

Jaguar Fottings

Ottawa
Jaguar
Club



Calabogie Run—See Page 4



Racing in the rain

Drive with us!

October-2020 - ottawajaguarclub.com

In This Issue

Contents	2
Presidents Musings /Remembering Keitha Kenny	3
Calabogie Run / Racing in the Rain	4,5,6
The Ladies Corner / Autumn is here	7
The Challenger, Dashboard reinvented - Part 2	8,9,10
Etta,s Differential rebuild / OJC Executive	11,12,13
Advertising - Moss Motors & S.N.G.Barratt	14
Events & Activities / Challenger dash spreadsheet detail	15
Marketplace / Entirely Mobile	16,17
Jaguar Ottawa	18

Photo Credits

Front Cover	Bonnie Newson	
P3,4,5,6	Rob Dunlop, Bonnie Newson	
P7	Josee Dubois	
P8,9,10	Dave Bradly	
P11,12	Mike Milton	

If not specified, photos are otherwise credited to the author(s) of the article or advertisement or Jaguar Landrover Ltd. (JLR)

Follow us on Facebook !

<https://www.facebook.com/groups/OttawaJaguarclub>

It doesn't cost anything and it's easy to join. "Just download the APP", then;
 1. Simply follow the "Create new account" tab on the main page and input the information. You will be sent a text to confirm your identity.
 2. Once you have created your account and logged in, you will be able to see and post on our Facebook page.
 3. You will have control of your account privacy as to who can see your information.

Membership

Membership with the Ottawa Jaguar Club includes membership with the Jaguar Club of North America, a *Jaguar Jottings* monthly newsletter and JCNA's bi-monthly magazine, *Jaguar Journal*. Make your cheque for \$60.00 payable to: **Ottawa Jaguar Club**. And mail it to the Membership Director, Jay Hunt. 613-521-6839 (leave message)

Please do not mail cash.

Ottawa Jaguar Club
 24-2420 Bank St.
 Ottawa, Ontario
 K1V - 8S1

Jaguar Jottings

Editor & Publisher: Ray Newson
 613-720-5396
editor@ottawajaguarclub.com

Jaguar Jottings is an official publication of the Ottawa Jaguar Club. Twelve issues are produced January to December for the information of its members. We welcome your participation.

Deadline for contributions is the 25th of each month. All rights reserved. Reproduction and/or modifications are prohibited without prior written approval. Visit us at www.ottawajaguarclub.com.

Advertising

Full Page \$25/month, or \$250/year (12 issues)

Back Cover \$300/year (12 issues)

1/2 Page \$15/month or \$150/year (12 issues)

1/4 Page \$10/month or \$100/year (12 issues)

Business Card \$5/month or \$50.00/year (12 issues)

Marketplace Ads are free to members and will run 3 months unless cancelled or renewed; \$20 to non-members.

Submit advertisements to the publisher and your cheque to the treasurer.





October 2020

As the cooler weather approaches, we have some information updates for the membership. First off Jay Hunt and I had the opportunity to tour Hunt Club

Jaguar/Land Rover with service manager Ted Rose. Ted has vast experience with British cars, actually starting his career as an automotive service technician. The dealership is eager to forge a mutually benefiting relationship with our Club. To that end they are offering discounted pricing to Club members. Members will be getting 15% off the hourly labor rate and cost plus 10% on parts. We are very much looking forward to some joint events with Hunt Club Jaguar and their staff. Alan Graves has had his (newer) Jaguar acquisition serviced there and had given them accolades on their service department.

Jay Hunt has joined the JCNA Membership Committee and

has already written a draft discussion paper regarding declining membership, membership dues and how to try and increase membership rosters. He will be forwarding it to JCNA for review, hopefully Jay can put forth a Canadian spin on Membership. Thanks for doing this Jay.

It looks like the Calabogie Track Day will have been the only fall Club event. As I am writing this we have had to cancel Paul Balharie's planned Hudson Quebec drive.

The executive will be busy in October looking into an alternative to the Club's Annual General Meeting normally held in November...

