

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

6 - JUN 1930

Date of writing Report 3 June 1930 When handed in at Local Office 19

Port of Stockholm

No. in Survey held at Stockholm
Reg. Book.

Date, First Survey 8 Jan. 1930

Last Survey 31 May 1930

(Number of Visits 10)

Gross 701

Net 251

on the Steel Sc. Wingo

Built at Stockholm By whom built Aktiel. Finnboda Varv

Yard No. 312

When built 1930

Engines made at Elsinore

By whom made H.S. Helsingfors Jernskips-og Maskinfabrik

Engine No. 272

when made 1930

Boilers made at "

By whom made "

Boiler No. 771

when made 1930

Registered Horse Power 775 HP

Owners Stockholms Rederiaktiel. Selsk.

Port belonging to Stockholm

Nom. Horse Power as per Rule 150

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion with surface condensing.

Dia. of Cylinders $6\frac{1}{2} \times 27 \times 44$ Length of Stroke 30" Revs. per minute 154 $\frac{1}{2}$ No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule $8\frac{1}{2}$ as fitted 9.0 Dia. of Crank pin 9 Crank webs Mid. length breadth 33" Thickness parallel to axis $5\frac{3}{4}$
 Mid. length thickness $5\frac{3}{4}$ shrunk Thickness around eye-hole $4\frac{1}{2}$
 Diameter of Thrust shaft under collars as per rule $8\frac{1}{2}$ as fitted 9.0 Diameter of Tunnel shaft as per rule 8.4 as fitted 8.5 Diameter of Screw shaft as per rule $10\frac{3}{8}$ as fitted $10\frac{3}{8}$ Is the Screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made watertight in the propeller boss

If the liner is in more than one length are the joints burned 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

If two liners are fitted, is the shaft lapped or protected between the liners Is an approved appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated yes Federals oil retaining gland fitted Length of Stern Bush 42" Diameter of Propeller 11'-6"

Pitch of Propeller 10'-6" No. of Blades 4 State whether Movable no Total Surface 42.5 square feet.

No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto $3\frac{1}{2}$ Stroke $7\frac{1}{2}$ Can one be overhauled while the other is at work yesNo. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto $3\frac{1}{4}$ Stroke $7\frac{1}{2}$ Can one be overhauled while the other is at work yesTotal number and size of power driven Feed and Bilge Auxiliary Pumps one donkey pump $6 \times 4 \times 6$ one ballast pump $7\frac{1}{2} \times 7\frac{1}{2} \times 9\frac{1}{2}$ No. and size of Pumps connected to the Main Bilge Line one $6 \times 4 \times 6$ one $7\frac{1}{2} \times 7\frac{1}{2} \times 9\frac{1}{2}$ two engine bilge pumpsNo. and size of Ballast Pumps one $7\frac{1}{2} \times 7\frac{1}{2} \times 9\frac{1}{2}$ No. and size of Lubricating Oil Pumps, including Spare Pump

Are two independent means arranged for circulating water through the Oil Cooler No. and size of suction connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 2 off $2\frac{3}{4}$, 2 off $2\frac{1}{2}$ and in Holds, &c. fore hold 2 off $2\frac{1}{2}$, after hold 2 off $2\frac{1}{2}$ Tunnel well 1 off $2\frac{1}{2}$ FP tank 1 off $2\frac{1}{2}$ No 1 DB tank 1 off $2\frac{1}{2}$ No 2 DB tank 4 off $2\frac{1}{2}$ No 3 DB tank 2 off $2\frac{1}{2}$ No 4 DB tank4 off $2\frac{1}{2}$ No 5 DB tank 1 off $2\frac{1}{2}$ AP tank 1 off $2\frac{1}{2}$ No. and size of Main Water Circulating Pump Bilge Suctions 1 off $4\frac{1}{2}$ No. and size of Donkey Pump Direct Suctionsto the Engine Room Bilges 1 off $2\frac{3}{4}$ 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, except boiler blow off cock.

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 none How are they protected

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 grating level with top of engine.

