

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 -- 28/9 1916; 1x 27/2; 4, 6x 14/5; 5, 14, 20x 28/6; 30/7; 16x 21/8; 5/10; 3, 7, 8, 23x 28/11 1917. During erection on board vessel --- 19. Total No. of visits 19. Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Cylinders 3x 8/11 1917; Slides 3x 8/11 1917; Covers 3x 8/11 1917; Pistons 3x 8/11 1917; Connecting rods 5/10; 5, 14x 28/6; 2/8; 1x 27/2; 14/6; Crank shaft 3, 8x 28/11 1917; Thrust shaft 3, 8x 28/11 1917; Tunnel shafts; Screw shaft; Propeller; Silencers 3x 8/11 1917; Compressor Crank Rods 28/9 1916; 3, 8x 28/11 1917.

Completion of pumping arrangements; Engines holding down bolts; Engines tried in shop under steam 3.11.1917.

Completion of fitting sea connections; Starting air receiver; Main boiler safety valves adjusted 23.11.1917; Stern tube; Injection air receiver; Thickness of adjusting washers 23.11.1917.

Material of Crank shaft S.M. Steel; Identification Mark on Do. Lloyd's No. 2620; Material of Thrust shaft S.M. Steel; Identification Mark on Do. Lloyd's No. 215.

Material of Tunnel shafts; Identification Marks on Do.; Material of Screw shafts; Identification Marks on Do.; Material of Steam Pipes solid drawn copper; Test pressure 60 Atm.; Silencers cast iron; 50 lbs. per square 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 Yes; If so, state name of vessel (Skm. report no. 1451).

General Remarks (State quality of workmanship, opinions as to class, &c. (See appended sheet)); Material of compressor crank shaft S.M. Steel. Identification mark on ditto Lloyd's No. 8.11.17.

Table with columns: The amount of Entry Fee, Special for survey, Donkey Boiler Fee, Travelling Expenses (if any), When applied for, When received.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute; Assigned; See Lia Rpt 2537; FRI. 25 MAY. 1923.



of *Stockholm*

CYLINDER 240 B. H. P. motor, Cyl. Nos *13097/00.*

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 *S. E. 19.2.15 & 2.10.15*).

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 *26* mm. and of waterjackets *14* 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. *23.11.17.* A 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 sp. 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 *2000* mm.; outside diam. *450* mm., platethickness *8* mm. Plan submitted and approved (See Secretary's letter *E. 8.3.16.*). The steel material has been tested by the undersigned and found good, and the receiver been tested by me with hydraulic pressure to *30* Atm. or twice the working pressure and found sound and tight. It has been stamped as follows:

Lloyd's Test	<i>30</i>	Atm.
Working Pr.	<i>15</i>	Atm.
No. <i>2149</i>	Skm. <i>23.11.17.</i>	A

The injection air receiver, of solid drawn S. M. S. tube, is manufactured at the Avesta Steel Works from tube, manufactured at the Storfors Steel Works. Length of receiver *1265* mm., outside diam. *152* mm., platethickness *4.5* mm. Plan submitted and approved (See Secretary's letter *E. 2.15*). The material has been tested by the undersigned and found good, and the receiver tested by me with hydraulic pressure to *60* Atm. or twice the working pressure and found sound and tight. It has been stamped as follows:

Lloyd's Test	<i>60</i>	Atm.
Working Pr.	<i>30</i>	Atm.
No. <i>2150</i>	Skm. <i>23.11.17.</i>	A

The motor has been tried in shop under full power in my presence and found to give an effect at normal load and *250* revolutions of *and found to work well. No overload test has been carried out, due to the present scarcity of oil.*
240 B. H. P. ~~It has also been tried with a continuous overload at~~ 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 ***LMC**, as soon as it has been fitted in a classed vessel to the satisfaction of the Society's Surveyors.

O. Bakson
Engineer Surveyor to Lloyd's Register of Shipping.

RETAIN

W425-0106 (2/2)



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