K-SERIES BACKHOES

4.34-5.44-m (14 ft. 3 in.-17 ft. 10 in.) digging depth





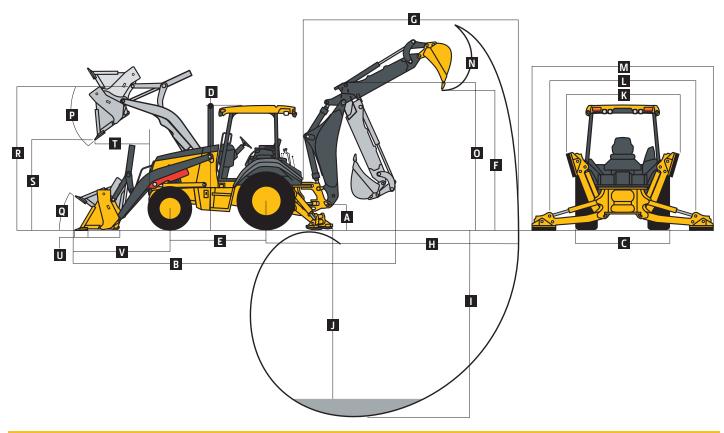
310K

Engine	310K		
Manufacturer and Model	John Deere PowerTech™	¹ E 4045HT054 turbocharge	d
Non-Road Emissions Standard	EPA Tier 3/EU Stage IIIA	•	
Displacement	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	65 kW (87 hp) at 2,000 r	pm	
Net Peak Torque (ISO 9249)	374 Nm (275 lbft.) at 1	,300 rpm	
Net Torque Rise	43%	,	
Lubrication	Pressure system with spi	in-on filter and cooler	
Air Cleaner		safety element and evacua	tor valve
Cooling			
Fan Type	Suction type		
Engine Coolant Rating	-40 deg. C (-40 deg. F)		
Engine Oil Cooler	Oil to water		
Powertrain	on to mate.		
Transmission	4 speed, helical-cut gear cutoff on loader lever	s, full PowerShift™ transmi	ssion with hydraulic reverser standard; electric clutch
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	5.6 km/h (3.5 mph)	7.0 km/h (4.4 mph)	
Gear 2	10.2 km/h (6.3 mph)	12.9 km/h (8.0 mph)	
Gear 3	20.8 km/h (12.9 mph)	_	
Gear 4	33.4 km/h (20.7 mph)	_	
Axles			
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
Axle Ratings	Non-Powered Front	Mechanical-Front- Wheel Drive (MFWD)	Rear
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; automat	cic, limited-slip traction conf	trol optional
Rear Axle	Electric, foot actuated, 1		·
Steering (ISO 5010)		ing and emergency steering	
Axle	Non-Powered Front	MFWD	
Curb-Turning Radius			
With Brakes	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.)	
Bucket Clearance Circle	,	, , , , , , , , , , , , , , , , , , , ,	
With Brakes	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.)	
Steering Wheel Turns (lock to lock)	3.2	2.7	
Final Drive, Mechanical-Front Wheel and Rear Axle Brakes (ISO 3450)		anetary final drives distribut	te shock loads over 3 gears
Service	Power assisted, hydrauli	c wet disc, mounted inboard	d, self-adjusting and self-equalizing
Parking			sc, independent of service brakes with electric switch
Hydraulics			
Main Pump	Open center, single gear		
Pump Flow at 2,200 rpm			
Backhoe	106 L/m (28 gpm)		
Loader	106 L/m (28 gpm)		
System Relief Pressure	, - Jr /		
Backhoe	24 993 kPa (3,625 psi)		
Loader	22 063 kPa (3,200 psi)		
	:= 111 ::: 2 (3,200 p3i)		



Hydraulics (continued)	310K		
Controls			
Backhoe	2-lever manual standard; pilot	controls with pattern select and ma	inual and/or electric auxiliary functions optiona
Loader			manual auxiliary function (2nd lever) optional
Cylinders		·	
Type	Heat-treated, chrome-plated	polished rods; hardened steel (rep	laceable 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.)	213 mm (8.39 in.)
· •	· · ·	· /	, ,
MFWD (1)	67 mm (2.64 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
Electrical	12 volt		
Voltage			
Alternator Rating	90 amp	12 :1 1 1: (22 500 11	17: :
Lights			wer each); turn signals and flashers: 2 front
0	and 2 rear; stop and taillights	; and 2 rear reflectors	
Operator Station		ODS (500S 5: / : : : : : : : : : : : : : : : : :	
Type (SAE J1040)	Canopy, isolation mounted, R	OPS/FOPS, left/right access, with n	nolded roof
Tires/Wheels	_		
	Front	Rear	
Non-Powered Front Axle	11L-16 F-3 (12)	19.5L-24 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)	
	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	6-micron filtration; 1,000 bre	ak-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	- (3- /		
Axle	6.5 L (6.9 qt.)		
Planetary (each)	0.9 L (1 qt.)		
Operating Weights	0.5 L (1 qt.)		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard	6347 kg (13,993 lb.)		
Equipment	0547 kg (15,555 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and	7385 kg (16,281 lb.)		
454-kg (1,000 lb.) Counterweight	, 505 kg (10,201 lb.)		
Adjustments to Operating Weights with Optional			
Components			
Cab	263 kg (580 lb.)		
MFWD with Tires	168 kg (370 lb.)		
Extendable Dipperstick	200 kg (440 lb.)		
Front Loader Coupler	286 kg (630 lb.)		
Backhoe Bucket Coupler	59 kg (130 lb.)		

Overall Dimensions	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.)



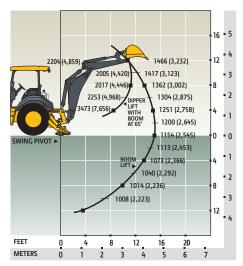
Backhoe Dimensions/Performance	310K		
Backhoe specifications are with 610-mm x 0.18-m³ (24 in	n. x 6.5 cu. ft.) bucket		
Bucket Range	305-762 mm (12-30 in.)		
Digging Force			
Bucket Cylinder	49.4 kN (11,106 lb.)		
Crowd Cylinder	31.2 kN (7,006 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
Leveling Angle	14 deg.		
Stabilizer Angle Rearward	18 deg.		
		With Optional Extendable Dippers	tick
	With Standard Backhoe	Retracted	Extended
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.)

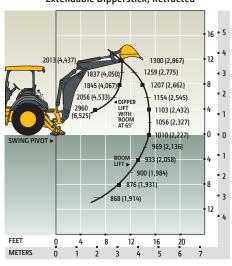
Loader Dimensions/Performance	310K			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Heavy-duty	Heavy-duty	Heavy-duty long lip	Multipurpose
Bucket Capacity	0.77 m³ (1.00 cu. yd.)	0.86 m³ (1.12 cu. yd.)	0.96 m³ (1.25 cu. yd.)	0.96 m³ (1.25 cu. yd.)
Width	2184 mm (86 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.)			
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	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.)
Cutting Edge				
Lift Capacity with Quick-Coupler/Forks				
Hydraulic Capacity	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines		
A ^I Maximum Height	1746 kg (3,850 lb.)	1556 kg (3,430 lb.)		
B ^I Maximum Reach	2688 kg (5,925 lb.)	2467 kg (5,438 lb.)		
C ¹ At Ground Line	3493 kg (7,700 lb.)	3269 kg (7,207 lb.)		
D Below Ground Line	262 mm (10.3 in.)	262 mm (10.3 in.)		

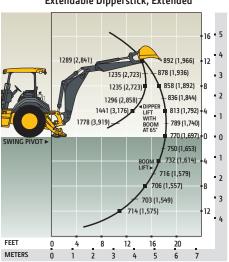


Lift capacities are over-end values in kg (lb.) according to SAE J31. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.

