EVERGREEN LOTUS CAR CLUB

January/February 1987

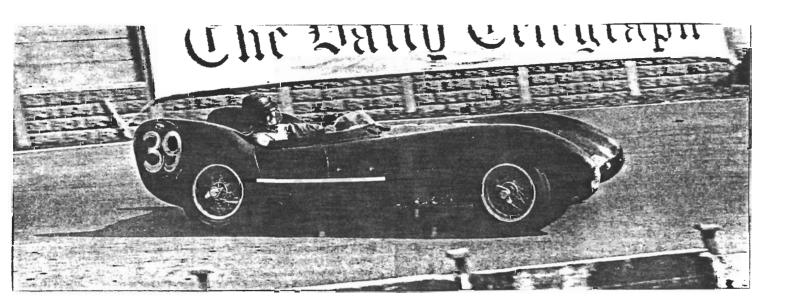
Terry A. Elmore, chairman 3010 132nd Ave. SE Snohomish, WA 98290 334-5768

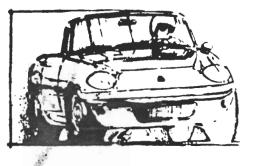
Cover photos- club member John Hunholz recently acquired a very rare Lotus Mark IX (one of only twenty three made, in 1955).

Photos courtesy of Thoroughbred and Classic Cars November 1985

LOTUS lines







Calendar of Events

STOP DREAMING! START DRIVING!

FEBRUARY 21, SATURDAY

Evergreen Lotus Club Meeting 12:00 noon Maury and John Montag, 16723 87th Ave. SE

668-4146 Snohomish

MARCH 15, SUNDAY

All City Rally VII Olympia put on by Corvettes de Olympia

21, SATURDAY

Evergreen Lotus Club Meeting 12:00 noon Frank Grabner 844 NW 58th St. Seattle

783-5726

APRIL 10-12 FRI-SUN

West Coast Lotus Meet II Cambria by the Sea, CA

see info/entry form in this issue

18

Evergreen Lotus Club Meeting

MAY 2, SATURDAY

Morgan Owners Group NW, picnic at Fort Casey on

Whidbey Island

8-10 FRI-SUN

Vancouver All British Field Meet

? (early May)

tentative Lotus Car Club of BC Swap Meet (Sat) &

Westwood track day (Sun)

