

John Deere 310J Backhoe Specs

Engine

Manufacture and Model	John Deere PowerTech 4045D naturally aspirated, standard / 4045T turbocharged, optional
Non-Road Emission Standards	certified to EPA Tier 2 emissions
Displacement	276 cu. in. (4.5 L)
Net Peak Power (ISO9249) 4045D Standard 4045T Optional	72 hp (54 kW) @ 2,000 rpm 79 hp (59 kW) @ 2,000 rpm

Hydraulics

Main Pump	open center, single-gear pump
Pump Flow @ 2,200 rpm Backhoe Loader	28 gpm (106 L/min.) 28 gpm (106 L/min.)
System Relief Pressure Backhoe Loader	3,625 psi (24 993 kPa) 2,900 psi (19 995 kPa)

Electrical

Voltage	12 volt
Alternator Rating	90 amp

Tires

	Front	Rear
Non-Powered Front Axle	11L-15 SL F-3 (8) 11L-16 SL F-3 (12)	19.5L-24 R-4(10) 19.5L-24 R-4(10)
Mechanical-Front-Wheel Drive	12-16.5 NHS SS-1 (8)	19.5L-24 R-4 (10)

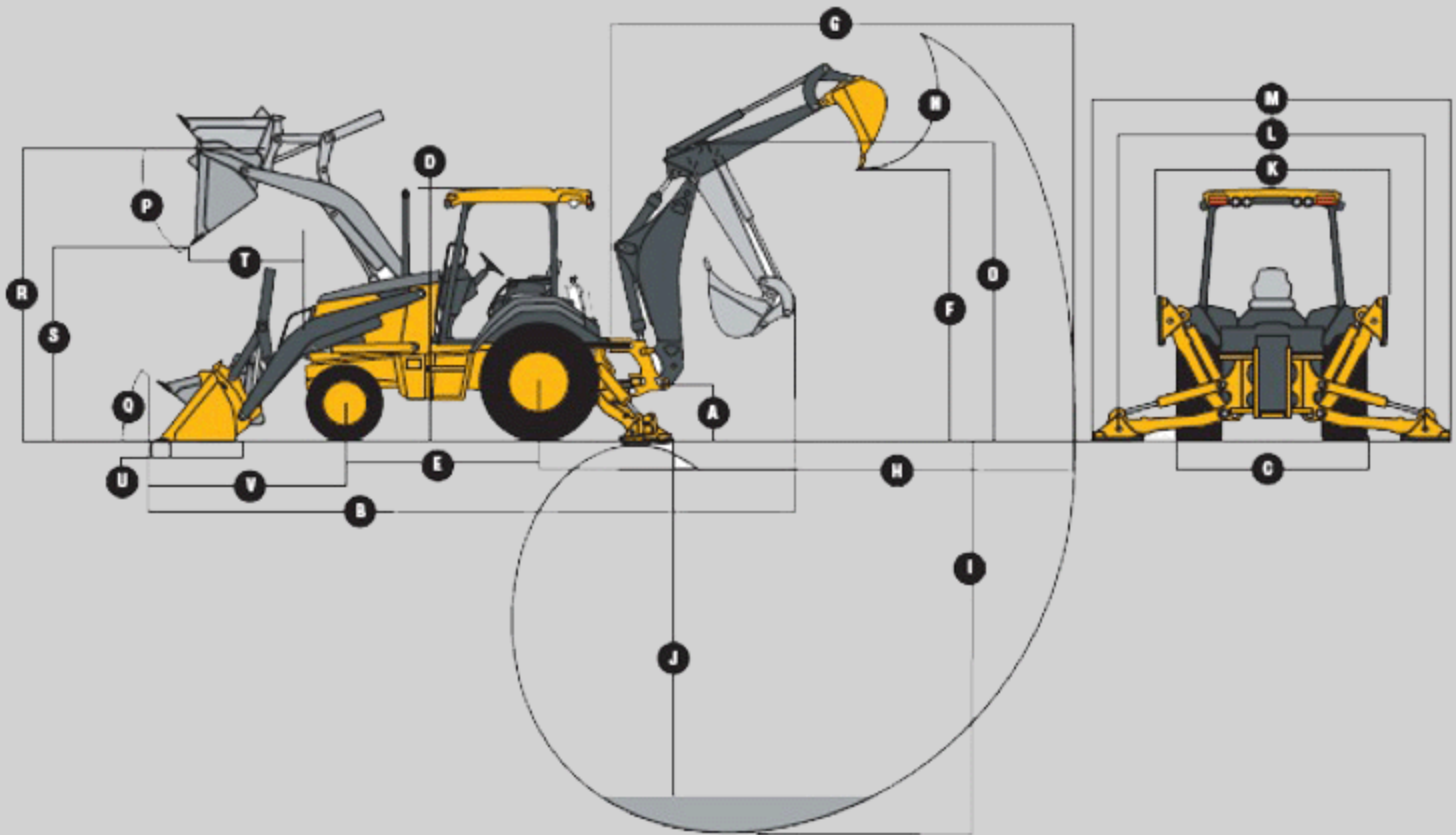
Serviceability

Hydraulic Oil Filter, Spin-On Enclosed Replaceable Element, Vertically Mounted	6-micron filtration / 1,000 service hours
<i>Refill Capacities</i>	
Cooling System	22 qt. (21 L)
Rear Axle	19 qt. (18 L)
