

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12196

Date of writing Report 30 June 1947 When handed in at Local Office 19 Port of Copenhagen
 No. in Survey held at Salborg Date, First Survey 27 September 1946 Last Survey 27 June 1947
 Reg. Book. 85648 on the Single 4070R Screw vessel AFRICAN REEFER Number of Visits 10

Built at Elsinore By whom built M. Helsing's Jernskeds-v Yard No. 230 When built 1935
 Owners Rederiet Ocean Tons Gross 1862.14
Net 968.29

Oil Engines made at Copenhagen By whom made Burneide & Møller ENGINE 2458-2453 When made 1935
 Generators made at Oslo By whom made Common Contract No. 2454 When made 1943
U.S.P. Thomas B. Thorge GENERATOR 226390 When made 1943
General Electric (Sels) Contract No. 226391-92 When made 1943
 No. of Sets 3 Engine Brake Horse Power 180 Nom. Horse Power as per Rule 65 Total Capacity of Generators 3 x 120 Kilowatts.
1 x 60

OIL ENGINES, &c.—Type of Engines Heavy oil engine, solid injection 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 3 1/4 220 1/2 Length of stroke 370 1/2 No. of cylinders 3 No. of cranks 3
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 3 1/4 280 1/2 Is there a bearing between each crank yes
 Revolutions per minute 1 1/4 1650 Flywheel dia. 3 1/4 1200 1/2 Weight 1550 kg Means of ignition compression Kind of fuel used Heavy oil
 Crank Shaft, dia. of journals as per Rule 130 1/2 Crank pin dia. 150 1/2 Crank Webs Mid. length breadth 245 1/2 14 1/4 146 1/2 Thickness parallel to axis 85 1/2
as fitted 14 1/4 114 3 1/2 14 1/4 79 1/2 Mid. length thickness 85 1/2 14 1/4 28 1/2 Thickness round eye hole 67.5 1/2

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 18 1/2
as fitted as fitted

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

Cooling Water Pumps, No. 3 1 off independent Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Lubricating Oil Pumps, No. and size 1 off for each engine gear wheel pump 4.5 tons/hour

AIR COMPRESSORS, No. 1 off for each eng No. of stages 2 Diameters 280 1/2 (280 1/2-250 1/2) Stroke 190 1/2 Driven by the engine

Scavenging Air Pumps, No. 1 off for each engine Diameter rotary CAPACITY Stroke 22 1/2 1/4 in Driven by the engine

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

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

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

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

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 ✓

EMERGENCY Starting Air Receivers, No. 1 Total cubic capacity 100 liters Internal diameter 335 1/2 thickness 8 1/2

Seamless, lap welded or riveted longitudinal joint seamless Material St. Steel Range of tensile strength ✓ Working pressure by Rules 30 atm

ELECTRIC GENERATORS:—Type Onp prop variable

Pressure of supply 220 volts. Full Load Current 3 1/4 545 Amperes. Direct or Alternating Current direct 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 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 Germanischer Lloyd

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

SPARE GEAR as per Rule (If not, state date of approval)

The foregoing is a correct description,

Manufacturer.



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Foundation

003245-003251-0098

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

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

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

Crank shaft { Material *Primus Martin Ingot Steel (B. W)* Tensile strength.....
Elongation..... Identification Marks.....

Flywheel shaft, Material..... Identification Marks.....

