

710D




Coming or going, no other backhoe comes close

Make no mistake, the 710D is a big backhoe. This massive machine delivers the kind of digging force and lift capacity you may have thought possible only from an excavator.


Up front, an equally impressive loader breakout force keeps the big 1.62-cubic-yard (1.24 m³) bucket heaped full. Equipped with available mechanical front-wheel drive, 710D rivals the production-loading performance of many 4-wheel-drive loaders.

But a 710D brings eye-popping specs, commonsense working environment. 710D such a

more to the jobsite than big size and You also get day-after-day durability, controls, and a safe, comfortable ment. Advantages that make the valuable asset.



710D's exclusive limited-slip MFWD automatically provides up to 80 percent of the power to the wheel with the best traction. For true all-wheel drive, all the time.



Single bucket cylinder utilizes the piston-end for powerful breakout, and the rod-end for fast dump cycles. Visibility is better than two cylinder designs, too.

Unless it's a Deere, you won't find a backhoe as quiet. Even without cab, the thick-padded floor mat, headliner, and underhood muffler make the 710D easy on ears.

"Torque tube" bucket construction prevents twisting. C-shape backwall fills quickly and resists packing. Wide skid shoes, reversible bolt-on cutting edge, box-constructed spill sheet, and built-in lift loops come standard.



Cab climate-control system blends fresh air and directs it through automotive-type vents for effective defrosting, heating, and cooling (air-conditioning available).

Low-effort, single-lever loader/bucket control with thumb-activated transmission-disconnect speeds cycles.

Electronic monitor keeps a vigilant watch on vital machine functions, issuing both visible and audible warnings.



Short-throw lever lets you change gears or direction with your hands on the steering wheel. Built-in detents give smooth, positive control. Neutral-start switch prevents accidental starting in gear.

Two levers are standard, three-lever/foot-pedal controls are no-cost factory or field-installed options.



Rearward-angled stabilizers and no-drift cylinders provide rock-solid stability for craning and precise placement of heavy objects.

Fanggs® tooth-equipped heavy-duty and severe-duty buckets are available from 18- to 36-inches (457 to 914 mm) wide.

SPECIFICATIONS

ENGINE

7100

Type	John Deere 6068T Turbocharged		
Rated power @ 2,200 rpm	115 SAE net hp (86.0 kW) 124 SAE gross hp (92.5 kW)		
Cylinders	6		
Displacement	414 cu. in. (6,763 L)		
Fuel consumption, typical	2.0 to 3.3 gal./hr. (7.6 to 12.5 L/h)		
Torque rise	40 percent @ 1,000 rpm		
Maximum net torque	383 lb.-ft. (465 Nm)		
Lubrication	pressure system with full-flow vertical spin-on filter		
Air cleaner	dual stage dry type with safety element and pre-cleaner		
Electrical system	12 volt with 65-amp alternator		
Sucker-type cooling fan			

TRANSMISSION

power shift with modulated full power shifting between forward and reverse

Torque converter, single stage, dual phase with 1.95:1 stall ratio	11.0 in. (280 mm)		
Travel speeds			
With standard 211-24 rear and 14.5/75-16.1 front tires	<i>Forward</i>	<i>Reverse</i>	
Gear 1	3.3 mph (5.3 km/h)	3.7 mph (6.0 km/h)	
Gear 2	5.5 mph (8.8 km/h)	6.1 mph (9.8 km/h)	
Gear 3	13.6 mph (21.9 km/h)	15.2 mph (24.5 km/h)	
Gear 4	22.0 mph (30.6 km/h)		
With MFWD and required 211-28 rear and 15-19.5 front tires	<i>Forward</i>	<i>Reverse</i>	
Gear 1	3.7 mph (6.0 km/h)	4.1 mph (6.6 km/h)	
Gear 2	6.1 mph (9.8 km/h)	6.9 mph (11.1 km/h)	
Gear 3	15.2 mph (24.5 km/h)	16.9 mph (27.2 km/h)	
Gear 4	24.6 mph (39.6 km/h)		

FINAL DRIVES

heavy-duty, inboard planetary final drives evenly distribute shock loads over three gears

BRAKES

hydraulic wet disk, mounted inboard, self adjusting and self equalizing

CAPACITIES

Fuel tank	44 gal. (166 L)
Engine coolant	28 qt. (26 L)
Engine oil including filter	20 qt. (19 L)
Transmission system	6 gal. (23 L)
Hydraulic system	40 gal. (151 L)
Rear axle	18 qt. (17 L)

