t. 4c

of writing report 15 November 1961 Received London ..... Port Yokohama No. 4061

ey held at Yokohama No. of visits 68 First date 12-5-1961 Last date 10-10-1961

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

e of Ship - Owners V/O "SUDOIMPORT"
Contract No. if name unknown). (Or Consignees)

Built at Hiroshima, Japan by Mitsubishi Zosen K.K. Hiroshima Works, Hiroshima when 2-1962 Yard No. 145

iliary Engines ~~or Gas Turbines~~ made at Yokohama, Japan by Mitsubishi Nippon Heavy Ind.,Ltd. when 10-1961 Eng. Nos. D133297,8 & 9

d No. of sets and description (including type name) 3 sets, Yokohama M.A.N. G6VA type trunk piston, supercharged Diesel engine.

TERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 6 Dia. of cylinders 235mm Stroke 330mm

4 stroke cycle 4 Maximum approved BHP 500 metric at 600 RPM Corresponding MIP 10.8 kg/cm² Maximum pressure 68 kg/cm²

diesel oil Are cylinders arranged in Vee or other special formation? No If so, No. of

kshafts per engine - Is engine of opposed piston type? - No. and type of mechanically driven scavenge pumps or blowers

engine - No. of exhaust gas driven ~~blowers or~~ superchargers per engine 1 set Is welded construction

for: Bedplate? No Entablature? No Total internal volume of crankcase (if 20 cu. ft. or over) 1.34 m³ No. and total area of

kcase explosion relief devices 2 and 173 cm² Are flame guards or traps fitted? No Cooling medium for: Cylinders fresh water

ons - No. of attached pumps: F.W. cooling 1 set S.W. cooling - Lubricating oil 1 set How is engine started? by

mpressed air.

AFTING. Is a damper ~~or clutch~~ fitted? Yes No. of main bearings 7 Are bearings of ball or roller type? No Distance between

r edges of bearings in way of cranks 284mm Crankshaft: ~~Built, semi-built~~ solid. Material of crankshaft electric furnace steel Approved

imum tensile strength 55 kg/mm² Dia. of pins 155 mm Journals 155mm Breadth of webs at mid throw 273 mm Axial

ckness 80 mm If shrunk, radial thickness around eyeholes - Dia. of flywheel 1250 mm. Weight 1510 kg. Are balance

ghts fitted? No Total weight - Rad. of gyration - Dia. of flywheel shaft -

each engine been tested in shop? Yes How long at full power? 2 Hr. Was it tested with driven machinery attached? Yes Was the

rning tested and found satisfactory? Yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) ~~21-8-1961~~ 10/8/61

e of approval of shafting 20-6-1961 Identification marks on shafting LLOYD'S NAG S-CK4782 SN 8-7-61 / LLOYD'S KOB MB-CK773 K.K. 8-7-61 J.W. 11-9-61 YKA / LLOYD'S KOB MB-CK784 M.K. 15-7-61 J.W. 20-9-61 YKA

ticulars of driven machinery 400 KVA generators

515A

t and No. of Certificate for Starting Air Receivers -

~~XILIARY GAS TURBINES.~~ BHP per set ..... At ..... RPM of output shaft. Open or closed cycle? .....

angement of turbines. HP drives ..... at ..... RPM HP gas inlet temp. ..... pressure .....

small diagram should be ched showing gas cycle) IP " ..... at ..... " IP " " " ..... " .....

LP " ..... at ..... " LP " " " ..... " .....

of air compressors per set ..... Centrifugal or axial flow type? ..... Material of turbine blades .....

erial of compressor blades ..... No. of air coolers per set ..... No. of heat exchangers per set ..... How are

ines started? ..... Are the turbines operated in conjunction with free piston gas generators? .....

d No. of free piston gas generators ..... Dia. of working pistons ..... Dia. of compressor pistons ..... No. of double strokes

minute at full power ..... Gas delivery pressure ..... Gas delivery temperature .....

e the turbines and attached equipment been tested in shop? ..... How long at full power? ..... Were they tested with driven machinery

ched? ..... Particulars of gearing .....

of approval of plans ..... Identification marks ..... Particulars of driven machinery .....

ECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over Please refer Nagasaki Surveyors

generators under 100 Kw., has Makers' Certificate been obtained? - Are Certificates attached? No

foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)

T. Kawowaki
YOKOHAMA SHIPYARD & ENGINE WORKS
MITSUBISHI NIPPON HEAVY-INDUSTRIES, LTD. Manufacturer

his machinery duplicate of a previous case? No If so, which? .....

NERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters. e quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

The machinery has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

The quality of workmanship and materials has been found satisfactory and the machinery examined under full power working conditions during shop trials and found satisfactory.

It is submitted that on being satisfactorily installed in a Classed ship, the machinery is eligible to be Classed with the Society and to have the notation ✠LMC (with date).

ey Fee ¥191,250.- 16/1/62
enses .....
when a/c rendered .....

J. Winn
J. WINN Engineer Surveyor to Lloyd's Register

aration to be signed by Surveyor at fitting-out Port :— The above described machinery has been fitted on board the Motor Tanker "LUGANSK" Hiroshima, Japan in a proper manner and found satisfactory when tested on the (date) 8 & 10-2-1962 under full working conditions.

W. A. Cook, Peter Manson, J. Nonomura
P. Manson, Engineer Surveyor to Lloyd's Register
W.A. Cook, J. Nonomura

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