

Field proven

John Deere 4.5L engines are some of the strongest, most reliable we've ever built. L-Series 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.

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 mechanicalsuspension 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.

Save time and money

Same-side ground-level service points help speed daily checks and fills. Quick-change filters, extended maintenance intervals, simple-to-read sight gauges, nonmetallic fuel tank, and easy-access grease zerks increase uptime and lower daily operating costs.

Smooth gear changes

Standard four-speed PowerShift™ transmission provides on-the-go clutchless gear changes for the operator, minimizing fatigue and maximizing productivity.

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 surefooted 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.

Powertrain performance

Responsive standard four-speed transmission productively delivers travel speeds over 22 mph.

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.

Extended service intervals

500-hour engine and 2,000-hour hydraulic oil-service intervals[†] enable the 310L 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.

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.







SPECIFICATION



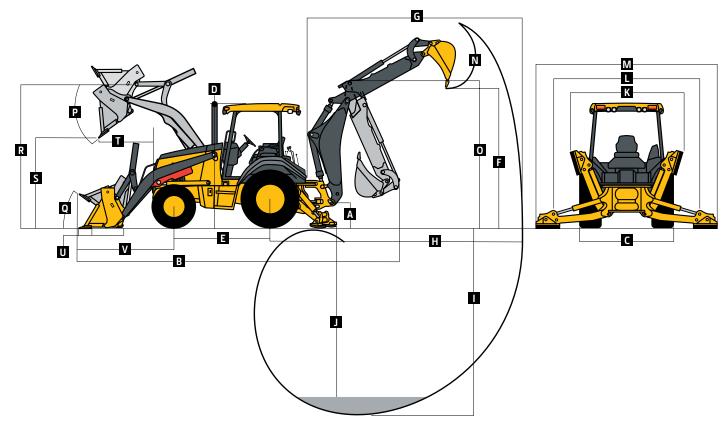


Engine	310L		
Manufacturer and Model	John Deere PowerTech™ 4045TBZ01 turbocharged	John Deere PowerTech 4045HBZ01 turbocharged	John Deere PowerTech™ Plus 4045HBZ02 turbocharged, country specific
Non-Road Emission Standard	EPA Tier 2/EU Stage II	Brazil MAR-I	Non-certified; optimized for high-altitude use (HALT)
Displacement	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)
Power Ratings With Fixed Fan			
Gross Power at Rated Speed	63 kW (84 hp) at 2,200 rpm	N/A	65 kW (88 hp) at 2,250 rpm
Gross Peak Power	66 kW (88 hp) at 2,000 rpm	N/A	68 kW (92 hp) at 2,000 rpm
Gross Peak Torque	355 Nm (262 lbft.) at 1,300 rpm	N/A	387 Nm (285 lbft.) at 1,300 rpn
Net Peak Power (ISO 9249)	62 kW (83 hp) at 2,000 rpm	N/A	65 kW (87 hp) at 1,960 rpm
Net Peak Torque (ISO 9249)	344 Nm (254 lbft.) at 1,200 rpm	N/A	377 Nm (278 lbft.) at 1,300 rpm
Net Torque Rise	36%	N/A	46%
Power Ratings With Viscous Fan			
Gross Power at Rated Speed	N/A	65 kW (87 hp) at 2,200 rpm	65 kW (88 hp) at 2,250 rpm
Gross Peak Power	N/A	66 kW (88 hp) at 1,980 rpm	68 kW (92 hp) at 2,000 rpm
Gross Peak Torque	N/A	371 Nm (274 lbft.) at 1,600 rpm	387 Nm (285 lbft.) at 1,300 rpn
Net Peak Power (ISO 9249)	N/A	64 kW (86 hp) at 1,850 rpm	68 kW (91 hp) at 1,960 rpm
Net Peak Torque (ISO 9249)	N/A	365 Nm (269 lbft.) at 1,600 rpm	382 Nm (282 lbft.) at 1,300 rpn
Net Torque Rise	N/A	32%	40%
Lubrication	Pressure system with spin-on filter and cooler	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	Dual-stage dry type with safety element and evacuator valve
Cooling			
Fan Type	Belt-driven standard	Suction-type temperature controlled (viscous) standard	Suction type standard / suction type temperature controlled (viscous), variable rate optional
Engine Coolant Rating	–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
Powertrain		2 22	
Transmission	4-speed, helical-cut gears, full Pow cutoff on loader lever	verShift™ transmission with hydraulic	reverser standard; electric clutch
Torque Converter Measured With 19.5L-24 Rear Tires	Single stage, dual phase with 2.63: Standard Engine	l stall ratio, 280 mm (11 in.)	