Be Healthy and Safe, **Lee**

Remembering Keitha Kenny



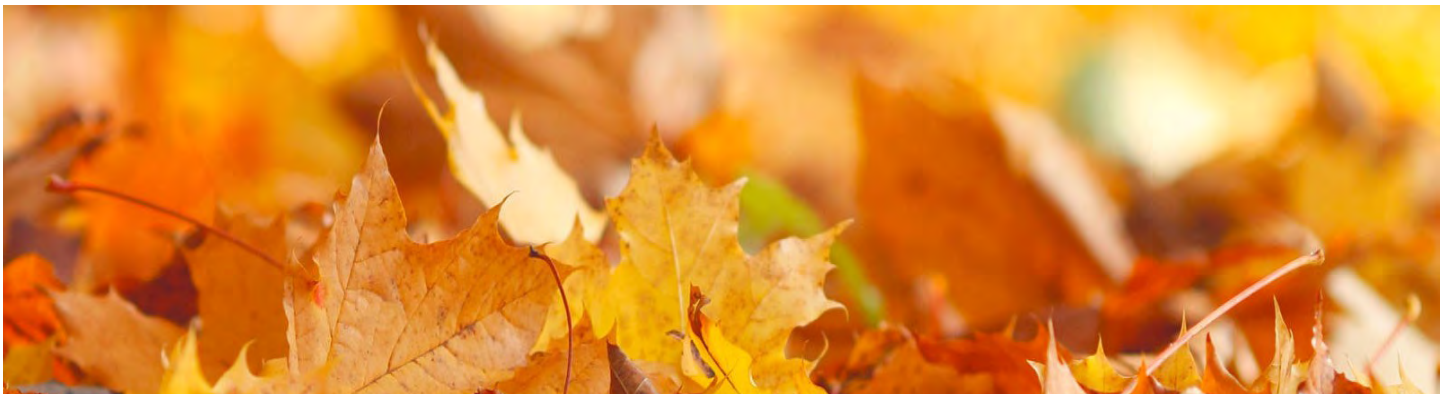
It is with great sadness that we report on the passing of Keitha Kenny, wife of Ottawa Jaguar Club's past President Dave Kenny. Keitha had always been a very poised and gracious participant in our Club activities. Keitha took great pleasure in the social side of the club and the companionship of the ladies.

Keitha and Dave have 3 children, Karen, Kristin and Martin along with a foster daughter Christina and 2 grandchildren. Keitha and Dave also fostered 6 other children over a period of 15 years.

Keitha had been a high school teacher prior to marrying Dave and later became a teaching specialist in learning disabilities in Montreal, where she taught for 15 years.

Keitha was first diagnosed with cancer in 1999 and struggled valiantly with this horrible disease for some 20 years. Dave and Keitha celebrated 57 years of marriage in August. Keitha would have turned 79 on October 1st.

Our condolences go out to Dave and his family.



Calabogie Run

After weeks of anticipation of the first driving event to go forward in spite of the Covid-19 pandemic, Sunday September 13th dawned with typically British driving weather. Just as we arrived at the Stacked Restaurant patio, it began to rain so we had to move indoors. Six driver/navigator teams arrived early and spaced ourselves out at socially distanced tables. By the time breakfast had finished about a dozen Jaguars were assembled in the parking lot. Josee Dubois quickly took command and had us started on our way sharply at 9 AM.

Traffic was light but rain dogged us off and on, heavily at times, throughout the drive. We chose to avoid the most direct path following a more leisurely, scenic route through North Gower to Smith Falls and into Perth. We arrived at the Tim Horton's on Highway 7 in Perth a bit ahead of schedule and extended our stay there a bit so that we would not arrive at the Motorsports Park before our designated 11:45 time.



A break in the rain while stopped at Tim's

On leaving Timmy's, Josee, who was keeping good track of our procession, noted that a couple of cars had missed the right turn and continued along Highway 7. She stopped us along the roadside while she contacted them by cellphone and they soon rejoined us. Several additional cars joined our group enroute. As we got closer to Calabogie, County Road 511 became narrow and twisty through the hilly wooded countryside. The rain got heavier and slowed our progress somewhat so we arrived at Calabogie Motorsports Park just in time. The rest of our team were already waiting there. In total we were 14 Jags, 1 Bentley and a BMW disguised as a Jag with a growler

emblem pasted on the hood. We were welcomed by Jane Blinn, our host who would guide us through the parade laps on the track.

Thanks to Jay Hunt



Jay checks the drivers in

Racing in the rain

Being closer to the Calabogie Motorsports Park than the starting point for the drive, Bonnie and I opted to meet the group at the track. Given the extra time, we took the opportunity to scout out somewhere under cover for the planned brown bag/picnic lunch. With no cover at all at either the Municipal or County parks we settled on the local ice rink, not pretty, but dry, under cover from the weather with a bonus - picnic tables.

