

1200 Series 1206E-E66TA Industrial Engine

EU Stage IIIB, EPA Tier 4 Interim and MLIT Step 4
89-129.4 kW / 119.3-173.5 hp

The new, innovative Perkins 1200 Series engines are designed to meet EU Stage IIIB and EPA Tier 4 emissions legislation. They offer not only specific power outputs but also a choice of engine configurations and options. Their robust technology allows our OEMs the ability to integrate these engines into their equipment with the minimum of re-engineering.

The 1206E-E66TA is a turbocharged, air-to-air charge cooled, 6.6 litre, 6 cylinder unit capable of producing 129 kW (173 hp). This engine also provides excellent torque; giving an increase of over 18% at low engine speed.

The Perkins 1200 Series engines have the innovative design to meet the latest, stringent emissions legislation; the flexibility to integrate into more than 800 different types of equipment.

Perkins have developed a reputation for designing and building reliable and durable engines suitable for the most demanding applications.

Engine data

Number of cylinders	6 vertical in-line
Bore and stroke	105 mm x 127 mm (4.13 in x 5 in)
Displacement	6.6 litres (402.8 in ³)
Aspiration	Turbocharged aftercooled
Cycle	4 stroke
Combustion system.....	Direct injection
Compression ratio	16.5:1
Rotation.....	Anti-clockwise, viewed on flywheel
Total lubricating capacity.....	13-16 litres (3.4-4.2 US gal)
Cooling system.....	Liquid
Total coolant capacity	13.7 litres (3.6 US gal)
Dimensions	
Length	1063.7 mm (41.9 in)
Width.....	753 mm (29.6 in)
Height.....	907 mm (35.7 in)
Dry weight	695 kg (1532 lbs)

Final weight and dimensions will depend on completed specification

Emissions

Designed to meet 2011 EU Stage IIIB (Europe), EPA Tier 4 Interim (US) and MLIT Step 4 (Japan).

Dependable power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

Designed to be productive

Turbocharging with smart wastegate available on all ratings for fast response, high power, and increased torque.

Lifetime of low cost

Fuel consumption optimised to match operating cycles of a wide range of equipment and applications. No additional fluids or additives are required which lowers operating costs.

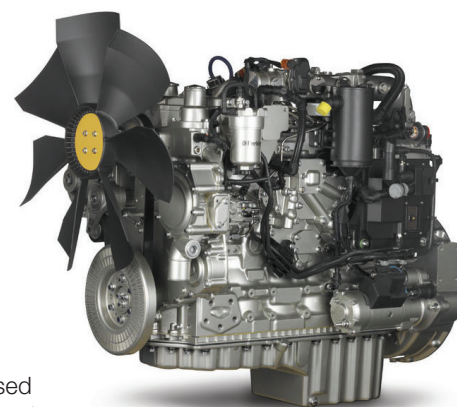
Hydraulic tappets, multi-vee belts, service-free aftertreatment and 500 hour oil change intervals enable low-cost maintenance. Many service items have a choice of location on either side of the engine to enable maximum service access.

Industry leading flexibility

Exceptional power density enables standardisation across numerous applications. Multiple installation options minimise total package size. Ideal for equipment with narrow engine compartments.

Local support, global coverage

- Perkins recognise that the customer relationship is important to machine manufacturers and we can offer a range of flexible solutions to help provide appropriate support, either to the OEM's network or directly to the machine customer.
- Perkins information systems enable our distributors to quickly diagnose engine faults and identify the right parts. The Perkins logistics operation is able to dispatch more than 45,000 different parts from stock, reaching the customer within 24 hours.
- Extended Service Contracts – protect and plan the cost of ownership.



