4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 568

Received at London Office 7 - APR 1952

of writing Report 11th March 1952 When handed in at Local Office 11th March 52 Port of K I E L

in Book. Survey held at Kiel Date, First Survey 21st October 51 Last Survey 18th January 19 52

Number of Visits 14

2171 on the Single / ~~Twin~~ / Twin / ~~Quadruple~~ Screw vessel Four Mast Barque "PASSAT" Tons Gross 3137 Net 2585

at Hamburg. By whom built Blohm & Voss Yard No - When built 1911

rs Rederei Schliewen Port belonging to Lübeck

ngines made at Kiel By whom made Bohn & Kähler Engine No. 14100 / 14101 When made 1951

ators made at Hamburg By whom made Messrs. Hans Still Generator No. 514701 / 514702 When made 1951

f Sets 2 B.H.P. of each Set 50 M.N. as per Rule -- Capacity of each Generator 30 Kilowatts.

t intended for essential services no

ENGINES, &c.—Type of Engines Heavy Oil - type KR 10 V 2 or 4 stroke cycle 4 Single or double acting S.A.

mum pressure in cylinders 55 kg/cm² Diameter of cylinders 140 mm Length of stroke 190 mm 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 m

re a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) - Revolutions per minute 700 (485)

" " " " balance wts. " " " -

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

k Shaft, Solid forged / Semi-built / All-built dia. of journals as per Rule - as fitted 85 mm Crank pin dia 85 mm Crank Webs Mid. length breadth 105 mm Mid. length thickness 44 mm shrunk Thickness parallel to axis -- Thickness round eyehole --

heel Shaft, diameter as per Rule - as fitted - 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 -

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

ing Water Pumps, No. and how driven one on each 2,15m³/hr. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

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

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

nging Air Pumps or Blowers, No. -- How driven --

RECEIVERS:—Have they been made under Survey Germanischer Lloyd State No. of Report or Certificate --
(other than main engines)

full details of safety devices Safety valve fitted to each of the air receiver.

he internal surfaces of the receivers be examined and cleaned yes

re a drain arrangement fitted at the lowest part of each receiver yes

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

ess, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -

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

ess, lap welded or riveted longitudinal joint Seamless Material S.M.Steel Range of tensile strength 60.5 kg/sq.mm Working pressure 106 + 52 kg/cm²

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

ure of supply 230 volts. Full Load Current 130 Amperes. Direct or Alternating Current DC-current

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

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

l 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 yes and do the results comply with the requirements yes

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

of driven machinery other than generator --

NS.—Are approved plans forwarded herewith for Shafting no Receivers no Separate Tanks no
(If not, state date of approval) 14.9.51 (General approval).

Torsional Vibration characteristics if applicable been approved no Armature shaft Drawing No. --
(State date of approval and name of previous duplicate case, if any)

e spare gear required by the Rules been supplied as per Rule requirements.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building — During progress of work in shops: --

During erection on board vessel: 12,17,18/12/51 ; 3,8,16,17 + 18/1/52

Total No. of visits: 8

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

Connecting rods — Crank and Flywheel shafts — Intermediate shafts

forwd.engine No.14101:Best.No.2359
36 CL DEW,1

Crank shaft — Material: S.M.Steel — Tensile strength: Aft engine No. 14100:Best.No.1774,
92379 DEW, 15

Elongation: See Lyd Cert. attached. — Identification Marks

Flywheel shaft, Material: -- — Identification Marks: On Cylinder Covers: 5/75 ATU, 10@51

On Cylinder Blocks: Germanischer Lloyd,15318
Germanischer Lloyd,15279

Identification marks on Air Receivers: 6 21422 H, Nos. 10000, 10002, 10008, 10009, 10010, 10011, 11@51, Cl PD. 60 atü, BDR 30,atü. Inh. 320 ltr.

one auxiliary air receiver: OH 47448, 12.51, 144/3

Is this machinery duplicate of a previous case: yes — If so, state name of vessel: "PAMIR"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These generators 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 material appear good. The generator sets have been satisfactorily unstalled 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 1.52 without the distinguishing mark ✠.

The amount of Fee ... ... £ : :

Travelling Expenses (if any) £ : :

When applied for 19

When received 19

See Report 8 (No. 568)

Committee's Minute TUES. 1 JUL 1952

Assigned

E. Thomber
Surveyor to Lloyd's Register of Shipping.

(The Surveyors are requested not to write on or below the space for Committee Minutes.)

Rpt. 13.

Date of writing Re

No. in Reg. Book. Surv

22171 on

Built at

Owners

Installation fu

Is vessel equipp

Plans, have the

Heating

Prime Movers,

with a trip swi

Are the genera

Have machines

under 100 kw.

and aft to

is the ventilati

damage from

are they in acc

steam and oil

material is it a

per Rule

for each genera

equalizer,

and the switch

Are compartme

ammeters 5

protection devic

Switches, Circu

make of fuses

overload do the

devices operate

if otherwise tha

under maximum

Are all the cab

damage yes

type of cables (i

and laundries

Are all lead shea

bulkheads provid

effectively bushed

Have refrigeratio

Are the motors a