

# REPORT ON MACHINERY

No. 1366

MON. 23 MAY 1921

Received at London

Date of writing Report 14 May 1921 When handed in at Local Office

Port of Amsterdam

Survey held at Amsterdam

Date, First Survey 13/4

Last Survey 1/5

1921

Reg. Book

On the British Steel Twin Screw Steamer "Hoppelin"

(Number of Visits 1)

Gross 1467

Net 822.6

When built 1914

Master

Built at Bremen

By whom built Vulkan

when made 1914

Engines made at Vegesack

By whom made Bremen Vulkan

when made 1914

Boilers made at

By whom made

Registered Horse Power

Owners Orient Steam Navigation Co.

Port belonging to London

Net Horse Power as per Section 28 1850

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Twin Quadruple Expansion Engines

No. of Cylinders 8

No. of Cranks 8

Dia. of Cylinders

18 1/4 x 13 1/2 x 16 1/2 x 8 1/2

Length of Stroke 59

Revs. per minute 80

Dia. of Screw shaft

as per rule 17 1/2

Material of screw shaft Steel

the screw shaft fitted with a continuous liner the whole length of the stern tube ☒ without liner the after end of the liner made water tight

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 6-9 (as per rule)

Dia. of Tunnel shaft

as per rule 16 1/4

Dia. of Crank shaft journals

as per rule 17 1/2

Dia. of Crank pin 14 1/2

Size of Crank webs 7 1/2 x 11 1/2

Dia. of thrust shaft under

collars 14 1/8

Dia. of screw 19 1/8

Pitch of Screw 21 1/8

No. of Blades 4

State whether moveable ☒ Total surface

15 1/4 x 14 x 13 1/4

To. of Feed pumps 4

Diameter of ditto

Stroke 26 1/2

Can one be overhauled while the other is at work ☒

To. of Bilge pumps 2

Diameter of ditto 4

Stroke 23 1/2

Can one be overhauled while the other is at work ☒

To. of Donkey Engines 2

Sizes of Pumps See Report

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

In Engine Room 1 1/2 suction 3 in. P and 3 in. Herb. 4 1/4 In Holds, 8 in. suction 1 1/2 in. Herb. 4 1/4

To. of Bilge Injections 2

sizes 1 1/2

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 6"

Are all the bilge suction pipes fitted with roses ☒ Are the roses in Engine room always accessible ☒ Are the sluices on Engine room bulkheads always accessible ☒

Are all connections with the sea direct on the skin of the ship ☒ Are they Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates ☒ 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 ☒ Are the Blow Off Cocks fitted with a spigot and brass covering plate ☒

What pipes are carried through the bunkers ☒ How are they protected

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges ☒

Is the Screw Shaft Tunnel watertight ☒ Is it fitted with a watertight doors ☒ worked from main deck (D)

OILERS, &c.—(Letter for record 27900) Manufacturers of Steel

Total Heating Surface of Boilers 6 x 46500 Is Forced Draft fitted ☒ No. and Description of Boilers 6 oil ended horizontal Marine

Working Pressure 220.4 lb. Tested by hydraulic pressure to ☒ Date of test ☒ No. of Certificate ☒

Can each boiler be worked separately ☒ Area of fire grate in each boiler 107 1/4 642 sq. ft.

No. and Description of Safety Valves to each boiler 4 spring loaded Area of each valve 12 1/2 Pressure to which they are adjusted 210 lb. Are they fitted with easing gear ☒

Least distance between boilers or uptakes and bunkers or woodwork 19 Mean dia. of boilers 17 1/2 Length 20 9 Material of shell plates Steel

Thickness 1 1/8 Range of tensile strength 28 1/2 - 32 1/2 Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams ☒

ng. seams 11 X rivets Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 18 Lap of plates or width of butt straps 14 1/2 50

er centages of strength of longitudinal joint rivets 10 1/4 plate 9 1/2 Working pressure of shell by rules 210 lb. Size of manhole in shell 12 x 16

Size of compensating ring 14 1/2 x 4 1/4 x 1 1/2 No. and Description of Furnaces in each boiler 2 marine Material Steel Outside diameter 45 1/2

Length of plain part top ☒ Thickness of plates crown 5 1/2 bottom 5 1/2 Description of longitudinal joint welded No. of strengthening rings ☒

Working pressure of furnace by the rules of ☒ Combustion chamber plates: Material Steel Thickness: Sides 2 1/2 Back 2 1/2 Top 2 1/2 Bottom 1 1/2

Pitch of stays to ditto: Sides 4 x 4 1/2 Back 4 x 4 1/2 Top 4 x 4 1/2 If stays are fitted with nuts or riveted heads ☒ Working pressure by rules 380 lb.