Now onto the Calabogie Motorsports Park where we then found ourselves first in line to follow the pace car. Jane Blinn, who would be leading us in a race prepared Mustang, soon rolled up on her motorized scooter to give each driver instruction. Basically, no passing, follow the leader.



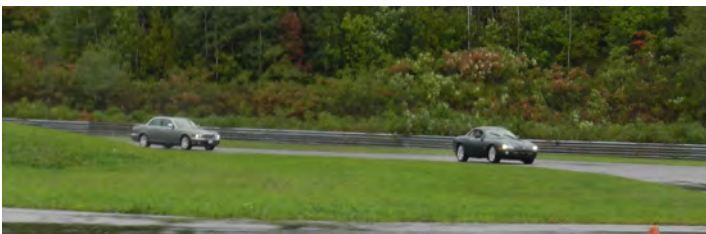
Catch me if you can

Continued on page 5

Continued from page 4

The rain had eased up, but wipers were still needed and caution on the wet pavement necessary. This world-class facility is home to the longest track in Canada, at 5.05 km in length, it consists of 20 turns and features 610m long straightaway.

100 kph was attainable on the straightaway but beware the hairpin turn at the end.



We were to have 3 trips around the track but I think that Jane was having fun "racing in the rain", she took us on an extra trip around the circuit, all in all a 20 km run.



Who were all those masked bandits?

A happy crew after racing in the rain

Due to the COVID 19 restrictions we were not allowed to stay too long at the track, so now to find our lunch spot.

We worked our way through the Village of Calabogie to the ice rink, that also serves as a Farmers Market during the summer months. It was not your average tourist spot, but undercover and off of any wet grass.



This was the only club drive/outing so far this year, and quite possibly will be the only opportunity to exercise our cats as a group until COVID 19 becomes history.

Many thanks to Jay Hunt for organizing this event. The Calabogie Motorsports Park for giving us the opportunity and Jane Blinn for leading the way in the Pace Car.

Due to the generosity of the Ottawa Jaguar Club and the event participants, our club donated \$1500 to the Renfrew Food Bank in thanks for this opportunity.

Ray



Calabogie Motorsport Park

462 Wilson Farm Road, Calabogie, Ontario

See page 6

Calabogie Run - Recap

6



This year, 2020, will go down in the history books. We will not forget the hardy bunch that braved the weather and COVID concerns to enjoy this one opportunity to exercise our cats and enjoy a brief but rare opportunity to socialize safely.

Congratulations to all who participated.

Ray



AUTUMN

Hold on, where did the summer go? I just started my garden last month, right. Not quite gone, the temperature is still here as I write this October's issue of the OJC Ladies Corner. We did get frost prior to this heat wave, which made lots of gardeners rush to either cover their frost sensitive crops or harvest those veggies.

This month, October, I wanted to speak about Autumn instead of a follow up on my August gardening article.

What a gorgeous time of the year, here in Canada, in particular - the Capital Region. We are so fortunate to have the Ottawa River, the Canadian Shield, Algonquin Provincial Park, Champlain Lookout and many more natural awesomeness.



As you know, we had to cancel the Fall drive due to COVID-19. But that does not mean that you cannot take your car, heck, your Jag, out for a spin, and go enjoy this picturesque moment called Fall Rhapsody. This can be done even during this epidemic. The Fall Rhapsody does not last long; high winds usually happen in early October and leaves fall to the ground.



Though it is great walking on them, doing mounds of leaves and jumping into them.... You know you want to! Do not deny your inner child's spirit. Ah and it smells fantastic!



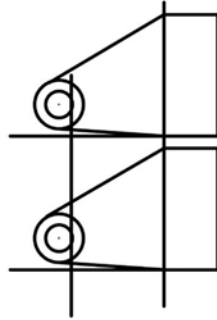
Stay safe, healthy, and most importantly stay sane. We're all in this together.

Josée

Continued from the September Jottings

Now the brackets.

These were cut by me from stainless steel 1/8" sheet. Stronger and more flexible than aluminium. Simply bent and screwed to the dash panel. To get these right, it was time to remove the old panel and see what we were dealing with.



As with all our cars, they are slightly different, so mine had no mounting screws to stop the hinge down function, but once the tunnel top tray and heater controls were removed, it hinged down easily. I undid the hinge pin bolts and started my analysis. This was a lengthy process as I wanted to be really sure that I had it right.

