

CASE

580F Side shift backhoe-loader

General info
Power
Torque at 1200 rpm

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Torque at 1200 rpm

POWER TRAIN

Standard 7R transmission
Dry clutch or Torque Converter
Differential lock
Total weight at 2500 kg

POWERFUL 67 hp DIN ENGINE
Long stroke, high torque, 3590 cm³ (219 in³) engine allies long life to outstanding lugging ability.

CHOICE OF TWO TRANSMISSIONS
Dry clutch or Torque Converter, both offering 8 speeds forward and 8 speeds reverse with synchronized gear change.

HIGH PERFORMANCE LOADER
Up to 0.96 m³ (1¼ yd³) capacity. Single-lever control, automatic levelling and return-to-dig as standard equipment.

HEAVY DUTY UNITIZED MAIN FRAME
The machine's main structural member for independent mounting of engine, clutch or torque converter, transaxle, loader and backhoe.

HIGH PERFORMANCE SIDE-SHIFT BACKHOE
Twin backhoe cylinders for maximum digging force and balanced distribution of loads.
Hydraulically cushioned stops on slew:
Backhoe stores 90° folded sideways in overcentre position for better weight distribution and better travelling stability. 4145 mm (13ft 7in) digging depth on standard model.
Hydraulically-actuated optional Extendahoe increases digging depth by 1270 mm (4ft 2in).



J I Case
A Tenneco Company



OVERALL SPECIFICATIONS

ENGINE

Model	: 219 Water cooled overhead valve diesel, direct injection
Number of cylinders	: 4
Bore and stroke	: 100 mm x 114.3 mm (3 ¹⁵ / ₁₆ in x 4 ¹ / ₂ in)
Displacement	: 3590 cm ³ (219 in ³)
Air cleaner	: Dry type with safety element and service indicator
Electrical and starting system	: 12V-45 Amp alternator and 96 Amp h (128 Amp h optional) battery
Governed rpm full power	: 2200
Power	: 50 kW (67 hp) DIN
Torque at 1200 rpm	: 232 Nm, 23.6 kg m (171 lb ft)

POWER TRAIN

Standard DC transmission: 305 mm (1ft 0in) heavy duty single plate dry clutch and 4-speed x 2-range gearbox with mechanical shuttle, giving 8 forward and 8 reverse speeds.

Differential lock.

Travel speeds at 2200 engine rpm, with 16.9-28 rear tyres:

		1st	2nd	3rd	4th	5th	6th	7th	8th
Fwd	km/h	2.1	3.5	4.7	6.0	7.9	11.4	12.9	24.9
	mph	1.3	2.2	2.9	3.7	4.9	7.1	8.0	15.5
Rev	km/h	2.4	4.0	5.1	6.6	8.9	12.7	14.3	27.7
	mph	1.5	2.5	3.2	4.1	5.5	7.9	8.9	17.2

TC Transmission: Hydrokinetic torque converter, single stage 2.5:1 ratio, and 8 speed gearbox with full power shuttle.

Differential lock.

Travel speeds at 2200 engine rpm, with 16.9-28 rear tyres:

		1st	2nd	3rd	4th	5th	6th	7th	8th
Fwd	km/h	2.1	3.5	4.7	6.0	7.9	11.4	12.9	24.9
	mph	1.3	2.2	2.9	3.7	4.9	7.1	8.0	15.5
Rev	km/h	1.9	3.2	4.3	5.4	7.2	10.3	11.7	22.7
	mph	1.2	2.0	2.7	3.4	4.5	6.4	7.3	14.1

STEERING AND BRAKES

Steering: Fully hydrostatic with independent pump and twin steering cylinders. Full lock to full lock accomplished in 2³/₄ turns.

Brakes: Multiple disc brakes, oil immersed, self energizing, fully enclosed, controlled by two interlocking pedals.

TC model has extra separate pedal for on-highway use and brakes can be actuated with or without interrupting power flow to rear wheels.

