

February, 2012

Vol. V No. II

### Winter sports for Gearheads!

What is a Jaguar owner/driver/family member/friend supposed to do when it's snowy and cold outside? The JCSC usually puts together a nice club meeting with something good to eat, but we can't be doing that ALL the time (what?)! So, we, along with some RJMC notables decided to try something completely different (well, not COMPLETELY different, we did manage to find

something good to eat):

We went Go-Kart racing!



Jack Humphrey, driving something other than his XJ or his new motorcycle!

The Jaguar Club of Southern Colorado c/o Jaguar - Colorado Springs 565 Automotive Drive, Colorado Springs, CO 80905 www.jagclub.org

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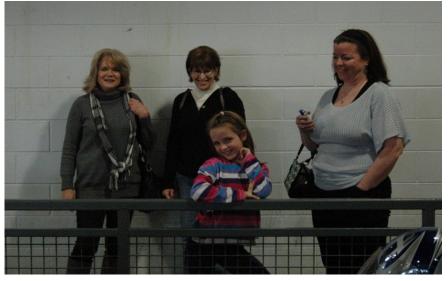
### **JCSC Winter Sports Athletes**



Thanks to Allie from Unser Racing, for our Team photo!

JCSC/RMJC Saturday Racing Team members included: (left to right) Kevin and Gail Hershey, Dave and Larenda Hershey, Don and Gary Yowell, Tom and Donna Miller, Gary and Dee Kerkow, Jack Humphrey, Howard and Cyndi Mumm, Thom (little Thom) Miller, Rick Fortune and Jim Clark.

**Team JCSC** 



Team members Donna Miller, Dee Kerkow, Channing and Sara Miller.

### **February JCSC Meeting**

The February 21 JCSC meeting was held at Jaguar Colorado Spring and what a turnout! We had 23 people brave the cold to turn out for a nice winter dinner meeting. Thanks to everyone that provided refreshments for this great event.

New members in attendance included Don Hanrahan (Jaguar XJ-VDP, Pat and John Kissinger (Jaguar S-Type), Jim Clark (Jaguar XJ-S) and Bill and Peggy Dudley (Jaguar X-Type Sportwagon).

Introductions all around preceded the beginning of the meeting with the existing members proudly describing their own cats.

News of note to come from this meeting includes an announcement that JCNA will be seeking a membership rate increase for 2013. JCSC will support this increase at the March AGM.

Tom Miller outlined an extensive list of confirmed and potential events for our club for 2012. These include our annual Spring Cleaning (March 31), The Forney Transportation Museum in April, and a possible road rally in May (May 26).

The RMJC will be holding a Concours Judge's School on April 21 and another one on May 19 and their annual Dust-Off drive on May 20.

JCSC is putting together a multi day drive to Grand Junction in June. There may also be another Father's Day Car Show (June 17) at the Briarhurst.in Manitou Springs. June 10 is the Cerebral Palsy Benefit Car

### February JCSC Meeting (continued)

Show at Arapaho Community College.

June 29 through July 1 will be the spectacular *Rocky Mountain Jaguar Club's Top of the Rockies Concours d' Elegance at Copper Mountain Resort!* July 14 will be the first Slalom of 2012 (RMJC).

Here in the Springs, July looks to include a night time Sky Sox baseball game and August 4 will be JCSC's hosting of that month's First Saturday's Car Show at First and Main (off Power's Blvd.) followed by breakfast at Mimi's. August is also the month for our annual Wine Tasting and Lunch at the Holy Cross Winery in Canon City (date TBA).

August in Denver includes the Highland Games (August 4 & 5) and the second Slalom of 2012 (August 12). The Front Range Airport Classic Airplane and Car show is August 18.

September could hold a dinner meeting at one of the local classic car restoration shops and a potential drive of the Lariat Loop west of Denver. Cyndi and Howard Mumm outlined the Annual *Drive for the Kids* on September 8 and 9. This year's destination will be Taos, New Mexico. The *British Motoring Conclave* in Arvada is September 16 (Lots of exotic British cars).

