Olena Tyron

ДІЛОВА АНГЛІЙСЬКА МОВА ДЛЯ СУДНОМЕХАНІКІВ

BUSINESS ENGLISH FOR SHIP ENGINEERS

STUDENT'S BOOK

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УКЛАДАЧ: Олена Тирон

Рекомендовано до друку кафедрою іноземних мов за професійним спрямуванням
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Рецензенти:

Богдан Ю.О. – кандидат технічних наук, доцент кафедри експлуатації енергетичних установок Херсонської державної морської академії
Сьомін О.А. – кандидат технічних наук, декан факультету «Експлуатація технічних систем на водному транспорті» Державного університету інфраструктури та технологій
Діденко М.О. – старший викладач кафедри іноземних мов за професійним спрямуванням Державного університету інфраструктури та технологій

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Посібник може використовуватися на практичних заняттях з ділової англійської мови у навчальних закладах для спеціальності 271 «Річковий та морський транспорт» освітньої програми «Експлуатація технічних систем на водному транспорті». Посібник також може використовуватися індивідуально для вивчення ділової англійської мови та підготовки до співбесід у крюїнгових компаніях. У посібник включено основні конвенції Міжнародної морської організації та суднові документи машинного відділення.

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	ABBREVIATIONS Business English Vocabulary		

1. What field of engineering are you in?

_____

_____

2. What kind of work will you do within your field?

_____

_____

3. In what situations will you use English at work?

_____

_____

MODULE 1

Standard papers (forms) issued by engine department

List of forms

1. Engine logbook
2. Monthly report for engine running hours
3. Engine Maintenance Plan
4. Engine Monthly Inspection
5. Monthly Lubricant Report
6. Monthly Inspection and Testing of Critical Equipment
7. Crew Appraisal for Sign-Off Engine Personal
8. Bunkering & Transfer Checklist
9. Chief Engineer handing over command
10. Request for Repair form
11. Deferred Maintenance report

1. ENGINE LOGBOOKS

Logbooks are an important part of daily routines carried out onboard ships as they help in keeping together all important records and parameters for future reference. An engine room logbook is a track record of all ship machinery parameters, performance, maintenance, and malfunctions. The recorded values and information are used as a reference, to compare and record data to assess the ongoing performance of different engine room machinery.

The log book entries are very important during machinery breakdown and accidents. They are also taken as evidence by the insurance company, surveyor etc. for the insurance claim if some accidents take place.

A responsible marine engineer Watchkeeper has to fill the logbook for his/her own watch period without fail, along with the signatures of all watchkeepers for their concerned watch timings.

Chief engineer also must countersign this book every day to make sure all the entries are being filled in.

During every watch in a manned engine room, machinery data is recorded manually taking the reading from the local gauges. It is a common practice that

watchkeeper's assistant for that particular watch (Oiler etc.) has recorded all-important machinery local parameters. The entry of these parameters must only be done by the watch-keeping engineer and not by the assistant.

Answer the questions:

1. What information is recorded into the engine logbook?

   _____
   _____

2. How can the information from the engine logbook be used?

   _____
   _____

3. Who fills in and who signs the entries of the engine logbook?

   _____
   _____

PRACTICE

Study the sample of the original document. Make sure that you know all the words in it. If not, write here the list of words you need to learn.

1. ….
2. ….
3. …

2. MONTHLY REPORT FOR ENGINE RUNNING HOURS

Vessel Name _____ Month Of _____

Port/Location _____ Year _____

Day of Month		**Main Engine (Port)**	**Main Engine (Stbd)**	**Generator (№ 1)**	**Generator (№ 2)**	**Generator (№ 3)**	**Emergency Generator**	**Bow Thrusters**
Day	1							
Day	2							
Day	3							
etc.								
	Total							
Total running Hrs **THIS MONTH**								
Total running Hrs After Last Overhaul								
Lubricating Oil Running Hrs Total Hrs Since Change								
Fuel Injector Total Hrs Since Change								
Cylinders Head Total Hrs Since Overhaul								
Main Bearing Total Hrs Since Overhaul								

Prepared by 2nd Engineer _____ Verified by Chief Engineer _____

PRACTICE.

Study the sample of the original document. Make sure that you know all the words in it. If not, write here the list of words you need to learn.

1. …

2. …

3. …

3. ENGINE MAINTENANCE PLAN

Vessel Name _____ Year:_____

EQUIPMENT	Interval	Work description	Date Performed						
			Month	Jan.	Feb.	March	April	May	June
			Week№	12345	6789	1011121314	14161718	19202122	23242526
Air Condition	3 month	Oil change							
	3 month	Condenser clean							
	6 month	Filter drier change							
	12 month	Top overhaul							
	24 month	Complete overhaul							
etc.									
			3/Eng Signature						
			2/Eng Signature						
			C/Eng Signature						

Remarks

Put the Date into the Column.

Should the maintenance cannot be performed as per the schedule, C/E must record into the Deffered Main Report.

All engineers shall check and sign at the end of month.

