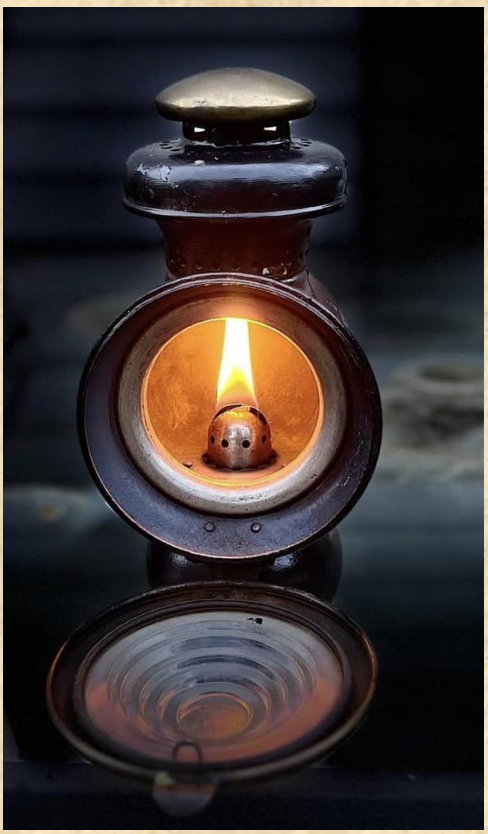
T -Time / T -Tyd



Official newsletter of the Model T Ford Club of South Africa

2 nd Quarter 2023

Edition 014

Model T Ford Club of South Africa

Established 5 November 2016

Model T Ford Club of South Africa Committee

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Model T Ford Club of South Africa member subscriptions are due annually at the end of February. Fees are R250-00 per family (includes children up to 18 years). If you have not yet paid, please do so by using the bank details below:

Account name: Model T Ford Club of SA; Bank – Standard Bank, Port Elizabeth Branch code: 051001; Account no. 10110852735 - use your name & surname as reference

Website: www.mtfcsa.co.za

Notice: The opinions expressed in the newsletter do not necessarily reflect the views of the club committee, the editor, club members and officers of SAVVA or advertisers in this newsletter.

Cover Photo: Model T Ford side lamp.

From the Editor

I am convinced that we have a dynamic club! Six new member families joined the club during this quarter, bringing the membership number to 62. It is good to see that the club is showing constant growth, even though we have sadly had several members passing.

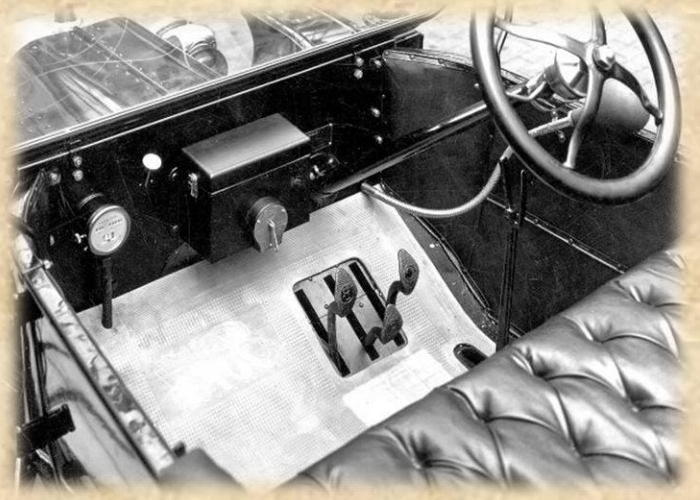
The Southern Cape is currently in a grip of real cold and wet weather, something George is renowned for, with our number plates displaying CAW for “Cold And Wet”. The cold and wet weather has put a bit of a damper on events country-wide. Hopefully the weather will start to improve so that we can get back into our cars again.

Ons klub is deur SAVVA aangewys om die 2023 Proauto Rubber SAVVA Toer aan te bied. Die reëlings vorder fluks en ons is bly vir die borge wat reeds verwerf is. Ons is trots om Proauto Rubber as die naamgewende borg aan boord te vewelkom. If you have not entered yet, you need to hurry up, as space is limited!

Dankie aan Paul Hoogendoorn vir die interessante artikel rakende die verstelling van die Model T Ford se klosse (coils). In hierdie uitgawe fokus Philip Kuschke ook die Kollig op Harry en Diane Heyns.

Phillip Rosser
Editor

From the Driving Seat



As I am writing this, it is 21June 2023. This date is the summer solstice or longest day in the northern hemisphere, and winter solstice or shortest day in the southern hemisphere. I need to write a little faster now, or else dusk will catch up with me and ESKOM is not that trustworthy to assume that I will have electricity tonight to finish.

It is winter. In Pretoria (and in the rest of South Africa) we have had a few mornings when the mercury was well below zero. Our thoughts go out to the people in the Mother City and surrounding areas where heavy storms have caused havoc.

