cam journal

The Official Newsletter of the

Lotus Car Club of British Columbia

Lotus Car Club of British Columbia

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Advertising :	Single Issue	One Year
Business Card	$10.00	$40.00
Quarter Page	$20.00	$80.00
Half Page	$50.00	$150.00
Full Page	$70.00	$200.00

Contents:

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

January 3, 2007 – Wednesday – 7:30PM
Kevin Moroney
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604-517-1676

February 7, 2007 – Wednesday – 7:30PM
TBA

March 7, 2007 – Wednesday – 7:30PM
Ron Solomon
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Burnaby
604-435-9484

LCCBC Main Web Site: http://geocities.com/lotusclubofbc/

LCCBC Members Only: http://groups.yahoo.com/group/lotus_car_club_of_bc/

Calendar 2007

JANUARY

1	New Year's Day
3	Monthly Meeting 7:30 PM

FEBRUARY

7	Monthly Meeting 7:30 PM
14	Valentine's Day
17-18	Thunderbird Rally
	www.rallybc.com
18	Chinese New Year
19	President's Day (USA)

MARCH

7	Monthly Meeting 7:30 PM
17	St. Patrick's Day
18	Australian Grand Prix F-1
	Melbourne Grand Prix Circuit

APRIL

4	Monthly Meeting 7:30 PM
6	Good Friday
8	Malasian Grand Prix F-1
	Sepang International Circuit
9	Easter Monday
15	Bahrain Grand Prix F-1
	Bahrain International Circuit

MAY

2	Monthly Meeting 7:30 PM
4-12	www.onelapofamerica.com
9	Colin Chapman's Birthday
13	Mother's Day
12	Spanish Grand Prix F-1
	Circuit de Catalunya
19	ABFM - Van Dusen Gardens, Vancouver
21	Victoria Day (Canada)
27	Monaco Grand Prix F-1
	Circuit de Monaco
28	Memorial Day (USA)

JUNE

6	Monthly Meeting 7:30 PM
10	Canadian Grand Prix F-1
	Circuit Gilles Villeneuve
17	US Grand Prix F-1
	Indianapolis Motor Speedway
17	Father's Day
29-30-1	SOVREN Vintage Races
	Pacific Raceways Kent, WA

JULY

1	Canada Day
1	French Grand Prix F-1
	Circuit de Nevers Magny-Cours
4	Independence Day (USA)
4	Monthly Meeting 7:30 PM
7-8	Portland Historic Races
	Portland International Raceways
8	British Grand Prix
	Silverstone Circuit
22	German Grand Prix F-1
	Nürburgring

AUGUST

1	Monthly Meeting 7:30 PM
5	Hungarian Grand Prix F-1
	Hungaroring
6	Civic Holiday (Canada)
17-19	Historic Automobile Races
	www.laguna-seca.com
26	Turkish Grand Prix F-1
	Istanbul Park
31	Club Lotus NW Track Day
	Portland International Raceways

SEPTEMBER

1-3	Columbia River Historic Races
	Portland International Raceways
1-2	All British Field Meet
3	Labour Day
5	Monthly Meeting 7:30 PM
8-15	www.targanewfoundland.com
9	British Car Picnic in the Park
	Hougan Park Abbotsford, BC
9	Itallian Grand Prix F-1
	Autodromo Nazionale Monza
16	Belgium Grand Prix F-1
	Circuit de Spa-Francorchamps
22-23	Vancouver-Whistler All British Run
30	Chinese Grand Prix F-1
	Shanghai International Circuit

OCTOBER

3	Monthly Meeting 7:30 PM
7	Japanese Grand Prix F-1
	Fuji International Speedway
8	Thanksgiving (Canada)
8	Columbus Day (USA)
21	Brazilian Grand Prix F-1
	Autódromo José Carlos Pace
30-31-1-2	SEMA Show
	Las Vegas Convention Centre

NOVEMBER

7	Monthly Meeting 7:30 PM
11	Remembrance Day (Canada)
11	Veterans' Day (USA)
22	Thanksgiving (USA)

DECEMBER

25	Christmas Day
26	Boxing Day (Canada)

Dave Rush – Europa S2 – President's Point of View

Welcome to the new year.

Malcolm Muir is this year's recipient of the Bruce Patrick Award for finishing off a restoration project. Malcolm showed up at the Christmas party with his vintage rally prepared Cortina and although it doesn't have the TC, it certainly has a lot Hethel DNA in it. I know Jim Clark would have approved of the tartan headliner.

Thank you to all those who came to the Christmas party. I think it worked out very well and it was good to chat with old friends, new members and their eccentric accepting wives.

In the last few days, the announcement has been made that Aircare is being phased out in 5 years. 5 years is a relatively short time in our club and I can only assume that plans are already being shifted from somehow getting that restoration project through Aircare to wild compression ratios, barely drivable cam overlaps, lead additives and not worrying about air leaks in those old Webers.

The only problem with making wild engine mods to new cars now is that the VIN's are burned into all the electronics so now the electronic whizzes and not emissions tests will be the only constraint. For us electron challenged gearheads, we may be back to only needing 7 feet of wire in a new car to make it run after all the $200 sensors are bypassed and a carb and conventional distributor are bolted on.

I have mixed feelings on the whole thing and am very surprised that the lobbyists in the auto industry let this happen as Aircare was a guaranteed income for the repair industry and a significant driving force for the sales of new cars. Our climate here will allow an auto to go on forever but Aircare had become a major cost as catalytic converters and little electronic glitches would have to be sorted out annually (or biannually).

In keeping with lightweight, forget about the Hayabusas, 2 stroke snowmobile engines may be the hot future for conversions. May all our auto projects go forth and multiply – Dave

Ian Green – Elise 111R – Editor's Expletive

Snow, rain, wind and darkness. No electricity for two days. Lotus Land... Yeah, sure. Who you trying to kid? I'm Europa-less and my Elise, sweet BRiGit, has been locked up in the garage for almost six weeks. Pretty quiet. Starting to go stir crazy. I need to get out and go for a drive. Feel like a Budgie in a small cage. And that's not a good image.

This issue has a news release on the future of Lotus owner, Proton. I hope this is settled soon, getting tired of all the negotiations and indecision.

Also part 2 of Sacha's excellent diary. There's a trip I would love to do. By the way, August 2007, the Lotus Owner's Group will hold their annual meeting in Aspen, Colorado. That's south of Yellowstone Park and just east of the Grand Canyon. Ohhh, I wonder? 2200 Kms from Vancouver, 21 hours according to Google Maps. When I was 20, that used to be a one day drive. Today it's a three day trip.
http://www.log27.com/

Copied a piece from the Lotus Newsletter "ProActive", concerning the future designs from Lotus. Quite interesting. If that Crossover APV vehicle actually gets manufactured, I wouldn't mind having one.

Dave Rush has submitted his Kootenay trip journal, also a piece each from Bob Leonard, Keith Robinson, Mike Boyle, Sadik Dobra and a cute blurb about a Lotus which is not a Lotus.

Kevin asked me to POLITELY remind those who have not paid, that their yearly club dues are due... Sorry, I'm not that polite... You got one month to pay up, or we go public and nail your name and phone number to a telephone pole on Hastings St. OK?

