

REPORT ON MACHINERY.

No. 456

Received at London Office

WED.

Date of writing Report 31st May 1914 When handed in at Local Office

Port of Bremen

Date of Survey 22 December 1914 Last Survey 17 March 1915

No. in Survey held at 318

Reg. Book.

on the STEAMER "WOLFSBURG"

(Number of Visits 14)

Tons Gross 6185 Net 3915 When built 1915

Builder Built at Gt. Tecklenburg By whom built Joh. C. Tecklenburg & Co.

Machinery made at Gt. Tecklenburg By whom made Joh. C. Tecklenburg & Co.

when made 1915

Engines made at Gt. Tecklenburg By whom made Joh. C. Tecklenburg & Co.

when made 1915

Registered Horse Power

Owners Deutsche Dampfschiffahrts G. M. b. H.

Port belonging to Bremen

Indicated Horse Power as per Section 28

703

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 31.5" 50.75" & 82.75" Length of Stroke 55.1"

Revs. per minute

Dia. of Screw shaft as per rule 12.3"

Material of 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 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

Dia. of Tunnel shaft as per rule 15.95"

Dia. of Crank shaft journals as per rule 16.75"

Dia. of Crank pin 16.25"

Size of Crank webs 10.6"

Dia. of thrust shaft under

collars 16.75"

Dia. of screw 19.10"

Pitch of Screw 19.10"

No. of Blades 4

State whether moveable

yes

Total surface

1080

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

Sizes of Pumps

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

In Holds, &c.

yes

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room

size

yes

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

yes

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

yes

Are they Valves or Cocks

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

yes

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

yes

How are they protected

yes

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

yes

OILERS, &c.—(Letter for record

yes)

Manufacturers of Steel

Gieseler Eisenwerke

Fried. Krupp & Co.

Rheinische Eisenwerke

yes

Total Heating Surface of Boilers

99200

Is Forced Draft fitted

yes

No. and Description of Boilers

4 cylindrical single ended

Working Pressure

199 lb

Tested by hydraulic pressure to

yes

Date of test

yes

No. of Certificate

yes

Can each boiler be worked separately

yes

Area of fire grate in each boiler

56.5

No. and Description of Safety Valves to

each boiler

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

yes

Mean dia. of boilers

14.8

Length

11.3

Material of shell plates

steel

Thickness

13/8"

Range of tensile strength

22.9-33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

double

long. seams

triple

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

9 3/8"

Lap of plates or width of butt straps

21 3/4"

Per centages of strength of longitudinal joint

yes

Working pressure of shell by rules

214 lb

Size of manhole in shell

11 1/2" x 15 3/4"

Size of compensating ring

41 3/2" x 1 3/2"

No. and Description of Furnaces in each boiler

3, Morim

Material

steel

Outside diameter

41 3/2"

Length of plain part

8 1/2"

Thickness of plates

5/8"

Description of longitudinal joint

welded

No. of strengthening rings

yes

Working pressure of furnace by the rules

212 lb

Combustion chamber plates: Material

steel

Thickness: Sides

43/64"

Back

43/64"

Top

43/64"

Pitch of stays to ditto: Sides

2 1/2" x 8 1/2"

Back

2 1/2" x 8 1/2"

Top

2 1/2" x 8 1/2"

If stays are fitted with nuts or riveted heads

yes

Working pressure by rules

235 lb

Material of stay

fine grain steel

Area at smallest part

1.88

Area supported by each stay

670

Working pressure by rules

240 lb

End plates in steam space:

yes

Material

steel

Thickness

1 1/32"

Pitch of stays

4 1/2" x 4 1/2"

How are stays secured

yes

Working pressure by rules

265 lb

Area at smallest part

3"

Area supported by each stay

2080

Working pressure by rules

350 lb

Material of Front plates at bottom

steel

Thickness

5/8"

Material of Lower back plate

steel

Thickness

5/8"

Greatest pitch of stays

13 7/16"

Working pressure of plate by rules

280 lb

Diameter of tubes

3"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

steel

Thickness: Front

1 5/8"

Back

29"

Pitch across wide water spaces

13 63/64"

Working pressures by rules

222 lb

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

10 1/2" x 2 x 3/4"

Length as per rule

Working pressure by rules

223 lb

Steam dome: description of joint to shell

yes

% of strength of joint

yes

Diameter

yes

Thickness of shell plates

yes

Pitch of rivets

yes

Working pressure of shell by rules

yes

Crown plates

yes

Thickness

yes

How stayed

yes

UPERHEATER. Type

yes

Date of Approval of Plan

yes

Tested by Hydraulic Pressure to

yes

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

yes

Date of Test

yes

Diameter of Safety Valve

yes

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SAFE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1914: - Dec 12, 15, 24, 1915: - January 8, 15, 21, Feb 3, 13, 18, 20, 27 March 16, 24, 26.
During erection on board vessel --
Total No. of visits 14.

Is the approved plan of main boiler forwarded herewith

donkey

Dates of Examination of principal parts—Cylinders 7/15, 26/3/15 Slides 15/1/15 Covers 24/3/15 Pistons 24/3/15 Rods 2/1/15
Connecting rods 2/1/15 Crank shaft 24/12/14 Thrust shaft 2/1/15 Tunnel shafts 2/1/15 Screw shaft 3/2/15 Propeller 13/2/15

Stern tube 12/12/14 Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓

Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓

Material of Crank shaft Steel Identification Mark on Do. MB 12.14 Material of Thrust shaft Steel Identification Mark on Do. MB 9.14

Material of Tunnel shafts Steel Identification Marks on Do. K.A. 10.14 MB 9.14 Material of Screw shafts Steel Identification Marks on Do. EF 1.15

Material of Steam Pipes ✓ Test pressure ✓

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.)

These Engines and Boilers as far as examined have been manufactured in accordance with the approved plans, the Secretary's letters and otherwise in general conformity with the Rules.

The workmanship is good and the steel materials used in the construction have been manufactured at a works approved of by the Committee and tested by the Society's Surveyors in accordance with the Rules.

When the Special Survey was discontinued in March 1915 the work was progressed as follows:—

All boiler material and shafts delivered and compared with Certificate. MP and L P cylinder tested by hydraulic pressure, all other castings with exception of bed plate and frame delivered examined found sound. Work on boilers commenced.

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

Committee's Minute

Assigned

TUE JUN 29 1920

FRI AUG 19 1921

A. H. E. K. M.

Engineer Surveyor to Lloyd's Register of Shipping.



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