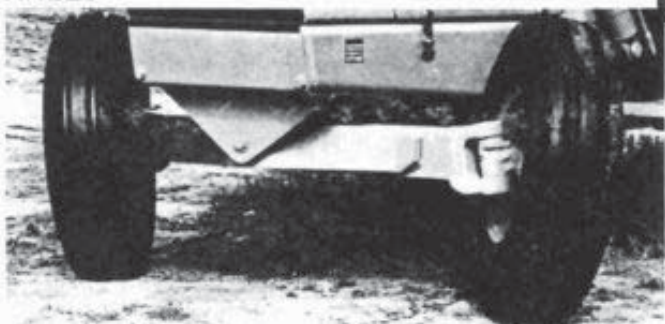
CAPACITIES

	Litres	Imp.gal.
Engine crankcase	9.4	2.1
Fuel tank	84.0	18.5
Cooling system	17.0	3.7
Transaxle — DC model	21.4	4.7
— TC model	20.5	4.5
Hydraulic system		
Total system	84.0	18.5
(without filter change)	64.5	14.3
Final reduction		
(drop boxes each)	6.0	1.2
Power shuttle	9.6	2.1
Power steering	2.1	0.5
Front axle (4 wheel drive)		
differential housing	6.0	1.2
final drive (each side)	1.75	0.4
Drop box (4 wheel-drive)	1.0	0.2

TYRES

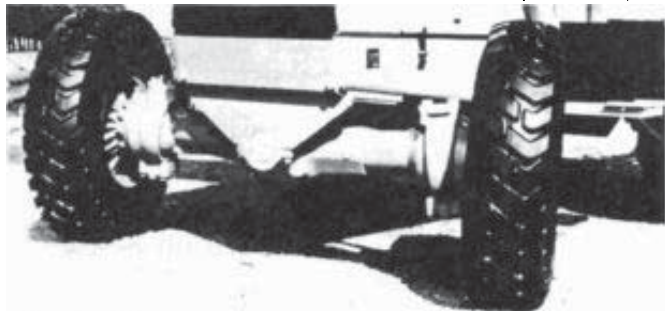
	2 Wheel drive	4 Wheel drive
Front Standard	9.00-16-10 PR	11.00-16-12 PR
	Optional	7.50-16-10 PR or 12 PR
	11.50/80-15-12 PR	
Rear Standard	16.9-28-10 PR	16.9-28-10 PR
	Optional	14.9-28-8 PR
	16.9-28-12 PR	16.9-28-12 PR
	16.9-28-14 PR	16.9-28-14 PR

AXLES



2 Wheel drive

Fixed rear axle and fully oscillating front axle (25°).
 Wheel base 2083 mm (6ft. 10in.)
 Tread width — Front 1651 mm (5ft. 5in.)
 Rear 1803 mm (5ft. 11in.)



4 Wheel drive

Fixed rear axle and fully oscillating front axle (16°).
 Wheel base 2200 mm (7ft. 3¹/₂in.)
 Tread width — Front 1700 mm (5ft. 7in.)
 Rear 1803 mm (5ft. 11in.)

Front mounted constant drive pump, gear type. Supplies both the front loader and the backhoe. Full flow replaceable cartridge filter on the return line, with by-pass valve and filter condition gauge. **Pump output** 103 litre/min (22.65 Imp.gpm) at 2200 rpm.

