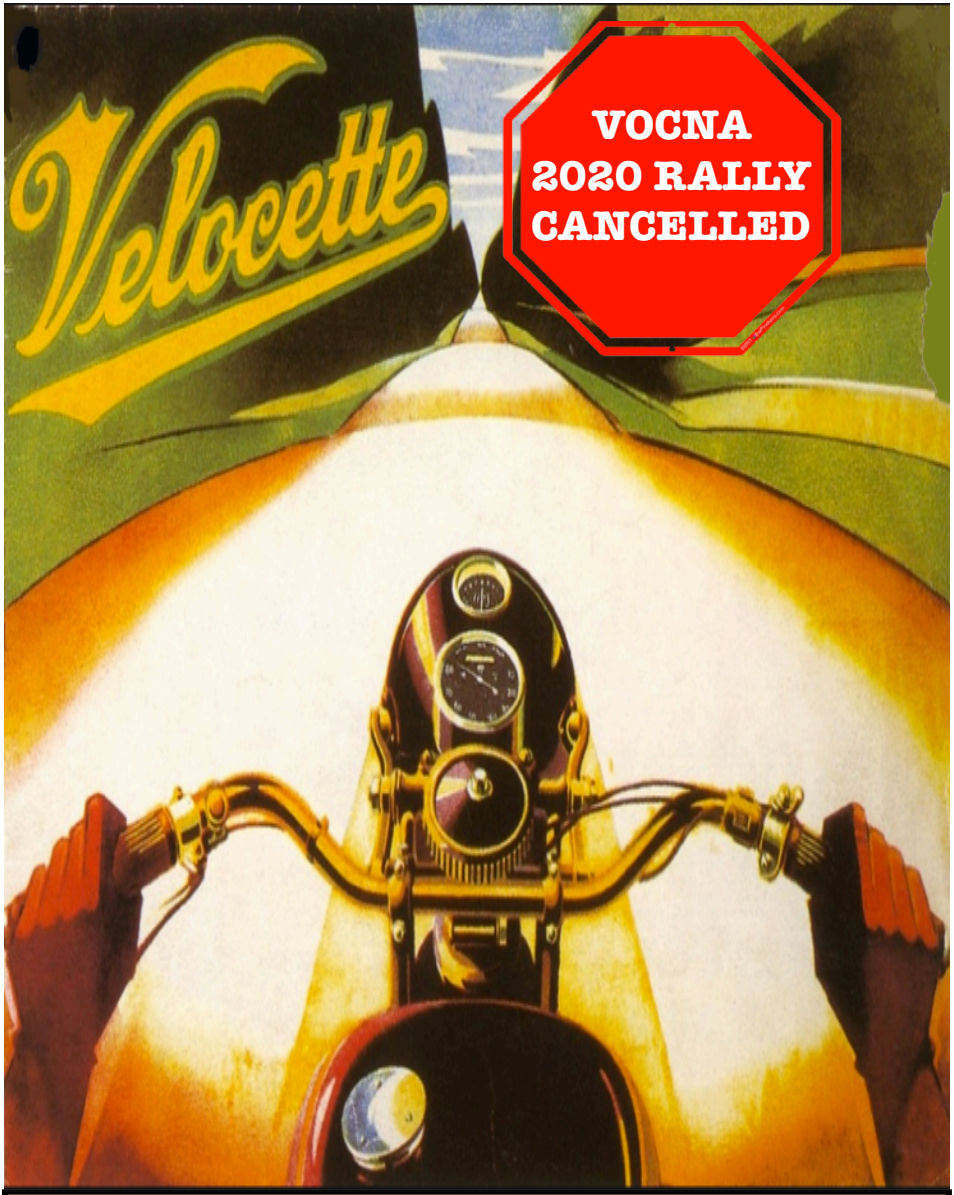

FISHTAIL WEST

The newsletter of the
Velocette Owners Club North America
June & July 2020 no. 238

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Submissions for FISHTAIL WEST due: last day of ODD numbered months

Club dues $30 a year. Membership runs from January thru December. Notices go out by email in December to be paid by January. U.S. funds only. All new member and renewal information can be found on our website:

http://velocette.org/the-club.

This newsletter often features items from older motorcycle magazines, including photographs, drawings, cartoons etc. Where possible I acknowledge their source. Often these items are often from "MotorCycle" and "MotorCycling", and the current copyright holders are Mortons Motor Cycle Media. I thank them for their use.

★**The 2020 VOCNA Rally has been cancelled.**

Rally Pursor, Vivian Padulla is shredding all checks that were sent to her.

See the Presidents message for more info.

★**The 2020 Good Companions Rally – Busselton, Western Australia has been called off.** That means there will be NO national rally this year.

The technical tips, views, and opinions expressed in this newsletter are those of the authors and do not necessarily reflect the position or policy of the editor or any of the other VOCNA officers.

Front Cover: 1932 Velocette poster modified for 2020.

Back Cover: Alternate Endings.

Goal: It is the hope of the editor that this newsletter adds something positive, joy, comfort, inspiration, hope to the homes it reaches.

Pres Sez: by John Stanley

To quote a 19th century circus and theatre saying: "THE SHOW MUST GO ON." Today the board of directors decided not to sponsor the Rally this year due to the China Virus Pandemic, but read on!

Since all is organized and ready to go, all we need is you and your Velocettes. Okay, we also need volunteers for the chase truck.

I was down at Maupin last week taking care of some of the details with the motel. When I left Hood River it was pouring down rain, which quit before I got to The Dalles. When I got to Maupin it was absolutely perfect as it usually is. Naturally special precautions are being taken for the rally. The welcome dinner will be served up by a licensed server for you, and the Saturday night banquet will be a fully plated meal served to the table. Both meals will be outside on the lawn and seating will be flexible with enough tables that you can sit with your regular group of friends, a couple or sit by yourself, your choice. Naturally in the current environment the now well understood social distancing rules apply. There are no enforcement mechanisms in Oregon, so each individual is responsible for themselves. For those of you have been there before, you might remember that between the restaurant area and the river is a beautiful green lawn. At least an acre, probably more, and that is where we will be served our meals.

We will be the only ones at the Imperial River Company motel if we rent all the rooms. Right now we have 18 rooms reserved, so there are 7 left. There were several reservations cancelled due to those from "down under" not being able to get flights out of the country. The remaining rooms are all ours until June 20 when our room block will expire. Be sure to make your reservations now so we can be sure we have the whole place to ourselves. There might rafters on Sunday which will be fed by the same group feeding us, but we have our own area for eating at the motel and they would be eating on the lot next door.

The risk from the China Virus is pretty minimal in Eastern Oregon. As an example, Wasco County which includes The Dalles, Maupin and many other towns, has had 18 cases. Hood River County has had 12 cases with no hospitalizations. We will also be in Gilliam and Wheeler Counties both of which have no cases at all, and Sherman County which has 1. The number of cases has been very stable and maybe only 1 or 2 of the cases was added in the last month, probably due to the increase in testing.

If you plan to use personal protection be sure to bring it with you, as shopping choices in Maupin are extremely limited, and The Dalles would be the closest place for supplies. One of our rides will take us through The Dalles, and another through Hood River. All the rides are new routes, although some segments may be familiar from 2011. All routes are fully paved and smooth.

See you in Maupin for the 2020 Deschutes River Fishtail Rally from July 5, 2020 to July 12, 2020.

If you have any questions or special concern, please do not hesitate to call me at 541-490-1293.

CAMPERS, IF YOU HAVE NOT ALREADY LET ME KNOW YOU ARE CAMPING, PLEASE E-MAIL ME AT Stanco@gorge.net or call me at 541-490-1293, SO I CAN MAKE SURE THERE IS ENOUGH SPACE.

