



The Rio Grande Redline



BMW CCA New Mexico Chapter

www.nmbmwcca.org

CONVERTIBLE TOP MAINTENANCE

With the warmer weather of spring already upon us, those of us with convertible tops have undoubtedly already experienced a day or two of top down enjoyment. This month's article provides some helpful tips for lubricating the E36 and E46 convertible top mechanism in order to maintain proper operation. It was originally posted by Don Eilenberger and appeared on the www.m3forum.net website on July 9, 2006.

The goal of this exercise is noise reduction, along with making the top work with as little effort on the mechanism as possible. As the tops get old - the pivot points, which were greased at the factory - start to dry up, and this makes it harder for the motors to open/close the top. Eventually - this causes wear and failure of the motors and drive units, which gets expensive. A properly lubricated convertible top should open/close in under 30 seconds (mine takes about 22 seconds) - so you can do it at the average traffic light. But we also want to get rid of the creaking noises from the top - and that requires some selective lubrication of the top seals and mating parts.

General rules:

- If it's rubber to rubber and one side has a fuzzy finish on it (flock) - you want it CLEAN and no lubricant on it.
- If it's rubber to rubber and both sides are smooth - it needs some lubrication.
- If it's rubber to glass or plastic or metal - and the rubber has fuzz on it - it should be CLEAN and not lubed.
- If it's rubber to glass/plastic/metal - and the rubber is smooth (more common on the E36) - it should be lubed.
- If it's metal to metal and it moves - it should be lubed.

Lubes I use:

- All rubber parts - BMW's GummiPhlege - which is NLA. A good substitute is a silicone grease (which is what GummiPhlege is). Dow Corning makes these for lots of purposes - I've used Dow Corning Silicone High-Vacuum Grease - a bit thicker than GummiPhlege, but works fine for this purpose. Silicone grease is not a good metal to metal grease - it is a good rubber to anything else grease and it protects the rubber from oxidation (due to ozone in the air.)

All metal pivot points - either a good lithium based grease (good for any sliding contact), or a decent synthetic motor oil (doesn't matter what kind or viscosity.. I use what I have around..)

How to lube:

- To get access to all the top pivot points and spots that need lubrication, you'll need to partly lower the top, and move it to different positions. On the E46 this can be done on battery power alone, on the E36 - I'd suggest starting the engine to do it - it draws a lot of current and doing it repeatedly will end up with a discharged battery.
- Applying the lithium based grease - usually this grease comes in a spray can with the little red tube that disappears into the darkest corner of your garage. The trick in using it - don't overspray on something that isn't supposed to get grease on it (like the top - inside or out.) Use old towels BEHIND whatever you're spraying if there is ANY chance of overspray getting on something you don't want.
- Applying the motor oil - small drips of oil on pivot points works well. I use a small screwdriver dipped in the oil to carry a few drops to the point to be lubed. I then touch the tip of the screwdriver to the pivot in question and the oil is sucked off (capillary action) into the joint. AGAIN - put old towels under the pivot points if there is any chance of oil dripping on some of the fabric of the top. Silicone grease - a fingertip is good. Gummiphlege comes with a built in foam applicator.. In my experience, it puts too much of the grease on the rubber surfaces. I'd rather squirt a bit on a fingertip and use my finger to get it exactly where I want it to go..

I'll first show an example of a pivot point (and follow that with a few more..) These are the spots where the top frame folds. If these are allowed to dry up, they will get noisy and stiff. The stiffness isn't good



UNDER THE HOOD

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Remember to check our web site for periodic updates: www.nmbmwcca.org

President's Message

by Jon van Arsdel

April 2009

I hope everyone is having a good Spring so far. The projections I have seen are calling for a rather windy and sandy season this year. Allergy sufferers will be delighted.

Spring is also known for "Spring Cleaning". Your BMW is awaiting your attention; don't let it be disappointed.

Tech tip #362: After this year's "sandy season", look at the windshield and headlight lenses on your BMW. Are they starting to look sandblasted? Your comprehensive insurance should help pay for replacements. When driving into the sun, a sandblasted windshield is a definite safety hazard.

This past quarter, we had three tech sessions.

The January 13th tech session was at Sandía BMW. Service Director Jeff Cline was the host, along with some of his excellent technical staff. The stars of the tech session were the new BMW Diesels. On display were a 3-Series sedan and an X5. Many of us had the privilege of driving the new Diesels. I was absolutely stunned by the performance. The new engines are quiet, smooth, clean, powerful, and economical. Now if only BMW could offer them with a manual transmission.....

