

# Backfire

August 2004



BRISTOL PEGASUS



MOTOR CLUB

## The Magazine of the Bristol Pegasus Motor Club

Photo : 2004 BPMC Club Day Castle Combe  
The V8 Locost of Club Member Nick Cook

## **Club Night - Monday 9th August**

A few years ago, Arthur Tankins copied his 16mm films of the club events onto video. We will be bringing along some of the video's for a look back at some of the events of past years. If you want to see yourself (or your Dad, Lewis) competing from the 1970's, 1980's or 1990's, then come along and we will try and find the event of your choice. 8:30 pm start.

## **Treasure Hunt - Monday 16th August**

The final Treasure Hunt of the year will start from the Rock Street Car Park, just behind the Shopping Centre in Thornbury (MR 172/162 639899). Meet up in the Bottle Bank corner. Start time is 7.30 pm.

The event will be of the traditional kind, but there will be a twist in the middle of the event. All you need is a pen or pencil to write down your answers. The event will finish at the Swan in Tytherington, for those who want to come for a drink at the finish.

## **Two Club Sprint - Monday 30th August**

The entry list for the event will close on Monday 16th August. At the time of writing a very good entry has been received and there are only a few spaces left.

Anyone able to marshal at the event who has not filled in one of Bob Hart's forms, should contact Paul Monis from Bristol Motor Club who has offered to act as the co-ordinator for marshals. remember the only way to get to see the action at Colerne is to Marshal and no experience is necessary - Contact Paul on 07887 948997 or drop him an email on pmonis@hotmail.com.

We also require help to set up the course on Sunday 29th August. Please contact Martin Baker to let him know if you are available and to confirm the time to meet at the airfield.

## **Events for September 2004**

### **26th September - Patchway Autotest**

The annual event very kindly organised by John Delafield of the MGCC (South West) Car Club. We had a healthy turnout last year and it proved as usual to be a very good event. Please mark it in your diary either to compete or to marshal.

Details of Events on these Pages are compiled by Competition Secretary John Corfield.

For further information contact John on  
Telephone 0117 9870763  
e-mail john\_e\_f\_corfield@hotmail.com

As always we are looking for contributions for Backfire - 80 Meadow Way, Bradley Stoke, Bristol, BS32 8BP [backfire@bristolpegasus.com](mailto:backfire@bristolpegasus.com) Fax (0870)139-2108 - Club Website WWW.BRISTOLPEGASUS.COM

## **HELP STILL! - Your Club Needs You!**

We still have no takers to date to organise and run our 19th November Nav Ex/Nav Scatter. One volunteer is worth ten pressed men (or women!) but if we don't get someone soon John Corfield will be looking back over previous events and getting the press gang out. He'll see who's been taking part and will try to make them feel guilty about taking a turn to organise - you have been warned! Note that this is a BPMC only event and is programmed as a Navigation Exercise and not a Navigation Scatter but please feel free to volunteer and do either.

### **Wugging Stages**

We've had a poster through just saying the following:

Marshals Needed. Wugging Stages, Colerne, Wiltshire, 7th August 2004. Lunch provided. Further details from Tim Large 01934 743600. Sign on 7.00 to 7:30am.

## **Tour of Lakes Treasure Hunt**

**“Or a Lake too Far” !**

**5<sup>th</sup> July 2004 - Bill Farrow and Alan Spencer**

Five crews turned out on the “Tour of the Lakes”, Bill and I had put this on at the last minute as we had both forgotten about it. I used some of the route I had done for the two other events for the Motorcycle club that I had arranged the previous weeks – 3 events in one month was too much.

Crews started at Hursley Hill layby and went onto the roads and lanes through Stanton Drew – Sutton – Stovey – Hinton Blewitt – West Harptree – Ubley – Blagdon – Burrington – Buttcombe – Nemprett Thrabwell – to finish at the Ring of Bells at Compton Martin. Here we meet the MG owners club having their monthly meeting.

It was a bit far – yes, more an afternoon event than an evening, it was however 30 miles. Some clues had to find most on route, some you had to get out of the car. Most missed the Turkey Telephone Number. It had been changed for kittens for sale. The “No Through Road” as also missed, and Woodbines cigarettes seemed to be a thing of the past along with Thanet Cycles of Bristol. Still we got a result in the end.