Pres Joh Stanley also completed rest on this '56 Morgan Plus 4. Nice work!

2020 Deschutes River Fishtail Rally
July 5 through 11, 2020
AGENDA:

Sunday July 5, 2020
2pm to 5pm registration
5pm to 6pm, no host bar
6pm: Buffet barbeque dinner at Imperial River Company

Monday July 6, 2020, LAKE BILLY CHINOOK 147.6 miles
9am Riders meeting on the grass behind Imperial River. Ride leaves on your own afterward.
10:00 am, drag truck leaves on route.
Suggested visit to Erickson Air Museum in Madras on US 26 north of town.
Lunch spots in Madras area.
Dinner on your own.

Tuesday July 7, 2020, DETROIT LAKE LOOP 240.7 miles
Leave on ride at your leisure, suggested 8:30, drag truck leaves at 10am.
Lunch along the route. Lots of places in Sisters
Dinner on your own.

Wednesday July 8, 2020, HOOD RIVER 174.1 miles
Leave at your leisure, drag truck leaves at 10am.
Quick tour of John's shop.
Suggested visit to WAAAM Museum.
Lunch in Hood River or Apple Valley barbeque in Parkdale.
Dinner on your own.

Thursday July 9, 2020, FOSSIL LOOP 198.6 miles.
Leave at your leisure Suggested 8:30, drag truck leaves at 10am.
Lunch spots in Condon, Condon Hotel recommended.
Dinner on your own.

Friday July 10, 2020, GLENWOOD LOOP 213.1 miles
Riders Meeting at 9am.
Leave at your leisure, drag truck leaves at 10am.
Lunch spots in Goldendale, Glenwood and White Salmon
8:30am: Riders Meeting 9am on lawn outside club office, room 167.
Ride leaves on your own afterward.
10:00 Drag truck leaves
5:00 Welcome home happy hour refreshments and snacks on the lawn.
Dinner on your own.

Saturday July 11, 2020
11:00 display any Velocette items you may have brought for sale.
12:00 line up bikes for the show.
Later afternoon schedule not finalized and is subject to change.
5:00pm Happy hour
6:00pm Banquet

Sunday July 12, 2020
Enjoy your drive home. See you next year!

HOTELS:

Imperial River Company
304 Bakeoven Road
Maupin, Oregon 97037

Phone 541-395-2404
E-mail: reservations@deschutesriver.com
Web: www.deschutesriver.com

The Oasis Cabins
609 S. US Highway 197
Maupin, Oregon 97037

Phone 541-241-8805
E-mail: oasiscabinresort@gmail.com
Web: www.oasiscabinresort.com

River Run Lodge
210 Hartman Avenue
Maupin, Oregon 97037

Phone 541-395-2747
Cell: 541-980-7113
E-mail: info@riverrunlodge.net
Web: www.riverrunlodge.net

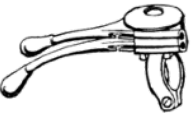
Deschutes Motel
616 Mill St.
Maupin, Oregon 97037

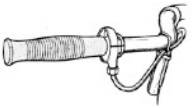
Phone 541-395-2626
E-mail: info@deschutesmotel.com
Web: www.deschutesmotel.com

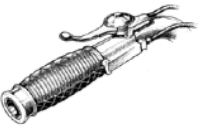
CAMPING: At City park, arranged through registration.

Below: John Stanley's workshop when the club visited in 2011.

Left: Line up of Velocettes at the 2012 Spring Opener at Rancho Veloce, Napa, California. photo by Gil Loe







Below: lineup of bikes on the 2010 Rally, by Sue Ray

RALLY CANCELLATION NEWS

Background From Chairman Olav Hassel:

John has continued to do a great job planning the Rally including dealing with the pandemic restrictions - a challenge indeed. The principal issue facing the Rally at this point, is that Maupin/Wasco County is currently under the Phase 1 loosening of restrictions. It is very possible and perhaps probable, with the low incidence of this virus in the area, that they will be in Phase 2 within a couple of weeks. Perhaps Phase 3 by Rally time - who knows?

Currently, meeting groups of up to 25 are allowed and restaurants are allowed up to 10 at a table. The thorny issue is that the rules speak of local groups only ("no traveling" is the language used) - i.e. not to include folk from out of the area. Phase 2 restrictions increase this to gatherings of up to 100 and use the term "local gatherings with distancing". Evidently, the motel and businesses in Maupin have No problem with people from afar - their local economy depends on tourists and guess they are interpreting the rules more liberally.

One can easily argue that VOCNA should not be sanctioning a Rally where there is a possibility of being out of step with the Rules.

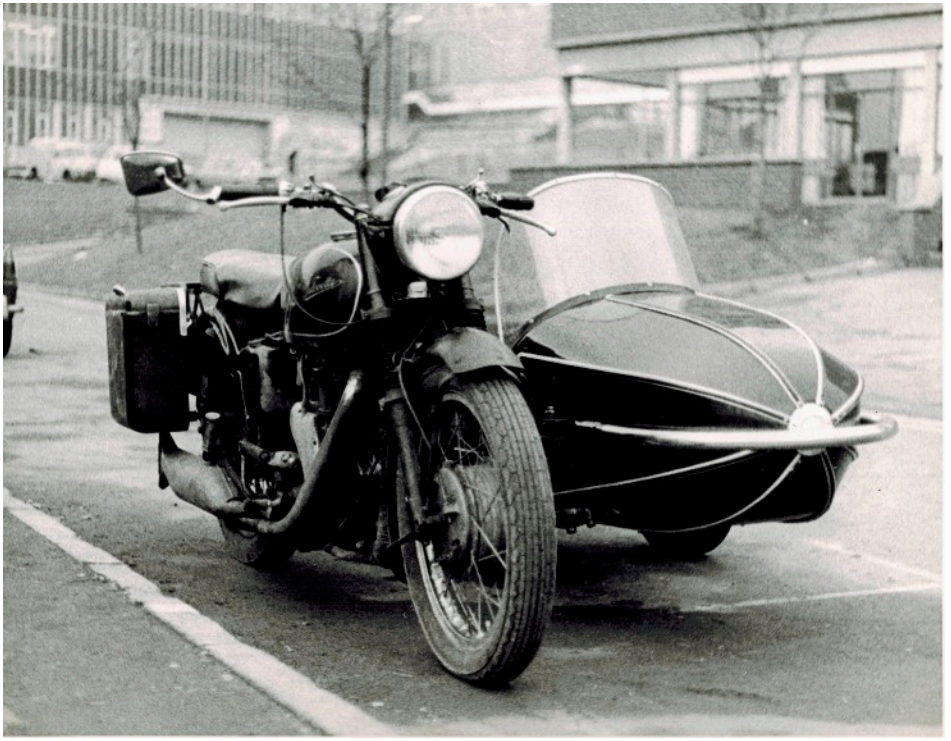
So....how do we handle this? The Recommendation is that the Rally be a Velocette/Classic bike Rally - not an officially sanctioned/organized VOCNA event. John is comfortable with this approach. Participants must decide for themselves if they wish to attend or not. We can still have awards and a meeting - it will not be an AGM and awards will be from attendees not the Club. If decisions are made at a meeting - they will simply be recommendations from Rally participants to VOCNA.

