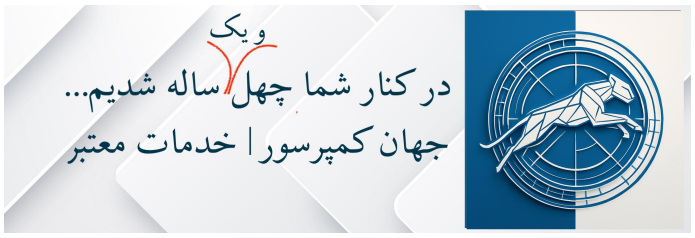
1206F-E70TTA Industrial Diesel Engine

151-240 kW (202-320 hp) @ 2200 rpm
EU Stage IV/U.S. EPA Tier 4 Final

The 6 cylinder option for the Perkins 1200 Series, the 1206F gives you a complete power solution that meets EU Stage IV/U.S. Tier 4 Final emission standards. The choice of options, engine configurations and robust technology allows you to integrate the 1206 range into your equipment with minimum re-engineering.
Designed to meet EU Stage IV/U.S. EPA Tier 4 Final emission standards.



Specifications

Power Rating		
Minimum Power	151 kW	202 HP
Maximum Power	240 kW	320 BHP
Maximum Torque	1274 Nm @ 1400 rpm	940 lb-ft @ 1400 rpm
Rated Speed	2200 rpm	

Emission Standards	
Emissions	EU Stage IV/U.S. EPA Tier 4 Final

General		
Bore	105 mm	4.13 in
Stroke	135 mm	5.3 in
Displacement	7 l	427.7 in³
Aspiration	Series turbocharged aftercooled	
Rotation from Flywheel End	Anti-clockwise	
Combustion System	Direct injection	
Compression Ratio	16.5:1	
Cooling System	Liquid	
Cycle	4 stroke	
Number of Cylinders	6 inline	

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Total Coolant Capacity	15.2 l	4 gal (US)
Total Lubricating Capacity	16 l	4.2 gal (US)

Aftertreatment Dimensions* - DOC/DPF/SCR		
Height	515 mm	20.3 in
Length	770 mm	30.3 in
Width	799 mm	31.4 in

Engine Dimensions*		
Dry Weight	715 kg	1576 lb
Height	907 mm	35.7 in
Length	1063.7 mm	41.9 in
Width	820.2 mm	32.3 in

Features and Benefits

Downsizing opportunity

The high power density and excellent torque in our 1206 range gives machine manufacturers the opportunity to use our 6 cylinder engine instead of a larger engine. Downsizing in this way can save you money and create more space to package new aftertreatment units. The 1206 range is an ideal engine solution for large and medium-sized machines for construction, agriculture, materials handling and general industrial applications.

Easy to switch

The 1206 range features a consistent set of core technologies, supporting your transition from Stage IIIB/Tier 4 Interim to Stage IV/Tier 4 Final emission standards which came into force for engines 130-560 kW (175-750 hp) in January 2014. Stage IV/Tier 4 Final emissions standards for engines below 130 kW (175 hp) were introduced in the EU in October 2014 and in the U.S. in January 2015.

Outstanding performance

Like you, we believe there is no need for a trade-off between meeting emission standards and delivering on performance. The 1200 Series tackles the emissions challenge head-on and gives you improved productivity levels and fuel consumption compared to the previous generation Stage IIIB/Tier 4 Interim engines. The powerful 1206 range outperforms the competition with its improved torque of up to 1282 Nm and outstanding transient response, making it the perfect choice for customers looking for reliable power.

Tailored for your machines

Photographs are for illustrative purposes only and may not reflect final specification.
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Your needs are our top priority, which is why we provide more tailored technology than anyone else. Working closely with OEMs, we have developed the 1206 range with hundreds of variables so that it easily fits into your machine.

Our 1206 range engines come with two year warranties as standard and can also be supported by extended service contracts.

Building on more than 80 years of experience, the 1200 Series benefits from our engineering experience and heritage. Its improved productivity and fuel consumption reduces the total cost of ownership.

Technical Information

Aftertreatment technology

- 3″ flex pipe connection kit with rotatable elbow for 60° and 90° RS inlet flexibility
- DOC - Diesel Oxidation Catalyst
- DPF - Diesel Particulate Filter
- Passive regeneration system
- SCR - Selective Catalytic Reduction

Air inlet system

- Standard air cleaners

Cooling system

- 50:50 water glycol mix
- Detailed guidance on cooling system design and validation available to ensure machine reliability
- Top tank temperature 108°C (226°F) as standard to minimize cooling pack size

Control system

- Flexible and configurable software features and well-supported SAE J1939 CAN bus enables highly integrated machines
- Full electronic control system, all connectors and wiring looms waterproof and designed to withstand harsh off-highway environments

Flywheels and flywheel housing

- Wide choice of drivetrain interfaces, including SAE No. 1, SAE No. 2, and SAE No. 3 configurations

Fuel system

- Electronic high pressure common rail
- Innovative filter design to ensure maximum protection of the engine

General

- Cold start capability

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- Engine mountings

Oil system

- Wide choice of sumps for different applications

Power take-off

- Factory fitted compressors are also available.
- SAE A or SAE B flanges on left-hand side. Right-hand side twin PTO also available. Engine power can also be taken from the front of the engine on some applications.

