



The Oz Vincent Review

Edition #19, August 2015

The Oz Vincent Review is a totally independent, non-profit, e-Zine about the classic British motorcycling scene with a focus all things Vincent. OVR, distributed free of charge to its readers, may be contacted by email at OzVinReview@Gmail.com



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Welcome

Welcome to this latest edition of The Oz Vincent Review with a focus on all things Vincent plus some tasty tit bits on other marques as well. It is expected that the next edition – September will be the last for a couple of months as OVR is off to Europe to attend the VOC International Rally in Italy, followed by a pilgrimage to Stevenage. But don't worry; it is hoped that the November 2015 edition of OVR will be a very good.

As compensation we have a 2 part series penned by Philip Vincent on Spring Frame design. It seems old is new again.

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BREAKING NEWS:: July 23 I was thrown from my Comet after violent headshake directly attributable to crappy roadworks. Outcome is not much damage to bike – fuel tank dented, T5/4 cover trashed and LH footrest and footbrake mech both history. For me – broken right radius and ulna and a 1st degree friction burn about the size of a dinner plate on my left lower leg. As a consequence of this I am calling a halt to OVR production till I recover and return from Europe (see above). But don't fret – I hope that the next edition – now to be November 2015 – will be a ripper.

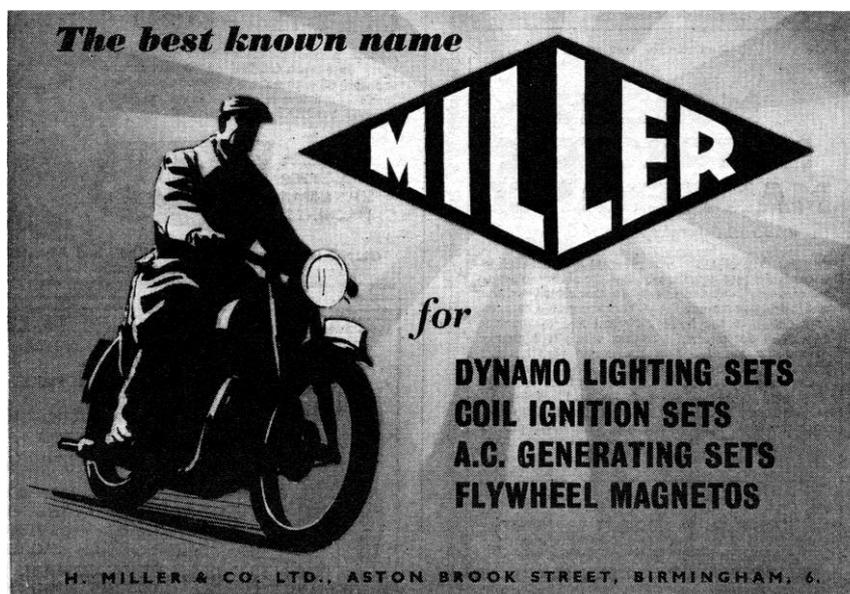
Martyn

Melbourne, Australia.

Email: ozvinreview@gmail.com

The Front Cover

This month's front cover just emphasises that you simply cannot ignore a fuel leak, no matter how small (you think) it is, as this courageous, or is that oblivious, Ozzie must now realise after this fiery display at a Philip Island Classic Race meet. Those Tiger Angel leathers must be made from some tough hides!



Tony Page considers whether he does in fact use his Vincent – and, by default his other classic bikes – as much as he thinks he does, and poses the question for others in the frame.

‘A Lot?’ - Proceed With Caution.

I remember the exact moment that I wanted a Vincent. And the place where this realisation manifested itself. It happened on the A24 and I was on my 1972 Norton 750 Commando, the fastest thing on the streets to 60mph (4.5 seconds), outside Tooting Bec Tube station, around the time that Citizen Smith proclaimed ‘Power to the People’ upon his weekly emergence into evening TV sitcom land. If you know when this was, you’ve just dated yourself.

I was always the winner of the stop-light Grand Prix. I guess we all were. Back then. Before petrol (in its wonderful Five-Star 100 octane guise) was even a pound a gallon. A GALLON!

In the South London metropolis, from Merton to Clapham, the A24 into central London degenerates into a succession of short sprints in between traffic lights. Ample proving ground for the Commando’s prowess at wrap-your-stomach-round-your-backbone acceleration. Rear TT100s lasted 2000 miles. Chains? Don’t go there.

This behaviour was de-rigueur for street racers and nobody back then appeared to notice or care about the noise. Or maybe they did, and I didn’t.

On one such occasion, approaching Garrett Lane and Elite Motors, I pulled up behind an old black bike. A V-twin. The traffic lights changed from red to red/amber and I was off, giving it the good news wrenching it to the next light. V-twin rumbles up. Sidelong glance from beneath my open face helmet with sergeant-major peak (checking out the opposition, categorising it as easy meat) before – holding the clutch in, ready for amber – the next sprint. Ripping away, until the next light. V-twin man rumbles up alongside.

Did I detect a smirk? Dunno. Wait. Wait. Red/amber. Whack; off the mark like a scalded cat. Next lights. V-twin pulls alongside, our wheels level. Rider nonchalant, black bike exuding faded grandeur. Lights change and, somehow, the V-twin tears in front. Smokes me. Totally. I was 17 and it hurt like hell.



Next light, I pull alongside. Rider unfazed. I ask, incredulously, “what is that?” Without turning his head he intones “The Vincent. Good morning” and bang, he ripped away again leaving me stationary, emasculated and stunned with matey boy in his Ford Escort chaffing behind hooting.

The Vincent he'd said. Once home, I looked through my private arsenal of motorcycle books in search of the answer as to why MCN had lied to me. They had stated, nay promised, that the Commando was the fastest accelerating motorcycle available, yet some black number plated bike ridden by a bloke in a gabardine who probably smoked roll ups and listened to Joe Loss had comprehensively out-dragged me. Comparing the performance data in one of LJK Setright's charts I discovered that one model of Vincent had a 0-100kms (62mph) time of 3.8 seconds...in 1953! A Black Lightning. I simply couldn't believe it. But the shock quickly passed and I realised I needed one.



It took a few years, and was a painful journey but I am lucky enough to now own two of Stevenage's finest; a 1948 Rapide and a Norvin. Both great bikes and I use them a lot.

