

WED. JAN. 20. 1915

Received at London Office

Date of writing Report 5-1-15

When handed in at Local Office

5-1-15 Port of Hull

No. in Survey held at Hull

Date, First Survey 11-8-14 Last Survey 5-1-15

19

Reg. Book.

64 39 on the steel screw steamer Cadet

(Number of Vents 48)

Gross 323

Master

Built at Beverley

By whom built Cook, Welton & Gemmell

Tons Net 134

Engines made at Hull

By whom made

C. D. Holmes & Co. Ltd (No 1072) when made 1915-1

Boilers made at Hull

By whom made

C. D. Holmes & Co. Ltd when made 1915-1

Registered Horse Power

Owners Thos. F. King & Co. Ltd, Hull Port belonging to Hull

Nom. Horse Power as per Section 28 87

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple expansion

No. of Cylinders Three

No. of Cranks 3

Dia. of Cylinders 13-23-37

Length of Stroke 26

Revs. per minute

Dia. of Screw shaft

as per rule 7.91

Material of

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

yes

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 2-11 1/2

Dia. of Tunnel shaft

as per rule 7.04

Dia. of Crank shaft journals

as per rule 7.39

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 9-7 1/2

Pitch of Screw 11-0

No. of Blades 4

State whether moveable

no

Total surface 33 1/2

No. of Feed pumps one

Diameter of ditto 2 3/4

Stroke 14 3/4

Can one be overhauled while the other is at work

No. of Bilge pumps one

Diameter of ditto 2 3/4

Stroke 14 3/4

Can one be overhauled while the other is at work

No. of Donkey Engines one 4 1/2 yds

Sizes of Pumps 6 x 3 1/2 x 6 7/8 wheel

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

In Engine Room two 2" dia

In Holds, &c. one 2" in each compartment

all suction coupled to ejector

No. of Bilge Injections one

size 3 1/2

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 2 1/2 yds

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 stowhold plates

yes

Are the Discharge Pipes above or below the deep water line

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

What pipes are carried through the bunkers

forward 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

Dates of examination of completion of fitting of Sea Connections 5-9-14

of Stern Tube 5-9-14

Screw shaft and Propeller 5-9-14

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Phoenix & Co. Ltd, Hull

Total Heating Surface of Boilers 1440

Is Forced Draft fitted

no

No. and Description of Boilers

one single ended

Working Pressure 200

Tested by hydraulic pressure to 400

Date of test 19-11-14

No. of Certificate 3043

Can each boiler be worked separately

Area of fire grate in each boiler 49.57

No. and Description of Safety Valves to

each boiler two spring loaded

Area of each valve 4.9

Pressure to which they are adjusted 205

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Mean dia. of boilers 165"

Length 10-6"

Material of shell plates

Thickness 1 3/4

Range of tensile strength 29-335

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams double

long. seams J.P.H.B.

Diameter of rivet holes in long. seams 1 1/32

Pitch of rivets 8 1/2

Top of plates or width of butt straps 18"

Per centages of strength of longitudinal joint

rivets 88.9

plate 85

Working pressure of shell by rules 202

Size of manhole in shell 12" x 16"

Size of compensating ring 7" x 1 3/4

No. and Description of Furnaces in each boiler

one plain

Material S

Outside diameter 40"

Length of plain part

top 7 1/2"

Thickness of plates

bottom 1 1/16"

Description of longitudinal joint welded

No. of strengthening rings

yes

Working pressure of furnace by the rules 206

Combustion chamber plates: Material S

Thickness: Sides 3/4"

Back 2 3/32"

Top 3/4"

Bottom 3/4"

Pitch of stays to ditto: Sides 8 x 10"

Back 8 1/4 x 9 1/2"

Top 11 x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules 211

Material of stays S

Diameter at smallest part 2 1/4

Area supported by each stay 105"

Working pressure by rules 206

End plates in steam space

Material S

Thickness 1 1/32"

Pitch of stays 19 1/2 x 18"

How are stays secured

8 x 11"

Working pressure by rules 200

Material of stays S

Diameter at smallest part 7 1/2"

Area supported by each stay 350"

Working pressure by rules 222

Material of Front plates at bottom S

Thickness 1"

Material of Lower back plate S

Thickness 1 1/16"

Greatest pitch of stays 13 1/2 x 9 1/2"

Working pressure of plate by rules 214

Diameter of tubes 3 1/2"

Pitch of tubes 4 7/8"

Material of tube plates S

Thickness: Front 1"

Back 7/8"

Mean pitch of stays 9 1/4"

Pitch across wide water spaces 13 3/4"

Working pressures by rules 203

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 11" x 1 3/4"

Length as per rule 36 7/32"

Distance apart 11"

Number and pitch of stays in each

two 8"

Working pressure by rules 201

Superheater or Steam chest; how connected to boiler

yes

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

yes

Lloyd's Register

Foundation

007008-1-7020-0004

IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *✓*
SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air feed valve pump valves, one set of piston studs, one feed or bilge pump plunger, one impeller & shaft, one safety valve spring & a quantity of bolts & nuts & nuts of various sizes*

The foregoing is a correct description,

p. pro CHARLES D. HOLMES & CO. LTD.

A. Arthur Holmes

DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914:— Aug 11, 13, 20, 21, 26, 28, 31. Sept 3, 5, 8, 14, 18, 22, 23, 28 Oct 1, 3, 6, 8, 14, 16, 19, 20, 22, 23, 26
During erection on board vessel - - - 28, 30 Nov 3, 5, 9, 11, 14, 17, 18, 19, 24, 25 Dec 5, 8, 11, 14, 16, 17, 21 Jan 4, 5.
Total No. of visits 48.

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders 3-11-14 Slides 16-11-14 Covers 16-11-14 Pistons 9-11-14 Rods 9-11-14

Connecting rods 9-11-14 Crank shaft 19-10-14 Thrust shaft 14-11-14 Tunnel shafts ✓ Screw shaft 21-8-14 Propeller 21-8-14

Stern tube 28-8-14 Steam pipes tested 11-12-14 Engine and boiler seatings 5-9-14 Engines holding down bolts 8-12-14

Completion of pumping arrangements 5-1-14 Boilers fixed 21-12-14 Engines tried under steam 17-12-14

Main boiler safety valves adjusted 17-12-14 Thickness of adjusting washers $7\frac{9}{16}$ & $2\frac{3}{8}$

Material of Crank shaft *Iron* Identification Mark on Do. 1298 FLS Material of Thrust shaft *Steel* Identification Mark on Do. 1387 FLS

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. 1262 FLS

Material of Steam Pipes *Solid drawn copper* ✓ Test pressure 400 ✓

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 Machinery of this vessel has been constructed under special survey in accordance with the approved plan & the rules of this Society, the materials & workmanship are good, the boiler & steam pipes have been tested as above & found sound & good. The machinery has been properly fitted & secured on board & on completion was tried under steam & found to work satisfactorily. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 209 lbs.*

In my opinion the vessel is eligible for the record + L.M.C. 1-15.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 1-15.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 13 : 1 :
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ 2/-

When applied for,

14-1-1915

When received,

29/1/15

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

Committee's Minute FRI. JAN. 22, 1915

Assigned

+ L.M.C. 1-15

MACHINERY CERTIFICATE
ENTERED



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