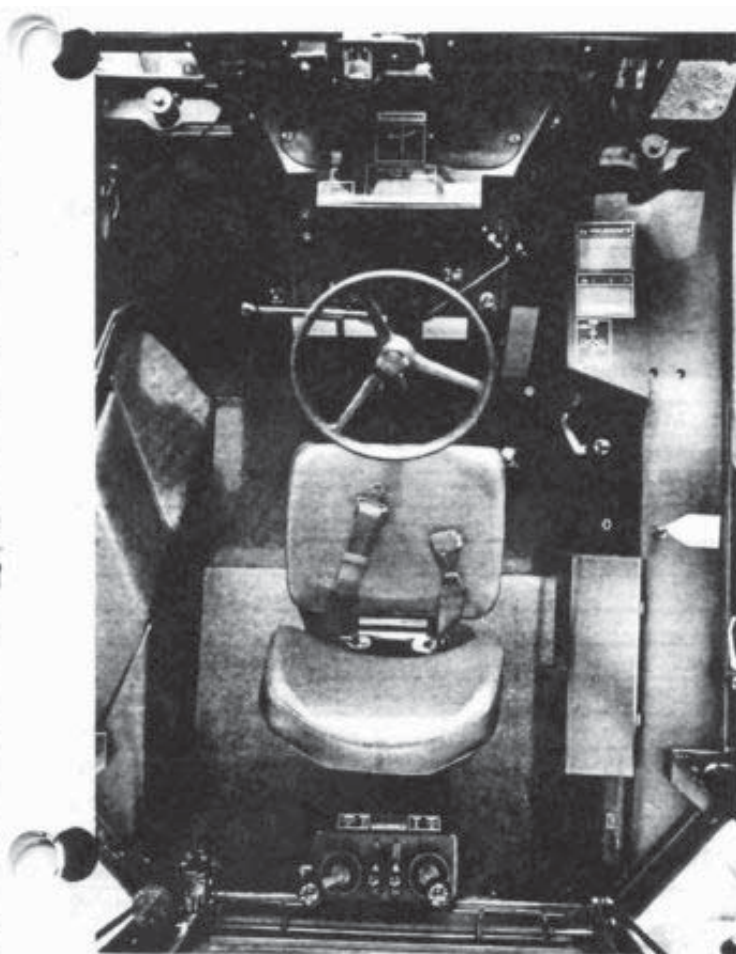
System pressure 155 kg/cm² (2200 psi) at 94.6 litre/min (20.8 Imp.gpm).

Backhoe controls: 6-spool, lever controlled sectional valve. The system incorporates regeneration (anti-cavitation). Hand operated or pedal actuated slew. Hydraulically cushioned stops in the slew cylinders and dipper extension stop (on Extendahoe).

Backhoe cylinders all double-acting with hard chromed rods.

	Diameter	Stroke	Rod
Boom cylinders (2)	83 mm (3.25 in.)	1069 mm (3ft. 6in.)	44 mm (1.75 in.)
Dipper cylinder (1)	102 mm (4 in.)	892 mm (2ft. 11in.)	51 mm (2 in.)
Bucket cylinder (1)	89 mm (3.5 in.)	777 mm (2ft. 6in.)	51 mm (2 in.)
Slew cylinders (2)	102 mm (4 in.)	252 mm (9.9 in.)	44 mm (1.75 in.)
Stabiliser cylinders (2)	76 mm (3 in.)	584 mm (1ft. 11in.)	44 mm (1.75 in.)
Extension cylinder (1) (on Extendahoe)	76 mm (3 in.)	1220 mm (4ft. 0in.)	38 mm (1.5 in.)

Full ROPS cab as standard equipment, resiliently mounted for low noise levels. Walk-in entrance, flat floor and easy-swivel seat. Roof-mounted heater demister, comprehensive instrumentation.



Loader controls: Monocast valve giving single lever operation, float position, automatic anti-rollback when bucket raised and automatic return-to-dig.

Standard 2-spool valve. 3-spool valve with extra lever for special attachments optional. Automatic levelling device fitted on the loader.

Loader cylinders all double-acting with hard chromed rods.

	Dia.	Stroke	Rod
Lift cylinders (2)	83 mm (3.25 in.)	800 mm (2ft. 7½in.)	51 mm (2 in.)
Dump cylinders (2)	64 mm (2.5 in.)	508 mm (1ft. 8in.)	38 mm (1.5 in.)

STANDARD EQUIPMENT

3590 cm³ (219 in³) direct injection diesel engine. Dry type air cleaner with safety element. 12 Volt electrical system. Directional lights, marker lights, panel lights, brake lights, dual transport lights and dual front and rear work lights. Following gauges and indicator lights: hydraulic filter condition, air cleaner condition, engine tachometer, engine oil pressure, engine water temperature, fuel level and battery voltage.

