

THE ALL-NEW

▶ 08 ■

CTS

PRESS ACCOLADES

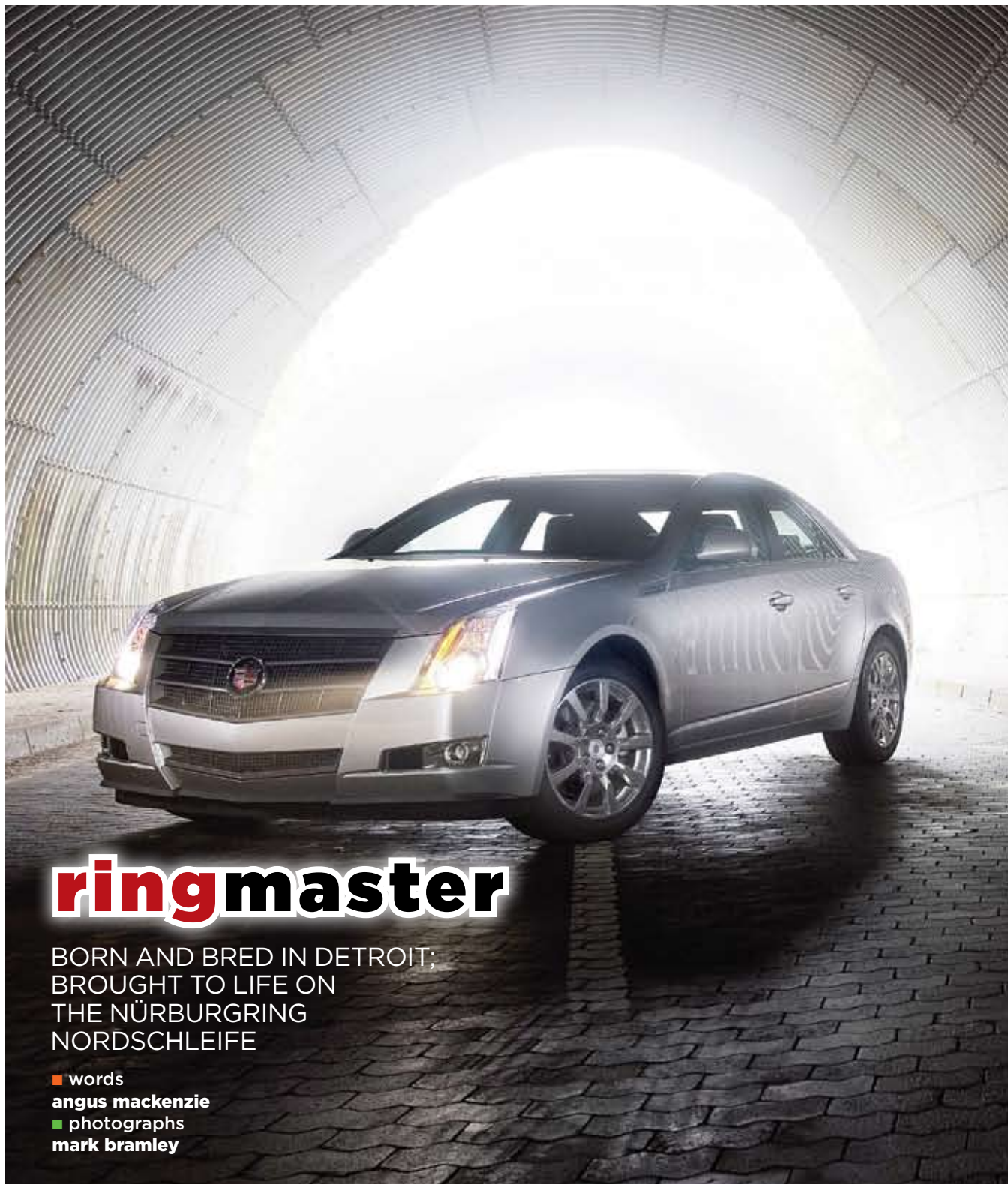
Cadillac



ELECTRONICALLY REPRINTED FROM

MOTOR TREND

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ringmaster

BORN AND BRED IN DETROIT;
BROUGHT TO LIFE ON
THE NÜRBURGRING
NORDSCHLEIFE

■ words
angus mackenzie
■ photographs
mark bramley



YOU DON'T want to get it wrong through the Fuchsrohre. This is just one of the places where the legendary Nürburgring Nordschleife can bite you. Hard.

You come out the Aremberg turn hard in third and plunge 250 feet downhill along a wriggling stretch of track, straight-lining one, two, three, four, five apexes almost as fast as you can count them. You reach the bottom of the hill on the sixth, the car's suspension on full compression as the track veers slightly left. That's not the tricky bit. Nope, the tricky bit is the next left, a deceptively sharp kink with an apex you can't see until it's too late. Get it right, and you carry a lot of speed up into the tight complex of corners at Adenauer-Forst. Get it wrong, and there's a good chance you'll eat the guardrail that's right on the edge of the track.

Last time around, the car had hit the rev limiter in fourth—about 127 mph—just before the bottom of the hill, and I'd ridden it all the way into that tricky left. This time, I grabbed fifth early, looking for just a little more speed through the dip. I got it, and that damned kink was on me before I knew it. I mashed the brake pedal and turned the steering wheel. I'd missed the turn-in point by a mile, but by now this wasn't about a nice racing line; this was about getting through that kink in one piece.

