

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 4154 A

12 MAR 1955

Writing Report 22.2. 1955 When handed in at Local Office 19 Port of Helsingfors
 Survey held at Abo and at Helsingfors Date, First Survey 8.12.53 Last Survey 12.1. 19 55
 on the ~~Single~~ ^{Triple} Screw vessel Kapitan Belousov Number of Visits 62
 Helsingfors Finland By whom built Wärtsilä-Koncernen Ab Sandvikens Skeppsdocka Yard No. 353 When built 1954
 Sudoimport, USSR Port belonging to Murmansk
 Engines made at Abo Finland By whom made Wärtsilä-Koncernen Ab Engine No. 30.31 When made 1954
 H:fors Finland By whom made Crichton-Vulcan 32.33
 Oy Strömberg Ab Generator No. 4.27.32.33 When made 1954
 Sets 4 B.H.P. of each Set 300 M.N. of each Set as per Rule Capacity of each Generator 200 Kilowatts
 intended for essential services auxiliary

ENGINES, &c. Type of Engines K 56 E Diesel
 Mean pressure in cylinders 65 kg/cm² Diameter of cylinders 180 mm Length of stroke 300 mm No. of cylinders 6 No. of cranks 6
 Indicated pressure 6.7 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 222 mm
 e a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 107 kgm² Revolutions per minute 550
 el dia. 800 mm Weight "288" kg Means of ignition solid Kind of fuel used gasoil
 Shaft, ~~Semi built~~ ^{All built} dia. of journals as per Rule 125 mm Crank pin dia. 120 mm Crank Webs Mid. length breadth 230 mm Thickness parallel to axis
 as fitted - Mid. length thickness 56 mm Thickness round eyehole
 el Shaft, diameter as per Rule - Generator armature, moment of inertia (16 m² or Kg.-cm.²) 280 kgm²
 crank means provided to prevent racing of the engine yes Means of lubrication forced feed Kind of damper if fitted -
 en cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged
 g Water Pumps, No. and how driven 2 direct coupled Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 ating Oil Pumps, No. and size one direct coupled, 146 l/min

quire compressors, No. - No. of stages - Diameters - Stroke - Driven by -
 ing Air Pumps or Blowers, No. one blower, direct coupled How driven from diesel engine

RECEIVERS: Have they been made under Survey yes
 (other than main engines) safety valve, pressure gauge State No. of Report or Certificate 3952
 ull details of safety devices
 e internal surfaces of the receivers be examined and cleaned yes
 e a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -
 ss, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -
 g Air Receivers, No. 2 Total cubic capacity 2 x 200 l Internal diameter 300 mm thickness 10 mm
 ss, lap welded or riveted longitudinal joint welded Material S.M steel Range of tensile strength 300 mm Working pressure 25 kg/cm²

TRIC GENERATORS: Type GLAUL-1083 D1
 re of supply 230 volts Full Load Current 870 Amperes Direct or Alternating Current Direct
 rnating current system, state the periodicity - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 off yes Generators, are they compounded as per Rule not comp. is an adjustable regulating resistance fitted in series with each shunt field yes
 each terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced
 " lded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes
 generators are under 100 kw. full load rating, have the makers supplied certificates of test - and do the results comply with the requirements -
 generators are 100 kw. or over have they been built and tested under survey yes
 of driven machinery other than generator Diesel engine driving generator only

IS. Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks -
 (If not, state date of approval)
 orsional Vibration characteristics if applicable been approved yes Approved 11.6.52 Armature shaft Drawing No. 143GLA10804A
 (State date of approval and name of previous duplicate case, if any)
 spare gear required by the Rules been supplied yes

The foregoing is a correct description,

Wärtsilä-koncernen A/B

SANDVIKENS SKEPPSDOCKA

Manufacturer.

Wackström



© 2020

Lloyd's Register
Foundation

012187-012192-0096

Dates of Survey while building { During progress of work in shops - - 8.12.53 - 8.4.54. During erection on board vessel - - 23.2.54 - 12.1.55. Total No. of visits 62

Dates of Examination of principal parts - Cylinders Covers Pistons Piston rods

Connecting rods Crank and Flywheel shafts Intermediate shafts

Material S.M. Steel Engine No 30 31 32 33 Tensile strength 54,6 57,9 57,9 Crank shaft Engine No 30 31 32 33 Elongation 35 32 30 28% L = 50 mm Identification Marks 521 GV 520 GV 2937 AS 29.5.53 29.5.53 28.4.53

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers 2618, 2619,

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 4 Diesel Engines have been surveyed throughout their building. All their castings have been manufactured by the Builders themselves and have said castings been inspected, whereby the pistons, the cylinder covers, the cylinder and the cylinder liners have been hydraulically tested. All the crank shafts and connecting rods have been manufactured abroad, and were same found marked and certified by the Surveyor of our Society. Workshop trial has been carried out with each engine, whereby hydraulic brake was used.

The engines have been inspected during erection on board and the alignment of their crank with the corresponding generator shafts has been controlled. Trial runs on board have been effected to full satisfaction.

The material and the workmanship have been found good.

I am of the opinion that the machinery is eligible to be entered as classed in the Register.

I herewith attach the following certificate copies:-

Cert.No. 3601	issued at Helsingfors, 4.1.54	34 Connecting Rods (24 now used),
" " 15965	" " Gothenburg, 4.5.53	2 Crank Shafts (One now used),
" " 16129	" " " 3.6.53	2 " "
" " 17148	" " " 1.9.53	3 " " (One now used),
" " 3952	" " Helsingfors, 13.9.54	2 Starting Air Receivers, 200 liters

Certificates Nos.353/Diesel Motor Nos.30-33, issued at Helsingfors, 31.8.54.

I enclose the drawing 2C 602327 "Starting Air Receiver", approved by you on the 10.3.53, and a copy of Messrs. Crichton-Vulcan's calculation of the torsional vibrations for the Engine.

PLEASE SEE MY LETTER L.181/55 of 12.3.55.

The amount of Fee ... Fee included in the amount stated on the Report No. 4154 H. When applied for 19 Travelling Expenses (if any) £ When received 19

Committee's Minute

FRIDAY 29 APR 1955

Assigned

See Rpt. of C.

Surveyor to Lloyd's Register of Shipping



© 2020

Lloyd's Register Foundation