16

Evergreen Lotus Club Meeting

JUNE

Evergreen Lotus Club Meeting

JULY 11

Annual Evergreen Lotus Picnic Lezlee and Terry Elmore, 3010 132nd Ave. SE

Snohomish 334-5768

18-19 SAT-SUN

2014

AUGUST 15, SATURDAY 7th Annual Vintage Weekend, Westwood BC

TYPE ALL BRITISH TOUR OF VASHON

Evergreen Lotus Club Meeting

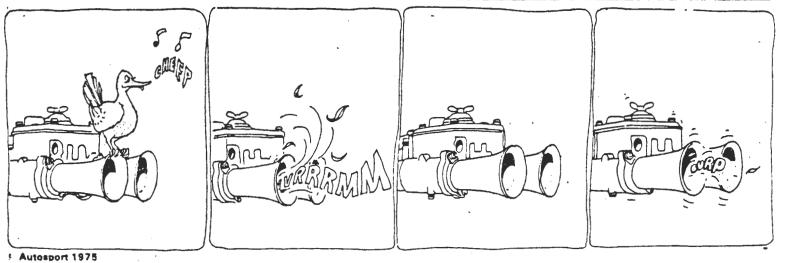
SEPTEMBER 4-6 FRI-SUN

11th All British Field Meet Portland OR

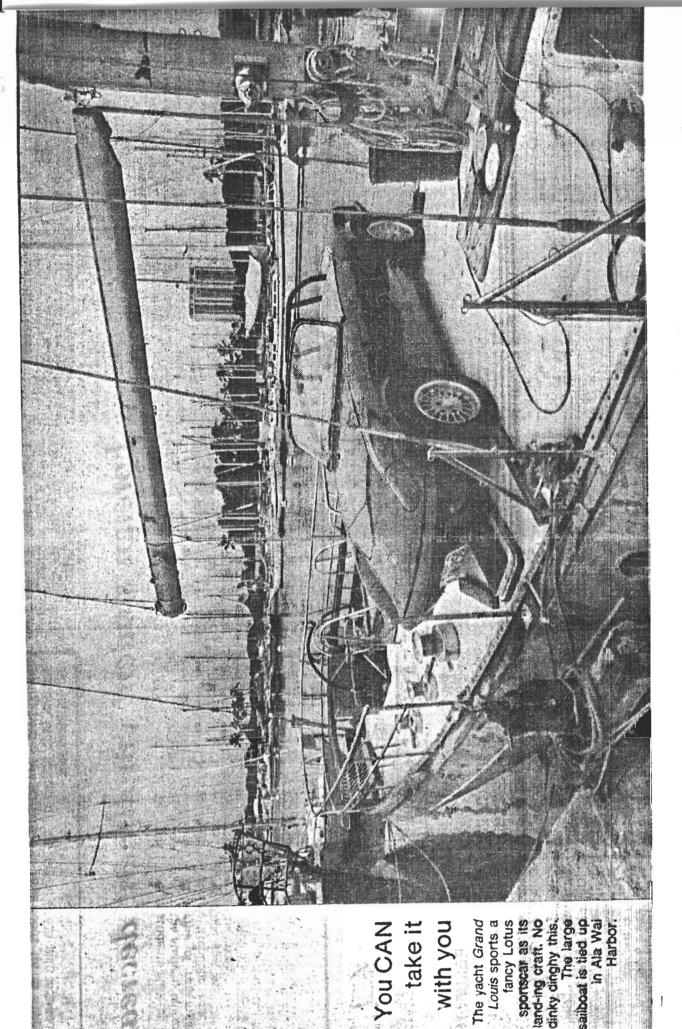
honored marque, Austin Healey

CATCHPOLE

By Barry Foley



Hurday, 21 February 1987 12:00 Noon Johnsone & Maury Montag 16723 - 87th Ave SE Snohomish 668-4146 from South -take Huy 522 (Bothell -Monroe), to junction with Hary 9 (near wrecking yards. Fitz, etc). North on Hung 9 past Charview, turn right (east) on 168th Where 168th makes 450 bend to right, turn left onto driveway entrance to Montags. from North - follow Hwy 9 south from Snohomish to 168th Saturday, 21 March 1987 12:00 Noon Frank Grabner 844 NW 584 St Seattle (Ballard) 783-5726 GREEN NE Corner of 9th Ave NW and 58th St NW



29 December 1986 Island life glimpse of Photo appeared originally in the Honolulu HI Advertiser thanks to Jeff Palmer for passing along this This past year has been a good one for Evergreen Lotus- we have more than doubled our membership, from thirty at the start of the year to our present sixty five, and with prospective new members I anticipate that we may well attain one hundred members by the end of this year.

With this comes the reminder that, as our membership year runs from January First of each year, your membership renewal is now due (with the exception of our recently-joined members, and those who renewed at the December meeting of course). We would greatly appreciate your taking the time to renew as soon as possible- dues remain at \$10 a year, which goes primarily to pay for the bimonthly LOTUS LINES.

We will continue in our efforts to improve in getting your six issues of the newsletter to you on time every other month, something we haven't been overwhelmingly successful with to date. On this score I would also like to draw your attention to Dave Larson's request in his column, for someone to take over his position as Editor, so he can work on some other projects for the Club, such as the Club roster and on profiles of members and their cars, which he hasn't been able to do for lack of time with having to produce the newsletter with very little help (I'm as guilty as anyone else in not helping him out with promised material). I would like to express my thanks to Dave for taking over the editorship when he did, and say that I have certainly enjoyed his writings over the past year as I'm sure you have as well (better than reading an entire issue written by me, that's for sure). So, will someone please step forward now and take on the job of editor for a while?

As you can see from the tentative schedule of events for the coming 1987 season elsewhere in this issue, there will be a number of interesting events throughout the year, something for everyone whether you want to go for a peaceful drive in the country or test your car on track or hillclimb. In addition to the items listed on the calendar, there are a few other possible "field trips" we've come up with that we're checking on now which you may find of interest, and we'll report on these as plans become more definite. We'll of course keep you informed as well, as events draw closer and details and specific dates are confirmed.

As a personal note- as soon of you are aware, I have been off work for almost six months now, as a result of a job-related back injury, and due to the fact that my employer's insurance company, and subsequently the State, denied my claim for a work injury, this period has been a frustrating and rather depressing one for us. In fact I have just now started to receive some disability benefits from the Teamsters, after going some four months without being paid while my attorney appealed my case to the state. So, I hope you will understand why the "management" of Evergreen Lotus has been a bit sparse of late. We greatly appreciate the words of concern and encouragement we've received from our friends in Evergreen Lotus, and I am delighted to say that, after several months of no improvement, my back does seem to be getting a little better, slowly but surely, and I'm cautiously optomistic that I may be able to return to work in another month or two.

