

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5-95-B

24 MAR 1952

Received at London Office

Report by 19 When landed in at Local Office 19 Port of
 pressure held at NANAIO, JAPAN Date, First Survey 14th July Last Survey 29th Oct., 19 51.
 Number of Visits 27
 pressure in the Twin Triple Quadruple Screw vessel M.V. "BANDON 1"
 Tons { Gross 395.18
 Net 245.21
 nao, Japan By whom built Nanao Shipyard & Engine Works, East Japan Heavy Ind., Ltd. Yard No. NG 30 When built Oct., 1951.
 Separate Thai Navigation Co., Ltd. Port belonging to Bangkok
 15 at Kobe, Japan. By whom made Kobe Engineering Works, East Japan Heavy Industries, Ltd. Contract No. 4141 When made Aug. 1951.
 at Tobu, Japan. By whom made Shinko Electric Co., Ltd. Contract No. 150103 When made June, 1951.
 -51 1 Engine Brake Horse Power 100 (Metric) as per Rule 23 Total Capacity of Generators 60 Kilowatts.
 for essential services Yes

GINES, &c.—Type of Engines 4SCSA 4MD, Pre-Combustion Chamber 2 or 4 stroke cycle 4 Single or double acting Single
 re in cylinders 50 kg/cm² Diameter of cylinders 180 m/m Length of stroke 220m/m No. of cylinders 4 No. of cranks 4
 7.14kg/cm² Firing order in cylinders 1-4-2-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 225 m/m
 g between each crank Yes Moment of inertia of flywheel (kg m² or Kg-cm²) 53.7 kg-m² Revolutions per minute 750 r.p.m.
 830 m/m Weight 480 kgs Means of ignition Compression Kind of fuel used Diesel Oil
 ft, dia. of journals as per Rule 101.2 m/m as fitted 115 m/m Crank pin dia 110 m/m Crank Webs Mid. length breadth 160 Thickness parallel to axis -
 as fitted 115 m/m Mid. length thickness 59 shrunk Thickness round eyehole -

Shaft, diameter as per Rule - as fitted - Intermediate Shafts, diameter as per Rule - as fitted - General armature, moment of inertia (kg m² or Kg-cm²) 55kg-m²

vided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted -
 rs fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Cooled

ater Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

g Oil Pumps, No. and size 1, Del. Bore 18 m/m

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

g Air Pumps, No. - Diameter - Stroke - Driven by -

CEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate M3609, M3202

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

al surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Hand Hole on End Plate

in arrangement fitted at the lowest part of each receiver Yes

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

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

Air Receivers, No. 2 Total cubic capacity 500 lts Internal diameter 400 m/m thickness 12 m/m

welded or riveted longitudinal joint Revit Material Steel plate Range of tensile strength 28-35 tons Working pressure by Rules 35.8 kg/m²

RIC GENERATORS:—Type D.C. Compound, Drip proof Semi-enclosed type

of supply 225 volts Full Load Current 266 Amperes Direct or Alternating Current Direct

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

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

als accessible, clearly marked, and furnished with sockets Yes Are they so spaced

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

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

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

is even machinery other than generator -

5.—Are approved plans forwarded herewith for Shafting 15-9-51 Receivers 8-6-51(Kobe) Separate Tanks 31-8-51(Kobe)

(If not, state date of approval)

al Vibration characteristics if applicable been approved 15-9-51 Armature shaft Drawing No. 3B-102990

(state date of approval)

GEAR (For Diesel Engine) Suction valve 1 set, Exhaust valve 2 sets, starting valve 1 set,

ings for 1 cylinder, Fuel valve 2 sets, Cover bolts and nuts for 1 cylinder, Gudgeon pin 1,

bolts and nuts 2 sets, Crank pin bearing 1 set, Gudgeon pin bush 1, Main bearing 2 sets,

ring bolts and nuts 2 sets, All working parts of fuel injection pump 1 set, fuel injection pipe

safety valve 1 set, Piston complete 2 sets.

The foregoing is a correct description,

Manufacturer.

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003181-003196-014

Dates of Survey while building { During progress of work in shops-- } 1951: June. 7, July 12, 13, Aug., 2, 3.
{ During erection on board vessel-- } 1951 July, 11, 12, Aug., 2, Sept., 9, 10, 11, 12, 13, 14, 15, 16, Oct. 20, 21, 24, 25, 26, 27, 28, 29.
Total No. of visits Total 27

Dates of Examination of principal parts—Cylinders 15-12-50 Covers 7-6-51 Pistons 3-8-51
Connecting rods 13-7-51 Crank and Flywheel shafts 19-4-51 Piston rods -
Crank shaft { Material Electric Furnance Steel Intermediate shafts -
Elongation 29 % Tensile strength 37.8 Ton/Sq.in.

Flywheel shaft, Material - Identification Marks No.K-CK180

Identification marks on Air Receivers NO.AR226 NO.AR227
LLOYD'S TEST LLOYD'S TEST
WTP 48.5 KGS WTP 48.5 KGS
WP 30 KGS WP 30 KGS
MS B MS B
26-6-51 26-6-51
KWT70
LLOYD'S TEST
WTP 14 KGS/CM2
WP 7 KGS/CM2
MH E 10-8-51

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.) The engine has been constructed under supervision of the Society's Surveyors in accordance with the Rules and approved planes.
The materials and workmanship were found to be satisfactory.
The Generator set has been examined under full working condition in the shop and found satisfactory.
This machinery has been satisfactorily installed in the vessel and tried under working conditions.
It is submitted that the machinery of this vessel is eligible to be classed with this to have the notation of LMC 10-51

Date
Crank
Screw sh

The amount of Fee ... (£ 11 : 10 :)
Charged £ 11,500.-
Travelling Expenses (if any) £ : :
When applied for 19
When received 19

Committee's Minute
Assigned See F.E. Welch. rpt.

(with torsional endorsement)



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