

REPORT of SURVEY for REPAIRS.

No. in Reg. Book. 47 No. 10453 Survey held at Sunderland Date, first Survey 14th May Last Survey 4th Octob 1872
on the S.S. Achilles Master W. R. Jones

Tonnage _____ built at Sunderland When built 1865

By whom built James Laing Owners Penwick & Co.

Port belonging to LONDON CASE Destined Voyage _____

If Surveyed Afloat or in Dry Dock W. Laing's dock

Last Survey, No. 6201 Port LONDON Classed A1

REPAIRS, &c. on acct. of lengthening 40 feet amidships

Dimensions, Tonnage &c of vessel after lengthening as follows

Length &c, as per register 274.8 Breadth 32.2 Depth 18.5

Tonnage under deck - 1127.51, Length as per Rule 267 feet

d^o. Poop - 258.27, Half moulded Breadth 16.00

d^o. Forecastle - 37.93, Half Girth - 32.04

d^o. Chart House - 1.90, Depth from keel - 20.16

d^o. Gross 1425.61

deduct P.P. 456.20, Crew Space 59.87, 516.07, Numbers for scantlings 68, and 18209

Net Register 909.54 Tons

Equipment No. 20029

This vessel had been lengthened about 40 feet amidships, and is a little over 8 Breadths, & 13 depths in length. The framing, & shell plating in the new part, are of the same scantlings, & in all respects conforms to the original structure; the framing is doubled in the bottom, extending to above the upper turn of Bilges on each side, thus making the double framing to extend for more than one-half the vessel's length amidships. A Ballast-tank is fitted

Present Condition of the

Decks In good condition

Waterways When seen good

Comings "

Upper Deck Beams & Fastenings "

Lower Deck Beams & Fastenings and firm

Planksheers When seen good

Sheerstrakes "

Topsides "

Wales "

Plank (Bottom) and Counter "

Rivets When seen good

Breasthooks and Stems "

Transoms, Pointers, and Crutches "

Timbers of the Frame at the openings "

Ditto Ditto at other places "

Keelsons "

Clamps and Shells "

Ceiling "

Rudder "

Caulking of "

Bottom, Deck, & Waterways Good when seen

Windlass and Capstan Good

Pumps 2 Metal

Boats 5 W.

Masts, Yards, &c. When seen

Condition, how ascertained "

Sails "

Anchors No. of 30.15.24

Cables "

Hawsers and Warps Sufficient

Standing & Running Rigging "

Engine Room Skylights good Coal Bunker, Openings, Lids, &c. good Scuppers good Cargo and Main Hatchways good Hatches good

General Observations and Opinion, This vessel is now in good and efficient condition

and I respectfully recommend her claims to the 90 A I grade, to the favorable consideration of the Committee, and to be marked in the Register book M.C. 72.130 H.P., S.S. Sund. 2-72

The Amount of Entry Fee.....£ 8 : : : is received by me,

Special.....13 : 13 : : £ 6 10 0

Certificate (if required) : : 5 : : 16 0 0

Committee's Minute 18th October 1872

Character assigned 90 A

S.S. 72-No 2

REC M.C.

lengthened

This vessel has been lengthened on accountance with plans submitted and approved by the Committee and appears the eligible for class according to the Lloyd's Register Foundation

over the new part, constructed in the usual manner, with two longitudinal girders on each side of the centre line, one girder rivetted to the double angle iron forming the Bilge Keelsons, & the other to the double angles of the side or intermediate Keelsons. A rider plate has been fitted to the middle line Keelson where practicable, namely, from the ballast tank in fore hold, as far forward as the fore hatch, & also through the Engine Room, rider plate $10 \times \frac{1}{16}$.

The topside strake, next below the Sheerstrake, is doubled with $\frac{1}{16}$ to $\frac{9}{16}$ plating for about 170 feet amidships; the Sheerstrake is doubled with $\frac{9}{16}$ plating for about 20 feet in length at the front of the Poop, and one strake at the bilges is doubled with $\frac{1}{16}$ plating for about 105 feet amidships.

The Poop has been lengthened, & is now about 150 feet long, including the covering in of Engine & Boiler space; The Boilers removed, & replaced with New $\frac{1}{2}$; The Machinery has also been removed, altered, & great part renewed, ^{see Engineer's Certificate attached} the Engine & Boiler bearers examined, & now put in good order, & a part of the Cement beneath $\frac{1}{2}$ renewed with portland Cement. The greater part of the close ceiling in the fore & after holds removed, a part refitted, & a good deal renewed with $2\frac{1}{2}$ Battic fir; the inner surface of shell plating in the new part, thickly coated with portland Cement, & the Cement in other parts examined, & found in good condition, & adhering very satisfactorily to the Iron. The inner surface of plating above the Bilges, including the frames, stringer plates &c, have been cleaned down & painted, and the outer surface coated with two coats of paint. A great part of the upper deck has been renewed with yellow pine; several Hatches renewed and others repaired; The Windlass overhauled, & the chain cables replaced with New.

The owners having made application for the 90A class for this vessel, I beg to refer the Committee to the Secretary's letter of the 20. 7. 72 accompanied by some remarks made on the case, by the Principal Surveyors, and also to a paper of Comparison of scantlings, sent herewith.

1 Anchor now put on board	24.0.21,	5.0.17	tested to	24.1.3.14	Marked R.W.C.
1 $\frac{1}{2}$	23.2.12,	4.2.14	$\frac{1}{2}$	23.11.3.14	$\frac{1}{2}$ R.W.C. E
1 $\frac{1}{2}$	21.0.0		$\frac{1}{2}$	21.2.0.0	original anchor

300 fathoms of $1\frac{9}{16}$ chain cable tested to $43\frac{1}{2}$ tons. Marked R.W.C and signed John Hartness, Test Master. It will be observed that the Anchors and chain cables have been supplied, in accordance with Table 22, issued previous to May 71, they having been arranged for, a considerable time.

She is also classed 18 Years in the Liverpool Registry

Equipment number 20029