



# The Oz Vincent Review

*Edition #79, September 2020*



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Welcome to the latest edition of OVR. Front cover this month must be the youngest Vincent apprentice ever. Jaxon O'Neill based in Geelong, Australia, is focused on a workshop service and upgrade of a client's Rapide – and in the confines between the UFM and the heads those small hands must be a bonus. Sort of puts paid to the doom and gloom stories of young folk not having an interest in our cherished classic machinery.

Speaking of gloom, the **OVR Bushfire Relief Ride** is now postponed indefinitely as a result of COVID restrictions. Remember, to access the complete OVR archive from any device, just go to the OVR web site <https://ovr270.wixsite.com/ozvincentreview>

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## Letters to the Editor

Hi Martyn,

Great job of the latest review. Loved the article about filing and sawing. Brings back memories of my early apprenticeship.

Names of the files and blades and when to use them is priceless. My filing mainly was in Light Steel and aluminium making panels for electrical components to fit in racks on a radio installation. But I had a particularly hard taskmaster who use to measure everything with his 6" ruler he carried in his top pocket. If there was a slight error he would grab the panel, put it on the vice and bend it into a right angle. That meant we had to start all over again and we could have already spent the whole morning doing one panel.

We learnt very quickly as these had to be finished on time and so lunch times were shortened and morning and afternoon tea sometimes forgotten. Pity when the Prefab panels and component punches came in and we all lost the art of cutting and filing.

Regards, Ron Laurence, Australia

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Hello Martyn, Here is a recollection that may amuse. Alan Brodrick was a motorcyclist for most of his life and had many tales to tell, some of them of the 'Can You Believe It?' variety. Of a friend who lost the speedo drive on his early post-war Speed Twin and did not replace it, he told me that: *'he took to judging his speed from the reading on the ammeter'*.

Asked one day how the bike was going, he replied: *'Fine, came up here at six amps'*.  
cheers, David Wright, IOM



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Hi Martyn,

With a bit of Covid-time on my hands I went idly searching through some Bristol-related databases recently and spotted a very useful link to a website listing a number of rare and important Bristols and Bristol-engined sports and racing cars, amongst other exotica, that had made their way to South Africa and (then) Rhodesia. The website is called "Classic Cars in Rhodesia" and it is an extraordinarily detailed database of cars and motorbikes of most makes and models that had passed through southern Africa from the 1920s onwards. The index is comprehensive and continually updated, and under V for Vincent I noticed two entries.

The VOC most likely knows of these Vincents but I thought the details and the website may be of some interest to the Oz Vincent Review and its readers. Here is the link:

<http://www.classiccarsinrhodesia.co.za/Makes/Vincent.html>

Kind regards and congratulations on a great job with the OVR.

Rod Blacker , Australia

# Vale - Robert (Bob) Williams

October 15, 1930 - August 21, 2020



It is with much sadness that OVR reports the passing of Bob Williams who has been a Vincent enthusiast, owner and rider for many many years. I met Bob way back in 2009 when I first became impassioned with the marque.

It was Bob who welcomed me into the local Vincent group and not long after asked me to take on the role as editor of their newsletter, a role he had filled for many years. They were big shoes to step into and his faith in me was humbling.

Since then times have changed in many ways, some totally unexpected, however throughout all Bob remained my friend and mentor. His support in the birth and ongoing production of the Oz Vincent Review was just great. Thanks Bob.

Some of my older (no offence intended) readers may remember him. Bob took his Rapide over to the UK for the VOC International Rally in 1999 and one of his fondest memories was being able to ride his 'little big twin' around the IOM TT Circuit.

He was a prime mover in the planning process for the Victorian leg of the 2007 VOC International Rally in Australia. An active rider, Bob participated in most Australian Vincent runs including a ride to the NSW National VOC Rally in company with the late Laurie Binns when they were both in the 70's, where they realised their ambition to ride both over and under Sydney Harbour.

Bob's series 'B' Rapide did not retire when Bob decided to hang up his helmet. He had agreed to pass his Rapide on to me but with an unexpected request from the Horner boys and with my full support it passed into their hands. The Horner brothers completely refurbished that bike, took it to Goodwood and swept the field. Pictured is Bob astride 'his' Goodwood winning bike back in 2014. Success at Goodwood was an outstanding achievement and just like the Goodwood result, Bob, the true gentleman, will never be forgotten.



# Thirty-Eight Snortin' Norton

*Another amazing contribution from Alice Leney*

Martyn has asked for stories about our bikes, as we are all locked up in Coronavirus sheds, so I thought I'd tell you about my Norton. I'm a Pom originally, so the story starts there.

Back in 1978 I had a big plan to go to India with my 1961 A7SS BSA and sidecar. I carefully built a sidecar with very thick wooden planks, and all the screw heads carefully hidden so they were on the inside, as everyone in the (Dorset) village where I lived told me that the Turks were going to steal everything I had (not quite sure if that was before or after they were going to commit unspeakable acts on my nice soft nineteen-year-old body). But of course, two weeks before departure date the BSA blew its guts all over the road (luckily), so I hitch-hiked instead. I took the BSA to bits, and packed it up into the sidecar box, covered in grease, as I was planning to be away a long time, and set off with £110 in my pocket for India.



A month later I was back, with a total of 50p in my pocket when I finally got home. It was now May, and summer was coming fast, and I had no motorcycle (except an A7 in a million pieces – it was a lot easier to take it apart than put it back together again). In the Exchange and Mart I discovered an alluring ad for a pristine 1938 16H in a village in Wiltshire. Convincing my father to lend me some money as I needed the bike to go to work, and a mate to take me there on the back of his Triumph, I arrived to inspect this beauty. As usual, the 'once' had been left out of the advert next to the 'Pristine' in order to save 7p on a word that wasn't needed, and whilst the patina was more to the rust end of the scale than to the paint end, it started easily and idled OK in the guy's shed. "Do the brakes work?" I remember asking. "I'm not selling this to ride, this is for restoration" the proud owner declared. It did rather look like riding wasn't his thing, and it was clearly keen to escape from the clutches of somnolence with the current owner and get back out on the road, going by the bark coming from what was left of the silencer. £120 pounds changed hands and off we went, leaving a long black strip all the way to Dorset as the back tire painted the tar seal with crumbled rubber. But we made it home with not too much of the canvas showing.

The next few months were spent learning the dark secrets of the Norton side-valve. It would do 70 miles an hour – on a long straight road with a downhill run at the end – but it would seize solid just as the needle swung to the seven. But it would free up again - if you waited long enough for the boys who had nearly been killed trying to avoid the fish-tailing old heap in front of them at the moment it seized to have a smoke and settle their nerves – and carry on for another year or two. The clutch was a complete mystery, as it very rarely worked, and no matter however many times I took it to bits, looked at all the pictures in the book, filed it and greased it, and adjusted the chains, I could never work out what was wrong with it. Until one day a light went on. Until that point, I tended to prefer making sure I had a pillion passenger with me to help starting, for if started in neutral with the kickstart, it wouldn't go into gear, but with a push one could ignore the neutral problem and simply bang it through the gears with a heel of the boot. When no pillion passenger was available, stopping near a bus stop was always a good strategy, as there were usually people waiting around with nothing to do who could be press-ganged into giving you a push so that you got out of the bus stop and then the next bus *could* stop. Some of them even found the whole thing funny; some of them were astonished that it worked at all, and some of them thought I should be incarcerated. But it kept going.

Kicking the gears through without a clutch (although one old boy did tell me to use the de-compressor to help with gear changes) tended to destroy those beautiful old Doll's Head boxes pretty fast, but Hey! This was 1978 and there was a ready supply of them for £5 each at the time. I did notice once or twice that when I put in another gearbox, the clutch even looked like it might think about working, but it rapidly changed its mind after a bit of young boy abuse. Then the light went on: the problem wasn't the clutch, but a bronze shim (Shim? Wot's that?) on the mainshaft that wore out and let the mainshaft – and the whole clutch – float out when you pulled in the clutch lever. And presto! No clutch! That was one of those early experiences which starts to inform one's subsequent career battling with these Old Bones.

I sorted the clutch problem by looking around for a Doll's head box where the mainshaft didn't go in and out like the Hokey-Cokey, but that took a bit of effort. Around this time the supply of old boxes started to dry up – there were probably another three thousand young lads in the UK on old ex-army Nortons wallowing in the same pool of ignorance – and I do recall actually taking one to bits and fixing it. Another milestone in personal development.

The front guard had a hole rusted in it you could poke three fingers through (there must have been a leak in the roof of the shed where it had sat for 20 years) and the handlebars were clearly made at a time when there was no chrome plate available (I think) the one advantage was that the rust was so thick that not much shook loose, usually. One day I do recall going over a large bump in the road and the end of the left handle bar broke off in my hand: it didn't snap right off, it just bent dramatically and I realised that if I tried to bend it back again it would snap off! I rode gingerly home, thankful it was the left and not the right – the clutch didn't work anyway – and shelled out a few hard earned pennies for another, not-quite-so-rusty set at the local wrecker; being 1 inch bars I couldn't just go into my (father's) shed and pilfer my rapidly expanding pile of parts. The rusty fasteners finally started to ease up when one engine bolt lost its nut and escaped entirely, and the whole bike started to shake more than usual. I remember stopping, having a look, seeing I'd lost a bolt, thinking 'well I still got six others in there' and losing another half-dozen parts on the seven mile trip home down the lanes. Another lesson.

And then there was the time the plug got hot: I was working in the meat-works, and started very early, while it was still dark. The lights only glowed, but I knew the way down the lanes. One morning, the Norton started OK, but after two or three miles definitely wasn't OK. I kept going, not wanting to be late for work. About a mile from the meat-works I just HAD to stop. Looked down in the darkness: the plug body of the 18mm plug was glowing red hot like I'd hit it with the hot spanner! The exhaust pipe was glowing red! Cripes! I waited till it cooled, had a second look in the developing dawn, and saw the top part of the detachable plug had loosed right off, allowing the insulator to jiggle around. Nipped it up and off we went – I think I was only five minutes late!



