

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

Date of writing Report 29th July When handed in at Local Office 19th Aug. Port of Gourock
 No. in Survey held at Gourock. Date. First Survey 2-5-50 Last Survey 17-7-1950
 Reg. Book. 61349 (No. of Visits 17) on the Machinery of the Wood, Iron or Steel S.S. "GRANHILL" (ex Empire Cossack - 48).

| | | | | | |
|--------------------------------|-------------------|--|---|---|------------------|
| Tonnage | Gross <u>7042</u> | Vessel built at <u>Sunderland</u> . | By whom <u>Shipbuilding Corp Ltd (Wear Branch)</u> . | Year. <u>1944</u> | Month. <u>10</u> |
| Net | <u>4816</u> | Engines made at <u>Clydebank</u> . | By whom <u>Tolka Burner TC 10</u> . | When | <u>1944</u> |
| Nominal | <u>512 M.H.P.</u> | Boilers, when made (Main) <u>1944</u> | (Donkey) <u>Auxiliary</u> <u>1944</u> | Periodical Surveys | <u>1944</u> |
| Horse Power | | Owners <u>Goulardus Bros. Ltd</u> | Owners' Address <u>Gourock</u> | Years assigned now | |
| No. of Main Boilers | <u>2 (50)</u> | Managers <u>x</u> | Port <u>Voyage</u> | now expired | |
| No. of Donkey Boilers | | If Surveyed Afloat or in Dry Dock <u>Albat.</u> | Particulars of Classification (which must be inserted precisely as in Register Book & Supplements). | Machinery and Boiler Surveys (including date of N.B., if any) | |
| Steam Pressure in Main Boilers | <u>220 lbs</u> | (State name of Dock) <u>Cairnhill House Quay & James Watt Dock</u> | CHARACTER | | |
| in Donkey Boilers | <u>220 lbs</u> | <u>Oil Fuel Conversion</u> | X for Special Survey. | | |

Last Report No.

Port

Particulars of Examination and Repairs (if any)

(Periodical Surveys, when held, must be reported in detail and separately 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 YES - NOT REQUIRED

Was a damage report made by anyone else? If so, by whom? YES - INSURER'S SURVEYOR

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

If not, state for what reasons AWX

What parts of the Boilers could not be thus thoroughly examined? EXAMN² COMPLETE

Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? EXAMN² COMPLETE

State latest date of internal examination of each boiler P. 13-7-50 S. 13-7-50 AWX 13-7-50

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? 220 lbs

Did the Surveyor examine the Safety Valves of the Donkey Boilers? YES

To what pressure were they afterwards adjusted under steam? 220 lbs

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

Did the Surveyor examine all the mountings of the Main Boilers? YES

, and of the Donkey Boilers? YES

Has the screw shaft now been drawn and examined? NO

Has it a continuous liner? ✓

Is an approved oil retaining appliance fitted at the after end? ✓

Has 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 ✓

State the wear down in the

stern bush ✓

Is electric light and/or power fitted? YES

If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? NO

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? NO

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 COMPLETE

How done on account of damage said to have occurred at various dates whilst on voyage from London to St. John New Brunswick part loaded from 15th February 1950 to 5th March 1950 also from St. John to San Andre de Macao (San Domingo) in ballast from 8th to 14th March 1950 & on loaded voyage San Domingo to Gourock from 29th March to 20th April 1950.

Port - Starboard Main Boiler opened & examined internally & externally in their entirety including insulation elements & head in chocks & in manholes & fastenings & all mountings. All funnels (8 total) found badly distorted & now renewed. (Certificates attached). Some minor repair carried out to mountings, they being closed in good order. Both Boilers examined under an hydraulic pressure test of W.P + 40 lbs & found tight. Boilers later examined under steam & safety valves adjusted & pressure tested.

Main Engine All cylinders opened & examined together with pistons, rings, valves & casings. H.P & M.P piston rods & H.P valve spindle found badly marked. H.P piston & valve rods

General Observations, Opinion, and Recommendation:

The machinery of this vessel is P.T.O

(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, ES 8,11, BEMS 9,11 or LMC 9,11 or LMC 140 lb., FD, &c.)

