



Portuguese Man-of-War

It's a bit of a hospital romance in this month's Clinic as **Dr Dave Walker** falls head over heels in love with an £80,000 (yes, £80k!) Mk1 Escort Historic racer bound for Portugal

PHOTOGRAPHY_DAVE WIGMORE

Forgive an old man reminiscing but the Clinic feature this month is more like a misty eyed drive down memory lane than the usual fare. You see I just couldn't resist a drive in this fabulous blast from the past, a classic Gartrac

Mk1 Escort complete with all-screaming all-dancing Ford BDG engine built for the Portuguese Classic Championship.

In Portugal the Classic scene is by far the biggest thing in motorsport. The cars and the money spent on them are almost in the Touring Car league. For some reason the fans seem to think that a Lola T70 on full noise is more interesting than a three-box saloon car that keeps crashing into other three-box saloon cars. I can't think why...

For starters the rules are very different from the UK. Basically you can run any modification that was around when the cars originally competed. If you can show that a Mr H. Potter ran a six speed sequential in his 1965 Morris Minor [surely an Anglia? – Ed.] then you can run a modern equivalent. The hard bit is proving that H. Potter actually ran the 'box – or that he ever existed.

This particular car belongs to Rui Costa. I first met Rui a year or so back when he drove a very special Mini built by a friend of mine, Phil Jose. At the time Rui told me he was building a Mk1 Escort with all the right bits in it and he believed that he could win with this car if it was done correctly.

The shell was prepared in Portugal by Rui with all the specifications supplied by Gartrac. The cage is in T45, there's a carbon seat and six-point harness too – there are no rules banning modern materials if it's a safety issue. The car was then shipped to the UK where Gartrac put in the adjustable coilover front struts and rose-jointed TCA arms.

At the rear the car retains leaf springs controlled by Bilstein

dampers but with four-link control arms for location.

The axle is a Baby Atlas sporting a 4:1 crown wheel and limited slip differential. The brakes are basically Group 2 spec with alloy calipers. The gearbox is a close ratio ZF with dog-leg first gear. And absolutely everything else is as close to ultimate spec as the Portuguese rules will allow.



Escort service: Rui Costa's immaculate and simply gorgeous Gartrac Mk1 is destined for historic motor racing in the Portuguese Classic Championship

The Engine

This is one to get excited about. The Ford competition four-valve powerplant came in various sizes from the seldom seen BDH (1.3-litre) to the common BDA (1.6-litre) and the most desirable BDG (2.0-litre), one of which sits in Rui's Escort. The BDG was the base design for the most successful F1 engine of all time, the Ford Cosworth DFV. The DFV stands for "Double Four Valve" because the V8 was basically a four-valve four doubled up on a common crankshaft.

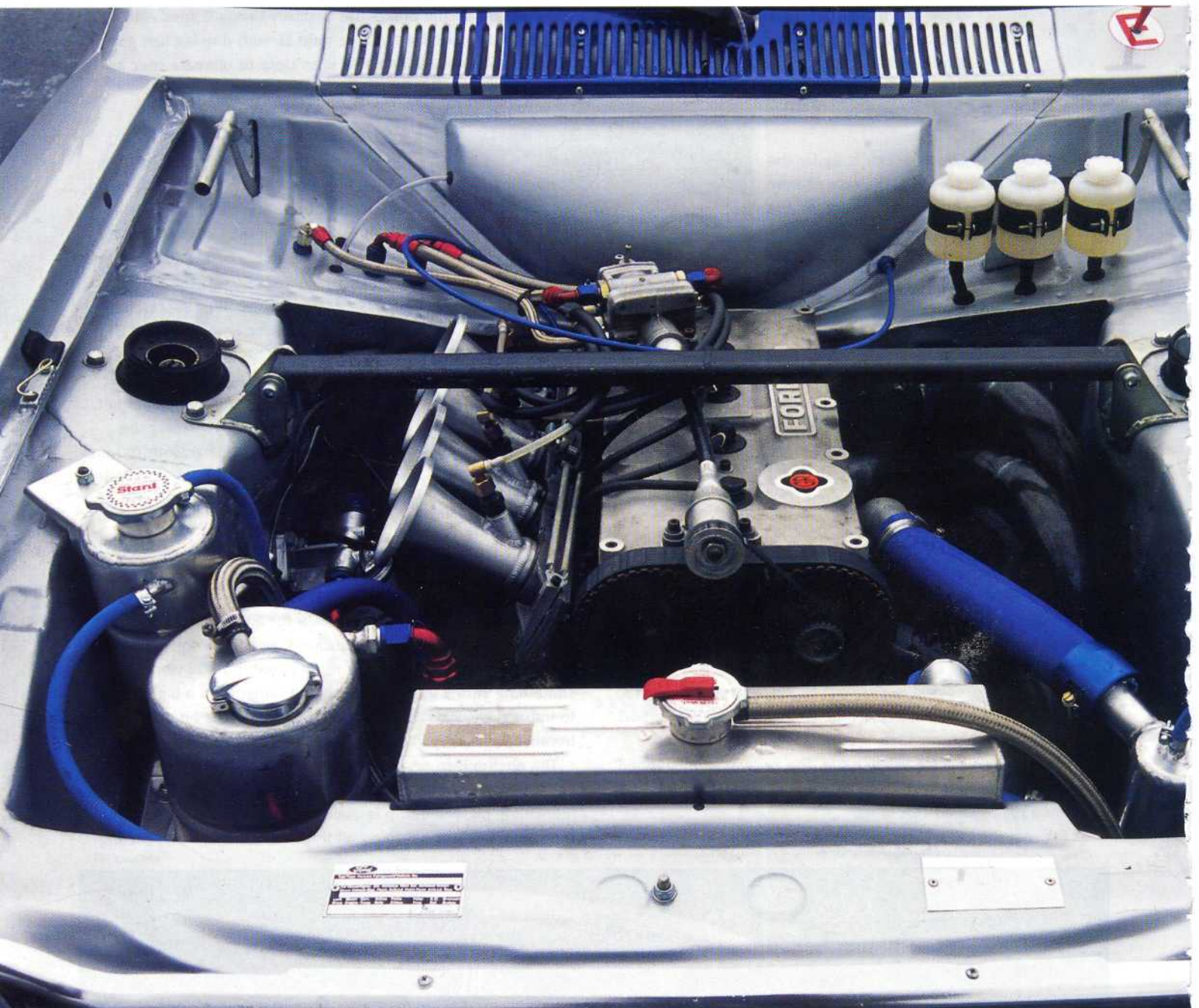
The man entrusted with building the engine for Rui was Jeff Richardson. You may or may not know the name but Mark Hales introduced me to Jeff at the last Autosport show. Mark says whenever he wants to know anything about engines, he asks Jeff.

