

# Maintenance Schedule



MAN Marine Diesel Engines  
V8 / V12  
Light Duty

## Printer's imprint

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## Data on drive system and boat

<b>1. Name and address of owner</b>	
<b>2. Data on drive system</b>	
3. Engine model:	4. Output in kW / rpm:
5. Works number:	6. Date of commissioning:
7. Engine number Starboard engine:	rpm (important note overleaf)
8. Engine number Port engine:	rpm (important note overleaf)
9. Name of MAN agent, Date, Signature:	
<b>10. Boat details</b>	
11. Boat type:	
12. Boat name:	
13. Boat number, Year of construction:	



## 1 Foreword

### 1.1 Validity of the Maintenance Schedule

This manual is an overview of all the required maintenance operations which are to be performed at regular intervals on the V8 and V12 marine main propulsion engines from the model series D 2868 (V8) / D2862 (V12) for "Light Duty".

The respective application type "Light Duty" is specified by the rated speed of 2300 rpm, which is recorded on the number plate of the engine.

Maintenance operations are to be performed as per the maintenance schedule on page 7 after a certain number of operating hours by a MAN authorised workshop.

### 1.2 Important information

Important information is necessary to operate and maintain the MAN propulsion system. For this reason the following publications must always be at hand:

- Operating Instructions
- Fluids and Lubricants for MAN Diesel Engines
- Spare Parts Catalogue

If you should require any assistance, you can find a current list of service centres on the Internet at: <http://www.man-engines.com/> → **Marine engines** → **Service** → **Service centres**

Our representatives will be happy to assist with any questions you may have which cannot be clarified by the information contained in these publications. Please have the following information at hand: the 14-digit engine number. This is entered on the "Data on drive system and boat" form on page 1, on the engine's model plate or in the documents at your shipyard.

Sincerely,  
MAN Engines  
A Division of MAN Truck & Bus AG  
Nuremberg Works

## Maintenance Work

## 2 Maintenance Work

### 2.1 Maintenance Schedule

Maintenance operations are to be performed after the corresponding number of operating hours has been reached **or** at least once per year, see the maintenance schedule, page 7.

The Maintenance Schedule consists of the basic services M1, M2 and M3 every 400 hours of operation and additional work M4 dependent on the running hours.

If the relevant operating hours are not reached within one year, the maintenance work is to be performed annually.

### 2.2 General information on performing service work

Every maintenance operation is recorded in the "Maintenance Record" section of this book (either according to the operating hours or the annual intervals).

At each service inspection, the MAN authorised workshop is to confirm the correct performance of the work according to the maintenance schedule with a stamp and a signature.

Make sure that all entries are legible, complete and have been properly made.

After each service inspection the engine is to be test driven to determine the engine speed which can be reached at full load (max. ship speed). This value should not be less than the rated speed (see model plate). This test is valid as proof for the maximum engine power.

Conditions for engine speed test:

- Ship loaded (tanks filled, equipment on board)
- No growth on hull, propeller and shaft system

### 2.3 Commissioning

As part of the commissioning the "**Data on drive system and boat**" form, page 1, is to be filled out by the authorised workshop.

### 2.4 Daily inspection

A daily inspection has to be performed as part of the board routine:

- Engine oil level / transmission oil level
- Coolant level in expansion tank
- Operation of instruments
- Visual inspection of engine for oil and coolant leaks
- Drain water from fuel filters and fuel pre-filters

### 3 General Notes on Maintenance Work

#### 3.1 When performing maintenance work

##### **! DANGER**

**Risk of injury and scalding!!**

Therefore:

- Carefully read the safety regulations **in the Operating Instructions!**

##### **NOTE**

**No liability for engine damage if non-approved spare parts are used.**

Therefore:

- Use only genuine MAN spare parts. MAN will accept no responsibility for damage resulting from the installation of other parts from external sources.
- Exchange worn seals.
- Tighten screwed connections for which tightening torques are specified (see "Service Data"), always using a torque wrench.
- Clean removed parts before refitting them, and check them for damage unless exchange is mandatory.

#### 3.2 When checking the engine oil level or changing the engine oil

##### **NOTE**

**No liability for engine damage if non-approved fuels, lubricants and fluids are used!**

If non-approved fuels, lubricants and fluids are used, MAN accepts no liability for material damage.

Therefore:

- Only use approved fuels, lubricants and fluids (see publication "Fluids, Lubricants and Coolants for MAN Industrial and Marine Diesel Engines"). A current list of approved products can be found online at: <https://mmrepro.mn.man.de/bstwebapp/BSTServlet>
- The procedure for changing engine oil and oil filters is described in the Operator's Manual in the chapter "Maintenance and care".
- Keep vicinity of filler orifices and of 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 engine.
- If loss of oil is due to leaks, ascertain and eliminate cause.

