



410C

BACKHOE LOADER



**SAE Net
Horsepower**

75 hp
(56 kW)

**Digging
Depth**

15 ft. 4 in.
(4.67 m)
(long stick)

**Operating
Weight SAE**

14,400 lb.
(6550 kg)

Model shown may include options

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 4045D

Rated power @ 2200 rpm	75 SAE net hp (56 kW)
	80 SAE gross hp (60 kW)
Turbocharger	optional
Cylinders	4
Displacement	276 cu. in. (4.524 L)
Fuel consumption, typical	1.4 to 2.2 gal/hr (5.3 to 8.3 L/h)
Torque rise, standard	20% at 1200 rpm
with optional turbocharger	25% at 1200 rpm
	215 lb-ft (292 Nm)
	224 lb-ft (304 Nm)
Lubrication	Pressure system w/full-flow filter and cooler
Air cleaner	Dual stage dry type with safety element and pre-cleaner
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 2.23:1 stall ratio.

TRAVEL SPEEDS

Gear	Forward		Reverse		
	mph	(km/h)	mph	(km/h)	
With standard 17.5L-24 rear and 11L-15 front tires	1	3.0	4.8	3.5	5.8
	2	5.1	8.2	5.9	9.5
	3	10.9	17.6	12.6	20.3
	4	19.0	30.6	22.0	35.4
With MFWD and required 21L-24 rear and 12.00-16.5 front tires	1	3.3	5.3	3.9	6.3
	2	5.7	9.2	6.6	10.6
	3	12.1	19.5	14.0	22.5
	4	22.1	35.6	25.6	41.2

FINAL DRIVES

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

BRAKES

Hydraulic wet disk 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 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	11 ft. 8 in. (3.55 m)
without brakes	13 ft. 3 in. (4.04 m)
Bucket clearance circle with brakes	31 ft. 8 in. (9.64 m)
without brakes	34 ft. 9 in. (10.60 m)
Steering wheel turns, stop to stop	2.2 to 2.9
Mechanical-front-wheel drive	
Curb turning radius with brakes	11 ft. 5 in. (3.49 m)
without brakes	13 ft. 6 in. (4.11 m)
Bucket clearance circle with brakes	29 ft. 7 in. (9.02 m)
without brakes	33 ft. 8 in. (10.26 m)
Steering wheel turns stop to stop	2.3 to 2.8
Axle oscillation stop to stop, both axles	22 degrees

Axle ratings:	Static	Dynamic	SAEJ43
Front	56,000 lb. (25,500 kg)	56,000 lb. (25,500 kg)	11,950 lb. (5,420 kg)
Rear	51,000 lb. (23,200 kg)	68,000 lb. (30,900 kg)	15,290 lb. (6,930 kg)

HYDRAULICS

System	closed center
Pressure, main relief	2755 psi (19,000 kPa) (193.7 kg/cm ²)
Pump	radial pistons
Flow at 2500 rpm	35 gpm (133 L/min)
Filter, return oil	10 micron, spin-on replaceable element

TIRES

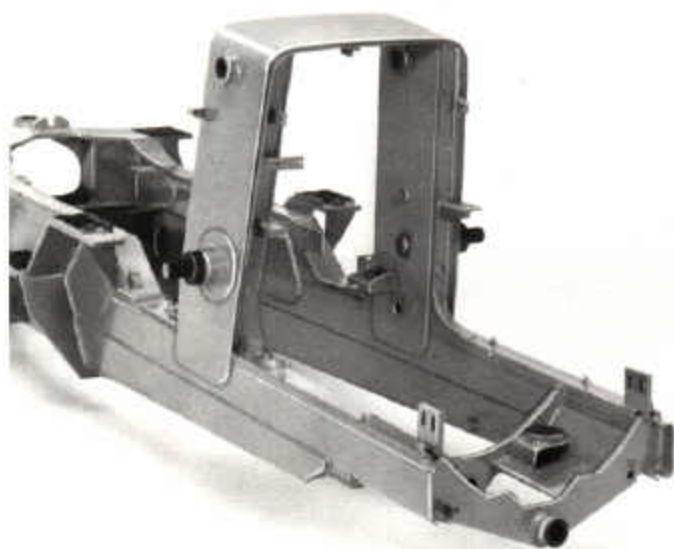
Front	Rear
11L-15, 10 PR, F3	17.5-24, 10 PR, R4
11L-16, 12 PR, F3	19.5L-24, 10 PR, R4
With mechanical-front-wheel drive	
12.00-16.5, 8 PR, lug tread	21L-24, 10 PR, R4
14-17.5, 8 PR	18.4-28, 12 PR, R4

