

450J DOZER

52 kW (70 hp)



JOHN DEERE





Push productivity to the next level.

Often imitated but never duplicated, our 450J Dozer continues to set the standard for operator control and productivity. Backed by 30-plus years of hydrostatic experience, its unique state-of-the-art Total Machine Control (TMC) enables an operator to customize machine operation and response to personal preferences. Coupled with an uncommonly smooth full-featured hydrostatic transmission, the 450J delivers unsurpassed productivity, uptime, and daily operating costs. That's for starters. Read on and learn more about all of the 450J's many productivity- and uptime-boosting advantages.



Total Machine Control enables an operator to customize the crawler's operating characteristics and response, and even records machine usage.

Decelerator lets you choose between slowing travel speed and engine rpm, or travel speed only. For unparalleled low-effort toe-tip control.

Extended service intervals, large fuel tank, remote test ports, and diagnostic messaging help maximize uptime and productivity.

EPA Interim Tier 4/EU Stage IIIB John Deere diesel engine delivers power without compromise in all conditions.

Operator-favorite speed-in-grip steering and transmission control lever and rotary throttle are standard equipment.

450J Specifications

SAE net rated power: 52 kW (70 hp)

Operating weight: 7386 kg (16,283 lb.) LT;
7949 kg (17,525 lb.) LGP

Grouser widths: 406 mm (16 in.) LT; 610 mm (24 in.) LGP

Blade widths: 2464 mm (97 in.) LT; 2921 mm (115 in.) LGP



Uncommon control, uncompromising results.

Others may offer hydrostatic drivetrains in their dozers. But no other dozer even comes close to delivering the proven performance and exceptionally smooth control you get with the 450J. Power turns, counterrotation, infinitely variable travel speeds — enhanced state-of-the-art controls put you in complete command of a whole arsenal of highly productive hydrostatic advantages. No wonder the John Deere 450J Dozer has become an owner and operator favorite. And why it continues to deliver impressive resale value.



Blade ratio and center of gravity are optimized, giving this dozer the balance needed for superior grade work.

State-of-the-art controls command the full-featured hydrostatic drivetrain and six-way blade, ensuring predictable response at all times, in all conditions.

Power management takes the guesswork out of efficient operation. Simply set maximum desired ground speed and the system maintains peak engine and power efficiency without stalling or shifting.

TMC allows maximum flexibility and control, letting you customize machine operation to personal preferences.

Infinitely variable travel speeds from standstill to 8 km/h (15 mph) let an operator choose the right speed for the job. Travel-speed range can also be modified for specific applications or terrain conditions, and even limited to maximize undercarriage life.

The fully modulated drivetrain ensures smooth starts and direction changes — virtually eliminating jerky and abrupt movements.

Infinitely variable control speeds up or slows power to each track, for smooth, full-power turns.

This dozer steers the same and maintains its preset speed whether it's on level ground or a 2-to-1 slope. For total control regardless of the terrain.



1



2

1. Counterrotation is a productivity-boosting feature that enables the operator to overcome heavy corner loads and to quickly reposition the blade on the go. Provides space-saving spot turns, too.

2. With optional Integrated Grade Control (IGC), your 450J Dozer arrives from the factory “plug and play” ready. Its open architecture design lets you employ the electronic grade-control system that’s right for you.

Get more done within our comfort zone.

Want your operators to be more productive? Put them in the seat of this spacious air-conditioned cab. From its ergonomically designed fully customizable controls to best-in-class visibility, this dozer is loaded with everything you need to keep your operators calm, cool, productive — and on the payroll.