STEERING

hydrostatic power steering conforms to SAE J1151, emergency steering to SAE J53

Non-powered axle			
Curb turning radius with brakes	14 ft. 4 in. (4.37 m)		
Without brakes	15 ft. 2 in. (4.63 m)		
Bucket clearance circle with brakes	36 ft. 2 in. (11.02 m)		
Without brakes	37 ft. 10 in. (11.54 m)		
Axle oscillations stop to stop	20 degrees		
Mechanical-front-wheel drive			
Curb turning radius with brakes	14 ft. 5 in. (4.39 m)		
Without brakes	15 ft. 7 in. (4.76 m)		
Bucket clearance circle with brakes	36 ft. 3 in. (11.06 m)		
Without brakes	38 ft. 9 in. (11.80 m)		
Axle oscillations stop to stop	18 degrees		
Steering wheel turns stop to stop, both axles	3.0 to 3.8		
Axle ratings	<i>Static</i>	<i>Dynamic</i>	<i>SAE J43</i>
Front	78,700 lb. (35,700 kg)	78,700 lb. (35,700 kg)	30,460 lb. (13,800 kg)
Rear	74,000 lb. (33,600 kg)	98,800 lb. (44,900 kg)	23,700 lb. (10,700 kg)

HYDRAULIC SYSTEM

7100

System	closed center
Pressure, main relief	2,550 psi (17 500 kPa)
Pump	radial pistons
Flow @ 2,200 rpm	53 gpm (201 L/min.)
Filter, return oil	10-micron, spin-on replaceable element

CYLINDERS

	Bore	Stroke	Rod
Loader boom (2)	3.84 in. (100 mm)	34.25 in. (870 mm)	2.20 in. (56 mm)
Loader bucket (1)	4.53 in. (115 mm)	32.32 in. (821 mm)	2.20 in. (56 mm)
Backhoe boom (1)	6.30 in. (160 mm)	44.37 in. (1127 mm)	3.15 in. (80 mm)
Backhoe crowd (1)	5.51 in. (140 mm)	35.35 in. (898 mm)	2.76 in. (70 mm)
Backhoe bucket (1)	3.94 in. (100 mm)	37.46 in. (952 mm)	2.48 in. (63 mm)
Backhoe swing (2)	4.53 in. (115 mm)	9.88 in. (251 mm)	2.20 in. (56 mm)
Backhoe extendable dipperstick (1)	3.00 in. (76 mm)	60.00 in. (1525 mm)	1.50 in. (38 mm)
Backhoe stabilizer (2)	4.53 in. (115 mm)	21.34 in. (542 mm)	2.48 in. (63 mm)
Steering (1) regular axle	2.76 in. (70 mm)	9.06 in. (230 mm)	1.26 in. (32 mm)

TIRES

	Rear	Front
With non-powered front axle	211-24, 16 PR R4	14.5/75-16.1, 10 PR F3
	211-28, 14 PR R4	14.5/75-16.1, 10 PR F3
	211-28, 14 PR R4	16.5L-16.1, 10 PR L1
With mechanical-front-wheel drive	211-28, 14 PR R4	15-19.5, 8 PR, Sure Grip
	20.5-25, 12 PR L2	15-19.5, 8 PR, Sure Grip

SAE OPERATING WEIGHTS

Standard	23,000 lb. (10 450 kg)
Cab adds	560 lb. (254 kg)
Mechanical-front-wheel drive (less tires) adds	240 lb. (109 kg)
Extendable dipperstick with required counterweight adds	856 lb. (390 kg)
Optional front counterweight adds	700 lb. (318 kg)
Reversible stabilizer pads add	90 lb. (41 kg)

See backhoe and loader performance data for bucket weights.

