



Ottawa MG Club

Newsletter

May 2001

Volume: 1 Issue: 3

The Ottawa MG Club event calendar, technical information and event photos can be found on the internet at: <http://www.omgc.net>
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MG FOLKS

May meeting is at Louis' Steakhouse. A Tire Kicker for T type cars! Don't forget the Duck Race on May 12th (Sat) at the Hartwell Locks! Meet in the Carleton U north parking lot at 10am!

Monthly Meetings Held On

3rd Thursdays

In This Issue:



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- 1) CHEO Duck Race Information
(Look in the box at the top of this page)
- 2) Bluesfest Classic Car Show Info
(Drive your MG and listen to the Blues)
- 3) The Run To North Lancaster May 26
(Dave & Lise McDonnell expect us!)
- 4) Beaconsfield British Car Show
(But NO vendors and NO food kiosks)
- 5) All About An MGA Axle Swap
(From Peter Adomovits)
- 6) MGers Win Big At The Darts Match
(Thanks to Ron Cavanaugh)
- 7) CHEAPO-CHEAPOh! Reminder
(All booked and ready to go)
- 8) A Great Tune-Up At Miniman
(A lots of cars and people success)
- 9) An Events Calendar
(For the fridge to remind you!)

IMPORTANT NEWS ABOUT MAY & JUNE MEETINGS

May 17: Tire Kicker at Louis' Steakhouse !! 7pm
Here's an opportunity to see what T series cars are all about. No, a "Tire Kicker" isn't a Louis' special sandwich & it doesn't mean you can really kick tires. It's an informal chat & peek session where T series cars are proudly displayed by their owners and oogled at by others. Bring your T to display. Bring your 'oo' to oogle.

June 21: Funkhana / The Cock & Bull Eatery !! 7pm
I don't know how this event got its name but it doesn't hurt and it's easy and fun to participate. It usually involves your MG, some pylons, a bit of chalk, a stopwatch, a measuring tape, a brown paper bag, and some other related stuff. No eggs or other dairy products are involved. Sense of humour may be required.

Welcome to new members:

Duncan Banke(& son Shaun)	Kanata	'77 B
John & Diane Wood	Martintown	'73 B
David & Bettina Campbell	Ottawa	'53 TD

Note: Jordan is still the one to talk to if you want to be on the list of folks that are interested in taking part in the 2002 Ottawa MG Club trip to the UK (Cheapo-Cheapo style) Get on the list so you will get updates as they come about!

BLUESFEST CLASSIC CAR CRUISE, SHOW and SHINE

Participate in the Cisco Systems Bluesfest's 1st Annual, Classic Car Cruise, Show and Shine.

Date: July 7 & 8 (Saturday & Sunday / activities also planned for Friday evening July 6)
Time: Noon till 7pm
Conditions: Rain or Shine
Details: Prizes will be awarded to the "People's Choice" car.
Commemorative dash plates and discounts on the Bluesfest weekend pass.

Fill out the application form and return it to the Bluesfest office: 1810 St. Laurent Blvd. K1G 1A2 (behind Rogers cable) or fax to 247-2220 or drop off at 1167 Bank St. For further info contact Bob at 730-9494 / Jeff at 247-1188. Space is limited! Please sign up early so a site plan can be made. Don't miss this chance to participate in Canada's most important Blues Festival and help make this the best Car Cruise possible.

Name: _____

Address: _____

City: _____ Prov/State: _____

Postal: _____ Phone: _____

Year: _____ Make: _____ Model: _____ Style: _____

Note: All Classics are welcome! This is not just for show cars. Works in progress or street classics are most welcome. You may bring your car on Friday night.

Do you want a discounted weekend pass? (\$30.00) Yes: _____ No: _____

For Sale - 1977 MGB Roadster

Service records are available. New windshield last year. New brakes two years ago. Fitted with dual Stromberg Carbs, fully adjusted last year. AM/FM cassette and Tonneau included. Excellent shape! Asking \$6700. Contact: Dave Hawkins

The "Beaconsfield" British Car Show

British car enthusiasts are invited to Centennial Park in Beaconsfield, Quebec for the 3rd edition of the "British Car Week Celebration". The date is set for Sunday, May 27th. Participants should arrive around 10 a.m. and the last car should be off the field by 4 p.m. This is a rain or shine event.

As usual, there is no cost for entrants or spectators. There will also be NO parts vendors and NO kiosks or food services (with the possible exception of an ice cream truck!). Participants are encouraged to bring their own picnic basket and set out a blanket on the grass. This year, we are organizing a "tailgate" competition, with judging and prizes for the individual and club that put on the most elaborate tailgate display. 2001 also marks the 40th anniversary of the Jaguar E-type and to celebrate the occasion the organizers plan to have 40 E-types on display in the center of the field.

