



*Winnipeg Area Chapter of RAA Canada*

*October 2009*

***Executive***

***President: Jim Oke: – 344-5396***

***Past President: Ben Toenders – 895-8779***

***Memberships: Steven Smart – 661-6636***

***Secretary:– still looking for a volunteer***

***Treasurer: Don Hutchison – 895-1005***

***Directors***

***Harry Hill - 888-3518***

***Bert Elam – 955-2448***

***Ken Podaima – 257-1275***

***Jill Oakes - 261-1007***

***Steven Sadler – 204 – 736-3138***

***Bob Stewart – 853-7776***

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## ***CALENDAR OF EVENTS***

- |             |  |
|-------------|--|
| October 15  | Election of Officers and Directors, Awards, demonstration of the new bending brake and other tools acquired over the summer. |
| November 19 | Still up in the air  |
| December 5  | Saturday evening "Pot-luck" pre Christmas dinner/get together<br>Lyncrest Flight Centre                                      |
| January     | Annual rust remover<br>date and location to be determined  |

## Regular meeting – Thursday September 18

Thanks to Jim Oke and Ben Toenders for excellent presentations at our September. Jim talked about his trip to Rocky Mountain House in his RV 6A, skirting the edge of the Rocky Mountains. Ben talked about his trip to Broadhead MN. and the Pietenpols then on to Oshkosh WI. and AirVenture. Over 20 members attended the meeting.

## Regular meeting – Thursday October 15

Please join us at the Lyncrest Flight Centre on Thursday October 15 at 7:30 pm. For our regular meeting. The election of this years executive and directors will take place at this meeting. We will then adjourn to the RAA Final Assembly where there will be a demonstration of the new bending brake and other tools we acquired over the summer.

## Workshops and Courses

The RAA is interested in planning courses and workshops over the winter. Some of the suggestions are fibreglassing, fabric covering, bending/riveting, and internet resources for pilots. If you are interested in any of these courses or have suggestions for other courses, please let a member of the executive know and if there is enough interest, we'll try and organize the course or workshop.

## Hangar Safety

The RAA Workshop-Final Assembly Building is a **Non Smoking** facility for safety and insurance purposes. Collectively less than 5 gallons of flammable substances is allowed in the building. Smoking and/or holding more than a total of 5 gallons of flammable substances (e.g. fuel, dope, paint etc) invalidates the RAA insurance and is therefore prohibited. Thank you to everyone who uses or visits this workspace for adhering these restrictions.

Renters are required to obtain approval from Ben Toenders prior to spraying or doping aircraft.

## Ask the MD-RA

Next month we're starting a column written by Ken Podiama to answer questions you may have about any aspect of building, modifying or repairing an aircraft that may require an inspection by an MD-RA inspector. If you have any questions, please forward them to Bob Stewart at [stewart8@highspeedcrow.ca](mailto:stewart8@highspeedcrow.ca) or phone 853-7776 and the questions will be forwarded to Ken.

## My First Annual

*Ben Toenders*

It was coming up to the time for my first annual inspection. I had bought an Aeronca Champ last year with a fresh annual and it was coming due. How do I go about doing an annual? First I would need an AME to check the aircraft and sign off the logs. I tried to contact the fellow who had done the last annual but I could not get hold of him. I then asked several people around the Springfield Flying Club who they used to do their annuals. It was unanimous, it was Bob S. He charged a reasonable fee and did a thorough inspection. The only catch was you had to do all the prep work and then you had to put everything together again at the end of the inspection. No problem I thought, this would be a great chance to learn more about the workings of the Champ.

I called Bob on the Tuesday evening before Labour Day and asked when he would be available for an annual inspection. Friday morning at 10 am was agreed upon. Great I thought, that would give me two full days to get ready. I already had two inspection checklists that I had reviewed. One I had found on the internet for Aeronca Champs but it was very detailed, calling for much more intensive inspection, such as tearing down magnetos, than I found out was needed for an annual. The other was emailed to me by Jack Niema. It was the checklist that Jack used for his J-3 Cub. There were a few differences between a Champ and a Cub but taking those into account this checklist ended up being the one I used.