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Engine specification

Air inlet

- Standard air cleaners

Control system

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

Cooling system

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

Standard emissions control equipment

- NRS – NOx Reduction System

Flywheels and flywheel housing

- Wide choice of drivetrain interfaces, SAE1, SAE2 and SAE3 configurations

Fuel system

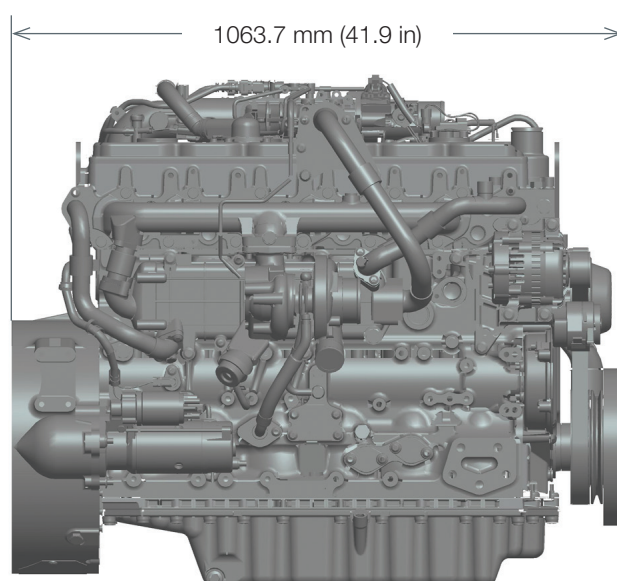
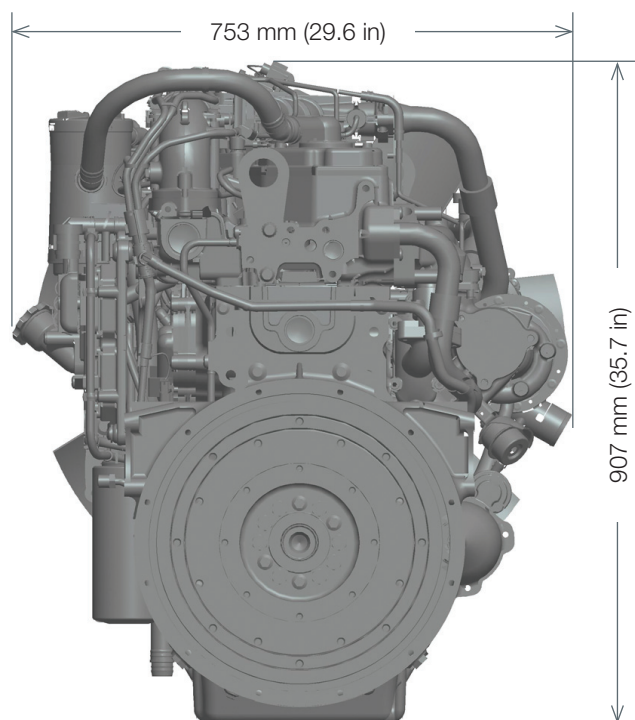
- Electronic high pressure common rail
- Innovative filter design – ensures maximum protection of the engine

Oil system

- Choice of sumps for different applications

Power take-off

- 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
- Factory fitted compressors are also available



