

REPORT ON MACHINERY.

No. 2975

Received at London Office

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of writing Report 29 Jan 1921 When handed in at Local Office 10 Port of Milford
 in Survey held at H M Docket and Date, First Survey 29 Aug 20 Last Survey 24 Jan 1921
 Book. 79 on the Steam Trawler "James Peake" (Number of Visits)
 Tons Gross 275
 Net 107
 Built at Middlesbrough By whom built Smith's Dock Co L^d When built
 Repairs made at Middlesbrough By whom made Smith's Dock Co L^d when made 1917
 Repairs made at Newcastle By whom made Hawthorn & Leslie when made 1917

Registered Horse Power Owners Port belonging to
 Horse Power as per Section 28 87 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
 No. of Cylinders 12 1/2 x 21 x 35 Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft as per rule 7.56 Material of screw shaft iron
 as fitted 7.78 Is the after end of the liner made water tight yes
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes
 Is 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 on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 34"
 Dia. of Tunnel shaft as per rule 6.57 Dia. of Crank shaft journals as per rule 6.9 Length of stern bush 34"
 as fitted 6.75 Dia. of Crank pin 7 3/8 Size of Crank webs 14 x 4 1/2 Dia. of thrust shaft under
 as fitted 7 3/8 Dia. of screw 9.6 Pitch of Screw 11 1/2 No. of Blades 4 State whether moveable no Total surface 35 1/2 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 6 x 3 x 6, 7 x 6 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2' forward 2' aft & 12" high actg In Holds, &c. 1 from fore hold 12" from
each side, also separate 2" ejector acting from all parts
 Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 4" ejector
 Are 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
 Are the pipes carried through the bunkers Forward Suctions How are they protected wood casing
 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 no worked from

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel)
 Heating Surface of Boilers 1619 Is Forced Draft fitted no No. and Description of Boilers 1 Cylindrical multitubular
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 Date of test 11.11.17 No. of Certificate
 Can each boiler be worked separately no Area of fire grate in each boiler 50 sq ft No. and Description of Safety Valves to boiler two direct Spring
 Area of each valve 4.9 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Minimum distance between boilers or uptakes and bunkers or woodwork 8" 2 1/2" diam. of boilers 13.6" Length 10.6" Material of shell plates S
 Thickness 1 3/16 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 seams TRANS Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 8" Lap of plates or width of butt straps 17"
 Percentages of strength of longitudinal joint rivets 89.3 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"
 plate 85.5 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 40 9/16
 Height of plain part top 81" crown 25" Description of longitudinal joint Welded No. of strengthening rings
 bottom 76" bottom 32" Working pressure of furnace by the rules 188 Combustion chamber plates: Material S Thickness: Sides 5/16 Back 3/16 Top 1/16 Bottom 2/8"
 Number of stays to ditto: Sides 10 x 2 3/8 Back 9 1/2 x 7 1/2 Top 9 x 10 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181
 Material of stays S Area at smallest part 2.07 Area supported by each stay 90.25 Working pressure by rules 206 End plates in steam space:
 Material S Thickness 1 1/16 Pitch of stays 19" x 20" How are stays secured nut & w Working pressure by rules 181 Material of stays S
 Area at smallest part 6.10 Area supported by each stay 290 Working pressure by rules 215 Material of Front plates at bottom S
 Thickness 3/16 Material of Lower back plate S Thickness 15/16 Greatest pitch of stays 14 x 9 Working pressure of plate by rules 219
 Diameter of tubes 3 1/2 Pitch of tubes 5 x 4 1/4 Material of tube plates S Thickness: Front 3/16 Back 2/8" Mean pitch of stays 10"
 Working pressures across wide water spaces 14" Working pressures by rules 184 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 8 1/2 x 1 3/4 Length as per rule 32" Distance apart 9" Number and pitch of stays in each 2 9" x 16"
 Working pressure by rules 197 Steam dome: description of joint to shell % of strength of joint
 Material Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Material of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Material of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *2 top end bolts, and nuts No bottom end bolts, and nuts 2 main bearing hearing bolts, and nuts Coupling bolts, and nuts 1 Complete set of suction, and delivery valves for each auxiliary pump a set of valves main bridge, and feed pumps main, and donkey check valve 3 plain boiler tubes 3 Condenser tubes, & ferrules Escape valve spring, and nuts & bolts assorted*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - - Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts Completion of pumping arrangements Boilers fixed Engines tried under steam Completion of fitting sea connections Stern tube Screw shaft and propeller Main boiler safety valves adjusted Thickness of adjusting washers Material of Crank shaft *Iron* Identification Mark on Do. ✓ Material of Thrust shaft *Iron* Identification Mark on Do. ✓ Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. ✓ Material of Steam Pipes *S D Copper* ✓ Test pressure Is an installation fitted for burning oil fuel *All* ✓ 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. *Yes* ✓ Is this machinery duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *The workmanship of this vessels machinery appears to be good being built under British Corporation Survey to plans, and specification mutually agreed by this Society, and the British Corporation, and in my opinion is eligible to have L.M.C 1. 21 assigned*

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 ... £ : : When applied for, Special ... £ : : 19. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £. *See full report* : : 19.

J. W. Johnston
Engineer Surveyor to Lloyd's Register of Shipping

FRI. 27 JAN. 1922

Committee's Minute TUE. 15 FEB. 1922

Assigned

L.M.C 1. 21 subject

TUE. 14 FEB. 1922

FRI. FEB. 17 1922

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