

MAN engines for marine generating sets



Service-Bordbook

Installation notes

Commissioning

Warranty

Maintenance record



Dear Customer

We congratulate you on your decision to buy a MAN diesel engine. These engines have the highest performance and operating reliability with a minimum of required maintenance overhead. However, to ensure operation free of disruptions, a number of inspection and maintenance tasks have to be performed regularly.

This manual provides an overview of all the prescribed maintenance work.

The maintenance work is to be performed in accordance with the checklists (as of page 27) following a certain number of operating hours by a workshop authorised by MAN.

In order to make it easier for you to handle your new engine, the following printed materials are supplied with each engine:

- Operating instructions
- Service products for MAN diesel engines, see also www.man-nutzfahrzeuge.de
- Spare parts catalogue
- On-board service book

The installation instructions for MAN ship's diesel engine / industrial diesel engines can be obtained free of charge from MAN Nutzfahrzeuge AG, Dept. MVMS or the unit manufacturer.

You will find an excerpt covering the most important points with regard to on-board units in this book on page 8.

We would very glad to answer any special questions you might have that cannot be clarified in these printed materials. However, for all queries, we always require the **14-digit engine number**. You will find this on the type plates on the engine.

**The check procedure report of the unit manufacturer and the commissioning report from the ship must be sent to MAN.
Only after these documents have arrived and been checked does the MAN factory warranty come into effect.**

Yours faithfully
MAN Nutzfahrzeuge Aktiengesellschaft
Nuremberg Plant

We reserve the right to make technical changes for reasons of development.

© 2003 MAN Nutzfahrzeuge Aktiengesellschaft

Reprinting, copying or translation, including excerpts, are not permitted without approval in writing from MAN. All statutory rights and copyright are expressly reserved by MAN.





General data	4
General notes	5
Maintenance procedure	6
General notes on care and maintenance	7
Notes on installation	8
Commissioning	11
Commissioning report for on-board units (return completed to unit manufacturer)	13
Commissioning report for on-board units (to remain with customer)	15
Commissioning measurement sheet on-board unit (return completed to unit manufacturer)	17
Commissioning measurement sheet on-board unit (to remain with customer)	19
Checks and adjustments	21
The warranty conditions	23
Engines for continuous operation	25
Service according to chronological intervals	27
Engines for standby operation	83



General data

Within the framework of the commissioning, the form sheet “General Data” is to be filled out by the authorised workshop.

Name and address of owner	Name and address of shipyard
Ship's name	New construction no.
Engine model:	Electrical power in kW:
Data on engine	
Engine model:	Setup power in kW:
Works number:	Date of commission:
Engine number:	Speed in rpm:
First commissioning by: Signature / Place	
Data on unit	
Type of drive system (e.g. generator, pump):	Generator / pump designation:
Manufacturer:	Construction number, year of construction:

Please note that service work may only be carried out the MAN-authorized workshops.

Care should be taken that all entries are complete, proper and legible.

A trial run is to be made after each service.

Notes about work and/or repairs that seem to be necessary or have been carried out can also be recorded.

Within the framework of commissioning, the form sheet “General Data” is to be completed by the authorised workshops and sent to the unit manufacturer together with the commissioning report.

The completed form sheet “General Data” is to be enclosed with all queried, complaints and spare parts orders.

In the case of complaints during the warranty period, the evidence of maintenance is also to be submitted.



Maintenance work on engines for on-board units and standby / harbour engines (> 400 h/year)

These engines are regularly serviced every 200 operating hours. Independently of this, the valve caps of the cooling system as well as the coolant are to be changed every 2 or 4 years as the case may be. The coolant hoses are to be replaced every 4 years. The injection nozzles are to be checked or replaced every 2 years or every 2400 h. In this connection, the compression is to be checked.

Every 2 years at the latest, the charge air pipes and charge air cooler, as well as the pipe bundles in the heat exchanger are to be cleaned depending on the level of contamination of the seawater.

