

310 P

Backhoe Loader



JOHN DEERE



MEET THE REDESIGNED 310 P-TIER

When we upgraded our 310L Backhoe Loader, we really used our imaginations. For starters, we imagined more engine power and increased productivity. Low-effort controls. Responsive hydraulics. Unmatched durability. And easier periodic service for lower operating costs. Then we delivered all that — and more, including comfortable cab conveniences, masterful maneuverability, and an extendable dipperstick option. Welcome to your new favorite machine.



FEATURES

Field proven

John Deere 4.5L engines are some of the strongest, most reliable we've ever built. P-Tier Backhoes use a wet-sleeve engine design with replaceable cylinder liners for exceptional cooling, reduced oil breakdown, and reduced ring wear. This means cooler engine components and longer life compared to cast-in block designs.

Greater productivity

The 91-net-peak-horsepower engine option provides nine-percent more power for improved hill climbing, pushing force, and front loader work. Configured with the axial-piston pump, it delivers 26-percent more hydraulic flow versus the standard single-gear pump, enabling greater control, productivity, and multifunctioning at lower engine-rpm range. Better multifunctioning eases the operator's ability to "crabwalk" (or simultaneously use the front and rear machine structures) in tough off-road, sticky, and/or wet conditions.

Reach new heights

For greater performance in extreme elevations and conditions, our high-altitude engine configuration easily gets the job done. It offers pilot injection for easy cold-weather starting, four-valve cylinder head for exceptional "breathing" at high altitude, and a Variable Geometry Turbocharger (VGT) that automatically compensates for altitude changes.

Simplified maintenance

You asked for periodic service and machine repairs to be simple and do-it-yourself. Our proven high-performance systems such as robust mechanical fuel and hydraulic gear pumps help get your machine back to work without leaving the jobsite or dragging into downtime. With this kind of reliability, what else can you expect from a backhoe?

Comfortable cab

Operator's station includes mechanical-suspension deluxe fabric swivel seat with a range of lumbar settings, fully adjustable armrests, expansive front window, and more legroom. To be even more efficient and reduce operator fatigue, opt for low-effort backhoe pilot controls.



**HIGH-ALTITUDE ENGINE
BOOSTS PERFORMANCE
IN EXTREME ELEVATIONS
& WORKING CONDITIONS**

Smooth gear changes

Standard four-speed PowerShift™ transmission provides on-the-go clutchless gear changes for the operator, minimizing fatigue and maximizing productivity. Travel speeds of over 22 mph help ease moves on and between jobsites.

Work in tight areas

Compact overall length enables extra maneuverability on close jobsites. Looking for more reach? The extendable dipperstick option will help you get there.

True 4WD on command

Optional limited-slip mechanical-front-wheel drive (MFWD) delivers sure-footed traction in a wide range of ground conditions.

Diagnostic interface

State-of-the-art multi-language monitor clearly displays a wealth of vital and general machine info plus onboard diagnostics of most sensors and switches, for uptime-boosting troubleshooting.

Diff-lock protection

When enabled through the monitor, differential-lock protection prevents engagement at high travel speeds and subsequent wear and tear on axle components.

