

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

SEP. 1929

Received at London Office

Date of writing Report 19 When landed in at Local Office 9.9.29 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 6.11.28 Last Survey 29.9.1929  
 Reg. Book. on the new steel S/S "BAHADUR" (Number of Visits 67)  
 Built at Port Glasgow By whom built Lithgow Ltd Yard No. 823 When built 1929  
 Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 895 when made 1929  
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd Boiler No. 895 when made 1929  
 Registered Horse Power 446 Owners Port belonging to  
 Nom. Horse Power as per Rule 446 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended

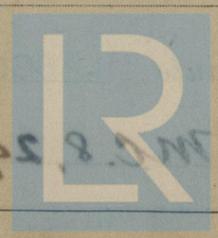
**ENGINES, &c.**—Description of Engines Triple expansion Revs. per minute 80  
 Dia. of Cylinders 24 1/2" - 42" - 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.718" as fitted 14" Crank pin dia. 14" Crank webs Mid. length breadth 22 1/2" Thickness parallel to axis 9" shrunk Thickness around eye-hole 6 3/8"  
 Intermediate Shafts, diameter as per Rule 13.122" as fitted 13 1/4" Thrust shaft, diameter at collars as per Rule 13.718" as fitted 14" (Michell)  
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 14.622" as fitted 15 1/2" Is the shaft fitted with a continuous liner? yes  
 Bronze Liners, thickness in way of bushes as per Rule 7.46 as fitted 7/8" Thickness between bushes as per Rule 5.59 as fitted 13" 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. 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 64 1/2"  
 Propeller, dia. 18' 3" Pitch 17' 6" No. of Blades 4 Material Bronze whether Moveable yes Total Developed Surface 100 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes  
 Feed Pumps No. and size 2 @ 10 1/2" x 8" x 22" How driven steam Pumps connected to the Main Bilge Line No. and size 1 @ 9 1/2" x 7" x 21" and ballast pumps How driven steam  
 Ballast Pumps, No. and size 1 @ 12 1/2" x 14" x 24" Lubricating Oil Pumps, including Spare Pump, No. and size none  
 Are two independent means arranged for circulating water through the Oil Cooler. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, in Engine and Boiler Room 3 @ 3"  
 In Holds, &c. Fitted at Ersk complete (N.1 hold - 2 @ 3" N.2 hold - 2 @ 3 1/2" Deep tank - 2 @ 2 1/2" N.3 hold - 4 @ 2 1/2" Tunnel well - 1 @ 2 1/2")  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4 3/4" 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. forward hold suction How are they protected. under timber boards  
 What pipes pass through the deep tanks. Ersk Have they been tested as per Rule. Ersk  
 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 bridge deck

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 5972 sq. ft.  
 Is Forced Draft fitted. yes No. and Description of Boilers 2 SB Working Pressure 210  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes  
 PLANS. Are approved plans forwarded herewith for Shafting Main Boilers yes Auxiliary Boilers - Donkey Boilers yes (copy)  
 Superheaters - General Pumping Arrangements with ship report Oil fuel Burning Piping Arrangements -

**SPARE GEAR.** State the articles supplied:— In accordance with the Rules and in addition 1/3 crankshaft, two propeller blades, one screw shaft, one LP valve spindle, one impeller and spindle for centrifugal circulating pump

The foregoing is a correct description,  
 For David Rowan & Co. Ltd  
 Archd. H. Grierson

Manufacturer.



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780P+1

1928 Nov 6 Dec 4-6-7-10-17-24 (1929) Jan 21 Feb 5-6-8-16-25-27 Mar 4-6-7-8-13-15-21-25-28-29  
 During progress of work in shops -- *Wagonals*  
 Dates of Survey while building During erection on board vessel --- *Aug 5-6-8-9-12-13-15-17-20-21-27-28-29*  
 Total No. of visits *67*

Dates of Examination of principal parts—Cylinders *22-5-29* Slides *23-5-29* Covers *13-6-29*  
 Pistons *27-6-29* Piston Rods *27-6-29* Connecting rods *13-6-29*  
 Crank shaft *11-6-29* Thrust shaft *7-6-29* Intermediate shafts *22-5-29*  
 Tube shaft *—* Screw shaft *5-7-6-29* Propeller *7-6-29*  
 Stern tube *23-5-29* Engine and boiler seatings *GRK* Engines holding down bolts *12-8-29*  
 Completion of fitting sea connections *GRK*  
 Completion of pumping arrangements *28-8-29* Boilers fixed *9-8-29* Engines tried under steam *29-8-29*  
 Main boiler safety valves adjusted *20-8-29* Thickness of adjusting washers *Port 1 1/2" 5/8" Starboard 1 1/2" 5/8"*  
 Crank shaft material *I. steel* Identification Mark *LLOYDS NO 895 7-6-29* Thrust shaft material *I. steel* Identification Mark *LLOYDS NO 895 7-6-29 C.R.R.*  
 Intermediate shafts, material *I. steel* Identification Marks *LLOYDS NO 895 22-5-29* Tube shaft, material *—* Identification Mark *—*  
 Screw shaft, material *I. steel* Identification Mark *LLOYDS NO 3037 5-6-29 7-6-29* Steam Pipes, material *Iron* Test pressure *630* Date of Test *5/12-8-29*  
 Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F. *—*  
 Have the requirements of the Rules for the use of oil as fuel been complied with *—*  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *no* If so, have the requirements of the Rules been complied with *—*  
 Is this machinery duplicate of a previous case *yes* If so, state name of vessel *"Subadar" 2-2-21*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
*The materials and workmanship are good. The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good. It is eligible in my opinion for classification and the record + L.M.C. 8.29.*

*AS*  
*9/9/29.*

The amount of Entry Fee ... £ 5 :  
 Special ... £ 91 : 18 :  
 Donkey Boiler Fee ... £ :  
 Travelling Expenses (if any) £ :  
 When applied for, **10 SEP 1929**  
 When received, *14.9.29 R.M.H.*

*S.C. Davis*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 10 SEP 1929**

Assigned *+ L.M.C. 8.29 7D.*

CERTIFICATE WRITTEN.

