

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

(Received at London Office 15 JAN 1947)

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of Liverpool.

No. in Survey held at Birkenhead, Date. First Survey 19/10/46 Last Survey 21/12/46  
eg. Book. (No. of Visits.....26.)

12639 on the Machinery of the Wood, Iron or Steel T. S.S. "SLAVA" ex "ANTARKITA".

Gross 12639 Vessel built at Wallsend By whom Swan Hunter & Wigham Richards Lrd. Year. Month. 1929 9  
 Net 8884 Engines made at Newcastle By whom Swan Hunter & W.R. Lrd. When 1929  
 Nominal Horse Power } Boilers, when made (Main) 1929 (Donkey) 1929  
 of Main Boilers } Owners U.S.S.R. Owners' Address.....  
 of Donkey Boilers } Managers..... Port Asian Voyage.....  
 Steam Pressure in Main Boilers.....  
 in Donkey Boilers.....  
 If Surveyed Afloat or in Dry Dock Birkenhead, West Float.  
 (State name of Dock.)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER. * for Special Survey. Date of last Survey and of Periodical Surveys.	Years assigned now expired.	Machinery and Boiler Surveys (Including date of N.B., if any)
S.S. Rot No2 -37		+
Examined L.R.		B.S. 10.45.
10.45.		(210 lb. 100lb
+ Kel		T.S.(C.L.)8.45
<i>Strengthened for haul in Ice</i>		
<i>Fitted for oil fuel</i>		
<i>Revised. (Whaling Factory)</i>		

Next Report No. \_\_\_\_\_ Port \_\_\_\_\_

Particulars of Examination and Repairs (if any) \_\_\_\_\_

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.....

Where 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 no damage.

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.

Donkey " " " " Yes.

What parts of the Boilers could not be thus thoroughly examined? \_\_\_\_\_

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: FP & AP 29.10.46. AS 5.11.46. FS 20.11.46 Both dky. 29.10.46.

Present condition of funnel(s) Efficient.

Did the Surveyor examine the Safety Valves of the Main Boilers? Yes To what pressure were they afterwards adjusted under steam? 210 lb/sq"

Did the Surveyor examine the Safety Valves of the Donkey Boilers? Yes To what pressure were they afterwards adjusted under steam? 100 lb/sq"

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? None and of the Donkey Boilers? none

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? No

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 not examined State the wear down in the stern bush P 3/32" S. 1/8"

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

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. Vessel dry-docked.

Examined propellers, cocks, valves and outside fastenings of sea connections in engine room and both pump rooms. Wear down of port and starboard screwshafts 3/32" and 1/8" respectively. Examined port and starboard main engine cylinders, pistons, valves, valve casings, crank and thrust shafts with their bearings. (Cylinders and H.P. piston valve chambers of both main engines gauged. Thrust-shaft coupling to crankshaft parted, shafting alignment verified and bridge gauge readings noted). Port and starboard main engine attached air and bilge pumps. Port and Starboard main sea circulating pumps and engines. Auxiliary sea circulating pump (Duplex). Both Main Feed Pumps. Ballast pump. Port and starboard steam generator engines and the adjacent diesel alternator. Both fuel oil pressure pumps. Both fan engines. Evaporator pump. Port fresh water pump. Fuel oil settling tank. Valves, cocks, pipes and strainers of pumping arrangements. Both main condensers tested. Representative lengths of main steam pipe examined and hydraulically tested, remaining steam pipes examined internally. All steam pipes examined under steam. The four main and both auxiliary boilers examined internally and externally with mountings, manholes, doors and their fastenings; safety valves adjusted. P.T.O.

General Observations, Opinion, and Recommendation:— This report is submitted for the information of \_\_\_\_\_

(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 \*LMC 9,11 or \*LMC 140 lb., PD, &c.)

the Committee.

Survey Fee (per Section 29)..... £ : : Fees applied for  
 Special Damage or Repair Fee (if any)..... £ : : 19  
 (per Section 29.) Received by me,  
 Travelling expenses (if chargeable)..... £ : : 19

W. L. L. & S. L.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 14 JAN 1947  
Assigned For the Information of the Committee.



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

REPORT OF SURVEY FOR REPAIRS, & OF ENGINES AND BOILERS

Port of Liverpool.