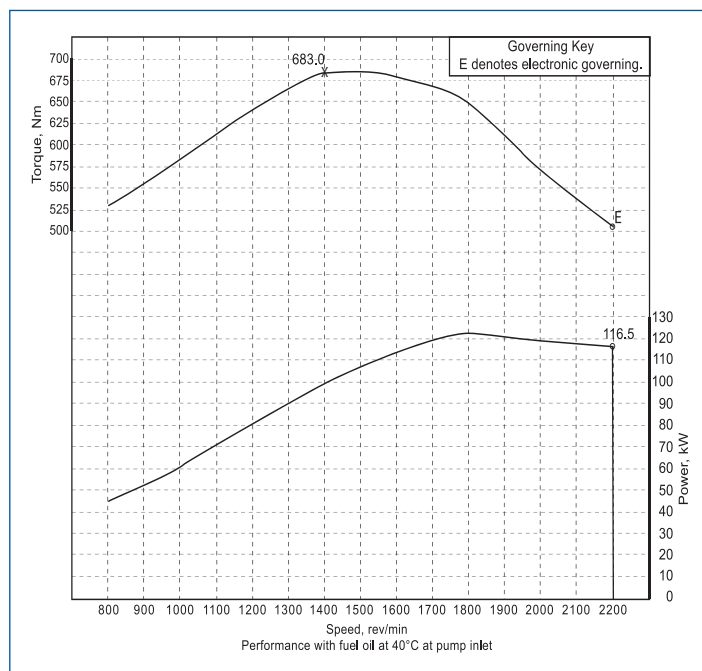
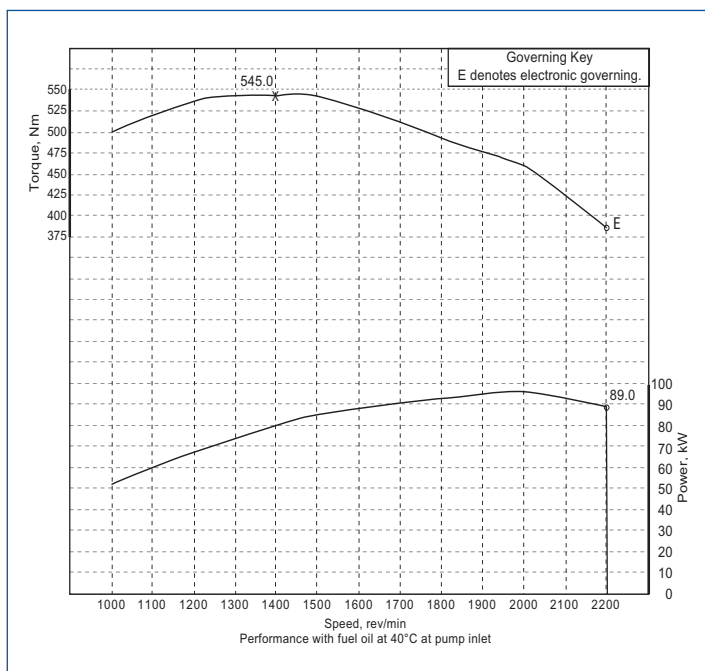
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Performance data



Power kW	Power (bhp)	Speed (rev/min)	Torque (Nm)	Speed (rev/min)	Rating Type
89.0	(119.3)	2200	545	1400	C
116.5	(156.2)	2200	683	1400	C
129.4	(173.5)	2200	825	1400	C

Rating Standard ISO 14396:2002

Unless otherwise specified, all stated data is for maximum rated speed and 100% load.

Rating definitions and conditions

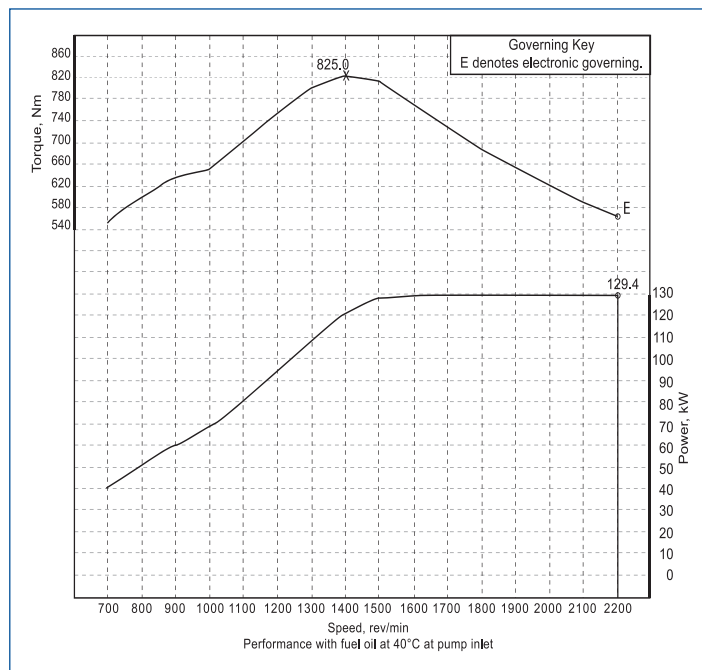
IND-B for service where power and/or speed are cyclic (time at full load not to exceed 80%).