The car dived left, understeering mildly. Another quick dab on the brakes brought the rear end around. Feathering the gas, we gently drifted through the kink, maybe six feet further to the right than we should've been and in the wrong place to make good time into the Adenauer-Forst complex. But it was a nice recovery, thanks mainly to

good brakes, nice steering, and an agile, sweet-handling chassis. I glanced at the wreath and crest on the steering wheel and smiled: Wow! Is this really a Cadillac?

It sure is. The new Cadillac CTS might've been born and bred in Detroit, but you can tell it's spent time on the Nürburgring Nordschleife during its development. This is an American car with a German chassis: not exactly like a Mercedes or a BMW, but taut, tied down, nicely balanced, and stable at high speeds. It's not just the best-handling Caddy in history, but probably the best-handling American sedan ever.

It starts with the basics: sophisticated suspension and a rigid platform. The new CTS, codenamed GMX322, is an evolution of the Sigma-based original, via the STS. Basically the engineering team kept the old CTS's wheelbase, but used the wider track from the larger STS—the floorpan structure, front of dash, lower A-pillar, and rear chassis rails are all basically STS—to fundamentally transform the car's proportions.

Although there's a lot that looks familiar under the new car, there's a lot that's brand new, and, crucially, expensive. The short/long-arm front suspension features lots of lightweight aluminum and is bolted to an all-new aluminum front cradle. A large aluminum brace across the engine compartment ties the top mounts together. The steering gear is a premium ZF Servotronic II system, with the rack mounted forward of the front-axle centerline to improve precision.

The multilink rear suspension looks similar to the existing Sigma layout, but features a 40-percent-stiffer cradle, plus larger body mounts, revised differential mountings, and



THE LOOK IS STILL CADILLAC'S ART & SCIENCE DESIGN,
BUT IT'S SHARPER, CRISPER, WITH MUCH FINER DETAILING—
A LOOK THAT'S MUSCULAR, PREMIUM, AND ALL-AMERICAN.



(first drive) cadillac cts



shortened trailing links to improve NVH. "Overall, the rear end of the car is much more solid structurally," says CTS lead development engineer Rob Kotarak, "It's able to absorb much more of the coarse road stuff you see in Europe and China."

Cadillac has left the fine tuning to you, however: The new CTS is available with three different suspension setups, two different-size wheels, and three different-spec Michelin tires (see sidebar for details). It doesn't matter whether you buy a CTS in Seattle, Stuttgart, or Shanghai, the specifications are the same. All-wheel drive is available, too, if you want or need it. Derived from the system currently used in the STS, it features an electronically controlled transfer case that allows nearly 100 percent of the torque to be sent to the front wheels.

Two six-speed transmissions are offered: GM's new 6L50 automatic and the Aisin Warner AY6 manual. The auto features a sport mode that adapts to your driving style and dynamic inputs such as brake and

steering. The algorithms in the transmission computer needed fine tuning on the early production cars we drove—they tended to hang on too long in a lower gear—but Cadillac engineers say this'll be done before cars hit dealer showrooms. In manual shift mode, the transmission matches revs, race-car style, on downshifts. You have to reach for the shifter—back for down, forward for up—to change ratios, as there are no steering-wheel-mounted shifter buttons—yet. Expect them on the 2009 models.

Probably barely two percent of American CTS customers will choose the six-speed manual. Even so, Caddy engineers have put considerable time and effort into optimizing it for the car. The second, third, and fourth gear ratios were changed late in the program as a direct result of testing on the Nordschleife, says Kotarak. (Good news for manual Camaro buyers: Your cars will get this gear set, too.) Though there's no difference—according to Cadillac's figures—between the straight-line performance of

manual or automatic cars equipped with the top of the range 3.6-liter DI engine, the manual car clearly feels quicker around the 'Ring, punching harder out of corners and with less of a gap between the second and third ratios. In fact, says Sigma products development manager Rick Kewley, the manual is five to eight seconds a lap faster.

The CTS will initially be offered with three engines: a 210-horse, 2.8-liter V-6; a 258-horse, 3.6-liter V-6; and a 304-horse, 3.6-liter V-6 with direct injection. All three V-6s are versions of GM's all-aluminum, quad cam, 24-valve "high-feature" engine and come with state-of-the-art goodies such as a forged-steel crank and variable valve timing. The 2.8 is an export-only engine, destined for China, Europe, the Middle East, and any other markets where engines over 3.0 liters attract higher taxes. The 258-horse 3.6 is essentially a carryover from the current CTS. The big news is the new direct-injection—DI—version.

This engine does exactly what the badge says—inject gas directly into the combustion chamber, just like in a diesel engine. This requires much higher fuel-rail pressures—up to 1750 psi—but the benefits include far more precise fuel metering, with a resultant improvement in power and torque, but with better gas mileage and lower emissions. GM global rear-drive chief engineer Dave Leone claims a 15-percent power increase (though you'll only get the full 304 horses if you run it on premium unleaded), and an eight-percent increase in torque to 272 pound-feet over the PFI version. The three-percent improvement in gas mileage sounds meager, but Leone points out the DI-engined automatics run a lower final-drive ratio (3.42 versus 3.23) to deliver best performance.

