MORGAN SPORTS CAR CLUB OF CANADA Summer 2013

The Blurb

Morgans at the Sheep Dog Shindig and the Brave Souls Run

This Issue

Prez Sez

Alan Lytle

This seems to be the year for new Morgans in the club. Not all fully on the road yet, and at the moment there are two more prospective buyers out there trying to close negotiations. Seems like everyone has discovered the joy of Morganeering in Canada, or they are trying to beat the ash borer beetle to it!

They are all in good company as Prince Charles was the latest visitor to the factory and reportedly enjoyed his spin. For more see: http://www.telegraph.co.uk/motoring/car-manufacturers/morgan/10106016/HRH-The-Prince-of-Wales-visits-Morgan.html

If you are looking for a spin, try the events listed on the web site. Dave has both the club programme and other activities you might enjoy in the Morgan. Still to come for our Club this year is the annual picnic, this time at the Allen's (July 14th). This is always a great social occasion for the club and a chance to renew acquaintance with all the cars and members in one spot.

August 10th is a run to the Edenvale Air Show, cancelled last year due to weather. There are reputed to be up to 250 aircraft of vintage and modern descent on display and the opportunity to be airborne if you wish.

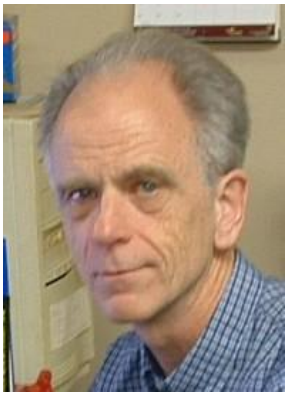
September is the Brampton Flying Club, the British car Day at Bronte Creek and in October the Milton Toy Run which collects Christmas gifts for kids. More details on the web site of all our activities.

This summer in Ontario we have had to trust our luck with the weather more than usual it seems. For the intrepid, that means ignoring the weather forecast gloom and doom and trusting in luck or the weather radar web site to outfox the thunderstorms. For the not so intrepid, it means taking the tin top. We have certainly had more than our fair share of wet interiors, and I do find it handy to keep a towel nearby to clean the inside of the windscreen as we try to drive through the storms. Then I remember that after all the Morgan is an English car and was built for this kind of weather.

Welcome New Members

Brock Lauer
Dan Bereskin

Editor's Message



David Farmer

The driving season is well started, but that revealed a stutter in my Morgan after it got warmed up. My first suspicion was the coil and a switch with a coil borrowed from John Fitchie seemed to confirm that. Until I drove up to the Beers to get a new coil and it misbehaved using John's coil. A new Facet fuel pump and new high tension wires and a little carburettor tuning later and all is well.

So while I stuttered about on the Braves Souls run in April and the Sheep Dog Shindig in May, I roared up the Halton Hill Climb Recreation in June. Pictures from these events on page 4. There is a fellow here who has had so much bad luck with his Morgan he considers it to be jinxed. That got me thinking that my Morgan has been a good luck charm, see page 9 . When I was getting the work done on my car I learned that Steve Beer is putting on a push to get his 3 wheeler together to show at the Cobble Beach Concours on September 14th, we're rooting for you Steve, pictures on page 12. Why would someone buy an item for his racing car, have the inventor install it, then proceed to blow up his car's engine and still be a very satisfied customer? Check out Fred Winterburn's article on capacitive discharge ignition systems on page 14. And the famous Cuthbert J. Twillie of the Morgan Oasis Garage has sent in an article on fitting the front wings, page 19.

At the last meeting I took possession of the club's archives, four boxes and two shopping bags worth. I sorted one box of news letters by year, they ranged from 1968 to 1991, with some gaps in the 70's There are several binders each with one year's Blurbs and other club correspondence. Plus a selection of other Morgan club newsletters and some decorations I think my Morgan will wear to the picnic on the 14th.

Here is the logo that graced the cover of 'The Inestimable Blurb' back in the 80's.

The Blurb Archive on the web will be growing again soon.

Central Canada Morgan Events

July 14	**Annual Picnic at the Allen's, Burlington**
August 10	**Edenvale Air Show, (http://www.classicaircraft.ca/Home.html)**
Sept. 8	**Brampton Flying Museum**
Sept 15	**(Sunday) British Car Day, Bronte Creek Park, Burlington**
Sept 20/22?	**Beechwood Trip**
Oct. 6	**(Sunday) B.C.C.I. 'Toy Run' and Drive, Country Heritage Park, Milton**
Dec. ??	**AGM & Christmas party at the Lytle's, Mississauga**

Don't forget - Monthly Club meetings, first Sunday of every month, Queens Head, Burlington, 12-2
Check for updates and other events of interest on our web site at:
http://morgansportscarclubofcanada.com/events.php

Spring Runs

April 28th, 'The Brave Souls Run'

In conjunction with the Niagara British Car Club, a tour of the Canadian Heritage War Plane Museum. Morgan content provided by Gabby & Glen Donaldson and David & Aaron Farmer. Other Morganists in attendance were John & Sharon Roden, Alan & Kathy Lytle,Brenda & Malcolm Taylor, Mike & Gillian Arkless, and Gil Caratin.

We broke up into three tour groups and went off with our guides and reassembled for lunch in the museums cafeteria.

May 25th, The Sheep Dog Shindig

This event was instigated by the Jagged Edge group and drew drivers from the Niagara British Car Club as well as us at the MSCCC. Morgans present from Deborah Wilcox & Steve Pocock, John & Sharon Fitchie, Alan & Kathy Lytle, Colin & Barbara Bray, John Roden, and Dave Farmer. Members Gil & Anne Caratin were there in their TR6.

Mr. Roden plotted out a tour de force route down and up all the most interesting roads that go over the edge of the Niagara escarpment between Stoney Creek and St. Catherines to take us to the lunch stop in Fonthill. After lunch another drive to Tee Creek Farm for the Sheep Dog Shindig. This is a convention for sheep dog owners and their pets that is held annually. This was its first time in Canada. We saw young dogs get tested for their herding instincts and for their obedience training, they even called us car folk into the arena to see how much the dogs were distracted. Outside there was a sheep dog gymkhana.

When dinner time approached we set off up through Niagara Falls and Niagara on the Lake to Rob Laughton's house. (and Jaguar breaker's yard) Rob teaches culinary arts and put on a delicious spread

Here is a pro showing how to maneuver the pylons on the doggy gymkhana.

June 9th Fleetwood Country Cruize

Ken & Judy Wightman hosted the MSCCC members attending the cruize, Alan & Kathy Lytle, John Fitchie, and Rob Fournie

For Sale

Ken Wightman's '68 Plus 4 is for sale at the Beer's (905) 857-3210. The asking price is $38,000.

