RS200

Owners Club

RS 200

Issue No. 4

RS 200 Owners Club

Ford

RS 200 Owners Club Ltd., Little Parks, Woodlands Lane, Cobham, Surrey, England KT11 3QD
Tele/Fax: 0372 842592

Registrar: Alan Fenwick
Honorary President: Bob Howe

Membership by VIN No's.

010	100	129	175
020	101	138	177
061	102	139	180
069	105	143	182
071	113	148	184
072	114	151	185
073	115	153	186
079	117	155	187
081	121	157	188
083	122	158	190
084	124	163	191
086	127	168	199
090	128	173	000*
096			*Non Car Owner

Honorary Members:
Peter Ashcroft, Stig Blomqvist, Brian Hart, Charlie Mear, Mike Morgan, Graham Robson, Fillippo Sapino, Jackie Stewart, Tony Southgate, Gordon Spooner, John Taylor, John Wheeler.

Comment

In this issue I will deal with the scrap, you know the stuff that is left when one of our Ciba Geigy 5052 aluminium/carbon fibre/steel reinforced chassis is damaged beyond repair. Now you would think that when a car as rare as an RS 200 is damaged, no matter how badly, it should be rebuilt, nowadays this would, I am sure, be the case but back in 1985/86 when a Ford works driver damaged a chassis the simplest solution was to salvage what they could and take another car. The damaged bits that escaped the souvenir hunters were, in the majority of cases, literally bulldozed into the ground at Boreham. If Ford's test track ever becomes a sand and gravel quarry then how I would love to be the drag line operator. You have to remember that Ford's objective was to win the world rally championship, the RS 200 was but a tool to execute that job, why use a bent tool if you have a straight one.

In all 200 RS 200's were made, 46 being dismantled for parts, 6 were prototypes later destroyed or yet to be. 2 cars were reintroduced, 020 for Stig Blomqvest to compete in the 1989 European Rally X Championship and 016 for the American IMSA GTO Championship, 6 works cars were written off, all but one of which have graves at Boreham. Simple arithmetic makes 144 No. cars left, if you exclude car 144 damaged by fire and 119 stolen and totally stripped, then 142 No. remain.

The six works cars written off were 007, 009, 062, 063, 076 and 078.

In the photograph below you will see the remains of 063, which carried registration No. C200 KWC, after the tragic Hessen accident of Formula 1 star Marc Surer in which co driver Michel Wyder was killed. The car left the road in fifth gear doing an estimated 140 m.p.h. hitting two trees and bursting into flames.

I mentioned above that only five cars were buried, one escaped, this was Car 062 The Mark Lovell British Open and R.A.C. car registered C200 KHJ. Whilst Ford officially wrote off the car the remains were sold, without the chassis plate, to Graham Hathaway who rebuilt the car as a Rally Crosser. Most importantly he repaired the car without replacing the chassis. As this is definitely the 1986 British Championship winning car the 'Classic Rally Car Club' have suggested that Ford Motor Company be campaigned to

"Car 063 after Marc Surer's Hessen crash".

reissue the chassis plate so that what must be the most important British RS 200 can be preserved and eventually rebuilt to its former rally condition.

I would like to add that my records are taken from photographic evidence and Ford's build records. Some irregularities do exist and whilst cars 007, 009, 076 and 078 are shown as being written off by accidents they do not show as ever having been issued with works registration numbers. It may be that these cars were sacrificed in some way to ensure the continuous running of the well known works cars. An example of this could be, 062 was rolled by Lovell on the Scottish Rally whilst it finished 2nd. It was well bent. This was in June, 1986, by August C200 KHJ was competing again on the Ulster Rally. Mark Dean has promised at some stage to double check the records, when this happens if things change I will let you know.

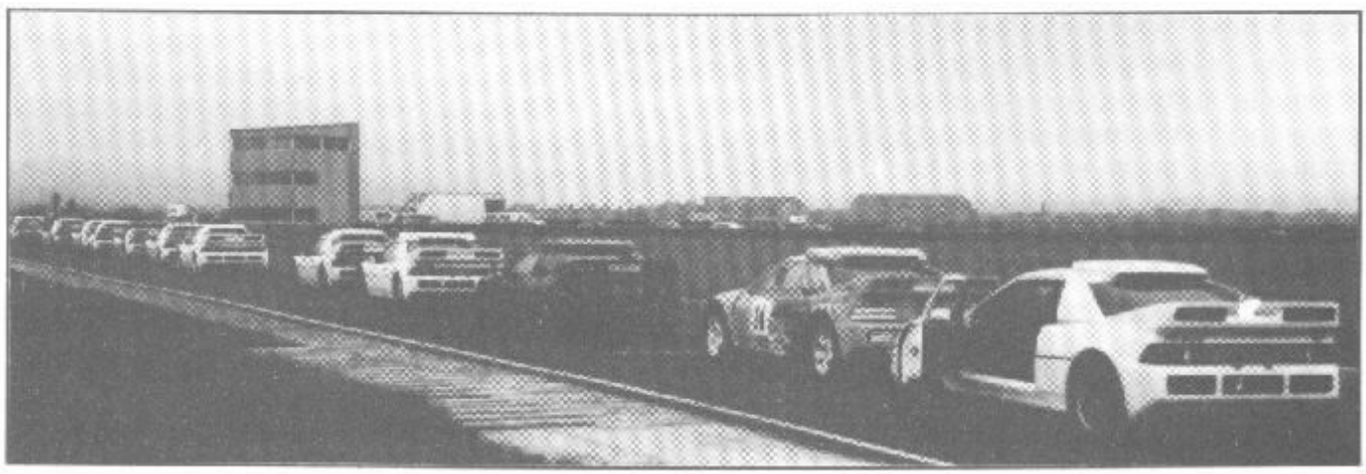
From the front sheet you will note that so far we have 53 No. members for 1992 which is somewhat short of the 76 No. we had at the same time last year.

I would like to thank all of you for your support but it is clear that apathy rules. Maybe it is the world recession, maybe it is me, I don't know but with the small number of members we cannot generate enough income to run the Club as it should be run. I intend, therefore, to suspend the activities of the Club as they now exist and, until interest in the Club increases sufficiently, the following will occur.