Never give up, is the emphasis in the life story of Henry Ford. Here are a few facts regarding the perseverance of the inventor of the Model T Ford.

- Henry Ford started in 1885 as engineer at the Edison Illuminating Company. The owner was Thomas Edison. Ford resigned on 15 August 1899, to follow his dreams to design and manufacture motor vehicles.
- With the help of William Murphy (investor) the first motor manufacturing company in Detroit was established on 5 August 1899.

Due to accusations between Henry Ford and the investors, the company was closed in November 1900.

- On 30 November 1901, with Henry Ford and five investors, the Henry Ford Company was formed. After much exhortation from his fellow investors to adhere to the initial idea to develop a motor vehicle for the masses and not racing cars, Henry was fired!
  The Henry Ford Company was closed and continued as the Cadillac Automotive Company, formed by Murphy and his partners.
- With the help of Alexander Malcomson, the Ford Motor Company was founded on 16 June 1903. (Two of the investors were the Dodge Brothers.)
  Due to cash flow difficulties during the first 30 days, the new company was staring down the barrel of bankruptcy.
  On 11 July 1903 one of the investors paid his shareholder agreement dues and on 15 July the first order for a Model A was received from Dr Pfenning. During these few days the Ford Motor Company was saved from bankruptcy.
- During June 1904, 12 months after the founding of the company, all capital inputs were paid back to the investors.
- The rest is history.

Be safe ... Only 182 days to Christmas 2023.

"Whatever you do, don't wake up at 65 years old and think about what you should have done with your life." - George Clooney (July 2006).

Emil E Kuschke
President: Model T Fordklub van Suid-Afrika

New Members

A warm welcome goes to six new member families:

Brian and Beth James from Constantia.
Viv and Heather James from Zeekoevlei.
Francois and Alba Carstens Kuilsrivier.
Bill an Luliana Lance from Benoni.
Christoffel and Hannatjie Lategan from Ladybrand.
Fred and Jakkie Calitz from Pretoria.

We hope to see you all at our forthcoming events.

IMPORTANT:
Please note that we have a "**GET TO KNOW EACH OTHER**" evening in July instead of a Technical Evening. It will take place on Thursday 20 July at 19:00. The ZOOM link will be sent out timeously. We are urging all members, husbands and wives, to join the meeting so that we can get to know each other and especially welcome our new members.

If you are unfamiliar with ZOOM, please contact Phillip Rosser on 082 410 5490 and he will gladly assist.

Indien u nie vertroud is met ZOOM nie, kontak vir Phillip Rosser by 082 410 5490 en hy sal met graagte help.

Tears and Joy

We are glad that Hans Zwets' health is steadily improving. We pray for a full recovery for Hans. We are also pleased to report that Arthur Duvenage is recovering well following a hip replacement.

It is with sadness that we learn of the passing of our dear friend in Cape Town, Allan Russo, on 29 June 2023. Condolences to his family and friends.

Club subscriptions

The Club subscription fees for 2023/24 were due at the end of February 2023. Please remember to pay your R250-00. Please use your name & surname as reference.
Banking details are
Account name: Model T Ford Club of SA; Bank – Standard Bank, Port Elizabeth
Branch code: 051001; Account no. 10110852735 - use your name & surname as reference

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Birthdays

Tertius Du Preez	03 July	Tina Mouton	06 August
Andre Wessels	08 July	Jopie Fourie	22 August
Eduan Naude (Son)	09 July	Eric Edwards	25 August
Greg Bjorkman	12 July	Annamarie Breytenbach	26 August
Emil Kuschke	14 July	Harvie van Heerden	03 September
Jorge Alves	16 July	Jenny Tyler	04 September
Arthur Duvenage	21 July	Oliver Gerondeanos	05 September
Johann van den Heever	25 July	Ockert van der Berg	10 September
Mike Alexander	27 July	Kerneels van der Berg	10 September
Elanie Stroebel	29 July	Siggi Duvel	15 September
Shawn Venter	05 August	Viv James	18 September
Wynand Rohde	06 August	Hennie Swanepoel	24 September

Forthcoming Events

The dates below are proposed event dates for 2023 for which a SAVVA Clearance Certificate has been obtained. Each region can organise an event and if the date does not suite all it may be changed by informing the SAVVA representative, Hennie vd Walt.

16 July Sunday – MTFCSA proposed Event.
23 July Sunday – Cars at Brooklyn Mall.
6 August Sunday – POMC Cars in the Park at Swartkops Raceway.
9 August Wednesday – National Women's Day – Magnum Rally in Hazyview, Mpumalanga.
13 August Sunday - MTFCSA proposed Event.
17 September Sunday – Modderfontein Swop Meet.
24 September Sunday – Heritage Day.
25 September Monday – Heritage Day public holiday observed.

