

Words: Blakey Photos: Gerard Hughes

2WD SAPPHIRE COSWORTH

Get on the first rung of the Cossie-ownership ladder with a 2wd Saph. Here's what to look for.

Ford had no sporting aspirations for the new Cosworth, deciding to reinvent the model as an executive express and attack the prestige sector ruled by the BMW 3-Series, Mercedes-Benz 190E and Audi 80.

The stiffer, and acoustically-better, Sierra Sapphire shell together with the Ghia trim level went some way to fighting the Cossie's corner in quality and comfort, while under the skin it had already won the battle.

The car's 204bhp YB-series engine was near identical to that in the versions of the previous Cosworth, which had already been improved with a new Cooper gasket, yield head bolts and improved cooling system.

Further changes were to aid the refinement that was so important to potential purchasers. Consequently, a new piston design featured, which had a revised gudgeon pin mounting to limit engine noise on cold start-up, and the use of a more durable single coil spring on the turbocharger damper.

As docile as the Cossie could be 'off boost', there was little refined about the performance once the Garrett T03 started spooling, the saloon pulling a 150mph top speed and sprinting from 0-60mph in 6.1seconds.

REFINED SUSPENSION

The suspension was also revised in the name of refinement, the main change being to drop the original Cosworth's raised roll

centre and steering knuckle. Coupled with altered castor angles, these changes helped make the new car less twitchy at speed and under braking.

Spring rates were increased, but the Fichtel & Sachs dampers were softened to suit. Although the ride was more compliant, there was no trade off in handling ability. A larger 16mm rear anti-roll bar completed the reworked suspension.

Recaro front seats and bespoke instrument binnacle added a sporting twist to the Ghia-spec cabin, while the exterior was a similar exercise in understatement.

The subtle bodykit and unique 7x15in 'lattice' rims were pleasing to the eye but they certainly didn't promote the car's supercar slaying potential. And that's exactly how Ford, and evidently 1000s of car buyers, wanted the Cosworth to be – a proper Q car.

HIGH PERFORMANCE

The Cosworth's supercar-beating performance could never be truly disguised and over the years it's this, rather than its ability as the aforementioned executive express, that has built its reputation. Perhaps best of all, the 2wd Saph has also

become known as the cheapest entry to Cosworth ownership: four grand, common sense and a bit of time being all that's needed to secure Porsche-beating performance.

IDENTITY



No matter how straight a Cossie looks or how kosher the seller may seem, it's imperative to double check any car's identity. An HPI check reduces the chances of landing a rogue car, but don't skimp on doing anything about it yourself.

VIN numbers can be found on the slam panel and under a flap of carpet between the driver's seat and sill. The prefix you want to see starts BFGC. Shift a bit of grime and you'll be able to read the engine number, which is situated behind the cambelt cover next to the water pump. Things being as they should be, the number will start YBB.

BODY



The Cosworth badge does little to deter rust, the Saph rotting as you'd expect any near 20-year-old Sierra to. Crusty rear arches and bubbly door bottoms are common and hint at further horrors beneath.

The Marley-produced plastic sill extensions often shield rotten sills, while more serious is any rust in the rear chassis rails

– a notorious Saph Cos rot spot. Pay attention to the underbonnet area. Once the grime is removed it's all too common to see rust damage on the suspension turrets and bulkhead, which will be costly to rectify in terms of both time and expenditure.

It's rare to find a Sapphire that hasn't seen an accident. An HPI check will reveal if a car

has been written off, but avoid the 'unrecorded' cars that have not quite been a total loss. That means paying attention to areas such as the boot floor, front chassis rails and inner wings for even the slightest signs of creasing. Another telltale of a front end shunt is if the factory sealer is missing where the inner and outer wings meet.

"An HPI check will reveal if a car has been written off, but avoid the 'unrecorded' cars that have not quite been a total loss."

FAST FACT
Lhd markets lost the RS badging, the fiery four-door Sapphire simply denoted 'Cosworth'.



TECH SPEC

ENGINE

Type: Ford Cosworth YBB
Capacity: 1993cc
Bore/stroke: 90.82mmx76.95mm
Compression ratio: 8.1
Max power: 204bhp @ 6000rpm
Max torque: 205lb/ft @4500rpm
Cylinders: four, in line
Cylinder head: cast alloy
Block: cast iron
Valve gear: four valves per cylinder, twin overhead camshafts, belt drive
Induction: Weber-Marelli fuel injection and management, Garrett T03 turbocharger with intercooler

TRANSMISSION

Type: rwd with 7in viscous coupling limited-slip differential
Gearbox: Borg Warner T5
Internal ratios: 1st, 2.95:1; 2nd, 1.94:1; 3rd, 1.34:1; 4th, 1:1; 5th, 0.80:1
Final drive: 3.64:1

