Mini Hatch

The Mini Hatch, stylized as MINI hatch or MINI Hardtop in the US, also known as Mini Cooper or Mini One or simply the Mini, is a three-door hatchback first introduced in late 2000, with a second generation launched in 2006 and a third generation model launched in 2014. A convertible version was introduced in 2004, with the second generation following in 2008.

The Mini is produced in Cowley, Oxfordshire, UK, at Plant Oxford, and, since July 2014, at Born in the Netherlands.[1] The Mini Hatch was the first model launched by BMW under the Mini marque after the original Mini was discontinued in 2000. The new model built by BMW is technically unrelated to the former.

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Overview

Manufacturer        Mini (BMW)
Also called         Mini One
         Mini Cooper
Production          2000–present
Model years         2001–present
Assembly            Plant Oxford, Cowley, England
         Born, Netherlands
         (NedCar, 2014–Present)

Body and chassis

Class            Supermini
Body style       3-door hatchback
         5-door hatchback
         2-door convertible
Layout           FF layout
First generation (R50/53) (2000–2006)

The first new generation Mini Hatch was introduced in late 2000, being the first model launched under the Mini marque after the original Mini was discontinued in the same year. In some European markets, the Mini One was powered by a 1.4-litre (85 cu in) inline-four version of the Tritec engine, but all other petrol powered Minis used the 1.6-litre (98 cu in) version. Since 2004, a soft-top convertible option has been available across the entire range.

There are numerous styling and badging differences between the models, including the Cooper S having a distinctive scoop cut...
The Cooper S also has twin exhausts which exit under the centre of the rear valance. The non-S Cooper has more chrome parts than the Mini One and has a single exhaust. The Mini One D has no visible exhaust pipes at all.

In some markets, such as Australia and the US, only the Mini Cooper and Cooper S are offered. Other trim lines of note, sold in varying markets around the world, are the Mini Seven, Mini Park Lane, Mini Check Mate, and Mini Monte Carlo.

### Development

The Mini Hatch (US: Hardtop) was designed by Frank Stephenson,[9] and drew inspiration from the original two-door Mini. Development of the car was conducted between 1995 and 2001 by Rover Group in Gaydon, United Kingdom and BMW in Munich, Germany. During this development phase, there was continual contention between the two design groups, especially concerning the positioning of the car; Rover wanted a straight economy car, whilst BMW supported a small, sporting car. Ultimately, BMW prevailed, and in 1999, they assumed control over the entire project following the departure of BMW's CEO, Bernd Pischetsrieder.[10] When BMW sold off Rover in 2000, it retained the Mini project, and moved the planned production site of the car from Rover's Longbridge plant, to BMW's Oxford plant in Cowley, Oxford, England.[10] The team of designers working on the 2001 Mini had finished the full-sized clay mock-up of the Mini in plenty of time for a presentation to the board of directors. However, the American chief designer, Frank Stephenson, realised that the model did not have an exhaust pipe.[9] His short-term solution was to pick up an empty beer can, punch a hole in it, strip off the paint and push it into the clay at the back of the car, which took just a few minutes.[9] The overall design for the mock-up was so good that the board members told him not to change a thing, resulting in the distinctive exhaust tip seen in production cars.[9][11]

The first generation of the new Mini received a facelift in July 2004 for the upcoming 2005 model year. This was also when the new convertible was introduced; it was never available with the pre-facelift design. Aside from minor design changes (mostly up front) and improved equipment, the Rover R65 manual gearbox was replaced a Getrag five-speed.[12]

### Transmission

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6L Tritec I4</td>
<td>(One, Cooper)</td>
</tr>
<tr>
<td>1.6L Tritec supercharged I4</td>
<td>(S)</td>
</tr>
<tr>
<td>CVT</td>
<td></td>
</tr>
<tr>
<td>5-speed manual</td>
<td></td>
</tr>
<tr>
<td>6-speed automatic and manual</td>
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### Dimensions

