

# REPORT ON MACHINERY.

No. 13371  
SAT. MAY. 17. 1913

Date of writing Report 14 May 1913 When handed in at Local Office 19 Port of Hamburg

No. in Survey held at Kiel Date, First Survey 20<sup>th</sup> Nov 1911 Last Survey 13<sup>th</sup> May 1913  
Reg. Book. on the Steel S.S. "Teumseh" (Number of Visits 39)

Master Fr. Heuer Built at Kiel By whom built Howaldtwerke Tons { Gross 5780  
Net 3033  
When built 1913

Engines made at Kiel By whom made Howaldtwerke when made 1913  
Boilers made at Kiel By whom made Howaldtwerke when made 1913

Registered Horse Power 320 Owners Deutscher-Amerikan. Petroleum Ges. Port belonging to Hamburg

Nom. Horse Power as per Section 28 320 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Quadr. Expansion No. of Cylinders 4 No. of Cranks 4

Dia. of Cylinders 19 1/2, 28, 41 & 57 1/2 Length of Stroke 41 1/8 Revs. per minute 80 Dia. of Screw shaft 12 7/8 Material of screw shaft Steel

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 no 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 no

If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 49 5/8

Dia. of Tunnel shaft 10 3/4 Dia. of Crank shaft journals 11 1/2 Dia. of Crank pin 11 3/16 Size of Crank webs 7 1/2 x 10 1/2 Dia. of thrust shaft under collars 11 5/8 Dia. of screw 15 1/2 Pitch of Screw 15 1/2 No. of Blades 4 State whether moveable yes Total surface 77.5 sq. ft.

No. of Feed pumps 2 Diameter of ditto 4 Stroke 23 1/2 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 23 1/2 Can one be overhauled while the other is at work yes

No. of Donkey Engines 6 Sizes of Pumps See Specifications No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 1 off 3 1/2" 1 off 2" from bilge In Holds, &c. 14 off 8" from Cargo Tanks, 10 off 6" from

Summersaults, 2 off 5" from Deep Tanks, 4 off 5" from Cofferdams, 1 off 5" from After Peak, 1 off 5" from Forepeak.

No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes, 3 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 no

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves & locks

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 none How are they protected no

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 1.4.13 of Stern Tube 12.3.13 Screw shaft and Propeller 12.3.13

Is the Screw Shaft Tunnel watertight no Tunnel Is it fitted with a watertight door no worked from no

## BOILERS, &c.—(Letter for record S) Manufacturers of Steel The Glasgow Iron & Steel Co. Ltd.

Total Heating Surface of Boilers 4572 sq. ft. Forced Draft fitted yes No. and Description of Boilers 2 Single ended multi-tubular

Working Pressure 213 lbs Tested by hydraulic pressure to 426 lbs Date of test 18.3.13 No. of Certificate 201 & 202

Can each boiler be worked separately yes Area of fire grate in each boiler 50 sq. ft. No. and Description of Safety Valves to each boiler 2 Spring load

Area of each valve 12 sq. in Pressure to which they are adjusted 213 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 16" Mean dia. of boilers 14 1/4" Length 11 6 3/8" Material of shell plates Steel

Thickness 1.31" Range of tensile strength 28-32 Tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap, dbl. riv.

long. seams lap, dbl. riv. Diameter of rivet holes in long. seams 1.4" Pitch of rivets 18.43" Lap of plates or width of butt straps 24.56"

Per centages of strength of longitudinal joint rivets 119.8% Working pressure of shell by rules 227.6 lbs Size of manhole in shell 11.8 x 15.75"

Size of compensating ring 26 x 30 x 1.31" No. and Description of Furnaces in each boiler 3 horizontal Material Steel Outside diameter 43.3"

Length of plain part 6" Thickness of plates 1.61" Description of longitudinal joint welded No. of strengthening rings none

Working pressure of furnace by the rules 261 lbs Combustion chamber plates: Material Steel Thickness: Sides .68" Back .68" Top .68" Bottom .94"

Pitch of stays to ditto: Sides 7.8 x 7.5" Back 7.8 x 7.5" Top 7.8 x 7.5" If stays are fitted with nuts or riveted heads nut & riv. heads Working pressure by rules 299 lbs

Material of stays Steel Diameter at smallest part 1.45" Area supported by each stay 59 sq. in Working pressure by rules 226.4 lbs End plates in steam space:

Material Steel Thickness 1.14" Pitch of stays 15 x 16.5" How are stays secured dbl. nut & riv. Working pressure by rules 287.4 lbs Material of stays Steel

Diameter at smallest part 3" Area supported by each stay 248 sq. in Working pressure by rules 293.5 lbs Material of Front plates at bottom Steel

Thickness 1.13" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 19.68" Working pressure of plate by rules 296 lbs

Diameter of tubes 2.5" Pitch of tubes 3.75" Material of tube plates Steel Thickness: Front 1.03" Back .91" Mean pitch of stays 7.5"

Pitch across wide water spaces 13.8" Working pressures by rules 215 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8.6 x 1.5"

Length as per rule 31.5" Distance apart 7.8" Number and pitch of stays in each 3-7.5"

Working pressure by rules 213 lbs Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked separately no

Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet holes no

Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness no

If stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no

Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no



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