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## 2009 Mini Cooper **Sporty handling, engineering excellence, design, economy.**

### **Overview**

The Mini Cooper is sporty and fun. It's practical as a two-seat car, with comfortable seats, useful cargo capacity, and an EPA-rated City/Highway 28/37 miles per gallon.

Inside, it's large enough to accommodate all sizes of drivers and front passengers in comfort. The rear seats in the hardtop allow four adults. With the hatchback and folding rear seats, the Mini Cooper can haul reasonable amounts of gear. The convertible has less rear seat room and considerably less rear cargo capacity.

BMW offers a large range of styling options, with choices not only in upholstery style, material and color, but also in trim panels, accent panels, and ambient lighting. Check too many options and the Mini's price can rise quickly from economy-entry to near-luxury levels. But all Minis are well equipped for what you pay.

This second-generation Mini Cooper was launched for the 2007 model year for the hardtop body style and 2009 for the convertible. continues to generate smiles on the faces of passersby. That's an impressive feat given the first-generation models have been with us since 2000 and the current version looks very similar.

To meet European environmental and fuel-economy requirements, BMW designed a completely new engine in cooperation with Peugeot. It produces approximately the same horsepower as before: 118 in the Mini Cooper and 172 in the Mini Cooper S. But horsepower is only part of the story. However, a new turbocharger in the Cooper S delivers 177 pound-feet of torque from 1600 to 5000 rpm, significantly improving performance.

The Mini Cooper's heritage dates back to the late 1950s, when it was conceived by the British Motor Corporation in response to the Suez crisis to provide efficient, bare-bones transportation. It was roomy and comfortable. It was cheap to build, cheap to buy, and cheap to run.

But the Mini's fundamental cuteness lent it a sort of chic. Soon it was adopted by celebrities such as Peter Sellers, who drove one on screen as well as off. Like the U.S. Jeep, the Mini survived multiple corporate mergers and disasters; and by the time production finally ended in the 1990s, its pioneering transverse engine (mounted sideways, rather than longways, to save space) had been imitated by most automakers. The Mini was sporty and fun to drive. BMW now owns the Mini, and revived the marque with an all-new car for the 2000 model year. It was redesigned for 2007.



Of some 6 million original Minis, the best-known were the high-performance variants tuned by race-car builder John Cooper. Multiple rally and touring-car championships, including overall wins at the Monte Carlo Rally in 1964 and '67, assured the Mini Cooper's reputation as a small but formidable force in motorsports. The revived company plays off that heritage by offering high-performance John Cooper Works models that feature more power and tighter suspensions.

## **Model Lineup**

The 2009 Mini Cooper comes as a two-door hatchback called the hardtop, a four-seat convertible, and a longer-wheelbase wagon called the Clubman. Two trim levels are available, the standard Cooper and the higher-performing Cooper S.

The hardtop was redesigned as a second-generation car for the 2007 model year, while the second-generation convertible makes its debut as a 2009 model.

The Mini Cooper hardtop (\$18,550) and convertible (\$23,900) are powered by a normally aspirated 1.6-liter four-cylinder engine rated 118 horsepower. Both come standard with air conditioning; AM/FM/CD/MP3 stereo with six speakers, RDS, and pre-wiring for satellite radio; power windows with auto-down; power locks; remote keyless entry with electronic signal transmitter in place of the ignition key; leather-wrapped tilt/telescoping steering wheel; six-way adjustable driver's seat; height-adjustable front passenger seat; split-folding rear seat; leatherette upholstery, outside temperature display, and a cooled glovebox. The hardtop also gets a rear wiper and defogger and P175/65R15 all-season tires on alloy wheels. The convertible has P195/55R16 run-flat tires on alloy wheels.

The Mini Cooper S hardtop (\$21,950) and convertible (\$26,800) are equipped with a 172-horsepower turbocharged version of the same engine, stiffer suspension, performance exhaust system, and 16-inch alloy wheels with 195/55R16 all-season run-flat tires for both body styles; 17-inch wheels are optional. Exterior design details, including fog lights, a black grille insert, hood scoop, rear bumper inserts and prominent rear spoiler wing (optional on the Cooper), distinguish the Cooper S from the Cooper.

