

## REPORT ON MACHINERY.

No. 32115.

SAT. SEP. 11 1920

Date of writing Report

19

When handed in at Local Office

9 19 1020 Port of

Received at London Office

Hull

No. in Survey held at  
Reg. Book.

Goole

Date, First Survey

17.3.20

Last Survey

3-9-1920

on the ss "Edwin Douglas", ex "Killena"

Master

Built at Middlesbrough

By whom built Smiths D.D. &amp; Co. Ld.

Gross 623.86

Net 266.95

When built 1918

Engines made at

Middlesbrough

By whom made

Smiths D.D. &amp; Co. Ld.

when made

1918

Boilers made at

By whom made

Coombs, Marshall &amp; Co.

when made

1918

Registered Horse Power

Owners

Robinson, Barrow &amp; Co. Ld.

Port belonging to

Middlesbrough

Nom. Horse Power as per Section 28

116

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &amp;c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

16-26-46

Length of Stroke

26

Revs. per minute

Dia. of Screw shaft

as per rule 8.5

Material of

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

stated to be continuous

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

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

49

Dia. of Tunnel shaft

as per rule 7.95

Dia. of Crank shaft journals

as per rule 8.35

Dia. of Crank pin

8 3/4

Size of Crank webs

5 1/2 x 15 3/4

Dia. of thrust shaft under

rollers

8 1/2

Dia. of screw

9-6

Pitch of Screw

8-6

No. of Blades

4

State whether moveable

no

Total surface

36 sq. ft.

No. of Feed pumps

2 Weirs

Diameter of ditto

7

Stroke

18

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

one (independent)

Diameter of ditto

6

Stroke

6

Can one be overhauled while the other is at work

-

No. of Donkey Engines

14 1/2 g.p.s.

Sizes of Pumps

6 x 6 x 6 Duplex

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

In Engine Room two 2 1/2", one port &amp; one starboard.

In Engine Room

two 2 1/2", one port &amp; one starboard.

In Holds, &amp;c.

2 1/2" from fore peak, 1 1/2" hold.

No. of Bilge Injections

one sizes 6

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room of size

yes 2 1/2"

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 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

forward suction

How are they protected

wood casings

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

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

bolted to bulkhead.

MILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Total Heating Surface of Boilers

1832 sq. ft.

Is Forced Draft fitted

no

No. and Description of Boilers

one single ended.

Working Pressure

200 lb.

Tested by hydraulic pressure to

-

Date of test

-

No. of Certificate

-

In each boiler be worked separately

-

Area of fire grate in each boiler

51.5 sq. ft.

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

5.9 sq. ft.

Pressure to which they are adjusted

200 lb.

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

alt 12"

Mean dia. of boilers

156

Length

11-6"

Material of shell plates

Steel

Thickness

1 1/4"

Range of tensile strength

-

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR.

g. seams

TRDAS

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

9 7/16"

Lap of plates or width of butt straps

19"

Percentages of strength of longitudinal joint

rivets 83.8

plate 86.5

Working pressure of shell by rules

198 lb.

Size of manhole in shell

16 x 12"

No. of compensating ring

9 x 1 1/4"

No. and Description of Furnaces in each boiler

3 Deighton

Material

S

Outside diameter

41 7/8"

Length of plain part

top -

Thickness of plates

crown 9/16"

bottom 1/16"

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

212

Combustion chamber plates: Material

S

Thickness: Sides

1/16"

Back

1/16"

Top

1/16"

Bottom

1"

Pitch of stays to ditto: Sides

9 x 8 3/4"

Back

8 3/4 x 8 1/2"

Top

8 1/2 x 9"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

209

Material of stays

S

Area at smallest part

2.03

Area supported by each stay

76.75

Working pressure by rules

232

End plates in steam space:

-

Material

S

Thickness

1 3/16"

Pitch of stays

17 1/2 x 17 1/2"

How are stays secured

DNW

Working pressure by rules

218

Material of stays

S

Area at smallest part

6.70

Area supported by each stay

306.0

Working pressure by rules

207

Material of Front plates at bottom

S

Thickness

1"

Material of Lower back plate

S

Thickness

1"

Greatest pitch of stays

14 1/2 x 8 3/4"

Working pressure of plate by rules

240

Number of tubes

2 1/2

Pitch of tubes

3 1/16 x 3 3/4"

Material of tube plates

S

Thickness: Front

1"

Back

1 3/16"

Mean pitch of stays

8 3/8"

Pitch across wide water spaces

13 1/4"

Working pressures by rules

204

Girders to Chamber tops: Material

S

Depth and

-

Thickness of girder at centre

8 x 1 3/4"

Length as per rule

31 1/4"

Distance apart

8 1/2"

Number and pitch of stays in each

two 9"

Working pressure by rules

202

Steam dome: description of joint to shell

-

%

of strength of joint

-

Material

-

Thickness of shell plates

-

Material

-

Description of longitudinal joint

-

Diam. of rivet holes

-

No. of rivets

-

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



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 pair main bearing brasses; one pair each top & bottom end brasses; one main & one donkey check valve; one set of feed & bilge pump valves; one safety valve spring; a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Dates of Survey of Survey while building

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

1920:— Mar. 14. 22. Apr. 30. Aug. 9. 11. 12. 16. 23. 25. 26.

Sept. 3.

11

Is the approved plan of main boiler forwarded herewith

✓

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 30-4-20 Slides 30-4-20 Covers 30-4-20 Pistons 30-4-20 Rods 30-4-20  
Connecting rods 30-4-20 Crank shaft 30-4-20 Thrust shaft 30-4-20 Tunnel shafts 30-4-20 Screw shaft ✓ Propeller 22-3-20  
Stern tube 22-3-20 Steam pipes tested 12-8-20 Engine and boiler seatings 11-8-20 Engines holding down bolts ✓  
Completion of pumping arrangements 26-8-20 Boilers fixed ✓ Engines tried under steam 26-8-20  
Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓  
Main boiler safety valves adjusted 26-8-20 Thickness of adjusting washers P & S 5/16.

Material of Crank shaft Steel Identification Mark on Do. 3832 AH Material of Thrust shaft Steel Identification Mark on Do. 3832 AH  
Material of Tunnel shafts Steel Identification Marks on Do. 3832 AH Material of Screw shafts Steel Identification Marks on Do. 3832 AH  
Material of Steam Pipes S.D. Steel Test pressure 600 lbs per sq. in.

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. No

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel Merton (Hull Rpt. 32009)

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel

has been opened out & examined on board the vessel, & was found to be in accordance with the Rules of this Society, & in all respects similar to the machinery of "Kil" class vessels built in this district under this Society's inspection.

The materials & workmanship are good.

The main steam pipes have been tested as above by hydraulic pressure.

The machinery is properly fitted & secured on board, & has been tested under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation.

In my opinion the vessel is eligible for the record LMC 9.20.

The amount of Entry Fee £ : : When applied for,  
Special £ : : 19  
Donkey Boiler Fee £ : :  
Travelling Expenses (if any) £ : : 19

When received,

P. Fitzgerald

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. SEP. 24 1920

TUE. OCT. 26 1920

WED. 29 DEC 1926

TUE. DEC. 14 1920

TUE. NOV. 29 1921

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