

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **10 NOV 1951**

Date of writing Report 12. October 1951 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Elsinore Date, First Survey 17. October 1950 Last Survey 27. September 1951

Reg. Book 40085 on the Steel S. TH. ADLER SVANHOLM (Number of Visits 55) Tons (Gross 3040.57 Net 1598.02)

Built at Elsinore By whom built Helsingørsk Skibsværft A/S Yard No. 304 When built 1951

Engines made at Elsinore By whom made Helsingørsk Skibsværft A/S Engine No. 446 When made 1951

Boilers made at Elsinore By whom made Helsingørsk Skibsværft A/S Boiler No. 1121 When made 1951

EXHAUST TURBINE 400 Owners Det Danske Maskinfabrik Port belonging to Copenhagen

Registered Horse Power 1350 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

Nom. Horse Power as per Rule 366 Trade for which vessel is intended Open sea service

ENGINES, &c.—Description of Engines Vertical compound (2HP, 1LP) and exhaust steam turbine Revs. per minute 115

Dia. of Cylinders HP: 2x400 1/4 LP: 1x600 1/4 Length of Stroke 950 1/4 No. of Cylinders 3-2HP, 1LP No. of Cranks 3

Crank shaft, dia. of journals as per Rule 264 3/4 Crank pin dia. 265 1/4 Crank webs Mid. length breadth 430 1/4 Thickness parallel to axis 165 3/4

as fitted 265 1/4 Mid. length thickness 165 1/4 shrunk Thickness around eye-hole 122.5 1/4

as per Rule 251 1/4 (Max. cut off in HP cyl. 45% of stroke) as per Rule 264 3/4

Intermediate Shafts, diameter as fitted 273 1/4 Thrust shaft, diameter at collars as fitted 275 1/4

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner No

as fitted 309 1/4 at top of cone 280 1/4 at coupling as per Rule

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted 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 yes

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 yes

If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube yes

at yes If so, state type Cedervall's patent oil gland Length of Bearing in Stern Bush next to and supporting propeller 1270 1/4

Propeller, dia. 3964 1/4 Pitch 2734 1/4 No. of Blades 4 Material bronze whether Moveable No Total Developed Surface 5.64 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 110 1/4 Stroke 250 1/4 Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 110 1/4 Stroke 250 1/4 Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 2 off simplex 8 1/2 x 6 x 13 1/2 Pumps connected to the Main Bilge Line { No. and size 1 off 170 5/8 (ballast) 1 off 25 1/8 (sea vent) 2 off 6 1/2 3 off 1/2

How driven steam How driven steam steam main eng

Ballast Pumps, No. and size 1 off duplex 10 x 11 x 10 - 170 5/8 Lubricating Oil Pumps, including Spare Pump, No. and size 1

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 3 off 75 1/4 + direct suction

In Pump Room 1 In Holds, &c. Hold I: 2 off 90 1/4, Hold II: 2 off 90 1/4

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 off 140 1/4 Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size 1 off 100 1/4 ballast 1 off 65 1/4 sea vent

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 Valves except both blow off cocks

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 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 None How are they protected yes

What pipes pass through the deep tanks yes Have they been tested as per Rule yes

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 No tunnel Is it fitted with a watertight door yes worked from yes

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3914 sq. feet 363.6 m²

Which Boilers are fitted with Forced Draft Both boilers Which Boilers are fitted with Superheaters Both boilers

No. and Description of Boilers 2 off single ended return multibutler Working Pressure 220 lbs/sq. in. 15.5 kg/cm²

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? yes

Can the donkey boiler be used for other than domestic purposes yes

PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes

(If not state date of approval)

Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

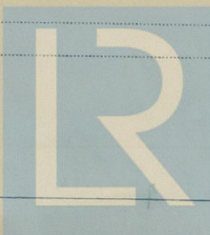
State the principal additional spare gear supplied yes

The foregoing is a correct description.

HELSINGØR SKIBSVÆRFT OG MASKINBYGGERI

AKTIESELSKAB

Manufacturer.



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003092-003099-0058

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts - Cylinders

Pistons

Crank shaft

Tube shaft

Stern tube

Piston Rods

Thrust shaft

Screw shaft

Engine and boiler seatings

Slides

Connecting rods

Intermediate shafts

Propeller

Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Main boiler safety valves adjusted

Crank shaft material

Intermediate shafts, material

Screw shaft, material

Is an installation fitted for burning oil fuel

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

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

General Remarks (State quality of workmanship, opinions as to class, &c.)

and installed on board under special survey in accordance with the Rules, the approved plans and the Secretary's letters E dated 3/11-15/11-22/12/50

The material has been tested as required by the Rules and the workmanship is good.

The machinery tested under working conditions at a basin trial and on the trial trip and found satisfactory

The service IHP is 1300 at 105 Revs/min, speed 11 knots

An interim certificate issued as per copy enclosed.

Recommend the vessel's machinery to have notation of LMC-9.51 220 lbs. 04. LP turbine with S.R. gearing and chain drive. Strengthened for navigation in ice.

The amount of Entry Fee	£	:	When applied for,
Special	26.96	:	1/11 19.51
Donkey Boiler Fee	£	:	When received,
Travelling Expenses (if any)	2.67	:	19.

Date

Committee's Minute

FRI. 30 NOV 1951

+ LMC 9.51

FD. 25B 220/6 Spt.



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