Well, that's all from me- hope we'll see you at a few Evergreen Lotus Club events in the course of 1987, and welcome to all our new members.



FROM THE HOT SEAT by Dave Larson

HELP WANTED: Newsletter editor. Ever lust for the power of control over an automotive publication's contents? Think you'd like to try writing a column like Satch Carlson or Peter Egan? Here's your big chance. Seriously though, we need someone to take over the duties of Lotus Lines editor. Terry Elmore started off the newsletter and put it together for over a year, I've put in a year's time, and now it's someone else's turn. It doesn't take much time as the Lines are published only bi-monthly. Sign up for six issues and lend our informal organization a little help. Terry will continue with his column and I intend to do a series on our members and their cars. I also will be working on an up-to-date roster of our nearly 70 members.

I hope some of you out there were able to get out to spectate the recent Olympus Rally. No Lotuses, of course, but a world-class rally in your back yard is a rare occurance. With a world drivers championship at stake and the last chance to see Group B rally cars in competition, it was a top notch show. 1987's Olympus Rally is scheduled for June. See Evergreen Lotus member Thomas Hennessy for information and vivid, from-the-drivers-seat rally war stories.

This is an Anniversary Year for some of the most prominent Lotus road cars from Lotus' "three generations"-

- 30 the Seven and the Elite debuted together at the Earl's Court Motor Show in October 1957
- 25 the Elan appeared at the same venue in 1962
- 20 the Elan Plus 2 followed five years later as Lotus moved "up-market"
- 15 the "SilverCar", Giugiaro's design study for the Esprit, debuts at Turin in '72

As Dave Larson has made mention previously, an idea with which I completely agree, we should honor different models of Lotus throughout the year, either at meetings or other events, and make a special effort, when a particular model is being featured that month, to get as many of our members owning that model to come out for the meeting or event. This we have done previously— you may recall, for example, when Raj and Sandy Savara hosted a meetinf and the featured cars were the Third Generation, and we had a good turnout with Esprits and a new Elite.

We now have over 30 Elans in the group, about a dozen Sevens, and nearly the same number of Esprits, and so if we could get a fair percentage of these cars to show up at one time it would make a very impressive display. Dave has alsobrought forth the suggestion that we have volunteers in the group, who would act as a coordinator for their specific model and help in organizing such events through the year, and perhaps also act as a tech advisor on their model. As he has done much already to get in touch with all the Seven owners in the group, and to track down leads for possible other Sevens in the area, Dave is the obvious person to act as Seven coordinator. As I am already doing some organizational work in trying to arrange an area Elite Meet (see my article on this elsewhere in this issue) I will act as early Elite coordinator. So, we would like to have some volunteers to cover the other Lotus models—someone for Europas; for Elans and Plus 2s; for Esprits, Elites and Eclats; and the sports/racing cars. I believe Dave was going to contact a few people to discuss this idea further as well.

LOTUS SUPER-MAK -ALPHA-CRYL

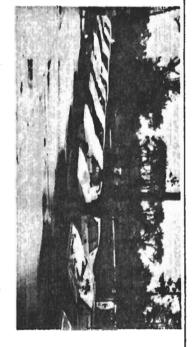
REVISED-JANUARY 1971 DESTROY PREVIOUS SHEET

