



Operator Environment

The 580L is the loader/backhoe of choice for operator comfort, ease of operation and control.





Optional operator environments include a ROPS canopy at 105" (2.67 m) operating height and a 2-door cab at 107" (2.72 m) total height.*

The ROPS canopy includes an anti-vandalism cover for the dash.

Cab options include heat, A/C or both. Individual front and rear ducts provide forced, cross-flow ventilation for optimum operating comfort. The cab is pressurized and includes a filtering system to reduce dust levels.

Five isolation mounts on the cab reduce noise and vibration. The cab is also insulated for maximum temperature and sound control. Cab noise levels are rated below 79 dB(A).

Included with the cab is a defroster, front and rear windshield wipers, dome light, interior rearview mirror, retractable seat belt and floor mat for easy clean-out.

Curved, tinted glass cab windows provide excellent visibility to the work site without distortion. The sloped engine hood enhances visibility to the front end as well.

The floor is totally unrestricted, without levers or shifters, for free movement within, or in-and-out of the operating environment. Foot pedals, including automotive-type accelerator, are suspended to prevent buildup of materials behind them. A hand throttle is also included.

Seat options include a contoured non-suspension seat with vinyl covering or a contoured deluxe suspension seat with vinyl or cloth covering.

Built-in, molded cup and thermos holders keep beverages close at hand and reduce spills. A front console storage compartment and additional molded tool tray helps keep items organized.

Legroom between the seat and ROPS post allows easy operator movement between the loader and backhoe controls. An audible alarm alerts the operator if the shuttle is engaged when the seat is swiveled.

Driving and work lights are mounted at the roof line and fully protected from branches and other obstacles. Flood lights — (2) front and (2) rear.

Custom designed controls enhance operator interaction for improved work cycles.

A single-handle loader control operates all loader functions including the optional front-end auxiliary hydraulics. The loader control also incorporates a clutch cutout button to disengage the transmission for fast loading cycles.

Electronically engaged controls for forward/reverse shuttling and optional 4WD increase operating productivity. Both controls can be activated on-the-go without clutching.

The forward/reverse power shuttle lever is mounted on the steering column for hands-on operation. This electronically-engaged transmission shuttle modulates very smoothly through directional changes.

The transmission shifter is located on the front console and also incorporates a clutch cutout button to ease in shifting.

Operator warning system monitors vital system functions and alerts the operator with an audible alarm and visual indicator if a problem occurs. The system also signals the operator if the parking brake is applied when the forward/reverse lever is engaged.

Gauges and warning lights:
Converter oil temperature - Engine
coolant temperature - Fuel - Rear axle
oil temperature - Tachometer/
hourmeter - Voltmeter - Engine oil
pressure - Hydraulic system
filter - Alternator - Air cleaner Parking brake

*Equipped with 19.5L v 24 rear tires



Engine

The Case 4-390 diesel engine offers outstanding performance in heavy equipment applications.

State-of-the-art one-piece cast iron parent metal bore block eliminates cavitation erosion and coolant leaks in the cylinder bore for increased ring and piston life — fully skirted and ribbed for exceptional strength and durability.

Torque reserve is designed specifically to handle peak power demands of both the hydraulics and driveline combined.

Large intake and exhaust ports provide for more effective combustion.

Induction-hardened forged steel crankshaft with full fillet design and multiple main bearings ensures

excellent wear for long life.

Integral design of the oil and coolant pumps incorporates components into the engine block to reduce heat buildup and wear with fewer parts for lower operating costs and maintenance.

Pressurized under-piston oil nozzles provide positive cylinder wall lubrication and cooling. Deep sump is rated to supply oil lubrication at angles up to 45°.

This outstanding engine is backed by one of the best warranties in the industry.

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Model	Case 4-390
Type	. 4-stroke, direct injection, naturally aspirated diesel
Cylinders	4
Bore/Stroke	
Displacement	
Horsepower	
Net	
Maximum torque	
Gross	
Net	193 lb•ft (262 N•m) @ 1400 rpm

Driveline

Whether you're roading or on the job working the loader, the 580L offers you smooth, high performance operation either shifting on-the-go or shuttling back and forth.

