

L-SERIES BACKHOES

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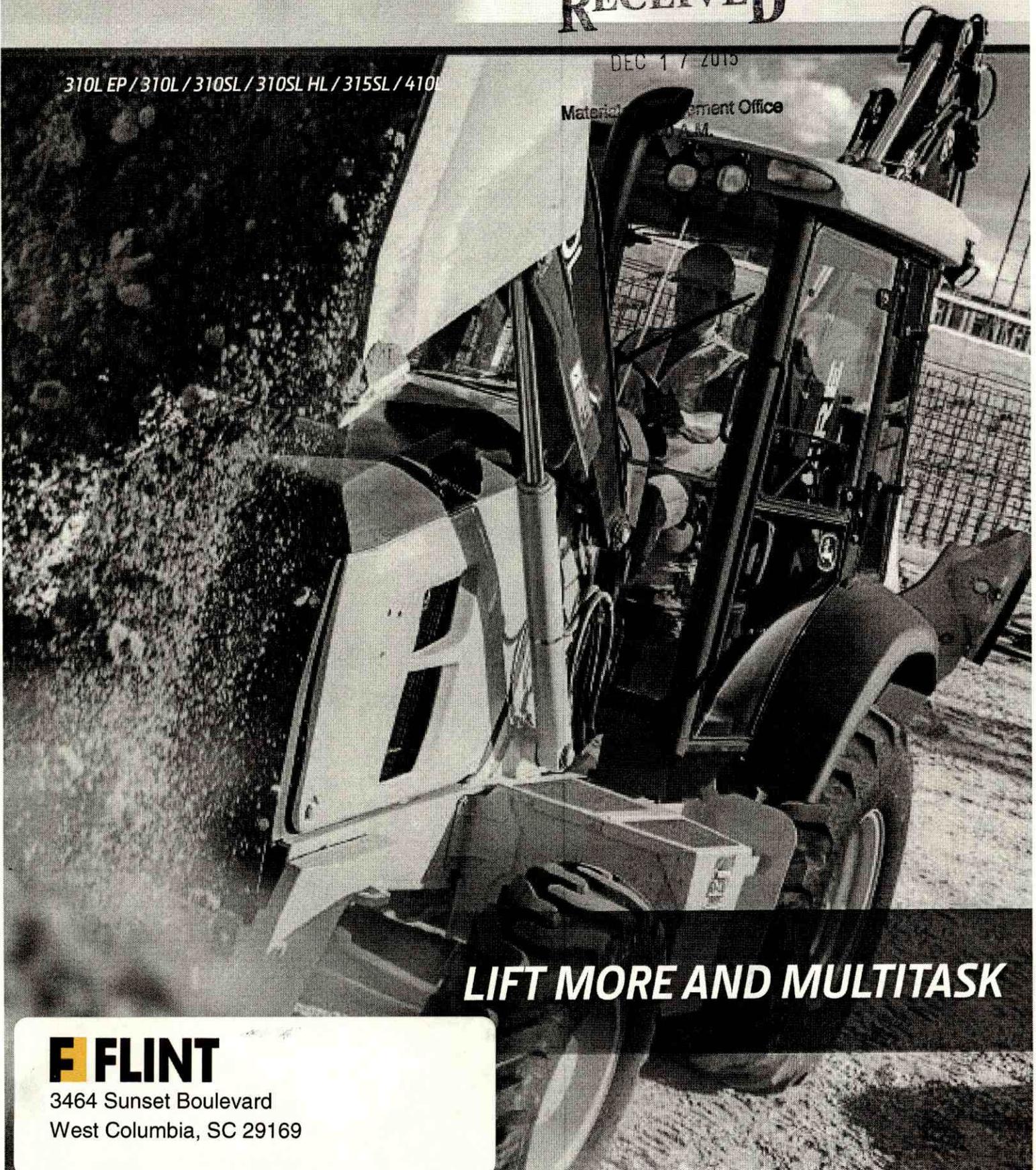


JOHN DEERE

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

DEC 17 2015

Materials Management Office



LIFT MORE AND MULTITASK

FLINT

3464 Sunset Boulevard
West Columbia, SC 29169

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 and 410L), for superb multifunction performance. The result: our most versatile backhoes ever.

True four-wheel drive on command

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

Smooth gear changes

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

Powerful FT4 engines

Rugged FT4/Stage IV PowerTech™ Plus diesel engines* meet rigid emission 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, easy-to-maintain high-uptime exhaust filters (310SL HL and 410L only), and selective catalytic reduction.