#### 3.3 When checking the coolant level

- Top up with missing quantity of fluid, ensuring that the concentration of the antifreeze / anti-corrosion agent is correct (see Operating Instructions, chapter "Maintenance and care" and the publication "Fuels, Lubricants and Coolants for MAN Diesel Engines").
- Ascertain and eliminate cause of loss of coolant.

#### 3.4 When changing the coolant

- Drain and fill up with coolant and bleed cooling system as described in the Operating Instructions, chapter "Maintenance and care".
- For antifreeze / anti-corrosion agents see publication "Fuels, Lubricants and Coolants for MAN Diesel Engines".

## General Notes on Maintenance Work

### 3.5 When checking for leaks of oil, coolant and fuel

- Carry out visual check of engine exterior (crankcase, cylinder heads etc.) for emergence of 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.

### 3.6 When checking the turbochargers

#### Carrying out a visual inspection of turbochargers for:

- Traces of contact between the compressor impeller and the compressor housing
- Deformation of the blades, damage to the leading edges of the blades, due to the action of foreign bodies
- Condition of oil outlet in the compressor and exhaust gas housing

#### Testing of the turbochargers for:

- Smooth running of the rotor shaft
- Checking of mounting bolts on the compressor rear wall and the exhaust gas housing for force fit
- Firm seating of and damage to the connections for the oil supply and return system and their sealing



## 4 Maintenance Schedule - Light Duty

The maintenance schedule 4.1 consists of the basic maintenance operations:

- M1 every 400 operating hours
- M2 every 800 operating hours
- M3 every 1200 operating hours

The additional maintenance operations M4 are to be performed dependent on the running hours.

If the relevant operating hours for M1, M2 and M3 are not reached within one year, the maintenance work is to be performed annually according to maintenance schedule 4.2.

### 4.1 Maintenance operations according to operating hours

according to operating hours	Scope of maintenance operations for Light Duty (LD)			
	M1	M2	M3	M4
400	x	x	x	
800	x	x		
1,200	x			
1,600	x	x	x	
2,000	x			
2,400	x	x		
2,800	x		x	
3,200	x	x		x
3,600	x			
4,000	x	x	x	
4,400	x			
4,800	x	x		
5,200	x		x	
5,600	x	x		
6,000	x			x
6,400	x	x	x	
6,800	x			
7,200	x	x		
7,600	x		x	
8,000	x	x		
8,400	x			
8,800	x	x	x	
9,200	x			x
9,600	x	x		
10,000	x		x	
10,400	x	x		
10,800	x			
11,200	x	x	x	
11,600	x			
12,000	x	x		

For Scope of maintenance operations see page 9.

**Maintenance and TBO Schedule**

**4.2 Maintenance operation according to time intervals**

According to time intervals	Scope of maintenance operations for Light Duty (LD)				
	Daily inspection	M1	M2	M3	M4
Daily	x				
Yearly		x	x	x	
After every 4 years					x

For Scope of maintenance operations see page 9.

### 4.3 Scope of maintenance operations

<b>Basic Maintenance</b>	
Daily	<p>A daily inspection has to be performed as part of the board routine:</p> <ul style="list-style-type: none"> <li>• Engine oil level / transmission oil level</li> <li>• Coolant level in expansion tank</li> <li>• Operation of instruments</li> <li>• Visual inspection of engine for oil and coolant leaks</li> <li>• Drain water from fuel filters and fuel pre-filters</li> <li>• Abnormal engine noise and smoke characteristics</li> </ul>
<b>M1</b>	<p><b>Checking</b></p> <ul style="list-style-type: none"> <li>• Read out diagnosis system memory from EDC and MMDS</li> <li>• Outside of engine for oil and coolant leaks<sup>1)</sup></li> <li>• Coolant level</li> <li>• Concentration of antifreeze/anticorrosion agent</li> <li>• Engine alarms</li> <li>• Operation of instruments</li> <li>• Coolant hose for leaks</li> <li>• Fuel lines and oil lines for leaks</li> <li>• Condition of impeller</li> <li>• Removable fasteners (screws / bolts, hose clamps, pipe connections) and tighten if necessary</li> <li>• Condition of Poly-V belt</li> <li>• Visually inspect engine wiring harness for damage; do not open any connections</li> <li>• Resilient mounts of engine and gearbox</li> <li>• Alignment of the shaft system</li> </ul> <p>Reading out</p> <ul style="list-style-type: none"> <li>• Diagnosis system memory MMDS</li> <li>• Diagnosis system memory EDC and delete</li> </ul> <p><b>Changing</b></p> <ul style="list-style-type: none"> <li>• Engine oil</li> <li>• Engine oil filter cartridges</li> <li>• Fuel filter cartridges<sup>1)</sup></li> <li>• Fuel prefilter cartridges</li> <li>• Air filters</li> </ul> <p><b>Cleaning</b></p> <ul style="list-style-type: none"> <li>• Strainer of fuel prefilter</li> <li>• Sea water filter</li> </ul> <p><b>Trial run</b></p> <ul style="list-style-type: none"> <li>• Test drive, engine speed test with ship fully loaded<sup>2)</sup></li> </ul>
<b>M2</b>	<p><b>Checking and setting if necessary</b></p> <ul style="list-style-type: none"> <li>• Valve clearance</li> </ul>
<b>M3</b>	<p><b>Performing fault diagnosis</b></p> <ul style="list-style-type: none"> <li>• Carry out compression test and run-up test (TCOM, TRUP)</li> </ul>