SUSPENSION

Front: MacPherson struts, coil springs, lower track control arms, anti-roll bar, telescopic dampers
Rear: independent, semi-trailing arms, coil springs, telescopic dampers, 16mm anti-roll bar

STEERING

Type: power-assisted, rack-and-pinion

BRAKES

System: dual circuit hydraulic with ABS and power assistance
Front: 283mm vented discs
Rear: 273mm solid discs

WHEELS & TYRES

Wheels: 7Jx15in RS lattice-style alloys
Tyres: Dunlop D40 205/50 VR15

BODY

Sapphire four-door saloon in Ghia trim with colour-coded bodykit

PERFORMANCE

Max speed: 150mph
0-60mph: 6.1seconds

ENGINE



Critics love to knock the YB for being unreliable, but the truth is it's perfectly durable if well maintained. It might utilise age-old technology and is far from refined, but when it does fail it's often due to the effects of overzealous tuning, poor servicing and age-related wear and tear. Misfiring is the most common malady. There are a few causes, such as tired sensors and, most likely, the ancient ignition system, decent leads and correctly-gapped plugs are often the cure. Look for poorly fitting, collapsed boost pipes and erratic boost pressure, the former a recipe for turbo failure and the latter, without the correct fuelling, ultimately leading to engine meltdown. Overfuelling is as bad as underfuelling, the rich mixture washing oil off the bores and destroying the bearings. Too much boost will also lurch the head gasket. The most common place for it to blow is around the back of the block on the driver's side. If it's on its way out, signs include white sludge on the filler cap along with an oily film on top of the header tank. White smoke points to head gasket failure, while blue smoke is terminal, the oily haze pointing to advanced wear in the bottom end.

INTERIOR

Get lucky and scuffed plastics and dodgy switchgear can be sourced from scrapped, lesser-spec Sierras, including the Ghia model that the Cosworth is based on. Unfortunately, what won't turn up at your local breakers is decent Recaros. These are unique to the Saph and although built to a high standard, they inevitably suffer as the miles and years go by. When they do succumb to advanced wear it's usually the side bolster of the driver's seat that goes first, the foam underlay crumbling away and outer material stretching and sagging. Look for a saggy headlining too and also make sure the dash top isn't badly cracked. Minor cracks can be rectified by smart repairs but those that run the depth of the dash usually write the part off, the only option being a second-hand, yet still costly, replacement.



FAST FACT
The basis for the Sapphire Cosworth was originally intended to be the 2.0iS model rather than the Ghia.

"Unfortunately, what won't turn up at your local breakers is decent Recaros."

BRAKES

Opinions vary on effectiveness of the standard brakes, but what is conclusive is that the front rotors can be banana'd with relative ease. If they are warped then it'll be obvious with a massive judder through the steering wheel under moderate to heavy braking and an accompanying clicking noise from the pads. However, while standard replacements don't cost the earth, the chances are that any Saph will, at least, be running some form of uprated factory-sized set-up. Aftermarket kit can be quite keenly priced so when the need has arisen for new stoppers, the vast majority of owners have opted for higher-performance hardware. That's fine, but remember the Saph is a genuine 150mph motor and needs brakes to suit, which means budget drilled discs are a big no-no... You want to see good quality kit and, ideally, evidence of professional fitting. Don't forget the same checks for disc width/corrosion and warping apply to aftermarket parts too, and where tuned cars are concerned you'll need to

replace like-for-like to rein in the extra power. Be wary of race-spec set-ups too. They sound great but are ill-suited to road use and the calipers supplied often come without dust seals.



INSURANCE

Graham is a 32-year-old double glazing salesman who lives in Stevenage. He loves doors and windows so it's no surprise that when it came to 2wd Cosworth ownership he decided to opt for the four-doors and 15mm taller side glass of the Sapphire rather than the original's paltry three doors and obscured rear hatch. Standard apart from a decent exhaust and a suspension kit, Graham's 1988 Sapphire is protected via a Cat 1 alarm and the fact it's tucked away in his garage when he's not using it for 3000 miles a year. Graham has six years' No Claims Bonus and a driving licence that is as clean as the windows he sells. He pays £305.55 to insure his Cosworth fully comprehensive. Quote provided by Provident via aquote.co.uk.

HOW MUCH?

£3500-£4500
Cheaper cars do surface but reckon on having to pay at least this to get a presentable, MoT'd car. Be prepared for plenty of miles and the more-than-likely chance that you'll have to put in some work, not to mention cash, to bring it up to scratch.

£4500-£6500
Very tidy to good cars. Expect sensible mileage and a good level of history, especially with cars at the top end of this bracket.

£6500+
Pretty much mint cars with arrow-straight panels and superb history. When they surface, low mileage cars that are 100per cent original with few owners tend to command upwards of £8K.

