

IRON SHIP. 17621

No. 4369 Survey held at Glasgow Date, First Survey 24 July 26 Last Survey 30 December 1876.

On the SHIP "PIAKO" Master James Fox

TONNAGE under Tonnage Deck 981.82
 Ditto of Poop, or Raised Quarter Deck 97.59
 Ditto of Houses on Deck 18.12
 Ditto of Forecastle 38.23
 Gross Tonnage 1135.76
 Less Crew Space 61.24
 Less Engine Room
 Register Tonnage as cut on Beam 1074.52

VESEL ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR ANCHOR-DECKED VESSEL.
HALF BREADTH (moulded) 16.86
DEPTH from upper part of Keel to top of Upper Deck Beams 22.7
GIRTH of Half Midship Frame (as per Rule) 34.41
1st NUMBER 73.97
2nd NUMBER 15.163
PROPORTIONS—Breadths to Length 6.0
 Depths to Length—Upper Deck to Keel 9.0
 Main Deck ditto

Built at Glasgow
 When built 1876 Launched 5 December
 By whom built A. Stephen
 Owners New Zealand Shipping Co. Ltd.
 Port belonging to London
 Destined Voyage New Zealand (Australia)
 If Surveyed while Building, Afloat, or in Dry Dock under special survey

Official Number

LENGTH on deck as per Rule	Feet. 205	Inches. -	BREADTH Moulded	Feet. 33	Inches. 8	DEPTH top of Floors to Upper Deck Beams	Feet. 20	Inches. 8	Power of Engines	Horse.	Nº. of Decks with flat laid	740	Nº. of Tiers of Beams	740
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Dimensions of Ship per Register, length, 215.3 breadth, 34.05 depth, 20.5

	Inches in Ship.		Inches per Rule.		Inches in Ship.		Inches per Rule.		Inches in Ship.		Inches per Rule.	
	In Ship.	16ths.	Inches per Rule.	16ths.	In Ship.	16ths.	Inches per Rule.	16ths.	In Ship.	16ths.	Inches per Rule.	16ths.
KEEL , depth and thickness	8 x 2 3/8	8	2 3/8	8	8 x 2 3/8	8	2 3/8	8				
STEM , moulding and thickness	7 1/2 x 2 3/8	7 1/2	2 3/8	7 1/2	7 1/2 x 2 3/8	7 1/2	2 3/8	7 1/2				
STERN-POST for Dropper	6 1/8 x 3	6 1/8	3	6 1/8	7 1/2 x 2 3/8	7 1/2	2 3/8	7 1/2				
Distance of Frames from moulding edge to moulding edge, all fore and aft	23 in		23									
FRAMES , Angle Iron, for 1/2 length amidships	5 x 3	5	3	5	5 x 3	5	3	5				
Do. for 1/3 at each end	5 x 3	5	3	5	5 x 3	5	3	5				
REVERSED FRAMES , Angle Iron	3 x 3	3	3	3	3 x 3	3	3	3				
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	23 x 9/16	23	9/16	23	23 x 9/16	23	9/16	23				
thickness at the ends of vessel	8 1/16 - 7/16	8 1/16	7/16	8 1/16	8 1/16 - 7/16	8 1/16	7/16	8 1/16				
depth at 3/4 the half-bdth. as per Rule	23		23									
height extended at the Bilges	23		23									
BEAMS , Upper, Spar, or Availing Deck	8 x 8 1/16	8	8 1/16	8	8 x 8 1/16	8	8 1/16	8				
Single or double Angle Iron on Upper edge	3 x 3	3	3	3	3 x 3	3	3	3				
Average space	46 in		46 in									
BEAMS , Middle or Lower Deck	8 x 8 1/16	8	8 1/16	8	8 x 8 1/16	8	8 1/16	8				
Single or double Angle Iron on Upper Edge	3 x 3	3	3	3	3 x 3	3	3	3				
Average space	46 in		46 in									
BEAMS , Lower Deck, Hold, or Availing	8 x 8 1/16	8	8 1/16	8	8 x 8 1/16	8	8 1/16	8				
Single or double Angle Iron on Upper Edge	3 x 3	3	3	3	3 x 3	3	3	3				
Average space	46 in		46 in									
KEELSONS Centre line, single or double plate, top, or bottom, Plates	15 x 1 1/16	15	1 1/16	15	15 x 1 1/16	15	1 1/16	15				
" Rider Plate	11 1/2 x 1 1/16	11 1/2	1 1/16	11 1/2	11 x 1 1/16	11	1 1/16	11				
" Bottom Plate to Inter-castal Keelson	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" Angle Irons	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" Double Angle Iron Side Keelson	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" Inter-castal Plate	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" do. Angle Irons	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" Attached to outside plating with angle iron												
BILGE Angle Irons	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" do. Bottom Iron	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
" do. Inter-castal plates riveted to plating for length												
BILGE STRINGER Angle Irons	5 x 3 1/2	5	3 1/2	5	5 x 3 1/2	5	3 1/2	5				
Inter-castal plates riveted to plating for length												
SIDE STRINGER Angle Irons												

Transoms, material. Knight-heads. Hawse Timbers. E. J. Cook
 Windlass Eumerson Maltin Part Ditt capstan mullers.