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Wheelbase</td>
<td>2,470 mm (97.1 in)</td>
</tr>
<tr>
<td>Length</td>
<td>2000–04 Base:</td>
</tr>
<tr>
<td></td>
<td>3,630 mm (142.8 in)</td>
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<tr>
<td></td>
<td>2005–06 Base:</td>
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<tr>
<td></td>
<td>3,630 mm (143.1 in)</td>
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<td></td>
<td>S Hardtop: 3,660 mm (143.9 in)</td>
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<tr>
<td>Width</td>
<td>1,690 mm (66.5 in)</td>
</tr>
<tr>
<td>Height</td>
<td>2001–04 Base:</td>
</tr>
<tr>
<td></td>
<td>1,420 mm (55.9 in)</td>
</tr>
<tr>
<td></td>
<td>2001–04 S:</td>
</tr>
<tr>
<td></td>
<td>1,430 mm (56.2 in)</td>
</tr>
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<td></td>
<td>2005–06 Base:</td>
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<tr>
<td></td>
<td>1,410 mm (55.4 in)</td>
</tr>
<tr>
<td></td>
<td>S:</td>
</tr>
<tr>
<td></td>
<td>1,420 mm (55.8 in)</td>
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<tr>
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<td>Convertible:</td>
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<tr>
<td></td>
<td>1,410 mm (55.5 in)</td>
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<tr>
<td>Kerb weight</td>
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</tr>
<tr>
<td></td>
<td>(Cooper)</td>
</tr>
<tr>
<td></td>
<td>1,175 kg (2,591 lb)</td>
</tr>
<tr>
<td></td>
<td>(Cooper Convertible)</td>
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<tr>
<td></td>
<td>1,215 kg (2,678 lb)</td>
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<td>(Cooper S)</td>
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<td></td>
<td>1,240 kg (2,734 lb)</td>
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<td></td>
<td>(Cooper S Convertible)</td>
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### Chronology

<table>
<thead>
<tr>
<th>Successor</th>
<th>Details</th>
</tr>
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<tr>
<td>Mini (R56)</td>
<td></td>
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</table>
Models

The vehicles produced during the 2001 to 2006 model years included four hatchback models (UK and some international markets: Hatch, US: Hardtop, other markets just plain Mini): the standard "Mini One", the diesel-engined "Mini One/D", the sportier "Mini Cooper" and the supercharged "Mini Cooper S"; in 2005, a convertible roof option was added to the Mk I line-up. In November 2006, BMW released a facelift version of the Mini Hardtop as a 2007 model-year vehicle.[13]

From March 2002, the Mini was exported to Japan and sold at Japanese BMW dealerships as well as Yanase locations. The car complied with Japanese Government dimension regulations and the introduction of the Mini coincided with several vehicles in Japan that exhibited a retro look that Japanese car companies were offering.

The names Cooper and Cooper S are the names used for the sportier version of the classic Mini, which in turn come from the involvement of John Cooper and the Cooper Car Company. The Cooper heritage is further emphasised with the John Cooper Works (JCW) range of tuning options. The John Cooper Works company also created a higher spec model of the Mini Cooper S, the Mini Cooper S Works. It has a higher volume exhaust and air filter, and uprated brakes and suspension, and different 17-inch (430 mm) wheels than the S models.[14]

A race-prepared version, with rear-wheel drive, called the Mini Cooper S3, competed in the Belcar championship from 2002.[15]

Convertible (R52)

The first generation was launched in summer 2004 following its unveiling at the 2004 Salon International de l’Auto.

In 2005, the Driving Standards Agency banned the model from driving tests due to poor visibility from the passenger seat.[16]


The last Mk I variant to be produced using the supercharged Tritec engine was the Mini Cooper S with John Cooper Works GP Kit, a light-weight, quasi-race-prepped John Cooper Works model. Hand-finished by Bertone in Italy, it was offered as a limited-production run of 2000 cars during the 2006 model year, with 444 of those originally intended for the UK market, although ultimately, 459 were sold. The GP has more bolstered Recaro front seats but had no rear seats, which along with reduced sound-deadening, removal of the rear wash-wipe system, optional air-conditioning and radio, and other weight-reduction steps, resulted in a weight saving of around 40 kg (88 lb) compared to a Cooper S.

