



# Loader/Backhoe 580 Super L

## ENGINE

Model..... Case 4T-390  
 Type ..... 4-stroke, turbocharged  
 Cylinders ..... 4  
 Fuel injection ..... Direct  
 Bore/Stroke..... 4.02" x 4.72"  
 Displacement ..... 239 in<sup>3</sup>  
 Horsepower  
 Gross..... 91 @ 2200 rpm  
 Net..... 86 @ 2200 rpm  
 Maximum torque  
 Gross..... 259 lb-ft @ 1400 rpm  
 Net ..... 252 lb-ft @ 1400 rpm

## DRIVELINE

Fully synchronized 4-speed forward reverse shuttle transmission with hydraulically actuated clutches and clutch disconnect buttons on the transmission shifter and loader control lever. Electronically activated forward/reverse shuttle shift and 4WD engagement with optional mechanical front wheel drive. 4WD activation on-the-go. Maintenance-free, self-adjusting, inboard mounted, wet disc brakes are hydraulically actuated.

### TRAVEL SPEEDS (MPH)

	1st	2nd	3rd	4th
Forward.....	3.7	6.7	12.9	25.8
Reverse.....	4.5	8.1	15.5	31.1

NOTE: Engine at 2350 rpm and 19.5L x 24 rear tires. Travel speeds will decrease with

## OPERATOR ENVIRONMENT

Optional ROPS canopy or 2-door pressurized cab with heater and defroster - A/C optional. Optional deluxe cab interior. Optional non-suspension or deluxe suspension seats. Hand and foot throttles. Key start. Beverage holders. Storage box.

### GAUGES AND WARNING LIGHTS

Converter oil temperature - Engine coolant temperature - Fuel - Rear axle oil temperature - Tachometer/hourmeter - Voltmeter - Alternator - Engine oil

pressure - Hydraulic system filter -

## HYDRAULIC SYSTEM

Front mounted, positive displacement, gear-type tandem. Heavy-duty oil cooler.

### LOADER HYDRAULIC PUMP CAPACITY

27.5 gpm @ 2200 rpm @ 3000 psi  
 31.4 gpm @ 2350 rpm @ 100 psi

### LOADER CONTROL VALVE

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

### BACKHOE HYDRAULIC PUMP CAPACITY

37 gpm @ 2200 rpm @ 3000 psi  
 42 gpm @ 2350 rpm @ 100 psi

### BACKHOE CONTROL VALVE

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

### CONTROL VALVE MAIN RELIEF PRESSURE

3000 + 100 - 0 psi

### FILTRATION

7-micron, full flow replaceable car-

## SERVICE CAPACITIES

Fuel tank..... 31.4 gal  
 Hydraulic reservoir..... 13.9 gal  
 Total hydraulic system ..... 33.0 gal

### Transmission

2WD Total system..... 19.5 qt  
 2WD refill w/o filter..... 16.9 qt  
 4WD Total system..... 22.0 qt  
 4WD refill w/o filter..... 19.5 qt

### 4WD Front axle

Differential..... 5.8 qt  
 Planetaries (each)..... 1.6 qt

### Rear axle

Differential..... 15.0 qt  
 Planetaries (each)..... 0.74 qt

Engine oil w/filter..... 11.6 qt

### Cooling system

w/heater..... 17.4 qt  
 w/o heater..... 16.7 qt

## ELECTRICAL SYSTEM

Voltage..... 12 Volts, negative ground  
 Alternator ..... 12 Volts, 65 amp  
 Battery ..... Maintenance-free  
 685 cold-cranking amps  
 @ -0° F

## STEERING

Hydrostatic power steering with on-demand priority flow from the main hydraulic pump. 2500 psi operating pressure. One, double-acting steering cylinder with a stop-to-stop turning ratio of 2.75 turns.

