

case

Loader/Backhoe

SPECIFICATIONS

580SK turbo



Courtesy of Machine.Market

OPERATOR ENVIRONMENT

From the panoramic visibility to the specially designed suspension seat and easy-access controls, the 580SK turbo is the loader/backhoe of choice for operator comfort and control.

- Window size, shape and location have been designed to provide maximum visibility for all work and transport functions.

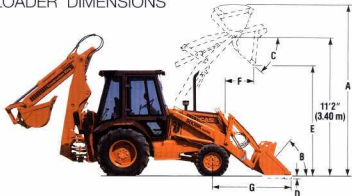


- Easy-to-operate, durable suspension seat with adjustable height and weight controls lessens operator fatigue.
- Ample legroom between the seat and ROPS post permits unobstructed operator movement between loader and backhoe controls.
- Powerful cooling and heating system ventilates air through six louvers for a comfortable, year-round work environment. Maximum insulation for temperature and sound control.
- Heavy-duty all steel cab roof for safety. Easy mounting antenna and beacon.

- Easy-to-reach loader control lever has convenient transmission disconnect feature to maximize loader productivity.
- Transmission control on the right side of the console is within easy reach. The T-handle shifter has a clutch disconnect button located on the end of the handle to shift gears with ease, increasing tractor response and productivity.
- Power shuttle lever is mounted on the steering column for hands-on forward and reverse operation.
- Low-effort lever reduces operator fatigue and enhances metering for precision backhoe and loader performance.
- 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 tells 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 - Tachometer/hourmeter - Voltmeter - Engine oil pressure - Hydraulic system filter - Transmission oil filter - Air cleaner - Brake fluid level
- Long roof overhang plate acts as a rain deflector when rear window is open. Work lights are located in steel brackets on the front and rear of the cab for added protection.
- There are two control patterns to choose from. A three-lever control pattern for the boom, dipperstick and bucket includes a foot swing. The swing and the three backhoe functions are combined in the two-lever wobblestick hand control pattern. The Extendahoe® dipperstick is controlled by a fourth lever on the three-lever pattern or by a foot control on the two-lever wobblestick pattern.

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LOADER DIMENSIONS



	General Purpose 82" (2.08 m)	General Purpose 90" (2.29 m)	4-in-1" Bucket
A- Overall operating height.....	13'11" (4.24 m)	13'11" (4.24 m)	14'1" (4.29 m)
B- Bucket rollback @ groundline.....	41°	41°	45°
C- Dump angle @ full height.....	45°	45°	55°
D- Digging depth below grade –			
Bucket flat.....	4.6" (117 mm)	4.6" (117 mm)	4.8" (121 mm)
Clam open (dozing).....	NA	NA	2.7" (68 mm)
E- Dump clearance @ full height, 45° dump –			
Bucket.....	8'10" (2.69 m)	9'0" (2.74 m)	9'4" (2.84 m)
Clam open.....	NA	NA	10'11" (3.32 m)
F- Dump reach @ full height, 45° dump –			
Bucket.....	27" (686 mm)	24" (610 mm)	29" (737 mm)
Clam open.....	NA	NA	15" (381 mm)
G- Reach from front axle centerline,			
bucket on ground.....	74" (1.88 m)	71.3" (1.81 m)	70" (1.78 m)
Lift capacity to full height.....	5,500 lb (2495 kg)	5,500 lb (2495 kg)	5,080 lb (2304 kg)
Height to bucket hinge pin raised.....	11'2" (3.40 m)	11'2" (3.40 m)	11'2" (3.40 m)
Breakout force (dump cylinders).....	8,090 lbf (36 000 N)	9,430 lbf (41 964 N)	9,000 lbf (40 030 N)
Cutting edge width –			
Bucket.....	82" (2.08 m)	90" (2.29 m)	82" (2.08 m)
Maximum grading angle.....	115°	115°	106°
Dozer (clam open).....	NA	NA	81.3" (2.07 m)
Maximum clam opening.....	NA	NA	37" (940 mm)
Moldboard height.....	NA	NA	34" (864 mm)
Raising time to full height.....	5.4 sec	5.4 sec	5.4 sec
Bucket dumping time.....	1.3 sec	1.3 sec	1.3 sec
Lowering time, power down.....	2.7 sec	2.7 sec	2.7 sec
Lowering time, return-to-dig.....	3.1 sec	3.1 sec	3.1 sec