'A lot'. But do I?

If asked whether I ride my Vins much, I'd have categorically stated to anyone who would listen that 'Oh yes, I ride them all the time.' *All the time.* Hell, I've ridden my Vincent from Mexico up to Alaska and back. All round New Zealand. Even up the A24. I frequently do VMCC events on it and various Euro rallies having just returned from a 1200-mile trip to the Dutch VOC rally followed by an event in Luxembourg. Never trailered or vanned, *I'm a rider, me.*



In February, Dave Johnson – the Vincent Owners Club Sidecar Section Organiser – penned a short piece in MPH the VOC monthly magazine suggesting that to celebrate the 60th anniversary of the Vincent Owners Club this year we should each try and ride our Vincent sixty times. Reading this, I thought 'sixty times? That is not much' considering that I, as a *rider*, did that anyway each year. What about you?

Later however, in a quiet moment, I realised that sixty times equated to using my Vincent more than once a week, every week, for the year. Did I do that? Nope. No way. Yet I considered myself an active rider of old bikes. How about you?

This brought sharply into focus the fact that, despite the image I had of myself, actually I did not use my Vincent anywhere near as much as I thought I did. Do any of us? At MoT time, when MoT man annually enters the mileage on the certificate, do you look at it and cringe? For some, maybe the mileage is just about the to-and-from distance to the testing station...

This doesn't apply to me of course as, after all, I ride it *a lot* so how it could? But soul searching combined with a numbers game quickly put paid to this delusion; the inescapable conclusion was that, actually, I had made myself the hero of my own myth. In truth, I did not use either Vincent anywhere near the amount I thought I did.

Yet I don't own a car and use motorcycles extensively virtually 365 days a year, covering around 250 miles a day every weekday, usually less at weekends but sometimes considerably more. My day to day mount is a 1995 K75RT, sometimes a K1100LT or my Norton Rotary Interplod. I have



never owned a Jap bike. I am extremely fortunate to have ploughed my resources over the decades into a sizeable collection (obsession?) of older motorcycles ranging from late 1930's singles through to pretty serious Triumph/BSA Triples, and I still have that Norton Commando. In there are the two Vincent HRDs. It seems that I am always out doing something connected to motorcycles whether it be track days or vintage events. Not afraid of mileage, distance holds no fears. But do I deserve the Vincents?

I wrote to Dave Johnson and told him I had read his piece and would hit the sixty outings. It had been 34 years since I'd had my illusions shattered in Tooting, and I knew it was about time to have them shattered again. Always good for the soul, the only way to make a dream come true is to wake up. It was fitting, I felt, that 'The' Vincent was again the vehicle. It had become my time to both qualify as a proper Vincent owner and become the hero of my own myth for real. Nobody else cares, but I do.

What about you?

Tony Page

Event Calendar

An overview of some upcoming rides and events that may be of interest.

If you are planning any rides or are aware of events that readers may be interested in, you may invite others to participate via the "OVR Event Calendar" column in OVR. Just drop the editor a line at OzVinReview@Gmail.com.

September 6 – 21, 2015	VOC International Rally, Italy; <i>for VOC members only</i> . Excitement is on the rise!
October 4-9, 2015	Australian National Vintage Motorcycle Rally, Ararat, Victoria.
October 14-17, 2016	VOC Australian National Rally at Parkes, NSW. Put this in your ride diary now.

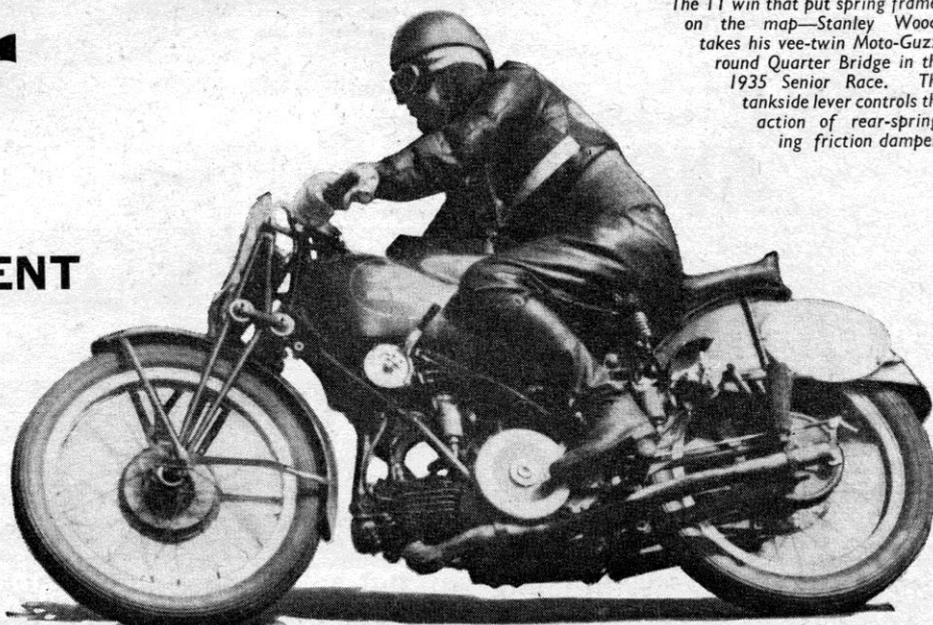
SPRING FRAME DESIGN—Part 1

The 40-Year War

by

PHIL VINCENT

AMIMechE, AMIPE



The TT win that put spring frames on the map—Stanley Woods takes his vee-twin Moto-Guzzi round Quarter Bridge in the 1935 Senior Race. The tankside lever controls the action of rear-springing friction dampers

REAR springing is today such an accepted feature of design that only old-timers who have been in the game for 30 years or more can have any idea of the antagonism which the very mention of it aroused before 1935.

Until then, about 95 per cent of riders and technicians considered that riding a spring-frame machine was inviting disaster; that it was a toss-up whether the inevitable crash came through a wobble on the straight or a slide on a corner. How wrong they were.

Only for a brief period, just after the war ended in 1918, were spring frames regarded with any sort of favour and a fair choice of sprung machines was then available. Unfortunately, all of them were soon out of production, often for reasons unconnected with the frame, and so prejudice against springing was strengthened.