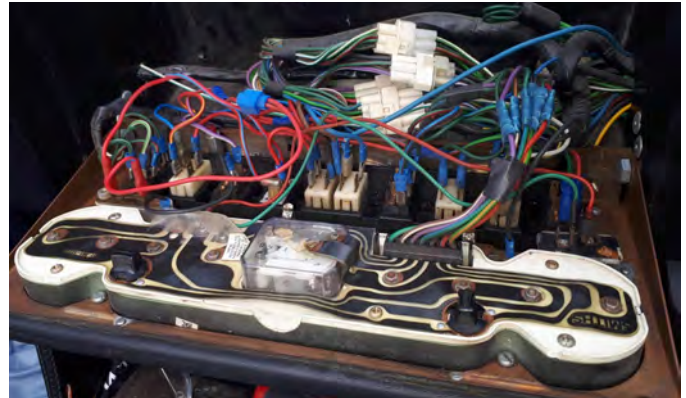


Several connections were "almost" coming apart, so a good time to do this anyway.

I made the decision that simplified functionality, that allowed possible reversal of these changes were key.

1. I removed the two speed fan function. If you need it, you need it (fast).
2. I removed two speed wiper function. Seriously, these go so slowly, that who uses the slow setting anyway.
3. I removed two setting dash light dimmer function. Again, on or off is all I need.
4. I kept the old XJ6 rocker switch for the hazards. Just too difficult to figure out.

You will find an excel spreadsheet that explains what I found and how it went on page 15. I am happy to send the actual one to anyone who needs it or is just curious.



New connections required :

Mechanical oil pressure pipe. Covered later.

Ammeter wiring. This is very important to get right and is a high current item, so thicker wires are required. Goes to positive of starter and alternator, with a 12V reference. That way it sees the biggest current draw and the biggest supply. Can also go to the fuse box.

Oil temperature sensor. Single wire. Goes to the oil gallery bolt hole.

A few (more) notes on sensors :

The original electrical Jaguar oil pressure sensor is rubbish. My opinion. It has a functioning range of 320 Ohms at atmosphere, and 135 Ohms at 80 PSI (jury rigged from my compressor!).

The original Jaguar water temperature sensor has a working range of 1.6k Ohms to 250 Ohms from 10-90 degrees Celsius. Checked on the car by dipping it in to a cup of hot water and grounding correctly. The new sensor was a similar range, so kept the old sensor as it was installed and not leaking.

My new oil temperature sensor has a working range of 3.8k-600 Ohms 10-90 degrees Celsius.

The fuel sender. This is a bit of a mystery and has never really worked well anyway. Even at full, it would never show more than $\frac{3}{4}$ full. Then sit at $\frac{1}{2}$ for almost 200 miles, then make a mad fast dash for empty in 10 miles. A problem for another day, especially with this new gauge installed.

Continued on page 9

Continued from page 8



Testing resistance range of temp sensors. Tea would work just as well! Maybe don't drink after!

To get the new sensors in the oil gallery, I sourced a three foot piece of $\frac{1}{2}$ " UNF steel threaded rod. Locked two half height nuts together to allow handling in a vice, then started machining.

Oil Pressure required male $\frac{1}{2}$ UNF on the block side and male $\frac{1}{8}$ " NPT on the sensor connection side. Then a through hole to allow pressure to be read effectively.

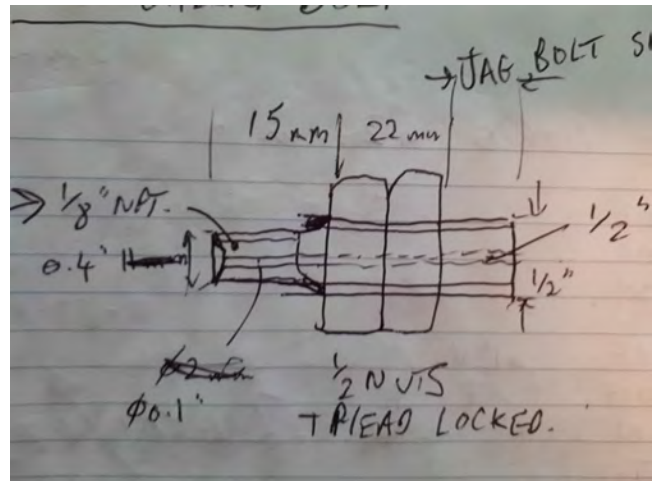
Having done all my calculations on thread clearances etc., it seemed possible. I do not have a lathe and getting pandemic access to one was hard, so I did what you should never do. Asked my wife to help me with power tools!! Actually she was great. Mounted the new "bolt" in my electric drill. Clamped that in a large vice, and had my wife control the speed. I held the file and slowly "machined" the threads off and took the OD to the required 0.4" for the $\frac{1}{8}$ " NPT die cut. Still with me?

