

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

21 SEP 1945

Date of writing Report 16-9-45

When handed in at Local Office

19/9/45 Port of

NEWCASTLE-ON-TYNE.

No. in Survey held at Wallsend

Date, First Survey (1945) Jan 31 Last Survey 24-8-1945.

Reg. Book.

(Number of Visits 32)

Gross 7319.37

Net

on the 4/5 "EMPIRE DOMINICA"

Built at Sunderland By whom built Short Bros

Yard No. 485.

When built 1945-8mo.

Engines made at Glasgow

By whom made Duncan Stewart & Co.

Engine No. 149

When made 1942-10mo

Boilers made at Barrow in Furness

By whom made Vickers-Armstrong Ltd

Boiler No. 851

When made 1944-9mo

Registered Horse Power

Owners

Min. of War Transport.

Port belonging to

Nom. Horse Power as per Rule 510.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Ocean going

ENGINES, &c.—Description of Engines 3 Cyl. Triple Expr.

Revs. per minute 76

Dia. of Cylinders 24.5.39.70

Length of Stroke 48"

No. of Cylinders 3.

No. of Cranks 3.

Crank shaft, dia. of journals

as per Rule See GLASGOW RPT 66182 dated 1942.

Thrust shaft, diameter at collars

as per Rule 13.98.

Intermediate Shafts, diameter

as fitted 13.32

Tube Shafts, diameter

as fitted 13.98

Screw Shaft, diameter

as fitted 14.84

Bronze Liners, thickness in way of bushes

as per Rule 24/32

propeller boss

as fitted 13/16

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

as fitted 21/32

If two liners are fitted, is the shaft lapped or protected between the liners

as fitted 21/32

If an approved Oil Gland or other appliance fitted at the after end of the tube

as fitted 21/32

Length of Bearing in Stern Bush next to and supporting propeller

as fitted 21/32

Propeller, dia. 18.3"

Pitch 15.6"

No. of Blades 4

Material C. Iron

Whether Moveable No

Total Developed Surface 98.5 sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 4

Stroke 27"

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4

Stroke 27"

Can one be overhauled while the other is at work

Yes

No. and size 24.7 x 9.5 x 21"

How driven by Steam

Pumps connected to the Main Bilge Line

No. and size 24.7 x 9.5 x 21"

How driven by Steam

Ballast Pumps, No. and size one of 10.5 x 13 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 1 of 3" Pade ER; 2 of 3" in B.Rm; 1 of 3" in Thrust Room; 1 of 2.5" in Funnel well

In Pump Room

In Holds, &c. 2 of 3" in each hold

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 9" on Port Side

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size 1 of 5" on Starboard Side

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 fixed sufficiently high on the ship's side to be seen without lifting the stakehold plates

Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

What Pipes pass through the bunkers

NIL

What pipes pass through the deep tanks

NIL

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

Yes

Is it fitted with a watertight door

No

worked from

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

Total Heating Surface of Boilers 7248 sq. ft

Which Boilers are fitted with Forced Draft all

Which Boilers are fitted with Superheaters all

No. and Description of Boilers 3. S.B. (spr.)

Working Pressure 220 lb

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes. Barrow Rpt No 3007.

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting Standard B Type

(If not state date of approval)

Main Boilers 11-9-41 (Barrow)

Auxiliary Boilers

Donkey Boilers

Superheaters

General Pumping Arrangements In machy space 11-4-45 NEM. 3109

fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State the principal additional spare gear supplied

as specified.

Continuation of Machinery of Ys EMPIRE DOMINICA.

During progress of work in shops - - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits 32

(1945) Jan. 31 Feb. 2, 15, 21 Mar. 2, 5, 7, 28, 29, Apr. 5, 6, 10, May 2, 28 June 1, 7, 8, 13, 15, 18, 20 July 9, 10, 12, 16, 20, 31 Aug. 1, 10, 23, 24

Dates of Examination of principal parts—Cylinders See Glasgow Rpt Slides in 66182 of Oct 1942 Covers
 Pistons ✓ Piston Rods ✓ Connecting rods ✓
 Crank shaft ✓ Thrust shaft 7-3-45 Intermediate shafts 7-3-45 & 6-4-45
 Tube shaft ✓ Screw shaft 7-3-45 In works 28-4-45
 Stern tube at ship. 10-4-45 sld Engine and boiler seatings 20-6-45 Propeller at ship 13-6-45 rwc.
 Completion of fitting sea connections 10-4-45 sld. Engines holding down bolts 20-7-45
 Completion of pumping arrangements 10-8-45 Boilers fixed 20-7-45 Engines tried under steam 10-8-45 + 24-8-45
 Main boiler safety valves adjusted 10-8-45 Thickness of adjusting washers PORT P.V. SV. SPT CR RV. SV. SPT STB RV. SV. SPT
 Crank shaft material 2. Stl Identification Mark L.C.D. 15-4-42 Thrust shaft material 7. Stl American sld. Identification Mark HT. 10891-1
 Intermediate shafts, material 7. Stl Identification Marks (see Thrust shaft) LLOYDS 3440 C.P. and 5 lengths from U.S.A. SEE LIST BELOW.
 Screw shaft, material 7. Stl Identification Mark 22-9-41 AN 7-3-45 Steam Pipes, material SD. Stl Test pressure 660 lb Date of Test 2-5-45
 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 desired.
 Is this machinery duplicate of a previous case Yes If so, state name of vessel Empire Nairobi Short Bros. 484
 General Remarks (State quality of workmanship, opinions as to class, &c.) also EMPIRE STUART Short Bros 479
 NE Man. No 3109
 NE Man. No 3062

Intermediate Shafts Nos 5, 6, 7, 8 + 9 from forward are American Steel tested by U.S.N. and are marked as follows:

NE Man Shaft No + IDENTIFICATION MARKS
 No 5 - - - - NA 683 HT 21800-4 SET 13. No 2.
 No 6 - - - - NA 682 HT 10625-4 " 13 " 2.
 No 7 - - - - NA 684 HT 10903-2 " 13 " 3.
 No 8 - - - - NA 680 HT 20528-2 " 13 " 2.
 No 9 - - - - NA 681 HT 21767-4 " 13 " 2.
 THRUST SHAFT - - - - HT. 10891-1 " 13 " 4

These shafts were check tested for Brinell Hardness by POLDI MACHINE with satisfactory results as shown on Results of Test Sheet.

The machinery has been efficiently fitted on board by NE Man. Wellman under their ord no 3111. & the materials and workmanship are good

The machinery was satisfactorily tested under working conditions at NEM. Quay and is eligible, in my opinion, for record + LMC. 8.45 and the notations Cl. 3 SB. (Spt) 200 lbs.

NEWCASTLE-ON-TYNE

The amount of Entry Fee ... £ charged at 4/6
 Special 5 of 100-10 £ 20! 2/1
 plus 25% for Spec 5 0/6
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 20 SEP 1945
 When received, 19

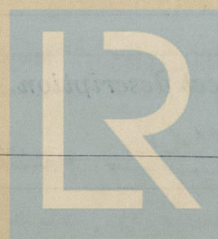
A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Fri. 28 SEP 1945

Assigned + LMC 8.45

Spt. F.D. C.L.



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