

310K EP/310K

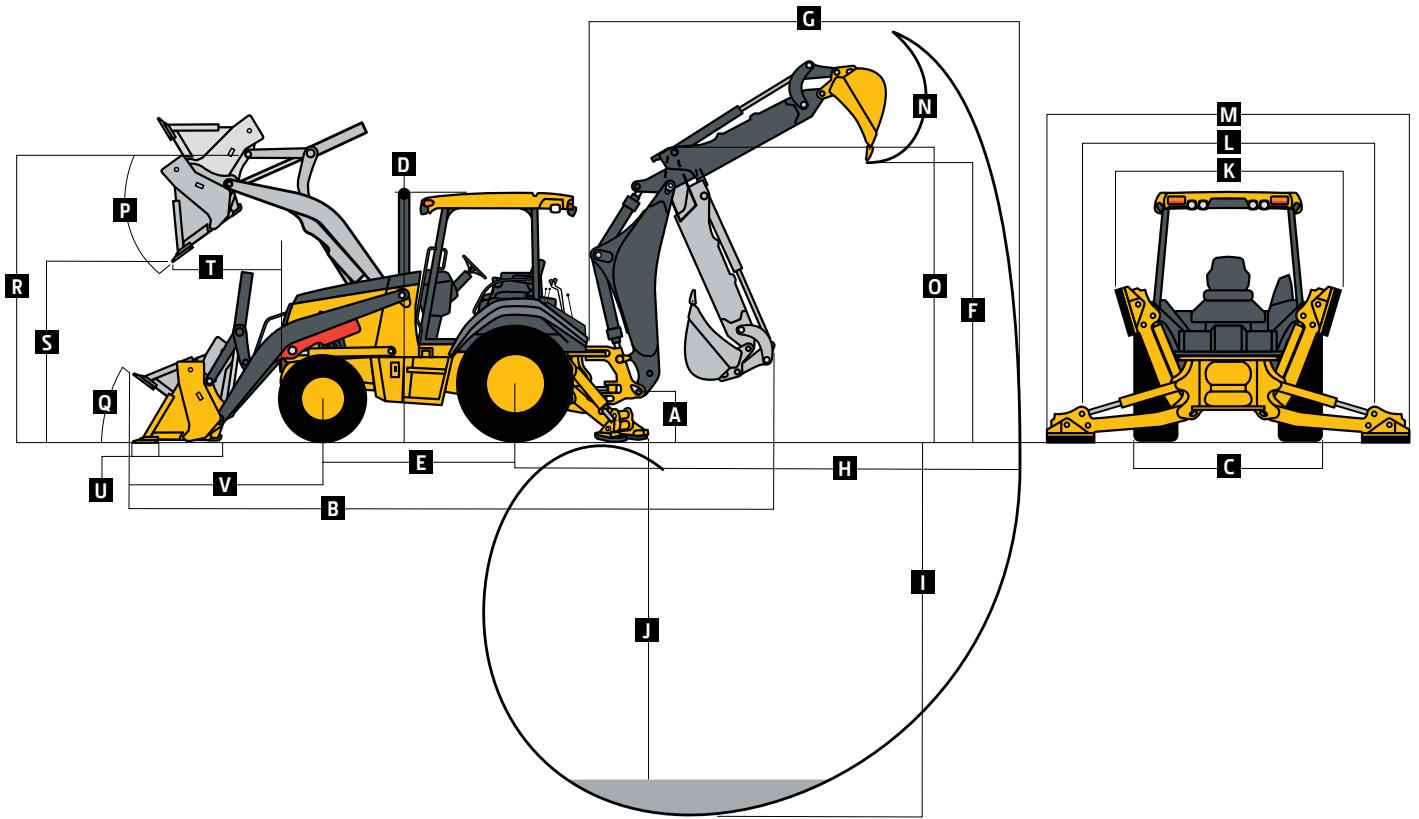
Engine	310K EP			310K								
Manufacturer and Model	John Deere PowerTech™ E 4045HT072 turbo-charged, standard			John Deere PowerTech™ Plus 4045HT073 turbo-charged, standard								
Non-Road Emissions Standard	EPA Interim Tier 4/EU Stage IIIB			EPA Interim Tier 4/EU Stage IIIB								
Displacement	4.5 L (276 cu. in.)			4.5 L (276 cu. in.)								
Net Peak Power (ISO 9249)	52 kW (70 hp) at 2,000 rpm			66 kW (88 hp) at 2,000 rpm								
Net Peak Torque (ISO 9249)	304 Nm (224 lb.-ft.) at 1,300 rpm			374 Nm (276 lb.-ft.) at 1,400 rpm								
Net Torque Rise	38%			39%								
Lubrication	Pressure system with spin-on filter and cooler			Pressure system with spin-on filter and cooler								
Air Cleaner	Dual-stage dry type with safety element and evacuator valve			Dual-stage dry type with safety element and evacuator valve								
Cooling												
Fan Type	Suction type			Electronically controlled, variable-rate suction type								
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	<i>Forward</i>		<i>Reverse</i>		<i>Forward</i>		<i>Reverse</i>					
Gear 1	5.2 km/h (3.3 mph)		6.6 km/h (4.1 mph)		5.6 km/h (3.5 mph)		7.0 km/h (4.4 mph)					
Gear 2	9.6 km/h (5.9 mph)		12.0 km/h (7.5 mph)		10.2 km/h (6.3 mph)		12.9 km/h (8.0 mph)					
Gear 3	19.4 km/h (12.1 mph)		—		20.9 km/h (13.0 mph)		—					
Gear 4	29.9 km/h (18.6 mph)		—		33.1 km/h (20.6 mph)		—					
Axles												
Axle Oscillation, Stop to Stop, Front Axle	22 deg.											
Axle Ratings	<i>Non-Powered Front</i>			<i>Mechanical-Front-Wheel Drive (MFWD)</i>			<i>Rear</i>					
Static	18 000 kg (39,683 lb.)			12 000 kg (26,455 lb.)			13 000 kg (28,660 lb.)					
Dynamic	7200 kg (15,873 lb.)			6000 kg (13,228 lb.)			7000 kg (15,432 lb.)					
Ultimate	32 950 kg (72,642 lb.)			28 200 kg (62,170 lb.)			30 600 kg (67,461 lb.)					
Differentials												
MFWD Axle	Open – standard; automatic, limited-slip traction control – optional											
Rear Axle	Foot actuated, hydraulically engaged 100% mechanical lock											
Steering (ISO 5010)												
Axle	<i>Non-Powered Front</i>			<i>MFWD</i>			<i>Non-Powered Front</i>			<i>MFWD</i>		
Curb-Turning Radius	With Brakes		3.44 m (11 ft. 4 in.)		3.58 m (11 ft. 9 in.)		3.44 m (11 ft. 4 in.)		3.58 m (11 ft. 9 in.)			
	Without Brakes		3.94 m (12 ft. 11 in.)		4.08 m (13 ft. 5 in.)		3.94 m (12 ft. 11 in.)		4.08 m (13 ft. 5 in.)			
Bucket Clearance Circle	With Brakes		9.89 m (32 ft. 5 in.)		10.11 m (33 ft. 2 in.)		9.89 m (32 ft. 5 in.)		10.11 m (33 ft. 2 in.)			
	Without Brakes		10.76 m (35 ft. 4 in.)		11.05 m (36 ft. 3 in.)		10.76 m (35 ft. 4 in.)		11.05 m (36 ft. 3 in.)			
Steering Wheel Turns (lock to lock)	3.2		2.7		3.2		2.7					
Final Drive, Mechanical-Front Wheel 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, gear type, tandem with unloader											
Pump Flow at 2,200 rpm	Open center, single gear											
Backhoe	119 L/m (31.5 gpm)											
Loader	98 L/m (26 gpm)											
System Relief Pressure	106 L/m (28 gpm)											
Backhoe	24 993 kPa (3,625 psi)											
Loader	22 063 kPa (3,200 psi)											



