

404D-22 Industrial Open Power Unit

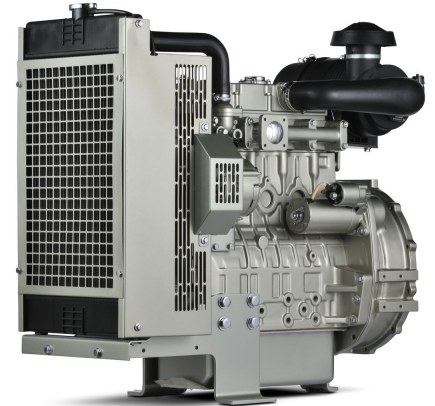
31.4-38 kW (42-51 hp) @ 2800-3000 rpm

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

The Perkins 400 Series is an extensive family of engines in the 0.5-2.2 litre range. The 4 cylinder 404-22 model sits at the top of the 400 Series engine range. It combines high performance, low operating costs and a compact package. The 404-22 is the ideal engine for a wide range of off-highway applications. It is offered with both indirect (IDI) and common rail fuel injection systems.

A very quiet 2.2 litre unit offering the advantages of an industrial engine and the convenience of a cost effective cooling and air filtration solution.

Designed to meet EU Stage IIIA/U.S. EPA Tier 4 Interim equivalent emission standards.



Specifications

Power Rating		
Minimum power	31.6 kW	42.4 hp
Maximum power	37 kW	49.6 hp
Rated speed	2800-3000 rpm	
Maximum torque	140.6 Nm @ 1800 rpm	103.7 lb-ft @ 1800 rpm

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

General		
Number of cylinders	4 inline	
Bore	84 mm	3.3 in
Stroke	100 mm	3.9 in
Displacement	2.2 litres	135 cubic in
Aspiration	Naturally aspirated	
Cycle	4 stroke	
Compression ratio	23.3:1	
Combustion system	Indirect 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.

SS-10435285-1000002629-005
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Total coolant capacity	7 litres	1.8 US gal
Total lubricating capacity	10.6 litres	2.8 US gal

Engine Dimensions*

Length	946 mm	37.2 in
Width	513 mm	20.2 in
Height	854 mm	33.6 in
Dry Weight	218 kg	480.6 lb

Disclaimer

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

A lifetime of low cost

The 400 Series offers highly competitive performance and fuel economy. Through appropriate use of technology, these engines have been designed to be reliable and to offer low cost of ownership in the wide variety of markets they serve.

Across an extensive power band, the 400 Series range offers you the ability to configure a solution to your specific machine, territory and market requirements.

Overlapping power bands between models and an extensive range of options gives the opportunity to optimise performance and functionality, adding customer value to the application.

We provide one year warranties for constant speed engines and two year warranties for variable speed models as standard.

As a 400 Series end user, you also benefit from Perkins world class product support and service coverage that comes from being a full range power solutions provider.

Compact design

The compact design of these engines makes them suitable for a range of applications, including skid steer loaders, mini excavators, wheel loaders, welders, lift platforms, lighting towers, small tractors, air compressors, turf care machinery and materials handling machinery.

Each of the six core engines in the 400 Series is configured for either Stage IIIA/Tier 4 Interim or Stage IIIB/Tier 4 Final emission standards, giving you flexibility depending on your market.

Performance and refinement

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The 400 Series lineup gives you a seamless power range of 8.2-50 kW (11-67 hp) in 2, 3 and 4 cylinder models designed with a family look and feel. The range offers a wide variety of ratings and configurations that can be tailored to meet the most exacting needs.

The selective use of indirect and direct injection fuel systems enables Perkins to offer world-class engine refinement and low noise levels.

Technical Information

Air inlet system

- Cast iron exhaust manifold - side outlet
- Inlet manifold
- Mounted air cleaner

Control system

- Alternator 12 volt 65 amp
- Electronic Shut Off Solenoid (ESOS)
- Starter motor 12 volt

Cooling system

- Belt driven coolant pump
- Coolant temperature switch
- Mounted radiator and fan

Flywheels and flywheel housing

- SAE 4 flywheel housing
- SAE flywheel size 190.5 mm (7½ in)

Fuel system

- Fuel filter
- Fuel injection pump

General

- Cast iron engine block
- Glow plug starting aid

Oil system

- Lubricating oil pressure switch
- Lubricating oil sump
- Spin-on lubricating oil filter

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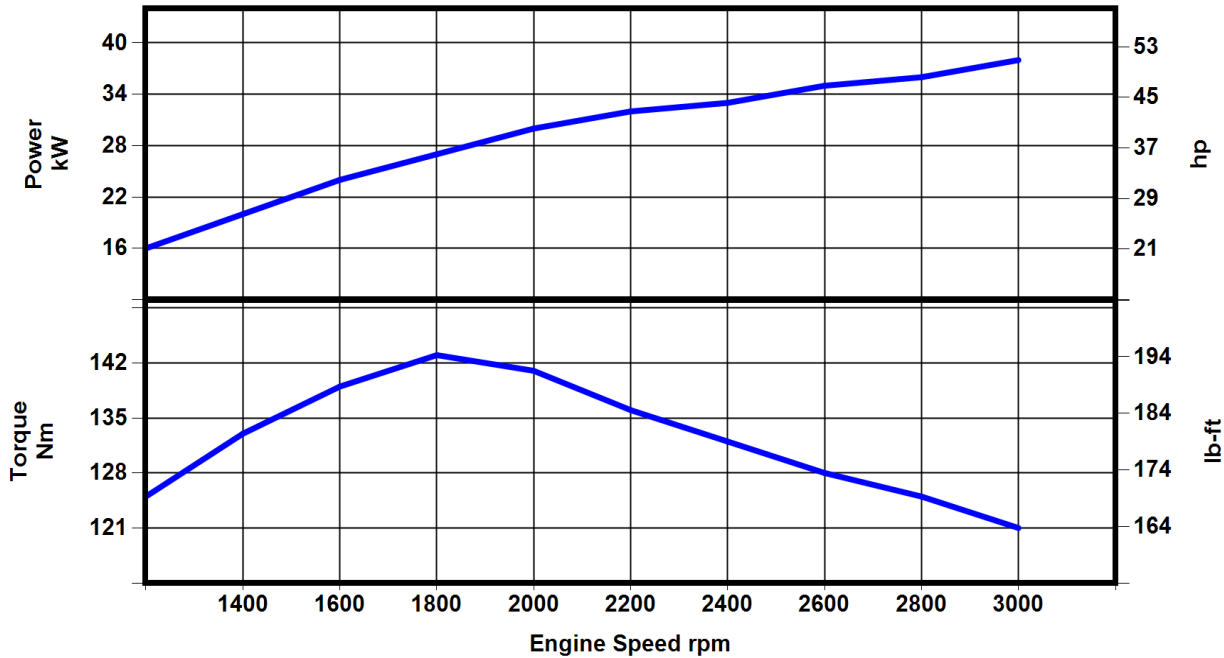
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400 Series 404D-22 INDUSTRIAL ENGINE

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

38.0-38.0 kW / 51.0-51.0 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
38.0	51.0	3000	143	194	1800	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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