



CLUB ELITE

POST OFFICE BOX 351, CLARKSVILLE, TENNESSEE - 37040
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March 1976.
Volume 5, No. 12.

Dear Members;

Well, this is our last letter to you for 1975/76, and as usual with the last edition we enclose the latest Register giving you up to date information on the Elites we have traced, and also denoting those Elite owners who are Club members.

Our thanks go to Mr. Barry Swackhamer for undertaking the January newsletter and to Dr. Mohr for his handling of the February issue. We have received many nice comments on these issues, and are glad to know that members enjoy reading issues published by the other members as much as we do. Not only do we enjoy the reading of them, but we are immensely grateful to the members concerned who have volunteered their time, knowledge and efforts. We want to thank not only Mr. Swackhamer and Dr. Mohr, but also Jim Davis Dennis Ortenburger, Bob Green, Tim McCoy, and all the members contributing articles, and the organizers of the local and Annual Meets.

Our front cover is copied from a memo obtained from the Club's friend at Lotus, Mr. Colin Fish. As the last paragraph says, this ought to clear up misconceptions about the few Super 100 Elites built.

With summer approaching, we are sure you will want to make plans to work in a Meet or two with other Elite owners, as some Meets are being planned around the Country. Club Elite's official Meet is being held again this year at Dearborn during the week-end of July 17th and 18th which co-incides with the Olympic Games at Montreal - not too great a distance, relatively speaking, if you want to work it in too. Our headquarters will probably be at the Regency Hyatt in Dearborn. Jeff Erion is the Master of Ceremonies (Jeff Erion, 25520 Hopkins, Dearborn Heights, Mich. 48125, (313) 563-8603). We will have more to say about the Meet in the June issue, but you should check with Jeff if you plan to attend. Bill will be there, and hopes to see as many of you as possible.

Jim Goodman is organizing the first of the local Meets and there is a full page devoted to this event later in the newsletter. We also wrote to as many local people as possible, and do hope we reached everyone who might be interested in attending.

Bob Green informs us that the Northern California Club Members will get together at Sears Point Raceway on June 27th, and October 10th, and will go south to meet the Southern Owners at Laguna Seca for the August 22nd Vintage Race and Pebble Beach Concours the following day. Make a note of these events in your diaries and try to be there.

I am sure Club Members will wish to join us in extending condolences to Dennis Ortenburger and his family in the recent loss of his father. Dennis, we send you our sincere sympathies.

Mr. R.E. Richardson

Mr. L. Street	Elite Racing Specification.	22.3.62
c.c.	Mr. Costin	
	Mr. R.F. Read	1
	Mr. Fish	RER/TW

Following Mr. Costin's memo of recent date regarding the above specification, we should like to confirm that all Super 100 Elites are to be fitted with the following:

1. 100 b.h.p. engine specifications
2. 4-branch specially tuned exhaust system.
3. Heat shields over starter motor and attached to side of engine by exhaust pipe.
4. S.U. Electric fuel pump to be fitted in boot.
5. Fuel tank to our latest large capacity pattern.
6. Large Le Mans fuel cap with a 3½" diameter neck.
7. 5 Dunlop Red spot racing wheels.
8. Z.F. 4 speed all synchromesh close ratio gearbox.
9. Racing suspension front and rear of the hard ride type.
10. N.A.C.A. duct in bonnet over carburetters.
11. Light calipers to suit new specification.
12. Oil cooler and air duct to be fitted to cars for racing use only.
13. Oil filter to be fitted to cars for racing use only.
14. Special Lucas starter motor.

For a more complete specification of this Elite, will you please refer to Mr. Costin's memo, dated 18th April 1961.

As you already know, the Super 100's will be supplied less front and rear bumpers, interior trim and the normal Elite seats will be removed and replaced by adjustable Formula Junior seats.

It is now hoped that this memo will clarify the situation regarding the specification of the Super 100 Elite.

Turning to the contents of this newsletter, we thought you might be interested to know that the Club has had a total of 290 individual members in 5 years, and 1975/76 ended with 157 members, so it would seem that we have not had too many members drop out during our existence. In the Register we have identified the present Club members with a C.M., and their addresses should be accurate, although non-Club members' addresses can be out of date as some have not corresponded in several years. From our records we have located over 250 Elite chassis numbers in North America.

It is now time to pay membership dues. We mentioned to you the possibility of raising the dues, and are now sorry to say that this has become a reality. They now stand at \$15.00 annually. Members reaction to the December notice of a possible dues increase was overwhelmingly in its favor, which was gratifying. \$1.25 of the increase will go towards the postage per member for returning to 1st class mailing, and \$2.50 will be for the additional printing costs, and the balance will help to keep the Club solvent. The newsletters handled by our members were kept to the budget better than those from Clarksville. The Club barely broke even this past year. However, to soften the blow, if you think of it this way, members will have an advantage, for every quarter, members will be informed of special temporary prices offered to Club Members only on parts we stock here in Clarksville, and of special one time purchases of hard to find items which are purchased on specific orders from members. If advantage is taken of even a couple of the specially priced parts during the year, the dues will probably be recovered. To give you a prospective on Club expenditures, the March newsletter and Register cost the Club over \$300.00. The first 100 members renewing will receive Joe Dykzeul's prepared Club Decal, which the Club purchased recently. Specify 'outside' or 'inside' when renewing and we will try to send your preference. Additional decals can be purchased from Mr. Dykzeul, as noted under ads.

Northern California Member, Carter Alexander, has been fortunate enough to have his company temporarily relocate him in England. From there he has written to us about the 'scene'. The first two letters are printed herein and certainly will be found of interest. He writes of a recent encounter with Lotus' new Swedish driver, Gunnar Nilsson, who brought new life to the Team recently in Spain, chalking up a second place behind Niki Lauda. (Oh yes, whatever happened to the other Swede whom all the journalists argued was the greatest of the present day aces?). The new 77 performed splendidly in practice as well handled by Nilsson and Andretti. Further good news is that Mr. Chapman has persuaded Tony Southgate to leave the Shadow Team to head up the race design at Lotus. It was Mr. Southgate who made the B.R.M. G.P. car perform competitively, prior to moving to Shadow headquarters. Club Elite hopes the changes will bring our team to the forefront again.

