

B. C. SHIP

No. 79159

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

(Received at London Office)

Writing Report... 4.9.52 When handed in at Local Office... 4.9.52 Port of Glasgow 10 SEP 1952

Survey held at Glasgow Date First Survey 24th Nov 1950 Last Survey 14th July 1952 (No. of Visits... 15)

On the Machinery of the ~~Wood~~ Steel Ship "Captain Hobson" ex Amarafoora

Gross 9306 Vessel built at Dumbarton By whom W. Denny & Bros Ltd When 1920 7

Net 5358 Engines made at Dumbarton By whom W. Denny & Bros When 1920

Main Boilers 4 SB Boilers, when made (Main) 1920 (Donkey)

Donkey Boilers Owners Ministry of Transport Owners' Address (If not already recorded in Appendix to Register Book.)

Pressure Managers T. Henderson & Co Ltd Port Glasgow Voyage

Main Boilers 200 If Surveyed Afloat or in Dry Dock Afloat Princes, KG V Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Donkey Boilers Report No. Port O.F. Conversion B.S.* 1.50 MBS* 5.47

Particulars of Examination and Repairs (if any) Docking, T.S.M.B.S. B.S.* 1.50 MBS* 5.47

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

In 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. Repairs to Blev Damage? Port said Report 4619

Damage report made by anyone else? If so, by whom? Not known

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

Donkey " " " " None

State for what reasons What parts of the Boilers could not be thus thoroughly examined? None

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? P.S. Done & aft 16/5/52

Latest date of internal examination of each boiler Yes To what pressure were they afterwards adjusted under steam? 200 lbf

Surveyor examine the Safety Valves of the Main Boilers? Yes To what pressure were they afterwards adjusted under steam?

Surveyor examine the Safety Valves of the Donkey Boilers? Yes and of the Donkey Boilers?

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

Surveyor examine the drain plugs of the Main Boilers? Yes and of the Donkey Boilers?

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

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

Shaft now been changed? New liner If so, state reasons Has the shaft now fitted been previously used? Has it a continuous liner?

Approved oil retaining appliance fitted at the after end? State date of examination of Screw Shaft 20/11/51 State the wear down in the

bush close fit Is electric light and power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

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.

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

Done Vessel placed in a dry dock. The screw shaft, propeller, stern bush & sea connection fastenings examined and found

or placed in good condition.

Boilers examined throughout with mountings, doors & fastenings and found or placed in good condition

The cylinders, pistons, slides, crank, thrust & line shafting, condensers, all pumps & connections, evaporators, steering engine, windlass & electric engines, oil fuel units examined

and found or placed in good condition

Steam Pipes examined & tested by hydraulic pressure to Rule Requirements.

The Safety Valves were adjusted under steam and the O.F. and fire fighting equipment surveyed & tried. A dock trial and sea trial was witnessed & considered satisfactory.

General Observations, Opinion, and Recommendation: This vessel's Machinery 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, BS 2,11, B&MS 2,11 or LMC 2,11 or LMC 140 lb., PD, &c.)

In our opinion to remain as classed with fresh record of

* M.B.S. 7/52 Blev 7.52 T.S.C.L. 11/51. M.S.P. 2/52

without condition

O.F. Conversion 8/75

Special M.B.S. 7/52

Fee (per Section 29) 20:0:0 Fees applied for 9 SEP 1952

Electrical Survey Fee 15:0:0

Damage or Repair Fee (if any) 250

Electrical Alteration Fee 20:0:0

Other expenses (if chargeable)

Committee's Minute

Signed

M.B.S. 7.52 without s/pl. cond.

S. 11.51

Blev. S. 7.52

m.s.p. 2.52

CERTIFICATE WRITTEN 22.10.52

003013-003017-00661/5

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

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

Noted.

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Captain Hobson. Repairs to the damage to the Starboard Aft Boiler reported by Port Said Surveyor Report No 4619 were now made as follows:-

Aft Starboard Boiler.

Starboard High Fire - Combustion chamber top plate cropped across at top corners & removed, new top plate fitted with electric welded butts & rivetted seams, girders removed & refitted with new screwed stays. 19 new stay tubes & 31 plain tubes fitted. 1 c.c. back stay renewed with electric welded compensation pad fitted to plate. 6 c.c. stay nuts removed, stays caulked & refitted nuts. 26 plain tubes re-expanded, 30 ft c.c. seam caulked.

Centre Fire - Combustion chamber top plate renewed similar to Starboard Fire. 23 new stay tubes fitted and 27 plain tubes and 9 c.c. stays renewed, nuts removed from 4 c.c. stays & stays caulked & nuts refitted, 16 plain tubes re-expanded, 14 ft seam in c.c. caulked.

Port High Fire - Combustion chamber top plate renewed similar to Starboard Fire. 21 new stay tubes and 34 new plain tubes fitted. Nuts removed from 7 c.c. stays & caulked stays & refitted nuts. 19 plain tubes re-expanded and 21 ft seam in c.c. caulked.

The c.c. stay and tube holes were built up by electric welding as required & retapped. A satisfactory hydraulic test on this boiler was witnessed on completion of the repairs.

Aft Port Boiler - Wear & tear repairs.

Starboard High Fire - 4 plain tubes renewed & 14 plain tubes re-expanded. 6 ft c.c. seam caulked & 3 c.c. stays caulked & nuts renewed.

Centre Fire - 16 stay & 15 plain tubes cut out and renewed and 19 plain tubes re-expanded & 2 c.c. stays caulked & nuts renewed.

