

ARIZONA DRIVER

THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

VOLUME 3 NUMBER 1

JANUARY-FEBRUARY 2004

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- BRIDGESTONE PERFORMANCE TIRES FOR ACURA TL ■ CHRYSLER CROSSFIRE OVERVIEW
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THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

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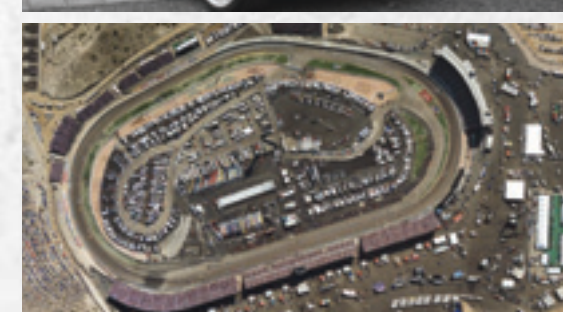
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COVER: Bidders congregate around an early '70s Chevy SS at the Russo and Steele Auction. Photo courtesy of Russo and Steele.



Happy New Year! *Arizona Driver Magazine* finds much to welcome as we turn the calendar page. January is a highlight in Arizona, as a whole range of collector car auctions is welcomed to the Valley of the Sun. In this issue, we visit Drew Alcazar of Russo and Steele, to find out what makes his rising star shine.

Holiday rituals and winter visitors make you want to get out of town? Take a look at the creative new ways Jeep® intends to lead you down highway and trail, with their Treo, Compass and Rescue concepts... amazing.

While most of us think nothing of heading out the door, hopping into the car and going where we please, for those with disabilities, it is a combination of frustration and opportunity that the big manufacturers are starting to address; see what Ford and GM are offering in their mobility programs.

In our *Arizona Rider* section, we look into the development of the awesome Honda Valkyrie Rune, a show concept come to life, and a heartstopping final product.

We'd like to think there's nothing left to say about buckling up, but statistics and lifestyle sometimes say otherwise. Before new drivers lapse into bad habits, we bring a physics lesson courtesy of Volvo, which makes it crystal clear that your friends in the back seat need protection every bit as much as those in the front.

To round out this issue, we test drive the BMW 330i Performance Package sedan, plus the Hyundai XG350L, we take a look at style and content in the hot yet affordable new Chrysler Crossfire, and we present PIR's 2004 schedule and ticket info.



Joe Sage
Joe Sage
Publisher/
Executive Editor

ARIZONA DRIVER

MAGAZINE

PUBLISHER/EXECUTIVE EDITOR:

Joe Sage

CONTRIBUTING WRITERS:

Jill Amadio, Pilar Covarrubias,
Mark Cox, Larry Edsall,
Dan J. Gardner, Gary Goldzweig,
Bob Kroener, Jim Rogers,
Bill & Barbara Schaffer, Tim Sharp

CONTRIBUTING PHOTOGRAPHERS:

Jean-Pierre Brietta, Rich Cox,
Luis DeBonoPaula, Larry Edsall,
Dan J. Gardner, Randy Lorentzen,
Jim Pyle, Dick Reed

DESIGN & PRODUCTION: AdZoneAZ

ADVERTISING SALES: 480-948-0200

ARIZONA DRIVER MAGAZINE

PUBLISHED BIMONTHLY BY ADZONE ARIZONA LLC
Arizona Driver Magazine
PO Box 13387 - Scottsdale AZ 85267
www.azdrivermag.com

Arizona Driver Magazine and
Arizona Rider Magazine are registered
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Roll-Top-Cover® from Pace Edwards is known as the original retractable pickup bed hard tonneau, in the marketplace since 1985 (and with recent updates). The JackRabbit™ offers several new innovations.

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The Roll-Top requires a drilled installation (with a clamp-on option available for most models). The JackRabbit provides a patented new SpeedClamp™ design (for all but the Chevy Stepside) for quick and drill-free installation. The low-profile, aerodynamic design maximizes fuel economy on the JackRabbit (savings are estimated up to 11%), which has a canister and cover profile no higher than the rail; the Roll-Top canister sits 1-1/2" higher than the rail. Both tops fit over 5th wheel trailer hitches. Both now come with a WeatherGate™ tailgate seal, and Pace Edwards offers tailgate locking via either their PowerGate™ electric or Pop&Lock® manual locks, to secure cargo in the truck bed. In addition, the JackRabbit offers a center offset locking position standard, with other custom options available. The design can also accommodate a toolbox, at least the Pace Edwards ToolTop™, which is engineered to work with the cover; this should be ordered at the same time as the cover, although it can be added later if you don't mind replacing your rails with a new set at that time.

The Roll-Top-Cover® retails from \$682 to \$903 depending on vehicle application, and the JackRabbit™ from \$837 to \$1017. There are dealers and distributors throughout Arizona. See www.paceedwards.com ■



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- How does pricing of the all-new 2004 Durango SUV compare with the '03 model?
 - \$2,000 less
 - About the same
 - \$1,000 more
 - \$2,500 more
- What was the name of the original Porsche 911 prototype?
 - Porsche 359
 - Porsche 456
 - Porsche 901
 - Porsche 911
- Which company will be offering the new 612 Scaglietti starting next fall in the US?
 - Lamborghini
 - Maserati
 - Ferrari
 - Panoz
- What percentage of NASCAR cars and trucks use Mobil 1® synthetic oil?
 - 32 percent
 - 51 percent
 - 74 percent
 - 92 percent
- How many Eddie Bauer branded vehicles (Broncos, Bronco IIs, Aerostar minivans, Explorers, Expeditions, Excursions and F-150s) has Ford sold in the last 20 years?
 - 500,000
 - 1.5 million
 - 3 million
 - 4.5 million

- The Dodge Ram pickup has been one of the greatest sales success stories in the last 10 years. After the first eight months of sales, the Ram was the third best selling vehicle in the US. Where did the Dodge Ram rank in 1993?
 - 19th
 - 29th
 - 37th
 - 46th
- What percentage of new car shoppers visit at least one manufacturer's website?
 - 23 percent
 - 43 percent
 - 63 percent
 - 83 percent
- What percentage of vehicles sold during the first six months of 2003 were SUVs?
 - 13.7 percent
 - 18.6 percent
 - 24.5 percent
 - 29.1 percent
- When did the auto industry start in China?
 - 1938
 - 1953
 - 1964
 - 1971
- What will the next generation Aston Martin DB be called?
 - DB7
 - DB8
 - DB9
 - DB10
- Which manufacturer is badging some new vehicles as "Trail Rated"?
 - Jeep
 - Subaru
 - Land Rover
 - Hummer
- How many years has the Infiniti brand been in existence?
 - 10 years
 - 12 years
 - 14 years
 - 16 years

- What is the base price of the new full-size Nissan Titan truck?
 - \$19,600
 - \$22,400
 - \$23,995
 - \$25,595
- What percentage of vehicles turned in for insurance claims are totaled?
 - 4.1 percent
 - 8.5 percent
 - 12.0 percent
 - 16.7 percent
- Hyundai recently announced plans to keep a 10-year/100,000-mile limited powertrain warranty and 5-year/60,000-mile bumper-to-bumper warranty through when?
 - 2004
 - 2006
 - 2008
 - 2010
- How many Porsche 911s have been sold in the US since its 1963 introduction?
 - 150,000
 - 225,000
 - 300,000
 - 500,000
- Where is the new high performance Pontiac GTO being built?
 - United States
 - Australia
 - Canada
 - Mexico
- Which luxury brand has the highest residual value estimate for 2004?
 - Acura
 - BMW
 - Lexus
 - Mercedes-Benz
- When were the first minivans introduced in the US?
 - 1977
 - 1981
 - 1983
 - 1985

(answers below)

16. Answer: b. Porsche has sold more than 550,000 911s worldwide since 1963. Of that 225,000 were sold in the US. 160,000 of the 911s are still on the road.

17. Answer: b. Holden, General Motors' Australian subsidiary, is building the new high performance Pontiac GTO in Australia. The GTO is derived from Holden's rear-wheel drive coupe, the Monaro and that powers some Corvettes.

18. Answer: b. According to Automotive Lease Guides 2004 residual value rankings BMW has the best residual after three years for luxury vehicles: 54.5 percent. Lexus - 53.2 percent. Acura - 52.1 percent. Mercedes-Benz - 52.0 percent. Average for luxury vehicles is 49.0 percent.

19. Answer: c. The minivan was introduced to the US market in 1983 when Chrysler brought out the Dodge Caravan and Plymouth Voyager. They are currently celebrating the 20th anniversary of the minivan.

The Car Smarts quiz includes news and trivia from industry sources, trade journals and consumer magazines compiled for Arizona Driver by BILL & BARBARA SCHAFFER of Auto Digest.

7. Answer: d. J.D. Power and Associates 2003 NewAuto-shopper.com study says 83% of new car buyers have visited at least one manufacturer's website.

8. Answer: c. According to statistics gathered from manufacturers, J.D. Power and Associates and wardsauto.com, 24.5% of vehicles sold in the US during the first six months of 2003 were SUVs.

9. Answer: b. The Chinese auto industry began in 1953 when First Auto Works started in the new People's Republic of China. It produced a 4-ton Jiefang (Liberation) truck and added the Hongqi (Red Flag) sedan, modeled on the Daimler-Benz 220, in 1958.

10. Answer: c. After 10 years on the market, the Aston Martin DB7 will be replaced by the 2004 Aston Martin DB9. Aston Martin officials tell us the DB8 name is being saved for a future product.

11. Answer: a. Jeep is producing new more car-like SUVs and branding them as "Trail Rated."

12. Answer: c. Infiniti just celebrated its 14th anniversary. Ford has sold 1.5 million Eddie Bauer brand vehicles during the last 20 years.

13. Answer: b. Base price of the new full-size Titan is \$22,400. \$2,600 to \$4,200 less than full size US pickups.

14. Answer: c. According to CCC Information Services and ADESA Analytical Services, 12.0% of vehicles turned in for insurance claims were a total loss during 2002.

15. Answer: c. Hyundai plans to keep their 10-year/100,000-mile limited powertrain warranty and 5-year/60,000-mile bumper-to-bumper warranty through 2008.

CAR QUIZ ANSWERS

1. Answer: a. The all-new Dodge Durango SLT is priced at \$31,590, compared with \$33,760 for the '03 model. The original Porsche 911 prototype was called the 901, but Peugeot objected saying their cars all used the three digit naming configuration with a 0 in the middle. Porsche then changed the name to 911.

2. Answer: c. The Ferrari replacement for the 456M coupe will be called the 612 Scaglietti. It has an aluminum body built by Pininfarina and a new 5.7-liter, 540-hp V-12 engine. It goes on sale this summer in Europe and next fall in the US for about \$30,000. Ferrari expects to produce 600 to 700 612 Scagliettis annually.

3. Answer: c. 74% of 119 of the 160 cars that regularly race in the NASCAR Winston Cup Series, the NASCAR Busch Series and the NASCAR Craftsman Truck Series use Mobil 1® synthetic motor oil in their vehicles.

4. Answer: b. Ford has sold 1.5 million Eddie Bauer brand vehicles during the last 20 years.

5. Answer: d. The Dodge Ram sales ranked it the 46th best selling vehicle in 1993. At the end of August it was ranked third behind the Ford F-150 and Chevy Silverado trucks. Its percentage of market share has improved by 286 percent in that 10-year period according to WardsAuto.com.

6. Answer: c. Infiniti just celebrated its 14th anniversary.

7. Answer: d. J.D. Power and Associates 2003 NewAuto-shopper.com study says 83% of new car buyers have visited at least one manufacturer's website.

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HUMMER TRUCK FEATURES MIDGATE

A new Hummer truck, the H2 SUT, goes into production in April 2004. The closed-in cargo area of the standard H2 is replaced with a three-foot-long pickup-like bed. It also has a midgate like the Chevrolet Avalanche with a power window that lowers into the gate at the touch of a button. Then the gate and rear seat can be lowered to expand the cargo area to six feet. Another button lowers all the windows at once, plus there's a large sunroof to provide a real open-air driving experience. The SUT will have a slightly higher level of equipment and therefore is expected to have a higher price tag than the H2, which starts at \$49,190. ▼



Hummer H2 SUT



Volkswagen Phaeton

Entering the rarified stratosphere of the Audi A8 W12, Volkswagen's new Phaeton takes on the Mercedes-Benz S-Class and BMW 7-Series. Wow.

VW PHAETON COMES ASHORE

▲ Volkswagen's new luxury sedan, the Phaeton, began arriving at US dealerships at year-end. The Phaeton is Volkswagen's first entry into the high-end luxury market currently dominated by BMW, Mercedes-Benz and Lexus. This flagship VW comes in two versions: a 335-hp 4.2-liter V8 and a 420-hp 6.0-liter W12. Pricing is \$64,600 for the V8 and \$84,890 for the W12 when equipped with a \$4,990 special equipment package. Standard equipment includes 4MOTION all-wheel drive, air suspension, a world-class climate control system, a navigation system and a long list of other convenience and luxury features. The W12 includes 18-way memory power seats with heating, ventilation and massage function plus many other standard features.

CADILLAC DESIGNER MERCHANDISE

Cadillac recently expanded from cars to merchandise, to help complete its brand renaissance. Just as other upscale auto companies are offering items with their company name attached, Cadillac recently released a 54-page catalog filled

with items like \$240 Blinde sunglasses, a \$965 Montblanc briefcase and \$395 Callaway golf equipment with the Cadillac logo. Cadillac general manager Mark LaNeve says he doesn't expect to make much profit on these products and that "sales results are secondary to the equity relationships we have with brands like Tommy Bahama and Montblanc."

MERCEDES-BENZ C-CLASS FACELIFT

After four years on the market, the Mercedes-Benz C-Class is due for a major facelift in February 2004. The design has new front and rear skirts, clear glass headlights, narrower grille, LED rear lights along with new interior appointments. The C36 AMG model will be replaced with the C55 powered by a naturally aspirated 5.5-liter V8 rated at 367 horsepower and a five-speed automatic. (A new seven-speed automatic may be offered later.) The AMG model will get a distinctive front-end design for the first time.

