

THE DIPSTICK



FEBRUARY 1991

PRESIDENT.....Bill Keeler

SECRETARY.....Bob Miller

VICE PRESIDENT..Susan Bond

TREASURER.....Jim Villers

EDITOR....Chris Holcomb

Marque Time:

Our thanks to John and Janet Wessel for hosting our first gathering of 1991. Members soon found their way to the garage, and we admired the nice job John is doing on his MGA. It is almost to the point where Butch would find it to be road worthy.

Libby and I would also like to thank everyone for their support and presence at the Christmas party. We hope everyone enjoyed it as much as we did.

We have had several guests and new members recently, and look forward to seeing them at our February meeting. Also, if you are a longtime member who hasn't been in a while, there are a lot of new faces for you to meet and there is no time like now.

If you would like to host a meeting or tech session, or be involved in an activity, please call Peggy.

Safety Fast,

Bill

Bill Keeler

UPCOMING EVENTS

- Feb. 5 (Tue) Monthly meeting at the home of Peggy Bradford (see map) at 7:30p.m.
- Mar. 3 (Sun) Tech session hosted by Robert and Faye Davis (see map). Spring is almost here! Get your MG in shape! 10:00a.m. -
- Mar. 6 (Wed) Monthly meeting at the Bingham.
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DEADLINE FOR MARCH DIPSTICK MONDAY, FEBRUARY 25, 1991.

MINUTES OF THE MG T CLASSICS MEETING HELD JANUARY 3, 1991

The meeting was called to order by Bill Keeler, President at 8:15 pm. Thanks were expressed to John and Janet Wessel, our hosts for the meeting. Arlene, Mike and Carl Ballinger were welcomed as guests.

The minutes of the last meeting were read and approved.

Treasurer's Report - The opening balance was \$1,906.26 with receipts from November totaling \$80.00 and receipts from December totaling \$45.00. Expenses for November totaled \$255.87. The balance as of the meeting is \$1,839.39.

Committee Reports

Membership - The member survey will be ready for the February meeting.

Regalia - Sue stated we needed new ideas for club regalia items. Suggestions included MG rugby shirts and coffee mugs with the Tidewater logo. Different raffle prizes were also discussed with gift certificates, other prizes and cash suggested as alternatives.

Clubs - Mike informed everyone about the North American MGB Register and has an application and phone number if anyone is interested. John Twist, University Motors, is the President of the new organization.

Old Business - None

New Business - None

Marque Time

Butch discussed his oil pressure and freeze plug problems. Kent put on a new water pump using Bill's experience with his prior three pumps. Joan has a problem with one valve that will not remain adjusted. Bill has a copy of Abbingdon's catalogue with exploded diagrams of the T's. Mike knows of a supplier (heritage Plastics) of hard tops for the A's and B's. Ira's A will be out by spring. The wiring is complete, the radio works and it does run.

Raffle drawing - Cynthia won the raffle.

The meeting was adjourned at 9:05 pm.

Respectfully submitted

Bob Miller

Bob Miller, Secretary



A SPECIAL NOTE . . .

The 25th edition of GOF, South is set for the weekend of April 26, 27 and 28, 1991 at the Lakeside Inn in Mt. Dora, Fla. (Not Cocoa Beach as noted in the December TSO.)

For more information contact Tony Roth at ... THE CLASSIC MG CLUB, LTD.

TECH SESSION - by Mike Ash

Last month, I continued a several-part article on rebuilding MG transmissions, based on a series of articles I am writing for the MGA register newsletter. The last two parts described the basic operating principles of the MG transmissions. This month, I continue that by discussing some of the potential problems related to the operation of the transmission, particularly the synchronizers, and their possible causes.