IND-C (Intermittent) 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 for service where maximum power is required for periodic overloads (time at full load not to exceed 10% of the duty cycle).

Additional ratings are available for specific customer requirements. Consult your Perkins distributor.

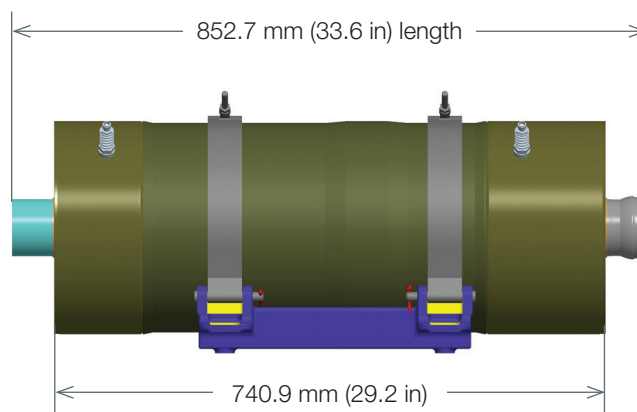
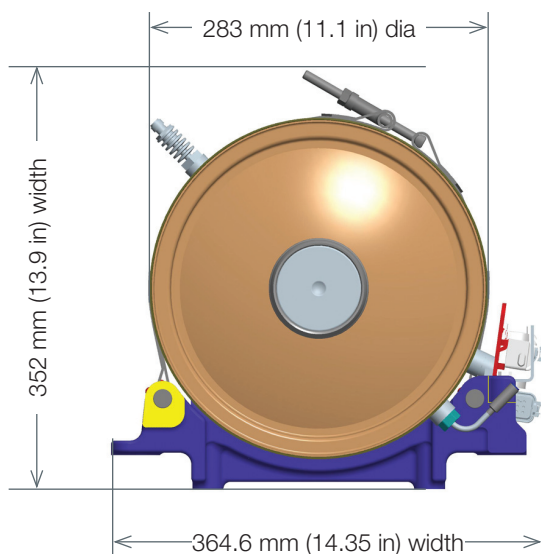
Rating Conditions for Diesel Engines – up to 7.1 litres are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapour pressure of 1 kPa (0.295 in Hg) and 25°C (77°F). Performance is measured using fuel to specification EPA 2D 89.330-96 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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Aftertreatment configuration



Technology

The DPF technology chosen is a wall flow filter configuration that performs through the whole work cycle of the engine thus allowing it to work efficiently.

Power

Using our advanced research and development techniques, we have perfectly matched the aftertreatment to the engine. The engine performance has then been optimised to give the maximum power and the regeneration is invisible to the operator.

Mounting

Remote and engine-mounted installation options provide OEM flexibility for many applications.

Service

Aftertreatment designed to be service-free (minimum 8,000 hours).

Length	852.7 mm (33.6 in)
Width	364.6 mm (14.35 in)
Height	352 mm (13.9 in)
Diameter	283 mm (11.1 in)
Weight	40 kg (88.1 lbs)

Final weight and dimensions will depend on completed specification

Aftertreatment module shipped as separate part to be assembled by customer.

Aftertreatment

- DOC – Diesel Oxidation Catalyst
- DPF – Diesel Particulate Filter supplied, with a range of inlet and outlet options
- No ash service requirement, low temperature regeneration
- 3" flex pipe kits available with a variety of elbow options for turbocharger connection

Photographs are for illustrative purposes only and may not reflect final specification.

All information in this document is substantially correct at time of printing and may be altered subsequently.
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