

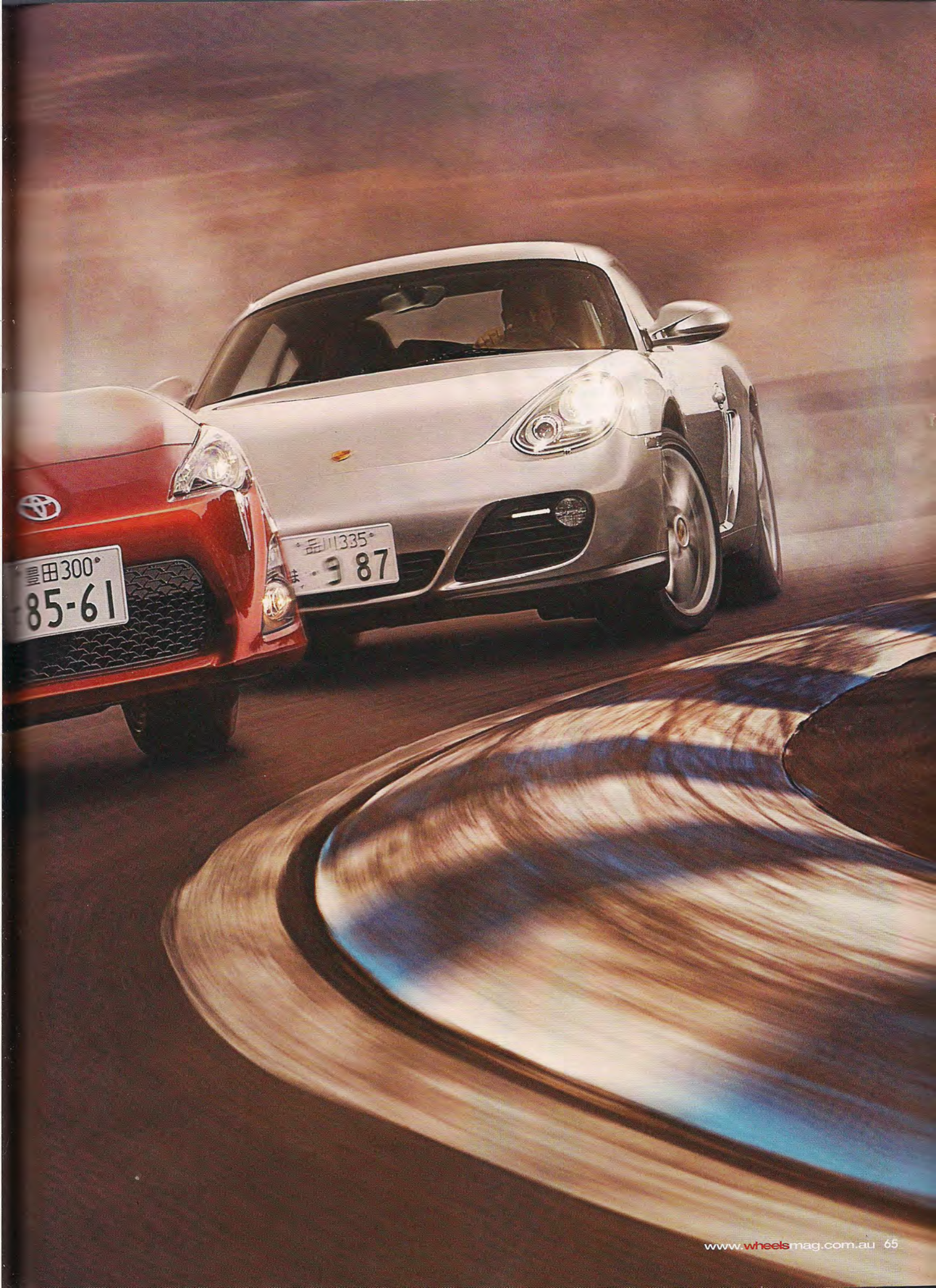


# The day the world changed...

WORDS PETER ROBINSON PHOTOS CHRIS BENNY

Toyota's decision to benchmark its affordable driver's coupe against one of the world's best mid-engined sports cars – at three times the price – seemed monumentally ambitious. Now we've driven them back-to-back, the merit in aiming high is clear...





