

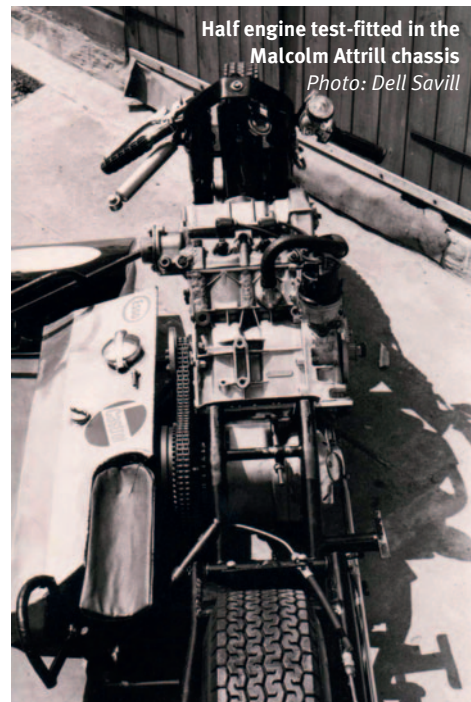
## Imp powered motorcycle sidecar – the 600cc half Imp engine

Dell Savill (non-member), Tenerife

*This continues from the article in February 2019's Impressions. (Please note there was an error in the caption for the lower photo on page 25 of that issue; Derek – or Dell as he is better known in racing circles – was somehow misnamed as Mike. Apologies for that, Dell. GP)*

During many of my conversations with Paul Emery he mentioned the idea of building a smaller lighter version of the 998cc Imp motor which he thought would be more suitable for my sidecar outfit. I imagined that he was thinking of reducing the weight.

Some of the unnecessary outer integral parts of the casings such as the starter motor housing and other redundant protruding casting infringements were cut away in order to facilitate the installation in the chassis.

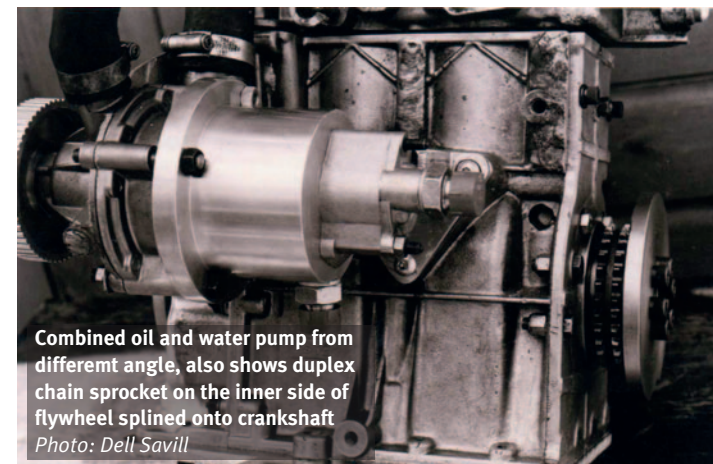
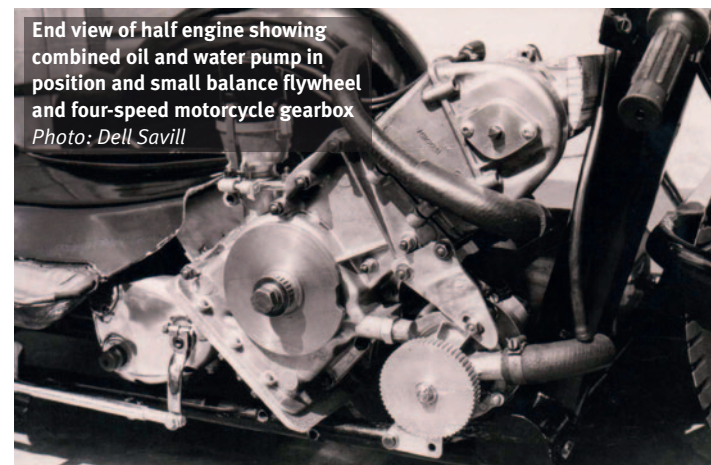


When I eventually, during a conversation some months later, raised the idea of reducing the engine weight it became apparent that Paul had other ideas. He had saved for some time a set of crankcases that he had literally cut in two, with the idea of building a twin-cylinder motor! I couldn't believe that he was serious until he retrieved the crankcases from a heap of redundant engine parts from under the work bench. The open end had already been fitted with a thick cast aluminium plate which was to carry the main bearing. I was immediately interested in the idea but didn't at the time have a clue as to how the project was to be completed, or as to whether it was viable. However, on listening to Paul's ideas and advice I decided to purchase the cases for a mere 30 quid!