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LOADER BUCKETS

	Width	Heaped Capacity	Weight
General purpose	92 in. (2340 mm)	1.62 cu. yd. (1.24 m ³)	960 lb. (435 kg)
Multipurpose	96 in. (2440 mm)	1.87 cu. yd. (1.34 m ³)	1,500 lb. (680 kg)
	96 in. (2440 mm)	1.375 cu. yd. (1.00 m ³)	1,780 lb. (807 kg)

BACKHOE PERFORMANCE

	With Standard Backhoe*	With Extendable Dipperstick*	
		Retracted	Extended
Digging force, bucket cylinder (power dig position)	12,940 lb. (57.5 kN)	12,940 lb. (57.5 kN)	12,940 lb. (57.5 kN)
Digging force, crowd cylinder	9,600 lb. (42.7 kN)	9,600 lb. (42.7 kN)	6,700 lb. (29.8 kN)
Swing arc	180 degrees	180 degrees	180 degrees
Operator control	two levers	right foot treadle	right foot treadle
Bucket positions (rollback)	-2 to -14 degrees	-2 to -14 degrees	-2 to -14 degrees
Stabilizer angle rearward	13 degrees	13 degrees	13 degrees
Leveling angle	13 degrees	13 degrees	13 degrees

*Backhoe specifications are with 24 in. x 11.1 cu. ft. (610 mm x 0.31 m³) bucket.

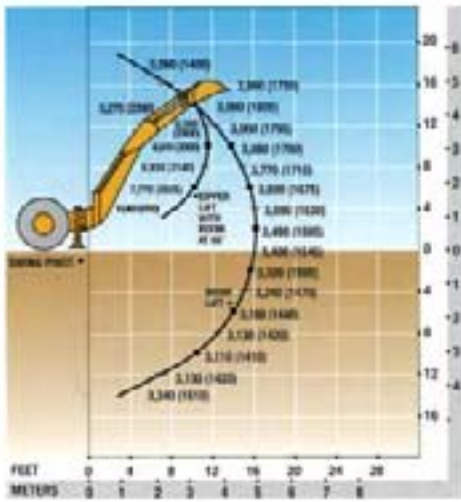
BACKHOE BUCKETS

	Width	Capacity	Weight
Heavy duty with lift loop	18 in. (457 mm)	7.7 cu. ft. (0.22 m ³)	532 lb. (241 kg)
	24 in. (610 mm)	11.1 cu. ft. (0.31 m ³)	592 lb. (268 kg)
	30 in. (762 mm)	15.0 cu. ft. (0.42 m ³)	642 lb. (291 kg)
	36 in. (914 mm)	18.8 cu. ft. (0.53 m ³)	700 lb. (317 kg)
Severe duty with lift loop	18 in. (457 mm)	7.9 cu. ft. (0.22 m ³)	640 lb. (290 kg)
	24 in. (610 mm)	10.9 cu. ft. (0.31 m ³)	725 lb. (330 kg)
	30 in. (762 mm)	14.0 cu. ft. (0.40 m ³)	820 lb. (373 kg)
	36 in. (914 mm)	17.1 cu. ft. (0.48 m ³)	910 lb. (414 kg)

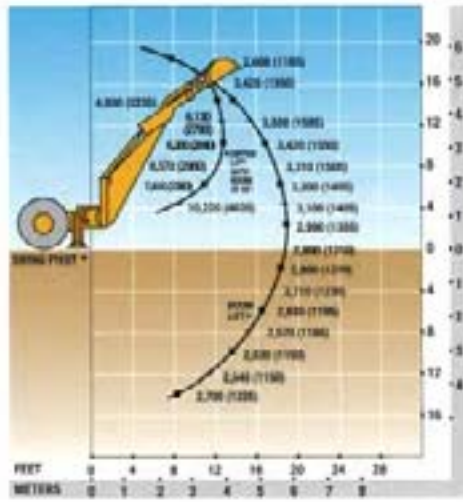
LIFT CAPACITIES*/DIMENSIONS

*Based on SAE J31. Rated lift capacities are in lb. (kg). Maximum lift capacities may be stability and/or hydraulically limited.