Standard emissions control equipment

- NRS – NOx Reduction System

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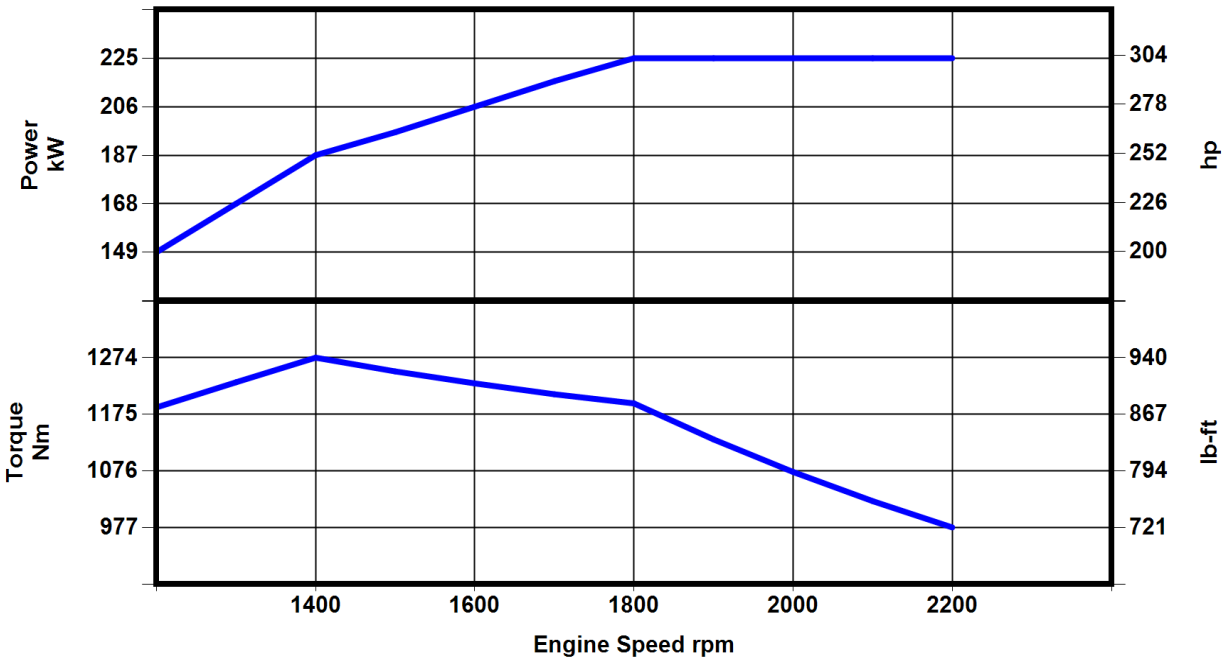
1200 Series 1206F-E70TTA INDUSTRIAL ENGINE

EU Stage IV/U.S. EPA Tier 4 Final

.0-225 kW / .0-302 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
0.0	0.0	2200	983	725	1400	Industrial C intermittent rating
0.0	0.0	2200	997	736	1400	Industrial C intermittent rating
0.0	0.0	1800	1039	767	1400	Industrial C intermittent rating
0.0	0.0	2200	1092	806	1400	Industrial C intermittent rating
0.0	0.0	2200	1214	896	1400	Industrial C intermittent rating
0.0	0.0	2200	1231	908	1300	Industrial C intermittent rating
0.0	0.0	2200	1245	919	1400	Industrial C intermittent rating
0.0	0.0	2200	1252	924	1400	Industrial C intermittent rating
151	202	2200	983	725	1400	Industrial B rating
168	225	2200	1092	806	1400	Industrial B rating
168	225	2200	1092	806	1400	Industrial C intermittent rating
187	250	2200	1214	896	1400	Industrial C intermittent rating
205	275	2200	1257	928	1400	Industrial C intermittent rating

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225	302	2200	1274	940	1400	Industrial C intermittent rating
225	302	2200	1282	946	1400	Industrial D rating

Rating Standard ISO 14396:2002
Additional ratings are available for specific customer requirements. Consult your Perkins distributor.
Unless otherwise specified, all stated data is for maximum rated speed and 100% load.
B rating performance data will be added upon availability

Rating Definitions and Conditions

IND B Rating
For service where power and/or speed are cyclic (time at full load not to exceed 80%).

IND-C (Intermittent) Rating
Is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

IND D Rating
For service where maximum pwer is required for periodic overloads (time at full load not to exceed 5% of the duty cycle).

Rating Conditions for Diesel Engines – up to 7.1 liters are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (0.295 in Hg) and 25°C (77°F). Performance is measured using fuel to specification EPA 2D 89.330-96 with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

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