

No. 103998

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

(Received at London Office)

8 OCT 1946

NEWCASTLE-ON-TYNE

When handed in at Local Office... 19... Port of

Survey held at Wallsend-on-Tyne Date. First Survey 3rd MAY 1946 Last Survey 13th SEPTEMBER 1946

on the Machinery of the Wood, Iron or Steel TREWORLAS (ex HARPAUS - 46)

GROSS 7271 Vessel built at Sunderland By whom Wm. Bradford Sons Ltd. When 1942. 11

Net 5044 Engines made at do By whom do When 1942

M.N. 516 Boilers, when made (Main) (Donkey) 1942.

Boilers Owners Hain S.S. Co. Ltd. Owners' Address (if not already recorded) 1942.

Boilers Managers (if not already recorded) Port London Voyage Foreign

Boilers If Surveyed Afloat or in Dry Dock both - S.H.W.R. D. Co.

Port No. Port Particulars of Classification which must be inserted precisely as in Register Book & Supplements.

Reasons of Examination and Repairs (if any) Damage - LMC - TS & DBS.

When held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must 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.

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. Underwriters Surveyors.

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

For what reasons? Donkey What parts of the Boilers could not be thus thoroughly examined? Yes.

What 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? Good.

Date of internal examination of each boiler. Present condition of funnel Good.

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes. To what pressure were they afterwards adjusted under steam? 120 lbs/sq. in.

Did the Surveyor examine the Safety Valves of the Donkey Boilers? Yes. To what pressure were they afterwards adjusted under steam? None

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

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

Has the 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 been changed? No If so, state reasons. Has the shaft now fitted been previously used? Yes. Has it a continuous liner? Yes.

Is an approved oil retaining appliance fitted at the after end? Yes. State date of examination of Screw Shaft 17.7.46. State the wear down in the screw shaft.

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 - See Electrical Report.

Engine parts, when referred to by numbers, should be counted from forward to aft. If not complete, state what arrangements have been made for its completion and what remains to be done. Complete.

Remarks: On account of damage stated to be due to enemy action on the 14th August 1944 during operations at Normandy Beaches.

Examined in drydock - Examined Propeller - stem tube - under water fastenings - Sea cocks & valves opened up. Tail shaft drawn in.

Examined opened up: - Main engine in its entirety viz: - Cylinders - Piston rods - Valves & valve gear - Connecting rods with their top & bottom end bearings - Crank - Thrust & intermediate shafts with bearings - Main pumps.

Examined Auxiliary Engines - Auxiliary Compressors - Main Starting Air Reservoirs.

Examined General Service - Piston - Jacket water - Valve cooling water - Feed & Oil Fuel Transfer Pumps.

Examined Heating System - Condenser (under head of water) - Oil Fuel Storage & Daily Service tanks - Steam Pipes & to Bulk Heads - Pumping Arrangements - Steering Engine.

A new Windlass fitted to the fore part of the vessel. P.T.O.

Observations, Opinion, and Recommendation: The Machinery of this vessel - in my opinion - is eligible to be classified as Classed with fresh records + LMC (CS) 9-46, DBS 9-46, and notation TS. Cl. 7-46. It is submitted that notation "ex. Thrust block casing for leakage by 6-45 (12 mos limit)" be deleted from S.R. List (NOT).

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 *LMC 140 lb., FD, &c.)

Charge or Repair Fee (if any) per Section 29.) £ 42 : 0 : 0

Expenses (if chargeable) L.M.C. £ 21 : 0 : 0

Received by me, J.3. Martin & A.P. Stone Engineer Surveyor to Lloyd's Register of Shipping.

Stamp: FRI. 15 NOV 1946. + LMC 9.46 without spl Cond. S.7.46 DBS 9.46. CERTIFICATE WRITTEN. 003147 - 003153 - 0154 1/3

M.V. 'TREWORLAS'

Both Anchor Bolts examined in their entirety with doors and mountings opened up - Safety Valves afterwards adjusted under steam to above pressure.

Now Done for T.S. - L.M.C.S. + O.S.S.: - All parts examined as per foregoing on account of Damage.

Repairs for Damage: - Before Repairs were commenced All Main Engine Cylinders - attached pumps - Circulating pump steam & water ends - evaporator & feed piping etc examined under hydraulic test.

