## E30 Gets a Heart Transplant!

A Venerable E-30 Chassis Gets a Major Makeover From an E-36 M3 Donor Car

By Bill Kurey, NM Chapter BMW CCA Newsletter Editor

This article is really a "bookmark" for a well documented E30-S52 conversion posted on the r3vlimited.com project forums that was done on a 1989 325is with 200K miles on it. What really captured my interest about this conversion is that the recipient car for the conversion is the first BMW that I ever

My First Bimmer Seen Shortly Before the "Operation"

owned! I'm not going to go into any detail about the "what's" and "how-to's" because the website does a great job of that. The project description and photo documentation takes a total of seven pages and will undoubtedly get a little bit bigger too. The S52 motor, with 80K miles on it, came from a 1999 E36 M3 and included the wiring harness. ECU, shark injector, full



Prepping the "New" S52

exhaust, ZF transmission, driveshaft, all motor accessories. The project also incorporated an OBD1 conversion to gain power and for ease of the swap. The donor for this portion of the project was an E34 M50B25 and also included the engine hoist and engine stand for a few hundred dollars. It provided a lot of the OBD1 parts needed plus the oil pan. Initial plans



A Willing "Apprentice" Tackles the Grimy Oil Pan

called for also using the intake manifold, throttle body, coil packs, fuel rail, cam/crank sensors, oil pan and aluminum thermostat housing on the S52.



New Motor and Transmission Ready for Installation

Other related updates included an E36 steering rack swap, 2.93LSD swap and suspension overhaul. (Continued page 3)

# UNDER THE HOOD

E-30 Heart Transplant	1	Rev It Up—Calendar	3
Presidents Message	2	Battery Cranking Power	4
Classifieds	3	Chapter Officers and Contacts	4
New Members	3		

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

#### President's Message

by Jon van Arsdel January 2012

Winter is here. As I write this (December), we have had a bit more than average snowfall early this winter, especially in the areas outside of Albuquerque. The skiers are happy, so far. But, the meteorologists are predicting a La Niña winter, so we may get less than average snow for the rest of this season.

Tech tip #465: The BMW N20 engine is an all-new turbocharged four cylinder engine. It was just introduced to the US market in the 2012 528i and Z4 28i. Sales of cars with this engine have already exceeded expectations. It will become the standard engine in the new F30 328i. Amazingly, aftermarket software upgrade kits are already available for the N20.

This past quarter, we had the Fall Tour, a membership meeting, and a holiday dinner.

The Annual Karl H. Fox Memorial Fall Tour was on Sunday, October 09, 2011. Monika Fox did a great job of setting up the tour. About 20 BMW's and their drivers attended. The weather was on good behavior, and we had a great tour. Thank you to all who attended, and thank you to our guests from the Houston Chapter.

We had a general membership meeting and dinner on November 17<sup>th</sup>. It was a social event and planning session. Thank you to Nicky V's Pizzería for hosting us. Owners Greg and Nicole Villarreal are long time club members and supporters.

On December 14<sup>th</sup>, we had our holiday dinner at Zea Rotisserie and Grill Restaurant. Many members were able to join us for a fabulous dinner and celebration. Thank you to Steve Nowaczek for coordinating this event.

Tech tip #466: The red rear turn signals on many new BMW's can be converted to amber by simply replacing the tail light units with European ones. Multiple studies have shown amber turn signals to be safer, and more instantly recognizable, than red ones.

For the first quarter of 2012, we have scheduled two tech sessions and a membership meeting.

The January 26, 2012 (Thursday) tech session will be at Sandía BMW. Service Director Jeff Reece will be the host, along with some of his excellent technical staff.

Reminder: Officer elections for the New México Chapter of the BMW CCA will coincide with the Sandía tech session. If you have not voted online, please come and vote for (or

Redline

against) your favorite candidate. Better yet, run for an office.

The February 29<sup>th</sup> (Thursday) tech session will be at Southwest Collision Craftsmen. Owner Manny Córdova will be the host, at his BMW-certified body shop.

March 22<sup>nd</sup> (Thursday) will be a general membership meeting. We will have more details available on the web as we get closer to the date.

April (TBA), 2012 (Sunday) will be our annual Spring Fiesta at Sandía BMW. Start cleaning and polishing your car now. Watch your email for an announcement on the exact date.

As is our normal custom, food is included in club events.

A special thank you is in order for Bill Kurey. Bill has served as our Newsletter Editor for the New México Chapter for the past several years. He has done a great job.

