



## News Letter 2006 – Issue Ten, December 2006

A shortened newsletter this month for the festive season – too many other things to get ready for Christmas unfortunately. Below is an article by our own Robb Harrison, which will be published in a UK shooting magazine in the near future.

### Barrel Tuning.

Having read Pat's article on barrel tuners in the March newsletter, I decided to try and get my hands on one. Easier said than done, such items just do not seem to be available in the UK, but not to be deterred, I did some research and asked an acquaintance if he could manufacture one for me. This particular guy is a 'metal wizard' and, a couple of e mails later, he'd produced a prototype and it was through my door within four days of my initial enquiry.

The agreed spec was as follows:

"Material is brass, the sleeve can be placed anywhere along the barrel and can be put either way around so that the weight can be either within the barrel length or overhanging the muzzle, and is secured by two 4mm diameter grub-screws. The weight can be adjusted along the length of the thread and secured by tightening the single grub screw. The thread is 27 mm diameter by one mm pitch, so one revolution of the barrel weight moves it along by one mm or .040", so that is a very fine vernier adjustment.

The overall length will be less than 130 mm."

Weighing in at 12oz and a custom fit to the barrel diameter of my newly acquired Anschutz 1407 I was eager to get some range time in and check things out.



Being a prototype, I needed to provide some form of 'scale' which would enable me to set and repeat any adjustments I made during testing. This was achieved, in true Blue Peter style, using some adhesive tape and a felt tip pen!

At the range I started with the tuner removed from the rifle, using four different types of ammunition, producing a couple of five shot groups for each. I then attached the tuner and did the same again recording the results and changing the adjustment as I shot my way through best part of 200 rounds.

Results of initial testing:

	Ely Std	Ely Tgt	Ely EPS	Lapua Club
Not Fitted	12.25mm	8.29mm	7.66mm	10.76mm
Fitted	8.63mm	10.98mm	7.37mm	8.17mm
Tuned	8.59mm	7.46mm	6.99mm	7.32mm

The testing was done indoors at 25yards, the above results represent group sizes without the tuner, with the tuner and finally the best groups achieved (after a lot of trial and error) for each ammo type.

I'm fairly convinced the tuner does make a difference, even just adding the weight to the barrel gave improved grouping in all but one case (my 1407 just doesn't like Ely Target!), and further improvements can be gained with fine adjustment. The tuner will not make poor ammunition shoot well but it seems to bring the best out of whatever I've put through it.

I used the 1407 for the summer postal league and managed an average 250/21 over the six matches so I guess it's working OK for me, give it a try, you might like it.

Robb Harrison.

## Member Spotlight



**John Raby, of the Boys and Girls of Cheshunt, the current reigning UK and International Hunter Benchrest Air Rifle Champion.**



If you have any suggestions for the newsletter, website, ideas for the association, articles please email me at; [ukbr22web@fsmail.net](mailto:ukbr22web@fsmail.net)

**Have good time until the new year. Hope you all had a good Christmas .....**

*Carl* UKBR22 Webmaster