You will be interested to know of a project two of our members are working on at the moment. Both Gary Koller, 22510 E. Price Street, Mount Clemens, Mich. 48043, and Barry Swackhamer of 1482 Hamilton Way, San Jose, 95125, are preparing an index of articles and useful information found in the past five years of newsletters and elsewhere. Hopefully, this will appear in an issue published by Barry in late summer. Gary requests that members help in one department, which is that of locating articles on the Elite. If you have a literature collection, Gary would much appreciate a list of articles that you own, including the book or magazine's name, the date, the page number or location of the pertinent material and the specific subject (article title will generally suffice).

#1584 Our congratulations go to Club Member, John Smith of Chatham, New Jersey, chassis EB 1584 (Elite, not fiancée) who married on 22nd May. They will fly to Nice for the Grand Prix of Monaco for their honeymoon and on to England for four weeks 'to look for Elite parts.'

Finally, we do apologize for the delay of this issue. Club correspondence, Register upkeep and various other Club matters keep us busy for several hours each day, and finding the time to actually get the newsletter out is getting harder. We rather suspect this might be the last year for the Huttons. However, at this point we want to say that we never could have managed without the help of our associate editors, and again this year we are soliciting help from the members, and also we will offer free membership for a year to those undertaking this task. Below are the months already assigned to members.

April/May.....Dennis Ortenburger	June.....The Huttons
JulyBarry Swackhamer	August.....
September.....The Huttons	October.....Dennis Ortenburger
Nov/DecThe Huttons	January.....
February	March.....The Huttons

To prevent duplication of material, and in an attempt to ensure accuracy of information, all editors are asked to submit rough drafts of their newsletters prior to printing.

We have added a small section in the renewal form for your completion where possible, and would like to explain this to you now. If an Elite owner has had particularly good service from a garage or a repair service and would like other Elite owners to be aware of this service, he should list that company's name and address where shown on the renewal form, and indicate the type of service the company performs, i.e. general, engine and/or drive train, suspension, fibreglass, painting, upholstery, etc. If there is enough response, we will compile the results and publish later in the year.

Our Best Wishes,
Sincerely,

Barbara and Bill Hutton

Miscellaneous

Heavy Duty Clutch Disc - Dave Pratt of Moss Motors Ltd., P.O. Box MG, Goleta, Calif. 93017, informs us that Moss Motors stocks a heavy duty MG Twin Cam clutch disc which is good for high revving engines such as the FWE. Moss Number 190270.

Chrome Wire Wheels - Moss Motors informs us that 60 spoke 15 inch chrome wire wheels can be purchased individually for \$105.00, or in lots of 20 for \$80.32 plus shipping. Further, we received a note from Mr. Marshall Atherton, BAP/GEON of Ventura, 1802 E. Thompson Blvd, Ventura, Calif. 93003, stating that they had 13, 14 or 15 inch Dunlop chrome wires in stock for \$70.00 each plus shipping. Also they have painted wire wheels for \$50.00 each.

ADVERTISEMENTS

WANTED:

1. For MK 23 - Steering Wheel Medalion. Four hub caps for 13 inch wobbly wheels. Two clear plastic head lamp lenses in unmarked condition. Plastic windscreen with door fairings in excellent condition and a single loop removable factory roll bar. "I would like to communicate with anyone with any information, pictures, chassis drawings, literature, or whatever you have concerning the MK 23 car. I have 'Provisional Specification and Maintenance Notes for the Lotus Twenty-Three Series Two Sports Car' compiled by Lotus Components Racing Division in 1963, 12 pages (incomplete). I will duplicate and share this with interested Club Members for the cost of photocopy and mailing. I guess about \$2.00"
George Albaugh, R.D.No. 1, Box 142, Lincoln University, Penn. 19352.
2. To complete Restoration: 1 choke cable knob assembly; 1 grab handle; 1 jack; 2 trim clips; 1 fixed part of boot lock;(i.e. fitted to the boot lid); 1 original tool kit or pictures of same..... Donald R. Galarneau; 7117, N Seward Avenue, Portland, Oregon, 97217.
3. Set of Connecting Rods with 9 mm. rod bolts as found in most FWE's - Jim Hoibierre, 21734 Visnaw Court, St. Clair Shores, Michigan, 48081.

FOR SALE

1. Club Elite 2-3/4" 5-color, silk screen, pressure sensitive emblems. Price includes one for inside use (i.e. windows) and one for outside use. Send \$2.00 and stamped, self-addressed envelope to Joe Dykzeul, 1524 West 12th Street, Los Angeles, Calif. 90015.
2. ELITE EB 7979, LHD, ZF 4.55, Stage III head, 4 branch exhaust, dual SU's, motor rebuilt less than 1500 miles, stroked crank and FWB pistons, new blue metallic paint, wire wheels, new tires, interior completely unholstered black; \$3500. George Marshall, 12752 Polo Place, Broomfield, Colorado, 80020. (303) 469-0077.
3. Elite parts- two doors, (right hand o-k, left hand repairable, broken around the hinge area). Also two complete window frames with 1/4 windows. Have lots of odds and ends that are probably useable but which I replaced during rebuilding.
Donald Galarneau, 7117 N. Seward Avenue, Portland Oregon, 97217.
4. Coventry Climax FWM Single Cam 750 c.c. engine complete and in good running order, with Webers, exhaust, and a huge list of spare parts, including literature and engine blue prints. Offers around \$1,000.00. Gordon Hoobler, 935 South Springer Road, Los Altos, California. 94022. (415) 964-9641.
5. Super Seven Series Two - 1965 - Cosworth, Webers, full weather equipment, car cover, factory shop manual. Bare alloy with dark blue wings and nose. Left hand drive, Very quick, Need Money to restore MK 23.
George Albaugh, R.D. No. 1, Box 142, Lincoln University, Penn 19352.