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**F**OR FOUR straight years, Tetsuya Tada happily signed the same big-Yen purchase order. As the 86's development director, Tada knew only one rival coupe came close to achieving his desired level of driver involvement and fun: the benchmark-setting Porsche Cayman. Which is why,

during the new Toyota sports car's four-year development, the latest Cayman variant regularly joined Toyota's R&D test fleet, each a little better in engine performance and handling than the previous model.

The hugely influential Tada, father of the 86 (and the BRZ, its Subaru near-twin), recognised that the Cayman represented the dynamic and drivetrain target, as well as setting the pace in terms of packaging, weight and a cohesive, driver-oriented cockpit; all the things that matter to enthusiasts. The fact that the Toyota-Subaru alliance also provided the 86 with a normally-aspirated, horizontally-opposed engine, like the Cayman (even if the Toyota's is at the front end of the car and has two fewer cylinders); this only confirmed Tada's view that the Porsche's character was close to the personality he projected for the 86. Toyota's bold, game-changing objective also allowed Tada to successfully argue that even if, in Australia, the Porsche was close to triple the 86's anticipated \$38K price, there were no grounds for compromise.

To establish beyond any doubt the true scale (or not) of the 86's achievement – we are talking about normally dreary Toyota, after all – there was no alternative

other than a back-to-back comparison between the 147kW/1240kg 86 (GT 86 in Europe, Scion FR-S in the USA) and the 195kW/1330kg Cayman, despite knowing the coupe version of Porsche's Boxster was deep into the last months of its eight-year product cycle.

Which is how, late one Tuesday morning in April, the 86 sat parked close to the rear bumper of a Cayman at the base of the sinuous Toyo Turnpike, 100km south-east of Tokyo. For about 20km the Turnpike (the tyre company bought naming to the road in 2007) sweeps and climbs from the coast to the Toyo viewing centre, where it links with the famous Hakone Skyline. So inspired are the roads that the Hakone National Park, in the shadow of Mount Fuji, is understandably the location of most road testing and new model launches in Japan. Wide, beautifully surfaced and free of official interference, it ranks among the world's great driving roads, ideal for our shoot-out. Prowling the area the same day were a Nürburgring Edition Lexus LF-A, Ferrari 599, ZR-1 Corvette and numerous Skyline GT-Rs.

THE part-Alcantara/part-leather bucket clamps me perfectly. The smallest ever, near-vertical, Toyota steering wheel and stubby gearshift, pedals and dials – (Porsche-like) central tachometer redlined at 7400rpm – are flawlessly positioned. All cohesive, functional and, yes, Cayman-like. The four-into-two exhaust delivers added power from the FA20 Subaru engine – direct injection by Toyota means, like the Cayman, it demands an expensive diet

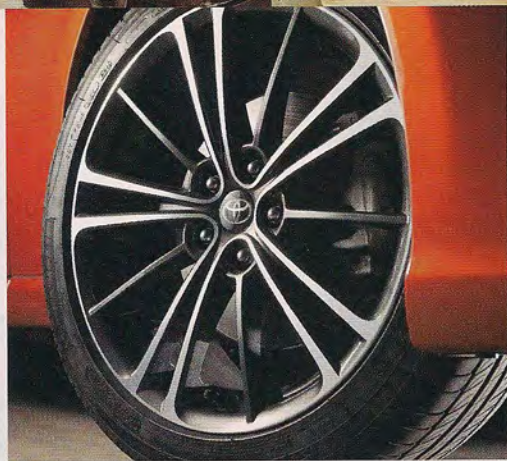
## HAKONE RANKS AMONG THE WORLD'S GREAT ROADS, IDEAL FOR OUR SHOOT-OUT