All servicing which must be carried out up to 10 000 operating hours and the regular servicing after 2 or 4 years are listed from page 25.

Maintenance work in the case of engine for standby operation (< 400 h/year)

These engines generally run for only a few operating hours annually. Servicing is therefore to be carried out each year.

All servicing that must be regularly carried out up to 10 years is listed from page 83 onwards.

General:

- Exchange worn seals
- As a general principle, use a torque wrench to tighten the screwed connections for which the tightening torques are prescribed (see publication “Technology • Data • Setting Values”)
- Clean removed parts before refitting them, and check them for damage unless exchange is mandatory

When checking the engine oil level or changing the engine oil

- Changing engine and oil filters is described in the operating instructions in the chapter “Maintenance and care”
- Only use approved engine oils complying with the MAN factory standard, see Service Products Booklet
- Keep the vicinity of filler openings and of oil dipsticks clean so that no dirt can get into the oil pan
- **Caution:**
Do not fill up with oil beyond the max. notch on the dipstick. **Overfilling causes damage to the engine.**
- If loss of oil is due to leaks, ascertain and eliminate cause

When checking the coolant level

- Top up with missing quantity of fluid, ensuring that the concentration of the antifreeze/anticorrosive agent is correct (see Operating Instructions, chapter “Maintenance and care” and the publication “Fuels, Lubricants, Coolants for MAN Diesel Engines”)
- The cause of the coolant loss must be determined and rectified

When changing the coolant

- Drain and fill up with coolant and bleed cooling system as described in the Operating Instructions, chapter “Maintenance and care”
- Only used approved antifreeze and anticorrosive agent, see publication “Service Products for MAN Diesel Engines”

When checking for leaks of oil, coolant and fuel

- Carry out external visual check of engine (crankcase, cylinder heads, removed oil filter etc.) for emerging oil
- Carry out visual check of all fluid-containing parts (reservoirs, pipes, hoses) for leaks
- Carry out visual check of pipes and hoses to see whether they are correctly routed or show chafing marks

Observe the safety regulations in the operating instructions!

Supplement to the general installation guidelines for MAN naval engines used as units

Dear Customer,

this brief information summarises particularly important installation criteria.

However, it exempts neither the unit manufacturer nor the shipyard nor the operator from observing the complete MAN installation guidelines.

Cooling system:

1. External coolant pipes

The pipe cross-sections must at least correspond to the connection point diameters at the engine; depending on the line length, the free cross-section must be enlarged.

All pipe connections must be flexible. The entire system must be able to vibrate freely; technical measures should be implemented to achieve separation from the ship peripheral.

With deployment of the MAN gyroscope seawater pump / charge-air coolant pump (manufacturer: Steimel), it must be ensured that the pump always has an adequate hydraulic seal.

A siphon in the piping is preferable to a flap trap.

All seawater pumps must be pre-filled prior to commissioning (or after lengthy periods of non-use).

2. Water quality of seawater (untreated water)

A filter of adequate size must be fitted upstream of the seawater. The mesh width must not exceed 2.5 mm.

The seawater collection point at the stern or the ship is to be arranged in such a way that no air bubbles can be drawn into the untreated water flow (danger of cavitation).

The intake of the ship's own polluted or chemically contaminated fluids (faeces, washing fluids, etc.) is also to be prevented.

3. Pressures in the external seawater system or NT coolant circuit with ship's own pumps

Excessive water pressure in the external cooling system (before engine) leads to damage on the charge air coolers and pipe bundles.

The ship's own pumps must be configured in such a way that a maximum operating pressure of 1.5 bar before the engine is not exceeded.

The flow speed of the untreated water in the charge air cooler and heat exchanger must not exceed 2.5 m/sec.

The untreated water at the engine outlet must exit without pressure where possible. The pipe cross-sections are to be enlarged accordingly.