Cooling system rust inhibitor and antifreeze. Horn. Sound-proofed cab with front and rear wipers. Rear fenders. Upright silencer with long exhaust pipe. Multi-position seat. Hydrostatic steering. Hand and foot throttle. 16.9-28-10 PR R4 rear tyres, 9.00-16-10 PR rib tread front tyres. Tool box. Heater and defroster. 8 speed transaxle with differential lock and synchronized driving gears. Direct drive, mechanical shuttle. Torque converter, power shuttle. Self-energizing disc brakes. Seat belt.

OPTIONAL EQUIPMENT

4-in-1 bucket and hydraulics.
 Pallet fork.
 Auxiliary hydraulic valves.
 Cold start kit.
 Lockup kit.
 Electrical hourmeter.
 Various types of backhoe buckets.
 Hydraulic telescoping Extendahoe.
 Street pads — cemetery pads.
 Hydraulic boom lock.
 Dipper light.
 Rotating beacon.
 Air pre-cleaner.
 Battery cut-off switch.
 Rear mud-flaps.
 Hazard warning lights.
 Audible warning for low oil pressure etc.
 Remote control heater valve.
 Safety kit for lifting.
 Safety strut (loader).
 Sound-proofed side panels.
 Rear number plate bracket — illuminated.
 Suspension seat.
 Electric screen washers.
 Steering-wheel spinner knob.

OVERALL DIMENSIONS AND WEIGHTS

	Machine with side-shift backhoe. Standard 35 model	Machine with side-shift backhoe. 35 Extendahoe model 227 kg (500 lb) front counterweight
Backhoe		
A Overall height, transport position	3518 mm (11ft. 6in.)	3612 mm (11ft. 10in)
Overall length, transport position with std bucket	5385 mm (17ft. 8in.)	5385 mm (17ft. 8in.)
with 4-in-1 bucket	5431 mm (17ft. 10in.)	5431 mm (17ft. 10in.)
Ground clearance	363 mm (1ft. 2in.)	353 mm (1ft. 2in.)
Overall width transport position	2286 mm (7ft. 6in.)	2286 mm (7ft. 6in.)
4-in-1 additional weight	200 kg (440 lb)	200 kg (440 lb)
Operating weight	6370 kg (14043 lb)	6850 kg (15102 lb)

All these specifications correspond with 2362 mm (7 ft. 11 in.) loader bucket, 610 mm (2 ft.) trenching backhoe bucket, 9.00-16 front tyres and 16.9-28 rear tyres.

BACKHOE BUCKETS

Type	Width		SAE heaped capacity		Weight	
	mm	in	m ³	ft ³	kg	lb
Trenching	305	12	0.059	2.08	90	198
	457	18	0.110	3.90	108	238
	610	24	0.171	6.04	122	270
	762	30	0.230	8.11	139	306
	914	36	0.296	10.44	157	346
HD Trenching	305	12	0.059	2.08	100	220
	457	18	0.122	4.3	146	322
	610	24	0.176	6.21	172	380
	762	30	0.247	8.71	186	410
	914	36	0.312	11.02	208	458
Bellhole	305	12	0.031	1.08	58	128
	406	16	0.039	1.37	71	156
	762	30	0.097	3.41	99	218
	914	36	0.114	4.04	121	266

