

# REPORT ON MACHINERY.

Received at London Office

WED 20 JUN 1921

Date of writing Report 3<sup>rd</sup> May 1921. When handed in at Local Office 3 May 1921 Port of NEWCASTLE-ON-TYNE

No. in Survey held at South Shields Date, First Survey 19<sup>th</sup> Nov 1918 Last Survey 28<sup>th</sup> April 1921  
Reg. Book. (Number of Visits 26)

on the Steel Screw Steamer "Edenside" Tons Gross 366. Net 148.

Master John Olsen Built at Newcastle By whom built J. & D. Morris Ltd. (No. 70) When built 1921

Engines made at South Shields By whom made Geo. J. Gray & Co. Ltd. (No. 605) when made 1921

Boilers made at Newcastle By whom made Palmers & Co. when made 1921

Registered Horse Power Owners Wear Steam Shipping Co (1917) Port belonging to

Nom. Horse Power as per Section 28 64. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

## ENGINES, &c.—Description of Engines Compound No. of Cylinders Two No. of Cranks Two

Dia. of Cylinders 17" - 34" Length of Stroke 24" Revs. per minute 100 Dia. of Screw shaft as per rule 7.5" Material of screw shaft Scrap Iron as fitted 8"

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 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 2' 8"

Dia. of Tunnel shaft as per rule 6.9" Dia. of Crank shaft journals as per rule 7.24" Dia. of Crank pin 7.5" Size of Crank webs Dia. of thrust shaft under collars 7.3" Dia. of screw 8" 9" Pitch of Screw 11" 3" No. of Blades 4 State whether moveable No. Total surface 32 sq. ft.

No. of Feed pumps Two Diameter of ditto 2 1/4" Stroke 13" Can one be overhauled while the other is at work yes

No. of Bilge pumps Two Diameter of ditto 2 3/8" Stroke 13" Can one be overhauled while the other is at work yes

No. of Donkey Engines One Sizes of Pumps 5 1/2" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One - 2" dia. In Holds, &c. Main Hold. 3 - 2" dia.

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes 2" dia.

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

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 Is it fitted with a watertight door worked from

## BOILERS, &c.—(Letter for record 15) Manufacturers of Steel See here Report No. 73325 for Particulars

Total Heating Surface of Boilers 1180 sq. ft. Is Forced Draft fitted No. No. and Description of Boilers 1. S.E. Cylindrical multitubular

Working Pressure 130 lb. per sq. in. Tested by hydraulic pressure to 260 lb. per sq. in. Date of test 2-3-20 No. of Certificate 9368.

Can each boiler be worked separately Area of fire grate in each boiler 36 sq. ft. No. and Description of Safety Valves to

each boiler 2 Direct Spring Loaded Area of each valve 5.93 sq. in. Pressure to which they are adjusted 135 lb. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2' 0" Mean dia. of boilers Length Material of shell plates

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

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

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

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

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

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

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

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

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

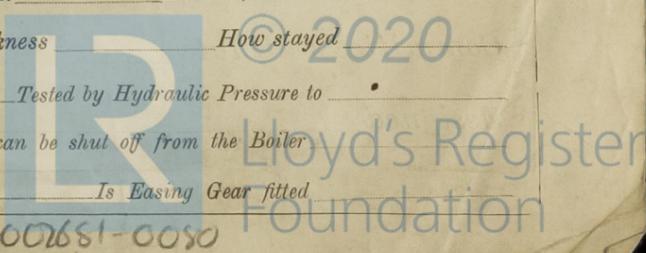
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

## 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

If a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?



00674-00681-0080

IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod top and 2 bottom end bolts and nuts. 2 main bearing bolts and nuts, 1 set of shaft coupling bolts and nuts, 1 set of piston bolts and nuts, 1 set of feed, bilge, air and circulating pump valves, 1 main and 1 auxiliary feed check valve lids, + propeller. a quantity of assorted bolts and nuts and iron of various sizes.

The foregoing is a correct description,

*GEO. T. GREY & CO. LTD.*  
*H. Hunter Doeg Director* Manufacturers of *Leques*

Dates of Survey while building { During progress of work in shops -- 1918 Nov 19, 27 Dec 11, 20 Feb 13, Apr 24 June 4, Sep 9, 16, Oct 15, 21, Nov 12, 18, 18, 23, 26, 29, 29 Dec 13, 16, 21 }  
{ During erection on board vessel --- 1921 Jan 10, 14, 20, 24, 27, Feb 7, Mar 7, 18, 22, 24, 30, Apr 1, 4, 18, 28, }  
Total No. of visits 36

Is the approved plan of main boiler forwarded herewith *no.*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 13-2-19 Slides 13-2-19 Covers 14-1-21 Pistons 10-1-21 Rods 19-11-18.

Connecting rods 19-11-18. Crank shaft 4-6-19 Thrust shaft 19-11-20 Tunnel shafts ✓ Screw shaft 19-11-20 Propeller 24-1-21.

Stern tube 20-1-21 Steam pipes tested 18-3-21 Engine and boiler seatings 18-3-21. Engines holding down bolts 4-4-21.

Completion of pumping arrangements 28-4-21 Boilers fixed 30-3-21. Engines tried under steam 28-4-21.

Completion of fitting sea connections 9-2-21 Stern tube 8-2-21. Screw shaft and propeller 9-2-21.

Main boiler safety valves adjusted 27-4-21. Thickness of adjusting washers PV 3/8". SV 7/16" full.

Material of Crank shaft *Steel* Identification Mark on Do. 4823 TRW Material of Thrust shaft *Steel* Identification Mark on Do. 4823 TRW

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. 4823 TRW

Material of Steam Pipes *Copper* ✓ Test pressure 260 lbs per sq inch ✓

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 *yes*. If so, state name of vessel *s/s "Mondara"*.

General Remarks (State quality of workmanship, opinions as to class, &c. *The workmanship and materials are good. The engines and boiler of this vessel have been built under special survey and are now fitted satisfactorily.*

*On completion, the whole of the machinery was examined under steam and found to work well in every way.*

*The machinery is now in good and efficient condition and eligible in my opinion to have the notation of LMC. 4. 21. (in red) in the Society's Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 4. 21. CL.

*J.W.D.*  
*2/7/21*

The amount of Entry Fee ... £ 2 : . : .  
Special £ 12 : 1 : .  
Donkey Boiler Fee ... £ : : .  
Travelling Expenses (if any) £ : : .

When applied for, 28/6/21.

When received, 12/7/21.

*W. Lindale.*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. JUL. 5 1921 FRI. NOV. 18 1921

Assigned + LMC 4. 21

FRI. 10 DEC. 1921

CERTIFICATE WRITTEN



Newcastle

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