My Morgan is a Good Luck Charm

Disclaimer;
Let me start by saying that I have had to call a tow truck twice when I was stuck on the side of the road with my 1959 +4. But both times it was my stupidity that led to the call, it was not the car's fault. The first incident was because I thought the gas gauge was not working and; therefore, did not stop for gas. I did stop soon, up on the elevated part of the Gardiner Expressway. The other time, I started to hear a grinding noise from the front left wheel and thought it was a worn bearing. I pulled over and sure enough when I pulled and pushed on the wheel it moved in and out a little. Called CAA who towed it to a shop in near by Peterborough. The next day after the shop had looked at it I got a call, it was loose lug nuts. If I had popped the hub cap I would have been on my way in five minutes.

Why did I get a Morgan?
In retrospect it is surprising that I had never heard of Morgans until I was about to turn twenty, as my folks were anglophiles. Everything British was good. (And Scottish was even better.) My first rides were on my mother's lap in the sidecar on dad's 1000cc. Ariel Square Four and I can still picture the beige and then the black Austins we had when I was still a toddler. But no exposure to Morgan until I read the road test in the December 1967 issue of Car and Driver. After reading that article my mind was made up. One day I would own a Morgan.

Not so Lucky
There is one of those laws of life like Murphy's Law which states that which ever career is begging for trained employees, it will be no longer hiring by the time you have earned you diploma. That happened to me, and it was worse for the following year's grads in Chemical Engineering. Come November, and still without a job, I got a letter from The Royal Bank of Canada suggesting that I start making arrangements to repay my (thankfully small) student loan. That evening in my daily scan of the Toronto Star's want ads, I saw one seeking key punch operators for the midnight shift (Hmm I could still go to job interviews during the day.) at the Royal Bank of Canada. (If they want their loan repaid then they can pay me to do it.) Surprise, surprise, I got hired. Put in the reader sorter room, straight midnight shift. But I only got one chemical engineering job interview over the following year.

My Morgan Purchase
It was the evening before my first anniversary at the bank. I was still scanning the Star's want ads each evening looking for anything in the chemical engineering field, then, for amusement, I would scan the motorcycle (I had a BSA 500.) and the sports car columns. What? A 1959 Morgan Plus 4? $2,750.00? That night I mentioned the ad and my desire to own a Morgan to a coworker who pointed out that after working there a year I now qualified to get a low interest loan if I wanted to buy a car. After a short chat with the shift officer and a little paper work. I was told the money would be in my account the next day. I called the number in the ad, went to see the car at the fellow's winter storage shed, took it on a short drive, and made a deal.

Luck Starts to Change
I had been a bookish type at school. I did a little dating but never got into any long term relationship. A few weeks after buying the Morgan I arrived early for work and went to the cafeteria for a coffee. There I saw one of my friends with this very attractive tall, slim, young lady who had just immigrated from Jamaica. He introduced me to Paula, a year and a half later she and I were married. We still are.

The shift officer came around a couple of months after I got the Morgan, asking for people interested in moving from the data centre to work in the systems department in Montreal. I put my name in and after taking an aptitude test I was one of five selected from across the country. That cemented my thirty six year career with RBC.

Luck Starts Rolling In

The Morgan did not get much use in Montreal. The roads were either covered in snow and salt or obstacle courses between the pot holes. But there was some rub off luck in the winter of '79. Paula had had it up to here with the politics in Quebec. I got home one Thursday evening in the winter to find Paula and a real estate agent arranging the sale of our house. We were moving back to Toronto. At that time there was a flood of people moving out of Quebec, houses were selling slowly, so I had lots of time to rewrite my resume and start looking for work in TO.

The next day at work the manager came around to herd us all to the auditorium for an announcement. No big deal, it was the time of year when they usually announced what ever changes were being made to the benefits package, yawn. "Your jobs are moving to Toronto. You may follow them if you wish.", was the start of the announcement. So much for needing a new resume. They also acknowledged that the housing market in Montreal was bad and there would be another meeting on Monday to present how the bank would help.

Saturday the real estate agent shows up with an offer on our house. We prepared a counter offer. The agent called us on Sunday to say the counter offer was accepted and she would like to drop by late that night so we could sign it just after midnight, as Quebec law did not accept the signing of contracts on Sundays. At the Monday meeting I could tune out most of it as our house was already sold.

I know you are wondering, "How did we manage to sell our house in three days in such a seller-unfriendly market without any buyer coming to see it?" The mother of the lady next door lived north of Montreal in Laval and they visited her frequently. Travelling from St. Hubert on the south shore, crossing the Champlain Bridge, going north through Montreal, then across to the island of Laval was a long slow trip. All that trouble and time would disappear if she lived next door. i.e. We sold the house so fast through, Pure Luck.

Back in Mississauga the Morgan just sat in the garage. The shop I used to have work on it was closed and torn down. I had lost track of T-MOG the MSCCC's predecessor. And with a growing family, I did not have any extra cash to spend on the car. But in 1997 I responded to an offer from the Upper Canada Brewing Co. to pick up a free beer glass at their brewery by the CNE grounds, which was just a short detour from one of my usual lunch time running routes. They sent me a news letter with a picture showing Steve Beer and his Morgan at the plant and mentioned the Morgan Sports Car Club of Canada. I sent a letter to Oliver Dawson at Upper Canada and he connected me with the club.

Two years later the mortgage was paid off, my daughter, Heather was finished at Laurier, Aaron was finishing a community college course. There was now some money available for Morgan work. I visited the Beers, got an estimate of $30,000 which was a close match to the value of Royal Bank stock I had accumulated through the employee savings programme. So we made an appointment for the car to be picked up and work to start. This turned out to be the best stock market investment I ever made. I had bought some of the hot tech stocks of the day like RIM, Wi-Lan, and JDS Uniphase. But with monthly Morgan bills to pay I had to sell them bit by bit. Then in August 2000 I sold off all my tech stocks as I

was going overseas on a business trip and all the tech-bubble talk had me nervous. In June 2001 the car was ready, I had paid about $60,000 for the work and still had $30,000 in my investment account. Talk about lucky.

A more recent example of my Mog's good luck can be seen in the online Blurb Archives, May 2009, its lucky ring toss story.

Knock on Belgian Ash.
Dave Farmer

A Valentin Tanase Simulation?

Cobble Beach or Bust

Many of you have seen this clothes rack that has been sitting on the shop floor at the Beer's for at least a dozen years.

