

## REPORT ON MACHINERY.

No. 11244  
MON. JUN 14 1920

Received at London Office

Writing Report 17.5 - 1920 When handed in at Local Office

Port of Rotterdam

Survey held at

Bolnes

Date, First Survey 14-12-18

Last Survey 15-5-

1920

Book.

on the Steel Screw Steamer "MERAK"

(Number of Visits 14)

or

Built at

Bolnes

By whom built

W. Boelers Schuyser &amp; Machfab

Tons

Gross

Net

When built

1910

es made at

Bolnes

By whom made

W. Boelers Schuyser &amp; Machfab

when made

1920

s made at

Bolnes

By whom made

W. Boelers Schuyser &amp; Machfab

when made

1920

Horse Power

Owners

Chevel &amp; Conduans Thoma

Horse Power as per Section 28

167

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

LINES, &amp;c.—Description of Engines

Vertical triple expansion

No. of Cylinders

3

No. of Cranks

3

of Cylinders

24 1/2 x 37 x 60

Length of Stroke

39

Revs. per minute

108

Dia. of Screw shaft

15 1/2

Material of

SM Steel

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

Yes

Is the after end of the liner made water tight

propeller boss

Yes

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

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

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

of Tunnel shaft

as per rule 10 1/2

Dia. of Crank shaft journals

as per rule 11 1/2

Dia. of Crank pin

11 1/2

Size of Crank webs

11 1/2 x 6 1/2

Dia. of thrust shaft under

11 1/2

of 11 1/2

Dia. of screw

14 9/16

Pitch of Screw

14

No. of Blades

4

State whether moveable

No

Total surface

404

Feed pumps

2

Diameter of ditto

2 1/2

Stroke

19 1/2

Can one be overhauled while the other is at work

Bilge pumps

2

Diameter of ditto

3

Stroke

19 1/2

Can one be overhauled while the other is at work

Donkey Engines

3

Sizes of Pumps

2 x 8 x 6 1/4 x 15

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

Engine Room

One engine room one in tunnel in 2 1/2"

In Holds, &amp;c.

2 in 1st hold, 2 in 2nd hold 4 in after hold

Bilge Injections

1 size

Connected to condenser to circulating pump

Is a separate Donkey Suction fitted in Engine room &amp; size

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

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

Yes

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

Yes

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

pipes are carried through the bunkers

None

How are they protected

-

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

Yes

the 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

ERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Schulz Krauss &amp; Hachungen

3 S.B.

Heating Surface of Boilers

43,594

Is Forced Draft fitted

No

No. and Description of Boilers

3 single end marine boilers

ing Pressure

180 lbs

Tested by hydraulic pressure to

240 lbs

Date of test

10-3-20

No. of Certificate

694

each boiler be worked separately

Yes

Area of fire grate in each boiler

43

No. and Description of Safety Valves to

boiler

2 Spring loaded

Area of each valve

4.90

Pressure to which they are adjusted

st distance between boilers or uptakes and bunkers or woodwork

over 18"

Mean dia. of boilers

12 9/16"

Length

11 1/2"

Material of shell plates

SM Steel

Range of tensile strength

18-25 tons

Are the shell plates welded or flanged

No

Double butt strap

Diameter of rivet holes in long. seams

1 3/16

Pitch of rivets

1 1/8"

Lap of plates or width of butt straps

14 1/2"

tages of strength of longitudinal joint

rivets 85.5%

plate 85.5%

Working pressure of shell by rules

195 lbs

Size of manhole in shell

17 x 21

No. and Description of Furnaces in each boiler

2 Mueson type

Material

SM Steel

Outside diameter

of plain part

top

Thickness of plates

crown 7/16"

bottom 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

None

ing pressure of furnace by the rules

100 lbs

Combustion chamber plates: Material

SM Steel

Thickness: Sides

1/4"

Back

1/4"

Top

1/4"

Bottom

1"

of stays to ditto: Sides

1 1/2"

