The Oz Vincent Review

Edition #28, July 2016

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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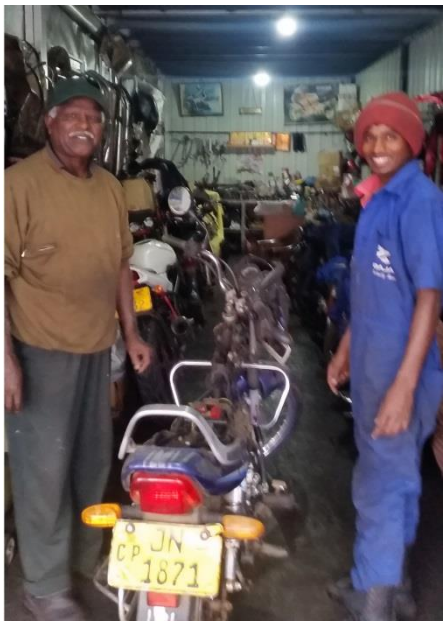
Welcome



Welcome to this latest edition of The Oz Vincent Review.

This month the front cover features a Tuk Tuk photographed by the OVR during a recent visit to Sri Lanka where some considerable time was spent searching for three Vincent-HRD's sent there in the mid 1930's. Things were on the up and up till the search lead to this workshop – the last known location of one of the bikes. The gentleman in the brown top related a story to me concerning his late father and of his father's love of British motorcycles. Alas OVR was unable to find any trace of the elusive bikes; apparently at least parts from one of them was used by his late father in the construction of an early model Tuk Tuk many many years ago.

It can only be assumed that the final resting place of these mystery machines resembled a scene somewhat like that shown below. Such is life!

Oh, Sri Lanka – simply wonderful. Great scenery, lovely people, scrumptious food, amazing wild life and all at very reasonable prices. If you get the chance to visit; do it!

In this edition you will find a bit of a focus on rider safety – the authorities in Australia are making a big thing about this at present proposing all sorts of draconian 'solutions' to improving rider safety. A couple of very knowledgeable OVR contributors offer more realistic suggestions.

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Martyn

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Blast From The Past

An OVR contribution from Stephen Carson

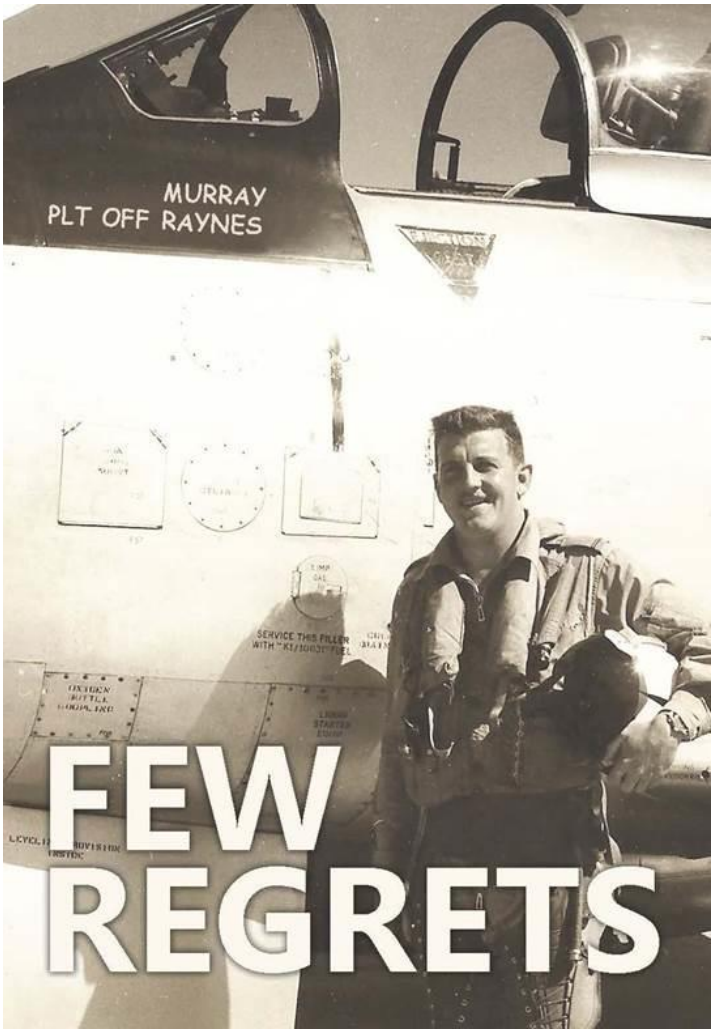
Up in Cairns Queensland the gateway to the Great Barrier reef is a small boutique classic motorcycle Museum called “Blast from the PAST” of some 25 bikes on corner of Hartley and Kidston St. Its open Friday and Saturdays 10 am to 2 pm. The resident Curator Philip Veivers aka Mouse just loves a chat about the local racing scene of days of old with many old photos of past legends adored on the walls. Mouse is a well known painter and Kawasaki Z1 renowned restorer.

When you first venture inside you are met with Ducati alley of eight 70’s Classic’s including a genuine 1974 Ducati 750 SS “green frame”. But just around the corner what catches your eyes are 3 Vincent Black Shadow’s and another 1954 Australian delivered to join soon. One of these Black Shadows a 1952 Model once belonged to “Crazy George Disteel” that has been restored back to better then new by Greg Brillus. Its previous USA owner Mark Allen, Arlen Ness and of course Crazy George himself. The bike story is featured in book “Vincent’s in a Barn” page 140. Another 1950 Black Shadow “Black Jack” belonged to well-known Vincent enthusiast Popa Jack Cape from Ohio USA again restored better than new by Greg Brillus.The other the mystical “Saigon Shadow ‘a 1951Vincent Black Shadow previous owners Nguyen Van Nhon, Murray Raynes and Greg Manning g again in “Vincent in a Barn” page 75 In another part of the Museum is the Japanese section with some Z1 Kawasaki’s and a Honda CB750-4. There is also some BMW’s a Norton Commando, Honda CB1100RB. Ariel SQ4, BSA Rocket 3. A very rare Egli-Fritz Target CBX1000 one of only ten made.