ELITE PARTS FOR SALE (Series II)

1. REAR SUSPENSION STRUTS with springs and shocks. Professionally rebuilt, refinished and ready for installation. Brand new Koni shocks, new wheel bearings & nylos seals. All cad plated with Lotus grey plus black epoxy paint. Totally rustproof and easy to keep spotless. \$235.00 each.

2. SUSPENSION PARTS

- A. Half shafts. Cad plated, ready for new u-joints. \$40.00 each.
- B. Rear wishbones. Cad plated \$40.00 each.
- C. Front wishbones. \$40.00 each.
- D. Anti-roll bar. \$55.00 each.

3. FRONT WINDSCREEN.....\$150.00
REAR WINDSCREEN.....\$125.00

4. SEATS. Excellent condition. Butterscotch vinyl. \$150.00 each.

5. ROYALITE INTERIOR PANELS (tan)

- A. Center console.....\$55.00 (perfect)
- B. Rt. Hand door.....\$75.00 (perfect)
- C. Lft. Hand door.....\$55.00 (small armrest crack)

6. STEERING WHEEL. Refinished, minus badge. \$55.00

7. FWE ENGINE SPARES

- A. Crankshaft.....\$125.00
 - B. Head.....\$175.00
 - C. Camshaft.....\$60.00
- Other spare engine parts available. Please write for quote specifying your needs.

8. FIBERGLASS PARTS

- A. Spare tire cover.....\$30.00
- B. Left and right doors (minus window frames).....\$200.00 each
- C. Bonnet lid.....\$90.00
- D. Boot lid.....\$90.00

All orders FOB Newport Beach, California. Shipped UPS COD. Write R. A. McCormack, 2240 Park Newport Street, Newport Beach, California 92660. (714) 879-9900 days, (714) 644-6627 evenings.

C O V E N T R Y C L I M A X

Commonly needed parts - from Hutton Motor Engineering, P.O. Box 351,
Clarksville, Tennessee, 37040.(615) 648--1119
Prices good through August 1976.

As prices are beginning to stabilize a bit in England, it is now possible to print a price list that won't be obsolete tomorrow. Further, as the dollar is strengthening in relation to the pound, you will note several price reductions. All parts listed are for the FWE 1216 and FWA 1100, unless otherwise noted.

Part No.	Description	Old Price	New price
FW 1228	Complete gasket set w/o seals (If the standard copper head gasket is not needed, deduct \$3.00)	\$18.00	20.00
FWB 3006/29	.040" thick composition head gasket	\$15.00	\$15.00
FW 10297	Locking Tab Set	6.00	5.00
FW 1067	Front Crankshaft Oil Seal	2.50	2.00
FW 2069	Rear crankshaft oil sealing ring (2 required)	3.75	4.00 ea.
FW 1229/6	Rear Crank Seal retaining cover with rivets.	39.00	40.00
FW 1015/1/2/3	Con.Rod Brng Sets, Specify size: std, .010", .020", .030"	38.00	35.00
FW 1014/5/6/7/8	Main Brng Set; Specify Size: std, .010", .020", .030"	44.00	35.00
FW 1020	Crank Thrust Washer (2 required)	2.25	2.00 ea.
FW 1018 -FW1019	Cam Brng. Set, Stage I or II(3 brngs)	13.00	10.00
FW 1018 - 1019/5	Cam Brng. Set, Stage III (5 bearings)	19.00	18.00
FWE 1013/7	Intake Valve	12.00	10.00 ea.
FWE 1021/7	Exhaust Valve	11.25	10.00 ea.
FW 1023-1023/1	Valve Guide Set(Stage I, II, iron type)	33.00	30.00
FW 2015	Timing Chain	26.00	25.00
FW 2038	Jackshaft Gear (Fiber)	33.50	35.00
FW 2366-2043/1	Piston and Cylinder Set (FWE only)	200.00	200.00
FW 1042-1063	Water Pump shaft, bearing, seal and gasket	31.00	27.00

FOR PISTON RING SETS - Refer to price sheet in Dec. 1975 newsletter.

UPDATE ON CLUB ELITE PROJECTS

P.O. Box 351,
Clarksville, Tennessee, 37040

1. Series II Allington cut-away etched on 7½ x 10½ medium gauge aluminum, black coated. Only five left at \$15.00 each, postage paid.
2. Side Window Latches. Response to the manufacture of these impossible to purchase items was minimal (only three members guaranteed a purchase at the \$25.00 each required). If no further word is forthcoming this month, we will have to drop the project.
3. Front SI or II Elite and SII Eleven front brake discs. These have been received and shipped to the members who prepaid the \$50.00 each. A few additional have been purchased and will be sold at \$65.00 each including postage on first come basis.
4. Stainless Steel mufflers and Y Pipes. Geoffrey Griffiths and Club Elite purchased 20 mufflers and 10 Y pipes early this year and word now is that these have been fabricated and are on their way. Delivery from Clarksville should be about the end of June.
5. Diaphragm Pressure Plate. This promising project has hit a snag. Two Massachusetts owners have purchased them and one, Carl Whitney, has found the action rather violent and not too suitable for street use. Club Member, Ron Murray, is going to try his shortly and report the results. But for the present, you may want to wait on purchasing. We do have three here in stock for anyone who is game. Diaphragm pressure plate and clutch disc, only \$65.00.

Geoffrey Griffiths, who manages the Baltimore Girling/Lucas distributorship, was instrumental in obtaining items 3, 4 and 5 for the Club. Shortly Geoffrey will be leaving Lucas after 21 years of service to handle a tire and parts business of his own in Baltimore. We certainly wish Geoffrey well in this new endeavour and want to express our continuing thanks for his assistance over the years to Club Elite.

JUNE SPECIALS from H.M.E. P.O. Box 351, Clarksville, Tenn. 37040.

Special prices are only available to current Club Elite members. When a supply of any particular part is limited, Club Elite members always are shown preference.

