The Oz Vincent Review

Edition #84, February 2021

{updated May 2021}

OVR reader and Vincent custodian, Jean Pirot and his stunning 'B' at the 'Winter Crossing of Paris' event in January 2012. There were around 750 cars, lorries, motorcycles, pushbikes, bus, all classics for this opportunity, in a beautiful winter Sunday morning! Photo in front of Vincennes Castle, the starting point of this urban run..

Welcome to the latest edition of OVR which is now back on the regular publication schedule and a big thanks to all of you who responded so kindly to my editorial in last months edition.

Regarding Prostate issues the things to keep foremost in your mind is that there are no symptoms, that a PSA test is a simple painless and non-invasive procedure and that it's not necessarily the PSA level that counts – it is any changes in the PSA level over time.

Remember, to access the complete OVR archive from any device, just go to the OVR web site https://ovr270.wixsite.com/ozvincentreview

Martyn

Melbourne, Australia.
Email : Ozvinreview@gmail.com

Letters to the Editor (a small sample of what I received)

Martyn, welcome to the prostate club! Certainly is a bastard of an illness and the initial examination is no fun! Glad you are on the mend, take care Bill L. Wales, UK

'ello Martyn,

A lot of thanks for this precious magazine ! Years ago I had to fit with a cancer of the colon. 7 massive surgery (this including removal of the gallbladder because of an acquired septicemia in the hospital. Weeks of coma, months of hospital)…. I agree 100 % with you! Be careful with our body! All the best for you, Martyn, And thanks again for the job that you make for the "Vincent family"

Bien amicalement
Jean, France

Hi Martyn,
I always look forward to opening your emails and finding your latest edition. I, like you, have prostate cancer. I had been having regular PSA tests at my local surgery with nothing untoward until September/ October 2019. I had a call from my doctor after I had been in for a PSA test and he asked me to call into the surgery. He informed me that my PSA level had gone through the roof. He arranged for me to have a biopsy and an MRI scan which unfortunately showed up advanced prostate cancer that was now outside the prostate. I had a full body bone scan which thankfully showed up negative but had to have 2 months of radiotherapy and injections into my abdomen which will finish in June. The only good side to it (if there ever can be a good side!) is that the treatment started at the same time as the first Covid lockdown and I got to ride the Vincent Victor replica and my '59 Thunderbird nearly every day to the oncology centre. It brought the department to a standstill on more than one occasion as I was able to park it right outside the door! It was amazing how many different (and longer) routes that I found between home and the hospital!
You can use this letter to help encourage others to get treatment and as a warning that the PSA test in itself is not infallible and it's worth persuading your doctor to let you have a scan. Even the biopsy isn't 100% as my first one was inconclusive and it was only the 2nd, more thorough one, that really showed it up.
But the main thing is to **GET TESTED** and as often as they will allow.
Keep Safe and Keep Riding
Kind regards
Brian W, UK

Thanks Martyn

Good to hear that they got onto your prostate cancer before it developed. I hope you remain free of it and that you manage to regain full continence quickly.

Cheers Bill, New Zealand

Dear Martyn
Such good news to hear; a great relief to receive it! OVR as good as ever; a tonic as one becomes aware of one's own shortcomings.
All the best, as ever. Geoffrey, UK

Hey Martyn, great issue. I'm restoring a 29 sloper, so the sloper article was an unexpected but appreciated content.

thanks, Charles, USA

Hi Martyn,

Nice to see you back in the saddle again! Thanks for spreading the word regarding prostate cancer (PCA) and PSA. It was 25 Jan 2019 (exactly two years ago) when I was diagnosed with prostate cancer. I was 64. I had radical prostatectomy on 3 Mar 2019. My first PSA measurement post-surgery was 0.8 and so I then had 7 weeks (5 days a week) of radiation treatment along with a year of androgen depletion therapy (which I really didn't like). My last few PSA measurements were below the limit of detection and my testosterone is back up to normal ranges. Nerves were spared and my wedding tackle still works for the most part.

A fellow Vincent owner here in Texas just had his prostate out as well as two other close friends of mine. Seems to be pretty common in men of a certain age. For a period of years here in the US, they stopped doing PSA tests because they were thought to not be very accurate. I think that was a big mistake . I didn't have my PSA measured for a period of about five years during which time it went from less than 1.0 to 6. Had they been checking my PSA yearly, I would've had the biopsy sooner (which did not hurt that much) and had my surgery sooner and maybe avoided the radiation, ADT and had a better long-term prognosis.

In any case, I wish you a full and speedy recovery. Thanks again for bringing up this important issue - too many men act like the proverbial ostrich with its head in the sand. **What you don't know CAN kill you.**

All Best,
Corey, USA

Hi Martyn,
glad to hear that the cancer was contained.
My Father in his mid 70's had pissing problems, and his doctor assured him they would take a look at this soon.
A couple of years later, he'd had enough of this problem, and returned to hassle his Doc, who apologised profusely for forgetting to do something about this. By then it was too late. Tests showed that he had prostate cancer and that it had spread.

As you know, it's not the prostate cancer as such that kills you, but the secondary cancer that does. They tried a lot of different things to try and help the situation, including prostate removal, then a total orchidectomy, but no go.

It's a good thing that you are doing here to make more men aware of the dangers of this insidious disease. Good on you mate!

Get better quickly, and remain so.
Tim, New Zealand

Hi Martyn
I am very pleased to read that you have recovered from your bout with prostate cancer, and very well done for your efforts to encourage the rest of us to get checked. I should too, but I am not going near a hospital till the corona virus pandemic eases up, they are very unhealthy places to go to at the moment in UK.

My neighbour went in for a heart bypass op, caught the virus from another patient, survived spell in intensive care, but was then told his impaired systems did not allow the bypass op to take place. We in UK are up to almost 100,000 deaths so far. Oz and NZ are organising better.

I write to ask if there is an error in the table of Amal carb spanner sizes on page 6 of the latest OVR. Some sizes seem to have two BSW options and no BSF….. *(you are correct Dick – Archived OVR edition has been corrected* *CLICK HERE TO DOWNLOAD* *- Martyn)*

Best regards, Dick, UK

Hi Martyn
Thank you so much for all you are doing for the Vincent community. Your stones have made ripples in other areas - yes the PSA issue should be addressed. Appointment made for this week!
Yours with very kind regards,
Richard, West Australia

Time to start saving and planning ?

And speaking of Vincents, the 2007 International!

A contribution from Jim Scaysbrook

Marty Dickerson aboard Phil Pilgrims Indian Vincent

It's not every day that Australia gets to host the International Vincent Club Rally – it's only held every four years – and planning for 2007 began immediately following the 2003 rally in Canada. The 2007 event was split into two locations – Thredbo in the Snowy Mountains and Ballarat in Central Victoria. The 17-day affair attracted 210 registered participants, with enthusiasts from Britain, USA, Canada, France, Holland, Austria, South Africa, Republic of Ireland, Thailand and New Zealand adding to the local contingent.

According to event organiser Alyn Vincent, the first stage was a "riders' rally", with over 1,200 km covered over eight days in New South Wales. Starting and finishing in Thredbo Village each day, the riders went to such places as Dalgety, Bombala, Cooma, Adaminaby and Buckanderra, as well as the rather parched Murray Valley via Walwa, Granya and Corryong. For the benefit of the overseas guests a corroboree was performed by the indigenous land holders, and a group climb of Mount Kosciuzko, Australia's highest peak, was organised.

The travelling show attracted great attention wherever it went over the great riding roads in the Snowy Mountains, even hitting the front page of the local paper, the Monaro Post, which ran a story on 81-year-old American Marty Dickerson.

Marty was a Vincent dealer in the 1950s and in 1953 set an American speed record of 147 mph on a Rapide. He spent a month in New Zealand before setting foot in Australia for the first time, and following the rally he had plans to sample a few Victorian wineries before heading home in mid-April.

Two days were allowed for the rally to de-camp from the Snowy Mountains and re-establish itself at Ballarat in Victoria, with entrants following various routes from the east coast, via the Murray, or simply down the centre through Glenrowan. As the show moved into Ballarat, one of the official functions was to unveil a special plaque at the site of Phil Irving's original shop in Doveton Street. With his partner Ken Granter, Irving sold AJS and Velocette from the shop, which is now a building society branch. By 10am on a bright Sunday morning, Doveton Street was lined with dozens of Vincents, and a very large crowd assembled to see the ceremony to unveil the plaque.

Marty Dickerson & Russell Wright

With the ceremony completed, a noisy throng of Vincents crackled their way out to the Ballarat aerodrome, itself the scene of some memorable contests over the years. In one particularly significant event in 1951, Tony McAlpine and his Black Shadow were ranged against car star Lex Davidson in a match race which McAlpine won easily, much to the chagrin of the four-wheel folk.

The venue was soon swamped with hundreds of machines, not just the rally entrants but all sorts of rare and rarely seen examples of the Stevenage marque. The Horner brothers displayed all five of their Irving Vincent models; four solos (including the fuel-injected 1600cc Mega) and the gorgeous sidecar raced to very good effect by Barry Horner and Chris di Nuzzo. Speedway stalwarts Peter Vipond and David Cotterell displayed three examples of the much-loved HRD oval-track outfits, including the ex-Len Bowes supercharged version.

After lunch the passive display turned to action as riders tried their hand at a standing start sprint along the airstrip. It was a sound to savour as the big V-twins blasted down the short strip. "We had a lot of visitors on bikes other than Vincents, so we invited them to have a run too and presented them with a certificate as a gesture of good will," reported Alyn, the overall rally organiser.

Site of the Irving shop in Ballarat

"The sprints got so popular we had to call a halt at 4.30. One lady from the UK, Val Sharp, watched her husband take a run and demanded to have a go herself. She beat his time and they ended up having five runs each, but Val was easily quicker of the two." As her slightly humiliated husband said, "At least I can say I tuned her bike!"

The following day saw a ride to Hall's Gap with 80-odd Vincents on the road. Many chose to ride a long loop through the Grampians to take in the excellent roads and scenery.

The rally officially concluded on March 27, 2007 with a reception in Ballarat to farewell the entrants, several of whom were not finished riding yet and headed off in search of more Vincent-friendly roads in Australia.