TIRE SIZE

17.5L x 24 19.5L x 24 Front 2WD 11L x 16 4WD 12 x 16.5

ELECTRICAL

Voltage ... 12 volts, negative ground Alternator............. 65 amp Battery......... Maintenance-free, 685 cold-cranking amps @ 0° F (-18° C) Fully synchronized 4-speed forward/reverse shuttle transmission with hydraulically actuated clutches and clutch disconnect button allows quick response to changing ground or road conditions.

Electronically activated low effort forward/reverse shuttle shift produces smooth modulated directional changes and faster cycle times to improve productivity without declutching.

Optional heavy-duty, 4WD oscillating front axle with outboard planetary drives provides added tractive effort for maximum loader push and rough terrain capability.

Electronically engaged front wheel mechanical drive can be activated on-the-go with the flip of a switch for added traction and increased push power.

On-the-go engagement of the mechanical rear differential lock for 2WD and 4WD units provides maximum traction in slippery conditions.

Continuous flow oil cooling helps prevent overheating for extended service life. Full flow replaceable 7-micron cartridge on the return line filters the system.

Single stage torque converter with 2.63-to-1 stall ratio reduces shock loads placed on powertrain components by automatically adjusting torque to handle heavy workload conditions at peak engine efficiency.

Planetary transmission gears reduce gear loading in severe loader applications.

Maintenance-free, self-adjusting, inboard mounted, wet disc brakes are hydraulically actuated. They can be operated individually for pivot turns, or simultaneously for normal braking.

The automatic warning system alerts the operator if the parking brake is applied when the shuttle lever is engaged.

Modular powertrain makes servicing quick and easy for less downtime. Each component can be removed separately without disturbing the remaining parts.



TRAVEL SPEEDS MPH (km/h)

1st 2nd 3rd 4thForward 3.7 (5.9) 6.6 (10.7) 12.8 (20.5) 25.5 (41.0)

Reverse 4.4 (7.2) 8.0 (12.9) 15.4 (24.8) 30.8 (49.5)

Note: Engine at 2331 rpm, 19.5Lx 24 rear tires. Travel speeds will decrease with 17.5L x 24 tires.

Backhoe

The Case backhoe design offers you advanced, market leading performance and durability with an unprecedented level of control and speed to maximize productivity.

The exclusive, Case over-center backhoe design distributes the weight of the hoe toward the front of the tractor for improved overall stability to give you excellent roading characteristics. The over-center design reduces overall length and increases bucket clearance with a higher angle of departure for easy movement around hilly job sites, or, when loading or unloading from trucks.

A 28.5 gpm (108 L/min) rated hydraulic system flow at 3000 psi (20 684 kPa) produces quick response for fast cycle times.

A powerful 175,800 lb•in swing torque makes it easy to swing heavy loads uphill, carry larger, heavier buckets or push dirt when backfilling trenches.

Open-center hydraulics provide precision control and allows the operator the sensitivity to feel with the backhoe.

Cast ductile iron swing tower, boom and dipper provide maximum strength and durability. Ductile iron provides smooth stress flows throughout the length of the component. The boom and dipperstick carry a 5-year limited warranty.

A 9'5" (2.87 m) wide stabilizer operating stance and front-end loader rollover bucket capability securely stabilize the machine during backhoe digging operations, especially when swinging to the side.

Backhoe auxiliary hydraulics are operated with a foot pedal with flow control to regulate the attachment.

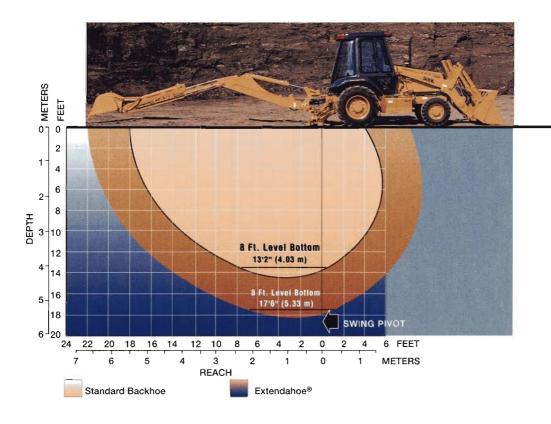
Boom, dipperstick and bucket each use a single cylinder for improved visibility to the trench — the width is 9" (229 mm). Hoses are routed on top of the dipperstick to prevent being crushed between the trench and dipper. They can be easily reached for maintenance or repair.