On the afternoon of 22 June 1935, day of the postponed Senior TT, spring frames suddenly won a major victory. It came at the instant the legendary Stanley Woods flashed across the finishing line on his *spring-frame*, 120-degree-twin Moto-Guzzi, to snatch a brilliant victory from the unapproachable Norton team by a mere *four seconds*.

If ever ordinary riders owed a debt to racing, this is the

prime example. Modern riders who are without experience of high speeds on a solid frame should try to cadge a ride on one while there are still a few about.

They are due for surprising discomfort and probably a fright, too.

There is never smoke without fire and no doubt many of the spring frames in the 1920s were very bad.

Most of the solid frames

were not much good, either; they were far too light and flimsy and when small bushed joints were added, with negligible lubrication and no protection from mud, the rear wheel usually just flopped about in relation to the rest of the frame.

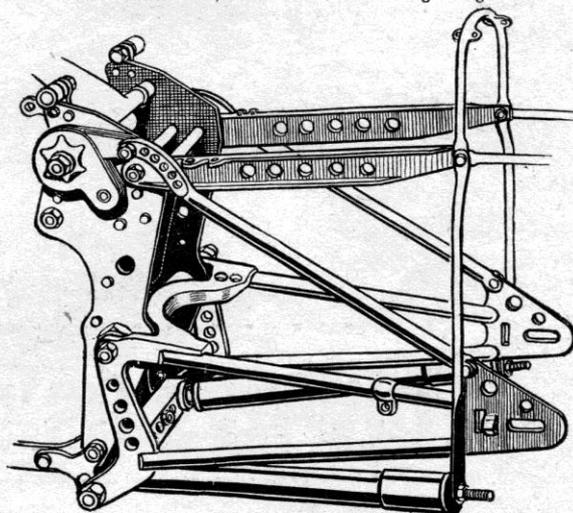
We must remember, also, that even friction-type shock absorbers were rare until

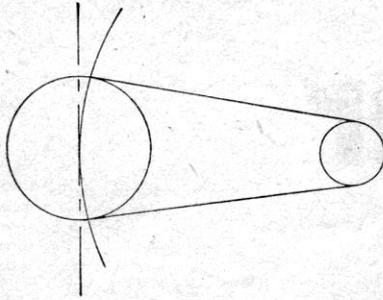
about 1923, so that early frames either had minimal springing or wallowed like inebriated ducks.

The advanced engineering techniques that have perfected modern hydraulic shock absorbers have contributed greatly to comfortable springing, with long, soft movement and excellent roadholding.

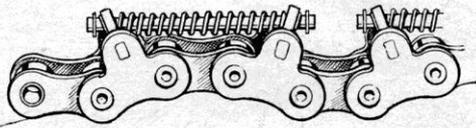
For several reasons, how-

Italian rear-fork triangulation. This fork was fitted to the two-fifty Moto-Guzzi on which Stanley Woods won the 1935 Lightweight TT





The arc shows the rear-spindle path necessary for constant chain tension, while the tangent to the arc is the spindle path with simple plunger springing. Below: Some 40 years ago, Brampton's answer to varying chain tension with plunger springing was this chain with links spring-loaded to take up slack!



ever, I deplore the modern fashion of having four shock absorbers to control two wheels—as many shockers on a solo as on a car.

Much of the weight of the struts is unsprung, they are expensive and maintenance costs are doubled.

Moreover, additional distortions are set up in the frame structure because it is impossible, under line-assembly conditions, to produce units giving perfectly matched damping.

Also I strongly deprecate the modern trend of building yards of useless tubing around the power unit. This only adds weight and cost and ruins the frame structure weaker, more liable to whip and vibrate, and much more vulnerable to crash damage.

If part of the weight and cost wasted on tubes were added to the engine-gear-box unit to make it really hefty and stiff, one would achieve a

much more robust and smoother running power unit—and a much stiffer and stronger frame as well.

A design which does without "yards of useless tubing around the power unit." In this early postwar Vincent Black Shadow the engine-gear unit is an integral part of the frame

And there is little or nothing to get in the way when you want to work on the engine or gear box.

This was my reasoning when redesigning the pre-war Series A Rapide into the post-war Series B. The weight of the two models is closely similar, yet the Series B is immensely more robust both in engine and frame structures.

So strong is this frame arrangement that I know of cases where the front fork was torn right off by the severity of a head-on crash, yet the machine steered hands off when a new fork was fitted, without any attention to the frame.

Supporters of tubular frames say that the engine is not strong enough to be subjected to frame stresses.

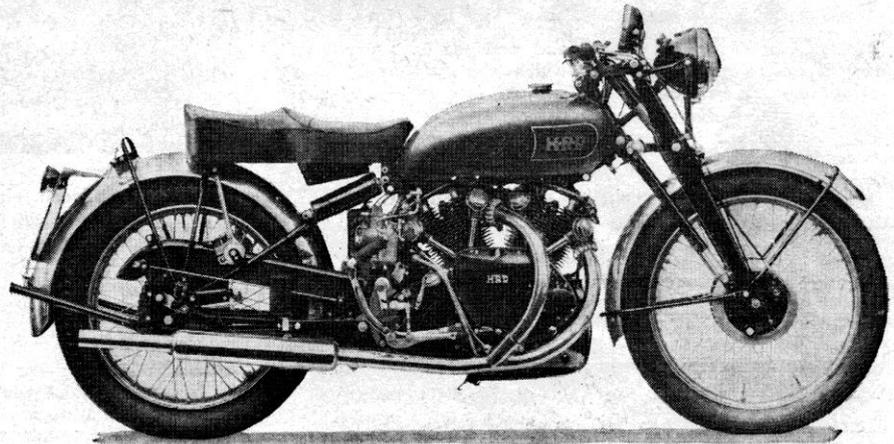
This is absurd because, at high speeds, the engine is

continuously subjected to alternating inertia forces and gas pressures, each amounting to thousands of pounds. How long would the average tubular frame last if subjected to rapidly alternating forces of over two tons?