Of course, October is the annual *Pikes Peak Concours d'Elegance* (October 6, 2012) at Jaguar Colorado Springs.

We are looking at a possible visit to *Glen Eyrie Castle* in November and the annual Christmas Holiday party in December.

New JCSC member John Kissinger outlined several very interesting SCCA driving events to be held around Colorado in 2012. We will be including details on these events in an upcoming newsletter.

RMJC will be holding a New Member Orientation on Sunday, April 1. If you would like to attend PLEASE RSVP to Howard and/or Cyndi Mumm as soon as possible.

### February JCSC Meeting (continued)

Howard and Cyndi Mumm presented a detailed review of Rocky Mountain Jaguar Club events for 2012. Howard is the 2012 President of the Rocky Mountain Jaguar Club. Cyndi is a RMJC Past President. Other members include (right center) Jim Cox, Jack Humphrey and Donna Miller.





From left, Donna Miller, Peggy and Bill Dudley, Budd Butcher, Andrew Miller, Norma Miller (not visible in this photo) Roy and Angela Winton, Bill Snover (standing), Dave Hershey, Howard and Cyndi Mumm.

In other late February news, Jack Humphrey presented a letter from the National Homeland Defense Foundation, managers of donations to Fort Carson's Family Readiness Center Fund. The letter announced that our club donation (from proceeds of the 2011 Pikes Peak Concours d'Elegance and the 2011 Pikes Peak British Motoring Festival) will be used for the Wounded Warrior Program at Fort Carson. We also received a thank you letter from the Commanding General of the 4th Infantry Division and Fort Carson.

We have received letters from Care and Share Food Bank for Southern Colorado acknowledging the balance of the 2011 JCSC donations here in El Paso County.

### **March JCSC Meeting**

We will be holding a dinner meeting on March 20 at Paravicinis Italian Restaurant, 2802 West Colorado Avenue. We will meet at 6:00 P.M. at the restaurant for dinner. <u>PLEASE RSVP</u> to me or any JCSC Board Member<u>ASAP</u> if you plan to attend this dinner event as we need to make reservations soon.

Jaguar Club of Southern Colorado

# Here is the next installment in Tom Miller's performance upgrade to his 2007 Jaguar XK-R !

#### Stage 1 - Implementation, Supercharger Upgrade Installation

I delivered the car to Concours of Colorado Springs at 9:00 am on August 4, 2011 with something more than slight trepidation. They were about to remove nearly the entire front end of my car, even part of the front of the engine!

But then Mark introduced me to Jason Schmitt, the technician that would be doing the hands on part of this stage of the implementation. My fears were immediately removed. Aside from the fact that Jason has a remarkable ability to communicate (especially difficult technical information), he simply spoke with such quiet confidence that within minutes I would have probably let him do open heart surgery. And, when he started disassembling the car it was like watching an accomplished artist perform a discipline that had been mastered during a lifetime of study and experience. He simply set about the task at hand and made what would have been an impossible task for most people look routine. Here is a picture of the engine compartment with the hood and most of the shrouds and covers removed.



And here is a picture of some of the parts that have been removed from the front of the engine. No, they are not Porsche parts, that box just happened to be sitting there!



The removal of the lower pulley and oil filter assembly replacement adapter installation went smoothly but then a major issue was discovered that had been completely unexpected. Some of the written instructions that accompanied the parts for the installation pointed out that there would be some modifications required to the nosepiece of the supercharger because the new upper pulley had a smaller inside diameter than expected. That was a surprise. In typical Concours fashion, however, the team came up with a solution. Eurotoys would typically remove the supercharger and have the nosepiece milled and then reinstall it as a matter of routine. Since this work was being done here in Colorado by someone that didn't realize that a modification to the nosepiece would be required, it wasn't known in advance this modification would be necessary. Even this wouldn't have been a major setback because Concours could also have sent the supercharger to a local machinist to reduce the nosepiece diameter to the required size. But because this wasn't anticipated as a requirement, the machinist wasn't going to be available until the following week, and I needed the car in two days to participate in a car show with fellow Jag club members. The world wouldn't actually come to an end if I didn't make it, but a promise is a promise, so Mark and his team once again demonstrated their experience in developing alternative solutions whenever an obstacle rears its ugly head. They would use the original pulley as a guide to make the required changes to the supercharger nosepiece. Now this was a real piece of creative problem solving and on the spot engineering.