			SUPER-MA	- A	LPHA-CRYL		DESTROY PR	THE SHEET
DASE	SETTING	BASE	SETT	NG	BASE	SETTING	BASE	SETTING
E-L0001	ORANGE		A-L0001		E-LO006	BURNT SAND		A-LO006
		PNT90 AT170 AT191 AT171	100 610 827 1000		TE-01 TE-74 TE-94 TE-41 TE-65	100 576 881 965 1000	PNT-90 AT-174 AT-191 AT-182 AT-141	100 492 812 924 1000
E-L0002	BRITISH R	ACING GREEN	A-L0002		E-L0007	YEL	Low	A-L0007
TE-01 TE-41 TE-21 TE-72 TE-94	100 797 930 990 1000	PNT-90 AT-121 AT-171 AT-182 AT-141 AT-190	100 450 630 838 935 1000		TE-01 TE-94 TE-72 TE-42 TE-71	100 610 878 950 1000	PNT-90. AT-190 AT-171 AT-174 AT-142	100 431 752 986
E-LO003	ROYAL	BLUE	A-L0003		E-LO008	ВАНАМА	YELLOW	A-LO008
TE-01 TE-22 TE-66 TE-94 TE-41	100 877 936 990 1000	PNT—90 AT—121 AT—190 AT—163 AT—123 AT—141	100 732 855 875 995 1000		TE-01 TE-74 TE-42 TE-94 TE-65	100 823 911 968 1000	PNT-90 AT-174 AT-190 AT-182 AT-179 AT-141	100 909 936 957 986 1000
E-L0004	CIRRUS	WHITE	A-L0004		E-LO009	FRENCH	BLUE	A-L O009
TE01 TE94 TE78 TE26	100 996 999 1000	PNT-90 AT-190 AT-178 AT-177 AT-141 AT-100	100 846 975 981 993 1000		TE01 TE22 TE94 TE41 TE66	100 517 826 942 1000	PŅT-90 AT-122 AT-190 AT-163 AT-141 AT-100	100 334 557 629 700 1000
E-L0005R	CARNI	VAL RED	A-L0005F	è	E-LO010	YELL	_ow	A-LO010
TE-01 TE-53 TE-79 TE-94 TE-41	100 706 902 995 1000	PNT-90 AT-152 AT-170 AT-190 AT-141	100 553 930 967 1000		TE-01 TE-71 TE-94 TE-42 TE-78	100 527 953 983 1000	PNT-90 AT-171 AT-173 AT-174 AT-142 AT-190	100 785 925 950 995 1000
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LOTUS

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SUPER	K-MAX	-ALF	$^{\prime}$ HA $\stackrel{\leftarrow}{\sim}$.RYL

				-ALPHA-CRYL			
BASE	SETTING	BASE	SETTING	BASE	SETTING	BASE	SETTING
E-L0011	REDO	RANGE	A-LO011	E-LO016	DARK G	REEN	A-LO016
`.		PNT-90 AT-170 AT-153 AT-191 AT-141	100 848 981 995 1000	TE-01 TE-22 TE-74 TE-41 TE-94	100 536 873 975 1000	·	
E-L0012	YELL	_ow	A-LO012	- Aller			
TE-01 TE-94 TE-71 TE-72 TE-42	100 550 976 990 1000		•				
E-L0013R	CARME	N RED	A-L0013R	:			
TE-01 TE-53 TE-79 TE-94 TE-41	100 804 891 964 1000						
E-L0014	ELAN	BLUE	A-L0014	!	·	·	· · · · · · · · · · · · · · · · · · ·
TE-01 TE-22 TE-94 TE-41 TE-74	100 507 885 954 1000	·					
E-LO015	OLIVE	GREEN	A-L0015				
TE-01 TE-74 TE-41 TE-31 TE-94	100 682 851 936 1000						



APRIL 10, 11 & 12, 1987 CAMBRIA PINES LODGE, Cambria California

ADDS UP TO MORE LOTUS FUN!!

- Morning Stretch Rallye/Run
- Formal Concours
- Wine Tour
- Big Lotus Banquet
- Concours Buffet Brunch
- Awards for Everything!
- Momentos

SCENIC CENTRAL COAST OF CALIFORNIA

Located on the California Coast, world reknown sports car heaven. Surrounded by hill, wineries, history, and more. Perfectly located halfway between Los Angeles and San Francisco.

BE THERE!!!



THE 1987 WEST COAST LOTUS MEET

April 10, 11 & 12, 1987 Cambria, California

After the success of the first West Coast Lotus Meet there had to be a second and this is it!

Apain the site will be the Cambria Pines Lodge in Cambria by the Coa

Again, the site will be the Cambria Pines Lodge in Cambria by the Sea, California. This oceanside hamlet is in the scenic central coast of California and is surrounded by Lotus roads and wineries.

This year's feetivities will include a Saturday morning Ballyo A wine.

This year's festivities will include a Saturday morning Rallye. A wine tour led by Ron Bennett. Saturday is capped off by a glutteness banquet. On Sunday the day begins with car cleaning and then the Brunch and Concours. The awards are then passed out and the memories will linger for years to come.

BANQUE

Banquet res

Date

Telephone:

City, State

Address

Name

REGISTR

1987 WI

REGISTRATION:

Registration for the West Coast Lotus Meet is being handled by the Colden Cate Lotus Club and Lotus West. The cost is \$20 per family or \$15 per single.

BANQUET & BRUNCH:

The Banquet reservations are being handled by the clubs as well. The cost of the Banquet is \$15 per person for Chicken Cordon Bleu or \$16 per person for Prime Rib. The price of the Brunch is \$14 per person.

