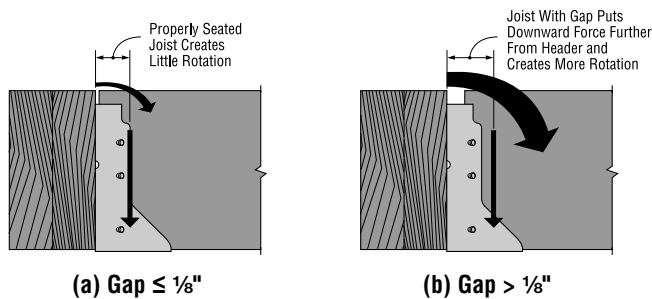


# ALLOWABLE LOADS FOR HANGERS WITH GAPS

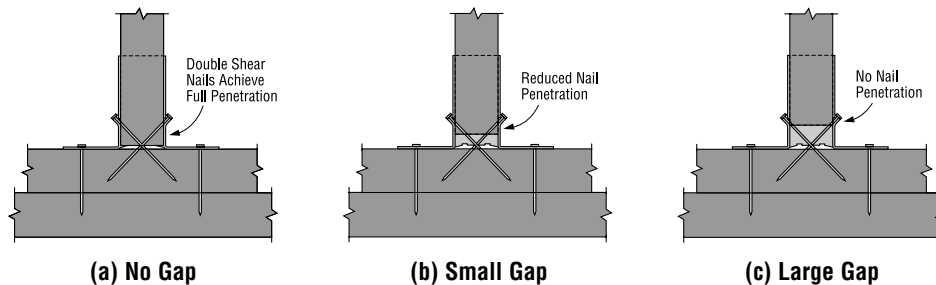
As a requirement of the building codes, Simpson Strong-Tie® hangers are load tested in accordance with approved procedures which define how to construct the test setup, how to load the assembly, and how to interpret the results. The test standards for hangers, ASTM D7147, ASTM D1761 and ICC-ES AC13, require that hangers be tested with a 1/8" gap between the end of the carried member and the carrying member. Therefore, for hangers to achieve the full published allowable loads, the same conditions must be met in the field, i.e., that gaps between the carried member and carrying member not exceed 1/8".

Testing performed by Simpson Strong-Tie has indicated that hanger allowable loads are decreased when larger gaps are present. The amount of decrease in allowable load depends on the size of the gap, the type of hanger used, and the type and location of fasteners. Figures 1 and 2 below illustrate two ways in which gaps affect hanger performance.

**Figure 1 – Rotational Effects of Hanger Gaps on Download Capacity (Side View)**



**Figure 2 – Effects of Gaps on Double Shear Nailing for Uplift Capacity (Top View)**



If a gap > 1/8" exists between the end of a carried member and the carrying member the hanger must be verified to ensure that it has adequate load capacity. Testing was performed to establish allowable loads for common truss hangers with gaps up to 3/8". These allowable loads are shown in Tables 1 and 2. Testing was also performed to determine possible field remedies and repair scenarios when needed for a gap condition. Based on these additional tests, some possible repair options are provided on pages 4 and 5 for use by the Truss Designer or a Design Professional (Designer).

## RECOMMENDED ACTION FOR HANGERS WITH GAPS > 1/8"

- In all cases involving a gap between the end of a carried truss and the girder that exceeds 1/8", the Truss Manufacturer should be notified to ensure that the truss is not adversely affected by the gap. In addition, all field remedies and repairs for gaps must be designed and approved by the Truss Designer or a Design Professional.
- For gaps up to 3/8", refer to the allowable loads in Tables 1 (DFL/SYP) and 2 (SPF/HF). (Note: Allowable loads for HTU hangers with gaps up to 1/2" are given in Table 6.) If the reduced allowable loads for a gap greater than 1/8" meet or exceed the design loads (download and uplift) for the hanger, the hanger is adequate and requires no repair to carry the loads. If any design load exceeds the corresponding allowable load, a repair or field modification is required to meet the design loads. See pages 4 and 5 for some possible repair options.
- For gaps greater than 3/8" (1/2" for the HTU series), a repair is required unless otherwise approved. See page 5 for some possible repair options.