BUICK ADDS UPSCALE MINIVAN

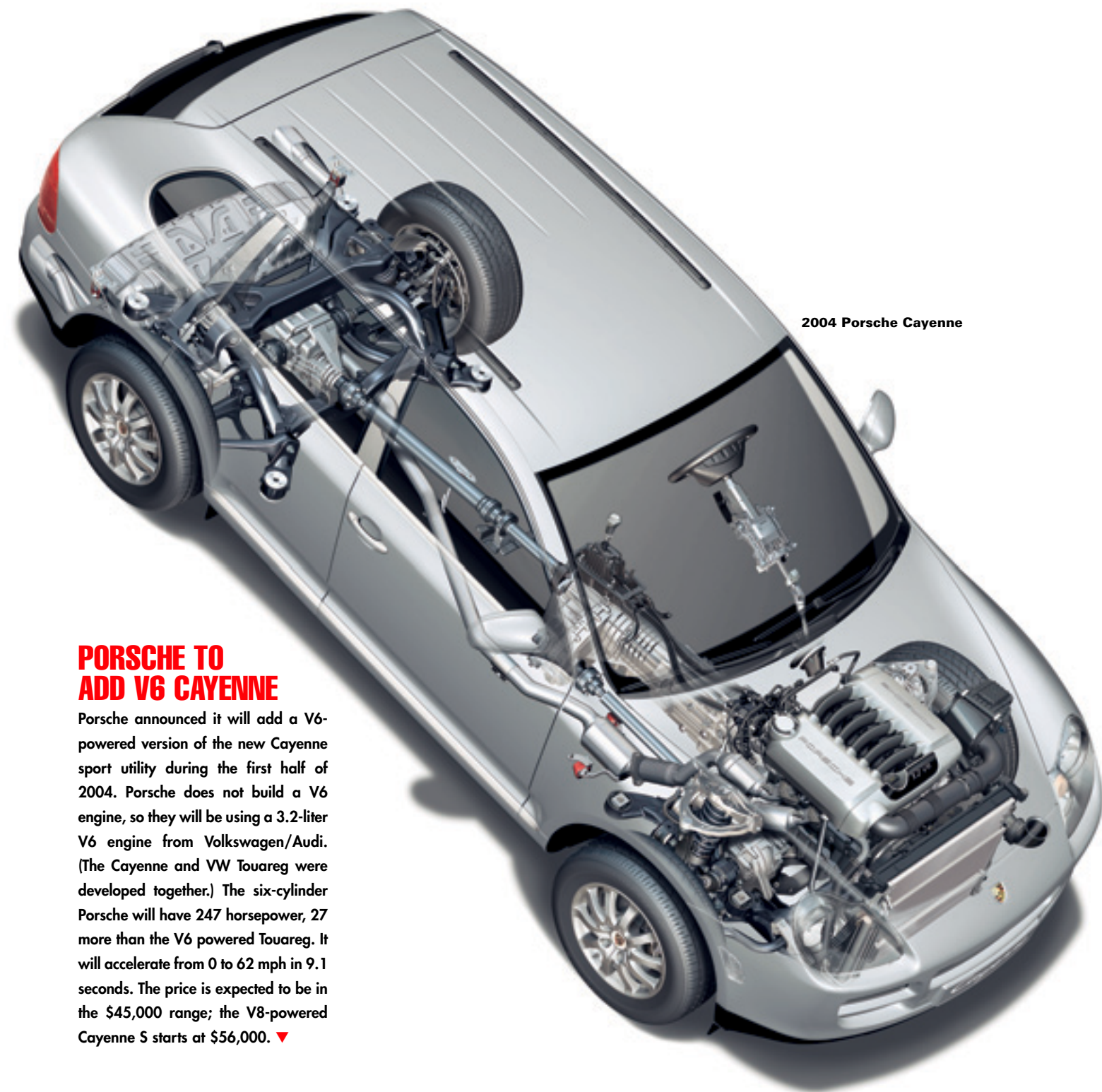
For the 2005 model year, Buick plans to add a third truck-type vehicle to their lineup. The Terraza will be a Buick version

of the Pontiac Montana and Chevrolet Venture vans, which General Motors calls crossover sport vans. Buick officials say the Terraza will offer understated elegance inside and out, and that it should appeal to affluent married couples with children. Like the other sport vans, it will be powered by the 3.5-liter, 200-hp GM V6 engine and other similar technology including StabiliTrak Vehicle Stability Enhancement System and optional all-wheel drive. Buick promises the Terraza will have one of the quietest interiors in its segment.

TOYOTA PERFORMANCE COROLLA

Toyota's economical Corolla will get a performance upgrade starting in May when the XRS version is introduced. Designed to compete with cars like the Honda Civic Si, the XRS will have the same 1.8-liter Yamaha-designed engine used in the upper-end Celica and Matrix vehicles, but the power curve has been redesigned to provide more middle level torque. It has a six-speed manual transmission and a sport-tuned suspension

KEEP RIGHT >>



2004 Porsche Cayenne

PORSCHE TO ADD V6 CAYENNE

Porsche announced it will add a V6-powered version of the new Cayenne sport utility during the first half of 2004. Porsche does not build a V6 engine, so they will be using a 3.2-liter V6 engine from Volkswagen/Audi. (The Cayenne and VW Touareg were developed together.) The six-cylinder Porsche will have 247 horsepower, 27 more than the V6 powered Touareg. It will accelerate from 0 to 62 mph in 9.1 seconds. The price is expected to be in the \$45,000 range; the V8-powered Cayenne S starts at \$56,000. ▼

2004 Porsche Cayenne



2004 Porsche Cayenne S, Cayenne Turbo



Mercedes-Benz Vision CLS



Mercedes-Benz demonstrates evolution as much as revolution in the Vision CLS 4-door coupe.

with increased-rate springs and shocks that will lower the vehicle by half an inch. It will also have sixteen-inch wheels and Michelin performance tires. Toyota says they expect to sell about 5,000 Corolla XRS units annually. Prices are expected to start just under \$18,000.

MB NEW LOOK: VISION CLS

▲ Mercedes-Benz has finally taken the wraps off the Vision CLS at the Frankfurt Auto Show, after rumors and spy shots of the concept had been appearing for several months. The new-style Mercedes is a sporty-looking so-called four-door coupe that resembles an Alfa Romeo and forecasts future brand styling. It will fit into the Mercedes lineup as a coupe version of the E-Class sedan, even though only in size. A turbodiesel engine powered the vehicle shown in Germany, but the US version will get a 5.0-liter V8 and a CLS 500 designation.

LONDON CABS COMING TO US ROADS

London Taxi Cab of North America is selling the famous taxi icons in the US to taxi fleets, livery companies and private owners. A 2.4-liter 90-horsepower Ford turbodiesel engine powers the two-ton

cabs. The cabs are engineered to withstand the brutal duty of stop and go city driving and are expected to have an average life expectancy of more than 500,000 miles. The steel body panels can be easily unbolted and replaced. The cars also have a 9000-mile service interval and are expected to get 24-mpg. They have a built-in wheelchair ramp, swivel-out passenger seat, side step, and an intercom system with hearing-air-friendly induction loop. The doors open 90-degrees and are 53-inches tall for easier access. The cabs also have an integrated child seat and independent front/rear climate controls. The so-called Civilized Taxi retails for \$44,800. More information is available at www.ltna.com.

PIONEER'S NEW DO-ALL SYSTEM

Pioneer Electronics has introduced the first combined audio/video/navigation system for a car. The revolutionary AVIC-N1 allows the vehicle passengers to use a simple touch panel or voice commands to simultaneously access memory navigation information (route guidance, electronic mapping, points of interest, etc.)

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Ford GT

FORD MOVING SVT UPSCALE

The Ford SVT program is about to take a new direction starting with the 2005 model year. The company reportedly plans to concentrate on three vehicle types: (1) high-end vehicles like the new Ford GT and other limited edition models, (2) turbocharged and supercharged vehicles, and (3) mainstream performance models in which the ST label will be applied to vehicles like the Ford Focus SVT replacement. As a result of these changes, the SVT Lightning pickup and the Mustang SVT Cobra will not be produced for about 18 months while the realignment is being completed. Some new products in the pipeline include a 2004 model Lincoln Navigator with a supercharged 380-hp V8, and a 2005 or 2006 Focus with a turbocharged 200-hp 2.0-liter four-cylinder engine. A supercharged Mercury Marauder is also under consideration. ▼



Infiniti G35

The Infiniti G35 is spreading its success in every direction, with a coupe and 4-door sedan, all-wheel-drive availability, and now a twin-turbo V6.

entertainment (audio entertainment for front seat passengers including XM satellite radio, and DVD-video entertainment for rear seat passengers) and vehicle dynamics (speed, acceleration, lateral G-Force, angular velocity, slope, angle, etc.) The AVIC-N1 will be available in March, but the price has yet to be announced.

TWIN TURBO FOR INFINITI G35

▲ In addition to Nissan's enhancement of the G35 sedan with available all-wheel drive in December, there is now a rumor that there will be a twin turbo V6 engine option built by Cosworth. Sources suggest the engine is expected to produce about 480 horsepower. The engine will employ a new technology to reduce emissions. When the car is cruising or idling, the engine temporarily turns into a naturally aspired car. During those non-boost periods, magnetic valves open to form a bypass that directs the exhaust gas around the turbochargers and directly into precatlysts. When the boost is needed for more power, the valves close instantly and the exhaust is channeled through the turbos. The system will allow the engine to meet emission standards worldwide.

ALL HONDAS WILL BE SAFER

Honda engineers have developed a body-structure architecture that allows a smaller car to better survive a collision with a larger vehicle. The new Advanced Compatibility Engineering (ACE) system reduces the concentrated energy of a collision by dispersing it over a larger area. The engine is also prevented from ramming forward into another vehicle's cabin during a head-on collision, by a protective frame under the hood. The ACE structure includes a highly efficient energy-absorbing main frame, a bulkhead that absorbs the upper part of the collision energy, and a lower member. The downside of the system is a few extra pounds of front-end weight, which translates to a little lower fuel efficiency and a slightly higher purchase cost, but Honda believes the advantage is so great that it plans to add the ACE system to all vehicles as they are replaced over the next six or seven years.

END OF ALL-ALUMINUM BUICK V8

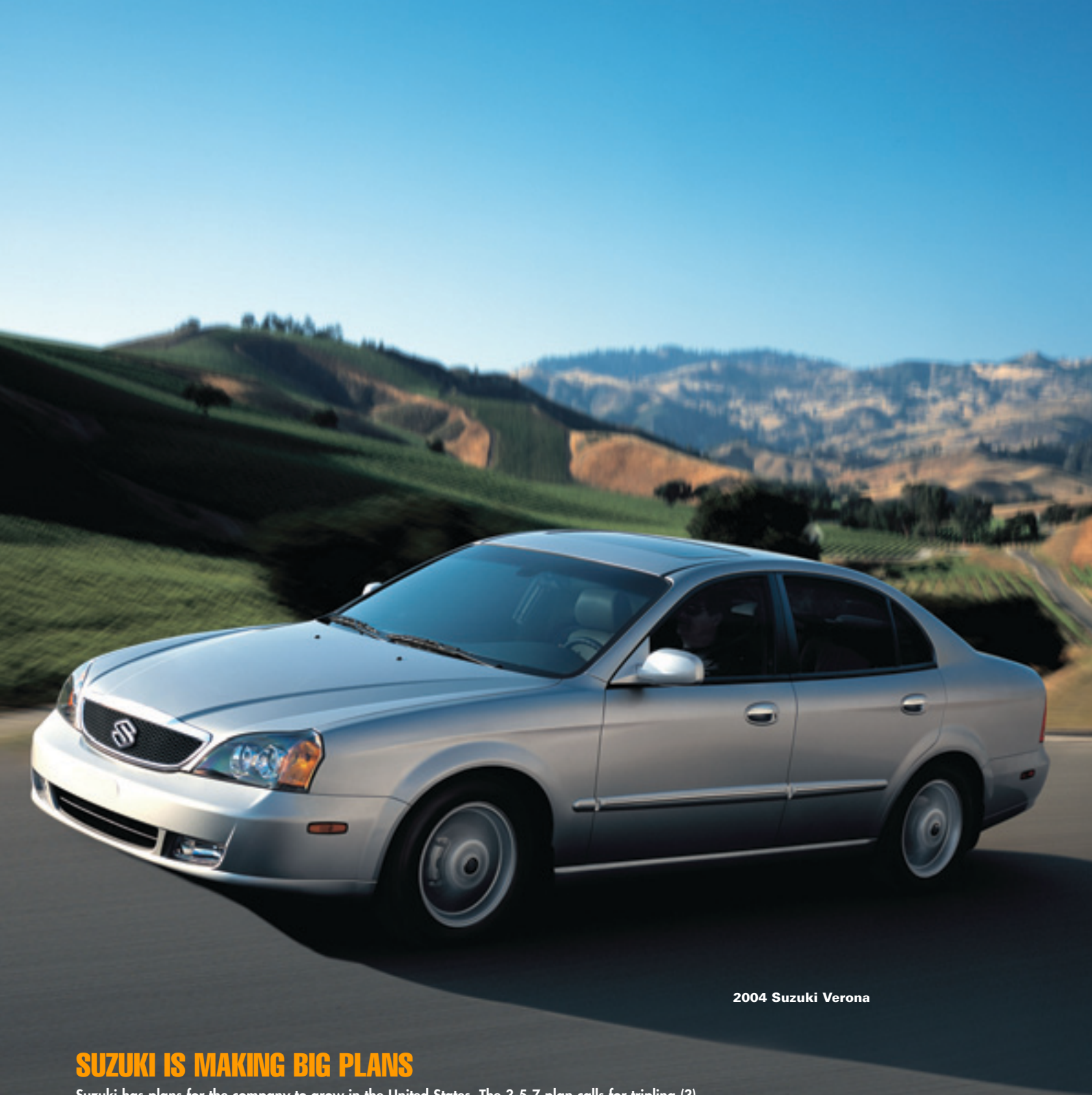
When Buick engineers designed the all-aluminum Fireball V8 engine for the 1961 Buick Special, they didn't know it would

continue to be produced for more than 40 years in a variety of vehicles. Since that first installation, the small lightweight V8 engine has gone from the Buick to the Pontiac Tempest (1963) to the Morgan Plus 8 (1970s - 1990s) to the Rover (1980). It was also put into the MGB GT in 1973 and then into the Range Rover in 1986. Each Land Rover Discovery and Defender has had this same engine until the 2004 Discovery, which gets a new overhead cam Jaguar engine. Through its history, the engine has grown from 3.5- to 4.6 liters. The machinery to build the engine was recently sold at auction, and the new undisclosed owner will use it to build replacement parts for the nearly 1 million engines still in service.

PHATNOISE: 15,000 SONGS ON BOARD

PhatNoise has created a new digital audio storage system that allows music lovers to put up to 15,000 songs on a cartridge for use in a car. The provided software allows the driver to transfer songs to the cartridge in a method similar to burning a CD. The hard drive system comes in 20-,

KEEP RIGHT >>



2004 Suzuki Verona

SUZUKI IS MAKING BIG PLANS

Suzuki has plans for the company to grow in the United States. The 3-5-7 plan calls for tripling (3) sales in 5 years by 2007. Expansion will include moving into five product segments from the current two with nine new vehicles. In 2003 they have added the midsize Verona and compact Forenza sedans. 2004 calls for a new five-door crossover wagon. A small SUV with 2.7-liter V6 comes in 2005. In 2006 there will be a midsize SUV and a new crossover vehicle. And the 2007 plans call for a new sport wagon and another crossover. ▼



Volvo S40

Volvo seems to be enjoying the best of all worlds now, as it maintains a safety and luxury image, while ramping up performance and adding value.

40- and 60-gigabyte cartridges that plug into a receptacle in the car, which in turn is plugged into the same port as the factory CD changer. The system uses the same controls as the car's CD changer and allows the operator to navigate through the files by album, artist and/or genre. The PhatNoise digital media player sells for \$795. It is already being offered as an option at most Volkswagen dealerships. More information is available online at www.phatnoise.com.

NEXT VOLVO S40 GETS S60 ENGINE

▲ The new Volvo S40 sedan that debuted recently at the Frankfurt auto show uses the same architecture as the next generation Ford Focus and Mazda 3, but the engines come from its big brother, the Volvo S60. For a base engine, the S40 will use a naturally aspired 2.4-liter in-line five-cylinder (170-hp), and the sporty TS version will get a turbocharged 2.5-liter 220-hp version of the same engine. Transmissions are a five-speed manual or five-speed automatic. There will also be an all-wheel-drive option with the larger engine. Volvo claims the new S40 will be the safest car in its class. The S40 is due in the US this spring, while the V50 wagon version will be out in the summer.