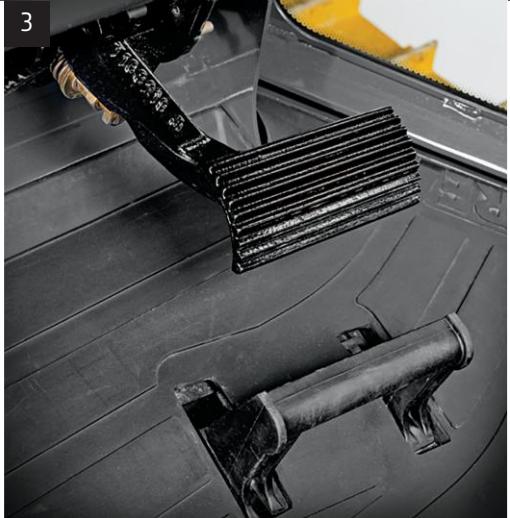
Generous hydraulic flow and precise metering deliver a natural “feel” to the T-bar control that will enhance any operator’s grading skills. Blade response is powerful and quick.

Retractable seat belt, slip-resistant floor mat, convenient grab bars, neutral-start lever, and automatic park brake help keep the operator out of harm’s way.

Deluxe-suspension armchair adjusts seven ways for daylong comfort and support. Adjustable armrests and footrests are standard.

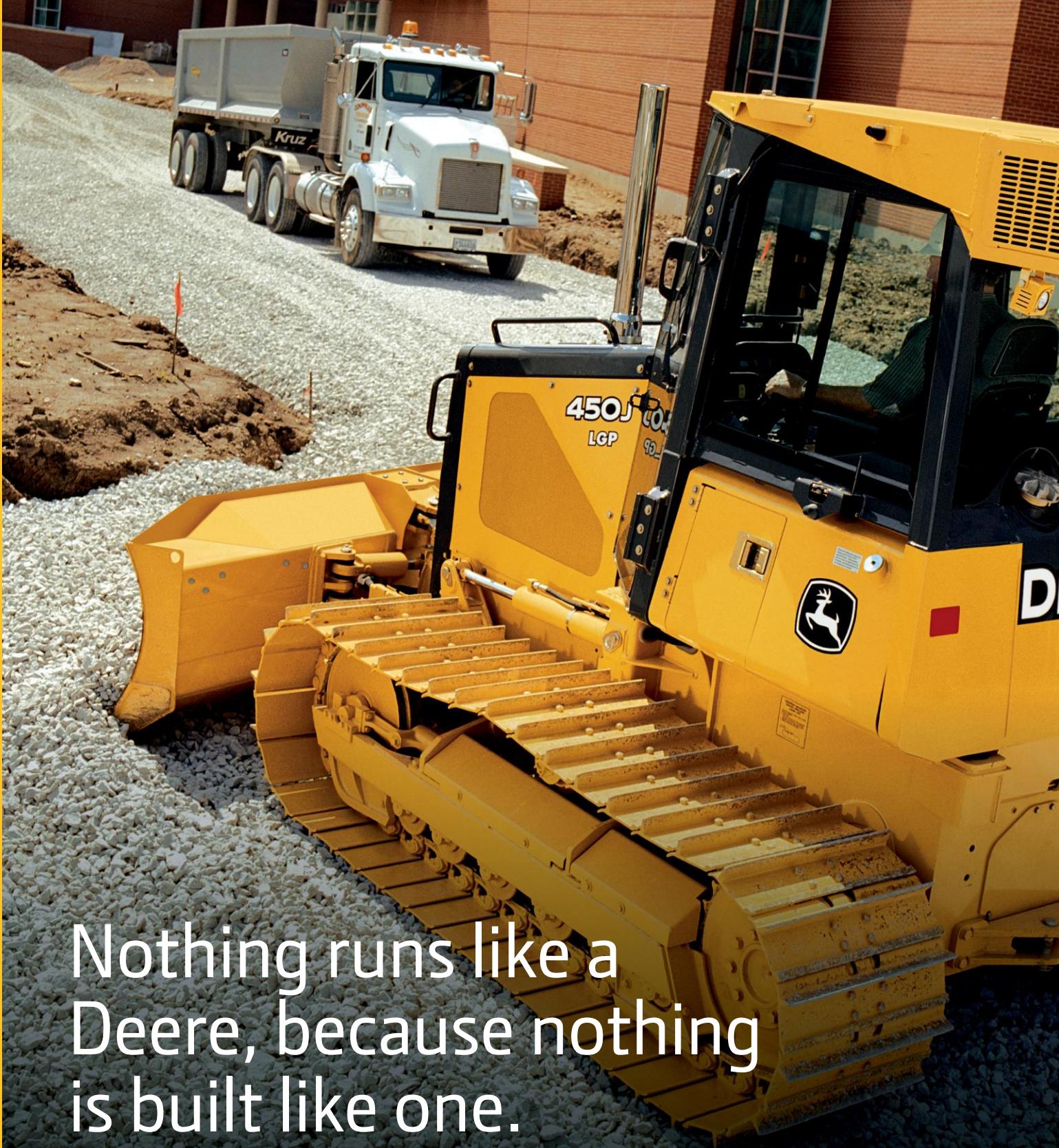
Single lever provides low-effort control of steering, forward/reverse travel, and ground speed. It’s also detented so it doesn’t require an operator’s constant touch or attention and employs a thumb-actuated travel-speed switch. Convenient 12-volt port provides power for cell phones and other accessories.