ROOM RESERVATIONS

The Cambria Pines Lodge has 63 rooms available. These will be reserved on a FIRST COME FIRST SERVE BASIS. ALL ROOM RESERVATIONS WILL BE HANDLED BY CAMBRIA PINES LODGE (not by the GGLC or LW). Make your room reservation TODAY by contacting:

I an Reynold's Director Sales and Marketing.

Jan Reynolds, Director Sales and Marketing Cambria Pines Lodge 2905 Burton Drive Cambria, CA 93428 (800) 354-8877 or (805) 927-4200

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Reservations

Reservations

EVENT RE

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ROOM RATES ARE:

INFORMATION AND QUESTIONS

Charlie Rockwell 385 North 19th Street San Jose, CA 95112 Wk: (408) 756-1991 or Hm

Wk: (408) 756-1991 or Hm: (408) 286-2405

*Make chec

REGISTRATION AND BANQUET RESERVATIONS MUST BE MADE WITH CHARLIE ROCKWELL BY MARCH 25, 1987.

ROOM RESERVATIONS MUST BE MADE DIRECTLY WITH CAMBRIA PINES LODGE (Rooms will be reserved on a 1st come, 1st served basis)

Please add to registration, for the registration and for the



Washington's Other Rally

Corvettes de Olympia presents

ALL CITY RALLY VII

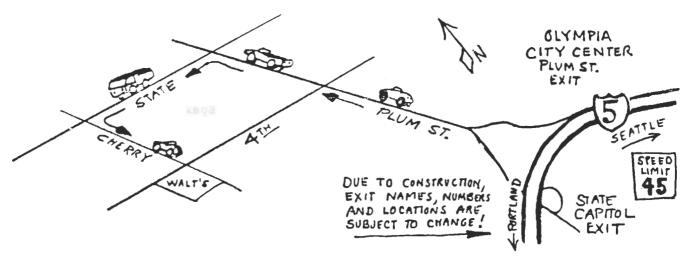
50-MILE FUN/GIMMICK ROAD RALLY (Out in the country... not a speed event... all paved roads)

Sunday, March 15, 1987

Rain or Shine

Start any time between 9:00 A.M. and Noon

Starting point: Walt's Radiator & Muffler 517 East 4th Ave., Olympia, Wash.



Entry fee: \$6.00 per car

Equipment needed: car, driver, navigator, clipboard, pencils or pens, maps, paper, etc.

Prizes: dual awards (driver & navigator)for 1st through 5th; special prize for best over-the-road score (excluding stunts at checkpoints).

Food and drink available at the finish.

EVERY KIND OF VEHICLE RUNS THIS RALLY!

Sports cars - rods - collector cars - street machines - antiques - trucks - vans - low riders - lead sleds - F.I.S.A. Group "B" cars are still eligible.

INFORMATION: NICK MURPHY (206) 491-6262



SPAX SHOCK ABSORBERS

.by Terry Elmore

Colin Chapman designed his road cars, starting with the Elite, to have a fair amount of suspension travel, coupled with softer spring damping than was then the norm- this was intended to provide both a more comfortable ride, compared to the "coal-cart" suspension of most sports cars then, and also to ensure that all four tires would remain in contact with the road at all times, a major factor in the renowned Lotus handling performance advantage over lesser marques.

A requisite, howver, for this suspension set-up to work properly is correct shock absorbing action, and if your shocks are either worn and in need of replacing, or in the case of adjustable shocks if they are set too soft or too stiff for the driving conditions, your Lotus' handling will not be all that it should.

When it comes time to replace your worn shocks, you have in most cases three options— you can either obtain the original equipment, i.e. Armstrong, or you can go to one of the after market—shocks, Spax or Koni, which offer the advantage of adjustability, to tune your suspension to suit your own driving needs and style.

Koni have a fine reputation as one of the finest shock available—however you pay for this reputation, as they are quite expensive, running about double the cost of the equivalent Spax. In the case of adjustable Konis, they are also somewhat inconvenient, in that they must be removed from the car for adjustment, whereas the Spax can be easily adjusted in place.

When Jim Kirbach and I went up to Vancouver BC in October, to check out what was left from the BC group's swap meet of the week before, we also stopped at Ace Automotive, in Burnaby BC- Ace is the Canadian distributor for Spax shocks, and I obtained a listing with current prices from them. Ace has the best prices we've found for Spax, much less than any US dealers we've checked- several of our members have already purchased Spax for their Europas from Ace- Jim Orgill for his S2, and Eric Wyss for his JPS. Please note that the prices quoted are in Canadian dollars, so your cost would be approximately 70% of that listed....

