

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 11 AUG 1932

Date of writing Report 30<sup>th</sup> July 1932 When handed in at Local Office 10 Port of West Hartlepool  
 No. in Survey held at West Hartlepool Date, First Survey 6-11-31 Last Survey 2-8-1932  
 Reg. Book. on the S.S. "KEPWICK HALL" (Number of Visits 112)  
 Built at West Hartlepool By whom built Wm Gray & Co Ltd Yard No. 1052 When built 1932  
 Engines made at West Hartlepool By whom made Central Marine Engine No. 1052 when made 1932  
 Boilers made at ditto By whom made Engine Works Boiler No. 1052 when made 1932  
 Registered Horse Power 467 Owners West Hartlepool Strm. Nav. Co Ltd. Port belonging to West Hartlepool  
 Nom. Horse Power as per Rule 467 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 Quadruple expansion ("Quadropod") Revs. per minute 78  
 Dia. of Cylinders 20.28 1/2 4 1/2 6 1 Length of Stroke 48 No. of Cylinders 4 No. of Cranks 4  
 Crank shaft, dia. of journals as per Rule 13.133 Crank pin dia. 13 3/8 Crank webs Mid. length breadth 19 Thickness parallel to axis 8 1/4  
 as fitted 13 3/8 Mid. length thickness 8 1/4 Thickness around eye-hole 5 3/8  
 Intermediate Shafts, diameter as per Rule 12.507 Thrust shaft, diameter at collars as per Rule 13.133  
 as fitted 12 5/8 as fitted 13 3/8  
 Tube Shafts, diameter as per Rule 14.007 Screw Shaft, diameter as per Rule 14 1/2 Is the shaft fitted with a continuous liner? yes  
 as fitted 14 1/2 as fitted 14 1/2  
 Bronze Liners, thickness in way of bushes as per Rule 3 1/4 Thickness between bushes as per Rule 5.45 Is the after end of the liner made watertight in the  
 as fitted 3 1/4 as fitted 9/16 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 yes  
 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 fitting  
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft no If so, state type oil gland Length of Bearing in Stern Bush next to and supporting propeller 62  
 Propeller, dia. 18-0 Pitch 15-6 No. of Blades 4 Material bronze whether Moveable no Total Developed Surface 104 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 26 Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 26 Can one be overhauled while the other is at work yes  
 Feed Pumps { No. and size 2 main 9 1/2 x 7 x 24 Pumps connected to the { No. and size 2 main 4 x 26 1 Ballast 9 1/2 x 10  
 How driven Steam 1 G.S. 7 1/2 x 5 x 6 duplex Main Bilge Line { How driven Steam duplex  
 Ballast Pumps, No. and size 1. 9 1/2 x 10 1/2 x 10 duplex Lubricating Oil Pumps, including Spare Pump, No. and size 1  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 4 of 3" dia. Tunnel 1 of 2 1/2" dia.  
 Holds, &c. No 1. 2 of 3" No 2. 2 of 3" No 3. 2 of 3" Deep tank 2 of 2 1/2"  
No 4 2 of 2 1/2 No 5 2 of 3" dia.  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 8" dia Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 of 5" 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 stowhold 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  
 Do the Pipes pass through the bunkers Forward suction How are they protected Under lumber boards  
 Do the pipes pass through the deep tanks none Have they been tested as per Rule yes  
 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 yes worked from main deck

MAIN BOILERS, &c.—(Letter for record 3) Total Heating Surface of Boilers 6811 square feet  
 Forced Draft fitted yes No. and Description of Boilers 3 single ended Working Pressure 260 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes  
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes  
 Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:—2 Bolts & nuts for counce. rods top ends. 2 ditto for  
bottom ends. 2 ditto for main bearings. 1 set coupling bolts & nuts.  
1 set H.P. piston rings & springs. 1 set valves for feed & bilge pumps. 6 pads  
for Michell thrust block. 1 propeller shaft 1 propeller.  
complete dup. valve, complete with cage, spindle, spring &c, for each cylinder.  
1 set springs for same of each kind 10 in all. 2 plunger springs of each kind 4 in all.  
4 valve spindles of each kind 8 in all. 3 ball races & 5 bushes for same.  
Various spare parts for fan engine. 1 H.P. & 1 L.P. valve spindle plunger  
Bolts, nuts and iron assorted. complete, & brass.

The foregoing is a correct description,  
 FOR THE CENTRAL MARINE ENGINE WORKS,  
 (W. Gray & Co. Ltd.)

