116.5-205 kW / 156.2-274.9 hp

Compliant to European EU Stage IIIA / U.S. EPA Tier 3 emissions, the Perkins<sup>®</sup> 1106D-E70TA is the latest addition to the common platform concept of 1100 Series diesel engines.

This new engine will give you increased delivered power, torque and noise reduction. These improvements have been achieved through changes to the manifold and combustion areas, turbocharger geometry, increased cylinder displacement and significantly, the inclusion of a high pressure, common rail fuel system.

Focusing on the common platform theme, changes to engine envelope dimensions and connection points have been kept to a minimum.

Design consideration has also been incorporated to facilitate the next emissions change to EU Stage IIIB / EPA Tier 4.



| Specification              |                                    |                       |  |  |  |
|----------------------------|------------------------------------|-----------------------|--|--|--|
| Number of cylinders        | 6 vertical in-line                 |                       |  |  |  |
| Bore and stroke            | 105 x 135 mm                       | 4.13 x 5.3 in         |  |  |  |
| Displacement               | 7.01 litres                        | 427.7 in <sup>3</sup> |  |  |  |
| Aspiration                 | Turbocharged aftercooled           |                       |  |  |  |
| Cycle                      | 4 stroke                           |                       |  |  |  |
| Combustion system          | Direct injection                   |                       |  |  |  |
| Compression ratio          | 16.8:1                             |                       |  |  |  |
| Rotation                   | Anti-clockwise, viewed on flywheel |                       |  |  |  |
| Total lubricating capacity | 13-16 litres                       | 3.4-4.2 US gal        |  |  |  |
| Cooling system             | Liquid                             |                       |  |  |  |
| Total coolant capacity     | 15.2 litres                        | 4 US gal              |  |  |  |

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**Perkins**®

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### Features and benefits

#### Powered by your needs

- The Perkins 1106D-E70TA delivers up to 205 kW (275 bhp) and over 1000 Nm (770 lb·ft) of torque, providing greater productivity through an improved power to weight ratio
- The availability of a large range of build options, including a range of SAE 1, 2 and 3 flywheel housings, enables the product to be tailored to specific customer needs

### Worldwide power solution

- Excellent fuel economy and low heat rejection, allowing customers to use a more compact cooling group
- The new common rail fuel system delivers world-class robustness and packaged with the new filtration system, excellent tolerance to the different fuel qualities around the world. These fuels include aviation and biofuel (using biofuel that complies with Perkins standards). Options are available to meet local market needs
- Noise levels have been reduced from the previous 6 cylinder model by up to 1 dB at low idle

#### Lower installation costs

• The Perkins 1106D-E70TA maintains the same package size and variety of hook-up points as the current 1106C-70TA and 1206E-E70TA platforms. This commonality reduces the cost impact for the customer during the changeover process

#### Lower operating costs

- The 1106D maintains Tier 2 / Stage II fuel economy. This will allow many customers to keep existing fuel tanks, avoiding the need for costly redesign
- Service intervals are 500 hours standard
- Warranties and Service Contracts

We provide one-year warranties for constant speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally Discover more: www.perkins.esc

• Low usage warranty package is also available

#### Long-term power solution

• The 1106D range has been designed to fully comply with stringent Tier 3 / Stage IIIA emissions regulations, providing an emissions compliant power solution for the future

#### Product support

- 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

#### www.perkins.com

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### **Technical information**

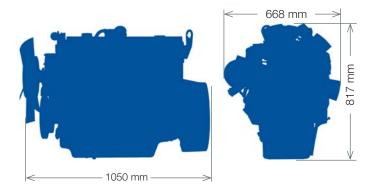
- Engine ratings
- SAE B PTO Drive
- Timing case and gear driven auxiliaries
- Flywheel housings
- Flywheel and starter rings
- Oil filter positions
- Adapter plates
- Starter motors
- Fan drives and locations
- Sound isolated lubricating oil sumps
- Lubricating oil filters and breathers
- Front-end drives
- Alternators
- Belt driven auxiliaries
- Induction manifolds
- Exhaust manifolds
- Fuel filter positions
- Cold start aids
- Engine mountings
- Power and torque curve tailoring
- Cooling packs
- Control panel
- Air compressor

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116.5-205 kW / 156.2-274.9 hp



| Engine package weights and dimensions |         |         |  |  |  |  |  |
|---------------------------------------|---------|---------|--|--|--|--|--|
| Length                                | 1050 mm | 36.5 in |  |  |  |  |  |
| Width                                 | 668 mm  | 26.2 in |  |  |  |  |  |
| Height                                | 817 mm  | 32.2 in |  |  |  |  |  |
| Weight (dry)                          | 506 kg  | 1115 lb |  |  |  |  |  |

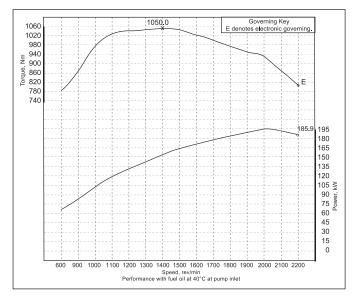
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| Speed<br>rpm | Power<br>kW | Power<br>hp | Speed<br>rpm | Torque<br>Nm | Torque<br>lb∙ft | Rating<br>type |
|--------------|-------------|-------------|--------------|--------------|-----------------|----------------|
| 2200         | 116.5       | 156.2       | 1400         | 706          | 520.7           | С              |
| 2200         | 129.0       | 173.9       | 1400         | 800          | 590.0           | С              |
| 2500         | 129.0       | 173.9       | 1400         | 840          | 619.0           | С              |
| 2200         | 151.0       | 202.5       | 1400         | 922          | 680.0           | С              |
| 2200         | 159.0       | 213.0       | 1400         | 975          | 719.0           | С              |
| 2200         | 168.0       | 225.3       | 1400         | 1028         | 758.2           | С              |
| 2200         | *186.0      | 249.4       | 1400         | 1050         | 774.4           | С              |
| 2200         | 205.0       | 274.9       | 1400         | 1050         | 774.4           | С              |

\* curve shown

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