1. Membership fees will be set at £15.00 per annum and invoices will be sent out in January each year.
2. We will continue to keep abreast of the parts supply situation and arrange for the remanufacture of parts when the supplies run dry – which they will – as sure as eggs are eggs they will. If only for this reason the Club must continue.

3. We will report to you by letter only any servicing updates, problems and parts supply information.

4. We will attempt to arrange Owners Days in England.



"Car 062 is second from the rear".

The RS 200'S'

Fact or Fiction

In March, 1989 we were told that all the RS 200's had been sold. Graham's sixth news letter, you will recall, showed 20 cars being sold to Canada. These cars had, in fact, been sold to one entrepreneur. In an attempt to delay the payment date this purchaser asked for the cars to be fitted with every possible extra. Gordon Spooner and Tickfords had the task of completing and upgrading. Over the period 89-90 adverts appeared in such journals as 'Motoren Millionaires Magazine' the Dupont Registry and The Rob Report with prices from $300,000 to

$1,000,000 and two cars were, in fact, sold, Vin No. 144 and No. 110. The buyer had requested of Ford that these upgraded cars bear the official name of 'S' version. Homologation and Type approval could not allow this and Ford refused his request. Builders at Motorsport had, meanwhile, mistakenly destroyed all the remaining brochures, when the Canadian heard of this he sent to Bob Howe a batch of brochures. Now Bob knew every word in the brochure, so a quick flick through and shelved for future reference.

By late '89 payment for the cars had not materialised. Somehow a deal was struck and Ford Credit advanced 100% finance to pay Motorsport for the cars and some £160,000 for the extra work but many of the cars were unfinished. By mid 1990 Ford Credit had not been paid any loan interest and eventually in July I was asked to attend a meeting at Stuart Turner's office with Bob Howe and two Ford Credit employees. Under the agreement Ford had warranted to Ford Credit to assist in reselling the cars if the hirer defaulted. Stuart was quite impressive; his first question to Ford Credit was "how much is outstanding"? When told, his next remark "we'll send you a cheque today so you might as well leave now" was brilliant. The reason for my being there was that I was probably more in touch with the RS 200 market as this was an arena which Ford had left in 1988. Within two and a half weeks all the eighteen cars were reserved with a £10,000 deposit taken on each one. During this sales campaign Bob had handed out the sale brochures he had previously shelved unaware of the fact that this Canadian had subtly reprinted the brochure to include the specification of an RS 200 'S'. The changes occurred on the first, centre and back pages, it read:–

Engine	*RS 200*	*RS 200S*
Cylinders	4	4
Capacity (cc)	1804	1804
Bore and stroke (mm)	86 x 77.6	86 x 77.6
Compression ratio	8.2:1 (geometric)	8.2:1 (geometric)
Maximum turbocharger boost	0.75 Bar/11.0 psi	1.3 Bar/19.0 psi
Maximum power	2[illegible] (B[illegible]P.)	[illegible] (B[illegible]H.P.)
Maximum torque	215 [illegible]t. lb[illegible]	300 [illegible]t. lbs

RS 200S ORIGINAL EQUIPMENT
includes the following options:
- 350 BHP Cosworth engine
- Ford Stereo-cassette radio
- Power windows
- Central locking and Security alarm
- Luxury Recaro seats and 3 point safety harness plus original rally buckets with 4 point harness
- Aston Martin Tickford carpet
- Wiring for 130/90 W. lights
- Detachable rally lamp pod
- Power mirrors with defrost
- Stig Blomqvest steering wheel
- City/highway dual horns
- Improved ventilation with recirc.
- Three piece Speedline Wheels
- Extra corrosion protection
- Air-conditioning system available
- Roof mounted air scoops
- Four wheel drive shifter

The RS 200 'SPECIAL' – Twenty special cars, among the last to be finished, were created by Ford. Including practically every available option to enhance performance and driveability, the RS 200S comes with a minimum of 350 bhp which is capable of propelling the car above 180 mph given appropriate gearing. This performance is achieved without significant increase in audible output and is delivered to the road via 245/45-ZR16 P700 Pirelli tyres on 9.25 by 16 inch three piece alloy Speedline wheels.
The RS 200S has the original roof mounted air scoops known as "Big Ears", the rally passenger foot rest and the four wheel drive shifter restored to the car. The wiring to the driving lamps has been upgraded to allow fitment of higher wattage driving lamps by the owner for rally use. For corrosion protection Gordon Spooner Engineering has applied a special baked-on powder coat finish to 26 suspension and frame parts, painted or polished 15 other parts to ensure their lasting fidelity and installed a competition derived clutch actuating master cylinder which reduces clutch pedal effort.

For driver comfort Alpine Air has developed an air-conditioning system with air recirculation capability which brings down cabin temperatures.

The dual horns and speedline wheels were not fitted to any of the eighteen cars, air conditioning was only fitted to one car and the extra corrosion protection was applied to only ten cars. Quite a clever hoax but the RS 200S is, I am afraid fiction.

Replicas

It's happened sooner than we thought but KaRa Sports Cars Ltd. of 57 Tailors Court, Temple Farm Industrial Estate, Southend-on Sea, Essex SS2 5SX are selling an RS 200 replica at £6,800.00 plus a donor Sierra plus £500.00 for the intercooler pod. As an exact replica it must get a rating of Zero out of Ten as it is some 4.5" longer and 2" wider.

KaRa 430
The KaRa 430 is Sierra based two wheel drive sports saloon designed to accommodate the full range of possible driver sizes.

ENGINE
The engine is mid mounted behind the cockpit and fitted in a compartment that has been designed to accept most four, six and eight cylinder engines. Therefore mountings can be supplied to suit most applications. Provisions are available for roof mounted intercooler.

TRANSMISSION
The gearbox required is of the trans-axle design mounted behind the engine at the rear of the car. Options are Porsche, Renault, Volkswagen or Hewland trans-axle. Depending on power output and application.

SUSPENSION
The KaRa road chassis is designed using coil over struts at the front fitted to Sierra hub carrier. The rear has twin coil over dampers supporting double wishbones and upright fitted to Sierra hub carrier. All suspension components are fully fitted with compliance bushing.

BRAKES
Braking components are mainly obtained from your donor Sierra. Therefore you can use parts from the 1600cc 1983 version to the 1990 Sierra Cosworth or GRP"A" racing parts. It is also possible to use the Sierra/Granada ABS system.