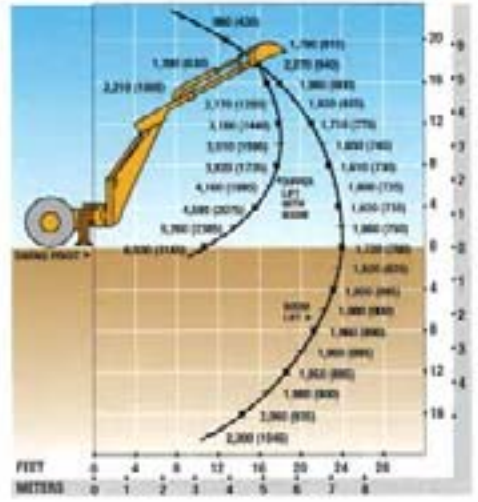
710D BACKHOE WITH
STANDARD DIPPERSTICK



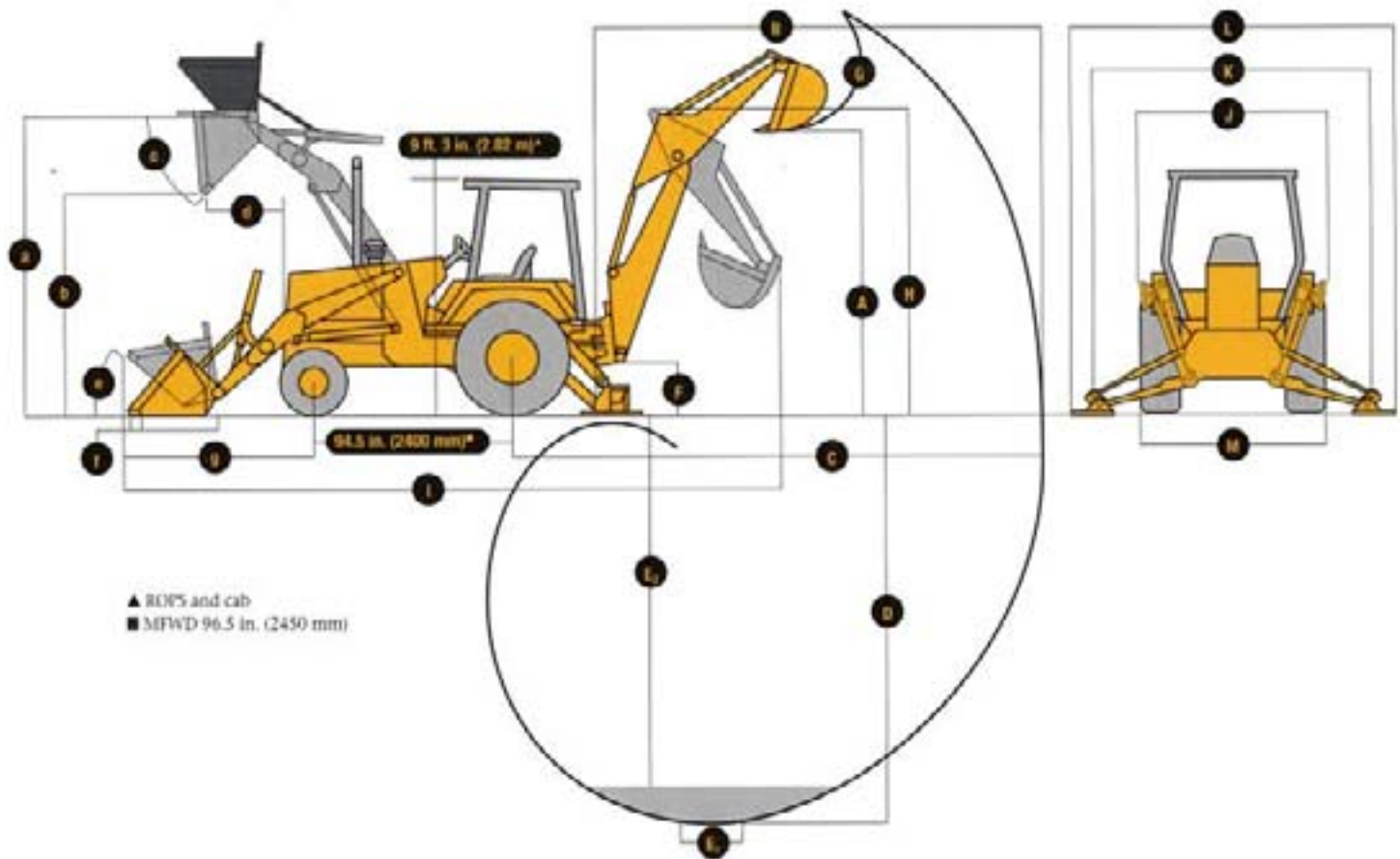
710D BACKHOE WITH
EXTENDABLE DIPPERSTICK, RETRACTED



710D BACKHOE WITH
EXTENDABLE DIPPERSTICK, EXTENDED



DIMENSIONS (SEE PAGE 5)



