



# ***cam journal***

**Lotus Car Club of British Columbia**



# **Lotus Car Club of British Columbia**

**PO Box 44425, Westside RPO, Vancouver, BC, V6S 2C5**

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## **Advertising :**

|               | <u><b>Single Issue</b></u> | <u><b>One Year</b></u> |
|---------------|----------------------------|------------------------|
| Business Card | \$10.00                    | \$40.00                |
| Quarter Page  | \$20.00                    | \$80.00                |
| Half Page     | \$50.00                    | \$150.00               |
| Full Page     | \$70.00                    | \$200.00               |

## **Meetings: The First Wednesday of Each Month at 7:30PM**

**May 7, 2008 – Wednesday – 7:30PM**

**Mike Sattler**

**208 East Durham St.,**

**New Westminster**

**604.526.6806**

**June 4, 2008 – Wednesday – 7:30PM**

**Dean Moncado**

**646 Mont Royal Blvd.**

**North Vancouver**

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The Cam Journal is the official newsletter of the Lotus Car Club of British Columbia. The Cam Journal is published bi-monthly and is supported by membership dues and advertising revenues. All opinions expressed in the Cam Journal are those of the individual authors and does not necessarily reflect the opinions of the Cam Journal staff, the club executives or members of the Lotus Car Club of British Columbia. Others clubs are welcome to use material printed in this newsletter, provided the Cam Journal and the Lotus Car Club of British Columbia is duly credited. All contributions to this newsletter should be submitted to the editor by the published deadlines. The editor reserves the right to edit in whole or in part any and all contributions.

**Our new Lotus Car Club of British Columbia website:**

**<http://www.lccbc.ca/>**

**(Work in progress by Paul Reid)**

## Paul Reid – Exige S – Six Photos



Photos by: Paul Reid

# Calendar by Malcolm Muir

## MARCH

|       |   |
|-------|---|
| 5     | Monthly Meeting 7:30 PM   |
| 9     | Daylight Savings Time Begins  |
| 10    | Commonwealth Day (CA)   |
| 14-16 | FIA Australian Grand Prix F1<br>Albert Park Melbourne   |
| 17    | St. Patrick's Day   |
| 21    | Good Friday   |
| 21-23 | FIA Malaysian Grand Prix F1<br>Sepang International Circuit   |
| 23    | Easter Sunday   |
| 24    | Easter Monday (Canada)  |
| 29-30 | Driver Training (Confirmed)<br>Mission Raceways<br><a href="http://www.sccbc.net">www.sccbc.net</a> |
| 29-30 | British Touring Car Championship<br>Brands Hatch  |

## APRIL

|       |  |
|-------|--|
| 2     | Monthly Meeting 7:30 PM  |
| 4-6   | FIA Bahrain Grand Prix F1<br>Bahrain International Circuit   |
| 12-13 | British Touring Car Championship<br>Rockingham, Northamptonshire   |
| 12-13 | CACC Race #1<br>Mission Raceways   |
| 18-20 | Defrost Kick-off Vintage Car Races<br>Pacific Raceways, Kent, WA<br><a href="http://www.sovren.org">www.sovren.org</a> |
| 25-27 | FIA Spanish Grand Prix F1<br>Circuit de Catalunya, Barcelona   |

## MAY

|       |  |
|-------|--|
| 2     | Cam Journal Deadline Submission<br>May-June Issue  |
| 3-4   | British Touring Car Championship<br>Donington Park   |
| 3-10  | One Lap of America Challenge<br><a href="http://www.onelapofamerica.com">www.onelapofamerica.com</a>                                     |
| 7     | Monthly Meeting 7:30 PM  |
| 11    | Mother's Day   |
| 9-11  | FIA Turkish Grand Prix F1<br>Istanbul Park   |
| 16-18 | Knox Mountain Hillclimb<br>Kelowna, BC<br><a href="http://www.knoxmntnhillclimb.ca">www.knoxmntnhillclimb.ca</a>                         |
| 17-18 | All British Field Meet<br>Van Dusen Gardens, Vancouver, BC<br><a href="http://www.westerndriver.com/abfm">www.westerndriver.com/abfm</a> |
| 17-18 | British Touring Car Championship<br>Thruxton   |
| 17-18 | SOVREN Spring Sprints<br>Pacific Raceways, Kent, WA  |
| 19    | Colin Chapman's Birthday (1928)  |
| 19    | Victoria Day (CA)  |

## MAY

|       |  |
|-------|--|
| 22-25 | FIA Monaco Grand Prix F1<br>Circuit de Monaco, Monte Carlo |
| 26    | Memorial Day (USA)<br>Circuit de Monaco, Monte Carlo       |
| 26    | Memorial Day (USA)   |
| 31    | British Touring Car Championship<br>Croft                  |
| 31    | CACC Race # 2<br>Mission Raceways                          |

## JUNE

|       |  |
|-------|--|
| 1     | British Touring Car Championship<br>Croft                      |
| 1     | CACC Race # 2<br>Mission Raceways                              |
| 4     | Monthly Meeting 7:30 PM  |
| 6-8   | FIA Canadian Grand Prix<br>Circuit Gilles Villeneuve, Montreal |
| 14    | Flag Day (USA)   |
| 14-15 | SOVREN Maryhill Loops Hillclimb<br>Goldendale, WA              |
| 21-22 | ICSCC Race # 1<br>Mission Raceways                             |
| 22    | FIA French Grand Prix F1<br>Circuit de Nevers Magny-Cours      |
| 27    | Cam Journal Deadline Submission<br>July-August Issue           |

## JULY

|       |  |
|-------|--|
| 1     | Canada Day   |
| 2     | Monthly Meeting 7:30 PM  |
| 4     | Independence Day (USA)   |
| 4-6   | Pacific Northwest Historic Races<br>Pacific Raceways, Kent, WA |
| 6     | FIA British Grand Prix F1<br>Silverstone Circuit               |
| 12-13 | Portland Historic Races<br>Portland International Raceway      |
| 12-13 | CACC Race # 3<br>Mission Raceways                              |
| 12-13 | British Touring Car Championship<br>Snetterton                 |
| 19-20 | Driver Training<br>Mission Raceways                            |
| 20    | FIA German Grand Prix F1<br>Hockenheimring                     |
| 26-27 | British Touring Car Championship<br>Oulton Park                |

## AUGUST

|     |  |
|-----|--|
| 1-3 | FIA Hungarian Grand Prix F1<br>Hungaroring, Budapest |
| 4   | BC Day   |
| 6   | Monthly Meeting 7:30 PM                              |

# Calendar by Malcolm Muir

## AUGUST

- 16-17 Historic Motor Races - VRCBC  
Mission Raceways
- 16-17 British Touring Car Championship  
Oulton Park
- 22-24 FIA European Grand Prix F1  
Valencia Street Circuit, Spain
- 29 Cam Journal Deadline Submission  
September-October Issue
- 30-31 Columbia River Classic Races  
Portland International Raceway
- 30-31 All British Field Meet  
Portland International Raceway  
[www.abfm-pdx.com](http://www.abfm-pdx.com)
- 30-31 ICSCC Double Race Weekend  
Mission Raceways
- 30-31 British Touring Car Championship  
Silverstone

## SEPTEMBER

- 1 Columbia River Classic Races  
Portland International Raceway
- 1 Labour Day
- 3 Monthly Meeting 7:30 PM
- 7 All British Picnic
- 5-7 FIA Belgium Grand Prix F1  
Circuit de Spa-Francorchamps  
Hougan Park, Abbotsford
- 11 Patriot Day (USA)
- 12-14 FIA Italian Grand Prix F1  
Autodromo Nazionale Monza
- 20-21 Fall Finale VRC/SOVREN  
Pacific Raceways, Kent, WA
- 20-21 CACC Race # 4  
Mission Raceways
- 20-21 British Touring Car Championship  
Silverstone
- 26-28 FIA Singapore Grand Prix F1  
Singapore Street Circuit

