

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 92312

Date of writing Report - 8 FEB 1928 When handed in at Local Office - 8 FEB 1928 Port of London  
 No. in Survey held at Bedford Date, First Survey 24 November 1927 Last Survey 31<sup>st</sup> January 1928  
 Reg. Book. 40038 Number of Visits

On the Single Screw vessel "BRITISH COURAGE" Tons 6952 Gross 4101 Net  
 Built at Port Glasgow By whom built Lishjows, Ltd. Yard No. When built  
 Owners The British Tanker Co. Ltd. Port belonging to London

Oil Engines made at Bedford By whom made Messrs. W. H. Allen & Co. Contract No. 68201/1/2 When made 1928  
 Generators made at Bedford By whom made Messrs. W. H. Allen & Co. Contract No. 68204/1/2 When made 1928  
 No. of Sets 2 Engine Brake Horse Power 200 each Nom. Horse Power as per Rule 57 Total Capacity of Generators 130 Kilowatts.

**IL ENGINES, &c.**—Type of Engines Diesel (Burmester-Wain) 4 stroke cycle Yes Single or double acting S.A.  
 Maximum pressure in cylinders 500 lb/sq in Diameter of cylinders 300 mm Length of stroke 430 mm No. of cylinders Two No. of cranks Two  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank Yes  
 Revolutions per minute 300 Flywheel dia. 1600 mm Weight 4 Tons 6 cwt Means of ignition Compression Kind of fuel used Diesel  
 Crank Shaft, dia. of journals 166 mm as per Rule 180 mm as fitted Crank pin dia. 180 mm Mid. length breadth 230 mm Mid. length thickness 100 mm Thickness parallel to axis SOLID FORGED Thickness around eyelets

Flywheel Shaft, CRANK SHAFT as per Rule CRANK SHAFT as fitted Intermediate Shafts, diameter 23 mm as per Rule 23 mm as fitted Thickness of cylinder liners 23 mm  
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Mechanical forced.  
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Lubricating Oil Pumps, No. and size One per engine driven from each engine  
 Air Compressors, No. Two No. of stages Three Diameters 7/285/318 mm Stroke 220 mm Driven by Crank or Shaft.  
 Scavenging Air Pumps, No. Two Diameter 7/285/318 mm Stroke 220 mm Driven by Crank or Shaft.

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes Invertible plug Yes  
 Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Ends portable  
 Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. One Cubic capacity of each 90 litres Internal diameter 9 3/4" thickness 3/8"  
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 tons Working pressure by Rules 1026 lbs.  
 Starting Air Receivers, No. NONE Total cubic capacity NONE Internal diameter NONE thickness NONE  
 Seamless, lap welded or riveted longitudinal joint NONE Material NONE Range of tensile strength NONE Working pressure by Rules NONE

**ELECTRIC GENERATORS:**—Type Open  
 Pressure of supply 220 volts. Load 295 Amperes. Direct ~~or Alternating~~ Current Yes  
 If alternating current system, state frequency of periods per second 50

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes  
 Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes  
 Are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator Yes  
 Is an adjustable regulating resistance fitted in series with each shunt field Yes Are all terminals accessible, clearly marked, and furnished with sockets Yes  
 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

ANS. Are approved plans forwarded herewith for Shafting Yes Receivers Yes Separate Tanks Yes  
 (If not, state date of approval)

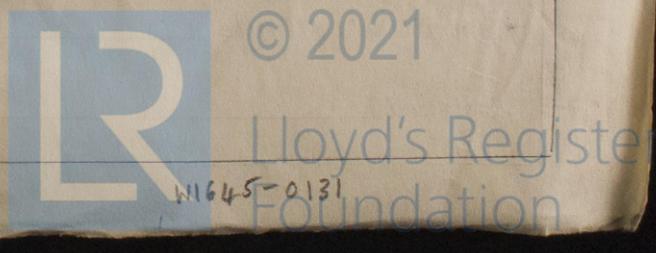
**SHAFTING AND GEAR**  
As per attached List  
Kx/380.

The foregoing is a correct description,

For W.H. ALLEN SONS & COMPANY LIMITED

Manufacturer.

Approved



Dates of Survey while building: During progress of work in shops - Nov. 24, 28, Dec 1 1927 Jan. 13, 16, 20, 23, 27, 31 1928.  
 During erection on board vessel -  
 Total No. of visits: 9 partial = 3 full.

Dates of Examination of principal parts—Cylinders Jan. 16, 20, 31 1928 Covers Jan. 16, 20, 31, 1928 Pistons 13-1-28 Piston rods ✓  
 Connecting rods Nov. 24, 28 1927 Dec. 1 1927 Crank and Flywheel shaft Jan. 16, 27, 1928 Intermediate shaft ✓  
 Crank and Flywheel shaft, Material Steel Identification Mark Lloyd's Test 796 J.P. 255 19-1-27 16-1-28 Intermediate shaft, Material Steel Identification Marks TEST 798 5-1-28 JP 26-1-28 CR.

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel "British Labour"

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 This Machinery has been constructed under Special Survey in accordance with approved plans and Rule requirements. The workmanship and materials, so far as can be seen, are good and satisfactory bench trials have been carried out under survey. The two sets which are numbered 68201/A/B have been despatched to Port Glasgow where they are to be installed and in my opinion, will be eligible for inclusion in the Classification and record of T.M.C. of the vessel.

The amount of Fee ... £ 5-14-0 When applied for, - 8 FEB 1928  
 Travelling Expenses (if any) £ 3-15-5 When received, 12th Mar. 1928

*Arthur D. Palmer*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned

1 m. 7. 28—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

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