I arrived at the field Wednesday morning and was glad to see John Blackner. I had asked John earlier if he would show me how to do an oil change on the Champ. He asked me if I had an open ended 1 inch wrench. No I said. How about lock wire and a twister? No again. How about side cutters to cut lock wire? My future tool list was getting longer by the minute. OK he said lets go to my hangar and pick those things up. Besides the above tools we picked up a grease gun, some Varsol, and a wooden block with holes drilled into it that John had made to hold the spark plugs after removing them from the engine.

We finally arrived at my hangar and began the oil change. I had removed the cowls earlier so we were ready to start. My Champ has a quick release valve at the bottom of the oil tank. After setting up a funnel and empty container to catch the used oil we flipped the release and let the oil flow out. John showed me where to cut the lock wire on the oil screen cover. We removed the oil pressure sender and then the oil screen itself using John's special curved open ended 1 inch wrench. We cleaned the screen and checked for particles. We found a little sludge but otherwise everything looked good. I poured a little varsol into the oil filler to clean any sludge out of the bottom of the oil tank and then let it sit open to the air for any residual varsol to evaporate away. I replaced the oil screen and pressure sender and then had a fun time restringing the lock wire through the oil screen cover and learning how to use the twister.

By this time John had left to do other things and I needed a little break. I noticed that Grant Pronishen was in his hangar so I wandered over and said hello. Grant told me he had just finished his annual on his Citabria the day before with Bob. I asked how it had gone and what, if anything, did Bob put extra emphasis on. Grant said nothing in particular but be sure to have all inspection panels off including trim strips at the wing roots so Bob could see all the attachment points. Grant then asked me how I was going to do the compression check on the cylinders. I said "Doesn't Bob do that?" He said "Nope. But I have all the gear and can show you how." Great I thought. He then asked if I had an air compressor and compression gauge? No I said. How about an extended 7/8 inch socket for removing aircraft spark plugs which are longer than automotive plugs? No again. How about a spark plug cleaner? How about a spark plug gap setter? How about a torque wrench to use when replacing the spark plugs? This was very similar to the conversation with John earlier in the day when my future tool list was in expansion mode. Luckily Grant had all the items and was willing to show me how to use them.

We moved everything to my hangar and started the compression check. This is a two man job. One person holds onto the prop to prevent it spinning when pressurized air is applied and the other manipulates the gauge to get the pressure reading. Grant has his own pressure gauge but there is also one available for use by RAA members and it is stored in the RAA hangar. We were doing the readings cold since the engine had been drained of oil. I found out later that it is better to do the compression check after a 10 minute run-up as everything fits better when the engine is warm. We started on cylinder number one and worked our way up. You are looking for pressure readings of between 60 and 80 psi to pass the check. Cylinder one came in at 70 psi. Number two was 68 psi. So far so good but lower than last years readings which were all in the mid 70's. Perhaps the cold engine accounted for the lower readings. Cylinder three came in at 70 psi as well. Cylinder four came in at 58 psi. Let's try that one again. It remained at 58 psi. Grant asked me to put my ear to the exhaust pipe and listen to hear any air escaping. I did and yes there was air coming out the exhaust. This meant that the exhaust valve was not closing properly. Grant said that meant I needed someone with more experience than he had to look at the engine. I thanked Grant for his help and he let me keep the tools till I would be finished with them. By this time it was late afternoon and I was getting tired. On my way out I ran into Jim Goold and explained my predicament. He told me to come back in the morning with a rubber mallet and to remove the valve cover of the problem cylinder and he would help me out.

