



# GN GUIDELINES

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## Be not afraid to reject a truss

Murphy's Law dictates that when things can go wrong, they inevitably will. So it's not surprising that trusses sometimes get damaged during storage or handling, or modified by electrical or plumbing tradies to fit services during installation. It's important that site supervisors are vigilant to reject and peg these trusses for rectification as soon as possible. The four stages of activity that contribute the most towards damage are transport, storage, lifting and handling. Appendix E in AS 4440 gives guidance on the best practices in these areas.

**Transport:** trusses should be kept straight and fully supported when being transported. No excess stress should be placed on any part of the truss from the tie-down straps or bracing. Where necessary, right-angle corner protectors should be used to avoid damage.

**Storage:** trusses should be stored flat on relatively smooth ground, so as not to allow excessive bending to occur. Blocking should be used to keep them elevated above the ground to protect them from moisture.

(a) If trusses are stored horizontally, the blocking should be at 2.0m to 2.5m centres, or as required, to prevent the trusses bending.

(b) If trusses are stored vertically, they should be supported at the designed support locations or bottom chord panel points, and secured in a manner that will prevent them toppling over.

Stored trusses should be protected from the elements in a manner that provides adequate ventilation. If tarpaulins or similar covers are used, ends should be left open for ventilation.

### LIFTING AND HANDLING

Under no circumstances should trusses be dragged heel first over the top plate. Throughout all phases of installation,

care should be taken to avoid excessive bending or sagging of the trusses, which can cause joint and timber damage.

Where possible, trusses should be lifted by crane in a vertical position. Spreader bars with attachments to panel points should be used where the truss span exceeds 9m. Trusses should not be lifted by the apex joint only.

In general, trusses should be slung from top chord panel points. Sling hooks should be located at equal distances from the centre-line, and be approximately one-third to one-half truss length apart. The angle between sling legs should be less than 60 degrees.

AS 4440 states that "Trusses designed and manufactured for the criteria other than those being used on site shall be not be used without being approved." Hence, when trusses arrive on site, their documentation (certificate, layout) should be checked against construction drawings to ensure that the site location and design specifications are all consistent.

At every stage from delivery to installation, the trusses should be inspected for any sign of damage. Clause 3.10 in AS 4440 gives guidance on rejection criteria.

Trusses with severely degraded timber or nailplate due to poor storage should not be installed prior to rectification or replacement. If any truss has been cut, drilled, damaged, or if a manufacturing error is discovered, the truss supplier should be notified to provide an adequate rectification detail.

Examples of manufacturing error or damage that are deemed severe enough to warrant attention include the following:

- Broken or split timbers.
- Missing nailplates on one/both joint sides.
- Nailplates not fully embedded or obviously misplaced, eg, missing connection to a member at a joint.
- Any nailplate showing evidence of teeth flattening, or excessive timber splitting under the nailplate.
- A truss that is not supported at its designated location should also be rejected.

If a truss is already loaded when the fault is discovered, the load should be alleviated off the truss until it is rectified.

It pays to be observant and vigilant to make sure that any truss damage, should it occur, is spotted and corrected as soon as possible. **T**



A Topchord broken out B Broken web C Nailplate dislodged D Wrong nailplate placement

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