



1104A is a 4 cylinder, 4.4 litre family of naturally aspirated and turbocharged engines. It provides a superior successor to the very popular 1004 and 4.41 products. Driven by the requirements of our customers, it has been tailored to meet the needs of the construction, materials handling, and agricultural non-emission legislated markets.

Designed and built to the most demanding standards, the 1104A brings with it significant improvements in all aspects of the engine's performance and operating characteristics.

The family is complemented by a range of power solutions known as 'Industrial Open Power Units' and 'ElectropaKs.'

The 1104A-44 is a 4.4 litre engine that delivers improved performance and reduced operating costs, in a quiet and efficient package. It is ideal for a wide range of off-highway applications.

In the 1100 Series, Perkins has designed to perform and delivered with choice.



### 1100 Series 1104A-44

50-63,5 kW/67-85 bhp

#### Flexibility

- The 1100 Series provides a comprehensive platform of engines that enable OEM's to remain flexible, responsive and competitive
- The 1100 Series offers a choice of emissions and non-emissions compliant models with similar hook-up points. Similarity in envelope size, mounting points, fuel, electrical, gaseous and coolant connection points results in lower design and installation costs for the machine manufacturer

#### Commonality

- Using this single platform concept, the 1104A has been aligned with its successful 1104C emissions-compliant cousin
- The use of many common components, reduces parts variety, inventory levels and servicing costs, benefits that can be passed on to the end customer and their servicing outlets

#### Performance

- The 1100A engine family meets the demanding needs of markets with no emissions legislation for off-highway machines
- Significant improvements to power, torque and torque back-up

#### **Lower Operating Costs**

 Improved cylinder bore finish and piston ring technology, combined with optimized cylinder head and block design have all contributed to significantly lowering fuel and oil consumption levels

#### Quieter

 The new and improved timing gear train, cylinder block design and use of noise deadening materials are just some of the features contributing to reduced bare engine noise across its operating range

#### Cleaner

- Reduction in smoke and harmful gaseous emissions from an advanced combustion system design
- Latest gasket and sealing technology ensure a product far cleaner and friendlier to the environment

#### Quality by Design

Perkins follows a rigorous and comprehensive New Product Introduction process to ensure product integrity. Design, testing and manufacturing process improvements have been adopted in the introduction of the new 1100A engine family. The result is a confidence in a product that is reliable and durable for nonemissions legislated markets

#### **Product Support**

- Total worldwide service is provided through a network of 4,000 distributors and dealers.
- TIPSS The Integrated Parts and Support System enables customers to specify and order parts electronically as well as service engines with on-line guides and service tools.

## designed to perform

Performance Data	Gross Intermittent (ISO/TR 14396)	Speed (rev/min)
Power Output (kW) Power Output (bhp) Peak Torque (Nm) Peak Torque (lbf ft)	63.5 85.0 293.0 216.0	2200 2200 1400 1400

# 1100 Series

#### **Engine Specification**

- Cast iron engine block
- Flywheel and flywheel housing
- Glow plug start aid (optional)
- Integral inlet manifold
- Cast iron exhaust manifold
- Gear driven coolant pump
- 12 volt alternator
- Provision for PTOs
- Choice of cooling fans
- 12 volt starter motor
- Choice of lubricating oil sump
- Choice of dipstick positions
- Choices of oil filler positions
- Choice of water outlet positions
- Balanced and non-balanced versions



Number of cylinders In-line 4 cylinder (vertical in-line)

Bore and stroke 105 mm x 127 mm
Displacement 4.4 litres (269 in3)
Aspiration Naturally aspirated

Cycle 4 stroke
Combustion system Direct injection
Compression ratio 19.3:1

Rotation Anticlockwise viewed on flywheel

Cooling system

Dimensions

Liquid / pressurised

Length 768 mm

Width 558 mm

Height 795 mm

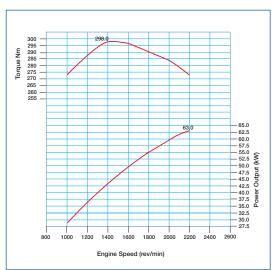
Dry weight 357 kg

Final weight and dimensions will depend on completed specification.

#### **Option Groups**

A full range of additional options are available to enable a customer to specify an engine precisely to an application. These include alternative performance ratings, power take-offs, inlet and exhaust outlets positions and a range of flywheels and flywheel housings to suit different clutches and transmissions.







Perkins Engines Company Limited

Peterborough PE1 5NA United Kingdom Telephone +44 (0)1733 583000 Fax +44 (0)1733 582240 www.perkins.com Distributed by

All information in this document is substantially correct at time of printing and may be altered subsequently Publication No.1787/11/05 Produced in England ©2005 Perkins Engines Company Limited