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	14 qt. (13 L)
Transaxle and hydraulic system	21 gal. (79 L)

OPERATING WEIGHTS

410C	14,400 lb. (6550 kg)
cab adds	450 lb. (204 kg)
mechanical-front-wheel drive adds	275 lb. (125 kg)
extendable dipperstick with required counterweight adds	1063 lb. (482 kg)
optional front counterweighting adds	250 lb. (113 kg)
reversible stabilizer pads add	120 lb. (54 kg)
See backhoe and loader performance data for bucket weights	



MAINFRAME

All drivetrain components are mounted independently to the massive unitized mainframe where they are isolated from working stress and shock loads. And each drivetrain component can be removed independently of the others to speed repairs, reduce downtime.



FRONT-WHEEL DRIVE

This rugged, industrial-duty axle can be engaged under load on-the-go. A limited slip differential is mounted to the side to provide maximum ground clearance. The axle's sealed design with no breathers prevents entry of water and dirt. Turning radius remains near that of a two-wheel drive.



OPERATOR'S STATION

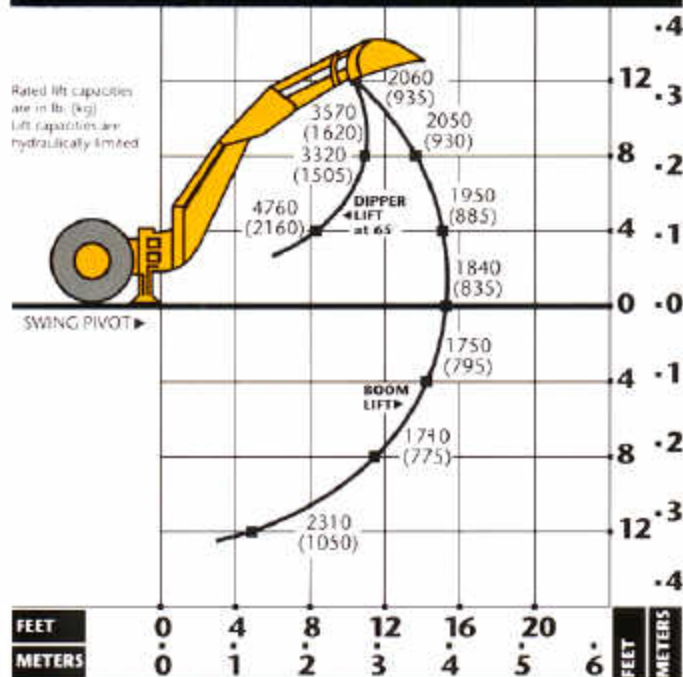
The industry standard. Large door swings open to the front, can be left open during operation. Sixty-six percent of the glass area opens for superior ventilation. Electronic monitor provides audible and visible warnings for vital functions. There are four seat options and three control options.



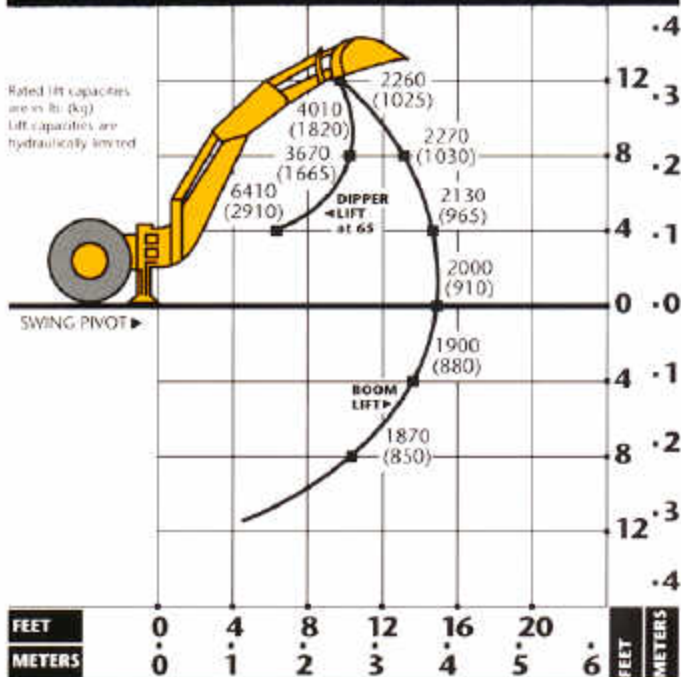
LOADER DESIGN

A single dump cylinder on the loader bucket gives the operator an unobstructed view to the bucket. Simpler linkage and one less cylinder reduces weight. It also means there are fewer pivot points and fewer lubrication points reducing maintenance time and expense.