Needless to say, there are no incriminating pictures of my wife and the power drill, but you get the picture. Then I cut the thread.

Finally I had to center drill it. This is also very hard without a lathe. I got it close enough that I didn't compromise the threads at either end and had my through hole.

Finally I removed the nuts, filed one fully flat on one side for the oil seal copper washer and then locked them back together with red Loctite. I fitted to the engine and tested it. It worked perfectly!! No leaks and even pulsed the gauge during engine turnover before starting. VERY

happy. **Now reads real oil pressure all of the time.**



Sketch of the oil pressure sensor adaptor.



Showing the oil pressure sensor adaptor. Note my lucky off center drilling. $\frac{1}{2}$ " UNF & male $\frac{1}{8}$ " NPT.

Now the oil temp sensor. Again, this is going in the oil gallery so requires $\frac{1}{2}$ " NPT male on the block side.

On the sensor side it needs $\frac{1}{8}$ " BSPP female. And of course a through hole.



Showing oil temp sensor adaptor. $\frac{1}{2}$ " UNF & female $\frac{1}{8}$ " NPT.

Continued on page 10

Continued from page 9



I tapped the oil temp sensor adaptor with 1/8" NPT. Very thin wall, but got away with it!!

Now, never let it be said that I don't learn from my mistakes. This time I cut the required piece of 1/2" UNF and took it to my local machine shop to centre drill both ends. This reduced dramatically the chance of my hand drill wandering off and ruining the adaptor.

Same procedure with the lock nuts. Slightly longer adaptor to ensure that the oil temp sensor did not impede the oil gallery at all.

So here is a shot of the finished dash panel with poached lower dash foam trim and (currently) laser printed switch labels. Does the job brilliantly and I do not miss any of the lost switch functionality at all. I do have a matching

black bezel for the top right Lotus mechanical oil pressure gauge. Time to drive!



Good to know more about what is going on with the engine.

Cost analysis :

Toggle switches	10 for \$15	\$15
5 Gauges (missing water temp.)	\$54 (Oil Press. Not used)	\$54
Blank aluminium dash panel		\$22
CNC machining of dash		\$100
Anodising the panel		\$60
Wire and connectors	Includes heavy ammeter	\$45
Jaeger wind up clock		\$65
UNF Thread stock and nuts	25 nuts, 3ft. Rod	\$17
Total		\$378

Time Analysis:

Design of dash CAD	Rhino CAD	06 hrs
Wiring dash out of car	Three attempts	40 hrs
Removal of old dash & labelling	New connectors throughout	30 hrs
Wiring in situ	New wires for ammeter & oil temp.	20 hrs
Debug	Sensor checking etc.	12 hrs
Total		108 hrs

Don't forget the dashboard wiring spreadsheet on page 15

Thanks to Dave Bradly

Did You Know?

For all of our aeronautical buffs, did you know that the worlds largest weather vane is at the Whitehorse Airport in the Yukon. The weather vane is a retired DC-3 mounted on a pedestal. The DC-3 pivots with as little as a 5-knot breeze. Originally put into service by Canadian Pacific Airlines in 1946, she now spends her retirement years forever flying into the oncoming wind.

A great retirement for an old Bird.....**Ray**



Etta's restoration part 3

(Continued from September)

A win for "while we are at it"!

The restoration project was always intended to be a total refresh. That said, many people are wise to limit themselves to working only on those things needed to take their car to their own restoration goals. For people wanting a more limited effort 'while we are at it' can be a dreaded idea that takes them over their target investment.

This is a tale that argues that some jobs are well worth doing 'while you are at it'. Rebuilding your differential is one of those jobs.

Here is my rear suspension upside down on the bench during reassembly. The round lump in the middle is the differential.



You can see the disks for the brakes on either side of the differential.

