

410 P

Backhoe Loader



JOHN DEERE





READY TO RUN IN THE REAL WORLD

When owners and operators just like you — the people who know what customers need for their operations to succeed — weighed in on our latest backhoe loaders, we heeded the real-world feedback. You asked for one machine that capably completes the work of two. A powerful overachiever with outstanding loader performance, backhoe capability, and multifunction versatility. Featuring streamlined transitions between front loader and rear backhoe functionality. And packed with productivity-elevating options to match the application. The 410 P-Tier Backhoe is a standout multitasker ready to run — and get more done — in any corner of the working world.

410 P-TIER BACKHOE LOADER

FEATURES

Powerful engine technology

Rugged EPA Final Tier 4 (FT4)/EU Stage IV John Deere PowerTech™ EWL engine boosts power, torque, and reliability compared to previous models. Simple two-valve cylinder-head, wet-sleeve design with replaceable cylinder liners provides uniform cooling and aids in reducing oil breakdown and ring wear. Filters have been redesigned and relocated for easier servicing over earlier models.

Elevated experience

Pressure-compensated, load-sensing (PCLS) hydraulics provide excellent multifunctioning, smooth machine control, and up to 15-percent greater craning capacity when Lift Mode is engaged, collectively providing a distinctive operator experience and unmatched machine performance. Trenching operation can be conducted at a lower engine rpm, reducing fuel consumption and jobsite noise.

Forward thinking

When enabled on the 25-button sealed-switch module, AutoShift automatically shifts the PowerShift™ transmission to the appropriate gear. Simply set the control lever to the highest gear desired, and the transmission will optimally shift based on engine rpm and ground speed. Included in the base machine configuration, AutoShift enhances operator ease of use during extended transport or load-and-carry applications.

Always on the move

Limited-slip mechanical-front-wheel drive (MFWD) delivers sure-footed traction in any ground condition. Engage momentary MFWD “on the fly” with a touch of a button on the loader control.

Let there be (more) light

Optional LED 10-light package brightens darker jobsites. Optional four-corner, low-profile LED beacon system and field-kit boom light boost machine visibility to crew and bystanders.

Get set for a new view

Exclusive to the backhoe industry, our optional rearview camera system with a dedicated eight-inch touchscreen display allows the operator to “overlay the view” to virtually remove the rear machine structure.



EXCLUSIVE
REARVIEW CAMERA

It all looks good from here

Operator station is wider and features an updated HVAC system that outputs 10-percent more airflow compared to the previous model. Rear and side windows have been restyled for clear visibility. Appreciate the standard adjustable mechanical seat, or opt for an air-suspension or new premium heated and vented seat. Sealed-switch module now on the vertical cab post and eye-level fuel and temperature gauges ease operator awareness and navigation.

Control the ride and the load

Auto ride control eliminates the need to manually turn the feature on and off during load-and-carry applications, enhancing the operator's ease of use. When activated, front loader cylinders function as a shock absorber, smoothing the ride over rough terrain and reducing material spillage. On/Off functionality is controlled by ground speed and can be adjusted by the operator in the cab's display monitor.

