73.5-80.5 kW / 98.5-108 hp

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 1104A-44T is a 4.4 litre turbocharged 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.



| Specification          |                                    |                     |
|------------------------|------------------------------------|---------------------|
| Number of cylinders    | 4 vertical in-line                 |                     |
| Bore and stroke        | 105 x 127 mm                       | 4.3 x 5.0 in        |
| Displacement           | 4.4 litres                         | 269 in <sup>3</sup> |
| Aspiration             | Turbocharged                       |                     |
| Cycle                  | 4 stroke                           |                     |
| Combustion system      | Direct injection                   |                     |
| Compression ratio      | 18.23:1                            |                     |
| Rotation               | Anti-clockwise, viewed on flywheel |                     |
| Cooling system         | Liquid / Pressurised               |                     |
| Total coolant capacity | 7 litres                           | 1.9 US gal          |

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### Features and benefits

#### 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

• 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
- Warranties and Service Contracts

We provide one-year warranties for constant speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally Discover more: www.perkins.esc

#### 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 non-emissions legislated markets

#### Product support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory strengthening relationships and providing more value to you, our customer
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost .. wherever your Perkins powered machine is operating in the world
- To find your local distributor: www.perkins.com/distributor

#### www.perkins.com

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### **Technical information**

- Cast iron engine block
- Flywheel and flywheel housing
- Glow plug start aid (optional)
- Integral inlet manifold
- Cast iron exhaust manifold
- Choice of turbocharger options
- 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

### Option groups

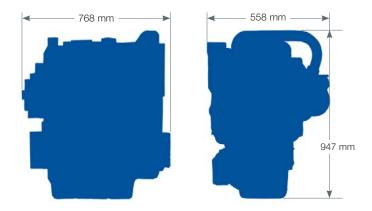
A full range of additional options are available to enable a customer to specify an engine precisely to an application. These include alternative performance ratings, power take-offs, inlet and exhaust outlets positions, turbocharger positions, and a range of flywheels and flywheel housings to suit different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

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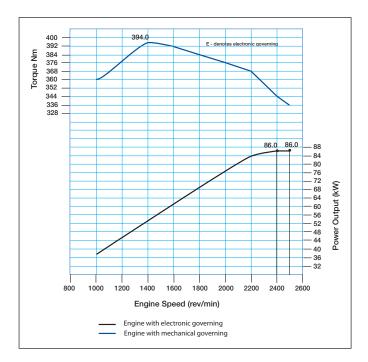


| Engine package weights and dimensions |        |          |  |
|---------------------------------------|--------|----------|--|
| Length                                | 786 mm | 30.9 in  |  |
| Width                                 | 558 mm | 37.3 in  |  |
| Height                                | 947 mm | 31.2 in  |  |
| Weight (dry)                          | 372 kg | 820.1 lb |  |

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| Performance data     | Gross intermittent (ISO/TR 14396) | Speed rpm |
|----------------------|-----------------------------------|-----------|
| Power output (kW)    | 80.5                              | 2200      |
| Power output (hp)    | 108.0                             | 2200      |
| Peak torque (Nm)     | 404.0                             | 1400      |
| Peak torque (lbf·ft) | 298.0                             | 1400      |

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