Bill now wishes to pass that honor to someone else in the chapter. He has volunteered to help mentor his successor. If you have an interest, and some writing skills, please consider becoming our Newsletter Editor. It is published quarterly. You have almost free reign in the creativity department.

Watch for updates on the new car in future newsletters.

Tech tip #467: The new 3-Series (F30) should begin arriving in BMW showrooms in February. It has been enthusiastically received in the automotive press.

The New México 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 <a href="www.nmbmwcca.org">www.nmbmwcca.org</a> for additional information.

I hope to see each of you soon!

Jon van Arsdel el Presidente BMW CCA of NM



# 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: <a href="webmaster@nmbmwcca.org">webmaster@nmbmwcca.org</a> subject: Classifieds. Ads may be edited due to space limitations. There is a free classifieds section on the chapter website for you to use.

Check www.nmbmwcca.org for current selection of advertisements!!

The following items were listed on the Club's website as of January 15, 2012:

2000 M5, Silverstone metallic ext, black/grey int. 188,000 miles. \$9,900 offer. 410-1750

**2002 540i (E39)**, VIN: WBADN63482GN86328, M-Sport Package, Steptronic Automatic, Premium Sound, Air, All Power, Alloy Wheels, Dinan S-Package (\$4,200): Cold Intake, Tower Brace, Chip, Exhaust, 82,800 Miles With All Records - Clean Carfax, V8 - 315 HP - 22 MPG, Excellent Condition - Full Service and New Front Tires 4/25/11, Original MSRP: \$57,145, Consumer Reports: "BEST CAR EVER REVIEWED", \$14,700 (\$12,700 KBB + \$2000 DINAN), Kelly Blue Book Private Party and NADA, 505-672-9083 or 412-3047 (Dick Martin)

## Rev it Up!! — Calendar of Events

**January 26, 2012** (Thursday), 6:00 p.m. Tech session with Jeff Reece. Sandía BMW, 6001 Pan American Fwy. NE, in Albuquerque.

**February 29** (Wednesday), 6:00 p.m. Tech session with Manny Córdova. Southwest Collision Craftsmen, 3401 Claremont NE, in Albuquerque.

March 22, 2012 (Thursday). Membership meeting.

April, 2012. Annual Spring Fiesta at Sandía BMW.

May 06, 2012. Annual spring tour. Details to be announced.

June 2012. Tech session. Santa Fé BMW.

July 2012. Membership meeting.

August 2012. The BMW/Porsche Challenge.

(From page 1) You may also pick-up on the fact that sometimes there are alternative solutions for those special BMW tools.



Alternate Special Tool for Removing Bushings

Two last comments about the project: first is that I have first rights to the car if it ever goes up for sale (from the fabricator



Welcome Our New Members!			
Member Name	Member Name		
Charles Barber	Terry Kappelmann		
Brian Beaudoin	Joseph Lavender		
Doug Brown	Sean Marquez		
Matt Brown	Sandra Raun		
Tom Dawe	Erick Seelinger		
Chris Enke	Phil Webster		
Robbie Griffith	Casey Winters		
Dave Jacot	Esteban Ypez		

my son Gavin who is an Ensign in the US Navy and is currently attending Aviator Training in Florida) and secondly, the lovely mechanic partially seen cleaning up the oil pan is now my wonderful daughter-in-law Katie!!



Katie Scoping Out the Close Tolerances of the Installation

For all the up-to-date details of the project and many more pictures go to:

http://www.r3vlimited.com/board/showthread.php?t=167428

#### **Understanding Your Batteries Performance Specifications**

CCA, CA, AH and RC. What are these all about? These are the standards that most battery companies use to rate the output and capacity of a battery.

Cold cranking amps (CCA) is a measurement of the number of amps a battery can deliver at 0 ° F for 30 seconds and not drop below 7.2 volts. So a high CCA battery rating is especially important in starting battery applications, and in cold weather. This measurement is not particularly important in Deep cycle batteries, though it is the most commonly 'known' battery measurement.

**CA** is cranking amps measured at 32 degrees F. This rating is also called marine cranking amps (**MCA**). Hot cranking **amps** (**HCA**) is seldom used any longer but is measured at 80 ° F.

Reserve Capacity (**RC**) is a very important rating. This is the number of minutes a fully charged battery at 80 ° F will discharge 25 amps until the battery drops below 10.5 volts. This give you an idea of how long your battery will last in the event the car's charging circuit is inoperative.

An amp hour **(AH)** is a rating usually found on deep cycle batteries. If a battery is rated at 100 amp hours it should deliver 5 amps for 20 hours, 20 amps for 5 hours, etc.

Adapted From: http://www.batterystuff.com/tutorial\_battery.html

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