L-SERIES

BACKHOES

JOHN DEERE

310L EP / 310L / 310SL / 310SL HL / 315SL / 410L / 710L



LIFT MORE AND MULTITASK


THE L-SERIES
LOOKING FOR MORE
RELIABILITY AND PRODUCTIVITY?
WE'VE GOT
YOUR BACKHO
AND YOUR



RELIABLE + PRODUCTIVE

E.

BACK.



UP TO
25%
MORE
LIFTING
CAPABILITY

TO BUILD A BETTER BACKHOE,

WE WENT TO YOU, OUR CUSTOMER.

Through our Customer Advocate Group (CAG), we collected invaluable input from owners and operators — the ones who know best what customers really need.

You spoke. And we listened and responded with our 710L with 13-percent more horsepower and improved rear backhoe controllability. Redesigned pilot controllers that provide a 16-percent hydraulic metering range. The popular, competitively priced 310L EP as well as our heavy-lift and side-shift models, all with a host of proven features to help you boost productivity and maximize uptime, while lowering daily operating costs. ***When it comes to delivering what you want, nobody responds like John Deere.***



SIDE-SHIFT FOR TIGHT SPACES WITH THE 315SL

Standard-equipped side-shift backhoes can be offset up to 21 in. right or left of center, making them ideal for work in crowded urban areas and around obstacles.

Not all features described are available for all models or configurations. Please review the Additional Equipment section and consult with your local dealer for the latest standard and optional offerings.

GET MORE DONE WITH ONE

MULTIFUNCTION VERSATILITY, UNRIVALED CAPABILITY.

Why run two machines when one will do? Whether you're loading trucks, busting up blacktop, placing pipe, digging trenches, or moving materials, an L-Series Backhoe is more than up to the task. Building upon our highly productive K-Series Backhoes, the L-Series features additional backhoe lift capability and pressure-compensated load-sensing (PCLS) hydraulics (on the 310SL HL, 410L, and 710L), for superb multifunction performance. The result: our most versatile backhoes ever.

Proven engine technology

You can feel confident in the performance, fuel efficiency, and reliability of the Deere 310L EP's proven Yanmar 3.3L engine. This IT4-equivalent diesel complies with FT4 emissions regulations without the need for aftertreatment components, minimizing machine complexity and the number of parts needed to maintain your fleet.

Powerful FT4 engines

Rugged FT4/Stage IV PowerTech™ Plus diesel engines* meet rigid emissions regulations, enabling you to work, wherever there's work — even in nonattainment areas. Our field-proven technology is simple, fluid efficient, fully integrated, and fully supported. It employs cooled exhaust gas recirculation (EGR), easy-to-maintain high-uptime exhaust filter (710L only), and selective catalytic reduction (SCR).

True four-wheel drive on command

Standard limited-slip mechanical-front-wheel drive (MFWD) (optional on the 310L EP and 310L) delivers surefooted traction in any ground condition. Engage momentary MFWD "on the fly" with the touch of a button on the loader control.

Powertrain performance

Responsive and productive five-speed transmission on the 310SL, 310SL HL, 315SL, and 410L provides transport speeds up to 25 mph. Add the AutoShift option and increase operator ease of use and comfort in any application.

Smooth gear changes

PowerShift™ transmission provides on-the-go clutchless gear changes for the operator.

Control the ride and the load

With optional ride control (standard on the 710L), front loader hydraulic cylinders act as a shock absorber, smoothing travel over rough terrain, helping full loads reach their destination, and reducing operator fatigue. Upgrade to auto ride control to automatically turn ride control on or off based on machine ground speed. Adjust speed activation through the monitor.

Better lifting capability

The 310SL HL, 410L, and 710L deliver 10- to 25-percent more backhoe lift under normal conditions.

Multifunction hydraulics

PCLS hydraulics on the heavy-lift 310SL HL, 410L, and 710L ensure superior multifunction capability at all engine rpm speeds.

FT4

EPA FINAL TIER 4 (FT4)/EU STAGE IV POWERTECH PLUS DIESEL ENGINES*

**EPA Interim Tier 4 (IT4)-equivalent Yanmar on the 310L EP.*





BIG LIFT. SMALL FOOTPRINT.

THE 310SL HL

HEAVY-LIFT BACKHOE

Managing an expanding workload and multiple tasks doesn't have to mean moving up to a larger backhoe. Boasting significantly more lifting capability than previous models, along with pressure-compensated load-sensing (PCLS) hydraulics, our 310SL HL is surprisingly adept — and may be the perfect addition to your equipment lineup.

UP TO

15%

INCREASE IN LIFTING POWER WITH LIFT MODE









More lift capacity at the push of a button

Along with the 410L, the 310SL HL can deliver up to 25-percent more backhoe-lift capacity than their comparable K-Series models. Lift mode provides an additional boost of 10 to 15 percent. Simply pushing a button on the sealed-switch module sets engine rpm at 1,400 and maximizes hydraulic pressure for increased lifting capability.

PCLS hydraulics for superb multifunction operation

The 310SL HL delivers all the advantages of PCLS hydraulics in the 14–15-ft. digging-depth category, enabling operator efficiency and productivity through improved multifunction control.

Control in close quarters

Standard on the 310SL HL, 410L, and 710L, precision mode reduces the speed of hydraulic backhoe functions, for close work around underground utilities or jobsite obstacles, or when lifting. This control-enhancing feature is especially useful for less experienced operators or new trainees.

WHAT THE EXPERTS ARE SAYING:

"Thanks to Deere asking for my input, I get a better machine, and these improvements make all the difference in my day's productivity."

— Todd Heiderscheidt, Backhoe CAG Member



REDESIGNED PILOT TOWERS GIVE MORE LEGROOM AND SPACE TO ROTATE

MORE CONTROL AT YOUR FINGERTIPS

MAXIMUM PRODUCTIVITY IS CLOSE AT HAND.

Increased productivity is within easy reach in an L-Series Backhoe. Redesigned loader-control grip and pilot controllers provide effortless, fingertip operation of the backhoe and loader, while other machine functions are conveniently located on the steering column.



CLEAR SIGHTLINES TO FRONT LOADER BUCKET

More legroom and space to rotate

Redesigned pilot towers provide more legroom and additional space for transitioning between loader and backhoe operation.

Extend your workday

LED lighting kit includes choice of LED spot- or floodlights, enhancing visibility when your workday goes long.

Easy-to-use loader-control grip

Enhanced "palm-on-top" loader-control grip is even more comfortable and easy to use. Control clutch disconnect, transmission quick-shift, auxiliary proportional roller, and momentary mechanical-front-wheel drive.

Steering column controls

Exterior lights, wipers, and turn signals are conveniently located on the multifunction lever on the steering column — just like the family SUV — helping operators keep their eyes on the job at hand.

Excellent view to front loader bucket

Clear sightlines to the loader bucket corners have been maintained over the sloped hood, even with the addition of the aftertreatment components needed to meet FT4/Stage IV compliance.

Fatigue-beating comfort

L-Series Backhoes are loaded with creature comforts, including efficient HVAC system, adjustable mechanical or air-suspension seat, and optional premium radio with Bluetooth® and auxiliary input.

Have a seat — your way

Two seat options are available from the factory to maximize comfort and productivity. A heated, air-suspension seat helps keep the operator warm and comfortable even on the coldest days. An air-suspension seat smoothes the ride for open-canopy configurations.







UNSURPASSED RELIABILITY

WON'T BACK DOWN. OR LET YOU DOWN.

Built with state-of-the-art tools and technology by a quality-conscious workforce at our world-class facility in Dubuque, Iowa, U.S.A., L-Series Backhoes deliver unmatched reliability and uptime. When you know how they're built, you'll run a Deere.

4WD

OPTION AT YOUR COMMAND







More durable multipurpose bucket

Our rugged multipurpose bucket has been reinforced with thicker plates and stronger cylinder mountings to extend wear life.

Bias and radial tire options

Choose from a variety of factory-installed tire options, for the traction, performance, and long service life your specific application requires.

Diff-lock protection

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

Maintenance-free batteries

Standard maintenance-free batteries reduce periodic servicing, improve cold-starting reliability, and lengthen battery life.

Quick, clean filter changes

Vertical spin-on engine, transmission, and hydraulic filters and quick-release fuel filters allow fast, clean changes. Standard heavy-duty transmission oil filter enhances reliability.

Protect your investment

Machine-security system with touchpad passcode safeguards against unauthorized operation.

Get connected

Customer-inspired backhoe hydraulic quick-coupler option helps expand jobsite capabilities. When equipped, both front loader and rear backhoe hydraulic couplers are conveniently controlled, based on seat position, by a single button on the sealed-switch module.

Superior hydraulic oil

L-Series Backhoes come factory-filled with Hydrau™ premium all-season, anti-wear hydraulic oil specifically designed for construction equipment. For cold weather, opt for Hydrau™ XR, which offers all-season protection from –40 to 40 deg. C (–40 to 104 deg. F).



THE 710L

21-ft. 9-in.

MAXIMUM DIGGING DEPTH
(WITH OPTIONAL EXTENDABLE DIPPERSTICK)

UP TO **10%**

INCREASE IN BACKHOE LIFT CAPACITY
(WITH LIFT MODE ACTIVATED)

13%

MORE HORSE-POWER THAN PREVIOUS MODEL

EASY MAINTENANCE

KEEP THE PEACE. AND YOUR PEACE OF MIND.

Save fuel with economy mode

Standard economy mode can be configured separately between loader and backhoe functions. Activate economy mode for backhoe functions while retaining full power for loader functions. This helps maximize fuel usage in lighter-work applications with minimal effect on machine performance.

Improved diagnostics

State-of-the-art multi-language monitor clearly displays machine diagnostics. Operators can quickly and easily program a multitude of time-specific functions such as auto shutdown and auto-idle.

DEF concentration sensor

Diesel exhaust fluid (DEF) concentration sensor measures fluid in the DEF tank and issues an alert of potential engine derate.



Minimize downtime and expense

Same-side ground-level service points speed daily checks and fills. Other common-sense features such as quick-change filters, extended service intervals, simple-to-read sight gauges, and easy-access grease zerks help increase uptime and lower daily operating costs.

Coolers allow easy cleanout

Hinged, stacked-assembly coolers tilt away from the radiator for convenient core cleanout.

Save fuel and reduce noise

Auto-idle decreases engine speed when hydraulics aren't in use, to help maintain quiet working conditions and conserve precious fuel. Auto shutdown turns off the engine after an operator-selected period of inactivity, further keeping noise and fuel consumption down.

Quiet, fuel-efficient fan

Variable-speed electronically controlled fan automatically speeds up or slows down, operating only as needed to keep things cool. Conserves power and fuel, while reducing noise.

Reliable engine technology

310L EP IT4-equivalent Yanmar engine requires no aftertreatment. 310SL HL and 410L FT4/Stage IV PowerTech Plus engines feature a diesel oxidation catalyst (DOC) and a selective catalytic reduction (SCR) system. 310L, 310SL, 315SL, and 710L FT4/Stage IV PowerTech Plus diesels include an SCR system. Only the 710L requires a diesel particulate filter (DPF).



Get valuable insight with

JOHN DEERE WORKSIGHT™

John Deere WorkSight is an exclusive suite of telematics solutions that increases uptime while lowering operating costs. At its heart, JDLink™ machine monitoring provides real-time utilization data and alerts to help you maximize productivity and efficiency while minimizing downtime. Remote diagnostics enable your dealer to read codes and record performance data without a trip to the jobsite.

Keep downtime down with

JOHN DEERE ULTIMATE UPTIME

John Deere Ultimate Uptime, featuring John Deere WorkSight, is a customizable support solution available exclusively from your Deere dealer. This flexible offering maximizes equipment availability with standard John Deere WorkSight capabilities that can help prevent future downtime and speed repairs when needed. In addition to the base John Deere WorkSight features, our dealers work with you to build an uptime package that meets the specific needs of your machine, fleet, project, and business, including customized maintenance and repair agreements, onsite parts availability, extended warranties, fluid sampling, response-time guarantees, and more.



310L EP / 310L SPECIFICATIONS

Engine	310L EP		310L	
Manufacturer and Model	Yanmar 4TNV98CT turbocharged		John Deere PowerTech™ Plus 4045HT096 turbocharged	
Non-Road Emission Standard	EPA Interim Tier 4 equivalent, EPA Final Tier 4 compliant		EPA Final Tier 4/EU Stage IV	
Displacement	3.3 L (203 cu. in.)		4.5 L (276 cu. in.)	
Gross Peak Power	54 kW (72 hp) at 2,330 rpm		71 kW (95 hp) at 2,240 rpm	
Power Ratings				
Net Peak Power (ISO 9249)	51 kW (69 hp) at 2,010 rpm		69 kW (93 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	271 Nm (200 lb.-ft.) at 1,800 rpm		383 Nm (282 lb.-ft.) at 1,400 rpm	
Net Torque Rise	27%		28%	
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	Viscous variable-rate (temperature controlled) cooling fan standard		Electronically controlled, variable rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)		–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water		Oil to water	
Powertrain				
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.)			
Maximum Travel Speeds with Standard Engine, Measured with 19.5L-24 Rear Tires	*Forward*	*Reverse*	*Forward*	*Reverse*
Gear 1	5.3 km/h (3.3 mph)	6.7 km/h (4.2 mph)	5.4 km/h (3.4 mph)	6.8 km/h (4.2 mph)
Gear 2	9.7 km/h (6.0 mph)	12.3 km/h (7.6 mph)	9.9 km/h (6.2 mph)	12.6 km/h (7.8 mph)
Gear 3	20.1 km/h (12.5 mph)	—	20.5 km/h (12.7 mph)	—
Gear 4	36.4 km/h (22.6 mph)	—	36.9 km/h (22.9 mph)	—
Axles				
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		22 deg.	
Axle Ratings	*Front*	*Rear*	*Front*	*Rear*
SAE J43	5000 kg (11,000 lb.)	6000 kg (13,200 lb.)	5000 kg (11,000 lb.)	6000 kg (13,200 lb.)
Dynamic	9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)	9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)
Static	23 500 kg (51,800 lb.)	26 500 kg (58,400 lb.)	24 500 kg (54,000 lb.)	26 500 kg (58,400 lb.)
Ultimate	37 000 kg (81,600 lb.)	39 500 kg (87,100 lb.)	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		Foot actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering		Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*	*MFWD*	*Non-Powered Front*
Curb-Turning Radius				
With Brakes	3.57 m (11 ft. 9 in.)	3.55 m (11 ft. 8 in.)	3.57 m (11 ft. 9 in.)	3.55 m (11 ft. 8 in.)
Without Brakes	4.15 m (13 ft. 7 in.)	4.12 m (13 ft. 6 in.)	4.15 m (13 ft. 7 in.)	4.12 m (13 ft. 6 in.)
Bucket-Clearance Circle				
With Brakes	9.99 m (32 ft. 9 in.)	9.98 m (32 ft. 9 in.)	9.99 m (32 ft. 9 in.)	9.98 m (32 ft. 9 in.)
Without Brakes	10.86 m (35 ft. 8 in.)	10.84 m (35 ft. 7 in.)	10.86 m (35 ft. 8 in.)	10.84 m (35 ft. 7 in.)
Steering Wheel Turns (lock to lock)	2.7	3.2	2.7	3.2
MFWD and Rear Axle	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; axial-piston pump		Open-center system; single-gear pump	
Pump Flow at 2,200 rpm				
Backhoe	128 L/m (33.7 gpm)		106 L/m (28 gpm)	
Loader	104 L/m (27.5 gpm)		106 L/m (28 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 mechanical standard; pilot controls with pattern select and manual and/or electric auxiliary functions optional; field kits available for additional mechanical-control options			
Loader	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MFWD (momentary), and transmission quick-shift optional		Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever), single-lever control with electric clutch cutoff and EH proportional auxiliary control optional	

310L EP / 310L SPECIFICATIONS



Cylinders	310L EP / 310L		
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	790 mm (31.10 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	110 mm (4.33 in.)	56 mm (2.20 in.)	821 mm (32.32 in.)
Backhoe Crowd (1)	110 mm (4.33 in.)	63 mm (2.48 in.)	553 mm (21.77 in.)
Backhoe Bucket (1)	80 mm (3.15 in.)	50 mm (1.97 in.)	892 mm (35.12 in.)
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 (3.15 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)

Electrical	310L EP	310L
Voltage	12 volt	12 volt
Alternator Rating	120 amp with canopy and quarter cab / 130 amp with cab	120 amp with canopy and quarter cab / 160 amp with cab
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; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package	

