



Operation Manual
TCD 2015





- This engine is built exclusively for purpose according to the scope of delivery - defined by the equipment manufacturer (use for the intended purpose). Any use above and beyond this is considered improper use. The manufacturer will not be liable for damages resulting from this. The user bears the sole risk.
- Use for the intended purpose also includes observance of the operating, maintenance and repair instructions specified by the manufacturer. The engine may only be used, maintained and repaired by persons who are familiar with it and instructed in the dangers. The pertinent rules for the prevention of accidents and other generally recognised safety and industrial medicine rules must be observed.
- When the engine is running there is a danger of injury caused by:
 - rotating / hot parts
 - in engines with external ignition (high electrical voltage), avoid touching at all costs!
- Unauthorised modifications to the engine exclude manufacturer liability for resulting damages.
- Equally, manipulations to the injection and control system can affect the engine's performance and the exhaust characteristics. Compliance with legal environmental regulations will no longer be guaranteed in this case.
- Do not modify, obstruct the cooling air flow area to the fan, unhindered cooling air supply must be guaranteed. The manufacturer will accept no liability for damages resulting from this.
- Only DEUTZ original parts may be used when carrying out maintenance/repair work on the engine. These have been designed especially for your engine and ensure a trouble-free operation. Failure to observe this will void the warranty !

Maintenance/cleaning work on the engine may only be carried out when the engine is not running and has cooled down.

When doing this, make sure that the electrical systems are switched off (remove ignition key). The specifications for accident prevention with electrical systems (e.g. -VDE-0100/-0101/-0104/-0105 Electrical measures against dangerous touch voltages) must be observed.

Cover all electrical components tightly when cleaning with liquids.

- Do not work on the fuel system when the engine is running - **Danger to life.** Wait for the pressure to drop after the engine comes to a standstill (in engines with DEUTZ Common Rail about 5 minutes, otherwise 1 minute) because the system is under high pressure **Danger to life.** During the first trial run do not stand in the danger area of the engine. In case of leaks danger due to high pressure - **Danger to life.**
 - Go to the workshop immediately in case of leaks.
 - Make sure the engine is not started accidentally during repairs when working on the fuel system - **Danger to life.**

Danger



This symbol is used for all safety instructions which, if not observed, present a direct danger to life and limb for the person involved. Observe these carefully. Also pass on the safety instructions to your operating personnel. Furthermore, the legislation for "general regulations for safety and the prevention of accidents" must be observed.

Caution



This symbol indicates a danger to the component / engine. The appropriate instructions must be followed otherwise the component / engine may be destroyed.

Foreword

Dear customer,

Congratulations on your purchase of this DEUTZ engine. The DEUTZ air/liquid-cooled engines are developed for a broad spectrum of applications. A wide range of variants ensures that the respective requirements are met.

The engine is equipped according to the installation case you have specified, i.e. not all the parts described in this instruction manual are installed in your engine.

We have done our best to highlight the differences so that you can easily find the operating and maintenance instructions relevant to your engine.

Please make sure that this instruction manual is available to everyone involved in the operation, maintenance and repair of the engine and that they have understood the contents.

We will be glad to answer any inquiries you may have.

Your
DEUTZ AG.

Engine number

Please enter the engine number here. (16)
This will simplify the handling of customer service, repair and spare parts queries.

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Note

Illustrations and data in this instruction manual are subject to technical changes in the course of further development of the engine. Reprinting and reproduction of any kind, even in part, require our express permission.

Order number

0312 3412 en

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DEUTZ diesel engines

are the product of years of research and development. The profound expertise gained through this, in combination with high demands on quality, attests to the fact that our engines possess all the qualities of long life, high reliability and low fuel consumption. Naturally the high requirements for protection of the environment are also met.

Safety precautions when the engine is running

Only carry out maintenance work or repairs with the engine switched off. Ensure that the engine cannot be started unintentionally - danger of accidents!

Re-install any removed protective equipment upon completion of the work.

Observe industrial safety regulations when operating the engine in enclosed spaces or underground.

When working on the running engine, work clothing must be close fitting.

Only re-fuel with the engine switched off.

Maintenance and care

are decisive for whether the engine satisfactorily meets the set demands. Compliance with the prescribed maintenance times and the careful execution of maintenance and care work are therefore essential.

Difficult operating conditions deviating from normal operation must be observed especially.

Original DEUTZ parts

are subject to the same strict quality requirements as the DEUTZ engines. Further developments for the improvement of the engines

are also introduced for the original DEUTZ parts of course. Only the use of original DEUTZ parts manufactured according to the latest state of knowledge will guarantee perfect functioning and high reliability.

DEUTZ Xchange components

DEUTZ Xchange components are a low-cost alternative. The same high quality standards as for new parts apply here of course. DEUTZ Xchange components are equivalent to the original DEUTZ parts in function and reliability.

Asbestos

Gaskets used in this engine are asbestos-free. Please use the appropriate spare parts for maintenance and repair work.

Service

We want to preserve the high performance of our engines and with it the confidence and satisfaction of our customers. Therefore we are represented by a network of service branches world-wide.

The name DEUTZ stands not only for an engine which is the result of sophisticated development work, DEUTZ Parts catalogue also stands for a complete service package which guarantees the optimum operation of our engines and for a customer service on which you can rely.

Contact one of our responsible service representatives in case of operation malfunctions and spare parts inquiries. Our trained specialist personnel ensures fast, professional repairs using original parts in the event of damage.

The DEUTZ homepage with references to product responsibilities and services always gives you an up-to-date overview of the DEUTZ partners in your area. Or use the fast, comfortable route via the Internet under www.deutz-shop.de. With the DEUTZ P@rts OnlineParts-Catalogue you have direct contact to the nearest local DEUTZ Service Station.

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