Take it easy

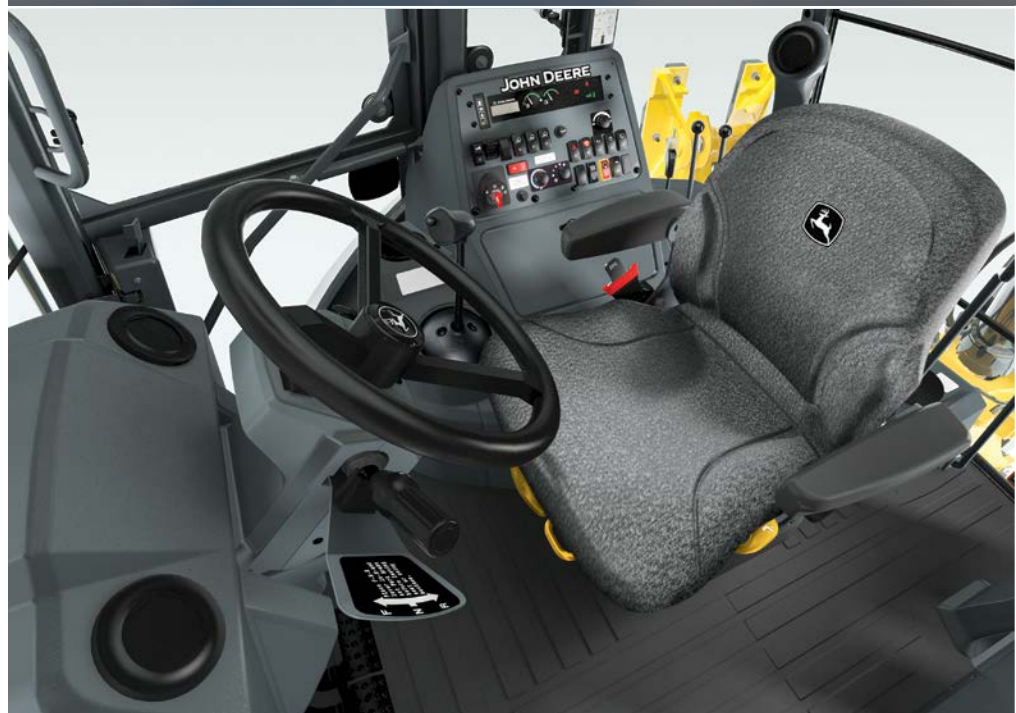
Optional ride control functions as a shock absorber, smoothing moves over rough terrain. So full loads are more likely to arrive at their destination instead of somewhere in-between. Also helps reduce operator fatigue.

Get a grip

"Palm-on-top" loader-control grip is even more comfortable and easy to use. Clutch disconnect is integrated into the control grip, ideal for stockpiling or truck loading.



OPTIONAL 4WD
AT YOUR COMMAND



310 P-TIER BACKHOE LOADER



Save time and money

Quick-change filters and generous nonmetallic fuel tank increase uptime and lower daily operating costs.

Extended service intervals

500-hour engine and 2,000-hour hydraulic oil-service intervals[†] enable the 310 P-Tier to work longer between changes.

[†]High-altitude engine configuration has a 250-hour oil-service interval.

Daily checks made easy

Same-side ground-level service points speed daily checks and fluid fills. Simple-to-read sight gauges and easy-access grease zerks help increase uptime and contain operating costs.



