

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

21 NOV 1929

Date of writing Report 19 When handed in at Local Office 19-11-1929 Port of South Shields  
 No. in Survey held at South Shields Date, First Survey 9 May Last Survey 13<sup>th</sup> Nov. 1929  
 Reg. Book. on the S.S. GORJISTAN (Number of Visits 47) Tons { Gross 5888 Net 3710  
 Built at South Shields By whom built John Readhead & Sons Ltd. Yard No. 498 When built 1929  
 Engines made at South Shields By whom made John Readhead & Sons Ltd. Engine No. 498 when made 1929  
 Boilers made at South Shields By whom made John Readhead & Sons Ltd. Boiler No. 498 when made 1929  
 Registered Horse Power Owners Strick Line (1923) Ltd. Port belonging to London  
 Nom. Horse Power as per Rule 787 combined Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Ocean Going General Cargo

ENGINES, &c.—Description of Engines Triples Expansion Surface Condensing + Bauer-Weirs Turbine. Revs. per minute 80  
 Dia. of Cylinders 28" - 46" - 78" Length of Stroke 51" No. of Cylinders Three No. of Cranks Three  
 Crank shaft, dia. of journals as per Rule 15.325" Crank pin dia. 15 3/8" Crank webs Mid. length breadth 22" Thickness parallel to axis 9 3/4"  
 as fitted 15 3/8" Mid. length thickness 9 3/4" shrunk Thickness around eye-hole 6 1/16"  
 Intermediate Shafts, diameter as per Rule 14 3/4" Thrust shaft, diameter at collars as per Rule 15.513"  
 as fitted 14 3/4" See London Letter 26/11/28 as fitted 397 1/4"  
 Tube Shafts, diameter as per Rule 16.294" Is the screw shaft fitted with a continuous liner Yes  
 as fitted 16 1/2" Is the after end of the liner made watertight in the propeller boss Yes  
 Bronze Liners, thickness in way of bushes as per Rule 13.798" Thickness between bushes as per Rule 13.599"  
 as fitted 13 1/16" Is the after end of the liner made watertight in the propeller boss Yes  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes  
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes  
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No  
 Length of Bearing in Stern Bush next to and supporting propeller 5'-6"  
 Propeller, dia. 18'-3" Pitch 18'-6" No. of Blades Four Material Bronze whether Moveable Solid Total Developed Surface 106 sq. feet  
 Feed Pumps worked from the Main Engines, No. Two Diameter 5" Stroke 27" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 27" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 1 pair Weirs D.A. 9" x 12" x 24" Pumps connected to the Ballast Pump  
 How driven Duplex G.S. 7 1/2" x 5" x 6" Main Bilge Line Steam Driven  
 Ballast Pumps, No. and size 1-Duplex 10" x 11 1/2" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size 2 Weirs D.A. 9" x 8" x 18"  
 Are two independent means arranged for circulating water through the Oil Cooler No Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room Three - 2 3/4" To Transfer Pump - One - 2 1/2"  
 In Holds, &c. N<sup>o</sup> 1 Hold Two 3"; N<sup>o</sup> 2 Hold Two 3 3/4"; N<sup>o</sup> 3 Hold Two 3"; N<sup>o</sup> 4 Hold Two 3"; Deep tank Two 2 1/2"; Tunnel hat. One 2"; Tunnel Well one 2 1/2"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One 12" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 5"  
 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 Both  
 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 Bilge Suctions from N<sup>o</sup> 1 & 2 Holds How are they protected Wood Casings  
 What pipes pass through the deep tanks Bilge Suctions from N<sup>o</sup> 3 & 4 Holds 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 Yes Is it fitted with a watertight door Yes worked from Top platform

MAIN BOILERS, &c.—(Letter for record T) Total Heating Surface of Boilers 9756 sq. feet.  
 Is Forced Draft fitted Yes No. and Description of Boilers Three S.E. Multitubular Working Pressure 210 lbs.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes  
 PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes  
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:—2 bolts each for top & bottom end & main bearings. 1 set Coupling Bolts. 1 set valves for feed, bilge, & each auxiliary pump. 1 Circulating pump impeller & shaft. 1 propeller shaft & propeller. 1 pair brasses for top & bottom ends & main bearings. 1 eccentric strap. 1 Air pump bucket & rod. 1 H.P. piston valve. 1 L.P. valve spindle. 1 Boiler check valve. 2 dozen plain boiler tubes. 50 Condenser tubes. 1 set safety valve springs. 1 bucket & rod for each auxiliary pump. 1 sheet Muntz metal. 50 assorted nuts & bolts. Bars of Iron (assorted).