Mechanically, it has a less restrictive intercooler, recalibrated engine management, high-volume injector nozzles, and a freer-flowing exhaust system. Extra cooling capabilities let the supercharged engine run longer on cooler temperatures for better track performance.[17]

Specifications
The Mk I Mini One, Cooper and Cooper S used some version of the Brazilian-built Tritec engine, co-developed by the US-based Chrysler and BMW; the Mini One D used a Toyota 1ND-TV diesel engine. In August 2006, BMW announced that future engines would be built in Great Britain, making the car essentially British-built again. Final assembly took place at Cowley, Oxford, and the body pressings were made in nearby Swindon at BMW's Swindon Pressings subsidiary.

All models used a transversely-mounted four-cylinder engine driving the front wheels. All four wheels are pushed to the corners of the body to improve handling. The styling of the car, like that of the Volkswagen New Beetle, is a retro design that is deliberately reminiscent of the original Mini. The retro styling retains other classic Mini touches such as contrasting roof colours, optional bonnet stripes, optional rally lights, and black trim around the wheel arches and rocker panels that mimic the wide wheel flares found on many classic Minis.[9]

The Mini One and Mini Cooper were available with a ZF VT1F continuously variable transmission or with a conventional Midlands (Rover R65) five-speed manual transmission (model years 2002–2004); the latter was replaced with a Getrag 52BG five-speed unit for the remainder of the Mk I production (2005–2006). The Cooper S came with a six-speed Getrag G285 manual or an Aisin F21 fully automatic transmission with paddle shifters.[18] The gear ratios of the six-speed Getrag manual transmission were changed from July, 2004 production and onwards.[19][20]

All Minis had a drive by wire electronic throttle, anti-lock brake electronic brakeforce distribution, and BMW Cornering Brake Control. Stability options were BMW's ASC traction control system and DSC electronic stability control, to improve control and handling in adverse conditions.[14][21]

The addition of a supercharger to the Mk I Cooper S required that the battery be relocated into the rear of the car — leaving no room for a spare tyre, so the S models came with run-flat tyres.

Second generation (R56) (2006–2013)

BMW introduced an all-new, second generation of the Hardtop/Hatch Mini model in November 2006, on a re-engineered platform incorporating many stylistic and engineering changes. It uses the Prince engine, the architecture of which is shared with PSA Peugeot Citroën and is designed to be more cost-effective and fuel-efficient, and is manufactured at the BMW Hams Hall engine plant in Warwickshire, Great Britain.[22] The engineering was done in the United Kingdom by BMW Group UK Engineering, in Munich, Germany at BMW Group headquarters, and by other third parties, BMW Group hired Italdesign Giugiaro (IDG) in Turin, to coordinate
the engineering, including the development and validation of the body, structure and chassis of the new Mini. Key Production Associates from affected areas in the assembly process at Plant Oxford were seconded to IDG for the duration of the build to ensure a smooth integration of the new model back in Oxford.

Initially launched in the Cooper and Cooper S trim levels; the range was completed in 2007 with the Mk II Mini One. An economical version called the First was added in 2009.[23] For the first time, there was a diesel-powered Hatch, available from April 2007, and badged as the Cooper D, which was supplemented in 2010 by the lower powered One D[24] and in January 2011 with a new 2.0 L diesel badged as the Cooper SD.

The second generation was again offered in Japan at Japanese BMW locations 24 February 2007, and it continued to be in compliance with Japanese Government dimension regulations which supported sales of both the hatchback and the convertible.

The second generation Convertible was unveiled at the 2009 Detroit Auto Show[25] and the 2009 Geneva International Motor Show[26] as a 2009 model-year vehicle (first available for sale on 28 March 2009[27]). The model has a device, marketed as the "Openometer", which records the number of minutes the vehicle has operated with its roof retracted.