Control the ride and the load

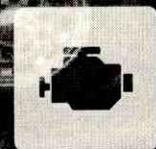
With ride control activated, front loader hydraulic cylinders act as a shock absorber, smoothing travel over rough terrain, helping full loads reach their destination, and reducing operator fatigue.

Better craning capability

The 310SL HL and 410L have up to 25-percent more backhoe lift under normal conditions.

Multifunction hydraulics

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



FT4

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

*Interim Tier 4/Stage IIIB PowerTech on the 310L EP.

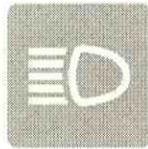




*REDESIGNED PILOT TOWERS
GIVE MORE LEGROOM AND
SPACE TO ROTATE*

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 controls provide effortless, fingertip operation of the backhoe and loader, while other machine functions are conveniently located on the steering column.



LED SPOT- OR FLOODLIGHTS

New easy-to-use loader-control grip

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

Easy, fingertip control of backhoe functions

Fingertip electrohydraulic (EH) control of redesigned pilot levers provides even easier operation of backhoe functions, including selective flow and the horn.

Extend your workday

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

More legroom and space to rotate

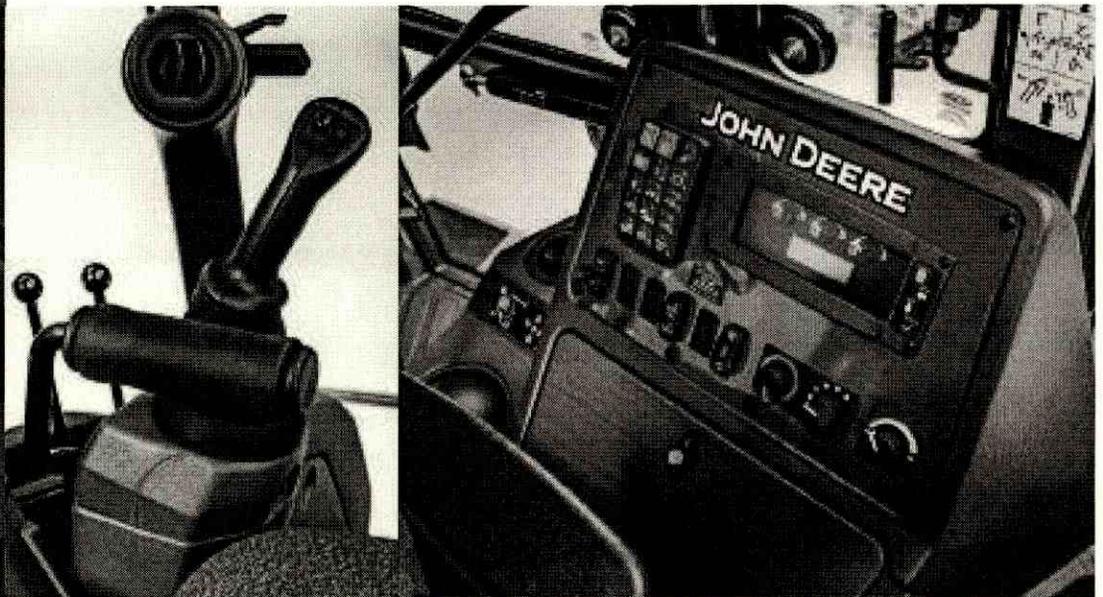
Redesigned pilot towers provide more legroom and additional space for transitioning between loader and backhoe operation.

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®, auxiliary input, and XM Satellite Radio™ capability.

Steering column controls

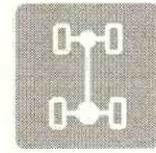
Exterior lights, wipers, and turn signals are now more conveniently located on the multifunction lever on the steering column — just like the family SUV — helping operators keep their eyes on the job at hand.



