

ENGINE

John Deere engineered and manufactured. Replaceable wet type cylinder liners provide superior heat dissipation, longer life. High strength alloy heads have replaceable valve seat inserts. The forged steel, 5-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons provide good heat transfer and pistons are sprayed with cooling oil for longer life.

Engine: John Deere 4039D

Rated power at 2200 rpm.....	60 SAE net hp (45 kW)
.....	63 SAE gross hp (47 kW)
Cylinders	4
Displacement	239 cu. in. (3.917 L)
Fuel consumption, typical ..	1.12 to 1.75 gal./hr. (4.25 to 6.6 L/h)
Torque rise, 20 percent	172 lb.-ft. (233 Nm)
Lubrication	pressure system w/full flow filter
Air cleaner	dual stage dry type with safety element and precleaner
Electrical system	12 volt with 95 amp alternator

TRANSMISSION

John Deere designed and built 4-speed helical gear, synchronized collar shift transmission with hydraulic reverser. Uses single stage, dual phase 11-inch (280 mm) torque converter with 2.78:1 stall ratio.

TRAVEL SPEEDS

	Gear	Forward		Reverse	
		mph	(km/h)	mph	(km/h)
With 16.9-24 rear tires	1	3.4	5.4	3.3	5.2
	2	5.7	9.2	5.6	9.0
	3	12.3	19.8	12.2	19.6
	4	20.1	32.3	18.0	29.0

FINAL DRIVES

Heavy-duty, inboard mounted planetary type. Evenly distribute axle shock loads over three gears that run in a cooling oil bath.

BRAKES

Hydraulic wet disk service brakes are mounted inboard and are pressure cooled and lubricated. They're self-adjusting, self-equalizing, require no periodic service. Individual pedals allow them to be applied together or separately.

Parking/emergency brake is an independent system that is spring-applied, hydraulically released and controlled by an electric switch on the control console. A mechanical V-groove band applies pressure on differential ring gear. All brakes conform to SAE J1473.

CAPACITIES

	U.S.	
Fuel tank.....	28 gal.	(106 L)
Engine coolant.....	17 qt.	(16 L)
Engine oil including filter	9 qt.	(8.5 L)
Torque converter and reverser system	8 qt.	(7 L)
Hydraulic system.....	16 gal.	(60 L)

STEERING

Hydrostatic power steering gives superior control at all speeds. Excellent steering torque allows easy maneuvering with heavy loads. Power steering conforms to SAE J1151 and emergency steering J53.

Non-powered axle

Curb turning radius with brakes.....	12 ft. 0 in. (3.67 m)
without brakes.....	13 ft. 2 in. (4.0 m)
Bucket clearance circle with brakes	32 ft. 5 in. (9.89 m)
without brakes	34 ft. 7 in. (10.55 m)
Steering wheel turns, stop to stop.....	2.2 to 2.9
Mechanical-front-wheel drive	
Curb turning radius with brakes.....	11 ft. 9 in. (3.57 m)
without brakes	13 ft. 5 in. (4.10 m)
Bucket clearance circle with brakes	30 ft. 9 in. (9.38 m)
without brakes	34 ft. 3 in. (10.44 m)
Steering wheel turns, stop to stop.....	2.5
Axle oscillations stop to stop, both axles.....	22 degrees

Axle ratings:	Static	Dynamic	SAEJ43
Front.....	56,000 lb. (25 300 kg)	56,000 lb. (25 300 kg)	16,300 lb. (7400 kg)
Rear.....	41,000 lb. (18 600 kg)	54,700 lb. (24 800 kg)	13,900 lb. (6300 kg)

HYDRAULICS

System	open center
Pressure, main relief	2700 psi (18 620 kPa)
Pump	gear type
Flow at 2200 rpm.....	24 gpm (91 L/min.)
Filter, return oil	10 micron, spin-on, replaceable element

