Hello all, with the holiday season starting and Christmas just around the corner now is the time to think back on how hard we have all worked this year. What better a time than now to give ourselves a little treat? After all if we don’t treat ourselves, who will? A subscription to Stationary Engine Magazine (www.stationaryengine.com) or The Old Machinery Magazine (www.tomm.co.au) is a must have, or how about an engine book? David Edgington has recently brought out a new book on the Lister A & B range, adding to his other well known titles, see them at www.stationaryenginebooks.co.uk.

How about a handy vibration tachometer also known as a Sirometer (part no 19200E) or ignition spark tester (part no 19368) available on order from your local Briggs and Stratton dealer. Already got all that stuff? Wanting to give rather than receive? How about contributing to this newsletter? Imagine the good feeling that will bring! If you have a picture of your favourite engine, car or bike, latest restoration, need something identified or just an old photo please sent it to Gordon or me.

Next year marks the 100th anniversary of the first Lister engine and if I am not mistaken it’s also the 90th anniversary of Briggs and Stratton. Perhaps we will see a few more of these two famous marques out on the rally field next year. Don’t forget the first rally of the season will be the Classic Car, Bike and Engine Show at Timour Hall, Plumstead, see the end of the newsletter for more details.

Finally many thanks to all who have contributed through the year, Andy, Bill, Hennie, John, Peter, Ron, Steve, Tony and especially Gordon who burns a lot of midnight oil putting this newsletter together.

Wishing you all a very Merry Christmas and a Happy New Year.

Phil.

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From The Engine Shed.

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Andy’s Compagnes Drift Mill Restoration articles. Andy is far too energetic for us and we are getting way behind with his Mill articles. To keep up to date one can find his (weekly) articles on the Sandstone website: http://www.sandstone-estates.com/interim/Compagnes_Drift_Mill_water_wheel/index.html

Gordon.

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If at first you do succeed, try not to look too surprised. Anon.
In this last week we have experienced three days and four nights of continuous rain. A minimum reading is around 120mm whereas figures of twice that are not uncommon. However, in the mountains above Villiersdorp, figures of 500mm were recorded. This water has to find its way to the sea, a lot of it in the Bot River and sometimes takes a lot with it. In this case, about half a hectare of pear orchard at the bottom of Compagnes Drift farm:

The river used to run in the left hand side of the bright green patch in the river bank in the middle of the frame, the remainder of the orchard is on the right. The alignment of the road on the right gives a clue. The weather has been so strange up to now this season that there are fair size fruit on the trees, while there is still plenty of blossom present. It's going to be a difficult year for us fruit farmers!

All this rain has meant there's a problem at the Mill. The bottom of the water wheel is standing in water. The water from the hose-pipe last week didn't drain away, nor did the run-off from this week's rain. Even the launder, at 40 metres long must have formed its own catchment area. We haven't had any response from the archaeologists about the possible route of the tail-race, but last week, Petra Muller, who lived on the farm as a child, spoke of a stream or canal running diagonally across the land below the Mill called the Compagnie Sloot. So perhaps we're wasting our time looking for a cut back to the mill stream going past the right hand side of the Mill, as we considered last week.

Meanwhile the wheel isn't meant to stand in water! So, I started digging! Following the lowest part of the natural dip in the ground between the Mill and the big Oak tree. I had to lift out some big rocks which had stopped me last week. By their shape, they look as though they've fallen from the wall on the right hand side, beyond the engine's concrete slab. Soon I was rewarded by finding rubbish, (artefacts?) indicating a landfill during the 1960s. How could I be so sure? One item was a plastic bag, which had contained 5 lb of white sugar, priced at 38c! Our currency decimalised in 1961 and weights and measures in the early seventies. Perhaps a housewife can tell us when 38c was the retail price for 2.5kg of white sugar? There was a steady stream of bits and pieces coming out with the spoil, the ground needing only a shovel to remove:

The other plastic bag said it had contained 'Hand Sorted Beans' from Tiger Oats in Maitland. Hand Sorted??? In the foreground, two chrome strips from a car or furniture, then an aluminium pot, some broken glass, the base of a bottle saying Property of Culemborg Winery (do you think I can claim a cut finger from them?), part of an insulator from a telegraph pole, two pieces of a distinctive Coca Cola bottle, the handle and a fragment of a cast-iron cooking pot and that magnificent kettle! There was also a steel plate looking like the running board of a car, and perhaps, separately, the bracket for it. In between, plenty of heavy plastic bag material that we call 'guanosakke', or fertiliser bags, as well as metal and black plastic irrigation pipes.

