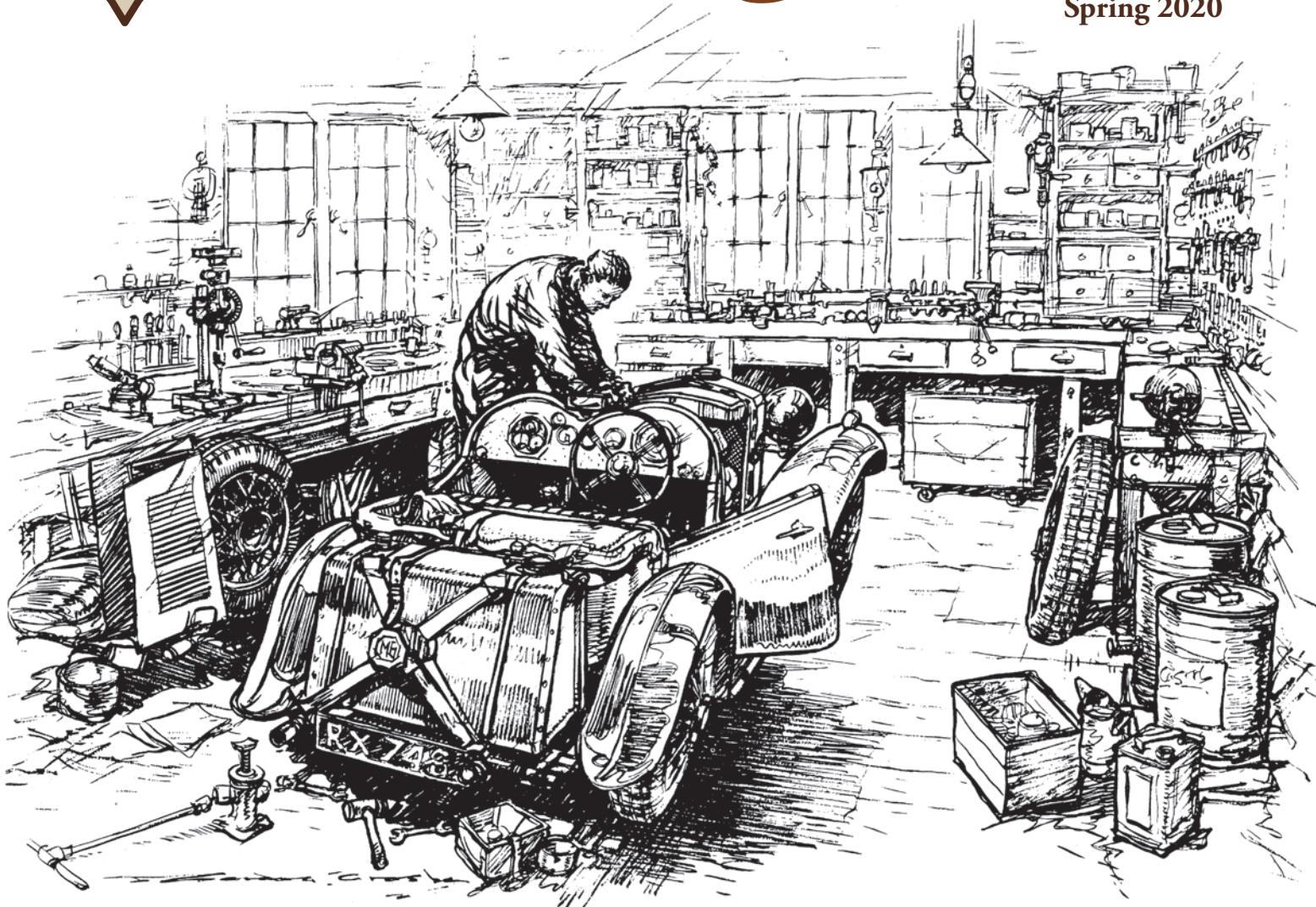




MMM Magazine™

Official Newsletter of the North American MMM Register

Celebrating Pre-War Cars of the MG Car Company
Spring 2020



Overhauling the M.G. Midget



Early Summer in the Rockies!





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Celebrating Pre-War Cars of the MG Car Company

Spring 2020

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The MG Car Club
The Triple-M Register
United Kingdom
www.triple-mregister.org



The Pre-war M.G. Register of Australia
<http://prewar.mgcc.info>



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The Editor's Desk

Tom Wilson MGTCTom@gmail.com



It's the last week of February as I put the finishing touches on this first issue of MM Magazine that I have "volunteered" to edit. I just returned from another MG adventure in England - parts coordination, projects at Kimber House with the MG Car Club, visiting former MG factory employees, chasing down a stash of MMM/T cars and spares that's been hidden for years, and fun evenings in British pubs with friends. All that in one week!

Jack Kahler called and 'strongly' requested I take the editor lead on this newsletter. Great - just what I need - another project to slow down my building eleven MMM cars! But being part of a club or organization involves volunteering to help, so here I am. My commitment is for 12 quarterly issues (that's 3 years for those who don't do high math). One big hope of your editor is that y'all will assist by sending me info, stories, and photos of your activities and adventures with your MMM cars to fill these pages.

The layout on this issue is rough - obviously - and I'm hoping to make time to improve before the next issue; please bear with me.

Another stash of cars? Yup, most laid up well before the mid 1980s, all in dry storage. D, F1, NA, three J2s, a TA, TC, all in very complete and pretty original condition, along with more spares than one could dream about. I don't know if a deal will come of it, and I know if it does I would immediately find enthusiasts to restore these magnificent motoring machines. I don't have space in my life to do it, but being involved in finding the proper homes for these is quite satisfying. The next thirty days will tell the tale...

