Rpt. 4.

No. 16702

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 4: 7: 1924 When handed in at Local Office 4 July 1924 Port of WEST HARTLEPOOL Received at London Office SAT. JUL 5 1924

No. in Reg. Book. Survey held at Hartlepool Date, First Survey 25 Jany Last Survey 3 July 1924. (Number of Visits 67.)

on the S.S. "KAMLOOPS"

Built at Middlesbro By whom built Furness Shipbuilding Co Ltd Yard No. 68 Tons Gross 2990 Net 1460. When built 1924

Engines made at Hartlepool By whom made Richardsons Westgarth & Co Engine No. 2645 when made 1924

Boilers made at ditto By whom made ditto Boiler No. 2645 when made 1924

Registered Horse Power Owners Port belonging to London

Nom. Horse Power as per Rule 195 ✓ Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes ✓

ENGINES, &c.—Description of Engines Triple expansion ✓

Dia. of Cylinders 18"-30"-50" ✓ Length of Stroke 36" ✓ Revs. per minute 86 ✓ No. of Cylinders 3 ✓ No. of Cranks 3 ✓

Dia. of Crank shaft journals as per rule ~~7.86~~ 9.86" as fitted 10" Dia. of Crank pin 10½" ✓ Crank webs Mid. length breadth 15¾" Mid. length thickness 6½" shrunk Thickness parallel to axis 6½" Thickness around eye-hole 4¾"

Diameter of Thrust shaft under collars as per rule ~~7.86~~ 9.86" as fitted 10⅞ Diameter of Tunnel shaft as per rule 9.39" as fitted None Diameter of Screw shaft as per rule ~~8.05~~ 10.51" as fitted 11" Is the Screw shaft fitted with a continuous liner the whole length of the stern tube yes ✓ 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 joints burned ✓ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive yes ✓

If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated no ✓ Length of Stern Bush 3'-8½" ✓ Diameter of Propeller 12'-9" ✓

Pitch of Propeller 12'-7" ✓ No. of Blades 4 ✓ State whether Moveable yes ✓ Total Surface 56 ✓ square feet.

No. of Feed Pumps fitted to the Main Engines ✓ Diameter of ditto ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

No. of Bilge Pumps fitted to the Main Engines 2 ✓ Diameter of ditto 3½" ✓ Stroke 20" ✓ Can one be overhauled while the other is at work yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps 2 Main feed 7"×5"×12" single ✓ 1 General 8×5×8 duplex ✓ 1 Ball 9"×10"×10" ✓

No. and size of Pumps connected to the Main Bilge Line 2 main 3½"×20" 1 Ballast 9"×10"×10" duplex ✓

No. and size of Ballast Pumps 1 9"×10"×10" dup. ✓ No. and size of Lubricating Oil Pumps, including Spare Pump ✓

Are two independent means arranged for circulating water through the Oil Cooler ✓ No. and size of suctions connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 of 2½" & 1 of 3½" main pumps only ✓ In Holds, &c. No 1 hold 2 of 2½" No 2 hold 2 of 2½". No 3 hold 2 of 2½" ✓

No. and size of Main Water Circulating Pump Bilge Suctions 1. 7" ✓ No. and size of Donkey Pump Direct Suctions in the Engine Room Bilges 1 of 3½" ✓ 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 connections with the sea direct on the skin of the ship yes ✓ Are they 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 Discharge Pipes 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 are carried through the bunkers none ✓ How are they protected ✓

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 Screw Shaft Tunnel watertight none ✓ Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S ✓) Total Heating Surface of Boilers 3412 ✓ sq ft

Forced Draft fitted no ✓ No. and Description of Boilers 2. S.E.S. single ended ✓ Working Pressure 185 lbs ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED? no ✓ If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting ✓ (If not state date of approval) Main Boilers Auxiliary Boilers ✓ Donkey Boilers ✓

General Pumping Arrangements Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— 2 piston rod bolts & nuts. ✓ 2 connecting rod ditto 2 main bearing ditto. ✓ 1 set coupling ditto. ✓ 1 set feed & bilge pump valves. ✓ 2 feed check valves. 2 safety valve springs & propeller blades. bolts. nuts & iron assorted. ✓

The foregoing is a correct description,

FOR RICHARDSONS, WESTGARTH & CO. LIMITED.