Back

1 1/2"

Top

1 1/2" x 8 1/4"

If stays are fitted with nuts or riveted heads

riveted heads but

Working pressure by rules

188 lbs

ial of stays

Steel

Area at smallest part

145

Area supported by each stay

640

Working pressure by rules

181 lbs

End plates in steam space:

ial SM Steel

Thickness

3/4" + 1/16"

Pitch of stays

15 x 16 1/2"

How are stays secured

Thread in

Working pressure by rules

215 lbs

Material of stays

SM Steel

at smallest part

5.940

Area supported by each stay

1480

Working pressure by rules

149 lbs

Material of Front plates at bottom

SM Steel

Material of Lower back plate

SM Steel

Thickness

3/4"

Material of tubes

3/4"

Pitch of tubes

4 3/4"

Material of tube plates

SM Steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

1 1/2"

across wide water spaces

15"

Working pressures by rules

182 lbs

Girders to Chamber tops: Material

SM Steel

Depth and

Weight of girder at centre

9 1/2 x 11 x 1/4"

Length as per rule

30"

Distance apart

ing pressure by rules

180 lbs

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

-

of rivets

-

Working pressure of shell by rules

-

Crown plates

-

Thickness

-

How stayed

-

RHEATER. Type

None

Date of Approval of Plan

-

Tested by Hydraulic Pressure to

-

Test

-

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

-

-

-

er of Safety Valve

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 tapered bolts and nuts, 2 bottom end bolts and nuts, 1 main bearing bolts and nuts, one set of coupling bolts, one set of feed and bridge pump plungers, one set of piston springs, one propeller, one propeller shaft, a quantity of assorted bolts and iron of various sizes.

The foregoing is a correct description,

N. V. „Boele's Scheepswerven  
en Machinefabriek.

Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	1919 7/2	1919 7/2	26/12	15/1	26/8	26/10	19/11	19/12	1910 21/1	1910 19	
		During erection on board vessel - - -	1920 29/3	24/4	4/5	15/5							
		Total No. of visits	14										

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 24-12-18 Slides 12-5-19 Covers 24-12-18 Pistons 24-12-18 Rods 12-5-

Connecting rods 8-8-19 Crank shaft 23-6-19 Thrust shaft 24-10-19 Tunnel shafts 21-1-20 Screw shaft 24-10-19 Propeller 19-11-

Stern tube 24-10-19 Steam pipes tested 4-5-20 Engine and boiler seatings 1-12-19 Engines holding down bolts 29-3-

Completion of pumping arrangements 11-4-20 Boilers fixed 29-3-20 Engines tried under steam 15-5-20

Completion of fitting sea connections 12-2-20 Stern tube 12-2-20 Screw shaft and propeller 12-2-20

Main boiler safety valves adjusted 15-5-20 Thickness of adjusting washers P 19mm M 16mm SB 17mm

Material of Crank shaft IM Heel Identification Mark on Do. VB Material of Thrust shaft IM Heel Identification Mark on Do. VB

Material of Tunnel shafts IM Heel Identification Marks on Do. VB Material of Screw shafts IM Heel Identification Marks on Do. VB

Material of Steam Pipes Steel Test pressure 540 lbs

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 machinery has been made in accordance with the Rules, Secretary's letters and approved plans, material tested as required and workmanship good, and the whole found in a good working condition during a trial trip. I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with **LMC.5-20.**

It is submitted that  
this vessel is eligible for  
THE RECORD. T.L.M.C. 5-20

JAD  
16/6/20  
JIM

The amount of Entry Fee ...	£ 24.00	When applied for,	
Special ...	£ 400.20	19...	
Donkey Boiler Fee ...	£ :	When received,	
Travelling Expenses (if any) £	39.00	15/6/20	22/6/20

Committee's Minute

TUE. JUN. 29 1920

Assigned

+ L.M.C. 5-20

CERTIFICATE WRITTEN



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Foundation