The following picture shows Jason using his improvised tool to mill the nosepiece of the supercharger by 30 thousandths of an inch.



And here is a picture of the modified supercharger nosepiece after the magician finished his work. This is a rare opportunity for most of us to see the front of the famous AJ8 engine, an aluminum masterpiece.



Now we were back on a schedule that would enable the job to be finished in time for the car show. These guys don't allow pressure to be a problem; they simply use it as inspiration! The lower pulley, oil filter adaptor, and new idler pulley all went on pretty painlessly. Now, press fitting the new upper pulley was the last task prior to reassembling all the parts, refilling the cooling system, topping off the oil, and going for a test drive. When I said "press fitting the new upper pulley was the last task," little did I know what an understatement that was going to be! The tool provided for both removal of the old upper pulley

and installation of the new pulley proved to be problematic. It was difficult during removal, but during installation it proved to be next to impossible. Without going into a detailed description of the tool itself, there is a small inner bolt that holds the tool securely to the supercharger shaft while a larger bolt that forces a faceplate against the inner pulley to drive it onto the shaft. Here is a picture of the new pulley partially installed with the tool itself removed. Note the new lower pulley, idler, oil filter adapter, and the inner serpentine belt have been reinstalled.



The main problem with the tool was that the small bolt securing the tool to the supercharger shaft was too weak to handle the pressures required to move the pulley onto the shaft. The small center bolt kept snapping which required Jason to fabricate replacement after replacement. He was only able to move 1/16<sup>th</sup> to 1/4<sup>th</sup> of an inch at a time prior to snapping another bolt. Mark called Mike at Eurotoys to validate the inside diameter of the new pulley and it was found to be correct. Exactly the same size as the shaft which is called a zero clearance fit. This was a long, painful, frustrating process for everyone since the total length the pulley needed to travel onto the shaft was nearly three inches. If that wasn't enough of a problem, when the pulley was within about 1/8<sup>th</sup> of an inch from the finish, the threads on the large bolt which pressed the drive plate against the pulley failed. So a trip to the hardware store to buy more bolt stock was required. At that point a nut was welded to the threaded shaft to actually make it a bolt. After cutting it to the necessary length, it was center drilled and threaded inside to accommodate the smaller bolt (the one that had snapped so many times before). The remaining 1/8<sup>th</sup> inch was finally finished after snapping three more inner bolts! Now everything could be reassembled and the car would be ready to test.

Before moving on, I just want to recap the Thursday and Friday that Jason and Mark had to endure to get this car out the door so that I could make the car show with the Jag Club early Saturday morning. The car was delivered promptly at 9:00 am on Thursday and work began immediately. Most of the disassembly went well until starting the removal of the old upper pulley where issues with the provided removal/installation tool first emerged. Getting the upper pulley off proved to be a major effort. Next, it was discovered that the nosepiece of the supercharged had to be reduced and there was no tool available to accomplish that operation. Concours fabricated a tool (from the old upper pulley) which enabled the nosepiece to

be reduced without removing the entire supercharger and sending it to a machine shop (many days delay). I'm not sure what time Jason actually got to leave because I wasn't there for the last half of the day, but my guess was he was pretty late for dinner.

This takes us to day two, Friday. Knowing there was a tough day ahead and they had promised to have the car finished prior to quitting time, Jason was at the shop and working at 7:00am. Little did they know that quitting time was about to be redefined. After all the problems previously noted, and with perseverance, dedication, and a commitment I have never seen elsewhere to keep a promise to a customer, at 8:45 pm Friday night (14  $\frac{1}{2}$  hours after the work began) here is a picture of Jason following a very successful installation and test run!

