SY42/SY32 Ply-to-Ply Connection Detail

Using Simpson SDW22634 or SDW22500 Strong-Drive®Screws

CNSY42-CDN

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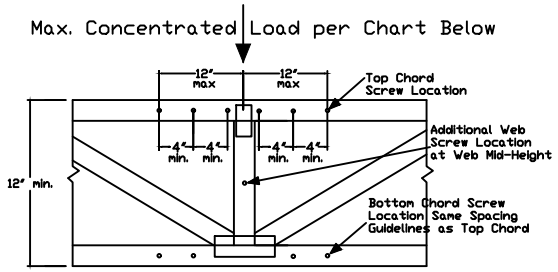
by - MB

ALPINE® AN ITW COMPANY

Markham, ON / Coquitlam, BC / Gatineau, QC



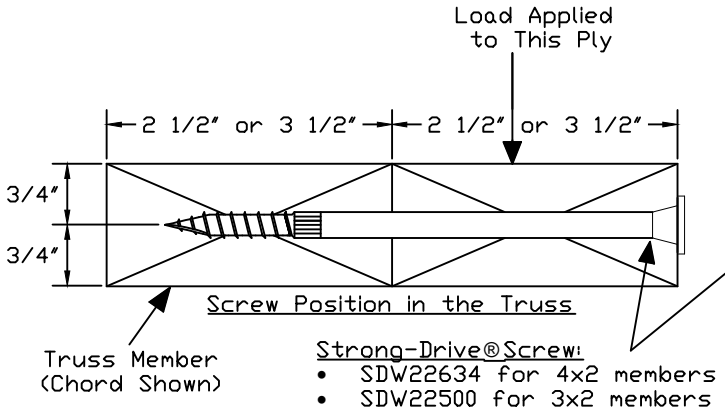
Apply screws to chords within 12" of the concentrated load location @ 4" o.c., min, evenly distributing them to each side of the concentrated load. A maximum of 6 screws may be applied to the top chord for each concentrated load.

For double chords, evenly distribute the screws over both chords, using same spacing guidelines specified above. The maximum number of top chord screws is 6 per chord member for a total maximum of 12 screws.

If the concentrated load connection requires more screws than 6 per chord member and the load is located at a panel point where vertical webs intersect the chord, the remainder of required screws may be applied to those webs below the concentrated load location evenly spaced @ 4" o.c., min, keeping the 6" minimum end distances. Each additional screw is worth 580 lbs for SPF webs and 810 lbs for D.Fir-L webs.

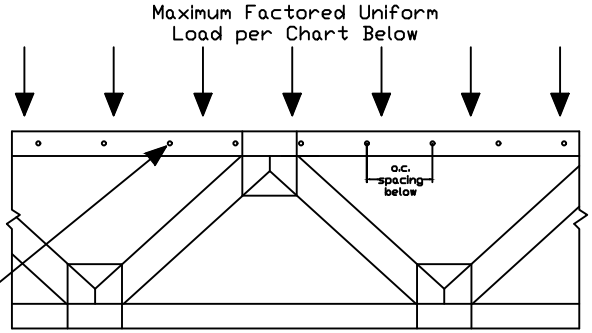
No. of Screws	Maximum Factored Concentrated Load (lbs)	
	SPF	D.Fir-L
1	580	810
2	1160	1620
3	1740	2430
4	2320	3240
5	2900	4050
6	3480	4860
7	4060	5670
8	4640	6480
9	5220	7290
10	5800	8100
11	6380	8910
12	6960	9720

Maximum Member CSI=0.85
See Note 10 below



Strong-Drive®Screw:
- SDW22634 for 4x2 members
- SDW22500 for 3x2 members

General Notes:
1. Screws centered along the 1.5" dimension of the 4x2/3x2 members.
2. Minimum end distance of 3" & minimum web end distance of 6".
3. Screws installed with head in loaded member.
4. Gap between plies not to exceed 1/8".
5. Screw location may be adjusted up to 1" to avoid conflict with other hardware or to avoid lumber defects.
6. Do not install screws in truss plates or in areas where lumber wane exceeds 1/4".
7. Floor or roof sheathing shall be fastened to each top chord ply per the applicable building code requirements.
8. Use Simpson's SDW22634 screws for 4x2 members & use Simpson's SDW22500 screws for 3x2 members.
9. Standard term duration of load (KD=1.00), dry service conditions and non-corrosive environment.
10. Maximum allowable chord & web CSI=0.85 at screw locations.
11. Refer to Simpson Strong-Tie®technical guides for limitations, proper use & installation of SDW screws.
12. Contact Alpine for special connections not covered by this detail.



For single top chord, see chart below for screw spacing. For double top chord the screw spacing may be doubled (but may not exceed 24" o.c. per chord). Screw spacing shall be offset by 1/2 the o.c. spacing in each chord.

Screws need only apply to the extents of that load.

For top chord sections supporting less than a total factored load of 145 plf, apply one screw at each chord joint location.

Top Chord Screw o.c. Spacing (inch)	Maximum Factored Uniform Load (plf) Along Top Chord	
	SPF	D.Fir-L
4	1740	2430
6	1160	1620
8	870	1215
10	696	972
12	580	810
14	497	694
16	435	607
18	386	540
20	348	486
22	316	441
24	290	405

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CCMC #12182-L, 12802-L, 13124-L