BACKHOE

7100

	With Standard Backhoe*	With Extendable Dipperstick*	
		Retracted	Extended
A Loading height, truck loading position	13 ft. 3 in. (4.03 m)	13 ft. 1 in. (3.98 m)	15 ft. 3 in. (4.65 m)
B Reach from center of swing pivot	22 ft. 8 in. (6.90 m)	22 ft. 8 in. (6.90 m)	27 ft. 3 in. (8.31 m)
C Reach from center of rear axle	26 ft. 9 in. (8.15 m)	26 ft. 9 in. (8.15 m)	31 ft. 4 in. (9.56 m)
D Maximum digging depth	18 ft. 2 in. (5.55 m)	18 ft. 1 in. (5.52 m)	23 ft. 1 in. (7.04 m)
E Digging depth (SAE):			
(1) 2-ft. (610 mm) flat bottom	18 ft. 2 in. (5.53 m)	18 ft. 1 in. (5.51 m)	23 ft. 1 in. (7.03 m)
(2) 8-ft. (2440 mm) flat bottom	17 ft. 3 in. (5.26 m)	17 ft. 2 in. (5.24 m)	22 ft. 4 in. (6.82 m)
F Ground clearance, minimum	14 in. (356 mm)	14 in. (356 mm)	14 in. (356 mm)
G Bucket rotation	162 or 152 degrees	162 or 152 degrees	162 or 152 degrees
H Transport height	13 ft. 10 in. (4.21 m)	13 ft. 11 in. (4.31 m)	13 ft. 11 in. (4.31 m)
I Overall length, transport	26 ft. 8 in. (8.13 m)	26 ft. 8 in. (8.13 m)	26 ft. 8 in. (8.13 m)
J Stabilizer width - transport	8 ft. (2.44 m)	8 ft. (2.44 m)	8 ft. (2.44 m)
K Stabilizer spread - operating	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)	11 ft. 5 in. (3.48 m)
L Stabilizer overall width - operating	13 ft. 2 in. (4.01 m)	13 ft. 2 in. (4.01 m)	13 ft. 2 in. (4.01 m)
M Width over tires	90.5 in. (2.29 m)	90.5 in. (2.29 m)	90.5 in. (2.29 m)

*Backhoe specifications are with 24 in. x 11.1 cu. ft. (610 mm x 0.31 m³) bucket.

LOADER PERFORMANCE WITH BUCKET OPTIONS

	1.62 cu. yd. (1.24 m ³) Standard-Duty Bucket	1.87 cu. yd. (1.34 m ³) Standard-Duty Bucket and MFWD	1.375 cu. yd. (1.00 m ³) Multipurpose Bucket and MFWD
Operator control	single lever	single lever	dual lever
Breakout force	14,050 lb. (62.5 kN)	13,100 lb. (58.4 kN)	13,500 lb. (60.1 kN)
Lifting capacity, full height	7,733 lb. (3503 kg)	7,257 lb. (3287 kg)	7,295 lb. (3305 kg)
A Height to bucket hinge pin, maximum	11 ft. 8 in. (3.57 m)	11 ft. 10 in. (3.61 m)	11 ft. 10 in. (3.61 m)
B Dump clearance, bucket at 40 degrees	9 ft. 6 in. (2.88 m)	9 ft. 5 in. (2.87 m)	9 ft. 5 in. (2.87 m)
C Bucket dump angle, maximum	40 degrees	40 degrees	40 degrees
D Reach at full height, bucket at 40 degrees	33.5 in. (0.85 m)	36.8 in. (0.93 m)	32.9 in. (0.84 m)
E Rollback angle at ground level	40 degrees	40 degrees	40 degrees
F Digging depth below ground, bucket level	5.8 in. (147 mm)	4.0 in. (101 mm)	6.0 in. (152 mm)
G Distance from front axle centerline to bucket cutting edge	80.5 in. (2044 mm)	82.6 in. (2098 mm)	81.2 in. (2063 mm)
Raising time to full height	4.3 sec.	4.3 sec.	4.3 sec.
Bucket dump time	1.3 sec.	1.3 sec.	1.3 sec.
Bucket lowering time (power down)	3.2 sec.	3.2 sec.	3.2 sec.

