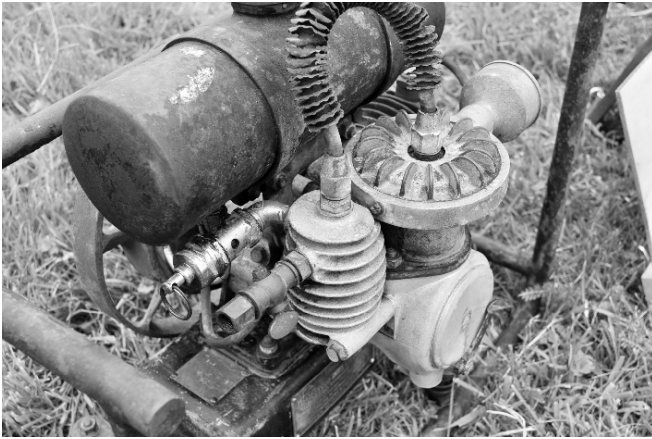


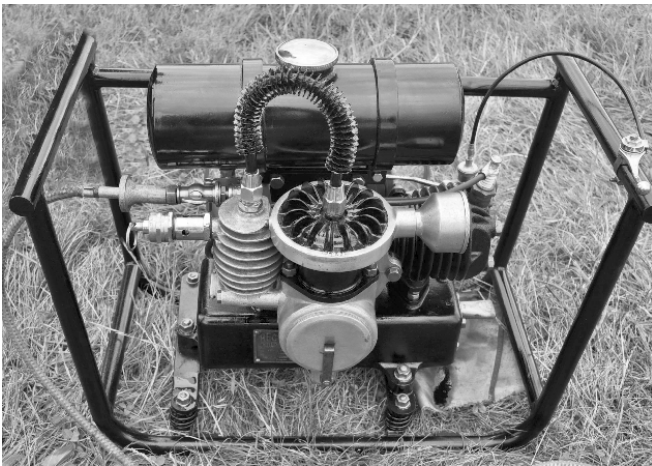
Featured Engine No. 53

Paul Osborne's "Levis" Compressor

Last year at the Wessex Gathering, Paul was exhibiting this unit in "as found" condition as he'd recently bought it. I took it's photo then

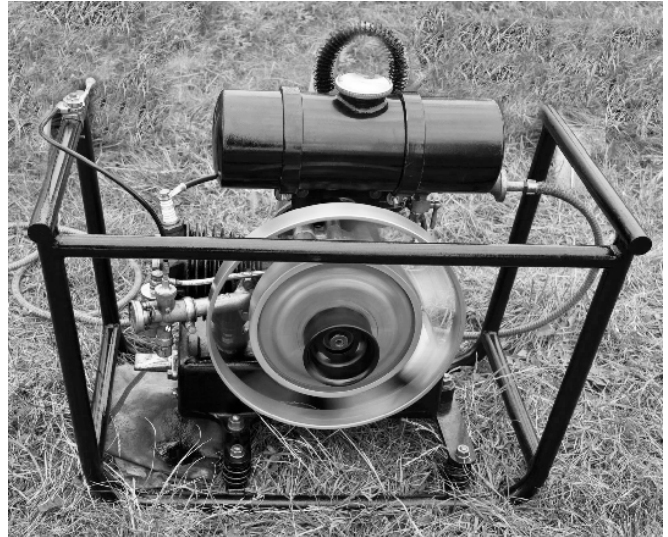


It is a two stroke of about 80cc and made by the Hepburn Engineering Company. Production was short lived, the engines being made to their design by the Levis company. They produced an autocycle from '30 to '40, but when the Hepburn factory was bombed, they merged with the Levis motorcycle company run by the Butterfield brothers. Motorcycle production ceased "for the duration" as we used to say, but did not start again after the end of the war. Levis continued to make ancillary equipment, small industrial engines and pumps and compressors.



The engine had led a long, hard life and one exhaust port was completely blocked with carbon. It was very complete and lacked only a petrol cap and what proved to be an extremely hard to find carb needle. The compressor itself was in first class condition but it was a different story entirely for the engine! It was so worn internally that you could rotate the flywheel three inches before the piston moved. In the intervening year, the mains, big end, small end and piston rings have been replaced and the whole device very nicely restored.

It was running at the 2011 rally, put-putting to itself and the compressed air hissing quietly to itself.



As is often the case with industrial engines – particularly those made in small numbers for a niche market like garage forecourts – information is very hard to come by. Paul would very much like to know more about these units and, indeed, Hepburn's themselves. If you can help with a brochure or – well – anything at all, he'd be extremely grateful. Please let the Editor know & he will pass it on.