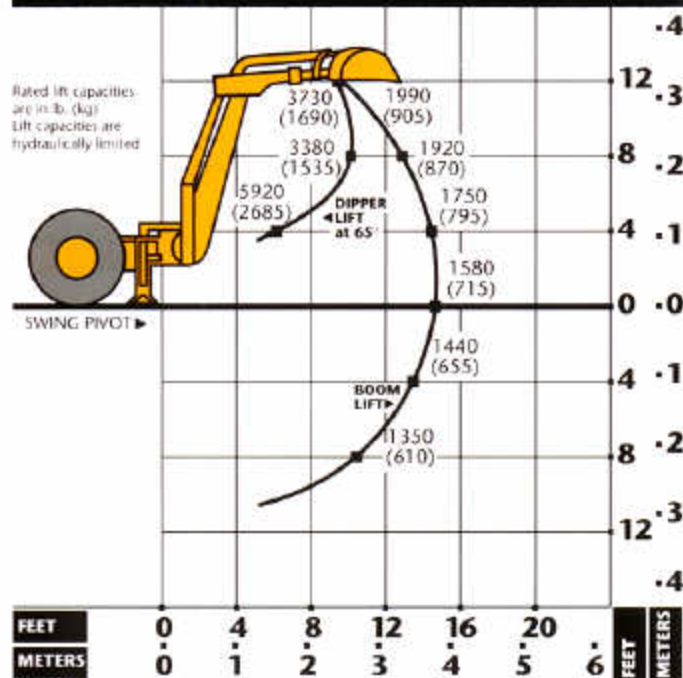
LIFT CAPACITY Backhoe with long dipperstick. Based on SAE J31.



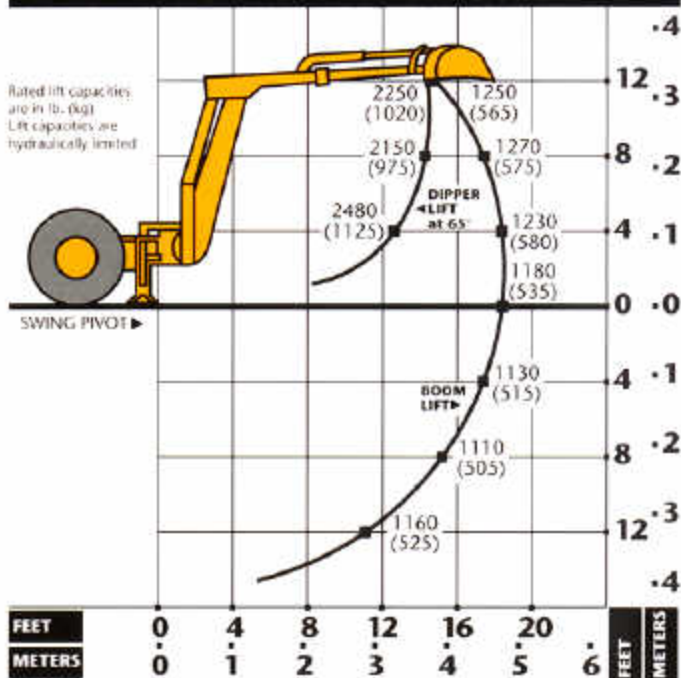
LIFT CAPACITY Backhoe with short dipperstick. Based on SAE J31.



