105.1-129.4 kW (141-173 hp)

EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent

Our 1200 Series Tier 4 interim engines offer a smart solution for customers operating in EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent territories. Ideally suited to large and medium-sized machines for construction, agriculture and materials handling – and also available as an IOPU – there's a Perkins 1200 Series engine for you. With common hook up points and multiple options, our solutions support your move to the more stringent Stage IV/Tier 4 Final emission standards.

The 1204E-E44TTA is a series turbocharged, air-to-air chargecooled unit. Designed to meet EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent emission standards.



### **Specifications**

Power Rating			
Minimum Power	105.1 kW	141 HP	
Maximum Power	129.4 kW	173.5 HP	
Maximum Torque	750 Nm @ 1400 rpm	553.2 lb-ft @ 1400 rpm	
Rated Speed	2200 rpm		

Emission Standards	
Emissions	EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent

General			
Bore	105 mm	4.13 in	
Stroke	127 mm	5 in	
Displacement	4.4	268.5 in <sup>3</sup>	
Aspiration	Turbocharged aftercooled		
Rotation from Flywheel End	Anti-clockwise		
Combustion System	Direct injection		
Compression Ratio	16.5:1		
Cooling System	Liquid		
Cycle	4 stroke		
Number of Cylinders	4 inline		

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Total Coolant Capacity	10.8 l	2.85 gal (US)	
Total Lubricating Capacity	13.5 l	3.57 gal (US)	

Aftertreatment Dimensions* - DOC/DPF				
Diameter	270.3 mm	10.6 in		
Height	300.5 mm	11.8 in		
Length	828 mm	32.6 in		
Weight	37 kg	81.6 lb		
Width	365 mm	14.3 in		

Engine Dimensions*				
Dry Weight	420 kg	926 lb		
Height	867.6 mm	34.1 in		
Length	845.1 mm	33.3 in		
Width	741.6 mm	29.1 in		

#### **Features and Benefits**

#### A lifetime of low cost

We designed our 1200 Series Tier 4 interim engines with optimised fuel consumption in mind, matching them to the operating cycles of a wide range of equipment and applications.

Low cost maintenance is achieved through hydraulic tappets, multi-vee belts, service free aftertreatment and 500 hour oil-change intervals.

#### Easy to switch

All the engines in our 1200 Series share common hook up points and option availability, ensuring our solutions can support your move to the more stringent Stage IV/Tier 4 Final emission standards. Our technology consistently delivers with a minimum of difficulty.

Like you, we believe there is no need for a trade-off between meeting emission standards and delivering on performance. The 1200 Series tackles the emissions challenge head-on and gives you improved productivity levels and fuel consumption compared to previous generation Stage IIIA/Tier 3 engines.

#### Ideal for downsizing

High power density, combined with excellent torque in our 1200 Series Tier 4 interim range allows you to select a more compact engine where previously you might have used an engine of a higher cubic capacity. This downsizing has several benefits, including the potential to save you money and provide more space to package aftertreatment units.





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### Tailored for your machines

Your needs are our top priority, which is why we provide tailored technology solutions. Working closely with OEMs, we have developed the 1200 Series with hundreds of variables so that it easily fits into your machine. Our 1200 Series interim engines come with two year warranties as standard and great value extended service contracts.

#### **Technical Information**

#### Aftertreatment technology

- 3" flex pipe kits available with a variety of elbow options for turbocharger connection
- DOC Diesel Oxidation Catalyst
- DPF Diesel Particulate Filter

#### Air inlet system

· Standard air cleaners

#### Control system

- Flexible and configurable software features and well-supported SAE J1939 CAN bus enables highly integrated machines
- Full electronic control system, all connectors and wiring looms waterproof and designed to withstand harsh offhighway environments

#### Cooling system

- 50:50 water glycol mix
- Detailed guidance on cooling system design and validation available to ensure machine reliability
- Top tank temperature 108°C (226°F) as standard to minimize cooling pack size

#### Flywheels and flywheel housing

· Wide choice of drivetrain interfaces, including SAE No. 2 and SAE No. 3 configurations

#### Fuel system

- · Electronic high pressure common rail
- Innovative filter design to ensure maximum protection of the engine

#### General

· Available with or without a balancer

#### Oil system

· Wide choice of sumps for different applications

#### Power take-off



**Perkins**®

105.1-129.4 kW (141-173 hp)

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• SAE A and SAE B flanges on left-hand side. Additional SAE A flange available on left-hand side. Engine power can also be taken from the front of the engine on some applications. Factory fitted compressors are also available.

### Standard emissions control equipment

• NRS - NOx Reduction System

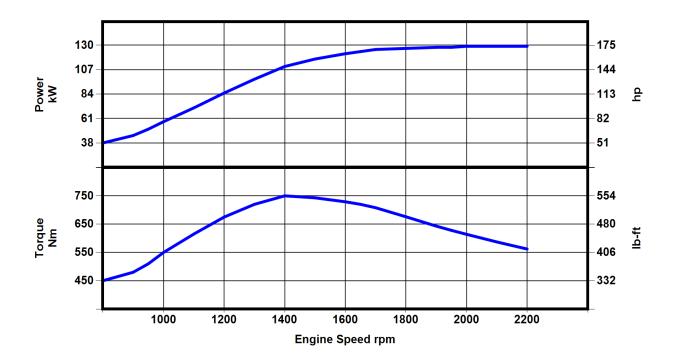




## 1200 Series 1204E-E44TTA INDUSTRIAL ENGINE

EU Stage IIIB/U.S. EPA Tier 4 Interim

.0-129 kW / .0-174 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
0.0	0.0	2200	750	554	1400	Industrial C intermittent rating
105	141	2200	630	465	1400	Industrial B rating
112	150	2200	650	480	1400	Industrial B rating
117	157	2200	683	504	1400	Industrial C intermittent rating
129	174	2200	750	554	1400	Industrial C intermittent rating

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## 1200 Series 1204E-E44TTA INDUSTRIAL ENGINE

EU Stage IIIB/U.S. EPA Tier 4 Interim

.0-129 kW / .0-174 hp

Rating Standard ISO 14396:2002

Additional ratings are available for specific customer requirements. Consult your Perkins distributor. Unless otherwise specified, all stated data is for maximum rated speed and 100% load. B rating performance data will be added upon availability

### Rating Definitions and Conditions

IND B Rating
For service where power and/or speed are cyclic (time at full load not to exceed 80%).

IND-C (Intermittent) Rating

Is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Rating Conditions for Diesel Engines – up to 7.1 liters are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (0.295 in Hg) and 25°C (77°F). Performance is measured using fuel to specification EPA 2D 89.330-96 with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).



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