CYLINDERS

	Bore		Stroke		Rod	
	in. (mm)		in. (mm)		in. (mm)	
Loader boom (2).....	2.76	70	29.80	757	1.77	45
Loader bucket (1)	2.76	70	28.15	715	1.57	40
Backhoe boom (1)	3.94	100	38.54	979	1.97	50
Backhoe crowd (1).....	3.54	90	32.87	835	1.97	50
Backhoe bucket (1).....	3.15	80	31.00	788	1.77	45
Backhoe swing (2)	3.15	80	10.94	278	1.77	45
Backhoe extendable						
dipper (1)	2.50	64	48.00	1220	1.25	32
Backhoe stabilizer (2)	3.54	90	15.51	394	1.77	45
Steering (1) regular axle...	1.97	50	9.49	241	0.98	25
Steering (1) MFWD.....	2.36	60	7.90	202	1.25	32

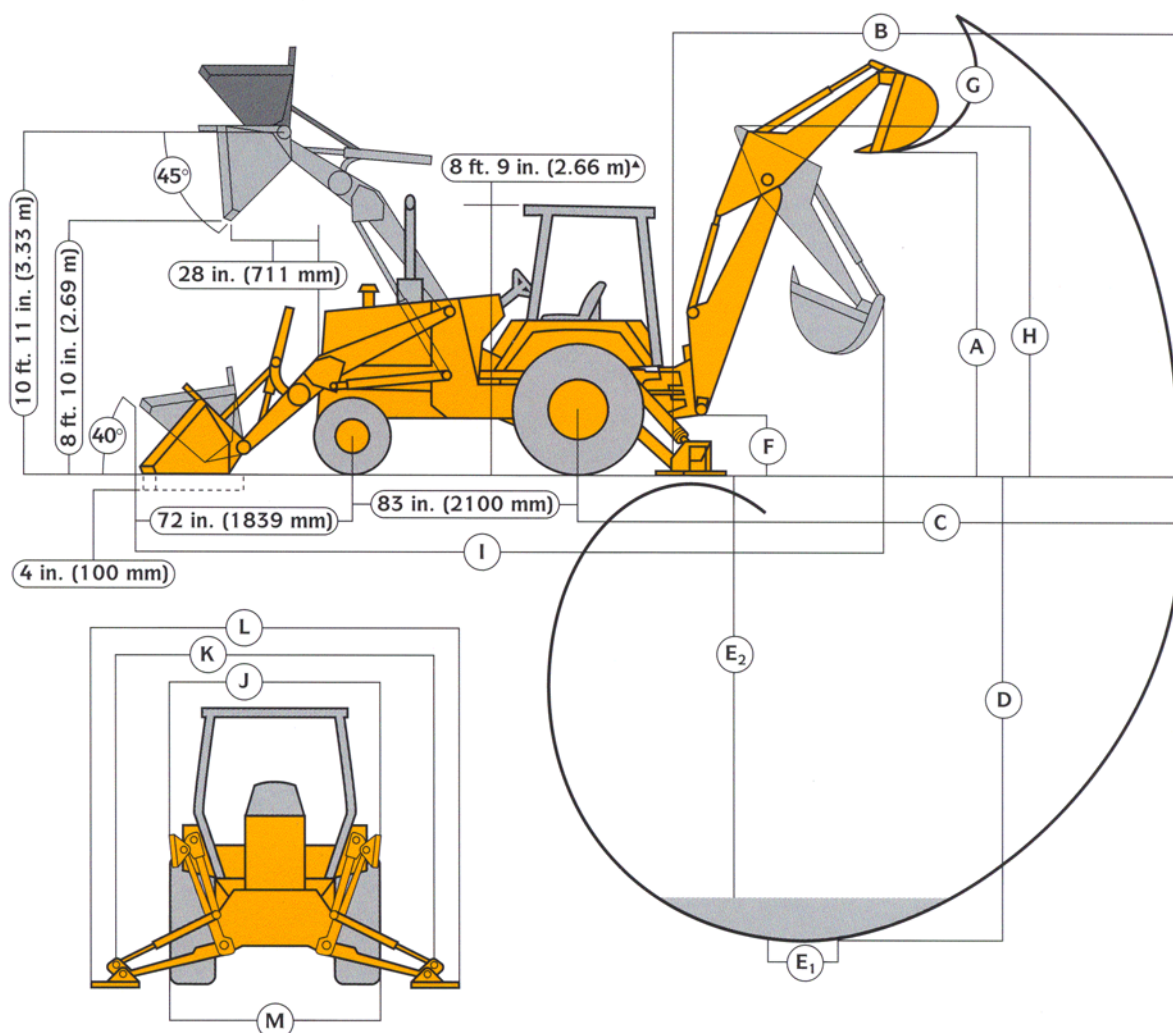
TIRES

Rear	Front
16.9-24, 8 PR R4.....	11L-15, 8 PR, I-1A
17.5L-24, 8 PR R4.....	11L-15, 8 PR, I-1A
With mechanical-front-wheel drive	
16.9-24, 8 PR R4.....	12-16.5, 8 PR