Automotive-type directional vents deliver warm or cool air with quiet efficiency. Air conditioning is standard in all cabs. For non-cab crawlers, an optional under-seat heater warms the operator.





1. Cab-forward design positions the operator for a more stable ride and a commanding view behind, below, and beyond the blade. Monitor keeps a vigilant watch on vital functions and issues visual or audible warnings.
2. Exclusive TMC lets you customize decelerator mode and response, forward/reverse ground-speed ranges, steering modulation, FNR shift rate, and forward/reverse speed ratios, for unsurpassed control.
3. Choose the decelerator function that's right for the job. Slow both ground speed and engine rpm, or ground speed only, to help maintain traction without affecting engine power and hydraulic response. Fully depressing the pedal applies the brakes.
4. High-intensity halogen driving lights are standard. Or opt for the factory-installed 360-degree light package that delivers superior illumination.



Nothing runs like a Deere, because nothing is built like one.

Designed and built with state-of-the-art tools and techniques by a quality-conscious workforce at our world-class facility in Dubuque, Iowa, the 450J delivers unsurpassed reliability and uptime. But don't just take our word for it. Perhaps the best way to know what you can expect out of one is to see what goes into it. When you learn how they're built, you'll run a Deere.



Standard features such as bypass start protection, automatic park brake, convenient handholds, and slip-resistant steps help keep the operator out of harm's way.

Undercarriage is sealed and lubricated and built to last. Available Maximum-Life undercarriage system utilizes SC-2™ bushing technology — plus larger track rollers, carrier rollers, idlers, and seals to deliver up to twice the undercarriage life, even in extremely abrasive conditions.

1. Engine, hydrostatic pumps, and hydraulic pump are bolted to a subframe, forming an easy-to-remove powertrain package. It's attached to the mainframe on rubber mounts to isolate vibration and reduce noise.
2. Closed-cell blade design and fabricated, box-section C-frame are strong and durable. Heavy-duty ball-and-socket joint resists material build-up for long-term grading precision.
3. Heavy-duty triple-reduction final drives are attached to the mainframe, isolating them from track-imposed shock loads. Seal guards are standard equipment.
4. The 450J's highly adaptable drivetrain makes it an ideal choice for work with rippers, fire plows, and other rear-mount attachments.

One-piece robot-welded mainframe resists torsional stress, absorbs shock loads, and delivers maximum strength while providing easy service access to major drivetrain components.

Wet sleeve liners provide uniform engine cooling and longer durability than cast-in-block designs.

Heavy-duty high-pressure hoses connect the pumps and motors that form the drivetrain. O-ring face-seal couplings virtually eliminate leaks.

Sealed transmission electrical connectors with gold-plated pins prevent moisture and contaminants from entering terminals.



The bucks stop here.

