CLASSICS WORLD JAPANESE

SPORTS CARS OF THE 1970S















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CLASSICS WORLD JAPANESE JAPANESE SPORTS CARS OF THE 1970S

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elcome to the first issue of a new series of bookazines; ClassicsWorld Japanese. This, along with two sister series focusing on cars from Germany and Europe, will form a collection of publications focusing not on brands, but on individual aspects of our motoring heritage. In this series, we'll be looking at the very best classics Japan has to offer, discussing their stories and driving them to see if they're everything our hearts promised. Our first subject is one which many new to the Japanese car scene overlook; the sports cars which made its name in the 1970s. While everyone knows the Datsun 240Z and the Toyota Celica, there's a whole world of sporting Japanese classics waiting to be discovered. Some, like the Mazda RX-7, began great dynasties. Others like the Dome Zero failed to make their mark in history – and have become obscure as a result. With a market open to almost everyone, there's something to suit all tastes and budgets here. We've



delved into model histories, taken a closer look at some of the Japanese classics gracing your driveways, and shown you how to buy the cars you've dreamed of owning. If you're new to Japanese classics, we're sure you'll be a convert after reading this title. Thank you for buying this bookazine. We hope you'll have as much fun reading it as we did making it.

Sam Skelton, Editor





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SELLING THE DREAM The late 1970s saw Japanese manufacturers making

The late 1970s saw Japanese manufacturers making significant inroads into Britain's hotly contested coupé market. We take a look at the various sportsters on offer. Words and PICS: PAUL GUINNESS

he rapid expansion of Japanese car sales in the UK was big news throughout the 1970s, as manufacturers from the Land of the Rising Sun sent ever-increasing numbers of sensible, reliable saloons and estates to these shores. But Japanese makers also saw potential in other sectors of the market, particularly when it came to sporting coupés.

Coupé sales volumes were inevitably smaller than the family car sector's, yet there was still money to be made thanks to the higher list prices of most sporting models. Toyota knew it could make more profit from selling a Celica than a Corolla, and other Japanese companies weren't far behind.

Japanese involvement in Britain's sports car market had begun in the late 1960s and early 1970s, of course, with the diminutive Honda S800 and sensational six-cylinder Datsun 240Z kicking things off. But, throughout the 1970s, there would be more choice for fans of Japanese cars who fancied some low-slung style and extra performance.

Here we take a look at some of the best-known Coupé offerings from the late 1970s through to the turn of the 1980s,



a period that saw buyers enjoying a plethora of new model launches and some welcome extra choice.

ROTARY REVOLUTION

Issued in time for the 1978 British International Motor Show (the first year the event was held at Birmingham's NEC) was this leaflet offering 'Mazda advance information' on the revolutionary new RX7. This was the latest model to feature Mazda's rotary engine expertise, and it showed plenty of promise.

According to the leaflet, the RX7 offered a 'sleek look that draws admiring glances combined with the smooth, surging power of a new generation Mazda rotary engine'. That impressive powerplant – described as 'equivalent to



a 2.3-litre' – was linked to a five-speed manual gearbox, with the engine being 'placed well back in the chassis giving an excellent fore to aft weight ratio'. As for the RX7's practicality, Mazda insisted there was 'an amazing amount of interior space within that smooth, aerodynamic body silhouette'.

Although the first-generation RX7 was very much a niche model here in Britain, it achieved greater success elsewhere, with an impressive 471,000 sold worldwide during its seven-year career. As this leaflet from late 1978 explained, however, any Brits tempted by Mazda's new sporting flagship were faced with a frustrating wait: 'It is anticipated that the Mazda RX7 Rotary will be available in the UK during the summer of 1979'.

STYLE ON A BUDGET

Known in Japan as a member of the first-generation Violet family of 1973-77, this handsome two-door Coupé was sold in the UK as the Datsun 160J SSS. This single-sheet leaflet dates from the model's final year on sale here, with the 160J's spec being very impressive for the time. As standard came a five-speed gearbox, a 1595cc OHC engine, twin carbs and an output of 95bhp – enough to make other affordable sporty numbers seem rather underpowered by comparison.

With coil springs and telescopic dampers all round, the 160J SSS even managed to corner rather well by standards of the 1970s, leading Datsun UK Ltd to hail it as an exciting model that 'combines sports car performance and handling with saloon car comfort and space'. According to this leaflet, the 160J's top speed was in excess of 100mph, with 0-60mph in 12.5 seconds. And at just £2800 by 1977, this tasty Datsun even managed to offer superb value compared with European rivals like the Renault 15 GTL (£3236). Lancia Beta 1300 Coupé (£3643) and Opel Manta 1.6 DL (£3432).

THE LEGEND CONTINUES

Replacing the hugely successful Datsun 240Z in 1974 was the new 260Z, a model closely related to its forebear (it was more of an update than an all-new design) but featuring a 2565cc version of the well-proven straight-six engine. The 260Z would remain in production for four years, continuing the successful Z-car car story through to the arrival of the controversial 280ZX in 1978.

This all-model Datsun brochure (published in October 1978) was one of the last to feature the 260Z, a model described as 'the world's best-selling sports car'. Power output was 150bhp, endowing the 260Z with a 125mph top speed and 'vivid acceleration to match'. A five-speed transmission came as standard, as did 'fully independent suspension'. And anyone seeking onboard goodies was also in for a treat, with the 260Z offering 'luxury features like a combined radio/cassette player, tinted glass, cloth upholstery, etc.'







CLASSIC COMPOSITION

Launched in 1978 and running for four years was the first-generation Honda Prelude, employing the Accord's engine, suspension and running gear but wrapped in a sportier looking package. Its front-end treatment was recognisably Honda (with overtones of the Civic and Accord), but the overall stance was lower and the two-door Coupé profile was unique.

The front cover shown here is from the launch-year brochure, in which Honda described the Prelude as a 'symphony of style' and a 'classic composition'. The company's copywriters continued to wax lyrical by hailing the Prelude as a 'perfect harmony of performance, luxury and safety'.

The second image is from a later all-model Honda brochure, which followed a similar theme by describing the Prelude as a 'beautiful composition of excellent performance, exceptional handling and elegant styling'. It concluded by explaining that the Prelude was 'understandably in a class of its own'.

CELICA'S SECOND COMING

With more than a hint of Ford Mustang in its styling, the original Celica had been quite a talking point for Toyota since its launch in 1970, proving to the world that the company was capable of designing a stylish sporting Coupé that was also terrific to drive. But that meant added pressure when the time came to launch a successor, which finally arrived in 1977.

The second-generation Celica was – like its forebear – available in either Coupé or Liftback guise, each of which apparently deserved its own dedicated brochure. The cars inevitably shared the same styling from the (unusually thick) B-pillar forwards, but the rear end treatment was





dramatically different. The Coupé was arguably the more attractive, sportier looking member of the duo, but the Liftback had the obvious benefit of extra loadspace and practicality.

The MkII Celica Coupé was available in the UK only in 1588cc (86bhp) guise, with the 1968cc engine being reserved for the Liftback. Britain's range-topping Celica by 1978 was the 2000GT Liftback, which retailed at £5156 – making it marginally more expensive than the best-selling Ford Capri 2.0 Ghia (£4990). But with the Toyota pushing out 118bhp to the Ford's lowly 98bhp, the extra cost was well worthwhile.

WHAT'S IN A NAME?

Not only did Mitsubishi Motors Corporation choose to employ the Colt brand across its entire UK lineup of the 1970s, it also opted to alter certain individual model names along the way. That's why the car known in its homeland as the Mitsubishi Galant Lambda was sold in Britain as the Colt Sapporo. And if you think that's confusing, you might like to know that the very same model was sold in Australia as the Mitsubishi Scorpion. while in the USA it could be ordered in either Dodge Challenger or Plymouth Sapporo guise thanks to Chrysler's 15% stake in Mitsubishi at the time.

Published in late 1978 to promote Colt's '79 model range, this brochure described the Sapporo as a 'refreshingly new two-door Coupé which has so many exciting features that it constitutes an entirely new motoring concept'. That may have been overstating the truth somewhat, though there's no doubt that Sapporo 2000 GSR was competitive for the time – although at £5440, it wasn't exactly a bargain. In fact, the 98bhp Sapporo looked positively expensive next to more powerful rivals like the 138bhp Ford Capri 3.0 S (£4613), the 119bhp Lancia Beta 2000 Coupé (£5029) and the 100bhp Opel Manta 2.0 Berlinetta (£4517).





DATSUN AFFORDABILITY

British buyers wanting some affordable options in the Coupé market were well catered for by Datsun throughout the late 1970s, as shown in this all-model brochure from October 1978. Cheapest of all the semi-sporting models was the Cherry FII Coupé, a distinctive three-door design that, despite being in the autumn of its career by then, was described by Datsun as an 'exciting hatchback Coupé combining stylish good looks with the practical virtues of a load carrier'. Its 1171cc powerplant pushed out 52bhp, giving a claimed top speed of 93mph. And with a list price of just £2650, it was the cheapest three-door Coupé on sale in Britain at the time.

Datsun fans looking for a little more space and power, meanwhile, could

spend £2982 on the Sunny Coupé, otherwise known as the 140Y and arguably the best-looking member of the B310-series family. Its 1397cc engine produced a useful 63bhp at 6000rpm and was linked to a standard five-speed transmission. Datsun boasted that the Sunny Coupé offered 'sleek, distinctive lines', whilst combining 'sporting performance with enjoyable handling'.





THE 'SOFTER' Z-CAR

After the excitement created by the original 240Z and subsequent 260Z, Datsun's reputation for producing sporting gems was pretty much intact throughout the 1970s. But then along came the new 280ZX – and, for many enthusiasts, that well-earned reputation was suddenly in doubt. (Alright, this may be a slight exaggeration; but the 280ZX certainly managed to lose the raw, no-compromise appeal of the previous Z-models.)

Fortunately for Datsun, the 280ZX went on to be a big success in the USA (the car's biggest market), where a comfortable ride was deemed by many buyers to be more important than ultimate handling. Here in the UK, however, the 280ZX was less popular – and was also hampered by fairly high pricing. Upon its British debut in 1979, this flagship Datsun Coupé was listed at a hefty £9582 for the 2+2 version – making it almost 50% dearer than Ford's most expensive Capri, the 3.0 Ghia.

DATSUN

SUNNY OUTLOOK

One of Datsun's best-selling Coupés from the mid-1970s was the 120Y, the fastback version of the B210-generation Sunny that ran through to '77. This single-sheet leaflet dates from the 120Y's final year of production, by which time it offered superb value at just £2349 – making it the second-cheapest two-door Coupé on sale in Britain after the rather dated Skoda S110R.

It might have been about to bid adieu

but the 120Y still had plenty of life left in it, boasted Datsun: 'The Sunny Coupé not only looks extremely attractive, it's also highly practical'. The 120Y's 1171cc engine featured a twin-choke carb and produced a healthy 65bhp at 6000rpm. Not only that, it came very well-equipped for the money, with a list of standard features that included tinted glass, a tachometer, two-speed wipers and a 'two-waveband push-button radio'.





DRAMATIC RESTYLE

Nobody could accuse Toyota of being predictable in 1981 when it replaced the curvaceous Celica with a thirdgeneration model that looked like it had been styled with the aid of a ruler. The latest Celica took angular aesthetics to a whole new level, from its retractable headlamps through to its sharply cut-off rump. Even the Liftback model (complementing the Coupé, as before) managed to banish curves and embrace the straight-line theme.

This all-model brochure for Toyota's 1982 model year praised the latest Celica for offering 'aerodynamic sporting lines, advanced engineering, a powerful 2-litre engine, transistorised ignition, power steering and servoassisted brakes', whilst also boasting of its 'maximum speed of nearly 110mph and 0-60mph acceleration in a fraction over 11 seconds'. As for the Liftback model, this offered 'extra capacity without loss of performance or comfort', and was the ideal choice for anyone seeking 'exciting performance, impressive carrying capacity plus economy and reliability'.





THE LATEST CHERRY

Going on sale in Britain in 1979 was the latest-generation Datsun Cherry, codenamed N10 and – as with the F11 that went before – available in Coupé guise to anyone seeking a sporty twist. This 1980 brochure suggested that the new Cherry Coupé offered 'bold, attractive styling that really makes it stand out from the crowd'.

Under the bonnet was the same 1171cc engine that could be found in its predecessor, which meant the same 93mph top speed. This time round, however, Datsun ensured that a 'fivespeed, close-ratio gearbox makes the most of the performance and gives economical cruising'. At £3519 by 1980, the latest Cherry Coupé also managed to offer rather good value for money.

SMALL, SEXY AND FRUGAL

Remember the quirky little SC100GX, announced by Suzuki in 1978 and better known to UK buyers as the Whizz Kid? This diminutive rear-engined Coupé was a terrific machine, combining miniature proportions with funky styling and an eager 970cc, four-cylinder engine. According to this advert from 1979, the Whizz Kid was '6 inches longer than a Mini – and sexy with it'.

That sexiness became a recurring theme, with Suzuki insisting that the Whizz Kid was like no other machine: 'Small cars today all seem to look alike. The Suzuki is unashamedly different. Instead of being a box on wheels it has a sleek, even sexy profile.'



The Whizz Kid was also in very good company when it came to its rearengined layout, as the advert went on to explain: 'Just like the Porsche 911, the engine is mounted over the rear drive wheels for maximum road grip'. But, of course, the Suzuki was rather more economical than any German exotica, achieving 56.5mpg at a constant 56mph: 'No, the printer hasn't gone bananas. We repeat, 56.5mpg', the ad announced.





DATSUN 240Z

We drive the coupé that offered E-Type performance for MGB money... and a radio as standard, too. words and PICS: PAUL WAGER

t's often accepted that the Japanese car makers have taken their own direction in sports cars over the years, employing a high-tech, high-efficiency route to speed in an era when European and US makers were in the main going for sheer grunt. The popularity of highrevving, four-cylinder, twin-cam motors in mainstream performance cars was a definite Japanese trademark and it's a philosophy they've mastered well, as epitomised by the Honda VTEC engines.

Back in the day, though, the young Nissan company knew that if it wanted to compete in the potentially lucrative US sports car market, a high-revving four-pot engine just wouldn't do it, at least not in the 1960s when the V8 was still king and teenage girls were learning to drive in seven-litre behemoths.

Already, Nissan had made an abortive attempt to sell the Datsun Fairlady SPL212 in the USA, and it was hampered enormously by its tiny 1.2-litre, four-cylinder engine. The later SR311 also failed to excite the market, even though the engine was now up to two litres in size.

