

Audi A6 trims down, techs up, hits 0-60 in 5.3 and gets 28 mpg

The Audi lineup has changed a great deal over the past decade or so, with the addition of the A3 in the US, the Q7 and then Q5 as Audi arrived late to the SUV game, the R8, A5 and A7, and the TT (for a bit longer). Coming soon will be a Q3 and probably an A2. One thing that stays the same is the A6. Others are the A4 and the A8. But do they really stay the same?

To briefly review how far the brand has come in the US, flash back first to the '70s and early '80s, the age of the ill-received Audi Fox. The arrival of the tech-leading and rally-dominating quattro coupe brought big changes to Audi's mindshare, and the arrival of the 4000 quattro sedan, at about 30 percent the cost of the quattro coupe, brought market share. Add a 5000, and the brand had a two-vehicle US presence by the mid-'80s. By the late

'80s and into the early '90s, they had taken on European numerology, as the 80/90 and 100/200. Not only did the model designations change, but those were slightly smaller cars than the 4000 and 5000. For those who thought the 100 was a little too small after the old 5000, the Audi V8 joined the lineup. The three-model lineup was now solidified, but this nomenclature only lasted a few years, as the A4, A6 and A8 names took over.

But along the way, the cars started to grow. This is not unique to Audi. But dovetail this with the fuel economy rollercoaster, as well as the real economy rollercoaster, introduce more models, and in some ways the A6 was back where the 5000 was some 15 years prior, big enough and well-enough appointed to be the flagship car, though now still with an A8 positioned above it.

Maybe it's because we were reviewing this during the baseball playoffs, a statistician's dream, but we were compelled to see just how much the A6 had grown. We had a hunch the A4 had grown toward prior A6 territory, the A6 toward prior A8 territory, and the A3 was surely bumping up against the niche of the earlier A4. Yes? Partly. We found some confirmation and a few surprises.

Charting the changes

With hundreds of individual data points available to us, we zeroed in on a few. Weight is an obvious benchmark, though it is skewed by the increasing use of lightweight materials. Audi pioneered aluminum construction in the A8 years ago and is now applying it judiciously throughout the lineup. Smaller and more fuel-efficient engines

reduce weight without necessarily reducing size (or power). We were somewhat surprised to find that as length grew on some of the cars, width often shrank. With occupant space a priority, some of this is attributed to newer weight-saving side impact beams and more compact airbags—or they may have indeed been sized down.

The A4 is the highest volume seller, at about 300,000 units per year worldwide in recent years. The A6 hovers closer to 200,000 (as does the A3, though much of its volume is overseas). Positioning a lineup is always challenging, balancing a desire to give buyers a bit of what they get in larger models, without cannibalizing the siblings' sales. Since people generally aspire up and not down, this also spurs size increases.