Readers are encouraged to learn about Old Bike Australasia, a superb magazine published by the contributor of this item, please visit his web site www.oldbikemag.com.au

Tuning Your ATD – Part 2

In the December 2020 edition of OVR we examined the suitable ignition timing / ATD settings for a Vincent running on modern fuels. We now move on to exploring how the Lucas ATD, fitted as standard to all post war Vincent bikes, can be tuned.

You are going to need a means of measuring the advance range of your ATD; you will need to partially disassemble then reassemble your ATD and you will need to be able to add or remove metal from the two fixed ears/arms of the ATD.

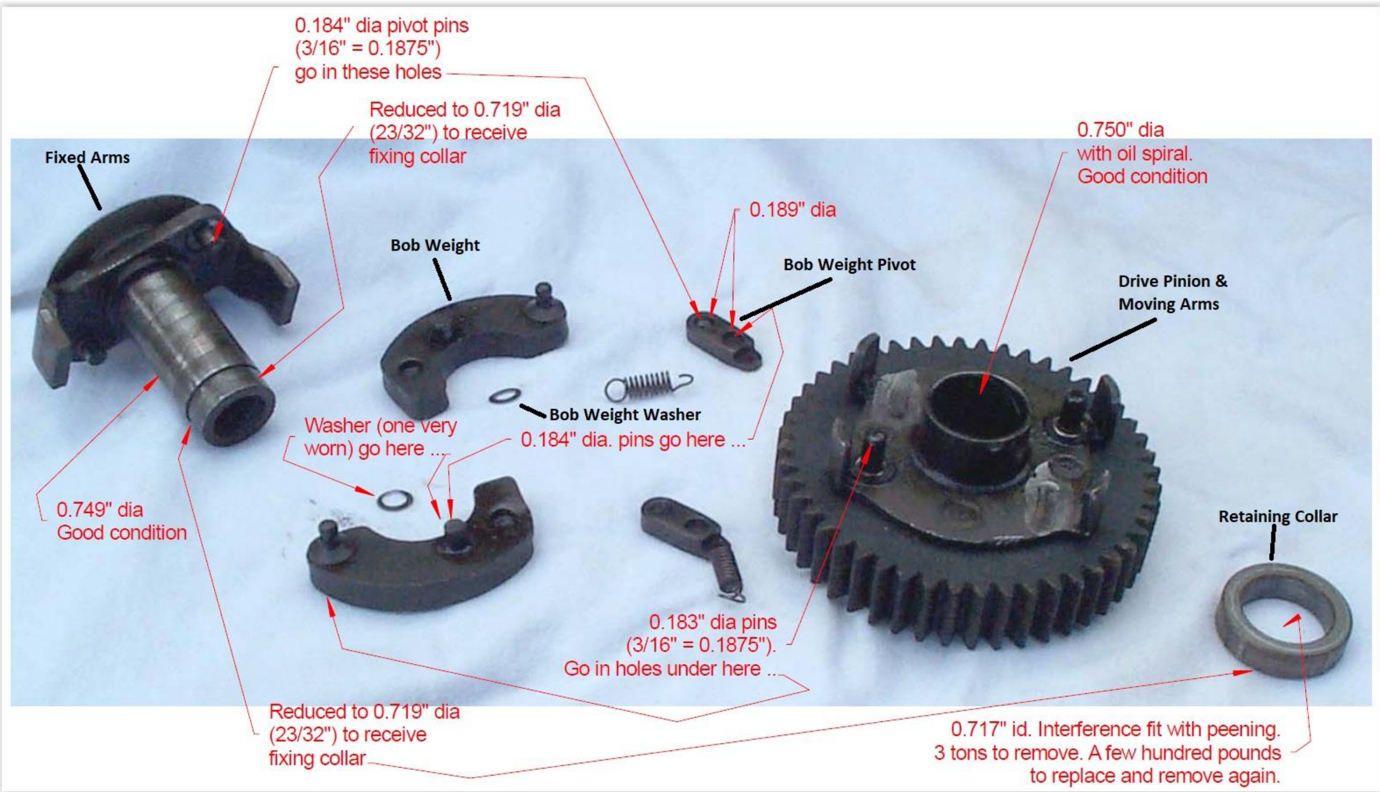
ATD Setup Guide

To find out what your ATD is presently doing you need to accurately measure the amount of advance it provides and it is not hard to do so. Make up a ATD Set Up Guide *Photo left is an example*; To make your own **CLICK HERE** to download a printable image. Print out the image (bigger is better) then glue it to some light plywood or like material, trim it to a convenient size and at the centre point drill a hole to take a snug fitting 3/8” BSF set screw or bolt.

Also shown in the photo is the pointer made from soft steel wire. One end of the pointer has been hammered to form a flat, thin indicator edge while the other end has been bent so it can be fitted over the pinion of the ATD once the ATD is mounted on the gauge, as depicted in photo right.

Dismantling Your ATD

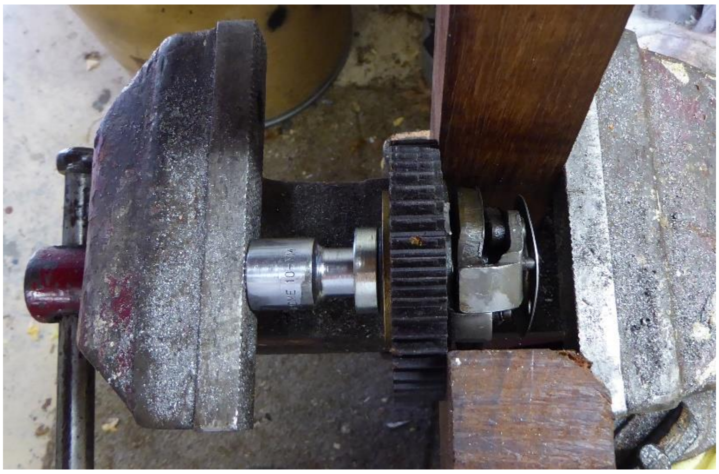
Here are photos of a disassembled ATD *(with thanks to BrightSpark Magnetos, UK)*



The ATD assembly is held together by the Retaining Collar that is an interference fit on the spindle of the fixed arms where it pokes out of the back of the drive pinion. To disassemble the ATD this retaining collar needs to be removed. You DO NOT need to remove the rivets that hold the moving arm plate to the pinion.

One way of doing this is to use a small gear puller provided there is sufficient clearance to allow the edges of the puller to get a grip as shown in the following photos.

The other method is to use a vice. Put two sturdy timber spacers between the drive pinion and one face of the vice jaws and with a suitable drift (I used a 10mm socket) against the other jaw and bearing on the shaft of the Fixed arm, press the retaining ring off.



Taking care not to drop or lose any parts, you can now dissemble the ATD. Be careful not to loose the 2 bob weight washers.

Measure the ATD range

Fit the Fixed Arms into the Drive Pinion & Moving Arm assembly – no other parts! Now using a 3/8 inch BSF set screw into the ATD securing bolt fix the ATD assembly to your newly made ATD Setup Guide. It needs be tight enough to prevent the fixed arms from moving relative to the guide.

If you have not yet done so, now make up a pointer, as described earlier. Fit the pointer onto the Drive Pinion, with the ATD at the limit of its travel and the pointer, pointing to the TDC or zero marker. Now move the driven pinion to the other end of its travel where the pointer will show the number of degrees of movement or range of your ATD. Don't forget that the degrees of movement of the crankshaft is double the ATD reading.

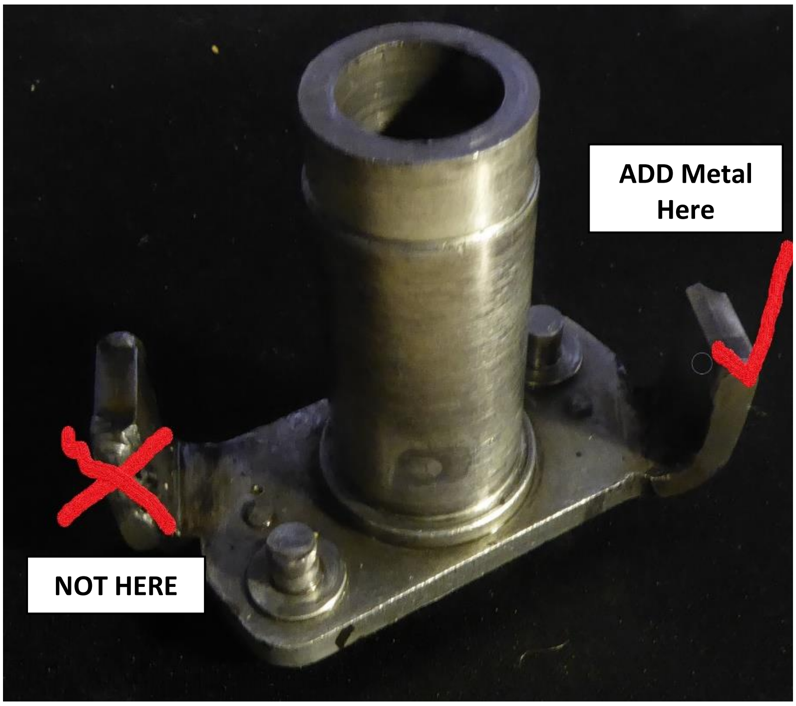
In the example below the ATD has 13 degrees of movement which equals 26 degrees at the crank. So the pictured ATD is set for ignition timing of retarded 4 BTDC and full advance 30 BTDC.

Changing Your ATD Range

Having now measured the movement range of your ATD, if you want MORE movement then you need to remove metal from the contact face of the 'ears' by an equal amount on both the fixed arms. If you want LESS range then you need to ADD metal to the contact face of the 'ears' by an equal amount on both the fixed arms.

Metal **removal** is accomplished by the gently use of a file, working little by little checking the movement range as detailed above as you go.

Metal **addition**, to restrict the range is achieved by adding metal to the contact face of the 'ears' by an equal amount on both the fixed arms. The easiest way to do this is by welding.