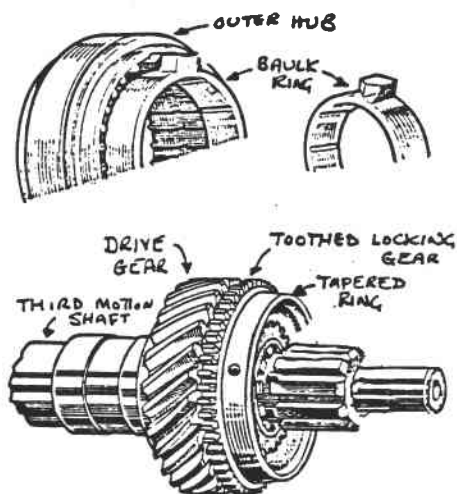
If your transmission is noisy when the car is moving in any one of the gears, but not under heavy acceleration, then the chances are that one or more of the components already described is the culprit. Transmission noise under these circumstances is usually a whine or a "whir", and is usually caused by worn bearings. Bearing noise can also be present when the transmission is in neutral. Whenever I rebuild a transmission that has seen tens of thousands of miles of service, I usually replace all of the bearings as a matter of course. This includes the ball bearings at each end of the main transmission case, the ball bearing or bushing at the end of the rear extension, the needle roller bearings in the first motion shaft that support the end of the third motion shaft, and the two or three sets of needle roller bearings in the cluster gear. The needle roller bearings inside the cluster gear turn on a shaft that also is susceptible to wear, particularly in the MGA transmission. This shaft should be replaced if it shows any signs of wear. In the MGA and MGB transmissions, the second and third gears rotate on bushings on the third motion shaft. These bushings are not susceptible to excessive wear and should only be replaced if necessary. In the T-series transmission, these gears rotate on needle roller bearings which should also be replaced.

The other possible cause of noise while running is worn gears, or broken teeth on the gears. The reason helical cut gears are used is because they run significantly more quietly and are less susceptible to wear than straight cut gears. First gear in T-series, MGA and early MGB transmissions, and all reverse gears are straight cut gears that will always be more noisy than the other gears. Unless the teeth show signs of considerable wear and pitting, I would not go to the expense of replacing the first gear and the cluster gear just to reduce the whine in first and reverse. Of course, if there are any chipped or broken teeth on any of the gears, the gears should be replaced.

For clarity in my previous simplified descriptions of transmission operation, I completely ignored the operation of the synchronizers on the second, third and top gears, plus first gear for the later MGB transmissions. This very important function is now described in the following paragraphs.

When the car is moving, the third motion shaft, the two gear select hubs, and the selected gear are all rotating at a speed determined by the "road speed" of the car. At the same time, the first motion shaft and the cluster gear are rotating at a speed determined by the engine speed, and the non-selected gears are rotating at different speeds determined by their relative diameters. Immediately after a new gear is selected, the rotational speed of the third motion shaft is still determined by the road speed and is essentially unchanged, but the speed of the engine and the first motion shaft must increase when changing to a lower gear or decrease when changing to a higher gear.

For a smooth and noiseless shift, the speed of the selected gear must be matched to the speed of the third motion shaft at the instant of selection. This matching of speeds, which is the function of the synchronizer, can be achieved because, since the clutch is disengaged for shifting and the first motion shaft is no longer being driven by the engine, the drive gear train from the selected gear, through the cluster gear, and back to the first motion shaft can all be slowed down or speeded up in order to provide the match.



The synchronizer for each synchronized gear has two parts. One part is built into the gear select hub and the other into the selected gears. The lower picture in the figure shows the part on the gear, which is a tapered ring next to the toothed locking gear. This arrangement is built into both the second and third gear units, the first gear for the later MGB, as well as the end of the first motion shaft for the selection of top gear. For the MGA and MGB transmissions a brass ring with an internal taper is fitted into the end of the gear select hub so that will "wedge" over the tapered ring on the adjacent gear. This brass ring is called a "baulk ring" in British terminology and, I believe, a "blocking ring" in American terminology. There is a baulk ring in both sides of the third/top select hub and the first/second select hub for the later MGB. For the MGA and early MGB, the ring is only in the second gear side of the first/second select hub. For the T-series transmission, the "baulk ring" feature is an integral part of the select hubs.

