



Truss Repair

Every truss is made up of lumber and metal connector plates that are carefully designed and manufactured to carry specific loads. Damage, alterations or improper installations will reduce the strength of a truss.

Follow these steps if a truss is damaged, altered or improperly installed:

1. Report damage, alterations or installation errors to the Truss Manufacturer immediately. Failure to report may void any warranties.
2. Do not attempt to repair the truss without a repair detail from the Truss Manufacturer.
3. Follow the repair detail exactly.
4. If required, keep the repair details, the building inspector may ask to have this information documented.

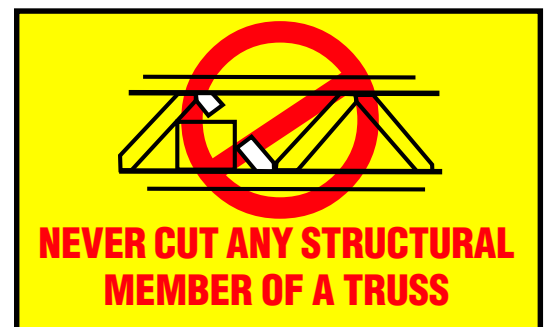
There are no “standard” repair details available. Trusses and the type of damage can vary greatly so each repair detail is generated on a case-by-case basis. Truss Designers most often specify:

- ✓ Plywood, oriented strand board (OSB) gussets over damaged plates or joints.
- ✓ Metal nail-on plates.
- ✓ Lumber scabs or repair frames over broken chords or webs.

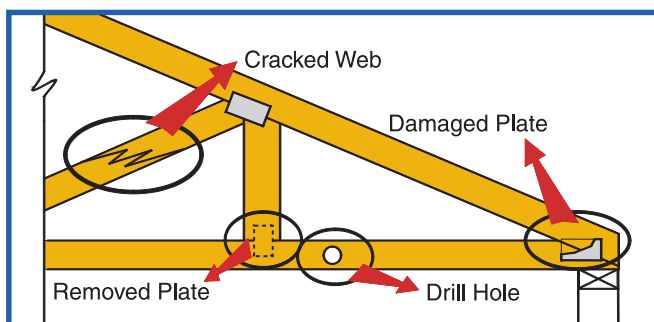
The Truss Designers’ design expertise allows them to properly specify the size of the scab or gusset, and the number, size, type and spacing of fasteners. When the repair detail is completed correctly, the final truss will support the same loads as the original, undamaged truss.



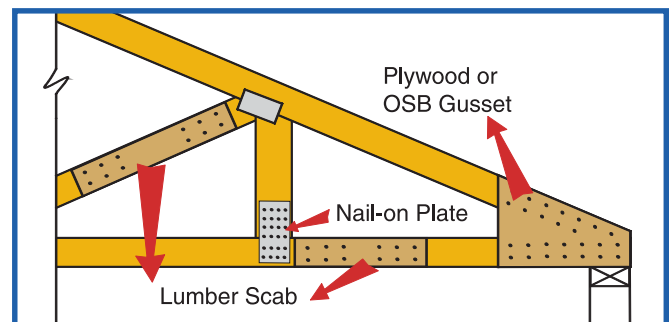
Courtesy of John Meeks, P.E.



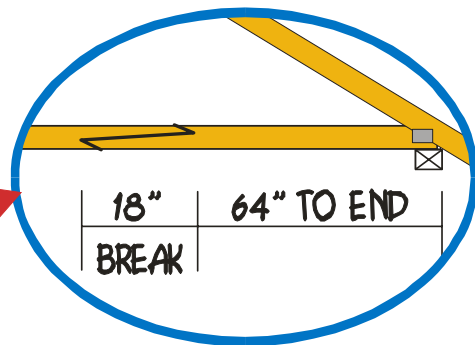
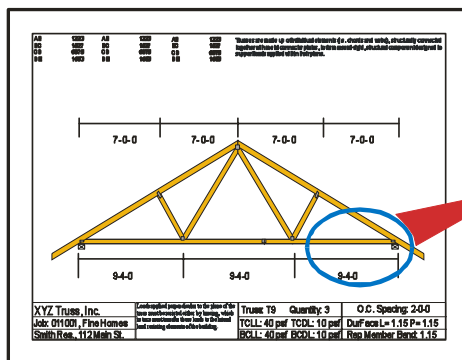
Examples of Damages or Alterations



Examples of Repairs



Describe the Damage Directly on the Truss Design Drawing Included in the Job Package

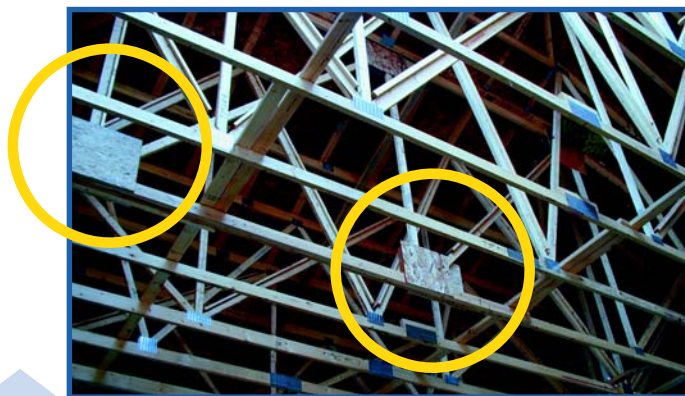


A great help to starting the repair process is to draw a picture of the damage on the original Truss Design Drawing and fax or deliver it to the Truss Manufacturer. Be prepared to supply the Truss Manufacturer with the following information:

- Truss ID mark.
- Location of the truss on the truss placement plan.
- Is the truss installed or is it still in the stack?
- Is the **lumber damaged**? If so provide:
 - Location of damaged web or chord.
 - Type of lumber damage (e.g. crack, break, cut or drilled).
 - Dimension of the damaged area (e.g. 4" break or 2" drill hole).
 - Location of damage on the web or chord from the panel point or bearing location.
- Are the **plates damaged**? If so, provide:
 - Location or number of the damaged plate or joint.
 - Type of plate damage (e.g. loose, gaps, peeling, cut or drilled).
 - Is there damage to one or both faces of the joint?



An example of a properly repaired truss after it was shortened four inches.



An example of properly repaired truss plates.

Wood Truss Council of America

One WTCA Center
 6300 Enterprise Lane • Madison, WI 53719
 608/274-4849 • 608/274-3329 (fax)
 www.woodtruss.com • wtca@woodtruss.com

Truss Technology IN BUILDING

An informational series designed to address the issues and questions faced by professionals in the building construction process.