

Builder's

MATE



FREE TO ALL BUILDERS

September 2004
Issue 7

All hands on the deck

Anyone can build a deck, but not everyone gets it right

Non-consented decks are everywhere. When Builder's Mate went looking for decks to photograph, we found plenty – but few that fully complied with the building regulations.

We reckon this is because decks are often add-ons – they don't get 'designed'. Although not all decks require a building consent, all must be built to meet the requirements of the building code.

First mistake

Often the person building the deck does it in a free-hand manner, making it as strong as they feel it needs to be. Typically, they go to their local merchant and

buy the timber and a bag full of nails and coach bolts to tie it all together.

But therein lies their first mistake: coach bolts on their own do not provide sufficient holding power without 3 mm thick 50 mm x 50 mm square or 55 dia washers under their head and nut.

Coach bolts work by having the square section beneath the head pulled into the wood as the nut is tightened. When stressed, as in an earthquake, the head of the bolt is able to pull into the timber and even pull through it, and so fail. Having large, sturdy washers gets around this problem.

Continued on p2

Industry News

Hirepool hits the big time

Hirepool Ltd, the big plant and equipment company, has expanded further into the construction industry with the purchase of PORT-A-LOO in Auckland and Hire Master in Dunedin. These latest additions come on top of adding 10 new branches since July 2003. Look out, too, for new branches in Tauranga, Palmerston North and Christchurch. Hirepool intends to supply a customer-focused service to both the commercial trade and DIY markets.

Roof design made easy

An Auckland software company, CADMethods, with the help of funding from Technology New Zealand, has produced a roofing design and quoting programme that uses simple steps to produce a 3D drawing of the roof and assesses the materials necessary for the job. Technology New Zealand is a part of the Foundation for Research, Science and Technology and invests in research and development projects which result in new products, processes or services.



This consented deck is correctly braced, has 50 mm square washers under every bolt head and nut and each upright member has two bolts which are spaced well apart for maximum strength.

HAMMER 'N' NAILS



Win \$2500 of prizes + DeWalt radio charger worth over \$300



Mind the gaps

There are also strict requirements for handrails and balustrades. You must have a suitable barrier when the potential fall from the deck is more than 1 metre. The requirements for structural uprights are:

- that they are fixed with two 12 mm bolts
- bolts no closer than 25 mm to the edge of the joist or bearer they are being bolted to
- that joist or bearer must be at least 125 mm deep
- the bolts must be spaced at least 50 mm apart for good support.

The panels between the uprights must be built so they can't easily be climbed by children. There must be no footholds between 150 mm to 760 mm above the deck and the maximum size sphere able to pass between members is 100 mm. This usually means that vertical balusters are spaced a maximum 100 mm apart. If trellis is used for the infills, the spaces formed between the battens must be no more than 50 mm which is deemed too small for a toe hold.



- 1 Gaps should be about 6 mm between decking boards and about 12mm between the deck and building walls.
- 2 One of these bolts requires a washer. Trellising should be close enough to prevent children getting a toe-hold for climbing.
- 3 A good example of adequate clearances – and a mould-free deck surface.

Don't go guessing

Finding all the deck requirements is not an easy task for those not involved in the design processes. Some information comes from the Acceptable Solution F4/AS1 *Safety from Falling* in the building code, and other bits, such as acceptable timber sizes and fixings, are best found in NZS 3604. The home handyman does not generally have access to this information so, at best, is guessing. This is not good for our industry.

Don't screw up

Know the difference between a Philips and a Pozidrive and you'll always get a tight fit.



Philips screws (PH) have slightly tapering sides to the driving recess and the corners at the middle of the cross are rounded. They

fit snugly on to the screwdriver and when the right amount of torque is applied the screwdriver pops out of the screw without damaging it.



Pozidrive screws (PZ2) are easily identified by the marked flashes between the slots and the square in the middle of the

screw cross. The screwdrivers have additional driving flutes which enable the screws to be done up tighter than Philips'. They have parallel sides and won't pop out.



If you use this **Pozidrive screwdriver** on a Philips screw it will 'bottom' because of its added flutes and the rounded corners

in the screw. As a result it'll turn your Philips screw into one that can't be done up or undone.



Applying this **Philips screwdriver** to a Pozidrive screw will leave the screwdriver loose in the hole because of

the different shape and taper. This looseness will also cause the hole to be easily stripped.

