

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

Date of writing Report 12th December 50.When handed in at Local Office 13th December 50Port of Greenock

(Received at London Office)

JAN 1951

No in Reg. Book. Survey held at Port Glasgow

Date. First Survey 1-9-50

Last Survey 28-11-1950

(No. of Vents 22)

on the Machinery of the Wood, Iron or Steel S.S. "CHARLES M" (ex "FREEMAN HATCH")

Tonnage { Gross 1792
Net 995
Nominal Horse Power 394 H.P.

Vessel built at Wm. U.S.A.By whom Heatham Ship S.B. Co

Year. Month.

Engines made at Cory. Pa. U.S.A.By whom Ajax Lincolns

When 1943

When 1943

Boilers, when made (Main) 1943

(Donkey) ✓

No. of Main Boilers 2. WT (Spt).

Owners' Address

(if not already recorded in Appendix to Register Book.)

Port London

Voyage

No. of Donkey Boilers NONESteam Pressure in Main Boilers 250 lbs SAT (Spt 220 lbs)Managers T.J. MetcalfIf Surveyed Afloat or in Dry Dock Both

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

CHARACTER. * for Special Survey. Date of last Survey and of Periodical Surveys.	Years assigned expired	Machinery and Boiler Surveys (including date of N.B., if any)
100. A.1.		L.M.C. 3.48.
H.50.		B.S. 4.50
S.S. 13/4 - 3.48.		SCREW SHAFT 3.50
CRACKS BATTLES NOT FITTED		SEE SPL. NOTE S.R.L. (MACH)
CLASSICAL 3.48.		
ELC. WELDED.		

Last Report No.

Port

Particulars of Examination and Repairs (if any) L.M.C. - SCREW SHAFT SURVEY

(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 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.

In 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.

Was a damage report made by anyone else? If so, by whom?

Did the Surveyor personally go inside each Main Boiler separately and make a through examination at this time? YES" " Donkey " " " YES

If not, state for what reasons.

What parts of the Boilers could not be thus thoroughly examined? EXAM. COMPLETE

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?

EXAM. COMPLETEState latest date of internal examination of each boiler P. 8-11-50S. 15-11-50Present condition of funnel GoodDid the Surveyor examine the Safety Valves of the Main Boilers? YESTo what pressure were they afterwards adjusted under steam? SAT. 250 lbs Spt. 220 lbsDid the Surveyor examine the Safety Valves of the Donkey Boilers? YESTo what pressure were they afterwards adjusted under steam? YESDid the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? YESand of the Donkey Boilers? YESDid the Surveyor examine the drain plugs of the Main Boilers? YESand of the Donkey Boilers? YESDid the Surveyor examine all the mountings of the Main Boilers? YESand of the Donkey Boilers? YESHas the screw shaft now been drawn and examined? YESHas it a continuous liner? YESIs an approved oil retaining appliance fitted at the after end? NOHas shaft now been changed? NO If so, state reasons.Has the shaft now fitted been previously used? YESHas it a continuous liner? YESIs an approved oil retaining appliance fitted at the after end? YESState date of examination of Screw Shaft 8-11-50State the wear down in the stern bush 0.04Is electric light YES fitted? YESIf so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? YESHas 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.

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

COMPLETENow done

Vessel placed in drydock. Propeller removed, screw shaft drawn in & examined. Complete with liner, stern bush neck bush gland etc. Condition found satisfactory & re-assembled. All underwater fittings & outside underwater fastenings examined & closed in good order.

Main Engine - All cylinders (3 HP & 3 LP), piston, piston rods, valves & casing valve operating cam shaft, driving chain & reverse gear, crankshaft, journals, main & crankpin bearings, overhead journals & bearings, guides & faces, opened, examined & closed in good order after minor repair & adjustments. Thrust block, face & back examined & in good order. Immediate shafting & bearings examined & found unsatisfactory - journals lightly machined, bearings re-installed & shafting re-aligned throughout. Main condenser re-tubed & satisfactorily tested. Working down holes & checks stated & lightened as necessary.

Boilers - Port & Starboard Main Boilers (water tube) opened, cleaned & examined.

General Observations, Opinion, and Recommendation.

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

The machinery of this vessel is in good condition & eligible in my opinion to remain as classed with fresh record of LMC-11-50. Screw shaft Survey (CL) 11-50 & with an added notation in the Register Book "Fitted for Oil Fuel 11-50 F.P. ABOVE 150°F" without subject regarding Pumping Arrangements - then being now up to Rule Requirements.

Survey Fee (per Section 20) L.M.C. 24.0.0CL 2.0.0Special Repair Fee (if any) 21.0.0Oil Fuel Conversion & Alterations 16.0.0Travelling expenses (if chargeable) 5.0.0

Committee's Minute

Assigned

best5.11.50L.M.C. 11.50 without spl. cond.Fitted for oil fuel 11.50 F.P. above 150°F.CERTIFICATE WRITTEN.
(19.3.51)

A. Y. Sinclair

Engineer Surveyor to Lloyd's Register of Shipping.