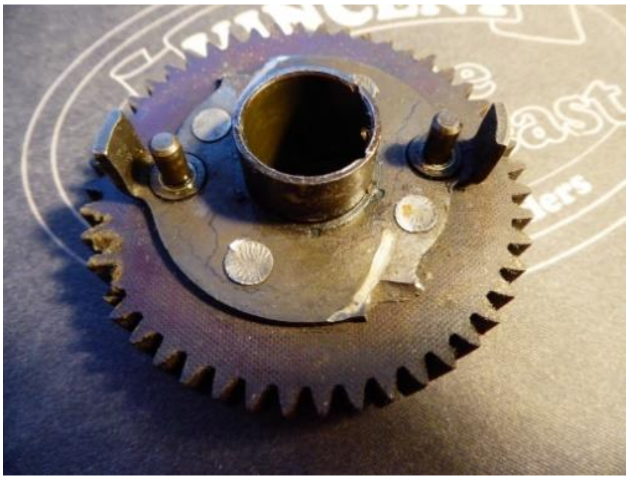


The photo, left, shows a fixed arm where metal has been added to the ears by welding. When doing this be sure to take precautions to avoid damaging the bob weight pivot pins. It is essential to add the metal to the faces of the 2 ears furthest from those pins as indicated in the photo. *{updated May 2021}*

Metal is to be added to the same face on both ears.

Once the initial metal has been added to both 'ears' then check the movement range. Also check that BOTH ears make contact with the ears on the fixed plate at the same time; you will need to file some metal from the ear that makes contact first till you achieve this.

Now measure the movement range of the modified ATD. If it is less than you wanted (and it most likely will be) you need to remove some of the added metal from both ears by the gently use of a file, working little by little checking the movement range as detailed above as you go to you achieve your target movement range.



Some folks will tell you that the ATD range may by altered (or tuned) by BENDING the 'ears' on the ATD and while this is true it will create stress inside those bends that could lead to the ATD ears breaking off when in use. The ATD 'base' shown in Photo left had both its limit ears fail in use as a result of bending them when attempting to change the ATD range.

Quick Overview of ATD Action

Think of the ATD as a component that works in three stages....

1. the fixed pinion picks up drive from the engine then.....
2. the drive is passed on to a flexible connection made of springs and bob weights, then...
3. the drive is collected from the moving mechanism by a nut fixed onto the magneto armature shaft.

Remember that the gear is fixed because it is meshed to the timing gear, so the springs are trying to pull the magneto armature back to the 'at rest' position whilst one end of each spring is attached to the gear and the other end of each spring is attached to the armature shaft.

Now here's the critical bit.... (and the reason why the ATD doesn't always flick back when stationary) ... the magneto armature is not free-floating because there is friction and magnetism in the magneto which prevents the armature responding fully to the pull of the springs. The friction/resistance is caused by the pickup brushes, earth brush, heel of the points, drag in the bearings and the attraction of the magnets.

As the engine is turned over very slowly the friction is reduced because the parts are moving - sliding over each other, and the springs are then able to pull the mechanism to its 'at rest' position. You can test this by turning the bike over slowly on the kick start and watching the ATD return to its fully retarded position - Hey Presto!

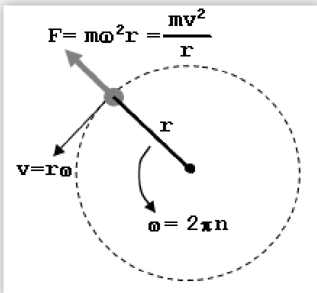
Bob Weight Springs

The bob weight springs MUST have sufficient tension or preload so that they are able to pull the ATD back towards the retarded position as the engine revs fall towards idle speed. In the photo you can see a pair of bob weighs with the bob weight pivot and spring installed. The one at the top has sufficient preload to do its job, but not the one at the bottom – it's spring is useless!

Your ATD springs are most likely well past their use by date. Do yourself a favour and fit new ones – readily available from the VOC Spares Co. Part No. PR22A/D

ATD Rate of Movement

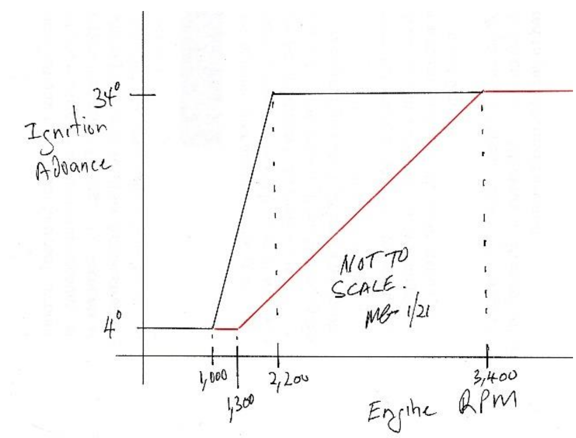
The stock standard ATD in good condition with good standard springs will start to move at around 750 ATD RPM (1500 at the crank) and will reach the limit of its movement around 1,100 ATD RPM (2,200 at the crank) and this change is rapid, almost like an on-off switch.



When a body of mass (the bob weighs) rotates about an axis it exerts an outward radial force called centrifugal force upon the axis or any arm or cord from the axis that restrains it from moving in a straight (tangential) line.

If you want to change the engine rev range over which the ATD operates, you need to consider that what we are working with is the centrifugal force that works against the bob weight springs, allowing the bob weights to move out and thus move the ignition timing.

And the heavier the bob weights are the narrower the rev range from retarded to advanced and the lower the revs where that force commences to overcome the ATD springs. Lighter bob weights have the opposite effect, flattening the slope of the advance line and extending the rev range over which the ignition advance happens. The not-to-scale graph illustrates this.



The black line represents the advance performance with standard bob weights while the red line depicts the effect on ignition advance of reducing the weight of the bob weights. With lighter bob weights the ignition advance starts increasing at slightly higher RMP and maximum advance is not reached to higher RPM – in this example the lighter bob weight has extended the RPM advance range from a total of 1,200 rpm (2,200 less 1,000) to a total of 1,700 rpm (3,000 less 1,300) . This widening of the rev range over which the ATD operates helps minimise the chance of engine 'knock' when under load engine revs start to fall.

Bob Weight, Weight Reduction

I wanted to increase the rev range over which my ATD operated so with my bench grinder I removed some metal from the outboard end of my two bob weights. Not having any equipment available to empirically measure the effect it was a bit of a trial-and-error process – I should add I did have a spare set of bob weights just in case I went too far.

The photo shows, left an unmodified bob weight and on the right, one that I did modify.

Having reassembled my ATD with the modified bob weights, new springs, and reduced advance range in line with part 1 of this article, I am exceedingly happy with the improved on-road performance of my Comet.

Reassemble the ATD

Once you are happy with the changes (if any) that you have made to the ATD you can reassemble it, a reverse of the disassembly procedure, taking care to put the bob weight washers in place under the bob weights. These washers are not readily available as spare parts however OVR has commissioned the manufacture of some from a company here in Australia – if yours are missing contact the editor ozvinreview@gmail.com who may be able to help out.

It's a smart move to fit new ATD springs as well.

The final step in reassembly is to press the retaining collar back onto the fixed shaft. BE CAREFUL - Don't press the retaining collar all the way home as this will prevent the mechanism turning freely on the centre sleeve. Leave a few thou end float (0.008" / 0.010") in the shaft.

In Conclusion

All that remains is for the ATD to be refitted onto the magneto and the ignition timing set as outlined in part 1 of this article. If you want to make you own timing disk CLICK HERE to download a printable image. Print out the image (bigger is better) then glue it to some light plywood or like material.

Additional Information

For more information on making your own timing disk see OVR edition 43, October 2017

For information on setting your ignition timing, see the Workshop Wisdom item in OVR edition 9, October 2014

All back issues of OVR are in the OVR Archives which CAN BE FOUND HERE

OVR Event Schedule

Date	Event	More Info
Feb 21, 2021	VRV* Section Meeting	sec.vrv@gmail.com
March 14	VRV Day Ride - Alexandra	
April 18	VRV Section Meeting	
May 16	VRV Day Ride – twin spurs	
Sept 2021	Australian National Vincent Rally, South Australia	vincenthrdclubsa@gmail.com
Nov 19-21	VRV/OVR Over The Top Tour	ozvinreview@gmail.com
March 2022	Tour around Tasmania	www.tassietour.info

* VRV = Vincent Riders Victoria

The Frank Sinclair Story – part 3

David Dumble concludes with the final instalment of the memoirs of the late Frank Sinclair, a well known and much loved personality in Australian motorcycle racing circles.

There was a circuit at Altona for a short while, on very swampy land which had to be drained by the MMBW — in fact this track is now under a lake. At the first meeting there we found the top of the fuel tank was leaking. There was no time to do anything as it was just before the start, so I wrapped a rag around the filler cap and hoped for the best. On the first lap I was leading Bernie Mack on his Norton by a few hundred yards and, just before my braking point for the bend out of the straight. I hit a hump which shot fuel all over my face so that I was temporarily blinded. By the time I could see anything it was too late to make the bend, so it was all stoppers on, declutch to keep the motor running and we hit a pile of gravel on the side of the track. After the rest of the field had swept past, we pulled the outfit back, motor still running, and set off in pursuit. By this time Bernie was nearly a lap in front but by going like stink we managed to finish second by 50 yards. So that's one time I was very glad to be second!

At a sand-racing meeting at Sellick's Beach in South Australia I raced the Vincent as a solo for the first time. I must have been crazy as the bike was so low that we had to go round the sharp bends very slowly. It was a one mile straight each way and I must admit it was great fun passing so many riders as I rushed up and back on each lap — but oh, for more ground clearance! Anyway, I managed to run second to Laurie Boulter who was on a Manx Norton.

Not long after this we decided to stroke the motor to 1098cc. A little later I was invited to attempt new speed records at Coonabarabran, New South Wales. As the meeting was only 2 weeks away, I had no time for timing runs. The people who were supposed to come along to give me a hand did not make it and most of the time I had to push start the outfit alone. Anyway, at the selected stretch of road everything was ready, so with help I unloaded the outfit from the trailer and warmed up the motor, then in with racing plugs, helmet on, trousers tucked into socks and away. I thought as the sidecar was empty, I would just take it up to 5,000 rpm, so I got a surprise when the timer, Don Bain told me 'It's in the bag for you – you just recorded 120 mph!'

