

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 17571

Received at London Office 22 NOV 1949

Date of writing Report 10th Nov 1949 When handed in at Local Office 10th Nov. 1949 Port of BRISTOL

No. in Survey held at Dursley Date, First Survey 9th September Last Survey 9th November 1949

As g. Book. on the Single Twin Triple Quadruple Screw vessel. Number of Visits 2

Name of vessel MV "SIANEY" Tons Gross..... Net.....

Built at Walland-on-Tyne By whom built G. Lelands (Successors) Ltd Yard No. 147 When built 1950

Engines made at Dursley By whom made R.A. Lister (Marine Sales) Ltd. Engine No. 60/31757 When made 1949

Generators made at By whom made Contract No. When made

No. of Sets. Engine Brake Horse Power 38 M.N. as per Rule Total Capacity of Generators Kilowatts.

Set intended for essential services.....

L ENGINES, &c.—Type of Engines Heavy Oil, Airless Injection 4JPM 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 800lbs Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 4 No. of cranks 4

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

Is there a bearing between each crank No Moment of inertia of flywheel (16 m² or Kg.-cm.²) 310 Revolutions per minute 1100

Flywheel dia 26" Weight 250lbs Means of ignition compression Kind of fuel used heavy oil

Crank Shaft, dia. of journals as per Rule 3" Crank pin dia 3" Crank Webs Mid. length breadth 4 1/2" Thickness parallel to axis

as fitted 3" Mid. length thickness 3 1/2" shrunk Thickness round eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine when declutched 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 Yes

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

Lubricating Oil Pumps, No. and size

Compressors, No. No. of stages Diameters Stroke Driven by

Sucking Air Pumps, No. Diameter Stroke Driven by

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

Each 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

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

Sucking 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

Voltage 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

and off 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

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

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

List of driven machinery other than generator

ANS.—Are approved plans forwarded herewith for Shafting Receivers Separate Tanks

(If not, state date of approval) Armature shaft Drawing No.

Torsional Vibration characteristics if applicable been approved

ARE GEAR 1 inlet & 1 exhaust valve assembly complete, 4 valve springs, 2 fuel injector assemblies complete,

1 piston & 1 scraper rings, 1 gudgeon pins & bush, 1 bottom end bearing & bolts, 4 tappet assemblies, assorted nuts & bolts.

The foregoing is a correct description,
P.P. R. A. LISTER (MARINE SALES) LTD.

Manufacturer.



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Foundation

003712-003719-0059

Dates of Survey while building { During progress of work in shops - - 9.9.49 9.11.49
During erection on board vessel - - -
Total No. of visits 2
Dates of Examination of principal parts—Cylinders 9.9.49 Covers - - - Pistons 9.9.49 Piston rods - - -
Connecting rods 9.9.49 Crank and Flywheel shafts - - - Intermediate shafts - - -
Crank shaft { Material Steel Tensile strength 54.6 Kg/cm²
Elongation 35.8% Identification Marks 70345
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 Makers' tested stock. 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.3206. Engine made to the order of Messrs. Clelands (Successors) Ltd

SURVEY OF MACHINERY.
NEWCASTLE-ON-TYNE

This machine efficiently installed on board Clelands N° 147 for purposes of driving electric generator and examined under working conditions with satisfactory results.

H. Winterford
SURVEYOR TO LLOYD'S REGISTER.
NEWCASTLE-ON-TYNE

The amount of Fee ... £ 4 : 0 : 0 { When applied for 19
Travelling Expenses (if any) £ 1 : 0 : 0 { When received 19

Committee's Minute

Assigned

Sir F. E. Erskine



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