

REPORT ON MACHINERY

No. 37297

Received at London Office

10 AUG 1926

Writing Report 9 Aug 1926 When handed in at Local Office Aug 9th 1926 Part of HULL
 Date, First Survey 14 Feby Last Survey Aug 7th 1926
 on the Steam trawler "KINGSTON DIAMOND"
 Built at Beverly By whom built Cook, Weller & Gemmell Ltd When built 1926
 By whom made Charles S. Holmes & Co (1301) when made 1926
 Owners Kingsley S. Trawling Co Ltd Port belonging to Hull
 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
 of Cylinders 13 · 23 · 34 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft as per rule 4.7 Material of screw shaft Stul.
 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
 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 Crank shaft journals as per rule 4.24 Dia. of Crank pin 4 1/2" Size of Crank webs 4 1/2 x 4 1/2 Dia. of thrust shaft under
 Dia. of screw 9.9" Pitch of Screw 11.0" No. of Blades 4 State whether moveable no Total surface 34 sq. ft.
 of Feed pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work Yes
 of Bilge pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work Yes
 of Donkey Engines one Sizes of Pumps 6" x 4 1/2" x 6" & 1 1/2" x 1 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2 @ 2" dia, one fore & one aft In Holds, &c. one @ 2" dia, Each compartment.
 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 the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible none
 Are they Valves or Cocks Both
 Are the Discharge Pipes above or below the deep water line Above
 Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
 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 Yes worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Mannesmann-Rohrwerke, Huelshorn
 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 Date of test 27.4.26 No. of Certificate 3594
 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 14.0" Length 10.8" Material of shell plates Stul
 Thickness 1 1/2" Range of tensile strength 28/32 Tons Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams DR
 Long. seams TR. 5/8" Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 8 7/8" Lap of plates or width of butt straps 18 1/16"
 Percentages of strength of longitudinal joint 90.8 Working pressure of shell by rules 201 Size of manhole in shell 16" x 12"
 Size of compensating ring 34 x 27 x 1 1/2" No. and Description of Furnaces in each boiler 3 Plain Material Stul Outside diameter 41"
 Length of plain part 76" Thickness of plates 3 1/16" Description of longitudinal joint welded No. of strengthening rings Yes
 Working pressure of furnace by the rules 219 Combustion chamber plates: Material Stul 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 Stul Area at smallest part 2.04 sq in Area supported by each stay 18.45 Working pressure by rules 230 End plates in steam space:
 Material Stul Thickness 1 1/16" Pitch of stays 18" How are stays secured DN & W. Working pressure by rules 220 Material of stays Stul
 Area at smallest part 4.5 sq in Area supported by each stay 324.0 Working pressure by rules 275 Material of Front plates at bottom Stul
 Thickness 15/16" Material of Lower back plate Stul Thickness 29/32" 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 Stul Thickness: Front 15/16" 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 Stul Depth and
 thickness of girder at centre 9 1/2" x 13 1/4" Length as per rule 36 1/16" 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
 Diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes

IS A DONKEY BOILER FITTED? *ho*

If so, is a report now forwarded?

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

The foregoing is a correct description,

FOR CHARLES D. HOLMES & CO. LTD

J. Rodgers

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Feb 9, Mar 4, 9, 17, 18, 22, Apr 14, 15, 21, 27, May 4, 17, June 9, July Aug 4. Total No. of visits 15.

Is the approved plan of main boiler forwarded herewith?

Is the approved plan of donkey boiler forwarded herewith?

Dates of Examination of principal parts—Cylinders 14-4-26 Slides 21-4-26 Covers 14-4-26 Pistons 21-4-26 Rods 21-4-26 Connecting rods 21-4-26 Crank shaft 14-4-26 Thrust shaft 14-4-26 Tunnel shafts ✓ Screw shaft 9-3-26 Propeller 17-3-26 Stern tube 17-3-26 Steam pipes tested 17-5-26 Engine and boiler seatings 26-4-26 Engines holding down bolts 4-5-26 Completion of pumping arrangements 3-8-26 Boilers fixed 4-5-26 Engines tried under steam 3-8-26 Completion of fitting sea connections 26-4-26 Stern tube 26-4-26 Screw shaft and propeller 26-4-26 Main boiler safety valves adjusted 3-8-26 Thickness of adjusting washers F 5/16 A 1/32

Material of Crank shaft *steel* Identification Mark on Do. *220 RF*. Material of Thrust shaft *steel* Identification Mark on Do. *220*. Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *steel* Identification Marks on Do. *220*

Material of Steam Pipes *S. S. Copper, 4" Bore x 6 lbs*. Test pressure *400 lbs per sq in*. Is an installation fitted for burning oil fuel *ho*. 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 370)*

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 accuracy. The machinery is eligible in my opinion for the record in L.M.C. in the Register Book.*

Forge marks on shafting:— Screw shaft. Slugs No. 12346 K.H. Crank shaft. Slugs No. 684 J.L. " 687 J.L. Thrust. Slugs No. 7550 J.P.

Forging reports will be forwarded later.

Certificate (if required) 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 ... £ 2 : - : Special ... £ 24 : - : Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : :

When applied for, 9 AUG 1926. When received, 1-9-26

P. Fitzgerald, Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 13 AUG 1926

FRI. 27 AUG 1926

Assigned

+ L.M.C. 8.26



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