

REPORT ON MACHINERY.

No. 32318

Received at London Office

Date of writing Report 26/11/1920 When handed in at Local Office 26/11/1920 Port of Hull
 No. in Survey held at Hull Date, First Survey 17.3.20 Last Survey 24/11/1920
 Reg. Book. on the S.S. PICKMERE (Number of Visits 40) Tons { Gross 466
 Master By whom built Behan & Sons Ltd Net 192
 Built at Selby By whom made Thos & Holmes 100 Ltd When built 1920
 Engines made at Hull By whom made Do when made 1920
 Boilers made at Hull By whom made Do when made 1920
 Registered Horse Power 85 Owners Northwich Pumping Co Ltd. Port belonging to Liverpool
 Nom. Horse Power as per Section 28 85 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 13"-23"-31" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft 7 1/2" 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 - If two
 liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 32"
 Dia. of Tunnel shaft 6 1/2" Dia. of Crank shaft journals 6 3/4" Dia. of Crank pin 7 1/2" Size of Crank webs 14 1/2" x 4 1/2" Dia. of thrust shaft under
 collars 7 1/2" Dia. of screw 9-9" Pitch of Screw 10-15" No. of Blades 4 State whether moveable No Total surface 334"
 No. of Feed pumps one Diameter of ditto 3" Stroke 14 1/2" Can one be overhauled while the other is at work -
 No. of Bilge pumps one Diameter of ditto 3" Stroke 14 1/2" Can one be overhauled while the other is at work -
 No. of Donkey Engines one Sizes of Pumps 8 x 4 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three @ 2 1/2" In Holds, &c. 2 @ 2 1/2"

No. of Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2" joints
 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 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 Yes
 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 Hold motions How are they protected Thump 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 Yes worked from -

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Spencer & Sons
 Total Heating Surface of Boilers 1470 Is Forced Draft fitted No No. and Description of Boilers one cyl mult S.E.
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3/11/20 No. of Certificate 3458
 Can each boiler be worked separately Yes Area of fire grate in each boiler 46.24 No. and Description of Safety Valves to
 each boiler one double lifting Area of each valve 4.908 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 3-0 Mean dia. of boilers 18-6" Length 10-3" Material of shell plates Steel
 Thickness 1 1/8" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams JRL
 long. seams TRIBS Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 1 1/2"
 Per centages of strength of longitudinal joint 86.16% Working pressure of shell by rules 185 lbs Size of manhole in shell 18 x 12"
 Size of compensating ring 7 x 1 1/2" No. and Description of Furnaces in each boiler 3 Plain Material Steel Outside diameter 5-4"
 Length of plain part 36-6 1/2" Thickness of plates 3 1/2" Description of longitudinal joint welded No. of strengthening rings -
 Working pressure of furnace by the rules 185 lbs Combustion chamber plates: Material Steel Thickness: Sides 3 1/2" Back 3 1/2" Top 3 1/2" Bottom 3 1/2"
 Pitch of stays to ditto: Sides 9 1/2" x 10" Back 9 1/2" x 8 1/2" Top 9 1/2" x 10" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 187.5 lbs
 Material of stays Steel Area at smallest part 2.07 Area supported by each stay 95 lbs Working pressure by rules 187.5 lbs End plates in steam space:
 Material Steel Thickness 1 1/8" Pitch of stays 18 x 18" How are stays secured JRL Working pressure by rules 185 lbs Material of stays Steel
 Area at smallest part 5.79 Area supported by each stay 324 Working pressure by rules 187.5 lbs Material of Front plates at bottom Steel
 Thickness 1 1/2" Material of Lower back plate Steel Thickness 3 1/2" Greatest pitch of stays 15 x 9 1/2" Working pressure of plate by rules 182
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 10.6"
 Pitch across wide water spaces 15" Working pressures by rules 187.5 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 2-8 1/2" Distance apart 9 1/2" Number and pitch of stays in each 2 @ 10"
 Working pressure by rules 268 lbs Steam dome: description of joint to shell - % of strength of joint -
 Diameter - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet holes -
 Pitch 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 -
 Date of Test - Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler -
 Diameter 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? *✓*

SPARE GEAR.

State the articles supplied:—

Two top end, two bottom end, two main bearing & one set coupling both & nuts, one set air feed & bilge pump valves, one main & one donkey check valve & seat, two donkey pump valves, & junk ring studs & nuts, one safety valve spring, a quantity of assorted both & nuts & in of various sizes.

The foregoing is a correct description,
FOR CHARLES D. HOLMES & CO. LTD.

Harold Sheardson

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1920: - Jan 14. Apr 14. 31. June 21. July 2. 4. 20. 22. Aug 5. 11. 19. 20. 24. 30. Sep 4.
During erection on board vessel -- 10. 14. 15. 17. 20. 23. 27. 28. Oct 6. 7. 8. 11. 13. 18. 19. 20. 28. Nov 1. 3. 4. 15. 20. 22. 24.
Total No. of visits 40.

Is the approved plan of main boiler forwarded herewith? *Yes*

" " " donkey " " " *✓*

Dates of Examination of principal parts—Cylinders 23/9/20 Slides 18/10/20 Covers 23/9/20 Pistons 18/10/20 Rods 18/10/20
Connecting rods 18/10/20 Crank shaft 14/9/20 Thrust shaft 14/9/20 Tunnel shafts — Screw shaft 2/7/20 Propeller 2/7/20
Stern tube 2/7/20 Steam pipes tested 15/11/20 Engine and boiler seatings 15/11/20 Engines holding down bolts 15/11/20
Completion of pumping arrangements 24/11/20 Boilers fixed 20/11/20 Engines tried under steam 24/11/20
Completion of fitting sea connections 19/7/20 Stern tube 19/7/20 Screw shaft and propeller 19/7/20.
Main boiler safety valves adjusted 20/11/20 Thickness of adjusting washers $P\frac{1}{2}$ $S\frac{1}{2}$
Material of Crank shaft *Steel* Identification Mark on Do. 2497 Material of Thrust shaft *Steel* Identification Mark on Do. 2498.
Material of Tunnel shafts *✓* Identification Marks on Do. — Material of Screw shafts *Steel* Identification Marks on Do. 2479.
Material of Steam Pipes *Copper* Test pressure 400 lbs. sq. in.
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? *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engine & boiler of this vessel have been built under special survey & the material & workmanship are good.*

On completion the machinery was tried under full working conditions which moved to the Quay Wall with satisfactory results.

The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the record LMC-11-20 marked in Red in the Society's Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 11 20

Rem

15/12/20

IM

The amount of Entry Fee ... £ 1-0-0
Special ... £ 12-15-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for,

6/12/20

When received,

31-12-20

Shantelle
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 17 DEC. 1920*

Assigned *+ LMC 11 20*

CERTIFICATE WRITTEN



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Foundation