



**Renew Your 2013
Membership Now!**

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👉 General Meeting 👈

The 2nd Tuesday of each month Next Meeting: Tuesday, Feb. 12, 6:30 pm, T-Bonz, Hwy 17 Bypass, 21st Ave North, Myrtle Beach.

Guests Are Always Welcome!

Club Website:

www.GrandStrandBritishCarClub.com

Club Calendar of Events:

www.Google.com/calendar/embed?src=hub1tpoSOrnea57ejo3197oo0@group.calendar.google.com&ctz=America/New_York&gsessionid=OK

Club FaceBook:

www.FaceBook.com/pages/Grand-Strand-British-Car-Club/344525917851

Working on Overhead Camshaft Engines

by Bill Unger

Last month I reviewed the component parts of the valves, camshafts, and timing gear in your overhead camshaft (OHC and DOHC) engine and what their job is. This month I will outline how you can make basic checks and adjustments to the valves and camshafts. (References and photos are for my Jaguar XK engine, so follow specific instructions in your manufacturer's manual.)

Some tools and things that you will need:

- garage with 3'-5' of room fore and aft to roll your car back and forth
- scrappers or chisels for cleaning off old bits of gasket from camshaft covers



(see Overhead Camshafts next page)

BEHIND THE STEERING WHEEL (where there is always a loose nut)

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GSBCC Officers and Committee Chairs

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2013 Membership

Renewal Dues are Due

2013 Membership Renewals are due. Fill out the attached Membership Application (also Renewal) form and return with a **check for \$25** to one of our upcoming monthly meetings, or mail it in. If you have not done it in the past, or want to update photos of your car, please submit clear, well lit, digital JPEG's.

Overhead Camshafts (cont.)

● **basic set of box and open end wrenches**, spark plug socket, misc. sockets, ratchet and torque wrenchs (which you already keep full time in the boot, otherwise, you should not be owning a British car)

● **feeler gauges** measuring 1000ths in range needed for your valve adjustment (same feelers used for setting ignition points gap)

● **caliper** measuring 1000ths for determining thickness of adjusting shims (I purchased a digital one from Advance Auto for \$30, or you can borrow one from a buddy)

● **timing chain tensioner tool** which may be specific to your car model (I made my own according to drawings conveniently included in the Jaguar "E" Type Workshop Manual)

● **valve spring compressor** which may also be unique to your car (Jaguar Club of North America has a tool loaner program for a \$5 stocking fee plus cost of shipping to 'n' fro)

● **camshaft alignment tool** which, again, may be specific to your car but cheap enough to purchase from your favorite parts supplier

● **magnet** helpful for pulling tappet buckets out of their guides, picking valve keepers out of the retainer, retrieving dropped nuts and washers from under the car

● **dental pick** for prying off and pulling up intake valve seals, length of 3/8" **rubber hose** to press intake valve seals down over the valve stem, **surgical forceps** or **skinny curved needle nose pliers** for reinstalling valve keepers (all useful tools to have around the garage)

● **replacements** for gaskets, rounded nuts, missing washers, etc. (but wait to purchase until after making calculations for any needed replacement valve adjustment shims)

(see **Overhead Camshafts** next page)

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Upcoming Events

26-Jan-2013 Saturday, 11 am, GSBCC's Third Anniversary Party, Carolina Room at T-Bonz, Hwy 17 Bypass at 21st Ave North, Myrtle Beach Carolina Room.

18-20-Apr-2013 "The Gathering", Shelton Vineyard, Dobson NC, sponsored by TR Carolina Club includes TSD rally & Saturday concours from 10am to 6pm.

Apr-2013 Inlet Square Mall, car show, Murrells Inlet

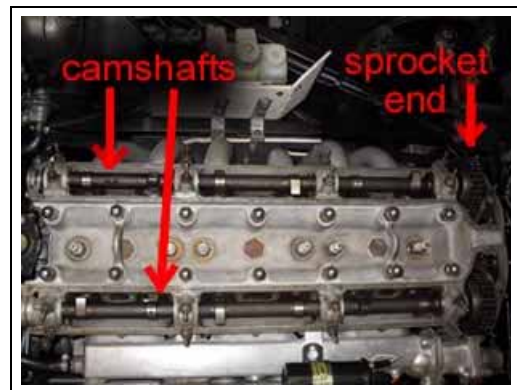


2-5-May-2013 Pinehurst Concours d'Elegance, Pinehurst NC. This concours will feature more than 150 historic automobiles and motorcycles from around the world, including significant military vehicles. More info at www.PinehurstConcours.com or email info@PinehurstConcours.com.