To compete, Nissan needed a proper, large-engined sports car and in the mid 1960s, started work on what was to become the Datsun Fairlady Z in its home market and the 240Z everywhere else.

Rather than sharing the platform of an existing saloon model, the 240Z was an all-new design with a swooping long-nose style. The styling was entirely in-house, with chief of design Yoshihiki Matsuo responsible for, though very rarely credited with, its conception. Initially, the design was for a roadster, but Japan already had an eye on Federal crash requirements and opted to make the new car a coupé, which also offered greater comfort.

The engine was borrowed from the Japanese-market Laurel saloon and was a six-cylinder development of the Datsun 1600 four-cylinder. With a single cam, alloy head and twin SU-style Hitachi carburettors, the 2393cc result was good for 151bhp, and typically Japanese lightweight construction saw the car weighing in at just over a ton. The result, unsurprisingly, was a quick car. Top speed was 125mph and 0-60mph took just eight seconds, making it faster than anything else on offer at the price. And that price was, in the US at least, remarkably low, where the Datsun was positioned to compete directly with the MGB and its ilk. In the UK, it was positioned further upmarket, coming in at £2389 on the road in 1972 , which meant it competed on price with cars like the Capri 3.0, MGB GT V8 and TVR 1600M. It was faster than all of them, though, and the main competitors



offering similar pace were more costly four-seaters from the likes of Mercedes-Benz and BMW, rather than affordable two-seaters.

This was to be the Z-car's forte, especially in the US market which was its spiritual home and the destination for most of the first year's production run. Just like the Jaguar E-Type had done before it, the 240Z offered astounding performance for the price and ended up competing on the road with cars from a different level entirely. This was also its undoing in the conservative UK market, where *CAR* magazine commented that the 240Z was "good compared with a TR6, but terrible when compared with an E-Type."

One glance at the specification tells you that, in any case. The Datsun employed MacPherson strut front suspension, which by the late 1960s was a tried-and-tested design, but at the rear it used an independent system similar to Lotus's 'Chapman strut' where the driveshaft itself formed the lower suspension link.

This gave it better handling and traction than live-axled competition like the Capri, but the traditional front engine/rear drive layout also made it lively in the wet like a Capri. The testers of the time reckoned it gripped superbly in the dry to the point where there was little else on the road to touch it any price, yet would slide easily in the wet. They did, however, agree that it was a nicely balanced chassis and was easily controlled when things got a bit sideways.

Back in the early 1970s, the UK car buyer was only just beginning to come to terms with the idea of Japanese cars in general, never mind a high-performance sports coupé, which meant that the 240Z







Flap allows access to the battery.

was never a massive seller here. Couple that with the propensity of those 1970s Japanese bodyshells to succumb to the tinworm and the Z is an unusual sight on British roads.

This particular example is the property of Nissan UK and when it's brought out at industry test drives, it looks stunning parked up next to the 370Zs, a reminder that Nissan has almost as much heritage to play on as many of the European makers. The bright yellow really suits the 240Z's flowing lines and with its black front airdam and neat rear ducktail spoiler, it looks pure 1970s – and so much more modern than, say, the E-Type, which was starting to show its age by then.

All credit to Nissan that despite the car's rarity, they're not afraid to let journalists loose in it and although it's been restored once, it's very much



L24 powerplant dominates engine bay. Note Hitachi SU-style carbs.

a used example rather than a trailer queen.

Unfolding yourself into the 240Z's cockpit is much like entering any 1970s coupé, ducking under the low roofline to settle into the low-set seats. Once you're in there, the dashboard is very firmly of its era, and all the better for it: An array of hooded instruments sit in the black plastic moulding and at the time, this would have seemed very sporting and very modern too. There's none of the wooden veneer you'd find in a Triumph. It's well equipped though, in the finest Japanese tradition, which made its price even more surprising: Full carpeting, locking petrol cap, heated rear window, map light, cigarette lighter, reclining seats, cloth upholstery, alloy wheels and even a radio were all standard. And speaking of the radio, this must be the best thing we've seen all year: An original 1970s analogue unit tuned by turning the left-hand knob. It offers an 'auto tune' facility like modern electronic stereos... except that in this case, pressing the auto tune button sees the tuning knob rotating back and forth by itself with the needle moving up and down the tuning scale until it locks on to a station. We stared at it doing its thing for a good five minutes, mesmerised by state-of-the-art 1970s gadgetry.

The view forwards is much like the E-Type, with that long bonnet in front of you. It seems like a large car, although its dimensions are remarkably close to the MGB GT. Firing up the L24 engine, it sounds like a cross between a BMW powerplant and a Triumph straight six with a nice meaty tone to it which suggests lively performance.

A five-speed box was standard on the Datsun, where much of the competition



offered only a standard four-speed or maybe an optional overdrive. It's not the easiest to use, though, with road testers back in the 1970s reckoning it was awkward and noisier than the comparable Alfa Romeo and Porsche units. For someone used to driving older cars with tired synchromesh, though, it's not the slightest problem and treated with respect, it works perfectly well.

One other comment from those period road testers was the care needed to make a clean getaway without kangarooing, and this holds true today: You need to be decisive with the clutch to prevent juddering of the mounts and drivetrain, but with familiarity it all comes together and the 240Z is no harder to drive than a standard saloon car of the time. The controls are nicely weighted and light in their operation, except for the steering, which by modern standards is heavy without any power assistance.

Once on the move, the steering lightens up noticeably, although it still remains firmly weighted and under hard acceleration, the Datsun feels really pretty lively. The straight six motor offers 146lb/ft torque at 4400rpm, but is in fact relatively rev-happy compared to the contemporary Triumph units and is more like the Jaguar XK in its character, coming alive above 3000rpm. We didn't have the opportunity to try it, but at speed the 240Z was far more relaxed than many of its buzzy competitors, with the engine turning over at just 4600rpm at 100mph.

One surprise was just how modern the 240Z feels in many ways from behind the wheel. If you didn't know your cars, you'd probably guess at a

Datsun





late 1970s design rather than a car with its roots in the mid 1960s, which was probably why the Z was so popular in the USA. Some 50,000 cars a year were sold over there before the 240Z was replaced by the bigger-engined 260Z. The combination of a modern chassis, Corvette performance and an MGB price tag was clearly a winner, especially when paired with utterly faultless reliability.

From a European perspective, the 240Z sits somewhere between being a much better interpretation of the Capri, and a cut-price, more modern E-Type without all the heritage baggage. We thoroughly enjoyed our short time with the 240Z and it's a fascinating illustration of just how on-the-ball the Japanese car industry was, even back then.



Nissans and Datsuns

The corporate history of Nissan and its Datsun brand is complicated but the basics are here:

Founded in 1912, the Nissan company began life as the Kwaishinsha Motor Company and its first car was called the 'DAT' after the initials of the three founders' second names. When in 1930 a range of smaller cars was produced, they became known as 'Datson' or 'the son of DAT,' later changed to the spelling Datsun on account of the word 'son' in Japanese meaning 'loss'.

In 1931 the company was taken over by the Tobata Imono Company, a subsidiary of the Nihon Sangyo industrial combine – nicknamed Ni-San by the business press. In 1934 the name was formally changed to Nissan Motor Company.

Throughout this, the cars were still known as Datsuns and even though the Nissan name came into use for domestic models, exported cars were still badged as Datsun until the early 1980s. At this point, a massive rebranding exercise was undertaken which lasted from 1982 until 1986 when the Nissan name replaced Datsun in all markets. Nissan has recently announced a rebirth of the Datsun name as a Dacia-style low-cost brand for emerging markets.

The Fairlady Story

On the home market, the Datsun and Nissan sports cars were badged as Fairlady right from the start, in 1959. That tradition has been continued up to the present day, with the current Fairlady Z now in 370 guise.

The 240Z was the first S30 form of Fairlady Z, and the first to make an impact on the wider world. It was replaced by the 260Z S30 in 1974 which, unsurprisingly, used a larger 2.6-litre engine. Increased weight meant performance was not any greater, though, and the 2+2 (like the E-Type) compromised its looks for a pair of small rear seats. In America, the 280Z was available with fuel injection, as emissions regulations began to take their toll on power outputs. This was not available in Europe, where 2.6 litres and twin carburettors remained. In 1978, the S130 280ZX took over, by which time more than a million Zs had been built. The 280ZX was a much softer car, more a grand cruiser than a sports machine. Enthusiasts were disappointed, but a further 440,000 were sold in just five years. The very-1980s Z31 300ZX took over in 1983, but failed to generate much of an enthusiastic following. They were just a bit too ordinary, even with turbocharging.

Things changed very much for the better in 1989, with the arrival of the Z32 300ZX. At last, things were firmly back on a sporty footing, with a 300bhp, twin-turbocharged, 3-litre, twincam engine, and even such innovation as HICAS active rear-wheel steering. Sadly, Nissan discovered that pleasing enthusiasts doesn't necessarily result in high sales. In the all-important US market, annual Z car sales dropped from 39,104 with the launch of the Z32 to just 7172 in 1992. Nissan withdrew the Z from America in 1996 and from the UK in 1994. Japanese production lingered on until 2000, but just 164,170 had been sold.

The Z car story was thought to have ended there and then, but the 350Z marked a return to form in 2003 and today, the Z is still alive and well in 370 form.



TOYOTA CELICA FIRST GEN

These early Celicas are fast gaining something of a cult following. We tell you how to buy a really nice one.

WORDS: IAN SEABROOK PICS: CLASSICS WORLD JAPANESE

he easiest way to make a sports car is to take the underpinnings of a humble saloon, add a seductive body and offer a bit more power. This is nothing new. It's a formula MG exploited to good effect in the 1920s, and others were soon to follow – the Ford Capri and Mustang, Renault Caravelle and Fiat 124 Spider all showed what was possible.

Toyota clearly took a lot of inspiration from Ford when it came to the Celica, which is immediately apparent from the styling. These cars always had a bit of a Mustang vibe, the liftback especially, which went as far as to ape the Mustang fastback's rear lights.Under the skin, the Celica is pure Carina, which has massive advantages in terms of parts availability. It also ensures robustness. All UK Celicas had twin carburettors, to liven up performance, though be wary. Some Australian models had a single-carburettor, and only a 1.4-litre engine! In the UK, you're far more likely to find a 1.6-litre engine under the bonnet, in overhead valve or rarer twin-overhead cam form. Later,



there was a 2-litre option with single or double overhead cams.

The vast majority of UK Celicas were the notchback TA22 and (facelifted) TA23, with a few RA28s making it here towards the end of production in 1977. Liftbacks are therefore rare, though quite a few JDM examples have since made it here, including the desirable RA25 and RA28 2000GT twin-cam models.

Celica first-gen production ended in 1977, but there was time for a quick facelift in 1976, which changed the sidelight position on the nose. Collectors have a preference for the earlier type, with the earliest Celicas being most popular of all.

WHAT TO LOOK FOR

BODYWORK: No surprises that rot is a serious issue – it was for pretty much every car in the 1970s, but it did take the Japanese a long time to adjust to the rot potential of salt. In the UK, it's a given, but Japanese roads are not salted, so anti-corrosion protection was minimal.

There aren't many places a Celica won't rot, so chances are, any Celica you're looking at today will have had some restoration work over the years. That means you face a tricky job of assessing how well any restoration work has been done. Certainly, a magnet will be useful – use a thin piece of cloth to prevent it damaging the paint, but check carefully around wheelarches, window surrounds, sills and the bottom of the doors for excessive use of filler.

That said, often, new sills were simply welded over the rotten originals, which doesn't really get rid of the problem. Check panel alignment and fit carefully. Corrosion around suspension mounts is also a concern, and can get tricky to sort out. That makes a recent MOT pass a bit of a bonus, especially as these cars are now MOT exempt. Any serious seller should be happy to put their Celica through a test.

Repair panels are mostly



unavailable, though the occasional section does come up for sale. Thankfully, trim seems a little better in this regard, due to the number of cars broken in the 1980s and early 1990s. A lot was stashed away and as it doesn't degrade particularly, selections of trim do occasionally come to market.

Some Celicas had a vinyl roof, which can act as a moisture trap. It's certainly worth a gentle squeeze at the lower edges of it. In short, don't assume a nice, shiny car is worth the asking price. Check carefully that it really is more than just a paint job.

ENGINE: The running gear of the Celica is pretty hardy, and being based on a humble saloon, parts are easily available. That's not to say that there aren't engines out there in need of a rebuild mind you. Watch for blue exhaust smoke, worrying knocks from the bottom end and overheating. In fact, the reliability of Toyotas can work against them – people feel they can ignore service schedules. Therefore, checking the state of the oil and coolant is very important.

If you know your way around engines, then the need for a rebuild is no biggy. But, if you are going to have to farm the work out, be aware that even a simple engine rebuild can quickly get costly.

TRANSMISSION: Again, the gearbox and differential should be ok, so it's a case of making sure that all gears can be selected without issue and that there are no untoward whines or groans. While a five-speed gearbox was optional for the Celica, it's an option most owners opted for. It brings the revs down at cruising speed, but the



Rot really can get a very good hold of these cars.



Interiors are simple but stylish.





Twin-cam engines rare and desirable.

ratios on first to fourth are pretty much identical, so there's no huge difference in how the cars drive apart from at speed.

STEERING AND SUSPENSION: The steering is by recirculating ball, but should be free of excessive play. Don't believe anyone who says 'they're all like that.' Again, all Carina-sourced, so parts are not a problem. From the factory, the ride height was on the generous side, which is why so many have since been lowerered. There are benefits to be gained as long as the

1600 OHV engine is common, with twin carbs.

drop is sensible and achieved with proper lowering springs rather than by someone who owns an angle grinder. Mix in a set of decent dampers and the handling can be firmed up a treat. The suspension is coil spring all-round, with a solid rear axle.

BRAKES: Again, not much to check here other than that the braking system performs as it should. Check the state of the brake fluid as it's one of those things that (like coolant) should be changed every few years, but rarely is. Once more, there are aftermarket options to boost braking performance, and one delicious trick is to fit a Mitsubishi Pajero master cylinder. This has a larger bore, so offers greater braking performance.

INTERIOR AND ELECTRICS: Finding good interior trim is a challenge, albeit not an impossible one. It can slow down a potential project though, so make sure it's as complete as possible. Check for water ingress too, which will only hasten any corrosion if left to its own devices. Windscreen and window seals can leak as they age.



Electrics are straight-forward but do check that everything works. That shouldn't take long as you're unlikely to encounter stuff like electric windows and central locking, certainly on a UK Celica. Some JDM models may have had a few more toys and given you'll not find replacement parts here, the onus really is there on you to check everything functions.