When the engine is at a standstill, there must be no water flow through the heat exchanger or charge air cooler!

Pressure fluctuations during operation are to be avoided.

On systems with a number of units, even if individual engines are at a standstill, there must be no increase in pressure or water volume in the cooling system of the remaining units!

The cooling systems on all MAN engines are configured according to the regulation of the classification associations for an untreated water intake temperature up to 32° C (305K). If a higher intake temperature occurs, thermal problems and possibly even damage to the engine are likely.

4. Water quality of internal engine circuit (fresh water)

Coolants and additives (chemicals) used in the main engines are wholly unsuitable for MAN diesel engine made in Nuremberg.

Even if the ship's main engines have been supplied by MAN B&W!

Drinking water from the tap with a 40% proportion of antifreeze is to be used.

Here, only products complying with the MAN factory standard 324 may be used. In certain cases (tropics), deployment of pure anticorrosive agent complying with standard 248 is possible.

5. Filling internal engine cooling system (fresh water)

On all systems, the engines should always be filled with coolant from the lowest point. Here, the cap on the expansion tank is to be opened and the venting stoppers e.g. on the charge air cooler and the turbines, are to be loosened or removed.

6. External coolant expansion tank (fresh water)

To provide protection against cavitation, the cooling system is to be designed as a closed overpressure system, that is, the coolant expansion tank must be equipped with 2 valve caps.

The safety valve must open at 1.5 bar overpressure.

The working valve must open at 1 bar overpressure as well as 0.02-0.08 bar underpressure.

Valve caps for containers made by the operator can be obtained from MAN.

Other important aspects for containers made by the operator:

The water volume in the coolant expansion tank must be $\geq 15\%$, the air volume approx. 7-12% of the entire filled coolant quantity (engine and cooling system in the ship). There must be an adequate degassing route in the coolant expansion tank.

The coolant level must be visible without having to open the system.

7. Filling and venting the outer skin cooling system

The cooling circuit should always be filled from the lowest point.

As a general principle, there must be adequate venting possibilities in the entire cooling system. Automatic venting is not permitted.

Continuous venting lines (always routed upwards) to the coolant expansion tank, starting from the highest positions in the external system must be used to prevent formation of an air cushion.

Suitable measures (e.g. 5-6 mm panels \varnothing) must be used to ensure that at nominal speed only a maximum of 20 litres of coolant flows back along all the venting lines to the expansion tank. This prevents the engine from cooling.

Fuel system

Exclusively standard diesel fuels may be used. The standard can be found in the service products booklet.

In individual cases, special permission can be granted for special fuels in consultation with MAN.

In front of the engine's own fuel filters, additional adequately sized pre-filters with water separators must be installed (e.g. Separ or Racor).

The mesh width should be between 30 and 60 micros.

In the case of a high proportion of water and pollutants, the fuel is to be prepared with centrifugal filters.

As a general principle, contact the unit manufacturer is unclear cases.

Queries with regard to service products can be addressed directly to the service department MVMS of MAN Nutzfahrzeuge AG, Nuremberg plant.

The current list of service products can also be seen on the Internet at www.man-nutzfahrzeuge.de (Engines & Components => General Information => Service Products).

First commissioning of the on-board unit is to be performed a person authorised to commission by MAN Nutzfahrzeuge AG.

As a general principle, the commissioning report with measurement sheet, as well as the sheet “General Data” are to be completed and sent to the unit manufacturer.

The check procedure report of the unit manufacturer and the commissioning report from the ship are then forwarded by the suppliers to MAN.

Only after these documents have arrived and been checked does the MAN factory warranty come into effect.





