

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

(Received at London Office)

23 AUG 1946

Date of writing Report

When handed in at Local Office

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at Jarrow on Tyne Date First Survey 15.4.46 Last Survey 6.8.1946
 Reg. Book. 86137 on the Machinery of the Wood, Iron or Steel 1/2 "CHARLES DICKENS" ex "Gryfevale" (No. of Visits 30)

Tonnage { Gross 4689 Vessel built at Port Glasgow By whom Lithgows Ltd. When 1929 Month 9
 Net 2791 Engines made at Greenock By whom RanKen & Blackmore Ltd. When 1929
 Nominal Horse Power 473 Boilers, when made (Main) 1929 (Donkey) -
 No. of Main Boilers 3 Owners Gryfevale & Co. Ltd. Owners' Address -
 No. of Donkey Boilers - Managers Anglo-Danubian Trans. Co. Ltd. Port Glasgow Voyage -
 Steam Pressure in Main Boilers 200 lbs If Surveyed Afloat & in Dry Dock Commercial Dry Dock
 in Donkey Boilers - (State name of Dock.) + alongside.

Last Report No. - Port -
 Particulars of Examination and Repairs (if any) + LMC + 100 A1 Part Conversion to O.F. burning.

(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 thorough examination at this time? Yes.

Did the Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time? Yes.

If this was not done, state for what reasons

And what parts of the Boilers could not be thus thoroughly examined?

Also 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. 15th July 1946

Did the Surveyor examine the Safety Valves of the Main Boiler? Yes.

Did the Surveyor examine the Safety Valves of Donkey Boiler? -

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

Did the Surveyor examine the drain plugs of the Main Boilers? -

Did the Surveyor examine all the mountings of the Main Boilers? Yes.

Has the screw shaft now been drawn and examined? Yes.

Has shaft now been changed? No. If so, state reasons

Has the shaft now fitted been previously used? -

State date of examination of Screw Shaft 7.5.46

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

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.

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

Now done: Complete.

Vessel placed in Drydock. Propeller, stern bush, & sea connection fastenings examined.
 Sea cocks & valves opened out & examined, propeller shaft drawn in & examined.
 Main Engines opened out & cylinders, pistons, slide valves & chests examined together with crank pins & journals, bottom end brasses & main bearings (top halves).
 L.P. exhaust turbine opened out & blading, gearing, hydraulic coupling, & coned coupling & nut examined as far as practicable. (See note).
 Thrust shaft & intermediate shafting examined, and Main & Auxiliary condensers opened out, examined & hydraulically tested with satisfactory results.
 Main Engine attached pumps, main feed pumps, ballast, circulating, general service.

General Observations, Opinion, and Recommendation: The machinery of this vessel is eligible
 (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, H.S. 9,11, B.S.M.S. 9,11, & L.M.C. 9,11, or L.M.C. 140 lb., F.D., &c.)

in our opinion to remain as classed with fresh record of + LMC 8.46 and notation of TS-CL 5.46.

The items regarding Ballast pump water end & condenser discharge valve. S. Bl. aux. check valve and condenser repairs may now be deleted from S.P.L.

Survey Fee (per Section 29) + LMC £ 19. 0. 0 Fees applied for for R.W. Stenhouse & Self.
 ELECT. FEE £ 3. 0. 0 0 AUG 1946
 Special Repairs or Repairs Fee (if any) £ 5. 5. 0 Received by me, Abner H. Stenhouse
 Travelling expenses (if chargeable) £ - 19 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute 13 SEP 1946
 Assigned + LMC 8.46 without spl. cdr.
S. 5.46

CERTIFICATE WRITTEN
 003549-003555-0220 1/2
 Lloyd's Register Foundation

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

Is a Certificate required? If so, to be sent to

Aux. condenser circulating, and fresh water to'd and aft. lubricating oil pumps, fan engine, to'd & aft dynamo engines, steering engine and windlass opened out and examined.