On the Saturday morning there was tragic news as Jim Johnson had been killed in a racing car while doing some early morning practice. I had hoped to try out the big exhaust pipes on Saturday and then have a think about the carbs overnight and have a better run on Sunday but as it turned out Sunday was the only day I got to run and I managed to take the record with another 5,000 rpm limit. How I wish Phil Irving had been with me on the trip as later on hearing the news he said I should have taken off the bell-mouths we had fitted to the carbs, as this would have made all the difference.

This outfit was eventually sold and I was doing some car trial driving with Phil Irving. I got the urge again and decided to go to Tasmania for the Longford meeting but trying to borrow a bike seemed hopeless until I found a lad in Geelong who had a Vincent in bits. Before going to see it I phoned Phil and suggested that he come to Tassie with me if he had the time to cobble the Vincent together. I had never seen a Vincent in so many parts, all stashed in 4-gallon drums! I thought Phil would collapse on seeing the mess but in true Irving style he got stuck into it. We got to Longford, the bike was quick but a piston collapsed on the first day so we packed up and spent a great weekend as spectators for a change.

My last ride on this Vincent was at the first motorcycle meeting at Calder raceway in Victoria. After a few laps I was exhausted and decided right then that I would not race again. Being well past 50 it occurred to me that I was just too old. I complained to Phil that the outfit was way too hard to handle but he soon put things to rights by correcting the rake and trail of the forks. But I did give racing away and was soon to meet sponsor Alex Corner.

I first met Alex at a Ballarat meeting when my passenger came up very excited and said 'come and see the best Vincent here'. It was indeed a beauty and after a log chat about his bike and mine I could see Alex knew Vincents so I asked him if he would like to take a look at mine. He agreed so we arranged to take my outfit to the Philip Island Circuit so he could have a ride. He was a tall lad and only weighed 10 ½ stone (147 Lb) not the usual build for a top-line sidecar racer, which just goes to show how wrong one can be. Anyway I did a couple of fast laps then handed the bike over to him. After several laps he came in looking a bit pale and shaky and said 'this thing goes much faster than my solo – I don't think I am ready to race this yet'. I replied 'Well you just do what I tell you and you should be very hard to beat with this outfit'. And as his list of wins shows, I was right. Here are a few highlights.

At his first Bathurst race, after two or three practice laps the crankshaft broke, doing quite a bit of mischief down below. As you can imagine we were quite downhearted after coming so far, but Alex said 'If only we had another set of flywheels, we could have the thing running for Saturdays race'

A lad camped nearby offered to drive the 600 miles to Alex's home in his battered 1950 2 ½ litre Riley to get the bits and with 3 drivers they made the round trip in 18 hours (Don't forget that in those days the Hume Highway was far from being mostly freeway as it is today).

Alex and I started to pull the motor to bits while they were gone and we were horrified at the damage to the drive side bearings. Shims were not to hand so some strips of jam tin had to do and within 21 hours we had the motor running again, but for how long was the question! I told Alex to keep an eye on the rev counter and not to let it go more than 6,000 rpm. As he and his passenger were not familiar with the circuit, I took them round in a car, describing the best way to tackle each bend. This paid off as they won handsomely, though I doubt if the motor would have lasted one more lap.

At his second Bathurst meeting Alex had Gerry O'Brien as passenger, one of the best ever, and they were to meet Sandy McCrae for the first time. Sandy was of course the king of Mt. Panorama on outfits, having won so many times. Alex seemed a little worried but I pointed out to him that Sandy had paid him a great compliment by coming down on the Thursday instead of his usual Friday. My advice was 'Follow McCrae at all times. no matter if it's slow or fast, if he gets behind then go slow even if you come down Conrod Straight at 30 mph — he will soon go by, and that is the time for you to follow him and don't let him get away.

In practice Sandy equalled his own lap record and Alex knocked four seconds off that, so I said: 'No more practice, you know your way round, so now just let the others wear out their bikes.'

So, we both sat around in the pits and I had an idea. I walked over to Sandy's outfit and looked at it closely, then turned around to Alex and laughed as I pointed at the rear wheel. Then Sandy's passenger. who had been watching me started to check chain, gearing, everything, finally standing back with a shrug of his shoulders. He told Sandy about all this, then about an hour later I did the same thing again, laying it on even thicker. This time there was panic in the McCrae camp - the back wheel came out at least three times before the race and I think they increased the gear ratio, though I can't be sure. In the race Alex led all the way to win by three-quarters of a lap. Poor Sandy overshot the last bend at the bottom of Conrod on the first lap and retired. I think he was over-geared and unable to slow down enough — if so, it goes to show that races are not always won on the track!

The next time they met was the following year at Bathurst and it was almost a repeat of the previous year, except for the pit dramas. Alex again led all the way, for his third win, and Sandy overshot at the same spot and retired again — I don't think he had gone to a lower gear.
Alex and Gerry's last win at Bathurst was another great effort. By now their teamwork was all I could wish for after a record lap from a standing start. I gave them the go-slow signal as they were so far in front. They went on to make it four in a row!

Towards the end of his riding career, Frank on the much-modified Vincent heads under the Viaduct at Longford.

They showed their determination during practice at a Victorian meeting when, on a very hot and humid day Gerry lost his grip and fell out of the chair on a sharp bend. Alex and the outfit finished up against a sign inside the circuit. while Gerry did a long slide. They both went to hospital to have bruises and abrasions patched up but tame back still keen to race. I was not too happy about this but said: 'Do two laps. then come in’.

They did the two laps OK holding second place to Lindsay Urquhart, then took the lead at the place where they had gone off in practice and went on to win.

At Winton, Victoria, Alex came up against Noel Manning, a rider who had a reputation for wild and reckless riding. The circuit has a long straight with a double S bend, before the finishing straight. In the race Alex made a good start and steadily increased his lead as the race progressed. He came into of the bends into the finishing straight to start the last lap, but Manning behind him overshot the middle bend and 'went bush', re-joining the course halfway down the finishing straight, missing Alex and Gerry by inches. Alex won, with Manning second, but in my opinion, Manning should have been flagged off and warned for his mad riding.

During all this time the outfit was being maintained with advice from Phil Irving and Noel Ernshaw, a gifted fitter and machinist without whose help our success would have been much harder to achieve.

As we wanted to keep it looking like a road going Vincent, we retained the front forks and the basic frame, lowered to one inch clearance on full bounce. The rear end was strengthened with support bars and a hole drilled up a bit in the front forks to take the front axle. The wheelbase was increased by four inches so that twin shockers could be fitted to replace the original central shocker and springs and this allowed a lower seat. New longer engine plates had to be made to match up and the head angle was steepened to give better steering. We also considered fitting 4 valve heads for more power and spacers to the front forks to allow a wider tyre to be fitted; while a 5-speed gear box was another possibility. But the object was to keep it as near as possible to original and we were winning anyway!

As far as I know this bitsa and the first bike we built were the first to use two front heads (a modification allowing tuners to gas flow the inlet port as there is not sufficient metal in the rear head to do so) and this with a better big end assembly carefully put together made them very reliable. I rode the original outfit for three seasons with a lot of wins and we never lifted the heads during racing – just ask Phil Irving. Alex with the bitsa had the same trouble-free run. I'm sure that none of the modern two-strokes would do the same!

The Vincent clutch and gearbox have been the subject of much abuse but remember these parts were never intended for racing. Mos riders who raced Vincents had trouble and Phil Irving was always ready to offer help and advice mostly *gratis*. I found as did many others that with a few simple alterations plus careful assembly there was no more trouble with these parts. Alex later used a full alloy disk plate clutch in place of the Lightning setup and this worked very well.

October 1964 was a good month. Alex won the Harley Club Standing Quarter Mile Championship and the Road Race Championship on the very same day. Two weeks later at Mt. Gambier he won the scratch race and two handicaps from scratch on the Saturday. On Sunday we drove to Mildura to race on Monday for another win, beating Alex Campbell. That made six wins from six starts, including four in one weekend. My part in all this was to drive the boy's home through the night.

That outfit was eventually sold to Ozzie Salter who then tinkered with the engine, despite my advice not to do so, and after that it would not go fast – this often happens when racing bikes change hands. When he complained to me, I reminded him of my parting words "If it's not broke, don't fix it". When I told Phil about this he said "Oh, sorry Alex, but I'm not sorry for Ozzie!"

Sometime earlier I had bought the late Lex Davidson Cooper Mk VI racing car fitted with a Lightning engine developed to 1,100cc by Phil Irving and supercharged. This car had won a lot of hill climb championships and I got it cheap minus the blower. Alex raced it with reasonable success but being restricted to petrol instead of alcohol we couldn't extract all the potential. Going into the pros and cons I decided that car racing was strictly for the very rich and sponsoring the Vincent was already expensive enough.

Having sold the outfit, I still had a beaut Lightning engine with twin SU high pressure float bowls and twin Amals from the Cooper car I had bought and sold. So Alex and I had a long talk and decided to build another outfit. It took a long time to collect all the bits but almost 12 months later it was finally ready, however Gerry O'Brian was building his own outfit and was no longer available to passenger Alex. Another possible passenger had started restoring a Bentley and had lost his enthusiasm for speedway; So, the outfit was sold after all that work.

I must mention a couple of the tuners I know over the years who often got little credit for their efforts. First of course is Clarry Rial of Clarex Motors who tuned the Clarex Indian and made it go so well. I was timed at 110 mph at Ballarat, which was remarkable for what was basically a touring side-valve twin. I remember a Rial tuned 1926 Scout that was timed at 98 mph with Rex Tingate as the rider. Not many people knew much about Indians and Harleys as Clarry. He received a lot of information from the factories and many overseas tuners who kept in touch with him and regarded him very highly.

Les Gates is another tuner who has fettled all sorts of machines with very good results and often, little return. Les told me the tale of a chap he tuned a Yamaha for- the rider came back complaining that the neutral light was not working. I wonder what he wanted neutral for when racing.