The next day I arrived at the hangar. I had looked for my rubber mallet at home but I think my son took it with him as I could not find it. I hoped a regular hammer and a piece of wood would work instead. To remove the valve cover of the number four cylinder, which is the front left cylinder, you need to remove the baffle plate running in front of the valve cover. It is held on by six fasteners and a tab which is held by a valve cover screw. This was a bit tricky to remove since I had not removed the prop for the inspection which prevented removing the nose bowl. The nose bowl had to be pushed aside to remove the front baffle fasteners and valve screws. It was a tight fit but I managed to get it cleared. I then went to find Jim. Jim came to my hangar and we did the test again. Still reading low. Jim then used the hammer and a piece of wood to tap gently on the exhaust valve stem just at the point where the valve was closing. We then did the test again and had a reading of 68 psi. We solved the problem. I had been dreaming of expensive repairs all night so this was a huge relief. I thanked Jim for his help, replaced the valve cover and baffle and then continued to finish up the prep for the next days annual. I removed the remaining spark plugs with Grants extended socket and then cleaned and gapped them with Grants air powered spark plug cleaner and Grants gapping tool. Big Thank you to Grant. I put the plugs in John's plug holder ready for Bob to look at them next day. I checked over my inspection checklist and made sure everything was ready for Bob. I removed all the inspection panels and I cleaned the oil fouled belly of the plane with Varsol. I vacuumed out the cockpit and cleaned all the windows. I greased every grease nipple I could find. I cleaned off the cowlings and wiped clean the firewall. Checked the tire pressures and cleaned the leading edges and prop of any bug residue. Finally I was ready for Bob.

Friday morning I was waiting at the hangar when Bob arrived. I explained everything I had done up to that point and he got to work. I followed him and asked questions as he went along. Bob was very knowledgeable and gave me some good info. As he progressed Bob said to go ahead and start putting back the panels on the areas he had already covered. It took Bob about an hour and a half to completely inspect the plane and another half hour to finish off the logs. He found a few paint cracks that needed to be looked at but everything else was fine. I thanked him, paid him and then got busy putting everything back together including putting new oil into the engine. Everything went smoothly except the nose cowling. It was a little harder putting it back on then it was to take off. I finally managed to get it back on and since it was such a nice day I decided what the heck, let's do a quick check out flight. I pulled the aircraft out of the hangar and did a quick walk-around. I guess I was in a bit of a hurry since the airplane had just been completely checked.

Everything went fine with the start. I taxied out intending to do just a circuit or two but then once airborne I decided to leave the circuit for a short flight. I headed south from Lyncrest and since everything was looking good I just enjoyed the flight. After about 30 minutes flying I landed and taxied back to the hangar. Everything was still looking good. Good oil pressure and temps. Cylinder temps good. I shut down the engine and smiled. I got out of the aircraft and walked around the front of the plane. What was that golden dripping stuff all down the left side of my aircraft? I quickly checked the oil quantity. It was down to just over two quarts remaining. I had a major oil leak somewhere. I grabbed a handful of paper towels and started wiping off the oil. It looked like the leak was somewhere near the left front lower side of the engine. It was getting late and I was a bit discouraged. I put the aircraft back in the hangar and headed home. On the way out I ran into Gilbert Bourrier and I explained my problem. Gilbert also has a Champ and thought he might know where the leak was. He said he was available the next day to help if I wanted. I said I had plans for the weekend but would be back Tuesday after the long weekend. Gilbert wasn't sure of his plans but would help if he was around. I said thanks and went home.

I came back on Tuesday and luckily it was a rainy day. Lucky for me because Gilbert had phoned his work to say he wasn't coming to work in the rain and was at his hangar instead. Gilbert came to my hangar and we started to remove the cowlings. To get a good look at the lower front side of the engine meant we would have to remove the nose bowl and the prop. We did this and moved

some work lights closer so we could get a good look. Gilbert thought that perhaps the rubber seals on the lower push rod tubes may have been leaking. If this was the case it would mean quite a bit of work to replace since you would likely have to remove the cylinder to get it done. It did look like there might be some oil leaking from there. Then we looked at the front left valve cover from the front. Something didn't look right. The tab from the baffle was under the valve cover allowing oil to escape. This had been hidden by the nose bowl when looking from the front earlier. The problem was solved. We had found the source of the oil leak and we quickly took the baffle plate off and removed the valve cover. We then replaced the valve cover and used a new gasket that Gilbert gave me. We then replaced the baffle plate with the baffle tab on top of the valve cover this time. We replaced the nose bowl and prop. Gilbert then helped me put the cowl back on. This was much easier with two people. I thanked Gilbert and thought how fortunate I was that it was just a simple fix.

