





Working pressure by Rules 224 LBS. Are the stays drilled at the outer ends No. Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8" No. of threads per inch 9 Area supported by each stay 110.25 Working pressure by Rules 192 LBS. Tubes: Material IRON External diameter { Plain 3 1/4" Stay 3 1/4" Thickness 8 W.G. 1/4", 5/16" No. of threads per inch 9 Pitch of tubes 4 1/2" x 4 3/4" Working pressure by Rules 230 LBS. Manhole compensation: Size of opening shell plate 16" x 20" Section of compensating ring 2' 8" x 3' 0" x 1 5/16" No. of rivets and diameter of rivet holes 32 @ 1 3/8" Outer row rivet pitch at ends 9 1/2" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material Tensile strength Thickness of shell Description of longitudinal joint Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets Internal diameter Working pressure by Rules Thickness of crown No. and diameter stays Inner radius of crown Working pressure by Rules How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes Steel castings Number of elements Material of tubes Internal diameter and thickness of tubes Material of headers Tensile strength Thickness Can the superheater be shut off from the boiler the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Area of each safety valve Are the safety valves fitted with easing gear Working pressure as Rules Pressure to which the safety valves are adjusted Hydraulic test pressure tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with YES

For Palmers Shipbuilding & Iron Co. Ltd. The foregoing is a correct description, J. Cameron Manager, Hebburn Boiler Shop & Foundry

Dates of Survey { During progress of work in shops - - - May 8. 16. June 11. 18. 30. July 15. 21. 30. Are the approved plans of boiler and superheater forwarded herewith Yes. while building { During erection on board vessel - - - Sept 17. Oct 22. 23. Total No. of visits 8. Installing, 3.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey, the materials and workmanship are good. The boiler has been satisfactorily fitted on board the steamer "BIRCHGROVE". The safety valves have been adjusted under steam & tried for accumulation, and the boiler examined under working conditions and found satisfactory.

P. Fitzgerald Aberdeen.

Survey Fee £ 14 : 0 : 0 When applied for. -7 AUG 1930. Travelling Expenses (if any) £ : : : When received. Per Secretary's letter c.d. 30-9-30.

Thomas Napier Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE 11 NOV 1930 Assigned See other J.E. Rpt Abn. 16346