Continuation of Report No. 124955 dated

21/12/46

on the

The plain tubes were found to be generally somewhat thin at the back tube plates.

REPAIRS.

Port main engine H.P. piston valve chamber bored and new valve rings and springs (Lockwood & Carlisle) fitted, valve motion adjusted. H.P. Piston machined true, new Lockwood & Carlisle piston rings fitted to H.P., M.P. & L.P. Pistons.

Starboard main engine. H.P. Piston valve chamber bored and new valve rings and springs (Lockwood & Carlisle) fitted, valve motion adjusted. New (Lockwood & Carlisle) piston rings fitted to H.P., M.P. & L.P. pistons. M.P. (Andrew & Cameron) valve, excessively worn, machined true at the sides and brass strips fitted to the starboard side, valve machined to suit cage and clearances verified.

L.P. astern guide bars machined true and adjusted.

Starboard main circulating pump engine; piston rod renewed, new piston rings fitted.

Port main circulating pump engine. New piston rings fitted.

Port main feed pump. Bucket rod renewed. Bucket ring grooves machined true and new bucket rings and piston rings fitted.

Corroded port suction valve seat landing machined true, and false landing ring (brass) fitted. Delivery valve seats machined true. Valve motion pins and bushes renewed.

Starboard main feed pump. Bucket ring grooves machined true and new bucket rings and piston rings fitted. Valve motion pins and bushes renewed.

Auxiliary sea circulating pump. Both water end liners renewed and buckets machined to suit. New bucket rings fitted.

Ballast pump. Both piston rods renewed. Suction and delivery valves renewed.

Valve motion pins and bushes renewed. New piston rings and bucket rings fitted.

Port steam generator engine. H.P. & L.P. Crankpin brasses remounted. H.P. restricted piston rings renewed. L.P. Piston machined and new steel hood fitted with new piston rings.

Diesel Alternator. (in main engine room). Gudgeon pin bushes (4) renewed. All piston rings renewed. Both fuel oil pressure pumps. Shuttle valve chests renewed. New piston rings and bucket rings fitted. Valve motion pins renewed.

After fan engine. Cylinder bored and piston renewed. New piston rings fitted.

Forward Fan Engine. New piston rings fitted.

Evaporator pumps. Suction and delivery valves and seats machined true.

Port fresh water pump. Cylinders bored, new pistons and piston rings fitted; slide valves and valve faces machined true. Bucket ring grooves machined true and new bucket rings fitted. Valve motion pins and bushes renewed.

Fuel oil settling tank. Defective rivets and seams dealt with.

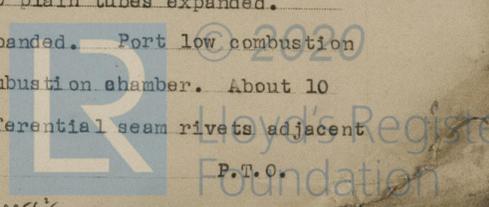
Three defective lengths of ballast pump discharge pipe (steel) renewed.

Spare gear verified and brought to the Society's Rule Requirements.

BOILER REPAIRS.

Port forward boiler. Port high combustion chamber. 22 defective plain tubes renewed, and about 24 plain tubes expanded. Starboard high combustion chamber. About 80 plain tubes expanded. Starboard Low combustion chamber. 3 defective plain tubes renewed, and about 30 plain tubes expanded. A number of back stays caulked. Double butt straps caulked. Boiler hydraulically tested on completion.

Port After Boiler. Port high combustion chamber. About 80 plain tubes expanded. Starboard high combustion chamber. About 80 plain tubes expanded. Port low combustion chamber. About 40 plain tubes expanded. Starboard low combustion chamber. About 10 plain tubes expanded. Double butt straps caulked. Circumferential seam rivets adjacent



bottom manhole caulked. Main and auxiliary internal feed pipes renewed. Main check, blowdown, scum and whistle valve lids, renewed. Boiler hydraulically tested on completion.

Starboard forward boiler. Port high combustion chamber. About 80 plain tubes expanded. Starboard high combustion chamber. About 80 plain tubes expanded. Port low combustion chamber. About 80 plain tubes expanded. Starboard low combustion chamber. About 80 plain tubes expanded. Auxiliary internal feed pipes renewed. Auxiliary check valve chest rejointed to shell. Main and auxiliary check valve seats renewed. Defective superheater header drain valve chest renewed.

