

K-SERIES
CRAWLER DOZERS



JOHN DEERE

450K / 550K / 650K



TRIED AND
TESTED



RELIABLE

+



PRODUCTIVE



MORE POWER



DEERE

TO YOU.



HEARING IS BELIEVING.

When customers talk, we listen. And when we designed our K-Series Dozers, we heard some great input. Your ideas resulted in the 450K that's 16-percent more powerful than its predecessor. Eco mode that regulates engine rpm and the hydrostatic transmission to burn up to 20-percent less fuel than previous models. Total Machine Control for customizable control of a variety of machine functions. And an optional Slope Control system that helps operators create slopes and pads with ease. We believe you'll recognize a lot to like in these proven machines.

WORKDAY WARRIORS

BEEN THERE, DONE THAT.

John Deere 450K, 550K, and 650K Dozers have a wealth of experience out in the real world. Whether your work is in road-building, construction, mining, or land clearing, these material masters are equipped to help you get some real work done.



**OPTIONAL
SLOPE CONTROL
REDUCES GRADING
EFFORT**

Go with the flow

Generous hydraulic flow and precise metering deliver quick and powerful blade response while enabling the natural “feel” that makes the most of an operator’s grading ability.

Get good grades

Unlike traditional masted after-market grade-control systems that can be prone to theft, damage, and complicated installation, the purpose-built John Deere 650K SmartGrade™ Dozer combines powerful mastless technology with our track load-sensing system. This highly productive crawler features a fully integrated grade-control system that’s easy to set up and run. And it’s backed by the Deere dealer network.

Fuel saver

Standard Eco mode maximizes fuel usage by up to 20 percent compared to conventional torque-converter transmissions, automatically adjusting engine rpm and powertrain settings based on load, without loss of performance.

Engine tech

EPA Final Tier 4 (FT4)/EU Stage IV diesels meet emission regulations without loss of power or torque. Four-valve head delivers increased intake-air and exhaust-gas flow for each wet-sleeve cylinder, for long-lasting performance.

Slope control

Optional Slope Control system provides simple-to-use grade control that allows operators to set a desired slope and hold grade through changes in existing terrain. It helps both new and veteran operators hold grade with less effort and without needing an external elevation reference.

Shake it off

On electrohydraulic (EH)-equipped machines, the blade-shake feature for Power-Angle-Tilt (PAT) blades automatically shakes off dirt at the touch of a button.



**BLADE SHAKE
REMOVES DEBRIS**

(FOR PAT BLADES ON EH-EQUIPPED MACHINES)



STANDOUT FEATURE



***DOWN
TO EARTH.***



**COUNTER-ROTATION
ENABLES
ON-THE-GO BLADE
REPOSITIONING**

POWERFUL PRODUCTIVITY

STILL PUSHING THE ENVELOPE.

Power turns. Counter-rotating tracks. Power management. Infinitely variable travel speeds. John Deere has been introducing productivity-boosting advantages on our crawler dozers for decades. Our 450K, 550K, and 650K are loaded with performance enhancements, including Eco mode and Total Machine Control (TMC).

Fundamentals of management

Simply set maximum desired ground speed and the power-management system automatically maintains peak engine rpm and power efficiency without stalling or shifting.

Turn, turn, turn

Counter-rotation boosts productivity by enabling an operator to overcome heavy corner loads and quickly reposition the blade on the go. Provides space-saving spot turns, too.

Take control

TMC enables an operator to customize control of decelerator mode and response, forward/reverse ground speed, steering modulation, and forward/reverse speed ratios, and even record machine usage.

Infinite flexibility

Infinitely variable range to 6.0 mph allows total flexibility to match ground speed to the load. Travel can also be varied to fit specific applications, terrain conditions, or operating preferences — and even limited to maximize undercarriage life.

Jack of all grades

When you order your dozer with electrohydraulic (EH) controls, it's grade-control ready, giving you the ability to add the grade-control system of your choice. Options such as Slope Control (on all K-Series models) and SmartGrade (on the 650K) provide in-depth factory integration and are supported by your John Deere dealer.





ON THE JOB AND IN THE ZONE

GET DOWN TO BUSINESS.

You can almost feel fatigue fade inside the roomy, well-appointed cab of a 450K, 550K, or 650K. With their range of customer-inspired amenities, these dozers go quietly about the business of helping operators be comfortably productive.