Hydraulics (continued)	310K EP	310K		
Controls				
Backhoe	2-lever manual standard; pilot controls with pattern select, 3-lever manual controls with foot swing, and manual and/or electric auxiliary functions optional			
Loader	Single-lever control with electric clutch cutoff switch standard; manual auxiliary function (2nd lever) optional			
Cylinders				
310K EP / 310K				
Type	Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	<i>Bore</i>	<i>Rod Diameter</i>	<i>Stroke</i>	
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.)	213 mm (8.39 in.)	
MFWD (1)	67 mm (2.64 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)	
Electrical				
	310K EP	310K		
Voltage	12 volt	12 volt		
Alternator Rating	90 amp	120 amp		
Lights	10 halogen: 4 front, 4 rear, and 2 side docking (32,500 candlepower each); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors			
Operator Station				
Type (SAE J1040)	Canopy, isolation mounted, ROPS/FOPS, left/right access, with molded roof			
Tires/Wheels				
	<i>Front</i>	<i>Rear</i>	<i>Front</i>	<i>Rear</i>
Non-Powered Front Axle	11L-16 F-3 (12)	19.5L-24 R-4 (10)	11L-16 F-3 (12)	19.5L-24 R-4 (10)
	11L-16 F-3 (12)	16.9-28 R-4 (10)	11L-16 F-3 (12)	16.9-28 R-4 (10)
MFWD	12-16.5 NHS (8)	19.5L-24 R-4 (10)	12-16.5 NHS (8)	19.5L-24 R-4 (10)
	305/70D16.5 NHS (10)	19.5L-24 R-4 (10)	305/70D16.5 NHS (10)	19.5L-24 R-4 (10)
	—	—	12.5/80-18 I-3 (12)	19.5L-24 R-4 (10)
	—	—	12.5/80-18 I-3 (12)	21L-24 R-4 (12)
Serviceability				
Hydraulic Oil Filter, Spin-On Enclosed Replaceable Element	310K EP / 310K 6-micron filtration; 1,000 break-in/service hours			
Refill Capacities				
Cooling System	32.9 L (34.8 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)	155.2 L (41 gal.)			
Hydraulic System	89.3 L (23.6 gal.)			
Hydraulic Reservoir	37.1 L (9.8 gal.)			
MFWD Housing				
Axle	6.5 L (6.9 qt.)			
Planetary (each)	0.9 L (1 qt.)			
Operating Weights				
	310K EP	310K		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard Equipment	6311 kg (13,913 lb.)	6364 kg (14,030 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and 454-kg (1,000 lb.) Counterweight	7380 kg (16,270 lb.)	7433 kg (16,387 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	200 kg (440 lb.)	200 kg (440 lb.)		
Front Loader Coupler	286 kg (630 lb.)	286 kg (630 lb.)		
Backhoe Bucket Coupler	59 kg (130 lb.)	59 kg (130 lb.)		

