

Lag Screw Selection Tables

1S**Single Shear, Wood Side Plate**

Factored lateral resistance

Lag screw diameter in.	Side plate thickness mm	L_p mm	Sawn lumber			Northern		
			S-P-F					
			P'_r kN	$Q'_r{}^3$ kN	$Q'_r{}^4$ kN	P'_r kN	$Q'_r{}^3$ kN	$Q'_r{}^4$ kN
1/4	38	32	0.659	0.489	0.427	0.549	0.408	0.379
	38	38	0.862	0.618	0.543	0.718	0.515	0.481
	38	44	1.04	0.758	0.634	0.905	0.631	0.561
	38	51	1.18	0.908	0.724	1.03	0.756	0.641
	89	32	0.681	0.593	0.427	0.597	0.520	0.379
	89	38	0.889	0.712	0.544	0.777	0.650	0.481
	89	44	1.07	0.830	0.671	0.973	0.758	0.592
	89	51	1.22	0.949	0.808	1.11	0.866	0.711
	38	48	1.17	0.803	0.753	0.976	0.669	0.670
	38	57	1.44	1.03	0.904	1.26	0.860	0.803
	38	67	1.68	1.28	1.05	1.47	1.07	0.937
	38	76	1.91	1.56	1.20	1.68	1.30	1.07
3/8	89	48	1.33	1.05	0.810	1.16	0.962	0.717
	89	57	1.62	1.26	1.04	1.48	1.15	0.917
	89	67	1.90	1.48	1.29	1.73	1.35	1.14
	89	76	2.17	1.69	1.57	1.98	1.54	1.37
1/2	38	64	1.79	1.15	1.21	1.49	0.962	1.08
	38	76	2.22	1.50	1.45	1.96	1.25	1.30
	38	89	2.59	1.89	1.70	2.29	1.57	1.52
	38	102	2.96	2.31	1.94	2.62	1.93	1.73
	89	64	2.30	1.84	1.41	2.01	1.68	1.25
	89	76	2.84	2.21	1.80	2.59	2.02	1.59
	89	89	3.31	2.58	2.24	3.02	2.35	1.97
	89	102	3.78	2.94	2.56	3.45	2.69	2.25
5/8	38	79	2.49	1.54	1.75	2.07	1.28	1.46
	38	95	3.14	2.02	2.10	2.79	1.68	1.75
	38	111	3.67	2.56	2.45	3.26	2.14	2.04
	38	127	4.19	3.16	2.80	3.72	2.64	2.34
	89	79	3.50	2.62	2.14	2.97	2.18	1.90
	89	95	4.35	3.32	2.68	3.87	2.77	2.37
	89	111	5.08	3.95	3.13	4.52	3.40	2.76
	89	127	5.80	4.52	3.57	5.16	4.08	3.16
3/4	38	95	3.26	1.94	2.02	2.72	1.62	1.69
	38	114	4.19	2.58	2.43	3.73	2.15	2.02
	38	133	4.89	3.29	2.83	4.36	2.74	2.36
	38	152	5.59	4.08	3.24	4.98	3.40	2.70
	89	95	4.51	3.19	2.94	3.76	2.66	2.61
	89	114	5.69	4.08	3.53	4.98	3.40	3.13
	89	133	6.64	5.04	4.12	5.82	4.20	3.65
	89	152	7.58	6.08	4.71	6.65	5.07	4.18

Notes:

1. $P_r = P'_r n_{Fe} n_R K'$

$Q_r = Q'_r n_{Fe} n_R K'$

2. Tabulated values are valid for cases where the wood side member is of same density as main member.

3. Main member perpendicular and side member parallel to grain loading.

4. Side member perpendicular and main member parallel to grain loading.