

REPORT ON MACHINERY.

MUN. 14 FEB. 1921

Received at London Office

Date of writing Report

19

When handed in at Local Office

12 FEB 1921

Port of

SUNDERLAND.

No. in Survey held at Sunderland
Reg. Book. Steel
on the 915 "MYRIAM"

Date, First Survey 8 July 1920 Last Survey 2 Feby 1921
(Number of Visits 34)

Master E. Barnett Built at Sunderland By whom built Messrs Sir Jas. Laing & Co. Ltd Tons } Gross 7006
When built 1921 Net 4220

Engines made at Sunderland By whom made Messrs G. Clark & Co. Ltd 1061 when made 1921

Boilers made at Sunderland By whom made Messrs G. Clark & Co. Ltd 1061 when made 1921

Registered Horse Power _____ Owners Cie. Auxiliaire de Navigation Port belonging to Havre

Nom. Horse Power as per Section 28 559 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

Trip

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 27, 45, 74 Length of Stroke 54 Revs. per minute 74 Dia. of Screw shaft as per rule 15.52 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 5-2 1/2

Dia. of Tunnel shaft as per rule 13.93 Dia. of Crank shaft journals as per rule 14.63 Dia. of Crank pin 14 3/4 Size of Crank webs 10x23 1/2 Dia. of thrust shaft under

collars 14 3/8 Dia. of screw 18.9 Pitch of Screw 17.0 No. of Blades 4 State whether moveable no Total surface 1000

No. of Feed pumps 1 pair Diameter of ditto 10 1/2 x 8 1/2 Stroke _____ Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 30 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 9x10x10, 9x5 1/2 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 1 @ 3 1/2 in BRoom 2 @ 3 1/2 in NOXY TANK 1 @ 2 1/2 in Holds, &c. In Cargo hold port 2 "hot" suction 2 1/2" to pump

in port hold. 2 @ 8" in each cargo space in Cargo pumps.

No. of Bilge Injections 1 sizes 8 Connected to condensers to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 4 to 4"

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 none How are they protected _____

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 none Is it fitted with a watertight door yes worked from _____

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel Spencer & Co.

Total Heating Surface of Boilers 8248 Is Forced Draft fitted yes No. and Description of Boilers Four single ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 11.11.20 No. of Certificate 3733

Can each boiler be worked separately yes Area of fire grate in each boiler 49 No. and Description of Safety Valves to

each boiler Two Spring Valves Area of each valve 8.94 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2-4 Mean dia. of boilers 13-9 Length 11-9 Material of shell plates S

Thickness 1 5/16 Range of tensile strength 29-32 1/2 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Lap & H

long. seams d. 1/8 in. Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 3/4 Lap of plates or width of butt straps 17 1/8

Per centages of strength of longitudinal joint rivets 88 Working pressure of shell by rules 183 Size of manhole in shell 12 x 16

Size of compensating ring 8 x 1 1/8 No. and Description of Furnaces in each boiler 3 Monian Material S Outside diameter 3-5 1/2

Length of plain part top _____ Thickness of plates crown 3 1/2 Description of longitudinal joint Welded No. of strengthening rings none

Working pressure of furnace by the rules 182 Combustion chamber plates: Material S Thickness: Sides 13/16 Back 3/4 Top 25/32 Bottom 7/8

Pitch of stays to ditto: Sides 10 3/4 x 10 1/4 Back 10 1/2 x 10 Top 10 1/2 x 11 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181

Material of stays S Area at smallest part 2.36 Area supported by each stay 110 Working pressure by rules 192 End plates in steam space:

Material S Thickness 1 3/32 Pitch of stays 18 x 19 1/8 How are stays secured d. n. r. w. Working pressure by rules 185 Material of stays S

Area at smallest part 5.94 Area supported by each stay 339 Working pressure by rules 182 Material of Front plates at bottom S

Thickness 1 5/16 Material of Lower back plate S Thickness 1 5/16 Greatest pitch of stays 14 3/4 x 10 1/2 Working pressure of plate by rules 186