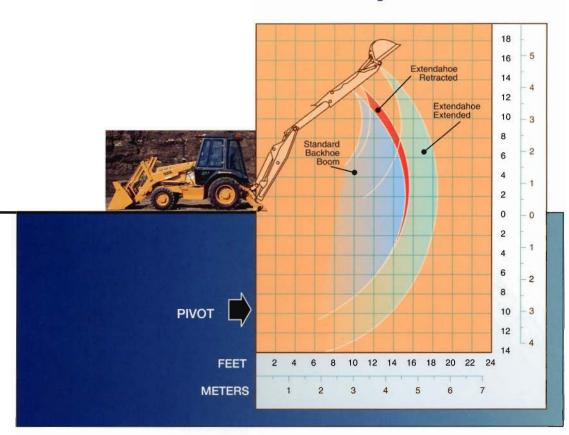
Dig Depth



Operational Data

		Exte	ndahoe®
	Standard Backhoe	Retracted	Extended
Digging depth			
24" (610 mm) level bottom	14'2" (4.32 m)	14'8" (4.47 m)	18′2″ (5.54 m)
Maximum	14′3″ (4.35 m)	14'10" (4.51 m)	18′3″ (5.57 m)
Overall reach from	,		
Rear axle centerline	21'5" (6.53 m)	22′0″ (6.70 m)	25′5″ (7.76 m)
Swing pivot	17'10" (5.44 m)	18′5″ (5.60 m)	21'10" (6.65 m)
Loading height	11'2" (3.40 m)	11′5″ (3.47 m)	13'3" (4.04 m)
Loading reach			
Swing arc			
Bucket rotation			
#1 position	180°	180°	180°
#2 position			
Stabilizer spread			
Operating position		9′5″ (2.87 m)	9'5" (2.87 m)
Transport position			
Digging force			
Bucket cylinder	10,976 lbf (48 824 N)	10,976 lbf (48 824 N)	10,976 lbf (48 824 N)
Dipper cylinder			
Leveling angle		Contract of the state of the st	
(maximum slope that backhoe			
will make vertical cut)	12°	12°	12°

Lift Capacities



Height Above & Below		Extendahoe [®]		
Ground Level	Standard Backhoe	Retracted	Extended	
Boom Lift				
+14' (+4.27 m)	1,951 lb (885 kg)	. 1,282 lb (581 kg)	. 1,401 lb (635 kg)	
+12' (+3.66 m)	2,701 lb (1225 kg)	. 1,940 lb (880 kg)	. 1,425 lb (646 kg)	
+10' (+3.05 m)	2,697 lb (1223 kg)	. 2,201 lb (998 kg)	. 1,544 lb (700 kg)	
+ 8' (+2.44 m)	2,754 lb (1249 kg)	2,217 lb (1006 kg)	. 1,610 lb (730 kg)	
+ 6' (+1.83 m)	2,727 lb (1237 kg)	2,262 lb (1026 kg)	. 1,616 lb (733 kg)	
Ground Level	2,486 lb (1127 kg) 2	2,272 lb (1031 kg)	. 1,725 lb (782 kg)	
- 6' (-1.83 m)	2,439 lb (1106 kg) 2	2,270 lb (1030 kg)	. 1,741 lb (790 kg)	
- 8' (-2.44 m)	2,504 lb (1136 kg) 2	2,352 lb (1067 kg)	. 1,778 lb (806 kg)	
-10' (-3.05 m)	2,778 lb (1260 kg) 2	2,598 lb (1178 kg)	. 1,874 lb (850 kg)	
-12' (-3.66 m)			. 2,039 lb (925 kg)	
Dipper Lift				
THE RESERVE OF THE PARTY OF THE	3,950 lb (1792 kg)	3,430 lb (1556 kg)	2,208 lb (1002 kg)	
+10' (+3.05 m)	3,689 lb (1673 kg)	3,171 lb (1438 kg)	. 2,203 lb (999 kg)	
	3,745 lb (1699 kg)			
+ 6' (+1.83 m)	4,100 lb (1869 kg)	3,608 lb (1637 kg)	2,234 lb (1013 kg)	

Lift capacity figures per SAE J31 and J49.
Figures stated apply straight to the rear of prime mover.
Equipped with 24" (610 mm) general purpose trenching bucket and links. For heavy-duty universal bucket and coupler, deduct 150 lb. (68 kg).



