The Engine
The car was coming back together, and thoughts turned to the engine, the engine was complete but needed everything.

This was an original small points engine .New SIBA small points, had been long obsolete. The alternative was converting to the big points, a modification that used the standard more available SIBA big points as in the twins.
That said those are still hard to find, no longer made and points being points can be unreliable.
I had been reading about Electronic Ignition, an optical system with no wearing parts.

This was being made for other small cars and scooters; however the Excelsior engine is unfortunately quite different and rare. Production was not high even when new.

Then on Cold Plugs a now closed down USA www site I read that Harry Connors knew some one who had made an EI for the Excelsior Triple.

Following this up it came to my attention that Harold Stein in Germany had developed himself a special EI for the Triple engine.
His EI system was already well proven in Messersmit'cars and other small twin cylinder engines.

Only one had been made and sold for an Excelsior triple and that had gone to the USA a John Mack who had his original unrestored car running with it in.

Only to loose car and all some years later, in a none related garage fire.

The conversations that followed and given that Harold Stein seemed to understand I wanted to use this EI in my small points triple car over some very harsh conditions , for nearly 3,000 miles of hard driving , that would take us over the Alps and down in to Italy experiencing both hot and cold conditions.

He and his son Patrick came back with a further modification to his original design of the small point's replacement EI system.

To explain, The replacement small points EI system uses the existing small point Dynastart housing, a new shaft, some 4 inch long, that fit's to the end of the crank, so any movement on the crank could mean the end of the shaft wobbles and damage the infra red signal electronics.

An alloy support plate fits over the original point's hole in the housing to carry the electronic circuit board. This plate was later modified with a bearing, as a kind of support, an out rigger really, to catch and control any of those adverse wobbles.

Should that have been for a big points EI system , this one uses the machined out for big points (70mm) Dynastart housing , the circuit board now sits inside the housing, the new shaft is a lot shorter, and no need for the bearing or support plate.

The beauty of this system, lost to most, is that it is all mounted on one circuit board with just five wires coming off it.

Just wires leading to the three original ignition coils, each coil fires a cylinder, giving time for the coils to recover and cool.

All other systems I have seen use wasted spark system that fires all the time on all plugs and has to use a single high performance coil to try and keep up and keep cool

These also all have in additional a “black box regulator “to hide away.

The Stein EI still used the original SIBA control regulator box.

Stein can build into the box a solid state regulator, should the original wound coil fail. So if you want it to look original with three coils and a Siba control box but run with modern EI, then this is it.

Was it – They are no longer being made unless we can get him to change his mind.

So I purchased one for me, and arranged for a spare unit, just in case it failed
Plus one and a spare unit that went to Mike Webster, who was also preparing his SE 492 for the same rally at the same time.
Note my car can be seen on the Stein web pages. The EI is still untouched working well, just as it did the day I fitted it (Now 2016)

The Stein Small points EI SYSTEM



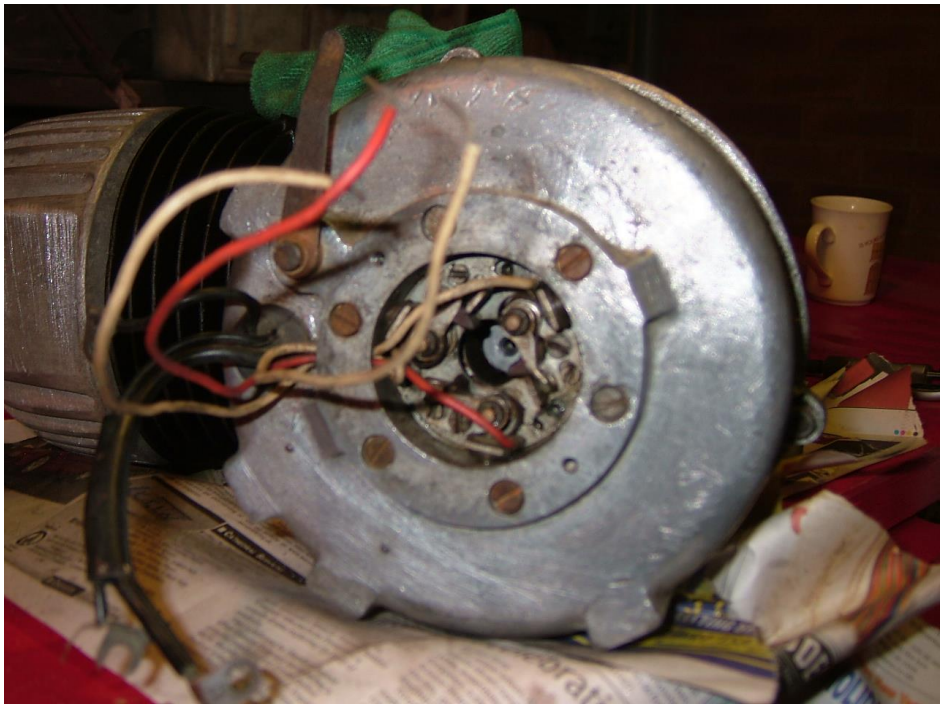
Excelsior triple made for Berkeley Cars.

