

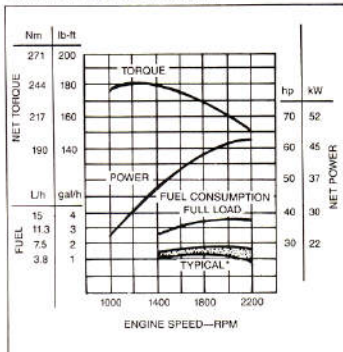


210C SERIES 1 BACKHOE LOADER



Model shown may include options

ENGINE PERFORMANCE



* Depending on operating variables

FEATURES

- 63 SAE net hp (47 kW)
- Backhoe digging depth (SAE) 14 ft. 3 in. (4.34 m)
- Unitized frame — pin-on backhoe
- Isolated engine and operator's station
- Walk-in front entry
- Designed-in quietness
- Open-center hydraulic system
- O-ring face seal hydraulic plumbing
- Weight distributed for working stability
- Self-adjusting hydraulic wet-disk brakes
- Inboard planetary final drives
- Transaxle 1st and 2nd collar shift, 3rd and 4th synchronized
- Full-power-shift reverser
- Torque converter
- Single-lever loader control
- Two-lever backhoe control
- Two-lever stabilizer control with anti-drift lock-outs

- Multi-adjustable swivel seat
- Hydrostatic power steering
- Optional soundproofed cab w/integral ROPS/FOPS
- Vandal protection w/built-in locks

ADD VERSATILITY WITH:

- Mechanical front-wheel drive with: Offset driveshaft for better ground clearance
- Extendable dipperstick

210C SERIES 1 BACKHOE LOADER

LOADER:

Operator control	Single lever
Rollback at ground level	40 degrees
Breakout force	6700 lb. (29.8 kN) (3039 kg)
Digging depth below ground, bucket level	4 in. (100 mm)
Lifting capacity, full height to 10 ft. (3.05 m)	4600 lb. (2090 kg) 4700 lb. (2130 kg)
Height to bucket hinge pin, max.	10 ft. 11 in. (3.33 m)
Height to top of canopy	8 ft. 5.5 in. (2.58 m)
Height to top of muffler	8 ft. 3 in. (2.51 m)
Bucket dump angle, max.	45 degrees
Dump clearance, bucket @ 45 degrees	8 ft. 10 in. (2.69 m)
Reach at full height, bucket @ 45 degrees	28 in. (711 mm)
Raising time to full height	4.5 sec.
Bucket dump time	1.1 sec.
Bucket lowering time (power down)	2.5 sec.

BUCKETS

Loader:	Width		Heaped Capacity	
	In.	(mm)	Cu. Yd.	(m ³)
General purpose	81	(2057)	0.88	(0.67)
	92	(2340)	1.0	(0.76)
Backhoe:			Cu. Ft.	(m ³)
	Standard-duty		2.5	0.07
	12	(305)	3.6	0.10
	16	(407)	4.1	0.12
	18	(457)	6.0	0.17
	24	(610)	7.5	0.21
	24	(610)	7.9	0.22
	30	(762)	9.9	0.28
Heavy-duty	18	(457)	4.1	0.12
	24	(610)	6.0	0.17
	24	(610)	7.5	0.21

Optional or Special Equipment:

Automatic return-to-dig
 Auxiliary hydraulic valves and circuit for loader and backhoe
 Backup alarm
 Cab with:
 Fabric-covered swivel seat, suspension or non-suspension
 Front defroster fan
 Front and rear wipers
 Integral ROPS/FOPS
 Standard heater—19,000 Btu/hr (5.6 kW)
 Cold-weather starting aid, remote mounted
 Deluxe cab interior trim package
 Economy seat, vinyl covered, suspension or rigid mounted
 Engine coolant heater
 Extendable dipperstick for backhoe
 Fire extinguisher
 Front counterweight
 Heavy counterweighted front axle
 Heavy-duty batteries
 Horn
 Instrument panel vandal cover
 Lights:
 Front rear turn signal lights
 Rear halogen brake lights
 Rear halogen work lights
 Rotating beacon light
 Mechanical front-wheel drive
 Rear defroster fan
 Rearview mirror, inside mounted, curved, heavy-duty
 Rear wheel spacers for tire chain clearance
 Reversible stabilizer pads
 Tachometer/hourmeter
 Three-point hitch w/single function or four function hydraulics
 SMV emblem
 Stabilizer w/pivoting feet
 3-in. (76 mm) seat belt
 Three- or four-lever, pedal-swing backhoe controls
 Toolbox