# ALLOWABLE LOADS FOR HANGERS WITH GAPS

TABLE 1 – DFL/SYP ALLOWABLE LOADS

Hanger Model	Up to 1/8" gap between the Joist and Header <sup>1</sup>						3/8" gap between the Joist and Header <sup>1</sup>					
	Uplift <sup>2</sup>		Floor (100)	Snow (115)	Roof (125)	Wind (133)	Uplift <sup>2</sup>		Floor (100)	Snow (115)	Roof (125)	Wind (133)
	(133)	(160)					(133)	(160)				
<b>Single 2x Sizes</b>												
LUS24	465	490	640	735	800	850	225	225	640	655	655	655
LUS26	930	1115	830	955	1040	1110	445	445	830	850	850	850
MUS26	1090	1090	1310	1505	1640	1740	645	645	1310	1505	1605	1605
HUS26	1550	1550	2565	2950	3205	3335	790	790	2370	2370	2370	2370
HGUS26	2325	2325	3940	4700	4700	4700	610	610	2650	2650	2650	2650
LUS28	930	1115	1055	1210	1320	1405	445	445	1055	1075	1075	1075
MUS28	1555	1555	1750	2010	2185	2325	935	935	1750	2010	2050	2050
HUS28	2000	2000	3585	3700	3775	3840	1305	1305	2975	2975	2975	2975
HGUS28	3220	3220	5970	5970	5970	5970	1190	1190	4155	4155	4155	4155
LUS210	930	1115	1275	1470	1595	1700	445	445	1275	1310	1310	1310
HUS210	2845	3000	3775	3920	4020	4100	1450	1450	3135	3135	3135	3135
THA29	750	750	2125	2310	2350	2350	360	360	1505	1505	1505	1505
<b>Double 2x Sizes</b>												
HHUS26-2	1550	1550	2580	2965	3225	3440	740	740	2580	2965	3225	3440
HGUS26-2	2325	2325	3940	4535	4930	5240	805	805	2920	2920	2920	2920
HGUQ26-2	1635	1635	3695	4250	4620	4930	1620	1620	3230	3230	3230	3230
HHUS28-2	2000	2000	3885	4465	4855	5180	1350	1350	3885	4465	4710	4710
HGUS28-2	3220	3220	6805	7830	7925	7925	1125	1125	4775	4775	4775	4775
HGUQ28-2	2465	2565	6160	7085	7330	7330	2465	2565	5185	5185	5185	5185
HHUS210-2	2855	3430	5190	5900	5900	5900	1370	1370	4792	4792	4792	4792
HGUS210-2	3630	3630	8650	8940	8940	8940	1270	1270	5590	5590	5590	5590
HGUQ210-2	3285	3440	7415	7415	7415	7415	3285	3440	7140	7140	7140	7140
<b>Triple 2x Sizes</b>												
HGUS26-3	2325	2325	3940	4535	4930	5240	815	815	2920	2920	2920	2920
HGUQ26-3	1635	1635	3695	4250	4620	4930	1635	1635	2975	2975	2975	2975
HGUS28-3	3220	3220	6805	7830	7925	7925	1125	1125	4775	4775	4775	4775
HGUQ28-3	2465	2565	6160	7085	7700	8215	2465	2465	4855	4855	4855	4855
HHUS210-3	2855	3430	5190	5900	5900	5900	1370	1370	4792	4792	4792	4792
HGUS210-3	3630	3630	8780	8940	8940	8940	1270	1270	5590	5590	5590	5590
HGUQ210-3	3285	3440	8625	9745	9745	9745	3285	3440	6730	6730	6730	6730
<b>Quadruple 2x Sizes</b>												
HGUS26-4	2325	2325	3940	4535	4930	5240	815	815	2920	2920	2920	2920
HGUQ26-4	1635	1635	3695	4250	4620	4930	1635	1635	2975	2975	2975	2975
HGUS28-4	3220	3220	6805	7830	7925	7925	1125	1125	4775	4775	4775	4775
HGUQ28-4	2465	2955	6160	7085	7700	8215	2465	2955	4855	4855	4855	4855
HHUS210-4	2855	3430	5190	5970	6490	6920	1370	1370	4792	4792	4792	4792
HGUS210-4	3630	3630	8780	8940	8940	8940	1270	1270	5590	5590	5590	5590
HGUQ210-4	3285	3940	8625	9920	10260	10260	3285	3940	6730	6730	6730	6730
HGUS212-4	4055	4055	9155	9155	9155	9155	1420	1420	5860	5860	5860	5860
HGUS214-4	5380	5380	10015	10015	10015	10015	1885	1885	6410	6410	6410	6410
<b>4x Sizes</b>												
HHUS46	1550	1550	2580	2965	3225	3440	740	740	2580	2965	3225	3440
HGUS46	2325	2325	3940	4535	4930	5240	1390	1390	2920	2920	2920	2920
HGUQ46	1635	1635	3695	4250	4620	4930	1635	1635	2980	2980	2980	2980
HUS48	1550	1550	1505	1730	1885	2010	790	790	1250	1250	1250	1250
HHUS48	2000	2000	3885	4465	4855	5180	1350	1350	3885	4465	4710	4710
HGUS48	3220	3220	6805	7830	7925	7925	1925	1925	4775	4775	4775	4775
HGUQ48	2465	2565	6160	7085	7330	7330	2465	2565	5060	5060	5060	5060
HHUS410	2855	3430	5190	5900	5900	5900	1370	1370	4792	4792	4792	4792
HGUS410	3630	3630	8780	8940	8940	8940	2170	2170	5590	5590	5590	5590
HGUQ410	3285	3440	7415	7415	7415	7415	3285	3440	7140	7140	7140	7140
HGUS412	4055	4055	9155	9155	9155	9155	2425	2425	5830	5830	5830	5830
HGUS414	5380	5380	10015	10015	10015	10015	3215	3215	6375	6375	6375	6375
THA418 (Max)	1550	1550	2830	3050	3050	3050	630	630	1835	1835	1835	1835
THA422 (Max)	1550	1550	3630	4090	4145	4145	585	585	2135	2135	2135	2135

