

FOR LONDON

pt. 4b

14 FEB 1958

Date of writing report
 Received London
 Port Nagasaki (Shimonoseki)
 No. FE 835
 Survey held at Nagasaki
 In shops 83
 30-4-1957
 No. of visits 14
 First date 30-8-1957
 Last date 7-1-1958
 On vessel

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name M.V. "KOBU MARU" Gross tons 9,202
 Owners Daido Kaiun K.K. Managers - Port of Registry Kobe
 Hull built at Nagasaki By Mitsubishi Zosen K.K. Yard No. 1498 Year Month 1958-1
 Main Engines made at Nagasaki By Nagasaki Works Mitsubishi Zosen K.K., Eng. No. 300 When 1958-1
 Bearing made at - By Nagasaki Works
 Donkey boilers made at Osaka By Hirano Iron Works Co. Ltd. Blr. Nos. H.663 When 1957-9
 Machinery installed at Nagasaki By Mitsubishi Zosen K.K., Nagasaki Works When 1958-1

Particulars of restricted service of ship, if limited for classification
 Particulars of vegetable or similar cargo oil notation, if required Carrying Vegetable Oil in Deep Tanks in way of tunnel
 Is ship to be classed for navigation in ice? No Is ship intended to carry petroleum in bulk? No
 Refrigerating machinery fitted? Yes If so, is it for cargo purposes? Yes Type of refrigerant Dichlorodifluoromethane
 Is the refrigerating machinery compartment isolated from the propelling machinery space? No Is the refrigerated cargo installation intended to be classed? Yes

The following particulars should be given as fully and as clearly as possible. Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the wording is not applicable to the installation, a black line may be inserted. If the main engines have been constructed at another port and are covered by a separate report, the particulars given in that report need not be repeated below, but the port and report number should be stated.

No. of main engines 1 No. of propellers 1 Brief description of propulsion system Direct coupled
 MAIN RECIPROCATING ENGINES. Licence Name and Type No. Mitsubishi Nagasaki Diesel Engine 6UEC 75/150 Type
 No. of cylinders per engine 6 Dia. of cylinders 750mm stroke(s) 1,500mm 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum approved BHP per engine 8,500 at 122 RPM of engine and 122 RPM of propeller.
 Corresponding MIP 8.76 kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 58 kg/cm² Machinery numeral 1,700
 Are the cylinders arranged in Vee or other special formation? No If so, number of crankshafts per engine -

DO STROKE ENGINES. Is the engine of opposed piston type? No If so, how are upper pistons connected to crankshaft?
 Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? Valves No. and type of mechanically driven scavenge pumps or blowers per engine and how driven -
 No. of exhaust gas driven scavenge blowers per engine 2 Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action? Yes
 Stand-by or emergency pump or blower is fitted, state how driven by Electric Motor No. of scavenge air coolers 2 Scavenge air pressure at full load 0.35 kg/cm² Are scavenge manifold explosion relief valves fitted? Yes

TWO STROKE ENGINES. Is the engine supercharged? - Are the undersides of the pistons arranged as supercharger? -
 No. of supercharge air coolers per engine - Supercharge air pressure - Can engine operate without supercharger? -

TWO & FOUR STROKE ENGINES—GENERAL. No. of valves per cylinder: Fuel 1 Inlet - Exhaust 3 Starting 1 Safety 1
 Material of cylinder covers Cast Iron Material of piston crowns Cr-Mo Steel Forging Is the engine equipped to operate on heavy fuel oil? Yes
 Lubricating medium for: -Cylinders F.W. Pistons F.W. Fuel valves F.W. Overall diameter of piston rod for double acting engines -
 Is the piston rod fitted with a sleeve? No Is welded construction employed for: Bedplate? No Frames? No Entablature? No Is the crankcase separated from the underside of pistons? Yes Is the engine of crosshead or trunk piston type? crosshead Total internal volume of crankcase 85.32M³ No. and total area of explosion relief devices 6 x 1653.9CM² Are flame guards or traps fitted to relief devices? Yes Is the crankcase readily accessible? Yes If not, must the engine be removed for overhaul of bearings, etc? - Is the engine secured directly to the tank top or to a built-up seating? to Tank Top How is the engine started? by Compressed Air
 Can the engine be directly reversed? Yes If not, how is reversing obtained? -
 Has the engine been tested working in the shop? Yes How long at full power? 2 hours

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 20-12-56 28/11/57 State barred speed range(s), if imposed
 Working propeller below 40 r.p.m. For spare propeller - Is a governor fitted? Yes Is a torsional vibration damper or detuner fitted to the shafting? NO
 How positioned? none Type - No. of main bearings 8 Are main bearings of ball or roller
 Distance between inner edges of bearings in way of crank(s) 1,020mm Distance between centre lines of side cranks or eccentrics of opposed piston engines -

