

# TOP FLANGE HANGERS LBV/B/BI/HB/HBI

## I-JOIST & STRUCTURAL COMPOSITE LUMBER HANGERS



The B series of Top Flange hangers offers wide versatility for I-joists and Structural Composite Lumber connections to both wood and steel.

The LBV is designed especially for use with multiple ply headers 1½" or 1¾" thick, and may be used for weld-on applications. In addition the LBV features Positive Angle Nailing and does not require the use of web stiffeners for standard non modified I-joist installations.

See Top Flange tables on pages 80 to 93. See Hanger Options on page 147 for hanger modifications, which may result in reduced loads.

**MATERIAL:** See tables, pages 80 to 93.

**FINISH:** LBV, B and HB—Galvanized; all saddle hangers and all welded sloped and special hangers—Simpson gray paint. B and HB may be ordered hot-dip galvanized; specify HDG.

**INSTALLATION:** • Use specified fasteners. See General Notes and nailer table.

- LBV, B and HB may be used for weld-on applications. **Weld size to match material thickness (approximate thickness shown).** The minimum required weld to the top flanges is ¼" x 2" fillet weld to each side of each top flange tab for 14 and 12 gauge and ⅜" x 2" fillet weld to each side of each top flange tab for 7 gauge. Distribute the weld equally on both top flanges. Welding cancels the top and face nailing requirements. Consult the code for special considerations when welding galvanized steel. The area should be well-ventilated. Weld on applications produce the maximum allowable load listed. Uplift loads do not apply to welded applications.
- LBV hangers do not require the use of web stiffeners for non-sloped or non-skewed applications.
- B and HB hangers require the use of web stiffeners.
- Ledgers must be evaluated for each application separately. Check TF dimension, nail length and nail location on ledger.

**OPTIONS:** • LBV, B and HB

- Other widths are available; specify W dimension (the minimum W dimension is 1⅞" for LBV, 1¾" for all others).
- Saddle hangers are made to order; add "D" to model (e.g. HBD412); specify S (for saddle) dimension. They may be used for most conditions except at end wall locations, and are preferred for nailer applications.
- The finish on special B hangers will depend on the manufacturing process used. Check with your Simpson representative for details. Hot-dipped galvanized available: specify HDG.
- B dimensions may be increased on some models. Ordering example: LBV1.56X, B=3.5, H=9.5.
- See Hanger Options, page 147.

**CODES:** See page 8 for Code Listing Key Chart.

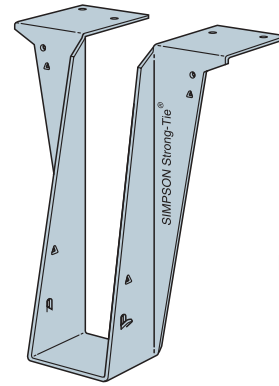
### NAILER TABLE

Model No.	Nailer	Header Nails	Allowable Loads	
			DF/SP	SPF
LBV	2x	6-10dx1½	1835	1835
	2-2x	6-10d	2035	2035
	3x	6-16dx2½	2035	2035
	4x	6-16d	2035	—
B/BI	2x	4-10dx1½	1150	—
	2-2x	4-10d	1400	—
	3x	4-16dx2½	1400	—
		6-16dx2½	2415	—
	4x	4-16d	1400	—
		6-16d	2415	—
HB/HBI	2-2x	8-10d	2495	—
	4x	8-16d	3610	—

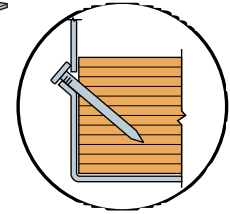
### NAILER TABLE

This shows the maximum allowable loads for LBV, B, BI, HB, and HBI hangers used on wood nailers. Nailers are wood members attached to the top of a steel I-beam, concrete or masonry wall. This table also applies to sloped-seat hangers.

