

# 700 Series

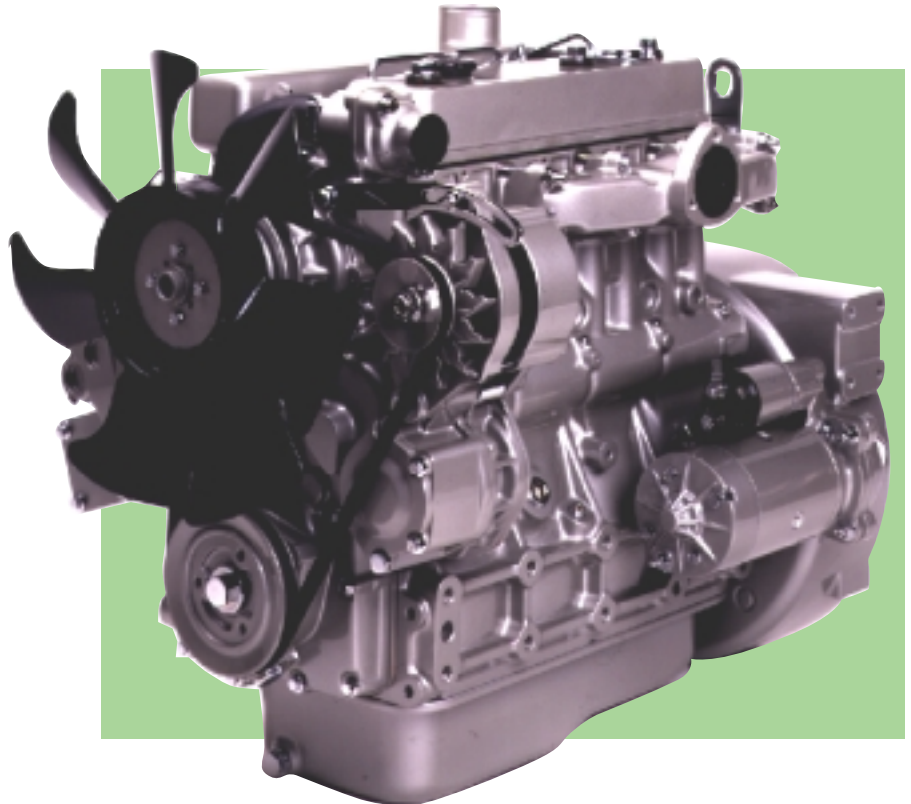
# 704-30

Agricultural, Construction  
and Industrial Power Units

43kW/58bhp

**A tough naturally aspirated 3.0 litre, 4 cylinder, direct injection diesel for the new generation of more compact agricultural and construction equipment, compressors, material handlers and other industrial applications.**

In introducing the 700 Series engines, Perkins has responded to market demands, blending high technology with experience to provide best value, clean engines. For the user, the benefits are lower running costs and better performance. For the manufacturer the compact packaging, higher power take-off and excellent performance provide solutions to help them meet the needs of the market.



## Clean Power

- **Retaining the cost and packaging benefits** of natural aspiration, the 704-30 is also operator friendly and environmentally sensitive. Free of visible smoke, this engine also operates to a level of gaseous emissions beyond what is required for Stage 1 off-highway regulations – worldwide.

## Quiet Power

- **700 Series engines benefit from a tuned mechanical structure** and helically cut gears for low noise. Further lowering noise – two stage injection ensures complete burning with a lower rate of pressure rise within the cylinders. Together these features provide bare engine noise of 95dBA and a low subjective noise signature.

## High Performance, Productive Power

- **Along with high power**, high torque, and torque back-up at a substantial 20 per cent, 700 Series engines also provide a class leading power take-off capability.

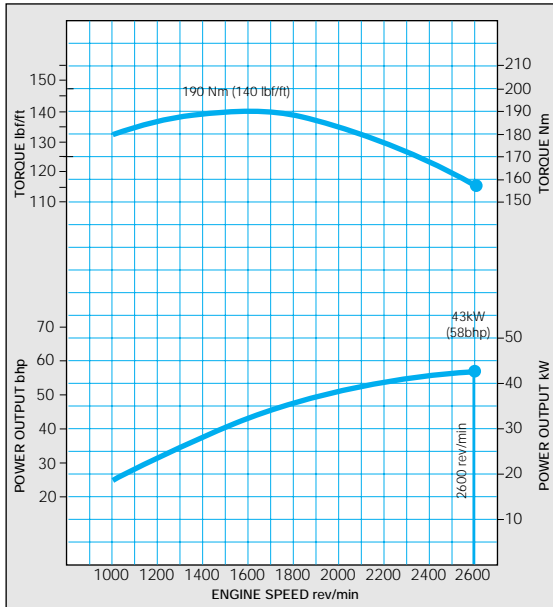
## Cost Efficient Power

- **Thanks to Perkins mastery of air control and its re-entrant** direct injection system, clean combustion has not been at the expense of fuel consumption, with s.f.c as low as 215 g/kWh.
- Service intervals for oil and filters are at 500 hours and all service points conveniently placed on the right hand side, for easy accessibility.

