

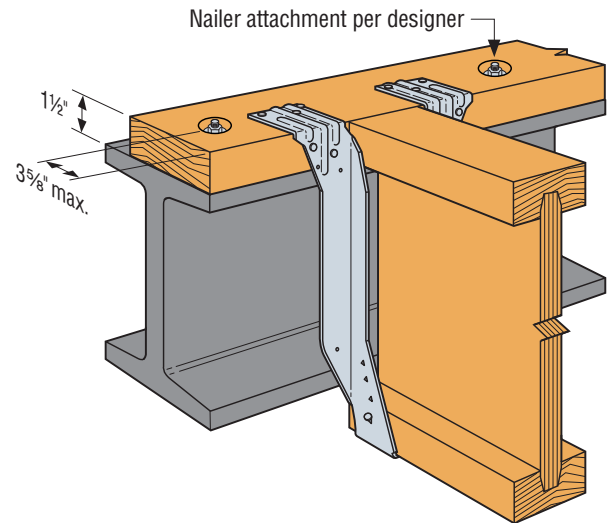
# Allowable Loads for Top-Flange Joist Hangers Installed on Nailers

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.

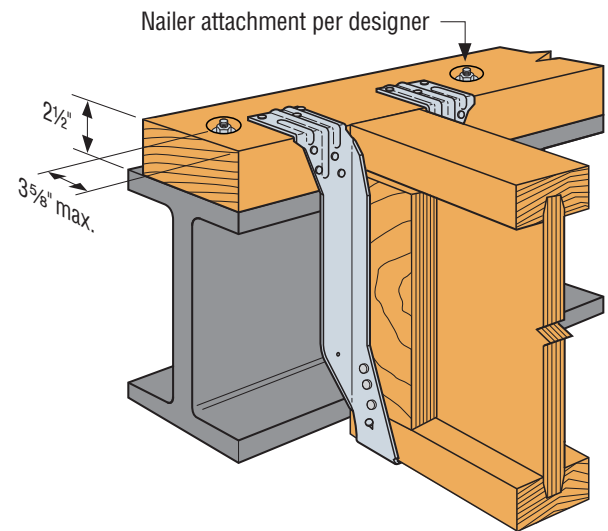
Uplift tests were performed on nailers with a nominal width of 8" and attached to a steel beam along the centerline of the nailer assuming a joist hanger spacing of 24" o.c. minimum.

### 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 3 5/8"
- 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

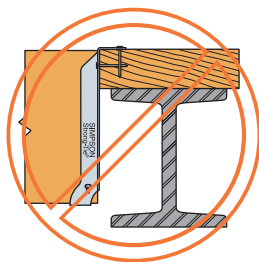


BA Installed on 2x Nailer on Steel Beam

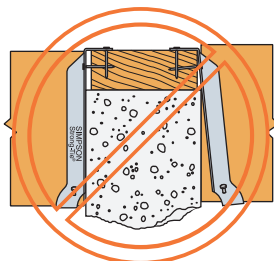


BA Installed on 3x Nailer on Steel Beam with Optional Nailing for Increased Uplift

