

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12135

Received at London Office. 5 - APR 1947

of writing Report 1/4 19 47 When handed in at Local Office 19

Port of Copenhagen Date, First Survey 2/3 1943 Last Survey 22/1 19 47

by Rules in Survey held at Copenhagen

Actual. 3 Book. Single on the Twin Triple Screw vessel M.V. AROS - DESIGNATED "HELSINGBORG I"

by Rules Actual. 2 at Glysh By whom built Glysh by Barks & Shipbuilders Ltd. Yard No. 334 When built.

rs. Port belonging to

e fuel tanks engines made at Copenhagen By whom made J. Burmeister & Wain Contract No. 3838-9.4 When made 1946

ators made at Odense By whom made Thomas B. Thinge Contract No. 39282-3.4 When made 1946

Sets 3 Engine Brake Horse Power 3 x 240 Nom. Horse Power as per Rule 3 x 60 Total Capacity of Generators 480 Kilowatts.

ENGINE, &c.—Type of Engines 425 H.P. Diesel, trunk type 2 or 4 stroke cycle 4 Single or double acting single

um pressure in cylinders 49 kg/cm² Diameter of cylinders 245 mm Length of stroke 400 mm No. of cylinders 4 No. of cranks 4

of bearings, adjacent to the Crank, measured from inner edge to inner edge 315 mm Is there a bearing between each crank yes

tions per minute 500 Flywheel dia 1300 mm Weight 2300 kg Means of ignition compression Kind of fuel used Diesel oil

Shaft, dia. of journals as per Rule 146.5 mm as fitted 170 mm Crank pin dia 155 mm Crank Webs Mid. length breadth 275 mm shrunk Thickness parallel to axis 90 mm

as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 20 mm

Governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced

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

Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

ting Oil Pumps, No. and size 1 for each engine, 6 to 10

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

Acting rods, ing Air Pumps, No. Diameter Stroke Driven by

be shaft RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate 922

own bolts receiver, which can be isolated, fitted with a safety valve as per Rule yes

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

mark drain arrangement fitted at the lowest part of each receiver yes

on marks Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

mark lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Air Receivers, No. 1 Total cubic capacity 200 ft³ Internal diameter 380 mm thickness 10 mmlap welded or riveted longitudinal joint welded Material 57 new Range of tensile strength 41-47 kg/mm² Working pressure by Rules 31.8 kg/cm²

RIC GENERATORS:—Type dip proof insulated

of supply 220 volts Full Load Current 727 Amperes Direct or Alternating Current direct

ing current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

nplied with yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes

minals accessible, clearly marked, and furnished with sockets yes Are they so spaced

that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

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

ators are 100 kw. or over have they been built and tested under survey yes

Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks

EAR As per Rules

The foregoing is a correct description, and the particulars of the generators are as approved for torsional vibration characteristics.

AKTIESELSKABET

EISTER & WAIN'S MASKIN- OG SKIBSBYGGERI

Manufacturer.

004003-004008-0101

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1943: 2/3, 20/8; 1945: 15/6, 30/6, 3/9, 9/8, 10/12; 1946: 12/2, 20/3, 12/4, 15/4, 26/4, 28/5, 29/5, 6/9, 9/9, 12/9, 16/9, 18/9, 20/9, 7/10, 18/11, 26/11, 1947: 22/1

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - -
Total No. of visits 24

Dates of Examination of principal parts—Cylinders *wish* Covers 12/4, 15/4, 28/5, 46 Pistons 15/4, 9/9, 16/9, 46 Piston rods
Connecting rods 15/6, 30/6, 45, 20/3, 46 Crank and Flywheel shafts 3/8, 20/8, 43, 3/8, 9/8, 45 Intermediate shafts

Crank shaft { Material S. M. Steel Tensile strength 30.4 30.9 30.4 to 10
Elongation 37.4 37.4 37.4 70 Identification Marks LLOYD'S NO. 6244-5-6 K.M. 7.8

Flywheel shaft, Material Identification Marks

Is this machinery duplicate of a previous case No Identification Marks

Identification marks on Air Receivers No 922
LLOYD'S TEST 60 ATM.
W.P. 30 ATM.
K.M. 12.2.46.

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.)

These engines have been built under special survey and in accordance with the Society's Rules, the approved plans and the Surveyor's Report of 27/9/46 relating to the sister ship designated "Helsingborg II". This letter the torsional vibration characteristic was also approved.

The material has been examined and tested as per Rules and found satisfactory and the workmanship is good.

The engines have been tested under full power conditions without the generators, which were not at the time, and found to work satisfactorily.

SURVEY OF MACHINERY. NEWCASTLE-ON-TYNE.

FIRST SURVEY 30th APRIL, 1947 LAST SURVEY 22nd MARCH, 1948
No. OF VISITS 50.

These engines have been satisfactorily installed on board, tried under working conditions & found satisfactory, & are eligible in my opinion for the notation + LMC. 3, 4, 8, when the survey has been completed by examination & testing of independent pumps.

J. Bowman
Newcastle-on-Tyne.
3rd April 1948.

SURVEYOR TO LLOYD'S REGISTER,
NEWCASTLE-ON-TYNE.

NEWCASTLE-ON-TYNE

VISITS DURING ERECTION ON

BOARD THE VESSEL

(1947)
APR. 30, MAY 27, 29 JUNE 10, 13, 17, 19, JULY 21, 23, 28, 29, AUG. 7, 11, 12, 13, 18, SEPT. 15, 18, 19, 23, OCT. 3, 7, 13, 15, 22, 21, DEC. 5, 15, 29, 1948 JAN. 5, 16, 21, 29 FEB. 5, 10, 16, 17, 27, MAR. 6, 8, 12, 16, 17, 19, 20, 21, 22

The amount of Fee ... £. 7.00, 00

Travelling Expenses (if any) £

When applied for 24 19 47
When received 19

Committee's Minute

Assigned For minute see J.E. Welch Rpt.

FRI. 21 MAY 1948

Surveyor to Lloyd's Register of Shipping

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