The foregoing is a correct description,  
 For JOHN READHEAD & SONS, LTD.

*J. M. H. Readhead*  
 Director

Manufacturer.



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 Foundation

1929  
 During progress of work in shops -- May 9, 10, 22, June 3, 4, 14, 21, July 3, 10, 15, 18, 19, 26, 30, Aug 8, 20, 21, 23, Sep 4, 12, 13, 19, 21, 24, 26, 30.  
 During erection on board vessel -- Oct. 2, 3, 4, 7, 8, 10, 11, 14, 15, 16, 17, 21, 22, 23, 24, 25, 28, 30, 31, Nov. 1, 13.  
 Total No. of visits 47.

Dates of Examination of principal parts—Cylinders <sup>May</sup> 10-22, <sup>June</sup> 3-14, <sup>July</sup> 10-26 Slides Aug 10<sup>th</sup> Covers July 18.  
 Pistons July 18, Aug 20, Piston Rods July 10-14, Connecting rods May 22, June 3, July 18, Aug 20.  
 Crank shaft See 6 pm Rpt; Thrust shaft See Bauer-Wach Rpt; Intermediate shafts Sept 26, Oct 14.  
 Tube shaft — Screw shaft July 14-21, Aug 21, Sept 13-19, Propeller Oct 2.  
 Stern tube Sept 4-16 Engine and boiler seatings Sept 30 Engines holding down bolts Oct 7.  
 Completion of fitting sea connections Sept 12.  
 Completion of pumping arrangements Nov 1<sup>st</sup> Boilers fixed Sept 30<sup>th</sup> Engines tried under steam <sup>MOORING</sup> Oct 25, <sup>SEA</sup> Nov 5.  
 Main boiler safety valves adjusted Oct 25. Thickness of adjusting washers P. <sup>PORT</sup> 115, S. 115, CENTER 16 3/2", STAR: 16 3/2".  
 Crank shaft material S.M.I. Steel Identification Mark K 8-7-29 Thrust shaft material Identification Mark 100, 101, 102, 103, 116, 117  
 Intermediate shafts, material S.M.I. Steel Identification Marks 124 K 9-7-29 Tube shaft, material — Identification Mark —  
 Screw shaft, material S.M.I. Steel Identification Mark K 13-7-29 Steam Pipes, material S.D. Steel, Test pressure 630 lbs. Date of Test Oct 4.  
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes.  
 Have the requirements of the Rules for carrying and burning oil fuel been complied with Yes.  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "ARABISTAN".

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The machinery of this vessel has been constructed under special survey, in accordance with the rule requirements + approved plans.  
 The materials + workmanship are good.  
 The machinery was satisfactorily tested during mooring + sea trials, + in my opinion, is eligible for classification with record of + L.M.C. 11-29.

NEWCASTLE-ON-TYNE

Certificate to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 6 : 0 :  
 Special Recip: Eng: @ 665 N.H.P. £ 108 : 5 :  
 Late attendance fee £ 1 : 1 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 20 NOV 1929  
 When received, 10-12-19

E. L. Knowles.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

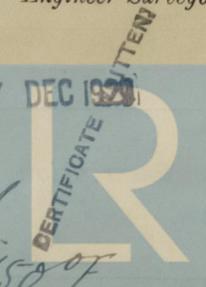
TUE. 26 NOV 1929

TUE. 17 DEC 1929

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Assigned

+ L.M.C. 11-29  
 Filled for Oil Fuel 11-29 P. Above 150°F



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