

May 2012 Newsletter

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Dear Reader

### Identify and Assess That Defect



**Sound Knot**, At least it was when it was cut and that is how you have to imagine it when you grade it, not as you see it now, It measures about 60mm across a face of 145 when laid, i.e. 40% of the face. The allowance for knots in AS2082 in unseasoned timber for the different stress grades is

Grade	Ironbark	Spotted Gum
F22	36mm (1/4)	21mm (1/7)
F17	48mm (1/3)	36mm (1/4)
F14	54mm (3/8)	48mm (1/3)
Deckwood	18mm (1/8)	18mm (1/8)

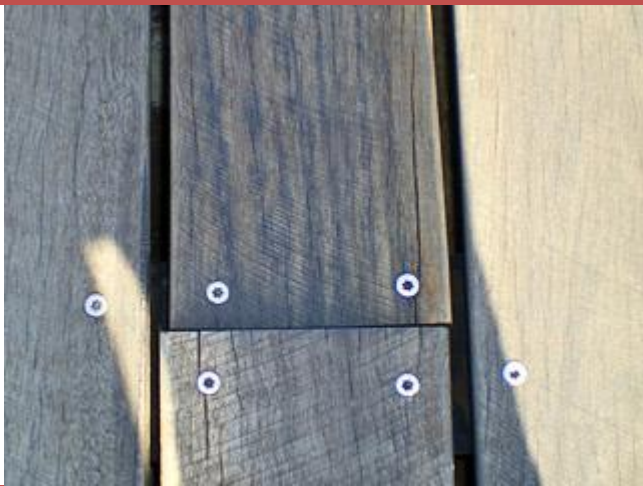
The knot illustrated meets no structural grade, even the lowest conceivable, and will continue to degrade.



**Unsound Knot**, Treat as knots as in the table above. There is a pocket of resin associated with a knot. Over time the resin will degrade and wash out and leave a trap for heels



**Combination Defect.** When grading these defects the width of the knot is added to the width of the shake. This combination defect is over 50% of the piece



**End splits near screws.** This splitting is a design, not a quality issue. Our Deckwood Design Guide describes best practice on page 3. There simply is not enough room on a single joist to join as you would do lineal domestic decking that is nailed. We recommend a double joist with 150mm between the joists and laying the deck with a 6mm gap between the ends of the boards to prevent moisture ingress. See

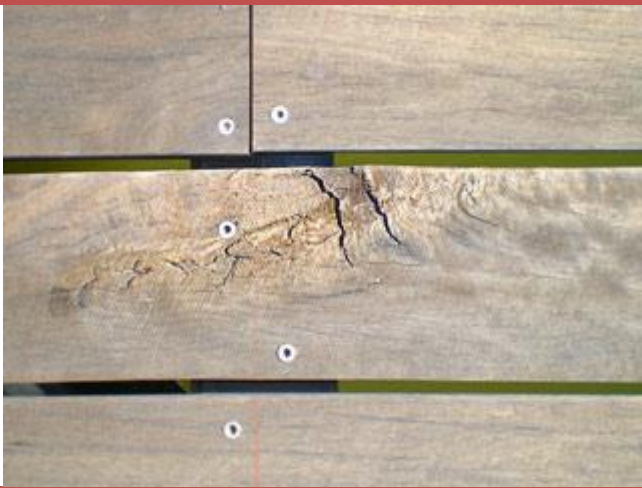
[http://www.outdoorstructures.com.au/gallery/northlakes\\_stage\\_1/image\\_8.jpg](http://www.outdoorstructures.com.au/gallery/northlakes_stage_1/image_8.jpg)  
[http://www.outdoorstructures.com.au/pdf/deckwood\\_selection\\_guide.pdf](http://www.outdoorstructures.com.au/pdf/deckwood_selection_guide.pdf)



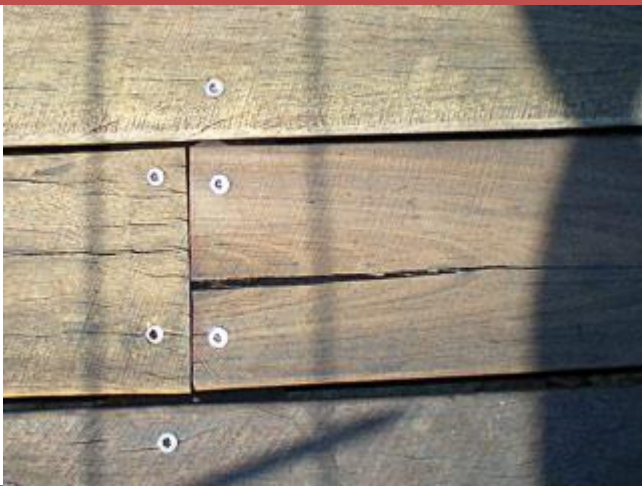
**Shelling Out.** Shelling out occurs when there is delamination between the growth rings. These have sharp splinters that have to be made safe as soon as they are seen. This example of delamination, which is going across the boards was evident at the time of production and should have been docked out



A different form of shelling out was also visible but unfortunately I did not photograph it. Occasionally some boards shell out along the length and can raise sharp edges. These are not evident at the time of production and laying but occur soon after, You simply have to look for them, make them safe and replace the board. This can be in the range of 1 to 3% of the total. The practice with Deckwood is to supply replacement timber but not install them, No one else replaces to my knowledge.



**Cross shake (fracture) in conjunction with a knot.** Fractures are not permitted at all under AS2082. This defect covers over half of the board. Again this meets no F rating.