First I tried leaving a coffer dam and tried following the wettest part of the natural drainage, but the dam broke when I removed a big stone, so I just stood in the water and dug away at the face:

So, all the time I was removing slurry which was difficult to take away and dump, I decided to fill up against an existing bank below the Oak. The spoil will dry out and leave a good mixture of top soil and gravel and a bit of clay.

By the time I'd run out of steam, there was about 15 feet of trench away from where I left off last week. I'm deliberately veering away from the tree, and Compagnie Sloot would have gone across from left to right some way beyond the tree. Any rock or stone I removed, I placed directly above where it was found. The main rock-fall has come from the embankment on the right beyond the original engine bearer. I'm still far from the depth of the bottom of the original tail-race cleaned out last week, probably a foot at least, so there's little chance of disturbing anything original underground. This is just a drain.
Next Saturday, we'll be back at Stettyn, just North of Villiersdorp, for their Open Day. I intend spending some time watching how the water leaves the launder on to their water-wheel, as well as how much water is required:

Taken last year.

Compagnes Mill - More on the Launder.  

Andy Selfe.

Last week, I didn't send a report, as I got so little done. Mostly because of visitors, always fun and interesting - one from a local newspaper. Let's see what comes of that! I also milled two batches of grain so we have stock for a while.

Today, I got stuck in with noisy work as soon as I arrived, deciding to tackle the wood for the rail on the other side of the launder. As before, this involved sawing lengthwise and running the quarter-round cutter on the router twice along what will be the top edge which the metal will be wrapped over.

Next was to run the mechanical planer over both sides of all the planks, then to go over them with the belt sander. This was to remove all the old paint, so the new would soak in all over. Then they got a coat of Iscor Black, between light rain showers.

Two ends needed gluing and strapping before the paint went on. It can be seen that we had a respectable flow of water in the stream! We could mill nicely with that, I think. I did more touching up of paint on the launder as I went along. Before I left, I was determined to finish the last piece of the first rail on the launder:

Done! From close-up, it doesn't look pretty. But from further away, it's looking fine, and authentic, I think. I sent the picture of Stanford Mill's launder before.... rustic, certainly! On the left it can be seen that I've started rolling out the corrugations on the other side, in anticipation of fitting the second set of planks. I'll do them from this end back, starting with he shorter plank so the joins aren't opposite one another. I'll be pleased when this job is complete!

There had been a flood inside the mill from a fault in the flashing of the dormer that houses the top of the main elevator. While it was raining I could trace the problem. Before leaving, I drilled and fitted a nut and bolt through the two pieces of flashing where the leak comes from. With that tight, I applied some trusty Iscor Black, which might just work if it doesn't wash away before it dries. Andy.

I skimped a little in the foundations but no one will ever know.
Yesterday I went off to the Swartland Veteran Club’s Harvest Day gathering on Paul Smit’s farm, Goudmyn, just outside Moorreesburg. Travelling for once was no great schlep – the venue was just 18km from home. It was a typical dry, warmish Swartland day; the temperature when I got home was 41deg. in the shade (today, right now, early afternoon it is 45.4 deg). Once there I met up with Peter Noble who had ventured out from Cape Town. Peter has a wealth of knowledge regarding agricultural equipment and it was most informative being with him. In addition to the working implements, there was a display of show horses (which I missed), restored tractors, some old motor vehicles and some of Paul Smit’s micro cars (of which he has a large collection).

The practical demonstrations consisted of various methods of reaping from a scythe to fairly modern combines as well as threshing machines and bailers.