The February 12th tech session was at Southwest Collision Craftsmen. Owner Manny Córdova was the host, at his BMW-certified body shop. Manny must have been in an "explosive" mood that day. He and his crew demonstrated airbags and seat belt tensioners in action. The pyrotechnic explosions were rather loud and dramatic (these are supposed to enhance safety?). He also demonstrated metal failures, using both bonded and welded joints. The safety technology in modern BMW's is absolutely amazing.

The March 17th tech session was at The Tint and Trim Factory. This proved to be a very popular event a few years ago. Owner Shawn Windecker was ill (with the "virus from h%ll" that seems to infected a lot of us here in Albuquerque). Abel García, the General Manager conducted the tech session. Abel and his crew demonstrated window tinting and clear front-end protection. They use strictly top-of-the-line materials from 3M. This event was originally scheduled for December 2008, but was postponed due to snow and a leaky roof.

Next quarter will be busy for BMW enthusiasts. You will have your choice of three tours, a car show with barbecue, and a tech session.

April 4th (Saturday). Daniel Flegel will be leading a tour to the Trinity Site at White Sands. This is the location of the first atomic bomb test, and is historically very significant. Dan is inviting all interested BMW enthusiasts to join him. He will be departing from Sandía BMW (6001 Pan American in Albuquerque) at 8:00 a.m. Legal identification with photo is required to enter the site. For more information, contact Dan at 505-610-1689 (cell). This is not an official BMW CCA tour.

April 17-19th (Friday through Sunday). The Sonora Chapter (Arizona) of the BMW CCA will be hosting a tour in Silver City, Pinos Altos, and the Gila Dwellings. Events begin Saturday in Silver City at 10:00 a.m. Patty Peth (Sonora) is the event organizer. Contact Patty at grubdogg@aol.com for further details.

April 26th (Sunday). Sandía BMW (6001 Pan American Fwy., NE in Albuquerque) will host the annual Clean Car Show and Barbecue. The event will open at 9:00 a.m., and will be open to all BMW, Mini, and BMW Motorcycle enthusiasts. Car judging will begin after 10:00, and the barbecue will be after 11:00. The event will end around 2:00 p.m. Sandía Service Director Jeff Cline will be the coordinator. For more information, contact me (Jon van Arsdel) at 505-867-4135 or Bob Kauffman at 505-710-9083.

May 9-10th (Saturday-Sunday). The Mothers' Day tour will be an overnighter in Ruidoso, at the beautiful Inn of the Mountain Gods. The tour route will be through the mountains and several scenic villages. Henry (Phil) Márquez will be the Tourmeister for this event. He has negotiated a room rate of \$119 per room for club members. For reservations and more information, contact Phil at 505-869-6980 or patomanhpm@netscape.net.

We are planning a tech session in June at Santa Fé BMW with Andy Caperones. Details on this event are still being worked out.

As is our normal custom, food is included in the tech session and car show.

Tech tip #363: If your front suspension is starting to be a bit loose, you may want to check your bushings. These are donut-shaped rubber pieces attached between the front control arm and the frame of your BMW. They flex each time your suspension moves. Therefore they get weak, and wear out as time and mileage increases on your car. These are "sacrifice parts", and therefore not terribly expensive.

The New Mexico chapter of the BMW CCA is always looking for event leaders, and also officers for the board of directors. If you are interested, please notify someone on the current BoD.

As always, watch your email for changes and updates to the events. You can also check www.nmbmwcca.org for additional information.

I hope to see each of you soon!

Jon van Arsdel
el Presidente
BMW CCA of NM

Redline

NMBMWCCA.ORG

since that means the mechanism requires more force to open/close. The bottom one is one of the primary fold points - it's lives above the front doors..You want OIL on this - and any pivot point that looks like it. Look for where the metal to metal moving contact is - that's where the oil should go. The one in the right corner of the photo is a combined sliding/pivot point. Some lithium based grease would be good worked INTO the joint.

