

VED

1950

4c.

No.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No.

12939

Received at London Office 14 JAN 1950

Date of writing Report 5 January 1950 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Copenhagen Date, First Survey 13 September Last Survey 28 December 1949

g. Book. Single on the Twin Triple Quadruple Screw vessel

Number of Visits 14

Tons Gross Net

At at By whom built S. Smith Yard No. 596 When built

Engines made at Copenhagen By whom made H. Burmeister & Wain's Maskin- og Rørbyggeri ENGINES 4629 Contract No. 4630 When made 1949

Generators made at By whom made Contract No. When made

of Sets 2 Engine Brake Horse Power 345 M.N. as per Rule 2 x 86 Total Capacity of Generators Kilowatts

Set intended for essential services

L ENGINES, &c.—Type of Engines Heavy oil engines, trunk piston type 725 HTH 40 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 245 1/2 Length of stroke 400 1/2 No. of cylinders 7 No. of cranks 7

an indicated pressure 7.2 kg/cm² Firing order in cylinders 1-2-4-6-7-5-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 315 1/2

Where a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1135 kg/4² Revolutions per minute 425

Wheel dia. 1300 1/2 Weight 1226 kg Means of ignition Compression Kind of fuel used Heavy oil F.O. 150°F

ank Shaft, dia. of journals as per Rule 151 1/2 as fitted 170 1/2 Crank pin dia. 170 1/4 Crank Webs Mid. length breadth 278 1/4 Thickness parallel to axis 90 1/4 Mid. length thickness 90 1/4 shrunk Thickness round eye-hole 72.5 1/4

Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)

Means provided to prevent racing of the engine when disengaged Yes Means of lubrication forced Kind of damper if fitted

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

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

ricating Oil Pumps, No. and size 1 of 7.3 ton/hour

Compressors, No. 1 of 250 1/2 ton/hour No. of stages 2 Diameters 216 1/2 - 192 1/2 Stroke 160 1/2 Driven by the engine

enging Air Pumps, No. Diameter Stroke Driven by

R RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 976

Each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

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

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

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

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

ting Air Receivers, No. 1 Total cubic capacity 350 liter Internal diameter 410 1/4 thickness 12 1/4

ness, lap welded or riveted longitudinal joint electrically welded Material S.H. Steel Range of tensile strength SHELL 26-30 ton/10" CAST STEEL END 30.4-11-1 Working pressure by Rules 30 kg/cm²

ELECTRIC GENERATORS:—Type

sure of supply volts Full Load Current Amperes Direct or Alternating Current

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

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

all terminals accessible, clearly marked, and furnished with sockets Are they so spaced

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

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

ls of driven machinery other than generator

NS.—Are approved plans forwarded herewith for Shafting No. E 11.7.49 Receivers No. 22/10.48 Separate Tanks

Torsional Vibration characteristics if applicable been approved Yes E 11.7.49 Armature shaft Drawing No. 209902

RE GEAR as per Rule

The foregoing is a correct description,

Manufacturer.

AKTIESELSKABET
BURMEISTER & WAIN'S MASKIN- OG RØRBYGGERI

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Lloyd's Register
Foundation

009780-009788-0290

Dates of Survey while building: During progress of work in shops - - 1949: 13/9 - 20/9 - 23/9 - 1/10 - 10/11 - 17/11 - 30/11 - 1/12 - 2/12 - 7/12 - 9/12 - 16/12 - 17/12 - 28/12
 During erection on board vessel - - -
 Total No. of visits 14
 Dates of Examination of principal parts—Cylinders 30/11 - 1/12 Covers 30/11 - 1/12 Pistons 1/12 - 2/12 Piston rods
 Connecting rods 2/12 Crank and Flywheel shafts 13/9 - 20/9 - 23/9 - 1/10 - 10/11 - 30/11 - 1/12 Intermediate shafts
 Crank shaft: Material: Siemens Martin Ingot Steel & Cast steel crank bodies Tensile strength Journals 29.7 tons/in² Crank bodies 28.8 tons/in²
 Elongation Journals 36.4% Crank bodies 38.4% Identification Marks: Lloyd's No 7483 30.11.49
 Flywheel shaft, Material Identification Marks: 7709 4 7.12.49
 Identification marks on Air Receivers: No 976 Lloyd's Test 60 atm WP 30 atm 17.11.49

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 constructed under special survey in accordance with the requirements of the Rules, the approved plans and the Secretary's letters E dated 22.10.1948 and 11.7.3.8.1949.
 The material has been tested as required by the Rules and the workmanship is good.
 The engines have been tested under working conditions in the shop and found to work satisfactorily

The amount of Fee ... £ 1032 ..
 AIR RECEIVER £ 80 ..
 B&W 1329
 Committee's Minute
 Assigned Sec. F. E. Welch, rpt.
 When applied for 12/11 1950
 When received 19

L. Clausen
 Surveyor to Lloyd's Register of Shipping.
 Lloyd's Register Foundation

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