TEGNIESE AANDE

Sameroeper: Ockert van der Berg

Die volgende Tegniese Aande word beplan. Skakel gerus in met die ZOOM skakel wat uitgestuur word. Dis baie maklik en as jy sukkel, skakel gerus vir Phillip Rosser by 082 410 5490 en hy sal met graagte help. Daar word ook ‘n bietjie sosiaal verkeer aan die einde van die aanbieding.

Let asb. daarop dat die Tegniese Aande in die toekoms geskuif word na Donderdagaande. Die komitee het ‘n steekproef gedoen en vasgestel dat Donderdae vir meeste lede beter pas as Dinsdae.

BELANGRIK:

Neem asb. kennis dat ons in Julie ‘n **KEN MEKAAR AAND** gaan hou in plaas van ‘n Tegniese Aand. Dit sal **Donderdag 20 Julie** om 19:00 plaasvind. Die ZOOM skakel sal betyds uitgestuur word. Ons wil graag hê dat al ons lede, mans, sowel as vrouens inskakel sodat ons mekaar kan leer ken.

Indien u nie vertroud is met ZOOM nie, kontak vir Phillip Rosser by 082 410 5490 en hy sal met graagte help.

Donderdag 20 July 19:00 – Ken Mekaar Aand.
Thursday 17 August 19:00 – Detail to be announced.
Thursday 21 September 19:00 – Detail to be announced.

Al die Tegniese Aand aanbiedings is op YouTube beskikbaar.

Spotlight on….

By Philip Kuschke

KOLLIG OP: Harry Heyns - Model T Fordklub lidnommer 46

Dit is baie aangenaam om die kollig vandag op Harry Heyns te laat val. Harry is een van daardie stil, maar dinamiese persone wat die dinge laat gebeur - ‘n ware heer.

Harry was een van die mede-stigterslede van die Vryheid Vintage Car Club in Vryheid, in 1997. Die Model T Ford Klub van Suid-Afrika is werklik bevoorreg om Harry en Diane in ons klub te kan hê.

Harry en Diane is geseënd om reeds vir 58 jaar gelukkig getroud te wees en woon tans in Somerset-Wes. Vir Harry was dit nie ‘n moeilike keuse om ‘n lewensmaat te kies nie, want volgens hom was dit: “love at first sight.” Diane neem graag saam met Harry aan oumotor-byeenkomste deel. Hoewel Diane klein

van gestalte is, is sy altyd bereid om vir Harry in die werkswinkel te help om hier en daar hand by te sit. Diane, baie dankie dat jy Harry gehelp het om die video's van die addisionele rem-sisteem wat hy vervaardig het, te maak.

Hierdie twee persone is soos vinkel en koljander op toere. Ek het nog nie 'n toer meegemaak waar Harry en Diane nié saam op toer was nie. Hulle is geseën met drie dogters. Hoewel hulle baie van die oukarre hou en altyd saamry, is daar nie werklik by die dogters 'n passie vir die oumotorbeweging nie. "Wat van die skoonseuns?", vra ek vir Harry. "Wel, die mans is maar dieselfde as my dogters" kom die antwoord.

Die liefde om met sy hande te werk, kom van kleintyd af toe Harry gereeld vir sy pa in die werkswinkel gehelp het om motors te herstel.

In 2014 byt die Model T-gogga vir Harry. Hy koop 'n 1923 Model T Ford by oorlede Kowie Lombard. Kowie het reeds die Model T afgetakel. Net nadat Kowie die Model T mooi uitmekaar gehaal het, oorleef hy 'n plaasaanval. Hierdie dramatiese gebeure lei daartoe dat Kowie nie meer kans sien om die Model T te restoureer nie, en so koop Harry die "Model T Basket case".

Harry is nou die trotse eienaar van 'n volledige 1923 Model T Ford, maar die kar is in duisend stukkies!

Gelukkig is Harry baie prakties en is hy 'n ware planmaker as dit by probleem-oplossing kom.

"Ek restoureer self die motors en doen self al die werk, behalwe as daar iets is waarvoor ek nie die gereedskap het om te doen nie. So het ek byvoorbeeld byna alles op die T Ford gedoen, die enjin-montering, spuitwerk en selfs die bekleedsel. Behalwe vir die houtspeek-wiele wat Philip vir my gedoen het en die enjin-masjinering, het ek die res self gedoen." Harry praat ook met groot lof van sy tuinhulp, wat hom so dan en wan gehelp het met die restourasie werk.

Hy is 'n man wat nie skaam vir werk is nie, en help graag ander lede met hul motors. So het Harry al vir verskeie Model T Fords van klublede, 'n addisionele rem-sisteem geïnstalleer. Harry het ook onlangs vir Harvie van Heerden 'n 1926 Model T Ford volledig gerestoureer. Voorwaar 'n man wat 'n passie vir die oumotorbeweging het en nie skaam is om dit te deel nie!

