Good day fellow members, it was good to hear from Lynda Hartnett and the feedback from the letter indicates we should encourage more women to write to the newsletter.

Well we had a good showing at the field day, the long awaited Blyth Buzzacott made its debut and the wait was worth while. It was well presented and a credit to Gary and Nikki.

We all rose pretty early for the field day so as to get a park beside the fence, by the end of two days I’d had enough. I was able to drop my old motor cycle over the fence with my crane. On Thursday afternoon I was able to retrieve it the same way. Richard was able to load most of his engines that way also.

Friday morning we took the tent back and picked up the last of the motors. With everybody there we were able to push my section car up on to the back of my ute instead of winching.

Richard’s big Hornsby had everybody intrigued with it’s perfect smoke rings, it was a shame that a moved flywheel prevented it from running on the second day.

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Ian’s Fielding once again put on a good performance and Ian M probably had the most on display but his unusual Petter upright failed to run.

Russell had his engines there and we all recon they ran better when he was out looking around the field displays. Roger had his collection of rocks, I mean small engines. Trevor bought along his section car fitted with Briggs & Stratton and Merve bought his engines as well as all the fencing material.

The Burdekin club was well represented with unusual exhibits from Alf’s engine set up in a boat to Tom’s Hot air engine.

I am slowly getting back to normal, my computer got large dose of the flu and I lost every thing.

We haven’t heard anymore from the NHMA regarding the insurance costs but they would like to know how many members are insuring with them so that they can negotiate with their insurer, seems like the chicken or egg story.

Last meeting the club decided to send out the application forms in the next news letter and so it was decided to increase the due’s by $10 in the hope that will cover the rise in insurance costs. That makes it about an 100 % rise in insurance cost, if this does not cover it we will have to ask for the difference. If on the other hand it is less we will credit it to your next year’s subscription.

As the club rules are part of the application form we made minor changes to bring them into line with the NHMA’s latest guide lines.

We are sorry this insurance uncertainty is making this difficult for you to decide what to do, but we will need to return your signed application forms as soon as possible. We need to get all applications in together.

Keith.
Fielding And Platt Restoration

Continued

Before the sleeves were machined to size the main bearings were cleaned and refitted to the block and clamped in place with main bearing caps, the two halves were soldered together and removed for machining 3/16” over size. To enable hand fitting of the main bearing sleeves, in the event of any misalignment occurring when the engine block was bolted down to the transporter, the sleeves were machined to suit, size for size. The counter weights were then fitted to the shaft and the retaining nut recesses poured with lead and filed to finish, the engine block was white metalling and a radius machined with the two halves still bolted together, both halves were tinned using Bakers soldering fluid and 60-40 solder. The halves were separated and a thin piece of aluminium, approximately .050” with a sharp edge filed on the inside edge which fitted into the slots machined in the aluminium mandrel. This effectively gave me two separate bearings and extra metal for machining back to shaft size. With the bearing now clamped back together and with the mandrel centralized, the whole unit was then clamped to the carbon block. Using a two ring gas burner, heating the white metal until the white metal singed a piece of brown paper. If the brown paper flamed, the white metal was too hot. The bearings were pre-heated until the tinned surface was at a point where the solder was on the verge of melting, then pouring the white metal in one half using one action, over filling to allow for shrinkage. The second half is poured in the same manner. Allow to cool. After cooling, disman-
tle the unit and both halves are bolted back together ready for machining. The bearing was then set up in the lathe and bored out to suit the shaft diameter plus .003". The shaft had been ground so there was very little hand fitting required. Clearance was checked using Plasti Gauge.

Con Rod Gudgeon Pin: It was necessary to manufacture a new pin to standard size as the piston was not worn because the pin was clamped in the piston by two grub screws. The two bronze halves of the little end bearings were faced and the bearings scraped to fit the new pin. To check the alignment of the rod to the crankshaft was simple by using a piece of solid bar [checked as true], which was clamped in the little end of the conrod and protruding sufficiently to take in the main bearing. On each side of the crankshaft, a solid piece of bar had been machined to a length of minus .050". With the conrod fitted to the crankshaft, a measurement was taken using feeler gauges between the end of the rod sitting on the main bearing and under the dummy gudgeon pin. The difference between the two sides was .012". This I considered acceptable considering the length of the conrod and the dummy gudgeon pin.

The piston consisting of four compression rings, dowelled and of concentric construction. I was unable to buy rings at a reasonable price and decided to manufacture my own. A piece of spun cast iron was purchased. The sums had been done to calculate back clearance, the diameter and the width. Owing to the taper in the bore, the calculations were done using dimensions from the bottom of the cylinder not where the rings worked. Machining three rings to the original 1 over size, allowed me to true up the top ring land. Holes, the diameter of the dowel, were drilled through the ring face and a line scratched across the diameter of the hole. The rings were twisted and snapped across dowel hole. To tension the rings, a porta gas flame was used. Not a great deal of tension was required, owing to the number and the thickness of the rings. Too much tension will wear the bore unnecessarily. Following the tension of the rings, the rings were then gapped to suit the bore and the back clearance was checked and assembled on the piston ready for fitting to the bore.

The governor drive shaft was seized in the housing. After being in the electrolysis for cleaning for several days, the shaft was freed and the governor completely dismantled and cleaned again. The shaft was polished and the housing to the shaft clearance was checked. Bronze spaces were required behind the drive pinion to reduce end float. A governor fork was turned down to remove wear on faces and bronze spacing washer was silver soldered to the face to reduce clearance. The flyball pivots were reamed oversized and new pins fitted.

Ian Williams

to be continued next month