Rpt. 4.

No. 13917

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 14 MAY 1930

Date of writing Report 13 May 1930 When handed in at Local Office 13 May 1930 Port of Southampton.

No. in Reg. Book. Survey held at Barnes. Date, First Survey 2 July 1929 Last Survey 6 May 1930 (Number of Visits 26)

on the Paddle ferry Steamer "WILL CROOKS". Tons { Gross / Net

Built at Barnes By whom built J. Samuel White & Co Ltd. Yard No. 1684 When built 1930.

Engines made at Barnes. By whom made -do- Engine No. 1684 when made 1930

Boilers made at -do- By whom made -do- Boiler No. 1684. when made 1930.

Registered Horse Power 186 ✓ Owners London County Council. Port belonging to London.

Nom. Horse Power as per Rule ~~190~~ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

Trade for which Vessel is intended River Thames ferry at Woolwich.

ENGINES, &c.—Description of Engines 2 independent inclined type Paddle Engines Revs. per minute 40

Dia. of Cylinders 33" Length of Stroke 36" No. of Cylinders 4 (2 Engs) No. of Cranks 2 (2 Engs)

Crank shaft, dia. of journals as ~~approved~~ 9¾" as fitted 9¾" Crank pin dia. 9¾" Crank webs Mid. length breadth 12" Mid. length thickness 6½" Trunk Thickness parallel to axis ✓ Thickness around eye-hole

Intermediate Shafts, diameter as ~~approved~~ 9¾". as fitted 9¾". ✓

Thrust shaft, diameter at collars as per Rule as fitted ✓

Tube Shafts, diameter as per Rule ✓ as fitted

PADDLE **Shaft,** diameter as ~~approved~~ 9¾" as fitted 9¾" Is the { tube / screw } shaft fitted with a continuous liner { ✓

Bronze Liners, thickness in way of bushes as per Rule as fitted ✓ Thickness between bushes as per Rule as fitted ✓ Is the after end of the liner made watertight in the propeller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

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 ✓

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 ✓ Length of PADDLE SHAFT Bearing ~~in Stern Bush next to and supporting propeller~~ 1'-8".

~~Propeller~~ PADDLE WHEELS (FLOAT AXIS) dia. 11'-8" Pitch ✓ No. of Blades ✓ Material ✓ whether Moveable ✓ Total Developed Surface ✓ sq. feet

Feed Pumps worked from the **Main Engines,** No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Bilge Pumps worked from the **Main Engines,** No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Feed Pumps { No. and size 8 at 7"×8"×12". 1 at 5"×5"×6" / How driven Steam. ✓ } **Pumps** connected to the **Main Bilge Line** { No. and size 1 at 7"×8"×12" 1 at 5"×5"×6" / How driven Steam. }

Ballast Pumps, No. and size ✓ **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 5 ⌀ 2". In ~~Holds~~ COMPARTMENTS, &c. 1 ⌀ 2" each compartment.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 ⌀ 4" **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size 1 at 2" 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 Roses only.

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 About LWL.

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 ✓

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 ✓ Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S ✓) Total Heating Surface of Boilers 2620 ⌀

Is Forced Draft fitted No. No. and Description of Boilers 2. Gunboat type. 2B Working Pressure 50 lbs".

~~Induced Draft fitted~~.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? No. Plans to be forwarded a completion sketch ship ✓

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

PLANS. Are approved plans forwarded herewith for Shafting No Main Boilers No Auxiliary Boilers ✓ Donkey Boilers ✓ (If not state date of approval)

Superheaters No. General Pumping Arrangements No Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

2 connecting rod top end bolts & nuts.
2 " " bottom " " " "
2 main bearing bolts & nuts.
1 set of coupling bolts
1 " " fuel & bilge pump valves
1 " " piston springs
Quantity of assorted bolts & nuts.
3 sets of various sizes.

6 junk ring bolts & nuts.
2 radial arms with brushes.
1 Plummet block bottom half brush.
24 Boiler tubes (plain)
36 Condensor tubes & 72 ferrules.
and a quantity of additional spares of various kinds.

The foregoing is a correct description,

For J. Samuel White & Company Ltd.

R. D. Crump Manufacturer.

Managing Director.

NOTE.—The words which do not apply should be deleted. If not, state whether, and when, one will be sent. Is a Report also sent on the Hull of the Ship?

Im 10/24. T.

Dates of Survey while building

During progress of work in shops - - 1929 July 2. 15. 26. Sept 12. Oct 7. 15. 21. 25. Nov. 8. 13. 19.

During erection on board vessel - - - 1929 Dec. 5. 13. 17. 23. 1930 Jan 3. 13. 15. 21. 28 30. Feb 3. 4. 12. May 2. 6.

Total No. of visits 26

Dates of Examination of principal parts—Cylinders 2.7.29 - 7.10.29. Slides 12.9.29 Covers 15.7.29 - 7.10.29.

Pistons 15.10.29. Piston Rods 2.7.29. - 7.10.29 Connecting rods 2.7.29 - 7.10.29

Crank shaft 15.7.29 Thrust shaft ✓ Intermediate shafts 2.7.29.

Tube shaft ✓ ~~Screw~~ PADDLE shaft 15.7.29 - 2.7.29. Propeller ✓

Stern tube ✓ Engine and boiler seatings 2.10.29. Engines holding down bolts 15.1.30

Completion of pumping arrangements 4.2.30 Boilers fixed 30.12.29. Engines tried under steam 12.2.30.

Main boiler safety valves adjusted 4.2.30. Thickness of adjusting washers FORD BLR P 3/8" S 11/32" AFT P 3/16" S 9/32"

Crank shaft material S.M. Steel Identification Mark No 355. 356 JA. 18.6.29. Thrust shaft material ✓ Identification Mark ✓

Intermediate shafts, material S.M. Steel Identification Marks No 355A. 356A JA 7.6.29. Tube shaft, material ✓ Identification Mark ✓

~~Screw~~ PADDLE shaft, material S.M. Steel Identification Mark No 355B 356B JA. 7.6.29 Steam Pipes, material Steel Test pressure 150 lbs Date of Test 13.1.30 21.1.30 28.1.30

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.

The engines and boilers of this vessel have been constructed in general accordance with the approved plans and the requirements of the Rules; they have been efficiently installed on board and tested with satisfactory results. The workmanship and materials are good. The machinery is eligible, in our opinion, for classification with the notation + L.M.C. 5.30.

It is submitted that this vessel is eligible for THE RECORD.

+ LMC 5.30. FD.

D.H. 17.5.30

The amount of Entry Fee ... £ 3 : — : When applied for, 12/5/ 1930

Special ... ... £ 46 : 10 :

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ 3 : 5 : 6 2.7. 1930

Certificate to be sent to

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

Committee's Minute FRI. 16 MAY 1930

Assigned + Lm.b. 5.30 F.D.

CERTIFICATE WRITTEN.

J. McMillan & L.R. Horne

Engineer Surveyor to Lloyd's Register of Shipping.