Thanks to the organizers, participants and in particular to Paul Smit for a most interesting morning.
I inherited this little marvel from my late father in 1965. He purchased it new to charge batteries on his boat that lived in Durban Bay, surrounded by seawater. The rig lived on the boat and subsequent boats until 1949 when it came to live at our home and did service charging car batteries on occasion. (All the Chevs were still 6V until the end of 1954)

By the time I got it, the rust had tackled it and it had stood under the wooden workbench in our workshop for about 10 years. When I took it out one day to charge the 6-V battery on my Jawa motorcycle, it would not turn at all! I removed the head, to find that the termites had got into it via an open exhaust valve and had made a nest atop the piston. Cleared them out and the hard mud too, sanded the bore lightly, added a new J-10 plug, degummed the carburettor and pick-up tube and away she went. The Delco generator was A O-Kay too --- testimony to a fine machine’s engineers.

The 1925 B&S W1 is a cast iron beastie & the Delco generator’s armature is screwed directly into the end of the crankshaft, there’s an offset mounting for the field frame and it’s attendant brushes and the cutout box. The front of the crank has the magneto, flywheel and starting pulley with a frayed sash-rope with a wooden handle. The oil bath air cleaner was made by United Air Cleaner Co.

I bought a new carburettor from Autorite (Cape) in the early `80’s as the old `mazak one had started to disintegrate, which led to the factory's museum Geezers coming to see me a year later ---- they informed me that they thought it was the oldest unrestored working W1 in the world! They wanted it for the B&S museum in Milwaukee, USA. I was not interested, but the following year they tried me again, this time I said I’d trade it for their big twin 18-Hp (Model 421499) with all electrical accessories --- they went away and there was no deal. Third year, same thing! Since then I have and contact was lost. I’m happily still with the little W1 and she’s still going strong after 83 yrs. It is, after all, a GM Product, of which I’m a loyal user.

I still charge 6V batteries with it when I’m in the mood to play with the old beastie. She smokes a little when the weather is really hot, but not excessively and I don’t add oil between services. New parts on it: fuel tank / carburettor / plug lead & cap / silencer / electrical cut-out --- all installed at the time of failure of the part that these items replaced. Her last service and oil change was 24-01-2006, using B&S oil. My father owned a Shell Garage and therefore used Shell oil in it during his lifetime.

I also have a red aluminium B&S 2-Hp@3600rpm horizontal shaft engine which I got new in 1985, very seldom use it though. Tony.

A tip for restoration projects: “Use every obstacle you face as a stepping stone to move closer to the object you desire. The more stones you have, the closer you are to your goal”. – Unknown.
Hennie Swanepoel Has Done it Again!

Our Newsletter No.3 featured details of the 1914 National Hot Bulb Oil Engine that Hennie resurrected. He has done it again with a 1hp Mogul engine. Phil has given us some historical information on the engine as well as a brief commentary on the restoration from information sent to us by Hennie. Nothing seems to faze Hennie – so what if most of the major components are missing – just make them! I personally find Hennie’s work a source of inspiration, and to me this is what old engine restoration is all about. G.

The International Harvester Co. of Chicago, Illinois began with the merger of the Deering and McCormick Companies. The two dealerships continued to operate independently for some time, with Deering selling the International Titan line of engines and McCormick selling the International Mogul line. It is said that the Titan and Mogul engine were almost identical with many interchangeable parts. The Mogul engine was manufactured between 1911 and 1917 and was available in sizes between 1hp and 50hp with the little Mogul junior 1hp available only between 1915 and 1917. Other engines made by the IHC during this period were the Famous, Victor and Nonpareil. In 1917 the International M type was introduced, replacing all previous styles. Then in 1937 the well known L, LA and LB range followed until 1948 when small engine production came to an end, killed off by the widespread introduction of electricity into rural America.

Hennie has restored his 1hp Mogul with the help of an advertisement in a 1915 edition of Farmers Weekly and photo’s sent by an 85yr old Canadian enthusiast. There was a small delay in receiving the photos from Canada, it was -45 deg and the old timer’s engine shed was snowed in so Hennie had to wait for the northern summer to arrive before the photo’s could be taken. As can be seen from the before and after pics, Hennie has made the governor and igniter, built up a carby and modified a magneto to fit into the limited space available.

“When I got the engine it was totally bare and had a hole in the sump. I had to make up the drip lubricator, governor, oil pump and injector myself. The governor gears were made up by hand and they work and it runs, but no guarantee for how long!”
A Brief Story about the Villiers Mar-Vil and Century Engines.