Getting there is easy: whether you are approaching Montreal from the east or the west. Using either Highway 40 (Trans-Canada) or Highway 20, exit at St. Charles Blvd. south. Take St. Charles all the way to the end (Lakeshore Rd. also called Beaconsfield Blvd.) and turn right. The show field is 1 mile away on your left.

Contact Daniel Thompson of the Jaguar Owner's Association of Montreal at 1-800-667-0716 or 514-848-0716 or 450-441-6522 or dthompson@gbc.ca

* a "tailgate display" is a picnic buffet, where the difference between good and great depends on your skill at decorating and the quality of the food and drink. Those with experience tend to dress up in costumes, display British flags, play old music, offer different kinds of food etc. Use your imagination!

CHEAPO-CHEAPOh-1

At the time I am writing this it does not feel very much like spring but by the time you read this, we should have all been to the "SPRING TUNE-UP AT MINIMAN" and have our beloved little British cars back on the road for another season of pleasant and adventurous drives.

The arrangements for "CHEAPO-CHEAPOh 1" have been completed with Sam Jakes Inn. Dalton will be planning our scenic driving course. Twenty-six cars are registered for the outing. Now all we need is the full co-operation of the weather, though that hasn't stopped MG's or MG'ers in the past.

This year we'll depart from the Kemptville Mall on Highway 43 in Kemptville. Let's meet at west end of the Mall down by the Tim Horton's, McDonald's area. The departure time will be 9:00 am.

Some of the things you should bring:

- A full tank of gas, being a weekend who can guess the \$\$\$\$\$\$
- A picnic lunch for noon
- A camera

- And as usual, good humor.

I will have my cell phone on and the number is 613-796-6008 and I would expect that you would call me if you are unable to meet us on time or wish to make alternate arrangements.

For anyone that may need directions to the Kemptville Mall location prior to the June 2 departure, give me a call at my home phone number using 230-0000 then 258-4636 for no long distance charges.

See you in Kemptville! Bob & Berny Stark

MGers Win Big At This Years Edition Of The OVTC Darts Match

It all can be boiled down to just this... you've got to have the right player at the right place at the right time. You know well that the OMGC has not done very well at all previous Darts Match Tournaments. It's usually the Triumph Club all the way. Not that we haven't won anything, we have. But this year was a classic. With Ron Cavanaugh at Le Scratch on Saturday March 31st, we were destined to be winners. And so it came to pass that Ron tossed a spectacular 156 points in three darts to win the Men's High Score - and then, as if that wasn't enough, Ron carried his lame wrist partner to victory on the B side of the tournament ("B" - fitting, eh??) And Andrea Harasek won the Ladies High Score to top it all off. What a great season for darts!! Makes one feel like practising during the year so there might be a chance at a repeat (especially for me, the lame wrist partner) But I'm not so sure of a repeat effort because Ron did confide in me that he hadn't picked up darts for more than 8 years until this event. So perhaps what we need is another non-long-time dart tosser, like Ron, to help us along next year. It is a great fun event. Give it a try next Spring. Thanks OVTC!

And A Good Time Was Had By All At The Spring Tune-Up At Miniman

The weather was one of the significant factors... With almost 50 MG folks and more than 20 MG vehicles, we really had a grand day (no snow!). Thanks to Rob for the opportunity to hold this great event. Many, many thanks to Helene Moore and Mary Attwell for a wonderful BBQ. It was delicious. And thanks to all that came out to make this Saturday a day for the memory books. Tune-ups are one of the most important things that MGs and their owners/navigators run on - and when it comes to Tune-ups for the OMGC, after a long winter, we are a bunch in need of a Tune-up. Great!!

