

IRON SHIPS.

No. 2861 Survey held at Dundee Date 30th April 1861
 on the Schooner Leopatra Master D Young
 Tonnage Gross 186.22 ~~Engine Room~~ Register 186.22 Built at Dumbarton
 When Built 1847 By whom built W Denny & Owners Dundee Perth & London Ship Co
 Port belonging to Dundee Destined Voyage Archangel
 Surveyed Afloat or in Dry Dock Upway & afloat

Length aloft	Feet.	Inches.	Extreme Breadth	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse No.
112.7			22			12.6				
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship.	Inches required per Rule.								
Floors, Size of Angle Iron, and No. <u>one</u> at bottom of Floor Plate	3 1/2	2 1/2	7/16							
depth and thickness of Floor Plate at mid line	18	1/4								
depth and thickness of Floor Plate at Bilge Keelson	3 1/2	1/4								
Size of Reversed Angle Iron, and No. <u>one</u> at top of Floor Plate	3	3	3/8							
Frames, Size of Angle Iron, single or double.	3 1/2	2 1/2	7/16	3/8	16ths required per Rule.					
Reversed Iron, if to every frame	3	3	3/8							
Beams, Deck (No. <u>36</u>) double Angle Iron	2 1/4	2 1/4	1/2	5/16	16ths required per Rule.					
Iron on top	6		3/8							
depth & thickness of plate amidships	1 1/2		7/8							
double or single Angle Iron, on lower edge										
average space between	2 1/2		1 1/2							
if wood (No. <u>3</u>) sided & moulded										
Hold, or Lower Deck (No. <u>1</u>)										
double Angle Iron or Bulb Iron with double Angle Iron on top										
depth & thickness of plate amidships										
double or single Angle Iron, on lower edge										
average space between										
if wood (No. <u>3</u>) sided & moulded										
Paddle, wood, sided and moulded										
or if Iron, size of Plate										
Engine										
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions	21		1/4							
Side or Bilge										
Number										

Transoms, material or, if none, in what manner compensated for. Bulkheads, No. Three Thickness of 3/16
 Knight heads are they free from defects? how secured to the sides of the ship rivetted to single angle iron frames
 Hawse Timbers are they free from defects? size of vertical angle iron and their distance apart 2 1/2 x 2 1/2 x 3/8 at 3 1/2 apart
 The Frames or Ribs extend in one length from Keel to Gunwall rivetted through plates with (3/4 in.) rivets, about (9 in.) apart.
 The reverse angle irons on the floors extend in one length across the middle line from floor end to floor end in one floor alternately with
 the intermediate rate one which angle iron runs from center line to 3 1/2 ft. or 5 ft. 9 in. (center line)
 Keelson, how are the various lengths of plates or angle irons connected? each end of plates inserted between the floors are flanged & rivetted to floor
 Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (3/4 in.) diameter averaging (2 1/2 in.) from centre to centre of rivet.
 Edges from Garboards to upper part of bilge, worked carvel with a lining piece (3/4 in.) thick, or clencher, double or single rivetted; rivets (3/4 in.)
 diameter, averaging (2 1/2 ins.) from centre to centre of rivets.
 Butts from Keel to turn of bilge, worked carvel with a lining piece (3/4 in.) thick, double or single rivetted; rivets (3/4 in.) diameter,
 averaging (2 1/2 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? they do
 Edges from bilge to planksheer, worked carvel with a lining piece (3/4 in.) thick, double or single rivetted; rivets (3/4 in.) diameter, averaging
 (2 1/2 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? they do
 Butts from bilge to planksheers, worked carvel with a lining piece (3/4 in.) thick, double or single rivetted; rivets (3/4 in.) diameter,
 averaging (2 1/2 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (3/4 in.) Breadth of laps in single rivetting (2 1/2 in.)
 Planksheer, how secured to the plating of the sides } Explain by sketch, } screw pointed bolts & nuts
 Waterway , , planksheer and to the Beams } if necessary.
 Side trussing breadth and thickness of plates how secured?
 Deck trussing breadth and thickness of plates how secured?
 Deck Beams, how secured to the side? 1 pair of triangular plates 16 in. long in arms 3/16 thick on each end of Beam rivetted to Beam &
 Hold or Lower Deck plate knee at ends
 Paddle plate knee at ends
 No. of breasthooks Two crutches frame how are pointers compensated?
 What description of iron is used for the angle iron and plate iron in the vessel?