Ron Wiley.

Johnson two-stroke development
In 1914/15 Clarence Johnson built an opposed twin air-cooled two-stroke engine with a 2 inch bore & 1½ inch stroke (154cc). The Johnson Motor Wheel Company was formed to manufacture a cycle wheel using this engine. The original flywheel magneto used on the cycle wheel engine was manufactured by the Quick Action Ignition Company. This company merged with Johnson in 1918 and it became the Johnson flywheel magnetos from that time. The cycle wheel died in 1921 because of popularity of Fords Model “T”, not one had achieved a speed of 59mph around a dirt track oval.

The first Johnson outboard, the Model “A” was introduced in 1922 using a water-cooled version of the cycle wheel engine. In 1923 the Model “J” outboard motor was introduced with a single cylinder engine with the same 2 inch bore & 1½ inch stroke (77cc). Then in 1928 Johnson brought out the air-cooled “Utilimotor” with the same bore & stroke as the Model “J”. In an instruction book it says, the Utilimotor has been designed to replace fractional horsepower electric motors where electricity is not available.

In late 1932 or early 1933 Johnson sold the rights to produce the Utilimotor to Jacobson in the USA and Villiers in the UK. Jacobsen still used the Utilimotor name and Villiers called their version the “Mar-Vil”, both engines had the same bore and stroke as the Johnson engine.

The Villiers Century
The Century is unique to Villiers in having a capacity of around 100cc as the name implies, it looks to have come out in the mid 1930’s. It puzzles me why Villiers made this engine because they had released the new 98cc Midget with a 50mm bore & stroke in 1931, both engines have the same power output of around 0.7hp?

The Century in the pictures is a Mk.1 with the prefix “BCU”, most likely dating from the mid 1930’s. Villiers used the Vacturi suction type carburettor drawing petrol from the base/fuel tank on early engines before making their own carburettor. There is no throttle so a governor in the magneto controls the speed of the engine.

The Villiers flywheel magneto has the following stamped on the face of the flywheel, prefix FM & S/N 2136. I asked Philip Gray Taylor to have a look at his Mk.1 Mar-Vil prefix MVB and he found the following, RM 4581. He commented the R is quite indistinct and looks to be a poor stamping.

Understanding the markings on prewar Villiers flywheel magnetos is proving quite complex, so if you have a pre Villiers engine and I will do my best the to explain the meaning of numbers & letters stamped on it.

The Mar-Vil & Century Horticultural & Stationary engines.

2” bore x 1½” stroke = 77cc

| Mar-Vil - Mk .1 | MV & MVB |
| Mar-Vil - Mk.2 | MVC, MVD or MVDC |
| Mar-Vil - Mk .4 | MVEC & MVED |

Suction carby, petrol tank in base

2” bore x 2” stroke = 103cc

| Century - Mk.1 | BCU |
| Century - Mk.2 | BCUA, BCUB or BCUC |
| Century - Mk.4 | BCUD or BCUE |

Suction carby, petrol tank in base

Junior carby & gravity feed petrol tank

The Mar-Vil Engine.
With the tractor now in David's garage we could proceed with the real work of restoration. We knew that the engine would have to be removed and completely dismantled to free it up. The construction of the Pacemaker is slightly unusual as it consists of a cast iron trough divided into three compartments for the engine clutch and gearbox. This is then bolted to the rear end casting. There is one essential thing to be aware of before lifting out the engine and fortunately David knew this as he had served a full apprenticeship as an agricultural engineer and had once worked on a Pacemaker. This is that the oil pump suction pipe is secured by a screwed joint to a metal strainer which is fixed to the bottom of the trough. This obviously has to be unscrewed and great care has to be taken not to bend the pipe in any way or it will never fit when reassembling. To make this possible there are two ‘portholes’ on each side of the trough in the engine compartment and a third one on the right-hand side giving access to the clutch. They are all covered by removable plates and it is the second pair that are relevant to unscrewing the oil pipe joint.

The Access Portholes can be seen here.