VOCNA Board Action – Passed May 29, 2020:

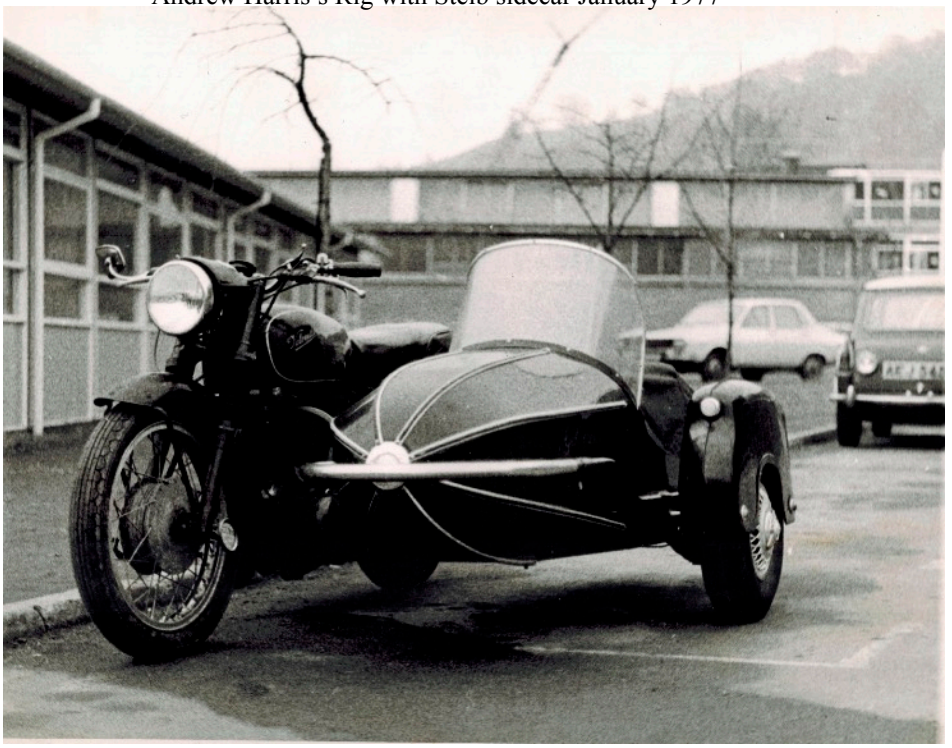
Since: 1) The State of Oregon COVID-19 Reopening Guidelines currently prohibit "non-local" travel for group events, and this restriction may well continue through the dates of the 2020 VOCNA Rally planned for July 5 - 11; 2) Since many Club members must travel to the Rally from non-local locations; 3) The Board of the VOCNA desires to keep the Club compliant with all applicable public health guidelines; and 4) Members and vendors need as much advance notice as possible, be it resolved:

1. That the currently planned official VOCNA Ride and Rally, including the AGM scheduled for Saturday July 11, is CANCELLED as an official VOCNA event.
2. The Rally Purser and Treasurer should return all funds paid by members with their Rally Registration.
3. The Chairman is authorized to investigate rescheduling and relocating the AGM until later in the year in a suitable location.

Nothing in this Resolution should be interpreted as precluding individual members from hosting or participating in a rally and ride not formally sponsored by the VOCNA.



Andrew Harris's Rig with Steib sidecar January 1977



Eastern News
by Andrew Harris

Greetings from the East, still healthy here but many restrictions remain in place. The CVMG national rally on Fathers day is cancelled, as are most Canada Day events.

I have the Velo on the road, I tried 130cc of oil in each forkleg and was very pleased with the result. There is a significant improvement in fork action, better control and a lot less crashing and banging. Behavior under heavy braking is also much better. Much obliged to Stuart for the suggestion.

Not much riding going on, despite the motorcycle being a responsible form of distancing; all restaurants are closed. Thus you arrive somewhere and are unable to find a place to buy a coffee or have a pee. (Not necessarily in that order…)

So instead I found another historical picture. This one dates from January 1977 and shows my Viper attached to a nearly new 1976 Watsonian GP Sports sidecar. Location is South Wales where I was studying mechanical engineering. The sidecar had been bought new by a friend in Aberdare. He attached it to his Venom so that his wife and young daughter could both come for rides at the same time. Unfortunately Dave was not really familiar with sidecar driving techniques and had a few unpleasant experiences including ending up on the grass instead of going around a corner. Would I like to buy it? Having learnt to ride on sidecars I said yes. The Viper was my only transport and winters could be fraught on two wheels with frost, freezing rain, black ice and snow. You will see that the bike is definitely a workhorse, plenty of dirt and a rusty fishtail. No concours winner here! It was interesting that the chassis tag for the GP Sports was marked "Swallow Sidecars". That company had been absorbed by Watsonian some tine previously but enjoyed fame as the "SS" in SS Jaguar. (They made the body panels.)

As the weather warmed I removed the sidecar to my Dad's garage but a couple of years later it was attached to a 1975 Gold Wing. That was a much more suitable sidecar machine, 90 mph down the M4 but that is another story as they say.

Finally I see Triumph have moved production to Thailand to avoid import duties in SE Asia. R&D will stay at Hinckley for now. Perhaps there will be a new model – TT for Thailand Triumph perhaps?

No real surprise here, H-D have some production in SE Asia, Honda make Gold Wings in the US and they are all following Royal Enfields' example, who moved some production to India many years ago and ensured the survival of the marque.
ride safely and stay healthy,
Andrew

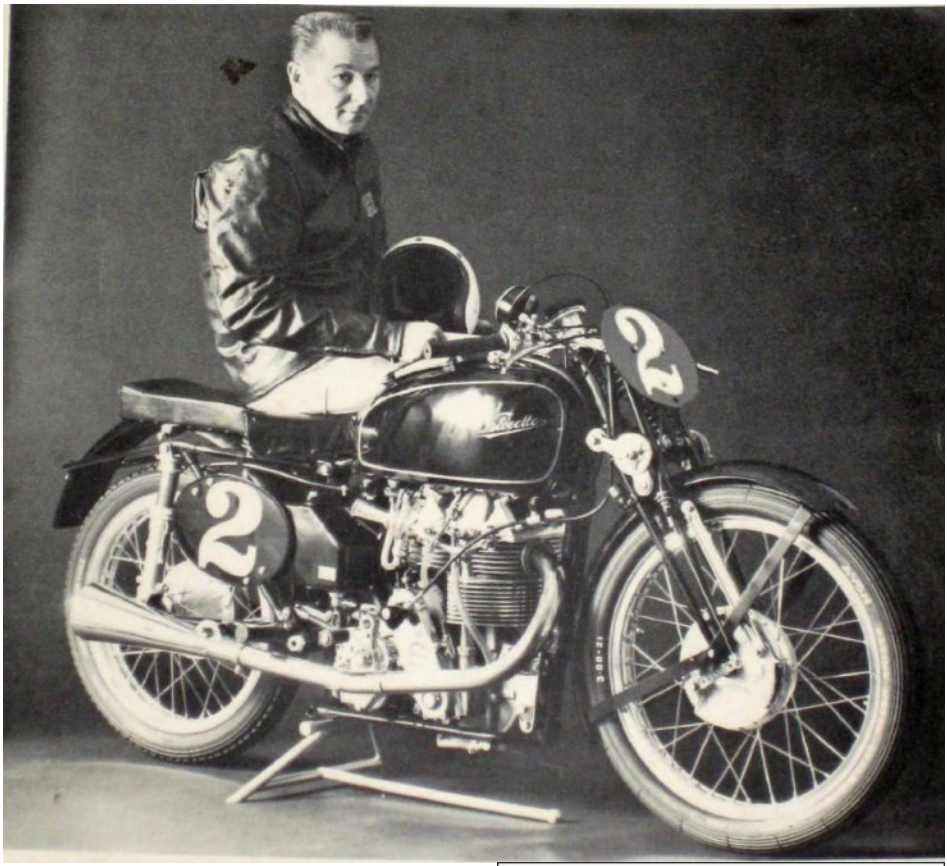
Photo of a celebration from the mid 50s in LA after John McLaughlin won Catalina on a Velocette. Lou Branch on the right, John McLaughlin next to Lou.
From Paul Adams

(Jim Johnson won the even in 1954)

Below from the collection of Gil Loe

JOHN L. McLAUGHLIN

1st place — 3rd Annual Catalina Grand Prix — 1953



Cleaning out old "archives" I ran across another picture of Ed Arnold and his MK VIII you may like for the Fishtail. It was taken in 1970 after Ed had won a restoration award at the annual CAMA (Classic and Antique Motorcycle Association) Rally in Visalia CA. It was the rally we all went to way back then, with a show and demo rides on Saturday and a long ride in the foothills on Sunday.
Paul Adams

Roarer
pg 141
Velocette; an illustrated profile of models 1905-1971 by Dave Masters

Built: 1939

Engine: 496cc parallel vertical twin cylinder, supercharged single overhead camshaft. Bore and stroke, 68mm x68.25mm. 8.75 - 1 compression ratio and 38 bhp, originally 7.5 - 1 compression ratio and 54 bhp later, at 7000rpm

Transmission: Four speed gearbox and shaft final drive.

