

REPORT ON OIL ENGINE MACHINERY.

No 34096

Rpt. 4b.
2 DEC 1944

Date of writing Report

When handed in at Local Office

2nd Dec 1944 Port of

Received at London Office

Sunderland DEC 1944

No. in Survey held at
Reg. Book.

Date, First Survey 20th Oct. 1943 Last Survey 1st Dec 1944
Number of Visits 49

Single
on the Trip
Triple
Quadruple
Screw vessel

"**REGISTAN**"

Tons Gross 7368
Net 5039

Built at Sunderland

By whom built W. Leaford & Sons Ltd.

Yard No. 420 When built 1944.

Engines made at Sunderland

By whom made W. Leaford & Sons Ltd.

Engine No. 420 When made 1944.

Donkey Boilers made at Stockton

By whom made Stockton Chem. Engs. & Riley Bros Ltd.

Boiler No. 15914 When made 1944.

Brake Horse Power 2500

Owners F. C. Strick Ltd.

Port belonging to London.

Nom. Horse Power as per Rule 516

Is Refrigerating Machinery fitted for cargo purposes

No. Is Electric Light fitted Ylo.

Trade for which vessel is intended

235/8

91 5/16

L ENGINES, &c. Type of Engines Opposed piston valves injection or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 640 lbs/sq. in. Diameter of cylinders 600 in. Length of stroke upper 980 in. lower 1340 in. No. of cranks 3 (3 throws)

Mean Indicated Pressure 88 lbs/sq. in. Is there a bearing between each crank Between each 3 throws

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 940 in. Flywheel dia. F. 2300 in. Weight F. 53 1/2 tons. Means of ignition Compression Kind of fuel used -

Revolutions per minute 108 Crank pin dia. 450 in. Crank webs Mid. length breadth 650 in. Thickness parallel to axis 255 in.

Rank Shaft, Solid forged dia. of journals 418 in. as per Rule 418 in. as fitted 450 in. Intermediate Shafts, diameter 341 in. as per Rule 341 in. as fitted 392 in.

Thrust Shaft, diameter at collars 450 in. as per Rule 450 in. as fitted 450 in.

Tube Shaft, diameter 18 in. as per Rule 18 in. as fitted 21 1/2 in. Thickness between bushes 13 1/2 in. as per Rule 13 1/2 in. as fitted 16 3/4 in.

Is the tube shaft fitted with a continuous liner Ylo.

Is the after end of the liner made watertight in the

one length

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

Is the space charged with a plastic material insoluble in water and non-corrosive

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

Length of Bearing in Stern Bush next to and supporting propeller 4'-11"

Propeller, dia. 15'-9" Pitch 11'-9" No. of blades 4 Material Bronze Whether Moveable No. Total Developed Surface 90 sq. feet

Method of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Ylo. Means of lubrication

Thickness of cylinder liners 25 in. Are the cylinders fitted with safety valves Ylo. Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Ylo. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

one Engine driven

one Steam driven

Is the sea suction provided with an efficient strainer which can be cleared within the vessel (F.W. Cooling)

Bilge Pumps worked from the Main Engines, No. none Diameter - Stroke - Can one be overhauled while the other is at work -

pumps connected to the Main Bilge Line No. and Size 2 @ 5 1/2" x 6" - 15" + Ballast Pump

How driven 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 1 @ 12 1/2" x 14" x 24" Power Driven Lubricating Oil Pumps, including Spare Pump No. and size one Engine driven 8 1/2" x 6 1/2" x 10"

Are two independent means arranged for circulating water through the Oil Cooler Ylo. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size: In Machinery Spaces 4 @ 3" in E.R. 2 @ 2 1/2" in Cofferdam 1 @ 3" in Tunnel Well In Pump Room -

In Holds, &c. No. 1. 3" in, No. 2. 3 1/2" in, No. 3. (Leak Tank) 3 1/2" in, No. 4. 3" in, No. 5. 3" in

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 8" Ballast, 1 @ 5" (Leak Tank) 1 @ 4" main Eng. Pump.

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Ylo. Are the Bilge Suctions in the Machinery Spaces

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

Are all Sea Connections fitted direct on the skin of the ship Ylo. 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 Ylo. 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 Ylo. Are the Blow Off Cocks fitted with a spigot and brass covering plate Ylo.