Summer turned to winter, spring and back to summer. I had it pretty sorted now. I'd rebuilt the A7 as an A10, hitched it up to the sidecar, and blown it to bits again in mid-winter on a lonely moorland road. I rebuilt it again in the paddock (clearing the snow off it after I'd hitched home to get the old A7 parts) and took it to the local bike dealer to hock it off whilst it still ran. The dealer, a Mr. Pankhurst, had once had a large motorcycle shop in Dorchester, but that had been before the war; now he was reduced to a spot in the back of the car-park at Dorchester Station, where the disused parcel freight office now held his treasure trove of battered old Pom-Bombs looking for new owners. I went in with my mate to secure the deal (and so I could get a ride home when I sold the Beezer). Mr. Pankhurst, resplendent in a battered bush hat and a walking stick, sat in his chair and surveyed his customers with a practised eye. I rode the BSA in, but he was no fool. Swaps were on, but straight cash was out. He waved me at a nice T120 that looked like it had had a large packing crate dropped on it from a great height, going by the shape of the petrol tank. We sniggered as we inspected it, noting its single HT lead – at least it had two plugs! 'It's only got one HT lead, Mr. Pankhurst' I whined with a smirk. He hobbled over and peered under the tank. "Come over here Mark" – his son, a dirty mechanic lurking in the gloom engaged in de-coking a Francis Barnett with a large screwdriver and hammer – 'and fire 'er up for these boys – she runs lovely

on one!". The laughs ran out when £63 was the best I could get for the A7 (I'd taken the Swallow side-car off), along with the remains of a Model 18 Norton engine that I fancied I might be able to do something with.

Within a week or two of this infamous transaction, disaster struck. Let me provide some context: the Norton had, of course, one of those 'orrible type 26 (or 29 or something, I never get the numbers right) remote float Amals on it, and of course it leaked more fuel than it burnt, especially when stopped. As a young 'know-it-all' biker, I was told innumerable times by older people 'That'll catch fire!'. 'Well – it ain't caught fire yet!' was the smart-arsed response ('You stupid old bugger, what would you know!' being implicitly delivered with a suitable smirk). Until, of course, it did.

I'll explain: a mob of us boys had been out for the day on our trusty steeds, ranging from a newish T140V Bonny through various post war Enfields and BSAs to my well-battered and very rusty pre-war side-valve Norton, the bottom of the heap by every measure. After a colossal day's ride of well over 40 miles – well, we thought so - and all our machines actually still going, the Norton commenced to have the fine threaded ring fly off the top of the Amal every ten, then seven, then five, then two.... miles. The ring thread was well bugged, and in an age before the invention of cable ties (or at least we had never



seen such wonderful things) bits of wire were struggling to hold it all together. Then for good measure the top shook off the float chamber and no doubt ended up in the Dorset hedgerow where it still lies today (I always wondered what those funny little hex-head bolts on the top were for... just another unnecessary part that the British industry made for no good purpose was the usual satisfactory 'reasoning' of the boy).

*The 1938 Norton at 'Full Tit' in 1978: power to weight ratio would have been considerably improved if the 50 lb canvas Dispatch Riders' coat had been dispensed with, as the rider didn't weigh much at that time.*

Everyone stopped for the nth time. It was only two miles back to our country village. They were all getting very tired of my Norton (possibly some of them even began to wonder about the ability of the boy who operated it). "You boys go on, I'll be fine" I said. Off they went. I wrestled the slide and spring back into the carb and managed to get the last skerrick of geriatric brass thread to kiss ever so carefully the final end-of-life moments of the cheap pot-metal thread – now more like the profile of road corrugations – on the body of the old Amal.

Off we went: second...third...top-splutter-splutter-bang burrrrrrrrr.....I looked below to the Engine Room as the Norton wound down in a deadening drone –OH My GOD!!! I'm on FIRE!!! I leapt off as it staggered to a flamboyant collapse in the middle of the A34. It was Sunday Afternoon; a stream of summer's afternoon day-trippers was heading back to Bournemouth for their evening tea. They were going to get delayed a moment or two, but at least they had a tale to tell Granny when they got home.

The cheap plastic fuel hose immediately melted, and neat petrol fed the greedy flames with gusto. Being in the middle of the road both lanes of traffic had to stop. The bitumen quickly joined the party, and it seemed that it only took a minute before the tyres decided to throw in their lot with the conflagration too. I stood back, completely at a loss as to what to do next. A man rushed from his car and emptied a small fire extinguisher onto the Norton. It made no difference at all. The fire died off a bit, all the petrol gone (young lads with no money don't carry around full tanks luckily) and the tyres sat back and smouldered dense black smoke. I directed the traffic around the bike to clear the queue, and several

men kicked the wreck to one side of the road to make more room. I walked down to a farm, back a hundred metres, where the farmer – already looking down the road to see what the smoke was all about – filled some buckets with water, and we drove slowly down in his old Land Rover and tipped them over the now quietly smoking mess. There was a hole burnt in the tar seal in the middle of the road. The farmer and I heaved it into the back of the Land Rover and he drove me home. Back in the village, my mates wondered what took me so long. When they saw the Norton they burst out laughing.

I burst out crying!

It sat in the garden for a week and turned a brilliant shade of rusty red at the first sight of rain. My mother complained to me over the cornflakes to: "get rid of that rubbish in the garden". I replied meekly that I was going to fix it. 'Fix it!! You stupid boy! Don't be ridiculous!' , so after that exchange I had no choice. I pulled it to bits and set about it with a wire brush and a large pot of industrial green etch primer paint that I purloined off a pipe-fitting job I was on (I was going up in the world, having gravitated from slaughterhouse de-fatter to Pipe-fitter's Mate). The tension was completely gone from the spokes, but the rims were saved with the help of the wire brush and the etch primer. The forks seemed to have survived, but the spring had a definite sag to it (that fire was HOT!). The headlamp bulb had melted and dribbled down the reflector, which no longer reflected anything. The petrol tank survived remarkably well, good army issue stuff. The Amal was gone, apart from a few brass odds and ends that I picked up off the road, or got lodged in the engine plates. The magneto armature was solid in the case. Seat springs ditto the fork, but worse. By some miracle the little round tail light – a completely useless thing at the best of times, but worth a packet today – was untouched.

The wheels went off to some old boy on the backstreets of Poole who didn't laugh when I asked him to rebuild the hubs back into my freshly painted, well pitted, rims. I took the engine out and hung it up by the loosened barrel in an old apple tree so the weight of the crankcase slowly dragged the sized piston out. And I wire brushed and painted. I hitch-hiked to London and found the famous Russell Motors stash of ex-WD Norton bits in Clapham, and bought speedo, levers, fork spring, seat springs, all brand new for



about a tenner. At Armour's in Bournemouth I got a new pattern front guard (the back was good enough) and a downpipe – for a Model 18! Because – Yes! I'd swapped that A7 for that Model 18 motor, and now I had a use for it. But as I dragged that motor out along with the ancillary bits that came with it – it wasn't actually complete when I got it – I discovered that a vital part was missing. Those 38 – 46 OHV Nortons had the first enclosed rockers, and they had a three-piece rockerbox with two thick alloy spacers that sat around each valve. I only had one spacer; being quite a rare motor (they didn't make 10 million of these in that period like they did 16Hs) I was a bit bugged. I went back to Mr. Pankhurst, explaining what I was looking for. To his credit, he waved me towards a store-room, where I spent three hours digging around amongst piles of old bits until I actually found the missing part! That old motor was obviously keen to get back on the road.

It took the best part of a year and £160 (a winter project) to get the bike back on the road. Meanwhile I had migrated to a B31 with a Bonnie piston, and a Commando, but I kept at the Norton. With a straight-through long megaphone off some Italian exotica, we were all set for a test run one early summer's afternoon in 1980. I fired her up – BOOM-BOOM and took off down the drive out towards the garden gate, which was fortuitously open, for my father came running out of the house on hearing the racket and chased me down the drive shouting "You're not going to ride that round the village making a bloody racket like that!". But I did. I did stuff some chicken wire down the exhaust pipe when I got home to keep him happy – he used to claim he could hear me coming from Corfe Mullen Mill – which was about two miles away across the river Stour water meadows.

I had a bit of fun that summer on that old bike, and was keen to see how fast it would go now I had the big five-hundred in my frame. After one run flat-out down the Upton By-Pass, I was reduced to a half hour on the Baker's Arms car-park as the piston started to smear its lands over the rings. For some unknown reason I had some needle files in my pocket, and I managed to free them up before carrying on a little more sedately. The big-end, piston, valves etc. were all as I got them from Pankhurst; it might have had new rings, and probably got a valve grind, but it was good enough to go for a while yet I figured. I had more important things to spend my meagre money on, like going to Australia.

About three days before I left to go to Australia, on a goodbye night out with the lads in Boscome, I thrashed that old Norton down the Bournemouth Spur Road at 70? - 75?? mph, only to have the sloppy old cam wheels get rather ahead of themselves and the timing gears jammed up and stripped the teeth off the cam gears in a couple of spots. Next morning, with a sore head, we put it in my mates van and took it home. I put it in the shed.

Five years later, I finally came back from Australia to visit the folks. After the usual return of the prodigal son events, which took a whole afternoon before they remembered what it had really been like to have me live there, I asked my father where the Norton was. "In the shed" was his reply. Well, I'd already been in there looking for it, that's why I'd asked him, but I went again just to be sure I hadn't missed something (it was a very small shed, a lean-to along the side of a double garage). No, no Norton. Go back inside. "No it's not". "Yes, it is." "I can't see it." "At the back". Go again, look again: nothing but firewood down the back as far as I can see, it was gloomy - I give you that. "No it's not" (poor old bugger must be losing his marbles, tho' he's not that old). "Yes, it is". "There's only a firewood pile in the back". "Underneath the firewood." There it was: underneath the wood, carefully stacked up all around and over it. Not sure if he was saving space or intending to burn it - again.

I dragged it out, and in the toolbox I found the second-hand set of cams that I'd managed to get the day or two before I left five year ago. In they went, and off we went! I was only visiting, and had decided to emigrate to Australia (I went for a year that turned into five). While I'd been gone, the British had decided for some unknown reason that they would rather put old number-plates on their cars than new ones. This had nothing whatsoever to do with the fact that you can tell a car's age in the UK by looking at it's number, and the English being complete snobs about wanting you to think that their six year old car is really only two. But this rampant stupidity did mean that my completely dull number-plate on the Norton - ULL 623 - was now worth £100 or more. I duly trundled off to darkest Boscombe, where in a back street a dodgy-looking guy in a dark overcoat inspected my paperwork and offered me "a 'undered quid" for the number. He had a large shed with type examples of common old pommy bikes - Bantams, Tiger 100s, B33s, A10s, C15s and the like - which had had a remarkable amount of attention with a aging set of number stamps. That Norton number, and my Beezer single with another boring number, paid the shipping to Oz.