In our restoration work David preferred me to do the final preparation and painting while he cleaned and de-rusted everything. The mechanical work we shared, but I drew the short straw and was elected to reach inside the trough to unscrew the pipefitting. The ports are only big enough for one arm and one can't see anything while doing this. David was on the other side shining a light into the trough so that he could direct me, especially every time I dropped the spanner. This rates as a thoroughly unpleasant job - cold sharp metal all covered in black oil and sludge. We also removed the third plate to remove the clutch from the flywheel, but I could only reach the bolts on that side as it was impossible to reach to around the other side of the clutch and of course we could not turn the engine. This meant that the gearbox would have to be lifted out with the engine. We were able to disconnect the drive shaft to the rear end to make this possible. We hired a small hydraulic engine hoist which proved adequate and having removed the front cowl and radiator we were able to proceed. When these were removed we separated the clutch and gearbox, which after careful examination appeared to be in good condition so after removing the sludge from the bottom of the trough we replaced the gearbox.

About this time David heard of a gentleman who could make replacement mudguards and bonnet, so he took our cobweb-like remains to him, but having established that they appeared to be of a standard design, he did not need them as patterns as he had all the necessary measurements to hand. He had the necessary machinery to put two flutes in the flat parts of the mudguards, roll the edges and curve them and the bonnet, yet he only did all this as a hobby.

He had lots of orders, so he said that if we had not heard from him in three months we were to ring him. This we did and the work was nearly completed. So we had two new mudguards and a bonnet - they were probably of a little thinner metal than the originals but were adequate. After some minor rubbing down I painted them with red oxide and put them to one side until we were ready to assemble them.

Having the engine on the bench we were able to remove the main bearing and big end caps - fortunately the white metal on them all was in reasonable condition, as was the crankshaft. We then found a block of wood the size of the cylinders and with a sledgehammer we were able to drive each piston downwards. We decided to find replacement rings, but the grooves in the pistons had to be slightly ‘eased’ for them to fit. The magneto had been removed previously and despite my best efforts I could not get any life out of it, so we sent it to a specialist who was able to do a perfect job. David used a half round carborundium stone to remove the rust in the bores, being careful not to do any more damage than there was already. Having thoroughly cleaned everything we were able to start re-assembly whilst having to admit to some filing of the big end caps to tighten them a little.
The cylinder head was totally dismantled and the valves ground in. After this the engine was replaced in the trough with a cork seal we had made between it and the trough. The portholes also required cork gaskets after I had reconnected the oil suction pipe and bolted the clutch to the flywheel. When dismantling the carburettor it became obvious that there was no 'hot plate' for the engine to run on paraffin, neither was there a second fuel tank for starting petrol. The tractor also had a foot throttle control as well as a hand lever, which suggests that perhaps it was a sort of industrial model? The drawbar had a very unusual (to us) hook welded to it amongst other things and this makes one wonder what work the tractor did in its working life. Bernard was able to cut off the extra bits and tidy up the drawbar.

We didn't have any of the tinwork sprayed, but relied on many hand brushed coats plus rubbing down until we achieved a satisfactory finish. David was an enthusiastic 'rubber down' and I had to restrain him or else all of the previous coats would have been removed!

A local sign maker whom I knew made the decals. He was able to create them with his computer design facility from some advertising pictures of the tractor that we had and we were very pleased with the result. The rear end casting is covered by a flat plate secured with six studs and the seat spring is secured to this. After removal we were able to reach between the final reduction gears to remove the sludge and refill with new oil. As we were restricted for space in the garage we used to push the tractor forward and back to get sufficient room to work.

One week the tractor would not move in either direction and we were quite concerned as to what had gone wrong. The previous week we had removed and refitted the top cover plate, so this was removed again and then the tractor moved. The final reduction gears were very close to the top of the rear-end casting and the middle stud that we had used on the plate was just a little too long and had gone between two of the teeth of the reduction gear. Idiots!

When completed we took the Pacemaker to a collective vintage auction where a 'tyre kicker' was very pleased to point out to us that radial rear tyres were not applicable to a tractor of that age. As if we didn't already know!

PN.

Inbox

- Well done again guys. This is a mammoth news letter. The thing-gummy as far as I remember is a "radius gauge" for precisely measuring concave or convex radii on metal castings or machined parts. It could also be a "flatness" gauge for measuring flatness or roughness of machined components. I remember using something similar about 35 years ago when I worked for Mather and Platt. John Menase.