CLUBS

The Ford RS Owners' Club
PO Box 408, Grays, Essex, RM17 9ED
www.rsownersclub.co.uk

Ford Sierra Owners' Club
enquiries@fordsierraclub.co.uk
www.fordsierraclub.co.uk



IN THE ADS

1989, Cosworth 2wd, 97K, FSH, green injectors, Group A head gasket, uprated actuator, chipped, 284bhp, TVR front brakes, excellent condition in and out
£5250 ono
Tel: 07703 743 367, Plymouth

SUSPENSION



A standard Sapphire Cosworth offers the perfect blend of a firm, but compliant, ride with crisp handling. Unlike the three-door, it doesn't feel twitchy under braking or at speed. If any Saph does tend to wander or has a 'crashy' ride, something's amiss. It wouldn't be a surprise, as any original suspension components are likely to be ripe for replacement after so many years.

Any wallowing and the aforementioned 'crashy' ride point to soft dampers and sagging springs, something which can easily be confirmed with a simple bounce test. Check how the Saph sits – if it's standard then it should sit about three quarters of an inch higher at the back than the front. Of course, many Cosworths won't be running factory suspension. This could be good but avoid excessively lowered cars with ruined geometry and insist on, at the very least, a good quality set of matched springs and dampers.

ELECTRICS



Aged wiring and dry contacts are the likely culprits of ill-functioning electrics so inspect these before you start costing up the likes of replacement electric window and central locking motors. Look for ancient security devices too and be wary of any immobilisers that claim to be linked to the fuel pump – they're an open invitation for an engine meltdown.

The fuel pump's wiring needs professional inspection if you go ahead with your purchase. After so many years it's unfortunately common for the decayed wiring to cause fuel flow to be less than what is safely required. Check the twin fans kick in as they should. The associated wiring harness is that of a normal Sierra and often cooks itself over time, leaving a molten mess.

TRANSMISSION

In fine fettle the factory T5 'box is more than capable of handling the torque of the YB. Those in the know reckon it's good for 350bhp before it's hit or miss whether it spews its innards on every launch.

A tired T5 will struggle with standard power and if a Saph has six figures on the clock, it's going to have seen some action. Consequently, T5 rebuilds are

common to Cosworth ownership and the biggest fault is collapsed bearings on the driveshaft, which gives rise to rumbling before finally going west and taking at least third gear with it.

Another telltale of failure is a difficult shift between third and fourth gear, which is down to wear in the synchro rings. Diffs suffer too and bank on a rebuild, or AA recovery depending on how you view these things, if there's noticeable whining.

FAST FACT

Bonnet vents were specified but deleted at the last minute, despite the tooling having been completed.

BUYING ONE

While a duff one will undoubtedly be an expensive nightmare, no matter how much of a bargain it might seem, you've got to remember that the grief involved in finding a good one is well worth the hassle. Hold that mind set and treat your Cosworth hunt as an adventure, otherwise you're likely to call it a day after seeing one shed too many. Sadly, such is the nature of the car, that this soul-destroying scenario is a probability.

Be warned, while the availability of the 2wd Sapphire is good compared to other Cosworths – over 14,000 were sold – it's always been the least loved of the breed and is the best part of 20 years old. Consequently, the amount of rogue, ill-maintained Cosworths outweigh the number of sound survivors and you will need to travel to find the right car. You'll also need to pay more than a couple of years ago too, values now showing an increase over the three grand that would buy a scruffy, but road legal, runner back then.

SOURCES

Where to look will depend on what condition of car you want. If you're craving a peach try the enthusiast-led outlets such as our classifieds, the RSOC or trade specialists such as Jct 21. If it's a project then eBay's the best bet, *Auto Trader* also throwing up everything from a well-worn car to strongly priced, trade-offered Cosworths.

You want to buy the best Sapphire you can afford and, if you're looking to at least recoup your costs when you move it on, the most original car too. Be warned though that every Cosworth we came across was modified to some extent, whether it was packing just a stainless exhaust or a rebuilt YB pushing upwards of 400bhp. The quality of any mods needs careful checking.

Buy on condition rather than spec. Parts are getting increasingly hard to source, but we'd opt for a sickly running car over a rusty one. Granted, a professional YB rebuild to even a standard level of tune won't be cheap, but it's likely to be considerably less than the costs involved with properly rectifying rotten bodywork.

HPI

You might be talented enough to break down the mechanics of air injectors so your three-year-old can understand, but that won't help when it comes to finding out if the Cos you're considering was a total loss in 1998. The best 20 quid you can spend on a Saph Cos, an HPI check will tell you this, and whether it's stolen or burdened with finance. Access HPI for £19.99 at www.hpi.co.uk or for £24.99 over the phone on 01722 422422.