This next photo shows three different lubrication needs. There is a pivot point that needs oil used on it - and on an E36 - the rubber to rubber at this sort of joint needs silicone grease on the rubber contact surfaces. A very light film is best (doesn't attract dirt so badly.) On the E46 - the rubber surface on the left has fuzz (flock) on it - so NO grease is used on this rubber to rubber contact. You might also notice a U shaped metal piece on the left and a corresponding pin that it locks to on the right - this should get a very thin coating of the lithium grease. The pivot point for the U shaped piece should get a drop of the motor oil. Three different lubrication challenges in the space of about 2"



Here we have the front edge of the top - with multiple lube opportunities My finger is pointing to a pin (on an E46 top - the E36 is similar) - which should be lubed with a bit of silicone grease (it has a rubber

noise buffer on it - an O ring - and silicone will help this last.) There is also the locking latch just to the right - the inside part of the hook (the silver piece) should have a bit of lithium grease and the pivot point for the hook should get a bit of lithium grease also. Finally - there is the front edge seal - the black rubber going across the entire width of the front edge. This should get a very thin coating of silicone grease (best put on with fingertips IMHO.) Notice to the right of the latch mechanism - there is a black pin (not too easy to see - but look for the slight tear in the rubber seal) - this should get a bit of lithium grease... applied with a fingertip.

The front "header" seal also should get some attention. On the E36 - this should be lubed with a bit of silicone grease (fingertip application is good..) On the E46 - since the seal shown in the last photo "mates" to this one, and we already lubed it - it doesn't need any additional lubrication. Note the round part on the left (and one on the right) end of the seal. This is a primary water seal that keeps water from dripping down inside the car. This should get a very light coating of silicone grease (you should barely be able to see it) to help it seal well. On the E36 - the design is a bit different, but the same idea applies - a bit of silicone grease here helps it seat properly and helps eliminate the annoying drips on your left knee.. Here is another photo of the front top seal - it should be

| Welcome Our New Members! | | |
|--------------------------|------|-------|
| DONAL MACINNES | 2006 | X3 |
| YVES-ROBERT MANUEL | | |
| BARBARA MOORE | 2009 | X5 |
| ROBERT MULLAN | 1986 | 325is |
| DAVID PENA | 1985 | 535i |
| JASON ARMENDARIZ | | |
| FERNANDO BACA | 2000 | M5 |
| DALE HARRISON | | |
| RANDEE KAISER | 2009 | 335i |
| LEONARD TRUJILLO | 2002 | 325xi |
| MICHAEL CUGINI | 2004 | 330xi |
| MICHAEL LUCERO | 1999 | 528it |
| JAMES OVERTON | 2000 | 525i |
| JERRY SHELTON | 2009 | X5 |
| SUE VAN CLEVE | 2005 | 330i |

easy to see the different lube points. Two things to note: The shiny part of the seal at the bottom of the photo - should get a coating of silicone grease... and just to the right of that (not too easy to see in the photo, but very obvious in real life) - there is a the round end of the long window seal that mates with the round seal shown in the prior photo. This should get a thin layer of silicone grease.

Here is another photo of the front top seal - it should be easy to see the different lube points.. This photo shows the top-rear track. This is the track that the rear edge of the top sits in when the top is up. On the E46 - the rubber seal that mates with this track has fuzz on it - so NO lubrication is used. It helps keep it quiet if the track is clean and polished. I wax mine with Zaino when I do the car. On the E36 - the rubber seal that sits here is not flocked, and is a primary cause of NOISE and squeaks if it isn't kept lubricated. I used to lube this seal using the rubber pad on the GummiPhlege tube. A thin but noticeable coating is good.



Finally we have the tonneau lid (the folding cover for the top..) There are several important points to lube on this (and they differ very slightly on the E46 to E36 - but are close enough the E36 people will get the idea..) The forward edge has the latch points