Loader

The more you depend on the front end of your loader/backhoe to perform a variety of tasks, the more you need a front-end loader designed to give you maximum performance — nobody offers you more in a loader than Case. Dual parallel dump cylinders and reverse linkage provide superior breakout force and faster dump cycles. Reverse linkage allows loader bucket rollover for dozing and added stability in backhoe applications. When the bucket is in the rollover position, cylinder rods are retracted for protection against the twisting forces of dozing with the loader and digging with the backhoe. The cylinder design provides exceptional visibility to the bucket for grading and truck loading.

The arch design of the loader arms permits tight turning angles for excellent manueverability around jobsites.

Clutch disconnect button on the loader control lever disengages the transmission for fast loading cycles.

Optional front-end hydraulics with 3-axis single-lever loader control operates all loader functions including the auxiliary tool.

Return-to-dig feature and forward/reverse shuttle shift shortens overall cycle time for maximum productivity in loader applications.

Loader arms and dual dump links support the bucket with 4-point mounting to resist twisting forces when corner loading — also allows materials such as pipe or plywood to be carried across the dump links.

Excellent dump height and reach make loading into trucks easy and efficient. A heavy-duty all steel front grille and thick, replacable bumper guards on the nose cone minimize the chance for front-end damage when approaching trucks to dump.

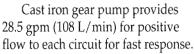
Automatic self-leveling of the bucket throughout the hoist cycle reduces spillback and maintains control of the load.





Hydraulics

Case has spent years perfecting the open-center hydraulic system through generations of machine design.
The result is a smooth, fast response to control movement and the ability to feel objects in precise digging operations.



Control valves are designed and manufactured by Case specifically for the 580L for precision control.

Specially designed hydraulic metering spools make cutting precision flat bottom trenches easy and also provide excellent controllability when lifting heavy loads.

Anti-cavitation valves in the loader and backhoe dipper circuit generate fast response with no delays.

A heavy-duty oil cooler and large hydraulic tank capacity provide excellent cooling capabilities. Easy-access hydraulic oil cooler mounted in front of the engine radiator makes cleaning the coils effortless.

Variable flow auxiliary hydraulic systems for backhoe, loader and handheld attachments are optional. Backhoe auxiliary hydraulics are controlled with a foot pedal to regulate the attachment. Auxiliary loader hydraulics are controlled with the same lever as the loader lift and tilt.

Optional hand-held auxiliary hydraulic valves are located under the right-hand cab step for quick coupling of attachments, such as submersible pumps, tampers, impact wrenches, etc.

PUMP CAPACITY:

28.5 gpm @ 2200 rpm @ 3000 psi (108 L/min @ 2200 r/min @ 20 684 kPa) 31 gpm @ 2350 rpm @ 100 psi (116 L/min @ 2350 r/min @ 690 kPa) Control valve main relief pressure: 3000 + 100 - 0 psi (20 684 + 690 - 0 kPa)

LOADER CONTROL VALVE:

2 or 3-spool sectional valve with single lever control for lift, tilt and auxiliary. Positive hold "float" position and "return-to-dig" feature.

BACKHOE CONTROL VALVE:

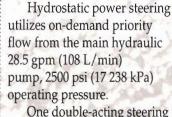
6 or 7-spool, sectional, open-center, parallel circuits with regeneration for boom, dipperstick, bucket, swing, two stabilizers and Extendahoe dipperstick.

FILTRATION:

7-micron, full flow replaceable cartridge on return line. Condition indicator light for filter.



Steering



One double-acting steering cylinder with a stop-to-stop turning ratio of 2.75 turns.

Steering cylinder is located behind and above the front axle for protection.

