Ted's News

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What do the Numbers on a Treatment Tag Mean?





You have all seen the tags on the end of treated timber but do you know what they mean? AS/NZS 1604.1-2021 Preservative-treated wood-based products Products and treatment, requires that each piece of treated timber carry, as a minimum, an identifier that has the hazard level, the treatment chemical used, and the company that did the treating. The tag above reads "200 64 H3." Let's go ahead and unpack that. The H3 part should not need explaining. 200 is the treater and you can find a list on the <u>Timber Preservers Association of Australia</u> website showing what companies own which number. You can then check on that entry to determine what certificates the association has recorded as viewed e.g., TPAA has sighted an annual verification check that has been completed as required under AS/NZS1604.1.

The number 64 is not so easy. It is the chemical used and I can't find a list on the web that explains that. To save you spending \$135 purchasing the standard, here are a few of the common ones from the 75 chemicals registered.

Number	Chemical	Visible
1–3, 14, 15, 31–4. 38, 40, 43, 46–7, 51, 55, 61	Different formulations of CCA	Yes

20–1	Creosote	Yes
63	IPBC + permethrin	No
64	Propiconazole + tebuconazole,+ permethrin	No
68	Copper + tebuconazole + propiconazole	Yes
70	Permethrin	
74	Permethrin for H2 F	No
88	Micronized copper azole	Yes
90	Alkaline copper quaternary	Yes

Of course, the first thing that happens is that the tag is cut off which is why the pieces in the image above are double-branded but that is not compulsory. A certificate can be more useful as it can go into the project files.

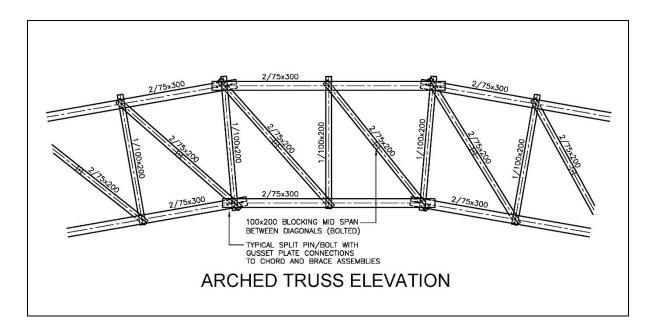
You can learn more from my guide to timber preservation (Cost \$55). See the table of contents.

What's the Best Platform for Online CPD Courses?

I want to put all my one-hour and full-day CPD courses along with my guides on a platform so there is easy access to them nationwide. I would appreciate any feedback you have as to wht=at is an appropriate platform. <u>Email me</u>.

Inspecting The World's Largest Timber Structure





When I was writing my book on <u>timber joints</u> (cost \$55) I discussed the Tillamook blimp hangar in Oregon USA which is believed to be the world's largest clear-span timber structure. It was a good case history for the use of split ring connectors. The building is now 80 years old and inspections by non-specialists said, "Tear it down," for a cost of USD 17M. My friends at Wood Research and Development reassessed it last year and it was found to be in remarkably sound condition. Full rectification in stages would only cost USD 13M. It is a no-brainer.

The one-hour presentation by Dr. Dan Tingley on the work of WRD at Tillamook is worth listening to. It has an exceptionally good general introduction to timber. Here is the link

Recognising Correctly Treated Sleepers





Badly treated Sleepers

Correctly treated Softwood Image JW Timber Trading, (Used with permission)

Increasingly I am seeing that people are choosing to use concrete sleepers with galvanised steel posts instead of timber for retaining walls, and frankly, who could blame them? Generally speaking,

the timber industry has "shot itself in the foot" by often selling garden and retaining wall material that is not fit for purpose. (See the <u>June 2023 newsletter</u> and <u>July 2016</u> editions.) It should be said that correctly treated pine for retaining walls is an excellent product and will probably last as long as a steel post without additional corrosion protection at the base see my article in the <u>September 2023 newsletter</u> for more on this. The thorny issue is, what is correctly treated?

Pine sleepers may be cut with their cross-section being substantially or even totally heartwood. <u>Construction Timbers in Queensland</u>, a Queensland Government publication that is part of my state's variation to the NCC (and excellent advice for the states down south and west) says very clearly that the heartwood of hardwood and some pines cannot be treated to H3 or above (see extract below).

