

50 / P

Compact Excavator



JOHN DEERE





50 P-TIER COMPACT EXCAVATOR

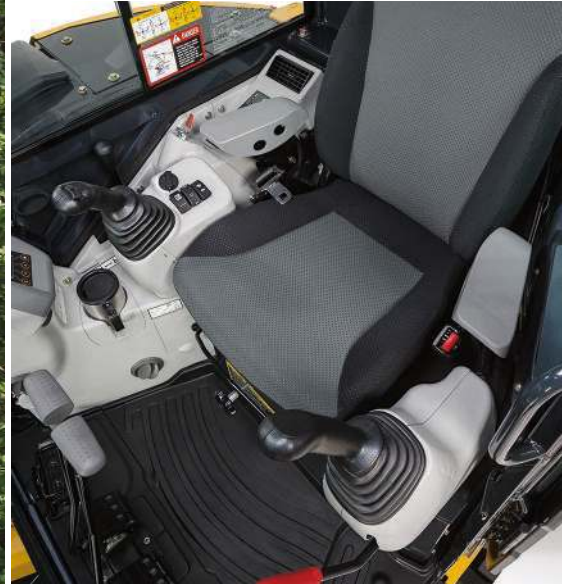
SMALLER MACHINE, BIGGER POTENTIAL

When you need more from your compact excavator, the John Deere 50 P-Tier might be your “one and done.” This small-but-mighty muscle specializes in making work in close quarters seem like no big deal. Loaded with customer-inspired ideas like significant lift and reach, precise control, and an amazingly comfortable cab, digging, excavating, and loading tasks become big possibilities. Plus it runs quiet, too. Jobsite-proven standard and optional advantages including your choice of tracks and John Deere attachments push the 50 P-Tier to make a sizable impact on the potential — and profitability — of your operation.

FEATURES



**RUBBER CAB MOUNTS
HELP ISOLATE OPERATOR
FROM NOISE & VIBRATION**



Start from zero

Zero-tail-swing design maximizes maneuverability and performance in tight places such as urban and residential areas. Compact stature permits easy transport between jobsites, perfect for “dig-and-go” projects.

Resource management

Auto-idle automatically reduces engine speed when hydraulics aren't in use. Auto shutdown conserves precious fuel. Power/economy modes optimize power for digging applications, further improving fuel efficiency.

Get back to it

Standard backfill blade enables the 50 P-Tier to grade and fill, boosting machine versatility and stability when using attachments or working on uneven terrain.

Comfort, quiet, and control

Spacious operator station has a wide entryway and backhoe- to excavator-style controls. Swing boom and foldable travel pedals are positioned for efficient operation and comfortable foot room. Noise-reducing aftertreatment device and isochronous high-idle speed help keep things noticeably quiet. Rubber cab mounts isolate the operator from noise and vibration.

Swing for the fences

Put the 50 P-Tier's independent-swing boom and 360-degree rotation to work taming difficult tasks. Impressive lift height and reach ease truck loading.

Handy hydraulics

Standard quick-coupler-equipped, boom-mounted auxiliary hydraulic lines simplify attachment hookup. Return-flow selector valve accommodates hydraulic-driven attachments that operate either one or two ways. Wedge-style coupler enables swift changes of a wide range of buckets and attachments, such as hydraulic hammers, plate compactors, and augers.

Safe travels

No operator activation is required for high-speed travel. Track speeds automatically slow to low whenever a heavier load is encountered, then return to high when the load normalizes.

Designed for durability

Heavy-duty side shields deflect material and impacts, protecting boom/blade cylinders and drive motors. Single-pin swing-post increases boom rigidity. Reinforced D-channel side frames and heavy-duty X-frame help extend wear life.

Maintenance made easy

Hinged door provides wide-open access to the side-by-side oil cooler and radiator. Operator station tilts forward 50 degrees to reach the swing motor, hydraulic control valve, engine starter motor, and alternator. Extended service intervals allow the machine to work longer before maintenance is needed.

Make the most of your investment

Already own some John Deere attachments? Many models including buckets, hydraulic hammers, and augers also work on other compact machines so you can redefine fleet utilization — and your bottom line.



