

Diesel Customer Information Kunden Information



Speed governor retrofit - Four-stroke engines

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General Instructions

The purpose of this customer information circular is to inform you about a new service that MAN Diesel is now pleased to offer.

Speed governor retrofit

Why retrofit a speed governor?

Over the years, the requirements placed on a four-stroke engine are becoming increasingly demanding. The speed governor has been particularly affected by this. Modern systems are fitted with digital control systems, which offer a wealth of advantages over the analogue or mechanical governors. To adapt older engines accordingly, we are now offering a speed governor conversion. Significant improvements are thus achieved, specifically in terms of:

- start behaviour
- engine smoothness
- soot development on start-up
- synchronisation
- parallel operation
- communication with automation systems
- maintenance

The conversion comprises a complete “speed governor retrofit system”, with which the previous governor (e.g. hydraulic governor) is replaced by a modern, digital control system.

Advantages and opportunities of the digital control system

- Parallel operation of older engines with new engines on one system.
- Changeable operating ranges (diesel/gas or twin frequency)
- Universal nominal value inputs for potentiometers (voltage or current signal) and pneumatic controllers
- Switch inputs (idling, speed higher/lower, fixed speeds, droop) enable speed control with individual adaptability to existing systems.
- Different actuators work on a purely electrical basis. They do not need a mechanical drive.
- Existing hydraulic or analogue governors can be converted without having to make major changes to the injection system.
- Sensors for charge-air pressure, oil pressure and temperatures can be integrated in the system as required.
- Parameterisation, troubleshooting and temporary data recording can

take place via the standard serial interface, using a programming device or PC.

- Remote access is possible (diagnosis, troubleshooting and Online Service).
- Analogue and digital, as well as PWM, inputs and/or outputs enable direct connection to the synchroniser and/or the load sharing devices (analogue/digital) and to a PLC.
- Secure supply of spare parts.

Parameterisation opportunities

- Parameterisable start-up and speed ramps.
- Parameterisable dynamic start types (reduction of the soot emission upon start-up).
- Temperature-dependent start behaviour.
- Control loop stability parameters can be set depending on the speed and/or filling.
- Control loop stability parameters can be set depending on the temperature.
- Switching between two mutually independent control loop stability characteristics.
- Speed and charge-air pressure-dependent filling limitation.
- Parameterisable zero injection curve.

Practically all analogue or mechanical governors on almost all engines can be converted or replaced.

We would be delighted to advise you and to draw up a suitable offer for your engine.

Contact address

Should you have any queries our Technical Service will be only too glad to be of assistance:

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Please forward this information to your technical operational personnel.