

No. 2706 Survey held at Pembroke Dock Date 29 March 1864
on the Ship *Pembroke* Master *John Hemsworth*
Tonnage *44* Built at *Pembroke Dock* When built *1864* Launched *26*
By whom built *Allen & Warlow* Owners *John Hemsworth*
Port belonging to *London* Destined Voyage *Pembroke to Shanghai*
If Surveyed while Building, Afloat, or in Dry Dock *while Building*

Length aloft	Feet.	Inches.	Extreme Breadth Outside	Feet.	Inches.	Depth of Hold	Feet.	Inches.
	18	4		31	4		20	
Scantlings of Timber.								
Timber and Space								
Floors	14	14	15	15	15	15	15	15
1st Foothooks	10	12	11	12	11	12	11	12
2nd Ditto	10	11	10	11	10	11	10	11
3rd Ditto	10	11	10	11	10	11	10	11
Top Timbers	8	9	8	9	8	9	8	9
Deck { N° 29 Average Space }	8	8	8	8	8	8	8	8
Beams { N° 28 Average Space }	8	8	8	8	8	8	8	8
Deck Beams, length amidships	29	29	29	29	29	29	29	29
Hold { N° 28 Average Space }	8	8	8	8	8	8	8	8
Beams { N° 28 Average Space }	8	8	8	8	8	8	8	8
Hold Beams, length amidships	29	29	29	29	29	29	29	29
Keel	14	16	14	16	14	16	14	16
Scarp of Ditto	14	16	14	16	14	16	14	16
Keelsons	16	16	16	16	16	16	16	16
Scarp of Ditto	16	16	16	16	16	16	16	16

Heel-Knee, & Deadwood abaft	Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule.	Transoms and throats of Hooks	Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule.	Hold Beam	Waterway ..	Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule.
Scarp of Keel, N° 1	1	1	1	Arms of Hooks	1	1	1	Bolts in	Knees ..	1	1	1
Keelson Bolts through Keel	1	1	1	Thro' Bilge & Limber Strakes	1	1	1	Shelf or Clamp	Shelf or Clamp	1	1	1
at each Floor	1	1	1	Thickstuff over Double Floors	1	1	1	Deck Beam	Waterway ..	1	1	1
Bolts thro' Heels of Timbers	1	1	1	Butt End Bolts	1	1	1	Bolts in	Knees ..	1	1	1
against Deadwood	1	1	1	Pintles of the Rudder	1	1	1	Shelf or Clamp	Shelf or Clamp	1	1	1

Timbering.—The Space between the Floor Timbers and Lower Foothooks is *3* Inches. The Space between the Top-Timbers is *3* Inches.
The Floors consist of *Eng Oak*. The First Foothooks of *Eng Oak*.
The Second Foothooks of *Eng Oak*. The Third Foothooks and Top Timbers of *Eng Oak*.
The Shifts of the First and Second Foothooks are not less than *4* ft. 6 in. N. B. When less than prescribed by the Rule, state how many.
The rest of the Shifts of the Frame are *good*.
The Frame is *well* squared from the First Foothook Heads upwards, and *well* free from sap, and from thence downwards, the frame is *squared*.
The alternate Frames are *all* bolted together to the Gunwale. N. B. If not, state how bolted.
The Butts of the Timbers are *all* close together; their thickness not less than *3* of the entire moulding at that place.
The Frame is *well* chocked with *2* Butt at each end of the chock. The Main piece of Rudder is *Eng Oak* of Windlass is *Eng Oak*.
The Keel is *Eng Oak*. The Main Keelson is *Greenheart & Spider-Grainheart* and free from all defects.
The Stem, and Stern Post of *Eng Oak*. The Transoms, Knight Heads, Hawse Timbers, and Aprons of *Eng Oak*. Deadwood, of *Eng Oak* and are free from all defects.
The Deck and Hold Beams of *Iron*. The Breasthooks of *Iron*. The Knees of *Iron*.

Planking Outside.—From the Keel to the Height defined in Note to Table A, the Plank is *Eng & Am. N. Cedar*.
From the above named Height to the Light Water Mark *Red Pine*.
From the Light Water Mark to the Wales *Red Pine*.
The Wales and Black-strakes are *Sautzie Oak*. The Topsides & Sheer-strakes *Sautzie Oak*.
The Spirketting and Plank-sheers *Red Pine & Sautzie Oak*. The Water-ways { Upper Deck *Red Pine*, Lower Deck *Red Pine*.
The Decks *Yellow Pine*. State of *Good*.
The Shifts of the Planking are not less than *5* ft. 6 in. N. B. If less than prescribed by the Rule, state whether general or partial, and if partial, in what part of the Ship. The Planking is wrought *between 3* between, and without step-butting.

