

The CRANKHANDLE

APRIL
2021

Newsletter of the Southern Peninsula Classic and Historic Car Club Inc. A00011676Y
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The Crankhandle is sponsored by the Bendigo Bank

Postal Address: S.P.C. & H.C.C. Inc., P.O. BOX 12, DROMANA, VIC., 3936

Website: www.crankhandle.com.au Email: admin@crankhandle.com.au

The aim of the Club is to cater for people who have an interest in restoring, touring and displaying all types of Veteran, Vintage and Classic cars, motorcycles, trucks and stationary engines, etc. or any piece of machinery of historical interest.

The views and/or opinions expressed in CRANKHANDLE are not necessarily those held by the Committee of the SPC&HCC.



Bob Hill with his beautiful 1959 Chevrolet Bel Air.See 'Octos' Page 6....

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inside*

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The deadline for articles and advertisements in the next edition of The Crankhandle is 15th of the Month. Items received after then may be held over till the next edition.

Please email copy or information to:
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CLUB MEETINGS

General meetings are held on the first Tuesday of each month at Dromana Community Hall, cnr of Hodgkinson St and Verdon St, Dromana at 7.30 pm. Melway Ref 159 G7

COMMITTEE OFFICERS

President:

Allan Tyler alpays@bigpond.com 0409406690

Vice President:

Brian Evans evansfam@surf.net.au 0409 639 118

Secretary:

Colin Jordan colin.jordan@bigpond.com 0417 527 812

Treasurer:

Paul Lucas lucasp14798@gmail.com 0420 927 073

Membership Officer:

David Jones 0416 287 797

Events manager:

John Becker johnbecker@westnet.com.au 0411 202 911

Editor

Keith Morrison crankeyeditor@gmail.com 0411 127 765

Club Permit Officer:

David Doubtfire d.doubtfire@bigpond.com 0409 603 749

Safety Check Officers:

Liam Fenney liam@hutchinsonautomotive.com.au 5986 5454

David Doubtfire d.doubtfire@bigpond.com 0409 603 749

Club Regalia:

Rob Lloyd lloydsofmcrae@gmail.com 0407 833 878

AOMC Representative:

Ray Beagley rayanven@hotmail.com 0414 598 614

Federation Representative:

Geoff Bartlett helen-geoff@bigpond.com 0419 547 823

Document Control

Warwick Spinaze petandwozspin@bigpond.com 0407 016 719

Web Master:

David Doubtfire d.doubtfire@bigpond.com 0409 603 749

Club Librarian

Roger Howes 385roger@gmail.com 0429 142 464

OTHER MEMBERS

Julie Jones julieellis2@bigpond.com 0418 144 554

Christine Tyler alpays@bigpond.com 0424 096 393

Geoff Bartlett helen-geoff@bigpond.com 0419 547 823

LIFE MEMBERS

Geoff Anderson

Ray Beagley

Greg Cripps

Ray Gardini

Tony Howard

Noel Meates

Lawrie Turner**

Don Robinson

John Watson

Max Caddy

Bill Glover

Charlie Cassar

Brian Niblock

Steve Lloyd **

Eric Evans **

Peter Bradbury **

** Deceased

COMMITTEE MEETINGS are held at "The Library"
Morningson Gardens, 98 Bungower Rd, Morningson.
2nd Tuesday each month at 1:15pm
Tel 0420 927 073 (Paul Lucas) .

All's Soap box

Hello everyone.

There is not a great deal of news since the last issue of the Crankhandle.

There are reports later in this issue on the events that we have had during the month.



All of these have been very enjoyable and once again I thank the events co-ordinators John and Chrissy, for their tireless efforts in organising these outings.

There is not much news on the general meetings at the hall. We could run a meeting at the hall but we would be limited in the number of people we could have in attendance. There is also the issue of cleaning the hall after we have used it etc, etc. Given the roll out of the vaccination the committee has decided to postpone any general meeting until the situation becomes easier. So until such time we will have to rely on our outings and events to catch up with everyone.

Last month we conducted a zoom meeting. Please feel free to attend these on line meetings and if you are unsure on how to or experiencing problems please contact myself or another committee member for help.

Please keep an eye on your emails and the newsletter for upcoming events.

Trivia.

Around the traps you see a lot of people upgrading braking systems. One of these is fitting dual circuit master cylinders for safety reasons. While this comes under modifications requiring engineering certification, it is more often done without. While this seems like an easy thing to do, it is not that straight forward. I am not suggesting you do this but here is an explanation of the functions of master cylinders so that you know how they function.

The Master cylinder PART ONE

The master cylinder is all important. You cannot use any dual master cylinder.

In a dual master cylinder under normal operation, the primary and secondary pistons are hydraulically coupled by the fluid trapped between the two pistons. There are also two springs in the system which control the sequence of front/rear application.