I wasn't in Australia when the Norton arrived. It went to a friend's place in northern NSW, and was subjected to pressure washing by the quarantine folks, which did nothing for corrosion resistance. Then, because I'd taken the forks off to squeeze it better into the box and save money, my ignorant mate tried to put the forks back on back to front. I, meanwhile, had been kidnapped by a German teacher in the Black Forest and forced to be her Houseman for a few months, as you do, so my return was delayed somewhat until the passion subsided. In Australia I need a job, so rode the Norton from Lismore to Sydney, and found useful employ painting a bridge. I also took it to a run at Merimbula on the NSW South Coast, an annual event where I met up with mates from VIC, QLD and SA, all on bikes. This was the tenth year, and by now the choppers and Beezers and Trumpys - and drunks falling into the fire in a stupor - had given way to new Harleys and caravans and children. The old Norton turned out to be older than all the other bikes put together.

I came and went from Sydney, going there sometimes to work and replenish the bank account. In between I was touring Australia on a WWII WLA Harley with a chair, the nearest thing to indestructibility you can get on two wheels. I would leave the Norton with friends, and when I came back through, ride it around town, or to work, or whatever. One time I was gone quite a few months: when I came back and went to look for the Norton at my mate's place, it wasn't there. He said he lent it to a mate of his. Did I know this Joker I asked? Not sure. I went to look for the other Joker. The second Joker now in possession of the Norton had decided it would be nice to restore it, and so had started dismantling it in the back yard of his inner-city terraced house, out in the open. Fortunately, it hadn't rained for a while; he didn't know much about old bikes, but liked the idea of doing one up. I didn't do him up, but I did spend a few hours putting the Norton back together so I could ride it away promptly to a new home.



I took it back up north, and rode to the Sunshine Coast to see friends. Back in northern NSW a mate out west – over the Divide – said he would mind it for me. I rode it over there – Ashford, west of the New England Highway – and left it there. Dry climate, got to be good for storage.

About three years later (I'd gone to sea in the intervening period) and with a fresh Kiwi girlfriend who was a bit of an adventurer too (we walked/local-boated about 600km along the south coast of PNG one time together). We went out to Ashford to look for the Norton. We were both on the WLA with chair at this point, but I wanted to get the Norton down to another mate in Gippsland, Victoria, as I figured it would be safest there. Tanya had ridden a farm bike around a paddock once, but was nevertheless keen to have a go with the Norton. It was still running on that old Big-end and piston (assisted by regular dollops of Slick-50) so high speed was out of the question, and with a WLA and chair having a touring speed of 35 mph, we could take a nice gentle tour down through mid-western NSW and sneak over the Victorian Alps, all without the slightest chance of running into a policeman who might ask awkward



questions such as where her license was. So, after a quick lesson on handling a very tired old Norton with a tricky gearbox, we set off down the back-roads of central-western NSW, camping out in National Parks and by the side of the road. We went up over the Victorian Alps, crossing through the dirt roads of Gaffney's Creek, the A1 Mine Settlement, and Woods Point, then down the mountain again through Aberfeldy and Valhalla to reach Moe. Two thousand miles in two weeks, gentle chugging along. I can't say we never got the spanners out, but nothing happened mechanically that I can recall twenty-seven years later.

Once in Victoria at Rod's place, the old girl was definitely due a rebuild. In the sidecar I had a box of various spares I had collected over the years, and these now came into play. Rod and I agreed we would re-build the Norton as a joint project, as we always had such great fun fixing things together. Tanya and I went back home to Coromandel; but within two years the love-affair ended and I was largely homeless, living in a double garage on the side of a hill in the bush. I had seven bikes, but only three registered and running: time for a re-think. I decided to get rid of all the projects. The Norton was still in one piece at that time, but 2,000 miles away, so I phoned up Rod on his birthday and gave him the bike – Happy Birthday! He was very pleased, and so, over the next five years, whenever I was in Australia, I would spend time with Rod fixing up that Norton. New big-end, valves, guides, rebore, piston, mains; a whole new set of gearbox internals, brand new still in the army grease; fork spindles, and a spring, a powder-coated frame. The cosmetics didn't get much attention – we weren't in this to spend money – and a pressure-pack spray can of silver was the best she got.

Finally, in 2000, we fired up, and I took it to Valhalla and back for a ride, about 50 miles. All good, felt much nicer, gearbox was lovely, handling much improved. But Rego was a step too far: The Norton did manage one local VMCC day, but that was about it. I still lived in NZ, but was now working and living in the Pacific Islands, and didn't visit from 2002 to 2005. The Norton atrophied, rested in the shed. When I visited, I would ride it up and down the farm-track driveway where it lived, but that was it. Slowly, over the years, it moved further back into the shed: Rod got a 1934 Ford Tudor to build a Hot Rod, and the doorway became blocked enough that now the occasional ride down the drive never happened. Into the gloom and the cobwebs.

In mid 2017 Rod visited me in NZ and we rode around together on a Vincent Rapide and a '65 Electra Glide, but he was sick. He went into hospital later that year, and died in a cancer ward in January 2018. I went to stay with him the last two weeks: he asked me to sort out his bike stuff as he lay on his death-bed.

In May 2018 I went back for a week, and sorted out his shed and bike stuff, as his son had taken over the farm. The Norton was finally found underneath a set of rusty Ford Tudor doors at the back of the shed. Buried again I thought. 'You better take that Norton with you', he said. I went to the local Rice-Burner dealer, got a Kawasaki crate, and 24 hours later it was on its way to Melbourne on a trailer. It arrived in NZ, its third country in forty years, in August 2018. A week giving it a going over – the engine sprocket was about to fall off due to the wrong key – and some new cables, a can of Mist Green from the local hardware, a new seat cover, and we were looking good. I made up some new cables, but the silencer – an un-chromed period repro that I bought out of Armours reject bin in 1980 to placate the Old Man – was so rusted to the downpipe that I had to use a cutting wheel to get it off. I robbed the fishtale off my KSS project, and we were off! After a ticket from VTNZ (I had ownership docs going back to 1978 so it was pretty straight forward) and a bit of local running in (that 'new' motor had never been run in of course) and then an opportunity to give it a real run: the 2018 VOC NZ Rider's Rally, a trip to the Cape and back. As I rode up to the Cape, I knew Rod was sitting on the back, along for the ride. The Norton and I wished him farewell at Sprints Bay, sending him on his way to his next ride.



Twelve hundred miles and six days later it was well run in and even handling motorways with relative ease. I stopped in Auckland at the tyre shop and shelled out for a new set of covers as a thank you, as it was still running on what looked like it was shod with when it left the UK, and boy, were those tires hard! Stopping by a local Norton aficionado he looked at my velo pipe and, disgusted, walked into his shed and produced a large chrome-plated Brooklands Can. Don't that make 'er Bark!

We got furthest travelled in the 2019 Auckland VMCC bike rally, and the lights even worked coming home from the club dinner! It doesn't look like its going to give up anytime soon, you can just see how happy it is to be back on the road! You can still see the green etch primer under the rear guard.



{Thanks Alice, simply outstanding stuff – Ed}

## OVR Event Schedule, updated 30 August 2020

Date	Details	More Info?
<b>2020</b>	<b>2020</b>	
Sept 27	Bay to Birdwood Rally, South Australia	<b>COVID restrictions effectively restricting the event to residents of SA. Also all Pre &amp; Post functions now cancelled. More info here</b> <a href="https://baytobirdwood.history.sa.gov.au/covidsafe-guidelines/">https://baytobirdwood.history.sa.gov.au/covidsafe-guidelines/</a>
<b>Postponed</b>	OVR Bushfire Relief Ride – in Victoria, Australia. See OVR July 2020	<b>Regrettably postponed till the COVID crisis is over – god knows when that will be!</b>

**COVID Update:** Within Australia all state borders are now closed, making inter-state travel almost impossible. Within some states, travel inside the state is also constrained. The Australian national border is also closed. This situation is expected to be in place till the COVID crisis is under control - and that could be some time away.

## A Not So Usual Workshop Hint -





# Make an *Effective Covid* face mask



## How to make a cloth mask

Instructions for making a cloth face mask

### You will need

Section	Quantity <sup>1</sup>	Material type	Example materials
<b>Outer layer</b>	1 piece (25 cm x 25 cm)	Water-resistant fabric (polyester / polypropylene)	<ul style="list-style-type: none"><li>• Clothing</li><li>• Reusable 'green' shopping bags</li><li>• Exercise clothing</li></ul> 
<b>Middle layer</b>	1 piece (25 cm x 25 cm)	Fabric blends (cotton polyester blend / polypropylene)	A repeat layer of either: <ul style="list-style-type: none"><li>• Clothing</li><li>• Reusable 'green' shopping bags</li></ul> 
<b>Inner layer</b>	1 piece (25 cm x 25 cm)	Water-absorbing fabric (cotton)	<ul style="list-style-type: none"><li>• Clothing</li></ul> 
<b>Ear loops</b>	2 pieces (20 cm each)	Elastic or string or cloth strips	<ul style="list-style-type: none"><li>• T-shirt</li><li>• Shoelaces</li></ul> 

### Important:

Make sure that all materials are intact and have not worn too thin or have holes in them.

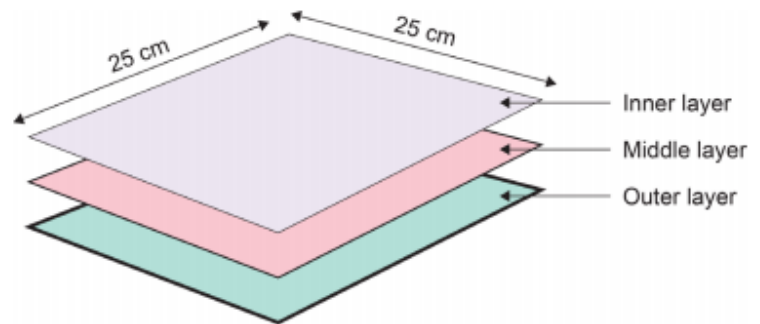
Check the item's label or tag to confirm the type of material.