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 ³)	lb.	(kg)
Standard-duty	12	(305)	2.5	(0.07)	247	(112)
	16	(406)	3.6	(0.10)	270	(122)
	18	(457)	5.1	(0.14)	358	(153)
	24	(610)	7.5	(0.21)	378	(171)
	30	(762)	10.0	(0.28)	428	(194)
	36	(914)	10.0	(0.28)	432	(196)
Heavy-duty	36	(914)	14.5	(0.41)	674	(306)
	18	(457)	5.1	(0.14)	348	(158)
	24	(610)	7.5	(0.21)	400	(181)
	30	(762)	10.0	(0.28)	472	(214)

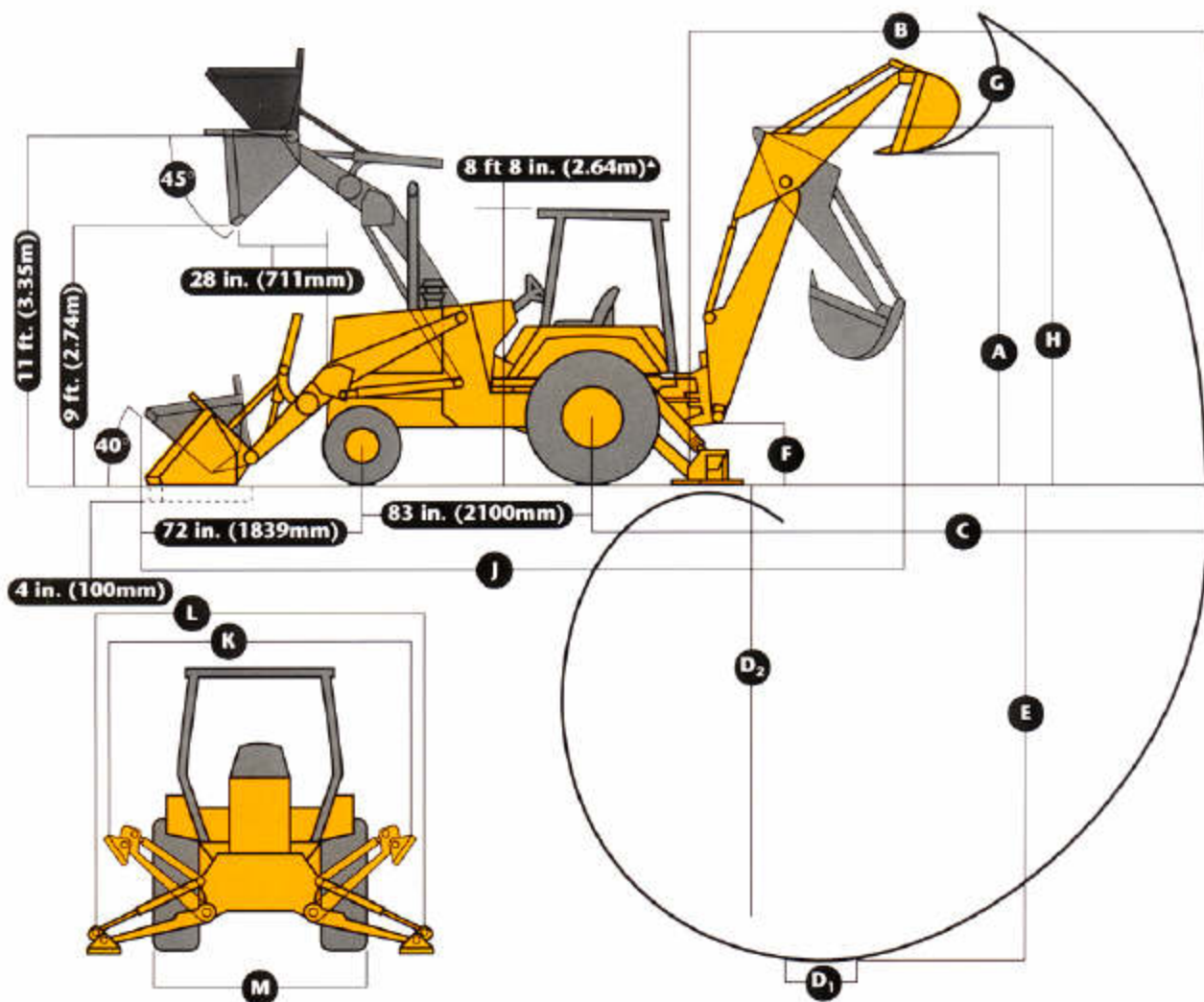
LOADER PERFORMANCE

Operator control	single lever
Breakout force	9500 lb. (42.3 kN) [4309 kg]
Lifting capacity, full height	5800 lb. (2630 kg)
Raising time to full height	4.4 sec.
Bucket dump time	1.0 sec.
Bucket lowering time (power down)	3.0 sec.

