

WÄRTSILÄ

Electrical & Automation Services

ENERGY  
ENVIRONMENT  
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## GOVERNOR REPLACEMENT & SPEED/LOAD CONTROLLER UPGRADE: VASA 32



With Wärtsilä's governor replacement and speed/load controller upgrade, your engine will run more stably and respond better to load changes. This upgrade also reduces smoke creation during the start-up phase. Reduce engine maintenance costs by updating the speed governor to a more straightforward and reliable hydraulic powered electric actuator, improving the overall control of your engine speed regulation.

### A CHANGE FOR THE BETTER

Engine automation in general, and the speed governing system in particular, has a direct effect on the engine control and performance under various loads. Modern engines are equipped with digital control systems, which provides several advantages compared to the traditional mechanical-hydraulic governors.

In order to modernize older engines, Wärtsilä offers a speed governor conversion solution. By replacing the existing governor

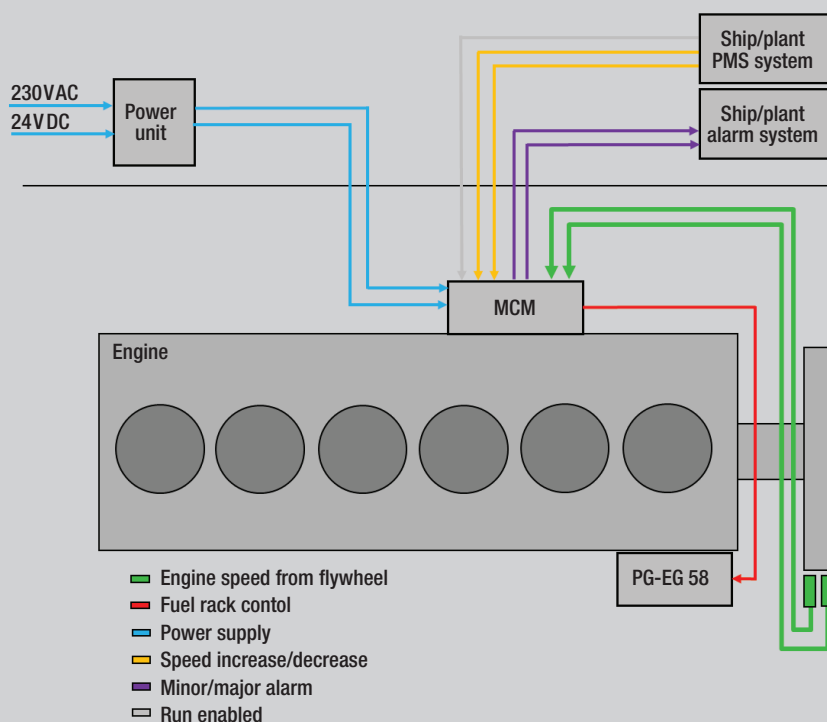
and control system with the design of today, both marine and power plant installations can profit economically as well as environmentally.

Wärtsilä is able to offer a complete package for each engine and installation, from the actual cabling to high-level programming of the digital speed/load control system.

Whether your engine has a fully mechanical control system or is equipped with pneumatic controlled governors, it can profit in almost all areas from a new, individually designed control system from Wärtsilä.



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- ■ ■ The conversion comprises a complete speed/load control solution, with which the previous governor (e.g. mechanical-hydraulic governor) is replaced by a modern, digital control system.

As the retrofit solution is completely on-engine mounted, no system outside the engine needs to be modified. On-engine mounting is provided with a compact design, where the module is mounted in an especially designed enclosure with IP67 environmental protection specification. It can cope with

demanding environments with high vibration levels and high operating temperatures.

#### THE TECHNICAL ADVANTAGES OF THE SOLUTION INCLUDE:

##### Engine performance

- Electrically controlled governors allow more exact adjustment of speed and load sharing
- Dynamic performance can be optimised for every running mode

- Higher stability of the engine speed shortens the synchronization process
- The solution will improve engine stability and response to load changes
- Parallel operation of older engines with new engines in one system
- Redundant overspeed protection increases engine safety

#### Engine start behaviour

- Improves the start behaviour (in particularly over-fuelling). A speed dependent start fuel limiter is integrated in the digital controls
- Faster governor response and more reliable start procedure

#### Maintenance

- The design is easier to overhaul/maintain, which in turn lowers the operating costs
- Engine tuning, troubleshooting and temporary data monitoring can be done using a WECSplorer maintenance tool
- Secured supply of spare parts and technical service support from Wärtsilä

#### SCOPE OF UPGRADING PACKAGE

1. PG-EG 58 actuator
2. MCM-11 digital control module with profile enclosure for engine mounting.
3. Speed pick-up sensors and mounting bracket
4. Power supply unit
5. Accessories