

Report on Steam Turbine Machinery. No. 111679

4a. Date of writing Report 19... When handed in at Local Office 3rd Aug. 1954 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at NEWCASTLE-ON-TYNE Date, First Survey 3-9-54 Last Survey 30-7-1954
 Reg. Book on the S.S. "WORLD HARMONY" Tons (Gross 20992 Net 18968)
 Built at NEWCASTLE ON TYNE By whom built VICKERS ARMSTRONG & CO. Ltd. No. 135 When built 1954
 Engines made at WALLSEND By whom made PARSONS MAR. STM. TURB. CO. Ltd. Engine No. 483 When made 1953
 Boilers made at HARTLEPOOL By whom made RICHARDSON WESTGARTH & CO. Ltd. Boiler No. ... When made 1954
 Shaft Horse Power at Full Power 13,750 MAX. 12,500 SER. Owners WORLD TANKERS CORPORATION Port belonging to PIRAEUS
 Nom. Horse Power as per Rule 2,750 V Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
 Trade for which Vessel is intended CARRYING PETROLEUM IN BULK

STEAM TURBINE ENGINES, &c.—Description of Engines. HP & LP D.R. TURBINES

No. of Turbines Ahead Direct coupled, single reduction geared } to propelling shafts. No. of primary pinions to each set of reduction gearing.
 Astern double reduction geared }
 Direct coupled to Alternating Current Generator phase periods per second } rated Kilowatts Volts at revolutions per minute;
 Direct Current Generator }
 for supplying power for driving Propelling Motors, Type
 rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

TURBINE	H. P.	I. P.	L. P.	ASTERN.
IMPELLER BLADING.				
Impulse Blading				
Reaction Blading				
No. of rows				
No. of stages				
No. of rows in each stage				

Shaft Horse Power at each turbine H.P. I.P. L.P. Revolutions per minute, at full power of each Turbine Shaft H.P. I.P. L.P. 1st reduction wheel main shaft
 Rotor Shaft diameter at journals H.P. I.P. L.P. Pitch Circle Diameter 1st pinion 2nd pinion 1st reduction wheel main wheel Width of Face 1st reduction wheel main wheel
 Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 2nd pinion 1st reduction wheel main wheel
 Flexible Pinion Shafts, diameter at bearings External Internal 1st 2nd diameter at bottom of pinion teeth 1st 2nd
 Wheel Shafts, diameter at bearings 1st main diameter at wheel shroud, 1st main Generator Shaft, diameter at bearings Propelling Motor Shaft, diameter at bearings
 Intermediate Shafts, diameter as per rule as fitted Thrust Shaft, diameter at collars as per rule as fitted
 Tube Shaft, diameter as per rule as fitted Screw Shaft, diameter as per rule as fitted Is the tube screw shaft fitted with a continuous liner
 Bronze Liners, thickness in way of bushes as per rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the propeller boss
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft
 If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet
 If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbines exhaust direct to the

Condenser No. of Turbines fitted with astern wheels Feed Pumps No. and size TWO @ 133,600/174,000 LBS/HR. ONE @ 108,500/141,000 LBS/HR. How driven TURBINE
 Pumps connected to the Main Bilge Line No. and size ONE G.S. @ 134 T/H; ONE BILGE PP @ 340 GAL/MIN; ONE FIRE BUTT PA 140 TONS/HR. How driven STM. RECIP. ELECT MOTOR - RECIP. TURBINE
 Ballast Pumps, No. and size NONE Lubricating Oil Pumps, including Spare Pump, No. and size TWO - 340 GALS/MIN
 Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room ONE 4" AFT WEL ONE 4" P.S. AFT ONE 3 1/2" P.S. FOR P. ONE 2 1/2" ER. C/D. In Pump Room
 In Holds, &c. FOR STORE. 1-2 EJECTOR P.S. FOR HOLD. 1-2 EJECT P.S. FOR C/D. 1-2 P.S. 1-3 SS. FOR P.R. 1-3" AFT C/D. 1-3" P.S. AFT P.R. 1-4 CENT. 1-2 P.S.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE 16" Independent Power Pump Direct Suctions to the Engine Room
 Bilges, No. and size ONE 7" P.S. ONE 7" S.S. Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES
 Are all Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks BOTH
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YES Are the Overboard Discharges above or below the deep water line BELOW Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate YES What pipes pass through the bunkers How are they protected
 What pipes pass through the deep tanks FORE PEAK TANK SUCTION Have they been tested as per rule YES
 Are all Pipes, Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times YES
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another YES Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 2 x 9,875 sq. ft. 2 x 8420 = 16,840 sq. ft.
 Is Forced Draft fitted YES No. and Description of Boilers TWO - FOSTER WHEELER Working Pressure 850 LBS.
 Is a Report on Main Boilers now forwarded? YES

SURVEY OF MACHINERY.

FIRST SURVEY 8-4-54.

LAST SURVEY 21-4-54.

Rpt. 9a.

Port of NEWCASTLE-ON-TYNE

Continuation of Report No. 111672 dated

No. OF VISITS 5.

on the

S.S. 'WORLD HARMONY' PMST. ENG. N^o 483.

Damage to H.P. Turbine - For the information of the Committee.

On the 3rd April 1954 the H.P. turbine complete rolled off a lorry at the entrance to P.M.S.T. works, whilst being transferred to the slipyard.

Damage occurred to the fabricated cover for the flexible coupling - some small branches were bent or broken. & one corner of the fabricated base plate very slightly set up at one corner.

Repairs.

H.P. Turbine completely opened up & examined throughout
H.P. Rotor tried in lathe - found true - then dynamically rebalanced & found in order.

4. pressure gauge stand pipes, 1 thermometer pocket and 1 gland connection renewed.

New flexible coupling casing fitted.

Steam strainer re-jointed to turbine

lifting lug straightened & annealed - refitted

All studs & bolts checked.

Turbine lined up with primary gear case, found in order.

Corner of fabricated base plate - levelled up at one corner with E.W. & placed in good order.

Geo. Hildesley

SURVEYOR TO LLOYD'S REGISTER,
NEWCASTLE-ON-TYNE.

DAMAGE FEE: £6-6-0.

(Please See Pt. 4A.
& rendered with instal-
ment fee.)



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Foundation