HONDA ADVANCE FUEL CELL TECHNOLOGY

Honda engineers claim a breakthrough in fuel cell technology with the intro-

duction of a remarkable compact next-generation fuel cell stack that delivers higher performance with increased range and fuel efficiency. The FC fuel cell stack is the world's first to have a stamped metal separator structure combined with newly developed electrolyte membranes for improved efficiency, along with the ability to recycle and to operate over a greater range of temperatures, as low as -4 degrees to as high as 203 degrees Fahrenheit. Components are reduced by almost 50 percent compared to conventional stacks, and output density is more than double that of the current Honda FCX V3 stack. The new stack, when used in Honda's FCX limited-production car running on compressed gas, has a range of about 180 miles and a top speed of 93 mph.

FORD ADAPTIVE HEADLAMP TECHNOLOGY

Ford engineers are now able to adjust headlight patterns according to driving conditions, safety requirements or driver preferences. A prototype system uses feedback from vehicle onboard systems, such as steering angle and vehicle speed, to optimize illumination for given situations. The headlamps are controlled electronically to create beam patterns that vary in angle, shape, intensity and time. As an example, Ford says at an intersection there will be broader coverage than when the vehicle is going straight at a constant speed, and they will illuminate corners better. ■

Auto News Update includes a summary of auto news from industry sources, trade journals and consumer magazines compiled for *Arizona Driver* by **BILL & BARBARA SCHAFFER** of *Auto Digest*.

Russo and Steele Collector Automobile Auction: Sport, Muscle, Rod, Custom



For 15 years, Drew Alcazar honed his skills as a collector car restoration expert in Southern California, setting multiple world sales records with his muscle and sports car restorations. That expertise and the commitment of unparalleled personal attention to his clients are now the foundation for Russo and Steele Collector Automobiles. Enjoying unprecedented success after just four years, the collector car hobby has found a niche with Alcazar's auctions that specialize exclusively in European Sports Cars, American Muscle Cars, Street Rods and Customs.

"I value the ability to personally interact with my clients," said Alcazar. Consequently, Russo and Steele is a "highly interactive" auction, and intimate by design. The true collectors can get close to the cars. "Our theory is less is more. I sell a select group of high quality cars and deliver a unique experience for the attendees." From atmosphere to hosted amenities, Russo and Steele pursues the singular objective of "a car auction for car people." By niche marketing the type of cars sold as well as the environment created by catering to the needs of the most discriminating of enthusiasts, this auction has quickly become the place to enjoy this passionate hobby.

Alcazar's experience in the industry also allows him to counsel buyers and sellers. "I have a fiduciary responsibility to advise my clients—especially on the seller side—to give them insights on the real market value of the car, tempering some of their own personal emotions." On the buyer side, Alcazar can often share personal knowledge about the seller and how the car has been maintained. "From a buyer's perspective, having knowledge of the history and ownership background is extremely valuable in determining how high they should bid." As bidders are well aware, once the gavel falls, the car is sold and they are the new owners.

The Russo and Steele auction, January 23-24 in Scottsdale, is executed under a big top tent and includes a charity gala to benefit a local non-profit organization. Only bidders, consigners and their guests have access to the auction tent, which keeps the focus of the evenings truly on the cars and the buyers. Attendees are treated to a catered dinner and hosted bar. Meanwhile, the general public may view the cars in a special preview area before they roll into the auction tent.

It is this unique and exclusive perspective is quickly earning Russo and Steele the preeminent position in the marketplace for the true collectors and for those who have fine Sports, Muscle, Hot Rods and Customs to sell. For more information on the auctions go to www.russoandsteele.com or call 480.517.4005. ■



What's Not To Like

The BMW 330i Performance Package begs us to take it somewhere, and we comply

by Joe Sage



"I want a picture of me here."



"Look! Utah! Let's keep going!"



330i with Performance Package



M3

This car is like a restless significant other, whose simple demand, impossible to ignore, is, "Take me somewhere! Now!" Well, we aim to please. So we took the new BMW 330i Performance Package sedan north, through Monument Valley, on into Utah's red rock country. Open road, straight stretches, hills and canyon curves, a significant altitude change... all in all, a good test circuit. And did we like it? Well, who wouldn't. It's a BMW, it's the ever-popular 3 Series, and it's been given the enhancements in this package.

So what exactly is a Performance Package BMW? The base nomenclature is standard... "3" for 3 Series, "30" for its 3.0-liter engine, and "i" for fuel injection (does this still rate inclusion?). But it's not your brother's 330i, though it's not an M3.

BMW introduced the all-new Performance Package for the 2003 330i sedan at the Los Angeles International Auto Show a year ago. While the 330i sedan continues to win comparison test after test on the strength of its performance and handling, the Performance Package raises the bar on the 3 Series driving experience. The 330i Performance Package was created exclusively for the US market for enthusiasts by enthusiasts at BMW Individual, a division of BMW M GmbH. BMW claims that there is no aspect of the driving experience that has not been enhanced by the Performance Package. Modifications to the 3.0-liter inline six-cylinder engine include different camshafts and performance-modified Digital Motor Electronics, yielding a modest ten horsepower increase to 235

(the M3 has 333 hp). For the first time in a 330i, a six-speed manual transmission is standard, and on the Performance Package it includes a short-throw shifter. The package also includes a shorter final drive ratio. The benefits of these modifications are immediately apparent — the 330i with a Performance Package has a manufacturer's acceleration rating of 6 seconds from 0–60 mph, about half a second faster than a standard 330i (and a bit slower than the 4.8 second time of an M3 coupe). To match this straight-line performance, the Performance Package adds its version of one of the things that makes the M3 great, a new sports suspension, more aggressively tuned than the 330i's standard sport suspension, and mated to 18-inch wheels with differentiated-size (front and rear) Z-rated

performance tires. Besides wheels and tires, the 330i Performance Package is distinguished by its Aerodynamic Package, black headlight trim, high gloss shadowline trim and a new exhaust that not only appears but also sounds more aggressive. And yes, people notice.

The look and feel of the interior has been refined with cloth and Alcantara sport seats matching the Alcantara sport steering wheel. An anthracite headliner and Black cube aluminum trim complete an enthusiast ambiance. Silver cube aluminum trim is optional. Instrumentation includes red needles, and the tachometer reflects the modified engine's 300 higher rpm limit.

Why do we persist in comparing this Performance Package 3 Series with the M3, while BMW compares it with the

standard 330i? Well, because it's the obvious question for anyone stepping up to more performance. This is a new machine, or at least a machine modified to fill a new performance and marketing niche, slotting in between the standard and the M (a tactic soon to be taken by Audi and Mercedes-Benz as well, for those who want a boost but don't want the cost or neck-snapping performance of a full-blown Audi S or M-B AMG). And there are at least two key differences between the Performance Package over the M3: a) it's a 4-door sedan instead of a 2-door coupe, which is bound to appeal to quite a few people; and b) it's more affordable. There are thirteen different BMW 3 Series models available, including 325i, 330i and M Series, coupe, sedan, wagon and convertible variants, and even

an all-wheel-drive option. Here's a cross-section that gives a good idea where the Performance Package fits in the lineup:

325i sedan.....	\$28,495
325xi sedan (awd)	\$30,245
330i sedan	\$35,495
330Ci coupe	\$36,995
330Ci convertible	\$44,295
330i sedan w/Perf.Pkg. ...	\$39,195
<i>includes \$3900 Performance Package</i>	
M3 coupe	\$47,195
M5 convertible.....	\$55,595

(But wait, there's more. You could also order the popular Sport Package on the standard 330i, but not in combination with the Performance Package.)

So how was our drive? Although your author would personally be more comfor-





"Ahhh... home again."

2003 BMW 330i Sedan with Performance Package SPECIFICATIONS

(**Bold** is specific to Performance Package.)

GENERAL

Curb weight, lb.....	3285
Weight distribution front/rear %.....	50.1/49.9
Wheelbase, in.....	107.3
Track, front/rear, in.....	57.9/58.4
Length, in.....	176.0
Width, in.....	68.5
Height, in.....	55.1

ENGINE & ELECTRICAL

DOHC inline 24-valve 6-cylinder, Double VANOS steplessly variable valve timing	
Displacement, cc/cu in.....	2979/182
Compression ratio.....	10.2:1
Power, horsepower.....	235 @ 5900 rpm
Torque, lb-ft.....	222 @ 3500 rpm
Maximum engine speed, rpm.....	6800
Engine-management system.Siemens MS 43 with knock control (2 sensors); variable valve timing, electronic throttle system, dual resonance intake system, engine cooling & other functions included in control strategy: specially modified for Performance Package	

DRIVETRAIN

Drive system.....	Front engine/rear-wheel drive
Manual transmission.....	ZF Type H, 6-speed
Ratios:	
1st.....	4.23:1
2nd.....	2.52:1
3rd.....	1.66:1
4th.....	1.24:1
5th.....	1.00:1
6th.....	0.85:1
Reverse.....	3.93:1
Final drive ratio.....	3.07:1

CHASSIS

Body/frame construction.....	Unitized steel
Front suspension: Struts, arc-shaped forged-aluminum lower arms with rigid front pivots & hydraulic rear cushions, coil springs, twin-tube gas-pressure shock absorbers, anti-roll bar	
Rear suspension: Multi-link system with Central Links, upper & lower lateral links (upper link of cast aluminum), coil springs, twin-tube gas-pressure shock absorbers, anti-roll bar	
Suspension calibration Unique M sport calibration (springs, shock absorbers, anti-roll bars & bushings/pivots)	
Steering type.....	Rack & pinion, engine-speed-sensitive power assist
Turns lock-to-lock.....	3.0
Turning circle, ft.....	34.4
4-wheel ventilated disc brakes:	
Diameter, front, mm/in.....	325/12.8
Diameter, rear, mm/in.....	320/12.6
Wheels: Cast alloy, 18 x 8.0 front / 18 x 8.5 rear	
Tires: Performance, 225/40R-18 front / 255/35R-18 rear Z-rated	
Stability-enhancement system.....	Dynamic Stability Control (DSC), incl. Dynamic Traction Control, electronic brake proportioning, antilock braking (ABS) & cornering/avoidance stability enhancement

PERFORMANCE DATA

Acceleration, 0-60 mph, sec., manual ²	5.9
Top speed, mph ³	155

² BMW AG test results. Actual acceleration results may vary depending on specification of vehicle; road and environmental conditions; testing procedures and driving style. These results should be used for comparison only, and verification should not be attempted on public roads. BMW urges you to obey all posted speed limits and to please wear your safety belt at all times.

³ Electronically limited.

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- Aircraft maintenance
- Avionics installation & repair

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table in a 5 Series, this vehicle lacks basically nothing. The tricked-out electronics of the next generation 5 and 7 are not missed. The seats are comfortable, the controls are intuitive, visibility is good, handling is superb, the 6-speed is accurate and well-matched to performance, and the engine is more than adequate for a good highway run. And the acoustics from the engine and exhaust are satisfying indeed. We kept speeds legal, of course, and never met Utah's finest, but the punch this car offers on hill and curve gives thrill enough.

Around town, handling is tight but tame, compared with the M Series, a plus for most daily drivers. Parking is a breeze, and the recognition factor is strong.

Call us nostalgic, old-fashioned, traditionalist or out of touch, but we've driven most of the new Chris Bangle-penned BMWs, too. And there's something about this last of the previous breed, with its taut design, Teutonic power and understated intuitive control that makes us happy stuck in the past. Of course, when we get our hands on the next 3 Series, perhaps we'll sing a different tune. But the '03 BMW 330i Performance Package is a gem of a time capsule. ■



Getting around the challenges of getting around



While most of us take our personal mobility for granted, or even greatly appreciate it, there are many who are not able to walk to their vehicle, much less enjoy the freedom of getting in and going places. Some are elderly or ill; others have suffered life-changing injury; all seek to maintain an active lifestyle. Fundamental hand controls have been available for many years, so someone without full use of their feet can perform basic acceleration and braking procedures. Racks are available to carry a wheelchair on the back of a larger vehicle. And specialized vans have been able to accommodate a passenger, and sometimes a driver, in a chair. Now, breakthrough developments by the major manufacturers are allowing the disabled unprecedented ability to access, enter, exit, stash their gear, and drive or ride in comfort and total control. A combination of newly specialized vehicles, plus standard vehicles with broader forethought applied, present an enormous leap in mobility and in personal freedom.

Ford Mobility Motoring

Approximately 13,000 people with disabilities received benefits from Ford through November 2003. Since its creation in 1992, the Ford Mobility Motoring program has assisted more than 100,000 people with millions in reimbursement funds.

In addition to financial aid, Ford Mobility Motoring can provide a state-specific information packet listing assessment centers, equipment installers and other potential sources of financial assistance, including extended vehicle financing terms through Ford Credit Mobility Financing. Ford is the only automotive manufacturer to be honored by the National Business and Disability Council and two-time recipient of the National Business and Disability Council's Valued Customer Award in 1998 and 2002 for its mobility efforts and practices. For more information call 800.952.2248 or log on to www.mobilitymotoringprogram.com.

Mobility Tuned Focus— The Ford Mobility "Tuned" Focus puts young people with disabilities into the driver's seat of the "hot-hatch" craze inside the world's best-selling car. At the Chicago Auto Show, Ford displayed a customized Focus ZX3 demonstrating mobility enhancements that can make vehicles accessible yet still exciting to people with disabilities. Ford worked with aftermarket appeal manufacturer Ballistic Unlimited and Bruno Independent Living Aids to create the "Tuned" Focus with street racer appeal and features.

The basic Ford Focus claims more headroom and easier ingress and egress than other cars in its class. Instrument panel controls, including larger radio and climate control knobs and buttons, are designed to be easier to locate, grab and manipulate. Building from this solid base, Bruno Independent Living Aids of



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Oconomowoc, Wisconsin, worked to make the car even more accessible. Bruno's Low-Profile seats in both driver and passenger positions provide an even more ergonomic seating position and power-rotate on Bruno Power Turnouts™, allowing the seat to rotate 90 degrees and including a sensor to stop operation if there is an obstruction encountered during rotation.

Rotary, hand-operated Wells-Engberg driving controls were integrated to the left of the steering column for independent, simultaneous one-hand control of both throttle and brake. Bruno has also installed a trunk lift in the rear hatch opening, which easily stores Bruno's versatile Typhoon™ C3 Scooter in the rear. The scooter has been painted to match the car's exterior, and the seat has been styled to match the interior. The interior features color-keyed upholstery to match the exterior colors.

The Mobility "Tuned" Focus has power and performance to match its edgy looks. The engine has Toucan Industries performance air intake, ignition wires and a Bosal stainless "cat-back" exhaust. Braking and cornering are enhanced by a lowered Intrax suspension, reactive upper strut, 17-by-7-inch wheels, Power Stop rotors and 225/50R-17 tires. Ballistic Unlimited added cool art style to the

exterior. The ZX3 has been painted Infra-Red with Modern Image Graphics Corporation's sliver and carbon flames outlined in black. The body kit comes from Wings West Avenger and has prototype Muth Signal Mirrors, as well as Body Pros tinted headlamps and taillamps.