No more, Steve's 3 wheeler has been accepted for the Cobble Beach Concours coming up on September 14th. And it is coming together:

See our web events page, www.morgansportscarclubofcanada.com/Events to check out the concours.
Dave Farmer

Electronic Ignition

Fred Winterburn

The ignition system used on our vintage Morgans is the famed Kettering battery ignition system which replaced Magnetos on Cadillac cars in about 1908. The Kettering system had an amazing 70 or more years as the standard ignition on most cars. Magnetos were generally reliable and self powered by the engine's rotation, which is probably why they are still used in light aircraft. The advantage of being self powered was countered somewhat when engine speed was low, making spark energy weaker and starting more difficult, especially in cold weather. Some magnetos produced very high spark energies, but spark energy alone is not a reliable measure of a good ignition system. Ford had its own self powered system used on the Model T that also suffered low spark energy at low engine speeds. These self powered systems also used magnets that would become weaker over time resulting in even less spark energy, but that usually took many years to become a problem. The Kettering system was an improvement in a couple of ways. Spark energy was dependent on battery voltage and less dependent on engine speed. The other advantage was cost. The Kettering system was inexpensive to manufacture. However, it did require that the car have a storage battery on board, but that requirement led to the fitting of electric headlamps replacing the acetylene lamps in use previously. Having a storage battery also opened up the possibility of the electric self starter, another of Kettering's great achievements.

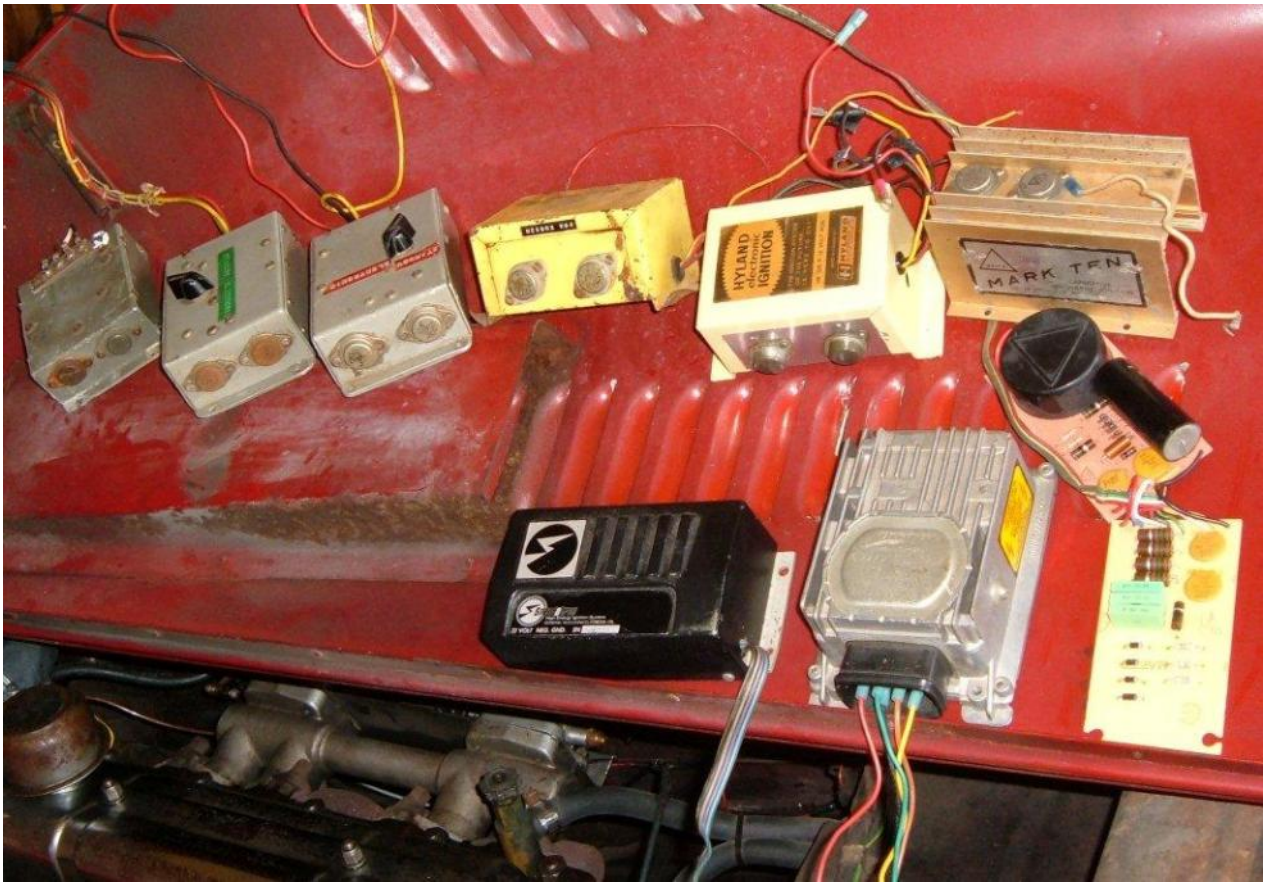
As engine speeds and compression were increased, the requirements of the ignition system increased beyond what the Kettering system was capable of giving. Dual point systems increased dwell times, thus increasing high rpm potential. 12V systems (standard post war on most British cars) came into being which improved the ignition a little, but not as much as one would assume. This is because breaker point erosion increases by more than double the rate if they are required to break more than 4 amps, so the increase in voltage really only meant better starting because of a faster turning starter motor. With the Kettering system, slow opening points do not make a clean break and coil output will be very low with a slow turning starter motor; low enough in fact that there may be no spark at all. If the breaker points are made larger to compensate for a higher current coil, they won't burn as easily but will be more prone to bouncing due to the increased mass. If the breaker point spring is made stiffer to counteract the bounce, the rubbing block will wear very quickly, affecting the dwell and the timing. Points bounce is a big issue with the Kettering system especially on high revving engines or V8s that have twice the spark rate of a 4 cylinder for a given rpm. This meant that at cruising speeds, a V8 engine was misfiring constantly, but went unnoticed by the driver. The answer was electronic ignition, of which there are several types.

Most people assume that electronic ignition means getting rid of the breaker points. That is what Pertronix does amongst others, but that is only one kind of electronic ignition. The first electronic ignitions were known as 'Transistor Switch' ignitions and retained the points. The points merely triggered a power transistor that handled the heavy current. This made the points last almost indefinitely providing the rubbing block and cam were lubricated once in a while. The initial rate of rubbing block wear proceeds roughly at the rate the points erode due to high current on the Kettering system until such time (8 to 15 thousand miles) that the points need filing or replacing. Once the rubbing block beds in, the rate of wear decreases, and with occasional lubrication the points will usually stay in adjustment for at least 30 thousand miles providing the switching current is kept low. Later variants of transistor switch ignitions had dwell extension circuitry to increase spark energy at higher revs. Magnetic and optical triggers were developed with Hall effect triggers coming later to replace the points. Ford installed a points triggered Transistor Switch ignition on some models in 1962. GM installed a breakerless Transistor Switch ignition on some 1963 Pontiac cars. There were many, many, aftermarket systems as well. The problem with Transistor Switch ignitions was that in order to increase spark energy, special coils and long dwell times were used that increased the current draw from the normal 3 or 4 amps, to 7 amps or more. This could make short work of small capacity ignition switches (eg, vintage Morgan) and did not increase the effectiveness of the ignition by much. The same is true of modern points replacement systems such as Pertronix. They do make starting a little easier and high speed potential is increased due to longer dwell from no points-bounce. These are all inductive systems as are the systems in use today by all (to my knowledge) automotive manufacturers. A modern inductive system with multiple coils is more like a Capacitor (capacitive) discharge ignition than the inductive system used by Kettering or the Transistor Switch systems of yore.

