



# 210C

## BACKHOE LOADER



Model shown may include options

**SAE Net  
Horsepower**

60 hp  
(45 kW)

**Digging  
Depth**

14 ft.  
(4.27 m)

**Operating  
Weight SAE**

11,100 lb.  
(5035 kg)

## 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 @ 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, standard .. 20% at 1200 rpm ... 177 lb-ft (233 Nm)  
 Lubrication ..... Pressure system w/full flow filter and cooler  
 Air cleaner ..... Dual stage dry type with safety element and  
 ..... precleaner

Electrical system ..... 12 volt  
 Alternator ..... 65 amps

## 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 mph (km/h)	Reverse mph (km/h)
With standard 16.9-24 rear and 11L-15 front 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	22.4 (36.1)	22.3 (35.9)

## 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 brakes are mounted inboard and run in a cooling oil bath. 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 uses a mechanical V-groove band on differential ring gear.

## STEERING

Hydrostatic power steering gives superior control at all speeds. Excellent steering torque allows easy maneuvering with heavy loads.

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	36,300 lb. (16,500 kg)	36,300 lb. (16,500 kg)	9260 lb. (4200 kg)
Rear	41,100 lb. (18,700 kg)	54,800 lb. (24,900 kg)	11,430 lb. (5184 kg)

## HYDRAULICS

System ..... open center  
 Pressure, main relief ..... 2700 psi (18 620 kPa) (190 kg/cm<sup>2</sup>)  
 Pump ..... gear type  
 Flow at 2200 rpm ..... 24 gpm (91 L/min)  
 Filter, return oil ..... 10 micron, spin-on replaceable element

## TIRES

Front	Rear
7.50-16, 10 PR, F3	16.9-24, 8 PR, R4
11L-15, 8 PR, I-1A	17.5L-24, 8 PR, R4

With mechanical-front-wheel drive  
 12-16.5, 8 PR

16.9-24, 8 PR, R4

## CAPACITIES

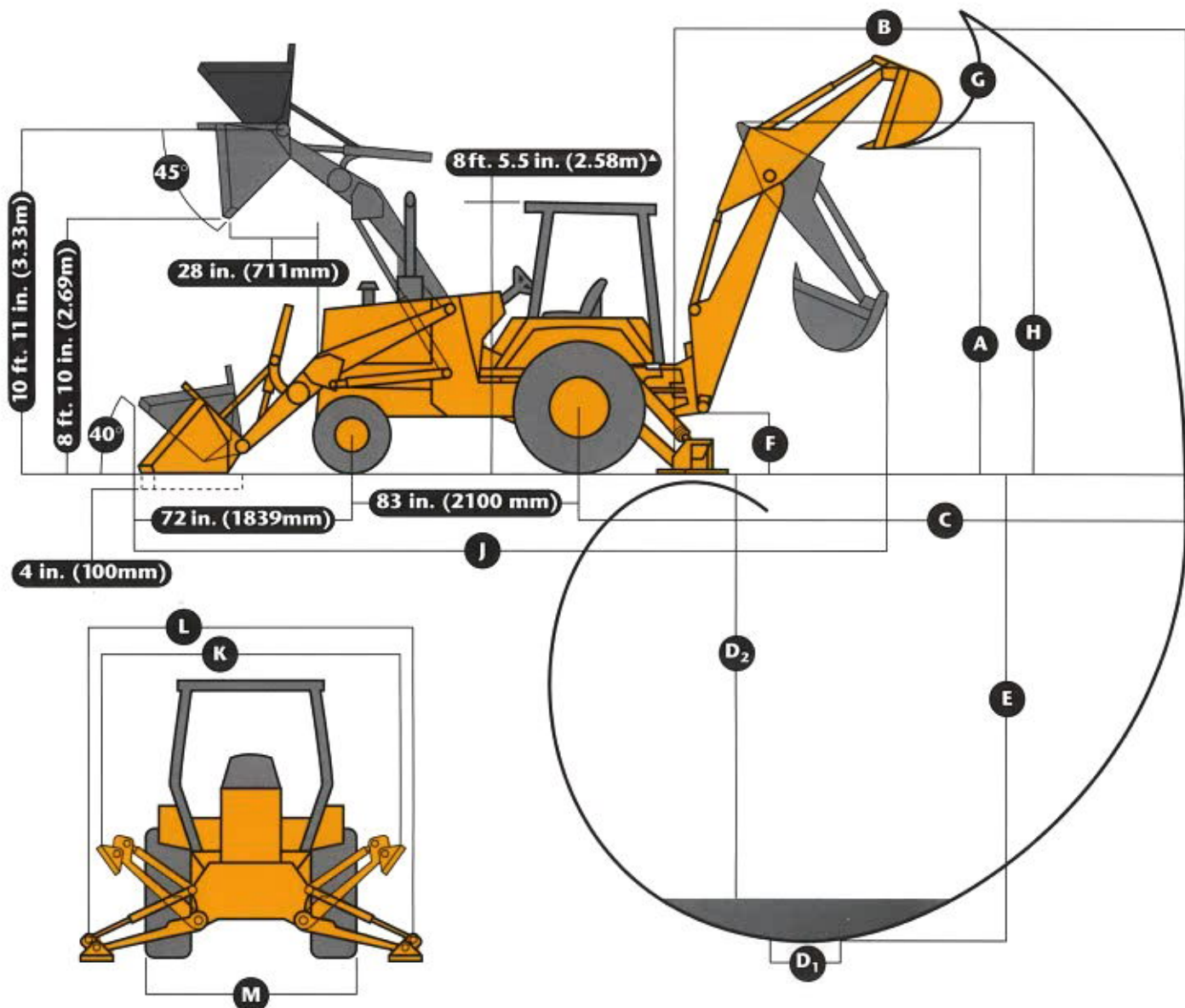
Fuel tank ..... 23 gal. (87 L)  
 Engine coolant ..... 17 qt. (16 L)  
 Engine oil including filter ..... 9 qt. (8.5 L)  
 Torque converter and reverser system ..... 8 qt. (7 L)  
 Hydraulic system ..... 16 gal. (60 L)

