

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report *Sept 1924* When handed in at Local Office

Received at London Office

Port of *HAMBURG*No. in Survey held at
Reg. Book.*TIEL*Date, First Survey *30th June*Last Survey *20th June 1924*

on the

Steel S.S. "IVAN GORTON"(Number of Visits *13*)

Built at

TIEL

By whom built

*HOWALDTSWERKE*Yard No. *647*Tons Gross *1578*Net *870*When built *1924*

Engines made at

TIEL

By whom made

*HOWALDTSWERKE*Engine No. *772*when made *1924*

Boilers made at

TIEL

By whom made

*HOWALDTSWERKE*Boiler No. *1287*when made *1924*Registered Horse Power *186*Owners *Federationsbolaget "SEFION"*Port belonging to *HELSINGBORG*Nom. Horse Power as per Rule *186*Is Refrigerating Machinery fitted for cargo purposes *no*Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines

*One triple expansion steam reciprocating engine*Dia. of Cylinders *18 1/2" 30 1/2" 47 1/2"*Length of Stroke *33 1/2"*Revs. per minute *80*No. of Cylinders *3*No. of Cranks *3*

Dia. of Crank shaft journals

as per rule *218 1/2"*as fitted *250"*Dia. of Crank pin *260"*

Crank webs

Mid. length breadth *37 1/2"*Mid. length thickness *160"*shrunken Thickness parallel to axis *160"*

Diameter of Thrust shaft under collars

as per rule *218 1/2"*as fitted *250"*

Diameter of Tunnel shaft

as per rule *236 1/2"*as fitted *238"*

Diameter of Screw shaft

as per rule *28 1/2"*as fitted *29 1/2"*fitted with a continuous liner the whole length of the stern tube *without*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 joints burned *yes*

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive *yes*If two liners are fitted, is the shaft lapped or protected between the liners *yes*

Is an approved appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated *yes**Cedervall's Patent*Length of Stern Bush *1200"*Diameter of Propeller *4100"*Pitch of Propeller *3500"*No. of Blades *4*State whether Moveable *no*Total Surface *5.55 sq. m.*No. of Feed Pumps fitted to the Main Engines *2*Diameter of ditto *70"*Stroke *42 1/2"*Can one be overhauled while the other is at work *yes*No. of Bilge Pumps fitted to the Main Engines *2*Diameter of ditto *70"*Stroke *42 1/2"*Can one be overhauled while the other is at work *yes*Total number and size of power driven Feed and Bilge Auxiliary Pumps *Feed: One duplex 150 x 100 x 150"*No. and size of Pumps connected to the Main Bilge Line *1 Super 200 x 260 x 250"**1 Super 230 x 160 x 250"**1 Fly wheel pump*No. and size of Ballast Pumps *1 Super 200 x 260 x 250"**1 Super 230 x 160 x 250"*No. and size of Lubricating Oil Pumps, including Spare Pump *yes*Are two independent means arranged for circulating water through the Oil Cooler *yes*

No. and size of suctions connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room *8 each of 66"**1 Com. Pump room of 60"*and in Holds, &c. *Forward 2 of 80"**aft 2 of 80"**From tanks: Fore peak 1 of 60"**Fore tank 1 of 80"**2 of 70"**4 of 60"**Aft tank 3 of 70"**2 of 60"**Aft peak 1 of 70"*No. and size of Main Water Circulating Pump Bilge Suctions *1 - 150"*

No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges *1 - 90"*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 connections with the sea direct on the skin of the ship *yes*Are they Valves or Cocks *Valves and cocks*Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes*Are the Discharge Pipes above or below the deep water line *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 are carried through the bunkers *Fore hold bilge suction*How are they protected *wooden casings*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 Screw Shaft Tunnel watertight *yes*Is it fitted with a watertight door *yes*worked from *cylinder platform*MAIN BOILERS, &c.—(Letter for record *258*)Total Heating Surface of Boilers *242 sq. m. 2604 sq. ft.*Is Forced Draft fitted *yes*No. and Description of Boilers *2 single end, multitubular*Working Pressure *13 kg. (185 lb.)*IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*IS A DONKEY BOILER FITTED? *no*If so, is a report now forwarded? *no*

PLANS.

