

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19th 1945 When handed in at Local Office 8. 11. 1945 Port of NEWCASTLE-ON-TYNE Received at London Office 2. 11. 45

No. in Survey held at Wallsend Reg. Book Date, First Survey (1943) Nov. 5th Last Survey 31st Oct 1945 (Number of Visits 90)

on the S/S "EMPIRE HONDURAS"

Built at Sunderland By whom built Short Bros. Yard No. 486 Tons { Gross Net } When built 1945-10

Engines made at ditto By whom made Geo. Clark & Co (1938) Ltd Engine No. 3054 When made 1943

Boilers made at Wallsend By whom made N.E. Mar. Eng. Co (1958) Ltd Boiler No. 3081 When made 1945

Registered Horse Power Owners Min. of War Transport Port belonging to Sunderland

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 Cylr. Triple Expn ✓

Dia. of Cylinders 24 1/2, 37, 70 Length of Stroke 48 No. of Cylinders 3 Revs. per minute 76 ✓

as per Rule See Sunderland Rpt. No 33850 No. of Cranks 3 ✓

Crank shaft, dia. of journals as fitted 13.32" Mid. length breadth shrunk Thickness parallel to axis 13.98" ✓

Intermediate Shafts, diameter as per Rule 13.32" Mid. length thickness shrunk Thickness around eye-hole 14 1/4" ✓

as fitted 13.58" Thrust shaft, diameter at collars as per Rule 13.98" as fitted 14 1/4" ✓

Tube Shafts, diameter as per Rule 14.84 as fitted 15 1/4" ✓ Is the screw shaft fitted with a continuous liner Yes ✓

Screw Shaft, diameter as per Rule 24 3/32" as fitted 13 1/16" ✓ Thickness between bushes as per Rule 18/32" as fitted 21/32" ✓

Bronze Liners, thickness in way of bushes as per Rule 13 1/16" as fitted 13 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 in one piece ✓

If two liners are fitted, is the shaft lapped or protected between the liners a tight fit. ✓

Shaft: No ✓ If so, state type Is an approved Oil Gland or other appliance fitted at the after end of the tube ✓

Propeller, dia. 18 1/2" Pitch 15 1/6" No. of Blades 4 Material C. Iron Length of Bearing in Stern Bush next to and supporting propeller 5 1/2" ✓

Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes ✓

Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes ✓

Indept. Feed Pumps No. and size 2 of 7 1/2 x 9 1/2 x 21 1/2 G.S.P. 9 1/2 x 7 x 21 1/2 Pumps connected to the Main Bilge Line { No. and size G.S.P. 9 1/2 x 7 x 21 1/2; Ball. P. 250 tons/hr; 2 of 4 1/2 x 26 } How driven by steam ✓

Ballast Pumps, No. and size one 10 1/2 x 13 x 24" Lubricating Oil Pumps, including Spare Pump, No. and size 2 of 3" in each hold. ✓

Are two independent means arranged for circulating water through the Oil Cooler Yes ✓

Bilge Pumps:—In Engine and Boiler Room 1 of 3" P. side ER; 2 of 3" in B. Rm; 1 of 3" in Thrust Recess; 1 of 2 1/2" in Tunnel Well. ✓

In Pump Room Yes ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 9" on P. side ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 of 5" on Sth side E. Rm. ✓

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 stowchold 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 ✓

MAIN BOILERS, &c.—(Letter for record S. ✓) Total Heating Surface of Boilers 7248 sq. ft. ✓

Which Boilers are fitted with Forced Draft all ✓

No. and Description of Boilers 3. S.B. (Spt) ✓ Which Boilers are fitted with Superheaters all ✓

Working Pressure 220 lb. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓

IS A DONKEY BOILER FITTED? No ✓

Can the donkey boiler be used for domestic purposes only Yes ✓

If so, is a report now forwarded? Yes ✓

PLANS. Are approved plans forwarded herewith for Shafting Standard B Type ✓ Main Boilers 17-11-43 ✓ Auxiliary Boilers Yes ✓ Donkey Boilers Yes ✓

(If not state date of approval)

Superheaters NEM. Standard ✓ General Pumping Arrangements 11-4-45 ✓ Oil fuel Burning Piping Arrangements Yes ✓

SPARE GEAR.