That leads into the next kind of electronic ignition which is called Capacitor or Capacitive Discharge ignition. Used on almost every motorcycle and small engine built today, they were not in widespread use on automobiles primarily because of the increased cost of the separate power supply circuitry which is unnecessary on most small engines, but needed with an automobile en-

gine. Oddly, it was the automobile that first benefited from the CD ignition despite the extra complication in that application. The other factor was reliability. A poorly designed CD ignition could be as unreliable as a poorly designed Transistor Switch inductive system of the era. A good CD ignition was also much more expensive to produce than a Transistor switch type inductive ignition. GM used a CD of their own design in one variant of the Delcotronic ignition system of the late sixties. One was triggered by points and another was magnetically triggered. Both were complicated, unreliable, and mediocre performers. GM abandoned the concept and went to a high energy inductive system with great success. However, some cars would only function well with a CD ignition. Porsches and early Wankel engined cars required a CD ignition for reliable operation. A combination of a fast rising voltage spike to fire through fouled or wet spark plugs, with much higher peak spark currents was necessary in those fuel hungry engines. The early NSU Wankel of 1964 used a Bosch thyratron CD ignition that worked well despite having to warm up, that is, until the thyratron (tube type predecessor of the Silicon controlled Rectifier or Thyristor) failed from age and vibration in the harsh environment of an automobile.

The most successful solid-state CD design was also the first to be built commercially starting in early 1963 and was based on my late father's (F. Lloyd Winterburn) final patented design dating from 1962. It was the first functional and reliable solid-state CD ignition utilizing an SCR (Silicon Controlled Rectifier, also called thyristor—which is a solid-state switch that when triggered offers a low resistance path for the capacitor to discharge through the primary of the ignition coil). The first SCRs were trigger-happy devices and spurious triggering of the SCR had been a problem with previous designs unlike the old thyratron which was easier to control. Dad had been running CD ignitions using thyratrons on and off since 1952 as had many others, but had an SCR model of his own design in 1961 on his 58 Beetle which used the points as a trigger. His brother James, had a 1960 Jag XK150 that had a troublesome ignition, so Dad made another CD unit for his car. It did not work very well on the Jaguar. Crossfire in the distributor due to points bounce rendered it nearly useless on the 6 cylinder Jag when it worked well on the 4 cylinder VW, and a greyish paste formed on the points insulating the contact surfaces (thought to be from ozone and oil fumes). Trigger current was increased slightly to keep the points clean without burning them, and the anti-



points bounce circuitry was developed which made it perform well on any car. This took place in April 1962. One year later it was in production by Hyland Electronics, and in use on hundreds of vehicles in the Ottawa area and elsewhere in Canada within the first months of production. Dyno testing showed major improvements on most cars, but the real improvement was fuel mileage with the minimum being a 5% improvement, and more on a V8.

It was very popular with hill climb racers in the Ottawa area. I watched a happy customer blow his Mini Cooper engine to bits in our driveway in 1964 after Dad installed a Hyland unit for him. The units were easy to install, but this fellow wanted the inventor to do it for him. With one foot casually outside the open door, and the other on the gas pedal, the fellow blipped the throttle repeatedly with the big tach swinging wildly and a big grin on his face. The noise was deafening while I watched my father coming out of the house gesturing for the guy to stop revving the engine. It was too late, and with a loud bang the noise suddenly stopped, with bits of engine and an oil slick running down the drive. Apparently the engine made it just past 12000rpm and came apart on the sudden deceleration as he lifted his foot off the gas pedal. His smile changed to a frown, but he had another engine installed and was racing by the next weekend with the CD.

One of the effects of nearly constant ignition energy at any rpm and immunity to points bouncing, was very high rpm potential. The CD was designed to augment the existing ignition components, retaining the original coil and distributor and triggered by the points, so installation was quick and easy. Coils would last longer as they no longer got hot storing energy. The coil acted as a pulse transformer instead, as the discharge capacitor dumped its energy into the coil primary in about 300 microseconds. The spark was generated in the first 15 microseconds of the capacitor discharging, hence the fast voltage and current rise of a CD ignition which allowed it to fire through condensation or carbon fouled spark plugs. The Kettering by comparison has a voltage rise about 10 times slower. By then, most of the current could have leaked away to ground with a fouled spark plug.

Only Hyland Electronics was licensed to build the Winterburn design, and the rest built it without permission. This is a long story worthy of a book in itself, so I'll be very brief. The best was the Hyland ignition built in Ottawa Ontario starting in early 1963 and built until late 1965 in which my father was chief 'engineer' and minor partner. (Dad was not an Engineer, but was RCAF trained and self taught in electronics from an early age) The next best, and most famous was the Delta Mark 10 built in Colorado starting in late 1964. There were many others that used the same basic design with some being well built and others poorly built, with most built in the United States. In 1967, Magnetti Marelli copied the design almost exactly as per the patent, and used the system known as the Dinoplex, on V12 racing Ferraris. Bosch finally went to a solid state CD ignition in the late sixties and expedited the German patent process for my father in the early seventies. In the end, Bosch bought all of the European patents for the system. They paid less for the British Patent since Lucas owned the entire British market at that time. The Bosch CD ignition used elements of Dad's patent, but was considerably more complex and less effective. However, the honesty and generosity of the Robert Bosch company defrayed some of the losses incurred by my father. This was the only money other than a small amount from Hyland that Dad made on the ignition. Years of court battles, all in the United States, drained his resources even with a win every time. The first, and most costly, since it held up the US patent until 1971 (patent applied for in Sept 1963 and not applied for one year earlier due to the Canadian Department of National Defence deliberating on whether it had military value) was an interference suit launched by an American who claimed to have invented first. Despite no physical evidence of priority, it was not discovered until years later, that the transistors he claimed to have used in his circuit hadn't been produced prior to Sept 1963. The lawyers and my father had been concentrating on other dubious claims and missed the obvious lie that would have settled the matter years earlier! Once the US patent was granted in early 1971, more court proceedings followed, but despite wins against infringers, no royalties were paid. With no jail time or fines for breaking the law, companies reneged on royalty payments. Also, by 1975 it was becoming obvious that the design was dated as most manufacturers were converting away from points triggers to magnetic triggers, and the anti-points bounce circuitry that was a major part of the patent had become obsolete, so that's where the story ends.

