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If you spend any time on videos on the net or reading spearfishing forums, you would have probably come across the rollergun concept. The whole roller idea is not new, it just seems to have made a re-emergence over the last few years, specifically in Europe.

For the most part, the rollers have been seen on wooden guns made by enthusiastic craftsmen and speargun designers, although some of the spearfishing manufacturers in Europe have also made rollerguns. They have somehow not made it into the mainstream or even become remotely popular. Well at least by comparison to the incredible claims and results the system seems to get by the ardent converts.

Half the problem for us outside of Europe is that we have little use for small 700mm guns and the wooden speargun that has made the system successful. So we have had little exposure or experience with the rollergun. This is however all starting to change, as we see more and more commercially made conversion kits developed for conventional spearguns. For the most part they are still 'European style' and are more suitable for small guns with 14-16mm rubbers. But in Australia, a chap is making conversion kits that fit our style of guns perfectly.

Now, rollerguns are supposed to be more efficient than conventional guns with a 110cm gun outperforming a standard 130cm gun, (well supposedly). After doing much research, it became fairly apparent that the guys seemed to favour the smaller rollerguns and the bigger guns did not work. The frustrating thing was that I could not find a conclusive test where a number of guns were tested, let alone what kind of setups were used. They would often just state that they compared the 110cm roller to a 130cm double rubber gun. But in my experience, very few guys have their guns set perfectly and just saying double rubbers on a 130cm means absolutely nothing.

So off I set on a quest to find out for myself if the roller system did in fact, work and would it work in the environments we hunt in, and specifically large pelagics. Can you imagine being able to reduce your gun size and increase your power and range? Mohammed Al Kuwari from Qatarsub got me in touch with Emanuel from Roller Power Head in Australia, who was kind enough to send me a sample kit to test. The kit came the night before a yacht trip up the KZN coast and I went straight to the workshop to fit it. I thought it would be quick, but a good few hours later, I had got my head around the instructions and it was done.

I got a few good fish on the trip with the 110cm gun I converted. It performed very well considering that I did not even have the gun set up correctly. When I got back I landed up on skype with Emanuel for hours, working through everything, from the actual concept and functionality, to the way they need to be set up. A couple of days later it just so happened that I was booked to go and visit Mohammed in Qatar who had also been experimenting with the roller heads.

Qatar was to be an incredible adventure and you can read more about it in the article "Rolling in Qatar". The great thing, is that Mohammed had ordered a number of roller kits to test, and we got stuck in converting a whole bunch of guns to test. The one really great thing about Qatar and the Arabian Gulf in Spring time is that the spearfishing is excellent. I had a chance to go on a couple dives and the number and quality of fish you shoot is on epic levels. The reason I mention this, is that I realized that this was the perfect place to test the gear. Here you shoot more big fish in one day than what you could hope to in a whole year at home. This gave me months of water time in a day, and the learning curve was dramatically reduced.



Those first days in the water were extremely successful, even though I had not fully understood how to set up the gun correctly. So after some more consultations with Emanuel, Mohammed and I set out to test the guns before heading back out to sea again. In order to make the test work, we needed to give all the guns a 'level playing field' making all the spears (Rob Allen single barbed spears) shooting line; the same. All the rubbers on the guns were changed and new rubbers were fitted. For a target we made up a 60cm x 60cm x 6.5cm thick eva foam target.

Now there are probably hundreds of different speargun configurations we could test. The main question we wanted answered was if the rollergun could replace our standard setups we use for everyday gamefish hunting. All the documented tests show the rollergun being extremely good in short lengths, but nothing on bigger guns.

I wanted to test the roller against my 2 favorite guns; this would give me a good idea of what the rollergun was capable of. These two are the 130cm with a single 20mm rubber cut to 74cm using a 7mm spear. This is the exact setup I used when I stoned the 500lb marlin. This gun however, was very difficult to load and with my dislocated shoulder I had to use a load assist. My other favourite is the 130cm with 2 x 14mm rubbers cut to 70cm with a 7mm spear. This is currently my go to gun and is amazingly accurate and quick, and with the easy loading it makes it a fantastic gun for most pelagic hunting. I was also quite keen to see how these 2 guns faired against each other. Some might ask why we did not test a 130cm with 2 x 16mm, well in the past I have found this gun not to be as accurate and nice to shoot compared to the 2 others and in my opinion 2 short 14mm rubbers is better than 2 longer 16mm rubbers.