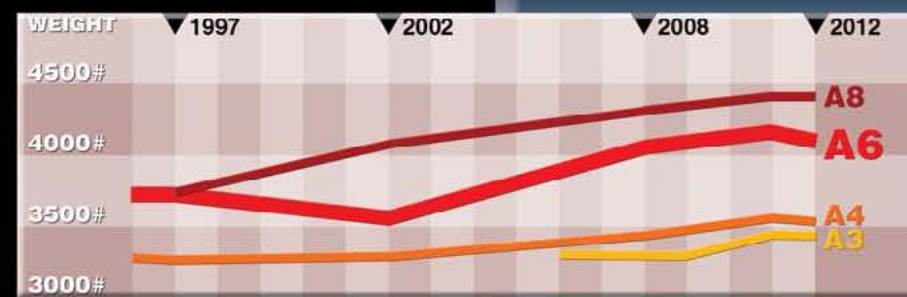
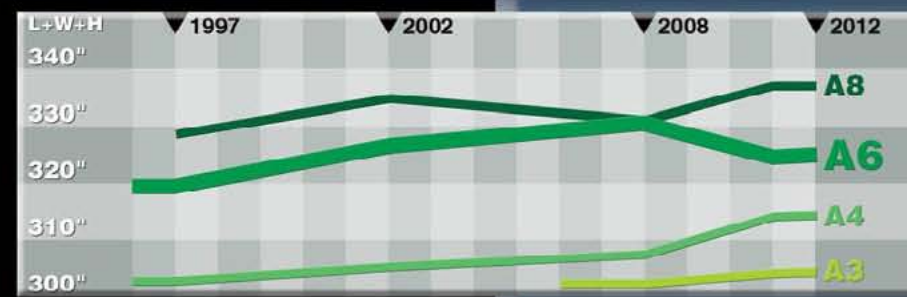
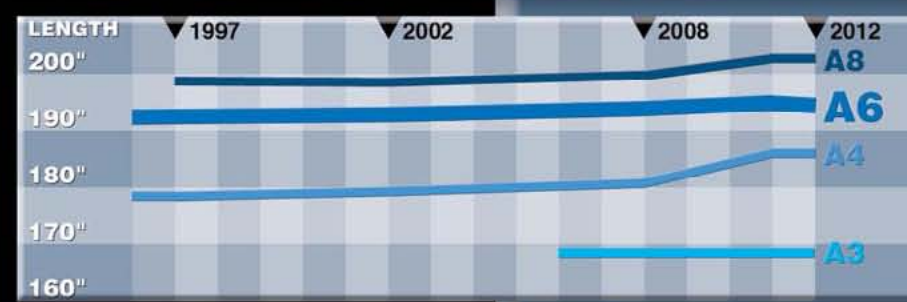
The charts at the right demonstrate some of the highlights. (Not all years were incorporated, and various assumptions were made on engine and drivetrain comparisons, but the trends are clear.) The bottom chart shows that today's A6, even with weight reduction for 2012, is indeed heavier than the larger A8 was 15 years ago, matching the A8 of about 10 years ago—even after the A6 went on a diet in the early 2000s. That low point in the A6's weight is roughly matched by the current A4. The A3 stays comfortably just below the A4, though it is gaining on it and exceeds the weight of the A4 at the time the A3 arrived just a few years ago. The A8 remains the heavyweight champ.

We expected to see the same with exterior dimensions. Length, wheelbase, width and height can be compared, but we started with length, for simplicity (top chart). Unexpectedly, we did not find the same eclipsing of prior larger models by current smaller ones, although the A4, clearly growing the fastest in recent years, comes closest.

The middle chart adds length, width and height together. Heights are pretty consistent year-to-year for each model, so the clear difference between the upper and middle charts is attributable to wild fluctuations in width, while the lengths were so consistent. Watching the A8 slim down through much of the 2000s, with the A6 matching it in 2008 overall, gives insights into the wakeup call this may have been at Audi, as the A8 then makes rapid gains while the A6 falls off. In 2008, the A3 and A4 were alone in the small world, and the A6 and A8 in the large. Today, they are very evenly spaced.

Our biggest surprise was that the 2012 A6 we were driving had not continued to grow, as we had suspected. Instead, its width in particular had slimmed down (though it grew again a little bit this year). Overall, these four models seem to have been spaced out to better accommodate the arrival of the A5 and A7, whether by intent or not.

The A4 is the one that climbs the most in size (though moderately in weight). This suggests that its popularity has driven the manufacturer to create more of a car by making it larger. Since the A3 is so much smaller, that may misread the segment. An A4 the size of a few years ago may have been exactly what so many people wanted, to make it so dominant in sales. For more of a car—meet the A6.



Mostly bigger, but lighter and slicker

Audi's big updates stairstep across the years by lineup, and this is a big year for the A6, following the introduction of the new A7. Overall length of the new A6 is down from 2011, by just a half inch, but its wheelbase is up by almost three, continuing the trend of pushing the wheels toward the vehicle's corners, nice for aesthetics and even better for handling and for interior space. Width increases by 0.8", height by 0.4". Creature comfort dictates some



by Joe Sage





of this, but the wind tunnel also comes into play: the new body reduces drag coefficient by over ten percent, from 0.29 in 2011 to 0.26 in 2012.

Efforts didn't stop with the wind tunnel. The new A6 has 20 percent aluminum content, with an aluminum body on a steel frame, plus aluminum suspension (reducing weight and improving ride and handling). The result: a significant reduction of 78 pounds, despite increases in width, height, wheelbase and track.