In the early post-war days crowd control at motorcycle meetings was very lax compared to today. I remember a police sergeant at Fisherman's bend telling me that cars parked right up to the crash barriers would have to be moved before he would permit us to run the first race. I got onto the broadcast system and appealed to owners to move them for their own safety, pointing out that there would be no racing till this was done. After a while only a few cars had been moved, so I called up the competitors for the start of the first race and told them that unless the cars were moved the meeting would be cancelled. That was it! The lads man-handled nearly every car, including many that were locked and in gear. But that did not stop those tough guys; back they went and some none too gently. Only a couple of cars were actually damaged!

Another time I was riding at Ballarat's Victoria park when I was horrified to see a woman pushing a pram across the track, mid race, while I was approaching at a rate of knots; I addressed a few strong words to her as I flashed by but I don't suppose she heard me.

Generally, the sport has been very lucky with so few serious accidents. Bill Day and his Brough outfit did go into the crowd at Ballarat and there was a court case. I cannot recall the result but I know of no other accident of the type.

Well, having had a lot of fun and more than a little success I owe a big Thank You to Phil Irving for the help and advice he gave me. Without all of this I would probably have been just another enthusiast riding a Vincent. Thanks again Phil!

Tread-Down Revisited

For over 25 years Vincent fans world-wide have been fitting a centre stand designed, mauafctured and sold by David Hills in the UK. There is only one aspect of these stands that can cause concern and that is their installed height which is dependant on the state of the rear suspension and also the rear wheel size and tyre choice. So it is not necessarily a case of one size fits all. With my Comet, fitted with an 18' rear wheel, modern profile tyre and Thornton coil over shock I needed to reduce the height of the Hills Stand. This involved cutting each leg and removing some length then rewelding with an internal sleeve to ensure strength.

While at the 2015 VOC International in Italy I spotted a number of Vincents so fitted but what caught my eye was one where the height of the Hills stand was adjustable.

Dave tells me that his stand legs are made from mild steel tube with an ID of around 15.5mm (0.609") which is almost the perfect tapping size either 11/16" BSF or better still 16 x 1.0 mm. To convert any Hills Stand to the adjustable version all you need do is cut the 'feet' off the stand, shortening the legs at the same time, then tap the open end of each leg to take your desired bolt or threaded rod (11/16 BSF or 16x1 mm).

To make up the new feet use some steel tube, around 1 ½" OD; diameter is not critical. You need a length of no more than 1 ½ inches. Then cut it length wise to create two curved 'feet' which you weld to a suitably long bolt or threaded rod that then gets screwed into the freshly tapped stand legs as shown in the photo.

Fit a locking nut to the new feet so that once you set your desired height, all stays in place.

Email Dave dhills998@yahoo.co.uk for more information about his superb Vincent Centre Stands.

"DO-IT-YOURSELF SERIES" No. 3 - - - by BERNAL OSBORNE

The 496 c.c. and 692 c.c. o.h.v. Twin-cylinder ROYAL ENFIELD

Technical Details and Maintenance Routine for the 1956 "500 Twin" and "Super Meteor"

ALTHOUGH the two machines are generally similar in conception and layout to the 1955 models, it is appropriate, initially, to recall that at the Show last November the bigger of the two twins made at Royal Enfield's Redditch factory appeared in considerably modified form and with a new name—"Super Meteor." Relinquishing the coil-ignition electrical equipment used for some years, the "Super Meteor" was catalogued for the first time with a dual electrical system taking the form of a rotating-magnet magneto for ignition purposes and a crankshaft-mounted RM14 Lucas A.C. generator, providing current for battery charging and lighting through a rectifier.

Redesigned engine features for the "Super Meteor" included the stiffening of the crankshaft by increased-diameter journals; the raising of the compression ratio by the use of domed pistons, and the enlarging of the inlet tract. This rearrangement was completed by the housing of the engine and the gearbox in a new type of loop frame introduced that year.

Changed only in detail, the "500 Twin" now listed resembles almost exactly its 1955 predecessor.

Special Tools

The manufacturers recommend at least five appliances to aid dismantling and assembling work in the course of the complete overhaul. These gadgets are illustrated for general information, but in all cases it will be apparent that with a little ingenuity it would be possible to rig up alternative and more simple devices.

Dismantling Procedure

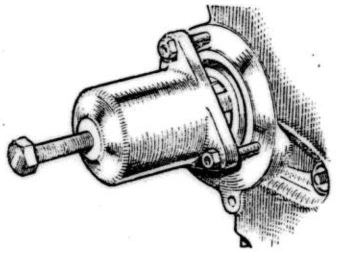
The first job is to take the engine of either model out of the frame and to separate the crankcase from the gearbox; the two are in semi-unit. The primary drive must come down and the rear half of the chaincase, located by three socket screws, and the chain tensioner pivot, must be removed.

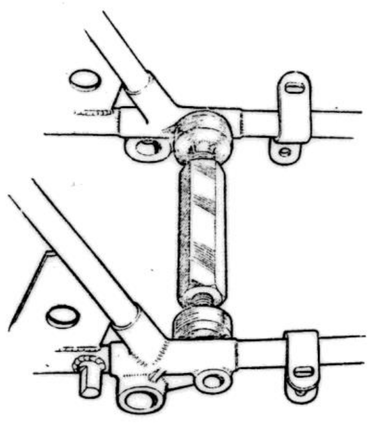
Both twin-cylinder Royal Enfield engines have camshafts supported in bushes (see Reference Data for dimensions) located across the engine, with push-rods on both sides actuating the o.h.v. rocker gear. On the timing side, the ends of the camshafts are tapered and keyed to take sprockets carrying the main timing chain driven from the mainshaft drive sprocket. This driving gear, and also the extension drive to the Magdyno or magneto, must be taken away before the crankcase is split.

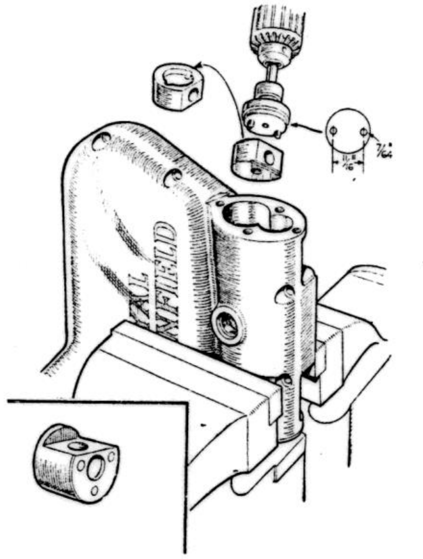
The cylinder heads are die cast from aluminium alloy; the exhaust pipe inserts are cast in, whilst the valve inserts, of austenitic iron, are shrunk in. Sparking plug threads in the heads are formed by "Helicoil" screwed-in inserts; the main attribute of this system is durability of the threads and it is unlikely, therefore, that the "Helicoil" inserts will need replacement.

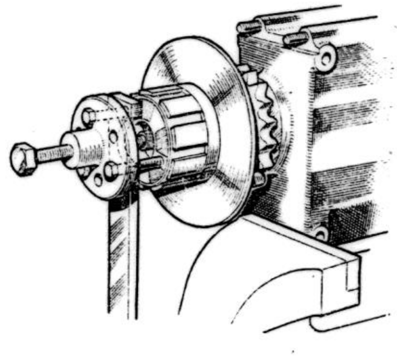
Low-expansion aluminium alloy material is used for the pistons, which are of the split-skirt type form-turned oval. Each carries two compression rings, the top one chromium plated, and a third slotted oil control ring.

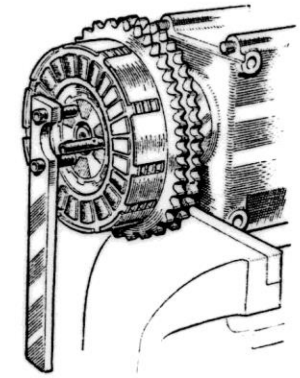
Splitting the crankcase necessitates the removal first of the two hexagon-headed plugs located on the drive side just below the cylinder base. A long screwdriver can now be inserted through the plug holes to slacken the centre screws which lock the crankcase halves centrally at the top. It is necessary also to remove three nuts located in the timing chest, two on the drive-side crankcase, two studs located in the bottom of the crankcase, and two



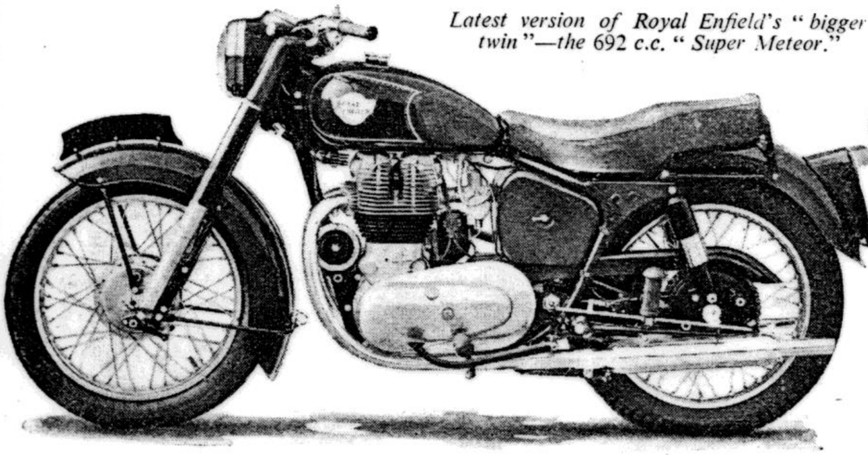








Five special tools: (Top left) The "factory"-type drive-side crankshaft extractor. (Bottom left) Expander tool for opening the frame members while fitting the swinging-fork pivot. (Above) Lapping the pump disc; the flange (inset) facilitates the work, but is filed flat before final assembly. (Top right) Anchorage bar and extractor combination for clutch body withdrawal. (Bottom right) A simple form of clutch-centre anchorage bar.



Latest version of Royal Enfield's "bigger twin"—the 692 c.c. "Super Meteor."

similar studs which go through the back of the oil reservoir.

As the crankcase halves separate, the inner race of the roller bearing on the timing side will come away on the crankshaft, bringing with it the cage and rollers but leaving the outer race in the crankcase housing.