On the rollergun side, we made up the following guns all with 18mm (the proposed maximum by the manufacturer):

- 130 cm using a 7mm shaft
- 120 cm using a 7mm shaft
- 120 cm using a 7,5mm shaft
- 110 cm using a 7mm shaft
- 100 cm using a 7,5mm shaft

We also threw in some American artillery, a bluewater gun with 4 x 16mm bands and an 8.5mm shaft.

Mohammed invited 2 of his good friends, Brian and Richard Parkinson from Trinidad and Tobago. Brian would help in the water and Richard would take notes as he was unable to get in the water and was still recovering from a serious shark attack a few months ago, while freediving in the Seychelles. It was a perfect team.

The test was done in a pool at 28deg C with perfect vis. The first set of tests was done with the target 4m from the end of the spear tip. This was set as a practical distance at which most guys shoot their fish with a single wrap of line. We gave the job of shooting to Mohammed who has become famous with his accurate kill shots on film. Brian and I would take care of the measuring and documenting each shot.

We started with the 2 std 130cm setups. This would give us a good yardstick to start the test with. The 130cm with a single 20mm (note genuine 20mm rubber, not std. 19mm most manufacturers pass off as 20mm) this was insane to load. I don't know how I used to do it all the time. This gun was very accurate and shot through the target with 144cm of spear passing through the other side of the target.

The 130cm with 2 x 14mm rubbers was even more accurate than the single 20mm and the spear went through the target at a horizontal angle where the single 20mm had a slight downward projection, suggesting that it did not shoot in as straight a line as the 2 x 14mm. The 2 x 14mm was just behind the single 20mm on penetration, with 140cm of the spear through the target.



Next was the first of the rollerguns: the 130cm. You need to pre-tension the rubbers in order for the gun to be effective, so we did a number of shots at different pre-tension settings to work out what worked best. As per Emanuel's suggestion, we used a scale to determine the amount to tension the rubbers. The results we show here are the best of the shots where the pre-tension was optimized.

The 130cm roller shot incredibly. It was more accurate and straight than the standard guns and the spear passed right through the target onto the shooting line. We were told by Emanuel that the 130cm would not perform as well as the shorter guns, as the bigger the gun the more difficult they would be to load, and that we would not be able to load enough to make the gun reach its full potential. But a couple of days before loading a roller in the sea, I realized that a load assist would make it easy and I made up a couple of load assists that enabled us to load far more pre-tension than we thought was possible.

Next was the 120cm one with a 7mm spear, which went 141cm through and was accurate and one with a 7.5mm shaft, which went 144cm through the target and was also accurate. My pick was the 120cm with the 7mm shaft. It basically performed as good, if not better than the 130cm. (Note: when we did the 4m test we had not maxed out the rubbers on the 120cm yet, and you could probably get better performance with more pre-tension. The pre-tension was set to 24kg at the muzzle)

Now the test started to get interesting as we went to the shorter rollerguns. The 110cm with a 7mm spear and 24kg pre-tension at the muzzle, shot 120cm through the target and was accurate with very little drop in the spear. The 100cm rollergun with a 7.5mm spear at 23kg pre-tension went 93cm through the target. The shot was accurate but it did drop a little. (Note: neither of these guns performed well when the rubbers were not pre-tensioned properly.)

Lastly, we got out the 4 x 16mm rubber blue water gun to see how it fared against the 'small' guns. We were fairly disappointed, to say the least. The gun shot very low, but the spear did go through the target 167cm. Almost as good as the 130cm roller. The angle of the shaft's projection was also downward and the spear hit about 25cm below the centre of the target. We felt it pointless to test the gun further on the 6m test. (Note: later slow motion video analysis of the blue water gun revealed extreme recoil and muzzle flip, which lifted the back of the spear making the spear slow and drop).

Next the target was moved to 6m from the end of the spear tip marker. Again we started with the standard gun setups. The 130cm single 20mm setup disappointed me by dropping below the target. The 130cm with 2 x 14mm did better and went 20cm through the target. The shot was very low, about 15cm below the centre.