MGA AXLE SWAP

In the summer of 1997 I completed the conversion of an early MGB final drive (provided by Doug McClure) into my MGA 1600 MKI. What I did and what I discovered along the way is detailed here:

The MGA 1500 and 1600 MKI has a numerically high (in today's terms) final drive ratio of 4.30:1 resulting in a fairly buzzy engine at highway speeds. The 1600 MKII is slightly better with a 4.1:1 ratio while the Twin Cam revs higher with its 4.55:1 ratio. The early MGB has a numerically lower final drive of 3.909:1 but ends up about the same overall due to its smaller 14 inch wheels and tires. As some have noted, the early MGB axle (1962-1965) and the MGA axle appear the same from a quick glance at external appearances. Several differences however exist. These early axles are referred to as the Banjo type due to the shape of the sheet steel housing. In this case the differential final drive gears all bolt in with a cast aluminum housing into the front of the axle housing. Later axles referred to as Tube Type have tubes welded into a cast iron center carrier. These later axle assemblies have a rear cover through which the gears are assembled. The tube axle assemblies are different and I believe no parts are interchangeable with the earlier banjo axle assembly. The 4.3 final drive in the MGA results in a fairly buzzy engine at the 70 MPH (4000 RPM) traffic speeds that are now common. My goal was to reduce engine speed and to increase reliability while having the minimum impact on performance. As overdrive transmissions were never originally available for the MGA, swapping in the early MGB 3.909 final drive in place of the MGA 4.30:1 final drive appeared to be the best option available.

In addition to the tabulated figures in the various MGA restoration guides, one can calculate engine speeds and the equations below can be applied to any vehicle if the gear ratios are known. Tire rev/mile is a key factor in determining engine RPM at any given vehicle speed. Tire radius is measured in inches from the center of the axle to the ground with a properly inflated tire.

- Tire rev/mile: $10084 / (\text{tire radius in inches})$
 - The above equation was arrived at as follows:
 - $\text{tire rev/mile} = (5280 \text{ ft/mile}) * (12 \text{ inch/ft}) / (3.14159 * 2 * \text{tire radius})$
 - The tire radius on my MGA measures about 12.6 inches (165-15 Dunlop SP20). This results in: $\text{tire rev/mile} = 10084 / 12.6 = 800 \text{ rev/mile}$
- Engine rev/mile: $(\text{tire rev/mile}) * (\text{final drive ratio}) * (\text{transmission gear ratio})$
 - The original final drive was 4.3. with the transmission in 4th gear (i.e. 1:1) this results in:
 - $\text{engine rev/mile} = 800 * 4.30 * 1 = 3440 \text{ rev/mile}$
- Road Speed per 1000 RPM: $(\text{miles per hour}) / 1000 \text{ RPM} = 60000 / (\text{engine rev/mile})$

- Using the above numbers this results in:
 - $\text{MPH} / 1000 \text{ RPM} = 60000 / 3440 = 17.44 \text{ MPH/1000 RPM}$
- To find car speed at some "engine speed" use the following equation:
 - $\text{MPH} = (\text{MPH/1000 RPM}) \times (\text{engine speed}/1000)$
 - At 4000 RPM "engine speed" and the above data the car speed is:
 - $\text{MPH} = 17.44 \times 4000/1000 = 69.8 \text{ MPH}$
- To find RPM at some car speed use the following equation:
 - $\text{Engine speed} = (\text{car speed}) / (\text{MPH/1000RPM})$
 - At 75 MPH the engine speed is:
 - $\text{engine speed} = 75 / (17.44) = 4300 \text{ RPM}$

Enough theory! MGA & early MGB differentials have the ratio stamped on a flat part of the casting at 11 o'clock when looking at the front of the casting. It's readable looking parallel to the mounting flange toward the pinion. The ratio appears as a tooth count for the pinion and ring gears respectively. The 1500 and 1600 MKI MGAs both come with 10 43 markings, early MGBs have 11 43 markings. These are ratios of 4.3:1 and 3.909:1 respectively. Examining two MGA and one MGB (bolt on wheel) axle assemblies I had I noticed the following:

- Differentials & mounting surfaces appear identical, drive shaft and differential carrier to axle housing.
- Half shafts have several differences/similarities (for bolt on wheels, wire wheel half shafts are different):
 - Shaft were identical in length in all cases and measured 24 13/16 inch from spline end to surface of flange where the bearing carrier meets the axle.
 - The half shafts from the two MGA axle assemblies had different spline ends. One pair had 26 teeth on a spline outer diameter of 1.120 while the other had 25 teeth on a spline outer diameter of 1.075 (some MGAs have a 10 tooth spline) - I counted several times!!
 - The MGB axle had the 25 tooth spline shafts.
 - Both MGA and MGB flange end of the half shafts drive are aligned and centered on the wheel mounting bolts. However, MGB wheels are mounted with 1/2 in bolts while MGA wheels are on 7/16 bolts. This results in MGB half shafts have larger mounting holes (0.510) than the MGA (0.450) resulting in sloppy and possibly off center alignment of the MGB shafts mounted to MGA wheel bearing hubs. MGB hubs and wheel nuts could be used.
 - MGB half shaft flanges are 5.312 in diameter. This is 0.062 inch larger in diameter than the MGA flanges that measure 5.25. This larger shaft flange prevents the use of MGA brake drums as the brake drum centers on the OD of the flange (wheel bearing hub and axle). Early MGB drums could be used instead.
- MGB brake drums appear identical to MGA ones however they have the above noted change in mounting hub inner diameter that centers the drum on the axle flange and the change in wheel bolt diameter.
- MGA and MGB axle housings appear to be identical from outward appearance (with the exception of the wheel bolt diameter and wheel bearing hub diameter as noted above).
- The spider and side gears on the MGA and MGB differentials are identical where they fit into their housing in the middle of the ring gear.
- In the event that the appropriate half shafts are not available, one could swap the spider and side gears from an MGA differential into the MGB differential to obtain the appropriate spline end. Note that the ring and pinion gears must be kept in matched sets as a pair.

