

# 2500 Series 2506D-E15TAG1 Diesel Engine – Electropak

490 kWm at 1800 rpm

The 2500 Series engine has been developed using the latest engineering techniques and builds on the strengths of the already very successful 2000 Series family and addresses today's uncompromising demands within the power generation industry. Developed from a proven heavy-duty industrial base these products offer superior performance and reliability.

The 2506D-E15TAG1 is a turbocharged and air-to-air charge-cooled, 6 cylinder diesel engine. Its premium features provide economic and durable standby duty, exceptional power-to-weight ratio resulting in exceptional fuel consumption and low gaseous emissions and advanced overall performance and reliability making this the prime choice for today's power generation industry.

## Economic power

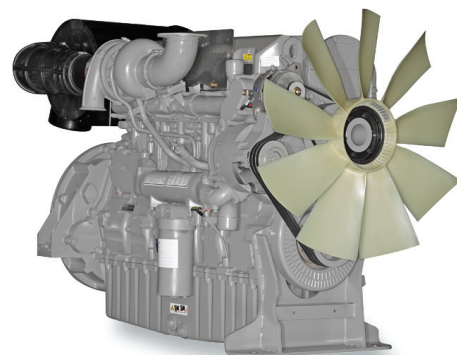
- Mechanically operated unit fuel injectors with advanced electronic control, combined with carefully matched turbocharging, give excellent fuel atomisation which leads to exceptional low fuel consumption

## Reliable power

- Developed and tested using the latest engineering techniques and finite element analysis for high reliability
- Low oil usage and low wear rates
- High compression ratio ensures clean rapid starting in all conditions
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine. We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success

## Compact, clean and efficient power

- Exceptional power to weight ratio and compact size gives optimum power density for ease of installation and more cost effective transportation
- Designed to provide excellent service access for ease of maintenance



## 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

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

Engine Speed (rev/min)	Type of Operation	Typical Generator Output (Net)		Engine Power			
				Gross		Net	
		kVA	kWe	kWm	bhp	kWm	bhp
1800	Prime Power	500	400	458	615	435	583
	Standby Power	563	450	514	689	490	657

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.

Generator powers are typical and are based on an average alternator efficiency and a power factor (cos.  $\theta$ ) of 0.8. Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2. Lubricating oil: 15W40 to API CI4.

### Rating Definitions

**Prime Power:** Power available at variable load with a load factor not exceeding 80% of the prime power rating. Overload of 10% is permitted for 1 hour in every 12 hours' operation.

**Standby Power:** Power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run continuously. Load factor may be up to 100% of standby power. No overload is permitted.

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

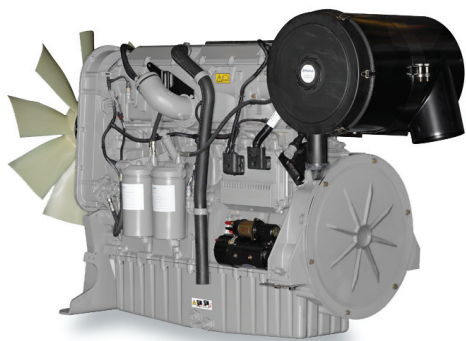
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THE HEART OF EVERY GREAT MACHINE

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## Standard Electropak specification

### Air inlet

- Mounted air filter

### Fuel system

- Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control
- Governing to ISO 8528-5 class G3 with isochronous capability
- Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator
- Fuel cooler

### Lubrication system

- Wet sump with filler and dipstick
- Full-flow replaceable 'Ecoplus' filter
- Oil cooler integral with filter header

### Cooling system

- Gear-driven circulating pump
- Mounted belt-driven fan
- Radiator supplied loose incorporating air-to-air charge cooler
- System designed for ambients up to 50°C

### Electrical equipment

- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

### Flywheel and housing

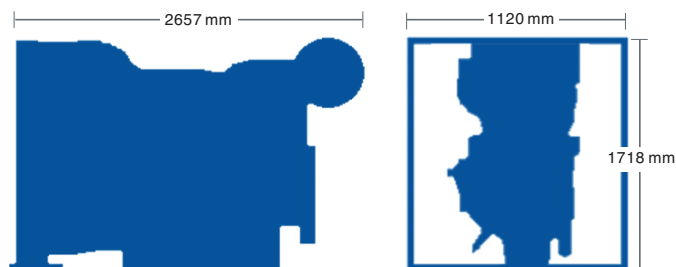
- High inertia flywheel to SAE J620 size 14
- SAE ½ flywheel housing

### Mountings

- Front engine mounting bracket

## Optional equipment

- 110 volt/240 volt immersion heater
- Additional speed sensor
- Temperature and pressure sensors for gauges
- Air filter rain hood
- Twin starters/facility for second starter
- Tool kit
- Additional manuals
- Closed circuit crankcase ventilation system



Fuel Consumption		
Engine Speed	1800 rev/min	
	g/kWh	l/hr
Standby	222	126
Prime Power	225	113
75% of Prime Power	245	93
50% of Prime Power	267	67

## General data

Number of cylinders .....	6
Cylinder arrangement .....	Vertical in-line
Cycle .....	4 stroke
Induction system .....	Turbocharged and air-to-air charge cooled
Combustion system .....	Direct injection
Cooling system .....	Water-cooled
Bore and stroke .....	137 mm x 171 mm
Displacement .....	15.2 litres
Compression ratio .....	16:1
Direction of rotation .....	Anti-clockwise, viewed on flywheel
Total lubrication system capacity .....	62 litres
Total coolant capacity .....	58 litres
Dimensions – Length .....	2657 mm
Width .....	1120 mm
Height .....	1718 mm
Dry weight (Electropak) .....	1,633 kg

Final weight and dimensions will depend on completed specification

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## Perkins Engines Company Limited

Peterborough PE1 5FQ  
United Kingdom  
Telephone +44 (0)1733 583000  
Fax +44 (0)1733 582240

[www.perkins.com](http://www.perkins.com)



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