Overhead Camshafts (cont.)

Remove distributor cap and spark plug wires, and jog engine so that rotor points to forward cylinder position (#6 cylinder of Jag XK engine). Shift transmission into 2nd gear, release parking brake, and remove spark plugs so that engine can be easily turned over by rolling car (place towel over plug holes to prevent entry of small parts). Roll car so that ignition timing mark points exactly at piston top-dead-center (TDC) position (i.e. valves fully closed) on crankshaft pulley.



Remove camshaft covers and determine current valve tappet to cam clearances with feeler gauge inserted between cam lobe and intake and exhaust valve tappets of forward cylinder. Leaving car in gear, rotate cams by rolling car forward or back so that valves close for each cylinder and measure and record valve clearances.



(see Overhead Camshafts next page)

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My View Through the Windscreen

by Jim Hendricks, President

Again, I want to thank all our members for making this club as great as it is going into our fourth year. I could not be happier with the results! You guys and gals are the best!

Our next get together will be our Three Year Anniversary Party on Jan. 26, 2013, at T-Bonz on the patio. Part of the parking lot will be blocked off for our cars starting at 11:00 am rain or shine. I myself have four very nice door prizes to give away. If anyone else can pick up something to giveaway, please do so. So come have lunch with us, and if the weather permits, there should be lots of British cars and fun!

See You There! Jim Hendricks

Monthly Meeting Minutes

by Bill Unger for Ethan Johnson, Sec

The GSBCC monthly meeting was called to order Tuesday, 6:30 pm, Jan. 8 at T-Bonz Restaurant by Vice President Rod Smith in Pres. Jim Hendricks absence. Last month's meeting minutes were read and approved.

Treasurer Jim Smith was absent, so there was no Treasurer's report given. GSBCC dues for 2013 of \$25 were collected by Felicia from several members in attendance.

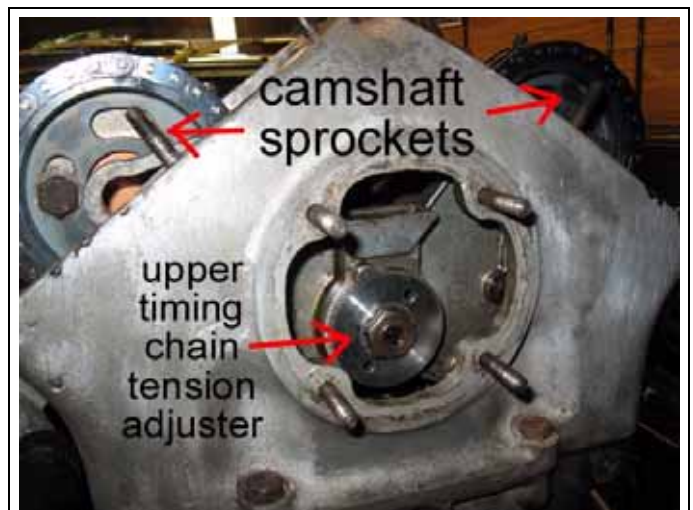
Newsletter Editor Bill Unger asked that all officers' submissions and articles of interest be submitted ASAP for the newsletter to be issued next week.

Meeting adjourned at 7:30pm.

Overhead Camshafts (cont.)