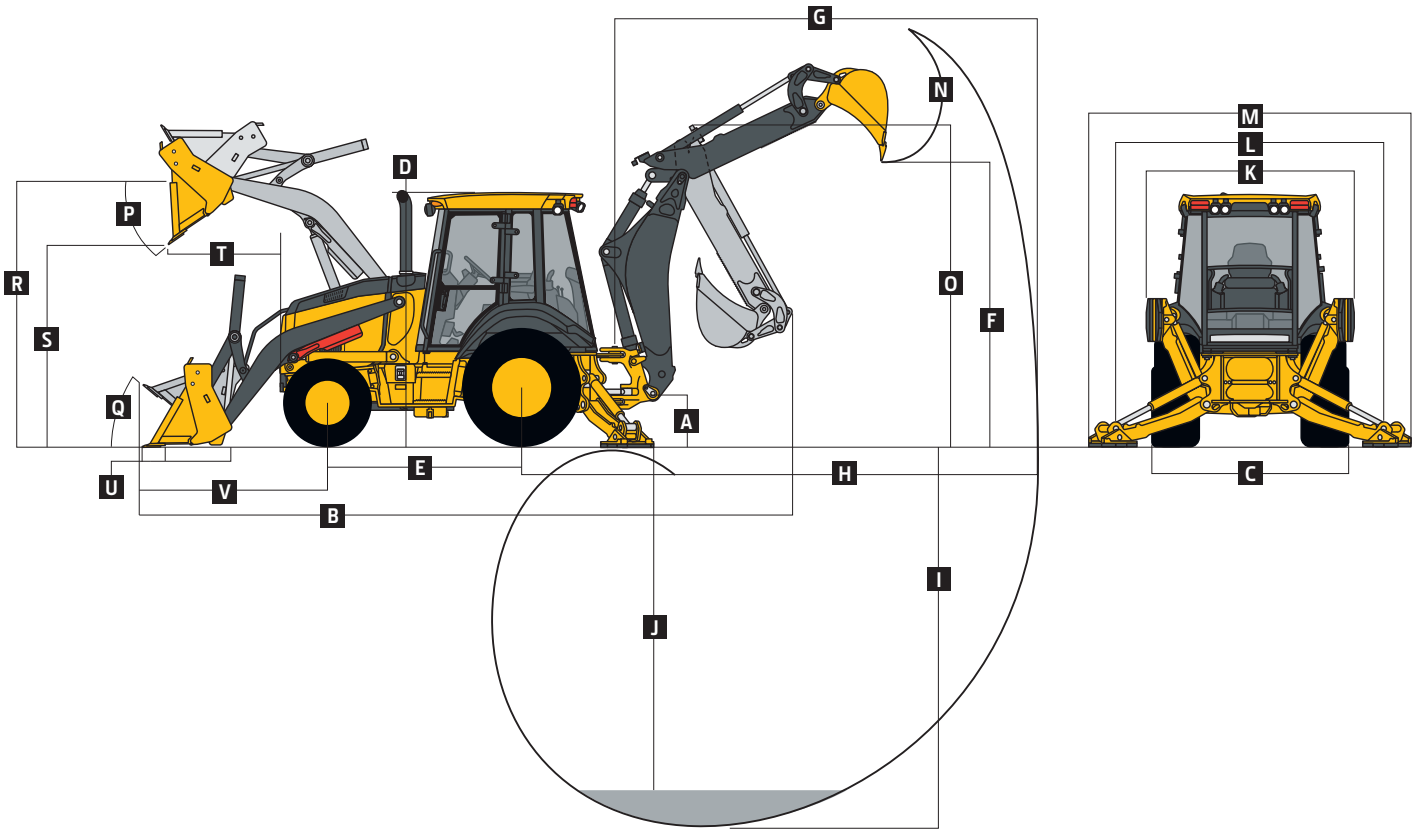
Operator Station	310L EP / 310L
Type (ISO 3471)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and fully enclosed cab

Tires/Wheels	310L EP		310L	
	Front	*Rear*	*Front*	*Rear*
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)	12.5/80-18 F3 (12)	19.5L-24 R4 (12)
	14.5/75-16.1 F3 (16)	19.5L-24 R4 (12)	14.5/75-16.1 F3 (16)	19.5L-24 R4 (12)
With MFWD	12-16.5 NHS (12)	19.5L-24 R4 (12)	12-16.5 NHS (12)	19.5L-24 R4 (12)
	—	—	12.5/80-18 I3 (12)	19.5L-24 R4 (10)
	—	—	12.5/80-18 R4 (10)	19.5L-24 R4 (12)
	—	—	12.5/80-18 I3 (12)	21L-24 R4 (12)
	—	—	12.5/80-18 R4 (10)	21L-24 R4 (12)
	—	—	340/80R18 XMCL	500/70R24 XMCL
	—	—	340/80R18 550	500/70R24 550
	—	—	340/80R18 580	500/70R24 580

Serviceability		
Refill Capacities		
Cooling System		
Cab	19.3 L (20.4 qt.)	30.0 L (31.7 qt.)
Canopy	17.4 L (18.4 qt.)	28.2 L (29.8 qt.)
Rear Axle	18 L (19 qt.)	18 L (19 qt.)
Engine Oil (including vertical spin-on filter)	10.5 L (11.1 qt.)	13 L (13.7 qt.)
Torque Converter and Transmission	15.1 L (16 qt.)	15.1 L (16 qt.)
Fuel Tank (with ground-level fueling)	128.7 L (34 gal.)	128.7 L (34 gal.)
Diesel Exhaust Fluid (DEF) Tank	—	13.7 L (3.6 gal.)
Hydraulic System	126.8 L (33.5 gal.)	126.8 L (33.5 gal.)
Hydraulic Reservoir	45 L (11.9 gal.)	45 L (11.9 gal.)
MFWD Housing		
Axle	6.5 L (6.9 qt.)	6.5 L (6.9 qt.)
Planetary (each)	0.9 L (1 qt.)	0.9 L (1 qt.)
Operating Weights		
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and Bumper	6270 kg (13,822 lb.)	6654 kg (14,669 lb.)
Typical with Cab, Extendable Dipperstick, MFWD, and 204-kg (450 lb.) Counterweight	7095 kg (15,642 lb.)	7311 kg (16,119 lb.)
Optional Components (weight difference between base equipment and option)		
Cab	263 kg (580 lb.)	263 kg (580 lb.)
MFWD with Tires	168 kg (370 lb.)	168 kg (370 lb.)
Extendable Dipperstick	191 kg (420 lb.)	191 kg (420 lb.)
Front Loader Coupler	257 kg (566 lb.)	257 kg (566 lb.)
Backhoe Bucket Coupler	59 kg (130 lb.)	59 kg (130 lb.)

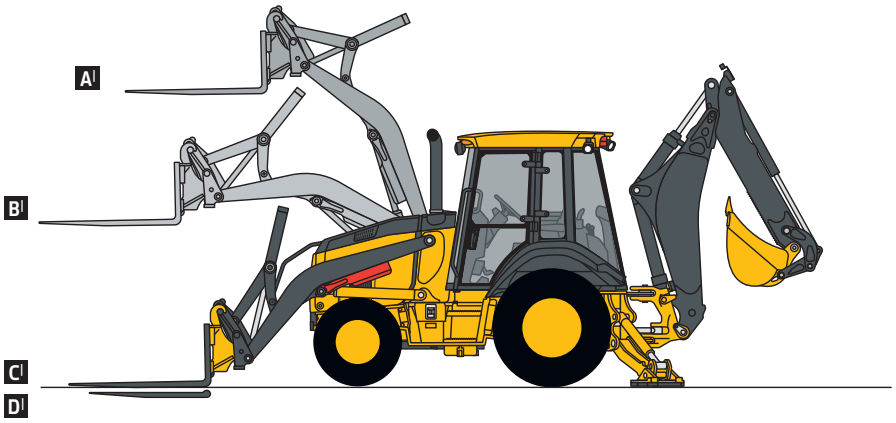
310L EP / 310L

Overall Dimensions		310L EP	310L
A	Ground Clearance, Minimum	318 mm (13 in.)	293 mm (12 in.)
B	Overall Length, Transport	7.24 m (23 ft. 9 in.)	7.24 m (23 ft. 9 in.)
C	Width Over Tires	2.20 m (7 ft. 3 in.)	2.20 m (7 ft. 3 in.)
D	Height to Top of ROPS/Cab	2.81 m (9 ft. 3 in.)	2.81 m (9 ft. 3 in.)
E	Length from Axle to Axle		
	Non-Powered Front Axle	2.16 m (7 ft. 1 in.)	2.16 m (7 ft. 1 in.)
	MFWD Axle	2.19 m (7 ft. 2 in.)	2.19 m (7 ft. 2 in.)



Backhoe Dimensions and Performance		310L EP / 310L		
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 deg.				
Bucket Range		305–762 mm (12–30 in.)		
Digging Force				
	Bucket Cylinder	48.2 kN (10,844 lb.)		
	Crowd Cylinder	31.1 kN (6,992 lb.)		
Swing Arc		180 deg.		
Operator Control		2 levers		
			With Optional Extendable Dipperstick	
		With Standard Backhoe	*Retracted*	*Extended*
F	Loading Height, Truck Loading Position	3.38 m (11 ft. 1 in.)	3.46 m (11 ft. 4 in.)	4.12 m (13 ft. 6 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	6.49 m (21 ft. 3 in.)	6.55 m (21 ft. 6 in.)	7.57 m (24 ft. 10 in.)
I	Digging Depth (SAE maximum)	4.30 m (14 ft. 1 in.)	4.38 m (14 ft. 4 in.)	5.43 m (17 ft. 10 in.)
J	Digging Depth (SAE)			
	610-mm (2 ft.) Flat Bottom	4.27 m (14 ft. 0 in.)	4.34 m (14 ft. 3 in.)	5.40 m (17 ft. 9 in.)
	2440-mm (8 ft.) Flat Bottom	3.93 m (12 ft. 11 in.)	4.01 m (13 ft. 2 in.)	5.15 m (16 ft. 11 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	3.39 m (11 ft. 1 in.)	3.39 m (11 ft. 1 in.)	3.39 m (11 ft. 1 in.)

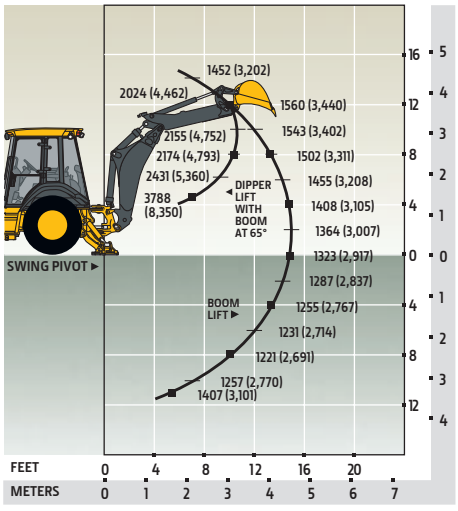
Loader Dimensions and Performance	310L EP / 310L			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	*Heavy-duty*	*Heavy-duty long lip*	*Multipurpose*
Bucket Capacity	0.77 m^3 (1.00 cu. yd.)	0.86 m^3 (1.12 cu. yd.)	0.96 m^3 (1.25 cu. yd.)	0.96 m^3 (1.25 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2184 mm (86 in.)	2184 mm (86 in.)
Weight	363 kg (800 lb.)	390 kg (860 lb.)	405 kg (892 lb.)	794 kg (1,750 lb.)
Breakout Force	41.6 kN (9,361 lb.)	42.3 kN (9,512 lb.)	40.0 kN (8,983 lb.)	37.0 kN (8,321 lb.)
Lift Capacity, Full Height	2919 kg (6,435 lb.)	2995 kg (6,602 lb.)	2760 kg (6,085 lb.)	2427 kg (5,352 lb.)
R Height to Bucket Hinge Pin, Maximum	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)
S Dump Clearance, Bucket at 45 deg.	2.74 m (9 ft. 0 in.)	2.78 m (9 ft. 1 in.)	2.68 m (8 ft. 9 in.)	2.68 m (8 ft. 9 in.)
T Reach at Full Height, Bucket at 45 deg.	702 mm (27.7 in.)	667 mm (26.3 in.)	793 mm (31.2 in.)	705 mm (27.8 in.)
U Digging Depth Below Ground, Bucket Level	70 mm (2.8 in.)	71 mm (2.8 in.)	51 mm (2.0 in.)	111 mm (4.4 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	2.02 m (6 ft. 8 in.)	1.97 m (6 ft. 6 in.)	2.12 m (6 ft. 11 in.)	2.10 m (6 ft. 11 in.)
Lift Capacity with Quick-Coupler Forks				
Hydraulic Capacity	*1219-mm (48 in.) Tines*	*1524-mm (60 in.) Tines*		
A[l] Maximum Height	1711 kg (3,772 lb.)	1592 kg (3,510 lb.)		
B[l] Maximum Reach	2690 kg (5,931 lb.)	2530 kg (5,578 lb.)		
C[l] At Ground Line	3393 kg (7,480 lb.)	3203 kg (7,061 lb.)		
D[l] Below Ground Line	185 mm (7.3 in.)	185 mm (7.3 in.)		



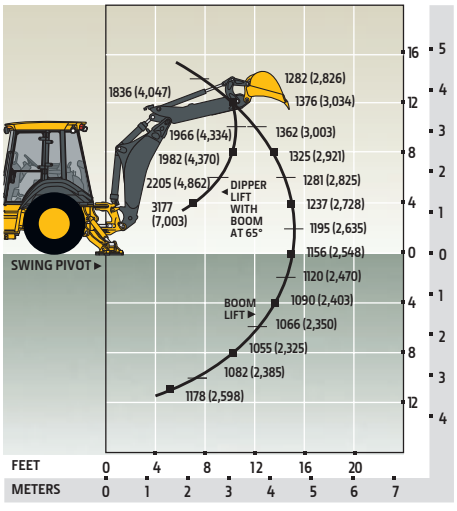
Lift Capacities

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

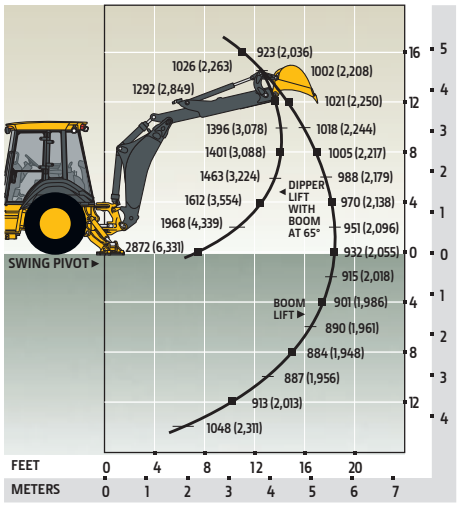
STANDARD LIFT
With Standard Dipperstick



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



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



**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



310SL SPECIFICATIONS

Engine	**310SL**	
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT096 turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Peak Power	75 kW (101 hp) at 2,240 rpm	
Net Peak Power (ISO 9249)	74 kW (99 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	417 Nm (307 lb.-ft.) at 1,400 rpm	
Net Torque Rise	30%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable-rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional	
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
Maximum Travel Speeds with Standard Engine, Measured with 19.5L-24 Rear Tires	*Forward*	*Reverse*
Gear 1	5.4 km/h (3.4 mph)	6.8 km/h (4.2 mph)
Gear 2	9.9 km/h (6.2 mph)	12.5 km/h (7.8 mph)
Gear 3	20.4 km/h (12.7 mph)	20.2 km/h (12.6 mph)
Gear 4	37.2 km/h (23.1 mph)	—
Gear 5	40.0 km/h (24.9 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	
Axle Ratings	*Front*	*Rear*
SAE J43	5500 kg (12,100 lb.)	7000 kg (15,400 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	39 500 kg (87,100 lb.)	41 500 kg (91,500 lb.)
Differentials		
Mechanical-Front-Wheel-Drive (MFWD) Axle	Automatic, limited-slip traction control	
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*
Curb-Turning Radius		
With Brakes	3.58 m (11 ft. 9 in.)	3.56 m (11 ft. 8 in.)
Without Brakes	4.20 m (13 ft. 9 in.)	4.17 m (13 ft. 8 in.)
Bucket-Clearance Circle		
With Brakes	10.23 m (33 ft. 7 in.)	10.22 m (33 ft. 6 in.)
Without Brakes	11.15 m (36 ft. 7 in.)	11.13 m (36 ft. 6 in.)
Steering Wheel Turns (lock to lock)	2.7	3.2
MFWD and Rear Axle	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; tandem gear pump with unloader	
Pump Flow at 2,200 rpm		
Backhoe	136 L/m (36 gpm)	
Loader	106 L/m (28 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Loader	24 993 kPa (3,625 psi)	
Controls		
Backhoe	2-lever mechanical standard; pilot controls with pattern select and auxiliary functions optional; field kits available for additional mechanical control options	
Loader	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MFWD (momentary), and transmission quick-shift optional	

310SL SPECIFICATIONS



Cylinders	310SL		
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	789 mm (31.08 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	120 mm (4.72 in.)	56 mm (2.20 in.)	794 mm (31.26 in.)
Backhoe Crowd (1)	115 mm (4.53 in.)	63 mm (2.48 in.)	602.5 mm (23.72 in.)
Backhoe Bucket (1)	90 mm (3.54 in.)	56 mm (2.20 in.)	810 mm (31.89 in.)
Heavy-Duty Option	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	70 mm (2.76 in.)	40 mm (1.57 in.)	1062 mm (41.81 in.)
Backhoe Stabilizer (2)			
Standard	90 mm (3.54 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Optional Extended Leg	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)

Electrical	
Voltage	12 volt
Alternator Rating	120 amp with canopy and quarter cab / 160 amp with cab
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; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package

Operator Station	
Type (ISO 3471)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and fully enclosed cab

Tires/Wheels	*Front*	*Rear*
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)
	14.5/75-16.1 F3 (16)	19.5L-24 R4 (12)
With MFWD	12.5/80-18 I3 (12)	19.5L-24 R4 (10)
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)
	12.5/80-18 I3 (12)	21L-24 R4 (12)
	12.5/80-18 R4 (10)	21L-24 R4 (12)
	340/80R18 XMCL	500/70R24 XMCL
	340/80R18 550	500/70R24 550
	340/80R18 580	500/70R24 580

Serviceability	
Refill Capacities	
Cooling System	
Cab	30.0 L (31.7 qt.)
Canopy	28.2 L (29.8 qt.)
Rear Axle	18 L (19 qt.)
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)
Torque Converter and Transmission	15.1 L (16 qt.)
Fuel Tank (with ground-level fueling)	128.7 L (34 gal.)
Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)
Hydraulic System	126.8 L (33.5 gal.)
Hydraulic Reservoir	45 L (11.9 gal.)
MFWD Housing	
Axle	6.5 L (6.9 qt.)
Planetary (each)	0.9 L (1 qt.)