To start with the numbers the engine produces 288bhp at 9000rpm on the dyno with 184ft.lbs of torque at 7000rpm. That's a staggering amount of power for an ageing 1975cc engine but less in terms of bhp/litre than the F1 equivalent DFV. The BDG can be made to give more power but Rui wanted something with a good power spread rather than a big number to impress the girls. Having said that I must be a bit of a girlie because I was very impressed with 288bhp!

The engine features a dry sump system. This isn't just to combat oil surge in cornering, or reduce crankshaft drag caused by lubricating oil. The pump is cleverly designed to pull air out of the sump, not just returning oil from the crankshaft. By pulling

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out air you are reducing the crankcase compression, which means you actually get a power gain.

Electronics are not allowed in a Classic competition car so the Jeff Richardson BDG runs the Lucas slide throttle mechanical injection system. The marvellous thing about this system is that it works at all, not that it works so well! It's hard enough to get the fuel slope and part throttles right with modern computers, let alone some cams and levers. The dyno set up is left well alone during competition.

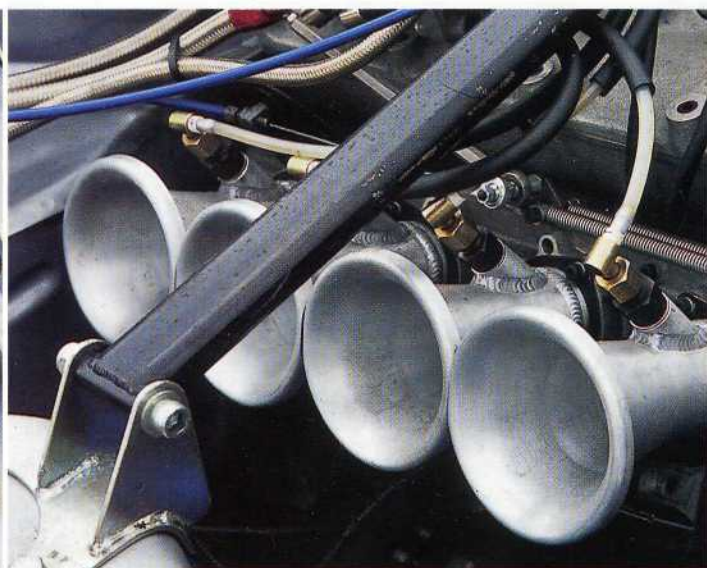
The final link between engine and gearbox is an AP twin paddle clutch on a light flywheel. Phil Jose put the package together with a lot of help from Steve Mole Motorsport, Gartrac, Brise Fabrications and Simon from Si-Leck who did the wiring.

Chobham

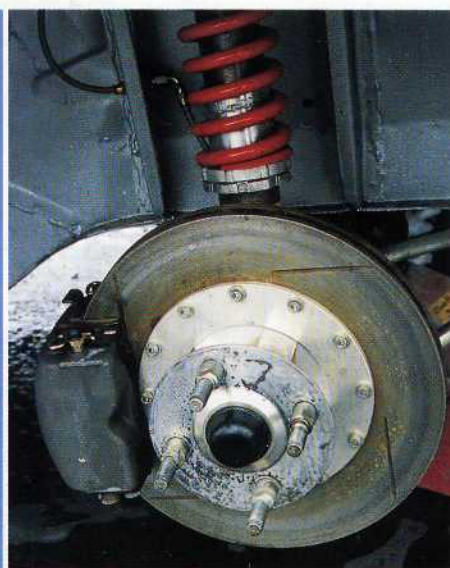
I was talking to the track controller at the Chobham test facility as the car arrived. It's amazing how excited people get about old Escorts! Not that it looks like an old car, more a moment from the past, frozen in the present – simply stunning.

