

MOTORING

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Until the 550, both Roewe and MG had been churning out reshapes of the inherited designs from the collapsed MG-Rover. So at first glance, this new car seems a bold move by Roewe. But scratch the surface and the Rover underpinnings are obvious.

Based on a shortened version of the Rover 75 platform, it shares a heritage with the stillborn RDX60, which was meant to be the medium-sized car to save Rover. Much of the design work for the 550 was done by Ricardo 2010 in Britain, which is largely staffed by ex-MG Rover engineers.

Despite its British design, the Roewe 550 could pass for a premium effort by any number of manufacturers: its modern looks are a match for designs such as the VW Sagitar (Jetta MkV) and it could even be mistaken for a baby Lexus.

The modern theme is carried through to the interior. Sit in the driver's seat and you are struck by the largely red digital instruments clustered around the central rev counter. There's a centrally mounted LCD display, which in our top of the range 550G test car is linked to the GPS, rear reversing camera and DVD/entertainment system.

Unusually for a Chinese car, there is a choice of interior trim. Seats come in either black or tan leather. With the plastics there's a choice of black with chrome highlights or split black uppers and cream lowers accented with fake wood and chrome. Just below the split and nestled between the air vents is the control knob for the LCD information display. Further



British-born Chinese

Roewe's 550 is a bold new model from the Shanghai marque, but it can't hide its English roots, writes **Mark Andrews**

down are the controls for the entertainment system including a slot for an SD card.

Bristling with equipment, the 550G covers all bases. As expected, there are electric windows, wing mirrors and sunroof, along with air

conditioning. Hidden in a hatch near the steering column is a connection for an MP3 player. There's also a Bluetooth mobile phone system and cruise control.

Attention to detail gives the car a premium feel. Both driver and

passenger sun blinds feature a mirror with cover and light. A coin and pen holder tray is situated above the air-conditioning controls. Between the seats is a pop-up drinks holder and an air-conditioned storage compartment. Rear

passengers are treated to their own air vents, light and a rear sun blind.

The seats are comfortable and supportive. In the G model the driver and front passenger seats are electronically adjustable for height as well as distance and pitch. A tilt-adjustable steering column makes for an even more flexible driving position. Taller rear passengers will have problems with head space, but legroom is generous. In a nod to safety, the middle passenger gets a full seatbelt. Boot space is a reasonable 452 litres with split folding seats, and although the boot floor cover is a bit flimsy, there is a side net for delicate items.

Materials are generally of good quality and the black trim will appeal to European tastes,

with the added bonus of losing the imitation wood. But the interior is outclassed by the car's MG7 stablemate.

Start the car and one of the first things you notice is how quiet the engine is. If it wasn't for the rev counter you wouldn't realise that the engine is running until the turbo kicks in with a growl at around 45km/h. The 1.8 Turbo has more than enough power and at no point is it strained.

Pulling away from the Jinmao Tower into the heavy traffic on Shanghai's Century Avenue we're thankful for the five-speed Tiptronic automatic (lower-spec S and D models are also available with a five-speed manual). Due to the traffic, we're unable to test the wheel-mounted paddle shifts, but at higher speeds the gearbox has very pronounced shifts.

The leather-trimmed steering wheel looks small and is fully laden, with controls for the cruise control, trip computer and entertainment system. And although the steering is light and lacking in feedback, the car



Like its exterior, the 550's cabin is modern, but touches such as imitation wood still hint at the car's Rover provenance. Photos: Mark Andrews, Roewe



Rotary engines still spinning four decades on

Robb Sass

Forty years ago, a panel of motoring journalists picked the NSU Ro80 as European Car of the Year. Now mostly forgotten, the Ro80 was a German sedan with an aerodynamic shape that presaged the Audi 5000 and Ford Taurus of the 1980s. As important as its trend-setting styling, though, was the fact the Ro80 featured the first Wankel engine in a mass-produced car.

Potential game-changers in the car industry have often ended up as blind alleys. Dinosaurs at least have birds as their living legacy, but innovative cars such as the Tucker, Corvair and Citroen DS can be found only in the automotive fossil record. Carmakers have learned that it doesn't always pay to innovate.