Calendar of Events

Key. CN = Club Night. CU = Crankup

July 22-24th . Event. Netley Marsh Rally at Meadowmead Farm, Netley Marsh, SO40 7GY contact Jean White on 023 8086 0313.

July 25th CN. Crankup at The Court Hotel

July 31st Sunday. Event. Mini rally at **Haynes Museum**, Sparkford mini - rally Haynes motor museum.

July 29-31st Event. The 47th Welland Steam Rally, Woodside Farm WR13 6NG Phone 01531 890 762 for an entry form.

August 22nd CN. *Early because of bank holiday.* **Photo presentation** by the members. Bring along ten photo's or slides. Prize for best effort.

Sept 3rd. Event. Carnival Country Fair, Trowbridge Park, St Stephen's Place, Trowbridge, BA14 8AH, Phone 01225 754374

SEE BELOW!

Sept 10/11th. Event. Stockbridge Working Weekend. *Please phone Alan Vickery for details 01256 703169*

Sept 18th Sunday. Club Visit. Coach trip to Kew Bridge Steam Museum.

Sept 26th CN. Kim Siddom. "Engines at the 1000 Engine Rally"

Oct 8th. Sat. Skittle match. South Parade Club, Frome.

Oct 15th . Sat. Autumn sortout at Cranmore Station Yard.

Oct 31st CN. Selwood preservation club. **Inter club quiz.**

Nov 12th Saturday. Autumn Enstone Sale.

Nov 28th. CN Guest speaker Patrick Hassell. "Bristol Before Rolls-Royce"

Dec 4th Sunday. Antifreeze CU at Nunney Catch.

December **no club night.**

Dec 27th. Mince Pie **CU** at The Court Hotel

All events are listed in good faith. You should always ascertain if an event is taking place before you go. If in doubt, ring Brian Baker on 01749 342671

NOTE

Eric asks me to make the point that if you would like to attend the Trowbridge Carnival Country Fayre in Trowbridge park on 3rd September, he needs to hear from you before the end of July. It is one of those occasions where the site is planned and we can't just turn up unannounced. Please take the time to phone Eric on 01225 754374 and let him know that you'd like to attend.

Social news

By Earwig

Happy birthday to both our Newsletter distributor Mary Butler on 26th June and to Carol Phillips for the 8th July.

Chairman's report (*printed as received*)

By Brian Baker

The proposed visit to Kew Steam Pumping Station on September 18th has been cancelled due to a lack of support. After advertising this event for several months, only SIX members expressed a wish to go to Kew. The committee puts quite a lot of effort into planning and organising these events only to be let down by the members they represent, needless to say there will be no more coach trips planned in future. The monthly meeting at the Court Hotel on Monday 23rd May had John Heron give a very interesting talk on The RAF Harrier in the Cold War. John who had the rank of Wing Commander in the RAF flew the harrier, so we had first hand information about this famous aircraft. The talk was very interesting and informative and was well supported with a slide show. This was followed by the usual

raffle which contributes to club funds. The mid – week crank up Wednesday June 1st didn't attract a very large entry, most of the engines on display were of the small variety that usually goes in the boot of the car. One outstanding exhibit was Ken Randall's display of military equipment from the Dorset Regiment, Ken was dressed in the uniform of the "Dorset's", the regiment he served in back in the 50s. The café which opened for our benefit done no trade at all, so I doubt if we can use this venue next year. The committee are currently looking at alternative sites so if any member has any suggestions please let us know. Also the members must realise that if events are not well supported they will be dropped, so the old maxim applies, if you don't use it, you will lose it. As I write this report, the week of our rally at Semington, the weather is awful, storms and cold winds, I hope when I write next months report I can say that the rally enjoyed fine weather and was a success.

They Don't Make Them Like That Any More by Mike Harper - Part 2.

*Mike heard that the current owner of his old Zulu fishing boat 'Rolling Wave' was about to replace its old Kelvin K2, No. 19194 (or the Monster as he was better known) so he wrote up the starting procedure. Never again will I complain if a Marvil is hard to start! Last month, we'd just got **him** running on petrol and pushed the decompressor lever over to run on Diesel*

1. When this point is reached, which should only be a matter of seconds, ease back the governor gradually until he is ticking over at about 110 rpm. This speed can be checked by counting the strokes that the water pump makes.
2. There is more to do before you take a rest. Screw out the impulse magneto, as if you don't it can be damaged.
3. Open the little drain cock on the side of the crank case just above the magneto. A slow steady drip-drip of oil indicates that the oil pump is satisfactorily distributing oil round the galleries. If there is no oil from this tap, stop the engine, as otherwise you can damage him.
4. Nip up on deck and check that water is coming out of the exhaust.
5. Pat the Monster on the flank (known to most people as the exhaust manifold), and if it is not too hot you know _{all} is well. You can then thank him for performing well, and sit down for five minutes before you start heaving up the anchor. Replace the earth lead onto its terminal.