Commissioning report for on-board units (return completed to unit manufacturer)

MVMS	Ship's name	Engine type	Engine no.
------	-------------	-------------	------------

Conti- nuous Fig.	Engine in general
-------------------------	--------------------------

1	Oil type / viscosity:	Approved by MAN	yes	no
2	Check engine oil level	OK		
3	Check coolant level	OK		
4	Antifreeze / product designation	Approved by MAN	yes	no
5	Anticorrosive agent (in the coolant) / product designation		yes	no
6	Lifting magnet (smooth running)	OK		
7	Engine mounting	rigid	elastic	
8	Oil filter	standard	Double	switchable
9	V-belt tension (coolant pump)	checked	OK	
10	V-belt tension (seawater pump)	checked	OK	
11	Fan	Suction	Pressure	
12	Accessibility of engine for maintenance and repair	poor	acceptable	good

Cooling circuit

	Radiator cooling	Outer skin cooling	MAN heat exchanger cooling	in the LT circuit of the main engine
1	Coolant system pressure (warm)	bar		
2	Cooler and/or heat exchanger valve cap (pressures)	Normal pressure (bar)	Overpressure (bar)	
3	Cooler with water box			
4	Cooler without water box			
5	Expansion tank	Manufacturer:		
6	Routing of pipes in cooling circuit	OK	no	
7	Cross-section changes (pipes)	yes	no	Change required
8	Air flow with fan cooling	OK	inadequate	
9	Antifreeze concentration in %			
10	Lack of bubbles in outer skin cooling system	OK	no	

Cooling circuit (seawater)

1	Intake height engine seawater pump	M		
2	Cooling circuit	OK	no	
3	Routing of pipes	OK	no	
4	Seawater filter present	yes	no	
5	Seawater pump fitted on engine, manufacturer and type			
6	Seawater pump supplied by shipyard, external	bar pressure	l/min supply volume	
7	Water flow volume, system	checked	l/min supply volume	
8	Leaks entire engine	checked	OK	no
9	Venting seawater box	yes	no	
10	Heat exchanger ΔT	$^{\circ}C$		

Exhaust system

1	Routing of exhaust line	OK	no	
2	Exhaust line pipe	Diameter	Length	
3	Exhaust pipe (engine)	standard	insulated	water-cooled
4	Exhaust line	not insulated	insulated	
5	Compensators present?	yes	no	Installation length in mm:

Intake system

1	Air filter (type) removed	yes	no	
2	Air filter (type) Scope of delivery MAN	yes	no	
3	Air intake	from outside	from engine room	
4	Engine room ventilation	OK	inadequate	





Commissioning report for on-board units (to remain with customer)

MVMS	Ship's name	Engine type	Engine no.
-------------	-------------	-------------	------------

Conti- nuous Fig.	Engine in general
-------------------------	--------------------------

1	Oil type / viscosity:	Approved by MAN	yes	no
2	Check engine oil level	OK		
3	Check coolant level	OK		
4	Antifreeze / product designation	Approved by MAN	yes	no
5	Anticorrosive agent (in the coolant) / product designation		yes	no
6	Lifting magnet (smooth running)	OK		
7	Engine mounting	rigid	elastic	
8	Oil filter	standard	Double	switchable
9	V-belt tension (coolant pump)	checked	OK	
10	V-belt tension (seawater pump)	checked	OK	
11	Fan	Suction	Pressure	
12	Accessibility of engine for maintenance and repair	poor	acceptable	good

Cooling circuit

	Radiator cooling	Outer skin cooling	MAN heat exchanger cooling	in the LT circuit of the main engine
1	Coolant system pressure (warm)	bar		
2	Cooler and/or heat exchanger valve cap (pressures)	Normal pressure (bar)	Overpressure (bar)	
3	Cooler with water box			
4	Cooler without water box			
5	Expansion tank	Manufacturer:		
6	Routing of pipes in cooling circuit	OK	no	
7	Cross-section changes (pipes)	yes	no	Change required
8	Air flow with fan cooling	OK	inadequate	
9	Antifreeze concentration in %			
10	Lack of bubbles in outer skin cooling system	OK	no	

Cooling circuit (seawater)

