

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 565

28 MAR 1952

Received at London Office

Writing Report 7th March 1952 When handed in at Local Office 7th March 1952 Port of KIEL

Survey held at KIEL Date, First Survey 25th October Last Survey 15th December 1952

Number of Visits 7

On the Single Screw vessel 4 Mast-Barque "PAMIR" Tons Gross 2796 Net 2522

Hamburg By whom built Blohm & Voss Yard No. When built 1905

Reederei Schliemann, Lübeck Port belonging to Lübeck

Engines made at Kiel By whom made Bohn & Köhler Engine No. 14099 fwd. 14098 aft When made 1951

Generators made at Hamburg By whom made Hans Still Generator No. 514700 514699 When made 1951

BDI Jets 2 B.H.P. of each Set 50 each M.N. as per Rule Capacity of each Generator each 30 Kilowatts

Intended for essential services no

ENGINES, &c.—Type of Engines Heavy oil - Type KR 10 V 3 or 4 stroke cycle 4 Single or double acting S.A.

Mean pressure in cylinders 55 kg/cm² Diameter of cylinders 140 mm Length of stroke 190 No. of cylinders 4 No. of cranks 4

Indicated pressure 6.9 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 185

Clearance between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) Revolutions per minute 700

Crank pin dia. 750 mm Weight 230 kg Means of ignition compression Kind of fuel used Diesel

Shaft, Solid forged dia. of journals as per Rule Crank pin dia. 85 mm Crank Webs Mid. length breadth 105 mm Thickness parallel to axis

All-built as fitted 85 mm shrunk 44 mm

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

Means provided to prevent racing of the engine yes Means of lubrication forced Kind of damper if fitted

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

Water Pumps, No. and how driven one-2.15 m³/Hr. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Working Oil Pumps, No. and size one (gear wheel type) 0.5 m³/hr.

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

Working Air Pumps or Blowers, No. How driven

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

Details of safety devices Safety valves fitted to each of the air receivers.

Internal surfaces of the receivers be examined and cleaned yes

Drain arrangement fitted at the lowest part of each receiver yes

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

Lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

Air Receivers, No. 7 Total cubic capacity 6 each of 0.32 m³ 1 of 0.1 m³ Internal diameter 420 mm+318 mm thickness 16mm+7.25 mm

Lap welded or riveted longitudinal joint seamless Material S.M. steel Range of tensile strength 60.5kg/mm² Working pressure 106+52kg/cm²

ELECTRIC GENERATORS:—Type M 20 FK/54 Makers: Hans Still, Hamburg.

Supply of supply 230 volts. Full Load Current 130 Amperes. Direct or Alternating Current Direct

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

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

Terminals 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

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

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

Driven machinery other than generator

Are approved plans forwarded herewith for Shafting no Receivers no Separate Tanks no

Normal Vibration characteristics if applicable been approved no Armature shaft Drawing No.

Are gear required by the Rules been supplied yes

The foregoing is a correct description,

Manufacturer.



Dates of Survey while building
 During progress of work in shops - - -
 During erection on board vessel - - - 25.10., 14.11., 10.12., 13., 14., 15.12.1951
 Total No. of visits 7

Dates of Examination of principal parts—Cylinders -- Covers -- Pistons -- Piston rods --
 Connecting rods -- Crank and Flywheel shafts -- Intermediate shafts --

Crank shaft Material S.M. steel Tensile strength
 Engine No. 14099: Best.No. 2359/BKR 10 V,
 Identification Marks 39 GL DEW 12 50
 Elongation Engine No. 14098: Best.No. 2359/BKR 10 V,
 Identification Marks 41 GL DEW 12 50

Flywheel shaft, Material -- Identification Marks --
 Identification marks on Air Receivers 6 21422 H, Nos. 10001, 10003, 10004, 10005, 10006, 10007, 11 51, PD 60 AT
 BDR 30 AT. Inh. 320 l. and 1 aux. air receiver: CH No. 329585, 8 51, 363/4, Inh1. 100 l. PD 60 AT. BDR 40
 Identification marks on cylinder blocks: Germanischer Lloyd, 15260 K + 15270 K, 10 51 5 atü.
 " " " " covers 5/75 atü 9 51.

Is this machinery duplicate of a previous case -- If so, state name of vessel --

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These generator sets have been built and hydraulically tested under the survey of Germanischer Lloyd.

These engines have now been opened out and examined internally, two cylinder covers tested hydraulically with satisfactory results. The workmanship and the materials appear good. The generator sets have been satisfactorily installed on board the vessel and subsequently examined under working conditions, and found in good order.

These generator sets are eligible, in my opinion, to be classed with the notation LMC 12,51 with the distinguishing mark †.

The amount of Fee ... £ see Rpt. 8 (No. 565) When applied for 19
 Travelling Expenses (if any) £ : : When received 19

H. Chamber
 Surveyor to Lloyd's Register of Shipping

TUES. 1 JUL 1951

Committee's Minute

Assigned *See Ref 565*

Surf 51.-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minutes.)