

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office

Date of writing Report 10th Oct. 19 47. When handed in at Local Office 27th Oct. 1947. Port of Gothenburg.

No. in Survey held at Gothenburg Date, First Survey 3rd September 1945 Last Survey 17th October 19 47.

Reg. Book. 36434 on the ~~Deck~~ ^{Single Deck} Screw vessel "ARABIAN QUEEN" Number of Visits 30 Tons Gross 11173 Net 6665

Built at Gothenburg By whom built A-B. Götaverken Yard No. 609 When built 1947

Owners Rederi A-B. Kungsoil Port belonging to Kungsbacka

Oil Engines made at Gothenburg By whom made A-B. Götaverken Engine No. 1856-57 When made 1947

Generators made at Västerås By whom made A.S.E.A. Generator No. 2016596-7 When made 1947

No. of Sets 2 Engine Brake Horse Power 2 x 210 M.N. as per Rule 52.5 Total Capacity of Generators 2 x 140 Kilowatts.

Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines Heavy oil, trunk piston 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 240 mm Length of stroke 360 mm No. of cylinders 2 x 5 No. of cranks 2 x 5

Mean indicated pressure 6.8 kg/cm² firing order in cylinders 1, 3, 5, 4, 2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 301 mm

Is there a bearing between each crank Yes Moment of inertia of flywheel 4280 Kcmsec² Revolutions per minute 450

Flywheel dia 1250 mm Weight 1910 kgs. Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as fitted 160 mm Crank pin dia 160 mm Crank Webs Mid. length breadth 220 mm Thickness parallel to axis ---

Flywheel Shaft, diameter as per Rule --- Intermediate Shafts, diameter as fitted --- General armature, moment of inertia 585 Kcmsec²

Are means provided to prevent racing of the engine 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. 1 fresh water & 335 litres per minute and 1 salt water & 335 litres per minute also connected to the main cool system Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 & 4100 litres per hour to each engine

Air Compressors, No. None No. of stages --- Diameters --- Stroke --- Driven by ---

Scavenging Air Pumps, No. None Diameter --- Stroke --- Driven by ---

AIR RECEIVERS:—Have they been made under Survey None (2 main starting air -) 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 Drip proof compound

Pressure of supply 220 volts Full Load Current 2 x 636 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 bolted clamps 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 None

PLANS.—Are approved plans forwarded herewith for Shafting London 5.9.1945 Receivers --- Separate Tanks ---

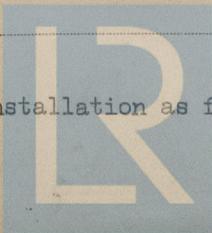
Have Torsional Vibration characteristics if applicable been approved London 5.9.1945 Armature shaft Drawing No. 108098

SPARE GEAR As per Rule supplied

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

AKTIEBOLAGET GÖTAVERKEN

Manufacturer.



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Dates of Survey while building
 During progress of work in shops - -) 3rd September, 1945 - 20th March, 1947.
 During erection on board vessel - -) 6th August, 1947 - 17th October, 1947.
 Total No. of visits. Thirty.

Dates of Examination of principal parts—Cylinders 13/2 & 11/3 47 Covers 13/2 & 11/3 47 Pistons 13/2 1947 Piston rods. ---

Connecting rods 13/2 1947 Crank ~~shafts~~ shafts 10/2 1947 Intermediate shafts. ---

Crank shaft { Material S.M. Steel Tensile strength 50.4 - 52 kg/mm²
 Elongation on 50 mm: 34 - 36 % Identification Marks Lloyd's No. 350-351
 US 8.3.46

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.)

These auxiliary engines have been built under special survey in accordance with the Rules and approved plans. The workmanship and materials are good and test sheets in respect of the crank shafts are attached.

The machinery has been securely fitted in the vessel under my supervision and to my satisfaction, tested under full power conditions and found in order.

The torsional vibration characteristics are approved as per Secretary's letter dated the 5th September, 1945, initialled "E". ✓

101, 5, 48, -T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)

The amount of Fee ... Kr. 315:00: --- { When applied for 27th Oct. 19. 47.
 Travelling Expenses (if any) £ --- : --- : --- { When received --- 19. ---

Committee's Minute

Assigned For minute see J.E. Kelly Rpt

FRI. 28 NOV 1947

Forster
 Surveyor to Lloyd's Register of Shipping.



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