

RS 200 Club

Registrar, Graham Robson

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Seventh Newsletter : January 1990

Dear RS200 Enthusiast,

FORD NEEDS TO KEEP ITS RECORDS OF RS200 OWNERSHIP UP TO DATE. FOR THAT REASON, PLEASE COMPLETE THE ATTACHED ANSWER FORM AND RETURN IT TO THE REGISTRAR OF THE RS200 CLUB, AS SOON AS POSSIBLE.

The Address is :

Graham Robson,
Registrar, RS200 Club,
Girt House,
Burton Bradstock,
Bridport,
DORSET DT6 4QF
UK

I look forward to hearing from all of you, very soon.

Now that all the cars have been sold, and in almost every case they have also been delivered to the customers, I am able to summarise the state of the project. In connection with this, I would also like to invite RS200 owners to refer back to previous Newsletters, where such information was summarised:

Of the 200 cars which were originally built, a total of 148 were eventually delivered, either to customers or (as in the case of cars used by Ford consultants) to people using cars on behalf of Ford.

During 1989 the following cars were also built up, by authority of Ford Motorsport, for use in racing and rallycross:

Car No. 016	A much-modified (mechanically and visually) 2.1-litre 'Evolution' example, for use by Marco Polo Motorsport in IMSA racing in the USA. This car was severely damaged in an accident at its first racing appearance.
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Car No. 020 This was a 2.1-litre 'Evolution' car, built as a 'works'-sponsored car, for use in the 1989 European Rallycross Championship, where it was driven by Stig Blomqvist and by Jonathan Palmer.

Car No. 081 This was a rally-specification 2.1-litre 'Evolution' car, built for Ford-Spain to use in the Spanish Gravel Rally Championship.

Twenty cars were originally sold with the 500bhp/2.1-litre BDT-E engines, and a variety of optional mechanical equipment; several other cars have been up-dated to this specification since then.

An orderly run-down to the project in 1990

In almost every case, customers ordering cars, collecting cars, and discussing modifications to be made to the cars, have dealt with Bob Howe, who was 'Mr RS200' for several years.

As from 1 January 1990, Bob Howe has moved out of Boreham, to another office and another location at Ford, to work on an exciting new Ford project. He will no longer be connected with the RS200 project. His old 'phone line has been disconnected.

Ford has asked me to take on all aspects of liaison with customers during 1990, and for this purpose here are my contact numbers :

Telephone (UK) : 0308-897311

Fax (UK) : 0308-897416

As most of you will know, I have organised the RS200 Club in the last three years, I still run an RS200 in 250bhp trim, and will continue to run such a car in 1990. I retain links with Ford Motorsport, Motorsport Parts, and with Tickford Ltd., at Bedworth, near Coventry.

If anyone has any queries, and needs advice on RS200 matters in 1990, please contact me on either of the above numbers.

At some time in the future, Ford may decide to change the nature of the RS200 Club, and of its liaison with the customers. I will let all of you know how this may affect you, and your cars, as soon as it is settled.

RS200s still in Ford company ownership

As mentioned in the Sixth Newsletter, three cars remain in Ford Motor Co. Ltd. service, and ownership :

Car No.192 (Registered F938MJN) This 250bhp example has been used by the Registrar, Graham Robson, since late 1988. It has now completed approximately 25,000 miles, mainly on long-distance journeys. It is planned that the Registrar will retain the use of this vehicle until the end of 1990.

By that time the car may have completed more than 45,000 miles. It will then be re-furbished in certain respects, and it will eventually be sold.

Car No.187 (Registered E30 EVW) This car has been used by Bob Howe since late 1988. It completed its first 10,000 miles in 350bhp tune, and has now been modified back to 250bhp tune for the remainder of its time with Ford.

It has completed approximately 25,000 miles, on journeys of all lengths, and also has been used as a company demonstration vehicle. It is planned that Bob will continue to use this vehicle until the end of 1990.

By that time the car may have completed more than 40,000 miles. It will then be refurbished in certain respects, and it will eventually be sold.