**CAB-FORWARD
DESIGN EXPANDS
VISIBILITY**



Forward outlook

Cab-forward design allows a commanding view behind, below, and beyond the blade. Side and rear visibility from inside the cab is open to the surrounding jobsite.

Raise the bar

Optional electrohydraulic (EH) controls significantly improve blade response, including increased hydraulic-pump capacity on the 450K that enables 50-percent greater blade-raise performance.

At your fingertips

Sealed-switch module (SSM) allows low-effort control of keyless start and enables exclusive features such as turbocharger cool-down, auto shutdown, and Eco mode. Touchpad security system requires a numeric pass code (when activated) to help prevent unauthorized machine operation.

Making slopes simple

Optional Slope Control system includes a deluxe LCD color monitor that gives a real-time display of mainfall and cross-slope information, allowing operators to set desired slopes, put the system in automatic, and let it do the work.

Let the light shine

Opt for the 360-degree lighting package to extend your workday beyond daylight.



ECO MODE OPTIMIZES FUEL ECONOMY

BY UP TO 20% (DEPENDING ON APPLICATION)



Let's be direct

Direct-drive fan on the 450K and 550K spins up to full speed whenever the engine moves to wide-open throttle. Variable-speed fan on the 650K includes an optional reversing feature that runs only as needed to provide efficient cooling, contain noise, and conserve fuel.

Power down

Exclusive turbo cool-down increases durability by allowing the engine to idle momentarily prior to shutting down. Auto shutdown turns the engine off after an operator-determined period of machine inactivity, saving warranty hours and fuel.

Economy is key

Eco mode automatically adjusts engine rpm and hydrostatic (HST) transmission settings based on load while maintaining ground speed, to help optimize fuel economy as much as 20 percent compared to conventional torque-converter transmissions.

Keep your cool

Transmission temperature is constantly monitored to protect the HST system. If temps get too hot or too cold, a warning light illuminates, and transmission and engine speed are automatically derated to prevent system damage.

Maximum benefit

Heavy-duty sealed and lubricated undercarriage is built to keep these machines in the field. Available Maximum Life Undercarriage delivers up to twice the bushing life, for extra durability in extremely abrasive conditions. To further reduce maintenance and operating costs, contact your John Deere dealer about our undercarriage wear-assurance programs.



*EXTEND BUSHING
LIFE WITH MAXIMUM
LIFE UNDERCARRIAGE
(OPTIONAL)*

BUILT TO TAKE IT ON

RUGGED AND RELIABLE.

Tough conditions call for strong solutions. Our K-Series Dozers are built to tackle some of the most difficult applications you can put in front of them. When you know how they're built, you'll see what they can do for your operation.

MORE UPTIME, LESS UPKEEP

WE'RE OPEN-MINDED ABOUT EASY MAINTENANCE.

Fluid assets

Available quick fluid-evacuation system helps speed servicing. 500-hour engine oil and 2,000-hour transmission and hydraulic fluid intervals decrease maintenance downtime and expense.

Idle awhile

Auto-idle decreases engine speed when the dozer is not moving, to help maintain quiet working conditions and conserve precious fuel. Operators can program auto-idle to activate in increments from as soon as five seconds up to 15 minutes.

Simplify service

Serviceability improvements on the 550K and 650K over previous models include new composite fuel tank, redesigned diagnostic lines with pressure sensors, and John Deere transmission control unit software.

Get the message

Exhaust filter operation and status are indicated with on-screen displays and icons. Diagnostic monitor also provides easy-to-understand messages that help speed troubleshooting.



Get valuable insight with

PRECISION CONSTRUCTION

This suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. The in-base JDLink™ subscription provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. Other productivity solutions include grade-management options for multiple machine forms and payload weighing for wheel loaders and articulated dump trucks.

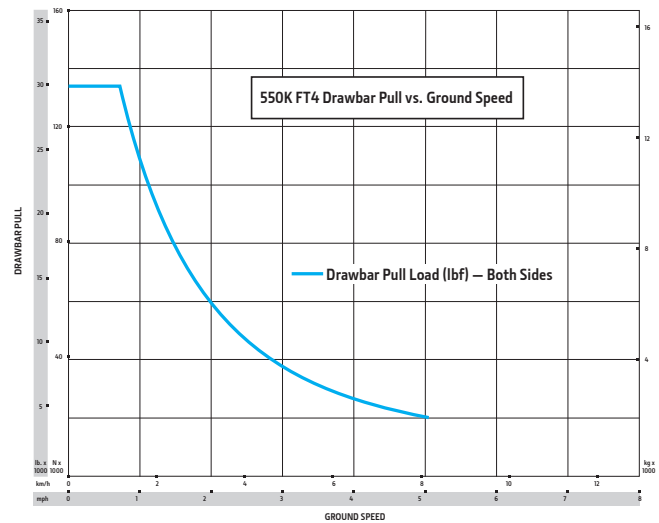
To maximize uptime and lower costs, JDLink also enables **John Deere Connected Support™**. John Deere's centralized Machine Health Monitoring Center analyzes data from thousands of connected machines, identifies trends, and develops recommended actions, called Expert Alerts, to help prevent downtime. Dealers use Expert Alerts to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.