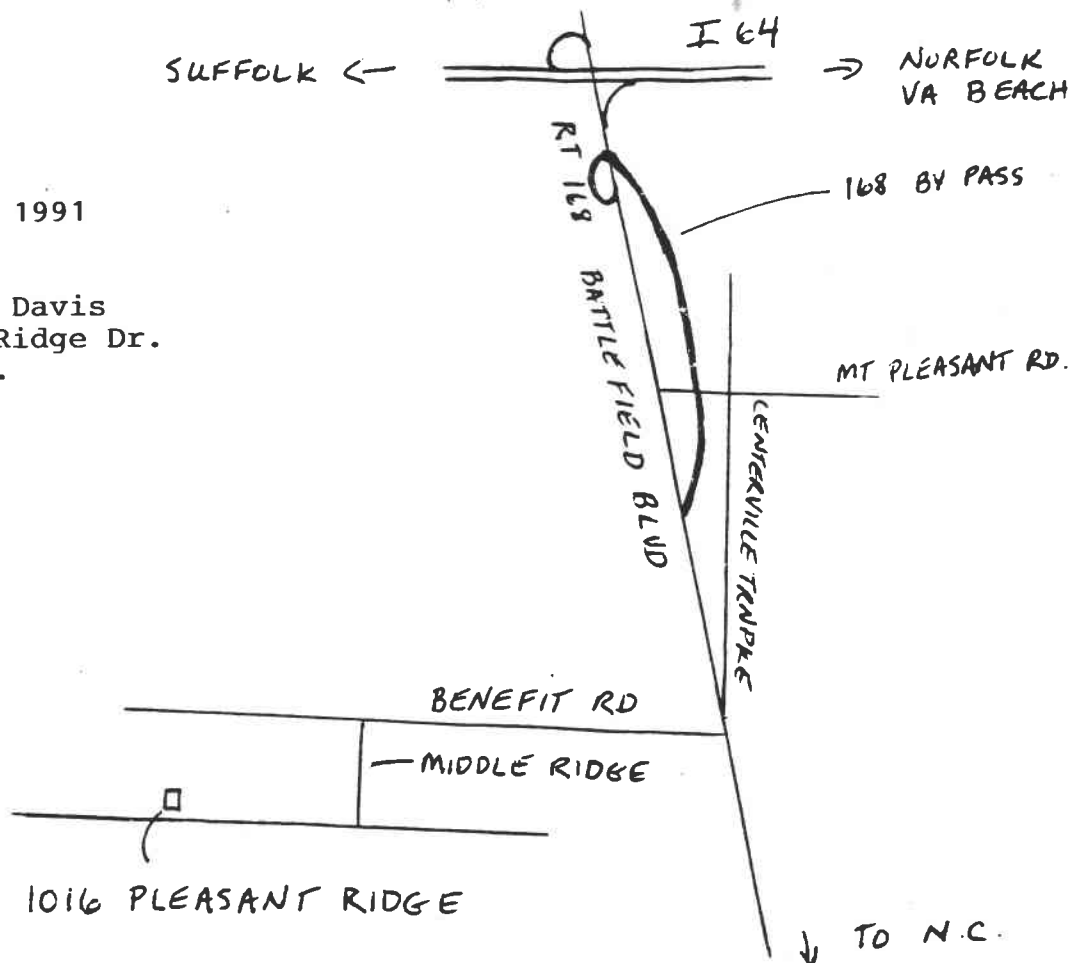
The upper picture of the figure shows the ring and how it fits into the hub. When the hub slides toward the adjacent gear, the baulk ring moves over the taper ring on the gear until it wedges and stops the motion of the gear relative to itself. The hub then continues to slide toward the gear until the hub passes over the toothed locking gear and firmly locks the rotation of the gear to the hub and the third motion shaft.

Built into the center of the outside of the inner gear select hubs are three spring loaded balls, with a "detent" groove in the inside of the outer hub. These spring loaded balls, when in the detent position, keep the outer hub centrally located over the inner hub, which is the neutral position. When a gear is to be selected, the hub is slid toward the gear until the baulk ring begins to wedge on the taper ring of the gear. The force needed to overcome the detent so that the outer hub can slide over the toothed locking gear provides additional force to wedge the baulk ring onto the taper ring to stop the relative rotation between the hub assembly and the gear.

If a gear begins to lose its synchronization and shifting becomes difficult or noisy, the problem is usually caused by worn baulk rings or taper rings, or both. These should be checked very carefully during a rebuild. When the transmission is dis-assembled, each baulk ring should be placed over the mating taper ring and checked for a tight wedge fit. The wedge fit should occur when the baulk ring is covering about three quarters of the taper ring. If the baulk ring slides too far onto the taper ring before it wedges, then the further life of the synchronizer may be limited and, because it allows the hub more travel on the shaft may cause the transmission to jump out of gear. If the baulk ring does appear to be too badly worn, it should be replaced with a new one. (The entire hub has to be replaced in the T-series transmission) The new baulk ring should also be checked with the mating gear and if it still fails to wedge over the taper ring then there is probably too much wear on the taper ring and the entire gear should be replaced. Also, the three balls and springs between the inner and outer hubs should be replaced to increase the force of the wedging action.

