

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

23 JUL 1930

Date of writing Report 19 When handed in at Local Office 22 JULY 1930 Port of SUNDERLAND
 No. in Survey held at SUNDERLAND Date, First Survey 6th Dec '29 Last Survey 18 July 1930
 Reg. Book. on the S.S. "SONJA" (Number of Visits 19)
 Built at ANTWERP By whom built ANTWERP ENG. CO. LD. Yard No. 114 When built 1930
 Engines made at SUNDERLAND By whom made N.E. MARINE ENG. CO. LD. Engine No. 2740 when made 1930
 Boilers made at SUNDERLAND By whom made N.E. MARINE ENG. CO. LD. Boiler No. 2740 when made 1930
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Rule 242 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____
 Trade for which Vessel is intended _____

ENGINES, &c.—Description of Engines TRIPLE EXPANSION STEAM. Revs. per minute 76
 Dia. of Cylinders 2 1/2" x 35" x 57" Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 11.08" Crank pin dia. 1 1/4" Crank webs Mid. length breadth _____ Thickness parallel to axis 7"
 as fitted 11 1/4" Mid. length thickness _____ shrunk Thickness around eye-hole 5 5/8"
 Intermediate Shafts, diameter as per Rule 10.56" Thrust shaft, diameter at collars as per Rule 11.08"
 as fitted 10 3/4" as fitted 11 1/4"
 Tube Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule 11.85" Is the tube shaft fitted with a continuous liner Yes
 as fitted _____ as fitted 12 1/4" as fitted _____
 Bronze Liners, thickness in way of bushes as per Rule 0.66" Thickness between bushes as per Rule 0.495" Is the after end of the liner made watertight in the
 as fitted 1/16" as fitted 5/8" 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 _____ Length of Bearing in Stern Bush next to and supporting propeller 4'-1 1/4"
 Propeller, dia. 15'-6" Pitch 14'-9" No. of Blades 4 Material C.I. whether Moveable No. Total Developed Surface 75 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 21" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size One 6" x 4" x 6" Pumps connected to the { No. and size _____
 How driven STEAM. Main Bilge Line { How driven _____
 Ballast Pumps, No. and size One 8" x 9" x 8" 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 _____
 In Holds, &c. _____

Main Water Circulating Pump Direct Bilge Suctions, No. and size _____ **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
 No. and size _____ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes _____
 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 _____
 Are all Sea Connections fitted direct on the skin of the ship _____ Are they fitted with Valves or Cocks _____
 Are 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 _____
 Are 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 _____
 What Pipes pass through the bunkers _____ How are they protected _____
 What pipes pass through the deep tanks _____ 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 _____
 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 _____ Is the Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 4044 sq. ft.
 Is Forced Draft fitted No. No. and Description of Boilers 2 Cyl. MULTITUBULAR MARINE TYPE 25R Working Pressure 180 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? _____ 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)
 Superheaters STANDARD APPROVED General Pumping Arrangements _____ Oil fuel Burning Piping Arrangements _____

SPARE GEAR. State the articles supplied:—1. C.I. Propeller, — 1. Screw Shaft — 2 each Top end, Bottom end, & Main
bearing Bolts & nuts — 6 Coupling Bolts & nuts — 2 each Feed & Bilge Pump valves — 2 Safety Valve springs —
1 pair Bottom end brasses — 2 cwt. iron plate — 1 cwt. iron bar — 50 assorted bolts & nuts —
Superheat Spars. 20% jointing rings for elements — 10% steel plugs — 5% studs & nuts — 2% clamps — 2
special spanners for clamp nuts & 2 top-plates — 50% blowers & drain valve lids & seats — Grinding tools
for blowers & drain valves.

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.

John Neill

GENERAL MANAGER

Manufacturer.



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Lloyd's Register Foundation

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1929. Dec. 6. 16. 23. 24. 27. 30. 1930. Jan. 3. 6. 7. 9. 15. 16. 17. Feb. 24. Mar. 24. 25. Apr. 4. May. 13. 16. 19. 20. 21. 23. 29. 30. June. 11. 13. 16. 18. 19. 23. 30. July. 3. 4. 7. 8. 9. 14. 15. 17. 18. = 4

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts—Cylinders H.P. 13.6.30 M.P. 17.1.30 L.P. 13.5.30 Slides 23.5.30 Covers 29.5.30

Pistons 30.5.30 Piston Rods 30.5.30 Connecting rods 24.2.30

Crank shaft 13.6.30 Thrust shaft 13.6.30 Intermediate shafts 23.6.30

Tube shaft ✓ Screw shaft S. 15.7.30 Propeller S. 30.5.30

Stern tube 13.6.30 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

Crank shaft material STEEL Identification Mark 3040 T.D.S. Thrust shaft material STEEL Identification Mark 3016 T.D.S.

Intermediate shafts, material STEEL Identification Marks 3152 T.D.S. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material STEEL Identification Marks S. 3241 T.D.S. Steam Pipes, material STEEL Test pressure 540 1/2 / Date of Test 17-7-30

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 carrying and burning oil fuel 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. This machinery has been built under Special Survey & the materials & workmanship are good. On completion, the Boilers were subjected to a hydraulic test & found satisfactory. It is stated the machinery is to be fitted in the S.S. "SONJA" building by the Antwerp Engineering Co. Ltd. of Antwerp. The machinery is in a good & efficient condition and, in my opinion, is eligible for the notation **+** L.M.C. (with date) when satisfactorily fitted in the vessel.

SUNDERLAND.

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for,
 Special ^{4/5 Fee} ... £ 48 : 8 : 02 2 JULY 1930
 Donkey Boiler Fee ... £ : : : When received,
 Travelling Expenses (if any) £ : : : 27-8-1930

J. DeLett.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 3 OCT 1930
 Assigned See F. E. Rpt.