But for a brief time in the late 60s and early 70s, it looked as if real innovation was taking hold in the form of a new power plant that was lighter, smoother and simpler than a reciprocating piston engine, and also capable of producing more power for its size. Companies from American Motors to Mercedes-Benz rushed to license Wankel engine technology.

Felix Wankel, an engineer at NSU, had been experimenting since 1954 with a simpler internal-combustion engine. His elegant design consisted of a rounded triangular rotor that spun in an oval combustion chamber. As the rotor moved in its eccentric orbit around a central shaft, the area of the three combustion chambers (one for each side of the triangle) contracted, creating compression and thus power.

But an obstacle to engine longevity emerged: it was hard to get a good seal on the combustion chambers where the rotor tips, or apexes, met the inside of the chamber.

Before the Ro80, there had been attempts at Wankel-powered cars – NSU's own Wankel Spider and the

Mazda Cosmo sports cars – but the Ro80 was the revolutionary engine's first shot at the big time. If things had gone as planned, BMW wouldn't be the only prestigious three-letter German marque today.

Initial orders for the 1968 NSU Ro80 were brisk. Soon, however, NSU was dealing in damage control.

In late 1968, German magazine *Auto Motor und Sport* reported that half of the 191 Ro80 owners it had surveyed said that engines had been replaced under warranty. In neglecting to test the cars in real-world stop-start driving conditions, NSU snatched defeat from the jaws of victory.

The culprits turned out to be bad bearings and ineffective rotor tip seals; the warranty claims that resulted nearly drove the company to bankruptcy. NSU eventually merged with Volkswagen.

However, in a protracted deal involving a cast of many – including Felix Wankel and, oddly, a group of Israeli bankers – several former NSU shareholders retained control of licensing rights to the engine. It fell to the Japanese to perfect the power plant.

Toyo Kogyo, the parent company of Mazda, was one of about 18 NSU Wankel licensees. In the late 60s, Mazda decided that its future lay in differentiating itself from Toyota



and Nissan. It cast its lot with the Wankel, which the company called the rotary engine. The first rotary-powered Mazda to make a splash in the US was the RX-2, introduced in 1970.

The RX-2 was a small coupe roughly the size of a Toyota Corolla, but with the pep of a small V8. Enthusiasts gushed over its smooth and ample power.

C.J. Batten was the first design engineer that Ford hired for its Wankel development programme in 1971. In a recent interview, Batten said that Ford began looking at the Wankel because its arch rival, General Motors, "had one that was nearly production-ready" for its Chevrolet Monza coupe.

Batten recalled evaluating a Mazda and being impressed. "The RX-2 with a little over 100 horsepower would run like a 200-horsepower Mustang,"



he said. But Batten says its advantages in packaging and smoothness weren't enough to overcome the reciprocating engine's advantage of incumbency.

GM's president, Ed Cole, was a proponent of the Wankel. In the early 70s, GM showed several Wankel-powered mid-engine Corvette design studies that would have been world-class sports cars. Car magazines said the sleek mid-engine 'Vette was a sure bet for production. Cole also planned to use the Wankel in everyday cars.

Batten recalls that as wishful thinking. He said the accountants who held the purse strings pointed out that Chevrolet could already sell every Corvette it could build. Why was a more advanced, more expensive car needed? The logic was hard to dispute, and the Corvette would soldier on until 1984 with its 1963-vintage platform.

Not much later, Cole retired and the Arab oil embargo underscored how thirsty the early Wankels were. GM's Wankel programme came to a sudden halt. Ford ended its development programme.

The cancellation of GM's Wankel

even had a ripple effect on American Motors, which had engineered its futuristic, glassy Pacer to take a GM-built Wankel. Instead, AMC had to make do with a heavy cast-iron six-cylinder engine.

The only carmaker other than NSU and Mazda to market a Wankel-powered production car was Citroen, which celebrated eccentricity. But Mercedes-Benz expressed an interest, teasing enthusiasts in 1970 with the brilliant C111-II research car that had gullwing doors and a 370-horsepower four-rotor Wankel that could reach 290km/h.

The 1974 Arab oil embargo hit Mazda hard. Its small RX-2 drank 16 litres of fuel per 100km, about twice as much as the comparably sized Corolla. The RX-3 (below left), a larger successor, had a wagon body, but was heavier and even thirstier.