FRONT SHOCKS	regular	price \$Cdn	competition	price \$Cdn
'59-63 Elite S.1 S.2	A303-S180 A307-S180	95.95 95.95	A775-AS180 A777-AS180	121.95 121.95
'75 on Elite,Ecla	t A589-S195	101.95	A856-AS195	133.95
Elan	A310-S195	101.95	A779-AS195	133.95
Plus 2	A391-S195	101.95	A792-AS195	133.95
Europa S.1	A620-S195	101.95	A866-AS195	133.95
Europa S.2, TC from 7109181000P	A927-S210	125.95	A867-AS210	143.95
Esprit, Turbo	A583-190	90.95		
REAR SHOCKS				
Elite/Eclat	A590-S195	101.95	A857~AS195	133.95
Europa S.1	A621-S195	101.95	A868-AS195	133.95
Europa S.2, TC	A655-S195	101.95	A876-AS195	133.95
Esprit	A584-S220	143.95	A853-AS220	167.95
Turbo Esprit	A599-S220	143.95	A928-AS220	167.95

Ace Automotive is located at 5294 Imperial Streat, Burnaby, BC (604)430-4213



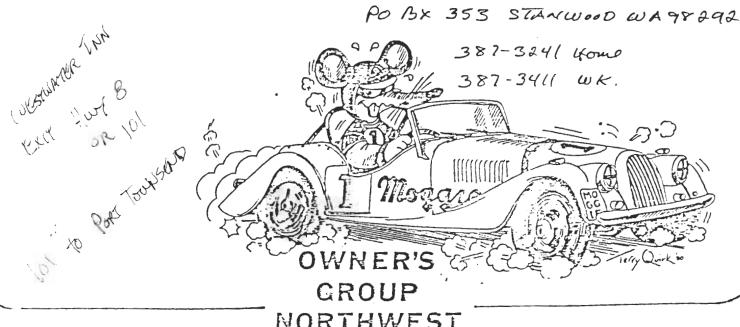
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THE MORGAN SPORTS CAR CLUB is going to TOUR UP HOODS CANAL AND ACCROSS TO FORT CASEY STATE PARK ON WHIOBY ISLAND FOR A PICNIE.

WE SHOULD BE AT FORT CASEY BY KOON AND WOULD LIKE TO INVITE YOUR CLUB AND OTHER BRITISH CAR CLUBS TO join us FOR THE PICNIC.

NOON MAY 2 NO 1987

PLEASE CONTACT BOB NELSON



NORTHWEST

THE CLASSES AND JUDGING

considers makes an outstanding car. In this way the awards given are the best group of classes. It is up to each entrant to determine what he or she choice. Each entrant receives a form and is requested to vote on a particular of careful work on them. We do have classes and the judging is by entrants' should be shown for the cars and the owners who have dedicated many hours judging or set rules for judging. However, we believe that appreciation second and third place trophies per class plus over all trophies. form of compliment, appreciation from fellow enthusiasts. There are first This event is not a Concourse de Elegance per se. There is no formai

CLASSES

- Austin Healey 3000 Austin Healey 100/4 Aston Martin, Post War Jaguar XK 120, 140, 150 Bentley, Post War Triumph, TR 2, 3, 4 Triumph, TR 7,8 Triumph, TR 250, 5, 6
- Jaguar Touring, MK2-10 Jaguar E-Type Jaguar XJ

Lotus, Open

10. MG, T Series Lotus, Closed

> 29 28

Pre War Touring, Under 2 Liter Pre War Sports, Over 2 Liter Pre War Sports, Under 2 Liter Sumbeam Tiger, Modified Sunbeam Tiger, Stock Triumph, Spitfire GT6

- MG A
- 14. Midget, Sprite
- 15 Mini, MK 1, 2
- 16.

- Rolls Royce, Post War
 - - Morgan, Post War

- Pre War Touring, Over 2 Liter Post War Sports, Over 2 Liter Post War Sports, Under 2 Liter
- MG B, C GT

- Mini, MK 3
- Competition, Post War
- MG B, C Roadster
- Post War Touring, Over 2 Liter
- Special Interest, BMW Isetta, Nash Met, etc.