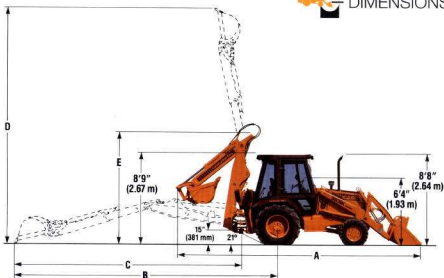
OPERATING WEIGHT

Base Loader/Backhoe: 2WD, loader/backhoe, 82" (2.08 m) standard loader bucket, front 400 lb (180 kg) counterweight, ROPS, 19.5L x 24 rear tires, standard dipperstick, 24" (610 mm) heavy-duty trenching bucket, 175 lb (79 kg) operator and full fuel tank 13,426 lb (6090 kg)

Add:

4WD.....	486 lb (220 kg)
Cab.....	477 lb (216 kg)
4-in-1 bucket.....	551 lb (250 kg)
Extendahoe (less counterweight).....	480 lb (218 kg)
Extendahoe counterweight.....	500 lb (227 kg)

Courtesy of Machine.Market



	Standard Backhoe	Retracted	Extendahoe [®] Extended
A- Overall length – transport			
General purpose bucket	22'7" (6.88 m)	22'7" (6.88 m)	NA
4-in-1 bucket	22'5" (6.82 m)	22'6" (6.86 m)	NA
Overall reach from –			
B- Rear axle centerline	21'8" (6.60 m)	22'0" (6.71 m)	25'5" (7.76 m)
C- Swing pivot	18'0" (5.49 m)	18'4" (5.59 m)	21'10" (6.66 m)
D- Overall height, maximum	19'2" (5.85 m)	19'6" (5.94 m)	22'10" (6.97 m)
E- Transport height	10'10" (3.29 m)	11'3" (3.42 m)	NA
Overall width – transport	86" (2.18 m)	86" (2.18 m)	86" (2.18 m)
Angle of departure	21°	21°	21°
Height –			
To top of canopy	8'8" (2.64 m)	8'8" (2.64 m)	NA
To top of cab	8'9" (2.67 m)	8'9" (2.67 m)	NA
To top of exhaust stack	8'8" (2.64 m)	8'8" (2.64 m)	NA
To top of steering wheel	6'4" (1.93 m)	6'4" (1.93 m)	NA
Ground clearance at –			
Tractor transaxle	13" (330 mm)	13" (330 mm)	NA
Backhoe frame	15" (381 mm)	15" (381 mm)	NA
Front wheel tread –			
2WD	67.5" (1.71 m)	67.5" (1.71 m)	NA
4WD	67.8" (1.72 m)	67.8" (1.72 m)	NA
Rear wheel tread	61.2" (1.56 m)	61.2" (1.56 m)	NA
Wheelbase –			
2WD	84" (2.13 m)	84" (2.13 m)	NA
4WD	84.5" (2.15 m)	84.5" (2.15 m)	NA

Note: Specifications taken with 11L x 16, 10PR front tires (except that data marked 4WD is taken with 12 x 16.5 front tires), 19.5L x 24, 8 PR rear tires, ROPS cab 14" (4.27 m) backhoe with 24" (610 mm) heavy-duty trenching bucket, loader with 82" (2.08 m) general purpose bucket and standard equipment unless otherwise specified.



SERVICEABILITY

Serviceability is an important consideration when buying a loader/backhoe. The Case exclusive tilt-up hood and ground line servicing 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.
- 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.