It's a technically impressive engine, but in truth, it's the CTS's weakest link. Performance isn't the issue—proving ground tests in Germany suggest Cadillac's claimed 0-to-60-mph time of 5.9 seconds for auto and manual DI cars is right on the money, and we saw 7000 rpm in fifth—an indicated 153 mph—in a manual on the autobahn south of Mainz. The problem is noise and vibration; there's a granular quality to the 3.6's soundtrack that can be heard and felt, especially in the upper rev band where the DI V-6 loves to play. You hear it in the gargling induction note and feel it through the pedals and the shifter, especially in the manual cars. It's not overbearing, but you notice it because the rest of the car is so quiet.

The new CTS deserves a creamy BMW six under the hood. Yes, it's that good. It has great road presence, thanks to designer John Manoojian's dramatically chiseled exterior, and the interior looks upscale without the cheesiness Detroit once specialized in. Fit



new cts in detail



NEED TO KNOW

CHASSIS TUNES

■ **FE1. AVAILABLE WITH RWD OR AWD, AND PFI ENGINE ONLY.**

Bilstein shocks; 24mm front, 18mm rear stabilizer bars (33mm front and 19mm rear on AWD); open diff(s); 17.4:1 steering ratio. 8.0 x 17-inch alloy wheels with 235/55R17 Michelin MXV4 all-season tires standard.

■ **FE2. AVAILABLE WITH RWD OR AWD, AND PFI OR DI ENGINE.**

Same spring rate as FE1, but stiffer-rate Bilstein shocks. 29mm front, 20mm rear stabilizer bars; faster 16.1:1 steering ratio; limited slip diff(s). Larger, wider 8.5 x 18-inch alloy wheels with 235/50R18 Michelin MXV4 all-season tires.

RWD gets FE1 brake package (12.4-inch front rotors with aluminum calipers); AWD gets larger-diameter FE3 brakes.

■ **FE3. RWD AND DI ENGINE ONLY.**

Same steering, springs and bars as FE2, but uprated shocks (Bilstein front and Sachs Nivomat load leveling at the rear). Wheels are same as FE2, but standard tire is 235/50R18 Michelin Pilot Sport 2, and standard brake package includes 13.6-inch front rotors with cast iron calipers.

INTERIOR

■ **THREE COLOR COMBINATIONS** All black, black with gray, and cashmere with dark cocoa. All available with faux carbon fiber or real Sapele wood accents.

■ **STANDARD EQUIPMENT** Leather-wrapped steering wheel with manual tilt and reach adjustment, eight-way power seats, Bose eight speaker AM/FM/single CD/MP3 system.

■ **COOLEST OPTIONS** Pop-up hard disk sat/nav with real-time weather/traffic info; 300-watt, 10-speaker Bose 5.1 sound with a 40-gig hard drive allows pause/rewind of up to one hour of live radio and stores tracks off your favorite CDs. Your iPod can be plugged in and operated via car's controls.

ENTHUSIASTS' CHOICE

■ **DI MANUAL FE3 REAR-DRIVE**—fast and fun to drive.

ALL-AROUNDER

■ **DI AUTOMATIC ALL-WHEEL-DRIVE FE2**—much of the extra 200-plus pounds burdens the front axle, numbing the steering a little, but you get great all-weather stability and grip.

in their own words



CTS ENGINEERS' TESTING DIARY

FOR CTS chief engineer Liz Pilibosian and lead development engineer Rob Kotarak, GMX322 is old news. They've been living and breathing the new CTS since spring 2004, when GM brass officially greenlighted the program. Developing a new car involves managing people, process, and politics. And meetings. Lots of meetings. Occasionally, the engineers do get to drive the car.

FEBRUARY 2: "Where would you go to get warm weather, cold weather, mountains, city streets, twisty country roads, and long highway passes all in one area? For us, the answer is Southern California. Starting in the shadow of San Diego harbor, we've wound our way east and north, where dusty desert highways give way to chilly pine forests, replicating the majority of daily driving conditions most people encounter."—Liz

FEBRUARY 12: "As if it weren't cold enough at home, we're going back and forth to Kinross [in Michigan's Upper Peninsula] for winter traction testing now. This is a key point in time—we're checking and rechecking the AWD system and chassis controls as it's the first time we've put AWD into the CTS."—Rob

MARCH 14: "This was a cold, rainy morning—good conditions for monitoring the smoothness of the engines at idle. We've continued to a town called Charlevoix, then 250 miles or so back to our proving ground in Milford."—Rob

APRIL 19: "We made a wrong turn in Nevada. There was a construction detour. In any event, we got a long

stretch of dirt road driving that was completely unplanned. But it ended up being beneficial—we had such a big group of cars kicking up a ton of dirt it provided a really rough test for the air-intake systems and HVAC."—Liz

MAY 10: "We've just verified our chassis development. But that doesn't mean we're done. We're never done. This is the point where we get into launch mode. There's still quite a bit to do during the launch, and we're definitely in the early stages of development for model years beyond 2008. So the development driving continues. We've just finished a big ride in the Southwest, and we're getting ready for another trip to Germany."—Rob