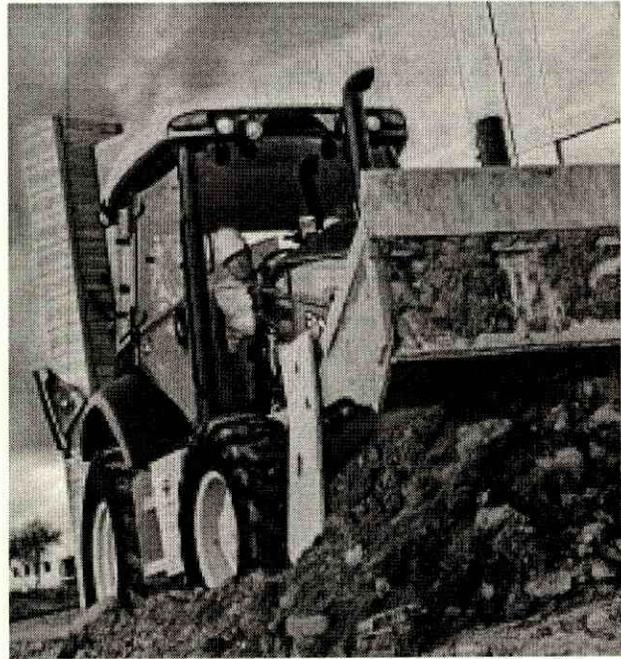
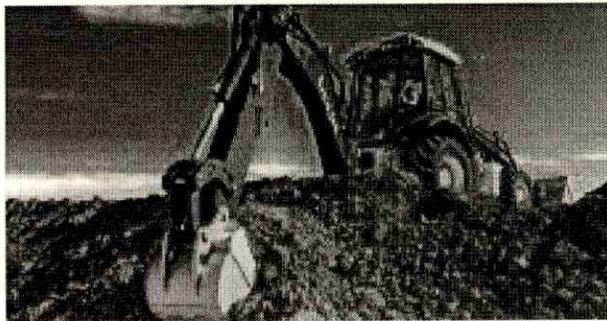
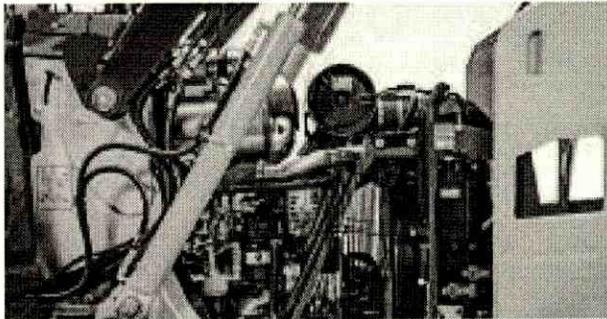
UNSURPASSED RELIABILITY

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



Onboard diagnostics center

The most advanced onboard-diagnostics technology in the industry is standard on all L-Series Backhoes. The exclusive John Deere WorkSight™ suite of telematic solutions includes JDLink™ Ultimate with real-time machine monitoring and remote diagnostics to help increase uptime while lowering operating costs.

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 increases reliability.

More durable multipurpose bucket

Our rugged multipurpose bucket has been reinforced with thicker plates and stronger cylinder mountings for longer life.

Bias and radial tire options

Choose from a variety of factory-installed tire options, for the traction, exceptional 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.

Superior hydraulic oil

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

Protect your investment

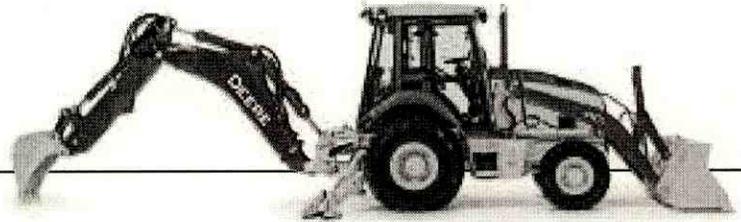
Machine-security system with touchpad passcode helps prevent unauthorized operation.