If there's a way to simplify maintenance and reduce your daily operating costs, we've incorporated it into the 450J Dozer. Service intervals have been extended, and same-side service points help make quick work of the daily routine. Lockable doors swing open wide, providing quick and ample access to dipsticks, vertical spin-on filters, sight gauges, and maintenance-free batteries. These and other timesaving features such as an easy-to-clean undercarriage, quick-to-replace hydraulic hoses, and designed-in diagnostics minimize downtime and expense.

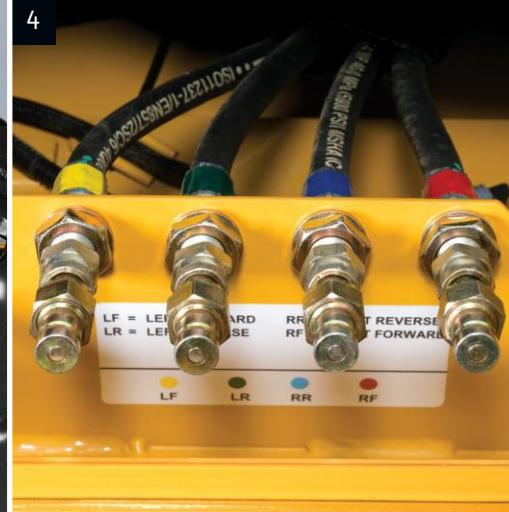
Hydraulic and hydrostatic reservoirs are completely separated, eliminating any possibility of cross-contamination.

Lube bank puts difficult-to-grease C-frame pivots within easy reach. Periodic maintenance and lube chart ensures that nothing gets overlooked.

Hinged side shields open wide and provide ground-level access to batteries; master electrical switch; cold-weather-start aid; and vertical transmission, hydraulic, and fuel filters.

Large fuel tank and 500-hour engine oil service interval let you run longer between fill-ups and maintenance.

1. Unlike other crawlers that require a laptop computer, an advanced diagnostic monitor gives easy-to-understand messages.
2. Vertical filters allow quick, no-spill changes. Engine, hydraulics, and transmission utilize a common oil, further simplifying service.
3. Serpentine belt never needs adjusting. 500-hour service interval lets you go longer between engine oil changes.
4. Remote drive system test ports help speed troubleshooting for increased uptime and productivity.