Go Mobility Expedition Concept

The Project Go Mobility Eddie Bauer Expedition is a technically advanced mobility-adapted SUV concept vehicle. An incredibly thorough complement of exterior, interior, mobility and off-road features include these highlights:

- A positional backup camera aid for enhanced visibility while in reverse
- Ride-Rite® IntelliRide air springs with three levels for lowered position for easier ingress and egress, optimal performance on the street and 2-inch increase in ride height for off-road
- Microwave-based technology with both audible and visual indicators when the vehicle approaches an object in front
- Wireless tire pressure and temperature information for each wheel and tire assembly, with audible and visual alarm when a change is detected.
- Thermostatically controlled wiper blades, automatically heated at temperatures below 35°F
- Reconfigurable digital instrument cluster
- Bluetooth™ hands-free access to PDA, cell phone and other devices, as well as links to other vehicle systems
- Hands-free voice controls for the entertainment system, heating, cooling and next-gen telematics
- Easy transfer from the passenger seat to the driver's seat
- Wheelchair docking center with Polytech net between the rear seats

for safe, secure storage of a wheelchair

- Power rear liftgate activated by voice, key fob or manually
- Bruno seating with hand-controlled pivoting and articulating passenger seat base that matches the interior (this seat can be installed in other Ford, Lincoln and Mercury full size SUVs, pickups and full-size vans)
- Bruno rear tailgate lift to raise, lower and rotate a fully assembled mobility device from curbside or directly behind
- Wells-Engberg CT-100 Rotary Hand Operated Driving Controls
- On-board remote fill station for inflating tires and other pneumatics
- WARN® 9.5ti Thermometric Winch with a pulling capacity of 9500 pounds
- KC™ fog and driving lights
- Optima® Yellow Top Deep Cycle Batteries allows for greater cranking capabilities at high current loads.

Mercury Monterey Mobility Minivan

Lincoln-Mercury and Bruno Independent Living Aids have teamed up to debut the 2004 Monterey mobility minivan, Mercury's first long wheelbase minivan with adaptive mobility equipment.

Unveiled at the Greater LA Auto Show, the van features front- and second-row Bruno Turny™ passenger seats that rotate 90 degrees, plus power out and down, allowing a person to sit in either seat before entering. Both seats are operated by individual hand-held controls and have a weight capacity of up to 330 pounds. Unlike most seats modified with accessibility functions, Monterey maintains the original factory front passenger seat. Both seats can be easily restored back to original condition for resale.

The rear of the Monterey houses a new,



A bit more conventional than the activity-based Focus and Expedition projects, the Mercury Monterey Mobility Minivan offers extremely thorough and flexible mobility modifications.

fully adjustable Bruno Offset Fold-Away™ powered scooter lift capable of raising and storing a scooter or wheelchair weighing up to 200 pounds. The lift can load a fully-assembled scooter easily in three positions: curbside, from behind, or from the driver's side.

Bruno's Rio Travel Scooter™ is stowed in the well behind the third-row seat and does not interfere with Monterey's seven-passenger capacity. The adaptive mobility equipment featured on Monterey is available through an authorized Bruno dealer after the purchase or lease of any Ford, Lincoln or Mercury vehicle.

The Monterey has been engineered specifically to address the physical limitations of people. Particular attention was placed on ergonomic engineering early in the product development process to allow a full-term pregnant woman, the elderly or other people with physical limitations to perform everyday vehicle functions with minimal or no restrictions.

Ford Mobility Motoring— According to Census 2000, there are nearly 50 million people in the U.S. with a long-lasting physical disability. More than 20 million Americans have a walking disability. The US government considers a person to have a disability if he or she has difficulty performing one or more activities of daily living (walking, seeing, hear-

ing, speaking, lifting/carrying or grasping small objects). More than two million are wheelchair users and 400,000 people drive an adaptive vehicle. Approximately 70 percent of the disabled community is currently of driving age. The Ford Mobility Motoring program offers people with physical disabilities comprehensive roadside and financial assistance of up to

\$1,000 for the installation of adaptive equipment on new Ford, Lincoln and Mercury vehicle purchases or leases. The program also reimburses up to \$200 on alerting devices for hearing impairments, lumbar seats and running boards.

FEDA— Ford Employees Dealing disAbilities (FEDA) is a Ford employee resource

group, representing an important two-way benefit to employees and the company. FEDA members include employees with and without disabilities. They have the benefit of peer and management support on workplace issues through networking forums and educational events. The group serves as a valuable resource to the company in helping to best understand the needs and preferences of customers with disabilities. They provide support, identify barriers, provide information and contribute to employee development.

Third-Age Suit— In 1999, Ford developed the Third-Age Suit as a hands-on research tool. The full body Third Age



Suit, appearing as technical as a space suit, ages the wearer by 30 years, using materials that add bulk and restrict movement in key areas of the body such as the knees, elbows, stomach and back. Together with gloves that reduce the sense of touch and goggles that simulate cataracts, the suit gives engineers and designers a realistic feel for the vehicle needs of the elderly.

Research gathered from the suit was helpful in the design process of these Ford Mobility vehicles. ■



The Go Mobility Ford Expedition concept vehicle.





HP Motorsport of Omaha, Nebraska, constructed the Mustang for Tiger Racing and provided trackside engineering and support under the direction of Paul Brown, a veteran now in his tenth year of the World Challenge Series, and general manager for HP Motorsport. The Mustang is equipped with HPM's spec wing, SLA front suspension, Bassani Xhaust, Brembo brakes and Vortech superchargers.

Hand controls— To win races, any race car must be operated at its performance limits. The driver must have precise control of steering, braking, acceleration and gear selection. Furthermore, this control must be applied in a chaotic environment of g-forces, speed, proximity

to other racers and changing track conditions. An able-bodied racer uses both hands and feet to control the vehicle. A paraplegic racer is unable to use her lower body, so those functions normally controlled by the feet must be accommodated elsewhere. In the Hollfelder/Therkleson Hand Control System, the race car is controlled as follows:

Function	Able Bodied Racer	Hollfelder/Therkleson System
Steering.....	Hands	Hands
Throttle.....	Right Foot	Finger Tips
Brake	Right Leg Extension.....	Arm Extension
Clutch	Left Leg Extension	Thumb Switches
Gear selection	Right Hand.....	Thumb Switches

The Mustang— The Tiger Racing Mustang GT is based on the 2003 Ford Mustang. It is, however, a purpose built road racing car with a number of significant design features that make it unlike any other Mustang. The paddle shift gear box clutch system, developed especially for this car by Ford's Advanced Powertrain Division, allows high speed shifting with two simple thumb switches on the steering wheel. Brake and throttle controls by Tiger Racing are also on the steering wheel, as is the radio push-to-talk button. The motor is a special all-alloy 4-valve 4.6 L V8, supercharged and intercooled in joint development by Ford and Vortech Superchargers. Huge disc brakes and fully independent suspension at all four corners handle impressive Fikse 18" x 9.5" front and 18" x 12" rear wheels. The Mustang generates 500 hp at 6800 rpm, and 450 lb/ft torque at 6000 rpm. Total weight of 3000 lb. includes the driver.

"Ford has an extensive history of applying racing technology to their road cars," says Hollfelder, "and we believe our development of adaptive devices will support Ford's 'No Boundaries' campaign. We are excited to have a powerful race car with Ford's legendary reliability and customer commitment."

Tiger Racing debuted the car at the SEMA show in Las Vegas and performed a full World Challenge campaign in 2003 with sponsorship from Ameritec, a telecommunications test equipment manufacturing company. ■

"No Boundaries" — Tiger Racing, HP Motorsport and Ford Motor Company bring Carol Hollfelder to the SCCA Speed World Challenge GT Championship

Tiger Racing of Covina, California, first developed their technical relationship with Ford Motor Company in support of their 2003 Speed World Challenge effort. Tiger Racing campaigned a Ford Mustang for driver Carol Hollfelder, a paraplegic, who uses specially engineered hand controls to race competitively at the professional level. Ford Motor Company supplied Cobra 4.6 DOHC engines and Tremec six-speed electrohydraulic gearboxes to the team. This transmission employs fingertip control Formula 1 style paddles that enable almost imperceptible gear changes to be completed in under 250 milliseconds - less than the blink of an eye. Ford also provided technical support for the program.



The Tiger Racing Mustang GT, as shown at the SEMA show in Las Vegas, and on the track. Driver Carol Hollfelder and crew chief Paul Brown appear before their run at a NASA race in Phoenix. The "No Boundaries" race cockpit is totally purpose-built and totally accessible.



GM Mobility — Universal design for all populations

The GM Mobility Reimbursement Program was launched by General Motors in 1991 at GM dealers nationwide, reimbursing up to \$1,000 toward the cost of adaptive mobility equipment permanently installed in a new GM vehicle. Building on the success of this program, GM launched the Mobility Center in October 1999. From engineering to marketing, the GM Mobility Center includes employees with disabilities such as severe arthritis, deafness and spinal cord injuries to help make key decisions.

Many seniors and people with disabilities can benefit from some form of adaptive equipment. GM Mobility engineers consider all adaptive equipment options when addressing the needs of seniors, people with disabilities and primary caregivers who deal with difficult entry, exit and driving tasks. Whether it's an additional assist grip or a rotating and extending seat, there are many solutions available to ease the effects of arthritis, stroke, MS, spinal injuries, and other disabling conditions.

A tiered approach divides mobility projects into three main groups.

TIER 1: ENHANCEMENTS TO BASE VEHICLE: This includes features and attributes that benefit all customers, with a focus on seniors and people with disabilities. This tier incorporates Universal Design techniques in the base vehicle design, such as door swing angle (wider opening doors), outside door handle, inside door release, assist grips and control knobs.

TIER 2: MOBILITY REGULAR PRODUCTION ACCESSORIES (RPA): This includes development of vehicle Regular Production Accessories (RPA) that benefit seniors and people with disabilities, but are transparent to those without mobility issues, such as additional assist grips, seat bottom over



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rocker to improve entry/exit, 12-volt power to accommodate mobility, in-trunk/rear tie-down systems, mobility equipment hoists and pivot/extend seat base.

TIER 3: MOBILITY REGULAR PRODUCTION OPTIONS (RPO): The third tier focuses on Regular Production Options (RPO) that benefit customers and upfitters who structurally modify GM vehicles that meet a very specific need for people with disabilities. These options remove cost and make the vehicle easier to be modified by the upfitter. Vehicles are designed to allow wheelchair/scooter users to remain in their mobility equipment while entering/exiting, driving or being a passenger, such as RPOs that delete carpet and second-row seats (available for both minivans and full-size vans), or add a longer wiring harness to feed the rear of the vehicle (minivan lowered-floor application only).

GM Mobility Craftsman Program The GM Mobility Craftsman program forms formal relationships with upfitters who alter GM vehicles for people with disabilities. GM offers two regular production options (RPO) for both minivan and full-size vans, Y3G (personal use) and Y3H (commercial/paratransit use). These RPO codes lower the cost of the vehicle by eliminating unwanted equipment. For minivans, the Y3G and Y3H RPO codes eliminate the carpeting and underlayment as well as second-row seating, and furnish an extended-length wiring harness for a lowered-floor, side-entry, wheelchair-accessible van. For full-size vans, the Y3G and Y3H RPO codes eliminate carpet and underlayment and right front/second-row seating. Vehicles with the mobility RPO codes are shipped directly to the Mobility Craftsman dealer the customer selects.

Affinity Group Provides Guidance The GM Affinity Group educates, informs and creates awareness among employees, customers and the general public about GM's commitment to employ, accommodate and market to seniors and people with disabilities. The group has been the primary force behind the establishment of GM Mobility Reimbursement, the GM Mobility Center and joint UAW-GM Paragon programs. In addition, it has provided help to GM in a number of areas such as awareness training, vehicle accessibility, building-access and emergency-evacuation protocol, vehicle donation programs, live and open captioning, and review of brochure and auto show information.

Financial Assistance GM offers special financing from GMAC for up to 72 months on all vans, and reimbursement of up to \$1,000 toward the cost of mobility adaptive equipment. For full details, call: 800-323-9935. TTY (Text Telephone) users: 800-833-9935

GM's Mobility Center Through research and input from focus groups consisting of senior drivers and people with disabilities, the GM Mobility team has provided valuable insight on features and packages that help accommodate many with special needs. "Through the Mobility Center and the GM Mobility program, GM is striving to build a stronger relationship



between engineering, manufacturing and sales as it pertains to senior drivers and people with disabilities," said Talbot.

GM and iCan Partner General Motors and iCan, a leading Internet-based community for people with disabilities, have partnered to develop a web-based automotive channel specifically geared to address the needs of people with disabilities. The online channel, part of the iCan web site (www.ican.com), provides information on vehicles with an emphasis on how they fit, or can be adapted to meet, the needs of consumers with disabilities or special needs. The site also provides forums for people with disabilities to share automotive-related information and opinions, and provides GM with feedback from customers with special needs.

OnStar System Offers Security With GM's available OnStar system, help can be found at the touch of a button. Advisors can contact emergency services or roadside assistance.—24 hours a day, seven days a week. OnStar combines sophisticated global positioning with wireless technologies to deliver personal service. OnStar customers can have a medical history available in the event of an emergency. The customer fills out a form with pertinent medical information, such as medications, allergies, previous surgeries, insurance, physician and emergency contacts. Information is kept confidential. OnStar is available for most GM cars and trucks.

GM and the UAW Join Forces In 1995, GM formed its Paragon Team to better understand the needs of people with disabilities. That focus has gone even further, looking at the needs of a growing senior population, people with arthritis and others. In January 2001, GM and the UAW joined forces and expanded the Paragon Team to include represented active and retired employees. Data collected will be used to develop Paragon Team vehicle requirements.

GM and the Mobility Center seek to provide universal design solutions to accommodate all populations. "Our priority is to design vehicles that will allow as many people as possible to maintain their independence, either as a driver, passenger or with aid of a caregiver," said Gary Talbot, manager of mobility engineering for General Motors. ■

Minivans are GM's Flagship for Mobility

For the more than 54 million people with disabilities and 76 million seniors in the U.S., functionality and flexibility are critical factors when considering what vehicle to drive. When GM designed its latest series of minivans, those elements were paid close attention by the design engineers.

Examining the needs of both seniors and people with disabilities allowed GM to develop a van that could accommodate the needs of more people. GM minivans provide more functionality than any other in the industry. "In looking at the needs of seniors and people with disabilities, we were able to provide universal design solutions that apply to a larger segment of the population," Talbot said.

GM minivans provide many flexible features which contribute to vehicle functionality and ease of use, including:

- Universal design door handles and door pulls are easier for everyone to use
 - Larger front-row door openings provide more space for entry/exit
 - Widest sliding-door opening in the industry provides easier access to third-row seating and accommodates 30"-wide ramp/lift required by ADA with no modifications to the door opening
 - Assist grips allow for easier entry and exit
 - Locking steering column/wheel assists in entry/exit
 - Higher seat cushion to ground height enables easier entry/exit
 - Available run flat tires
 - Large rear hatch area provides additional space for stowing equipment
 - Power sliding doors on passenger and driver side are very beneficial for loading and unloading
 - Second-row captain's chair can be modified with a Turny seat base to assist in entry/exit for a person with limited flexibility or a disability
 - Flat load floor provides easy equipment stowage
 - Large outside rearview mirrors provide large rearward field of vision
 - OnStar is available—you're never driving alone!
- Other features such as all-wheel drive with Versatrak, fully independent rear suspension and available steering controls add to the functionality of GM's mobility flagship.



