

# Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office) WED. MAY 14 1913

of writing Report *May 1913* When handed in at Local Office *12<sup>th</sup> May 1913* Port of *Greenock*

Survey held at *Greenock* Date, First Survey *5<sup>th</sup> Oct 1912* Last Survey *12<sup>th</sup> May 1913*  
 on the Machinery of the *Wood, Iron or Steel* *Oil Engine Vessel "Tordonian"* Master *J.C.*

Gross Vessel built at *Port Glasgow* By whom *Clyde S.B. Eng. Coy. Ltd.* When *1912*  
 Net Engines made at *Port Glasgow* By whom *Clyde S.B. Eng. Coy. Ltd.* When *1912*  
 Boilers, when made (Main) *(Donkey) 1912*  
 Owners *Isle of Lewis Linn. (S.W. Norcross & Co. Managers)* Port *Glasgow* Voyage *Canada*  
 If Surveyed Afloat or in Dry Dock *James Watt*  
 (State name of Dock.)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER, for Special Survey, Date of last Survey and of Periodical Surveys.	Year Assessed for Special Survey.	Machinery and Boiler Surveys (including date of N.B., if any).

Report No. \_\_\_\_\_ Port \_\_\_\_\_  
Particulars of Examination and Repairs (if any) *Completion 9<sup>th</sup> Entry*

Special Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and those being detailed in the body of the report, should be briefly summarised at the end of the report. State also the date and initials of any letters respecting this case.

Where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined?  
Was a damage report made by anyone else? If so, by whom?

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time?  
" Donkey " " " "

Where any part was not done, state for what reasons?

What parts of the Boilers could not be thus thoroughly examined?  
What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler?

Did the Surveyor examine the Safety Valves of the Main Boiler? To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine the Safety Valves of Donkey Boiler? To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? , and of the Donkey Boiler?

Did the Surveyor examine the drain plugs of the Main Boilers? , and of the Donkey Boiler?

Did the Surveyor examine all the mountings of the Main Boilers? or is it without liners?

Has the screw shaft now been drawn and examined? Is it fitted with continuous liner? or two liners? or is it without liners?

Has the screw shaft now been changed? If so, state reasons. Has it a continuous liner? or two liners? or is it without liners?

What is the distance between lignum vitae of stern bush and top of after bearing of screw shaft?

Where the survey is not complete state what arrangements have been made for its completion and what remains to be done?

*This vessel sailed for Canada on the 28 Sept. last and after being some days out, put back to the Clyde owing to an accident to the main compressor crank pin bushes. On her arrival an examination showed that the compressor bushes had been hot, that one cylinder cover was cracked, and the the ridge pump suction had been allowed to get choked with waste. At that time the following work was done: The white metal of the main compressor bushes was renewed, a new cylinder cover was fitted, the ridges and pipe connections were overhauled and cleaned, an additional ridge pump suction pipe was fitted, the ridge well was extended forward to embrace the whole length of the engine room, the valves in connection with this part were made non-return in their action; and the 8 dia ridge suction to the Ballast pump was carried down into the well. A few minor alterations were also made and several of the*

*General Observations, Opinion, and Recommendation:— The machinery of this vessel is now in good and efficient condition, and in view of the satisfactory nature of the trial on my own opinion eligible to have the record of + L.M.C. 5, 13 marked in the Society's Register Book.*

Fees applied for *27. 11. 1912* *GPH*  
 Received by me *30. 11. 1912*  
 Damage or Repair Fee (if any) *£ 2. 2.*  
 Expenses (if chargeable) *£*  
 John H Heck & Wm. Austin  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute  
 Signed *L.M.C. 5, 13*  
 GLASGOW 13 MAY 1913  
 MACHINERY CERTIFICATE WRITTEN 13/5/13  
 W297 - 0070 1/2



Oil Engine Vessel "Tordoman"

the working parts were overhauled. When the vessel sailed in September last certain articles of spare gear were short shipped not having arrived from Ghent. These were put on board to complete the list of spare gear originally approved. viz: One fuel valve and chest complete, two rollers and pins for fuel valves, four plungers for fuel pumps, four liners for fuel pumps, four brass gland nuts, two suction and two delivery valves for fuel pumps, one spring for Air Stop valve, 2 Rollers and pins for scavenging valves, & one intermediate lever.

It was recommended in view of the nature of the accident, that the articles of spare gear should be augmented, and a thorough full power test be made of the machinery.

Meanwhile as the season was far advanced and the St. Lawrence would become closed by ice before the vessel could arrive there, the owners decided to lay her up for the winter at Greenock.

The Committee confirmed the foregoing recommendations as to the supply of additional spare gear and tests of the machinery and in accordance with their instructions the undersigned recently witnessed a 2 1/2 hours trial of the main engines. During this period they were kept working at from 95 to 96 revolutions per minute and the trial proved thoroughly satisfactory in every respect.

Immediately thereafter a trial of the main engines was made the compressed air being supplied by the Auxiliary Compressor, the main Compressor being shut off. This trial which lasted for about 5 1/2 hours did not prove satisfactory owing to an insufficient supply of steam. (This lack of steam was presumably caused by a defect in the liquid fuel firing arrangements which has since been put right.) At a subsequent trial <sup>made 12/5/13</sup> in dock under the same conditions viz: with the Auxiliary Compressor supplying the air and the main Compressor shut off, the main engines were kept working at an average speed of 69 revolutions per minute for 4 hours. This test was considered satisfactory.

The following articles of spare gear in addition to those originally approved have now been put on board. Some have been supplied by the owners; others are those proposed by the builders and embrace the items mentioned in the Chief Engineer Surveyors Minute of the 9/5/13 relating to this case. 1 H.P. Conn. Rod for main Compressor, 1 L.P. Conn. Rod for main Compressor, 1 H.P. Conn. Rod for Auxiliary Compressor, 1 L.P. Conn. Rod for Auxiliary Compressor, 4 Pistons for main engines, 16 Piston Rings for main engines, 4 Brass <sup>bilge suction</sup> valves, 1 Cast Iron Cylinder Cover, 4 Cast Steel Cylinder Covers, 4 Starting valves, 4 Safety valves, 4 Gads for Construction valves, 4 Joints for Construction valves, 4 Plugs for Construction valves, 4 Sleeves for Construction valves, 4 Submerging pumps for fuel valves, 4 2 lbs of Delta White Metal. Gear for melting and fitting same. 1 H.P. Cooling Coil for main Compressor, 1 Complete set packing rings <sup>of each size</sup> for each Compressor, 1 set of Brasses & Coupling Rings for Compressor Connecting Rods for each Compressor & 3/4 lb White metal and other small gear.

John H. Heck.

Wm. R. Austin

