1104D-E44TA Industrial Diesel Engine

74.5-106 kW (100-142 hp) @ 2200 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.
Electronic common rail, 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	74.5 kW	100 HP
Maximum Power	106 kW	142 HP
Maximum Torque	556 Nm @ 1400 rpm	410.1 lb-ft @ 1400 rpm
Rated Speed	2200 rpm	

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

General		
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 l	269 in³
Aspiration	Turbocharged aftercooled	
Rotation from Flywheel End	Anti-clockwise	
Combustion System	Direct injection	
Compression Ratio	16.2:1	
Cooling System	Liquid	
Cycle	4 stroke	
Number of Cylinders	4 inline	

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Total Coolant Capacity	7 l	1.9 gal (US)

Engine Dimensions*		
Dry Weight	360 kg	794 lb
Height	958 mm	37.7 in
Length	631 mm	24.8 in
Width	626 mm	246 in

Features and Benefits

Choice of electronic engine

A robust electronically controlled common rail engine provides the opportunity to increase power and performance, whilst maintaining displacement volume, and still achieving emissions standards. It uses advanced common rail, fuel pump and injectors, combined with the latest high capacity fuel filtration to provide an engine which is reliable when used with varying standards of fuel around the world. With an electronic control and high pressure common rail system, the engine can be integrated fully into the machine, delivering smoother operation for the user, faster response and providing operator feedback on engine performance.

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

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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