	Forward	Reverse	
Gear 1	5.3 km/h (3.3 mph)	6.8 km/h (4.2 mph)	
Gear 2	9.8 km/h (6.1 mph)	12.4 km/h (7.7 mph)	
Gear 3	20.3 km/h (12.6 mph)	_	
Gear 4	36.8 km/h (22.9 mph)	_	
Axles	3010 1.11.11 1.12.13 1.11.17		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
Time oscillation, Stop to Stop, Hone Time			
	zz deg.	Mechanical-Front-Wheel	
Axle Ratings	-	Mechanical-Front-Wheel Drive (MFWD)	Rear
Axle Ratings SAF 143	Non-Powered Front	Drive (MFWD)	Rear 6000 ka (13 200 lb.)
SAE J43	Non-Powered Front 5000 kg (11,000 lb.)	<i>Drive (MFWD)</i> 5000 kg (11,000 lb.)	6000 kg (13,200 lb.)
SAE J43 Dynamic	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.)	<i>Drive (MFWD)</i> 5000 kg (11,000 lb.) 8500 kg (18,700 lb.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.)
SAE J43 Dynamic Static	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.)
SAE J43 Dynamic Static Ultimate	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.)	<i>Drive (MFWD)</i> 5000 kg (11,000 lb.) 8500 kg (18,700 lb.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.)
SAE J43 Dynamic Static Ultimate Differentials	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or op	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engag	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010)	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engag	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock tergency steering MFWD	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius With Brakes	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em Non-Powered Front 3.51 m (11 ft. 6 in.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock regency steering MFWD 3.53 m (11 ft. 7 in.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius With Brakes Without Brakes	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock tergency steering MFWD	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius With Brakes Without Brakes Bucket-Clearance Circle	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em Non-Powered Front 3.51 m (11 ft. 6 in.) 4.11 m (13 ft. 6 in.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock regency steering MFWD 3.53 m (11 ft. 7 in.) 4.14 m (13 ft. 7 in.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius With Brakes Without Brakes Bucket-Clearance Circle With Brakes	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em Non-Powered Front 3.51 m (11 ft. 6 in.) 4.11 m (13 ft. 6 in.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock regency steering MFWD 3.53 m (11 ft. 7 in.) 4.14 m (13 ft. 7 in.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)
SAE J43 Dynamic Static Ultimate Differentials MFWD Axle Rear Axle Steering (ISO 5010) Axle Curb-Turning Radius With Brakes Without Brakes Bucket-Clearance Circle	Non-Powered Front 5000 kg (11,000 lb.) 7000 kg (15,400 lb.) 20 500 kg (45,200 lb.) 32 500 kg (71,700 lb.) Open – standard; automatic, limite Foot actuated, hydraulically engage Hydrostatic power steering and em Non-Powered Front 3.51 m (11 ft. 6 in.) 4.11 m (13 ft. 6 in.)	Drive (MFWD) 5000 kg (11,000 lb.) 8500 kg (18,700 lb.) 23 500 kg (51,800 lb.) 37 000 kg (81,600 lb.) d-slip traction control – custom or oped 100% mechanical lock regency steering MFWD 3.53 m (11 ft. 7 in.) 4.14 m (13 ft. 7 in.)	6000 kg (13,200 lb.) 9500 kg (20,900 lb.) 26 000 kg (57,300 lb.) 39 500 kg (87,100 lb.)