LOADER BUCKETS

Loader:	Width		Heaped Capacity		Weight	
	in.	(mm)	Cu. Yd.	(m ³)	lb.	(kg)
General purpose	92	(2340)	1.0	(0.76)	706	(320)
	92	(2340)	1.3	(1.0)	796	(361)
Long lip	89	(2270)	1.25	(0.96)	750	(340)

DIMENSIONS



▲ ROPS and Cab

Key:	Backhoe* w/Long Dipperstick	Backhoe* w/Short Dipperstick	Extendable Dipperstick Retracted	Extendable Dipperstick Extended
	A. Loading height, truck loading position	11 ft. 10 in. (3.61 m)	11 ft. 1 in. (3.38 m)	11 ft. 6 in. (3.51 m)
B. Reach from center of swing mast	18 ft. 5 in. (5.61 m)	17 ft. 9 in. (5.42 m)	17 ft. 9 in. (5.42 m)	21 ft. 5 in. (6.53 m)
C. Reach from center of rear axle	22 ft. 2 in. (6.76 m)	21 ft. 6 in. (6.55 m)	21 ft. 6 in. (6.55 m)	25 ft. 2 in. (7.67 m)
D. Digging depth (SAE):				
(1) 2-ft. (610 mm) flat bottom	15 ft. 3 in. (4.65 m)	14 ft. 6 in. (4.42 m)	14 ft. 6 in. (4.42 m)	18 ft. 4 in. (5.59 m)
(2) 8-ft. (2440 mm) flat bottom	14 ft. 2 in. (4.32 m)	13 ft. 5 in. (4.09 m)	13 ft. 5 in. (4.09 m)	17 ft. 6 in. (5.34 m)
E. Maximum digging depth	15 ft. 4 in. (4.67 m)	14 ft. 8 in. (4.47 m)	14 ft. 8 in. (4.47 m)	18 ft. 5 in. (5.61 m)
F. Ground clearance, minimum	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)
G. Bucket rotation	160 or 180 degrees	160 or 180 degrees	160 or 180 degrees	160 or 180 degrees
H. Transport height	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 8 in. (3.56 m)	11 ft. 8 in. (3.56 m)
J. Overall length, transport	23 ft. 5 in. (7.14 m)	22 ft. 11 in. (6.99 m)	23 ft. (7.01 m)	23 ft. (7.01 m)
K. Stabilizer width—transport	7 ft. 8 in. (2.34 m)	7 ft. 8 in. (2.34 m)	7 ft. 8 in. (2.34 m)	7 ft. 8 in. (2.34 m)
L. Stabilizer spread—operating	9 ft. 10 in. (3.00 m)	9 ft. 10 in. (3.00 m)	9 ft. 10 in. (3.00 m)	9 ft. 10 in. (3.00 m)
M. Overall width (less loader bucket)	82 in. (2080 mm)	82 in. (2080 mm)	82 in. (2080 mm)	82 in. (2080 mm)
Digging force, bucket cylinder (power dig position)	11,700 lb. (52 kN) (5310 kg)	11,700 lb. (52 kN) (5310 kg)	11,700 lb. (52 kN) (5310 kg)	11,700 lb. (52 kN) (5310 kg)
Digging force, crowd cylinder	6300 lb. (28 kN) (2860 kg)	6800 lb. (30.3 kN) (3085 kg)	6800 lb. (30.3 kN) (3085 kg)	4600 lb. (20.5 kN) (2085 kg)
Swing arc	180 deg.	180 deg.	180 deg.	180 deg.
Operator control	Two levers	Two levers	Right foot treadle	Right foot treadle
Bucket positions	9 or 18 deg. rollback	12 or 21 deg. rollback	8 or 17 deg. rollback	12 or 22 deg. rollback
Stabilizer angle rearward	14.5 deg.	14.5 deg.	14.5 deg.	14.5 deg.
Lifting capacity, maximum, boom at 65 deg.	4100 lb. (1860 kg)	4200 lb. (1910 kg)	4100 lb. (1860 kg)	2700 lb. (1220 kg)
Leveling angle	14 deg.	14 deg.	14 deg.	14 deg.

*Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) bucket.