Car No.200 (Unregistered) This 250bhp example was the last of the original 200 cars to be assembled. It is not registered, and does not complete much mileage. It will eventually be used purely for display purposes by Ford, and there are no plans to sell it off.

Prototype RS200s - what happened to these cars ?

As I have stated in previous Newsletters, six prototype RS200s were built in 1984 and 1985. Ford's policy is not to sell prototype vehicles, which means that none of these six cars is to be sold to the general public. My information about the fate of these cars is as follows :

Car No.1	Retained by Ford, but shortly to be destroyed
Car No.2	Loaned to Pirelli, for exhibition purposes
Car No.3	Retained by Ford by exhibition purposes
Car No.4	Dismantled by Ford
Car No.5	Destroyed in a rally practice accident
Car No.6	Used as a rallycross development car, and soon to be destroyed by Ford.

Parts and Service Expertise - will be available for some years

Ford wants me to emphasise that although the RS200 sales programme is now at an end, there is no question of closing down the parts and service support operation.

All RS200 owners should have a copy of the Parts List in their possession, and this is a useful publication to use when trying to locate the Finis Code (the number which, in almost every case with the RS200, begins with the digits 909.....)

Any RS200 owner requiring parts for his car should contact his Ford RS Dealer, who will then contact Mike Ringwood at Motorsport Parts.

Parts for RS200s, of course, can only be supplied through a Ford dealer. However, RS200 owners might also like to know that the Motorsport Parts operation has recently been re-located, to Boreham, where the contact details are as follows :

Mike Ringwood 0245-451902
Fax 0245-450680

The address is:

Motorsport Parts,
Boreham Airfield,
Boreham,
Chelmsford,
ESSEX CM3 3BG

Any RS200 owner using his car in motorsport should continue to contact John Taylor, at Boreham.

John may be contacted on:

Telephone 0245-467661
Fax 0245-450680

Any RS200 owner requiring advice on service and maintenance matters should first of all contact the Registrar of the RS200 Club. In many instances, RS200 owners have their cars serviced and repaired by:

Tickford Ltd.,
Unit 2,
Aston Industrial Estate,
Hosiery Street,
Bedworth,
WARWICKSHIRE CV12 9ND

Telephone : 0203-491010
Fax : 0203-490265

Your contact at Tickford is now : Dave Wilcox

RS200 Complete Service Parts List - Revised issue being prepared

In the next few weeks I hope to receive supplies of the complete RS200 Service Parts List (which, in Ford-language, is known as the 'Bill of Material'). This is a revised, refined, more complete, and totally accurate up-date of the original Parts List, which I have already sent to every recorded RS200 owner.

I hope to be able to circulate this new Parts List in the next few weeks.

The rise in RS200 values - is your car adequately insured ?

I understand that a number of RS200s have now changed hands, and that in many cases they have been sold for very high prices. It is not the object of these Newsletters to 'talk up' the value of the cars, but this news certainly raises the question of adequate insurance cover for the cars.

In our opinion, the Insured value of a 250bhp RS200 should be at least £120,000/£150,000, while that of a 350bhp RS200 should be at least £140,000/£170,000.

The Insured value of an 'Evolution' example should be higher still - but I do not believe I can offer credible advice about the value of these rare cars.

RS200 Main Transmission - Strip and Rebuild procedure being prepared

With the help of FF Developments Ltd., the company which was responsible for the design and manufacture of the transmission of the RS200, a complete strip-and-rebuild procedure for the transmission has now been prepared. Before being printed up, this is currently being checked over.

This procedure, together with many suitable illustrations which help to outline the work, will eventually be made available to RS200 owners on request.

Anyone who would like a copy of this procedure should contact the Registrar as soon as possible.

RS200 - polished wood model now available

Rick Lee, who bought Car No.127 after it left Ford's company service, has now had a polished wooden model made of his car, had this lacquered, and mounted on a plinth.

Rick tells us that he has now arranged to have a quantity of further models made, so that any RS200 owner can purchase one to keep as a memento of his ownership. Rick tells us that this run is strictly a limited edition, and that each model is numbered.