	7100	7100	7100
ENGINE			
John Deere Model 6068T - 6.8 liter, 115 SAE net hp altitude compensating turbocharged, isolation mounted	●	■	●
Vertical spin-on engine oil filter	●	■	●
Spin-on John Deere fuel filter	●	■	●
Oil-to-water engine oil cooler	●	■	●
Antifreeze, -34°F (-37°C)	●	■	●
Coolant recovery tank	●	■	●
Serpentine belt with automatic belt tensioner	●	■	●
Sucker-type cooling fan	●	■	●
Enclosed safety fan guard	●	■	●
Dual element dry-type air cleaner with pre-cleaner and restriction monitor on console	●	■	●
Muffler, underhood with curved-end exhaust stack	●	■	●
Electric ether starting aid	●	■	●
Engine coolant heater, 1,000 watts	●	■	●
Chrome exhaust extension	●	■	●
POWER TRAIN			
Transmission, powershift engine mounted, with torque converter	●	■	●
Isolation mounted to mainframe	●	■	●
Transmission oil cooler	●	■	●
Spin-on transmission filter	●	■	●
Electric forward-neutral-reverse control lever with neutral safety switch interlock	●	■	●
Electric clutch cutoff on gearshift and loader levers	●	■	●
Differential lock, electric foot actuated	●	■	●
Planetary final drives	●	■	●
Hydraulic service brakes	●	■	●
Inboard, wet multi-disc, self adjusting and self equalizing / Conforms to SAE J1473	●	■	●
Parking/emergency brake with electric switch control	●	■	●
Spring applied, hydraulically released wet multi-disc / Independent of service brakes / Conforms to SAE J1473	●	■	●
Hydrostatic power steering with emergency manual mode	●	■	●
Non-powered front axle	●	■	●
Mechanical-front-wheel-drive	●	■	●
Electric on/off control / Heavy-walled drive shaft / Limited-slip differential / Sealed axle	●	■	●
Oil-to-air cooler	●	■	●
Transmission/torque converter	●	■	●
Rear wheel spacers for use with chains	●	■	●
BACKHOE			
Backhoe with standard dipperstick, 18 ft. 2 in. digging depth	●	■	●
Backhoe controls	●	■	●
Two-lever (Deere) controls	●	■	●
Three-lever (Case) controls	●	■	●
Four-lever (Ford) controls	●	■	●
SAE excavator two-lever controls	●	■	●
Backhoe transport lock lever	●	■	●
Swing lock pin stored in operator's station	●	■	●
Stabilizer valve with two-direction anti-drift valves	●	■	●
Pivoting stabilizers	●	■	●
With dirt pads	●	■	●
With reversible pads	●	■	●
Stabilizer cylinder guards*	●	■	●
Backhoe buckets	●	■	●
Less bucket, with bucket pins	●	■	●
Heavy duty	●	■	●
Lift loop	●	■	●
Backhoe bucket coupler for "B", "C", and "D" series John Deere buckets*	●	■	●
Extendable dipperstick, 5 ft. extension	●	■	●
Auxiliary backhoe valve for swingers, thumbs, etc.	●	■	●
Auxiliary backhoe valve for hammers, compactors	●	■	●
Auxiliary backhoe plumbing for hammers, compactors	●	■	●
SAE controlled load lowering device valves	●	■	●
LOADER			
Hydraulic self leveling	●	■	●
Return-to-dig feature	●	■	●
Single-lever control with electric clutch cutoff switch	●	■	●
Bucket-level indicator	●	■	●
Loader boom service lock	●	■	●
Auxiliary loader hydraulics with two-lever control	●	■	●
Loader front coupler*	●	■	●
Loader buckets	●	■	●
Less bucket, with bucket pins	●	■	●
Heavy-duty buckets with bolt-on cutting edge, skid plates, and lift loops	●	■	●
Multipurpose buckets with bolt-on cutting edge, skid plates, and lift loops	●	■	●
HYDRAULIC SYSTEM			
53 gpm (201 L/min.) radial-piston pump, closed center	●	■	●
Independent hydraulic reservoir	●	■	●
Hydraulic oil cooler	●	■	●
"O"-ring face seal connectors	●	■	●
10-micron vertical spin-on filter	●	■	●
ELECTRICAL			
12-volt system	●	■	●
65-amp alternator	●	■	●
Dual batteries with 300-min. reserve capacity and 1,500 CCA	●	■	●
Positive terminal battery cover	●	■	●
Blade-type multi-fused circuits	●	■	●
By-pass start safety cover on starter	●	■	●