- Thank you for your email; I would very much like my name to be added to the list of people who receive the Cape Vintage Engine’ Newsletter. Looking through No8, I spotted the piece about the Lister G type engine and your comments. I can add a little more to that. The Lister Industrial petrol G type engine was offered in single and twin cylinder forms - G1 and G2. They came rated at 5-1/2 to 12bhp. There was an option of cooling systems, hopper, tank or radiator. A paraffin version was also produced - GK1 and GK2. The G1 single cylinder model had a bore and stroke measuring 3-3/4inch by 4-1/2inch. The G2 twin cylinder model had a bore and stroke measuring 3-3/8inch by 4-1/2inch. Patrick Knight.

- Patrick Knight is the editor of the 'Farm & Horticultural Equipment’ section of the “Tractor & Machinery Magazine” and ‘Marine Engines’ section of the “Stationary Engine Magazine”, also the author of 'The A-Z of British Stationary Engines’ and other books. We have corresponded on a number of occasions and he used to receive and contribute to Paraffinalia. Phil.

- Thanks for the latest newsletter, which I do enjoy reading. Best wishes. Paul Canter.

Dr. Paul Canter is evidently suffering from Briggs and Strattonitis for which he hopes there is no cure. G.

- Gummy Fuel. Recently over a period of a few weeks I have been sent copies of the following correspondence between Ron Wiley in Australia, Mike Lawson in New Zealand and Phil in Cape Town. G.

Ron. The 10-5hp Briggs & Stratton on my ride on mower refused to start the other day due to lack of compression, I had used it three weeks earlier without any problems. Nothing obviously wrong but removing the tappet cover showed the inlet valve stuck open. I removed the head and found sticky goo around the valve stem and seat. I removed the valve that felt it was held in place with adhesive. I was able to remove this goo with a rotary wire brush and lightly ground the valve in. I refitted the valve and spring and checked the valve clearances that were ok. It now worked as it should have so I refitted the head.
The grass is drying very quickly now so that is why I need to mow it. The petrol pipe looked ok by when I removed it I noted it was starting to perish, it runs from the tank across the head to the carby. I purchased some new fuel hose as it could have started to leak any time and start a grass fire, that all I would have needed.

Anyway the grass is now mowed and the engine restarts without any problems. I have only had this mower four about four months or so and run it on 91 octane unleaded petrol, it was second hand so I don't know what the previous owner did? I have also used one tank of unleaded petrol with 10% ethanol but I would not have thought the ethanol would cause the sticky goo. I have run my 6 cylinder Ford on unleaded petrol with 10% ethanol for some time now because it boosts the octane from 91 to 95 and it runs better with this fuel.

Any idea what caused this problem????

Ron. I found the following on the SOS website for Seagull outboards:

_During the last few months I have come across the same problem about a dozen times, gummed up carbs. Most embarrassingly it has also caught me. For some time now I have been aware that the nature of fuel we buy at the petrol station, has been changed. I'm told that different compounds are now added to fuel, to offset the drop in lead, or no lead. _

Now as you all will know _All Seagulls run on unleaded petrol_. The problem I have found is an accumulation of gummy deposits in tanks, fuel lines and carbs. All have needed thorough cleaning to remove this brown deposit, otherwise throttle slides don't slide and jets get blocked. The problem is, we have to store the engines away for the winter with fuel in the tanks, or the cork in the fuel tap dries out, as many will testify to, we then get this build up of deposit. Has anyone an answer for me? I'm told it has also affected motor mowers and similar.

Phil. I know that unleaded petrol becomes stale much quicker that the old leaded petrol and I have seen instructions that ask the operator to drain the tank if the machine it is not to be used within three weeks. I seem to remember Briggs selling a fuel additive that when added to unleaded petrol kept it fresh for up to six months. I think stale unleaded petrol is going to become a bigger problem to us than valve seat recession will ever be.

Ron. I checked the carby and there was no sign of any gum. The petrol tank is moulded plastic and the fuel pipe fits on a moulded fitting so there is no petrol tap. So as long as there is fuel in the tank there is fuel in the carby and no way of draining it exceptloosening the carby float bowl.