28 pages, this issue. I'm impressed. Given the season and how busy everyone is, I didn't think we'd get above 14 or so. Congratulations folks. Keep sending me articles. I want to hear why you're into Lotus and what's in your garage.

Finally, a huge Thank You to... Heather and Dave Rush for hosting December's Christmas dinner at their house. Excellent, nicely done. Very much appreciated.

Photo: Ian Green

Dave Rush – Europa S2 – Drive to the Kootenays

Last September, I made a trip to the West Kootenays in the Europa and this time I was determined to take all the windy roads possible. Hwy 7 up the valley, the canyon to Spences Bridge, over to Logan Lake and up to Kamloops, then a transit to Vernon and over to Nakusp and down the Slocan Valley to Nelson. The best roads were Hwy 8 out of Spences Bridge and Hwy 6 out of Vernon. Light traffic, smooth pavement continually bending along the valley. The rest of the roads were either heavily traveled or top gear all the way.

There was a large, well organized main street car show in Nelson and I pulled up to the barriers and in a panicky voice, urgently said 'I'm late, where can I park?'. The barrier was opened up and the attendant showed me a good spot. Free parking is tough to find in downtown Nelson. It was a good event, similar to the Langley's cruise-in.

Dave Rush – Europa S2 – Drive to the Kootenays

One thing I have found with the Europa is that it is as much a social experience as a driving one. Every time I stop, strangers strike up conversations and the amount of knowledge of the car is often surprising. Many more people know detailed things about the Renault engine or whatever than ask if it is a Pantera or has a V-12.

The first real 427 Cobra that I had ever seen was there in original unrestored condition and lived in Kaslo of all places. I don't think many spectators fully appreciated the vehicle as it had it's share of wear and tear and any old Camaro's paintjob would put the 37 year old paint to shame.

Coming back I took the Crowsnest Hwy 3 and predictably, the pace on all the good parts was dictated by RVs.

Photos: Dave Rush

Mike Boyle – Europa TC & Esprit S4 V8 – News Items

Couple of recent items from the news, one Lotus related, in case anyone missed them.

There was a bit of snow and icy roads in the Okanagan shortly before the late November snow storm on the Lower Mainland. That is not news in itself, but I remember an item on the late TV news catching my attention when they said that a "high powered sports car" had lost control on Highway 97 in Kelowna. I kept watching after the commercial and indeed saw a used car lot with four or five damaged cars. The surprise came when the camera panned to the culprit – there was a burgundy Esprit V8 in now less than pristine condition. It looked like significant damage to the front fiberglass and the front suspension may have been a bit askew, although that was harder to see. It liked like a 2000 +/- 1 model year, but again that was tough to determine. Does anyone know whose car got its 15 seconds of fame on Global TV?

The second, unrelated, item is about TVRs. Some time in the last year or so, TVR was purchased by some young Russian gazillionaire who lives in Vienna. He is now talking about shutting down the TVR plant in Blackpool and moving production to somewhere in Europe where labour is cheaper. That, according to the TVR faithful, is reneging on an earlier promise to keep the Blackpool plant going. Anyway, to protest this move, and to put some pressure on the British government, TVR owners organized a protest by driving their cars through London en masse. The news reports are that 479 TVRs showed up at once. They not only made their point of getting press coverage, but also set a new world record for the largest parade of cars of one marque. The previous record was a parade of about 230 Miatas in New Zealand a few years ago.

The most Lotus I have ever seen in one place and time was 18 cars at the 2006 Van Dusen meet, so the thought of 479 TVRs at once is quite astounding. I don't know if it will do any real good to save the Blackpool factory, but the English TVR guys have certainly made an impressive point.

Photo: http://www.pistonheads.com

"The Elan SE is for the automotive enthusiast who wants his money's worth of the closest thing to a racing car which you can drive on the street, together with reliability and GT comfort. The standard Elan is as much car as the SE in the handling and braking departments (it's identical) and provides enough "go" for all."

(Canada Track & Traffic — May, 1967 issue)

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Sadik Dobra – Elan S4 & Elite S2 – Lucas Electrics

A collection of Prince of Darkness jokes

The Lucas motto: "Get home before dark."

Lucas denies having invented darkness. But they still claim "sudden, unexpected darkness"

Lucas: inventor of the first intermittent wiper.

Lucas: inventor of the self-dimming headlamp.

The three-position Lucas switch: DIM, FLICKER and OFF. The other three switch settings: SMOKE, SMOLDER and IGNITE.

The original anti-theft devices: Lucas Electric products.

"I've had a Lucas pacemaker for years and have never experienced any prob...

If Lucas made guns, wars wouldn't start either.

Did you hear about the Lucas powered torpedo? It sank.

It's not true that Lucas, in 1947, tried to get Parliament to repeal Ohm's Law. They withdrew their efforts when they met too much resistance.

Did you hear the one about the guy that peeked into a Land Rover and asked the owner "How can you tell one switch from another at night, since they all look the same?" "He replied, it doesn't matter which one you use, nothing happens!"

Back in the '70s Lucas decided to diversify its product line and began manufacturing vacuum cleaners. It was the only product they offered which didn't suck.

Quality Assurance phoned and advised the Engineering guy that they had trouble with his design shorting out. So he made the wires longer.

Why do the English drink warm beer? Lucas made the refrigerators, too.

Alexander Graham Bell invented the Telephone. Thomas Edison invented the Light Bulb. Joseph Lucas invented the Short Circuit.

Recommended procedure before taking on a repair of Lucas equipment: check the position of the stars, kill a chicken and walk three times sunwise around your car chanting: "Oh mighty Prince of Darkness protect your unworthy servant."

Lucas systems actually uses AC current; it just has a random frequency.

(For more fun with Lucas, see an actual eBay auction for "Lucas Smoke", archived at this Triumph club site: http://www3.telus.net/bc_triumph_registry/smoke.htm
The questions and answers are hilarious, classic. ED.)

Some picnic

Baskets packed. Weather's perfect. Kids are raring to go. Great day.

It'd be too bad if you had to spend it in a service station. And an electrical breakdown can force you to do just that.

Unless you know about Lucas B90 Exchange Service. It's the fastest way to get back on the road when electrics break down. And the surest way to stay in good graces with a carload of impatient family.

B90 electrical replacement units—starters, generators, distributors etc.—are fitted right off the shelf, to save you money, worry and time.

Each unit is built for long life and performance you can count on. And each of the 600 different units available comes complete with a 12 months' guarantee.

Insist on nothing less than Lucas B90 Exchange Service. You never know how long a mere patch-up job will last . . . perhaps not even to the next service station.

Lucas Exchange Service-makes sense

Bob Leonard – Elan +2

OIL IS KILLING OUR CARS!!!!! Written by: Keith Ansell, Foreign Parts Positively, Inc.

About a year ago I read about the reduction of zinc dithiophosphate (ZDDP) in the oils supplied with API approval that could affect sliding and high pressure (EP) friction in our cars. The reduction of these chemicals in supplied oil was based on the fact that zinc, manganese and/or phosphates reduce the effectiveness and eventually damage catalytic converters and introduce minute amounts of pollutants into our atmosphere.