*W. Gray*

Manufacturer.

MANAGING DIRECTOR C.M.E.W.



© 2020  
 Lloyd's Register  
 Foundation  
 W1183-0091

Car  
 11-8-32

144  
 65

1931. Feb. 6-13-18-20-23-26-28. Dec. 25-29-31 - (1932) Jan. 4-7-11-13-14-15-18-19-20-21-25-27. Feb. 1-2  
 During progress of work in shops --- 3-5-8-9-11-12-15-16-18-19-22-23-24-25-26-29. Mar. 1-2-3-4-7-8-9-10-11-14-15-17-18-21-22-23-24-30-31  
 Dates of Survey while building During erection on board vessel --- Apr. 1-4-11-14-19-20-21-26-27-28-29 May 2-3-4-5-6-9-10-11-13-14-15-19-20-23-24-25-26-27-31. June 1-2-6  
 P-9-10-13-14-15-16-22-23-26-27-29-30 July 4-5-7-12-15-27 Aug 5-7-11-12-22  
 Total No. of visits 112

Dates of Examination of principal parts—Cylinders 25.2.32 - 24.5.32 Slides Valves 12.2.32 - 3.5.32 Covers 23.3.32 - 31.3.32  
 Pistons 21.3.32 - 26.5.32 Piston Rods 2.3.32 - 18.5.32 Connecting rods 21.12.31 - 18.5.32  
 Crank shaft 23.12.31 - 10.3.32 Thrust shaft 18.2.32 - 10.3.32 Intermediate shafts 17.3.32 - 23.5.32  
 Tube shaft ✓ Screw shaft 23.2.32 - 23.5.32 Propeller 20.4.32 - 31.5.32  
 Stern tube 24.3.32 - 20.5.32 Engine and boiler seatings 20.5.32 - 22.6.32 Engines holding down bolts 29.6.32 - 4.7.32  
 Completion of fitting sea connections 14.4.32 - 20.5.32  
 Completion of pumping arrangements 5.5.32 - 1.7.32 Boilers fixed 7.7.32 Engines tried under steam 20.7.32  
 Main boiler safety valves adjusted 12.7.32 Thickness of adjusting washers P 1/2 S 1/2 C P 3/8 S 1/2 P 1/2 S 1/2  
 Crank shaft material S M Eng. Steel Identification Mark 6522 H. Thrust shaft material S M I. Stl. Identification Mark 24.7. MAB  
 Intermediate shafts, material S M I. Stl. Identification Marks (5) 281 (1) 272 } MAB. Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material S M I. Stl. Identification Mark 274 MAB. Steam Pipes, material Hot-rolled seamless steel Test pressure 780 lbs Date of Test 24.5.32  
 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 ✓ If so, have the requirements of the Rules been complied with ✓  
 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.)  
 These engines are fitted with drop valves to all cylinders actuated by oscillating cam shafts worked by eccentrics.

This vessel's machinery has been built and installed under Special Survey. The materials and workmanship are good and efficient. On completion it was tried under full working conditions at sea and all found satisfactory. This vessel's machinery, in my opinion, is eligible to have the notation **LMC. 8.32.**

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

The amount of Entry Fee ... £ 5 : 0 :  
 Special ... £ 95 : 1 :  
 Donkey Boiler Fee ... £ ✓ :  
 Travelling Expenses (if any) £ ✓ :  
 When applied for, 10.8.1932  
 When received, 14.9.1932

**R. D. Shilston,**  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 16 AUG 1932  
 Assigned + L.M.C. 8.32

CERTIFICATE WRITTEN

F.D. C.L.



Date of writing  
 No. in Reg. Book.  
 Master  
 Engines made  
 Boilers made  
 Nominal Horsepower  
 MULTIPLE  
 Manufacture  
 Total Heat  
 No. and Description  
 Tested by  
 Area of Fire  
 Area of each  
 In case of damage  
 Smallest diameter  
 Smallest diameter  
 Largest internal  
 Thickness  
 long. seams  
 Percentage of  
 Percentage of  
 Thickness of  
 Material  
 Length of plates  
 Dimensions  
 End plates  
 How are stays  
 Tube plates  
 Mean pitch  
 Girders to centre  
 at centre  
 in each thickness  
 Tensile strength  
 Pitch of stays  
 Working pressure  
 Thickness  
 Pitch of stays  
 Working pressure  
 Diameter (At Over)  
 Working pressure  
 Diameter (At Over)