Brikes Service Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released, wet, multi-disc, independent of service brakes with electric switch cot Hydraulically released to the multi-disc, independent of service brakes with electric switch standard; manual auxiliary function (2nd level) options Relief Pressure Backhoe 24-ever manual standard; plot controls with pattern select optional Loader Backhoe 2-lever manual standard; plot controls with pattern select optional Loader Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd level optional Electric Switch standard; manual auxiliary function (2nd level optional Electric Clutch cutoff switch standard; manual auxiliary function (2nd level optional Electric Switch Standard; manual auxiliary function (2nd level optional Electric Switch S	Powertrain (continued)	310L			
Parks 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 controls with pump Poward 12,000 rpm			netary final drives distribute shock loa	ads over 3 gears	
Service Power assisted, hydraulic wet dist, mounted inhoard, self-adjusting and self-equalizing Parking Spring applied, hydraulically released, wet, multi-dist, independent of service brokes with electric switch to the strict of the service brokes with electric switch to the service brokes with electric switch standard; replication Service brokes Service		ricary auty, outzouru pia		-us ove. 5 geu.5	
Parking		Power assisted, hydraulic wet disc, mounted inhoard, self-adjusting and self-equalizing			
Hydraulics					
Name		Spring applica, nyaraanca	ny rereased, week marer arse, maepemae	The Grade States than electric switch control	
Pump Flow st 2,200 rpm Backhoe 106 L/m (28 gpm) System Relief Pressure Backhoe 24 993 kPa (3.625 psi) Loader System Relief Pressure Backhoe 24 993 kPa (3.625 psi) Loader System Relief Pressure Backhoe System Relief Pressure System Relief P	•	Open center, single-gear	numn		
Backhoe 106 L/m (28 gpm)		open center, single gear	Pamp		
System Relief Pressure Sackhoe 24 993 kPa (3,625 psi)		106 L /m (28 apm)			
System Relief Pressure 24 993 kPa (3,625 psi) Loader 22 063 kPa (3,200 psi) Controls Backhoe 24-lever manual standard; pilot controls with pattern select optional Loader Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever) option (2nd lever) op					
Backhoe		100 E/III (20 gpiii)			
Controls	,	74 993 kPa (3.675 psi)			
Centrols Backhoe 2-lever manual standart; pilot controls with pattern select optional Loader Single-lever control with electric clutch cutoff switch standard; manual auxiliary function [2nd lever) option. Cylinder Fleat-treated, chrome-plated, polished rods; hardened steel [replaceable bushings] private					
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] optic Cylinder		22 003 Ki a (3,200 psi)			
Loader Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever) opt Cylinder	22.13.2.2	2 lover manual standard:	nilat controls with nattern select anti	anal	
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pims Bare Rod Diameter Stroke Stroke Loader Boom (2) 80 mm (13.5 in.) 50 mm (1.97 in.) 790 mm (13.10 in.) 10 mm (13.5 in.) 50 mm (1.97 in.) 794 mm (13.10 in.) 10 mm (13.3 in.) 56 mm (2.20 in.) 821 mm (32.32 in.) 10 mm (4.33 in.) 63 mm (2.48 in.) 553 mm (21.77 in.) 10 mm (13.5 in.) 63 mm (2.48 in.) 553 mm (21.77 in.) 10 mm (12.5 in.) 82 mm (13.5 in.) 83 mm (12.78 in.)					
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pinc. Loader Boom (2)		Single-level control with	electric clutch cutoff switch standard,	, manual auxiliary function (2nd lever) optional	
Bore Rod Dimeter Stroke		ad stool (roplaceable bushing	us) pivot pips		