The John Cooper Works hardtop (\$28,550) and convertible add a more powerful version of the turbocharged engine rated at 208 horsepower, as well as larger brakes, firmer suspension and P205/45R17 run-flat tires.

All models come standard with a six-speed manual transmission; a six-speed automatic transmission with Steptronic manual shift controls is optional (\$1,250) for all but the JCW models.

Personalization is a big part of the Mini experience, and the list of available options is far too long to repeat here, from electronics and amenities to aero kits, stripes, and chrome baubles. An extensive array of alternative trim features is available to customize the interior to personal tastes, in terms of colors, textures and materials.

Option packages include the Sport Package (\$1,500) with Sports suspension, 16-inch wheels (for the hardtop), traction control and stability control with an on/off switch, and bonnet stripes; the Convenience Package (\$1,250) with rain-sensing wipers, automatic headlights, Bluetooth, a universal garage door opener, an iPod adapter, an auto-dimming rearview mirror, and keyless access and starting; a Cold Weather Package (\$500) with heated front seats, power folding mirrors, and heated washer jets; and a Premium Package (\$1,250) with a panoramic sunroof, automatic climate control, cruise control and steering wheel audio controls. Significant stand-alone options include a limited-slip differential (\$500), xenon headlights (\$500), Bluetooth (\$500), and navigation (\$2,000). Many if not most of the items from the various option packages are also available as stand-alones.

Safety features on all models include dual front airbags, anti-lock brakes (ABS), Electronic Brake Force Distribution, Brake Assist, and Cornering Brake Control. Hardtops get torso-protecting front side airbags and head-protecting curtain side airbags, while convertibles add front seat-mounted head- and torso-protecting airbags and a pop-up rear rollover bar. Brake Assist detects emergency operation of the brakes, and builds up maximum brake pressure as quickly as possible. Dynamic Stability Control (DSC) with traction control is standard, and a version that can be turned on and off is optional on all but the JCW, where it is standard. Hill Assist start-off assistance is a feature of DSC, activating the brakes when starting on an uphill ascent to prevent the car from rolling back. Rear park assist is optional.

## Walkaround

The second-generation of the modern Mini Cooper is still unmistakably a Mini. Even while updating the car for safety, mechanical, and manufacturing considerations, BMW designers were reluctant to risk messing with a successful formula. Anyone who is not already a Mini owner will have difficulty distinguishing the current Mini from the previous-generation (pre-2007) version unless the two are parked side by side. Nevertheless, not a single exterior panel is common between the two cars.



The front of the Mini had to be restyled to conform to more rigid European restrictions on exterior panel shapes for pedestrian safety. Then the remainder of the car was restyled as well to blend with the new front end.

Park two examples side by side and you'll see immediately that the headlights of the second generation (2007 and later) model are rounder, the hood flatter, the grille more prominent than those of the first generation. Turn signals are now integrated into the headlight clusters, and bigger foglights (when ordered) are set into a simplified bumper where the turn signals used to be. Around back, wider taillights and a wider trim strip on the hatch echo the changes up front. The beltline rises faster, too, giving the rear end a more tapered look. In general, the latest Mini seems broader-shouldered and more aggressive than the last, and so departs even further from the narrow and square original. It is a little larger, too, measuring 2.36 inches longer. But we doubt most modern Mini buyers will mind or even notice.

In any case, close inspection of the exterior shows that in almost all areas, design and execution is upgraded from the first generation. One notable example is how the headlamp clusters are now firmly attached the front fenders, fitting through openings in the hood; where in the previous model the headlamps were built into the hood itself.

The convertible comes with a power canvas roof that opens at the touch of a button in just 15 seconds when the car is parked or traveling at up to 18 mph. There are no latches to operate. The convertible top has a heated glass rear window and a sliding roof function that opens just the portion over the front seats. It acts as a sunroof and can be opened at speeds up to 75 mph.

The soft-top maintains the same basic silhouette as the hardtop, though the rear window is tilted farther forward. The rear side windows are about a third of the size of those on the hardtop because the cloth top wraps further around the sides of the car. Behind the rear seat, the convertible has a concealed Active Rollover Protection Bar that pops up in case of a rollover. When the convertible top is down, it rests at the back of the car and sticks up a bit, sort of like a makeshift spoiler. The look is fine, but it blocks the driver's lower line of sight to the rear.