Additional Available Equipment:

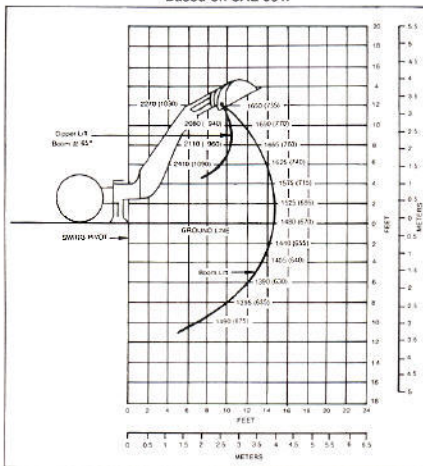
Auxiliary bolt-on cutting edge for loader buckets
 Backhoe lift eye
 Bolt-on teeth for loader bucket
 Cab pressurizer
 Deluxe heater w/fresh air intake—40,000 Btu/hr (11.7 kW)
 Floor mat
 Front counterweight, extra (side mounted)
 Front windshield and door kit
 Grille guard
 Lateral slides for operator's seat
 Loader bucket chain hooks, outer
 Longer dippersticks
 Light materials/snow loader buckets
 MFWD drive shaft guard
 Multipurpose loader buckets
 Quick-hitch backhoe bucket system
 Quick-hitch loader bucket system
 Radio or radio cassette
 Special paint

*See your John Deere dealer for further information

210C SERIES 1 BACKHOE LOADER LIFTING CAPACITIES

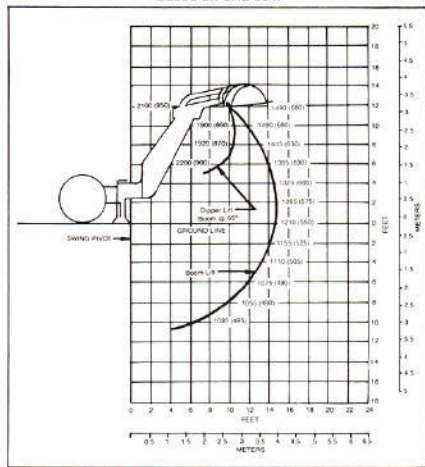
Lifting Capacity Ratings are from bucket hinge pin, loader bucket and stabilizer on firm, level ground. Lifting capacities are 87% of the maximum lift over any point on the swing arc and do not exceed 75 percent of the tipping load. Angle between boom and ground at 65 degrees. Machine equipped with 24-in. (610 mm) trenching bucket, standard or optional dipperstick (as indicated below) and standard equipment.

Lift Capacity Backhoe with standard dipperstick. Based on SAE J31.



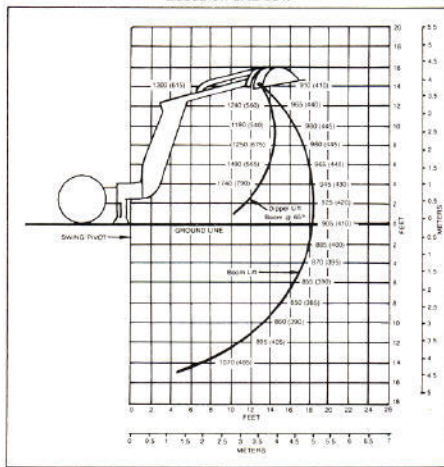
Rated lift capacities are in lb. (kg).
Lift capacities are hydraulically limited.

Lift Capacity Backhoe with extendable dipperstick, retracted. Based on SAE J31.