The primary spring is stronger than the secondary spring

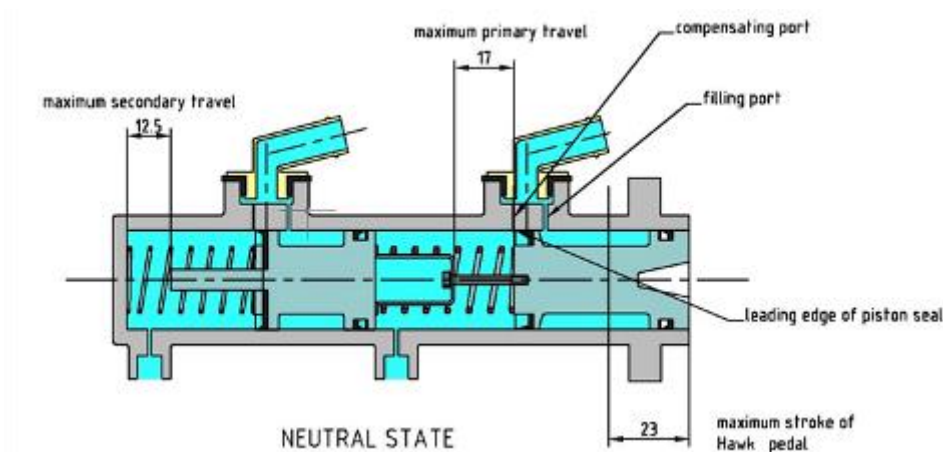
As the pedal is pushed the primary piston pushes on the 1st spring which subsequently pushes the secondary piston and spring.

Because the secondary spring is weaker it now compresses and fluid is moved to the rear brakes. The column of fluid between to two pistons is also compressed but at a lower rate. For example the pressure in the primary circuit may be 10PSI, while the pressure in the secondary or rear circuit will be 10PSI + the difference between the two springs. This has the effect of applying the rear brakes first. In some earlier systems a valve called a hold off valve was placed in the primary circuit to achieve this. It simply "held off" the pressure being applied to the front brakes until the pressure rose above a pre determined amount by a spring mechanism in a similar way. The whole aim of this is to eliminate nose dive caused by the front brakes grabbing too soon.

As the pedal is pushed harder the pressure rises and the effect of the springs become relatively negligible. For example when the pedal pressure increases the Hydraulic pressure to 500PSI the additional 20PSI added to the rear is of no consequence.

When the pedal is released the springs return the pistons to the neutral position. Note also the compensation port on the primary bore just in front of the piston seal.

How often have you heard "the brakes come on after a while or when they get hot". This happens if the push rod is adjusted too long and the piston just covers the little port. This port allows fluid to flow back into the reservoir when the fluid expands due to heat.



As the pedal is pushed the piston assembly pushes fluid into the rear wheel cylinders, when they are full the pressure in the master cylinder rises and the primary piston pushes fluid into front callipers.

At this point the pressure increases in the entire circuit and the brakes are applied.

TO BE CONTINUED.

Next month we will see what happens when a circuit fails.

Allan Tyler

COMING EVENTS



SUBJECT TO VICTORIAN COVID RESTRICTIONS

APRIL

April 2nd

Good Friday

Tuesday 6th

Monthly General Meeting Via Zoom (Geoff Bartlett) 7:15 pm onwards

Tuesday 13th

Committee meeting, Mornington

Mon 19th - Fri 23rd

Over The Top Tour

Tue 20th

Carsn'Coffee Mornington Golf Club 9.30 onwards (Garry Brasher 0438 449 055)

Past Event - Rotary Sorrento Car Display Monday 8th March 2021

The day started with a leisurely (traffic induced) drive to Sorrento. On arrival at the oval we were assisted in parking orderly by John Becker. (Good work John). There were other cars from the Peninsula boys on display closer to the entrance. The morning was overcast but still quite pleasant chatting and looking at all the cars. There were a large number of people walking along admiring all the cars. As a result there were plenty of people choice votes in John's ballot box.

Unfortunately the weather started to turn and it spoiled what could have been a lovely afternoon. However we made the most of it and the winners of the people's choice were.

People's Choice Winners;



1st Place.: Allan Lowe Triumph TR4 A

A wonderful example of British sports car. This car looks stunning and is a real credit to Alan.



2nd Place : Bruce Rogers Austin 7 Sports Tyrrell

This car has a racing History from the 1930s on and is a magnificent example of the early racing Austin 7s and is beautifully presented and maintained by Bruce.





