

RECEIVED

6 JUL 1949

Report No.

REPORT ON OIL ENGINE ~~ELECTRIC~~ GENERATOR SETS.

No. 513

Received at London Office 29 JUN 1949

Date of writing Report 19 When handed in at Local Office 19 Port of LONDON

No. in Survey held at Lincoln Date, First Survey Last Survey 19

Reg. Book. 40524 on the ^{Single} Twin ^{Triple} ^{Quadruple} Screw vessel M.V. "MOMBASA"

Supplement

Built at Leith By whom built Henry Robb Ltd. Yard No. 379 When built 1.50

Owners British India Steam Navigation Co. Ltd. Port belonging to London 22197/11/470404.

Oil Engines made at Lincoln By whom made Ruston & Hornsby Ltd. Contract No. When made

Generators made at By whom made Contract No. When made

No. of Sets 1 Engine Brake Horse Power 22.5 M.N. as per Rule 5.5 Total Capacity of Generators Kilowatts

Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines 3VSHZ. Eng. No. 263795. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 850 lbs. Diameter of cylinders 4 1/2" Length of stroke 4 1/2" No. of cylinders 3 No. of cranks 3

Mean indicated pressure 104.5 lbs. Firing order in cylinders 1-3-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.7/16"

Is there a bearing between each crank Yes Moment of inertia of flywheel 16 m² or Kg.-cm.² 808 lb.-ft.² Revolutions per minute 1000

Flywheel dia. 22 5/8" Weight 346 lbs. Means of ignition Compression. Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals 2 3/8" Crank pin dia. 2 3/4" Crank Webs Mid. length breadth 3 3/4" Thickness parallel to axis

as per Rule 2 3/8" as fitted 2 3/4" Mid. length thickness 1 3/8" Thickness round eyehole

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

as per Rule as fitted as fitted

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

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 one 165 gals. per hour. Engine driven.

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

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

Pressure of supply volts Full Load Current Amperes Direct or Alternating Current

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

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

or 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

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting 13.4.43. Receivers Separate Tanks

(If not, state date of approval)

Have Torsional Vibration characteristics if applicable been approved Armature shaft Drawing No.

(state date of approval)

SPARE GEAR To Rule requirements.

The foregoing is a correct description,

Ruston & Hornsby Ltd.
Engineering Divn.

Manufacturer.



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Lloyd's Register
Foundation

014873-014886-0322

15.9.48. 12.1.49.
Dates of Survey while building During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits 2

Dates of Examination of principal parts—Cylinders 15.9.48. Covers 15.9.48. Pistons 15.9.48. Piston rods

Connecting rods 15.9.48. Crank and Flywheel shafts 15.9.48. Intermediate shafts

Crank shaft Material Steel Tensile strength 40-45 Tons/sq. in.
Elongation Identification Marks LL.2263. SC.1191. TDS.

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 Standard Type.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This engine has been built under Special Survey, in accordance with the Approved Plans and Rules of the Society, materials and workmanship being good.

On completion the engine was tried under working conditions in the shops, running against brake loading with satisfactory results.

The engine has been despatched to Leith for installation on board the vessel.

This engine coupled to a Two Stage Air Compressor, made by Messrs G & J Weir, Ltd, No 215254, has been efficiently fitted on board and tested under full working conditions and found in order.

A. Campbell
Leith.

The amount of Fee ... £ 4 : 0 : 0 When applied for 19

Travelling Expenses (if any) £ : : When received 19

Committee's Minute

GLASGOW 18 APR 1930

C. J. Clark

Assigned SEE ACCOMPANYING MACHINERY REPORT