

TECHNICAL NOTE

Laminated Veneer Lumber Scaffold Planks to AS/NZS 1577:2013 Scaffold Decking Components

PRODUCT CERTIFIED



JAS-ANZ



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Introduction

This Technical Note is in response to the revision of AS 1577: **1993** Scaffold Planks and the release of the new and updated replacement Standard AS/NZS 1577: **2013** Scaffold Decking Components.

The new AS/NZS 1577: 2013 was released in November 2013.

This Technical Note lists the changes in the 2013 version of AS/NZS 1577 that affect LVL Scaffold Planks. This includes those changes that affect utility or use.

Changes in AS/NZS 1577: 2013 affecting LVL Scaffold Planks

Specifications for Structural LVL Scaffold planks are now specifically listed in AS/NZS 1577: 2013

In AS 1577:1993 there were no specific requirements for Scaffold Planks manufactured from Laminated Veneer Lumber. LVL Scaffold Planks were produced to the general “Timber Plank” requirements of AS 1577: 1993.

AS 1577:1993 was therefore silent on critical performance aspects of LVL such as bond quality, durability, structural ratings and surface quality. As a result, the manufacture of LVL Scaffold Planks became open to abuse with several instances where imported untested non-certified LVL Scaffold Planks of low quality and reliability were supplied into the Australian market.

AS/NZS 1577:2013 now has a mandatory requirement that the LVL substrate complies with AS/NZS 4357.0 Structural Laminated Veneer Lumber. This will ensure that only durable and water-proof adhesives are used, veneer grades are controlled, significant strength reducing defects are excluded and plank quality, reliability and “fitness for use” are maintained.

Structural LVL Scaffold Planks will be “Duty Rated” under AS/NZS 1577: 2013

AS/NZS 1577: 2013 has introduced duty ratings for LVL Scaffold Planks and other scaffolding materials and systems. This is to align Scaffold Planks with AS/NZS 1576 Scaffolding.

LVL scaffold planks are classified as “non-modular” planks and can be used for the different duty-rated working platforms in AS/NZS 1576 (typically “Heavy Duty” for Australia). For specific applications where load and span arrangements are known, it is possible to use LVL scaffold planks for working platforms rated as “Light” and “Medium” duty as per the LVL manufacturers span tables.

The Definition of the Working Load Limit (WLL) for LVL Scaffold Planks has been modified

In the 2013 version of AS/NZS 1577, the method for establishing the Working Load Limit (WLL) has been modified. This results in an apparent higher Working Load Limit (WLL) for the same plank when compared with the 1993 version of AS 1577.

For example, under the 1993 version of AS 1577 the Working Load Limit of a standard 230mm wide LVL Scaffold Plank is 210kg.

Using the AS/NZS 1577:2013 Standard with the revised method, the WLL for the same plank of the same grade increases to approximately 260kg.

This increase in Working Load Limit is not due to any increase or improvement in the structural properties or performance of the plank, but it is solely due to the revised testing method and calculations for determining the Working Load Limit. In particular, the 900mm bay width from AS 1576 for heavy duty planks is now used for calculation.

Of particular note, LVL Scaffold Planks manufactured to the 1993 version of AS 1577 with a Working Load Limit of 210kg, remain compliant with the 2013 Standard and will have an updated Working Load Limit of approximately 260kg.

The test method and verification for plank strength has been modified in the 2013 version of AS/NZS 1577 to more clearly reflect how planks are used in service.

Under the 1993 version, the strength test was based upon a single load applied mid-span (see below).

In the 2013 version, load is applied as a pair of line loads equidistance about the plank mid-span (see next page).



**AS 1577: 1993 – Strength Test –
Single Point Mid Span**



**AS 1577: 2013 – Strength Test –
Two Line Loads Equidistant about the
plank Mid Span**

The 2013 Strength Test configuration is less severe and requires an increased force to break the Scaffold Planks. This increase in load is consistent with and confirms the increased Working Load Limit.

Inspection Between Uses

AS/NZS 1577:2013 requires inspections between uses for evidence of stress or structural deterioration. The intent of the inspection is to identify any damaged or deteriorated planks and remove these from use.

The inspection may be a simple visual inspection for signs of damage, deterioration or stress. However, the inspection could also be applied as a mechanical test.

Storage of LVL Scaffold Planks.

The 2013 version of AS/NZS 1577 includes new mandatory requirements for storage of LVL Scaffold Planks. Storage provisions are specified for new planks upon arrival at a site and the storage of planks between uses.

A significant cause of deterioration and premature failure of LVL Scaffold Planks is due to improper or inadequate storage, especially where LVL planks are stored subject to moisture or weather exposure. Storing LVL Scaffold Planks unprotected is very poor practice and leads to a significantly reduced service life and in some cases can create a potential safety hazard where planks have been subject to severe decay.

Requirements for storage include “dry” planks to ensure they remain protected, serviceable and do not deteriorate and for “wet” planks to ensure they are stored in such a manner that they can dry in storage and moisture traps are avoided.

Wet planks must be stored in such a manner so they are not subject to further wetting and stacked in such a manner that air can circulate to assist drying and distortion is minimised.

An example of correct storage conditions for wet planks is detailed below.



Example of Stacking and Storage conditions for Wet Planks.

