

REPORT ON MACHINERY.

No. 28425

Received at London Office

SAT. SEP. 30 1922

Date of writing Report

19

When handed in at Local Office

29 SEP 1922

Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey

18th April 1921

Last Survey

21st Sept 1922

(Number of Visits 32)

80710 on the new steel S/S "STAKESBY"

Master

Built at Sunderland

By whom built

J. L. Thompson & Son Ltd (N^o 544)Gross 4675 4767
Net 3608 2906

When built 1922

Engines made at

Sunderland

By whom made

J. Dickinson & Son Ltd (N^o 863)

when made

1922

Boilers made at

Sunderland

By whom made

J. Dickinson & Son Ltd (N^o 863)

when made

1922

Registered Horse Power

Owners

Rowland & Marwood's S S Co Ltd.

Port belonging to

Whitby

Nom. Horse Power as per Section 28

357

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

Dia. of Cylinders

25" 41" 68"

Length of Stroke

45

Revs. per minute

70

Dia. of Screw shaft

as per rule 14.48"

Material of

J. Steel

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

no liners

Is the after end of the liner made water tight

in 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

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

Length of stern bush

5'0"

Dia. of Tunnel shaft

as per rule 12.46"

Dia. of Crank shaft journals

as per rule 13.08"

Dia. of Crank pin

13 1/4"

Size of Crank webs

8 1/2" x 7 1/2"

Dia. of thrust shaft under

collars

13 1/4"

Dia. of screw

16'6"

Pitch of Screw

15'6"

No. of Blades

4

State whether moveable

no

Total surface

79.50 sq

No. of Feed pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

10" 9" 10 1/2" 10" 20" 7 1/2" 4 1/2" 6"

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

In Engine Room

4 @ 3 1/2"

In Holds, &c. N^o 1 hold, - 2 @ 3 1/2". N^o 2 hold, - 2 @ 3 1/2".

No. of Bilge Injections

1

sizes

4"

Connected to condenser, or to circulating pump

b. p.

Is a separate Donkey Suction fitted in Engine room & size

yes, 4"

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

none

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 hold suction

How are they protected

Under 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

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from Top platform

BOILERS, &c.—(Letter for record (5))

Manufacturers of Steel

John Spencer & Sons Ltd.

3SB.

Total Heating Surface of Boilers

57780 sq

Is Forced Draft fitted

no

No. and Description of Boilers

Three single ended marine

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

30-8-22

No. of Certificate

3808

Can each boiler be worked separately

yes

Area of fire grate in each boiler

540 sq

No. and Description of Safety Valves to

each boiler

Area of each valve

8.30"

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

5'0"

Mean dia. of boilers

14'6"

Length

10'6"

Material of shell plates

steel

Thickness

1 3/16"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

long. seams

WBS. TR

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets

8 3/4"

Gap of plates or width of butt straps

19 1/2"

Per centages of strength of longitudinal joint

rivets 100

plate 85

Working pressure of shell by rules

181

Size of manhole in shell

16" x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3

Height

Material

steel

Outside diameter

44"

Length of plain part

top

Thickness of plates

crown 1 1/2"

bottom 1 3/4"

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

steel

Thickness: Sides

1 1/2"

Back

1 1/2"

Top

1 1/2"

Pitch of stays to ditto: Sides

9" x 10"

Back

9" x 10"

Top

8 1/2" x 10"

If stays are fitted with nuts or riveted heads

nuts in use

Working pressure by rules

182

Material of stays

steel

Area at smallest part

2.030"

Area supported by each stay

900"

Working pressure by rules

201

End plates in steam space:

-

Material

steel

Thickness

1 1/8"

Pitch of stays

19" x 17"

How are stays secured

DN

Working pressure by rules

180

Material of stays

steel

Area at smallest part

5.570"

Area supported by each stay

285

Working pressure by rules

189

Material of Front plates at bottom

steel

Thickness

3 1/2"

Material of Lower back plate

steel

Thickness

3 1/2"

Material of

steel

Thickness

7 1/8"

Greatest pitch of stays

10" x 13 1/8"

Working pressure of plate by rules

181

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

steel

Thickness: Front

3 1/2"

Back

7 1/8"

Mean pitch of stays

9" x 9"

Pitch across wide water spaces

13 1/4"

Working pressures by rules

182

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

206 1/2" x 1

Length as per rule

Working pressure by rules

182

Steam dome: description of joint to shell

none

% of strength of joint

-

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

-

UPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date 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

005524-005536-0193

Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? *—*

SPARE GEAR. State the articles supplied:— *Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bridge pump valves, iron and bolts of various sizes, one screw shaft and one propeller.*

The foregoing is a correct description,

W. K. Robinson

Manufacturer.

MANAGER

Dates of Survey while building { During progress of work in shops - - 1921. Apr. 18. 20. May 7. 17. 30. Apr. 5. 19. May 9. 12. 16. 22. 30. July 17. 24. 25. 26. 27. Aug. 15.
During erection on board vessel - - 22. 25. 29. Sep. 4. 7. 9. 12. 13. 14. 15. 22. 24.
Total No. of visits 32

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

" " " donkey " " " *—*

Dates of Examination of principal parts—Cylinders 26-7-22 Slides 15-8-22 Covers 15-8-22 Pistons 26-7-22 Rods 27-7-22
Connecting rods 17-7-22 Crank shaft 21-7-22 Thrust shaft 21-7-22 Tunnel shafts 21-7-22 Screw shaft 21-7-22 Propeller 25-8-22
Stern tube 17-7-22 Steam pipes tested 7-9-22 Engine and boiler seatings 26-7-22 Engines holding down bolts 14-9-22
Completion of pumping arrangements 15-9-22 Boilers fixed 14-9-22 Engines tried under steam 15-9-22
Completion of fitting sea connections 18-4-21 Stern tube 26-7-22 Screw shaft and propeller 6-9-22
Main boiler safety valves adjusted 15-9-22 Thickness of adjusting washers *low. 1/4", P 1/2", S 1/2"; but 1/4", P 1/2", S 1/2"; standard 1/4", P 1/2", S 1/2"*
Material of Crank shaft *Steel* Identification Mark on Do. 5622 Material of Thrust shaft *Steel* Identification Mark on Do. 6321
Material of Tunnel shafts *Steel* Identification Marks on Do. 6321 Material of Screw shafts *Steel* Identification Marks on Do. 6321, 141
Material of Steam Pipes *Solid drawn copper* Test pressure 400 lb per sq"

Is an installation fitted for burning oil fuel *no*

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 materials and workmanship are good.
The machinery has been constructed under special survey as is eligible
in my opinion for classification and the record + LMC 9.22.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 9.22.

W. K. Robinson
3/9/22

The amount of Entry Fee ... £ 5: :
Special ... £ 78: 11 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 23rd Sep 1922.
When received, 11/10/22

S. J. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 6 OCT. 1922

Assigned

+ LMC 9.22.

MACHINERY CERT.
WRITTEN



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