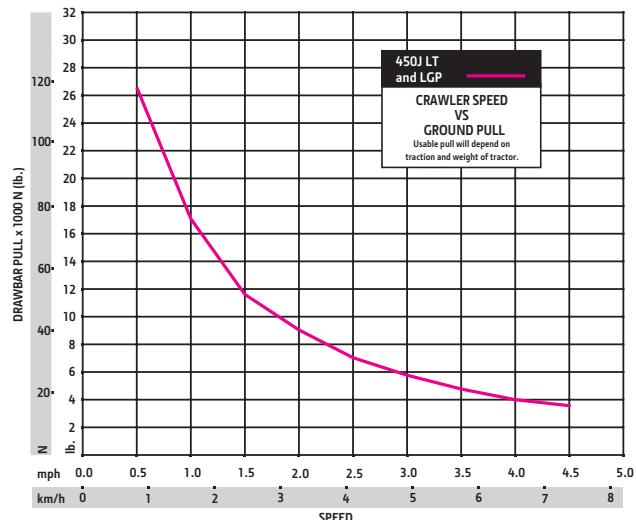




450J



Engine	450J LT / 450J LGP
Blade Type	Power Angle Tilt (PAT)
Manufacturer and Model	John Deere PowerTech™ M 4045
Non-Road Emissions Standard	EPA Interim Tier 4/EU Stage IIIB
Displacement	4.5 L (276 cu. in.)
SAE Net Rated Power	52 kW (70 hp) at 2,200 rpm
Net Peak Torque	316 Nm (233 lb.-ft.) at 1,200 rpm
Aspiration	Turbocharged with charge air cooler
Air Cleaner	Dual-stage dry tube with tangential unloader
Slope Operation, Maximum Angle	45-deg. fore-aft / 30-deg. side slope
Cooling	
Type	Blower-type cooling fan
Engine Coolant Rating	-37 deg. C (-34 deg. F)
Engine Radiator	10 fins per in.
Powertrain	
Transmission	Automatic, dual-path, hydrostatic 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 2-speed 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	44 470 kPa (6,450 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 counterrotation; full power turns and infinitely variable track speeds provide unlimited maneuverability and optimum control; hydrostatic 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	118 kN (26,500 lb.)
At 1.9 km/h (1.2 mph)	64 kN (14,400 lb.)
At 3.2 km/h (2.0 mph)	39 kN (8,700 lb.)
Brakes	
Service	Hydrostatic (dynamic) braking stops the machine whenever direction-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	26 cc
System Relief Pressure	20 684 kPa (3,000 psi)
Maximum Flow at Unloaded High Idle	57 L/m (15 gpm)
Control	3-function direct-acting T-bar joystick





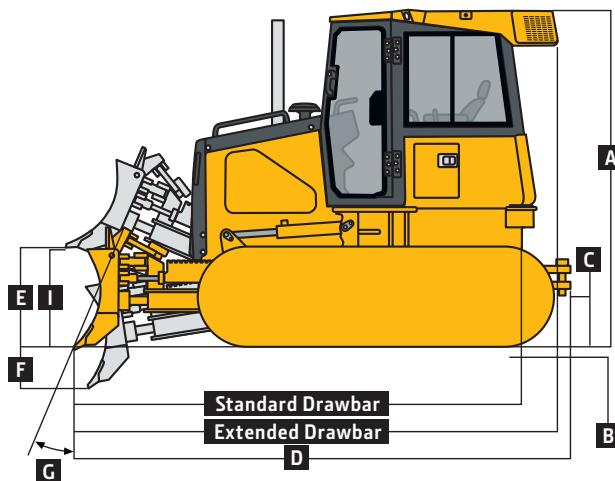
Electrical		
450J LT / 450J LGP		
Voltage		12 volts
Battery Capacity		950 CCA
Reserve Capacity		190 min.
Alternator Rating		
Cab		90 amp
Canopy		70 amp
Lights		Grille mounted (2), rear mounted (1), and rear reflectors (2)
Undercarriage		
450J LT		450J LGP
Blade Type	PAT	
Tracks	John Deere Dura Trax™ features large deep-heat-treated, sealed, and lubricated track links and through-hardened, sealed, and lubricated rollers for maximum wear resistance; sprockets are segmented; extreme-duty shoes are available (on some models) for severe applications	
Track Gauge	1448 mm (57 in.)	
Grouser Width	406 mm (16 in.)	
Chain	Sealed and lubricated	
Shoes, Each Side	40	
Track Rollers, Each Side	6	
Track Length On Ground	2184 mm (86 in.)	
Ground Contact Area	17 755 cm ² (2,752 sq. in.)	
Ground Pressure	40.7 kPa (5.90 psi) standard / 41.3 kPa (5.99 psi) Maximum Life	
Track Pitch	160 mm (6.3 in.) standard / 171 mm (6.7 in.) Maximum Life	
Operator Station		
450J LT / 450J LGP		
ROPS (ISO 3471 – 2008) and FOPS (ISO 3449 – 2005)		
Serviceability		
Refill Capacities		
Fuel Tank with Lockable Cap	178 L (47 gal.)	
Cooling System with Recovery Tank	16 L (4.2 gal.)	
Engine Oil with Filter	14 L (15 qt.)	
Transmission Reservoir with Filter	43 L (11.3 gal.)	
Hydraulic Reservoir and Filter	32.2 L (8.5 gal.)	
Operating Weights		
450J LT		450J LGP
Blade Type	PAT	
Base Weight (with standard equipment, rollover protective structure [ROPS], full fuel tank, and 79-kg [175 lb.] operator)	7386 kg (16,283 lb.)	
Optional Components		
Cab with Pressurizer and Heater/Air	306 kg (675 lb.)	
Conditioner		
Heater (ROPS canopy)	12 kg (26 lb.)	
Screens		
Front and Door	81 kg (179 lb.)	
Rear	34 kg (76 lb.)	
Side	43 kg (94 lb.)	
Limb Risers (ROPS canopy and cab)	104 kg (229 lb.)	
Counterweight		
Front	94 kg (207 lb.)	
Rear	150 kg (330 lb.)	
Retrieval Hitch	23 kg (50 lb.)	
Drawbar, Extended Rigid	33 kg (72 lb.)	
Winch	652 kg (1,437 lb.)	
Fairlead, 4 Roller	85 kg (187 lb.)	
Full-Length Rock Guards	117 kg (257 lb.)	
Maximum Life Undercarriage	88 kg (193 lb.)	
Track Shoes		
457 mm (18 in.)	In base	
610 mm (24 in.)	—	
	In base	