The shafts to each wheel are yet to be attached to the disks and the driveshaft enters on the far side.

Here is an image from Wikipedia that might make that easier to understand. The planetary gear are attached to the ring gear requiring that the driveshafts rotate. but each shaft can turn the planetary gears in order to allow the wheels to turn at different speeds.



CC BY-SA 3.0, <https://>

According to Wikipedia:

"A differential is a gear train with three shafts that has the property that the rotational speed of one shaft is the average of the speeds of the others, or a fixed multiple of that average."

It is worth reading the Wikipedia entry if you want, there is more background than I can give here but the key idea is that the shaft to each wheel can rotate at different speeds (hence differential).

This is necessary because, when turning a corner, the wheel on the outside of the corner must turn faster (it covers more distance) than the wheel on the inside.

This is the inside of my differential with some bits removed.

This works as follows:

- The driveshaft is geared to the large outside 'ring' gear which turns the red carrier housing. The top half of the carrier has been removed.
- The housing turns the four planetary gears by rotating the pins/axles that they ride on.
- The driveshafts (not shown) are geared to the planetary gears. So that the shafts can turn with respect to each other.



If this was all that there was to the differential, then the problem of getting around corners without scuffing a tire over the pavement would be solved but another problem is created. When one wheel loses traction it just spins while the other wheel stops or coasts. Some way of limiting this slip and transferring power back to the wheel that still has traction is needed. Limiting slip is the LS in LSD.

There are several possible solutions to the problem of limiting slip. Jaguar has used a clutch system, the Salisbury differential, in its cars. Even the F-Type uses an electrically operated clutch pack as part of its computerized thrust vectoring system. The E-Type uses a mechanical system to compress a pack of clutch disks bathed in lubricant.

Here is the same view as above with some additional bits of my differential re-placed.

The splined gear for the driveshaft can be seen in the center at the top. If you were to insert a shaft and turn it, the planetary gears would rotate on their pins which are held in place in holes in the red carrier.



Continued on page 12

Continued from page 11

However, even when the top half of the red carrier is replaced, the pins are only loosely held in the carrier. As either wheel tries to turn at a different speed, the flat section on the ends of the pins tries to ride up the 'ramps' in the carrier. You can see the ramps on the carrier for the pin at the front. The flat surface on the pin is better seen on the pin to the right.

When the pins ride up the ramps, the planetary gears lift the spacer above them. In turn this compresses the metal disks above: the clutch pack.

The tabs on every second disk fit into slots in the red carrier so they must turn with the carrier but they are smooth on their inside diameter so that the shaft is not connected to them. Each of the alternate disks have no tabs but they are splined to, and must turn with, the gear inside. As the shafts turn with respect to each other, the ramps compress the clutch pack, and the friction between the disks increasingly connects the shaft to the carrier, preventing it from spinning freely.

I've flipped over the top disk so you can see that it is dished. When the top of the carrier is in place this top disk acts as a spring and provides some level of compression at all times. The resulting friction must be overcome for the wheels to turn separately of each other. These disks are in almost constant motion with respect to each other. If you have your IRS out, they are a wear item worth checking 'while you are at it'. Given that they are inexpensive you might consider replacing them as a matter of course.

Here is what we found. This is a picture of that top disk from my differential. You can see the wear from the 70,000 miles it has traveled but, more important-



ly, this is the cham-berlain spring disk and it has broken from the many thousands of compression and release cycles. Looking at the wear at the crack, it seems clear that this disk has been broken for some time. This is not something I noticed while driving, but I'm very happy we checked!

So, what about also doing some upgrades 'while we are at it'?

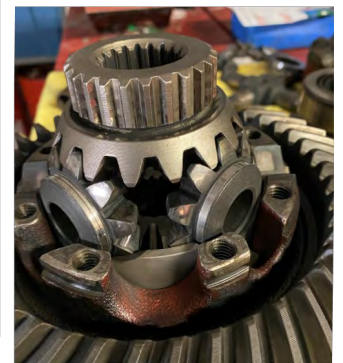
From all the discussion of friction above, it should be obvious why one might want to add a differential oil cooler if one were building a race or autocross car. We aren't and didn't but it is worth mentioning if you are.