OPERATING WEIGHTS

SAE	
300D	12,200 lb. (5533 kg)
cab adds.....	500 lb. (227 kg)
mechanical-front-wheel drive adds	220 lb. (100 kg)
extendable dipperstick excluding required	
counterweight adds.....	360 lb. (163 kg)
optional 400-lb. counterweight adds	370 lb. (169 kg) *
optional 800-lb. counterweight adds	770 lb. (349 kg) *
See backhoe and loader performance data for bucket weights	
*Denotes 30-lb. (14 kg) weight reduction when bumper removed.	

DIMENSIONS



▲ w/cab 9 ft. (2.74 m)

Key:

	Backhoe*
A. Loading height, truck loading position	10 ft. 9 in. (3.29 m)
B. Reach from center of swing mast	17 ft. 3 in. (5.25 m)
C. Reach from center of rear axle	20 ft. 7 in. (6.28 m)
D. Maximum digging depth	14 ft. (4.27 m)
E. Digging depth (SAE):	
(1) 2-ft. (610 mm) flat bottom	13 ft. 10 in. (4.21 m)
(2) 8-ft. (2440 mm) flat bottom	12 ft. 8 in. (3.87 m)
F. Ground clearance, minimum	13 in. (330 mm)
G. Bucket rotation	160 or 180 degrees
H. Transport height	12 ft. (3.67 m)
I. Overall length, transport	22 ft. 6 in. (6.85 m)
J. Stabilizer width - transport (fixed foot)	6 ft. 7 in. (2.00 m)
(pivoting foot)	7 ft. 4 in. (2.23 m)
K. Stabilizer spread, operating (fixed foot)	8 ft. 3 in. (2.51 m)
(pivoting foot)	8 ft. 11 in. (2.71 m)
L. Stabilizer overall width, operating (pivoting foot)	10 ft. 6 in. (3.20 m)
M. Width over tires	85 in. (2.15 m)

*See backhoe performance

Extendable Dipperstick

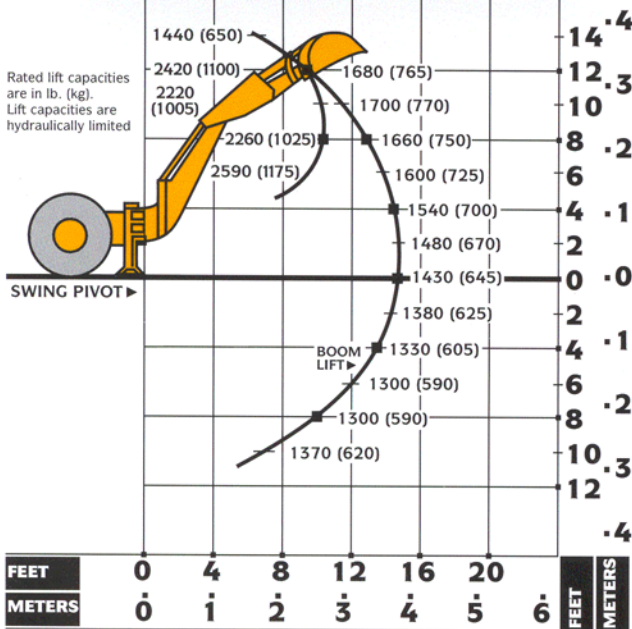
Retracted	Extended
11 ft. 1 in. (3.37 m)	12 ft. 9 in. (3.88 m)
17 ft. 3 in. (5.25 m)	20 ft. 10 in. (6.36 m)
20 ft. 7 in. (6.28 m)	24 ft. 3 in. (7.39 m)
14 ft. (4.27 m)	17 ft. 9 in. (5.42 m)
13 ft. 10 in. (4.21 m)	17 ft. 8 in. (5.38 m)
12 ft. 8 in. (3.87 m)	16 ft. 10 in. (5.13 m)
13 in. (330 mm)	13 in. (330 mm)
160 or 179 degrees	160 or 179 degrees
12 ft. (3.67 m)	12 ft. (3.67 m)
22 ft. 6 in. (6.85 m)	22 ft. 6 in. (6.85 m)
6 ft. 7 in. (2.00 m)	6 ft. 7 in. (2.00 m)
7 ft. 4 in. (2.23 m)	7 ft. 4 in. (2.23 m)
8 ft. 3 in. (2.51 m)	8 ft. 3 in. (2.51 m)
8 ft. 11 in. (2.71 m)	8 ft. 11 in. (2.71 m)
10 ft. 6 in. (3.20 m)	10 ft. 6 in. (3.20 m)
85 in. (2.15 m)	85 in. (2.15 m)