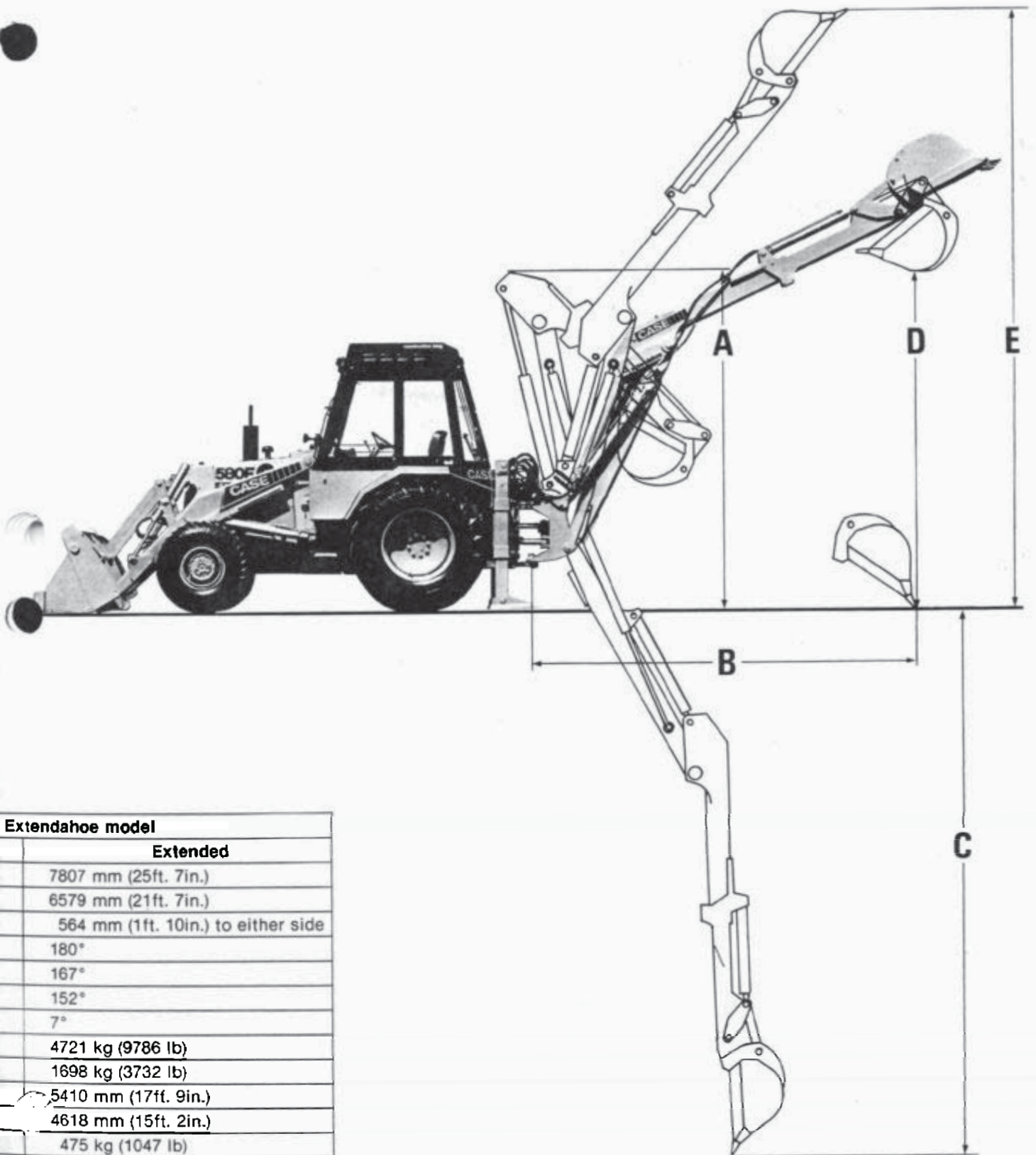
Also available are ditch cleaning buckets, trapezoidal bucket and reversed bucket.

OPERATING SPECIFICATIONS

	Standard 35 model	35 side-sh
		Retracted
B Reach from rear axle centreline	6593 mm (21ft. 7in.)	6664 mm (21ft. 10in.)
Digging radius from slew pivot	5372 mm (17ft. 7in.)	5436 mm (17ft. 10in.)
Sideways travel from machine centreline	564 mm (1ft. 10in.) to either side	564 mm (1ft. 10in.) to either side
Slew arc	180°	180°
Bucket rotation – speed position	167°	167°
– power position	151°	152°
Levelling angle (max. grade permitting vertical cuts)	7°	7°
Digging force, bucket cylinder	4396 kg (9692 lb)	4721 kg (9786 lb)
Digging force, dipper cylinder	2506 kg (5525 lb)	2492 kg (5352 lb)
Maximum digging depth	4145 mm (13ft. 7in.)	4242 mm (13ft. 11in.)
Maximum loadover height	3378 mm (11ft. 1in.)	3772 mm (12ft. 4in.)
Boom lift capacity at ground level*	816 kg (1800 lb)	677 kg (1493 lb)
Maximum lifting capacity*	1361 kg (3001 lb)	1176 kg (2593 lb)
Loading reach at max. height	2062 mm (6ft. 9in.)	1529 mm (5ft. 0in.)
E Overall height max.	6109 mm (20ft. 0in.)	6147 mm (20ft. 2in.)

