

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

FEB-2-1938

Date of writing Report

19

When handed in at Local Office

11/2/1938 Port of NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Wallsend

Date, First Survey 16 June

Last Survey 27 Jan 1938.

(Number of Vests 43.)

on the

SS "BRATED"

Built at Burntisland

By whom built Burntisland Shipbuilding Co. Ltd.

Yard No. 217

Tons { Gross
Net 605
When built 1938

Engines made at Wallsend

By whom made North Eastern Marine Eng. Co.

Engine No. 2884

When made 1938

Boilers made at Wallsend

By whom made North Eastern Marine Eng. Co.

Boiler No. 2884

When made 1938

Registered Horse Power

Owners Hudson S. S. Co. Ltd.

Port belonging to London

Nom. Horse Power as per Rule 115

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines

Triple Expansion

Revs. per minute 98/100

Dia. of Cylinders 18 1/2" x 23" x 38"

Length of Stroke 27"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7.75"

Crank pin dia. 7 3/8"

Crank webs Mid. length breadth 18 1/2"

Thickness parallel to axis 4 3/8"

Intermediate Shafts, diameter as per Rule 7.75"

7.38"

Thrust shaft, diameter at collars as per Rule 7.75"

7.38"

Tube Shafts, diameter as per Rule

Screw Shaft, diameter as per Rule 8.29"

8.58"

Is the { tube
screw } shaft fitted with a continuous liner { Yes

Bronze Liners, thickness in way of bushes as per Rule 9 1/16"

27/32"

Thickness between bushes as per Rule 1 3/32"

1 3/16"

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 In one length

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 fits full length

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 40"

Propeller, dia. 11-0"

Pitch 11-1/2" Various

No. of Blades 4

Material Bronze whether Malleable No

Total Developed Surface 38" sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 2 1/4"

Stroke 15"

Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter 2 1/4"

Stroke 15"

Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size 1 - 7 x 4 1/2 x 8"

How driven Steam

Pumps connected to the { No. and size One - 9 x 11 x 10"

Main Bilge Line { How driven Steam

Ballast Pumps, No. and size One 9 x 11 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 1-2 1/2" aft. + 2 @ 2 1/2"

In Holds, &c. No 1 - 2 @ 2 1/2" No 2 - 2 @ 3"

In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-4"

Independent Power Pump Direct Suctions to the Engine Room Bilges.

No. and size One 6"

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 Both

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 none

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 No tunnel. No. Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S)

Total Heating Surface of Boilers 2067 sq. ft.

Is Forced Draft fitted No

No. and Description of Boilers 1. Single ended, 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?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting (If not state date of approval)

Main Boilers Yes

Auxiliary Boilers

Donkey Boilers

Superheaters

General Pumping Arrangements

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 2 pair top end braces 1 pair of bottom end braces, 1 set of pads for thrust shaft, 1 set each of HP piston rings & piston valve rings, spare coach springs for L.P. piston; spares for donkey pumps.

The foregoing is a correct description,

Manufacturer.

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

John Newell

Director & General Manager

013260-013267-0137

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Lloyd's Register
Foundation

1937
 June 16 28 July 2 5 Sep 7 20 23 27 29 Oct 12 14 28 Nov 1 3 4 5 8 10 15
 16 17 18 19 22 23 24 26 Dec 1 6 8 9 13 30
 1938
 Jan 4 5 6 10 11 14 19 21 26

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

43.

Dates of Examination of principal parts—Cylinders 8-11-37 Slides 6-12-37 Covers 8-11-37
 Pistons 6-12-37 Piston Rods 6-12-37 Connecting rods 29-9-37
 Crank shaft 12-10-37 Thrust shaft 5-7-37 Intermediate shafts —
 Tube shaft — Screw shaft 24-11-37 Propeller 1-11-37
 Stern tube 26-11-37 Engine and boiler seatings 4-1-38 Engines holding down bolts 11-1-38
 Completion of fitting sea connections 15-12-37
 Completion of pumping arrangements 26-1-38 Boilers fixed 11-1-38 Engines tried under steam 19-1-38
 Main boiler safety valves adjusted 19-1-38 Thickness of adjusting washers P 5/16" S. 3/8"
 Crank shaft material Steel Identification Mark 12-10-37 J.E.S. Thrust shaft material Steel Identification Mark 5-7-37 W.N.
 Intermediate shafts, material — Identification Marks — Tube shaft, material — Identification Mark —
 Screw shaft, material Steel Identification Mark 24-11-37 Steam Pipes, material S.D. Steel Test pressure 660 lbs Date of Test 14-1-38
 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 —
 Is this machinery duplicate of a previous case Yes If so, state name of vessel "Upminster" Report No 91919

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under Special Survey, in accordance with the Rules and approved plans. The workmanship and materials are good. It has been fitted on board in an efficient manner, tried under working conditions and found satisfactory and is eligible in my opinion to be classed with record of + L.M.C 1-38. T.S. CL. ✓

The amount of Entry Fee ... £ 3 : 0 :
 Special ... £ 28 : 15 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :

When applied for,
 FEB 1938
 When received,
 4 1/2 1938

Committee's Minute

Assigned + Inc 1.38
 Ch. 153 22016

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



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 Foundation