Design

Though the Mk II has a familiar look, every panel on the new car was changed from the previous model. New safety requirements resulted in the overall length increasing by 60 millimetres (2.4 in), the front end raised and the indicators being repositioned inside the headlight housings. The headlights themselves are now fixed to the front quarter panels rather than being integrated with the bonnet, so that they are not raised up with it when the bonnet opens. The car has a restyled grille and larger rear light clusters. The Cooper S retains the bonnet scoop in order to keep an association with the outgoing model — although the relocation of the intercooler to the front of the engine means that the scoop is now purely decorative. In addition, the Cooper S no longer has the battery located under the boot floor, instead being found in the more conventional
location under the bonnet. The C-pillars are no longer encased in glass and have been shaped to improve aerodynamics and to reduce the tendency for dirt to accumulate on the back of the car. Much criticised for the lack of rear legroom, Mini added more space for rear passengers by creating sculpted cut-outs in the rear of the front seats. An engine start button replaces the conventional ignition key and, with the optional 'Comfort Access', the car may be unlocked with a button on the door handle when the key is brought close to the car.

**Technical specifications**

The Cooper and Cooper S models offer a new rear axle and aluminium components to reduce the car's weight; and a Sports kit option comprising harder springs, damper and anti-roll bars is offered with both variants. Another key difference is the introduction of an upgraded electric power steering system, the sharpness of which can be increased by pressing a "Sport" button in front of the gear lever (both auto and manual); additionally, the "Sport" button adjusts the response of the accelerator, and in conjunction with automatic transmission, also allows the engine to rev almost to the redline before changing gear.

In the Cooper model the W11 Tritec four-cylinder engine was replaced with a 120 metric horsepower (88 kW) 1.6-litre Prince engine incorporating BMW's Valvetronic infinitely variable valve lift, developed on and with Peugeot's core engine. It has been reported in road tests that this takes the car from 0–100 km/h in a claimed 9.1 seconds (0-60 mph: 8.5 seconds)[28] and has a top speed of 201 km/h (125 mph). Fuel economy of 48.7 miles per imperial gallon (5.80 L/100 km; 40.6 mpg‑US) on the combined cycle is nearly 8 miles per imperial gallon (6.7 mpg‑US) better. The more powerful 175 metric horsepower (129 kW) Cooper S replaces the supercharger with a new twin scroll turbocharger N14 DOHC motor in the interests of efficiency, and has gasoline direct injection; consequently, this engine version does not have Valvetronic. This engine also has an "overboost" function which temporarily raises the torque by 20 N·m (15 lbf·ft) under hard acceleration. As a result, 0–100 km/h is covered in a claimed 7.1 seconds (0-60 mph: 6.7 seconds)[28] and top speed is 230 km/h (140 mph). It achieves similar improvements in fuel economy to the Cooper, returning 40.9 mpg‑imp (6.91 L/100 km; 34.1 mpg‑US) combined. Both engines may be mated to either a six-speed manual or automatic gearbox. The turbocharged engine is the same (although with some French engineering modifications) as the one in the Peugeot 207 GTi/RC.

Since 2008 all non-U.S. Mini models (except the standard Mini One) have been equipped with BMW's Efficient Dynamics fuel-saving technology, called "Minimalism Technologies" in Mini literature. This includes a start-stop function that shuts off the engine when the car is stationary; when the clutch pedal is depressed, the engine is restarted with electricity generated from Brake Energy Regeneration. The Cooper D model attains 74.0 miles per imperial gallon.
(3.82 L/100 km; 61.6 mpg-US) and emits 104 g of carbon dioxide per 100 kilometres. A Mini One D has been available in Europe since 2009, attaining the same fuel efficiency and emissions of greenhouse gases as the Cooper D, which is itself quite comparable to the Toyota Prius for fuel economy and carbon dioxide emissions (potentially better than the Prius at higher rpm). With the widespread use of its Efficient Dynamics, Mini is the first automotive brand to have all models in its range classified as mild hybrids (Mini’s parent, BMW, is still in the process of implementing Efficient Dynamics across its older models).

All models of the Mk II with optional dynamic stability control (DSC) also include "Hill Assist", which prevents the car from rolling backwards on an incline by holding the brakes for 2 seconds after the driver releases the brake pedal, allowing the driver time to engage the accelerator pedal without the vehicle drifting. Also included with DSC is hydraulic EBA (Emergency Brake Assist) as opposed to the mechanical system on Minis without DSC. DSC is standard on all Minis since September 2008.