Dimensions: Weight: 370 lbs

Wheels: 21" front and 19" rear rims. Full width hub brakes.
(Venom prototypes?)

Suspension and Frame: Wide duplex frame, originally proposed with Velocette designed telescopic forks, but actually fitted with Velocette developed girders. Pivoted arm rear suspension with Oleomatic units.

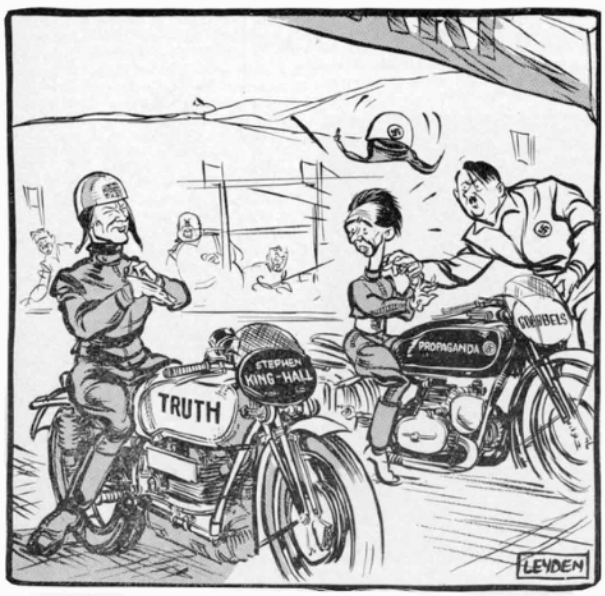
Performance: 130mph on first outing. (145mph expected later)

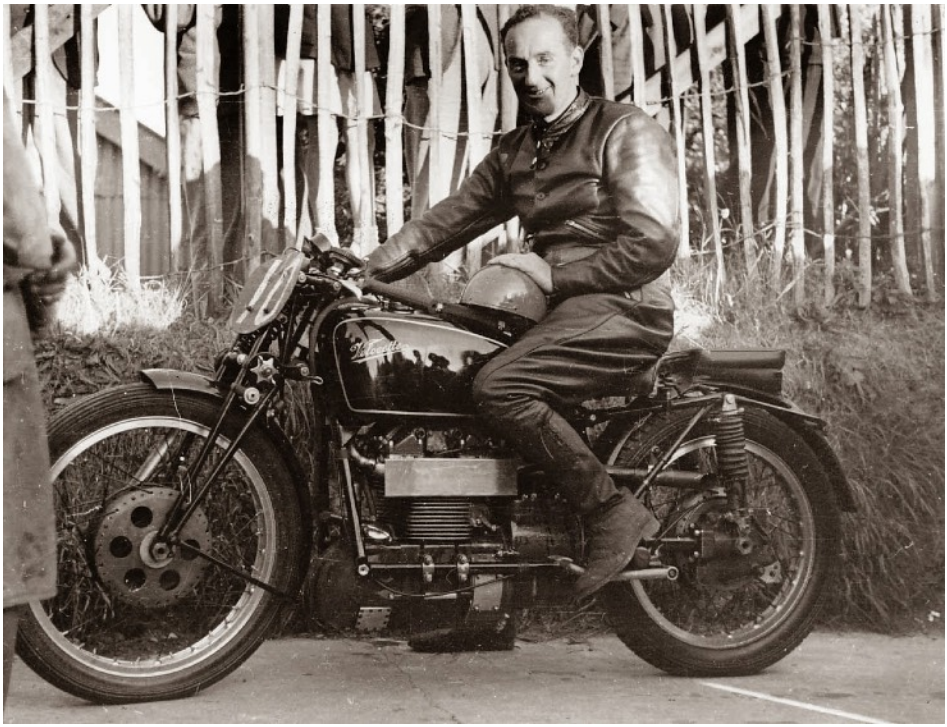
Working to Harold Willis's and Percy Goodman's plan, Charles Udall was given the task of detailing a 500cc machine to beat the multi-cylinder state sponsored BMW's, Gileras and Guzzis; it needed to be supercharged like the continentals. Designed and built in a little over six months, the 'Roarer' as it was subsequently nick named, was hoped to be used at the 1939 Senior TT.

Shaft drive was chosen for the new machine, and to aid engine flexibility with supercharging two or more cylinders were needed. A side by side twin was decided upon with contra-rotating crankshafts to eliminate the gyroscopic effect known to be impairing the handling of the BMW. The fore and aft crankshafts avoided the power reducing need for a right angle drive to the drive shaft. The right hand crankshaft turned a 'centric' eccentric vane supercharger initially delivering 4lbs psi to the engine. The left hand crankshaft drove through the gearbox to the final drive shaft.

With reversed cylinder head layout the rearward exhaust ports created straight exhaust pipes and were cooled by a deflected airstream. When first tested only 38bhp was produced but this was soon increased to 54bhp when supercharger pressure was increased to 13lbs psi and the compression ratio reduced, this meant a 145mph top speed was achievable.

Stanley Woods tried the Roarer for one 39 minute practice lap but it was not raced in 1939. After the war the FIM banned superchargers and the Roarer was sadly dropped.





Stanley Woods, 1939 Senior TT Roarer

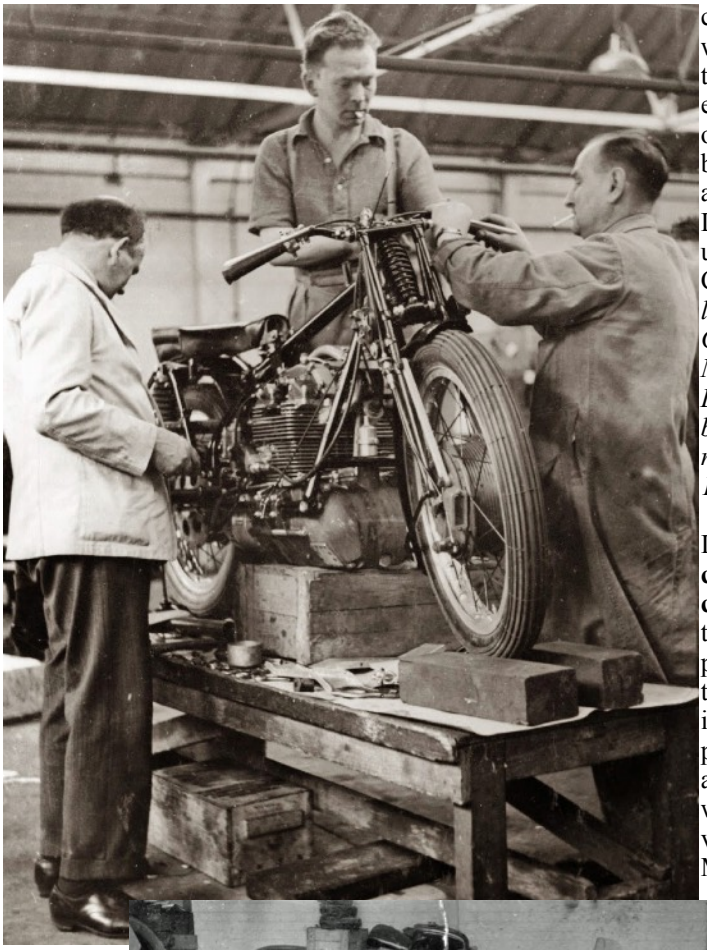
Roarer

An email from a former Velo employee of yore. He's probably ridden a good number of our members' Velos.