## OCTOBER

- 1 Monthly Meeting 7:30 PM
- 10-12 FIA Japanese Grand Prix F1
- 11-12 CACC Race # 5  
Mission Raceways  
Fuji Speedway, Oyama
- 13 Thanksgiving (CA)
- 13 Columbus Day (USA)
- 17-19 FIA Chinese Grand Prix F1  
Shanghai International Circuit
- 31 Halloween
- 31 Cam Journal Deadline Submission  
November-December Issue
- 31 FIA Brazilian Grand Prix F1  
Autodromo Jose Carlos Pace

## NOVEMBER

- 2 Daylight Savings Time Ends
- 1-2 FIA Brazilian Grand Prix F1  
Autodromo Jose Carlos Pace
- 5 Annual General Meeting 7:30 PM
- 5 Guy Fawkes Day (GB)
- 11 Remembrance Day (CA)
- 11 Veteran's Day (USA)
- 27 Thanksgiving USA

## DECEMBER

- TBA Club Christmas Party
- 25 Christmas Day
- 26 Boxing Day



## ***Len Green - Letter to the Editor - Why Don't You Buy a Lotus Elise?***

At eight o'clock in the morning we set off to visit our trustworthy car dealer nestled in a small village about 30 miles away from Swindon. It's where, you may recall in 2005, we bought the V6 Rover 75 embellished with all the trimmings. Well, it was time for its annual check-up. Unfortunately, way back last September, we overlooked the MOT (emission testing, etc.) Consequently, that oversight required immediate attention in order to satisfy governmental regulations, the avoidance of a severe fine notwithstanding a small contribution in the form of a stealth tax. Also, pity me. To my chagrin, I recently scratched a square foot of the driver's side front bumper on a hedge while backing out of a parking lot. Well, naughty, naughty. Accordingly, I was chastised by the 'Lady of the House' complaining, in exasperation, "Serves you right! You should be more careful." To save face, I had no alternative but to condescend to artistic airbrush decoration in exchange for a further contribution in Pounds Sterling.

Normally, the garage owner provides a courtesy car for an overnight return journey to Swindon. Invariably, Maggie drives home because it's a car fitted with a manual gearbox. Yes, I am spoilt. I prefer an automatic transmission, commensurate with 50 odd years of winter and summer nonchalant driving in Canada. At my advanced age (you know the count); I need to concentrate on avoiding the antics of young and incompetent drivers, rather than trying to establish which gear I am in at a most inopportune moment.

On this occasion, the owner said: "Oh, Mr Green, I remember, you prefer an automatic transmission. Wait a moment, I'll just go and see what I have in the back. This is what he offered:



Now you would wonder why I—being familiar with North American Chrysler Imperials, Chrysler New Yorkers and (God forbid) Rover 2000TCs—would ever consider driving a Citroën Picasso?

"See that red light? It's the parking brake. It will automatically release when you start the car."

"It will?" I questioned, never trusting any device described as automatic.

"To start the car," he continued, "Put your foot on the brake and turn the key."

Subsequently, I was naively advised, "And you'll find the gear lever on the dash above the steering wheel."

"Where? Oh, I see, that's it over there?"

It was a tiny, most inconspicuous chrome lever with R-N-A-M printed in minuscule letters on the dash.

Unperturbed, I drove away. To me, it felt like a truck. Drove like a tank. Wobbled like a duck on water and steered like a Lancaster bomber. The car had its superior moments when you pressed the accelerator. It virtually choked-up almost to the stalling point. Simultaneously, and for additional excitement, we occasionally found ourselves surrounded by a cacophony of horns blaring in harmony at me, an elderly gentleman, trying his best to get a few extra horse-powers out of simulated 'donkey'. At this juncture, Maggie was killing herself laughing at my antics.

Worst of all, chaos reigned while trying to sort out the plethora of controls underneath the steering wheel. I was even more surprised to discover that the center part of the steering wheel/column remained stationary while I tried in vain to make the circumference rotate!

# ***Len Green - Letter to the Editor - Why Don't You Buy a Lotus Elise?***

"It's too damned hot!" Maggie cried, "Where's the heater controls?"

"I don't know! And I don't have time to search for any buttons, I've got to steer this thing in a straight line and keep my eyes on the road."

I was not sure if other drivers were absorbing the advertisement on the car or apprehensive about my attempt to keep the 'sit-up and beg' car/truck/van/camper at a safe distance. Then there were all the confounded levers and switches around the steering wheel, each without a name and installed in the most unusual places. Yes, there were lots of indecipherable icons but... Oh, what a nightmare. Then Maggie decided she wanted to make a fifteen minute detour via Bristol. Just to visit Marks and Spencer so conveniently located in a large shopping mall.

## ***Here's Maggie's version.***

We managed to get to the Mall but it took two attempts to park between the white lines. Understandable! The entertainment began when we returned to the parking lot. Having completed my shopping spree, all we wanted to do was back out and be on our way. Wrong! Half way out some clown in a Mercedes, obviously in a great hurry, tried to get into the half vacant space as we attempted to reverse. This locked us jammed at an angle of forty-five degrees.

"Bl.....y idiot," muttered Len.

During the melee we managed to completely block the one-way exit. Cars were now piling up waiting to leave. While we experienced a backward and forward motion (Len remarked in a professional manner that it was due to a loose accelerator cable or a kangaroo diesel injection system), I was reduced to the giggles because suddenly every aid to driving—including flaying windscreen wipers, side indicators, lights and every other movable part—were frantically responding to his inability to reverse without beautifying a concrete retaining wall. Eventually, we managed to exit the car park. In the process, one of us must have interfered with a secret device. The radio began to blare at us from all corners of the car.

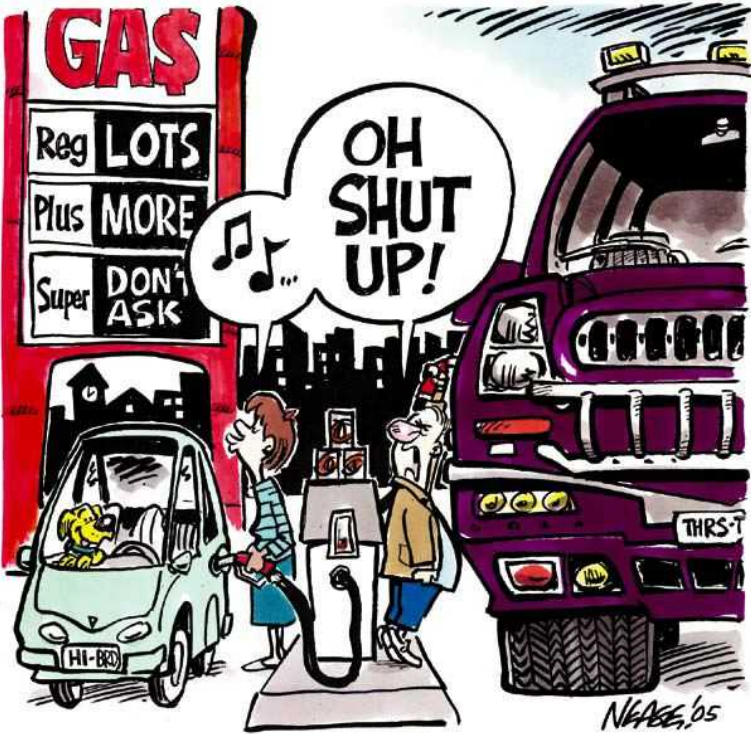
"Please turn the radio off," I asked, "Rap music drives me insane!" Surrounded by an inordinate amount of chrome, levers, buttons, and dash panels I couldn't find anything resembling a radio control panel.

"Hell, I don't know where they hid the damn controls!" replied Len, becoming more and more agitated as he applied his ancient skills to get us safely back to Swindon. Then, as I began to search for the elusive radio controls, there came a desperate cry from Len, "Don't touch anything! You don't know what will happen. Where's your earplugs?" as we hurtled eastbound down the M4 motorway. I've never seen Len display such alarm, quite uncharacteristic. Entering by the front door, I heard him mutter under his breath, "Strewth. It's just dawned on me. Tomorrow, I have to drive it all the way back again." Trying to console the poor soul I suggested, "Ever thought about being as smart as your son and buy a Lotus Elise? In fact, why don't you just sit down and I'll make a nice cup of tea?"