## OPERATING WEIGHTS

210C ..... 11,100 lb. (5035 kg)  
 cab adds ..... 420 lb. (190 kg)  
 mechanical-front-wheel drive adds ..... 190 lb. (86 kg)  
 extendable dipperstick with  
 required counterweight adds ..... 1033 lb. (469 kg)  
 optional front counterweighting adds ..... 415 lb. (188 kg)  
 optional front counterweighting adds ..... 850 lb. (386 kg)  
 reversible stabilizer pads add ..... 185 lb. (84 kg)

See backhoe and loader performance data for bucket weights

# DIMENSIONS



▲ w/cab 8 ft. 7.5 in. (2.63 m)

## Key:

	Backhoe*	Extendable Dipperstick	
		Retracted	Extended
A. Loading height, truck loading position	10 ft. 5 in. (3.18 m)	10 ft. 8 in. (3.25 m)	12 ft. 4 in. (3.75 m)
B. Reach from center of swing mast	17 ft. 3 in. (5.26 m)	17 ft. 3 in. (5.26 m)	20 ft. 11 in. (6.38 m)
C. Reach from center of rear axle	20 ft. 6 in. (6.25 m)	20 ft. 6 in. (6.25 m)	24 ft. 2 in. (7.37 m)
D. Digging depth (SAE):			
(1) 2-ft. (610 mm) flat bottom	13 ft. 9 in. (4.19 m)	13 ft. 9 in. (4.19 m)	17 ft. 8 in. (5.39 m)
(2) 8-ft. (2440 mm) flat bottom	12 ft. 7 in. (3.84 m)	12 ft. 7 in. (3.84 m)	16 ft. 9 in. (5.11 m)
E. Maximum digging depth	14 ft. (4.27 m)	14 ft. (4.27 m)	17 ft. 9 in. (5.41 m)
F. Ground clearance, minimum	11 in. (282 mm)	11 in. (282 mm)	11 in. (282 mm)
G. Bucket rotation	160 or 180 degrees	160 or 179 degrees	160 or 179 degrees
H. Transport height	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)
J. Overall length, transport	23 ft. (7.01 m)	23 ft. 3 in. (7.09 m)	23 ft. 3 in. (7.09 m)
K. Stabilizer width, transport (fixed foot)	6 ft. 7 in. (2.00 m)	6 ft. 7 in. (2.00 m)	6 ft. 7 in. (2.00 m)
(pivoting foot)	7 ft. 4 in. (2.23 m)	7 ft. 4 in. (2.23 m)	7 ft. 4 in. (2.23 m)
L. Stabilizer spread, operating (fixed foot)	8 ft. 5 in. (2.57 m)	8 ft. 5 in. (2.57 m)	8 ft. 5 in. (2.57 m)
(pivoting foot)	9 ft. 1 in. (2.77 m)	9 ft. 1 in. (2.77 m)	9 ft. 1 in. (2.77 m)
M. Overall width, (less loader bucket)	75 in. (1905 mm)	75 in. (1905 mm)	75 in. (1905 mm)