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RADIO SHOW
with Bill Zervakos



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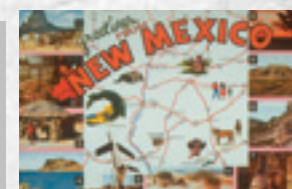
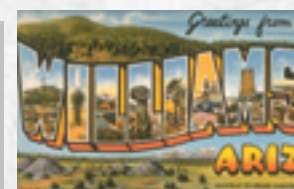
California

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MOTOR MUSEUMS

Petersen Automotive Museum
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Jeep® Treo concept

PUSHING THE ENVELOPE:
Jeep®
takes a look
through the
crystal
ball



The Jeep Treo concept vehicle will be introduced by an original animation produced especially for the Tokyo Motor Show, in the popular Asian style known as 'anime.' This adventurous, high tech style is perfect for introducing the Jeep Treo concept.



JEEP® TREO: EARTH-FRIENDLY 'URBAN MOBILITY VEHICLE'

- Jeep style and four-wheel drive capability in a concept that anticipates future technology
- Entry-level vehicle fits active lifestyle from city to trailhead
- Visionary design package with basic three-seat configuration
- Concept vehicle debuts at 37th Tokyo Motor Show

Chrysler Group designers have taken a look into the future and created a concept vehicle that explores the limits of the Jeep® brand, combining innovative design and environmentally friendly advanced technology in an activity vehicle aimed at young consumers. Premiering at the 37th Tokyo Motor Show, Jeep Treo offers a fresh new look at classic Jeep design themes, such as the seven-bar grille and prominent windshield presence. Inside, the Jeep Treo provides space for three passengers or 'two-plus-gear' in a cabin that creates an open feel in what is a truly compact vehicle. Treo's designers were challenged to look a decade or more into the future and extend the Jeep brand's customer base. The result is an urban mobility vehicle that provides Jeep style and freedom in a clean, compact package — one that can adapt to youthful lifestyle demands, both in an urban environment and at the trailhead.

Flexible Interior and Propulsion Possibilities

Jeep Treo's interior continues the simple, straightforward Jeep look. The steering wheel and column, pedals, speedometer and other instruments are housed in a single, sculptured module. The radio, global positioning satellite locator and climate controls with touch-screen operation are housed in a second, removable module. Lightweight seats are made of translucent material over a strong carbon fiber frame. The rear seat folds flat for storage of additional gear. Another configuration allows for the front wheels from the Rubicon bikes to be removed and mounted in the rear of the interior, while still allowing a third passenger to ride along. Despite the vehicle's compactness, a feeling of openness is maintained in the interior by the large windshield, a front view out

the 'see-through' seven-slotted Jeep front grille, and a glass roof that extends over the rear passenger space.

Jeep Treo is powered by two electric motors driving the front and rear wheels, giving the vehicle full-time four-wheel drive capability. For the future, Treo is designed to adapt to new technologies, such as drive-by-wire, fuel cells or other advanced powertrains. "Treo's visionary vehicle packaging with its basic three-seat configuration and built-in versatility lends itself to future Jeep activity seekers — at entry-level price positioning," says Trevor Creed, Chrysler Group's Senior VP of Design. "It is rugged and functional in genuine Jeep fashion, but its adaptability is taken to the next level," Creed said. ■



Jeep® Compass concept

JEEP® COMPASS CONCEPT ALREADY INFLUENCES LINEUP

The Jeep® Compass concept was introduced on the 2002 show circuit as a vehicle intended to feel at home in an urban environment while possessing the spirit of a performance rally car. It was rumored to be the basis for the lower-line Cherokee replacement, which turned out to be the quite different Liberty.

Inspired by the 1998 Jeep Jeepster concept and built on a Jeep Cherokee platform, the Jeep Compass offers a combination of on-road dynamics and off-highway capability. Chrysler Group's Pacifica Advanced Design Center in Carlsbad, California, was tasked to design a Jeep concept for "millennials," the next large, emerging group of consumers in the USA, now age 24 or younger. This group will soon outnumber the baby boom generation, current adults born between 1946 and 1964. "Millennials are looking for an authentic, affordable vehicle to carry their friends and gear," said Trevor Creed, Senior Vice President of Design, Chrysler Group. "They would prefer to have an exotic sports car, but those are not only out of their financial reach, but also don't offer enough room or flexibility. We created the Compass to exactly fit the bill: a capable compact SUV offering performance, cargo space and an attractive price."

Like a rally car, the two-door Jeep Compass has all-wheel drive, a short wheelbase and a low center of gravity to hug the road. Compass, first seen at the 2002 North American International Auto Show in Detroit, features a lightweight steel "uniframe" construction and a 157 kW (210 bhp), 319 N-m, 3.7 PowerTech™ V6 engine, offering ample power on pavement, gravel, dirt or snowy city streets.

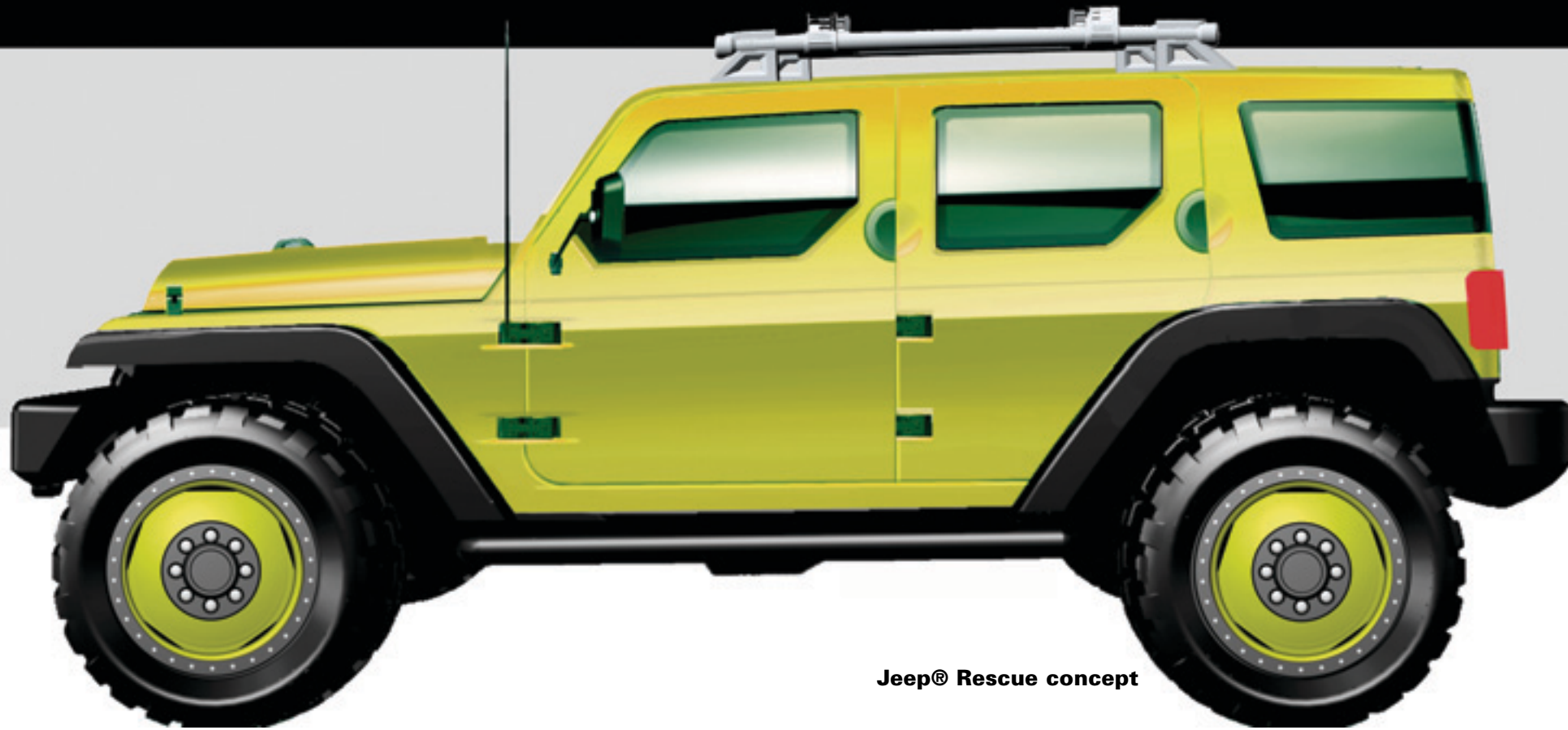
"The 'Force Green' exterior paint is reminiscent of a military color scheme," said Micheal Castiglione, exterior designer for the Jeep Compass at Pacifica. "The exterior and interior colors convey a mature, honest integrity and are steeped in Jeep authenticity." Adds Pacifica's Jordan Meadows: "Even as the instrument panel looks like the cockpit of a fighter jet with technical dials and gauges – and of course a compass – we kept the interior styling simple, uncluttered and functional."

Slot machine-style rotating controls operate all primary functions, while the gauges are reminiscent of traditional watch faces, and the air vents have classic aeronautical design. A sturdy grab handle covers the width of the instrument panel, while a visually strong "backbone" runs throughout the entire interior. This design element is mirrored by a full-length overhead console. The instrument panel features a multi-functional docking station with LCD screen.

Four bucket seats offer all occupants a command-of-the-road seating position, comfort and support. The seats are trimmed in green leather and water-resistant material with "Force Green" soft touch grommets. The rear buckets fold to create a flat loading surface, executed in low-gloss stainless steel with integrated tie-downs in the side trim. The interior features a molded rubber floor. The spare tire is incorporated into the rear hatch.

Jeep Compass conveys an expressive personality in its exterior design with details such as fender-length running lights, and stainless steel brush guard and sill panels with the Jeep name. The roof features a unique diamond plate textured liner with integrated tie-downs, developed to take the abuse of any type of hauling. "Our goal was to make the Jeep Compass rugged, durable and able to take a beating at all the typical scuff zones," Castiglione said. "You can play hard and be rough on this vehicle and its exterior holds up, giving the driver total freedom to go anywhere, do anything. After all, it is an authentic Jeep vehicle – right down to its seven-slot grille and trapezoidal wheel arches." ■





Jeep® Rescue concept



JEEP® RESCUE: UNEQUALLED, UNMATCHED, ULTIMATE ABILITY

Designed for the most extreme situations and unforgiving conditions, the Jeep® Rescue concept is presented by the Chrysler Group as not only the ultimate type of search and rescue vehicle, but also the ultimate execution of a Jeep. Combining legendary off-road capability with state-of-the-art search and rescue technology, the Jeep Rescue is designed to reach areas in the harshest, most daunting mountainous and desert areas. “

Classic Jeep Design Taken to A New Extreme

Starting with a modern interpretation of the timeless Jeep, the Rescue hints at a future design direction for a large Jeep. The Rescue can be configured to run almost totally “open”—with folding front windshield and a retractable backlite, a sliding glass sunroof in front, a fold-forward canvas roof in the rear, plus, all four doors are removable.

Featuring all-new body-on-frame construction with hydro-formed frame rails, and riding on an 80-inch wide chassis with 123-inch wheelbase and 37-inch tires, the Jeep Rescue is built for anything thrown its way. Hydropneumatic suspension in

the front combines with heavy-duty link-coil rear suspension to give the Rescue a solid footing on all terrain. The suspension has adjustable ride height and an additional 4-inch lift available for fording. The 37-inch tires feature an MTR tread and run-flat capability, negating the need for a spare. On-board tire pressure control can “tune” tire pressures for maximum traction on all surfaces. The Jeep Rescue is powered by a Cummins Diesel and features seating for five.

Unequaled Rescue Capability

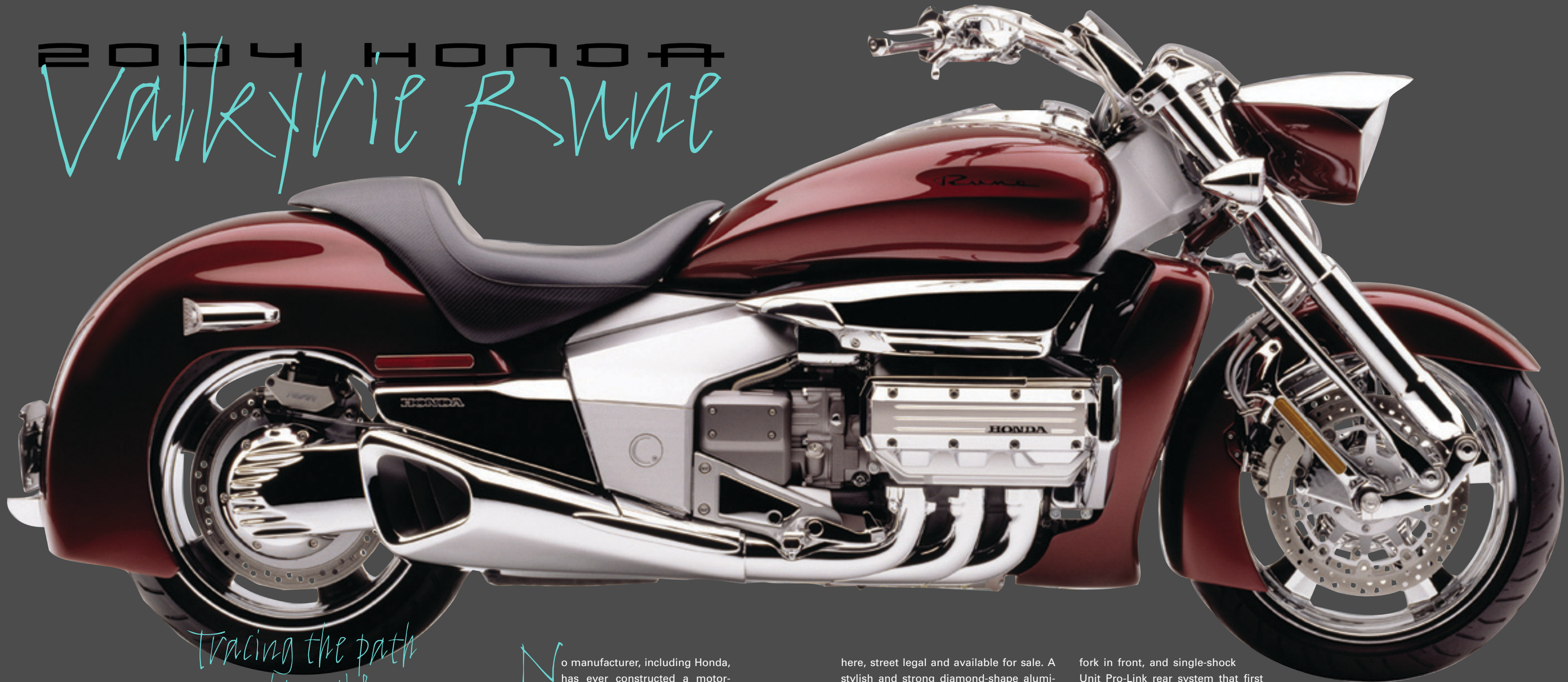
The Jeep Rescue’s primary mission is rescue capability, and its list of rescue and safety equipment is impressive:

- AC electric power (10 kW) generation in the field
- 3-D topographical mapping software and topographical navigation system
- Under-chassis, point-of-view cameras for avoiding danger in its path
- Passive, infrared (thermal) cameras for search and rescue
- Satellite telephone; VHF radio, digital video recorder with satellite transmission capability
- Retractable 4-point harnesses for vehicle occupants
- Exterior perimeter lighting
- White LEV lighting for long distance visual search and reduced power use
- Folding seats in rear compartment of vehicle
- Remote control winch front and back

The Jeep Rescue takes Jeep capability to extreme and is equipped for unequalled search and rescue. ■



2004 HONDA Valkyrie Rune



*Tracing the path
to this wild
showcase of styling
and engineering*

No manufacturer, including Honda, has ever constructed a motorcycle like the Valkyrie Rune. The conceptual forces driving the shape and face of the Rune were pure flights of imagination, a designer's dream come true. Unfettered by budget or engineering restraints, Honda's R&D group was free to push past conventional boundaries, taking the Rune squarely into uncharted territory. The result is the amazing machine you see

here, street legal and available for sale. A stylish and strong diamond-shape aluminum frame stretches over a massive 68.9-inch wheelbase, the longest in Honda history. The largest disc brakes fitted to a production Honda motorcycle can be found at both ends—dual 330mm discs up front, with a 336mm unit in back—and they are integrated by Honda's Combined Brake System. Then there's the Rune's innovative suspension system, a trailing bottom-link

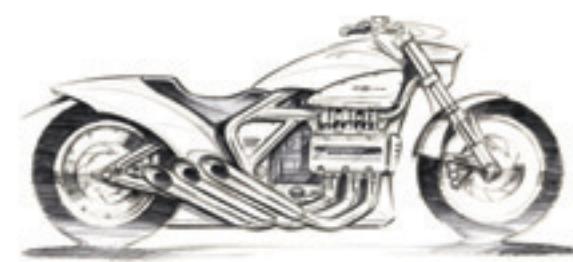
fork in front, and single-shock Unit Pro-Link rear system that first saw action in the MotoGP wars.

