

REPORT ON MACHINERY

No. 28679

Received at London Office

WED. JUL. 28. 1915

Date of writing Report 7th June 1915. When handed in at Local Office

7.6.15 Port of Hull.

No. in Survey held at Hull.

Date, First Survey Dec 14/14 Last Survey 28.5.1915.

Reg. Book.

(Number of Visits 24)

on the Steel SSK "MANX QUEEN." (CPH 1094.)

Master

Built at Selby.

By whom built Cochrane & Co. Ltd.

Tons Gross 234

Net 115

When built 1915.

Engines made at Hull.

By whom made C. N. Holmes & Co. Ltd.

when made 1915.

Boilers made at Hull.

By whom made C. N. Holmes & Co. Ltd.

when made 1915.

Registered Horse Power

Owners W. H. Beeley.

Port belonging to Grimsby.

Nom. Horse Power as per Section 28 65.

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 12" 21" 34"

Length of Stroke 24"

Revs. per minute

Dia. of Screw shaft

as per rule 6.9"

Material of 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 31"

Dia. of Tunnel shaft as per rule 6.26"

Dia. of Crank shaft journals as per rule 6.57"

Dia. of Crank pin 6 7/8"

Size of Crank web 4 7/8" x 3 1/2"

Dia. of thrust shaft under

collars 6 7/8"

Dia. of screw 8-6"

Pitch of Screw 10-3"

No. of Blades 4.

State whether moveable no.

Total surface 27 1/2 sq ft

No. of Feed pumps 1.

Diameter of ditto 2 1/8"

Stroke 24"

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/8"

Stroke 24"

Can one be overhauled while the other is at work

No. of Donkey Engines One.

Sizes of Pumps 5" x 2 3/4" x 5"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2-2" On forward, On aft.

In Holds, &c. 2-2" Slushwell & Forehold.

2 1/2" ejector from all bilges.

No. of Bilge Injections 1.

sizes 3"

Connected to condenser, or to circulating pump pump.

Is a separate Donkey Suction fitted in Engine room & size 2 1/2" ejector.

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 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.

What pipes are carried through the bunkers

Hold 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.

Dates of examination of completion of fitting of Sea Connections 15.2.15. of Stern Tube 15.2.15. Screw shaft and Propeller 15.2.15.

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Messrs. Stewart & Lloyds.

Total Heating Surface of Boilers 1070 sq ft

Is Forced Draft fitted no.

No. and Description of Boilers One single-ended.

Working Pressure 180 lbs.

Tested by hydraulic pressure to 360 lbs.

Date of test 31.3.15.

No. of Certificate 3069.

Can each boiler be worked separately

Area of fire grate in each boiler 33 sq ft

No. and Description of Safety Valves to

each boiler 2 Spring

Area of each valve 3.98 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

5"

Mean dia. of boilers 14 7/8"

Length 10'0"

Material of shell plates S.

Thickness 1 1/2"

Range of tensile strength 28

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams 10R.

long. seams LR 10B.

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 7 1/2"

Lap of plates or width of butt straps 15"

Per centages of strength of longitudinal joint

rivets 85.6

plate 85.8

Working pressure of shell by rules 185.

Size of manhole in shell 16 x 12"

Size of compensating ring 7" x 1"

No. and Description of Furnaces in each boiler 2 plain.

Material S.

Outside diameter 45"

Length of plain part top 6'4"

Thickness of plates crown 1 1/2"

bottom 3/4"

Description of longitudinal joint welded.

No. of strengthening rings one

Working pressure of furnace by the rules 184.

Combustion chamber plates: Material S.

Thickness: Sides 1 1/8"

Back 2 3/4"

Top 1 1/8"

Bottom 1 1/8"

Pitch of stays to ditto: Sides 10 x 9.

Back 8 1/2 x 9 1/8

Top 8 1/2 x 10

If stays are fitted with nuts or riveted heads nuts.

Working pressure by rules 181.

Material of stays S.

Diameter at smallest part 2.07"

Area supported by each stay 90 sq in

Working pressure by rules 207.

End plates in steam space:

Material S.

Thickness 1 1/8"

Pitch of stays 17 x 17

How are stays secured N x W S

Working pressure by rules 185.

Material of stays S.

Diameter at smallest part 5.79"

Area supported by each stay 289.

Working pressure by rules 208.

Material of Front plates at bottom S.

Thickness 7/8"

Material of Lower back plate S.

Thickness 29/32"

Greatest pitch of stays 14 1/2 x 9 3/8"

Working pressure of plate by rules 190.

Diameter of tubes 3 1/2"

Pitch of tubes 5"

Material of tube plates S.

Thickness: Front 7/8"

Back 7/8"

Mean pitch of stays 10"

Pitch across wide water spaces 15"

Working pressures by rules 180

Girders to Chamber tops: Material S.

Depth and

thickness of girder at centre 8 x 1 3/4"

Length as per rule 32 7/16"

Distance apart 8 1/2"

Number and pitch of stays in each 2 at 10"

Working pressure by rules 193.

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

W835-0267

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:—

Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set each feed & bilge pump valves, one set of coupling bolts & nuts, iron of various sizes, a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

p. pro CHARLES D. HOLMES & CO. LD

Arthur Holmes

DIRECTOR

Manufacturer.

Dates of Survey while building

During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

1914: Dec 14 1915: Jan 28 Feb 4 11 13 15 23 Mar 11 15 24 26 31 Apr 6 14 19 27
28 May 4 5 17 18 21 26 28
24

Is the approved plan of main boiler forwarded herewith

yes

Dates of Examination of principal parts—Cylinders 15.3.15 Slides 26.3.15 Covers 15.3.15 Pistons 26.3.15 Rods 6.4.15

Connecting rods 6.4.15 Crank shaft 19.4.15 Thrust shaft 28.4.15 Tunnel shafts Screw shaft 13.2.15 Propeller 13.2.15

Stern tube 13.2.15 Steam pipes tested 18.5.15 Engine and boiler seatings 15.2.15 Engines holding down bolts 17.5.15

Completion of pumping arrangements 28.5.15 Boilers fixed 17.5.15 Engines tried under steam 21.5.15

Main boiler safety valves adjusted 21.5.15 Thickness of adjusting washers $FV \frac{15}{32}$ "AV $\frac{1}{2}$ "

Material of Crank shaft S Identification Mark on Do. 1445 Material of Thrust shaft S Identification Mark on Do. 1448

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts S Identification Marks on Do. 1429

Material of Steam Pipes Copper solid drawn Test pressure 360 lbs. hyd. press.

Is an installation fitted for burning oil fuel

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 engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The Boiler tested by hydraulic pressure and with the engines secured on board and tested under steam. They are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of LMC 5.15. in the Register book.

It is submitted that
this vessel is eligible for
THE RECORD, + LMC 5.15.

The amount of Entry Fee ... £ 1 : :
Special ... £ 9 : 15 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 8 : 2 31/7/1915

When applied for,

When received,

J. S. Mackillop

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. JUL. 30. 1915

Assigned

LMC 5.15



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Foundation