I had to change the electric fuel pump on my Ford Falcon, the pump is inside the tank and when I took it out there was a gummy deposit around the fuel pick up? The car runs on LPG 98% of the time and I would run it on petrol about once a week. We were overseas for two and half months in 2006 and the car would not run on petrol when we returned so I now wonder if the inside of the fuel pump was gummed up through standing two and half months? While running on LPG the petrol pump still runs pumping fuel to the common rail of the injectors and back to the tank. So it would seem that as long as the petrol is circulating there is not a problem? The fuel tank is plastic so I now think I will keep around a quarter of a tank of fuel and make sure I run it on petrol more often.

Interesting problem, I will check the local Briggs dealer and see if he knows anything about the fuel additive? It would seem that any of our old engines that are not going to be run for some time should have the fuel drained from the tank and carby?

Michael. I too have found engine fuel systems full of blue /green guge. The colour relates to the brand of two-stroke oil used. I have rescued a small almost new 3 hp outboard motor for a mate after the agent told him it was beyond repair. It had sat in his small boat as an auxiliary engine for about 1 year. After the usual soaking in soothing oils, crc, brake fluid, diesel, and all of the new clever stuff, I boiled it in vinegar, salt and water for a day, made up a nylon drift and drove the piston out. No sign of water or seize marks. The carb slide was treated in the same manner. I expect by now you are wondering what sort of butcher I am, but be aware no part of the motor was harmed, all it cost the owner was two gaskets.

It seems to me two stroke oil added to petrol shortens the life of the fuel; don't keep it for more than four or five weeks. Brew up new stuff and don't use two stroke oil in your Seagull, seagulls love thirty grade machine oil. Run the carb dry before putting Seagull to bed each weekend and put the fuel tap or its cork seals in a jar of oil if you don't intend to use him for the winter.

Ron. I found the following in a 1940 Service Station and Motor Mechanics Manual, a little book of some 1,300 pages.

_Crankcase oils are made to function only under lower cylinder wall temperatures where the temperatures are naturally much lower than those on the upper cylinder walls and combustion chamber exposed to the terrific heat of combustion. Thus, if crankcase oils of high viscosity, flash and burning points come into contact with hot exhaust valves the lighter portions of oils are burnt off. This leave a gummy resinous residue on the valve stems, eventually building up on the valve stem guides made making the valves sluggish in action. Also as a result of combustion of high compression fuels certain gums are deposited on the valve stem guides and seats._

I noted with my Briggs engine that when the engine was turned over with the tappet cover removed a small amount of oil came into this area from the crankcase. Seeing that the engine is second hand and there is some wear in the inlet valve guide, engine oil would have been drawn in to the inlet port. It looks as if whatever
engine oil had been used prior to me buying the mower was responsible for the gummy deposit on the inlet valve? I am using Valvoline mono grade SAE 30 engine oil (API SF/CC) designed for air-cooled stationary engines. I now wonder if the previous owner used something like cheap motor oil sold by super markets?

I have not come across this problem before but it was known of around 70 years ago. It was also recommended that an upper cylinder lubricant be used with a “Colloidal Graphite”, (colloid or colloidal means “like glue”) to lubricate the valves, bore, piston and ring. It is also said that colloidal graphite produces a surface on the cylinder wall that is said to make for smoother running and ultimately the development of more power.

I would be interested in any comment anyone may have on the above?

Phil. Now isn”t that why we search out and purchase old books like your Service Station and Motor Mechanics Manual for the gems of information that they contain. A lot of today”s books are either too PC or not technical enough. It is interesting to note that the oil used by the previous owner was of no better quality than oils of 70 years ago! It must have been the oil causing the gummy deposit because you see and smell a lot of smoky cars (as well as my old Honda mower) around but I have not come across the gummy deposit problem. Colloidal graphite upper cylinder lubricant. Isn”t that Red-ex? One free squirt for every gallon of petrol purchased.

Gordon. Whilst reading this years’ August issue of Popular Mechanics I came across the following interesting item on the back page [DO IT YOUR WAY]. The Editor, Alan Duggan, has kindly given his permission for me to reproduce it here.