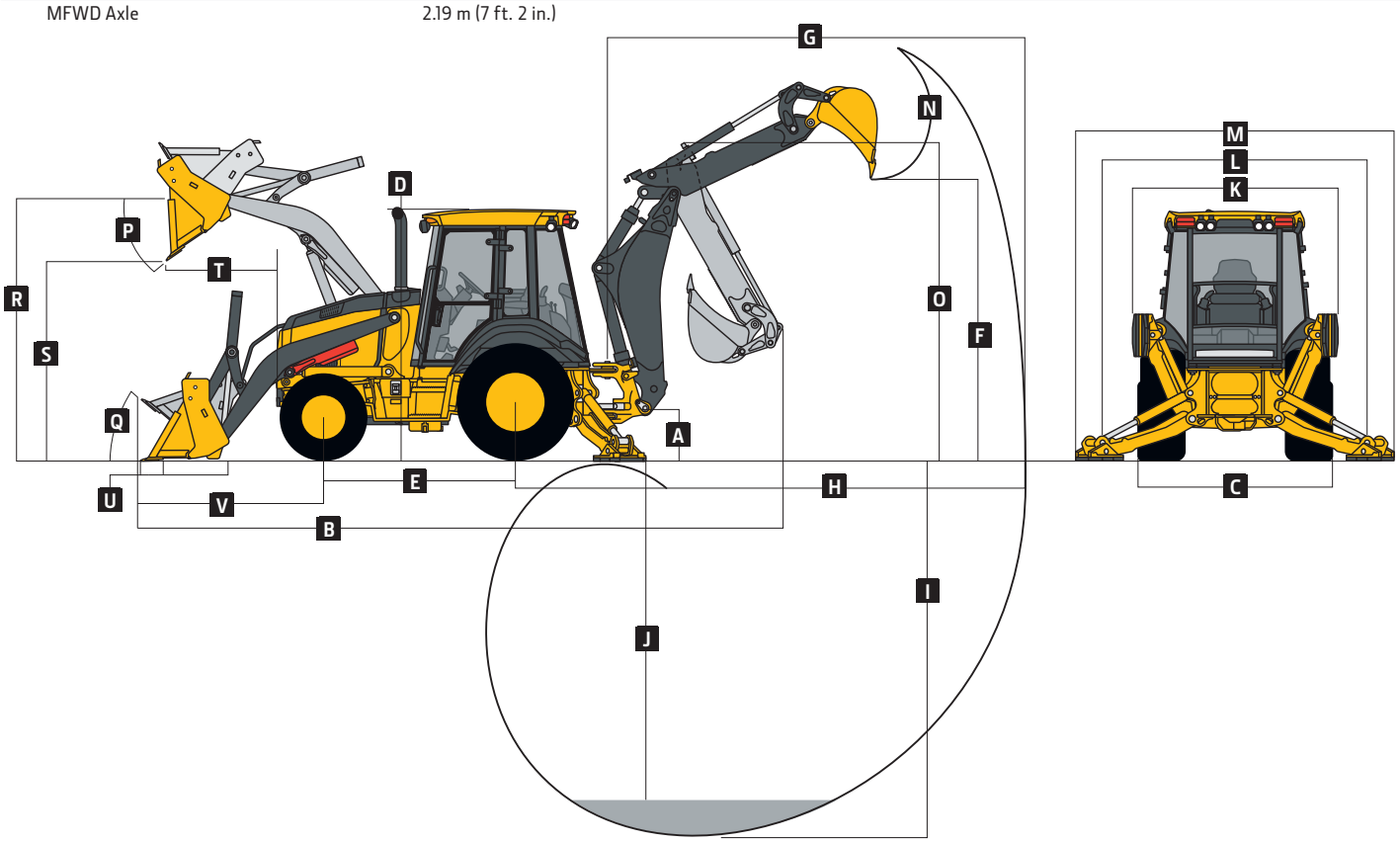
Operating Weights	
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and Bumper	7199 kg (15,872 lb.)
Typical with Cab, Extendable Dipperstick, and 340-kg (750 lb.) Counterweight	8025 kg (17,692 lb.)

Optional Components (weight difference between base equipment and option)

Cab	263 kg (580 lb.)	Front Loader Coupler	257 kg (566 lb.)
MFWD with Tires	220 kg (485 lb.)	Backhoe Bucket Coupler	63 kg (138 lb.)
Extendable Dipperstick	222 kg (490 lb.)		

310SL

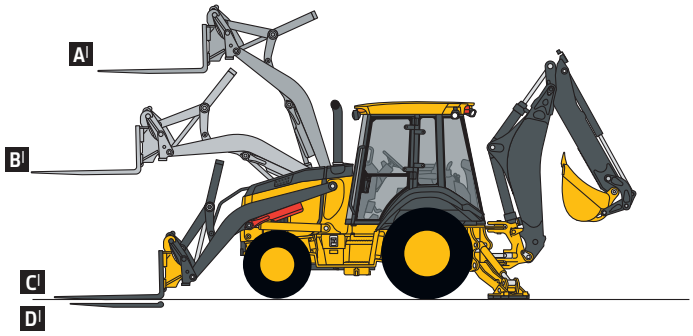
Overall Dimensions		310SL
A	Ground Clearance, Minimum	330 mm (13 in.)
B	Overall Length, Transport	7.28 m (23 ft. 11 in.)
C	Width Over Tires	2.20 m (7 ft. 3 in.)
D	Height to Top of ROPS/Cab	2.79 m (9 ft. 2 in.)
E	Length from Axle to Axle	
	Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
	MFWD Axle	2.19 m (7 ft. 2 in.)



Backhoe Dimensions and Performance				
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.				
Bucket Range		305–762 mm (12–30 in.)		
Digging Force				
	Bucket Cylinder	55.0 kN (12,356 lb.)		
	With Heavy-Duty Cylinder Option	67.8 kN (15,254 lb.)		
	Crowd Cylinder	36.6 kN (8,229 lb.)		
Swing Arc		180 deg.		
Operator Control		2 levers		
			With Optional Extendable Dipperstick	
		With Standard Backhoe	*Retracted*	*Extended*
F	Loading Height, Truck Loading Position	3.42 m (11 ft. 3 in.)	3.54 m (11 ft. 7 in.)	4.16 m (13 ft. 8 in.)
G	Reach from Center of Swing Pivot	5.52 m (18 ft. 1 in.)	5.61 m (18 ft. 5 in.)	6.62 m (21 ft. 9 in.)
H	Reach from Center of Rear Axle	6.58 m (21 ft. 7 in.)	6.68 m (21 ft. 11 in.)	7.68 m (25 ft. 2 in.)
I	Digging Depth (SAE maximum)	4.35 m (14 ft. 3 in.)	4.50 m (14 ft. 9 in.)	5.55 m (18 ft. 2 in.)
J	Digging Depth (SAE)			
	610-mm (2 ft.) Flat Bottom	4.32 m (14 ft. 2 in.)	4.45 m (14 ft. 7 in.)	5.51 m (18 ft. 1 in.)
	2440-mm (8 ft.) Flat Bottom	3.99 m (13 ft. 1 in.)	4.13 m (13 ft. 7 in.)	5.25 m (17 ft. 3 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			
	Standard Stabilizers	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)	3.10 m (10 ft. 2 in.)
	Optional Extended Leg	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M	Stabilizer Overall Width, Operating			
	Standard Stabilizers	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)
	Optional Extended Leg	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
N	Bucket Rotation	190 deg.	190 deg.	190 deg.
O	Transport Height	3.49 m (11 ft. 5 in.)	3.49 m (11 ft. 5 in.)	3.49 m (11 ft. 5 in.)

Loader Dimensions and Performance	310SL			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	*Heavy-duty long lip*	*Heavy-duty*	*Multipurpose*
Bucket Capacity	0.86 m^3 (1.12 cu. yd.)	0.96 m^3 (1.25 cu. yd.)	1.00 m^3 (1.31 cu. yd.)	1.00 m^3 (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2337 mm (92 in.)	2337 mm (92 in.)
Weight	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)
Breakout Force	49.2 kN (11,052 lb.)	46.4 kN (10,442 lb.)	46.9 kN (10,541 lb.)	43.2 kN (9,722 lb.)
Lift Capacity, Full Height	3492 kg (7,698 lb.)	3224 kg (7,108 lb.)	3352 kg (7,390 lb.)	2862 kg (6,309 lb.)
R Height to Bucket Hinge Pin, Maximum	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)	3.47 m (11 ft. 5 in.)
S Dump Clearance, Bucket at 45 deg.	2.76 m (9 ft. 1 in.)	2.66 m (8 ft. 9 in.)	2.70 m (8 ft. 10 in.)	2.67 m (8 ft. 9 in.)
T Reach at Full Height, Bucket at 45 deg.	678 mm (26.7 in.)	804 mm (31.7 in.)	675 mm (26.6 in.)	716 mm (28.2 in.)
U Digging Depth Below Ground, Bucket Level	83 mm (3.3 in.)	64 mm (2.5 in.)	128 mm (5.0 in.)	124 mm (4.9 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	1.96 m (6 ft. 5 in.)	2.10 m (6 ft. 11 in.)	2.03 m (6 ft. 8 in.)	2.08 m (6 ft. 10 in.)

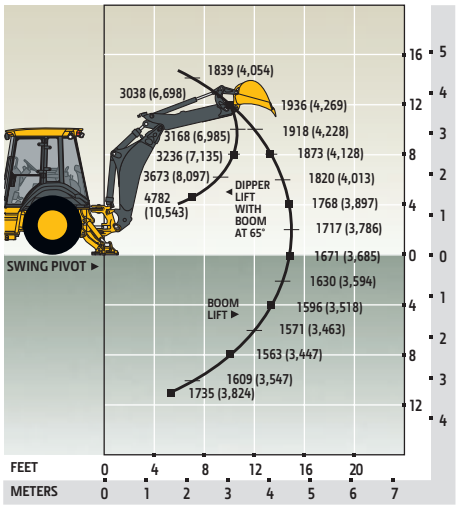
Lift Capacity with Quick-Coupler Forks		
Hydraulic Capacity	*1219-mm (48 in.) Tines*	*1524-mm (60 in.) Tines*
A[I] Maximum Height	2067 kg (4,558 lb.)	1932 kg (4,260 lb.)
B[I] Maximum Reach	3183 kg (7,017 lb.)	3001 kg (6,617 lb.)
C[I] At Ground Line	4020 kg (8,863 lb.)	3768 kg (8,306 lb.)
D[I] Below Ground Line	198 mm (7.8 in.)	198 mm (7.8 in.)



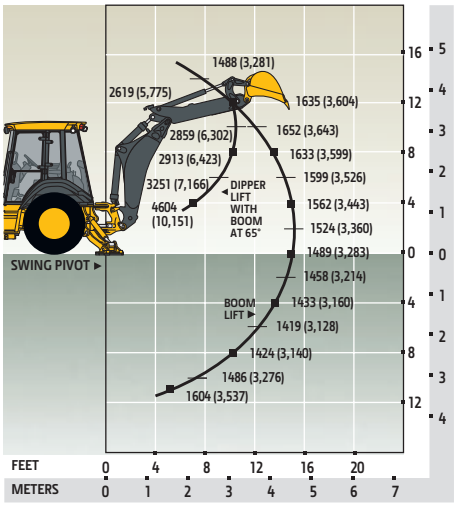
Lift Capacities

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

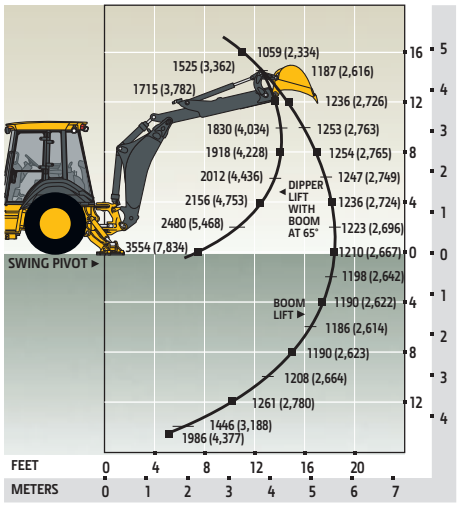
STANDARD LIFT
With Standard Dipperstick



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



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



**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



310SL HL SPECIFICATIONS

Engine	310SL HL	
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT096 turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Peak Power	83 kW (112 hp) at 2,240 rpm	
Net Peak Power (ISO 9249)	82 kW (110 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	428 Nm (315 lb.-ft.) at 1,400 rpm	
Net Torque Rise	21%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional	
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
Maximum Travel Speeds with Standard Engine, Measured with 21L-24 Rear Tires	*Forward*	*Reverse*
Gear 1	5.6 km/h (3.5 mph)	7.0 km/h (4.3 mph)
Gear 2	10.2 km/h (6.3 mph)	12.9 km/h (8.0 mph)
Gear 3	21.0 km/h (13.0 mph)	20.7 km/h (12.9 mph)
Gear 4	38.2 km/h (23.7 mph)	—
Gear 5	40.0 km/h (24.9 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	
Axle Ratings	*Front*	*Rear*
SAE J43	5500 kg (12,100 lb.)	7000 kg (15,400 lb.)
Dynamic	9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)
Static	26 500 kg (58,400 lb.)	26 500 kg (58,400 lb.)
Ultimate	43 500 kg (95,900 lb.)	43 500 kg (95,900 lb.)
Differentials		
Mechanical-Front-Wheel-Drive (MFWD) Axle	Automatic, limited-slip traction control	
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*
Curb-Turning Radius		
With Brakes	3.60 m (11 ft. 10 in.)	3.57 m (11 ft. 9 in.)
Without Brakes	4.20 m (13 ft. 9 in.)	4.17 m (13 ft. 8 in.)
Bucket-Clearance Circle		
With Brakes	10.27 m (33 ft. 8 in.)	10.26 m (33 ft. 8 in.)
Without Brakes	11.17 m (36 ft. 8 in.)	11.15 m (36 ft. 7 in.)
Steering Wheel Turns (lock to lock)	2.6 to 3.6	3.1 to 4.3
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 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	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm		
Backhoe	159 L/m (42 gpm)	
Loader	159 L/m (42 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Lift Mode	27 579 kPa (4,000 psi)	
Loader	24 993 kPa (3,625 psi)	
Controls		
Backhoe	Pilot controls with pattern select standard; electrohydraulic (EH) auxiliary functions optional	
Loader	Single-lever control with electric clutch cutoff switch and MFWD (momentary) standard; single-lever control with electric clutch cutoff switch, EH proportional auxiliary roller, and transmission quick-shift optional	

