



# Loader/Backhoe 580L

## ENGINE

Model..... Case 4-390  
 Type .... 4-stroke, naturally aspirated  
 Cylinders ..... 4  
 Fuel injection ..... Direct  
 Bore/Stroke..... 4.02" x 4.72"  
 Displacement ..... 239 in<sup>3</sup>  
 Horsepower  
 Gross..... 75 @ 2200 rpm  
 Net ..... 71 @ 2200 rpm  
 Maximum torque  
 Gross..... 197 lb-ft @ 1400 rpm  
 Net ..... 193 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	6.6	12.8	25.5
Reverse.....	4.4	8.0	15.4	30.8

NOTE: Engine at 2331 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 – Air cleaner – Parking brake

## HYDRAULIC SYSTEM

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

### LOADER HYDRAULIC PUMP CAPACITY

28.5 gpm @ 2200 rpm @ 3000 psi  
 31 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

28.5 gpm @ 2200 rpm @ 3000 psi  
 31 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.

### 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
4WD Total system.....	22.0 qt
4WD Front axle	
Differential.....	5.8 qt
Planetaries (each).....	0.74 qt
Rear axle	
Differential.....	15.3 qt
Planetaries (each).....	1.6 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 ..... 21'3"  
 2 WD w/19.5L rear tires  
 w/o brakes..... 24'8"  
 w/brakes ..... 21'2"  
 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..... 25'2"  
 w/brakes ..... 21'10"  
 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, full fuel tank and  
 175 lb operator ..... 12,817 lb  
 Add:  
 Cab ..... +477 lb  
 4WD..... +286 lb  
 4-in-1 Bucket..... +673 lb  
 Extendahoe ..... +366 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"	789 lb	0.87 yd <sup>3</sup>	1.03 yd <sup>3</sup>

#### 4-in-1 Bucket

Width	Weight	Struck	Heaped
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## BACKHOE

Over-center backhoe reduces transport length and increases bucket clearance with a higher angle of departure. Open-center hydraulics for responsive, precision control. 194,000 lb-ft swing torque to swing heavy loads uphill or push dirt when backfilling. 9" maximum width for excellent visibility. Two or three lever control pattern. Foot swing with three lever pattern. Optional Extendahoe<sup>®</sup> and variable-flow auxiliary hydraulics.

### BACKHOE BUCKET SIZES AND WEIGHTS

#### General Purpose Trenching Bucket

Width	Weight	Heaped
18"	255 lb	4.7 ft <sup>3</sup>
24"	300 lb	6.3 ft <sup>3</sup>
30"	380 lb	7.8 ft <sup>3</sup>

#### 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	10.80 ft <sup>3</sup>

## LOADER DIMENSIONS

	GENERAL PURPOSE	4-IN-1 <sup>®</sup>
Overall operating height	13'8"	14'1"
Bucket rollback @ groundline	40°	40°
Dump angle @ full height	46°	45°
Digging depth below grade –		
Bucket flat	7.8"	7.1"
Clam open (dozing)	NA	4.4"
Dump clearance @ full height, 45° dump –		
Bucket	8'8"	8'11"
Clam open	NA	9'8"
Dump reach @ full height, 45° dump –		
Bucket	25.9"	25.3"
Clam open	NA	11.8"
Reach from front axle centerline,		
bucket on ground	75.3"	72.7"
Lift capacity to full height	5,293 lb	5,197 lb
Height to bucket hinge pin raised	11'2"	11'2"
Breakout force (dump cylinders)	7,956 lbf	7,879 lb
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	4.6 sec	4.6 sec
Bucket dumping time	0.9 sec	0.9 sec
Lowering time, power down	2.1 sec	2.1 sec
Lowering time, return-to-dig	2.4 sec	2.4 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	EXTENDAHOE <sup>®</sup>	
		RETRACTED	EXTENDED
+14'	1,951 lb	1,282 lb	1,401 lb
+12'	2,701 lb	1,940 lb	1,425 lb
+10'	2,697 lb	2,201 lb	1,544 lb
+8'	2,754 lb	2,217 lb	1,610 lb
+6'	2,727 lb	2,262 lb	1,616 lb
Ground Level	2,486 lb	2,272 lb	1,725 lb
-6'	2,439 lb	2,270 lb	1,741 lb
-8'	2,504 lb	2,352 lb	1,778 lb
-10'	2,778 lb	2,598 lb	1,874 lb
-12'			2,039 lb

### DIPPER LIFT

+12'	3,950 lb	3,430 lb	2,208 lb
+10'	3,689 lb	3,171 lb	2,203 lb
+8'	3,745 lb	3,238 lb	2,160 lb
+6'	4,100 lb	3,608 lb	2,234 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 .....	14'2"	14'8"	18'2"
Maximum .....	14'3"	14'10"	18'3"
Overall reach from			
Rear axle centerline .....	21'5"	22'0"	25'5"
Swing pivot .....	17'10"	18'5"	21'10"
Loading height .....	11'2"	11'5"	13'3"
Loading reach .....	8'9"	8'8"	11'2"
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"
Digging force			
Bucket cylinder .....	10,976 lbf	10,976 lbf	10,976 lbf
Dipper cylinder .....	7,049 lbf	6,686 lbf	4,884 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 .....	22'6"	22'7"	NA
4-in-1 bucket .....	22'5"	22'6"	NA
Overall height, maximum .....	19'2"	19'6"	22'10"
Transport height .....	11'2"	11'7"	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 .....	8'11"	8'11"	NA
To top of exhaust stack .....	8'8"	8'8"	NA
Ground clearance at			
backhoe frame .....	15"	15"	NA
Front wheel tread –			
2WD .....	67.3"	67.3"	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" general purpose trenching bucket, loader with 82" general purpose bucket and standard equipment unless otherwise specified.

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