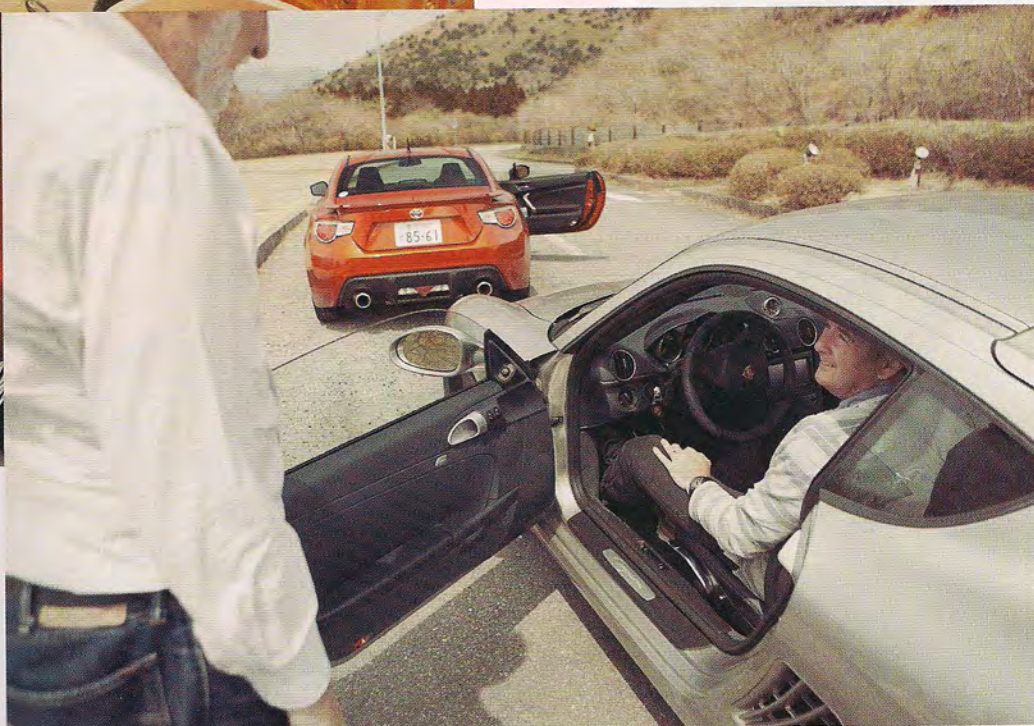




BELOW: TWO BLOKES HAVING A VERY GOOD DAY AT THE OFFICE. WITH A PORSCHE, SURE, BUT A TOYOTA? BRAVE NEW WORLD...



ABOVE: YES, THIS IS THE SAME RUBBER YOU'LL FIND UNDER YOUR AUNT'S PRIUS. TRUST US, THIS IS A GOOD THING





## 86 in and counting

The Japanese word for '86' is *hachi-roku* (eight-six) – spend five minutes talking to super-keen Japanese onlookers and you find it difficult to call it anything else. Toyota's engineering team waited until the number '86' came up before giving it an official internal job designation. The car has tailpipes of 86mm in diameter, and a bore and stroke of 86mm. The classic AE86 Sprinter/Trueno of the 1980s is where the number comes from, of course; a car that is still popular with Japanese enthusiasts today because nothing – until now – has been produced that quite matches it.

of 98-octane fuel – and a distinctive sound that lacks a Subaru's pulsating flat-four note. It's quiet at idle, yet, as we learn, the induction and exhaust create a complicated diversity of noise. Will the BRZ 50mm exhaust outlets somehow alter the sound from the Toyota's twin, yes, 86mm pipes?

Editor Thomas, under orders to use all 7500rpm of the Cayman's potential through our hillclimb, guns the Porsche. An instant later, stability control switched to Sport, the 86 momentarily lights up the rear tyres before the Michelins hook up. A flick-change to second and third – lighter, faster and even more precise than Mazda's MX-5, which uses a near-identical Aisin six-speeder – and I'm already asking: is this the best manual gearchange ever?