610mm (2ft. 0in.) wide excavator bucket.

BACKHOE SPECIFICATIONS



ft Extendahoe model	
	Extended
	7807 mm (25ft. 7in.)
	6579 mm (21ft. 7in.)
	564 mm (1ft. 10in.) to either side
	180°
	167°
	152°
	7°
	4721 kg (9786 lb)
	1698 kg (3732 lb)
	5410 mm (17ft. 9in.)
	4618 mm (15ft. 2in.)
	475 kg (1047 lb)
	1010 kg (2227 lb)
	2332 mm (7ft. 8in.)
	7290 mm (23ft. 11in.)

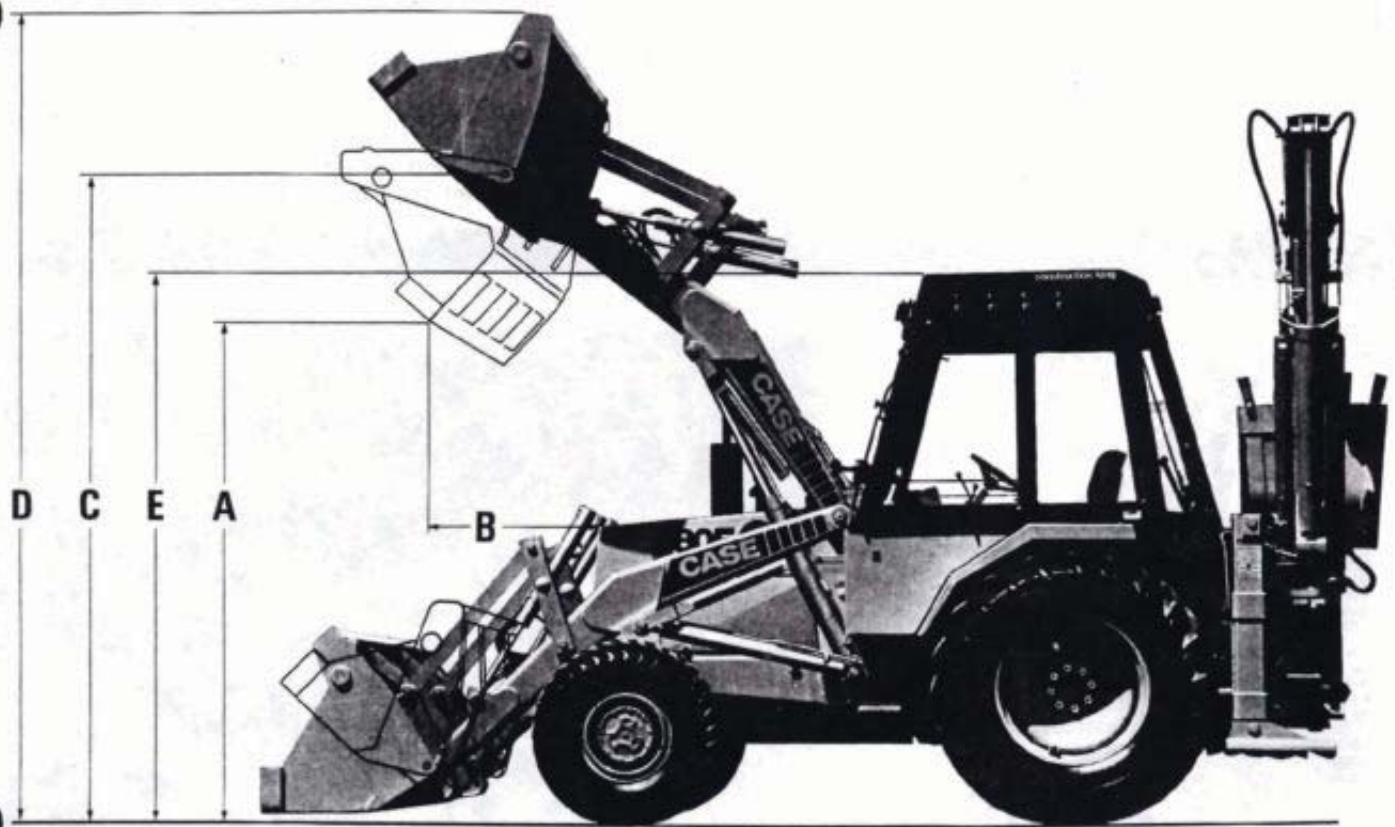
LOADER SPECIFICATIONS

ATTACHMENTS

Type	Width		SAE heaped capacity		Weight	
	mm	in	m ³	yd ³	kg	lb
General purpose with or without teeth	2286	90	0.765	1	318	700
General purpose with or without teeth	2362	93	0.96	1¼	350	770
4-in-1 with or without teeth	2362	93	0.86	1⅛	625	1375
Pallet fork						
Backfill blade						

OPERATING SPECIFICATIONS

	0.765 m ³ (1 yd ³) GP bucket		0.96 m ³ (1¼ yd ³) GP bucket		0.86 m ³ (1⅛ yd ³) 4-in-1 bucket	
	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.
A Dump clearance max at 45° dump full height	2631 (8 7)	2662 (8 9)	2590 (8 6)	2644 (8 8)	—	—
45° dump, clam closed	—	—	—	—	2570 (8 5)	2620 (8 7)
clam open	—	—	—	—	2910 (9 6)	2970 (9 8)
B Bucket reach max at 45° dump full height	615 (2 0)	640 (1 1)	610 (2 0)	605 (2 0)	—	—
