

4093 Survey held at Arbroath Date, first Survey Mar 9<sup>th</sup> 1877 Last Survey Sept 20<sup>th</sup> 1877  
Light Ship "Abertay" Master James Menzies

Age under Tonnage Deck 117.46  
to of Spar Deck, or Awaiting Deck  
to of Poop, or Raised Or. Dk.  
Ditto of Houses on Deck  
Ditto of Forecastle  
Gross Tonnage 117.46  
Crew Space, as per Rule  
Register Tonnage, cut on Beam 117.46  
Engine Room  
Register Tonnage, as a Steamer, }  
cut on the Beam..... }

Built at Arbroath When built 1847 Launched 10<sup>th</sup> Sept 77  
By whom built Mr Jas. Koney Owners Dundee Harbour Trustees  
Port belonging to Dundee Destined Voyage to be stationed inside the mouth of the Tay  
If Surveyed while Building, Afloat, or in Dry Dock While Building & Afloat

Official No. will be fixed when determined

Length as per section 39..... 94 Feet. 0 Inches. Extreme Breadth Outside 20 Feet. 13/4 Inches. Depth of Hold ..... 10 Feet. 11/2 Inches. Number of Decks Two  
Length of Keel ..... 82 Feet. 8 Inches.

Scantlings of Timber.

			200 Ton Scale		Feet.		Inches.	
			Middle.	Ends.	Middle.	Ends.	Middle.	Ends.
TIMBER AND SPACE								
Floors	<u>Single</u>		<u>9</u>	<u>10 1/4</u>	<u>8 3/4</u>	<u>8 3/4</u>	<u>8 3/4</u>	<u>8 3/4</u>
1 <sup>st</sup> Foothooks			<u>8</u>		<u>7 3/4</u>		<u>6</u>	
2 <sup>nd</sup> Ditto			<u>7 1/4</u>	<u>6</u>	<u>7</u>		<u>6</u>	
3 <sup>rd</sup> Ditto								
Top Timbers			<u>6 1/2</u>	<u>5 3/8</u>	<u>6 1/2</u>	<u>5</u>		
Deck } N <sup>o</sup> 19 Average } <u>3 ft 6 in</u>			<u>8</u>	<u>7 1/4</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>5 3/4</u>
Beams } and 1/2 Beam at main hatch.								
Deck Beams, length amidships					<u>18 ft 3 in</u>			
Hold } N <sup>o</sup> Average } <u>Cabin</u>								
Beams } Space } <u>Sale</u>								
Hold Beams, length amidships								
Keel	<u>28 margin</u>							
Scarp of Ditto	<u>and long elevation</u>				<u>4 ft 10 in</u>			
Keelsons			<u>12</u>	<u>12</u>				
Scarp of Ditto					<u>5 ft 3 in</u>			

Outside Plank. 200 Ton Scale Dimensions of Ship per Register, length 88.8 breadth 19.6 depth 10.66

			200 Ton Scale		Feet.		Inches.	
			Middle.	Ends.	Middle.	Ends.	Middle.	Ends.
Garboard Strakes	<u>thick as per</u>							
Garboard to Bilge	<u>midship sect</u>							
Bilge Planks	<u>2 ft 10 in</u>							
Bilge to Wales	<u>1-15 following chart</u>							
Wales	<u>4 ft 10 in</u>							
Topsides								
Sheer Strakes								
Plank Sheers								
Water } Upper Deck	<u>8 x 8 1/2</u>							
Ways } Lower Deck	<u>40 x 9 in</u>							
Ditto, faying surface against Timbers								
Upper Deck								

Size of Bolts in Fastenings, distinguishing whether Copper, Yellow Metal, or Iron; also of Treenails.

