



# Combination padlocks



With so many moving parts, can combination padlocks really be suitable for use in a damp, salty marine environment?

Ben Meakins crunches the numbers

**T**here is nothing worse than discovering that your boat keys are at home, in the car or in someone else's pocket when you've just rowed out to your mooring on a dark and stormy night.

Combination padlocks are a great way to save your sanity and stop you having to kip in the cockpit, but are they really suitable for use on a boat? Salty, damp environments can play havoc with dissimilar metals, especially on something with as many moving parts as a combination padlock.

We tested weatherproof keyed padlocks back in November 2015, and discovered that there was a trade-off to be made between weather- and marine environment-proof locks and security, with the most corrosion-resistant locks sometimes the easiest to break into.

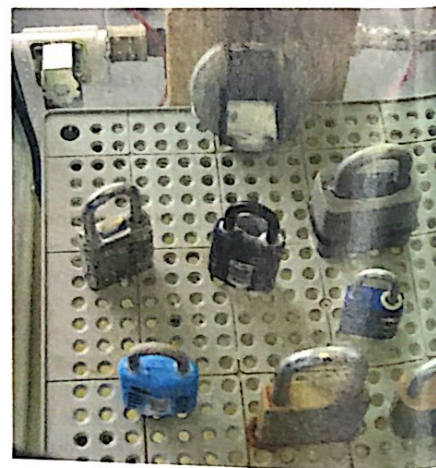
With our past experiences in mind, we set ourselves to testing a range of weatherproof combination locks that

would be suitable for most washboards. We sourced these with the assistance of specialist supplier Nothing But Padlocks ([www.padlocks.co.uk](http://www.padlocks.co.uk)), adding to these a couple from B&Q and Screwfix.

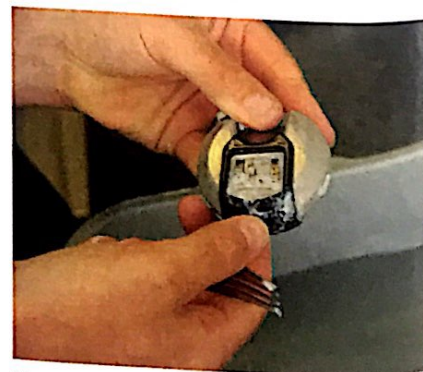
## How we tested them

We subjected them to our saltwater corrosion tank, which sprays a fine mist of warm, salty water over its contents every hour. We left them in for a month, after which time we took them out and tried to unlock them. This simulated a very wet, salty environment – far worse than would be experienced in most yacht cockpits in a year, even on the most exposed swinging mooring.

This done, and the results examined, we tried to break in against the clock. For most this meant a pair of bolt croppers, but on some, where the shackle was suitably protected or where it resisted the best efforts of the croppers, we found a hacksaw was of more use.



The padlocks in our saltwater corrosion tank, which sprayed a fine mist of warm, salty water over them every hour



We removed any surface salt before seeing whether each padlock worked

## Squire @Home Weathershield Combi CP40

**PRICE: £18.03**



This small combination lock has a hardened steel 6mm-diameter shackle and a double-locking 40mm die-cast body, and is described as 'all-weather'.

After a month in the salty environment of our tank the combination wheels had seized up and stopped turning, and the hardened shackle was seeping rust. It took 6 seconds to cut through the shackle with a pair of 18in bolt cutters.



## Master Lock Stainless Steel Combination Discus Padlock 70mm

**PRICE: £15.99**

[www.screwfix.com](http://www.screwfix.com)

Our previous test showed that a discus-type lock was the most secure – when paired with a decent hasp, it was almost impossible to get bolt cutters or a hacksaw in to cut the semi-covered shackle. This one has a stainless steel body with an octagonal boron carbide open shackle.

After a month in our test tank the time came to take it out, but we found that the numbered wheels had rusted into a solid lump, with corrosion, salt and pitting rendering them completely immobile. That's a shame, as we couldn't touch the boron carbide shackle with the bolt cutters, and it took 2 minutes to saw through the shackle with a hacksaw. That was on a bench, however, and a decent hasp on a washboard would have made this almost impossible.

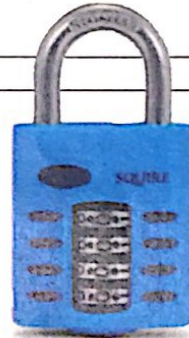
## Squire @Leisure Weathershield Combi CP40S

**PRICE: £18.03**



This variation on the CP40 has a stainless steel rustproof shackle and a double-locking 40mm die-cast lock body. It's recommended by the manufacturers for marine use.

Like its @Home sister, the innards and the combination wheels had jammed solid with salt and corrosion after a stay in our tank, although the shackle was corrosion-free. It took 5 seconds to cut through with a pair of 18in bolt cutters.