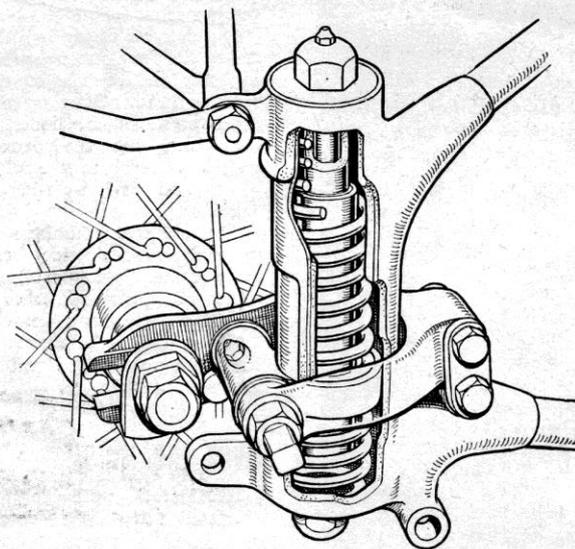
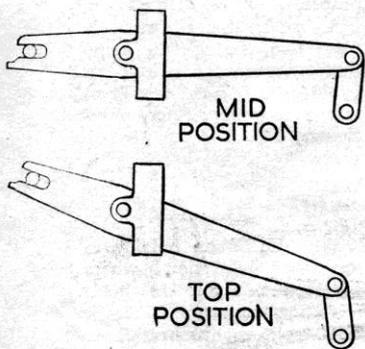
By using some of the weight saved from the frame to strengthen the engine, the mean loads per unit area may be reduced, giving smoother running and longer bearing life.

Although more than 10,000 Series B, C and D Vincents were built, I cannot recall ever seeing an engine that had suffered damage as a result of being used as part of the frame structure.

Many early spring frames suffered from the failure of designers to appreciate the simple fact that the driving chain needs reasonable operating conditions.



Below and right: The famous Ariel plunger-and-link arrangement give a curved spindle path within 0.004in of that required for constant chain tension



This was a major weakness of plunger-type rear springing, where the movement of the wheel spindle was along a tangent to the arc of chain swing around the gear-box sprocket.

Movement on each side of the mean position tightened the chain; hence it had to be left slack in the normal position. Even so, the range of the springing had to be limited.

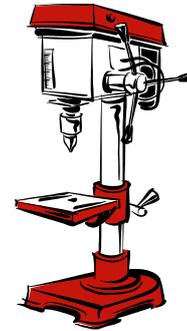
So many frames suffered from the trouble that in the early 1920s Bramptons introduced a special chain with links that were spring loaded to take up the slack that developed as the suspension worked.

However, these chains were expensive, heavy and soon failed in service.

In Part 2, I'll be discussing modern spring frames.

The second and final part of this item is planned to be part of the next edition of OVR

Workshop Wisdom



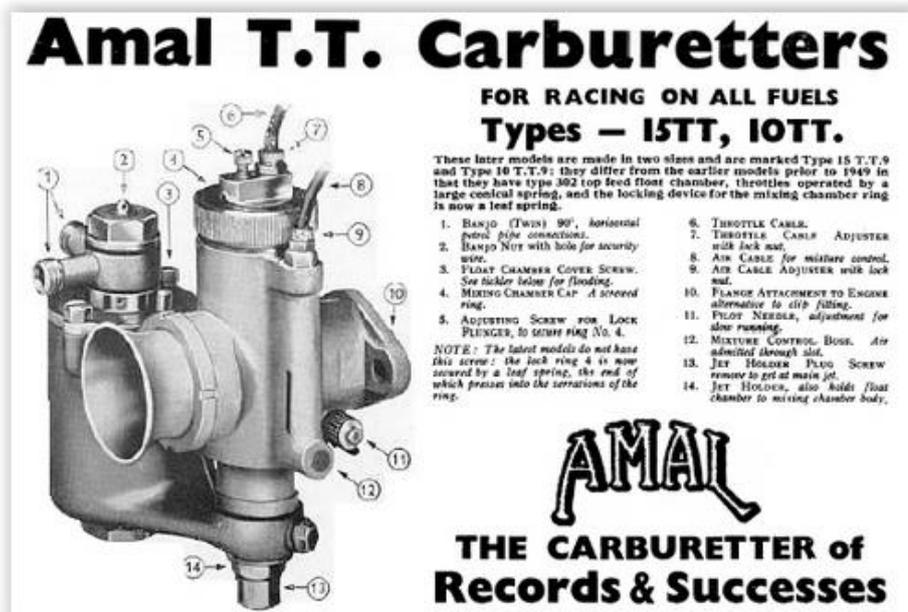
From the Archive: Big Sid's tricks to setting up Amal TT Carbs

The late Big Sid developed this method back in 1957, achieving consistent idling and excellent economy with easy starting from 32 mm Amal TTs.

“These carbs suffer from a blubbering drop off on idling down when the throttle is rolled shut as they are getting fuel from two sources when depending only upon the tight throttle wire to idle. Not only is fuel passing up through the tiny drilled hole just past the slide but they allow a

second source: more neat fuel burbles up around the needle as it is still lifted partially in the needle jet. This occurs for a brief period before settling down. Once modified as described the needle goes fully down shutting off that source.

When it is nicely tuned and able to hold a steady idle with tick over on both pots with the mixture knob set in the middle of rich / lean position - optimum mixture set to idle with the slides hanging on the tight wires, let one slide drop down fully lying on top of the jet block.



Doing the left carb. first I observed the size of the thin open sliver at the rear edge of the REAR carburettor. Clearly I must provide a tiny cut-a way in the left slide at its back edge, passing the same amount of air as this rear carb needed to fire at idle. Removing the left slide I took a Dremel tool and a sanding drum and proceeded to grind a small semi-circular curve centred in that rear slide at the back edge. This would let air pass and blow across the tiny drilling just past the slide bore so pulling the fuel up out of that hole.

I went slowly; several light cuts each time a bit higher. By the third time I could tell I was bringing in an idle beat to that cylinder, a bit more and it matched the beat of the rear cylinder WITH SLACK in the cable!

Once satisfied I had a slow steady beat I switched over to the rear carburettor - letting the slide drop fully down on that one. Performed the same ritual till I had a slow steady idle beat with BOTH wires slack! Then I synced the cables leaving a bit of slack but rising together. It was perfect. It's a good idea to lay a thin round shim atop the jet blocks in case you remove too much -- just remove the shim and correct for it.