MAY 14: "Vehicle testing relies on consistent and repeatable driving. That's hard to achieve anytime, let alone in a super-severe environment like the Nürburgring. The key is to drive each lap as consistently as possible. This also normally means going quite fast. I'd call it nine-tenths driving, and nine-tenths driving here is incredible. We have a handful of drivers we consider Nürburgring-capable. It's really only after something like 100 laps you feel even a bit familiar with this track."—Rob

MAY 30: "Love the road that winds down the Santa Rosa Mountains toward the desert valley outside the town of Borrego Springs, California, about 100 miles south of Palm Springs. Thousands of feet of elevation change in several miles, achieved via a countless series of twisty and hilly corners."—Liz ■

and finish, inside and out, looked good on the early build cars we drove in Germany, though some hard plastics and visible parting lines (the thin strips of raised plastic where the pieces of the die join) were still evident. And though it rolls on the same wheelbase as the previous CTS, interior packaging is much improved: Thinner backrests on the front seats liberate about two inches of knee room for rear-seat passengers.

More important, the CTS drives like a proper BMW rival. It's light and agile on its feet, with quick steering response yet impressive straight-line stability at speed, and a StabiliTrak system beautifully tuned to be almost unobtrusive in its interventions. The sporty FE3 suspension with the Michelin Pilot Sport 2 tires is probably a bit too firm for most people—the ride can get jittery over broken pavement—but if you value handling above all else, that is the one to go for. The midlevel FE2 setup, which comes with the 18-inch-wheel package and all-season Michelin MXV4 tires, is probably the best compromise for most people, offering a good balance between ride and handling.

The new CTS isn't quite the Standard of the World. But it's certainly world class. The best damn Cadillac sedan in 50 years? Easily. ■



2008 CADILLAC CTS

BASE PRICE	\$34,000-\$46,000 (est)
VEHICLE LAYOUT	Front engine, RWD/AWD, 5-pass, 4-door sedan
ENGINES	3.6L/258-hp/252-lb-ft DOHC 24-valve V-6; 3.6L/304-hp/273-lb-ft DOHC 24 valve V-6
TRANSMISSIONS	6-speed manual; 6-speed automatic
CURB WEIGHT	3850-4100 lb (mfr)
WHEELBASE	113.4 in
LENGTH x WIDTH x HEIGHT	190.1 x 70.6 x 56.7 in
0-60 MPH	5.9-6.5 (mfr)
EPA CITY/HWY FUEL ECON	15-17/24-26 mpg (est)
CO ₂ EMISSIONS	0.96-1.08 lb/mile (est)
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SECOND WIND

CADILLAC IMPROVES ITS ENTRY-LEVEL CAR AND PROVES IN THE PROCESS THAT THE FRONT OFFICE HAS UNDERGONE A REDESIGN, TOO.

BY DAVE VANDERWERP
PHOTOGRAPHY BY MARTYN GODDARD



CADILLAC CTS

THE HIGHS

Well-sorted chassis, bold exterior design, lots of passenger space, the best interior yet from GM.

THE LOWS

Still-unsatisfying manual transmission, two-ton weight, could use a more supportive seat option.

THE VERDICT

Cadillacs continue to get better-looking and more impressive.

» Amazingly, each new product coming down the GM pipeline these days seems to signal that the once-defining beancounter bureaucracy has finally been replaced by a genuine desire to create top-notch products. And this latest CTS is the most comprehensively integrated vehicle we've seen yet.

GM's confidence is so high that it flew a passel of 2008 CTSs from Detroit to Germany—at a cost between \$20,000 and \$30,000

each—to be test-driven by the motoring press on the highly challenging Nürburgring racetrack, just as it did six years ago with the original CTS, the first model to bear the knife-edged art-and-science design language of 21st-century Cadillac.

Since the CTS spent extensive development time on the tortuous 12.9 miles of Nürburgring pavement, we asked lead development engineer Rob Kotarak how many laps he'd turned there. Quite a few,

he said, but all of them from the passenger seat. That's because he hasn't acquired GM's top driving certification and therefore is not allowed to drive at the German track. Meanwhile, a first-timer from *Car and Driver* gets to lap freely—what was that about a bureaucracy? Just so you know, Mr. Kotarak, your car is quite adept. Despite our inexperience with the Nürburgring (read “driving like a hack”), the CTS was planted and predictable and



Using chrome, wood, and the same dash-material supplier as Mercedes, the CTS's interior is surprisingly rich.



never did anything unexpected.

The '08 CTS retains a 113.4-inch wheelbase but adds 1.5 inches in overall length and swells almost two inches in width as do its front and rear track. That extra width means not only more handling prowess but much improved proportions as well. There were times when the first-gen CTS could look a bit awkward; it seemed tall and narrow from behind and not that desirable in profile. But there's no bad view of the new car, from its attention-grabbing front end and better-integrated vertical headlights and taillights to its muscular fender flares. The redesigned CTS still might not stand a chance to be as responsive as the smaller and much lighter—by about 400 pounds—BMW 335i, but our favorite sports sedan has nothing on the Caddy's aggressive looks.

Tops on the CTS's mechanical upgrade list is a 304-hp, 3.6-liter direct-injection DOHC V-6 that also resides in the '08 STS. This new engine is, for now, the top choice and will likely cost \$1000 more than the base non-direct-injected 258-hp version of this 3.6-liter mill that is carried over from the outgoing model. The old base

engine, a 210-hp, 2.8-liter V-6, is dropped for the U.S. All-wheel drive is offered for the first time, but only with an automatic transmission.