Paul Adams

Here are the Velo pics I mentioned, can't see Mr. Honda doing this somehow mate? The old Roarer used to be parked in my corner of the Service Dept. alongside the 24 hour record breaker & the Model O 600 twin. As road tester I had a drum of petrol & oil & not much else. With the singles I used I used to adjust the clutch, the famous Velo tango (I can still do it in my sleep..), fit a slave tank, seat & exhaust & silencer, then start & take 'em out. Surprisingly the singles had never been run before & I never had any problems starting them (I'd got in Inter Norton that probably helped, indeed, after coming back from my first test I was looking for a 350 test

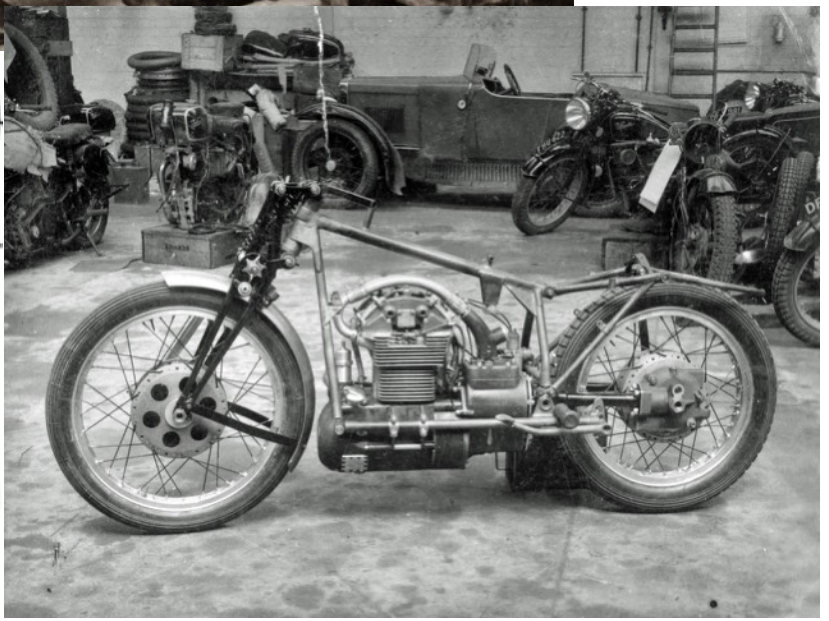
The roarer engine wheeled to the Test house 1939



card, it was a 500, it was so smooth after the Inter) The L.E.'s even after being run on a test rig could be a bastard to start & I always carried a set of Lodge or summat that usually did the job. Clive.

left: Percy Goodman,Tommy Mutton on bike,Chris Lomer with Roarer below:Roarer in the race or experimental? 1939

According to Ivan Rhodes in **Velocette Technical Excellence Exemplified,** there's more to the photo below than just the Roarer power unit installed into an unpainted frame. There are damaged Velos waiting for repair, various parts and an MG Midget.



Above: Neville Mickleson's garage by Gary Roper 2018

Below: Ed Gilkison's workshop in 2015

Above: Jeff Achenbach's garage 2019

Below: Roger Slater'sViceroy up on the bench 2016

The Varey's garage 2015
Fred Mork tool storage in his workshop 2020

Above: Dee Cameron's collection of motorcycles and memorabilia from the club visit in 2012.
Below: Mike Jongblood in his garage with Jim Day and Jack's KSS by Dennis Quinlan 2015

OverHeard Kami

With all this shelter in place due to quarantine and rioters, we've all learned, it's not a man's world and it never was. Beside every man designing, wrenching or riding a motorcycle, there is a woman. She might be making tea or cleaning wounds or having babies, or riding pillion or all of the above simultaneously. Yes men might escape to the man cave, but they know where home is.

This month we have sad news, Gil Loe will not be able to take more photos for the club. His wife, Karen suffered brain damage from a fall and he is her primary caretaker.

We also honor the passing of Gretchen Mork, wife of Fred Mork (Feb 1 1940-May 22, 2020). Our condolences and prayers to Fred and his family.

Fred and Gretchen Mork enjoyed their trip to New Zealand in 2018

From the editor:

Annual rides every where, including U.K., Australia and the U.S. have been cancelled. We all need to find ways to stay healthy and protect ourselves. Still Kami and I were very disappointed these last two months to find our mailboxes, both physical and digital empty. Relatively small misery in the light of things, but one you can do something about!

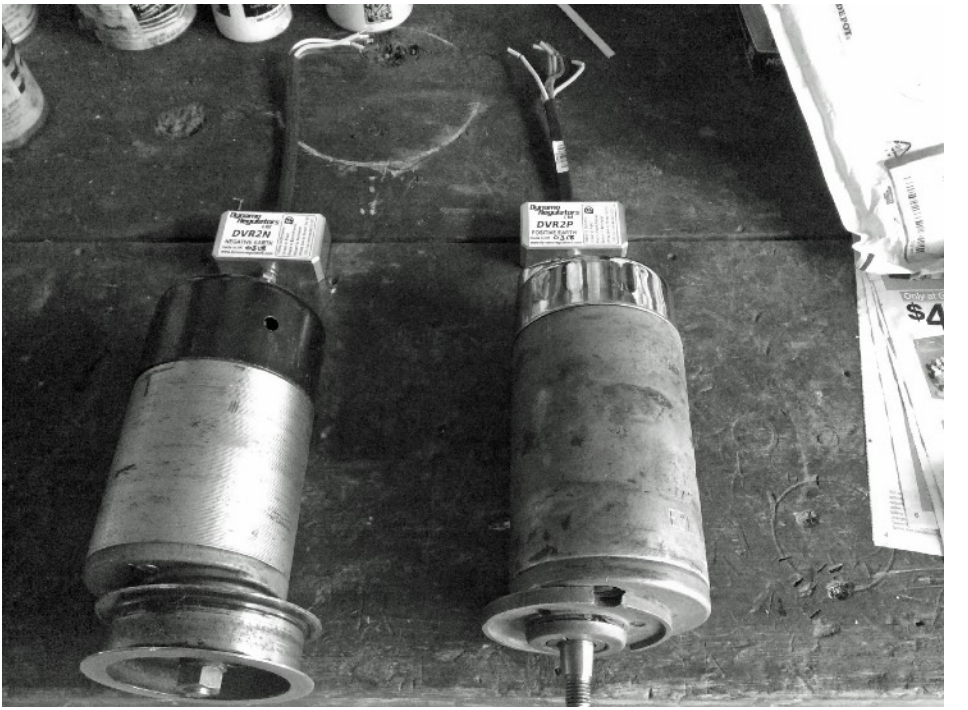
I started this issue with the idea of mimicking the quarantine and showing no faces. What I discovered again is that the bikes don't make the club, people do. It felt like a shock to put a picture of faces back in the issue. I shifted to showing the inside of some workspaces, which are endlessly fascinating in themselves. What is inside the man cave? How do mechanics create these machines and get that magic something extra whether it be an oil-tight motor or a smooth ride or maximum speed?

I want to encourage each and everyone of you to submit photos and or articles. What are you working on? Where are you doing it? If you are able, what kind of adventures are you going on? If you're deep cleaning, what have you found?