310 P-TIER BACKHOE LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		310 P-TIER							
Manufacturer and Model	John Deere PowerTech™ 4.5L 4045TBZ02 turbocharged	John Deere PowerTech 4.5L 4045TBZ01 turbocharged	John Deere PowerTech™ Plus 4.5L 4045HBZ02 turbocharged, country specific	John Deere PowerTech™ E 4.5L 4045HT086 turbocharged, country specific					
Non-Road Emission Standard	Noncertified	EPA Tier 2/EU Stage II	EU Stage IIIA certified; optimized for high-altitude operation (HALT)	EU Stage IIIA / R96					
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)					
Power Ratings									
Gross Power at Rated Speed	63 kW (85 hp) at 2,200 rpm	63 kW (84 hp) at 2,200 rpm	66 kW (88 hp) at 2,250 rpm	66 kW (88 hp) at 2,250 rpm					
Gross Peak Power	69 kW (92 hp) at 1,800 rpm	66 kW (88 hp) at 2,000 rpm	68 kW (92 hp) at 2,000 rpm	68 kW (92 hp) at 2,000 rpm					
Gross Peak Torque	388 Nm (286 lb.-ft.) at 1,200 rpm	355 Nm (262 lb.-ft.) at 1,300 rpm	387 Nm (285 lb.-ft.) at 1,300 rpm	387 Nm (285 lb.-ft.) at 1,300 rpm					
Net Peak Power (ISO 9249)	68 kW (91 hp) at 1,800 rpm	62 kW (83 hp) at 2,000 rpm	65 kW (87 hp) at 1,960 rpm	68 kW (91 hp) at 2,000 rpm					
Net Peak Torque (ISO 9249)	383 Nm (282 lb.-ft.) at 1,200 rpm	345 Nm (254 lb.-ft.) at 1,200 rpm	377 Nm (278 lb.-ft.) at 1,300 rpm	382 Nm (282 lb.-ft.) at 1,300 rpm					
Net Torque Rise	41%	36%	46%	39%					
Power Ratings With Optional Viscous Fan									
Gross Power at Rated Speed	N/A	N/A	66 kW (88 hp) at 2,250 rpm	N/A					
Gross Peak Power	N/A	N/A	68 kW (92 hp) at 2,000 rpm	N/A					
Gross Peak Torque	N/A	N/A	387 Nm (285 lb.-ft.) at 1,300 rpm	N/A					
Net Peak Power (ISO 9249)	N/A	N/A	68 kW (91 hp) at 2,000 rpm	N/A					
Net Peak Torque (ISO 9249)	N/A	N/A	382 Nm (282 lb.-ft.) at 1,300 rpm	N/A					
Net Torque Rise	N/A	N/A	39%	N/A					
Lubrication	Pressure system with spin-on filter and cooler		Pressure system with spin-on filter and cooler						
Air Cleaner	Dual-stage dry type with safety element and evacuator valve		Dual-stage dry type with safety element and evacuator valve						
Cooling									
Fan Type	Suction type, temperature-controlled (viscous), variable rate	Suction type	Suction type standard; suction type, temperature-controlled (viscous), variable rate optional	Suction type, temperature-controlled (viscous), variable rate					
Engine Coolant Rating	-40 deg. C (-40 deg. F)	-40 deg. C (-40 deg. F)	-40 deg. C (-40 deg. F)	-40 deg. C (-40 deg. F)					
Engine Oil Cooler	Oil to water	Oil to water	Oil to water	Oil to water					
Powertrain									
<i>Noncertified / EPA Tier 2/EU Stage II / HALT / Mar-1 / EPA Tier 3/EU Stage IIIA / R96</i>									
Transmission	4-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever								
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)								
Measured With 19.5L-24 Rear Tires	<i>Standard Engine</i>								
	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.4 km/h (3.4 mph)	6.8 km/h (4.2 mph)	5.4 km/h (3.4 mph)	6.8 km/h (4.2 mph)	5.4 km/h (3.4 mph)	6.9 km/h (4.3 mph)	5.5 km/h (3.4 mph)	6.9 km/h (4.3 mph)	
Gear 2	9.9 km/h (6.2 mph)	12.5 km/h (7.8 mph)	9.9 km/h (6.2 mph)	12.5 km/h (7.8 mph)	10.0 km/h (6.2 mph)	12.7 km/h (7.9 mph)	10.1 km/h (6.3 mph)	12.8 km/h (8.0 mph)	
Gear 3	20.3 km/h (12.6 mph)	—	20.3 km/h (12.6 mph)	—	20.7 km/h (12.9 mph)	—	20.8 km/h (12.9 mph)	—	
Gear 4	37.0 km/h (23.0 mph)	—	36.9 km/h (22.9 mph)	—	37.4 km/h (23.2 mph)	—	37.7 km/h (23.4 mph)	—	
Axles									
Axle Oscillation, Stop to Stop, Front Axle	22 deg.								
Axle Ratings	<i>Front</i>		<i>Rear</i>						
SAE J43	5500 kg (12,100 lb.)		6500 kg (14,300 lb.)						
Dynamic	9000 kg (19,800 lb.)		10 000 kg (22,000 lb.)						
Static	24 500 kg (54,000 lb.)		26 500 kg (58,400 lb.)						
Ultimate	41 500 kg (91,500 lb.)		41 500 kg (91,500 lb.)						
Differentials									
Mechanical-Front-Wheel-Drive (MFWD) Axle	Open – standard; automatic, limited-slip traction control – custom or optional								
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock								