410L SPECIFICATIONS

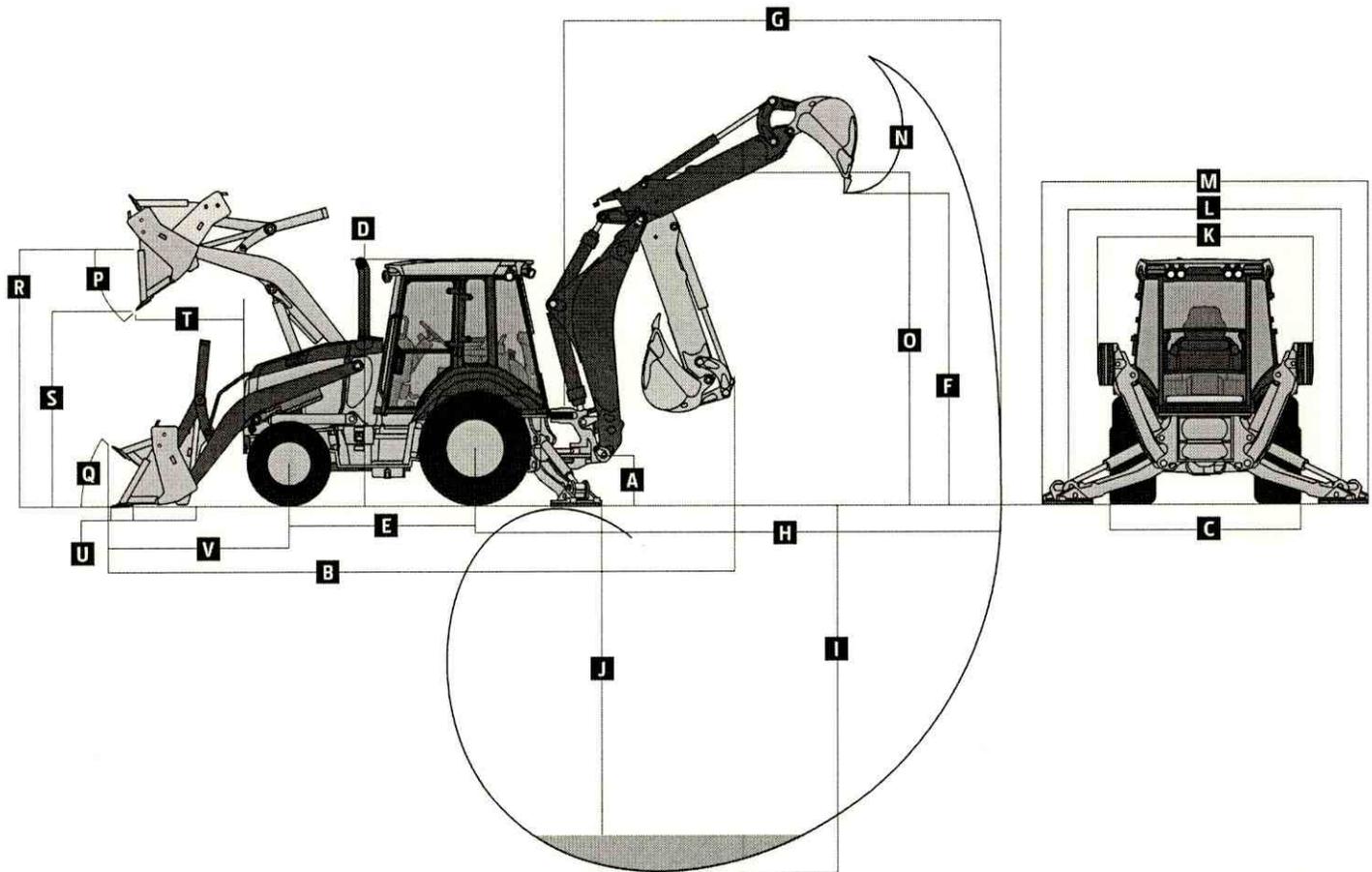
Engine	410L		
Manufacturer and Model	John Deere PowerTech™ Plus 4045HT083 turbocharged		
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV		
Displacement	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	84 kW (113 hp) at 2,244 rpm		
Net Peak Torque (ISO 9249)	447 Nm (330 lb.-ft.) at 1,400 rpm		
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		
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	<i>Forward</i>	<i>Reverse</i>	
Gear 1	5.7 km/h (3.5 mph)	7.2 km/h (4.5 mph)	
Gear 2	10.5 km/h (6.5 mph)	13.2 km/h (8.2 mph)	
Gear 3	21.4 km/h (13.3 mph)	21.1 km/h (13.1 mph)	
Gear 4	35.9 km/h (22.3 mph)	—	
Gear 5	40.0 km/h (24.9 mph)	—	
Axles			
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
Axle Ratings	<i>Mechanical-Front-Wheel Drive (MFWD)</i>		
	<i>Non-Powered Front</i>	<i>Rear</i>	
SAE J43	6500 kg (14,330 lb.)	6000 kg (13,228 lb.) 7500 kg (16,535 lb.)	
Dynamic	8500 kg (18,739 lb.)	8500 kg (18,739 lb.) 10 000 kg (22,046 lb.)	
Static	22 500 kg (49,604 lb.)	23 500 kg (51,809 lb.) 26 000 kg (57,320 lb.)	
Ultimate	35 000 kg (77,162 lb.)	37 000 kg (81,571 lb.) 39 500 kg (87,083 lb.)	
Differentials			
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	<i>Non-Powered Front</i>	<i>MFWD</i>	
Curb-Turning Radius			
With Brakes	3.59 m (11 ft. 9 in.)	3.67 m (12 ft. 0 in.)	
Without Brakes	4.21 m (13 ft. 10 in.)	4.35 m (14 ft. 3 in.)	
Bucket-Clearance Circle			
With Brakes	10.31 m (33 ft. 10 in.)	10.40 m (34 ft. 1 in.)	
Without Brakes	11.22 m (36 ft. 10 in.)	11.41 m (37 ft. 5 in.)	
Steering Wheel Turns (lock to lock, flow amplified)	3.1 to 4.3	2.6 to 3.6	
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		

