# 2003 Marauder Overview

#### New for 2003

The Mercury Marauder is a new model for 2003. Key highlights include:

- All-aluminum 4.6-liter DOHC V-8 with 302 horsepower and 318 foot-pounds of torque
- Variable-ratio rack-and-pinion steering with speed-sensitive variable power assist
- Hydroformed front frame rails
- 18-inch forged alloy wheels and tires
- Independent front suspension with short- and long-arm design, steel upper and aluminum lower control arms
- Front coil-over-shock springs with Tokico monotube dampers
- Live-axle rear suspension with Watt's linkage, load-leveling air springs and monotube dampers
- Racing-inspired Auto Meter oil pressure and voltmeter gauges on the center stack
- High-output Cibie fog lamps
- Three-inch diameter polished exhaust tips
- Dot-matrix interior trim
- Dual eight-way-power reclining bucket seats
- Standard four-wheel anti-lock disc brakes
- Side-impact air bags
- Personal Safety System<sup>TM</sup>
  BeltMinder<sup>TM</sup> and Securilock<sup>TM</sup> systems
- "Marauder" name embossed on the rear bumper and stitched into floormats
- Vintage Roman god Mercury head graces the front seat backs and wheel caps

#### Overview

The 2003 Mercury Marauder delivers a 1960's American muscle car experience with contemporary driving dynamics, comfort, safety and low emissions. The Marauder name was first introduced as a 1963 1/2 performance package and then as its own nameplate, with the 1969 Mercury Marauder and Marauder X-100.

The 2003 Marauder sedan is powered by an all-aluminum V-8 engine producing 302 horsepower. Its chassis highlights include rack-and-pinion steering, hydroformed front frame rails, monotube dampers and 18-inch wheels and tires. The Marauder seats five passengers with generous rear seat room.

The 2003 Mercury Marauder sedan is built in St. Thomas, Ontario.

#### **Performance**

The Mercury team, like most enthusiasts, knows the engine is the heart and soul of a car. Marauder uses a normally aspirated, all-aluminum 4.6-liter DOHC V-8 with four valves per cylinder that produces 302 horsepower at 5,750 rpm and 318 foot-pounds of torque at 4,300 rpm.

The engine breathes through a low-restriction air intake and aluminum upper and lower intake manifolds. Premium unleaded fuel is fed to the engine through a dual-bore 57-mm throttle body and high-flow fuel injectors. The compression ratio is 10.1:1.

To minimize exhaust backpressure - and make a bold visual and auditory statement - the engine has 2-inch diameter high-flow stainless steel exhaust pipes through the hot end and 2.25-inch tailpipes

out of the muffler with 3-inch stainless steel Megs brand tips. Under acceleration, the exhaust note is aggressive, with the unmistakable sound of a large American V-8 engine. However, overall sound levels are very subdued when cruising, creating a surprisingly tranquil cabin.

Marauder uses a heavy-duty four-speed transmission with overdrive. For good off-the-line performance, the team added a reinforced 111 1/2-inch high stall speed torque converter with a heavy-duty one-inch, one-way clutch.

The high stall speed allows engine revolutions to rise into the peak torque band before being transmitted to the rear wheels. A 3.55:1 rear axle with an 8.8-inch ring gear and limited-slip differential also enhances launch performance and acceleration.

## **Driving Dynamics**

The Marauder chassis is capable of delivering a combination of ride, handling, braking and safety performance unattainable in the muscle car era. The full-perimeter frame has several significant enhancements:

- Strong but lightweight hydroformed steel is used for the front rails for good performance in frontal and offset impacts.
- The number two crossmember, which serves as a mounting surface for the steering rack, engine mounts and the suspension's control arms, is now a cast-aluminum piece.
- It provides a precise mounting surface and better alignment tolerances than a steel crossmember.
- The steel crossmember that ties the frame together behind the A-pillar is a more robust design that improves the frame's resistance to torsion and bending forces. It is designed to help manage side-impact crash forces by transferring energy across the frame structure into the opposite rail.

A frame that resists twisting and bending allows the suspension components to operate more efficiently. It also limits the transmission of noise, vibration and harshness into the body structure.

The independent front suspension uses a short- and long-arm design with steel upper and aluminum lower control arms. Road inputs are managed by coil-over-shock springs with Tokico monotube dampers. Monotube dampers are more "tunable" than conventional twin-tube shocks because the damping pistons have larger effective areas.

To reduce front suspension lateral compliance for crisp turn-in with reduced body roll, the Marauder uses a 28-mm solid front Gripper stabilizer bar system. This system provides enhanced on-center steering response and better high-speed lane change stability.

Upper and lower control arms and a lateral Watt's linkage locate the live-axle rear suspension. Load-leveling air springs and monotube dampers manage impacts. The rear air springs help maintain the car's ride height even when the trunk is fully loaded and are very effective at absorbing minor road imperfections.

The combination of air springs and monotube dampers also is effective at managing the unsprung mass of the solid axle, which keeps the rear of the vehicle firmly planted during cornering on rough roads or washboard surfaces. A 21-mm solid rear stabilizer bar, which uses rubber bushings, further improves body roll and tracking.

The power steering system is a variable-ratio rack-and-pinion design with speed-sensitive variable assist. Previous full-size Mercurys used recirculating-ball steering systems. Because a rack-and-pinion system has fewer links, operating friction and compliance in the system are substantially reduced, which improves steering feel and precision. The new system also weighs 22.5

pounds less.