- For hanger gaps between 1/8" and 3/8" use allowable downloads for 3/8" gap. Uplift load may be interpolated between 1/8" and 3/8" values.
- Uplift loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed.
- For hanger models not listed, contact Simpson Strong-Tie for allowable loads when the gap exceeds 1/8".



# ALLOWABLE LOADS FOR HANGERS WITH GAPS

TABLE 2 – SPF/HF ALLOWABLE LOADS

Hanger Model	Up to 1/8" gap between the Joist and Header <sup>1</sup>					3/8" gap between the Joist and Header <sup>1</sup>						
	Uplift <sup>2</sup>		Floor (100)	Snow (115)	Roof (125)	Wind (133)	Uplift <sup>2</sup>		Floor (100)	Snow (115)	Roof (125)	Wind (133)
	(133)	(160)					(133)	(160)				
<b>Single 2x Sizes</b>												
LUS24	390	465	540	625	675	730	190	215	540	555	555	555
LUS26	780	935	700	805	875	950	375	375	700	715	715	715
MUS26	915	915	1100	1265	1380	1465	540	540	1100	1265	1350	1350
HUS26	1465	1550	2210	2490	2540	2580	745	790	2040	2000	1880	1880
HGUS26	1995	1995	3410	3920	4070	4070	525	525	2295	2210	2295	2295
LUS28	780	935	890	1025	1115	1185	375	375	890	910	910	910
MUS28	1305	1305	1470	1690	1835	1955	785	785	1470	1690	1725	1725
HUS28	1720	1720	2580	2680	2745	2800	1120	1120	2140	2155	2165	2165
HGUS28	2705	2705	4245	4405	4510	4510	1000	1000	2955	3065	3140	3140
LUS210	780	935	1085	1245	1355	1445	375	375	1085	1110	1115	1115
HUS210	2320	2780	2745	2870	2955	3025	1180	1345	2280	2295	2305	2315
THA29 (Min)	645	645	1740	1785	1815	1815	310	310	1160	1160	1160	1160
THA29 (Max)	645	645	1740	1785	1815	1815	310	310	1160	1160	1160	1160
<b>Double 2x Sizes</b>												
HHUS26-2	1395	1550	2165	2490	2710	2960	665	740	2165	2490	2710	2960
HGUS26-2	1995	1995	3410	3920	4260	4535	690	690	2525	2525	2525	2525
HGUQ26-2	1415	1635	3180	3655	3975	4240	1400	1620	2780	2780	2780	2780
HHUS28-2	1860	2000	3275	3765	4095	4355	1255	1350	3275	3765	3975	3975
HGUS28-2	2705	2705	5890	6320	6425	6575	945	945	4135	4135	4135	4135
HGUQ28-2	2120	2545	5300	6095	6625	6625	2120	2545	4450	4450	4450	4450
HHUS210-2	2330	2795	4385	4795	4875	4945	1120	1120	4050	4050	4050	4050
HGUS210-2	3050	3050	6515	6775	6865	7065	1065	1065	4210	4235	4295	4420
HGUQ210-2	2825	3390	7220	7415	7415	7415	2825	3390	6950	7140	7140	7140