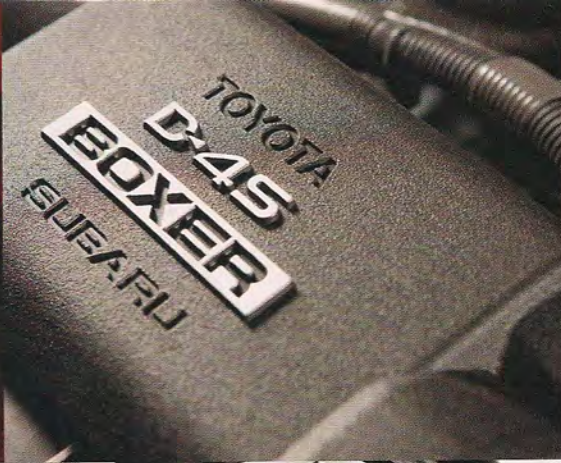
Despite me giving the 86 a wide-open throttle, the Cayman instantly pulls out a couple of hundred metres. The Toyota can't compete with the Porsche's extra power and, more crucially, far broader spread and extra torque – 300Nm between 4400 and 6000rpm – and it's not until the tach needle hits 4250rpm that the 86's engine truly kicks. Then it flies, bursting with energy and eager to settle in the zone from 6000-7500rpm that's ensured by the close-ratio gearbox and relatively low 4.1 final drive (Toyota Australia rejected the alternative, economy-biased 3.727 diff). No surprises that peak torque arrives at a soaring 6400-6600rpm, maximum power at 7000rpm. In place of the slightly gruff staccato, part-throttle, mid-range exhaust note, up high the engine sounds smoother, more alive, without ever approaching the melodic heights of the Porsche. The Cayman simply creates soulful music across its entire range. Not for the last time do I yearn for the 86 to sound as sonorous.

Now holding on to the Cayman, the 86 begins to reveal its greatness, a cohesive balance that is utterly addictive. The sweetness of the beautifully direct, linear steering, so razor-sharp when snapping from one direction to another, yet never nervous or demanding of concentration. The Cayman's hydraulic steering is excellent, yet the 86's steering is even better: more incisive, quicker, demanding of less input through any given corner, with an instinctive purity that I'd previously thought impossible with electric assistance. Is it better than the new 911's electric set-up? Yes, because on-centre the 86's steering is sharper, more natural, with greater sensitivity.

The Toyota turns in instinctively, accurately, holding the line through constant radius corners with the gentlest of understeer. The 86's seemingly modest 215/45R17s generate enough lateral grip to maintain station with the Porsche, yet lift deliberately and the tail subtly drifts out, the nose tucking in, the car's stance so obviously utterly adjustable. Best of all, I can feel the tyre's contact patches working and know exactly how much they offer, effortlessly loading up the outside rear, or transitioning gently, flowing smoothly into oversteer. The car is alive – that word again – and I recall Tada-san explaining the benefits of the compact, low-mounted, boxer engine and the importance of a low centre of gravity – 18mm lower than that of the Cayman, according to Toyota – to chassis balance, real agility and composure. These qualities combine with the ability to instantly settle even as it skips a couple of millimetres sideways over a bump that would seriously upset any lesser car. I'm staggered by the 86's talents, at once delicate and precise, and its inherent ability to







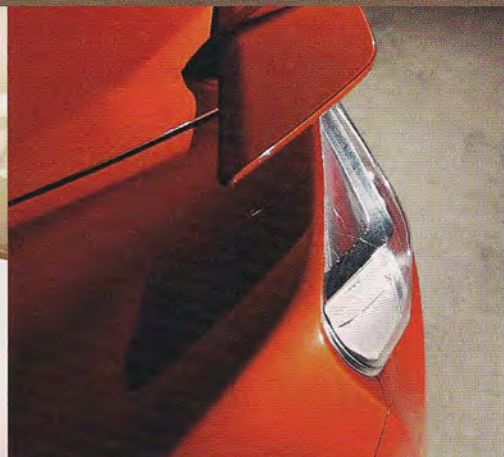
I'M STAGGERED BY THE 86'S TALENTS, AT  
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## Land of the rising fun

So good is the 86, that it ranks with the Honda NSX and Mazda MX-5 as Japan's trio of great sports cars. All three display the same qualities of driver involvement, accessibility, and

brilliant handling. None offered class-leading performance, which proves (to me) that mere numbers are not the essence of what makes a proper sports car.



ABOVE: HOW MUCH GRIP IS 'ENOUGH'? CAYMAN'S 265/30 REAR TYRES OBVIOUSLY PROVIDE MORE ADHESION, BUT 86's RELATIVELY NARROW 215/45s BREAK AWAY EARLIER AND MORE PROGRESSIVELY

ABOVE: REAR SPOILER IS OPTIONAL; LOWERS DRAG WITHOUT REDUCING TOP SPEED. ROBBO REMAINS UNCONVINCED



reward the enthusiast driver. It never intimidates, never needs to be goaded, is always on the driver's side. The Cayman may be more planted and capable of higher levels of lateral acceleration but, amazingly, the 86 manages to be even greater fun.