Planking Inside.—The Limber-strakes and Bilge-strakes are *Sautzie Oak*.
The Ceiling, Lower Hold, and between Decks *Red Pine*. Shelf Pieces and Clamps *Red Pine*.
Fastenings.—To Hold Beams *Hanging Nuts to each Beam, including Span's extending down to Floors, and of Plunger plate 24 x 46, also Tie plate 12 x 46*.
Deck Beams *Hanging Nuts to each Beam, and Plunger plate 24 x 46, also Tie plates 12 x 46*.
Number of Breasthooks *and those formed by Pointers one pair*. Crutches *4 below Hold Beams*.
Butts End Bolts are of *Yellow Metal* in the Bottom, and *two* Bolt in each Butt End through and clenched. © 2019
Bilge and Limber Strakes *Y. Metal* bolted through and clenched. Treenails of *Eng Oak* How Made *turned*.
Thickstuff over Double Floors *bolted through and clenched*. General Quality of Workmanship *Good*. Lloyd's Register Foundation

We certify that the above is a correct description of the several particulars therein given.
Builder's Signature *Allen & Warlow* Surveyor's Signature *Thomas Congdon*

Her Masts, Yards, &c. are in good condition, and sufficient in size and length.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.	
N ^o .			Fathoms. Inches.	N ^o .	Weight.
<u>two</u>	Fore Sails,	Chain <u>Stream</u> <u>90 fms</u>	<u>300</u> <u>1 7/8</u>	Bower,	<u>3</u> <u>33.1.16</u>
<u>Sails</u>	Fore Top Sails,	Hempen Stream Cable	<u>10</u> <u>10</u>	Stream,	<u>1</u> <u>10.0.0</u>
	Fore Topmast Stay Sails,	Hawser	<u>90</u> <u>8</u>		
	Main Sails,	Towlines	<u>90</u> <u>5</u>	Kedge,	<u>2</u> <u>4.3.19</u>
	Main Top Sails,	Warp			<u>2.2.14</u>
and		All of <u>good</u> quality.			

Her Standing and Running Rigging Wife sufficient in size and good in quality.

She has one Long Boat and three other good Boats

The present state of the Windlass is good Capstan good Rudder good Pumps two Cast Iron good

General Remarks and Statement and Date of Repairs, if any.

DATES of Surveys held while building, as per Section 35.

1st. When the Frame is completed

2nd. When the Beams are put in, &c.

3rd. { When completed, and before the plank be painted or payed }

Specially Surveyed

This vessel has been built under a good Roof, and the requirements of Sect⁵² observed. She has been Specially Surveyed while building. The scantling of frames (excepting some top timbers less in siding) are equal to Rules. The thickness of inside and outside planking and sizes of fastenings also equal to the Rules. The Ceiling in timber deck is $\frac{3}{4}$ extra thickness as compensation for the top timbers alluded to. The Shelf pieces and Watertaps bolted through and clenched in each timber. There are 8 pairs of Hanging knees to the Beams extending down to Floors, and well thought bolted. The upper and lower deck Beams are of iron, and in size and section as shown on the other side, and approved of by the Committee (see Secretary's letter 27th April 1861). The recommendation in that letter for thickness of angle iron forming Prop Beams has been carried out. The Beam stringer plates and Tie plates are $24 \times \frac{3}{4}$ and $12 \times \frac{3}{4}$ respectively for each deck. The Hanging knees to both decks are well rivetted to the side of Beams in the usual manner. The upper deck is fastened by galvanized bolts with nut and screw from upper side. Ground tackle completed as above. Testing certificates produced for 2 Bower Anchors to 26.5 each, and the patent anchor to 22.5. Also, the Chain Cable tested to 44. The certificates from Park Works, Gateshead on Tyne. Yellow Metalled over felt to about Wales.

There is a marked improvement in the building of this ship over previous ones, ^{by Abney & Warley} Sect 40 has been complied with to the entire exclusion of bolts, and she has been built under a Roof. We are opinion she may be classed 10 A1

Present condition of Caulking of Bottom, good Deck, good and Waterways good

If Sheathed, Doubled, Felted, or Coppered Y. Metalled over felt When last done February 1861

I am of opinion this Vessel should be Classed 10 A1

The Amount of the Fee.....£ 2.10 6 is received by me, Thomas Congdon

Special£ 36 : 1 :

Certificate£ : :

Travelling expenses for all 33/10 Committee's Minute 11/10 8th April 1861

Character assigned 1 for 10 Years

and Roof 10/7/02 Iron Beams

Refers to 30 June 1861 London. M