CS 2.24

For as now seen is in good condition & eligible in my opinion to remain as classed with P.R. Record to B.S. 7-50 & with an added notation in the Register Book "FITTER FOR OIL FUEL 7-50. F.P ABOVE 150°F

Survey Fee (per Section 29) B.6

Oil Fuel CONVERSION.

Special Damage or Repair Fee (if any) £ 30 : 0 : 0 (per Section 29)

Travelling expenses (if chargeable) £ : : :

£ 12 : 0 : 0

50 0 0

£ 30 : 0 : 0

Fees applied for

19

Received by me,

19

A. H. Sinclair & D. C. Lampkin

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 9 AUG 1950

Assigned

B5 7.50

Fitted for oil fuel 7.50 F.P. above 150°F

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

Is a Certificate required? If so, to be sent

9-24180.

Now done for damage (continued).

Machined, neck glands re-brushed + new metallic packing fitted. M.P. piston rod found in unsatisfactory condition + condemned. A new rod fitted Mark L.R. 4145. H.A.I. 2b-5.50 (Certificate attached). Main Condenser - Tubes removed, tube plates dismantled + re-tapped + condenser cleaned internally. Original tubes with exception of approximately 50 replaced. Condenser examined under test + tight.

Bilge + machinery examined under steam + found satisfactory.

Now done for B.S.

Port + Starboard Main Boilers + Auxiliary Boiler opened cleaned + examined internally + externally in their entirety including checkers, fire, manholes + fastening mountings, superheat headers + elements. With exception of all furnaces of Port + Star Boiler general condition of Boilers was satisfactory. Repairs to Port + Starboard Boiler reported above on account of damage. All boilers later seen under steam, found satisfactory + safety valves adjusted to pressure stated.

Bil Fuel Conversion

The vessel has been converted to Bil Burning at this time. All alterations have been satisfactorily carried out as per attached plans (previously approved b.H.50). The requirements of Section XX of the Societies Rules (1948-49) have been complied with so far as they were applicable.

Fuel unit was manufactured under Survey by MURRAY-TOWN OIL BURNERS LTD.

MARK. N°3 DUPLEX SET N° 1966. HEATERS TESTED HORNS 500lbsd

PUMPS - WEIRS N° 239253 + 239256.

Transfer Pump.

MAKERS - G.J. WEIR. N° 240335. SIZE 8" x 4" x 18"

All oil fuel discharge + pressure piping have been tested to specified test pressure as also have heating coils in deep, double bottom + settling tanks. (note N° 6 Port + Starboard H/B tanks, tested + reported by Glasgow Survey). All suction + filling lines tested to 60 lbsid

It has been verified that no clamps assist in the funnel.

Bilge suction lines on C.S pump apparently blanked thus insuring no fuel contamination is possible from this system.

Required extended sprinklers operated from a position outside of the Engine + Boiler Room Compartments have been fitted to all tank suction, steam smothering + isolating valves. These remote controls sufficient under test. Adequate fire extinguishers of the foam type together with sand bins have been supplied + fitted. Additional fire hydrants fitted to facilitate washing of tank tops or as a precaution against fire. Drop trap fitted to all furnace mouths.

Bilge bilges pumped + proved efficient.

Now done at Burns Request a new generator engine (steam) + auxiliary has been fitted at this time - one of the original machines being disconnected + retained onboard as a complete spare unit.

Particular of machine now fitted.

GENERATOR - MAKERS CLARKE CHAPMAN. RATESHEAD. N° 4328. Cyl. 7 $\frac{3}{4}$ " ST. 4 $\frac{1}{2}$ ". RPM. 600.

ARMATURE - N° 24622. 20 K.W. 110 VOLTS. 182 AMPS. EVDP. COMP. WOHN. CON^T. RATING. 63° F

Machine efficiently installed + electrical (relevant) circuits listed.

Spare Screw Shaft complete with continuous liner placed onboard at this time.

Mark H. 4004. G.H.S. 25.4-50

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Foundation