A month or so ago I had a member of the Columbia Gorge MG Club bring a totally failed camshaft and lifters back to me that had only 900 miles on them!! I immediately contacted the camshaft re-grinder and asked how this could happen. They were well aware of this problem as they were starting to have many failures of this type. In the past, the lack of a molybdenum disulfide camshaft assembly lubricant, at assembly, was about the only thing that could create this type of problem. My customer has assembled many engines and had lubricated the camshaft properly and followed correct break in procedures. This got me on the phone to Delta Camshaft, one of our major suppliers. Then the bad news came out: It's today's "modern" API (American Petroleum Industry) approved oils that are killing our engines.

Next call: To another major camshaft supplier, both stock and performance (Crane). They now have an additive for whatever oil you are using during break-in so that the camshaft and lifters won't fail in an unreasonably short period of time. They also suggest using a diesel rated oil on flat tappet engines.

Next call: To a racing oil manufacturer that we use for the race cars (Redline). Their response: "We are well aware of the problem and we still use the correct amounts of those additives in our products". They continued to tell me they are not producing API approved oils so they don't have to test and comply. Their oils were NOT the "new, improved and approved" ones that destroy flat tappet engines! "We just build the best lubricants possible". Sounds stupid, doesn't it, New-Approved but inferior products, but it seems to be true for our cars.

To top this off: Our representative from a major supplier of performance and street engine parts (EPWI) stopped by to "warn us" of the problem of the NEW oils on flat tappet engines. This was a call that the representative was making only because of this problem to warn their engine builders! "The reduction of the zinc, manganese and phosphates are causing very early destruction of cams and followers". They are recommending that, for now at least, there must be a proper oil additive put in the first oil used on new engines, beyond the liberal use of molydisulfide assembly lube. They have been told that the first oil is the time the additives are needed but remain skeptical that the first change is all that is necessary. Their statement: Use diesel rated oils such as Delo or Rotella that are usually available at auto stores and gas stations.

This problem is BIG! American Engine Rebuilder's Association (AERA) Bulletin #TB2333 directly addresses this problem. I had a short discussion with their engineer and he agreed with all that I had been finding.

Next phone call was to a retired engineer from Clevite, a major bearing and component manufacturer. First surprise was that he restored older British Motor bikes. The second surprise was that he was "VERY" aware of this problem because many of the old bikes had rectangular tappets that couldn't rotate and are having a very large problem with the new oils. He has written an article for the British Bike community that verify all the "bad news" we have been finding.

Comp Cams put out "#225 Tech Bulletin: Flat Tappet Camshafts". They have both an assembly lube and an oil additive. The telling sentence in the bulletin was "While this additive was originally developed specifically for break-in protection, subsequent testing has proven the durability benefits of its long term use. This special blend of additives promotes proper break-in and protects against premature cam and lifter failure by replacing some of the beneficial ingredients that the oil companies have been required to remove from the off the–shelf oil".

Next question: Now what do we do?
From the camshaft re-grinders (DeltaCam) "Use oils rated for diesel use", Delo (Standard Oil product) was named. About the same price as other quality petroleum based oils. They are not API formulated and have the zinc dithiophosphate we need in weights we are familiar with.

From the camshaft manufacturer (Crane): “use our additive” for at least the first 500 miles.

From General Motors (Chevrolet): add EOS, their oil fortifier, to your oil, it’s only about $12.00 for each oil change for an 8 ounce can (This problem seems to be something GM has known about for some time!).

From Redline Oil: Use our street formulated synthetics. They have what we need!

From our major oil distributor: Distributing Castro, Redline, Valvoline and Industrial oils: “After over a week of contacts we have verified that the major oil companies are aware of the problem”. “The representatives of the oil companies today are only aware of marketing programs and have no knowledge of formulation”. The only major oil companies they were aware of for doing anything to address this are Valvoline that is offering an “Off Road 20W-50” and Redline.

From Castrol: We are beginning to see a pattern emerging on older cars. It may be advantageous to use a nonapproved lubricant, such as oils that are Diesel rated, 4 Cycle Motorcycle oils and other specified diesel oils.

Last question: So what are we at Foreign Parts Positively going to do? After much research we are switching to Redline Street rated oils and stocking the Castrol products that are diesel rated. Castrol, owned by British Petroleum, is now just a brand name. This is a difficult decision as we have been a dealer and great believer in all Castrol Products for over 40 years. We have been using Castrol Syntech oil in new engines for about 3 years so the cost difference in changing to Redline is minimal. The actual cost in operation is also less as the additive package in Redline makes a 1-year or up to 18,000 mile change recommended! Yes, it is a long change interval but with lowered sulfur levels and the elimination of lead and many other chemicals in the fuels there are less contaminants in our oil from the fuel, which is the major contributor to oil degradation. We will continue to offer the Castrol products but will now only stock the suggested diesel oils that they produce.

Too many things are starting to show up on this subject and it has cost us money and time. Be aware that “New and Improved”, or even products we have been using for many years, are destroying our cars as it isn’t the same stuff we were getting even a year ago.

For the cars that use “engine oil” in their gearboxes this may even pose a problem as these additives that have been removed could be very critical in gear wear. We will be using oil specifically formulated for Manual Gearboxes with Brass Synchronizers. The only oils we are aware of that fit the criteria are from General Motors and Redline.

Keith Ansell, President
Foreign Parts Positively, Inc.

(Before we all start to freak out about this “news”, note that my favourite lube: Redline, still possesses all the good ingredients. Please read the below two paragraphs which I clipped from a British car forum. ED)

“The time to worry with a flat tappet motor is break in. This is all kind of new on the car forums, but I've known about it for awhile. I break all engines in on Rotella 15/40. I would not recommend breaking a engine in on synthetic oils, been there, done that, the rings don't seat. After the engine is properly broken in, any of the oil we are accustomed to using, should be fine.'

“The other big issue with our cars is lifter and cam quality. A lot of the reground cams being offered are not hardened and some of the hardened ones are only parkerized, I would only use a nitrited reground cam or a billet and high quality lifter. I recommend APT billet or nitrited cams with their Rockwell 60 lifters, these may cost you a little more money but more than offset the expense of re-doing your engine.” http://www.acmespeedshop.com/

Lotus News – Proton

Dec. 12, 2006 – Kuala Lumpur, Malaysia

German auto giant Volkswagen AG may conduct a due diligence audit on Malaysia's national carmaker Proton before Christmas ahead of a possible deal, national news agency Bernama reported Monday.

Proton is currently evaluating a number of parties as strategic partners for its manufacturing operations and Volkswagen is seen as a front-runner, Bernama said.

The report quoted unnamed sources as saying Volkswagen may be willing to commit as much as 2 billion ringgit ($545 million) to buy a 51 percent stake in Proton's manufacturing arm -- a cash injection that would boost the beleaguered Proton.

However, VW will not control Proton's holding company, in which government investment arm Khazanah Nasional has a 43 percent stake in Proton. Khazanah is expected to remain the major shareholder at Proton Holdings Bhd., Bernama said.

