

autotechdaily™

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HOLIDAY NOTICE

Tomorrow's issue will be the last one this week. *AutoTech Daily* will then return on Monday, Nov. 27.

Today's Worldwide
Automotive Report

PODCAST

new products

NEW NISSAN ALTIMA GETS BIGGER...AND SMALLER

Nissan Motor Co. has lopped 44 lbs of weight and 1 inch of wheelbase from its redesigned Altima sedan for 2007—and made the car roomier, more powerful and more luxurious at the same time.

The expansion is mainly in legroom in the rear seat and an additional two cubic feet of trunk space. Both dimensions are slightly better than those of the new Honda Accord and Toyota Camry sedans. The Altima's interior also has undergone a major upgrade in materials, execution and design—areas sometimes criticized in the previous-generation model.



2007 Nissan Altima

Nissan stiffened the Altima's body while reducing overall vehicle weight. Handling and steering response have been enhanced by equal-length driveshafts and a redesigned MacPherson strut front suspension that features more extensive use of aluminum.

This year's base engine is a 2.5-liter four-cylinder powerplant that makes 175 hp, up 5 hp from last year. The optional 3.5-liter V-6 now produces 270 hp vs. 250 hp for the previous iteration.

Nissan remains the industry's most enthusiastic promoter of belt-drive CVT transmission. This year it is offering a slightly refined version of the CVT that is standard on the Nissan Murano SUV. The company also offers a six-speed manual transmission on both the four-cylinder and six-cylinder engines. The beefed up manual is quieter and has more torque capacity than the previous transmission.



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Talk Back

Click [HERE](#) to take our reader poll about the future of engineering outsourcing. Results [next](#) Monday!

Extensive electronic packages include the mid-priced car segment's first real-time traffic monitor, which is integrated into the navigation system. The display uses color coding of traffic routes to highlight areas that are congested. Nissan developed the system in conjunction with XM Satellite Radio, which provides the traffic data.

Nissan also has released more details about the hybrid version of the Altima due next spring. The CAR will mate a refined version of the Altima's base four-cylinder engine to a permanent magnet AC synchronous motor rated at 40 hp and 199 lb-ft of torque. A separate starter-alternator works through a planetary gearset modeled after the Toyota hybrid drive to provide regenerative braking.

The hybrid's 244.8-volt battery pack will be a nickel-metal hydride unit, not the previously reported lithium-ion design. Nissan says the hybrid will be able to run for short periods as an all-electric car. Net power rating of the hybrid combination is 198 hp with an estimated federal fuel economy rating of 41 mpg city and 36 mpg highway.

investment

BRIDGESTONE TO UP CAPITAL SPENDING BY ONE-FOURTH

Japan's Bridgestone Corp. has raised its annual capital spending plans by 25% to an average of \$2.1 billion for fiscal 2006-2008, *The Nihon Keizai Shimbun* reports. It says the increase is due to faster-than-expected growth in demand worldwide as the company tries to overtake Michelin as the world's largest tire supplier.

The tire maker expects global demand to grow 3%-4% a year, due in part to surging vehicle sales in emerging countries. An increase in mining projects also is projected, so the company will expand its factory in Shimonoseki, which makes large tires for construction equipment.

Russia will be one of the world's biggest growth markets for passenger tires, with demand nearly doubling by 2015 as several OEMs expand there, according to Reuters. Bridgestone currently is evaluating potential sites for a new plant in Russia and could start production there within four years.

future products

PICKUPS TO BE PART OF TOYOTA'S CHINA STRATEGY

Toyota Motor Corp. is looking at selling pickup trucks in China in coming years as it expands in the market.

China's passenger vehicle to date has been dominated by sedans. But Yoshiaki Inaba, Toyota's executive vice president in charge of Chinese operations, expects this to change. He tells Reuters that the country could blossom into a big market for pickups as income levels rise in rural areas.

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Toyota wouldn't be the only foreign OEM to benefit from a truck boom, of course. Ford, General Motors, Isuzu and others already are building and selling compact pickups in Thailand, which has become a regional production hub for such models.

Toyota, which has joint ventures with FAW and Guangzhou Automotive, hopes to grow its market share in China from 4% currently to 10% by 2010. The automaker expects to sell 278,000 cars in China this year vs. 183,000 in 2005. It also is targeting increased purchasing from domestic suppliers to help cut costs.

production

TOYOTA ENHANCES FAMED PRODUCTION SYSTEM AT NEW TEXAS TRUCK PLANT

The first 2007 Tundra full-size pickup truck rolled off the line Friday at Toyota Motor Corp.'s new plant in San Antonio, Tex. The significance of the vehicle, which is larger and more powerful than its predecessor to better compete against Detroit-badged models, was evident by the presence at the launch ceremony of Toyota President Katsuaki Watanabe and honorary Chairman Shoichiro Toyoda.