Gliding from one sweeper to the next, engine wrung out hard in third and fourth gears, working the 100-160km/h zone, the 86 feels far quicker than Toyota's deliberately modest claim of 0-100km/h in 7.7seconds. "This car is not about the numbers," says Tada. "We didn't set any performance targets and didn't concentrate on the figures."

To my body's stopwatch, however, the 86 feels near Golf GTI quick. Independent testing proves the point: 6.8sec to 100km/h, 0-400metres in 14.9sec. That's still some way behind the Cayman *Wheels* tested (October 2011): 5.8sec and 14.0sec. But significantly faster than the MX-5 (7.9sec/15.7sec) and leaves plenty of potential for Japan's tuners who, even before the official launch, were given access to the car. Those who demand a turbo-diesel-like torque spread may judge the 86 underpowered. In reality, this would suggest a lack of understanding of the Toyota's role as a purist sports car.

The brakes, too, impress with a strong and progressive pedal action that brings easy modulation and vast reserves of stopping power. Proper sports car brakes, then, with a proper handbrake positioned exactly right for those who drift. Helped by a massively strong body, the ride also impresses. It's taut for terrific body control, yet comfortable with enough compliance that you don't need to avoid bumps and potholes. Toyota deliberately set the 86's front spring rates about 10 percent softer (for those who must have numbers: 23N/mm versus

25N/mm) than those on the Subaru BRZ to allow a tad more bodyroll on initial turn-in, for a more traditional front-engine/rear-drive feel. Subaru apparently choose to go firmer in an effort to maintain a ride and handling that's closer in feel to a WRX. I suspect – I hope – the 86 will cope with Australia's pitted and potholed blacktop. What is certain is that our coarse-chip roads will induce even more road noise, one area where the Cayman's superior refinement shines.

At the top of the mountain the 86 has lost, maybe, a further 50 metres on the Porsche. What's 50 metres in 20km? I care not, and want to spend the rest of the day rushing up and down this fantastic mountain road, experiencing the Toyota's accessible, utterly satisfying manners, stretching every muscle, every aspect of its multi-gifted behaviour. Bill and I spill from our charges, eyes ablaze, laughing, spraying a torrent of enthusiastic praise for two wonderful cars. Such achievement is expected from Porsche, of course, but Toyota? Please believe me, the production 86 is a spellbindingly brilliant car – better, even, than I imagined after driving a prototype at the Anglesea proving ground (*Wheels*, March).

THE FOLLOWING morning Bill has an appointment with Keiichi Tsuchiya, Japan's drift king, at Fuji Speedway, and I'm allocated the 86 for the suburban drive from hotel to racetrack. The stark contrast with yesterday's roads and driving provides another insight into the Toyota's character. Amazingly, the 86 is as easy to drive as a Corolla, and rather more fluent. Light controls – except no Corolla ever steered with this much speed or precision – and a clutch that engages so high



I WANT TO SPEND THE REST OF THE DAY  
RUSHING UP AND DOWN THIS FANTASTIC ROAD





TOYOTA'S INTERIOR IS DRIVER-FOCUSED AND STRAIGHTFORWARD. BIG CENTRAL TACHO EASY TO READ; DESIGNERS HAVE RESISTED GETTING TOO FLASHY WITH GRAPHICS

