

REPORT ON MACHINERY.

No. 11504

FRI. NOV. 19 1920

Date of writing Report 15 Nov 1920 When handed in at Local Office 19 Port of Rotterdam Date, First Survey 4 Sept Last Survey 15 Nov 1920

No. in Survey held at Rotterdam Reg. Book. on the Stoomschip "MARS DIEP" No. 47 Tons { Gross 2014 Net 1177

Master A. B. Kers Built at Capelle 74 By whom built A. Kuyk on Lomen When built 1920

Engines made at Amsterdam By whom made Verchuren & Schepers when made 1920

Boilers made at Rotterdam By whom made Burgmans when made 1916-1920

Registered Horse Power 222.9 Owners Holl. Maatschappij Port belonging to Rotterdam

Nom. Horse Power as per Section 28 222.9 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines See Amsterdam Rep No 8160 of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 18" Length of Stroke 24" Revs. per minute 120 Dia. of Screw shaft 4 1/2" 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 yes

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 12"

Dia. of Tunnel shaft 10" Dia. of Crank shaft journals 10" Dia. of Crank pin 4 1/2" Size of Crank webs 12" Dia. of thrust shaft under collars 10" Dia. of screw 1 1/2" Pitch of Screw 24" No. of Blades 2 State whether moveable no Total surface 1000

No. of Feed pumps 2 Diameter of ditto 10" Stroke 12" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 10" Stroke 12" Can one be overhauled while the other is at work yes

No. of Donkey Engines 1 Sizes of Pumps 2 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps 1 2 1/2"

In Engine Room 4 x 3" in Dry tank 2 x 3" in In Holds, &c. I 2 x 3" in II 2 x 3"

Tunnel 1 x 3" one below on stoke hold 3" No. of Bilge Injections 1 sizes 5" Connected to condenser or to circulating pump condenser Is a separate Donkey Suction fitted in Engine room & size 4 1/2 x 3"

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 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 no 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 ER top platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel See Prime Rep No 11504

Total Heating Surface of Boilers 41020 Is Forced Draft fitted no No. and Description of Boilers 2 5.5 multitubular

Working Pressure 100 Tested by hydraulic pressure to 150 Date of test 25.5.17 No. of Certificate 683

Can each boiler be worked separately yes Area of fire grate in each boiler 100 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 5.940" Pressure to which they are adjusted 100 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9 1/2" Mean dia. of boilers 36" Length 120" Material of shell plates Steel

Thickness 1/2" Range of tensile strength 40000 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams no long. seams yes Diameter of rivet holes in long. seams 1/4" Pitch of rivets 2" Lap of plates or width of butt straps 1"

Per centages of strength of longitudinal joint 85% Working pressure of shell by rules 100 Size of manhole in shell 18"

No. and Description of Furnaces in each boiler 2 5.5 multitubular Material Steel Outside diameter 36"

Length of plain part 120" Thickness of plates 1/2" Description of longitudinal joint butt No. of strengthening rings 2

Working pressure of furnace by the rules 100 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"

Pitch of stays to ditto: Sides 12" Back 12" Top 12" If stays are fitted with nuts or riveted heads yes Working pressure by rules 100 End plates in steam space: Material of stays Steel Area at smallest part 100 Area supported by each stay 100 Working pressure by rules 100 Material of stays Steel

Material Steel Thickness 1/2" Pitch of stays 12" How are stays secured with nuts Working pressure by rules 100 Material of Front plates at bottom Steel

Area at smallest part 100 Area supported by each stay 100 Working pressure by rules 100 Material of Front plates at bottom Steel

Thickness 1/2" Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 12" Working pressure of plate by rules 100

Diameter of tubes 2 1/2" Pitch of tubes 12" Material of tube plates Steel Thickness: Front 1/2" Back 1/2" Mean pitch of stays 12"

Pitch across wide water spaces 12" Working pressures by rules 100 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 12" Length as per rule 12" Distance apart 12" Number and pitch of stays in each 12"

Working pressure by rules 100 Steam dome: description of joint to shell butt % of strength of joint 85%

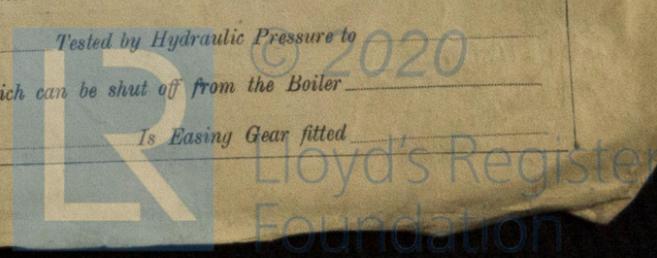
Diameter 18" Thickness of shell plates 1/2" Material Steel Description of longitudinal joint butt Diam. of rivet holes 1/4"

Pitch of rivets 2" Working pressure of shell by rules 100 Crown plates 1/2" Thickness 1/2" How stayed with stays

UPERHEATER. Type water Date of Approval of Plan 1917 Tested by Hydraulic Pressure to 150

Date of Test 29/9 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes

Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 100 Is Easing Gear fitted yes



52108-0125

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *2 top end bolts and nuts, 2 bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and one set of bilge pump valves, one set of piston springs, assorted bolts and nuts, one propeller shaft, one propeller, iron of various sizes*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- }
{ During erection on board vessel -- } *4/9-24/9-8/10-28/10-29/10-3/11-30/11-15/12-1920*
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " *✓*

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested *28-29/10* Engine and boiler seatings *22/9-20* Engines holding down bolts *2/11-20*

Completion of pumping arrangements *3/11-20* Boilers fixed *3/11-20* Engines tried under steam *10/11-20*

Completion of fitting sea connections *4/9-20* Stern tube *4/9-20* Screw shaft and propeller *4/9-20*

Main boiler safety valves adjusted *10/11-20* Thickness of adjusting washers *SB 3/4 Port 11/16+*

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes *5 1/2 inch* Test pressure *540 lbs.*

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. *The machinery has been made and fitted in accordance with the Society's Rules, approved plans and Secretary's letters, material tested as required and workmanship good. It has worked satisfactorily during a trial and may in my opinion be recorded in Society's Register Book with + LMC. 11-20*

It is submitted that this vessel is eligible for THE RECORD. + LMC. 11.20

ReM
24/11/20
ARX

The amount of Entry Fee ... *£ 24.00* : When applied for,
1/3 Special ... *£ 125.00* : 19
Donkey Boiler Fee ... *£* : When received,
Travelling Expenses (if any) *£ 38.50* : 19

A. P. B. J. L.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. NOV. 26 1920*

Assigned *+ L.M.C. 11.20*

FRI. AUG. 11 1922
TUES. 23 DEC 1924

CERTIFICATE WRITTEN *TUES. 15 SEP 1925*
TUES. 29 DEC 1925



Certificate (if required) to be sent to Surveyor General

The Surveyors are requested not to write on or below the space for Committee's Minute.