What is not obvious from the discussion above is that the amount of friction is determined by things like the angle of the ramps and the number of clutch disks. This amount of friction affects handling in turns as well as traction for acceleration. Also, in the standard E-Type, the ramps work only one way: under power. If they were to work both ways, we would have to re-learn how we approach and power through corners, hopefully to our advantage for both performance and driven feel. Finally, we have lightened the flywheel so a bit more friction might be useful to keep both wheels firmly attached to the pavement for acceleration in lower gears.

We decided to change the LSD behaviour by modifying the ramps. Shown here are 30/60 ramp blocks from Dennis Welsh Motorsports.



They claim to: "transform the performance of the standard Salisbury Diff Unit, fitted without the original cross pins, improves strength, and the new angles improve grip under acceleration and reduces under steer when off the gas."



Here they are fitted in my differential. The red carrier required some machining to fit them and notice that the pins in the planetary gears are removed.

Continued on page 13

Your OJC Executive – 2020**President**

Lee Harrington

Vice President

Lee Keeley

Treasurer

Jay Hunt

Secretary

Dave Batten

Membership

Jay Hunt

Social

Josee Dubois

Concours Chair

John Blais

Concours Chief Judge

Rob Dunlop

Webmaster

Lee Keeley

Technical

Phil Karam

Jottings/Newsletter

Ray Newson

Communications & Advertising

Lee Keeley

Family Day

Josee Dubois

& Lee Harrington

Inter-Club Liaison

Dave Batten

Advisor/Ex-Officio

Dave Kenny

Ottawa

**Continued from page 12**

The ramp blocks themselves are tabbed into the carrier. The different ramp angles for both power and braking can be clearly seen. The planetary gear are driven by the ramps, not their pins, such that the ramps are always in play. Also, the ramps are curved, not linear. Finally, You can see the splines on the gear for the shaft (both inside and out) better in this shot.

I look forward to seeing how all this theory works in practice on the winding roads in the wilds of Haliburton.

Thanks to Mike Milton

Watch for next months Jottings, Mike shares his opinion re Oil Accumulators—not just for racing.

Mike would like to welcome any of your questions or concerns in regards to the modifications that he has incorporated into Etta's restoration. Mike can be reached by email at; mikemilton@icloud.com





*Jaguar Owners
have our full support!*



**CLASSIC
JAGUAR**

*With Moss Motors' professional sales staff, engineers, technical team, and a long legacy of service, Jaguar owners can expect top-tier parts selection and availability. And with two warehouses, our delivery is fast across the country. **Long live the Jaguar.***

XK120, 140, 150 / E-Type / Early Saloons / XJ6/XJS / XK8 / Late Models

800-444-5247 | www.XKs.com | parts@XKs.com

**S·N·G
BARRATT**
GROUP

buy parts online at sngbarratt.com



Events & Activities 2020

15

As previously noted in an email from our Social Director, Josee Dubois, unfortunately the Fall Drive scheduled for Oct. 3rd has had to be cancelled due continuing COVID concerns, 2nd wave.

For information on additional automotive events in the Ottawa area that may not have been cancelled go to:
www.ottawacarscene.com click on Car Show Calendar - check the website of any event to confirm still active

November	15th	Sunday	OJC 2021 Membership	May be paid anytime now
December	12th	Saturday	OJC Christmas Dinner	Time & Location to be announced
	21st	Monday	First Day of Winter	Looking forward to spring
	25th	Friday	Christmas	OJC Wishes you all a Merry Christmas
	31st	Thursday	New Years Eve	Drive Carefully & All the Best in the New Year

The Challenger Dash Spreadsheet

[Challenge dashboard wiring spreadsheet from page 10](#)