310 P-TIER BACKHOE LOADER SPECIFICATIONS

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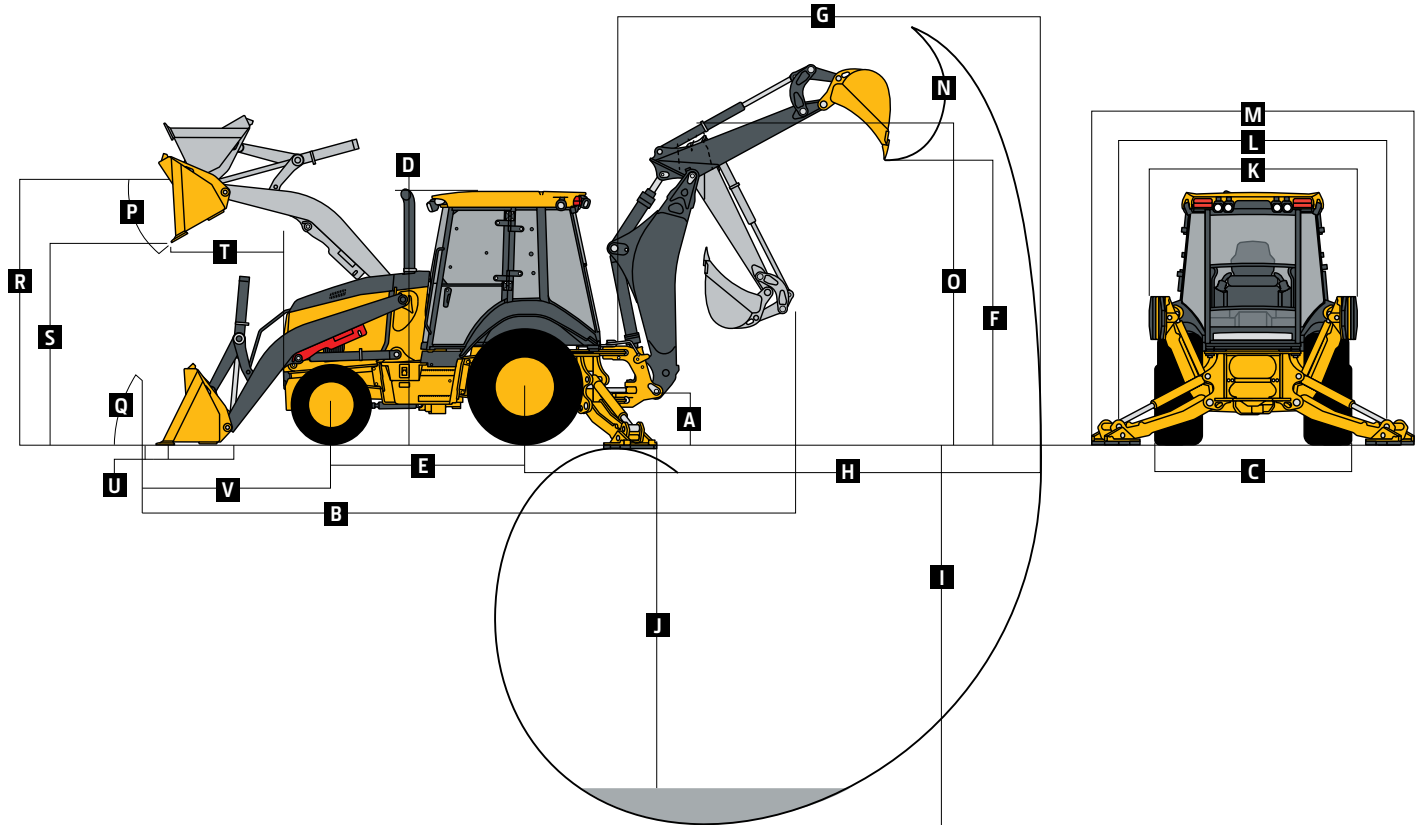
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Powertrain (continued)		310 P-TIER			
		<i>Noncertified / EPA Tier 2/EU Stage II / HALT / Mar-I / EPA Tier 3/EU Stage IIIA / R96</i>			
Steering (ISO 5010)	Hydrostatic power steering and emergency steering				
Axle	MFWD		Non-Powered Front		
Curb-Turning Radius					
With Brakes	3.43 m (11 ft. 3 in.)	3.33 m (10 ft. 11 in.)			
Without Brakes	3.91 m (12 ft. 10 in.)	3.77 m (12 ft. 4 in.)			
Bucket-Clearance Circle					
With Brakes	9.97 m (32 ft. 9 in.)	9.90 m (32 ft. 6 in.)			
Without Brakes	10.67 m (35 ft. 0 in.)	10.55 m (34 ft. 7 in.)			
Steering Wheel Turns (lock to lock)	2.7	3.2			
MFWD and Rear Axles	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears				
Brakes (ISO 3450)					
Service	Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing				
Parking	Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control				
Hydraulics					
Main Pump	Open-center system; single-gear pump standard		Open center, axial-piston pump optional		
Pump Flow	2,200 rpm		2,400 rpm		
Backhoe	106 L/m (28 gpm)		134 L/m (35.5 gpm)		
Loader	106 L/m (28 gpm)		120 L/m (31.7 gpm)		
System Relief Pressure					
Backhoe	24 993 kPa (3,625 psi)		24 993 kPa (3,625 psi)		
Loader	22 063 kPa (3,200 psi)		22 063 kPa (3,200 psi)		
Controls					
Backhoe	2-lever manual standard; pilot controls with pattern select optional				
Loader	Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever) optional				
Electrical					
		<i>Noncertified</i>	<i>EPA Tier 2/EU Stage II</i>	<i>HALT</i>	<i>Mar-I / EPA Tier 3/ EU Stage IIIA / R96</i>
Voltage	12 volt		12 volt	12 volt	12 volt
Alternator Rating					