## Steps

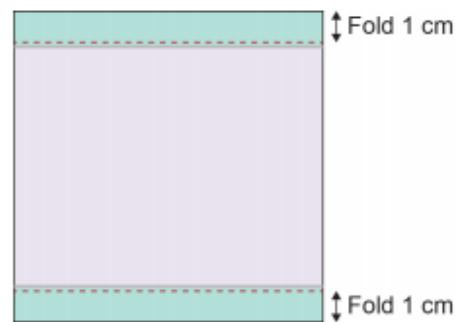
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1. Cut out the outer layer, middle layer and inner layer pieces (see above for dimensions and material to use).

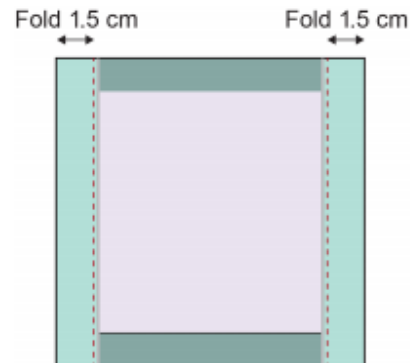
Place the outer layer on the bottom, the middle layer in the middle, and the inner layer on top.



2. With the inner layer facing up, fold over 1 cm of the three pieces of material for the top and bottom edges and stitch at the borders (see red dotted lines).

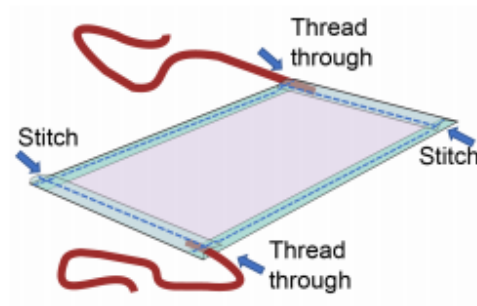


3. With the inner layer facing up, fold over 1.5 cm of material for the side edges and stitch (see red dotted lines).

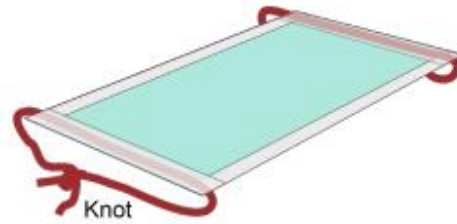


4. Thread a 20 cm piece of elastic, string or cloth strip through the wider edge on each side.

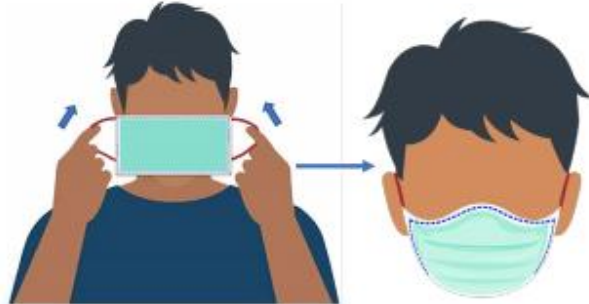
Use a safety pin or large needle to thread it through.



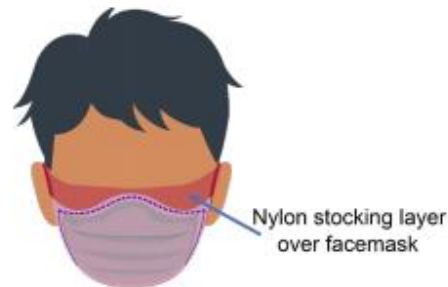
- 
5. Knot the ends tightly or stitch them together.



- 
6. Put on the mask with the outer layer facing away from your face.  
Adjust the mask to make sure it fits tightly over your nose and mouth.  
While wearing and removing the mask, do not touch the outer layer.  
Wash your hands before putting your mask on and after taking it off.



- 
7. If you want to improve the fit of your mask you can add a nylon stocking over the mask and tie at the back of the head.



To find out more information about coronavirus (COVID-19) and how to stay safe visit one of these websites

Australia <https://www.dhhs.vic.gov.au/coronavirus>

USA [www.coronavirus.gov](http://www.coronavirus.gov)

UK <https://www.gov.uk/coronavirus>

Canada [https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html?utm\\_campaign=not-applicable&utm\\_medium=vanity-url&utm\\_source=canada-ca\\_coronavirus](https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html?utm_campaign=not-applicable&utm_medium=vanity-url&utm_source=canada-ca_coronavirus)

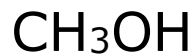
New Zealand <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus>

European Union <https://www.ecdc.europa.eu/en/covid-19-pandemic>

World Health Organisation [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)

From the desk of Dr.Doug.

## A Short Note on Methanol.



When using Methanol as fuel you should take care when handling. **It is Poisonous:** Do not allow it to come into contact with your skin. Repeated absorption by contact can have long term health consequences.

Some manufacturers add Pyridine, about 0.5 p/cent that gives the Methanol a nasty taste and a different smell to Pure Methanol. This is done to prevent people drinking the stuff.

Inhaling exhaust gas over a period of time gives a cumulative effect that can build to a level where oxidisation occurs that forms Formaldehyde that can cause Blindness and insanity.

Having said that, sensible precautions, such as the use of rubber gloves and avoiding the ingestion of exhaust gases and opening containers in a Non Confined area reduces such risks to acceptable proportions.

Whilst Methanol can be used to almost 20:1 compression ratio, 14:1 would be more practical as the combustion chamber shape would be superior at this ratio. The exception would be modern "Squish" heads, that would present a more favourable shape.

It burns slower than petrol and hence requires more spark advance than petrol. As a general rule of thumb, at maximum revs some 5 to 8 degrees, depending upon the compression ratio and combustion chamber shape. For example: a Vincent running on Methanol can be started on FULL advance of 34 degrees on 12.5: 1 compression ratio.

The GOLDEN RULE with Methanol is **RUN IT RICH, never lean** if you don't want holes in the roof of your pistons. The correct chemical ratio for Complete combustion is approx. 6.51% air to fuel ratio.



For maximum power however an air fuel ration of 4.5 Lbs of air to 1 Lb of fuel will give better results due to the higher charge density and the fuels higher latent heat of vaporisation than petrol.

This of course limits Pure Methanol to shorter events such as speedway, drag racing etc, due to the increased fuel consumption. This can be 2.5 to 3 times that of petrol depending on circumstances.

The Calorific value of Methanol is roughly half that of petrol so you need a lot more of it to produce the same heat. And that is what your engine is: (ie) A hot air convertor FROM combustion of fuel that heats the air that is converted into mechanical energy.

As well as having less energy than petrol, thereby requiring MORE fuel, the specific gravity of petrol and methanol is similar requiring a Volume that is more than double. Jetting MUST be increased in AREA. This requires an increase in Jet Diameter of some 40%. NOTE this will give an AREA of about DOUBLE.



Some Data:	Element or Compound:	Symbol:	Atomic Weight:	Molecular Weight:
	Hydrogen.	H	1	2
	Carbon.	C	12	12
	Oxygen.	O	16	32

Air contains 23% of Oxygen by WEIGHT, this means that 1 lb of air contains 0.23 lb of Oxygen. If 1 lb of air contains 0.23 lb of Oxygen, then **1 lb of Oxygen will be contained in 4.35 lb of air.**

Air contains 77% of Nitrogen by WEIGHT. If 1 lb of air contains 0.77 lb of Nitrogen, then 1 lb of Nitrogen will be contained in 1.3 lb of air.

### AIR REQUIRED TO BURN Methanol as a FUEL

The following data will make calculations easier.

1 lb of Hydrogen requires 8 lbs of Oxygen.

1 lb of Carbon " " 2.66 lbs of Oxygen.

1 lb of Sulphur " " 1 lb of Oxygen.

1 lb of Oxygen is contained in 4.35 lbs of air.

### Combustion calculation for Methanol.

$$\text{CH}_3\text{OH} = (12 \times 1) + (1 \times 4) + (16 \times 1) = 32$$

$$\text{Carbon \%} = 12/32 = 37.5\%$$

$$\text{Hydrogen \%} = 4/32 = 12.5\%$$

$$\text{Oxygen \%} = 16/32 = 50.00\%$$

$$\text{C} = 0.375 \times 2.66 = 0.998$$

$$\text{H} = 0.125 \times 8 = 1.000$$

$$\begin{array}{r} \text{-----} \\ \text{= 1.998} \end{array} \text{ added together}$$

And  $1.998 - 0.50 = 1.498$  (This is because the fuel contains 50% Oxygen).

$$1.498 \times 4.35 \text{ lb} = 6.516 \text{ lb of Air to fuel.}$$

### What Is Best?

Whilst this is chemically correct, **an air fuel ration of 4.5 will produce MORE POWER** as the charge density is greater and helps to dissipate a lot of heat from surrounding manifolds, valves etc and is a **LOT SAFER** for your engine.

If you have an Oxygen sensor and a gas analyser you can measure the above on the Dyno.

This short note is by no means a treatise on the subject. It is intended as a PRACTICAL AID for folk who use this fuel who do not necessarily want to know more than how to get the BEST from an engine using Methanol.

Kindest Regards, Dr. Doug. , Australia



Reprinted from "Motor Cycling," August 24, 1932.