Caught in the Headlights

The Octogenarians

Bob Hill... A finder and seeker

The Octos were almost light headed when they journeyed to Mornington to visit a club member in person! It's been a long time coming, although, we did get in a visit to Tracey Mulvogue between lock downs a couple of months ago. So this month we are visiting Bob and Lorraine Hill, arriving of course, in time for coffee and pastries, where we listened to a very uplifting story of Bob's life. He was born in Carlton on Australia day in 1939 and had, although one would not detect it, a very difficult childhood ending up as an orphan between the ages of five and eleven at St Johns Children's Home in Canterbury. His schooling finished at the age of 13 when he left school to become an apprenticed boot maker in Mordialloc. After completing his apprenticeship, he worked at Paddle Shoes in Mornington and Windsor Shoes in Preston. He served as a National serviceman when called up in the draft and commented that it was a big change from a "Bodgie" with long hair to trained soldier...with much to learn about army ways, especially when on first arriving at Puckapunyal he addressed an Officer as "mate"--he learnt very quickly!.

He married Lorraine in December 1959 and they have two children, a girl and a boy (the son is currently Assistant Commissioner of Victoria Police) and now have five grandchildren and two great grandchildren. To keep the wolf from the door Bob worked three jobs, nightshift at Fibre Products, an assistant baker for Baker Boy during early day and he developed a lawn mowing round in between. They prospered, first living in Mornington where, as a 27yo, Bob had a desire to join the Police Force. A very kind retired school teacher Miss Mills, offered to raise his education standard to enable him to join the Force. He was first stationed in several areas around Melbourne, including a spell in Traffic on one of the dynamic 750cc Kawasaki bikes used by Traffic. Bob describes his time as a young constable walking the streets of Melbourne at night, alone-- and no radios in those days, only a truncheon for protection and a pair of handcuffs if needed. Tough days indeed! After 14 years in the Force, ending up in CIB at Mornington as a Detective Senior Constable, when illness forced his retirement in 1980. For the next twenty-seven years they lived in Hoddles Creek building a home on 10 acres and became very community minded joining the local Fire Brigade and Progress Association. Together they produced a range of sheep skin products to sell at local markets. His training as a boot maker was invaluable.



Bob, who has a passion for collecting all manner of things, joined and eventually became a Life Member of the Victorian Seekers Club, going to the old gold diggings throughout Australia with Lorraine by his side, more often than

not, living in their caravan for weeks at a time. This association opened up many on-going adventures. His collection of “finds” over the years is quite remarkable and displayed in their home and garage. The Octos commented on the wide ranging finds he has made with his variety of metal detectors, including one which works completely under water. Bob said people lose their rings, badges, broches and necklaces at the beach and he retrieves them. He also collects mostly by the internet, quite literally hundreds of medallions, which are mounted on framed boards in his “display room. Bob explained that most metal objects rusted away in the soil but anything made of brass, survived almost without blemish, He has a large collection of tap levers that were commonly used in early times and mostly found around the gold mining digs through Central Victoria. One could spend hours examining his finds which reflect a time long gone.

Bob, like most car people has owned many cars in his life including 4 FJ's at the one time—one a goer and the rest “project” cars, a 1936 Chevrolet, a '52 Dodge, a Ford Pilot and a '26 Rugby plus many others.

They have a line of garages at the rear of their Mornington home, housing a 22 foot Jayco caravan (towed by a Ford Ranger 4 wheel drive) a nice cabin cruiser [belonging to his son] and of course their beautiful, striking, prize winning, red 1959 Chevrolet Bel Air, which won the 1931 to 1959 Early Classic class at our most recent Show and Shine. The car has also won the Dromana Show and Shine, winning the Best Car in their class twice. They have owned the Chev for the past 5 years, being found by a friend who placed a deposit on it whilst Bob and Lorraine were caravanning in the north and informed them by telephone of his good deed. It's a giant car, with a throbbing OHV V8 under the bonnet. The paintwork is top class and the vast interior is spotless. Bob has recently fitted power steering which makes for much easier handling. She would have been a hard job without it. She's certainly a car that makes a statement with her red paintwork and her burbling deep throated exhaust. A very desirable car.

Since moving back to Mornington from Hoddles Creek in 2007 Bob and Lorraine joined the Southern Peninsula Classic and Historic Car Club upon purchasing the Bel Air in 2013 and are enjoying their retirement midst like minded people. They are a lovely couple who both enjoy the same interests.

Congratulations to you both on your success at our 2021 Show 'n Shine.

SUGGEST A CAPTION COMPETITION

Consider the photo below and suggest a caption for it.

Email your suggestion to Warwick Spinaze : petandwozspin@bigpond.com

Warwick is offering a prize for the best entry, as adjudged by Warwick himself. One entry per member by noon on the first Tuesday of the next month.

Winning and notable entries will be revealed in the next Crankhandle



Past Event - Tooradin run Thursday 25th February 2021 .