Dad's design was a breakthrough in the sense that nobody else until that time had been able to make a proper CD ignition using the recently invented SCR, although many companies were trying, including Mallory and Chrysler Corp. Looking back on the design now, you would wonder that it hadn't been done sooner based on its utter simplicity.

It may come as a surprise to many, as it did me, that most CD ignitions produce less spark energy than the Kettering ignition, and considerably less than some Magneto ignitions. Manufacturers of CD ignitions tend to advertise the energy stored in the capacitor as the spark energy, which is incorrect, as only a small fraction of that energy is in the actual spark. A CD ignition can be made to produce a long duration, very high energy spark and although it's easy to do, it's not necessary, nor

practical. Erosion of the spark plugs and any other high voltage contact such as the rotor and ignition cap contacts would be swift, without any gain in performance or economy on most engines. The ignition of fuel is still not fully understood, but one thing is clear; it is high spark current delivered in a short period of time that ignites fuel the best. That is, a high spark power as opposed to more energy delivered in a longer time period.

quite different. The CD spark is blue and well defined, while the Kettering spark is orange with hundreds of secondary sparks making up the whole spark event. A CD spark sounds like a miniature flash of lightening with a really sharp 'crack' or 'snap' to it. The Kettering spark has a lower volume 'sputtering' or 'crackling' sound even though more energy has crossed the spark gap.

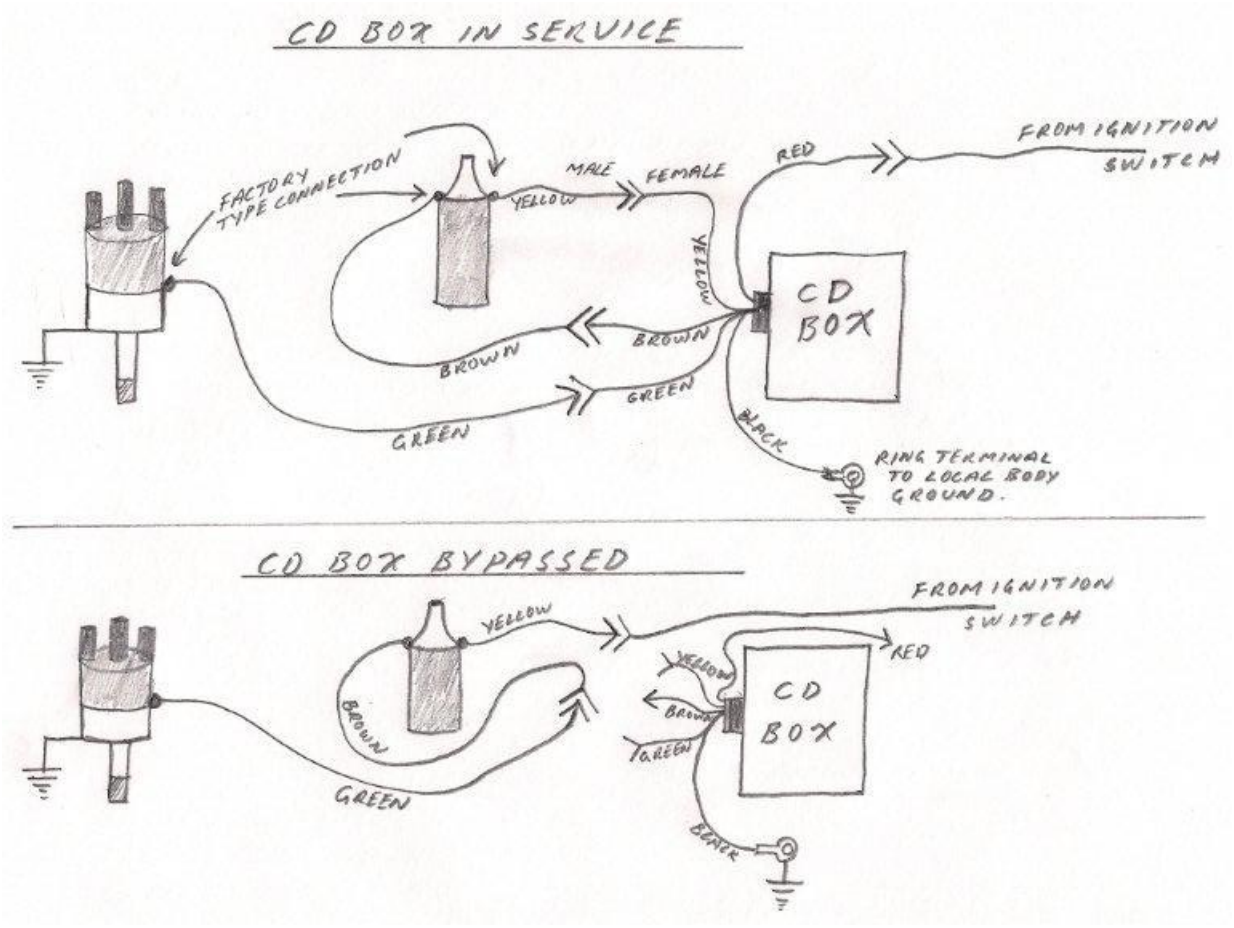
That's how a CD ignition can out-compete a Magneto delivering up to 5 times the spark energy, without eroding spark plugs. A longer duration spark will only be more beneficial if the spark power is maintained throughout the entire spark duration. The spark power and duration required depends on the engine and the conditions it is working under, so nothing can be simplified when it comes to ignition as there are many variables. The commonly accepted notion that a CD ignition cannot light lean mixtures, and the only way to do it is with a multiple spark CD is false. On some engines perhaps, but not all. Interestingly, the modern inductive systems found on cars today have spark durations almost as short as the longer duration, single spark event, CD ignitions.

When comparing the spark visually in a spark gap of a CD induced spark and the inductively induced spark of the Kettering system, one sees and hears something

I've been running a positive ground Hyland prototype circa 1963 on my Morgan the last few years and it works like it was made yesterday. If there is fuel in the carbs, the engine will start on the first compression even with a weak battery. Fuel mileage is better and so is power. After running CD ignitions on old cars for over 35 years now, I'm a believer. Some are better than others and the ones made today which are targeted towards racing engines may not be the best option on our old cars due to the very high available voltages they produce and excessively fast voltage rise times. Also, some will not operate well below 8 volts which means they might not be helpful getting your old car started with a weak battery. However, despite that, if I did not have old units that were designed to be kind to older ignition components, I would install a modern CD ignition triggered by points in a heartbeat, and pay it off in fuel and tune-up savings.