Machine Dimensions	450J LT	450J LGP
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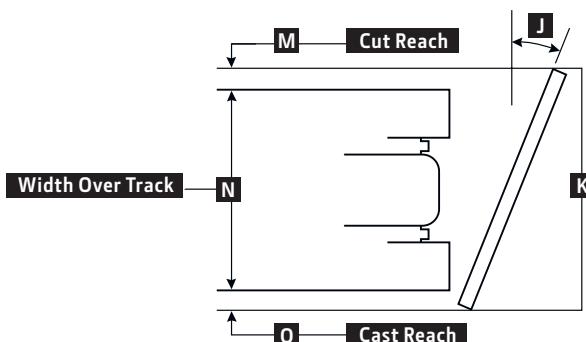
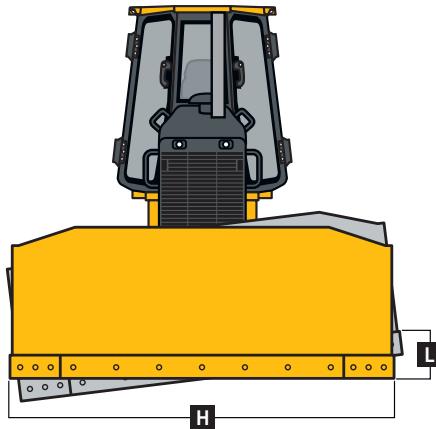
Blade Type

PAT

PAT



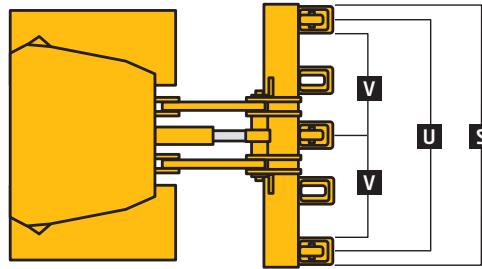
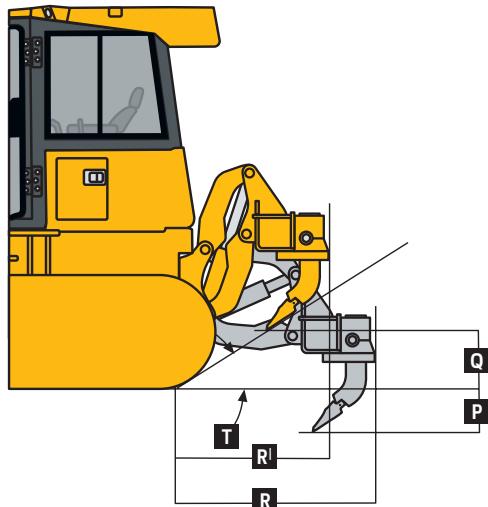
A Overall Height to Roof	2747 mm (9 ft. 0 in.)	2747 mm (9 ft. 0 in.)
B Tread Depth with Single-Bar Grouser	49 mm (1.9 in.)	49 mm (1.9 in.)
C Ground Clearance in Dirt	345 mm (13.6 in.)	345 mm (13.6 in.)
D Overall Length	3940 mm (155 in.) (12 ft. 11 in.)	4013 mm (158 in.) (13 ft. 2 in.)
E Blade Lift Height	772 mm (30.4 in.)	772 mm (30.4 in.)
F Blade Digging Depth	528 mm (20.8 in.)	528 mm (20.8 in.)
G Blade Cutting-Edge Angle, Adjustable	52 to 60 deg.	52 to 60 deg.