1	Intake height engine seawater pump	M		
2	Cooling circuit	OK	no	
3	Routing of pipes	OK	no	
4	Seawater filter present	yes	no	
5	Seawater pump fitted on engine, manufacturer and type			
6	Seawater pump supplied by shipyard, external	bar pressure	l/min supply volume	
7	Water flow volume, system	checked	l/min supply volume	
8	Leaks entire engine	checked	OK	no
9	Venting seawater box	yes	no	
10	Heat exchanger ΔT		$^{\circ}C$	

Exhaust system

1	Routing of exhaust line	OK	no	
2	Exhaust line pipe	Diameter	Length	
3	Exhaust pipe (engine)	standard	insulated	water-cooled
4	Exhaust line	not insulated	insulated	
5	Compensators present?	yes	no	Installation length in mm:

Intake system

1	Air filter (type) removed	yes	no	
2	Air filter (type) Scope of delivery MAN	yes	no	
3	Air intake	from outside	from engine room	
4	Engine room ventilation	OK	inadequate	



Commissioning measurement sheet On-board unit

(return completed to unit manufacturer)

Date:

Unit	Operating hours	Fuel type
Engine type	Speed adjustment	complying with
Engine no.	standard / quality
.....	Other fuel

G E N E R A T O R	Electr. power %				
	Engine speed / Hz				
	kW electr.				
	Volt				
	Ampere				
	Cos phi				
T E M P E R A T U R E in °C	Exhaust to ATL, left				
	Exhaust to ATL, right				
	Engine coolant inlet				
	Engine coolant outlet				
	Lubricating oil				
	Charge air before cylinder				
	Seawater				
	Outside air				
	Engine room				
	Fuel				
P R E S S U R E in bar	Oil pressure				
	Engine coolant before engine				
	Engine coolant after engine				
	Fuel pressure after filter				
	Exhaust counterpressure (mbar)				
	Smoke properties *)				
	Coolant flow l/min				

0101-N12.02

*) visual check / Bosch SZ







Commissioning measurement sheet On-board unit

(to remain with customer)

Date:

Unit Engine type..... Engine no.....	Operating hours Speed adjustment	Fuel type: complying with standard / quality Other Fuel
---	---	--

G E N E R A T O R	Electr. power %				
	Engine speed / Hz				
	kW electr.				
	volt				
	Ampere				
	Cos phi				
T E M P E R A T U R E in °C	Exhaust to ATL, left				
	Exhaust to ATL, right				
	Engine coolant inlet				
	Engine coolant outlet				
	Lubricating oil				
	Charge air before cylinder				
	Seawater				
	Outside air				
	Engine room				
	Fuel				
P R E S S U R E in bar	Oil pressure				
	Engine coolant before engine				
	Engine coolant after engine				
	Fuel pressure after filter				
	Exhaust counterpressure (mbar)				
0101-N12.02	Smoke properties *)				
	Coolant flow l/min				

*) visual check / Bosch SZ

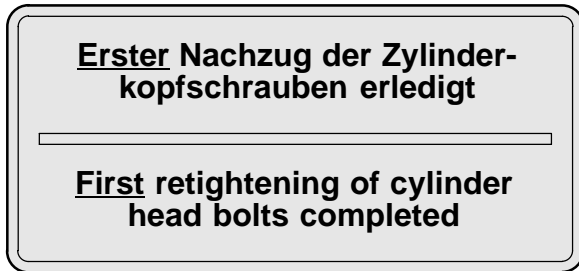


Tightening the cylinder head bolts during 400 h service

(engine cold or warm)

(by authorised and trained personnel)


The cylinder heads are fitted with cylinder head bolts screws for rotation angle tightening. On new engines, the cylinder head bolts are retightened for the first time after running in at the factory and marked with the label “**First retightening of cylinder head bolts ...**” on the cylinder head cover.