Prices are for individual items unless otherwise noted.

Parts listed are for the Lotus Elite SI and SII unless otherwise specified.
N.A. = not available.

UPHOLSTERY AND TRIM

Illustration Item No. and Description	Part No.	Old Price	June only	After July 1
Windshield & rear light lock and key (rubber and chrome filler) (sold together) (closer to original dimensions than previously sold)	W.L.K.	N.A.	Not on Special	\$2.00/ foot
Sponge Rubber Outer door weatherstripping (made in 6' lengths - we will cut to suit needs)	O.D.W.S.	N.A.	N.O.S.	\$1.00/ft.
Grey fabric/rubber inner door weatherstripping (fairly close to original)	I.D.W.S.	N.A.	N.O.S.	\$1.50/ft.
Bumper plastic trim (Narrower than original)	B.P.T.	N.A.	N.O.S.	front 6' strip \$10.00; Rear 7'6" \$12.00
Side Window Channel rubber (Obtained by Dennis Ortenburger)	S.W.R.	\$25.00	N.O.S.	\$35.00 set (for both sides)
<u>REAR SUSPENSION</u>		Page J-8 Shop Manual		
17. Spring, SII (Obtained by Barry Swackhamer)	E.2001	N.A.	\$25.00	\$30.00
18. Shock Absorber Bump Stop Rubber	E.2005	N.A.	\$5.00	\$7.50
19. Top Spring Abutment - S.I. diameter = 3-5/8"; S.II. dia.= 4"	E.2003 SI E.2003 SII	N.A.	\$10.00 \$ 5.00	\$10.00 \$ 7.50

FRONT SUSPENSION AND STEERING COMPONENTS - Page K-4 Shop Manual

Illustration Item No. and Description	Part No.	Old Price	June Only	After July 1
5. Hub	Right E1023/R Left E1023/L	N.A.	\$20.00	\$30.00
8. Wheel Bearing nylos seal (SI or SII Elite and SII Eleven) (one per side)	E 1020	N.A.	\$2.00	\$3.50
13. SII Brake Caliper Mounting Plate (For iron calipers only)	Left E 4001 Right E 4002	N.A.	\$15.00	\$20.00
22. Stub Axle (SI or SII Elite and SII Eleven)	E 1019/5 L & R same	N.A.	\$25.00	\$35.00
30. Brass Trunnion (SII)	Right E1019/RI Left E1019/LI	\$20.00	\$30.00	\$35.00
No. Number. Trunnion rebuild kit (SII only - both sides included)	514191	\$10.00	\$12.00	\$15.00
32. Track rod ball joint (SII)	E 3001/2 L & R same	\$18.00	\$16.00	\$20.00
50. Bottom steering mount casting (w/o sleeve bearing)	E.3014	N.A.	\$10.00	\$15.00
56. Top Steering Mount Casting (w/o sleeve bearing)	E.3016	N.A.	\$10.00	\$15.00
65. Steering shaft mount nylon sleeve bearing (top & bottom mount use same bearing)	E.3015	N.A.	\$10.00	\$15.00
67. Top control arm complete. Includes: ball joint, pivot bush & 2 roll bar bushes. (SI & II Elites (SII Eleven and Lotus Seven)	Right E1001 Left E1002	\$25.00	\$20.00	\$25.00
68.& 71. BUSH, Front top control arm (1 per arm) and lower wishbone (1per w/b) Total front = 4. Also SII rear wishbone (2 per w/b) Total SII rear = 4	E.1003	\$4.00	\$2.50 ea.	\$ 3.00 ea.
74. BUSH, Anti roll bar $\frac{1}{2}$ bush with washer (4 per roll bar)	E.1004	\$3.00	\$2.00 ea.	\$ 2.50 ea.

HELPFUL HINTS

Bob Green has recently seen two instances where the rear hubs have been found assembled on the wrong side of the car....."An easy way to check is to remove the knock-on nut to look on the inside. The nut with an L is for the right side and the one with R for the left'. Why, of course! Actually, the left and right denote the thread direction, not the side position. Of course with them reversed, there is some chance of the nut working loose as it rotates.

Jeff Erion has adapted knock off rear and bolt on front Minilite wheels to his SI Elite with very nice results. Also, of real interest is that he has changed his front hubs, axles and calipers to 1966 Triumph Spitfire and says the conversion is essentially a bolt on job. Furthermore, he has made up a set of special front shocks and springs to improve the ride. He is installing a Ford Pinto gearbox to replace the M.G. at present. You will get to view all his work on July 17th at Dearborn.

Barry Swackhamer brought to our attention an inaccuracy in the Shop Manual regarding SII rear springs free length, Page P-9. According to a spring chart for early Lotus cars loaned to us by Mr. Fish at Lotus, 17-3/4" should be 14-3/4". Also front S.I Springs listed at 13-3/4" should be 15 1/4".

Further he noted the MG close ratio gear ratios in his gearbox don't jive with those listed in the shop manual and we have noted the same for the Z.F. box. Sometimes the figures in the Manual can be a real mystery.

Bill Hutton. As most Elites have an FWE Climax which has seen several rebuilds, we are frequently asked "How can I tell how much material has previously been removed from the cylinder head when concerned about excess compression?" Good friends, Syd Emerton, Ted Hewitt and Geoffrey Densham of Coventry Climax Engines researched the matter for us and we quote their findings."The FWE standard head had a 10 to 1 compression ratio and the volume of the combustion chamber, measured with the head inverted and valves and plug in place was 28.8 c.c. The width measured across the head on a line between the valves is 2" even.

The Stage III head had .040" removed and measured 1.875 across the combustion chamber.

For an FWE with .080" removed from the head face the measurement across the combustion chamber should be 1.782". "

So there you are. If your head's combustion chamber measures less than 1.8" your compression is getting up there a bit. Another easy method is to check the compression of the assembled engine at cranking speed. Assuming valves and rings are in good order, if the compression gage reads over 200 p.s.i. you had better think twice about shaving the head any. Also, a special thick head gasket might be in order on the next strip down.

