

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

JUN 24 1938

Date of writing Report 19 When handed in at Local Office 23 JUNE 1938 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND. Date, First Survey 6<sup>th</sup> Oct 37 Last Survey 10 June 1938  
Reg. Book. (Number of Visits 54)

on the S.S. SYLVIA BEALE Tons Gross 1040 Net 572

Built at Sunderland By whom built H.P. Austin & Sons, Ltd. Yard No. 348 When built 1938

Engines made at Sunderland By whom made H.E. Marine Eng. Co. Ltd. Engine No. 2905 When made 1938

Boilers made at Sunderland By whom made H.E. Marine Eng. Co. Ltd. Boiler No. 2905 When made 1938

Registered Horse Power Owners Shepperson Clark & Co. Ltd. Port belonging to London

Nom. Horse Power as per Rule 141 ✓ Is Refrigerating Machinery fitted for cargo purposes no ✓ Is Electric Light fitted yes ✓

Trade for which Vessel is intended coal

ENGINES, &c.—Description of Engines Triple Expansion with poppet valves H.P. & I.P. Revs. per minute

Dia. of Cylinders 14 1/2" 14 1/2" 24" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 8 5/8" Crank pin dia. 8 3/8" Crank webs Mid. length breadth — shrunk Thickness parallel to axis 5 3/16" 5 3/16" (44) ✓  
as fitted 8 5/8" Mid. length thickness — Thickness around eye-hole 4 3/16" 4 3/16" (44) ✓

Intermediate Shafts, diameter as per Rule 8 1/8" Combined with Thrust shaft, diameter at collars as per Rule 8 1/2" as fitted 8 1/2" ✓

Tube Shafts, diameter as per Rule — Screw Shaft, diameter as per Rule 9" Is the {tube} shaft fitted with a continuous liner {yes} ✓  
as fitted — as fitted 9" {screw}

Bronze Liners, thickness in way of bushes as per Rule 9 1/2" Thickness between bushes as per Rule 12" Is the after end of the liner made watertight in the propeller boss yes ✓  
as fitted 9 1/2" as fitted 12" 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 no If so, state type in sketch Length of Bearing in Stern Bush next to and supporting propeller 3' 0" ✓

Propeller, dia. 11' 7 1/2" Pitch 11' 6" No. of Blades 4 Material C.I. whether Moveable not Total Developed Surface 48 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 1' 3" Can one be overhauled while the other is at work yes ✓

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 1' 3" Can one be overhauled while the other is at work yes ✓

Feed Pumps { No. and size 1. 6 x 4 1/4" x 6" Pumps connected to the { No. and size 1. 9" x 10" x 10" /  
How driven Steam Main Bilge Line How driven

Ballast Pumps, No. and size 1. 9" x 10" x 10" 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 Eng. Rm. Well. 1 & 2 1/2" dia. ✓ Bkr. Rm. Well. 1 & 3" dia. ✓

In Pump Room — In Holds, &c. aft Hold. 2 1/2" dia, one port & one starboard. fore hold 2 1/2" dia. one port & one starboard.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1. 5" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1. 3 1/2" 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 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 hold suction ✓ How are they protected steel plating ✓

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 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 — Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 2113 ft<sup>2</sup> ✓

Is Forced Draft fitted yes No. and Description of Boilers one cylindrical multibore Working Pressure 200 lbs. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes ✓

IS A DONKEY BOILER FITTED? yes ✓ If so, is a report now forwarded? yes ✓

Is the donkey boiler intended to be used for domestic purposes only no ✓

PLANS. Are approved plans forwarded herewith for Shafting 3/5/37 Main Boilers yes ✓ Auxiliary Boilers — Donkey Boilers yes ✓  
(If not state date of approval)

Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements —

## SPARE GEAR.

Has the spare gear required by the Rules been supplied yes ✓

State the principal additional spare gear supplied

one propeller for contracts nos 2903/4/5.  
6 condenser tubes and 50 journals.

The foregoing is a correct description,  
FOR THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

A. J. Benz  
GENERAL MANAGER

Manufacturer.



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003162-003174-0172



Dates of Survey while building  
 During progress of work in shops - - 1937 Oct. 6. Nov. 4 Dec. 7 1938 Jan. 13. 18. 20 Feb. 4. 7. 9. 14. 28 Mar. 7. 9. 10. 11. 14.  
 21. 25. 29 Apr. 1. 7. 8. 11. 12. 13. 14. 19. 20. 21. 22. 25. 26. 27. 29 May 2. 3. 4. 5. 6. 9. 11. 12. 13. 18. 19. 23. 25. 26. 27  
 During erection on board vessel - - - 30. 31 June 2. 8. 10  
 Total No. of visits 54

Dates of Examination of principal parts—Cylinders 12/4/38 Slides 13/5/38 Covers 19/5/38  
 Pistons 5/5/38 Piston Rods 27/4/38 Connecting rods 6/5/38  
 Crank shaft 26/4/38 Thrust shaft 9/5/38 Intermediate shafts —  
 Tube shaft — Screw shaft 9/5/38 Propeller 13/5/38  
 Stern tube 13/5/38 Engine and boiler seatings 13/5/38 Engines holding down bolts 2/6/38  
 Completion of fitting sea connections 13/5/38  
 Completion of pumping arrangements 10/6/38 Boilers fixed 27/5/38 Engines tried under steam 2/6/38  
 Main boiler safety valves adjusted 2/6/38 Thickness of adjusting washers 1/2" port, 7/16" 5th, 5/16" 6th  
 Crank shaft material Steel Identification Mark 533 Thrust shaft material Steel Identification Mark 8  
 Intermediate shafts, material — Identification Marks — Tube shaft, material — Identification Mark —  
 Screw shaft, material Steel Identification Mark 7 Steam Pipes, material Steel Test pressure 19/5/38 to 30/5/38  
 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 not required  
 Is this machinery duplicate of a previous case yes If so, state name of vessel "ELEANOR BROOKE"  
 General Remarks (State quality of workmanship, opinions as to class, &c.

The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good.

The machinery has been efficiently fitted on board and tried under working conditions with satisfactory results and is eligible, in my opinion, for the

NOTATION # 6.38.

L. R. Home

The amount of Entry Fee ... £ 3 : : When applied for,  
 Special ... £ 35 : 5 : 22 JUNE 1938  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 30. 6 1938

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 28 JUN 1938

Assigned

+ Limb. 6.38  
 J.D. G.  
 Spt.



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