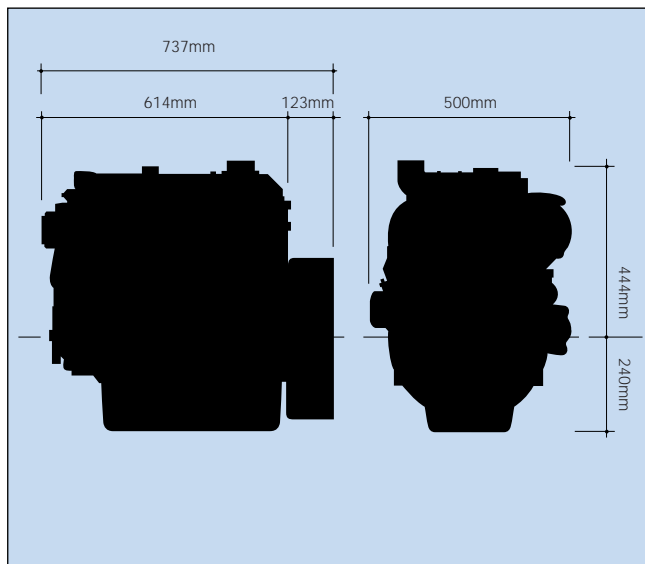
## Reliable and Durable Power

- **Perkins traditional values of exceptional reliability and durability** are vested in the 700 Series range. Manufactured to standards which are customer approved and recognised internationally (ISO 9000). These engines will provide daily reliability and over 8000 productive hours operation before the need for overhaul should become necessary.

# 700 Series



- Rating Standard ISO (TR) 14396
- Smoke 77/537/EEC – 100% load
- Stage 1 off-highway emissions to C1-8 mode cycle ref ISO 8178 pt. 4.



## Perkins Power

The Perkins range of off-highway engines now span an impressive 4–1879 kW (5–2520 bhp).

Each engine provides tailored performance and is supported by a wide range of options to simplify engineering-in.

For the user, Perkins ensures the core values of low cost-of-ownership, quiet and clean operation, plus of course rugged reliability. The security of a 4000 strong worldwide distribution network adds peace-of-mind, as professional back-up and genuine parts service are never far away.

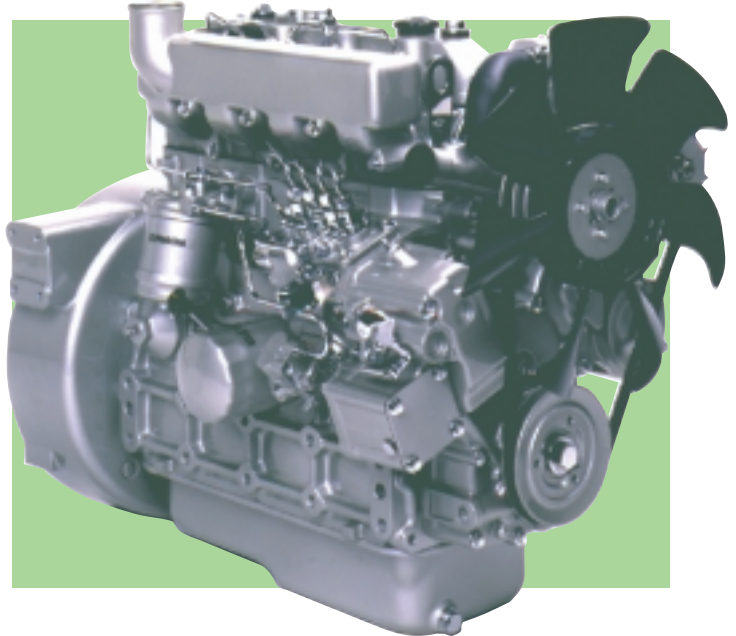


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All information in this document is substantially correct at the time of printing but may be altered subsequently by the company.

# 704-30



## General Data

<b>Bore/Stroke</b>	97mm (3.82in) x 100mm (3.94in)
<b>No of Cylinders</b>	4 in-line vertical
<b>Cubic Capacity</b>	3.0 litres (183 cu.in)
<b>Cycle</b>	4 stroke
<b>Aspiration</b>	Natural
<b>Combustion System</b>	Direct Injection
<b>Compression Ratio</b>	17.5:1
<b>Firing Order</b>	1.3.4.2
<b>Rotation</b>	Clockwise, viewed from front
<b>Fuel Injection</b>	
<b>Equipment</b>	Zexel PFR in-line pump
<b>Injectors</b>	Zexel – two stage
<b>Governing</b>	Mechanical – all speed
<b>Cooling</b>	Liquid
<b>Weight (dry)</b>	200kg (440lbs)
<b>Heat Rejection</b>	28kW @ rated load and speed
<b>Power take-off</b>	37kW with 1.25 drive ratio, from SAE "A" flange on LHS of timing case. Full power, axially from crankshaft pulley