Meanwhile progress on my cars continues, albeit slow. Steering knuckles (22 in total) all have new stub axles, kingpins and bushings, and the front axles are ready to tweak, paint, and assemble. I came back from England with 52 new Rudge Whitworth wheel spinners, the logos custom etched to match the original fine stamping. And the two TCs are progressing - I'm building tubs right now; if all goes well they'll be done by mid-March (unless I'm off to England again on the adventure noted above).

I'd like some help from you:

-  Each newsletter will have a section featuring progress on current restorations. If you're just starting, in the midst of, or just finishing a car, send me a story and some photos, and share your adventure. It can be short and simples, or long and complex. I'll help put a shine on the story and we'll publish it.
-  Send me photos and short stories about your MMM (or more modern MG) adventures this year. What's going on with you and your cars?
-  Let me know what you'd like in this newsletter. Feedback is great, and it's always nice to have conversations with fellow enthusiasts.

My email address is on the inside cover for you to use - or call me! Now back to building TC tubs . . .

Safety Fast,





President's Report

Jack Kahler MGJack@aol.com



Happy New Year to all Register members and friends. We are off to what is looking like an exciting year for your MMM Register! The first bit of excitement is we now have a new newsletter editor - Tom Wilson from Zionsville, Indiana! Tom brings to the Register a great amount of MMM knowledge and extensive contacts in the UK. He has previous newsletter experience and is restoring eleven MMM beauties all at one time. Tom will be informing our membership how to submit articles, stories, photos and classifieds for publication. Welcome aboard Tom and we all look forward to helping you with materials for your interesting letter four times a year!

The next exciting MMM item is our 2020 National Meet here in Colorado Springs in conjunction with the NAMGAR GT45 National Meet. Go to the NAMMM website today and register to attend in one of the most beautiful places on this earth. I promise you – the event activities, hotel, food and car show are going to be worth your travels to beautiful Colorado.

Stay over the next weekend and participate in the MGCC RMC Rallye Glenwood Springs. This is the 66th celebration of this event; I am planning to have three MGs in attendance driven by my grandkids! The Rallye is a beautiful drive through our Rocky Mountains.

Your Register is starting 2020 with an outstanding volunteer board of directors who are dedicated to the preservation of MMM MGs and working to keep your Register moving forward with a financially sound organization. Get involved and contribute all your experiences with your fantastic pre-war machines!

Cheers,

Jack



MG GT-45 Colorado Springs, CO June 1-5 2020

North American MGA Register
MGCC ROCKY MOUNTAIN CENTRE
[NAMMM National &](#)
[NAMGAR GT-45](#)



RALLYE GLENWOOD SPRINGS
68TH ANNUAL-JUNE 12-14 2020

mgcc.org/rallye-glenwood-springs





Treasurer's Report

Jack Schneider

BritJack@comcast.net



Hello fellow NAMMMR members in 2020! A new decade is upon us. A new Register budget is also upon us. The annual member dues campaign is well under way with only a few known members still to renew. We are down a few in our numbers for 2020 but have also added new faces and cars! Our income from dues is expectedly a little less. Last year the Register instituted a reduced dues program for early registration/renewal. That's proved very successful as a very high percentage of our member roster have now renewed and at a much earlier date than in previous years. Thank you! This enables our Register to more accurately plan for the coming year. We will tighten our budget belts only a little and function without noticeable change.

The Register continues to build our available resources, thanks to the continued support of the membership. We invest in certain inventories of our regalia ready for your purchase. We have a new supply of grill badges currently in production, and there is a limited supply of clothing and other items for immediate purchase. Non-stock orders can be satisfied with minimal wait time. Please contact Cathy Gunderson with your regalia needs.

We continue to fund and support the Register website to keep it online and up to date. The Register board holds quarterly video-conference meetings online to allow board members who live across the country to actively participate in meetings. The Register is fully insured for liability we might incur at our national events. We invest and fund our efforts to provide our members with a quarterly newsletter. We want to keep you informed of the current happenings within our Register.

The Register invests much time, effort and funding to hold an annual national event each year. Please attend and join with other members you may or may not know who share in the conservation and enjoyment of our fine MMM MGs.

For our national event this year, we will be joining the North American MGA Register (NAMGAR) for their Annual event GT-45, in Colorado Springs, Colorado, June 1-5, 2020. It promises to be an exciting event. More information is everywhere in this newsletter!

Thanks for your participation!





Registrar's Ramblings

Lew Palmer

Lew@roundaboutmanor.com



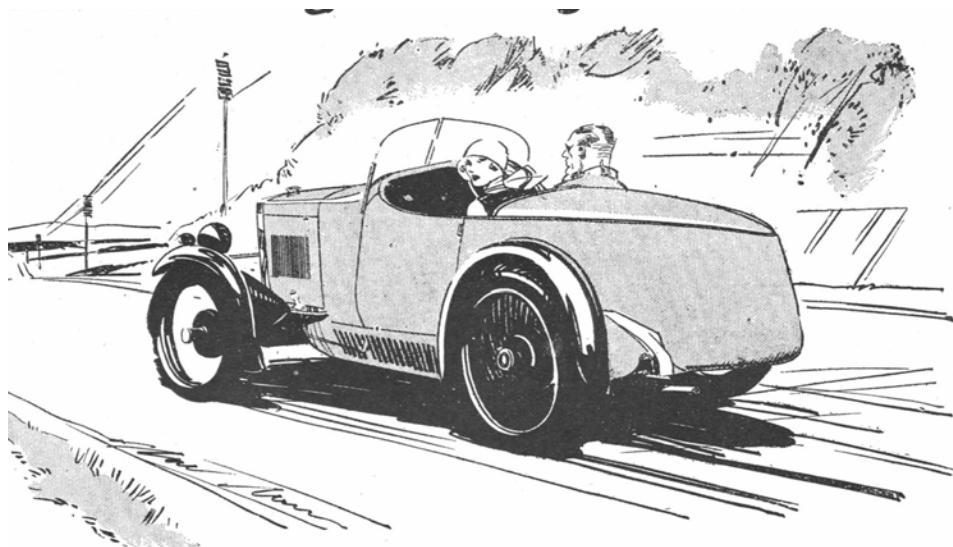
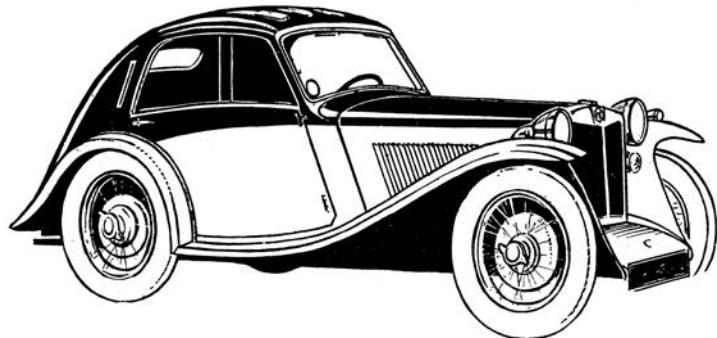
The membership renewal drive is now over. As I write this, all but 9 of our 150 members have renewed. That is marginally better than in previous years. Please keep up the good work in the years to come. And if you haven't yet renewed, please do so as soon as possible.