STEERING
Rack and pinion steering from the donor Sierra, manual or power can be used.

WHEELS AND TYRES
The KaRa 430 has been designed to accept an 8" x 16" wheel fitted 245 x 16" tyres but other wheel tyre combinations are available.

BODY AND CHASSIS
Lightweight Monocoque and [illegible] steel chassis with replaceable front, side and rear impact panels, welded, riveted and bolted. High grade steel roll cage. G.R.P. fire retardant body panels fully trimmed for fitting.

INTERIOR
Has been designed to accept Sierra seats, dash, centre consul, steering column, heater, wipers, pedals, seat belts and handbrake with no modifications.

WINDOWS AND MIRRORS
Windscreen and side screens are glass, rear windows are plastic. Side mirrors are modified Sierra manual or electric.

LIGHTING
Headlamps are 7" round halogen units fitted with side lights, front indicators and the rear lamp clusters are from the Sierra range.

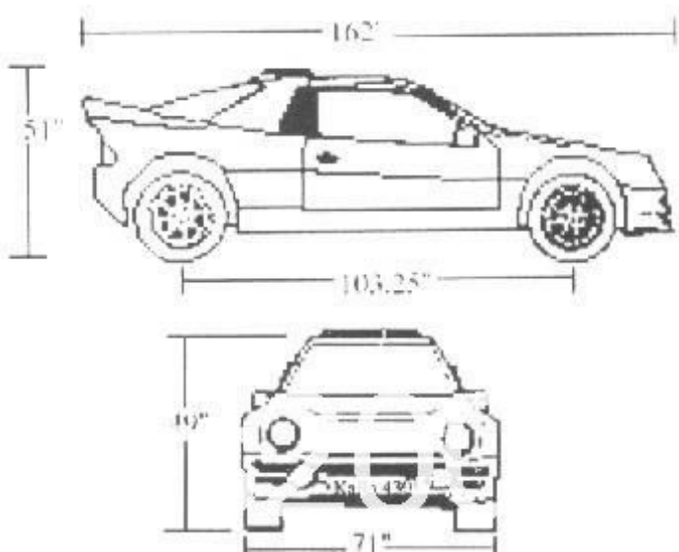
ELECTRICAL SYSTEM
The wiring loom is basically from the donor Sierra and will require only a few modifications by a competent person.

FUEL TANKS
Tanks can be supplied in aluminium or steel for most applications. The standard layout is for twin tanks with a single fill point on near side.

WATER HEADER TANK
Tank can be original plastic type or purpose made aluminium items with 1.4 BAR pressure cap and level indicator switch.

OIL SEPARATOR TANK
For higher output engines purpose made aluminium units can be supplied with push on or threaded unions.

EXHAUST SYSTEM
Are purpose made to suit engine application in stainless or mild steel.



Register

Amendments since last issue.

VIN No.

121 Completed in RHD form before delivery.
125 Sold to Indonesia in RHD form.
167 Sold to Indonesia in RHD form with 450 BHP Engine.
179 Sold to Holland.

Clinic

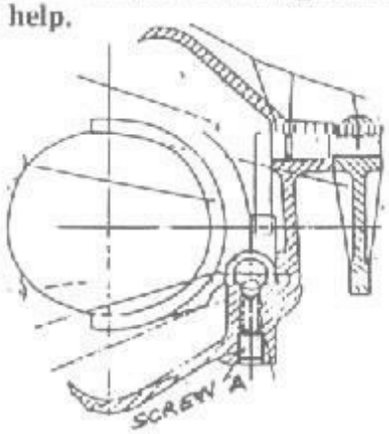
BRAKE PEDAL CIRCLIPS

In our opinion you must check these now. Take a small mirror into the driver's footwell and position it so that you can see up into the pedal box. At both ends of the brake pedal rod should be a circlip. If these clips are missing or dislodged then contact us or your workshop immediately.

2/4 SHIFTER

In the third magazine we stated that the dog clutch selector mechanism was, on some cars, locked off within the gear box. One very determined owner refused to accept this and, through Ferguson, we can now confirm that the locked shifter can be unlocked from underneath the car in a matter of minutes. The diagram and notes below will help.

SECTION THROUGH GEAR BOX AT CONNECTION WITH DOG CLUTCH SELECTOR



Screw A will be screwed in fully and loctited. To enable change to be made, unscrew screw A and reloctite so that screw is flush with bottom of gear box. N.B. Vehicle should be moving straight ahead when making change, change should be easy not forced.

GEAR BOX & ENGINE COOLING

When testing in Italy Ford found that by moving the number plate forward on spacers to allow a 10mm clearance around the lower air dam aperture the cylinder head temperature dropped a full 10°C in high speed conditions with ambient air temperatures around the 25°C – 30°C. Gear box cooling would have also been similarly improved as the gear box oil cooler is directly behind this aperture. Ford did not take temperature readings on the gear box for this test.

SLUDGE

Most of you will be aware that the magnesium alloy of the plenum tends to corrode. Several owners have, in the harsher environments of the world, Europe included, painted the outside of the plenum to prevent this corrosion but what of the inside – yes you guessed it. Gordon Spooner Engineering now regularly check the inside when servicing cars. The problem is the internal corrosion can lead to particles becoming blocked in the pressure regulator that is fed from beneath the plenum and runs to the variable boost control/ management system/waste gate. Any blockage can lead to incorrect/variable boost pressure and inconsistent performance. I am not qualified to state whether engine damage could result, maybe one of you could advise.

A regular inspection should be made by unscrewing the union under the plenum and checking the pipes for blockages. My own car suffered this problem to such an extent that the pipes had to be discarded and new ones fitted. But a preventative measure whilst servicing is to disconnect the pipes at all ends (including the management system) and blow through with an air line.

BATTERY

Owner Chris Owen advises:–
The standard Ford battery is no longer available and finding an alternative that both fits in the battery box and has an adequate reserve capacity has proved to be a bit of a problem. In the end, my local Ford RS dealer has supplied the following:

EMF097 Finis 5024564

This battery has a high reserve capacity and is dimensionally similar to the original except that it is 45mm narrower. In order to locate it securely in the battery box, a packing piece dimensioned 45mm x 150mm x 13mm is required; treated softwood is an adequate material for the purpose.