Builder's Mate tip: Match the screw and its driver for a snug fit and remember that each system has different sizes, ie: PZ1, PZ2, PZ3 and PH1, PH2, PH3. If you are still having problems, it's more likely to be the operator – not the tools.

Want to know more? Get BUILD magazine.



Published every two months, BUILD is THE industry magazine for building-related issues. Subscriptions cost \$54. FREE to building company owners and sole building traders.

visit www.branz.co.nz to find out more.

Next issue Wise up on timber treatments

Builder's Mate out November 1. Don't miss it!

Ladder safety



Step on up

A ladder is one of the most used and abused bits of gear on the building site. It's also one of the most dangerous. Nearly a thousand ACC claims went in last year for ladder-related injuries and at least 10 people have died in ladder accidents since 1998.

Employers and workers need to make sure they're working safely with ladders. Health and Safety laws apply and inspectors do see some dodgy ones. And don't forget the law of gravity – unlike OSH it can impose the death penalty.

Safety hints

Ladders designed for home use aren't suitable for builders. Home ladders will not stand the wear and tear of construction site work. Stepladders for the construction industry are more robustly designed with more rivets and stronger bracing. Get a stepladder that meets the standard AS/NZS 1892.1:1996. And check out the colour of the rubber boots: industrial ladders are blue; domestic ladders are red.

1. Firmly 'heel' the ladder in, making sure it is aligned vertically and has the 1:4 lean angle
2. Secure the top so it can't slide in any direction
3. Keep the 3 points of contact with the ladder until your footing is secure and stable
4. Don't use a stepladder designed for home use. Make sure yours meets the construction industry standard.



Multipurpose ladders cause a lot of accidents. OSH recommends a purpose-built stepladder or pole ladder, not a multipurpose one.

Check your ladder for wear and tear. Look for cracks, worn, broken or bent treads, missing or worn rubber boots. Check around the rivets and look for rust. Spills such as cement can corrode your ladder so don't let them build up.

For more information on health and safety at work, call the Work Info line: 0800 20 90 20 or visit: www.osh.dol.govt.nz

Don't

- use a stepladder to support a work platform. It won't be stable enough.
- work from the top two treads of a stepladder
- use a stepladder with a single stay or a temporary stay. All stepladders must have rigid stays in place when in use.
- lean to one side or over-reach when using a stepladder
- place a stepladder on boxes or scaffolds for extra height.

Do

- check your ladder before you use it
- face the treads when climbing up or down a ladder
- use the ladder on the right angle: 1 metre out from the wall for every 4 metres high
- tie off the top of your ladder
- place your ladder on flat, firm, even ground where it won't slip or slide
- take care with stepladders in corridors or driveways where they can be hit by people or vehicles. Set up a barrier around your stepladder where necessary.



Dribblings from the old Beezer

We often hear the trite phrase 'planning is everything'. Well, it often is. The more switched-on builders draw up work or quality plans for most of their upcoming tasks, as well as health and safety plans to help them identify and manage hazards. This tale shows a lack of either.

A tradesman repairing Wellington's ferry terminal wharf was working from a floating punt. At some stage the punt worked loose from its moorings and began to drift away from the wharf. With no safety line and a northerly blowing, the worker and his punt drifted off into the harbour. It was two hours before he washed up – safely – at Oriental Parade.

There are lessons to be learned here: a health and safety plan would have identified 'drifting away' as a hazard and contingency plans could easily have been put in place. Remember: all potential hazards must be eliminated, isolated or minimised. In this case, a good pub yarn was the end result, but it could so easily have been otherwise.

Des Molloy, BRANZ technical writer

Product information

It's a stick-up

Just what you've always wanted – a portable cordless electric dispenser gun for 50 ml two-component adhesives. The EZ-mix HI Dispenser is a motorised hand gun that dispenses materials

with viscosity > 1 million CPS. Its special design prevents oozing from the mix-tip after the trigger is released. More info from www.disptech.com.



Got a building problem? Get on the blower to Eddie at BRANZ Advisory Helpline!

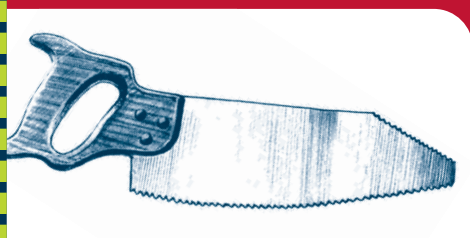
Builders call **0800 80 80 85** Home owners call **0900 5 90 90**

(0900 calls cost \$1.99 per minute plus GST)

win! a DeWalt radio/charger worth over \$300!