This innovative chassis wraps around a muscular 1832cc six-cylinder engine that's been hot-rodged for serious road work, and rigid mounted to help impart a direct mechanical feel, and complement the Rune's solid handling manners. Throw in an exquisite seamless 6.2-gallon fuel tank, ultra-low seat, a choice between two

handlebar options, flush-mounted LED taillights, plus a unique remote steering lock that unlocks automatically when you turn the key on, and you know without a doubt you've got your hands on something special indeed.

KEEP RIGHT >>

CONCEPT SKETCH



ZODIA CONCEPT



T1: CONCEPT TYPE 1



T2: CONCEPT TYPE 2



T3: CONCEPT TYPE 3



T4: CONCEPT TYPE 4



DEEP ROOTS RUN TRUE

For all its innovation, however, the roots of the Rune can be traced back to earlier designs and models in the Honda arsenal. In conceptual terms, much of the Rune's spirit was inspired by the Zodia, a stunningly gorgeous concept cruiser first unveiled at the Tokyo Motor Show in 1995.

Beyond its sensuous lines, the Zodia also brought a host of forward-thinking engineering concepts into the spotlight, and more than a few of the most prominent elements have now become reality in the Rune. Trailing-link front suspension. Single-side swingarm. Prominent custom wheels. The Zodia was a harbinger of all this and more.

In 1996, Honda unfurled another stunning flight of fancy, but in this case it was a genuine hands-on production model with a commanding presence: the six-cylinder Valkyrie, the first genuine OEM power cruiser. Boasting a hot-rodded 1520cc engine derived from the legendary GL1500 Gold Wing, the first Valkyrie demolished existing performance standards by churning out more than 100 hp and 100 lb-ft of torque—right off the showroom floor! The Valkyrie's modern hot-rod custom styling, confident handling and startling acceleration placed this breakthrough motorcycle in a class of its own.

ART BECOMES REALITY

The strong response to the Valkyrie inspired exploration into new spheres of design, all revolving around the horizontally opposed six-cylinder engine. What new designs could these creative minds dream up, given enough latitude? Three years after the Zodia, Honda revealed another concept machine, T1, based on the Gold Wing's horizontally opposed six cylinder engine. This would be followed by three more concept bikes in the T-series, each seemingly more radical than the previous one. While all four began as Honda Research America (HRA) ideas and sketches, outside sources—including a master fabricator not connected with motorcycling in any way—were also tapped to push the boundaries of design beyond the usual limits. All the T-series concept bikes were shown to the public, and Honda carefully gauged public reaction. Of the four, T2 clearly triggered the most response. In fact, so strong was

public opinion, saying Honda should build a motorcycle exactly like T2, that this perspective became the core objective of the Rune. Not surprisingly, the Rune and its T2 concept forebear are nearly identical.

MASANORI AOKI, ENGINEER

As Large Project Leader on the Valkyrie Rune, Masanori Aoki was challenged to make a personal and professional odyssey of sorts. Originally a specialist in Honda sport bikes, Aoki brought to bear related high-performance tricks of the trade while designing the new-generation Gold Wing, the GL1800, which incorporated more sporting appeal and ability than most people may have expected.

Armed with an intimate knowledge of F6 design and production, Aoki was called upon to work his engineering magic once more with the Rune. He reveals much of the process in this Q&A:

Usually new models begin with an engineering design, but the Valkyrie Rune was created from a prototype model. Has Honda ever done this before?

AOKI: There were some production machines that started with styling models, but the Rune is the first model that reproduced the original design fully and faithfully.

I thought it would be impossible to mass-produce the product without changing the styling design. It was just too radical. As an engineer I thought the process was completely backward; we've never seen anything like this before.

What other vehicles did the T2 remind you of?

AOKI: Because the Rune/T2 mock-up is a new design with a full measure of originality, no other motorcycles come to my mind. When I think about automobiles, however, it brings the images of American cars from the 1940s and 1950s.

With the sport bikes you've worked on and even the GL1800, you probably began the projects with a certain engineering mindset. How did you approach the Rune assignment, which was styling oriented above all?

AOKI: Since there were no distinct function or performance goals that had to be met, we were free to focus on capturing the styling and design from the mock-up. That included all elements such as the location

KEEP RIGHT >>



of the front and rear tires, and the location, position and dimension of the engine. To that end, we had to spend a significant amount of time creating a clay model to maintain the original design. Also, we had to incorporate 11 new technological and production methods to achieve our goals—that's a significant amount of new production technology.

Was it easy for you to relate to the Rune/T2 from the start, or did you have a time when you finally embraced the concept in full?

AOKI: Honestly speaking, when I first saw the T2, I said to myself, "Are we really going to produce a motorcycle like this?" It was pretty wild looking. But when I attended the *Cycle World* motorcycle show held in Long Beach and saw the reaction from the customers on a first-hand basis, I completely grasped the concept. We were hoping that the T1 mock-up would be most popular because new-model development had already begun based on the T1. Frankly speaking, people at the show who saw the T2 mock-up expressed a most unusual degree of excitement. In fact, the customer response was so strong it was difficult for many Japanese to understand such enthusiasm. The T2 was nearly four times more popular than any of the other designs—far and away the overwhelming favorite. I remember how one person even said, "I will bring \$30,000 in cash, so please sell it to me right away."

Masanori Aoki



Ray Blank



How did your GL1800 experience help with the Rune?

AOKI: During the development time I spent in preparation for the GL1800, I learned how Americans enjoy riding motorcycles. The Rune has similar aspects such as "enjoying the appearance" and "enjoying the exhaust sound" besides the more measurable aspects of a motorcycle such as accelerating, stopping and going around curves.

RAY BLANK—A VIEW FROM THE TOP

As VP of the Motorcycle Division at American Honda, Ray Blank carries a full load of responsibilities. However, there are those special occasions when he can revert to being a motorcycle enthusiast, plain and simple. And the decision to move forward with the Rune was such an occasion, one that used as much heart for motorcycles as business foresight. Here, Ray fills us in on some of the decisions and details that made the Rune a reality.

How did the idea of producing the Rune originate?

We were looking to take the original Valkyrie to the next level. When it was first introduced, this bike, which had been derived from the 1520cc Gold Wing, had a significant impact on the motorcycle market. The Valkyrie was the first genuine power cruiser, a custom-styled motorcycle that had plenty of muscle, great handling and long-distance touring abilities to go along with its good looks. It really expanded the notion of what a cruiser's functional capabilities could encompass, and in doing so the Valkyrie built an unusually strong following. So we wanted to extend this concept once again and take another cutting-edge motorcycle into uncharted territory, establishing new directions

that no other manufacturer had ever attempted. We wanted to set the bar higher than ever, erecting standards that no one else had yet imagined, while also exploding old limitations on what an original equipment manufacturer could mass produce.

Were there any precursors that contributed to the Rune's design?

Yes, of course. When our R&D department develops concept models, everyone within the company looks these things over very carefully, and the enthusiast within every person naturally tends to pick favorite elements and models. It's the same kind of reaction all motorcyclists experience when viewing a cool concept bike, but we can add the caveat-sometimes-of, "What if."

What was the result of the concept work?

The design that HRA called T2 proved to be a truly exceptional accomplishment. There was a strong positive reaction from within Honda circles. We then revealed T2 to the public, and their reaction was the same. The most amazing thing about this reaction was the overwhelming consensus from all parties that the entire T2 design should be retained as a whole; it wasn't just a few parts that struck people's emotions, it was the entire bike. So we decided to preserve the design intact through production. You have to remember that Honda's greatest strength is its engineering ability. Function, horsepower, performance, durability—a lot of very measurable qualities. But now here we were, championing the production of what was essentially a one-off custom special, a show bike with a whole set of gut-level aesthetic qualities that are impossible to measure. The Rune concept is extremely extravagant, because it places the highest priorities on style rather than measurable science and engineering, and that created challenges during product planning. It is a very emotional product. But when a gut feeling is so strong, avid motorcyclists can communicate with one another on a different level. We accomplished a lot on this new concept after hours, at restaurants, just motorcycle guys talking to each other, scribbling on napkins, waving our hands around.

What was it that finally clinched the idea of producing the Rune?

A lot of people looked at the T2 and said, "Great bike, but it could never be produced." That's the kind of challenge that fueled this project. Honda has a long history of building improbable machines, and making them successful. The CB750, the Gold Wing, the RC211V—there is nothing conventional about these machines, and building them expanded Honda's capabilities. The Rune expands our capability in yet another direction, blurring the line between concept and reality, and pushing our production capabilities to new levels. In the end, that's what makes the Rune unique beyond its elegant design and styling.

MODELS, COLORS, PRICES

The Valkyrie Rune is available with Spec47 Wheels for \$24,499, or with Chrome Wheels for \$26,999.

Either version is available in three colors: Double Clear-Coat Black, Illusion Blue, or Candy Black Cherry. ■



Q: What instantly turns 60 pounds into 2,700 pounds? A: A 30-mph crash.

Force = Mass x Acceleration. The fact is: the laws of physics are unyielding. Imagine this: A 60-pound unbelted child in the back seat of a car traveling at a mere 30 miles per hour, involved in a sudden collision, can weigh as much as a young elephant – about 2,700 pounds. A 120-pound teen? Twice as much. 180? Three times. An adult elephant. An unbelted passenger in the back can, during a frontal accident, impact the windshield—or the front seat occupant—with deadly force. Not a pretty physics lesson.

FALSE: An unbelted person in the rear seat is safe.

TRUE: It's a human tragedy that is easy to prevent – CLICK!

Some important statistics

Accidents will happen, but they don't have to become tragedies. 75 percent of all crashes occur within 25 miles of home. And most are on roads with speed limits of 40 mph or less.

According to the National Highway Traffic Safety Administration, an estimated 4,193 children's lives were saved from 1975 to 1998 by the use of safety belts and child restraints. In 1998, 1,765 children age 14 or younger were killed riding as passengers in motor vehicle accidents. Crash injuries are the leading cause of death among 5-12-year olds. Be careful taking your little brother for a ride, and be just as careful with friends your age.

Some important thoughts

"Restraints help people and cars move together. Imagine trying to keep your balance in a standing-room-only train car as it lurches forward suddenly or stops abruptly, without something to brace yourself with" comments Christer Gustafsson, Senior Safety Engineer for Volvo Cars, Sweden. "People are just full of reasons for not belting back seat passengers," states Christer. "School's just 3 minutes away, we're just going to the grocery store, or just over to friend's house. We're full of excuses. But in the end, if we don't belt our rear seat passenger, we're setting them up for injuries or death. 'Sorry' doesn't go very far then."

But an elephant?

"Unless one studies physics, the numbers seem unreal. But they are very real," according to Christer. "In the rapid deceleration that occurs at the moment of impact, a person's 'crash weight' increases dramatically. For instance, at 30 miles per hour, an unbelted passenger will be hurled forward with a force that multiplies the impact approximately 45 times above normal; depending on the object collided with. At 42 miles per hour, those numbers rise to 75 to 150 times normal. So, in effect, the crash weight of a 180-pound person at 42 miles per hour can range from 13,500 to 27,000 pounds. That's an astounding 2 - 4 tons, or about the weight of an elephant. A crushing force indeed."

But weight there's more

A car's seat belt keeps doing its job of retaining the occupant within the safety structure of the cabin after an initial impact has occurred. Accidents might involve secondary impacts and rollovers. It is the seat belts that help keep occupants strapped safely inside the vehicle until the energy of the accident has dissipated. "During a rollover, the effect is very much like clothes in a washing machine during the spin cycle. There are huge forces that can easily eject occupants who are not using a seat belt," states Christer.

The most important safety feature of all

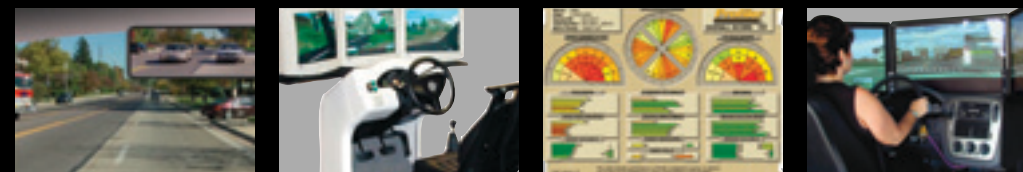
"I'm often asked, 'What's the most important safety feature in a Volvo?' states Christer. "Without hesitation, I say, 'the driver.' After all, the driver makes the decision to properly use safety devices we engineer into our cars. Using seat belts is so easy. If more people understand the laws of physics, they will see the importance of using seat belts—in both front and rear seats. You should set the example by using your seat belts and insisting the rear seat passengers do the same. Offer your passengers the same safety you do when you buckle up. Having everyone belted is a great gift of life and love." So do your part for car safety. Help protect that most precious cargo of all—buckle them up. No one wants an elephant in the back seat. ■



Simulated crash and air bag deployment. No elephants were harmed during the production of this simulation.

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BRIDGESTONE TURANZA® AND POTENZA® TIRES COME ON 2004 ACURA TL

Bridgestone/Firestone North American Tire, LLC (BFNT), has been named as original equipment supplier for the redesigned 2004 Acura TL sedan.

