

FAST FACT

PIPELAYER- READY CRAWLERS

850L PL / 1050K PL



JOHN DEERE



DEPENDABLE PARTNER IN THE TRENCHES.

When you're battling tight deadlines and budgets, you need a reliable worker in the trenches with you. John Deere Pipelayer-Ready (PL) Crawlers are purpose built, making it easy to install your preferred sideboom. Pipelayer controls are seamlessly integrated with intuitive, low-effort Deere joystick controls. Dual-path hydrostatic transmission and Eco mode help empower precise, fuel-efficient operation. Plus the exceptional visibility, operating ease, and durability you've come to expect from Deere equipment are yours in a 850L PL or 1050K PL.



GOOD TO GO

Sideboom-ready PL platform and mounting plates simplify installation. Pin-up/bolt-on design speeds installation time and setup.



PRECISE, PREDICTABLE, AND PRODUCTIVE

Dual-path hydrostatic transmission delivers precise, predictable control along the trench without abrupt movements.



LAY IT ON THE LINE

Wide-long-track (WLT) configuration provides a stable pipelaying platform. New eight-roller, 130-in. undercarriage on the 850L PL puts even more track on the ground, while the 1050K PL features 12-in.-longer track than the standard 1050K.



WASTE NOT

Fuel-conserving Eco mode and auto-idle are especially helpful in pipelayer applications where longer idle times occur.



INTEGRATED CONTROLS

Pipelayer controls are seamlessly integrated into the low-effort electrohydraulic (EH) joysticks, with a thumb roller providing smooth, precise control and a quick-drop button for emergencies.



EASY MAINTENANCE

Cab tilts up to 65 deg. in only minutes, for easy service access even with the sideboom installed.



MORE WORK IN THE PIPELINE

The 850L PL delivers 100,000 lb. (PL100) of maximum lift capacity. The 1050K PL offers two configurations: 170,000 lb. (PL170) and 220,000 lb. (PL220) of maximum lift capacity.



PEAK A BOOM

Straight and centered seat position provides excellent all-around visibility, and a roof-viewing window affords a clear view of the sideboom.

Engine	850L PL100
Manufacturer and Model	John Deere PowerTech™ PSS 6090
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV
Displacement	9.0 L (549 cu. in.)
SAE Net Rated Power	168 kW (225 hp) at 1,700 rpm
Net Peak Torque	1126 Nm (831 ft.-lb.) at 1,500 rpm
Aspiration	Turbocharged and air-to-air aftercooled
Air Cleaner	Dual-element dry canister with external rotary ejector precleaner
Cooling	
Type	Variable-speed suction fan with automatic reversing
Engine Coolant Rating	-37 deg. C. (-34 deg. F)
Engine Radiator	7 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 motor combination; ground-speed selection buttons on single-lever steering and direction control; reverse speed ratio is fully operator customizable; decelerator pedal provides infinite speed control from full speed to complete stop
System Relief Pressure	47 574 kPa (6,900 psi)
Travel Speeds	
Forward and Reverse	9.7 km/h (6.0 mph)
Maximum (operator selectable)	11.0 km/h (6.8 mph)
Steering	Single-lever steering, speed, 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, Total Ratio	Double-reduction, planetary final drives mounted independently of track frames and dozer push frames for isolation from shock loads
Total Ratio	44.75 to 1
Drawbar Pull	
Maximum	365 kN (82,000 lb.)
At 1.9 km/h (1.2 mph)	226 kN (50,700 lb.)
At 3.2 km/h (2.0 mph)	143 kN (32,000 lb.)
Brakes	
Service	HST (dynamic) braking stops machine whenever the direction/steering control lever is moved to neutral or the decelerator is depressed to the end of travel
Parking	Exclusive safety feature engages wet, multiple-disc brakes whenever the engine stops, the decelerator is depressed to the end of travel, or motion is detected while the transmission control is in neutral; machine cannot be driven with brake applied, minimizing wearout; spring applied, hydraulic release
Hydraulics	
Type	Open-center load-sense hydraulic system with variable-displacement piston pump
Pump Displacement	145 cc
System Relief Pressure	27 579 kPa (4,000 psi)
Differential Pressure	1896 kPa (275 psi)
Maximum Flow at Unloaded High Idle	275 L/m (68 gpm)
Control	3-function electrohydraulic (EH) joystick
Electrical	
Voltage	24 volts
Capacity	
Battery	950 CCA
Reserve	190 min.
Alternator Rating	130 amp
Lights	LED: grille mounted (2), rear mounted (2), roof-mounted forward facing (2), roof-mounted sideboom facing (1), and engine compartment (1)
Undercarriage	
Tracks	Track frame with front and rear track guides and sprocket guard; John Deere Dura-Trax™ features 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	2286 mm (90 in.)
Chain	Sealed and lubricated
Shoes, Each Side	45
Track Rollers, Each Side	8
Track Length on Ground	3302 mm (130 in.)
Track Pitch	203 mm (8 in.)