This is not, of course, a Ford Motor Co. Ltd. enterprise, but is being promoted by Rick's company. The model is approximately 27.5cm/11in. long, which means that it is about 1/15th scale.

To make this an even more appropriate memento, Rick tells us that he will arrange the limited edition number to be the same as the real car number itself (the owner of Car No.127, therefore, could purchase model No. 127). If necessary, he can also arrange for the car's registration number to be added to the model.

The provisional price of such a model is £275.

For all further details, please contact:

Rick Lee,
The Marketing Machine,
Forcom House,
Maryland Road,
LONDON E15 1JW

Tel: 01-555-3304
Fax: 01-519-5332

RS200 Wheels and Tyres - available from stock

As stated in another part of this Newsletter, the Motorsport Parts operation was recently moved from South Ockendon to Boreham, which means that most stocks of RS200 parts were also relocated.

Following this move, the Registrar visited the new Parts operation, which is now located alongside the Motorsport design and development workshops.

I noticed that a stock of tyre/wheel assemblies, and also of separate tyres, is held in stock. These, of course, are the standard size (225/50VR-16in.) tyres, and Bin. rim wheels, as fitted to normal-specification RS200s.

Owners who may want to have extra spare tyres, or spare wheel/tyre assemblies, should order them under :

	<u>Finis Code</u>
Pirelli P700 tyres (225/50VR-16in)	9092855
Pirelli P700 tyres/cast alloy road wheel assembly, fitted and balanced	9090995

RS200 running on lead-free fuel - experiments being made

Although Ford has always stated, most firmly, that the engine of the RS200 is not suitable for lead-free fuel to be used, Bob Howe has now begun a tentative programme of lead-free running to see what effects, if any, become apparent as mileage increases.

Bob Howe's car (Car. No.187), which now uses the standard 250bhp engine, is currently running a controlled experiment, by using two tankful of Super unleaded fuel (which has a nominal Octane rating of 99), followed by one tankful of Super leaded fuel.

This running experiment is still at a very early stage, and no conclusions may yet be drawn. As soon as I have any news, I will circulate them to all RS200 owners.

In the meantime, all owners should continue to run their RS200s on leaded fuel at all times.

Transmission transfer gear ratios - five types now available

In the Sixth Newsletter, I wrote that an alternative set of Transfer Box ratios was available.

I have now been advised that a total of five different sets of ratios are available, from stock, at the Motorsport Parts operation. Some of these were especially developed for motorsport use.

Here are the details of the alternatives:

<u>Transfer Box Ratio</u>	<u>Ford Finis Co</u>	<u>Comment</u>
0.864:1	9093471	
0.958:1	9093470	
1.043:1	9093343	This is the standard ratio originally fitted to production cars
1.158:1	9093472	This was the alternative set mentioned in the Sixth Newsletter
1.278:1	9093469	

The lowest numerical ratio (0.864:1) gives the lowest (shortest) overall gearing for sprints and similar events.

The highest numerical ratio (1.278:1) gives the equivalent of 180mph in fifth gear when the 2.1-litre ('Evolution') engine is fitted to the car.

For all further details, contact Mike Ringwood, at Boreham.

9 1/4in. rim width road wheels

A number of RS200s have been fitted with split rim wheels having a 9 1/4in. rim width dimension.

Please note that :

To provide adequate clearance for hubs, suspension uprights, and brakes, these need to be fitted with 5mm spacers between wheels and hubs. Tickford Ltd can supply such spacers, but as these wheels were not standard Ford-engineered items, they do not carry a Ford Finis Code.

Strictly speaking, the use of 9 1/4in. rim road wheels is not 'road legal' for fitment to an RS200. These wheels are really intended for use on RS200s used for off-public-road motorsport.

For RS200s used in non-competitive conditions, please note that these wheels should be used in conjunction with 245-section tyres; these tyres fit beneath/inside wheelarches without the need for any body modifications.

Gearboxes, clutches, and synchromesh

Although the standard of build quality, of 'feel', and of operation has been persistently improved throughout the life of the car, some owners are still not completely happy with the transmission of their

cars:

Clutches

The Registrar has used four different RS200s on a regular, high-mileage, basis, and has found that the feel, refinement and precision of the clutches has gradually improved from car to car. detail changes have been made to the installation, setting-up and adjustment of the clutches over the years, to make the take-up more progressive, and 'softer'.