WHAT TO PAY

Celica values have been rising strongly of late, with the best now changing hands for over £20,000. The very earliest cars, pre-1973, attract a slight premium, as do liftbacks for their scarcity – especially when equipped with twin-cam engines.

You should be able to find a nice Celica for around £10,000, but may find there is some work to do to make it perfect. That said, we've even seen scruffy projects fetching as much as $\pounds 15,000$ on the auction scene, so maybe prices are still on the rise – or it's just typical auction over-excitement. One of the two!

Rough projects will still command £2000 or more these days. Cheap Celica Mk1s are definitely a thing of the past. ■



Rear light evolution. Left shows pre-72 rear, middle is later liftback, right is the 'bubble' rear lamp fitted to most two-doors.

RED HOT SKYLINE

This colourful Skyline attracted a huge amount of attention at JapFest Donington. We uncover the family story behind it.

WORDS: IAN SEABROOK PICS: CHRIS FROSIN

1000

he Datsun Skyline 240K C210 was never a hugely common sight on UK roads, though this writer does remember spotting them on occasion. They sold more than the previous C110 generation, but it still wasn't enough. It was the last serious attempt to export the Skyline to the UK. The C110 and C210 Skylines were effectively evolutions of the Laurel, but with a more advanced rear suspension design (independent by coil springs and semi-trailing arms). The C110 was available here in saloon form, but the C210 only arrived as a two-door, five-seat coupe, always with the L24 overhead-cam petrol engine famously fitted to the 240Z. They were advanced for their day, with all-disc brakes, fuel injection, a five-speed gearbox and standard-fit power steering. That made them pricey, which is perhaps why so few were sold.

UK sales began in 1979, two years after production had begun, but it was

YYU 8321 all over by 1981. While over half a million C210s (and facelifted C211s) had been built, it seems they were a success everywhere but the UK.

Scrapyard save

Modified cars can divide opinion, but one thing always tends to be true. They get modified, they have their moment of fun and then either the modificationss fall out of fashion and the car gets ever closer to the scrapyard, or it is



completely reworked to match the latest trends.

That makes survivors stand out, and while we can't imagine anyone modifying a C210 to look like Kay Rush's example today, this one is all the more brilliant for the insights it gives into another era. It isn't just yesteryear's car, it's yesteryear's modifications too. That candy red ink paint certainly ensures your attention will be dragged towards this car in no uncertain terms.

But, this car was almost lost to time itself. "A good friend of my dad's, Winston Sewell, rescued the car from a



scrapyard," says Kay. "He is very well known for his Rover P5 and Cortina Mk5 drag cars, but he happened to visit Emmins Breakers on Erith marshes one day in 1994, and spotted our car. She was sandwiched in the middle of a stack of cars, and had no wheels."

Winston spoke to the yard owner, put a battery on it and it started first time. "He could hear the bottom end rattling," recalls Kay, "but he did a deal for £125 for the entire car." After repairing some damage caused by other cars in the scrapyard, Winston painted the car with whatever paint he had lying around. "It ended up a sort of sweet wrapper purple," says Kay. "He was just starting to measure it up to become a drag car when a better candidate arrived."



Engine recently rebuilt and engine bay overhauled. Parts supply was a big issue. This coolant pipe was made from scratch.



'No more cars!'

At this point, Kay's dad spotted the car. "He was very taken by it," admits Kay," but my Mum said no more cars! Dad fortunately didn't listen and agreed a deal, buying the car as a present for Mum!" Winston installed a better engine



to Canary Wharf on a regular basis." The car was completely reliable, apart from one short phase. "The car conked out a few times, but once did it outside the house. An auto electrician finally found a fault in the fuse box. It was fine after that."

Sadly, Kay's Mum died in early 1997. "Dad threw himself into restoring the car, including having it resprayed the



RED HOT SKYLINE DATSUN SKYLINE 240K C210



colour it is today. I remember the day we took it to be painted in the summer of 1998. We were about two miles away from our destination when the oil light came on. Dad turned it off straight away and had it recovered to the painters. A dirty oil pick-up in the sump was the problem."

The car was painted in a shed, but clearly it was a good job, as the paint



retains a deep lustre today, 20 years later. "Dad then spent several years enjoying and showing the car, until he felt he could go no further with it. On 9 January 2006, he gifted the car to me. The only modifications we've made is to swap the European 'brick' rear lights for correct-era hotplate lights. We sourced them in Kuala Lumpar. We have had to replace both bumpers too."



Further improvements

But, that was just the start, with further works soon following. "In October 2017, my husband Adrian and I attempted one of the biggest projects we have ever taken on. In a moment of madness, we agreed that we would remov the engine and tidy up the engine bay. It had got to the stage that we were ashamed to open the bonnet at shows."







The Skyline when it first returned to the road in 1995.





The engine was checked over and any faulty parts replaced, but this soon uncovered a big problem. "Sourcing parts was by far our biggest issue. Thankfully, we had lots of helpful people to assist, including Will 'Datman' Lightburn and the GTR Heritage Centre. We couldn't have done it without them."

The scope of the project kept increasing too. "Well, if you're going to remove the engine and gearbox, you might as well replace the clutch while you're there. Then we thought we'd better refurbish the brake calipers, then the brake servo. By the time we

were done, the had replaced all parts and rebuilt the engine with exception of the crankshaft and pistons! We also addressed several rust patches that had started forming on the sills. We took the metal back, treated it and painted the sills black to buy us a little time."

But was it all worth it? "The response we have receive so far to the work we have done has been amazing. Both Ade and I take great pride in the way the car looks and it's great to hear that others really like it too. On 18 August 2018, we took the car to the London Cartel International Auto Show and won a top

25 trophy in the show and shine."

This despite a car which is not quite as perfect as it first appears. "There was some rot in the roof, on the passenger side," says Kay. It was present for these photos, but has since been dealt with. "We dug the rot out and as Ade is a welder/fabricator, he was able to repair the metalwork. Incredibly, we had some of the red ink paint left in a tin. It was still good so he blew in the colour over the repair, and also a spot on the front wing where the paint had been rubbed away. You'd never know there was a repair now."



COLOUR CHANGE?

There was some talk about returning the car to its original shade of blue, or somewhere near it. Happily, such talk has largely evaporated now. "My favourite colour is blue," admits Kay, "but the response we've had is that people love it how it is now. They've also said that it would then feel like a different car. So, we're going to stick with red. We're currently saving up for a full body restoration, but the recent work has bought us a few more years."

I'm personally glad about this, because while a 1990s restoration, there's a distinctly 1970s/1980s vibe to the way the car was completed by Kay's dad. Those fantastic slot mag wheels, with their colour-coding, the candy red paint with gold stripes, it all just works fabulously. I can even live with the orange grille. It brings to mind custom cars of my childhood and I love it for that. It's a car I've been desperate to feature for several months, but I've had to bide my time, waiting for the engine bay transformation to be completed. It's the icing on the cake for what is definitely one of my favourite cars in the scene.



THE CREATON

The Skyline story starts well before Nissan, and is filled with engineering excellence and motorsport success. We take a look at the early years. words: IAN SEABROOK PICS: NISSAN AND CHRIS FROSIN



hink of very fast Japanese cars, and the Nissan Skyline is probably going to be in the mix. They have become one of the finest demonstrations of what power, styling and, latterly, clever electronics can do. There are many generations of Skyline, and most of them were built very much with performance in mind, certainly in the latter half of the 20th century and into more recent times.

Nissan can certainly claim a lot of credit for the way it has managed the Skyline brand, one that still generates huge enthusiasm today, but it wasn't responsible for instigating it. The birth of the Skyline belongs to a company that could be seen as the Japanese Lancia; one which wasn't interested in just copying European family favourites, but which honed its engineering skills to better them. We take a look at the history of the Skyline from the very first saloon in 1957, to the most fearsome of the C10s – the first GT-R.

A forgotten Prince

The Skyline owes its life to the largelyforgotten Prince Motor Company. It's engineers are responsible for the start of the Skyline legend but, when Nissan took Prince over in August 1966, that company allowed the Prince team to carry on working on their own designs. They wouldn't always have a completely free rein, but for decades, it was the Prince team who developed both the Skyline and, surprisingly, the Cherry range. If you've ever noticed any similar styling cues between the two, now you know why.

The early years of Prince take some untangling. The Prince Motor Company was formed in 1952 initially, having begun life as the electric car arm of the Tachikawa Aircraft Company. It bought parts from Fuji Precision Industries, which had also developed from a former aircraft builder. Both companies were owned by the same man, and they were merged in 1954. Fuji Precision Industries was the company name until 1961, when it changed to the Prince Motor Company.

All that detail was in the background with the launch of the Prince Skyline in 1957. The styling had a bit of Hillman Minx Series 1 about it, though both were clearly influenced by America. That means chrome and fins aboy. Power came from a 1.5-litre, fourcylinder engine, producing all of about 60bhp. The Prince engineers were not shy of being bold though, and had opted for De Dion independent rear suspension – pretty radical in a family car for the time, anywhere in the world. All very well, but there was hardly enough power to push such technology to the limits.

Things took a slightly sporty feel with the BLRA-3 Skyline Sport in 1962, with exotic coupé or roadster styling by Giovanni Michelotti. Sadly though, power still came from a fairly feeble 1.9-litre engine. The pulse was not yet racing and a mere 60 or so were built.

The S50 Skyline of 1963 was a fairly
OF A LEGEND



serious overhaul of the Skyline formula, though initially still with four-cylinder engines. Things soon got a lot more interesting however, as Prince installed its new G7 six-cylinder, overhead-cam engine, in a stretched Skyline body, in order to go racing. I must concede that I'm amused by the fact that the G7 was developed into the GR-8 for the R380 sports racing car – a car very much inspired by what follows next.

Porsche-baiting

Picture the scene. It's the 1964 Japan Grand Prix. This isn't a Formula One race, but sees a field made up from all sorts, including MGB roadsters, Datsun Fairlady 1500s and Lotus Elans. There's also a Porsche 904, a rather specialist racing machine. The driver, Shikiba Soukichi, probably assumed he'd have an easy win. He didn't reckon on the fearsome pace of the new Skyline GT-2000, of which several were entered. Despite a rather ponderous handling balance, a gaggle of Skylines hassled the Porsche for much of the race. For one lap, a Skyline was actually in the lead. Japan had not enjoyed much success in its home race until this point. Excitement was mounting. Even though the Porsche did finally triumph, the point had been made. The Skyline was a formidable opponent.

The next Skyline, the C10 of 1968, was designed from the outset to accommodate both four and six cylinder engines, and had much happier styling as a result. The C10 would wear Nissan badges, though the Prince engineers were allowed to keep their engineering focus. Engine options were initially 1.5- or 1.8-litre, four-cylinder, both with overhead camshafts. The boxy styling led to the Hakosuka name tag - hako for box and suka as a foreshortened sukairain, the Japanese translation of Skyline. Some consider that this tag only applies to the really hot versions but, in truth, any C10 qualifies for the Hakosuka tag.

That includes saloons, coupés and

estate versions – now very rarely seen. The Skylines slotted in above the conventional Bluebird. The Skylines were to those what Alfa Romeo's saloons became to Fiat's – family motors with a bit more focus on engineering and performance.

The GT-R arrives

Three important initials were put together for the first time in 1969 – GT-R. Now, things got really exciting as the Skyline C10 was given a new, twin-cam, sixcylinder powerplant. With 160bhp on tap at an ear-shattering 7000rpm, performance was quite remarkable. At first, the PGC-10 was only available as a four-door saloon, but the KPGC-10 coupé followed in 1971, with mean wheelarch extensions and a bootlid spoiler. Fewer than 2000 of these Princepowered 'Hakos' were built.

1969 also saw another six-cylinder arrival, with the 2000GT joining the range. This used Nissan's own L20 engine, which had a single overhead

Profile Skyline 'Hakosuka'



Skyline story starts here with the ALSIS-1 of 1957.



The last fully independent Skyline was the \$50 of 1963.



At the 1964 Grand Prix of Japan, the Skylines had an epic battle with a Porsche 904, and even led the race for a time.

camshaft and a less-lairy appeal. With 105bhp, it still had enough power, but was far better as an everyday proposition. This GC-10 was available only as a four-door saloon, though the KGC-10 two-door arrived in 1971, badged as the 2000 GT-X. This had 120bhp and for 1972 and the final year of 'Hako' production, you could specify the four-door body.

It was on the race track that the GT-R really made a name for itself though. It simply blew the competition away, with its high-revving engine being the perfect soundtrack for such success – over 50 outright victories in just three years. But the Hakosuka really looked the part too. It had very clean, pretty lines, even when covered in spoilers and race stickers. The quad-lamp snout was purposeful, with a hint of frowning aggression. Whereas the saloon had a graceful flare that cuts right through the rear wheelarch, the GT-R coupé boasted mean wheelarch extensions that covered wider rubber. To this very day, it remains one of the most attractive cars ever to wear a Nissan badge, perhaps even any Japanese manufacturer badge.

The motorsport success, fearsome power and good looks help explain why these days, you'll need a lot of money to bag a nice example. RM Sothebys sold a largely original GT-R in 2014 for a staggering \$242,000. That has led to an awful lot of 'recreation's that look the part, but don't necessarily feature the screaming Prince-designed twin-cam engine. Mind you, during the 1980s, a lot of Hakos were customised with all sorts of Nissan engines. Good, original Skylines of this era can be very hard to find.



The GT-R story starts here, in 1969 and initially in four-door form. Right: The KPGC-10 GT-R is considered the ultimate early Skyline



Not what it seems

The 'GT-R' you can see on these pages is one such recreation, though its Nissan L20 engine has been bored out to 3.1 litres. That, allied to some other mods, mean it's currently good for something in the region of 200bhp. It may not be genuine, but it's still pretty neckstrainingly brisk. Since this feature was shot, owner Steven Grove has carried out a mild restoration of this car, which is now white and just as eye-catching. You may notice the odd rust bubble in its pre-restoration form.

The other Skyline is a more faithful. It's a 2000GT saloon that, aside from a brush with the lowering stick and some cheeky stretch on those dished rear rims, is much closer to stock. Current owner Rich Newton of R&R Classics told us, "I love its style and lowness. It's the most unpractical 4dr car I've ever owned." He plans a mild restoration for this one over the coming winter.

