

# Cracked or Broken Member Repair Detail

This drawing specifies repairs for a truss with broken chord or web member.

This design is valid only for single ply trusses with 2x4 or 2x6 broken members. No more than one break per chord panel and no more than two breaks per truss are allowed. Contact the truss manufacturer for any repairs that do not comply with this detail.

(B) = Damaged area, 12' max length of damaged section  
 (L) = Minimum nailing distance on each side of damaged area (B)  
 (S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) = (2xL) + (B)

Scab member length (S) must be within the broken panel.

Nail into 2x4 members using two (2) rows at 4' o.c., rows staggered.

Nail into 2x6 members using three (3) rows at 4' o.c., rows staggered.

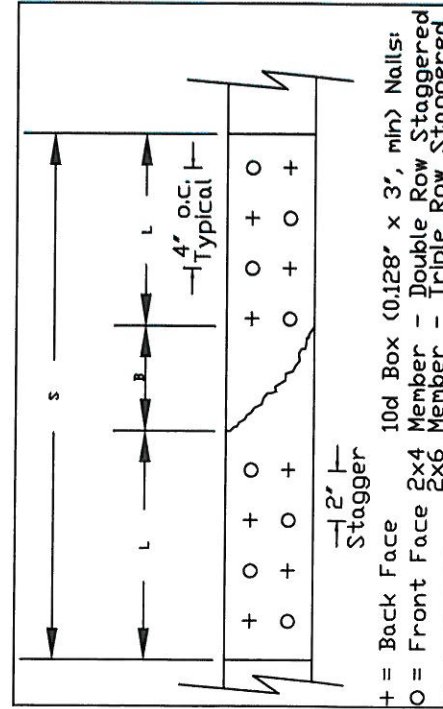
Nail using 10d box or gun nails (0.128"x3", min) into each side member.

The maximum permitted lumber grade for use with this detail is limited to Visual grade #1 and MSR grade 1650f.

This repair detail may be used for broken connector plate at mid-panel splices.

This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

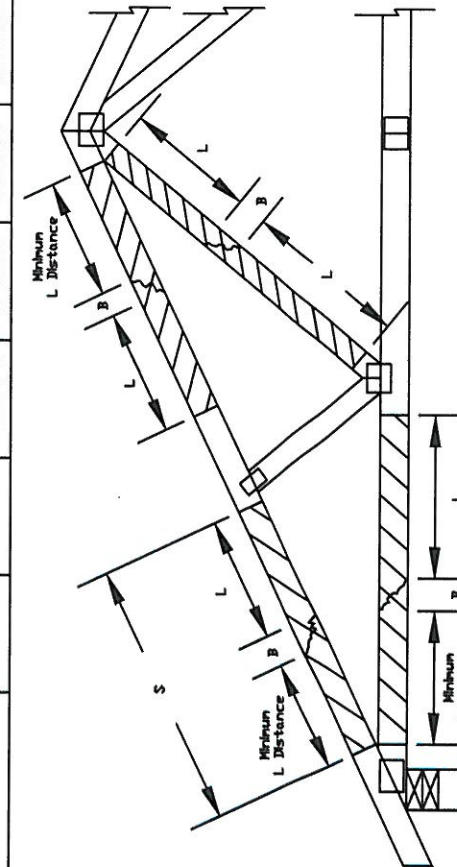
Broken chord may not support any tie-in loads.



Nail Spacing Detail

Load Duration = 0%  
 Member forces may be increased for Duration of Load

Member	Size	L	Maximum Member Axial Force			
			SPF-C	HF	DF-L	SYP
Web Only	2x4	12'	620#	635#	730#	800#
Web Only	2x4	18'	975#	1055#	1295#	1415#
Web or Chord	2x4	24'	975#	1055#	1495#	1745#
Web or Chord	2x6		1465#	1585#	2245#	2620#
Web or Chord	2x4	30'	1910#	1960#	2315#	2555#
Web or Chord	2x6		2230#	2365#	3125#	3575#
Web or Chord	2x4	36'	2470#	2530#	2930#	3210#
Web or Chord	2x6		3535#	3635#	4295#	4745#
Web or Chord	2x4	42'	2975#	3045#	3505#	3835#
Web or Chord	2x6		4395#	4500#	5225#	5725#
Web or Chord	2x4	48'	3460#	3540#	4070#	4445#
Web or Chord	2x6		5165#	5280#	6095#	6660#



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23/2019

DATE 10/01/14  
DRWG REPCHRD1014

REF MEMBER REPAIR

SPACING 24.0' MAX

**DISCLAIMER: READ AND FOLLOW ALL NOTES ON THIS DRAWING BEFORE INSTALLING.**  
 TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO AND FOLLOW THE LATEST EDITION OF IBCS BUILDING COMPONENT SAFETY INFORMATION, BY TPI AND SCSA FOR SAFETY INFORMATION. UNLESS NOTED OTHERWISE, TOP CHORDS SHALL BE INSTALLED IN ACCORDANCE WITH THE IBCS. UNLESS NOTED OTHERWISE, TOP CHORDS SHALL BE INSTALLED IN ACCORDANCE WITH THE IBCS. ALL CHORDS SHALL HAVE A PROPERLY ATTACHED RIGID CEILING. LOCATIONS SHOWN FOR PERMANENT LISTS AND TEMPORARY CHORDS SHALL HAVE BRACING INSTALLED PER IBCS SECTIONS 303.37 OR 303.38, AS APPLICABLE. APPLY PLATES TO EACH FACE OF TRUSS AND POSITION AS SHOWN ABOVE AND ON THE JOINT DETAILS, UNLESS NOTED OTHERWISE.  
 THE DESIGN DIVISION OF ITW BUILDING COMPONENTS GROUP INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DRAWING. THE USER SHALL BE RESPONSIBLE FOR THE TRUSS IN CONFORMANCE WITH AISI/TPI 1, OR FOR HANDLING, SHIPPING, INSTALLATION & BRACING OF TRUSSES.  
 A SEAL ON THIS DRAWING OR COVER PAGE LISTING THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE DESIGN SHOWN. THE SUITABILITY AND USE OF THIS DRAWING FOR ANY STRUCTURE IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER AISI/TPI 1 Sec.2.  
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