50 P-TIER COMPACT EXCAVATOR



MATCH YOUR TRACK TO THE APPLICATION

The choice is yours

Rubber tracks traverse virtually any terrain, including paved surfaces. Optional rubber grousers combine work-anywhere flexibility with steel-track serviceability. Steel tracks and steel tracks with rubber pads are also available.

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. 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.

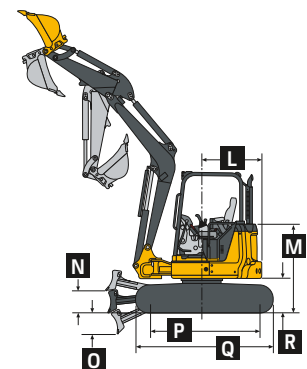
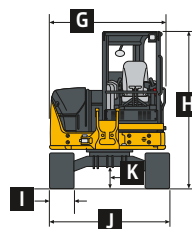
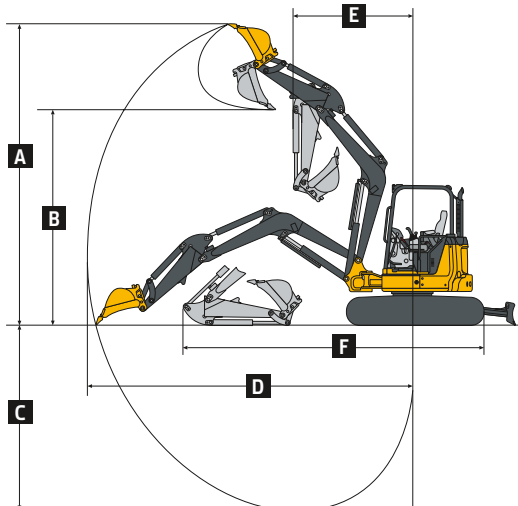


50 P-TIER COMPACT EXCAVATOR SPECIFICATIONS



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		50 P-TIER					
Manufacturer and Model		Yanmar 4TNV88C		Displacement		2.19 L (134 cu. in.)	
Non-Road Emission Standard		EPA Final Tier 4/EU Stage IV		Net Power (ISO 9249)		26.8 kW (35.9 hp) at 2,400 rpm	
Powertrain							
Each track independently driven by hydrostatic axial-piston motor connected to 2-stage planetary gear-reduction box							
Maximum Travel Speed		Low: 2.5 km/h (1.6 mph) / High: 4.2 km/h (2.6 mph)					
Hydraulics							
Closed-center load sensing with 1 variable-displacement pump				Controls		Hydraulic pilot-operated controls for boom, arm, bucket, swing, boom swing, blade, travel, and auxiliary functions	
Pump Flow		120.0 L/m (31.7 gpm)					
Auxiliary Flow		87.4 L/m (23.1 gpm)					
Electrical							
Alternator Rating		55 amp					
Work Lights		2 halogen: 1 mounted on operator's station and 1 mounted on boom					
Undercarriage							
Track, Rubber		400 mm (16 in.)					
Ground Pressure		1380-mm (4 ft. 6 in.) Standard Arm and Standard Counterweight		1690-mm (5 ft. 7 in.) Long Arm and Extra Counterweight			
		With Canopy		With Cab		With Canopy	
With Rubber Track		26.9 kPa (3.90 psi)		28.3 kPa (4.10 psi)		28.8 kPa (4.17 psi)	
						29.5 kPa (4.28 psi)	
Upperstructure							
Swing Speed		9.0 rpm					
Independent Swing Boom							
Left		80 deg.					
Right		60 deg.					
Swing Brake		Spring applied, hydraulically released, automatic, disc type					
Serviceability							
Refill Capacities				Refill Capacities (continued)			
Fuel Tank		70 L (18.5 gal.)		Engine Oil With Filter		8.6 L (9.1 qt.)	
Cooling System		5.0 L (5.3 qt.)		Hydraulic Tank		56 L (14.8 gal.)	
Operating Weights							
		1380-mm (4 ft. 6 in.) Standard Arm and Standard Counterweight		1690-mm (5 ft. 7 in.) Long Arm and Extra Counterweight			
		With Canopy		With Cab		With Canopy	
With 400-mm (16 in.) Rubber Track, Straight Blade, Full Fuel Tank, and 79-kg (175 lb.) Operator		4790 kg (10,560 lb.)		4920 kg (10,847 lb.)		5018 kg (11,063 lb.)	
Optional Angle Blade		409 kg (902 lb.)		409 kg (902 lb.)		409 kg (902 lb.)	
Counterweight							
Standard		700 kg (1,543 lb.)		700 kg (1,543 lb.)		700 kg (1,543 lb.)	
Additional		200 kg (441 lb.)		200 kg (441 lb.)		200 kg (441 lb.)	
Operating Dimensions							
		1380-mm (4 ft. 6 in.)		1380-mm (4 ft. 6 in.)		1690-mm (5 ft. 7 in.)	
		Standard Arm and Canopy		Standard Arm and Cab		Long Arm and Canopy	
A Maximum Cutting Height		5.75 m (18 ft. 10 in.)		5.75 m (18 ft. 10 in.)		6.00 m (19 ft. 8 in.)	
B Maximum Dumping Height		4.07 m (13 ft. 4 in.)		4.07 m (13 ft. 4 in.)		4.31 m (14 ft. 2 in.)	
C Maximum Digging Depth		3.53 m (11 ft. 7 in.)		3.53 m (11 ft. 7 in.)		3.83 m (12 ft. 7 in.)	
D Maximum Digging Reach		5.96 m (19 ft. 7 in.)		5.96 m (19 ft. 7 in.)		6.26 m (20 ft. 6 in.)	
E Minimum Front Swing Radius		2.21 m (7 ft. 3 in.)		2.21 m (7 ft. 3 in.)		2.30 m (7 ft. 7 in.)	
F Transport Length		5.47 m (17 ft. 11 in.)		5.47 m (17 ft. 11 in.)		5.52 m (18 ft. 1 in.)	
Digging Force (ISO)							
Arm		24.0 kN (5,401 lb.)		24.0 kN (5,401 lb.)		21.0 kN (4,718 lb.)	
Bucket		36.8 kN (8,267 lb.)		36.8 kN (8,267 lb.)		36.8 kN (8,267 lb.)	