Straight

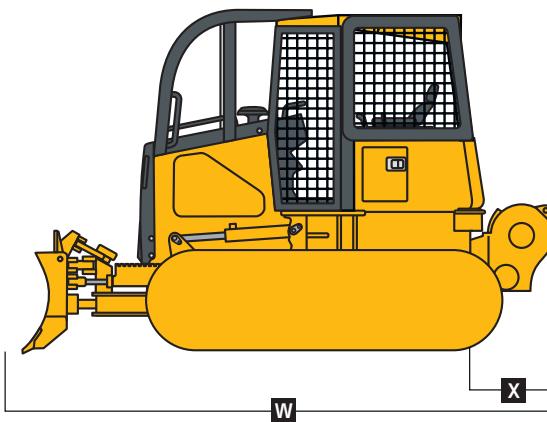
H Blade Width	2464 mm (97 in.)	2921 mm (115 in.)
I Blade Height	955 mm (3 ft. 2 in.)	955 mm (3 ft. 2 in.)
SAE Capacity	1.6 m ³ (2.1 cu. yd.)	2.0 m ³ (2.6 cu. yd.)
Weight	494 kg (1,090 lb.)	628 kg (1,385 lb.)
C-Frame Assembly Weight (without blade)	330 kg (727 lb.)	330 kg (727 lb.)
J Blade Angle	25.4 deg.	25.4 deg.
K Overall Width with Blade Angled	2225 mm (7 ft. 4 in.)	2639 mm (8 ft. 8 in.)
L Blade Tilt (uses tilt jack)	338 mm (13.3 in.)	399 mm (15.7 in.)
M Cut Reach	56 mm (2.2 in.)	58.4 mm (2.2 in.)
N Width Over Track	1854 mm (6 ft. 1 in.)	2261 mm (7 ft. 5 in.)
O Cast Reach	318 mm (12.5 in.)	320 mm (12.6 in.)

Machine Dimensions (continued)	450J LT	450J LGP
Blade Type	PAT	PAT
Straight (option)		
H Blade Width	2921 mm (115 in.)	3150 mm (124 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)	330 kg (727 lb.)	330 kg (727 lb.)
J Blade Angle	25.4 deg.	25.4 deg.
K Overall Width with Blade Angled	2639 mm (8 ft. 8 in.)	2845 mm (9 ft. 4 in.)
L Blade Tilt (uses tilt jack)	399 mm (15.7 in.)	429 mm (16.9 in.)
M Cut Reach	262 mm (10.3 in.)	163 mm (6.4 in.)
N Width Over Track	1854 mm (6 ft. 1 in.)	2261 mm (7 ft. 5 in.)
O Cast Reach	523 mm (20.6 in.)	424 mm (17 in.)
Rear Ripper	450J LT / 450J LGP	



Heavy-duty parallelogram ripper, 5 shank pockets with 3 teeth

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.)
R' Overall Length, Raised Position	1015 mm (40 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.)



W Overall Length with Winch	4560 mm (15 ft. 0 in.)
X Winch Length	750 mm (30 in.)

