

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 31 JUL 1941

Date of writing Report 19 *14/7/1941* When handed in at Local Office *14/7/1941* Port of *Newcastle-on-Tyne*
 No. in Survey held at *Newcastle on Tyne* Date, First Survey *11/12/39* Last Survey *3/7/1941*
 Reg. Book. on the *S/S ENNERDALE* (Number of Visits *161*) Tons ^{Gross} *8219* _{Net} *4719*
 Built at *Newcastle* By whom built *Swan, Hunter & Wigham Richardson Ltd* Yard No. *1656* When built *1941-*
 Engines made at *do.* By whom made *ditto.* Engine No. *1656* When made *1941-*
 Boilers made at *do.* By whom made *ditto.* Boiler No. *1656* When made *1941-*
 Registered Horse Power *✓* Owners *Port belonging to LONDON.*
 Nom. Horse Power as per Rule *629.* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*
 Trade for which Vessel is intended *Ocean going - Carrying Petroleum in bulk.*

ENGINES, &c.—Description of Engines *3 Cyl Triple Expn Recip.* Revs. per minute *84 Service*
 Dia. of Cylinders *26 1/2, 44, 73* Length of Stroke *48* No. of Cylinders *3* No. of Cranks *3*
 Crank shaft, dia. of journals as per Rule *14.66* as fitted *15 1/4* Crank pin dia. *15 1/4* Crank webs Mid. length breadth *✓* Thickness parallel to axis *9.5625*
 as fitted *15 1/4* Crank webs Mid. length thickness *✓* shrunk Thickness around eye-holes *7 5/8 at journal*
 Intermediate Shafts, diameter as per Rule *13.96* as fitted *14* Thrust shaft, diameter at collars as per Rule *14.66* as fitted *14 3/4*
 Tube Shafts, diameter as per Rule *✓* as fitted *15.42* Screw Shaft, diameter as per Rule *15 1/2* as fitted *15 1/2* Is the ^{tube} screw shaft fitted with a continuous liner *Yes*
 Bronze Liners, thickness in way of bushes as per Rule *24.7/32* as fitted *25/32* Thickness between bushes as per Rule *18.5/32* as fitted *23/32* Is the after end of the liner made watertight in the propeller boss *Yes* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *In one piece.*
 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 *Light fit*
 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 *No* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *62 1/2*
 Propeller, dia. *17-6* Pitch *14-6* No. of Blades *4* Material *Mang. Pig.* whether Moveable *No* Total Developed Surface *104* sq. feet
 Feed Pumps worked from the Main Engines, No. *none* Diameter *✓* Stroke *✓* Can one be overhauled while the other is at work *✓*
 Bilge Pumps worked from the Main Engines, No. *2* Diameter *6* Stroke *26* Can one be overhauled while the other is at work *Yes*
 Feed Pumps { No. and size *2 of 10 1/2" x 8" x 21"* Pumps connected to the { No. and size *one Ballast. 10" x 11" x 10" dup., & two Single acting 6" x 26"*
 How driven *By Steam* Main Bilge Line { How driven *By Steam* *200 tons/hr.* *(Total 98 tons/hr.)*
 Ballast Pumps, No. and size *10" x 11" x 10" Duplex.* Lubricating Oil Pumps, including Spare Pump, 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 of 3 1/2" dia.,* *only bilge wells 2 of 2 1/2"*
 In Pump Room *2 of 4" in each main pump room.* In Holds, &c. *2 of 2 1/2" in Forehold, 1 of 2" in Fore Hold Pump Room, & 2 of 2" at Peak Tank Top.*
 Main Water Circulating Pump Direct Bilge Suctions, No. and size *One 9" dia. on Port Side* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One 5" dia. on Starboard Side* 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 *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 *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 *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 *None* Is it fitted with a watertight door *✓* worked from *✓*

MAIN BOILERS, &c.—(Letter for record *S.*) Total Heating Surface of Boilers *9555 sq. ft.*
 Which Boilers are fitted with Forced Draft *all 3 Boilers* Which Boilers are fitted with Superheaters *all 3 Boilers*
 No. and Description of Boilers *Three Single ended.* Working Pressure *220 lbs*
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? *Yes*
 IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *✓*
 Can the donkey boiler be used for domestic purposes only *✓*