<b>Triple 2x Sizes</b>												
HGUS26-3	1995	1995	3410	3920	4260	4535	700	700	2525	2525	2525	2525
HGUQ26-3	1415	1635	3180	3655	3975	4240	1415	1635	2560	2560	2560	2560
HGUS28-3	2705	2705	5890	6655	6655	6655	945	945	4135	4135	4135	4135
HGUQ28-3	2120	2545	5300	6095	6625	7065	2120	2445	4175	4175	4175	4175
HHUS210-3	2330	2795	4385	5040	5075	5075	1120	1120	4050	4095	4120	4120
HGUS210-3	3050	3050	7510	7510	7510	7510	1065	1065	4780	4780	4780	4780
HGUQ210-3	2825	3390	7420	8535	9275	9275	2825	3390	5790	5895	6405	6405
<b>Quadruple 2x Sizes</b>												
HGUS26-4	1955	1955	3410	3920	4260	4535	685	685	2525	2525	2525	2525
HGUQ26-4	1415	1695	3180	3655	3975	4240	1415	1695	2560	2560	2560	2560
HGUS28-4	2705	2705	5890	6655	6655	6655	945	945	4130	4060	4060	4060
HGUQ28-4	2120	2545	5300	6095	6625	7065	2120	2545	4175	4175	4175	4175
HHUS210-4	2450	2940	4475	5145	5595	5970	1175	1175	4030	4130	4130	4130
HGUS210-4	3050	3050	7510	7510	7510	7510	1065	1065	4780	4780	4780	4780
HGUQ210-4	2825	3390	7420	8535	9275	9275	2825	3390	5790	5790	5790	5790
HGUS212-4	3405	3405	7690	7690	7690	7690	1190	1190	4920	4920	4920	4920
HGUS214-4	4520	4520	8415	8415	8415	8415	1585	1585	5385	5385	5385	5385
<b>4x Sizes</b>												
HHUS46	1395	1550	2165	2490	2710	2960	665	740	2165	2490	2710	2960
HGUS46	1995	1995	3410	3920	4260	4535	1195	1195	2525	2525	2525	2525
HGUQ46	1415	1635	3180	3655	3975	4240	1415	1635	2565	2565	2565	2565
HUS48	1315	1550	1240	1425	1550	1650	670	790	1030	1030	1030	1030
HHUS48	1860	2000	3275	3765	4095	4355	1255	1350	3275	3765	3975	3975
HGUS48	2705	2705	5890	6655	6655	6655	1615	1615	4135	4135	4135	4135
HGUQ48	2120	2545	5300	6095	6625	6625	2120	2545	4355	4355	4355	4355
HHUS410	2330	2795	4385	5040	5075	5075	1120	1120	4050	4095	4120	4120
HGUS410	3050	3050	7365	7510	7510	7510	1825	1825	4695	4695	4695	4695
HGUQ410	2825	3390	7415	7415	7415	7415	2825	3390	7140	7140	7140	7140
HGUS412	3405	3405	7690	7690	7690	7690	2035	2035	4895	4895	4895	4895
HGUS414	4520	4520	7890	8185	8380	8380	2700	2700	5025	5025	5025	5025
THA418 (Max)	1355	1355	2385	2740	2980	3050	550	550	1545	1650	1795	1835
THA422 (Max)	1355	1355	3075	3145	3195	3195	510	510	1810	1810	1810	1810