I've built a few prototypes of a modern equivalent of the old Hyland ignition with the exception that it is more versatile. The old Hyland came in 4 models, so that the customer could buy a model that fit their specific car whether it be 12V or 6V, positive or negative ground. The ones I've built are still triggered only by the points, but are compatible with positive or negative ground cars in one unit. It has two switches. The first switch has 3 positions: STD (Kettering)-Off-CD. The second switch is active if the first switch is selected CD, and it has 2 positions: 6V-12V. The unit will operate down to 3.5 volts to get a car started easily with a weak battery. The unit has a rather large discharge capacitor charged to a lower voltage than the typical racing CD ignition, which has a rather small capacitor charged to a very high voltage. This does several things that are beneficial on an old car. It slows the rate of rise of voltage and current so that the good characteristics of a CD ignition are kept to fire fouled or wet spark plugs, but not so fast as to short to ground inside the distributor. It reduces the available voltage so that on a misfire due to a loose plug wire for example, the high voltage spike does not damage insulation anywhere in the ignition system (which is something modern automotive ignitions don't have since they rely solely on the plug gap to control voltage) It also prolongs the spark duration with a standard iron bar coil with high leakage inductance. The size of capacitor used (in this case 2.2uF) is a compromise between spark plug erosion, unit current draw at high rpm, and the necessary voltage to fire plugs gapped sensibly in a high compression engine. The larger capacitor also makes the output voltage less variable with engine rpm which naturally regulates the power supply from the load end. This allows the power supply to be compact and energy efficient, while still allowing up to 8000rpm on an 8 cylinder or 16000rpm on a 4 cylinder car, even with the unit in series with a ballast resistor if one is equipped. Current draw is under ½ amp per 1000rpm on a 4 cylinder. I've included a picture of the wiring for the unit with a comparison to the Kettering system to show how simple the installation is.

Fred Winterburn



Morgan Oasis Garage
Hoodsport, Washington

Friends

Recently it was time to install the front wings on the '53 Roadster being rebuilt here. The first job is to apply the fender welt from the front edge of the rear wing to the bulkhead where the rear edge of the bonnet sits. The lovely Flowerbelle has volunteered for this task for years as she believes her eye is better than mine for setting the welt correctly. She staples it to the wooden edge under the doors with stainless staples. I am always happy to assist, she loves doing it perfectly, and I love for her to do it that way.

Now onto the wing hanging. From experience, it seems to me the best way to do this is to set the front of the wing on the wing brace above the front tire and then gently move the rear part so it tucks under the body under the doors. A little wiggling here and there helps it settle into place. It really wants to sit in the correct position where it has been sitting for years.

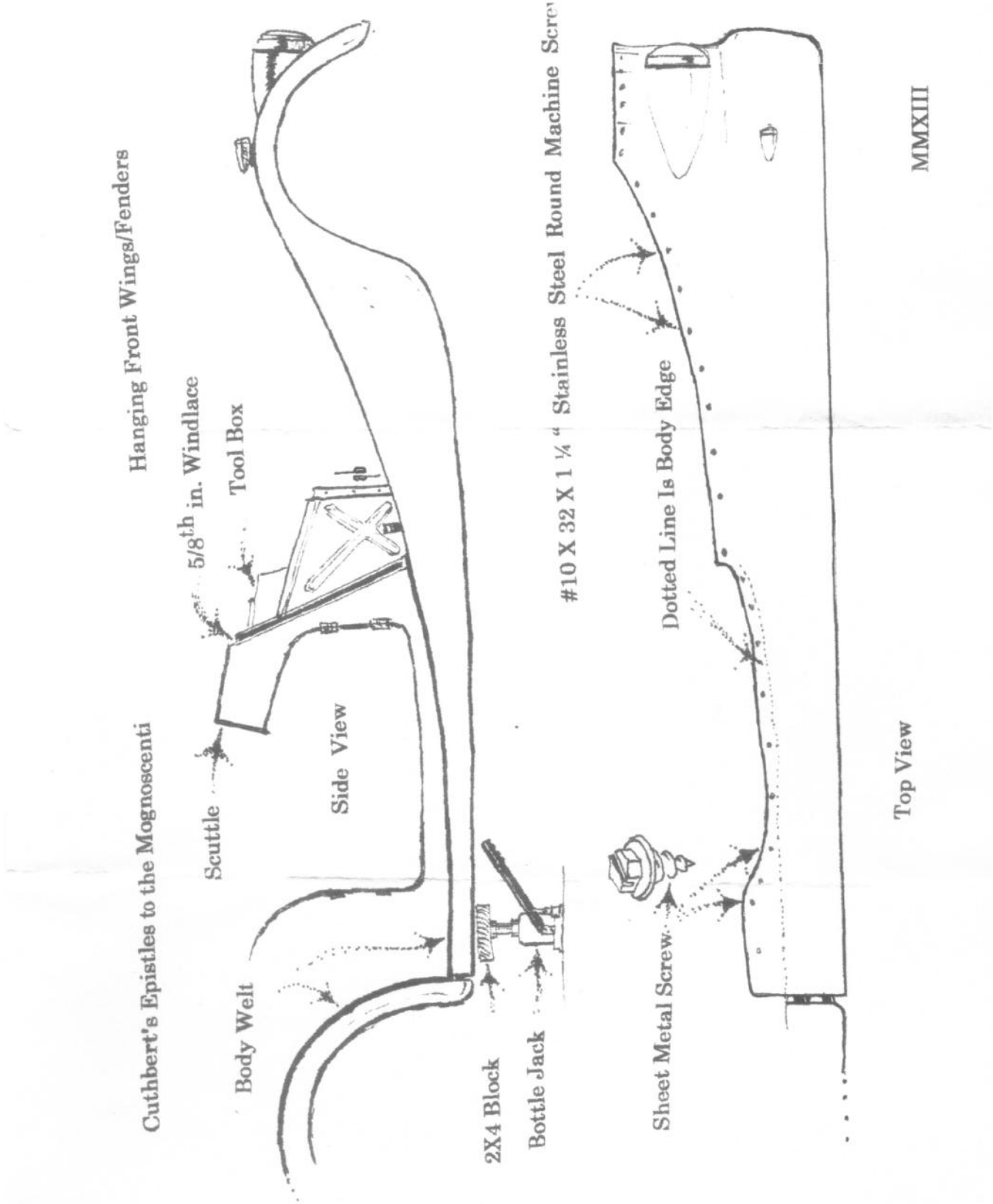
I find that an AWL works nicely to get the bolt holes of the forward part of the wings to line up with the bolt holes in the inner wings that it fastens onto. I use two awls for this, and when you have a perfect alignment a No. 10 X 32 X 3/4" stainless steel round head Phillips machine screw will drop sweetly into place and line up all the other holes. Then comes more of these machine screws til all the holes forward of the bulkhead are filled and the nuts and lock washers are installed under the wings.