The interior of the Mk II echoes the style of the earlier model, but is in fact a complete redesign. The boot of the new car has an additional 10 litres (2.2 imp gal; 2.6 US gal) of load space. Other changes in design - both visible and otherwise - have contributed to the Mini’s recently awarded five stars in the Euro NCAP tests. One example is the higher front bonnet, which now complies with the European pedestrian collision regulations.

Breakdown statistics reported by the German Automobile Club in May 2010 placed the Mini at the top of the small car class in respect of the low break-down rates achieved for cars aged between 0 and 4 years, narrowly beating the Ford Fusion and Mitsubishi Colt.

**Model range**

The Mk II range was launched with the One, Cooper and Cooper S derivatives. In July 2009, a new budget version called Mini First was added. Similar to the One, but lower output 1.6 L engine 75 metric horsepower (55 kW) and no automatic option, it preempted the launch of the One Minimalism by including the Mini Minimalism technologies. The vehicle launched with a base MSRP of £10,950. In January 2010 the Mini One Minimalism was announced, which was available in two states of tune depending on the market: (75 metric horsepower (55 kW) and 98 metric horsepower (72 kW)). The model was marketed as a more environmentally friendly option with low 119 grams (4.2 oz) per kilometer carbon dioxide (CO₂) helped by low resistance tyres and flush wheel trims, and included the Minimalism technologies previously excluded from the Mini One.

In spring 2011, a new diesel Mini Cooper SD was launched. With a new four-cylinder 2.0 L turbo diesel engine, it had an output of 145 metric horsepower (107 kW) and maximum torque of 305 newton metres (225 lbf·ft) between 1,750 and 2,700 rpm.

From 2009, chameleon paints were offered in Asia and Europe.


The Mini John Cooper Works Challenge is a purpose-built race car, based on the R56 Hardtop, and manufactured in the BMW Motorsport factory located in Munich. The Challenge was unveiled in 2007 at the Frankfurt IAA Motor Show. The BMW Motorsport factory has been responsible for the construction of Formula One and European touring cars for
many years. The R56 Challenge has a six-speed manual transmission; 17-inch Borbet wheels with Dunlop control slick racing tyres; John Cooper Works aerodynamic kit including front splitter, rear diffuser, and high-downforce, adjustable rear wing; race-specific AP Racing ABS braking system; KW suspension rebound; height- and camber-adjustable coilover suspension; full roll cage; Recaro bucket seat with six-point safety belt; HANS device; Sparco racing steering wheel; air jack system; and a fully electronic fire extinguishing system.

The car has a 1.6-litre, twin-scroll turbocharged engine that produces 155 kW (211 PS; 208 hp) at 6,000 rpm, along with 261 N·m (193 lb·ft) of torque. Acceleration from 0–100 km/h (60 mph) is claimed at 6.1 seconds, and braking time from 100–0 km/h is just 3.1 seconds.

The car was used for events such as the Australian Mini Challenge, as well as ADAC events, and championships in Britain, Italy and Switzerland.[37] Robbie Davis won the 2013 Pirelli World Challenge.

**Mini John Cooper Works (2009-2014)**

Loosely based on the John Cooper Works (JCW) Challenge car, these are essentially Cooper S vehicles with a higher-output engine; a low-back-pressure exhaust system; a stiffer sport suspension; 17-inch light alloy rims with low-profile, performance tyres; Brembo performance brakes; and BMW's dynamic stability control (DSC) and Dynamic Traction Control (DTC) with Electronic Differential Lock Control (EDLC) as standard equipment. All JCW models are only available with a specific 6-speed Getrag manual transmission, and come with distinctive "John Cooper Works" badging in place of the normal "Cooper S" badging. The JCW vehicles are also factory-built, which further distinguishes them from earlier Mk II Cooper S models with any of the available John Cooper Works accessories (engine and suspension upgrades, aerodynamics kit, etc.) that are dealer-installed. All JCW models achieve the same EPA fuel economy ratings as their Cooper S counterparts.[38]

