

# REPORT ON MACHINERY.

No. 8077.

Received at London Office MON. JUN. 13 1920

Date of writing Report 5 July 1920 When handed in at Local Office 19 Port of Amsterdam  
No. in Survey held at Amsterdam Date, First Survey 9 Sept 1919 Last Survey 25 May 1920  
Reg. Book. Engines S. S. No. 134. (Number of Visits 20)

Master By whom built Cheepkerf de Berwed Tons Gross Net When built 1920  
Engines made at Amsterdam By whom made Kesschure & Co Scheepwerf Ma when made 1920  
Boilers made at Rotterdam By whom made Wilton's Machinefabriek when made 1920  
Registered Horse Power 110.54 Owners Port belonging to

Dom. Horse Power as per Section 28 110.54 Is Refrigerating Machinery fitted for cargo purposes  Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders three No. of Cranks three

Dia. of Cylinders 15" x 25" x 40" Length of Stroke 24" Revs. per minute 95 Dia. of Screw shaft 8 29/32 Material of screw shaft Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner Is 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 35 3/8"

Dia. of Tunnel shaft 7 1/16" Dia. of Crank shaft journals 7 13/16" Dia. of Crank pin 7 1/8" Size of Crank webs 14 3/4" x 4 1/2" Dia. of thrust shaft under collar 7 1/8"

No. of Feed pumps two Diameter of ditto 2 1/16" Stroke 13 1/2" Can one be overhauled while the other is at work  Total surface 45 sq ft.

No. of Bilge pumps two Diameter of ditto 2 1/16" Stroke 13 1/2" Can one be overhauled while the other is at work

No. of Donkey Engines two Sizes of Pumps 6" x 4" x 6" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps 6" x 4" x 6"

In Engine Room  In Holds, &c.

Vo. of Bilge Injections one sizes 3 9/16" Connected to condenser  to circulating pump  Is a separate Donkey Suction fitted in Engine room & size 3 9/16"

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

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

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 door  worked from

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

Total Heating Surface of Boilers 180 sq ft. Is Forced Draft fitted  No. and Description of Boilers 1

Working Pressure 180 lb. Tested by hydraulic pressure to 225 lb. Date of test 1920 No. of Certificate 1

Can each boiler be worked separately  Area of fire grate in each boiler 180 sq ft. No. and Description of Safety Valves to each boiler 1

Area of each valve 180 sq ft. Pressure to which they are adjusted 180 lb. Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 180 sq ft. Mean dia. of boilers 180 sq ft. Length 180 sq ft. Material of shell plates 180 sq ft.

Thickness 180 sq ft. Range of tensile strength 180 sq ft. Are the shell plates welded or flanged  Descrip. of riveting: cir. seams 180 sq ft.

long. seams 180 sq ft. Diameter of rivet holes in long. seams 180 sq ft. Pitch of rivets 180 sq ft. Lap of plates or width of butt straps 180 sq ft.

Per centages of strength of longitudinal joint 180 sq ft. Working pressure of shell by rules 180 sq ft. Size of manhole in shell 180 sq ft.

Size of compensating ring 180 sq ft. No. and Description of Furnaces in each boiler 1 Material 180 sq ft. Outside diameter 180 sq ft.

Length of plain part 180 sq ft. Thickness of plates 180 sq ft. Description of longitudinal joint 180 sq ft. No. of strengthening rings 180 sq ft.

Working pressure of furnace by the rules 180 sq ft. Combustion chamber plates: Material 180 sq ft. Thickness: Sides 180 sq ft. Back 180 sq ft. Top 180 sq ft. Bottom 180 sq ft.

Pitch of stays to ditto: Sides 180 sq ft. Back 180 sq ft. Top 180 sq ft. If stays are fitted with nuts or riveted heads  Working pressure by rules 180 sq ft.

Material of stays 180 sq ft. Area at smallest part 180 sq ft. Area supported by each stay 180 sq ft. Working pressure by rules 180 sq ft. End plates in steam space: 180 sq ft.

Material 180 sq ft. Thickness 180 sq ft. Pitch of stays 180 sq ft. How are stays secured 180 sq ft. Working pressure by rules 180 sq ft. Material of stays 180 sq ft.

Area at smallest part 180 sq ft. Area supported by each stay 180 sq ft. Working pressure by rules 180 sq ft. Material of Front plates at bottom 180 sq ft.

Thickness 180 sq ft. Material of Lower back plate 180 sq ft. Thickness 180 sq ft. Greatest pitch of stays 180 sq ft. Working pressure of plate by rules 180 sq ft.