Noudat Harry en Diane in Somerset-Wes woon, vind Harry dit moeilik om genoeg parkeerruimte te vind vir al sy voertuie. Hy is ook die trotse eienaar van 'n 1930 Model A Roadster. Weens die beperkte ruimte, restoureer Harry nie meer voertuie nie, maar hou hy homself besig met "al die klein dingetjies waarvoor ek nooit tyd gekry het om te doen nie."

Die klub is waarlik bevoorreg om vir Harry as klublid te kan hê. Harry is steeds besig om sy kennis en vaardighede met almal te deel. Baie dankie vir die ontwerp van die addisionele rem-sisteem vir ons Model T Fords wat jy so stapsgewys aan ons verduidelik het tydens die afgelope tegniese aand. Harry is ook deel van die organiseringskomitee van die 2023 Proauto SAVVA Toer.

Harry en Diane is baie passievol oor hul motors en geniet dit om aan toere deel te neem en stal ook graag hul pronkstukke uit by motorskoue.

Vinkel en Koljander, jul entoesiasme en passie is aansteeklik!

Gesondheid en vrede word julle toegewens.

The 2023 Proauto Rubber SAVVA Tour

Our club has the honour of organising the 2023 **Proauto Rubber** SAVVA Tour on behalf of SAVVA. The tour takes place from 8 to 12 November in the Paarl area and is open to vehicles manufactured before 31 December 1930 as well as for motorcycles manufactured before 31 December 1936.

We are proud that **Proauto Rubber** has come on board as the main sponsor for the tour. **Proauto Rubber** will have representatives accompanying us on the tour. A big thank you goes to **Proauto Rubber**. We trust that our members will support them in return.

Space is limited and entries are streaming in. Please contact Philip Kuschke by email at: Philipe.kuschke@gmail.com if you wish to enter or require more information.

Secondary sponsors of the tour

Technical Time

Of Capacitors and the Cushion Spring Gap
By Paul Hoogendoorn

When asking myself why I am so fascinated by the Model T, I have to pause a while to get my thoughts wrapped around this. Is it the planetary transmission, the operation of which borders on metaphysics? To think that it was considered antiquated in 1927 and yet it formed the basis for all automatic transmissions less than ten years later! What about the spindly looking wheels and flimsy looking three-point suspension together with transverse leaf springs that could withstand even the toughest road conditions? Or the faithful

four-cylinder engine, incidentally the first engine to sport a single-casting cylinder block with a single-casting removable cylinder head, setting the standard for engine design and manufacture to this day.

My choice has to be the ignition system with its wonderful buzzing trembler coils, a true combination of innovation and reliability. Henry Ford surrounded himself with brilliant individuals such as Edward “Spider” Huff, who came up with a system of which the brilliance can only be appreciated now that we have the tools such as the ECCT (Electronically Cranked Coil Tester) to fully understand and appreciate its design principles. Unfortunately, some T owners decided to discard this system and fitted their cars with distributors – in my opinion this move robbed the T of most of its romantic character. I mean, what could be more characteristic of a Model T Ford than a box containing four vibrator ignition coils on the dash? Coils that always sound like a nest full of angry bees. Coils that sometimes will reward the Model T driver with a “free start” if when the engine was turned off, one of the pistons stopped just after top-dead centre on the compression stroke.

In 1908, most cars of the day had magneto ignition and Henry must have decided to also call his spark generating device a magneto. It is in fact an alternator pumping out as much as 28 volts of alternating current at peak revolutions – the first use of an alternator in a motor car? After 1919 Model T drivers had the option of choosing either the “magneto” or a 6 volt battery to supply juice to the four trembler coils, most modern owners now use a 12 volt battery. Yes, the trembler coils are not fussy, they will accept either AC or DC input! Sadly some owners have disabled their magnetos by removing the magnets from the flywheel as a weight saving measure. There are of course major differences between driving a T on battery or magneto. On battery the spark advance and retard as adjusted by the hand lever is linear but limited to 6 or 12 volts depending on what battery and charging system you are using. On magneto you only have the option of 3, maximum 4 spark settings where the magnets line up for ultimate output but at cruising speed you have a much stronger spark and more power. Those T owners who drive on magneto will notice that the trembler coils – especially if the coil box is mounted on the firewall – go silent once switched from battery to magneto. While driving on battery the coils vibrate 283 times per second and will continue to do so for as long as the roller inside the timer is in contact with one of the terminal surfaces inside the timer cap. I always imagine those showers of useless sparks flying around – only the first one is required. On magneto the coils will fire a theoretical maximum of 4 times while the roller is in contact with the terminal surface inside the timer cap. Running on magneto saves on coil, coil points, capacitor and spark plug life. I will touch on another benefit further down in this article.

