

Hoosier BMW Car Club Inc.

P.O. Box 20775 • Indianapolis, IN 46220-0775

Hey, New Members, You are Invited to a Picnic and Classic Car Show on Saturday, September 24th.

Come join us for this year's annual Hoosier Chapter New Member Picnic! This year we are adding a Vintage/Classic BMW Car Show. Get your pre-1992 Bimmer shined up, or at least washed, and bring it out to be ogled and admired, and maybe even win a prize.

This is a great opportunity to get to know some new friends and see a bunch of very cool cars.

The picnic and car show is being held at the shelter at Lily Lake in Eagle Creek Park, on Indy's northwest side. Members who joined since last October will be honored guests, but all Hoosier Club

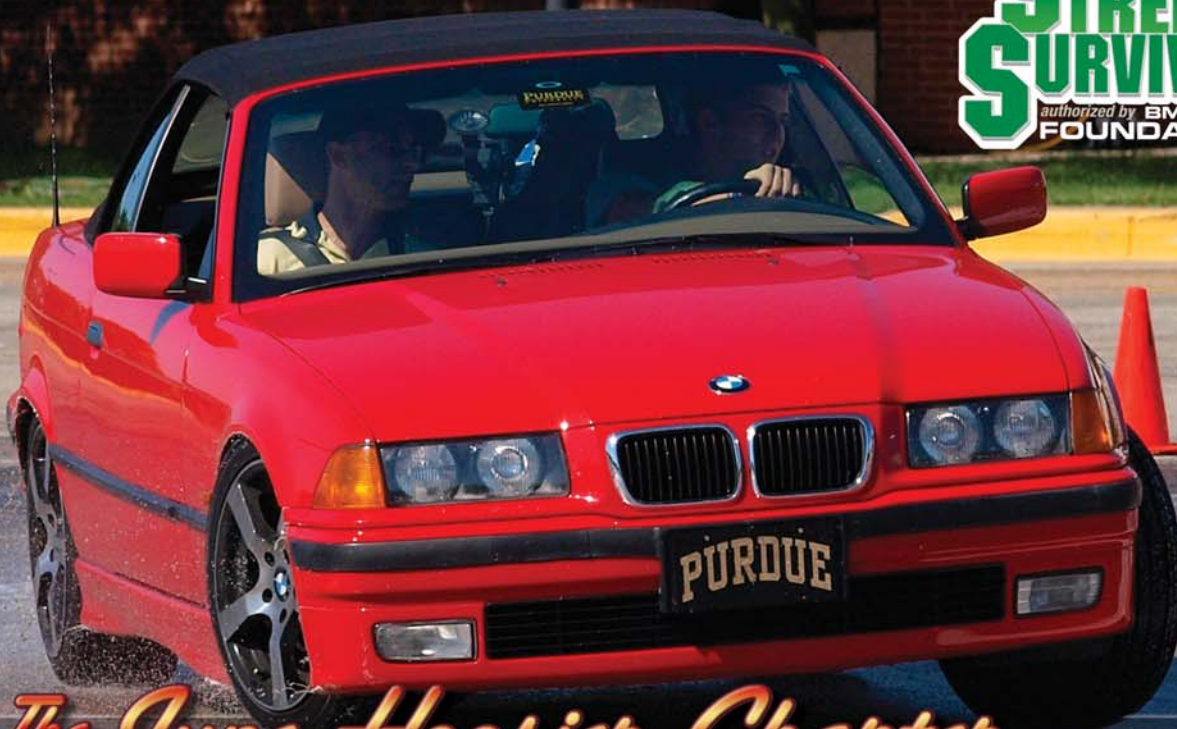
members are invited. Long-standing members must bring a side dish or dessert. New members just bring yourself. Note: no alcoholic beverages are allowed in the park. The only cost is the \$5 to get into the park. Lunch will be from 11:30 a.m. to 1:00 p.m. There will be door prizes for all the new members.



Check out the latest event details at:
www.hoosierbmw.com

Newsletter of the Hoosier BMW Car Club, Inc.

