

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

(Received at London Office

31 OCT 1946

Date of writing Report 8/10 1946 When handed in at Local Office 8/10 1946 Port of SPLIT

No. in Survey held at Sušak-Fiume and Split Date. First Survey 27/5 Last Survey 4/10 1946
(No. of Visits 17)

on the Machinery of the Wood, Iron or Steel Se. "HRVATSKA"

Gross 492 Vessel built at Kiel By whom Howaldtswerke When 1891 Month 11

Net 303 Engines made at Kiel By whom Howaldtswerke When 1891

Nominal 174 Boilers, when made (Main) NB 06 refitted 23 (Donkey) NDB 91 refitted 23

of Main Boilers 1 Owners Jadranska Plovidba D.D. Owners' Address (Donkey)

of Donkey Boilers 1 Managers (if not already recorded in Appendix to Register Book.)

Pressure 172 Main Boilers Port Susak Voyage (if not already recorded in Appendix to Register Book.)

Donkey Boilers 80 If Surveyed Afloat or in Dry Dock both Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Report No. REINSTATEMENT OF CLASS Port LMC & SCREWSHAFT

Particulars of Examination and Repairs (if any) LMC & SCREWSHAFT

Medical Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly the cause of Repairs, if any, 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.

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.

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

Donkey " " " " ---

State for what reasons --- What parts of the Boilers could not be thus thoroughly examined? ---

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? ---

Latest date of internal examination of each boiler. 21st September, 1946 Present condition of funnel(s) Good

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes To what pressure were they afterwards adjusted under steam? 180 lbs

Did the Surveyor examine the Safety Valves of the Donkey Boilers? --- To what pressure were they afterwards adjusted under steam? ---

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

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

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

Has the screw shaft now been drawn and examined? Yes Has it a continuous liner? No Is an approved oil retaining appliance fitted at the after end? Yes

Has the 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 3/10/46 State the wear down in the bush close fit Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

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

Detail placed in dry dock. Propeller, sea connections and fastenings; main engine cylinders, pistons, valves and casings, rods and crossheads; crank, thrust, tunnel and tail shafts and all rings; condenser, main engine driven pumps (air, feed and bilge), circulating pump; dynamo and all auxiliary pumps opened up and working parts examined. Pumping arrangements examined throughout. A selected number of auxiliary steam pipes removed, examined, tested to 2 W.P. and replaced. Dynamo, switchboard, distribution boxes, fuses, fittings and cables examined and system tested and found satisfactory.

WORKS NOW EFFECTED: New C.I. propeller supplied and fitted. Stern bush (OG) white metal renewed bearing surfaces of screw shaft liners dressed. M.P. and L.P. piston rods renewed (material tested to Rule requirements). H.P. piston and piston valve rings renewed. H.P. and M.P. bottom brasses remounted. Crank shaft lifted and rebaded; crank, thrust and intermediate shafts aligned. Thrust sheo faces dressed. All link motion throughout overhauled. Feed and bilge pumps skimmed and rebushed. C.I. circulating pump casing made new. Condenser cleaned and tested. Auxiliary feed pump thoroughly overhauled. General service pump buckets and rings renewed, and pump readjusted. Dynamo engine cylinder bored out, piston, piston valve and rings renewed; crank and main bearings remounted. The ex S.S. "SLOVENAC" steering engine reconditioned and placed on board. Fun engine completely overhauled. A large number of bilge and ballast pumps renewed. Windlass cylinders bored out and new piston rings, piston rods and valve spindles renewed.

General Observations, Opinion, and Recommendation: 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, BS 9,11, B&MS 9,11 XLMC 9,11 or XLMC 140 lb., FD, &c.)

Machinery of this vessel is, in our opinion, eligible to be reclassified in the Register Book

in record TS (OG) 10,46 and notation + LMC 10,46

Fee (per Section 29) £ 6,760.- Fees applied for 23/10 1946

Damage or Repair Fee (if any) (per Section 29.) £ 2,000.- Received by me, for P. Šušić and self

Working expenses (if chargeable) £ 2,080.- G. Majarić Engineer Surveyor to Lloyd's Register of Shipping.

Surveyor's Minute FRI. 29 NOV 1946

Remarks LMC 10.46 + NB refitted 46

510.46 OG

made 13

CERTIFICATE WRITTEN

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Lloyd's Register

01047-01056-0152 1/2

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

Two office

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

Machinery of S.S. "HRVATSKA"

Dynamo field coils and armature rewound. Electric wiring, fitting, distribution boxes and fuses renewed throughout.

As far as could be ascertained, this vessel was under survey at Split from September 1940 till April 1941 on which occasion extensive machinery repairs and alterations were carried out and the water tube boiler and upright donkey boiler were removed from vessel and the ex-port boiler of the S.S. "KARAGJORGJE" fitted after repairs. It would appear that this case had not been reported to the Committee due to repairs and Survey not having been completed at the outbreak of war in Yugoslavia. The repairs were subsequently terminated and the vessel replaced in commission. Notes drawn up by the Surveyor H.G.L. Pilditch on repairs and alterations were found in the archives and are attached to this Report.

BOILER, NOW DONE: The ex-port boiler of the S.S. "KARAGJORGJE", fitted on this ship, was damaged during the war by splinter of a bomb and has now been removed. The multitubular ex-starboard boiler of the S.S. "KARAGJORGJE" has now been repaired and fitted on board. The only visible marks on the boiler are: LLOYD'S TEST - LBS.

This boiler has now been equipped with the mountings of the former boiler which were made new and tested in August 1940 (see attached copy of Certificate).

The following boiler repairs were now effected: all plain tubes removed, cleaned and refitted; 64 screw stays renewed and 68 screw stay nuts rejointed; a number of fire cracks veed and welded; back and front circumferential seams caulked along bottom. Main steam pipe (steel) made new, feed, blow down and scup pipes altered to suit new arrangement, all pipes tested prior to fitting. Furnace fronts, smoke box and uptake of the previous boiler were thoroughly repaired and fitted to new boiler. The funnel has now been renewed. After effected repairs the boiler was hydraulically tested to 250 lbs and found satisfactory.

Boiler was examined under steam and accumulation test carried out when safety valves had been adjusted to 180 lbs.

Notation in column 13 of Register Book should be altered to:

180 lbs
NB 13 refitted 46
1 SB, 3CF, GS 56, HS 2324 FD



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