With genuine GT-Rs priced way out of enthusiasts' hands, it must be said that even the lesser C10 Skylines are



stretching the definition of affordable somewhat. When you consider the heritage, the styling and the engineering, perhaps that isn't very surprising. In total, some 315,000 C10s were built – compare that with 1.3 million Bluebirds between 1967 and 1971 alone. Yet Nissan still allowed the Skylines to flourish. These cars were never about pure volume – Nissan could generate plenty of that on its own. Instead, the Skylines were about passion, enthusiasm and enjoyment. It would have been all too easy for Nissan to focus on profits and ditch the Skylines as a waste of money. It didn't though, and that has helped the legend to grow and grow. Perhaps Nissan saw the sense in creating a halo effect, much as Ford did with the RS brand, and Mercedes-Benz with AMG. The C10 certainly helped bring Nissan's name to owners that may have otherwise gone elsewhere. Frankly, it's a bit of a shame that the Skylines of this era never made it to our shores officially. After all, if it's excitement you seek, these cars deliver it by the box load. They remain a fine testament to the passion and engineering of the forgotten Prince.



While it's dressed up as a GT-R, under bonnet shot reveals that this 'Hako' lacks the necessary twin-cam engine.

FIRST TIME AROUND

The first rotary engined production car announced to the public came from Japan – and while it wasn't the first sold, it was more thoroughly developed than the NSU Wankel Spyder. We take a closer look at the Mazda Cosmo. WORDS: SAM SKELTON

here was a time when we thought that the work of Dr Felix Wankel might possibly change the world – even though his idea had taken almost thirty years to refine. First patented in 1929, it was while working for NSU in the 1950s that the German engineer made real headway with his design, completing a working prototype in 1957 and offering licences to any manufacturer who wished to use it. NSU formed a joint venture with Citroen, while Mazda took up a licence to develop the engine further itself in 1961 as part of a wider licencing arrangement NSU planned with over ten other manufacturers.

The Wankel rotary engine works differently to the conventional four stroke Otto cycle in that the piston rotates about the combustion chamber to form pockets, in which each of the stages occur. The movement of the piston drives an eccentric shaft, ensuring a continual round-and-round motion rather than the up-and-down motion of a piston engine and crank. It has two primary benefits and two primary drawbacks when compared with the conventional piston engine. It has a smaller capacity relative to its output – which, for many markets, brings tax advantages – though some countries apply a nominal doubled displacement to counteract this advantage. It is also an inherently smooth design, high revving and



precise. However, the Wankel rotary design is also thirstier than an equivalent conventional engine by some margin, and the seals at the tips of the triangular rotor can wear – this being a primary factor in the replacement of rotary engines in cars so equipped when they had depreciated beyond economical repair.

NSU actually beat Mazda to production; its Wankel Spyder launched in 1964; one year after the Cosmo was first announced at the 1963 Tokyo Motor Show, and three full years before the Cosmo Sport's 1967 launch. But the Cosmo had been announced first, and with its striking looks it captured the imagination of the world's press far more comprehensively than any tiny open two seater from Germany could. It had taken Mazda six years from its original licencing in 1961 to refine the rotary engine into something it was happy to use. The primary problem has been witness marks on the inside of the rotor housing – known to Mazda's engineers as "nail marks of the Devil", and caused by weak rotor tip seals. Mazda's solution was to create seals from high strength carbon-infused aluminium.

By the time of the official launch in May 1967, Mazda had carried out almost half a million miles in high speed endurance testing for its new car, proving that the rotary concept could be made reliable. In the first Cosmo Sport models, the engine developed 110bhp, and was sufficient to allow a top speed of 115mph. For an engine which displaced under 1000cc, this would be impressive by 2017 standards, let alone fifty years earlier. In fact, the unit displaced just 982cc, courtesy of twin 491cc rotors.

Eighty pre production cars were built during 1965 and 1966 for testing by Mazda and its dealers, before the car was launched to the public in 1967. These were followed by the first batch - the Series 1 Cosmo, which was built from May 1967 to July 1968. Just 343 of these Series 1 cars were built, also known as the L10A. And it was these cars which earned the Cosmo its reputation as a capable sports car; an overall fourth place in the 84-hour Marathon de la Route at the Nurburgring showed that Mazda had finally made a rotary engine that could go that distance. And it had clothed it



in a work of art; with an E-type aping nose, a rear which owed a debt to the Ford Thunderbird, and elegant simplicity in between, the Cosmo is still one of Japan's most beautiful cars ever.

The Series 2 cars – the L10B – took this formula and built upon it further. A wider track, new brake cooling ducts, a five speed transmission and a brake servo were among the refinements made to what was already a winning formula. Radial tyres were standardised, and an improved inlet meant power jumped from 110 to 128bhp. This nudged the 0-60 time closer to 125mph. Air conditioning, developed for the car by Bosch, became an option – though one which required a shift in thinking. The rotary engine was less prone to driveline shunt than a conventional engine, so could be run in higher gears at lower rpm. At under 1500rpm, the air conditioning unit couldn't generate enough cool air - it was advised to shift down a fear if you got too warm!

Series 2 production lasted considerably longer, and accordingly more were made. While there were just 343 Series 1s, there were 833 Series 2s built between July 1968 and September 1972 – again a low number in automotive terms, but these were hand crafted GT cars and commanded an asking price of almost 1.5 million yen when new. Some of these cars were exported – the United States was a keen market, but just six were imported. For



Houndstooth seating pre-empted 1970s design trends.

export purposes, Mazda revised the name from Cosmo Sports to Cosmo 110S.

The closest rival in period, the best car against which to examine the Cosmo, was the Toyota 2000GT – also launched in 1967 and produced into 1970. Its more powerful and conventional driveline may have made the Toyota the faster car, but with three times as many Cosmos sold it's clear which the Japanese people preferred. The Cosmo represented the dawn of a new age, and its successor, the Cosmo AP of 1975, would build further upon this legacy.

The Cosmo AP was a very different car to that which had gone before, and represented a shift in thinking at Mazda. Squarely aimed at the American market this time, the Cosmo AP was more of a personal car than a GT, with a choice of two body derivatives and rather more brash lines it resembled a junior Mercury





Wankel engine in the Cosmo displaced 982cc from twin rotors.









Cougar more than a continuation of the previous line. Mazda in the mid 1970s had adopted a policy of a dual range – with piston and rotary variants of many otherwise identical models. The Cosmo AP was also known as the Mazda 121. when fitted with an internal combustion engine, and some markets received the Cosmo with RX-5 badging. Mazda had used the same tactic with other models - the RX-2 was a Mazda Capella, the RX-3 a Mazda Grand Familia, and the RX-4 a Mazda Luce, behind their rotary powerplants. Spearheading the range from 1978 was Mazda's new sports coupe, the RX7 – a far more appropriate replacement for the Cosmo Sport than the Cosmo AP could ever have been.

This golden age of the rotary was advantageous because it ensured all customers' needs could be met, while simultaneously offering a comprehensive rotary range which no other marque could match. To this day Mazda is still working with the rotary engine - most recently as part of a hybrid drivetrain in the MX-30 SUV, but most memorably in recent years with the RX-8 sportscar. It also enjoys the distinction of being the only manufacturer to claim victory in the Le Mans 24hr race with a vehicle not using standard reciprocating pistons; the 787B having won in the 1991 event. The story of Mazda may be more than the story of the rotary engine, but without it, the brand would occupy a far

less exciting place in history today.

And we have the Cosmo Sport to thank for starting that bloodline; for establishing Mazda as a manufacturer of rotary engines and for ensuring that Dr Felix Wankel's work was seen as more than a mere damp squib. Just four other production Wankel engined production cars are widely known -Citroen's M35 and GS Birotor, and NSU's Wankel Spyder and Ro80 - none of which survived the 1970s. Lada may have produced a few rotary Rivas for the police behind the Iron Curtain, but even this had fizzled out by 1990. The legacy of the Cosmo Sport was to ensure that the rotary engine saw the next millennium and more.

DATSUN 240

Can you imagine using a 24OZ Super Samuri as your every day car? It's no dream for owner Andy Smith. words: LAN SEABROOK PICS: CHRIS FROSIN

SUPER SAMURI

here are many factors to consider when choosing a daily driver. Usually, these are sensible, boring reasons: economy, reliability and other horribly grown up things. Andy Smith certainly wanted reliability, but he also wanted something he would definitely enjoy driving. The Datsun 240Z seemed to tick the right boxes, but could he find the right car?

OGS is that rare thing in being a Super Samuri that was not originally finished in red/brown (see box out). The owner preferred for it to be finished in its original metallic blue. He also asked for it to be tuned to rally specification, rather than the usual race trim. That meant a milder camshaft, for greater mid-range torque, though the usual Super Samuri mods of triple Webers, gas-flowed head, six-branch manifold and a limited slip differential and firmed up suspension remained.

OGS 123M



The car was completed in 1991, and was one of the last converted by Spike Anderson before he moved to Spain. Three more cars have been commissioned 'officially' by Spike since his move, but there's a fair chance that OGS is the final one converted by Spike in the UK. The first owner planned to use the car for track days, but it seems he only attended a couple. Andy bought the car from a dealer in 2010.

Knowing it would be in daily use when finished, Andy entrusted the restoration work to Martin Ryland of



The restoration was rightly thorough, going back to bare metal and allowing Andy to specify the original two-tone paint of the Samuri Zs. The original Datsun red was topped with Rootes Tango Bronze, with hand-painted coachlines separating the two. The original steel front spoiler was retained, as was the tailgate spoiler. Naturally, a great deal of effort was put into rustproofing the car once it was completed, and electronic ignition was fitted for greater reliability.

The refreshed Samuri hit the road in 2012, with just 18,000 miles on the clock. It has now covered over 75,000 miles, and has proved as reliable as Andy had hoped. "I had the head gasket replaced, because it was beginning to weep a bit of oil. Other than that, the ignition switch failed one day, though the breakdown driver managed to hotwire it so I could drive home. I always carry a spare now."











▲ Triple Webers stay in tune with minimal work.

 Samuri mods include triple Webers and a gas-flowed head.









Andy finds the driving position superbly comfortable.



Roll-cage adds safety at the cost of visibility.



DREAM DRIVE DATSUN 240 SUPER SAMURI

He has since also had the radiator replaced with an upgraded item, complete with two cooling fans. "I can be sat in motorway queues for hours at a time, and I got fed up of nervously watching the temperature gauge climb."

Andy works as operations director for a communications company, regularly commuting between his home in Criccieth, North Wales and the office in Newcastle-under-Lyme, Staffordshire. Therefore, the Z really does see an awful lot of use. He does not own a modern, other than his wife's car. It seems remarkable faith to have in a 40year old car, but perhaps that does a disservice to the Datsun engineers. After all, they built the 240Z with reliability in mind. It's one reason Japanese cars became such favourites during the 1970s.

"I think the rally spec of the engine helps," says Andy. "It isn't all about top end power. It pulls very strongly from low down. That makes it very relaxing. Also, despite the firm suspension, I find it very comfortable. I can get out after hours behind the wheel and feel absolutely fine."

Naturally, corrosion is perhaps the biggest issue when it comes to using a classic for daily transport, and Andy admits to being very disciplined about cleaning the car. "It gets a wash at least once a week, and a full polish every month. Even so, stone chips on the rear wheelarches meant I had to have them repainted last year."

OCS 123



"I have to give it a good thrash at least once a day.

Any other downsides? Well, security needs to be considered given the car could be parked anywhere around the country, and Andy takes it very seriously. Obviously we're not going to discuss how he manages it.

So, where did the love of Datsuns begin for Andy? "My brother and I worked at a Datsun dealer, so I'd occasionally see these cars when they were new. When my dad bought a 240Z, I absolutely fell in love with it. I didn't think I'd ever afford a Super Samuri." That's hardly surprising. Silverstone Auctions sold a freshly restored Super Samuri at the NEC (it was one of three 'Sams' at the show!) for £48,375.

BEHIND THE WHEEL

Amongst modern cars, the 240Z seems almost dainty. That feeling only increases when you slide behind the wheel, and realise how close you now are to the ground. The driving position is very comfortable, with the original seats providing a surprising amount of support. The pedals are slightly offset to the right, but there's a rest for your clutch foot.

The dramatically scooped housings for the dials put all key information in your eyeline, while a bank of extra gauges top the centre console. A slim indicator stalk sits to the right of the steering wheel, while a chunkier item to the left controls wipers and lights.

DREAM DRIVE DATSUN 240 SUPER SAMURI

THE REBUILD







It's a chilly morning as we conduct our test, and Andy demonstrates just how effective the heater is. That certainly isn't something you were guaranteed with a car from the early 1970s.

As we pull away, I'm reminded that the steering is not power assisted. The small diameter of the steering wheel and the wide front tyres do mean you have to use some muscle power at lower speeds. The ride really is firm too. Speed humps must be treated with caution.

Around town, I'm surprised at how tractable it is. Andy agrees. "I almost expected it to be hard to drive



THE SAMURI STORY

The Super Samuri was the work of tuning legend Spike Anderson. He had wanted to use the Super Samurai tag, but that trademark was already in use. That explains the missing A.

The Samuri Motor Company converted 75 cars between 1974 and 1991, though a further three cars were built to Spike's exacting requirements later on, once Spike had moved to Spain. Traction Garage, which restored our featured Z, had a hand in the building of these three later cars. Five of the cars were built

around town." A lot of tuned engines are not happy at slow speeds, but the Datsun's breathed-on L20 pulls readily from 1500rpm. Tiny mirrors and the swooping roofline mean visibility could be better, with the roll cage blocking view even more. From down here, buses and even vans seem very menacing indeed. It's time to find less crowded roads.

Now the 'Sam' really comes alive! Keep your foot down and a lusty growl emits from under the bonnet. As the revs rise, the power grows stronger and the noise all the more enjoyable. It's surprisingly smooth, and not for racing, but most were fast-road specification.

Most Super Samuris featured twotone paint, and most were 240Zs. Three were built using the 260Z as a platform, and one of the final three features automatic transmission. It was built for racing driver Win Percy, who raced 'Sams' back in the 1970s.

All Super Samuris featured reworked engines, pushing power from 150bhp to 190bhp, with braking and suspension modifications to suit. Certainly in Europe, they remain the most desirable of the early Zs.

overbearing in the slightest – though Andy admits to removing a straightthrough exhaust that he briefly fitted. "It was almost painful at motorway speeds," he admits.

That power, all 190bhp of it, is controlled well by the improved brakes and suspension. You can put the car wherever you want, though you do need to respect the power a bit midbend. It feels planted, but hasty throttle application is certain to upset the back end. It's a very responsive engine.