Enough about that. In this article I want to focus on two very critical aspects of proper coil functioning namely capacitors and the cushion spring gap so please excuse me if I repeat myself too often. Proper coil performance relies on proper working capacitors and much has been done in this field, the capacitors now available from suppliers such as Langs and Snyders fit the bill perfectly. But what exactly is the function of the capacitor?

The capacitor, also called condenser is connected in parallel with the coil points. Its purpose is to prevent or suppress arcing across the point contacts to prevent contact pitting and wear. The capacitor does that by allowing the coil current to continue flowing for a brief time after the points open; allowing the contacts to physically separate from one another before current flow stops abruptly, producing a very high voltage across the coil points that is responsible for inducing the high voltage in the coil secondary winding which is connected to the spark plug electrode and produces the spark. The capacitor also improves the spark quality and duration as energy is transferred from primary coil winding to the high voltage secondary coil winding. To understand this better, the flow of electricity can in a way be compared to the flow of water. If you turn a water pipe off suddenly the flow of water does not want to stop instantly and a tremendous pressure will build up. That is why some homes have a tank or pipe built into the water system to take up this pressure – the rattling and banging pipes you sometimes hear when closing a tap. When you turn off the flow of electricity by opening a set of points, a pressure builds up and can cause a spark across the open points. The capacitor prevents this by charging up like a battery absorbing the extra current flow. Proper point adjustment is critical in meeting that goal. Early points used a fixed, upper contact and a movable lower contact attached to a steel element that is pulled down towards the coil core when the primary coil current reached sufficient level to generate spark with enough energy to ensure proper combustion. The problem with those early points was that electrical contact was broken almost immediately when the lower contact pulled away from the upper fixed contact before the lower contact got moving very fast. This is similar to a welder striking an arc; moving the electrode away from the work slowly intending to draw an electrical arc.

To address this problem Joseph Williams of the K-W Ignition Company decided in 1913 to replace the upper fixed-point contact with a movable point contact that follows the lower point contact for a fixed distance when the coil is energized to produce spark. Both point contacts remain in electrical contact while they travel towards the coil core with increasing speed in response to the building magnetic field. The upper point contact eventually reaches a stop provided by the limit rivet head; allowing the lower point contact to break electrical contact abruptly and move away from the upper point contact very fast. The capacitor can now do its job of continuing coil current flow for a brief interval while the lower point contact moves away from the upper point contact to greatly reduce the ability of the coil current to jump the point gap and produce an arc that pits the point surface. The upper point contact is attached to the cushion spring which provides a downward force to keep the upper point contact physically connected to the lower point contact as both contacts travel towards the coil core when the coil is energized. Insufficient cushion spring tension will result in the lower point contact pulling away from the upper point contact almost immediately causing an early, weak spark; allowing the point contacts to close again and repeat the process but even weaker and retarded. This is known as a double spark.

Luckily we have equipment such as the ECCT to enable us to do fine tuning of the coils. My T ran on magneto like a dog, misfiring, backfiring and very rough until I tuned the coils on an ECCT – the difference was amazing and this is the way to go if you want maximum performance from the coils. In order to tune coils for ultimate performance we need to understand TTF (time to fire) also known as coil dwell time.

The coil dwell time to fire a spark is inversely proportional to the operating voltage. The dwell time to fire operating on 6 volt is approximately twice as long as the 2 milliseconds when operating on 12 volt, this is why a T running on a 6 volt battery instead of magneto performs like a real slug. How is the 2 millisecond dwell time calculated?

The relationship between coil voltage (VL), coil inductance (L, which depends on the number of turns of wire on the primary), coil current (IL) and time to fire spark (t) is calculated using the following equation: t = L x IL/VL where L=0.0033H, VL=12 volts, and coil current is the saturation current (the maximum level of current that will flow in the coil primary). Expressing this in numbers gives the dwell time as: t = 0.0033x7.3A/12V = 0.002s (2ms). In reality, the relationship is not linear due to coil and wiring resistance. Coil current typically reaches 6 ampere in 2ms operating on 12 volt as the coil current approaches saturation. The reason why the coil saturation current is important is because even if you could double or triple dwell time to fire a spark, the spark energy (which depends upon the coil current at the time of firing spark) will not increase significantly (the spark will not be any hotter by increasing the coil point dwell time) because the current level has saturated.

Therefore, in view of the above another interesting benefit of operating on magneto is that the magneto voltage increases as engine RPM increases so the coil dwell time to fire a spark decreases and thus advances the spark as the engine RPM increases. This extra power is noticeable when you want to do a fast pull-away – demanding high RPM – from a traffic light. Yes, Henry and his merry men were quite smart.

Now why is this 2ms value so important? It has all to do with cushion spring travel and the cushion spring gap – extremely important if you want to achieve consistent TTF across all four cylinders. You see, the upper and lower point contacts separate anyway after approximately 2ms regardless of the amount of (excessive) cushion spring travel but with varying results.