Dash Wiring						
Switch name	Connection position	Colour	Colour to car	Switch function	Comments	Switch selected
Smiths block connector	1	Green / Orange	Green / Black	Fuel sender		NA
	2	Red / White	Red	Positive (tachy/lights etc)		
	3	Black	Black	GND		
	4	Green / Blue	Green / Blue	Water temp sender		
	5	Purple	Purple	Flasher unit via fuse		
	6	White / Brown	Green / Orange	Oil pressure sender	VERIFY - is this really the oil pressure sender?	
	7	Green	Green	Fuse #1	VERIFY - is this +12V	
Washer	1 (lower PS)	Green			VERIFIED	SPST Momentary
	2 (lower DS)	Green / Black				
Interior (was fuel)	?	Red			VERIFIED	SPST
	?	Black				
Fan	1 (upper DS)	White / Green		Fan motor	NOTE : change to single speed fan VERIFY	SPST for one speed
	2 (upper PS)	Green / Yellow		Fan motor	OFF - 3,4 connected	3 position?
	3 (lower DS)	NC			SLOW - 2,3,4 connected	
	4 (lower PS)	Green		Fuse #3?	FAST - 1,2,3,4 connected	
Wiper	1 (upper DS)	Blue / Black			VERIFY??	3 position ?
	2 (upper PS)	NC			OFF - 5 connected to 7	SPST for one speed
	3 (upper DS)	Green			SLOW - 3 connected to 5	
	4 (upper PS)	NC			FAST - 1 connected to 3	
	5 (lower DS)	Green / Brown				
	6 (lower PS)	NC				
	7 (lower DS)	Brown / Green				
	8 (lower PS)	NC				
Sidelights	1 (lower PS)	Red			OFF - 1,3 connected	SPST
	2 (lower DS)	Brown		Connects to HEAD switch pos #1	ON - 1,2,3 connected	
	3 (upper PS)	Red		Connects to FOG switch pos #2	VERIFIED	
	4 (upper DS)	NC				
Headlights	1 (lower PS)	Blue		Shared SIDELIGHTS #2	OFF - 3,4 connected	SPST
	2 (lower DS)	Blue	Blue		ON - 1,2 connected	
	3 (upper PS)	NC			VERIFIED	
	4 (upper DS)	NC				
Panel dim	4 (lower DS)	Red / Blue	First step	Jumps to resistor on panel	change to ON / OFF only	SPST

FOR SALE

2004 JAGUAR X-TYPE SPORTWAGON



V6, 3 Litre 231 BHP, auto, AWD, 113,500 kms



leather, wood, A/C, sunroof, excellent interior

-owned since 2014, used as year-round daily driver

- excellent in winter; AWD, heated seats, heated windscreen
 - Includes additional Jaguar rims and Michelin winter tires
 - maintained /extensive mechanical renovation by Jaguar specialists...everything works including A/C
- Needs rocker panels / some cosmetic repair

ASKING \$3500

Rob Dunlop 613-834-0588 / rojedunl@hotmail.com

Advertising in Marketplace is free to OJC members, \$20 to others. Ads run for 3 months. Contact the Editor with your advert (editor@ottawajaguarclub.com) and forward payment to the Treasurer: Jay Hunt, 24-2420 Bank St. Ottawa, Ontario K1V 8S1

*Jaguar Jottings accepts advertisements in good faith. It is in your best interest to make every effort to **check offers personally.***

YOUR ADD HERE!!

OJC Billboard Inc.

enTIREly Mobile

Driven To You... Always



Rim & Wheel Repair Services

We Repair Wheels up to 30"



- ✓ Vibration
- ✓ Lateral Run Out
- ✓ Lug Port Distortion
- ✓ Overall Appearance
- ✓ Structural Integrity

Accuracy to 10/1000 inch

Ensure Your Family's Safety & a Smooth Ride

www.enTIRElyMobile.ca

613-406-8473

enTIREly Mobile

Don't forget, during this very unusual time of social distancing and major health concerns, Entirely Mobile can service your needs right in your own private driveway, with no need to violate social distancing rules and regulations.

Appointments can be made and instructions relayed by phone, text and email.

Payment can be made by VISA, MASTERCARD and E-TRANSFER.

Your vehicle will be serviced with no physical contact on your part, and no waiting around in busy Service Center waiting rooms.

enTIREly Mobile

Driven To You... Always



info@enTIRElyMobile.ca



613-406-8473



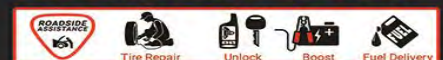
- NEW TIRE SALES
- SEASONAL TIRE CHANGE
- TIRE STORAGE
- NEW RIMS / WHEELS
- WINDSHIELD CHIP REPAIR
- WINDSHIELD REPLACEMENT
- AUTO DETAILING

At HOME or WORK

or any location in Ottawa & Gatineau

CALL NOW FOR MOBILE SERVICE

613-406-8473



www.enTIRElyMobile.ca



1300 Michael Street | Ottawa, Ontario | K1B 3N2 | 613.744.5500

Ottawa Jaguar Club Members enjoy discounts on parts and labor for work performed by Jaguar Ottawa. Club members must show their membership card to receive the discount. You will receive a 10% discount on labor rates. Parts, used at time of service, will be priced at cost plus 10%.