Post War Touring, Under 2 Liter

36 Special Display, Replicas, Running Chassis, U.V.S., etc.

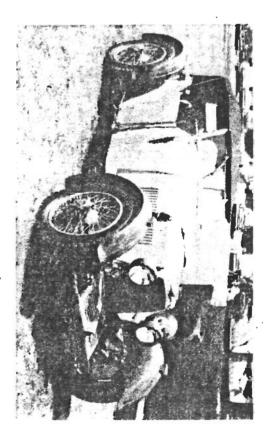
SPECIAL AWARDS

award was won by Mr. C. Barnes with his beautiful MG TD which is making its debuting appearance at this event. This past year the Best Debuting Restoration: This trophy is given to finest restored car

field. Basil Kallner with his 1934 Austin Seven "Nippy" roadster won the Cutest Car: This award is for the neatest (meaning cute) little car on the

Rob Follows' 1928 Aston Martin seemed to fill everyone's appetite. Best in Show: Need we say more? We're talking exotic stuff here and Dr.

ALL BRITISH FIELD MEET THE VANCOUVER



settings of the Van Dusen Botanical Gardens. Sunday will be driving tests and we are currently pursuing a slalom site Field Meet" will be held on the weekend of May eighth and ninth. The Saturday display of cars will once again be held in the beautiful We are happy to announce that the 1987 "Vancouver All British

entries were pre-war including the beautiful 1928 Aston Martin, success with one hundred eighty-one entries. The field consisted of a choice award distinguished racing career, pictured above, took the overall peoples LM1 of Dr. Robert Follows. This ex-factory team car with a very Superior, Singer Airline Coupe, Wolesley and Riley. Sixteen of the good variety of makes including such rareties as Railton, Brough Our first event held this past May third and fourth was quite a

with several other events in the Pacific Northwest and of course Expo information will be available in January. Thank you. listing on your schedule of events? Registration forms and further 86 is now history. We look forward to a very interesting and enjoyable Would you please inform your fellow enthusiasts and make this a 1987 event. Entry is open to all makes and vintages of British cars We have moved the date to the eighth and ninth so as not to conflict

The Olde British Car Society Steve Diggins (Head Instigator) - 291-7074 Doug Lupton (Co-Instigator) - 437-8887



THE VINTAGE RACING CLUB OF BRITISH COLUMBIA

and

THE DEERS LEAP VINTAGE MOTORCYCLE ROAD RACING PRESERVATION SOCIETY

Presents



Atout thinking about. 18th_19th 1987

For further information call:

Cars: Robert Follows Lorrie Hunt

(604) 926 3338 591 3025 Motorcycles: Wayne Ingram

YES it's still there!

(604) 929 4834 Ian Watson

734 7476

Class	
Number	

Entry Formi

CARS Entry Fee \$100 (\$75 U.S.) Late Entry \$125

Entries must be received by June 16th, 1987

This enables us to include you in the programme.

Photos are required of all cars not previously raced at our meeting.

MOTORCYCLES Entry Fee \$45

Pre-entry suggested for programme inclusion.

Full refund if notification given prior to the event.

Entry includes a plaque, poster, programme and 2 admissions.

Entrant		Driver			
Address		Address			
CityProv/StPC/Zip		City	Prov/St.	PC/Zip	
Phone A/C A/C					
Business Residence	ce	Phone A/C	Business	Rosidence	
Have you competed in Vintage Races before		petition History			
			396.5		
Have you ever held a competition license	Year	Organiza	tion		
Vehicle Information Year Marque					
The following information for cars only:- Color					
Chassis No.		Engine, year of	f manufacture		
Tire size Front Rear					
Car History					
Racing Number desired (List three choices) (1)	(2)	(3)			

Mail to: THE REGISTRAR

vintage racing club

Box 23393, Vancouver, A.M.F. British Columbia V7B 1W1

MOTORCYCLE ENTRIES TO:

lan Watson, 2845 W. 13th Ave., Vancouver, B.C. V6K 2T6

DON'T PINK WHATEVER YOU DO...



Graham Atkin, Director of Current Engineering, Lotus Cars joined the company back in 1967 and worked in Haison with Team Lotus initially on power units both in the factory and at race circuits. Here he explains the dangers of using incorrect fuels in countries where leaded and non-leaded fuels are available. Graham's comments came in reply to a query sent us by Mark Winston, American Editor of Lotus reMarque based in Maryland with which he sent an article that had appeared in a very well known American newspaper that should have known better.

Lead additives perform two functions:

 Cheaply increase RON and MON octane ratings.

(2) Allow seat lubrication for exhaust valves under severe conditions.

All Lotus engines, of whatever vintage, utilise aluminium cylinder heads, with separately inserted valve seats. Since the advent of unleaded gasoline, such seats. have been formulated in such a way that exhaust valve/seat life is satisfactory even without lead additives, which are then really superfluous for the specific reason of seat preservation. It is likely that seat materials used for early engines could suffer fairly high rates of wear with unleaded gasoline; there would need to be a careful check on tappet clearances; even maybe a change, at some convenient time, to new valve seats of more modern material: and we would of course recommend this course of action.