Save fuel with economy mode

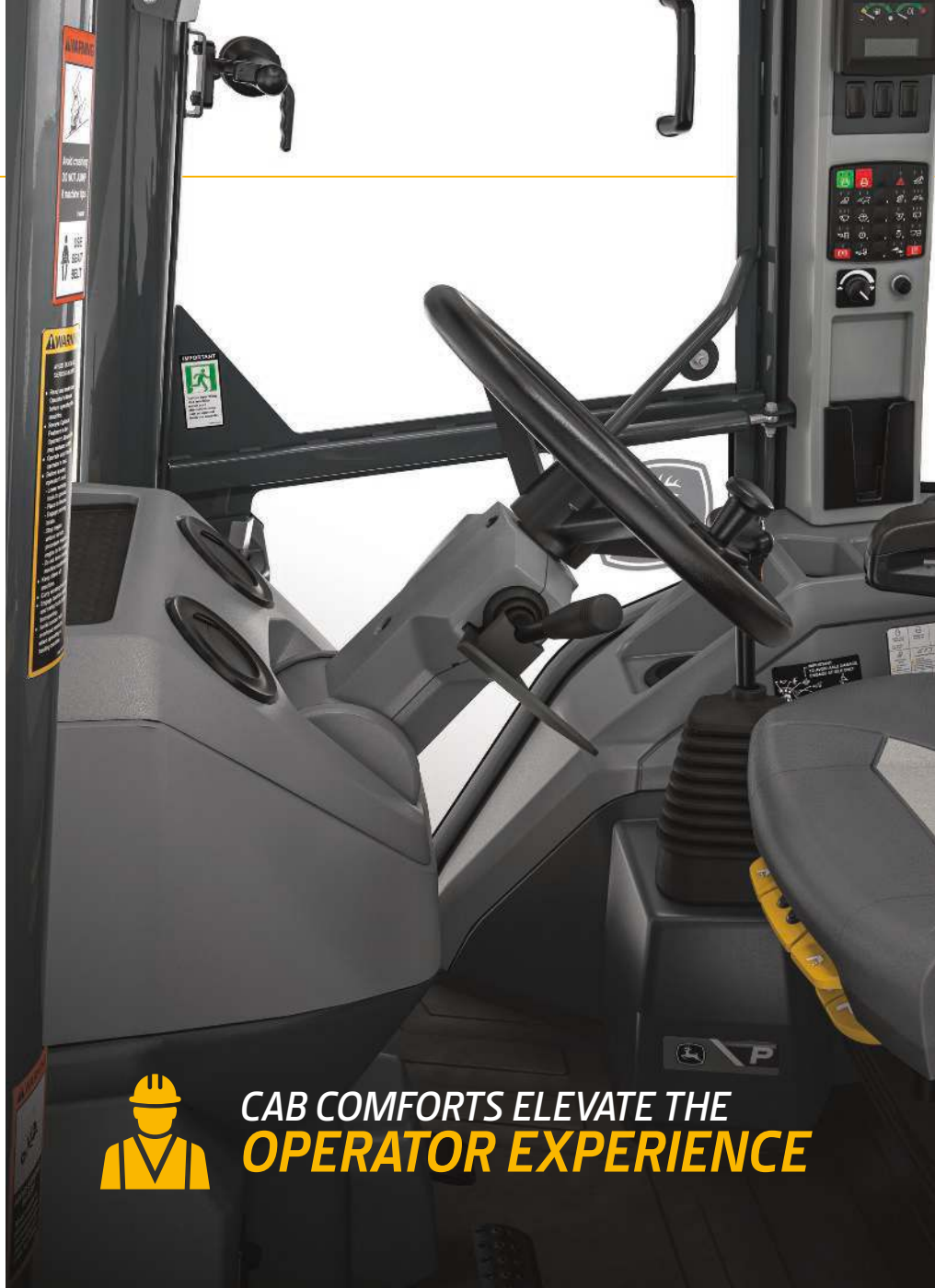
Standard economy mode can be configured separately between loader and backhoe functions. Activate economy mode for backhoe functions while retaining full power for loader functions. This helps maximize fuel usage in lighter-work applications with minimal effect on machine performance.

Take it easy

Highly populated "palm-on-top" loader-control grip is intuitive and easy to use.

Nice and precise

Standard precision mode reduces the speed of hydraulic backhoe functions without sacrificing lift capacity, for close work around underground utilities or jobsite obstacles, or when lifting — also useful for less experienced operators.



**CAB COMFORTS ELEVATE THE
OPERATOR EXPERIENCE**



410 P-TIER BACKHOE LOADER



Hit the ground running

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

Connected machines

John Deere construction equipment comes with in-base connectivity — free from subscriptions or annual renewals. Analyze critical machine data, track utilization, review diagnostic alerts, and more from **the John Deere Operations Center™**. The Operations Center also enables John Deere Connected Support™, which uses data from thousands of connected machines to proactively address issues before they arise. With your approval, your dealer can also remotely monitor machine health, diagnose problems, and even update machine software without a trip to the jobsite.*

*Availability varies by region and product. Options not available in every country.



410 P-TIER BACKHOE LOADER SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine		410 P-TIER	
Manufacturer and Model		John Deere PowerTech™ EWL 4.5L 4045HL052 turbocharged	
Non-Road Emission Standard		EPA Final Tier 4/EU Stage IV	
Displacement		4.5 L (276 cu. in.)	
Gross Peak Power		88 kW (118 hp) at 1,900 rpm	
Net Peak Power (ISO 9249)		87 kW (116 hp) at 1,900 rpm	
Net Peak Torque (ISO 9249)		459 Nm (338 lb.-ft.) at 1,600 rpm	
Net Torque Rise		26%	
Lubrication		Pressure system with spin-on filter and cooler	
Air Cleaner		Dual-stage dry type with safety element and evacuator valve	
Cooling			
Fan Type		Electronically controlled, variable-rate, suction-type cooling fan standard	
Engine Coolant Rating		-40 deg. C (-40 deg. F)	
Engine Oil Cooler		Oil to water	
Powertrain			
Transmission		5-speed, helical-cut gears, full PowerShift™ transmission with hydraulic reverser standard; electric clutch cutoff on loader lever; AutoShift transmission standard	
Torque Converter		Single stage, dual phase with 2.63:1 stall ratio, 280 mm (11 in.)	
PowerShift Standard Transmission			
Maximum Travel Speeds With Standard Engine and 21L-24 Rear Tires		<i>Forward</i>	<i>Reverse</i>
Gear 1		5.5 km/h (3.4 mph)	7.0 km/h (4.3 mph)
Gear 2		10.1 km/h (6.3 mph)	12.8 km/h (8.0 mph)
Gear 3		20.9 km/h (13.0 mph)	20.6 km/h (12.8 mph)
Gear 4		38.0 km/h (23.6 mph)	—
Gear 5		40.0 km/h (24.9 mph)	—
Axles			
Axle Oscillation, Stop to Stop, Front Axle		22 deg.	
Axle Ratings		<i>Front</i>	<i>Rear</i>
SAE J43		6500 kg (14,300 lb.)	7500 kg (16,500 lb.)
Dynamic		9000 kg (19,800 lb.)	10 000 kg (22,000 lb.)
Static		26 500 kg (58,400 lb.)	26 500 kg (58,400 lb.)
Ultimate		43 500 kg (95,900 lb.)	43 500 kg (95,900 lb.)
Differentials			
Mechanical-Front-Wheel-Drive (MFWD) Axle		Automatic, limited-slip traction control	
Rear Axle		Loader-grip actuated, hydraulically engaged 100% mechanical lock	
Steering (ISO 5010)		Hydrostatic power steering and emergency steering	
Axle		MFWD	
Curb-Turning Radius			
With Brakes		3.53 m (11 ft. 7 in.)	
Without Brakes		4.02 m (13 ft. 2 in.)	
Bucket-Clearance Circle			
With Brakes		10.31 m (33 ft. 10 in.)	
Without Brakes		11.04 m (36 ft. 3 in.)	
Steering Wheel Turns (lock to lock)		2.5 to 3.5	
MFWD Axle		Heavy duty, outboard planetary final drives distribute shock loads over 3 gears	
Rear Axle		Heavy duty, outboard planetary final drives distribute shock loads over 4 gears	
Brakes (ISO 3450)			
Service		Power assisted, hydraulic wet disc, mounted inboard, self-adjusting and self-equalizing	
Parking		Spring applied, hydraulically released, wet, multi-disc, independent of service brakes with electric switch control	