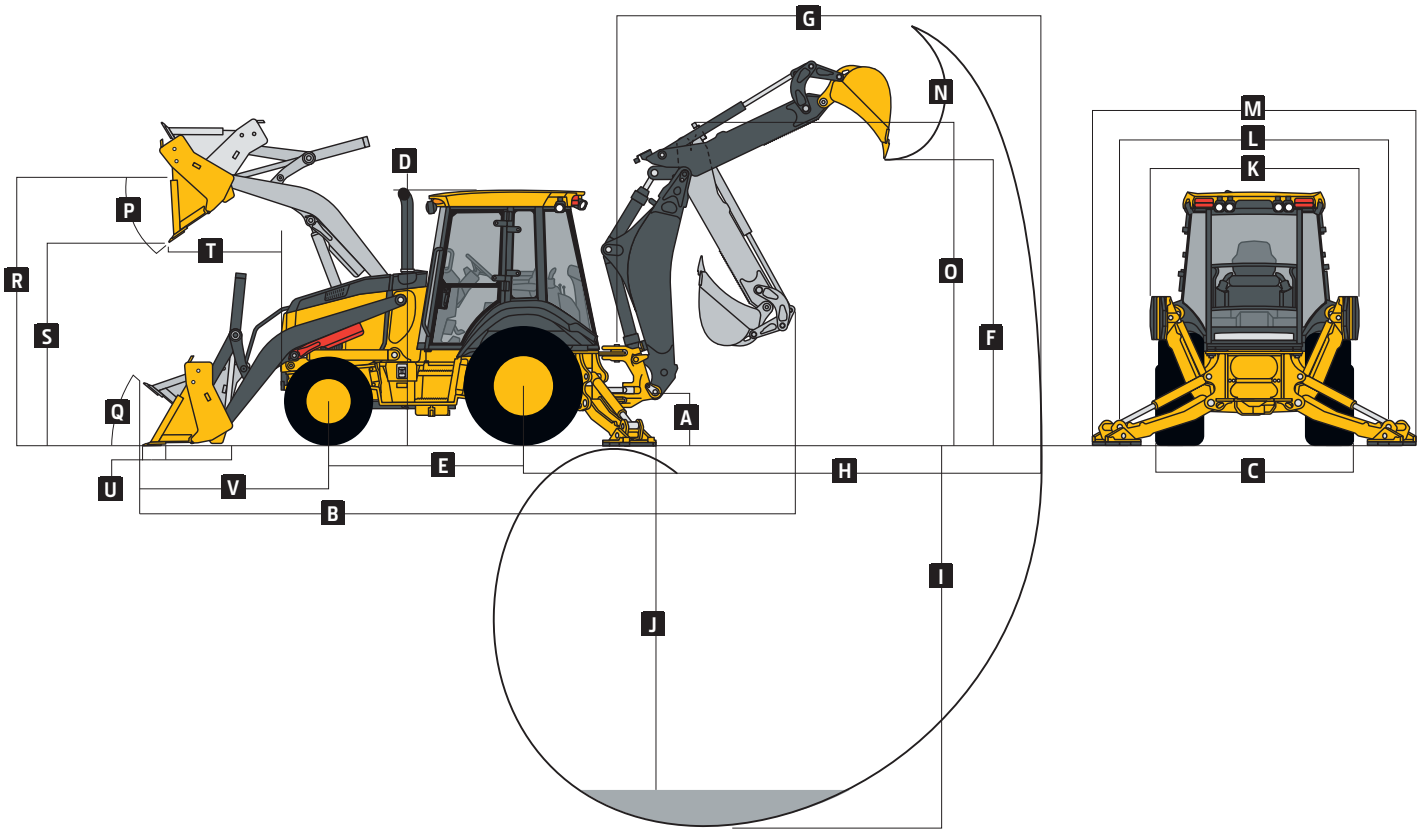
310SL HL *SPECIFICATIONS*



Cylinders	**310SL HL**		
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	790 mm (31.10 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	125 mm (4.92 in.)	63 mm (2.48 in.)	887 mm (34.92 in.)
Backhoe Crowd (1)	120 mm (4.72 in.)	63 mm (2.48 in.)	591 mm (23.27 in.)
Backhoe Bucket (1)	90 mm (3.54 in.)	56 mm (2.20 in.)	810 mm (31.89 in.)
Heavy-Duty Option	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	80 mm (3.15 in.)	45 mm (1.77 in.)	1062 mm (41.81 in.)
Backhoe Stabilizer, Extended (2)	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	120 amp with canopy and quarter cab / 160 amp with cab		
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; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and fully enclosed cab		
Tires/Wheels			
	Front	*Rear*	
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)	
With MFWD	12.5/80-18 I3 (12)	19.5L-24 R4 (10)	
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)	
	12.5/80-18 I3 (12)	21L-24 R4 (12)	
	12.5/80-18 R4 (10)	21L-24 R4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
	340/80R18 550	500/70R24 550	
	340/80R18 580	500/70R24 580	
Serviceability			
Refill Capacities			
Cooling System			
Cab	31.4 L (33.2 qt.)		
Canopy	29.6 L (31.3 qt.)		
Rear Axle	18 L (19 qt.)		
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)		
Torque Converter and Transmission	15.1 L (16 qt.)		
Fuel Tank (with ground-level fueling)	128.7 L (34 gal.)		
Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)		
Hydraulic System	126.8 L (33.5 gal.)		
Hydraulic Reservoir	45 L (11.9 gal.)		
MFWD Housing			
Axle	6.5 L (6.9 qt.)		
Planetary (each)	0.9 L (1 qt.)		
Operating Weights			
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and Standard Bumper	7516 kg (16,571 lb.)		
Typical with Cab, Extendable Dipperstick, and 454-kg (1,000 lb.) Counterweight	8495 kg (18,729 lb.)		
Optional Components (weight difference between base equipment and option)			
Cab	263 kg (580 lb.)		
MFWD with Tires	110 kg (242 lb.)		
Extendable Dipperstick	271 kg (578 lb.)		
Front Loader Coupler	257 kg (566 lb.)		
Backhoe Bucket Coupler	64 kg (141 lb.)		

310SL HL

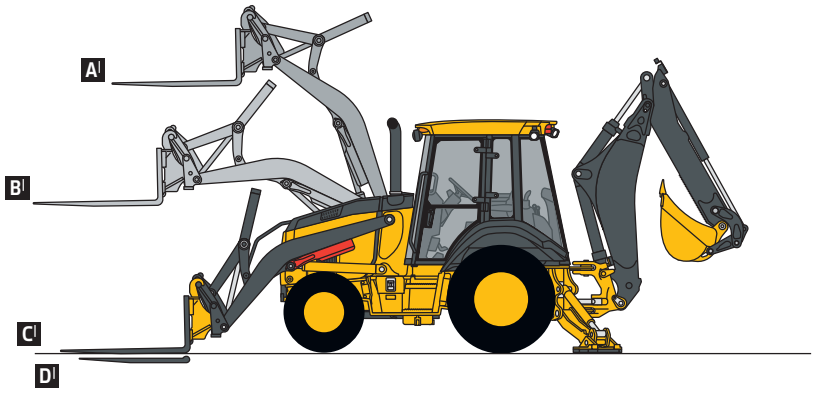
Overall Dimensions		310SL HL
A	Ground Clearance, Minimum	310 mm (12 in.)
B	Overall Length, Transport	7.37 m (24 ft. 2 in.)
C	Width Over Tires	2.34 m (7 ft. 8 in.)
D	Height to Top of ROPS/Cab	2.81 m (9 ft. 3 in.)
E	Length from Axle to Axle	
	Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
	MFWD Axle	2.19 m (7 ft. 2 in.)

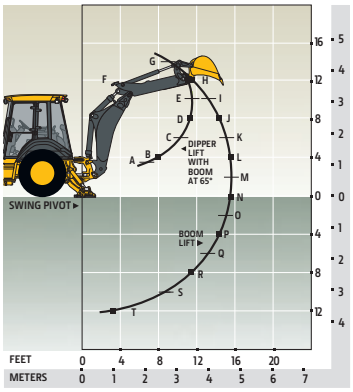


Backhoe Dimensions and Performance				
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.				
Bucket Range		305–610 mm (12–24 in.)		
Digging Force				
	Bucket Cylinder	69.9 kN (15,723 lb.)		
	Lift Mode	77.2 kN (17,349 lb.)		
	Crowd Cylinder	38.2 kN (8,581 lb.)		
	Lift Mode	42.1 kN (9,468 lb.)		
Swing Arc		180 deg.		
Operator Control		2 levers		
			With Optional Extendable Dipperstick	
		With Standard Backhoe	*Retracted*	*Extended*
F	Loading Height, Truck Loading Position	3.63 m (11 ft. 11 in.)	3.62 m (11 ft. 10 in.)	4.24 m (13 ft. 11 in.)
G	Reach from Center of Swing Pivot	5.68 m (18 ft. 8 in.)	5.62 m (18 ft. 5 in.)	6.61 m (21 ft. 8 in.)
H	Reach from Center of Rear Axle	6.74 m (22 ft. 1 in.)	6.68 m (21 ft. 11 in.)	7.67 m (25 ft. 2 in.)
I	Digging Depth (SAE maximum)	4.59 m (15 ft. 1 in.)	4.53 m (14 ft. 10 in.)	5.53 m (18 ft. 2 in.)
J	Digging Depth (SAE)			
	610-mm (2 ft.) Flat Bottom	4.55 m (14 ft. 11 in.)	4.49 m (14 ft. 9 in.)	5.50 m (18 ft. 0 in.)
	2440-mm (8 ft.) Flat Bottom	4.25 m (13 ft. 11 in.)	4.18 m (13 ft. 8 in.)	5.28 m (17 ft. 4 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			
	Extended Stabilizers	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M	Stabilizer Overall Width, Operating			
	Extended Stabilizers	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
N	Bucket Rotation	190 deg.	190 deg.	190 deg.
O	Transport Height	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)	3.56 m (11 ft. 8 in.)

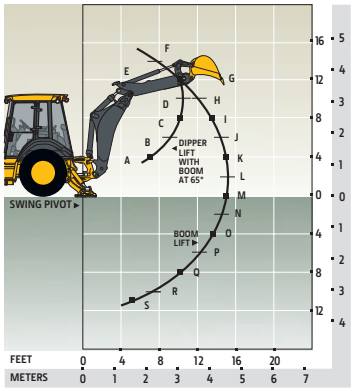
Loader Dimensions and Performance	310SL HL			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	*Heavy-duty long lip*	*Heavy-duty*	*Multipurpose*
Bucket Capacity	0.86 m^3 (1.12 cu. yd.)	0.96 m^3 (1.25 cu. yd.)	1.00 m^3 (1.31 cu. yd.)	1.00 m^3 (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2346 mm (92 in.)	2346 mm (92 in.)
Weight	390 kg (860 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	863 kg (1,902 lb.)
Breakout Force	49.4 kN (11,116 lb.)	46.7 kN (10,503 lb.)	47.1 kN (10,598 lb.)	43.5 kN (9,778 lb.)
Lift Capacity, Full Height	3425 kg (7,552 lb.)	3166 kg (6,980 lb.)	3286 kg (7,244 lb.)	2801 kg (6,175 lb.)
R Height to Bucket Hinge Pin, Maximum	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)	3.46 m (11 ft. 4 in.)
S Dump Clearance, Bucket at 45 deg.	2.75 m (9 ft. 0 in.)	2.65 m (8 ft. 8 in.)	2.69 m (8 ft. 10 in.)	2.66 m (8 ft. 9 in.)
T Reach at Full Height, Bucket at 45 deg.	724 mm (28.5 in.)	850 mm (33.5 in.)	720 mm (28.3 in.)	762 mm (30.0 in.)
U Digging Depth Below Ground, Bucket Level	101 mm (4.0 in.)	81 mm (3.2 in.)	145 mm (5.7 in.)	141 mm (5.6 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	1.97 m (6 ft. 5 in.)	2.11 m (6 ft. 11 in.)	2.04 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)

Lift Capacity with Quick-Coupler Forks		
Hydraulic Capacity	*1219-mm (48 in.) Tines*	*1524-mm (60 in.) Tines*
A[I] Maximum Height	2028 kg (4,472 lb.)	1896 kg (4,180 lb.)
B[I] Maximum Reach	3163 kg (6,974 lb.)	2982 kg (6,575 lb.)
C[I] At Ground Line	3997 kg (8,812 lb.)	3781 kg (8,335 lb.)
D[I] Below Ground Line	216 mm (8.5 in.)	216 mm (8.5 in.)

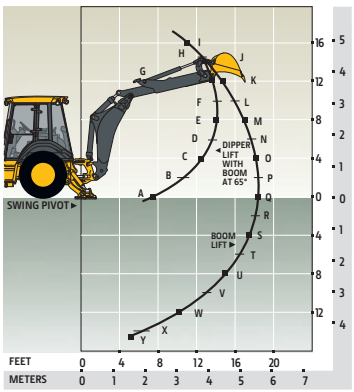




With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

Lift Capacities

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

	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*	
	Standard Lift	*Lift Mode*	*Standard Lift*	*Lift Mode*	*Standard Lift*	*Lift Mode*
A	6349 kg (13,997 lb.)	6349 kg (13,997 lb.)	5350 kg (11,795 lb.)	5350 kg (11,795 lb.)	4082 kg (8,999 lb.)	4537 kg (10,003 lb.)
B	4935 kg (10,880 lb.)	5029 kg (11,088 lb.)	3613 kg (7,966 lb.)	3613 kg (7,966 lb.)	2709 kg (5,972 lb.)	3018 kg (6,653 lb.)
C	3679 kg (8,111 lb.)	3679 kg (8,111 lb.)	3204 kg (7,064 lb.)	3204 kg (7,064 lb.)	2366 kg (5,216 lb.)	2638 kg (5,817 lb.)
D	3313 kg (7,304 lb.)	3313 kg (7,304 lb.)	3122 kg (6,883 lb.)	3122 kg (6,883 lb.)	2231 kg (4,918 lb.)	2412 kg (5,317 lb.)
E	3239 kg (7,141 lb.)	3239 kg (7,141 lb.)	3117 kg (6,871 lb.)	3282 kg (7,235 lb.)	2153 kg (4,747 lb.)	2295 kg (5,059 lb.)
F	3123 kg (6,885 lb.)	3386 kg (7,466 lb.)	1432 kg (3,158 lb.)	1624 kg (3,581 lb.)	2088 kg (4,604 lb.)	2268 kg (5,000 lb.)
G	1581 kg (3,486 lb.)	1767 kg (3,896 lb.)	1701 kg (3,751 lb.)	1929 kg (4,252 lb.)	2004 kg (4,418 lb.)	2236 kg (4,931 lb.)
H	1853 kg (4,085 lb.)	2074 kg (4,572 lb.)	1773 kg (3,909 lb.)	2012 kg (4,436 lb.)	1851 kg (4,080 lb.)	2067 kg (4,557 lb.)
I	1936 kg (4,269 lb.)	2169 kg (4,782 lb.)	1784 kg (3,932 lb.)	2026 kg (4,467 lb.)	982 kg (2,164 lb.)	1118 kg (2,465 lb.)
J	1958 kg (4,316 lb.)	2195 kg (4,840 lb.)	1769 kg (3,901 lb.)	2013 kg (4,438 lb.)	1198 kg (2,642 lb.)	1363 kg (3,005 lb.)
K	1953 kg (4,305 lb.)	2192 kg (4,832 lb.)	1745 kg (3,847 lb.)	1988 kg (4,383 lb.)	1297 kg (2,860 lb.)	1476 kg (3,254 lb.)
L	1936 kg (4,269 lb.)	2176 kg (4,796 lb.)	1717 kg (3,786 lb.)	1959 kg (4,320 lb.)	1346 kg (2,968 lb.)	1532 kg (3,378 lb.)
M	1916 kg (4,224 lb.)	2155 kg (4,750 lb.)	1691 kg (3,728 lb.)	1932 kg (4,260 lb.)	1370 kg (3,020 lb.)	1560 kg (3,440 lb.)
N	1896 kg (4,180 lb.)	2135 kg (4,706 lb.)	1669 kg (3,680 lb.)	1910 kg (4,211 lb.)	1379 kg (3,040 lb.)	1572 kg (3,466 lb.)
O	1881 kg (4,146 lb.)	2119 kg (4,672 lb.)	1656 kg (3,651 lb.)	1898 kg (4,183 lb.)	1380 kg (3,043 lb.)	1575 kg (3,473 lb.)
P	1874 kg (4,131 lb.)	2113 kg (4,659 lb.)	1658 kg (3,655 lb.)	1902 kg (4,194 lb.)	1378 kg (3,038 lb.)	1574 kg (3,471 lb.)
Q	1882 kg (4,149 lb.)	2125 kg (4,685 lb.)	1692 kg (3,729 lb.)	1944 kg (4,285 lb.)	1375 kg (3,031 lb.)	1572 kg (3,466 lb.)
R	1923 kg (4,239 lb.)	2174 kg (4,793 lb.)	1824 kg (4,022 lb.)	2099 kg (4,627 lb.)	1372 kg (3,026 lb.)	1571 kg (3,464 lb.)
S	2059 kg (4,540 lb.)	2332 kg (5,141 lb.)	2061 kg (4,543 lb.)	2371 kg (5,227 lb.)	1374 kg (3,028 lb.)	1575 kg (3,471 lb.)
T	4153 kg (9,156 lb.)	4718 kg (10,401 lb.)	—	—	1382 kg (3,046 lb.)	1585 kg (3,495 lb.)
U	—	—	—	—	1401 kg (3,089 lb.)	1610 kg (3,549 lb.)
V	—	—	—	—	1444 kg (3,183 lb.)	1660 kg (3,661 lb.)
W	—	—	—	—	1542 kg (3,400 lb.)	1775 kg (3,912 lb.)
X	—	—	—	—	1884 kg (4,153 lb.)	2168 kg (4,779 lb.)
Y	—	—	—	—	3529 kg (7,780 lb.)	4052 kg (8,933 lb.)