PLANS. Are approved plans forwarded herewith for Shafting *17/10/39* Main Boilers *31/10/39* Auxiliary Boilers *✓* Donkey Boilers *✓*
 (If not state date of approval)
 Superheaters General Pumping Arrangements *21/5/40 & 30/5/40* Oil fuel Burning Piping Arrangements *13/4/40 & 15/6/40*
 Pumping Arrang. in E.R. *SPARE GEAR.*
 Has the spare gear required by the Rules been supplied *Yes*
 State the principal additional spare gear supplied *1. propeller shaft, 12 gauge glasses, 50 ferrules & 100 packings for Condenser, 6 piston bolts, 4 cam rollers & spindles for HP valve gear, 1 valve spindle for HP valve gear, 12 plain boiler tubes; 20% of jointing washers, 10% studs & nuts, 10% header plugs & 2% clamps for Superheaters.*

The foregoing is a correct description.
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

G. J. Sweeney
DIRECTOR

Manufacturer.



1939
 Dec. 11, 14, 19, 29. 1940
 Jan 4, 11, 15, 19, 22, 23, 24, 26, 31. Feb. 5, 6, 7, 13, 15, 16, 19, 20, 21, 22, 23, 26, 27, 29. Mar. 5, 6, 7, 11.
 12, 13, 14, 15, 16, 19, 20, 21, 26, 28, 29. Apr. 3, 4, 8, 10, 18, 19, 29. May 1, 8, 10, 16, 24. June 3, 10, 12, 14, 24, 25, 26.
 July 1, 2, 3, 4, 5, 15, 17, 25, 30, 31. Aug. 13, 22, 23, 26. Sep. 4, 26, 30. Oct. 10, 18, 22. Nov. 6, 14, 19, 25, 26.
 28. Dec. 3, 9, 11, 13, 17, 19, 23, 24, 27. 1941
 Jan. 2, 3, 6, 7, 8, 9, 10, 15, 16, 18, 20, 22, 24, 29. Feb. 3, 4, 5, 6, 13, 15.
 21, 24, 25, 26, 28. Mar. 3, 4, 7, 11, 12, 14, 18, 24, 25, 26, 27, 28, 31. Apr. 1, 2, 4, 7, 8, 9, 11, 15, 16, 29.
 30. May 5, 7, 15, 20, 22, 29. June 4, 6, 17, 18, 19, 24, 26. July 2, 3.

During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits **161.**

Dates of Examination of principal parts—Cylinders **18/3/40 & 26/3/40** Slides **2/1/41** Covers **18/3/40 & 26/3/40**
 Pistons **2/1/41** Piston Rods **2/1/41** Connecting rods **28/1/41**
 Crank shaft **28/3/40** Thrust shaft **28/3/40** Intermediate shafts **8/1/41**
 Tube shaft Screw shaft **19/12/40** Propeller **18/1/41**
 Stern tube **10/1/41** Engine and boiler seatings **10/1/41** Engines holding down bolts **13/2/41**
 Completion of fitting sea connections **24/1/41**
 Completion of pumping arrangements **21/5/41** Boilers fixed **24/3/41** Engines tried under steam **21/5/41 & 4/6/41**
 Main boiler safety valves adjusted **21/5/41** Thickness of adjusting washers **FOR P.V. S.V. Spt. PORT BLR 1/4 7/16 5/16**
 Crank shaft material **Steel** Identification Mark **8606 AW 28-3-40** Thrust shaft material **Steel** Identification Mark **9063 DB 633**
 Intermediate shafts, material **Steel** Identification Marks **9063 HAI. 631.** Tube shaft, material Identification Mark
 Screw shaft, material **Steel** Identification Mark **9063 DB 627.** Steam Pipes, material **S.D. Steel** Test pressure **660 lbs.** Date of Test **9/12/40 to 15/4/41**
 Is an installation fitted for burning oil fuel 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 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 required**
 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.)

The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans, and the Society's Rules, and the materials and workmanship are good.

The machinery has been efficiently installed on board the vessel, tried under working conditions with satisfactory results, and is eligible in my opinion, for record + LMC T. 41, and the notations 3SB(Spt), FD, 220^h, CL.

Newcastle-on-Tyne

The amount of Entry Fee ... £ **6 : 0 :** When applied for,
 Special ... £ **106 : 9 :** **129 JUL 1941**
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 19

A Watt

Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 26 JUN 1941

Committee's Minute

Assigned

J. Lamb 7.41 subject
 Litt. for oil fuel re
 J.D. C.L.



© 2021

Lloyd's Register Foundation