Diesel Engine – ElectropaK – Non-Emissions compliant 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 2506A-E15TAG3 is a turbocharged and air-to-air charge-cooled, 6 cylinder diesel engine. Its premium features provide exceptional power-to-weight ratio resulting in exceptional fuel consumption.

The overall performance and reliability characteristics make this the prime choice for today's power generation industry.



Specification			
Number of cylinders	6 vertical in-line		
Bore and stroke	137 x 171 mm	5.4 x 6.7 in	
Displacement	15.2 litres	927 in <sup>3</sup>	
Aspiration	Turbocharged and air-to-air charge cooled		
Cycle	4 stroke		
Combustion system	Direct injection		
Compression ratio	16:1		
Rotation	Anti-clockwise, viewed on flywheel		
Total lubricating capacity	62 litres	16.4 US gal	
Cooling system	Water-cooled		
Total coolant capacity	y 58 litres 15.3 US gal		

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**Separations** Perkins®

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### Features and benefits

#### 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

This engine does not comply with harmonized international regulated emissions limits

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THE HEART OF EVERY GREAT MACHINE

Diesel Engine – ElectropaK – Non-Emissions compliant 490 kWm at 1800 rpm

# Technical information

## 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 1/2 flywheel housing

# Mountings

• Front engine mounting bracket

#### Optional equipment

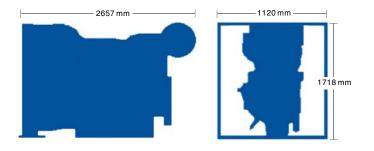
- 110 volt/240 volt immersion heater
- Additional speed sensor
- Temperature and pressure sensors for gauges
- Air filter rain hood
- Twin starters/facility for second starter
- Tool kit
- Additional manuals
- Closed circuit crankcase ventilation system

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Engine package weights and dimensions					
Length	2657 mm	105 in			
Width	1120 mm	44 in			
Height	1718 mm	68 in			
Weight (dry)	1633 kg	3600 lb			

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## Diesel Engine – ElectropaK – Non-Emissions compliant

490 kWm at 1800 rpm

	Type of operation	Typical generator output (Net)		Engine power			
Speed rpm				Gross		Net	
		kVA	kWe	kWm	hp	kWm	hp
1800	Prime power	513	410	469	629	446	598
	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 Cl4.

#### 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.

Percent of prime power	Fuel consumption at 1800 rpm g/kWh	Fuel consumption at 1800 rpm I/hr
Standby power	200	114
Prime power	196	101
75%	205	80
50%	220	57

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