When all this is done the rear part of the front wing is usually sitting exactly where it belongs. Then there is the grovelling under the wings and screwing wood screws through the existing holes on the edges of the rear of the wings. I did the left wing and then started the right side. When the right side was finished the outer edge of the front wing lined up perfectly with the outer edge of the rear wing. But on the left side the rear edge of the front wing was sitting ¾ of an inch inboard from the edge of the rear wing. This is my seventh Morgan rebuild and never have I seen this. DRATS. I had ideas on loosening the rear wing and trying to move it inward. More DRATS.

After some thought and a lot of looking at this revoltin' development, a thought occurred. I removed all of the woodscrews from the bulkhead rearward of the left wing. I could then pull the wing outward till it became flush with the rear wing, after all it was only ¾ of an inch that needed to be moved outward. VIOLA, now it lined up perfectly ! Then with a floor jack and a short piece of wood the rear part of the wing was gently lifted as it was pulled in line with the rear wing. This jack held the wing in it's correct position while I got the drill motor, drill bits, wrenches, sheetmetal screws, & etc., to begin attaching the rear part of the wing to the body

Then the sheetmetal screws were replaced in the old holes in the wing edge. And I drilled new holes through the fender welt making doubly sure it was into the wood and not the air outside the body line. Now its time to add the front side lamps and 4 sets of nuts and bolts which pass through half inch wood dowels which separate the wings where they meet behind the doors.

Cuthbert


Cuthbert's Epistles to the Mognoscenti
Hanging Front Wings/Fenders
5/8th in. Windlace
Tool Box
Scuttle
Side View
Body Welt
2X4 Block
Bottle Jack
#10 X 32 X 1 ¼ " Stainless Steel Round Machine Scre
Dotted Line Is Body Edge
Sheet Metal Screw
Top View
MMXIII

DOES YOUR CAR HAVE CHARACTER?

A quiz by Peter Egan from ROAD AND TRACK March 1998

1. If your car's overall design represents the vision of just one man who is now dead, but who once struck terror, dread and/or awe into the hearts of his employees, give yourself 50 points.
2. If you feel compelled, at the time of purchase, to buy a 300-page *Official Factory Shop Manual* to go with your car, give yourself 25 points.
3. Fifteen points if the car comes with a useful tool kit.
4. Twenty points more if the tools are ever actually needed to fix the car; 10 more if it's raining or snowing when this happens.
5. If your car can be loaned out to another person with less than 15 minutes of careful instruction on its peculiarities, deduct 20 points.
6. If you died suddenly and no one else on earth would be able to start the car or keep it running, give yourself 75 points.
7. Fifty points for any chassis and/or body with more than 25 percent wood content. Another 10 if it already has termites, carpenter ants or dry rot, and 20 bonus points if the door actually comes off in your hand.
8. Forty points for wire wheels. Ten more for "unsafe" knockoff spinners with ears.
9. Deduct 200 points for wire-wheel hubcaps; 50 off for "bolt-on" wire wheels.
10. If your car, or one very much like it, ever won its class at Le Mans or in the Targa Florio or Mille Miglia, give yourself 100 points.
11. Fifty points for SU or Weber carburetors. If it has three or more, add another 20. If your carburetors are located above the distributor and you never carry a fire extinguisher, give yourself 50 points for hubris.
12. Fifty points more for carburetors with velocity stacks and no air cleaners; 25 points more if the velocity stacks protrude from the bodywork.
13. Seventy-five points extra if any of the words "Halibrand", "Judson", "Shorrock" or "Offenhauser" appear anywhere on or in your car.
14. Award yourself 200 points if the car is French. You deserve it.
15. If replacing the clutch requires that the entire engine and transmission be pulled, give yourself 50 points.
16. If you would rather commit suicide than do another clutch job, give yourself an added 50 points and call E-Type Owners' Hotline.
17. If the valve adjustment procedure is so archaean that you are contemplating selling the car rather than either adjusting the valves yourself or paying to have it done, award yourself 40 points. If you have to go out of state or cross a time zone for this or any other form of basic maintenance, add 40 more.

18. Fifty points for any car with a Laycock de Normanville overdrive unit. Ten more if you just love to say "Laycock de Normanville" aloud, apropos of nothing, in the checkout line at the supermarket.

19. Seventy-five points for any car whose engine heat causes passengers to request you let them off early, near "a friends house" or a phone booth.

20. Automatic 100 points for any air-cooled car. Twenty-five more if the leaking heater boxes give you a carbon-monoxide headache, and a bonus 10 if the fan belt makes a right-angle turn from the crankshaft pulley. Air-cooled cars with swing axles located ahead of the engine get another 50, and 20 more if they have roof damage.

21. Give yourself 30 points if you have to spell the name of your car more than three times to your insurance agent over the phone, and then it still shows up spelled wrong on your insurance contract.

22. Collect 50 points if your car has Brooklands windscreens, but subtract 100 points if you put them on an inappropriate car, such as a Datsun B210 Honey Bee.

23. One point for every "Lift-the-Dot" snap that doesn't line up with any visible grommet on your weather equipment.

24. If, on the roadside, you are brought to your knees, exhausted, by a convertible top that will not stretch far enough to reach the "Lift-the-Dot" snaps, give yourself 40 points. Forty more if it's raining. Ten-point bonus if you are on the Dan Ryan Expressway at night.

25. One hundred points for side curtains, and 50 more if they billow out and scoop in whatever weather they were intended to help you avoid.

26. Thirty points for either a crank-handle starter, a vestigial crank-starter hole through the radiator, or a starter button under the clutch pedal.

27 Deduct 500 points for any car whose door window glass does not go all the way down on the rear passenger doors. Then write a letter to the company and ask what they were thinking.

28. One hundred points for having a large American station wagon instead of a minivan or a sport-utility vehicle. Fifty more for "Vista-Cruiser" roof windows or a rear-facing jump seat.

29. Fifty points for any car that has more than 40 bhp for each inch of tire width.

30 If your car's engine designer grew up within 300 miles of the birthplace of Giuseppe Verdi, give yourself 100 points.

31. If your car is, or ever was, the fastest production car on earth, add another 100 points.

32. If a fighter pilot of any nationality might have driven your car, or one like it, to an airfield during the Battle of Britain, give yourself 100 points. If he wasn't able to get to the airfield because of "gudgeon-pin" failure or the malfunction of any Lucas electrical component, add another 100.

