

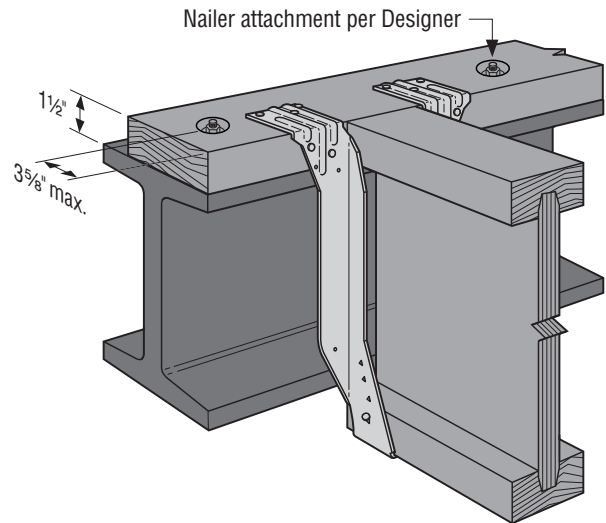
ALLOWABLE LOADS FOR TOP-FLANGE JOIST HANGERS INSTALLED ON NAILERS

This technical bulletin provides allowable loads, including uplift, for many common top-flange joist hangers when installed on wood nailers. Wood nailers may be attached to the top of a steel I-beam, concrete or masonry wall.

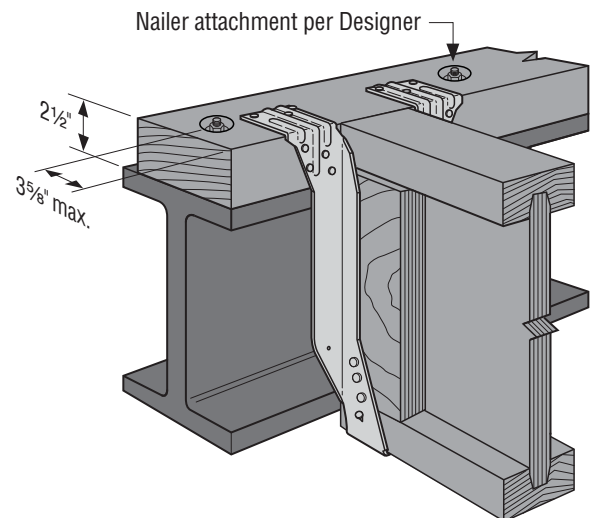
Uplift tests were performed on nominal 8" wide nailers attached to a steel beam, bolted along the centerline of the nailer for application of joist hangers that are spaced 24" (or wider) on center.

INSTALLATION:

- Use specified fasteners.
- The attachment of the nailer to the supporting member is the responsibility of the Designer.
- The edge distance of the nailer attachment should be no greater than 3⁵/₈".
- Optional nail holes are available on several models and may be used to increase uplift capacity (requires web stiffener).
- Some models require web stiffeners; see table for web-stiffener requirements.

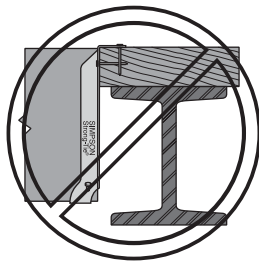


BA Installed on 2x Nailer on Steel Beam



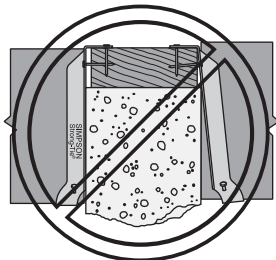
BA Installed on 3x Nailer on Steel Beam with Optional Nailing for Increased Uplift

EXAMPLES OF IMPROPER NAILER SIZE:



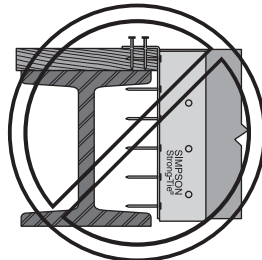
Nailer Too Wide

The loading may cause cross-grain bending. As a general rule, the maximum allowable overhang is 1/4", depending on nailer thickness.



Nailer Too Narrow

A maximum mismatch of 1/8" for normal installations is allowed.



Nailer Too Thin

or the wrong hanger for the application.