I create this newsletter on an Apple computer in Pages. You can submit in any format. Word is preferred for documents. Photos separate and in high resolution is best although I love when people tell me where to insert the photos. Text and pictures are processed separately. Copying things from blogs is extra work.

Every issue someone asks when is the deadline. Right now the newsletter comes out every even numbered month (2-February, 4-April, 6-June, etc) The deadline is the end of every odd numbered month. But it's not a hard deadline. There are no grades here. If something interesting comes in before I get the newsletter to the printer, I'm happy to include it.

Together we'll get through this. Lanora



Dynogenreg Voltage in Place
by Frum Unda Shade Tree

There being light at the end of the tunnel for those whom the shelter in place regulators have given unto phase 1-2-3. To ensure there will be light at the end of the day, or at least give a better chance of having some voltage left in the battery, the electro mechanical voltage regulator is out and the solid state unit in. Although there are different makers and types they all have the advantage of fewer moving parts. Always a good thing on our vibromassage rides. Each manufacturer has their own take on the correct method to modulate the voltage and amperage and the routing of the current though the regulator field circuit which they make clear in the wiring directions to each application. Positive or negative earth, 12v or 6v to adapt to the needs of each end use. Some bikes have a magneto ignition and can get by with the standard 6v lighting. Some want brighter lights with the subsequent need for more watts. The coil models need to run the lights and power the points or pointless ignitions the latter of which may limit the polarity and voltage to 12v neg.

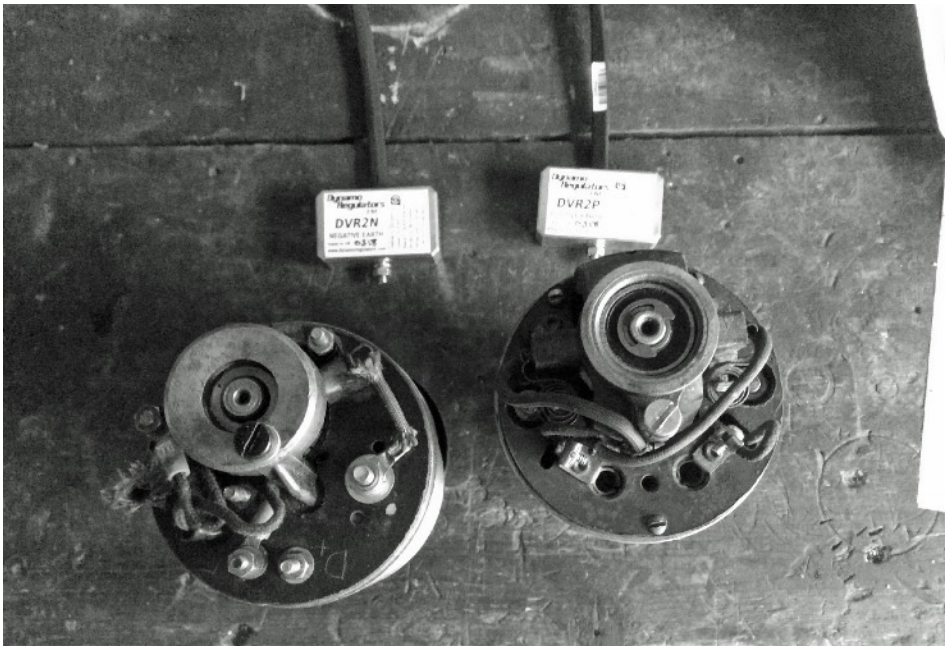
Fortunately the range of modern regulators can create the proper orientation and flow rate to meet the output capabilities of the available dynamo units. The Miller units of the 40 watt variety are the most prevalent as this was the choice of supply until the swinging arm frame came into vogue. Although not The Vogue. Seems with the rear wheel now pivoting in the frame a need for more wattage was deemed a requirement and the 60 watt unit supplied with each single cylinder model to the end of production. At some point in the timeline the esteemed Miller lineage was discontinued and the venerable Lucas E3L substituted.

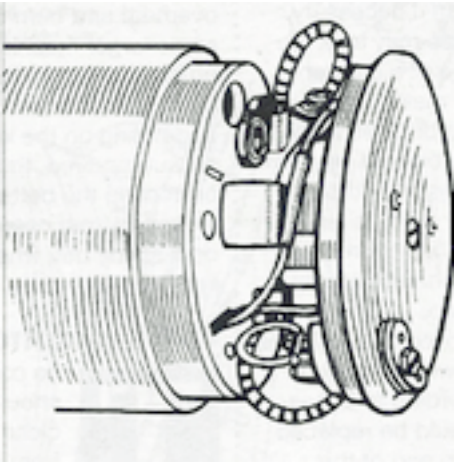
Although this sounds like a lightning strike of massive electrical upgrade the output limits are unchanged from the original specification and that was calculated with all components in like new condition. Well they were new, 70 years ago. The condition of the dynamo will directly affect the total output to the accessory load and the

duration of output. Make sure the electrical properties of the field coil and winding of the armature are within tolerance and that the physical condition of the parts are ready for service. Brushes within wear limits and free in the brush holders, springs with the correct tension. Commutators smooth and insulator tabs under cut between the segments the proper amount. Bearings the correct fit on each end of the armature shaft and housing and properly lubricated. Wire connections tight and insulation free of oil and cracked or broken areas especially the field leads. Given the 60 watt 6 volt example the dynamo should, at peak efficiency charge at 10 amps for short spurts and realistically maintain a charge rate of 6 1/2-7 amps all factors in good condition. 5 amps full charge rate for 12 volt systems with the nominal steady rate of 3 1/2 -4 amps. The 40 watt 6 volt units 6.666 amps max. Read into that what you will. If the load goes beyond the parameters of the dynamo output the heat builds up in the components namely the armature wherein the solder around the commutator melts and makes a nice ring around the inside of the cover. The dynamo will continue to produce juice as long as the regulator sends the feedback signal for more as the need continues deemed to exist. Beware of using your electric vest and the stereo amplifier at the same time.

Heat is the enemy but also the trigger for some of the new types of solid state regulators circuitry to reduce current flow. Components used are sensitive to heat and act as current flow limiters in use to help save the dynamo if load requirements exceed the output capability. Once again based on the capability of the dynamo to meet the rated output figures.

In general the load on the system with the stock equipment will balance with the output and using a modern regulator adds reliability over the shuttle cock Miller style or the mechanical points Lucas type. Of course for those with advanced degrees in fussbudgeting and squirrel work can play with the original units to your hearts content whilst the rest of us just want the battery to charge when motoring.





Dynamo Maintenance
From The Classic Motorcycle

Dynamo Maintenance

Two points to remember about dynamos are (a) they have a rooted aversion to petrol and oil, and (b) the live battery lead should be removed before the dynamo is touched.

Before removing brushes check which way round they fit in their slots, maybe even marking them if necessary. Many brushes may look the same, but be of a different hardness of material. Make sure that the brushes are put back in their original position.

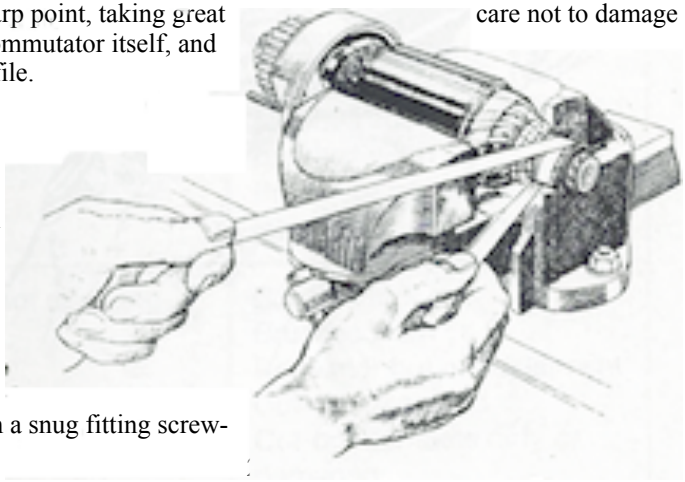
The brushes should slide freely in their holders, and should be held squarely against the commutator by the sprint clip. Unevenness can be removed by using fine glasspaper wrapped round a pencil. According to Lucas, brushes should be replaced when the top end of the brush is halfway down the slot in the side of the brush box, for then the sprint pressure has started to weaken.