ROAD TESTS OF 1933 MODELS

# The Model D.P.S. 500 c.c.

Python-engined

# VINCENT-

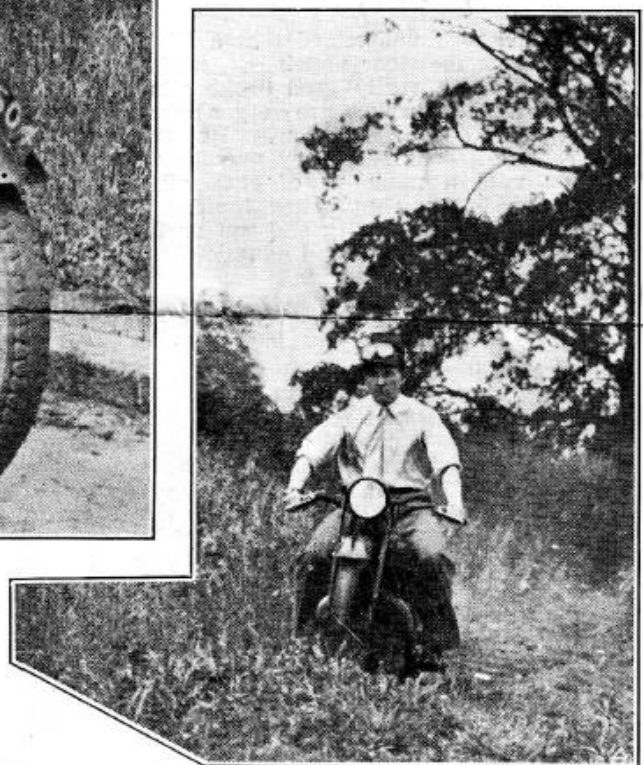
# H.R.D.

*Excellent Rear-springing—  
High General Performance*

Godfrey's 208  
Gt. PORTLAND St.,  
W. I.  
BEST SERVICE,  
ALL MAKES SUPPLIED,  
MUSEUM 3401 (3 LINES)



*Riding position  
—O.K. (Right)  
Hitting hummocks  
fast in "second!"*



**M**ERELY to say that rear springing has justified itself is an aphorism. We know that. Far-seeing riders and "prospects" look farther. Above all, they want to know about increased complication, if any, and what maintenance this perfectly logical form of suspension involves. And so that there should be peace in these inquiring minds, the Vincent-H.R.D. Co., in placing at *Motor Cycling's* disposal one of their 1933 Python-engined 500s, specifically chose a machine which had already done 12,000 miles of relentless sidecar work. During that period it had been possible to take up side-play in the double rollers of the 11-in. frame pivot bearing only to the extent of one-eighth of a turn of the 20-thread adjusting nut.

### Every 25,000 Miles . . . .

It is, of course, outside the scope of a road test lasting a matter of a few hundred miles for the tester himself to observe any measurable quantity of wear in a bearing designed for a life of neglect. But there is little reason to doubt the maker's claim that on the average solo-ridden H.R.D. no such measurable quantity develops until the 25,000-mile mark has been passed.

The fundamental merits of the frame layout—already well-proven and accepted—are supported by close attention having been given to weight distribution, and the relative positions of the handlebars,

footrests and saddle. Here is a machine which suggests by its "feel" that one could easily go to sleep in its saddle. But it is better to keep awake! And to enjoy riding flat out with a rhythmic rise and fall over rough and smooth alike. Equally on any kind of road, or when the metalled-way is left behind and the gullies, rocks and mud of a typical "colonial" are addressed, the fascination and safety of this rear-springing is patent.

On the kind of main road that has an indifferent surface it is the plain truth to say that where 40 m.p.h. would be normally endured in scant comfort, it needs the fullest faith in the accuracy of the H.R.D.'s speedometer to believe that the 60 m.p.h. which it shows is anything but an extravagant lie. Taking the comparison farther, if we suppose that at 60 m.p.h. our imaginary and typical un-sprung job is getting out of hand, this rear-sprung model is still safe, and *feels* safe, too, at 80 m.p.h.

## BRIEF SPECIFICATION OF THE 499 c.c. VINCENT-H.R.D.-PYTHON

**Engine:** Radial four-valve Python; 85 mm. by 88 mm. = 499 c.c.; dry sump lubrication; enclosed push rods and semi-enclosed rocker gear; ball and roller drive side main bearing—rollers on timing side; positively lubricated big-end; horizontal Amal carburettor; B.T.H. magneto.

**Frame:** Triangulated and braced front portion; rear portion pivoted at base and sprung on twin enclosed and damped

springs; Brampton forks with damped compression spring and built-in damper; spring-up prop stand.

**Gearbox:** Burman 4-speed, with positive stop foot gear change.

**General:** Clean handlebars, right-hand throttle twist grip, left-hand spark grip. Saddle tube oil tank. Rubber knee grips.

**Wheels:** Fitted 26 in. by 3.25-in. tyres;

Timken roller bearings; heavy gauge spokes; finger-adjusted 7-in. brakes.

**Price:** £65. 10s. with lighting. Similar, but with coil ignition, £65. Or with 500 J.A.P. 2-port replacing Python, £62 10s. Or with standard Python and coil, £59 10s.; magneto, £62 10s.

**Makers:** Vincent-H.R.D. Co., Stevenage, Herts.

On fast corners, even more than when on the straight, there is an invaluable asset in possessing a rear wheel which follows the contour of the bumps, instead of hopping from one to the next. On a curve of baddish surface, which the average rider, in an average hurry, could navigate, say, at 50 m.p.h., the extra margin of safety lent by this form of rear springing is quite 15 m.p.h. The same curve, only surfaced like a billiard table, would probably reveal no advantage in the spring frames' favour, in fact, the better known "replicas" would probably be faster. But the *forte* of the former lies in its elimination of "straying"—that feeling that the rear end will finish its series of hops by hopping from under its rider.

### Fast Life on Springs.

It will be easily understood that a life on springs, almost without the rider noticing it, tends to become a fast life. Thus, really good braking is an urgent need. The H.R.D. brakes are very average in themselves—neither above nor below. But the improved wheel contact means that they may be used to the maximum with a minimum of risk. The machine has average brakes—but better braking than most, and this is true both on dry and wet surfaces. Hundred per cent. (or near) wheel adhesion is the answer.

It goes without saying that much greater daily mileages without fatigue may be accomplished on springs. What may not be taken for granted, but nevertheless is so, is that the H.R.D. was found to handle well in loose, stony going and trials slime; but was more outstanding on gullies and hummocks of the scramble, as distinct from trials, order.

Turning to the radial-valve "Ulster" Python engine fitted, this had a really high performance. Literally inside the first mile of *Motor Cycling's* test, the Jaeger speedometer passed the 80 m.p.h. mark, which is most outstandingly good for a fully equipped machine built with no regard to lightness. In the

*One of the least obtrusive of spring frames, the H.R.D. looks what it is—good.*

excellent Burman four-speed's third ratio just over 70 m.p.h. was the maximum, while on the 8 to 1 second there was a flat-out speed of 54 m.p.h.

The petrol consumption was found to vary widely according to conditions and the speeds maintained, just over 65 m.p.g. was the highest consumption, and approximately 90 m.p.g. the lowest.

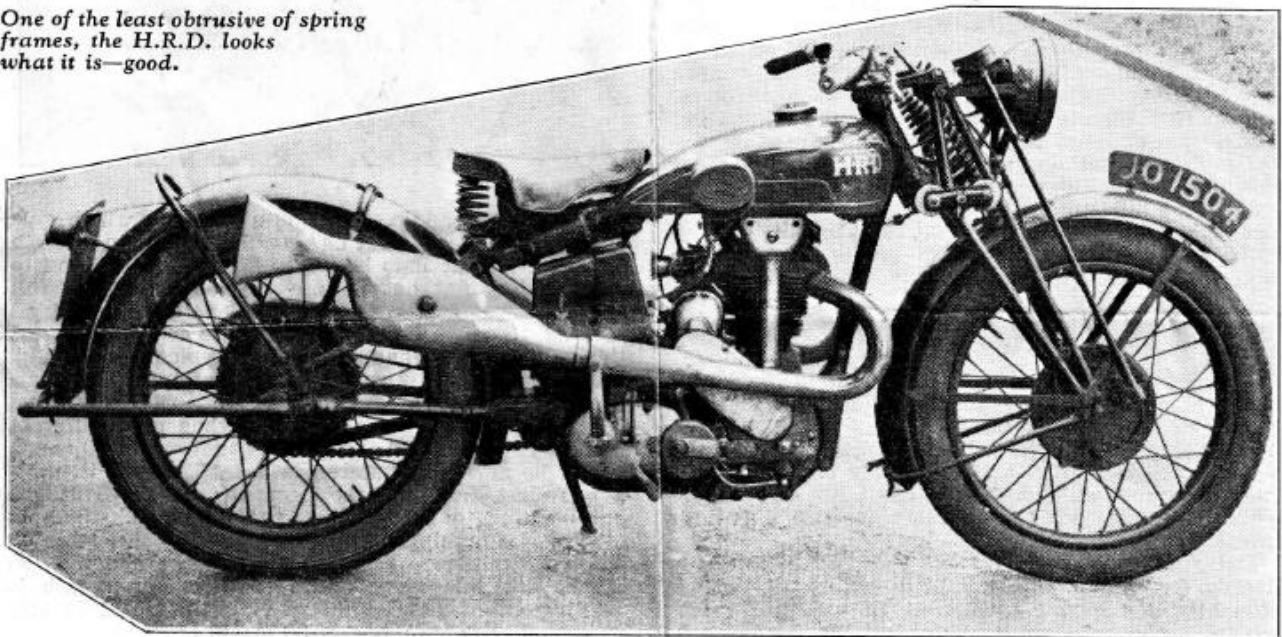
So long as the spark was judiciously used the Python displayed unusual flexibility for so fast an engine—a point which may perhaps be attributed partly to the fact that to make assurance doubly sure all proprietary engines supplied to the Vincent-H.R.D. Co. are dismantled, have their barrels lapped, heads polished and attention given to kindred details.

The Python's acceleration, when given the opportunity of co-operating to the best advantage with the Burman box, with its close ratios, was really magnificent. The exhaust note, on the other hand, was too noisy, except at low engine loads, a point to which attention should be given. Two other criticisms concerning the exhaust layout are that the discoloration of the curves in the pipes suggest that they might be less acute with advantage, whilst the high-placed silencers would make pillion riding a virtual impossibility, even if the unsprung rear mudguard—and therefore pillion—were not in itself a deterrent.

### The Right Details.

As for the H.R.D.'s general amenities, the spring-up prop stand was found a great convenience; the enclosure of the speedo. drive in a straight rigid tube is a brainwave that enhances "cleanliness"; the foot-brake pedal—a fine, massive thing—having, since last year, been removed to the near side, no longer interferes with the foot-change pedal; the last-named is one of the best yet tried, being *positively* positive.