HOOSIER TRACKS



The June Hoosier Chapter Tire Rack Street Survival By Ben Younce

In June, your Hoosier Chapter organized a *Tire Rack Street Survival* event at North Central High School in Indianapolis; and through the efforts of our many volunteers, driving coaches and sponsors, we were able to teach *Tire Rack Street Survival* safe-driving principles to over 20 young Indiana drivers. During our event, the students received classroom instruction and also maneuvered their cars through several driving exercises laid out in a closed parking lot. The program allows students to experience each exercise element several times in order to learn from their mistakes and to improve driving skills. *Tire Rack Street Survival* is unique in that it offers students instruction in their own cars so that they learn the limitations of the car they drive daily.

During the midpoint of the day, students had an opportunity to talk with a professional truck driver about the importance of safe driving distances and courteous behavior when sharing

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the road with the big rigs. Students were invited to sit behind the wheel and experience firsthand exactly what a truck driver sees and doesn't see when motoring down the highway. In a separate demonstration, an airbag was activated with a traffic cone placed on top so students could see and hear the powerful force of an exploding airbag at work. This demonstration was an important reminder to the students that airbags and safety belts do save lives, but only when used together and every time you get behind the wheel.

The Hoosier BMW Club would like to thank all the volunteers that helped, along with a big thanks to event sponsors Dreyer & Reinbold BMW Indianapolis and Liberty Mutual Insurance for again helping us put on this event.

Simply put, the Tire Rack Street Survival program saves lives. If you have a young driver in your family, please consider helping them by signing them up for a future driving event in the Indianapolis area or in their home state. More information on the program and a list of available schools can be found at streetsurvival.org.

PRESIDENT'S CORNER

By Jerry Reamer

Chapter President/Hoosier BMW CCA

Well, the wet spring gave way to blistering heat and drought, only to find your very own Hoosier Chapter on the road enjoying fellowship and their cars. In this edition of Hoosier Tracks, you will find a very entertaining write-up of our Tail of the Dragon adventure, hosted by long time auto tour organizers, Rick and Nancy Oldham. They always do an excellent job of finding destinations for us to explore.

North Central High School was the site of our Tire Rack Street Survival School in June. Numerous volunteers came together to host what many felt was our best effort to date. New event coordinators, Lyndsay and Ben Younce, climbed a steep learning curve to excel in their first attempt. Andy Simonson reprised his role as Chief Instructor with his highly effective laid-back style. Special thanks to Bill Wade, National Program Manager, for taking time out of his schedule to come and support the event.



For the first time, our scheduled autocross was cancelled due to inclement weather. The morning had been very rainy and those who assembled decided that the threat of rain and a very slick parking lot were not worth the effort. Thanks to Chris Dunlap who organized the event and Rick Schue who hauled about a ton of orange cones to the event in his trusty BMW support van.

Unfortunately, this is the only date we were able to secure this year. We are always looking for sites suitable for hosting autocrosses so if you know of a few acres of unobstructed pavement, please let me know.

July found us assembled around highly polished Bavarian engineering for a Show and Shine. We had a new people's choice winner this year; see the write-up to see who won! Thanks to Tami Reamer for preparing dinner for all who attended.

Also in July, Diamond Collision hosted an incredible tech session with multiple auto repair demonstrations. Many thanks to Allen and Debbie Moore for opening their shop on a Saturday and sharing inside auto repair secrets.

Please see the our calendar section included herein and on our web site for upcoming events. We are in the process of planning some new and old favorite get-togethers in the following months.

Show & Shine

By Jerry Reamer

On July 9, the home of Jerry and Tami Reamer was the site of our second occasional Show and Shine. An array of BMW's best were displayed on the green grass. Series represented included 3, 5, 6 and 8, with 2 X3s, from 1985 to 2010. A vote of all in attendance awarded the Hoosier Chapter People's Choice award to a stunning E90 M3 convertible owned by Joe and Linda Calvin. Tami cooked Mexican-style food and members swam, played euchre, corn hole, and admired all the exquisite BMWs that left scorched grass patterns of exhaust systems.