Nothing significant otherwise on the registrar front, except that after 20 years of ownership, I have sold my PB Airline Coupe. The new owner is in Japan and seems to like the car. I don't seem to be able to resist having too many cars in the garage, so I rescued an M-type from well over 50 years of storage and neglect. I am now in the process of rebuilding the complete wooden tub frame. Once that is completed, I will then start on the mechanical restoration.

Meanwhile, please join me in welcoming our newest members.

Ross and Susan Mullen
White Rock, BC, Canada
NA0895

Octagonally,
Lew





Presented to the
North American MMM Register

*In recognition of your 2019
National Meet honouring the
90th anniversary of the start of
M-Type Production*

MG Car Club President

Adam Sloman
MG Car Club Manager

Awarded June 2019

The MG Car Club UK Certificate recognizing our National Meet in Bowling Green Kentucky last June. The certificate was presented to our Register by, Adam Sloman, MGCC UK Manager and Peter Cook, MGCC UK Overseas Director who were both present for the Meet.

Thank you to the MG Car Club for this thoughtful recognition.

Web Report

Casey Duncan Casey.Duncan@gmail.com



A note from Tom, your editor ...

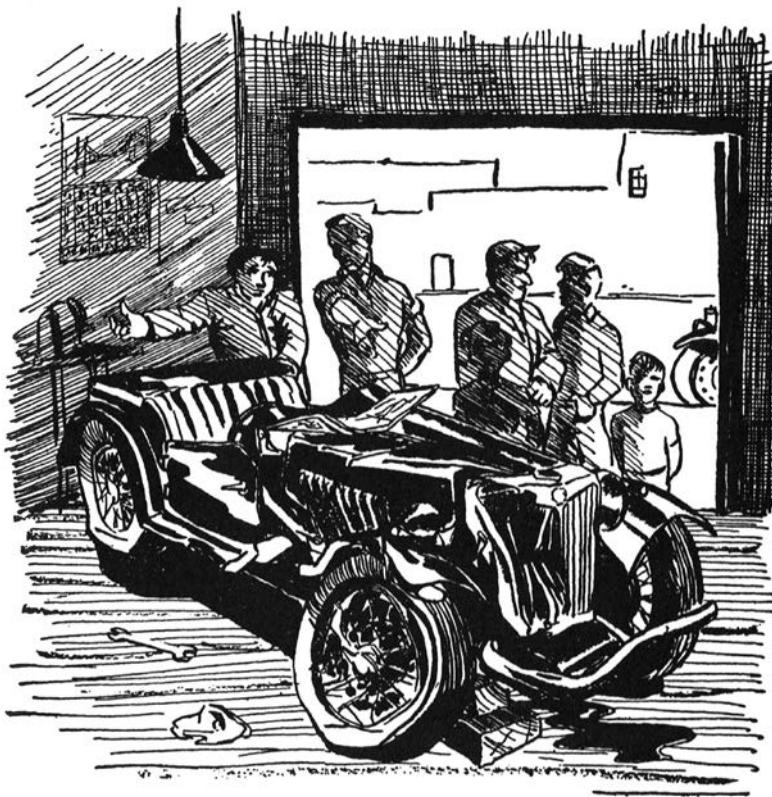
Casey wrote:

"I can write something up for the newsletter, there's not a lot that has changed but I can think of something."

If Casey thought of something, he forgot to send it in for this newsletter. That's not a big deal, especially considering the large amount of work he does maintaining our website. <http://www.nammr.org> Thanks!

Let's give him some more stuff to do! If a picture of one of your MMMs isn't yet on the Member's Cars page, send him one! Doesn't matter if it's disassembled or a concours piece of art. It's good for everyone to see these great motoring machines. (Guess I better get crackin' and do this as well).

Second, take a look at the For Sale page. If you have something listed there that's sold, please let Casey know. If you'd like to sell something, send him that info as well. You might turn your treasure into cash!



Hap made it roll again - and win!

Be Safe, Be Seen !



Convert your tail lights to LEDs and
reduce the load on your dynamo.
Inserts available for many British vehicles
1931 and later.

Negative or Positive ground.
Red, Amber, or White to match your lens.



Contact: Lew Palmer
sales@brittrix.com
www.brittrix.com



KIMBER
CREEK
LTD.

Bespoke Interiors
& Weather Equipment
for MG T and MMM



I make custom high quality interiors
and weather equipment for MGs.

Accurate Materials & Colors - custom made to match original colors and shading.
Connolly Bros. Celstra leather, as original for MG. Vinyl carefully selected and custom matched.