Such an arrangement would enable Proton to control sales and distribution while Volkswagen can access Proton's assembly lines

The report said Volkswagen could sign a preliminary agreement to enable it to do the audit on Proton just before Christmas, but didn't say when the audit would be completed.

Volkswagen ditched Proton as a possible equity partner early this year after the Malaysians refused to relinquish management control.

But talks were revived after Malaysian Prime Minister Abdullah Ahmad Badawi last month confirmed the government would now consider letting Europe's biggest carmaker own 51 percent of Proton's manufacturing operations.

France's PSA Peugeot-Citroen and local companies Naza Group, Mofaz and DRB-Hicom were other parties eyeing an alliance with Proton, which is expected to name a partner early next year to help halt sagging sales and develop new models.

The report said PSA Peugeot-Citroen was not keen to take a stake in Proton but wanted a loose alliance that could see them jointly develop new models. This could, however, be too costly in terms of research and development for Proton, it said.

Other local bidders stand a slim chance as all of them are involved in the local assembly or sales of other foreign cars, which could lead to a conflict of interest, it said.

Bernama said another key reason why Volkswagen was viewed as a preferred choice was that it planned to capitalize on Malaysia's free trade agreement with Japan to export made-in-Malaysia VW cars to Japan by 2010.

VW has proposed to Proton to assemble the mid-range Passat to be exported to Japan, it said.
Under the free trade pact, certain Malaysian-made cars can be brought into Japan on a commercial basis duty-free by 2010 and this will be extended to all types of cars by 2015.

(DRB-Hicom of Malaysia (51% owned by GM) has made it official in their bid to purchase 33% of Proton. Also VW is still discussing purchasing 51% of Proton. I'm hoping Lotus is owned by Proton Holdings Ltd, therefore untouchable. Porsche owns about 25% of VW and is putting heavy pressure on VW to shut down Bugatti dues to huge financial losses. I can't see Lotus existing under the Porsche/VW-Audi-SEAT-NSU-Lamborghini-Bugatti-Bentley family. But then I guess there weren't many people a decade ago who foresaw VW owning Lamborghini, Bugatti and Bentley. Bizarre times ahead. ED)

Keith Robinson – Elan +2 & Europa S2

Not new, but thought it may be time for a review. Infamous Qantas pilot's gripe sheet and the ground crew's responses.

(P = The problem logged by the pilot.)
(S = The solution and action taken by the engineers.)

P: Left inside main tyre almost needs replacement.
S: Almost replaced left inside main tyre.

P: Test flight OK, except auto-land very rough.
S: Auto-land not installed on this aircraft.

P: Something loose in cockpit.
S: Something tightened in cockpit.

P: Dead bugs on windshield.
S: Live bugs on backorder.

P: Autopilot in altitude-hold mode produces a 200 feet per minute descent.
S: Cannot reproduce problem on ground.

P: Evidence of leak on right main landing gear.
S: Evidence removed.

P: DME volume unbelievably loud.
S: DME volume set to more believable level.

P: Friction locks cause throttle levers to stick.
S: That's what they're there for.

P: IFF inoperative.
S: IFF always inoperative in OFF mode.

P: Suspected crack in windshield.
S: Suspect you're right.

P: Number 3 engine missing.
S: Engine found on right wing after brief search.

P: Aircraft handles funny.
S: Aircraft warned to straighten up, fly right, and be serious.

P: Target radar hums.
S: Reprogrammed target radar with lyrics.

P: Mouse in cockpit.
S: Cat installed.

P: Noise coming from under instrument panel. Sounds like a midget pounding on something with a hammer.
S: Took hammer away from midget.

More aircraft stories: http://www.rb-29.net/

Sacha Fassaert – Esprit Turbo – 25 Days on a Bike Part 2 of 5

Day 5: Reno to Bishop

Despite my best efforts to get to the bike shop early for my tire install, I wound up second in line and had to wait for well over an hour before I could take off, newly re-tired, back to the motel to pack up and head south. Virginia City/ Geiger was such a hoot that I decided to go at it again now with a new tire. Wow. I had no idea a round tire could corner so much more smoothly. Real confidence builder.

I wound up finding a better route through Carson city, then took HY 88 to 89 through Monitor pass (8314'), a spectacular twisty ride with some dramatic photo-ops at the summit, before finding HY 395 again. I probably would have taken one of the three mountain routes leading west to HY 49, but even in mid May they were still closed for the winter. No matter, Monitor pass was great…I briefly headed north to find a grocery store in Topaz and wound up squashing an unfortunate squirrel that was mercifully dead by the time I rolled south past it 20 minutes later. The rest of the day was spent at some seriously high altitudes, the highway rarely dipping below 6000'. The view from Conway summit (8138') down to Mono lake was simply breathtaking…the grandeur of the place is still with me today. I learned that the lake was a fraction of it's original size, the water having been appropriated for the needs of Los Angeles via aqueduct decades earlier, leaving some interesting geological formations as a result.

The highest gas price I saw on the trip was here, in the town of Lee Vining, at $3.98 a gallon. Glad I didn't need any. I couldn't resist the allure of the 14 mile long June lake loop a few miles further, once again with some amazingly beautiful lakes alongside some rocky mountain faces with a quaint little skiing/fishing village halfway along. Seeing warning signs for deer all along the route today was amplified a lot by the presence of three separate scenes of roadkill…hitting a deer or any animal that size is just cause for caution.

Bishop CA., was my bed for the night, at a really nice little Mom and Pop place called the Village motel, at $54.88, with a completely unheated pool. Must've been nice during the day. Good Mexican food at Taqueria Los Palmas along with an awful margarita. How can you possibly make an awful margarita?
View slideshow Day 5

Day 6: Bishop to Boulder City (via Death Valley)

Most of my life I'd thought that Death Valley was a place I'd like to visit… and the day was finally here! The map seemed to show that there was a road that entered this foreboding place from the northwest, near Big Pine, CA., but it turned out to be unpaved, a very poor choice for a laden sportsbike.

I decided to re-enter Nevada to get access to the park via the paved Highways 168 & 266, passing through the ghost town of Palmetto with the intention of taking a right at Scotty's junction on HY 267…but was told later that I'd probably missed the turnoff because I was too busy looking at the Brothels in the "red light district" on the east side of the road. No matter, while I had wanted to see the eccentric millionaire's desert mansion called Scotty's castle, I took the next road, HY 374, from Beatty, and started my descent into the depths of one of the driest and hottest places on earth. Just before the state line back to CA was a ghost town called Rhyolite, that had been recommended to me by the Visual FX supervisor on Rogue. Some very sad looking and fantastically photogenic ruins were baking in the sun , but it was going to get much hotter today, and while I could have spent a week finding better angles, I took a few decent snapshots and then continued into the depths of the park with perhaps another vehicle appearing only every 15 minutes or so. The road to Stovepipe Wells was under construction, so I had to take the Beatty cutoff south towards the Furnace Creek visitor centre, not a bad thing at all. It was starting to get hot in my helmet… and the place smelled like I'd imagined it to…like the inside of a furnace.