It costs, this Vincent-H.R.D., £65 10s., with its B.T.H. lighting. And it is, we think, a sound £65 10s.-worth.



Temple Press Ltd., 3-15, Rosebery Avenue, E.C.1.

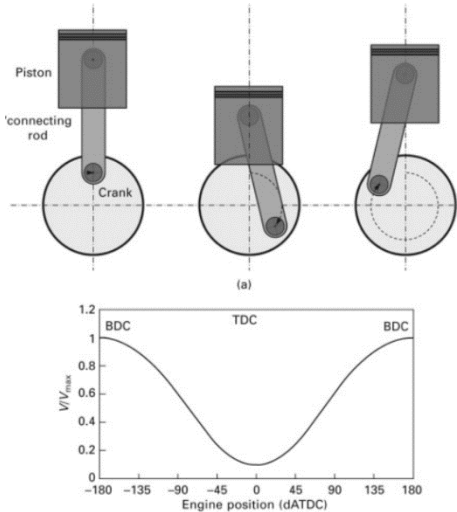
Thanks to Phil Canning for this historic item

# Finding Top Dead Centre

## 1. Introduction

No matter what make of internal combustion engine you are working on one important skill to have is the ability to set it at top dead centre (TDC) so that you can then do things like checking and setting valve timing and checking and setting ignition timing. These two things can mean all the difference between a engine that's hard to start and one that not, an engine that lacks power and one with adequate power, an engine that runs hot and one that does not, an engine that is reliable and one that's prone to frequent, sometimes catastrophic failures.

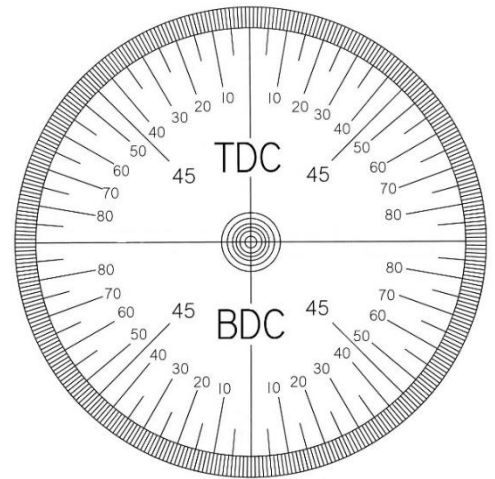
Up front, if you plan to do things right then ignore any so-called manufacturers markings or suggestions in regard to finding Top Dead Centre.



I suggest that you need to accurately determine TDC for yourself.

Let's consider for a moment the relative movement of a piston within a motor. As the crankshaft rotates the distance the piston moves varies as can be seen in the diagram. Piston movement per degree of crank rotation is at its highest half way through the stroke and at is lowest at each end of the stroke. For all practical purposes the piston is virtually stationary within 1

to 2 degrees either side of top or bottom dead centre. This reduced vertical movement as the piston approaches TDC means that using a short probe to detect TDC can lead to errors.



Of course, you will need something to indicate the relative



position of the engine. You will need a degree wheel that is attached to the crankshaft.

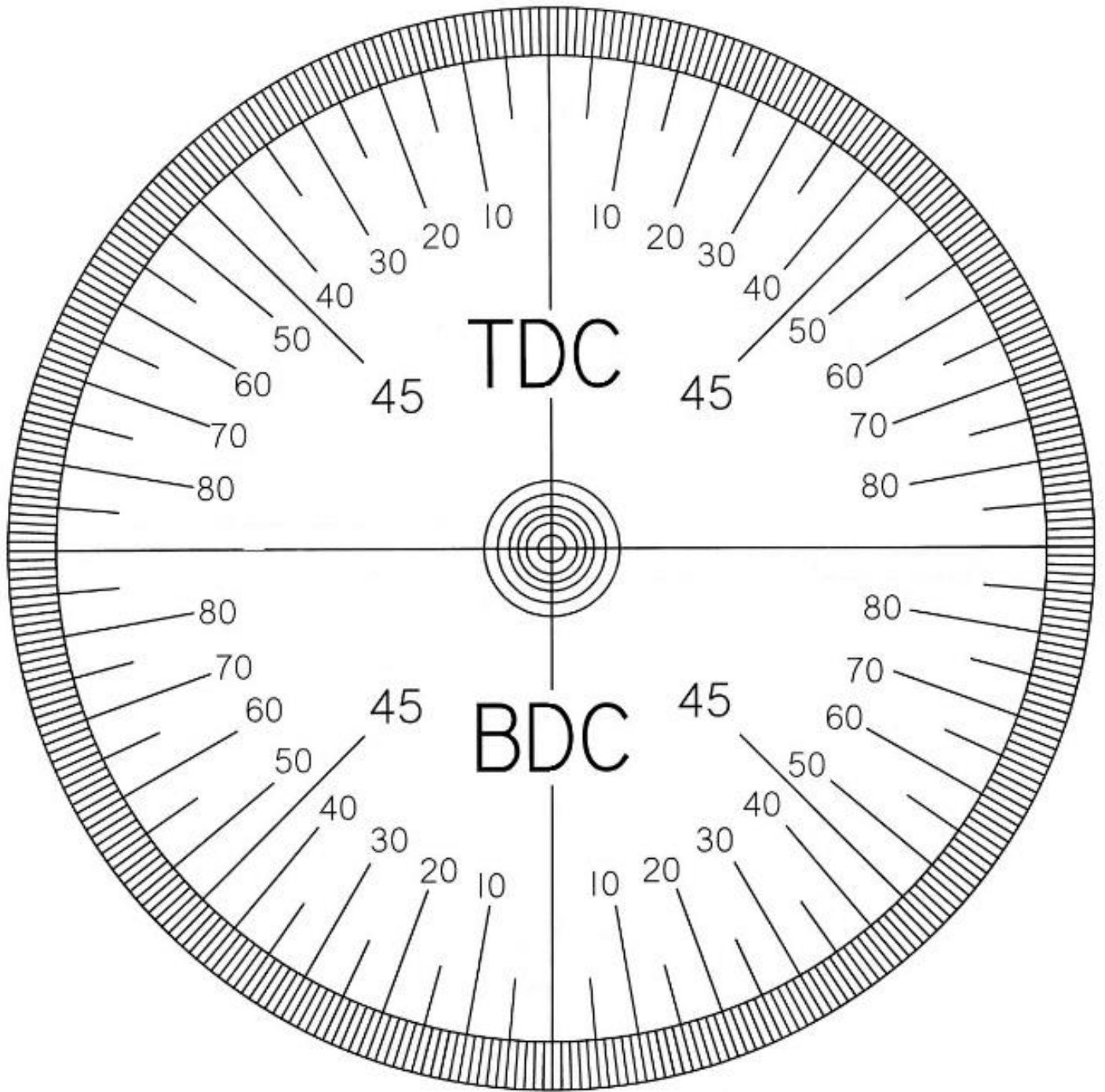
You will also need a means of accurately finding TDC. I suggest you use a piston stop that will stop the piston at a point at or close to the centre of the stroke where there is the greatest travel compared to degrees of crank rotation.

## 2. How to make your own degree wheel for use on a Vincent

The larger your degree wheel the better, a small disk may be easier to fit without the need to remove 'obstructing' bits such as gear levers but reading the scale will be almost impossible. Bigger is better.

Print the degree disk template on a sheet of stout A4 paper. You will also need some white PVA adhesive, a metal chopstick, some scrap timber around 3/4" to 1 inch thick and 2 to 3 inches wide and some good quality epoxy adhesive.

Glue the printout onto a solid board such a 3 ply or 3 to 5mm craft board. I suggest you use white PVA adhesive. Then cut out roughly around the outside of the degree wheel. To protect the face of the wheel when in use, dilute some white PVA glue 50% with water and apply that as a sealer to the edges of the wheel and its face as well.



Once the sealer coat is dry drill a small, approx. 1/8" diameter in the EXACT centre of the disk.

Your degree wheel will need an axle - I recommend using a metal chop stick.

With a hole saw cut a disk of around 2 inches diameter from the piece of scrap wood, then with the PVA glue, glue that disk in the exact centre of **the rear** of the timing disk - use that 1/8" hole in the timing disk to assist in alignment. The next step is to insert the chop stick through the centre of the timing disk to act as the 'spindle' of the disk. Before proceeding measure the diameter of the chop stick. Be sure to drill the hole for the chop stick at EXACTLY 90 degrees to the surface of the disk.

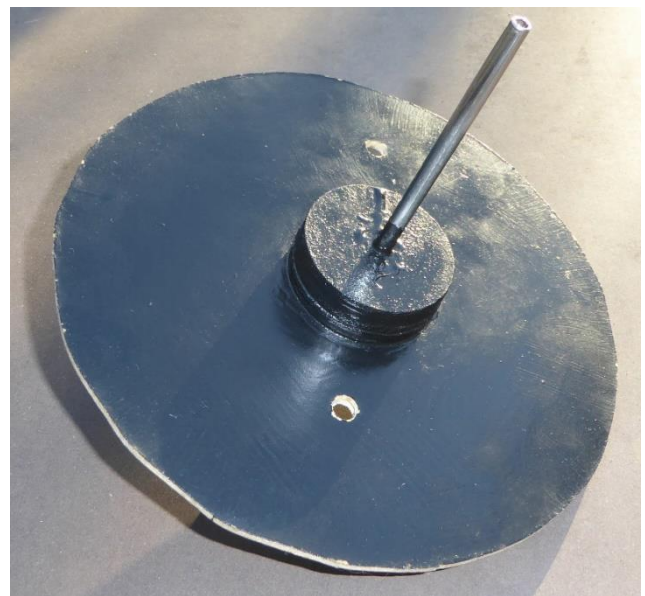
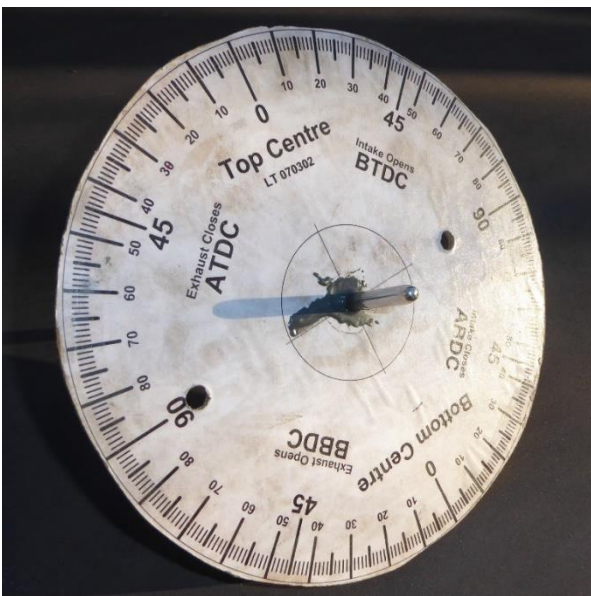
The timing disk, in use will be attached to the end of the mainshaft on the timing case side, through the oil quill hole, so the end of the chop stick that gets inserted into the quill hole needs to be no more than 5.5 mm diameter and taper UP to at least 7mm diameter. Do not be tempted to use a bamboo, plastic or timber chop stick - only metal. The reason being that in use as the spindle of the timing disk you do

not want to risk anything getting stuck in the quill hole in the centre of the mainshaft as that would prevent oil getting to the big end quickly leading to big end bearing failure. Not nice.