The desire is certainly there to experience the acceleration again. It's almost more for the noise than

DREAM DRIVE DATSUN 240 SUPER SAMURI



the power itself. Andy admits that it's difficult to restrain himself. "I have to give it a good thrash at least once a day. For reliability, I try not to drive like that all of the time."

There's also economy to consider. With three dual-choke Webers, too much foot-down action is going to cost dearly at the pumps. "The best I've managed is 22mpg," says Andy. Frankly, that seems a price worth paying for the entertainment on offer here.

The real magic of the car is that you don't have to redline it to experience the noise and the drama. It pulls so well in the mid-range that you needn't cause every traffic officer to twitch. In fact, the biggest problem is other road uses. Even on our short drive, I find cars trying to race us – often no-hopers in Vauxhall Corsas. Give over!

We return to the urban roads of Worcester, where there is much pottering about in order to capture the photos we need. This is no hardship at all, though speed cameras remind me not to enjoy the performance too much. That's fine. I'm driving a car with looks beautiful, sound gorgeous and is absolutely no hardship to drive at all. As we drive, we talk hard sums. Andy admits that getting the car back on the road was not a cheap business – it was a very thorough job. Since then though, Andy reckons he has spent £2500 on repairs and maintenance. That's not bad for four years of intensive driving! "Even better," he says. "The value of the car has gone up about £10,000 in that time."

So you see? The Datsun Z range makes more sense as daily driver material than you might expect. I've never felt quite so much love for mathematics. Especially, as Andy concludes, "The car puts a smile on my face every morning."

COUNTING THE ZS

Many forget that the Datsun 240Z was only the start of a long dynasty. We track the development of the range through to the end of S30 production. WORDS: SAMISKELTON he Datsun 240Z is, rightly, a legend. It's the sports car that took the MGB and Triumph TR and showed them how the formula was going to work for the 1970s. In Britain it may have had a limited albeit fanatical following, but this car was the one which finally ended Britain's dominance in the US imported sports car market.

But while everyone remembers the original Z car, few people remember the stories of those which followed. The S30 era Fairlady Z, as the 240 series was initially known in Japan, was just the first in a long line of Z-cars. Before the end of the 1970s its successor had arrived in the form of the S130 280ZX. Softer maybe, but a definite evolution of the line.

In Japan the initial Fairlady Z models had just two litres and 128bhp to play with – the 240 model was export only at first, and when that car became 2.6-litres the domestic market kept the 2.0 engine. The engine was effectively a six cylinder version of the 510 Bluebird's four pot, producing 128bhp in 2.0 Japanese specification with a four or five speed manual transmission. The 2.4 engine became available briefly in Japan as the Fairlady 240Z, but owing to its higher tax category it was never a popular model. Producing 148bhp in JDM form, the fuel crisis of 1973 affected sales so badly the model was dropped. Until 1978, all Japanese specification Fairlady Z models would remain 2.0.



The original and pure Z shape – this is Datsun's own 240Z.



240Z

The 240Z, strictly, was an export model from its launch in 1969. Available in Europe and the US as a 1970 model year car, there are broadly two series of 240Z. Early cars, to mid 1971, had a pair of vents in the tailgate for throughflow ventilation, and a chrome 240Z badge o the rear pillar. From 1971, these vents were removed owing to complaints of exhaust gases entering the car, and the 240Z badge was replaced by a Z in a roundel. While most markets received a manual with a manual choke, some markets including America received the 240Z with the option of an automatic three speed transmission. Certain Federal market changes can impact some of the 240Zs imported into the UK, and should be noted - from revised bumpers in 1972,



HISTORY 240Z



2+2 body more successful than other 2+2 coupes, but still not as pretty as the original.



to emissions control devices which reduced power for the 1973 model year cars. These changes shouldn't affect genuine UK supplied right hand drive cars, which are always worth a small premium in the UK.

260Z

For 1974, the 240Z was replaced by the 260Z in all export markets, though the USA only received this model for a single year before its replacement with the 280Z (below). A longer stroke took the engine from 2.4 litres to 2.6 litres, boosting power in markets unaffected by emissions equipment to 165bhp. Manual transmission of four or five speeds remained standard, with an optional automatic.

New for the 260Z era was a 2+2 model, which – like the Jaguar E Type – was not as attractive as the standard sports option. Unlike Jaguar though, Datsun appeared to have made an effort to make the 2+2 an appealing looking prospect – barring a longer roof and more steeply raked rear pillar, the 300mm longer wheelbase was well-hidden. The rear windows opened in order to aid through ventilation, the transmission tunnel was carpeted rather than trimmed in vinyl, but otherwise the cabin of the 2+2 was unchanged by the addition of its pair of rear seats.

The heater controls were clearer, there was a new dashboard, and new seat trim. Under the surface, the chassis rails were larger than on the outgoing 240, giving the chassis additional stiffness which was boosted by the fitment of a rear anti roll bar. For many the 260Z was seen as the dampening of what had been a successful formula in the 240, but the increased power and stiffness resulted in a car that – without the burden of the American emissions equipment – was actually faster than its predecessor. Only in America, where the 165bhp output was reduced by emission controlling carburettors and reduced compression ratio, did power drop – to 139bhp. The American market, however, only had the 260 for one year. For 1975, it would get the 280Z with its bigger bore engine helping to offset the power drop.

280Z

The 280Z model, primarily, sold in the North American market during the period the rest of the world had the 260Z. By boring out the 2.6 litre engine by 3mm, Datsun created a 2.8 – enough, it hoped, to keep the model competitive in the face of antismog equipment. As an interesting aside, Canadian spec 280Zs were not fitted with the anti smog equipment mandatory in the States.

As with the 260Z, 280Zs were available with a choice of two bodies; the standard two seat sports model or the 300mm longer 2+2 body. Both continued to be available throughout the 280Z production run from 1975-1978. 280Zs used Federal impact absorbing bumpers, unlike European and Japanese Zs – longer and deeper than the JDM bumpers, many owners have since converted their cars to the slimmer bumpers seen outside the US. From late 1976 the US finally had a five speed optional transmission; all US



ZG identifiable by sharper nose and wider arches.

Z cars prior to this having four speed manual as standard with an optional automatic. Two special editions were produced, for 1977 and 1978. The Zap was finished in Sunshine Yellow with black stripes and red, orange and yellow chevrons. 1000 were built, including the pace car for the 1977 Long Beach Grand Prix. The 1978 Black Pearl was finished in pearlescent black paint, with window louvres, red and silver striping, and twin mirrors. Production numbers are unclear, though it's believed between 750 and 1500 were built.

Fairlady ZG

One Japanese only homologation special that's well worth charting is the Fairlady ZG – made famous to enthusiasts around the world by its inclusion in the Gran Turismo gaming series. Designed to homologate the modifications for Group 4 racing, they look very different to the base model. First, there's the nose – an extended fibreglass panel, which could also be ordered as a dealer option in the US to homologate the cars for racing there. (Cars so fitted are known as 240ZGs). Fairlady ZGs also had wider wheelarches riveted to the wings, a tail spoiler, acrylic headlamp covers for aerodynamic purposes, and wing mounted rear view mirrors. Unlike the then standard JDM Fairlady Z, the ZG shared its 2.4 litre engine with the export specification 240Z model. Standard Fairlady Zs sold in Japan at this stage still used the smaller 2.0 variant of the engine as standard owing to Japanese tax categories – though the Fairlady 240Z was available for those who were prepared to pay the extra tax.

The changes ensured a top speed





Z432 models used the engine from the Skyline GT-R.

of 130mph, owing to the ZG's better aerodynamic properties. Available only in three colours – Grand Prix White, Grand Prix Red, and Grand Prix Maroon – the ZGs are now among the most collectible of S30 Z car derivatives. From 1972 to 1980, the Kanagawa Prefectural Police Highway Traffic Corps used a ZG which had been donated to it by Nissan. Price new was 1.5 million yen – almost twice the 840000 yen needed for a standard Fairlady Z, but still 320000 yen less than the Skyline-engined Z432 model.

Fairlady Z432/Z432R

The Fairlady Z432 was a Japanese special derivative of the Fairlady Z. Having taken over the Prince Motor Company, it had inherited the Skyline model and in particular, its fearsome GT-R range topper. Nissan saw its 24 valve straight six and decided that a high performance Fairlady with this drivetrain would be a very entertaining prospect. Hence, the Z432 was created. The name might not seem too appealing, but it was chosen with care – it meant four valves per cylinder, three Mikuni carbs, and two camshafts - a name denoting an engine which by the standards of 1969 was highly advanced. This 2.0 six carried the name S20 – bearing no relation to the L series used in other Fairlady models, despite the shared 2.0 size and six cylinder configuration. 158bhp was produced, and 130lb.ft of torque. Approximately 420 were built, some used by the Japanese police as pursuit vehicles.

This wasn't the most extreme S30, however. That accolade goes to the Z432R, a homologation special of which fewer than fifty were made, and which commands a considerable premium on





The revival of the Z car line began with the 350Z of 2002.

the collector market. 100kg was shaved from the weight, courtesy of thinner doors, wings, a GRP hood, and the removal of niceties such as the radio and the heater. Glass side windows were removed too, and replaced by lighter acrylic items. A fixed bucket seat replaced the original, and a 26 gallon fuel tank was fitted. All Z432Rs were painted orange, with black alloy wheels and a matt black bonnet. In 2020, a Z432R sold for well over \$800,000 – three times the value of an equivalent Z432.

The New Era

From 1978, the S30 Fairlady was discontinued, marking an end to a dynasty which had established Japan worldwide as a producer of sports cars to be reckoned with. Its replacement, the S130 Fairlady, was a softer grand tourer, rather than a true sports car. Launched as the 280ZX of 1978, it retained the engine and drivetrain of the US spec 280Z but in a more comfortable, refined package with nicer seats, better sound



deadening and more toys. The sharp edges of the S30 had been rounded off, and while the car remained popular it was with a very different clientele. The Z range evolved throughout the 1980s and 1990s, growing ever more prestigious and comfortable, until the end of 300ZX production in 2000. Two years later, the 350Z would bring the Z car concept back to its roots as a big, powerful sports car targeted squarely at the Porsche Boxster and BMW Z4. ■



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THE DREAM CATCHER

What does it feel like to finally buy the car of your dreams? Rob Connolly found out, though he spent a long time chasing his dream.

WORDS: IAN SEABROOK PICS: CHRIS FROSIN

hat made the Japanese motor industry successful, at first, was taking the best ideas from around the world, but executing them rather more successfully. That led to accusations of simple copying, but that does a massive disservice to the Japanese engineers, who took the good bits, but ignored or bettered the bits that were less good.

The Celica stands as a perfect tribute to this skill. Sure, it's unashamedly a Ford Mustang, scaled down for Japanese and European roads, but it's no pastiche. While the looks are clearly influenced by one of the most successful coupés the world has ever seen, the engineering is entirely different. Where a Mustang features wobbly handling, vague steering and a hideously inefficient V8 engine, the Toyota feels taut, responsive and a whole lot more potent.

DREAM CATCHER TOYOTA CELICA LIFTBACK



Launched in 1970, the Celica was originally a two-door coupé, following the notchback style of the original Mustang - albeit with some unique details, such as the wrap-around front indicators and slightly alarming wheel trims. A liftback version, again influenced by Detroit, was seen as a concept in 1971, reaching production in 1973, though sadly wouldn't reach the UK in original RA25 form. It was available as a single cam (ST) or twin cam (GT), with a choice of 1.6-litre (ST only) or 2-litre. The RA25 GT was exceedingly luxurious for the time, boasting such remarkable features as electric windows and air conditioning. Try specifying those features in a Ford Capri back in 1973! On top of that, the twin-cam engine developed a robust 130bhp (145bhp SAE) - depending on which source you believe. At the rear, a limited slip differential helped get the power down.

For 1976, the Celica gently evolved, with the liftback version becoming the RA28. Changes to the rear lights, bumpers and the nose (slightly truncated) were the obvious updates, but there was also a complete overhaul of the interior. Now, the liftback was available in the



Twin-cam engine uses twin Mikuni-Solex carburettors and sounds fantastic.

UK, in LT, ST and GT forms. It was a short-lived refresh, with a new Celica taking over in 1977 – one that owed far less to the Mustang, and seemed a little underwhelming as a result. This all means that any first-gen liftback in the UK is a rare sight, but an RA25 is especially so.

FINDING THE DREAM CAR

The Mustang connection suited Rob Connolly perfectly. "I have no memory of it, but I apparently was quite fond of the Mustang even as a four or five year old," he explains. "The film Gone in 60 Seconds only bolstered that love. I mean, everyone wants an Eleanor (the star







Twin carbs have very little filtering. Suspension (Right) uses Megan Racing coilovers.

Mustang fastback) don't they? However, the Mustang is a bit big for UK roads. I saw a magazine feature on this Celica 2000GT about two years ago and just knew I had to have one."

Initially, the plan wasn't to buy this exact 1975 car, with Rob spending many a night searching Japanese auction sights rather than sleeping. After several months though, Rob managed to find the actual magazine feature car in Ireland via a lot of forum hunting. "He didn't want to sell the car," Rob says, "I had to do a lot of persuading." This took the best part of two years.

Eventually, in May 2016, the owner

relented. "He offered me the car on the Wednesday, and I was in Ireland with the money on the Saturday." Rob found himself arriving at a house that seemed to lack either a garage or a Celica." He'd actually got the car in his lounge!" Rob recalls. "I knew I was going to buy it as soon as I saw it." Regardless,





Rob took a test drive anyway. "I can't remember anything he said to me. I'd been worried that it might have been horrible to drive, but I was just blown away. It had taken a lot of time and effort to save up, so I forced myself to savour every moment. It was at least ten times better than I'd hoped. It felt fantastic."

ISSUES ONCE HOME

Getting the car home revealed a slight issue. Rob didn't have a garage. "I only lived in a terraced house at the time. Me and my dad would take it in turns to sit in the front room overnight, keeping an eye on it." You can't really call it an obsession until the car starts dictating circumstances in your life, and so it was that Rob and his family were forced to move house – to one with a garage! "For three months until we moved, I ended up storing the car in my mate's unit."

Frustrating times, as Rob wasn't able to access the car that frequently.



Interior is a classy affair, with a high specification - air conditioning was very unusual for the mid-1970s.



Not that there was much to do other than drive it. "In my head, I wanted an 2000GT with the louvred rear window and Watanabe wheels. It already had all that. It really was perfect." The specification also included a rack and pinion steering conversion, with power assistance, and those Watanabes are 9-inch deep dish versions. Under the bonnet, there are dual throat, 40mm Mikuni-Solex carbs while a Nardi steering wheel adds a touch of classic inside. The car has been lowered using Megan Racing coilovers.