To put the power to the ground, the Marauder team selected 18-inch by 8-inch, 5-spoke forged aluminum-alloy wheels shod with ultra-high-performance BFGoodrich g-Force T/A tires. The P245/55WR18 rear tires have a higher aspect ratio than the P235/50WR18 front tires to give the car a muscle car rake. The rear tires also have a slightly larger contact patch for maximum traction under acceleration.

These tires have an asymmetrical tread with sidewall inserts to enhance steering response. In addition, the steel belts are reinforced with spiral-wound nylon to provide high-speed durability while minimizing weight and optimizing ride quality. Marauder also features 12.0-inch ventilated front and 11.6-inch ventilated rear brake rotors, and twin-piston front and single-piston rear calipers.

### Design

The body of the Marauder is finished in black gloss paint. Non-functional areas of the headlamp units are blacked-out, and the taillamp bezels are dark-tinted to continue the serious but understated appearance.

Unmistakable but subtle performance cues include the high output Cibie fog lamps integrated into the fascia, the 3-inch polished exhaust tips and the "Marauder" name embossed on the rear bumper.

The car's aggressive, muscle-car stance is reinforced by the large 18-inch wheels and tires. The image of the Roman god Mercury is cast into each of the wheel caps to further communicate the car's personality and heritage.

Inside, dual eight-way-power reclining bucket seats are appointed in rich dark charcoal leather with classic French seam stitching derived from vintage Marauders. The seats have extra padding for better thigh, lumbar and shoulder support. The Mercury god's head is embossed into the front seat backs.

Power adjustable accelerator and brake pedals are standard to help accommodate taller and shorter drivers. Modern, technical-looking dot-matrix gray trim gives the appearance of carbon fiber and accents the instrument and door panels.

A leather-wrapped floor shifter highlights the floor console area that flows into space for two cupholders and a high storage bin for CDs and cell phones.

The satin-aluminum gauges include a 7,000-rpm tachometer that redlines at 6,250 rpm. The 140-mph speedometer has a red-lit "Marauder" graphic. Auto Meter brand high-performance oil-pressure and voltmeter gauges are located just in front of the shifter.

The audio system is a 100-watt Alpine AM/FM/CD/cassette player (a 6-CD changer is optional) with four speakers and a rear subwoofer for excellent sound quality. For convenience, the steering wheel features audio and climate controls.

Front seat head- and legroom is 39.4 inches and 42.5 inches, respectively. Rear seat head- and legroom is 38.1 inches and 38.4 inches, respectively. The 20.6 cubic-foot trunk is roomy.

## **Safety and Security**

The Marauder includes four-wheel anti-lock disc brakes, side-impact air bags and the Personal Safety System TM.

The Personal Safety System<sup>TM</sup> is one of the most comprehensive driver and front seat passenger restraint systems available. It includes dual-stage front air bags that deploy based on crash severity,

sensors to detect if front-seat occupants are wearing safety belts, a driver's seat position sensor, safety-belt pretensioners and load-limiting retractors.

In addition, the BeltMinder<sup>TM</sup> system rings a chime to remind front seat occupants to buckle up. LATCH (Lower Anchors and Tethers for Children) anchors are integrated into the rear outboard seats, which make securing a compatible child safety seat easier. A third tether anchor is fitted for the center seat position.

All Marauders also feature the Securilock<sup>TM</sup> passive anti-theft system, which prevents the vehicle from being started unless a key containing a uniquely encoded computer chip is inserted into the ignition.

### MARAUDER BUILDS ON MERCURY

Since its founding in the late 1930s, Mercury has been a premium brand with products blending performance, comfort and luxury appointments. As Mercury designers, engineers and marketers begin work on a new generation of vehicles, the stylish convertibles, premium sedans, performance machines and family cars of the brand's past will provide ample inspiration for the future.

- 1939 Series 99A Convertible: Ford Motor Company created the Mercury brand to offer premium products between the Ford and Lincoln brands, and a convertible was offered in 1939, the first model year.
- 1949 Mercury Series 9CM: James Dean drove a de-chromed Mercury six-passenger coupe in the movie "Rebel Without a Cause." Mercury coupes went on to become the cars of choice for performance tuners and hot-rodders.
- 1950 Mercury Series OMC Convertible: Mercury's first Indianapolis 500 pace car was driven by Benson Ford, Henry Ford's grandson.
- 1957 Mercury Turnpike Cruiser Convertible: Mercury's second Indianapolis 500 pace car.
- 1963 1/2-1965 Mercury Marauder: The first Mercury Marauders were performance versions of Mercury's mainstream sedans, the Montclair and Monterey. They made their debut at the dawn of the muscle car era and were designed to capitalize on the success of the Bill Stroppe-prepared Marauder stock cars, including the one that Parnelli Jones drove to victory in the 1963 Pikes Peak Hill Climb.
- 1966 Mercury Cyclone GT Convertible: Once again, Benson Ford drove a Mercury pace car at the Indianapolis 500. His Cyclone GT convertible was super-tuned to achieve 0-60 mph in 7 seconds.
- 1967 Mercury Cougar: The first Cougar Mercury's luxurious pony car was named Motor Trend magazine's "Car of the Year."
- 1968 Mercury Parklane Brougham
- 4-door: Actor Jack Lord drove a triple-black Mercury on the hit television series "Hawaii Five-O."
- 1969 and 1970 Mercury Marauder
- X-100: 1969 marked the return of the Marauder, which included the feature-packed, top-of-the line Marauder X-100, powered by a 429 cubic-inch V-8 engine.

"The potential market for the Marauder is vast - it encompasses any person who ever owned a rear-wheel drive muscle car and everyone who ever wanted one," says Steve Babcock, Marauder program manager.