Next was the 130cm roller. We only got good results when we really maxed out the pre-tension. ('maxed out' is when we pulled the rubber underneath toward the handle so that it was at approx. 170% - 180% stretch, making it approx. 370% - 380% when the gun was loaded. Any more pre-tension than this was possible, but the pre-tension measurement at the muzzle was not going up radically and we did not want to stress the rubber past 400%) But it did really well shooting 80cm through the target, and was very accurate. The 120cm with 7mm spear although eventually going 45cm through the target, shot to one side. This type of inaccuracy is typically a recoil issue where the wrist gives way causing the spear to veer off to one side. The 120cm was the only carbon guns we tested and the lack of inertia could be the cause. It was interesting to note that even under these conditions, there was still no muzzle flip so the gun shot level.

Then we tested the 110cm roller and when we maxed out the pre-tension the gun shot 20cm through the target and was even more accurate than the 130cm with only a 5cm drop! Best of all, it felt really good to shoot, and for me that is one of the most important things about a gun.



After the pool test, the four of us discussed in length what we felt that the test had revealed. Basically the consensus was that the rollergun had impressed us and that it definitely works. I think a safe bet would be to use it as a step-up replacement to your standard 130cm, as you don't want to be just matching the performance, you want more and the 120cm will do that for you. I suggest using a metal barrel or adding ballast if you are intending on powering this gun up. I used the same 120cm on 2 dive days shooting many big Couta in the high 20kg bracket. At first I had very little pre-tension and some shots did not go clean through and just poked through the other side. When I tensioned up the gun a little - nowhere near to where we tested the gun - the spears were all going through and the gun was very accurate.

I think the 110cm is a fantastic gun, and will be a great all-rounder. Especially if you need a shorter gun, for either bad vis or maneuverability. The 110cm will give you the assurance that if you do come across something bigger than normal you will still have the juice and distance to get the fish. I experienced this when I went to shoot Snapper. I took the 110cm and landed up shooting my biggest fish of the trip, a 27kg Couta. This is something I doubt I would have been able to do with a standard 110cm.

I did not give enough time to the 100cm roller and it would be great to experiment with lighter setups for reef fish. If the same applies with the bigger guns, I think that there will be some very dynamic guns in the shorter range and with the ability to easily put more load on the guns, I think they will be seriously potent.

But here is the clincher: the roller muzzle gun is not a basic idiot proof gun. It is fairly technical and requires a fair bit of understanding to get the most out of it. You will also need to have the technical ability to follow the kit instructions and set the gun up. After setting up around 10 guns I eventually got the roller head conversion done in under 2 hours from start to finish.

The kits are also not cheap, some of the European roller heads without rubbers etc will set you back almost 200 Euro! The Aussie Roller Power Head is a fraction cheaper, but does come as a complete kit and does have comprehensive instructions. (Note: if you decide to go the Roller Power Head route, then follow the instructions to the letter, otherwise you will land up with many school fees, like we did) At the end of the day the roller is a far more technical speargun and for this reason there is more to go wrong, or not having set it up right. But the proof is in the pudding, and the rewards and performance are there.

If you are one to try something new, then you should think about getting a kit and put it on one of your guns. The Roller Power Head Kit is available in two colours black or red, and comes with the following in the DIY kit:

- Barrel adapter to suit your speargun. (Six different adapters are available to suit a variety of aluminum, composite, carbon fibre spearguns)
- 2 different types of dyneema lines for making the wishbone inserts & tension line, as well as the wishbone & Bridle and for tying the rubbers.
- Amber black rubbers of your choice (14mm; 16mm or 18mm)

All the fittings are 316 stainless steel.

Comprehensive DIY instructions. (make sure you read them) Installation is straightforward and is a great project.

So where to from here? Well, there are still loads more questions and combinations to test. What if you put a 19 or 20mm rubber on a 130cm? Will it work or will it flunk? For now I think it is safe to say that the 110cm - 120cm are exceptionally practical guns. The 130cm is great but you will need to get around loading the gun.

Interestingly, on the last fish of my trip, Mohammed shot a 28kg Couta with a 130cm at almost maxed pre-tension, and at just past full single wrap distance (just over 5m from tip) at a very acute angle and the spear still made it through the other side. ... impressive!



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