I then thought how fortunate I was that I had all this help at my fingertips here at Lyncrest. If not for the help I received from Jack for the checklist and John and Grant for their aid and loan of tools and Jim for his engine expertise and Gilbert for his help and parts I would still be waiting to finish my annual inspection. So what did I learn from this experience. First, that its better to do a compression check on a warm engine. Second, make sure everything goes back together the way it came apart. Third, do a 10 minute run-up "ON THE GROUND" after any engine maintenance followed by a thorough leak check before you go flying. I dread to think what would have happened if I had gone for a longer flight without spotting the oil leak. Fourth, my future tool list needs to get shorter. Fifth, and finally I did get to learn more about the workings of my Champ.

*Ben*

### **2010 Memberships are due shortly**

Our Chapter is a member of the National RAAC and \$15.00 of each membership goes to the National RAAC, which provides liability protection for the various activities supported by our Chapter and the executive. The RAAC is the aviation body that best supports the recreational aircraft enthusiasts. Membership in the RAA makes it possible for the RAAC to do much more for us. Our chapter's Executive and Directors believe in the RAAC and strongly encourage our members to support it. The RAAC is the recreational aircraft enthusiast's voice with TC, promoting our kind of aviation. Should you ever be stranded away from home, the RAAC provides a means of finding assistance for you when you need it. The RAAC was instrumental in getting what is now the MD-RA inspection program, set up and working. The RAAC deserves our support, particularly from amateur-builders and those with aircraft in the owner-maintenance category. We encourage you to please consider taking out or renewing your membership in our Chapter. There is a renewal form at the end of this newsletter.

### **Hangar Rental**

We have adjusted the rental rates for the winter months to account for the higher heating costs involved during those months. The summer rate for an aircraft spot stays the same at \$150/month. April to September is considered the summer months. October to March rates will rise to \$200/month starting October 2009. Daily rates, summer or winter are, \$10 per day. Weekly rates are ¼ of the respective monthly rates. The hangar has room for 4 full aircraft spaces and two smaller work spaces. Rates for the workspaces are \$55/month in the summer and \$75/month in the winter.

Currently there is room available in the hangar. If you would like to arrange a spot in the hangar for your project please contact me, Ben Toenders at 895-8779 or [btoenders@shaw.ca](mailto:btoenders@shaw.ca)

**For Sale:** One RV 6 or 6A wooden fuselage jig. Excellent construction and in excellent conditions. 6 – 6s and 6As have been built using this jig. For more information, contact Bob Stewart at 853-7776.

**2009 Membership Form**

**Winnipeg Area Chapter RAA**

Trial (\$25)

Student(\$25)

Full (\$50)

**Required Information**

<b>Name</b>		<b>OFFICE USE ONLY</b>
<b>Mailing Address</b>		<b>Renewal Date</b>
<b>Phone(s)</b>		<b>Chq.      Cash</b> <b>Other</b>
<b>E-mail</b>		<b>Initials</b>
<b>Are you an RAA national member? <sup>(1)</sup></b>		<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>
<b>Do you give permission for your information to be made available to other Winnipeg RAA members?</b>		<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>

**Optional Information**

<b>Do you own an aircraft?</b>	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> Make/model: Registration:	<b>Are you a member of other aviation groups?</b>	EAA: <input type="checkbox"/> COPA: <input type="checkbox"/> Others:
<b>Are you building or restoring an aircraft?</b>	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> Make and model of project(s):	<b>What Pilots licences and ratings do you hold?</b>	

Please make cheques payable to: RAA - Winnipeg Chapter  
Mailing Address: RAA c/o Steven Sadler PO Box 703 LaSalle Mb. R0G 1B0

**Notes:**

- 1) RAA Winnipeg contributes \$15 per member towards the insurance program maintained by RAA national. This program provides liability insurance to cover local chapter events. The \$15 does not provide membership in RAAC.