The photographer got excited too, we took so many pictures of every detail and even set up some special shots, just in case we could persuade the Captain to use them. Just maybe we "old boys" were getting a bit carried away... But then the MG Touring Car team turned up.

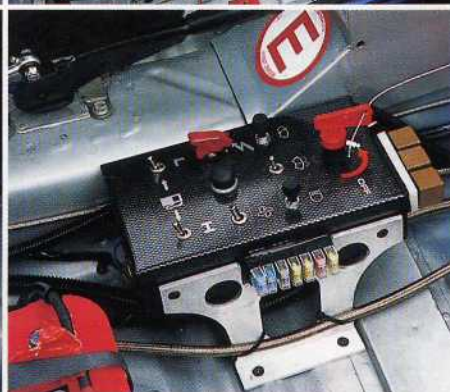
West Surrey Racing were doing a bit of mid-week testing, and said if I found out why they would have to shoot me – so I didn't ask. They had a zillion quid's worth of Touring Car with them but



Old school: to comply with classic racing regs, the BDG is on a fairly temperamental slide throttle mechanical injection system. Brakes (right) are Group 2 spec



Beast within: under the bonnet sits the desirable Ford BDG 2.0-litre powerplant built by Jeff Richardson. It pushes out 288bhp in this state of tune.



the mechanics were all over the Escort. It's that sort of car.

Even before we started the engine we had a problem. The car runs in Portugal completely unsilenced! Unlike the whinging politically correct tree-hugging tossers we have to appease here in the UK, the Portuguese allow their race cars to sound like race cars. But Chobham has a noise restriction so to warm the engine I had a ball of rag over the tailpipe held in place by a very hot training shoe – with my foot still in it. Happily the MG boys were making their fair share of noise and we got away with it.

Driving it

With the car being brand new, so to speak, everything had a base setting but not much else. The idea was to shake down the

Escort and then send it back to Gartrac for a proper set up. The wheels were period looking alloys but some split rims are on order with Image wheels. Tyres were slicks and sensibly sized for the shake down.

Since it's his car Rui had the first go. With everything looking so immaculate I had a bit of a shock when he dropped the clutch and took off in a shower of stones. Wheel spinning and applying opposite lock he wasn't exactly treating it with kid gloves. Then I suppose he did build it as a race car after all.

When I tried the car I was amazed at how docile the engine was and how much tug it had lower down the rev range. When the torque did come in it just caused the wheels to spin.

In fact, after I started to get used to the car and began to drive

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Drift club: Rui's Escort in typical Mk1 sideways pose (top). Interior (right) is functional and pristine - as you'd expect in an 80 grand classic car



it properly, it was like driving on marbles.

Okay, the tyres weren't wonderful but the engine is massively powerful and you do start to wonder if the chassis can keep it all under control. The back comes out whenever you want it to and it isn't difficult to catch, so you can easily see why the car was, and still is, so popular with the rally fraternity. I also gave it a little stick on the main straight and the sound is wonderful!

After the shakedown session the car was loaded up and sent straight back to Gartrac for final setting up. The plan is to fit some silencers and get to a few UK tracks for some setting up sessions. As I write this Rui has a booking for Snetterton, which

I will try to get to and then it will be a twisty circuit like Cadwell Park, before the beast gets shipped to Portugal for the first race.

Costs

Looking at the Escort and getting a bit dewy-eyed I started to think that I really should be building a car like this for myself. Then I began asking about costs. The whole thing to date comes in a few bob over the £80,000 mark! The engine was £25,000 fully set up and dyno tested but it needs a rebuild every eight hours. The rebuilds come in at between £5000 and £6000 a time.

Okay, I can build a reasonable Pinto but it wouldn't be quite the

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same thing! Also, being realistic I just don't have the time to put the thing together myself and I have enough dead projects lying about the place already.

Recommendations

Given the Classic championship rules and the fact the car wasn't driven with a racing set-up it's hard to make any recommendations, but it wouldn't be a Clinic without this bit.

The wheels could be lighter and they will be when Image get the split rim wheels finished. Then there will have to be some testing to find the optimum tyre width to

“The engine is massively powerful... the back comes out whenever you want”

cope with the power without going over the top and spoiling the handling. You see so many Ford Escorts with oversize tyres that will never reach a proper working temperature.

On the shakedown day Rui had a few problems with the slide throttles sticking open. Basically this is what they were known for but a little investigation would be in order to see if this could be cured with a silicon-based lube – which wasn't around in the early '70s. If I can

pick up any more points after the Snetterton session I'll let you know in Walker's World in a future issue. ●