

412/1

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No 13.

27/8/41

Received at London Office

Date of writing Report

When handed in at Local Office

Port of

NOTTINGHAM.

Date, First Survey

22-10-40

Last Survey

17-7-1941

Number of Visits

Type of vessel

"POST BOY."

Tons

Gross

Net

Built at

SELBY

By whom built

COCHRANE & SONS LTD.

Yard No. 1211 When built 1941

Engines made at

LINCOLN

By whom made

RUSTON & HORNSBY LTD.

Engine No. 214659 When made 1941

Boilers made at

NEWARK

By whom made

ABBOTT & CO.

Boiler No. 15646 When made 1940

Indicated Horse Power

750

Owners

ADMIRALTY GRIMSBY MOTOR TRAWLERS

Port belonging to

✓

Nom. Horse Power as per Rule

122

Is Refrigerating Machinery fitted for cargo purposes

✓

Is Electric Light fitted

✓

Trade for which vessel is intended

✓

Type of Engines

PRESSURE CHARGED VERTICAL SOLID INJECTION or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders

695 LBS

Diameter of cylinders

12 1/2"

Length of stroke

15"

No. of cylinders

8

No. of cranks

8

Mean Indicated Pressure

120 LBS

Distance 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

400

Flywheel dia.

48"

Weight

35 CWT.

Means of ignition

COMPRESSION

Kind of fuel used

HEAVY OIL.

Crank Shaft, Solid forged

dia. of journals

as per Rule APPD. 11.4.40

as fitted

9"

Crank pin dia.

7"

Crank Webs

Mid. length breadth

12"

Thickness parallel to axis

✓

Flywheel Shaft, diameter

as per Rule

✓

Intermediate Shafts, diameter

as per Rule

✓

Thrust Shaft, diameter at collars

as per Rule

✓

as fitted

✓

as fitted

✓

as fitted

✓

Screw Shaft, diameter

as per Rule

✓

as fitted

✓

Is the tube

screw

shaft fitted with a continuous liner

✓

as fitted

✓

as fitted

✓

as fitted

✓

Copper Liners, thickness in way of bushes

as per Rule

✓

Thickness between bushes

as per Rule

✓

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

✓

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

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

If so, state type

✓

Length of Bearing in Stern Bush next to and supporting propeller

✓

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

REVERSE GEAR 18 RS

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

YES

Means of lubrication

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 4 3/4" x 4 3/4" F.W.

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

No

Pumps connected to the Main Bilge Line

No. and Size

✓

How driven

✓

the cooling water led to the bilges

No

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

arrangements

✓

FOR ENGINE AND GEARS { 3 RUSTON GEAR 1 1/2" x 1 1/2" x 3" 2 DRYSDALE "HORZOL" 1 1/2" x 3" 2 HAMWORTHY "ROTOFOIL" 2" (2000 GPH) [STANDBY]

Ballast Pumps, No. and size

✓

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

✓

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 Machinery Spaces

✓

In Pump Room

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

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

✓

Do any pipes pass through the bunkers

✓

How are they protected

✓

Do any 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

✓

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

✓

On 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- MAIN ENG.

Small Auxiliary Air Compressors, No.

1

No. of stages

1

Diameters

2 x 3 1/4"

Stroke

3 1/4"

Driven by

3VSOZ ENG.

What provision is made for first Charging the Air Receivers

3VSOZ ENGINE IS HAND STARTING.

Savenging Air Pumps, No.

✓

Diameter

✓

Stroke

✓

Driven by

✓

Auxiliary Engines crank shafts, diameter

as per Rule

MAN. ENG. APPD. No.

as fitted

P. 5 3/16" T. 5 1/4"

P. 2 3/4" T. 2 3/8"

Position

✓

Have the Auxiliary Engines been constructed under special survey

MAN. - G. L.

3VSOZ - YES

Is a report sent herewith

YES

012508 - 012513 - 0158

AIR RECEIVERS:— Have they been made under survey **YES** State No. of Report or Certificate **C409, C410, C412** Rpt. 5b.

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

Can the internal surfaces of the receivers be examined and cleaned **YES**

Is a drain fitted at the lowest part of each receiver **YES**

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

Actual

Starting Air Receivers, No. **2-No. 3, 1-No. 00** Total cubic capacity **51 CU. FT.**

Internal diameter **30", 9 7/8"**

thickness **3/8", 5/16"**

by Rules

Actual

APPD.

300 LBS.

Seamless, lap welded or riveted longitudinal joint **SEAMLESS**

Material **SM. STEEL**

Range of tensile strength **26-30**

Working pressure

by Rules

Actual

APPD.

300 LBS.

IS A DONKEY BOILER FITTED?

YES

If so, is a report now forwarded? **NOTTINGHAM RPT. No. 9.**

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

11.4.40

Receivers **5.5.38**

Separate Fuel Tanks **25.4.40**

Donkey Boilers **5.3.40**

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.

E. Coyne

Manufacturer.

Oil & Gas Engine Dept.
22.10.40 To 17.7.41 18 VISITS.
Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits
Dates of Examination of principal parts—Cylinders 22.10.40 Covers 22.10.40 Pistons 19.6.41 Rods Connecting rods 19.6.41
Crank shaft 23.11.39 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
Screw shaft 19.6.41 Propeller Stern tube Engine seatings Engines holding down bolts
Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
Crank shaft, Material **S.M. STEEL** Identification Mark **859 AS. 23.11.39** Flywheel shaft, Material Identification Mark
Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark
Identification Marks on Air Receivers **B 2796 B 2797 D 922**
T.N.B. 17.7.41 T.N.B. 17.7.41 T.N.B. 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 **No**

If so, state name of vessel

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 Messrs. Cochrane & Sons Ltd for installation in the vessel.

Now charged 2/3 this Survey Fee - less forgings = £18-2-0

Remaining to be charged on completion 1st Entry Fee + 1/3 this Survey Fee = £15-4-0

The amount of Entry Fee .. £

3/5 lbs x £30.10.0 = £18.6.0

Less: Commis: 4.0 £ 18 : 2

Donkey Boiler Fee ... £

Traveling Expenses (if any) £

When applied for,

Monthly Ap.

When received,

TUE. 23 DEC 1941

Committee's Minute

Assigned

See Incl. F.C. 51167

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

Lloyd's Register
Foundation