

# AutoSunday

## Volvo XC60 rates high in safety

By ANN M. JOB  
For The Associated Press

Fulfilling its decades-long reputation for safety innovation, Swedish carmaker Volvo debuts the safest crossover sport utility vehicle on the road and stocks it with desirable features.

Arriving at U.S. dealerships in time for spring, the 2010 XC60 is a stylish five-passenger, tall-riding crossover with turbocharged engine and a safety first, high-tech system that can apply the brakes and even stop the vehicle when sensors detect an impending slow-speed, front-end collision.

Called City Safe, the system works at speeds

### At a glance

**Price as tested:** \$46,840

**Engine:** 3-liter, double overhead cam, turbocharged six cylinder

**City/highway fuel economy:** 16/22 miles per gallon

**Length:** 182.2 inches

**Wheelbase:** 109.2 inches

**Curb weight:** 4,174 pounds

**Built:** Belgium

between 2 and 18 miles per hour and uses an infrared laser to monitor the closing rate of the XC60 to the vehicle just ahead. If the driver takes no action, the system applies the brakes abruptly before a crash occurs.

Volvo officials say that up to 9 mph, City Safe

may be able to stop the XC60 in time to prevent a collision. At higher speeds to 18 mph, City Safe should at least lessen the force of a collision and reduce vehicular damage — not to mention damage to a driver's pocketbook for repairs.

The new system, the first of its kind in a production vehicle, joins an already lengthy list of standard safety features in this newest Volvo. The list includes electronic traction control and stability control, curtain air bags, anti-lock brakes with emergency Brake Assist and a body structure that's reinforced on the sides for improved crash protection. There's even an optional booster cushion for children for the back seats that is height-adjustable. No other integrated child seat provides height adjustment.

All this safety isn't cheap. Starting manufacturer's suggested retail price, including destination charge, is \$38,025 for a base 2010 Volvo XC60 with 281-horsepower, turbocharged six-cylinder engine and standard all-wheel drive.

The test XC60, with many of the optional safety items such as a blind spot alert that beeps to tell a driver that another vehicle is nearby, topped out at more than \$46,000.

Standing 5-feet-6-inches tall, the sizable-for-a-compact XC60 has a beefy appearance, despite the nicely styled lines. And it's heavy, too, weighing nearly 4,200 pounds, or nearly as much as a 2009 Lincoln Town Car. It's also 250 pounds heavier than an Acura RDX.

The heft was evident during the test drive as riders' heads moved to one side and then the other side as the XC60 took right- and left hand curves on twisty roads.

I just wish the otherwise comfortable and leather-covered seats had more lateral support because I slid around a lot while driving on curvy roads. I also had to get accustomed to the sizable front head restraints that sat very close to the back of my head — closer than what's typical in other SUVs.

In the city and on the highway, the XC60 shines, providing good views out over most traffic. Note that the 9.1 inches of ground clearance under the vehicle are more than what's found in most other crossovers.

Crossover SUVs generally are styled with SUV appearance cues but they are built on modified car platforms, which give them a more carlike ride, rather than a truckish one.

The XC60 is no exception. Underneath is a platform using parts from the Volvo S80 sedan as well as XC70 SUV and V70 wagon.

The ride is firm but not punishing, compliant to a point, but not plush.

Cargo space with the rear seats folded down is a commendable 67.4 cubic feet, and it's nicely finished back there. The power liftgate became a favorite feature, though I needed to lift items high to get them inside because the cargo floor is positioned high above the ground.

The optional panorama moonroof provides an airy feel inside for both front and rear passengers, but rear-door windows go down only about two-thirds of the way.



ASSOCIATED PRESS/Courtesy of Volvo  
The 2009 Volvo XC60 T6 is heftier than most compact SUVs.

# 356

Using the V.W. Beetle platform,  
Dr. Ferdinand Porsche made  
a top-of-the-line classic



By MALCOLM GUNN  
Wheelbase Communications

Of all the successful sports cars ever created, the 356 is hands-down the most unique — as well as one of the most desirable.

Strands of its DNA can still be found in today's Porsche 911-series that's nearly unbeatable in competition and remains atop the wish list of anyone who yearns for speed and beauty.

For automobile enthusiasts the world over, the Porsche name has remained magical for more than 50 years. The brand's master magicians, Dr. Ferdinand Porsche and his son Ferry, are revered for taking their underpowered and ill-handling 1930s-era Volkswagen Beetle and creating a veritable legend: the Porsche 356.

What's in a name? In this case, 356 is a numerical call sign with no real significance (it just happened to be the 356th project undertaken by the father-and-son design team), but would eventually come to represent a quick, agile and solidly built performance car for the road or the racetrack.

It would also be the very first car to bear the Porsche family name.

The original prototype, constructed at Porsche's Austrian studio in 1947, was actually a mid-engined roadster. However, it was deemed too expensive an undertaking, so the test vehicles were fitted with a derivative of the Beetle's rear-engine platform, a four-wheel independent suspension and unit-body (frameless) construction as well as the Volkswagen's air-cooled engine.

Over the next three years, the 356 would undergo significant refinement before making it to full production in 1950. During this period, Porsche was also receiving a royalty on every Volkswagen made, which provided the necessary funds for research and development. Porsche was also able to relocate production to larger facilities near Stuttgart, in what was

### Fine Lines

1950-'65 Porsche 356 series

then West Germany.

