



Cat[®]

PL83/PL87

Pipelayers

The PL83/PL87 Cat[®] Pipelayers are purpose-built to meet your unique demands providing increased lift capacity, enhanced slope capability, ease of operation, performance and transportability. And like every Cat machine, Pipelayers are designed for long life, serviceability and rebuild capability to help keep your owning and operating costs low.

Performance

- Cat C15 ACERT™ engine meets U.S. EPA Tier 4 Final/EU Stage IV emission standards or Tier 3/Stage IIIA equivalent emission standards, depending on region of sale.
- Integrated power train with differential steering and updated hydraulic system work together to provide power and improved machine maneuverability for any pipelayer application.
- Electro-hydraulics offer greater response and precise control to variable speed motors of the heavy duty winch for greater machine productivity.
- New counterweight profile improves lift capacity.

Efficiency

- Efficient use of Diesel Exhaust Fluid (DEF) improves overall fluid and fuel efficiency.
- Differential steering maintains full power to both tracks for best-in-class turning even with a loaded boom, increasing maneuverability in tight locations.
- Improved machine center of gravity and lengthened track-roller frame with repositioned rear idler places more track on the ground, enhancing slope capability.

Ease of Operation

- Implement joystick places all Pipelayer implement controls and functionality in one hand.
- Low-effort, ergonomically designed and positioned control handle allows simultaneous, precise positioning of load line, boom, and extendible counterweight.
- Dual brake pedal controls provide enhanced maneuverability and steering control.
- Planetary differential steering contributes to superior maneuverability in tight areas of operation as well as enhanced slope capability.

Serviceability

- Full left-side engine serviceability, including fill tube, dipstick, air cleaner, fuel filters, oil filter and coolant level check allows for quick and efficient routine service.
- High speed oil change is standard and makes servicing even faster.
- Hydraulic and power train filters and fuel tank drain are located at rear of machine and are conveniently serviceable from ground level.
- Pressure taps are placed within hydraulic system to allow for quick monitoring.
- Major components like the engine, transmission, and final drives are modular for quicker removal during service, saving cost and downtime.

Comfort

- Quieter, pressurized cab with heated/ventilated seat option improves operator comfort and productivity.
- Ergonomically designed seat is positioned for greater visibility to work area and convenient access to machine control lever, switches and pedals.

Technology

- Equipped with Product Link™ which enables remote monitoring, improving overall fleet management effectiveness.
- Load Monitor Indicator (LMI) ready from factory and can accept regional LMI systems.
- LCD monitoring display with onboard diagnostics.

Safety

- Convenient steps, handles and guardrail provide safe access/egress.
- Enlarged roof top window with retractable shade, additional mirrors, and angled door improves visibility to the trench, boom and blocks.
- Standard operator presence detection system allows machine to idle when operator is not seated, but locks out power train to avoid unintentional movement.
- Optional rear vision camera available to further enhance visibility around machine.



Cat® PL83/PL87 Pipelayers

Engine				
Engine Model (PL83 and PL87)	Cat C15 ACERT			
Emissions	Tier 4 Final/Stage IV or Tier 3/Stage IIIA equivalent			
	Tier 4 Final/Stage IV		Tier 3/Stage IIIA	
Engine Power (Maximum)*				
SAE J1995	271 kW	363 hp	273 kW	366 hp
ISO 14396	268 kW	359 hp	269 kW	361 hp
ISO 14396 (DIN)		364 hp		366 hp
Net Power (Rated)**				
ISO 9249/SAE J1349	238 kW	319 hp	245 kW	329 hp
ISO 9249/SAE J1349 (DIN)		323 hp		333 hp
Net Power (Maximum*)				
ISO 9249/SAE J1349	258 kW	345 hp	256 kW	343 hp
ISO 9249/SAE J1349 DIN		350 hp		347 hp
Bore	137 mm	5.4"	137 mm	5.4"
Stroke	172 mm	6.75"	172 mm	6.75"
Displacement	15.2 L	928 in ³	15.2 L	928 in ³

*Maximum speed 1,700 rpm for Tier 4 Final/Stage IV.
Maximum speed 1,600 rpm for Tier 3/Stage IIIA.

**Rated speed 1,900 rpm for Tier 4 Final/Stage IV.
Rated speed 1,850 rpm for Tier 3/Stage IIIA.

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No derating required up to 3566 m (11,700 ft) altitude, beyond 3566 m (11,700 ft) automatic derating occurs.
- All non road Tier 4 and Stage IIIB and IV diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet Cat ECF-3, API CJ-4, and ACEA E9 specifications are required. Consult your OMM for further machine specific fuel recommendations.
- DEF used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.
- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.5 kg of refrigerant which has a CO₂ equivalent of 3.575 metric tonnes.

Weights		
PL83 Operating Weight	50 492 kg	111,316 lb
PL83 Shipping Weight	38 954.5 kg	85,880 lb
PL87 Operating Weight	55 245.5 kg	121,795 lb
PL87 Shipping Weight	41 095.5 kg	90,600 lb

Operating Specifications		
PL83 Lift Capacity at Tipping Point – ISO 8813	77 111 kg	170,000 lb
PL87 Lift Capacity at Tipping Point – ISO 8813	97 976 kg	216,000 lb

Undercarriage (PL87)		
Shoe Type	Super Extreme Service	
Width of Standard Shoes	864 mm	34"
Number of Shoes (each side)	48	
Grouser Height	93 mm	3.6"
Track Gauge	2.54 m	8'4"
Length of Track on Ground	3715 mm	12'2"
Ground Contact Area	6.4 m ²	9,920.1 in ²
Number of Rollers (each side)	9	
Number of Carrier Rollers (each side)	1	

Undercarriage (PL83)		
Shoe Type	Moderate Service	
Width of Standard Shoes	710 mm	30"
Number of Shoes (each side)	48	
Grouser Height	78 mm	3"
Track Gauge	2337 mm	92"
Length of Track on Ground	3715 mm	12'2"
Ground Contact Area	5.3 m ²	8,215 in ²
Number of Rollers (each side)	9	
Number of Carrier Rollers (each side)	1	

Service Capacities		
Cooling System	76.8 L	20.3 gal
Fuel Tank	415 L	109.6 gal
Engine Crankcase and Filter	43 L	11.4 gal
Diesel Exhaust Fluid (DEF)	17 L	4.5 gal
Power Train Oil System	190 L	50.2 gal
Hydraulic Tank Oil	100 L	26.4 gal
Final Drives (each side)	13 L	3.4 gal
Recoil Spring Compartment	74 L	19.5 gal
Winch Case (Boom)	11.3 L	3 gal
Winch Case (Hook)	15.1 L	4 gal

Machine Dimensions				
	PL83		PL87	
Operating Length	5.45 m	17'11"	5.45 m	17'11"
Height (Cab and ROPS)	3.53 m	11'7"	3.53 m	11'7"
Width (Counterweight/Boom removed)	3.86 m	12'8"	4.06 m	13'4"

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

© 2017 Caterpillar
All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, SAFETY.CAT.COM, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEXQ1506-01 (03-2017)
Replaces AEXQ1506