Toyota spent \$1.3 billion on the San Antonio facility. The company expects annual sales, which start in

mid-February, to eventually reach 200,000 units—almost double the volume of the outgoing Tundra.

The new plant also will usher in several enhancements to the heralded Toyota Production System. Toyota hails the facility as its most innovative system in the world, but it offers few details about the newly patented processes. The company is more forthcoming about the facility's adjacent supplier park, which houses 21 vendors.

One of them, Reyes Corp., is a joint venture between Lear Corp. and San Antonio-based Amtex Inc. that supplies carpeting and interior plastic trim "kitting" sets for the Tundra. San Antonio is the first Toyota truck plant to use the kitting process, in which groups of parts are put in the vehicle itself for delivery to multiple installation points along the assembly line.

The Reyes plastic parts are packed into a hanging plastic sleeve and delivered to the final assembly line with other kits on an hourly basis. The supplier says it takes less than an hour between when a part is ordered and when it is installed in a vehicle.

Another company, Avanzar Interior Technologies Ltd.—a new partnership between Johnson Controls Inc. and SAT Auto Technologies Ltd.—is making seats for the new Tundra. Avanzar's nearby plant builds steel frames for front and rear seats, which are shipped less than a mile to Avanzar's onsite operations at the final assembly plant. Seats are built, then mounted onto an elevated track system that connects the Avanzar line with Toyota's final assembly line. Seats are ready in 85 minutes or less after their intended vehicle comes out of the paint shop and arrive 5 minutes before installation.

Toyota says the process eliminates freight costs and component packaging. It says the

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system also fosters closer supplier relationships, which in turn should help improve quality.

Other co-located suppliers include:

AGC Automotive Americas	glass assembly
ARK	industrial waste management and recycling
Curtis-Maruyasu America	tubing
Futaba Industrial Texas	stamped products
Green Metals	scrap steel recycling
Hero Assemblers and Logistics	tire assembly and logistics
Metalsa	truck frames
Millennium Steel Service	steel processing
PPG Industries	glass assemblies
Takumi Stamping Texas	stamped parts
Tenneco Automotive	exhaust systems
Toyoda-Gosei Texas	interior and exterior parts
Toyotetsu Texas	stamped parts
Vutex	assembly services

racing

JOHNSON HOLDS ON TO WIN FIRST NASCAR CUP

After finishing second in two of the last three years and in the top five each of the last four years, Jimmie Johnson has won NASCAR's Nextel Cup season championship. He finished ninth in the Ford 400 at the Homestead-Miami Speedway yesterday to clinch the title, besting Matt Kenseth by 56 points. Kenseth, who started the day 63 points ahead, finished sixth in a race won by Greg Biffle for the third straight year.

Denny Hamlin finished third for the season, 68 points behind the leader. Hamlin was followed in the standings by Kevin Harvick and Dale Earnhardt Jr. Rounding out this year's top 10 scorers were Jeff Gordon, Jeff Burton, Kasey Kahne, Mark Martin and Kyle Busch. Johnson, Hamlin, Gordon, Earnhardt and Busch drive Chevrolet Monte Carlos. Kenseth and Martin each pilot a Ford Fusion, while Harvick, Burton and Kahne were in Dodge Chargers.

Chevy clinched the manufacturers title several weeks ago and finished the year 74 points ahead of Dodge. Ford was 80 points off the pace.

Johnson has 23 Nextel victories in his career. Eight of the checkered flags were in 2004, the first season under the Chase for the Cup playoff format. He came to Homestead last year in second place, 52 points behind Tony Stewart, but Johnson crashed early in the race and dropped to fifth place for the season.

This year, Johnson's chances didn't look good six weeks ago when he was down 156 points. But then a win and five second-place finishes put him in the driver's seat heading into the finale in Miami.

Winning wasn't easy on Sunday: Johnson had to overcome a hole in his grill, a dropped lug nut and a near accident. He temporarily dropped to 39th—and second in the season standings—after debris on the track punctured a small hole in his grill that had to be taped over. After replacing a loose lug nut, Johnson was running sixth with 79 laps to go when he narrowly missed hitting Robby Gordon who had spun out in front of him.