You'll be the most popular bloke on the job with this DeWalt AM/FM cordless radio! With a protective roll cage and steel speaker grid, it's durable enough to withstand the most demanding worksite conditions. It runs off 230v power or DeWalt 9.6 to 18v batteries – and it'll charge them for you too.



Entry is open to all New Zealand residents, except employees and immediate families of BRANZ Ltd., BRANZ Inc, BRANZ Pty and DeWalt. The competition will close at 9am on Friday, October 8, 2004. The prize is not transferable. The judge's decision is final. No correspondence will be entered into. BRANZ may, from time to time, send you information about our products. You can contact us at any time if you do not wish to receive this information.

Barry Johnston from Ohauti, near Tauranga was the winner of our Issue 5 competition. Barry wins a Hitachi cordless sable saw worth \$600 for correctly identifying the nail as a duplex nail used for constructing formwork so it can be easily stripped after use. He is pictured centre with BRANZ advertising executive Graeme Hughes, left, and store owner Graeme Meiklejohn of Power Tools and Servicing, Tauranga.

To be in with a chance of winning one, just tell us the name of the mystery tool pictured below and what it's used for. Write your answer on the back of an envelope (don't forget to tell us where you picked up your copy of Builder's Mate) and post it (you don't need a stamp) by Friday, October 8 to:

Builder's Mate (mystery tool competition)
FREEPOST BRANZ,
Private Bag 50908,
Porirua City.

The winner will be the first correct entry drawn at 9am on Friday, October 8. Details will be posted on BRANZ website (www.branz.co.nz) and in the next edition of Builder's Mate – due out November 1 – don't miss it!



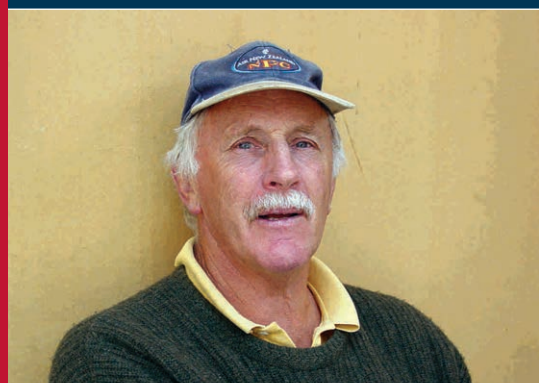
Blokes on the job



Wayne Blackwood, building in Judgeford

Favourite tool His large reo bender and cutters

Favourite tip When you get to a site, keep hold of the keys to the boss's ute so he can't 'go and get materials' when the going gets tough!



John Butt, building in Paremata

Favourite tool His 2.4 m level because of the accuracy it gives

Favourite tips 1. When solid-blocking under a partideboard or wooden floor, glue the blocks down the joists – that way the floor won't squeak. 2. Glue the door jamb to the floor as well as fixing it to the opening framing.



Kii Rota, building a bridge in Plimmerton

Favourite tool His chainsaw, because when you are good you can do a wide variety of work with it.

Favourite tip Always check your own work and that of others, too.

Timber treatment is changing!

Need help understanding how?

To help understand the changes and ensure you comply, get the latest edition of the BRANZ *Selecting Timber* book today! Updated to include the latest on timber treatment, this BRANZ publication has been fully revised to ensure the most up-to-date information on selecting and specifying timber in New Zealand.

Ensure you comply with the newly released Acceptable Solution (NZBC E2/AS1). This book will make your job as a specifier and user of timber products easier.

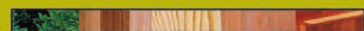
Check out the special Prize draw offer inside

saving you heaps on the price of the book plus you go in the draw to win some cool prizes



Selecting Timber

A guide to choosing timber for use in building



\$29.95
plus \$4 p&p



Editor: Des Molloy
desmolloy@branz.co.nz



©BRANZ, September 2004

Although BRANZ has made every attempt to ensure the accuracy of its information, it provides generic advice only and BRANZ accepts no liability for any loss or damage incurred. Opinions expressed in Builder's Mate do not necessarily reflect the views of BRANZ.

Standards referred to can be purchased from Standards New Zealand. Tel: 04 498 5991 or www.standards.co.nz.

Know a bloke on the job? Send his photograph, together with details of his favourite tip and tool and you could win \$50 worth of BRANZ books.