

REPORT ON MACHINERY.

No. 42555

Received at London Office

MAR 21 1923

Date of writing Report

When handed in at Local Office

19.3.23 Port of Glasgow

No. in Survey held at

Clydebank

Date, First Survey

14 June 1920

Last Survey

8 March

1923

Reg. Book.

on the

B.S. Cochrane

(Number of Visits 60)

Tons { Gross
Net

Master

Built at

Clydebank

By whom built

John Brown & Co. Ltd. (597)

When built 1923.

Engines made at

Clydebank

By whom made

John Brown & Co. Ltd. (597)

when made 1923

Boilers made at

Clydebank

By whom made

John Brown & Co. Ltd. (597)

when made 1923.

Registered Horse Power

Owners

Elder Dempster & Co.

Port belonging to

Liverpool

Shaft Horse Power at Full Power

2950

Is Refrigerating Machinery fitted for cargo purposes

yes

Is Electric Light fitted

yes

TURBINE ENGINES, &c.—Description of Engines Brown Curtis & Co. Gear and Turbines No. of Turbines 3. H.P. 112. L.P.

Diameter of Rotor Shaft Journals, H.P. 3" 1P 4 1/2" L.P. 8"

Diameter of Pinion Shaft H.P. 1 1/2" L.P. 7" 2nd Red 15"

Diameter of Journals 3 1/2" 7"

Distance between Centres of Bearings L.P. 3-2 1/4"

Diameter of Pitch Circle H.P. 1P 8 9/16" L.P. 13-7 1/16"

Diameter of Wheel Shaft 20" 10"

Distance between Centres of Bearings 7' 8 1/2"

Diameter of Pitch Circle of Wheel 123-9 7/8"

Width of Face 35"

Diameter of Thrust Shaft under Collars 15"

Diameter of Tunnel Shaft as per rule 14-1"

Diameter of same as per rule 15-5"

as fitted 15-1/2"

Diameter of Propeller 18-6"

Pitch of Propeller 17' 3"

Number of Screw Shafts 4

State whether Moveable yes

Total Surface 110 3/4 ft²

Diameter of Rotor Drum, H.P.

L.P.

astern

Thickness at Bottom of Groove, H.P.

L.P.

Astern

Revs. per Minute at Full Power, Turbine L.P. 1670

Propeller 75

PARTICULARS OF BLADING.

H.P.

L.P.

ASTERN.

EXPANSION	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
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and size of Feed pumps 2, 1000 8" 24" 10 1/2"

and size of Bilge pumps 2,

9" 18" 8"

and size of Bilge suction in Engine Room 1/4" 3 1/2"

In Holds, &c. 1/10" 3 1/2"

Bilge Injections 1 sizes 12"

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine Room & size yes 3 1/2"

All the bilge suction pipes fitted with roses yes

Are the roses in Engine room always accessible yes

All connections with the sea direct on the skin of the ship yes

Are they Valves or Cocks both yes

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

Pipes are carried through the bunkers for bilge & Ballast suction

How are they protected under floors

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

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

Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from top platform

ERS, &c.—(Letter for record (5) Manufacturers of Steel

The Steel Company of Scotland

Heating Surface of Boilers 9035 1/2 ft²

Is Forced Draft fitted yes

No. and Description of Boilers 4 Bilge ended

Working Pressure 215

Tested by hydraulic pressure to 377

Date of test 20/12/20 9/12/20

No. of Certificate 13605 13622

Can boiler be worked separately yes

Area of fire grate in each boiler 49.875 ft²

No. and Description of Safety Valves to

Are they fitted with easing gear yes

Are they pair spring yes

Area of each valve 4.91 ft²

Pressure to which they are adjusted 220

Material of shell plates steel

Distance between boilers or uptakes and bunkers or woodwork well clear

Mean dia. of boilers 15-0

Length 11' 6"

Descrip. of riveting: cir. seams & lap

Range of tensile strength 29 to 33 tons

Are the shell plates welded or flanged no

Lap of plates or width of butt straps 21"

Diameter of rivet holes in long. seams 1 7/16"

Pitch of rivets 9 3/8"

Working pressure of shell by rules 216

Rivets 88.8

plates 85.4

Size of manhole in shell 16" 12"

Working pressure of longitudinal joint

plates 85.4

Working pressure of shell by rules 216

Size of manhole in shell 16" 12"

Compensating ring 3'-3" 2'-10"

No. and Description of Furnaces in each Boiler 3 Monsons

Material steel Outside diameter 46 1/2"

Plain part top

Thickness of plates

crown

bottom

Description of longitudinal joint welded

No. of strengthening rings

Pressure of furnace by the rules 216

Combustion chamber plates: Material steel

Thickness: Sides 21"

Back 32

Top 32

Bottom 13"

Stays to ditto: Sides 7 3/4" 8 3/8"

Back 8 3/8" 8 3/4"

Top 8 3/4" 7 3/4"

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 228

End plates in steam space

Diameter at smallest part 1.875 ft

Area supported by each stay 65 ft²

Working pressure by rules 227

How are stays secured 2 nuts

Working pressure by rules 218

Material of stays steel

Thickness 1 3/16"

Pitch of stays 18" 16"

Area supported by each stay 287.5

Working pressure by rules 225

Material of Front plates at bottom steel

Material of Lower back plate steel

Thickness 3/32"

Greatest pitch of stays 14"

Working pressure of plate by rules 215

Mean pitch of stays 10"

Pitch of tubes 4" 4"

Material of tube plates steel

Thickness: Front 3/32"

Back 3/32"

Girders to Chamber tops: Material steel

Depth and

Wide water spaces 14" with 5/8" double

Working pressures by rules 272

Length as per rule 33"

Distance apart 8 3/4"

Number and pitch of stays in each (3) 7 3/4"

Diameter of shell plates

Material

Description of longitudinal joint

Diameter of rivet holes

Pitch of rivets

Pressure of shell by rules

Crown plates: Thickness

How stayed

Pressure of shell by rules

Crown plates: Thickness

How stayed

Pressure of shell by rules

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