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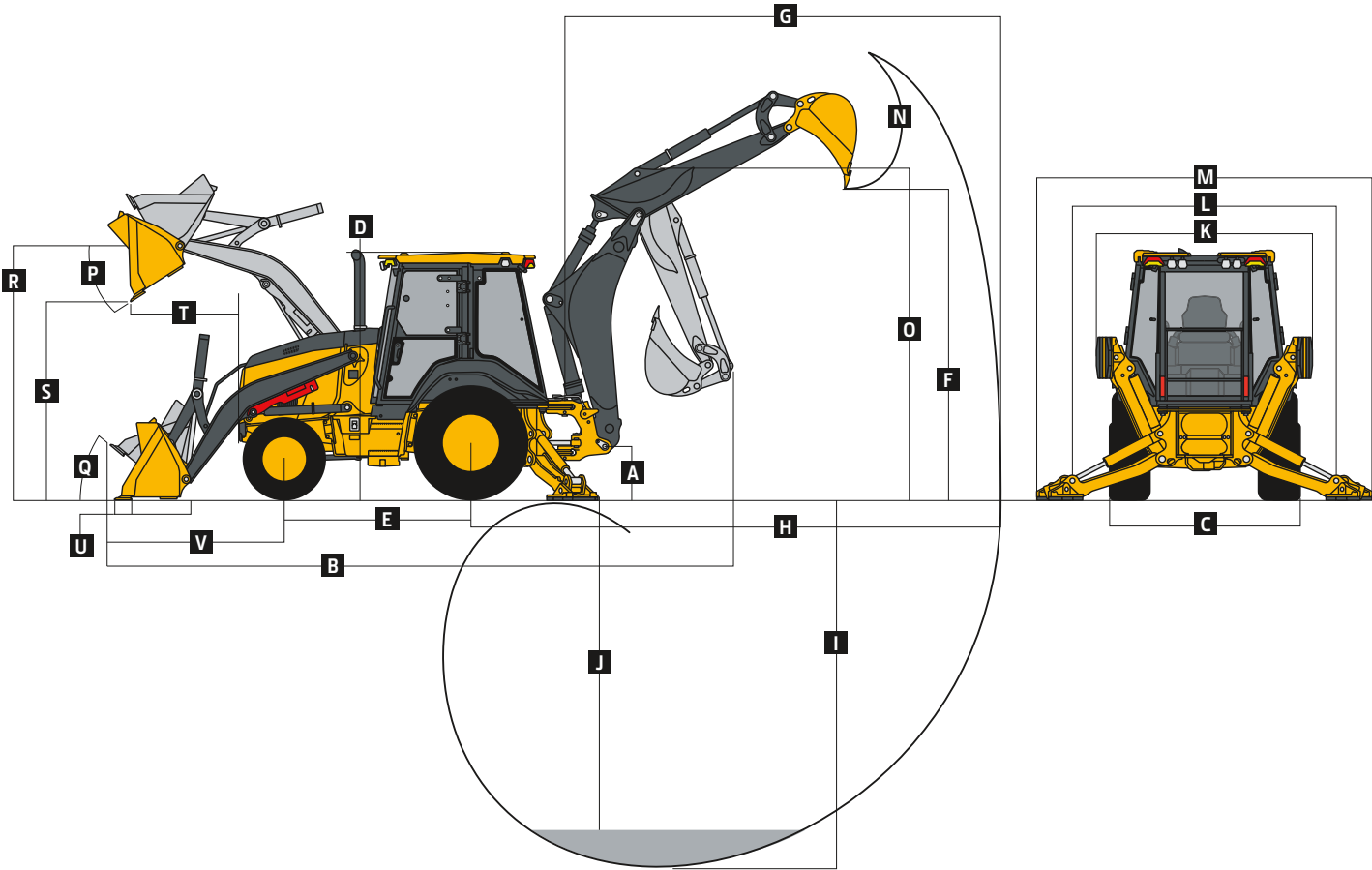
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Hydraulics		410 P-TIER	
Main Pump	Pressure compensated load sensing (PCLS), axial-piston pump		
Pump Flow at 2,200 rpm			
Backhoe	163 L/m (43 gpm)		
Loader	163 L/m (43 gpm)		
System Relief Pressure			
Backhoe	24 993 kPa (3,625 psi)		
Lift Mode	27 579 kPa (4,000 psi)		
Loader	24 993 kPa (3,625 psi)		
Controls			
Backhoe	Pilot controls with pattern select standard; electrohydraulic (EH) auxiliary functions optional		
Loader	Single-lever control with horn, rear differential lock, electric clutch cutoff switch, MFWD (momentary), and gear-selection buttons standard; single-lever control with horn, rear differential lock, electric clutch cutoff switch, MFWD (momentary), gear-selection buttons, and EH proportional auxiliary roller optional		
Cylinders			
Heat-treated, chrome-plated, polished rods; hardened steel (replaceable bushings) pivot pins			
	Bore	Rod Diameter	Stroke
Loader Boom (2)	80 mm (3.15 in.)	50 mm (1.97 in.)	790 mm (31.10 in.)
Loader Bucket (1)	90 mm (3.54 in.)	50 mm (1.97 in.)	744 mm (29.29 in.)
Backhoe Boom (1)	140 mm (5.51 in.)	70 mm (2.76 in.)	897 mm (35.31 in.)
Backhoe Crowd (1)	120 mm (4.72 in.)	63 mm (2.48 in.)	727 mm (28.62 in.)
Backhoe Bucket (1)	100 mm (3.94 in.)	63 mm (2.48 in.)	810 mm (31.89 in.)
Backhoe Swing (2)	90 mm (3.54 in.)	50 mm (1.97 in.)	278 mm (10.94 in.)
