Ted's News February 2018

Predrilling Joists for Screws is Critical

Last Four Years of Newsletters now Available

Timber Treatments do not Repel Insects

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Timber Consultant

Predrilling Joists for Screws is Critical



Newly Laid High Quality Decking

I have been involved with a consultancy where a large deck needs to be replaced prematurely. When the deck was originally built someone tried to reinvent the wheel rather than follow our guides and missed important details. It makes the \$400 investment trivial but back then

they were free. The asset owner, to their great credit, has planned to succeed this time around and has taken great pains to get the details right. This is something that should be done on every deck but seldom is. After stressing how the screws must be staggered to avoid joist splitting, I was surprised that they were in a straight line but, because everyone involved was aware of the problem, there had to be a reason.





When you stagger and predrill the joist does not The poor quality of decking you may receive if split

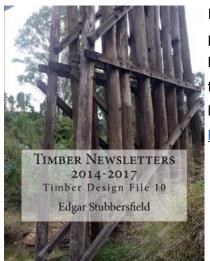
you don't plan to succeed.

When the decking was removed, and the top of the joists were finally visible they were split, but, not down the centre as usual. Instead there were two splits along the line of the stagger. Batten screws are brilliant fasteners and you can just force them into the joist without predrilling and this will be what happened. The timber shrinks, and, when doing so, the joist splits along the screw line. (Remember that you cannot purchase dry 75 mm wide timber so you have no choice other than working with green.) The only good timber was up the centre! It is not enough to specify that the joists are predrilled full depth, you have to ensure that the lowest priced tenderer actually does it. Fortunately the timber was not decayed so a liberal coat of CN emulsion was worked into the splits and a high quality dampcourse used. The deck should go for 30 years but next time around will have to be fastened from underneath.

Look at the quality of the decking in the lead image. It did not happen by accident but through careful selection of the species, the specification and then confirmation grading. You will notice that the timber is laid with a small gap when I usually say to butt up tight so you do not get an excessive gap after seasoning. Again there is a good reason for this. The timber was dried to 25% prior to treatment to ensure that H4 could actually be achieved which meant that some seasoning and therefore shrinkage had already occurred.

Look at the join in the decking. This is how it should be done. No moisture gets into the end grain which causes decay, but it requires set length decking and taking thought over the joist layout. I explain how to do this in detail in my book <u>Deck and Boardwalk design Essentials</u>. It only costs \$55 as a PDF.

Last Four Years of Newsletters Now Available



I have compiled the last four years newsletters into a new publication, replacing the edition that went up to 2016. If you have purchased the earlier book or the full set, you are welcome to upgrade to the new edition. Just <a href="mailto:emailt

Need Urgent Help With Images



My book on external timber furniture is almost complete but I need help with some images. Can you help with examples of:

- Decay under film finish
- Decayed sapwood
- Failed glue joints
- Problems with edges of round tables
- Corner details

Timber Treatments do not Repel Insects



Last month I showed some images of lyctus attack in untrearted sapwood. The builder who was unfortunate enough to purchase and install that timber was conscientious and went back to the supplier who runs a little bush mill. He was told it was nothing to worry about. They will leave the timber and never return. Nothing could be further from the truth, they will reinfest and reinfest till all that remains of the sapwood is powder.

But there is another insect that only attacks once and the image to the right shows the effect of the cylindrical auger beetle. Compare that to the images below which I used last month. Every 4-5 years we would get an attack of these. They would dig into still green hardwood, find it is

not to their liking and leave. The attack ends when the timber is dry. The client whose timber post is illustrated asked, "Why did they attack if the timber is treated?" But treatment is not a repellent and if the insect does not actually eat the timber it will not be poisoned. But don't worry, they do minimal damage as the image shows.



Lyctus emergent holes



Frass on the deck under

The lesson here is treat your timber to ensure the sapwood does not get attacked and recognise Lyctus for the serious problem it is <u>To read more about lyctus - click here.</u>

Continuing Professional Development Sessions

You know you have to do CPD so why not avail yourself of an expert in the timber industry and a skilled public speaker? The full range of subjects I have available are:

Timber Preservation

Hardwood Grading

Timber Decks – Designing for Durability

Utilising Small Diameter Hardwood

The Seven Deadly Sins of Timber Design Joints

Architectural Timber Battens

Timber 101

Boardwalk Design

These are informative seminars with serious learning outcomes and, if required for CPD points, I can provide a test and a certificate. Call me on 0414770261 to arrange a convenient time for your personalised "Ted talk".

Need a Timber Consultant or Expert Witness?

I have over 40 years experience in the industry and can assist you with any of your timber needs.

Design - I can provide detailed technical drawings and advice.

Inspection – I can assess timber products on their performance, fitness for purpose or cause of failure. I also examine whether best practice was used in design and construction.

Reports - I have authored many books on timber and can prepare a report to meet your needs.

Please note as I am now employed a Senior Timber Consultant with the firm BCRC all large and complex consultancies and requirements for an expert witness will be handled in conjunction with them. Existing consulting arrangements remain unchanged and I am also available to assist on small projects. For more information see www.bcrc.com.au



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