SERVICE CAPACITIES

	U.S.	Liters
Fuel Tank.....	25.0 gal.....	94.6
Hydraulic Reservoir	21.0 gal.....	79.5
Total hydraulic system	29.0 gal.....	109.8
Transaxle (includes shuttle, transmission, differential, final drives & brakes)		
w/filter.....	47.6 qt.....	45.0
w/o filter.....	45.4 qt.....	43.0
Total transaxle system.....	57.1 qt.....	54.0
Engine oil w/filter.....	11.6 qt.....	11.0
Cooling System		
w/heater.....	17.9 qt.....	16.9
w/o heater.....	17.2 qt.....	16.3

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LOADER

You depend on the front end of your loader/backhoe to perform a variety of tasks. The 580SK turbo assures you'll get the job done quickly and efficiently.

- Increased push power and a new torque converter combined with 4WD means 25% more torque going to the wheels for increased loader performance. Increased performance allows you to stay in second gear for quick cycle time and operator efficiency.
- Added tractive effort to fill the bucket means smooth, steady action to reduce stress on the loader.
- Single-lever lift and tilt control with positive hold "float" and "return-to-dig" position moves with a minimum of lever effort. A second lever controls optional auxiliary hydraulics when operating 4-in-1 bucket clam or front-end attachments. Valve kit is available for running hand-held tools.
- "Return-to-dig" feature and forward/reverse shuttle shift shortens overall cycle time for maximum productivity in loader applications. Loader speed is also matched to ground speed for faster work cycles.
- Dual parallel dump cylinders and reverse linkage provide superior breakout force and faster dump time. Reverse linkage allows loader bucket rollover for dozing and added stability in backhoe applications. When 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, as well as loading trucks.
- 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.
- Lift capacity is rated at 5,500 lb (2495 kg) at full height for the general purpose bucket and 5,080 lb (2304 kg) for the multi-purpose 4-in-1 bucket.
- Maximum dump height and reach makes unloading into trucks easy. A heavy-duty all steel front grille and thick, replaceable bumper guards on the nose cone minimize the chance for front-end damage when approaching trucks to dump.
- Positive hold control position allows the loader to "float" over the ground contour in cleanup applications.
- Automatic self-leveling of the bucket throughout the hoist cycle reduces spillback and maintains control of the load.
- Clutch cutout button on the loader control lever disengages the transmission to give maximum engine horsepower to the loader hydraulics for fast cycle times. Releasing the clutch cutout button returns power to the drivetrain.
- The Case FACT System (Fast Attachment Coupling Team) allows quick changing of attachments for increased machine utilization.



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LOADER BUCKET SIZES AND WEIGHTS

	Width	Weight	SAE Capacities	
			Struck	Heaped
General Purpose	82"	656 lb	0.87 yd ³	1.03 yd ³
	(2.08 m)	(298 kg)	(0.67 m ³)	(0.79 m ³)
90"	90"	708 lb	0.84 yd ³	1.00 yd ³
	(2.29 m)	(321 kg)	(0.64 yd ³)	(0.77 m ³)
4-in-1 [®]	82"	1,126 lb	0.92 yd ³	1.00 yd ³
		(511 kg)	(0.70 yd ³)	(0.77 m ³)

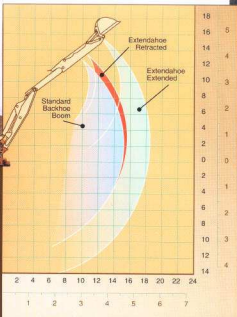
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SWING PIVOT →

FEET

METERS



1. Lift capacity figures on these charts are 87% of the maximum lift force per SAE Definition J31 and J49 at 2500 psi (17 582 kPa) system relief pressure.
2. Figures stated apply within 45° either side of prime mover.
3. Figures stated are determined by static tests and do not include dynamic factors.
4. Machine is equipped with 24" (610 mm) heavy-duty trenching bucket.
5. Boom is angled at 65° for dipper lift capacities.
6. Loader bucket is on ground.