Tests have shown that there is no significant change in coil firing time or firing current of the first spark once the cushion spring travel reaches 0.006". That means the point contacts have opened after 0.006" travel even if there is more available travel before the cushion spring hits the limit rivet stop. In other words, the vibrator spring contact separates from the cushion spring contact all by itself after 0.006" of cushion spring travel without the help or benefit of the limit rivet stop. This is an important detail that needs to be understood: coil points with excess cushion spring travel (more than the Ford recommended 0.005") separate without the help or benefit of the limit rivet stop and often do so relatively slowly, negating the purpose of the capacitor and promoting the formation of an arc. Coil point arcing is undesirable for several reasons.

1. Point arcing causes premature wear of the electrical contacts.

2. The arc continues the flow of the primary coil current but at a decreasing value which weakens the eventual spark resulting in poor combustion.

3. The arc delays the spark which in turn retards the ignition timing.

The arcing is also random in occurrence and duration which means the spark delay is also variable based on the coil point physical characteristics (point gap, cushion spring tension and vibrator spring tension) which produce ignition timing variations that diminish engine power and introduce engine vibration.

In a nutshell, while running the risk of repeating myself, Joseph Williams of K-W had good reason to specify the cushion spring travel of 0.005". The primary coil current is already of sufficient amplitude to guarantee a good hot spark with sufficient energy to ensure combustion after 0.005" of coil point travel and both point contacts are already traveling with considerable momentum after 0.005" cushion spring travel. The cushion spring contact stops abruptly when the cushion spring hits the limit rivet permitting the vibrator spring contact to continue moving away from the cushion spring contact very quickly. The capacitor permits primary coil current to continue flowing for a short period of time (millionths of a second) but that is long enough for the point contacts to move physically apart from one another with the cushion spring contact abruptly stopped by the limit rivet. Abrupt physical separation afforded by the limit rivet and brief continuation of primary coil current by the 0.47uF capacitor is key to preventing electrons from jumping the point gap and forming an arc. This also hastens the collapse of the magnetic field once the primary coil current ceases to flow through the capacitor. This results in a higher secondary voltage to be produced creating conditions necessary for the spark plug to generate a spark.

Coil points as offered by the current suppliers often have excessive cushion spring gaps as a result of poor quality controls during manufacture, I have measured as much as 0.018”. In fact, I have not recently come across a pair of K-W points with the correct cushion spring gap. Although it is possible to tune coils that have excessive cushion spring gaps on an ECCT the TTF becomes very erratic at higher RPM and may vary across the four cylinders resulting in a rough running motor. I cannot over emphasise the importance of having the proper cushion spring gap prior to commencing fine tuning of the coils. Very few people actually bother about this detail, assuming that the points are supplied with the correct cushion spring gap and therefore install them as is. Spot a big mistake!

The cushion spring travel can be corrected carefully by crimping the limit rivet. The Vintage Ford Magazine in the USA published a method of reducing cushion spring travel in one of their issues and the article may be found on page 12 & 13 below in this edition of T Time / T Tyd. Be careful not to over crimp the limit rivet or the points will be ruined. I have made a ‘buck’ using a piece of angle iron allowing me to clamp the buck in a bench vice. For 0.005” shim stock I cut up a Score energy drink can with a pair of scissors and I use a mini-vice grip to clamp the points to the buck, preventing them from moving around while I am performing micro-surgery. For those of you who do not possess a set of imperial feeler gauges, 0.005” equates to 0.13 millimetres.

The cushion spring tension must still be adjusted for proper tension even with 0.005" of travel. Too little cushion spring tension or too much cushion spring tension will result in the vibrator spring contact pulling away from the cushion spring contact pre-maturely then quickly closing again to produce the dreaded double spark; a dreaded condition because it produces a weak spark earlier then desired followed by a second weak spark occurring later than desired relative to piston position.

In closing, poor engine performance results from insufficient spark energy delivered at the wrong time. Equal and consistent firing time across all four cylinders will make a remarkable and noticeable difference in your T’s engine performance.

Author’s note: My romance with my Model T now spans more than 40 years and I have always thought that I know quite a bit about the workings of the T ignition system. I only discovered how limited my knowledge was when I made contact with Mike Kossor, the inventor and manufacturer of the ECCT. Through correspondence with Mike and the sharing of his articles I have become much the wiser and I am very grateful to Mike – much of what is contained in the above article I learned from Mike. I am also indebted to Ron ‘The Coil Man’ Patterson for his share in initially getting me interested and up to speed on the subject.

And no, I do not collect sales commission for punting the ECCT.
I would appreciate any comments on this article and if anyone needs more information, please contact me, maybe I can help.

TECHNICAL Q&A
(Answers by *Technical Editor:* Mike Vaughn)

Q. I am installing new vibrator points on my ignition coils. I was reading in the "Ford Service Manual" that the clearance between the cushion spring and the vibrator bridge should be .005". My new points have as much as .012" clearance.