012003-012010-0157 1/2

Lloyd's Register
Foundation

now done (continued)

internally & externally in their entirety including checks, tie, feet, manholes & fastenings, supervised & all arrangements. Both Boilers have been completely re-tubed at this time, being satisfactorily tested by hydrostatic pressure upon completion to $12\frac{1}{2} + \frac{1}{2} + 50$ lbs. Mountings found & placed in good order. All don apertures built up & don refitted. Boilers later seen under steam found satisfactory & safety valves adjusted to pressure stated.

Auxiliary Machinery - including steering engine & windlass opened up, examined & closed in good order after necessary repairs.

Steering Engine - general adjustments. Telemotor system checked & pumped through.

Windlass - adjustments only.

Dynamo Engine (2) Cylinders machined & new pistons & rings of the 'Horn Phillips' type fitted together with new piston rods. Bearings adjusted. Governor tested upon completion & satisfactory.

Auxiliary Condenser - re-tubed & tested.

Feed Pumps (3) Alfa pump (original American) completely overhauled, valves & seats machined as necessary. Centi (Weir) minor repairs & adjustments only. Forward Pump - The original pump removed & replaced by a new Weir pump at this time. A condenser bottom section has been arranged for on this pump. Particulars - Hoken Weir. No 240689. Size 6" x 8 1/2" x 18"

Ballast Pump - new ring & general adjustments.

Auxiliary Circulating Pump - new ring, rods machined & lapped to suit. General overhaul.

Oil Injection & Condenser - Nozzles cleaned. Condenser retubed & tested.

Oil Pump - new lining, ring & general overhaul.

Reconditioned Circulating Pump & Engine - a reconditioned circulating engine & impeller have been fitted at this time (Certificate attached). Suitable steel built & machine efficiently installed.

Pumping System - valves, cocks, etc. opened, examined & closed in good order.

An additional 2" hold section P.S. has been fitted this time at the forward end of the Alfa hold, thus bringing the pumping

arrangement up to Rule Requirement. (See sketch item).

Electrical System & Circuits - Insulation tested & all faults & low circuits rectified. Some minor wiring repair carried out. Main Engine internal lighting circuits efficient.

Forward Lubrication Pump System - closed in good order after minor repairs.

Oil Fuel Conversion - The vessel has at this time been converted to Oil Burning. All alterations have been satisfactorily carried out as per enclosed plans (approved 9/9/50) & Requirements of Section XX & XXIV of the Society's Rules for Pumping & Piping complied with so far as they are applicable.

Fuel limit was previously examined & tested, it being a re-conditioned unit of the following Particulars - Walbrook Shipway Eng Co. Fuel Installation No. DB 6423. LATEST 92403 R.M. LATEST 92457 3.1.41.

Rpt. 9a.

Port of

Greenock.

Continuation of Report No. 24285 dated 12th DECEMBER 1950 on the

S.S. 'CHARLES M' (ex 'FREEMAN HATCH').

Oil Fuel Conversion (continued)

Transfer Pump - R.T. WEIR LTD Pump No 240691. Size 7" x 6 1/2" x 15"

All oil fuel discharge & pressure piping has been tested to specified test pressure & also have steam heating coils in Bunkers & Settling Tanks. Section & filling lines tested to 50 lbs. p.s.i.

It has been verified no funnel clamps in fitted. Boiler front converted to oil burning & arranged for forced draught. A new Fan Engine & Impeller has been fitted. Particulars - HOWDEN HIGH SPEED

TYPE F.3. REF ME 4771.

LATEST TEST 24.10.50 A.S. 81295.

Required extended spindles, operated from upper deck have been fitted to fuel tank sections, steam smothering & unit isolating valves. These Remote Controls efficient under test. Adequate portable fire extinguishers of the foam type & sand bin have been provided. Wisp trap fitted below all burners. Extra fire hydrants fitted in Machinery spaces for flushing bilges etc. Boiler Room tank top lighted. Bilge bilge pumped & efficient.

Other Machinery Alterations

An emergency diesel generator & armature driven through V-beltting has been fitted in the aft lower deck (Port side). This outfit has been run to a separate switchboard adjacent to the Main Switchboard. Circuits examined & satisfactory. Seen running on full emergency load & efficient. All Rule Requirements complied with.

Particulars - Engine - R.A. LISTER & CO LTD.

DURSELEY ENGLAND. - TWIN CYLINDER NO. C.S. 66455

H.P. 12. 650 RPM. (SPEED 10/150).

Armature - MODEL. SC-309 TYPE D.C. RPM. 1750. WAG. COMPOUND.

VOLTS 115. AMPS 65. KW. 7.5 SERVICE FACTOR 1.15 RATED VOLTS

DUTY CONTINUOUS. °C RISE 5° C. ENCLOSURE - SEMI PROTECTED.

SERIAL NO. 5760664. ROTATION - C.W. PART. C.O. 180-8602101-13.

0.11 x 11. MADE IN CANADA.

Main Engine, Boiler, oil fuel installation, auxiliary machinery, steering gear, windlass & pumping arrangements examined at sea under normal conditions & found satisfactory.

A. H. Sinclair

Greenock.



© 2021

Lloyd's Register Foundation

noted
without special conditions

add
25.1.51



© 2021

Lloyd's Register
Foundation