310K Backhoe with Standard Dipperstick
310K Backhoe with 1.07-m (3 ft. 6 in.)
310K Backhoe with 1.07-m (3 ft. 6 in.)
Extendable Dipperstick, Retracted
Extendable Dipperstick, Extended





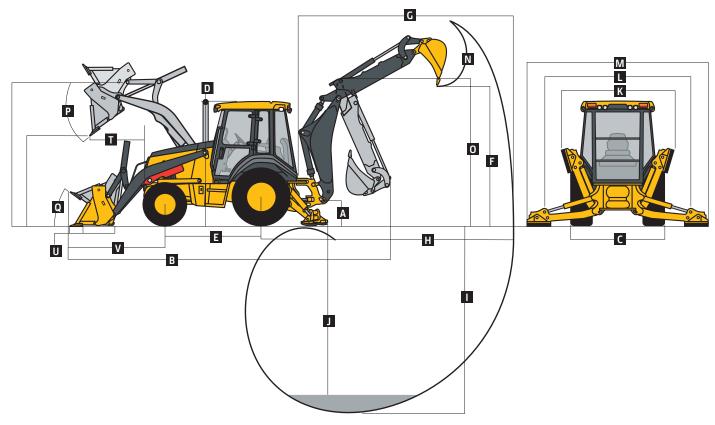


	21051/		
Engine	310SK	15 (0) 5UT05(
Manufacturer and Model		' E 4045HT054 turbocharge	d
Non-Road Emissions Standard	EPA Tier 3/EU Stage IIIA		
Displacement	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	71 kW (95 hp) at 1,900 r		
Net Peak Torque (ISO 9249)	399 Nm (294 lbft.) at 1	,300 rpm	
Net Torque Rise	43%		
Lubrication	Pressure system with spi		
Air Cleaner	Dual-stage dry type with	safety element and evacua	tor valve
Cooling	5		
Fan Type	Suction type		
Engine Coolant Rating	–40 deg. C (–40 deg. F)		
Engine Oil Cooler	Oil to water		
Powertrain		5.11.5	
Transmission	5 speed, helical-cut gear cutoff on loader lever	rs, full PowerShift™ transmi	ssion with hydraulic reverser standard; electric clutch
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	5.6 km/h (3.5 mph)	7.0 km/h (4.4 mph)	
Gear 2	10.2 km/h (6.3 mph)	12.8 km/h (8.0 mph)	
Gear 3	20.8 km/h (12.9 mph)	20.5 km/h (12.8 mph)	
Gear 4	33.1 km/h (20.6 mph)	_ ` ' '	
Gear 5	40.0 km/h (25.0 mph)	_	
Axles			
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
Axle Ratings	Non-Powered Front	Mechanical-Front- Wheel Drive (MFWD)	Rear
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	Automatic, limited-slip t	raction control	
Rear Axle	Electric, foot-actuated,	100% hydraulic locking	
Steering (ISO 5010)	Hydrostatic power steer	ing and emergency steering	
Axle	Non-Powered Front	MFWD	
Curb-Turning Radius			
With Brakes	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.)	
Bucket Clearance Circle			
With Brakes	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.)	
Steering Wheel Turns (lock to lock)	3.2	2.7	
Final Drive, Mechanical-Front Wheel and Rear Axle	Heavy duty, outboard pla	anetary final drives distribut	te shock loads over 3 gears
Brakes (ISO 3450)			
Service			d, self-adjusting and self-equalizing
Parking	Spring applied, hydraulio control	cally released, wet, multi-dis	sc, independent of service brakes with electric switch
Hydraulics			
Main Pump	Open center, gear type,	tandem 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)		
	, , , , , , , , , , , , , , , , , , , ,		



Hydraulics (continued)	310SK		
Controls (continued)			
Backhoe			nual and/or electric auxiliary functions optior
Loader			ingle-lever control with electric clutch cutof
	switch, electrohydraulic (EH) proportional auxiliary roller, and MV	VFD (on/off/momentary) with auxiliary hydra
	lics optional		
Cylinders			
Туре	Heat-treated, chrome-plate	d, polished rods; hardened steel (rep	laceable 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.)	602.5 mm (23.72 in.)
Backhoe Bucket (1)	90 mm (3.54 in.)	56 mm (2.20 in.)	810 mm (31.89 in.)
Backhoe Bucket, Heavy-Duty Option (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)	70 mm (2.76 in.)	40 mm (1.57 in.)	1067 mm (42.01 in.)
Backhoe Stabilizer, Standard (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
Backhoe Stabilizer, Longer Optional (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.)	213 mm (8.39 in.)
MFWD (1)	67 mm (2.64 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
• • •	67 11111 (2.64 111.)	42 111111 (1.05 111.)	210 11111 (0.27 111.)
Electrical	12 volt		
Voltage			
Alternator Rating	90 amp	12 :1 1 1: (22 500 11	1)
Lights			wer each); turn signals and flashers: 2 front
0	and 2 rear; stop and tailligh	ts; and 2 rear reflectors	
Operator Station	6	DODG/FORG L Gr/ : Le	
Type (SAE J1040)	Canopy, isolation mounted,	ROPS/FOPS, left/right access, with n	nolded roof
Tires/Wheels	_		
	Front	Rear	
Non-Powered Front Axle	11L-16 F-3 (12)	19.5L-24 R-4 (10)	
MFWD	12.5/80-18 I-3 (14)	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)	
	340/80R18 XMCL	500/70R24 XMCL	
Serviceability			
Hydraulic Oil Filter, Spin-On Enclosed Replaceable Element	6-micron filtration; 1,000 b	reak-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	(· · · · · · · · · · ·		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard Equipment	6655 kg (14,671 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and 454-kg (1,000 lb.) Counterweight	7780 kg (17,152 lb.)		
Adjustments to Operating Weights with Optional Components			
Cab	263 kg (580 lb)		
	263 kg (580 lb.)		
MFWD with Tires	220 kg (485 lb.)		
Extendable Dipperstick	222 kg (490 lb.)		
Frankland Co. d			
Front Loader Coupler Backhoe Bucket Coupler	286 kg (630 lb.) 63 kg (138 lb.)		

Overall Dimensions	310SK
A Ground Clearance, Minimum	330 mm (13 in.)
B Overall Length, Transport	7.16 m (23 ft. 6 in.)
C Width Over Tires	2.18 m (7 ft. 2 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	2.11 m (6 ft. 11 in.)
MFWD Axle	2.14 m (7 ft. 0 in.)



Backhoe Dimensions/Performance	310SK		
Backhoe specifications are with 610-mm x 0.21-m	1 ³ (24 in. x 7.5 cu. ft.) bucket		
Bucket Range	305-762 mm (12-30 in.)		
Digging Force			
Bucket Cylinder	53.3 kN (11,990 lb.)		
With Heavy-Duty Cylinder Option	67.8 kN (15,236 lb.)		
Crowd Cylinder	36.0 kN (8,090 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
		With Optional Extendable D	Dipperstick
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.43 m (11 ft. 3 in.)	3.43 m (11 ft. 3 in.)	4.29 m (14 ft. 1 in.)
G Reach from Center of Swing Pivot	5.56 m (18 ft. 3 in.)	5.66 m (18 ft. 7 in.)	6.68 m (21 ft. 11 in.)
H Reach from Center of Rear Axle	6.63 m (21 ft. 9 in.)	6.73 m (22 ft. 1 in.)	7.72 m (25 ft. 4 in.)
I Digging Depth (SAE maximum)	4.42 m (14 ft. 6 in.)	4.55 m (14 ft. 11 in.)	5.61 m (18 ft. 5 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.37 m (14 ft. 4 in.)	4.50 m (14 ft. 9 in.)	5.56 m (18 ft. 3 in.)
2440-mm (8 ft.) Flat Bottom	4.06 m (13 ft. 4 in.)	4.19 m (13 ft. 9 in.)	5.33 m (17 ft. 6 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.)
Long 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			
Standard Stabilizers	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)	3.53 m (11 ft. 7 in.)
Long 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	3.51 m (11 ft. 6 in.)	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)

Loader Dimensions/Performance	310SK			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Standard Loader Option			
	Heavy-duty	Heavy-duty long lip	Heavy-duty	Multipurpose
Bucket Capacity	0.86 m³ (1.12 cu. yd.)	0.96 m³ (1.25 cu. yd.)	1.00 m³ (1.31 cu. yd.)	1.00 m³ (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.)	816 kg (1,800 lb.)
Breakout Force	49.2 kN (11,051 lb.)	45.4 kN (10,210 lb.)	45.8 kN (10,300 lb.)	42.9 kN (9,650 lb.)
Lift Capacity, Full Height	3335 kg (7,353 lb.)	3329 kg (7,340 lb.)	3266 kg (7,200 lb.)	2994 kg (6,600 lb.)
R Height to Bucket Hinge Pin, Maximum	3.40 m (11 ft. 2 in.)			
S Dump Clearance, Bucket at 45 deg.	2.69 m (8 ft. 10 in.)	2.48 m (8 ft. 2 in.)	2.64 m (8 ft. 8 in.)	2.62 m (8 ft. 7 in.)
T Reach at Full Height, Bucket at 45 deg.	767 mm (30.2 in.)	911 mm (35.9 in.)	765 mm (30.1 in.)	818 mm (32.2 in.)
U Digging Depth Below Ground, Bucket Level	175 mm (6.9 in.)	147 mm (5.8 in.)	206 mm (8.1 in.)	185 mm (7.3 in.)
V Length from Front Axle Centerline to Bucket	2.03 m (6 ft. 8 in.)	2.18 m (7 ft. 2 in.)	2.03 m (6 ft. 8 in.)	2.15 m (7 ft. 1 in.)
Cutting Edge				
Lift Capacity with Quick-Coupler/Forks	310SK			
Hydraulic Capacity	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines		
A ^I Maximum Height	2073 kg (4,570 lb.)	1891 kg (4,170 lb.)		
B ^I Maximum Reach	3162 kg (6,971 lb.)	3003 kg (6,621 lb.)		
C ¹ At Ground Line	4145 kg (9,138 lb.)	3883 kg (8,561 lb.)		
D ^I Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 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.