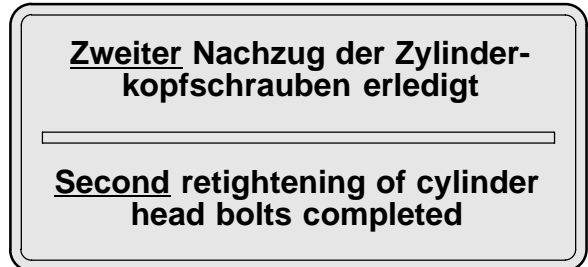
Spare part no. 51.97801-0211

After the first 400 operating hours, retighten the cylinder head bolts 1 to 4 in the order shown in Fig. 1 by 90° (1/4 turn).

The two outer bolts (intake and exhaust side) must not be retightened.

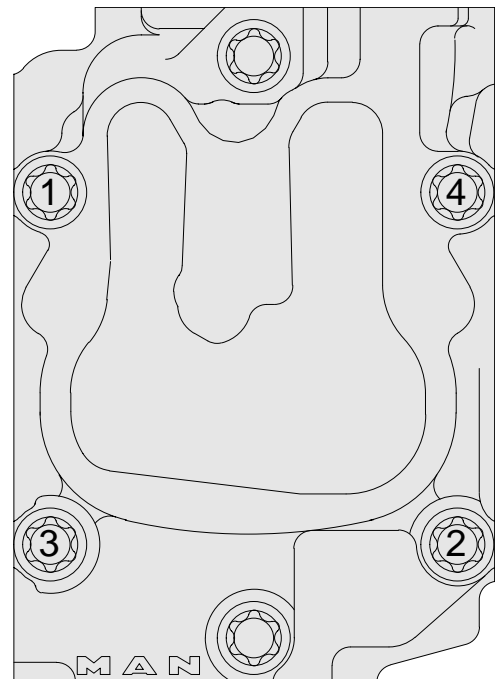
 **Note:** The cylinder head bolts to be tightened must not be loosened; they are to be further tightened from their position by 90° (1/4 turn).

Remove the label “**First retightening of cylinder head bolts ...**” and to prove the 2nd retightening attach the label “**Second retightening of cylinder head bolts ...**”.



Spare part no. 51.97801-0212

Intake side / injection nozzle



Exhaust side

Fig. 1

Setting the valve clearance

(with cold engine)

(by authorised and trained personnel)

The valve clearance is to be checked on a new or overhauled engine after the first 10 to 20 operating hours and, if required, corrected.

Thereafter, it is to be checked after 800 operating hours and, if required, corrected.

The valve clearance is to be set in such a way that the feeler gauge can be moved easily between the valve stem and rocker arm with slight resistance.

To perform the adjustment, turn the setting screw after loosening the conternut.

Turn the engine in such a way that the piston in the cylinder to be adjusted is in the ignition dead centre. This is the case when the valves on the cylinder with synchronised piston overlap.

V-engines:

Inlet 0.5 mm ± 0.05 mm

Outlet 0.6 mm ± 0.05 mm

R-engines:

D 08 / D 2866

Inlet 0.5 mm ± 0.05 mm

Outlet 0.5 mm ± 0.05 mm

D 2876

Inlet 0.5 mm ± 0.05 mm

Outlet 0.6 mm ± 0.05 mm

Extent of warranty

MAN guarantees that within the period of the warranty all defective components of engines in the model series D 08 and D 28 will be either replaced or repaired at the discretion of MAN. The most important factors here are the following warranty conditions (contained in the terms of delivery):

Repairs

For execution of the necessary work the customer has to

- grant the necessary time and opportunity,
- provide at his own expense helpers, machinery and equipment and carry out secondary work,
- perform at his own expense any work above and beyond the original extent of the order.

