

# 1104D-44TA Industrial Diesel Engine

68-83 kW (91.2-111.3 hp) @ 2200-2400 rpm

EU Stage IIIA/U.S. EPA Tier 3 equivalent

Whatever your application, there's an 1104 engine for you. Part of the Perkins 1100 Series, the range's 4 cylinder, 4.4 litre engines are smooth and quiet in operation. Designed to meet EU Stage II/IIIA and U.S. EPA Tier 2/Tier 3 equivalent emissions standards, the 1104 range offer a choice of mechanical or electronically controlled common rail engines. Electronically controlled engines deliver the right fuel injection for the load applied to the engine. Common front and rear ends, connection points and components across the range, making it easy to install a different 1100 Series engine in your application. Turbocharged aftercooled engine designed to meet EU Stage IIIA/U.S. EPA Tier 3 equivalent emissions standards for off-road machines.



## Specifications

Power Rating		
Minimum power	68 kW	91.2 hp
Maximum power	83 kW	111.3 hp
Rated speed	2200-2400 rpm	
Maximum torque	418 Nm @ 1400 rpm	308 lb-ft @ 1400 rpm

Emission Standards	
Emissions	EU Stage IIIA/U.S. EPA Tier 3 equivalent

General		
Number of cylinders	4 inline	
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 litres	269 cubic in
Aspiration	Turbocharged (air-to-air charge cooled)	
Cycle	4 stroke	
Compression ratio	18.2:1	
Combustion system	Direct injection	
Rotation (from flywheel end)	Anti-clockwise	
Cooling system	Liquid	

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Photographs are for illustrative purposes only and may not reflect final specification.  
All information is substantially correct at time of printing and may be altered subsequently.  
Final weights and dimensions will depend on completed specification.

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Total coolant capacity	7 litres	1.9 US gal
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## Engine Dimensions\*

Length	663 mm	26.1 in
Width	620 mm	24.4 in
Height	775 mm	30.5 in
Dry weight	306 kg	674.6 lb

## Disclaimer

*Final dimensions dependent on selected options	0	0
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## Features and Benefits

### Designed for lesser regulated territories

The 1100 Series range of engines have been specifically designed for use in territories with Stage II/IIIA and Tier 2/3 equivalent emissions standards, using the best technologies to ensure a reliable and easy to maintain machine. With a choice of naturally aspirated, turbocharged and turbocharged aftercooled it offers the best combination of power delivery and response.

### Ease of maintenance

All of the engines have 500 hour service intervals. And single side service components, for ease of end user servicing.

### Easy to upgrade

Common front and rear ends, connection points and components across the range mean that you can easily install a different 1100 Series engine in your application.

### Expertise whenever you need it

With our network of distributors, you will find all the advice you need to ensure you get the right engine. By building strong relationships with you, we make sure you have access to the full power of the Perkins brand and expertise. Our fully trained experts deliver total service support 24/7, 365 days of the year. Whether you need technical information, parts identification or ordering, our distribution network is there to make sure your Perkins engine keeps on running at peak performance.

### Oil and fuel filtration

The high quality oil and fuel filtration on our 1100 Series range produces an engine that is reliable and durable. Ecoplus fuel filtration is available to boost its clean running qualities and the engine is capable of running on a wide range of global fuels including biodiesel.

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## Technical Information

### Air inlet system

- Air compressor
- Exhaust manifold
- Induction manifold

### Control system

- Alternator
- Starter motor

### Cooling system

- Cooling pack
- Fan drive

### Flywheel and flywheel housing

- Adaptor plate
- Flywheel and starter ring

### Fuel system

- Fuel filter

### General

- Cold start aid
- Engine mountings

### Oil system

- Lubricating oil filter and breather
- Oil filter positions

### Power take-off

- Belt driven auxiliaries
- Front end drive
- SAE A or SAE B PTO drive
- Timing case and gear driven auxiliaries

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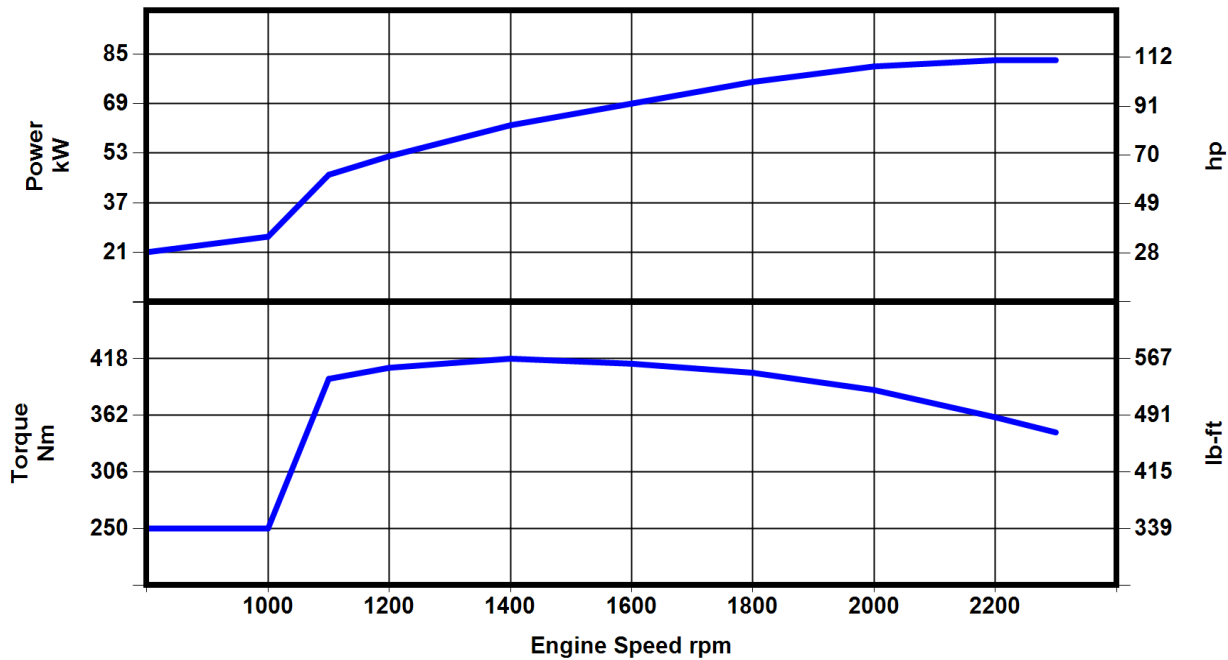
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# 1100 Series 1104D-44TA INDUSTRIAL ENGINE

EU Stage IIIA/U.S. EPA Tier 3 equivalent

68.0-83.0 kW / 91.2-111 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
68.0	91.2	2200	393	533	1400	Industrial C intermittent rating
68.0	91.2	2300	393	533	1400	Industrial C intermittent rating
70.0	93.9	2200	395	535	1400	Industrial C intermittent rating
70.0	93.9	2300	395	535	1400	Industrial C intermittent rating
74.5	99.9	2200	410	556	1400	Industrial C intermittent rating
74.5	99.9	2300	410	556	1400	Industrial C intermittent rating
74.5	99.9	2400	410	556	1400	Industrial C intermittent rating
74.9	100	2200	412	558	1400	Industrial C intermittent rating
74.9	100	2200	416	564	1400	Industrial C intermittent rating
81.0	109	2200	416	564	1400	Industrial C intermittent rating
81.0	109	2300	416	564	1400	Industrial C intermittent rating
83.0	111	2200	418	566	1400	Industrial C intermittent rating
83.0	111	2300	418	566	1400	Industrial C intermittent rating

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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-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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