

Rpt. 4.

REPORT ON MACHINERY.

No. 32429

Date of writing Report 28/1/21 When handed in at Local Office 28/1/21 Port of Hull Received at London Office THU. 3 FEB. 1921

No. in Survey held at Hull Date, First Survey 25/5/20 Last Survey 15/1/1921

Reg. Book. on the S. S. "EDERN" (Number of Visits 43)

Master Selby Built at Selby By whom built Johns & Sons Ltd. Tons { Gross 466 Net 192

Engines made at Hull By whom made Wm. & John Holmes & Co. Ltd. When built 1921

Boilers made at Hull By whom made do when made 1921

Registered Horse Power 85 Owners Manchester Liverpool & N. Wales S. S. 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 13.25-37 Length of Stroke 24 Revs. per minute 112 Dia. of Screw shaft as per rule Material of as fitted screw shaft

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 as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin 7 1/2" Size of Crank webs 4 x 18 Dia. of thrust shaft under

collars 7 1/2" Dia. of screw 9-9 Pitch of Screw 10-1 1/2 No. of Blades 4 State whether moveable No Total surface 33 sq ft

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 3 @ 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"

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 bottom 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 — Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Francis & Sons.

Total Heating Surface of Boilers 14,700 sq ft Is Forced Draft fitted No No. and Description of Boilers one cyl. mtd. S.E.

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 30/1/20 No. of Certificate 3464

Can each boiler be worked separately Yes Area of fire grate in each boiler 46.2 sq ft No. and Description of Safety Valves to

each boiler one double lifting Area of each valve 4.908 sq in 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 13-8" Mean dia. of boilers 13-8" Length 10-3" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR

long. seams TRBS 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 81.16% 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 3-4"

Length of plain part 3-6" 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 185 lbs

Material of stays Steel Area at smallest part 2.07 sq in Area supported by each stay 95 sq in Working pressure by rules 185 lbs End plates in steam space:

Material Steel Thickness 1 1/2" Pitch of stays 8 x 18 How are stays secured DR Working pressure by rules 185 lbs Material of stays Steel

Area at smallest part 5.79 sq in Area supported by each stay 324 sq in Working pressure by rules 185 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 185 lbs

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 7/8" Mean pitch of stays 10.6"

Pitch across wide water spaces 15" Working pressures by rules 181 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 —

002138-002150-0138

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
8 one set coupling bolts & nuts, one set, air feed, & bilge pump valves,
one main & one donkey check valve & seat, two donkey pump valves,
1 pump ring studs & nuts one safety valve spring, a quantity
of assorted bolts & nuts & iron of various sizes.

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

Do Cooper

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1921 May 23 June 22-24 July 20-22-26 Aug 3-11-19-24-30 Sept 10-15-17-20-24 Oct 2
During erection on board vessel --- 27-14-19-20-28 Nov 2-18-19-23-29-30 Dec 6-8-10-13-14-16-20-21-23 Jan 5-7-10-24-28
Total No. of visits 43.

Is the approved plan of main boiler forwarded herewith?

" " " donkey " "

with 20/12/21
S.S. PICKMERE

Dates of Examination of principal parts—Cylinders 10/12/20 Slides 5/1/21 Covers 10/12/20 Pistons 13/12/20 Rods 23/11/20
Connecting rods 14/12/20 Crank shaft 29/11/20 Thrust shaft 29/11/20 Tunnel shafts Screw shaft 26/7/20 Propeller 26/7/20
Stern tube 26/7/20 Steam pipes tested 24/1/21 Engine and boiler seatings 8/1/21 Engines holding down bolts 19/1/21
Completion of pumping arrangements 25/1/21 Boilers fixed 25/1/21 Engines tried under steam 25/1/21
Completion of fitting sea connections 18/8/20 Stern tube 18/8/20 Screw shaft and propeller 18/8/20
Main boiler safety valves adjusted 25/1/21 Thickness of adjusting washers P 3" S 3"
Material of Crank shaft Steel Identification Mark on Do. 2523 Material of Thrust shaft Steel Identification Mark on Do. 2524
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 2485
Material of Steam Pipes Copper Test pressure 400 lbs.

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

S.S. "PICKMERE."

General Remarks

(State quality of workmanship, opinions as to class, &c.)

The engines & boiler of this vessel have been built under special survey & the materials & workmanship are good.

On completion the machinery was tried under full working conditions while moored 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-1-21 marked in Red in the Society's Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC. 1.21.

Recd

4/2/21

APR

The amount of Entry Fee ... £ 2-0-0
Special ... 21-5-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for,

2/2/21

When received,

2-3-19

Garth

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE FEB 15 1921

Assigned

+ LMC 1.21

CERTIFICATE WRITTEN



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Lloyd's Register
Foundation