Port High Fire - 11 plain tubes renewed, 2 c.c. stays caulked & nuts renewed, 17 plain tubes re-expanded & 8 ft of c.c. seam caulked.

Forward Port Boiler 2 stay and 3 plain tubes.

Port High Fire Cut out & renewed and 36 plain tubes re-expanded.

Centre Fire - 8 stay and 6 plain tubes and 1 c.c. stay cut out and renewed, 11 plain tubes re-expanded & 4 c.c. stays caulked & nuts renewed.

Starboard High Fire 2 stay tubes & 3 plain tubes and 1 c.c. stay cut out & renewed and 30 plain tubes re-expanded.

All furnaces of this boiler had grooving on gas necks cut out and repaired by electric welding.

Captain Hobson.Forward Starboard Boiler.

Port High Fire - 15 plain tubes renewed, 30 plain tubes re-expanded, 2 cc stays caulked & nuts renewed.

Centre Fire - 8 stay tubes and 11 plain tubes renewed 16 plain tubes re-expanded, 4 cc stays renewed & 1 cc stay caulked & nut renewed.

Starboard High Fire - 3 cc stays renewed and 40 plain tubes re-expanded.

All bottom manhole doors & openings on front plates of all boilers built up by electric welding & refitted.

Boiler Mountings All main & auxiliary check valves were renewed.

Safety Valves - spindles checked for truth in lathe, lip clearance of valve lids machined, spindles repainted.

Water Gauge Fittings - overhauled & repacked.

Main Engine - All column guide plates, removed wear & tear repairs water spaces cleaned, plates repainted, piston guide bars machined & refitted. H.P. piston valve top ring renewed. Pump link bearings renewed & pumps relined, new feed pump ram fitted. H.P./I.P. Vertical joint of cylinder block injected. M.P. crosshead pins machined & new brasses fitted, H.P. guide shoe reinstalled, M.P. & L.P. eccentric sheaves reinstalled. L.P. section main crankshaft removed, tried in lathe for truth, couplings faced true, all main bearings reinstalled, all holding down bolts examined & 9 renewed, crankshaft lined & bedded & new coupling bolts fitted after reaming holes. All cylinder relief valves overhauled. Intermediate stop & throttle valve overhauled.

Main Condenser - new water end fitted & painted tubes cleaned, 95 new tubes fitted & condenser tested & found good.

Auxiliary Condenser - new water end fitted & tubes cleaned & condenser tested.

Independent Feed Pumps - buckets & pistons renewed cylinders & chambers ^(main) buffed, shuttle valve chest renewed. Aux Feed Pump - Port steam cylinder bored, piston renewed, and bucket & rod renewed, pump link pins renewed.

Captain Holson

Ballast Pump — suction & delivery valves, springs & spindles renewed.

Oil Fuel Transfer Pump — Completely reconditioned

Submersible Bilge Pump — " "

Main Centrifugal Circulating Pump & Engine } Completely new water end fitted, engine lined up to suit, bottom end re-metalled.

Evaporator — all coils annealed tested repaired & refitted, Gauge glass overhauled also inlet steam valve. Safety Valves adjusted under steam on completion.

Steam Generator — Governors overhauled & adjusted
Engines oil pump strainers renewed.

H. D. Van — New bearings fitted & new piston valve ring to H.P. Valve

Steering Engine } Crown wheel bearing bushes renewed. Oil pump overhauled

Windlass — overhauled bearings adjusted brakes relined.

Tail shaft — a new continuous G. I. liner was fitted and the shaft surveyed when liner removed.

Propeller — all blades removed, studs renewed & blades rebedded. The steel boss was faced up at fore & aft ends & at the aft end a new steel plate was fitted & secured by electric welding to form the rubber ring recess. The shaft was refitted to the boss and markings found good.

Stem Tube — the wood was boxed out (not renewed) to fit the new liner on the tail shaft.

Sea cocks — Auxiliary condenser discharge valve cover renewed. The Bilge injection spindle & gland was renewed.

A new 3 1/2" sea suction valve was fitted in the tunnel to an electric welded pad on the shell plating for the new fire pump fitted in the tunnel at this time.

Bilge & Ballast — a considerable number of new lines pipes were fitted at this time & all lead pipes in the engine room were replaced by steel pipes. The lines were tried on completion & found satisfactory.

Captain Hobson

Oil Fuel Conversion — A completely new oil fuel conversion was made at this time in accordance with the approved plans, the Secretary's letters and the Rules. On completion the various lines were tested to Rule requirements and on completion of all the repairs and alterations a satisfactory dock and sea trial was witnessed.

The Builders estimated I.H.P. for this vessel was 4000 at 60 rpm.

ELECTRICAL INSTALLATION. A Special Survey of the electrical installation carried out. At this time a complete refit of the installation was undertaken. The switchboards, generators and motors have been overhauled; all cables throughout the vessel, with the exception of the generator mains, also all distribution boards and lighting fittings have been renewed. The only departures from the plans as approved on 6th February, 1952 were as follows — cables from main switchboard to Sections S.S.1. and J.S.1 were 37/064 VCLC and 19/064 VCLC cables respectively, while the cable from emergency switchboard to Section E.B.1, was 7/064 VCLC cable for loading of 58 amps.

The work was examined whilst in progress and on completion generator and circuit breakers tested, insulation resistance of the installation measured. All found to be in order.

[Signature]



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