The **FRAMES** extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.
 The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to above lower stringer and to Gunwale alternately
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? yes

PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 3/4 in. diameter averaging 3 1/4 3/4 ins. from centre to centre.
 Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted for length amidships.
 Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.
 Breadth of laps of plating in double riveting 4 1/2 - 5 1/4 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Single + Plate as per rule.
 Waterway, how secured to Beams Gutter (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Beam knees Riv to frames No. of Breasthooks, 5 Crutches, 3
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angle Iron. "Trim end"
 Manufacturer's name or trade mark, Plates Fox Hand Coy.

The above is a correct description.
 Builder's Signature, Alex Stephen Surveyor's Signature, James Fox
 Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 469 - 0526

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed where practicable.*
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes*
 Are the fillings between the ribs and plates solid single pieces? *Yes*
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*
 Do any rivets break into or through the seams or butts of the plating? *Very few and in butts only.* 176 21 Iron

Masts, Bowsprit, Yards, &c., are *in good* condition, and sufficient in size and length. If of Iron or Steel give Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit *Fore mast 78 feet 10 in x 29 in - Main 82.4 x 29 - Mizzen 73 feet x 25 -* three plates in the round 7/16. 4/16. (Mizzen 4/16. 5/16) Edges zig zag Butts *helle in steel wire Bowsprit 34 feet 8 x 24 in four plates in the round 8/16 - 4/16 Edges zig zag Butts helle and quadruple.*

NUMBER for EQUIPMENT	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N°.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.						Bowers					
Fore Sails,	271	1 3/4	55.125	270 13/4	55 7/8		3	30.0.20	28 1/2	30	28 1/2
Fore Top Sails,				Breaking strain 77.125 tons.				30.0.1	28 1/4	30	28 1/2
Fore Topmast Stay Sails				76.00.00.00.00				25.2.0	25 3/4	25.2.0	25 1/2
Main Sails,						Stream	1	12.0.0		12	
Main Top Sails,						Kedges	2	6.0.5		6	
and								3.0.3		3	

Standing and Running Rigging *One Rank* sufficient in size and *good* in quality. She has *2 Life long* Boat and *four other*. The Windlass is *Emerson make* Capstan *one* and Rudder *good* Pumps *two built with hand cranked*

Engine Room Skylights. How constructed? *How secured in ordinary weather?*

Coal Bunker Openings. How constructed? *How are lids secured?* *Height above deck?*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Two square ports on each side*

Cargo Hatchways.—How formed? *Iron beams*
 State size Main Hatch *14.0 x 11.1* Forehatch *7.9 x 6.2* Quarterhatch *8.0 x 7.7*

If of extraordinary size, state how framed and secured? *Shifting beams bolted iron and angles.*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
1178	June 5/76	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid...	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped
		1876. July 24. 28. 31. August 7. 18. 22. 25.	September 9. 7. 11. 15. 18. 21. 25. 28. October 2.	5. 9. 12. 20. 23. 27. 31. November 3. 7. 9. 13.	17. 20. 24. 27. 30. December 4. 8. 14. 20.	23. 27 and 30 th 1876-

General Remarks (State quality of workmanship, &c.) *Iron yards.*

The main yards. 76 feet x 19 in 5th plates in round 4/16. 4/16. Edges zig zag and - L Sparail - 62 in x 15 in - 5/16. 3/16. Butts helle & quadruple.

This is a sister vessel to ship "Opama". Glasgow Report No. 4357 and has been constructed in accordance with approved midship section attached to above report. with the exception of the rudder 5/8 instead of 5/4 made under the same circumstances and at the same time. She is eligible in my opinion for the class recommended below.

State if *one, two, or three*, decked vessel, or if *open, or awning* decked; and the lengths of poop, fore-castle, *46-9"* or raised quarter deck, and the length of double or part double bottom. *29 feet*

How are the surfaces preserved from oxidation? Inside *Cannon in bottom Paint* Outside *Paint.*

I am of opinion this Vessel should be Classed *100 A. 1.*

The amount of the Entry Fee ... £ 5 : : : is received by me, *James Dundie*
 Special ... £ 51 : 17 : 6 *Jan 6 1877*
 Certificate ... *British*

Committee's Minute *12th January 1877*

Character assigned *100 A. 1.*