CURB CLEARANCE CIRCLE:

2WD w/17.5L rear tires
w/o brakes ... 24'6" (7.50 m)
w/brakes 21'3" (6.48 m)
4WD w/17.5L rear tires,
w/axle disengaged
w/o brakes ... 24'4" (7.44 m)
w/brakes 22'0" (6.72 m)
2WD w/19.5L rear tires

w/o brakes ... 24'8" (7.52 m) w/brakes 21'2" (6.45 m) 4WD w/19.5L rear tires,

4WD w/19.5L rear tires, w/axle disengaged

w/o brakes ... 25'2" (7.70 m) w/brakes 21'10" (6.70 m)

FRONT AXLE OSCILLATION:

2WD and 4WD 22° total (11° each side)

CYLINDERS

All cylinders are designed and manufactured by Case, the second largest producer of hydraulic cylinders in North America.

Cylinders	Diameter	Stroke	Rod
Loader			
Lift (2)		30.2" (766 mm)	1.75" (44 mm)
		20.6" (522 mm)	
		9" (229 mm)	,
Backhoe			A00
Stabilizers (2)	4" (102 mm)	21.8" (554 mm)	2" (51 mm)
		11.5" (292 mm)	
		38.6" (981 mm)	
		27" (686 mm)	
		34.3" (871 mm)	
		42"(1067 mm)	and the second s
Steering			
2WD	2.75" (70 mm)	6.7" (170 mm)	1.5" (38 mm)
		8.6" (218 mm)	

Serviceability

Groundline servicing and the
Case exclusive tilt-up hood
make daily maintenance
fast and easy for
minimum downtime.

Easy opening tilt hood allows quick access to the engine for service and maintenance — can be opened from either side of the unit.

The heavy-duty tilt hood assembly has cylinder assist for low lift effort.

Heavy-duty, all steel grille is separate from the hood for easy access to the radiator and hydraulic cooler. Pre-cleaner and exhaust are separate from the hood.

Groundline fuel and hydraulic tank access makes servicing easy.

Thick, rubber bumpers mounted directly to the radiator wrapper and grille nose cone protect the hood and maintain alignment of the hood and side panels. Bumpers are easily replaced.

Bumpers, grille, radiator wrapper, hood and side panels are attached to the tractor frame. Hood and side panels pivot off the lower front corner for easy hood adjustment.

Automatic belt tensioner for the engine eliminates service belt adjustments.

The Case factory-trained network of dealer service technicians is one of the best in the industry. You're assured of fast, reliable service with genuine Case replacement parts for less downtime and increased productivity.



Service Capacities

Fuel tank	31.4 gal	(119.0 L)
Hydraulic reservoir		
Total hydraulic system		
Transmission		
2WD Total system	. 19.5 qt	(18.5 L)
2WD Refill w/o filter	. 16.9 qt	(16.0 L)
4WD Total system	. 22.0 qt	(21.0 L)
4WD Refill w/o filter	. 19.5 qt	(18.5 L)
4WD front axle differential	5.8 qt	(5.5 L)
Planetaries (each)	. 0.74 qt	(0.7 L)
Rear axle differential	. 15.3 qt	(14.5 L)
Planetaries (each)	1.6 qt	(1.5 L)
Engine oil w/filter	. 11.6 qt	(11.0 L)
Cooling system		
w/heater	. 17.4 qt	(16.5 L)
w/o heater	. 16.7 at	(15.8 L)