			200 Ton Scale		Feet.		Inches.	
			Middle.	Ends.	Middle.	Ends.	Middle.	Ends.
Heel-Knee, & Deadw'd abaft								
Scarp of Keel, N <sup>o</sup> 7								
Keelson Bolts through Keel at each Floor								
Bolts thro' Heels of Timbers against Deadwood								
Frame Bolts								
Transoms and throats of Hooks								
Arms of Hooks								
Thro' Bilge and Limber Strakes								
Thickstuff over Double Floors								
Butt End Bolts								
Short Bolts in Ceiling								
Pintles of the Rudder								

Timbering.—The Space between the Floor Timbers and Lower Foothooks is 4 ft 4 1/2 Inches. The Space between the Top-Timbers is 3 1/2 to 4 Inches.

The Floors consist of French Oak. The First Foothooks of French & British Oak.

The Second Foothooks of French & British Oak. The Third Foothooks and Top Timbers of French & British Oak.

The Main Keelson is French Oak and is free from all defects. The Shifts of the First and Second Foothooks are not less than 3 ft 8 in.

The Transoms, Knightheads, Hawse Timbers, & Aprons of Oak ditto. N.B. When less than prescribed by the Rule, state how many.

Deadwood, of French Oak with a Elm and ditto. The rest of the Shifts of the Frame are not less than 3 ft 8 in.

The Stem, and Stern Post of British Oak ditto. The Frame is well squared from First Foothook Heads upwards, and is free from sap, and from thence downwards, the frame is good.

The Deck and Hold Beams of French Oak and a few B. Oak. The entire Frames are frame bolted together to the Gunwale.

The Breasthooks of Iron. N.B. If not, state how bolted.

The Knees of Iron. The Keel of American Rock Elm. The Butts of the Timbers are fitted close together; their thickness not less than one third of the entire moulding at that place.

The Main piece of Rudder of B. Oak of Windlass of B. Oak. The Frame is X choiced with 1/8 Butt at each end of the choik.

Planking Outside.—From the Keel to the Height defined in Note to Table A } the Plank is American Rock Elm.

From the above named Height to the Light Water Mark French Oak and a few pieces of British Oak at ends.

From the Light Water Mark to the Wales French Oak and a few pieces of British Oak at ends.

The Wales and Black-strakes all French Oak. The Topsides & Sheer-strakes British Oak all fore & aft.

The Spirketting and Plank-sheers French Oak. The Water-ways { Upper Deck French Oak.

The Decks Yellow Pine State of Good. Lower Deck

The Shifts of the Planking are not less than 6 Feet — Inches. 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 three between, and without step-butting.

Planking Inside.—The Limber-strakes and Bilge-strakes are French Oak.

The Ceiling, Lower Hold, and between Decks French Oak Shelf Pieces and Clamps French Oak

Fastenings.—To Hold Beams Lower deck beams each bolted down to Clamps.

Deck Beams { One pair of hanging knees to each deck beam & one pair of Iron }  
{ Lodging knees in mast spaces and in way of riding bits forward }  
{ Deck beams dowelled to Shelf and thick waterway dowelled to }  
{ beams }.

Number of Breasthooks { 1, above main deck. } Pointers { } Crutches { 2 below main deck. }

Butt End Bolts are of yellow metal in the Bottom two Bolts in each Butt End one through and clenched.

Bilge and Limber Strakes Galv. Iron bolted through and clenched. Treenails of B. Oak & Greenheart How Made Engine turned.

Thickstuff over Double Floors { } bolted through and clenched. General Quality of Workmanship Excellent.

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature James Koney

Surveyor's Signature



Her Masts, Yards, &c., are in Good condition, and sufficient in size and length. For particulars see below.