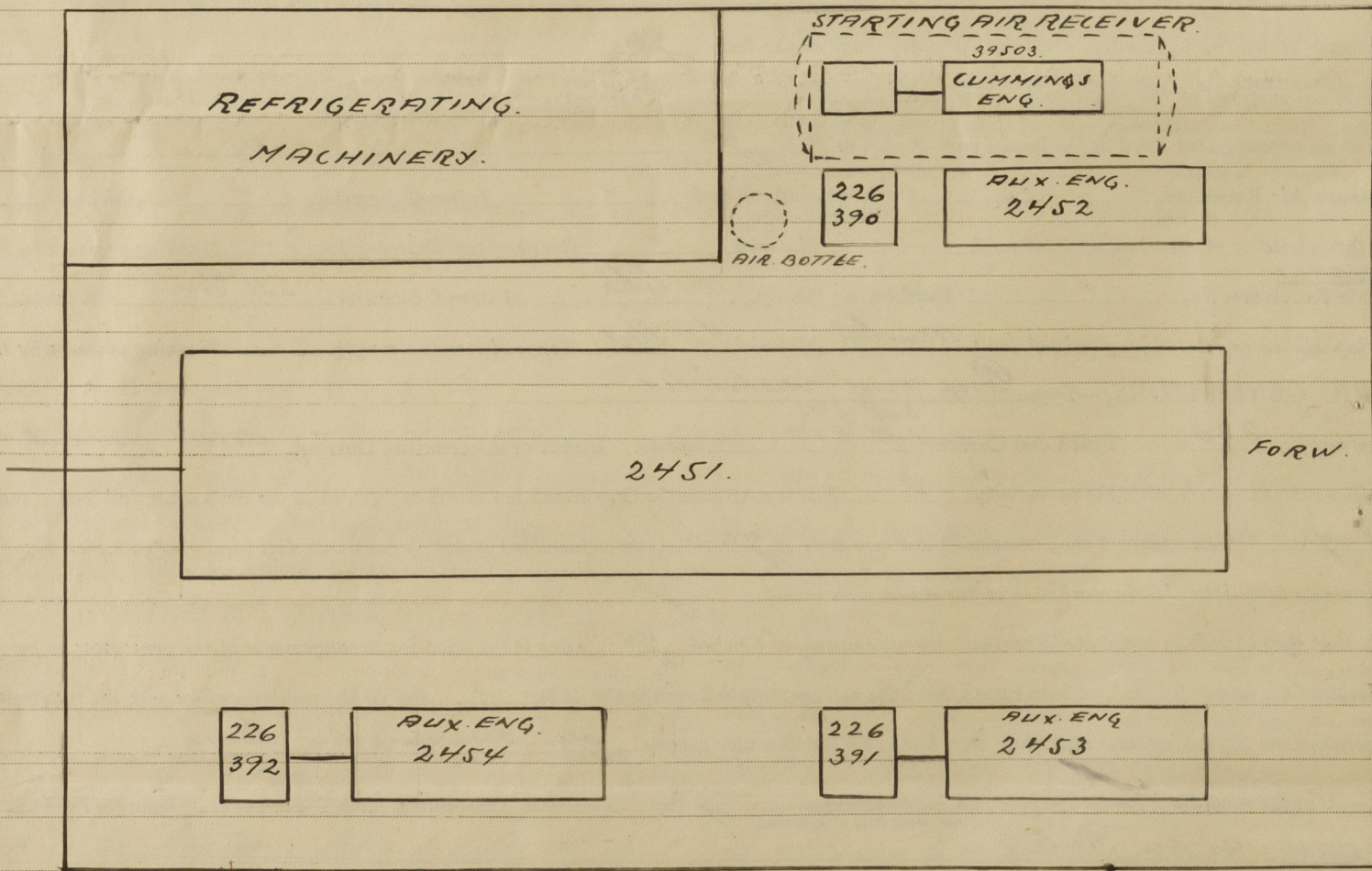
Is this machinery duplicate of a previous case..... *No.* Identification Marks.....

Identification marks on Air Receivers..... *B. W 1935 Inghold 100 lbs. Art. Tryk 28 atm. Pr. Tryk 50 atm*
11.10.35 G I L. 563 H. H.

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.) *The three 180 BHP oil engines have been constructed by Messrs Burmeister & Wain, Copenhagen under Special Survey by Germanischer Lloyd.*

The six cylinder heavy oil engine has been constructed by Messrs Cummins Diesel Paylow Ohio and was placed on board while the vessel was under U.S.A. flag. All engines have been opened up, repaired as required, and found in good condition. They have been tested under working conditions and found satisfactory.



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

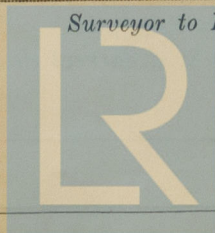
Travelling Expenses (if any) £ ... : When received..... 19

Committee's Minute..... *PHL 8 AUG 1947*

Assigned..... *See FE machy rpt.*

L. L. L. L.

Surveyor to Lloyd's Register of Shipping.



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