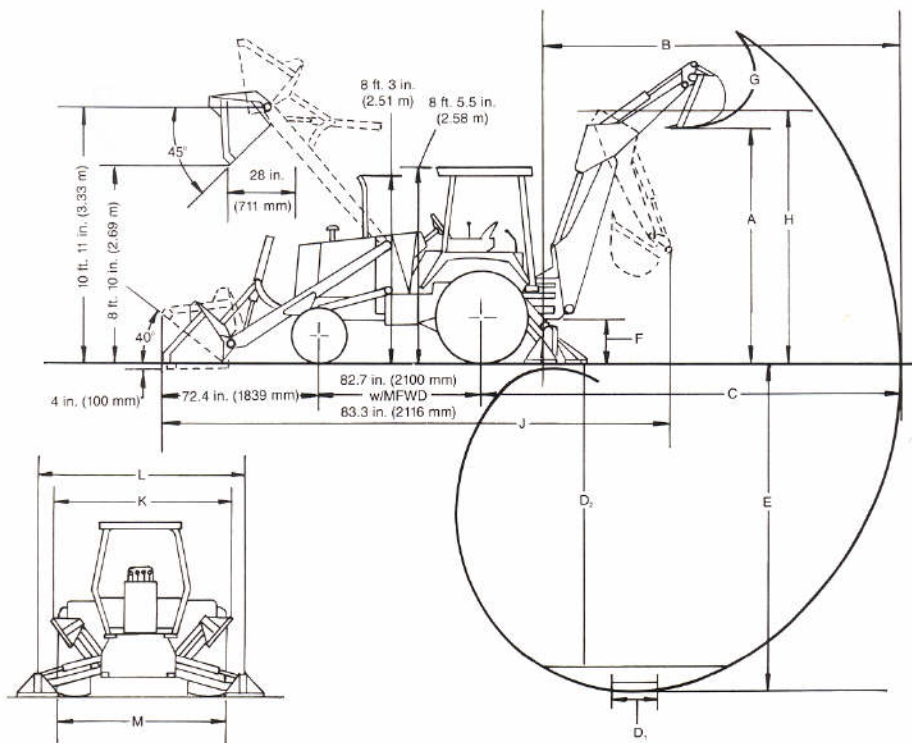
Rated lift capacities are in lb. (kg).
Lift capacities are hydraulically limited.

Lift Capacity Backhoe with extendable dipperstick, extended. Based on SAE J31.



Rated lift capacities are in lb. (kg).
Lift capacities are hydraulically limited.

210C SERIES 1 BACKHOE LOADER SPECIFICATIONS AND DIMENSIONS



Key:	Backhoe		Extendable Dipperstick	
	Retracted	Extended	Retracted	Extended
A. Loading height, truck loading position	10 ft. 10 in. (3.30 m)	10 ft. 11 in. (3.33 m)	11 ft. 1 in. (3.38 m)	13 ft. 1 in. (3.99 m)
B. Reach from center of swing mast	17 ft. 5 in. (5.31 m)	17 ft. 5 in. (5.31 m)	17 ft. 6 in. (5.33 m)	21 ft. 3 in. (6.48 m)
C. Reach from center of rear axle	20 ft. 8 in. (6.30 m)	20 ft. 8 in. (6.30 m)	20 ft. 9 in. (6.33 m)	24 ft. 6 in. (7.47 m)
D. Digging depth (SAE):				
(1) 2-ft. (610 mm) flat bottom	14 ft. 1 in. (4.29 m)	14 ft. 1 in. (4.29 m)	14 ft. 1 in. (4.29 m)	17 ft. 11 in. (5.46 m)
(2) 8-ft. (2440 mm) flat bottom	12 ft. 11 in. (3.94 m)	12 ft. 11 in. (3.94 m)	12 ft. 11 in. (3.94 m)	17 ft. 1 in. (5.21 m)
E. Maximum digging depth	14 ft. 3 in. (4.34 m)	14 ft. 3 in. (4.34 m)	14 ft. 3 in. (4.34 m)	18 ft. 1 in. (5.51 m)
F. Ground clearance, minimum	11 in. (282 mm)	11 in. (282 mm)	11 in. (282 mm)	11 in. (282 mm)
G. Bucket rotation	160/160 degrees	160/160 degrees	160/179 degrees	160/179 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)	11 ft. 5 in. (3.48 m)
J. Overall length, transport	23 ft. (7.01 m)	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)	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)	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)	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)	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)	75 in. (1905 mm)
Digging force, bucket cylinder (power dig position)				
w/6.0 ft ³ (0.17 m ³) capacity bucket	10,225 lb. (45.5 kN) (4640 kg)	10,250 lb. (45.6 kN) (4650 kg)	10,250 lb. (45.6 kN) (4650 kg)	10,225 lb. (45.5 kN) (4640 kg)
w/7.5 ft ³ (0.21 m ³) capacity bucket	9160 lb. (40.7 kN) (4155 kg)	9170 lb. (40.8 kN) (4160 kg)	9170 lb. (40.8 kN) (4160 kg)	9160 lb. (40.7 kN) (4155 kg)
Digging force, crowd cylinder				
w/6.0 ft ³ (0.17 m ³) capacity bucket	4970 lb. (22.1 kN) (2255 kg)	5000 lb. (22.2 kN) (2270 kg)	5000 lb. (22.2 kN) (2270 kg)	3350 lb. (14.9 kN) (1520 kg)
w/7.5 ft ³ (0.21 m ³) capacity bucket	4830 lb. (21.5 kN) (2190 kg)	4850 lb. (21.6 kN) (2200 kg)	4850 lb. (21.6 kN) (2200 kg)	3300 lb. (14.7 kN) (1495 kg)
Swing arc	180 degrees	180 degrees	180 degrees	180 degrees
Operator control	Two levers	Right foot treadle	Right foot treadle	Right foot treadle
Bucket positions	21 or 30 deg. rollback	19 or 28 deg. rollback	19 or 28 deg. rollback	22 or 32 deg. rollback
Stabilizer angle rearward	12 degrees	12 degrees	12 degrees	12 degrees
Lifting capacity, maximum, boom @ 65°	2400 lb. (1090 kg)	2200 lb. (1000 kg)	2200 lb. (1000 kg)	1370 lb. (620 kg)
Leveling angle—(fixed foot)	8.5 degrees	8.5 degrees	8.5 degrees	8.5 degrees
(pivoting foot)	11 degrees	11 degrees	11 degrees	11 degrees