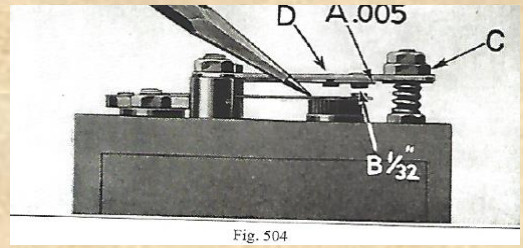


Fig. 504

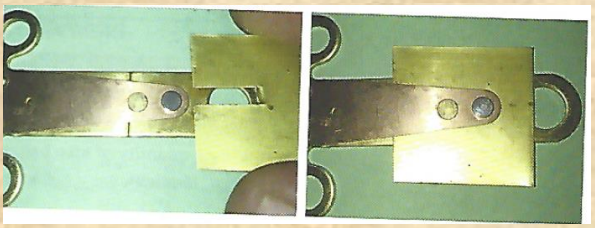
"When installing a new vibrator and bridge, it is very important that a uniform clearance of approximately .005" be maintained between cushion spring and vibrator bridge (See Fig. 504, A). This clearance should extend the full length of the cushion spring."

Above is an illustration and excerpt from the Ford Service Manual But I am not sure how to adjust the clearance. Can you help me?

A. In recent years this has been a fairly consistent problem in the manufacture of new coil points. Although there have been some improvements very recently, the problem does still exist. It is important that this gap be corrected because it is one of the controls in place to regulate timing of when the coil fires.

The cushion spring must travel freely .005". The distance is set with the brass rivet just behind the tungsten point. To adjust for the correct clearance, that rivet needs to be re-set. This is tricky, as the rivet needs to be pushed up until proper clearance is reached. It then needs re-peened to hold that setting without damage to the rivet, bridge, or cushion spring.

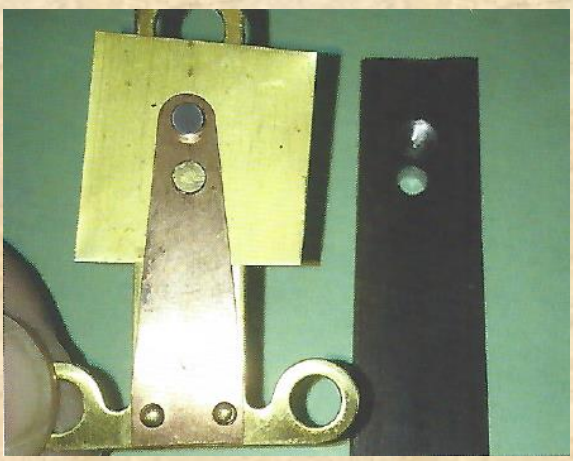
To successfully reset your points, you need to make a simple buck. My buck is made from a piece of 3" X 3/4" flat steel stock 1/8" thick. About 1" from the end I use a 15/64" bit to drill about halfway through the 1/8" stock. This blind hole serves as a relief hole for the protrusion on the top side of the bridge. Then, with a 5/32" bit, I drilled a hole 1/4" from the center of my first (blind) hole. This hole will allow the rivet to be pushed upward in the bridge making the adjustment that is needed. Next I use a piece of .005" brass shim stock. I cut the shim stock about 1" square; then cut out an 1/8" x 1/2" channel in the center of the shim stock.



(left) Installing .005" brass shim between cushion spring and bridge, note the channel for the rivet. (right) Shim properly installed between cushion spring and bridge.

Once you have made a buck and cut a shim slide the shim between the bridge and the cushion spring with the rivet fitting into the groove. Place the vibrator bridge upside down, with the protrusion fitting in to the blind hole and the rivet in line with the through hole. Using a small punch gently tap the rivet until the shim stock is snug between the cushion spring and the bridge. Use patience and be gentle when tapping the rivet into place.

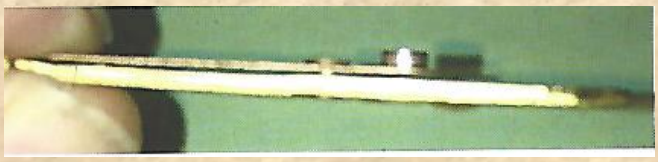
With the shim still in place, turn bridge over, place it crossways over the buck; be sure tungsten



Preparing to lay bridge on rivet buck. Protrusion must fit in blind hole with brass rivet over the through hole

Bridge on the rivet buck. Brass rivet is ready to be gently tapped with a punch until the shim is snug.

Rivet is now ready to be set against the bridge by peening. Note that the tungsten point is hanging just off of the side of the buck



Cushion spring now adjusted to .005" clearance.

point is hanging just off the side of the buck. Re-set rivet by gently peening it with a ball-peen hammer until it is set against the top of the bridge.