1) The fuel filters are to be changed out earlier if the fuel is dirty or contains a high proportion of water.

2) Fully loaded means: water tank and fuel tank are filled, all ship equipment including life boats.

The above mentioned maintenance operations M1 to M3 are to be performed when the corresponding number of operating hours has been reached or once per year (see page 7) by a MAN authorised workshop.

## Maintenance and TBO Schedule

### Additional Maintenance

<b>M4</b>	<b>Maintaining charge air and cooling system</b> <ul style="list-style-type: none"><li>• Visually inspect turbochargers and replace if necessary</li><li>• Clean charge air cooler tube cluster, perform pressure test if necessary</li><li>• Clean heat exchanger plates</li><li>• Replace coolant</li><li>• Replace all hoses for coolant and sea water</li></ul>
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# Maintenance Record

**Maintenance Record**

**Maintenance Record**

**400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

1200

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

1600

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature





**Maintenance Record**

**2000**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**2400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

**2800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**3200**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

**3600**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

**4000**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

**Maintenance Record**

**4400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**4800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

**5200**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**5600**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

**6000**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**6400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

**6800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**7200**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

**7600**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

**8000**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]





**Maintenance Record**

**8400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**8800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

9200

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

9600

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

	<b>10000</b>
Location	<input type="text"/>
Performed at operating hours	<input type="text"/>
Invoice number	<input type="text"/>
Product name of engine oil / viscosity class	<input type="text"/>
Max. engine speed as tested (starboard engine)	<input type="text"/>
Max. engine speed as tested (Port engine)	<input type="text"/>
Next maintenance (date and/or operating hours)	<input type="text"/>
Stamp, Date, Signature	<input type="text"/>

	<b>10400</b>
Location	<input type="text"/>
Performed at operating hours	<input type="text"/>
Invoice number	<input type="text"/>
Product name of engine oil / viscosity class	<input type="text"/>
Max. engine speed as tested (starboard engine)	<input type="text"/>
Max. engine speed as tested (Port engine)	<input type="text"/>
Next maintenance (date and/or operating hours)	<input type="text"/>
Stamp, Date, Signature	<input type="text"/>

**Maintenance Record**

**10800**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

**11200**

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]



**Maintenance Record**

**11600**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**12000**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

12400

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

12800

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

**13200**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**13600**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

14000

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

14400

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]





**Maintenance Record**

14800

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

15200

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

**15600**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**16000**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature



**Maintenance Record**

**16400**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**16800**

Location

Performed at operating hours

Invoice number

Product name of engine oil / viscosity class

Max. engine speed as tested  
(starboard engine)

Max. engine speed as tested  
(Port engine)

Next maintenance  
(date and/or operating hours)

Stamp, Date, Signature

**Maintenance Record**

17200

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]

17600

Location

[Redacted]

Performed at operating hours

[Redacted]

Invoice number

[Redacted]

Product name of engine oil / viscosity class

[Redacted]

Max. engine speed as tested  
(starboard engine)

[Redacted]

Max. engine speed as tested  
(Port engine)

[Redacted]

Next maintenance  
(date and/or operating hours)

[Redacted]

Stamp, Date, Signature

[Redacted]



**Maintenance Record**

**18000**

Location	
Performed at operating hours	
Invoice number	
Product name of engine oil / viscosity class	
Max. engine speed as tested (starboard engine)	
Max. engine speed as tested (Port engine)	
Next maintenance (date and/or operating hours)	
Stamp, Date, Signature	





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