Now, WINTER or SUMMER only needed to click the knob one click rich or lean to allow for cold or hot weather. Best most consistent running carbs I ever had, fast and with great economy at fast road speeds. Easy starting too. Sid.”

Pacific Northwest Riders Out and About.

OVR contribution courtesy of Rodney Brown with photo's by Irene Ulver

The Over The Pass riders, Tony Cording on his C Rapide, Dale Baston on his C Rapide, Ian Wylie on his early B Rapide, (all Canadians) Chris Kleps on his Egli and Ted Leno on his Vincatti (from Oregon) all arrived in Stevenson, WA on a really hot afternoon, met by Mike Tyler, (4 wheels and Irene & John Ulver on their Rapide & Steib. The riders took a quick shower and then enjoyed a cold beer. John Caraway arrived on his Guzzi Coppa Italia, a really fast bike and one of only 300 made.



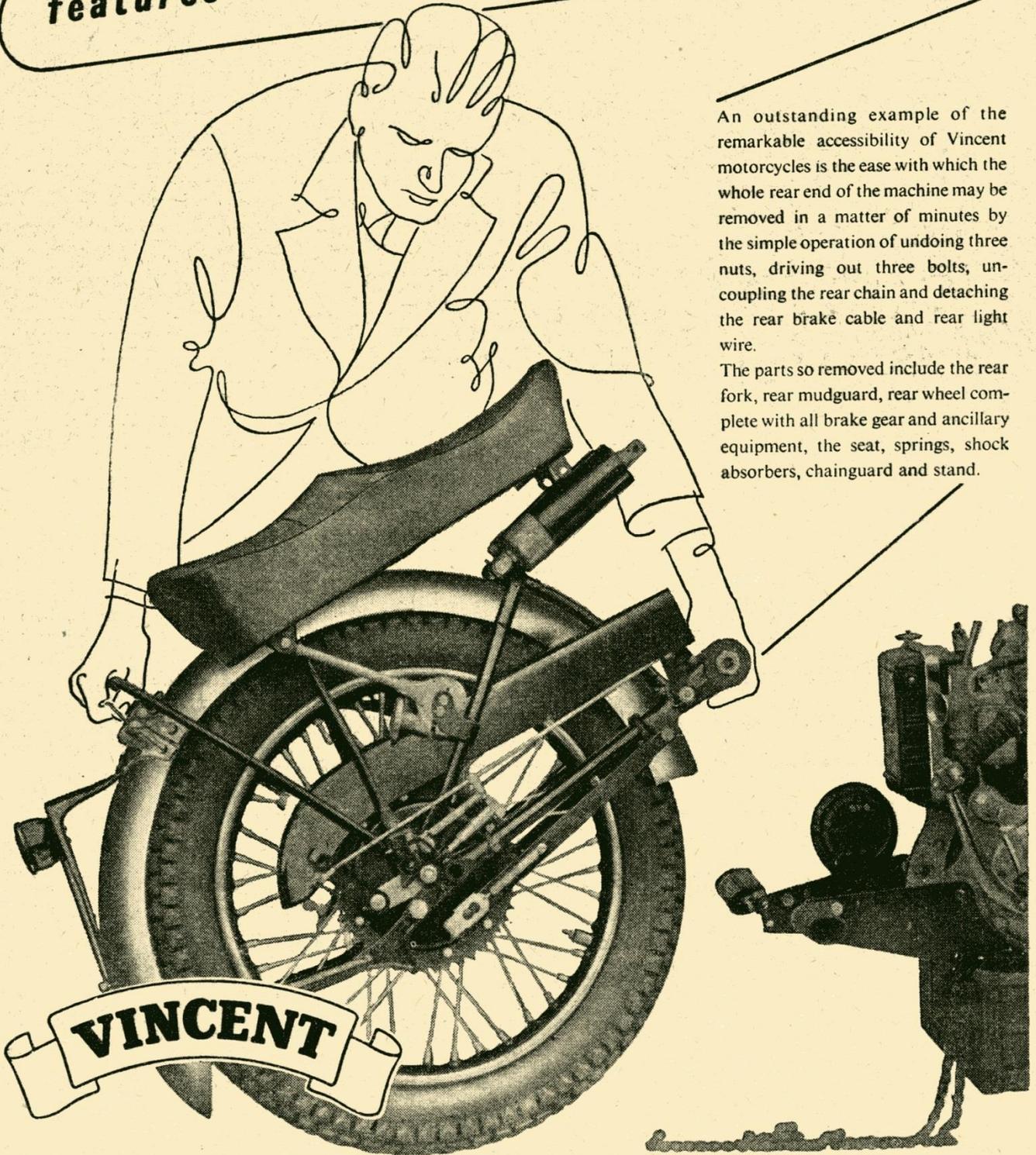
All enjoyed a good supper together, with many fond memories coming to light; early next morning the riders departed to enjoy the cool of the day as they headed home. OVR's Roving Reporter Rodney Brown had just returned from a spell working in Germany and was experiencing jet lag, so didn't make the meet.



Gathering of Over the Pass Riders at Packwood, Washington

No.2

features that put **VINCENT** in a class by itself



An outstanding example of the remarkable accessibility of Vincent motorcycles is the ease with which the whole rear end of the machine may be removed in a matter of minutes by the simple operation of undoing three nuts, driving out three bolts, uncoupling the rear chain and detaching the rear brake cable and rear light wire.

The parts so removed include the rear fork, rear mudguard, rear wheel complete with all brake gear and ancillary equipment, the seat, springs, shock absorbers, chainguard and stand.

Motorcycles of the future will be judged by the standards set by Vincent today

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Vincents star at the motorcycle auctions.



Vincents attracted top selling prices at the January 2015 motorcycle auctions in Las Vegas. A 1939 Brough Superior SS100 failed to make reserve at US\$290,000 bid, leaving the Vincents as top dollar earners. A 1939 Vincent HRD Series-A Rapide motorcycle took the sale top spot. Once rescued from scrap and originally purchased in exchange for a mere \$15 and an Amal TT carburetor, the fully restored Vincent sold for US\$422,177 to a bidder in the room.