- For hanger gaps between 1/8" and 3/8" use allowable downloads for 3/8" gap. Uplift load may be interpolated between 1/8" and 3/8" values.
- Uplift loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed.
- For hanger models not listed, contact Simpson Strong-Tie for allowable loads when the gap exceeds 1/8".

# ALLOWABLE LOADS FOR HANGERS WITH GAPS

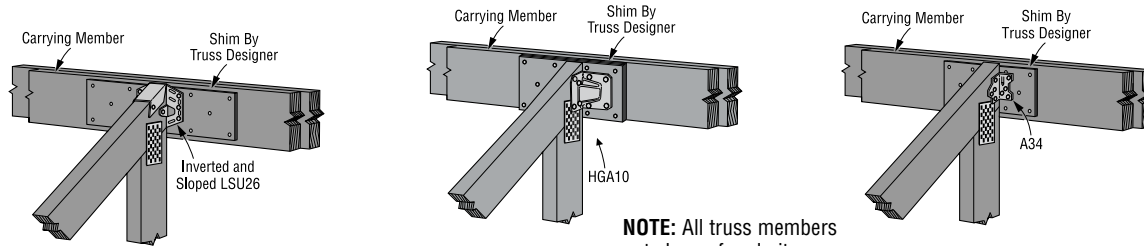
## LIGHT REPAIR OPTIONS FOR GAPS UP TO 3/8"

When the reduced allowable load for a hanger with a gap > 1/8" (see Tables 1 and 2) is less than the design load, a supplemental connector may be added to the top or bottom chord to obtain additional download and uplift, as shown in Tables 3 and 4 below. The allowable loads (uplift and download) of the supplemental connector and the reduced allowable load for the hanger can be added together to meet or exceed the design load.

**TABLE 3**

Supplemental Connector to Top Chord <sup>1,2</sup>											
Min. Carrying Member <sup>3</sup>	Model No.	Fasteners		Douglas Fir/Southern Pine Allowable Loads				Spruce-Pine Fir/Hem Fir Allowable Loads			
		Carried Member	Carrying Member	Uplift <sup>6</sup> (133 & 160)	Floor (100)	Snow (115)	Roof (125)	Uplift <sup>6</sup> (133 & 160)	Floor (100)	Snow (115)	Roof (125)
2x4	A34	4-8dx1½	4-8dx1½	365	345	365	365	315	295	315	315
2x6	LSU26 <sup>4,5</sup>	5-10dx1½	6-10d	800	365	420	455	690	310	360	390
2x6	HGA10 <sup>5</sup>	4-SDS¼x1½	4-SDS¼x3	1165	1010	1165	1165	870	870	870	870

- Shim thickness shall be as such to fit tightly between end of the carried member and the girder chord. Shim material and attachment shall be specified by a Truss Designer or Design Professional. Refer to shim detail notes on page 5.
- Other supplemental connectors may be used as determined by the Designer.
- Minimum carrying member shown is required to provide enough connection area for the supplemental connector.
- Loads shown for the LSU26 reflect an inverted installation.
- LSU26 and HGA10 require minimum 2 ply girder.
- Uplift loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed.