Int	Clearance		Diff	Shim Thickness	
	Correct	Current	+ / -	Current	Correct
1	0.004	0.004	0.000	0.091	0.091
2	0.004	0.006	0.002	0.102	0.104
3	0.004	0.003	-0.001	0.102	0.101
4	0.004	0.003	-0.001	0.103	0.102
5	0.004	0.004	0.000	0.103	0.103
6	0.004	0.006	0.002	0.099	0.101
Exh	Correct	Current	+ / -	Current	Correct
1	0.006	0.005	-0.001	0.085	0.084
2	0.006	0.007	0.001	0.086	0.087
3	0.006	0.003	-0.003	0.091	0.088
4	0.006	0.005	-0.001	0.088	0.087
5	0.006	0.003	-0.003	0.088	0.085
6	0.006	0.003	-0.003	0.085	0.082

Once all valve tappet clearances have been recorded, and with car still in gear, roll car back to its original position with timing mark exactly at forward piston TDC position. Set handbrake and do not rotate engine again until all work is done and camshafts are reinstalled.



Unbolt camshaft sprockets (place rags around sprockets to prevent dropping small parts into timing chest like I did). Remove front breather cover, loosen upper timing chain tension adjuster plate nut, and slacken chain. Slip sprocket off of end of camshaft and slide to side, but keep chains attached to sprocket.(see Overhead Camshafts next page)

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Overhead Camshafts (cont.)



Gradually slacken and remove top camshaft bearing cap nuts evenly to prevent uneven stress on cams (place rags in oil returns to prevent losing small parts inside). If bearing caps do not loosen upwardly as nuts are removed, then tap lightly on side with wooden mallet or end of a hammer handle. (Note that bearing caps should have numbers stamped on them to correspond with numbers stamped into head for correct replacement. If not, use marker to give your own numbers.) Set aside nuts, washers, bearing caps (bearing shells still in place). Lift off camshafts and be sure that you know which is intake and which is exhaust cam.



Examine camshaft bearings for scores and burrs. If OK, then reuse them. If bad, then plan on purchasing a new set ... not expensive.

Examine camshaft bearing surfaces and lobes. If bad wear or damage (unlikely if you

use oil in your engine), then you may have to purchase a new cam ... expensive.

Since I was working on the valves without removing the head, I needed to prevent the valves from dropping down into cylinders once spring retainers and valve keepers were removed. I was not successful at maintaining air pressure within the cylinders with my home made device. So as I worked on each cylinder for the following steps, I stuffed a small diameter rope down the spark plug hole while the piston was down and then rotated the engine to bring the piston up and retain the valves. Wipe that smirk off your face ... this was suggested to me by a professional Jaguar mechanic! And, yes, I had to rotate the engine by rolling the car back and forth but made sure that I returned to the original forward cylinder TDC position for the final camshaft alignment.



Remove tappets with magnet or suction cup and install spring compressor. With compressor depressed, retrieve two valve keepers from inside spring retainer with magnet or forceps, whichever works. Release compressor and lift out springs and retainer. Check for broken springs.

(see **Overhead Camshafts** next page)

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Overhead Camshafts (cont.)



Retrieve valve clearance adjustment shim from inside tappet. Look for etching on shim indicating thickness, otherwise measure with digital caliper and record on your chart.



Compare current shim thickness to correct clearance in order to determine what new shim is needed. Standard Jaguar XK shims are available from 0.085"-0.110" in 0.001" increments (designated A to Z for each

increase of 0.001"). Some suppliers offer over and under sizes.



Replace intake valve seal by reaching down into tappet guide well with a pick, hook lip of old seal, and lift out. Place new seal over valve stem and press into place with length of rubber hose until it "pops" over valve seal retention groove.



Reinstall springs and retainer, compress springs, slip valve keepers into place until locked around valve stem when compressor is released. Place "correct" shim (determined on your chart) on top of retainer and slip tappet back into guide and over valve assembly. (see **Overhead Camshafts** next page)

But I've Been a Fan of WD-40 Since Forever!