Bonhams attracted the top price for a 1950 series C “White Shadow,” built at Vincent’s Stevenage factory to Shadow specification, but with polished engine cases instead of the usual black enamel. One of only 15 built, the White Shadow sold for US\$224,250 with buyer’s premium. Even rarer was the 1952 series C “Red-Black” Rapide offered by Mecum. Though Vincent made around 100 Rapides finished completely in Chinese Red, only 12 “Red-Black” Rapides, with red gas tank and fenders, but black suspension components and headlight, were built. This machine from the Sinless Cycles collection, complete with full provenance, crossed the block at \$132,500, or \$145,750 with Mecum’s 10 percent buyer’s premium. Back at Bonhams, a beautifully restored 1949 Chinese Red Rapide with matching Blacknell Bullet sidecar from the Herb Harris Vincent Gallery sold for \$110,000 with buyer’s premium.



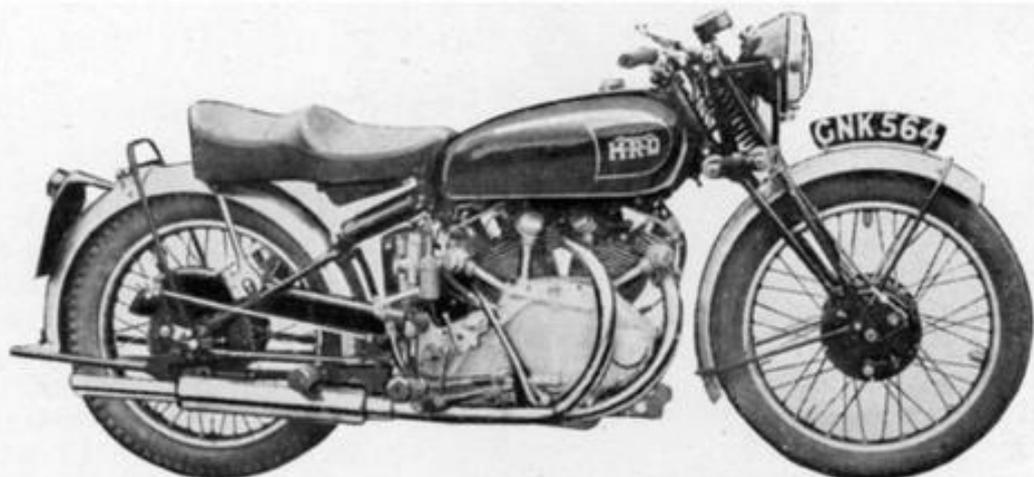
Lot 394: A 1939 Vincent HRD Series-A Rapide sold for \$422,177.

Bonhams charges a 15 percent buyer’s premium on the first \$100,000 and 10 percent on any amount over that. All prices reported are in US\$ and include buyer’s premium.

Only three other lots broke \$100,000, all at Bonhams. A restored 1936 Brough Superior SS80 with a Watsonian Sport sidecar brought \$115,000; a 1962 Matchless G50 used by Dick Mann to win the 1963 AMA Grand National championship brought \$115,000; and a 1912 Harley-Davidson X8E Big Twin once owned by Steve McQueen sold for \$117,300. Another headlining offering at Bonhams, a Ducati Supermono from the Jack Silverman collection, and one of just 65 made between 1993-1995, was expected to fetch over \$150,000, but failed to make reserve.

BRITAIN'S FIRST POST WAR DESIGN

The "Little" Big Twin



NOW IN PRODUCTION FOR EXPORT MARKETS!

INCORPORATED in this entirely new Series "B" Model are to be found the outstanding results achieved by the most modern technique and research, superimposed on the already successful foundation of our world famous pre-war Series "A" Rapide. Over 100 Main Distributors have already been appointed throughout the world, but if you should experience any difficulty in contacting the distributor in your country please write to us direct.



★ *This is a fact, not a slogan.*

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Harmony:

Part 3 – Ignition and Associated Shocks

Harmony: an OVR contribution from the Black Sheep



Now (eventually) I turn my attention to another key member of the Vincent tuning orchestra – Ignition timing. Before continuing, let's get some common abbreviations clarified.

ATD = Automatic Timing Device; (same as ATC)
ATC = Automatic Timing Control (same as ATD)
TDC = Top Dead Centre;
BTDC = Before TDC;
ATDC = After TDC
BDC = Bottom Dead Centre
BBDC = Before BDC
ABDC = After BDC

Let's take a quick look at the magneto itself, because if that's not OK then there is no point fiddling with the ignition timing. Well respected Magneto Maestro and restorer Peter Scott has this advice:



Magnetos are high maintenance units and unlike modern electronic systems, care must be taken. It is suggested that, to ensure peak performance and reliability from your magneto that the following tasks become part of your standard maintenance procedures.

- 1. If you have not used the magneto for over a month then clean the tungsten points. The tungsten oxidizes and forms a hard grey non-conductive finish on the contact faces. This is why when originally supplied by manufacturers they were coated with preservative which you had to clean off before use.*
- 2. Put a light smear of grease on the cam lobes/ring every 500 miles.*
- 3. Set the points gap to 0.010" to 0.012" every 500 miles*
- 4. Remove pickups and dust off slip & pick up to remove carbon dust every 1000 miles*
- 5. Remove and clean the earthing brush every 1000 miles*
- 6. Set the plug gaps to 0.018" to 0.020" gap max. Out of the box most plugs come set to 0.025" gaps which is NOT suitable for use with a magneto.*
- 7. Do NOT use resistor type plugs, resistor plug leads or resistor type plug caps. Only copper cored plug leads should be used.*
- 8. If your spark plugs are black (sooty) the machine will miss-fire. Do not blame the magneto, instead lean down the carburetion. Modern petrol runs richer than that supplied in the past so original carburettor settings may not be applicable.*
- 9. Many after-market magneto pickup brushes and springs sold in good faith by many dealers **are not suitable** for the job and will coat the slip ring with a grey deposit. This will, on a twin cylinder magneto, upset the distribution of sparks and damage the surface of the slip ring.*

Having sorted the magneto, the key information is what ignition settings to use, assuming a reasonably standard state of tune and modern 91 to 98 octane fuel:

With the standard Magneto or with a Vincent “D” style points system, set up for 34 BTDC fully advanced and modify the ATD to provide 4 BTDC fully retarded.