BACKHOE PERFORMANCE

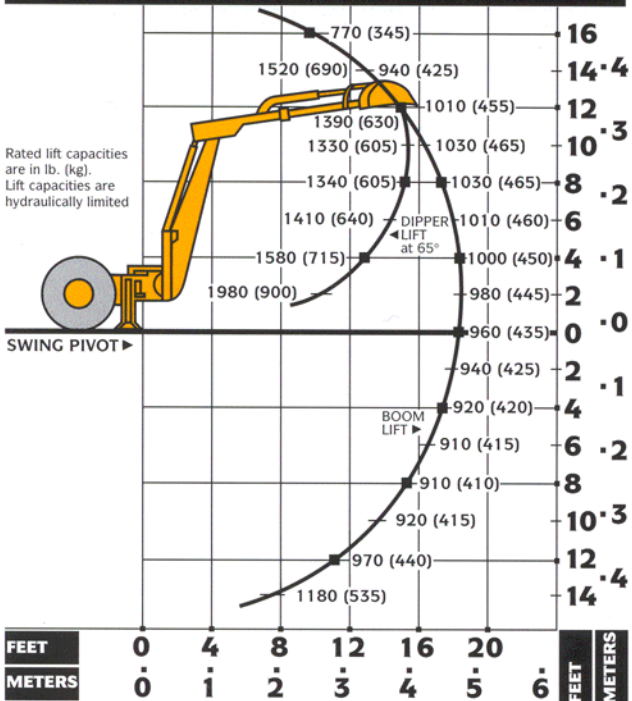
Digging force, bucket cylinder (power dig position)	10,230 lb. (45.5 kN)	10,230 lb. (45.5 kN)	10,230 lb. (45.5 kN)
Digging force, crowd cylinder	5530 lb. (24.6 kN)	5530 lb. (24.6 kN)	3740 lb. (16.6 kN)
Swing arc	180 degrees	180 degrees	180 degrees
Operator control	Two levers	Right foot treadle	Right foot treadle
Bucket positions	21 or 30 deg. rollback	19 or 28 deg. rollback	22 or 32 deg. rollback
Stabilizer angle rearward	12 degrees	12 degrees	12 degrees
Lifting capacity, maximum, boom at 65 deg.	2700 lb. (1225 kg)	2600 lb. (1180 kg)	1550 lb. (700 kg)
Leveling angle, (fixed foot)	8.5 degrees	8.5 degrees	8.5 degrees
(pivoting foot)	11 degrees	11 degrees	11 degrees

*Backhoe specifications are with 24-in. x 6.0 cu. ft. (610 mm x 0.17 m³) bucket.

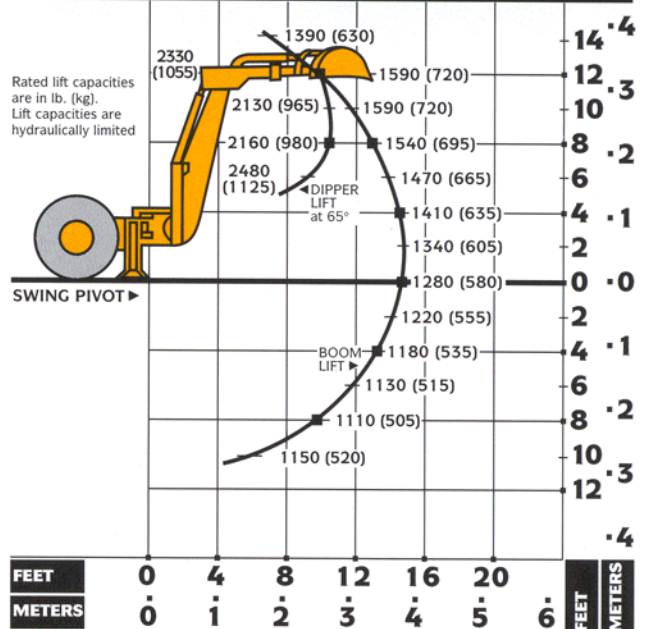
LIFT CAPACITY Backhoe with standard dipperstick. Based on SAE J31.