## **Ron Solomon – Europa TC – Swiss Army Car**





## ***Mike Boyle – Europa TC & Esprit V8 – St. George's Day***

The last issue of the Cam Journal had an entry form for the LAMB club's annual British car show in Fort Langley. Now that the event has come and gone, this is a brief report on how it turned out.

The three basic points to report are that it was a successful show, there was a roughly 5% Lotus participation rate (3 cars out of 60), and despite sunshine for most of the day it was bloody cold. There was also one British aircraft on display - a replica Sopwith Camel made to match the original factory plans. This last item was on display courtesy of the Museum of Flight, based at Langley airport.

This was the third year for the St. George's Day show and it seems to be gathering some momentum as an opener for the car meet season. While it is, and will remain, much smaller than the Van Dusen ABFM there was a good variety on display. Apart from the Sopwith, the notable vehicles on display included a Bedford army truck, a Land Rover rescue/recovery vehicle, a couple of TVRs and the three Lotus. The Lotus on display were my Europa, Dave Rush's M100 Elan, and a Series 4 Elan. With 60 cars in total, the size of the field pretty much maxed out the available space at the Fort Langley Community Hall and I expect that entries will be capped at that level in subsequent years.

Unlike Van Dusen, this is not a judged event and no prizes were awarded. There is a featured car placed front and center in the display, but it is chosen by a random draw from entries turned in by the end of March. The featured car this year was a 1960 TR3, and thankfully it was a shiny one.

This show does have a \$10 entry fee that gets you there for the day and includes a "goody bag" for all participants. The organizing group is quite good at putting the arm on sponsors so the goody bag is better than the stuff that is handed out at Van Dusen. The 2009 show will be on April 19th, so keep it in mind for next year.



**Photos by: Mike Boyle**



## **Malcolm Muir – Cortina GT – News**

This e-mail came to me through my Yahoo Capri list forum regarding waiving of emission testing for pre 1976 vehicles in California. Here is the text and link below. Thought it would be good for the Cam Journal. Not certain if we have an anti-AirCar champ or lobbyist currently in the club, but it's food for thought.

### **Old Car Emissions Exemption No Longer Threatened in 8 California Counties**

“Congratulations! The California old car hobby convinced California Senate legislators to amend legislation (S.B. 1549) that sought repeal of the state’s current emissions test exemption for pre-1976 vehicles registered by new owners in the San Joaquin Valley Unified Air Pollution Control District. The District includes eight counties in California’s Central Valley. Under the original bill, after Jan. 1, 2009, new owners seeking to register a pre-1976 vehicle in these eight counties would have been subject to emissions tests for the life of the vehicle. Under the amendment, the repeal language was removed and the bill instead now requires the DMV to study the state’s special license plate programs and recommend improvements. Thanks to all of you for contributing to this successful resolution!”

<http://www.semasan.com/main/main.aspx?id=62398>

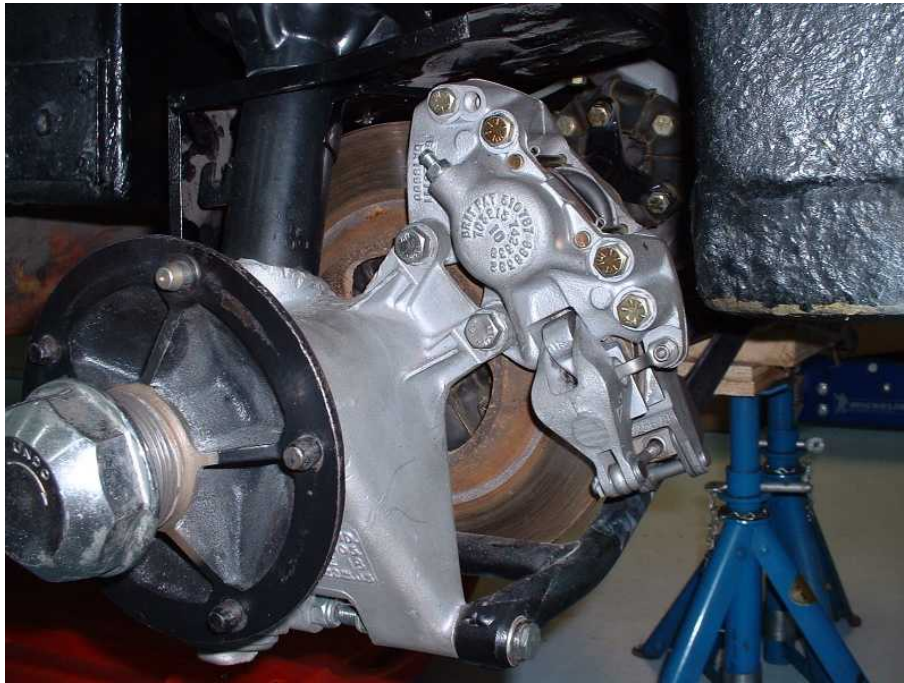
Brakes, I never seem to win with brakes. The car came with what appeared to be rebuilt calipers and a beautiful brake booster (all painted and clean)..The rear calipers were partially assembled without the hand brake parts. I found the parts and some old park shoes and had the shoes re-lined locally. Looking at the manual pictures allowed me to assemble and install these.



Well “kind of” install them. The near side one went on easily, fit like a glove. The off side one just would not go on. And from day one, this side of the rear suspension allowed it's brake disc to ride on the lower A-arm. Strange..! So on this side of the car, and I'm sure it was to try and stop the disc from hitting the A-arm, someone had put washers between the discs and the wheel hub. This meant that the caliper wouldn't fit over the disc as it was now offset. Ok, rip apart the suspension, take the disc off, remove the stupid washers and reassemble. You try to make those Roto flex couplings bend enough to get the half shafts on. It took me about a half a day to do this one. The brake disc was still hitting the lower A-arm, the answer to this one later, but, the caliper was on. I carefully made up new lines, following the picture in the manual. All ready to go, just add fluid. Well the juice didn't even make it past the brake booster, it poured out of the bottom of the booster. So I pulled this out and took it apart. No, the spring didn't end up in the next door neighbor's yard, I was prepared for it. Long story short, the booster was missing some internals. I have no idea what, but there is something which is supposed to seal the fluid from the big diaphragm, and it's not there.



And, this booster isn't like anything in any of the Lotus manuals. The car came with it mounted on a great looking bracket, so I had assumed it was supposed to be for this car. Maybe so. After finally finding a company in the midlands of England who said they would be able to rebuilt it (over a four month period), I had a plug made up in our shop and jammed it into the end of the booster's bore. The booster became a reservoir. Re-fill the master and try again. No problems this time, I managed to get fluid to all the wheel cylinders. But I couldn't bleed the dam thing. Now this car came with the calipers already mounted (at least the front ones) and had the bleed screws already installed. So I had piped the lines up to the open ports. Wrong again. Someone had put the bleed screws into the feed ports and I fell for it. Studying the manual pictures again and I realized the problem. Re-bend what brake lines I could and re-make three of the four wheel brake lines and try again. Still no brakes. I was using a positive bleed tool (one way system) and was going through Castrol brake fluid literally by the quart. I thought I'd better check these calipers. So I took the first one off and split it. Ya, I know, you aren't supposed to do this. At this stage of the game I'd given up on the "rules". Everything looked ok, but I couldn't get the pistons to move. They were jammed solid. So I ordered all new seals & boots and set to work to pry the pistons out. I got them apart and found they were caked in some kind of cement type dust and dry as a bone. Great. Take all of the calipers off the car and rip them all apart, finding the same problem to various degrees with each piston. I also found two calipers had new pistons, one with good old pistons and one with a piston savagely corroded. Order some new pistons and re-assemble everything coating all the pistons liberally with brake piston oil. The pistons slid in and out with ease. Put everything back on the car, re-connect the lines and start again. This time I started getting brakes, but not good brakes. I couldn't seem to keep the fluid level maintained in the master cylinder, it would run out of the first line and back into the cylinder each time I took my foot off the brake. I knew it was supposed to do this to some degree, or you would have the brakes locked on after using them for the first time, but this was way out. Take the master cylinder out and re-build it, re-install and have the same problem. Try a different but similar cylinder which was in the box of parts, and find the problem continued. After a lot more wasted fluid and time, I decided my fancy line coming out of the master cylinder ran too high before it ran off to the brake booster (reservoir, right..!). So I made an incredibly low line to the booster with a reverse trap, just like an inverted sink drain. It worked. Now I had brakes, no boosted brakes, but brakes all the same. I drove the car for the first 50 miles with no booster. It worked, but I had no idea of how good or bad the brakes were supposed to be. Eventually, I found a good original booster, made up new mounting brackets, installed it and man, what a difference. This little car can stop..!