But without a doubt the people choice is the Vincent’s. So any visiting OVR readers to Cairns please look up the Museum. If you are unable to make it on Friday or Saturday openings times give the Curator Mouse a call on +61407625623. He lives just down the road and will open it up for visiting Vincent lovers.

Footnote:: The Mystical 1951 “Saigon Shadow” owned by Nguyen Van Nhon featured in book Vincent’s in a Barn “Black shadows of Vietnam” page 75. However the book needs correcting as the Bike was flown out of Vietnam to Australia by Australian pilot Murray Raynes who worked for Cathay Pacific not Air America. The bike was never modified or disappeared as previously stated and was on sold to Greg Manning. I am now in regular contact with Van Nhons widow and she was so pleased to hear from me and receive pictures of her late husband Black Shadow. We plan to visit her when we visit Vietnam in the near future. Articles of Nguyen Van Nhon and his Vincent’s also appear in The Vincent Owners Club MPH 230,294,308,403,446&567.

Photo: Viewed from rear LHS “Black Jack” Middle “Saigon Shadow” RHS “Crazy George”



Classic photo's of Pilot Officer Murray Raynes who flew the "Saigon Shadow" (also pictured) from Vietnam to Australia.

Girder Fork Rally Disappointment?

For many years Vincent owners have taken part in the annual Girder Fork Rally, run in Australia. But not necessarily any longer. The organisers have advised OVR of some of the entry requirements for this year's event that may preclude some of those Vincent owners who took part in the past, from doing so again.

To quote the Rally Coordinator: *"Vincent Giirdraulic equipped bikes manufactured PRIOR TO 1950 will be eligible to enter October Rally BUT Don't be misled - Bikes manufactured after 1949 Are Not Eligible."*

DO YOU EVER RIDE PILLION?

Aesthetics mean more than comfort these days

HOW MUCH do the world's manufacturers think about the guy or lass who rides pillion? A general consensus would seem to be: "Not much".

Come to that, how many times have you seen a road-test report include any comment on the dangerous and usually uncomfortable tail gunner's seat?

Yet it often carries the most important person in your life. A ride two up can be more enjoyable than it is for one. Always the poor relation — not 10p's worth of development work has gone into improving the lot of the pillion rider since the introduction of the dual seat and rear springing, both popularized by Vincents but not really sorted until the introduction of the Series D. Unfortunately, this theoretically and practically correct approach was somewhat marred by a poorly designed seat (partly my fault).

No one has made a motorcycle seat that's correct yet; although the seat, as such, is as old as the hills. Just get on a horse and you get the message. But what a mess it would look on a bike!

For balance, security, control and comfort, a good-quality leather horse saddle cannot be beaten. I speak from experience here, having been brought up with our four-legged friends.

However, knowing aesthetics means more than comfort these days. I guess our long suffering back-sides will have to put up with the vast range of everyone's idea of what a motorcycle seat should both look and feel like. Obviously not many of the designers have sat on the damn things for 100 miles.

If you, as a pillion rider, can take a painful joke, try a Ducati Pantah or a Guzzi Le Mans for a 100 miles — the ultimate pigmy accommodation with the high and too-far-forward footrests. Some manufacturers actually mount the pillion rests on the unsprung frame.

Comfort! The Series D Black Prince of 1954 / 55. John Clark, Vincent service manager, with Joan Scott, secretary to Ted Davis and Paul Richardson at Stevenage

Know Your Enemy

Speed doesn't kill riders. Stupidity kills riders.

A contribution from Cameron Donald; Australian TT Rider extrodnaire

This year hasn't started well for motorcycle road safety in Australia, but in no other state has it been worse than in my home, Victoria. Regular news headlines about fatalities are not what anyone wants to read. And recently I've had more than one non-motorcycling friend ask me about how dangerous it's become to ride. I can't blame them. When you see the growing number of lives lost, it's a natural question to ask.

In Victoria, as I write this, there have been 28 riders killed this year. This time last year, the number was 13. It makes me wonder how these accidents happen?

Uneducated public opinion will nearly always suggest excessive speed. I guess the government campaign to persuade the narrow-minded masses that 'speed kills' has worked. This helps the government justify the millions earned by speed cameras as being in our best interest.

A police incident report won't always pinpoint the cause of death in a crash. Exact crash location, bike make and model, and objects the bike hits after it's left the road are not recorded in official data. From publicly available crash information, I can see that sp eeding didn't cause most of Victoria's recent fatal crashes. More than a third of riders killed were unlicensed, several were on stolen motorcycles and one wasn't wearing a helmet. This doesn't give a fair representation of everyday, law-abiding riders, which most of us are. Information also shows another third of incidents are caused by the driver of another vehicle. It's these cases that really concern me. As riders we should be able to confidently control our bikes, but we can't control what those around us do.

When I'm not on a bike, I drive a van (usually with bikes in the back), or Kaz's dual-cab ute. Both are large vehicles. It's not uncommon for drivers to cut me off or force me to take evasive action because they haven't seen me. If they can't see me in a big, white van, how can I expect these fools to see me on a motorcycle. Everyday I see drivers that don't deserve licences. Their car control, road position and decision-making are pathetic. Unfortunately, it's not as easy to fine people for driving like idiots as it is for travelling 5km/h above the speed limit. So these mindless road users will continue to drive as they do. Meanwhile, other recent road-safety campaigns stereotype motorcyclists as hoons and risk takers.

Statistics are often cherry-picked to support this agenda. It's road safety by fear – fear of getting a fine, or fear of death or disaster. Drivers are taught to fear motorcyclists, and motorcyclists to fear themselves – all in the name of safety.

As a motorcyclist, the best way to stay safe is to improve the way you ride and to learn skills to deal with stupidity the road. An advertising campaign that scares someone into wearing more protective clothing or a fluoro vest won't improve the way they ride.

