

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 16

Received at London Office

Date of writing Report

When handed in at Local Office

in Port of

NOTTINGHAM.

No. in Survey held at

LINCOLN

Date First Survey

1-5-41

Last Survey

2-10

1941

Reg. Book.

Number of Visits

11

on the ~~Triple~~ ^{Single} Screw vesselTons ^{Gross} _{Net}

Built at

LISBON

By whom built

COMPANHIA UNIAO FABRIL

Yard No. 106 When built 1941

Engines made at

LINCOLN

By whom made

RUSTON & HORNSBY LTD.

Engine No. 206509 When made 1941

Donkey Boilers made at

✓

By whom made

✓

Boiler No. ✓ When made ✓

Brake Horse Power

560

Owners

LOCH FISHING CO. [DIRECTOR OF NAVY CONTRACTS]

Port belonging to

✓

Nom. Horse Power as per Rule

107

Is Refrigerating Machinery fitted for cargo purposes

✓

Is Electric Light used

YES

Trade for which vessel is intended

✓

OIL ENGINES, &c. *Enter description* VERTICAL SOLID INJECTION V.I.B.M. *Enter number* 4 *Enter description* SINGLE

Maximum pressure in cylinders

67.5 LB.

Diameter of cylinders

12 1/2"

Length of stroke

15"

No. of cylinders

7

No. of strokes

7

Mean Indicated Pressure

100.5 LB.

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

13 13/16"

Is there a bearing between each

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 fitted

Crank pin dia.

7"

Crank webs

Mid. length of crank

12"

Mid. length of crank

3 15/16"

Thrust shaft

✓

Flywheel Shaft.

dia. as per Rule

✓

Intermediate Shafts.

dia. as per Rule

APD. 7-2-41

Thrust Shaft.

dia. as fitted

6 1/8"

✓

Tube Shaft.

dia. as per Rule

✓

Screw Shaft.

dia. as per Rule

APD. 7-2-41

Is the

shaft fitted with a continuous

No

Bronze Liners.

thickness in any of bushes

as fitted

The thickness between bushes

as fitted

Is the

shaft fitted with a continuous

No

propeller boss

✓

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

✓

If the liner does not fit tightly at the part between the mortises 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 end of the shaft

✓

Propeller, dia.

8'-3"

Pitch

8'-1"

No. of blades

3

Material

MANG. BRONZE

Is the

shaft fitted with a continuous

No

Total developed surface

26

Method of reversing Engine-REVERSE REDUCTION GEAR

Is the engine or other arrangement fitted to prevent running of the engine when disconnected

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 sucked 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

AUXILIARY 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

FOR ENGINE

1 1/2" RUSTON GEAR PUMP

1 1/2" DRYSDALE HORIZOIL PUMP

arrangements

✓

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

YES

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

FOR GEARS

1 1/2" RUSTON GEAR PUMP

1 1/2" DRYSDALE HORIZOIL PUMP

Ballast Pumps, No. and size

✓

Are two independent means arranged for circulating water through the

✓

Oil Cooler

YES

In Pump Room

✓

In Holds, &c.

✓

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

✓

Are the Bilge Suctions in the Machinery Spaces

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strain-bosses

✓

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 bunkers

✓

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.

✓

Stroke

✓

Driven by

✓

Scavenging Air Pumps, No.

✓

Diameter

✓

No.

✓

Position

✓

Auxiliary Engines crank shafts, diameter

as per Rule

APD. 17-5-40

as fitted

P 3" ✓ J 3 3/8"

Is a report sent herewith

YES.

Have the Auxiliary Engines been constructed under special survey

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

Injection Air Receivers, No. ✓ Cubic capacity of each ✓
Seamless, lap welded or riveted longitudinal joint ✓ Material ✓

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 5.5.38 Actual 300 LB.

State No. of Report or Certificate C 493, C 494

Is a drain fitted at the lowest part of each receiver? YES
Internal diameter ✓ thickness ✓
Range of tensile strength ✓ Working pressure by Rules ✓ Actual ✓

IS A DONKEY BOILER FITTED? ✓

Is the donkey boiler intended to be used for domestic purposes only? {4-8-39
PLANS. Are approved plans forwarded herewith for Shafting {1-2-41
(If not, state date of approval)

Donkey Boilers ✓ General Pumping Arrangements ✓
Oil Fuel Burning Arrangements ✓

Receivers 5.5.38 Separate Fuel Tanks {25-2-41
{29-4-41
Pumping Arrangements in Machinery Space ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied? YES
Has the principal additional spare gear supplied? TO ADMIRALTY REQUIREMENTS.

The foregoing is a correct description.

WURTON & HORSLEY LIMITED.

Manufacturer.

Dates of Survey while building 1-5-41 To 2-10-41 11 VISITS
During progress of work in shops - ✓
During erection on board vessel - ✓
Total No. of visits ✓
Dates of Examination of principal parts - Cylinders {1-5-41 Covers {15-41 Pistons 21-8-41 Rods ✓ Connecting rods 12-5-41
21-8-41 21-8-41 Intermediate shafts ✓ Tube shaft ✓
Crank shaft {22-8-41 Flywheel shaft ✓ Thrust shaft ✓ Engines holding down bolts ✓
21-8-41 Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine sealings ✓
Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓
Crank shaft, Material S.M. STEEL Identification Mark 176 JB 22/5/41 Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material S.M. STEEL Identification Mark 6004. 28/8/41 AS.
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S.M. STEEL Identification Mark 5996. 28/8/41 AS.
Identification Marks on Air Receivers B 2816 B 2817
LLOYD'S TEST.
600 LB./SQ. IN.
WP. 300 LB./SQ. IN.
JB. 11-9-41. JB.

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, etc.)
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, 19
Special ... £ : :
Donkey Boiler Fee ... £ : : When received, 19
Travelling Expenses (if any) £ : :

Committee's Minute
Assigned

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

111 - Post Jackson



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Foundation