The Registrar's cars have tended to need a clutch replacement at between 18,000 and 24,000 mile intervals. If your own car is approaching this figure, it is recommended that you consider having a new clutch, of the latest type, fitted to your car.

All further details are available from Mike Ringwood (Motorsport Parts), or from Dave Wilcox (Tickford Ltd).

Gearbox synchromesh

The efficiency, and the 'feel', of the synchromesh seems to vary from car to car. Please remember, however, that this car was originally designed with motorsport use in mind, and that the alternative gearbox for 420/450bhp cars (and beyond) had no synchromesh of any nature.

It is admitted that the synchromesh is neither as smooth, nor as foolproof, as that fitted to many ordinary cars, and that in certain cases it is not very effective. Both Bob Howe and I, however, find that one of the real joys of high-speed RS200 motoring is to use the gearbox as smoothly and precisely as possible, so that the synchromesh action is rarely called into use.

Except by rebuilding the gearbox completely, spending a lot of money, and having the car off the road for some time, there is really no 'fix' for a car whose gearbox has weak synchromesh.

The Registrar's car (No.192) completed more than 10,000 miles in 1989 with an experimental gearbox, which carried modified synchromesh items (as developed by FF Developments Ltd.), but the conclusion was that this did not provide any real advance.

Various Ford-controlled RS200s have been assessed with a variety of lubricants in the transmission, but once again no conclusions have been reached.

Fifth gear - occasional jumping out of mesh

One or two cars (including the Registrar's car on two isolated

occasions) have suffered from gearboxes in which fifth gear occasionally 'drops out' of engagement. This typically seems to happen where the car is drifting along at constant engine rpm in fifth gear.

The 'fix' on the Registrar's car, one which appears to have been effective on other cars, was to increase the preload on the appropriate selection detent in the selector mechanism. This change can be made without dismantling the transmission, though it means that the transmission has to be dropped so that access is made possible. No further jumping out fifth has been experienced.

The Registrar's Car - Car No.192

This example, registered F938 MJN, is a right-hand-drive road car, which was originally put on the road in December 1988. It has now completed approximately 25,000 miles, and has suffered two major and one minor engine failures, described below, but has otherwise been very reliable.

As mentioned in the previous Newsletter, this car has been fitted with a Cellular telephone, where the reception aerial was mounted in the roof panel, close to the front header rail.

The car is used by the Registrar for all normal business journeys, which are mostly long distance by nature. The following engine problems have been experienced:

At approximately 12,000 miles the car (which had been loaned to a Ford RS dealer for a 'Classic' car weekend in Cumbria) was immobilised when a sparking plug blew out of the cylinder head.

Subsequent investigation showed that two other sparking plugs were loose.

Since this failure occurred immediately after the car had been treated to a routine 12,000 mile service, it was assumed that the new plugs had never been properly tightened down.

A set of new NGK sparking plugs was fitted, the car was put back on the road, and no reoccurrence of the problem was found.

At approximately 20,000 miles the engine suddenly failed, on a short journey from Maldon (in Essex) to the Motorsport centre at Boreham.

The car was taken to Boreham, where inspection showed that the engine's camshaft drive belt had 'jumped' several teeth. Although there was no evidence that any valves had touched pistons, the engine would not run.

When partially stripped, it was discovered that a 2cm-long piece of

'Jubilee' clip (of the type used to fix turbocharger supply hoses to the turbocharger, and to the intercooler), had entered the cam belt chamber, and had lodged itself on one of the cam pulleys.

This piece of clip should obviously not have been present, and it is probable that it had entered the chamber many thousands of miles earlier, by way of the small clearance slot at the top, which is adjacent to the engine's top cover.

The engine was re-timed, with a new camshaft drive belt, and the car was put back on the road. Everything seemed to be in order, but...

At 21,405 miles, the engine suddenly failed when the car was being cruised along a dual carriageway at approximately 4,000rpm (80mph) in fifth gear. The immediate diagnosis was that the cam drive belt had failed, or had been dislodged.