The engine is rated at 211 PS (155 kW; 208 hp) and 261 N·m (193 lb·ft); under heavy acceleration, the engine automatically boosts torque output to a peak of 279 N·m (206 lb·ft). These figures are achieved by reducing compression ratio to 10.0:1, and increasing boost from 0.9 bar (13 psi) to 1.3 bar (19 psi) when compared to the turbocharged engine used in the Cooper S.[39] According to Mini, the JCW Hardtop will sprint to 97 km/h (60 mph) in 6.2 seconds, with the JCW Clubman clocking in at 6.5 seconds; both vehicles top out at 237 km/h (147 mph)

The JCW variants were unveiled in 2008 at the Geneva Auto Show, as 2009 model-year vehicles.[40] Seven cars were entered into the 2011 24 Hours of Nürburgring, coming 4th in class and 34th overall.[41] In 2012, team Partl Motorsport
finished in 2nd place in its class with their endurance MINI, finishing in a strong 41st place overall.[42]

The BMW MINI Rallycross Championship, a one-make series, was a support category for the British Rallycross Championship.[43]

**Mini John Cooper Works World Championship 50 (2009)**

This is a limited-edition (originally planned to be 250 units, then subsequently increased to 500) of the John Cooper Works Hardtop. It commemorates the 50th anniversary of the victories by Cooper driver Jack Brabham in the 1959 World Championship of Drivers and by Cooper in the 1959 International Cup for F1 Manufacturers.

The production vehicle was inspired by John Cooper's son, Mike. It includes the John Cooper Works aerodynamics package; John Cooper Works Cross Spoke Challenge light-alloy wheels in Jet Black; specific body paint colours (Connaught Green body with Pepper White roof and bonnet stripes), carbon fibre bonnet scoop, rear diffuser, exterior mirror caps and tailgate handle; and specific interior colour scheme (Carbon Black interior with red knee-rolls, armrests and red stitching on the floor mats, gearshift & handbrake gaiters). The John Cooper signature was provided by "John" Michael Cooper.

The car was unveiled in 2009 Mini United Festival in Silverstone.[44]

**Special editions**

The old tradition of producing special, limited-edition Minis was also continued with the new Mini. For example, the Mini Monte Carlo,[45] recently launched in Singapore, is a tribute to the old Mini Cooper Monte Carlo, itself a limited edition Mini to celebrate Paddy Hopkirk's return to the Monte Carlo Rally 30 years after his original win. To celebrate the 50th anniversary of the Mini brand, two models were released in 2009: the Mini 50 Mayfair and the Mini 50 Camden.[46]

**London 2012 Olympic games**

At the London 2012 Olympic Games, a set of quarter scale remote-controlled Minis delivered throwing equipment, loaded into the car through the sun roof, to the athletes.[47]

In commemoration of Mini being an official partner of Team GB, an Olympic-themed special limited edition Mini Cooper was released, with a white roof featuring the London 2012 Olympic logo, and the London skyline printed on the dash.[48] There were two other special edition Minis that were released at this time: the Bayswater Special Edition and the Baker Street Special Edition.

**Third generation (F55 / F56) (2014–present)**

The third generation Mini was unveiled by BMW in November
2013, with sales starting in the first half of 2014. The new car is 98 mm longer, 44 mm wider, and 7 mm taller than the outgoing model, with a 28 mm longer wheelbase and an increase in track width (+42 mm front and +34 mm rear). The increase in size results in a larger interior and a boot volume increase to 211 litres.