NM BMW CCA CHAPTER FINANCIAL STATEMENT-2008

| BALANCE SHEET | | | |
|---|--|----------------------------|--------------------------|
| | | Current Year Ending | Prior Year Ending |
| | | 12/31/2008 | 12/31/2007 |
| <u>ASSETS</u> | | | |
| Cash in bank accounts | | \$4,281.06 | \$5,266.68 |
| Total assets | | \$4,281.06 | \$5,266.68 |
| <u>LIABILITIES & EQUITY</u> | | | |
| Accounts payable | | \$0.00 | \$0.00 |
| Other: | | \$0.00 | \$0.00 |
| Equity/retained earnings | | \$0.00 | \$0.00 |
| Total liabilities and equity | | \$0.00 | \$0.00 |
| INCOME STATEMENT | | | |
| | | Current Year Ending | Prior Year Ending |
| | | 12/31/2008 | 12/31/2007 |
| <u>INCOME</u> | | | |
| Membership dues | | \$5,606.35 | \$5,416.68 |
| Rebates from National | | \$601.12 | \$589.36 |
| Misc./other (list below) | | \$200.00 | \$300.00 |
| Total income | | \$6,407.47 | \$6,306.04 |
| <u>EXPENSES</u> | | | |
| Newsletter costs | | \$1,614.43 | \$1,174.03 |
| Postage | | \$1,733.60 | \$1,469.92 |
| Insurance | | \$150.00 | \$0.00 |
| Meeting expenses | | \$3,355.52 | \$2,730.91 |
| Misc./other (list below) | | \$539.54 | \$342.49 |
| Total expenses | | \$7,393.09 | \$5,717.35 |
| <i>Net income (loss)</i> | | -\$985.62 | \$588.69 |
| <u>MISC./OTHER</u> | | | |
| | | Current Year Ending | Prior Year Ending |
| | | 12/31/2008 | 12/31/2007 |
| Misc./other income: | | | |
| Dieter & Jacque Fox Donation | | \$200.00 | \$300.00 |
| Total misc/other income | | \$200.00 | \$300.00 |
| Misc./other expenses: | | | |
| Checking Acct Fees | | \$38.46 | \$38.52 |
| P.O. Box | | \$177.00 | \$92.00 |
| Plaques | | \$224.13 | \$112.02 |
| Internet Provider | | \$99.95 | \$99.95 |
| Total misc./other expenses | | \$539.54 | \$342.49 |
| CHAPTER: New Mexico | | | |
| PREPARED BY: David Penasa, Treasurer | | | |
| DATE SUBMITTED: 2/1/2009 | | | |
| Fed ID Number: 71-1024146 | | | |

CLASSIFIEDS

Classified ads are free for NMBMWCCA Chapter members. Only BMW cars, parts, aftermarket add-ons will be published. All ads will run in one issue and will be removed unless a request is made to run the ad again. Member number must be included in all submissions. Please submit all ads to: webmaster@nmbmwcca.org subject: *Classifieds*. Ads may be edited due to space limitations. There is also the free classifieds section on the chapter website for you to use.

The following cars and/or parts were listed on the Club's website as of April 4, 2009:
2002 BMWv525iT, Continental OEM Tires for E46 M3, E30 Wheels - Borbet Type-T
Check the Club's Website at: www.nmbmwcca.org for current availability

and some rubber seals. The latch assembly should get lubricated with a lithium grease wherever moving metal touches metal. Specifically - in this photo (the silver part) - the pin in the latch should get a nice coating of grease (thin, but noticeable) The rubber points should all get a fingertip coating of silicone grease.

This photo shows LOTS of lubrication opportunities. At the very bottom is the rubber seal on the body of the car that seals the tonneau cover when it's closed. This should get a very thin coating of the silicone grease. At the top center - you see the rubber seal for the front edge of the tonneau cover to the inside of the car - on the E46 this has fuzz - so no lube necessary. On the E36 (from memory) - it is bare rubber - so some silicone lube is a GOOD thing. You



can also see some of the primary pivot points for the top bows (left bottom) - these should each get a drop of motor oil at the point where moving metal touches metal. Some of them are down inside the car a bit - but they can be reached easily from above.

Found one more. This one shows the seal on the leading edge of the top and my finger is pointing to the part that should get lubed. It follows the general rule - if there is bare rubber to bare rubber contact - silicone grease.



Rev it Up! - Calendar of Events

April 4th (Sat). Tour to the Trinity Site at White Sands. This is the location of the first atomic bomb test. We will be departing from Sandía BMW (6001 Pan American in Albuquerque) at 8:00 a.m.



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May 9-10th (Sat-Sun). The Mothers' Day overnight tour to Ruidoso at the beautiful Inn of the Mountain Gods. The tour route will be through the mountains and several scenic villages. See the "President's Message" on page 2 for more details.

June 2009. Date to be determined - Tech session at Santa Fe BMW.

July 2009. Membership meeting.

Redline

Having a hard time finding a part for your vintage BMW?

The following information was extracted from the Bavarian Autosports Winter 2008—2009 newsletter "Fast Times."

You've always been able to get any part you need through our friendly phone reps. Now you can get everything online, too. We recently added the entire BMW and MINI parts lists – more than 150,000 part numbers – to our web site's database. (The only parts we didn't include are those that are too difficult to ship, such as complete engines and windshields.) Need to replace a leaking power steering line that nobody seems to have? You can find it on our web site – www.BavAuto.com. All you have to do is enter the part's 11-digit BMW or MINI part number into the search box (above). We'll tell you how much it costs and let you order it right then and there. So even when we're not here to answer the phones, you can get all the parts you need from Bavarian Autosport – your one-stop BMW store.

WEB LINKS FOR THIS ISSUE

<http://www.m3forum.net/m3forum/showthread.php?t=121097>

https://www.bavauto.com/ewsletter/2009_n109_newsletter.pdf#page=1

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