

# 1100 Series 1104D-E44TG1 Diesel Engine – ElectropaK

71.8 kWm (96 hp) net standby power @ 1800 rpm

The Perkins® 1104D-E44TG ElectropaKs are the latest addition to the 1100 Series Electric Power line-up. Offering improved power density from a compact package, these ElectropaKs build on Perkins reputation within the power generation industry.

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

Hitting the key power nodes required by the market, the 1104D ElectropaK product line-up consists of three models offering a power solution for both Prime and Standby applications, in 60 Hz territories.



## Emissions

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

| Specification              |                                    |              |
|----------------------------|------------------------------------|--------------|
| Number of cylinders        | 4 in-line                          |              |
| Bore and stroke            | 105 x 127 mm                       | 4.1 x 5.0 in |
| Displacement               | 4.41 litres                        | 269 cubic in |
| Aspiration                 | Turbocharged                       |              |
| Cycle                      | 4 stroke                           |              |
| Combustion system          | Direct injection                   |              |
| Compression ratio          | 16.2:1                             |              |
| Rotation                   | Anti-clockwise, viewed on flywheel |              |
| Total lubricating capacity | 8.4 litres                         | 2.2 US gal   |
| Cooling system             | Water-cooled                       |              |
| Total coolant capacity     | 16.5 litres                        | 4.3 US gal   |

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THE HEART OF EVERY GREAT MACHINE

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## Features and benefits

### Power to meet 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 range 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

### Lower operating costs

- The 1104D maintains Tier 2 fuel economy, allowing customers to keep existing fuel tanks
- Service intervals are 500 hours standard
- **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  
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- Low usage warranty package is also available

### 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](http://www.perkins.com/distributor)

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## Technical information

### Air inlet

- Mounted air filter and turbocharger

### Cooling system

- 22 inch belt-driven pusher fan and guards
- Radiator and piping
- Water pump

### Electric system

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

### Flywheel and housing

- High inertia flywheel to SAE J620 Size 10/11
- SAE3 flywheel housing

### Fuel system

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

### Literature

- Users Handbook

### Lubrication system

- Wet cast iron sump with filler and dipstick
- Oil filter

### Start aids

- Glow plugs

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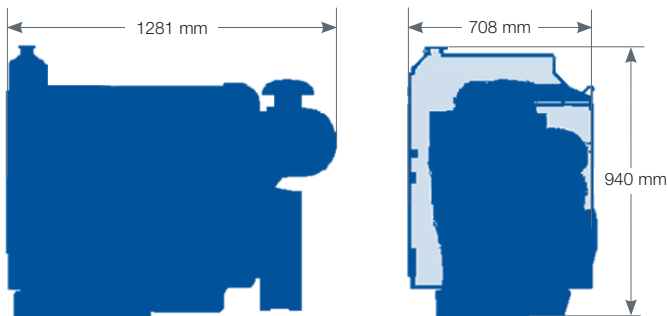
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| Engine package weights and dimensions |         |         |
|---------------------------------------|---------|---------|
| Length                                | 1281 mm | 50.4 in |
| Width                                 | 708 mm  | 27.8 in |
| Height                                | 940 mm  | 37.0 in |
| Weight (dry)                          | 483 kg  | 1065 lb |

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| Speed rpm | Type of operation | Typical generator output (Net) |      | Engine power |       |      |     |
|-----------|-------------------|--------------------------------|------|--------------|-------|------|-----|
|           |                   |                                |      | Gross        |       | Net  |     |
|           |                   | kVA                            | kWe  | kWm          | hp    | kWm  | hp  |
| 1800      | Prime power       | 73.4                           | 58.7 | 66.2         | 118.0 | 65.2 | 110 |
|           | Standby (maximum) | 80.8                           | 64.6 | 72.8         | 129.8 | 71.8 | 122 |

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/5. Derating may be required for conditions outside the test conditions; consult Perkins Engines Company Limited.

Generator powers are typical and are based on typical alternator efficiencies and a power factor. **Fuel specification:** Consult Perkins Engines Company Limited (various fuel specifications are available). **Lubricating oil:** multi-grade oil conforming to API-CH4/CI4 must be used.

#### Rating definitions

**Prime power:** Power available at variable load in lieu of a main power network. Overload of 10% is 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. No overload is permitted.

| Percent of prime power | Fuel consumption at 1800 rpm g/kWh | Fuel consumption at 1800 rpm l/hr |
|------------------------|------------------------------------|-----------------------------------|
| 110%                   | 230.8                              | 20                                |
| 100%                   | 236.4                              | 19                                |
| 75%                    | 249.4                              | 17                                |
| 50%                    | 275.7                              | 12                                |

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