410L SPECIFICATIONS



Hydraulics		410L
Main Pump	Pressure compensated load sensing (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm, Backhoe and Loader	159 L/m (42 gpm)	
System Relief Pressure, Backhoe and Loader	24 993 kPa (3,625 psi)	
Backhoe (lift mode)	27 579 kPa (4,000 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, momentary MFWD, transmission quick-shift, and electro-hydraulic (EH) auxiliary loader control optional	
Electrical		
Voltage	12 volt	
Alternator Rating	150 amp with cab / 120 amp with canopy and quarter 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; LED light field kits available with both flood- and spotlights	
Operator Station		
Type (SAE J1040)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional quarter cab (front glass only) and fully enclosed cab	
Tires/Wheels		
	<i>Front</i>	<i>Rear</i>
Non-Powered Front Axle	12.5/80-18 F3 (12)	21L-24 R-4 (12)
With MFWD	12.5/80-18 R4 (10)	21L-24 R-4 (12)
	12.5/80-18 I3 (12)	21L-24 R-4 (12)
	340/80R18 XMCL	500/70R24 XMCL
	340/80R18 580	500/70R24 580
Serviceability		
Refill Capacities		
Cooling System	35 L (37 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)	140.1 L (37 gal.)	
Diesel Exhaust Fluid (DEF) Tank	16.3 L (4.3 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.)	
Hydrau™ XR Hydraulic Oil	Optional	
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.)	

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	2.18 m (7 ft. 2 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

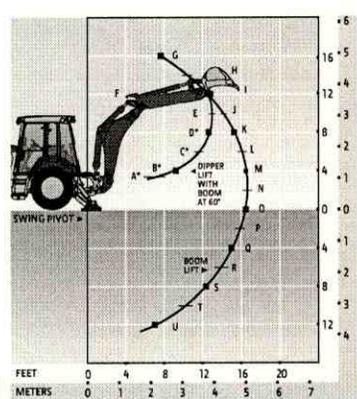
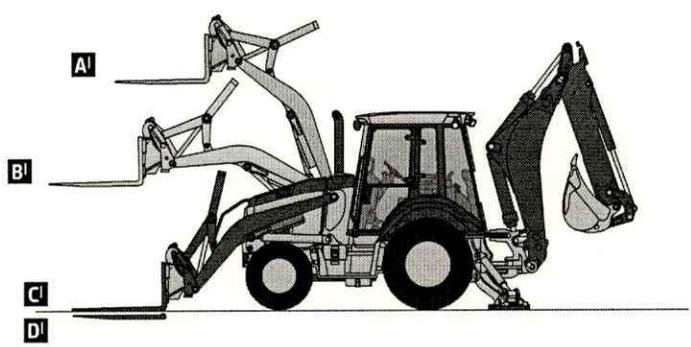
Backhoe specifications are with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 60 deg.

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	3.98 m (13 ft. 1 in.)	4.02 m (13 ft. 2 in.)	4.73 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)	4.83 m (15 ft. 10 in.)	4.83 m (15 ft. 10 in.)	5.99 m (19 ft. 8 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.78 m (15 ft. 8 in.)	4.78 m (15 ft. 8 in.)	5.96 m (19 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	4.47 m (14 ft. 8 in.)	4.47 m (14 ft. 8 in.)	5.73 m (18 ft. 9 in.)
K Stabilizer Width, Transport	2.30 m (7 ft. 7 in.)	2.30 m (7 ft. 7 in.)	2.30 m (7 ft. 7 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	3.93 m (12 ft. 11 in.)	3.93 m (12 ft. 11 in.)	3.93 m (12 ft. 11 in.)

Loader Dimensions and Performance		410L		
P	Bucket Dump Angle, Maximum	45 deg.		
Q	Rollback Angle at Ground Level	40 deg.		
		<i>Heavy-duty</i>	<i>Heavy-duty</i>	<i>Multipurpose</i>
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 (10,634 lb.)	46.0 kN (10,351 lb.)	43.6 kN (9,813 lb.)
Lift Capacity, Full Height		3243 kg (7,149 lb.)	3134 kg (6,909 lb.)	2761 kg (6,087 lb.)
R	Height to Bucket Hinge Pin, Maximum	3.45 m (11 ft. 4 in.)		
S	Dump Clearance, Bucket at 45 deg.	2.68 m (8 ft. 10 in.)		
T	Reach at Full Height, Bucket at 45 deg.	750 mm (29.5 in.)		
U	Digging Depth Below Ground, Bucket Level	157 mm (6.2 in.)		
V	Length from Front Axle Centerline to Bucket Cutting Edge	2.04 m (6 ft. 8 in.)	2.10 m (6 ft. 11 in.)	2.09 m (6 ft. 10 in.)