Overall Dimensions
310K EP / 310K

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


Backhoe Dimensions/Performance
310K EP / 310K
Backhoe specifications are with 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) bucket

Bucket Range	305–762 mm (12–30 in.)
Digging Force	
Bucket Cylinder	49.4 kN (11,106 lb.)
Crowd Cylinder	31.2 kN (7,006 lb.)
Swing Arc	180 deg.
Operator Control	2 levers
Leveling Angle	14 deg.
Stabilizer Angle Rearward	18 deg.

With Optional Extendable Dipperstick

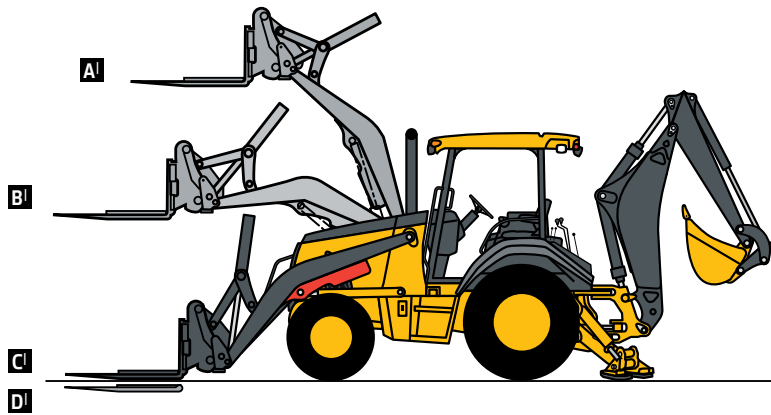
	<i>With Standard Backhoe</i>	<i>Retracted</i>	<i>Extended</i>
F Loading Height, Truck Loading Position	3.33 m (10 ft. 11 in.)	3.38 m (11 ft. 1 in.)	4.24 m (13 ft. 11 in.)
G Reach from Center of Swing Pivot	5.44 m (17 ft. 10 in.)	5.51 m (18 ft. 1 in.)	6.53 m (21 ft. 5 in.)
H Reach from Center of Rear Axle	6.50 m (21 ft. 4 in.)	6.58 m (21 ft. 7 in.)	7.59 m (24 ft. 11 in.)
I Digging Depth (SAE maximum)	4.34 m (14 ft. 3 in.)	4.39 m (14 ft. 5 in.)	5.46 m (17 ft. 11 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.32 m (14 ft. 2 in.)	4.37 m (14 ft. 4 in.)	5.44 m (17 ft. 10 in.)
2440-mm (8 ft.) Flat Bottom	3.96 m (13 ft. 0 in.)	4.06 m (13 ft. 4 in.)	5.18 m (17 ft. 0 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	3.43 m (11 ft. 3 in.)	3.40 m (11 ft. 2 in.)	3.40 m (11 ft. 2 in.)