L D Wright

GENERAL MANAGER.

Manufacturer.

W666-0130

Rpt. 5a.

Dates of Survey while building

During progress of work in shops - - 1924. Jany 25. 30. Feby 9. 12. 14. 19. 21. 26. 28. Mar 3. 4. 5. 6. 7. 11. 13. 14. 17. 18. 20. 24. 25. 26. 27. 31. Apr 1. 3. 4. 8. 9. 14. 15. 25. 28. 30. May 1. 2. 2. 5. 9. 13. 15. 16. 19. 20. 21. 23. 26. 28. June 2. 6. 7. 12. 12. 13. 16. 19. 20. 21. 23. 25. 26. 27. 30. July 2. 3.

During erection on board vessel - - -

Total No. of visits 64.

Dates of Examination of principal parts – Cylinders 4.3.24 — 28.5.24 Slides 15.5.24

Covers 15.4.24. Pistons 1.4.24 — 1.5.24. Rods 19.2.24 — 14.4.24

Connecting rods 12.3.24 – 1.5.24 Crank shaft 30.1.24 — 31.3.24 Thrust shaft 24.3.24 – 1.5.24

Tunnel shafts ✓ Screw shaft 19.5.24 – 2.6.24 Propeller 15.5.24

Stern tube 4.4.24 – 2.6.24 Engine and boiler seatings 12.6.24 & Mdl. Engines holding down bolts 19.6.24

Completion of pumping arrangements 2.7.24 Boilers fixed 23-6-24 Engines tried under steam 25.6.24

Completion of fitting sea connections Mdl. Stern tube 12.6.24 Screw shaft and propeller 16.6.24

Main boiler safety valves adjusted 25.6.24 Thickness of adjusting washers P.P $\frac{3}{8}$ full S $\frac{3}{8}$ bore. S.P $\frac{13}{32}$" S $\frac{3}{8}$ bore

Material of Crank shaft Ingot steel Identification Mark on Do. 4486D.

Material of Thrust shaft ditto. Identification Mark on Do. 4486D

Material of Tunnel shafts None. ~~ditto.~~ Identification Marks on Do. ✓

Material of Screw shafts ditto. Identification Marks on Do. 4486D

Material of Steam Pipes S.D. Copper ✓ Test pressure 400lbs ✓ Date of Test 21.6.24

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 carrying and burning oil fuel 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. A feed heater fitted, the body, & coils & headers of which have been tested to 400 lbs per sq inch. hydraulic pressure.

This vessel's machinery has been built and installed under Special Survey. The materials and workmanship are good.

On completion it has been tried under full working conditions satisfactorily. and is now eligible to have the notation ✠ L.M.C. 7.24

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.24. CL.

J.W.D. 8/7/24. W.S.

R.D. Shilston.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 : ✓ When applied for, 4 July 1924

Special ... ... £ 48 : 15 : ✓

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : : When received, 7 JUL 1924

Committee's Minute FRI. 11 JUL 1924

Assigned + LMC. 7.24 CL.

Certificate to be sent to

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

Date of writing

No. in Reg. Book. Sur

on

Master

Engines made

Boilers made

Nominal Hors

MULTITU

Manufacturer

Total Heating

No. and Desc

Tested by hyd

Area of Fireg

Area of each

In case of don

Smallest dista

Smallest dista

Largest intern

Thickness

long. seams

Percentage of

Percentage of

Thickness of b

Material

Length of plat

Dimensions of

End plates in

How are stays

Tube plates:

Mean pitch of

Girders to con

at centre 8

in each 2

Tensile strengt

Pitch of stays t

Working press

Thickness

Pitch of stays

Working Press

Diameter { At bo Over t

Working pressu

Diameter { At tur Over t