For each case of damage, MAN shall cover the required shipping costs for replacement and exchange parts to a reasonable extent. Defective components must be returned immediately to the manufacturer for damage analysis. Warranty deliveries that are normally free of charge will be billed if the damaged part analysis proves that the customer is at fault. Costs for special travel and shipping expenses will be charged to the customer. Repairs will be performed within normal, regular working hours. The costs for work outside regular working hours will be charged to the customer.

The warranty does not include

- the replacement of wear parts, e.g. filters, V-belts, injection nozzles as well as service products (oil, antifreeze and anticorrosive agent),
- the costs of the execution of the normal service work to be carried out at regular intervals,
- damage resulting from the use of unsuitable service products or from improper handling / operation,
- indirect costs of loss of use, of loss of time, of expenses for board and lodging, of freight charges, of fuel and of all other consequential costs which may be incurred in connection with warranty cases,
- any damage which arises if the "Installation instructions for industrial diesel engines" are disregarded,
- damage resulting from lack of maintenance (evidence of maintenance required from on-board service book).



Engines for continuous operation





In addition to the service on the basis of operating hours clocked up, the following maintenance work according to chronological intervals is necessary:

Checklist for the maintenance work

Changing of	Changed (= x) after years				
	2	4	6	8	10
Both valve caps on expansion tank					
Coolant every 4 years					
Replace coolant hoses every 4 years					
Check injection nozzles, replace if necessary every 2 years or after 2400 h					
Checking of					
compression every 2 years or after 2400 h					
Cleaning of					
Charge air pipes / charge air cooler					
Pipe bundle in the heat exchanger					

Service after 2 years

.....
 Place Date Stamp / Signature

Service after 4 years

.....
 Place Date Stamp / Signature

Service after 6 years

.....
 Place Date Stamp / Signature

Service after 8 years

.....
 Place Date Stamp / Signature

Service after 10 years

.....
 Place Date Stamp / Signature



Service after 20-60 operating hours

Checklist for the maintenance work

20-60

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 400 operating hours

Checklist for the maintenance work

400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Tighten cylinder head bolts (only on D 28 engines), see page 21	
Setting valve clearance , see page 22	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

1000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 1200 operating hours

Checklist for the maintenance work

1200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

1400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 1600 operating hours

Checklist for the maintenance work

1600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

1800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

2000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

2200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 2400 operating hours

Checklist for the maintenance work

2400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Injection nozzles, replace if necessary (see table)	
Compression (see table)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Opening pressure of injection nozzles

Cylinder	Opening pressure	Remarks (tightness, jet pattern)
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Compression pressures of cylinders

Cylinder	Compression pressure	Remarks
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Remarks:

.....

.....

.....



Service after 2600 operating hours

Checklist for the maintenance work

2600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

2800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 3000 operating hours

Checklist for the maintenance work

3000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

3200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 3400 operating hours

Checklist for the maintenance work

3400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....

Place _____ Date _____ Stamp / Signature _____



Checklist for the maintenance work

3600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 3800 operating hours

Checklist for the maintenance work

3800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

4000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt idler pulley, replacing if necessary	
V-belt tension, retightening if necessary V-belt(s)	
Clearance of engine water pump bearing	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 4200 operating hours

Checklist for the maintenance work

4200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

4400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 4600 operating hours

Checklist for the maintenance work

4600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

4800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Injection nozzles, replace if necessary (see following page)	
Compression (see following page)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Opening pressure of injection nozzles

Cylinder	Opening pressure	Remarks (tightness, jet pattern)
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Compression pressures of cylinders

Cylinder	Compression pressure	Remarks
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Remarks:

.....

.....

.....



Checklist for the maintenance work

5000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 5200 operating hours

Checklist for the maintenance work

5200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

5400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 5600 operating hours

Checklist for the maintenance work

5600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

5800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 6000 operating hours

Checklist for the maintenance work

6000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

6200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 6400 operating hours

Checklist for the maintenance work

6400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

6600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 6800 operating hours

Checklist for the maintenance work

6800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

7000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

7200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Injection nozzles, replace if necessary (see table)	
Compression (see table)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition please, note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Opening pressure of injection nozzles

Cylinder	Opening pressure	Remarks (tightness, jet pattern)
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Compression pressures of cylinders

Cylinder	Compression pressure	Remarks
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Remarks:

.....