N <sup>o</sup> .	She has SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
See pieces equal two Sails and	Fore Sails, Fore Top Sails, Fore Topmast Stay Sails, Main Sails, Main Top Sails,	Chain ..... (State Machine where Tested, and name of Superintendent). Hempen Stream Cable ..... Hawser ..... Towlines ..... Warp .....	181 180 90 90 90	1 1/2 1 1/2 8 6 4 1/2	40 1/2 Lbs = 600 Ton Scale 40 1/2 Lbs = 600 Ton Scale Machine &c as above.			Bowers .... (State Machine where Tested, and name of Superintendent). Stream .... Kedges with 21 Stock	1 1 1 1	15-0-14 15-0-0 14-3-14 14-3-0 4-2-0	16-12-0-21 16-10-0-0 16-7-3-7 16-5-2-14 5-18-3-0	= 400 Ton Scale = 400 Ton Scale = 400 Ton Scale Machine &c as above. Machine &c as above.	

Her Standing and Running Rigging new & Kenik sufficient in size and Good in quality. She has two Long Boats and 1-20ft; 1-14ft.

The present state of the Windlass is efficient Capstan & Good and Rudder good & efft Pumps 2-5 good & efficient

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board?  
Two pair of large scuppers and one pair of freeing ports.

Cargo Hatchways.—How formed? 3 1/2" beam, 5" above deck. well framed with fore & aft Carlings. State size Main Hatch 6-7 x 4-6.

If of extraordinary size, state how framed and secured? ✓

What arrangement for shifting beams? none required.

Hatches, themselves, whether strong and efficient? yes. Main Hatchways.—State size as above.

Order for Special Survey, 355.  
No. 16 1/2 Mar/77.

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

- 1st. When the Frame is completed Specially Surveyed.  
2nd. When the Beams are put in, &c. 1877: Mar. 9-30: April 9-27: May 24-30: June 13-29: Sept 10-20.  
3rd. {When completed, and before the plank be painted or payed}

General Remarks. The materials used in the Construction of this Light Ship are of the best description throughout, She has been built with 12 years materials, excepting a small quantity of 14 yrs material in topside planking; and fastened in strict accordance with the Rules Secty 46-par. 2 for two additional years also talked as required by the Rules Secty 34 for an extra year.

She has eight pair of diagonal straps 4 x 1/2" scored into the outside of the frames. Her lower deck extends all fore & aft with beams of French Oak 6 x 7 and plank of deck 2 1/2" yellow pine.

Garnick bitts of French Oak 22 x 6 extending down to lower deck beams.

Pall Bitt of " " 13 1/2 x 12 1/4 " " " " Keelson & tenoned into it.

Riding Bitts of " " 16 x 13 " " " " floors " " " "

In way of Garnick bitts Seat deck worked 16 x 5" scored over beams 3/4" and extending from forward to the 6th beam.

Windlass fitted with Brown's double purchase windlass end.

Fore mast. for Sail & lantern. Extreme length 62 ft; dia? at deck 14"; R. Pin

Main mast for Sail, " " " " 48 " " " " 12. " "

Bowsprit outboard 8 ft. and fitted to top up.

This vessel has been Constructed in accordance with the accompanying midship section, submitted & approved by Secty Letter 10<sup>th</sup> Decr/77. Longitudinal Elevat<sup>n</sup> showing her Centre line arrangements also form<sup>2</sup> herewith.

James Roney

Present condition of Caulking of Bottom Good. Deck, Good. and Waterways Good.

If Sheathed, Doubled, Felted, Coppered, or Yellow Metalled Coppered on Felt. When last done now

I am of opinion this Vessel should be Classed 15 A-1. "Light Ship" viz. 12 yrs. Table A.

The Amount of the Port Fee £ 2 : 0 : 0 : C.F. Sailed 73 is received by me, 15 Fastenings Secty 46.

Travelling Expenses, Special £ 5 : 17 : 6 : Sept 26<sup>th</sup> 77 Salt, Secty 34.

(if any) £ 3-17-6 Certificate... Reg<sup>d</sup>.

Committee's Minute 2nd October, 1877.

Character assigned A-1 for 15 yrs

A & P. C.F.

Ship - Sailed

1877

This vessel appears eligible to be classed as recommended by Lloyd's Register of Shipping.