

REPORT ON MACHINERY.

No. 6586

Received at London Office

Date of writing Report 20th Oct. 1926 When handed in at Local Office 26th Oct. 1926 Port of Gothenburg
 No. in Survey held at Gothenburg, Thorskog Date, First Survey 19th Decem. 1917 Last Survey 19th October 1926
 Reg. Book. 65993 on the Steel single screw steamer "SOLSKIN" (Number of Visits 19) Gross Tons 381
 Master ✓ Built at Thorskog By whom built P. Larsson when made 1926
 Engines made at Thorskog By whom made P. Larsson when made 1926
 Boilers made at Thorskog By whom made P. Larsson when made 1926
 Registered Horse Power ✓ Owners 4/5 SOLSKIN Port belonging to Oslo
 Nom. Horse Power as per Section 28 32.6 33 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines One Compound Engine No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 15 9/16 & 24 3/8" Length of Stroke 17 1/2" Revs. per minute 116 Dia. of Screw shaft 6 1/2" Material of screw shaft L.M. Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight
 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 a plastic material insoluble in water and non-corrosive ✓ If two
 liners are fitted, is the shaft lapped or protected between the liners ✓ Cedewadi Oil Gland fitted Length of stern bush 29"
 Dia. of Tunnel shaft 5.25" Dia. of Crank shaft journals 5.78" Dia. of Crank pin 6" Size of Crank webs 3 3/8" x 12" Dia. of thrust shaft under
 collars 6 3/32" Dia. of screw 7-6" Pitch of Screw 8-0" No. of Blades 4 State whether moveable No Total surface 29 square feet
 No. of Feed pumps 1 Diameter of ditto 2 7/16" Stroke 8 1/4" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2 7/16" Stroke 8 1/4" Can one be overhauled while the other is at work ✓
 of Donkey Engines 2 Sizes of Pumps 150 x 100 x 150 & 135 x 90 x 125 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Two 2 1/2" In Holds, &c. Three 2 1/2"

of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Cond. Is a separate Donkey Suction fitted in Engine room & size One 3"
 all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
 all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 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
 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
 if pipes are carried through the bunkers Bilge pipes to fore hold How are they protected Fitted below ceiling
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

MAKERS, &c.—(Letter for record 5) Manufacturers of Steel Mannemannsche Maschinen-Fabrik AG, Essen, Germany 158

Heating Surface of Boilers 690 sq. ft. Is Forced Draft fitted No No. and Description of Boilers One cylindrical multitubular
 Working Pressure 120 lbs./sq. in. Tested by hydraulic pressure to 230 lbs./sq. in. Date of test 24/11/20 No. of Certificate 169
 each boiler be worked separately ✓ Area of fire grate in each boiler 30 sq. feet No. and Description of Safety Valves to
 boiler Two spring loaded Area of each valve 59 sq. inch Pressure to which they are adjusted 123 lbs./sq. in. Are they fitted with easing gear Yes
 least distance between boilers or uptakes and bunkers or woodwork 19" Mean dia. of boilers 8'-6" Length 8'-6" Material of shell plates Steel
 thickness 1/16" Range of tensile strength 43.1-43.2 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double riv.
 seams Double but straps Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 1/2" Lap of plates or width of butt straps Steel
 advantages of strength of longitudinal joint 86 Working pressure of shell by rules 139 lbs./sq. in. Size of manhole in shell 12" x 16"
 compensating ring 6" x 16" No. and Description of Furnaces in each boiler 2 corrugated Material Steel Outside diameter 2'-6"
 of plain part top Thickness of plates bottom 5/8" Description of longitudinal joint welded No. of strengthening rings ✓
 working pressure of furnace by the rules 336 lbs./sq. in. Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16"
 of stays to ditto: Sides 8 3/4" Back 8 3/4" Top 6" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 139 lbs./sq. in.
 material of stays Steel Area at smallest part 1.5 sq. inch Area supported by each stay 78.5 sq. inch Working pressure by rules 153 lbs./sq. in. End plates in steam space:
 material Steel Thickness 3/4" Pitch of stays 12 3/8" x 12 3/8" How are stays secured Double nuts, welded Working pressure by rules 191 lbs./sq. in. Material of stays Steel
 at smallest part 3.14 sq. inch Area supported by each stay 166 sq. inch Working pressure by rules 196 lbs./sq. in. Material of Front plates at bottom Steel
 thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays to per plan Working pressure of plate by rules ✓
 pitch of tubes 3 1/4" Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 12 3/4"
 across wide water spaces 13" Working pressures by rules 120 lbs./sq. in. Girders to Chamber tops: Material Steel Depth and
 mass of girder at centre 4 1/2" x 1 1/2" Length as per rule 19" Distance apart 6 1/2" x 7" Number and pitch of stays in each Two, 6"
 working pressure by rules 208 lbs./sq. in. Steam dome: description of joint to shell None % of strength of joint ✓
 Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓
 rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed 2019
 REHEATER. Type None Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓
 of Test ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓
 diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