Valves & strainers of pumping arrangements opened out & examined.

Main boilers opened out and examined internally and externally together with manhole doors and mountings, and safety valves adjusted under steam to 200 lbs/ft².

Steam pipes hydraulically tested to 400 lbs and examined internally with satisfactory results.

Auxiliary machinery tried under working conditions & found satisfactory.

(Note). It was found on examination that the teeth of the primary and first reduction wheels were damaged on the crowns of the teeth, and it is recommended that the first reduction wheel teeth be machined off at the crowns, and reset in the roots (approx. 1/16"), and the primary pinion renewed to suit. The turbine gearing has been disconnected, and the vessel has proceeded without the use of exhaust turbine until the repairs can be effected. Those repairs have been agreed to by the owner's Superintendent.

Repairs:-

Lower half of stern bush renewed.

Main engine H.P. piston valve rings renewed. H.P. top end pin dressed and top end brasses renewed. No. 1 main bearing top half remounted.

Attached air pump rod machined and neck and gland bushes renewed.

Suction & delivery valves overhauled and made good.

Harbour feed pump suction & delivery valve chest machined, and seats & valves renewed. Circulating pump impeller renewed. casing machined and brass wearing strips fitted. cylinder and steam chest rebored & piston, rings, and piston valve renewed.

Main boilers:- Tubes expanded as found necessary. 17 combustion chamber stays renewed. 6 stays caulked and repainted. Internal feed pipes on centre boilers renewed. All mountings overhauled and made good.

Port boiler Aux. feed check, Centre boiler Aux. feed check, & Starboard boiler main & Aux. feed checks renewed. all stamped "LLOYDS TEST. 500 LBS. 3.9.45. F.D."

S.R.L.

Ballast pump water end and condenser discharge valve chest renewed.

Main feed pump suction & delivery valve machined and seats & valves renewed. Condenser water boxes and doors renewed.

Starboard boiler auxiliary feed check valve renewed (as above).

It is submitted that these items may now be deleted from S.R.L.

Part conversion from coal to oil fuel burning.

Heating coils fitted in No. 2 P. 2S. H.P. 4S. and No. 5 double bottom tanks.

No. 2 H.P. 4S. and No. 5 coils tested hydraulically to 200 lbs/ft² with satisfactory results.

No. 2 P. & 2S. coils remain to be tested.

Existing ballast line to No. 4 P. & 5 tanks now connected as shown in the accompanying sketch, owing to the isolation cocks recommended in the approved drawing being unobtainable. The owner's superintendent states that this line will be altered to conform to the drawing before the conversion is completed.

Oil fuel heaters and pressure pumps installed in stokehold (port side) but no connections have been made at this time. (Port O.F.H. Heaters).

Oil fuel transfer pump installed in stokehold and connections made as shown in accompanying sketch. It is stated by owner's superintendent that the conversion to oil fuel burning will be completed as the opportunities occur.