Well, once again, I have completed my two pages. My next articles, if anyone's still interested, will discuss the actual rebuild process for the MG transmission. I will attempt to address the T-series, MGA, and MGB transmissions in the same article.

TECH SESSION
 Sunday, Mar 3, 1991
 10:00a.m. - ?
 Hosted by:
 Robert and Fay Davis
 1016 Pleasant Ridge Dr.
 Chesapeake, Va.



AUTO BOOK REVIEW

George Melick

I recently blundered onto this weird book in one of those grubby used book stores in downtown Philly. One of those places you wouldn't want a friend to find you in. The title is, "Manifold Destiny, The One! The Only! Guide To Cooking On Your Car Engine!" by Chris Maynard and Bill Scheller and published by Villard Books, New York 1989. The price is \$7.95, if you can find it, but hopefully, you can't! While it is a spoof in part it also is really about cooking on your car's engine. It appears the authors did compete in the One Lap of America in 1988 with a Lincoln Town Car and apparently applied the techniques listed. They explain how to prepare food, how to fasten it on the engine and how much driving time is needed to cook a meal, etc. Some of the sample recipes included are named Candy Apple Red Chicken, To Grandmother's House Road Turkey, Pickup Truck Ham Steak, Safe-At-Any-Speed Stuffed Eggplant and other stomach turning concoctions.

Of interest to MG owners is the statement that English cars tend to cook twice as long as is necessary. Best rated engine is the Jaguar XKE (oops! E-Type) which with that massive cast iron heat sink of a block and aluminum cylinder head for even heat distribution does a superb cooking job. All very neat but not new by any means. In 1959 the sports car gang I ran with went en masse to Sebring for the 12 hours and we applied this technique on a 1956 Corvette. Those high, flat top exhaust manifolds on the V-8 provided an ideal spot for cans of ravioli, lasagna, etc. (We had a connection at a local canning plant for Italian food products) After a week it was a bit too much pasta. My buddy and I went in my MGA. That year the factory ran three MGA coupes with the knock off racing disc wheels. I think this was the year one of the MGA's went off the course into a sandbank and the American driver took some time to dig his way out. When he finally jumped back into the car he got into the wrong side as it was a right hand drive car! I remember also seeing this action in a film, probably the one done by Amoco Oil when they sponsored the Sebring races. Does anyone remember any of this? Does anyone want to eat after reading this? Is anyone still reading this?

FOR SALE

NEW MGA Spare Tire Cover. Original type grey cover to fit over spare tire in the MGA trunk. About \$80, plus shipping cost from England. Contact Bill Parks (prospective member) in Newport News 595-5438. These original style covers are apparently not available from suppliers in the USA. Bill ordered two by mistake from NTG in England and is offering the extra one before shipping it back.

FOR SALE

'75 MGB Roadster; new paint, TOP, hard-top; O'Drive, Weber down draft, header, oil cooler, V-8 suspension bushings, 300 miles on rebuilt engine (professional) \$3,700
Frank Cullen 498-4200 day
Roy Wiley 481-1543 7-9p.m.

FOR SALE

1961 MGA MKII Roadster; restored
Torquise (surf blue)
Wires, new tires, Weber conversion
Also has S.U.'s; Excellent
Betty Tanner (804) 642-3656 (H)
253-5771

FOR SALE

1960 MGA 1600 Roadster; red
Wires, leather upholstery, tonneau cover
Painted in early 1990, Engine rebuilt within last 10,000 mi
Sound and Dependable
Driven daily
Bob Bell 479-2123