Not that there aren't still more improvements to be made. "The car has been repainted in Toyota 308 white at some point, but the engine bay wasn't done at the same time," says Rob. "You can see how minty the original white was. It's quite a different shade. I'd like to get the engine out and repainted, and then have the engine bay sprayed the same colour as the rest of the car. That'll also allow me to have some repairs done to the engine. It seems to be pressurising the cooling system a little, and has a bit of tappet noise."



Rob may also tweak the suspension. "The ride is a bit firm, but I'm worried that if I fit softer springs, the low ride height will become more of an issue. As it is, the exhaust scrapes over speed humps. I love the look of it at this height though."

BEHIND THE WHEEL

Climbing behind the wheel certainly reminds you how low the car sits. Once inside, there's a lot of black plastic, but it feels very classy – somehow much more special than many of its European rivals. The silver instrument panel helps break up the black, and it contains many minor gauges. The seats are comfortable and supportive too, complete with metal eyelets to keep you cool. Along with the factory air conditioning (sadly not currently active), this must have been a very comfortable way to travel. No sweaty backs here.

The engine barks into life, but is refined and pleasant as we manoeuvre out onto the streets of Wigan. Sure, the ride is firm, but it's not actually that crashy, and the steering conversion works a treat. It's not overly assisted, but it is nicely accurate.

The five-speed gearbox is a pleasure to use too, with the lever being ideally placed. Eventually, the traffic clears, and I can really let the engine display its other character. Open the throttle and you instantly hear the induction roar as the carburettors open up. The exhaust growls too, with the soundtrack reminding me somewhat of the legendary Cosworth BD that powered many a rally-winning Escort. It's that same angry sort of a noise that you simply don't get with a modern engine.

Under the bonnet, you can see the intake trumpets of the carburettors – hence the roar. There's very little in the way of filtering to mute the noise. The black crackle cam cover (painted just in time for our shoot) looks fantastic against the red of the HT leads. It looks just like the racing twin cam engines of the era.

It's quick too, though not stupendously

DREAM CATCHER TOYOTA CELICA LIFTBACK

so. With the power coming in fairly low down the rev range, you can enjoy yourself around town without getting into too much trouble, though the most fun obviously comes when you open it up on faster roads. The handling is assured too, though perhaps the power assistance does rob the wheel of a bit of feel.

ATTENTION SEEKER

It's certainly a car that gets plenty of attention, though. Wherever you drive, necks are twisted as folk have to have a look at what you're driving. We're guessing most of them have no idea what it actually is – flummoxed by this baby Mustang with a four-pot soundtrack. The best bit is the smiles. This isn't a car that inspires envy – though it may well do amongst Japanese Car fans. People are just happy to see something so special, and in such lovely condition. It made photographer Chris Frosin quite giddy too. His excitement levels are a useful insight into how well a car will be received.

To be fair, his excitement is justified. There are some astonishingly beautiful details to the Celica – the little vents behind the rear side windows, the way the tail kicks up and those oh-so-pretty tail lights. We went to some effort to try and show them off as much as possible. These are special cars indeed, and very rare too. It is thought there are only three of them between the UK and Ireland. That makes this experience definitely one to treasure. There's something completely captivating about these early Celicas.

To be fair, every generation of Celica has a very different appeal – one that is spot on for the period in which they were new. It must be said though, the first generation is perhaps the most appealing of them all. If this car was not seen as a warning shot across the bows for American and European motor manufacturers, it really should have been.



The first-gen RX-7 was a huge sales success around the world.

The unusual engineering of the Wankel rotary engine scares many people away. Is that fear justified or do these clever engines have plenty to offer? words: IAN SEABROOK PICS: IAN SEABROOK

t's fair to say that Wankel rotary engines have always had something of a bad reputation. Felix Wankel saw the waste in a conventional piston engine, where the piston must stop twice as it goes up and down, and thought it would be so much better if you could somehow capture that power in a smooth, circular motion.

And that's how the Wankel engine works. A triangular rotor constantly spins through an eccentric arc. It never stops and it never reverses direction. The benefit of such an engine is that it'll rev very sweetly indeed, with none of the stresses involved in direction changes. There is no valvegear. There is no head gasket. You also get an awful lot of power from a very compact design. Something the size of a Trabant engine can kick out over 200bhp. Remarkable.

Of course, there are downsides, and this guide is going to take you through some of them. Reliability was certainly an issue to start with, and it led to the downfall of NSU – the first company to put a Wankel engine into mainstream production. Other manufacturers flirted with the design, notably Citroën and Mercedes-Benz, but the only other company to put a Wankel engine into mass production was Mazda. It even took rotary power to Le Mans, where it won in 1991 – the only time a nonpiston engine has taken victory. If such an engine could cope with 24-hours of flat out racing, it rather confirmed that Mazda must be doing something right.

For the purposes of this guide, we'll focus on the RX-7 and RX-8, as they are by far the most numerous Wankelengined cars in the UK. Mazda had the 110S Cosmo in production in 1966, though only 1176 were built. The RX-2, RX-3 and RX-4 twin-rotor saloons, estates and coupés followed, but it was the RX-7 in 1978 that really brought widespread success to Mazda – over 470,000 had been sold by 1985.

WHAT GOES WRONG

There are a few inherent weaknesses to rotary engines. Firstly, they do like to drink fuel at a rather alarming rate.



25mpg is considered quite good going. But the biggest issue is rotor tip wear. As you can imagine, the rotor spins very quickly, so those tips scrape around the housing at quite a speed. Oil is injected into the housing to reduce wear, but that barrier can very easily be broken. A simple misfire can wash the oil away and cause catastrophic wear in less than a couple of miles.

Secondly, the bearings on the eccentric shaft at the heart of the engine can wear. These are simple white metal bearings and while they can last comfortably over 100,000 miles, again any oil supply issue will cause them to fail and again, if you ignore it, the rotors will start to move in ways they aren't supposed to, and can destroy the rotors, the housings and the end plates either side of the housing.

A third issue is that it is very easy to flood a Wankel engine, and then very difficult to get it going again. It's a specialist job to revive one so whatever

WANKEL DO'S

- Change the oil regularly 6000 miles or even 3000 miles if you prefer.
- Keep an eye on the oil level, every second fuel fill at least, if not every trip.
- Let the engine warm up before working it hard.
- Redline the engine every week or so, for an extended period if possible.

 Budget on coil pack replacement (RX-8) every two to three years.

WANKEL DON'TS

- Don't drive on if you hear a funny noise or detect a misfire.
- Don't drive on if the engine management light illuminates.
- Don't turn the engine off immediately after heavy driving.
- Don't use synthetic engine oil.
- Don't expect superb fuel economy.



RX-7 Mkl engine.

you do, you should never ever start a rotary engine, then turn it off again before it has warmed up.

But then, if an engine has low compression, you could find that it won't restart when hot either – a particular issue when you fill the car up with fuel.

WHAT TO DO ABOUT IT

We spoke to Steve Garbutt of MX5 Motors about how to avoid problems with these engines. Says Steve, "These are pretty exotic engines, so you can't just abuse them like an ordinary piston engine. If you're buying one, make sure it's a good one in the first place. A rotary specialist will be able to carry out a compression test."

When it comes to compression, Mazda apparently regards an engine as no good if it has dropped to 6.9 bar, but Steve doesn't agree. "They'll run fine with as little as 6.5 bar, or even 6.2, though hot starting will become an issue. Fitting a faster starter motor (280rpm compared to 250rpm) does help and will cost you about £350 plus fitting."

If the tips have worn to the degree that the engine needs an overhaul, it can get expensive. "Replacing rotor tips and seals will set you back £2500 and it'd be wise to change the clutch while the engine is out. If the bearings are tired, that'll be another £500-700." It gets worse if the housings (£200 each), plates (£200 each) and rotors (£200 each) have been damaged – those latter prices are for good, used items.

So, it really pays to look after these engines, and you must be dedicated about oil and coolant checks. "On the RX-8, Mazda originally specified synthetic oil, but this creates carbon when it gets burnt." This can then play havoc with the internals of the engine, gumming things up. "Mazda changed the recommendation to use 5w30 Dexelia mineral oil, though most

<image>



The rotor spins in this housing, hence rotor tip wear is an issue.

specialists recommend using 10w40 mineral oil. This lubricates the rotor tips far better."

Coolant is an issue too. On the RX-7 in particular, Steve recommends the fitting of aftermarket gauges. "The one in the car tends to look fine until all of a sudden it shoots into the red and your engine is dead. If it overheats, the plates warp and the engine needs a rebuild."

The other thing to remember is to be gentle on the engine both when warming and towards the end of a journey, especially with turbocharged engines. "Because they spin so freely, people are tempted to thrash them from the off."

Regular servicing is key too, with oil changes never more than 6000 miles apart. Check the oil level before every trip, because the level will drop. Like a two-stroke engine, some oil is burnt to lubricate the engine but unlike a twostroke engine, this is taken from the main sump. Mazda recommend checking the level at least every second fuel-up. It will



An end plate from an RX-8 – note the inlet and exhaust ports to the left.

go down far quicker than a conventional engine. Incidentally, RX-8 sumps can also rust.

The other thing is never try to drive through a problem. "If there's a misfire or you notice an odd noise, stop as soon as possible and get recovered," recommends Steve. "Even trying to limp to a safer place can destroy an engine."

Worn bearings will grumble and knock, but as long



This is a cutaway of the RX-8's Renesis engine.

as you turn the engine off ASAP, it isn't necessarily an expensive fix. "You can drop the gearbox and replace the rear bearing in-situ. We'd charge £300 for that, though the engine has to come out to do the front bearing, which would be more like £800," says Steve.

The RX-8 has other issues too. "They're the most problematic of them all," reckons Steve. "Coil packs, crank sensors




astonishing performance typified the RX-7 third gen.



Low values mean many RX-8s have been scrapped. A shame.



Sill rot is a major RX-8 issue.

- we get a lot of problems." Given how destructive failed coil packs can be, when you recall what a misfire can do to these engines, Steve reckons it's a good idea to change the coil packs every couple of years. "If you budget on £250 for replacement every two to three years, it'll save you an engine."

Remember also that the spark plugs are £50 for a set of four, and change the coolant every three years. "Corrosion due to ignored coolant change destroys engines, especially the RX-7," says Steve.



Rust tends to start on the arches.

Another issue on RX-8s is leaks from the oil feed pipes. That's another way of destroying an engine as a leak will soon see the oil level drop to critical levels.

Above all, Steve recommends that you regularly exercise these engines. "It's actually good to redline them," he confirms. "They don't handle lower revs very well. Every few weeks, take them to the redline, even if that means driving on a motorway in a lower gear for a bit. I'd also recommend regular compression checks."

NON-ENGINE ISSUES

Aside from engines, the biggest issue is probably corrosion – on any Mazda and RX-7 or RX-8. On the RX-8, sills rot readily, and corrosion can also set in on the bootlid and around the rear arches. They don't do a very good job of hiding it, so it is at least easy to check. RX-7s, especially early ones, corrode pretty much anywhere that steel is involved, which is why you rarely see one these days.

Watch for steering issues too. On the RX-8, the assistance is electric. Dodgy earths can cause it to fail and become very heavy, but there's also a CV joint on the column which can seize. "There's no gaiter on it," says Steve. "We just try to pack them with grease. If the joint has started to seize, the steering will feel stiff."

One last thing if you're considering an RX-8, the vehicle tax can be very expensive. Check before you buy!

ON THE PLUS SIDE ...

There's a lot love out there for these engines and there's a ready bank of specialists to help you keep one in top order. An RX-8 could be a genuine bargain, you can get one for less than £1000, but you must factor in some budget for upkeep, and be prepared to look after it. Even if you spend more, it'll definitely be worth your while getting it properly checked over by a specialist.

Buy a good one, and you could find yourself with alot of fun for £1500-3000. These cars were regularly praised by the motoring press and nothing drives quite like a car with a rotary engine. In a world where cars are increasingly samey, the RX-7 and RX-8 really stand out. Remember to cherish it like a classic, and only enjoy the upper echelons of the rev range once the engine is fully warmed up. Keep on top of maintenance and a Wankel-engined Mazda could provide many years of enjoyment. ■

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BUYING GUIDE MAZDA RX-7

Tempted by Mazda's first RX-7? Here's what you need to know to get a good one.

aunched in 1978, the first generation RX-7 was the car which arguably brought Mazda to Europe. Known as the SA22 or the FB depending on era, Mazda produced the RX-7 until 1985 – proving that the rotary engines Citroen and NSU had experimented with as Comotor could be made to work. Mazda's first serious sports car, it begat later and sportier RX-7s, the RX-8 and even arguably the MX-5. Its smoothness and its well balanced chassis make it a firm favourite among Japanese car fans today, and makes an interesting alternative to a Datsun 280ZX.

BODYWORK

Rust is a major problem with the RX-7, as with many Japanese classics of the 1970s. Check around the rear arches, rear quarters, sills and chassis legs in particular, as the rear end can be affected by trapped mud and the sills and chassis legs are structural components of the shell. Before raising the car with a trolley jack or twopost ramp, make sure the metalwork (e.g. a sill or chassis leg) is not going to collapse due to corrosion. When underneath, thoroughly check the condition of the floors. Footwells and the area under the rear seat should be of particular interest – while looking at

the footwells, check out the windscreen corners too as these can rot out and let water in, which eventually rots the floor. The inner wings are known for rust too, so open the bonnet and have as good a look as you can.

Repair panels are available for most of the RX-7's bodywork, although in cases such as a rotten chassis leg, home made panels may be cheaper to fabricate than to source and buy new.

ENGINE

The Wankel rotary engine had already been fitted to the NSU Ro80, the Mazda Cosmo and the Citroen GS Birotor. What was set to be the engine of the future, sadly failed due to high fuel consumption and emissions when compared to a conventional four-cylinder in-line combustion engine. Perhaps the biggest success story for the rotary engine has been with Mazda's RX-7, which was launched in 1978. It had what was known as the 12A rotary motor fitted, which featured two rotors that each displaced 573cc, giving a total of 1146cc and boasting 105bhp at the flywheel.

The RX-7 engine was in fact classified as a 2.3 litre, owing to conventions which effectively doubled the capacity of a combustion chamber for rotary engines. When in 1984, the 13B was



fitted to the RX-7 complete with fuel injection and now with 654cc for each of the two rotor housings, the engine classification rose to 2.6 litres or 2616cc (this engine was first introduced in the RX-4 in 1974, but was not available in the UK).

