

# 2007 Tuition Series

## Pipe Chanter Reed Manipulation

### Introduction

Reed manipulation is a topic that brings fear to many pipers – at all levels. This is largely a fear of the unknown, i.e. a lack of knowledge and skill on how to go about manipulating a reed to suit themselves or another piper. The aim of this tutorial is to take at least some of the mystery away from this subject. As with a number of topics relating to piping, there are many different approaches to reed manipulation. If what I detail here differs from what you do - and what you do works - then keep doing it! What I will detail is based solely on my experience and not any text book principles. It works for me and that is about the only qualification my reed manipulation diatribe has!

One of the many things pipers do not suffer with in this day and age is the availability of reeds. In days gone by, access to reeds was a little more difficult than it is today. There are a plethora of good reed makers world-wide and all a piper has to do is experiment with a range of reeds to find what will potentially suit them and their chanter the best. Let's start with the reed selection process....

### Reed Selection

There are basically two ways to go about the initial selection of a pipe chanter reed: go to a retail outlet and study reeds put in front of you, or phone/write to/email a reed maker and order a number of his reeds. It is probably a wise choice to visit a retail store first as this will give you a chance to study the variety of reeds for sale before making your choice. Once you are comfortable with the make of reed that works for you, you will have the confidence to go direct to the reed maker or you can stick with the retail outlet that stocks these reeds.

*First Impressions.* Whilst a shabby looking reed may be outstanding, this will not be the case 90% of the time. A good-looking, well-made reed should have a much better chance of sounding as good as it looks. The blades should be squarely cut across the top, each blade should be the same thickness as the other and the same thickness across the width of the blade, the binding should be tight and well varnished and the staple, whether folded or seamless, should be a good approximation of round where it is inserted into the chanter. The reed should not be too closed or too open when you look down at the top of it.

*Initial testing.* Most retail outlets will let you test the

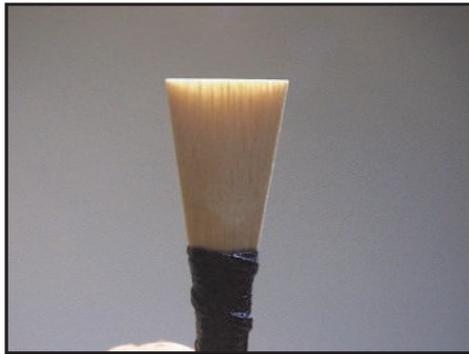
reeds in your chanter (always take your chanter with you to test reeds – it's a bit like taking your feet with you when you shop for a new pair of shoes!). When mouth blown, the reed should have a nice even 'crowing' sound. Whilst listening for this crowing, at the same time feel the strength of the reed. It may be too easy, about right or too hard or anywhere in between. If you have time on your side and are not looking for an instant result, then you may be well advised to select reeds which are on the slightly too hard side. It is generally simpler to make a reed easier to blow than harder to blow.

*Testing in the chanter.* We are looking at a few basic elements when testing reeds in the chanter from the initial selection; Firstly, a believable pitch, then a balanced scale as far as our ear can discern, and lastly volume. Different pipers will have different preferences for pitch and volume, so here the choice is over to you. Another area we need to look at is the vibrancy of the reed. The reed will ideally vibrate freely with a little more resistance to it than is ideal for the strength of reed you like to play. If the reed is too 'tight' and does not vibrate freely enough, it is bound to have an untrue scale (higher pitch top hand notes) and potentially lack some volume. Once you have made your selections, it is time to high-tail it home at get down to the business of getting the reeds in playing order.

### Manipulation

Here is where we earn our keep. We are not all reed makers, but we must all learn to be reed manipulators. You then have the independence to get the best out of your bagpipe without having to rely on anyone else to do it for you. This takes an element of essential knowledge and a good deal of practice and experimentation....best to do a lot of this on old reeds so that you do not spend a fortune perfecting your reed manipulation skills!

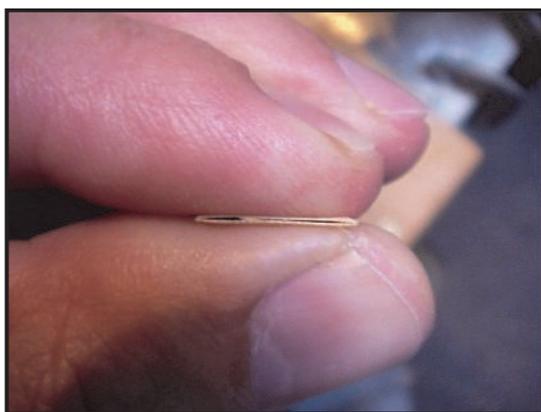
In the picture below, you will see the lighter area of cane at the top of the reed. You should also see how the cane darkens as the blade thickens towards the edge (shoulders) and towards the sound box. A basic principle in trying to make a reed easier to blow is to increase the surface area of the lighter part of the cane. This is done by sanding or scraping the darker or thicker parts of the blade adjacent to the lighter areas. However, always remember to err on the side of caution when sanding or scraping a reed – you cannot put back what you have taken off. I use 220-240 grit sandpaper.