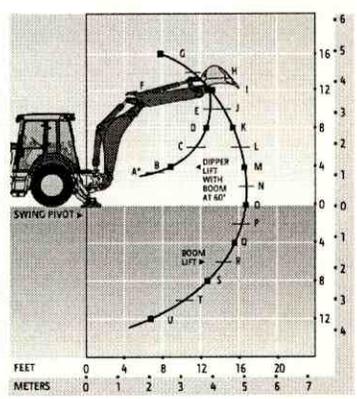
Lift Capacity with Quick-Coupler Forks		1219-mm (48 in.) Tines		1524-mm (60 in.) Tines	
Hydraulic Capacity					
A ¹	Maximum Height	2031 kg (4,478 lb.)	1880 kg (4,145 lb.)	3002 kg (6,618 lb.)	3177 kg (7,005 lb.)
B ¹	Maximum Reach	3177 kg (7,005 lb.)	3002 kg (6,618 lb.)	3613 kg (7,966 lb.)	4208 kg (9,278 lb.)
C ¹	At Ground Line	4208 kg (9,278 lb.)	3613 kg (7,966 lb.)	211 mm (8.3 in.)	211 mm (8.3 in.)
D ¹	Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 in.)		



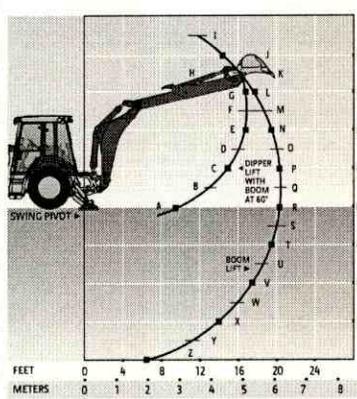
Lift Capacity with Bucket
 Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Calculated with 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) bucket. Bucket impacts overall lift capacity.