Are approved plans forwarded herewith for Shafting *yes*Main Boilers *yes*Auxiliary Boilers *yes*Donkey Boilers *yes*General Pumping Arrangements *yes*Oil fuel Burning Piping Arrangements *yes*

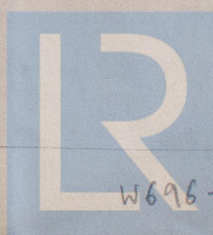
SPARE GEAR. State the articles supplied:—

*All spare articles as required by Section 37, page 87 of the
Rules (1923-24) have been supplied.*

The foregoing is a correct description,

HOWALDTSWERKE

Manufacturer.



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W696-0261

30/6 - 9/7 - 18/7 - 22/7 - 25/7 - 4/8 - 6/8/24.

During progress of work in shops - -

Dates of Survey while building

During erection on board vessel - -

Total No. of visits 13.

Dates of Examination of principal parts - Cylinders 30/6 - 22/7 - 6/8/24. Slides 18/6 - 25/7/24.

Covers 30/6 - 25/7 - 6/8/24. Pistons 25/7 - 4/8/24. Rods 22/7 - 6/8/24.

Connecting rods 22/7 - 6/8/24. Crank shaft 9/7 - 18/7 - 4/8/24. Thrust shaft 18/7/24 - 4/8/24.

Tunnel shafts 5/7 - 18/7 - 4/8/24. Screw shaft 18/7/24 - 4/8/24. Propeller 4/8/24 - 6/8/24.

Stern tube 26/7/24. Engine and boiler seatings 9/8/24. Engines holding down bolts 22/8/24.

Completion of pumping arrangements 26/8/24. Boilers fixed 19/8/24. Engines tried under steam 30/8/24.

Completion of fitting sea connections 6/8/24. Stern tube 6/8/24. Screw shaft and propeller 6/8/24.

Main boiler safety valves adjusted 30/8/24. Thickness of adjusting washers 46. Boilers. Forw. 38 3/4 aft 48 5/8 Superheated 19 1/2

Material of Crank shaft Steel. Identification Mark on Do. 3640 F.W. 4.8.24.

Material of Thrust shaft Steel. Identification Mark on Do. 3641 F.W. 4.8.24.

Material of Tunnel shafts Steel. Identification Marks on Do. 3642-43-44-45-46. F.W. 4.8.24.

Material of Screw shafts Steel. Identification Marks on Do. 3647 F.W. 4.8.24. Span. 3648 F.W. 4.8.24.

Material of Steam Pipes Steel. Test pressure 40 kg/cm². Date of Test 22/8/24.

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 carrying and burning oil fuel 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.)

Material and workmanship of engines and boilers are of good quality; the oil is accepted. The materials used in the construction are made at works recognized by the Committee and tested in conformity with the requirements of the Rules. Engines and boilers are built under Special Survey in accordance with the approved plans, the Society's letters E. 18/10/23 - 24/10/23 - 17/12/23 - 21/12/23 - 18/1/24 - 28/1/24 - 8/4/24, and otherwise in conformity with the Rules. I attended to a 6 hour trial trip when the machinery has given full satisfaction. It is eligible in my opinion for notification: L.M.C. 8.24. Tail shaft O.G.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.24. OG.

The amount of Entry Fee ... £ 3 : 0 : When applied for, Special ... £ 46 : 10 : 19 Donkey Boiler Fee ... £ - : - : When received, Travelling Expenses (if any) £ 15 : 0 : 6. 1924

Committee's Minute Assigned

TUES. 30 SEP 1924

+ LMC 8.24

O.G.

Friedrich Hill

Engineer Surveyor to Lloyd's Register of Shipping.

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