Additional equipment

Key: ● Standard ▲ Optional or special

450J	450J	
LT	LGP	Engine
●	●	Meets EPA Interim Tier 4/EU Stage IIIB emissions
●	●	Electronic control with automatic engine protection
●	●	Dual safety element dry-type air cleaner, evacuator valve
●	●	Muffler, self-draining, under hood, with vertical stack
▲	▲	Environmental service drains
▲	▲	Ether start aid
▲	▲	Engine coolant heater, 110 volts
▲	▲	Engine coolant heater, fuel fired
▲	▲	Chrome exhaust
▲	▲	Fuel filter heater
▲	▲	Rotary ejection engine air precleaner
Cooling		
●	●	Enclosed safety fan guard (conforms to SAE J1308 and ISO3457)
●	●	Perforated engine side shields
●	●	Heavy-duty grille
▲	▲	Extreme-duty grille
Transmission		
●	●	Remote diagnostic test ports
●	●	Automatic cold-weather transmission warmup system
●	●	Automatic transmission derating for exceeded system temperatures
▲	▲	Environmental service drains
Hydraulic System		
●	●	3-function hydraulics
▲	▲	4-function hydraulics with rear plumbing
▲	▲	Drive-through hydraulic pump for use with winch
▲	▲	Integrated Grade Control (IGC)

450J	450J	Mainframe, Access Panels
LT	LGP	
●	●	Front tow loop (bolt-on)
●	●	Reinforced engine and mid-frame bottom guards
●	●	Integral transmission guard
●	●	Vandal protection: Engine access door / Side tank access doors / Fuel tank / Instrument panel / Transmission reservoir / Hydraulic reservoir
Attachments		
▲	▲	Counterweight, front, 94 kg (207 lb.)
▲	▲	Counterweight, rear, 150 kg (330 lb.)
▲	▲	Retrieval hitch with pin
▲	▲	Extended rigid drawbar with pin for pull-type implements
▲	▲	Drawbar, extended for winch (with or without fairlead)
▲	▲	Ripper, parallelogram with 5 shank pockets and 3 teeth
▲	▲	Winch, John Deere, power in/free spool out OR power out
▲	▲	4-roller fairlead for winch
▲	▲	Root-rake blade attachment
▲	▲	Rear-mounted toolbox
▲	▲	Trimble®-ready interface package
▲	▲	Topcon-ready interface package
▲	▲	Leica-ready interface package
Undercarriage		
●	●	Full-length, smooth-surface track frame covers
●	●	Chain guides, front and rear
●	●	Single-flange roller
▲	▲	Double-flange rollers
▲	▲	Full-length rock guards
●	●	Maximum Life Undercarriage System
▲	▲	Sealed and lubricated undercarriage
●	●	406-mm (16 in.) moderate-service shoes
●	●	610-mm (24 in.) moderate-service shoes

*See your John Deere dealer for further information.

Canopy	Cab	Operator's Station / Electrical
●	●	Retractable seat belts, 51 mm (2 in.) (conform to SAE J386)
▲	▲	Retractable seat belts, 76 mm (3 in.) (conform to SAE J386)
▲	▲	Accessories: Convex wide-angle interior rearview mirror / Thigh cushions (2) / Seat-side lockable storage box/lunch box/cup holder
●	●	Power port, 12 volts, 20 amps
▲	▲	Lockable side-seat storage compartment
●	●	Air conditioner, 24,000 Btu
●	●	Tinted glass
●	●	Dome light
●	●	Heater (roof mount)
●	●	Front and door wipers
●	●	Mechanical suspension vinyl seat
●	●	Mechanical suspension fabric seat
▲	▲	Air suspension vinyl seat
▲	▲	Air suspension fabric seat
▲	●	Under-seat heater
▲	●	Cab sound-suppression package
▲	●	Rear wiper
▲	●	AM/FM, weather-band radio, clock
▲	●	MP3/satellite radio/cell-phone holder with 2 power ports and cargo net
▲	●	External-mounted attachment mirror
●	●	Sealed alternator, 65 amps
●	●	Master electrical disconnect switch
●	●	Lights, grille mounted (2), rear mounted (1)
▲	▲	Work lights, roof mounted
●	●	Battery, single, 12 volts
▲	▲	Battery, dual, 12 volts
●	●	JDLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO9249. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with standard equipment, rollover protective structure (ROPS), full fuel tank, and 79-kg (175 lb.) operator.