\*See backhoe performance

# BACKHOE PERFORMANCE

## Backhoe\*

Digging force, bucket cylinder (power dig position)	10,225 lb. (45.5 kN) (4640 kg)
Digging force, crowd cylinder	4970 lb. (22.1 kN) (2255 kg)
Swing arc	180 degrees
Operator control	Two levers
Bucket positions	21 or 30 degree rollback
Stabilizer angle rearward	12 degrees
Lifting capacity, maximum, boom at 65 deg.	2400 lb. (1090 kg)
Leveling angle, (fixed foot)	8.5 degrees
(pivoting foot)	11 degrees

\* Backhoe specifications are with 24-in. x 6.0 cu. ft. (610 mm x 0.17 m<sup>3</sup>) bucket.

## Extendable Dipperstick Retracted

10,250 lb. (45.6 kN) (4650 kg)
5000 lb. (22.2 kN) (2270 kg)
180 degrees
Right foot treadle
19 or 28 degree rollback
12 degrees

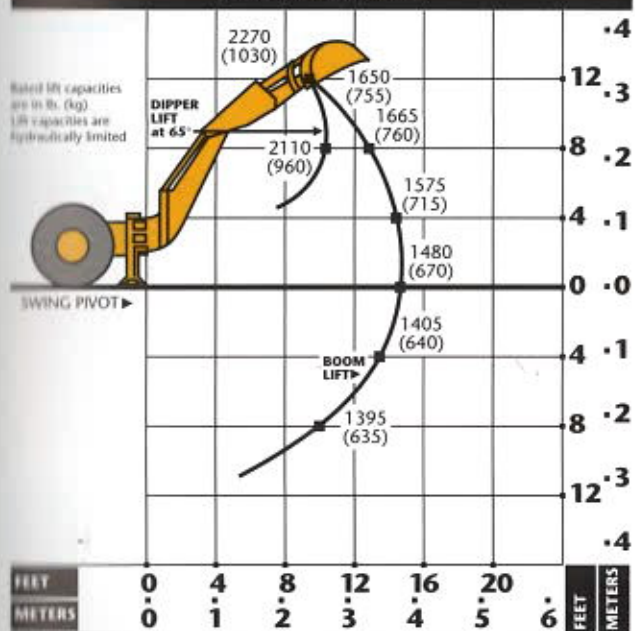
2200 lb. (1000 kg)
8.5 degrees
11 degrees

