

REPORT ON OIL ENGINE MACHINERY.

No. 35.

Received at London Office

Date of writing Report

to When landed in at Local Office

in Port of

NOTTINGHAM.

No. in Survey held at
Reg. Book.

LINCOLN

Date, First Survey

18-9-41

Last Survey

24-11

1942

Number of Visits

28

Single
on the ~~Twin~~ Triple Screw vessel
Quadruple

PORTA FERRY

Tons
Gross
Net

Built at

LISBON

By whom built

COMPANHIA UNIAO FABRIL

Yard No. 110 When built 1942

Engines made at

LINCOLN

By whom made

RUSTON & HORNSBY LTD.

Engine No. 206513 When made 1942

Donkey Boilers made at

✓

By whom made

✓

Boiler No. ✓ When made ✓

Brake Horse Power

560

Owners

LOCH FISHING CO. [DIRECTOR OF NAVY CONTRACT]

Vessel belonging to ✓

Nom. Horse Power as per Rule

107

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted YES

Trade for which vessel is intended

✓

OIL ENGINES, &c.—Type of Engines VERTICAL SOLID INJECTION TVGBM? or stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders

675 LB.

Mean Indicated Pressure

100.5 LB.

Diameter of cylinders

12 1/2"

Length of stroke

15"

No. of cylinders

7

No. of cranks

7

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

13 13/16"

Is there a bearing between each crank? YES

Revolutions per minute

430

Flywheel dia.

51"

Weight

37 CWT.

Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

Crank Shaft.

Solid forged

dia. of journals

as per Rule APPD. 4-8-39

as fitted

9"

Crank pin dia.

7"

Crank Webs

Mid. length breadth

12"

Mid. length thickness

3 15/16"

Thrust Shaft, diameter at collars

as per Rule

as fitted

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

APPD. 7-2-41

as fitted

6 1/8"

Thrust Shaft, diameter at collars

as per Rule

as fitted

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

APPD. 7-2-41

as fitted

7 1/8"

Is the

screw

shaft fitted with a continuous liner

No

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the propeller boss

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

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

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

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

shaft

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

8' 3"

Pitch

8' 1"

No. of blades

3

Material

BRONZE

whether Morealide

No

Total Developed Surface

26

sq. feet

Method of reversing Engines REVERSE & REDUCTION

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

YES

Means of lubrication

FORCED Thickness of cylinder liners

1"

Are the cylinders fitted with safety valves

YES

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

YES

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

Cooling Water Pumps, No. 1 PLUNGER PUMP

4 3/4" x 4 3/4"

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

Bilge Pumps worked from the Main Engines, No. 1

Diameter

4 3/4"

Stroke

4 3/4"

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

1-2 1/2" No. 5 TRUSLOVE "CONQUEST" G.S. & BILGE PUMP - 20 TON/HR.

How driven

4 VROZ

AUX. ENG.

Is the cooling water led to the bilges

✓

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

✓

Ballast Pumps, No. and size

✓

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

1 1/2" RUSTON GEAR PUMP

FOR GEARS.

1 1/2" DRYSDALE HORZOL PUMP

1 1/2" RUSTON GEAR PUMP

SPARE:- 2-2" HAWTHORTH ROTOFOL PUMPS.

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

In Pump Room

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

YES

Pumps, No. and size:- In Machinery Spaces

✓

In Holds, &c.

✓

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

✓

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

✓

Are the Bilge Suctions in the Machinery Spaces

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

✓

Are they fitted with Valves or Cocks

✓

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

✓

Are the Overboard Discharges above or below the deep water line

✓

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

✓

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

✓

What pipes pass through the bulkheads

✓

How are they protected

✓

What pipes pass through the deep tanks

✓

Have they been tested as per Rule

✓

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

✓

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

✓

Is the Shaft Tunnel watertight

✓

Is it fitted with a watertight door

✓

worked from

✓

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

Main Air Compressors, No.

✓

No. of stages

✓

Diameters

✓

Stroke

✓

Driven by

✓

Auxiliary Air Compressors, No.

1

No. of stages

1

Diameters

3"

Stroke

3 1/2"

Driven by

BELT FROM MAIN ENG.