48° dump, clam closed	—	—	—	—	700 (2 4)	735 (2 5)
clam open	—	—	—	—	350 (1 2)	380 (1 3)
Reach, bucket flat on ground	1830 (6 0)	1670 (5 6)	1830 (6 0)	1670 (5 6)	1850 (6 1)	1710 (5 7)
Digging depth, bucket flat	81 (3.2in)	47 (1.8in)	86 (3.4in)	51 (2in)	113 (4.4in)	81 (3.2in)
Lifting capacity to full height	2268kg (5000lb)	2268kg (5000lb)	2340kg (5160lb)	2340kg (5160lb)	1840kg (4056lb)	1840kg (4056lb)
Breakout force (lift cylinders)	3175kg (7000lb)	3175kg (7000lb)	3328kg (7337lb)	3328kg (7337lb)	3037kg (6695lb)	3037kg (6695lb)
Bucket rollback	38°	38°	38°	38°	38°	38°
Grading angle	up to 110°	up to 111°	up to 104°	up to 106°	up to 104°	up to 102°
Lifting time to full height	4.7 sec.	4.7 sec.	5.4 sec.	5.4 sec.	5.7 sec.	5.7 sec.
Dumping time at full height	0.8 sec.	0.8 sec.	1.2 sec.	1.2 sec.	0.9 sec.	0.9 sec.
Power down lowering time	2.5 sec.	2.5 sec.	2.7 sec.	2.7 sec.	2.4 sec.	2.4 sec.
Return-to-dig time	4.2 sec.	4.2 sec.	4.2 sec.	4.2 sec.	3.9 sec.	3.9 sec.
Dump angle	45°	45°	45°	45°	48° (clam clsd)	45° (clam clsd)
C Height to bucket hinge pin	3296 (10 10)	3330 (10 11)	3296 (10 10)	3330 (10 11)	3296 (10 10)	3330 (10 11)
Dozing depth, clam open	—	—	—	—	57.5 (2.3 in)	20 (0.8 in)



