

854F-E34T Industrial Diesel Engine

45-55.4 kW (60-74 hp) @ 2200-2500 rpm

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

The Perkins 850 Series brings you class-leading power density while meeting the toughest emission standards. Building on more than 80 years of Perkins innovation and customer insights, the 850 Series delivers 45-90 kW (60-120 hp), making it ideal for telehandlers, backhoe loaders, skid steer loaders, access platforms and many other applications. If you're looking to create smaller, higher performing, cost effective machines, the 850 Series has the features and benefits for you.

Its high power density, combined with excellent torque, enables you to forego an engine of higher cubic capacity and select a more compact engine, representing a cost saving for you and creating more space to package the aftertreatment unit.

Designed to meet EU Stage IIIB/U.S. EPA Tier 4 Final emission standards.



Specifications

Power Rating		
Minimum power	45 kW	60.3 hp
Maximum power	55.4 kW	74.3 hp
Rated speed	2200-2500 rpm	
Maximum torque	291 Nm @ 1600 rpm	214.6 lb-ft @ 1600 rpm

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

General		
Number of cylinders	4 inline	
Bore	99 mm	3.9 in
Stroke	110 mm	4.3 in
Displacement	3.4 litres	207.5 cubic in
Aspiration	Turbocharged	
Cycle	4 stroke	
Compression ratio	17:1	
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	6 litres	1.59 US gal
Total lubricating capacity	9.5 litres	2.51 US gal

Engine Dimensions*

Length	870.6 mm	34.28 in
Width	653 mm	25.71 in
Height	829.5 mm	32.66 in
Dry weight	275 kg	606.3 lb

Aftertreatment Dimensions* - DOC/DPF Through flow

Length	509 mm	20 in
Diameter	149 mm	5.8 in
Weight	14 kg	30.8 lb

Aftertreatment Dimensions* - DOC/DPF Wall flow

Length	541 mm	21.3 in
Diameter	180 mm	7.1 in
Weight	20 kg	44 lb

Disclaimer

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

A lifetime of low cost

The 850 Series offers good fuel economy and performance. These engines have been designed to be reliable and fuel efficient, and built for durability.

Low cost maintenance is achieved through hydraulic tappets, multi-vee belts, the through-flow diesel particulate filter (DPF) option (which offers a service free aftertreatment) and 500 hour oil change intervals.

Flexible

A single, core engine platform, with additional compact aftertreatment options, the 850 Series allows you to create smaller, high performing, more cost-effective machines for a wide range of applications.

We provide two year warranties for variable speed models as standard.

The 850 Series benefits from more than 80 years of Perkins innovation and customer insights.

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Powerful

The 850 Series gives you increased power over products of a similar size. The 854F-E34T provides 45-55.4 kW (60-74 hp) and 291 Nm of torque. If you require more power, the 854F-E34TA provides 63-90 kW (84-120 hp) and 490 Nm of torque.

The compact design of the engine means it is suitable for a range of applications including agricultural tractors, telehandlers, access platforms, air compressors, forklift trucks, trenchers, skid steer loaders, excavators and backhoe loaders.

Technical Information

Aftertreatment technology

- DOC - Diesel Oxidation Catalyst
- DPF - Diesel Particulate Filter

Air inlet system

- Exhaust manifolds
- Induction manifolds

Control system

- Alternator
- Electronic control module
- Sensors for: Engine speed; Oil pressure; Coolant temperature
- Starter motor
- Wiring harness

Cooling system

- Cold start aids
- Cooling packs
- Fan drives and locations

Flywheels and flywheel housing

- Adapter plates
- Flywheel housings
- Flywheel and starter rings

Fuel system

- Common rail fuel pump and injectors
- Fuel filter positions

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General

- Engine mountings

Oil system

- Lubricating oil filters and breathers

Power take-off

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

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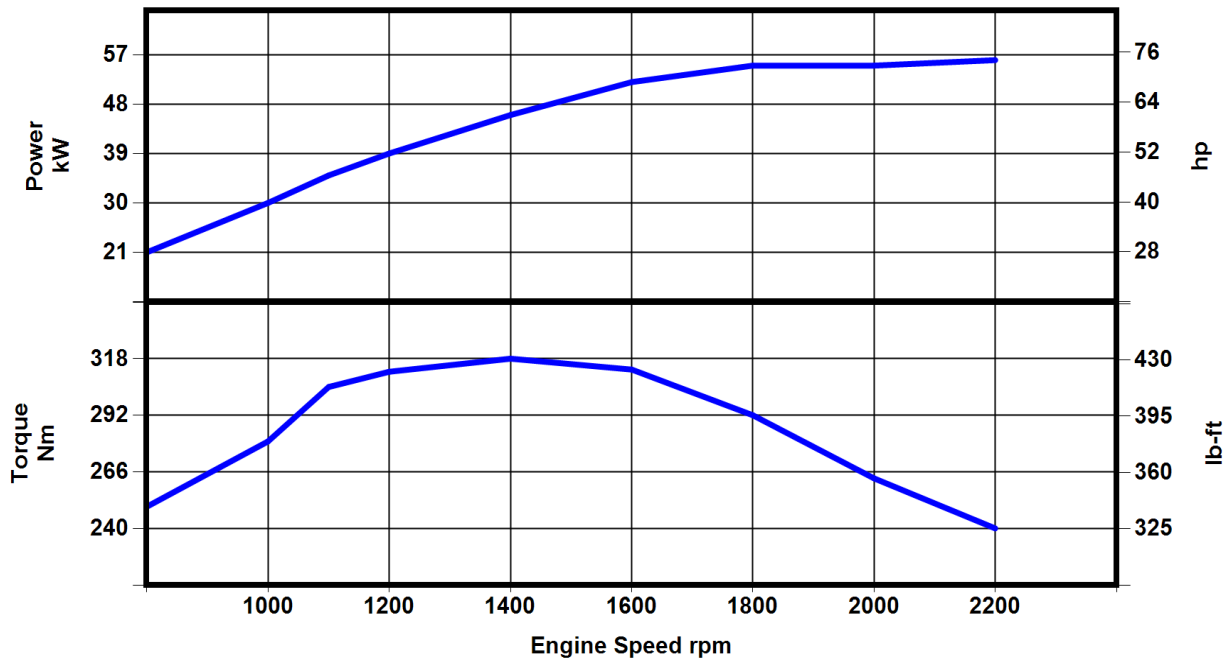
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850 Series 854F-E34T INDUSTRIAL ENGINE

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

45.0-55.5 kW / 60.3-74.4 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
45.0	60.3	2200	243	329	1400	Industrial C intermittent rating
47.0	63.0	2500	245	332	1600	Industrial C intermittent rating
50.0	67.1	2200	272	369	1400	Industrial C intermittent rating
55.0	73.8	2500	291	394	1600	Industrial C intermittent rating
55.0	73.8	1800	292	396	1800	Industrial C intermittent rating
55.0	73.8	1800	318	431	1400	Industrial C intermittent rating
55.5	74.4	2200	318	431	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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