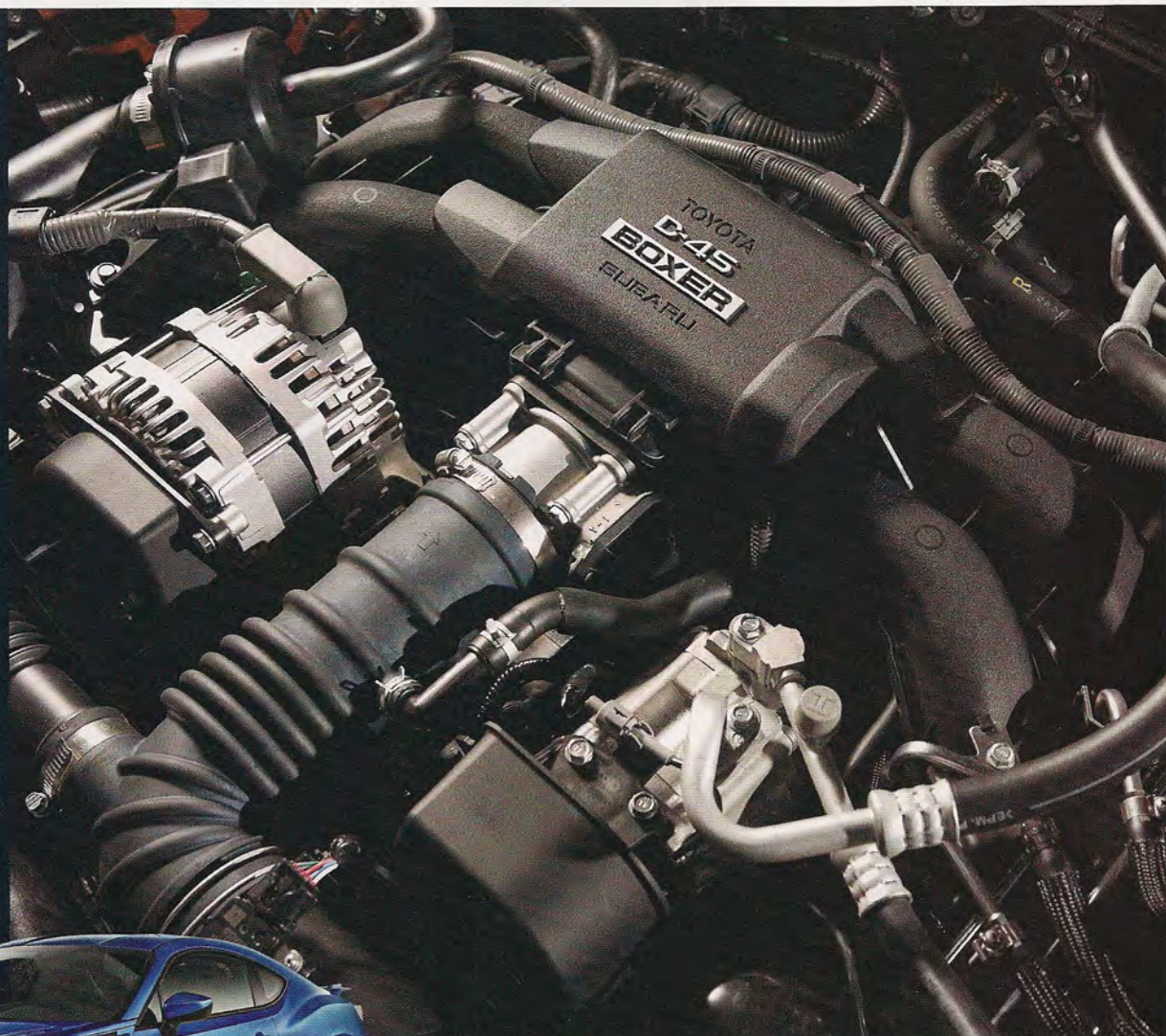


TAKE A LAST LOOK - NEW CAYMAN SHARES JUST-LAUNCHED BOXSTER'S PANAMERA-INSPIRED CABIN. DRIVING POSITION IS GOOD, BUT NOT AS GOOD AS 86'S

