

Coyote Air Lock

By James Wilson - The Legless Wanderer - 15th November 2015



I have now used this lock for three years; it is without doubt the best lock that I have used

when you travel for long periods your prosthetic must be very reliable and one of the common fails was the locking mechanisms, resulting in me having to use a hammer or brick to bash the leg until the lock disengaged, if the worst came to the worst I would have to resort to forcing water down

into the liner so my stump could come out of the leg. This has happened several times and to be fair it's my own fault as I tend to have my leg in environments that are not suitable as I have the attitude that the leg should put up with whatever I want to do and not the other way round. I also noticed that when you're in a constantly warm climate what can be a small fitting issue in the UK for example the pistoning with the socket, or knee movement, these problems would become exacerbated.

When I returned from one on my longer trips I decided to look into how my prosthetic was built and if there was a cost effective way of solving these problem, I looked at 3d scanning and printing, and every kind of lock and casting method that is available. I found that there is lots of options if you have an unlimited budget but for me many options had to be ruled out on the grounds of not being financially sustainable. I eventually found the coyote lock and casting methods and it ticked all the boxes of what I need, or what I saw as a problem that could be solved.

I first used the coyote locks three years ago and although I must admit when I first got it and used it I was a little sceptical at how a plastic lock would hold out so I also carried a full complement of spares should the lock fail and I just simply did whatever I wanted. For example on more than one occasion I have had to be carried to a boat with there being no pier as my leg could not get submerged in salt water which was the cause of a previous lock jam but with this lock I just waded through the water confident that even if it somehow broke I would be able to get

it going again, and even if the fail was catastrophic and the lock was a write off I could still fit the leg with an airtight sleeve so I could still continue on my trip.

So with all the bases covered I went away and just did whatever I wanted and never touched or serviced the lock in any way, it was basically tested like an AK47 been dragged through the desert by an camel, which is apparently a true test the gun had endured and passed. Eventually about 5 months into a 9 month trip I noticed I wasn't sitting in the socket deep enough and that the pin would engage only a couple of clicks. So I dismantled the lock to find what was wrong. I found that the bottom of the lock housing was full of compacted sand and dirt. I cleared out the sand and dirt and even with the lock was scared from all the sand it was just as functional as it was when new. The lock is still working now and was cut out and reused and my initial scepticism was unfounded even the pin never broke despite the obvious sand damage.

Now both my legs use the Coyote locks and I have done over 300 hundred dives using these locks and never once has it jammed and so far the lock has held up to everything I have thrown at it and I have every confidence that the lock won't fail. There is also other practical reasons why it is better to have the same lock on all your legs so if you want to quickly change a leg without having to change your liner I found was a useful benefit.

In conclusion you will be hard pressed to find a more durable lock than a coyote lock which has the added benefits of been airtight, easy manufacturing process and also cost effective.



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