210C SERIES 1 BACKHOE LOADER SPECIFICATIONS

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE Standards. Except where otherwise noted, these specifications are based on a unit with 14.9-24, 6 PR, R4 rear tires; 7.50-16, 10 PR, F3 front tires, 0.88 cu. yd. (0.67 m³) loader bucket, 7.5 cu. ft. (0.21 m³) standard-duty backhoe bucket. ROPS/FOPS, full fuel tank, 175 lb. (80 kg) operator and standard equipment.

Rated Power @ 2200 rpm:	SAE	DIN 70 020
Net	63 hp (47 kW)	48 kW
Gross	66 hp (49 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1990 and DIN 78 020, using No. 20 fuel oil @ 35 API gravity. No derating is required up to 5000 feet (1500 m) altitude. Gross power is without cooling fan.

Engine: John Deere 4-239D

Type	4-stroke cycle, naturally aspirated diesel
Bore and stroke	4.19 x 4.33 in. (106.5 x 110 mm)
No. of cylinders	4
Displacement	239 cu. in. (3.917 L)
Maximum net torque @ 1200 rpm	180 lb-ft (244 Nm) (24.9 kg-m)
	Suction
	20 percent torque rise
Cooling fan	Pressure system w/full-flow filter
Compression ratio	17.8 to 1
Lubrication	Pressure system w/full-flow filter
Main bearings	5
Air cleaner	Dry
Electrical system	12 volt
Alternator	65 amps

Torque Converter:

Single stage, dual phase, overrunning stator, 11-in. (280 mm) diameter, stall torque ratio 2.78:1

Reverser:

Modulated, full-power shift with multiple wet-disk clutches. Reverser operating lever at left of steering wheel.

Transmission:

Manual shift with first and second speeds having sliding collar engagement and third and fourth speeds engaged with cone-type synchronizers. Single shift lever, floor mounted.

Travel Speeds:	Gear	Forward		Reverse	
		mph	(km/h)	mph	(km/h)
With standard 14.9-24 rear and 7.50-16 front tires	1	3.3	5.3	3.2	5.2
	2	5.6	9.0	5.5	8.9
	3	12.0	19.3	11.9	19.2
With MFWD and 16.9-24 (14.9-24) rear and 12.00-16.5 front tires	4	21.9	35.2	21.8	35.1
	1	5.4	8.7	5.3	8.5
	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

 Planetary, inboard

Service Brakes: Hydraulic, applied with separate pedals; hydraulically equalized when both pedals are depressed. Wet disks and facings are fully enclosed and self-adjusting.