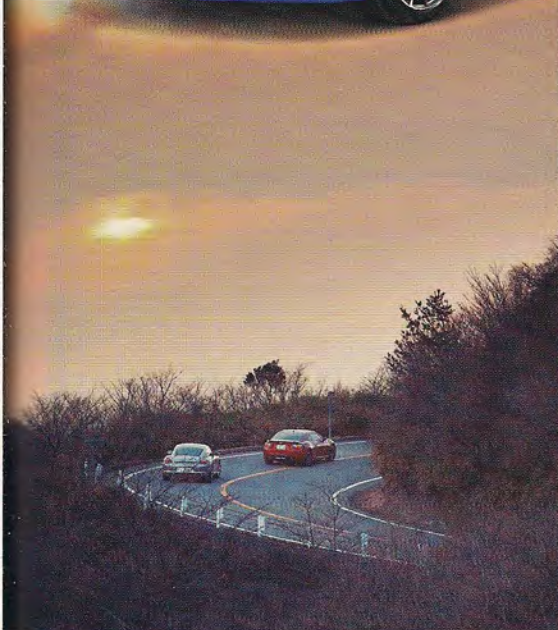


## Sharing engines

The idea of sharing Toyota's second-gen D-4S direct injection tech with Subaru and plonking it on top of a boxer four was not too popular with some of Toyota's most senior executives. But chief engineer Tetsuya Tada, with the help of current Toyota Chairman Akio Toyoda, pushed it through. Subaru's engineers were far from confident that Tada's 100hp-per-litre target could be hit, but that number was achieved with the very first 'mule' engine to run. How nice to see the little donk bared, too, rather than hidden behind a shroud.



LEFT: SUBARU'S BRZ IS ESSENTIALLY THE SAME CAR, WITH SLIGHTLY STIFFENED FRONT SPRINGS THE ONLY TECHNICAL DIFFERENCE. NOTE TINY COSMETIC CHANGES TO NOSE



ABOVE: THIS SHOT IS TAKEN ON THE HAKONE SKYLINE ROAD, WEST OF LAKE ASHINOKO. THE ACTION SHOT AT RIGHT AND ON THE PREVIOUS PAGE WERE TAKEN ON THE TOYO TYRES TURNPIKE. SEARCH FOR THE LATTER ON GOOGLE MAPS AND STREETVIEW IT





# THE SOON-TO-BE SUPERSEDED CAYMAN REMAINS A TERRIFIC CAR, BURSTING WITH PORSCHÉ CHARACTER AND CHARISMA



in its travel means that, initially, I'm inclined to over-rev on each gearchange. Which is frequently because I'm swapping ratios just to enjoy the sublime accuracy and precision of a flawless, well-oiled bolt-action gearchange. That rev-happy engine is also amazingly tractable, capable of pulling from 1500rpm in fourth or fifth gear. Yes, acceleration is leisurely, but there's no drivetrain slack or hesitation and power is but a couple of downshifts away.

I'm sitting low – the cushion is height adjustable – but because the dashboard is low, forward vision is terrific by today's standards. Where the Cayman becomes cramped over time (the coming 60mm wheelbase extension will surely correct this), in the 86 there's stretch room for my lanky 192cm frame. Those rear seats offer more room than the roofline suggests, like a 911, with enough space for a couple of pre-teen children, and the split-fold seats drop down to create a flat floor and decent boot space.


What of the styling? Photographs don't convey the 86's compact dimensions – at 4240mm it's almost exactly Corolla length – and the simplicity of its handsome design. To our eyes it looks just right, with brilliant detail touches like the 86/boxer engine badge on the flanks. There is just one problem: the (optional) aggressive rear spoiler that does so much to upset the integrity of the rear end styling, lowers the drag co-efficient from 0.29 to 0.27, without impacting on downforce or reducing the 225km/h top speed. Efficiency or style? In this case we'd argue for style.

What's not to like? The 50-litre fuel tank delivers a marginal range in any conditions except highway cruising; the slightly awkward design of the stretched-oval vent above the dashboard contrasts with the rest

of the cabin design; the uncouth sound of the starter motor; wind noise above 160km/h from the frameless side glass; a too-sharp engine limiter; most of all, however, the 86 deserves a more vibrant engine sound. This despite Tada's understandable insistence that there should be no artificial interference in the Toyota's induction or exhaust system.

TOYOTA plans two 86 levels in Australia (there are four, including an 1190kg stripper, in Japan), each with manual or six-speed auto. For the June launch, sources suggest the premium model adds leather/Alcantara upholstery, dual-zone climate control, heated seats, foglamps, push-button start with keyless entry, HID headlights, navigation, a leather-wrapped shift knob and steering wheel. The test car's 215/40R17 rubber replaces the base model's 205/55R16s, all for an expected extra \$4K, with the spoiler and a Torsen LSD optional on both levels.

The soon-to-be-superseded Cayman remains a terrific car: refined, beautifully built and finished, with superb handling and bursting with Porsche character and charisma. Tada could not have chosen a finer benchmark for his sports coupe.