Backhoe Extendable Dipperstick (1)	80 mm (3.15 in.)	45 mm (1.77 in.)	1214 mm (47.78 in.)
Backhoe Stabilizer, Extended (2)	100 mm (3.94 in.)	50 mm (1.97 in.)	500 mm (19.69 in.)
MFWD (1)	65 mm (2.56 in.)	40 mm (1.57 in.)	210 mm (8.27 in.)
Electrical			
Voltage	12 volt		
Alternator Rating	145 amp		
Lights	10 halogen: 4 front, 4 rear, and 2 side docking (HB3 [high-beam] bulb); turn signals and flashers: 2 front and 2 rear; stop and taillights; and 2 rear reflectors; factory-installed option for 10 LED floodlights in lieu of standard halogen light package		
Operator Station			
Type (ISO 3471)	Fully enclosed cab, isolation mounted, ROPS/FOPS, left/right access, with molded roof; optional canopy		
Tires/Wheels			
	Front	Rear	
With MFWD	12.5/80-18 R4 (10)	21L-24 R4 (12)	
	340/80R18 XMCL	500/70R24 XMCL	
	340/80R18 550	500/70R24 550	
	340/80R18 580	500/70R24 580	
Serviceability			
Refill Capacities		Refill Capacities (continued)	
Cooling System		Fuel Tank (with ground-level fueling)	128.7 L (34.0 gal.)
Cab	27.5 L (29.1 qt.)	Diesel Exhaust Fluid (DEF) Tank	13.7 L (3.6 gal.)
Canopy	25.7 L (27.2 qt.)	Hydraulic System	138.9 L (36.7 gal.)
Rear Axle	18.0 L (19.0 qt.)	Hydraulic Reservoir	45.5 L (12.0 gal.)
Engine Oil (including vertical spin-on filter)	13.0 L (13.7 qt.)	MFWD Axle	
Torque Converter and Transmission	15.1 L (16.0 qt.)	Differential Housing	6.5 L (6.9 qt.)
		Planetary (each)	0.9 L (1.0 qt.)