The Third Brush

Badly fitting brushes or a dirty commutator have the effect of making the dynamo charge irregularly. If your dynamo relies on a third brush for the control of its output and this sticks or doesn't bed down properly, the output maybe so high as to cause the windings to overheat and burn out. On some larger machines this brush is adjustable; it can be raised and lowered depending on the level of output required, thus protecting the battery, for example from overcharging on a sunny day when no lights are in use.

The Commutator

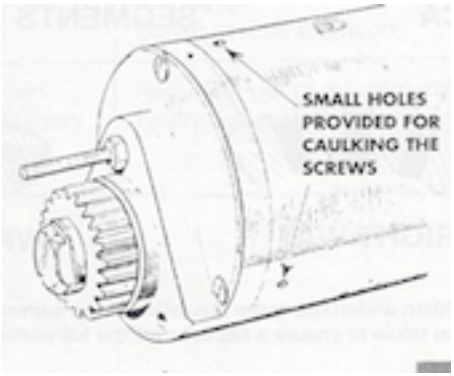
The commutator should be kept clean and free from oil. Initially this is done by removing a brush from its holder, inserting a rag soaked in methylated spirits (petrol if you must, but this is better), and spinning the commutator until it gleams. If this is not sufficient, the commutator can be cleaned with fine glasspaper once the armature has been removed. If carbon deposits clog the commutator grooves they must be scraped clean with a sharp point, taking great care not to damage the soft copper of the commutator itself, and to cut to the correct profile.



Armature Removal

Two or three long screws hold the driving side end plate in place. After tightening, these will have been burred over, either at the screw head or through a small hole 1/8th inch from the end plate. A good twist with a snug fitting screw-

driver will usually remove the screws, but if not the burrings may need to be drilled out before the screws are undone. Take care not to damage the screws in the process.



Reversed Polarity

If a dynamo should reverse its polarity (usually denoted by a discharge ammeter reading when the dynamo is charging), the trouble is either due to the battery connections being crossed over or a bad earth return circuit between the body of the lamp and the dynamo. To cure the former, swap the battery leads over. For the latter improve the earth connection by scraping off paint, or run an extra earth lead between the headlight shell and the dynamo body. Then turn the switch to the charge position. Start up the engine, running at a tickover to open the cut-out points, and hold the points together for a second.

Reassembly

When reassembling the dynamo after routine maintenance, make sure that the armature bearing has enough, but not too much grease. Tighten up the long screws and burr them over again. At the business end of the dynamo there are a lot of leads in a compact space; ensure that all connections are correct and tight, and that when the tin cover is slid into place, one will not be able to touch another. If the wires are a loose fit through the rubber grommet, keep water out with a light smear of grease or silicon sealant. If the dynamo is belt driven, as on many Velocette machines, the belt should be tensioned so that if the dynamo pulley is rotated by hand the belt will turn the engine pulley against compression.

Dynamo Fault Finding

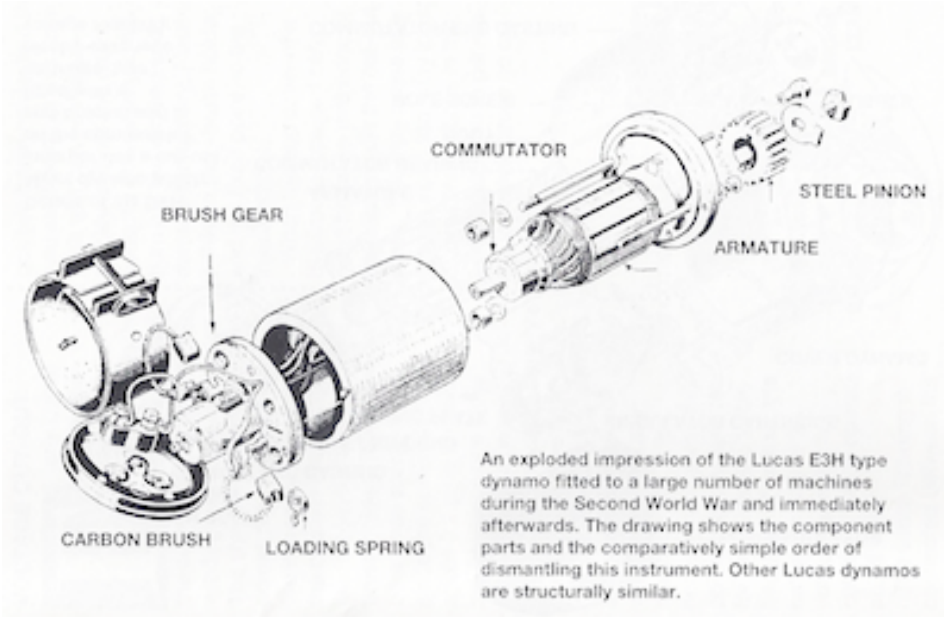
The field windings can be tested by earthing the dynamo, and connecting a voltmeter in a series between the live terminal of a six-volt battery and the F terminal on the dynamo. Once the battery is earthed, the voltmeter should give a six-volt reading. If no voltmeter is available, touch the +ve and –ve leads of a well charged battery simultaneously on adjacent commutator bars. Sound windings will produce a spark.

The armature can be checked by motoring the dynamo with the battery. Connect the F and D leads on the dynamo with a length of wire and, with the battery and dynamo body earthed, touch the battery live lead across the shorted terminals. The armature should show an inclination to spin.

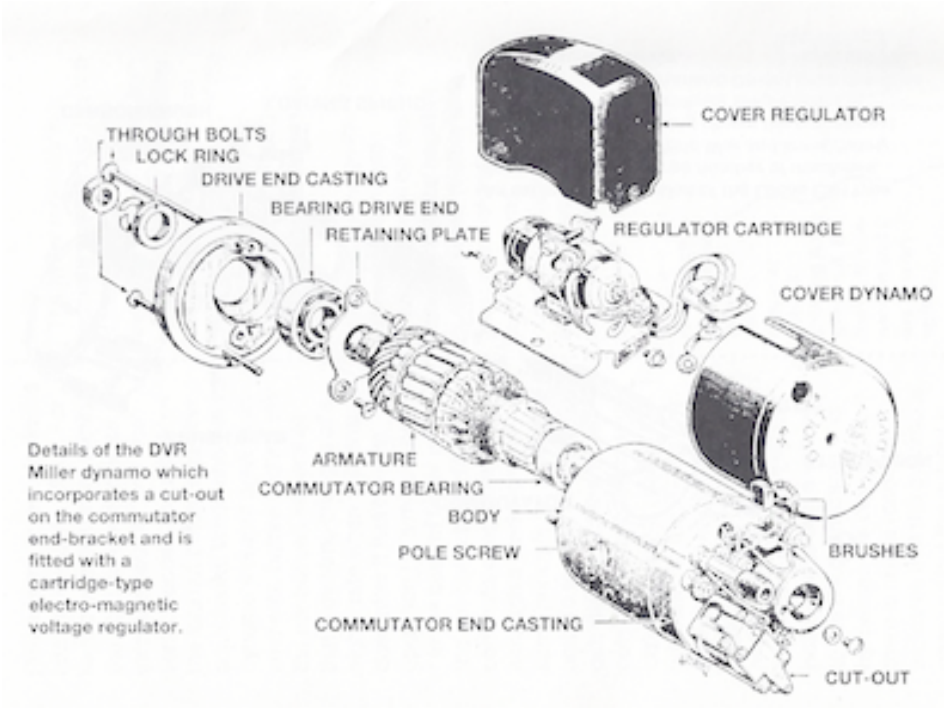
To test if there is contact between one or more of the windings and the armature, bridge the commutator segments one by one with the armature spindle. There should be no passage of current, and therefore no spark, if the insulation of the armature windings is intact.