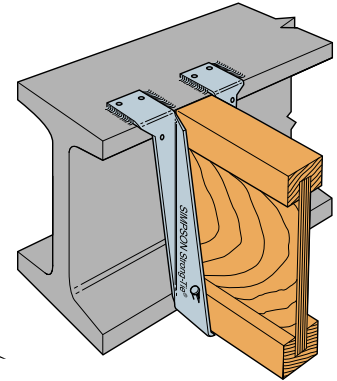
1. See table (pages 80 to 93) for header nail quantity on specific models.



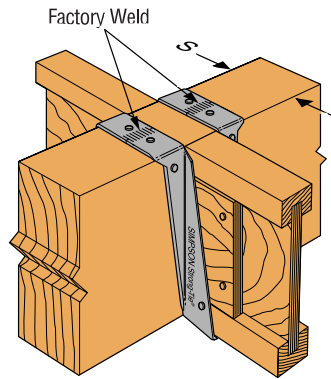
LBV  
(B and HB similar)



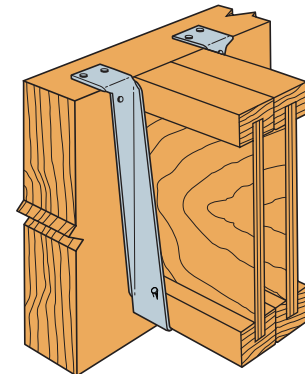
LBV features Positive Angle Nailing, no web stiffeners are required



B, HB and LBV are acceptable for weld-on applications. See Instructions to the Installer, page 9, note f.



Typical BD Saddle Installation



Typical Double LBV Hanger Installation (BI similar)

### B SERIES WITH VARIOUS HEADER APPLICATIONS

Model Series	Fasteners			Allowable Loads Header Type								Code Ref.
	Top	Face	Joist <sup>3</sup>	Uplift (133)	Uplift (160)	DF/SP LVL <sup>7</sup>	PSL	LSL	DF/SP	SPF	DF/SCL I-Joist <sup>4</sup>	
LBV	4-10dx1½	2-10dx1½	2-10dx1½	240	290	1785	1675	1785	1835	1835	1230	26
	4-10d	2-10d	2-10dx1½	240	290	1785	2035	1785	2035	2035	—	170
	4-16d	2-16d	2-10dx1½	240	290	2565	2360	2035	2035	2035	—	26, 83
	4-10dx1½	4-10dx1½	4-10dx1½	480	575	1785	1675	1785	1835	1835	1230	26
	4-10d	4-10d	4-10dx1½	480	575	1785	2035	1785	2035	2035	—	170
	4-16d	4-16d	4-10dx1½	480	575	2565	2360	2035	2895	2035	—	—
BI	2-16d	2-16d	2-10dx1½	245	295	1835	2225	—	2415	1500	—	26, 83
	2-16d	4-16d	2-10dx1½	245	295	2315	2225	—	2665	1835	—	
	4-16d	4-16d	4-10dx1½	425	425	2315	2225	—	2665	1835	—	
HBI	4-10d	4-10d	4-10d	615	615	3000	2820	—	3835	2050	—	170
	4-16d	4-16d	4-10d	615	615	3335	3100	—	3835	2785	—	26, 83

1. Uplift loads have been increased 33% and 60% for wind or earthquake loading with no further increase allowed. Divide by 1.33 and 1.60 for normal loading such as in cantilever construction.
2. Loads may not be increased for short-term loading.
3. Web stiffener required when more than two joist nails are used.
4. I-Joist header with SPF flanges will support 885 lbs.
5. Structural composite lumber is laminated veneer lumber, Parallam® PSL and TimberStrand® LSL.
6. Code values are based on DF/SP header species.
7. Applies to LVL headers made primarily from Douglas Fir or Southern Pine. For LVL made primarily from Spruce Pine Fir or similar less dense veneers, use the values found in the SPF column.

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