We all (almost) gathered at Bunnings in Mornington for a 10.00 am start. Everybody gets into the social chat mode, and it is hard to tear everyone away from their discussions. However we mustered the troops and set off for a leisurely cruise to Tooradin along Bungower Road.

Turning right after the bridge and heading down to the proposed sight, our hearts sank when we saw all the amount of motor bikes and people enjoying themselves in the area that I had especially reserved for us. (Nice thought anyway). However, proceeding past and around the corner the large grassed area was completely vacant and I thought we will have that.

It could not have turned out any better. It was not hot enough to get sunburned, and it was very pleasant sitting between all the cars. Like clockwork we all produced chairs and tables from our cars and sat down to continue our socialising that we started back at Bunnings.

The cars look stunning all lined up and as usual there were a procession of admirers.

Some members did BYO and others took advantage of the Café and the Bakery just around the corner in Tooradin. It was a lovely day and everyone enjoyed their escape from lock downs.

Thanks to all those members that attended.

Christine Tyler.







Musings from
MAX
with
Max Caddy

What a great variety of vehicles make up our club eclectic package of classic cars.

Combine our cars with other invited clubs with Healy's, Jaguars, etc. and you have a fine display of wonderful cars all gathered together on Labour day at the Sorrento footy oval.

I met committee man Rob Lloyd at his home where his latest acquisition was parked, ready for the trip from McRae to Sorrento. Taking up the rear position it was great looking at the back, of a modern TF MG Roadster,

Navy blue and literally gleaming in the morning light.

Rob now owns two MG's having recently sold his lovely X-type Jaguar.

Upon arrival at the oval the show cars were all lined up at the spectator slopes. We both attempted to mount the steep incline in reverse. I had two goes with wheels spinning on the grass. Rob then had his turn, however the lower skirt hit the gravel grinding the lower edge of the skirt somewhat. Not the sort of thing you want when you have just purchased a car and shined it all up just for its first show.

No rain at this point, so we went about viewing the fantastic cars on display. However we found it difficult to get away from our own cars. A big friendly guy named Tony who owned an MGB started telling us about his own car parked a small distance away. It was fitted with a huge V8 under the bonnet with the internal guards cut away to enable the multiple manifold exhaust to escape. A very crowded space under the bonnet, yet no necessity to alter the external profile.

His car was red too. Just like the newspaper. 'Read all over'.

Time to move on, meet people, chat, view cars and enjoy the pleasant morning, however there is rain about. So on with the jackets. Long time members, Bill Vaughan was there with his white Austin Healy accompanied by Sorrento member Rob Ryce in his red and black Healy, magnificent and valuable cars. Two lovely Jaguar coupes and a white Jaguar 120 coupe took my fancy. I am not biased, I luv em' all.

'Long noses' were there too. Past president Geoff Bartlett with his very British BRG MORGAN and the extreme fiberglass Zimmer, talk about different, and the bonnets are just so L-O-N-G.

The rain is coming down and Rob and I were both hanging out for a coffee so we walked up to the Main street shops and satisfied our needs. The rain set in and the cars on the downside slope were experiencing getting traction. I started up my trusty MG and only had to roll down the slope and turn for home but wait!, there's another bright red MG parked on the verge of Nepean highway; I stopped, reversed, lots and lots of traffic. Better check them out. Perhaps they had stopped for a cuddle. No, they had just broken down. Very rare for an MGB! John and Rhonda were waiting for a tow truck. The RACV van had checked them out and suggested the alternator was probably the fault and ordered a tow truck to take them home. We had a chat on the side of the road until the tow truck arrived. Good to have RACV Roadside assist. I then had difficulty moving back into the heavy traffic as the might of the tow truck was restricting my view of the oncoming cars. The stop-start traffic, I could accept, what I found were the SUV's are so big and intimidating when you are in a low sports car. Scary. The fuel tank was now indicating barely above empty I thought I had better get off the highway and use the side streets, however the traffic was no better. I finally pulled into a servo to fill up. My MG runs on premium fuel and the cost per litre was \$1.80, So I stopped at \$50 and will top up when prices are lower --- Maybe.

I remember my first 'Jag' S-type. They had two tanks with a filler on each side. I stopped filling the second tank when the bowser registered \$100. A lovely car however it did like a drink.

On arrival home, with a Vic Bitter to the side I gave the MG a chamois to save a wash later. I will attend to the chrome wires on a later date. Interestingly... Rob Lloyd replaced his original wires for chrome some years back. He kept the old wheels and has now had them powder coated, each a different colour, red, white and blue, not sure what colour the fourth one is. He intends to attach his garage wall. When I replaced my wheels, being lousy I advertised the old ones for \$400 and sold them to a member of the MG Car Club of Geelong.

