

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 234.

Received at London Office

4c.

Date of writing Report 25-11-47 When handed in at Local Office 25-11-47 Port of LEEDS

No. in Survey held at Reg. Book. Date, First Survey 25-8-47 Last Survey 21-11-1947 Number of Visits 6

on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel

## M/V "FERNLAND"

Tons { Gross 5564 Net 3140

Built at Sunderland By whom built Messrs. Bartram & Sons. Yard No. 325 When built 1948

Owners FEARNLEY & EGER. Port belonging to OSLO.

Oil Engines made at Leeds By whom made Messrs. J. & H. McLaren Ltd. Contract No. 3294 When made 1947

Generators made at Leeds By whom made Messrs. Brush Elec. Co. Contract No. 65821 When made

No. of Sets 1 Engine Brake Horse Power 44 Nom. Horse Power as per Rule 11 Total Capacity of Generators 15 Kilowatts.

ALL ENGINES, &c.—Type of Engines Heavy oil 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 750 lbs/sq.in. Diameter of cylinders 142 mm. Length of stroke 200 mm. No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 169 mm. Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 2'-9" Weight 390 lbs. Means of ignition Compression Kind of fuel used Diesel oil.

Crank Shaft, dia. of journals as per Rule approved 72 mm Crank pin dia. 72 mm Crank Webs Mid. length breadth 132 mm Thickness parallel to axis - Mid. length thickness 34 mm shrunk Thickness around eye-hole -

Flywheel Shaft, diameter as per Rule 72 mm Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 6.75 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced

Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. Plunger type Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One Gear Type 50 gallon/hr.

Air Compressors, No. 73794 No. of stages 2 Diameters 3 1/4" Stroke 3 1/4" Driven by Engine

Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Have they been made under Survey State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Brush - Compound wound drip proof.

Pressure of supply 220 volts. Full Load Current 68 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity 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 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

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test Yes and do the results comply with the requirements Yes

If the generators are 100 kw. or over have they been built and tested under survey Yes

PLANS. Are approved plans forwarded herewith for Shafting 2nd Dec. 1946. Receivers Separate Tanks

SPARE GEAR As per Rule Requirements.

The foregoing is a correct description,

Norman G. Deighton  
for J. & H. McLaren Ltd.

Manufacturer.



© 2020

Lloyd's Register Foundation

Dates of Survey while building { During progress of work in shops - - } 22-7-47, 25-8-47, 26-8-47, 27-8-47, 14-11-47, 17-11-47, 21-11-47.  
 { During erection on board vessel - - - }  
 { Total No. of visits

Dates of Examination of principal parts—Cylinders 27-8-47 Covers 25-8-47 26-8-47 Pistons 14-11-47 Piston rods -  
 Connecting rods 14-11-47 Crank and Flywheel shafts 14-11-47 Intermediate shafts  
 Crank ~~and Flywheel shafts~~ Material O.H. Steel Identification Marks Lloyd's No. 3179 - 22-7-47, W.H.  
 Intermediate shafts, Material Identification Marks  
 Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.)

This engine has been constructed in accordance with approved plans, Secretary's letters and Rule Requirements where applicable and the materials and workmanship, are considered satisfactory.

The engine set was seen under running conditions on the test bed and found satisfactory under full load conditions.

This oil engine Generator, Air Compressor Set is, in my opinion, suitable for the purpose intended.

IM. 433.—Transfer. (MADE AND PRINTED IN ENGLAND)

(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 4 : 0 : 0: } When applied for, 25-11-1947.  
 Travelling Expenses (if any) £ : 8 : 0: } When received, 19.....

*Arthur Lellan & J. W. ...*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 23 APR. 1948

Assigned *S. F. E. ...*



© 2020

Lloyd's Register Foundation