LIFT CAPACITY Backhoe with 4-ft. (1.22 m) dipperstick, extended. Based on SAE J31.



LIFT CAPACITY Backhoe with 4-ft. (1.22 m) dipperstick, retracted. Based on SAE J31.



BACKHOE BUCKETS

	Width	Capacity	Weight
	in. (mm)	cu. ft. (m ³)	lb. (kg)
Standard-duty	12 (305)	2.5 (0.07)	244 (111)
	18 (457)	4.1 (0.12)	278 (126)
	24 (610)	6.0 (0.17)	328 (149)
	24 (610)	7.5 (0.21)	370 (168)
	30 (762)	7.9 (0.22)	364 (165)
	36 (914)	10.0 (0.28)	439 (195)
Heavy-duty	12 (305)	2.5 (0.07)	258 (117)
	18 (457)	5.1 (0.14)	302 (137)
	24 (610)	6.0 (0.17)	334 (151)
	24 (610)	7.5 (0.21)	396 (180)
Extra heavy-duty	18 (457)	5.1 (0.14)	362 (164)
	24 (610)	7.5 (0.21)	424 (192)
	30 (762)	10.0 (0.28)	474 (215)

LOADER BUCKETS

Loader:	Width	Heaped Capacity	Weight
	in. (mm)	cu. yd. (m ³)	lb. (kg)
General purpose	81 (2057)	0.88 (0.67)	550 (249)
Heavy-duty long lip	92 (2340)	1.0 (0.76)	810 (367)
Multipurpose	84 (2134)	1.0 (0.76)	1341 (608)

LOADER PERFORMANCE

	w/.88 cu. yd. (.76 m ³) Standard Bucket
Operator control	single lever
Breakout force	6700 lb. (27.1 kN)
Lifting capacity, full height	4630 lb. (2100 kg)
Height to bucket hinge pin, max.	10 ft. 10 in. (3.31 m)
Dump clearance	8 ft. 11 in. (2.72 m)
Bucket dump angle, max.	40 degrees
Reach at full height, bucket at 45 degrees	30 in. (760 mm)
Roll back at ground level	40 degrees
Digging depth below ground, bucket level	4 in. (118 mm)
Raising time to full height	4.5 sec.
Bucket dump time	1.1 sec.
Bucket lowering time	2.5 sec.

	w/1.0 cu. yd. (.96 m ³) Optional Bucket
Operator control	single lever
Breakout force	6600 lb. (26.7 kN)
Lifting capacity, full height	4140 lb. (1878 kg)
Height to bucket hinge pin, max.	10 ft. 10 in. (3.31 m)
Dump clearance	8 ft. 11 in. (2.72 m)
Bucket dump angle, max.	40 degrees
Reach at full height, bucket at 45 degrees	29.1 in. (740 mm)
Roll back at ground level	40 degrees
Digging depth below ground, bucket level	3.4 in. (130 mm)
Raising time to full height	4.5 sec.
Bucket dump time	1.1 sec.
Bucket lowering time	2.5 sec.

	w/1.0 cu. yd. (.96 m ³) Multipurpose Bucket
Operator control	single lever
Breakout force	5500 lb. (22.2 kN)
Lifting capacity, full height	3530 lb. (1602 kg)
Height to bucket hinge pin, max.	10 ft. 10 in. (3.31 m)
Dump clearance	8 ft. 4 in. (2.54 m)
Bucket dump angle, max.	45 degrees
Reach at full height, bucket at 45 degrees	30 in. (760 mm)
Roll back at ground level	41 degrees
Digging depth below ground, bucket level	7 in. (180 mm)
Raising time to full height	4.5 sec.
Bucket dump time	1.1 sec.
Bucket lowering time	2.5 sec.