Material of stays Steel Area at smallest part 176 sq. Area supported by each stay 52.5 sq. Working pressure by rules 300 lb. End plates in steam space

Material Steel Thickness 1 1/8 Pitch of stays 14 1/2 x 15 How are stays secured ☒ Working pressure by rules 210 lb. Material of stays Steel

Area at smallest part 590 sq. Area supported by each stay 218 sq. Working pressure by rules 215 lb. Material of Front plates at bottom Steel

Thickness 1 1/8 Material of Lower back plate 1 1/8 Thickness Steel Greatest pitch of stays ☒ Working pressure of plate by rules

Diameter of tubes 3 Pitch of tubes 4 1/4 x 4 1/2 Material of tube plates Steel Thickness: Front 1 1/8 Back 1 1/2 Mean pitch of stays 8 1/2

Pitch across wide water spaces 14 Working pressures by rules 215 lb. Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 12 1/2 x 8 x 1 Length as per rule 51 Distance apart 4 1/2 Number and pitch of stays in each 6 of 4

Working pressure by rules 210 lb. Steam dome: description of joint to shell ☒ % 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 ☒

SUPERHEATER. Type None 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 ☒

W1218-0204

*SPARE GEAR.* State the articles supplied:—

*If so, is a report now forwarded?*

Please See List Attached.

*The foregoing is a correct description,*

*Manufacturer.*

Dates of Survey while building	During progress of work in shops - -	✓
	During erection on board vessel - - -	✓
	Total No. of visits	✓

Is the approved plan of main boiler forwarded herewith

*Dates of Examination of principal parts—Cylinders* ☒ *Slides* ☒ *"* ☒ *"* ☒ *"* ☒ *donkey* ☒ *"* ☒ *"* ☒

*Connecting rods* ☒ *Crank shaft* ☒ *Thrust shaft* ☒ *Tunnel shafts* ☒ *Pistons* ☒ *Rods* ☒

*Stern tube* ☒ *Steam pipes tested* ☒ *Engine and boiler seatings* ☒ *Screw shaft* ☒ *Propeller* ☒

*Completion of pumping arrangements* ☒ *Boilers fixed* ☒ *Engines holding down bolts* ☒

*Completion of fitting sea connections* ☒ *Stern tube* ☒ *Engines tried under steam* ☒

*Main boiler safety valves adjusted* ☒ *Thickness of adjusting washers* ☒ *Screw shaft and propeller* ☒

*Material of Crank shaft* *True* *Identification Mark on Do.* ☒ *Material of Thrust shaft* *True* *Identification Mark on Do.* ☒

*Material of Tunnel shafts* *True* *Identification Marks on Do.* ☒ *Material of Screw shafts* *True* *Identification Marks on Do.* ☒

*Material of Steam Pipes* *True* *Test pressure* ☒

*Is an installation fitted for burning oil fuel* ☒ *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* ☒

*General Remarks* (State quality of workmanship, opinions as to class, &c. ☒ *If so, state name of vessel* ☒

*Pumpkin Seed List Attached.*

The machinery and boilers have been examined and found in good and efficient condition. The vessel is in good opinion suitable to be licensed L.M.C. 4.21 in the Society's Book.

Remains to be done. Adjusting of all the safety valves.  
Examination of propellers, Steamboilers, Steamships when  
next is planned in dry dock. This will to all probability done at London  
A closing Rep will follow when repairs are completed.

The amount of Entry Fee

Special

## Donkey Boiler Fee

Travelling Expenses (if any) £

Committee's Minute

Assigned

When applied for,

When received.

Engineer Surveyor to Lloyd's Register of Shipping

FUE JUL 5 1921

FRI. 13 APR. 1923

no action

JUL 22 AUG. 1922

ERLAUG. 31. 1923.

Lloyd's Register  
Foundation