



MillenWorks Helps DaimlerChrysler Develop the Most Maneuverable, Most Powerful Jeep 4x4 Ever.

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Tustin, CA ([PRWEB](#)) February 2, 2005 -- The roar and excitement of the crowd were unusually noticeable over the loud background music as the Jeep Hurricane took to the stage on January 9th, 2005 at the Detroit auto show DaimlerChrysler Corporation press conference. The show-stopping vehicle drew unprecedented attention with not one, but two 5.7 L, 335 horsepower V8 Hemi engines and capabilities that amazed not only the off-road savvy members of the press, but all automotive enthusiasts in the audience.

MillenWorks was contracted to develop a complete drivetrain, steering and suspension solution for the Jeep Hurricane concept that included a centrally located twin engine transfer case, in-board brakes, drive shafts, front and rear steering, and complete corner assemblies. Designing novel components for the new concept vehicle challenged the creative boundaries of MillenWorks' engineering team. The Jeep Hurricane is so innovative, it incorporates some technologies never before incorporated into a vehicle.

After evaluating several different approaches to drivetrain design and reversible torque distribution to either side of the vehicle, MillenWorks engineers decided that a centrally located transfer case to couple power from both engines and distribute all wheel drive torque to each corner of the vehicle would be appropriate. Shift-by-wire mechanisms allow the wheels on one side of the vehicle to run in reverse, which, coupled with split solid axles and 55 degrees front and rear wheel toe-in angles, allows the vehicle to rotate around its own axis -- finally giving the phrase "turn on a dime" a needed dose of reality.

"Designing a functional prototype from an idea in such a short time was challenging. It was a tremendous feeling when everything functioned as designed the first time," said Brett Wallihan, MillenWorks Design Engineer, "You just don't expect a vehicle to rotate around its own axis like that. It was surreal."

Jeep Hurricane has Four Wheel and Crab Steering capability, achieved with a combination of traditional and "steer by wire" technologies. The total of twenty inches of suspension travel was achieved through the use of a purpose-built front and rear double A-arm independent wishbone suspension with coil over dampers.

The design, fabrication and testing of the Jeep Hurricane drivetrain were performed to a tight schedule with exacting performance requirements, re-emphasizing MillenWorks' ability to provide its customers with superior engineering solutions within tight timelines.

MillenWorks, formerly called the Rod Millen Group, designs and develops vehicles and advanced mobility solutions for the U.S. armed forces and commercial customers. Headquartered in Tustin, California, MillenWorks is principally engaged in the research, design, development, manufacture and integration of advanced technology solutions for manned and unmanned military vehicles, high performance concept cars, race vehicles and rides for major theme parks.

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