LIGHTS			
Two front halogen driving/work lights, 32,500 candlepower each	●	■	●
Two additional front halogen work lights, 32,500 candlepower each	●	■	●
Two rear halogen work lights, 32,500 candlepower each	●	■	●
Two front and two rear turn signal/flashing	●	■	●
Two rear stop and tail	●	■	●
Two rear reflectors	●	■	●
Rotating beacon	●	■	●
OPERATOR'S STATION			
Modular-design ROPS/FOPS canopy with molded roof	●	■	●
Isolation mounted / Conforms to SAE J1040	●	■	●
Left and right front access	●	■	●
Slip-resistant steps and ergonomically located handholds	●	■	●
Coat hook	●	■	●
Built-in beverage and Thermos® bottle holders	●	■	●
Built-in Operator's Manual storage compartment with manual	●	■	●
Interior rearview mirror	●	■	●
Outside rearview mirrors	●	■	●
Hand throttle with fuel economy setting at 2,100 rpm	●	■	●
Suspended foot throttle	●	■	●
Horn	●	■	●
Key start switch with electric fuel shutoff	●	■	●
Tachometer/hourmeter, illuminated electric	●	■	●
Fuel gauge, illuminated electric	●	■	●
Monitor system with audible and visual warning	●	■	●
Engine air filter restriction indicator / Alternator indicator / Engine coolant temperature indicator with audible warning / Engine oil pressure indicator with audible warning / Hydraulic filter restriction indicator / Torque converter oil temperature indicator / Parking brake on/off indicator with audible warning / Seat belt indicator / Mechanical-front-wheel-drive on/off indicator / Beacon on/off indicator	●	■	●
Seats and seat belts	●	■	●
Non-suspension vinyl swivel seat without armrests	●	■	●
Suspension vinyl swivel seat with armrests and lumbar support	●	■	●
Suspension fabric swivel seat with armrests and lumbar support	●	■	●
2-in. seat belt with retractors	●	■	●
3-in. seat belt with retractors	●	■	●
Tilt steering	●	■	●
Cab	●	■	●
Headliner	●	■	●
Dome light	●	■	●
Left cab door	●	■	●
Left and right cab doors	●	■	●
Tinted safety glass	●	■	●
Two front and one rear windshield wipers	●	■	●
Front windshield washer	●	■	●
Fresh air intake heater/defroster/pressurizer 40,000 Btu/hr. (11.7 kW) heater	●	■	●
Air conditioning 26,000 Btu/hr. (7.6 kW) output / CFC free R134a refrigerant	●	■	●
95-amp alternator	●	■	●
AM/FM/weatherband radio	●	■	●
OVERALL VEHICLE			
One-piece unitized construction mainframe	●	■	●
Vehicle tie-downs, two front and two rear	●	■	●
Remote grease bank for front axle	●	■	●
Front counterweights	●	■	●
1,070 lb. (486 kg)	●	■	●
1,770 lb. (804 kg)	●	■	●
Fuel tank, 44 gal. (166 L), ground level fueling	●	■	●
Engine side shields with "tip-up" access door	●	■	●
Front grille screen	●	■	●
High-ambient temperature package*	●	■	●
Vandal protection for instrument panel, engine access doors, hydraulic reservoir, and fuel tank	●	■	●
Reverse warning alarm	●	■	●
Switchable to 97 dB(A) or 111 dB(A)	●	■	●
Dent-resistant rear fenders	●	■	●
Rear fender extensions	●	■	●
Front fenders*	●	■	●
SMV emblem	●	■	●
Rental decal kit	●	■	●
Special color paint*	●	■	●

KEY: ● Standard equipment ■ Optional or special equipment

*See your John Deere dealer for further information.



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel at 25.4° API gravity. No deceleration is required up to 10,000 feet (3050 m) altitude. Gross power is without cooling fan.

Specifications and design subject to change without notice. Whenever applicable, specifications are in accordance with SAE standards. (Except where otherwise noted, these specifications are based on a unit with 21L-24, 10 PI P4 rear tires, 14 S/75-16.1, 10 PI P3 front tires, 1.92 cu. yd. (1.24 m³) loader bucket, 24 in. x 11.1 cu. ft. (610 mm x 0.31 m³) backhoe bucket.