To fit the new battery, proceed as follows: Place the battery in the battery box and push it firmly to the side of the box nearest to the negative (–) terminal. Refit the top securing bracket. Place the packing piece between the sides of the battery and the box. This will prevent the battery from moving side to side during cornering!

Members Letters

My engine has 350bhp engine kit and I recently installed a thermometer on the down side of the turbine housing to check exhaust temperature. Ford recommend 1.0 bar boost for 350bhp engine, and I set the boost with 1.0 bar by boost control valve, however the temperature became 1,000°C easily. If I change the boost to 0.7 bar, the temperature became 900°C with full boost.

I would like to keep the temperature up to 900°C with 1.0 bar boost and please advise me how I should modify the engine.

Awaiting for your reply and best regards

H. Fukushima

Dear Mr. Fukushima,

I have now had the opportunity to discuss your problem in detail with Graham Dale Jones.

I am afraid he cannot re-programme the chip without major expenditure.

He comments as follows:–

1. *The turbo is safe to 1070°C, optimum temperature is 970°C.*
2. *He feels the temperature may drop to 970°C at 1.1 bar – 1.2 bar.*
3. *With 100 octane fuel you can afford to increase the static advance from 10° to 13° which should bring down turbo temperature.*
4. *If 3 fails, increase fuel pressure by half bar to 5.5 bar. You will need a fuel pressure regulator.*
5. *If you can get hold of Toluene add to fuel at rate of 10%.*

I hope this helps, please let me know.

Best regards,

Yours sincerely

Alan Fenwick

Thank you very much for your fax about the temperature of Turbo.

We checked the temperatures at 5 second after full boost with 4th gear as follows:-

BAR	TEMPERATURE
0.7	900°C
0.8	920°C
0.9	940°C
1.0	980°C
1.1	960°C
1.2	950°C

The increase speed of temperature was faster at 1.0 bar and if we keep full boost more seconds, the temperature will reach 1.000°C.

Even with 1.1 or 1.2 bar, if we keep full boost more than 5 seconds, the temperatures will be increased more than above. But the increase speed were much lower than 1.0 bar. We will inform you max. temperatures at 1.1 & 1.2 bar soon.

I am going to use 1.1 bar as normal use with your optimum temperature as 970°C for the time being.

Best regards,

H. Fukushima

Dear Alan,

Enclosed please find my check for 135.00 pounds for memberships. Registered should be car No. 168 for Richard Morrison, Car No. 81 for Richard Morrison and John S. Eversley, Global Motorsports, Inc.

Alan, do you charge for advertising? I would like to be listed as the United States East Coast supplier of parts. I am doing this for Richard Morrison and various customers. I can supply parts from this end as long as supply and demand last. I am also, to the best of my knowledge the only shop in the east/south-eastern part of the U.S. that services the RS 200's.
Please feel free to phone or fax with your comments and questions.

Thank you

Best regards,

GLOBAL MOTORSPORTS

3849 Stephens Court
Tucker, Georgia 30084

John S. Eversley

President

Dear Mr. Alan Fenwick,

How are you ??? Thank you very much for the news of club and appreciate very much your efforts to maintain our owners club.

I will forward you the membership fee this year very soon and would like to ask you to keep us as one of the members.

It was quite sorry to hear about your report of Club accounts. Please let me know how many Japanese owners are registered with our club at this moment. I will try to get some if they are not registered from my record.

Now, I would like to ask your help about Engine oil for RS 200. We changed motor oil with 8,000km in February. Oil grade is 15W-50 100% synthetic oil, after changed this oil, pressure of engine gets quite low, usual idling pressure is about 1 kg. and even during highway drive, pressure is about 4 kg.

It seems too low and I'm afraid to spoil the engine. Please give some guidance of oil, what is most sufficient for this engine.

I'm looking for your reply.

Thank you very much and best regards.

Terry Okuno,

Japan 091

Dear Terry Okuno,

Thank you for your fax. I am well. The Japanese owners who were members last year are car numbers 085, 092, 093, 132, 172 and 178. The non members are car numbers 091, 116, 131, 136, 141, 147 and 198.

Your engine oil is the correct type. The best oil to use is 'Shell Gemini'.

I assume you mean your pressure is 1 bar and 4 bar on highway. If these readings are when the engine is hot then pressure is O.K. For good engine life the idle speed should be set at 1200-1300 rpm when hot and the oil pressure should be 1.1/2 bar. You can increase the oil pressure at high rpm by adjusting grub screw on the oil pump, clockwise to increase, but do not run over 4.5 – 5 bar when hot.

Best regards

Alan Fenwick

Mr. Fenwick,

My original draft contains ten pages of questions and reasons of why I should not join your club without Ford Motorsport supports and it is too expensive to read only about English's events.

What I really need is major mechanical supports from "Ford" to correct my mechanical defects and keep my RS 200 running with only 2600 miles.

The new replacement transmission "jumps-out" of second and third gear, engine smokes excessively when cold – burning oil after starting, but stops when warm. Some of the parts included with the 350 HP Kit does not fit or work.

My vehicle needs desperate help in the transmission area, Mr. Bob Howe and Dave Wood have record of the original failure. I still have money deposited with Ford Motorsport, England.

I am in California, U.S.A. and you're in England, therefore how can you serve me as the owner of this special vehicle which Ford originally agreed to provide supports to all owners at time of purchase. I do not release my vehicle to just anybody for service or repairs, therefore I need specifications, data, instructions etc. to repair and correct the defects.

You indicate some new replacement parts which I hope the cost is less than selling my home or soul to purchase.

You now have heard some of my comments and reasons and I am still the original owner of this RS 200 which I want to drive beside repairing or replacing parts.

Finally – enclosing my bank draft for the amount you requested and I hope you will send me all of the owner's club materials from the start and any help or support to correct the vehicle defects.

Regards

C. S. Yem, Car 196

Dear Mr. Yem,

Re: Car No. 196

Thank you for your letter of the 22nd September, 1991 and your subscription for 1991.

I agree with your comments regarding Ford's involvement but we have formed the Owners Club to ensure that owners have a central base to sort out their problems. As time passes and parts become scarce, which they will, we will be able to, collectively, have these re-manufactured. The high cost of membership concerns us but the magazine alone costs £3,000 plus per issue to produce. Next year we intend to simplify the magazine in an attempt to reduce the membership fees and I will write to you separately on this.