While rebuilding a prehistoric little scooter, I decided that before I proceeded to strip the engine, it would need a quick wash to establish the whereabouts of fasteners or grub screws that might be lurking under 20 years’ worth of gunk around the engine and mountings. Here I am talking about an accumulation of old engine oil, sand, grease, mud and tar that had managed to work its way into the deepest of corners. As most mechanics are aware, petrol works just as well as expensive cleaners, although a brush is still necessary to remove hardened gunk in the corners. Which brings me to my revelation: I did not have any petrol lying around, but I did find some premixed 2-stroke fuel. Decanting some into a spray bottle, I sprayed it directly onto the problem areas.

What happened next was startling: the gunk that usually requires serious elbow grease to remove simply dropped off as if I was washing beach sand off my feet with a hose. My guess is that 2-stroke oil contains an agent that prevents carbon build-up in the combustion chamber, enabling it to make light work of the gunk.

Rory Valentine, Kommetjie.

Phil has sent us this picture of a special Bahco spanner. B.A.H. jorth & Co. otherwise known as BAHCO TOOLS can trace their roots back to 1862 when the original company produced steel in Sweden. From the outset the idea was to replace fixed spanners with a single tool to fit different sizes of nuts and bolts. In 1888 the “iron hand” better known as a pipe wrench was patented and in 1891 their second patent was for the shifting spanner. In 1998 the 100 millionth shifter was produced.

Thus it came as a surprise to me that I could find no reference to, or information on my BAHCO No. 99 combination spanner pictured. It fits 1/4, 5/16 and 3/8 Whitworth nuts, the holes and slots are 1/4, 5/16 and 3/8 and there is a sharp cutting edge where my little finger is on the tool. Was this an early multi-tool or was it produced for a specific trade or machine?

My Dad again. Driving a White truck ‘chassis’ prior to having the final bodywork fitted. The ‘cockpit’ was an old motor car body. He used to arrive at my Mom’s house to take her out on a date driving one of these with a string of “urchins” running along behind.

A Touch of Yesterday

What is it?
International Police Association / Internasionale Polisie Assosiasie

Western Cape Region / Wes Kaap Streek

Classic Car and Bike Show 2009.
24 & 25 January 2009

The Venue
At the bottom of Timour Hall Rd in Plumstead, down a long avenue of ancient oaks, stands the beautiful historic home, Timour Hall Villa. Despite having been empty for many years, the house was selected as the site for the International Police Association Hospitality House in Cape Town. Repaired and restored, the house was inaugurated as the second IPA Hospitality House in South Africa in December 1989.

http://timourhall.com

The Event
This event is one of the highlights of the IPA calendar and has become something of an institution here in the Cape amongst nostalgia buffs and fans. Held annually on the last weekend in January, it features some of the rarest and most beautiful cars and bikes in the Cape and is one of only a handful of exhibits on this scale. In 2007, for the first time, the exhibition was held over two full days with great success.

Saturday 24 January – Modern Classics
On day one of the Show, the exhibition will consist of vehicles which can be defined as ‘Modern Classics”. These include Hot Rods, Street Rods, souped up vehicles, racing cars and bikes, custom vehicles and motorcycles and of course, a few new cars and bikes! This is a day that will appeal to many motoring enthusiasts, but it is important to note that there will be no old or Classic vehicles on display.

Sunday 25 January – Classics
On day two of the Show, the exhibition will consist of vehicles dating from as far back as the late 1890’s, to more recent times. These are the classics that invoke an era of elegance, a more relaxed way of life and a time when craftsmanship was an important element of vehicle design and manufacture.

This is always a popular display and will appeal to anyone with a love of restored and maintained classic vehicles. As always, there will be plenty of refreshments available, with food stalls to tickle the taste buds, cool drinks to banish thirst and even a beer garden and cash bar. There will also be a jumping castle to entertain the kids. There is ample parking on site, with spill-over parking in the surrounding area. Entry to the event, which opens on each day at 10am and closes at 4pm, is R10 per person with children under the age of 12 free. Tickets will be available for pre-purchase from the venue from the beginning of January.

The Charity
This is the main IPA Fundraiser for the year, with money raised going not only to our own internal development projects, but in 2009, also to Tape Aids for the Blind. For all enquiries, please contact Jo on 021 797 2582.

IPA Western Cape Region is a Non-Profit Organisation * NPO 001-744

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