**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



315SL SPECIFICATIONS

Engine	315SL	
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT096 turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Power at Rated Speed	75 kW (101 hp) at 2,200 rpm	
Net Peak Power (ISO 9249)	74 kW (99 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	417 Nm (307 lb.-ft.) at 1,400 rpm	
Net Torque Rise	30%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable-rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional	
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
Maximum Travel Speeds with Standard Engine, Measured with 16.9-28 Rear Tires	*Forward*	*Reverse*
Gear 1	5.8 km/h (3.6 mph)	7.3 km/h (4.5 mph)
Gear 2	10.6 km/h (6.6 mph)	13.4 km/h (8.3 mph)
Gear 3	21.8 km/h (13.5 mph)	21.5 km/h (13.4 mph)
Gear 4	39.8 km/h (24.7 mph)	—
Gear 5	40.0 km/h (24.9 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	
Axle Ratings	*Front*	*Rear*
SAE J43	5500 kg (12,100 lb.)	7500 kg (16,500 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	39 500 kg (87,100 lb.)	39 500 kg (87,100 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	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*
Curb-Turning Radius		
With Brakes	3.53 m (11 ft. 7 in.)	3.45 m (11 ft. 4 in.)
Without Brakes	4.02 m (13 ft. 2 in.)	3.90 m (12 ft. 10 in.)
Bucket-Clearance Circle		
With Brakes	10.09 m (33 ft. 1 in.)	10.02 m (32 ft. 10 in.)
Without Brakes	10.82 m (35 ft. 6 in.)	10.683 m (35 ft. 0 in.)
Steering Wheel Turns (lock to lock)	3.6	4.3
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 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; tandem gear pump with unloader	
Pump Flow at 2,200 rpm		
Backhoe	136 L/m (36 gpm)	
Loader	106 L/m (28 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Loader	24 993 kPa (3,625 psi)	
Controls		
Backhoe	2-lever mechanical standard, pilot controls with pattern select and manual and/or electric auxiliary functions optional	
Loader	Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever), single-lever control with electric clutch cutoff switch, electrohydraulic (EH) proportional auxiliary roller, MWFD (momentary), and transmission quick-shift optional	

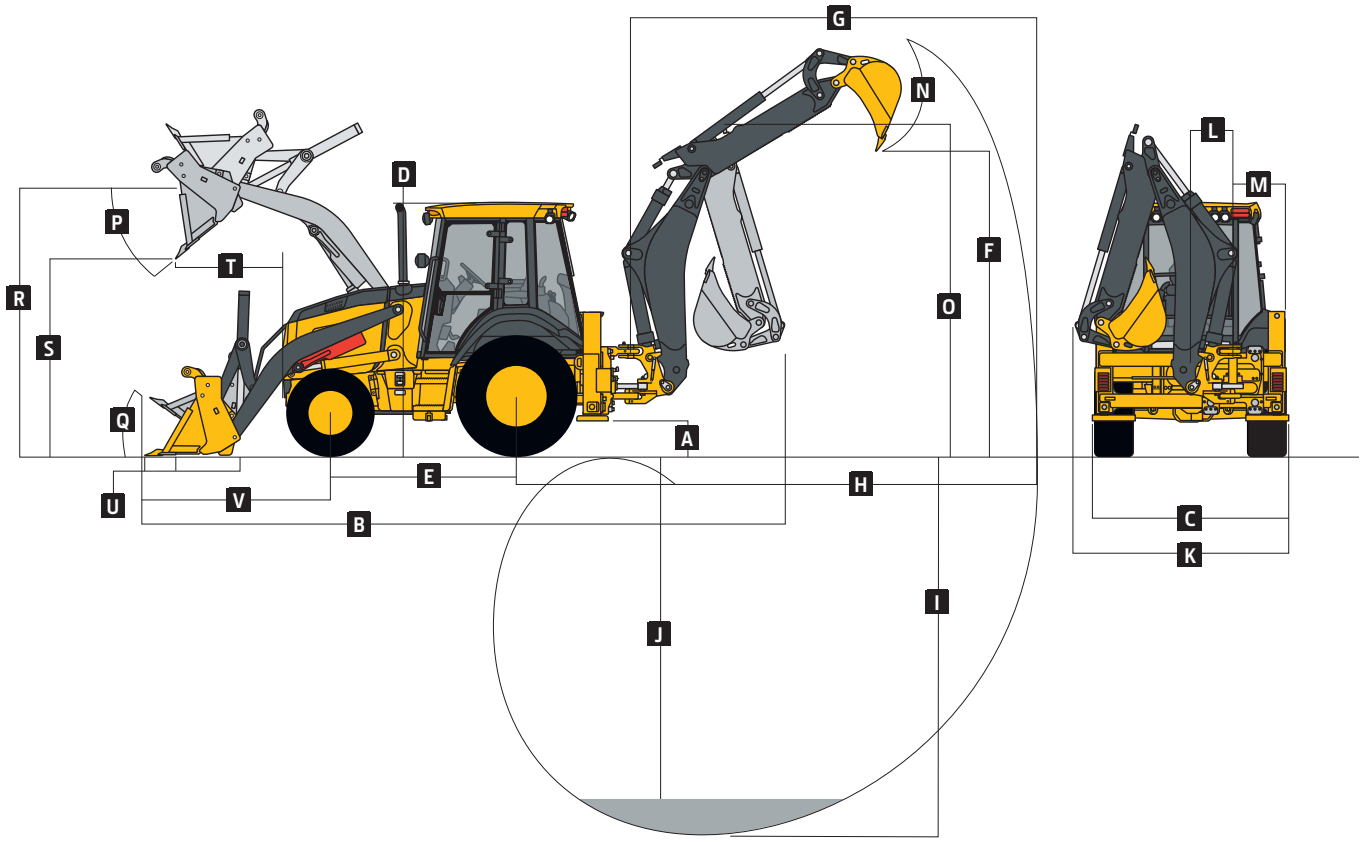
315SL SPECIFICATIONS



Cylinders	315SL		
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	790 mm (31.10 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	120 mm (4.72 in.)	56 mm (2.20 in.)	795 mm (31.30 in.)
Backhoe Crowd (1)	115 mm (4.53 in.)	63 mm (2.48 in.)	622 mm (24.47 in.)
Backhoe Bucket (1)	90 mm (3.54 in.)	56 mm (2.20 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	70 mm (2.76 in.)	40 mm (1.57 in.)	1062 mm (41.81 in.)
Backhoe Stabilizer, Standard (2)	70 mm (2.76 in.)	45 mm (1.77 in.)	716 mm (28.19 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	160 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; front drive lamps with 55/60-watt halogen, plate lamp, reverse lamp, and front marker lamps; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Cab, isolation mounted, ROPS/FOPS, left/right access, with molded roof		
Tires/Wheels			
	Front	*Rear*	
Non-Powered Front Axle	12.5/80-18 F3 (12)	19.5L-24 R4 (12)	
	14.5/75-16.1 F3 (16)	19.5L-24 R4 (12)	
	12.5/80-18 F3 (12)	16.9L-28 R4 (12)	
With MFWD	12.5/80-18 I3 (12)	19.5L-24 R4 (10)	
	12.5/80-18 R4 (10)	19.5L-24 R4 (12)	
	12.5/80-18 I3 (12)	21L-24 R4 (12)	
	12.5/80-18 R4 (10)	21L-24 R4 (12)	
	12.5/80-18 R4 (10)	16.9L-28 R4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
	340/80R18 550	550/70R24 550	
	340/80R18 580	500/70R24 580	
	340/80R18 550	440/80R28 550	
Serviceability			
Refill Capacities			
Cooling System			
Cab	30 L (31.7 qt.)		
Canopy	28.2 L (29.8 qt.)		
Rear Axle	18 L (19 qt.)		
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)		
Torque Converter and Transmission	15.1 L (16 qt.)		
Fuel Tank (with ground-level fueling)	128.7 L (34 gal.)		
Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)		
Hydraulic System	126.8 L (33.5 gal.)		
Hydraulic Reservoir	45 L (11.9 gal.)		
MFWD Housing			
Axle	6.5 L (6.9 qt.)		
Planetary (each)	0.9 L (1 qt.)		
Operating Weights			
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and Bumper	7962 kg (17,554 lb.)		
Typical with Extendable Dipperstick and 204-kg (450 lb.) Counterweight	8389 kg (18,494 lb.)		
Optional Components (weight difference between base equipment and option)			
MFWD with Tires	220 kg (485 lb.)		
Extendable Dipperstick	222 kg (490 lb.)		

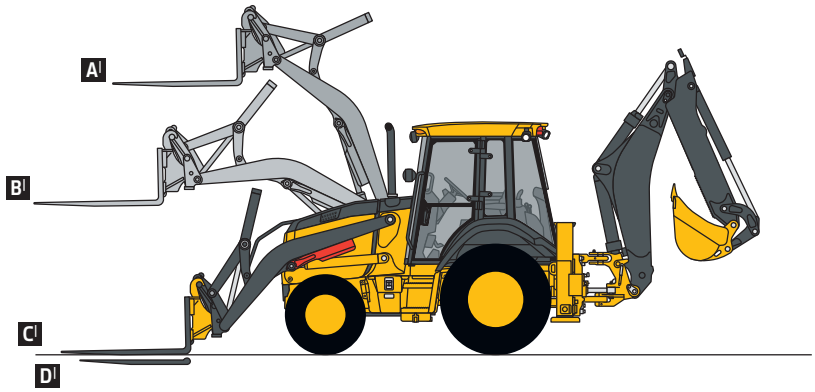
315SL

Overall Dimensions		315SL
A	Ground Clearance, Minimum	351 mm (14 in.)
B	Overall Length, Transport	5.96 m (19 ft. 7 in.)
C	Stabilizer Spread	2.26 m (7 ft. 5 in.)
D	Height to Top of ROPS/Cab	2.84 m (9 ft. 4 in.)
E	Length from Axle to Axle	
	Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
	MFWD Axle	2.19 m (7 ft. 2 in.)



Backhoe Dimensions and Performance				
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.				
Bucket Range		305–762 mm (12–30 in.)		
Digging Force				
	Bucket Cylinder	55.0 kN (12,361 lb.)		
	With Heavy-Duty Cylinder Option	67.9 kN (15,260 lb.)		
	Crowd Cylinder	36.6 kN (8,231 lb.)		
Swing Arc		180 deg.		
Operator Control		2 levers		
			With Optional Extendable Dipperstick	
		With Standard Backhoe	*Retracted*	*Extended*
F	Loading Height, Truck Loading Position	3.65 m (12 ft. 0 in.)	3.77 m (12 ft. 5 in.)	4.39 m (14 ft. 5 in.)
G	Reach from Center of Swing Pivot	5.44 m (17 ft. 10 in.)	5.61 m (18 ft. 5 in.)	6.62 m (21 ft. 9 in.)
H	Reach from Center of Rear Axle	6.80 m (22 ft. 4 in.)	6.98 m (22 ft. 11 in.)	7.98 m (26 ft. 2 in.)
I	Digging Depth (SAE maximum)	4.08 m (13 ft. 5 in.)	4.24 m (13 ft. 11 in.)	5.29 m (17 ft. 4 in.)
J	Digging Depth (SAE)			
	610-mm (2 ft.) Flat Bottom	4.03 m (13 ft. 3 in.)	4.20 m (13 ft. 9 in.)	5.26 m (17 ft. 3 in.)
	2440-mm (8 ft.) Flat Bottom	3.68 m (12 ft. 1 in.)	3.87 m (12 ft. 8 in.)	5.00 m (16 ft. 5 in.)
K	Overall Width (less loader bucket)	2.43 m (8 ft. 0 in.)	2.41 m (7 ft. 11 in.)	—
L	Side-Shift from Tractor Centerline	537 mm (21 in.)	537 mm (21 in.)	537 mm (21 in.)
M	Wall to Swing Centerline	604 mm (24 in.)	604 mm (24 in.)	604 mm (24 in.)
N	Bucket Rotation	190 deg.	190 deg.	190 deg.
O	Transport Height	3.71 m (12 ft. 2 in.)	3.72 m (12 ft. 3 in.)	3.72 m (12 ft. 3 in.)

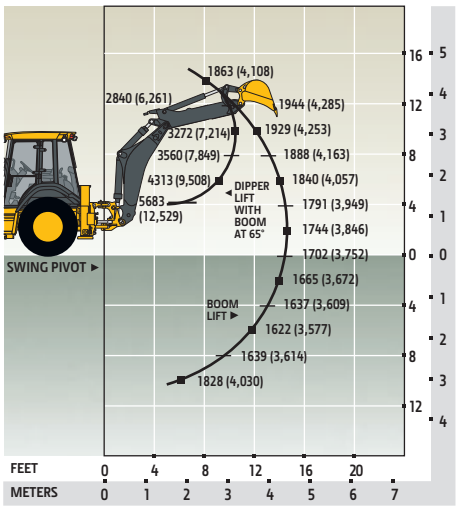
Loader Dimensions and Performance	315SL			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	*Heavy-duty*	*Multipurpose*	*Multipurpose*
Bucket Capacity	0.77 m^3 (1.00 cu. yd.)	1.00 m^3 (1.31 cu. yd.)	0.96 m^3 (1.25 cu. yd.)	1.00 m^3 (1.31 cu. yd.)
Width	2184 mm (86 in.)	2337 mm (92 in.)	2184 mm (86 in.)	2337 mm (92 in.)
Weight	363 kg (800 lb.)	521 kg (1,148 lb.)	794 kg (1,750 lb.)	863 kg (1,902 lb.)
Breakout Force	49.2 kN (11,060 lb.)	47.2 kN (10,608 lb.)	43.9 kN (9,863 lb.)	43.5 kN (9,788 lb.)
Lift Capacity, Full Height	3456 kg (7,619 lb.)	3277 kg (7,225 lb.)	2833 kg (6,246 lb.)	2792 kg (6,156 lb.)
R Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
S Dump Clearance, Bucket at 45 deg.	2.75 m (9 ft. 0 in.)	2.69 m (8 ft. 10 in.)	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
T Reach at Full Height, Bucket at 45 deg.	743 mm (29.2 in.)	726 mm (28.6 in.)	768 mm (30.2 in.)	768 mm (30.2 in.)
U Digging Depth Below Ground, Bucket Level	89 mm (3.5 in.)	146 mm (5.8 in.)	142 mm (5.6 in.)	142 mm (5.6 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	1.97 m (6 ft. 6 in.)	2.05 m (6 ft. 9 in.)	2.10 m (6 ft. 11 in.)	2.10 m (6 ft. 11 in.)
Lift Capacity with Quick-Coupler Forks				
Hydraulic Capacity	*1219-mm (48 in.) Tines*	*1524-mm (60 in.) Tines*		
A[I] Maximum Height	2023 kg (4,459 lb.)	1891 kg (4,168 lb.)		
B[I] Maximum Reach	3160 kg (6,967 lb.)	2979 kg (6,568 lb.)		
C[I] At Ground Line	4000 kg (8,818 lb.)	3783 kg (8,340 lb.)		
D[I] Below Ground Line	216 mm (8.5 in.)	216 mm (8.5 in.)		



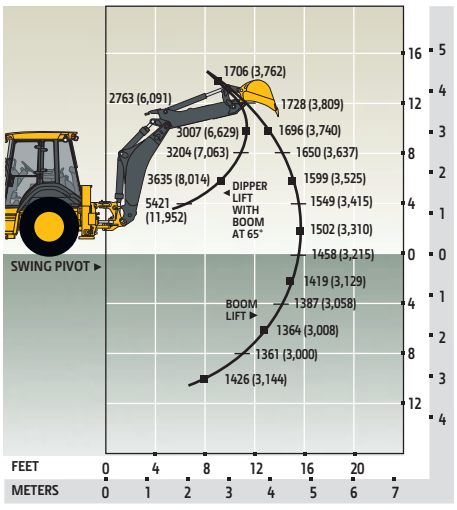
Lift Capacities

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

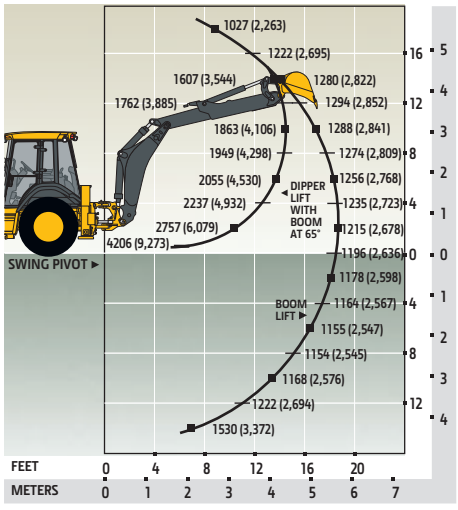
STANDARD LIFT
With Standard Dipperstick



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



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



**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



410L SPECIFICATIONS

Engine	**410L**	
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT096 turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Power at Rated Speed	85 kW (114 hp) at 2,200 rpm	
Net Peak Power (ISO 9249)	84 kW (113 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	448 Nm (330 lb.-ft.) at 1,400 rpm	
Net Torque Rise	23%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional	
Torque Converter	Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
Maximum Travel Speeds with Standard Engine, Measured with 21L-24 Rear Tires	*Forward*	*Reverse*
Gear 1	5.6 km/h (3.5 mph)	7.0 km/h (4.3 mph)
Gear 2	10.2 km/h (6.3 mph)	12.9 km/h (8.0 mph)
Gear 3	21.0 km/h (13.0 mph)	20.7 km/h (12.9 mph)
Gear 4	38.2 km/h (23.7 mph)	—
Gear 5	40.0 km/h (24.9 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.	
Axle Ratings	*Front*	*Rear*
SAE J43	6500 kg (14,300 lb.)	7500 kg (16,500 lb.)
Dynamic	9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)
Static	26 500 kg (58,400 lb.)	26 500 kg (58,400 lb.)
Ultimate	43 500 kg (95,900 lb.)	43 500 kg (95,900 lb.)
Differentials		
Mechanical-Front-Wheel-Drive (MFWD) Axle	Automatic, limited-slip traction control	
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*
Curb-Turning Radius		
With Brakes	3.60 m (11 ft. 10 in.)	3.57 m (11 ft. 9 in.)
Without Brakes	4.20 m (13 ft. 9 in.)	4.17 m (13 ft. 8 in.)
Bucket-Clearance Circle		
With Brakes	10.38 m (34 ft. 1 in.)	10.37 m (34 ft. 0 in.)
Without Brakes	11.28 m (37 ft. 0 in.)	11.25 m (36 ft. 11 in.)
Steering Wheel Turns (lock to lock, flow amplified)	2.6 to 3.6	3.1 to 4.3
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle	Heavy duty, outboard planetary final drives distribute shock loads over 4 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	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm		
Backhoe	159 L/m (42 gpm)	
Loader	159 L/m (42 gpm)	
System Relief Pressure		
Backhoe	24 993 kPa (3,625 psi)	
Lift Mode	27 579 kPa (4,000 psi)	
Loader	24 993 kPa (3,625 psi)	
Controls		
Backhoe	2-lever mechanical standard; pilot controls with pattern select and auxiliary functions optional; field kits available for additional mechanical-control options	