Loader Dimensions/Performance 310K EP / 310K

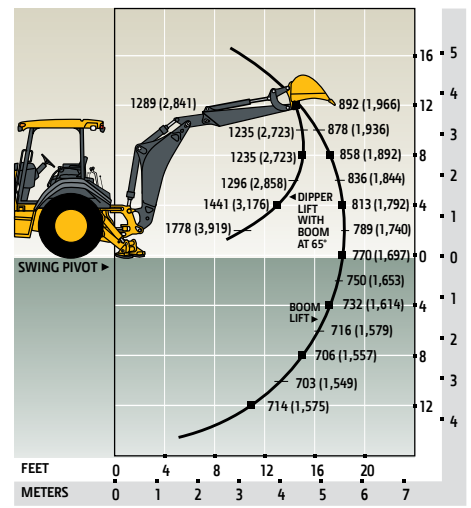
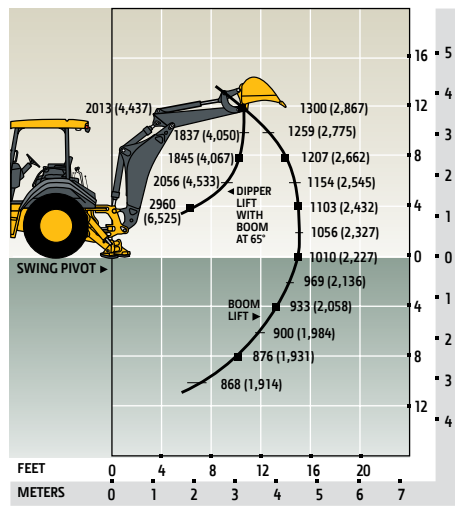
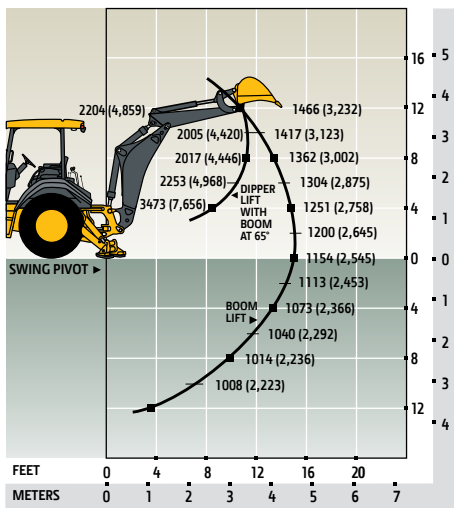
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	<i>Heavy-duty</i>	<i>Heavy-duty</i>	<i>Heavy-duty long lip</i>	<i>Multipurpose</i>
Bucket Capacity	0.77 m ³ (1.00 cu. yd.)	0.86 m ³ (1.12 cu. yd.)	0.96 m ³ (1.25 cu. yd.)	0.96 m ³ (1.25 cu. yd.)
Width	2184 mm (86 in.)	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 (9,350 lb.)	42.3 kN (9,500 lb.)	39.9 kN (8,975 lb.)	36.4 kN (8,175 lb.)
Lift Capacity, Full Height	2994 kg (6,600 lb.)	3073 kg (6,775 lb.)	2846 kg (6,275 lb.)	2280 kg (5,028 lb.)
R Height to Bucket Hinge Pin, Maximum	3.38 m (11 ft. 1 in.)	3.38 m (11 ft. 1 in.)	3.38 m (11 ft. 1 in.)	3.38 m (11 ft. 1 in.)
S Dump Clearance, Bucket at 45 deg.	2.69 m (8 ft. 10 in.)	2.69 m (8 ft. 10 in.)	2.48 m (8 ft. 2 in.)	2.59 m (8 ft. 6 in.)
T Reach at Full Height, Bucket at 45 deg.	785 mm (30.9 in.)	767 mm (30.2 in.)	809 mm (31.9 in.)	818 mm (32.2 in.)
U Digging Depth Below Ground, Bucket Level	160 mm (6.3 in.)	175 mm (6.9 in.)	147 mm (5.8 in.)	197 mm (7.8 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	2.03 m (6 ft. 8 in.)	2.03 m (6 ft. 8 in.)	2.18 m (7 ft. 2 in.)	2.20 m (7 ft. 3 in.)