I needed to put a lot of thought into the project and I would also need to think about acquiring a lighter and smaller chassis to accept the twin-cylinder version. It wasn't long before I was fortunate enough to buy the very chassis from Malcolm Attrill, a fellow sidecar racer who hand built a beautiful chassis to house his Vincent 1000cc engines. He called them *The Fast Lady*; they were immaculately built outfits that won elegance awards at race meetings.

I now had the perfect combination and spent no time in going forward with the project. As I had done previously with the full Imp engine, I would now need to discuss my ideas with a competent motor engineer, preferably with motor racing experience, and I was fortunate to be introduced to partners who operated a racing car preparation workshop in Shepherds Bush and who were able

to carry out the modifications, balancing of the half crankshaft, machining and final tuning to a high spec. They also informed me that the Imp motor could be run in opposite rotation with some modification and therefore the modifications that I had carried out on the 998 motor had not



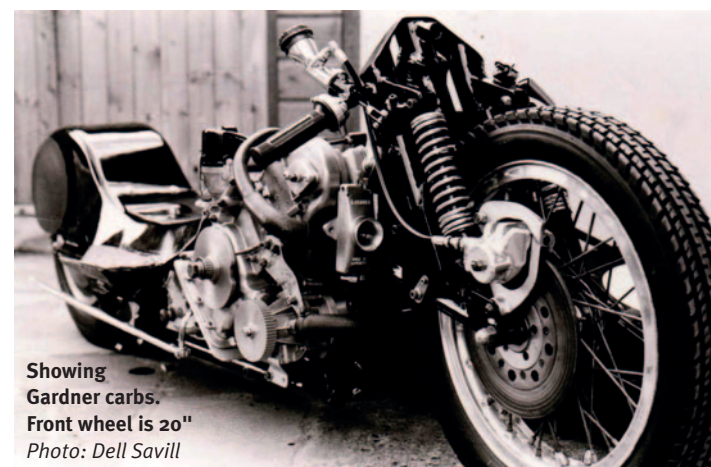
to the journals and fitting a small flywheel to the end.

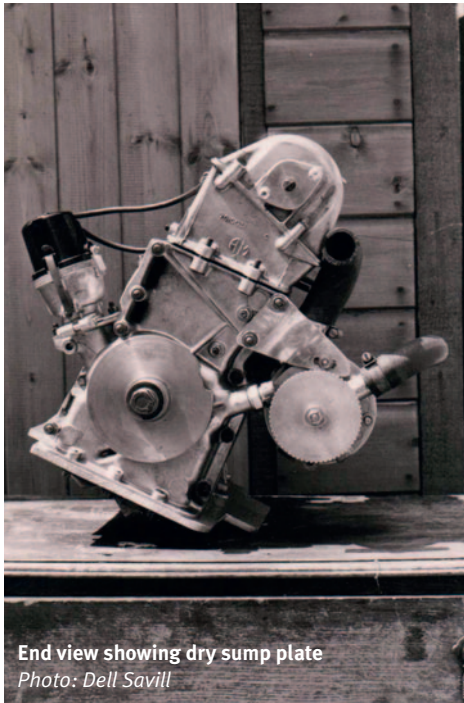
The drive end was splined to accommodate a duplex motorcycle sprocket and the opposite end fitted with a toothed belt drive wheel, which was to drive the combined water oil pump.

A dual oil and water pump was fitted. I am

been necessary. We live and learn! In the event, because the half motor fitted neatly into the chassis it was not necessary to change the rotation as all carburettor adjustments could be carried out easily once installed.

The half crankshaft was balanced by adding small weights





End view showing dry sump plate  
Photo: Dell Savill

sure that Paul Emery designed this pump. I certainly bought it from him as it was perfect for the configuration of the motor and the simple toothed belt drive off of the crankshaft.

The sump cover was modified for dry sump conversion.

The remainder of the internal preparation and tuning was carried out by Lyon Racing.

Transmission was through a four-speed high-ratio motorcycle gearbox as used in the BSA Gold Star race bike.

The installation into the chassis was far easier than for the larger motor and the inclusion of a smaller radiator and associated plumbing was straightforward. I had purchased a pair of flat-bodied 30mm carburettors and was at a stage for a further visit to Mike the Pipe for the bespoke manufacture of the manifold which was to take the carburettors and the exhausts. However, finances were getting low so I decided to shelve the entire project for a year. My wife

and I then decided to move out to the warmer climates of Tenerife where we have lived for 34 years.

I sold the chassis and gave the motor to an Imp Club member who lived in Walton-on-Thames in 1985. I cannot recall his name. I would like to know if the half-motor is still in circulation, and if any club member reading this knows anything about it.



Golden Oldies! Dell (79) with passenger Noel Collins (69) on 1972 outfit purchased in England in 2016 and brought to Tenerife. 998cc race spec. Chassis is a Windle, identical to the one Dell had in the 70s. South Tenerife kart track, 2018  
Photo supplied by Dell Savill