CRANKSHAFT type: Built, semi-built, solid. (State which) Semi built
 Diameter of journals 560mm Diameter of crankpins Centre 560mm Side - Breadth of webs at mid-throw 890mm Axial thickness of webs 350mm
 Crank, radial thickness around eyeholes 242.5mm Are dowel pins fitted? No Crankshaft material Pins Steel Forging Journals Steel Forging Minimum 44 kg/mm² Approved Tensile strength
 Diameter of flywheel 2600mm Weight 8,750 kgs Are balance weights fitted? NO Total weight - Radius of gyration 1.081 M.
 Diameter of flywheel shaft 560mm Material Steel Forging Minimum approved tensile strength 44 kg/mm²
 Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) integral with thrustshaft

GENERAL REMARKS

State if the machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

The machinery installation of this ship has been made under special survey in accordance with the requirements of the Rules, the approved plans and the Secretary's. The materials and workmanship are sound and good. The main engine was tested under full power condition in the shop and subsequent sea trial and found satisfactory. The explosion relief devices have been fitted on crank cases of main & auxiliary heavy oil engines and on scavenge manifold of main engine. The notice board of barred speed range has been fitted on manoeuvring gauge board of main engine.

B. M. M. M. M.
Engineer Surveyor to Lloyd's Register of Shipping

PARTICULARS OF IDENTIFICATION MARKS ((Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

RODS Connecting Rods: NAG Nos. S-F2159-1,2,3,4,5,6 MO B 16-7-57
 Piston Rods: NAG Nos. 1720F, 1772A, C, D, E, F, G SM B 30-8-57
 CRANKSHAFT ~~SECRET FOR EXPORT~~ NAG NO. MN-CK2088-F, A, SM 30-7-57 B
 FLYWHEEL SHAFT
 THRUSTSHAFT NAG No. 1747 SM 30-7-57 B
 GEARING
 INTERMEDIATE SHAFTS NAG No. MS2184 SM 20-9-57 B, NAG No. 2185-A SM 20-9-57 B, NAG No. 2185B SM 12-9-57 B, NAG No. MS2185C SM 12-9-57 B, NAG No. MS2185D SM 12-9-57 B, NAG No. MS2185E SM 12-9-57 B
 SCREW ~~SECRET FOR EXPORT~~ SHAFTS NAG No. 2186 SM 20-9-57 B
 PROPELLERS NAG Nos. MN-BC2090-A, B, C, D SM 7-8-57 B
 Tie Rods: Crossheads: NAG No. 1710-A, B, C, D, E, F, G SM 8-8-57 B and No. 2182A SM 5-9-57 B
 NAG No. 1832 WRDS 22-1-57, NAG No. 1885 WRDS 22-1-57, NAG No. 1857 WRDS 22-1-57, NAG No. 1862 KTR 5-2-57, NAG No. 1844 WRDS 22-1-57, NAG No. 1878D MOR 26-3-57, NAG No. 1879 MOR 26-3-57, NAG No. 1880A MOR 26-3-57, NAG No. 1904-1 MOR 26-3-57, NAG No. 1904-2 MOR 26-3-57, NAG No. 1904-3 MOR 26-3-57, NAG No. 1904-4 MOR 26-3-57, NAG No. 1904-5 SMA 9-4-57, NAG No. 1904-6 SMA 9-4-57, NAG No. 1904-7 MOR 15-6-57, NAG No. 1904-8 SMA 9-4-57, NAG No. 1904-9 MOR 15-6-57.

Is the installation a duplicate of a previous case? Yes
 If so, state name of vessel M. V. "KOHCH MARU"
 Date of approval of plans for crankshaft 8-2-56 Straight shafting 28-12-55 Gearing - Clutch -
 Separate oil fuel tanks 18-9-56 Pumping arrangements 14-1-57 Oil fuel arrangements 14 14-1-57
 Cargo oil pumping arrangements - Air receivers 18-6-57 Donkey boilers 18-6-57
 Dates of examination of principal parts:-
 Fitting of stern tube 21-9-57 Fitting of propeller 23-9-57 Completion of sea connections 26-9-57 Alignment of crankshaft in main bearings 11-1-57
 Engine chocks & bolts 19-11-57 Alignment of gearing - Alignment of straight shafting 14-12-57 Testing of pumping arrangements 13-1-57
 Oil fuel lines 13-12-57 Donkey boiler supports 18-11-57 Steering machinery 28-12-57 Windlass 28-12-57
 Date of Committee Construction/Installation Special Survey Fee ¥855,000
 Decision See Rpt. 1

Expenses See Rpt. 1 No. FE835

Date when A/c rendered FEB - 5. 1958
 LOCALLY