Undercarriage (continued) 850L PL100

Tracks (continued)		
Grouser Width	760 mm (30 in.)	910 mm (36 in.)
Ground Contact Area	55 281 cm ² (8,569 sq. in.)	66 337 cm ² (10,282 sq. in.)
Ground Pressure	60.3 kPa (8.8 psi)	50.3 kPa (7.3 psi)

Operator Station

Rollover protective structure (ROPS) (ISO 3471 – 2008)

Serviceability

Refill Capacities

Fuel Tank with Lockable Cap	439 L (116 gal.)	Reservoir with Filter	
Cooling System with Recovery Tank	39.7 L (10.5 gal.)	Transmission	105 L (27.6 gal.)
Engine Oil with Filter	25 L (6.6 gal.)	Hydraulic	117 L (30.9 gal.)
		Diesel Exhaust Fluid (DEF) Reservoir	23.7 L (6.3 gal.)

Operating Capacity

Lift Capacity at 1219-mm (4 ft.) Overhang	
Maximum	45 359 kg (100,000 lb.)
Rated	38 555 kg (85,000 lb.)

Operating Weights

Includes standard equipment, ROPS, full fuel tank, 760-mm (30 in.) track shoes, rear drawbar hitch, and 79-kg (175 lb.) operator

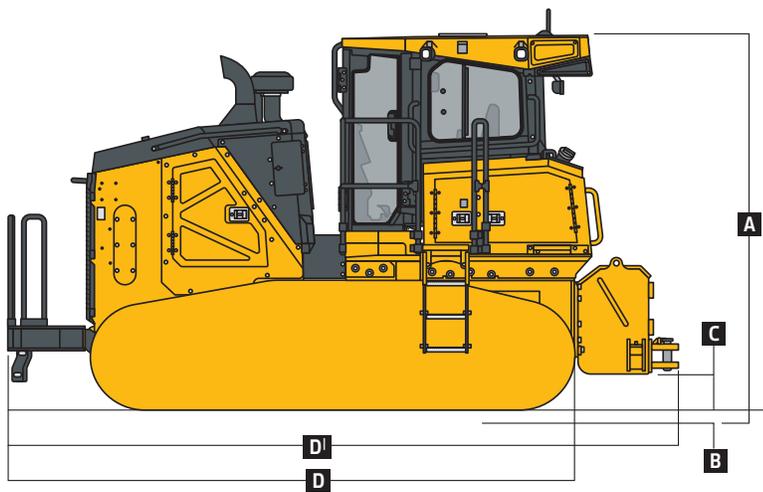
Operating Weight, Full Sideboom Installed	32 825–33 361 kg (72,215–73,395 lb.)
Transport Weight, Sideboom Removed	31 802–32 382 kg (69,965–71,241 lb.)
Transport Weight, Sideboom and Counterweight Removed	26 793–26 849 kg (58,945–59,068 lb.)
Pipelay (PL)-Ready Tractor Only Weight	20 007 kg (44,015 lb.)

Optional Components

Rear Screen	20 kg (44 lb.)	Track Shoes, Moderate Duty	
Winch with Fairlead	1778 kg (3,920 lb.)	760 mm (30 in.)	In base
Heating, Ventilating, and Air-Conditioning (HVAC) Powered Precleaner	3 kg (7 lb.)	910 mm (36 in.)	435 kg (959 lb.)

Machine Dimensions

A Overall Height (includes antenna base and grouser height)	3344 mm (11 ft. 0 in.)*	D Overall Length with Drawbar (standard configuration)	5770 mm (227 in.) (18 ft. 11 in.)
B Tread Depth with Single-Bar, Moderate-Duty Grouser	66 mm (2.6 in.)	D' Overall Length with Winch and Fairlead Rollers	5986 mm (236 in.) (19 ft. 8 in.)
C Ground Clearance in Dirt	394 mm (15.5 in.)	Track Shoes, Moderate Duty	760 mm (30 in.) 910 mm (36 in.)
*With antenna whip removed.		E Overall Width (no boom or counterweight)	3048 mm (120 in.) 3200 mm (126 in.) (10 ft. 0 in.) (10 ft. 6 in.)



