

PROPER STORAGE OF TRUSSES



by **ROBERT TAN**
Senior Engineer,
MiTek Australia Limited

Strong as they are, trusses are vulnerable to damage if they are not handled properly or protected from the effects of weather during storage.

The Australian standard for the installation of nailplated timber roof trusses (AS 4440) provides some useful guidelines on the proper handling and storage of roof trusses.

The first thing a builder should do on receipt of a stack of trusses is to check for any damage that may have occurred in transit.



Poor bundling and stacking of trusses causing nailplate failure.

However, any damage found should not be repaired without prior approval from the truss fabricator. Thereafter, the following simple rules on site storage should be followed.

1. Store On Flat Surface

An area that is even, flat and smooth should be prepared on site for the temporary storage of trusses. Undulating ground or badly sloping surfaces are not suitable.

Storing trusses on an uneven surface may place excessive stresses on the timber members and joints, risking timber breakages and/or plates to pull out.

2. Store Above Ground

Trusses should never be placed on wet ground.

When laid on flat, they should always be placed on deep billets or blocking at 2.0m-2.5m spacing, or less as required, so the trusses are not bending in between the blocks.

If the trusses are stored upright, the blocking should be positioned at panel points.

Importantly, the bundle of trusses should also be secured in a manner that will prevent tipping or toppling, which may cause serious personal injury.

3. Protect From Weather

If the trusses have to be stored for an extended period of time, they should be protected from weather.

Excessive or prolonged exposure to sun and rain can cause a

multitude of problems especially to seasoned timber, such as fungal damage, timber distortion and splitting, loss of camber, nailplate corrosion and withdrawal.

If they cannot be stored indoors, they should be covered with tarpaulin or other similar weatherproof material.

4. Provide Adequate Ventilation

This is especially important when trusses are stored under tarpaulin or similar cover. The ends of the cover should be left open to allow air to flow through freely.

In prolonged dampness, fungal growth will spread quickly through timber and the metal nailplates may corrode.

Free air circulation will dry any condensation that builds up under the cover.

It is advisable that each stack of trusses be spaced apart to improve ventilation.

Summary

Trusses should always be stored and handled with care. Prolonged distortion under storage can lead to unwanted timber and plate damage.

Extended exposure to sunlight and moisture will quickly decay timber and corrode nailplates.

A truss installation book is supplied with every pack of trusses to remind how they should be handled and stored.



Laying trusses on uneven ground causes distortion and unwanted stresses to build.



Prolonged exposure to weather causing timber splitting and joint failure.