Bill Hutton. If you order rear brake pads an easy way to tell if your car has the iron or the alloy rear brake calipers is to simply note the placement of your hand brake. If it is the LeMans type mounted on the side of the tunnel, you have alloy and need the larger alloy pads. If yours is the umbrella type mounted under the dash, you have iron rear calipers. This bit of trivia deduced after reading notes under "Rear Brakes" on Page P-6 of the Shop Manual.

THE LOTUS SEVENTEEN

Notes: Adrian Schagen kindly provided the Club with 'Sports Car and Lotus Owner' from which this article is taken and also the cut-away drawing. S.C.L.O. Feb '59. Our sincere thanks go to Mr. Schagen.

IN the past two years the Lotus Eleven has become virtually invincible in British 1100 cc sports car racing. The Seventeen is a logical development of the Eleven and represents a definite advance in that it is 110 lb lighter, has lower frontal area and can be expected to have even better road-holding; early tests have shown that it has improved acceleration and that wheelspin is much reduced.

Space frame

Like the Eleven, the Seventeen has a multitubular space frame, which is built up from $\frac{1}{4}$ in. and $\frac{3}{8}$ in. square and round tubing of 20 gauge steel. As usual, the propeller shaft and floor are stressed members, forming an integral part of the frame, but on the new car a shortened propeller shaft tunnel is all that is necessary to take braking and accelerating loads from the chassis mounted differential unit. The engine is carried on two rubber mountings at the front and on a single rubber mounting, attached to the gearbox at the rear; as on the Eleven it is tilted sideways at an angle of 10 degrees to the nearside to give a straight induction tract,

but the gearbox is now mounted upright. Transmission is through a hydraulically-operated clutch, another new feature on a small capacity Lotus. The rear frame incorporates a spare wheel mounting and an easily detachable petrol tank to provide ready access to the final drive unit and rear brakes.

One of the most interesting features of the new car is the front suspension, which is of strut type, with each wheel located by a wide-based lower wishbone. The tubular stub axle, brake caliper mounting plate and steering arm are all retained at the base of the strut by means of four bolts, which give a very strong yet light assembly incorporating the absolute minimum of components.

Refinement

This new, simplified suspension system has been designed to reduce weight—and to reduce load problems at mounting points—and to permit further refinement of the chassis frame, which now weighs only 41 lb complete with brackets, yet is extremely

strong. It is also designed to allow wheel loads to react through the wishbone rather than through the strut, and thus the wishbone mountings are as near as possible to hub height, the forward arm being mounted part way up a vertical frame member. The suspension struts—Armstrong co-axial coil spring adjustable damper units—are mounted almost upright at the front (in fact at $8\frac{1}{2}$ degrees from the vertical) to restrict camber change; at the rear, on the other hand, camber change is required, to cope with variations in load (the difference between full and nearly empty fuel tanks); the rear struts are therefore at 45 degrees.

Roll centre

The front suspension will naturally be compared with the swing axle system of earlier Lotus models, and while the two have some features in common the strut-type gains considerably in that it has a roll-centre height of only two inches, compared with six inches on the swing axle Eleven. On this basis alone it can be predicted that the Seventeen will have a

higher cornering power than the Eleven. The relatively narrow (3 ft 6 in) front track is designed to accommodate the wheels within the bodywork and yet permit a reasonable turning circle (39 feet).

At the rear, fully independent strut-type suspension, similar to that used on the Formula cars, the Fifteen and the Elite, is fitted for the first time on a small-capacity sports car. As on the other models, the locating elements in this suspension system are the tubular drive shaft, the suspension strut and a longitudinal radius arm, all reacting through a magnesium hub casting.

The brakes are of Girling manufacture, hydraulically operated, with 9 $\frac{1}{2}$ in. discs mounted outboard at the front, inboard at the rear. The front and rear braking systems have independent master cylinders linked to the pedal by an adjustable balance bar. The use of these smaller and lighter brakes has been made possible by the extremely low weight of the complete vehicle. Lotus cast magnesium "wobbly-web" wheels are fitted as standard and effect a saving of 35 lb over a wire-wheel set-up, although wire wheels can be had, if desired. Steering is by a new type light-weight rack and pinion gear.

Bodywork

The bodywork, which is neat and extremely attractive, was designed by Len Terry and the staff of the Lotus drawing office. As already mentioned, frontal area is considerably lower than on the Eleven, at 9 sq ft, and the whole body is extremely efficient. Although, naturally enough, utilising aerodynamic experience gained on previous models, and incorporating the high tail and two-dimensionally curved windscreen first introduced at Le Mans in 1957, the Seventeen nevertheless has sufficiently distinctive lines to ensure that it cannot be confused with earlier models. By comparison with the Eleven, the Seventeen is 3 in. shorter, 4 $\frac{1}{2}$ in. narrower, 3 $\frac{1}{2}$ in. lower at the scuttle and 7 $\frac{1}{2}$ in. lower overall. Ground clearance is unchanged but the turning circle is reduced by 6 feet.

Power units which will be fitted to the Seventeen are the Coventry Climax FWA 1100 cc engine in Stage Three tune and the same manufacturer's FWM 750 cc engine when it becomes available. The 1100 cc four cylinder engine has a single overhead camshaft and produces 84 hp at 6800 rpm on a 9.8 to 1 compression ratio. Features

of this unit are the light alloy cylinder block and crankcase and the easily-renewed, slip fit cylinder liners. The overhead camshaft is gear driven from the crankshaft to a jackshaft, and thence by a duplex chain to the camshaft sprocket. This is located by a dowel and setscrew so that the timing is not upset when the cylinder head is removed. Valves are operated directly through chilled cast iron tappets working in guides surmounting the valve springs. Tappet adjustment is by means of hardened discs.