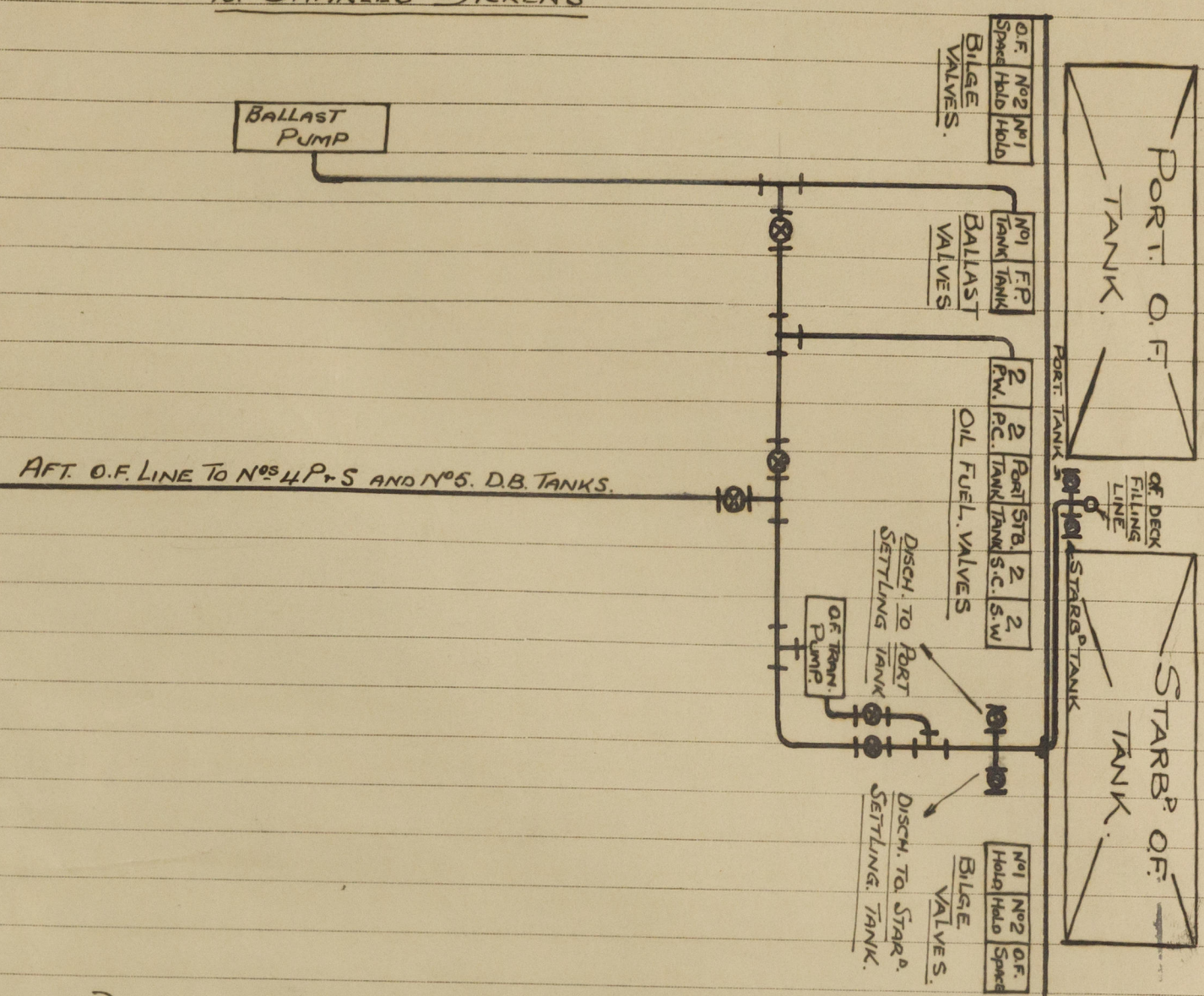
SURVEY OF ELECTRICAL INSTALLATION.

GENERATORS 1-15KWS AND 1-10KWS

THE ELECTRICAL INSTALLATION EXAMINED UNDER WORKING CONDITIONS. GENERATORS, CABLES AND ALL FITTINGS EXAMINED. NAVIGATION LIGHTS OVERHAULED. ENGINEERS ACCOMMODATION LIGHTING WIRING OVERHAULED. ENGINE ROOM LIGHTING PART RENEWED. DECK LIGHTING RENEWED. WHEELHOUSE LIGHTING AND WIRING RENEWED. ON COMPLETION OF REPAIRS ALL CIRCUITS TESTED FOR INSULATION RESISTANCE ALL FOUND SATISFACTORY.

R.B.

S/S "CHARLES DICKENS"



DIAGRAMMATIC SKETCH OF CONNECTIONS MADE AT THIS TIME FOR PART CONVERSION FROM COAL TO OIL FUEL BURNING.