8 SEP 1958

Rpt. 4c
Date of writing report 18th July, 1958. Received London ..... Port KOBE No. FE-5921

Survey held at Tamano, Japan No. of visits 60 First date 7th June, 57 Last date 15th July, 1958

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship M.S. "MEGUROSAN MARU" Owners (Or Consignees) Mitsui Steamship Co., Ltd.
(Or Contract No. if name unknown).
Ship Built at Tamano, Japan by Mitsui S.B.& Eng., Co., Ltd. when 1958-7 Yard No. 630
Auxiliary Engines or Gas Turbines made at Tamano, Japan by - " - when 1958-7 Eng. Nos. 736,737,738
Total No. of sets and description (including type name) 3 sets Mitsui B & W Diesel Engine 525 MTBH-40 type

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 5 Dia. of cylinders 245mm Stroke 400mm
2 or 4 stroke cycle 4 Maximum approved BHP 350 at 425 RPM Corresponding MIP 9.6kg/cm2 Maximum pressure 55 kg/cm2
Fuel Diesel oil Are cylinders arranged in Vee or other special formation? No If so, No. of
crankshafts per engine - Is engine of opposed piston type? - No. and type of mechanically driven scavenge pumps or blowers
per engine No No. of exhaust gas driven blowers or superchargers per engine 1 Is welded construction
used for: Bedplate? No Entablature? No Total internal volume of crankcase (if 20 cu. ft. or over) 77.5 cub.ft No. and total area of
crankcase explosion relief devices 2, 56.4 in2 Are flame guards or traps fitted? Yes Cooling medium for: Cylinders Fresh water
Pistons - No. of attached pumps: F.W. cooling - S.W. cooling - Lubricating oil 1 How is engine started? compressed air

SHAFTING. Is a damper or detuner fitted? No No. of main bearings 6 Are bearings of ball or roller type? No Distance between
inner edges of bearings in way of cranks 315mm Crankshaft: ~~Built~~, semi-built, ~~solid~~. Material of crankshaft Forged steel & cast steel Approved
minimum tensile strength 44 kgs/mm2 Dia. of pins 170mm Journals 170mm Breadth of webs at mid throw 290mm Axial
thickness 90mm If shrunk, radial thickness around eyeholes 82.5mm Dia. of flywheel 1350mm Weight 2300kgs Are balance
weights fitted? Yes Total weight 183kg Rad. of gyration 246mm Dia. of flywheel shaft -
Has each engine been tested in shop? Yes How long at full power? 4 hours Was it tested with driven machinery attached? Yes Was the
governing tested and found satisfactory? Yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 27-11-57 5/12/57
Date of approval of shafting 26-9-57 Identification marks on shafting LLOYD'S KOB No.M-CK 460,461 RS LR 11-2-58 398B
LLOYD'S KOB No.M-CK 462 RS LR 18-2-58
Particulars of driven machinery 230 KW D.C. compound generator
8 poles 225 volt 1022 amp. 425 r.p.m.
Port and No. of Certificate for Starting Air Receivers Main Kobe, AR- 50927 Aux. Kobe AR- 50928

AUXILIARY GAS TURBINES. BHP per set ..... At ..... RPM of output shaft. Open or closed cycle? .....
Arrangement of turbines. HP drives ..... at ..... RPM HP gas inlet temp. ..... pressure .....
(A small diagram should be attached showing gas cycle) IP " ..... at ..... " IP " " " ..... " .....
LP " ..... at ..... " LP " " " ..... " .....
No. of air compressors per set ..... Centrifugal or axial flow type? ..... Material of turbine blades .....
Material of compressor blades ..... No. of air coolers per set ..... No. of heat exchangers per set ..... How are
turbines started? ..... Are the turbines operated in conjunction with free piston gas generators? .....
Total No. of free piston gas generators ..... Dia. of working pistons ..... Dia. of compressor pistons ..... No. of double strokes
per minute at full power ..... Gas delivery pressure ..... Gas delivery temperature .....
Have the turbines and attached equipment been tested in shop? ..... How long at full power? ..... Were they tested with driven machinery
attached? ..... Particulars of gearing .....
Date of approval of plans ..... Identification marks ..... Particulars of driven machinery .....

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over .....
For generators under 100 Kw., has Makers' Certificate been obtained? ..... Are Certificates attached? .....

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)
MITSUI SHIPBUILDING & ENGINEERING CO. LTD. TAMANO WORKS
..... Manufacturer
Senior Managing Director

Is this machinery duplicate of a previous case? Yes If so, which? "MAYASAN MARU"

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

These auxiliary oil engines have been built and installed under Special Survey in accordance with the Rules, Approved Plans and Secretary's letters.
The materials and workmanship are sound and good.
The auxiliary oil engines have been tested under full working condition and found satisfactory.

Survey Fee ¥150,000.-
Expenses See Rpt.10
Date when a/c rendered .....

R. D. Sutherst
Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the above named vessel at Tamano, Japan in a proper manner and found satisfactory when tested ~~xxxxxx~~ on board under full working conditions.
.....
Engineer Surveyor to Lloyd's Register

24/9/58

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