

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 30472

Received at London Office

3 OCT 1930

2 OCT 1930

Port of

Sunderland.

Date of writing Report

19

When handed in at Local Office

No. in Survey held at

Sunderland.

Date, First Survey

28 Jan

30 Last Survey

1 Oct 1930

Reg. Book.

Number of Visits

67

Single
on the Twin
Triple
Quadruple

MOTOR "THORS HOLM"

Screw vessel

Tons { Gross 6748
Net 4046

Built at

Sunderland.

By whom built

J. J. James & Co. Ltd.

Yard No.

109.

When built

1930

Engines made at

Sunderland.

By whom made

William Doherty & Co. Ltd.

Engine No.

177.

When made

1930

Donkey Boilers made at

Sunderland.

By whom made

Richardson & Welford

Boiler No.

208A.

When made

1930

Brake Horse Power

2900

Owners

Skipsak Tiedelkapet

Port belonging to

Lundefjord.

Nom. Horse Power as per Rule

687

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Oil Tanker.

OIL ENGINES, &c.

Type of Engines

Infined Offshore Petroleum Engines

2 or 4 stroke cycle

2

Single or double acting

Single

Maximum pressure in cylinders

568 LBS

Diameter of cylinders

23 1/2"

Length of stroke

23 1/2"

No. of cylinders

4

No. of cranks

4, 3 throw

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

1050"

Is there a bearing between each crank

Yes

Revolutions per minute

86

Flywheel dia.

7' 8 1/2"

Weight

11 TONS.

Means of ignition

TEMP OF

Kind of fuel used

Bunk oil

Crank Shaft, dia. of journals

as per Rule 4 1/2"

Crank pin dia.

4 1/2"

Crank Webs

Mid. length breadth

650"

Thickness parallel to axis

280"

Flywheel Shaft, diameter

as per Rule 4 3/4"

Intermediate Shafts, diameter

as per Rule 4 3/4"

Thrust Shaft, diameter at collars

as per Rule 4 3/4"

Is the

shaft fitted with a continuous liner

Yes

Tube Shaft, diameter

as per Rule 4 3/4"

Screw Shaft, diameter

as per Rule 4 3/4"

Is the

tube

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule 20"

Thickness between bushes

as fitted 20"

Is the after end of the liner made watertight in the

propeller boss

Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

Yes

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Yes

If two liners are fitted, is the shaft lapped or protected between the liners

Yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

Length of Bearing in Stern Bush next to and supporting propeller

6' 0"

Propeller, dia.

17' 5"

Pitch

14' 8 1/2"

No. of blades

4

Material

Brass

whether Moveable

Solid

Total Developed Surface

101 sq. feet

Method of reversing Engines

COMPRESSED AIR

Is a governor or other arrangement fitted to prevent racing of the engine when detached

Yes

Means of lubrication

Yes

Thickness of cylinder liners

REINFORCED

Are the cylinders fitted with safety valves

Yes

non-conducting material

LAPPED

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Yes

Are the exhaust pipes and silencers water cooled or lagged with

Yes

Cooling Water Pumps, No.

2-125 TONS PER HR

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Bilge Pumps worked from the Main Engines, No.

1, BALLAST 250 TONS PR HR

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

1, BALLAST 250 TONS PR HR

How driven

STEAM

ELECT MOTOR

STEAM

Ballast Pumps, No. and size

12 250 TONS PR HR

Lubricating Oil Pumps, including Spare Pump, No. and size

2 24 TONS PR HR

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size

In Pump Room

2 2 3/4"

In Holds, &c.

12 2 1/2" FINE CHPT

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

128" to BALLAST PUMP

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes

Are the Bilge Suctions in the Machinery Spaces

Yes

Are all Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Yes

Are the Overboard Discharges above or below the deep water line

Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

How are they protected

Yes

Have they been tested as per Rule

Yes

What pipes pass through the bunkers

Yes

What pipes pass through the deep tanks

Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another

Yes

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

Main Air Compressors, No.

2

No. of stages

3

Diameters

11 1/2", 9 1/2", 3 1/2"

Stroke

7"

Driven by

STEAM

Auxiliary Air Compressors, No.

2

No. of stages

3

Diameters

11 1/2", 9 1/2", 3 1/2"

Stroke

7"

Driven by

ELECTRIC

Small Auxiliary Air Compressors, No.