I found the lack of other vehicles to be kind of scary, as I had no idea how long I'd be alone if I had a breakdown. Badwater was the next spot of interest, the lowest place in North America, with a sign 283' above us, on the canyon wall, declaring sea level. There was a pathetic little puddle in which some hardy but globally unique life called pupfish still thrived, under a boardwalk where you could access the salt flat that was the valley floor stretching out into the haze across to the mountains, perhaps as much as fifty miles to the west.

Nothing grows in this place save for a few hardy weeds, and the valley floor appeared to be an immense dry lake with a whitish look to the ground. The road was not in terribly good condition-but not unsafe, and I found the Visitor centre a welcome Oasis, perhaps the only true 'Oasis' I've ever been to.

I got some advice as to the best route through. There was a gas station, but I needed only drinking water. Despite finding the only shaded spot in the parking lot, I returned to my bike to find the ambient thermometer read 45C, approximately 120F! The drive south was uneventful save for a 12 mile backtrack loop through the Artist's drive, a very picturesque and twisty route through some interesting and colorful geologic formations.

A bus arrived and started spilling tourists in every direction just as I headed south, back to the lonely, empty isolation of HY 178. It must have been close to 1.5 hours further along before I started seeing many signs of civilisation again, heading towards Pahrump NV. After passing through dozens of miles of realtor's signs and partially developed homesites in and along the way to Henderson, Nevada, I wound up in Boulder City for the night. Last time I was here, thirteen years ago, this was already a developers mecca and nothing seemed to have changed.

Before settling down for the night I rode over to the Hoover dam to take some shots and set foot in Arizona. Motel was the Nevada inn (58.99) in Boulder city, NV. It had a nice pool, with decent mexican food right across the street, but the room they gave me was right under a meeting place that overflowed with noisy Mexican construction workers just before sunrise.
View slideshow Day 6

Day 7: Boulder City NV to Page AZ

One of the great things about traveling alone is the ability to change your route at a moment's notice and not have to run it through a committee. I had intended to head straight into Arizona today but as I'd never seen Zion park, I wound up heading north at the last minute instead, along HY169 & I 15, arcing north into southern Utah. After paying Lake Mead park it's entrance fee, ($3?) I followed it's western shoreline. Lots of boaters. Passing the luxury resort of Lake Las Vegas was slow with a few miles of road construction but that led to some rolling desert highway surrounded by gorgeous red rock formations, covering every shade of red from the palest pink to the deepest burnt orange, the first time I had seen these colors on the trip.

Sacha Fassaert – Esprit Turbo – 25 Days on a Bike Part 2 of 5

Zion park ($10) along HY 9, was unbelievably beautiful, the aforementioned colors even more interesting in the parks' myriad of cliffs and gullies and canyons… the road had to tunnel through the rock at one point, and there were curious looking air/light holes in the canyon wall, for the tunnel, far above us at one stop. Gorgeous colors. Later on I came across the AZ state line but the weather there looked very much like it was about to rain, so I headed back to UT and took HY 89 towards Page AZ , passing through some beautiful desert scenery replete with hoodoos and mesas, as the shadows grew long.

The manager-owner of the Empire house motel in Page was one of the friendliest and most helpful people I met on the entire trip. There was a computer in the lobby for the use of the patrons, and as my camera's memory card was close to full, I took the opportunity to archive them… when I asked if he could sell me a blank CD he said he had none…but proceeded to call a computer place across the street, found out they were open, and even lent me the money to get a disk! After that, he told me it would even be fine to drive my bike across the grass in the motels' courtyard in order to park it in front of my room… unbelievable hospitality. I seem to remember the meal I had up the street at The Fiesta Mexican was possibly the best mexican food on the trip.
View slideshow Day 7

Photos: Sacha Fassaert

More Lotus News – Obvio

Lotus is teaming up with a Brazilian carmaker **Obvio** to produce an 89" wheelbase, 1,648 lbs, three-seat sportscar called the 012. 40 mpg on the highway from its 1.6L 4 cylinder and offers a choice of paddle-shifted CVT or 6-speed manual. US $28,000. Also available 170 hp, and 250 hp **Tritec** engines.

ZAP!, the company importing the first Smart cars into the States, has signed a contract with Obvio to buy 50,000 of their little funcars over three years beginning in 2008. Also an electric plug-in version of the car, with 0-60 times in the 4.5 second range, a top speed of 120 mph and a starting price of US $59,000.

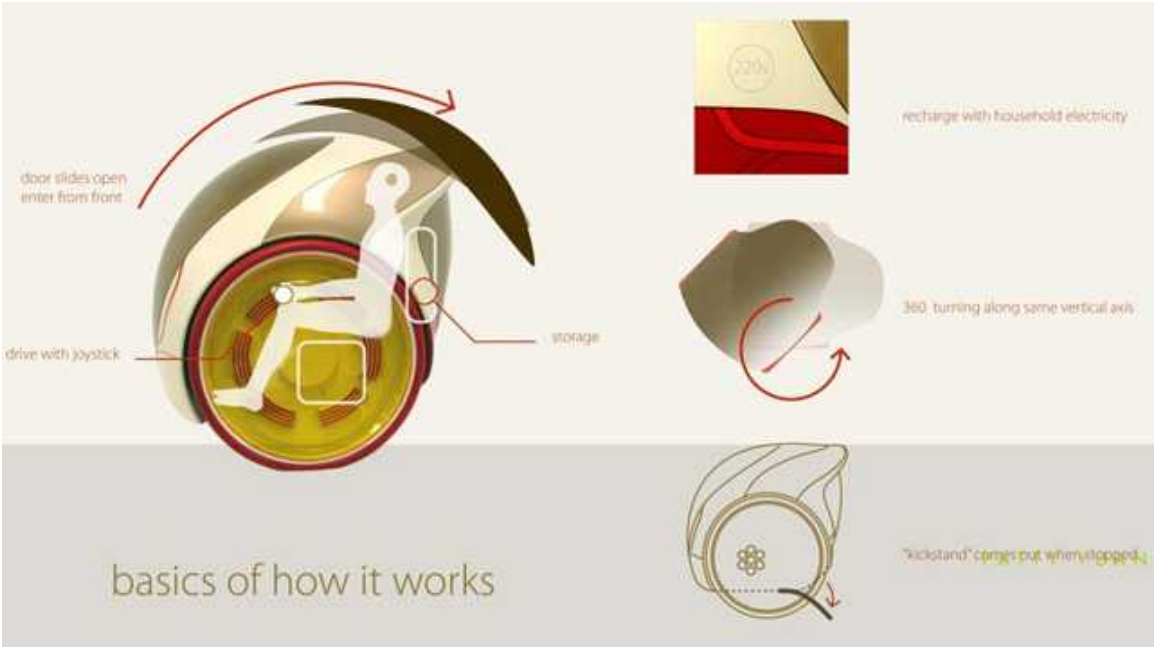
Lotus is also helping Obvio develop the 828 which boasts the same impressive performance numbers of the 012, three seats and small profile, but base price starts much lower at US $14,000. It will also be available in an electric version, 828E, with a starting price of US $49,000.

Both cars' engines are sourced from Tritec, a Brazilian engine manufacturer that was set up in 1997 by Chrysler and Rover. The 1.6L engine used by Obvio is the same as used in the first generation Mini and the PT Cruiser. The 170 hp option mentioned in Obvio literature is probably the same powerplant used in the last gen Mini Cooper S.

http://www.obvio.ind.br/obviona/home.htm

Original Article: http://www.autoblog.com

Not Lotus News – Camper ?