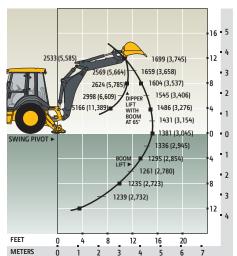
310SK Backhoe with Standard Dipperstick

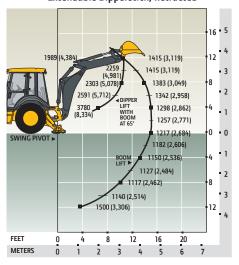
310SK Backhoe with 1.07-m (3 ft. 6 in.)

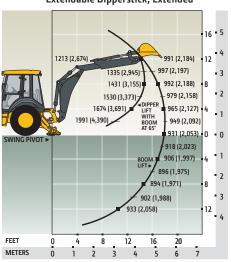
Extendable Dipperstick, Retracted

310SK Backhoe with 1.07-m (3 ft. 6 in.)

Extendable Dipperstick, Extended





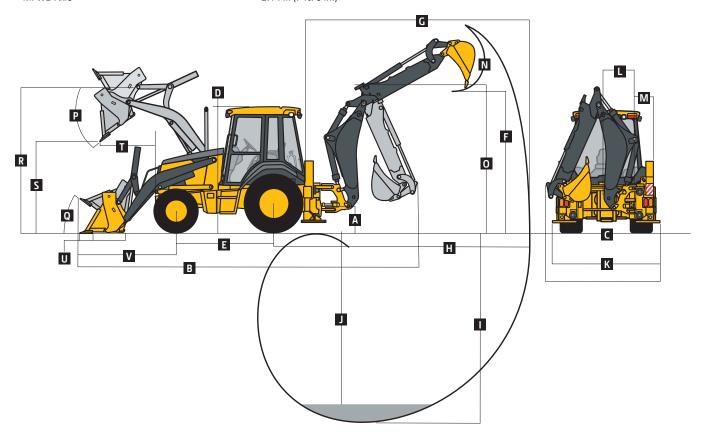


Engine	315SK		
Manufacturer and Model	John Deere PowerTech™ 4045	5HT054 turbocharged, standard	
Non-Road Emissions Standard	EPA Tier 3/EU Stage IIIA		
Displacement	4.5 L (276 cu. in.)		
Net Peak Power (ISO 9249)	71 kW (95 hp) at 1,900 rpm		
Net Peak Torque (ISO 9249)	399 Nm (294 lbft.) at 1,300	rom	
Net Torque Rise	43%		
Lubrication	Pressure system with spin-on	filter and cooler	
Air Cleaner			
	Dual-stage dry type with sale	y element and evacuator valve	
Cooling	C. Park		
Fan Type	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 cutoff on loader lever	l PowerShift™ transmission with hydrau	lic reverser standard; electric clutch
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	5.9 km/h (3.7 mph)	7.5 km/h (4.6 mph)	
Gear 2	10.8 km/h (6.7 mph)	13.6 km/h (8.5 mph)	
Gear 3	22.1 km/h (13.7 mph)	21.8 km/h (13.6 mph)	
Gear 4	34.4 km/h (21.4 mph)	——————————————————————————————————————	
Gear 5	40.0 km/h (25.0 mph)		
Axles	40.0 KIII/II (23.0 IIIpii)	_	
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
·	Non-Powered Front	Machaniael Front Wheel Drive	Dans
Axle Ratings		Mechanical-Front-Wheel Drive (MFWD)	Rear
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	Automatic, limited-slip traction		
Rear Axle	Electric, foot-actuated, 100%	hydraulic locking	
Steering (ISO 5010)	Hydrostatic power steering ar		
Axle	Non-Powered Front	MFWD	
Curb-Turning Radius			
With Brakes	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.)	
Bucket Clearance Circle	3.3 mm (12 m. mm.)	1.00 m (15 ft. 5 m.)	
With Brakes	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.)	
Steering Wheel Turns (lock to lock)	3.2	2.7	
Final Drive	5.2	L.1	
	Hannadaska a than dala	and final divine district to the little of	-3
Mechanical-Front Wheel		ry final drives distribute shock loads ove	
Rear Axle	Heavy duty, outboard planeta	ry final drives distribute shock loads ove	r 4 gears
Brakes (SAE J1473)			
Service		disc, mounted inboard, self-adjusting a	
Parking	Spring applied, hydraulically rocontrol	eleased, wet, multi-disc, independent o	f service brakes with electric switch
Hydraulics			
Main Pump	Open center, gear type, tande	m with unloader	
Pump Flow at 2,200 rpm			
Backhoe	136 L/m (36 gpm)		
Loader	106 L/m (28 gpm)		
	, 31: /		



optional nual auxiliary functions (2nd lever) optional eable bushings) pivot pins Stroke 790 mm (31.10 in.) 744 mm (29.29 in.) 795 mm (31.30 in.) 622 mm (24.47 in.) 810 mm (31.89 in.) 278 mm (10.94 in.) 1067 mm (42.01 in.) 716 mm (28.19 in.)
eable bushings) pivot pins Stroke 790 mm (31.10 in.) 744 mm (29.29 in.) 795 mm (31.30 in.) 622 mm (24.47 in.) 810 mm (31.89 in.) 278 mm (10.94 in.) 1067 mm (42.01 in.)
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eable bushings) pivot pins Stroke 790 mm (31.10 in.) 744 mm (29.29 in.) 795 mm (31.30 in.) 622 mm (24.47 in.) 810 mm (31.89 in.) 278 mm (10.94 in.) 1067 mm (42.01 in.)
eable bushings) pivot pins Stroke 790 mm (31.10 in.) 744 mm (29.29 in.) 795 mm (31.30 in.) 622 mm (24.47 in.) 810 mm (31.89 in.) 278 mm (10.94 in.) 1067 mm (42.01 in.)
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810 mm (31.89 in.) 278 mm (10.94 in.) 1067 mm (42.01 in.)
278 mm (10.94 in.) 1067 mm (42.01 in.)
1067 mm (42.01 in.)
, ,
716 mm (28.19 in.)
213 mm (8.39 in.)
210 mm (8.27 in.)
r each); turn signals and flashers: 2 front
roof

Overall Dimensions	315SK	
A Ground Clearance, Minimum	351 mm (14 in.)	
B Overall Length, Transport	5.26 m (17 ft. 3 in.)	
C Width Over Tires	2.40 m (7 ft. 10 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	2.11 m (6 ft. 11 in.)	
MFWD Axle	2.14 m (7 ft. 0 in.)	



oe specifications are with 610-mm x 0.21-m ³ (24	in. x 7.5 cu. ft.) bucket		
t Range	305-762 mm (12-30 in.)		
ig Force			
ket Cylinder	53.3 kN (11,990 lb.)		
Vith Heavy-Duty Cylinder Option	67.8 kN (15,236 lb.)		
wd Cylinder	36.0 kN (8,090 lb.)		
Arc	180 deg.		
tor Control	2 levers		
		With Optional Extendable Dipper	stick
	With Standard Backhoe	Retracted	Extended
ading Height, Truck Loading Position	3.58 m (11 ft. 9 in.)	3.58 m (11 ft. 9 in.)	4.34 m (14 ft. 3 in.)
ach from Center of Swing Pivot	5.51 m (18 ft. 1 in.)	5.61 m (18 ft. 5 in.)	6.63 m (21 ft. 9 in.)
ach from Center of Rear Axle	6.91 m (22 ft. 8 in.)	7.01 m (23 ft. 0 in.)	8.03 m (26 ft. 4 in.)
gging Depth (SAE maximum)	4.29 m (14 ft. 1 in.)	4.42 m (14 ft. 6 in.)	5.49 m (18 ft. 0 in.)
gging Depth (SAE)			
0-mm (2 ft.) Flat Bottom	4.27 m (14 ft. 0 in.)	4.40 m (14 ft. 5 in.)	5.44 m (17 ft. 10 in.)
40-mm (8 ft.) Flat Bottom	3.96 m (13 ft. 0 in.)	4.09 m (13 ft. 5 in.)	5.22 m (17 ft. 2 in.)
erall Width (less loader bucket)	2.49 m (8 ft. 2 in.)	2.49 m (8 ft. 2 in.)	_
le-Shift from Tractor Centerline	542 mm (21 in.)	542 mm (21 in.)	542 mm (21 in.)
all to Swing Centerline	620 mm (24 in.)	620 mm (24 in.)	620 mm (24 in.)
cket Rotation	190 deg.	190 deg.	190 deg.
insport Height	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)	3.48 m (11 ft. 5 in.)