Mazdas piled up at dealers and ports, so the company hedged its bets with piston-engined cars while it improved the rotary's cleanliness and efficiency. But in 1978, it introduced the car that made the best use to date of the rotary's distinctive qualities: the RX-7. The car was a milestone. At a time when sports cars were growing flabby, the RX-7 (second generation top left, first generation bottom left) was light, nimble and basic, with an engine so rev-happy that a buzzer had to be installed to let the driver know when the engine speed had reached the danger zone.

Mazda's new strategy was to reserve the rotary for its specialty cars and to use piston engines in the rest of its line. Mazda's rotary design reached its apogee with the Renesis engine, introduced in the 2003 RX-8, the most powerful, efficient and cleanest naturally-aspirated Wankel yet. And because it is also well-suited to run on hydrogen, it may have a future beyond the odd four-door coupé that it now inhabits.

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Footdown

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Take the bus

The Toyota Noah van is the "ideal vehicle" for a pleasant family day out, says dealer Crown Motors. The eight-seater (right) comes with a 1,987cc, 143-horsepower L4 engine, Super CVT-i transmission and promises the lowest ground clearance in its class, at 360mm.

The Deluxe version (HK\$267,357) of the Noah also offers a "theatre inclined floor design" so rear passengers can see out, the dealer says. It's also packed with safety features such as dual air bags, anti-lock braking with electronic brake-force distribution, brake assist and dual remote control power sliding doors with auto-closure and jam-protection functions.

Lovely. But vans often have blind spots and we see the Noah has a parking camera and sensor at the rear and mirrors on the fender and front corner. The dealer might point to these fitments as extras, but we see them as admissions that the vehicle's all-round vision isn't quite right, and that's a worry when a car is bought for family days out but is actually used in the rushed mill of school runs, and in parts of Hong Kong where elderly pedestrians suddenly pop onto the road.

The dealer also highlights how the Noah can run for 13.6km per litre of petrol and earns first-registration tax discounts under the Environmental Protection Department's incentive scheme for "environmentally friendly petrol private cars". At our prompting Crown Motors later told us that the Noah spews 174.9 grams of CO2 per kilometre. That's not bad for a two-litre engine, but the spew mocks our officials' assessment criteria for green cars. While the Noah and the 3.2-litre Volkswagen Phaeton V6 (293gpk and 5.7km/l in town according to Oneshift.com) earn tax incentives, the 84bhp Smart ForTwo Passion Cabrio (120gpk and 15.6km/l in town) and the Peugeot 107 (109gpk and 18.2km/l) are not green cars in the eyes of the Hong



Kong government. Weird isn't it? Worse, we have yet to hear of any howls of protest from either Peugeot, Smart or their local dealers about their cars' failure to win tax incentives in China's Capital of Cars.

Classic auction defies downturn
Hong Kong collectors might sharpen their pens, for there was "spirited bidding" at Bonhams' recent Los Angeles sale of classic cars at the Petersen Automotive Museum, says Mabel Au-yeung of the auctioneers' Hong Kong office.

"Actor Bruce Willis sold a 1957 Corvette convertible given to him by Demi Moore while they were married. The car sold for US\$79,560 against a pre-sale estimate of US\$70,000 to US\$90,000."

Several lots were sold last month to collectors across the US, in Britain, Germany and other parts of the world, she says.

"The Willis cars inspired great interest among collectors, particularly the actor's 1968 Shelby Mustang GT500 Convertible, selling for US\$161,000," Au-yeung says. "His 1969 Dodge Charger Coupe sold for US\$86,580."

The sale also included a 1974 Ducati 750SS, ranked on collectors' Top Ten Most-Desirable Bikes lists for 20 years, which fetched US\$81,900. "A 1915 Indian eight-valve Boardtrack racer sold for US\$64,350 and a 1914 Indian eight-valve racing bike brought in US\$57,330," Au-yeung says.

At the Classic Motorcycle Mechanics Show in Stafford, England, Bonhams set another new world auction record for a British motorcycle, with the sale of a 1949 ex-Ren Dearden Supercharged Vincent Black Lightning for US\$370,000, she says.