In Australia, there are many options for rider coaching in every riding discipline – from on-road and off-road riding to race track and trials, there are single and multi-day courses in every state. Training to improve and practice bike-handling skills is without a doubt the best way to improve a rider. These courses cost money, but that cost should be seen as an investment – one that will last as long as you ride. What all courses have in common is they encourage you to think about your riding, and training in each discipline benefits the next.

Not everyone is blessed with multiple bikes in the shed, but many courses offer bike hire.

Your average road rider without off-road experience will benefit immeasurably from an adventure bike or off-road course. Courses such as these let you experience how a bike reacts to loose surfaces that can cause a skid or slide. It's also not a big deal to topple over at slow speed on a dirt bike while learning the new skills, compared to dropping your pride and joy on the bitumen.

It's interesting to see how Motorcycle Trader editor Chris 'have a go' Harris throws himself into as many of these courses as he can. Having ridden with Chris since he joined Motorcycle Trader, I can see the continual improvement in his riding after each schooling.

These courses not only build skills but also confidence. A rider confident in his or her ability is much safer than one who rides in fear.

Some of the money from our 'motorcycle-safety levy' that's spent on enforcement and fear campaigns could surely be better spent subsidising rider training.

On a positive note, the past 20 years of statistics show road riding in Australia has never been safer, but that doesn't mean things are getting easier for riders. Modern cars are insulated from the noise around them and offer poor vision. That, combined with electronic distractions like sat-navs and mobile phones, are all making drivers less aware of their surroundings.

It's our own actions that will keep us out of trouble.

Yes, ensure your bike has good tyres and wear the appropriate safety gear but, if you really want to stay safe, become a better rider.

OVR thanks the Motorcycle Trader magazine http://www.trademotorcycles.com.au/ for its permission to reprint this important article.

Event Calendar

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. Just drop the editor a line at OzVinReview@Gmail.com .

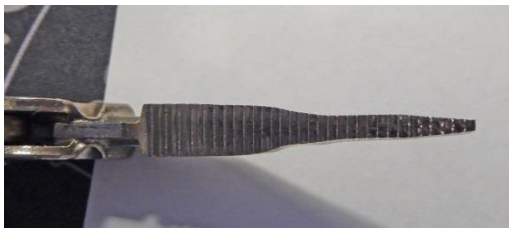
2016	
August 18-21	North American Vincent Rally 2016 – in Missoula, Montana. Contact Josh Bogage for more information, email Joshuabogage@gmail.com.
September 17-18	40th Classic Car and Bike meet. Wakefield Park, Goulburn, NSW. For more info email vscca40@gmail.com
October 15-16	Girder Fork Rally, Cooma, NSW - email owenpamjohnson@gmail.com for more info. **UPDATE:: Girdraulic Forked Bikes made AFTER 1949 ARE NOT eligible to enter this event!**
October 15-17	VOC Australian National Rally, Parkes, NSW. contact alynvincent@mac.com for more information
2017	
March 19-30	Tassie Tour 2017 (Australia), open to pre 1970 British bikes – for more info contact tassietour2017@hotmail.com . This fantastic 10 day tour is limited to just 100 bikes so if you are interested, act now. UPDATE: While now fully sold out there is a waiting list so it may not be too late.

WORKSHOP WISDOM

Yet Another Front Brake Adjustment Method

For a long time I struggled when adjusting the front brakes on my my Vincent – but no longer. All that's needed to turn the once dreaded task into a quick and easy procedure is a set of 6 inch long nosed locking pliers like these. Click to see more

Out of the box they are not really of much help – that is not until you grind down the faces of the nose pieces to a width of approx. 5/32" which the allows them to be used to lock onto the periphery of the serrated brake washers H13.



The adjustment process is a follows.

- Ensure BOTH front brake adjusters (on the cables at the balance beam) are fully released.
- Loosen BOTH brake arm retaining nuts allowing the brake arms to move independent of the brake pivot bolt
- Lock the modified pliers onto the periphery of the serrated washer on the Right Hand side of the bike and apply pressure to the pliers in doing so, applying the brake. While holding in that position, then tighten the brake arm retaining nut.
- Now use the brake cable adjustor on that side to where you want it.
- Move to the left hand side and follow exactly the same procedure.

- Finally centralise the front brake plates: loosen off the front axle and have an assistant firmly apply the front brake and while they are holding the brake firmly on then tighten up the front axle. After doing so you may need to make some final minor adjustments using the cable adjustors.

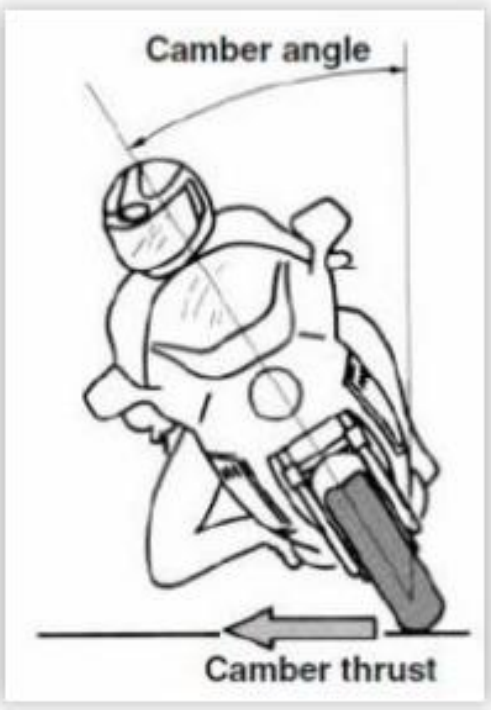
The Unified Theory of Motorcycle Steering – Part 3

A OVR contribution from Andy Luck, Australia

Andy concludes his in-depth paper on the theory of Motorcycle Steering from where he left off in the last edition of OVR.

There are a few more points that I wish to share with you. One is the 'alternative' explanation of countersteering which, as I mentioned at the beginning of this talk, I strongly disagree with. If you search the net on this subject you are bound to find someone who maintains that the mechanism that powers motorcycle steering is 'camber thrust'.