Pipelaying Equipment 850L PL100

Boom, drum, and counterweight specs are included in separate supplier brochure.

Engine		1050K PL170 / 1050K PL220	
Manufacturer and Model	John Deere PowerTech™ PSS 6135		
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV		
Displacement	13.5L (824 cu. in.)		
SAE Net Rated Power	261 kW (350 hp) at 1,800 rpm		
Net Peak Torque	1576 Nm (1,162 lb.-ft.) at 1,300 rpm		
Aspiration	Turbocharged and air-to-air aftercooled		
Air Cleaner	Dual-element dry canister with external rotary ejector precleaner		
Cooling			
Type	Variable-speed suction fan with automatic reversing		
Engine Coolant Rating	-37 deg. C (-34 deg. F)		
Engine Radiator	8 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 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 provides infinite speed control from full speed to complete stop		
System Relief Pressure	45 850 kPa (6,650 psi)		
Travel Speeds — Forward and Reverse / Maximum (optional)	11 km/h (6.8 mph)		
Steering	Single-lever steering, speed, 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, Total Ratio	51.337		
Drawbar Pull			
Maximum	650 kN (146,000 lb.)		
At 1.9 km/h (1.2 mph)	334 kN (75,000 lb.)		
At 3.2 km/h (2.0 mph)	209 kN (47,000 lb.)		
Brakes			
Service	HST (dynamic) braking stops machine whenever the direction/steering control lever is moved to neutral or the decelerator is depressed to the end of travel		
Parking	Exclusive safety feature engages wet, multiple-disc brakes whenever the engine stops, the decelerator is depressed to the end of travel, or the park lock lever is placed in the start or neutral positions and motion is detected; machine cannot be driven with brake applied, reducing wear-out or need for adjustment; spring-applied, hydraulic release		
Hydraulics			
Type	Pressure compensated load sense electrohydraulic (EH) system with variable-displacement piston pump		
Pump Displacement	190 cc		
System Relief Pressure	31 026 kPa (4,500 psi)		
Differential Pressure	1724 kPa (250 psi)		
Maximum Flow at Unloaded High Idle	378 L/m (100 gpm)		
Control	2-function EH joystick; pistol grip with proportional roller		
Electrical			
Voltage	24 volts		
Capacity			
Battery	950 CCA		
Reserve	190 min.		
Alternator Rating	130 amp		
Lights	Cylinder mounted (2), rear-mounted cab (2), roof-mounted forward facing (2), engine compartment (1), and rear reflectors (2)		
Undercarriage		1050K PL170	1050K PL220
Tracks	Track frame includes fixed undercarriage design with sealed track-adjuster cavity, front and rear track guides, and sprocket guard; John Deere Dura-Trax™ features deep-heat-treated, sealed, and lubricated track links and through-hardened, sealed, and lubricated rollers for maximum wear resistance; sprockets are segmented		
Track Shoes	Moderate service	Moderate service	
Track Gauge	2438.4 mm (96 in.)	2641.6 mm (104 in.)	
Grouser Width	760 mm (30 in.)	915 mm (36 in.)	
Chain	Sealed and lubricated; positive pin retention	Sealed and lubricated; positive pin retention	
Shoes, Each Side	49	49	
Track Rollers, Each Side	9	9	
Track Length on Ground	3734 mm (147 in.)	3734 mm (147 in.)	
Ground Contact Area	56 754 cm ² (8,797 sq. in.)	68 329 cm ² (10,591 sq. in.)	
Ground Pressure	61.7 kPa (8.95 psi)	53.4 kPa (7.75 psi)	
Track Pitch	215.9 mm (8.5 in.)	215.9 mm (8.5 in.)	

Undercarriage **1050K PL170 / 1050K PL220**

Rollover protective structure (ROPS) (ISO 3471 – 2008) and falling object protective structure (FOPS) (ISO 3449 – 2005)

Serviceability

Refill Capacities

Fuel Tank with Lockable Cap	681 L (180 gal.)	Reservoir with Filter (oil volume of tank only)	
Diesel Exhaust Fluid (DEF) Tank	22.9 L (6.1 gal.)	Transmission	149 L (39.44 gal.)
Cooling System with Recovery Tank	73.5 L (19.4 gal.)	Hydraulic	87 L (23 gal.)
Engine Oil with Filter	43.5 L (11.5 gal.)		

Operating Capacity **1050K PL170** **1050K PL220**

Maximum Lift Capacity at 1219-mm (4 ft.) 77 110 kg (170,000 lb.) 99 790 kg (220,000 lb.)

