

4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 101764

20/1/48

Received at London Office

Writing Report 1st Jan. 1948

When handed in at Local Office

20/1/48

Port of BRISTOL

10-12-47

Survey held at

Dursley

Date, First Survey

17th December, 46

Last Survey

11th August 1947

on the

Single
Twin
Triple
Quadruple

Screw vessel

S. EL MALEK FOAD

Number of Visits

3 + 4

Tons

Gross 3745.6

Net

at Southampton

By whom built

John S. Thornycroft & Co. Ltd

Year

When built

1947-12

Engines made at

Dursley

By whom made

R. A. Lister (Marine Sales) Ltd

Engine No.

60/29281

When made

1947

Generators made at

By whom made

MAWDSLEYS LTD

Contract No.

2058472

When made

1947

Engine Brake Horse Power

38

M.N. as per Rule

Total Capacity of Generators

Kilowatts

intended for essential services

Essential services

ENGINES, &c.—Type of Engines Heavy Oil, Airless Injection

2 or 4 stroke cycle 4

Single or double acting single

Maximum pressure in cylinders

300 lbs

Diameter of cylinders

4 1/2"

Length of stroke

5 1/2"

No. of cylinders

4

No. of cranks

4

Indicated pressure

113 lb/sq in

Firing order in cylinders

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14.5/16"

Clearance between bearings

No. 2

Moment of inertia of flywheel (16 m² or Kg.-cm.²)

Revolutions per minute 1100

Wheel dia.

26"

Weight

301 lbs

Means of ignition

compression

Kind of fuel used

Heavy oil

Shaft, dia. of journals

3"

Crank pin dia.

3"

Crank webs

Mid. length breadth

4 1/2"

Thickness parallel to axis

Shrunk

Wheel Shaft, diameter

2 1/2"

Intermediate Shafts, diameter

2 1/2"

General armature, moment of inertia (16 m² or Kg.-cm.²)

Means provided to prevent racing of the engine when de-clutched

Yes

Means of lubrication

Forced

Kind of damper if fitted

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Number of Water Pumps, No.

one

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Number of Lubricating Oil Pumps, No. and size

Number of Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Number of Suctioning Air Pumps, No.

Diameter

Stroke

Driven by

RECEIVERS:—Have they been made under Survey

State No. of Report or Certificate

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

Are the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

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

Number of Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

Thickness

Are they, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Number of Suctioning Air Receivers, No.

Total cubic capacity

Internal diameter

Thickness

Are they, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

ELECTRIC GENERATORS:—Type

Pressure of supply

volts

Full Load Current

Amperes

Direct or Alternating Current

Alternating current system, state the periodicity

Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

Are the generators, are they compounded as per Rule

is an adjustable regulating resistance fitted in series with each shunt field

Are all terminals accessible, clearly marked, and furnished with sockets

Are they so spaced

Are the generators shielded that they cannot be accidentally earthed, short circuited, or touched

Are the lubricating arrangements of the generators as per Rule

Do the generators are under 100 kw. full load rating, have the makers supplied certificates of test

and do the results comply with the requirements

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

Are there any shafts of driven machinery other than generator

Are the plans approved

Are approved plans forwarded herewith for Shafting

Receivers

Separate Tanks

Are the torsional vibration characteristics if applicable been approved

(If not, state date of approval)

Armature shaft Drawing No.

ARE GEAR

In accordance with Rule requirements

The foregoing is a correct description,

R. A. LISTER (MARINE SALES) LTD.

Manufacturer.



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Lloyd's Register Foundation

009192-009199-0026

Dates of Survey while building: During progress of work in shops - - 17.12.46 23.5.47 11.8.47
 During erection on board vessel - - - BRISTOL 18 Jan 48
 Total No. of visits 3
 Dates of Examination of principal parts—Cylinders 23.5.47 Covers 23.5.47 Pistons 23.5.47 Piston rods
 Connecting rods 23.5.47 Crank and Flywheel shafts 17.12.46 Intermediate shafts
 Crank shaft Material Steel Tensile strength 56.4 tons
 Elongation 23% Identification Marks 98
 Flywheel shaft, 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 Auxiliary Oil Engine has been built under Special Survey. Water jackets tested with hydraulic pressure 100 lbs. per sq. inch and found sound and tight. The workmanship and materials have been found good. Crankshaft taken from Maker's stock, test pieces proved satisfactory. After assembly the engine examined during a full load test bed running trial of several hours duration; governor tried and found satisfactory.
 Identification Marks M.1713 . Engine made to the order of Messrs. John I. Thornycroft.

Southampton:
 Emergency generator set. This engine has been securely fitted on the port side of boat deck in a special compartment. On completion, engine tried under full working conditions with satisfactory results. Generator No 12038473. 25 K.W. made by Inwardsley Ltd.
 This engine is eligible in my opinion to be classed with the remainder of vessel machinery.

The amount of Fee ... £ 4 0 0 { When applied for 19
 Travelling Expenses (if any) £ 1 0 0 { When received 19
 Committee's Minute PRI. 20 FEB 1948
 Assigned See F.E. mch. rpt.

F. Brooke Smith
 Surveyor to Lloyd's Register of Shipping.



111,846-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested to write on or below the space for Committee Minute.)