LIFT CAPACITIES

BOOM LIFT

Height Above & Below
Ground Level

+16' (+4.88 m)
+14' (+4.27 m)
+12' (+3.66 m)
+ 8' (+2.44 m)
Ground Level
- 8' (-2.44 m)
-10' (-3.05 m)
-14' (-4.27 m)

Standard Backhoe

1,980 lb (898 kg)
2,270 lb (1030 kg)
2,300 lb (1043 kg)
2,090 lb (948 kg)
1,960 lb (889 kg)

Extendahoe®
Retracted

1,550 lb (703 kg)
1,770 lb (803 kg)
1,840 lb (835 kg)
1,650 lb (748 kg)
1,550 lb (703 kg)
1,770 lb (803 kg)

Extended

900 lb (408 kg)
1,160 lb (526 kg)
1,230 lb (558 kg)
1,250 lb (567 kg)
1,170 lb (531 kg)
1,120 lb (508 kg)
1,180 lb (535 kg)
1,610 lb (730 kg)

DIPPER LIFT

+12' (+3.66 m)
+10' (+3.05 m)
+ 8' (+2.44 m)
+ 6' (+1.83 m)

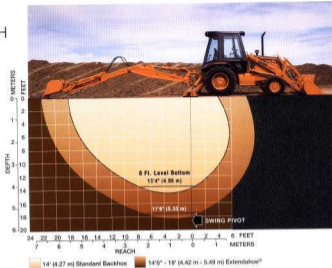
4,130 lb (1873 kg)
3,910 lb (1774 kg)
4,000 lb (1814 kg)
4,440 lb (2011 kg)

3,650 lb (1656 kg)
3,550 lb (1610 kg)
3,650 lb (1656 kg)
3,090 lb (1397 kg)

2,350 lb (1066 kg)
2,370 lb (1075 kg)
2,470 lb (1120 kg)
2,580 lb (1170 kg)

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DIG DEPTH



OPERATIONAL DATA

	Standard Backhoe	Retracted Extendahoe®	Extended
Digging depth			
SAE, 24" (610 mm) flat bottom	14'3" (4.35 m)	14'8" (4.47 m)	18'2" (5.54 m)
SAE, maximum	14'5" (4.39 m)	14'10" (4.51 m)	18'3" (5.57 m)
Overall reach from			
Rear axle centerline	21'8" (6.60 m)	22'0" (6.71 m)	25'5" (7.76 m)
Swing pivot	18'0" (5.49 m)	18'4" (5.59 m)	21'10" (6.66 m)
Loading height	9'6" (2.90 m)	10'0" (3.06 m)	11'10" (3.63 m)
Loading reach	5'6" (1.68 m)	6'3" (1.90 m)	9'3" (2.82 m)
Swing arc	180°	180°	180°
Bucket rotation			
#1 position	185°	180°	180°
#2 position	160°	160°	160°
Stabilizer spread, SAE			
Operating position	9'5" (2.87 m)	9'5" (2.87 m)	9'5" (2.87 m)
Transport position	7'2" (2.17 m)	7'2" (2.17 m)	7'2" (2.17 m)
Digging force, bucket cylinder, SAE			
24" (610 mm)			
Universal heavy-duty bucket w/coupler	10,760 lbf (47 863 N)	10,760 lbf (47 863 N)	10,760 lbf (47 863 N)
Universal heavy-duty bucket w/links	12,150 lbf (54 058 N)	12,150 lbf (54 058 N)	12,150 lbf (54 058 N)
Digging force			
Dipper cylinder, SAE	6,521 lbf (29 010 N)	6,185 lbf (27 510 N)	4,519 lbf (20 100 N)
Leveling angle			
(maximum slope angle that will make vertical cut)			12°

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- Case buckets and the quick coupler are designed to give you a full range of working positions for improved productivity in straight wall trenching, spoil retention when loading trucks and maximum breakout force.

- Hydraulically telescoping Extendahoe dipperstick lets you dig deeper and reach further to unload. Can be used in its retracted position of 14'8" (4.47 m) or at any point up to its full extension of 18'2" (5.54 m). The Extendahoe dipperstick offers the ability to dig straight down – a real advantage in street repair because it reduces tearing up large sections of pavement. The extra reach makes it easier to unload into trucks with high sideboards, reach over obstacles like walls, or to place spoil further away from the sides of a trench to prevent slides from occurring. It also reduces the number of times a machine must be repositioned.