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

State the principal additional spare gear supplied As per specification

3 original & casting reports; 1 copy special cert; 4 tests of shafting from Sld. Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent. NOTE.—The words which do not apply should be deleted.

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

John Neill

DIRECTOR. Manufacturer.



During progress of work in shops - - (1943) Nov. 5, (1944) Mar. 3, 6, Apr. 4, 28 July 31 Aug. 15, Dec. 5, 13 (1945) Jan. 24, 25, 26, 30,  
 Feb. 6, 21, 22, 26, 28 Mar. 12, 16 Apr. 10, 19, 27 May 12, 4, 10, 11, 23, 25 June 2, 4, 8, 12, 14, 15, 18, 19, 20,  
 21, 23, 27 July 2, 4, 5, 6, 11, 12, 13, 16, 18, 17, 20, 31, Aug. 9, 13, 20, 22, 23, 27, 28, 29, 30, 31 Sept. 3, 12, 13,  
 17, 18, 19, 20, 21, 24, 25, 27, 28 Oct. 1, 2, 12, 19, 22, 23, 25, 30, 31  
 During erection on board vessel - - -  
 Total No. of visits 90

Dates of Examination of principal parts—Cylinders See Sld. Rpt. no. 33850. Slides Covers  
 Pistons Piston Rods Connecting rods  
 Crank shaft Thrust shaft 14-6-45 Intermediate shafts 14-6-45  
 Tube shaft at works 8-6-45 Screw shaft 24-8-45 Propeller 29-8-45  
 Stern tube at Ship 18-6-45 Sld Engine and boiler seatings 31-8-45 & 13-9-45 Engines holding down bolts 13-9-45  
 Completion of fitting sea connections 18-6-45 Sld  
 Completion of pumping arrangements 1-10-45 Boilers fixed 13-9-45 Engines tried under steam at Quay 2-10-45. at Sea 31-10-45.  
 Main boiler safety valves adjusted 1-10-45 Thickness of adjusting washers PORT BLR. CENTAL BLR. STAR BLR. PORT V. 3/8. 3/8. 3/8. STAR V. 3/8. 3/8. 3/8. SPT. V. 1/4. 1/4. 1/4.  
 Crank shaft material F. STL Identification Mark N° 3054 WHF 4/1/43. Thrust shaft material F. STL Identification Mark NA 340. HT. 4A. 4553. SET. 3. N° 4.  
 Intermediate shafts, material F. STL Identification Marks See list below and LLOYD'S 3464 CP. Identification Mark HT. 30827. SET. 3. N° 2.  
 Screw shaft, material F. STL Identification Mark NA 338. Steam Pipes, material S.D. STL Test pressure 660 LBS Date of Test 19-7-45. 10-25-9-45.  
 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 Nov. Rpt 102835.  
 General Remarks (State quality of workmanship, opinions as to class, &c.

The Shafting except No. 4. Closing length of Inter. shafting, is American Steel, marked as follows,  
 Thrust Shaft: NA 340, HT 4A 4553. Set 3. N° 4.  
 Intermediate Shaft N° 4: Lloyd's 3464 CP. 12-3-45.  
 " " N° 5: NA 338. HT 30837 Set 3. N° 2.  
 " " N° 6: NA 334. HT. 30857 Set 3. N° 2  
 " " N° 7: NA 335. HT. 30860. Set 3. N° 2.  
 " " N° 8: NA 336. HT 30812. Set 3. N° 2.  
 Screw Shaft NA 338. HT. 30837. Set 3. N° 2.

These Shafts were "Brinell"  
 Check tested with satisfactory  
 results as shown on  
 Test Sheet

The machinery has been constructed and installed on board  
 under special survey, in accordance with the approved plans, specifications  
 and the Society's Rules, and the materials and workmanship are good.  
 The machinery was afterwards tested under working conditions  
 at quay, and at sea with satisfactory results, and is eligible,  
 in my opinion, for record LMC. 10.45, and the notations  
 3 SB (Spt), 220 lbs. CL.

The amount of Entry Fee ... £ : When applied for,  
 Special 3/5 of £ 100-10. £ 60-6-0 112 NOV 1945  
 + 25% for Spec. Supervisee 15-1-6  
 Donkey Boiler Fee ... £ : When received,  
 Travelling Expenses (if any) £ : 19

A Watt  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... FRI. 30 NOV 1945  
 Assigned ... + LMC 10.45  
 Spt. F.D. C.L.



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