Weather equipment in fawn wigan, black and tan modern acrylic fibers.
Carpets in original design for MMM and T series.

Accurate Details - Hand made by a craftsman, duplicating original details.

Accurate Fit - Kimber Creek can custom make interior trim panels for your MG to ensure simple and straightforward installation.



NAMMMR 2020 National Event



Will your MMM be pictured here?

The North American MMM Register is joining up with NAMGAR for GT-45 in beautiful Colorado Springs, Colorado, June 1 to 5, 2020. **The J Type is the 2020 feature model!**

If there is one message we can send, it's this one: you need to be here! Colorado is blessed with some of the best natural features in the country, from soaring mountain peaks to dramatic canyons, all linked by some of the best drivers' roads you'll find anywhere. Add the beautiful weather into the mix, and you've got a recipe for one of the best summer vacations you've ever had.

Register Now to Receive an Early Registration Discount!

Click on the Register link to complete online registration. This is the preferred, most secure way to register. You have the option of downloading the registration form and mailing it in with your check.

Please note that regalia and photography sessions are booked separately. Please see the respective links for more information.

Regalia: <https://gt45.co/regalia/>

Photography: <https://gt45.co/photography-services-2/>

The event schedule can be found here:

<https://gt45.co/schedule/>

Here are a number of Colorado Springs points of interest and activities you may be interested in:

New U.S. Olympic & Paralympic Museum

<https://usopm.org/>



U.S. Air Force Academy

<https://www.usafa.af.mil/>



The National Museum of WWII Aviation

<https://www.worldwariaviaction.org/>



Garden of the Gods

<https://gardenofgods.com/>



Old Colorado City

<https://shopoldcoloradocity.com/>



... and then there's Pikes Peak!

peak.com/attractions/pikes-peak-americas-mountain/

**Registration is now
OPEN!**

**Go to the GT-45 website:
www.gt45.co**



Restoration News

Mike Jansen M.Jansen@mchsi.com



The story of the most recent restoration of M-type 3415, now owned by Mike and Doug Jansen, starts in late 2014. Mike has generously documented the process in a 3-part saga, starting in late 2014. Here is part 1 – the others to follow yet this year ...

Back to Life – Again for M3415 Part 1

Nov. 2014 to Aug. 2016

It wasn't all that long ago that my brother Doug and I bought TC1357. That purchase is a great story, perhaps one saved for a late-night natter or a GOF afternoon discussion. TC1357 has been great fun for the family and a regular sight for everyone in our Kendallville area, particularly on nice evenings. With the TC in good running order and space in the stable for another project, I set my sights on a second MG. After much consideration, I decided if I was going to buy another Midget it may as well be the first model, so the search began for an M-Type.

The search didn't take long. About 3 years after word went out a friend in Michigan called and offered to sell me his Midget - M3415. He had started the restoration but came across a completed M-Type he couldn't pass up. I couldn't have been more fortunate.

M3415 was assembled in Abingdon on April 11th, 1932.

Doug and I picked up M3415 on November 22, 2014 and our restoration work began immediately. After nearly 3,000 photos, 10 large Glad storage bags and 4 large plastic tubs M3415 was stripped down to the frame, and all parts were digitally catalogued.

With any restoration project one must first decide on their goals. For the restoration of 3415 our goals were to create a car that meet these requirements:

- 1) The car must be safe to drive. No shortcuts on this!
- 2) The car must be reliable.
- 3) The car must be restored to an arguably accurate representation of an M-Type using original, NOS, or ACAP (as close as possible) components.
- 4) The car must be pretty to look at!

For the M-Types there really isn't much documentation on originality (unlike the TC which with Sherrell's book), and customization was done to many of these cars immediately



Doug and Mike day one

after purchased. Much of the technical original specs can be found in the Blower book, and pictures taken "in the day" provide visual details of originality. And the adage "MG really never cared much about originality" means MG used pretty much whatever was available to build these cars. One of the best sources for help I have found is the MMM Register's Technical Forum.

It was rumored M3415 was at some point in its life part of the Harrah Collection. The limited amount of research I have done has not proven this to be true. What I can say is that the car was put away at some point and stored for a very long time in what must have been a dry environment. There was very little deep rust on the car, and it disassembled without breaking many fasteners.

Being one of the last 200 M-Types assembled in Abingdon, M3415 would have been a metal body from the factory. But only the doors and the boot still had the metal skin intact. The tub proper had the metal skin removed at some point in its life and the wood under the skin was painted red. No fabric existed anywhere. The ash wood of the tub seemed to be in decent shape and reusable - that is until we disassembled the tub, at which time it pretty much disintegrated in my hands. No worries - my new MMM buddies introduced me to Steve Gilbert who could build another one! Almost a year after ordering the new tub arrives fully skinned in aluminum. A work of art to say the least.



While the tub was being fabricated, it was off to the races on building a rolling chassis. I prefer to do as much of the restoration work myself as possible, which amounts to component repair and preparation for paint along with final assembly and tuning. There is some restoration work I simply will not attempt: Final Paint/Coating, Engine Rebuilding, Instrument Rebuilding, and Interior work. I leave this sort of work to the other professionals.

As far as car completeness is concerned these were the only major components missing:

- Wiper Motor (vacuum)
- A CF1 Cutout
- Spare Tire
- Top (it did come with side curtains!)
- Brake Greasers
- One dozen Grease Zerk fittings
- Correct headlamps (anyone need a pair of L140s?)
- Horn button
- M-Type Gear Box Remote (need a PA/J2 Remote?)
- Choke mechanism
- TF201 tail lamp
- Bits and Pieces

I thought this was actually a pretty short list for such an old car..... Of course, all the rubber had deteriorated and was in need of replacement. On to the restoration.....