Loader Boom (2) 80 mm (3.15 in.) 50 mm (1.97 in.) 790 mm (3.10 in.) Loader Bucket (1) 90 mm (3.25 in.) 50 mm (1.97 in.) 744 mm (2.92 in.) Backhoe Boom (1) 110 mm (4.33 in.) 65 mm (2.20 in.) 821 mm (32.32 in.) Backhoe Crowd (1) 110 mm (4.33 in.) 63 mm (2.48 in.) 553 mm (2.17 in.) Backhoe Swing (2) 80 mm (3.15 in.) 45 mm (1.77 in.) 30 mm (12.20 in.) Backhoe Extendable Dipperstick (1) 63 mm (3.15 in.) 45 mm (1.77 in.) 100 cm (14.81 in.) Backhoe Stabilizer (2) 80 mm (3.15 in.) 50 mm (1.97 in.) 500 mm (19.20 in.) Non-Powered Axle (1) 70 mm (2.76 in.) 42 mm (1.65 in.) 20 mm (1.97 in.) 500 mm (19.99 in.) Non-Powered Axle (1) 70 mm (2.76 in.) 42 mm (1.65 in.) 20 mm (1.97 in.) 500 mm (19.99 in.) Non-Powered Axle (1) 70 mm (2.76 in.) 42 mm (1.65 in.) 20 mm (1.97 in.) 500 mm (19.20 in.) MFWD (1) 2 volt Brazil MAR-1 Non-certified; optimized for high-altitude use (HALT) Voltage 120 cm 120 cm 120 cm 120 cm Back	rieat-treated, cilionie-plated, polisiled rous, flatderi			Straka	
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Backhoe Boom (I) 110 mm (4.33 in.) 56 mm (2.20 in.) 821 mm (32.32 in.) Backhoe Crowd (I) 110 mm (4.33 in.) 63 mm (2.48 in.) 553 mm (21.77 in.) Backhoe Swing (2) 80 mm (315 in.) 50 mm (1.79 in.) 892 mm (35.12 in.) Backhoe Extendable Dipperstick (I) 63 mm (2.48 in.) 32 mm (1.26 in.) 1006 mm (12.20 in.) Backhoe Extendable Dipperstick (I) 63 mm (2.48 in.) 50 mm (1.77 in.) 300 mm (12.20 in.) Backhoe Extendable Dipperstick (I) 63 mm (2.48 in.) 50 mm (1.75 in.) 1006 mm (4.18 in.) Backhoe Stabilizer (2) 80 mm (315 in.) 50 mm (1.95 in.) 50 mm (19.69 in.) Non-Powered Axle (I) 70 mm (2.76 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) MFWD (I) 67 m (2.64 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) MFWD (I) EPA Tier 2/EU Stage II Bazal MAR-I Non-certified; optimized for high-altitude use (HALT) Voltage 12 volt 12 volt 12 volt Alternator Rating Paral In. Paral In. Paral In. Backhoe Plot Controls 120 amp 90 amp 120 amp 12					
Backhoe Crowd (1) 110 mm (4.33 in.) 63 mm (2.48 in.) 553 mm (21.77 in.) Backhoe Bucket (1) 80 mm (315 in.) 50 mm (1.97 in.) 892 mm (321 in.) Backhoe Stabig (2) 80 mm (315 in.) 45 mm (1.77 in.) 310 mm (12.00 in.) Backhoe Extendable Dipperstick (1) 63 mm (2.48 in.) 32 mm (1.26 in.) 1062 mm (4.81 in.) Backhoe Stabilizer (2) 80 mm (3.15 in.) 50 mm (1.97 in.) 500 mm (19.69 in.) Mon-Powerd Axle (1) 70 mm (2.76 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) MFWD (1) 67 mm (2.64 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) More-certified; optimized for high-altitude use (HALT) More-certified; optimized for high-altitude use (HALT) Non-certified; optimized for high-altitude use (HALT) More-certified; optimized for high-altitude use (HALT) Voltage 12 volt 12 volt 12 volt Alternator Rating 120 amp 120 amp 120 amp Backhoe Pilot Controls 120 amp 120 a	* *	· · ·			
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Backhoe Swing (2) 80 mm (3.15 in.) 45 mm (1.77 in.) 310 mm (12.20 in.) Backhoe Extendable Dipperstick (1) 63 mm (2.48 in.) 32 mm (1.26 in.) 1062 mm (41.81 in.) Backhoe Stabilizer (2) 80 mm (315 in.) 50 mm (1.97 in.) 500 mm (1.96 in.) 1002 mm (8.27 in.) Non-Powered Axle (1) 70 mm (2.76 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) 210 mm (8.27 in.) MFWD (1) 67 mm (2.64 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) 30 mm (8.27 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) 42 mm (1.65 in.) 42 mm (1.65 in.) 210 mm (8.27 in.) 42 mm (1.65 in.) 42 mm (1.65 in.) 42 mm (1.65 in.) 42 mm (1.65 in.) <t< th=""><td>* *</td><td>·</td><td>·</td><td></td></t<>	* *	·	·		
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Torque Converter and Transmission 15.1 L (16 qt.) Fuel Tank (with ground-level fueling) 155.2 L (41 gal.)		·			
Fuel Tank (with ground-level fueling) 155.2 L (41 gal.)					
Hydraulic System 102.2 L (27 gal.)	Fuel Tank (with ground-level fueling)				
	Hydraulic System	102.2 L (27 gal.)			
Hydraulic Reservoir 37.1 L (9.8 gal.)	Hydraulic Reservoir	37.1 L (9.8 gal.)			
MFWD Housing	MFWD Housing				
Axle 6.5 L (6.9 qt.)					
Planetary (each) 0.9 L (1 qt.)	Dlanetary (each)	091 (1at)			