In relaxed driving, the new V-6 is smooth and quite muted, as Cadillac has attacked the noise problem in just about every way—triple door seals, sound-deadening covers on the engine and high-pressure fuel pump, and numerous other acoustical treatments. But push a little harder, and the engine starts to sing at about 4000 rpm, pulling enthusiastically to the 7000-rpm redline. Our 304-hp manual ran 0 to 60 mph in 5.8 seconds and blew through the quarter-mile in 14.6 at 97 mph, more than a second quicker in the sprint and 0.6 second fleeter through the quarter than the last non-V CTS we tested. That's quick enough to run with a Mercedes C350 or BMW 328i, but a twin-turbo 335i reaches 60 mph a full second quicker. Initially, it was surprising that the new Caddy is just a 10th quicker through the quarter than its big-brother STS with the same engine (but with the six-speed automatic tranny) until we plopped our CTS onto the scales: 4032 pounds, no thanks to the nearly 100-pound penalty of

the optional sunroof. That's 252 more than the outgoing model and just 68 shy of the five-inch-longer STS.

The suspension retains the same basic aluminum-intensive control-arm-front and multilink-rear suspension, with slightly modified geometry, but it only took the three characters "PS2"—as in Michelin Pilot Sport PS2 tires—to clue us in to how serious Cadillac is about the sporting nature of the new CTS. This is GM's first time using these summer-only, super-performance street tires—arguably better tires than the Goodyears the Corvette wears—which are generally used on all-out sports cars like the Porsche 911 and Cayman.

These tires, although in an almost too modest 235/50R-18 size (Cadillac promises larger wheels are coming), are a part of the most aggressive suspension package, called FE3. All three suspension choices use the same spring rates, but the FE3 option includes larger brakes and anti-roll bars as well as revised dampers. The others, FE1 and FE2, ride on all-season tires.

We spent most of our three days in Germany with the sportiest FE3 package,

and the most impressive thing about the '08 CTS is its ride-and-handling balance. Tightly controlled body movements keep it buttoned down, and the rear-drive CTS's ride never feels harsh, either. Even in full-blown Nürburgring mode, the car is balanced, and not once did it respond with excessive understeer, although oversteer is hard to come by as well. The upsize brakes could use more of an initial bite, but they're strong, with predictable, linear response, and in our exploits they never yielded even once to fade. The huge brake-cooling ducts up front certainly deserve some of the credit.

On the street, our initial impression is that the CTS is more comfortable than a Sport-package-equipped BMW 3-series or Infiniti G35 without giving up much ultimate performance, although rain during our testing day kept us from verifying Cadillac's skidpad claim of 0.86 g. The FE2 car we briefly drove didn't feel much softer, but over an undulating stretch of unlimited autobahn, it moved around enough to make us want the stiffer setup.



The upgraded rack-and-pinion steering is linear and now offers more feedback, although its weighting is on the light side of perfection. We appreciated the friendly on-center behavior at triple-digit speeds, but the off-center response could be quicker.

A revised version of the Aisin six-speed manual carries on with modified ratios to alleviate a previously large gap between second and third gears. But even with a new shift linkage for shorter throws, the manual isn't nearly as fluid as those from BMW. The CTS's ho-hum shift action teams with an abruptly engaging clutch and a slightly too high center console to make the row-your-own option less than satisfying. Add a drink in the cup holder (directly behind the shifter) to that combo, and you're constantly whacking it with your elbow. Suddenly, BMW's dash-mounted cup holders make a lot of sense.

The new well-behaved six-speed automatic—it's no wonder BMW buys this GM gearbox—will likely be the more popular choice anyway. It offers smooth shifts when you want them, but thump the throttle, and it gives a prompt multigear kickdown. Slide the shifter into the sport setting, and it quickly gets bold, dutifully holding gears—even when the engine is just 500 rpm shy of redline—and aggressively downshifting under braking.

Comfortable seats with surprising thigh and upper-back support—especially considering the limited 10-way adjustability—will likely please the masses, but during exuberant driving, we wished for more lateral support. How about an optional sport seat, Cadillac?

Possibly the most dramatic improvement to the CTS is the upscale and coher-

ently flowing interior, complete with class materials and top-notch fit and finish. Cadillac's least-expensive car certainly doesn't feel that way, and it upstages the '08 Mercedes C-class. It also doesn't hurt that even with a steeply raked rear window, the CTS offers a much larger and usable back seat (the smallest Caddy is similar in size to a 5-series BMW) than those in the smaller luxury sedans it competes with price-wise.

The infotainment system is also new and includes a trick feature: a TiVo-like function that allows you to skip forward and backward through AM, FM, or XM radio. Don't want to miss a song? Just hit the record button before exiting the car, and it will be waiting when you return (the system stores up to 60 minutes' worth). The CTS has all the other up-to-date electronic goodies: an optional 10-speaker Bose 5.1 stereo with a 40-gig hard drive that stores music, an impressive-looking eight-inch touch-screen navigation system that rises from the dash when in use, and an auxiliary plug and a USB port to handle any music-storage device. Cadillac says it will soon add Bluetooth hands-free calling as well, shying away from having OnStar as the only option.