1st	The Bird Family on	96 points
2nd	The Howard Family on	92 points
3rd	Martin Baker and Lewis Bird	76 points
4th	John Corfield and Keiron Winter	61 points
5th	Nick Woods and Family	51 points

100 points available on ordinary questions and 40 on randoms.

# **A Perfect Day**

## **2004 Castle Combe Club Day – By Kieron Winter**

Our visit to Castle Combe on 31st July was our 21st track day held at the circuit, and I doubt that any of them could have been better? It was a glorious day, with sunshine from start to finish, the first cars were out on the track at 9.00 am and by the time the last session came around just before 5.00 pm, there was only one car waiting to go out. During the day 76 people had drives and another 40 went out as passengers.

Many thanks must go to Tony Smith who did an excellent job in the Paddock sorting out the cars and getting everyone onto the track in a smooth manner. He was helped by the Castle Combe team lead by Peter Mowlem, and it was great to see Terry Sanger back as the Instructor. As far as I could tell it was a pretty incident free day, however several cars came back to the Paddock on the end of the rescue vehicle towrope. One that made two journeys back this way was the Marlin 5exi, an excursion onto the grass causing the fuel cut-off switch to be activated! The other excitement was when flames were seen coming from the Dollery/Theyer VW Golf. A cracked manifold was the culprit and put an end to the day's fun.

Tony did an excellent job in getting cars out that come the end of the day he was running out of Customers, so it seemed only right that the diesel Mondeo Estate should be given a run. Terry Sanger drove a few laps to show Tony the way (afterwards Tony noted, as most people note say when Terry has driven their own car, – "I didn't know my car could go that fast") and then Tony took over, I hope he did not frighten too many Westfields!

Away from the track action, we had the club stand on display. Several people took the opportunity to find out what the club was about and talk to members. The awnings provided a perfect shelter at lunchtime, as a dozen of us used it to shelter from the sun. It was good to see many members who popped along during the day and to several who brought along raffle prizes and items for the charity table.

Finally £138 was raised for charity as a result of the raffle. Thanks go to the Individuals and Companies (mostly persuaded by Martin Emsley) who donated prizes and to Tim Murray for selling the tickets. Judith Bird and Donny Allen also assisted Tim in selling tickets. Donny also organised the draw for the prizes. I also understand she found some consolation prizes for her little helpers who went away very happy.

It was a great day, and very nice that so many of the drivers came up to say thank you, and that they had really enjoyed themselves. Let us hope for the same again in 2005.

# Oil - The Lifeblood of an Engine



The following article is my attempt to pull together some information gleaned from an Internet forum I use regularly as I research the XR2 project I'm doing with my dad. Yes, we know you're all going to get fed up hearing about this project so the least I can do is share what seems to be useful information as and when we come across it. Obviously we'd be interested if anyone would like to follow it up with their views or experiences.

Regards,

Martin (when's he gonna get shot of that darned Cossie) Corfield

## Overview

Oil is very much a personal choice and people tend to stay loyal to a brand or a product if it works for them. There are many debates on car forums about the right oil but its not always easy to assess the quality of an oil without the technical data which is not always available to the public. One thing is for sure, you always get what you pay for. Good quality oils with high grade additives and more importantly good VI Improvers (to prevent "shearing down") are expensive to make and therefore it will be of no surprise that cutting corners is an often used commercial method of bringing "cheap" oil to the market. There are many types of oils labelled synthetic on the market today which range from HC (Hydrocracked) / MC (Molecularly Converted) Mineral oils through to PAO's (Poly Alpha Olefins) and of course "Esters" which have been used in the aviation sector for years because of their durability and superior levels of protection.