MAIN BOILERS, &c.—(Letter for record A) Total Heating Surface of Boilers 2692 square feet

Is Forced Draft fitted no No. and Description of Boilers 2 off single ended return multi tub. Working Pressure 200 lbs per sq. inch

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes, see Lpn. report no. 8153

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

PLANS. Approved plans forwarded herewith for Shafting yes Main Boilers none Auxiliary Boilers none Donkey Boilers none

(If not state date of approval)

General Pumping Arrangements Oil fuel Burning Riping Arrangements

SPARE GEAR. State the articles supplied:—

1 set of connecting rod top end bolts and nuts, 2 connecting rod bottom end bolts

and nuts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed pump valves, 1 set of bilge pump valves, 1 set of

HP, 1 set of IP, 1 set of LP piston rings, 1 pair of connecting rod bottom end brasses, 1 set of crosshead brasses, 1

eccentric strap complete, 1 air pump rod, 1 slide valve spindle, 1 set of packing rings for HP slide valve and 1 set

for IP slide valve (rough turned), 2 main feed check valves, 2 auxiliary feed check valves, 2 cylinder cover and

valve chest studs and nuts, 2 junking bolts, 1 crosshead shoe, 1 set of air pump valves, 12 plain boiler tubes,

4 stay tubes, 25 condenser tubes, 50 screw ferrules, 2 springs for the safety valves of the boilers, 1 set of fire bars,

6 water gauge glasses, 1 steel propeller, a quantity of assorted bolts and nuts, iron of various sizes, 1 piston rod

and 1 pair of connecting rod brasses, 1 pair of crosshead brasses for the circulating pump steam engine, 1 impeller

shaft for the circulating pump.

The foregoing is a correct description,

Manufacturer.



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004534-004540-0042

During progress of work in shops - - *See Copenhagen Report no. 8153*

Dates of Survey while building

During erection on board vessel - - - *8 & 14 8 & 14 22 & 26 13, 14, 27 & 31 1930*

Total No. of visits *during erection on board vessel 10.*

Dates of Examination of principal parts - Cylinders * *see foot note*

Covers * Pistons * Slides *

Connecting rods * Crank shaft * Rods *

Tunnel shafts *19 29 8 & 14 30* Screw shaft *28 29 8 & 14 30* Thrust shaft * *14 14 30*

Stern tube *8 & 14 30* Engine and boiler seatings *8 & 14 30* Propeller *14 14 30*

Completion of pumping arrangements *13 5 30* Boilers fixed *13 5 30* Engines holding down bolts *22 & 26 4 30*

Completion of fitting sea connections *8 3 30* Stern tube *8 3 30* Engines tried under steam *27 & 31 5 30*

Main boiler safety valves adjusted *31 5 30* Thickness of adjusting washers *St. B. fore 18.5 mm. aft 17 mm. Port B. fore 18.5 mm. aft 19.5 mm.* Screw shaft and propeller *8 3 30*

Material of Crank shaft * Identification Mark on Do.

Material of Thrust shaft * Identification Mark on Do.

Material of Tunnel shafts *Siemens Martin Steel* Identification Marks on Do. *LLOYD'S No 56-57 FS 19.11.29.*

Material of Screw shafts *Siemens Martin Steel* Identification Marks on Do. *LLOYD'S No 56 FS 28.11.29.*

Material of Steam Pipes *Siemens Martin Steel* Test pressure *600 lbs.* Date of Test *13 & 14 5 30.*

Is the flash point of the oil to be used over 150°F. ✓

Is an installation fitted for burning oil fuel

Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *3 Wajrs of Stockholm, bpn. report no. 7580.*

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

This machinery has been built under the special survey of the Copenhagen Surveyors - see bpn. Report no. 8153 - and has now been fitted on board under my supervision and to my satisfaction. The plan of the two tunnel - and the propeller shafts has been approved on the 17th Oct. 1929 by Mr. C. M. in the London Head Office, and the forgings of the three shafts have been inspected by Mr. F. Schnell when rough turned, as per his forging reports, dated Düsseldorf, for the two tunnel shafts the 21 Nov. and for the propeller shaft the 3 Dec. 1929. These shafts have now been examined, when finished, and found sound and free from defects. The plan of these shafts appears to be re-confirmed in the London Head Office. The machinery has been tried under full steam at a preliminary trial by the Finnboda Yard on the 27th May and at the trial trip of delivery to the Owners on the 31st same month, when it was found to work to my entire satisfaction in every detail, inclusive of all pumps, steering engine and other auxiliary machinery. I have respectfully to submit that this machinery be classed ***LMC 5.30** and Elec. Light.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.30 O.G.

10/6/30

Remaining part, *1/5*

The amount of Entry Fee ... *10: 92* : When applied for, *4 June 1930*

Remaining part, *1/5* Special ... *2 138: 32* : When received, *19*

Donkey Boiler Fee ... *£* :

Travelling Expenses (if any) *£ 23: 15* :

Total *172: 39*

Committee's Minute WED. 11 JUN 1930

Assigned

* see bpn. report no. 8153.

CERTIFICATE WRITTEN

A. J. Erikson
Engineer Surveyor to Lloyd's Register of Shipping.
Resisted by Mr. K. J. Andersson



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