550K SPECIFICATIONS

Engine	550K / 550K LGP
Blade Type	Power-Angle-Tilt (PAT)
Manufacturer and Model	John Deere PowerTech™ PWS 4045
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV
Displacement	4.5L (276 cu. in.)
SAE Net Rated Power	69 kW (92 hp) at 2,200 rpm
Net Peak Torque	420 Nm (310 ft.-lb.) at 1,400 rpm
Aspiration	Turbocharged with charge-air cooler
Air Cleaner	Dual-stage dry tube with tangential unloader
Cooling	
Type	Blower-type, direct-drive cooling fan
Engine Coolant Rating	-37 deg. C. (-34 deg. F)
Engine Radiator	8.47 fins per in.
Powertrain	
Transmission	Automatic, dual-path, hydrostatic (HST) drive; load-sensing feature automatically adjusts speed and power to match changing load conditions; each individually controlled track is powered by a variable-displacement piston pump and variable-displacement motor combination; ground-speed selection buttons on single-lever steering and direction control; independently selectable reverse speed ratios of 100%, 115%, or 130% of forward ground speed; decelerator pedal controls ground speed to stop
System Relief Pressure	38 741 kPa (5,619 psi)
Travel Speeds	
Forward and Reverse	8.0 km/h (5.0 mph)
Maximum (optional)	9.7 km/h (6.0 mph)
Steering	Single-lever steering, direction control, and counter-rotation; full power turns and infinitely variable track speeds provide unlimited maneuverability and optimum control; HST steering eliminates steering clutches and brakes
Final Drives	Triple-reduction final drives mounted independently of track frames and dozer push frames for isolation from shock loads
Total Ratio	48.4 to 1
Drawbar Pull	
Maximum	134 kN (30,000 lb.)
At 1.9 km/h (1.2 mph)	94 kN (21,100 lb.)
At 3.2 km/h (2.0 mph)	58 kN (13,100 lb.)
Brakes	
Service	HST (dynamic) braking stops the machine when the direction/steering control lever is moved to neutral or the decelerator is depressed to the detent
Parking	Exclusive spring-applied, hydraulically released park-brake feature engages wet, multiple-disc brakes automatically whenever the engine stops, the operator depresses the decelerator pedal to the brake position, the unit is in neutral for 3 seconds (with detected motion), or the park-lock lever is in the park position; machine cannot be driven with brake applied, minimizing wearout or need for adjustment
Hydraulics	
Type	Open-center hydraulic system with fixed-displacement gear pump
Pump Displacement	36.4 cc
System Relief Pressure	20 684 kPa (3,000 psi)
Maximum Flow at Unloaded High Idle	80 L/m (21 gpm)
Control	3-function direct-acting T-bar joystick with push-button angle function