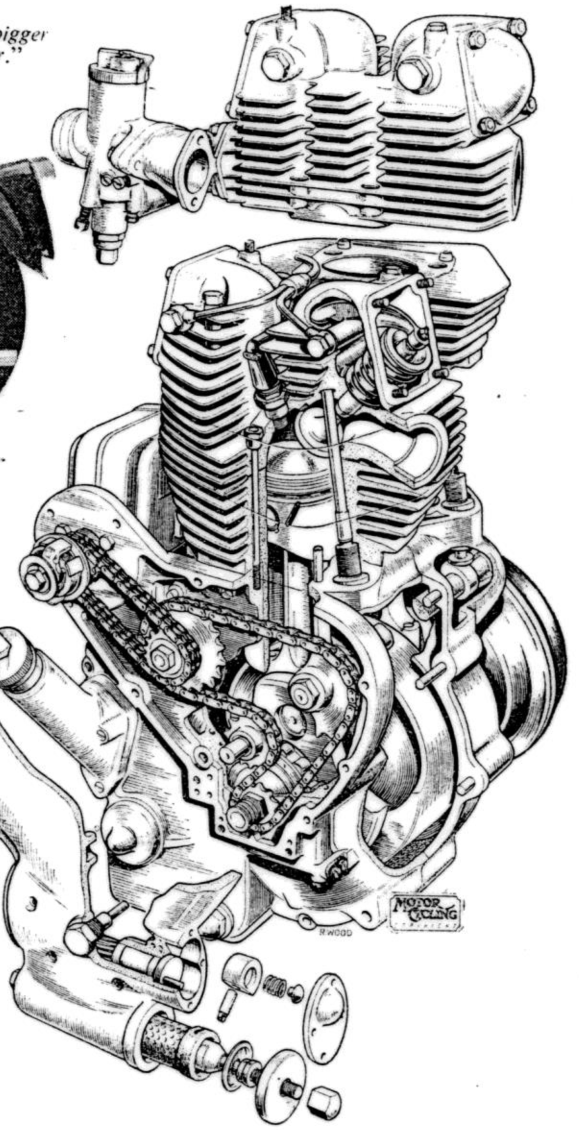
On the drive side, the inner race of the ball journal bearing is a tight fit on the shaft. One of the Royal Enfield special tools, Type E5121, can be applied to push out the crankshaft, leaving the bearing in the crankcase. Alternatively, the shaft can be driven out with a hide mallet or soft metal drift. The bearing can later be jarred out of the housing in the usual way following the application of heat.

Removal of the outer roller race on the timing side is effected by pre-heating and then tapping out by means of a small punch inserted through the three holes provided in the casting. A claw-type extractor is used to pull the inner race and rollers from the crankshaft.

Steel-back shell liners are used for the plain big-end bearings in the case of the "500 Twin." But, in the engine of the "Super Meteor," the Hiduminium connecting rods are designed to bear directly on the crank journals. Note that in refitting the connecting rods the socket screws are tightened progressively, preferably with a torque wrench set at 200/220 in.-lb.

Assembly

Assuming that it is necessary to work virtually from scratch, first fit the outer roller race in the timing-side half of the crankcase, then the ball bearing in the opposite side, and slide the inner roller race on to the appropriate crankshaft, driving it into a position where it is just flush with the tip of the shaft. The timing-side half, with the outer roller bearing race in position, is offered up to the shaft assembly, complete with inner race, after arranging the connecting rods so that they do not foul the crankcase during subsequent operations which have to be carried out fairly swiftly.



Practical points shown by this "Motor Cycling" drawing of the redesigned "Super Meteor" engine are the location of the oil pump and its filter, the magneto's duplex chain drive and automatic advance unit, and the oil feed to the rockers.

These operations include inserting the camshafts (exhaust to the front, inlet to the rear); positioning the filter housing; heating the drive side crankcase and dropping in the bearing and, while both sub-assemblies are still warm, bolting them lightly together. A tubular distance piece used in conjunction with the engine sprocket nut facilitates the drawing-up of the complete assembly. Before embarking on this work, make sure that you have lifted the tappets to clear the cams.

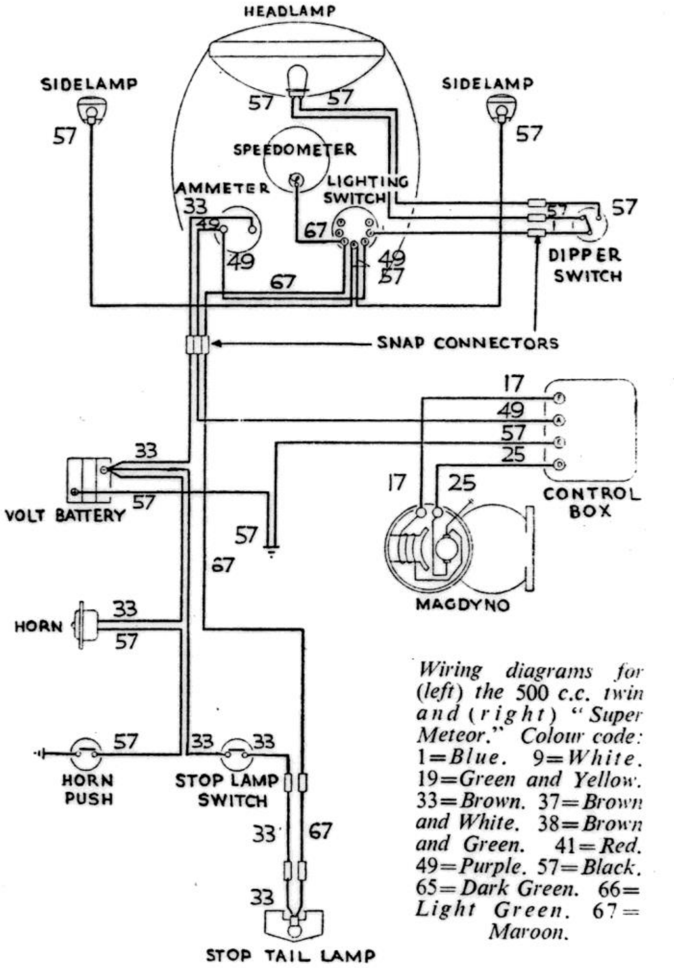
The building-up of the top part of the engine is largely a reversal of the earlier dismantling work and guidance as to valve timing and tappet settings is given in the Reference Data panel.

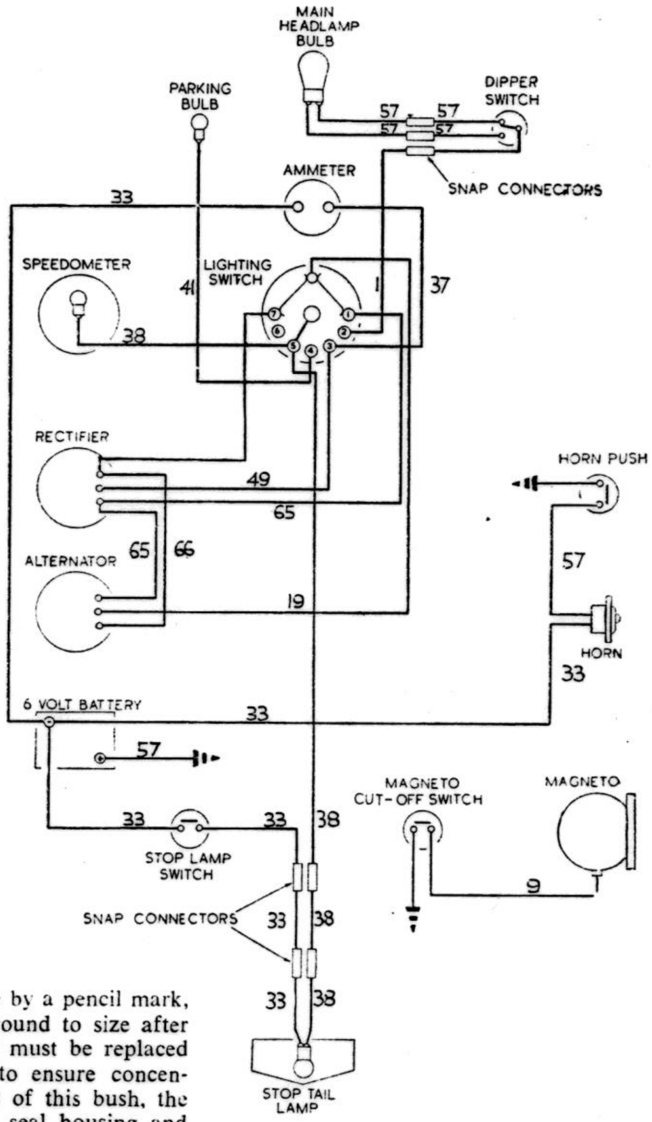
Transmission

Both machines use a duplex type primary chain with an adjustable tensioner, the gearbox being fixed and in semi-unit with the engine. The factory suggest several ways of extracting the clutch centre and dealing with the clutch centre nut. Probably the tool, type E5414, would be a useful adjunct to the enthusiast's workshop, but for those without facilities for fabricating something similar to the anchorage bar, type E4871, I would say that if the gears be engaged and a length of chain wrapped round the sprocket and secured in a vice, then box spanner application to the mainshaft nut is easily and effectively carried out.

The gearbox is basically of Albion design with straightforward spring-controlled selector mechanism and few parts to go wrong. Operation of the selector fork is by means of a horse-shoe bell crank member and wear and tear usually makes itself known, and apparent, on these operating parts rather than in the bearings and bushes, dimensional details of which are contained in the Reference Data section.

(Continued overleaf)





Wiring diagrams for (left) the 500 c.c. twin and (right) "Super Meteor." Colour code: 1=Blue. 9=White. 19=Green and Yellow. 33=Brown. 37=Brown and White. 38=Brown and Green. 41=Red. 49=Purple. 57=Black. 65=Dark Green. 66=Light Green. 67=Maroon.

"DO-IT-YOURSELF" - *Continued*

Suspension

Solo and sidecar types of telescopic for assemplies are available. Both have main springs operating in compression with a simple form of hydraulic damping which absorbs impact and rebound movement. The sidecar version of the fork has modified sliding legs which set the tubes 1½ in. farther forward, so reducing the trail. Sidecar forks are fitted with heavier poundage springs and a steering damper.