## Understanding the numbers

On a 10w-50 for example the 10w stands for the viscosity of oil when cold eg start up, the 50 stands for the viscosity of the oil when hot. 0 being the thinnest and 60 being the thickest. A good oil must be quite low in viscosity even when it's cold so that it gets around the engine in a fraction of a second when you turn that key! On the other hand it needs to protect engine components like piston rings at very high temperatures as the engine gets hot without evaporating or carbonising and it must maintain oil pressure. Unmodified thin oils simply can't perform this balancing act. The answer is to use a mixture of thin oil and temperature-sensitive polymer which as the oil gets thinner with increasing temperature expands and effectively "fights back",

keeping the viscosity at a level to hold oil pressure and film thickness on the bearings.

So, these polymers are added to a thin base, 0w,5w,10w etc at cold temperatures they are "coiled up" and allow the oil to circulate very easily but as the engine and therefore the oil warms up, they begin to "uncoil" into long chains keeping the oil more viscous. It is impossible to make a good 5w-40 or 10w-40 using only mineral oil. The base oil is too thin and evaporates away at high temperatures found in powerful engines that are highly stressed, this is why synthetics are used to build up the oil to cope with the stresses of modern engines. This is called a multigrade.

## **Building a good oil**

A cave may not be the best place to live, but it's ready-made and cheap. This is the estate agent's equivalent of an old style monograde oil. Or you could get Hengist Pod to fit a window and a door; this is moving up to a cheap and cheerful mineral 20w-50. But an architect-designed "machine for living in", built up brick by brick, is an allegory of a high performance synthetic oil.

It is impossible to make a good 5w-40, or even 10w-40, using only mineral oil. The base oil is so thin, it just evaporates away at the high temperatures found in a powerful engine that is being used seriously. Although there are chemical compounds in there to prevent oil breakdown by oxygen in the atmosphere (oxidation) they cannot adequately protect vulnerable mineral oil at the 130 deg C plus sump temperatures found in hard worked turbocharged or re-mapped engines.

Synthetics are the answer. They are built up from simple chemical units, brick by brick so as to speak; to make an architect-designed oil with properties to suit the modern engine. But sometimes, if you look behind the façade, there is a nurky old cave at the back! This is because the marketing men have been meddling!

## **The Synthetic Myth**

What do we mean by the word "synthetic"? Once, it meant the "brick by brick" chemical building of a designer oil, but the waters have been muddied by a court case that took place in the USA a few years ago, where the right to call heavily-modified mineral oil "synthetic", was won. This was the answer to the ad-man's dream; the chance to use that sexy word "synthetic" on the can.... without spending much extra on the contents! Most lower cost "synthetic" or "semi-synthetic" oils use these hydrocracked mineral oils. They do have some advantages, particularly in commercial diesel lubricants, but their value in performance engines is marginal.

TRUE synthetics are expensive (about 6 times more than top quality mineral oils). Looked at non-basically there are three broad categories, each containing dozens of types and viscosity grades:-

### 1. PIB's (Polyisobutanes)

These are occasionally used as thickeners in motor oils and gear oils, but their main application is to suppress smoke in 2-strokes. The two important ones are:

### 2. Esters

All jet engines are lubricated with synthetic esters, and have been for 50 years, but these expensive fluids only started to appear in petrol engine oils about 20 years ago. Thanks to their aviation origins, the types suitable for lubricants (esters also appear in perfumes; they are different!) work well from -50 degC to 200 degC, and they have a useful extra trick.

Due to their structure, ester molecules are "polar"; they stick to metal surfaces using electrostatic forces. This means that a protective layer is there at all times, even during that crucial start-up period. This helps to protect cams, gears, piston rings and valve train components, where lubrication is "boundary" rather than "hydrodynamic", i.e. a very thin non-pressure fed film has to hold the surface apart. Even crank bearings benefit at starts, stops or when extreme shock loads upset the "hydrodynamic" film. (Are you listening, all you rally drivers and off road fanatics?)

### 3. Synthetic Hydrocarbons or POA's (Poly Alpha Olefins)

These are, in effect, very precisely made equivalents to the most desirable mineral oil molecules. As with esters, they work very well at low temperatures, and equally well when the heat is on, if protected by anti-oxidants. The difference is, they are inert, and not polar. In fact, on their own they are hopeless "boundary" lubricants, with LESS load carrying ability than a mineral oil. They depend entirely on the correct chemical enhancements.