### TIRE SIZE

Front  
 2WD ..... 11L x 16, 10PR  
 4WD ..... 12 x 16.5, 8PR  
 Rear ..... 17.5L x 24, 10PR  
 19.5L x 24, 10PR

### CURB CLEARANCE CIRCLE

2 WD w/17.5L rear tires  
 w/o brakes..... 24'6"  
 w/brakes ..... 21'2"  
 2 WD w/19.5L rear tires  
 w/o brakes..... 24'8"  
 w/brakes ..... 21'3"  
 4 WD w/17.5L rear tires axle disengaged  
 w/o brakes..... 24'4"  
 w/brakes ..... 22'0"  
 4 WD w/17.5L rear tires axle engaged  
 w/o brakes..... 27'6"  
 w/brakes ..... 22'6"  
 4 WD w/19.5L rear tires axle disengaged  
 w/o brakes..... 25'3"  
 w/brakes ..... 22'0"  
 4 WD w/19.5L rear tires axle engaged  
 w/o brakes..... 28'2"

## OPERATING WEIGHT

Base Unit: 2WD, loader, 82" standard loader bucket, backhoe, standard dipperstick, 24" heavy-duty trenching bucket, ROPS canopy, 11L x 16 front tires, 17.5L x 24 rear tires, and full fuel tank ..... 13,283 lb

### Add:

Cab with A/C..... +477 lb  
 4WD..... +286 lb  
 4-in-1 Bucket..... +598 lb  
 Extendahoe ..... +496 lb  
 Extendahoe counterweight ... +440 lb

## LOADER

Single-lever control for lift and tilt with positive hold float and return-to-dig. Automatic self-leveling throughout the lift cycle. In-line, reverse linkage with dual parallel dump cylinders. Optional front-end auxiliary hydraulics with combined single-lever control for lift, tilt and auxiliary. Clutch disconnect button on the loader control disengages the transmission for fast loading cycles. Optional General Purpose or 4-in-1 buckets available. Both buckets are 82" wide with 1.0 yd<sup>3</sup> capacity and feature bolt-on cutting edge.

### LOADER BUCKET SIZES AND WEIGHTS

#### General Purpose Bucket

Width	Weight	Struck	Heaped
82"	864 lb	0.88 yd <sup>3</sup>	1.01 yd <sup>3</sup>

#### 4-in-1 Bucket

Width	Weight	Struck	Heaped

## BACKHOE

Over-center backhoe reduces transport length and increases bucket clearance with a higher angle of departure. Open-center hydraulics at 37 gpm for responsive, precision control. Variable flow priority swing circuit provides a constant, smooth swing speed for outstanding multi-function control. 194,200 lb-in swing torque to swing heavy loads uphill or push dirt when backfilling. 11" maximum width for excellent visibility. Two or three lever control pattern. Foot swing with three lever pattern. Optional Extindahoe<sup>®</sup> and variable-flow auxiliary hydraulics.

### BACKHOE BUCKET SIZES AND WEIGHTS

#### Heavy-Duty Universal Trenching Bucket

Width	Weight	Heaped
12"	311 lb	2.90 ft <sup>3</sup>
16"	346 lb	3.60 ft <sup>3</sup>
18"	359 lb	4.30 ft <sup>3</sup>
24"	429 lb	6.40 ft <sup>3</sup>
30"	496 lb	8.65 ft <sup>3</sup>
36"	571 lb	10.8 ft <sup>3</sup>

#### Heavy-Duty High-Capacity Trenching Bucket

Width	Weight	Heaped
24"	430 lb	8.50 ft <sup>3</sup>
30"	447 lb	10.6 ft <sup>3</sup>

## LOADER DIMENSIONS

	GENERAL PURPOSE	4-IN-1 <sup>®</sup>
Overall operating height	14'0"	14'3"
Bucket rollback @ groundline	40°	40°
Dump angle @ full height	45°	45°
Digging depth below grade –		
Bucket flat	5.9"	6.8"
Clam open (dozing)	NA	4.4"
Dump clearance @ full height, 45° dump –		
Bucket	8'10"	8.11"
Clam open	NA	9'8"
Dump reach @ full height, 45° dump –		
Bucket	27.7"	25.5"
Clam open	NA	11.9"
Reach from front axle centerline,		
bucket on ground	75.2"	72.7"
Lift capacity to full height	6,182 lb	5,514 lb
Height to bucket hinge pin raised	11'2"	11'2"
Breakout force (dump cylinders)	9,667 lbf	10,294 lbf
Breakout force (lift cylinders)	9,453 lbf	8,859 lbf
Bucket cutting edge width	82"	82"
Maximum grading angle	116°	116°
Maximum clam opening	NA	38.3"
Moldboard height	NA	36.8"
Raising time to full height	5.34 sec	5.34 sec
Bucket dumping time	1.06 sec	1.06 sec
Lowering time, power down	2.44 sec	2.44 sec
Lowering time, return-to-dig	3.17 sec	3.17 sec

NOTE: Specifications taken with 4WD and 19.5L x 24 rear tires.