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Operating Weights		410 P-TIER
ISO 6016 Operating Mass		8875 kg (19,566 lb.)
ISO 6016 Gross Machinery Mass		10 000 kg (22,046 lb.)
With Full Fuel Tank, 75-kg (165 lb.) Operator, Standard Equipment, Canopy, and 340-kg (750 lb.) Counterweight		8460 kg (18,651 lb.)
Typical With Cab, Extendable Dipperstick, and 567-kg (1,250 lb.) Counterweight		9291 kg (20,483 lb.)
Optional Components (weight difference between base equipment and option)		
Cab		336 kg (741 lb.)
Extendable Dipperstick		268 kg (591 lb.)
Front Loader Coupler		299 kg (659 lb.)
Backhoe Bucket Coupler		120 kg (265 lb.)
Overall Dimensions [see line art below]		
A	Ground Clearance, Minimum	329 mm (13 in.)
B	Overall Length, Transport	7.58 m (24 ft. 10 in.)
C	Width Over Tires	2.34 m (7 ft. 8 in.)
D	Height to Top of ROPS/Cab	2.89 m (9 ft. 6 in.)
E	Length From Axle to Axle, MFWD Axle	2.19 m (7 ft. 2 in.)

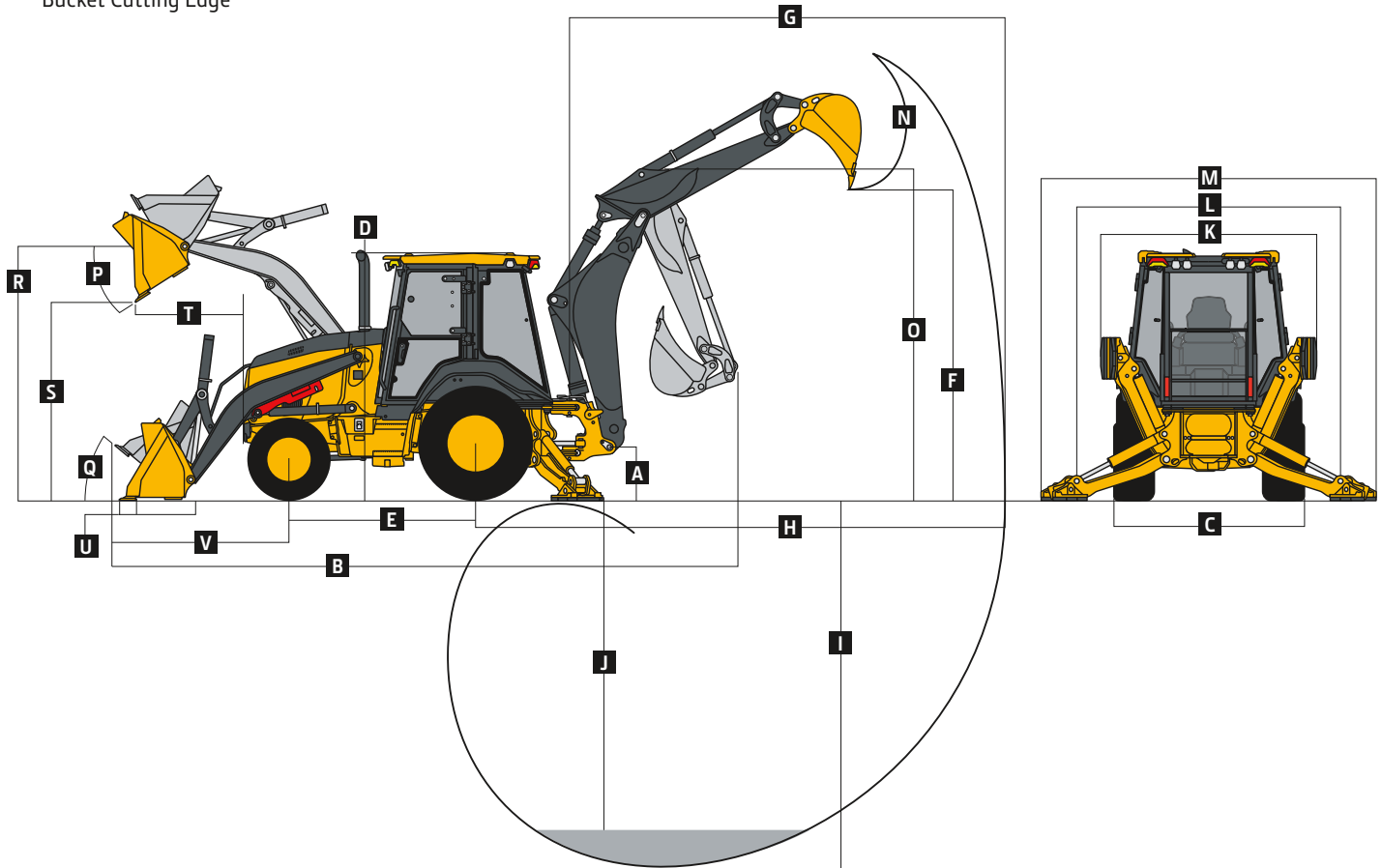


Backhoe Dimensions and Performance <i>[see line art below left]</i>			
410 P-TIER			
Backhoe specifications are with 610-mm x 0.21-m ³ (24 in. x 7.5 cu. ft.) bucket; dipper lift specs are with a boom angle of 60 deg.			
Bucket Range	305–610 mm (12–24 in.)		
Digging Force			
Bucket Cylinder	69.5 kN (15,618 lb.)		
Lift Mode	76.7 kN (17,234 lb.)		
Crowd Cylinder	44.0 kN (9,888 lb.)		
Lift Mode	48.5 kN (10,911 lb.)		
Swing Arc	180 deg.		
Operator Control	2 levers		
		With Optional Extendable Dipperstick	
		With Standard Backhoe	Retracted
			Extended
F Loading Height, Truck Loading Position	3.97 m (13 ft. 0 in.)	4.01 m (13 ft. 2 in.)	4.72 m (15 ft. 6 in.)
G Reach from Center of Swing Pivot	6.02 m (19 ft. 9 in.)	6.02 m (19 ft. 9 in.)	7.14 m (23 ft. 5 in.)
H Reach from Center of Rear Axle	7.14 m (23 ft. 5 in.)	7.14 m (23 ft. 5 in.)	8.26 m (27 ft. 1 in.)
I Digging Depth (SAE maximum)	4.85 m (15 ft. 11 in.)	4.85 m (15 ft. 11 in.)	6.01 m (19 ft. 9 in.)
J Digging Depth (SAE)			
610-mm (2 ft.) Flat Bottom	4.81 m (15 ft. 9 in.)	4.81 m (15 ft. 9 in.)	5.98 m (19 ft. 7 in.)
2440-mm (8 ft.) Flat Bottom	4.49 m (14 ft. 9 in.)	4.49 m (14 ft. 9 in.)	5.75 m (18 ft. 10 in.)
K Stabilizer Width, Transport, With Stabilizer Pads and No Guards	2.42 m (7 ft. 11 in.)	2.42 m (7 ft. 11 in.)	2.42 m (7 ft. 11 in.)
L Stabilizer Spread, Operating	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)	3.45 m (11 ft. 4 in.)
M Stabilizer Overall Width, Operating	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)	4.03 m (13 ft. 3 in.)
N Bucket Rotation	190 deg.	190 deg.	190 deg.
O Transport Height	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)
Loader Dimensions and Performance <i>[see line art at left]</i>			
P Bucket Dump Angle, Maximum	45 deg.		
Q Rollback Angle at Ground Level	40 deg.		