Engine Oil (including vertical spin-on filter)	14 qt. (13 L)
Torque Converter and Transmission	16 qt. (15 L)
Fuel Tank (with ground-leveling fueling)	41 gal. (155 L)
Hydraulic System	24 gal. (91 L)
Hydraulic Reservoir	10.2 gal. (39 L)
Mechanical-Front-Wheel-Drive Housing Axle Planetary (each)	7 qt. (6.5 L) 1 qt. (1 L)

Operating Weights

With Full Fuel Tank, 175-lb. (79 kg) Operator, and Standard Equipment	13,800 lb. (6258 kg)
Typical with Cab, Mechanical-Front-Wheel Drive Extendable Dipperstick, and 1,000-lb. (454 kg) Counterweight	16,140 lb. (7319 kg)
<i>Optional Components</i>	
Cab	580 lb. (263 kg)
Mechanical-Front-Wheel Drive with	370 lb. (168 kg)

Trans	
Extendable Dipperstick	440 lb. (200 kg)
Front Loader Coupler	630 lb. (286 kg)
Backhoe Bucket Coupler	130 lb. (59 kg)



Overall Dimensions

A) Ground Clearance (minimum)	12 in. (305 mm)
B) Overall Length (Transport)	23 ft. 3 in. (7.09 m)
C) Width over Tires	6 ft. 10 in. (2.08 m)
D) Height to Top of Rops/Cab	9 ft. (2.74 m)
E) Length from Axle to Axle Non-Powered Front Axle Mechanical-Front-Wheel-Drive Axle	6 ft. 11 in. (2.11 m) 7 ft. (2.14 m)

