

ACCTS. 19 JUL 1961

ADMIN Rpt. 4b

D. Date of writing report 2nd June, 1961

CD. Survey held at Hiroshima

DEPT.

Received London Port **Shimonoseki** No. **FE-1780**
 In shops **66** **22-7-60** **4-2-61**
 No. of visits **11-10-60** **14-2-61**
 On vessel **45** Last date

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name **M.V. "SETIABUDHI"** Gross tons **7,337.98**

Ministry of Sea Communications
 Owners **The Government of the Republic of Indonesia** Managers **Hiroshima Works Mitsubishi** Port of Registry **Djakarta 4,378.73**

Hull built at **Hiroshima, Japan** By **Shipbuilding & Eng. Co., Ltd.** Yard No. **H144** Year Month **1961-2**

Main Engines made at **Yokohama, Japan** By **Yokohama Shipyard & Engine Works, Mitsubishi Nippon Heavy Ind. Ltd.** Eng. No. **D-37824** When **1960-10**

Gearing made at By When

Donkey boilers made at **Osaka, Japan** By **Hirano Iron Works Co., Ltd.** H-1220 When **1960-8**

Machinery installed at **Hiroshima, Japan** By **Hiroshima Works Mitsubishi Shipbuilding & Eng. Co., Ltd.** When **1960-11**

Particulars of restricted service of ship, if limited for classification **None**

Particulars of vegetable or similar cargo oil notation, if required **No**

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 **Freon gas Direct expansion**

Is the refrigerating machinery compartment isolated from the propelling machinery space? **No** 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 No. of propellers Brief description of propulsion system

MAIN RECIPROCATING ENGINES. Licence Name and Type No.

No. of cylinders per engine Dia. of cylinders stroke(s) 2 or 4 stroke cycle Single or double acting

Maximum approved BHP per engine at RPM of engine and RPM of propeller.

Corresponding MIP (For DA engines give MIP top & bottom) Maximum cylinder pressure Machinery numeral

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 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?

Can the engine be directly reversed? If not, how is reversing obtained?

Has the engine been tested working in the shop? How long at full power?

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system State barred speed range(s), if imposed for working propeller

For spare propeller 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

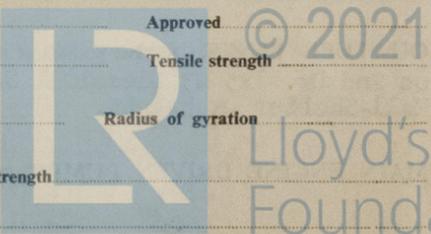
If shrunk, radial thickness around eyeholes Are level pins fitted? Crankshaft material Journals Approved

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)



011678-011692-0167 1/2

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.

These machineries and Boiler have been placed on board the ship in accordance with the Rules, Approved Plans and Secretary's letters, on completion of installation, appliances were satisfactorily tried under full working conditions and eligible in our opinion for classification with the records of Engine Special Survey, Oil Engine 2/61, Donkey Boiler Survey W.P. 7 kg/cm² 2/61, and Tailshaft Survey - Continuous Liner 2/61.

The torsional vibration characteristics of the main propelling machinery were verified by torsigraph taken during sea trial and confirmed that no rough running was observed.

Y. Hamada, K. Okada & M. Koi
 Y. Hamada, K. Okada & M. Koi
 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.)

Please See YKA Rpt. NO. FE-3546

RODS

CRANKSHAFT OR ROTORSHAFT

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING 1st LLOYD'S NAG NO.3217 KO E 24-10-60 2nd LLOYD'S NAG NO.3218 KO E 24-10-60
 3rd LLOYD'S NAG NO.3219 KO E 24-10-60 4th LLOYD'S NAG NO.3220 KO E 19-10-60
 INTERMEDIATE SHAFTS 5th LLOYD'S NAG NO.3221 KO E 19-10-60 6th LLOYD'S NAG NO.3222 KO E 19-10-60

SCREW AND TUBE SHAFTS (WORKING) LLOYD'S KOB NO.KT-F1509 EI E 19-7-60
 (SPARE) LLOYD'S KOB NO.KT-F1522 EI E 1-9-60

PROPELLERS (WORKING) LLOYD'S SMK NO.3147 KO E 15-10-60, (SPARE) LLOYD'S SMK NO.3148 Koi E 27-12-60

OTHER IMPORTANT ITEMS

Please See YKA Rpt. NO. FE-3546

Is the installation a duplicate of a previous case? _____ If so, state name of vessel _____

Date of approval of plans for crankshaft	Straight shafting	Gearing	Clutch
Separate oil fuel tanks 23-12-60	Diagram Pumping arrangements	18-8-60	Oil fuel arrangements 24-1-61
Cargo oil pumping arrangements -	Air receivers	12-7-60	Donkey boilers 16-7-60

Dates of examination of principal parts:—

Fitting of stern tube 22-10-60	Fitting of propeller 26-10-60	Completion of sea connections 6-10-60	Alignment of crankshaft in main bearings 25-11-60
Engine chocks & bolts 14-12-60	Alignment of gearing -	Alignment of straight shafting 15-12-60	Testing of pumping arrangements 20-1-60
Oil fuel lines 16-12-60	Donkey boiler supports 15-9-60	Steering machinery 6-2-61	Windlass 6-2-61

Date of Committee FRIDAY - 4 AUG 1961

Special Survey Fee ¥ 289,688
 290,650

Decision

+ Lme ES
 ABS
 SPS
 Ts(cw) } 2.61