PAO's work best in combination with esters. The esters assist load carrying, reduce friction, and cut down seal drag and wear, whilst the PAO's act as solvents for the multigrade polymers and a large assortment of special compounds that act as dispersants, detergents, anti-wear and oxidant agents, and foam suppressants. Both are very good at resisting high-temperature evaporation, and the esters in particular will never carbonise in turbo bearings even when provoked by anti-lag systems.

So.....

We've been recommended Silkolene Pro S 5w-40 or 10w-50 ester based fully synthetic. The supplier can do (quote) "5lts Pro S delivered to your front door for £35.49 or you could go for two which would make it cheaper at £61.69".

# Clubmans Championship 2004

## To the July Treasure Hunt Results prepared by John Corfield

TOTAL POINTS SCORED	ENTRANT	'POINTS SCORED' POSITIONS	NUMBER OF EVENTS	ORGANISED OR MARSHALLED ?
30.65	Paul Bird	1	8	Yes
24.48	Andy Moss	2	6	Yes
24.33	Martin Emsley	3	5	Yes
21.32	Martin Baker	4	5	Yes
19.18	John Corfield	5	5	Yes
18.37	Dave Cutcliffe	6	4	
15.63	Matt Marples	7	5	
12.87	Chris Goodchild	8	4	Yes
10.86	Judith Bird	9	3	
10.71	Nick Wood	10	3	
10.57	Kieron Winter	11	3	Yes
9.87	David Adams	12	3	
9.74	Kevin Jones	13	2	
9.58	Alan Spencer	14	3	Yes
8.96	Paul Rowbottom	15	2	
8.67	Pete Crudgington	16	2	
8.29	Lewis Bird	17	2	Yes
7.79	Paul Draper	18	3	
7.57	Jeff Bruce-Southern	19	2	
6.72	John Mearns	20	2	

# Marshals Championship 2004

## To the July Treasure Hunt Results prepared by John Corfield

TOTAL POINTS SCORED	ENTRANT	'POINTS SCORED' POSITIONS	NUMBER OF EVENTS
5	Dick Craddy	1	2
5	Kieron Winter	1	4
5	Lewis Bird	1	4
4	Alan Spencer	4	3
3	Bill Farrow	5	2
3	Bob Hart	5	1
3	Ian Hall	5	1
3	Martin Baker	5	2
3	Martin Emsley	5	2



# Positions after German GP

## Results Prepared By Tim Murray

1	Martyn Davies	Alonso	Button	Renault	BAR	864
2	Simon Tidmus	Barrichello	Alonso	Renault	Sauber	806
3	Donny Allen	Heidfeld	Baumgartner	Ferrari	Renault	801
4	Martin Baker	Massa	da Matta	Ferrari	BAR	793
5	Paul Wiese	Panis	Pantano	Ferrari	BAR	763
6	Chris Lewis	Raikkonen	Trulli	Renault	BAR	747
7	Elisabeth Lewis	Coulthard	Alonso	Renault	BAR	723
8	Tim Murray	Alonso	da Matta	Ferrari	Minardi	709
9	Andy Moss	Barrichello	Baumgartner	Williams	BAR	683
10	Dick Craddy	Barrichello	Pantano	Williams	BAR	652
11	Caroline Meaden	Barrichello	da Matta	McLaren	BAR	647
12	Tom King	Barrichello	Raikkonen	BAR	Jaguar	641
13	Mal Allen	Pantano	Bruni	Ferrari	McLaren	627
14	Martin Emsley	Montoya	da Matta	Renault	BAR	623
15	Mark Elvin	Button	da Matta	Williams	BAR	613
16	Rex Meaden	Button	da Matta	McLaren	Renault	606
17=	Anne Draper	Trulli	Webber	Williams	BAR	596
17=	Kieron Winter	Trulli	Webber	Williams	BAR	596
19	Liz Moss	da Matta	Panis	Ferrari	Jordan	576
20	Alison Emsley	Alonso	Heidfeld	Williams	BAR	574
21	Jonathan Prestidge	Trulli	Button	Williams	Jordan	571
22	Mary Craddy	Alonso	Button	McLaren	Jaguar	554
23	John Page	Raikkonen	Alonso	BAR	Jaguar	542
24	Paul Draper	Fisichella	da Matta	Williams	BAR	505
25	Chris Goodchild	Raikkonen	da Matta	McLaren	BAR	471
	Alison, Josh,					
26	Dominic Bennett	Montoya	Panis	Renault	Jordan	440
27	Louella Holsman	Coulthard	Trulli	Williams	Jordan	430
28	Arthur Tankins	Raikkonen	Trulli	McLaren	Jordan	429
29	Andy Laurence	Montoya	Raikkonen	Sauber	Minardi	385
	Chris & Sam					
30	Bennett	Massa	Pantano	Williams	McLaren	329
31	Mark Williams	Montoya	Heidfeld	McLaren	Jordan	318
32	Helen Davies	Raikkonen	Sato	McLaren	Jaguar	314
33	Pete Stowe	Klien	da Matta	Williams	McLaren	299
34	Alan Spencer	Montoya	Webber	Jaguar	Toyota	253