Wiring check out. As I indicated before I'm not an electrical guy and I had never done an electrical check out on anything, so I enlisted the help of a friend who's a real pro when it comes to this stuff. We spend a full day together going through all the circuits and got most things working. He left me with a few niggles to sort out. It took me a good number of hours to figure out that the horn wouldn't work because there was no ground through the steering shaft. I ended up running a wire through the universal joint to make continuity and in looking at a picture of the steering area in the manual I could see a washer/pig tail coming off the steering box plug. Must be for a ground....! I had one circuit (the light switch) which wouldn't work. This switch is located directly beside the ashtray in the dash. The distance from the back of the switch to the heater body is only enough to allow the spade connectors to be pulled off or put on & the wires are all bent at a full 90 degrees as they come off the back of the switch. There are three wires on the back of the switch and I put them on exactly as the wiring diagram shows. In order to check this switch I had to take out the ashtray and with bent over needle nose pliers pull the connectors off and put them back on in different order.

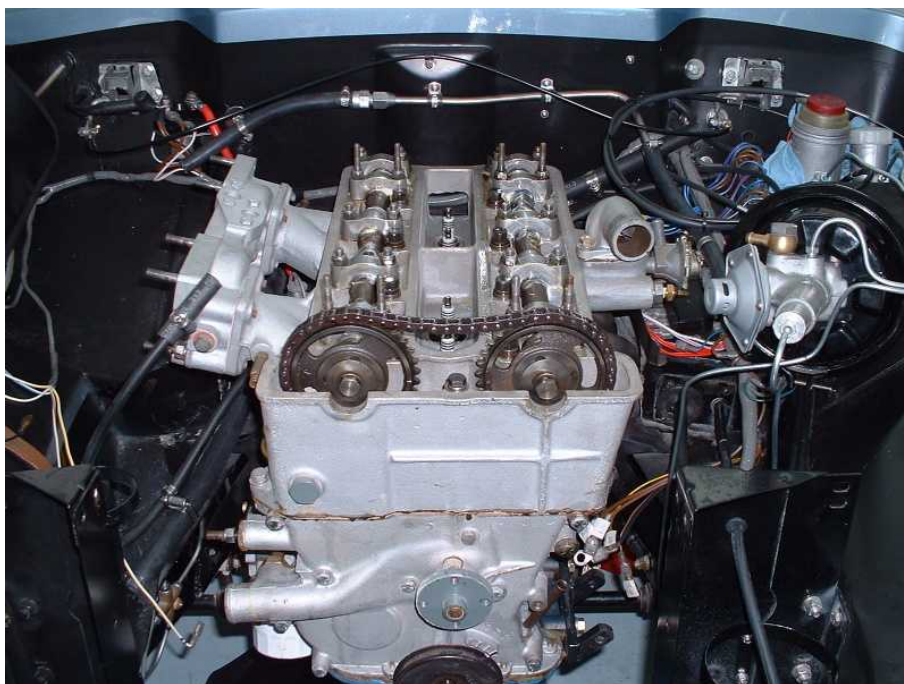
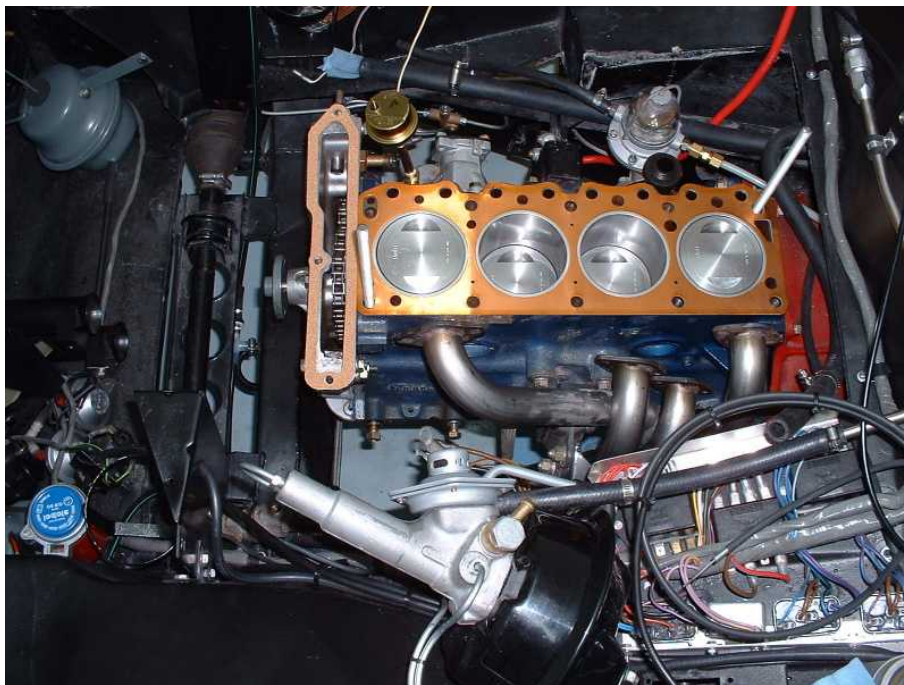
What did I do, I broke one of the spade terminals off the back of the switch. I had no spare switch, and I couldn't take the bloody thing out or the dash anyway. Boy was I pissed off at myself. Dave Ledland came to the rescue with a bunch of old switches he took out of the +2S he broke up. I managed to clean up the body of the right one and then came the issue of getting the old one out, ripping the two apart and putting a rebuild one back in. It took me 5 hours with specially bent Phillips screwdriver and two different types of needle nose pliers to take out the two #4 Phillips screws holding the switch in place. Before putting the cobbled up new one back in, I tried every combination of wire arrangement I could and found, the wiring diagram in all of the manuals was incorrect. Great..! It took me the better part of a day to re-install the new switch, quitting many times for 'temperament control'. It was finally re-installed and worked.

Alternators....have you ever had a alternator, with no wiring diagram for the connections on the back, and one extra wire in the loom which no wiring diagrams show..? I have. This car, as I got it, was all set to be a Generator to Alternator conversion. I took the alternator to a local Alternator/Generator/Starter Motor rewinding shop and asked them to tell me what all the terminals did and what should be connected to them. Very helpful, they told me it was a Lucas unit and exactly what should go where. I determined the extra wire was just a duplicate. As soon as I put power on the car's system, without doing anything, no ignition on nothing, the ignition light came on. I tried everything I could, I even took the alternator out and back to the same shop and talked to a different guy, and got the same answer. I still wouldn't work. I was really worried about starting up the motor because I didn't want to fry a brand new alternator, or worse yet, burn up all my new wiring. Finally one day at work I asked our company electrical engineer. He put my mind to rest that if I swapped the "supposed" tack signal for the "supposed" battery condition lead, I would not wreck anything. I tried it and voilá no more light. All the while I was trying to figure out this mystery light, I was at the same time trying to figure out the ignition switch. This switch in my car didn't have the same number of or designation of posts on the back. I tried to use three different wiring diagrams to figure it out, with no luck. In the end I just used simple logic (after checking and re-checking with my multi meter to see what happened when it was switched from position to position). It ended up with the wires in positions which according to the wiring diagram for my specific year of car, is totally incorrect. I had one more electrical glitch after start up. The temp sending unit for the fan didn't work. I ended up running a wire to the light switch to turn the fan on (each time I turned the light on) as a temporary measure.