Loader Dimensions/Performance	315SK			
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	0.77 m³ (1.00 cu. yd.)	0.96 m³ (1.25 cu. yd.)	1.00 m³ (1.31 cu. yd.)	1.00 m³ (1.31 cu. yd.)
Width	2184 mm (86 in.)	2184 mm (86 in.)	2337 mm (92 in.)	2337 mm (92 in.)
Weight	363 kg (800 lb.)	405 kg (892 lb.)	521 kg (1,148 lb.)	816 kg (1,800 lb.)
Breakout Force	49.6 kN (11,160 lb.)	45.4 kN (10,210 lb.)	45.8 kN (10,300 lb.)	42.9 kN (9,650 lb.)
Lift Capacity, Full Height	3365 kg (7,419 lb.)	3329 kg (7,340 lb.)	3266 kg (7,200 lb.)	2994 kg (6,600 lb.)
R Height to Bucket Hinge Pin, Maximum	3.40 m (11 ft. 2 in.)			
S Dump Clearance, Bucket at 45 deg.	2.69 m (8 ft. 10 in.)	2.48 m (8 ft. 2 in.)	2.64 m (8 ft. 8 in.)	2.62 m (8 ft. 7 in.)
T Reach at Full Height, Bucket at 45 deg.	785 mm (30.9 in.)	911 mm (35.9 in.)	765 mm (30.1 in.)	818 mm (32.2 in.)
U Digging Depth Below Ground, Bucket Level	160 mm (6.3 in.)	147 mm (5.8 in.)	206 mm (8.1 in.)	185 mm (7.3 in.)
V Length from Front Axle Centerline to Bucket Cutting Edge	2.03 m (6 ft. 8 in.)	2.18 m (7 ft. 2 in.)	2.03 m (6 ft. 8 in.)	2.15 m (7 ft. 1 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.

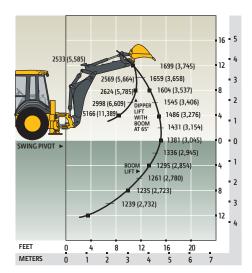
315SK Backhoe with Standard Dipperstick

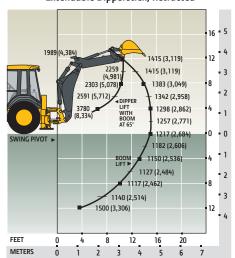
315SK Backhoe with 1.07-m (3 ft. 6 in.)

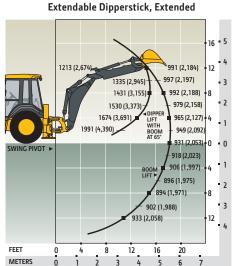
315SK Backhoe with 1.07-m (3 ft. 6 in.)

Extendable Dipperstick, Retracted

Extendable Dipperstick, Extended





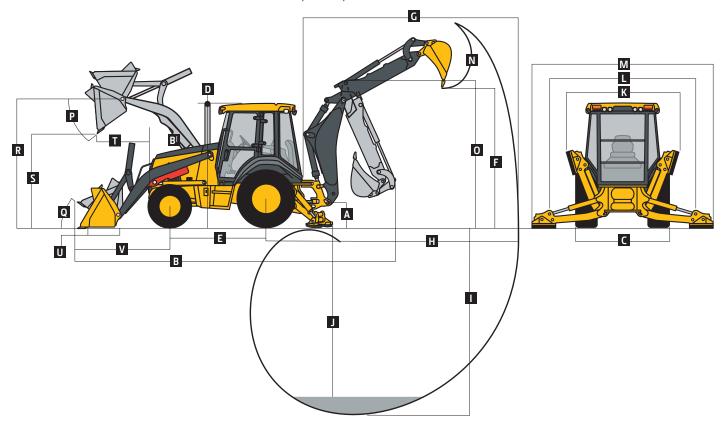


Engine	410K			
Manufacturer and Model		¹ E 4045HT054 turbocharge	Ч	
Non-Road Emissions Standard	EPA Tier 3/EU Stage IIIA			
Displacement	4.5 L (276 cu. in.)			
Net Peak Power (ISO 9249)	75 kW (101 hp) at 2,000	rnm		
Net Peak Torque (ISO 9249)	422 Nm (311 lbft.) at 1			
Net Torque Rise	43%			
Lubrication	Pressure system with spin-on filter and cooler			
Air Cleaner	Dual-stage dry type with safety element and evacuator valve			
Cooling	buai-stage dry type with	i safety element and evacua	tor valve	
Fan Type	Suction type			
Engine Coolant Rating	-40 deg. C (-40 deg. F)			
Engine Coolant Rating Engine Oil Cooler	Oil to water			
Powertrain	Oil to water			
Transmission	5 speed holical sut goar	rs full DowarShift™ transmi	ssion with hydraulic reverser standard; electric clutch	
11 01131111331011	cutoff on loader lever	s, run rowersinit transini	ssion with hydraunc reverser standard, electric clutch	
Torque Converter		with 2.63:1 stall ratio, 280	mm (11 in)	
Maximum Travel Speeds with Standard Engine,	Forward	Reverse	mm (11 m.)	
Measured with 21L-24 Rear Tires				
Gear 1	5.7 km/h (3.6 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	21.3 km/h (13.2 mph)	21.2 km/h (13.2 mph)		
Gear 4	33.1 km/h (20.5 mph)	_		
Gear 5	40.0 km/h (25.0 mph)	_		
Axles				
Axle Oscillation, Stop to Stop, Front Axle	22 deg.			
Axle Ratings	Non-Powered Front	Mechanical-Front- Wheel Drive (MFWD)	Rear	
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	J (, ,	3(1)	3(1) 1)	
MFWD Axle	Automatic, limited-slip t	raction control		
Rear Axle	Electric, foot actuated, 1			
Steering (ISO 5010)		ing and emergency steering		
Axle	Non-Powered Front	MFWD		
Curb-Turning Radius				
With Brakes	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.)		
Bucket Clearance Circle	3.3 1 111 (12 11. 11 111.)	1.00 111 (15 12. 5 111.)		
With Brakes	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.)		
Steering Wheel Turns (lock to lock)	3.1 to 4.3	2.6 to 3.6		
Final Drive	3.1 to 4.5	2.0 to 3.0		
Mechanical-Front Wheel	Heavy duty outhoard nla	anetary final drives distribut	te shock loads over 3 gears	
Rear Axle		anetary final drives distribut		
Brakes (SAE J1473)	ricavy duty, outboard pie	anetary miar unives distribut	Le strock roads over + gears	
Service	Downer assisted budgetil	c wat disc mounted inharm	d, self-adjusting and self-equalizing	
Service Parking			a, seir-adjusting and seir-equalizing sc, independent of service brakes with electric switch	
	control	cany released, wet, multi-dis	sc, independent of service brakes with electric switch	
Hydraulics				
Main Pump	Pressure compensated lo	oad sensing (PCLS), axial-pis	ston 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)			
Loader	24 993 kPa (3,625 psi)			
	• •			



Hydraulics (continued)	410K		
Controls			
Backhoe	2-lever manual standard: pilot (ontrols with nattern select and ma	inual and/or electric auxiliary functions option
Loader	Single-lever control with electi	ic clutch cutoff switch standard; s	single-lever control with electric clutch cutoff WD (on/off/momentary) with auxiliary hydrau
Cylinders			
Type	Heat-treated, chrome-plated,	oolished rods; hardened steel (rep	laceable bushings) pivot pins
7,70	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.)	897 mm (35.31 in.)
Backhoe Crowd (1)	115 mm (4.53 in.)	63 mm (2.48 in.)	698 mm (27.49 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)	70 mm (2.76 in.)	40 mm (1.57 in.)	1214 mm (47.78 in.)
Backhoe Stabilizer, Standard (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.)	213 mm (8.39 in.)
• •		· · ·	, ,
MFWD (1)	67 mm (2.64 in.)	42 mm (1.65 in.)	210 mm (8.27 in.)
Electrical	12 1:		
Voltage	12 volt		
Alternator Rating	90 amp	13 11 1 11 (23 500 11	1)
Lights	10 halogen: 4 front, 4 rear, and and 2 rear; stop and taillights;		wer each); turn signals and flashers: 2 front
Operator Station			
Type (SAE J1040)	Canopy, isolation mounted, RC	PS/FOPS, left/right access, with n	nolded roof
Tires/Wheels			
	Front	Rear	
Non-Powered Front Axle	14.5/75-16.1 SL F-3 (10)	21L-24 R-4 (10)	
MFWD	12.5/80-18 I-3 (14)	19.5L-24 R-4 (10)	
	12.5/80-18 I-3 (14)	21L-24 R-4 (10)	
	12.5/80-18 I-3 (12)	21L-24 R-4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
Serviceability			
Hydraulic Oil Filter, Spin-On Enclosed Replaceable Element	6-micron filtration; 1,000 brea	k-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	93.1 L (24.6 gal.)		
Hydraulic Reservoir	37.1 L (9.8 gal.)		
MFWD Housing	· 31		
Axle	6.5 L (6.9 qt.)		
Planetary (each)	0.9 L (1 qt.)		
Operating Weights	5.5 E (1 qt.)		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard	7402 kg (16,318 lb.)		
Equipment	7 402 kg (10,510 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and	8582 kg (18,919 lb.)		
454-kg (1,000 lb.) Counterweight	0302 kg (10,513 lb.)		
Adjustments to Operating Weights with Optional			
Components			
Cab	263 kg (580 lb.)		
	203 kg (580 lb.)		
MFWD with Tires	J \ ,		
Extendable Dipperstick	289 kg (638 lb.)		
Front Loader Coupler	286 kg (630 lb.)		
Backhoe Bucket Coupler	63 kg (138 lb.)		