Overhang

Operating Weights

Base Weight (includes standard equipment, ROPS, rear drawbar hitch*, full fuel tank, and 79-kg (175 lb.) operator)		
Operating Weight, Full Sideboom Installed	<i>With 760-mm (30 in.) track shoes</i> 52 784 kg (116,369 lb.)	<i>With 915-mm (36 in.) track shoes</i> 58 356 kg (128,652 lb.)
Transport Weight, Sideboom and Counterweight Removed	42 082 kg (92,775 lb.)	43 768 kg (96,492 lb.)
Pipelayer (PL)-Ready Tractor Only Weight	35 489 kg (78,239 lb.)	36 639 kg (80,775 lb.)

Optional Components

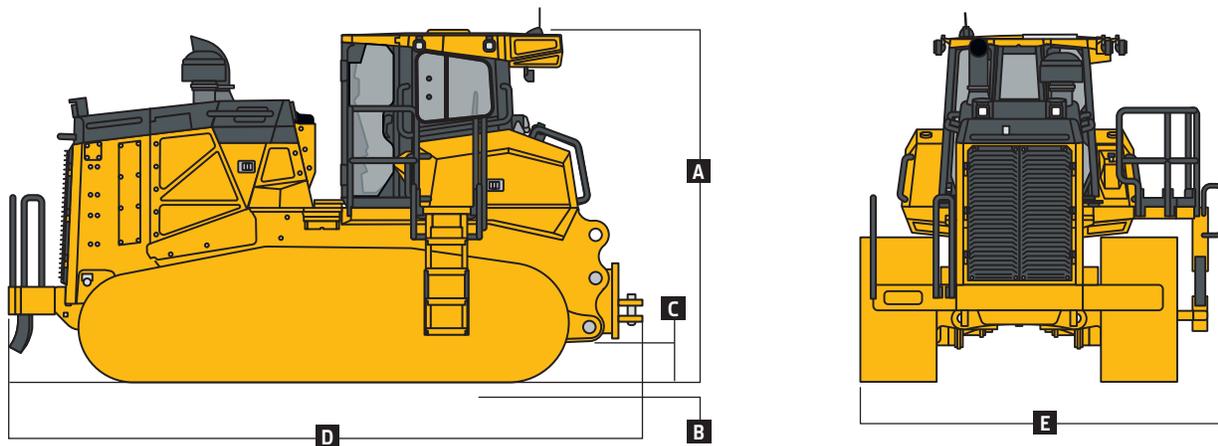
Winch with Fairlead	1905 kg (4,200 lb.)	1905 kg (4,200 lb.)
Mounting Plate	1115 kg (2,458 lb.)	1115 kg (2,458 lb.)
Heating, Ventilating, and Air-Conditioning (HVAC) Powered Precleaner	20 kg (44 lb.)	20 kg (44 lb.)
Moderate-Duty Track Shoes		
760 mm (30 in.)	In base	—
915 mm (36 in.)	Optional	In base

*Included in base; weighs 603 kg (1,329 lb.) separately and needs to be removed for installation of other rear attachments.

Machine Dimensions

A Overall Height to Roof	3476 mm (11 ft. 5 in.)	3476 mm (11 ft. 5 in.)
B Tread Depth with Single-Bar, Moderate-Duty Grouser	71 mm (2.8 in.)	71 mm (2.8 in.)
C Ground Clearance in Dirt (includes grouser height)	523 mm (20.6 in.)	523 mm (20.6 in.)
D Overall Length with Drawbar (standard configuration)	6385 mm (251 in.) (20 ft. 11 in.)	6385 mm (251 in.) (20 ft. 11 in.)
Overall Length with Winch and Fairlead Rollers†	7174 mm (282 in.) (23 ft. 6 in.)	7174 mm (282 in.) (23 ft. 6 in.)
Overall Length with Rear Storage Compartment†	6386 mm (20 ft. 11 in.)	6386 mm (20 ft. 11 in.)
E Overall Width (no boom or counterweight)	3867 mm (152 in.) (12 ft. 8 in.)	3965 mm (156 in.) (13 ft. 0 in.)

†Overall length may vary for optional configurations.



Pipelayering Equipment **1050K PL170 / 1050K PL220**

Reference individual supplier brochures for boom, drum, and counterweight specs.



THE BOTTOM LINE...

Exceptional parts availability. Flexible financing options. Support that doesn't quit. And purpose-built machines that maximize uptime. More contractors like you are choosing John Deere because our offerings are shaped by your input.

You tell us what you need. We make it happen.



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DK1050KPL Litho in U.S.A. (19-06)