I have sent a copy of your letter to Bob Howe to get his comments on your problems and he will contact you directly but, from my experience with the English owners cars, I would comment as follows:–

Transmission jumping out of gear

This is most probably the indent plunger that requires adjustment, this is not a difficult task, get your mechanic to drop the rear of the gear box, at the right hand side on view are 3 allen screws, tighten the bottom and centre screws. It will be necessary to have someone selecting the gears 2nd and 3rd whilst this is done as if they are over-tightened gear boxes can become locked.

Engine smoking

This is quite normal whilst cold but I cannot comment further unless you have your mechanic carry out a cylinder compression test and inform me of the results and also let me know what your oil consumption is.

350 BHP Kit
I cannot assist you unless you can be more specific as to which parts do not fit.

Bob Howe may well answer all your queries, but if not, let me have the above information and I am sure we can sort out your problems.

I have pleasure in enclosing the third Owners Club Magazine, the first and second have been sent previously.

Yours sincerely,

Alan Fenwick

Owners Days

GOODWOOD '92

'A Simple Affair'

That is how I would describe our fourth Owners Day held at Goodwood on the 20th June, 1992. Eleven RS 200's eventually turned out which is somewhat down on our twenty car field at Castle Combe last year. This small turn out does not help the club funds but, as organiser as well as participant, how simple it was to run. At last I found myself with enough time to enjoy some fairly serious circuit fun.

Our days are always attended by Tim Jones, ex formula 3 and now a chief instructor at Brands Hatch Racing School. I have, on other days, previously had problems in persuading the majority of owners to use his services. You know how it is, most people like to feel they are natural racing drivers but the reality is often that their ability is nowhere near their capability. Everyone this time used Tim to the extent where a waiting list was in force in the afternoon and how it improved the driving styles. By the afternoon unofficial lap times had dropped from the 1m 34 sec. best – 1m 50 sec. range seen in the morning to 1m 28 sec. best – 1m 40 sec. range by close of play.

The day passed off fairly uneventful with only minor breakdowns, no body panel damage and no-one requiring the R.A.C. relay service although I doubt very much that all the tyres left the circuit in legal road form.

Two other interesting R.S. cars helped bolster the field. The first was Chris Spooner's RS 1600 replica of the 1975 Circuit of Ireland car as driven by Roger Clark. The car was fitted with the proper BDA, 5 speed ZF group 4 gear box and 4 link rear axle with ZF L.S.D. When you work for a family firm, especially one called Gordon Spooner Engineering, that builds and tests works rally cars then you would expect a little sideways skill, but, to the delight of the crowd, I have never seen anyone as right angled as he was leaving the Goodwood Chicane.

The second car was Mark Smith's RS 200 fitted with a 2.1L pinto prepared by Warrior pushing out 214 BHP. Mark is currently competing with the car in the Falken Tyres Modified Production Saloon Championship.

The cars in attendance were:–
090, 113, 115, 124, 127, 138, 139, 143, 173, 182 and 189

DONNINGTON PARK – 6th September, 1992

Don't forget our invitation to attend the R.S.O.C. National Day at Donnington Park race circuit on Sunday the 6th September, 1992. To remind you, entry is by invitation only, so if you have not returned your confirmation slip contact me by telephone. For attending with your RS 200 you will get in return, free circuit use between 12.00 – 2.00 p.m. The day will have a strong Ford Motorsport presence with four works drivers and rally cars.

BOREHAM '93

As you know due to lack of interest we had to cancel the planned Boreham event in September this year. We have provisionally booked Boreham for Sunday the 6th June, 1993. If this event is to happen I will require the return of 16 No. of the confirmation slips enclosed with this news letter. The format for the day will be identical to the planned September one and the cost will be £90.00 including a buffet lunch.

A Word with Martin Schanche

JULY 1992

Whilst I was recently at Gordon Spooners workshop awaiting the completion of a new turbo installation to my 'E' I met with Martin Schanche who was there to inspect the progress on his Escort Cosworth which is being prepared by Gordon for the 1993 season.

I took the opportunity to ask a few questions of the current European Rally 'X' Champion.

'You have now had your RS 200 for almost six years, what are your true feelings for the car?'

"The decision to run the RS 200 was an easy one, my sponsorship from 'Ford Norway' goes back to 1977 – the RS 200 was a natural progression from the xtrac Escort.

When we first got the car in 1986 it had been thrown together by J.Q.F. After the 1986 Beggata Memorial the car had to be totally rebuilt for 1987. The car is very strong and was competitive from the beginning but we have had to make many changes to beat the competition."

'Mainly what sort of changes?'

"The objective is always to increase the power-to-weight ratio without losing strength. I have always believed an engine should be square so by 1988 we had developed a shorter stroke BDT 'E' with a capacity of 2L which produces 610 BHP at 1.5 bar. This reduced capacity allowed me to run at 1030 Kg, tanks empty. No other RS 200 competitor has been able to attain this weight limit."

'How did you shed this weight?'

"I cannot go into detail but obviously all panels are Kavlar, on the centre cockpit alone we saved 17 Kg. We also stripped off the steel sheeting under the chassis and replaced it with carbon fibre and titanium."

'Did the carbon fibre increase the rigidity of the chassis.'

"No not really, the same rigidity for less weight, one area where weight was actually added was the flywheel to which we have welded 4 Kg ring."

'What about gearing?'

"We run surprisingly quite high gearing through the 23/24 transfer box, the xtrac box is retained with modified 1st and 4th gears. We always go to the line with pre-heated tyres and the carbon (sachs) clutch cold, this slips for about 1.5 meters. You lose time with gear changes and most circuits we use 1st to 3rd, only very occasionally is 4th used. The gear box is the quickest box I have ever used especially going up."

'After your ban in Finland you are now able to race for the last four rounds, what are your chances of retaining your crown?'

"I have to win all four and Gollop cannot come higher than second once."

'Will you run your spare car with Rustad to try to demote Gollop?'

"I don't know yet. It gets very expensive to run two cars."

At this point I am afraid the telephone rings, my car is ready, Martin gets into deep discussion on the Cosworth and the interview ends.

Parts

This subject is, obviously, becoming a common topic with owners.

It has been necessary for us, as a Club, to become more involved with the shortages of service parts. So far no one has been left with a vehicle off the road for more than a few weeks. We have, however, come very close when only recently a water pump had to be stripped from a service engine as supplies of that item were exhausted.