Five all-new engines are offered for this Mini, three petrol, and two diesels: a 1.2 litre three-cylinder petrol with 102 bhp, a 1.5 litre three-cylinder petrol with 136 bhp, (BMW B38 engine), a 2.0 litre four-cylinder petrol (BMW B48 engine) that produces 192 bhp for the Cooper S, and a 1.5 litre three-cylinder diesel (BMW B37 engine) in two levels of power output: 95 bhp and 116 bhp (Cooper D), and a 2.0 litre turbo-diesel inline-4 engine that produces 168 bhp (Cooper SD). These engines are mated with a choice of either a six-speed manual, a six-speed automatic, or a six-speed sports automatic gearbox.[49]

MINI has also released an all-new model called the MINI 5-door (AKA 4-door in US, F55). It is marketed as a 5-door version of the new 3rd generation Hatch. The base MINI 5-door is 190 lbs heavier and 6 inches longer than the 3-door MINI Hatch models with similar performance characteristics and more cargo space.[50]

The 3-door Mini with an automatic transmission will reach 0–97 km/h (0–60 mph) in 7.3 seconds for the 1.5L 3-cylinder petrol model and in 6.4 seconds with the 2.0L four-cylinder petrol engine.[51]

**Design**

The shape is slightly more rounded than the one it replaces, in order both to improve the car’s aerodynamic efficiency and to enhance pedestrian protection in the event of accidents. It has a much longer overhang and higher bonnet. This latest model rides on BMW’s all new UKL platform that underpins the new BMW 2-Series Active Tourer.[52]

Criticisms of the design of the F56 MINI Cooper have focused upon the extruded and complex design of the front bumper in Cooper S and JCW variants, as well as the larger front overhang and oversized tail lamps. Further criticism has also centred upon the overstyled nature of the exterior design.[53]
The Mini is also the first in its segment to offer LED headlamps for its main and dipped beams as an option.[49]

With its larger exterior dimensions, the all-new Mini provides more space for its four occupants and luggage, with enhanced shoulder space and larger footwells. Boot volume has been increased by more than 30% to 211 litres.[49]

The dashboard retains its instrument layout, but adds a new instrument binnacle on the steering column for the speedometer, tachometer, and fuel gauge. The central instrument display now houses a four-line TFT display with the option to upgrade to an 8.8 inch screen for navigation and infotainment functions.[49]

**Engines**

- **Transmission**
  - 6-speed manual
  - 6-speed Steptronic automatic

**Dimensions**

- **Wheelbase**
  - 2,495 mm (98.2 in)
  - 2,567 mm (101.1 in)
  - (5-door)

- **Length**
  - 3,821 mm (150.4 in)
  - 3,982 mm (156.8 in)
  - (5-door)

- **Width**
  - 1,727 mm (68.0 in)

- **Height**
  - 1,414 mm (55.7 in)
  - 1,425 mm (56.1 in)
  - (5-door)

**Predecessor**

- Mini (R56)

**Chronology**

**Engines**

- **(Cooper S, JCW)**
  - 2.0L turbodiesel I-4
- **(Cooper SD)**
  - 2.0L turbodiesel I-4
<table>
<thead>
<tr>
<th>Model</th>
<th>Fuel type</th>
<th>Displacement</th>
<th>Cylinders</th>
<th>Transmission</th>
<th>Power</th>
<th>Torque</th>
<th>Emissions CO₂</th>
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<tbody>
<tr>
<td>One</td>
<td>Petrol</td>
<td>1,198 cc (73.1 cu in)</td>
<td>3</td>
<td>6-speed manual [6-speed auto]</td>
<td>75 kW/102 PS</td>
<td>180 N·m (133 lb·ft)</td>
<td>111-109 (114-112 g/km)</td>
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<td>Cooper</td>
<td>Petrol</td>
<td>1,499 cc (91.5 cu in)</td>
<td>3</td>
<td>6-speed manual [6-speed auto]</td>
<td>100 kW/136 PS</td>
<td>220 N·m (162 lb·ft)</td>
<td>107-105 (112-105 g/km)</td>
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<td>Cooper S</td>
<td>Petrol</td>
<td>1,998 cc (121.9 cu in)</td>
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<td>6-speed manual [6-speed auto]</td>
<td>141 kW/192 PS</td>
<td>280 N·m (207 lb·ft)</td>
<td>136-133 (126-123 g/km)</td>
</tr>
<tr>
<td>John Cooper Works</td>
<td>Petrol</td>
<td>1,998 cc (121.9 cu in)</td>
<td>4</td>
<td>6-speed manual [6-speed auto]</td>
<td>170 kW/231 PS</td>
<td>320 N·m (236 lb·ft)</td>
<td>147 [133 g/km]</td>
</tr>
<tr>
<td>One D</td>
<td>Diesel</td>
<td>1,496 cc (91.3 cu in)</td>
<td>3</td>
<td>6-speed manual</td>
<td>70 kW/95 PS</td>
<td>220 N·m (162 lb·ft)</td>
<td>92-89 g/km</td>
</tr>
<tr>
<td>Cooper D</td>
<td>Diesel</td>
<td>1,496 cc (91.3 cu in)</td>
<td>3</td>
<td>6-speed manual [6-speed auto]</td>
<td>85 kW/116 PS</td>
<td>270 N·m (199 lb·ft)</td>
<td>95-92 (99-98 g/km)</td>
</tr>
<tr>
<td>Cooper SD</td>
<td>Diesel</td>
<td>1,995 cc (121.7 cu in)</td>
<td>4</td>
<td>6-speed manual [6-speed auto]</td>
<td>125 kW/170 PS</td>
<td>360 N·m (266 lb·ft)</td>
<td>109-106 (107-104 g/km)</td>
</tr>
</tbody>
</table>

