

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office WFD 24 OCT. 1923

Date of writing Report 22nd Oct 1923, When handed in at Local Office 22nd Oct 1923, Port of NEWCASTLE-ON-TYNE
 No. in Survey held at South Shields, Date, First Survey 26 July 1923 Last Survey 18th Oct 1923.
 Reg. Book. 40874 on the S.S. "SARNIA" (Number of Visits 32) Tons ^{Gross} 710.
 Built at South Shields By whom built C. Remondson & Co Ltd. Yard No. 198. When built 1923.
 Engines made at Dundee. By whom made Baggese & Co. Engine No. 118. when made 1923.
 Boilers made at Stockton on Tees By whom made Riley Bros Ltd. Boiler No: 5473 when made 1923.
 Registered Horse Power _____ Owners O. Dorey & Sons. Port belonging to Guernsey.
 Nom. Horse Power as per Rule 106. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 14" x 23" x 38" Length of Stroke 27 Revs. per minute 100. No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals ^{as per rule} ✓ Dia. of Crank pin ✓ Crank webs ^{Mid. length breadth} shrunk ^{Thickness parallel to axis} ✓
^{as fitted} ✓ ^{as fitted} ✓ ^{Mid. length thickness} ✓ ^{Thickness around eye-hole} ✓
 Diameter of Thrust shaft under collars ^{as per rule} ✓ Diameter of Tunnel shaft ^{as per rule} ✓ Diameter of Screw shaft ^{as per rule} ✓ Is the Screw shaft ✓
^{as fitted} ✓ ^{as fitted} ✓ ^{as fitted} ✓
 fitted with a continuous liner the whole length of the stern tube ✓ 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 burned ✓ 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 appliance fitted at the after end of the shaft to permit _____
 of it being efficiently lubricated No. Length of Stern Bush ✓ Diameter of Propeller ✓
 Pitch of Propeller ✓ No. of Blades ✓ State whether Moveable ✓ Total Surface ✓ square feet. _____
 No. of Feed Pumps fitted to the Main Engines ✓ Diameter of ditto ✓ Stroke ✓ Can one be overhauled while the other is at work Yes
 No. of Bilge Pumps fitted to the Main Engines ✓ Diameter of ditto ✓ Stroke ✓ Can one be overhauled while the other is at work Yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 2. 8" x 8" x 8" & 6" x 4" x 6"
 No. and size of Pumps connected to the Main Bilge Line 2. Sizes given above.
 No. and size of Ballast Pumps one. 8" x 8" x 8" No. and size of Lubricating Oil Pumps, including Spare Pump Nil.
 Are two independent means arranged for circulating water through the Oil Cooler ✓ No. and size of suction connected to both Main Bilge Pumps and Auxiliary _____
 Bilge Pumps;—In Engine and Boiler Room 2-2 1/4" & one 2 1/2" Bilge direct. and in Holds, &c. 2-2". Nos 1 & 2 Holds.
one 3" After Peak & one 3" Fore Peak.

No. and size of Main Water Circulating Pump Bilge Suctions one. 3 1/2" No. and size of Donkey Pump Direct Suctions _____
 to the Engine Room Bilges one. 2 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 connections with the sea direct on the skin of the ship Yes. Are they 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 Discharge Pipes 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 are carried through the bunkers Bilge & Ballast Pipes How are they protected Wood ceiling.
 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 Screw 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 258. 1958.
 Forced Draft fitted No. No. and Description of Boilers 2. S.E. Multitubular Working Pressure 180 lbs/10"

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.
 IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? ✓
 PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)

General Pumping Arrangements ✓ Oil fuel Burning Piping Arrangements ✓
SPARE GEAR. State the articles supplied:— 2 top end bolts, 2 bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge valves, a quantity of assorted nuts & bolts & iron of various sizes.

The foregoing is a correct description
Baggese & Co
 Manufacturer.



If not, state whether, and when, one will be sent? Yes.
 Is a Report also sent on the Hull of the Ship? Yes.

1923
 July 26.30. Aug. 1.3.5.9. 11.13.14. 22. 24. 28. Sept. 4. 10. 14. 18. 21. 25. 27. 28. Oct. 2. 3. 4. 5. 8. 9. 10. 11. 15. 16. 17. 18.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits 32

Dates of Examination of principal parts—Cylinders Slides
 Covers Pistons Rods
 Connecting rods Crank shaft Thrust shaft
 Tunnel shafts Screw shaft Propeller 13-8-23.
 Stern tube 1-8-23. Engine and boiler seatings 8-8-23. Engines holding down bolts 11-9-23.
 Completion of pumping arrangements 17-10-23. Boilers fixed 14-9-23. Engines tried under steam 18-10-23.
 Completion of fitting sea connections 11-8-23. Stern tube 3-8-23. Screw shaft and propeller
 Main boiler safety valves adjusted 12-10-23. Thickness of adjusting washers P. Boilers PV = 3/8" SV = 7/16" Start Boilers PV = 3/16" SV = 5/16"
 Material of Crank shaft - Identification Mark on Do. -
 Material of Thrust shaft - Identification Mark on Do. -
 Material of Tunnel shafts - Identification Marks on Do. -
 Material of Screw shafts - Identification Marks on Do. -
 Material of Steam Pipes S.D. Copper. Test pressure 360 lbs/sq" Date of Test 14/9/23.
 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 carrying and burning oil fuel 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. The machinery of this vessel has been constructed under special survey, the materials & workmanship were sound and good. The machinery has been tried out under steam and the boiler safety valves adjusted to the working pressure under steam. The machinery of this vessel in my opinion is eligible to have the notation + LMC 10, 23 & T3. CL entered in the register book.

For missing particulars please see Dundee Rpt No 8448.

Note. The diameter of LP cylinder is now 38 1/2".

Certificate to be sent to

The amount of Entry Fee ... £ : : When applied for,
 Balance of Special Survey fee ... £ 3 : 3 } 23/10/23.
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 1923

L. Peckett.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 26 OCT. 1923
 Assigned + LMB 10.23
 C.L.

CERTIFICATE WRITTEN



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