But what a wonderful car the 86 is, and what a staggering achievement in demonstrating that Toyota perfectly understands what makes a brilliant and charming enthusiast's car; one that tops the mighty Porsche in this comparison. At an entry-level \$38K, the 86 is the only model in an affordable rear-drive coupe class that challenges the credibility as a driver's car of its front-drive rivals. It may not be the quickest, but for pure driving pleasure the 86 is unsurpassed. Toyota predicts sales of 250 a month. I'd like to be one of them. 





MANUAL GEARSHIFTS  
DON'T COME MUCH  
BETTER THAN THIS. YOU  
CAN HAVE AN AUTO, BUT  
WOULD YOU? REALLY?

PROOF THAT TOYOTA AND LEXUS CAN  
MAKE BRILLIANT DRIVERS' CARS.  
(NOT PICTURED: THE 2016, COTY-WINNING,  
NÜRBURGRING-EDITION CAMRY...)



PORSCHE CAYMAN



TOYOTA 86

\$115,100

### Drivetrain

Engine	flat 6cyl, dohc, 24v	flat 4cyl, dohc, 16v
Layout	mid engine (north-south), rear-drive	front engine (north-south), rear drive
Capacity	2.893 litres	1.998 litres
Power	195kW @ 7200rpm	147kW @ 7000rpm
Torque	300Nm @ 4400-6000rpm	205Nm @ 6400-6600rpm
Transmission	6-speed manual	6-speed manual
Gear ratios	3.67/2.05/1.14/1.13/0.97/0.84	3.626/2.188/1.541/1.213/1.00/0.760
Final drive ratio	3.88:1	4.1:1
km/h 1000rpm	8.9/15.9/23.1/28.8/33.5/38.7	7.9/13.1/18.7/23.7/28.8/37.8

\$38,000 (est.)

### Chassis

Body	steel, 2 doors, 2 seats	steel, 2 doors, 4 seats
L/W/H/W-B	4347/1801/1304/2415mm	4240/1775/1285/2570mm
Front/rear track	1490/1534mm	1520/1540mm
Weight	1330kg	1240kg
Boot capacity	410 litres	n/a
Fuel/capacity	98 octane/65 litres	98 octane/50 litres
Fuel consumption	9.4L/100km (ADR combined-cycle)	7.3L/100km (official)
Suspension	Front: struts, coil-springs, anti-roll bar Rear: multi-links, coil springs, anti-roll bar	Front: struts, coil springs, anti-roll bar Rear: double A-arms, coil springs, anti-roll bar
Steering	hydraulic rack and pinion	electro-mech. rack and pinion
Front brakes	ventilated discs (318mm)	ventilated discs (294mm)
Rear brakes	ventilated discs (299mm)	ventilated discs (290mm)
Tyres	Bridgestone Potenza RE050A	Michelin Primacy HP
Tyre size	235/40R18 (f), 265/30R18 (r)	215/45R17

### Safety Hardware

Active	ABS, EBD, BA, TC, ESC	ABS, EBD, BA, TC, ESC
Passive	front/side/curtain airbags, front pre-tensioner/load-limiter seatbelts	front/side/curtain airbags, front pre-tensioner/load-limiter seatbelts
NCAP rating	n/a	n/a

### Performance

Power to weight:	147kW/tonne	Power to weight: 119kW/tonne
Redline/cut-out:	7400/7500rpm	Redline/cut-out: 7400/7500rpm
Speed in gears		Speed in gears
1	64km/h @ 7200rpm	55km/h @ 7000rpm
2	114km/h @ 7200rpm	92km/h @ 7000rpm
3	166km/h @ 7200rpm	131km/h @ 7000rpm
4	207km/h @ 7200rpm	166km/h @ 7000rpm
5	241km/h @ 7200rpm	201km/h @ 7000rpm
6	265km/h @ 6800rpm	225km/h @ 6000rpm
Standing-start acceleration		Standing-start acceleration
0-100km/h:	5.8sec	0-100km/h: 6.8sec
0-400m:	14.0sec	0-400m: 14.9sec

Verdict 8/10

Great engine; sonorous induction and exhaust; handling; grip

Cramped interior for tall; more expensive than Boxster

9/10

Brilliant steering; adjustable handling; driving position; gearchange; value

Short range; unworthy engine note; vaguely cheap-feeling interior