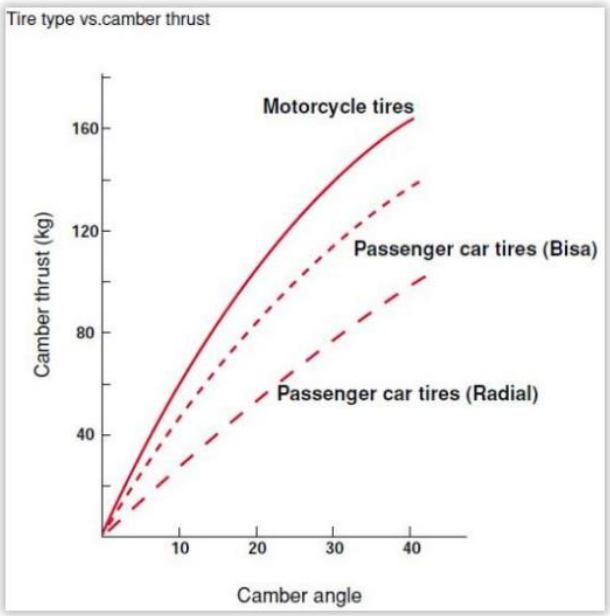
Camber thrust is something that I accept does occur on 4 wheel vehicles but I am absolutely convinced that it does not occur on a motorcycle with tyres in good condition. 'Camber Thrust' is experienced when a conical, or semi conical, object is rolled along. The cone will turn towards the tapered end. The theory is that the front wheel, once leaned over is making contact with the road on two diameters, the smaller on the inside of the turn, and thus acting as a 'cone' and inducing 'Camber Thrust' to turn the front wheel.



I have a great deal of trouble accepting this concept in the real world of motorcycle dynamics. If this effect did normally occur, it would generate a strong self servo effect which would be both undesirable and very noticeable to the rider. It would also exist whenever the motorcycle was leaned over and could not be removed by removing the countersteering input, or even by applying an opposite steering input. Actually I think that the bars would be wrenched from your hands, followed by an immediate crash, effectively making a single track vehicle un-rideable.

However, it is possible to notice an effect that could be 'camber thrust' if the front tyre is very worn on the sides. I recently rode a friends BMW which had a front tyre with a marked triangular profile and it too exhibited an initial self servo turning action at slow speed to the extent that I actually needed to hold back the handlebar, however the effect disappeared at higher speeds.

During the preparation of this consolidated paper I have just realised a demonstrable flaw with the 'Camber Thrust' theory. Another epiphany!



The flaw is this, the 'Camber Thrust' force generates a self servo effect which acts to increase the turn of the handlebars but, only in Mode 1 steering do we wish the motorcycle to turn in the direction we turn the handlebars, so the 'Camber thrust' effect acts AGAINST the desired turn in Mode 2! Also, as the supposed Camber Thrust effect can only operate once the wheel is leaned over, it cannot explain what causes the initial lean of the wheel.

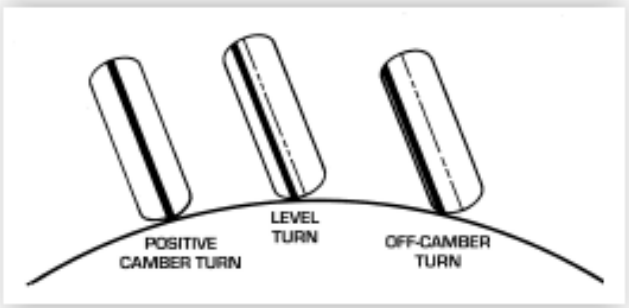
Obviously a worn motorcycle tyre does not generate enough 'Camber Thrust', if that is what it is, to significantly interfere with the centrifugal and gravity steering forces I have described. However, the owner of the BMW, when riding my VFR, did report that the VFR steered much easier at speed than the BMW so, not surprisingly, a worn tyre does affect handling. However, this experience has clarified my understanding of 'Camber Thrust' and completely demolished it as a source of 'Countersteer'.

There is another motorcycle control phenomenon that I have seen discussed on the web and I have seen some funny explanations for it! I refer to the phenomenon of motorcycle tyres wearing more on the right hand side in Australia and the UK and on the left hand side in the US and Europe. I would have thought that we would all recognise that Road Camber must have something to do with it but I have seen a US web article that argued that because they ride on the right, or in our case, on the left, they go round more left hand, or in our case, right hand corners! I don't think so! The author claims to be able to prove this mathematically, which, to me, just shows that it is not such a bad thing that I leave out any math!

The wear is caused because on a cambered road in Australia the motorcycle will tend to drift 'downhill' into the left hand gutter and we unconsciously apply a very slight countersteer to the right so that the front wheel is pointing very slightly left. This inevitably means that there will be a continuous slight rubbing action on the right hand side of the tyre resulting an asymmetrical wear. Obviously in countries which drive on the right the effect is reversed.

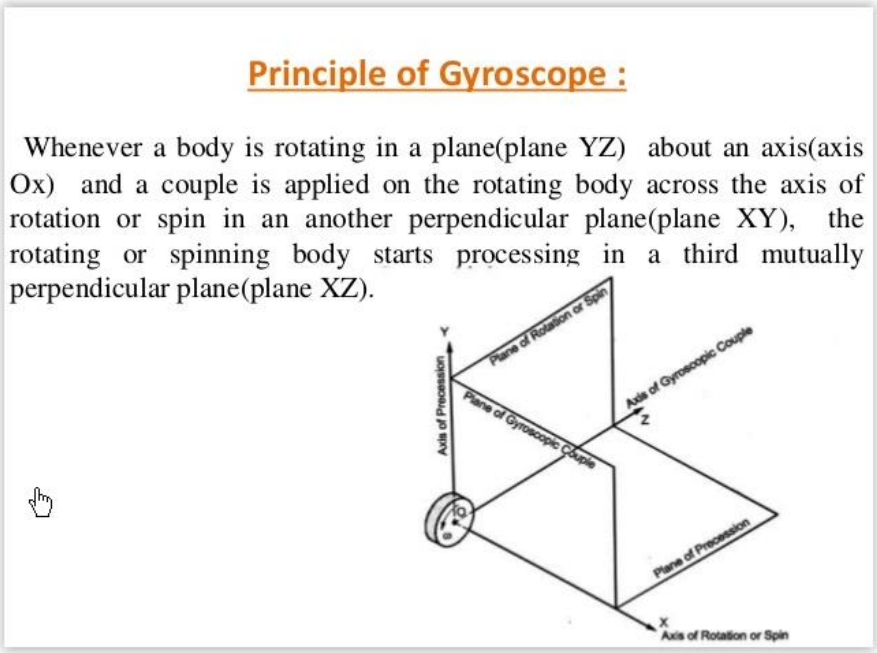
I had one American correspondent argue that my explanation could not be right because when he leaned his motorcycle over the 'worn' bit never reached the road. I pointed out that the wear only occurs at the tyre / road surface and the tyre is flattened slightly at that point which probably meant that his test was a little flawed!