The chassis was taken to Redi-Strip in Indianapolis where they use a chemical/electric bath to remove all paint and rust without leaving any residue that might compromise paint later. Then it was washed with an etching solution from SEM, painted with a 2-part epoxy undercoat, followed by an SEM product called Chassis Black, which provides a satin black finish (not gloss or flat) which I understand to be appropriate for the period. For the smaller metal components, I used the "Wash Soda/Electrolysis" process by way of a 10 AMP DC power supply and a 5-gallon bucket. For stubborn painted components good old Marine grade paint remover was used. I stayed away from sand or bead blasting so as not

to damage or wrap any surfaces.

All the chassis and component painting was performed in a paint booth owned by another one of my brothers; Jerry, whose shop is conveniently located just a stone's throw away from our "restorage" garage.

The engine went to C & P Machine in Ft. Wayne Indiana. These guys do everything from Model T to 12-cylinder Duesenbergs and are arguably the best in the area. Most importantly, they're not afraid to do the work on our 847cc overhead cam power plant. C and P did a thorough inspection and which found 3 cracks in the crank, 1 cracked piston, and a cylinder (rear) that was in dire need of a new sleeve. So, an order went out to Sports and Vintage Spares, which included (again on the recommendation of my new MMM buddies) a 1 5/8" balanced billet crankshaft. After much discussion and review of the restoration's goals we choose to replace



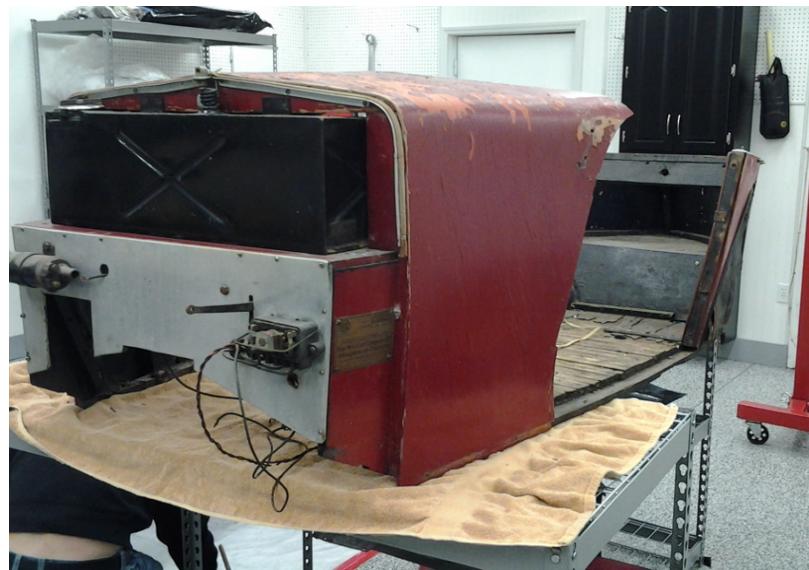
Grandpa Mike's best helper!

most all internal engine moving components.

In our restoration shop, all paint ready components are assembled and tested for fit before any paint is applied. It's a process technique learned over the years which saves countless hours having to repaint components due to tearing them up trying to make them fit!



Some of the great treasures you find!
British Spring Group, an original spring leaf
B.S.G. MAR 1932



The color scheme on M3415 was decided to be:

- 1) Chassis Black - Anything below the body (Chassis, dampers, brake components, rear end, front end) and anything attached directly to the chassis.
- 2) Dark Red - Engine, Generator, Starter, Gearbox
- 3) Gloss Black - All black components above the Chassis (Class A surfaces)
- 4) Wings, Hood, and Tub - Big Secret (meaning, Doug had not yet decided (he decided Aug 2020!))
- 5) Dark Red - Interior and Rims

So, with the paint colors all but decided and all chassis components repaired and test fitted, a large batch of chassis components were painted, chromed and assembled. We had a rolling chassis - minus an engine!

Our next steps are:

- Engine Fit
- Clutch Installation
- Gear Box Installation
- Body Fit
- Electrical
- Wings and Windshield Fitting
- Disassembly and Paint, Paint, and Paint
- Reassembly
- Interior

Here are our key suppliers (so far):

- Blockley - Tires.
- Joe Curto - Carburetor Rebuild.
- Ft Wayne Generator - Starter/Generator Testing and Rebuilding.
- Redi Strip (now Pro Strip Indy) - Indianapolis - Frame Stripping.
- C & P Machine, Ft. Wayne, IN - Engine Work.
- Reckon Plating, Ft. Wayne, IN - Chrome.
- Sports and Vintage Spares, U.K. (Mike Dowley) - Engine and Sundry Components
- Arnold's Design, PA - Vapor Blasting of Cast Aluminum Components.
- The MG Automobile Company (U.K.) - Sundries and Spare Components.
- Jet-Hot, Burlington, NC - Intake and Exhaust Manifold Coating.
- Kimber Creek Ltd., Zionsville IN - Interior



English plywood
85 years old!



Doctor Doug, doing disassembly . . .



New brakes, restored dampers



Shared space with TC1357

Restored R47B headlamps
installed for a trial fit . . .
Vapor blasted brake drums . . .
(and the Midge!)



Restoration News

Jack Kahler



Progress by Jack Kahler on his J2 rebuild - he's making it in a J3 form. Jack likes yellow wheels!



Overhauling a J2 Midget

LARGEST
CIRCULATION

The Autocar

4^d

FOUNDED 1895



"... has cost me nothing in repairs"

"... I beg to bring to your notice that my Ford 10 h.p. model has done 34,467 miles in 15 months: it has cost me nothing in repairs. I am bringing this to your notice, as this is the fourth Ford I have had and each one has done the same, that is to say, 34,500 miles in the fifteen months. I am so pleased with your cars, that I am taking delivery of my fifth Ford on 1st May."