# **SPORTS and SUPERCAR DAY**

**Castle Combe Circuit, Nr Chippenham, Wilts.**  
**Friday 27<sup>th</sup> August 2004**  
**PUBLIC ENTRY £1 - includes 5 raffle tickets**  
( All proceeds to the children's charity **SPARKS** )

## **Track spaces available - FREE TRADE & CAR CLUB STANDS**

Come and enjoy a unique opportunity to go around the challenging Castle Combe circuit as a passenger in one or more of the following cars:

- Dodge Viper
- Ferrari 355 GTS
- Radical SR3 Turbo
- ADR Sport 1800
- MR2 Turbo
- Caterham Superlight
- Lotus Esprit
- Porsche 911 GT3
- Radical SR3 x2
- Ford Focus RS
- Porsche 911 GT2
- Westfield XTR2
- Nissan Skyline GTR
- Honda Accord Type R

**\*\*Raffle prize draw at lunchtime\*\***

Plus many others.....

Passenger rides are **£20** per **15** minute session (bring your own helmet if you have one), which equates to roughly 8 laps with 12 cars on track at once - someone famous could even drive you! All money from these sessions will be going directly to our chosen good cause, the children's charity **SPARKS**.

Apart from the track sessions we also have a number of trade stands that will be attending. Additionally, professional race scales, so you can get your car accurately weighed, and an on site photographic studio so you can take home a souvenir photo of you in one or more of the cars out on the circuit. In certain cars a DVD camera system will be available to record your track sessions - and your reaction!

At the lunch break (1 hour) we are also having a 'lunchtime procession' when more than one passenger can go around the circuit in a car of their choice behind a pace car. This will be at low speed but nevertheless interesting to those who have never been on the circuit before. Cost is £10 per car (or more!) with the money going to **SPARKS**.

**If you intend to take a passenger ride and own a crash helmet, please bring it along - we only have so many on a loan basis.**

For more information & conditions visit.

**[www.track-attack.co.uk](http://www.track-attack.co.uk)**

Or call Geoff Lowe on **01489 795223**

## **Paintworks**

This company is a small family concern based in Weston Super Mare who offer a service for Road and Race cars.

They will offer Bristol Pegasus Motor Club Members a discount of 20%



**Paintworks**

**"For Car, Bike, LGV Autobody Repairs & Pre Sale Preparation"**

**Please contact Duncan or John on**

**Tel: 01934 429888 Workshop.**

**Mobile 07815554960 or 07811140325**

# BPMC Club Day Castle Combe - July 31st 2004



Fancy a ride in the countryside?  
Fancy a fun evening out?  
Well, look no further!

# **TREASURE HUNT**

**Monday 16th August**

The final Treasure Hunt of the year will start from the Rock Street Car Park, just behind the Shopping Centre in Thornbury (MR 172/162 639899).

Meet up in the Bottle Bank corner.  
Start time is 7.30 pm.

The event will be of the traditional kind , but there will be a twist in the middle of the event.

All you need is a pen or pencil to write down your answers.

The event will finish at the Swan in Tytherington

**See you on the night !!**