The fully counterweighted crankshaft runs in three identical lead-bronze, steel-backed main bearings of 2 $\frac{1}{2}$ in. diameter and 1 in. width. The big-end bearings are also lead-bronze, 1 $\frac{1}{2}$ in. diameter and $\frac{3}{4}$ in. wide. The connecting rods are split diagonally for ease of withdrawal and the aluminium pistons have pressure-backed "Dykes" pattern compression rings and a chromium plated top ring. The combustion chambers are wedge shaped and the XB steel valves are seated on shrunk-in austenitic cast iron sealings. Ignition is by coil and distributor with centrifugal advance and retard mechanism and a belt driven dynamo with automatic voltage control. Cooling is by a fully ducted cross-flow radiator with a remote header tank.

Transmission

Power is transmitted by a single Borg and Beck dry-plate clutch of 7 $\frac{1}{4}$ in. diameter, hydraulically operated. There is a special lightweight four speed, close ratio gearbox in unit with the engine. Ratios are: first 2.5 to 1, second 1.67 to 1, third 1.23 to 1, top 1 to 1, reverse 2.5 to 1. The final drive is a hypoid unit of 4.22 to 1 ratio and alternative ratios of 3.73, 3.9, 4.55 and 4.875 are available. A ZF limited slip differential is available at extra cost.

A single light alloy fuel tank of eight gallons capacity and an SU petrol pump are mounted at the rear, as is the special lightweight, 12 volt, 31 amp. hour battery, which weighs 24 lb. The fuse box is mounted in the cockpit. Electrical equipment includes recessed Lucas six inch headlamps incorporating side lights, twin stop/tail lights, number plate/stop light, instrument lights, screen wipers and horn.

The instruments comprise a 3 in. 8000 rpm tachometer, oil pressure gauge, water temperature gauge and ammeter.

The magnesium wheels, with identical

rims front and rear, are fitted with 4.50 by 15 tyres at the front and 5.00 by 15 at the rear. A 4.50 by 15 spare wheel is mounted in the tail.

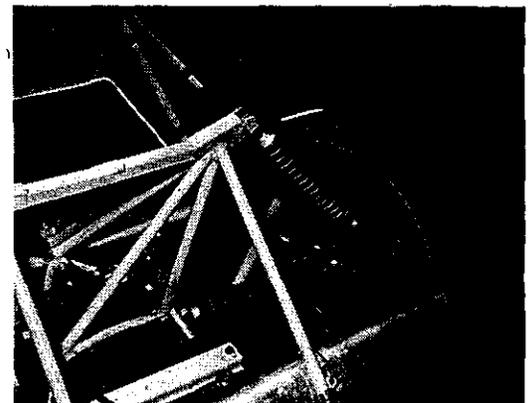
The car is fitted with a full-width moulded perspex screen; hood and sticks to full Appendix "C" specification, may be had at extra cost.

As on all Lotus sports and racing cars, seats and hoods are made by Connell Brothers, 693 High Road, Leyton, E.10.

The dimensions of the Seventeen are: wheelbase 6 ft 10 ins, front track 3 ft 6 ins, rear track 3 ft 9 ins, overall length 10 ft 11 ins, overall width 4 ft 7 $\frac{1}{2}$ ins, height to top of scuttle 1 ft 11 ins, overall height 2 ft 5 ins, ground clearance 5 ins. The weight of the car, less fuel, is 750 lb. For production reasons the Seventeen will initially be offered for sale on the home market only.

It is too early at present to make any predictions about the performance of the Seventeen, but it should show a definite gain over the Eleven in all departments. It is sufficient to say that a great many well-known 1100 cc sports car drivers have already ordered Seventeens for the coming season.

The strut-type rear suspension of the Seventeen, with inboard disc brakes and chassis mounted final drive unit, behind which the battery is fitted



LETTER FROM LONDON

A warm "hello" to my friends in the U.S.! We are now comfortably installed in our new home in England. I'd like to get the personal things covered first for those who would be interested. I've accepted a position with my firm, MSI Data, in their European headquarters at Maidenhead. I will be responsible for sales of our data systems in England, Germany, Austria and Switzerland. As such, I will be doing a good deal of travelling, but most of my time will be spent in England. Fortunately, my boss is also an auto enthusiast, and we plan to attend nine F1 races in addition to Le Mans next year, together with our wives. Of course, we will have to sandwich in a bit of business.

We are living in a small village called Sunninghill, which, for you map readers, is close to Ascot and directly south of Windsor - about 25 miles west of London. We rent our cottage, which is relatively new for England - 200 years old. The English life is refreshingly more relaxed and slower paced. Roberta plans to divide her time between the garden and her art work.

Whereas I usually felt myself to be in a tiny minority in my car interests in the States, I find myself among friends here. Most are very knowledgeable and the newspapers devote as much space to auto racing as we have for baseball in the U.S. I was looking through old issues of the club newsletter and found an article from the London Times by a Mr Chris Harvey. Bill Hutton had written to him and his letter of reply was also in the newsletter. To my surprise, his address was in a village not five miles from our cottage. A telephone call resulted in an evening of cocktails together and an enjoyable visit.

An advertisement for "old Elite parts" brought another interesting development. I called, and the fellow wishing to sell a series two accident case was most helpful. He informed me that the English Club Elite was mostly dormant save an occasional owners directory. But we talked a bit, with my first knowledge of how few Elites were left here. It's true - we have more in the U.S. than there are here! He was most interested in our Club Elite and took my name and telephone number. A few nights later a Mr Roger Tegal called me. He had gotten my name from the aforementioned gentleman and heard also of my just completed restoration of my Elite. We arranged to meet at his home the following Saturday. His series one is undergoing repairs of various natures so we didn't get to see it. But we talked at length about the cars and I brought him a xerox of our cross-reference parts list. I also brought a stack of club newsletters with me. We dug through the factory log and found his number 1007 listed, but interestingly enough, the date listed in the log was one year off from his registration documentation.

Roger is a very enthusiastic Elite owner and said the Club Elite in England has indeed been disbanded. He and other owners, however, are interested in reviving it, having gotten approval to re-use the name. He asked if I would be interested in participating, to which I indicated that I would be pleased, in that I could no doubt serve as a link between the two clubs. More on this later.

