

Rpt. 4.

Attached to Baltimore Report No. 2055
REPORT ON MACHINERY. No. 1602

Date of writing Report 28 Sept. 1916 When handed in at Local Office

Received at London Office

MON. 9-OCT. 1916

Port of Stockholm

No. in Survey held at Stockholm
Reg. Book.

Date, First Survey 30 Nov. 1915 Last Survey 13 Sept. 1916

(Number of Visits 20)

Gross 3253

Net 2025

When built 1917.

when made 1916

when made 11548/51

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 30/11, 22/12, 1915, 31/1, 25/2, 28/2, 16/3, 30/3, 3-6, 25/29, 9/4, 15, 3/6, 15, 20/25, 13/1916
During erection on board vessel ---
Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 25/1916, Silencers 25/16, Covers 25/16, Pistons 25/16, Propeller 25/16
Connecting rods 25/16, Crank shaft 25/16, Thrust shaft 25/16, Tunnel shafts, Screw shaft, Engines holding down bolts

Stern tube, Steam pipes tested, Engine and boiler seatings, Engines tried in shop 20.7.1916
Completion of pumping arrangements, Boilers fixed, Injection air receiver, Thickness of adjusting washers 13/16
Main boiler safety valves adjusted 13/16, Days no. 2328, Lloyd's no. 2288, Skm. 25.7.16

Material of Crank shaft S.M.S. Identification Mark on Do. No. 25.7.16
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Pipes Solid drawn copper, Test pressure 60 lb. per sq. inch, 50 lbs. per sq. inch
Is an installation fitted for burning oil fuel, Is the flash point of the oil to be used over 150° F.

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

Is this machinery duplicate of a previous case? If so, state name of vessel see Rep. no. 1594.

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

Material of Compressor Crank shaft S.M.S. Identification Mark on do Lloyd's no. 2288, Skm. 25.7.16

ort of Stockholm

Continuation of Report No. 1602 dated 28th Sept. 1916 on the

BOLINDER 500 B. H. P. motor, Cyl. Nos 11548/51

The designs of the crank & thrust shafts and the connecting rods of this type and size of Bolinder Motor have been submitted and approved (See Secretary's letter 12.5.16 & 21.10.15).

These shafts and connecting rods have been manufactured at the Sandviken and Björneborg Steel Works in accordance with the Rules. They have been inspected while being roughturned and finished and found good and sound. Their materials have been tested by the undersigned and found to fill the Rule Requirements.

The cylinders, of cast iron, have been examined and found sound. Thickness of cylinderwalls stated to be 32 mm. and of waterjackets 18 mm. Cylinders tested with hydraulic pressure to 529 lbs per sq. inch or twice the working pressure of 18 Atm. and found tight. They have been marked on upper flange of each cylinder: Lloyd's Test 529 lbs 25.7.16. Their waterjackets have been tested to 50 lbs and found tight.

The compressor cylinders (2 stage) and their waterjackets have been tested: H. P. cyl. to 60 Atm., L. P. cyl. to 16 Atm., or twice the resp. working pressures, and waterjackets to 50 lbs and all found tight.

The starting air receiver, of low tensile S. M. S. plates, lapwelded by the ordinary "water gas" method, is manufactured at the Avesta Steel Works, who have also manufactured and rolled the steel. Length of receiver 2515 mm.; outside diam. 600 mm., platethickness 9 mm. Plan submitted and approved (See Secretary's letter E. 3.3.16). The steel material has been tested by the undersigned and found good, and the receiver been tested by me with hydraulic pressure to 24 Atm. or twice the working pressure and found sound and tight. It has been stamped as follows:

Lloyd's Test 24 Atm.
Working Pr. 12 Atm.
No. 2071 Skm. 13.9.16 A

The injection air receiver, of low tensile S. M. S. tube, is manufactured at the Avesta Steel Works, who have also manufactured the steel. Length of receiver 1400 mm., outside diam. 230 mm., platethickness 7 mm. Plan submitted and approved (See Secretary's letter E. 6.12.15). The material has been tested by the undersigned and found good, and the receiver tested by me with hydraulic pressure to 30 Atm. or twice the working pressure and found sound and tight. It has been stamped as follows:

Lloyd's Test 60 Atm.
Working Pr. 30 Atm.
No. 2076 Skm. 13.9.16 A

The motor has been tried in shop under full power in my presence and found to give an effect at normal load and 160 revolutions of 500 B. H. P. It has also been tried with a continuous overload at 550 B. H. P. and found to work well.

The Society's Rules with regard to the details of construction, fitting of valves, lubrication, accessibility, etc., have been adhered to so far as concerns the motor itself. The remaining requirements will have to be attended to at the fitting of the motor in ship, if a classed vessel.

I am of opinion, that this motor is of superior material and workmanship, and as it has been designed and constructed under my special survey, I have respectfully to submit, that it will be eligible to be classed. The special certificate, has enclosed, dated 19th Sept. 1916, be stamped and returned to this Office (See Secy's letter E. 25.1.1916 and my letter E. 5.2.16)

A. G. Gakson
Engineer Surveyor to Lloyd's Register of Shipping.
Assisted by Mr. V. Schreil

This Engine installed as Starb^d Engine on Twin Screw Motor Vessel "Holden Evans" Baltimore Report No 2055

H. A. Stewart

A. G. Gakson
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
Assisted by Mr. V. Schreil

The amount of Entry Fee ... £ : : When applied for.
Special arrangement with the Bolinder firm 17:12:10 19 Sept. 1916
Donkey Boiler Fee ... £ : : When received.
Travelling Expenses (if any) £ : : Sub. of 10/-

Committee's Minute New York MAR 22 1917
Assigned See Balto J.C. Rpt on Mchry