submitted by Bob Puttbach

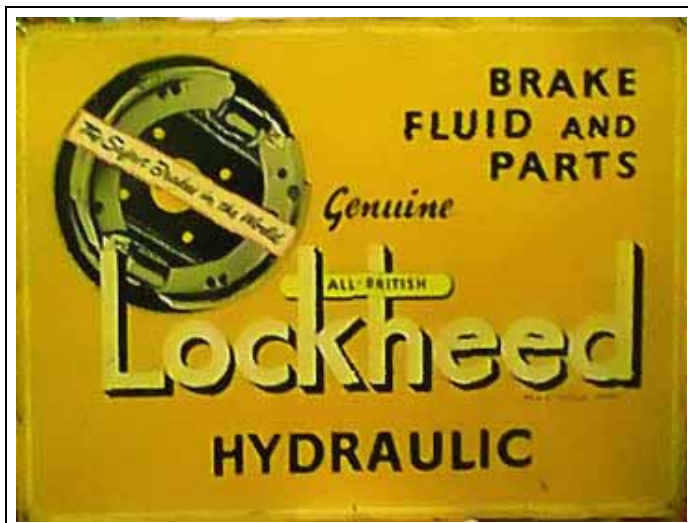
Here is an interesting article submitted to the Military Vehicle Club newsletter by Bob Muller about penetrating oils.

Recently, "Machinist Workshop Magazine" did a test on penetrating oils. Using nuts and bolts that they 'scientifically rusted' to a uniform degree by soaking in salt water, they then tested the break-out torque required to loosen the nuts. They treated the nuts with a variety of penetrants and measured the torque required to loosen them.

These are the results of their tests:

elbow grease only	516 lb-ft
WD-40	238 lb-ft
PB Blaster	214 lb-ft
Liquid Wrench	127 lb-ft
Kano Kroil	106 lb-ft
ATF/acetone 50/50 mix	50 lb-ft

This last "shop brew" of 50% automatic transmission fluid and 50% acetone appears to beat out the commercially prepared products costing far more!



Overhead Camshafts (cont.)

As they say, "refitting and reassembly is the reverse of removal".

Install new cam bearing shells (if replacing) and place camshafts in position using your special tool to properly align. Slip bearing caps over studs with lock washers and nuts (use Lock-Tite blue). Finger tighten nuts on "down" end of cam then press down on "up" end of cam to finger tighten remaining nuts. Finish tightening nuts with torque wrench.



Refasten sprocket onto end of camshaft (use Lock-Tite red) assuring cam alignment with ignition timing mark pointing exactly at TDC on crankshaft pulley and ignition rotor pointing at forward cylinder position!

Adjust upper chain tension, tighten adjuster plate, reinstall front breather cover and camshaft covers with new gaskets. Done!



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Whole Cars For Sale

1978 MGB (photos below). Real good condition. Come see it .. best offer takes it home. Contact Rick Chandler at (843) 340-1017



1977 MGB V-8 Conversion (photos below) Former GSBCC member Len Gwilliam suffered a severe stroke, and his wife Hildy is trying to sell his project car. It has a Range Rover aluminum 315 ci V-8, Mustang 5 spd manual transmission, British Racing Green with black and grey interior. \$7500 OBO. Call their mechanic Charlie Smith in Murrells Inlet at tel. (843) 457-9469 to see. Additional info and pics myrtlebeach.craigslist.org/cto/3322879132.html.



1975 MGB Silver Anniversary Edition for sale. John Twist rebuilt engine & interior, body panels 100% disassembled, refurbished, repainted, dual carb & cam conversion, stereo, XM radio, app. 113,000 miles. Average selling price approx. \$5k-6k. Will accept any offers in price range. Car must sell. Contact Dennis Pieschke at dpieschke@hotmail.com for pics.

Whole Cars For Sale (cont. next page)

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Whole Cars For Sale (cont.)

1974 MGB Chrome Bumper (photo below). Last year for the chrome bumper, this car is in very good condition and was on the cover of Hemmings Sports and Exotic 2 years ago. Carbs recently rebuilt, electronic ignition, engine recently professionally tuned-up. I've owned the car for approx. 7 years and has been an award winner. Asking \$5500. Gary Clifford rooney1360@gmail.com
home phone: 843-314-3513 cell: 518-810-7578.



1953 MG TD (photos below). Real solid car! Check out any time. Rick Chandler (843) 340-1017 or rac1219@yahoo.com. Asking \$22k.



1976 Land Rover for sale or trade. Mostly restored, mechanically sound, V8, right hand steering, soft top, 4x4 plus granny gear. Origin South Africa. Truly an ATV! \$2800. Contact Jim Smith at tel. (843) 907-0178 or Casper1@sccoast.net.

Bits 'n' Pieces

For Sale Bullet Style Mirrors \$60.00 for the pair new in box. Contact Jim Hendrix at (843) 902-0491.