	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	6359 kg (14,020 lb.)*	6359 kg (14,020 lb.)*	6513 kg (14,359 lb.)*	6513 kg (14,359 lb.)*	4181 kg (9,217 lb.)	4554 kg (10,041 lb.)
B	4893 kg (10,788 lb.)*	4893 kg (10,788 lb.)*	4985 kg (10,990 lb.)	4985 kg (10,990 lb.)	2548 kg (5,618 lb.)	2855 kg (6,294 lb.)
C	3627 kg (7,996 lb.)*	3627 kg (7,996 lb.)*	3587 kg (7,908 lb.)	3587 kg (7,908 lb.)	2193 kg (4,836 lb.)	2461 kg (5,426 lb.)
D	3268 kg (7,204 lb.)*	3268 kg (7,204 lb.)*	3200 kg (7,055 lb.)	3200 kg (7,055 lb.)	2010 kg (4,432 lb.)	2258 kg (4,978 lb.)
E	3087 kg (6,805 lb.)	3168 kg (6,984 lb.)*	2979 kg (6,568 lb.)	3093 kg (6,820 lb.)	1879 kg (4,142 lb.)	2112 kg (4,657 lb.)
F	2717 kg (5,990 lb.)	3029 kg (6,678 lb.)	2608 kg (5,750 lb.)	2920 kg (6,438 lb.)	1755 kg (3,870 lb.)	1975 kg (4,355 lb.)
G	1341 kg (2,957 lb.)	1511 kg (3,330 lb.)	1202 kg (2,649 lb.)	1371 kg (3,023 lb.)	1608 kg (3,545 lb.)	1812 kg (3,995 lb.)
H	1718 kg (3,788 lb.)	1938 kg (4,272 lb.)	1560 kg (3,438 lb.)	1779 kg (3,923 lb.)	1397 kg (3,080 lb.)	1579 kg (3,480 lb.)
I	1813 kg (3,996 lb.)	2047 kg (4,513 lb.)	1646 kg (3,629 lb.)	1880 kg (4,146 lb.)	828 kg (1,825 lb.)	956 kg (2,109 lb.)
J	1834 kg (4,043 lb.)	2073 kg (4,571 lb.)	1662 kg (3,665 lb.)	1902 kg (4,193 lb.)	1041 kg (2,295 lb.)	1198 kg (2,642 lb.)
K	1826 kg (4,026 lb.)	2067 kg (4,557 lb.)	1651 kg (3,639 lb.)	1892 kg (4,171 lb.)	1139 kg (2,511 lb.)	1311 kg (2,889 lb.)
L	1805 kg (3,980 lb.)	2046 kg (4,511 lb.)	1627 kg (3,587 lb.)	1868 kg (4,118 lb.)	1189 kg (2,621 lb.)	1368 kg (3,017 lb.)
M	1779 kg (3,923 lb.)	2019 kg (4,452 lb.)	1598 kg (3,523 lb.)	1838 kg (4,052 lb.)	1214 kg (2,676 lb.)	1398 kg (3,083 lb.)
N	1752 kg (3,863 lb.)	1991 kg (4,389 lb.)	1568 kg (3,457 lb.)	1807 kg (3,983 lb.)	1225 kg (2,700 lb.)	1412 kg (3,114 lb.)
O	1726 kg (3,805 lb.)	1964 kg (4,329 lb.)	1539 kg (3,394 lb.)	1777 kg (3,917 lb.)	1227 kg (2,706 lb.)	1417 kg (3,124 lb.)
P	1704 kg (3,756 lb.)	1941 kg (4,278 lb.)	1514 kg (3,338 lb.)	1751 kg (3,860 lb.)	1225 kg (2,701 lb.)	1416 kg (3,123 lb.)
Q	1687 kg (3,720 lb.)	1924 kg (4,242 lb.)	1494 kg (3,294 lb.)	1731 kg (3,817 lb.)	1221 kg (2,691 lb.)	1413 kg (3,115 lb.)
R	1681 kg (3,706 lb.)	1920 kg (4,232 lb.)	1484 kg (3,271 lb.)	1723 kg (3,798 lb.)	1216 kg (2,680 lb.)	1409 kg (3,106 lb.)
S	1693 kg (3,733 lb.)	1937 kg (4,270 lb.)	1491 kg (3,287 lb.)	1734 kg (3,824 lb.)	1211 kg (2,670 lb.)	1406 kg (3,099 lb.)
T	1751 kg (3,859 lb.)	2005 kg (4,421 lb.)	1539 kg (3,393 lb.)	1794 kg (3,955 lb.)	1209 kg (2,666 lb.)	1405 kg (3,098 lb.)
U	2020 kg (4,454 lb.)	2319 kg (5,112 lb.)	1783 kg (3,930 lb.)	2081 kg (4,588 lb.)	1211 kg (2,671 lb.)	1410 kg (3,108 lb.)
V	—	—	—	—	1221 kg (2,692 lb.)	1423 kg (3,136 lb.)
W	—	—	—	—	1243 kg (2,740 lb.)	1450 kg (3,196 lb.)
X	—	—	—	—	1290 kg (2,844 lb.)	1506 kg (3,321 lb.)
Y	—	—	—	—	1404 kg (3,094 lb.)	1640 kg (3,615 lb.)
Z	—	—	—	—	1933 kg (4,261 lb.)	2253 kg (4,967 lb.)

With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

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

Additional equipment

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

310L		310SL			Engine	
EP	310L	310SL	HL	315SL		410L
●	●	●	●	●	●	Coolant recovery tank with low-level indicator
●	●	●	●	●	●	Foldout, hinged cooling system
●	●	●	●	●	●	Serpentine belt with automatic belt tensioner
●						Suction-type cooling fan
▲						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
▲						Ether starting aid
▲	▲	▲	▲	▲	▲	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)
▲	▲	▲	▲	▲	▲	MFWD driveshaft guard

310L		310SL			Backhoe	
EP	310L	310SL	HL	315SL		410L
			●		●	Lift mode
●	●					Standard dipperstick, 4.27-m (14 ft. 0 in.) digging depth
		●				Standard dipperstick, 4.34-m (14 ft. 3 in.) digging depth
				●		Standard dipperstick, 4.17-m (13 ft. 8 in.) digging depth
					●	Standard dipperstick, 4.83-m (15 ft. 10 in.) digging depth
▲	▲	▲	●	▲		Extendable dipperstick, 1.06-m (3 ft. 6 in.) extension
					▲	Extendable dipperstick, 1.21-m (4 ft. 0 in.) extension
		▲	●	▲		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 for swingers, thumbs, etc. with auxiliary plumbing
▲	▲	▲	●	▲	▲	Auxiliary backhoe valve for hammers and compactors with auxiliary plumbing
▲	▲	▲	▲		▲	Hydraulic thumb
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)
			●			Auxiliary loader hydraulics with thumb-switch control
▲	▲	▲	▲	▲	▲	Hydraulic coupler for buckets, forks, etc.
▲	▲	▲	▲	▲	▲	Ride control

