

Tests made on Messrs J. Spencer & Sons ordinary mild steel 25/10/04

Dimensions of sample

Plate Thickness	Charge Mark	No of Test piece	Total Width	Effective Width	Thickness	Area	Total Tons	Tons per sq in	Remarks
$\frac{1}{2}$	M421 26	20	2.65"	1.66"	.51"	.846	25	29.5	Punched for $\frac{7}{8}$ " rivets
"	"	21	2.63"	1.63"	.51"	.831	25.9	31.1	
"	"	22	2.63"	1.675"	.51"	.854	28.3	33.1	
"	"	23	2.65"	1.69"	.51"	.862	28.4	32.9	Drilled for $\frac{7}{8}$ " rivets
"	"	30	2.63"	1.675"	.51"	.854	28	32.7	
"	"	31	2.63"	1.685"	.51"	.859	28	32.6	
"	"	32	2.65"	1.545"	.51"	.788	26.3	33.3	Punched $\frac{7}{8}$ " & rimmed for $\frac{7}{8}$ " rivets
"	"	33	2.63"	1.55"	.51"	.790	26.5	33.5	
"	"	16	4.5"	2.522"	.51"	1.286	42.3	32.8	Punched for $\frac{7}{8}$ " rivets
"	"	17	4.5"	2.522"	.51"	1.286	41	31	
"	"	18	4.5"	2.625"	.51"	1.339	43.2	32.2	
"	"	19	4.5"	2.625"	.51"	1.339	42.6	31.8	Drilled for $\frac{7}{8}$ " Rivets
"	"	26	4.5"	2.625"	.51"	1.339	45.6	34	
"	"	27	4.5"	2.625"	.51"	1.365	46.3	33.9	
"	"	14	6.125"	3.17"	.51"	1.616	50.7	31.3	Punched for $\frac{7}{8}$ " rivets Drilled for $\frac{7}{8}$ " rivets Punched $\frac{7}{8}$ " & rimmed for $\frac{7}{8}$ " rivets Punched $\frac{7}{8}$ " & countersunk for $\frac{7}{8}$ " rivets
"	"	15	6.125"	3.28"	.51"	1.672	56.8	33.9	
"	"	24	6.125"	3.275"	.51"	1.669	58.1	34.8	
"	"	25	6.125"	2.845"	.51"	1.45	49.2	33.9	

Note. All drilled holes irregular in shape
Effective areas in rivetted joints estimated

Tensile test of plate gave Breaking Strain of 32.3 Tons per sq" with elongation of $22\frac{1}{2}\%$ on length of 8"

Drift tests made on samples 34 & 35 three diameters wide one hole $\frac{7}{8}$ " diameter punched with edge of same 1 dia from end & with 2 dia. between this and the next hole, these holes drifted out to the size shown when fracture occurred.

