

Iron Ship "Dartford" Report No. 11690.

Particulars of Iron Masts & Yards of 3m sailing ship No 80 Building by Messrs. Murray & Storer

	ft. in	dia at deck	Thickness of plates
Fore mast extreme length	78.0	28 $\frac{1}{2}$	$\frac{7}{16}$ 8 $\frac{6}{16}$
Main do do	79.0	28 $\frac{1}{2}$	$\frac{7}{16}$ 8 $\frac{6}{16}$
Mizzen do do	73.0	26 $\frac{1}{2}$ at Bed	$\frac{7}{16}$ 8 $\frac{5}{16}$
Bowsprit do	35.0	31 $\frac{1}{2}$	$\frac{8}{16}$ $\frac{7}{16}$ 8 $\frac{6}{16}$
do outside bed	24.0		

The mast seams are double riveted with 4 & 4 $\frac{1}{2}$ inch caps. All the butts are treble riveted with butt straps outside $\frac{1}{16}$ thicker than plates they connect. The masts are also strengthened at wedging deck with a doubling plate 10.0 ft long. Mast plates about 10 ft long, and are constructed without angle bars and have three plates in the round as per sketch below. The Bowsprit seams are double riveted with 4 $\frac{1}{2}$ inch caps, all the butts are treble riveted with butt straps outside and $\frac{1}{16}$ thicker than plates they connect. The Bowsprit has also a doubling plate at Bed 8.0 ft long and a vertical diaphragm plate at Bed 10.0 ft long. The Bowsprit is constructed with two angle bars 4.3 $\frac{7}{16}$ ft and has three plates in the round as per sketch below.

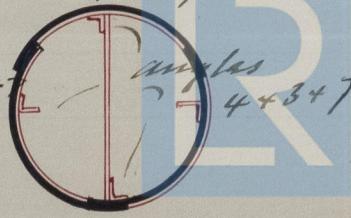
	ft. in	dia at slings	dia at wedges	Thickness of plate
Fore & Main yards extreme length	75.0	18	9	$\frac{6}{16}$ $\frac{5}{16}$ $\frac{4}{16}$ 8 $\frac{3}{16}$
do do lower topsail yards	66.0	16	8	$\frac{5}{16}$ $\frac{4}{16}$ 8 $\frac{3}{16}$
Main upper "	60.0	15	7 $\frac{1}{2}$	$\frac{7}{16}$ 8 $\frac{3}{16}$
Crossjack Yard	58.0	14	7	$\frac{7}{16}$ 8 $\frac{3}{16}$
Mizzen Lower topsail yards	52.0	13	6 $\frac{1}{2}$	$\frac{7}{16}$ 8 $\frac{3}{16}$

The seams of the yards are single riveted, the butts of the plates are overlapped and treble riveted and are constructed without angle bars and have two plates in the round as per sketch below with a doubling plate in way of slings 6.0 ft long except in the 3m yards in which the doubling plate is 8 ft long.

Section of Mast



Section of Bowsprit



Section of yards

