

## BC221 tuning capacitor

Written by Hans Summers

Saturday, 02 June 2012 05:32 - Last Updated Saturday, 02 June 2012 08:24

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I found this very nice air-variable tuning capacitor unexpectedly in the junk box. It has a 100:1 worm-drive reduction mechanism which after the application of a bit of oil, was easy and smooth to turn.

{gallery}tubevfo/bc221cap/1{/gallery}

From <http://www.gsl.net/ve3bdb/bc221photos.htm> it's possible to see conclusively that the capacitor I have comes from the legendary BC221 frequency counter, in this case the BC221-AK. This is different to the [BC221-T that I documented elsewhere on this site](#)

. The photos below are show the capacitor in the BC221-AK, and how the front panel of a BC221 looks.

{gallery}tubevfo/bc221cap/2{/gallery}

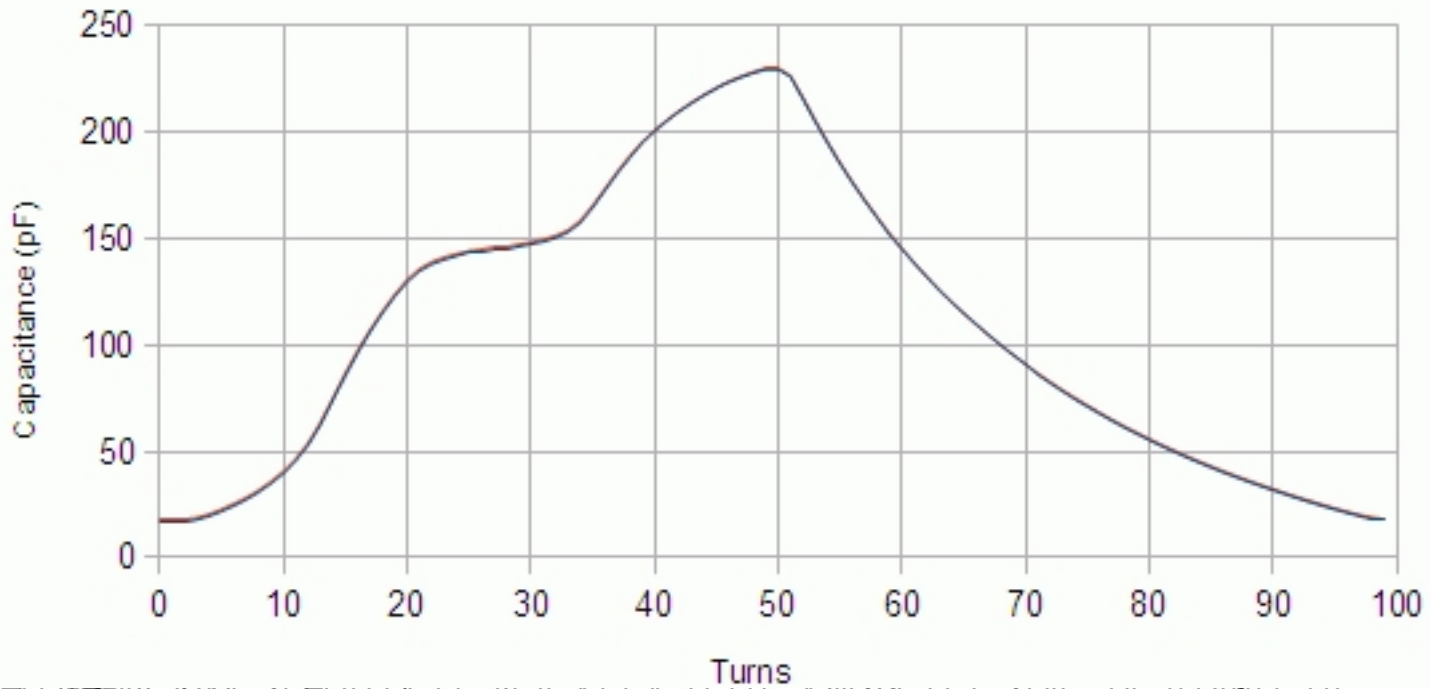
The tuning capacitor has a 100:1 worm-drive reduction mechanism. I carefully measured the capacitance curve at 1 turn intervals for the 100 turns, and plot them below. Note the intended use is from turns 50-100, turns 0 - 49 are just the "back" of the vanes, as the capacitor is continuously rotating.

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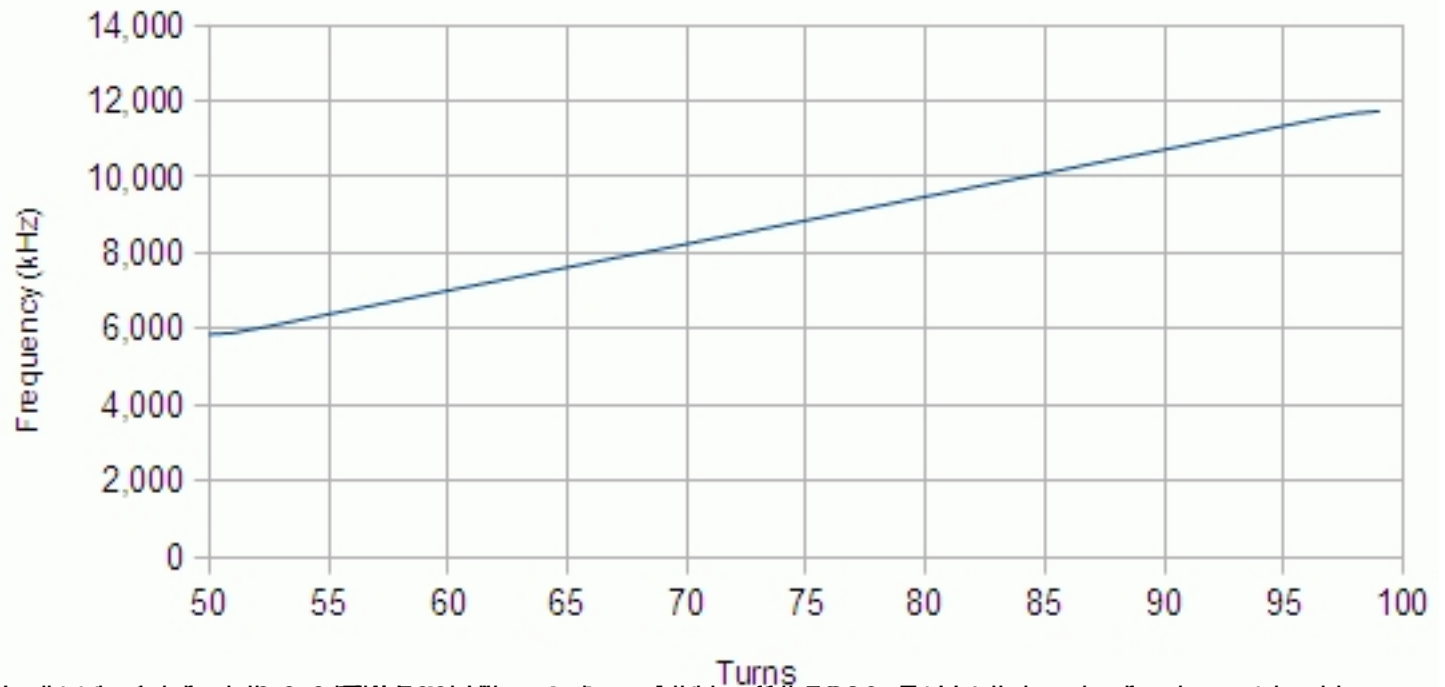
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### Capacitance vs turns



### Frequency vs turns



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