

REPORT OF SURVEY FOR REPAIRS, &c., OF ENGINES AND BOILERS

(Received at London Office)

Date of writing Report 24-7-1948 When handed in at Local Office 24-7-1948 Port of Antwerp

No. in Survey held at Antwerp Date First Survey 21-11-47 Last Survey 31-5-1948
 Reg. Book. 29203 on the Machinery of the Wood, Iron or Steel S.S. MERCATOR (No. of Visits 29)

Gross 4661 Vessel built at Port Glasgow By whom Lithgows Ltd. When 1920-9
 Net 2797 Engines made at Glenock By whom Ramsay & Blackmore When 1920-9

Nominal Horse Power of Main Boilers 1920 (Donkey) ✓
 Owners A/B. FINLAND AMERIKA LINJEN O/Y
 Managers ✓ (If not already recorded in Appendix to Register Book.)
 Port HELSINGFORS Voyage ✓

☒ Surveyed Afloat & in Dry Dock Nº 16 & 229 Butts
 (State name of Dock.) Nº 9 DD.

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER	Years assigned now expired	Machinery and Boiler Surveys (including date of N.B., if any)
✓ for Special Survey, Date of last Survey and of Periodical Surveys.		
Examined L.R.		B.S. 5.46 (180 lbs)
5.46.		
5.46.		
S.S. 6el Nº 3. 7.33		T.T. C.L.N. 5.46
S.S. Abo Nº 1-37		
(Reclassification Contemplated)		

st Report No. Port DAM. L.M.C., T.S., E.L. RECLASS +

Particulars of Examination and Repairs (if any) DAM. L.M.C., T.S., E.L. RECLASS +
 Medical 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 besides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates 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 Offered & declined not to sign

Is a damage report made by anyone else? If so, by whom? Yes U/S.

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Yes (Reclassification Contemplated)

Donkey ✓

not, 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? ✓

State latest date of internal examination of each boiler all 25/5/48

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes To what pressure were they afterwards adjusted under steam? Good, 185 lbs.

Did the Surveyor examine the Safety Valves of the Donkey Boilers? ✓ To what pressure were they afterwards adjusted under steam? ✓

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? Yes and of the Donkey Boilers? ✓

Did the Surveyor examine the drain plugs of the Main Boilers? ✓ and of the Donkey Boilers? ✓

Did the Surveyor examine all the mountings of the Main Boilers? Yes and of the Donkey Boilers? ✓

Has the screw shaft now been drawn and examined? Yes Has it a continuous liner? Yes Is an approved oil retaining appliance fitted at the after end? no

Has the shaft now been changed? no If so, state reasons ✓ Has the shaft now fitted been previously used? ✓ Has it a continuous liner? ✓

Is an approved oil retaining appliance fitted at the after end? ✓ State date of examination of Screw Shaft 24/2/48. State the wear down in the

Wear bush 1/16 Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? Yes

Engine parts, when referred to by numbers, should be counted from forward. Complete.

If the Survey is not complete, state what arrangements have been made for its completion and what remains to be done. Complete.

WORK DONE (Damage docking)

Docking T.S. Vessel placed in drydock on account of damage stated due to propeller striking a submerged object at Wasa on 22nd Sept 1947 & grounding at Bahia Blanca on 16th & 17th July 1947.

Propeller blades slightly bent. Propeller removed ashore & blades faired.

Screw shaft drawn examined found satisfactory & refitted. Sea valves & cocks & outside fastenings examined & found in good order.

M.C. (B.S.)

All main boilers examined internally & externally with mountings manholes doors & fastenings & safety valves (see continuation)

General Observations, Opinion, and Recommendation:— The machinery of this vessel is

(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, BS 9.11, B&MS 9.11 or LMC 140 lb., FD, &c.)

satisfactory condition & eligible in my opinion to be classed in the Register Book with record + L.M.C. 5.48, T.S., E.L. 2.48

rotation fitted for oil fuel 5.48. F.P. above 150°F without special condition regarding steam pipes & boiler furnace but subject to

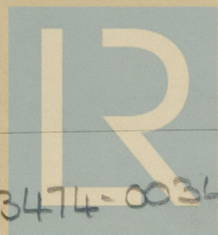
any being fitted in way of settling and deep tanks & ceiling being fitted above deep tanks on arrival at Helsingfors where now bound via Rotterdam.

Received by me, R. Hall

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 20 AUG 1948

signed See minute on Rot 30624



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Lloyd's Register Foundation

003474-003478-0151/14

S. S. MERCATOR,

adjusted under steam as stated above.

The following & other minor repairs effected viz:-

Starboard Boiler port furnace jacked up. Lower manhole door flangings built up by E.W. main check valve spindle & scum valve spindle renewed.