U128-0.151

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:— 2 connecting rod top-end bolts and nuts, 2 connecting rod bottom-end bolts and nuts, 2 main-bearing bolts and nuts, 1 set of coupling bolts and nuts, 1 set of feed and bilge pump valves, 1 set of check valves, 1 set of HP & LP piston springs, 1 propeller, 6 boiler tubes, 1 condenser tubes, A quantity of assorted bolts and nuts, Iron of various sizes,

The foregoing is a correct description,

P. Harsson

Edwin Nilsson

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1917 Dec 12, 1918 Feb 14, March 12, May 25, 1920 March 1, 16, May 20, July 12, 14, Nov 24, 1921 Jan 25.
During erection on board vessel -- 1920 Dec 9, 1926 June 14, 28 Oct 9, 11, 15, 18, 19
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith? No. Approved 9/12/17

Dates of Examination of principal parts—Cylinders 25/5/18, 20/5/20 Slides 1/3/20 Covers 1/3/20 Pistons 20/5/20 Rods 1/3/20
Connecting rods 1/3/20 Crank shaft 24/11/20, 15/10/26 Thrust shaft 18/7/20, 15/10/26 Tunnel shafts 24/11/20 Propeller 24/11/20
Stern tube 14/7/20 Steam pipes tested 25/1/21 Engine and boiler seatings 24/11/20 Engines holding down bolts 25/1/21
Completion of pumping arrangements 14/6/26 Boilers fixed 25/1/21 Engines tried under steam 9 & 11/10/26 & 18/10/26
Completion of fitting sea connections 9/12/20 & 28/6/26 Stern tube 23/11/20 Screw shaft and propeller 9/12/20 & 28/6/26
Main boiler safety valves adjusted 11/10/26 Thickness of adjusting washers 3589, 1339-1340 A1

Material of Crank shaft L.H. Steel Identification Mark on Do. 24.11.20 JK Material of Thrust shaft L.H. Steel Identification Mark on Do. 28.5.20 AS, 12.7.20 VA

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts L.H. Steel Identification Marks on Do. 3590, 24.11.20 JK

Material of Steam Pipes Copper Test pressure 240 lbs/p

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

Have the requirements of Section 49 of the Rules been complied with Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel "Ester" now named "Chrysallis"

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

The machinery of this vessel has been built under Special Survey and all the requirements of the Rules have been complied with.

The cylinders have been tested by hydraulic pressure to 180 & 45 lbs/p respectively.

The material of the boiler has been tested by the surveyors to the Bureau Veritas.

The shell of the boiler is made of one plate and not of four as shown on the approved plan.

The forgings have been tested and examined in accordance with the requirements of the Rules, partly by Mr. J. H. Kay, late surveyor at this port.

The workmanship is good.

Date of build see Secretary's letter initialed S of the 28th July 1926.

The machinery of this vessel is worthy in my opinion to be classed in the Register Book of this Society with the notation of LHC 10.26 being in a good and safe working condition at a working pressure of 120 lbs/p

The amount of Entry Fee ... £h. : 36:40 When applied for, 20th Oct 1926
Special ... £h. 273:00
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, 28-10-26

Engine Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 5 NOV 1926

Assigned

+ LHC 10:26
09.

CERTIFICATE WRITTEN



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