CALENDAR OF UPCOMING EVENTS

September

- 7th** Membership meeting at Brickyard Crossing. 6:30 p.m.
- 10th** Carmel Artomobilia. We will have a BMW Club Corral from 12-5 p.m.
- 15-18th** Join BMW CCA for "The Grand Tour," a weekend getaway which samples the best the Midwest has to offer. Please visit bmwcca.org/the-grandtour for the most up-to-date information.
- 17th** Griot's Garage Open House, 9:00 - 5:00
*Check website for details
- 21th** Social meet at Brockway (Carmel). 6:00 p.m.
- 24th** New Member Picnic/Vintage Car Show.
*Check website for details.

October

- 5th** Membership meeting at at Dreyer & Reinbold South, 6:30 p.m.
- 8th** Ohio River Tour. Mert Zorlu reprises his highly popular fall drive. *Check the web site for details
- 19th** Social meet at Brockway (Carmel). 6:00 p.m.

November

- 2nd** Membership meeting at Brickyard Crossing. 6:30 p.m. Speaker for this meeting is Lori Dunlap, Deputy Director Indiana Stadium and Convention Building Authority.
- 16th** Social meet at Brockway (Carmel). 6:00 p.m.

*Visit www.hoosierbmw.com for updates, additions and last-minute changes.



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...The Defouw BMW Team

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Tail of the Dragon Drive

By Rick Oldham



The Hoosiers had heard the myth. The *Tail of the Dragon* lay somewhere in the foothills of the Smoky Mountains. A search party was organized and a date was set in mid-May. The mission was set: track the Dragon, find the Dragon, slay the Dragon. Rick and Nancy in the 330 coupe, Mike Lingenfelter in his M3, Jerry and Tami in a 325is, Chris and Julie in a Z3 and Julie in her Z4 all headed south.

Our first stop was at Equus Run Winery near Lexington where we met up with another wannabe-slayer in a bright red Viper. After a light lunch, on southward we went. We set up base camp in Gatlinburg TN after our day's drive.

We decided Sunday was a day for hiking a piece of the Appalachian Trail. As we met Sunday morning to drive to the top of Newfound Gap, I asked if anyone had seen or heard from Mike. Someone spoke up that Mr. Lingenfelter couldn't wait another day and had taken off just after dawn in search of the "*Tail of the Dragon*." Mike returned unscathed and told us of his adventure that evening.

Monday morning the group set forth in anticipation of the Dragon. A run through part of the Smoky Mountain National Park brought us to US129. The 11 miles and 318 turns of the Dragon were just in front of us. Up the hill, left, right, a turn back, eyes on the road, the tach pointing somewhere in the afternoon; the Dragon was upon us now. Mike was now leading the group on his familiar path. Mile after mile we twisted, climbed, lifted, braked and wound it up. I could tell the brakes were heating up. The tires spoke out in distress in some of the tightest curves but they held on well. There were no guardrails to save us from the plunging mountainside. At one point it felt as if the Dragon had shook his tail as to throw us off.

Just then, I hit a tight hairpin to the right that gave me the view that Jerry and Julie were definitely holding their own. The exhilaration was extreme, but it takes a calm attitude and the spirit of a warrior to slay a dragon. The roar of the engine and the smell of hot brakes kept up through the last dozen turns as we approached Deal's Gap.

Each of us out of the BMW's, the adrenalin still pumping. We found the tail. We came out shakin' but without a scratch. There was talk from the others at Deal's Gap of their adventure on the tail and the few that fell in the battle the day before.

After a short break, we headed for the Cherochala Skyway. We found the road to have great views, and long sweeping curves. We enjoyed our drive and looked ahead to attacking the Dragon once more.

We snuck up on the Dragon and then hit him hard. Mike went first in the M3 with Tami as his co-pilot; Jerry was right behind him with Rick and Nancy in tow. Julie saw the battle and kept a safe distance. The three generations of 3's stuck together. They appeared as if they were connected like roller-coaster cars. Exhilarating to say the least. As we ended the tail, we now understood the myth of the Dragon. Many will go in search of the Dragon, they will attack, as we and many before. We can only hope that they are prepared for what they find.



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TECH TIPS



Suspension Bump Travel & Stack-up Height



Article compiled by Tim Rolfsen.

