

REPORT ON MACHINERY.

No. 32114

SAT. SEP. 11 1920

Received at London Office

Date of writing Report 19 When handed in at Local Office 8.9.20 Port of Hull

No. in Survey held at Hull Date, First Survey Apr 30th Last Survey Aug 20 1920

Reg. Book. on the S.S. EMBLETON ex KILDYSART. (Number of Visits 1)

Master Built at South Bank on By whom built Smiths Dock Co Ltd Tons 1918

Engines made at South Bank on Lees By whom made Smiths Dock Co Ltd when made 1918

Boilers made at _____ By whom made _____ when made _____

Registered Horse Power ✓ Owners Joplin & Hull Port belonging to Newcastle.

Nom. Horse Power as per Section 28 116 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted no.

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

Dia. of Cylinders 16" 26" x 44" Length of Stroke 26" Revs. per minute _____ Dia. of Screw shaft as per rule 8.5 Material of Steel
as fitted 8.5 screw shaft)

Is the screw shaft fitted with a continuous-liner the whole length of the stern tube stated 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 ✓ 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 49"

Dia. of Tunnel shaft as per rule 4.95 Dia. of Crank shaft journals as per rule 8.35 Dia. of Crank pin 8 1/4 Size of Crank webs 5 1/4 x 3 Dia. of thrust shaft under collars 8 1/2 Dia. of screw 9-6 Pitch of Screw 8-6 No. of Blades 4 State whether moveable no Total surface 36 sq

No. of Feed pumps 2. Weirs Diameter of ditto 4" Stroke 18" Can one be overhauled while the other is at work yes.

No. of Bilge pumps one ejector Diameter of ditto 6" Stroke 18" Can one be overhauled while the other is at work ✓

No. of Donkey Engines 1-ejector Sizes of Pumps 6 x 6 x 6 Duplex No. and size of Suctions connected to both EJECTOR and Donkey pumps In Engine Room 2-2 1/2" Port 1 Sbd. In Holds, &c. 2 1/2" from Fore Peak, No 1 hold, No 2 hold, Stokehold, shaft Tunnel.

No. of Bilge Injections 7 sizes 6" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes-2 1/2"

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 ✓

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 For a suction 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 yes. worked from Eng room (hinged door)

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel _____

Total Heating Surface of Boilers 1832 sq Is Forced Draft fitted no No. and Description of Boilers 1. Single Ended.

Working Pressure 200 lbs Tested by hydraulic pressure to not tested Date of test ✓ No. of Certificate _____

Can each boiler be worked separately ✓ Area of fire grate in each boiler 51.5 sq No. and Description of Safety Valves to each boiler 2. Spring loaded Area of each valve 5.9 sq 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 12" Dia. of boilers 13-0" Length 11-6" Material of shell plates Steel

Thickness 1 1/4" Range of tensile strength stated 28/32 Are the shell plates welded or flanged no. Descrip. of riveting: cir. seams D.R. long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 9 5/16 Lap of plates or width of butt straps 19"

Per centages of strength of longitudinal joint 83.8 Working pressure of shell by rules 198 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 16 1/4 x 9" No. and Description of Furnaces in each boiler 3. DEIGHTON. Material Steel Outside diameter 41 5/8"

Length of plain part ✓ Thickness of plates 9 1/16" Description of longitudinal joint Welded. No. of strengthening rings ✓

Working pressure of furnace by the rules 212 Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 1"

Pitch of stays to ditto: Sides 8 3/4 x 9" Back 8 1/2 x 8 3/4" Top 8 1/2 x 9" If stays are fitted with nuts or riveted heads nuts. Working pressure by rules Sides 207 lbs Back 219.

Material of stays Steel Area at smallest part 2.03 sq Area supported by each stay Back 1/2 sq. Working pressure by rules 232 lbs End plates in steam space: Material Steel Thickness 1 3/16" Pitch of stays 14 1/2" How are stays secured DN & W. Working pressure by rules 218 lbs Material of stays Steel

Area at smallest part 6.1 sq Area supported by each stay 3.06 sq Working pressure by rules 206.5 lbs Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14 1/2 x 8 3/4" Working pressure of plate by rules 240

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4 x 3 1/16" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 8 3/8"

Pitch across wide water spaces 13 1/4" Working pressures by rules 204 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1 3/4" Length as per rule 2-7 1/4" Distance apart 8 1/2" Number and pitch of stays in each 2-9"

Working pressure by rules 202. 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 _____

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 each, top & bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts nuts etc. One safety valve spring, one pair main bearing branes, one pair connecting rod branes. One main and one donkey check valve.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } May 10th to Aug 20th - 1920.
{ During erection on board vessel - - - }
{ Total No. of visits } 7

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

Dates of Examination of principal parts—Cylinders 3/5/20 Slides 3/5/20 Covers 3/5/20 Pistons 3/5/20 Rods 3/5/20
Connecting rods 19/4/20 Crank shaft 19/4/20 Thrust shaft 6/8/20 Tunnel shafts 6/8/20 Screw shaft Propeller 6/8/20
Stern tube Steam pipes tested 30/4/20 Engine and boiler seatings 6/8/20 Engines holding down bolts 6/8/20
Completion of pumping arrangements 20/8/20 Boilers fixed Engines tried under steam 20/8/20
Completion of fitting sea connections 6/8/20 Stern tube Screw shaft and propeller
Main boiler safety valves adjusted 20/8/20 Thickness of adjusting washers PORT 1/4" STBD. 3/8"

Material of Crank shaft Steel Identification Mark on Do. CANNOT BE FOUND. Material of Thrust shaft Steel Identification Mark on Do. CANNOT BE FOUND.
Material of Tunnel shafts Steel Identification Marks on Do. CANNOT BE FOUND. Material of Screw shafts Steel Identification Marks on Do. CANNOT BE FOUND.
Material of Steam Pipes Steel MSP. Test pressure 600 lbs 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 "KIL" Class.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been opened out and examined on board the vessel, and was found to be in accordance with the Rules of this Society, and in all respects similar to the machinery of the "KIL" class vessels built in this district under this Society's survey. The materials and workmanship are good. The main steam pipes have been tested as required by hydraulic pressure. The machinery is properly fitted and secured on board, and has been tested under steam and found satisfactory.

In my opinion the vessel is eligible for the record LMC 8-20.

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) £	:	:	19

Herbert J. Sutherst.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE NOV. 16 1920
LMC 8, 20

TUE NOV. 29 1921

CERTIFICATE WRITTEN



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Foundation