We expect, within a matter of weeks, to receive from Colin Dobinson a Ford Policy confirming to what date Ford Motor Company will agree to guarantee the supply of service parts.

I do not see this as an immediate problem but it will become one. With this in mind I have already made contact with several of the original suppliers to check on their ability and willingness to supply parts and so far the response is encouraging. F. F. Development, for instance, still hold various stocks of parts and confirm they can supply or remanufacture any parts which they originally supplied. So you know, they made the whole of the drive train, from and including, front to rear differentials.

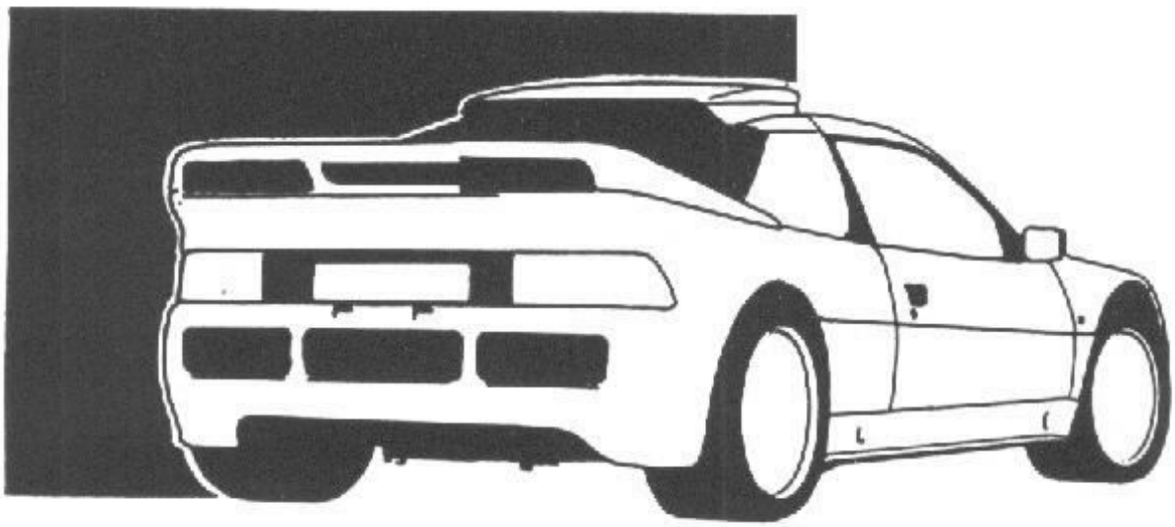
F. F. have supplied me with all the drawings and their own part numbers for every component, so identification and ordering will become easy.

John Ahlin, Car Owner 143, has recently upgraded his car to 350 BHP tune. The original kit is no longer available as a package so John set about acquiring the individual items and for any one else thinking of carrying out this task the following part numbers will be required.

350 BHP 'KIT' Parts required.

	Part No.
Injectors (Buff) x 8	9092245
Regulator Fuel x 1	–
Silencer Exhaust x 1	9092752
Exhaust Housing Turbo x 1	9090552
EPROM – E.C.U. x 1	9091830
Boost Control (kit) ADS/Remote x 1	–
Head Gasket Latest Level if required x 1	9092168

N.B. No Ford part numbers could be found for the fuel regulator or boost control kit.



Servicing

EAST COAST RACING

We are sad to report that a few weeks ago East Coast Racing went into voluntary receivership.

MOUNTUNE RACE ENGINES will cover all RS 200 engine work.

What Might Have Been -
The Lightning F Mk 9

Readers of R. P. Beamont's excellent book 'English Electric P1 Lightning', an essential for every serious Lightning enthusiast, will be aware of the projected Phase 2 development of the Lightning as the P8 Mach 2 cruise interceptor. This would have used Rolls Royce R126 engines with either variable convergent-divergent nozzles or an exhaust ejector system, while later versions would have used the RB 168/1R.

Near the end of the service life of the Lightning, plans were made for a mark which would have been designated the F9, using twin militarised prototype versions of the Rolls Royce RB 211 engine. This engine, being somewhat larger than the Avon series, required a completely new rear fuselage and a massively increased intake area, with separate ducts to each engine incorporating variable ramps and boundary layer bleed. This would have produced a 1000 kt IAS climb levelling at 80,000 ft and accelerating to M4.0 for a M4.0 cruise in dry thrust. In reducing supersonic drag, the canopy behind the pilot's head was refined to eliminate all transparency, presumably on the assumption that rear combat vision would have been unnecessary.
The poor fuel capacity limits of the Lightning were to be improved by incorporating the undercarriage in "area-ruled" bulges in the rear fuselage, leaving virtually the whole wing available for integral fuel tankage. The inevitably narrower track that that of the F6 would have, resulted in a reduction in crosswind landing limits to somewhere in the region of 1.5 kt, but this operational technicality became academic in view of the refuelling problems created by the massive engines.

Unfortunately, events soon proved that the Lightning could not take on fuel through a single probe sufficiently rapidly to remain airborne and the second prototype was subsequently fitted with twin probes. Operationally, two Victor tankers were flown in varying configurations to supply the F9. Initially, close formation above each other showed that it was impossible to stream the refuelling drogues simultaneously to the fighter's two refuelling probes, since the tail height of the Victor led to an unacceptably large vertical separation. A side by side tanker configuation was no better.

The eventual solution was arrived at by flying the second tanker inverted some six feet below the first, enabling the drogues to be streamed close together. However, even with its increased tankage, the F9 Lightning would have been the first jet aircraft in the world to require refuelling during a full reheat take-off. This was abandoned by a Command Directive from MoD after representations from Marham following exercises to collect data on air to ground refuelling. Apparently even dedicated Victor drivers felt that twenty feet between canopy and runway while inverted was cutting things rather fine, especially during rotation and climb away.

The accompanying rare archive photograph shows the clearly visible unique twin refuelling probe arrangement tested for the F9 in 1987 during the exploration of the flight envelope of air to ground refuelling by BAe using a Ford RS200 Group B rally car. Fitted with a 650bhp Evolution and geared for over 200mph, the RS200 was the fastest way of accelerating two humans to 100mph on land and was able to make a controlled contact sufficient to crack the refuelling valve fully open in the drogue overtake limits of more than two knots but less than five knots.

