

# REPORT ON MACHINERY

No. 17876.  
WED. AUG. 31 1921

Received at London Office

of writing Report

19

When handed in at Local Office

16/6/ 1921. Port of

GREENOCK

in Survey held at  
Book.

Date, First Survey

30<sup>th</sup> Dec 1920.

Last Survey

14<sup>th</sup> June 1921.

(Number of Visits 6)

on the

S.S. "ERA". (Builders No 381).

Built at

Port. Glasgow.

By whom built

Wm Hamilton & Co Ltd.

Tons

Gross 3148

Net 1891

When built

1921.

engines made at

Glasgow.

By whom made

David Rowan & Co. Ltd.

when made

1921.

ilers made at

Glasgow.

By whom made

— Do —

when made

1921.

Registered Horse Power

Owners

Howard Smith Ltd.

Port belonging to

Melbourne.

in. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

GINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

a. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

as fitted

screw shaft

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

Is the after end of the liner made water tight

the 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

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

If two

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

Length of stern bush

a. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

lars

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

a. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

a. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

a. of Donkey Engines

Sizes of Pumps

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

Engine Room

In Holds, &c.

a. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

all connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both.

they 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

they 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

hat pipes are carried through the bunkers

How are they protected

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

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

the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

ILERS, &c.—(Letter for record

) Manufacturers of Steel

total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

h boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

ickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

ig. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

er centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

ze of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

ngth of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

orking pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

itch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

aterial of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

aterial

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

rea at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

ickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

itch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

ickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

orking pressure by rules

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

itch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

PERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

ate 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

008288-008295-0011

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }  
{ During erection on board vessel - - - }  
Total No. of visits

1920. Dec 30. 1921 Jan 18. Mar. 21. 25. May 19. June 14.  
6.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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 24-3-21. Engines holding down bolts  
Completion of pumping arrangements Boilers fixed Engines tried under steam 14-6-21.  
Completion of fitting sea connections 21-3-21. Stern tube 24-3-21. Screw shaft and propeller  
Main boiler safety valves adjusted Thickness of adjusting washers  
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.)

Vessel taken to Glasgow for machinery to be fitted.

Certificate (if required) to be sent to  
The Surveys 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

Committee's Minute GLASGOW 30 AUG 1921

Assigned See Gls. Rpt. 41328

Graham Robertson.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation