

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office)

26 FEB 1942

to writing Report 13 th FEB: 1942	When handed in at Local Office 23 rd FEB: 1942	Port of Plymouth.
in Survey held at Plymouth.	Date, First Survey July 9 th 1918	Last Survey 25 - 10 - 1940
Book. 129 on the Machinery of the Wood, Iron or Steel S.S. Mari II	(No. of Visits) 17	
Gross 1395.	Vessel built at Haken.	Year Month
Net 811.	By whom P.W. Werf. Conrad	When 1918 -
Final 133.	Engines made at Aegelo.	When 1918 -
Power 2.5B.	Boilers, when made (M.A.P.) 1918	
of Main Boilers ✓	Owners Ministry of War Transport	Port Glasgow
of Donkey Boilers ✓	Managers H.C. Lawson	Voyage O.H.M.S.
in Pressure Main Boilers 160LBS	Surveyed Afloat in Dry Dock MILLBAY DOCKS & WILLoughby's DRY DOCK.	Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).
Donkey Boilers ✓		CHARACTER X for Special Survey Date of last Survey and of Periodical Surveys.

1st Report No. Port

Particulars of Examination and Repairs (if any) DAMAGE & CLASSIFICATION

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and the cost being detailed in the body of the report, should be briefly summarised at the end of the report. State also the names and initials of any letters respecting this case.

Damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined YES. NOT REQUIRED

Is a damage report made by anyone else? If so, by whom? NO

Does the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? YES

Donkey	"	"	"	✓	
is was not done, state for what reasons?					
what parts of the Boilers could not be thus thoroughly examined?			✓		
what special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler?			✓		
the latest date of internal examination of each boiler	23 - 10 - 41				Present condition of funnel () GOOD
does the Surveyor examine the Safety Valves of the Main Boiler?	YES				To what pressure were they afterwards adjusted under steam? 160LBS
does the Surveyor examine the Safety Valves of Donkey Boiler?	✓				To what pressure were they afterwards adjusted under steam? ✓
does the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers?	YES				, and of the Donkey Boilers? ✓
does the Surveyor examine the drain plugs of the Main Boilers?	✓				, and of the Donkey Boilers? ✓
does the Surveyor examine all the mountings of the Main Boilers?	YES				, and of the Donkey Boilers? ✓
screw shaft now been drawn and examined? YES	Is it fitted with continuous liner? NO				Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? NO
shaft now been changed? YES	If so, state reasons SHAFT CORRODED AND NICKED IN WAY OF BUTTS OF LINER FITTED IN THREE PIECES.				
the shaft now fitted been previously used? NO	Has it a continuous liner? YES				Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? NO
date of examination of Screw Shaft 16-10-41	State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft CLOSE.				
Engine parts, when referred to by numbers, should be counted from forward.					Is electric light and/or power fitted? YES
did the Surveyor examine the generators, motors, switchgear, cables and fuses?	YES				
the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms?	YES				
the Survey is not complete, state what arrangements have been made for its completion and what remains to be done	complete:-				

done for Damages alleged to have been caused through enemy action from the air and subsequent sinking of the vessel in Millbay Docks Plymouth on the 2nd April 1941:-
The vessel raised and placed in Dry Dock, and the Propeller, Screw Shaft, (drawn inboard) Seal Connections together with their inside and outside fastenings examined and found or placed in a good condition
in engines:- The cylinders, Pistons, Piston Valves, Slide Valves, Steam Chests, Piston Rods, Crossheads, Top End Brasses, Connecting Rods, Crank Pins, Bottom End Brasses, Crank Shaft Journals, Main Bearings, Eccentric Rods, Straps, Sheaves, Valve Gears, Valve Rods, Turning Engine, Bedplate, Holding Down Bolts, Thrust Shaft, Thrust Shoes & Thrust Block, Intermediate Shafting & Tunnel Bearings, Air, Feed & Bilge Pumps & Valves opened up, cleaned, examined and found or placed in a good condition. P.T.O.

General Observations, Opinion, and Recommendation:- The Machinery of this vessel is now in a

(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9,11, B&M.S. 9,11, X L.M.C. 9,11, or X L.M.C. 140 lb. F.D., &c.)

good and efficient condition, and eligible in my opinion for classification with the notation L.N.C. 11,41 L.N. 10,41 and insertion of Boiler Pressure and Boiler particulars as above in the Register Book subject to permanent repairs being effected to the Main Condenser at a convenient opportunity.

ENCLOSURE CASE NO. 225 OF 19-7-41.

Fee (per Section 29) £ : : Fees applied for

Actual Damage & Repair Fee (if any) £10 - 10 - 0

Charging expenses (if chargeable) £ : 19 : 0

19

Received by me,

19

A. Smith,

Engineer Surveyor to Lloyd's Register of Shipping.

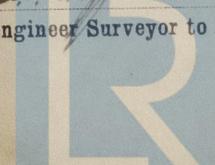
Committee's Minute

TUE. 23 JUN 1942

See Ply. 7503

Is a Certificate required? If so, to be sent to YES. Manager.

Insert Character of Ship and Machinery precisely as in the Register Book



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010982-010991-0087 143

S. S. "MARI II"Now done for Damage con-

Auxiliaries - Independent Centrifugal Circulating Pump, Pumps and Pumping Arrangements, Dynamo, Steam Engines, Condenser, Feed Heater, Feed Filter, Steering Engine and Windlass opened up, cleaned, overhauled examined and found or placed in good condition.

Trials - On completion of Repairs the Main and Aux Machinery tried under full working conditions during a 4 hours Sea trial with satisfactory results.

Boilers - The Two Main Boilers cleaned, examined internally and externally together with the Safety Valves and Mountings and found or placed in a good condition afterwards tested by hydraulic pressure to 800 lbs², and found sound & tight at that pressure.

Steam Pipes - All Main & Aux Steam Pipes (Steel) removed ashore, cleaned, examined and tested to twice the Working Pressure with satisfactory results.

The Boilers and Steam Pipes afterwards examined under steam and the Safety Valves adjusted to 160 lbs².

Electrical Equipment - The Dynamo, Switchboard, Fittings, Cables etc examined and placed in a satisfactory condition. On completion of repairs a megger test was taken, and the insulation resistance found to be not less than 100000 ohms. The Installation was tried under full working conditions during a Sea Trial, and found satisfactory.

Now done for classification - The Owner desires that the foregoing examination may be credited for Classification. Opportunity was taken during the opening up of Machinery of checking, as far as practicable, the scantlings of same & Boilers.

The Arrangements of Sea cocks, Bilge Suctions, Valves, etc were checked and amended to conform to the Requirements of the Rules.

The Spars Gear was checked and placed in order.

N. B. - On account of the age of the Vessel no particulars could be furnished respecting testing of Steel.

Repairs for Damage - Main Engines - H.P.; M.P.; & L.P., Piston Rods & Valve Rods skinned up and new neck & gland bushes fitted. H.P. Piston skinned up in way of Rings and new Rings fitted.

Crank Shaft lifted for cleaning bottom half of Main Bearings.

Bottom Half of N^o 1 Main Bearing remelted and shaft bedded.

H.P. bottom end brasses remelted

Main Eng Pumps - Feed Pump Rams skinned up and new neck & gland bushes fitted.

Thrust - Two Thrust Shoes remelted.

Intermediate Shaft - Four New Tunnel Seats fitted.

Condenser - Steel clips forged and fitted over fractures in discharge branch. New Overboard Discharge Valve Body fitted together with new Discharge Pipe from Condenser to Valve (the old body & pipe were fractured.)

N. B. - Owing to complexity of Condenser casting the fracture in discharge branch had to be dealt with by effecting a temporary repair of clips and cement, ^{which} under test was found satisfactory.

The Owner's proposal to deal with this defect at a more convenient opportunity is submitted for favourable consideration as the repair is in my ^{opinion} efficient.

S.S. "MARIA"

~~Repair for Damage - cont'd~~~~Dynamo Engine: - Crank Pin skinned up, and bottom end bearings remetalled.~~~~Piston Rod, Valve Spindles & Top End Brasses renewed.~~~~Governor Gear overhauled and part renewed. Stop Valve Body renewed.~~~~Aux Pumps: - Aux Fuel Pumps & G.P. Pumps. Piston & Bucket Rings renewed and Ridges ground from the cylinders.~~~~Independent Circulating Pumps: - Crank Shaft Journals skinned up, and bearings remetalled.~~~~Piston Rod skinned up and new necks gland bushes fitted.~~~~Crosshead Pin & Top End Brasses renewed.~~~~Impeller Shaft skinned up & new necks gland bushes fitted.~~~~Two new Impeller Casing End Plates fitted.~~~~Turning Engine & Ballast Pump minor repairs satisfactorily effected.~~~~Steering Engine: - Piston Rings renewed. Piston Rods skinned up & new necks and gland bushes fitted. Crank Shaft Journals skinned up, Top end Pins renewed. Control Valve Line renewed.~~~~Sea Connections: - Main Inlet Valve Body renewed (Brass) tested hydraulically to 75 lbs per square inch before fitting no place and found satisfactory.~~~~Ballast Range: - 5 Pipes renewed and Range afterwards tested with satisfactory results.~~~~Windlass: - Overhauled and minor repairs satisfactorily effected.~~~~Electrical Equipment: - Dynamo rewound completely. Brush gear & bearings, Switchboards & fittings, & all cables renewed in their entirety.~~~~Repairs for Wear & Tear: - On drawing the Screw Shaft inboard it was noted that~~~~Screw Shaft: - the liner was in 3 sections with plain bolts at the joints. It was therefore recommended that the Screw Shaft be removed ashore for further examination of the Shaft in way of these joints. On cutting away the section of liner in way considerable corrosion was found on the Shaft, with nicking to a depth of about $\frac{7}{8}$ ". The Shaft was recommended to be renewed, and a new one has been satisfactorily fitted.~~~~Stamped Lloyd's No 1894. 11-10-41. - M.R. Forging Certificate attached herewith.~~~~Boilers: -~~~~Starboard Boiler: - Smoke box removed and all broken & defective studs removed & renewed.~~~~Three fusible plugs removed from C.C. Tops and Scoured Stays and Nuts fitted.~~~~Two bottom Manholes built up by Electric Welding.~~~~Sanding edges in Starboard C.C. back built up by E.W. for approximately 2' 0".~~~~Port Boiler: - Smoke box removed and all broken & defective studs removed & renewed.~~~~Three fusible plugs removed from C.C. Tops & Scoured Stays & Nuts fitted.~~~~Two bottom Manholes built up by E.W. and 4 New Bottom Dogs fitted.~~~~Valves: - One new 2" Blow Down Valve fitted on the Boiler Shell of each Boiler in place of cocks previously fitted.~~~~Valves in all Bilge Distribution Boxes amended to the Non-return type.~~~~Blow off Cocks Arrangements amended to suit Rule Requirements.~~~~Pipes: - Lead Pipes in Bunkers replaced by W. Iron ones.~~~~Other minor repairs and alterations satisfactorily effected.~~