

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

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Date of writing Report 19 18 Jan 1940 When handed in at Local Office 18 Jan 1940 Port of Sunduland.
 No. in Survey held at Sunduland. Date, First Survey Sep. 18 Last Survey Jan 12 1940
 Reg. Book. on the Screw Steamer "DAYDAWN" (Number of Visits 28)
 Built at Sunduland By whom built Wm. Pickersgill & Sons Ltd Yard No. 241 Tons { Gross 4768
 Engines made at Hartlepool By whom made Richardsons Westgarth Engine No. H 2694 When built 1939 1940
 Boilers made at Sunduland By whom made G. Clark (1938) Ltd Boiler No. 2694 When made 1939 1940
 Registered Horse Power Owners Claymore Shipping Co Ltd Port belonging to Leardiff.
 Nom. Horse Power as per Rule 423. Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted Yes.
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines

Dia. of Cylinders Length of Stroke No. of Cylinders Revs. per minute
 Crank shaft, dia. of journals as per Rule Length of Stroke No. of Cylinders No. of Revs
 as fitted Crank pin dia. Crank webs Mid. length breadth Mid. length thickness Thickness parallel to axis
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at base as per Rule as fitted
 as fitted Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule as fitted
 as fitted Shaft fitted with a continuous liner
 Bronze Liners, thickness in way of bushes as per Rule 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 joints 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. Pitch No. of Blades Material whether Movable Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Feed Pumps No. and size How driven Pumps connected to the Main Bilge Line No. and size How driven
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pumps, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3" in E.R. 1 @ 2 1/2" Tunnel well.
 In Pump Room 3 @ 3" in E.R. 1 @ 2 1/2" Tunnel well. In Holds, &c. No 1 Hold 3" p/s. No 2 Hold 3 1/2" p/s. No 2(A) Hold 2 1/2" p/s. No 3 Hold 3" p/s. No 4 Hold 3" p/s.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4 1/2"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes.
 Are the Bilge Suctions in the Machinery Space 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 stokehold plates Yes. Are the Overboard Discharges above or below the deep water line Yes.
 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 Fore Bilge Suctions How are they protected hand carry.
 What pipes pass through the deep tanks 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 Yes. worked from E.R. top plating

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers main 4650 sq. ft. Aux. 1555 sq. ft. = 6205
 Which Boilers are fitted with Forced Draft Both main & aux. Which Boilers are fitted with Superheaters Both main boilers
 No. and Description of Boilers 2 S.B. (Spt.) 1 Aux. Working Pressure 220 lbs/sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.
 IS AN AUX. DONKEY BOILER FITTED? Yes. If so, is a report now forwarded? Yes.
 Can the donkey boiler be used for domestic purposes only
 PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Yes. Auxiliary Boilers Yes. Donkey Boilers Yes.
 Superheaters Yes. General Pumping Arrangements Yes. Oil fuel Burning Piping Arrangements Yes.

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.
 State the principal additional spare gear supplied
A.P. valve gear: 2 Roller pins, 2 Cam rollers, 4 operating rollers, 2 plunger return springs, 2 poppet valve spindles, 2 spindle bushes, 2 poppet valves, 2 valve springs, Impeller & shaft for main circulating pump.

The foregoing is a correct description.

A. J. Berry Manufacturer.
 DIRECTOR & GENERAL MANAGER



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Dates of Survey while building

During progress of work in shops - - - 1939. Sep. 18, 22. Oct. 5, 10, 20, 24, 31. Nov. 1, 3, 9, 14, 17, 21, 24, 27. Dec. 4, 12, 15, 18, 20, 22, 29

1940. Jan. 2, 3, 8, 10, 12.

During erection on board vessel - - -

Total No. of visits 28

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓

Pistons ✓ Piston Rods ✓ Connecting rods ✓

Crank shaft ✓ *See best Harlepool report.* Thrust shaft ✓ Intermediate shafts ✓

Tube shaft ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ 14/11/39. Engine and boiler seatings 14/11/39. Engines holding down bolts 29/12/39.

Completion of fitting sea connections 14/11/39.

Completion of pumping arrangements 12/11/40 Boilers fixed 29/12/39. Engines tried under steam 10/1/40.

Main boiler safety valves adjusted 10/1/40. Thickness of adjusting washers Pt. Bk. 5. 7/16 St. Bk. 5. 3/8 Aug. Bk. 5. 3/8

Crank shaft material ✓ Identification Mark ✓ Thrust shaft material 5/16" 11/32" 5/16" 3/8" Identification Mark ✓

Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material S.D. Steel ✓ Test pressure 660 lbs Date of Test 3/1/40

Is an installation fitted for burning oil fuel *No.* Is the flash point of the oil to be used over 150° F. ✓

Have the requirements of the Rules for the use of oil as fuel been complied with ✓

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 If so, state name of vessel

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

These Engines & boilers have been securely fitted on board the vessel & tried under working conditions alongside quay with satisfactory results.

The machinery of this vessel is eligible in my opinion to have notation S.H.M.C. 1.40 T.S. (Cl), 2 SB (Spl.), 1 Aug., 220 lbs/sq. F.D.

Note: Poppet Valve gear is fitted on H.P. engine.

W.H.

Certificate to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute(s).

The amount of Entry Fee ... £ : : When applied for,

3/5 Special ... £ 53 : 2 : 3 JAN 1940

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 1 FEB 1940

J. H. Fraser.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 20 FEB 1940

Assigned + Amk 1.40
2 SB (Spl.) } 220
1 Aug SB. } 220