Enough from me. Keep well, keep happy and keep your eyes on the road.

Regards Max

XX OO for the girls.



2021 SHANNONS ON-LINE AUCTION

RESULTS SUMMARY 23RD FEBRUARY 2021



STRONG BIDDING – CLEARANCE 97% OVERALL
ONLY 3 CARS PASSED IN OUT OF A TOTAL OF 65
A FANTASTIC CLEARANCE RATE

A Melbourne delivered Porsche 356A 1958 Cabriolet in "Project condition" sold to a collector for \$230,000 after an estimate of \$90 - \$120,000!!

Other highlights were -

1936 Bentley 4½ L "Barker" Saloon sold \$115,000

Estimate \$90 - \$110,000

1977 Honda Accord - \$36,250!!

1985 Mazda RX7 - \$52,000

Lot 44 – 1964 Holden Premier Sedan \$63,500

1958 Holden F.C. Ute \$55,400

1969 VW Karman Ghia Convertible \$62,000



It would have to be a very successful auction for Shannons – achieving record prices in all categories – Motor Bikes, Number Plates and Cars

In these uncertain economic times it would appear that the market for collectibles is very strong – quite reassuring for all you "multi car owners"

Mike Hurd

Email to the Editor

Hi Keith

Here are a couple of pics of the T in front of the Beeac Salt lake. You may be able to use them.

We went on a Labour day weekend tour with the T club and was able to exercise my artistic nerve. Not very well though!

We did over a thousand kms that weekend.

David Jones



Minutes Summary – SPC&HCC – ZOOM General Meeting – Tuesday 2nd March 2021

Meeting opened at 7.34 pm by President, Allan Tyler.

Attendance: Typically, 18 to 20 participants were recorded during the Zoom session.

Previous Minutes: not presented for confirmation.

Correspondence: Permit renewals

8 Membership Applications

Thank you certificates to Bruce Rogers and to his former Company.

Treasurer: Paul Lucas mentioned major costs barbeque supplies, postage and printing.

Membership subscriptions exceeding expectations

Financial details available to members on request.

Moved Paul, seconded Brian Evans that the Treasurer's report be accepted, Carried.

Membership: 244 and 8 awaiting Committee Approval.

Past Events: As reported in the Crankhandle

and Tooradin Thursday 25th February, well attended, and good venue. Weather deemed our spot alright, whereas it could be a bit exposed in worse conditions. Motorcycle group in better location are regulars on Thursdays.

Coming Events:

Sorrento Rotary Club display on Labour Day, 10.00 am to 2.00 pm at Football Oval

Peter Bradbury Mystery Tour, Friday March 19th. Meet at Bunnings at 9.30 am for 10.00 am start. Tour to lunch destination, proper meal, questions on observation and general knowledge at completion. Bring pen and paper to take notes.

Cars and Coffee, Tuesday 16th March, usual arrangements back

Point Nepean Picnic Thursday 226th March

Over the Top Tour, April 19th – 23rd

oversubscribed, 3 on waiting list.

General Business: Meeting at Hall. 36 allowed only, but 72 with QR Code, which we have. Still too few? Maybe with internet at Hall, and Try booking, we could offer members who miss the 72 tickets on Try booking a Zoom connection.





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GRILLE BADGE (Metal)	\$30
CAR STICKERS	\$1-

All these items may be purchased at monthly meetings or ring Rob Lloyd on: 0407 833 878 to Arrange purchase at McCrae



IMPORTANT NOTICES

CLUB PERMIT SCHEME MANAGEMENT INFO

David Doubtfire is the Club Permit Officer and Brian Evans is deputy officer for emergency only.

DRIVER RESPONSIBILITY

It is the responsibility of the driver of a club red plated vehicle being driven to ensure the vehicle is in a current roadworthy condition.

CLUB PERMIT HOLDER'S RESPONSIBILITY

It is the club permit holder's responsibility to:

Remain a financial member of the club

and

Contact the club permit officer after disposal of a red plate vehicle

CPS RENEWAL REMINDER

APRIL

C CASSAR	B CROCKER	G DUNKERLY
C HIGGINS	W ALLEN	P GEERMANS
P HILL	B JONES	P NOTT
J KLEIN	A NASH	D WILKINSON

MAY

T HOWARD	S ROSENHAIN	C WATKINS
R HUDSON	M JAGEURS	D McPHERSON
B TIDD	G CLIFFORD	J VOGT
B OSBORNE	G BONNIFACE	J PEEL
G BOWMAN	R RICE	K SAYERS
L STAMPTON	J WATSON	P WELLWOOD
F LEES	D NASH	

NOTE: Permit Renewal by Mail

If sending renewal notices by mail please send them with a self addressed envelope, ONLY to the club mailbox: **PO BOX 12 DROMANA VIC. 3936**



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IGNITION COIL BALLAST RESISTORS—By Graeme Dennes Revision 1

Thanks to Graeme Dennes of CCOCA (Classic Citroen Owners Club of Aust) has given our club permission to reprint his article

Background

Before perhaps 1970, the great majority of motor vehicle ignition coils were manufactured as “12V” coils, meaning they were designed to operate from 12V, i.e. from the 12V vehicle battery.

