

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 15034

Received at London Office 2 FEB 1950

4c. of writing Report 25.1.50 19 When handed in at Local Office 30.1.50 19 Port of Glasgow
 Survey held at Glasgow Date, First Survey 4-8-49 Last Survey 18-1-1950
 Number of Visits 10
 on the Single Screw vessel **BRITISH TRUST** Tons Gross 864.0 Net 493.3
 at Birkenhead By whom built Thos Cammell Laird & Co Ltd Yard No. 1200 When built 1950
 Port belonging to London
 Engines made at Glasgow By whom made Thos Harland & Wolff Ltd Contract No. 93281/1 When made 1950
 Generators made at Belfast By whom made - do - Contract No. 43281/1 When made 1949
 of Sets Two Engine Brake Horse Power 110 (each) M.N. as per Rule 24.5 (each) Total Capacity of Generators 150 Kilowatts.
 Set intended for essential services Yes

L ENGINES, &c.—Type of Engines Heavy Oil Airs Injection 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 800 lbf/sq in Diameter of cylinders 250 mm Length of stroke 300 mm No. of cylinders 3 No. of cranks 3
 Indicated pressure 100 lbf/sq in Firing order in cylinders 1.3.2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 308 mm
 There a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 364.5 Km² Revolutions per minute 500
 Flywheel dia. 1140 mm Weight 1402 Kgs Means of ignition Compression Kind of fuel used Diesel Oil
 Crank Shaft, dia. of journals as per Rule Crank pin dia. 165 mm Crank Webs Mid. length breadth 230 mm Thickness parallel to axis shrunk
 as fitted 180 mm Mid. length thickness 80 mm Thickness round eyehole shrunk
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²) 341
 as fitted as fitted
 Means provided to prevent racing of the engine when decoupled Yes Means of lubrication Forced Kind of damper if fitted None
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged
 Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size 1 4 quart type 2.6 in m/f/s H.R. @ 500 R.P.M.

Compressors, No. 1 No. of stages 1 Diameters 10 in Stroke 10 in Driven by Engine
Exhausting Air Pumps, No. 1 Diameter 10 in Stroke 10 in Driven by Engine

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate APP. B. 27/50
 Each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Are the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Brush
 Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 1 Cubic capacity of each 10 cu ft Internal diameter 10 in thickness 1/2 in
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 45,000 lb/sq in Working pressure by Rules 100 lb/sq in
Starting Air Receivers, No. 1 Total cubic capacity 10 cu ft Internal diameter 10 in thickness 1/2 in
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 45,000 lb/sq in Working pressure by Rules 100 lb/sq in

ELECTRIC GENERATORS:—Type Drip Proof Continuous Rating
 Voltage of supply 110 volts. Full Load Current 682 Amperes. Direct or Alternating Current Direct
 Alternating current system, state the periodicity 50 Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off Yes Generators, are they compounded as per Rule 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 Yes
 Are the generators shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes
 Are the generators under 100 kw. full load rating, have the makers supplied certificates of test Yes and do the results comply with the requirements Yes
 Are the generators 100 kw. or over have they been built and tested under survey Yes
 Are there any other details of driven machinery other than generator None

PLANS:—Are approved plans forwarded herewith for Shafting Yes Receivers APP. B. 27/50 Separate Tanks Yes
 Have Torsional Vibration characteristics if applicable been approved Yes Armature shaft Drawing No. 16. P. 48

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The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED

Finnlestone Secretary

Manufacturer.



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003611-003619-0084

Dates of Survey while building
 During progress of work in shops - - 1949 Aug. 4. 11. SEP. 15. OCT. 3. 17. DEC. 7. 18. 19. 1950 Jan. 6. 13.
 During erection on board vessel - - -
 Total No. of visits - - -

Dates of Examination of principal parts - Cylinders 4.12.49 15.12.49 Covers 19.11.49 22.12.49 Pistons 16.1.50 Piston rods ✓
 Connecting rods 16.1.50 Crank and Flywheel shafts 15.9.49 15.3.10.49 Intermediate shafts ✓
 Crank shaft Material S.M.S Tensile strength 29.6/32.4 tons/in²
 Elongation 31-34% Identification Marks Lloyd's L. 1441. E.B. 29.3.49. M.C.J 3.10.49
 Flywheel shaft, Material ✓ Identification Marks Lloyd's I. 3453. B.H. 22.10.48. M.C.J 15.9.49
 Identification marks on Air Receivers ✓

Is this machinery duplicate of a previous case. ✓ No If so, state name of vessel M.V. "British Captain" H.W. yard No 13946

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.)
 These Auxiliary Engines have been constructed under Special Survey in accordance with the Rules, Approved Plans and Standards of class.
 Materials and workmanship are good.
 The Torsional Vibration characteristics of the Shafting have been approved for a service speed of 500 R.P.M.
 The units have been dispatched to Bournemouth, to be installed in Messrs. Cammell Laird & Co. Ltd. yard No 1200, where the machines will be tried under full power conditions.
 Starting Air receivers are to be supplied by Messrs. Harland & Wolff Ltd. Belfast.
 Remaining
 Forging reports common to Contract No R2281-1 and No 1398/9 to follow, will be forwarded on completion of same.
 Approved plans for shafting have already been forwarded to Lm with Glas S.E. Rpt No 1, covering H.W. yard No 1394.

These engines have been properly installed in the vessel and tried under working conditions with satisfactory results.
 L. Pinnerif.
 Liverpool, 28.6.50.

The amount of Fee £ 11 : - : -
 held 3 : 1 : 6
 Travelling Expenses (if any) £ : :
 When applied for 19
 When received 19

Committee's Minute GLASGOW - 1 FEB 1950
 Assigned Separated for completion
 LIVERPOOL 18 JUL 1950
 Lloyd's Register Foundation

5m. 1. 18. - T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)