To dismantle one of the legs, first drain the oil, undo the nut which secures the spring stud to the fork end and, with a soft mallet, knock the stud upwards in the fork to allow the residue of oil to escape. Pull the bottom tube down as far as possible, thus exposing the oil seal housing. Unscrew the housing using either a spanner on the flats or the special "nut-cracker" grip available; the bottom tube can now be withdrawn.

Now unscrew the main tube valve port using a C-spanner. The spring stud and spring can be withdrawn from the tube.

The steel main tube bush can now be tapped off the lower end of the tube. Before moving the bush, however, mark its position on the tube by a pencil mark, as these bushes are ground to size after fitting to the tube and must be replaced in the same position to ensure concentricity. After removal of this bush, the bottom tube bush, oil seal housing and oil seal bush can be removed. The main tube is screwed into the casquette head and clamped in the fork crown.

The rear swinging-fork member is bushed and pivots on a sleeve carried on a centre spindle. The bushes and sleeve are renewable and dimensional details are included in the Reference Data section. Fork movement is controlled by Armstrong A.T. 6-7 spring dampers which are sealed at the works and should not be interfered with. To take out the rear-fork member it is desirable to "spring" the frame by means of the expander tool illustrated or a similar gadget which, obviously, would not be difficult to concoct.

Lubrication

Located in the timing cover, the double oscillating and reciprocating pump mechanism is operated by a worm drive component screwed into the end of the timing side mainshaft. It has a left-hand thread. The worm cross drives onto the main pump spindle which, at its extremities, has cranks engaging in the pump plungers. It is essential that new discs be carefully lapped in with metal polish and a special tool for this purpose is illustrated. It is worth while noting that the peg dimensions for the lapping tool used on the two twins are the same as those employed for many years in connection with the single-cylinder range. Continue grinding until an even grey surface is obtained and wash all the drillways with petrol afterwards to remove the grinding medium. Check the fit of the plungers in the pump disc. They should have a minimum clearance, i.e., you should just be able to move them in and out by hand.

The discs are held lightly in the housings by springs which can be checked by assembling and placing the covers lightly in position. The springs, if in good condition, should hold each cover ⅛-in. free. The pump spindle should be replaced if its teeth are badly worn.

REFERENCE DATA

CYLINDER—PISTON GROUP

	500 c.c.	700 c.c.
Bore	64 mm.	70 mm.
Stroke	77 mm	90 mm.
Swept volume ..	496 c.c.	692 c.c.
Compression ratio ..	7.50:1	7.25:1

Rebore to .. .. +.020 or +.040 o.s. when maximum wear exceeds approx. .008 in.

Piston diameters

at top land	2.498 in	2.727 in.
at skirt	2.513 in	2.748 in.

Piston ring gap: .011/.015 in.
Piston ring depth: compression 1/16 in.; oil control 5/32 in.
Permissible vertical play: (new) .001/.003 in.
Gudgeon pin diameter: .7499/.7501 in.
Small-end bush diameter: .7505/.7507 in.

VALVES AND VALVE GEAR

500 c.c. **700 c.c.**

Valve stem diameter:
Inlet .. .. .34175/.34275 in. .3425/.3430 in.
Exhaust .. .34075/.34175 in. .3405/.3410 in.
Bore of valve guides: .3437/.3447 in.
Seat angle: 45°.
Free valve spring length:
Inner 2 1/32 in.
Outer 2 3/32 in.
Rocker spindle diameter: .5615/.5617 in.
Rocker bore: .5622/.5627 in.
Valve timing—(with tappets set at .012 in. clearance):
Inlet opens before T.D.C. 30°.
Inlet closes after B.D.C. 60°.
Exhaust opens before B.D.C. 75°.
Exhaust closes after T.D.C. 35°.
Normal tappet clearances (cold): NIL.

CRANKSHAFT GROUP

Crank journal diameter: **500 c.c.,** 1.7495/1.7500 in.; **700 c.c.,** 1.8755/1.8760 in.
Con-rod, big-end eye diameter: 1.8530/1.8535 in.
Bearing shell interna diameter: 1.7505/1.7515 in.
Permissible side play: (new) .005/.011 in.
Type of big-end bearing: **500 c.c.** Plain white metal steel-backed shell.
700 c.c. Alloy rod bears directly on crank journal.
Main bearings—drive side: ball, bore 45 mm. by 85 mm. by 19 mm.
Main bearings—timing side: roller, bore 45 mm. by 85 mm. by 19 mm.
Mainshaft located on drive side bearing.
Left-hand threads on engine components: camshaft sprocket bolts (2).
Oil pump worm shaft and nut.
Location of contact breaker: in magneto or magdyno.

GEARBOX

Sleeve-gear bearings: bore, 30 mm. by O/D 62 mm. by 16 mm.
Mainshaft bearing at K/S end: bore, 5/8 in. by O/D 1 13/16 in. by ⅝ in.
Layshaft supported by: phosphor bronze bearings.
Internal reductions: 1, 1.3, 1.8 and 2.78 to 1.
Left-hand thread on gearbox mainshaft K/S end.

TRANSMISSION

	500 c.c. (solo)	700 c.c. (solo)
Sprocket sizes		
Engine	25t	33t
Clutch	56t	56t
With Q.D. wheel		
Final drive	20t	18t
Rear wheel	46t	46t
With fixed wheel		
Final drive	17t	18t
Rear wheel	38t	46t

With either Q.D. or fixed wheel:

	700 c.c. (sidecar)
Final drive	16t
Rear wheel	46t

Ratios: **500 c.c. (solo)** 5.0, 6.5, 9.0 and 13.9:1.
500 c.c. (sidecar) 5.65, 7.37, 10.2 and 15.7:1.
700 c.c. (solo) 4.33, 5.63, 7.87 and 12.05:1.
700 c.c. (sidecar) 4.88, 6.34, 8.85 and 13.55:1.
Primary chain: Duplex No. 114038 by 90 pitches **(500 c.c.).** by 94 pitches **(700 c.c.).**
Secondary chain: **500 c.c.** No. 110056, ⅝ in. by ⅜ in. by 95 pitches.
700 c.c. (solo) 100 pitches.
700 c.c. (s/c) 99 pitches.

WHEELS

Front: WM 2-19

Brake diameter: 6 in. (dual brake)
Spokes, 6⅝ in. by 10G butted 8G (40 off).
Hub bearings: ball journal; bore ⅜ in. by 9/16 in. O/D by 7/16 in.
Hoffmann LS7, R. and M. LJ ⅜ in., Fischer LS7, Skefko RLS5.

Rear: WM 2-19	**500 c.c.**	**700 c.c.**
Brake diameter	6 in. (Fixed wheel)	7 in. 7 in. (Q.D. wheel)
Spokes—fixed wheel	**500 c.c.**	**700 c.c.**
plain side ..	8⅜ in. by 10G butted 8G	8½ in. by 10G butted 8G
brake side ..	7⅞ in. by 10G butted 8G	7¾ in. by 10G butted 8G

Spokes Q.D. wheel:
Plain side .. 6¾ in. by 10G butted 8G
Brake side .. 6¾ in. by 10G butted 8G

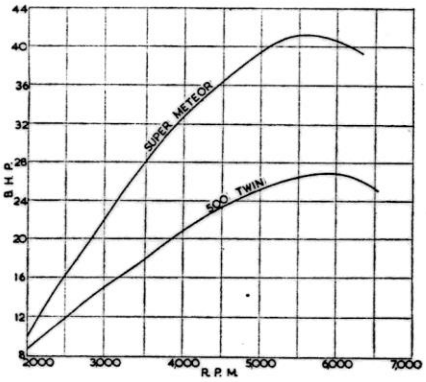
Hub bearings: bore ⅝ in. by 1 13/16 in. by ⅝ in. Hoffmann MS7, R. and M. MJ ⅝ in., Fischer MS7, Skefko RMS5.

FRONT SUSPENSION

Telescopic forks, hydraulically damped and carried on ball cup-and-cone type head bearings, comprising 19 ¼-in. diameter balls with 1 9/16 in. pitch circle.
Compression springs 35 lb./in. for solo and 50 lb./in. for sidecar use.
Fork angle: 27°.
Trail: Solo, 3½ in. Sidecar, 2 in.
Damper fluid content: 7½ f. oz. S.A.E. 20 oil.
Bush dimensions: 2 in. long, 1.559/1.561 O/D. 1.376/1.377 in. I/D (assembled in tube).

REAR SUSPENSION

AT 6-7 Armstrong spring units.



Manufacturer's power curves for the two engines (standard silencers).

CARBURATION

500 c.c. Amal carburetter, type 276GQ/1AT, 15/16 in. choke, 150 main jet, 6/4 throttle slide, No. 2 needle notch, .109 needle jet.

700 c.c. Amal Monobloc type, 1 1/16 in. choke, 240 main jet, 3½ throttle slide. No. 3 needle notch, std. needle jet.

LUBRICATION

Oscillating plunger type feed and return pump units, operating at 1/6 engine speed. Direct feed to big-end bearings and o.h.v. rockers.

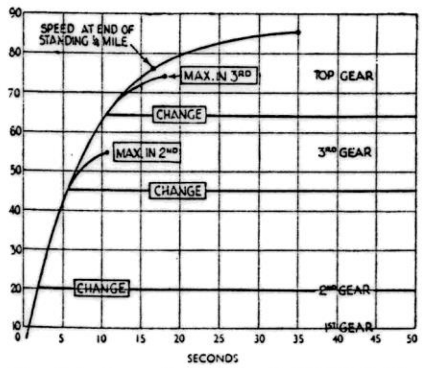
500 c.c.: Main filter in return side of reservoir.

700 c.c. Filter between reservoir and engine. Gauze filters on outlet side and in base of crankcase.

