

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office NOV 3 1937

Date of writing Report 10 When handed in at Local Office 2 NOV 1937 Port of SUNDERLAND

No. in Survey held at SUNDERLAND Date, First Survey Oct 20 '37 Last Survey Oct 28 1937  
Reg. Book. on the GLYNWOOD (Number of Visits 69)

Built at Sunderland By whom built J.P. Austin & Son Ltd Yard No. 344 Tons { Gross 1177 Net 659 }  
Engines made at Sunderland By whom made N.E. Harwin Eng. Co. Ltd Engine No. 2885 When built 1937  
Boilers made at Sunderland By whom made N.E. Harwin Eng. Co. Ltd Boiler No. 2885 When made 1937

Registered Horse Power Owners W. France Fenwick & Co. Ltd Port belonging to London  
Nom. Horse Power as per Rule 149 148 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, Reppet valves HP & I.P. Revs. per minute 95  
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 appd. Crank pin dia. 8 3/4" Crank webs Mid. length breadth shrunk Thickness parallel to axis 5 3/8"  
as fitted 8 3/4" Mid. length thickness shrunk Thickness around eye-hole 4 9/16" 5/16" dia.  
Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule appd. 4 3/8" dia.  
as fitted Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule appd. 9 1/4" Is the { tube } shaft fitted with a continuous liner { screw } yes  
Bronze Liners, thickness in way of bushes as per Rule appd. Thickness between bushes as per Rule appd. 1 1/16" Is the after end of the liner made watertight in the 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  
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 Length of Bearing in Stern Bush next to and supporting propeller 3'-7"

**Propeller**, dia. 11'-7 1/2" Pitch 12'-1 1/2" No. of Blades 4 Material C.I. whether Moveable not Total Developed Surface 48.5 sq. feet  
**Feed Pumps** worked from the Main Engines, No. 2 Diameter 3" Stroke 15" Can one be overhauled while the other is at work yes  
**Bilge Pumps** worked from the Main Engines, No. 2 Diameter 3" Stroke 15" Can one be overhauled while the other is at work yes  
**Feed Pumps** { No. and size one, 7" x 5" x 12" Pumps connected to the { No. and size one, 10" x 9" x 24" }  
How driven Steam Main Bilge Line How driven Steam  
**Ballast Pumps**, No. and size one, 10" x 9" x 24" 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. Room one @ 2 1/2" dia. Boiler Room one @ 2 1/2" dia. port & one @ 1 1/2" std.  
In Pump Room In Holds, &c. nos. 1 & 2, 2 1/2" dia. one port one standard; nos. 3, 2 1/2" dia. one port & one standard.

**Main Water Circulating Pump Direct Bilge Suctions**, No. and size one @ 5" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one @ 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 Main Injection on seaward 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 bilge suction 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 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 5) Total Heating Surface of Boilers 2180 sq ft  
Is Forced Draft fitted yes No. and Description of Boilers Two cylindrical multitubular Working Pressure 220 lbs.  
**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 11/14/36 Main Boilers yes Auxiliary Boilers Donkey Boilers  
(If not state date of approval)  
Superheaters no 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.  
12 Lanchester tubes.  
48 " forules.  
1 safety valve spring.  
3 plain boiler tubes.  
1 set filling media and cartridges.

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

Archd. J. Berry  
MANAGER

Manufacturer.



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Lloyd's Register  
Foundation

Im. 52. T. 101 K. - The words which do not apply should be deleted. If not, state whether, and when, one will be sent

1937, Apr. 2, 6, 8, 19, 23, 30, May 1, 6, 7, 19, 21, 24, 27, 28, June 1, 7, 14, 15, 17, 18, 22, 25, 28, 29,  
 During progress of work in shops -- July 2, 5, 6, 7, 8, 9, 10, 12, 15, 16, 19, 20, 22, 23, 27, 28, 29, 30, Aug 4, 5, 9, 16, 17, 19, 31, Sep 1, 6,  
 Dates of Survey while building 8, 9, 14, 17, 21, 22, 24, 30, Oct. 13, 14, 15, 16, 19, 21, 25, 28, 30.  
 During erection on board vessel --  
 Total No. of visits 69

Dates of Examination of principal parts—Cylinders 7/7/37 Slides 22/7/37 Covers 9/8/37  
 Pistons 7/7/37 Piston Rods 10/7/37 Connecting rods 16/7/37  
 Crank shaft 6/7/37 Thrust shaft 6/7/37 Intermediate shafts —  
 Tube shaft — Screw shaft 21/9/37 Propeller 21/9/37  
 Stern tube 24/9/37 Engine and boiler seatings 22/9/37 Engines holding down bolts 15/10/37  
 Completion of fitting sea connections 14/9/37  
 Completion of pumping arrangements 28/10/37 Boilers fixed 15/10/37 Engines tried under steam 19/10/37  
 Main boiler safety valves adjusted 19/10/37 Thickness of adjusting washers Post 9/32" flat, 4/16" edge, 1/4" Super heat.  
 Crank shaft material Steel Identification Mark 9779 Thrust shaft material Steel Identification Mark 9822  
 Intermediate shafts, material — Identification Marks — Tube shaft, material — Identification Mark —  
 Screw shaft, material Steel Identification Mark 9822 Steam Pipes, material Steel Test pressure 660 lb Date of Test 14/15.10.37

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 no  
 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 constructed and fitted on board 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 tried under working conditions with satisfactory results and is eligible, in my opinion, for the

NOTATION \* L.M.S. 10/37.

The amount of Entry Fee ... £ 3 : : When applied for,  
 Special ... £ 37 : 5 : 2 NOV. 1937  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 4/2 1937

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 9 NOV 1937

Assigned + Lamb 10.37  
J.D. C.



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 BOTTOM of S  
 BILGE Stra  
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SUNDERLAND

Certificate to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

Rpt.  
 Date of  
 No. in Reg. Boo  
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