The first-gen CTS exceeded sales expectations, moving 60,000 units in its best year, although BMW sold twice as many 3-series in 2006. Prices will be up a few thousand to account for the more powerful base engine, so expect a starting price of about \$34,000 that rises to maybe \$42,000 for our loaded test car. But with more style, power, and features, we think the new CTS—and the new GM, for that matter—is destined to be even more of a winner. >>



CADILLAC CTS

MFR'S SPECS C/D RESULTS

Price
(AS TESTED)

\$42,000 (est)

BASE: \$34,000 (est)

Vehicle type: front-engine, rear-wheel-drive, 5-passenger, 4-door sedan
Options on test car: Premium Luxury Collection (includes leather seats, power passenger seat, Bose stereo and navigation, sunroof, wood trim, heated and vented front seats, split-folding rear seat, power-adjustable steering wheel); Performance package (includes larger wheels and tires, sport suspension, limited-slip differential, and larger brakes); direct-injection 3.6-liter V-6
Major standard accessories: power windows, driver seat, and locks; remote locking; A/C; cruise control; tilting and telescoping steering wheel; rear defroster
Sound system: Bose AM-FM-XM satellite radio/CD-DVD changer, 10 speakers

Fuel Capacity

18.0 gal



2008 EPA (MFR'S EST)		C/D OBSERVED
CITY	HWY	
17	26	17

VEHICLE

INTERIOR

RESTRAINT SYSTEMS

Front: manual 3-point belts; driver and passenger front, side, and curtain airbags

Rear: manual 3-point belts, curtain airbags

SEAT ADJUSTMENTS

Front: fore-and-aft, seatback angle, front height, rear height, lumbar support

REAR SEATS

Folding YES NO **Split** YES NO **Pass-Through** YES NO

MEASUREMENTS (in)

	Head	Leg	Shoulder
FRONT	38.8	42.4	56.7
REAR	37.2	35.9	54.7
SAE VOLUME			
	Front	Rear	Trunk
	54 cu ft	42 cu ft	14 cu ft

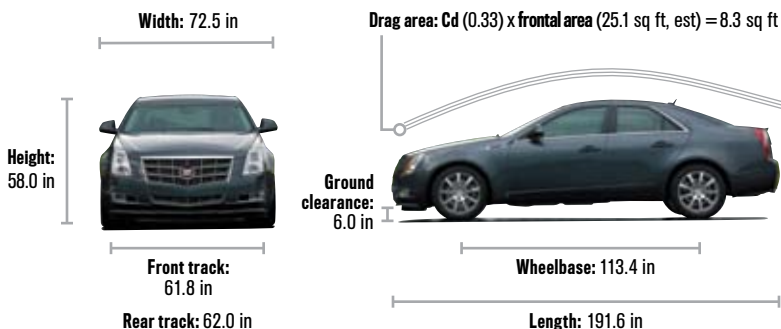
DIMENSIONS

WEIGHT: Curb: 4032 lb Per horsepower: 13.3 lb

DISTRIBUTION: Front: 52.5% Rear: 47.5%

TOWING CAPACITY: 1000 lb

GVW: 4761 lb



CHASSIS

Chassis type: unit construction with a rubber-isolated rear subframe

Body material: welded steel stampings

STEERING

Rack-and-pinion with variable hydraulic power assist

Steering ratio: 16.1:1 **Turns lock-to-lock:** 2.7 **Turning circle curb-to-curb:** 36.0 ft

SUSPENSION

Front: ind, unequal-length control arms, coil springs, anti-roll bar

Rear: ind; 1 upper control arm, 1 lateral link, 1 trailing link, and 1 toe-control link per side; coil springs; anti-roll bar

WHEELS+TIRES

Wheel size/type: 8.5 x 18 in/cast aluminum

Tires: Michelin Pilot Sport PS2, 235/50ZR-18 97Y

Spare: none

BRAKES

Hydraulic with vacuum power assist and anti-lock control

F: 13.6 x 1.3-in vented disc **R:** 13.3 x 0.9-in vented disc

Traction Control
 YES NO
Deactivateable **YES**

Stability Control
 YES NO
Deactivateable **YES**

POWERTRAIN

ENGINE

V-6, aluminum block and heads

Bore x stroke: 3.70 x 3.37 in, 94.0 x 85.6mm

Displacement: 218 cu in, 3564cc

Compression ratio: 11.3:1

Fuel-delivery system: direct injection

Valve gear: chain-driven double overhead cams, 4 valves per cylinder, hydraulic lifters, variable intake- and exhaust-valve timing

Power (SAE net): 304 bhp @ 6300 rpm

Torque (SAE net): 273 lb-ft @ 5200 rpm

Redline: 7000 rpm

DRIVETRAIN

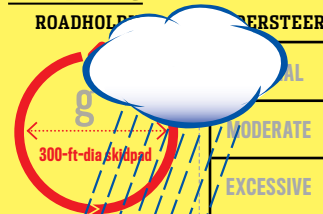
Transmission: 6-speed manual

Final-drive ratio: 3.42:1, limited slip

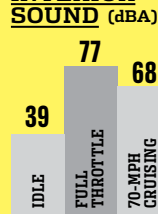
GEAR	RATIO	MPH PER 1000 RPM	MAX TEST SPEED
I	4.15	5.5	39 mph (7000 rpm)
II	2.51	9.2	64 mph (7000 rpm)
III	1.69	13.6	95 mph (7000 rpm)
IV	1.27	18.1	127 mph (7000 rpm)
V	1.00	23.0	155 mph (6750 rpm)
VI	0.75	30.7	153 mph (5000 rpm)