1

No. of stages

1

Diameters

9 1/2", 3 1/2"

Stroke

5"

Driven by

Lever on main engine

Scavenging Air Pumps, No.

1

Diameter

1980"

Stroke

610"

No.

2 2 65 H.P.

Position

ENGINE ROOM PLATFORM

Auxiliary Engines crank shafts, diameter

as per Rule 4 3/4"

as fitted

Yes

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yes

Can the internal surfaces of the receivers be examined and cleaned

Yes

Is a drain fitted at the lowest part of each receiver

Yes

High Pressure Air Receivers, No.

2

Cubic capacity of each

220 cu ft

Internal diameter

3' 6"

thickness

by Rules

Actual

7"

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

2021

Starting Air Receivers, No.

2

Total cubic capacity

220 cu ft

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

610 LBS

by Rules

Actual

610 LBS

0.8.14.15

7.28.20.13

2.3.5.6.10

30. Aug. 1.57

142

0.8.14.15

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142

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only?

PLANS. Are approved plans forwarded herewith for Shafting

Receivers

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied

1 Piston rod with skirt complete, 1 extra piston rings, 1 centre crosshead bearing, 1 centre bottom end bearing, 1 side connecting rod bottom end bearing, 1 non return starting valve, 1 relief valve for main cylinder, 4 sea pump valve discs, 6 thrust pads, 1 propeller shaft, 1 C.I. propeller, 1 set valves for fuel transfer pump, 1 set of valves for bilge pump, 2 extra spares for valves, oil fuel burning plant and auxiliary machinery.

The foregoing is a correct description.

W. Keller

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1930. Jan. 28, 31. Feb. 10, 11, 12, 14, 18, 19, 20, 25, 26, 28. Mar. 14, 20, 26, 27, 31. Apr. 1, 2, 24, 25, 28, 29. May. 1, 2, 5, 16, 26.
During erection on board vessel - Feb. 3, 5, 6, 12, 17, 27. July. 4, 8, 9, 10, 11, 17, 21, 29. Aug. 1, 9, 11, 12, 14, 20, 21, 23, 26, 28. Sep. 2, 3, 4, 5, 8, 9, 10, 11, 12, 16, 17, 22.
Total No. of visits 67

Dates of Examination of principal parts - Cylinders 28/2/30 JACKET 25/2/30 Covers 70/1/30 Pistons 18/2/30 Rods 31/1/30 Connecting rods 14/2/30
Crank shaft 16/5/30 Flywheel shaft 8 Thrust shaft 26/3/30 Intermediate shafts 2/4/30 Tube shaft
Screw shaft 29/4/30 Propeller 24/4/30 Stern tube 8/7/30 Engine seatings 29/7/30 Engines holding down bolts 12/9/30
Completion of fitting sea connections 17/7/30 Completion of pumping arrangements 4/9/30 Engines tried under working conditions 30/9/30
Crank shaft, Material I. STEEL Identification Mark 7502 Flywheel shaft, Material I. STEEL Identification Mark 3652
Thrust shaft, Material I. STEEL Identification Mark 3652 Intermediate shafts, Material I. STEEL Identification Marks 3705.
Tube shaft, Material I. STEEL Identification Mark 3652 Screw shaft, Material I. STEEL Identification Mark SPARE 3705.

Is the flash point of the oil to be used over 150° F.?

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with?

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo?

If so, have the requirements of the Rules been complied with?

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with?

Is this machinery duplicate of a previous case?

If so, state name of vessel

M.V. PEGASUS.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under special survey & the materials & workmanship are good. On completion the machinery was tried under full working conditions with satisfactory results. The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the record LMC-10-30 marked in the Society's Register Book.

The donkey boiler is also fitted to burn oil fuel F.P. above 150° F & the requirements of the Rules (Section 20) fully complied with.

The amount of Entry Fee .. £ 6-0-0
Special £ 109-7-0
Donkey Boiler Fee £
Travelling Expenses (if any) £

When applied for,

1 OCT. 1930

When received,

13.10.30

Committee's Minute

TUE. 14 OCT 1930

Assigned

+ L.M.C. 10.30

CERTIFICATE WRITTEN

Engineer Surveyor to Lloyd's Register of Shipping.



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