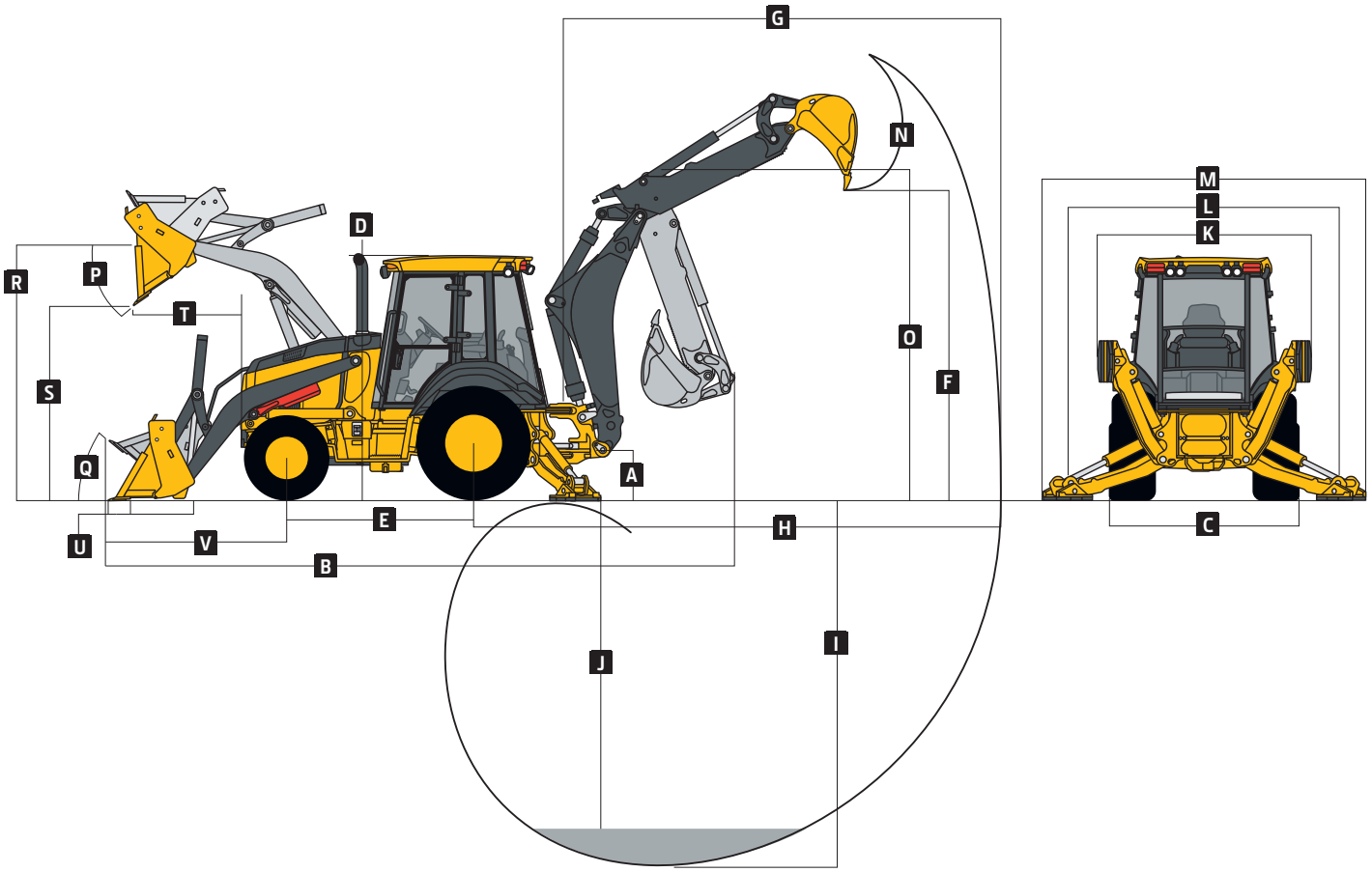
410L SPECIFICATIONS



Hydraulics *(continued)*	410L		
Controls *(continued)*			
Loader	Single-lever control with electric clutch cutoff, momentary MFWD, transmission quick-shift, and electrohydraulic (EH) auxiliary loader control optional		
Cylinders			
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	790 mm (31.10 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	140 mm (5.51 in.)	70 mm (2.76 in.)	897 mm (35.31 in.)
Backhoe Crowd (1)	120 mm (4.72 in.)	63 mm (2.48 in.)	727 mm (28.62 in.)
Backhoe Bucket (1)	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	80 mm (3.15 in.)	45 mm (1.77 in.)	1214 mm (47.78 in.)
Backhoe Stabilizer, Extended (2)	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Non-Powered Axle (1)	70 mm (2.76 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	120 amp with canopy and quarter cab / 160 amp with cab		
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; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and fully enclosed cab		
Tires/Wheels			
	Front	*Rear*	
Non-Powered Front Axle	12.5/80-18 F3 (12)	21L-24 R4 (12)	
	14.5/75-16.1 F3 (16)	21L-24 R4 (12)	
With MFWD	12.5/80-18 R4 (10)	21L-24 R4 (12)	
	12.5/80-18 I3 (12)	21L-24 R4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
	340/80R18 550	500/70R24 550	
	340/80R18 580	500/70R24 580	
Serviceability			
Refill Capacities			
Cooling System			
Cab	31.4 L (33.2 qt.)		
Canopy	29.6 L (31.3 qt.)		
Rear Axle	18 L (19 qt.)		
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)		
Torque Converter and Transmission	15.1 L (16 qt.)		
Fuel Tank (with ground-level fueling)	128.7 L (34 gal.)		
Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)		
Hydraulic System	126.8 L (33.5 gal.)		
Hydraulic Reservoir	45 L (11.9 gal.)		
MFWD Housing			
Axle	6.5 L (6.9 qt.)		
Planetary (each)	0.9 L (1 qt.)		
Operating Weights			
With Full Fuel Tank, 79-kg (175 lb.) Operator, Standard Equipment, and 340-kg (750 lb.) Counterweight	8068 kg (17,786 lb.)		
Typical with Cab, Extendable Dipperstick, and 567-kg (1,250 lb.) Counterweight	8828 kg (19,463 lb.)		
Optional Components (weight difference between base equipment and option)			
Cab	263 kg (580 lb.)		
MFWD with Tires	110 kg (242 lb.)		
Extendable Dipperstick	271 kg (597 lb.)		
Front Loader Coupler	257 kg (566 lb.)		
Backhoe Bucket Coupler	64 kg (141 lb.)		

410L

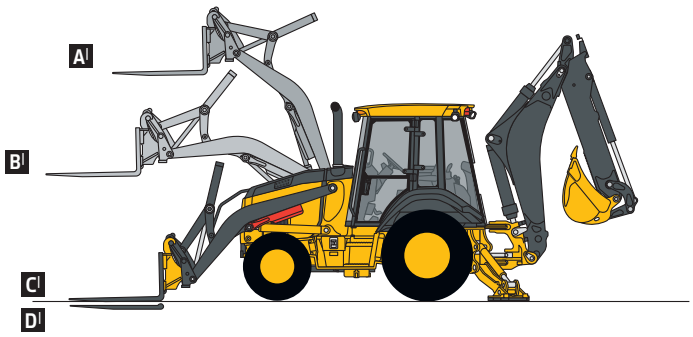
Overall Dimensions	410L
A Ground Clearance, Minimum	334 mm (13 in.)
B Overall Length, Transport	7.43 m (24 ft. 5 in.)
C Width Over Tires	2.34 m (7 ft. 8 in.)
D Height to Top of ROPS/Cab	2.87 m (9 ft. 5 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.16 m (7 ft. 1 in.)
MFWD Axle	2.19 m (7 ft. 2 in.)

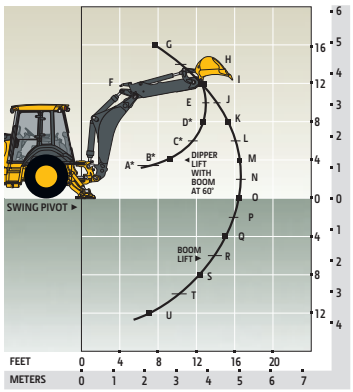


Backhoe Dimensions and Performance			
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 60 deg.			
Bucket Range	305–762 mm (12–30 in.)		
Digging Force			
Bucket Cylinder	69.9 kN (15,723 lb.)		
Lift Mode	77.2 kN (17,350 lb.)		
Crowd Cylinder	44.1 kN (9,907 lb.)		
Lift Mode	48.6 kN (10,932 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
		With Optional Extendable Dipperstick	
	With Standard Backhoe	*Retracted*	*Extended*
F Loading Height, Truck Loading Position	3.97 m (13 ft. 0 in.)	4.01 m (13 ft. 2 in.)	4.72 m (15 ft. 6 in.)
G Reach from Center of Swing Pivot	6.02 m (19 ft. 9 in.)	6.02 m (19 ft. 9 in.)	7.14 m (23 ft. 5 in.)
H Reach from Center of Rear Axle	7.14 m (23 ft. 5 in.)	7.14 m (23 ft. 5 in.)	8.26 m (27 ft. 1 in.)
I Digging Depth (SAE maximum)	4.85 m (15 ft. 11 in.)	4.85 m (15 ft. 11 in.)	6.00 m (19 ft. 8 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.80 m (15 ft. 9 in.)	4.80 m (15 ft. 9 in.)	5.97 m (19 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	4.49 m (14 ft. 9 in.)	4.49 m (14 ft. 9 in.)	5.75 m (18 ft. 10 in.)
K Stabilizer Width, Transport	2.35 m (7 ft. 9 in.)	2.35 m (7 ft. 9 in.)	2.35 m (7 ft. 9 in.)
L Stabilizer Spread, Operating	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M Stabilizer Overall Width, Operating	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)

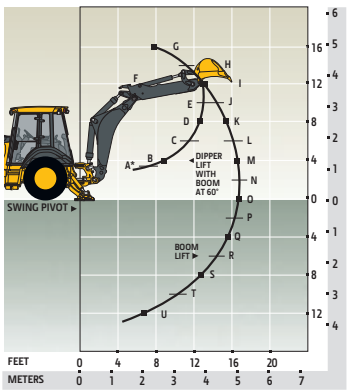
Loader Dimensions and Performance	410L		
P Bucket Dump Angle, Maximum	45 deg.		
Q Rollback Angle at Ground Level	40 deg.		
	Heavy-duty	*Heavy-duty*	*Multipurpose*
Bucket Capacity	1.00 m^3 (1.31 cu. yd.)	1.15 m^3 (1.50 cu. yd.)	1.00 m^3 (1.31 cu. yd.)
Width	2346 mm (92 in.)	2394 mm (94 in.)	2346 mm (92 in.)
Weight	521 kg (1,148 lb.)	548 kg (1,208 lb.)	863 kg (1,902 lb.)
Breakout Force	47.3 kN (10,645 lb.)	46.1 kN (10,361 lb.)	43.7 kN (9,824 lb.)
Lift Capacity, Full Height	3271 kg (7,211 lb.)	3160 kg (6,967 lb.)	2787 kg (6,144 lb.)
R Height to Bucket Hinge Pin, Maximum	3.47 m (11 ft. 4 in.)	3.47 m (11 ft. 4 in.)	3.47 m (11 ft. 4 in.)
S Dump Clearance, Bucket at 45 deg.	2.70 m (8 ft. 10 in.)	2.66 m (8 ft. 9 in.)	2.67 m (8 ft. 9 in.)
T Reach at Full Height, Bucket at 45 deg.	730 mm (28.7 in.)	772 mm (30.4 in.)	772 mm (30.4 in.)
U Digging Depth Below Ground, Bucket Level	135 mm (5.3 in.)	135 mm (5.3 in.)	131 mm (5.1 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	2.03 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)	2.08 m (6 ft. 10 in.)

Lift Capacity with Quick-Coupler Forks		
Hydraulic Capacity	*1219-mm (48 in.) Tines*	*1524-mm (60 in.) Tines*
A[I] Maximum Height	2019 kg (4,452 lb.)	1887 kg (4,161 lb.)
B[I] Maximum Reach	3158 kg (6,963 lb.)	2978 kg (6,565 lb.)
C[I] At Ground Line	4009 kg (8,839 lb.)	3792 kg (8,360 lb.)
D[I] Below Ground Line	206 mm (8.1 in.)	206 mm (8.1 in.)

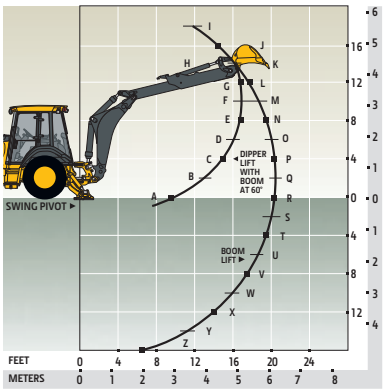




With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

Lift Capacities

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

	With Standard Dipperstick		*With 1.21-m (4 ft. 0 in.) Extendable Dipperstick, Retracted*		*With 1.21-m (4 ft. 0 in.) Extendable Dipperstick, Extended*	
	Standard Lift	*Lift Mode*	*Standard Lift*	*Lift Mode*	*Standard Lift*	*Lift Mode*
A	7747 kg (17,080 lb.)	7747 kg (17,080 lb.)	7508 kg (16,553 lb.)	7508 kg (16,553 lb.)	4957 kg (10,928 lb.)	5327 kg (11,743 lb.)
B	6041 kg (13,318 lb.)	6041 kg (13,318 lb.)	5826 kg (12,845 lb.)	5826 kg (12,845 lb.)	3141 kg (6,924 lb.)	3492 kg (7,698 lb.)
C	4469 kg (9,852 lb.)	4469 kg (9,852 lb.)	4277 kg (9,429 lb.)	4277 kg (9,429 lb.)	2729 kg (6,015 lb.)	3036 kg (6,693 lb.)
D	4024 kg (8,871 lb.)	4024 kg (8,871 lb.)	3838 kg (8,461 lb.)	3838 kg (8,461 lb.)	2513 kg (5,541 lb.)	2798 kg (6,169 lb.)
E	3745 kg (8,256 lb.)	3899 kg (8,596 lb.)	3621 kg (7,983 lb.)	3714 kg (8,189 lb.)	2358 kg (5,199 lb.)	2626 kg (5,790 lb.)
F	3305 kg (7,285 lb.)	3662 kg (8,074 lb.)	3180 kg (7,010 lb.)	3537 kg (7,798 lb.)	2212 kg (4,876 lb.)	2464 kg (5,433 lb.)
G	1641 kg (3,617 lb.)	1828 kg (4,029 lb.)	1481 kg (3,265 lb.)	1668 kg (3,677 lb.)	2037 kg (4,492 lb.)	2271 kg (5,008 lb.)
H	2125 kg (4,685 lb.)	2374 kg (5,234 lb.)	1943 kg (4,284 lb.)	2192 kg (4,833 lb.)	1788 kg (3,942 lb.)	1996 kg (4,401 lb.)
I	2252 kg (4,965 lb.)	2519 kg (5,554 lb.)	2061 kg (4,544 lb.)	2328 kg (5,133 lb.)	1091 kg (2,406 lb.)	1235 kg (2,722 lb.)
J	2287 kg (5,042 lb.)	2561 kg (5,646 lb.)	2090 kg (4,608 lb.)	2364 kg (5,212 lb.)	1355 kg (2,988 lb.)	1533 kg (3,381 lb.)
K	2286 kg (5,039 lb.)	2562 kg (5,648 lb.)	2084 kg (4,595 lb.)	2361 kg (5,204 lb.)	1479 kg (3,260 lb.)	1674 kg (3,690 lb.)
L	2268 kg (4,999 lb.)	2544 kg (5,609 lb.)	2063 kg (4,547 lb.)	2339 kg (5,157 lb.)	1543 kg (3,402 lb.)	1748 kg (3,854 lb.)
M	2243 kg (4,944 lb.)	2518 kg (5,551 lb.)	2034 kg (4,485 lb.)	2310 kg (5,092 lb.)	1577 kg (3,477 lb.)	1788 kg (3,943 lb.)
N	2215 kg (4,884 lb.)	2490 kg (5,489 lb.)	2004 kg (4,418 lb.)	2278 kg (5,023 lb.)	1594 kg (3,514 lb.)	1809 kg (3,988 lb.)
O	2189 kg (4,827 lb.)	2463 kg (5,429 lb.)	1975 kg (4,354 lb.)	2248 kg (4,956 lb.)	1601 kg (3,529 lb.)	1818 kg (4,009 lb.)
P	2167 kg (4,778 lb.)	2440 kg (5,380 lb.)	1949 kg (4,298 lb.)	2222 kg (4,899 lb.)	1602 kg (3,531 lb.)	1821 kg (4,015 lb.)
Q	2153 kg (4,746 lb.)	2426 kg (5,349 lb.)	1931 kg (4,257 lb.)	2204 kg (4,860 lb.)	1599 kg (3,526 lb.)	1820 kg (4,013 lb.)
R	2150 kg (4,741 lb.)	2426 kg (5,348 lb.)	1924 kg (4,242 lb.)	2200 kg (4,849 lb.)	1596 kg (3,519 lb.)	1818 kg (4,009 lb.)
S	2171 kg (4,786 lb.)	2452 kg (5,406 lb.)	1938 kg (4,274 lb.)	2220 kg (4,893 lb.)	1594 kg (3,514 lb.)	1818 kg (4,007 lb.)
T	2247 kg (4,953 lb.)	2541 kg (5,603 lb.)	2004 kg (4,418 lb.)	2299 kg (5,068 lb.)	1594 kg (3,515 lb.)	1820 kg (4,013 lb.)
U	2578 kg (5,684 lb.)	2923 kg (6,444 lb.)	2306 kg (5,084 lb.)	2651 kg (5,844 lb.)	1600 kg (3,527 lb.)	1828 kg (4,031 lb.)
V	—	—	—	—	1614 kg (3,558 lb.)	1847 kg (4,071 lb.)
W	—	—	—	—	1643 kg (3,623 lb.)	1882 kg (4,150 lb.)
X	—	—	—	—	1703 kg (3,755 lb.)	1953 kg (4,306 lb.)
Y	—	—	—	—	1843 kg (4,064 lb.)	2116 kg (4,665 lb.)
Z	—	—	—	—	2465 kg (5,435 lb.)	2832 kg (6,245 lb.)