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### **Driving Impressions**

We've found the Mini Cooper to be sporting and comfortable at the same time. We've driven them on race tracks and on streets and highways around the world. This latest-generation Mini is easier and safer to drive quickly, benefits of changes to the suspension, the increased torque of the engine, and the electromechanically assisted steering. This is one of the most fun and responsive cars on the road.



The convertible is almost as sporty as the hardtop. This latest version handles better than the previous-generation (pre-2009) convertible thanks to a stronger body structure that allows for little cowl shake. In fact, we'd call it one of the stiffest convertibles on the market.

We found that the optional 17-inch run-flat tires combined with the stiff suspension on the Mini Cooper S convertible made it prone to pounding over bumps. We began to dread early spring potholes on Chicago streets. Our advice is to try the S suspension and the larger tires before you buy; they may make the ride too stiff for some tastes.

The latest engine was engineered by BMW and is being produced by Peugeot. It was designed to meet increasingly stringent European environmental regulations, which now focus on both mileage and CO2 emissions. Engines installed in Minis are manufactured in the BMW Hams Hall engine plant in England. Prior to 2009, the convertible had been using the previous-generation engine developed by Chrysler and Rover until 2009.

The current engine has the same capacity and produces approximately the same horsepower and torque as the previous engine. However, with BMW Valvetronic variable-valve-timing technology it rates and EPA-estimated 28/37 mpg City/Highway. And according to European testing, CO2 emissions are significantly reduced.

In Cooper S turbocharged trim with direct fuel injection, the new engine delivers very sporting performance. Its 172 horsepower is more than adequate in the lightweight Mini to generate speeds twice most legal limits, but the 177 pound-feet of torque, which can be over-boosted to 190 pound-feet for short intervals, and is available from 1700 rpm to 5000 rpm, is nothing short of marvelous. A Sport button yields quicker response from accelerator and steering.

The turbo engine takes the Mini from 0 to 60 mph in 6.7 seconds, reflecting a slight turbo hesitation at the start, but producing satisfying acceleration at all speeds once in motion. Even on the track at Zandvoort, with its frequent elevation changes and notoriously tight hairpin corners, the car turned its fastest laps with the transmission left in third gear rather than downshifting to second. And even with that performance, the turbo with manual transmission is still EPA-rated at 26 mpg urban and 34 mpg highway.

The Cooper S comes with a sport-tuned suspension, but its behavior is still much more refined than other cars capable of similar track speeds. Using the MacPherson strut front suspension and multi-link rear suspension adapted from the BMW Z4, the Cooper S is flat and stable in corners, and absorbs most bumps without discomforting passengers.

Though this model still has the same short wheelbase as its predecessor, and the same tight turning radius, BMW has retuned the suspension to reduce its oversteer potential so that even with radical changes in throttle or brakes in the middle of corners, the car never feels at risk of spinning out.

This feeling of composure has been heightened through the programming of the electromechanically assisted steering, which uses an electric motor, instead of hydraulics, to alter and enhance driver steering input. Because the steering is still mechanically connected to the front wheels, this system can't be called drive-by-wire, and the driver still has a feel for the road and the car's changing cornering force can be felt through the wheel.

In addition to its variable-ratio rack, the system can alter the steering effort. This is most apparent in tight, slow parking lot maneuvers where very little effort or wheel motion is needed to make large changes in direction. In comparison, at highway speeds greater rotation of the steering wheel results in smaller and less sensitive directional changes.

One advantage of electronically assisted steering is that input/output ratios can be changed during the course of a turn, not just varying with vehicle speed. In the Mini, this means that the initial turn-in is cushioned slightly, so the car doesn't feel as go-kart twitchy as the previous model, but once a constant turning radius is established, it takes almost no effort to maintain the turn, regardless of speed.

Both the Cooper and Cooper S rely on the same four-wheel-disc brake system. It provides quick and stable stops.

## **Summary**

The Mini Cooper offers agile handling and crisp performance and a distinctive bulldog appearance, the latter enhanced by a variety of trim and color options. We're traditionalists, so we prefer the hardtop over the convertible. Either way, the Mini provides the most fun per dollar of any car on the market with the possible exception of the Mazda MX-5.



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