Dual-Lever Backhoe Control	90 amp	90 amp	120 amp	90 amp	
Pilot Backhoe Control	120 amp	120 amp	120 amp	120 amp	
Lights	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors; cab (10 lights); quarter cab (6 lights)				
Operator Station					
Type (ISO 3471)	Fully enclosed cab, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) or canopy (no glass)*				
*Not available for HALT models.					
Tires/Wheels					
		<i>Noncertified / EPA Tier 2/EU Stage II / HALT / Mar-I / EPA Tier 3/EU Stage IIIA / R96</i>			
		<i>Front</i>	<i>Rear</i>		
Non-Powered Front Axle	11L-16 F-3 (12)	19.5L-24 R-4 (10)			
	10.5L-16 12 PR	16.9L-24 10 PR			
With MFWD	12 – 16.5 in. 10 PR	19.5L-24 in. 10 PR			
	12.5/80-18 in. 14 PR	19.5L-24 in. 10 PR			
	12.5/80-18 in. 12 PR	19.5L-24 in. 12 PR			
	12.5/80-18 in. 10 PR	19.5L-24 in. 10 PR			
	12.5/80-18 in. 14 PR	21.0L-24 in. 10 PR			
Serviceability					
Refill Capacities			Refill Capacities (continued)		
Cooling System	21 L (22.2 qt.)	Hydraulic System		102.2 L (27 gal.)	
Rear Axle	18 L (19 qt.)	Hydraulic Reservoir		371 L (9.8 gal.)	
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)	MFWD Axle			
Torque Converter and Transmission	15.1 L (16 qt.)	Differential Housing		6.5 L (6.9 qt.)	
Fuel Tank (with ground-level fueling)	155.2 L (41 gal.)	Planetary (each)		0.9 L (1.0 qt.)	
Operating Weights					
With Full Fuel Tank, 75-kg (165 lb.) Operator, and Standard Equipment				Optional Components (weight difference between base equipment and option)	
Standard With Cab, 4-Wheel-Drive Axle, and Bumper	7357 kg (16,219 lb.)	Cab		281 kg (619 lb.)	
Typical With Cab, 4WD, Extendible Dipperstick, and 204-kg (450 lb.) Counterweight	7757 kg (17,101 lb.)	Standard Front Axle		-137 kg (-302 lb.)	
		With Tires			
		Extendible Dipperstick		196 kg (432 lb.)	