Secondary Brake: Mechanical "V" groove band located on differential ring gear

Steering: Hydrostatic power

Steering axle, regular:	
Turning radius (brake applied)	9 ft. 4 in. (8.59 m)
Clearance circle (brake applied)	27 ft. 4 in. (8.33 m)
Steering wheel turns, left to right	2.2
right to left	2.9
Axle oscillation stop to stop	22 deg.
Mechanical front-wheel drive (engaged):	
Turning radius (brake applied)	10 ft. (3.05 m)
Clearance circle (brake applied)	29 ft. (8.84 m)
Steering wheel turns, left to right	2.5
right to left	2.5
Axle oscillation stop to stop	22 deg.

Hydraulic System: Open-center

Pressure, main relief	2700 psi (18 620 kPa) (190 kg/cm ²)
Pump	Gear type
Flow @ 2200 rpm	24 gpm (91 L/min)
Filter, return oil	10 micron, steel-enclosed replaceable element

Hydraulic Cylinders:	Bore		Stroke		Rod	
	In.	(mm)	In.	(mm)	In.	(mm)
Loader boom (2)	2.76	70	29.8	757	1.77	45
Loader bucket (1)	2.76	70	28.1	715	1.75	40
Backhoe boom (1)	3.94	100	34.9	886	1.97	50
Backhoe crowd (1)	3.54	90	33.0	838	1.97	50
Backhoe bucket (1)	3.15	80	31.0	788	1.77	45
Backhoe swing (2)	3.15	80	27.4	226	1.77	45
Backhoe extendable dipper (1)	2.50	64	48.0	1220	1.25	32
Backhoe stabilizers (2)	3.54	90	15.5	394	1.77	45
Steering (1) regular axle	2.00	51	9.5	241	1.00	25
Steering (1) MFWD	2.36	60	7.9	202	1.25	32

Tires:	Front		Rear	
	Size	PR	Size	PR
	7.50-16, 10 PR, F3		14.9-24, 6 PR, R4	
	11L-15, 8 PR, L-1A		16.9-24, 6 PR, R3	
			17.5L-24, 8 PR, R4	
MFWD	12.00-16.5, 8 PR, R4		16.9-24, 8 PR, R4	

Wheel Treads:

Front	56 in. (1420 mm)
Rear	60 in. (1525 mm)
MFWD—Front	68 in. (1730 mm)
—Rear	62 in. (1575 mm)

Wheelbase	82.7 in. (2100 mm)
w/MFWD	83.3 in. (2116 mm)

Axle Ratings:	Static Rating	Dynamic Rating	SAE J43
Front	36,300 lb. (16 500 kg)	36,300 lb. (16 500 kg)	8700 lb. (4000 kg)
	41,100 lb. (18 700 kg)	54,800 lb. (24 900 kg)	11,500 lb. (5300 kg)

Capacities:	U.S.	Liters
Fuel tank	23 gal.	87
Engine coolant	17 qt.	16
Engine oil including filter	9 qt.	8.5
Torque converter and reverser system	8 qt.	7
Hydraulic system	16 gal.	60

Additional Standard Equipment:

Air cleaner restriction indicator	Monitor for:
Air cleaner, dry type w/safety element and built-in, internal, self-cleaning precleaner	Alternator
Alternator w/transistorized voltage regulator	Engine coolant temperature
Antifreeze to -34°F (-37°C)	Engine oil pressure
Backhoe boom transport lock	Hydraulic filter
Battery, 110-minute reserve capacity	Parking brake
Differential lock	Torque converter temperature
Electric fuel shutoff	Muffler, above hood w/vertical exhaust and deflector
Emergency/parking brake	Multiple fuse protected electrical system—12 volt
Engine side shields	Oil-to-air cooler for hydraulic system
Fixed position stabilizer feet	Oil-to-air cooler for reverser/torque converter system
Foot and hand throttles	Rear fenders
Fuel gauge	Rear reflectors
Fuel tank sump w/easy access drain	ROPS/FOPS canopy, isolation mounted, with roof and seat belt
Hourmeter	Steps and handholds
Hydraulic self-leveling loader	Swivel vinyl seat, fully adjustable
Hydrostatic power steering	Torque converter
Key start switch	Vandal protection w/built-in locks
Lights:	
Halogen driving/working lights	
Tailight	
Loader bucket level indicator	

SAE Operating Weight 11,100 lb. (5035 kg)