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

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-m (5,000 ft.) altitude for the 310L and up to 3050-m (10,000 ft.) for the 310L with optional altitude-compensating turbocharger, the 310SL, the 310SL HL, the 315SL, and the 410L. 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. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 0.86-m³ (11.2 cu. yd.) loader buckets, and 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) backhoe buckets; a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5-80/18 10PR (R4) front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket; a 310SL HL unit with boost mode, 21L-24 in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket; a 315SL unit with 19.5L-24 in. 12 PR (R4) tubeless rear and 12.5-80/18 10PR (R4) front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket; and a 410L unit with boost mode, 21L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.15-m³ (1.5 cu. yd.) loader bucket, and 610-mm x 0.21-m³ (24 in. x 7.5 cu. ft.) backhoe bucket.

Additional equipment *(continued)*

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

310L		310SL				
EP	310L	310SL	HL	315SL	410L	
●						Hydraulic System
	●					119-L/m (31.5 gpm) tandem-gear pump with unloader, open-center system
		●			●	106-L/m (28 gpm) single-gear pump, open-center system
						136-L/m (36 gpm) tandem-gear pump, open-center system
			●		●	159-L/m (42 gpm) axial-piston pump, PCLS system
●	●	●	●	●	●	Auto-idle
●	●	●	●	●	●	Economy mode
●	●	●	●	●	●	Dedicated hydraulic reservoir
Electrical System						
●	●	●	●	●	●	12-volt system
●						90-amp alternator (canopy and quarter cab)
●						120-amp alternator (cab)
	●	●	●		●	120-amp alternator (canopy and quarter cab)
	●	●	●	●	●	150-amp alternator (cab)
●	●	●		●	●	Single battery with 190-min. reserve capacity and 925 CCA
▲	▲	▲	●	▲	▲	Dual batteries with 380-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 lights, field installed
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
▲	▲	▲	▲	▲	▲	Air-suspension seat (with cab only)
●	●					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

310L		310SL				
EP	310L	310SL	HL	315SL	410L	
		●	●	●	●	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 fabric 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 radio (with cab only)
▲	▲	▲	▲	▲	▲	Premium radio package with XM Satellite Radio™ (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 cover
▲	▲	▲	●	●	▲	Heavy-duty front bumper
▲	▲	▲	▲	▲	▲	Front counterweight – 204 kg (450 lb.), 340 kg (750 lb.), 454 kg (1,000 lb.), or 567 kg (1,250 lb.)
▲	▲	▲	▲	▲	▲	Rubber grille bumpers
●	●	●	●	●	●	Fuel tank, 140.1 L (37 gal.), ground-level fueling
●	●	●	●	●	●	2-position easy-tilt hood
●	●	●	●	●	●	Extended grille frame
●	●	●	●	●	●	Removable toolbox with padlock hasp
●	●	●		●	●	Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank
						Vandal protection for locking engine hood, toolbox, hydraulic reservoir, and fuel tank
●	●	●	●	●	●	Reverse warning alarm
●	●	●	●	●	●	Dent-resistant full-coverage rear fenders
▲	▲	▲			▲	Backhoe boom-protection plate
●	●	●	●	●	●	JDLink™ Ultimate 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-m (5,000 ft.) altitude for the 310L and up to 3050-m (10,000 ft.) for the 310L with optional altitude-compensating turbocharger, the 310SL, the 310SL HL, the 315SL, and the 410L. 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. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 0.86-m³ (1.12 cu. yd.) loader bucket, and 610-mm x 0.18-m³ [24 in. x 6.5 cu. ft.] backhoe buckets, a 310SL unit with 19.5L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ [24 in. x 7.5 cu. ft.] backhoe bucket; a 310SL HL unit with boost mode, 21L-24 in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ [24 in. x 7.5 cu. ft.] backhoe bucket; a 315SL unit with 19.5L-24 in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, 1.00-m³ (1.31 cu. yd.) loader bucket, and 610-mm x 0.21-m³ [24 in. x 7.5 cu. ft.] backhoe bucket; and a 410L unit with boost mode, 21L-24-in. 12 PR (R4) tubeless rear and 12.5/80-18 10PR front tires, 1.15-m³ (1.5 cu. yd.) loader bucket, and 610-mm x 0.21-m³ [24 in. x 7.5 cu. ft.] backhoe bucket.