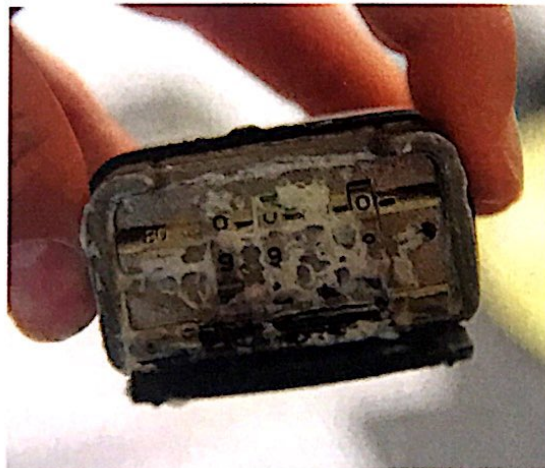


## Master Lock Pro Series Stainless Combination Padlock

**PRICE: £54.55**

This is Masterlock's new marine-grade combination padlock made from thick stainless steel, including all non-corrosive internal components. The most expensive on test, it has a plastic cover that hides the combination wheels.

After a month in the tank, there was a large amount of salty deposits around the numbered wheels, but this was just salt, not corrosion – and the wheels, made from stainless, turned well. I couldn't get through the stainless shackle with the 18in bolt cutters, but it took only 30 seconds to get through with a sharp hacksaw blade.

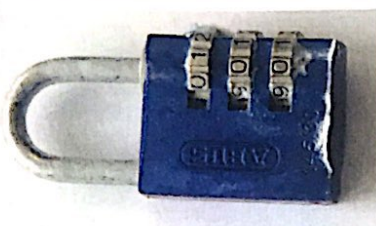




## ABUS 30mm Coloured combination padlock 145/30

PRICE: £10.28

This aluminium combination padlock isn't sold as weatherproof, but Nothing But Padlocks say it's a popular all-rounder. Apart from its aluminium shell, it has a



hardened steel shackle. After a month in the tank its wheels were immobilised, and it took 4 seconds to bite through the shackle.

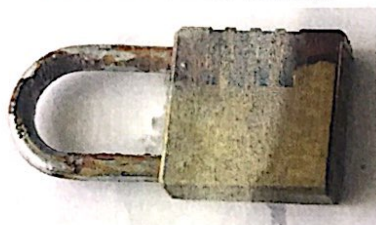


## B&Q Brass and steel combination padlock 50mm

PRICE: £9.97

www.diy.com

This simple lock from B&Q is described as weatherproof and corrosion-resistant. After a month in our corrosion test tank it looked in a bad way, with rust streaks and



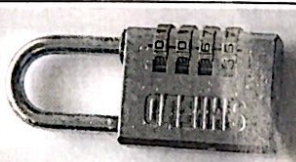
corrosion, but amazingly once dry the wheels turned and it opened on command. It has a hardened steel shackle, which I couldn't get through with the 18in bolt croppers. It took a minute with a sharp hacksaw blade to cut through the shackle.



## Shield MC40 Chrome Marine Combination Padlock

PRICE: £12.60

This is described by the suppliers as 'a small and practical rust-free combination padlock by the UK company, Shield. It is simple, easy to use, well priced and exceptionally weather-resistant



even in salt water and exposed environments'. It's made out of chromed brass with stainless innards and hasp, and survived our

extreme corrosion test in an amazing fashion. After the month it was completely unaffected, its number wheels spun easily and it sprang open without any problems. Its long shackle took 10 seconds to cut through with 18in bolt croppers.

## Abus Weatherproof Combination Padlock 180IB/50

PRICE: £31.93

This 53mm padlock has a stainless steel 8mm shackle and is described thus: 'This model is designed using a stainless steel shackle and non-



corrosive internal components for added environmental protection. It is therefore also highly secure and resistant to force attacks.'

After a month in the test tank, its brass body was suffering some pink dezincification and the moveable parts had salt build-up, but after a rinse the wheels and shackle moved as before, albeit with some corrosion. It was fairly resistant to force, being impervious to the 18in bolt croppers, and taking 20 seconds to cut through the stainless shackle with a sharp hacksaw.



## PBO verdict

**M**ost people are aware that even the best lock will only slow down a thief. You're far more likely to inconvenience yourself if your lock seizes up – so there's a balance to be struck between security and corrosion resistance.

The clear winner of the corrosion test was the Shield MC40 Chrome Marine Combination Padlock, which emerged after a month in our extremely corrosive tank completely unaffected. You pay for the corrosion resistance with a lowered resistance to attack, however, as stainless steel is less hard than more

easily corroded metals – and it took only 10 seconds with a pair of bolt croppers to cut through the long shackle.

As we found on our last test, the best in terms of attack resistance is a discus lock and an effective hasp – and the Master Lock Combination Discus Padlock was by far the most resistant to attack. However, it didn't appreciate the time in the corrosion tank, with the wheels completely corroded and jammed.

The Master Lock Pro Series Stainless Combination Padlock was a good compromise, with reasonable resistance

to attack and corrosion, as was the ABUS 180IB/50.

Surprisingly good was the B&Q brass and steel lock, which despite corroding horribly still worked, and resisted a hacksaw for a minute.

Chromed brass and stainless steel seem best for coping with salt water, while a short shackle paired with a hasp which covers most of the shackle provide the best security solution. Whatever you buy though, the key lesson here is to keep your lock well lubricated if you want to avoid having to try to break into your own boat.