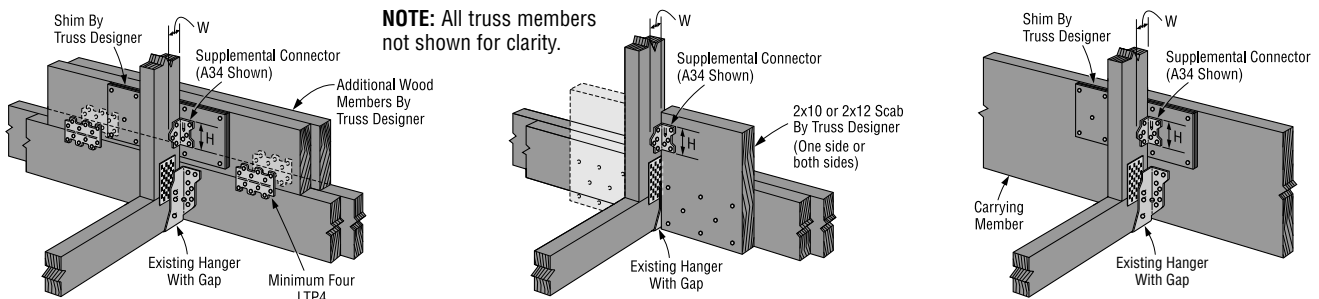


**NOTE:** All truss members not shown for clarity.

**TABLE 4**

Supplemental Connector to Bottom Chord or Support Beam <sup>1,2</sup>												
Model No.	Height <sup>3</sup> (H)	Width <sup>3</sup> (W)	Fasteners		Douglas Fir/Southern Pine Allowable Loads				Spruce-Pine Fir Allowable Loads			
			Carried Member	Carrying Member	Uplift <sup>4</sup> (133 & 160)	Floor (100)	Snow (115)	Roof (125)	Uplift <sup>4</sup> (133 & 160)	Floor (100)	Snow (115)	Roof (125)
A34	2½	17/16	4-8dx1½	4-8dx1½	365	345	365	365	315	295	315	315
HGA10	3½	2	4-SDS¼x1½	4-SDS¼x3	1165	1010	1165	1165	870	870	870	870
LS50	47/8	2¼	4-10dx1½	4-10dx1½	485	365	420	455	420	315	365	395
LS70	63/8	2¼	5-10dx1½	5-10dx1½	540	455	520	540	470	395	455	470

- Shim thickness shall be as such to fit tightly between the connector and the end of the carried member (if the shim is between the carried member and the carrying member). Shim material and attachment shall be specified by a Truss Designer or Design Professional. Refer to shim detail notes on page 5.
- Other supplemental connectors may be used as determined by the Designer.
- Refer to the figures below for the height and width dimensions of the supplemental connectors, to determine the min. connection area required.
- Uplift loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed.



**NOTE:** All truss members not shown for clarity.

# ALLOWABLE LOADS FOR HANGERS WITH GAPS

## REPAIR OPTIONS FOR GAPS > 3/8" OR HIGHER LOAD REQUIREMENTS

The following are repair options for hangers with a gap > 3/8", or conditions where the design load requirements for the hanger require a repair beyond a supplemental connector (as shown on page 4):

**Option 1:** Add a scab to both sides of a single-ply carried truss (and existing hanger) and then install a 3-ply HGUQ hanger of equivalent size (Refer to Table 5).

**Option 2:** Remove existing LUS, MUS, HUS or HHUS hanger and install the same size HTU hanger in its place. Allowable loads for HTU hangers for gaps up to 1/2" are given in Table 6. If the gap is 1/2" or less and the HTU allowable loads with 1/2" max. gap meet the design loads, no shim is required behind the HTU.