Regarding parts, he was not terribly encouraging as most of the sources here are no longer operational. Many things can be found cheaply in wrecking yards using the cross-reference listings. His Elite is suffering from cracks about the rear hub carriers where the shocks are inserted. He has observed old hell-arch welds which have broken. In an attempt to get replacement hub carriers he contacted Lotus directly. They were very polite, but stated that they would send some engineering drawings! Roger has received two beautiful large blue prints for making both series one and series two hub carriers. Additionally, they sent a complete listing of proper spring rates. He has promised to get copies for me which I'll forward to Bill for the Club library. Also, we plan to inquire if we can get other such engineering drawings if we pay for reproduction. More on this exciting opportunity as things develop.

Some days later I did get a call from a Mr Mike Frazer who is the driving force behind the new Club Elite. After discussing my restoration work, etc. I was invited to their coming gathering at a pub not far from me. It was wonderful; a total of nine Elites attended, with some modifications which were truly unusual. A few with original racing set-ups; NACA ducts on the hood, mag minilights, what is called a Stage V Climax engine. And, wonder of wonders, one drove up with a very odd looking hood scoop. You purists are going to be ill - it had a Mazda rotary engine! Very neatly installed, mind you. The owner stated that he had reached the stage where he'd either have sold the car due to his aversion to the vibrations of the Climax or install the rotary. He has gobs of torque now and a very smooth engine. Mr Frazer and I plan to set up some arrangement to share the documentation with theirs which I feel will be of benefit to all. The interesting thing is that the fellows over here seem to be, for obvious reasons, much more knowledgeable about the racing history of the cars, whereas we have better documentation on the factory fitted parts. I am very excited about an information exchange as it will be of great help in our interest to preserve the cars.

Despite arriving in England in the "off" season, as it were, for auto racing, I have attended events of interest. First, late in October my noble boss, Ed Harrell, his wife, Roberta and I drove over to Brands Hatch to see the last major meet of the year. The Formula 5000 here is much the same as in the U.S. regarding chassis. However, a recent development has been the use of the V6 Ford engine in a high state of tune which has on occasion proven to be faster than the usual Chevy set-up. The Formula Atlantic (big, four cylinder engine) race was won by Gunnar Nilsson of Sweden. Remember that name, we'll be seeing him in the top ranks soon. The racing was tight and exciting over the lovely track at Brands. I found it much like Laguna Seca, but the setting much greener and the viewing sites of drama more numerous. The highlight of the day for me was the historic auto race. Unlike ours in the States, the boys really get it on. They were racing for real, very competitive and much tossing about in the corners. The winner drove a Maserati 250F that had once been driven by Fangio. The field included several Lotus IIs and Cooper Climaxes. But believe me, our historic races look like parade laps by comparison. I wouldn't want my car out there, and certainly not with me behind the wheel.

The Earls Court Motor Show was just outstanding. We drove into London with great anticipation, after reading about it in Road and Track for so many years. Lotus had its two new cars on display; the Esprit and Eclat. As you may have read, the Esprit is an entirely new two place coupe based upon the Guigaro special Europa shown on the show circuit a few years back. It is an exciting car and, thankfully, priced much lower than the Elite II. The Eclat is a fast-back 2+2 version of the Elite II and, frankly looks a bit awkward. Ferrari was showing its new 2+2 coupe, the 308GT. Using the same V8 as the 308 Dino, this car has much the same look as the 246 Dino, but is slightly larger and is the first customer Ferrari with a fibreglass body. The show was just too large to see properly in our visit. Other cars of interest were the new Jaguar XJS coupe, the fantasies of Panther Cars and a turbo-charged TVR.

A trip to the coast around Southampton recently took us to the National Auto Museum at Beaulieu. This outstanding facility holds one of the best collections I've ever seen. Unlike the size of Harrah's, this collection has emphasis on quality. On display is the Tyrrell Stewart drove for his last championship and Graham Hill's championship Lotus 49. The giant Sunbeam land speed record cars are incredible. Donald Campbell's Bluebird LSR car is there in excellently restored condition. And I was very proud to see a beautifully restored Elite, series two. It's the first Elite I've seen in any museum and I must admit it made me feel a bit homesick.

You see, we have rented our farm in Sonoma, California, to some close friends so we'll have no worries about it while we're gone for some years. Also, I have stored the Elite in the garage with my friends to look after it. The timing of the move came at an odd juncture. After some three years my Elite is all but restored. In fact, I drove it from the body shop directly into the garage for storage. The mechanics are done, the leather and carpets freshly installed, the lacquer paint rubbed out and only detailing left. So I have something to look forward to when we return.

To soothe myself I have made a purchase here. My company provides me with a Volvo 144 for business, but this is not an acceptable car for pleasure driving. So I started looking at the classifieds for a sports car. Now, you must understand that petrol here runs about \$1.50 a gallon, so that in itself has depressed prices on performance cars. Also, the economy is down considerably so there isn't as much money around for unusual cars. The prices are quite interesting: Late Europas - \$1,500 to \$2,500; Elite IIs - \$8,000 to \$10,000; Astons - \$2,000 to \$4,000; Ferrari Dinos - \$7,000 to \$9,000. It boggles the mind. After much soul searching and accepting the fact that the car would be RHD, un-desmogged and un-returnable to the States, I made the only decision. I bought a Dino Spyder for about \$7,500. I figured it would be my only opportunity to get one and get the whole Ferrari thing out of my system at a reasonable cost. The car has but 20,000 miles on it and was last owned by Sir Robert McAlpine, most notable for having been responsible for development of the Connaught racing cars of the 'fifties. I must admit, however, it is a bit of a car to handle. It has tremendous power and will corner far in excess of my abilities. I plan to keep it only for ten or fifteen thousand miles and then try something else. I'm hoping to finally secure an early Morgan that will be returnable to the States before we leave.