The company will supply its Bridgestone Turanza® EL42 P235/45R17 93W all-season tire, and its Bridgestone Potenza® RE030 235/45R17 93W summer performance tire. Bridgestone will provide 100 percent of the original equipment tire business for the Acura TL, now arriving in showrooms.

"We are very pleased to expand our relationship with Acura on this exciting new car. Both tires were engineered to meet the Acura TL's new level of performance in ride and handling," said Michael Martini, president, OE Consumer Tire, BFNT.

The redesigned Acura TL sedan features a number of power and interior upgrades from the earlier model, as well as a more aggressive and muscular exterior. It will compete with such cars as the BMW 5-series and Lexus ES300. The Acura TL also features a cutting-edge eight-speaker surround-sound system with a six-disc changer, XM® Satellite Radio and a hands-free wireless phone system that uses Bluetooth® technology.

The Bridgestone Potenza® RE030 and Turanza® EL42 are available in Arizona at:

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TURANZA®
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All-new Acura TL performance luxury sedan features more performance, sportier handling, distinctive styling and cutting edge technology

The all-new 2004 Acura TL features a new powertrain, significant chassis enhancements and aggressive new styling. Along with the added performance, the TL also receives an assortment of innovations and industry firsts including DVD-Audio surround sound, XM® Satellite Radio, and hands-free phone connectivity with Bluetooth technology as standard equipment.

The 2004 TL's 3.2-liter, 24-valve, all-aluminum VTEC engine uses an 11.0:1 compression ratio, a two-stage intake manifold and a cold air intake to help generate 270 horsepower at 6,200 rpm and 238 lbs-ft of torque at 5,000 rpm (up from 225 hp and 216 lbs-ft for the '03 TL and 260 hp and 232 lbs-ft of torque on the '03 TL Type-S). A retooled exhaust system helps to generate extra horsepower while improving emissions from ULEV to ULEV-2 standards. Despite the added horsepower, EPA fuel mileage ratings are 20 mpg city/28 mpg highway for models with an automatic and 20 mpg city/30 mpg highway for models with a manual transmission.

The 2004 TL features a drive-by-wire throttle system, which eliminates the need for a mechanical connection

between the accelerator pedal and the engine. Evolved from the drive-by-wire system in the NSX supercar, this system matches the unique performance characteristics of the TL. It provides responsive acceleration, modulates the throttle during automatic transmission shifts for improved smoothness and allows throttle control to be incorporated into the TL's new Vehicle Stability Assist (VSA) logic.

The 2004 TL is available with a choice of a 5-speed Sequential SportShift automatic transmission, or a close-ratio 6-speed manual, a first for the TL. The new 6-speed manual features a short throw shift linkage, large diameter shift cables and multi-cone synchronizers for optimum shift feel.

TL models with the 6-speed manual have a limited slip differential, which proactively distributes torque between the driving wheels to help maintain traction, and creates more neutral handling and extremely responsive steering feel.

The TL's chassis and 4-wheel independent suspension have been redesigned to handle the added horsepower while delivering sporty, precise handling and an improved ride. While the 2-channel VSA in the previous TL Type-S model modulated the throttle and braking to the two front wheels, the 4-channel system standard in

the 2004 TL orchestrates the throttle and each of the vehicle's four disc brakes to seamlessly integrate traction control, Anti-lock braking and stability enhancement for increased driver control.

The 2004 TL features 17-inch 5-spoke wheels and 235/45R17 Bridgestone all-season tires that, when combined with 4-wheel disc brakes and Anti-lock braking, help it outperform the previous TL Type-S in braking performance. Another added feature is Electronic Brake Force Distribution (EBD), which continuously and automatically adjusts the pressure to the front and rear brakes depending on how the vehicle is loaded. A new Brake Assist feature utilizes a microprocessor to help the driver apply full brake pressure during accident avoidance situations.

TL models with the 6-speed manual transmission receive Brembo 4-piston front caliper brakes with larger rotors to further enhance braking and are also available with 17-inch high-performance tires.

PRICING - 2004 Acura TL

Base price	\$32,650
Acura Navigation System	
with Voice Recognition	\$2,000
High performance tires (Optional on TL with 6-speed manual trans.n)	\$200

LUXURY HYUNDAI



By Barbara & Bill Schaffer

If you have the proverbial champagne taste on a beer budget syndrome when it comes to buying a new sedan, take a look at the 2004 Hyundai XG350L. We think it might quench your thirst.

DESIGN The tastefully redesigned exterior of the XG350L gives the Hyundai flagship a wide and stable look. It has a new grille, headlights, front and rear bumpers, as well as a new front air dam with projection fog lights. The rear offers a new trunk lid and taillights. Overall, the redesign gives it a more sophisticated look. Inside you'll find an amazing amount of luxury features: standard leather seats and attractive burl wood trim on the instrument panel, doors, center console and steering wheel. The rear seat features a pull-down center console with storage bin and two drink holders.

MECHANICAL The XG350 is available in a regular and the more upscale L version. A 194-hp 3.5-liter V6 engine, five-speed SHIFTRONIC automatic transmission with front-wheel drive power both models.

PERFORMANCE AND HANDLING The XG350L competes favorably with Honda Accord, Toyota Camry and Ford Taurus, in size and performance, with only the 240-hp Accord being significantly faster than the others. 0-to-60 acceleration time is tested at 7.9 seconds, and the car had very

good passing power during our testing. The Hyundai has an EPA fuel economy rating of 17 mpg city and 26 mpg on the highway. We averaged 21.6 mpg.

PRICE RANGE The XG350L is equipped with automatic air conditioning, leather seating, stereo with cassette and CD, HomeLink integrated transceiver, power windows/mirrors/locks, ABS brakes, traction control, plus front seat airbags and front seat side airbags—all for \$23,999.

The L adds heated front seats, memory position driver's seat/ exterior mirrors, upgraded stereo, and power moonroof for just another \$1,500. It's a lot of car for the price. The only options available are an eight-disc CD changer (\$500), carpeted floor mats (\$89) and rear mudguards (\$35). A \$590 shipping charge is added to both models.

The XG350L doesn't yet have the reputation enjoyed by some of the other cars in this category, but it is very impressive, especially for the price. To raise the ante and boost confidence, Hyundai offers the industry's best warranty: 5-years/60,000 miles bumper-to-bumper, 10-years/100,000 miles on the powertrain, and roadside assistance for 5 years with unlimited miles.

Combine the features, performance, size, price and warranty and the Hyundai HG350L becomes a big winner. ■



We're a little cautious about the onslaught of products from the Korean manufacturers, even though we are consistently pretty pleased with the results. After all, Korea is not Japan. Japan is the world's second-largest industrial economy; Korea probably ranks behind that entity known as California-if-it-were-a-nation. However, the Japanese technical and manufacturing economy is famous for having gotten where it is, originally anyway, by being absolutely expert at copying and mimicking what was working elsewhere. And it appears the Koreans are ramping up to achieve the same thing at a record pace. If sales are any measure, and they certainly are the most important one in many ways, they are doing well indeed; Hyundai's sales are booming; they have taken over ownership of Kia; and they have a strong affiliation with DaimlerChrysler, all of which suggest a strong tomorrow. In fact, they seem to be banking on a strong tomorrow, with their industry-leading 10-year warranty program.

The features and amenities in this vehicle are tops. The price point is aggressive. The only thing you might ask yourself is whether you'd be better off getting something else for the same price. As Barbara has pointed out (left), the comparisons are there, though feature-by-feature, the Hyundai wins. Our only beef, as more performance-oriented drivers, was that the suspension was a little cushy, sort of like a 15-year-old Buick. Given the choice, though, we'd buy the brand new Hyundai over that! With styling and features on a reasonable par with the best Japanese (the rear end even suggests Bentley), a great price, and an incredible warranty to back it all up, there is no vote against this car, unless you just have to have Japanese. ■



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THE INSIDE TRACK: BRIEFS & RUMORS

■ Even before Toyota takes its new youth-oriented **Scion** nationwide they are rumored to be looking at the European



Toyota Avenis, a sedan larger than the Corolla, but smaller than a Camry, as the third Scion model. In addition it could be configured as a five-door hatchback and possibly a wagon. The engine will likely be a 2.4-liter four-cylinder from the Camry. The name of the third Scion will most likely be the xC following the existing naming scheme: xA and xB. The price will probably be in the \$16,000 range.

■ The **Kia Sedona** minivan will be totally redesigned for the 2006 model year and will be offered in two sizes like the Chrysler minivans. At the same time, it's likely that Kia's parent company Hyundai will produce a version of the same van with a Hyundai brand on it. The engine for both will probably continue to be the same 3.5-liter V6 that is used in the current Sedona.



■ Buyers of the next generation **Ford Mustang** will be able to change the color of their instrument cluster lights to match their mood. Using technology developed by Delphi Corporation, an option called My Color will change the color of the lighting behind the gauges with the twist of a knob.

■ With a "bigger is better" mantra, **General Motors** is making their big diesel engine more powerful for the 2004 model year. The Chevrolet Silverado and Sierra 2500HD and 3500 Series trucks with

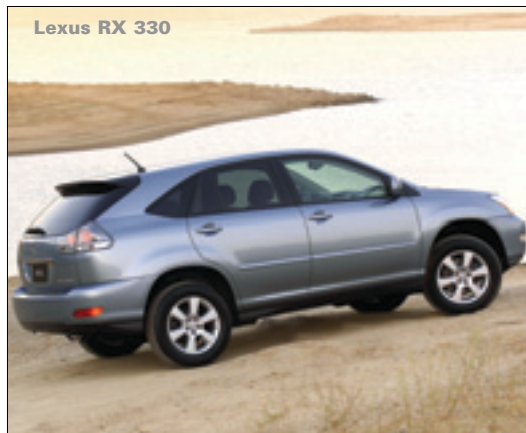
the Duramax 6600 diesel engine will get a horsepower boost to 310 hp @ 3100 rpm, 10 more than before and the torque is bumped up 70 lb.ft. to 590 lb.ft. @1600 rpms. At the same time, the engine's NOx emissions have been reduced by nearly half.

■ **Buick's** Regal and Century sedans will disappear after the 2004 model year to be replaced by one midsize car, the LaCrosse. The LaCrosse will be significantly different, but will use some elements from the existing Regal. It shares a platform with the Pontiac Grand Prix and will be powered by the new 3.6-liter overhead cam V6 and the classic 3.8-liter pushrod 3800 V6.

■ The hot little **Neon SRT-4** is a big winner for Dodge. Original plans called for a production run of 1,000 of the turbocharged sedans, but demand raised the level to 3,000. Now that number has been revised again to 10,000 per year and it will likely go to 13,000 according to Dodge marketing chief David Kimball. The 2004 model gets a horsepower boost to 230 and limited-slip differential for a price of \$20,995.

■ There is still time to enter the **General Motors** "Hot Button" promotion for a chance to win one of 1000 new cars and trucks being given away. Just visit a participating GM dealership and push the OnStar button in a designated vehicle by February 29, and there's an estimated one-in-5500 chance of winning a vehicle. Participants must be 21 with a valid license and US citizenship to participate.

■ As part of a new safety package on the **RX 330** SUV, Lexus is offering rain-repellant glass for the front side windows. The Aquapel glass, manufactured by PPG Industries, causes water to bead and shed easily, along with making it easier to clear



ice, snow, dirt and bugs, as well as reducing glare in rainy conditions, especially at night. Aquapel glass has been available in Japan since 1997 for aftermarket applications; the RX330 will be the first application produced as original equipment in North America.

■ **Lincoln** is expected to try its hand at another truck. Ford engineers are working on a redesigned version of the new F-150 Crew Cab with styling cues from the Lincoln Navigator SUV. Lincoln's last ill-fated attempt at a truck was the Blackwood, which was killed after only one season. The Blackwood was said to be too impractical because the composite bed was nearly useless as a pickup. It was also only available as a two-wheel drive. The new Lincoln truck would be a traditional style pickup.

■ **Ford** will drop the Focus SVT performance model after the 2004 model year and replace it with another performance model in 2005 called the Focus ST. The ST debuts as a four-door model in the 2005 model year. The change is part of a comprehensive overhaul of the SVT lineup.

■ Chevrolet announced they will build the **HHR** crossover vehicle and that production will start in the summer of 2005. The HHR, which resembles a 1940s Chevy Suburban, will be similar in size and concept to the Chrysler PT Cruiser. It's the third vehicle based on GM's Delta global architecture.



■ **Saturn** plans to double the number of vehicles they produce within the next three years. One announced addition to the group will be a minivan called the Relay, built on current General Motors architecture. Speculation about the other two vehicles includes a possible roadster, based on the upcoming Pontiac Solstice, and a sport wagon. Saturn currently builds the compact Ion, mid-size L300 and Vue compact SUV.

■ As a **Chrysler** spokesperson, singer Celine Dion isn't selling cars as well as expected, so for now it appears she won't be used for advertising in the near future. Dion is one year into a three-year contract that cost Chrysler a reported \$14 million. The company's ad agency BBDO reportedly discouraged Chrysler from using her because tests show she did not appeal to an older audience that they were trying to reach.

■ The muscular **Infiniti M45** sedan, which was new last year, is already scheduled for replacement. Initial sales have been very poor, so the company is planning to replace it with a new sedan, based on the same platform as the award-winning G35 sedan, FX45 SUV and Nissan 350Z sports car. The redesigned M45 will have sleek new styling, roomy interior, and a choice of V6 and V8 power with rear-wheel drive.



■ The gas/electric **Toyota Prius** hybrid picked up the coveted *Motor Trend* Car of the Year Award for 2004 out of a field of 26 entries. The second-generation hybrid has been so popular with the consumers that Toyota has increased its projected sales from 36,000 to 47,000 for the 2004 model year.

■ **Alfa Romeo's** US return has been pushed back again, this time to 2008 at the earliest.

■ Following on the success of the Prius hybrid, **Toyota** has unveiled its next



"green" vehicle, a gasoline-electric version of the Highlander midsize SUV. The Highlander will follow the launch of another new vehicle, the 2004 hybrid version of the Lexus RX 330 SUV.

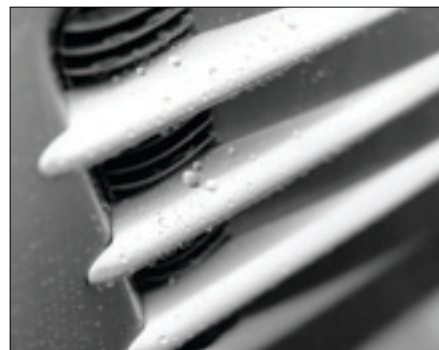
■ The 2006 Chevrolet **Corvette Z06** gets General Motors' new 6.3-liter 500-hp pushrod engine. The Gen IV engine has a new three-valve-per-cylinder pushrod valve technology. The two intake valves are operated by a forked rocker arm, and the cylinder heads have centrally located sparkplugs. The new engine operates with the new GM Displacement on Demand system that cuts off one bank of cylinders when the engine is idling or running at cruising speeds. The DOD should make a significant fuel savings.

■ **Nissan** will enter the US hybrid market in 2007 with a gas/electric version of the Altima sedan. It will be built in the US using technology purchased from Toyota, as was previously announced. Nothing has been said about engine size, but it will likely be a four-cylinder.

