

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 29 JUN 1936

1. Date of writing Report

19

When handed in at Local Office

23/6/1936 Port of

NEWCASTLE-ON-TYNE

2. in Survey held at *Newcastle on Tyne (Hethorn)* Date, First Survey *20.12.35* Last Survey *19/6/1936*  
 eg. Book.  
 on the *Steel Sc. 5/5. ST MARGARET.*

(Number of Visits *29*)

3. Built at *Sunderland* By whom built *J. L. Thompson & Co Ltd*

Yard No. *574*

Tons { Gross *4312*  
 Net *2604*  
 When built *1936*

4. Engines made at *Newcastle (Hethorn)* By whom made *White's Marine Engg. Co Ltd* Engine No. *5C*  
 " *(St Peters)* " " *R & W. Hawthorn Leslie & Co Ltd* Turbine No. *9849*  
 Boilers made at *Sunderland* By whom made *Geo. Clark & Co Ltd* Boiler No. *1936*

When made *1936*  
 " *1936*  
 When made *1936*

5. Registered Horse Power *1468* Owners *ST QUENTIN SHIPPING CO. LD.*

Port belonging to *Hamport.*

6. Combined S.H.P. *304* Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

7. Vessel is intended

8. GINES, &c.—Description of Engines *4 Cylr. Comp Recip Eng. with S.R. Gearing, combined with L.P. TURBINE with D.R. Gearing to Screw Shaft.* Rpm of ENGINE *310.*  
 a. of Cylinders *2 of 10 1/2 + 2 of 19* Length of Stroke *13"* No. of Cylinders *4* Prop. Revs. per minute *62.*

9. Crank shaft, dia. of journals *5.9"* as per Rule *5.9"* as fitted *7 3/4"* Crank pin dia. *7 3/4"* Crank webs Mid. length breadth *9 3/4"* Mid. length thickness *4 7/8"* No. of Cranks *4* Thickness parallel to axis *✓* Thickness around eye-hole *✓*

10. Intermediate Shafts, diameter *11.92"* as per Rule *11.92"* as fitted *✓* Thrust shaft, diameter at collars *✓* as per Rule *✓* as fitted *✓*

11. Be Shafts, diameter *✓* as per Rule *✓* as fitted *✓* Screw Shaft, diameter *✓* as per Rule *✓* as fitted *✓* Is the { tube } shaft fitted with a continuous liner { *✓* }

12. 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

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

14. 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 *✓*

15. 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

16. If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *✓*

17. Propeller, dia. *✓* Pitch *✓* No. of Blades *✓* Material *✓* whether Moveable *✓* Total Developed Surface *✓* sq. feet

18. Main Pumps worked from the Main Engines, No. *None* Diameter *✓* Stroke *✓* Can one be overhauled while the other is at work *✓*

19. Auxiliary Pumps worked from the Main Engines, No. *None* Diameter *✓* Stroke *✓* Can one be overhauled while the other is at work *✓*

20. How driven *Two 6" x 8 1/2" x 13"* Pumps connected to the { No. and size *✓* }  
 Main Bilge Line { How driven *✓* }

21. Lubricating Oil Pumps, including Spare Pump, No. and size *Two 6" x 5 1/2" x 15"*

22. Suctions, connected to both Main Bilge Pumps and Auxiliary

23. In Holds, &c. *✓*

24. Water Circulating Pump Direct Bilge Suctions, No. and size *✓* Independent Power Pump Direct Suctions to the Engine Room Bilges,

25. Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *✓*

26. 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 *✓*

27. All Sea Connections fitted direct on the skin of the ship *✓* Are they fitted with Valves or Cocks *✓*

28. They fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *✓* Are the Overboard Discharges above or below the deep water line *✓*

29. They each fitted with a Discharge Valve always accessible on the plating of the vessel *✓* Are the Blow Off Cocks fitted with a spigot and brass covering plate *✓*