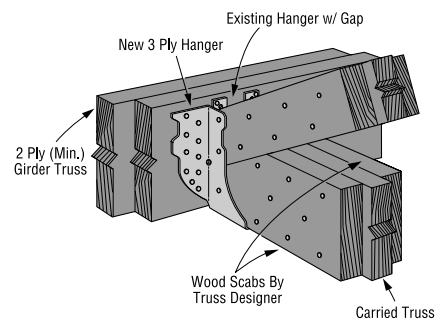
**Option 3:** Remove existing hanger, install continuous shim or blocking behind truss to reduce gap to 1/8" or less, then install new hanger that meets the design load requirements. See shim detail below.

TABLE 5

3-Ply Hanger over existing Single-Ply Hanger (with Wood Blocking)			
Model No.	Fasteners		Allowable Loads
	Carried Member	Carrying Member	
HGUQ26-3	(4)-SDS1/4x1 1/2 <sup>1</sup>	(12)-SDS1/4x3 <sup>2</sup>	Equivalent (or better) to single-ply LUS, MUS, HUS, HGUS models of same size
HGUQ28-3	(6)-SDS1/4x1 1/2 <sup>1</sup>	(20)-SDS1/4x3 <sup>2</sup>	
HGUQ210-3	(8)-SDS1/4x1 1/2 <sup>1</sup>	(28)-SDS1/4x3 <sup>2</sup>	

1. This repair application requires 1-1/2" long SDS screws into the carried member, which are not provided with the HGUQ hanger.

2. Up to 2 screws into the carrying member may interfere with the original single-ply hanger and are not required to be installed.



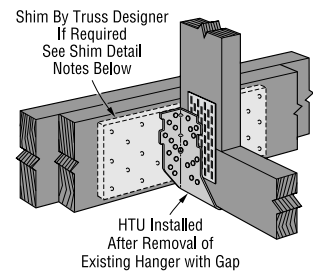
Option 1

TABLE 6

HTU Hanger in place of removed existing LUS, MUS, HUS, or HHUS Hanger <sup>1</sup>										
Model No.	Fasteners		Douglas Fir/Southern Pine Allowable Loads				Spruce-Pine Fir/Hem Fir Allowable Loads			
	Carrying Member	Carried Member	Uplift <sup>4</sup> (133)	Floor (100)	Snow (115)	Roof (125)	Uplift <sup>4</sup> (133)	Floor (100)	Snow (115)	Roof (125)
<b>HTU Allowable Loads with 1/2" Max. Gap<sup>2,3</sup></b>										
HTU26	20-16d	20-10dx1.5	1215	2880	3290	3580	1045	2370	2370	2370
HTU28	26-16d	26-10dx1.5	1870	3720	4275	4655	1710	3225	3710	3760
HTU210	32-16d	32-10dx1.5	3255	4575	5020	5020	2800	3765	3765	3765
HTU26-2	20-16d	20-10d	1910	2880	3290	3500	1645	2205	2205	2205
HTU28-2	26-16d	26-10d	3035	3720	4275	4655	2610	3225	3710	4055
HTU210-2	32-16d	32-10d	3855	4575	5260	5730	3315	3970	4565	4855

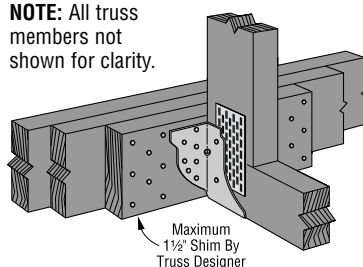
1. The existing LUS, MUS, HUS, or HHUS hanger must be removed with care so as to not cause damage to the wood members. The loads shown for the HTU require attachment of the HTU into wood that is not split or damaged.  
2. Loads shown are the HTU Alternate Allowable Loads for 1/2" Maximum Hanger Gap. Refer to the current *Wood Construction Connector* catalog for the Standard Allowable Loads (1/8" Maximum Hanger Gap).

