

REPORT ON MACHINERY

No. 40 994

Received at London Office

WED. JUN. 23 1920

Writing Report

When handed in at Local Office

Port of

Glasgow

Survey held at

Grangemouth

Date, First Survey 28-1-20

Last Survey 15-6-1920

on the

S/S "FIR PARK"

(Number of Visits 10)

Tons { Gross
Net

Built at

Grangemouth

By whom built

Grangemouth Dryd. Co. Ltd.

When built 1920

made at

Dundee

By whom made

Coopers & Lyell Ltd.

when made 1920

made at

"

By whom made

do

when made 1920

rated Horse Power

Owners

Deulohm Shipping Co. Ltd.

Port belonging to

Greenock

Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Engines, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Cylinders

21, 30, 57

Length of Stroke

36

Revs. per minute

78

Dia. of Screw shaft

as per rule

Material of screw shaft

screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

propeller boss

If the liner is in more than one length are the joints burned

If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

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

Length of stern bush

Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Length of Crank pin

Size of Crank webs

Dia. of thrust shaft under

as fitted

Dia. of screw

Pitch of Screw

as fitted

No. of Blades

State whether moveable

Total surface

Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Donkey Engines

Sizes of Pumps

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

Engine Room

In Holds, &c.

Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

connections with the sea direct on the skin of the ship

Are they Valves or Cocks

fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

Engines, &c.—(Letter for record) Manufacturers of Steel

Heating Surface of Boilers

3496 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

2 Single Ended 2 S.B.

Pressure

180

Tested by hydraulic pressure to

360

Date of test

No. of Certificate

Can boiler be worked separately

Yes

Area of fire grate in each boiler

No. and Description of Safety Valves to

Double Spring

Area of each valve

4.07 sq ft

Pressure to which they are adjusted

185

Are they fitted with easing gear

Yes

Distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Working pressure of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Plain part

top

Thickness of plates

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Working pressure of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Working pressure of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Working pressure of stays at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Working pressure of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Working pressure of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Steam dome: description of joint to shell

% of strength of joint

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Superheater. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

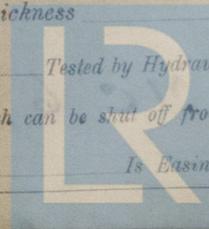
Pressure to which each is adjusted

Is Easing Gear fitted

Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted



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Lloyd's Register Foundation

509-0130

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:-

Spare gear checked & found in order

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920 Jan 28 Feb 6-10-16-17-20 Mar 12 May 20 June 15. During erection on board vessel --- Total No. of visits 10.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts - Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts Engines tried under steam 15-6-20

Completion of pumping arrangements 20-5-20 Boilers fixed 20-2-20 Stern tube 12-3-20 Screw shaft and propeller

Main boiler safety valves adjusted 20-5-20 Thickness of adjusting washers PR 5/16-5 4/32 PR 7/16-5 9/32

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

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

Material of Steam Pipes Test pressure 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engines have been

tried under steam with satisfactory results. The machinery of this vessel is eligible in my opinion for the record of L.M.C. 6-20.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6-20 489 2/7/20 J.W.D. J.M.

GLASGOW Certificate (if required) to be sent to

The amount of Entry Fee ... £ : : When applied for, 22 JUN 1920 Special ... £ : : 19 Donkey Boiler Fee ... £ : : When received, 25/5/20 Travelling Expenses (if any) £ 1 : 5 - 25/5/20

W. Gordon Maclellan Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 22 JUN 1920 Assigned + L.M.C. 6, 20

MACHINERY CERT WRITER 23/6/20



Rpt. 4. Date of writing No. in Survey Reg. Book. Master Engines made Boilers made Registered Nom. Horse Power ENGINES Dia. of Cylinders Is the screw in the propeller between the liners are fitted Dia. of Tunnel collars No. of Feed No. of Bilge No. of Donkey In Engine Room after trial No. of Bilge Are all the Are all connected Are they fixed Are they each What pipes Are all Pipe Are the Bilge Is the Screw BOILERS Total Heating Working Can each boiler each boiler 2 Smallest distance Thickness long. seams Per centages Size of com Length of pla Working press Pitch of stays Material of st Material Area at sma Thickness Diameter of t Pitch across thickness of g Working pres Diameter Pitch of rivets UPERHE Date of Test Diameter of S