Small Auxiliary Air Compressors, No.

1

No. of stages

2

Diameters

3 3/4", 1 1/8"

Stroke

3 1/4"

Driven by

CLUTCH - 4 VROZ ENG.

What provision is made for first Charging the Air Receivers

4 VROZ

ENG.

IS HAND STARTING.

Scavenging Air Pumps, No.

✓

Diameter

✓

Stroke

✓

Driven by

✓

Auxiliary Engines crank shafts, diameter

as per Rule

APPD. 17-5-40

as fitted

P 3"

J 3"

No.

✓

Position

✓

Have the Auxiliary Engines been constructed under special survey

YES

Is a report sent herewith

YES

AIR RECEIVERS:— Have they been made under survey **YES.**
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**

Rpt. 4.13. No. 35
State No. of Report or Certificate **C. 635, C. 411.**

Injection Air Receivers, No. **✓** Cubic capacity of each **✓** Internal diameter **✓** thickness **✓**
Seamless, lap welded or riveted longitudinal joint **✓** Material **✓** Range of tensile strength **✓** Working pressure **by Rules ✓**
Starting Air Receivers, No. **2** Total cubic capacity **46.8 CU. FT.** Internal diameter **2'-6"** thickness **3/8"**
Seamless, lap welded or riveted longitudinal joint **SEAMLESS** Material **S.M. STEEL** Range of tensile strength **26-30** Working pressure **by Rules APPEL 5-5-38**
Actual **300 LB.**

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 **{ 4.8.39**
(If not, state date of approval) **{ 7.2.41**

Receivers **5.5.38**

Separate Fuel Tanks **{ 25.2.41**
{ 29.4.41

Donkey Boilers **✓**

General Pumping Arrangements **✓**

Pumping Arrangements in Machinery Space **✓**

Oil Fuel Burning Arrangements **✓**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **YES**

State the principal additional spare gear supplied **TO ADMIRALTY REQUIREMENTS**

Ruston & Hornsby, Limited.

The foregoing is a correct description.

Thoms

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 18.9.41 To 24.12.42, 28 VISITS.
During erection on board vessel - - **✓**
Total No. of visits **✓**
Dates of Examination of principal parts—Cylinders { 23.9.41 Covers { 23.9.41
18.9.41 23.10.42 23.10.42 Pistons 23.10.42 Rods **✓** Connecting rods 23.10.42
Crank shaft 23.10.42 Flywheel shaft **✓** Thrust shaft **✓** Intermediate shafts **✓** Tube shaft **✓**
Screw shaft **✓** Propeller **✓** Stern tube **✓** Engine seatings **✓** Engines holding down bolts **✓**
Completion of fitting sea connections **✓** Completion of pumping arrangements **✓** Engines tried under working conditions **SHOP TRIALS**
Crank shaft, Material **S.M. STEEL** Identification Mark **316 JB. 18.9.41** Flywheel shaft, Material **✓** Identification Mark **✓**
Thrust shaft, Material **✓** Identification Mark **✓** Intermediate shafts, Material **S.M. STEEL** Identification Marks **✓**
Tube shaft, Material **✓** Identification Mark **✓** Screw shaft, Material **S.M. STEEL** Identification Mark **✓**
Identification Marks on Air Receivers **B. 2848 B. 2798**
LLYD'S TEST
600 LB./SQ. IN.
WP 300 LB./SQ. IN.
JB. 22.1.42 JB. 17.7.41.

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 **✓**

Description of fire extinguishing apparatus fitted **✓**

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 **YES** If so, state name of vessel **YARD No 107.**

General Remarks (State quality of workmanship, opinions as to class, &c.)

This engine has been built under Special Survey in accordance with the approved plans and the Society's Rules.
The materials and workmanship are good. Shop trials carried out at the maker's works were satisfactory.
The engine has been despatched to Lisbon for installation in the vessel.

The amount of Entry Fee .. £ : : When applied for,
Special £ : : 19
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

J. Buchanan
Engineer Surveyor to Lloyd's Register of Shipping.



© 2019

Lloyd's Register
Foundation