OVERALL DIMENSIONS

	0.765 m ³ (1 yd ³) GP bucket		0.96 m ³ (1¼ yd ³) GP bucket		0.86 m ³ (1½ yd ³) 4-in-1 bucket	
	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.	2 Wheel Drive mm ft. in.	4 Wheel Drive mm ft. in.
D Height, max in operation	3997 (13 1)	4072 (13 4)	4120 (13 6)	4170 (13 8)	4128 (13 6)	4176 (13 8)
E Height, to top of cab	2796 (9 2)	2825 (9 3)	2796 (9 2)	2825 (9 3)	2796 (9 2)	2825 (9 3)
Length, bucket on ground	5384 (17 8)	5384 (17 8)	5450 (17 10)	5450 (17 10)	5500 (18 0)	5500 (18 0)
Turning clearance circle diameter at bucket corner with brakes	9091 (29 10)	—	9740 (31 11)	—	9765 (32 0)	12360 (40 5)
without brakes	10213 (33 6)	—	10240 (33 7)	—	10370 (34 0)	13680 (45 6)
Overall width over tyres	2261 (7 5)	2261 (7 5)	2261 (7 5)	2261 (7 5)	2261 (7 5)	2261 (7 5)
Overall width at bucket	2286 (7 6)	2286 (7 6)	2362 (7 9)	2362 (7 9)	2362 (7 9)	2362 (7 9)
Width of dozer cutting edge	—	—	—	—	2340 (7 8)	2340 (7 8)
Maximum clam opening	—	—	—	—	950 (3 1)	950 (3 1)
Moldboard height	—	—	—	—	865 (2 10)	865 (2 10)
Bucket cutting edge width	—	—	—	—	2362 (7 9)	2362 (7 9)

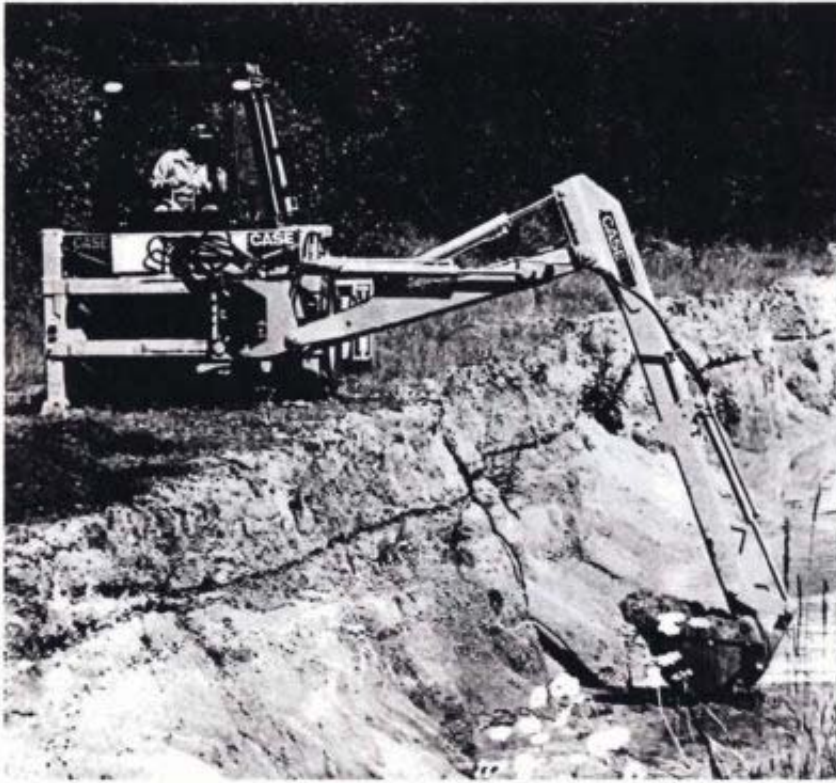
NOTE:

Standard equipment may vary according to demands and government regulations in each country. Photographs may show non-standard equipment or equipment not mentioned. Moreover JI Case Co reserves the right to change specifications without notice and without incurring any obligations relating to such changes. Extendahoe is a trade mark of JI Case Co.

IMPORTANT:

All specifications and Information quoted are in strict accordance with officially-recognised standards.

Sold and serviced by:



CASE 580F IN ACTION.