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Loader Dimensions and Performance (continued) [see line art below]			
	410 P-TIER		
	General-purpose	General-purpose	Multipurpose
Bucket Capacity	1.06 m ³ (1.39 cu. yd.)	1.15 m ³ (1.50 cu. yd.)	1.01 m ³ (1.32 cu. yd.)
Width	2346 mm (92 in.)	2394 mm (94 in.)	2346 mm (92 in.)
Weight	521 kg (1,148 lb.)	548 kg (1,208 lb.)	921 kg (2,030 lb.)
Breakout Force	47.4 kN (10,648 lb.)	46.0 kN (10,332 lb.)	43.3 kN (9,737 lb.)
Lift Capacity, Full Height	3463 kg (7,635 lb.)	3336 kg (7,355 lb.)	2914 kg (6,424 lb.)
R Height to Bucket Hinge Pin, Maximum	3.47 m (11 ft. 4 in.)	3.47 m (11 ft. 4 in.)	3.47 m (11 ft. 4 in.)
S Dump Clearance, Bucket at 45 deg.	2.70 m (8 ft. 10 in.)	2.66 m (8 ft. 9 in.)	2.67 m (8 ft. 9 in.)
T Reach at Full Height, Bucket at 45 deg.	785 mm (30.9 in.)	826 mm (32.5 in.)	826 mm (32.5 in.)
U Digging Depth Below Ground, Bucket Level	134 mm (5.3 in.)	134 mm (5.3 in.)	130 mm (5.1 in.)
V Length From Front Axle Centerline to Bucket Cutting Edge	2.03 m (6 ft. 8 in.)	2.09 m (6 ft. 10 in.)	2.08 m (6 ft. 10 in.)



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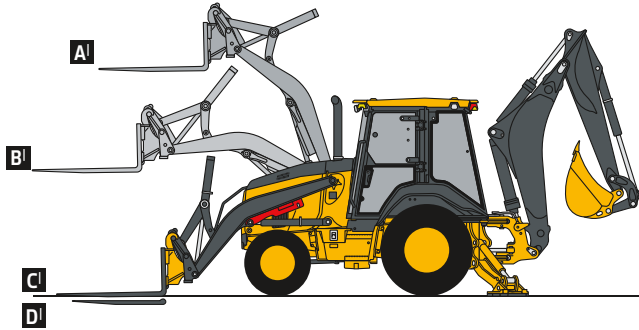
410 P-TIER

Lift Capacity With Quick-Coupler Forks

[see line art below center]

410 P-TIER

Hydraulic Capacity		1219-mm (48 in.) Tines	1524-mm (60 in.) Tines
A ¹	Maximum Height	2052 kg (4,524 lb.)	1902 kg (4,193 lb.)
B ¹	Maximum Reach	3167 kg (6,982 lb.)	2995 kg (6,604 lb.)
C ¹	At Ground Line	4123 kg (9,090 lb.)	3891 kg (8,578 lb.)
D ¹	Below Ground Line	156 mm (6.2 in.)	156 mm (6.2 in.)

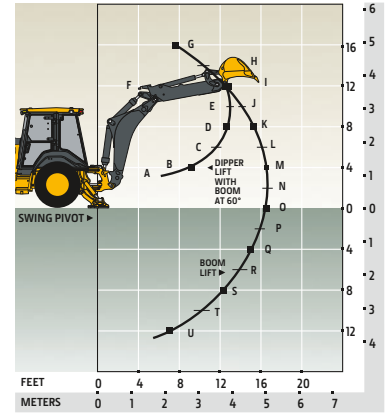


Lift Capacities [see line art at right]

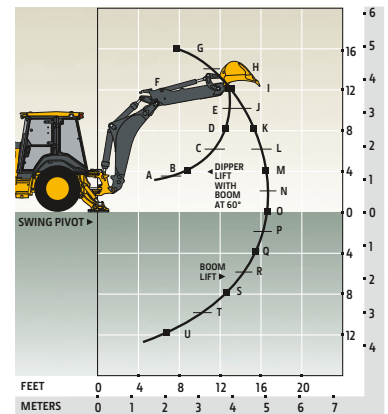
Lift capacities are over-end values in kg (lb.). Figures listed are 100% of the maximum lift force available.