International brand Camper is known for its shoes as well as new ventures, such as Casa Camper and FoodBALL . Lotus is a proposal for what the next Camper product may be – one that is tailored for China. Lotus is a two-wheel personal “commuter” for young entrepreneurs. This electric vehicle is designed to suit their busy lifestyles within their urban environments.

Balanced on just two wheels, Lotus uses advanced gyroscope technology. With zero emissions, it offers a means of helping to achieve cleaner air. For comfort, it offers customizable personal space both inside and out. Its small footprint allows easy parking, and it is rechargeable with household electricity. Lotus may be customized and retailed both online and in showrooms. Short-term leasing options on parts such as external polycarbonate panels may be ideal so customers are able to enjoy updated looks, and old parts can be properly recycled. This product is also ideal for use as a fleet for hourly and daily rentals throughout the city.

This new product minimizes the impact of China's current urban tribulations: crowded cities, large consumption of oil, and air pollution. Lotus should appeal to the growing middle class, providing them with personal space, and allowing for expression of personal style.

Drawings: Patty Yuan
(She's not a member of LCCBC, and this has absoutely no connection with our beloved Lotus. ED)

A glimpse at the new Esprit structure – and how it got there

Most contemporary car structures are made of a number of complex steel or aluminium press-formed panels, which are typically welded together to form what is known as a monocoque. The investment required to support this technology can only be justified at typical production volumes of hundreds of thousands over the vehicle lifetime. Lower volume vehicles, often termed niche, require different technologies needing much lower investment. 13 years ago, when the Elise was conceived, Lotus identified that aluminium structures that were adhesively bonded and riveted together not only required low investment but also met the fundamental requirement of low weight whilst remaining extremely durable. Since then much has been learnt, resulting in the latest structural concept to be used on the forthcoming Esprit replacement. This article discusses the major technical milestones during this period, hopefully showing the logic that has led us to where we currently are.

The term "*structure*" in the context of this article refers to the underlying structural elements of a vehicle, sometimes in layman's terms called the chassis, frame or tub. It is the multifunctional *"monster bracket"* that supports and connects major systems such as the engine and gearbox, suspension, seats, steering and doors, which in order to operate correctly must have mounting points of the correct stiffness. The structure must provide enough space around the occupant for ergonomic comfort whilst being strong enough to resist crash loads. Peripheral to the occupant cell the structure must be soft enough to absorb crash energy at levels prescribed by legislation aimed at reducing injury. Even the normal use of a vehicle puts huge forces into the structure, and any perceived flexing and bending is unacceptable. On the subject of noise, vibration and harshness, or NVH, all things can be made to resonate when given the right excitation, but vehicle structures have to be designed to be *"dead"* when subjected to the inevitable vibrational inputs from the road, suspension and engines. Finally, due to the customer's demands all these areas have to be addressed in a repeatable way, so that the *"monster bracket"*, when adorned with the rest of the car results in a product with a consistent high perceived quality. Figure 1 shows the evolutionary structures that will be discussed in this article.

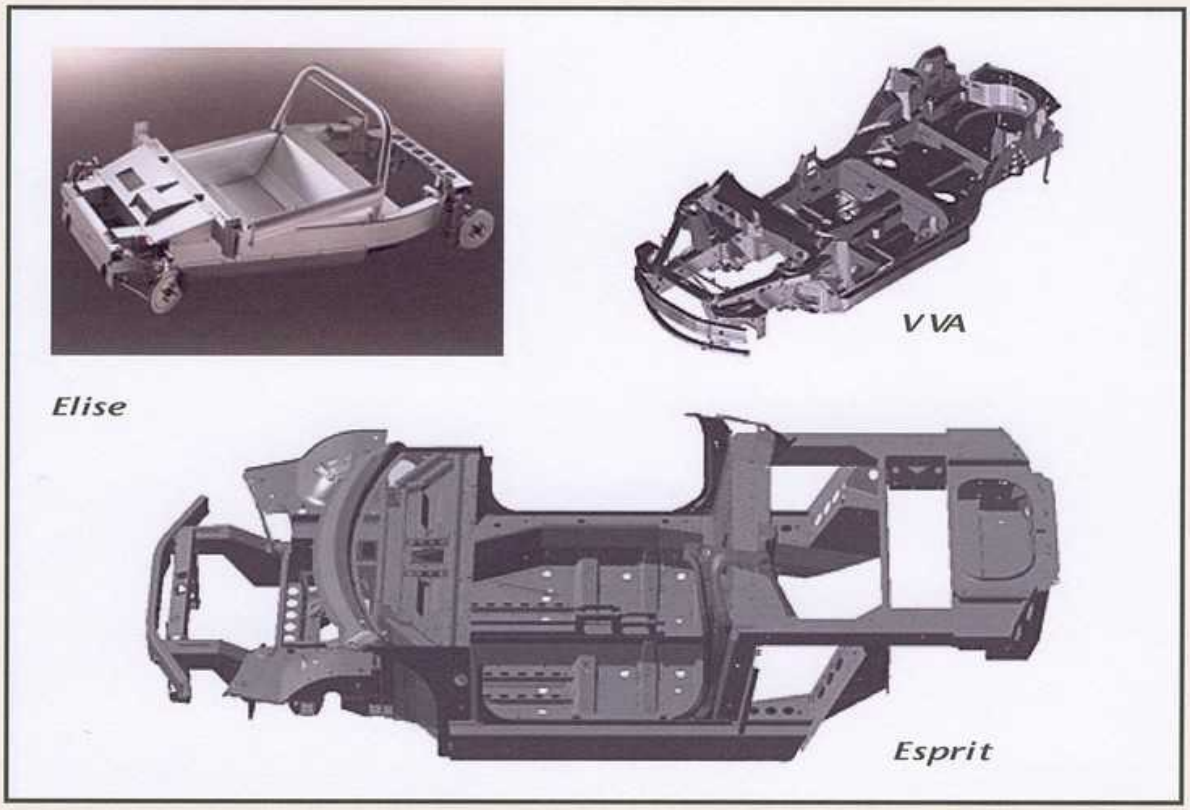


Figure 1

It is ironic that the best-loved classic cars fail miserably in all areas of contemporary structural design. The stirring concept of wrestling with a steering wheel to keep in a straight line under full acceleration because the chassis is winding up in reaction to the engines torque thus pointing the axle slightly sideways isn't really on. Similarly, feeling the steering wheel judder every time you encounter a bump isn't the sort of steering feedback that we hanker after nowadays. Doors that have to be lifted into position, or harshly slammed, are symptomatic of poor local stiffness, as are fuzzy images in the mirrors at certain revs. As for the crashworthiness of classics, it is simply best to assume that there is none.