There is another motorcycle steering subject I would like to raise. It is the effect that centre of gravity has on motorcycle steering. Most things I read in the motorcycle press advocate a low centre of gravity in order to enhance motorcycle handling. 'Handling' is a term which covers many aspects of motorcycle performance, but I will concentrate on a motorcycles 'turn-ability'. The general consensus is that a low centre of gravity makes a motorcycle easier to turn.



I am confident that this is, in fact, incorrect. This conclusion follows on from the description of Mode 2 because more steering input is required to move a low C of G and hence a turn in the desired direction. I know from personal experience that riding a Goldwing (flat 6) away from a standing start requires significant handlebar oscillation to maintain balance. Conversely, my VFR750 (a V4) and my Bandit 1250S (Straight 4) can be ridden off from a standing start with no apparent handlebar oscillation. Same rider, different bikes. Am I at fault or is the C of G height difference responsible?

During Freddie Spencer's reign as Honda's star rider Honda themselves fell for the 'low C of G good' argument and built Freddie a bike with the fuel tank under the engine and the exhaust pipes above it under a dummy tank. Unfortunately this was a complete failure as Freddie could not turn it and the idea was quickly abandoned!



There have also been cases where ill handling streamlined speed record contenders have had their handling ills cured by adding weight to the top of a fin, sometimes after adding a fin to do so!

I will however agree that there are undesirable effects of a high centre of gravity, most significantly inertia, which makes changing the direction of motion of any mass difficult. Things in space may have no weight, but they do have mass, and hence inertia, as astronauts working in space soon discovered! Mind you, I also think that gyroscopic forces generated by the engine rotation are significant in acting against a direction change.

I find a 'big 4' is reluctant to turn unless I move my body weight to the inside of the turn BEFORE I initiate a turn by countersteering. Once this is done it turns well, but the Honda VFR does not demonstrate this behaviour, countersteering alone is enough, so different engine configurations do have different behaviours. This probably explains why I love my VFR so much!

I have one final motorcycle steering topic to raise and it is the issue of forces experienced on a motorcycle when cornering. One of the great things about riding a motorcycle is that, unlike in a car, we do not feel centrifugal forces when cornering because they are neutralised by the horizontal gravity vector as I have previously explained. I thought that was completely self-evident until a number of riders at a ride day I attended, actually THE ride day which started all this theorising off in 1983 or 84, maintained that they DID feel cornering forces.

I think they are wrong because the 'centrifugal' force that they expect to feel in cornering does not exist because it is balanced by the horizontal gravity vector. I checked my theory by referring to the all-time best ever motorcycle film 'On Any Sunday' which clearly shows that motorcycle suspensions are not compressed during high speed cornering. QED, no 'pressed into the seat' force! The only time suspensions are compressed is on a banked circuit, such as Daytona or the 'Wall of Death' where centrifugal force acts directly in line with the bike. Actually 'Wall of Death' bikes don't HAVE suspension!

Well there you have it, the Unified Theory of Motorcycle Steering by Andy Luck. I hope you found it interesting and thought provoking, even if you don't agree with all of it!

Thank you for listening! Comments are welcome! Email to andrew_luck@hotmail.com .

Andy Luck, Australia

From The Archives

THAT CLUTCH!

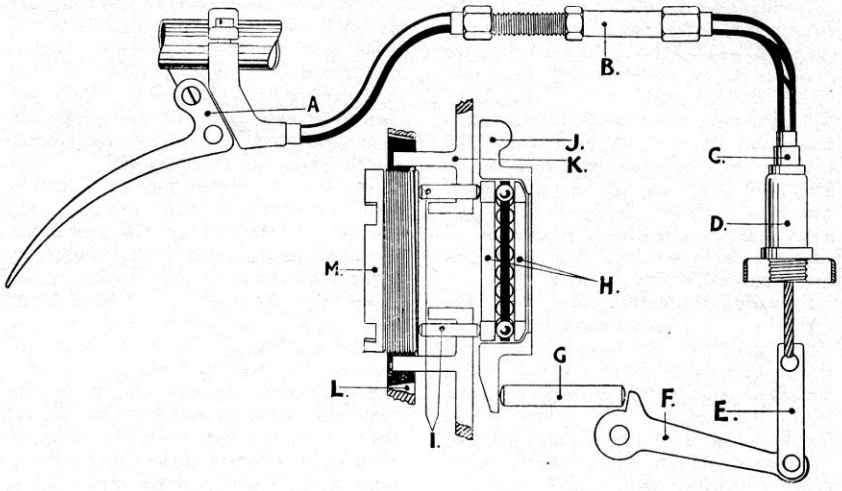
Which, in these pages, can only be the Velocette clutch—scourge of the new owner, very often a pain in the neck even to long-time Velo fellows

THE most controversial feature about a single-cylinder Velocette is the clutch. Always has been and still is. Because it is unconventional in operation and appearance, it has always been the victim of inexpert mechanics and the butt of uninformed criticism. To this day it is a mechanism which sorts out the true Velo man from the boys. Yet it is a very good clutch, conferring by reason of its slim design great benefits to the function of engine and gearbox in the reduction of overhang loads. It can in many ways be likened to a beautiful woman. It is slim but surprisingly strong. Feather light to the touch when handled correctly but a perfect devil when mauled by uncouth hands. Capricious one moment, captivating the next. But different, so different that many people have owned Velocettes without ever really understanding the subtleties of the clutch and many have given up Velocettes because of it. (A big motorcycle dealer once told me that he never took the Velocette agency because he was scared of the after-sales service trouble he would get with customers who did not understand the clutch.)

