

Rpt. 4b

Date of writing report 20-9-1960 Received London Port Shimonoseki No. FE-1645
Survey held at Hiroshima, Japan No. of visits In shops 15 On vessel 29 First date 10-1-60 Last date 31-8-60

-9. DEC. 1960

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name M.V. "AUNG TEZA" Gross tons 999.37 T.
Owners Union of Burma Shipping Board Managers Port of Registry Rangoon
Hull built at Hiroshima, Japan By Ujina Shipbuilding Co., Ltd. Yard No. 351 Year Month When 1960-8
Main Engines made at Osaka, Japan By Hitachi Shipbuilding & Engineering Co., Ltd. Eng. No. 2130 When 1960-3
Gearing made at --- By ---
Donkey boilers made at --- By --- Blr. Nos. --- When ---
Machinery installed at Hiroshima, Japan By Ujina Shipbuilding Co., Ltd. When 1960-8

Particulars of restricted service of ship, if limited for classification ---
Particulars of vegetable or similar cargo oil notation, if required ---
Is ship to be classed for navigation in ice? No Is ship intended to carry petroleum in bulk? No
Is refrigerating machinery fitted? Yes If so, is it for cargo purposes? No Type of refrigerant Hitachi FVV4. CW Type
Is the refrigerating machinery compartment isolated from the propelling machinery space? Yes Is the refrigerated cargo installation intended to be classed? No

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 Hitachi B & W Alpha, Single-Acting Two Stroke Cycle.

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Burmeister & Wain Alpha 497R
No. of cylinders per engine 7 Dia. of cylinders 290 mm stroke(s) 490 mm 2 or 4 stroke cycle 2 Single or double acting Single
Maximum approved BHP per engine 840 at 310 RPM of engine and 310 RPM of propeller.
Corresponding MIP (For DA engines give MIP top & bottom) Maximum cylinder pressure Machinery numeral 168
Are the cylinders arranged in Vee or other special formation? If so, number of crankshafts per engine

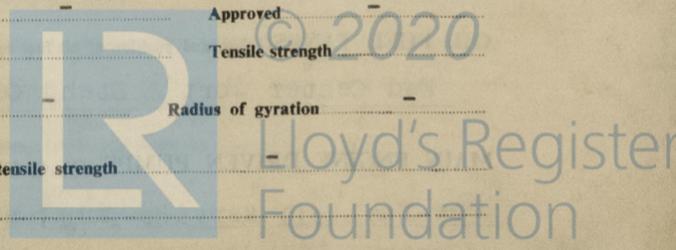
TWO STROKE ENGINES. Is the engine of opposed piston type? If so, how are upper pistons connected to crankshaft?
Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? No, and type of mechanically driven scavenge pumps or blowers per engine and how driven
No. of exhaust gas driven scavenge blowers per engine Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action?
If a stand-by or emergency pump or blower is fitted, state how driven None No. of scavenge air coolers Scavenge air pressure at full power
Are scavenge manifold explosion relief valves fitted?

FOUR STROKE ENGINES. Is the engine supercharged? Are the undersides of the pistons arranged as supercharge pumps? No. of exhaust gas driven blowers per engine
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 Inlet Exhaust Starting Safety
Material of cylinder covers Material of piston crowns Is the engine equipped to operate on heavy fuel oil?
Cooling medium for: Cylinders Pistons Fuel valves Overall diameter of piston rod for double acting engines
Is the rod fitted with a sleeve? Is welded construction employed for: Bedplate? Frames? Entablature? Is the crankcase separated from the underside of pistons?
Is the engine of crosshead or trunk piston type? Total internal volume of crankcase No. and total area of explosion relief devices
Are flame guards or traps fitted to relief devices? Is the crankcase readily accessible? 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? How is the engine started? Built-up seating

Can the engine be directly reversed? If not, how is reversing obtained?
Has the engine been tested working in the shop? Yes How long at full power? 5 Hours
CRANK & FLYWHEEL-SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 1-3-60 London 2/1/61
for working propeller 235-265 r.p.m. not required for class. 10-3-60 Kobe State barred speed range(s), if imposed
For spare propeller None Is a governor fitted? Is a torsional vibration damper or detuner fitted to the shafting?

Where positioned? Type No. of main bearings Are main bearings of ball or roller type?
Distance between inner edges of bearings in way of crank(s) Distance between centre lines of side cranks or eccentrics of opposed piston engines
Crankshaft type: Built, semi-built, solid. (State which)
Diameter of journals Diameter of crankpins Centre Breadth of webs at mid-throw Axial thickness of webs
Side Pins Minimum
If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material Journals Approved
Webs Tensile strength
Diameter of flywheel Weight Are balance weights fitted? Total weight Radius of gyration
Diameter of flywheel shaft Material Minimum approved tensile strength
Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which)



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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 give 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 above described machinery has been installed on the vessel at Ujina, Hiroshima in a proper manner and found satisfactory when tested at sea under full working conditions and eligible in our opinion for classification with the records of  LMC 8,60, TS(CL) 8,60.

The torsional vibration characteristics of the main propulsion machinery were verified by torsionograph taken during seatrial and confirmed that rough running was observed between approx. 235 and 265 r.p.m.

It is recommended that the main engine not to be run continuously between 235 and 265 r.p.m.

*H. Okada* 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 ---  
 CRANKSHAFT OR ROTORSHAFT ---  
 FLYWHEEL SHAFT ---  
 THRUSTSHAFT ---  
 GEARING { LLOYD'S SMK YKA NO. Y-15497-E -Koi B 2-6-60  
 " " " " Y-15497-B " " "  
 " " " " Y-15497-C " " "  
 " " " " Y-15497-D " " "  
 INTERMEDIATE SHAFTS {  
 SCREW AND ~~X~~ SHAFTS LLOYD'S KOB NO. 01-F1028 022-66A  
 C-33 LLOYD'S KOB 30-1-60  
 PROPELLERS ---  
 OTHER IMPORTANT ITEMS ---

Is the installation a duplicate of a previous case? No If so, state name of vessel ---  
 Date of approval of plans for crankshaft Dec. -12-1959 Straight shafting Jun. -2-1960 Gearing - Clutch ---  
 Separate oil fuel tanks Jun. -27-1960 Pumping arrangements May-7-1960 Oil fuel arrangements May-7-1960  
 See Kobe Rpt. Main - Feb. 11-1960  
 Cargo oil pumping arrangements --- Air receivers Aux. - Mar. 28-1960 Donkey boilers ---  
 Dates of examination of principal parts:--  
 Fitting of stern tube May-10-1960 Fitting of propeller May-12-1960 Completion of sea connections Apr. -14-1960 Alignment of crankshaft in main bearings -  
 Engine chocks & bolts Jun-20-1960 Alignment of gearing - Alignment of straight shafting July-1-1960 Testing of pumping arrangements Aug-4-1960  
 Oil fuel lines July-27-1960 Donkey boiler supports - Steering machinery Aug-5-1960 Windlass Aug-5-1960  
 Date of Committee FRIDAY 10 FEB 1961 Special Survey Fee  
 Decision See Rpt. 1. Installation of Machinery ¥67,500

Expenses 89,600

