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See LEITH REPORT NO. 22467

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 561

26 JUL 1949

Received at London Office

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

No. in Survey held at Lincoln Date, First Survey Last Survey 19
Reg. Book. 40524 on the Twin Single Triple Leith Screw vessel M.V. "MOMBASA"

By whom built Henry Robb Ltd., Yard No. 379E When built 1, 50
Built at Leith

Owners British India Steam Navigation Co. Ltd. Port belonging to London
4708/13/470028/9/30.

Oil Engines made at Lincoln By whom made Ruston & Hornsby Ltd., Contract No. When made
Generators made at Norwich By whom made Laurence Scott & Electro-motors Ltd. Contract No. When made

No. of Sets 3 Engine Brake Horse Power 204 M.N. as per Rule 51 Total Capacity of Generators 360 Kilowatts.
Is Set intended for essential services Yes per engine per engine.

OIL ENGINES, &c.—Type of Engines 6VCBZ. No. 260106-7-8. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 750 lbs. Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 6 No. of cranks 6
Mean indicated pressure 104 lbs. Firing order in cylinders 1.5.3.6.2.4. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9.3/16"

Is there a bearing between each crank Yes GD² Moment of inertia of flywheel (16 m² or Kg.-cm.²) 5.3 Tons. Revolutions per minute 600
Flywheel dia. 31 9/16" Weight 12.3 cwt. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule 6" Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis -
as fitted 6" Mid. length thickness 2 1/2" shrunk Thickness round eyehole -

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted 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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged.

Cooling Water Pumps, No. one engine driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Lubricating Oil Pumps, No. and size one, engine driven 480 gals./hour.

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 Open CW. OR. Nos. 207105, 207107, 207105.
Pressure of supply 220 volts Full Load Current 545 Amperes Direct or Alternating Current D.C.

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 Yes

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 Yes

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 Yes

Details of driven machinery other than generator
PLANS.—Are approved plans forwarded herewith for Shafting 20.12.38. Receivers Separate Tanks
(If not, state date of approval) 4.6.47. Armature shaft Drawing No.

Have Torsional Vibration characteristics if applicable been approved (state date of approval)
SPARE GEAR Rule Requirements.

Ruston & Hornsby Limited.
The foregoing is a correct description,

J. M. Buchanan Engineering Divn. Manufacturer.



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014873-014886-0321

21.1.48. 31.5.48. 15.11.48. 13.5.49. 23.5.49. 30.5.49.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - }
Total No. of visits 6

Dates of Examination of principal parts—Cylinders 31.5.48. 15.11.48. Covers 31.5.48. 15.11.48. Pistons 31.5.48. 15.11.48. Piston rods -
31.1.48. 31.5.48. 15.11.48.

Connecting rods 31.5.48. 15.11.48. Crank and Flywheel shafts Intermediate shafts

Crank shaft { Material Tensile strength LL.1737. RD.7316. TDS.
Elongation Identification Marks LL.1788. RD.7317. TDS.
LL.1164. LF.2745. TDS.

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case. No If so, state name of vessel.

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

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

On completion the generating sets were tried in the shops under working conditions and the governing tested with satisfactory results.

The sets have been despatched to Leith for installation on board the vessel.

These sets have been efficiently installed on board and tested under full working conditions and found in order

A. Campbell
Leith.

The amount of Fee ... £ 30 : 12 : 0 { When applied for 19
3 engines. { When received 19

Travelling Expenses (if any) £ :

Committee's Minute

Assigned SEE ACCOMPANYING MACHINERY REPORT

GLASGOW 18 APR 1950

Surveyor to Lloyd's Register of Shipping.



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