Case backhoe buckets carry a full one year warranty

- Standard quick coupler enables fast, easy bucket or attachment changes by simply removing one pin and rolling out the bucket.
- Case cylinders are designed to provide maximum life. The inner sleeve and wear pads are protected from abrasive materials.
- Optional stabilizer pads include a cleated dirt pad, a flat cemetery pad with heavy-duty rubber or a combination flip-over pad.

BACKHOE BUCKET SIZES AND WEIGHTS

	Weight	SAE Heaped Capacity
12' (305 mm) Heavy-duty universal trenching	316 lb (143 kg)	2.90 ft ³ (0.08 m ³)
16' (406 mm) Heavy-duty universal trenching	352 lb (160 kg)	3.60 ft ³ (0.10 m ³)
18' (457 mm) Heavy-duty universal trenching	366 lb (166 kg)	4.30 ft ³ (0.12 m ³)
24' (610 mm) Heavy-duty universal trenching	440 lb (200 kg)	6.40 ft ³ (0.18 m ³)
30' (762 mm) Heavy-duty universal trenching	510 lb (231 kg)	8.65 ft ³ (0.24 m ³)
36' (914 mm) Heavy-duty universal trenching	588 lb (267 kg)	10.80 ft ³ (0.31 m ³)
24' (610 mm) High capacity trenching	446 lb (202 kg)	9.10 ft ³ (0.26 m ³)



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BACKHOE

Maximum productivity and minimum operator fatigue make the performance of the 580SK turbo backhoe unsurpassed in the 14-foot class.

- The fixed flow, 36 gpm (136 L/min) hydraulic system provides quick response and fast cycle times.
- Open-center design of the hydraulics provides precision control and allows the operator to “feel” with the backhoe.
- Cast ductile iron swing tower, boom, dipperstick and stabilizers provide the maximum in strength and durability because ductile iron provides smooth stress flow throughout the length of the component.
- Boom, dipperstick and bucket each use a single cylinder for improved visibility to the trench – the widest point is 11” (279 mm). Hoses are routed so they don’t rub or pull from their housings, and can easily be reached for maintenance or repair.
- A three-lever control pattern for the boom, dipperstick and bucket includes a foot swing. The swing and the three backhoe functions are combined in the two-lever wobblestick hand control pattern. The Extendahoe feature is controlled by a fourth lever on the three-lever pattern or by a foot control on the two-lever wobblestick pattern.
- 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.
- Over-center backhoe transport position distributes the weight of the hoe toward the front of the tractor for improved overall stability. Over-center design also increases bucket clearance and reduces overall length for moving around restricted job sites.
- Dual cylinder swing system with Case-designed sequencing valve provides constant swing torque and precise control.



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TIRE SIZE

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

- Modulation in the shuttle shift produces smooth cycle times for maximum productivity.
- 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.
- Front wheel mechanical drive is easily engaged by a lever located on the front control console. The heavy-duty front axle with outboard planetary drive provides added tractive effort for maximum loader push and rough terrain capability.
- Heavy-duty driveline guard is standard on all 4WD machines.
- Stay in second gear for quicker loader cycle time and increased operator efficiency.
- Single stage torque converter with 2.86-to-1 stall ratio reduces shock loads placed on powertrain components by automatically adjusting torque to handle heavy workload conditions at peak engine efficiency.
- The shuttle transaxle incorporates the inboard planetary drives for reduced gear loading in severe loader applications.

ELECTRICAL

Voltage	12 volts, negative ground
Alternator	65 amp
Battery	Maintenance-free, 685 cold-cranking amps @ 0° F (-18° C)

TRAVEL SPEEDS mph (km/h)

	1st	2nd	3rd	4th
Forward	3.7 (6.0)	6.2 (9.9)	14.1 (22.7)	24.7 (39.9)
Reverse	4.4 (7.2)	7.4 (11.9)	16.8 (27.1)	29.6 (47.8)

Note: Engine at full throttle, 19.5L x 24, 10PR rear tires. Travel speeds will decrease with smaller 17.5 x 24 tires.