## Extended

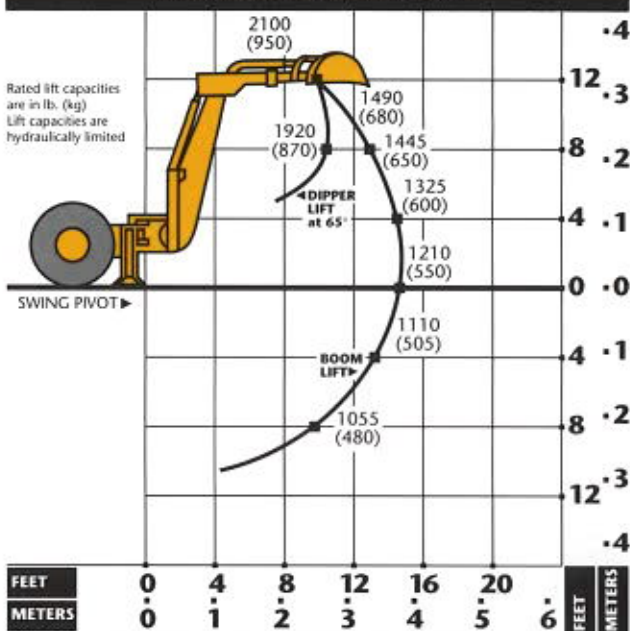
10,225 lb. (45.5 kN) (4640 kg)
3350 lb. (14.9 kN) (1520 kg)
180 degrees
Right foot treadle
22 or 32 degree rollback
12 degrees

1370 lb. (620 kg)
8.5 degrees
11 degrees

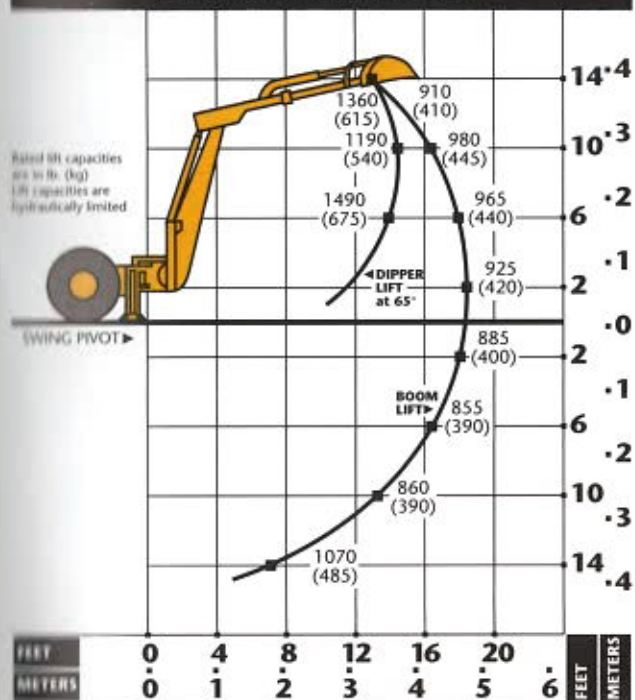
## LIFT CAPACITY Backhoe with standard dipperstick. Based on SAE J31.



## LIFT CAPACITY Backhoe with extendable dipperstick retracted. Based on SAE J31.



## LIFT CAPACITY Backhoe with extendable dipperstick, extended. Based on SAE J31.



## BACKHOE BUCKETS

	Width		Capacity		Weight	
	in.	(mm)	cu. ft.	(m <sup>3</sup> )	lb.	(kg)
Standard-duty	12	(305)	2.5	(0.07)	247	(112)
	16	(406)	3.6	(0.10)	270	(122)
	18	(457)	4.1	(0.12)	280	(127)
	24	(610)	6.0	(0.17)	310	(141)
	24	(610)	7.5	(0.21)	378	(171)
	30	(762)	7.9	(0.22)	360	(163)
Heavy-duty	36	(914)	10.0	(0.28)	432	(196)
	18	(457)	5.1	(0.14)	348	(158)
	24	(610)	6.0	(0.17)	342	(155)
	24	(610)	7.5	(0.21)	400	(181)

## LOADER PERFORMANCE

Operator control	single lever
Breakout force	6700 lb. (29.8 kN) (3039 kg)
Lifting capacity, full height	4600 lb. (2090 kg)
Raising time to full height	4.5 sec.
Bucket dump time	1.1 sec.
Bucket lowering time (power down)	2.5 sec.

## LOADER BUCKETS

Loader:	Width		Heaped Capacity		Weight	
	in.	(mm)	cu. yd.	(m <sup>3</sup> )	lb.	(kg)
General purpose	81	(2057)	0.88	(0.67)	564	(260)
	92	(2340)	1.0	(0.76)	706	(320)