310L

Operating Weights	310L
With Full Fuel Tank, 79-kg (175 lb.) Operator, and	
Standard Equipment	
Standard With Cab, 4-Wheel-Drive Axle, and Bumper	6898 kg (15,207 lb.)
Typical With Cab, 4-Wheel-Drive Axle, and 205-kg (450 lb.) Counterweight	7103 kg (15,659 lb.)
Optional Components (weight difference between base equipment and option)	
Cab	263 kg (580 lb.)
Standard Front Axle With Tires	–168 kg (–370 lb.)
Extendable Dipperstick	191 kg (420 lb.)
Overall Dimensions	
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.)



Dackhoo	Dimensions	and Dorf	ormanco

Backhoe specifications are with 762-mm x 0.28-m³ (30 in. x 10 cu. ft.) bucket		
Bucket Range	305–762 mm (12–30 in.)	
Digging Force		
Bucket Cylinder	48.5 kN (10,910 lb.)	
Crowd Cylinder	30.9 kN (6,950 lb.)	
Swing Arc	180 deg.	
Operator Control	2 levers	
Leveling Angle	14 deg.	
Stabilizer Angle Rearward	18 dea.	

310L

Backhoe Dimensions and Performance (continued)	310L		
Backhoe specifications are with 762-mm x 0.28-m	3 (30 in. x 10 cu. ft.) bucket		
		With Optional Extendable D	lipperstick
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.18 m (10 ft. 5 in.)	3.51 m (11 ft. 6 in.)	4.17 m (13 ft. 8 in.)
G Reach From Center of Swing Pivot	5.42 m (17 ft. 9 in.)	5.49 m (18 ft. 0 in.)	6.51 m (21 ft. 4 in.)
H Reach From Center of Rear Axle	6.48 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.)	4.30 m (14 ft. 1 in.)	5.36 m (17 ft. 7 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.23 m (13 ft. 11 in.)	4.26 m (14 ft. 0 in.)	5.33 m (17 ft. 6 in.)
2440-mm (8 ft.) Flat Bottom	3.90 m (12 ft. 9 in.)	3.93 m (12 ft. 11 in.)	5.07 m (16 ft. 8 in.)
K Stabilizer Width, Transport	2.18 m (7 ft. 2 in.)	2.18 m (7 ft. 2 in.)	2.18 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	3.41 m (11 ft. 2 in.)	3.44 m (11 ft. 3 in.)	3.44 m (11 ft. 3 in.)
Loader Dimensions and Performance			
P Bucket Dump Angle, Maximum	45 deg.		
Q Rollback Angle at Ground Level	40 deg.		
·	Heavy-Duty Long Lip	Multipurpose	
Bucket Capacity	0.96 m³ (1.25 cu. yd.)	0.96 m³ (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.)	3.43 m (11 ft. 3 in.)	
S Dump Clearance, Bucket at 45 deg.	2.63 m (8 ft. 7 in.)	2.63 m (8 ft. 8 in.)	
T Reach at Full Height, Bucket at 45 deg.	862 mm (33.9 in.)	728 mm (28.6 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 Canacity with Bucket			

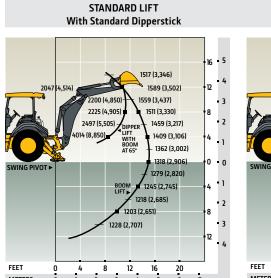
Lift Capacity with Bucket

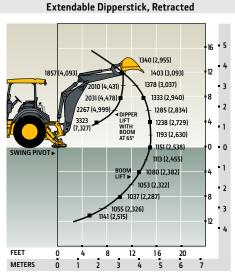
Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are maximum lift force available. Lift capacities are over end with stabilizers down and tires tangent to ground.