Diameter of tubes 180 sq ft. Pitch of tubes 180 sq ft. Material of tube plates 180 sq ft. Thickness: Front 180 sq ft. Back 180 sq ft. Mean pitch of stays 180 sq ft.

Pitch across wide water spaces 180 sq ft. Working pressures by rules 180 sq ft. Girders to Chamber tops: Material 180 sq ft. Depth and thickness of girder at centre 180 sq ft. Length as per rule 180 sq ft. Distance apart 180 sq ft. Number and pitch of stays in each 180 sq ft.

Working pressure by rules 180 sq ft. Steam dome: description of joint to shell 180 sq ft. % of strength of joint 180 sq ft.

Diameter 180 sq ft. Thickness of shell plates 180 sq ft. Material 180 sq ft. Description of longitudinal joint 180 sq ft. Diam. of rivet holes 180 sq ft.

Pitch of rivets 180 sq ft. Working pressure of shell by rules 180 sq ft. Crown plates 180 sq ft. Thickness 180 sq ft. How stayed 180 sq ft.

SUPERHEATER. Type 180 sq ft. Date of Approval of Plan 180 sq ft. Tested by Hydraulic Pressure to 180 sq ft.

Date of Test 180 sq ft. Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve 180 sq ft. Pressure to which each is adjusted 180 sq ft. Is Easing Gear fitted



2000-555500-045500

IS A DONKEY BOILER FITTED? *Yes.*

If so, is a report now forwarded *see Glasgow Rep No: 39*

SPARE GEAR. State the articles supplied:—

*Two connecting rod top & bottom ends bolt & nuts, two main bearing & one set coupling bolts & nuts. Two feed & two bilge pump valves. A quantity of bolts & nuts assorted. Require to be verified in Rotterdam District.*

The foregoing is a correct description,

*Verschure & Co's*  
*Scheepswerf en Machinefabriek*  
*A. Verschure* Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1919. 9-18-19 Sept, 8 & 10 Oct, 1-6-8 & 14 Nov. 4-12-19 & 29 Dec ✓*  
{ During erection on board vessel --- } *1920. 5-17-26 Jan, 3-10 Feb, 3 April & 25 May.*  
Total No. of visits *20 visits* Is the approved plan of main boiler forwarded herewith ✓

Dates of Examination of principal parts—Cylinders  $\frac{19}{9} \frac{8-10}{10} \frac{22}{12}$  Slides  $\frac{13}{12} \frac{16}{7} \frac{10}{2}$  Covers  $\frac{10}{2}$  Pistons  $\frac{19-29}{12} \frac{26}{1}$  Rods  $\frac{5-26}{1}$   
Connecting rods  $\frac{5-26}{1}$  Crank shaft  $\frac{17-26}{1} \frac{3-10}{2}$  Thrust shaft  $\frac{17-26}{1} \frac{3-10}{2}$  Tunnel shafts ✓ Screw shaft  $\frac{3}{4} \frac{25}{5}$  Propeller  $\frac{3}{4}$   
Stern tube  $\frac{3}{4}$  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 *Ann. S. in Ingot Steel* Identification Mark on Do. *LLOYDS N: 305 J.B.S. 25, 5, 10* Material of Thrust shaft *Ann. S. in Ingot Steel* Identification Mark on Do. *LLOYDS N: 305 J.B.S. 25, 5, 10*  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Ann. S. in Ingot Steel* Identification Marks on Do. *LLOYDS N: 305 J.B.S. 25, 5, 10*

Material of Steam Pipes ✓ 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 ✓ If so, state name of vessel ✓

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

*The machinery for this vessel has been constructed in accordance with the Society's Rules & approved plans which are herewith returned to London Office. The material is of good ductile quality and duly tested required. All castings are sound. Cylinders, Condenser & Stern tube <sup>under hydraulic pressure</sup> been tested with satisfactory results.*

*This engine has been sent to messrs the Scheepswerf de Merwede Norderhardinxveld in order to be placed in their N: 134 vessel. A copy of this report with approved pumping plan and approved donkey boiler plan with Glasgow Report N: 39920. have been forwarded to the Rotterdam District Surveyors.*

Certificate (if required) to be sent to the Surveyors as requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £	:	:	When applied for,
$\frac{2}{3}$ Special	...	£ 153.20	July 1920
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any)	£ 5.40	:	July 1920

Committee's Minute TUE. SEP. 21 1920  
Assigned

*J. B. Olive*  
Engineer Surveyor to Lloyd's Register of Shipping