H level

A number prefixed by the letter 'H' identifying the biological hazards to which the timber is to be exposed and the appropriate conditions of use—the 'H level' (e.g. H1 and H2) is used to prescribe the extent of preservative treatment (retention and penetration) required when combined with the timber's natural durability to protect the wood against the biological hazard/s identified. **N.B.** Currently, the heartwood of most hardwood timbers and some softwood timbers cannot be treated to H3, H4 or H5 level of protection. The timber treater is to ensure that their process has achieved the required level of penetration to meet the stated H level specification.'

The sapwood is easy to treat but for the heartwood, I stress the words above, "cannot be treated." Now, look at the image of the badly treated sleepers above. They are virtually all untreated heartwood. You can tell that because the presence of copper-based preservatives shows up as significantly darker areas. *AS/NZS 1604.1 Preservative-treated wood-based products - Part 1: Products and treatment* states that there must be 10 mm penetration of the heartwood or otherwise not contain more than 20% of the cross-section untreated. The second image (from Europe) shows very well-treated softwood and you can see the preservative going right through every piece. Quite simply, do not accept pine sleepers if you cannot clearly see the treatment throughout every piece. Don't take my word for it, check out "Jack's Rant" in this newsletter from 2017 Give me a call if you have concerns.



Image courtesy Karl Baker, Dyna Group.

There is a workaround and that is by incising. All sleepers should be incised in my opinion but only three companies are doing it to my knowledge. In Queensland, it is Dyna Group. Incising should be just a cost of doing business.

Proposed Timber Information Sheets

I have been giving some thought to writing some singlepage information sheets covering a wide range of timber-related subjects. I have drafted a proposed list of subjects and also the first sheet *Trusted Sources of Species Information*. I would love your feedback as to whether this would be of value to you. I am proposing to make them a weekly or fortnightly subscription service

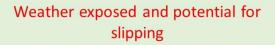
Here is a link to the proposed subjects and Here is a link to a PDF of the first sheet.



New CPD Course - Domestic Decks

Three Very Different Decking Applications







Fully covered and low likelihood of slipping

This is one of the opening slides to my new CPD course, Domestic Decks. The observant among you will notice that there are two images, yet I talk of three main different deck types. The third is on the next slide, decks close to or in the ground. This course covers:

- Resources needed
- Factors affecting deck specification including
- Factors affecting joist specification
- Alternate joist material
- Deck Construction
- Finishing
- · Decks close to the ground

If you are in Brisbane or surrounds, book your free seminar through Outdoor Structures Australia/Wilson Timber. Contact Stuart Madill 0403 385 707. Interstate or further afield, contact Fiona at BCRC the durability specialists at 0416 326 366 to obtain a quote.

Index to Past Issues

If you are a new reader or just want to find details on a particular topic such as 150x150 mm posts, here is a link to an <u>index of articles back to 2015.</u>

Signup for One of my Twelve CPD Courses



Learn from my four decades of experience with these CPD training sessions, some of which are available in eClassroom.

Tania	Timber Dresementies	
Topic 1	Timber Preservation	
Topic 2	Hardwood Grading	
Topic 3	Timber Decks - Designing for Durability	
Topic 4	Utilising Small Diameter Hardwood	
Topic 5	The Seven Deadly Sins of Timber Design	eClassroom link
Topic 6	Timber Joints	eClassroom link
Topic 7	Architectural Timber Battens	eClassroom link
Topic 8	Timber 101	eClassroom link
Topic 9	Boardwalk Design (recommend delivered with Timber 101)	
Topic 10	Timber Handrail Design	
Topic 11	Timber Bollards	
Topic 12	Domestic Timber Decks	

Click here to learn more about these courses

Are you aware that <u>Wilson Timbers/Outdoor Structures</u>, who I am affiliated with and are suppliers of quality timber, will have me come to your office (in person or remotely) and deliver one or two of my CPD sessions for free? The only condition for in-person presentations is that, with travel,

we can do it in a day from Brisbane in Queensland. <u>Contact Stuart Madill by email to arrange a time</u> or call his mobile 0403 385 707.

Full-Day Courses



Don't embark on any major footbridge or coastal deck project before you do my full-day courses. These are serious courses run through <u>BCRC</u>, the durability experts, that are unmatched in the value you will extract from them by delivering expensive infrastructure that ages gracefully and with little maintenance. They both start by going through a design checklist and explaining, line by line, why you must attend to that point. They then look at a number of case studies, showing good and bad practice.

Click here for the footbridge course brochure
Click here for the coastal decks brochure

Call me to discuss your training needs. These courses, which are eligible for CPD points, will give you an incredible understanding of good timber use. Call 0414 770 261 or email me.

<u>Contact Me</u>	
	E Mail: edgarstubbersfield@gmail.com
	Phone: 0414 770 261



Web: www.deckwood.com.au