Backhoe Dimensions / Performance

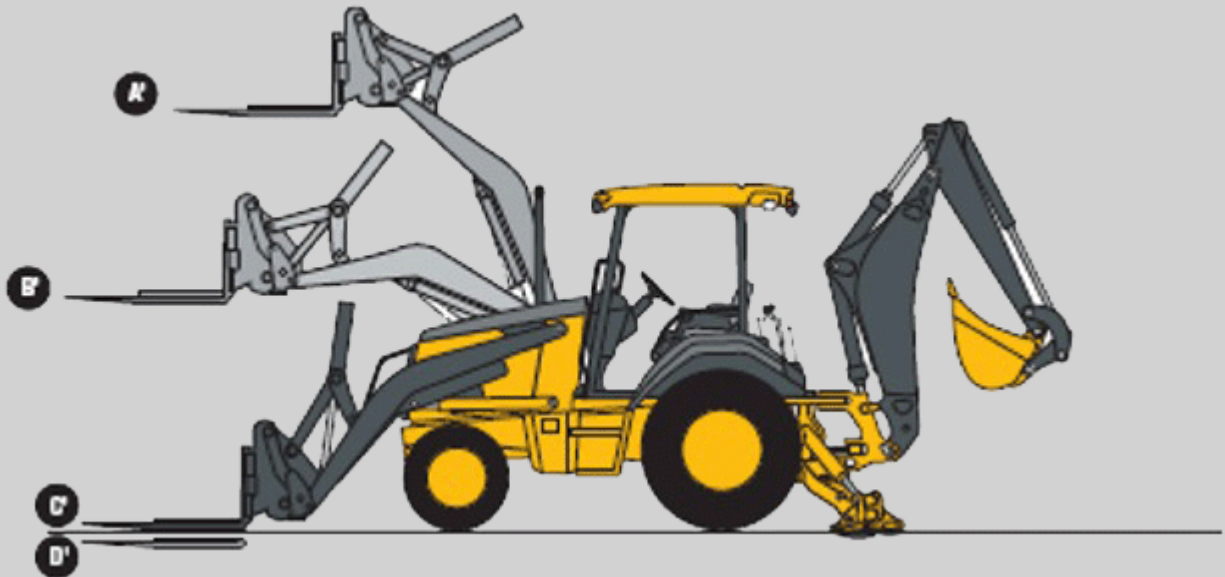
Digging Force	
Bucket Cylinder	11,106 lb. (49.4 kN)
Crowd Cylinder	7,006 lb. (31.2 kN)

	With Standard Backhoe	With Optional Extendable Dipperstick Retracted	With Optional Extendable Dipperstick Extended
F) Loading Height (truck loading position)	10 ft. 11 in. (3.33m)	11 ft. 1 in. (3.38 m)	13 ft. 11 in. (4.24 m)
G) Reach from Center of Swing Pivot	17 ft. 10 in. (5.44 m)	18 ft. 1 in. (5.51 m)	21 ft. 5 in. (6.53 m)
H) Reach from Center of Rear Axle	21 ft. 4 in. (6.50 m)	21 ft. 7 in. (6.58 m)	24 ft. 11 in. (7.59 m)
I) Digging Depth (SAE maximum)	14 ft. 3 in. (4.34 m)	14 ft. 5 in. (4.39 m)	17 ft. 11 in. (5.46 m)
J) Digging Depth (SAE) 2-ft. (610 mm) Flat Bottom 8-ft. (2440 mm) Flat Bottom	14 ft. 2 in. (4.32 m) 13 ft. (3.96 m)	14 ft. 4 in. (4.37 m) 13 ft. 4 in. (4.06 m)	17 ft. 10 in. (5.44 m) 17 ft. (5.18 m)
K) Stabilizer Width (transport with	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)

Rops)			
L) Stabilizer Spread (operating)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)
M) Stabilizer Overall Width (operating)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.35 m)	11 ft. 7 in. (3.53 m)
N) Bucket Rotation	190 deg.	190 deg.	190 deg.
O) Transport Height	11 ft. 3 in. (3.43 m)	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)

Loader Dimensions / Performance

P) Bucket Dump Angle (maximum)	45 deg.
Q) Rollback Angle at Ground Level	40 deg.
Bucket Capacity	Heavy-duty 1.12 cu. yd. (0.86 m ³) Bucket
Width	86 in. (2184 mm)
Weight	860 lb. (390 kg)
Breakout Force	8,600 lb. (38.3 kN)
Lift Capacity (full height)	6,150 lb. (2792 kg)
R) Height to Bucket Hinge Pin (maximum)	11 ft. 1 in. (3.38 m)
S) Dump Clearance (bucket at 45 deg.)	8 ft. 10 in. (2.69 m)
T) Reach at Full Height (bucket at 45 deg.)	30.2 in. (767 mm)
U) Digging Depth Below Ground (bucket level)	6.9 in. (175 mm)
V) Length from Front Axle Centerline to Bucket Cutting Edge	6 ft. 8 in. (2.03 m)



Lift Capacity with Quick-Coupler / Forks

A') Maximum Height	3,379 lb. (1533 kg)
B') Maximum Reach	5,235 lb. (2375 kg)
C') At Ground Line	6,825 lb. (3096 kg)
D') Below Ground Line	10.3 in (262 mm)