A Buccaneer flying chase during one of these tests took some amazing but still classified photographs of an incident when the RS200 overtook the Victors so quickly that the impact on the drogue induced a whiplash in one hose. This snapped off one of the probes at its weak link and left the driver with a stump of probe and some explaining to do. In the following sequence, fitted with a new probe and presumably trying to make amends, the Ford made a soft connect and the

refuelling valve only partially opened, venting the fuel to atmosphere and obliterating the car in a frightening looking cloud of vapour.
It was becoming apparent that the Lightning F9 would have been the most specialised point defence interceptor in the world; that point being a five mile radius of airspace round its tankers. The much vaunted M4 performance was only used once, the pilot realising too late that he was already too far from the Victors to recover before running out of fuel. Some Irish farmers on the Ards Peninsula saw him extremely briefly on his run up the Irish Sea before ejecting off the Mull of Kintyre. Even today, claims in settlement for deafness are still being processed by the RAF. Service chiefs not being convinced that a deaf sheep is necessarily a disadvantaged sheep. The name of the pilot is still classified for security reasons, but a faded photograph taken on the trawler which picked him up shows two eyes, a nose and a mouth, features which Roly Beamont himself is known to possess.

So it was that muddled Govenment thinking resulted in the political cancellation of the Lightning F9 in late 1987. As a result, Britain missed a tremendous opportunity to sell the F9 to America, force the cancellation of the F22 and set back their aviation industry so far that we would have had the field to ourselves for decades to come. Thus the last chance of capitalising on the brilliantly successful and very advanced aerodynamics and structural soundness of the series production Lightning and indeed the taxpayers investment in it was, like so many other examples of British innovative genius in aviation since World War 2, lost for ever.

Charles M. Ross (with apologies to RPB)

Me and My Car

Name: Charles Ross
Ocupation: Veterinary Surgeon
Status: Single

Philosophy – This is not a rehearsal, this is it.

My first car was an Austin A70 Hereford which had been the family car and which became redundant when my father was given a company car. At University, I built a special on an Austin A40 chassis, which was unusual in that most of the special kits at the time were for Ford 1172 sidevalve units. I was sufficiently useful with the toolkit to be able to remove a petrol tank at the roadside one morning on the way to a 9 o'clock lecture, flush out the rubbish (I could only afford a gallon of petrol at a time and blockages were frequent) and refit the tank in time to make the 10 o'clock lecture.

Later came a series of cars provided by my employers, a Triumph Herald, Viva, a series of 1600 Cortinas, BMW 1502, Audi 80 GTE (in a different performance league to everything before) and Ford RS2000 and XR3i. I then started my own practice in 1982 and dropped to a 1965 Volvo 121. I had so little money that when some kid put in the driver's door window I had to survive the winter in scarves and triple anoraks because I couldn't afford to have it repaired. However, things took off in a most encouraging way and the accountant called me up in the January to say I could spend £10,000 on a car, but I had to do it in two weeks or the tax-man would get the lot. My local Ford RS dealer had a brand new red Escort 1600i in stock, and cash changed hands.

I ran the Escort for a couple of years and, with business going well, found out about the projected RS200. When I finally tracked down Bob Howe, I put down a deposit of £10,000 and reserved first place in the non-competition queue. With the car due 'any time now' I sold the RS 1600i and subsequently drove around for 18 months in a Datsun predecessor of the Bedford Rascal. Bob Howe owed me for that.

Eventually, I became the first owner world-wide of a road-going RS200. My experiences have been documented fairly extensively in previous copies of the RS200 Club magazine, so the story of car 139 is already well known to most of the membership. I continue to have many problems and, as I sit here, about to set off in a couple of hours for three weeks in France, I tremble inwardly at the odds against coming home in the same car. On the last holiday abroad, it broke down after one and a half days, to the great satisfaction of my nurses who were running a book on how long it would last. I made the mistake of hiring a LHD Lancia mimi-car, the most uncomfortable car to drive I have ever experienced. The right foot is held at the kind of angle which would have an orthopaedic surgeon writing out his bill as he heard you walking upstairs.

I decided to take a photograph of another impulse buy. XR725 is my Lightning F6 single seat interceptor, which is kept at home in Binbrook, Lincolnshire; fairly appropriate, considering that RAF Binbrook was the last RAF station to operate the Lightning. The aircraft last flew in 1988. Mine is quite interesting historically, as it was the flagship of 11 Sqn and carried the black spine and fin of the squadron commander. It was also the first Lightning to fly the Atlantic, when it accompanied a Vulcan and a Victor tanker to display at the Toronto Air Show in 1968.

I am also the secretary and project manager of the Lightning Association, and readers interested in aviation may know that the Association and a group of shareholders (of which I'm one) last year purchased another single seater, coincidentally XR724, in very good condition following its retiral from Tornado radar development trials at British Aerospace, Warton. We installed two zero-time Rolls-Royce Avons, recovered the aircraft from storage and prepared it for flight. It was flown by the deputy chief test-pilot of British Aerospace for the Association on 23rd July this year and is now in safe hangarage at Binbrook.

Well, time to buckle on the Sabelt harness and head for the Pyrenees. Wish me luck.

Charles

Valance Hill Climb '92

Following on form Issue No. 2, one of my favourite motor racing club events/speed events is the Valance School Speed Hill Climb. Having watched for year's I competed last year and hoped to compete again this year.

The event started one week early not only with car preparation but also with assistance at the climb, helping to get the track ready. All club members and competitors should help as this is a charity event to raise money for Valance School.

Over 120 cars entered in 14 classes, cars ranging from my RS200 to Ferraris, Jaguars, single seater Clubman cars, pre war Bentleys, kit cars etc.

The day started at the school at about 8.00 a.m. finding your alloted paddock area, unloading and getting ready for scrutting. Also before 9.00 a.m., when practice starts, it is best to walk the course.

The hill consisted of a 90° right hand bend, very fast, blind, esse's and a hairpin at the top. The hill is all tarmac, 712 yards long and about 2ft wider than my car.