(Letter No. 1052)

FORD OWNERS WILL TELL YOU

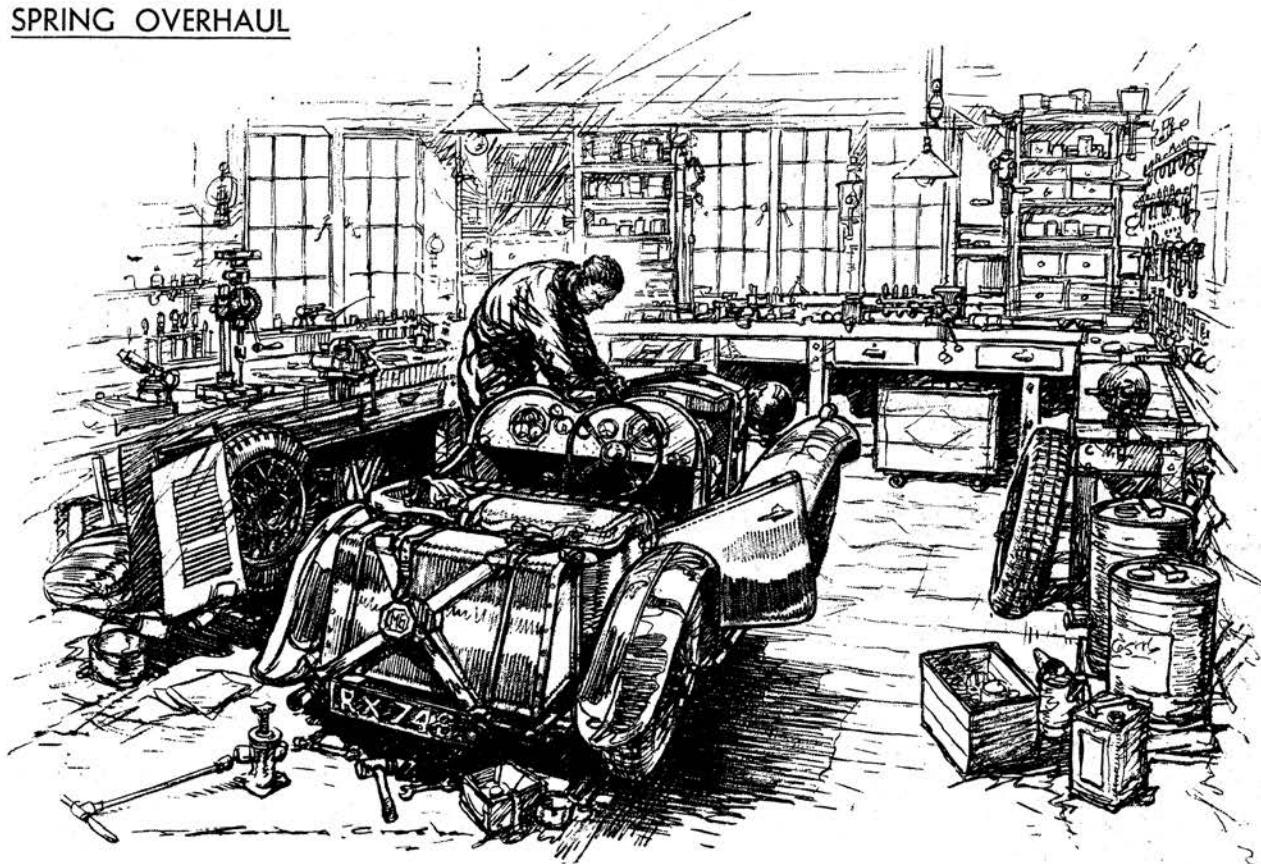
FORD MOTOR COMPANY LIMITED, DAGENHAM, ESSEX.

LONDON SHOWROOMS: 88 REGENT STREET, W.1

THE "Prefect"

the Ten ahead of its class. Saloon, £145;
Double-Entrance Saloon, £152 10s.;
Touring Car, £155; at works.



SPRING OVERHAUL

Overhauling the M.G. Midget

An Owner-driver on Putting a J2-type M.G. Into Good Condition

By

BERNARD J. FARMER

BEAUTIFUL little cars are the J2 Midgets. As many are still running in the hands of enthusiastic sports car owners, and those that find their way into the used-car showrooms always seem to be eagerly sought after, some hints on the maintenance and overhaul may be welcome.

To begin with the brakes. It does not follow that each brake will wear evenly, and it is unwise to run until all the central adjustment is taken up. To adjust the brakes independently, raise the four wheels from the ground by means of the jack and wooden blocks. Be careful not to foul the oil pipes to the rear spring pivots.

Now slack off the central adjustments to the hand lever and brake pedal. Remove the road wheels, and if the brakes have not been touched for some time it is advisable to remove the drums, by means of a $\frac{5}{8}$ in. spanner on the six nuts, and inspect the linings. A tap with a mallet should release the drums. If the rear ones are very stiff it is possible that the axle half-shafts will come with them. This does not matter, but the shafts must be kept clean until the time comes for replacement. If the linings are worn down to the rivets they must, of course, be renewed, but independent adjustment will compensate for a good deal of wear. Wash the linings with petrol, and the drums also, then replace, and tighten the six nuts evenly.

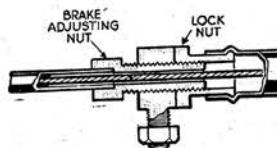
Reference to the diagram will show the adjustment device fitted to each cable stop on the axle back plates. A rubber tube is fitted over to exclude dirt. This must be pushed back and then the lock-nut can be undone.

Turn the adjusting nut until the brake just rubs on the drum. Then slack back from half a turn to a turn, so that the drum is free. When independent adjustment has been made do not take up all play in the hand lever and brake pedal, so that the brakes come on the moment pressure is applied. This strains the cables, particularly with a heavy-footed driver, and is quite unnecessary. About an inch of free travel is correct.