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ENGINE

Utilizing the advanced engineering technology that has made Case an industry leader, the Case 4T-390 diesel engine has proven to be reliable and efficient. The turbo maintains maximum road speed, no matter what the load or the terrain.

- Integral design of the oil and coolant pumps incorporates components into the engine block. Heat buildup and wear are reduced because of fewer moving parts which means low operating cost and quick maintenance.



- Deep sump provides oil lubrication when operating on slopes up to 45° in all directions.
- The turbo offers increased horsepower and high altitude compensation while assuring fast engine recovery every time without sacrificing efficiency.
- Case backs the performance and durability of this outstanding engine with one of the best warranties in the industry.

Model	Case 4T-390
Cylinders	4
Bore/Stroke-in	4.02 x 4.72 (102 x 120 mm)
Displacement-in ³	239 (3.92 L)
Horsepower (turbo)*	
Gross	85 (63 kW) @ 2200 rpm
SAE Net	78 (58 kW) @ 2200 rpm
Maximum torque ft-lb	
Gross	234 (317 Nm) @ 1400 rpm
Net	224 (304 Nm) @ 1400 rpm

*Gross engine horsepower or torque at flywheel per SAE J1349.



DRIVELINE

Whether you're roading, excavating or loading, the 580SK turbo offers speed and efficiency for smooth operation.

- Increased engine horsepower is matched to a new torque converter. Combined benefit is 25% more push power.



- 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.



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580SK turbo EQUIPMENT DATA

Standard Equipment

Air cleaner; dry type
 Antifreeze to -34° F (-37° C)
 Audible warning alarm
 Backup alarm
 Fenders: rear wheel
 Front counterweight
 400 lb (180 kg)
 900 lb (405 kg) for Extendahoe dipperstick
 in lieu of 400 lb counterweight
 Full instrumentation
 Hand and foot throttles
 Horn
 Hydraulically actuated brakes
 Hydrostatic steering
 Lights:
 2 front, 2 rear flood
 2 rear tail/stop
 2 front and rear flashers/turn
 Lockable neutral start switch
 Pre-cleaner
 Retractable seat belt (2')

ROPS canopy
 Seat
 Tilt engine hood
 Toolbox
 Torque converter drive
 Turbo diesel
 Vandal protection lockup package
 4F/4R powershuttle
 65 amp alternator

BACKHOE

14' (4.27 m) backhoe or
 14'6" - 18' (4.42 m - 5.49 m) Extendahoe dipperstick
 Case backhoe bucket coupler
 Cleated stabilizer pads
 Foot swing control

LOADER

Single-lever control w/bucket position indicator
 Self-leveling
 Return-to-dig

Optional Equipment

	Add-on Weight		Add-on Weight
Auxiliary hydraulics		Lights	
Loader	10 lb (13.6 kg)	Mirrors	
Standard backhoe	53 lb (24.0 kg)	Muffler (spark-arresting)	
Extendahoe dipperstick	50 lb (22.7 kg)	Retractable seat belt (3')	
Beacon - rotating		ROPS post & fender covers	75 lb (34.0 kg)
ROPS/cab		Special paint	
Buckets		Stabilizer pads:	
Loader		Flat cemetery w/heavy-duty rubber	
82" (2.08 m) general purpose	770 lb (349.3 kg)	Combination, flip-over	
82" (2.08 m) 4-in-1		Suspension seat w/armrests (vinyl)	
(includes hydraulics)	1,130 lb (512.6 kg)	4WD	
Backhoe: See backhoe section for listing			
Cab w/heater, floor mat,			
lockup, tinted glass,			
front and rear wiper,			
pressurization & dome lights,			
ILO canopy			
Cab w/all of the above			
plus air conditioning			
Cold start aid (ether)	5 lb (2.3 kg)		
Two 12 volt batteries	75 lb (34.0 kg)		
Dual-lever backhoe controls			
Floor mat			
Fuel tank:			
Auxiliary 8 gal (30.3 L)			



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