But there's a weakness, m'lord

What do you mean Baldrick? Well, m'lord, although the “12V” coil was used for many years, it does present a fundamental weakness. During the starting of a petrol-ignition engine, maximum spark energy is needed to ensure the fuel mixture in the cylinders is properly ignited at the relatively slow cranking speed of the engine. However, while the starter motor is turning over the engine, the high current drawn by the starter motor (several hundred amps) causes the battery terminal voltage to drop a little because of the battery's internal resistance. The voltage drop will be exacerbated if the battery is in an undercharged, weakened or aged state or if the ambient temperature is low.

These conditions never fail to conspire to reduce the battery voltage on start-up and the battery's ability to deliver the necessary starter motor current. In these conditions, m'lord, the battery voltage may drop to as low as 9V, resulting in slower starter motor operation and slower engine cranking speed. In and of themselves, these are generally not a problem, i.e. they normally won't prevent the engine from starting. It just may take an extra second or two. So what's the problem Baldrick? The problem is that the reduced battery voltage (9V) will produce a weakened spark from the “12V” coil which will very likely prevent the engine from starting.

In summary, at the very time the strongest spark is needed (when starting the engine), the “12V” coil may be operating from a 9V supply instead of a 12V supply as it was designed for, ensuring it produces a weakened spark. Seems a little odd, doesn't it? I think I see a cunning plan, m'lord.

A Cunning Plan? What are you talking about Baldrick?

The cunning plan, er, solution, offered by some vehicle manufacturers for some vehicles for some decades was to fit a ballast resistor in series with the coil primary winding. The ballast resistor is a low-ohms resistor. Its resistance is specified by the vehicle manufacturer so that during normal running of the engine, the ballast resistor has typically 3V dropped across it, with the remaining 9V acting as the supply voltage for the coil. Whaaaaat? What exactly have you been taking Baldrick? With this arrangement, m'lord, the coil is designed from the start as a “9V” coil, i.e. it is designed to provide the necessary spark energy when operating from a 9V supply! Thus, the ballasted coil is a “9V” coil, not a “12V” coil, and its performance with a 9V supply is identical to the performance of a “12V” coil operating with a 12V supply. No differences in their spark productions and performances when operating at their respective design voltages.

Baldrick, why go to all this trouble?

Well, m'lord, when the ignition key is turned to the start position, the starter motor will be activated as usual. However, at the same time, the 12V feed from the battery and ignition switch is connected directly to the coil, bypassing the ballast resistor, and the “9V” coil is then temporarily operating from a 12V supply instead of its usual 9V supply (via the ballast resistor). The purpose of increasing the voltage to the coil from 9V to 12V is to ensure a solid spark is produced during engine start-up to help compensate for a weakened, lower-voltage battery. Even if the battery voltage drops to as low as 9V, the “9V” coil is (still) being operated from a 9V supply, so the coil is operating as designed and the spark is fat!

Once the engine starts and the ignition switch is released, the 12V direct feed to the “9V” coil is removed and the ballast resistor is inserted back into the circuit, where it once again feeds 9V to the “9V” coil. All good.

That's the purpose of using a ballast resistor with a “9V” coil – to ensure a solid spark is produced during engine start-up, even if the battery voltage falls to as low as 9V. Simple and clever! Yes, m'lord, I think you'll agree it was a very cunning plan! That's the best cunning plan a Baldrick has had for five hundred years!

Well, Baldrick, how do we select the ballast resistor?

Well, m'lord, the vehicle manufacturer specifies the ballast resistor to be used with the specified coil, so when a

vehicle is manufactured with a particular coil and ballast resistor, the coil and resistor are an intrinsic pair of items, specified in the specifications of the vehicle's ignition system. The ballast resistor is not optional nor at the whim of the owner. So, Baldrick, back to the question. How do we select the ballast resistor? We don't, m'lord. The manufacturer does!

Then how am I supposed to know if a ballast resistor is fitted?

Easy, m'lord. Use a multimeter to measure the voltage on the positive terminal of the coil with the ignition on. If it reads around 9V, a ballast resistor is fitted. If it reads around 12V, it is not fitted.

