

# 854F-E43TA Industrial Diesel Engine

63-90 kW (84-120 hp) @ 2200-2500 rpm

EU Stage IV/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.

The 854F-E34TA is a single turbocharged, air-to-air chargecooled unit. As with the 854F-E34T, its high power density and excellent torque enables you to select a more compact engine instead of an engine of higher cubic capacity, representing a cost saving for you and creating more space to package the aftertreatment unit.

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



## Specifications

Power Rating		
Minimum power	63 kW	84 hp
Maximum power	90 kW	120 hp
Rated speed	2200-2500 rpm	
Maximum torque	490 Nm @ 1400 rpm	361.4 lb-ft @ 1400 rpm

Emission Standards	
Emissions	EU Stage IV/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 aftercooled	
Cycle	4 stroke	
Compression ratio	17:1	
Combustion system	Direct injection	
Rotation (from flywheel end)	Anti-clockwise	
Cooling system	Liquid	

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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	1.5 US gal
Total lubricating capacity	9.5 litres	2.51 US gal

## Engine Dimensions\*

Length	739.5 mm	29.1 in
Width	623 mm	24.5 in
Height	805.5 mm	31.7 in
Dry weight	270 kg	595.2 lb

## Aftertreatment Dimensions\* - DOC

Length	342.8 mm	13.5 in
Diameter	296 mm	11.6 in
Weight	10 kg	22 lb

## Aftertreatment Dimensions\* - SCR

Length	568 mm	22.3 in
Diameter	251 mm	9.8 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
- SCR - Selective Catalytic Reduction supplied with a range of inlet and outlet options
- SCR Auxiliaries - A range of tanks and heated lines are available

### Air inlet system

- Exhaust manifolds
- Induction manifolds

### Cooling system

- Cooling packs
- Fan drives and locations

### Control system

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

### Flywheels and flywheel housing

- Adapter plates
- Flywheel and starter rings
- Flywheel housings

### Fuel system

- Common rail fuel pump and injectors
- Fuel filter positions

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# 854F-E43TA Industrial Diesel Engine

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

## General

- Cold start capability
- Engine mountings

## Oil system

- Lubricating oil filters and breathers

## Power take-off

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

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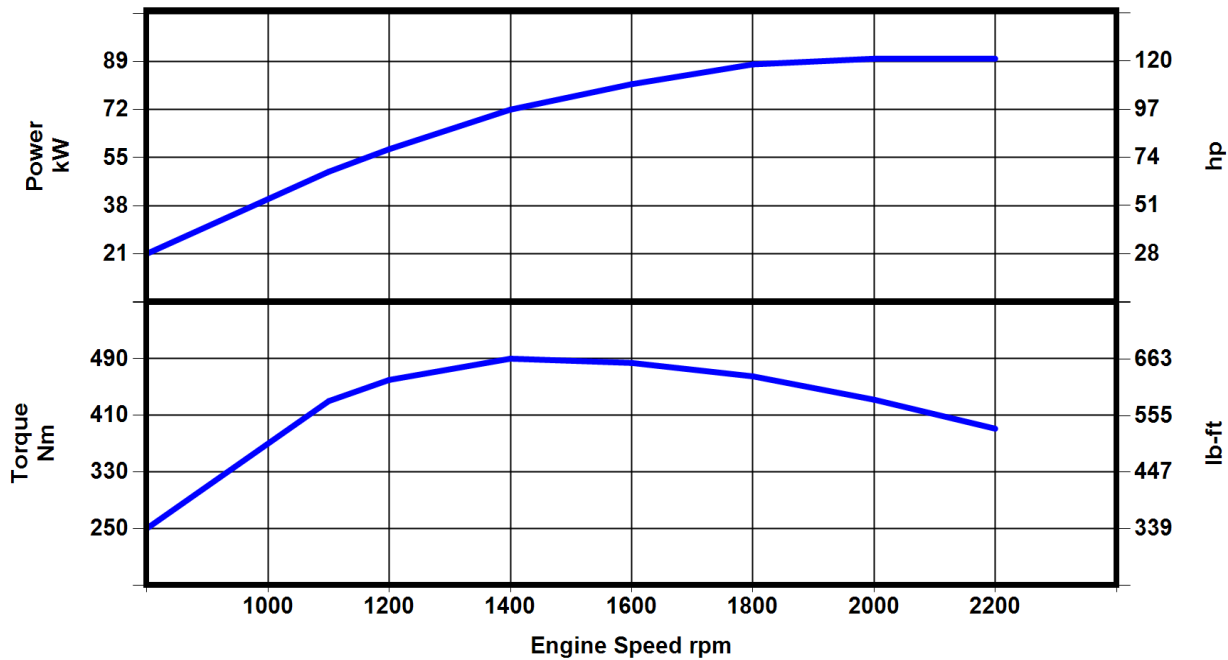
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# 850 Series 854F-E34TA INDUSTRIAL ENGINE

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

55.0-90.0 kW / 73.8-121 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
55.0	73.8	2200	424	575	1200	Industrial C intermittent rating
62.5	83.8	2200	354	480	1400	Industrial C intermittent rating
66.0	88.5	2500	370	501	1400	Industrial C intermittent rating
70.0	93.9	2200	395	535	1400	Industrial C intermittent rating
75.0	101	2200	430	583	1400	Industrial C intermittent rating
75.0	101	2500	430	583	1400	Industrial C intermittent rating
83.0	111	2200	460	623	1400	Industrial D rating
86.0	115	2500	475	644	1400	Industrial D rating
90.0	121	2200	490	664	1400	Industrial D rating

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55.0-90.0 kW / 73.8-121 hp

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%).

### IND D Rating

For service where maximum power is required for periodic overloads (time at full load not to exceed 5% of the duty cycle).

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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