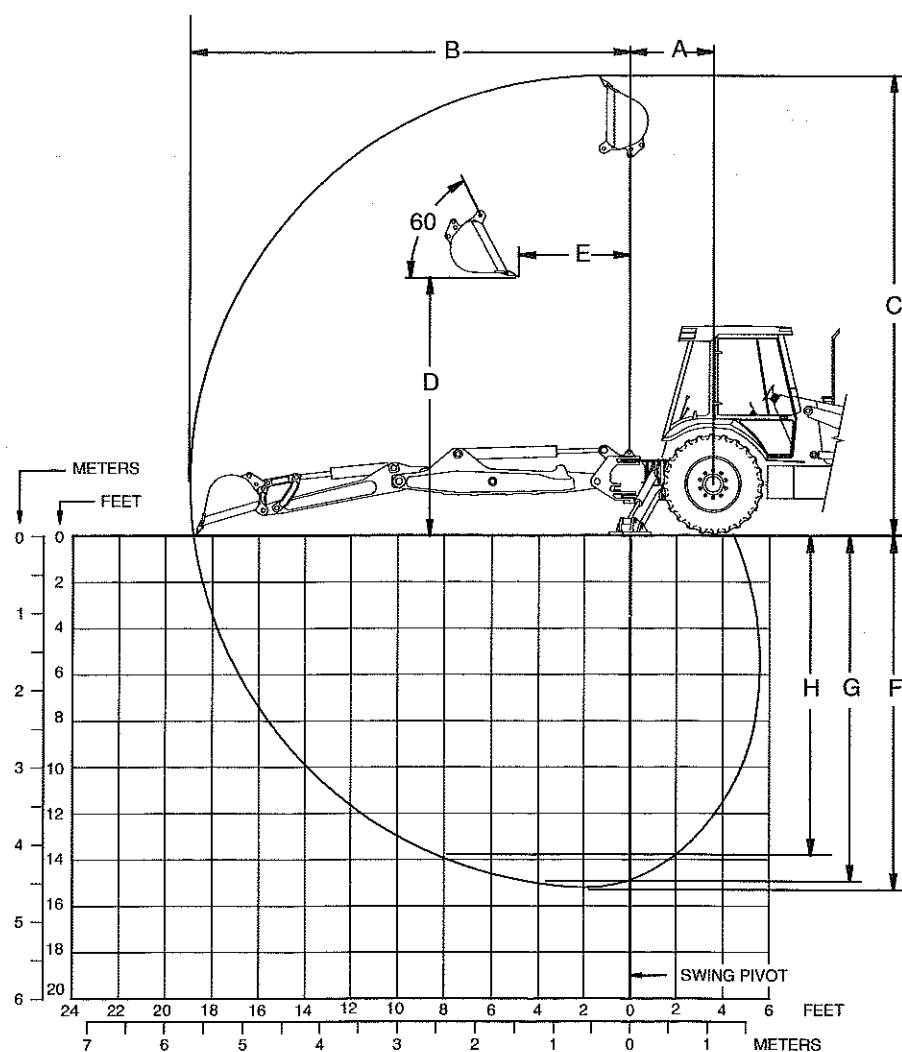
2 083 mm (82 Inch) 4-in-1 Bucket



BT95J024

Lift capacity to full height	2 357 kg (5 197 pounds)
A Height to bucket hinge pin - raised	
2 Wheel drive	3.40 m (11 ft 2.4 in)
4 Wheel drive	3.39 m (11 ft 2 in)
B Bucket rollback at groundline	40°
C Dump angle at full height	45°
D Rollback at full height	Adjustable
Maximum grading angle	116°
E Dump clearance at full height - 45° dump	
2 Wheel drive	
Clam open	2.94 m (9 ft 7.8 in)
Clam closed	2.72 m (8 ft 11.1 in)
4 Wheel drive	
Clam open	2.93 m (9 ft 7.5 in)
Clam closed	2.71 m (8 ft 10.8 in)
F Dump reach at full height - 45° dump	
Clam open	302 mm (11.9 inches)
Clam closed	647 mm (25.5 inches)
G Digging depth below ground line with bucket flat	
2 Wheel drive	172 mm (6.8 inches)
4 Wheel drive	180 mm (7.1 inches)
Dozing depth	
2 Wheel drive	103 mm (4.1 inches)
4 Wheel drive	111 mm (4.4 inches)
H Overall height	
2 Wheel drive	4.35 m (14 ft 3.3 in)
4 Wheel drive	4.35 m (14 ft 3.4 in)

BACKHOE OPERATING DATA AND DIMENSIONS - 580L



BT95J098

NOTE: Specifications taken with 2 wheel drive, 610 mm (24 inch) general purpose backhoe bucket, 19.5L x 24 rear tires.

A	Swing pivot to rear axle centerline	1.10 m (3 ft 7.3 in)
B	Digging radius from swing pivot	5.44 m (17 ft 10 in)
C	Maximum height	5.85 m (19 ft 2.1 in)
D	Loading height	3.39 m (*11 ft 1.6 in)
		3.12 m (10 ft 2.8 in)
E	Loading reach	2.66 m (*8 ft 8.6 in)
		1.78 m (5 ft 10.1 in)
F	Dig depth	4.36 m (14 ft 3.5 in)
G	Dig depth, 610 mm (2 ft) flat bottom trench	4.31 m (14 ft 1.8 in)
H	Dig depth, 2.4 m (8 ft) flat bottom trench	4.03 m (13 ft 2.4 in)

* Maximum height and maximum reach are not obtainable at the same time and the same backhoe position.