

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

AUG -5 1940

Date of writing Report 30<sup>th</sup> July 1940 When handed in at Local Office 30<sup>th</sup> July 1940 Port of WEST HARTLEPOOL  
No. in Survey held at WEST HARTLEPOOL Date, First Survey 20<sup>th</sup> July, 1940 Last Survey 26<sup>th</sup> July 1940  
Reg. Book. on the S.S. ITOLA (Number of Visits 138)

Built at West Hartlepool By whom built William Gray & Co. Ltd. Yard No. 1102 When built 1940  
Engines made at West Hartlepool By whom made Central Marine Engine Works Engine No. 1102 When made 1940  
Boilers made at West Hartlepool By whom made Central Marine Engine Works Boiler No. 1102 When made 1940  
Registered Horse Power Owners British India Steam Navigation Co. Port belonging to London.  
Nom. Horse Power as per Rule 640. 669 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.  
Trade for which Vessel is intended Ocean going

ENGINES, &c.—Description of Engines Triple expansion with Bauer Wack Exhaust Turbines. per minute 83.  
Dia. of Cylinders 22" - 31" - 65" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3  
Crank shaft, dia. of journals as per Rule 13.65" Crank pin dia. 14" Crank webs Mid. length breadth 20" Thickness parallel to axis 8 1/2"  
Intermediate Shafts, diameter as per Rule 13.51" as fitted 14 1/2" Thrust shaft, diameter at collars as per Rule 13.65" as fitted 14 3/8"  
Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 15.169" as fitted 15.75" Is the { tube } shaft fitted with a continuous liner { Yes }  
Bronze Liners, thickness in way of bushes as per Rule .763" as fitted .78" Thickness between bushes as per Rule .572" as fitted .59" Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive  
If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube  
shaft No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 66"  
Propeller, dia. 18'6" Pitch 16'9" No. of Blades 4 Material Bronze whether Moveable Yes Total Developed Surface 102 sq. feet  
Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 28" Can one be overhauled while the other is at work Yes  
Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 28" Can one be overhauled while the other is at work Yes  
Feed Pumps { No. and size Two 9 1/2" x 7" x 24" How driven Independent steam Pumps connected to the { No. and size 2 @ 4" x 28" } One 9" x 10 1/2" x 10"  
Main Bilge Line { How driven Main engine } Independent steam.  
Ballast Pumps, No. and size One 9" x 10 1/2" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size Two 8" x 9" x 18"  
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
Bilge Pumps;—In Engine and Boiler Room Four @ 3" Dry Tank One @ 3" In Holds, &c. No. 1, 2 @ 3" No. 2, 2 @ 3" No. 3, 2 @ 3" & cross  
In Pump Room Number 2 @ 2 1/2" No. 4, 2 @ 3" No. 5, 2 @ 3" Tunnel well 1 @ 2 1/2" Drain tank cofferdam 1 @ 2"  
Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
No. and size 1 @ 5" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges above or below the deep water line MAIN BELOW REST ABOVE  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
What Pipes pass through the bunkers How are they protected  
What pipes pass through the deep tanks Have they been tested as per Rule  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from engine room top.

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 8500 sq. ft.  
Which Boilers are fitted with Forced Draft All Which Boilers are fitted with Superheaters All  
No. and Description of Boilers Four single ended multitubular Working Pressure 250 lbs.  
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?  
Can the donkey boiler be used for domestic purposes only  
PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Donkey Boilers  
(If not state date of approval)  
Superheaters Yes General Pumping Arrangements Oil fuel Burning Piping Arrangements

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.  
State the principal additional spare gear supplied

The foregoing is a correct description.  
FOR THE CENTRAL MARINE ENGINE WORKS.

(Wm. Gray &amp; Co. Ltd.)

Manufacturer.

J. H. Frame  
GENERAL MANAGER

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Lloyd's Register  
Foundation



4. 18061.

1939. July 20-27. Aug. 14-29. Sept. 27. Oct. 13-19. Nov. 3-10-16-23. Dec. 4-7-21-28-29. 1940. Jan. 4-8-9-11-15-16-17-22-24-30. Feb. 7-8-12-13-14-15-16-19-20-21-23-26-27-28-29. March 4-5-6-7-8-11-13-14-18-21-26-27-28. April 1-2-3-8-9-10-15-16-17-18-19-23-24-25-26-29-30. May 1-2-3-7-8-9-10-11-13-14-16-17-20-21-22-23-27-28-31. June 1-3-6-7-8-13-14-15-17-18-19-20-22-24-25-26-27-28-29. July 2-3-4-5-6-9-10-11-12-15-19.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits 501138

Dates of Examination of principal parts—Cylinders 9/1/40 - 19/4/40 Slides 9/1/40 - 19/4/40 Covers 9/1/40 - 19/4/40

Pistons 9/1/40 - 19/4/40 Piston Rods 15/1/40 - 25/4/40 Connecting rods 15/1/40 - 25/4/40

Crank shaft 15/1/40 - 8/4/40 Thrust shaft Intermediate shafts 14/3/40 - 22/5/40

Tube shaft Screw shaft 14/3/40 - 22/5/40 Propeller 24/5/40

Stern tube 17-5-40 Engine and boiler seatings 17-5-40 Engines holding down bolts 12-6-40

Completion of fitting sea connections 26-7-40

Completion of pumping arrangements 26-7-40 Boilers fixed 21-6-40 Engines tried under steam 26-7-40

Main boiler safety valves adjusted 25-7-40 Thickness of adjusting washers 21-6-40

Crank shaft material Sugar Steel Identification Mark 2305 AEG. Thrust shaft material Identification Mark

Intermediate shafts, material Sugar Steel Identification Marks 2460, 1, 2, 3, 4, 5 Tube shaft, material Identification Mark

Screw shaft, material Sugar Steel Identification Mark 2459 AEG. Steam Pipes, material Steel Test pressure 750 lbs Date of Test 20-5-40.

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F.

Have the requirements of the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. See engines and boilers of this vessel have been constructed under special survey and in accordance with the approved plans. The workmanship and materials have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery of this vessel be classed in the Register Book. L.M.C. T.40. H.S.B. (S.P.) F.D. C.L.

The amount of Entry Fee ... £ 6 : 0 : When applied for,

Special ... £ 107 : 0 : 19

When received,

Travelling Expenses (if any) £ : : 1940

Committee's Minute 16 AUG 1940

Assigned 7.40