TEST RESULTS

HANDLING



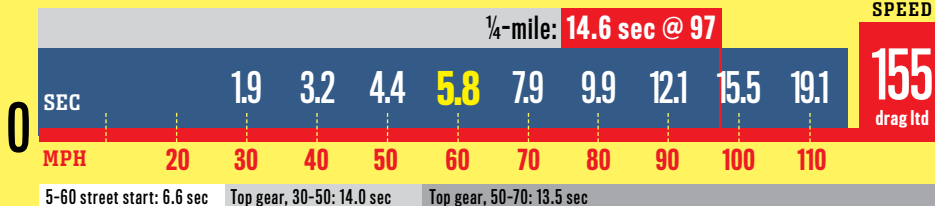
INTERIOR SOUND (dBA)



NOTES

Getting a quick launch requires dumping the clutch at about 4000 rpm and riding out the wheelspin. A sudden rainstorm prevented us from obtaining skidpad and braking figures.

ACCELERATION



WEATHER

Temperature: 70°F
Humidity: 86%
Barometric pressure: 29.30 in Hg

ODOMETER

Test-vehicle mileage: 1403

BRAKING



TIRE INFLATION

Test pressures: Front 35 psi, Rear 35 psi

AutoWeek®

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➤ 2008 CADILLAC CTS

BROAD STRIPES FOR A BRIGHT STAR

Cadillac redesigns its unabashedly American CTS

BY NATALIE NEFF

IN 2002, CADILLAC rallied its troops for another march into the heart of German-occupied territory. The CTS represented a second-straight assault on a market segment in which Cadillac had bombed with its previous attempt, the Catera, which was countered by a seemingly insurmountable defense thrown up by BMW, Mercedes and Audi.

With the CTS, however, the General's luxury marque flanked the Germans with an all-American design, a line of attack that called for chiseled edges and sharp corners and lots and lots of ego. And with a goal of moving just 30,000 to 40,000 units a year,

Cadillac wasn't looking so much to win the war as to establish a toehold with the CTS and hang on.

The tactic more than worked. The CTS eclipsed its sales goal by the second year on the market and, at its peak in 2005, found its way into more than 60,000 garages, falling just a few hundred short of beating Cadillac's perennially best-selling DeVille/DTS. More significantly, that same year, the CTS outsold every German midsize luxury sedan save the BMW 3 Series, including the BMW 5 Series, the Mercedes C-Class and E-Class and the Audi A4 and A6.

Given the success of the original CTS campaign, Cadillac smartly stuck

with the same tactic for the 2008 model—only more so.

The new model should be trickling into showrooms as you read this, familiar in design but easily told apart from the outgoing car by its more distinctive body and face. The car is almost two inches wider overall, with flaring fenders over wheel wells now filled with rubber; the current car, by comparison, looks like a Baja truck, there's so much space between tire and fender.

In fact, everywhere you look on the CTS' body, the gaps have shrunk. Even on the preproduction models we tested, the fits looked as tight as anything hailing from Europe or Asia. Cadillac says



to expect to find no more than three milli-meters of space around any door, fender, decklid or light.

Up front, the car does a take on the popular Cadillac Sixteen concept's grille, giving the face an element of depth, of three-dimensionality, not seen in the current car, with horizontal bars that sink into the egg-crate background as the eye moves toward the oversized crest in the center.

An additional air scoop sits below, echoing the grille's detail, even extending it below the bumper as together they form a virtual V shape. On each side of the lower intake sits a fog lamp and a brake cooling duct within an elongated bright bezel, which does well to temper all the vertical, characteristically Cadillac cues with a measure of visual width.

Cadillac improved the rear view of the CTS even more than the front—even though little has substantially changed from a styling standpoint. Where the old car looks too tall, narrow, even pinched from behind, the '08 car resolves all that with a properly proportioned rear end. The added width certainly helps; the track grew two inches right along with the width. Minor changes can be seen in the tailpipe and license-plate surrounds.

The most significant styling missteps Cadillac made with the first-generation CTS have been wholly rectified for 2008.

The press pilloried the car for its expensive-to-build but ungainly interior, focusing most of its ill opinion on the giant center stack, a bungle of automotive styling that leaned more toward a utilitarian, antidesign ethic favored by the likes of Compaq than the traditional elegance we've long associated with the wreath and crest.

Cadillac salvaged almost nothing

from the current car's stoic interior in building the new one, and we're thankful. The interior of the '08 CTS feels completely fresh yet entirely like a Cadillac, and it looks as elegant as anything on the road.

Cadillac reshaped the entire environment inside the car. To list every individual difference would miss the bigger point: In stark contrast to the cold, utilitarian, faux-Teutonic nature of the current car, the interior now feels inviting and warm, particularly if equipped with the ambient-lighting feature that casts a subtle glow around the cabin from below the wood-trim line.