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550K

SPECIFICATIONS

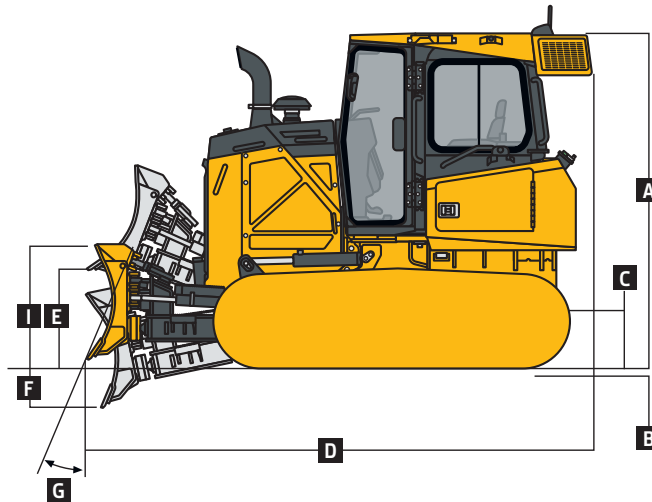


Electrical	550K / 550K LGP	
Blade Type	PAT	
Voltage	24 volts	
Capacity		
Battery	950 CCA	
Reserve	190 min.	
Alternator Rating		
Cab	100 amp	
Canopy	100 amp	
Lights	Grille mounted (2), rear mounted (2), and rear reflectors (2)	
Undercarriage	550K	550K LGP
Tracks	John Deere DuraTrax™ features large deep-heat-treated components; pins and bushings are sealed for life; rollers and idlers are permanently sealed and lubricated; full-length track-frame covers reduce material buildup and ease cleaning	
Track Gauge	1549 mm (61 in.)	1753 mm (69 in.)
Grouser Width	457 mm (18 in.)	610 mm (24 in.)
Chain	Sealed and lubricated	Sealed and lubricated
Shoes, Each Side	40 standard and Extended Life / 37 Maximum Life	40 standard and Extended Life / 37 Maximum Life
Track Rollers, Each Side	6	6
Track Length on Ground	2184 mm (86 in.)	2184 mm (86 in.)
Ground Contact Area	19 974 cm ² (3,096 sq. in.)	26 632 cm ² (4,128 sq. in.)
Ground Pressure	44.1 kPa (6.4 psi)	35.2 kPa (5.1 psi)
Track Pitch	160 mm (6.3 in.) standard and Extended Life / 171 mm (6.7 in.) Maximum Life	
Operator Station	550K / 550K LGP	
	ROPS (ISO 3471 – 2008) and FOPS (ISO 3449 – 2005)	
Serviceability		
Refill Capacities		
Fuel Tank With Lockable Cap	202 L (53.45 gal.)	
Diesel Exhaust Fluid (DEF) Tank	11.8 L (3.1 gal.)	
Cooling System With Recovery Tank	21.1 L (5.6 gal.)	
Engine Oil With Filter	19 L (20 qt.)	
Hydraulic/HST Oil (common reservoir)	100 L (26.42 gal.)	
With Filters		
Final Drive (per tractor)	17 L (4.6 gal.)	
Operating Weights	550K	550K LGP
<i>Base Weight (with standard equipment, rollover protective structure [ROPS], full fuel tank, and 79-kg [175 lb.] operator)</i>	8981 kg (19,758 lb.)	9544 kg (21,000 lb.)
Optional Components		
Cab With Pressurizer and Heater/ Air Conditioner	306 kg (675 lb.)	306 kg (675 lb.)
ROPS Canopy, Heater	39 kg (85 lb.)	39 kg (85 lb.)
ROPS Canopy and Cab		
Front and Door Screens	81 kg (179 lb.)	81 kg (179 lb.)
Rear Screen	34 kg (76 lb.)	34 kg (76 lb.)
Side Screens	43 kg (94 lb.)	43 kg (94 lb.)
Limb Risers (ROPS canopy and cab)	95 kg (209 lb.)	95 kg (209 lb.)
Counterweight		
Front	109 kg (240 lb.)	109 kg (240 lb.)
Rear	150 kg (330 lb.)	150 kg (330 lb.)
Retrieval Hitch	23 kg (50 lb.)	23 kg (50 lb.)
Drawbar, Extended Rigid	33 kg (72 lb.)	33 kg (72 lb.)
Winch	652 kg (1,437 lb.)	652 kg (1,437 lb.)
Fairlead, 4 Roller	85 kg (187 lb.)	85 kg (187 lb.)
Full-Length Rock Guards	128 kg (282 lb.)	128 kg (282 lb.)
Maximum Life Undercarriage	258 kg (569 lb.)	258 kg (569 lb.)
Track Shoes		
457 mm (18 in.)	In base	—
610 mm (24 in.)	—	In base

