

Final Test

1. Supply the missing words from the ones given in italics (20 points)

pistons, genuine, load, trim, incidents, accident, efficiency, centrifugal, rotary, draught, exhaust, wave, withstand.

The amount of useful energy that an engine can produce is dependent on 2 factors: the amount of fuel that can be burnt per cycle and the of the engine.

About 35% of the total heat energy in the fuel is wasted to the gases.

There were 5 reported of fire in a year but none of them resulted in

Ballast water is used to keep the ship's and within safe limits.

If a crankcase explosion occurs, the pressure may send a large amount of oil mist out in the engine room.

The nozzles were not spare parts.

The bearing could not the extra load.

A air compressor is also called dynamic compressor.

A air compressor is similar to the positive displacement configuration of a reciprocating compressor. Here, two spinning helical screws or rotors are involved for compressing air.

The speed of the turbocharger is variable depending on the engine

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

2. Supply the missing past participles from the ones given in italics (15 points)

converted, worn, increased, evacuated, assembled, caused, scrutinized, detected, overheated, slowed down

When there is danger of explosion, the engine room should be

Fires in the scavenge spaces of diesel engines can be by worn mechanical components, faulty fuel injection, e.t.c

Once a scavenge space fire is, the engine should be, the fuel should be shut off from the affected cylinders, and the cylinder lubrication should be

The cause of the explosion was a(n) main bearing.

Fuel consists mainly of carbon and hydrogen. By burning the fuel in oxygen, the energy in the fuel is released and into work and heat.

All external scavenge space surfaces must be carefully

The crankshaft journal was badly

The crankcase relief valves were incorrectly

3. Complete the sentences with the correct form of the words in parentheses. (21 points)

Water in the lube oil system may lead to (corrode)

This is a highly mixture. (flame)

Poor combustion can cause excessive of residues in the scavenging air chambers, which can cause fire. (accumulate, viscosity)

We took the for the fuel. (sound)

The tapered disk of the oil had to be replaced, because it was broken. (separate)

Scavenge fires can be very (danger)

..... are fitted in separate rooms for a reason: fire. (purify)

We had to add (cool) to the cylinder head in order to reduce excessive heat during (ignite).

We need to make (adjust) to the speed.

A (centrifuge) air compressor is also called a dynamic compressor.

Nails are a quick and long-lasting (fasten).

Ballast water helps the ship's (stable).

4. Supply the missing words (15 points)

A basic part of the cycle of an **i**.....**l** combustion engine is the supply of fresh air and the removal of exhaust gases.

A conductor allows electricity to flow and an **i**.....**r** stops electricity from flowing.

A 10 cylinder engine with a bore of 850mm and a **s**.....**e** of 2.35m must burn 1kg of fuel per **r**.....**n** in order to deliver 38500 kW when running at 105 RPM.

The turbocharger uses some of the energy of the **e**.....**t** gases. In an air **c**.....**r**, air is compressed by pulling in atmospheric air, reducing its volume and increasing its **p**.....**e**.

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

Lubrication reduces **f**.....**n** between moving parts.

5. Match the words from the list to their synonyms below. (15 points)

accumulation , unlagged, malfunction, estimate, durable, insufficien, staff, defective, alloy, due to

faulty: _____

not enough: _____

build-up: _____

mix of metals: _____

personnel: _____

not insulated: _____

bad operation: _____

strong, long-lasting: _____

because of _____

calculate _____

6. Turn the following sentences into Passive Voice. (14 points)

1. We must repair the crankshaft.

The crankshaft _____

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

_____ by the second engineer.

3. The piston compresses the air.

_____ by the piston.

4. The chief engineer disengaged the turning gear.

_____ by the chief engineer.

5. I will clean the valves tomorrow.

_____ tomorrow.

6. Shipbuilders divide a ship into several compartments.

_____ into several compartments.

7. You must use a scraper to remove scale.

_____ to remove scale.