

Public Proving House,

Cardiff, 24th July 1880

Mr A. R. Keydell

Lloyd's Register of British & Foreign Shipping
Cardiff.

This is to Certify that the samples of Angle Iron cut out of Ship's frames, received from you and described hereunder have been proved at this Public Proving Machine to the following test, viz:

All the samples were 20 inches long, and reduced in the centre for testing.

No. of SAMPLE.	SIZE.		AREA.		% OF CON- TRACTION.	ELONGATION IN 6 INCHES.		TEST.		REMARKS.
	BEFORE TESTING.	AFTER TESTING.	BEFORE TESTING.	AFTER TESTING.		INCHES.	% OF	TONS.	TONS PER SQUARE INCH.	
1.	1.15 x .50	1.10 x .49	0.575	0.5390						This sample broke in testing part good fracture, about one half fibrous, and the other crystallized.
	0.65 x .50	0.61 x .49	0.375	0.2987						
	Root 1.20 dia		0.077	0.0770						
			1.027	0.9456	17.66	$\frac{in 6}{0.30}$	6.0	18.2	17.72	
2.	1.025 x .396	0.993 x .357	0.4059	0.3509						This sample broke in root of testing part good fracture fibrous, with a few crystals.
	0.629 x .362	0.619 x .341	0.2276	0.2110						
	Root 1.0 dia		0.343	0.343						
			0.6678	0.5962	10.72	$\frac{in 4\frac{1}{2}}{0.23}$	5.11	12.5	18.71	

I remain

Dear Sir

Yours truly

Geo W Penn

Superintendent.