The shim can now be removed and you should have the desired .005" clearance. Make sure that the cushion spring travels freely the full .005". It is possible to damage the rivet if you become over aggressive in resetting or peening. This prevents the cushion spring from traveling freely, so remember to be patient and

Got a Tech Question for Mike?

Send it to him at:

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SAVVA Technical Tip

Thank you to Eric Mc Quillian for providing the regular useful tips via SAVVA

Technical Tip 178 –Silicone brake fluid

Let's start the new year off with a controversial subject but one of reasonable importance and that is the use of Silicone brake fluid in older vehicles in place of the old type (dot 4). People have such divided views –mainly based on hearsay and not personal experience.
Recently I discussed the use of silicone fluid with a major brake company and their advice was very simple –if your car stands for long periods of time then use silicone. The brake cylinders won't build up that white goo that goes with normal brake fluid.

The bottom line is that normal brake fluid, dot 4, is hygroscopic where silicone, dot 5, is not. Another lesser but important fact is that if silicone is spilled on paint work if won't remove the paint.

I've heard that when using silicone, the brakes become spongy -I've used it on numerous cars and never experienced this problem. I've also heard that the brake washers (seals as the trade call them) swell jamming the brakes on. This is possibly because the seals fitted were old rubber stock and not compatible with dot 5 brake fluid. Washers are cheap so to be on the safe side buy new ones -don't use the ones you have on the shelf. It is also advised, when going over to Silicone to replace all the seals. The cost of silicone fluid is considerably higher than dot 4 but it's a once-off purchase.

There are many ways to clean out old brake fluid. One suggestion is to flush the system out with methylated spirits. Another is to blow a small quantity of silicone fluid through with compressed air.

If you have Facebook, go into "silicone brake fluids" especially the article by Moss Motors. This gives the pros and cons of its use.

SAVVA Technical Tip 179 – Parts storage containers

With our hobby we tend to end up with all kinds of bits and pieces – the question is where do we keep these bits and pieces, as well as all the nuts and bolts etc. Years back I tried nailing bottles lids to under a shelf and the bottles would hang off them. This didn't work out well as the bottles were too small and with a bit of rust they wouldn't screw off the lids.

A much wiser man then introduced me to ice-cream containers. I've used these for many years without any problems. The main problem is to convince the Missus that ice-cream is good for you and not really fattening.

Attached is a picture of some of my 60 odd containers, they may look terrible but I know where everything is.

SAVVA Technical Tip 180- over oiling

An article in a recent motoring magazine reminded me of the importance of making sure the oil level in our engines is correct. We are always concerned that there is enough oil in the sump - but over oiling can also present problems. We recently had a gentleman very concerned because his engine was smoking badly and thought he had broken rings, the problem however was cured by correcting the oil level. The level was way over the high mark on the dip stick.

In the past I have come across two problems:
One being that some engines should only be checked when they have been standing for some time – In some cases overnight. Many enthusiasts have purchased a Rolls or Bentley with the V8 engine, checked the oil at the service station whilst refuelling and thought it needed copious amounts of oil to

bring it up to the correct level only to find that when cold it actually had considerably more than what was required.

Regardless of the make of vehicle it may be a good idea to check the oil level in the morning after the vehicle has been standing overnight.

The other problem being, in extreme cases, especially with vintage cars, that over the years the dip stick could have been changed for whatever reason and the current one is giving an incorrect reading.

Attached is a picture of a dip stick where the “stop” can be moved up and down giving a variable reading. How much oil there is in the sump is any one’s guess! Beware of these problems!

Model T Ford Register

The club is updating the national register of all the Model T Fords in South Africa and would like to know of the cars that you own as well as any cars that you know of, even those of non-club members. Please provide the following details to Philip Kuschke at philipe.kuschke@gmail.com or Emil Kuschke at kusch@mailzone.co.za

We still do not have the detail of all the vehicles of our members as well as non-members

Name	Year	Model / Body style	Condition (good/running/project)

MTFCSA Facebook page

The Club’s official Facebook page can be found under the name: The model T Ford Club of South Africa. Please visit the page and “like” and “share” it so that our club gets more exposure.

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PRODIFIX CONSTRUCTION

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The Trading Post

Do you have any Model T Ford related items that you require to complete that project or wish to sell? Send the details to the Phillip Rosser at rosserphillip@gmail.com

Model T Ford Club Regalia.

Club regalia is still very limited at this stage. We would like to encourage the wearing of club shirts and caps to promote the MTFCSA. If anyone wishes to apply the MTFCSA logo to other clothing items such as ladies' scarves or peaks, please contact Emil Kuschke on 082 6554 879. It is important that the correct version of the club logo is used at all times.
Club caps are available at a low price of R80-00 each.
Bumper badges are R100-00 each.
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Vintage oil can printed mugs for sale.

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15oz	Red Crown / Polarine		R90,00	
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15oz	Invader Oil		R90,00	
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