Some Rules

There are some common rules which apply, m'lord. What rules, Baldrick? A ballasted ("9V") coil is designed to be used with a ballast resistor. Should the owner decide to remove/bypass the ballast resistor, the "9V" coil will see a permanent 12V supply connected to it, increasing the current in the primary winding to the level of the current during engine starting. However, instead of the increased current being present for only a few seconds during the engine start period, the increased current has become a permanent ongoing feature! Yes, this is guaranteed to do at least one thing – overheat the coil. It's the result of permanently operating a "9V" coil from a 12V supply, something for which it was not designed. Not surprisingly and certainly not unexpectedly, the coil will probably be destroyed! An expensive exercise!

Never run a ballasted ("9V") coil without its specified ballast resistor.

There is no such thing as a "standard" ballast resistor. A ballasted coil requires the exact ballast resistor specified for it by the vehicle manufacturer. The resistance of the ballast is dependent on the resistance of the coil it is designed to work with. That's why they are inextricably linked. They are specified as a pair of items with specific part numbers to be used together. Don't mix and match!

I've seen a situation where a faulty ballasted ("9V") coil has been replaced with a non-ballasted ("12V") coil to resolve a problem. In these situations, the ballast resistor will need to be removed or bypassed, as leaving it in circuit will reduce the spark intensity and create engine starting and running problems. The irony of this change is that fitting the "12V" coil will remove the benefits provided by the ballasted coil and ballast resistor – the ability to produce a solid spark at low battery voltages during engine starting, the *raison d'être* for fitting a ballasted coil and ballast resistor in the first place!!! Yes, not the smartest move (something about a not-so-bright globe and a chandelier...).

The alternative situation, where a non-ballasted ("12V") coil is replaced by a ballasted ("9V") coil and its specified ballast resistor, makes much more sense as it confers the benefits of a ballasted coil.

Then the question: Should I fit a ballast resistor to my car? The answer: If the coil is designed by the manufacturer to operate with a ballast resistor ("9V" coil), it should be fitted. If the coil is designed to operate without a ballast resistor ("12V" coil), do not fit one. Nothing more. Nothing less.

Finally, if a vehicle is manufactured with a ballast resistor and the owner decides to remove/bypass it, they do so at their peril. The removal of the ballast resistor is not the solution to fixing a hard to start engine or achieving a stronger spark. If an engine is hard to start, something (else) is causing it.

If a ballast resistor becomes faulty, replace it with the same or equivalent type and definitely of the same resistance.

Fitting a Replacement Coil and Resistor

Assuming your vehicle was originally fitted with a ballasted ("9V") coil and ballast resistor, if later deciding to fit a new coil and ballast resistor, it is always preferable to purchase new items made by the vehicle manufacturer, as those items are designed specifically for your vehicle, backed by the manufacturer's guarantee.

If the items are no longer available from the manufacturer, a lower-cost option is to purchase second-hand items from a recycled car parts supplier for your specific vehicle model. At least you will have genuine factory-fitted items, removing any risks.

If that option is not available, there may be global parts suppliers who can supply new after-market items designed for your vehicle. This way, the supplier has taken on the R&D responsibility to ensure the items they sell will successfully fit, connect and operate in your vehicle, as well as providing a warranty. A no-risk solution.

If the previous options are not available, then as the least-recommended solution, you would need to provide your own R&D solution for a ballasted coil and ballast resistor. Because you will be experimenting with the ignition system in your vehicle, and because the ignition system is critical to the operation, performance and reliability of the engine,

you may be less inclined to follow this DIY path. Still, it is an option.

Fitting a ballasted coil and ballast for the first time

If planning on fitting a ballasted coil and ballast resistor to a vehicle which never had them fitted from new, there may be advice available from car clubs whose members may have already done the hard yards and identified a suitable solution for your vehicle. If that option is not available, then, per the previous paragraph, you would need to develop your own coil and ballast solution for your vehicle.

Misinformation

Whatever are you talking about Baldrick? Well, m'lord, unfortunately, there is no shortage of misinformation and misunderstanding being perpetrated on the internet about ballasted coils and ballast resistors (and almost any other subject you care to mention!), creating much confusion on the subject. Much of the information is anecdotal, i.e., it is information based on unsubstantiated personal experience or simply personal opinion. Some information is situation-specific, some is incomplete or dubious and some is just plain wrong. Beware!

Conclusion

The ballasted coil and ballast resistor is a simple and effective solution to the historical problem of a weakened spark during engine starting because of lowered battery voltage. The ballasted coil and ballast resistor provided excellent service to the automotive industry for some decades until finally being superseded by the modern electronic ignition systems.

History

During the 1960s and 1970s, significant developments and experiments were being undertaken by the major global automotive manufacturers and electronic component suppliers to establish the forerunners of the ignition systems we use today. The early transistor ignition systems were relatively expensive at the time and were not universally optioned by all new car buyers.

