

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 ~~ONE, OR TWO DECKED, THREE DECKED VESSEL.~~
Ditto of Upper Deck } 97.59 ~~SEAR, OR ANYTHING-DECKED VESSEL.~~
Ditto of Poop, or } 18.12
Raised Quarter Deck }
Ditto of Houses }
on Deck }
Ditto of Forecastle } 38.23
Gross Tonnage } 1135.76
Less Crew Space } 61.24
Less Engine Room }
Register Tonnage } 1074.52
as cut on Beam }

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
LENGTH 205
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.
84 Bishopsgate St. Wall
Port belonging to London
Destined Voyage Tau Zealand (Australia)
If Surveyed while Building, Afloat, or in Dry Dock
under special survey

Official Number

LENGTH on deck as per Rule 205 Feet. Inches. BREADTH—Moulded... 33 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 20 Feet. Inches. Do. do. Main Deck Beams 8 Feet. Inches. Power of Engines — Horse. N° of Decks with flat laid Two N° of Tiers of Beams Two

Dimensions of Ship per Register, length, 215.3 breadth, 34.05 depth, 20.5

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

Plates in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges 35 x 1 1/16 34 x 1 1/16

of doubling at Bilge, or in lower strake 9 x 1/16 9 1/4 - 10 1/16

fm up. part of Bilge to l. edge of Sh'rstrake 9 x 1/16 9 1/4 - 10 1/16

Main Sheerstrake, breadth and thickness 38 x 1 1/16 36 x 1 1/16

of doubling at Sh'rstrake, & length applied from M. to U. or Spar Pl. Sh'rstrake. 10 1/2 x 1 1/16 9 3/4 - 10 1/16

Up. or Spar Pl. Sh'rstrake, breadth & thickness 65 spaces 5 spaces

Butt Straps to outside plating, breadth & thickness 3 2

Lengths of Plating 42 x 9 1/16 42 x 9 1/16

Shifts of Plating, and Stringers 5 x 3 1/2 8/16 5 x 3 1/2 8/16

Gunwale Plate on ends of Availing Spar, or Upper Deck Beams, breadth and thickness 12 x 9 1/16 12 x 9 1/16

Angle Iron on ditto 12 x 9 1/16 12 x 9 1/16

Tie Plates fore and aft, outside Hatchways 30 1/2 x 8 1/16 30 x 8 1/16

Diagonal Tie Plates on Beams No. of Pairs 3 3

Planksheer material and scantling 3 3

Waterways do. do. 3 3

Flat of Upper Deck do. do. 4 1/2 3 1/2

How fastened to Beams 30 1/2 x 8 1/16 30 x 8 1/16

Stringer Plate on ends of Middle Deck Beams, breadth and thickness 30 1/2 x 8 1/16 30 x 8 1/16

Is the Stringer Plate attached to the outside plating? yes

Angle Irons on ditto, No. 2 3 1/2 x 8 1/16 3 1/2 x 8 1/16

Tie Plates, outside Hatchways 12 x 8 1/16 12 x 8 1/16

Diagonal Tie Plates on Beams, No. of pairs 2 12 x 8 1/16 12 x 8 1/16

Waterways materials and scantlings 3 3

Flat of Middle Deck do. do. 3 3

How fastened to Beams 3 3

Stringer Plate on ends of Lower Deck, Hold, or Availing 3 3

Orlop Beams 3 3

Is the Stringer Plate attached to the outside plating? yes

Angle Irons on ditto, No. 2 3 1/2 x 8 1/16 3 1/2 x 8 1/16

Stringer or Tie Plates, outside Hatchways 12 x 8 1/16 12 x 8 1/16

Planksheer material 3 3

Ceiling betwixt Decks, thickness and material 2 1/2 2 1/2

in hold do. 5 1/8 5 1/4

Main piece of Rudder, diameter at head 3 1/8 3

do. at heel 3 1/8 3

Can the Rudder be unshipped afloat? yes

Bulkheads No. one Thickness of 6 1/16 - 5 1/16 6 1/16 - 5 1/16

Height up Main deck Main deck

How secured to sides of ship Double plates Double plates

Size of Vertical Angle Irons 3 x 3 x 7 1/16 and distance apart 30 ins.

Are the outside Plates doubled two spaces of Frames in length? yes

Transoms, material. Knight-heads. Hawse Timbers. E. I. Oak

Windlass Eumerson Maltin Pat. 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 Sh'rstrake 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 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 1/4 ins. from centre to centre.

Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double single 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 a single riveted. Upper Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — 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? Double & Single 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'd 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 Iron Hand Ry.

The above is a correct description.

Builder's Signature, Ally 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*
tettle in slat iron Bowsprit 34 feet 8 x 24 in four plates in the round 8/16 - 4/16
Edges zig zag Butts tettle and gradual plate.

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
SAILS.							Bowers					
N ^o .	CABLES, &c.	271	1 3/4	55.125	270 1 3/4	55 7/8			30.0.20	28 1/2	30	28 1/2
	Chain				Breaking strain 77.125 tons.				30.0.1	28 1/4	30	28 1/2
	Fore Sails,								25.2.0	25 3/10	25.2.0	25 1/10
	Fore Top Sails,											
	Fore Topmast Stay Sails											
	Hmpn Strm Cbl	90 1/2	1 5/16		90.15 1/16	10						
	Hawser ...	90	11		90.9							
	Towlines ...	90	9		90.5 1/2							
	Warp ...	90	5 1/2									
	quality	good										
	and											

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

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

What arrangements for deadlights in bad 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* Fore hatch *7.9 x 6.2* Quarter hatch *8.0 x 7.7*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *Shifting beams bolted iron and angles.*

Hatches, If strong and efficient? *yes*

Order for Special Survey No. *1178* Date *June 5/96*
Order for Ordinary Survey No. *204* Date *June 5/96*
No. *204* in builder's yard.
1st. On the several parts of the frame, when in place, and before the plating was wrought *1876. July 24. 28. 31. August 7. 18. 22. 25.*
2nd. On the plating during the process of riveting *September 9. 7. 11. 15. 18. 21. 25. 28. October 2.*
3rd. When the beams were in and fastened, and before the decks were laid... *5. 9. 12. 20. 23. 27. 31. November 3. 7. 9. 13.*
4th. When the ship was complete, and before the plating was finally coated or cemented... *17. 20. 24. 27. 30. December 4. 8. 14. 20.*
5th. After the ship was launched and equipped *23. 27 and 30th 1876.*

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

The main yards. 76 feet x 19 in 5/16 plates in round 4/16 - 4/16 Edges zig zag and
- L Sparail - 62 - - - 5/16 - 3/16 Butts tettle & gradual plate.

This is a sister vessel to ship "Opama". Glasgow Report 18. 4. 3. 5. 7 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.

Det. House 31.8 x 14.7

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, fore-castle, or raised quarter deck, and the length of double or part double bottom.

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. 1877*

Certificate ... *British*

(Travelling Expenses, if any, £ : :)

Committee's Minute *12th January 1877*

Character assigned *100 A. 1.*

Lloyd's Register Foundation