For Sale Late TR3 / Early TR4 Parts

New 2 each ball joint assemblies with nut & boot part # 200772 \$44 ea; new 4 each trans synchro rings part # 1X113431 ABOOIF9 \$41.60 set; new Lockheed rear brake hose part # GBH122 \$16; new Timken front bearing kit part # 07100-S, 7210X, 99401, 0393 \$80; used UNI-SYN Mod-A \$20; used SU Carb German Tuning Tool Set part # 885094 \$20; used very good condition chrome interior door handle part #608454 \$20; used good condition Jaeger 0-120 mph speedo with glass & chrome trim ring \$75. Contact Ron at rpc5@sc.rr.com.

Wanted Water Pump for 1976 MGB

Contact Tim Roper at tel. (865) 765-8171 or tim.ropermail@gmail.com.

For Sale or Trade 1973 MG Midget Engine Contact Jim Smith for info at (843) 907-0178 or Casper1@sccoast.net.

Not British For Sale

2002 Mercedes Benz E320 for sale. Just turned 120K miles. Clean, well cared for, have all maintenance records, garage kept. White w/blue leather, sunroof. \$10,000. Call Bob Sachs at tel (843) 450-2577

Club Stuff For Sale

by Jim Smith, Club Regalia Chair

Remember that when you purchase any club paraphernalia, the price not only pays for the cost of the item, but any profits will benefit you by helping to offset GSBCC sponsored event expenses. Won't you please give? And give often? Okay, so here are your choices:

T-Shirts Silkscreened

\$15 (2 for \$25)

Sweat Shirts Embroidered

\$20



These shirts are top quality USA made Guildan, preshrunk, cool 100% cotton, with a large GSBCC logo on the back and a small GSBCC logo above the left breast pocket.

sizes: Small, Medium, Large, X to XXX Large

T-shirt color: white, black, beige

Sweat Shirt color: Morris Garages gray

More Really Cool Stuff

Can Coozies \$3, Bottle Coozies \$5

Car Plates \$10

Driving Caps

\$15

Traditional ball cap style which you wear on your head (forwards or backwards) to look "way cool" and to announce your car club affiliation with the GSBCC logo embroidered above the bill. Only one size but adjustable.

cap colors: British Racing green, Coventry blue, Morris Garages light gray
(all with black bill)

Stickers FREE!

(with shirt or cap purchase)



No, they don't cost a quarter, but it gives you an idea of the size. And get both logos on each sheet. They peel off to apply on the inside of your vehicle's glass without any wetting or other adhesives. But do they ever stick ... even through repeated cleanings! Cheap enough to go in all of the windows of your Lexus, Sea Ray, lake cabin, china hutch!

Don't Wait .. Act Now!

There may be a limited selection with the most popular items, but I will have all of these items available at all club meetings and events. So purchase them then or give me a call to make other arrangements.



Membership Application

New _____ Renewal _____

Member Name _____

Spouse or Friend _____

Address _____

City, State, Zip Code _____

Home Phone: _____ Cell Phone: _____

Email Address: _____

If no email address notifications will be by snail mail

Car Information for Membership Directory

	<u>Year</u>	<u>Make/Model</u>		<u>Year</u>	<u>Make/Model</u>
1.	_____	_____	3.	_____	_____
2.	_____	_____	4.	_____	_____

MEMBERSHIP DUES \$25.00 annually (January to January)

New members joining after October 1st will be credited for the following year

I give my permission to list my phone and Email address in the membership directory to be accessible to members only. YES___ NO___

I agree to allow GSBCC to publish my photo(s) in print or electronic media including the GSBCC website and facebook page. YES___ NO___

As a member of GSBCC, I agree to hold GSBCC, its Board of Directors, Officers, and organizers of events free from all liability for any accident or injury which may occur in connection with club events

Signature _____ AMOUNT ENCLOSED _____

Date: ____/____/20__

Please make your check payable to: **Grand Strand British Car Club**
And mail to: 1413 Highway 17 South, Unit #193, Surfside Beach, SC 29575
Visit us on Face Book or Contact Jim Hendricks, President at 843-902-0491

Join the GSBCC Today!