As noted previously, the MGA 1600 differential is a 10:43 ratio (4.30:1) and the early MGB an 11:43 ratio (3.909).

Summary table:

Item	MGA	MGB
Halfshaft		
Halfshaft length	24 13/16	24 13/16
Spline end teeth	25T & 26T	25T
Spline end diameter	1.075 & 1.120	1.075
Lug bolt hole diameter	0.450	0.510
Drive flange OD	5.25	5.312
Wheel bearing hub		
Lug bolt diameter	7/16	1/2
Wheel bearing hub OD	5.25	5.312
Final drive tooth count & ratio		
MGA 1500 & 1600 MKI	10:43 4.30:1	
MGA 1600 MKII	10:41 4.10:1	
MGA Twin Cam	9:41 4.55:1	
MGA optional for racing	8:39 4.875	
MGB Banjo Axle only		11:43 3.909:1

In my case, I wanted to keep the existing housing in the car (good brakes and wheel bearings) and swap the differential carrier and half shafts to match up. I ended up using the 25 tooth spline half shafts from the spare MGA axle that matched the MGB differential carrier and gears. I had planned to change the spider gears before I noticed that the spare MGA half shafts matched the MGB differential side gear splines.

To complete the job I changed the speedo to the a lower ratio version. The standard speedo supplied for the 1600 MKI has an indicated serial number of 6161/06 and 1440 on the face. This later number indicates the correct number of revolutions per mile for the speedo cable with a 4.30 final drive. To correct the speedo for a 3.909 final drive, I purchased a rebuilt speedo with a 1300 rev/mile calibration (Purchased at Alpha Instruments in Toronto - the owner there bought all of Smiths Canada's stock when British Leland pulled out of Canada in the 1980's).

To determine the correct calibration for the speedo perform the following calculation:

$$(\text{new speedo rev/mile}) = (\text{old speedo rev/mile}) \times (\text{new final drive}) / (\text{old final drive})$$

When changing from a 4.3 to a 3.909 final drive and an existing speedo calibration of 1440 rev/mile, the required speedo calibration changes as follows:

$$(\text{new speedo calibration}) = 1440 \times 3.909 / 4.30 = 1309 \text{ rev/mile}$$

What I observed from the change is little or no apparent loss of performance. 3rd gear is more usable from a passing perspective on two lane roads and the engine is a little less buzzy at highway speeds. My MGA has had some performance improvements that may offset some of the performance loss predicted previously. It is presently sporting a ported, polished and planed (by .047 inch) 1974 MGB head (18V casting). This head has larger valves (1.625 vs 1.5 inch intake valves) and larger ports than the standard MGA 1600 (15 casting) heads.

Final drive	4.30	3.909
MPH/1000 RPM	17.3	19.0
RPM @ 60 MPH	3470 RPM	3160 RPM
RPM @ 75 MPH	4340 RPM	3950 RPM
Speed at 3000 RPM	51.9 MPH	57 MPH
Speed at 4000 RPM	69.2 MPH	76 MPH

Was the time invested worth it? I think so. However if I was to do it again, I'd look for an even higher ratio final drive. I am not aware of what model such gears would be available from. Happy motoring. Peter Adamovits

OTTAWA MG CLUB EVENTS CALENDAR 2001						
--> MG Club Highlight and Feature Events <--						
	May	12	Sat	Duck Race for CHEO on Colonel By Drive	10 am	Corvette Club
		16	Wed	Cruise Nights @ Place d'Orleans start		
		17	Thr	OMGC Meeting @ Louis' Restaurant Tire Kicker: T	7 pm	Debi
		19	Sat	Cruise Night @ Rocco's in Stittsville start		
		19 - 20	Sat - Sun	Antique Car Market Lombardy Fair Smiths Falls (\$2	9 - 3	(613)-283-3409
-->		26	Sat	MG Run to North Lancaster	9 am	OMGC
		26	Sat	Car Show in Oxford Mills (\$3 admission)		cbryant@magma.c
		27	Sun	Beaconsfield British Car Show	10 - 4	dthompson@gbc.c
		27	Sun	Perth Cruise Night		
		31 - 3	Thr - Sun	Barrie Flea Market		
--->	June	2 - 3	Sat - Sun	CHEAPO - CHEAPOh 1 / meet @ Kemptville Mall Overnight @ Sam Jakes Inn, Merrickville	8:30 am	Bob Stark & Dalton Begin
		2	Sat	Electrathon EVCO at Capital City Speedway	all day	(613) 828-0850
--->		3	Sun	Byward Market Classic Car Show	9 am	Shannon
		1 - 3	Fri - Sun	Rendez-Vous British Quebec in Lac Beauport,		Len
--->		9	Sat	MG Spring Run with Bill and Joy / Gumball Rally II	9 am	Joy & Bill
		9 - 10	Sat - Sun	Odessa Flea market		
		12	Tue	British Cruise Night @ Snack Shack in Kemptville	7 pm	Dalton
		13	Wed	Senior's Day at Carleton Lodge	1 pm	Len
		16	Sat	Mechanicsville Car Show/Street Dance (\$5)		728-2864
		16	Sat	Kars and Planes Show in Kars		
		17	Sun	Billings Estate Picnic with Antique Auto Club	10 -	AACO
-->		17	Sun	Another Event with the Viragonians	9 am	Karl
		21	Thr	OMGC Meeting @ Cock & Bull Eatery / Funkhana	7 pm	Debi
--->		24	Sun	Sporting Classics Richmond Car Show	9 am	OVTC
		24	Sun	Rolling Thunder Show in Smiths Falls		
	July	1	Sun	Arnprior Canada Day Car Show		
		2 - 6	Mon - Fri	All MG 2001 in St. Paul Minnesota		Len
		6 - 8	Fri - Sun	Bluesfest and Car Show		Len
		7 - 8	Sat - Sun	Jetform Park Car Show and Market		
		8	Sun	Evolution of Wheels/Natl Science & Technology	9am	Len
--->		15	Sun	Croquet Match in Greely (rain date July 22nd)	1 pm	Len
		19	Thr	OMGC Meeting @ Louis' Restaurant - Tire Kicker	7 pm	Debi
--->		28 or 29	Sat or Sun	White Lake Splash / White Lake NOT ready! /	10 am	OMGC
		27 - 29	Fri - Sun	Summer Carlisle		
	August	5	Sun	VW Volksfest in Embrun	9 am	VW
		5	Sun	Brockville Car Show		
		12	Sun	Aylmer 2001 Car Show in Aylmer Marina Park (\$7)		Len
		16	Thr	OMGC Meeting @ Cock & Bull Eatery - Pit Stop Rally III	7 pm	Debi

		19	Sun	Boot'n'Bonnet All British Car Day	10 am	B'n'B Club
--->		19	Sun	OMGC Monte Carleton Rally	9 am	OMGC
		25	Sat	Laval Auto Show		
	September	2	Sun	Rockland Street Show		(613)835-4179
		2 - 3	Sat - Sun	Perth Fair Car & Truck Show		
		6 - 9	Thr - Sun	Fall Barrie		
		8 - 9	Sat - Sun	Watkins Glen Racing		
		9	Sun	Cornwall Car & Truck Show @ Canadian Tire		www.goodtimecruisers.ca
--->		15 - 16	Sat - Sun	Bronte Creek British Car Day		
		20	Thr	OMGC Meeting @ Louis' Restaurant - Tire Kicker	7 pm	Debi
		21 - 23	Fri - Sun	British Invasion @ Stowe, Vermont		
		29	Sat	Fall Carlisle Show & Market		
--->	October	4 - 7	Fri - Sun	Fall Hershey Show & Market		
		7	Sun	Fall Colour Run (tech sessions & silk craft)	10 am	Jordan / Debi
		18	Thr	OMGC Meeting @ Cock & Bull Eatery - Indoor Rally	7 pm	Debi
	November	15	Thr	OMGC Meeting @ Louis' Restaurant - Annual	7 pm	Debi
—>	December	8	Sat	OMGC Christmas Party	6 pm	OMGC

First Sunday each month: British Breakfast @ Capital City Diner on Hunt Club @ Merivale starts April 8th