The reader is referred to an interesting article at Curbside Classic by VinceC on the history of automotive electronic ignition systems. It is well worth reading as it contains historical technical details about vehicle ignition systems, the forerunners of today's ignition systems.

Although the article primarily focuses on the USA's Big Three (GM, Ford and Chrysler), other global manufacturers would have been running similar development programs over a similar period and would have faced the same or similar issues and needs. The three-part article is located at:

Part 1:

<https://www.curbsideclassic.com/automotive-histories/automotive-history-the-history-of-electronic-ignition-losing-the-points-part-1/>

Part 2:

<https://www.curbsideclassic.com/automotive-histories/automotive-history-electronic-ignition-losing-the-points-part-2/>

Part 3:

<https://www.curbsideclassic.com/automotive-histories/automotive-history-electronic-ignition-losing-the-points-part-3/>

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Fuel Gauges, why can't they all be perfect?

One of the challenges of taking an un-familiar car [new or old] on a longer trip, is whether to believe what you are seeing on the fuel gauge.

I think the best I have ever owned is on the '46 Sunbeam Talbot, which has numerals in both gallons and litres, and seems to be accurate enough. In fact all of its gauges have metric and imperial readings, I suppose the designers aiming to capture a significant European market.

Modern ones are nothing to rave about, my Pajero shows a full reading for about the first 20% of its range, then drops too rapidly. Having said this, I have never run out, but carry a jerry-can when caravanning, and have used it several times rather than risk the possibility of having to bleed the fuel system. You don't quite know where the next fuel is going to be, and Garmin tells unforgivable fibs about phantom servos.

During the Painted Silos Tour last year, I got fairly used to the Morris Minor, which was relatively new to us then. But during lockdown I had forgotten about its individuality. It has a fault which sees the gauge at just above empty when the tank has just been filled, and during about 30% of its range the fuel gauge gradually rises to nearly full, then fades to an extent where you can trust it not to run out if you rely on it. On the Cruise to Noojee last week, I was saying at Mornington that I would probably have to top up at Longwarry on the way out, even though on the previous outing to Mornington, I had filled it there. In the long run, we filled it at Rosebud on the way home, and it must have had about 7 litres left. Probably about as low as you would normally want to go. It only has a capacity of 29.5 litres, and I am certainly used to cars of larger size and thirst. When I did a calculation of economy, it was a bit short of 40 mpg., which I suppose is fine.

The Paige had an open manometer type of fuel gauge when new, and one was apparently able to source petrol gauge fluid in the 20's and 30's – a coloured fluid about the consistency of water, but I suppose blended to have a better evaporation life. However, in 1963 when I was confronted with this non-functional device, not to be defeated, in the inability to get the right stuff, I acquired some mercury. I got it into the gauge, but not a good decision, it didn't respond perceptibly to a fill of petrol in the tank – obviously in hindsight, far too heavy [dense actually, like the correspondent in this case] how naïve! Even in 1963 Mercury was recognised to be something we should not have, but a friend of a friend supplied it – I suppose it was “borrowed” from the chemical company employer. Probably wasn't cheap either. During the restoration project in 2018, Bill Eldridge substituted an electric unit – must be 6 volt, which fits very neatly into the 1 piece combination instrument panel. The unfortunate part is that it drops from about $\frac{3}{4}$ when tank is full to empty in about the first 30% of its range, so we travel on anxiety or calculated travel distance most of the time, and fill up way too often. Another gunna job – pull out the sender and see what silly messages it has been set up to send to the instrument.

Have you learned the idiosyncrasies of your fuel gauges, or do you, like me, travel a lot of the time wondering whether to risk going on to the next town?

Happy Motoring, Geoff Bartlett.



Why men shouldn't write advice columns

Dear John,

I hope you can help me. The other day, I set off for work, leaving my husband in the house watching TV. My car stalled, and then it broke down about a mile down the road, and I had to walk back to get my husband's help. When I got home, I couldn't believe my eyes. He was in our bedroom with the neighbor's daughter!

I am 32, my husband is 34 and the neighbor's daughter is 19. We have been married for 10 years. When I confronted him, he broke down and admitted they had been having an affair for the past six months. He won't go to counseling, and I'm afraid I am a wreck and need advice urgently. Can you please help?

Sincerely, Sheila

Dear Sheila,

A car stalling after being driven a short distance can be caused by a variety of faults with the engine. Start by checking that there is no debris in the fuel line. If it is clear, check the vacuum pipes and hoses on the intake manifold and also check all grounding wires. If none of these approaches solves the problem, it could be that the fuel pump itself is faulty, causing low delivery pressure to the injectors.

I hope this helps,
John

— Forwarded by Steve Sanderson,
Gilbert, S.C.

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