I intend to write later on parts sources as they develop. However, I am sending Bill a directory of classic parts and services in England along with this letter. He may elect to hold it for the library rather than include it in the monthly letter as it is most comprehensive for all English cars. Should you have a particular need or wish to write me (I do like receiving letters) please note my address below. Until later, this is your European reporter signing off.

Carter
Carter

Carter Alexander
Pembroke Lodge
Sunninghill
Near Ascot
Berkshire
England

LETTER FROM LONDON

Carter Alexander

Well gang, the Formula One season has finally started over here. With much excitement we made our plans for the opener at Brands Hatch, The Race of Champions. This is a non-points race usually utilized by the teams to make their last modifications prior to the season in Europe. As such, many of the teams sent only one driver/car and several such as Copasucar and Ligier didn't even show. But it was indeed an unusually good meeting.

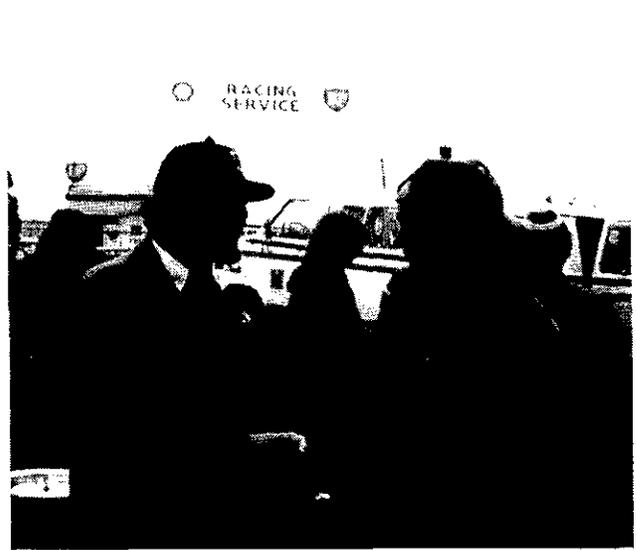
We packed up the Dino on Friday night with lots of food, coffee and a bit of brandy to warm us as it was still cold. We arrived about 8.00 a.m. on Saturday to find many fans already there awaiting the start of practice and qualifying. Now, although I attended the race at Monaco a few years back, I'd not seen a day of qualifying, and I can tell you first hand that it was every bit as exciting as the actual race. They get two sessions of two hours length each and the pressure upon the drivers to make a good placing is terrific. As it was quite cold, few of the cars were able to get their tyres up to driving temperature and thus, it was the Tyrrell, not the Ferrari with Niki Lauda that was moving the fastest. Something about this new car of Ferrari's makes it very hard to get the tyres warm. But Jody Scheckter was in great form, not as wild as he used to be, but still taking many of the corners a bit sideways. He, in fact, finished the morning session with fastest time. In addition, he won the traditional one hundred bottles of champagne awarded by the Daily Mail. Second was, of all people, Jacky Ickx in the Williams (actually a Hesketh) and third Lauda in the Ferrari.

Then fate took over. While viewing the Lotus cars, I turned to see Gunnar Nilsson walking up and talking with team manager, Peter Warr. Below, you see a photo of them deep in a discussion about whether they should modify something from the practice configuration prior to the race - Mr Warr would have no such gambling. Then I took a chance and walked up to Gunnar, indicated my dubious credentials as being with Club Elite in the States and gained his co-operation for the picture below. I can tell you he is a very nice fellow. We discussed his excellent placing for the race and his enthusiasm for the Lotus team. We are indeed fortunate to have such a talented and gentlemanly driver for Lotus. He is a very fast driver, but also seems to have a very high regard for his cars. I look for great things again for Lotus with a driver who stands an excellent chance of becoming a top flight driver in the near term.

The race itself was quite a thrill, Gunnar jumped the flag and leapt into the lead. Then Scheckter took over the lead quickly followed by Jones in the 24 hour old Surtees! Jody's tyres hadn't warmed up properly and he lost it heavily into a bank with Jones really hammering along into the lead. Then came James Hunt in the McLaren. James is rapidly becoming somewhat of a folk hero over here and his performances so far this year are bearing him out. At the half-way mark, Jones' car began suffering from over-steer, due to sagging springs, and Hunt took over. The race ended with Jones, Hunt, Jones, Ickx, Brambilla in the March, and our old friend Chris Amon in an Ensign. I am so glad to see Chris back in a competitive car. Do you know that



Gunnar Nilsson with Peter Warr, team manager



Your reporter giving Mr Nilsson a few tips

You may recall in my last letter I'd noted the skill of the then Formula Three driver, Gunnar Nilsson. Well, he was there along with Bob Evans with the Lotus team. I must say that Mr Chapman shows good judgement, perhaps he read my letter! Lotus did rather poorly in the first session, but in the afternoon both Nilsson and Evans found a little more in the cars and turned in very good times. Thus, the final qualifying positions were: Scheckter, Lauda, Ickx, Nilsson, Alan Jones in a brand new Surtees, Hunt, Watson in the Penske, Evans and Pryce in the Shadow. Others from there were so far back in timings to make them uncompetitive.

Dawn the race day and we got there at 7.30 to find people had been there since 6.15! Serious fans over here. And in the morning Roberta and I went into the paddock to get a close look at the cars. They would allow you to see them from the edge of their vans, but it was surrounded by fencing. Taking my Instamatic in hand, I proceeded to walk through a gate obviously not intended for the great unwashed, and marched Roberta with me like I knew what I was doing. Pulled it off! And we took in the sights of the highly complex cars being given last minute preparation for the race.

he is the only driver in Formula One who drove in the early sixties? And he is still only 36 years old!

Next month we go to Silverstone for the Graham Hill Memorial Formula One race. Should be particularly good as we expect to get our first view of the new Tyrrell six wheeler! Then in May we go to Zolder for the Belgium Grand Prix. Lots to look forward to. I'll hope to report on further progress by Lotus then. The cars look very good and they have made many improvements since Brazil. There have been rumours about that a new car, the 78, is planned to be completed by mid-season. Until later.

Carter