Builder's Signature

IRON435-0019

2409 Iron

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three times the diameter of the rivets where single rivetting is admitted? they are fully that appear
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 close
Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? short lengths & of various thicknesses
Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? _____ and are the rivet holes well and sufficiently countersunk in the outer plate? _____
Are there any rivets which either break into or have been put through the seams or butts of the plating? none

Her Masts, Yards, &c., are in Good condition, and sufficient in size and length.
She has SAILS.

N ^o .			CABLES, &c.		ANCHORS, and their weights.	N ^o .	Weight.
			Fathoms.	Inches.			
2	Fore Sails,	Chain	90	1 1/4	Bower,	2	2000
2	Fore Top Sails,	Hemp <u>Iron</u> Stream Cable	80	3/4	Stream,	1	5
2	Fore Topmast Stay Sails,	Hawser		7	Kedge,	1	50
2	Main Sails,	Towlines		5			
1	Main <u>Gaff</u> Top Sails,	Warp		4 1/2			
	and other sails req ^d	All of <u>Good</u> quality.		4 1/2			

Her Standing and Running Rigging are Hemp sufficient in size and _____ in quality.

She has one Long Boat and one other boat

The present state of the Windlass is Good 3 double Monkey Capstan Good and Rudder Good Pumps 3 on to each of 3 Compart^{ts} & a Cock in fore Bulkhead for 4th do

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

- DATES of Surveys held while building, as per Section 17.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought _____
 - 2nd. On the plating during the progress of rivetting _____
 - 3rd. When the beams were in and fastened, and before the decks were laid _____
 - 4th. When the ship was complete, and before the plating was finally coated _____
 - 5th. After the ship was launched _____

This vessel is flush deck'd with square stern & is rigged as a three masted sailing schooner - originally was prepared with a screw aperture formed in the fore part & top of plate Iron - the screw subsequently has not been carried out or applied - the aperture externally is filled off with wood.

at present has now been surveyed specially under the Rules Section 19 with a view to Restoration At (ie) The checks have been all removed (Waterways & plank sheers under special permission allowed to remain) Ceiling all taken up & the surfaces of the Iron thoroughly exposed to view & the oxidation where any removed by the chipping hammer. Windlass unburnt & wood linings stripped off & several holes in Garboard & upwards & Sheerstrakes bored to ascertain & verify thickness of plates &c.

From the care & attention bestowed periodically on this vessel in removal of the Ceiling & otherwise keeping the surfaces free of oxidation & well coated I found the surfaces of the Iron in excellent condition smooth and free from pitting. No imperfect or leaky rivets & the rivet heads internally where most exposed to being wasted by wash of Bilge water little the worse & thoroughly efficient. In respect to the thickness of outside plating I found no diminution from the size specified. Garboard streak 3/8 from Garboard to 5 ft water line full 7/16 from that to Sheerstrake 3/8 & Sheerstrake 5/16.

Has now had check all removed of 3 Yellow Pine secured to Beams with screw pointers, bolts & nuts. Ceiling replated & the surfaces of the Iron recoated with Red Lead & other paint. Windlass made good. Rigging &c all refitted.

I throughout in good order & Condition eligible in my opinion to be classed &c Restored At for 6 years from 1861

In what manner are the surfaces preserved from oxidation? Red Lead & other paint

I am of opinion this Vessel should be classed _____

The amount of the Fee£ 2 : 0 : 0 is received by me,

Special£ 6 : 6 : 0

Certificate (if required)£ 8 : 2 : 6

Committee's Minute 3rd May 1861

Character assigned GA 1

Rest^d At for 6 Years from 1861
Build of Iron

Thomas Alexander
Lt. - Alexander Pirrie