If he won't fire on petrol

1. Don't bust a gut continually swinging. All you do is to exhaust yourself. If there is petrol and a spark he must fire, so one or maybe both of those must be wrong.
2. Check that petrol is getting through to the chambers by unscrewing the nut on the bottom of

the carb. The petrol will fall through two holes, so catch it in the priming bottle or can for reuse (and safety). Then with a special brass Kelvin tool, unscrew the jet. This sometimes will get blocked. If so clean it, replace, and give two more gurgles of petrol, and have another go. Don't forget to reprime the petrol chambers as in No 5.

3. If you still have no luck, check the plugs, in the same way you would in a car or any other petrol engine. Remember that the mag has four terminals, one for each stroke of the engine, so you may have to turn over three revolutions to get to the one you are shorting out. The click at the mag indicates the moment when there should be a spark at the plug. The flywheel is engraved to show when the No 1, flywheel end cylinder is at TDC, (Ed by opening the brass tap on the petrol combustion chamber, and turning the engine until air blows out of the open tap you can identify which is the correct firing stroke).

4. If the plugs give no spark, maybe the points need attention.

5. Another possible reason for not firing is the use of very old petrol, or even by mistake using paraffin or diesel in error.

6. Yet another cause for no action is that you have left the earth lead on. In this case, return to GO, and do not collect £200, and apologise to the Monster.

7. One other reason might be lack of compression due to a damaged head gasket.

If he won't accept Diesel

Maybe you changed over before he was warm enough, or before fuel had reached the cylinders, or you forgot to close the drains. If the latter, you forfeit ten points and start all over again.

When running smoothly on Diesel

Apart from having a party to celebrate success, the following procedures must be followed.

1. Every hour go down and check the engine ^{all} over to make sure nothing is hotter than the hand can bear. Start at the stern gland heat means the packing is too tight, then feel the thrust box, which needs occasional greasing at the nipple.
2. If the gearbox is hot it means either too much ^{oil} or too little oil, and there are no prizes for knowing how to check this.
3. The whole crankcase and sump should never be more than warm, the cylinders and heads should be cool enough to touch, and the exhaust manifold should be no more than tepid.
4. If any part is appreciably hotter than the rest it is probably getting clogged with salt, rust, dirt, or barnacles. The latter can even grow inside the cooling system of an engine, as happened with 19194 in Barcelona during 1969. Hands up if you knew that before.
5. Every two hours oil the water pump and top up the wells on the rocker covers.

Stopping the Monster

If you have got the Monster running after having difficulties, you may well have an irresistible urge never to stop him again, but just let him ponk on for ever, topping up the fuel tanks now and again. The state of exhaustion I reached in the Med when it took me five hours to start him is something I shall remember all my life. The problem was that it was so hot in the engine room, that the petrol evaporated in the combustion chambers before I had time to get into the swinging position. Which in my case was best done on my knees. Somehow adopting a kneeling, almost prayerful position when attempting to start Him seems entirely appropriate. On this occasion I rubbed both knees completely raw, and could not swim or scarcely walk for a week.

However assuming you do want to stop him, and that rhythmic exhaust boom is so attractive that I can well believe that it will lull you into a hypnotic state where that is the last thing to appeal to you.

The procedure is simplicity itself - no fuel, no go. Open the injector drain, pull back the decompression lever and open the petrol priming cocks to ensure no gunge remains to damage his internal organs.

The Monsters party trick

If you want to idle for some reason and save fuel, once he is warm the Monster will run quite happily on one cylinder, which you achieve by opening one injector drain.

The resulting ponk-squeak, ponk-squeak, has been



known to turn on the most unlikely people! Ever 200 hours you need to change the oil, a load of fun and laughs. The best way is to remove the covers on the side of the crankcase and bale out the old oil with a

plastic can, ending up by wiping off every surface you can reach with a piece of good rag.

If you lie on your back with your head in the bilge it is possible to reach the under surface of the pistons, which seem to respond to having clean bottoms. The bearings and the cups on the connecting rods are child's play to get at by comparison