With Standard Dipperstick		With 1.21-m (4 ft. 0 in.) Extendable Dipperstick, Retracted		With 1.21-m (4 ft. 0 in.) Extendable Dipperstick, Extended	
Standard Lift	Lift Mode	Standard Lift	Lift Mode	Standard Lift	Lift Mode
A	7759 kg (17,107 lb.)	7759 kg (17,107 lb.)	7544 kg (16,632 lb.)	4970 kg (10,957 lb.)	5355 kg (11,806 lb.)
B	6052 kg (13,342 lb.)	6052 kg (13,342 lb.)	5858 kg (12,915 lb.)	3153 kg (6,952 lb.)	3505 kg (7,726 lb.)
C	4479 kg (9,875 lb.)	4479 kg (9,875 lb.)	4305 kg (9,491 lb.)	2741 kg (6,043 lb.)	3049 kg (6,721 lb.)
D	4034 kg (8,893 lb.)	4034 kg (8,893 lb.)	3865 kg (8,520 lb.)	2526 kg (5,569 lb.)	2811 kg (6,197 lb.)
E	3754 kg (8,276 lb.)	3909 kg (8,618 lb.)	3639 kg (8,023 lb.)	3741 kg (8,247 lb.)	2371 kg (5,226 lb.)
F	3314 kg (7,306 lb.)	3672 kg (8,095 lb.)	3198 kg (7,051 lb.)	3556 kg (7,839 lb.)	2224 kg (4,904 lb.)
G	1649 kg (3,636 lb.)	1836 kg (4,048 lb.)	1502 kg (3,312 lb.)	1689 kg (3,724 lb.)	2050 kg (4,519 lb.)
H	2135 kg (4,707 lb.)	2384 kg (5,256 lb.)	1969 kg (4,340 lb.)	2218 kg (4,890 lb.)	1801 kg (3,970 lb.)
I	2262 kg (4,988 lb.)	2530 kg (5,577 lb.)	2088 kg (4,604 lb.)	2355 kg (5,193 lb.)	1108 kg (2,442 lb.)
J	2298 kg (5,066 lb.)	2572 kg (5,670 lb.)	2119 kg (4,671 lb.)	2393 kg (5,275 lb.)	1374 kg (3,030 lb.)
K	2297 kg (5,063 lb.)	2573 kg (5,672 lb.)	2114 kg (4,660 lb.)	2390 kg (5,269 lb.)	1499 kg (3,305 lb.)
L	2279 kg (5,024 lb.)	2555 kg (5,633 lb.)	2093 kg (4,614 lb.)	2369 kg (5,223 lb.)	1565 kg (3,450 lb.)
M	2254 kg (4,969 lb.)	2529 kg (5,576 lb.)	2065 kg (4,552 lb.)	2340 kg (5,160 lb.)	1600 kg (3,527 lb.)
N	2227 kg (4,909 lb.)	2501 kg (5,514 lb.)	2035 kg (4,487 lb.)	2309 kg (5,091 lb.)	1617 kg (3,566 lb.)
O	2201 kg (4,852 lb.)	2474 kg (5,455 lb.)	2007 kg (4,424 lb.)	2280 kg (5,026 lb.)	1625 kg (3,582 lb.)
P	2179 kg (4,804 lb.)	2452 kg (5,406 lb.)	1982 kg (4,369 lb.)	2255 kg (4,971 lb.)	1626 kg (3,585 lb.)
Q	2165 kg (4,772 lb.)	2438 kg (5,375 lb.)	1964 kg (4,330 lb.)	2238 kg (4,933 lb.)	1625 kg (3,582 lb.)
R	2163 kg (4,768 lb.)	2438 kg (5,375 lb.)	1958 kg (4,317 lb.)	2234 kg (4,925 lb.)	1622 kg (3,576 lb.)
S	2184 kg (4,814 lb.)	2465 kg (5,434 lb.)	1974 kg (4,351 lb.)	2255 kg (4,971 lb.)	1620 kg (3,572 lb.)
T	2260 kg (4,983 lb.)	2555 kg (5,632 lb.)	2041 kg (4,500 lb.)	2336 kg (5,150 lb.)	1622 kg (3,575 lb.)
U	2594 kg (5,718 lb.)	2938 kg (6,478 lb.)	2349 kg (5,179 lb.)	2694 kg (5,939 lb.)	1628 kg (3,589 lb.)
V	—	—	—	—	1643 kg (3,622 lb.)
W	—	—	—	—	1674 kg (3,690 lb.)
X	—	—	—	—	1735 kg (3,825 lb.)
Y	—	—	—	—	1878 kg (4,140 lb.)
Z	—	—	—	—	2511 kg (5,535 lb.)

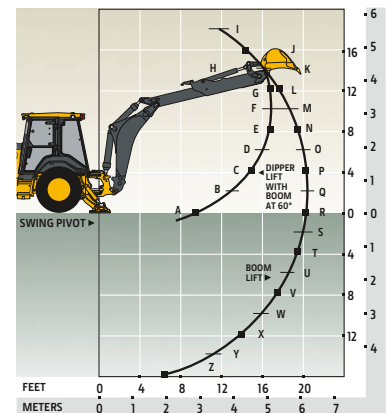
Lift capacities are over end with stabilizers down and tires tangent to ground.



With Standard Dipperstick



With Extendable Dipperstick, Retracted



With Extendable Dipperstick, Extended

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. 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 a unit with 21L-24-in. 12PR (R4) tubeless rear and 12.5/80-18 10PR (R4) front tires, and 1.15-m³ (1.5 cu. yd.) loader bucket.




MB410PBU (25-06)



JOHN DEERE