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Overall Dimensions	310 P-TIER
A Ground Clearance, Minimum	305 mm (12 in.)
B Overall Length, Transport	7.09 m (23 ft. 3 in.)
C Width Over Tires	2.18 m (7 ft. 2 in.)
D Height to Top of ROPS/Cab	2.74 m (9 ft. 0 in.)
E Length From Axle to Axle	
Non-Powered Front Axle	2.11 m (6 ft. 11 in.)
MFWD Axle	2.14 m (7 ft. 0 in.)



Backhoe Dimensions and Performance

Backhoe specifications are with 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) bucket; dipper-lift specs are with a boom angle of 65 degrees

Bucket Range	305–762 mm (12–30 in.)		
Digging Force			
Bucket Cylinder	48.2 kN (10,843 lb.)		
Crowd Cylinder	31.1 kN (6,991 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
Leveling Angle	14 deg.		
Stabilizer Angle Rearward	18 deg.		

	With Optional Extendable Dipperstick		
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.40 m (11 ft. 2 in.)	3.48 m (11 ft. 5 in.)	4.14 m (13 ft. 7 in.)
G Reach From Center of Swing Pivot	5.42 m (17 ft. 10 in.)	5.49 m (18 ft. 0 in.)	6.51 m (21 ft. 4 in.)
H Reach From Center of Rear Axle	6.49 m (21 ft. 3 in.)	6.55 m (21 ft. 6 in.)	7.57 m (24 ft. 10 in.)
I Digging Depth (SAE maximum)	4.27 m (14 ft. 0 in.)	4.35 m (14 ft. 3 in.)	5.40 m (17 ft. 9 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.24 m (13 ft. 11 in.)	4.31 m (14 ft. 2 in.)	5.37 m (17 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	3.90 m (12 ft. 10 in.)	3.98 m (13 ft. 1 in.)	5.12 m (16 ft. 10 in.)
K Stabilizer Width, Transport With Standard Pads and No Guards	2.19 m (7 ft. 2 in.)	2.19 m (7 ft. 2 in.)	2.19 m (7 ft. 2 in.)
L Stabilizer Spread, Operating	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)
M Stabilizer Overall Width, Operating	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)

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310 P-TIER

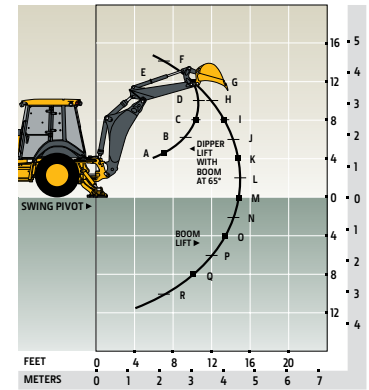
Loader Dimensions and Performance	310 P-TIER	
P Bucket Dump Angle, Maximum	45 deg.	
Q Rollback Angle at Ground Level	40 deg.	
	<i>Heavy-duty</i>	<i>Multipurpose</i>
Bucket Capacity	0.96 m ³ (1.25 cu. yd.)	0.96 m ³ (1.25 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)
Weight	480 kg (1,058 lb.)	800 kg (1,764 lb.)
Breakout Force	39.6 kN (8,908 lb.)	37.0 kN (8,314 lb.)
Lift Capacity, Full Height	2860 kg (6,306 lb.)	2578 kg (5,684 lb.)
R Height to Bucket Hinge Pin, Maximum	3.43 m (11 ft. 3 in.)	
S Dump Clearance, Bucket at 45 deg.	2.63 m (8 ft. 7 in.)	
T Reach at Full Height, Bucket at 45 deg.	837 mm (33.0 in.)	753 mm (29.6 in.)
U Digging Depth Below Ground, Bucket Level	106 mm (4.2 in.)	166 mm (6.5 in.)
V Length From Front Axle Centerline to Bucket Cutting Edge	2.10 m (6 ft. 11 in.)	2.08 m (6 ft. 10 in.)

Lift Capacities *[see line art at right]*

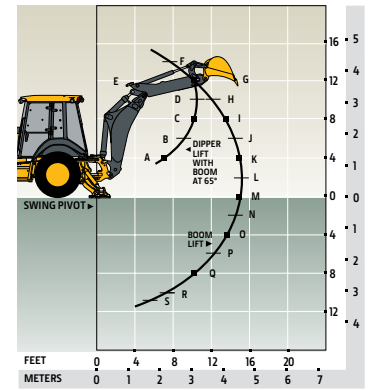
Lift capacities are over-end values in kg (lb.). Figures listed are 100% of the maximum lift force available.

