

Contact:

2003 Dodge Tomahawk Concept Vehicle

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Life just got more extreme. Much more extreme.

The Viper-powered Dodge Tomahawk concept vehicle shatters all the barriers of conventional thinking about personal transportation. This four-wheel, single-passenger vehicle is a sleek, rolling sculpture that combines art-deco styling with extreme engineering.

The 500-horsepower Viper V-10 engine powering the dual rear wheels gives this radical vehicle a potential top speed of nearly 400 miles per hour - for anyone who wants to test it. The Tomahawk roared into public view at the North American International Auto Show.

"The Dodge brand philosophy always challenges us to grab life by the horns," said Trevor Creed, Senior Vice President - Design, Chrysler Group. "In the case of Tomahawk, grabbing and holding onto anything for dear life is a necessity. It's just that extreme and passionate; a glimpse into the soul and commitment of true enthusiasts."

Initial reaction to the concept vehicle typically comes in two words: "Wow" and "why."

The "wow" is easy to understand from Dodge, the brand that continues to drive its foot to the floor - most recently with the all-new 2003 Viper, Heavy Duty and Light Duty Rams and an SRT lineup dedicated to engineering the most powerful production vehicles in their segments.

But "why" would a company, famous for its innovative car and truck designs, go down this particular path?

"Tomahawk is an icon of the extreme thinking for a brand that is known not only for the legendary Viper and Ram, but also for all new, innovative vehicles such as the Magnum SRT-8 and Durango concepts," said Creed.

That extreme thinking produced a machine in the true tradition of power-junkie passion, powered by a 505 cu. in., 8300 cc aluminum Viper V-10 engine.

"This is a bold faced slap against mediocrity," Creed said. "Tomahawk is a scintillating example of what creative minds can do when given the opportunity to run free. It is a pure mechanical sculpture and a joyous celebration of the artistry and emotion of design."

The Dodge Tomahawk is a Chrysler Group design concept that is as much a Viper-powered work of art as it is a whole new type of vehicle invention. It is both a sculpture that can be ridden, as well as a bold statement about the Chrysler Group's enthusiast culture and passion for design.

"Tomahawk moves design concept introductions and the concept car game to a whole new level - as only Dodge and the Chrysler Group can," said Creed.

Dodge Tomahawk Preliminary Specifications

GENERAL INFORMATION

Body Style: Single-seat Viper-powered motorcycle concept vehicle

DIMENSIONS:

Overall Length: 102 inches

Overall Width: 27.7 inches

Overall Height: 36.9 inches

Wheelbase: 76 inches

Seat Height: 29 inches

Curb Weight: 1,500 lbs.
Track, Front: 8.75 inches
Track, Rear: 10 inches
Weight Dist., % F/R 49/51
Ground Clearance: 3 inches
Fuel Tank Capacity: 3.25 gallons

ENGINE: 8.3-LITER, OHV, 20-VALVE SMPI V-10

Type and Description: 10-cylinder 90-degree V-type, liquid-cooled
Displacement: 505 cubic inches (8277 cc)
Construction: 356-T6 aluminum alloy block with cast-iron liners, aluminum alloy cylinder heads
Bore x Stroke: 4.03 inches x 3.96 inches (102.4 x 100.6)
Valve System: Two pushrod-actuated overhead valves per cylinder
with roller-type hydraulic lifters
Fuel Injection: Sequential, multi-port electronic with individual runners
Compression Ratio: 9.6:1

Power (SAE net): 500 bhp (372 kW) @ 5600 rpm (60.4 bhp/liter)
Torque (SAE net): 525 lb.-ft. (712 Nm) @ 4200 rpm
Max Engine Speed: 6000 rpm
Fuel Requirement: Unleaded premium, 93 octane (R+M/2)
Oil System: Dry Sump
Oil Capacity: 8 qts. Mobil1 10W30 Synthetic
Cooling System: Twin aluminum radiators mounted atop engine intake manifolds, force-fed from front-mounted, belt-driven turbine fan
Coolant Capacity: 11 qts.
Exhaust System: Equal-length tubular stainless steel headers with dual collectors and central rear outlets

ELECTRICAL SYSTEM:

Alternator: 136-amp high-speed
Battery: Leak-resistant, maintenance-free 600 CCA
Lighting: Headlights consist of 12 five-watt LEDs, front, with beam-modifying optics and masked lenses. Eight LEDs, rear. Headlamps articulate with wheels.

TRANSMISSION: Manual, foot-shifted two-speed

Type: Aluminum-cased two-speed, sequential racing-style with dog ring, straight-cut gears
Gear Ratios:
1st 18:38
2nd 23:25
Clutch: Double-disc, dry-plate with organic friction materials, hand lever actuated with assist

FINAL DRIVE: Dual 110-link motorcycle-style chains

Front Sprockets: 14 teeth
Rear Sprockets: 35 teeth

BODY/CHASSIS:

Layout: Longitudinal, centrally mounted engine, rear-wheel drive
Chassis Construction: Monocoque, engine is central, stressed member
Body Construction: Billet aluminum

SUSPENSION:

Front: Outboard, single-sided parallel upper and lower control arms made from polished billet aluminum. Mounted via ball joint to aluminum steering uprights and hubs. Five degrees caster. Single, fully adjustable centrally located coil-over damper (2.25-inch coil with adjustable spring perch); pullrod and rocker-actuated mono linkage. Center-lock

racing-style hubs

Rear: Hand-fabricated box-section steel inboard swing arms, incorporating "hydra-link" lockable recirculating hydraulic circuit parking stand. Single fully adjustable centrally located Koni coil-over damper (2.25-inch coil with adjustable spring perch); pushrod and rocker-actuated mono linkage. Center-lock racing-style hubs

STEERING:

Type: Dual hub center type.

Steering Linkage: Rocker arm and push/pull rod with roller bearings. Polished billet aluminum steering yoke with turned aluminum grips and billet levers

Steering Lock: 20 degrees, left and right

Lean Angle: 45 degrees, left and right

TIRES (4):

Mfr. and Model: Dunlop custom-made symmetrical

Size, Front (2): P120/60R-20

Size, Rear (2): P150/50R-20

WHEELS (4):

Type and Material: Billet aluminum discs, asymmetrical

Size, Front (2): 20x4

Size, Rear (2): 20x5

BRAKES:

Front: 20-inch perimeter-mounted drilled machined stainless steel rotors, one per wheel. Two four-piston fixed aluminum calipers per wheel (16 pistons total), custom designed. Blue anodized caliper finish. Hand-activated.

Rear: 20-inch perimeter-mounted drilled cast-iron rotors, one per wheel. One four-piston fixed aluminum caliper per wheel (8 pistons total), custom designed. Blue anodized caliper finish. Foot-activated.

PERFORMANCE:

0-60 mph: 2.5 seconds (est.)

Top Speed: 300+ mph (est.)

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