The car was taken back to Tickford Ltd., where the engine was removed, and stripped for investigation. It was found that the camshaft drive belt had broken, but that this had been caused because the idler pulley had seized on its bearing, and caused a catastrophic failure.

In this case, 12 of the 16 valves had touched the top of the pistons, there was extensive damage to the top of the engine, and it was decided that the engine was beyond economic repair.

The idler pulley on all engines of the BD type features a sealed bearing, and there is no provision for lubrication during the life of the engine. In other words, this failure could not have been avoided by more frequent attention.

A new 250bhp/1.8-litre engine was therefore fitted to the car. Running-in of the unit has now been completed, and the car is back to full health.

RS200 Service Round-up: Notes on recent experiences

Engine cam drive belts

Ford now recommends that cam drive belts should be changed (re-newed) at the normal 12,000 mile interval. The belts themselves are freely available, and if the fitting and re-timing sequence is carefully observed, this change can be carried out with the engine and cylinder head remaining in the car. There is no need to lift the engine to re-new the belt.

Turbocharger crane brackets

Experience shows that prolonged use, particularly at high engine

revs, causes cracks to appear in the turbocharger 'crane' brackets.

A modified and strengthened bracket, together with a set of more robust mounting studs, has now been developed, and is available on request from Motorsport Parts. Details are as follows:

	<u>Finis Code</u>
Turbocharger 'crane' bracket	9093124
Turbocharger 'crane' bracket studs (3-off)	9093501

Turbocharger oil feed union

The standard union is a light alloy component. Tickford Ltd has now sourced a steel union, which they are currently substituting for the light alloy union when cars are returned to Bedworth for maintenance and repair.

Note: This is not a Ford-developed part, and does not carry a Ford Finis Code. Tickford claims that it is stronger than the original item.

Front suspension uprights - latest items (9093306)

In the Sixth Newsletter (pages 11 and 12), I advised that a stronger type of front suspension upright (Finis Code: 9093306) was available, and that this would be supplied, against full financial credit, against old-type uprights returned to Motorsport Parts.

I assume that all customers have now accepted this advice.

Tickford Ltd tell me that all new cars delivered from Bedworth during 1989 were fitted (either when new, or retrospectively) with the modified uprights, and that the change has also been made to all cars which are regularly serviced and maintained at Bedworth.

Please check that the change has been made on your car. The latest uprights are identified by having the Finis Code cast in to the side of the castings themselves; the original uprights carry no such markings.

Engine oil consumption

This varies markedly from individual engine to individual engine. The Registrar's Car (No.192) always used considerable quantities of oil on its first engine, but the second engine seems to use very little oil indeed.

Until the RS200 owner is certain of the rate at which oil is being used, it is recommended that a level check is made every time that a

stop is made to take on fuel.

The recommended procedure for accurately checking the engine oil level was laid out in the Fifth Newsletter (page 7).

Experience shows that the RS200 engine operates perfectly satisfactorily with any premium synthetic oil. The Registrar's car uses Shell Gemini oil, he knows of another car using Mobil 1, and other synthetics clearly suit the engine equally as well.

Engine cam covers - working loose

Experience shows that on some engines, in some cars, the engine cam cover may begin to work loose if high engine revs have been sustained. This problem is always obvious, when the engine cover is removed, because some of the holding down bolts will have begun to unscrew themselves, the load on the gasket will have been reduced, and there will have been some oil leakage around the periphery.

If this problem is going to occur, it usually shows up when the engine mileage is relatively low, and as the gasket 'settles' a little.

Ford recommends that a regular visual check should be made of the top of the engine, and that the tightness of the holding down bolts should be checked at every routine service interval.

Stud - alternator bracket/sump face

I have had a few reports of failures of the stud which links the alternator bracket to the sump itself, this shearing off after the nut has come loose, and when the bracket begins to move around and to distort the stud itself. In one case it was necessary to drill out the remains of the stud, as it had sheared off flush with the face of the sump casting.

Visual and spanner checks should always be carried out at regular service intervals.