Much of the trouble that has occurred with Velo clutches in the past is due directly to the motorcyclist's compulsion to fiddle with things. If the maker provides a knurled adjuster on the clutch cable it is regarded as an invitation to fiddle with it. With a conventional clutch one of two things happens. The clutch either slips or does not free but the result of the adjustment is fairly obvious and can be remedied. Fiddle with the adjuster on a Velocette clutch cable and the results are not immediately obvious or logical. On a Velocette the cable adjuster is only a means for initially setting up the cable, a secondary matter, and not the main adjustment for the clutch. In fact, the beginner is best advised to forget about it and that is why Velocettes usually hide it under the tank.

I had better explain the general layout of the clutch. The clutch cable which disappears into the gearbox is connected to a bell crank in the gearbox which presses on a short push-rod which emerges from the gearbox shell behind the clutch and presses on a hinged plate. The hinged plate presses on a thrust race. This in turn presses on three thrust pins which run through the sprocket plate and lift the outer pressure plate against the pressure of the clutch springs.

The cause of most of the confusion is that the bell crank is inside the gearbox and can be "bottomed" at the end of its travel while the clutch cable is still showing free play. You then have the condition where the clutch slips but there is free play on the cable. Or perhaps it does not slip but the thrust race is under constant load and wears out, yet there is still slack at the cable. In the old days of motorcycles with exposed clutch arms on gearboxes the Velocette was perhaps the only one out of step with a hidden operating arm (the bell crank) and the only one, consequently, to regularly suffer from lack of intimate knowledge. As other makers gradually enclosed their operating arms they ran into the same problems, but with a conventional clutch the push-rod takes the brunt and is easily replaced.



Clutch-operating mechanism. A : handlebar lever, B : cable adjuster, C : cable stop, D : cable-stop holder (on gearbox), E : cable connecting piece (in gearbox), F : operating lever (in gearbox), G : large thrust pin, H : thrust race (three parts), I : thrust pins (in back plate), J : thrust cup, K : back plate of clutch, L : front plate of clutch, M : spring holder

Mumbo jumbo

I am not going to attempt to explain the sequence of adjustment. The maker's instruction book devotes pages to the subject and although it may sound a lot of mumbo jumbo I can assure you that if followed blindly, without even trying to understand the whys and wherefores, it will work. The trouble is that if you have had, like most people, an apprenticeship on conventional clutches you will be tempted to skip the maker's roundabout instructions and try a short cut based on your previous practices. Don't do it.

But human nature being what it is people will still try to be clever and of course you may find yourself without an instruction book. For such cases I have, after thought and personal experience, evolved a simple man's (a man used to normal clutches) conversion guide to the mysteries.

At the end of this brown study I came to the startling conclusion that there is nothing very unconventional about the Velocette clutch. It's just that the parts look different and tend to be in different places. For instance. The conventional clutch has a long push-rod which goes right through the main shaft. The Velocette has one in the gearbox shell which transmits the thrust to the thrust race (conventional clutches don't have the sophistication of a thrust race—they just wear out their push-rods) and three little push-rods which run through the clutch. None of these push-rods rotate and they do not wear out.

The average push-rod presses on a hardened button or ball in the centre of the outer clutch plate and if it is a sensible design there will be an adjustment for the button or ball which you should use when you have run out of adjustment at the cable-operating arm. Instead of a button or ball the Velocette has a ring screwed into the outer pressure plate on which all three push-rods seat and this ring—it's the one with castellated slots—provides the main adjustment for the clutch operation. But in the manner of its working it is exactly the same as that adjustable button in the outer plate of the normal clutch. Screw it in for less free play, out for more. There is no adjustment for spring tension and none necessary for with the 15 or more small springs, instead of perhaps six big ones, individual differences between springs are unimportant. The ring which retains them and has holes in it for a peg spanner (please, not a nail) also acts as the nut which holds the clutch on a normal clutch, and wants to be tight.

The only real problem once you have related the Velocette clutch to the conventional clutch in this way is that you

cannot see, or feel, with chain guards in position, the vital free movement necessary at the thrust race, and the cable is no criterion at all. That is why it is necessary for the instruction book to take you through the mysterious route of first slacking the cable right off and then adjusting the clutch thrust sleeve (the equivalent of the thrust button, though the makers call it the clutch spring carrier —which it is, incidentally, until the clutch slips slightly on the kick start). This is to ensure that the bell crank in the box is at the end of its travel. The cable is then adjusted until there is no free play and then left severely alone. The clutch thrust sleeve—I think my term is less confusing—is then adjusted until the cable develops $\frac{3}{16}$in free movement, and all should be well.

Providing always that the thrust race and plates are in good condition. If the clutch parts are worn there is no real choice between a slipping clutch and a dragging clutch, for if the Velocette design has a fault it is that there is not the wide range of adjustment provided by other designs to enable you to go on using a worn-out unit.

You may wonder how it is that a clutch so slim and puny, with a handful of springs like those out of a petrol lighter, can transmit so much horse-power with such a light action on the clutch lever. Very much, in fact, like the latest diaphragm clutches. Well, the explanation as I see it is that the Velocette clutch after 1926 has actually a servo operation. The action of the hinged lever at the back of the clutch is to lift one side of the thrust race only. This lifts *half* the clutch only, the plates tipping sideways like a conventional clutch which has incorrectly adjusted springs. Rotation of the clutch by half a revolution lifts the other side, the spherical seating behind the thrust race allows the race to line itself up, and the clutch frees (or should do). You can watch all this happening if you watch the clutch while you lift the clutch lever, and although with the lever fully lifted the clutch may be in a slipping condition, because some of the pressure is taken off the side which has not lifted (the amount of tilt of the plates depends on the fit of the sprocket on the sleeve gear extension), it will not lift fully until it has been rotated.

