

Maximum Factored Point Load Applied to Either Member of 2-Ply TJI® Joists

For floor and roof applications where TJI® joists are supporting concentrated loads from the side, *Trus Joist® TJI® Joist Specifier's Guide (Canada) (TJ-4500)* provides details H2 and H6 in which a header or flush beam may be supported by a 2-ply TJI® joist.

The table below provides filler and backer block sizes for details H2 and H6. It includes values for maximum factored point load applied to either member of a 2-ply TJI® joist (i.e., maximum allowed member reaction of the header or flush beam). Note that other connections may be specified by an engineer of record (EOR).

FILLER AND BACKER BLOCK SIZES (MAXIMUM FACTORED POINT LOAD APPLIED TO EITHER MEMBER OF 2-PLY TJI® JOISTS)

| TJI® | | 110 | | 210 | | 230 or 360 | | 360 | 560 | | |
|---|-----------------------|---------------|-----|--------------------|--------------------|--------------------|--------------------|---------------------|----------------|-----------|-----------|
| Depth | | 9½" - 11⅞" | 14" | 9½" - 11⅞" | 14" - 16" | 9½" - 11⅞" | 14" - 16" | 18" - 20" | 9½" - 11⅞" | 14" - 16" | 18" - 20" |
| Filler Block ^[1] (Detail H2 or H6) | | 2x6 | 2x8 | 2x6 + ⅜" sheathing | 2x8 + ⅜" sheathing | 2x6 + ½" sheathing | 2x8 + ½" sheathing | 2x12 + ½" sheathing | Two 2x6 | Two 2x8 | Two 2x12 |
| Backer Block ^[1] (Detail H2 or H6) | | ⅝" or ¾" | | ¾" or ⅞" | | ⅞" or 1" net | | | 2x6 | 2x8 | 2x12 |
| Nail Size | Filler | (0.131" x 3") | | | | | | | (0.131" x 3½") | | |
| | Backer | | | | | | | | (0.131" x 3") | | |
| Nail Quantity ^[2] | Filler ^[3] | 15 | | | | | | | 32 | | |
| | Backer | | | | | | | | 15 | | |
| Maximum Point Load ^{[4][5]} (Detail H2 or H6) | | 2,610 lb | | | | | | | 2,940 lb | | |

[1] If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist. See detail W in TJ-4500. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.

[2] Clinch nails when possible.

[3] For filler block connection, nails shall be driven from alternating sides.

[4] Maximum factored point load applies only to filler block connection. Additional verification of the 2-ply TJI® joist capacity is required.

[5] Values listed are for standard term loading.

Backer block: Install tight to top flange (tight to bottom flange with face mount hangers). Attach per table above.

Header or Flush Beam

Backer block both sides of web with single TJI® joist

Filler block: Attach per table above.

Header or Flush Beam

Backer block: Install tight to bottom flange (tight to top flange with top mount hangers). Attach per table above.

LSTA18 strap required at H6S

Strap nails: Leave 2⅜" minimum end distance

Variable slope joist hanger. See TJ-4500, pages 16-17 and 25-26. Beveled web stiffener required both sides.



H2 With top mount hangers, backer block required only for factored downward loads exceeding 395 lbs or for uplift conditions



H6S is required for slopes greater than 3:12.

Figure 1: Header or flush beam assemblies as shown in published literature.

If you have any questions, please contact your Weyerhaeuser representative.