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550K

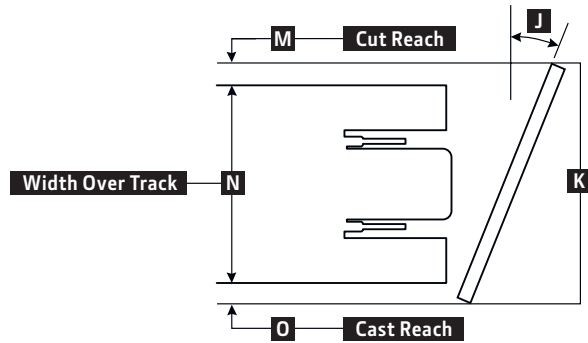
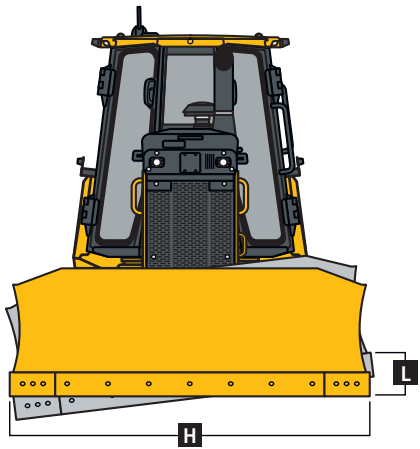
Machine Dimensions	550K / 550K LGP
Blade Type <i>Power-Angle-Tilt (PAT)</i>	
A Overall Height to Roof	2799 mm (9 ft. 2 in.)
B Tread Depth With Single-Bar Grouser	49 mm (1.9 in.)
C Ground Clearance in Dirt	329 mm (13 in.)
D Overall Length	4016 mm (158 in.) (13 ft. 2 in.)
E Blade Lift Height	772 mm (30.4 in.)
F Blade Digging Depth	523 mm (20.6 in.)
G Blade Cutting-Edge Angle, Adjustable	52 to 60 deg.



550K / 550K LGP WITH POWER-ANGLE-TILT (PAT) BLADE

Machine Dimensions (continued)	550K	550K LGP
Straight		
H Blade Width	2667 mm (105 in.) (8 ft. 9 in.)	2921 mm (115 in.) (9 ft. 7 in.)
I Blade Height	955 mm (3 ft. 2 in.)	955 mm (3 ft. 2 in.)
SAE Capacity	1.8 m ³ (2.4 cu. yd.)	2.0 m ³ (2.6 cu. yd.)
Weight	603 kg (1,330 lb.)	628 kg (1,385 lb.)
C-Frame Assembly Weight (without blade)	399 kg (879 lb.)	399 kg (879 lb.)
J Blade Angle	22.2 deg.	22.2 deg.
K Overall Width With Blade Angled	2469 mm (8 ft. 1 in.)	2705 mm (8 ft. 11 in.)
L Blade Tilt (uses tilt jack)	363 mm (14.3 in.)	399 mm (15.7 in.)
M Cut Reach	117 mm (4.6 in.)	56 mm (2.2 in.)
N Width Over Track	2007 mm (6 ft. 7 in.)	2362 mm (7 ft. 9 in.)
O Cast Reach	345 mm (18.3 in.)	287 mm (11.0 in.)
Straight (option)		
H Blade Width	2921 mm (115 in.) (9 ft. 7 in.)	3150 mm (124 in.) (10 ft. 4 in.)
I Blade Height	955 mm (3 ft. 2 in.)	894 mm (35 in.)
SAE Capacity	2.0 m ³ (2.6 cu. yd.)	1.9 m ³ (2.5 cu. yd.)
Weight	628 kg (1,385 lb.)	631 kg (1,391 lb.)
C-Frame Assembly Weight (without blade)	399 kg (879 lb.)	399 kg (879 lb.)
J Blade Angle	22.2 deg.	22.2 deg.
K Overall Width With Blade Angled	2705 mm (8 ft. 11 in.)	2916 mm (9 ft. 7 in.)
L Blade Tilt (uses tilt jack)	399 mm (15.7 in.)	429 mm (16.9 in.)
M Cut Reach	234 mm (9.2 in.)	163 mm (6.4 in.)
N Width Over Track	2007 mm (6 ft. 7 in.)	2464 mm (8 ft. 1 in.)
O Cast Reach	465 mm (18.3 in.)	391 mm (15.4 in.)

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Rear Ripper 550K / 550K LGP

Blade Type PAT

Multi-shank parallelogram ripper with 5 pockets and 3 shanks

Weight 981 kg (2,163 lb.)

P Maximum Penetration 508 mm (20 in.)

Q Maximum Clearance Under Tip 508 mm (20 in.)

R Overall Length, Lowered Position 1450 mm (57 in.) (4 ft. 9 in.)

R^l Overall Length, Raised Position 1015 mm (40 in.) (3 ft. 4 in.)

S Overall Beam Width 1830 mm (6 ft. 0 in.)

T Slope Angle (full raise) 40 deg.

U Ripping Width 1670 mm (5 ft. 6 in.)

V Distance Between Shanks 806 mm (32 in.)