Boiler hydraulically tested on completion.

Starboard after boiler. Port high combustion chamber. About 40 plain tubes expanded. Port low combustion chamber. 11 defective plain tubes renewed and about 10 plain tubes expanded. Starboard low combustion chamber. 17 defective plain tubes renewed and about 60 plain tubes expanded. Port side double butt strap caulked.

Circumferential seam rivets adjacent bottom manhole caulked. Main and auxiliary internal feed pipes renewed. Main stop, main check and scum valve lids renewed.

Boiler hydraulically tested on completion. Water gauge column pipes (steel) removed from the four main boilers, examined and hydraulically tested; 7 defective pipes renewed.

Port auxiliary boiler. Scum, blowdown and feed master check valve lids renewed.

Starboard auxiliary boiler. Blowdown valve lid renewed.

ELECTRICAL EQUIPMENT:-

Installation examined and tested. Generators, essential motors, control gear, cables, fittings, switchboards etc. examined. Insulation test carried out. Repairs. Bridge Lighting. Wheelhouse and bridge wiring overhauled. Navigation panel rewired, navigation lights overhauled, all circuits overhauled and repaired as necessary.

Crews' accommodation forward. Wiring and fittings overhauled, several switches and fittings made good.

"A" & "B" Deck Lighting. Low insulation faults located, fuse board overhauled.

Crews' accommodation aft. Low insulation faults located and removed, fittings and switches made good.

Stores forward. Faults located and removed. Wiring made good.

Boiler Room Lighting. Wiring and fittings overhauled, faults removed, and several circuits rewired.

Deck Lighting. All wiring and fittings tested and overhauled, several faults removed.

Blacksmith's Ship & Separator Room. Wiring overhauled and made good.

Factory Lighting. Faults located, damaged cables renewed, redundant cables removed or isolated, fittings etc. made good.

Ventilation Motors. All motors overhauled, cleaned, varnished. Brush gear overhauled, new brushes fitted.

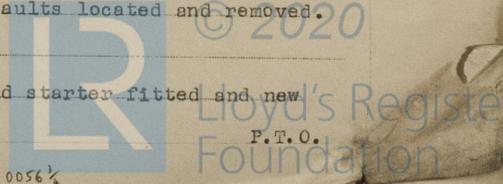
Bilge Pump Motor. Motor overhauled, connections made good, new terminal block fitted.

Factory Space. All obsolete and redundant cables disconnected. Section Board overhauled cables at back re-insulated.

Separator Room. Main Deck Port. All wiring examined & generally overhauled.

Engine Room Lighting. All circuits tested, low insulation faults located and removed. Several circuits rewired.

Refrig. Vent fan. A.C. Motor removed. New D.C. Motor and starter fitted and new cables installed.



Forward Power Supply. Faulty cable located in main cable run. Cable re-insulated and refitted. New plug connection fitted in forward pump room.

Sanitary Pump Motor. Wiring between motor and starter renewed.

Main Switch Board. Wiring and connections checked, new switch parts fitted, fuses overhauled.

Diesel Room. Main A.C. Circuit breakers dismantled, new parts fitted, breakers adjusted, meters calibrated, temporary wiring at back of board removed, board examined and several items overhauled and made good. No.1 Alternator dried out and generally overhauled and cleaned, brush gear overhauled. No.2 Alternator generally cleaned, overhauled and made good.

Main Generators in Engine Room. No.1 Generator stripped and cleaned, commutator micas undercut, brush gear overhauled. No.2 machine. Armature removed and coils re-insulated, commutator skimmed, micas undercut, field coils and brush gear overhauled. No.3 & 4 machines generally overhauled and tested.

Galley Blower Fan. Motor totally rewound and cables made good, new D.P. switch and fuse fitted.

General. A number of motors were removed from vessel and repaired, several were rewound, others had new field coils fitted, all brush gears overhauled and made good. New Bakers Oven fitted in bakehouse. Wiring fitted from main switchboard in Engine Room.

Alarm systems, telephones and bells and loudspeaker circuits overhauled and several additional points fitted.

On completion, the installation and repairs were examined and tested and found satisfactory.

Main and auxiliary machinery examined under working conditions, in dock, on completion and found satisfactory.