Lift Capacity with Quick-Coupler/Forks

Hydraulic Capacity	<i>1219-mm (48 in.) Tines</i>	<i>1524-mm (60 in.) Tines</i>
A¹ Maximum Height	1746 kg (3,850 lb.)	1556 kg (3,430 lb.)
B¹ Maximum Reach	2688 kg (5,925 lb.)	2467 kg (5,438 lb.)
C¹ At Ground Line	3493 kg (7,700 lb.)	3269 kg (7,207 lb.)
D¹ Below Ground Line	262 mm (10.3 in.)	262 mm (10.3 in.)



Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.
310K EP / 310K Backhoe with Standard Dipperstick **310K EP / 310K Backhoe with 1.07-m (3 ft. 6 in.) Extendable Dipperstick, Retracted** **310K EP / 310K Backhoe with 1.07-m (3 ft. 6 in.) Extendable Dipperstick, Extended**



Additional equipment: 310K EP / 310K

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

310K EP	310K	Engine
●	●	Meets EPA Interim Tier 4/EU Stage IIIB emissions
●	●	John Deere Model 4045HT072 — 4.5L, 52 kW (70 hp) net peak power, turbocharged, isolation mounted
	●	John Deere Model 4045HT073 — 4.5L, 66 kW (88 hp) net peak power, turbocharged, isolation mounted
●	●	Vertical spin-on engine oil filter
●	●	Vertical spin-on fuel filter with water separator
●	●	Oil-to-water engine oil cooler
●	●	Antifreeze, -40 deg. C (-40 deg. F)
●	●	Coolant recovery tank
	●	Coolant recovery tank with low-level indicator
●	●	Foldout, hinged cooling system
●	●	Serpentine belt with automatic belt tensioner
●	●	Suction-type cooling fan
	●	Electronically controlled, variable-rate suction-type cooling fan
●	●	High ambient temperature engine cooling
●	●	Dual-element dry-type air cleaner
	●	Self-cleaning exhaust aftertreatment system
●	●	Muffler, under hood, with curved-end exhaust stack
	●	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)
●	●	Transmission oil cooler
●	●	Vertical spin-on transmission filter
▲	▲	Transmission remote oil-sampling port
●	●	Differential lock, electric foot actuated, protection on/off
●	●	Planetary final drives
●	●	Power-assisted hydraulic service brakes (conform to ISO 3450): Inboard, wet 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
▲	▲	Rear wheel spacers for use with chains
▲	▲	MFWD driveshaft guard
Backhoe		
●	●	Standard dipperstick, 4.34-m (14 ft. 3 in.) digging depth
▲	▲	Extendable dipperstick, 1.07-m (3 ft. 6 in.) extension
●	●	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
●	●	Pivoting stabilizers with reversible pads
●	●	Less bucket, with bucket pins
▲	▲	Standard-duty backhoe bucket with lift loops
▲	▲	Heavy-duty backhoe bucket with lift loops