If you're looking at a 12A engined car, inspect the engine thoroughly. Rotor housings aren't available new from Mazda and it can be hard to find good used examples. If you're looking at a car with a dead engine, a later 13B car be swapped in. Oil leaks from the crank seals are a known issue with these engines, as are the rotor tip seals – which are available but definitely a specialist job to fit. A little two stroke oil in the fuel can prolong rotor tip seals, and it's beneficial if previous owners have done this too. Oil pressure should be 60psi at 4000rpm, and make sure the levels are good as the oil is responsible for about a third of the overall engine cooling. Unions on the oil cooler can crack, causing losses. Oil changes every 3000 miles are needed – smoke is usually worn oil control seals, unless it's white where coolant is passing the ring squares. This is bad news – a rotary







All RX-7s use Mazda's rotary engine family – the 11A or 13B series.



head gasket failure equivalent.

The exhaust system is quite robust, although with the excessive heat generated by the rotary engine the stuffing inside the rear silencer can get blown out, resulting in a noisy system.

TRANSMISSION AND SUSPENSION

The rest of the Mazda RX-7 is more conventional. Its front suspension consists

of MacPherson struts connected to the hubs and a lower arm (via a ball joint), with a tie-rod and an anti-roll bar. At the rear, there's a live axle with anti-tramp and roll bars, Watts linkage, Panhard rod and separate springs and dampers. The brakes are servo assisted with vented discs all round and single piston calipers.

Suspension checks are quite straightforward to complete. A waggle

of the road wheels with either the vehicle raised up on a two-post ramp, or one corner at a time with the car supported on axle stands, will help to detect play in the wheel bearings and suspension bushes. At the rear, the wheel bearing is part of the halfshaft assembly and contained inside the live axle. It's lubricated by oil inside the axle and there's no hub nut to undo. If the car has



stood for a long time, the halfshaft oil seal can become flattened and oil will seep out. This is not a major problem unless the oil contaminates the brake disc and pads.

Some play in the wheel bearing is acceptable, but there is no way of tightening anything to take up the play. So if it's excessive, often the only answer is to renew it. The front wheel bearings are more traditional and some play is allowed. The hub nut should not be over tightened, as this risks damaging the wheel bearing by overheating. Front lower balljoins can wear and these are available – bushes are a known issue but polybush kits are available.

Look for leaks from the suspension

dampers or dirt and an oil residue. At the rear, the separate damper can be replaced or upgrades to coilovers are available. At the front, new MacPherson struts are available, or damper inserts should you wish to dismantle the struts.

The RX-7's steering is a little agricultural, consisting of a steering box operated via a series of link arms, an idler gear and Pitman arm. Some linkages will have grease nipples, so pump a small amount of multipurpose grease through them, but don't let it ooze out as it may damage the seals. Grab the steering idler (located underneath on the nearside) and waggle it to check for excessive play. With the front wheels on the ground, ask someone to move the steering wheel while you inspect the steering linkage for play. The steering box can be removed and checked or serviced, but it has to be removed from underneath the car. Dead steering feel suggests it's been overtightened at some stage, which is bad news and could mean a steering box rebuild is necessary.

BRAKES

The brakes are straightforward to strip and clean, which ensures the slider bolts that help operate the outer brake pads remain in good working order. Not only can the slider bolts seize, but the top and bottom edges of the brake pads can also become stuck in the brake pad carrier (also known as the caliper carrier), so

BUYING GUIDE MAZDA RX-7



Trim can be hard to source in good condition – get a good interior.







been rising, as the model's rarity and popularity grow. With a limited selection of cars out there, we'd advise not being too choosy about things such as colour or trim.

VERDICT

People would typically buy an RX-7 as a Japanese alternative to cars like the Porsche 944, or a bigger brother to something like a Toyota MR2. They want the wedge shape, and perhaps would be interested in the smooth and free-revving nature of a rotary. If that's you, you'll love the RX-7 – it's got a brilliant chassis, good weight distribution – and it's handsome in a square jawed 1970s way. We certainly won't stop you buying one. ■

it's worthwhile removing the brake pads, then cleaning and greasing (use a tiny smear of copper grease) the backs and top and bottom edges of the brake pads, but not the braking material.

The handbrake mechanism is a mechanical system that operates the rear brake pads.

The handbrake assembly attached to the rear calipers is prone to seizing, so make sure it's lubricated and clean. Also, the rear calipers can leak brake fluid, so inspect regularly and keep them clean.

INTERIOR

Trim can be hard to source in good condition, so buy a car with a good interior if possible. Fortunately the velour is hard wearing, and the dashes rarely crack – any cars with the optional leather interior can be retrimmed by a good trimmer. Seats can collapse, as these cars age, and can be difficult to replace with original seats in the same trim. Cars with as many options as possible are typically the ones people will want to buy, and while electric window switches can burn out there's not an awful lot else in the cabin which can let an RX-7 down electrically.

WHAT TO PAY

£8000 will still get you a reasonably nice MK1 RX-7 if you can find one, while you'll be able to get into something usable from around £5000. Values have

THE SKYLINE EVOLVES The second part of our Skyline History takes us through the 1970s

and 1980s. Sales go up, but the GT-R fades away. words: IAN SEABROOK PICS: NISSAN

The C110 'van' curiously lacked the rearmost side windows you'd normally expect in an estate car.



ollowing on from the Skyline C10 'Hakosuka' was never going to be easy, yet that was the challenge faced by the Skyline C110. Nissan would not use the C110 for motorsport, so there was no legendary track-based hero worship for the C110. Yet, it went on to sell nearly twice as well as the 'Hako'. How did it manage that?

One key to this model's success was a very strong television advertising campaign, featuring a handsome couple – Ken and Mary. So strong was this marketing push that the C110 is still known today as the Kenmeri. Sorry if you thought it translated as something more exotic, but you can watch several of the adverts at www.bit.do/RJkenmeri

The C110 itself was the final evolution of the original Prince design, and was launched in 1972. The styling had more than a little Laurel about it, albeit with those distinctive folded body sides, but the



The C110 GT-R still had plenty of power, but only 197 were sold.

Skyline remained more advanced under the skin, with independent rear suspension rather than the live axle on leaf springs of the Laurel saloon. Under the bonnet, engines options were Prince-developed four cylinder, or Nissan's own L20 sixcylinder, with the L24 available mostly for export markets. Those export markets certainly helped boost the sales figures, with the C110 selling well in Australia and the US. It didn't quite hit the mark in the UK though, where it was sold as the Datsun 240K. Sales were so slow that it was removed from sale in 1975 and genuine UK-market 240Ks are now very much a rarity.





There was still a distinctive swage line over the rear wheels, maintaining Skyline tradition.





There was a fiery GT-R version and, like the Hakosuka GT-R, it used the Prince twin-cam, six-cylinder engine. The same lairy wheelarch extensions left no-one in doubt about the performance, but with no racing back up, it was a model that really struggled to find buyers. Just 197 were built before the GT-R was shelved in 1973. We wouldn't see another GT-R for 15 years.

Again, there were estate versions of the C110 available, as well as a four-door saloon and two-door coupé. Production ended in 1977, with over 670,000 units sold. Some of the sparkle may have gone, but this was a highly successful car worldwide.

The C210 takes over

The Prince influence was slipping by the time the C210 arrived in 1977. Now, the Skyline shared much of its structure and engines with the Laurel. The new Laurel had all-independent suspension at last though, so perhaps that was no bad thing. There wasn't a Prince engine to be seen now, with all engines stemming from Nissan's own range. That



meant L-Series (Z-Series from 1978) 1.6-litre, four-cylinder power for the most humble Skylines, with the six-cylinder L24 topping the range. There would be diesel options this time though, with the six-cylinder LD28 offering a mixture of reasonable power and improved economy.

In Japan, where the L-Series petrol was only available in 2-litre form, there was great excitement when a turbocharged model became available. This was the GT-EX, launched in 1980, by which time the C210 had received a facelift to become the C211. The turbocharged Skyline story therefore begins here, even if power levels were still relatively modest – around 145bhp. You can spot a C211 by its rectangular headlamps, replacing the earlier quad, circular units.

In the UK, we only got the 240K GT, with the larger L-Series engine and chunky rear lights in place of the JDM version's circular lamps. It was unusual in being a two-door, three-box design that featured a rear wiper. Sadly, sales never really took off, and the 240K was always





R30 Skyline 2000GT turbo hatch From 1982, the R30 Skyline could be specified in hatchback form.

a rare sight. On the whole, sales of this generation of Skyline were off the pace of the C110, though still higher than the C10 'Hako'. It was enough for Datsun UK though, and the end of the line for officially imported Skylines on our shores. Fortunately, this was far from the end of the Skyline story.

RB30 - putting the fun back in

From 1981, the Skyline RB30 took over. The 240k nametag had been dropped, so all models were badged Skyline, regardless of where sold in the world. UK sales may have ceased, but Australia still proved to be a key market. Again, the Skyline was Laurel based, this time



The styling tweaks and a sleeker of the Turbo RS-X were referred to as The Iron Mask.

the C31 incarnation.

The two-door coupé and four-door saloon remained available, with a long range of engine options. An estate was also still part of the range, but only with four-cylinder power. That said, all versions shared the same length nose now, so if you fancied installing more power in your load lugger, it shouldn't be that difficult. That said, none of these Skylines are particularly exciting to look at. Sharp lines ruled the roost, with curves definitely seen as a thing of the past. They're almost a bit dull.

From 1982, a five-door hatchback joined the range, though perhaps more excitement was reserved for the 2000RS, which was launched late in 1981. This stripped-out model used a new FJ, twincam engine to produce 148bhp. Twotone paint and a mild bodykit hinted at the power. From Febuary 1983, this was joined by a turbocharged version, the RS-X, which produced 188bhp. You could spot one very easily thanks to the wheelarch extensions, lairy side stickers and the 'Iron Mask' snout – slimmer headlamps and a grille almost entirely blanked off.

These twin-cam versions were known in-house as DR30, and the RS-X instantly became the most powerful Japanese car then on sale. The Skyline story was starting to get properly exciting again.



The confusingly named Skyline RS-X Turbo C was the homologation model for racing. It packed nearly 200bhp.





A mean bodykit left other road users in no doubt about the GTS-R's thundering power.

Perhaps that was because Nissan was beginning to flirt with motorsport again. Perhaps it realised that its products were often seen as a bit dull. It knew it needed to show that it could produce entertaining cars too.

An even more powerful version, the RS-X Turbo-C, was quickly homologated for use in the All Japan Sports Prototype Championship. The road-going version kicked out around 200bhp. Nissan also chased glory in the Australian Touring Car Championship, winning the manufacturers' championship in 1986.

Sales were still dropping away, to just over 400,000 of this generation, but the halo effect was proving worth it. It was time for another new version.

R31

The last makeover in this part of the history saw the Laurel C32 platform again shared with a new Skyline. On the face of it, not an awful lot had changed, but there were important developments under the skin. Yes, the fabled RB-series of engines had arrived. There will be an awful lot more about these engines in the next episode of this story, but suffice it to



The legendary RB engine series starts here. Twin cams, fuel injection, a single turbocharger.

say that even the lowly 2-litre non-turbo boasted around 130bhp.

The styling was a little lower, and a little wider than the R30, though it remains quite clearly an evolution of that model. Big changes were that this was a Skyline built outside Japan, with production set up in Australia and South Africa to try and get around import quotas. Of course, the hottest versions were still built in Japan, with the GTS-R being the homologation special for racing. Power was now over 200bhp in road trim, though racing versions could develop a fearsome 430bhp. The time for big power had arrived, and a huge





A mean bodykit left other road users in no doubt about the GTS-R's thundering power.

range of options sprang up. From basic RB2OE in single-cam form, through a turbocharged version of the same, up to the legendary twin-cam RB2ODET that would form the basis for all the excitement that is yet to come. That's D for double-overhead camshafts, E for fuel injection and T for turbo. Nissan was fast carving itself a new legend, and after a few years in the doldrums, the Skyline name was really making an impact.

In Australia and South Africa, capacity was substituted for turbo power, with 3-litre versions of the RB engine providing around 190bhp in Silhouette GTS 2 form. Australian race Skylines still had turbo power though, with a GTS-R taking victory in the 1989 Sandown 500 race.

These Skylines weren't just about power though. The R31 GTS coupé could also be specified with Nissan's new HICAS rear-wheel steering, which would be a key feature of the new Z32 300ZX. This gave up to ten degrees of rear-wheel steering, to boost handling.

R31 production actually ceased in 1989, after just four years on the market. That made it the shortest-lived of the Skyline generations, though some 300,000 units were still sold in that time. Really though, the excitement was reserved for the saloons and especially the coupés, which would have a big impact on the development of the next Skyline.

Motorsport helped promote the Skyline, and led to the development of fiery road cars.



DOME ARIGATO

The Dome Zero was arguably Japan's first supercar. We tell its story. WORDS SAM SKELTON

he story of the Dome Zero is one of the automotive industry's missed opportunities; a sports GT built by a racing company fourteen years ahead of the McLaren F1, and a supercar for Japan over a decade before Honda unveiled the NSX. However, a failure to homologate the car for Japan or for other markets meant that just three roadgoing prototypes were produced.

The project began in 1975, when Minoru Hayashi decided that the Japanese automotive industry needed a supercar which would use elements drawn from the world of racing. Hayashi wanted to enter the Le Mans 24hrs, and planned to sell roadgoing versions of the car to fund the racing programme. Prototype development began in 1976, and the finished prototype was completed by 1978.

It used a Nissan engine – a 2.8 litre six cylinder from the Nissan leopard and the Datsun 280ZX. This L-series six cylinder developed 143bhp and 146lb.ft of torque – small fry by today's standards yes, but enough for a car which weighed just 920kg to offer Porsche-rivalling power to weight ratios. Double wishbone suspension, a five speed ZF box and disc brakes on all four corners meant it had the chassis to match its engine.

Shown at the Geneva Motor Show in 1978, it was an instant hit with press and public. The design of the body was licenced to several toy manufacturers at this stage, earning the company funds it could use to develop the Zero into a production reality, expand its headquarters to a new office in Kyoto, and invest in further racing developments. 200 applications for commercialisation of the Zero were received, and the income of 1 billion yen this yielded would do much for the firm's finances. However, as the company was unable to get the Zero homologated for Japan, the project stalled. History does not relate exactly why the Zero was not up to standard for Japanese homologation, but unlike larger manufacturers Dome didn't had the time or money to invest in the project as thoroughly as companies like Nissan and Honda. The Zero wasn't up to scratch, so another way to make the car had to be sought rather than wasting time solving its problems.