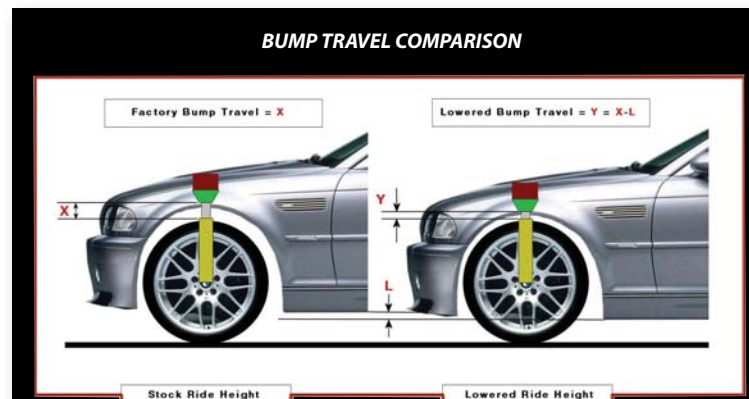
One of the most important aspects to consider when modifying your BMW's suspension is bump travel. Bump travel is basically how much vertical travel the suspension has when you hit a large bump. The more travel, the better as you want your suspension to smoothly absorb bumps. If the suspension is riding on

the bump stop, it is no longer a "suspension," rather it's a solid link. This can be very bad under most circumstances so it's best to avoid this condition as much as possible.

All of this comes into play when you put shorter springs into your BMW. For every inch you lower the car using shorter springs, you lose an equivalent amount of suspension travel. Most BMWs with off-the-shelf "lowering springs" using factory strut mounts and bump stops typically have only around 1" to 1.5" of suspension travel. Not a good situation!

So what happens when a lowered car runs out of bump travel and contacts the bump stops?

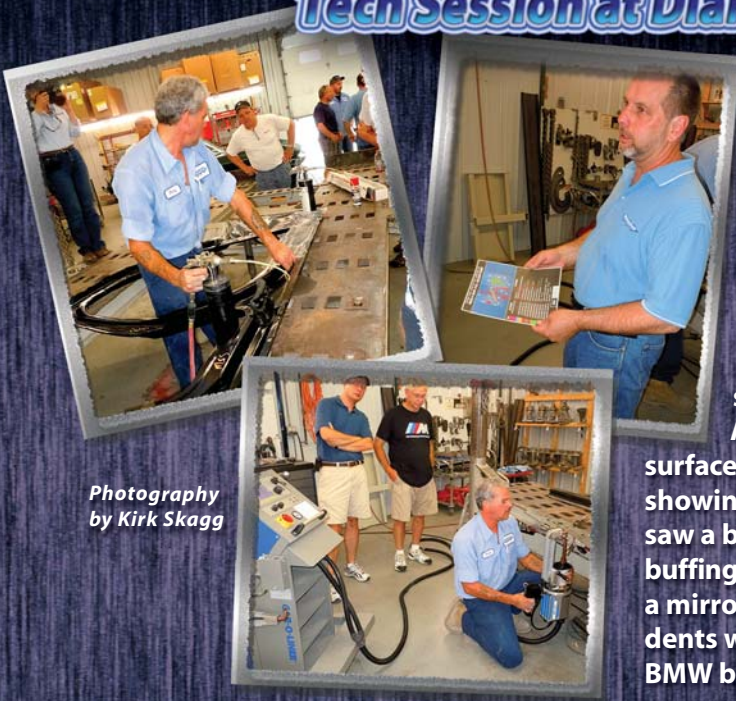
- 1.) Very rough ride characteristics.** With the reduced suspension bump travel, even small bumps will use up all of the available travel.
- 2.) Extreme steady-state understeer/oversteer.** Under hard-cornering conditions, the chassis rolls on the suspension. The outside suspension compresses, and the inside suspension rebounds. A frequent problem is that the chassis roll causes the front or rear suspension to run out of travel and contact the bump stops. If this happens in the front suspension, a severe mid-corner understeer problem will occur. If the rear suspension bottoms, a severe mid-corner oversteer will be the result.