30. Pipes pass through the bunkers *✓* How are they protected *✓*

31. Pipes pass through the deep tanks *✓* Have they been tested as per Rule *✓*

32. All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *✓*

33. 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

34. Department to another *✓* Is the Shaft Tunnel watertight *✓* Is it fitted with a watertight door *✓* worked from *✓*

35. MAIN BOILERS, &c.—(Letter for record *✓*) Total Heating Surface of Boilers *3730 sq. ft.*

36. Forced Draft fitted *✓* No. and Description of Boilers *✓* Working Pressure *230 lbs/sq. in.*

37. A REPORT ON MAIN BOILERS NOW FORWARDED? *No.*

38. A DONKEY BOILER FITTED? *✓* If so, is a report now forwarded? *✓*

39. Is donkey boiler intended to be used for domestic purposes only *✓*

40. Are approved plans forwarded herewith for Shafting *17/12/35* Main Boilers *✓* Auxiliary Boilers *✓* Donkey Boilers *✓*

41. General Pumping Arrangements *✓* Oil fuel Burning Piping Arrangements *✓*

42. SPARE GEAR.

43. Is the spare gear required by the Rules been supplied *✓* Yes. viz. *2 top end bolts & nuts*

44. Is the principal additional spare gear supplied *✓* *2 bottom end bolts & nuts*

*2 main bearing bolts & nuts*

*3 Piston Joint Ring Studs & Nuts*

*3 Condenser tubes & 20 ferrules with packing*

*1 Set of Valves for Water ends of Auxiliary Pumps*

*1 HP & 1 L.P. Escape Valve Springs*

*50 assorted Bolts & nuts*

*20 assorted Studs & nuts*

*& Iron of various sizes*

The foregoing is a correct description, For White's Marine Engineering Co. Ltd.

Manufacturer.



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W116-0175

1935 1936  
 Dec 20. 31. Jan 22. 23. 29. Feb 12. 14. 28 Mar. 4. 9. 10. 24. 25. Apr. 6. 7.  
 24. 28. 29. 30 May. 8. 13. 14. 19. 26. 28. Jun 5. 10. 19.  
 (marked) up to 1936

Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits 29 +

Dates of Examination of principal parts - Cylinders 14/12/36 4-3-36 Slides 14/5/36 Covers 14/12/36 14/3/36  
 Pistons 14/5/36 Piston Rods 14/5/36 Connecting rods 14/5/36  
 Crank shaft 30/4/36 Thrust shaft ✓ Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft ✓ Propeller ✓  
 Stern tube ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓  
 Completion of fitting sea connections ✓ Boilers fixed ✓ Engines tried under steam ✓  
 Completion of pumping arrangements ✓ Thickness of adjusting washers ✓  
 Main boiler safety valves adjusted ✓ 2286 & 2287  
 Crank shaft material S.M. Steel Identification Mark CHLP Thrust shaft material ✓ Identification Mark ✓  
 Intermediate shafts, material ✓ Identification Marks ✓ 18-3-36 Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓  
 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 ✓  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel ST. HELENA. Nov. Rpt 1938

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

This Reciprocating Engine has been constructed under special Survey in accordance with the Rules and approved plans, and the materials and workmanship are good.

The Engine has been sent to Sunderland to be installed along with the L.P. Turbine and SR/DR Gearing, in J. L. Thompson's Yard No 57 1/2 ST. MARGARET. The Installation is eligible when satisfactory installed on board, to have the record + LMC, with date when completed

Total Recip. Eng. 920 H.P. x 90 = 828 BHP or SHP  
 SHP = L.P. Turbine = 640 SHP (as per H. Leslie)  
 1468  
 Giving 304. N.H.P. with 3730 sq ft HS @ 230 lbs.

Allocation of Fees, as follows.

Newcastle a/c { 1st Entry, including 5-0-0  
 Recip. Engine 8-14-0  
 L.P. Turbine 10-11-0

London a/c SR/DR Gearing 9-0-0 Sups. £1-5-0

Sunderland a/c { 2 main Boilers 28-5-0  
 Installing including 14-2-0  
 £70-12-0

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for,  
 Special ... LMC £ 70 : 12 : 0 27 JUN 1936  
 Donkey Boiler Fee ... £ 1 : 5 : 0 When received,  
 Travelling Expenses (if any) £ 1 : 5 : 0 6 Aug 1936 H. W.

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 28 AUG 1936

Assigned

See Std J.E. 31892



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