	<i>With 1.06-m (3 ft. 6 in.)</i>	<i>With 1.06-m (3 ft. 6 in.)</i>
<i>With Standard Dipperstick</i>	<i>Extendable Dipperstick, Retracted</i>	<i>Extendable Dipperstick, Extended</i>
A 4014 kg (8,850 lb.)	3323 kg (7,327 lb.)	3018 kg (6,654 lb.)
B 2497 kg (5,505 lb.)	2267 kg (4,999 lb.)	2030 kg (4,476 lb.)
C 2225 kg (4,905 lb.)	2031 kg (4,478 lb.)	1656 kg (3,651 lb.)
D 2200 kg (4,850 lb.)	2010 kg (4,431 lb.)	1500 kg (3,306 lb.)
E 2047 kg (4,514 lb.)	1857 kg (4,093 lb.)	1434 kg (3,162 lb.)
F 1517 kg (3,346 lb.)	1340 kg (2,955 lb.)	1429 kg (2,740 lb.)
G 1589 kg (3,502 lb.)	1403 kg (3,093 lb.)	1298 kg (2,489 lb.)
H 1559 kg (3,437 lb.)	1378 kg (3,037 lb.)	1036 kg (1,987 lb.)
I 1511 kg (3,330 lb.)	1333 kg (2,940 lb.)	—
J 1459 kg (3,217 lb.)	1285 kg (2,834 lb.)	960 kg (1,841 lb.)
K 1409 kg (3,106 lb.)	1238 kg (2,729 lb.)	1024 kg (1,964 lb.)
L 1362 kg (3,002 lb.)	1193 kg (2,630 lb.)	1036 kg (1,986 lb.)
M 1318 kg (2,906 lb.)	1151 kg (2,538 lb.)	1028 kg (2,266 lb.)
N 1279 kg (2,820 lb.)	1113 kg (2,455 lb.)	1012 kg (2,231 lb.)
O 1245 kg (2,745 lb.)	1080 kg (2,382 lb.)	992 kg (2,187 lb.)
P 1218 kg (2,685 lb.)	1053 kg (2,322 lb.)	971 kg (2,141 lb.)
Q 1203 kg (2,651 lb.)	1037 kg (2,287 lb.)	950 kg (2,095 lb.)
R 1228 kg (2,707 lb.)	1055 kg (2,326 lb.)	930 kg (2,051 lb.)
S —	1141 kg (2,515 lb.)	912 kg (2,010 lb.)
T —	—	895 kg (1,974 lb.)
U —	—	882 kg (1,945 lb.)
V —	—	874 kg (1,927 lb.)
W —	—	875 kg (1,929 lb.)
X —	—	897 kg (1,977 lb.)
Y —	—	1024 kg (2,257 lb.)

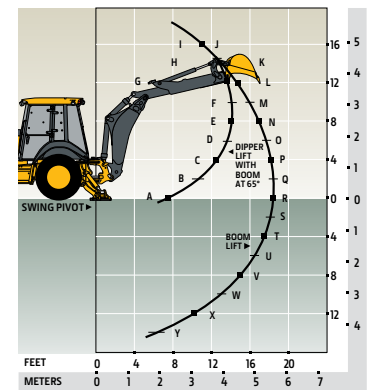
Lift capacities are over end with stabilizers down and tires tangent to ground.



With Standard Dipperstick



With 1.06-m (3 ft. 6 in.)
Extendable Dipperstick, Retracted



With 1.06-m (3 ft. 6 in.)
Extendable Dipperstick, Extended

Additional equipment

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

310 P Engine

- Coolant recovery tank with low-level indicator
- Foldout, hinged cooling system
- Serpentine belt with automatic belt tensioner
- Electronically controlled, variable-rate suction-type cooling fan
- Self-cleaning exhaust aftertreatment system
- ▲ Chrome exhaust extension
- Grid heat
- ▲ 1,000-watt electric engine coolant heater
- Electronic fuel lift pump

Powertrain

- PowerShift™ transmission: Torque converter with twist-grip Transmission Control Lever (TCL) and neutral safety switch interlock (1st through 4th gears)
- Transmission oil cooler
- ▲ Transmission remote oil-sampling port
- Differential lock, electric foot actuated, protection on/off (software enabled)
- Planetary final drives
- Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet multi-disc, self-adjusting and self-equalizing
- Parking/emergency brake with electric switch control (conforms to ISO 3450): Spring applied, hydraulically released wet multi-disc / Independent of service brakes

310 P Powertrain (continued)

- Hydrostatic power steering with emergency manual mode
- ▲ Non-powered front axle
- Mechanical-front-wheel drive (MFWD) with open differential: Electric on/off control / Sealed axle
- ▲ MFWD with traction-control limited-slip differential: Electric on/off control / Sealed axle
- Automatic MFWD braking
- ▲ MFWD driveshaft guard

Backhoe

Standard dipperstick digging depth

- 4.27 m (14 ft. 0 in.)
- Extendable dipperstick extension
- ▲ 1.06 m (3 ft. 6 in.)
- ISO (Deere) 2-lever mechanical backhoe controls
- ▲ 2-lever pilot controls with pattern-selection feature
- Backhoe transport lock lever
- Swing lock pin stored in operator's station
- Stabilizers with 2-direction anti-drift valves
- ▲ Backhoe couplers for John Deere, Case, and Cat buckets
- ▲ Auxiliary backhoe valve with 1-way flow for hammers and compactors with plumbing

