

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

## GENERATING

Received at London Office - 8 NOV 1937

Date of writing Report 29 Oct. 1937 When handed in at Local Office -8 NOV 1937 Port of London  
 Date, First Survey 7 May 1937 Last Survey 15 Oct 1937  
 (Number of Visits 14)  
 Survey held at Bedford Tons <sup>Gross</sup> 8180 <sub>Net</sub> 5082  
 on the Twin Sc. S/S "UMGENI"  
 Built at Newcastle By whom built Swan Hunter & Wigham Yard No. 1556 When built  
 By whom made W. H. Allen Sons & Co. Ltd. Engine No. R1/65788 When made 1937  
 By whom made do Boiler No. E1 When made 1937  
 Owners Bullard, King & Co Port belonging to LONDON  
 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes  
 Total Capacity of Generator 350 K.W.  
175 K.W. Each

**ENGINES, &c.**—Description of Engines Steam Reciprocating Revs. per minute 425  
 Dia. of Cylinders 11" x 19" Length of Stroke 9" No. of Cylinders 2 No. of Cranks 2  
 Crank shaft, dia. of journals 5 1/2" Crank pin dia. 4 3/4" Crank webs 3 5/8" x 3" shrunk  
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the <sup>tube</sup> shaft fitted with a continuous liner Yes  
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 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  
 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  
 If so, state type Length of Bearing in Stern Bush next to and supporting propeller  
 Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet  
 Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work  
 Main Bilge Line No. and size How driven Pumps connected to the Main Bilge Line No. and size How driven  
 Lubricating Oil Pumps, including Spare Pump, No. and size 1 1/4" x 3 3/8" Stroke  
 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 In Holds, &c.

**MAIN BOILERS, &c.**—(Letter for record) Total Heating Surface of Boilers  
 Forced Draft fitted No. and Description of Boilers Working Pressure  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?  
 IS A DONKEY BOILER FITTED? If so, is a report now forwarded?  
 Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers  
 Are approved plans forwarded herewith for General Pumping Arrangements Oil fuel Burning Piping Arrangements

**SPARE GEAR.**  
 Is the spare gear required by the Rules been supplied No spare gear supplied  
 State the principal additional spare gear supplied.

April 6-20

1937. May 7-25 June 10. 11. 24. July 1<sup>15</sup> 26. Aug 11-20. Oct. 14. 15-

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel ---  
Total No. of visits

14 VISITS (IN SHOPS)

Dates of Examination of principal parts—Cylinders 11. 6. 37 Slides 20. 8. 37 Covers 24. 6. 37  
 Pistons 21. 8. 37 Piston Rods 20. 8. 37 Connecting rods 7. 5. 37  
 Crank shaft 7. 5. 37 Thrust shaft ✓ Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft ✓ Propeller ✓  
 Stern tube ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓  
 Completion of fitting sea connections ✓  
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓  
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓  
 Crank shaft material *Steel* Identification Mark *LLOYD 690 3.3.37* Thrust shaft material ✓ Identification Mark ✓  
*HAG 7.5.37*  
 Intermediate shafts, material ✓ Identification Marks *LLOYD 689. 4.3.37* Tube shaft, material ✓ Identification Mark ✓  
*HAG 7.5.37*  
 Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓  
 Is an installation fitted for burning oil fuel ✓ 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 ✓ If so, have the requirements of the Rules been complied with ✓  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓  
 Is this machinery duplicate of a previous case *yes*. If so, state name of vessel *Amintali*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 These two steam driven generating sets have been constructed under Special Survey in accordance with the requirements of the Rules. The materials & workmanship are good & on completion full power & overload tests have been carried out with satisfactory results.  
 The sets have been dispatched to Newcastle for fitting on board the vessel

These engines have been fitted on board the vessel and satisfactorily tested under full working conditions.  
 A. Watt  
 Newcastle on Tyne  
 24/5/38

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 ... £ 10-10-0  
 Special ... £ : :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ 4 11 - 0

When applied for, 9 NOV 1937  
 When received, 4 Jan 1938

*A. K. Garnett*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned

FRI. 3 JUN 1938  
 See Nwc. 96297  
 Lloyd's Register Foundation