

854E-E34TA Industrial Diesel Engine

63-86 kW (84-115 hp) @ 2200-2500 rpm

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

Our 850 Series Tier 4 interim engines are designed to meet the needs of customers operating in EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent territories. The 854E models build on more than 80 years of Perkins innovation and customer insights, offering you world-class power density in a compact package. They provide the ideal choice for telehandlers, backhoe loaders, skid steer loaders, access platforms, agricultural tractors and many other applications.

The 854E-E34TA industrial engine is a turbocharged, air-to-air chargecooled, 3.4 litre, 4 cylinder unit. Its high power density and excellent torque mean OEMs can choose this engine where previously they might have used an engine with a higher cubic capacity. Downsizing in this way gives you cost benefits and frees up space.

Designed to meet EU Stage IIIB/U.S. EPA Tier 4 Interim equivalent emissions standards.



Specifications

Power Rating		
Minimum power	63 kW	84.5 hp
Maximum power	86 kW	115.3 hp
Rated speed	2200-2500 rpm	
Maximum torque	450 Nm @ 1400 rpm	331.9 lb-ft @ 1400 rpm

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

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	

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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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Cooling system	Liquid	
Total coolant capacity	6 litres	1.6 US gal
Total lubricating capacity	9.5 litres	2.51 US gal

Engine Dimensions*

Length	747.5 mm	29.4 in
Width	662 mm	26.1 in
Height	822 mm	32.3 in
Dry weight	270 kg	595.2 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

Low cost of ownership is an important benefit of the 854E. With fuel consumption optimised to match the operating cycles of a wide range of equipment and applications – and no additional fluids or additives required – your operating costs will be lowered. The engines are designed and built for dependability and durability, which results in minimum maintenance requirements.

Low cost maintenance is achieved through hydraulic tappets, multi-vee belts and 500 hour oil change intervals.

Performance in a small package

Our 854E engines give you more power in a compact package. They provide 63–86 kW (84–115 hp) with torque of up to 450 Nm.

The compact design of the engine means it's suitable for a range of applications including agricultural tractors, telehandlers, access platforms, air compressors, forklift trucks, trenchers, skid steer loaders, excavators and backhoe loaders. These engines meet the challenge if you're looking to create smaller, higher performing, cost effective machines.

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Technical Information

Aftertreatment technology

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

Air inlet system

- Induction manifolds
- Exhaust 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

General

- Cold start capability
- Engine mountings

Oil system

- Lubricating oil filters and breathers

Power take-off

- Belt driven auxiliaries
- Front end drives

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- SAE A PTO drive
- Timing case gear driven auxiliaries

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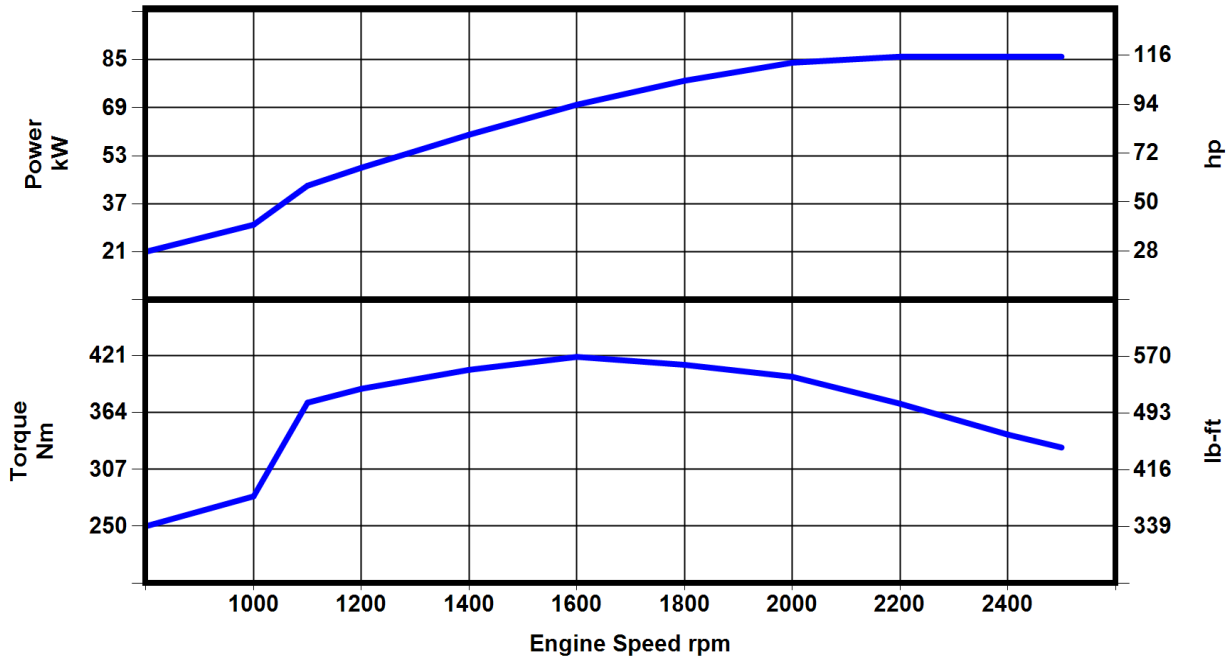
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850 Series 854E-E34TA INDUSTRIAL ENGINE

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

66.0-86.0 kW / 88.5-115 hp



Power kW	Power hp	Rated Speed (rpm)	Torque Nm	Torque lb-ft	Speed (rpm)	Rating Type
66.0	88.5	2500	344	466	1600	Industrial C intermittent rating
66.0	88.5	2200	370	501	1400	Industrial C intermittent rating
70.0	93.9	2200	395	535	1400	Industrial C intermittent rating
75.0	101	2500	390	528	1600	Industrial C intermittent rating
75.0	101	2200	420	569	1400	Industrial C intermittent rating
83.0	111	2200	450	610	1400	Industrial D rating
86.0	115	2500	420	569	1600	Industrial D 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%).

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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