Picture 1: Light vs. dark surface areas

Patience is essential when manipulating and blowing in a reed. Too much sanding too early in the process may have the desired result that day, but the reed will invariably ease up too much in the short term and will be of no further use. Be prepared to blow a little harder than you are ideally comfortable with for the first few weeks.

*A little too hard:* Try first holding the blades together for 20 to 30 seconds (without squeezing them hard together) in order to close the gap between the blades by a small amount. If this works, but not enough, then try squeezing the reed for a couple of seconds just above the sound box to have a greater effect in closing the blades together. You can also try flexing the blades between thumb and forefinger to slightly loosen the grip the binding has on the blades.



Picture 2: Hold blades together between thumb and forefinger

It may also pay to check that the blade thickness across the width of the blade is consistent. They may be a little thicker at the edges and need thinning to allow the blades to vibrate more easily.



Picture 3: Thinning edges of blades

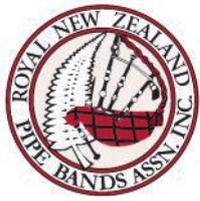
*A bit harder again:* If the reed is really too hard for you to blow, I would firstly check the blade thickness and thin if necessary. Then I would sand the shoulders of the reed and above the sound box (see picture below) to increase the surface area of the thinner parts of the blade.



Picture 4: Areas to sand

*Far too hard:* If the reed is very hard and it is difficult for you get any sound out of it at all, then the steps just outlined, but to a greater degree can be tried. Additionally, you might like to try flexing the blades to loosen the grip the binding has on them – this should allow the reed to vibrate more freely.

Once you have the reed down to a strength a bit stronger than you would ideally like, stop there. It would be best to blow the reed in now for a week and see if it eases up a bit. Before each time you go the play your pipe, warm the reed up between thumb and forefinger – this will make the reed slightly easier to start with. Persevere like this for a week to 10 days before being tempted to take any more cane off the reed. You may well find that the reed starts to ease up as the vibration loosens the blades slightly in the binding.



After this time, very small amounts of cane should be sanded off in the places indicated above until you reach your desired strength. There are really no shortcuts; the more effort you put in to the early stages of manipulating and blowing in a reed, the longer term the result will be. For solo pipers, the reed may last several years if looked after. I know of one world-class piper whose reed lasted him seven years! In any case, a good, well-blown in reed should last a solo piper a good year. For bands, once the reed starts to ease up, it may become a little less reliable relative to the other strong reeds in the band. It may come up to pitch more quickly than the harder reeds, it may keep going up in pitch and be out of tune with the rest of the pipers, and it may be more susceptible to changes in temperature or other climatic conditions. Suffice to say, a good band reed will rarely last longer than one season – but it may then turn out to be a stunning solo reed!

## Common Complaints

*Flat or double toning 'F'.*

Cut a very small amount off the top of the reed. This will also bring the bottom hand up in pitch.

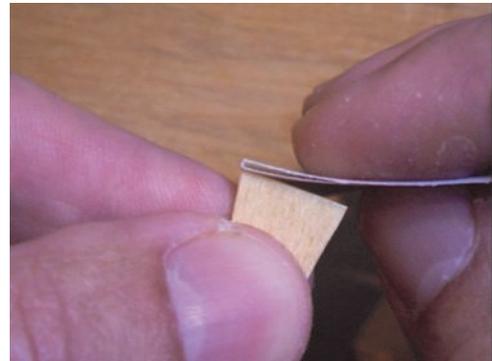
2. Slightly close the staple with pliers if the blades are too open at the top.

*Sharp High G.* Sand across the full width of the blade as shown in the picture below. Be wary – this will flatten the HG only by a small amount and it will also make the reed easier. When at altitude (places like Braemar, Scotland) you need to be aware that your top hand will tend to be sharp and you should use tape to compensate.



Picture 5: Area to sand if HG a little sharp

*HA 'crow'.* Take a piece of sandpaper and draw it across the top of the blades from one corner to about 2/3 of the way across. Do the same from the other side. DO NOT draw the sandpaper all of the way across as you will almost certainly take the corner off the reed.



Picture 6: Sanding to remove/reduce a HA 'crow'

*Top hand notes sharp.* Try lifting the reed in the reed seat.

*Top hand notes flat.* Try sinking the reed further into the reed seat.

Other notes, particularly on the bottom hand, may be flattish. Patience is required again – as the reed is blown in, it will rise in pitch. Be wary of tuning your chanter by scraping out the holes. If your chanter is consistently flat on certain notes with a variety of reeds, then you have a good case to do this. It is not something a novice should try to do to a wooden chanter that would have cost in excess of \$500!

## Summary

I hope this has helped take at least some of the mystery away from the world of reed manipulation. This is certainly not a complete 'how to' manual for reed manipulation, however it will take you a long way down the track towards getting a reed into good playing condition. Take every opportunity you can to quiz pipers whose knowledge in this area you think exceeds your own and experiment to see what works best for you.

Remember that patience is a virtue and you must exercise it when manipulating a pipe chanter reed into playing condition. Your patience will reward you ten-fold with a good stable reed that is going to last.

This tutorial will undoubtedly have raised further questions. Please feel free to email me ([greg@wilsonreeds.com](mailto:greg@wilsonreeds.com)) with questions you have. I will do my best to help.