Commonly Asked Questions

1. Do I have to replace Laminated Veneer Lumber Scaffold Planks with new planks meeting AS/NZS 1577: 2013?

No, LVL Scaffold Planks to AS 1577 1993 will meet all performance requirements of AS/NZS 1577:2013.

2. Do I need to have my Scaffold Planks retested or recertified?

No, planks that meet performance requirements of the 1993 version of AS 1577 will comply with AS/NZS 1577: 2013 with a modified Working Load Limit.

3. How do I identify Scaffold Planks complying with the 2013 version of AS/NZS 1577?

Planks meeting the AS/NZS 1577:2013 standard will be branded as AS/NZS 1577:2013. In addition the "Duty Rating" may be branded or embossed on each plank. The duty rating may be identified as "light", "Medium" or "Heavy".

4. What additional requirements in the 2013 version of AS/NZS 1577 are there for users of Scaffold Planks?

Additional requirements have been specified for:

1. Storage
2. Inspection

There are both sensible issues of good practice that all holders of LVL Scaffold Planks should have in place already.

Essentially, LVL Scaffold Planks should be stored so they do not deteriorate and visually inspected or tested after each use to remove planks showing any signs of damage, stress or deterioration.

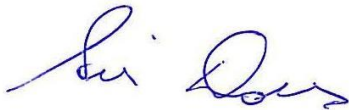
5. When does AS/NZS 1577: 2013 become mandatory?

It is Standards Australia's policy for new Standards to become mandatory one (1) year following publication. The 2013 version of AS/NZS 1577 becomes mandatory in November 2014. During this period both the 1993 and 2013 Standards have equal recognition. The Australasian LVL manufacturing industry will be supplying LVL Scaffold Planks complying with AS/NZS 1577: 2013 in all respects from early 2014.

More Information

For more information, please refer to the following web sites :

1. Link to CHH website
www.chhwoodproducts.com.au
<http://www.chhwoodproducts.co.nz>
2. Link to Nelson Pine website
<http://www.nelsonpine.co.nz>
3. Link to JNL website
<http://www.jnl.co.nz>
4. Link to Wesbeam website
<http://wesbeam.com>
5. Link to EWPA website
<http://www.ewp.asn.au>



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Revision History

Revision	Changes	Date	Who
1	Initial Release	12-02-2014	SD

EWPAA Members

Plywood and Laminated Veneer Lumber (LVL)				
Member Name	Location	Phone	Fax	Web
Ausply	NSW	+61 2 6922 7274	+61 2 6922 7824	www.ausply.com
Austral Plywoods Pty Ltd	QLD	+61 7 3426 8600	+61 7 3848 0646	www.australply.com.au
Big River Group Pty Ltd	NSW	+61 2 6644 0900	+61 2 6643 3328	www.bigrivergroup.com.au
Carter Holt Harvey Woodproducts Australia (Plywood) – Myrtleford	VIC	+61 3 5751 9201	+61 3 5751 9296	www.chhwoodproducts.com.au
Carter Holt Harvey Woodproducts Australia – Nangwarry LVL	SA	+61 8 8721 2709		www.chhwoodproducts.com.au
Carter Holt Harvey Woodproducts - Marsden Point LVL	NZ	+64 9 432 8800	+64 9 432 8830	www.chhfuturebuild.co.nz
Carter Holt Harvey Woodproducts (Plywood) - Tokoroa	NZ	+64 7 886 2100	+64 7 886 0068	www.chhwoodproducts.co.nz
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IPL (West Coast) Ltd	NZ	+64 3 762 6759	+64 3 762 6789	
Juken New Zealand Ltd (Gisborne)	NZ	+64 6 869 1100	+64 6 869 1130	www.jnl.co.nz
Juken New Zealand Ltd (Wairarapa)	NZ	+64 6 377 4944	+64 6 377 1166	www.jnl.co.nz
Nelson Pine Industries Ltd	NZ	+64 3 543 8800	+64 3 543 8890	www.nelsonpine.co.nz
PNG Forest Products Ltd	PNG	+67 5 472 4944	+67 5 472 6017	www.pngfp.com
RH (PNG) Ltd	PNG	+67 5 325 7677	+67 5 323 0522	www.rhpng.com.pg
Valebasoga Tropikboards Ltd	FIJI	+67 9 8814 286	+67 9 8813 848	
Wesbeam Pty Ltd	WA	+6 18 9306 0400	+61 8 9306 0444	www.wesbeam.com

Particleboard and MDF				
Member Name	Location	Phone	Fax	Web
Alpine MDF Industries Pty Ltd	VIC	+61 3 5721 3522	+61 3 5721 3588	www.alpinemdf.com.au
Borg Panels Pty Ltd	NSW	+61 2 6339 6111	+61 2 6339 6220	www.borgs.com.au
Carter Holt Harvey Woodproducts Australia	NSW	1800 891 881	+61 2 9468 5793	Error! Hyperlink reference not valid.
D & R Henderson Pty Ltd	NSW	+61 2 4577 4033	+61 2 4577 4759	www.drhenderson.com.au
Laminex	VIC	+61 3 9848 4811		www.thelaminexgroup.com.au
Tasmanian Wood Panels (Aust)	TAS	+61 3 9460 7766	+61 3 9460 7268	
Weatherex Pty Ltd	NSW	1800 040 080		www.weatherex.com.au



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