

REPORT of SURVEY for REPAIRS, &c.

No. 133

No. in Reg. Book. Survey held at Melbourne Date, first Survey 19th Dec. 179 Last Survey 13th April 1880

on the Barque (late Ship) "Ivanhoe" Master Houston

TONNAGE under Tonnage Deck 1308.88
 Ditto of Spar Deck, or Awning Deck
 Ditto of Poop 72.92
 Ditto of Raised Qr. Dk.
 Ditto of Houses on Deck 15.50
 Ditto of Forecastle 40.98
 Gross Tonnage 1438.28
 Crew Space, as per Rule 55.63
 Register Tonnage, cut on Beam 1382.65
 Engine Room
 Reg. Tons as St mer, cut on Bm.

Built at Port Glasgow When built 1868 10
 Owners Geo. Whittingham & Co. Port belonging to Melbourne
 Residence Melbourne
 By whom built Reid
 Destined Voyage London
 If Surveyed Afloat or in Dry Dock Afloat and in Dry Dock

Length of Poop 48 ft. Ditto, Forecastle 36 ft. Ditto, Raised Quarter Deck ft. Years assigned. Character in Register Book *A/1

Last Survey, No. 23085. Port Iron. Classed S.S. No 2.76

REPAIRS, OR EXAMINATION AS PER RULE in consequence of damage

This Vessel was reported by me in September 1879 as being ashore on the Tasmanian Coast. She was floated off and towed to this Port in October and purchased by her present Owners in December of the same year. She was placed in Dry Dock (Duke's) Yarra Bank Melbourne on the 6th January 1880 for examination and repair and was floated out after repairs effected on the 29th of the same month.

This Vessel was dismasted with the exception of Foremast, Foretopmast Fore lower Yard, Fore lower and Upper Topsail Yards, Bowsprit and jibboom. 2 Bower Anchors and 75 Fathoms of Chain Cable lost. The beiling inside from before the Foremast to abaft the Mizzen Mast was taken clean out. On examination a number of rivets in bottom were found started extending from abaft the Foremast to about 20 feet abaft Main Mast. One plate next the Garboard Streak on Starboard side dented in and slightly cracked on the inside. Several plates on Port side

Present Condition of the
 Decks Good
 Waterways Good
 Comings Good
 per Deck Beams & Fastenings Good
 or Deck Beams & Fastenings Good
 Plating Good
 strakes Good
 Good
 Plank (Bottom) and Counter
 Engine Room Skylights Coal Bunker, Openings, Lids, &c. Scuppers Good Cargo and Main Hatchways Good Hatches Good
 General Observations, Opinion as to Class, &c.

We have jointly given our closest attention to this Vessel during repairs. All our recommendations and suggestions have been adopted and the works have been carried out and completed to our satisfaction throughout. We consider this Vessel is justly entitled to retain her original Class.

This Vessel has undergone all the requirements of N^o 3 Survey, tho not yet due, except the entire removal of inside beiling. As much of this however was removed as to enable us to thoroughly test the soundness of the Cement.

The Amount of Entry Fee ... £ 3 : 0 : 0 received by me, 26th May 1880
 change of Import Special ... £ 80 : 0 : 0
 Certificate (if required) ... £ 84 : 0 : 0
 Travelling Expenses, if any, £
 Committee's Minute Tuesday, July 4th 1880
 Character assigned
 S.S. No 3-80
 Douglas Elder
 Surveyor to Lloyd's Register of British and Foreign Shipping.
 John Melair
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
 Lloyd's Register Foundation
 16/7/80
 120N493-0499