Used small point Dynastart housings on **Right**
Many converted later by enthusiasts to big points

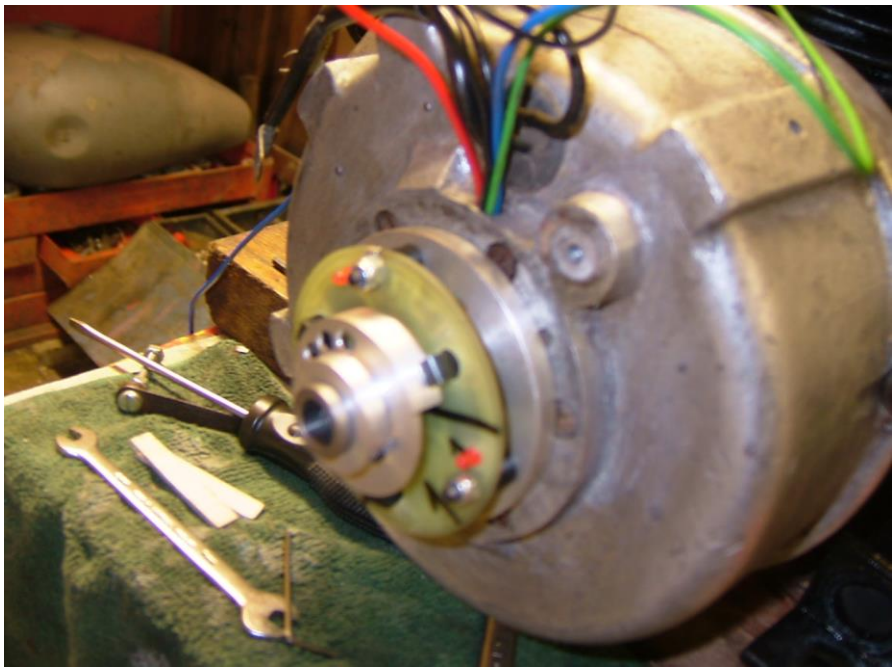
Left the big points replacement EI circuit board being tested inside the housing, has a short shaft needs no support plate or bearing



My original Siba Small points in its Dynastart housing



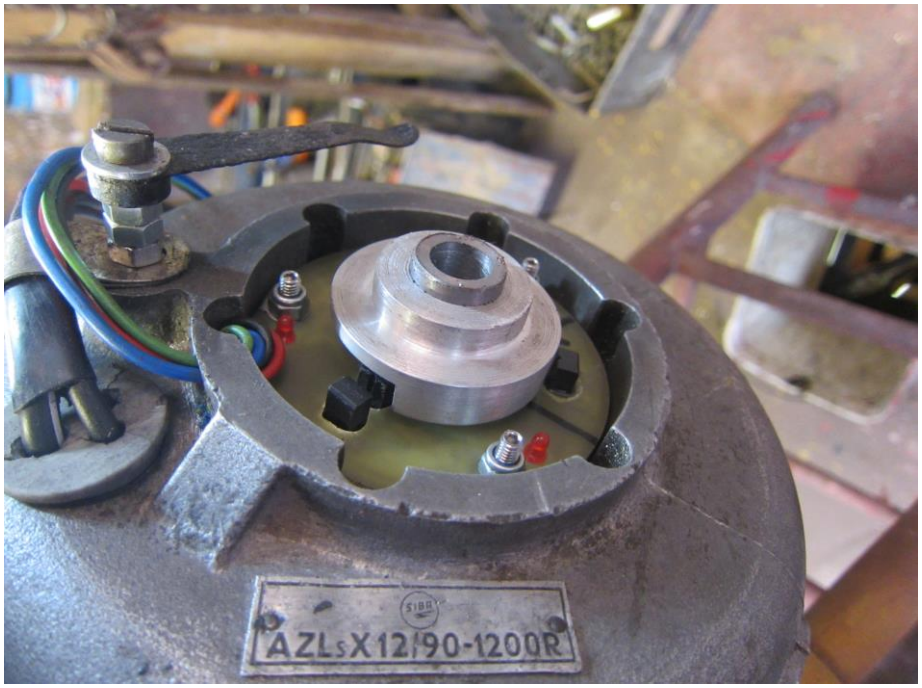
Stein small points EI
Sits on a support plate over the points hole in the Dynastart housing