The rear springs are very strong, and it is unlikely that they will have settled much, even after a considerable mileage. Clean mud off with a knife and paint the leaves with engine oil to prevent rusting. The front springs, however, may be found to have settled down badly, which upsets the steering. Front springs were strengthened in later models, more support being given to the master leaf by continuing the next below it farther forward.

If leaves are actually broken, the spring must be renewed. But one does not want to do this unless absolutely necessary, because springs are not cheap. Weak leaves can be set up, but the results do not seem to be very long-lived.

A method to employ is this: Jack up the



The brake adjustment showing lock and adjusting nuts.

April 14th, 1939.

OVERHAULING THE M.G. MIDGET (CONTINUED)

front of the car under the frame, so that the springs are relieved of weight. Now clean the springs and paint them with oil; then bind them tightly from end to end with good-quality tape procured at a draper's. Insulating tape is not strong enough.

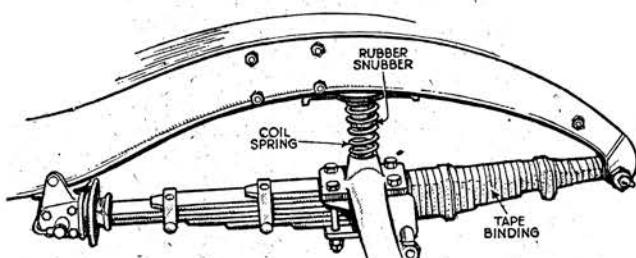
If the springs are very weak, but still not broken, additional aid can be given. At each side of the frame a rubber buffer is provided between it and the axle. Procure two strong springs of the valve type, about $1\frac{1}{2}$ in. inner diameter, and fit them over the buffers. Then compress the springs enough to push them into place between the buffers and the axle. A diagram makes this clear. If the shock absorbers are now tightened sufficiently to make movement just possible when the wheels are on the ground and the frame is pulled up strongly by hand, results should be equal to when the car was new. The coil springs will be found to stay in place very well; if they do tend to shift at the bottom they can be bound with wire.

Wear in the Steering

After dealing with springs it is convenient to attend to the steering. Wear in the track rod and drag link ball and socket joints must be taken up. Dismantle them in turn by removing the split-pin and unscrewing the end plug. Clean with paraffin and reassemble. After packing the joint with grease, tighten the spring up fully, then slacken back one and a half turns so that spring action can take place. Insert a new split-pin.

The wearing qualities of the Marles-Weller gear itself are so good that adjustment in the steering box is unlikely to be required. Greasing is done by means of one of the centrally grouped nipples, but a point that is often overlooked is the fibre bush just below the steering wheel. This should have a few drops of oil. To make sure that all is secure tighten the nuts of the bottom plate, which sometimes work loose.

Now let us turn to the engine. If the car has been



The springs can be reinforced with tape and also by a coil spring fitted over the rubber buffer.

driven reasonably well, and not permitted to slog up impossible hills in top gear—setting a racehorse to do the work of a cart-horse, in fact—the main bearings should still be good for more thousands of miles. To renew them it is best to take the engine out of the frame. This naturally entails good workshop facilities. One should have the mains renewed, the clutch relined, and other major jobs done when the car comes to be rebored.

But if the mains are good enough to continue for a bit, it is certain that wear, more or less considerable, has occurred in the big-ends, and that the piston rings need renewal if performance is to return to something near normal. So proceed as follows:

Run the engine until the oil is warm. Then remove the oil pipe unions at the front of the car, take out the filter, and oil will gush from the sump. Allow the sump to drain, and, when it has done so, jack up the front of the car as high as possible for convenience in working underneath. Set any wooden blocks used firmly, because a fall would be a serious matter for the operator.

Since the pistons are removed through the top of the

cylinder, it will be necessary to remove the head, as when decarbonising. Begin, then, with top dismantlement: carburetors and sparking plugs, and then, on the exhaust side, exhaust and water manifolds, and top hose from the radiator. Uncouple the oil pipes and the flexible drive between the dynamo and camshaft. Finally, lift the head.

It will be convenient to take the opportunity of decarbonising, and the valves should be removed and examined. If the faces are much pitted, have them trued up on a lathe, afterwards grinding-in a few turns with fine paste to be certain that they make perfect contact with the seats. It may be said that nothing can be done with confidence in the way of tuning the engine unless it is known that the valves are as they should be. Needless to say, they must be ground-in in their proper ports, which are numbered, as are the valves.

Removing the Pistons

The head finished, it is laid on one side. Now get under the car and remove the nuts and spring washers from the sump, which can be allowed to fall gently. The big-ends will be exposed. Deal with them one at a time. Remove the split-pins with a pair of round-nosed pliers and undo the castellated nuts with a box spanner. Ease the bearing cap down.

Oil will now fall from the oil channel in the crank-pin. Holding the two bolts, push up the connecting-rod, with the object of forcing the piston up through the top. It will be found that there is a slight ridge at the top of the cylinder, due to wear in the bore, and the piston needs a sharp jerk before the rings will go through and out. When the piston comes out there is sufficient clearance to tap out the gudgeon pin, which is a push fit, the con-rod being held up hard against the belled-out apertures in the bottom of the cylinder.

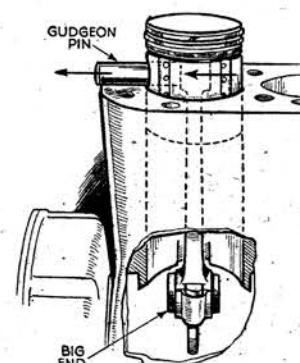
Before the gudgeon is removed completely, mark the end with a scribe and make a similar small mark on the piston, so that the gudgeon may be replaced the same way in the little-end. If wear is excessive here, piston and little-end must be reamed out and an oversize pin fitted.