More taste, less filling

All that aluminum and steel is wrapped around Audi's 3.0-liter V6 turbo, which generates 310 horsepower, up from 296 hp in the prior-generation 3.0T, but way up from the old 3.2-liter's 252 hp and even moreso from the old 2.8-liter's 217 hp. It even compares well with the prior 4.2-liter's 345 hp, considering this 3.0T still has 325 lb-ft of torque, accelerates from 0-60 in 5.3 seconds (up from 5.9 in 2011) and achieves an estimated 28 mpg highway fuel mileage rating (19/28/22 city/hwy/combined).

Power and efficiency are also boosted by an eight-speed Tiptronic transmission, Audi drive select (adjusting steering, throttle and transmission settings) and the Audi Innovative Thermal Management and Energy Recuperation System.

Despite all the weight-shaving, this big sedan does include all the equipment required for its quattro all-wheel-drive system, which features 40/60 asymmetric rear-biased torque distribution sending 60 percent of power to the rear wheels.

Interior, technology and safety features

Audi holds a well-earned reputation for top-notch interiors and instruments. Standard seats have been redesigned for a balance of comfort and ergonomics plus performance support, combining elements that are too often a tradeoff. A full range of climates can be accommodated with heated front seats, plus an available cold weather package including heated rear seats and steering wheel, and optional ventilated seats. Climate control feeds three zones, with an optional four-zone

system. (In our test vehicle, in over-100-degree conditions, we had the a/c kick off several times, blowing warm air. This was only for a second or two, but it certainly got our attention. We suspect this is a correctable service item.)

The MMI (Multi Media Interface) knob, button and screen combo presents Audi's usual clear array of functions for audio, navigation and vehicle individualization. With the addition of optional Audi connect (just one element in a comprehensive array of add-ons in the \$6,880 Prestige package on our test car), you add Google Earth and Google Local Search, with real-time traffic and weather, news and even fuel updates; WiFi with a rolling hotspot for up to eight users; and a feature within Google Maps called myAudi Destinations, which can hold information on 50 downloaded destinations. Subscriber services apply to some of these.

The audio interface includes SiriusXM Satellite Radio (with three months free), MP3 connectivity, CD player and dual SD card slots. Our test car included a superb 14-speaker, 630-watt BOSE Surround Sound system (part of the Prestige package), but if that's not sufficient, you can go for the 15-speaker, 1300-watt Bang & Olufsen option.

Audi started introducing stylish, power-saving LED daytime running lamps and taillights some four or five years ago; the new A6 adds available full LED headlights. Strong but light in weight and low on power consumption, we expect this to catch on widely within the next few years.

Other Audi technologies include ESC and a collision pre-sense system—using information from both front and rear—with adaptive airbag and seatbelt functions factoring in occupant size and height. An available pre-sense plus system adds adaptive cruise control with a stop-and-go function for smooth freeway commuting, a night vision assistant, head-up display and Audi side assist.

Hitting the sweet spot

We appreciate the efficiency of the A4's (and A3's) size, and we love the A8. But the A6 remains the Goldilocks package, a full 8.3 inches shorter than the A8, better as most people's daily driver.

In 1995, an Audi A6 measured 192.6 inches long, weighed 3363 pounds, and had a 2.8L V6 generating 172 hp and 177 lb-ft of torque. Starting price was \$30,600. The S6 from the same year put out 227 hp and 258 lb-ft from a 2.2L turbocharged inline-5, at \$45,270. The S6 was the top dog, hitting 0-to-60 mph in just in 6.2 seconds and still promising 23 mpg, both very good figures for that era. Flash forward to 2012. Despite much change along the way, the new A6 3.0T is 193.9 inches long, weighs 3682 pounds, and puts out 310 hp with a 0-to-60 time of just 5.7 seconds—easily outstripping even the early S-car. (The BMW 5 Series has grown similarly, from 185.8 inches and 3560 pounds at \$36,500 in 1995, to 193.1 inches and 3814 pounds at \$45,040 in 2011.)

Our highly-optioned test 2012 A6 3.0T quattro had a base price of \$49,900, plus Prestige package, Sport package, special paint, LED headlights and Audi side assist, totalling \$61,530. ■