Centre Boiler Port C.C. back plate crossed & part renewed. C.C. stays renewed

Port Boiler 1. C.C. stay renewed main stop valve lid, auxiliary check valve lid & seat skimmed.

L.M.C. M.S.

Examined:- main engine cylinders, pistons, valves & their casings, crossheads & brasses, crank thrust & intermediate shafts with their bearings thrust shoes & bottom ends; main engine driven & essential independent pumps, dynamo & fan engines; condensers & steam pipes examined & tested; valves cocks pipes & strainers of pumping arrangements; windlass & steering gear; electrical installation examined & megger tested.

Main & auxiliary machinery examined under working conditions & (in dock) & found satisfactory.

The following & other minor repairs effected;

M.P. piston rod found bent & recommended for renewal the owner's representatives however declined to straighten it & this was agreed to. M.P. piston rod straightened & skimmed up - neck bush renewed.

M.P. slide valve & matchbox machined.

L.P. slide valve machined, slide valve spindle skimmed up & neck & gland bushes renewed, guide lined up, balance piston chamber bored & balance piston & rings renewed.

HP, MP & L.P. crosshead pins skimmed & brasses of MP & L.P. bedded to suit. HP brasses reinstalled.

No 6 Main bearing top half reinstalled.

Reversing engine worm shaft renewed.

Turning engine cylinder bored, piston & rings renewed, piston rod skimmed, neck & gland bushes renewed, crankpin renewed & bottom end brasses bedded, valve spindle renewed.

Main engine pump levers, out of line, removed ashore, rocking shaft renewed, 4 link pins renewed levers lined up in shop & on board. Pump link brasses renewed.

Air pump rod renewed & valves overhauled.

Auxiliary circulating pump water end renewed

Dickwash pump piston & bucket rods skimmed

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S. S. MERCATOR.

neck & gland bushes renewed. Buckets renewed, valve gear overhauled & valve spindles renewed. Ballast Pump Cylinder bored, pistons renewed, piston & bucket rods skimmed neck & gland bushes renewed - crossheads renewed, water end & buckets renewed, valve gear overhauled & valve spindles renewed.

Duplex feed pump. Cylinder bored pistons renewed piston rods skimmed neck & gland bushes renewed, buckets & water end liners renewed.

Wren feed pump Suction & delivery group valves & seats renewed. valve gear overhauled.

Duplex General Service Pump Cylinder bored, pistons renewed, piston rods skimmed neck & gland bushes renewed, valve spindles renewed, water end liners renewed, bucket rings renewed.

Dynamo engine No. 1. Piston valve chamber bored piston valve renewed & valve spindle skimmed & neck & gland bushes renewed.

Dynamo engine No. 2 Cylinder & piston valve chamber bored, piston & piston valve & its spindle renewed, piston rod skimmed & neck & gland bushes renewed.

Low engine Crankshaft skimmed, main bearings & bottom end reinstalled, piston rod & valve spindle skimmed & neck & gland bushes renewed.

Main condenser retubed & after water box division plate renewed.

Auxiliary condenser tube plates regouted & condenser body, & a number of tubes & ferrules renewed.

Pumping arrangements Several suction bilge suction valve chests renewed, a considerable number of ^{lead} bilge & tank suction pipes in E.P. & B.P. renewed in steel (O.F. conversion) & a number of defective iron pipes renewed. Bilge & ballast pumping arrangements tried on completion.

Wendell valve spindles, control valve spindle, crosshead & valve spindle pins renewed.

Steering Engine Ridges ground out of cylinders, valve chambers bored, piston valves renewed, all valve spindles skimmed & 1 crank pin renewed.

Electrical Installation

Electrical installation completely rewired to Rule requirements, additional lighting provided below plates in boiler room (oil fuel conversion).

Dynamos & main switchboard completely overhauled.

S. S. MERCATOR.

repairs examined in progress & examined & retested
tested on completion.

Oil Fuel Conversion

Vessel now converted for oil fuel burning
(FP above 150°F) in accordance with approved
plans, Secretan's letter, requirements of Rules, &
Circular N° 1866. O.F. units in white marine
Newcastle

LLOYD'S TEST 1502, 408 O.F. 8.7.46

S.R.L. Steam pipes examined & tested
Port furnace of Starbel Boiler jacked up.

Note owing to the prohibitive price of timber
here the owners propose to defer the fitting
of spanning & ceiling in way of oil fuel settling
& deep tanks until arrival Finland & state
timber is already on order for this purpose.
It is recommended however that in view of the
possibility of cargo damage owing to absence of
spanning & ceiling, vessel's class be made
subject accordingly.

M. Hall