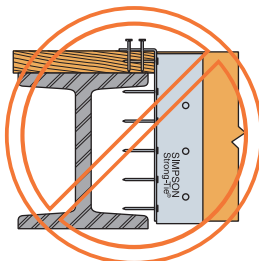
### Examples of Improper Nailer Size



**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 is used for the application.



# Allowable Loads for Top-Flange Joist Hangers Installed on Nailers

## Allowable Loads for Hangers on Wood Nailers

Hanger Series	Web Stiffeners Required	Nailer Size	Fastener			Allowable Loads (lb.)			
			Top (in.)	Face (in.)	Joist (in.)	Douglas Fir/Southern Pine		Spruce-Pine-Fir/Hem-Fir	
						Uplift <sup>2</sup>	Download	Uplift <sup>2</sup>	Download
						(160)	(100)	(160)	(100)
ITS	—	2x	(4) 0.148 x 1½	(2) 0.148 x 1½	—	120	1,260	105	1,260
	—	(2) 2x	(4) 0.148 x 3	(2) 0.148 x 3	—	120	1,220	105	1,220
	—	3x	(4) 0.163 x 2½	(2) 0.163 x 2½	—	120	1,500	—	—
	—	4x	(4) 0.163 x 3½	(2) 0.163 x 3½	—	120	1,525	—	—
	√	2x	(4) 0.148 x 1½	(2) 0.148 x 1½	(2) 0.148 x 1½	355	1,260	190	1,260
	√	(2) 2x	(4) 0.148 x 3	(4) 0.148 x 3	(4) 0.148 x 1½	630	1,745	630	1,530
	√	3x	(4) 0.163 x 2½	(4) 0.163 x 2½	(4) 0.148 x 1½	630	1,540	—	—
	√	4x	(4) 0.163 x 3½	(4) 0.163 x 3½	(4) 0.148 x 1½	630	1,905	—	—
MIT	—	2x	(4) 0.148 x 1½	(2) 0.148 x 1½	(2) 0.148 x 1½	215	1,475	190	1,440
	—	(2) 2x	(4) 0.148 x 3	(4) 0.148 x 3	(2) 0.148 x 1½	215	1,630	215	1,255
	—	3x	(4) 0.163 x 2½	(4) 0.163 x 2½	(2) 0.148 x 1½	215	1,975	—	—
	—	4x	(4) 0.163 x 3½	(4) 0.163 x 3½	(2) 0.148 x 1½	215	2,250	—	—
	√	2x	(4) 0.148 x 1½	(2) 0.148 x 1½	(4) 0.148 x 1½	355	1,570	190	1,440
	√	(2) 2x	(4) 0.148 x 3	(4) 0.148 x 3	(4) 0.148 x 1½	575	1,570	575	1,255
	√	3x	(4) 0.163 x 2½	(4) 0.163 x 2½	(4) 0.148 x 1½	575	1,975	—	—
	√	4x	(4) 0.163 x 3½	(4) 0.163 x 3½	(4) 0.148 x 1½	575	2,250	—	—
HIT	—	(2) 2x	(4) 0.148 x 3	(6) 0.148 x 3	(2) 0.148 x 1½	305	2,595	315	1,950
	—	3x	(4) 0.163 x 2½	(6) 0.163 x 2½	(2) 0.148 x 1½	305	2,835	—	—
	—	4x	(4) 0.163 x 3½	(6) 0.163 x 3½	(2) 0.148 x 1½	305	3,050	—	—
	√	(2) 2x	(4) 0.148 x 3	(6) 0.148 x 3	(2) 0.148 x 1½	575	2,595	575	1,950
	√	3x	(4) 0.163 x 2½	(6) 0.163 x 2½	(2) 0.148 x 1½	575	2,835	—	—
	√	4x	(4) 0.163 x 3½	(6) 0.163 x 3½	(2) 0.148 x 1½	850	3,050	—	—
BA	—	2x	(6) 0.148 x 3	(4) 0.148 x 3	(2) 0.148 x 1½	255	2,220	220	1,755
	—	(2) 2x	(6) 0.148 x 3	(8) 0.148 x 3	(2) 0.148 x 1½	255	2,695	220	2,235
	—	3x	(6) 0.163 x 2½	(8) 0.163 x 2½	(2) 0.148 x 1½	255	3,230	220	2,650
	—	4x	(6) 0.163 x 3½	(8) 0.163 x 3½	(2) 0.148 x 1½	255	3,230	—	—
	√	2x	(6) 0.148 x 3	(4) 0.148 x 3	(8) 0.148 x 1½	355	2,220	190	1,755
	√	(2) 2x	(6) 0.148 x 3	(8) 0.148 x 3	(8) 0.148 x 1½	710	2,695	710	2,235
	√	3x	(6) 0.163 x 2½	(8) 0.163 x 2½	(8) 0.148 x 1½	970	3,230	—	—
	√	4	(6) 0.163 x 3½	(8) 0.163 x 3½	(8) 0.148 x 1½	1,170	3,230	—	—
HB	√	(2) 2x	(6) 0.148 x 3	(12) 0.148 x 3	(10) 0.148 x 1½	585	3,680	505	3,000
	√	3x	(6) 0.163 x 2½	(12) 0.163 x 2½	(10) 0.148 x 1½	885	3,680	765	3,000
	√	4x	(6) 0.163 x 3½	(16) 0.163 x 3½	(10) 0.148 x 1½	1,465	5,200	—	—
HWP	√	(2) 2x	(3) 0.148 x 3	(6) 0.148 x 3	(10) 0.148 x 1½	710	4,415	610	3,860
	√	3x	(3) 0.163 x 2½	(6) 0.163 x 2½	(10) 0.148 x 1½	970	4,415	835	3,860
	√	4x	(3) 0.163 x 2½	(6) 0.163 x 2½	(10) 0.148 x 1½	1,535	4,920	1,320	3,860
HWPB	√	(2) 2x	(4) 0.163 x 2½	(8) 0.163 x 2½	(10) 0.148 x 1½	710	5,910	610	4,820
	√	3x	(4) 0.163 x 2½	(8) 0.163 x 2½	(10) 0.148 x 1½	970	5,970	835	5,125
	√	4x	(4) 0.163 x 3½	(8) 0.163 x 3½	(10) 0.148 x 1½	1,550	5,970	1,335	5,125

1. Loads apply to hangers that have not been modified (e.g., sloped, skewed). 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".