IN THE WORKSHOP

With acknowledgement & thanks to the Alvis Owner Club Bulletin and the author.

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Hobson Telegauge-Electronic Type - Replacement

The following piece was writen up about my 1933 Riley Lynx purchased in 2018, and I felt that perhaps the details may be of interest to Alvis Owner Club members with cars that were fitted with the original Hobson Telegauge petrol tank sender and instrument panel unit.
My own Alvis being a 1927 model has of course no such luxuries and with her I still have to use the proverbial marked up stick, on the other hand I do have the reserve supply and a tin on the running board for back up!
Anyway to the point of this story. Riley's up to 1934 /35 and Alvis for that matter used the Hobson Telegauge set-up for the petrol tank readings and my Lynx still had this feature in the tank but the gauge on the instrument panel was a later Jaeger electric unit not wired to anything! I considered it would be a good scheme if a proper petrol level reading was displayed on the dash rather than the quite common method (these days!) of using a wooden dipstick. Rileys have no reserve tank facility of course.

First I trawled through all my Register Bulletin back numbers (Riley and Alvis) as I had recalled there had been several articles on the operation and repair of the original Hobson system, but on second reading of these I decided that to re introduce this feature was beyond my capabilities. In any case I did not fancy handling the special fluids required. The other option would be to modify the tank to take a later Lucas swinging float unit and wire this to the existing gauge, but this was something I was not too keen to pursue either. The one exception to these write ups was Bruce Fox's article in Riley Bulletin 242-June 2016 where a fully detailed report was given on the various components that could be contrived using electrical parts and LED to display the actual petrol level readings. Now this was something that seemed to tick a lot of boxes, but again quite complex to bring it all together.

It so happened that we were taking part in the Riley National rally in May 2019 in Peebles with the Lynx and I got chatting to fellow Register member Mitchell Sorbie who was there with his recently restored and very smart 1934 Kestrel 9. Mitch is also into vintage Austin's and mentioned that there was a company ARP Ltd in Poole (tel No 01202 625242) that manufacture a replica electronic Hobson telegauge package which can be straightforwardly installed in a given car to replace the original components. The dash instrument is very close to the original design, and a electronic float unit replaces the original Hobson tank unit, which provides the LED lights in the dash instrument with the required signal for the petrol level indication. I subsequently contacted the company and they advised price and delivery details, and asked that I post to them the original Hobson tank unit.

I intended to remove the tank anyway for general cleaning and painting, and just as well I did as I had an awful job in removing a few of the 2 BA screws holding the Hobson unit to the tank flange. A small blow torch had to brought to the rescue to heat the flange around the heads (after I had flushed out the tank several times with clean water to remove any residual petrol fumes!) and finally I had the thing removed and by the verdigris condition I don't think it had ever been off the tank in 86 years! While the H sender unit was off to ARP, a soldered repair was done to the main petrol inlet pipe to the tank and then cleaned, prime painted and finished it off with a couple of coats of gloss black enamel. Taking advantage of the tank being removed also gave me an opportunity to clean the underneath chassis area and the back axle banjo unit. Per the delivery time quoted by ARP the various components duly arrived, these being the complete new Hobson style dash gauge, with attached harness, the new tank sender unit (made from brass) and attached wiring and plug and a twin flex harness to run from the dashboard back to the tank.

The three new components

The original Hobson tank unit was returned which was now redundant as all that was required from this was to ensure that the new unit orientation of outlet pipe / vent pipe and flange mounting holes were consistent with the Riley tank flange. The original outlet compression nut was also transferred to the new unit.

I decided to re-install the petrol tank before the new parts arrived so that when fitting the sender unit, alignment of the outlet pipe lined up with the under boot floor main pipe.

This went fine, then it was the usual crawling into the car on one's back to fit the gauge into the instrument panel and run the short harness behind the dashboard to the offside of the car. The new gauge twin flex harness which as you can see is fitted with the required connecting plugs to marry up with the sockets on both the sender unit and dash gauge was then fed along the offside chassis rail from the tank area to the front of the car.

Re-installed tank with new sender unit fitted

New gauge on instrument panel

At this point I decided to cheat slightly as it was not possible to feed the twin flex cable up towards the fuse/ junction box and into under dash area with the plug fitted (all holes /routes too small). I therefore cut the wire and was then able to feed the main line to behind dash area and then soldered the twin flex back together. The required 12 volt supply-per the instructions was taken from a feed supply via the ignition switch.

With half a tank of petrol, and switching on I was pleased to see the scale on the instrument light up to the appropriate point and when filled further, naturally showed the tank as full.

As I write this piece the Lynx has only covered a few local miles with its new instantly readable petrol gauge, but I am sure I can now dispense with the 20 inch long wooden stick from the tool box! If pre 1935 Alvis owners wish to have all their instruments working including the petrol gauge but cannot resolve issues with the original Hobson set-up then perhaps the ARP designed and manufactured unit is worth considering.

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