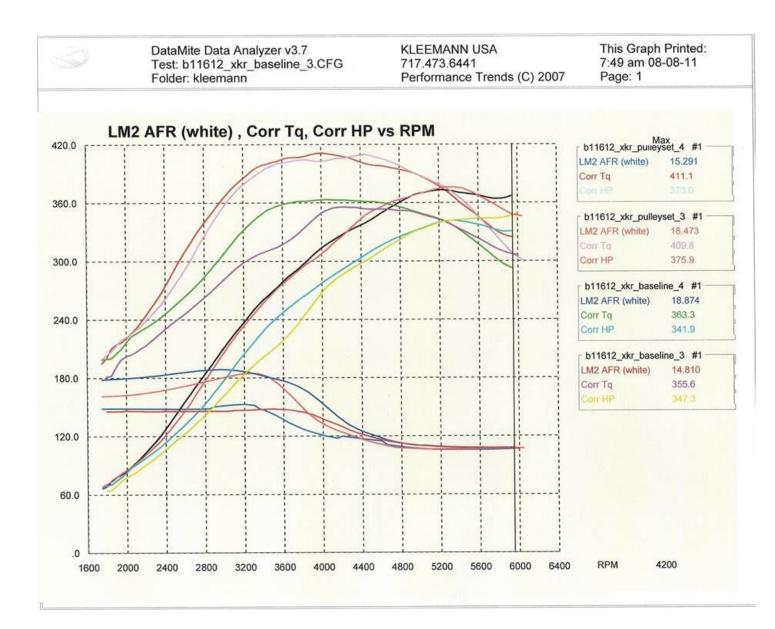


We all had a great time at the car show Saturday with a great turn out by the Jag Club and the dealership. Thanks to Thom Buckley for sending over so many beautiful cars (I did my best to sell Don on that white XK convertible). After the show many of the members met at Mimi's for Brunch. Thanks again to Concours for hanging in there through all the trials and tribulations to enable me to be there for the show.

#### Intermediate Dyno Run

Bright and early on Monday morning, August 8, 2011 I was at Kleeman USA for an intermediate

dyno run to see exactly what the improvement was after installation of the supercharger upgrade. Brandon and Cory were there and ready to get everything set up. Here are the results after installation of the supercharger upgrade.



Both dyno runs and the numbers associated with each are superimposed on the graph and are also enumerated on the right side of the graph. This enables a direct comparison between the baseline numbers and the numbers after installation of the pulley set. Once again you can see the numbers drop between run three and run four, as was the case in the baseline runs. Although the numbers aren't quite as high as I had hoped, you can see there was a significant increase in both horsepower and torque. It must also be noted that even though the supercharger upgrade has been accomplished, there has been nothing done at this point to alleviate the problem of the high inlet air temperatures associated with all XKRs. To make the problem even worse, these intermediate runs were accomplish during the hottest part of the summer. Those issues will be corrected with the water/meth injection system which will be the last step performed

