

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 15868.

Received at London Office 10 MAR 1948

of writing Report 18th Febr 19 48. When handed in at Local Office 1948. Port of Gothenburg

in Survey held at Gothenburg Date, First Survey 13th Febr. 1946 Last Survey 19th February 19 48.
Book. Number of Visits 79

2789 on the ~~Twin~~ Screw vessel "S T O C K H O L M" Tons ^{Gross} 11650 _{Net} 6040

at Gothenburg By whom built A-B. Götaverken Yard No. 611 When built 1948

ers A-B. Svenska Amerika Linien Port belonging to Gothenburg

Engines made at Gothenburg By whom made A-B. Götaverken Engines ~~1842-3-4-5-6~~ No. 1842-3-4-5-6 When made 1948

Generators made at Västerås By whom made A.S.E.A. Generators Nos. 2016676-7-8-9-80 When made 1946

of Sets 5 Engine Brake Horse Power 2 x 180 Nom. Horse Power as per Rule 2 x 45 Total Capacity of Generators 2x120 = 960 Kilowatts.

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

imum pressure in cylinders 45 kg/cm² Diameter of cylinders 300 mm. Length of stroke 450 mm. No. of cylinders 2x3 No. of cranks 2 x 3

n indicated pressure 6.4 kg/cm² Firing order in cylinders: 6-cyl; 1,5,3,6,2,4. 3-cyl; 1,3,2.

of bearings, adjacent to the Crank, measured from inner edge to inner edge 378 mm. Is there a bearing between each crank Yes

ent of inertia of flywheel (Kgcms²) 6-cyl; 5030, 3-cyl; 13750. Compression Kind of fuel used Diesel oil

utions per minute 350 Flywheel dia. 1500 mm. Weight 6-cyl: 1442 kgs. 3-cyl: 3800 kgs. 6-cyl: 260 mm. 3-cyl: 390 mm. Thickness parallel to axis ---

ank Shaft, dia. of journals 190 mm. Crank pin dia. 190 mm. Crank Webs Mid. length breadth 3-cyl: 390 mm. Thickness round eye-hole ---

as fitted 190 mm. Mid. length thickness 105 mm. wheel Shaft, diameter 6-cyl: 1275 kgcms² 3-cyl: 585 ---

as per Rule --- Intermediate Shafts, diameter --- General armature, moment of inertia ---

as fitted --- governor or other arrangement fitted to prevent racing of the engine Yes Means of lubrication Forced

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

ling Water Pumps, No. 2 2 fresh water á 1170 l/m. 2 salt water á 1170 l/m. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

ricating Oil Pumps, No. and size 1 á 6400 l/hour to each 6-cyl engine, 1 á 3160 l/hour to each 3-cyl engine

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

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

RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 7072

each receiver, which can be isolated, fitted with a safety valve as per Rule Safety plug on receiver. Safety valves on compressors

the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Steam and Soda

ere a drain arrangement fitted at the lowest part of each receiver Yes

Pressure Air Receivers, No. None Cubic capacity of each --- Internal diameter --- thickness ---

less, lap welded or riveted longitudinal joint --- Material --- Range of tensile strength --- Working pressure by Rules ---

ing Air Receivers, No. 1 Total cubic capacity 250 litres Internal diameter 340 mm. thickness 8 mm.

less, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 47.5-49.0 kg/mm² Working pressure 40 kg/cm²

ELECTRIC GENERATORS:—Type Drip proof compound

sure of supply 220 volts. Full Load Current 2 x 545 = 4360 Amperes. Direct or Alternating Current Direct current

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

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

all terminals accessible, clearly marked, and furnished with ~~bolts~~ bolted clamps Yes Are they so spaced

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

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

the generators are 100 kw. or over have they been built and tested under survey Yes Details of driven machinery other than generator None

INS.—Are approved plans forwarded herewith for Shafting Gothenburg 26.2.1945 Receivers Lon. 8.7.39 (see Separate Tanks 1.11.45 Lon. later)

torsional vibration characteristics if applicable been approved 16.3.1945 London Armature shaft Drawing No. 6-cyl: No. 142408

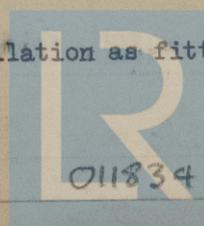
(state date of approval) 3-cyl: No. 82556

RE GEAR As per Rule supplied

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

AKTIEBOLAGET GOTAVERKEN

Manufacturer.



Lloyd's Register Foundation
011834 - 011843 - 0107

Dates of Survey while building { During progress of work in shops - - - 13th February, 1946 - 19th February, 1948. During erection on board vessel - - - Total No. of visits... 79

Dates of Examination of principal parts—Cylinders... 5.6 - 9.7.46 Covers... 5.6. - 9.7.46 Pistons... 11.6.1946 Piston rods... --- Connecting rods... 11.6 & 5.7.1946 Crank ~~shafts~~ shafts... 13.5. & 29.5.1946 Intermediate shafts... ---

Crank shaft { Material... S.M. Steel Tensile strength... 45.5 - 47.4 kg/mm² Identification Marks... LLOYD'S 435 LLOYD'S 446 LLOYD'S 447 AS 11.1.46 AS 18.1.46 AS 18.1.46 GA 1 Elongation... 34 - 38 % on 50 mm. Flywheel shaft, Material... --- Identification Marks... LLOYD'S 249/250 US 22.12.45

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

Identification marks on Air Receivers... LLOYD'S TEST 5665 H.T. 80 atm. W.P. 40 atm. HJ 21.12.39 HJ 7649

This starting air receiver was ordered for A-B. Götaverken's Yard No.543. Plan approved in London on the 8th July, 1945.

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 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 2 March, 1945, intialled "E".

The amount of Fee ... Kr. 1080:00 { When applied for 27th Febr. 19. 48. Travelling Expenses (if any) £ -- : -- : -- { When received... 19 ---

Committee's Minute... FRI. 9 APR 1948 Assigned *In unibus see J.E. A.H.*



Im.11.42-T (MADE AND PRINTED IN ENGLAND). (The Surveyors are requested not to write on or below the space for Committee Minute.)