Enter the P2 – Dome's unorthodox solution. It was felt that by homologating the car for the US market, it would stand a better chance – as the US cars could then be grey-imported back into Japan if enthusiasts were sufficiently keen to do so. This would circumvent the need for the Zero to undergo the Japanese homologation process. Dome U.S.A. President Masahiko Kaneko told Road and Track magazine that he expected up to 50% of Domes sold in America would be re-imported to Japan.



The P2 wore larger crash resistant bumpers, and had a different front lighting arrangement which made it look significantly different to the original. Two prototypes were made, one orange and one green – with the same Datsun 280Z engine as the original Zero, though it was reported that Toyota and Nissan turbocharged sixes were being considered for production cars. Shown at the Chicago and LA Motor Shows, reactions were positive. A positive review by Road and Track helped too, as did the scores of toys of the original Zero in childrens' toyboxes or display cases.

According to Road and Track's September 1979 issue, Dome had planned to build just thirty cars over a three year period. And it felt that the concept was feasible in terms of production, too. Its styling was likened in favourable terms to that of the Lamborghini Countach, though with a little more polished precision. Quality was there too, from panel gaps to paint finish the Zero P2 offered on test was



SUPERCAR: DOME ZERO

an impressive machine. Dome made use of several parts it sold separately to enthusiasts in the interior, including the steering wheel – though some parts bin items could be found too. "The car felt very much unlike a prototype. In fact, there are production cars out there that exhibit considerably more rattles, clunks and the like than those sensed in the P-2."

The magazine was less complimentary about the tactile surfaces, feeling that the handbrake and gearlever represented style over substance, and that the gear linkages were less than precise. Indicators powered by proximity switches the driver waved at were straight out of the world of science fiction, and the cabin space was ample for shorter drivers but tight for taller enthusiasts.

The mechanical partsbin included a Honda Accord steering rack and Subaru brake calipers, though operating on Dome's own discs. Unequal length A-arms and coil springs all round, with front and rear anti roll bars, ensured predictable handling. Toyota Cressida halfshafts took power to 14" rear wheels – the front having 13s of narrower width, but the same profile. The wheels were to be made available to the public, even if the car eventually was not.



Road and Track's driving impressions showed positivity too. It was quick, with 60 appearing in 7.6 seconds, and a auarter mile recorded at 16.1 seconds. Dome claimed 14.5 seconds from a car which had been run in. Handling was deemed predictable, though with the likelihood of snap oversteer at the limit if you were pushing too hard. Steering was said to be light, though the pedals were each judged to be stiffer than average. The brakes were good, but would lock in emergency stop situations, and it was felt some work would be needed. Visibility out of the car was said to be poor, in no small part due to a tight glasshouse which afforded no room to look behind. This meant reliance on the mirrors – convex mirrors – rather than judging distance accurately. The

intake and exhaust, Road and Track felt, put one in mind of Lamborghini's V8 as much as any six cylinder. Overall, it felt that the car's chances were high, and the review was positive if not effusive.

It was believed that the P2 would retail at around \$60000, but ultimately the project failed through an inability to homologate even the P2. With two cars built, Dome concluded that the road project was a waste of resources it didn't have and that it should concentrate its efforts on the racing circuit.

The Zero RL racing project was intended to publicise the road cars and to earn capital from investors, and to realise Dome's Le Mans ambitions. The car that resulted used a different engine, and courtesy of different dimensions



SUPERCAR: DOME ZERO







One of two Dome Zero P2 prototypes, developed for the US market.

it's unclear how much of the Zero road car remained beneath the skin. The Cosworth DFV V8 was fitted into a twin tube aluminium monocoque, with a long body and narrow track. In addition to the engine and chassis differences, the body appeared substantially different to the Zero road prototypes.

Third fastest in practice at the 1979 6 Hours of Silverstone, the Dome Zero RL finished 12th of 13. This was its most respectable showing – in the 1979 Le Mans 24hrs two RLs were entered, and both failed to finish. The car was revised for the 1980 event, but failed to finish once more. Undeterred, Dome revised the car further for the 1981 Le Mans 24hrs race... where it failed to finish. Investment was slim pickings by this point – the projected wins and publicity hadn't materialised and nobody wanted to be seen pumping money into a company whose product had set a low bar for itself. The Zero project was over, though Dome did continue to race with models from other

manufacturers.

Hayashi didn't stop here though, because the following decade he was involved in another roadgoing supercar project. Bankrolled – oddly – by a lingerie manufacturer, Hayashi created the Jiotto Caspita as part of a consortium in which 60% of the project was held by lingerie company Wacoal, and 40% by Dome. Looking much like the subsequent Jaguar XJR-15 and drawing inspiration from Group C racers, the first prototype featured a

Hayashi's next supercar project, the Jiotto Caspita, also failed to make production.

Subaru flat 12 designed for Formula 1 racing, while the second used a Judd GV V10 developed in Britain for the same sport. This was because Subaru no longer wished to provide engines after a disappointing 1990 F1 season, and was ultimately what scuppered plans for a production run of 20 Caspitas. Minoru Hayashi's road car venture was finally over – though the flat 12 engine would eventually also be used in the second prototype of the Koenigsegg CC.

Of the three Zero prototypes built, all three remain in Dome's ownership – with the silver Zero and orange P2 making frequent appearances together at shows around the world. Dome has also retained the second Caspita, which resides with the Zeros in its own museum. It seems a shame that the circumstances were never right for this, Japan's first attempt at a supercar, to come to fruition as anything more than a toy or a forgotten prototype on a video game. After all, with racing expertise and a strong visual concept, it's clear from the period reviews that the Zero had what it took to sell. The problem was getting the legal green light for a concept which required investment to which Dome simply didn't have access. Sadly, the Dome Zero remains a tantalising what-might-havebeen – Hayashi tried once again to bring Japan its first supercar a decade later with the Jiotto Caspita, but the first Japanese supercar to make it to production was the Honda NS-X.

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ISUZU 117

Fiat Dino looks with Japanese reliability? The Isuzu 117 deserves greater recognition. WORDS SAM SKELTON

t's unusual to think of a sports car or coupe with a diesel engine. In Europe, we forget that cars such as the Mercedes 300CD existed in the 1980s, looking instead toward cars like the Peugeot 406HDi Coupe as trendsetters in this market. It's a surprise to many then to find out that in Japan, such a car was available in the 1970s. It was a variant of this car, the Isuzu 117. Now if you think that Isuzu is solely a manufacturer of off road and commercial vehicles, think again. While it's true that the majority of UK imports have been Troopers, we did get the Piazza Turbo coupe in the mid 1980s. That car

was a replacement for the 117 Coupe, launched in 1968, produced throughout the 1970s and discontinued in 1981.

Ghia first presented the 117 Sports at the 1966 Geneva Motor Show, later showing it at Tokyo the same year. It was a styling concept based upon the Florian saloon, created by a young Giorgietto Giugiaro. The idea from Isuzu's standpoint was similar to that of the Nissan Silvia. It didn't matter if customers wowed by the new halo car only bought a Bellett once they were in the showroom, the fact was that they'd bought a car and that boosted sales regardless of the model chosen. Isuzu was the only Japanese manufacturer not fielding a car in the important kei-jidosha segment, feeling itself too upmarket to cater for such runabouts. The 117 Sports – or 117 Coupe as it would be known once in production – epitomised that perception of market position.

For the 117 Coupe, Isuzu had developed a new twin overhead cam variant of its overhead valve G series engine, called the G161W. Displacing 1.6 litres, this engine produced 118bhp, and could also be seen in the limited run Bellett 1600GTR. In early examples, this engine was mated to a four speed manual transmission, with five speed



manual and optional three speed automatic following later in the car's production run. Coil springs and double wishbones were used at the front, but the rear utilised leaf springs and a live axle rather than an independent setup. This was largely lifted straight from the Florian saloon with which it shared the 117 development code, as was the recirculating ball steering. A series of thirty early cars were fitted with the C190 2.2 litre diesel engine – something Isuzu would return to for production examples, but only from the third generation model.

The first series of 117s was hand



The Ghia 117 Sports concept, from which the Isuzu 117 was developed.



built – Isuzu's presses couldn't handle the complex shapes, so panels were stamped roughly, lead loaded and filed to achieve the necessary shapes. This was a costly process, but the only way that Isuzu could produce the car without making use of capital investments it simply didn't have at the time. Even then, they couldn't quite match what Ghia had created, so the striking, flowing lines were toned down slightly for the production cars. Just fifty per month were envisaged at first, and only two colours were standard (Astral Silver and Primrose Yellow). If you ordered in advance however, the factory



would paint your 117 in any shade from the existing Isuzu colour palette.

Standard equipment by the standards of the day was extensive; the 117's appurtenances of fine living included leather seats with headrests as standard, and a dashboard trimmed in Taiwanese camphor laurel. Rear seat passengers were well catered-for too, with dual ashtrays and heater vents for those in the rear as well as the front.

Toward the end of 1970, two new models were introduced. The EC brought electronic fuel injection to the 117, resulting in top speeds in excess



of 115mph. For tamer drivers, a 1.8 litre single cam variant of the engine was offered with twin carburettors – this forming the basis of 1971's 1800N. That car was a lower priced 117 pitched as a value alternative, though with many trim items including the camphor laurel dash removed to save money. While this car did boost sales, the handbuilt nature meant that the first series of 117 production never reached as many as 1000 per year

One interesting curiosity was the 117 Cruiser – a one-off sports estate prototype created for the 1972 Tokyo Motor





Pictured; a Series 2 with a Series 1 nose fitted.

Show. This car previewed the second generation front and rear end treatments with thicker B-pillars and an extended roofline in the manner of Reliant's Scimitar GTE. The 117 Cruiser was an in-house project, and while it didn't reach production elements including the clamshell tailgate were carried over into the subsequent Piazza. Two years earlier, Isuzu had entered into co-operation with General Motors, and GM money meant that the 117 could be redesigned to make mass production easier. Upgraded tooling did the rest, and the 117 Coupe offered in 1973 was a very different proposition from that of the previous year. New, thicker bumpers front and rear sit over new, lower indicators. Plastic mirrors replaced chrome items, the bootlid lock was moved, and the tail lights changed from dainty Italian units to the full width items on the car in most of our images here. Wheels dropped from 14" to 13", and the ride height was lowered. The dash on all barring the top XE model was replaced by metal, while the seats



became vinyl for all but the XE. The wood rimmed steering wheel and wooden gearknob were replaced by plastic items, and the leather trimmed centre console was replaced by a moulded plastic item. These changes made the now mass producible car cheaper for Isuzu to make, and production increased significantly – from 965 in 1972 to 9506 by 1974.

Engines were standardised at

1.8-litres for the second generation cars, with four specifications available corresponding to four different states of tune. Fuel injected cars became the 117 XE Coupe. The twin carburettor twin cam model became the XG, the single cam model the XC, and the single cam with single carb the XT. For 1975 this range changed; power for the XE dropping from 140bhp to 130bhp as part of a revision targeting emissions. This proved too much for the XG to withstand – that model was dropped, and to bridge the gap the single cam XC was fuel injected. A new model was introduced targeted at younger buyers – the XC-J. J in this instance didn't stand for Junior as is often the case with models targeted at younger people, but for Joy.

December 1977 saw the launch of the third and final series of Isuzu 117. The quad round headlamps disappeared in



Camphor wood dash standard on most 117s.



HISTORY: ISUZU 117









favour of square units, and a chin spoiler was added. The chrome bumpers went in favour of rubber bumpers, and greater use of plastics was made inside. By this time the 117 Coupe was 9 years old, and while the changes certainly made it more contemporary Isuzu needed some new models to maintain interest. So it brought back the XG – though as a different model to that which came before. It was fuel injected this time, with variable rate dampers, an LSD and rear disc brakes to increase its sporting prowess. In 1978, the 1.8 litre engine grew to 2.0 to compensate for lost power as emissions regulations grew ever tighter. The XT-L model was

added, as an upmarket variant of the XT – beginning a series of "Hyphen L" specifications from XC-L to XE-L. In all cases, L stood for Luxury – except the XE-L in which it denotes Limited.

The following year, the 117 XD Coupe was unveiled. This was the world's first diesel engined coupe, with a 2.2 litre C223 overhead valve diesel. There was also a luxury variant, the XD-L. This would be the final new 117 model before production ceased in 1981.

The 117 was replaced in 1981 by the Piazza. This car was based on the Giugiaro Ace of Clubs concept car, using a very loose variant of the GM T car platform, and an engine derived from that in the Isuzu Fargo van. Unlike its predecessor, Piazzas were imported into the UK – albeit in small numbers – and their following remains loyal. It's possible to buy a 117 Coupe in the UK, as several have been imported by ardent fanciers. However, these cars come to market relatively rarely, and you may find it easier to import your own 117 from Japan should you wish to take the plunge into ownership.

THANK YOU

The green car in several of our images was supplied courtesy of Hyman Ltd, St Louis, Missouri (www.hymanltd.com)







HISTORY: ISUZU 117

DRIVING THE 117

As long as you don't expect the 117 to be too much of a sports car, it's not a bad thing to drive even today. Visibility all round is excellent courtesy of slim pillars and a good glasshouse, though the shape of the rear window can lead to cars behind appearing distorted. The brakes are excellent, though the pedal feel isn't as inspiring as some of its rivals might have been in period, and the very light power steering on cars so equipped makes them easy to position if lacking in feel. Lower specced cars without power steering have far more positive and sporty feeling steering, and this better level of communication makes them

a better basis for any performance modifications. Likewise, the gearbox perhaps isn't as tight in feel as a contemporary Datsun or Toyota, but it's slick enough in use and certainly not poor for its era. The seats don't especially hug, but then this car is meant to be a GT rather than a real sports car, and they're comfortable for long journeys provided you're under around 5'10", taller enthusiasts may find it doesn't go quite far enough back. That's mirrored by the way it feels - not small and sporting, but not overly large and loose either, it's solid and planted under most conditions. The ride's suitably firm, but the live axle at the back means that nasty bumps

can still unsettle the car at speed if you're not expecting it. The engine is well soundproofed and sporty in exhaust note, plenty of torque from low revs, but perhaps doesn't feel as powerful as it is on paper until you get higher into the rev band. Isuzu's bullish attitude toward its own market position meant that the 117 was Toyota Soarer money when new, though smaller and slower than that car. Perhaps it felt that the hand-made nature of those early cars would generate its own appeal among the upwardly mobile. Certainly the owners cherished their cars - it's believed that ten years after the 117 was introduced, 98% of all production still survived.





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SPORTS CARS OF THE 1970S



