

Date of writing Report 24th March 1914 When handed in at Local Office

Port of

Bremen.

No. in Survey held at Bremen
Reg. Book.

Date, First Survey 23rd April 1913 Last Survey 23rd March 1914

(Number of Visits 25)

on the Steel S.S. "GREIFFENFELS"

Master H. F. Lockin

Built at Bremen

By whom built Aktien Gesellschaft Weser

Gross 5852

Net 3668

When built 1914

Engines made at Bremen

By whom made Aktien Gesellschaft Weser

when made 1914

Boilers made at Bremen

By whom made Aktien Gesellschaft Weser

when made 1914

Registered Horse Power 520

Owners Deutsche Dampf-fahrts-Ges. Hansa

Port belonging to Bremen

Nom. Horse Power as per Section 28 520

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 28 3/4, 46 7/8, 28 9/16 Length of Stroke 53 5/16

Revs. per minute 65

Dia. of Screw shaft

as per rule 16 5/32

Material of M. steel

as fitted 16 7/32

screw shaft

Is the 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

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 26 7/8

Dia. of Tunnel shaft as per rule 14 3/4

Dia. of Crank shaft journals as per rule 15 1/32

Dia. of Crank pin 15 9/16

Size of Crank webs 10 1/4

Dia. of thrust shaft under

collars 15 9/16

Dia. of screw 19 3/16

Pitch of Screw 19 8 1/16

No. of Blades 4

State whether moveable yes

Total surface 102.3 sq. ft

No. of Feed pumps 2

Diameter of ditto 3 5/16

Stroke 22 9/16

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2

Diameter of ditto 4 5/16

Stroke 22 9/16

Can one be overhauled while the other is at work yes

No. of Donkey Engines 3

Sizes of Pumps 11 3/16 x 8 7/16

13 3/4 x 15 3/4

7 7/8 x 4 3/4

and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4- 3 9/16 dia.

In Holds, &c. 2 in each hold of 3 9/16 dia. 1 in

No. of Bilge Injections 1

sizes 2 7/8

Connected to condenser, or to circulating pump yes

Is a separate Donkey Suction fitted in Engine room & size yes- 3 9/16

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 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 both

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 bilge suction pipes

How are they protected by wooden 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

Dates of examination of completion of fitting of Sea Connections 9/2. 14

of Stern Tube 9/2. 14

Screw shaft and Propeller 14/2. 14

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from upper deck

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Friedr. Krupp Akt. Ges. Guntahlsruh Witten.

Total Heating Surface of Boilers 6950

Is Forced Draft fitted yes

No. and Description of Boilers 3 cylindrical

Working Pressure 192 lbs.

Tested by hydraulic pressure to 263 lbs.

Date of test 30/1. 14

No. of Certificate 25, 76, 77.

Can each boiler be worked separately yes

Area of fire grate in each boiler 49.5 sq. ft

No. and Description of Safety Valves to

each boiler 2 spring loaded

Area of each valve 12.2 sq. in.

Pressure to which they are adjusted 192 lbs.

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 20"

Mean dia. of boilers 124"

Length 153"

Material of shell plates M. steel

Thickness 1.3" Range of tensile strength 28-33 tons

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams double butt

long. seams quadruple Diameter of rivet holes in long. seams 1.34

Pitch of rivets 10"

Lap of plates or width of butt straps 23.2"

Per centages of strength of longitudinal joint rivets 111.5

plate 82

Working pressure of shell by rules 202 lbs.

Size of manhole in shell 11.8 x 15.8"

Size of compensating ring 41.2 x 36.5"

No. and Description of Furnaces in each boiler 3 morison

Material steel Outside diameter 43.2"

Length of plain part top

bottom

Thickness of plates crown

bottom 61

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 198 lbs.

Combustion chamber plates: Material steel Thickness: Sides .62

Back .62

Top .62

Bottom .82

Pitch of stays to ditto: Sides 8.3 x 2.1

Back 7.7 x 2.65

Top 8.3 x 2.9

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 234 lbs.

Material of stays steel

Diameter at smallest part 5 1/16

Area supported by each stay 65.5 sq. in.

Working pressure by rules 212 lbs.

Material steel

Thickness 1.08"

Pitch of stays 15.2 x 14.6

How are stays secured double nuts

Diameter at smallest part 2.25"

Area supported by each stay 229 sq. in.

Working pressure by rules 220 lbs.