The most notable changes were made to the center stack, which now blends almost seamlessly with the dashboard and delineates the occupant area while maintaining a sense of airiness. The wood and brushed-metal touches mix nicely, while the interior overall strikes a perfect balance between traditional elements, such as the analog clock, and modern technologies, such as the optional navigation screen rising from the top of the stack.

That nav system (as well as the optional audio system) comes with a host of features aimed at technophiles, including a 40-GB hard drive that allows you to upload and store music from

CDs and even rewind a live radio feed. There's also a direct USB jack built into the center console—great news for all the iPod addicts out there.

It feels roomier inside, too, though it's not really. While everyone benefits from a bit more wiggle room width-wise, rear passengers get 0.3 inch more headroom in exchange for less legroom by more than an inch—and that's even with Cadillac's highly touted "Thin Seat" technology. Perhaps credit goes to the available double-sized sunroof, which lets all passengers enjoy a view of the sky.

The CTS gets one of two 3.6-liter engines of identical block but sporting different fuel-delivery systems. The base engine, familiar from the outgoing car, uses a sequential port fuel-injection (PFI) setup and a four-cam variable valve timing system to turn out a slightly higher 263 hp at 6200 rpm (up 8 hp) and 253 lb-ft of torque at 3100 rpm (up 1 lb-ft) in this application.

The big story underhood comes from Cadillac's new direct-injection V6. Injecting gasoline straight into the combustion chamber results in a more thorough combustion process, cleaner emissions, better economy and an increase in output—in this case, to the tune of 304 hp at 6300 rpm and 273 lb-ft of torque at 5200 rpm, and on regular fuel to boot.

Either engine can be had with one of two gearboxes: a carryover six-speed manual or a new six-speed automatic that replaces today's five-speed box. In place of the two chassis setups on the '07 model, buyers now have their choice of three, called FE1, FE2 and FE3. And for the first time on the CTS, Cadillac has made all-wheel drive available.

A short run in a car equipped with the PFI engine, all-wheel drive and the FE2 setup revealed a decent ride and

SPECS

ON SALE: August

BASE PRICE: \$32,990

DRIVETRAIN: 3.6-liter, 263-hp, 253-lb-ft V6; rwd, six-speed manual

CURB WEIGHT: 3861 lb

0-60 MPH: 6.8 sec (est)

FUEL ECONOMY: N/A



> Manual models will get a foot-operated parking brake at launch, a combo that plagues the current car. Cadillac says the glitch will affect only early-production cars and blames a supplier for the delay of the replacement, an electronic brake operated by a center-console button—not a great fix from an enthusiast standpoint.

pickup and lively handling. Not surprisingly, however, our favorite combination matched the DI engine with the FE3 chassis setup (available only in rear-drive). Even though the FE2 is tuned to provide a bit more compliant, less enthusiast-oriented ride than the top-trim FE3 setup, we found the sportier chassis did a better job of minimizing the harshness at impact over broken surfaces even while delivering a slightly stiffer all-around ride characteristic.

The main differences between the chassis choices come down to tires and the individual suspension tuning each requires. Base FE1 cars get 17-inch 235/55 all-season rubber (the outgoing CTS makes do with 16-inchers), FE2s get V-rated 235/50R-18s, and the FE3 comes with high-performance 235/50ZR-18s. The base car also lacks the limited-slip differential found on the other two trims and has smaller-diameter antiroll bars fore and aft. All cars get StabiliTrak stability control with brake assist standard.

When seriously pushed, the FE3-equipped car eagerly responded. We

found body motions well controlled. The added width results directly in a wider track, with 1.8 inches more space between the wheels in front and 2.0 inches in back, and the wider overall stance definitely translates into improved road manners, with the standard underhood strut-tower brace adding body rigidity. But the steering proved to be the most-improved aspect of the car's handling. The lower steering ratio is immediately noticeable. Turn-in is crisp and quick, and the steering is communicative throughout.

The wide-ratio six-speed automatic makes for easy cruising at just about any speed, but it hampers efforts at quickly finding the fat part of the torque curve, often requiring at least one or more downshifts to get the revs back up to where the car pulls with any authority. The manual tranny works well, even if it, too, requires frequent downshifting to get back on the cams. It also tends to shift somewhat stiffly, lacking the smooth-if-rubbery action of a BMW box.

Even so, the CTS displays plenty of straight-line speed. Cadillac says the

car should run from 0 to 60 mph in 5.9 seconds, which pushes the new CTS closer to the last CTS-V's territory. The V car, which we last tested in 2004 ("Flying V," *AW*, May 10, 2004), turned in a 5.35-second run to 60 mph.

Of course, Cadillac left plenty of room at the top for a new V-series model, expected to join the standard lineup this fall and rumored to include a super-charged small-block turning out upward of 500 hp (This Week, *AW*, June 25).

Meanwhile, pricing on the standard 2008 CTS is what's making the news. It will start at \$32,990 for the PFI and manual-equipped car. That's actually \$540 less than the outgoing model, not even accounting for all the additional standard content such as the tire-pressure monitoring system. Moving up to the DI engine will cost less for the automatic (\$35,290) than with the manual (\$36,970), but only because of the additional content you must opt for to get the shift-it-yourself version.

That's the kind of pricing news we think many Americans will appreciate—perhaps more of them than the CTS has even known.





Cadillac

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