

FULL NAME:
STUDENT NUMBER:
GROUP:
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Instructor's name: Dr M. Tsompanoglou

FINAL TEST in English

1. Complete the following text with an appropriate word from the following: *mechanical, damage(n), wear(n), crosshead, bearings, oil, efficient, manual, equipment, sensor, operation, water, accumulating, corrosive, lube.* (15 points)

Countermeasures against corrosion Lube oil system

Water in the lube oil system may lead to wear of the overlayer and, eventually, damage to the bearing, with high costs as a consequence. The higher the water content, the faster the rate. A water content higher than 1% could lead to critical damage within a few days in

The content in the oil system is normally not measured on a regular basis. However, in order to prevent water from in the lube oil and, thereby, causing to the, the oil should be monitored manually or alternatively, automatically by means of an oil condition monitoring system.

..... oil monitoring can be carried out visually, as the changes in appearance when it is mixed with water. Portable can be used as well, but to ensure and constant monitoring, use of a continuous measuring can be used.

2. Find the missing words. The first letter is given. (20 points)

Before starting any kind of overhauling, it is advisable to have the required **t**....., the instructions **m**..... and some **s**..... parts ready.

A feeler gauge is used to measure **c**.....

The diesel cycle has the highest thermal **e**..... of any regular internal or external **c**..... engine, due to its very high **c**..... ratio.

Before engaging the turning **g**....., check that the starting air supply is shut off.

In an air compressor, air is compressed by pulling in atmospheric air, reducing its **v**..... and increasing its **p**.....

In the double stage reciprocating air compressor, there are two **p**..... for air compression.

Worn main bearing and vibrating forces are the most common reasons for crankshaft **d**.....

Since 2008, all produced low speed engines with crosshead bearings are in-line **c**.....

**3. Complete the sentences with the correct form of the words in parentheses.
(15 points)**

The fitter does all the for the pipes, because they have holes due to **(weld, corrode)**

No of material is permitted in the engine room. **(store, flame)**

All parts of the compressor should be carefully inspected for signs of, damage, or **(wear, operate)**

The 3rd engineer is in charge of electrical systems, generators, boilers, fuel, and systems. He is typically in charge of **(food, bunker)**

2-stroke engines can over 2,000 short tons. **(weigh)**

If combustion is poor, there will be an accumulation of residues. **(viscosity)**

The of the vessel is 20 metres and the overall is 200 metres. **(broad, long)**

The 2nd engineer reports to the Chief Engineer about the daily of the engine department. **(maintain)**

Water in the lube oil system may lead to wear of the overlayer. **(corrode)**

The Chief Engineer sends information to the company about fuel **(consume)**

4. Choose the proper maintenance work for each defect from the following:

scraping, matching, grinding, aligning, replacement, reconditioning, retightening, cleaning, readjustment. (15 points)

Incorrect clearances:

Carbon deposits:

Deflection:

Incorrect injection pressure:

Worn surfaces:

Scale:

Cracks, fractures:

Surfaces out of roundness:

Slackened tie bolts:

Scored/scratched surfaces:

5. Fill in the sentences with the names of the following tools:

feeler, ratchet, washer, combination, screwdriver, spanner, drill, pipe, hammer, milling machine.

(15 points)

A gauge is used to measure narrow gaps and clearance.

A machine for the removal of metal by feeding a workpiece through the periphery of a rotating circular cutter is called

A hand tool that tightens and loosens nuts and bolts: wrench or

A power tool used to bore holes:

The mechanic used the open end of the wrench.

The plumber used an adjustable wrench
 A screw with a cross-shape on the head needs a Phillips
 He shaped the metal fitting with a ball-pein
 Where are the sockets for this wrench?
 Place a between the nut and surface.

6. Transform into Passive. (10 points)

Shipbuilders divide a ship into several compartments.
 A ship _____ into several compartments.

You should use a scraper to remove scale.
 A scraper _____ to remove scale.

The second engineer has already replaced the piston rings.
 The piston rings _____

The piston compresses the air in the cylinder.
 The air in the cylinder _____

The chief engineer disengaged the turning gear.
 The turning gear _____

7. Answer one of the following groups of questions. (10 points)

1.
 - How does an air compressor work?
 - How many types of air compressors are there?
 - Why is the reciprocating compressor also called piston air compressor?
 - How many kinds of such compressors are there depending on the number of compression stages?
2.
 - What kind of engine is a diesel engine?
 - How does such an engine work?
 - How does it differ from gasoline engines?