

REPORT ON MACHINERY.

9 AUG 1926

Received at London Office 10 AUG 1926

Date of writing Report 19 When handed in at Local Office Aug 9th 1926. Port of Hull

No. in Survey held at Hull Date, First Survey 18 March Last Survey Aug 7th 1926
Reg. Book. on the Steam Trawler "KINGSTON PEARL" (Number of Visits 17)

Master Built at Beverley By whom built Cook, Bellon & Gemmill & Co. When built 1926

Engines made at Hull By whom made Charles D. Holmes & Co. Ltd (1302) when made 1926

Boilers made at Hull By whom made " " " " (") when made 1926

Registered Horse Power Owners Kingston S. Trawling Co. Ltd Port belonging to Hull

Nom. Horse Power as per Section 28 96 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13 23 34 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft as per rule 4.7 as fitted 8.4 Material of screw shaft Steel

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 water tight in the propeller boss Yes

If the liner is in more than one length are the joints burned 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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 36

Dia. of Tunnel shaft as per rule 6.89 as fitted Dia. of Crank shaft journals as per rule 4.24 as fitted 4.3 Dia. of Crank pin 4.2 Size of Crank webs 44x47 Dia. of thrust shaft under collars 4.2

Dia. of screw 9.9 Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 34 sq. ft.

No. of Feed pumps One Diameter of ditto 2 5/8 Stroke 14 3/4 Can one be overhauled while the other is at work Yes

No. of Bilge pumps One Diameter of ditto 2 5/8 Stroke 14 3/4 Can one be overhauled while the other is at work Yes

No. of Donkey Engines One Sizes of Pumps 6x4x6 + 1 Ejector No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2 @ 2" dia, one fore & one aft. In Holds, &c. one @ 2" dia, each compartment.

No. of Bilge Injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump CP. Is a separate Donkey Suction fitted in Engine room & size Yes, 3"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None

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 Forward Suctions How are they protected Wood casings.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Hannermann & Co. Ltd, Muckingen

Total Heating Surface of Boilers 1698 sq. ft. Is Forced Draft fitted No No. and Description of Boilers One Single ended

Working Pressure 200 Tested by hydraulic pressure to 350 lbs Date of test 18.5.26 No. of Certificate 3595

Can each boiler be worked separately Yes Area of fire grate in each boiler 49.2 sq. ft. No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 4.9 sq. in. Pressure to which they are adjusted 200 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 4" Mean dia. of boilers 4'-0" Length 10'-8" Material of shell plates Steel

Thickness 1 9/32 Range of tensile strength 28/32 tons Are the shell plates welded or flanged Yes (Descrip. of riveting: cir. seams DR) long. seams T.R. 5/8

Diameter of rivet holes in long. seams 1 9/32 Pitch of rivets 8 7/16 Lap of plates or width of butt straps 18 13/16

Percentage of strength of longitudinal joint rivets 90.8 plate 85.0 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"

Size of compensating ring 24 x 27 x 1 9/32 No. and Description of Furnaces in each boiler 3 Plain Material Steel Outside diameter 41"

Length of plain part top 76 bottom 69 Thickness of plates crown 13 bottom 16 Description of longitudinal joint welded No. of strengthening rings 1

Working pressure of furnace by the rules 219 Combustion chamber plates Material Steel Thickness: Sides 3/4 Back 23/32 Top 3/4 Bottom 3/4

Pitch of stays to ditto: Sides 9 x 8 3/4 Back 9 x 8 3/4 Top 9 x 8 3/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 230

Material of stays Steel Area at smallest part 2.07 sq. in. Area supported by each stay 48.75 Working pressure by rules 230 End plates in steam space: Material Steel Thickness 1 3/16 Pitch of stays 18 How are stays secured SW. Working pressure by rules 220 Material of stays Steel

