

RECEIVED  
Rpt. 4b.  
8 MAR 1944

# REPORT ON OIL ENGINE MACHINERY.

No 21179

7 MAR 1944

IN D.O.

Received at London Office

Date of writing Report

1-3-1944

When handed in at Local Office

4-3-1944

Port of Leith

No. in Survey held at Burntisland  
Reg. Book.

Date, First Survey 22-10-43 Last Survey 29-2-1944  
Number of Visits 13

37135 on the Single M.V. "DERRYCUNIHY."  
Triple Screw vessel

Tons 13  
Gross  
Net

Built at Burntisland

By whom built Burntisland S.B. Co. Ltd. Yard No. 275 When built 1944

Engines made at Sunderland

By whom made Wm. Foxford & Sons Ltd Engine No. 228 When made 1943

Donkey Boilers made at Stockton

By whom made Stockton Chem. Engng & Riley Boilers Ltd Boiler No. 6682 When made 1943

Brake Horse Power 2500

Owners Mr. Bowen & Lyell, Ltd. Port belonging to London

Nom. Horse Power as per Rule 516 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended

## OIL ENGINES, &c.—Type of Engines

2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

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

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft,

Solid forged  
Semi built  
All built

dia. of journals  
as per Rule  
as fitted

Crank pin dia.

Crank Webs

Mid. length breadth  
Mid. length thickness

shrunk

Thickness parallel to axis  
Thickness around eyehole

Flywheel Shaft, diameter  
as per Rule  
as fitted

Intermediate Shafts, diameter  
as per Rule  
as fitted

Thrust Shaft, diameter at collars  
as per Rule  
as fitted

Tube Shaft, diameter  
as per Rule  
as fitted

Screw Shaft, diameter  
as per Rule  
as fitted

Is the tube  
screw shaft fitted with a continuous liner

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 at 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 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.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

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

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material 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.

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

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size  
How driven

1 Ballast 10" x 11" x 10" 1 Bilge 7" x 7" x 12" 1 Gen. Service Pump 7" x 7" x 12"  
Steam Steam Steam

Is 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

Ballast Pumps, No. and size only 10" x 11" x 10"

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 2 PORT 2 STAR 3" dia. 1 DIRECT PORT 5" dia. 1 DIRECT STAR 8" dia. In Pump Room

In Holds, &c. N°1 Hold 1P. 1S. 3" dia. N°2 Hold 1P. 1S. 3 1/2" dia. N°3 Hold 1P. 1S. 2 1/2" dia. N°4 Hold 1P. 1S. 3 1/2" dia. 1P. 1S. 3" dia. N°5 Hold 1P. 1S. WELL 3" dia.  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 PORT 5" dia. 1 STAR 8" dia. TUNNEL WELL SUCTION = 2 1/2" DIA. 1 STAR 22" dia.

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

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 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 Below

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

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks Bilge Suctions

Have they been tested as per Rule 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 Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door No 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.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

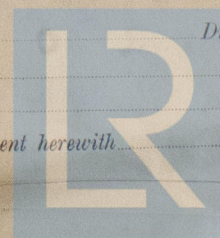
Auxiliary Engines crank shafts, diameter  
as per Rule  
as fitted

No.

Position

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith



© 2020

Lloyd's Register  
Foundation



AIR RECEIVERS: — Have they been made under survey

State No. of Report or Certificate

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

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

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.

Total cubic capacity

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Actual

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

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)

Receivers

Separate Fuel Tanks

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

1 L. G. Propeller.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

22/10/43, 29/10/43, 9/11/43, 29/12/43, 11/1/44, 27/1/44, 7/2/44, 11/2/44, 21/2/44, 23/2/44, 25/2/44, 28/2/44, 29/2/44.

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft in place 29-12-43

Propeller in place 29-12-43

tern tube in place 9/11/43

Engine seatings 9-11-43

Engines holding down bolts 7-2-44.

Completion of fitting sea connections 9-11-43

Completion of pumping arrangements 21-2-44

Engines tried under working conditions 21-2-44 & 28-2-44

Crank shaft, Material

Identification Mark

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 2—N<sup>o</sup> 21370 31/3/43 W.M.

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

Yes.

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

Yes.

Description of fire extinguishing apparatus fitted

Steam perforated pipes in boiler, 2 in engine room & a number of hand fire extinguishers

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

No.

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

Similar to Highland Prince

General Remarks

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

This machinery—Dunderland Rpt. N<sup>o</sup> 33833 has been efficiently fitted on board, the materials and workmanship being sound and good. The main and auxiliary machinery was finally tried out, out seas, under full load and working conditions, and it was found satisfactory. Manoeuvring tests were carried out, and the capacity of the air receivers was found to be in excess of the rule requirements.

In my opinion the Machinery of this vessel is eligible to be classed in the Register Book with the notations of L.M.C. 2-44, Oil Engine, T.S.C.L., 2 H.B. 120 lbs/10".

The amount of Entry Fee

£ 33 : 12 : 0

When applied for,

Special

£

6-3-1944

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£ 2 : 0 : 6

19

Committee's Minute

TUES. 14 MAR 1944

Assigned

+ L.M.C. 2.44

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation