# 1104C-44 Industrial Diesel Engine

64 kW (85.8 hp) @ 2400 rpm EU Stage II/U.S. EPA Tier 2 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. 64 kW (85.8 hp)

Naturally aspirated engine designed to meet EU Stage II/U.S. EPA Tier 2 equivalent emissions standards for off-highway machines.



#### Specifications

Power Rating					
Minimum Power	64 kW	85.8 HP			
Maximum Power	64 kW	85.8 HP			
Maximum Torque	308 Nm @ 1200 rpm	227 lb-ft @ 1200 rpm			
Rated Speed	2400 rpm				

Emission Standards	
Emissions	EU Stage II/U.S. EPA Tier 2 equivalent

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Bore	105 mm	4.13 in		
Stroke	127 mm	5 in		
Displacement	4.4	269 in <sup>3</sup>		
Aspiration	Naturally	Naturally aspirated		
Rotation from Flywheel End	Anti-c	Anti-clockwise		
Combustion System	Direct	Direct injection		
Compression Ratio	19	19.3:1		
Cooling System	Li	Liquid		
Cycle	4 s	4 stroke		
Number of Cylinders	4 i	4 inline		

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64 kW (85.8 hp) @ 2400 rpm

EU Stage II/U.S. EPA Tier 2 equivalent

Total Coolant Capacity	7	1.9 gal (US)
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Engine Dimensions*						
Dry Weight	357 kg	787 lb				
Height	812 mm	32 in				
Length	663 mm	26.1 in				
Width	470 mm	18.5 in				

#### **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.

#### **Technical Information**

#### Air inlet system

· Cast iron exhaust manifold - centre side outlet



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- Integral inlet manifold
- Turbo outlet orientation

#### Control system

- 12 and 24 volt alternator 55, 65, 85, 100 amp
- 12 and 24 volt starter motor

#### Cooling system

- Cooling fan
- Gear-driven coolant pump
- Water outlet

#### Fuel system

Plastic J2044 fuel system standard

#### General

- Cast iron engine block
- Balancer or non-balancer
- · Glow plug starting aid

#### Oil system

- Lubricating oil sump
- Dipstick (left or right position)

#### Power take-off

Provision for PTOs

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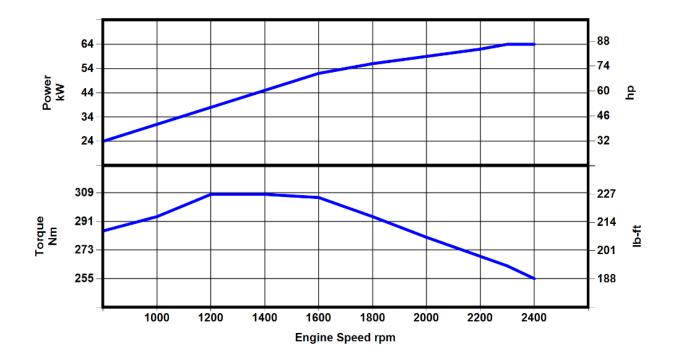


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## 1100 Series 1104C-44 INDUSTRIAL ENGINE

RCD I/CCNR Stage 2

50.0-64.0 kW / 67.1-85.8 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
50.0	67.1	2200	273	201	1400	Industrial C intermittent rating
50.5	67.7	2000	281	207	1400	Industrial C intermittent rating
51.0	68.4	1700	289	213	1275	Industrial C intermittent rating
51.5	69.1	2100	281	207	1400	Industrial C intermittent rating
52.0	69.7	2200	281	207	1400	Industrial C intermittent rating
52.5	70.4	2000	290	214	1400	Industrial C intermittent rating
53.5	71.7	2100	290	214	1400	Industrial C intermittent rating
54.5	73.1	2200	290	214	1400	Industrial C intermittent rating
54.5	73.1	2000	298	220	1400	Industrial C intermittent rating
55.5	74.4	2100	298	220	1400	Industrial C intermittent rating
56.0	75.1	2200	302	223	1400	Industrial C intermittent rating
56.5	75.8	2200	298	220	1400	Industrial C intermittent rating
60.0	80.5	2200	300	221	1200	Industrial C intermittent rating

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# 1100 Series 1104C-44 INDUSTRIAL ENGINE

#### RCD I/CCNR Stage 2

50.0-64.0 kW / 67.1-85.8 hp

61.5	82.5	2300	300	221	1200	Industrial C intermittent rating
62.0	83.1	2400	300	221	1200	Industrial C intermittent rating
62.0	83.1	2200	308	227	1200	Industrial C intermittent rating
63.5	85.2	2300	308	227	1200	Industrial C intermittent rating
64.0	85.8	2400	302	223	1400	Industrial C intermittent rating
64.0	85.8	2400	308	227	1200	Industrial C intermittent rating

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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