The engine was supposed to be all done, It looked all done, other than.....having to make up new brackets for the alternator conversion, take off the headers and grind a bit off the chassis so they would fit, and re-install, find a circlip for the clutch salve cylinder which shot out of its mount the first time I pushed the clutch pedal down, determine that there was some kind of speedometer angle drive missing and buy this, find an oil pressure sending unit (I tried four different types, one specified from the UK, one specified from the States, one tried from Lordco and eventually purchased one for a lot of money locally. The sending unit is from a XK120 Jag, which seems to be the only motor which uses a 0-60 psi range and gage. The rest of the civilized world uses 0-100 psi. If you don't use the right type, you don't get a proper oil pressure reading when running. It took me eight different "fan belts" to get one which worked with the alternator conversion. I finally got everything all together and was now pretty much ready to see if it would fire up.

Here comes a bit more fun. I filled the motor with oil. I filled the gear box and diff with oil, I filled the windscreen bottle with washer fluid. The last thing to fill was the radiator. I filled the rad with coolant, and it went in and in and in. It wasn't pouring out on the garage floor so it was going in there. I started thinking, man this has way more capacity than what I would expect..! After standing staring at the car for about ½ hour, I decided to confirm my worst thoughts.....I pulled out the dip stick. Yup, the oil level had risen to where it was about to flow out of the dip stick tube. Shite, it couldn't be true..! I realized it was, the coolant was literally flowing into the engine somehow. Pull the engine apart, nooooo..! I decided to give up, I wasn't going to make Van Dusen this year. The car had won, I was depressed. I wined to a couple of friends and they made me snap out of it. Thanks to Phil Entwistle and Dave Ledland because if they hadn't given me encouragement I think I might have quit.

So after regaining some composure I tore everything apart: fan assembly, rad out, hoses and wires and V-belt off, carbs off, exhaust headers off, head off, alternator off, starter off, break booster out, brake lines out of the way, anti-sway bar off so I could take the oil pan off (finding someone had broken off one of the pan bolts, leaving its shank stuck in the block, which I then drilled out & re-tapped), take off the timing chain cover & front motor plates, and there it was...! Some bastard must have used a flat blade screwdriver to pry the timing chain cover off the motor front plate because there was a ¼" wide by .030 slot right in the mating parts of the water pump. And, to make matters worse, the water pump hadn't been assembled correctly, the impeller ground on the housing and it wasn't seated far enough in to allow the O-rings to seal. So the water pump wouldn't have worked anyway. I'm not happy..! I had the gap welded up & I ground it flush, fixed the water pump and slowly put it all back together. I decided that while everything was apart, I'd check the bearing fits, and so took off the mains & con rod caps checking each fit as I went. All were all ok. I found the center main cap had been installed backwards, don't know why, but I put it around the correct way. This took me about a week and a half in the evenings to reassemble everything.



I was ready again, but terrified. My luck wasn't too good so far. With a charged new battery, fuel in the tank, plugs out to spin it over & get some oil pressure up, I spun it over, lots and lots. I didn't really get the oil pressure I thought I should, but thought it had to be getting pressure because I had checked everything. I did get lots of gas pouring out of the fuel pump, so I had to tear the fittings out and put together some new ones. Leak solved. Plugs in, HT lead on and with a shaky hand I started to turn it over. Nothing. I had installed the distributor according to the book, but have come across peculiarities in the past so I went radical and advanced the distributor to where it shouldn't have run. Cranked it again and after lost of coughing, spluttering, and a bit of kicking back (this scared me), I finally got it to run. I went through a period of absolutely heaps of petrol blowing out of the back carb while going through this process. I'm still not sure why but somewhere during my adjust and readjust trials, it stopped pissing out. I'm sure all of you have gone through this one, you get a motor running and want to be able to get out to that motor and see what is happening, to check that nothing is leaking, on fire, etc. but you can't get out of the driver's seat and run fast enough around to the carbs to hold the throttle on. Each time you try it goes dead. After mucking about with the idle screw to hold the revs up at about 2500, I was finally able to move from the driver's seat to the motor to check things. All appeared ok with the exception of the front carb which leaked fuel each time I shut the motor off. This healed its self, don't ask how or why, but it did.

This motor had stainless steel headers. While doing the initial run up, these pipes went through their “burning in” phase where they change colour. I was convinced that the mixture was so lean the motor was running way too hot, so I adjusted the carbs up to max richness. You can’t do too much with these Strombergs and I much prefer the good old SUs which you can adjust all over the place if you want to. I was convinced that the pipes were starting to go cherry red, and maybe they were. I’ve never had a motor with stainless headers before and maybe getting this colour during start up is normal.

I adjusted the distributor to try and match the book dwell, and then did my fine tuning on the road making loops around the block, changing the distributor each time I got back to my garage. I could not get the car to start easily each time and at the same time have good pulling power by adjusting it to match the book. I ended up doing it way I was taught, by trial and error. In the end it started well, and pulled really strongly. With just under 50 miles on the odometer, I took it to Van Dusen where it did well in it’s class.



So now I was really getting into road testing to sort out anything which might come up. And, stuff happens. The rear suspension made lots of banging as I went over bumps. I was convinced this had to do with the brake rotor hitting the A-arm and when I shook the wheel, it had play. Hmm...! The whole hub was tight, there was no play in any of the suspension joints, so I was guessing it had to do with the rear damper. The rear damper on these cars sets the lowest travel of the suspension. With the car jacked up, the right hand side didn't drop as low as the left hand side. Shocks for these aren't cheap, they are in the \$250.00 range. Bite the bullet and buy a shock. Rip apart the LH suspension by pulling the brake calipers off, again, fight with the Roto Flex donuts, pull off the hub/shock assembly and remove the shock. Just for fun, before I put the new one in, I decided to pull the rod as far out of each shock as it would go, to see if there was any difference. Amazing, the old one extended 1-3/4" more than the new one. And for some strange reason if you shook the old one's rod when it was extended it's bottom banged about in the bottom of the hub/shock tube. Reassembly it all, I was starting to get good at this now. Low and behold the brake disc didn't hit the A-arm. Out on the road again and the banging more or less went away.

I did a blast up to Whistler in the hottest day of the summer, the ambient temp gage said over 30 degrees and it didn't lose any coolant, but the temp did go off the scale numerous times as I had to keep stopping for the construction. The car managed to run ok with the exception of a rear end noise which got worse as I got back toward home. This was a new one for me. I got this clicking sound, only under deceleration. I also started to get diff oil coming out of the RH diff stub axle seal. Good, a couple of new things to figure out. I was convinced the clicking was bad back lash in the diff. I was told this unit had been rebuilt many years ago as one of the first restoration items, but I long ago lost all confidence in anything which had been done to this car. I found the cause of problem while I was sorting out the diff oil leak. This involved, pulling off the RH half-shaft axle and both Roto Flex donuts. Oh I'm getting to have a big hate for these suckers. I made up a stub axle puller, and out came the stub axle. An amazing find. Right where the oil seal runs some silly bugger must have clamped the axle in a vise, because there were great looking vise tooth impressions on each side of the axle. Fettle off all the burrs as best I could and reassemble everything, with a new bearing and seal of course.

While I was getting ready to reinstall the stub axles I stood mindlessly staring at the coupling bolts for a minute and realized some had a threaded section about 1-1/4" long and some had threads which only were about 3/4" long. Odd..! I decided to dry fit the bolts through the Roto Flex and the axle flange and see how much thread I had available to torque the nuts down. Oh boy, the 3/4" threaded bolts allowed one to torque the bolts down alright, right down onto the end of the thread. So the assembly looked and felt tight, but there must have been about 1/64" play. Just enough to allow some of the bolted assembly to open up and click closed as the axle turned and flexed the coupling. I had by the way already gone through all of these bolts, torquing them per the book during the "process". Anyway, out comes the die set, run longer threads onto the short threaded bolts, and, pull the bolts all out of the other side, finding two of these requiring the same treatment. Reassemble it all, road test it and the clicking is gone.