Main Engine - Nos 1 fwd. + No 3 aft side connecting rod top end pins - scored - re-lapped. The No 3 after side rod crosshead - excessively scored - skinned up & bearings re-installed to suit. All crankpins - pitted - re-lapped.

Attached Pumps - Scavenge pump - one discharge valve broken - renewed. S.W. Circulating pump bucket rings - scored - renewed. Lubricating oil pump rod - scored - skinned up & neck & gland bushes renewed to suit.

Ballast Pump Injection combined valve lid & spindle - bent - renewed. G.S. Pump injection valve lid - twisted - renewed.

Pumps: - Ballast - Steam Valve chest complete with valves returned to Makers for re-conditioning. Piston & bucket rods - scored - skinned up & neck & gland bushes renewed to suit - water end liners ground up where scored & grooved & bucket rings renewed. - the chest ledge suction pipe to pump - missing - renewed.

General Service - C.I. water end - fractured in several places - renewed in its entirety. O. Fuel Transfer - as above for G.S. Pump.

Stand-by by Tackel cooling water - water end - scored - forced out - buckets - rings & rods - renewed together with all suction & delivery valves.

Stand-by Lubricating Oil Pump. - C.I. Oil End - fractured - renewed in its entirety. Ford. Feed Pump - as above for lub. oil pump.

Valve Cooling - Pump rods scored - skinned up & one pump bucket renewed. Oil Fuel Unit: - C.I. bedplate - suction filters - hand pump body also an vessel - all fractured & broken - renewed.

Steam Dynamo Engines - Outboard Engine C.I. bedplate - fractured - renewed.

Inboard Engine - C.I. bedplate & distance piece between cylinder & crank case also steam valve chest - fractured - renewed.

Starting Air Compressor - Outboard - eccentric cleave & key - slack & part broken - renewed. - crankshaft journals - scored - skinned up & bearings reinstalled to suit.

Steam Piston Valve & H.P. Air Cyl. Piston Rings - renewed.

Inboard: - C.I. distance piece between crankcase & steam cylinder together with H.P. Intercooler body - broken - renewed.

Several lengths & bends of oil fuel & ballast piping - damaged & for broken - renewed.

Anchor Bolts - lower - rolling stay palms on boiler shell - started - re-riveted.

Minor repairs effected to all boiler mountings.

S.R. Test. The Main Engine Thrust Block Casing examined & caulked where slightly porous & made tight.

On completion of the foregoing repairs satisfactory quay trials were witnessed

M.V. "TREWORLAS" Ex. "HARPAGUS."

SURVEY OF ELECTRICAL INSTALLATION.

FIRST SURVEY 26/8/46

LAST SURVEY 13/9/46

No. OF VISITS 5

GENERATORS 2-15 KWS.

NOW DONE FOR DAMAGE:-

THE FORWARD PORTION OF THE SHIP FROM FRAME NO. 92 HAS BEEN RENEWED AND HAS BEEN WIRED IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATIONS AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH OR EQUIVALENT TO THOSE SHOWN ON THE APPROVED PLANS.

THE RENEWED CIRCUITS ARE AS FOLLOWS:-

CIRCUIT.	CONDUCTORS.	MAX CURRENT.		APPROX. LENGTH. FEET.	INSULATION.	PROTECTION.
		INCIRCUIT.	RULE.			
SALOON ACCOMMODATION.	1-19/064.	42	83	350	RUBBER.	L.C.A.+B.
WHEELHOUSE.	1-7/044.	8	31	400	RUBBER.	L.C.A.+B.
WIRELESS	1-19/052	30	64	300	RUBBER.	L.C.A.+B.
REFRIGERATOR.	1-7/064.	30	46.	100.	RUBBER.	L.C.A.+B.

NOW DONE FOR L.M.C.

GENERATORS TAKEN ASHORE AND COMPLETELY OVERHAULED. MAIN SWITCHBOARD OVERHAULED. NAVIGATION LIGHTS MAIN MAST AND STERN LIGHTS REWIRED. THREE TWO HORSE POWER THERMOTANK ACCOMMODATION VENTILATION FAN MOTORS ADDED TO THE INSTALLATION.

ON COMPLETION OF REPAIRS ALL CIRCUITS TESTED FOR INSULATION RESISTANCE AND THE GENERATORS OPERATED ON LOAD AND GOVERNOR TRIALS WITH SATISFACTORY RESULTS.

[Signature]

SURVEYOR TO LLOYD'S REGISTER



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