With an after-market ‘electronic’ ignition system that does NOT use the mechanical ATD – well you are stuck with whatever the manufacture built into the equipment

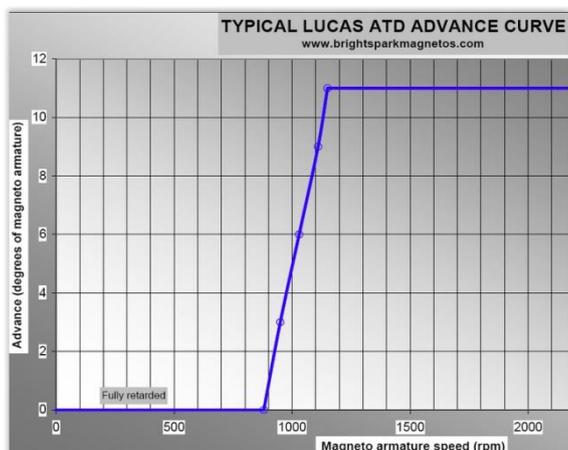
Why is this so?

Relating to ignition, the Vincent Riders Handbook provides the following information that was applicable at the time of its writing in 1948. Ignition timing 38/40° BTDC at full advance; Spark Plug Champion N8 gaped to 0.018/0.020”; Magneto points set to 0.012”. All based on the standards of 1948, especially 74 octane fuel and a compression ratio of 6.8 to 1. The riders handbook also advises that as the compression ratio is increased (beyond 6.8:1) the ignition timing at full advance must be decreased.

Moving forward to 2015, modern fuels burn significantly faster than those of 1948, so much so that with the standard CR of 6.8:1 ignition timing today should not be set at any more than 34° BTDC fully advanced, else you risk permanent (and possibly catastrophic) damage to your motor; if you are using a higher compression ratio of say 8.5:1 then prudence dictates ignition timing of 30° to 32° BTDC, again fully advanced. Here we encounter a ‘gotcha’ in that the standard Lucas ATD provides for an advance range of 34 to 36 crankshaft degrees, which was fine if you used full advance of 38° to 40°, because when fully retarded for starting the engine the timing was around the ideal for starting the motor, of 4° BTDC.



Just in case you missed that – The optimum ignition timing to achieve easy starting of any standard Vincent motor is 4° BTDC fully retarded irrespective of what sort of ignition system you are using.



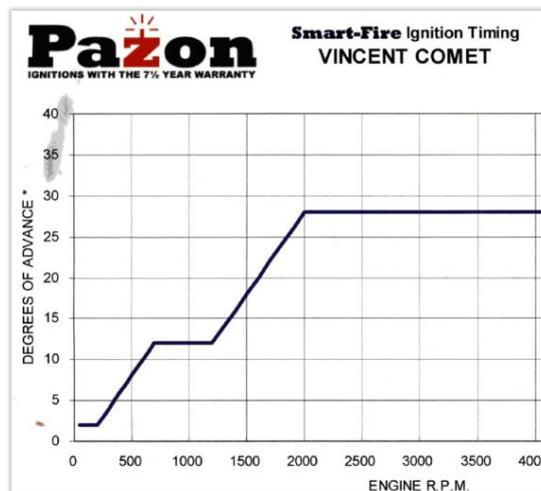
When trying to start the motor, having the ignition fire the spark plug at Top Dead Centre or later (such as 2° ATDC) will mean hard starting, while setting it to 10° BTDC or sooner will result in vicious ‘kick back’ through the kick start lever. What happens with the original unmodified ATD when we set full advance to 34 degrees, is that when starting the fully retarded situation becomes 2° ATDC and this translates into a motor that may be difficult to start. The fix to this is to have the standard ATD modified to reduce its effective range from 34° to 36° down to 28° to 30° of crankshaft rotation.

Some folk advocate bending the ‘ears’ on the ATD to reduce its effective range though I am of the opinion that this weakens the ATD thus I think that the best way to reduce its range is to add some metal (via welding) to the ATD ‘ears’.

In case you were wondering, the original standard Lucas mechanical ATD remains at the fully retarded position or setting till the engine speed reaches around 1,800 rpm then it advances in a linear mode to its fully advanced position with an engine speed of around 2,200 rpm. This is in stark contrast to the 'modern' electronic systems that, without exception, start increasing the advance from around 500 rpm. Remember, a magneto and its ATD rotates at half engine speed.

No Magneto?

If you have a new-fangled 'modern' ignition system that does not rely on a mechanical ATD then in some respects life is easier for you as the makers of the system will have determined the timing both at start and at full advance. The popular BT-H electronic magneto, set up according to the makers instructions has the timing at 4 BTDC for starting and 32 BTDC when fully advanced; Pazon electronic system uses 2 BTDC for starting and 28 BTDC fully advanced while Tri-Spark uses 4 BTDC for starting then 29 BTDC when fully advanced.



A Word of Caution

And while on the subject of 'Modern' ignition systems. There are reports from users of them being either totally happy or totally unhappy with them – not much middle ground. The root cause of disappointment seems to come from a failure to recognise just how little electro-magnetic interference most of these systems can tolerate before they start to malfunction. Irrespective of ignition make it is most important to ensure that all low voltage wires, be they 6 or 12 volt or so called 'earth' wires, and especially any 'kill' wires, are kept well away from the High Tension components, being spark plugs, spark plug leads and ignition coils.

Modern replacement ignition systems that incorporate a 'kill' wire are particularly sensitive to picking up interference through the kill wire that in turn causes unexpected, usually bad, ignition system performance. Unless you have a very pressing need otherwise, I suggest you CUT and remove the kill wire very close to its source then insulate its cut end so there is no chance of inadvertent connections. If you simply leave the full length of the kill wire in place, bundled up, all you have is a very effective 'interference antenna' that eventually will cause ignition problems. Whatever you do, keep the kill wire as far away as possible from the spark plug, the sparkplug lead or any ignition coils.

For reasons that are beyond my understanding, replacement electronic ignition systems seem to be much more problematic with single cylinder motors than with multi cylinder motors.

So getting back to the main thread, and knowing what ignition settings to use, you need some means of making that adjustment with some degree of accuracy. A most useful tool that makes setting the timing with a magneto very easy is an electronic magneto synchroniser that detects changes in inductance. Such a unit was reviewed, including instructions for use, in OVR # 9. .

If you have a points or kettering style ignition system a simple globe connected across the points will act as an indicator of when they open.

Remember, with a magneto or a points system, the spark plug fires at the instant the points OPEN and this must happen on the compression stroke of the motor.