Exhaust system tags (slip joints)

I have received reports that these tags have been seen to break off. The only 'fix' is to re-weld them into place.

350bhp engines - latest ECU 'chip'

I am advised that more than one type of ECU electronic 'chip' has been used when treating an RS200 engine to a 350bhp conversion.

The definitive chip, I understand, is known as the 'C9' type, this

being the one which is recommended for use on all 350bhp cars, The C9 is identified because its cover has a red spot of paint.

A Reminder: In the Sixth Newsletter (page 9), specific recommendations were made about the maximum boost which should be used with the 350bhp engine kit. It is recommended that all owners of 350bhp RS200s should re-read this recommendation - that not more than 1.0 Bar boost should be habitually used, and that as an absolute maximum 1.3 Bar should momentarily be used. If this advice is ignored, and Full boost is used all the time, the engine life will be drastically reduced.

All 350bhp RS200s should use the latest type of cylinder head gasket, which carries the Finis Code: 9092168.

Engine rebuilds - and tappet shims

When the RS200 engines were originally developed, specified, and built, their valve gear was equipped with two types of tappet shim - one for the inlet side, and another for the exhaust side of the engine.

The inlet side used what is known as 'short' shims, while the exhaust side used what is known as 'long' shims.

Nowadays, when engines are rebuilt, it is normal practice for the 'long' shims to be used on both sides of the cylinder head, as this offers even greater security against displacement when the engine is over-revved.

Speedometer cables, and replacements

During 1989 the Registrar's car suffered from a speedometer cable breakage. The replacement cable was fitted by a local (Retail) Ford dealership, which had to be instructed as to the method required.

The problem is purely one of access, not of mechanical complexity.

To reach the cable run in the nose, and where it entered the main transmission casing, it was necessary (1) to remove the radiator ducting and (2) remove the luggage box, in that order.

To reach the speedometer end of the cable, of course, it was necessary to loosen off the instrument retaining panel, and withdraw it into the cabin by several inches/centimetres.

DS11 brake pads

Extensive trials, and experience on various cars, now leads Ford to recommend that DS11 brake pads should not be used on cars driven in

normal road conditions, because they do not heat up quickly and predictably enough at a 'road' pace.

DS11 pads, on the other hand, should be used when the car is habitually driven very hard, in rally or rallycross conditions. In such usage the standard pads rapidly overheat, which tends to distort the brake discs themselves, and this then promotes brake judder.

Suspension geometry - front and rear

Ford thinks it important that the geometry - front and rear - should be checked at every regular service/maintenance interval. The geometry can be disturbed by 'kerbing' incidents, which can then lead to rapid and premature tyre wear, and to unpredictable handling.

A Final Reminder

Please take the trouble to complete the Answer Form attached to this Newsletter, and return it to me. Now, and in the future, this will allow Ford to keep in touch with RS200 owners.

Yours Sincerely,



A.A.G. ROBSON : REGISTRAR, RS200 CLUB

RS 200 Club

Registrar, Graham Robson

Girt House, Burton Bradstock,
Bridport, Dorset, DT6 4QF
Telephone (0308) 897311

January 1990

RS200 - Do you still own the car which you originally bought ?

PLEASE COMPLETE THIS FORM AND RETURN IT TO THE REGISTRAR

So that Ford can continue to provide the best possible support for the RS200 in the months and years to come, the company needs to know how to contact the present owner of every particular car. Please help the Registrar of the RS200 Club by completing this form, and returning it to him as soon as possible.

Many Thanks,

GRAHAM ROBSON: REGISTRAR

According to Ford's sales records, you originally bought Ford RS200:

Car No: _____ in : _____

Your Name is : _____

If you have now sold the car, Ford would like to check its own records, to sure that it now has the name and address of another owner. If you have sold the car, please take the trouble to complete the following section*

I was the original owner of Car No : _____

I have now sold it to : _____

Please return this to :

Graham Robson,
Registrar, RS200 Club,
Girt House,
Burton Bradstock,
Bridport,
DORSET DT6 4QF,
UK

Fax No (UK): 0308-897416