## BACKHOE LIFT CAPACITIES

### HEIGHT ABOVE & BELOW GROUND LEVEL

BOOM LIFT	STANDARD BACKHOE	EXTINDAHOE <sup>®</sup>	
		RETRACTED	EXTENDED
+16'			1290 lb
+14'	2395 lb	1994 lb	1603 lb
+12'	2830 lb	2369 lb	1733 lb
+10'	2899 lb	2551 lb	1812 lb
+8'	2864 lb	2560 lb	1842 lb
+6'	2830 lb	2543 lb	1847 lb
+4'	2777 lb	2516 lb	1847 lb
+2'	2708 lb	2482 lb	1847 lb
Ground Level	2699 lb	2421 lb	1842 lb
-2'	2612 lb	2377 lb	1803 lb
-4'	2534 lb	2295 lb	1786 lb
-6'	2525 lb	2299 lb	1786 lb
-8'	2534 lb	2303 lb	1794 lb
-10'	2743 lb	2412 lb	1847 lb
-12'			2007 lb
-14'			2408 lb
DIPPER LIFT			
+14'			2734 lb
+12'	5092 lb	4509 lb	2834 lb
+10'	4800 lb	4339 lb	2847 lb
+8'	4826 lb	4313 lb	3025 lb
+6'	5444 lb	4831 lb	3060 lb
+4'	6758 lb	5744 lb	3199 lb
+2'			3539 lb

NOTE: Stated figures apply straight to the rear of prime mover. Equipped with 24" general purpose trenching bucket and links. For heavy-duty universal bucket and coupler, deduct 150 lb.

# BACKHOE OPERATIONAL DATA

	STANDARD BACKHOE	EXTENDAHOE®	
		RETRACTED	EXTENDED
Digging depth			
24" flat bottom .....	14'3"	14'8"	18'2"
Maximum .....	14'5"	14'10"	18'3"
Overall reach from			
Rear axle centerline .....	21'8"	22'0"	25'5"
Swing pivot .....	18'1"	18'5"	21'10"
Loading height .....	11'2"	11'5"	13'3"
Loading reach .....	8'9"	8'8"	11'6"
Swing arc .....	180°	180°	180°
Bucket rotation			
#1 position .....	180°	180°	180°
#2 position .....	160°	160°	160°
Stabilizer spread			
Operating position .....	9'5"	9'5"	9'5"
Transport position .....	7'2"	7'2"	7'2"
Digging force			
Bucket cylinder .....	13,126 lbf	13,126 lbf	13,126 lbf
Dipper cylinder .....	8,224 lbf	7,784 lbf	5,635 lbf
Leveling angle			
(maximum slope that backhoe will make vertical cut .....	12°	12°	12°

# DIMENSIONS

	STANDARD BACKHOE	EXTENDAHOE®	
		RETRACTED	EXTENDED
Overall length – transport			
General purpose bucket .....	22'7"	22'7"	NA
4-in-1 bucket .....	22'5"	22'6"	NA
Overall height, maximum .....	19'2"	19'6"	22'10"
Transport height .....	10'10"	11'3"	NA
Overall width — transport .....	7'2"	7'2"	7'2"
Angle of departure .....	20°	20°	20°
Height –			
To top of canopy .....	8'9"	8'9"	NA
To top of cab .....	8'10"	8'10"	NA
To top of exhaust stack .....	8'6"	8'6"	NA
Ground clearance at			
backhoe frame .....	15"	15"	NA
Front wheel tread –			
2WD .....	67.5"	67.5"	NA
4WD .....	67.7"	67.7"	NA
Rear wheel tread .....	61.2"	61.2"	NA
Wheelbase –			
2WD .....	84"	84"	NA
4WD .....	84.5"	84.5"	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' backhoe with

24" heavy-duty trenching bucket, loader with 82" general purpose bucket and standard equipment unless otherwise specified.

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