The Beginning – Elise

The Elise was a milestone vehicle for Lotus. Its aluminium bonded structure weighed just 67kg and the aesthetical acceptability of the extrusion dominated design enabled most of the interior trim to be omitted, offering further vehicle weight and cost savings. This was acceptable given the original product profile, which called for a back-to-basics road car suitable for track use, the stripped out appearance fitted perfectly being reminiscent of aluminium structures found in competition sports cars prior to the adoption of advanced composites such as carbon fibre. It excelled in the areas of crashworthiness, stiffness and weight due to its structural purity. The side rails either side of the occupants ran perfectly straight from the front where an energy absorbing composite crash structure was attached, to a point beyond the occupants where a bend occurred enabling the rails to terminate in the correct position to attach a rear suspension subframe. From the Elise structure in Figure 1 it can be seen that frontal crash loads are largely taken past the occupants by these rails. In the event of side impact, the high nature of the original rails offered great protection. In simple terms, these rails were joined together laterally with box like structures. At the front, the *"box"* consisted of a series of extruded crossmembers which accepted the front suspension and steering, and at the rear the box surrounded the fuel tank. In practice, a torsional stiffness of 9500Nm/deg was achieved.

When considering the complete suite of structural requirements earlier discussed, it is apparent that the areas of excellence of Elise were at the expense of ingress/egress, package efficiency and NVH. The high siderails were a long way in from the side of the car which made getting in an out more like a race car than a road car, and their position compromised interior space. The extruded crossmembers are space consuming which left limited volume for HVAC packaging at the front, and limited fuel tank capacity at the rear. The multitude of flat panels resonate at the slightest chance. However, it should be remembered that these compromises were totally acceptable within the vision of the original Elise. Subsequent Elise derivatives have addressed these shortcomings to the point where more than ten times the original volume have now been produced.

Figure 2

Versatile Vehicle Architecure

Following the launch of the Elise, Lotus Engineering consulted on many vehicle programmes for both Lotus Cars and external engineering customers. Notable successes were the Opel Speedster/VVX220 for General Motors which shared the Elise structural concept and many of its components. Lotus was the design and development partner to Aston Martin for its Vanquish which displayed the aluminium technology of Elise but introduced more exotic structural composites for the crash structure, screen pillars, transmission tunnel and strut tower brace.

These technologies were fine for these low-volume vehicles, but in 2002 we started to investigate a way to develop diverse aluminium vehicles with a higher combined volume. This demanded a different strategy. The challenge was to find an approach to deliver three diverse vehicles with a total of 40,000 units per annum. The first would be a front engined 4x4 crossover with seven seats, the second a mid-engined supercar and the third a front-engined executive saloon as shown in Figure 2. In order to reduce the overall programme costs of realising these different vehicles the necessity of sharing key structural elements, components such as as HVAC and steering, and manufacturing facility was identified. This concept developed was named Versatile Vehicle Architecture (VVA).

The heart of the VVA structural element was driven by the fact that vehicle design always throws up challenges in the footwell area. To achieve contemporary ingress/egress the simple Elise type load path cannot be adopted. A more complex side rail design is required that hugs the wheel house. To effectively manage crash loads, it requires thick section in places. This can be achieved by the joining of several formed sheet panels so that the voids between them form load bearing members; or by complex high pressure die castings, or HPDC. These large castings incurred a high tooling cost, but this was acceptable given the projected VVA volume and the opportunities that they offered. A similar philosophy supported the use of castings around the rear wheelhouse. These castings are shown in red on Figure 3 as part of the first VVA structure. Extruded members are shown in blue. The majority of the remaining grey components are conventional press-formed, which although needing expensive tooling were again justified by volume. The red and blue components were such designed that they would suit all three vehicles. Figure 3 also shows these combined with simple low investment folded sheet or extruded components to realise the structure of the second planned vehicle, the mid engined supercar of which the final design is shown in Figure 4. A similar design exercise achieved the third model.

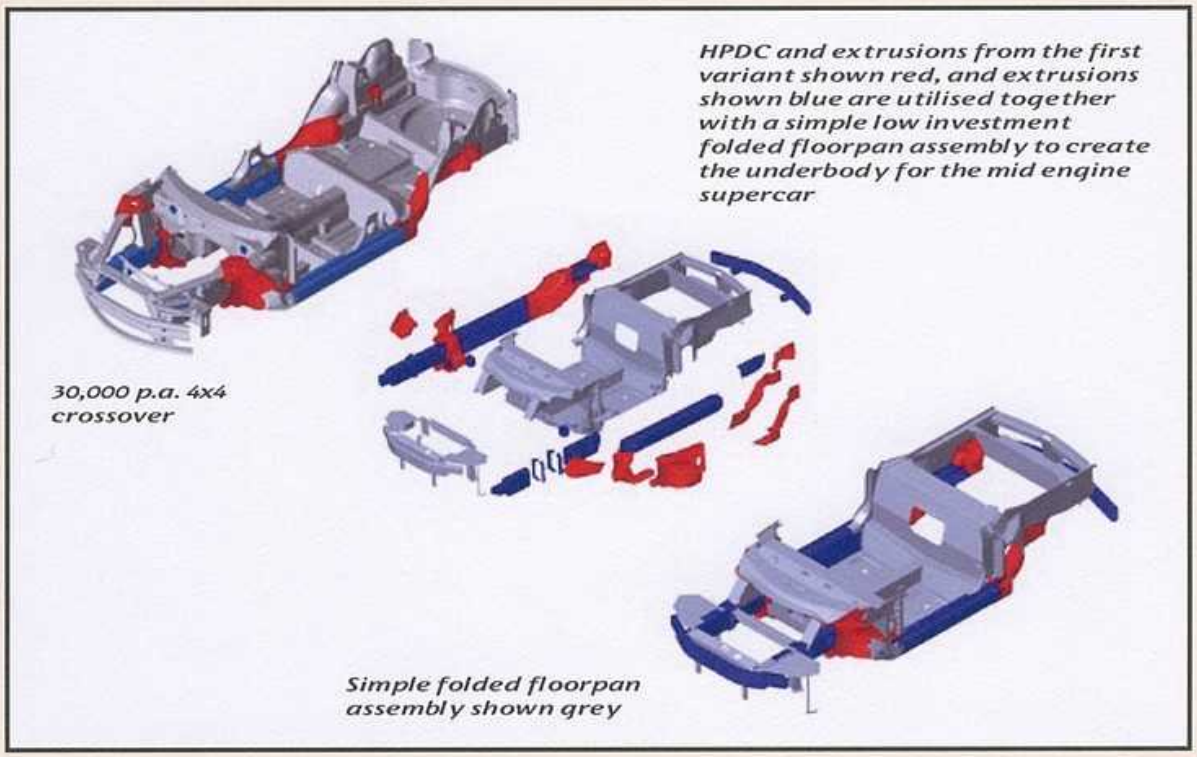


Figure 3

Figure 4

A VVA for the Esprit replacement and other future Lotus Cars

In 2004, Lotus Cars wished to embark on a replacement for the Esprit. Much of the learning, know-how and solution from VVA was well suited to this new challenge. However, a fundamental shift was that the volume requirements were greatly reduced. Certain technologies such as the high investment HPDCs of VVA were not viable for the lower-volume requirements. The result was an evolution of the VVA approach to develop a new sports car focused structure that should be morphable to cater for future Lotus and client requirements at volumes of up to 5,000 per year. and the first variant would be the Esprit replacement.