Its most likely that you will need to cut/shorten the chop stick at its thinner end so that it becomes possible to gently but securely insert it thru the quill hole into the oilway in the centre of the drive side mainshaft. Having done this and worked out thru observation how far along the chop stick (aka timing disk spindle) you want to have the timing disk, open up the hole in the centre of the timing disk and the disk of wood glued to the back of it, but ensuring that it will be a snug fit for the chop stick.

Apply a generous amount of epoxy glue to the chop stick and into the hole in the centre of the disk then insert the chop stick into the hole to the position you have just selected, with the thinner end poking out the back. **Do whatever it takes to hold the chop stick axle at 90 degrees to the back of the disk** while the glue sets, if you do NOT do this then as the disk rotates in use it will wobble making it hard, if not impossible, to use.

Once the epoxy cures – normally after 24 hours, you can apply some protective paint to the REAR of your smart new timing disk.



Here are images of the front and rear of my timing disk – yes I did use a different image for the print. The holes are so I can hang it up in my workshop.

### 3. Making your Piston Stop

You will need an old spark plug, a 6mm x 60 mm long Philips head dome head setscrew with one plain nut and one nylock to suit it.



The first and messiest part of the procedure is to completely remove the guts of the spark plug and the washer, without any significant damage to the metal body – if you damage the thread – then it's no longer of use – go get another old spark plug and start again.



Here is a photo of my finished piston stop. Note that the nut is of a size that can pass thru the spark plug hole.



In use the piston stop is screwed into the spark plug hole but as you will be slowly turning the motor over by hand you want as little resistance as possible so you need to cut a channel into the side of the stop to allow compression gases/air to escape as you turn the motor over. I used a Dremel with a thin cutting disk to cut the channel in my piston stop.

Put the plain nut onto the setscrew and run it around half way down its length, poke it up into the spark plug body and fit the nylock nut on the inside. Snug up the two nuts so that the set screw cannot wobble about – it must be firm. But resist any temptation to put any glue on the threads just yet.

When the piston stop is inserted into the spark plug hole, the aim is to stop the piston close to the middle of its stroke. With my Comet that resulted in the distance from the end of the setscrew to the underside shoulder of the spark plug body being approx. 55mm.



#### 4. Finding Top Dead Centre

For the rest of this activity, the rear wheel MUST be clear of the ground.

Remove the oil quill from the timing cover then gently push the spindle of the timing disk into the quill hole, engaging the oilway in the centre of the mainshaft

Press gently, sufficient for the spindle to engage with the mainshaft.

With my Comet, in order to get the disk into position I had to first remove the gear lever.

NOTE: subsequently you will want to be able to rotate the rear wheel in order to have the engine rotate, so if you do need to remove the gear lever, before you remove it put the bike into 4<sup>th</sup> gear.



This is an opportune time to also remove the cap over the inlet valve adjuster and also the spark plug (with a twin, remove both spark plugs). The cap is removed so you can observe the movement of the inlet rocker as the motor is rotated; the spark plugs are removed so you are not 'fighting' against the compression pressure.



You need a pointer, a fixed position relative to the timing disk. I made mine from a length of soft wire (an old wire coat hanger) bent to shape. I painted the end just to make it easier to see.

Then I attached my pointer to the motor by clamping it under the cylinder oil jet nut OP40.

At this stage the position of the timing disk, what the pointer is indicating, is NOT important.



Make sure the piston is not near the top of its stroke. You can do this by putting a long rod (screwdriver) into the spark plug hole, move the rear wheel to move the piston down if needed – make the rod of sufficient length so as NOT to fall completely into the cylinder!

It is time to install the piston stop you have made – first be sure the setscrew nuts are secure and that the setscrew cannot move in the spark plug body. The stop must NOT contact the piston just yet.

Next, very slowly rotate the rear wheel in a REVERSE direction till the piston makes GENTLE contact with the piston stop.

Now position (rotate) the timing disk - **NOT the motor** - so that the pointer is aligned to top dead centre as shown.

GENTLY tap the outer end of the timing disk spindle (chop stick) to secure it in the mainshaft. Gripping the rear wheel start rotating it **gently FORWARD** till the piston again makes contact with the top of the piston – work slowly!

Make a note of where the pointer is on the timing disk as your motors Top Dead Centre will be EXACTLY at the mid-point between what is indicated and the Top Dead Centre position on the timing disk.

Examples:

If the pointer is at 90 degrees from TDC then the mid-point is at 45 degrees (90 divided by 2)

If the pointer is at 84 degrees then the mid-point is at 42 degrees

If the pointer is at 75 degrees then the mid-point is at 37.5 degrees

**BUT** – if your pointer is initially between TDC and 50 degrees your piston stop is **too short**. Remove the stop, using the two nuts in the stop, lengthen it and start again

If the pointer is initially between 90 degrees and bottom dead centre your piston stop is **too long**. Remove the stop and shorten it, then start again

The **ideal range** is for the piston stop to be of a length that has the pointer initially in the range of 80 to 90 degrees from Top Dead Centre

Once you are happy with the length of your piston stop you can continue.

Making sure that the motor does not move, gently rotate the timing disk till the pointer is at your calculated mid-point.

You must now take every precaution **NOT** to move the timing disk in the mainshaft or disturb the position of your pointer.



In my case the pointer was at 80 degrees when the piston made initial contact with the stop, so the mid-point to TDC on the DISK is 40 degrees, which is actually the true position of the crank.

Rotate the rear wheel in a reverse direction just a small amount then remove the piston stop – it's done its work and the timing disk is now showing you the actual position of the crankshaft and piston.

Now slowly rotate the rear wheel in a **FORWARD** direction keeping an eye on the movement of the inlet rocker AND the position indicated on the timing disk. You will see the inlet rocker rise and once the inlet rocker starts to fall (close) then the piston is on the upward path in the compression stroke with the timing disk showing the true position of the piston.

Continue gently rotating the rear wheel in a forward direction till the timing disk shows Top Dead Centre on the compression stroke. If you go past TDC turn the wheel in reverse till you pass TDC again, then turn it forward to TDC. – **Job Done**.

Once finished you may consider mixing up a bit more epoxy adhesive and putting it into the inside of the spark plug body of your piston stop so there is no possibility of your piston stop being inadvertently lengthened or shortened in the future.

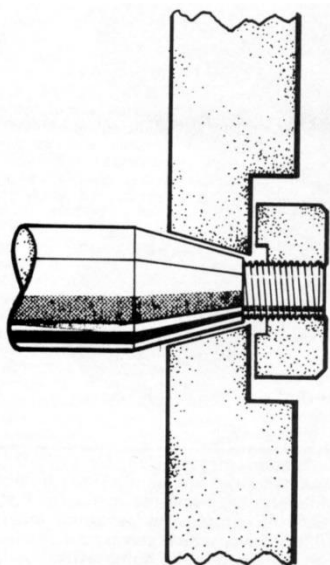




# Taper Drives

by Brian Woolley

*First published in Classic Bike, 1986*



*A typical taper joint. The shaft fits inside a bore tapered to match it, with clearance decreasing as it is pressed in. The securing nut is rebated, or recessed, on its inner face to ensure that it doesn't foul the shaft taper*

AN engineering feature frequently met with on older motorcycles is the use of taper-fitted drives. So common are these tapers, that most of us take them for granted. Main shafts and crank-pins are fitted to flywheel assemblies, gears to camshaft and magneto drives, sprockets and clutch centres to shafts — all through the simple medium of male and female tapers, which in the case of British machines usually subtend an angle of 9 degrees.

Simple indeed — which of course was the attraction for engineers in days gone by. Both the male and female taper could be easily and cheaply produced as part of the over-all machining operation with nothing more sophisticated than a lathe, thus keeping cost and complication to a minimum.

Not that simplicity and cheapness were the whole story by any means. Properly fitted, a taper drive can transmit far more power than superficial consideration might suggest. The reason for this is that such drives do not depend, as is sometimes assumed, upon friction but upon an interference fit which can be readily increased as much as is necessary, by pulling the two tapers closer and closer together.

Most restorers are familiar with the idea of parallel interference fits, for example, where a crankpin is pressed into holes in the flywheels which are deliberately ground several thousandths of an inch undersized. As may be readily understood, elastic distortion of the metal around the crankpin grips the pin with a pressure of several tons to the square inch. Such parallel interference fits work well, but there are drawbacks. Repeated dismantling and refitting may cause wear and thus reduce the degree of interference, and the use of a hydraulic press is called for, both to strip the assembly and to put it back together.

Assembling a crankpin with a male taper fitting into a female taper in the flywheel calls for no other tools than a large vice, a well-fitting socket and a socket wrench. The pin has fine screw-threads formed on its ends, outboard of the tapers. Nuts fitted to these threads draw the tapered pin into the tapered hole in the flywheel, giving an ever-increasing degree of interference as the metal of the flywheel is progressively distorted. It is desirable that the flywheels should be heated, so that the interference can be attained without straining the threads on the end of the pin and in the corresponding nut.

