



THATCHERS ASSOCIATION OF SOUTH AFRICA DEKKERSVERENIGING VAN SUID-AFRIKA

NEWSLETTER

CHECKS AND ANTI-SPLIT PLATES

The Thatchers Association's office often receives inquiries regarding, among other things, poles that split and missing nail plates - especially on the interior of thatched roofs.

SAWPA's (South African Wood Preservers Association) advice was asked about this and below is their response.



“Checks occur because:

- Wood is a natural product that is prone to drying defects, which includes end checks and face checks.
- The occurrence and level of checking ranges from minimal to extreme, dependent on the timber specie, density, growing conditions, the speed at which drying takes place, equilibrium moisture content and conditions.
- Some species (e.g. commercially planted eucalyptus grand is and hybrids) are even more prone to checking due to inherent stresses.

The use of anti-split plates to are specified in the SANS standard for CCA treated poles, and the minim requirement for coverage is at least 35% of the pole end. The main reason why anti-split plates are required for CCA treated poles is because CCA is a waterborne preservative.

- The poles are initially seasoned to $\leq 30\%$ moisture content before undergoing a vacuum and pressure treatment with CCA, which means the pole must again get rid of free moisture due to chemical treatment, as well as remaining bound moisture that was contained in the pole prior to treatment (usually between 15-30%).
- Dimensional changes (shrinkage) during seasoning only occurs once the moisture goes below fibre saturation point (around 30%).
- The closer the moisture level in the wood gets to equilibrium moisture content the greater the dimensional changes are, which can lead to checking.
- The rate at which moisture loss occurs can play a significant role, e.g. during August and September its usually very dry, and poles treated during this time tend to check more.

The problem with thatching poles is that in most cases the poles are cut on site and the anti-split plates are not replaced, or if replaced, the size is not sufficient to prevent checking.

Because it's a natural occurring defect in gum poles SANS 457-3 allows limits to checking:

End checks:

- Number: 4 per end
- Length
 - o Top end: 200mm or 2 ½ x top diameter, whichever is the greater
 - o Butt end: 300mm or 5 x butt diameter, whichever is the greater
 - The maximum allowance of a single end check (top or butt) may exceed the relevant maximum, but shall not exceed ¼ the length of the pole
- Width: 1/10 the diameter, measured midway along the check
- Depth: may not exceed half of the average mid-length diameter of the pole

Surface checks:

- Number: No limit
- Length: ¼ of the length of the pole
- Width 1/8 the diameter of the pole, measured at the midway along the check
- Depth: may not exceed half of the average mid-length diameter of the pole

NOTE: Checks of less than 3mm width and shorter than 100mm is not regarded as checks

The nail plates are only a precautionary measure to control end checks which are largely an aesthetic feature.

Regards

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“PROS & CONS IN THE THATCHING INDUSTRY”

The Guide, “Pros & Cons in the Thatching Industry” is compiled and expanded to include compact information that cannot be covered in our “A Guide to Thatch Construction in South Africa”. It largely aims to make as much information as possible available to thatch owners, contractors as well as insurance inspectors.

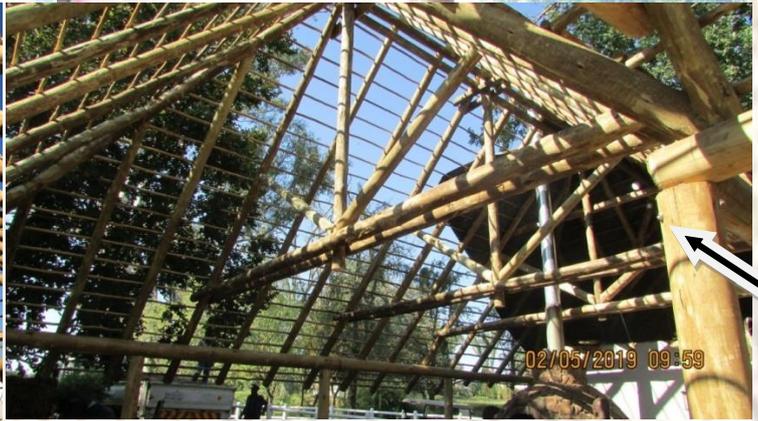
Mostly due to insufficient knowledge and malpractice, our industry suffers great damage and insurance claims are not paid out or claims are unduly paid out which arose due to a construction problem and which does not justify the payment of a claim.

Below are examples from Mr. David Pretorius of Con-Thatch on how to fix structural problems. If there are any of our members who would also like to contribute, you are more than welcome to send your photos with descriptions to the TASA office.

A SOLUTION IF A HIP IS TOO LONG



A WAY OF ATTACHING A RING BEAM TO A COLUMN





A WAY TO RAISE THE OVERHANG TO CREATE AN OPENING



Kind regards

André Friis

NATIONAL CHAIRMAN

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