50 P-TIER COMPACT EXCAVATOR SPECIFICATIONS

50

P

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.

Machine Dimensions (see line art at bottom right of page 6)		50 P-TIER	
G Upperstructure Width	1.85 m (6 ft. 1 in.)	M Engine Cover Height	1.59 m (5 ft. 3 in.)
H Overall Height		N Maximum Blade Lift Above Ground	460 mm (18 in.)
Canopy	2.53 m (8 ft. 4 in.)	O Maximum Blade Drop Below Ground	360 mm (14 in.)
Cab	2.53 m (8 ft. 4 in.)	Blade	
I Track Width	400 mm (16 in.)	Width	2.00 m (6 ft. 7 in.)
J Undercarriage Width	2.00 m (6 ft. 7 in.)	Height	375 mm (15 in.)
K Ground Clearance	340 mm (13 in.)	P Sprocket Center to Idler Center	2.00 m (6 ft. 7 in.)
L Tail Swing Radius		Q Track Length	2.50 m (8 ft. 2 in.)
With Standard Arm	1.00 m (39 in.)	R Counterweight Clearance	610 mm (24 in.)
With Long Arm and Extra Counterweight	1.10 m (43 in.)		
Lift Capacities			
Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). All lift capacities are based on ISO 10567 (with power boost). Lifting measurement from center of arm to bucket pin; with 400-mm (16 in.) track shoe and blade on ground; and situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.			
Ground Level at 3.05-m (10 ft.) Radius		Canopy and Standard Counterweight	
		Over Front*	Over Side
1380-mm (4 ft. 6 in.) Standard Arm		2511 kg (5,531 lb.)	1110 kg (2,444 lb.)
1690-mm (5 ft. 7 in.) Long Arm		2477 kg (5,456 lb.)	1088 kg (2,396 lb.)
		Cab and Standard Counterweight	
		Over Front*	Over Side
		2511 kg (5,531 lb.)	1150 kg (2,534 lb.)
		2477 kg (5,456 lb.)	1129 kg (2,486 lb.)
		Canopy and Extra Counterweight	
		Over Front*	Over Side
		2511 kg (5,531 lb.)	1232 kg (2,714 lb.)
		2477 kg (5,456 lb.)	1210 kg (2,666 lb.)
		Cab and Extra Counterweight	
		Over Front*	Over Side
		2511 kg (5,531 lb.)	1273 kg (2,803 lb.)
		2477 kg (5,456 lb.)	1251 kg (2,755 lb.)