What pipes pass through the bunkers none How are they protected -

What pipes pass through the deep tanks none 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 Ylo.

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 Ylo. Is the Shaft Tunnel watertight Ylo. Is it fitted with a watertight door (Bulkhead) 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. Two No. of stages 3 Diameters 11 1/2", 11 1/4", 9 1/2", 23 1/4" Stroke 4 Driven by Steam Engine

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. one Diameter 1400 in. Stroke 610 in. Driven by Lowest from Main Engines.

Auxiliary Engines crank shafts, diameter as per Rule - No. - Position -

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith

Lloyd's Register
Foundation

002127-002137-0082

AIR RECEIVERS: - Have they been made under survey

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

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

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

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

(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

State the principal additional spare gear supplied

1 C.I. Propeller, 1 cyl. liner & jacket complete, 1 main piston head 24 rmp, 2 (each) Side & Centre top & bottom bearing bolts & nuts, 2 main bearing studs, 1 set coupling bolts & nuts, 4 fuel valves complete, 1 N.R. Starting air valve, 1 cyl. relief valve, 4 Scavenge pump 1/2 discs, 1 fuel pump body with 1/4 in. dia. stud, full crank lever valves & tappet, 3 rubber hoses for upper piston cooling system, 6 links roller chain & Camshaft drive, 1 set Mitchell Pad for thrust, 3 ditto for int. shaft & tail shaft bearings.

The foregoing is a correct description,
WILLIAM DOXFORD & SONS, Limited.

Wm. H. F. Furdie

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1943. Oct 20, 25, 26. Jan. 2. 1944. Jan. 13, 14, 17, 19, 20, 22, 26, 28, 31 Feb. 1, 4, 7, 8, 9, 10, 11, 14, 15, 16, 21, 22, 23, 24, 25, 28, 29. Mar. 4, 23. Aug. 1, 3, 4, 15, 21, 22, 31. Sep. 5, 20. Oct. 25, 26, 27. Nov. 1, 8, 30.
Total No. of visits 49

Dates of Examination of principal parts - Cylinders 26/10/43 Covers - Pistons 17/2/44 Rods 17/2/44. Connecting rods 18/2/44.

Crank shaft 9/2/44 Flywheel shaft as crank Thrust shaft as crank Intermediate shafts 15/8/44 Tube shaft -

Screw shaft 22/8/44 Propeller 22/8/44. Stern tube 1/8/44, 3/8/44 Engine seatings (sand tops) Engines holding down bolts 29/10/44

Completion of fitting connections 1/8/44 Completion of pumping arrangements 30/11/44 Engines tried under working conditions 1/11/44

Crank shaft, Material Ingot Steel Identification Mark N° 720 W.H.F. 9/2/44 Flywheel shaft, Material as crank Identification Mark as crank.

Thrust shaft, Material as crank Identification Mark as crank Intermediate shafts, Material Ingot Steel Identification Marks S. 9098, 8682, 8504, 86

Tube shaft, Material - Identification Mark - Screw shaft, Material Ingot Steel Identification Mark 9231, 8905, 84

Identification Marks on Air Receivers K 1615/16 9106 W.H.F. 15/8/44

CR. 21431 S. 8906 W.H.F. 22/8/44

L.E.D. 31/5/44

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 1 1/2 in. 1. Propellant Pipe for Steam led around ER & BL Rm. 8-2 full. Phosgene contained.

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 Not desired.

Is this machinery duplicate of a previous case Yes.

If so, state name of vessel (Standard Easton)

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under Survey in accordance with the approved plans & the rules of the Society. The materials & workmanship are good. It has been securely fitted on board the vessel & tried under working conditions alongside Quay with satisfactory results.

The donkey boilers have also been securely fixed on board, fitted to burn oil fuel (F.P. above 150° F), Section 20 of the rules has been complied with & the safety valves adjusted to working pressure in accordance with rule requirements.

The machinery is eligible in my opinion to have notation

as L.M.C. 12.44 (oil Eng.), T.S. (CL), 2 D.B. 120 lbs/o.

The amount of Entry Fee .. £ 6 :

Special £ 100 : 16 :

Donkey Boiler Fee £ 12 : 12 :

Travelling Expenses (if any) £ :

When applied for,

When received,

Committee's Minute

Assigned

H. T. Haser

Engineer Surveyor to Lloyd's Register of Shipping.



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