Overall Dimensions	410K
A Ground Clearance, Minimum	356 mm (14 in.)
B Overall Length, Transport	7.29 m (23 ft. 11 in.)
C Width Over Tires	2.18 m (7 ft. 2 in.)
D Height to Top of ROPS/Cab	2.82 m (9 ft. 3 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	410K		
Backhoe specifications are with 610-mm x 0.21-m	n³ (24 in. x 7.5 cu. ft.) bucket		
Bucket Range	305-762 mm (12-30 in.)		
Digging Force			
Bucket Cylinder	65.8 kN (14,801 lb.)		
Crowd Cylinder	38.9 kN (8,741 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
		With Optional Extendable D	Dipperstick
	With Standard Backhoe	Retracted	Extended
F Loading Height, Truck Loading Position	3.81 m (12 ft. 6 in.)	3.86 m (12 ft. 8 in.)	4.72 m (15 ft. 6 in.)
G Reach from Center of Swing Pivot	5.99 m (19 ft. 8 in.)	6.07 m (19 ft. 11 in.)	7.21 m (23 ft. 8 in.)
H Reach from Center of Rear Axle	7.11 m (23 ft. 4 in.)	7.19 m (23 ft. 7 in.)	8.33 m (27 ft. 4 in.)
Digging Depth (SAE maximum)	4.83 m (15 ft. 10 in.)	4.90 m (16 ft. 1 in.)	6.10 m (20 ft. 0 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.78 m (15 ft. 8 in.)	4.85 m (15 ft. 11 in.)	6.07 m (19 ft. 11 in.)
2440-mm (8 ft.) Flat Bottom	4.45 m (14 ft. 7 in.)	4.55 m (14 ft. 11 in.)	5.82 m (19 ft. 1 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.
Transport Height	3.94 m (12 ft. 11 in.)	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)

Loader Dimensions/Performance	410K		
P Bucket Dump Angle, Maximum	45 deg.		
Q Rollback Angle at Ground Level	40 deg.		
	Standard Loader Option		
	Heavy-duty	Heavy-duty	Multipurpose
Bucket Capacity	1.00 m³ (1.31 cu. yd.)	1.15 m³ (1.50 cu. yd.)	1.00 m³ (1.31 cu. yd.)
Width	2337 mm (92 in.)	2388 mm (94 in.)	2337 mm (92 in.)
Weight	521 kg (1,148 lb.)	548 kg (1,208 lb.)	816 kg (1,800 lb.)
Breakout Force	45.8 kN (10,300 lb.)	45.2 kN (10,170 lb.)	42.9 kN (9,650 lb.)
Lift Capacity, Full Height	3266 kg (7,200 lb.)	3207 kg (7,070 lb.)	2994 kg (6,600 lb.)
R Height to Bucket Hinge Pin, Maximum	3.35 m (11 ft. 0 in.)	3.35 m (11 ft. 0 in.)	3.35 m (11 ft. 0 in.)
S Dump Clearance, Bucket at 45 deg.	2.69 m (8 ft. 10 in.)	2.67 m (8 ft. 9 in.)	2.62 m (8 ft. 7 in.)
T Reach at Full Height, Bucket at 45 deg.	762 mm (30.0 in.)	787 mm (31.0 in.)	818 mm (32.2 in.)
U Digging Depth Below Ground, Bucket Level	170 mm (6.7 in.)	157 mm (6.2 in.)	182 mm (7.2 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.)	2.15 m (7 ft. 1 in.)
Lift Capacity with Quick-Coupler/Forks			
Hydraulic Capacity	1219-mm (48 in.) Tines	1524-mm (60 in.) Tines	
A Maximum Height	2073 kg (4,570 lb.)	1891 kg (4,170 lb.)	
B ^I Maximum Reach	3162 kg (6,971 lb.)	3003 kg (6,621 lb.)	
C ¹ At Ground Line	4145 kg (9,138 lb.)	3883 kg (8,561 lb.)	
D ¹ Below Ground Line	211 mm (8.3 in.)	211 mm (8.3 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.

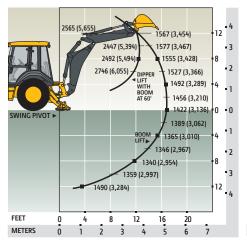
410K Backhoe with Standard Dipperstick

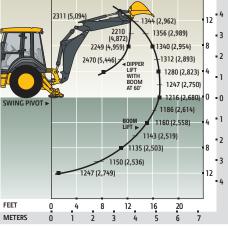
410K Backhoe with 1.22-m (4 ft.)

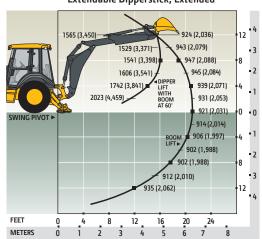
410K Backhoe with 1.22-m (4 ft.)

Extendable Dipperstick, Retracted

Extendable Dipperstick, Extended





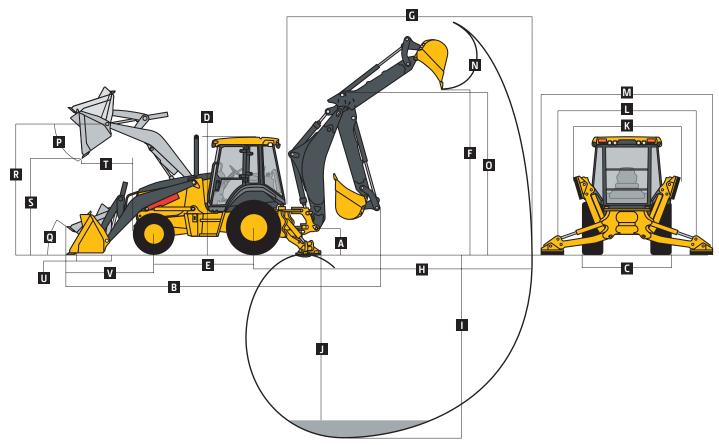


Engine	710K		
Manufacturer and Model	John Deere PowerTech™ E 6068H	IT067 turbocharged	
Non-Road Emissions Standard	EPA Tier 3/EU Stage IIIA		
Displacement	6.8 L (414 cu. in.)		
Net Peak Power (ISO 9249)	94 kW (126 hp) at 2,000 rpm		
Net Peak Torque (ISO 9249)	546 Nm (403 lbft.) at 1,200 rpm		
Net Torque Rise	36%		
Lubrication	Pressure system with spin-on filter and cooler		
Air Cleaner	Dual-stage dry type with safety el		
Cooling	Badi Stage ary type with safety ex	icinent and evacuator valve	
Fan Type	Suction type		
Engine Coolant Rating	–40 deg. C (–40 deg. F)		
Engine Oil Cooler	Oil to water		
Powertrain	on to water		
Transmission	4 speed, helical-cut gears, full Po	werShift™ transmission with hydrau	lic reverser standard: electric clutch
	cutoff on loader lever		ne rerei sei standard, erective erateri
Torque Converter	Single stage, dual phase with 1.9	5:1 stall ratio, 280 mm (11 in)	
Maximum Travel Speeds with Standard Engine with	Forward	Reverse	
Mechanical-Front-Wheel Drive (MFWD), Measured			
with 21L-28 Rear Tires			
Gear 1	6.0 km/h (3.7 mph)	6.7 km/h (4.2 mph)	
Gear 2	10.0 km/h (6.2 mph)	11.1 km/h (6.9 mph)	
Gear 3	23.9 km/h (14.8 mph)	26.5 km/h (16.5 mph)	
Gear 4	35.1 km/h (21.8 mph)	_	
Axles	•		
Axle Oscillation, Stop to Stop, Front Axle	22 deg.		
Axle Ratings	Non-Powered Front	MFWD	Rear
Static	22 950 kg (50,596 lb.)	18 500 kg (40,786 lb.)	19 700 kg (43,431 lb.)
Dynamic	9200 kg (20,283 lb.)	7700 kg (16,976 lb.)	9800 kg (21,605 lb.)
Ultimate	41 000 kg (90,390 lb.)	43 600 kg (96,122 lb.)	46 400 kg (102,295 lb.)
Differentials	(,,		
MFWD Axle	Automatic, limited-slip traction co	ontrol	
Rear Axle	Electric, foot-actuated, hydraulic		
Steering (ISO 5010)	Hydrostatic power steering and e		
Axle	Non-Powered Front	MFWD	
Curb-Turning Radius	Non rowered from	WII VVD	
With Brakes	4.04 m (13 ft. 3 in.)	4.20 m (13 ft. 9 in.)	
Without Brakes	4.62 m (15 ft. 2 in.)	4.79 m (15 ft. 9 in.)	
Bucket Clearance Circle	4.02 III (13 1t. 2 III.)	4.75 111 (15 16. 5 111.)	
With Brakes	11.16 m (36 ft. 7 in.)	11.40 m (37 ft. 5 in.)	
With brakes Without Brakes	12.14 m (39 ft. 10 in.)	12.47 m (40 ft. 11 in.)	
Steering Wheel Turns (lock to lock, flow amplified)	2.9 to 4.7	2.7 to 4.4	
Final Drive	2.9 (0 4.7	2.7 (0 4.4	
Mechanical-Front Wheel	Heavy duty outboard planetary fi	inal drives distribute shock loads ove	ir 3 gears
Rear Axle		inal drives distribute shock loads ove	
Brakes (ISO 3450)	rieavy duty, outboard planetary in	mai drives distribute shock loads ove	i + gears
Service	Full power budgaulic wat dies me	ounted inboard, self-adjusting and se	olf equalizing
Parking	control	ased, wet, multi-disc, independent o	Service Diakes Mittl Electric SMLCU
Hydraulics			
Main Pump	Pressure compensated load sensi	ng (PCLS), axial-piston pump	
Pump Flow at 2,200 rpm		5.	
Backhoe	197 L/m (52 gpm)		
Loader	197 L/m (52 gpm)		
System Relief Pressure, Backhoe and Loader	··· (3F····)		
Backhoe	24 993 kPa (3,625 psi)		
Loader	24 993 kPa (3,625 psi)		
Loudel	2 1 333 Ki a (3,023 p3i)		



Hydraulics (continued)	710K		
Controls			
Backhoe	Pilot controls with pattern se	elect standard; 2-lever manual and ma	anual and/or electric auxiliary functions optiona
Loader	Single-lever control with ele	ctric clutch cutoff switch standard; s	single-lever control with electric clutch cutoff WD (on/off/momentary) with auxiliary hydrau
Cylinders	посториона.		
Туре	Heat-treated, chrome-plate	d, polished rods; hardened steel (rep	laceable bushings) pivot pins
31.	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, Standard (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.)	230 mm (9.06 in.)
MFWD (1)	75 mm (2.95 in.)	50 mm (1.97 in.)	260 mm (10.24 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	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 (ISO 3471)	Canopy, isolation mounted,	ROPS/FOPS, left/right access, with r	nolded roof
Tires/Wheels		-	
	Front	Rear	
Non-Powered Front Axle	14.5/75-16.1 F-3 (10)	21L-28	R-4 (14)
	16.5L-16.1 I-1 (10)	21L-28	R-4 (14)
MFWD	15-19.5 SS-1 (12)	21L-28	R-4 (14)
	15-19.5 SS-1 (12)	20.5-25	5 L-2 (12)
Serviceability			
Hydraulic Oil Filter, Spin-On Enclosed Replaceable Element	6-micron filtration; 1,000 br	eak-in/service hours	
Refill Capacities			
Cooling System	33.9 L (35.8 qt.)		
Rear Axle	16.1 L (17 qt.)		
Engine Oil (including vertical spin-on filter)	19.5 L (20.6 qt.)		
Torque Converter and Transmission	15.1 L (16 qt.)		
Fuel Tank (with ground-level fueling)	261.2 L (69 gal.)		
Hydraulic System	149.9 L (39.6 gal.)		
Hydraulic Reservoir	45.4 L (12 gal.)		
MFWD Housing	01.(0.5)		
Axle	9 L (9.5 qt.)		
Planetary (each)	0.8 L (0.9 qt.)		
Operating Weights	10.06/ 1 (22.107.11)		
With Full Fuel Tank, 79-kg (175 lb.) Operator, and Standard Equipment	10 064 kg (22,187 lb.)		
Typical with Cab, MFWD, Extendable Dipperstick, and 635-kg (1,400 lb.) Counterweight	11 903 kg (26,242 lb.)		
Adjustments to Operating Weights with Optional Components			
	293 kg (645 lb.)		
Cab			
	373 kg (822 lb.) 318 kg (700 lb.)		

Overall Dimensions	710K	
A Ground Clearance, Minimum	356 mm (14 in.)	
B Overall Length, Transport	8.23 m (27 ft. 0 in.)	
C Width Over Tires	2.29 m (7 ft. 6 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. 6 in.)	
MFWD Axle	2.55 m (8 ft. 4 in.)	



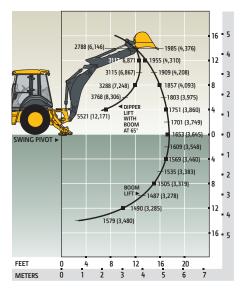
Backhoe Dimensions/Performance	710K		
Backhoe specifications are with 61	0-mm x 0.31-m³ (24 in. x 11.1 cu. ft.) bucket		
Bucket Range	610–914 mm (24–36	in.)	
Digging Force			
Bucket Cylinder	75.6 kN (17,000 lb.)		
Crowd Cylinder	52.3 kN (11,750 lb.)		
Swing Arc	180 deg.		
Operator Control	Pilot control		
		With Optional Extend	able Dipperstick
	With Standard Backh	oe Retracted	Extended
F Loading Height, Truck Loading F	osition 4.34 m (14 ft. 3 in.)	4.34 m (14 ft. 3 in.)	5.18 m (17 ft. 0 in.)
G Reach from Center of Swing Pivo	t 6.86 m (22 ft. 6 in.)	6.86 m (22 ft. 6 in.)	8.19 m (26 ft. 10 in.)
H Reach from Center of Rear Axle	8.13 m (26 ft. 8 in.)	8.13 m (26 ft. 8 in.)	9.46 m (31 ft. 0 in.)
I Digging Depth (SAE maximum)	5.44 m (17 ft. 10 in.)	5.44 m (17 ft. 10 in.)	6.81 m (22 ft. 4 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	5.41 m (17 ft. 9 in.)	5.41 m (17 ft. 9 in.)	6.83 m (22 ft. 5 in.)
2440-mm (8 ft.) Flat Bottom	5.18 m (17 ft. 0 in.)	5.18 m (17 ft. 0 in.)	6.58 m (21 ft. 7 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, Operati	ng 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	4.17 m (13 ft. 8 in.)	4.22 m (13 ft. 10 in.)	4.22 m (13 ft. 10 in.)

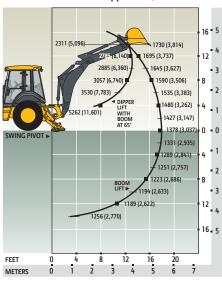
Loader Dimensions/Performance	710K			
P Bucket Dump Angle, Maximum	45 deg.			
Q Rollback Angle at Ground Level	40 deg.			
	Standard duty	Standard duty	Multipurpose	Standard duty
Bucket Capacity	1.24 m³ (1.62 cu. yd.)	1.43 m³ (1.87 cu. yd.)	1.05 m³ (1.38 cu. yd.)	1.53 m³ (2.00 cu. yd.)
Width	2464 mm (97 in.)	2464 mm (97 in.)	2451 mm (96.5 in.)	2545 mm (100 in.)
Weight	830 kg (1,830 lb.)	866 kg (1,909 lb.)	969 kg (2,136 lb.)	1260 kg (2,778 lb.)
Breakout Force	69.1 kN (15,540 lb.)	65.8 kN (14,800 lb.)	69.8 kN (15,690 lb.)	72.6 kN (16,312 lb.)
Lift Capacity, Full Height	4208 kg (9,277 lb.)	3943 kg (8,693 lb.)	3961 kg (8,732 lb.)	3139 kg (6,920 lb.)
R Height to Bucket Hinge Pin, Maximum	3.78 m (12 ft. 5 in.)			
S Dump Clearance, Bucket at 45 deg.	2.92 m (9 ft. 7 in.)	2.84 m (9 ft. 4 in.)	2.95 m (9 ft. 8 in.)	2.56 m (8 ft. 5 in.)
T Reach at Full Height, Bucket at 45 deg.	691 mm (27.2 in.)	770 mm (30.3 in.)	683 mm (26.9 in.)	976 mm (38.4 in.)
U Digging Depth Below Ground, Bucket Level	104 mm (4.1 in.)	104 mm (4.1 in.)	81 mm (3.2 in.)	183 mm (7.2 in.)
V Length from Front Axle Centerline to Bucket	2.10 m (6 ft. 11 in.)	2.21 m (7 ft. 3 in.)	2.06 m (6 ft. 9 in.)	2.61 m (8 ft. 7 in.)
Cutting Edge				

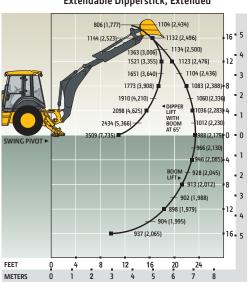
Hydraulic Capacity	1219-mm (48 in.) Tines
A ^I Maximum Height	2632 kg (5,803 lb.)
B ^I Maximum Reach	4378 kg (9,651 lb.)
C ¹ At Ground Line	6057 kg (13,353 lb.)
DI Below Ground Line	140 mm (5.5 in.)