Voltage Regulator and Cut-Out

Lucas compensated voltage control units contain two windings; one is the dynamo cut-out and the other the voltage regulator. First check that it is wired correctly. F-A-D-E is not an advanced warning from the Prince of Darkness, but stands for Field-Ammeter-Dynamo-Earth.



An exploded impression of the Lucas E3H type dynamo fitted to a large number of machines during the Second World War and immediately afterwards. The drawing shows the component parts and the comparatively simple order of dismantling this instrument. Other Lucas dynamos are structurally similar.



Details of the DVR Miller dynamo which incorporates a cut-out on the commutator end-bracket and is fitted with a cartridge-type electro-magnetic voltage regulator.

All responsible manuals advice meddlers to leave CVC boxes well alone. However, they can be adjusted by the grub screws on the back of the windings. In the case of the cut-out blade, causing the points to close earlier and open later. Rotating the screw clockwise has the opposite effect. For regulator adjustment turning the grub screw clockwise increases output and vice versa. Loosen and retighten the locknut before and after adjustment. When checking a dynamo's output against an ammeter, before fiddling with the control unit remember that a dynamo charges at a higher rate when cold than it does after it has been in operation for a minute or two.

In the case of Miller units the cut-out is bolted to the commutator end bracket, although it works on the same principle as the Lucas unit. to test the Miller cut-out, disconnect the three outside dynamo leads and clip the positive side of a voltmeter to the B+ dynamo terminal and earthe the negative side. If there is no reading on the voltmeter with the engine running, clip the positive side of the voltmeter to the D+ connection. This by-passes the cut-out, so if there is now a reading it indicates that the dynamo is charged but the cut-out is faulty.

The Miller regulator is a separate unit fixed to the top of the dynamo. It can be tested by disconnecting the battery live lead, and putting a voltmeter across the +ve and –ve base terminals of the regulator unit. With the engine running at 1000 rpm the voltmeter should record 7.5-7.9v.

Below 7.5v suggests over-regulation, and adjustment can be made by screwing out the negative contact screw (visible at the conical end of the unit) two complete turns.

Under-regulation is adjusted by slackening the screw at the other end of the unit a quarter of a turn.

Voltage Cut-Out

Early Lucas dynamos mounted the cut-out with the commutator. In the cut-out there are two windings – shunt and series. The shunt winding is straight across the main brushes of the dynamo. Therefore, lift the brushes and apply the leads from the battery to the brush holders. There should be a small spark, which since the current is only about 0.2 amp is difficult to select unless one looks closely. A surer way of testing is to leave the battery connected to the brush holders, depress the arm of the cut-out, and feel whether there is any magnetic pull. It is necessary to press the points together and feel for the magnetic force because, of course, the battery is only of six volts, whereas the cut-out is set to operate at 7.5 volts.

The series winding is connected between the positive brush holder and the insulated point. In this case a flash test can be made – quickly and not too often, because otherwise you may burn out the winding and damage the battery. Flash between the +brush holder and the fixed point, ie the insulated one.

When the end cover of a dynamo is replaced care must be taken that none of the cables fouls the cut-out blade. This may cause late cutting in, so too, may loose or dirty connections in the field circuit, though generally the latter will cause no cutting in.

Dynamo OverHeating

While there is nothing abnormal in the dynamo getting warm after a long run, excessive overheating may be due to one of the following:

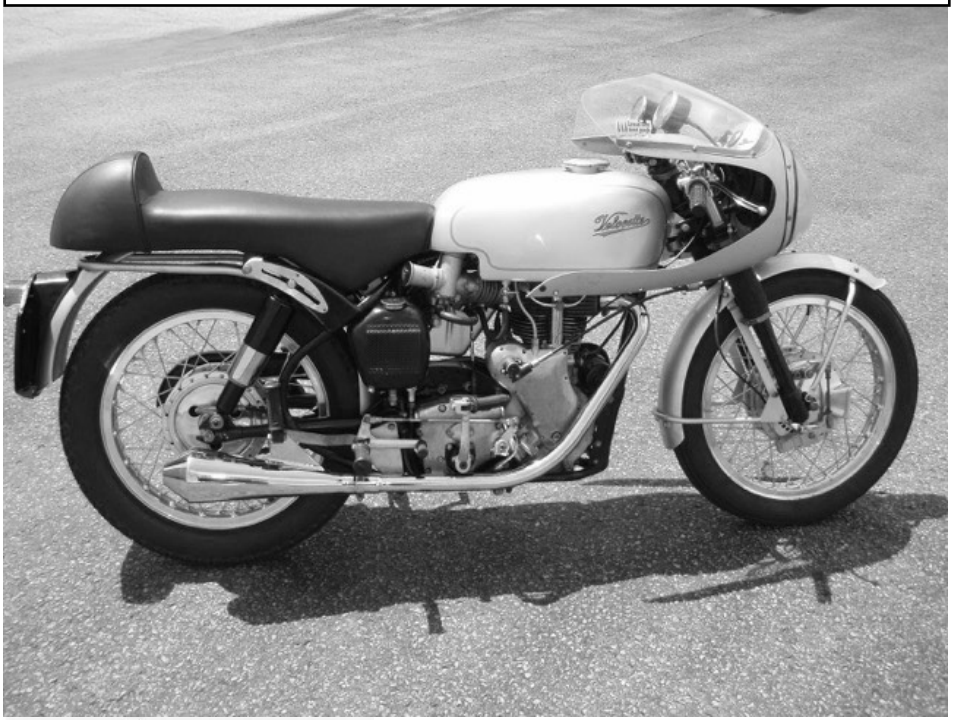
1. Dirty or oily commutator.
2. Worn armature bearings, which may cause fouling of the pole shoes.
3. A short-circuited armature, which would cause the dynamo to give a reduced and intermittent output.

A Stripped Keyway

A stripped keyway on a dynamo shaft can be cured by filling two flats on the worn shaft. Then fill two sides of the hole in the centre of the sprocket with weld; electric welding should not distort the sprocket. Tidy up to the welds and file two flats to match those formed on the worn shaft so that the sprocket is a tight push fit.

Now why the devil is the voltage regulator not working? Remember to check the condition of the dynamo belt photo by Jeff Ward

For Sale- 1968 Velocette Thruxton - RARE - original owner. Comes with factory fitted full Avonaire sports fairing and megaphone exhaust. Silver tank and blue frame, new Fishtail exhaust - never installed. All original manuals and documents, including a validation letter from Ray Thurston in the UK. Also tools and a few spares. Engine Number VMT752. Very low mileage. Located in Picton, Ontario, Canada. Asking $30,000.00 US. Contact - dearjohn@kos.net
More pictures available.



Wanted: Trade or Cash. Poster "Triumph Wins 36th Annual Big Bear Run". This old race win promotional advertisement from 1957 of Bud Ekins winning. Other similar posters wanted. Good copies OK. Anything on Big Bear, Catalina or Greenhorn races. Also "Motorcyclist" mags of 50's and 60s, and 11 X 11 Triumph brochure for 1965.
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