Now I had a pretty good running car, but, another minor problem had increasingly reared it's head during all this road testing. Gear box oil started to weep out of the bell housing. I was hoping whatever it was would heal it's self., but no. it's just getting worse. After 500 miles of driving, I have lost 1/2 pint of oil. To me that is too much to ignore, or to have to constantly top up. I want to be able to drive this car further than to Seattle and back without having to add gear box oil, or replace the clutch 'cause this will be the next thing to screw up if it has oil constantly vaporizing about as it runs out of the front of the box. For most cars this wouldn't be a big problem. Just disconnect the drive shaft and pull the gear box out, replace the front seal and reinstall. No big deal...! Anyone who owns and Elan or Elan +2S knows maintenance on the gear box is not small, it is a BIG deal.

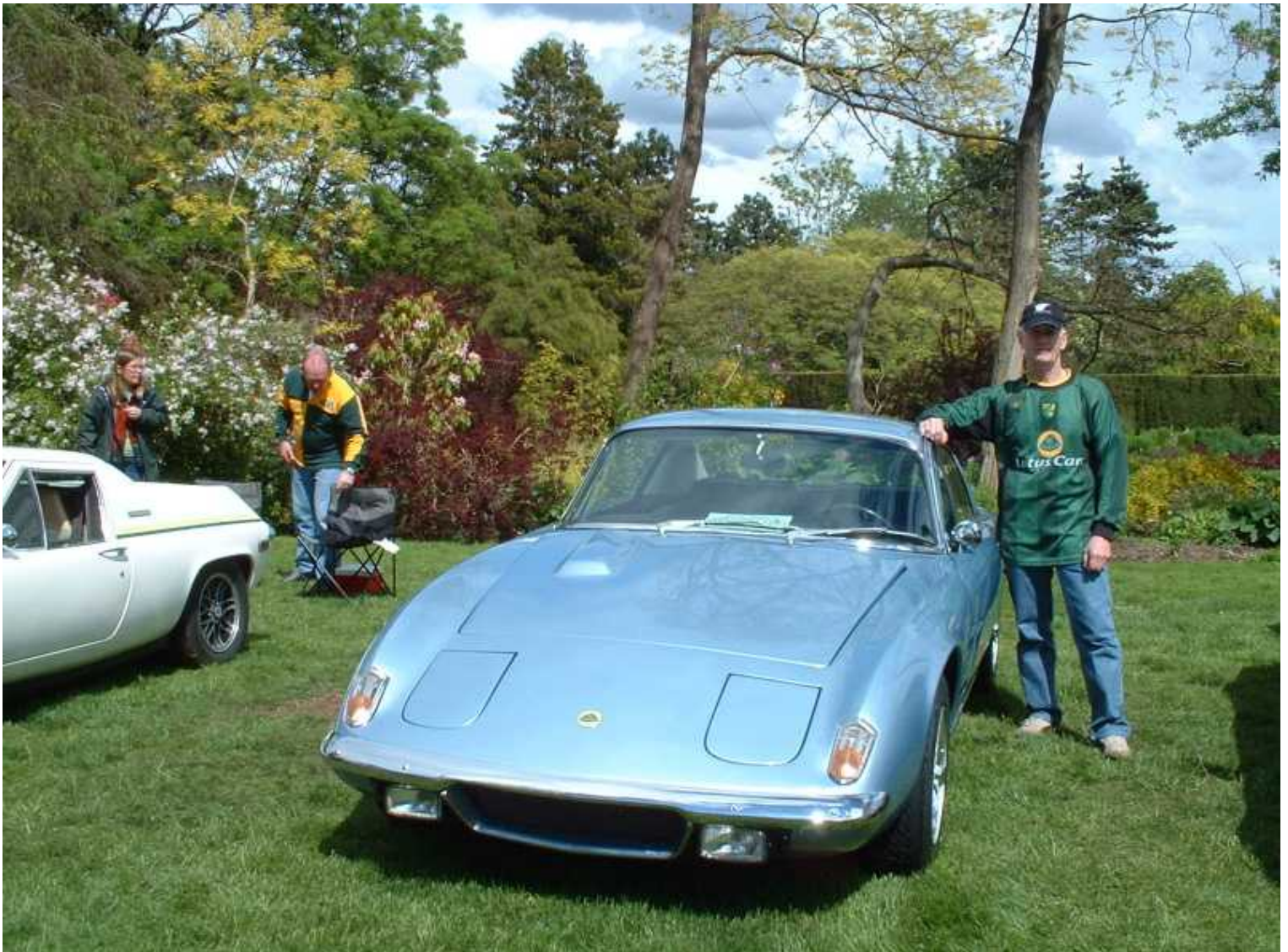
And this is where I am going to stop this rambling account. This winter I'll remove the gear box, which has to come out complete with the entire motor after I remove the seats, tunnel cover, driver side under dash interior, bonnet, fan assembly, rad, brake booster and ancillary engine components.

One day, I intend to have a +2S which goes down the road and doesn't spew some kind of fluid all over the place or make scary noises. I can tolerate a bit of fluid weeping, but leaking, draining or pumping is out of the question. I can live with rattles but bearing or savage suspension banging isn't good.

I can tell this is really going to be a sweet car when finally sorted, but man, it isn't easy to sort. You have probably already read about the great road holding, brakes, and "English Italian" type motor/acceleration. From my limited experience, it is all true. After 500 miles (certainly not trouble free), I'm hooked and don't intend to give up.

If anyone out there is about to go through this process or is in the middle of it, and has run into weird problems, feel free to contact me. I might just have already gone through something you are going to experience. If I can help, I will.







Photos by: Bryan Wicks

## ***Tom Williams – Europa S2 – Mission Raceway, April 13***

My work on the Europa carries on, but I needed a brake. So Anna and I were off to Mission Raceway April 13, the second day of racing and the wetter of the two days. But I did find one Lotus there. Although the only one, it was quite impressive on the track.



Met Dennis Bainbridge viewed, and even sat in his new racecar. They sell for about \$70,000 and will blow the doors off an Elise, only problem it can't be driven on public roads. He has a very good website [www.fusionracecars.com](http://www.fusionracecars.com) with some excellent video of the car in action. There were some nice vintage cars there, but for someone wanting to race around the track the best bang for the buck is a Honda Civic, lots of cheap performance parts, cheap to buy, lighten them up the go like hell.

## ***Tom Williams – Europa S2 – Mission Raceway, April 13***



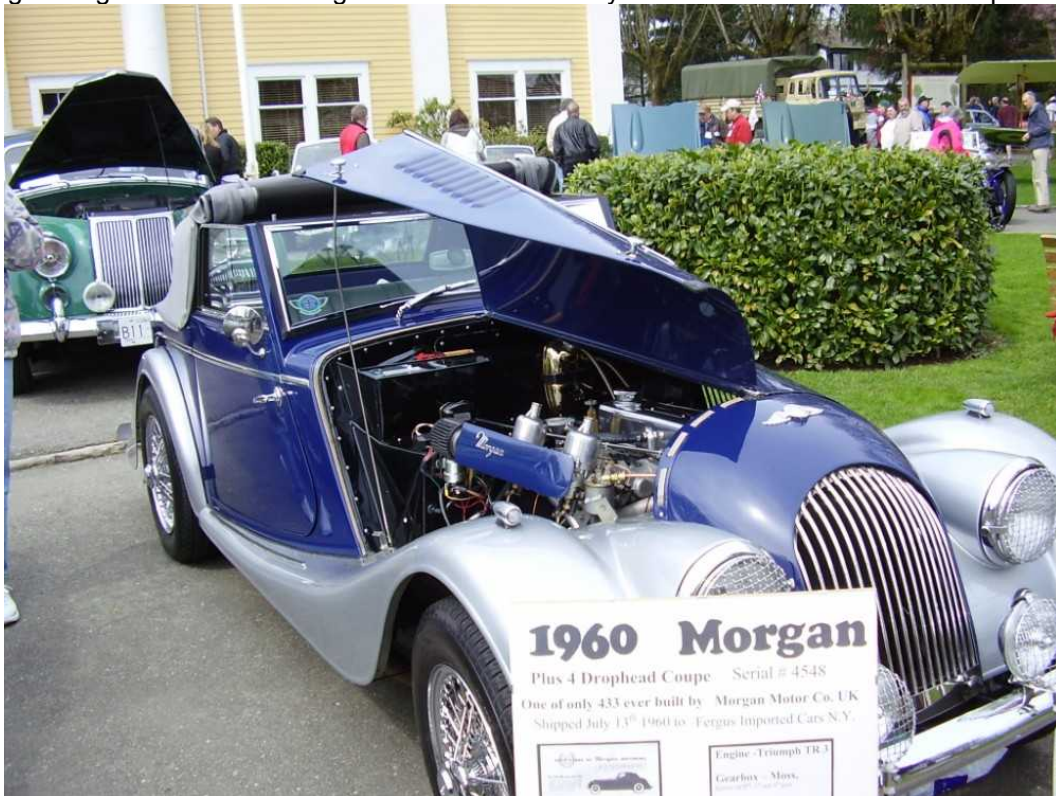
## ***April 20, British Car Show in Fort Langley***

To continue the 'old car' torturing of my wife, I got her to pose with Dave's new Elan M100. Between the trip to Mission Raceway last weekend and now this... she's hoping they call me back out on the tug. There was a very impressive group of cars there. Some people just have too much spare time.



## ***Tom Williams – Europa S2 – British Car Show in Fort Langley***

Think I wanted a Morgan long before I even thought about a Lotus. They have to be the most beautiful sports car.



Anna doesn't mind getting her picture with an old car, as long as the colour matches her sweater.



## ***Tom Williams – Europa S2 – British Car Show in Fort Langley***

The second of three Lotus at the show. I was most interested in Mike's Europa for technical help with the work I'm doing on my Europa. Although mine will never be as original, hopefully it will at least look as good.



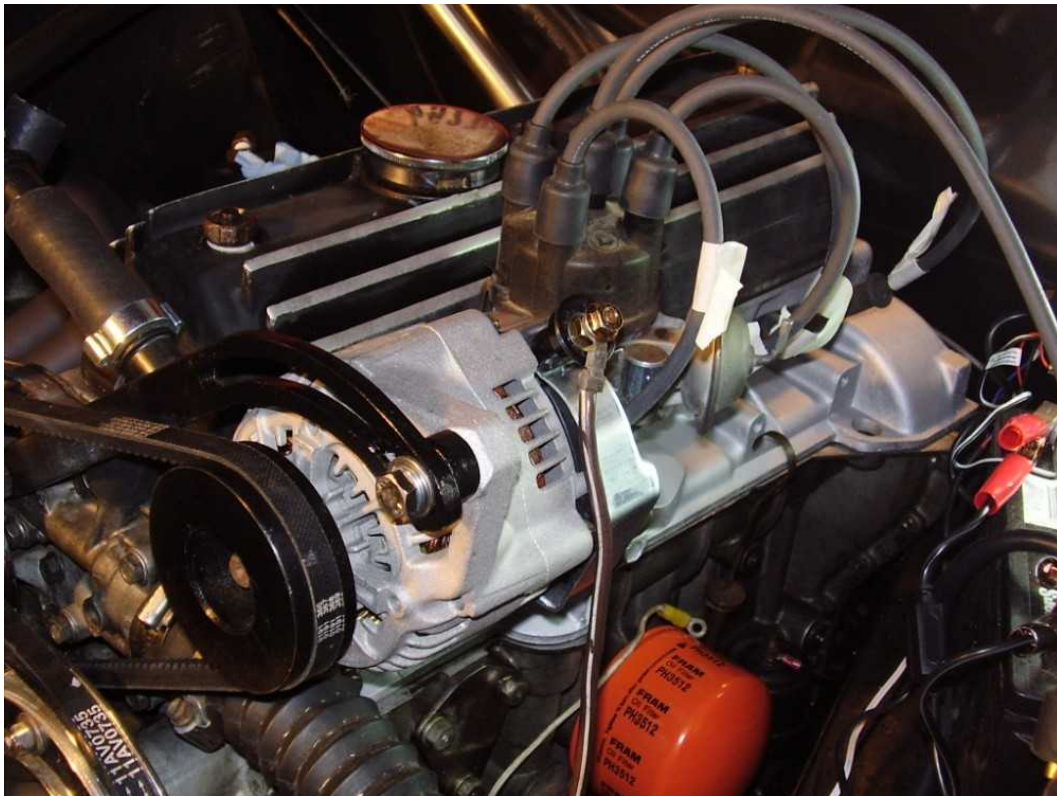
There were so many nice cars at the show, even a couple of TVRs. Got to toss in this Austin Healey and a nice Sunbeam Tiger. Enough looking, time to get back to my Lotus project.



Photos by: Tom Williams

## ***Tom Williams – Europa S2 – The Ongoing Europa Project 2008***

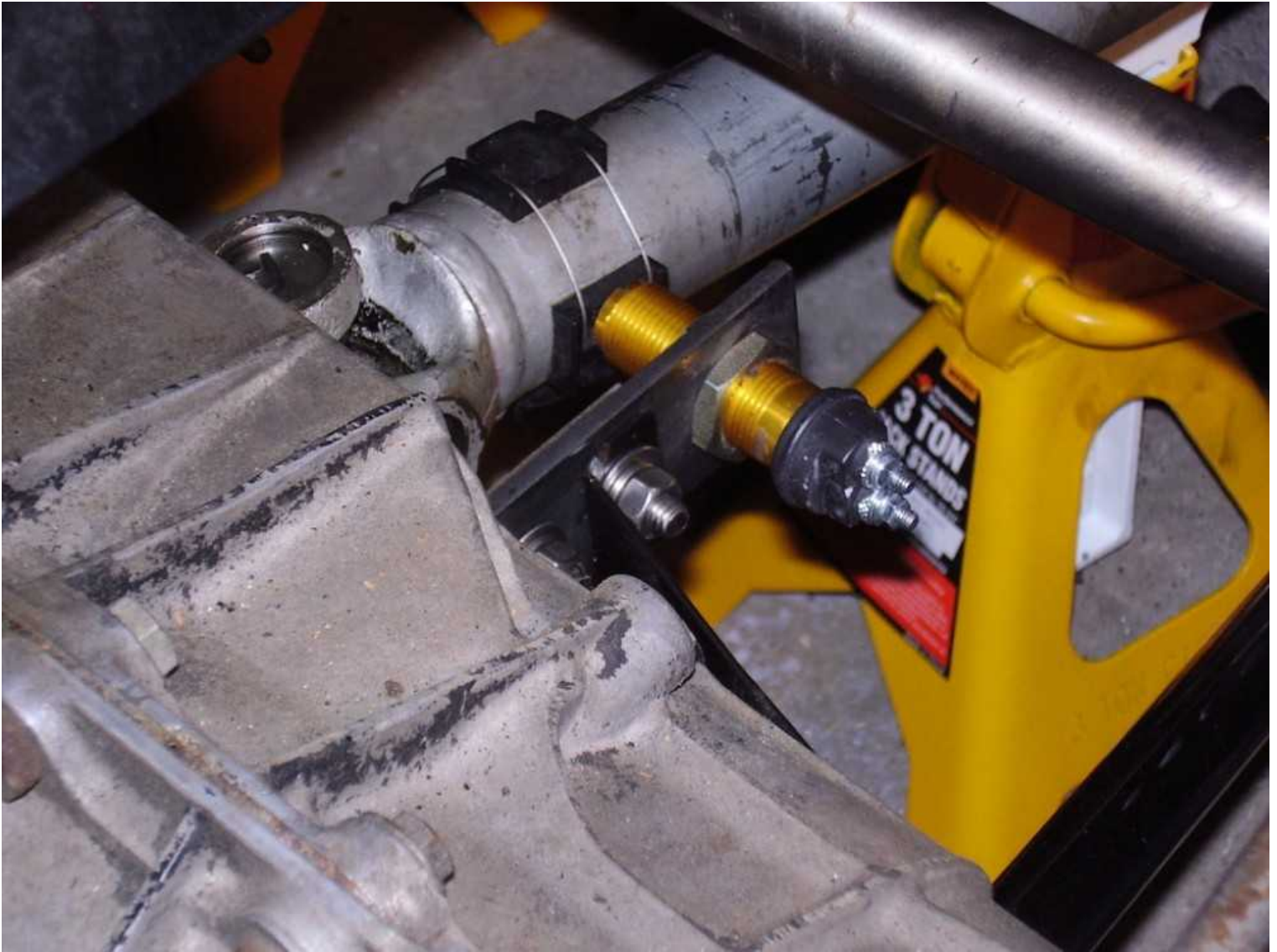
The exhaust header I made fit on okay but there isn't as much clearance from the frame as I would have liked. But it went together with the Harley Davidson muffler quite nicely. I just hope it's going to be loud enough. Fabricating the mounting brackets was very time consuming.