ALLOWABLE LOADS FOR TOP FLANGE JOIST HANGERS INSTALLED ON NAILERS



Allowable Loads for Hangers on Wood Nailers¹

Hanger Series	Web Stiffeners Required	Nailer Size	Fasteners			Allowable Loads			
			Top	Face	Joist	Douglas Fir/Southern Pine		Spruce-Pine-Fir/Hem Fir	
						Uplift ²	Download	Uplift ²	Download
						(160)	(100)	(160)	(100)
ITS	—	2x	4-10dx1 1/2	2-10dx1 1/2	—	105	1260	105	1260
	—	2-2x	4-10d	2-10d	—	105	1220 ³	105	1220 ³
	—	3x	4-16dx2 1/2	2-16dx2 1/2	—	105	1500 ³	105	—
	—	4x	4-16d	2-16d	—	105	1525 ³	105	—
	✓	2x	4-10dx1 1/2	2-10dx1 1/2	2-10dx1 1/2	355	1260	190	1260
	✓	2-2x	4-10d	4-10d	4-10dx1 1/2	630	1745	630	1530
	✓	3x	4-16dx2 1/2	4-16dx2 1/2	4-10dx1 1/2	630	1540	630	—
MIT	—	2x	4-10dx1 1/2	2-10dx1 1/2	2-10dx1 1/2	215	1570 ³	190	1440
	—	2-2x	4-10d	4-10d	2-10dx1 1/2	215	1570	215	1255
	—	3x	4-16dx2 1/2	4-16dx2 1/2	2-10dx1 1/2	215	1975 ³	215	—
	—	4x	4-16d	4-16d	2-10dx1 1/2	215	2250 ³	215	—
	✓	2x	4-10dx1 1/2	2-10dx1 1/2	4-10dx1 1/2	355	1570 ³	190	1440
	✓	2-2x	4-10d	4-10d	4-10dx1 1/2	575	1570	575	1255
	✓	3x	4-16dx2 1/2	4-16dx2 1/2	4-10dx1 1/2	575	1975 ³	575	—
HIT	—	2-2x	4-10d	6-10d	2-10dx1 1/2	315	2525	315	1950
	—	3x	4-16dx2 1/2	6-16dx2 1/2	2-10dx1 1/2	315	2835	315	—
	—	4x	4-16d	6-16d	2-10dx1 1/2	315	3050 ³	315	—
	✓	2-2x	4-10d	6-10d	4-10dx1 1/2	575	2525	575	1950
	✓	3x	4-16dx2 1/2	6-16dx2 1/2	4-10dx1 1/2	575	2835	575	—
LBV	—	2x	6-10dx1 1/2	4-10dx1 1/2	2-10dx1 1/2	265	2280	190	2085
	—	2-2x	6-10d	4-10d	2-10dx1 1/2	265	1955	265	1530
	—	3x	6-16dx2 1/2	4-16dx2 1/2	2-10dx1 1/2	265	2490	265	—
	—	4x	6-16d	4-16d	2-10dx1 1/2	265	2590	265	—
	✓	2x	6-10dx1 1/2	4-10dx1 1/2	6-10dx1 1/2	355	2280	190	2085
	✓	2-2x	6-10d	4-10d	6-10dx1 1/2	710	1955	655	1530
	✓	3x	6-16dx2 1/2	4-16dx2 1/2	6-10dx1 1/2	900	2490	655	—
B less than 2 1/2" wide	✓	2-2x	6-10d	8-10d	6-10dx1 1/2	710	3615	710	2770
	✓	3x	6-16dx2 1/2	8-16dx2 1/2	6-10dx1 1/2	970	3725	710	—
	✓	4x	6-16d	8-16d	6-10dx1 1/2	990	3800	710	—
B 2 1/2" and wider	✓	2-2x	6-10d	8-10d	6-16dx2 1/2	710	3615	710	2770
	✓	3x	6-16dx2 1/2	8-16dx2 1/2	6-16dx2 1/2	970	3725	710	—
	✓	4x	6-16d	8-16d	6-16dx2 1/2	1010	3800	710	—
	—	2x	6-10d	4-10d	2-10dx1 1/2	265	2220	190	1755
BA	—	2-2x	6-10d	8-10d	2-10dx1 1/2	265	2695	265	2235
	—	3x	6-16dx2 1/2	8-16dx2 1/2	2-10dx1 1/2	265	3230 ³	265	—
	—	4x	6-16d	8-16d	2-10dx1 1/2	265	3300 ³	265	—
	✓	2x	6-10d	4-10d	8-10dx1 1/2	355	2220	190	1755
	✓	2-2x	6-10d	8-10d	8-10dx1 1/2	710	2695	710	2235
	✓	3x	6-16dx2 1/2	8-16dx2 1/2	8-10dx1 1/2	970	3230 ³	710	—
	✓	4x	6-16d	8-16d	8-10dx1 1/2	1170	3300 ³	710	—
HB	✓	4x	6-16d	16-16d	10-16dx2 1/2	1550	5500	—	—
WPU	✓	2-2x	3-10d	4-10d	6-10dx1 1/2	710 ⁴	3255	705	2510
	✓	3x	3-16dx2 1/2	4-16dx2 1/2	6-10dx1 1/2	775 ⁴	3000	705	—
	✓	4x	3-16d	4-16d	6-10dx1 1/2	775 ⁴	3255	705	—
HWU	✓	2-2x	4-16dx2 1/2	4-16dx2 1/2	6-10dx1 1/2	710 ⁵	5430	710	—
	✓	3x	4-16dx2 1/2	4-16dx2 1/2	6-10dx1 1/2	810 ⁵	5430	710	—
	✓	4x	4-16d	4-16d	6-10dx1 1/2	810 ⁵	5430	710	—

1. Loads apply to hangers that have not been modified (e.g. sloped, skewed, etc.). For modified hangers, refer to the Hanger Options section of the current Wood Construction Connectors catalog for the applicable load reduction(s).
 2. The uplift values in this table apply to 24" o.c. and wider spacing of hangers. For closer spacing, reduce uplift values by a factor of (hanger spacing)/24".
 3. These hangers may deflect an additional 1/32" at design load.
 4. For WPU when 18 1/2" ≤ H ≤ 22 1/2" allowable uplift equal to 485 lbs. When H ≥ 23" allowable uplift equal to 315 lbs.
 5. For HWU when 18 1/2" ≤ H ≤ 22 1/2" allowable uplift equal to 765 lbs. When 23" ≤ H ≤ 28" allowable uplift equal to 635 lbs.