

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office SEP - 3 1940

Date of writing Report 19 2/8/40 When handed in at Local Office 2/8/40 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle on Tyne Date, First Survey 19 Jan Last Survey 1<sup>st</sup> Aug 1940  
Reg. Book. on the "ECEABAT" (Number of Visits 78.) Tons { Gross 691  
Net 265

Built at Newcastle By whom built Swan, Hunter & Wigham Richardson Ltd Yard No. 1662 When built 1940-

Engines made at ditto. By whom made ditto Engine No. 1662 When made 1940

Boilers made at ditto. By whom made ditto Boiler No. 1662 When made 1940

Registered Horse Power ✓ Owners Port belonging to ✓

Nom. Horse Power as per Rule 132 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

Trade for which Vessel is intended Ocean going

**ENGINES, &c.**—Description of Engines *3 Cy. Triple Exp. Recip.* Revs. per minute *225.*  
 Dia. of Cylinders *12+19+31"* Length of Stroke *21"* No. of Cylinders *3.* No. of Cranks *3.*  
 Crank shaft, dia. of journals *as per Rule 6.09* Crank pin dia. *7 1/8"* Crank webs *Mid. length breadth 4 5/16"*  
*as fitted 6 7/8"* *Mid. length thickness 3 3/4"* Thickness parallel to axis *33 1/2 at journals*  
 Intermediate Shafts, diameter *as per Rule 5.8"* Thrust shaft, diameter at collars *as per Rule 6.09"* Thickness around eye-hole *3 3/4 at pins*  
*as fitted 7 1/8"* *as fitted 7 1/25"*  
 Tube Shafts, diameter *as per Rule* Screw Shaft, diameter *as per Rule 6.425"* Is the *1 1/2"* screw shaft fitted with a continuous liner *Yes.*  
*as fitted* *as fitted 6 3/4"*  
 Bronze Liners, thickness in way of bushes *as per Rule 16/32"* Thickness between bushes *as per Rule 12/32"* Is the after end of the liner made watertight in the  
*as fitted 17/32"* *as fitted 15/32"* 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 *tight 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 *33 1/2"*  
 Propeller, dia. *7'6"* Pitch *5'6"* No. of Blades *4* Material *M.Bz.* whether Moveable *No* Total Developed Surface *20* 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. *None* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *—*  
 Independent Feed Pumps No. and size *Two 8 1/2" x 6" x 13" simplex* Pumps connected to the { No. and size *Two in one Ballast 6 x 7 x 9 dup one G.S.P. 6 x 6 x 6 dup*  
 { How driven *Steam* Main Bilge Line { How driven *75 tons/hour 4 1/2 ton/hr*  
 Ballast Pumps, No. and size *one 6" x 7 x 9 duplex* Lubricating Oil Pumps, including Spare Pump, No. and size *None*  
 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 *Two 3" dia & 2 of 2" dia.* In Hold *Three; 2 Engines 3" at Centre, & P+S wings each 2 1/2"*  
 In Pump Room *—* also One 3" Ejector Suction worked by Ballast Pump discharge.

**Main Water Circulating Pump Direct Bilge Suctions, No. and size** One 6" **Independent Power Pump Direct Suctions to the Engine Room Bilges,**  
**No. and size** one 3" dia **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** both  
**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 (mach. aft) **Is it fitted with a watertight door** ✓ **worked from** ✓

MAIN BOILERS, &c.—(Letter for record 5.) Total Heating Surface of Boilers 2554 sq. ft.  
Is Forced Draft fitted Yes No. and Description of Boilers 2 Single Ended Working Pressure 180 lbs.  
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
IS A DONKEY BOILER FITTED? None If so, is a report now forwarded? ✓

Is the donkey boiler intended to be used for domestic purposes only *crank sh 19/12/39*

PLANS. Are approved plans forwarded herewith for Shafting *22/12/39* Main Boilers *15/12/39* Auxiliary Boilers ☒ Donkey Boilers ☒  
(If not state date of approval)

Superheaters ☒ General Pumping Arrangements *22/2/40 & 15/3/40* Oil fuel Burning Piping Arrangements ☒  
*Pumping arge in E.R. 3/1/40*

SPARE GEAR.

Has the spare gear required by the Rules been supplied. *Yes*  
State the principal additional spare gear supplied. *20 Condenser tubes, 40 condenser tube ferrules & packing*

The foregoing is a correct description.

E. J. Healey  
Manufacturer.



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Foundation

008953 - 008963 - 0096



1940  
 During progress of work in shops -- Jan. 19. 31. Feb. 8. 9. 16. 22. 23. 27. 28. 29. Mar. 4. 5. 6. 7. 11. 12. 14. 18. 19. 20. 21. 26. 27. 28. 29. Apr. 2. 3. 4. 5. 8. 9. 10. 16. 18. 19. 26. 29. May 1. 2. 3. 6. 7. 8. 10. 14. 16. 20. 21. 22. 31. Jun. 4. 5. 6. 7. 10. 11. 13. 14. 15. 17. 18. 19. 20. 21. 24. 26. 28. July 1. 2. 4. 5. 9. 10. 12. 16. 22. 29. Aug. 1. 5.  
 During erection on board vessel --  
 Total No. of visits 78.

Dates of Examination of principal parts—Cylinders 14/3/40 Slides 19/6/40 Covers 14/3/40  
 Pistons 19/6/40 Piston Rods 19/6/40 Connecting rods 19/6/40  
 Crank shaft 19/6/40 Thrust shaft 1/5/40 Intermediate shafts 21/5/40  
 Tube shaft — Screw shaft 6/5/40 Propeller 10/6/40  
 Stern tube 6/6/40 Engine and boiler seatings (1) 13/6/40 (2) 20/6/40 Engines holding down bolts 28/6/40  
 Completion of fitting sea connections 10/6/40  
 Completion of pumping arrangements 10/7/40 Boilers fixed 28/6/40 Engines tried under steam 12/7/40 + 1/8/40  
 Main boiler safety valves adjusted 12/7/40 Thickness of adjusting washers Forward Blr 7/16" 15/32" Aft Blr 7/16" 15/32"  
 Crank shaft material OH. 7. Steel Identification Mark 8614 AWM 19/6/40 Thrust shaft material OH. F.S. Identification Mark 980. T.T.  
 Intermediate shaft material OH. F.S. Identification Marks 1309 HDB. Tube shaft material — Identification Mark —  
 Screw shaft material OH. F.S. Identification Mark 1310 HDB Steam Pipes material S.D. Steel Test pressure 540 lbs Date of Test 26/4/40  
 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 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 built under Special Survey in accordance with the Society's Rules and approved plans, satisfactorily installed on board and tried under steam under working conditions. The materials and workmanship are good.

The Machinery of this Vessel is eligible, in my opinion, to be classed with this Society and to have the record + LMC 8.40 and notations 2. SB. 180th FD. TS. CL.

Newcastle-on-Tyne

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 33 : 0 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 31 AUG 1940  
 When received, 9th Sept 1940

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ LMC 8.40 FDCL



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