RETROFIT – modernise your engine control system

Invest in the future and protect your investment

Engine control systems are not immune to the passage of time. Unscheduled downtimes due to technical problems, particularly with older systems are not uncommon. It is often difficult to find spare parts. Well then? Retrofit or a new system? In most cases a Retrofit is less expensive and more efficient than purchasing a complete new automation system. We have the fitting solution for you: our Retrofit systems are specially optimised for older engine control systems and engine safety systems on board.

We already provide a large number of engines factory-set (e.g. Alco, Caterpillar, Cummins, Deutz, MAN, MTU, Nohab, Pilstick, SKL, Wärtsila, etc.; you will find a detailed list on the backside of this flyer). This simplifies the adaption to your engine and your existing sensors. Consequently you save time and costs on system design, installation and commissioning. In addition, you will benefit from state-of-the-art technology and the latest, useful functions.

Our services

- Simple system structure, fast planning and implementation
- On-site commissioning by our service technicians
- Modernisation of the electronic system for engines including electric cabling
- Assurance of existing functions
- Compatibility to existing interfaces
- Adaptation of your sensor cabling to our terminal boxes
- Use of existing switch cabinets
- Modernisation of your displays and visualisations
- Uncomplicated service and maintenance

Your benefits at a glance

- Use of existing sensors
- Usage of the latest, additional functions: condition monitoring, remote maintenance, trends, event logging, etc. (optional)
- Guaranteed commissioning time
- Reduction of downtimes due to pre-configured replacement kits and partial assembly during shipping possible
- Optimisation of performance by diagnostic function
- Reduction of maintenance costs and downtimes
- Life-time extension by means of modern, robust and efficient components
- Simplified class approval due to the fact that the components have already been classified
- Experience in over 3000 delivered engine monitoring systems

Why a Retrofit from NORIS?

Because experience counts.

Shipbuilding, sensors and automation – these are our greatest strengths. Since 1925 we manufacture measuring and control systems, devices and sensors for the shipbuilding industry. We understand your requirements and know the challenges which a modernisation of old systems implies. Through our subsidiaries in Rostock, Rotterdam, Singapore and Shanghai and our global network of partners, we are always nearby. Please contact us and we will send you a noncommittal offer if you wish.
With our Retrofit systems, we support the modernisation of control and safety systems for subsequent engine types due to factory presetting. If your engine is not listed below please contact our technical sales department.

### ALCOR Engine Types
- ALCOR 251 12V

### Caterpillar Engine Types
- CAT 3200
- CAT 3300
- CAT 3400
- CAT 3500
- CAT 3600
- CAT 3500B
- CAT 3508B
- CAT 3512B
- CAT 342
- CAT 343
- CAT 346
- CAT 348
- CAT 349
- CAT 353
- CAT 379

### Caterpillar MaK Engine Types
- CAT-MaK RM20
- CAT-MaK RM25
- CAT-MaK RM32
- CAT-MaK RM43
- CAT-MaK VM32
- CAT-MaK VM43
- CAT-MaK M601

### CUMMINS Engine Types
- CUMMINS 6CT8.3DM
- CUMMINS KTA50DM
- CUMMINS QSM11DM

### DEUTZ/MWM Engine Types
- KHD/MWM BVM640
- KHD/MWM BF.M1013MC
- KHD/MWM BF.M1015MC
- KHD/MWM SBV.6M540
- KHD/MWM SBV.6M628
- KHD/MWM RBV12M350
- KHD/MWM SBzxyyy
- KHD/MWM SBzzyyy
- KHD/MWM MAN 8L32/40
- KHD/MWM TBD620
- KHD/MWM TBD604BL
- KHD/MWM TBD604BV
- KHD/MWM TBD645BL
- KHD/MWM TBD12MS40
- KHD/MWM TRD 440/6
- KHD/MWM OP.SW

### FIAT Engine Types
- FIAT GMTBL230

### MAN Engine Types
- MAN 6S26MC
- MAN 6L28/32-DHO

### MAN B&W W Engine Types
- MAN B&W.V23-L-

### MTU Engine Types
- MTU 16V 956TB91
- MTU 16V 396 TEW2
- MTU 16V 396TE
- MTU 16V 396 TEW3

### NOHAB Engine Types
- SF116VS-F NOHAB

### Pielstick Engine Types
- Pielstick 12PC2V
- Pielstick xxV10

### SKL Engine Types
- VD29/24 SKL

### Stork Werkspoor Diesel Engine Types
- TM410 SWDiesel
- SW280 SWDiesel

### MAN Engine Types
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- MAN 6L28/32-DHO

### Wärtsilä Engine Types
- Wärtsilä D628
- Wärtsilä CWxLxx0
- Wärtsilä F240
- Wärtsilä 6LZA40
- Wärtsilä M628
- Wärtsilä 8LZA40
- Wärtsilä R210
- Wärtsilä CamShW38A
- Wärtsilä SW280
- Wärtsilä CamShW38B
- Wärtsilä SW280/W20
- Wärtsilä CamShR32
- Wärtsilä TM410L
- Wärtsilä FlywhW38A
- Wärtsilä TM410V
- Wärtsilä FlywhW38B
- Wärtsilä W26
- Wärtsilä FlywhR32
- Wärtsilä W32
- Wärtsilä FlywhR33
- Wärtsilä W46
- Wärtsilä FlywhR34
- Wärtsilä W46F L
- Wärtsilä FlywhR35

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- Wärtsilä W26
- Wärtsilä FlywhR32
- Wärtsilä W32
- Wärtsilä FlywhR33
- Wärtsilä W46
- Wärtsilä FlywhR34
- Wärtsilä W46F L
- Wärtsilä FlywhR35

Further engine types and engine manufacturers are available on request.

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