## ***Tom Williams – Europa S2 – The Ongoing Europa Project 2008***

Installed an alternator with built in regulator. Thought fabricating the tensioner bracket was bad, now I'm trying to get rid of all the old regulator/relay wiring that was with the old alternator. If Chapman was so concerned with car weight he could have done the wiring with a lot less wire.

The photo that looks like an ad for a jackstand is actually a picture of the pickup for my Speedometer. I spent enough money on it, it deserves a picture.



Out of an original list of seventeen items on my "Lotus Worksheet" I have four left. My livingroom looks a bit less like a parts department. Once the carb is back on everything left is just electrical and a pair of wiper arms. Brighthouse Electric supplied the alternator and made it self excited, just one wire to the battery.

Maybe I'll be driving the Europa in May.

**Photos by: Tom Williams**

# ***Sell – Swap – Fancy***

## **Wanted:**

Hercules Super-Starter for a TwinCam. (As made by one of our LCCBC members.)

Bob Leonard, 250-539-0153 or [rjleonard@shaw.ca](mailto:rjleonard@shaw.ca)

## **Greg Soderling Memorial Sale Items:**

**(All proceeds to the Soderling Family. All items open to offers.)**

1985 All British Field Meet Driving Cap, White with “ABFM Salutes Lotus” Logo

Book: Secrets of the Show Cars, Michael Bruce & Associates, ISBN: 0-933534-15-9

Book: Alfa Romeo 1750/200 Fuel Injection Instruction & Maintenance Manual (Slim line)

Book: Tuning Twin Cam Fords by David Vizard, ISBN: 0-85113-007-0

Book: Theory & Practice of Cylinder Head Modification by David Vizard, ISBN: 0-85113-066-6

Book: The Lotus Élan & Europa: A Collector’s Guide by John Bolster, ISBN 0-900549-48-3

Book: Lotus Seven 1957-1980, Brooklands Books, ISBN 0-907073-13-1

Book: Petersen’s Complete Book of Vega

Book: Petersen’s Basic Chassis, Suspension & Brakes

Book: Project X1/9; the Complete Guide to Racing Preparation of the Fiat X1/9 by Fiat Motors North America, Inc.

Book: Lotus Élan (S1 & S2) Workshop Manual, Photocopy

Book: Track Plans for Sectional Track by Linn Westcott (Model Railroading)  
Second Edition 1956 & 1960

Please contact Malcolm Muir for these items at 604-467-6560 (eves & weekends)  
or e-mail [malcolmjmuir@hotmail.com](mailto:malcolmjmuir@hotmail.com)

# Sell – Swap – Fancy

**The wife said clean up the garage, so I need to move a few things. More ads next issue!**

Cortina 1600E, canceled project. I have all of the parts specific to convert a 1968-1970 Cortina 4-door GT (or deluxe) to a 1600E. New badges, mirrors, underhood stickers, good used Raydot auxiliary lamps. Original trim parts, fixed quarter windows, reclining seats, inertia seat belts, 5 Rostyle wheels (chrome centers, painted rims), with trim centres and wood cappings (2 sets), will need restoration. Dashboard wood insert partially restored in Rosewood (also have original), gauges included. Will include registration papers and chassis plate, \$1,000.00 OBO, Malcolm Muir 604-467-6560 evenings.

Three-spoke polished Aluminium steering wheel, Tourist Trophy part # 489-070, riveted wood rim, Formuling France mount pattern, hub included (Ford/Elan+2 spline). \$150.00 firm.

See Moss Motors link for details, type 'D' in photo

<http://www.mossmotors.com/Shop/ViewProducts.aspx?PlateIndexID=34823>

Malcolm Muir 604-467-6560 evenings

Ford 1600 crossflow engine, 681F, long block complete. Shadbolt re-ground camshaft, rally/mid-range torque. 1,000 miles on rebuild; some piston to valve contact (0.030" pockets in pistons from exhaust valves); pistons are 3.192" (81.077 mm) OD, engine is partially stripped down. New Ford +0.030" pistons and rings included, \$400.00 firm, Malcolm Muir 604-467-6560 evenings.

Ford 2.3 L OHC Engine complete, approximately 120,000 km, was running when pulled from car. \$300.00 firm, Malcolm Muir 604-467-6560 evenings.

Two SU carburetors, type HS6 (1-3/4" Bore, external float bowl), disassembled and complete; suitable for rebuilding, \$75.00 each OBO, Malcolm Muir 604-467-6560 evenings.

Two SU carburetors, type HIF6 (1-3/4" Bore, integral float bowl), complete; may need re-jetting for Lotus, \$125.00 each OBO. Will include Haynes SU Owners Workshop Manual by Don Peers (ISBN 0 85696 299 6) when carbs purchased as a pair, Malcolm Muir 604-467-6560 evenings.

Three SU carburetors, type HIF6 (1-3/4" Bore, integral float bowl), disassembled and may not be complete; suitable for spares for above, \$40.00 each OBO, Malcolm Muir 604-467-6560 evenings.

Two K&N Air Filters, Suitable for SU and Stromberg carburetors, new, unused, part # SD35-319, 5-3/4" OD X 3-1/4" Tall, \$50.00 each, See photo, Malcolm Muir 604-467-6560 evenings.

Two K&N Cone Filters Suitable for SU and Stromberg carburetors, new, unused, part # 56-9327, 5-3/4" OD tapers to 3-1/2" X 2" Tall, \$50.00 each, See photo. Malcolm Muir 604-467-6560 evenings.

[malcolmjmuir@hotmail.com](mailto:malcolmjmuir@hotmail.com)



# **Lotus Car Club of British Columbia**

## **Membership Application / Renewal Form**

|  |                     |                         |
|--|---------------------|-------------------------|
| <b>Application Type:</b> Please check one. | <b>New: \$40.00</b> | <b>Renewal: \$35.00</b> |
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| <b>Name:</b>             |  |
| <b>Address:</b>          |  |
| <b>City:</b>             |  |
| <b>Province / State:</b> |  |
| <b>Country:</b>          |  |
| <b>Postal Code:</b>      |  |
| <b>Spouse / Partner:</b> |  |
| <b>Res. Telephone:</b>   |  |
| <b>Cell. Telephone:</b>  |  |
| <b>Bus. Telephone:</b>   |  |
| <b>Email:</b>            |  |
| <b>Website:</b>          |  |

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| <b>Vehicle #1:</b>    |  |
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| <b>Colour:</b>        |  |
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| <b>Modifications:</b> |  |

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| <b>Vehicle #2:</b>    |  |
| <b>Year:</b>          |  |
| <b>Colour:</b>        |  |
| <b>VIN:</b>           |  |
| <b>Modifications:</b> |  |

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| <b>Interests:</b> |  |
| <b>Skills:</b>    |  |

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| <b>Signed:</b> |  | Please complete this form, and mail with your cheque payable to:<br><br><b>Lotus Car Club of British Columbia</b><br>PO Box 44425, Westside RPO, Vancouver,<br>BC, V6S 2C5 |
| <b>Date:</b>   |  |  |