310K EP	310K	Backhoe (continued)
▲	▲	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
Loader¹		
●	●	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
▲	▲	Hydraulic coupler for buckets, forks, etc.
●	●	Less bucket, with bucket pins
●	●	High-visibility loader arms
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
●	●	Economy mode
●	●	Dedicated hydraulic reservoir
●	●	"O"-ring face-seal connectors
●	●	6-micron vertical spin-on filter
Electrical System		
●	●	12-volt system
●	●	90-amp alternator
	●	120-amp alternator
●	●	Single battery with 190-min. reserve capacity and 950 CCA
▲	▲	Dual batteries with 380-min. reserve capacity and 1,900 CCA
●	●	Positive terminal battery cover
●	●	Blade-type multi-fused circuits
●	●	By-pass start safety cover on starter
▲	▲	Master disconnect switch
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)
●	●	Rear reflectors (2)
Operator's Station		
●	●	Modular-design ROPS/FOPS (Level 2) canopy with molded roof (meets ISO 3449 and ISO 3471/SAE J1040): Isolation mounted
●	●	Left and right access
●	●	Slip-resistant steps and ergonomically located handholds (conform to SAE J185)
●	●	Molded floor mats (with pilot controls only)
▲	▲	Headliner (with cab only)
●	●	Coat hook
●	●	12-volt outlets (2)
●	●	Built-in cup holder
●	●	Built-in Operator's Manual storage compartment
●	●	Lockable right-side storage
▲	▲	Lockable left-hand storage with cup holders
●	●	Interior rearview mirror
▲	▲	Interior front-view mirror
▲	▲	Outside rearview mirrors
●	●	Rotary-dial hand throttle
●	●	Suspended foot throttle
●	●	Horn

310K EP	310K	Operator's Station (continued)
	▲	Air-suspension seat
●	●	Seat belt, 76-mm (3 in.), with retractor
●	●	Key start switch with electric fuel shutoff
▲	▲	Machine security
●	●	Engine coolant temperature gauge
●	●	Fuel gauge
●	●	Digital display of engine hours, engine rpm, and system voltage
●	●	Monitor system with audible and visual warnings: Engine air restriction / Low alternator voltage / Engine oil pressure / Hydraulic filter restriction / Parking brake on/off / Aftertreatment temperature / Transmission oil 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 Air Conditioning: Mechanical suspension deluxe fabric swivel seat with lumbar adjustment / Air conditioner (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant), and windshield wipers (1 rear and 1 front)
▲	▲	Cab with Dual Doors: Mechanical suspension deluxe fabric swivel seat with lumbar adjustment / Tilt steering, infinitely adjustable / AM/FM/weather-band radio / Sun visor / 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)
▲	▲	Ultimate Cab: Mechanical-suspension deluxe fabric swivel seat with lumbar adjustment / Tilt steering, infinitely adjustable / AM/FM/weather-band radio with CD player / Sun visor / 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] output and CFC-free R134a refrigerant)
Overall Vehicle		
●	●	1-piece unitized construction mainframe
●	●	Vehicle tie-downs (2 front and 2 rear)
●	●	Remote gear bank for front axle
●	●	Front cover
▲	▲	Heavy-duty front bumper
▲	▲	204-kg (450 lb.) front counterweight
▲	▲	340-kg (750 lb.) front counterweight
▲	▲	454-kg (1,000 lb.) front counterweight
▲	▲	567-kg (1,250 lb.) front counterweight
▲	▲	Rubber grille bumpers
●	●	Fuel tank, 155.2 L (41 gal.), ground-level fueling
●	●	2-position easy-tilt hood
●	●	Extended grille frame
●	●	Removable toolbox with padlock hasp
●	●	Vandal protection for locking monitor, engine hood, toolbox, hydraulic reservoir, and fuel tank
●	●	Reverse warning alarm
●	●	Dent-resistant full-coverage rear fenders
▲	▲	Backhoe boom-protection plate
●	●	JDLINK™ Ultimate wireless communication system (available in specific countries; see your dealer for details)

¹See 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 310K and up to 3050-m (10,000 ft.) for the 310K with optional altitude-compensating turbocharger. 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 310K EP and 310K units with 19.5L-24-in. 10PR (R4) tubeless rear and 11L-16-in. 12PR (F3) front tires, 0.77-m³ (1.00 cu. yd.) loader buckets, and 610-mm x 0.18-m³ (24 in. x 6.5 cu. ft.) backhoe buckets.