Sales and rankings

Between 2001 and 2012, 2.5 million Minis have been sold.[54]

The Mini Cooper/Cooper S (2001–2006) won the North American Car of the Year award in 2003.[55] The car won the 2006 car of the year at the "Das Goldene Lenkrad" awards in Germany.[56] MotorPress.ca awarded the F56 MINI JCW with their "Driver's Car Award" and "Top Pick" award giving it a rating of 8.3 out of 10, praising its driving characteristics and engine. [57] Fifth Gear awarded the Cooper S their Best Small Car of 2006 award.

The Mini brand enjoyed paradoxically strong sales and customer loyalty in the US, while at the same time being rated worst for problems found in the JD Power survey. In 2009, Mini ranked last, 37 out of 37 brands, in the JD Power Initial Quality Survey, having landed second to last the previous year. The survey gives the same weight to problems from something being broken, and problems due to the car owner finding them difficult to use, unfamiliar, or confusing. The quirky controls found in Minis, such as non-standard windshield wiper or interior lighting switches, were counted both as "problems" that hurt Mini's ranking in the Initial Quality Survey, and also as distinguishing "idiosyncrasies" that, over time, made owners grow to love the cars. This contributed to brand loyalty and relatively strong sales, and expanding the
number of US Mini dealerships, in the midst of the 2008 recession and automotive industry crisis of 2008–10. Consumer Reports ranked Mini as the least reliable car brand in 2013, saying that, "less-expensive European brands are having more problems", perhaps due to cost-cutting at the expense of reliability. In 2015, Consumer Reports awarded the 2006–2012 Mini Cooper S the title 'Worst Used Car', saying that while it was "cute and delightfully entertaining", the repair frequency was "heartbreaking" because the magazine's surveyed owners reported problems in the areas of "engine major, engine minor, engine cooling, fuel system, body integrity, and body hardware have issues at an alarming rate". BMW mini has a range of issues which are common. Head gasket failure being moderate. The early midland 5 speed used in the car up to July 2004 were redesigned by Rover for the mini. However the bearings and oil levels when there was a drive shaft leak would cause failure. A oil change had to take place due to LSD problems giving a grinding noise from the diff. One of the prominent issues was also with power steering failures leading to a widespread recall. Another recall was due to failure to deploy passenger airbag. General issues were note in build quality squeaks from the interior. A design fault also affects most cars where the suspension travel and weak shock mounts will break and impact deforming the body work known as mushrooming.

References


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60. Woodyard, Chris (29 October 2013), "Consumer Reports: Top 10 most unreliable car brands" (https://www.usatoday.com/story/money/cars/2013/10/29/consumer-reports-worst-cars/3304413/), USA Today

61. "Cars you'd be foolish to buy; Reliability, satisfaction, and test scores knock out these contenders" (http://www.consumerreports.org/cro/news/2015/04/cars-you-d-be-foolish-to-buy/index.htm), Consumer Reports, 1 April 2015, retrieved 25 August 2016