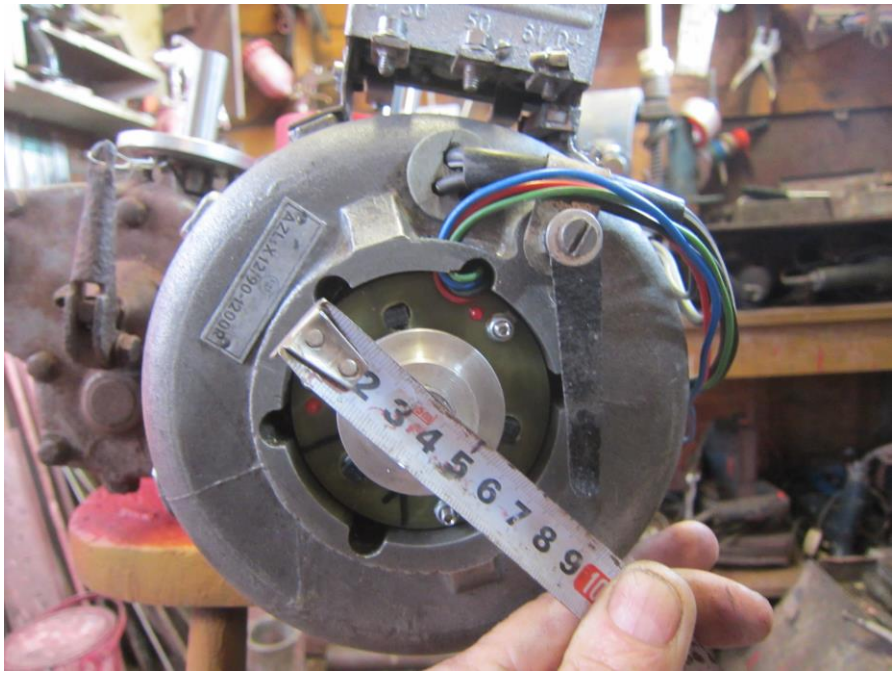
EI now fitted and with the red cover attached to my rebuilt Small points engine,
All ready for the LBL



A modified Big point Dynastart Housing and the EI Fitted inside



Note the original Siba Regulator box. Stein will build into an existing regulator box a solid state part to replace the charging coil that is often found not to be working.



Note the method proposed by Patrick Stein for the big points housing was to have used a much bigger (80mm) plate across the hole, with the support bearing and a long shaft. Same arrangement as the small points set up because of his concerns about it wobbling. Not a problem with short shaft as seen above, in my view.

Crank shaft

The three cylinder Excelsior engine bottom end required all the ball and roller bearings, the big ends 3/16 x ¼ were obsolete and unavailable so Simon Bateman was given the job of a needle bearing big end conversion, something he has done many times now with both twins and triples.

As far as I can tell he has not had a failed unit sent back – touch wood.

Barrels were honed and found to be worn, they were just about ready for re bore really, but given the thrashing this engine was going to take I just fitted new rings.

After all we had heard all the stories of seized new pistons and fag breaks ," waiting for the engine to cool down before it would start again" , – quote from Pat Moss, who drove for Berkeley in the 1958 rally