This is where the servo bit comes in. As you have already exerted your operating force in lifting half the clutch, the remaining force required to lift the remainder must come from the machine itself in the rotation of the clutch—movement of the machine, if the engine is not running. Hence the light and disproportionate feel of the clutch lever.

Quite frankly I stumbled on this servo theory when studying the action of the clutch for the purpose of this article, and when I propounded it to various Velo experts and even to head men at works they were at first politely unbelieving. Certainly it has never been put forward as one of the advantages of the unusual form of operation which went into production in around 1925 and has never been altered. It should be noted that the first clutch used on two-strokes immediately after the first war did not have this tilting servo action, for the pressure plate was lifted by a quick-thread mechanism pressing axially on the pressure plate *via* the traditional three thrust pins, and this design is to be found on every three-speed Scott from 1927 onwards which is about the period when Velocettes abandoned it.

I wonder if Percy Goodman adopted the hinged thrust mechanism for the o.h.c. models to obtain this measure of servo operation when spring pressure had to be increased, or whether it was an accidental bonus. If he did it deliberately, and he was too good an engineer to overlook a principle like this, he kept very quiet about it.

If you are still unbelieving you can quite easily test the theory for yourself. With the primary chain removed and preferably some of the clutch springs, so that the operation becomes easy, lift the clutch and then turn it through 180 degrees until it frees. You will distinctly feel the resistance to rotation as the clutch lines itself up. This extra force must come from the machine, not your hand on the clutch.

There was no room last month to show the Velocette 24-hour-record-breaker at Montlhery. Here Bertie Goodman takes over the Venom for an hour's stint

This article was originally published in "Motorcycle Sport" April 1970

The Returning Rider

An original OVR contribution by Alyn Vincent, Australia

There are many types of motorcycle rider; the Adventure Rider, the Tourer, the Commuter, the Leisure rider, the Track rider, the Scooter rider and the Returning Rider.

It is the latter I want to talk about because, after a long had think, I want to put it out there where people can ponder, assimilare, debunk, mock or maybe consider it..

Many of us were never properly taught how to ride. Our 'mates or family showed us what was what and to pass the "test" you merely had to stay upright while riding within a couple of hundred yards of the Department of Main Roads office or Police station, doing a U turn, right turn and stopping. Not much of a test if you are riding a BSA Bantam or Honda 250!

If you failed then you just kept renewing your learner permit because there was no limit to the number of times you renewed OR the size of the bike you rode. That tended to cull a lot of riders in my day as a learner. I lost a lot of friends in the 60s and 70s who died while riding.

There are two types of returning riders, those who have maintained their rider's licence and those who have not. The former can go out and buy whatever their hearts and wallets want, while the latter have to go through the pre-learner and pre-provisional courses.

This is where I come in as a riding instructor. A few, very few, of those who have maintained their licence will come in for a private lesson to renew their skills and rebuild confidence. I take my hat off to them because they know that a lot has changed in the last 20 to 30 years; not least their reaction times, the power of the bikes and the amount of traffic on the roads.

They want to get out onto the roads with as much skill as they can and then rebuild their confidence as they ride on bikes that have completely different dynamics ,to what they last rode. The former however ……. well! I see all the lack of training, bad habits, resistance to change etc. The pre-learner course is an objective, progressive and outcome based course conducted over two sessions. A major issue during the course is the returning rider who constantly says "That is not how I do it". The problem I have is that the syllabus clearly states that if the rider cannot or will not follow directions then that person will fail. There Is a sound and solid reasoning to this the system that is taught, by every training centre in NSW and the ACT (and soon elsewhere across Australia), works!

Two feet on the ground when making a U turn can end in pain and embarrassment; not changing gear properly can end in pain and embarrassment, not being able to use the front brake efficiently can end in …… **death!**

Yet when I inform a fifty year old rider that he or she is teetering on the edge of failure, I often get the obligatory gobfull of abuse. This is my retirement job. I worked in the primary health care

sector for 40 years and have been riding for longer than that. I have seen motorcycle injuries that could have easily been prevented by better skills and better gear. I have spoken to widows, distraught family members and friends, and many of these occasions could have been avoided by better training and better riding gear.

FAMILIES TORN APART

I actually say to my students that being killed in a motorcycle accident is NOT the worst that can happen. This is not the place for examples but rest assured they tear families apart. A couple of motorcycle training companies have tried to run "Returning Riders" courses. They have failed. Why? The arrogance and perceived superiority of mature maleness takes over. "I have nothing to learn"; "What can you teach me?" "I have been riding for X years and am still alive so what can I learn from you?",.

Well, after all my years of riding I still do advanced courses as a student because bad habits are easy to come by. Bad habits are the easy option short cuts. They work most of the time but not ALL of the time. Go to some "YouTube" sites and you will see riders using the front brake in curves, looking at where they do NOT want to go instead of looking where they WANT to go, not using a slipping clutch and rear brake when moving off or manoeuvring. Ongoing training/ coaching is the way to continue your enjoyment of riding whilst minimising embarrassment, injury or worse.

True story: a well known World Superbike rider who won 43 races was keen to improve his riding. He hired an Australian to assist in improving his skills. If he was realistic enough to know that he needed improvement then what about YOU? Think of us as coaches, those who know what needs to be done but may never attain the heights of others. Think of Ivan Lendl's coach, Ivan won a bucketload of trophies but who was his coach? Ian Thorpe? Bernard Tomic? OK, got me there.

Please, think about your spouse/partner/family, Think about upgrading your skill levels. It really is quite easy if you want it to be and the riding becomes even more pleasurable when you know you are always in control of the situation. It is interesting to note that Australian motorcycle Highway Patrol officers and motorcycle Paramedics are required to pass a refresher course when they return from holidays, extended sick leave or long service leave. They may have only been away for as little as three weeks but that is considered long enough to get a bit "rusty".