Area at smallest part 7.5 sq. in. Area supported by each stay 324 sq. in. Working pressure by rules 275 Material of Front plates at bottom Steel Thickness 1 5/16 Material of Lower back plate Steel Thickness 2 9/32 Greatest pitch of stays 14 x 8 3/4 Working pressure of plate by rules 228

Diameter of tubes 3 1/2 Pitch of tubes 4 7/8 Material of tube plates Steel Thickness: Front 1 5/16 Back 7/8 Mean pitch of stays 11.2

Pitch across wide water spaces 13 3/4 Working pressures by rules 212 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 1/2 x 13 1/4 Length as per rule 36 3/16 Distance apart 9 Number and pitch of stays in each 3 @ 8 3/4

Working pressure by rules 210 Steam dome: description of joint to shell Yes % of strength of joint Yes

Diameter Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes

Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes

Date of Test Yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Material of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Top end bolts + nuts. 2 Bottom end bolts + nuts. 2 main bearing bolts + nuts. Set of coupling bolts + nuts. Spare valves for air, feed, bilge + donkey pumps. Main + donkey check valves. Safety valve spring. Circulating pump impeller + spindle. Feed pump cam, gland + neck ring. ✓

The foregoing is a correct description,

By CHARLES D. HOLMES & CO. LTD Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1926 March 18 22. 24. Apr 6. 14 15. 16. 21. 27. May 4. 7. 17. 18. 27. 29. June 9. Aug 4. During erection on board vessel --- Total No. of visits 17.

Is the approved plan of main boiler forwarded herewith Yes
" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 14-4-26 Slides 27-4-26 Covers 14-4-26 Pistons 27-4-26 Rods 27-4-26 Connecting rods 27-4-26 Crank shaft 21-4-26 Thrust shaft 21-4-26 Tunnel shafts - Screw shaft 6-4-26 Propeller 6-4-26 Stern tube 6-4-26 Steam pipes tested 29-5-26 Engine and boiler seatings 16-4-26 Engines holding down bolts 27-5-26 Completion of pumping arrangements 7. 8. 26 Boilers fixed 27-5-26 Engines tried under steam 7. 8. 26 Completion of fitting sea connections 16-4-26 Stern tube 16-4-26 Screw shaft and propeller 16-4-26 Main boiler safety valves adjusted 7. 8. 26. Thickness of adjusting washers A $\frac{11}{32}$ F $\frac{5}{16}$

Material of Crank shaft Steel Identification Mark on Do. 225 PF. Material of Thrust shaft Steel Identification Mark on Do. 225 PF. Material of Tunnel shafts - Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 225 PF. Material of Steam Pipes S.S. Copper 4" dia x 6 W.G. Test pressure 400 Lbs per sq"

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 Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel "TOURMALINE" (Hull Rpt. 37024)

General Remarks (State quality of workmanship, opinions as to class, &c. The engines + boiler of this vessel have been built under special survey + in accordance with the approved plans + the Rules of this Society. The materials + workmanship are good. The machinery has been satisfactorily fitted on board, tried under working conditions + found good. The steam + feed pipes have been tested by hydraulic pressure as required by the Rules. The safety valves have been adjusted under steam + tried for accumulation. The machinery is shiftable in my opinion for the record + LMC C.L. in the Register Book.

Forge marks on shafting:— Screw shaft:

Lloyds
No 876
J.L.

 Crank shaft:

Lloyds
No 903
" 904
" 899
J.L.

 Thrust shaft:

Lloyds
No 898
J.L.

+ LMC 8.26 C.L.
11/8/26 ARR

The amount of Entry Fee ... £ 2 : - } When applied for, 9 AUG 1926
Special ... £ 24 : - }
Donkey Boiler Fee ... £ : }
Travelling Expenses (if any) £ : } When received, 1.9.26
FRI. 13 AUG 1926

P. Fitzgibbon John Mackintosh
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned + LMC 8.26 C.L.

FRI. 27 AUG 1926



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