33. Fifty points if your car was driven in a movie - or in real life - by Steve McQueen, James Dean, Clark Gable or Jacques Tati.

34. Twenty points if your *Official Factory Shôp Manual* recommends "decoking" the cylinder head at intervals of less than 1,500miles.

35. If you come out of a movie at night

and accidentally try your keys in another car that looks just like yours, subtract 500 points. This has never happened to a car with character.

There, that should do it. Add 'em up if you'd like, but you probably already know the answer. Personally, I've had - and still have - a few cars that would do well on this little quiz, as you might expect, given that the point of any test is to make the author feel smart and look good. But I've owned a few that would hardly score at all. Offhand, I can't remember what they were, and I don't have any pictures of them to remind me. Didn't take any.

Maybe that's the only test that counts. If you've purposely taken pictures of your car, give yourself 500 points. A hundred more if they're taped to the wall above your word processor or carried in your wallet. Equal points if you have no pictures because your hands are always too dirty to handle a camera.

A car achieving 100 points or more has character. Those with fewer than 100 should be sold as soon as possible, unless you actually enjoy a car without character. Some do.

For Sale

With sadness my 1970 modified Morgan 4/4 is For Sale. I have a rebuilt 1981 Toyota, Weber carburetted, 22R engine and automatic transmission installed in the car for running gear now. Everything was rebuilt or replaced with new Toyota or Morgan parts.

I have a build history and lots of pictures of the restoration.

If interested email reneglen@vaxxine.com I have over $40,000 in the car, it is appraised at $38,000 and I'm asking $35,000 Canadian.

Best regards, Glenn Nigh

The Morgan Mystic

The Spring Run

Alex organized a spring day-trip for the Morgan club with everyone coming out to his place in the country for a coffee before starting out. He had warned them that the frost was still coming out of the ground so they had to stay on the narrow lane or risk sinking to their Morgans' floor boards in the soft ground, and they should back into his lane so they could drive out safely onto the 80kph road.

Alex left his car out on the lane after cleaning it. Debbie who helped him plan the route arrived first, followed by Bob and Ed. Soon Cathy arrived to complete the troupe and they all walked up to the house.

```
|                  ----------------Barn
|                 /
|-------------C-E-B-D-A----
|                 \
|                  -------------House
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As they enjoyed their coffee it dawned on them that Alex should lead the trip but he was parked at the back. Ed volunteered to run sweep at the end. Debbie doesn't like driving as fast as the others and knows the route so she wanted to go after Bob and Cathy. So how could they re-order the cars so Alex is first followed by Bob, Cathy, Debbie, and then Ed without going out onto the road?

They put in a call to the Morgan Mystic who (as a mystic would) gives them an enigmatic answer. “Back up the cars sending some into the lane to the barn and some into the lane to the house. Drive them out onto the single lane again and then back them into the two lanes again. Then you will be able to drive them in order onto the single lane.”

How do you direct the cars in these manoeuvres to get them in A,B,C,D,E order?

Wiring Harness Answer

At the first end, connect pairs of wires until there is just one (odd number of wires) or two (even number) that you leave unconnected. Go to the other end and use the battery and light to identify each connected pair. You will then be left with the one or two unconnected wires. Label one of them “1”, if there are two, label the other with the maximum number of the wires in the bundle. Then take one of the pairs you identified and label one of its wires “2” and the other “3”. Connect “2” to “1”. Then label another pair with the next two numbers and connect its lower numbered wire to wire “3”. Continue with the other pairs in the same way until the last pair where you leave the second wire of that pair unconnected. You should have the same number of unconnected wires at the second end as you had at the first end. .Now that all the wires at the second end are labelled return to the first end. If you had one unconnected wire, label it “1”. If there were two check which of them is now connected to the pairs of wires, and label it “1” the other will be the wire you labelled with the maximum number. Now you search for the wire that was connected to the other end of wire “1”. Separate one of the pairs and then test each pair for a connection to wire “1”, bend the disconnected wires aside. Repeat this disconnect and test procedure until you arrive at the last pair, then the wire from that pair that has an electrical connection to “1” is the wire you labelled “2” at the other end and its partner is “3”, label them. Now do the same search with wire “3” until you find its partner, and so on until all the wires are labelled.

BRITISH VICTORIA CAR CLUB

BRITS -IN-THE- PARK

SUNDAY JULY 21st 2013
DOWNTOWN LINDSAY
CITY OF KAWARTHA LAKES
ONTARIO

www.victoriabritishcarclub.ca

Come join us in the community of Lindsay, City of Kawartha Lakes, as we celebrate the 60th birthday of the Austin Healey in picturesque Victoria Park, downtown Lindsay.

The Victoria British Car Club proudly presents one of the most authentic British Motoring events with well over 200 classic British vehicles entered each year!

ALL BRITISH CAR SHOW

Canadian Transportation Museum and Heritage Village

Essex, Ontario

SUNDAY

JULY

21st

2013

9:00 - 2:00 pm
Show Cars- $10.00
General Admission- $5.00
12 and Under– Free

*** Diner open from 8 am until 2 pm**
***Boarding House Food available (in village)**
Beer Garden 11-2pm

In association with the
Windsor Detroit MG Club
www.wdmgc.com

Registration
9 to 1pm
Door Prizes
1-2pm

British Car Vendors FREE

From Detroit
Follow Huron Church South to HWY #3
Follow HWY #3 Leamington to County Rd 23, turn right
Museum is 6 minutes on right

From Toronto
Follow 401 W turn left Belle River Rd (County Rd 27)
Follow 27, turn right on County Rd. 8, then next left on 27
Follow 27, through Cottam, cross HWY 3, follow until road ends
Turn Left on County Rd. 23 (Arner Townline)
Museum is 5 minutes on right
6155 Arner Townline, Essex, N9Y 2E5

CANADIAN Transportation MUSEUM & HERITAGE VILLAGE

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Regalia

Show your colours, with our Morgan club embroidery. Bring the item you want decorated to a meeting and we'll get it to Sharon our regalia official.

Or visit our web site Regalia page:
www.morgansportscarclubofcanada.com/Regalia
And select a hat or jacket and place your order with Sharon.

Membership Application / Renewal

Name:_____
Spouse:_____
Address:_____
City/Province:_____
Postal Code: _____
Email Address:_____
Tel. Home: _____ **Business:**_____
Morgan(s) owned:
Model:_____**Year:**_____**SN:**_____
Colour(s):_____
Model:_____**Year:**_____**SN:**_____
Colour(s):_____

Membership fee $25.00* for the year. Payable January 1st of each year.
*Canadian $ for membership dues please.

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