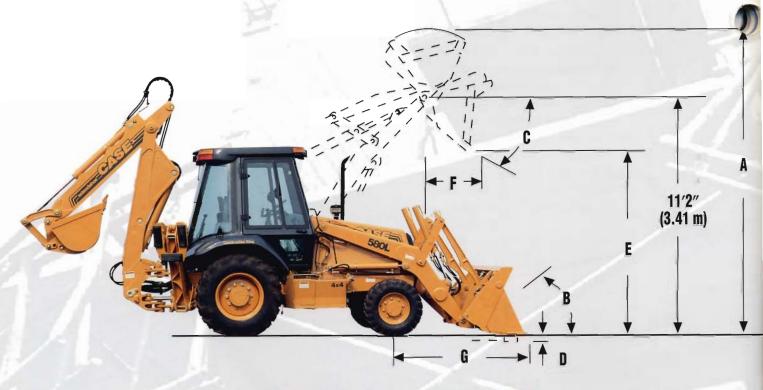
Backhoe Dimensions



			Exteriua	noe
		Standard Backhoe	Retracted	Extended
A-	Overall length - transport			
	General purpose bucket	22'6" (6.86 m)	22'7" (6.88 m)	NA
	4-in-1 bucket	22'5" (6.83 m)	22'6" (6.86 m)	NA
	Overall reach from –			
B-	Rear axle centerline	21'5" (6.54 m)	22'0" (6.70 m)	25′5″ (7.76 m)
C-	Swing pivot	17'10" (5.44 m)	18'5" (5.60 m)	. 21'10" (6.65 m)
D-	Overall height, maximum	19'2" (5.85 m)	19'6" (5.94 m)	. 22'10" (6.97 m)
E-	Transport height	11'2" (3.41 m)	11'7" (3.54 m)	NA
	Overall width - transport	7'2" (2.18 m)	7'2" (2.18 m)	7'2" (2.18 m)
An	gle of departure	20°	20°	20°
	Height –			
	To top of canopy	8'9" (2.67 m)	8'9" (2.67 m)	NA
		8'11" (2.72 m)		
	To top of exhaust stack	8'8" (2.63 m)	8'8" (2.63 m)	NA
	Ground clearance at -			
		15" (381 mm)	15" (381 mm)	NA
	Front wheel tread –			
		67.3" (1.71 m)		
		67.7" (1.72 m)		
	Rear wheel tread	61.2" (1.55 m)	61.2" (1.55 m),	NA
	Wheelbase -			
		84" (2.13 m)		
	4WD,	84.5" (2.15 m)	84.5" (2.15 m)	NA

Note: Specifications taken with 11L x 16 front tires (except that data marked 4WD is taken with 12 x 16.5 front tires), 19.5L x 24 rear tires, cab, 14' (4.27 m) backhoe with 24" (610 mm) general purpose trenching bucket, loader with 82" (2.08 m) general purpose bucket and standard equipment unless otherwise specified.

Loader Dimensions

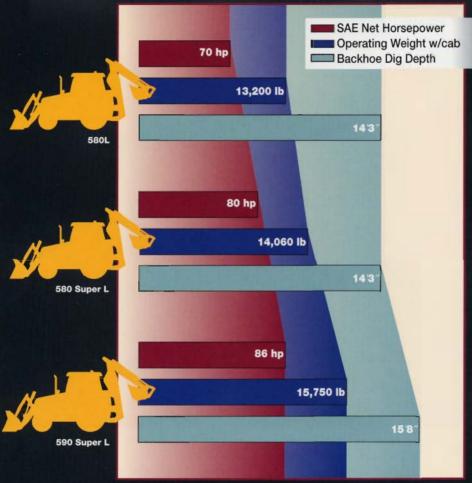


	O C	Reneral Purpose 82" (2.08 m)	4-in-1° Bucket 82" (2.08 m)
A-	Overall operating height	And the state of t	
B-			
C-			
D-	33.3		
	Bucket flat		
	Clam open (dozing)		4.4" (111 mm)
E-	Dump clearance @ full height, 45° du		
	Bucket		
_	Clam open		
F-	Dump reach @ full height, 45° dump		05 07 (044 2000)
	Bucket	25.9" (657 mm)	25.3 (044 MM)
C	Clam open	IVA	11.0 (29911111)
G-	bucket on ground	75 3" /1 Q1 m)	70 7" (1.85 m)
	Lift capacity to full height		
	Height to bucket hinge pin raised		
	Breakout force (dump cylinders) 7,		
	Bucket cutting edge width		
	Maximum grading angle		
	Maximum clam opening		
	Moldboard height		
	Raising time to full height		
	Bucket dumping time		
	Lowering time, power down		
	Lowering time, return-to-dig	2.4 sec	2.4 sec



INDEX

Operator Environment 4	Backhoe Lift Capacity11
Engine 6	Loader Bucket Selection 12
Travel Speeds 7	Loader 13
Driveline 7	Hydraulics14
Tire Size 7	Steering Data 15
Electrical7	Cylinder Data15
Backhoe 8	Service 16
Backhoe Bucket Selection 9	Backhoe Dimensions 17
Backhoe Dig Depth 10	Loader Dimensions 18
Backhoe Operational Data 10	Operating Weight19



NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

IMPORTANT: Case Corporation reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Units shown may be equipped with non-standard equipment.

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