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Tech Session at Diamond Collision

By Jerry Reamer



Photography by Kirk Skagg

In July, Allen and Debbie Moore, owners of Diamond Collision in Avon, hosted a car repair tech session. Those who attended are still talking about it weeks later. Their friendly and knowledgeable technicians guided us through five demonstrations, basically each step of the car repair process. They have two racks capable of measuring the straightness of a car frame to the millimeter. On one they had a car prepared to measure and straightened it to better than factory specification. On the second rack, they showed us joining techniques used by BMW at the factory. At this same station, they also apply wax to the metal surfaces to prevent corrosion. There was an actual demonstration showing the techniques used to paint and blend repairs. We also saw a beautiful 1998 328i in the process of being repainted. A buffing demonstration showed how to remove paint defects leaving a mirror finish. Finally, a paintless dent repair master removed dents with no residual evidence. The Moores also arranged lunch, BMW baseball caps courtesy of Bill DeFouw BMW, and door prizes.

(Tech Tips continued)

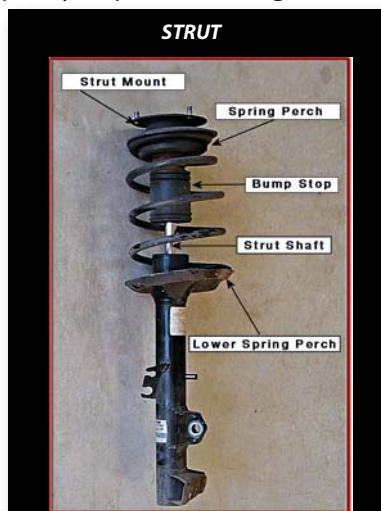
3.) Instability during abrupt direction changes. This is a pretty common problem in autocrosses. The car handles fine through steady state corners, but either oversteers or understeers through quick transitions. This problem can have many causes; one is lack of bump travel combined with soft shocks and struts. The car will corner in one direction and the chassis will roll from the cornering forces. When the driver quickly changes direction, the chassis will roll in the opposite direction and receive a 'boost' from the inside spring that is still compressed. This may temporarily put the outside suspension on the bumpstops and sometimes really wreak havoc through the slalom.

4.) A variation on number two. The car will roll on the suspension during hard cornering, but not quite to the point of contacting the bump stops. Then the slightest bump will use up the remaining bump travel and induce sudden and extreme understeer or oversteer. This type of oversteer can be particularly dangerous!

Clearly lack of bump travel can cause all kinds of issues ranging from rough ride quality to poor handling characteristics. The question is how does one fix this problem?

There are two solutions:

- 1.) Increase the Spring Rates (and possibly sway bar rates). While not increasing the amount of bump travel, the stiffer spring will help keep suspension from bottoming.
- 2.) Increase the amount of available bump travel.



We'll focus on increasing the amount of bump travel and on the front suspension since that's where the majority of the trouble is (leaving Spring Rates for a future discussion). Most production sedans are designed with ample bump travel in the rear suspension.

There are 4 popular ways to increase available bump travel.

- 1.) Raise the ride height. Since we are interested in lowering the ride height for performance reasons, we won't consider this to be an option.
- 2.) Substitute the factory upper strut mount for an alternate adjustable camber plate with a shorter stack-up height. Note that all after-market camber plates are not created equal. Vorshlag camber plates have some of the shortest stack-up heights in the BMW after-market industry.
- 3.) Substitute a shorter bump stop. Either an after-market bumpstop or trimming the factory bump stop is an option. They can cause trouble if not done carefully. **DO NOT** completely remove the bump stop! This will most likely damage the strut, shock, car and/or you!
- 4.) Substitute custom-shortened strut housing. Several companies sell shorter strut housings; done properly, this is a good option if it is designed correctly.



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IPLEXICO, BYRON

Indianapolis, IN

IPSEN, MICHAEL

Bloomington, IN

JOBE, DAVID

Connorsville, IN 98/323i

KNIES, GEORGE

Indianapolis, IN 07/Z4M

LIND, RICHARD

Noblesville, IN 90/7351

MAIGUR, ANDREW

Richmond, IN 12/X5

MOORE, ALLEN

Avon, IN

MORPHEW, A.

Franklin, IN

SCHULTHEIS, BRETT

Evansville, IN 08/335i

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