When it is necessary to strip the assembly, the nut is slackened off until it is half-a-turn free, and then, using a stout aluminium or brass drift held against the end of the crankpin, a really sharp blow with a copper or lead mallet — or a good sized steel hammer — will break the interference. This is more easily done if two pairs of hands are available — one pair to hold, one pair to hammer — and is even more easily accomplished if a little heat is applied to the flywheels in the vicinity of the tapers.

An advantage of taper-fitted crankpins is the comparative ease with which the flywheel assembly can be aligned. With one end of the crankpin fully tightened into its flywheel, the other end can be tightened into a comparatively light interference. Rotating the crankshaft between centres with a micrometer dial gauge will show up discrepancies, which can be corrected with quite light blows from a copper mallet. The second taper can then be drawn up, and with care, the alignment will be maintained.

Whatever their application, for taper drives to give satisfactory service, a few simple precautions must be observed. However good the surface finish in each taper, it can be improved by lightly lapping the two components together with fine grinding paste, which of course should be carefully washed off with petrol.

As the nut is tightened, drawing the male taper into the female, the male taper may project through by at least a few thousandths of an inch —possibly quite a bit more. So that the nut does not lock up on the projecting pin, it is rebated — or cut back — on its inner face. Sometimes the nut is not rebated but a

hardened washer is used to achieve the same end. In either case, it is as well to check that clearance is present and adequate, both as regards the distance that the pin may project and as regards its diameter. Warming the female taper has already been mentioned. Taper drives should be put together scrupulously clean, dry and tight. If a manufacturer's torque figure and a torque wrench are available, so much the better, but if not, err on the side of tightness rather than otherwise.

Many taper-drives include keyways and a key, usually (though not invariably) of the 'half-moon' or Woodruff pattern. In the majority of cases, as with timing gears, magneto flywheels, and main shafts and crankpins containing oilways, the purpose of the key is simply to maintain a given alignment. Do not make the mistake of assuming that the key in any way contributes to the transmission of the drive. This depends entirely upon the interference of the tapers. Even in crucial areas of frequent sudden and heavy reversals of load, such as engine sprockets, clutch centres and final drive sprockets, the presence of a stout key is not intended so much to contribute to the drive as to act as a shock absorber, and to pre-vent the possibility of the tapers shifting, even so much as a few thousandths of an inch, in relationship to one another. For the key to absorb momentary shock loads it must be a perfect fit, with absolutely no side play.

Woodruff keys are made to standard dimensions, as are the keyways into which they fit, and they should not need to be 'fitted' in the ordinary way. If an emergency arises and a key has to be reduced in thickness and perhaps in depth to suit some application, take great care to ensure that it fits equally tightly (a light interference) in both keyways, and be particularly careful to ensure that there is clearance between the top of the key itself and the keyway in the female taper —otherwise the tapers may be held away from each other, the key will shear and a disaster will occur. Such a failure can result in a sickening sight indeed. Although — in line with the taper drive's inherent simplicity — it can be rectified by welding and re-machining, it is best avoided altogether.

A WORD about removing items such as engine and final-drive sprockets, which cannot be conveniently held as can a pair of flywheels. For such jobs an adjustable sprocket puller is invaluable. Hook the legs behind the sprocket, and tighten up the screw against the end of the shaft as tight as it will go. A smart blow delivered to the end of the puller will then break the interference.

Modern motorcycles have tended to adopt splines and parallel interference fits, and are none the worse for that. But the simple old-fashioned taper-fitted drive, which can be assembled and stripped in the home workshop is very much in the 'do it yourself' tradition of the classic British motorcycle.



*A tapered crankpin with rebated nut*



*Pullers will remove sprockets and gears from taper joints*

# 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 advertisement. OVR will NOT be providing any editorial or corrections. Of course OVR cannot accept any responsibility for anything to do with the items advertised – that's a buyer/seller matter.*

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

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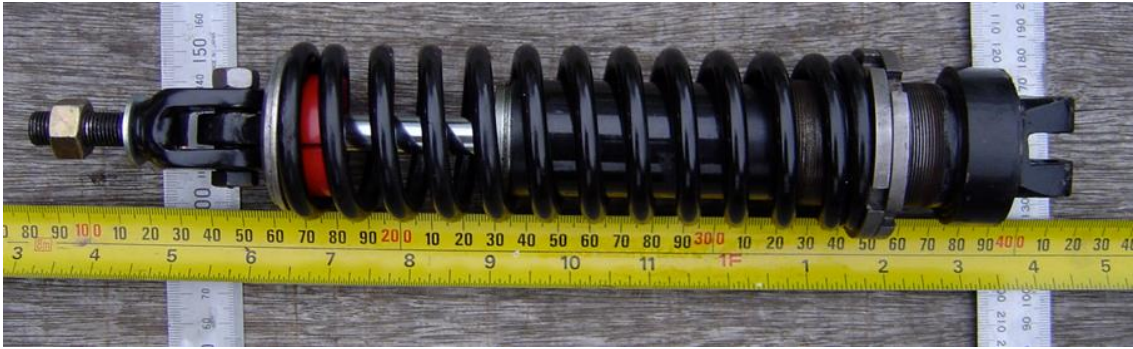
**COVID Cleanout:** I have had a good look through all my Vincent stuff and have decided that a number of things need to be moved on. I have a list below and if you want to pass it around to the Vincent guys that would be great. These items are all located in New Zealand, though the prices are in Australian \$. Packing and post/shipping costs extra.

Pictures can be forwarded if requested. Happy to assist with International shipping.

Contact Eugene Nehring in New Zealand on: [eugenednehring@me.com](mailto:eugenednehring@me.com)

- 1 x mostly complete set of Girdraulics A\$5,500 (approx. US\$3,900)
  - 2 x Used Rear Hubs \$50 each (approx. US\$35)
  - 1 x Good Used G50 \$100 (approx. US\$70)
  - 1 x Vincent Single Pull Throttle \$100
  - 1 x Comet Steady Plate Good Used \$50
  - 1 x Rapide Steady Plate Good Used \$50
  - 1 x Comet foot Hanger (Brake Side) CAD plated \$150 (approx. US\$106)
  - 1 x Comet Pivot Stand Axle CAD Plated \$50
  - 1 x Series D exhaust Nut \$50
  - 1 x Comet Battery Carrier with front Strap \$150
-

**Wanted, Expressions of interest** for a new Coil-over front suspension for Brampton equipped Series B Vincents.



Based on a tried and tested custom unit I have been using for over twenty years. This will be fully engineered, tested and made by a reputable Australian motorcycle suspension manufacturer.

The basis is the well known Koni shock absorber with an adjustable preload spring that easily mounts onto a Series B Vincent with NO modification to the forks.

I already have over thirty expressions of interest and I will be personally testing the prototype on my Rapide. If you are interested then e-mail me at [alynvincent@mac.com](mailto:alynvincent@mac.com)  
OR [avincent@ozemail.com.au](mailto:avincent@ozemail.com.au)

Please make the subject of your email "Brampton coilover". The price will be determined by the batch size of production but I have already been advised I have reached the commercial trade level so it will be very reasonable.



Later on I will ask for non-refundable deposits and then initiate production but this will not happen until very late 2020 or early 2021. I will also look into setting up distribution points in the U.K. and USA so taxes can be fairly arranged.

I can assure you that after twenty years this suspension makes for the ultimate Vincent front end suspension.

I have covered about 40,000 miles on all types of Australian roads with this set-up and never had a wobble or a "moment". In fact it has made other riders on Series C machines wonder why I don't swerve to miss potholes or bumps in the road.

This is a non-profit making exercise where I just intend to cover costs.



Alyn Vincent  
NSW. Australia

### 3 Bikes For Sale - please , seller requests NO DEALERS

1. **Vincent Rapide.** A bit of a bit but a good one. Engine is Series B and the UFM and RFM are Series C.

Current owner since 1978 a private collector in Queensland with no problems. Selling due to old age!! Bike is located in the Illawarra area of New South Wales. Offers in the vicinity of AUD\$60,000 for a quick sale. Reply in first instance to Alyn Vincent. [alynvincent@mac.com](mailto:alynvincent@mac.com).

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2. **Series B Vincent Rapide.** Matching numbers in excellent condition. Bad back forces sale of this well sorted machine. Currently running an Alton but original generator available.

The bike is located in Queensland, North of Brisbane.

Offers in the vicinity of AUD\$85,000.

Reply in first instance to Alyn Vincent, [alynvincent@mac.com](mailto:alynvincent@mac.com).

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3. **2007 Ducati Monster 695.** Elderly owner who cannot ride anymore.

Offers in the vicinity of AUD\$6,000

Located in the Illawarra area of New South Wales.

Reply in first instance to Alyn Vincent,

[alynvincent@mac.com](mailto:alynvincent@mac.com).

Interested? email to [alynvincent@mac.com](mailto:alynvincent@mac.com)

# 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 for twins, oil leak eliminator kits, socket head tappet adjusters, paper element oil filters and lots lots more. Ships worldwide. Email for a price list to [nvidean@outlook.com](mailto:nvidean@outlook.com)

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

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

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

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

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

**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](http://www.fastlinespokes.com.au) or phone (+61) 0411 844 169

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

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

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

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

## Nuts n Bolts:

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

**Precision Shims Australia**: All types of shims made to your requirements, ships worldwide. More info at their web site [www.precisionshims.com.au](http://www.precisionshims.com.au)

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

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

## ***Restoration Services:***

**Steve Barnett, Australia.** Master coachbuilder and fuel tank creator who does incredible workmanship; located in Harcourt, Victoria. Ph +61 3 5474 2864, email [steviemoto@hotmail.com](mailto: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: [ogriip400@hotmail.com](mailto:ogriip400@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](mailto:grantwhite11@bigpond.com)

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

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

## ***General Services :***

**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](mailto:qualmag@optusnet.com.au)

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

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

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

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

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

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Australian Government

OFFICIAL MEDICAL ADVICE

**Don't risk it.**

**Always follow  
the health advice.**



Hygiene



Distancing



Get tested



Isolate

It's up to all of us to keep each other safe.  
You must continue to practise good hygiene,  
physical distancing, and if you're even slightly unwell,  
get tested and stay at home. Don't risk it.

The sooner we **all do it,**  
the sooner **we'll get through it.**



Have the App  
Visit [australia.gov.au](https://australia.gov.au)