**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



710L SPECIFICATIONS

Engine	**710L**	
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT084 series turbocharged	
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV	
Displacement	4.5 L (276 cu. in.)	
Gross Power at Rated Speed	111 kW (149 hp) at 2,200 rpm	
Net Peak Power (ISO 9249)	110 kW (148 hp) at 2,240 rpm	
Net Peak Torque (ISO 9249)	570 Nm (420 lb.-ft.) at 1,400 rpm	
Net Torque Rise	20%	
Lubrication	Pressure system with spin-on filter and cooler	
Air Cleaner	Dual-stage dry type with safety element and evacuator valve	
Cooling		
Fan Type	Electronically controlled, variable rate, suction-type cooling fan	
Engine Coolant Rating	–40 deg. C (–40 deg. F)	
Engine Oil Cooler	Oil to water	
Powertrain		
Transmission	4-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission optional	
Torque Converter	Single stage, dual phase with 1.92:1 stall ratio, 280 mm (11 in.)	
Maximum Travel Speeds with Standard Engine with Mechanical-Front-Wheel Drive (MFWD), Measured with 21L-28 Rear Tires	*Forward*	*Reverse*
Gear 1	5.9 km/h (3.7 mph)	6.6 km/h (4.1 mph)
Gear 2	10.0 km/h (6.2 mph)	11.1 km/h (6.9 mph)
Gear 3	24.4 km/h (15.2 mph)	27.2 km/h (16.9 mph)
Gear 4	36.6 km/h (22.7 mph)	—
Axles		
Axle Oscillation, Stop to Stop, Front Axle	18 deg.	
Axle Ratings	*Front*	*Rear*
SAE J43	9000 kg (19,800 lb.)	11 500 kg (25,400 lb.)
Dynamic	12 500 kg (27,600 lb.)	14 000 kg (30,900 lb.)
Static	30 500 kg (67,200 lb.)	31 000 kg (68,300 lb.)
Ultimate	45 000 kg (99,200 lb.)	45 000 kg (99,200 lb.)
Differentials		
MFWD Axle	Automatic, limited-slip traction control	
Rear Axle	Foot actuated, hydraulically engaged mechanical lock	
Steering (ISO 5010)	Hydrostatic power steering and emergency steering	
Axle	*MFWD*	*Non-Powered Front*
Curb-Turning Radius		
With Brakes	4.04 m (13 ft. 3 in.)	4.07 m (13 ft. 4 in.)
Without Brakes	4.71 m (15 ft. 5 in.)	4.75 m (15 ft. 7 in.)
Bucket-Clearance Circle		
With Brakes	11.29 m (37 ft. 0 in.)	11.30 m (37 ft. 1 in.)
Without Brakes	12.32 m (40 ft. 5 in.)	12.35 m (40 ft. 6 in.)
Steering Wheel Turns (lock to lock, flow amplified)	2.7 to 4.4	2.9 to 4.7
MFWD Axle	Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle	Heavy duty, inboard planetary final drives distribute shock loads over 3 gears	
Brakes (ISO 3450)		
Service	Full power, 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	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm		
Backhoe	197 L/m (52 gpm)	
Loader	197 L/m (52 gpm)	
System Relief Pressure, Backhoe and Loader		
Backhoe	24 993 kPa (3,625 psi)	
Lift Mode	26 890 kPa (3,900 psi)	
Loader	24 993 kPa (3,625 psi)	

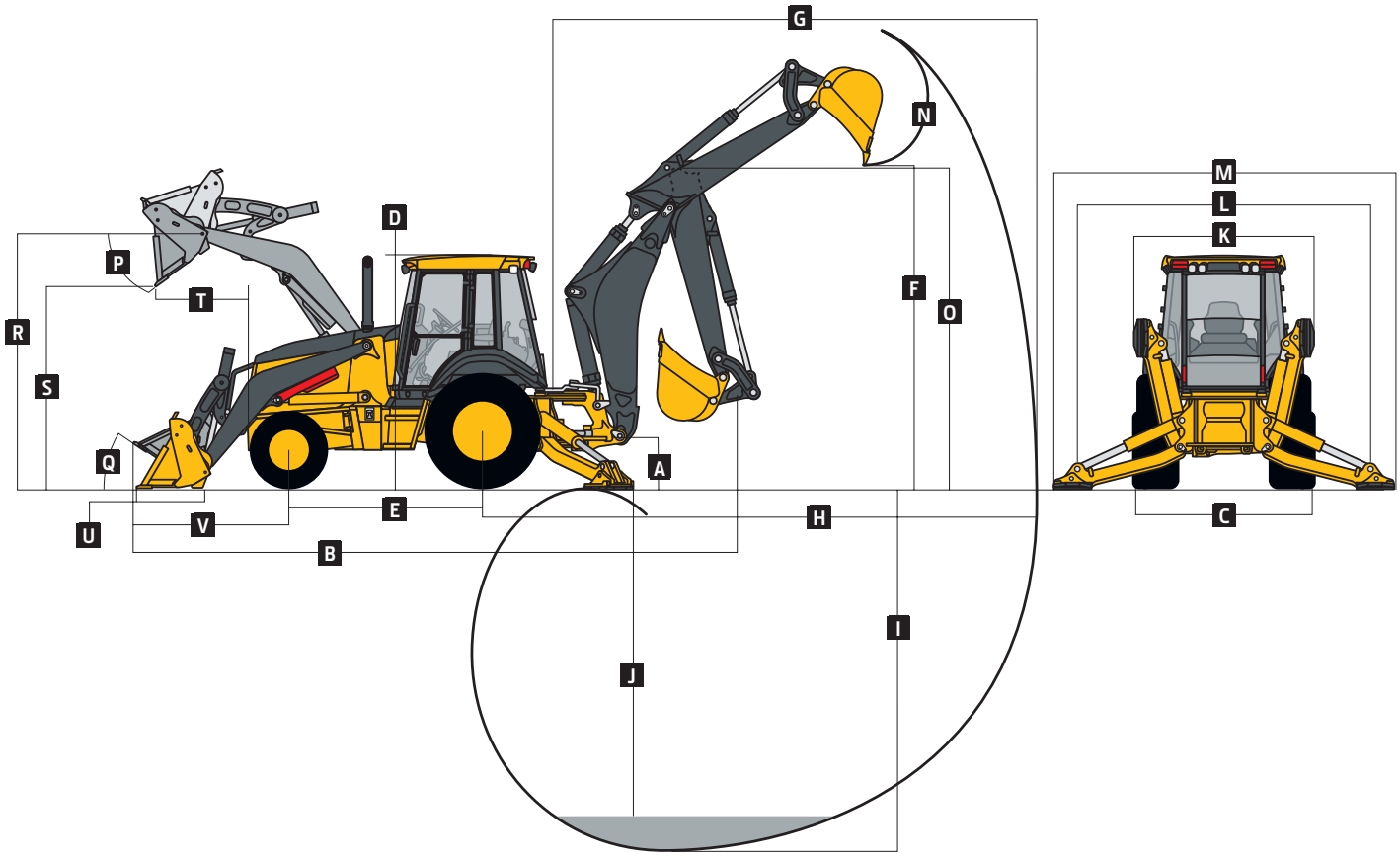
710L SPECIFICATIONS



Hydraulics *(continued)*	710L		
Controls			
Backhoe	Pilot controls with pattern select standard; 2-lever mechanical and auxiliary functions optional; field kits available for additional mechanical-control options		
Loader	Single-lever control with electric clutch cutoff, momentary MFWD, transmission quick-shift, and electrohydraulic (EH) auxiliary loader control optional		
Cylinders			
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	*Rod Diameter*	*Stroke*
Loader Boom (2)	100 mm (3.94 in.)	56 mm (2.20 in.)	805 mm (31.69 in.)
Loader Bucket (1)	110 mm (4.33 in.)	56 mm (2.20 in.)	672 mm (26.44 in.)
Backhoe Boom (1)	160 mm (6.30 in.)	95 mm (3.74 in.)	944 mm (37.17 in.)
Backhoe Crowd (1)	140 mm (5.51 in.)	85 mm (3.35 in.)	792 mm (31.16 in.)
Backhoe Bucket (1)	110 mm (4.33 in.)	70 mm (2.76 in.)	939 mm (36.97 in.)
Backhoe Swing (2)	110 mm (4.33 in.)	56 mm (2.20 in.)	308 mm (12.13 in.)
Backhoe Extendable Dipperstick (1)	80 mm (3.15 in.)	45 mm (1.77 in.)	1372 mm (54.00 in.)
Backhoe Stabilizer, Extended (2)	115 mm (4.53 in.)	63 mm (2.48 in.)	588 mm (23.15 in.)
Non-Powered Axle (1)	75 mm (2.95 in.)	45 mm (1.77 in.)	240 mm (9.45 in.)
MFWD (1)	75 mm (2.95 in.)	50 mm (1.97 in.)	260 mm (10.24 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	160 amp with cab		
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; factory-installed option for 2 LED spotlights and 8 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional fully enclosed cab		
Tires/Wheels			
	Front	*Rear*	
Non-Powered Front Axle	12.5/80-18 F3 (16)	21L-28 R4 (18)	
	14.5/75-16.1 F3 (16)	20.5-25 L-3 (20)	
With MFWD	15-19.5 R4 (12)	21L-28 R4 (18)	
	15-19.5 R4 (12)	20.5-25 L-3 (20)	
Serviceability			
Refill Capacities			
Cooling System			
Cab	27 L (28.5 qt.)		
Canopy	25 L (26.4 qt.)		
Rear Axle	25 L (26.4 qt.)		
Engine Oil (including vertical spin-on filter)	13 L (13.7 qt.)		
Torque Converter and Transmission	15.1 L (16 qt.)		
Fuel Tank (with ground-level fueling)	174.1 L (46 gal.)		
Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)		
Hydraulic System	174.1 L (46 gal.)		
Hydraulic Reservoir	50.1 L (13.2 gal.)		
MFWD Housing			
Axle	15 L (15.9 qt.)		
Planetary (each)	2.2 L (2.3 qt.)		
Operating Weights			
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard Equipment	11 607 kg (25,588 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and 680-kg (1,500 lb.) Counterweight	12 262 kg (27,033 lb.)		
Optional Components (weight difference between base equipment and option)			
Cab	293 kg (645 lb.)		
MFWD with Tires	373 kg (822 lb.)		
Extendable Dipperstick	318 kg (700 lb.)		
Front Loader Coupler	363 kg (800 lb.)		

710L

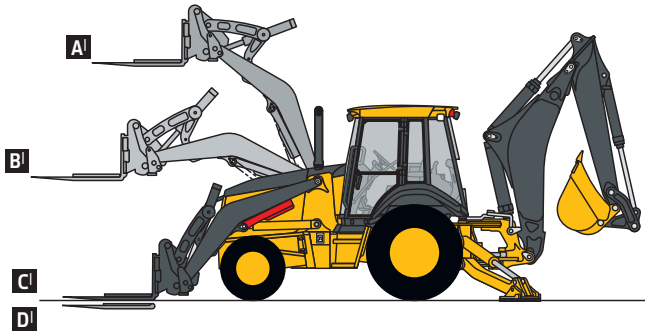
Overall Dimensions	710L
A Ground Clearance, Minimum	356 mm (14 in.)
B Overall Length, Transport	8.23 m (27 ft. 0 in.)
C Width Over Tires	2.37 m (7 ft. 9 in.)
D Height to Top of ROPS/Cab	2.97 m (9 ft. 9 in.)
E Length from Axle to Axle	
Non-Powered Front Axle	2.58 m (8 ft. 5 in.)
MFWD Axle	2.55 m (8 ft. 4 in.)



Backhoe Dimensions and Performance			
Backhoe specifications are with 610-mm x 0.31-m³ (24 in. x 11 cu. ft.) bucket; dipper lift specs are with a boom angle of 65 deg.			
Bucket Range	610–914 mm (24–36 in.)		
Digging Force			
Bucket Cylinder	78.4 kN (17,622 lb.)		
Lift Mode	84.3 kN (18,959 lb.)		
Crowd Cylinder	53.4 kN (11,999 lb.)		
Lift Mode	57.4 kN (12,910 lb.)		
Swing Arc	180 deg.		
Operator Control	Pilot control		
		With Optional Extendable Dipperstick	
	With Standard Backhoe	*Retracted*	*Extended*
F Loading Height, Truck Loading Position	4.45 m (14 ft. 7 in.)	4.49 m (14 ft. 9 in.)	5.35 m (17 ft. 6 in.)
G Reach from Center of Swing Pivot	6.84 m (22 ft. 5 in.)	6.84 m (22 ft. 5 in.)	8.15 m (26 ft. 9 in.)
H Reach from Center of Rear Axle	8.11 m (26 ft. 7 in.)	8.11 m (26 ft. 7 in.)	9.42 m (30 ft. 11 in.)
I Digging Depth (SAE maximum)	5.26 m (17 ft. 3 in.)	5.26 m (17 ft. 3 in.)	6.63 m (21 ft. 9 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	5.25 m (17 ft. 3 in.)	5.25 m (17 ft. 2 in.)	6.62 m (21 ft. 8 in.)
2440-mm (8 ft.) Flat Bottom	4.96 m (16 ft. 3 in.)	4.96 m (16 ft. 3 in.)	6.40 m (21 ft. 0 in.)
K Stabilizer Width, Transport	2.41 m (7 ft. 11 in.)	2.41 m (7 ft. 11 in.)	2.41 m (7 ft. 11 in.)
L Stabilizer Spread, Operating	3.99 m (13 ft. 1 in.)	3.99 m (13 ft. 1 in.)	3.99 m (13 ft. 1 in.)
M Stabilizer Overall Width, Operating	4.65 m (15 ft. 3 in.)	4.65 m (15 ft. 3 in.)	4.65 m (15 ft. 3 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	4.23 m (13 ft. 10 in.)	4.23 m (13 ft. 10 in.)	4.23 m (13 ft. 10 in.)
Loader Dimensions and Performance			
P Bucket Dump Angle, Maximum	45 deg.		
Q Rollback Angle at Ground Level	40 deg.		

Loader Dimensions and Performance *(continued)*	710L		
	Standard-duty	*Standard-duty*	*Multipurpose*
Bucket Capacity	1.24 m³ (1.62 cu. yd.)	1.43 m³ (1.87 cu. yd.)	1.00 m³ (1.31 cu. yd.)
Width	2464 mm (97 in.)	2464 mm (97 in.)	2451 mm (96 in.)
Weight	830 kg (1,830 lb.)	866 kg (1,909 lb.)	995 kg (2,193 lb.)
Breakout Force	73.6 kN (16,539 lb.)	70.5 kN (15,853 lb.)	73.3 kN (16,474 lb.)
Lift Capacity, Full Height	4475 kg (9,866 lb.)	4239 kg (9,346 lb.)	4081 kg (8,998 lb.)
R Height to Bucket Hinge Pin, Maximum	3.73 m (12 ft. 3 in.)	3.73 m (12 ft. 3 in.)	3.73 m (12 ft. 3 in.)
S Dump Clearance, Bucket at 45 deg.	2.89 m (9 ft. 6 in.)	2.81 m (9 ft. 3 in.)	2.92 m (9 ft. 7 in.)
T Reach at Full Height, Bucket at 45 deg.	768 mm (30.2 in.)	849 mm (33.4 in.)	763 mm (30 in.)
U Digging Depth Below Ground, Bucket Level	157 mm (6.2 in.)	157 mm (6.2 in.)	141 mm (5.5 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	2.14 m (7 ft. 0 in.)	2.26 m (7 ft. 5 in.)	2.11 m (6 ft. 11 in.)