Material of Front plates at bottom steel

Thickness 1.06"

Material of Lower back plate steel

Thickness .94

Greatest pitch of stays 15.2 x 2.5"

Working pressure of plate by rules 216 lbs.

Diameter of tubes 3"

Pitch of tubes 4.1"

Material of tube plates steel

Thickness: Front 1.06

Back .90

Mean pitch of stays 10.3"

Pitch across wide water spaces 14"

Working pressures by rules 206 lbs.

Girders to Chamber tops: Material steel

Depth and

thickness of girder at centre 9.25 x 1.58"

Length as per rule 34.6"

Distance apart 2.9"

Number and pitch of stays in each 3- 8.3"

Working pressure by rules 199 lbs.

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately yes

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater 15 1/2 sq. in.

Are they fitted with easing gear yes

ADJUSTING WASHERS: STAR-36, CONN. 51, PORT. 40

W425-0241

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description				
Made at	By whom made		When made	Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler			Dia. of donkey boiler	Length
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	Plates
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—*1/3 crank shaft, 1 propeller shaft, 1 propeller blade, 2 crosshead brasses, 2 crank pin brasses, 2 crank pin & crosshead brasses-balls with, 2 main bearing bolts, 2 sets of coupling bolts, 1 slide valve rod, 1 set of piston rings, 1 vacuum strap complete, 1 piston rod for air pump, 1 piston & piston rod for circulating pump, 1 complete set of links, 1 set of valve gear air, feed & bridge pump, 1 set of safety valve springs, 2% of condenser tubes, 10% of bolts for cylinder & slide valve covers and piston, a quantity of assorted bolts and nuts, iron of various sizes.*

The foregoing is a correct description.

AGENTS-GESellschaft WESER

Manufacturer.

Dates of Survey while building
 During progress of work in shops - - - 1913: - April 23, May 23, July 23, Sep 24, Oct 11, 18, Nov 2, 12, 24, Dec 22, 1914: - Jan 9, 22, 30, Feb 3, 9.
 During erection on board vessel - - - 1914: - Feb 14, 19, 20, 21, 28, March 11, 14, 18, 21, 23
 Total No. of visits 25

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 23/22/12, 9/1 Slides 10/6, 7/11 Covers 10/6, 22/12 Pistons 10/6, 22/12 Rods 10/6, 18/10
 Connecting rods 10/6, 9/1 Crank shaft 22/1 Thrust shaft 22/1 Tunnel shafts 30/1 Screw shaft 27/1, 14/2 Propeller 30/1, 14/2
 Stern tube 22/12, 9/2 Steam pipes tested 20/2, 23/2 Engine and boiler seatings 22/12 Engines holding down bolts 22/12
 Completion of pumping arrangements 18/3 Boilers fixed 21/2. Engines tried under steam 18/3.
 Main boiler safety valves adjusted 14/3. Thickness of adjusting washers: PORT: .36" STAR: .36" CENTRE: .36" DONKEY: .36"
 Material of Crank shaft: *1/4" steel* Identification Mark on Do. No 33/4-15/ No 228/ No 226-7/ Material of Thrust shaft: *1/4" steel* Identification Mark on Do. No 4307/ No 9.13/ W.S. 8.13/ No 224/ No 7774/ No 443/ No 5123/ No 135-6/ Material of Tunnel shafts: *1/4" steel* Identification Marks on Do. No 24/ W.S. 6.13/ No 10.13/ No 10.13/ No 11.13/ W.S. 7.13/ Material of Screw shafts: *1/4" steel* Identification Marks on Do. No 119/ No 3058/ W.S. 7.13/ No 7.13/ Material of Steam Pipes: *Steel rolled on Mammernann plan* Test pressure 526 lbs.

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

These Engines and Boilers have been manufactured in accordance with the approved plans; the Secretary's Letter and otherwise in conformity with the Rules.

The material and workmanship are good.

They are eligible in my opinion to be classed in The Society's Register Book with the notation of LMC 3, 14.

checked from "Frankenfeld"

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 3. 14. F.D.

The amount of Entry Fee .. £ MK: 62.-
 Special .. £ 945.-
 Donkey Boiler Fee .. £ 43.-
 Travelling Expenses (if any) £ 40.-

When applied for.

25. 3. 14

When received.

15/4/14

Committee's Minute

TUE. MAR. 31. 1914

Assigned

+ LMC 3. 14

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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