prior to final dyno runs. Max rear wheel horsepower has increased from the baseline 347.3 to 375.9 RWHP (+28.6) with the pulley set installed. Torque increased from 367.7 to 411.1 ft. /lbs. (+43.4). By adding in the previously calculated drivetrain losses, the approximated factory number would be 448.6 BHP (375.9 RWHP + the 72.7 drivetrain loss). The same approximation applied to Torque would be 458.3 ft. /lbs. (411.1 ft. /lbs. at the rear wheels + the 45.3 drivetrain loss). These numbers are very dependent on the ECU tune, however, so it's natural that they would be lower prior to the ECU being tuned. The ECU with factory settings is unable to adequately recognize and adjust to changes of this magnitude. In fact, my own personal theory at this point was the ECU was actually prohibiting an increase in performance. As discussed previously, the increase in boost pressure enabled by the supercharger upgrade came with a penalty, in the form of increased charge temperature. That issue will be addressed later with the introduction of the water/methanol injection. In the meantime, the ECU is protecting the engine by retarding timing and adjusting fuel flow. Intermediate runs during the course of an upgrade project are useful information, especially for the technical folks doing the work. For the owner, it's best not to place too much emphasis on results that might be dependent on additional steps being completed. That's why it's risky to make intermediate projections or to have unrealistic expectations. I wouldn't get too excited about numbers at this point and there's nothing to be disappointed about anyway. Keep in mind that it may be HP numbers that sell engines, but its torque that wins the races and the torque shown in the second dyno run at the rear wheels is nearly as high as the stock factory torque on a test stand .... Excellent! The final dyno run after the exhaust system installation, the ECU tune, and the installation of the water/meth injection system is when the final verdict is rendered. I still think we will be at or above the performance level of the 5.0L XKR. The XKR-S ...? That remains to be seen.

The following Link (<u>http://www.youtube.com/watch?v=BWNzx5LfmEg</u>) shows a 2007 Jaguar XKR modified in England with an upper pulley, a Paramount Performance exhaust system, a set of racing cats, and an ECU tune. As you can clearly see at the end of the video the HP is a Massive 508.3 (based on other videos posted by the same company, I believe these are the flywheel/BHP numbers rather than RWHP). There are some differences in the two cars, however. Mine has an entirely different pulley kit using both upper and lower pulleys for a 5.0 psi boost increase instead of the 2.5 psi boost increase enabled by an upper pulley alone. The car depicted in the link uses a different manufacturer's exhaust system and uses racing cats as opposed to the street legal High Flow Catalytic Converters used in my car. I'm still hoping to get final numbers in the same range as these. My ECU tune will be done by a different company (Eurotoys), but remember I do have another performance enhancing package in the form of the water/ methanol injection system for a cooler air inlet charge. Keep your fingers crossed.

### We will continue with the next segment of Tom's upgrade in the March issue of "Through the Windscreen".

### Sponsors and supporters of the 2011 Pikes Peak Concours d'Elegance



2011 Pikes Peak Concours d'Elegance sponsors and supporters.



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Meguiar's Inc 17991 Mitchell South Irvine, CA 92614 800-347-5700

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### **Steve Kennedy**

JCNA Regalia sales@jcna.com 303-489-3955 cell 303-456-5019 fax Appraisals "By George"

**Gary George** 

1990 Wadsworth Blvd Unit 1B

Lakewood, CO 80214



### Thom's Place

If you are thinking about a newer Jaguar or are ready for something different in your garage, here's a list of what's currently available. For more information on any of these cats, please call Jaguar / Land Rover Colorado Springs at 719-636-9199 or visit www.rednoland.com. Be sure to ask about Jaguar Club Member's special offers.

Go ahead, "Take the Leap"!

### **NEW JAGUARS**

**2012 Jaguar XJ L**. Cashmere exterior with Truffle/Cashew interior. 8 cyl Auto. Stock #22995. **\$86,925.00**.

**2012 Jaguar XF Premium 2.** Cashmere exterior with Barley interior. 8 cyl Auto, Stock #J38842. **\$57,400.00**.

**2012 Jaguar XF Portfolio Edition**. Claret exterior with Barley/Truffle lower interior. 8 cyl Auto, Stock #J33735. **\$65,275.00**.

**2012 Jaguar XF Portfolio Edition**. Lunar Grey exterior with London /Warm Charcoal duotone interior. Stock #J23944. **\$59,875.00**.

**2012 Jaguar XK XKR Series**. Polaris White exterior with Warm Charcoal interior. 8 cyl Auto. Stock #J45570. **\$111,325.00**.

### PRE-OWNED JAGUARS from Thom's Place

**2008 Jaguar S-Type 3.0.** Radiance exterior with Champagne interior. 6 cyl Auto, Stock #P645. 22,859 miles **\$30,000.00**. Jaguar Select Edition / Certified Pre-Owned. Carfax report.