.....

.....



Service after 7400 operating hours

Checklist for the maintenance work

7400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

7600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 7800 operating hours

Checklist for the maintenance work

7800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

8000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt idler pulley, replacing if necessary	
V-belt tension, retightening if necessary V-belt(s)	
Clearance of engine water pump bearing	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

8200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. In addition, please note the separately listed maintenance work in chronological intervals, see page 27.

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

8400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

8600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

8800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Service after 9000 operating hours

Checklist for the maintenance work

9000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

9200

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Service after 9400 operating hours

Checklist for the maintenance work

9400

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature



Checklist for the maintenance work

9600

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Injection nozzles, replace if necessary (see following page)	
Compression (see following page)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Opening pressure of injection nozzles

Cylinder	Opening pressure	Remarks (tightness, jet pattern)
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Compression pressures of cylinders

Cylinder	Compression pressure	Remarks
1	bar	
2	bar	
3	bar	
4	bar	
5	bar	
6	bar	
7	bar	
8	bar	
9	bar	
10	bar	
11	bar	
12	bar	

Remarks:

.....

.....

.....



Checklist for the maintenance work

9800

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil *	
Engine oil cartridge(s) *	
Cleaning of	
Fuel pre-filter	
Test run	
done	

* not if engine oil complying with factory standard 3275 / 3277 is used

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

10000

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Condition of the impeller of the untreated water pump (if fitted)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective number of operating hours has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop. **In addition, please note the separately listed maintenance work in chronological intervals, see page 27.**

Service done by

.....
Place

Date

Stamp / Signature

Engines for standby operation



Checklist for the maintenance work

1 year

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Tighten socket head cap screws (only on D 28 engines), see page 21	
Setting valve clearance , see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

2 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Injection nozzles, replace if necessary (see following page)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Both valve caps on expansion tank	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

3 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

4 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Injection nozzles, replace if necessary	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Both valve caps on expansion tank	
Coolant	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

5 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

6 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Setting valve clearance, see page 22	
Injection nozzles, replace if necessary (see following page)	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Both valve caps on expansion tank	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

7 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

8 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Injection nozzles, replace if necessary	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Both valve caps on expansion tank	
Coolant	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....

Place Date Stamp / Signature



Checklist for the maintenance work

9 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Service air filter (depending on operating conditions, earlier)	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



Checklist for the maintenance work

10 years

Checking of	Checked = x / Data
Engine exterior for loss of oil and coolant	
Coolant level	
Concentration of antifreeze / anticorrosive agent, see page 9	
Engine oil level	
Engine alarm system, emergency stop facility	
Functioning of instruments	
Coolant preheating, function, setting	
Coolant hoses for leaks and porosity	
Fuel lines for leaks	
V-belt tension, retightening if necessary V-belt(s)	
Draining water from auxiliary fuel filter	
Injection nozzles, replace if necessary (see following page)	
Setting valve clearance, see page 22	
Water hose clamps, pipe connections and bolts for security, retightening if necessary	
Changing of	
Engine oil	
Engine oil cartridge(s)	
Fuel filter	
Service air filter (depending on operating conditions, earlier)	
Both valve caps on expansion tank	
Cleaning of	
Fuel pre-filter	
Test run	
done	

Once the respective operating time has been clocked up, the aforementioned maintenance work is to be carried out by a MAN-authorized workshop.

Service done by

.....
 Place Date Stamp / Signature



MAN Nutzfahrzeuge Aktiengesellschaft

**Vogelweiherstraße 33
D-90441 Nürnberg**

Printed in Germany

51.99597-8012