The Legacy of

JOSEPH LUCAS



Positive ground depends on proper circuit functioning, which is the transmission of negative ions by retention of the visible spectral manifestation know as 'smoke'.

Smoke is the thing that makes electrical circuits work. We know this to be true because every time one lets the smoke out of an electrical circuit, it stops working.

This can be verified repeatedly through empirical testing.

For example, if one places a copper bar across the terminals of a battery, prodigious quantities of smoke are liberated and the battery shortly ceases to function.

In addition, if one observes smoke escaping from an electrical component such as a Lucas voltage regulator, it will also be observed that the component no longer functions.

The logic is elementary and inescapable!

The function of the wiring harness is to conduct the smoke from one device to another. When the wiring springs a leak and lets all the smoke out of the system, nothing works afterward.

Starter motors were considered unsuitable for British motorcycles for some time largely because they consumed large quantities of smoke, requiring very unsightly large wires.

It has been reported that Lucas electrical components are possibly more prone to electrical leakage than their Bosch, Japanese or American counterparts. Experts point out that this is because Lucas is British, and all things British leak. British engines leak oil, British shock absorbers, hydraulic forks and disk brake systems leak fluid, British tires leak air and British Intelligence leaks national defense secrets.

Therefore, it follows that British electrical systems must leak smoke.

Once again, the logic is clear and inescapable.

In conclusion, the basic concept of transmission of electrical energy in the form of smoke provides a logical explanation of the mysteries of electrical components especially British units manufactured by Joseph Lucas, Ltd.

Remember: "A gentleman does not motor about after dark."

So said Joseph Lucas... aka 'The Prince of Darkness'.

1842-1903

A few Lucas quips:

The Lucas motto: "Get home before dark."

Lucas is the patent holder for the short circuit.

Lucas - Inventor of the first intermittent wiper.

Lucas - Inventor of the self-dimming headlamp.

The three-position Lucas switch - DIM, FLICKER and OFF.

The other three switch settings - SMOKE, SMOLDER and IGNITE.

The Original Anti-Theft Device - Lucas Electrics.

Back in the '70's, Lucas decided to diversify its product line and began manufacturing vacuum cleaners. It was the only product they offered which did not suck.

Q: Why do the British drink warm beer?

A: Because Lucas makes their refrigerators.

This has been referred to as the smoke theory -
when the smoke comes out its finished, cooked or done for.



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WANTED : **Comet T5/4 Primary drive cover.** Mine is now history, as the result of a 100 yard slide of the bike on its left side following headshake and spitting me off at speed. If you have one in good, undamaged condition, and are willing to sell it you would make me very happy. Can pay by Paypal or bank transfer. Contact Martyn Goodwin (Melbourne, Australia) email to goodwin@pobox.com or telephone +61 3 9455 0012

FOR SALE: Due to health reasons, reluctant sale by first owner, 1992 BMW K1100LT (145,000kms) Alpine Forest Green, with brand new Premier Sidecar (from Bathurst) (zero k's), seats two slims side by side, Leading link with new Ikons, foot brake operates sidecar & rear brakes, big screen, large boot.

Engineering of sidecar and motorcycle together cost \$19,000. Engineering certificates and receipts to new owner.

Bike has had tank cleanout, new fuel pump, tank sensor and computer chip – fuel economy went from 340km/tank to 400km and power increased by 37hp. Staintune exhaust, original forks and axle, centre and side stands, towbar. A\$20,000 ONO .

A Classic Trailer is also available A\$2,500

Contact Ken (Currumbin on the southern Gold Coast, Australia).

Mob: 0451 199093 H. (AH) (07) 55987261



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 endorsement of them by OVR. Service providers are not charged a fee for this service nor can service providers themselves request that their information be included, though they may request that an entry referring to them be removed.

Spares:

V3 Products, Australia: (aka Neal Videan) has an extensive range of top quality Vincent Spares including multiplate clutches, 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@optusnet.com.au

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

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

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

Union Jack Motorcycles, Australia: Full range of Triumph, Amal and control cable parts, plus an extensive range of Vincent parts. Ships worldwide. More info at the website www.unionjack.com.au

Pablo's Motorcycle Tyres, Australia: Road, Classic, Road Racing, Classic Racing, Enduro, Motocross, Speedway, Trials and Slicks....and if they haven't got it - they'll get it! For more info see their web site www.pablos.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 more. Ships Worldwide. PayPal accepted. See Paul's website for more information www.norbsa02.freeuk.com

Nuts n Bolts:

Acme Stainless Steel, UK: All stainless steel fasteners are machined to original samples supplied by customers and clubs over the years to enable us to keep your machine looking authentic and rust free! Ships Worldwide. More info at their web site www.acmestainless.co.uk

Classic Fastners, Australia: Classic Fasteners is a family owned business, established in 1988. 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 (see entry under Spares above) also stocks a large range of Vincent specific nuts n bolts.

Restoration Services:

Ken Phelps – 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

General Services :

Woody's Hydroblast, Australia: Woodys Engine Services / Hydroblast is a Melbourne, Australia based business dedicated to helping car and bike restorers repair and detail their componentry to the highest standards. The wet abrasive blasting used to finish jet turbines now provided by him is able to clean the most intricate components without degradation to the original surface. For more information visit their web site www.woodyshydroblast.com or call (03) 9597 0387

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.

Cylinder Heads, Australia: Cylinder Heads are highly skilled engine experts with 30 years of experience operating from their Box Hill North workshop. Alex has extensive experience in complete reconditioning of motorcycle heads, including Vincents plus installation of hardened valve seats, valve guides and valve stem seals. Also offers precision welding of all metals. For more information see <http://www.cylinderheadsvictoria.com.au> or phone (03) 9899 1400

Peter Scott Motorcycles, Australia: Top quality magneto and dynamo services, from simple repairs to complete restorations plus a comprehensive 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

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

Rays Custom Spray Painting, Australia: Ray Drever is the consummate perfectionist when it comes to painting bike tanks and frames. Also a craftsman in flame work and airbrushing. Located near Geelong; contact Ray on 03 5251 2458 or 0402 988 284.

Terry Prince Classic Motorbikes, Australia: Classic Motor Bikes, specialises in restoration, manufacture of new parts, and the 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

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

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