**2011 Jaguar X JL.** Vapour Grey exterior with Jet-London Tan interior 8 Cyl Auto. 1023 miles Stock #J10521. **\$72,900.00.** 

### **Pre-Owned Jaguars** (continued)

**2007 Jaguar X-Type 3.0 AWD**. Emerald Fire interior with Champagne interior. Stock #P647. 6 cyl Auto. 49,117 miles. *Jaguar Select Edition Certified Pre-Owned*. *Carfax report*.. **\$21,489.00**.

**2009 Jaguar XF Luxury.** Frost Blue exterior with Dove/Charcoal interior. 8 cyl Auto. 29,466 miles. Stock #P643. *Jaguar Select Edition Certified Pre-Owned Carfax One Owner.* **\$34,989.00.** 

**2009 Jaguar XF Luxury.** Lunar Grey exterior with Charcoal interior. 8 cyl Auto. 33,249 miles. Stock #P650. . *Jaguar Select Edition Certified Pre-Owned. Carfax One Owner.* **\$35,989.00.** 

**2006 Jaguar XJ VDP.** Liquid Silver exterior with Charcoal interior. 8 cyl Auto. Stock #P651. 40,131 miles. *Jaguar Select Edition Certified Pre-Owned. Carfax One Owner.* **\$26,200.00**.

**2009 Jaguar XF Luxury**. Lunar Grey exterior with Dove/Charcoal interior 8 cyl Auto. 31,890 miles. Stock #P658. *Jaguar Select Edition Certified Pre-Owned*. *Carfax One Owner*. **\$37,489.00**.

**2011 XJ-L Supercharged**, Ultimate Black exterior with Jet/Ivory interior. 8 cyl Auto, 155 miles, Stock #J18505. **\$79,995.00**.

**2011 Jaguar XF Supercharged**. Liquid Silver exterior with Warm Charcoal interior. 8 cyl Auto. 687 miles, Stock # J98195. **\$57,995.00**.

**1997 Jaguar XK-8 Convertible.** 8 Cyl Auto,. Anthracite exterior with Coffee interior. 41,210 miles. Stock #T23168. **\$17,000.00.** 

Additional information and photos of the above vehicles available at www.rednoland.com.

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### **Membership Form**

Name (as you want it on your name tag)	Membership Fee for 2011	\$50.00*		
Spouse's Name (as you want it on your name tag)	Make check payable to: JCSC			
Street Address	Amount Enclosed = \$			
City / State / Zip Home Phone Work Phone	2 <sup>nd</sup> Jaguar Year Model B 3 <sup>rd</sup> Jaguar	Body Style		
Email Address Mail or deliver this form to: Thom Buckley, Membership Coordinator c/o Red Noland Jaguar 565 Automotive Drive Colorado Springs, CO 80905 719-302-1000 thomb@rednoland.com	Year Model Bi *Membership expires Dec. 31, 201 Fee includes membership card(s), the JCSC newsletter and <i>Jaguar Ju</i> has a 2-3 month delay before the	subscription to ournal, which		

Regular events will be planned from your suggestions and you will be notified by e-mail, newsletter and at club meetings.

#### **Questionnaire:**

Would you be interested in helping with the operation			Yes	No	
If so, what help would you consider (mark as many a					
Serve as an Officer	Yes	No			
Newsletter Editor	Yes	No			
Webmaster	Yes	No			
Concours Judge	Yes	No			
Membership	Yes	No			
Event Coordinator	Yes	No			
Paraphernalia & Stuff	Yes	No			

Ideas, suggestions, or assistance you could offer in the creation and ongoing activities of our club:

Revised 4 October 2010

Jaguar **Club** of Southern Colorado

### FOR SALE

Do you have a Jaguar automobile or Jaguar related items that you would like to list for sale or trade in the JCSC Newsletter? Please contact Don or any JCSC Board Member for details.

