## SPARE PARTS & OTHER NEWS

## Technical report by Rob Little

The information regarding the piston/liner kits I reported on last month appeared to be a piece of misinformation as after I contacted Rob Koffijberg in Holland he assured me that "Bretille" piston/liner sets were in fact available and there was no shortage to the best of his knowledge. These are the type that our members have been using for some time.

The next topic is a tribute to Jack Weaver. I had never met this man although his reputation preceded him as when I attended my first concours at Gulf Station in Yarra Glen, I met George Tippett and it was he who said "if you end up with a traction get Jack Weaver to do the gearbox and you will never have a problem".

When I eventually met Jack he was not in good health and could not attend to my gearbox but offered not only the information on what he had done to gearboxes but also to the engines to give them a hurry up.

The following information is as told to me: Take 2mm off the head, put in a mild cam, lighten the flywheel, match the ports and balance all parts. Jack also went on to describe how he braced the differential to stop the flexing and modifications to the

2 gear bushing.

However the most vital dimension was missing and that was the original cylinder head height, I neglected to ask this of Jack at the time but after perusing a spare parts manual, there it was complete with a capacity of the combustion chamber. This is the vital starting point, the original cylinder head height is 85mm and the combustion chamber capacity is 84 - 86 cc, this gives a compression ratio of 6.2/1! I then set to work measuring cylinder heads and found that one cylinder head had already been reduced by 1mm, after measuring the combustion chamber capacity carefully I found that by reducing the head height by another 1mm would give me a compression ratio of 8.5/ 1. so off to the machinist it went.

I then sent a camshaft to Wades in Melbourne where they gave the camshaft a 793C grind, the ports were matched, flywheel lightened simply by removing the bit that sticks out the front, (see drawing above right) and then balanced, this is most important with a crankshaft that has detachable counterweights as you never know if they have not been misplaced in the past, as it turned out I am certain that one of them was not native to that shaft judging by the amount of metal removed.

This has resulted in a lovely smooth engine with more power than before but with no discernable difference to idling and hill climbing. It is currently fitted to my Big 15 and now covered more than 1000 miles, it was a pleasure over the Austraction weekend in Bendigo to be able to pull out and pass a light truck going up a hill. Economy has also benefited with regular returns of 30mpg plus.