Immediate attention was given to the critical footwell area, and a design which showed a great improvement over Elise was conceived, where the siderail was slimmed down beside the feet but then it was supplemented beside the occupant to increase the member size in the area critical for vehicle stiffness. This supplementation also offered a load path for the wheel and tyre during frontal impact. The final embodiment of the design is shown in Figure 5.

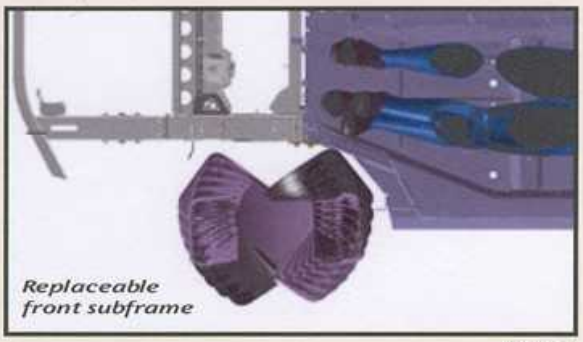


Figure 5

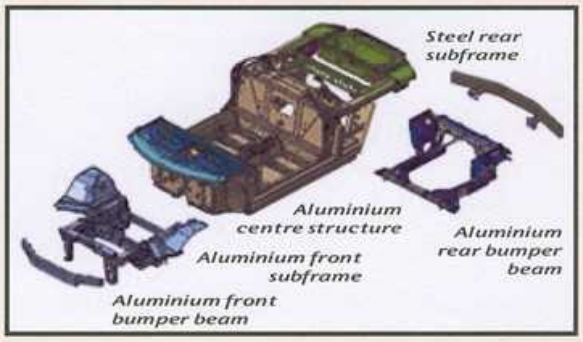


Figure 6

Figure 6 shows the Esprit replacement structure exploded into elements that are bolted together. At the front, there is a separate subframe. This is to enable its replacement in the event of accident damage when suffering a frontal impact or when the suspension mounting points become damaged. Also shown detached is the front bumper beam which can be replaced if required after a minor frontal impact. The front wheel house panels are integral with the subframe, and provide support to the side mounted radiators, bonnet hinges and headlights.

The centre section houses occupants up to 98th percentile, which is about 6ft 5ins tall, extremely impressive for a supercar. The turquoise curved surface at the front provides stiff support to the bottom edge of the windscreen, and a mounting for the windscreen wipers. Front to rear pipework runs down the central tunnel, and an access hole in the rear-bulkhead facilitates service at the front of the rear mounted engine. The A and B pillars, at the front and rear of the door apertures provide stiff mounting points for the door hinges and latches. The rear luggage compartment is integral, adding to the global vehicle torsional stiffness.

At the rear, the separate steel rear subframe with detachable bumper facilitates crash repair as at the front. During vehicle assembly, the engine transaxle and rear suspension and exhaust system are all assembled to the rear subframe before this completed module is offered up to the aluminium centre section.

When assembled, these elements constitute the structure of an open top variant, should it be required, with a torsional stiffness of around 14,000 Nm/degree, which is aimed to provide a similar structural feel to the smaller, lighter Elise. With the addition of the upper body of a conventional metal roofed version, then this stiffness more than doubles to 31,000 Nm/degree.

The innovative, intelligent design of the new structure will lead to a truly exciting Esprit replacement. But the real beauty is the low-volume VVA capability of this structure to be adapted to accommodate the requirements of alternative sports car layouts, as demonstrated in Figure 7. Exactly how Lotus or its clients exploit this, we will see over the next few years, but the potential for some truly exciting vehicles is here.

Source: Richard Rackham, Lotus Engineering

For Sale – Swap – Fancy

For Sale - 1975 Lotus Elite s/n 75 / 080353B

Car is complete, rear end disassembled. Some new brake parts included. Comes with factory Workshop Manual, original Owner's Manual, 5 original wheels. Stored last 7 years. Asking $5000. Car is located in Powell River, British Columbia, Canada. **Martin Stretton: 604-414-8146.** **martinstretton@shaw.ca**

For Sale - Richard Chong's 1982 Lotus Esprit

Black 1982 Euro Turbo Esprit, Dry sump, really rare factory system, with tan interior, 77000 kms, new Dunlop Sport 8000 tires. Motor has been redone, new crank, dry sump pump, pistons & liners, trans has been rebuilt with new ring and pinion, clutch and syncro rings. New factory carbs and turbo has been rebuilt, new waste gate diaphragm and spring, blow off valves, ac works, will convert for new owner, drivers seat has been redone on side bolster. Just added a variable boost controller inside, great for blowing off pony cars yet trackable in town. Needs the dash repaired, has pulled away in the corners and need a clock, missing when I bought it and has not been a priority to replace. Most of the work and repairs were done when I purchased the car 11 years ago and I have driven it for maybe 5000 kms. It's been in dry storage for years and I take it out and drive it for a few weeks every year. I just feel that it's time for some one else to really enjoy this car. It is now sitting in my garage at home, cause my storage area is full. You can also get vintage plates for the car as there was only 200 produced this model year. I know for a fact that this is a Euro car because I knew the original owner, he traveled to Europe for a year and ordered the car through MCL and picked it up at the factory and drove it through out Europe and shipped it back. I was involved in the certification for the Canadian market. I can tell the purchaser the whole history of the car. $24,500.00 Cdn. **Richard D. Chong: Richmond Auto Clinic** **richmondauto@telus.net**

LOTUS CAR CLUB OF BC

STATEMENT OF OPERATIONS
12 MONTHS NOVEMBER 2005 - OCTOBER 2006

		11/1/2005	**OPENING CASH**	**$1,425.01**
INCOME:				
	MEMBERSHIP	35	$1,285.00	
	MISC. - Merchandise		5.00	
	US EXCHANGE		0.00	
	ADVERTISING		0.00	
	INTEREST		0.81	
	TOTAL INCOME			$1,290.81
EXPENSES:				
	CAM JOURNAL 6 ISSUES		$852.10	
	ASSOCIATION DUES		0.00	
	GENERAL EXPENSES		78.51	
	INSURANCE		0.00	
	MAILBOX		117.70	
	OTHER		0.00	
	TOTAL EXPENSES			($1,048.31)
NET INCOME(LOSS)				$242.50
		10/31/2006	**CLOSING CASH**	**$1,667.51**

Lotus Car Club of British Columbia

Membership Application / Renewal Form

Application Type: Please check one.	**New: $40.00**	**Renewal: $35.00**

Name:	
Address:	
City:	
Province / State:	
Country:	
Postal Code:	
Spouse / Partner:	
Res. Telephone:	
Cell. Telephone:	
Bus. Telephone:	
Email:	
Website:	

Vehicle #1:	
Year:	
Colour:	
VIN:	
Modifications:	

Vehicle #2:	
Year:	
Colour:	
VIN:	
Modifications:	

Interests:	
Skills:	

Signed: **Date:**		Please complete this form, and mail with your cheque payable to: **Lotus Car Club of British Columbia** P.O. Box 125, 3456 Dunbar St. Vancouver, B.C. V6S 2C2