ADDITIONAL STANDARD EQUIPMENT:

Air cleaner restriction indicator
Air cleaner, dry type w/safety element and precleaner
Alternator, w/transistorized voltage regulator
Antifreeze to -34°F (-37°C)
Automatic return-to-dig
Backhoe transport lock
Battery, 180-minute reserve capacity
Differential lock
Electric automatic destroke for hydraulic pump
Electric combination tachometer/hourmeter
Electric fuel shutoff
Emergency/parking brake, independent

Engine fan guard
Engine side shields w/built-in locks
Floor mat
Foot and hand throttles
Fuel gauge
Fuel tank sump w/easy access drain
Headliner
Horn
Hourmeter
Hydraulic self-leveling loader
Hydrostatic power steering
Key start switch
Lights:
Flashing and turn signal (2)
Halogen driving/work (2 front and 2 rear)
Stop and tail (2)

Loader bucket level indicator
Monitor for:
Alternator
Engine coolant temperature
Engine oil pressure
Hydraulic filter
Parking brake
Torque converter temperature
Muffler, under hood w/vertical exhaust
Multiple fuse protected electrical system—12 volt
Neutral start safety switch
Oil-to-air cooler for hydraulic system

Oil-to-air cooler for reverser/torque converter system
Rear fenders
Rear reflectors
Rearview mirror, inside
Reverser neutral latch
ROPS/FOPS canopy, isolation mounted with roof and seat belt
Starter terminal covers
Steps and handholds
Swivel seat, fully adjustable
Vandal protection with built-in locks for engine access door and fuel tank cap

OPTIONAL OR SPECIAL EQUIPMENT:

Altitude-compensating engine turbocharger
Auxiliary hydraulic valves and circuit for loader and backhoe
Backup alarm
Cab with:
Alternator, 51-amp
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)
Cab, quarter (front windshield and door)
Cold-weather starting aid, remote mounted
Economy seat, vinyl covered, suspension or rigid mounted

Engine coolant heater
Extendable dipperstick for backhoe
Fan blast baffles
Fire extinguisher
Front counterweight
Heavy-duty batteries
Instrument panel vandal cover
Mechanical-front-wheel drive
Rear defroster fan

Rear wheel spacers for tire chain clearance
Reversible stabilizer pads
Rotating beacon light
SMV emblem
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
Auxiliary fuel tank
Backhoe lift eye
Bolt-on teeth for loader bucket
Cab pressurizer

Deluxe heater w/fresh air intake—40,000 Btu/hr (11.7 kW)
Air conditioner, 24,000 Btu/hr (7.0 kW)
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 driveshaft guard
Multipurpose loader buckets
Radio or radio cassette
Special paint
* See your John Deere dealer for further information

JOHN DEERE 'BEST VALUE' EXTRAS

Best parts support—Twelve regional parts depots in North America and others around the world put parts support near your job no matter where in the world it is.

A computerized FLASH™ parts locating system linking these depots to dealerships can find out-of-stock parts in a hurry and get them into your hands fast. Usually within 24 hours.

Best service backup—Dealer service technicians are regularly schooled, at our modern facility in Davenport, Iowa, or by professionals in the field, to diagnose quickly and repair efficiently.

Best dealers—Your John Deere dealer has made a significant commitment to being the best equipment supplier you can work with.

This is a dollars and cents commitment in parts inventory, in service facilities, in field service trucks. It's a sweat and blood commitment in dedicated, skilled and highly trained

and motivated personnel in each and every department at the dealership.

But what sets John Deere dealers apart from all the rest is something more, a factor somewhat difficult to measure . . . a caring attitude, and a sincere desire to be the best at meeting the needs of each individual customer he serves.

John Deere Finance Plans—Whether you rent, lease or buy John Deere equipment, your dealer can explain the John Deere options available. One-stop options that let you free up operating capital, keep other lines of credit open.

Best warranty protection—All John Deere construction equipment has a 6-month warranty on the entire machine and a full 24-month warranty on the power train. SECURE, a John Deere service product, is offered for repair coverage after warranty concludes. Full machine or power train coverage is available for a variety of time periods to meet your needs. Your dealer will explain the details.

TED B. MILLER CO., INC.
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P.O. Box 460
Gering, Nebr. 69341



Net engine power is per SAE J1349 and DIN 70 020. No derating is required up to 5,000 feet (1500 m) altitude. With optional altitude compensating turbocharger 10,000 feet (3050 m). Gross power is without cooling fan.

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 17.5L-24, 10 PR, R4 rear tires, 11L-15, 10 PR, F3 front tires, 1.0 cu. yd. (0.76 m³) loader bucket, 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) backhoe bucket.