side slightly dented in but perfectly sound outside and inside. Floor plates fore and aft sound. The after end of keel started side $1\frac{1}{2}$ inch. Several of the Angle Irons of Main Frame slightly cracked on the inner part of vertical leaf. The following repairs were effected to the Hull. Four plates at heel taken off. Cement in after Peak cut clean out. Keel straightened. Plates replaced and after Peak recemented as in the original. One plate on Starboard side taken off rolled and re rivetted in place. Small patch put out and inside to cover crack. Main Frames where cracked on Port Bilge strengthened by angle plates Lowmoor Iron $\frac{1}{2}$ in. thick fitted into the bosom of Angle Iron Frames also rivetted to original frame and through frames and outside Plating. All rivets in bottom thoroughly tested and all found defective taken out and replaced with (about 5,000) new rivets. Keel rivets tested fore and aft. About 200 were found defective and were replaced. All lands of outside plating where re rivetted were caulked. All Butts of outside plating examined and found sound. New Pintle fitted to lower end of Rudder. The cement taken out was replaced with best Portland Cement. Angle Iron Frames well covered as in the original. The cement left in was thoroughly tested and found sound, Planks in ceiling being removed fore and aft for that purpose. The inside Plating, Floor Plates, and Frames, under cement were found in a good state of preservation. Floor plating covered with cement wash above the cement. The timbers cleared out clean fore and aft. All ceiling replaced. Also Limber Hatches put in place. New hatches for Main and Fore hatches between decks. Main Deck, Poop and Forecastle deck, also the Between decks caulked throughout. 80 Feet Main Rail and 104 Feet Topgallant Rail Bulwark on Port side renewed. Deck house caulked on top. Pumps put in perfect working order. Donkey Engine taken down and overhauled and readjusted. The Hull outside scraped and coated with three coats Paint. The Bottom with 3 additional coats of Borthwick's antifouling composition.

Equipment. New Spars &c. supplied. Fore Topgallant and Royal Masts. Upper Fore Topsail Yard. Fore Topgallant and Royal yards new Fore Top and Topmast Crossrees. New Main Mast (iron). Main Topmast. Main Topgallant & Royal Masts. Lower Main Yard. Main Topsail Yards upper & lower. Main Topgallant & Royal Yards. New Main Top and Topmast Crossrees. New Mizzen Mast. Mizzen Topmast. Mizzen Gaff & Boom. Topsail Mast. These spars have been completely mounted in all iron work. New Standing Rigging & Stays fitted for Fore, Main & Mizzen Masts & all masts standing above them. New Bowspit Shrouds. New Lignum vitae deadeyes for Main & Mizzen Masts & Stays. New lanyards rove for all standing Rigging Stays &c. on the 3 Masts also for all headgear forward on Bowspit & Jibboom. All yards throughout have been fitted with new rigging complete. New Chain Sheets & Halliard Runners for Fore Topgallant & Royal Yards & for all Yards & Masts on Mainmast. New Tacks & Sheets for Courses. New Blocks for all Spars on Main & Mizzen Masts. Brace Sheet & Halliard Blocks patent sheaves. A complete set of running rigging rove for all spars sails &c. clear fore & aft. One complete suit of new sails made of best Gurock Canvas. Another complete second suit in very good condition. 1 large Life Boat & 3 new Boats supplied. 2 Bower Anchors & 5 fath of 2 in. chain supplied. New Mainmast built on to heel of old Mast. 3 Plates in the round $\frac{1}{2}$ in plate. Butt straps 11 in. treble rivetted. Sea double rivetted - with 3 T Irons $4\frac{1}{2} \times 4\frac{1}{2}$ running up to Topmast Cap. Butts of these Irons shifted & over run with fish plates on each side of each butt 3 feet long. well rivetted. Cheeks $\frac{1}{2}$ with an angle iron running up fore and after part. Fore & aft Trussel Trees rivetted to Mast & upper part of Cheek angle iron $8 \times 4\frac{1}{2}$. Mizzen Mast is the Main Mast of a Vessel of 1100 tons stranded some years ago in Port Philip Bay. This Mast was minutely examined inside & outside by Mr. Sinclair & found to be perfectly sound & well made. 12 feet were added to lower end & 3 angle irons run up to shifts. Butts of same fitted with fish plates on each side & rivetted. The Vessel is now Barque rigged which caused the lengthening of the Mast. The repairs to the Hull of this Vessel whilst in Dock also the construction of Main & Mizzen Masts had our daily supervision. The Hull is now in excellent condition the materials used in her repairs were all of the very best of their respective kinds & the workmanship throughout first class. Her equipment in Spars, Masts, Yards, Rigging, Sails &c. is complete & new with the exceptions named in first part of this Report. The Vessel throughout is now in far better condition than before she was stranded on the Tasmanian Coast.

John Sinclair

Douglas Elder Surveyor to Lloyd's Register
Engineer Surveyor to Lloyd's Register

Lloyd's Register
Foundation