



# 1100 Series

## 1104D-E44TG1

### Diesel Engine - ElectropaK

72 kWm 1800 rev/min



#### Powered by Your Needs

Hitting the key power nodes required by the market, the 1104D-E44TG1 ElectropaK has been developed to provide a clean and cost effective power solution.

#### State of the Art Design

The 1104D utilises the latest common-rail fuel system technologies with a closely optimised air-management system, which is overseen by the latest generation of electronic engine control. This allows the 1104D-E44TG1 to deliver high power density and excellent fuel economy with low exhaust emissions and minimum heat rejection.

#### Worldwide Power Solution

The 1104D has been designed to be worldwide fuel tolerant, and 5% biofuel (RME) options are available to meet local market needs.

#### 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

#### Lower Operating Costs

The 1104D maintains Tier 2 fuel economy. This will allow many customers to keep existing fuel tanks, avoiding the need for costly redesign. Service intervals are set at 500 hours as standard and Perkins provides comprehensive warranty cover for two years, with three years on major engine components. A low usage warranty package is also available.

#### Long-term Power Solution

The 1104D-E44TG1 ElectropaK has been designed to fully comply with stringent EPA Tier 3 emissions regulations, providing an emissions compliant power solution for the future.

*Certified against the requirements of EPA Tier 3 legislation for non-road mobile machinery, powered by constant speed engines (EPA 40 CFR Part 89 Tier 3).*

The 1104D turbocharged ElectropaKs are the latest addition to the Perkins 1100 Series ElectropaK range. Perkins has developed this engine in line with our customer's needs by providing the options of either electronic common rail or mechanically controlled fuel systems.

These ultra clean engines are assembled on a new high technology production line. Frequent computerized checks during the production process ensure high build quality is maintained throughout.

Perkins has produced a world-class product for their customers, engineered to give even greater levels of reliability, yet with a lower cost of ownership.

The 1104D-E44TG1 complies with the latest EPA Tier 3 emissions legislation.

Engine Speed rev/min	Type of Operation	Typical Generator Output (Net)		Engine Power			
		kVA	kWe	Gross		Net	
				kWm	bhp	kWm	bhp
1800	Prime power	73.4	58.7	66.2	88.8	65.2	87.4
	Standby (maximum)	80.8	64.6	72.8	97.6	71.8	96.3

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1. Derating may be required for conditions outside these; consult Perkins Engines Company Limited.

Fuel specification: BS 2869 Class 2 or ASTM D975 D2. Lubricating oil: API CH4/ACEA E5.

Generator powers are typical and are based on typical alternator efficiencies and a power factor of 0.8.

#### Rating Definitions

**Prime power** – Power available at variable load in lieu of a main power network. Overload of 10% permitted for 1 hour in every 12 hours operation.

**Standby (maximum)** – Power available at variable load in the event of a main power network failure. Maximum use 500 hours per year. No overload is permitted.

# 1100 Series

## 1104D-E44TG1

### Standard ElectropaK Specification

#### Air inlet

- Mounted air filter turbocharger

#### Fuel system

- Electronic governing (conforms to Class G3 ISO 8528-5)
- Fuel filter

#### Lubrication system

- Cast iron sump with filler and dipstick
- Oil filter

#### Cooling system

- Belt driven pusher fan and guards
- Mounted radiator and piping
- Water pump

#### Electrical equipment

- 12 volt starter motor and 12 volt 65 amp alternator with DC output

#### Flywheel and housing

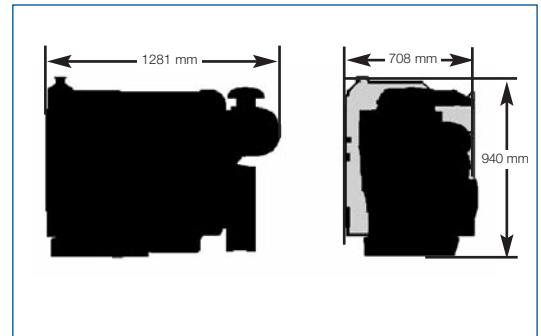
- High inertia flywheel to SAE J620 size 10/11
- SAE 3 flywheel housing

#### Starting aids

- Glow plugs

#### Literature

- User's Handbook



Fuel Consumption		
Engine Speed	1800 rev/min	
	g/kWh	l/hr
Standby	230.8	20
Prime power	236.4	19
75% of prime power	249.4	17
50% of prime power	275.7	12
25% of prime power	293.1	6

### General Data

Number of cylinders	4 in-line
Bore and stroke	105 x 127 mm
Displacement	4.41 litres
Aspiration	Turbocharged
Cycle	4 stroke
Combustion system	Direct injection
Compression ratio	18.2:1
Rotation	Anti-clockwise viewed on flywheel
Cooling system	Water-cooled
Total lubrication system capacity	8.4 litres
Total coolant capacity	13.2 litres
Dimensions	Length 1281 mm Width 708 mm Height 940 mm

Final weight and dimensions will depend on completed specification.



### Perkins Engines Company Limited

Peterborough PE1 5NA  
United Kingdom  
Telephone +44 (0)1733 583000  
Fax +44 (0)1733 582240  
[www.perkins.com](http://www.perkins.com)

All information in this document is substantially correct at time of printing and may be altered subsequently  
Publication No.1909/11/08 Produced in England ©2007 Perkins Engines Company Limited

Distributed by