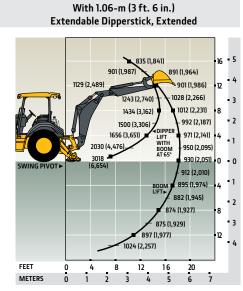
STANDARD LIFT

STANDARD LIFT

With 1.06-m (3 ft. 6 in.)







Additional equipment

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

310L Engine

- Coolant recovery tank with low-level indicator
- Serpentine belt with automatic belt tensioner
- Suction-type cooling fan
- Severe-duty fuel filter with water in fuel sensor
- ▲ Chrome exhaust extension
- ▲ 1,000-watt electric engine coolant heater

Powertrain

- PowerShift™ transmission: Torque converter with twist-grip 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
- Planetary final drives
- Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet multidisc, 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
- Hydrostatic power steering with emergency manual mode
- ▲ Non-powered front axle
- 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 (4th gear overdrive only)
- ▲ MFWD driveshaft and oil cooler guard

Backhoe

- Standard dipperstick, 4.27-m (14 ft. 0 in.) digging depth
- ▲ Extendable dipperstick, 1.06-m (3 ft. 6 in.) extension
- ISO (Deere) 2-lever mechanical backhoe controls
- ▲ SAE 2-lever mechanical backhoe controls
- ▲ 2-lever pilot controls with pattern-selection feature
- 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 for hammers and compactors with auxiliary plumbing
- ▲ Heavy-duty rear-pivot pins

310L Loader

- Loader bucket anti-spill (rollback)
- Return-to-dig feature
- Single-lever control with electric clutch disconnect
- Bucket-level indicator
- Loader boom service lock
- ▲ Auxiliary loader hydraulics with 2-lever control
- ▲ Multipurpose bucket

Hydraulic System

- 106-L/m (28 gpm) single-gear pump, opencenter system
- Dedicated hydraulic reservoir
- Ride control

Electrical System

- 12-volt system
- 90-amp alternator (with dual-lever backhoe manual controls)
- 120-amp alternator (with backhoe pilot controls)
- Single battery with 180-min. reserve capacity and 750 CCA
- ▲ Dual batteries with 360-min. reserve capacity and 1,500 CCA
- ▲ Battery disconnect

Lights

- Halogen lights (10), 32,500 candlepower 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)

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 mat, standard
- ▲ Molded floor mat, premium
- 12-volt outlet
- Lockable right-side storage
- Operator's manual holder (canopy only)
- Operator's manual on roof (enclosed cab only)
- ▲ Interior front-view mirror
- ▲ Outside rearview mirrors
- Mechanical-cable hand throttle
- Suspended foot throttle
- Key start switch
- ▲ Tilt steering, infinitely adjustable
- ▲ Machine security (enabled through monitor)
- Digital display of engine hours, engine rpm, and system voltage

310L Operator's Station (continued)

- 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 fabric swivel seat with lumbar adjustment and armrests (fully adjustable), front windshield, and windshield wiper (1 front)
- ▲ Cab with Dual Doors and A/C: Mechanicalsuspension 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
- ▲ AM/FM/weather-band radio (field kit option with cab only)

Overall Vehicle

- 1-piece unitized construction mainframe
- Vehicle tie-downs (2 front and 2 rear)
- Remote grease bank for front axle
- Front cover
- ▲ Heavy-duty front bumper
- ▲ Front counterweight 205 kg (450 lb.) or 340 kg (750 lb.)
- Fuel tank, 155 L (41 gal.), ground-level fueling
- 2-position easy-tilt hood
- Extended grille frame
- ▲ Removable 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
- Tire valve-stem protection
- ▲ Backhoe boom-protection plate
- JDLink™ wireless communication system (available in specific countries; see your dealer for details)

[†]See dealer for range of heavy-duty and multipurpose loader buckets.