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. 710K Backhoe with Standard Dipperstick 710K Backhoe with 1.37-m (4 ft. 6 in.) 710K Backhoe with 1.37-m (4 ft. 6 in.) **Extendable Dipperstick, Retracted** Extendable Dipperstick, Extended







Additional equipment: 310K

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

310K	Engine
3 IUK	Engine
•	Meets EPA Tier 3/EU Stage IIIA emissions
•	John Deere Model 4045HT054 — 4.5L, 65 kW (87 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 with low-level indicator
•	Foldout, hinged cooling system
•	Serpentine belt with automatic belt tensioner
•	Suction-type cooling fan
•	High ambient temperature engine cooling
•	Dual-element dry-type air cleaner
•	Muffler, under hood, with curved-end exhaust stack
•	Electronic fuel lift pump
•	Cold-start package
	Danisaturia

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 (4th gear overdrive only)
- ▲ 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
- 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

310K 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
- ▲ Hydraulic coupler for buckets, forks, etc.
- Less bucket, with bucket pins
- High-visibility loader arms

Hydraulic 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
- 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
- Horr
- Seat belt, 76-mm (3 in.), with retractor
- Key start switch with electric fuel shutoff
- Machine security
- Engine coolant temperature gauge
- Fuel gauge

310K Operator's Station (continued)

- 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] heater) / Air conditioner (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant)

Overall Vehicle

- 1-piece unitized construction mainframe
- Vehicle tie-downs (2 front and 2 rear)
- ▲ Remote fluid-sampling ports
- Remote grease 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
- ▲ Boom-protection plate
- JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)

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

310SK / 410K

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

10SK 410	2	310SK	410K	Backhoe (continued)	310SK	410K	Operator's Station (continued)
• •	Meets EPA Tier 3/EU Stage IIIA emissions	•	•	Less bucket, with bucket pins	•	•	Interior rearview mirror
•	John Deere Model 4045HT054 — 4.5L, 71 kW (95 hp)	A	A	Standard-duty backhoe bucket with lift loops	A	A	Interior front-view mirror
	net peak power, turbocharged, isolation mounted	A	A	Heavy-duty backhoe bucket with lift loops	A	A	Outside rearview mirrors
•	John Deere Model 4045HT054 — 4.5L, 75 kW (101	A	A	Severe-duty backhoe bucket with lift loops	•	•	Rotary-dial hand throttle
	hp) net peak power, turbocharged, isolation mounted	A		Backhoe couplers for John Deere, Case, and Cat	•	•	Suspended foot throttle
• •	Vertical spin-on engine oil filter			buckets	•	•	Horn
• •	Vertical spin-on fuel filter with water separator	A	A	Auxiliary backhoe valve for swingers, thumbs, etc. with auxiliary plumbing	•	•	Seat belt, 76-mm (3 in.), with retractor
• •	Oil-to-water engine oil cooler	•	•	Auxiliary backhoe valve for hammers and compactors	•	•	Keyless start
• •	Antifreeze, -40 deg. C (-40 deg. F)			with auxiliary plumbing	•	•	Machine security
• •	Coolant recovery tank with low-level indicator	A	A	Hydraulic thumb	•	•	Engine coolant temperature gauge
• •	Foldout, hinged cooling system			Loader [†]	•	•	Transmission oil-temperature gauge
• •	Serpentine belt with automatic belt tensioner	•	•	Loader bucket anti-spill (rollback)	•	•	Fuel gauge
• •	Suction-type cooling fan	•	•	Return-to-dig feature	•	•	Digital display of engine hours, engine rpm, and system voltage
• •	High ambient temperature engine cooling	•	•	Single-lever control with electric clutch disconnect			Sealed-switch module
• •	Dual-element dry-type air cleaner	•	•	Bucket-level indicator			Monitor system with audible and visual warnings:
• •	Muffler, under hood, with curved-end exhaust stack	•	•	Loader boom service lock			Engine air restriction / Low alternator voltage /
A A	Chrome exhaust extension	A	A	Auxiliary loader hydraulics with single control			Engine oil pressure / Hydraulic filter restriction /
A A	1,000-watt electric engine coolant heater			lever with EH auxiliary control (MFWD and clutch disconnect)			Parking brake on/off / Aftertreatment temperature
• •	Electronic fuel lift pump	A	A	Hydraulic coupler for buckets, forks, etc.			Transmission oil temperature / Fuel / Hour meter / Machine diagnostic information via 4-push-butto
• •	Cold-start package	•	•	Less bucket, with bucket pins			LCD operator interface
	Powertrain	•	•	High-visibility loader arms	•	•	Canopy: Mechanical suspension deluxe vinyl swive
• •	PowerShift [™] transmission: Torque converter with			Hydraulic System			seat with lumbar adjustment and armrests (fully
	twist-grip Transmission Control Lever (TCL) and neu- tral safety switch interlock (1st through 5th gears)	•		136-L/m (36 gpm) tandem-gear pump with unloader,			adjustable)
• •	5th-gear overdrive			open-center system	•	•	Cab with Dual Doors: Mechanical suspension delu fabric swivel seat with lumbar adjustment / Tilt stee
A A			•	159-L/m (42 gpm) axial-piston pump, PCLS system			ing, infinitely adjustable / AM/FM/weather-band
	Transmission oil cooler	•	•	Auto idle			radio / Sun visor / Headliner, dome light, left and
•	Vertical spin-on transmission filter	•	•	Economy mode			right cab doors, tinted safety glass, windshield wipe
<u> </u>	Transmission remote oil-sampling port	•	•	Dedicated hydraulic reservoir			(1 rear and 1 front), front windshield washer, fres air intake, and heater/defroster/pressurizer (11.7
	Differential lock, electric foot actuated, protection	•	•	"O"-ring face-seal connectors			kW [40,000 Btu/h] heater)
	on/off	•	•	6-micron vertical spin-on filter	A	A	Ultimate Cab: Air-suspension deluxe fabric swivel
• •	Auto shutdown			Electrical System			seat with lumbar adjustment / Tilt steering, infi-
• •	Planetary final drives	•	•	12-volt system			nitely adjustable / AM/FM/weather-band radio wit
• •	Power-assisted hydraulic service brakes (conform	•	•	90-amp alternator			CD player / Sun visor / Headliner, dome light, left and right cab doors, tinted safety glass, windshiel
	to ISO 3450): Inboard, wet multi-disc, self-adjusting	•	•	Single battery with 190-min. reserve capacity and			wipers (1 rear and 1 front), front windshield wash
	and self-equalizing			950 CCA			fresh-air intake, and heater/defroster/pressurizer
•	Parking/emergency brake with electric switch con- trol (conforms to ISO 3450): Spring applied, hydrau-	A	A	Dual batteries with 380-min. reserve capacity and 1,900 CCA			(11.7-kW [40,000 Btu/h] heater) / Air conditioner (7.6-kW [26,000 Btu/h] output and CFC-free R134
	lically released wet multi-disc / Independent of	•	•	Positive terminal battery cover			refrigerant)
	service brakes	•	•	Blade-type multi-fused circuits			Overall Vehicle
• •	Hydrostatic power steering with emergency man-	•	•	By-pass start safety cover on starter	•	•	1-piece unitized construction mainframe
	ual mode	A	A	Master disconnect switch	•	•	Vehicle tie-downs (2 front and 2 rear)
A A	•	_	_	Lights	A	A	Remote fluid-sampling ports
• •	MFWD with traction-control limited-slip differential: Electric on/off control / Sealed axle	•	•	Halogen lights (10), 32,500 candlepower each	•	•	Remote grease bank for front axle
	Automatic MFWD braking (4th and 5th gear over-			(4 front driving/working, 4 rear working, and 2	•	•	Front cover
	drive only)			side docking)	A	A	Heavy-duty front bumper
A A	Rear wheel spacers for use with chains	•	•	Turn signal/flashing (2 front and 2 rear)	A	•	204-kg (450 lb.) front counterweight
A A	MFWD driveshaft guard	•	•	Rear stop and tail (2)	A	A	340-kg (750 lb.) front counterweight
	Backhoe	•	•	Rear reflectors (2)	A	A	454-kg (1,000 lb.) front counterweight
•	Standard dipperstick, 4.42-m (14 ft. 6 in.) digging			Operator's Station	A	A	567-kg (1,250 lb.) front counterweight
_	depth	•	•	Modular-design ROPS/FOPS (Level 2) canopy with molded roof (meets ISO 3449 and ISO 3471/SAE	A	A	Rubber grille bumpers
•	11			J1040): Isolation mounted	•	•	Fuel tank, 155.2 L (41 gal.), ground-level fueling
A	depth Extendable dipperstick, 1.07-m (3 ft. 6 in.) extension	•	•	Left and right access	•	•	2-position easy-tilt hood
	m. 111 b	•	•	Slip-resistant steps and ergonomically located	•	•	Extended grille frame
_	Heavy-duty backhoe bucket cylinder			handholds (conform to SAE J185)	•	•	Removable toolbox with padlock hasp
• •		•	•	Molded floor mats (with pilot controls only)	•	•	Vandal protection for locking monitor, engine hoo
		_	A	Headliner (with cab only)			toolbox, hydraulic reservoir, and fuel tank
A A	Backhoe transport lock lever	•	•	Coat hook	•	•	Reverse warning alarm
	Swing lock pin stored in operator's station	•	•	12-volt outlets (2)	•	•	Dent-resistant full-coverage rear fenders
•	Stabilizers with 2-direction anti-drift valves	•	•	Built-in cup holder	•	•	JDLink™ Ultimate wireless communication system
	Pivoting stabilizers with reversible pads	•	•	Built-in Operator's Manual storage compartment			(available in specific countries; see your dealer for details)
•	Extended (long) stabilizers with reversible pads	•	•	Lockable right-side storage	†\$00 d	aler for	range of heavy-duty, multipurpose, and coupler
_	Extended florig) stabilizers with reversible pads	A		Lockable left-hand storage with cup holders		ts and fo	