Lift Capacity with Quick-Coupler Forks	
Hydraulic Capacity	*1219-mm (48 in.) Tines*
A[I] Maximum Height	2632 kg (5,803 lb.)
B[I] Maximum Reach	4378 kg (9,651 lb.)
C[I] At Ground Line	6057 kg (13,353 lb.)
D[I] Below Ground Line	140 mm (5.5 in.)

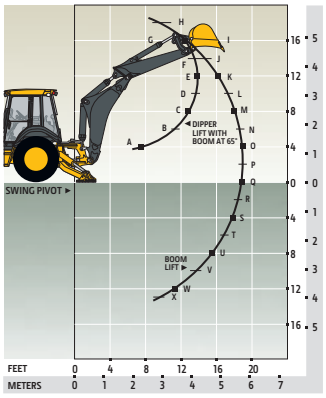


Lift Capacities

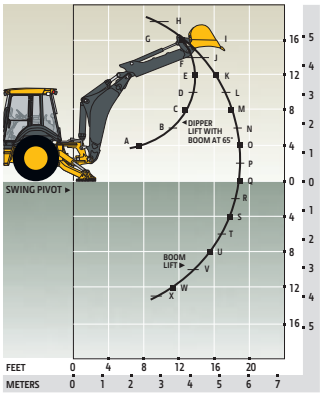
Lift capacities are over-end values in kg (lb.). Figures listed are 100% of the maximum lift force available.

	With Standard Dipperstick		*With 1.37-m (4 ft. 6 in.) Extendable Dipperstick, Retracted*		*With 1.37-m (4 ft. 6 in.) Extendable Dipperstick, Extended*	
	Standard Lift	*Lift Mode*	*Standard Lift*	*Lift Mode*	*Standard Lift*	*Lift Mode*
A	9519 kg (20,986 lb.)	9519 kg (20,986 lb.)	9343 kg (20,597 lb.)	9343 kg (20,597 lb.)	5431 kg (11,973 lb.)	5878 kg (12,958 lb.)
B	5244 kg (11,561 lb.)	5506 kg (12,140 lb.)	5109 kg (11,262 lb.)	5290 kg (11,662 lb.)	3397 kg (7,488 lb.)	3685 kg (8,123 lb.)
C	4492 kg (9,903 lb.)	4732 kg (10,432 lb.)	4344 kg (9,578 lb.)	4520 kg (9,965 lb.)	2914 kg (6,425 lb.)	3,165 kg (6,977 lb.)
D	4087 kg (9,010 lb.)	4419 kg (9,743 lb.)	3932 kg (8,669 lb.)	4229 kg (9,323 lb.)	2659 kg (5,862 lb.)	2889 kg (6,370 lb.)
E	3718 kg (8,197 lb.)	4022 kg (8,866 lb.)	3557 kg (7,843 lb.)	3860 kg (8,510 lb.)	2479 kg (5,466 lb.)	2695 kg (5,942 lb.)
F	3219 kg (7,096 lb.)	3483 kg (7,679 lb.)	3050 kg (6,724 lb.)	3313 kg (7,304 lb.)	2324 kg (5,123 lb.)	2527 kg (5,572 lb.)
G	2304 kg (5,079 lb.)	2497 kg (5,505 lb.)	2122 kg (4,679 lb.)	2314 kg (5,102 lb.)	2164 kg (4,771 lb.)	2355 kg (5,192 lb.)
H	2500 kg (5,512 lb.)	2717 kg (5,990 lb.)	2291 kg (5,052 lb.)	2508 kg (5,530 lb.)	1974 kg (4,351 lb.)	2150 kg (4,740 lb.)
I	2572 kg (5,670 lb.)	2805 kg (6,184 lb.)	2348 kg (5,177 lb.)	2581 kg (5,691 lb.)	1719 kg (3,790 lb.)	1875 kg (4,135 lb.)
J	2532 kg (5,581 lb.)	2766 kg (6,099 lb.)	2301 kg (5,073 lb.)	2536 kg (5,590 lb.)	1340 kg (2,954 lb.)	1467 kg (3,234 lb.)
K	2465 kg (5,434 lb.)	2697 kg (5,947 lb.)	2230 kg (4,916 lb.)	2462 kg (5,428 lb.)	1625 kg (3,583 lb.)	1789 kg (3,944 lb.)
L	2391 kg (5,271 lb.)	2620 kg (5,776 lb.)	2152 kg (4,744 lb.)	2381 kg (5,250 lb.)	1679 kg (3,701 lb.)	1852 kg (4,083 lb.)
M	2316 kg (5,105 lb.)	2541 kg (5,602 lb.)	2074 kg (4,573 lb.)	2300 kg (5,070 lb.)	1685 kg (3,714 lb.)	1862 kg (4,104 lb.)
N	2243 kg (4,945 lb.)	2464 kg (5,433 lb.)	1999 kg (4,407 lb.)	2220 kg (4,895 lb.)	1669 kg (3,680 lb.)	1848 kg (4,073 lb.)
O	2173 kg (4,791 lb.)	2391 kg (5,271 lb.)	1927 kg (4,248 lb.)	2145 kg (4,728 lb.)	1644 kg (3,624 lb.)	1822 kg (4,017 lb.)
P	2107 kg (4,646 lb.)	2321 kg (5,118 lb.)	1859 kg (4,098 lb.)	2073 kg (4,570 lb.)	1613 kg (3,556 lb.)	1791 kg (3,947 lb.)
Q	2045 kg (4,509 lb.)	2256 kg (4,974 lb.)	1794 kg (3,956 lb.)	2005 kg (4,421 lb.)	1579 kg (3,482 lb.)	1756 kg (3,872 lb.)
R	1987 kg (4,381 lb.)	2195 kg (4,840 lb.)	1734 kg (3,823 lb.)	1942 kg (4,282 lb.)	1545 kg (3,406 lb.)	1721 kg (3,793 lb.)
S	1934 kg (4,263 lb.)	2139 kg (4,716 lb.)	1678 kg (3,698 lb.)	1883 kg (4,152 lb.)	1511 kg (3,331 lb.)	1685 kg (3,715 lb.)
T	1884 kg (4,154 lb.)	2088 kg (4,604 lb.)	1625 kg (3,583 lb.)	1829 kg (4,033 lb.)	1477 kg (3,257 lb.)	1650 kg (3,639 lb.)
U	1841 kg (4,058 lb.)	2044 kg (4,506 lb.)	1578 kg (3,479 lb.)	1781 kg (3,927 lb.)	1445 kg (3,185 lb.)	1617 kg (3,565 lb.)
V	1805 kg (3,979 lb.)	2009 kg (4,429 lb.)	1537 kg (3,388 lb.)	1741 kg (3,838 lb.)	1414 kg (3,117 lb.)	1585 kg (3,495 lb.)
W	1786 kg (3,937 lb.)	1995 kg (4,397 lb.)	1509 kg (3,327 lb.)	1718 kg (3,787 lb.)	1385 kg (3,054 lb.)	1556 kg (3,429 lb.)
X	1794 kg (3,954 lb.)	2009 kg (4,429 lb.)	1508 kg (3,325 lb.)	1723 kg (3,799 lb.)	1359 kg (2,995 lb.)	1529 kg (3,370 lb.)
Y	—	—	—	—	1335 kg (2,943 lb.)	1505 kg (3,318 lb.)
Z	—	—	—	—	1316 kg (2,900 lb.)	1486 kg (3,277 lb.)
a	—	—	—	—	1302 kg (2,871 lb.)	1475 kg (3,251 lb.)
b	—	—	—	—	1299 kg (2,865 lb.)	1476 kg (3,253 lb.)
c	—	—	—	—	1322 kg (2,914 lb.)	1506 kg (3,321 lb.)
d	—	—	—	—	1453 kg (3,202 lb.)	1666 kg (3,673 lb.)

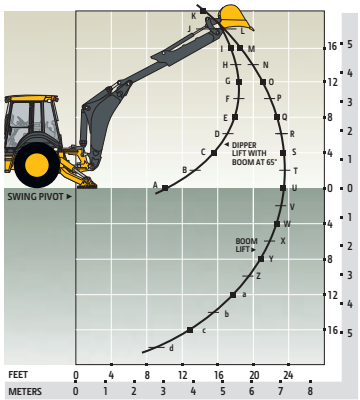
**Indicates capacity is stability limited. Lift capacities are over end with stabilizers down and tires tangent to ground.*



With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

Additional equipment

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L EP	310L	310SL	310SL HL	315SL	410L	710L	Engine
●	●	●	●	●	●	●	Coolant recovery tank with low-level indicator
●	●	●	●	●	●	●	Foldout, hinged cooling system
●	●	●	●	●	●	●	Serpentine belt with automatic belt tensioner
●							Viscous variable-rate cooling fan
	●	●	●	●	●	●	Electronically controlled, variable-rate suction-type cooling fan
	●	●	●	●	●	●	Self-cleaning exhaust aftertreatment system
▲	▲	▲	▲	▲	▲	▲	Chrome exhaust extension
	●	●	●	●	●		Grid heat
●						●	Glow plugs
▲	▲	▲	▲	▲	▲	▲	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)
		●	●	●	●		PowerShift transmission: Torque converter with twist-grip TCL and neutral safety switch interlock (1st through 5th gears)
		●	●	●	●		5th-gear overdrive
		▲	▲	▲	▲	▲	AutoShift transmission
●	●	●	●	●	●	●	Transmission oil cooler
▲	▲	▲	●	▲	▲	▲	Transmission remote oil-sampling port
●	●	●	●		●		Differential lock, electric foot actuated, protection on/off
				●		●	Differential lock, electric foot actuated
		●	●	●	●	●	Auto shutdown
●	●	●	●	●	●	●	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
●	●	●	●	●	●	●	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 and 5th gear overdrive only)
●	●					●	Automatic MFWD braking (4th gear only)
▲	▲	▲	▲	▲	▲		MFWD driveshaft guard
							Backhoe
			●		●	●	Lift mode
			●		●	●	Precision mode
							Standard dipperstick digging depth
●	●						4.27 m (14 ft. 0 in.)

310L EP	310L	310SL	310SL HL	315SL	410L	710L	Backhoe *(continued)*
							Standard dipperstick digging depth *(cont.)*
		●					4.34 m (14 ft. 3 in.)
				●			4.17 m (13 ft. 8 in.)
			●				4.59 m (15 ft. 1 in.)
					●		4.83 m (15 ft. 10 in.)
						●	5.25 m (17 ft. 3 in.)
							Extendable dipperstick extension
▲	▲	▲	▲	▲			1.06 m (3 ft. 6 in.)
					▲		1.21 m (4 ft. 0 in.)
						▲	1.37 m (4 ft. 6 in.)
		▲	●	▲	●		Heavy-duty backhoe bucket cylinder
●	●	●		●	●	▲	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
		▲	●		●	●	Extended (long) stabilizers with reversible pads
		▲	▲	▲	▲		Severe-duty backhoe bucket with lift loops
▲	▲	▲	▲	▲	▲		Backhoe couplers for John Deere, Case, and Cat buckets
▲	▲	▲	▲	▲	▲	▲	Auxiliary backhoe valve with 1-way flow for hammers and compactors with plumbing
▲	▲	▲	▲		▲	▲	Auxiliary backhoe valve with 1- and 2-way flow for swingers, thumbs, augers, etc. (plumbing not included)
▲	▲	▲	▲		▲		Hydraulic thumb
		▲	▲		▲		Rear hydraulic coupler
		▲	▲	▲	▲		Spring-type coupler
							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
▲	▲	▲	▲	▲	▲	▲	Auxiliary loader hydraulics with single control lever with EH auxiliary control (MFWD and clutch disconnect)
▲	▲	▲	▲	▲	▲	▲	Hydraulic coupler for buckets, forks, etc.
▲	▲	▲	▲	▲	▲	●	Ride control
		▲	▲		▲		Auto ride control

†See dealer for range of heavy-duty, multipurpose, and coupler buckets and forks.

							Hydraulic System
●							128-L/m (33.7 gpm) backhoe flow, 104-L/m (2 7.5 gpm) loader flow; open-center system, axial-piston pump
	●						106-L/m (28 gpm) single-gear pump, open-center system

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-mm (5,000 ft.) altitude for the 310L EP. 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 310L EP and 310L units with 19.5L-24-in. 12PR (R4) tubeless rear and 12.5/80-18 12PR (F3) front tires, and 0.86-m^3 (1.12 cu. yd.) loader buckets; a 310SL unit with 19.5L-24-in. 12PR (R4) tubeless rear and 12.5-80/18 10PR (R4) front tires, and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 310SL HL unit with boost mode, 21L-24 in. 12PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires,and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 315SL unit with 16.9L-28 R4 (12) tubeless rear and 12.5-80/18 10PR (R4) front tires, and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 410L unit with 21L-24-in. 12PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, and 1.15-m^3 (1.5 cu. yd.) loader bucket; and a 710L unit with 21L-28-in. 18PR (R4) tubeless rear and 15-19.5-in. 12PR (R4) front tires, and 1.24-m^3 (1.62 cu. yd.) loader bucket.

Additional equipment *(continued)*

Key: ● Standard ▲ Optional or special See your John Deere dealer for further information.

310L EP	310L	310SL	310SL HL	315SL	410L	710L	Hydraulic System *(continued)*
		●		●			136-L/m (36 gpm) tandem-gear pump, open-center system
			●		●		159-L/m (42 gpm) axial-piston pump, PCLS system
						●	197-L/m (52 gpm) axial-piston pump, PCLS system
		●	●	●	●	●	Auto-idle
●	●	●	●	●	●	●	Economy mode
●	●	●	●	●	●	●	Dedicated hydraulic reservoir
							Electrical System
●	●	●	●	●	●	●	12-volt system
●	●	●	●		●		120-amp alternator (canopy and quarter cab)
●							130-amp alternator (cab)
	●	●	●	●	●	●	160-amp alternator (cab)
●	●	●	●	●	●		Single battery with 180-min. reserve capacity and 925 CCA
▲	▲	▲	▲	▲	▲	●	Dual batteries with 360-min. reserve capacity and 1,850 CCA
▲	▲	▲	▲	▲	▲	▲	Remote jump posts and 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)
▲	▲	▲	▲	▲	▲	▲	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
●	●	●	●	●	●	●	Cloth seat (with cab only)
▲	▲	▲	▲	▲	▲	▲	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)
		●	●	●	●	●	Keyless start
▲	▲	●	●	●	●	●	Machine security (enabled through monitor)
●	●	●	●	●	●	●	Digital display of engine hours, engine rpm, and system voltage
		●	●	●	●	●	Sealed-switch module (SSM)

310L EP	310L	310SL	310SL HL	315SL	410L	710L	Operator's Station *(continued)*
		●	●	●	●	●	Multi-function lever: Turn signals / Windshield wipers / Some light functionality
●	●	●	●	●	●	●	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
▲	▲	▲	▲	▲	▲	▲	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
▲	▲	▲	▲	●	▲		Heavy-duty front bumper
▲	▲	▲	▲	▲	▲	●	Front counterweight – 204 kg (450 lb.), 272 kg (600 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), 567 kg (1,250 lb.), or 680 kg (1,500 lb.)
▲	▲	▲	▲	▲	▲		Rubber grille bumpers
●	●	●	●	●	●		Fuel tank, 128.71 L (34 gal.), ground-level fueling
						●	Fuel tank, 174.1 L (46 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)

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 1500-mm (5,000 ft.) altitude for the 310L EP. 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 310L EP and 310L units with 19.5L-24-in. 12PR (R4) tubeless rear and 12.5/80-18 12PR (F3) front tires, and 0.86-m^3 (1.12 cu. yd.) loader buckets; a 310SL unit with 19.5L-24-in. 12PR (R4) tubeless rear and 12.5-80/18 10PR (R4) front tires, and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 310SL HL unit with boost mode, 21L-24 in. 12PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires,and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 315SL unit with 16.9L-28 R4 (12) tubeless rear and 12.5-80/18 10PR (R4) front tires, and 1.00-m^3 (1.31 cu. yd.) loader bucket; a 410L unit with 21L-24-in. 12PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, and 1.15-m^3 (1.5 cu. yd.) loader bucket; and a 710L unit with 21L-28-in. 18PR (R4) tubeless rear and 15-19.5-in. 12PR (R4) front tires, and 1.24-m^3 (1.62 cu. yd.) loader bucket.



Every day brings new challenges — demanding jobsites, long hours, and an increasing focus on uptime. Our job is to bring you the opportunities to overcome them. Our experienced engineers, specialized service techs, and global parts and service network are always ready to step up to help you **Run Your World.**

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