Finally: Can you safely complete a “U” turn in your street'? Can you safely do an emergency stop from 100 KPH? Can you turn 9O^{o} from a standing start? If you don’t know then you have not tried. If you said “no” then you need to upskill. Either way you need to think about your level of skill and safety because, ultimately, your safety and your life is totally dependent upon <u>your</u> skill.

A Letter to the Editor

I enjoy your Vincent Review, here in Canada. The tank slapper ref. in OVR #27 made me remember a quote by E.J.Potter "The Michigan Madman" who drag-raced a V-8 bike for years in the sixties and seventies in the USA. He was truly mad. He said **"There are several ways you can get into a tank-slapper, but only one way I could get out of one was to crash."**

Cheers! David Kipling

A Place in the Sun

Another great OVR item from Stephen Carson

A group of Queensland Vincent enthusiasts recently got together for a BBQ at Trevor Copers home in Bellbird Park. Attendees; Kevin Fowler [the only one that rode as appalling weather], Ron Hewitt, Glen Challis, Greg Brillus, Ron and Trevor Cooper. Peter Le Legross and Brenton Cooper. Thanks go to Trevor's wife for the scrumptious scone and cakes. The groups patches arrived from South Korea and yours truly, the OVR far flung some time scribe was well received by the attendees.

On the bench was Trevor Cooper Comet. Brothers Trevor and Ronnie are the local magicians at casting engine ports and were featured in MPH No.778 Nov 2013

Main topic of conversation was about Vincent engine cases. A few years ago Trevor bought a set of cases out of Germany to build his own engine. The crank cases needed serious reworking; now the local favorite engine builder has bought another two pair and other bits from same maker in Germany and when measures against an original pair resulted in a page of defects.

Left to Right, Half face is Peter Legros, Trevor Cooper Triumph Singlet, Ron Hewitt(in sling) and Greg Brillus

As the readers may or may not be aware the state of Queensland state is big and the VOC section members being mainly based around Brisbane. The Far North Queensland [FNQ] section members are based around Townsville and Cairns some 1,500 to 1,900 Kilometers [900 to 1,200 miles] North of Brisbane.

Because of this large distance they rarely attend the section meetings but are still very active in the Vincent world.

Up in Far North, in Cairns, there are known to be five Black Shadows; four Black Shadows in "Blast from the Past" Museum and Danny Walker's as features in MPH No. 806 along with John Reynolds 48 Rapide that is being rebuilt. John's engine is with Greg Brillus and Greg says that it was previously raced and the cases had suffered every possible sort of blowup possible. It would have been easier and cheaper to get new cases, but it would not be original engine numbers etc. It will be eventually be hooked up to a Steib S500 sidecar.

In Townsville area 400 kilometer South from Cairns are a few more Vincent's as informed by Murray Barr. Murray partner, Cheryl, should have her Comet registered by the time this goes to print and all going well will be at Parkes for the Australian National. Cheryl was riding and old well-presented BSA at the Australian national in Maysville in 2014. Both Murray and Cheryl are already signed up for the Tassie Tour, 2017!

John Weber has owned his Rapide for over two years now. When John purchased the bike Murray was fortunate to be able to look at the bike and advise him that for the purchase price it was probably as good as you are likely to buy. Murray also stated that as the bike was assembled from parts it would probably take two years to sort out. How true that turned out to be.

Comet belongs to Trevor Cooper

John is a long distance rider and as the miles accumulated so did the problems. Firstly the carbies needed sorting, then the oil leaks finally cured after new rings, valves and guides and an elephants trunk breather. Next came the alloy idler shedding its teeth and later the mag pinion getting in on the act. All the while the Miller dynamo kept needing attention until cured by fitting an Alton which promptly shed the teeth from the nylon sprocket supplied.

John seems to have a problem with his teeth these days! At the moment the primary drive is apart cleaning out the shredded teeth only to find a broken clutch hub screw but no broken cush drive springs? A true wonder. Probably have missed some of the other teething problems but John is persistent and don't be surprised if he rides the machine to Parkes.

He rode the bike to the Maleny Swap to have the mag pinion fail 130km from home. He also has a Gold Star which has done four or more trips to Gatton and Laidley Swops.

Steven Tidy has a nice Comet outfit which we believe he purchased in the UK and bought back to Australia from Holland along with his lovely sidecar passenger Anna. Steve works in Vietnam in the ship building game and in his time at home has built up a Comet for son Kevin and has a project Comet for other son Brian to construct. Not sure if the Tidy's will be at Parkes; will depend I think on work commitments.

Finally Arthur Gleeson still has his speedway bike that he raced all over the north and west during the seventies. Arthur only retired a couple of years ago and has been accumulating parts to get the Shadow on the road. It is going to be a long project however the bottom end was one of the last projects that Laurie Binns completed sadly before his death. This bike competed on numerous occasions against Murry's Rapide owned and ridden by Trevor Denman and later Mick Newton.

Lovely spring weather here in South Korea and would love to have a Vincent here but at prohibitive import duty and on road compliance that won't happen. So have to settle for 2010 Harley Sportster.

Countdown to the French Vincent rally and looking forward to jumping onto the mechanically overhauled 1959 R69 and Violeta into the newly upholstered Watsonian Sidecar

Ride safe

Stephen Carson

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 – what you send is what will be published. Of course OVR cannot accept any responsibility for anything to do with the items advertised – that's a buyer/seller matter. Items will be listed in 2 consecutive editions of OVR.

For Sale: Kick Start return spring for Burman BAP gearbox Vincent Comet Part PR50-130X (brand New) purchased in error from VOC Spares. A$20 plus postage: Contact Graeme on 0448480909

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. 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 refering to them be removed.

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@optusnet.com.au

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, Comet 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

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

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

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

General Services :

Cylinder Heads, Australia: Cylinder Heads are highly skilled engine experts with 30 years of experience operating from their new Ringwood 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. A precision engineer, Alex offers an extensive range of engine reconditioning and repair services; he also offers precision welding of all metals. For more information see http://www.cylinderheadsvictoria.com.au or phone Alex on (03) 8838 8515

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

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 perfectionist when it comes to paining 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

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