*Blade down (limited by hydraulics).

Additional equipment

Key: ● Standard ▲ Optional or special
See your John Deere dealer for further information.

50 P Engine
● Meets EPA Final Tier 4/EU Stage IV emissions
● Auto shutdown
● Engine coolant to -37 deg. C (-34 deg. F)
● Engine preheater
● Fan guard
● Fuel/water separator
● Full-flow oil filter
● Isolation mounted
● Key start switch with electric fuel shutoff
● Single dry-type air filter
Hydraulic System
● Auto-idle
● Auxiliary function right-hand pilot-lever control
● Auxiliary hydraulic lines with quick-couplers to end of boom
● Auxiliary return-flow selector valve
● Axial-piston swing motor
● Boom-swing foot control
● Excavator-to-backhoe control pattern change valve
● Closed center load sensing with 1 variable-displacement pump
● Hydraulic pilot-operated controls for boom, arm, bucket, swing, boom swing, blade, travel, and auxiliary functions
● Wet-disc swing brake
Undercarriage
● Planetary final drive
● Propel motor shield
● 2-speed axial-piston propel motors
● Rubber track, 400 mm (16 in.)

50 P Undercarriage (continued)
▲ Steel track, 400 mm (16 in.) with triple semi-grousers
▲ Rubber crawler pad, 400 mm (16 in.)
Upperstructure
● 360-deg. rotation
● Counterweight, 700 kg (1,543 lb.)
● Hinged service-access doors
● Toolbox
● ROPS/TOPS/FOPS (canopy)
▲ ROPS/TOPS/FOPS (cab) with air conditioning and heater
● Vandal protection for service doors, fuel cap, and toolbox
● Zero-tail-swing configuration
Front Attachments
● Arm, 1380 mm (4 ft. 6 in.)
▲ Long arm, 1690 mm (5 ft. 7 in.), includes additional 200-kg (441 lb.) counterweight
● Articulation hose shield
● Backfill blade, 2.00 m (6 ft. 7 in.)
▲ Hydraulic angle backfill blade
● Boom, 2.85 m (9 ft. 4.2 in.)
● Mechanical quick-coupler
▲ Augers: Planetary / Chain drive / Bits / Bit adapters
▲ Clamp
▲ Hammers: Points / Tools
▲ Quick-coupler buckets: Bucket teeth / Ditching / Heavy-duty
Operator's Station
● Horn
● Hour meter

50 P Operator's Station (continued)
● Instrumentation lights
● Mode selectors (illuminated): Power mode (I) / Economy mode (I)
● Monitor system: Preheat indicator / Engine oil pressure indicator with alarm / Alternator voltage indicator / Fuel gauge and low-fuel-level indicator / Engine coolant temperature gauge and engine coolant temperature indicator with alarm / Hour meter / Work lights indicator
● Motion alarm with cancel switch
● Work lights switch
● Propel levers and foldable pedals
● 2 travel speeds with automatic shifting
● Seat belt, 51 mm (2 in.), retractable
▲ Seat belt, 76 mm (3 in.), retractable
▲ Vinyl seat with fore/aft adjustment
▲ Suspension seat (cloth)
▲ Front screen
▲ Rear secondary exit kit
Electrical
● 12-volt accessory outlet
● Alternator, 55 amp
● Low-maintenance battery
● Blade-type multi-fused circuits
● Positive-terminal battery covers
▲ JDLINK™ connectivity hardware and John Deere Operations Center™ account
Lights
● Work lights: Halogen / 1 mounted on operator's station / 1 mounted on boom

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions per ISO 9249. These machines are not equipped with spark-arrestor mufflers. Usage in forestry applications is not recommended. 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 canopy unit with standard arm; 610-mm (24 in.), 0.16-m³ (5.7 cu. ft.) bucket; 400-mm (16 in.) rubber track; and 700-kg (1,543 lb.) counterweight; full fuel tank; and 79-kg (175 lb.) operator.



JOHN DEERE