MAINTENANCE OF MARINE DIESSEL ENGINES

Word study

word	translation	word	translation
in conformity with a maintenance schedule a dedicated computer		preventive specialized software due and overdue fouling	

A marine diesel engine has to be maintained in conformity with the various international rules and regulations as per the ISM code. The advice of the manufacturer, as well that of the class and the Administration has to be followed. Thus, all marine diesel engines have a maintenance schedule which is normally integrated into the preventive planned maintenance program. It is kept on a dedicated computer with specialized software, which when fed the daily running hours gives you the work to be done, the work becoming due, and the work which is overdue. The ship's data is synchronized with the head office data by the ways of data exporting twice a month. This allows a superintendent engineer to monitor the ship from the shore office and instruct the chief engineer accordingly. The specific maintenance schedule given by the manufacturer should be followed and the local conditions, the load on the engines, would make it necessary to have a shorter maintenance interval. Engines running on light loads would require more frequent cleaning of the exhaust spaces and the pistons

due to higher likelihood of fouling. In addition to the above, any unusual operating conditions, increase in sound, exhaust temperature, etc. must be investigated promptly and corrective actions taken.

Answer the question:
What is the preventive planned maintenance program based on?

_____
_____

DAILY CHECKS ON THE ENGINE
The marine auxiliary diesel engines are used for generation of electricity, and hence must be maintained in good condition. The marine engineer has to be on his toes taking care of the engines. The above is just a guide line, but the management in consultation with the engine manufacturers may change the schedule of maintenance. Today's new engines have a running period of 16,000 hours before taking out the piston. However the old ships still follow the 8000 hours routine. Sometimes the management company likes to over maintain the engine so that it reduces the interval between the overhauls.

The following are the daily checks on the engines that should be made by all the ***watch keeping engineers*** in their duty hours.

Translate the items:

1. Check the fuel level in the service tank and drain the service and settling tank of any water.

   _____
2. Check the lube oil level in the sump of the engine.

   _____
3. Check the governor lube oil levels.

   _____
4. Check the lubrication of the rocker arms (if running).

   _____
5. Check lube oil pressure, water pressure, exhaust temperatures, cooling water temperature, lube oil inlet temperature, etc. (if running).

   _____
6. Drain the condensate from the scavenge manifold and the air coolers.

   _____
7. Lubricate the fuel racks, linkages, and fuel pump rack operating gear.

   _____

Read the further information, compare the differences in maintenance and generalize the information in written form.

_____
_____
_____
_____

250 hours routine

After an engine has run for 250 hours the generators must be changed over and the engine stopped and the following must be cleaned.

1. Clean the lube oil filters.
2. Clean the fuel oil filters.
3. Clean turbocharger air filters.

1000 hours routine

A thousand hours routine is little more exhaustive, and we have to check that the injection system and the running gears are all OK and nothing is amiss. The following is done by marine engineers at a thousand running hours of the engines.

1. Crankcase inspection to be done.
2. Remove the fuel injectors and pressure tests them. Adjust the pressure and put back.
3. Change the turbocharger blower and turbine side oil.
4. Check the tappet clearances.
5. Take the performance of the engine.

2000 hours routine

The crankshaft alignment must be checked and the graph plotted. It must be cross checked with the original figures. Once the diesel engines have been set up on the ship, it is very important that the engines be maintained within limits of the initial alignment to obtain a satisfactory performance of the engine and the alternator bearings. Though during the construction phase of the ship a very stiff seating is provided to the engines as foundation, the ship will either hog or sag during the operational life of the ship due to loading and discharging cycles. It is the duty of the operational engineers to take crank shaft deflection at regular intervals and monitor the alignment of the engines.

4000 hours routine

The four thousand routines are very important and is known as half decarbonization. Basically, all the cylinder heads have to be reconditioned and the carbon removed. The liner and the piston top are inspected for any abnormal combustion tell tales. In addition, the following are done.

1. All cylinder heads to be removed, overhauled and carbon removed.
2. The exhaust and inlet valves inspected, lapped, and tested.
4. The starting air valves overhauled.
5. All gaskets, all rings to be renewed.
6. The cooling water spaces of the cylinder heads to be cleaned.
7. The top of the piston and the cylinder liner top part cleaned.
8. Renew the lube oil if required as per the analysis reports.

8000 hours routine

The 8000 hours routine is called decarbonization by marine engineers. During this all the pistons are pulled out, cleaned, and inspected. The piston rings changed depending on the wear down, the shell bearings inspected, and also the cylinder heads overhauled. In addition the following is also done.

1. Remove cylinder heads and overhaul.
2. Withdraw pistons and clean. Change piston rings.
3. Clean exhaust piping and silencer.
4. Inspect big end bearings.
5. Overhaul turbocharger and renew the ball bearings.

25000 hours routine

Renew the connecting rod bolts.

https://www.brighthubengineering.com/marine-engines-machinery/66033-maintenance-schedule-for-marine-auxilliary-diesel-engines/

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1. …
2. …
3. …