EU Stage V/U.S. EPA Tier 4 Final/Japan 2014/Korea Tier 4 Final 287-388 kW / 385-520 hp

The ability to power your machine line-up with one engine supplier is truly achieveable with Perkins. We have introduced a platform of 9-18 litre industrial engines that completes our market-leading industrial power range and covers 8.2-597 kW (11-800 hp).

This model is a turbocharged, air-to-air chargecooled, 12.5 litre, 6 cylinder product capable of producing 388 kW (520 hp).

These engines meet EU Stage V/U.S. EPA Tier 4 Final/Japan 2014/ Korea Tier 4 Final, allowing for sales into countries with the highest global emissions standards.

To support the demands of your machine installation we offer a choice of engine configurations and options. The robust technology allows you to integrate these engines into your equipment with the minimum of reengineering.

Perkins has developed a reputation for designing and building reliable and durable engines for the most demanding applications. Choosing Perkins as your engine supplier means your development costs can be reduced and your machines are future-proofed to meet anticipated emissions standards.



**Perkins** 

THE HEART OF EVERY GREAT MACHINE

Specification			
Number of cylinders	6 vertical in-line		
Bore and stroke	130 x 157 mm 5.1 x 6.2 in		
Displacement	12.5 litres	763 cubic in	
Aspiration	Turbocharged aftercooled		
Cycle	4 stroke		
Combustion system	Direct injection		
Compression ratio	17.0:1		
Rotation	Anti-clockwise, viewed on flywheel		
Total lubricating capacity	34 litres 8.9 US gal		
Cooling system	Liquid		
Total coolant capacity	18.7 litres 4.9 US gal		

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# Features and benefits

### Dependable power

• World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation and many hours of productive life

### High performance

• Simple and efficient turbocharger provides optimal air management and improved fuel efficiency

### Lifetime of low cost

- Fuel consumption optimised to match operating cycles of a wide range of equipment and applications
- 5,000 hour diesel particulate filter (DPF) ash service and capability of 500 hour oil change intervals enable low-cost maintenance

### Fuel and oil

• Ultra Low Sulfur Diesel (ULSD) fuel containing a maximum of 15 ppm sulfur required, and new oil formulations to support the new technology. Biofuel up to B20 is supported

### Package size

- Fully configurable product with factory solutions such as engine mounted aftertreatment and full power units to limit installation complexity
- The 2206J available in single label certification for EU Stage V, U.S. EPA Tier 4 Final, Japan 2014 and Korea Tier 4 Final providing global customers a single source solution that streamlines design, installation and service processes

# Local support, global coverage

- Perkins recognise that the customer relationship is important to machine manufacturers and we can offer a range of flexible solutions to help provide appropriate support, either to the OEM's network or directly to the machine customer
- With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition
- To find your local distributor: www.perkins.com/distributor

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# Technical information

# Air inlet

• Turbocharged aftercooled

# Control system

- Full electronic control system
- All connectors and wiring looms waterproof and designed to withstand harsh off-highway environments
- Flexible and configurable software features and well supported SAE J1939 CAN bus enables highly integrated machines

# Cooling system

- Vertical outlet thermostat housing, centrifugal water pump
- Detailed guidance on cooling system design and validation available to ensure machine reliability

# Flywheel and housing

• Wide choice of drivetrain interfaces, SAE1 configurations

# Fuel and fuel system

• Mechanical Unit Injector Fuel system, controlled electronically

# Oil system

- Choice of sumps for different applications
- Open crankcase ventilation system with fumes disposal
- OCV filter option required for 2206J EU Stage V certification engines, optional for 2206F U.S. EPA Tier 4 Final only
- Oil cooler, oil filler, oil filter, oil dipstick, oil pump (gear-driven)

# Power take-off

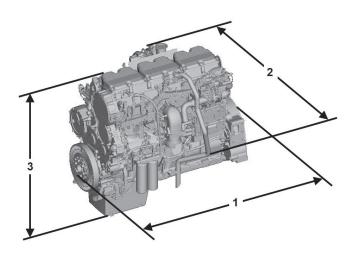
- SAE1 flywheel housing with optional SAE B and SAE C power take off options (dual rear)
- Engine power can also be taken from the front of the engine on some applications

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EU Stage V/U.S. EPA Tier 4 Final/Japan 2014/Korea Tier 4 Final 287-388 kW / 385-520 hp



Engine package weights and dimensions					
1	Length	1272 mm	50.1 in		
2	Width	996 mm	39.2 in		
3	Height	1132 mm	44.6 in		
	Weight (dry)	1143 kg	2520 lb		

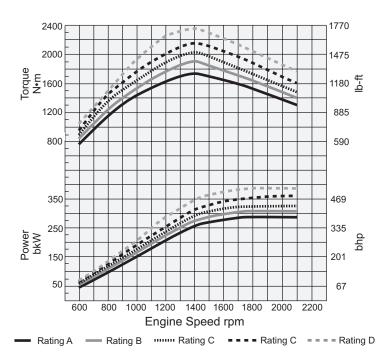
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Rating type	Rated Speed rpm	Power kW	Power hp	Torque Nm	Torque Ib∙ft	Speed rpm
A	1800-2100	287	385	1760	1298	1400
В	1800-2100	310	416	1903	1404	1400
С	1800-2100	328	440	2012	1484	1400
С	1800-2100	354	475	2176	1605	1400
D	1800-2100	388	520	2381	1756	1400

# Rating definitions and conditions

IND-A (Continuous) for heavy duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

**IND-B** for service where power and/or speed are cyclic (time at full load not to exceed 80%).

**IND-C (Intermittent)** 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** for service where maximum power is required for periodic overloads (time at full load not to exceed 10% of the duty cycle).

#### Rating Conditions for Diesel Engines - greater than 7 litre

All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.

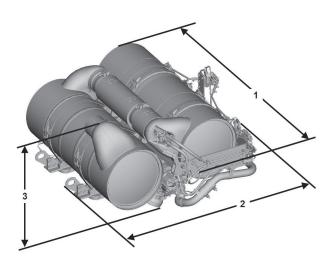
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# Aftertreatment



Aftertreatment dimensions and weight					
1	Length	1077 mm	42.4 in		
2	Width	1069 mm	42.1 in		
3	Height	654 mm	25.7 in		
	Weight	248-259 kg	547-571 lb		

# Aftertreatment

- DOC Diesel Oxidation Catalyst
- DPF Diesel Particulate Filter
- SCR Selective Catalytic Reduction
- ECU Aftertreatment Electronic Control Units
- SCR Auxiliaries A range of tanks and heated lines are available

# Technology

The DPF technology chosen is a wall flow filter configuration that performs through the whole work cycle of the engine thus allowing it to work efficiently.

# Power

Using our advanced research and development techniques, we have perfectly matched the aftertreatment to the engine. The engine performance has then been optimised to give the maximum power and in normal operation, the regeneration is invisible to the operator.

# Mounting

Remote installation options provide OEM flexibility for many applications, including horizontal and vertical mounting.

# Regeneration

The regeneration system maximises fuel efficiency during regeneration. Transparent regeneration for minimum downtime.

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