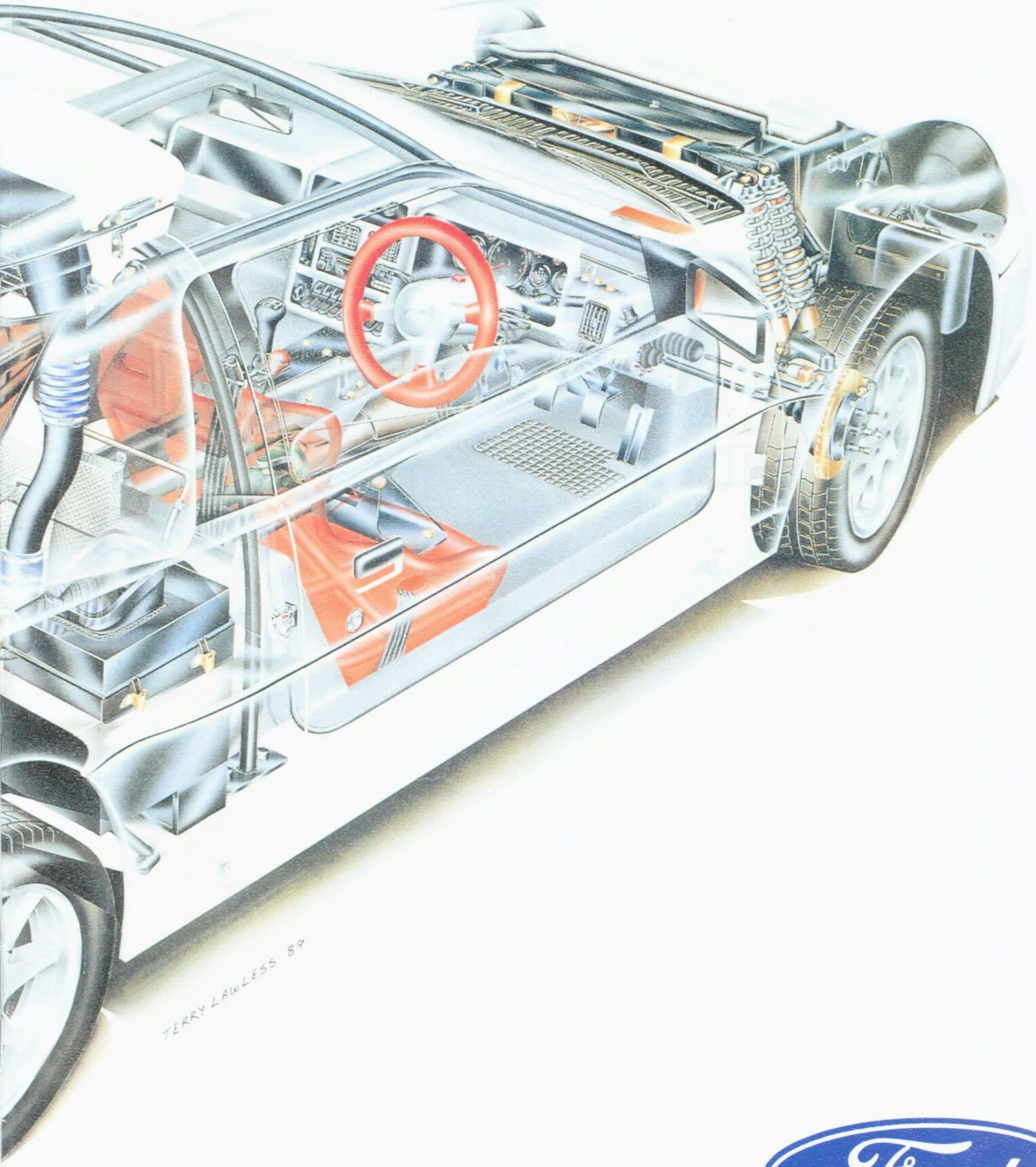
My first practice run was at about 11.00 a.m. by which time it had rained and was now drying. This made me reduce my tyre pressures and use minimal rev's when pulling away, and only use 1 bar boost. I tried to hold out to the first hairpin in 1st gear but this was not quite possible. Slight understeer at the hairpin and lack of boost pulling away, 2nd gear, 3rd gear and here comes the blind right hander. A slight lift and turn in, safely through and to the top hairpin. Across the line and the time is 32.40 sec, not bad for first run.

Second practice at about 1.00 p.m. Track is now quite dry and my first mistake, I left the tyre pressures low. Now my second mistake, I had a very good start and used 2nd gear to the hairpin, double-de-clutching down to 1st gear and keeping the rev's up I felt very quick away from the hairpin, 2nd gear, 3rd gear and a quick lift through the esse's. Here comes the blind right-hander, I felt I was moving much quicker than before and I also felt committed to the bend – no problem – turn in on a slightly trailing throttle and floor it. Around the 1st 80% of the bend the car felt sideways but under control. Yes, this was going to be a quick one. The next 20% of the bend was not so good. I put a nearside rear wheel on the very wet grass and before any reaction from me I was going backwards, up the hill at over 70mph, up the grass and across the track I spun 360° and luckily touched nothing. Back to 1st gear and up the hill – 45.60 sec not so good. I had to blame someone so it was my mechanic's fault for not pumping my tyres up.

My first timed run was at 3.00 p.m. and I had to re-think the course, I pumped my tyres up to stop them rolling on the rim and turned the boost up to 1.3 bar, I decided that I could accelerate quicker but take a bigger lift before that bend. I could also accelerate quicker at out of it I hoped. These runs now count and as the weather was unsettled I needed a good first run. A few more rev's at the start, more rev's at the hairpin, trying to keep the boost up and maximum power towards the top. A quick lift and safely through the blind right-hander, through the speed trap, 81mph, now only the top hairpin, all OK and across the line – 30.38 sec, I was pleased with that.

It rained again before the second run and although the track was wet my time was only 31.30, obviously one small error counts for a lot of time. I was lucky to have 2 dry runs as the single seaters had 2 wet runs. This slightly distorted the results but I finished 1st in class (new lap record), 2nd fastest road car (taxed and insured on road tyres) and 8th overall. I was also fastest through the speed trap at 81mph. All in all a good day.
I intend to compete in more events this year so give me a ring if you want to join in.

Also in June I went to our own test day at Goodwood and did more laps than ever. Really good fun, good instruction from Tim Jones, I went 2 seconds quicker and it was good to see you all again.
If you did not attend – why – how will we keep this club running.



Ford