3. Loads shown are for maximum nailing. Refer to the current *Wood Construction Connector* catalog for minimum nailing loads.  
4. Uplift loads have been increased 33% and 60% for earthquake or wind loading with no further increase allowed.



Option 2

**NOTE:** All truss members not shown for clarity.



Shim Detail

### SHIM DETAIL NOTES

A shim may be installed between the carried truss and girder truss to reduce a gap to 1/8" or less provided:

1. The size, material, and attachment of the shim must be designed by the Truss Designer or other Design Professional.
2. The shim must be an engineered lumber material with a specific gravity equal to or greater than the specific gravity of the truss to which it is attached.
3. Fasteners used to attach the shim must be independent of the hanger fasteners so that the shim and truss act as a single unit, and required loads are transferred.
4. Shim fastener spacing and edge distances shall be in accordance with the *National Design Specification for Wood Construction*.

# ALLOWABLE LOADS FOR HANGERS WITH GAPS



## EXAMPLE - HANGER INSTALLED WITH GAP > 1/8"

Given: HUS26 installed with a 3/8" gap.  
Carried truss is DF with 2600 lb. download and 1100 lb. uplift.

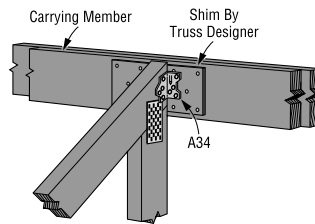
**Per Table 1:** Reduced allowable download (@ 125) = 2370 lb. < 2600 lb.  
Reduced allowable uplift (@ 133) = 790 lb. < 1100 lb.

Need additional 230 lb. download and 310 lb. uplift.

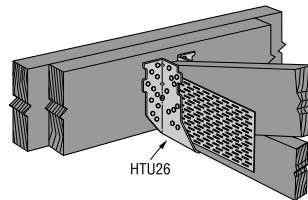
### Solution 1 - Truss With End Vertical

Select supplemental connector to attach to girder top chord (with shim) from Table 3.

Model No.	DF Allowable Loads	
	Uplift	Roof (125)
A34	365	365
HUS26 with 3/8" gap	790	2370
<b>Combined Total</b>	1155 > 1100 ok	2735 > 2600 ok



**NOTE:** All truss members not shown for clarity.



### Solution 2 - Truss Without End Vertical

Remove HUS26 and install HTU26 in its place:

**Per Table 6:** HTU26 download with 1/2" max. gap = 3580 lb. > 2600 OK  
HTU26 uplift with 1/2" max. gap = 1215 lb. > 1100 OK  
No shim required behind HTU26.

**Note:** Other options could work. The actual field remedy or repair must be designed and approved by the Truss Designer. All shims and scabs must be designed by the Truss Designer.

## GUIDELINES FOR PREVENTING GAPS

### Considerations from BCSI-1 (Guide to Good Practice for Handling, Installing, & Bracing Metal Plate Connected Wood trusses), Section BCSI-B2:

- Check that building dimensions match the construction plans.
- Check that supporting headers, beams, walls, and lintels are accurately and securely installed.
- Check that load bearing walls are plumb and properly braced.
- Check trusses for correct dimensions.
- Take any corrective action on these items prior to truss installation.

### General Simpson Recommendations:

- Watch for gaps during installation. Check to see if the gap can be reduced to within tolerance by balancing the gap between both ends of the carried member.
- Shim out gaps prior to hanger installation. If the truss framing into a beam or girder falls short by more than 1/8", a shim may be installed to the beam or girder to fill the gap, prior to installing the hanger (shim design and approval by Truss Designer).
- HTU hangers have published alternate allowable loads for gaps up to 1/2" to allow for greater construction tolerances.

*This bulletin is effective until January 31, 2010, and reflects information available as of December 1, 2007. This information is updated periodically and should not be relied upon after January 31, 2010; contact Simpson for current information and limited warranty or see [www.strongtie.com](http://www.strongtie.com).*

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