Additional equipment: 315SK

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

315SK Engine

- Meets EPA Tier 3/EU Stage IIIA emissions
- John Deere Model 4045HT054 4.5L, 71 kW (95 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
- Serpentine belt with automatic belt tensioner
- Suction-type cooling fan
- Dual-element dry-type air cleaner
- Muffler, under hood, with curved-end exhaust stack
- Electronic fuel lift pump

Powertrain

- PowerShift™ transmission: Torque converter with twist-grip Transmission Control Lever (TCL) and neutral safety switch interlock (1st through 5th gears)
- 5th-gear overdrive
- Autoshift
- Auto shutdown
- Transmission oil cooler
- Vertical spin-on transmission filter
- ▲ Transmission remote oil-sampling port
- Differential lock, electric foot actuated
- 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 traction-control limited-slip differential: Electric on/off control / Sealed axle
- ▲ Rear wheel spacers for use with chains
- ▲ MFWD driveshaft guard

Backhoe

- Standard dipperstick, 4.29-m (14 ft. 1 in.) digging depth
- ▲ Extendable dipperstick, 1.07-m (3 ft. 6 in.) extension
- ▲ Heavy-duty backhoe bucket cylinder option
- ISO (Deere) 2-lever mechanical backhoe controls
- Backhoe transport lock lever
- Swing lock pin stored in operator's station
- Stabilizers with 2-direction anti-drift valves
- Less bucket, with bucket pins
- ▲ Standard-duty backhoe bucket with lift loops
- ▲ Heavy-duty backhoe bucket with lift loops
- Severe-duty backhoe bucket with lift loops

315SK Backhoe (continued)

- Auxiliary backhoe valve for swingers, thumbs, etc. with auxiliary plumbing
- Auxiliary backhoe valve for hammers and compactors with auxiliary plumbing

Loader[†]

- Loader bucket anti-spill (rollback)
- Return-to-dig feature
- Single-lever control with electric clutch disconnect
- Bucket-level indicator
- Loader boom service lock
- Ride control
- ▲ Auxiliary loader hydraulics with 2-lever control
- ▲ Front loader hydraulic coupler for buckets, forks. etc.
- Less bucket, with bucket pins
- High-visibility loader arms

Hydraulic System

- 136-L/m (36 gpm) tandem gear pump, opencenter system
- Auto idle
- Economy mode
- Dedicated hydraulic reservoir
- "O"-ring face-seal connectors
- 6-micron vertical spin-on filter

Electrical System

- 12-volt system
- 90-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

Linhts

- 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, cab with molded roof (meets ISO 3449 and ISO3471 / SAE J1040I: Isolation mounted
- Left and right access
- Slip-resistant steps and ergonomically located handholds (conform to SAE J185)
- Molded floor mats
- Headliner
- Coat hook
- Built-in beverage holders
- Built-in Operator's Manual storage compartment
- Lockable right-side storage
- ▲ Lockable left-hand storage with cup holders
- Interior rearview mirror

315SK Operator's Station (continued)

- Outside rearview mirrors
- Rotary-dial hand throttle
- Suspended foot throttle
- Tilt steering
- Horn
- Seat belt, 76-mm (3 in.), with retractor
- Sealed-switch module
- Keyless start
- Machine security (enabled through monitor)
- Engine coolant temperature gauge
- Oil-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 / Seat belt / Machine diagnostic information via 4-push-button/LCD operator interface
- Mechanical suspension deluxe fabric swivel seat with lumbar adjustment and armrests (fully adjustable)
- Air-suspension deluxe fabric swivel seat with lumbar adjustment
- Seat belt, 76 mm (3 in.), with retractor
- Cab: Headliner, dome light, left and right cab doors, tinted safety glass, windshield wiper (1 rear and 1 front), front windshield wiper, freshair intake, heater/defroster/pressurizer (11.7-kW [40,000 Btu/h] heater), and 12-volt outlets (2)
- Air conditioner (7.6 kW [26,000 Btu/h] output and CFC-free R134a refrigerant)
- AM/FM/weather-band radio

Overall Vehicle

- 1-piece unitized construction mainframe
- Vehicle tie-downs (2 front and 2 rear)
- Remote grease bank for front axle
- 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 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
- JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)

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

Key: ● Standard ▲ Optional or special

See your John Deere dealer for further information.

710K Engine

- Meets EPA Tier 3/EU Stage IIIA emissions
- John Deere Model 6068HT067 6.8L, 94 kW (126 hp) net peak power, variable-geometry turbocharger, 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 with low-level indicator
- Foldout, hinged cooling system
- Serpentine belt with automatic belt tensioner
- Suction-type cooling fan
- High ambient temperature engine cooling
- Dual-element dry-type air cleaner
- Muffler, under hood, with curved-end exhaust stack
- ▲ Chrome exhaust extension
- ▲ 1,000-watt electric engine coolant heater
- Electronic fuel lift pump
- Cold-start package

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
- Auto shutdown
- Planetary final drives
- Full-power 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 traction-control limited-slip differential: Electric on/off control / Sealed axle
- Automatic MFWD braking (4th gear only)
- ▲ Rear wheel spacers for use with chains

Backhoe

- Standard dipperstick, 5.44-m (17 ft. 10 in.) digging depth
- Extendable dipperstick, 1.37-m (4 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

710K Backhoe (continued)

- Less bucket, with bucket pins
- ▲ Heavy-duty backhoe bucket with lift loops
- ▲ Severe-duty backhoe bucket with lift loops
- 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 single control lever with EH auxiliary control (MFWD and clutch disconnect)
- ▲ Hydraulic coupler for buckets, forks, etc.
- Less bucket, with bucket pins
- Ride control

Hydraulic System

- 197-L/m (52 gpm) axial-piston pump, PCLS system
- Auto idle
- Economy mode
- Dedicated hydraulic reservoir
- "O"-ring face-seal connectors
- 6-micron vertical spin-on filter

Electrical System

- 12-volt system
- 120-amp alternator
- 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

Linhts

- 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

710K Operator's Station (continued)

- 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
- Seat belt, 76-mm (3 in.), with retractor
- Keyless start
- Machine security
- Engine coolant temperature gauge
- Transmission oil-temperature gauge
- Fuel gauge
- Digital display of engine hours, engine rpm, and system voltage
- Sealed-switch module
- 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 4push-button/LCD operator interface
- Canopy: Mechanical suspension deluxe vinyl swivel seat with lumbar adjustment and armrests (fully adjustable)
- Ultimate Cab: Air-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] heater) / Air conditioner (7.6-kW [26,000 Btu/h] output and CFC-free R134a refrigerant)

Overall Vehicle

- 1-piece unitized construction mainframe
- Vehicle tie-downs (2 front and 2 rear)
- ▲ Remote fluid-sampling ports
- Remote grease bank for front axle
- 272-kg (600 lb.) front counterweight
- ▲ 635-kg (1,400 lb.) front counterweight
- Fuel tank, 261.2 L (69 gal.), ground-level fueling
- 2-position easy-tilt hoodExtended grille frame
- 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
- JDLinkTM Ultimate wireless communication system (available in specific countries; see your dealer for details)

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