- Air compressor
- Exhaust manifold
- Induction manifold

Control system

- Alternator
- Control panel
- Starter motor

Cooling system

- Cooling pack
- Fan drive

Flywheel and flywheel housing

- Flywheel and starter ring

Fuel system

- Fuel filter

General

- Cold start aid
- Engine mountings

Oil system

- Lubricating oil filter and breather
- Oil filter

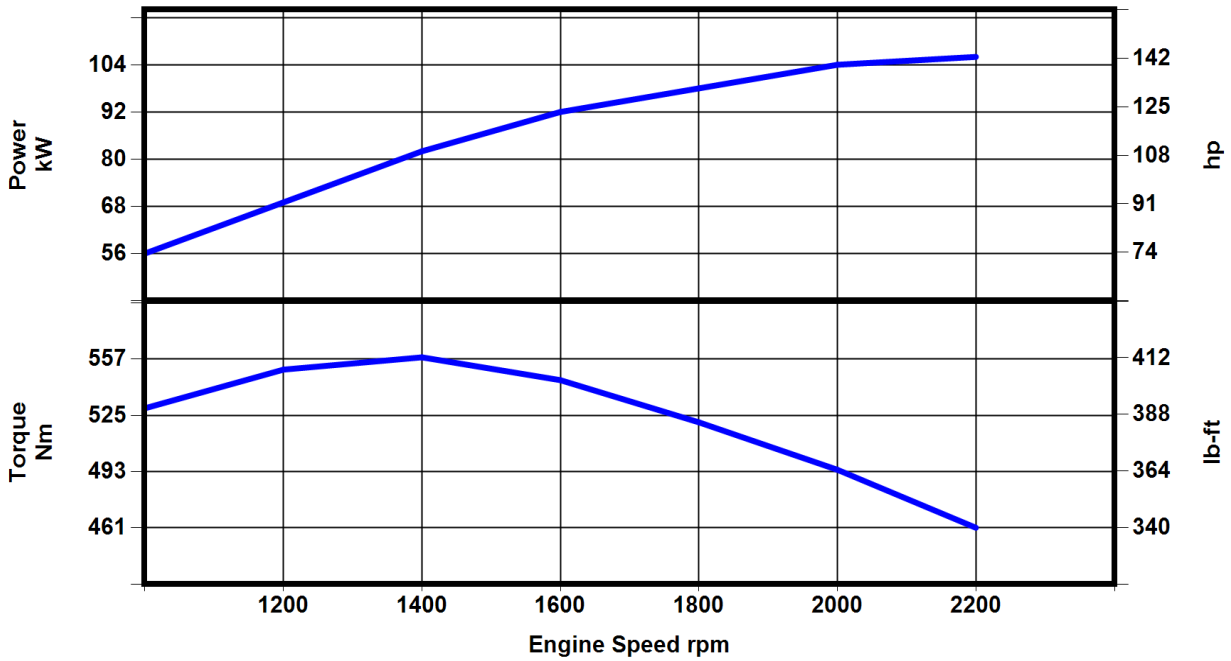
Power take-off

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

1100 Series 1104D-E44TA INDUSTRIAL ENGINE

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

.0-112 kW / .0-150 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
0.0	0.0	2000	550	406	1400	Industrial C intermittent rating
0.0	0.0	2000	554	409	1400	Industrial C intermittent rating
60.0	80.5	2200	363	268	1400	Industrial C intermittent rating
60.5	81.1	2200	358	264	1400	Industrial C intermittent rating
61.5	82.5	2200	367	271	1400	Industrial C intermittent rating
67.0	89.8	2200	405	299	1400	Industrial C intermittent rating
68.5	91.9	2200	403	297	1400	Industrial C intermittent rating
69.0	92.5	2200	409	302	1400	Industrial C intermittent rating
70.5	94.5	2200	420	310	1400	Industrial C intermittent rating
74.5	99.9	2200	441	325	1400	Industrial C intermittent rating
74.6	100	2200	468	345	1400	Industrial C intermittent rating
75.0	101	2000	370	273	1000	Industrial C intermittent rating
75.0	101	2200	370	273	1000	Industrial C intermittent rating

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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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75.0	101	2400	370	273	1000	Industrial C intermittent rating
80.0	107	2000	480	354	1400	Industrial C intermittent rating
80.0	107	2200	480	354	1400	Industrial C intermittent rating
82.0	110	2200	486	359	1400	Industrial C intermittent rating
85.0	114	2200	510	376	1400	Industrial C intermittent rating
85.7	115	2200	530	391	1400	Industrial C intermittent rating
87.0	117	2000	516	381	1400	Industrial C intermittent rating
87.0	117	2200	516	381	1400	Industrial C intermittent rating
87.5	117	2200	534	394	1400	Industrial C intermittent rating
88.0	118	2000	530	391	1400	Industrial C intermittent rating
89.2	120	2200	486	359	1400	Industrial C intermittent rating
91.0	122	2200	490	362	1400	Industrial C intermittent rating
91.7	123	2400	490	362	1400	Industrial C intermittent rating
91.8	123	2220	490	362	1400	Industrial C intermittent rating
92.7	124	2500	491	362	1400	Industrial C intermittent rating
92.8	124	2200	550	406	1400	Industrial C intermittent rating
93.0	125	2200	512	378	1400	Industrial C intermittent rating
93.1	125	2200	496	366	1400	Industrial C intermittent rating
93.9	126	2400	494	365	1400	Industrial C intermittent rating
94.0	126	2400	494	365	1400	Industrial C intermittent rating
94.5	127	2200	510	376	1400	Industrial C intermittent rating
94.6	127	2200	554	409	1400	Industrial C intermittent rating
96.5	129	2200	516	381	1400	Industrial C intermittent rating
100	134	2200	530	391	1400	Industrial C intermittent rating
102	137	2200	536	396	1400	Industrial C intermittent rating
103	139	2400	530	391	1400	Industrial C intermittent rating
104	140	2200	550	406	1400	Industrial C intermittent rating
105	141	2400	534	394	1400	Industrial C intermittent rating
106	142	2000	550	406	1200	Industrial C intermittent rating
106	142	2200	550	406	1200	Industrial C intermittent rating
106	142	2400	550	406	1200	Industrial C intermittent rating
106	142	2200	556	410	1400	Industrial C intermittent rating

106	142	2200	558	412	1400	Industrial C intermittent rating
106	143	2200	558	412	1400	Industrial C intermittent rating
107	144	2200	570	421	1400	Industrial C intermittent rating
108	145	2000	550	406	1400	Industrial C intermittent rating
112	150	2000	580	428	1200	Industrial C intermittent rating
112	150	2200	580	428	1200	Industrial C intermittent rating
112	150	2400	580	428	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).