FOR SALE

1951 TD Very good condition \$10,900
contact Morgan Anderson
P.O. Box 1191
Roanoke, VA 24006

FOR SALE

1952 TD Near mint condition \$16,500
Contact Bill Wood
Route 2, Box 546
Waynesboro, VA 22980

CALENDAR OF EVENTS
1991

FEBRUARY	5 (Tue)	MEETING	Bradford
MARCH	3 (Sun)	TECH SESSION	Davis
	6 (Wed)	MEETING	Binghams
APRIL	2 (Tue)	MEETING	McClarens
	TBA	CHAMPAGNE BRUNCH	**** HOST NEEDED ****
MAY	1 (Wed)	MEETING	Wallach/Fachini
	19 (Sun)	TECH SESSION	Ashes
JUNE	4 (Tue)	MEETING	Millers
	8 (Sat)	PETE'S RALLY	Pete Micken
	23 (Sun)	BOWIE BRITISH CAR DAY	
JULY	3 (Wed)	MEETING	Davis
	18-21	NANGAR GT-16	- Huntsville, AL
	18-21	AMGBA MINI-CON,	Chicago, IL
AUGUST	6 (Tue)	MEETING	Keelers
	TBA	SUMMER PICNIC WITH RICHMOND CHAPTER	
SEPTEMBER	4 (Wed)	MEETING	Edwards
	29	ANNUAL PIG ROAST	
	TBA	RICHMOND BRITISH CAR DAY	
OCTOBER	1 (Tue)	MEETING	**** HOST NEEDED ****
	20 (Sun)	RALLY	Chuck Edwards
NOVEMBER	6 (Wed)	MEETING	Ashes
	17 (Sun)	TECH SESSION	Bonds
DECEMBER	7 (Sat)	CHRISTMAS PARTY	

Activities Chairman: Peggy Bradford
427-3365 (H), 445-3136 (W)

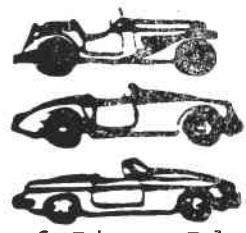
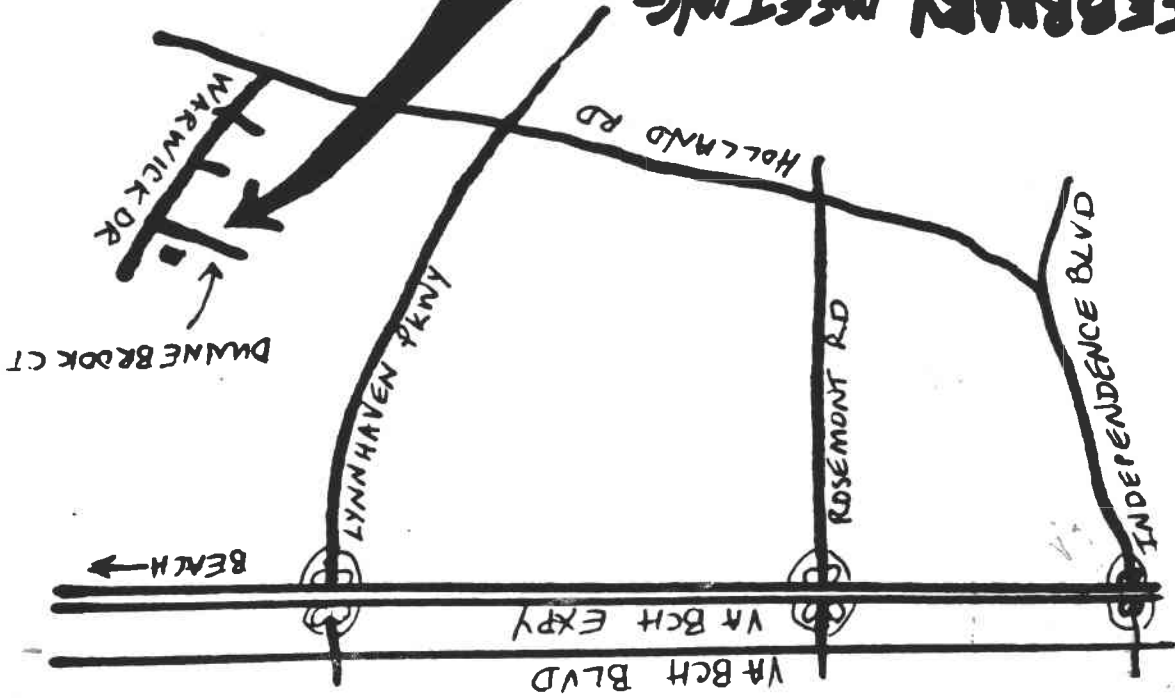
Please note that we are in need of a host for the Champagne Brunch in April, the October meeting, and our annual Christmas Party. If you would like to host a meeting or event contact Peggy Bradford.

Also, if you know of events outside our club that may be of interest to members, please let Peggy know so she can include it in her activities report.

3202 DUNNE BROOK CT
PEGGY BRADFORD'S
VA. BCH. 427-3365

TUESDAY FEB. 5 7:30 PM

FEBRUARY MEETING



601 Head of River Rd.
Chesapeake, Va 23322



FIRST CLASS