The piston and rings can now be examined, as can the wear in the cylinder bore. It is easy to say here: “‘Mike’ up the bore to ascertain precisely the amount of ovality and taper.” However, a micrometer gauge is by no means

a universal possession, nor does everyone know how to use it. If the bore cannot be accurately measured the only thing to do is to judge from the previous performance of the car.

For the decision must be made whether to renew the rings with similar ones or with special rings. The first course will be satisfactory if wear is slight, which is unlikely in a car with a large mileage to its credit. For really bad wear and big oil consumption the cure is a reboore and oversize pistons, but wear up to about 0.015 in.—and that is fairly considerable—can be compensated for by various patent piston rings on the market. These will also deal with a large degree of taper, up to about 0.007 in.

It may well be decided to fit these special rings. The makers of them should be consulted as to the groove in which the oil-control ring is to be fitted, but in no case should it go at the top. The top edge of the compression ring must be bevelled off—this is most important—or the ring will strike the ridge on the cylinder. Any machining of the piston grooves can be done by the ring makers.



When the piston comes out there is sufficient clearance to tap out the gudgeon pin.

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OVERHAULING THE M.G. MIDGET (CONTINUED)

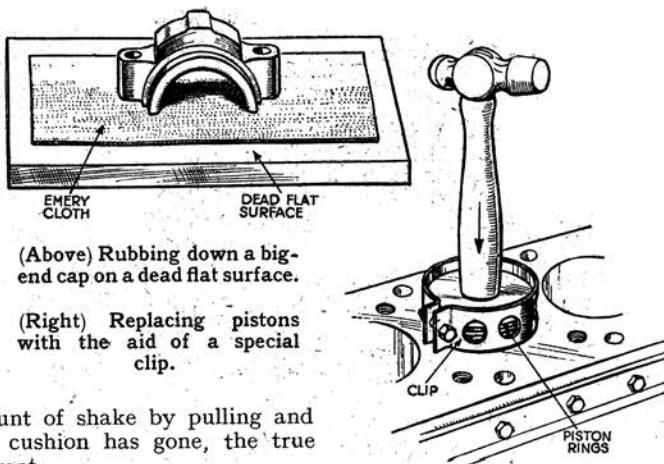
Before replacing the pistons, take up wear in the big-ends. After removal, each con-rod, numbered with a scriber to correspond with its cylinder, should have been laid out neatly on a sheet of paper, together with the cap and nuts. Cap and rod are both marked on one side, so there is no difficulty in refitting the right way round—important if the oil grooves are to be correct. Fit No. 1 rod on No. 1 crank-pin, screw the nuts up hard, and ascertain the amount of shake by pulling and pushing. Now that the oil cushion has gone, the true amount of play will be apparent.

To take up wear, place the cap down on a sheet of emery cloth set on a dead flat surface—a face-plate, or a sheet of plate-glass will do. Rub gently to and fro, frequently testing by trying the bearing on the crank-pin. When all shake has been taken up, but the rod can be moved without excessive finger-pressure, test for bearing contact by applying to the shells a marking fluid, such as Prussian Blue or a thin mixture of lamp-black and oil. Turn the crankshaft round and then examine. If a fifty per cent. contact is shown, it will be satisfactory. If the area is much less, the bearing should be scraped-in.

Skill Required

To do this, rub the cap down until the bearing is dead tight. Then remove high-spots on both shells with a bearing scraper. The job takes some skill and patience. If too much whitemetal is scraped out, the only thing to do is to rub the cap down and try again. There is a limit, of course, to the amount of metal which may be removed, so go carefully to work.

When the result is fairly satisfactory, as shown by the marking test, it can be improved by tapping sharply on the cap with a hammer, the bearing being in position,



and also tapping on both shoulders of the rod. But do not abuse this process to hammer the whitemetal in. The rod must be dead square on the crankpin, or rapid wear of the bore will take place. Correct big-end clearances are 0.004in. end-float and 0.004in. on diameter.

To replace the pistons, reverse the procedure of removal. A clip should be obtained from the makers of the rings, and by using this, as shown in the diagram, and tapping gently on the piston crown with a hammer handle, the rings will go in.

Retiming the engine is simple. Turn the starting handle until the distributor rotor points to No. 1 plug lead and the marks 1/4 on the flywheel show in the middle of the clutch cover opening. The marks on the camshaft bevel drive must also coincide. If the cylinder head is now lowered, it will be found that the bolt-holes in the flexible coupling and dynamo yoke will almost correspond. The firing order is 1, 3, 4, 2. The correct tappet clearance is .006in.

If the Engine is Stiff

If the engine is very stiff it may be necessary to start the car by towing, but the new rings will soon bed down. The ignition should have a little less advance than customary, and a great help to the rings is an upper cylinder lubricant in the fuel tank, together with some running-in compound containing colloidal graphite in the sump.

The annoying gear box rattle which sometimes develops due to the remote control lever vibrating can be cured by a simpler means than packing with sponge rubber. Lubricate the ball of the lever with heavy gear oil. This will stay in place and stop the rattle.





Future MMMer, Jack & Nancy Kahler's Grandson Joshua wins at his first racing event
The Awana Grand Prix 2020 in Littleton, Colorado



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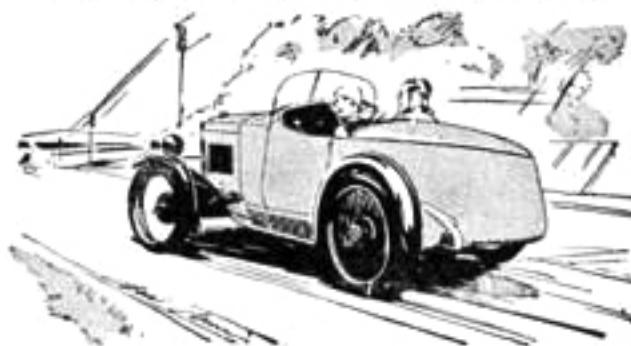
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