**End Split.** The end split allowed under AS2082 is 100mm. This split is at least 300mm but probably was not like that when produced. The way this piece has split is reminiscent of the behaviour of high shrinkage timbers that are restrained with screws. By not nominating the species and ensuring that you receive what you ask for, you can receive timber that shrinks up to 13%. Deckwood only uses species that have 6% shrinkage.



**End Split Associated with Heart.** This is a hard one for the uninitiated. Notice how the timber down the split is a lighter colour and there is a small knot in it. This is characteristic of heart. AS2082 forbids any heart at all but in reality the decking can carry a touch on the back. But definitely none on the front.



**Cupping.** The decking was 145x35. In my first email newsletter (July 2009) I described how to minimise deck cupping and it is all down to width to thickness ratio and 145x35 does not work. If it must be 145 wide then it must be 45 thick. If it is 35 mm thick then it is no more than 120mm wide. We used to make 145x35 a long time ago until we had two claims against it. One we had to pay on, the second was where the client knowingly used it against our recommendations. We refused to pay on that claim. That was enough. We will not make a 145x35 Deckwood now.

See the newsletter at

[http://www.outdoorstructures.com.au/timber\\_newsletters.php#technote](http://www.outdoorstructures.com.au/timber_newsletters.php#technote)

I made a big mistake when I started my business; I cared when no one else seems to. All these pieces of timber are on the same deck and there were plenty more which were just the same. Consider what has happened to this timber during production. It has passed under the hand and eyes of the sawyer, defect dockers and the order preparation staff. It has then gone to the person feeding the planer and the person stacking. Not one of the five or even six people has cared. On site each piece has been handled by two carpenters and the site supervisor surely had to see this. After that this decking has to be approved by the engineer or architect and you would expect that the owner would have some say in this. No one cared.

What makes this galling is that this decking is a copy of our Deckwood. Yes, the manufacturer has modified it enough to avoid the patent but they have little understanding of what they are producing or how to use it. On top of this I am expected to compete on price with such poor quality material. I encounter some designers that will not use Deckwood because it is not an Australian Standard product but have no comprehension of the limitations of AS2082. I have little sympathy for them when they receive what they asked for. I have others that say we like your product but we have to say *Deckwood by Outdoor Structures Australia or approved equal*. I do not mind competing on price, like for like. But please when you say *or approved equal*, please make some steps to ensure that you are getting an equal.

I would love to be able to tell you where this timber is so you can stare in disbelief, it would frighten any sceptic into taking decking specification and supply very seriously. Unfortunately we have to protect the guilty. I wish there was some protection for the innocent.

[Link](#)

F17 and F11 Kiln dried specification

[http://www.outdoorstructures.com.au/pdf/osa\\_newsletter\\_11\\_11.pdf](http://www.outdoorstructures.com.au/pdf/osa_newsletter_11_11.pdf)

### **Project Don Lucas Reserve Upgrade**





Don Lucas Reserve is a park at Wanda Beach, Cronulla. The project involved building a small boardwalk with an attractive but complex curve but the design was not detailed. The shape was easily accommodated by incorporating OSA's standard tapered Deckwood. Our client wrote the following.

*On sending over the proposed timber structural drawings Ted was able to quickly make a number of suggestions on how to improve it and bring it into conformity with standards and industry best practice. Crucially Ted also cited and provided a number of sources that supported his changes; these were essential in painlessly helping the client to review and accept his revised drawings.*

*OSA provided not just the premium timber but also the supporting oils and hardware that made the whole process easier from my perspective. Thanks to the quality OSA products and skilled carpentry the timber work at Don Lucas has impressed all stake holders and is sure to last in its harsh coastal environment.*

**Chris Robertson**  
**Hargraves Landscapes**

For a full list of credits and more images visit  
<http://www.outdoorstructures.com.au/gallery.php?gid=112&SID=11>

## Bridge Quote Requests

If there is any doubt that OSA make the best kit bridges in the country look at the Berrinba Wetlands Project  
<http://www.outdoorstructures.com.au/gallery.php?gid=95&SID=2> Not all bridges are equal. After encountering three bridges in one month that did not meet the Bridge Code I wrote the May newsletter. Refer to it when assessing the suitability of quotes.  
[http://www.outdoorstructures.com.au/pdf/osa\\_newsletter\\_05\\_10.pdf](http://www.outdoorstructures.com.au/pdf/osa_newsletter_05_10.pdf)

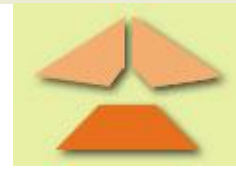
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**Steel bridge Quotation Request Form**  
[http://www.outdoorstructures.com.au/bridge\\_request.php?Mode=st](http://www.outdoorstructures.com.au/bridge_request.php?Mode=st)



**Timber Bridge Quotation Request Form**  
[http://www.outdoorstructures.com.au/bridge\\_request.php](http://www.outdoorstructures.com.au/bridge_request.php)

**More information:**

If you have timber road/rail/heritage bridge issues,  
we suggest you talk to:

Mr. Dan Tingley  
Senior Engineer  
Wood Research and Development  
1760 SW 3rd Street,  
Corvallis OR 97333  
Office 0011 1 541 752 0188  
Fax: 0011 1 541 752 0195  
Cell: 04 5957 6314 Or 04 28983328  
[dant.tingley@gmail.com](mailto:dant.tingley@gmail.com)

Regards

**Ted Stubbersfield**

Director  
07 5462 4255

**Please advise if you wish to opt out of our email updates.**