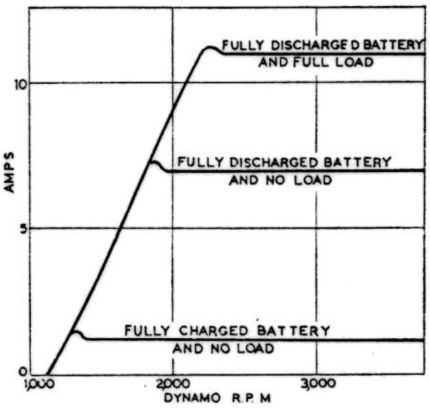
ELECTRICAL EQUIPMENT

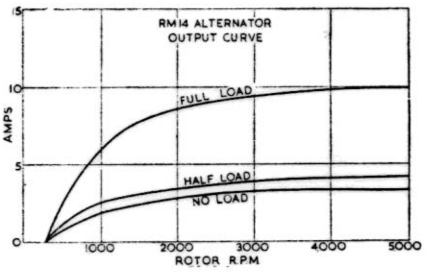
500 c.c.
Lucas MN 2L-type Magdyno, D.C. output controlled by Lucas RB-107 C.V.C. set as follows:
Cut-out:
Cut-in voltage 6.3–6.7 volts.
Drop-off voltage 4.8–5.3 volts.
Reverse current 3.0–5.0 amps.
Regulator:
10°C. (50°F.) 7.7–8.1 volts.
20°C. (68°F.) 7.6–8.0 volts.
30°C. (86°F.) 7.5–7.9 volts.
40°C. (104°F.) 7.4–7.8 volts.

700 c.c.
Ignition by Lucas rotating magnet magneto. Lighting by RM14 A.C. generator, output rectified to D.C. by selenium component. Both machines carry a 6 v. 12 a.h. PUZ7E battery; 6 v. 30/24 prefocus headlamp bulb No. 312; 5v. 3w. M.C.C. parking No. 988 and 6 v. 6/18 w. S.B.C. tail bulb with combined "stop" filament No. 384.



Road test graph for the "500 Twin" (from "Motor Cycling," Feb. 25, 1954).





(Above) Output of the Lucas RM 14 alternator, fitted to the "Super Meteor," under three conditions of load. (Left) Output of the "500 Twin's" Lucas dynamo for three conditions of battery and load

Buy, Swap n' Sell

If you have anything that you want to buy, swap or sell you can now do so, free of cost, in this section of OVR. All you need do is send a email to the editor of OVR with the text of your advertisment. OVR will NOT be providing any editorial or corrections. Of course OVR cannot accept any responsibility for anything to do with the items advertised – that's a buyer/seller matter.

Wanted: Vincent related publications

The VOC Machine Researcher is looking to purchase the following publications. Or maybe you are prepared to donate?

- The Vincent HRD Story in South Australia, Author Paul Wilkins, 1994
- The Vincent HRD in Australia, Author Brian Greenfield, 2007

If you can assist please email Jon Lambley, researcher998@voc.uk.com

----

SWAP - Series B UFM

I have a good condition (probably needs a repaint) Series B UFM, number R3576.

Would like to Swap for a good condition Series C UFM for Comet project.

If you can help please email to Rodneybrown58@icloud.com

SELL: Amal Mk1 Concentric Carburettor Shim Kits, provides for twelve 0.016" incremental needle adjustments to allow precise mixture tuning in the critical mid-range. Also suitable for Wassell carbs. Just A$15 per kit including postage world-wide. Additional kits just A$10 each. Email ozvinreview@gmail.com

----

WANTED/SWAP: RFM number R2567

Hi Martyn, I purchased my 1948 B Rapide in 2006 and it came with non-matching RFM number R3269. With the bike having been in Australia for at least the last 60 years I am hoping to locate the original RFM number R2567, that may well be fitted to a bike or in storage somewhere in Oz. If anyone knows of the whereabouts of RFM 2567, I would consider any reasonable proposition to acquire it; swap of parts, $$ or whatever. Thanks, Mark Hamilton, Adelaide. email markhamilton998@bigpond.com

----

WANTED

A pair of Vincent twin matched crank cases in reasonable condition. Email Richard on faulk@iinet.net.au

Service Providers

The Service Providers listed have been used with a degree of satisfaction by OVR readers in the past. Just because they are listed does not imply an endorsment of them by OVR.

Spares:

V3 Products, Australia: (aka Neal Videan) has an extensive range of top quality Vincent Spares including multiplate clutches for twins, oil leak eliminator kits, socket head tappet adjusters, paper element oil filters and lots lots more. Ships worldwide. Email for a price list to nvidean@outlook.com

VOC Spares Company Ltd, UK: Full range of Vincent Spares. Ships Worldwide. Visit their web site for more information http://www.vincentspares.co.uk.

Maughan &Sons, UK   Takeing pride in producing the highest quality spares, Maughan & sons stock over 1300 parts and produce over 800 for the Vincent Twin and Comet. Ships worldwide. More info here http://www.maughanandsons.co.uk

Coventry Spares Ltd, USA: Fantastic service and deep product knowledge plus extensive range of excelent Vincent Spares and tools. Ships Worldwide. See website for more information http://www.thevincentparts.com

Conway Motors Ltd, UK: Anti-Sumping Valves, Multi-Plate clutch conversions for Comets plus an extensive range of excelent Vincent Spares. Ships Worldwide. Email for more information steve@conway-motors.co.uk

Tri-Spark Ignition, based in Adelaide, Australia. Modern electronic ignition systems with models for all classic (and modern) bikes and the current system of choice by Godet Motorcycles (France) for installation in their superb Godet-Vincent machines. For info go to www.trispark.com.au

Paul Goff, UK: A massive range of electrical spares and replacements including 6 and 12V quartz Halogen bulbs, LED lamps, solid state voltage regulators and lots lots more. Ships Worldwide. PayPal accepted. See Paul's website for more information www.norbsa02.freeuk.com

Fastline Spokes, based in Broadford, Victoria, can supply Australian made spokes for just about any bike. Owner Bruce Lotherington manufactures spokes to order with a turn around time of less than 1 week. For more info see www.fastlinespokes.com.au or phone (+61) 0411 844 169

Union Jack Motorcycles, Australia: Full range of Triumph, Lucas, Amal and Venhill control cables. Ships worldwide. More info at the website www.unionjack.com.au or phone +61 3 9499 6428

VSM, Holland: 2x2 leading shoe brake kits for Vincents; high quality 30mm wide 4 leading shoe system. Email vspeet@vsmmetaal.nl for info.

François Grosset, France: Electric starter for Vincent Twin. Electronic ignitions for Vincent Single and Twin supplied complete with drive gear. Email pontricoul@gmail.com for more info.

Cometic Gaskets: Modern, reusable gasket sets for Vincent twins and singles. If you actually USE your Vincent you are mad not to have these. Contact Paul Holdsworth of the VOC Chicago section c/o pl_holdsworth@yahoo.com Located in Chicago IL USA.

Nuts n Bolts:

Classic Fastners, Australia: Their aim is to supply obsolete and hard to obtain fasteners for your restoration project be it a professional or private venture. The print catalogue, available for download, lists the current complete range. Ships Worldwide. http://www.classicfasteners.com.au/

Precision Shims Australia: All types of shims made to your requirements, ships worldwide. More info at their web site www.precisionshims.com.au

V3 Products (see entry under Spares above) also stocks a large range of Vincent specific nuts n bolts.

Keables, Australia: The original nut n bolt specialists who are able to supply just about anything with threads and bits to match such as taps n dies. Recently have relocated to 11 Braid St, West Footscray, Vic. Ph 03 9321 6400. Web site www.keables.com.au

Small Parts & Bearings, Australia: Has an extensive range of small parts and bearings and also spring steel shims an an amazing range of sizes. More info at www.smallparts.com.au

Restoration Services:

Steve Barnett, Australia**.** Master coachbuilder and fuel tank creater who does incrediable workmanship; located in Harcourt, Victoria. Ph +61 3 5474 2864, email steviemoto@hotmail.com

Ken Phelps, Australia – Qualified aircraft engineer and builder and daily rider of Norvins for over 30 years, who has the skill and experience to carry out overhauls, rebuilds, general repairs and maintenance to Vincent HRD motorcycles. Full machine shop facilities enabling complete engine and chassis rebuilds, Painting, wiring, polishing, aluminium welding and wheel building. Ken Phelps Phone: (61+) 0351760809 E-mail: ogrilp400@hotmail.com . Located in Traralgon, Victoria, Australia

Outer Cycles, Australia: Jim Browhly is a master craftsman who manufactures bespoke motorcycle exhaust systems for classic bikes, no job is beyond his capability, so if you do need a new system that will be made to your precise requirements, give Jim a call, telephone 03 9761 9217.

Grant White – Motor Trimmer, Australia: Specialising in Vintage and Classic Cars and Motorcycles. Located in Viewbank, Victoria. ph 03 9458 3479 or email grantwhite11@bigpond.com

Terry Prince Classic Motorbikes, Australia: Specialises in development and manufacture of high performance components for Vincent motor cycles. For more information visit the web site **Click Here** or telephone +61 2 4568 2208

John Parker, AMAL Carbs, Melbourne, Australia: A specialist in AMAL carbs of all models, repairs, restorations and a massive supply of spare parts. For information phone him on +61 3 9879 3817 or email to ukcarbs@hotmail.com

General Services :

Peter Scott Motorcycles, Australia: Top quality magneto and dynamo services, from simple repairs to complete restorations plus a comphrensive range of associated spares. Provides hi-output coil rewinds with a 5 year warranty. For more info contact Peter on (02) 9624 1262 or email qualmag@optusnet.com.au

LUCAS STUFF – The man who bought Kevin Baker's Lucas Parts business is Danny Lee in Melbourne. Email: dannyleepersonal@gmail.com His phone number is 0412 327 197 Apparently Kevin has moved to Melbourne and works with Danny one day a week.

Ringwood Speedometer Service, Australia: Experts in the repair and restoration of all motorcycle, automotive and marine instruments. Smiths cronometric specialists. Telephone (03) 9874 2260

Dyson M/C Engineering, Australia: Wheel building, Crank rebuilds, Bead blasting, Rebores & Engine Rebuilds and more. Located at 12 Chris Crt., Hillside, Victoria. Phone 0400 817 017

Piu Welding, Australia: Frank Piu is a master welding engineer, located in Melbourne, who works with Aluminium as well as steel. No job to small. Has been recommended by multiple OVR readers. Phone 03 9878 2337

MotorCycle Fairings, Australia: This crew are are total professionals when it comes to painting. Expert service, quick turnaround and fair prices. http://www.melbournemotorcyclefairings.com.au/
Ph 03 9939 3344