Those early 356s were unusual looking to say the least. There wasn't a right-angle in sight, just a round blob of a steel body that was derisively labeled "the bathtub." But that funny shape was not only aerodynamically superior to anything else on the road, but the curved sides resulted in an unusually roomy and comfortable cabin, with plenty of elbow room for both the driver and front passengers.

Under the rear hood resided the familiar Beetle-based air-cooled horizontally opposed four-cylinder engine. Porsche engineers had reduced its displacement to 1,086 cubic centimeters (1.1 liters) from the original 1,131 so it could compete in the 1,100-c.c. racing class. To compensate for the smaller size, a redesigned cylinder head gave an output of 40 horsepower (up from 25). Along with the 356's 84-mph top speed, there was also plenty of stopping power, thanks to hydraulic drum brakes instead of the Beetle's cable-operated system.

The constantly evolving 356 continued until 1955. During that period, power and engine displacement steadily increased, eventually topping out at 70 horsepower and 1.5 liters, respectively. The car was a hit with customers and was equally successful on the racetrack. In 1951, for example, a specially prepared 356 won its class at France's grueling 24 Hours of LeMans endurance race.

The original 356 hardtops and convertibles were followed by the 356A in 1956. Along with minor body modifications, there was an all-new four-speed synchromesh transmission. You could even get a 110-horsepower DOHC racing engine.

In addition, the 356A Speedster, a specially designed offshoot with its lowered windshield and more powerful engine, could be ordered for the street as well as for the track. The Speedster is the most enduring of all the early 356s, with fiberglass replicas available to this day.

Following a four-year production run that led to more than 20,000 copies being built, the 356A was replaced by the 356B in 1960. The styling, although not nearly as round as it was with previous versions, still retained its jelly-mold appearance. The air-cooled four-cylinder engine produced from 60 horsepower in base trim, all the way up to 130 horsepower in the Carrera 2 racing model. The 356B and its successor, the disc-brake-equipped 356C, were far more powerful and more sophisticated than any previous Porsche, a fact that was reflected in the car's steadily increasing price tag.

By this time, there was virtually nothing in common between the 356 and the VW Beetle, other than engine location.

Despite its \$4,000-plus sticker price, the 356 continued to sell in record numbers. By 1963, yearly output exceeded 10,000 units for the first time in the company's history.

After a 15-year production run, the last of the more than 76,000 356s left the factory in September of 1965. By then, Porsche was already producing its successor, the four-cylinder 912 and six-cylinder 911 models.

More than a half-century following their creation, mint condition 356s are a rare find. That's because many of these cars continue to be treated as daily drivers by owners who enjoy their excellent road manners and the delightful mechanical sounds behind their ears.

For these folks, and for Porsche enthusiasts everywhere, the magic never stops.

• E-mail Malcolm Gunn at [www.wheelbase.ws/mailbag.html](http://www.wheelbase.ws/mailbag.html).

## Bleeder valve will relieve line pressure

**Q.** I read that when replacing brake pads on a vehicle with ABS, and when compressing the piston back into the caliper, the pressure should be relieved by cracking open the drain. I have not seen this anywhere else. Is this required for ABS systems? I have a 2006 Toyota RAV4.

**A.** This is a great question.

The concern you are referring to is that in rare cases, if there is any dirt or excessive moisture in the system, you could push it back up into the ABS Controller. In most cases it is not a problem to compress the caliper slowly. If the brake fluid is really dirty, I would open the bleeder and then when you are done with the job do a thorough brake fluid flush. I hope this helps.



Doug McAllister  
Under the hood

**Q.** I'm a car enthusiast and would like to purchase an older BMW. A 2001 740i to be precise. I would not be able to afford a new one, but can purchase a top-of-the-line car from the past. My concern however is to be able to afford the cost of maintaining the car. What is the cost of routine maintenance on this type of vehicle? What is the cost of a brake job? Are the costs prohibitive?

**A.** The 740i is a very nice car and is a car enthusiast's dream when all is working well. In my experience these cars can become a financial nightmare as they age and get miles on them. Parts and labor are more expensive and down time is a little longer. If you have any concern about affording the maintenance, I would choose another car. If money is no concern and it's the car you've always wanted, go for it. I have a client with a 1998 740Li who has put over \$22,000 in his car over the last four years ... ouch! I'm not sure that's a dream I would want to be part of.

### Update

"Doug, I told you I would get back to you and your readers about the groaning sound coming from the front of my Hyundai Sonata when the brakes were applied. The car is two years old with 30,000 miles on it.

"Though the dealership service adviser, mechanic and service manager all tried to convince me the groaning sound I heard from the front of the car when the brakes were applied is "normal" and to live with it, I stood my ground. After a face-to-face meeting with the service manager and also giving him a written history of the problem, the service manager did contact the Hyundai representative. The Hyundai representative did authorize removing and replacing the front rotors and front brake pads at no charge.

"I have now driven the car for four weeks and tested the car many times listening for the sound to appear. Guess what? As of now, it is gone!

"My advice to all drivers out there; you know your car and if something does not feel right or sound right, don't let anybody tell you it is "normal or live with it! Just like a medical problem, get a second or third opinion if the first opinion does not sound right to you."

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