Engines such as the majority of American ones, which have castion cylinder heads, usually without the benefit of separate valve seats, are very much more at risk by using unleaded gasoline. Such heads generally suffer from fairly high rates of exhaust seat wear anyway, and can be expected to experience very high rates of wear with unleaded gasoline, especially under arduous conditions.

More important than the antiwear characteristics of leaded fuel are the benefits of enhanced antiknock (octane) ratings.

There are two ratings, RON and MON; RON refers to a standard test procedure identifying a fuel's propensity to low-speed detonation, which is usually audible if present, and generally causes little consequent damage, even if the noise is distressing.

Fuel is identified by the relevant octane rating eg, 89 octane actually signifies its RON number.

High-speed detonation, usually inaudible, is highly damaging to an engine, and rapidly leads through pre-ignition to spark plug or piston failure. The relationship of MON to RON is fairly consistent; it is known as the sensitivity rating and usually lies around 10 or 11, so that a commercially identified fuel of 89 octane (meaning RON) will have a high speed (MON) rating of around 100. But a 96 MON fuel will have a MON rating of around 106-107, and this factor is critical with reference to arduous duty in a gasoline engine designed for high-octane fuels

GASOLINE SPEC FOR EARLY LOTUS POWER UNITS

Lotus twin-cam units, and most 900-series engines, except for Federal units, were designed for 100 octane (twin-cam) or 97 octane (907 on) fuels. Oddly enough, the burn regime was satisfactory enough in the twin-cam that most engines tested were safely operating at around 96 octane, with standard compression ratios. 907's also operated happily with 96 octane, and Federal 907's were designed for 91 octane fuel. Irrespective of whether such fuel is lead-free or not, fuel octane ratings

(RON) of 96—and in reality, probably those of around 95 as well—are suitable for use in all Lotus engines in good condition, operating on as-designed compression ratice and with spot-on lignition timing at the relevant (high-speed) range.

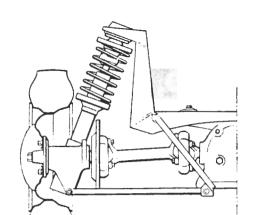
Federal 907 units, on their 8,5:1 compression ratio, are obviously safe on any fuel from 91 RON or above, and will probably operate satisfactorily down to 89 RON, with the same caveats reference asdesigned compression ratio and accurate ignition timing.

However, use of fuel ratings irrespective of whether lead-free or not—below those numbers represents a risk, most certainly at high speed and at high load.

At low speeds and loads, the actual operating octane requirement is lower than at peak demand, and engines can therefore operate perfectly satisfactorily in this condition. Unfortunately, it is difficult to ascertain a description of load and speed conditions which equate to any given octane rating below the peak optimum, and I cannot imagine any manufacturer offering that advice.

Assuming that the relevant octane rating is for some reason unavailable, the next lowest rating could be used, and as a very general, positively non-guaranteed guide, if the engine displays no audible evidence (pinging, pinking) of low-speed, high load detonation, then it is probably reasonably safe to assume that the potentially damaging but inaudible-untilits-too-late high speed detonation is absent as well.

If low speed detonation is evident, then progressive, but discreet retard of the whole ignition timing regime until the noise is no longer evident can be essayed, with the maintained assumption that high speed detonation is again being catered for. But beware! Retard alters the normal balance of the combustion process and more heat is passed to the engine, less to power; ensure therefore that coolant circuit is capable of accommodating that demand.



Cross section of Lotus Elan rear suspension.

TECHNICAL TIPS

New member Gary Wood, who is now rebuilding his recently purchased Elan Sprint, is having some new rear springs wound, to a smaller diameter—These springs, of chrome silicon wire, will be the same length and have the same spring rate, but will be smaller, 3" outside/2½"inside diameter, as opposed to the original 4". If Gary gets just one set for himself made, they will cost \$85.00 each, but if five springs are made cost drops to \$50.00 each, and for 10 springs the cost drops further, to \$40.00 per spring. So, Gary would like other Elan owners in the group who might be interested in going in with him on a spring order to get in touch with him— 631-8585.

Latest Word on the Formula One scene- Team Lotus is to be sponsored by Camel in 1987, and the cars will be yellow and blue. First race will be the Brasilian GP in Rio on April 12, which will be attended by club members Maury and John Montag (on assignment for Lotus Lines).



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