■ There are rumors that **Corvette** engineers are building a super high performance version of the next Corvette to compete with the new Ford GT. The code named Blue-devil is expected to have 600 plus horsepower from a 7.0-liter supercharged V8 engine mounted in a car weighing several hundred pounds less than the standard model.

■ According to the retiring design chief of General Motors, Wayne Cherry, **Buick** has plans to build a convertible that will compete with the Mercedes CLK convertible. The prototype, which is being built by Bertone in Turin, Italy, will debut at the 2004 New York auto show. ■

Briefs & Rumors is a summary of auto news from industry sources, trade journals and consumer magazines compiled for *Arizona Driver Magazine* by **BILL & BARBARA SCHAFFER** of *Auto Digest*.



Route 66 Meets the Autobahn



America's classic Route 66 and Germany's legendary Autobahn are two of the most famous roads in the world. This year, drivers can feel like they're on either or both, in Chrysler's all-new 2004 Crossfire, a sports coupe that combines American design with German engineering. Dieter Zetsche, President and CEO of the Chrysler Group, says, "(The Crossfire is) a

great example of what we call disciplined pizzazz, or the ability to bring a got-to-have-it vehicle with top quality to market quickly and profitably by working together. Chrysler Crossfire is the icon of the Chrysler brand as it incorporates proven quality and technology in a stunning wrapper."

Wolfgang Bernhard, COO of the Chrysler Group, says, "Following in the footsteps of

Dodge Viper and PT Cruiser, it's a great concept-to-reality story that combines head-turning design with world-class engineering."

The 2004 Crossfire, along with the all-new 2004 Chrysler Pacifica, continues the Chrysler brand renaissance, with breakthrough design, innovative packaging, and exceptional performance.

The Crossfire is available now. ■

CROSSFIRE SPECIFICATIONS

- 3.2-L, 18-Valve, SOHC V6 Engine (215 horsepower, 229 lb-ft torque)
- Six-speed Manual Transmission* or Five-speed Electronically Controlled Adaptive Automatic Transmission*
- Rear-wheel Drive
- Four-wheel Antilock Disc Brakes with Brake Assist* (300 x 28 mm Front and 278 x 9 mm Rear)

- Electronic Stability Program*
- All-speed Traction Control*
- Independent Double Wishbone Front Suspension (Coil Springs and Gas-charged Shock Absorbers)
- Independent Five-link Rear Suspension (Coil Springs and Gas-charged Shocks)
- Speed-sensitive Deployable Rear Spoiler*
- Manually Telescoping Steering Column
- Dual Zone Semi-Automatic AC

- Front 18-inch P225/40 ZR Tires
- Rear 19-inch P255/35 ZR Tires
- Aluminum Alloy Wheels
- Tire Fit System*
- Six-Speaker Sound System with Dual Subwoofers*
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Tickets On Sale Now!



You can now purchase race tickets for any of the 16 races scheduled for 2004 at Phoenix International Raceway. Single event tickets went on sale in mid-December, and will get you in to see the world's best drivers of Indy Cars, Sports Cars and NASCAR battle each other on the historic mile oval of PIR.

Tickets can be purchased online or by calling 1-866-408-7223 beginning at 9am. The PIR ticket office at the Arizona Center (3rd Street and Van Buren) is available for those wishing to purchase in person beginning at 10am. Ticket prices for all events can be found at:

www.phoenixinternationalraceway.com

"Last year was probably the best in PIR's long history," said Bryan R. Sperber, President of PIR, "yet (2004) promises to be even better. Ticket holders will be able to watch 16 different races over the next 11 months, including the four races of the NASCAR Nextel Cup Checker Auto Parts 500 weekend, the Indy 200/Copper World Classic weekend, and our newest event, the Phoenix Historic Grand Prix featuring the 33rd annual Kruse Auction. With some tickets starting for as little as \$10 for some events, this is certainly one of the best values in all of motorsports."

PIR's '04 schedule begins with the annual NASCAR Winter Heat (Jan. 24-25), followed a few days later by the Phoenix Historic Grand Prix (Jan. 30-Feb. 1). The four-race Indy 200/Copper World Classic helps PIR celebrate its 40-year anniversary of open wheel racing on March 21-23, while the Grand American Rolex Sports Car Series runs May 9-10, featuring a larger field of Daytona Prototypes and the only night race on the PIR schedule.

Following a summer layoff, the 2004 schedule takes the green flag again on October 2-3 with the second-annual NASCAR Doubleheader Weekend featuring NASCAR Winston West and Featherlite Southwest Series races. The season comes to a close three weeks later with the 17th annual Checker Auto Parts 500 NASCAR Nextel Cup Series race weekend (Nov. 4-7). The weekend includes the Bashas' Supermarkets 200 NASCAR Busch Series race, the Silverado 150 NASCAR Craftsman Truck Series race, and the Cruise America 125 NASCAR Featherlite Southwest Series race. ■

Phoenix International Raceway 2004 Schedule

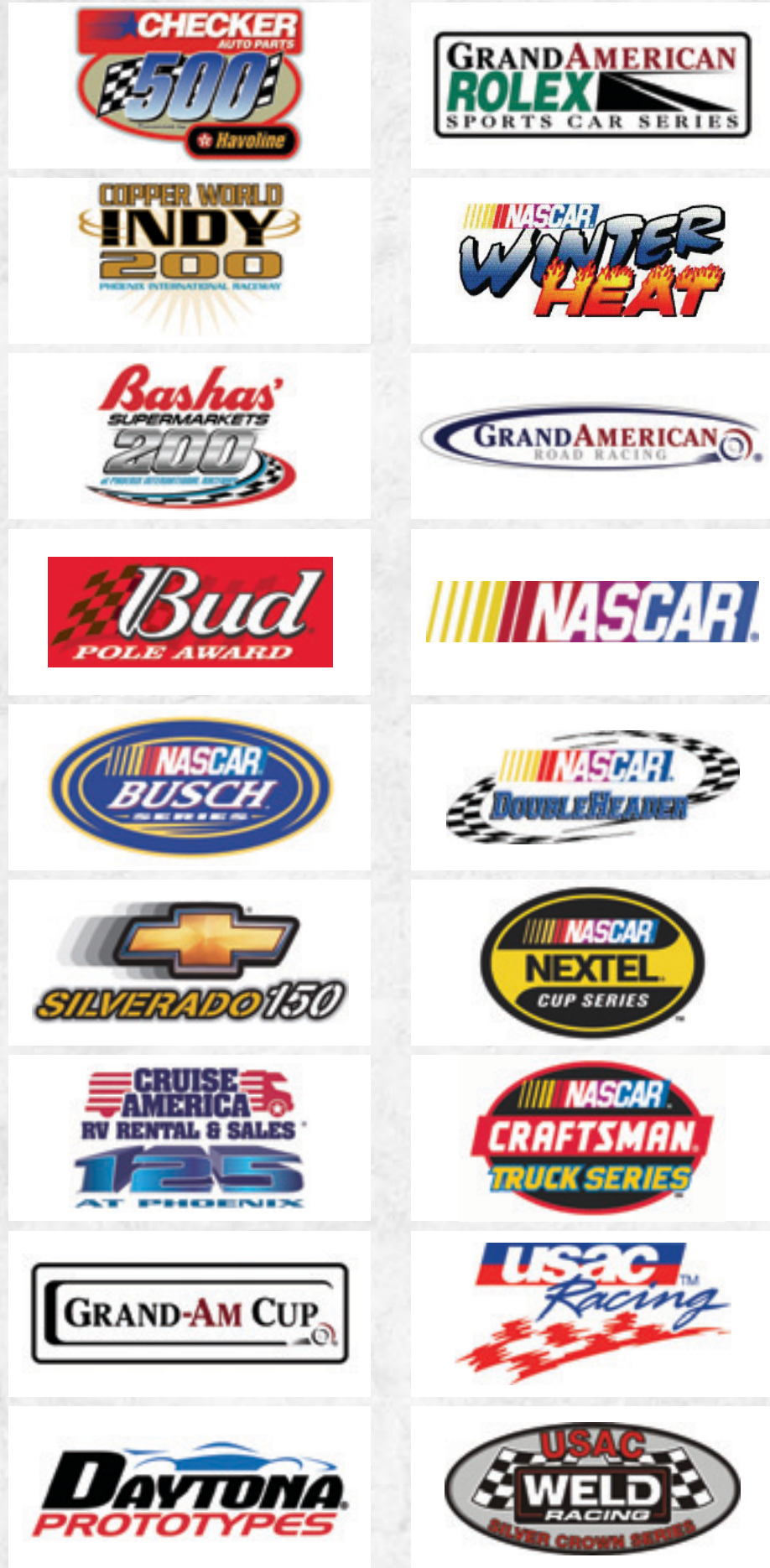
- Jan. 24-25NASCAR WINTER HEAT
- Jan. 24Practices and Qualifying
- Jan. 25NASCAR AUTOZONE ELITE DIVISION, SOUTHWEST SERIES Race
- Jan. 25NASCAR GRAND NATIONAL DIVISION, WEST SERIES Race
- Jan 30-Feb 1PHOENIX HISTORIC GRAND PRIX FEATURING THE 33RD ANNUAL KRUSE AUCTION

- Mar. 19-21INDY 200 & COPPER WORLD CLASSIC WEEKEND
- Mar. 19Practice and Qualifying
- Mar. 20MERNARDS INFINITI PRO SERIES Race
- Mar. 20USAC NATIONAL MIDGET SERIES Race
- Mar. 21USAC WELD RACING SILVER CROWN SERIES Race
- Mar. 21IRL INDYCAR SERIES — INDY 200 Race

- Apr. 9-10GRAND AMERICAN 250 WEEKEND
- Apr. 9GRAND-AM CUP Race
- Apr. 10ROLEX SPORTS CAR SERIES Race
-GRAND AMERICAN 250 Race

- Oct. 2-3NASCAR DOUBLEHEADER WEEKEND
- Oct. 2Practice and Qualifying
- Oct. 3NASCAR AUTOZONE ELITE DIVISION, SOUTHWEST SERIES Race
- Oct. 3NASCAR GRAND NATIONAL DIVISION, WEST SERIES Race

- Nov. 4-7CHECKER AUTO PARTS 500 NEXTEL CUP WEEKEND
- Nov. 4CRUISE AMERICA 125 NASCAR FEATHERLITE SOUTHWEST SERIES Race
- Nov. 5NASCAR NEXTEL CUP Practice and Qualifying
- Nov. 5SILVERADO 150 NASCAR CRAFTSMAN TRUCK SERIES Race
- Nov. 6BASHAS' SUPERMARKETS 200 NASCAR BUSCH SERIES Race
- Nov. 7CHECKER AUTO PARTS 500 NASCAR NEXTEL CUP SERIES Race



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<p>Mercedes-Benz</p> <p>2004 SLR.....Silver/Black.....Inquire</p> <p>2003 S55.....Silver/Black.....100 mi.</p> <p>2003 CL600.....Black/Black.....100 mi.</p> <p>2003 CL55 Coupe.....Silver/Black.....2,179 mi.</p> <p>2003 SL55 Roadster.....Silver/Black.....10 mi.</p> <p>2003 SL55 Roadster.....Black/Black.....24 mi.</p> <p>2003 CL55 Coupe.....Pewter/Ash.....200 mi.</p> <p>2003 SL500.....Black/Black.....8,000 mi.</p> <p>2002 S500 Sedan 4D.....Black/Java.....11,524 mi.</p> <p>2002 S500 Sedan 4D Sport Silver/Ash.....15,100 mi.</p> <p>2004 CLK 320 Cab.....Brill Silver/Charcoal.....19,600 mi.</p> <p>1999 S500 Sedan 4D.....White/Tan.....43,083 mi.</p> <p>1991 SL500 Roadster.....Green/Tan.....35,055 mi.</p> <p>1971 280SL.....White/Tan.....1,700 mi.</p> <p>1971 280SL.....Red/Tan.....74,500 mi.</p> <p>1959 220C.....Light Blue.....70,000 mi.</p>	<p>Ferrari</p> <p>2004 Enzo.....Red/Tan.....Inquire</p> <p>2003 F1 Spider.....Black/Black.....100 mi.</p> <p>2002 360 F1 Spider.....Yellow/Black.....500 mi.</p> <p>2001 360 Modena.....Yellow/Black.....1,479 mi.</p> <p>2000 360 Modena.....Silver/Black.....3,015 mi.</p> <p>2000 550 Maranello.....Black/Black.....2,300 mi.</p> <p>1999 360 Modena.....Yellow/Black.....2,400 mi.</p> <p>1987 365 Berlinetta.....Yellow/Black.....16,300 mi.</p> <p>1995 348 Spider.....Red/Tan.....13,000 mi.</p>	<p>Other Exotics</p> <p>2002 BMW Alpina Conv. Titan.Sil/Gray.....200 mi.</p> <p>2002 BMW 330ci Conv. White/Tan.....10,625 mi.</p> <p>2001 BMW X5 SUV.....Silver/Gray.....45,100 mi.</p> <p>2001 BMW 740i.....White/Tan.....18,050 mi.</p> <p>2000 BMW M5 Sedan.....Titan.Sil/Black.....14,700 mi.</p> <p>1998 BMW 750iL.....White/Tan.....43,800 mi.</p> <p>2003 Dodge Viper SRT-10.....Black/Black.....10 mi.</p> <p>1966 Ford Cobra.....Black/Gray.....9 mi.</p> <p>2001 Jaguar XK8 Conv. Pacific Blue/Ivory.....12,800 mi.</p> <p>1999 Jaguar XK8 Conv. Topaz/Parch.....37,800 mi.</p> <p>1996 Jaguar XK140 Conv. Black/Tan.....18 mi.</p> <p>1996 Jaguar XK140 Conv. Red/Tan.....150 mi.</p> <p>2004 Maybach.....Inquire</p> <p>2003 Panos Esperante.....Black/Parch.....70 mi.</p> <p>1999 Panos Roadster.....Silver/Black.....580 mi.</p> <p>1998 Panos Roadster.....Red/Tan.....1,500 mi.</p>
<p>2004 Bentley Continental Inquire</p>	<p>2004 Ferrari Enzo Red/Black, Inquire</p>	<p>2003 Mercedes SL55 Silver/Ash</p>
<p>Porsche</p> <p>2004 Carrera GT.....Silver/Black.....Inquire</p> <p>2003 Cayenne Turbo.....Black/Tan.....50 mi.</p> <p>2003 Cayenne S.....Blue/Tan.....50 mi.</p> <p>2003 Turbo.....Sea Gray/Gray.....50 mi.</p> <p>2002 995 Cabriolet 2D.....Sea Gray/Gray.....234 mi.</p> <p>2002 Boxster.....Silver/Black.....10,400 mi.</p> <p>2001 995 Turbo.....Arctic Silv/Gray.....9,024 mi.</p>	<p>2004 Bentley Continental GT .3 to choose.....Inquire</p> <p>2002 Bentley Arnage T.....Black/Black.....1,100 mi.</p> <p>2001 Bentley Azure.....Black/Tan.....1,600 mi.</p> <p>1989 Bentley Turbo R.....Burgundy/Tan.....43,000 mi.</p> <p>1987 Rolls-Royce Corniche.....Met. Black/Tan.....14,200 mi.</p> <p>1987 Rolls-Royce Corniche.....Ivory/Magnolia.....59,599 mi.</p>	<p>2004 Porsche Carrera GT Silver/Black, Inquire</p>

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