Loader†

- Loader bucket anti-spill (rollback)
- Return-to-dig feature

310 P Loader† (continued)

- Single-lever control with electric clutch disconnect
- Bucket-level indicator
- Loader boom service lock
- ▲ Auxiliary loader hydraulics (3rd-function valve) with 2-lever control and clutch disconnect
- ▲ Standard ride control

Hydraulic System

- 106-L/m (28 gpm) single-gear pump, open-center system
- ▲ 134-L/m (35.5 gpm) backhoe, 120-L/m (31.7 gpm) loader axial-piston pump, open-center system
- Economy mode
- Dedicated hydraulic reservoir

Electrical System

- 12-volt system
- Alternator, 90 amp (with dual-lever backhoe manual controls) for Noncertified, EPA Tier 2/EU Stage II, and Mar-I / Tier 3/Stage IIIA / R96; 120 amp for high-altitude operation (HALT)
- Alternator, 120 amp (with pilot backhoe controls)
- Single battery with 190-min. reserve capacity and 1,010 CCA
- ▲ Dual batteries with 380-min. reserve capacity and 2,020 CCA
- ▲ Remote jump posts and battery disconnect

†See dealer for range of heavy-duty (HD), multi-purpose, and coupler buckets and forks.

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on a unit with 19.5-24-in. 10PR (R4) tubeless rear and 12.5/80-18 12PR front tires, and 0.96-m³ (1.25 cu. yd.) loader bucket.

Additional equipment *(continued)*

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

310 P Lights

- Halogen lights (10), 32,500 candle-power each (4 front driving/working, 4 rear working, and 2 side docking)
- Turn signal/flashing (2 front and 2 rear)
- Rear stop and tail (2)
- ▲ LED light package

Operator's Station

- Modular-design ROPS/FOPS (Level 2) canopy with molded roof (meets ISO 3449 and ISO 3471/SAE J1040): Isolation mounted
- Molded floor mats (with pilot controls only)
- 12-volt outlet
- Lockable right-side storage
- ▲ Lockable left-hand storage with cup holders
- ▲ Interior front-view mirror
- ▲ Outside rearview mirrors
- Rotary-dial hand throttle
- Suspended foot throttle
- Mechanical-suspension seat, cloth cover
- ▲ Air-suspension heated seat (with cab only)
- ▲ Air-suspension vinyl seat
- Key start switch with electric fuel shutoff
- Tilt steering, infinitely adjustable (with cab only)
- ▲ Tilt steering, infinitely adjustable (with canopy and quarter cab)

310 P Operator's Station *(continued)*

- ▲ Machine security (enabled through monitor)
- Digital display of engine hours, engine rpm, and system voltage
- Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission fluid temperature / Fuel / Hour meter / Machine diagnostic information via 4-push-button/LCD operator interface
- **Canopy:** Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable)
- ▲ **Quarter Cab:** Mechanical-suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front)
- ▲ **Cab With Dual Doors and A/C:** Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Headliner, dome light, left and right cab doors, tinted safety glass, windshield wipers (1 rear and 1 front), front windshield washer, fresh-air intake, and heater/defroster/pressurizer (11.7-kW [40,000 Btu/h] heater) / A/C (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant)


310 P Operator's Station *(continued)*

- ▲ AM/FM/weather-band (WB) radio (with cab only)
 - ▲ Premium radio package (with cab only; includes additional 12-volt and USB outlets)
- ## Overall Vehicle
- 1-piece unitized construction mainframe
 - Vehicle tie-downs (2 front and 2 rear)
 - Remote grease bank for front axle
 - Front bumper cover
 - ▲ HD front bumper
 - ▲ Front counterweight – 204 kg (450 lb.) or 340 kg (750 lb.)
 - ▲ Rubber grille bumpers
 - Fuel tank, 155 L (41 gal.), ground-level fueling
 - 2-position easy-tilt hood
 - Extended grille frame
 - Toolbox with padlock hasp
 - Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank
 - Reverse warning alarm
 - Dent-resistant full-coverage rear fenders
 - ▲ Backhoe boom-protection plate
 - JDLink™ wireless communication system (available in specific countries; see your dealer for details)
 - ▲ HD front grille screen
 - ▲ HD stabilizer pads

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ISO standards. Except where otherwise noted, these specifications are based on a unit with 19.5-24-in. 10PR (R4) tubeless rear and 12.5/80-18 12PR front tires, and 0.96-m³ (1.25 cu. yd.) loader bucket.




MB310PABPT (23-05)

 **JOHN DEERE**