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates S Thickness: Front 1 5/16 Back 3/4 Mean pitch of stays 9 1/4

Pitch across wide water spaces 13 1/2 Working pressures by rules 185 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 9 5/8 x 1 3/4 Length as per rule 36 Distance apart 11 Number and pitch of stays in each 2, 10 1/2

Working pressure by rules 181 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 _____

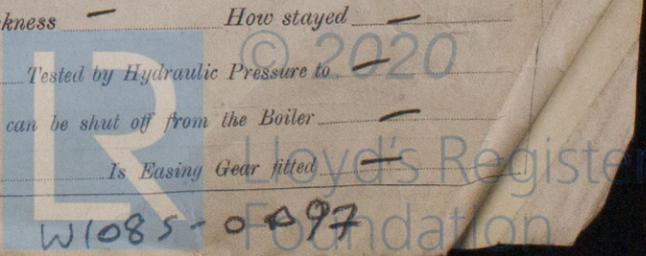
Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER.

Type _____ 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 _____



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? -

SPARE GEAR. State the articles supplied:— Two top end and two bottom end connecting rod bolts & nuts, two main bearing bolts, one set coupling bolts, one set feed and high pump valves, one propeller shaft, assorted bolts and nuts, Down of various sizes

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED

W. Spruce Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920. Jul 8. 30, Aug 12. 17, 20, Sep 1. 14, 17, 30, Oct 6. 14, 20, 25, Nov 1. 3, 7, 11, 15, 20, 26, 30
During erection on board vessel -- Dec 1. 3, 7, 14, 16, 20, 29, Jan 6. 12, 18, 28, 31, Feb 7
Total No. of visits (314)

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " -

Dates of Examination of principal parts—Cylinders 7.12.20 Slides 7.12.20 Covers 14.10.20 Pistons 7.12.20 Rods 7.12.20

Connecting rods 7.12.20 Crank shaft 25.10.20 Thrust shaft 15.11.20 Tunnel shafts None Screw shaft 15.11.20 Propeller 20.12.20

Stern tube 15.11.20 Steam pipes tested 29/12, 12.1/14, 18/1 Engine and boiler seatings 30.9.20 Engines holding down bolts 12.1.21

Completion of pumping arrangements 12.1.21 Boilers fixed 12.1.21 Engines tried under steam 31.1.21

Completion of fitting sea connections 12.1.21 Stern tube 6.1.21 Screw shaft and propeller 6.1.21

Main boiler safety valves adjusted 31.1.21 Thickness of adjusting washers Off 13" 13" 13" 5 3/4" 5 1/2" 10 1/2" 5 3/4" 10 1/2" 10 1/2"

Material of Crank shaft Steel Identification Mark on Do. 1063 GAH Material of Thrust shaft Steel Identification Mark on Do. 1063 GAH

Material of Tunnel shafts None Identification Marks on Do. - Material of Screw shafts Steel Identification Marks on Do. 1063 GAH

Material of Steam Pipes Iron Test pressure 540 lbs

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150° F. Yes

Have the requirements of Section 49 of the Rules been complied with Yes as approved

Is this machinery duplicate of a previous case Yes If so, state name of vessel S/S "Malmanger"

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

The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good. The oil fuel installation has been fitted in accordance with the approved plans and on completion was tried under working conditions & found satisfactory, and unless the vessel slight in my opinion to have used of L.M.C 2.21. Fitted for burning oil fuel 2.21 F.P. above 150° F. Machinery aft.

It is submitted that this vessel is eligible for THE RECORD + L.M.C 2.21. F.D.

Fitted for oil fuel 2.21, F.P. above 150° F.

J. D. J. P. R.
19/2/21

The amount of Entry Fee ... £ 6 : : When applied for, 8.2.19.21
Special ... £ 102: 19 : :
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : : 18.3.19.21

G. H. B. H.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ L.M.C 2.21, F.D.
Fitted for oil fuel 2.21 F.P. above 150° F.



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CERTIFICATE WRITTEN

SUNDERLAND.

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