

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 10 When handed in at Local Office 23 SEP 1939 10 Port of HULL  
 No. in Survey held at Selby & Hull. Date, First Survey 7<sup>th</sup> July Last Survey 22nd Sept 1939  
 Reg. Book. 18103 on the *Chorn. Sc. Tug. REVUE* (Number of Visits 13)  
 Built at Selby. By whom built Cochrane & Sons Ltd. Yard No. 1202 Tons { Gross 245 Net 115  
 Engines made at Newbury. By whom made Stenly & Sons Ltd. Engine No. 2771. When built 1939-9  
 Boilers made at Glasgow. By whom made Barclay Curle. Boiler No. 38-13 When made do.  
 Registered Horse Power Owners Bera Works Ltd. Port belonging to London  
 Nom. Horse Power as per Rule 339.197 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Towing & Salvage work.

ENGINES, &c.—Description of Engines Triple Expansion - Surface Condensing - Vertical Revs. per minute 145  
 Dia. of Cylinders 11 3/4" - 19 1/2" - 33 1/2" Length of Stroke 22 No. of Cylinders 6 No. of Cranks 6  
 Crank shaft, dia. of journals as per Rule App'd as fitted 6 1/2" Crank pin dia. 6 1/2" Crank webs Mid. length breadth 12 1/4" Thickness parallel to axis 2 3/8" shrunk  
 Intermediate Shafts, diameter as per Rule App'd as fitted 6 5/8" Thrust shaft, diameter at collars as per Rule App'd as fitted 6 1/2"  
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule App'd as fitted 7 1/8" Is the { tube } shaft fitted with a continuous liner { No }  
 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 are 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 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 Yes If so, state type Cylindrical Length of Bearing in Stern Bush next to and supporting propeller 30"  
 Propeller, dia. 97" Pitch 10'-0" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 28 sq. feet  
 Feed Pumps worked from the Main Engines, No. 1 & 2 Engine Diameter 2 1/2" Stroke 10" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. do. Diameter do. Stroke do. Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size One 5 x 3 1/2 x 6" Pumps connected to the { No. and size One 5 x 5 x 6" } The two main engines  
 How driven Independent Steam Main Bilge Line How driven Independent Steam pumps  
 Ballast Pumps, No. and size The above feed pump Lubricating Oil Pumps, including Spare Pump, No. and size One  
 Are two independent means arranged for circulating water through the Oil Cooler No Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 2 2 2" dia One 2 1/2" dia In Holds, &c. Fore & After Compartment one each 2 2" dia  
 In Pump Room The fore & aft peaks used for feed water are connected direct to Ind. Feed pump. Suctions one each 2 2" dia  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One 7" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 2 1/2" dia (included above) 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 Yes  
 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 Above  
 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 No How are they protected  
 What pipes pass through the deep tanks No 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 No Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3229 sq. ft.  
 Forced Draft fitted No Yes No. and Description of Boilers One S.B. Working Pressure 200 lbs./sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Herewith.  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?

Are approved plans forwarded herewith for Shafting 27.4.39 Main Boilers 22.12.38 Auxiliary Boilers Donkey Boilers  
 (If not state date of approval)  
 Preheaters General Pumping Arrangements 11.5.39 Oil fuel Burning Piping Arrangements

## SPARE GEAR.

Is the spare gear required by the Rules been supplied Yes  
 Is the principal additional spare gear supplied 2 spare sets of shaft coupling bolts & nuts One C.I. propeller

The foregoing is a correct description.

Manufacturer.



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During progress of work in shops - - -

Dates of Survey while building

During erection on board vessel - - - July 7. 18. 19. 27. Aug 17. 25. 29. 31. Sep. 9. 13. 19. 21. 22

Total No. of visits 13

Dates of Examination of principal parts—Cylinders *See Lon Rpt* Slides *Lon Rpt* Covers *Lon Rpt*

Pistons *Lon Rpt* Piston Rods *Lon Rpt* Connecting rods *Lon Rpt*

Crank shaft *Lon Rpt* Thrust shaft *Lon Rpt* Intermediate shafts *Lon Rpt*

Tube shaft *✓* Screw shaft *Lon Rpt. + 7/7/39* Propeller *Lon Rpt. + 7/7/39*

Stern tube *Lon Rpt. + 7/7/39* Engine and boiler seatings *18/7/39* Engines holding down bolts *17/8/39*

Completion of fitting sea connections *18/7/39*

Completion of pumping arrangements *19. 9. 39* Boilers fixed *17/8/39* Engines tried under steam *21- 9. 39*

Main boiler safety valves adjusted *21- 9. 39* Thickness of adjusting washers *Port. 3/8" Star 15/32"*

Crank shaft material *Steel* Identification Mark *P. 4220 } T.D.S. S 4221 } 30.3.39* Thrust shaft material *Steel* Identification Mark *4291 } T.D. 4293 }*

Intermediate shafts, material *Steel* Identification Marks *P 4290 } T.D. S 4292 }* Tube shaft, material *Steel* Identification Mark *✓*

Screw shaft, material *Steel* Identification Mark *S 4288 } T.D. S 4289 }* Steam Pipes, material *Steel* Test pressure *200 lb.* Date of Test

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 *✓* 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 *NO*

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 fitted on board in accordance with the approved plans & the Rules & under Special Survey. The workmanship & materials are good & when tried under working conditions it was found satisfactory in every respect. It is eligible, in my opinion, to be classed with the records of L.M.C. 939 + O.G. 939 & to have the notations T. 6 Cy. 11 3/4", 19 1/2", & 33 1/2" - 22" 200 lb. 339 N.H.P. I.S.B. 4 cf. G.S. 75. H.S. 3229. F.D.*

The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Entry Fee ... £ 9:17 =

Special ... £ 24:0/2

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for, 29 SEP 1939

When received, 19.10.39

*D. J. J. J. J.*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *+ Lmb 9.39*

*32, 06.*