



Sure, we loved the sweet song of the M3's high-caliber in-line six, but today's performance war calls for advanced firepower. The 2008 M3 brings more horses, an extra gear, and only a few more pounds to the battleground—fifty-four years after BMW's first V-8-powered automobile.

THE V-8 STORY Quenching the thirst for more power.

1903 French engineer Clément Ader joined two V-4 engines to create the first recorded V-8 for three of the seven cars he entered in the Paris-to-Madrid road race. It ran well, but several fatalities caused the event to be stopped at Bordeaux.

1905 Alexandre Darracq's 22.5-liter OHV V-8 produced 200 hp, enough for Victor Hémery to achieve a land-speed record of 110 mph in a light two-seater (pictured at right). That same year, one of the first fruits of the Charles Rolls and Henry Royce union was the V-8-engined Legalimit show car, so named because it was capable of achieving 20 mph—Britain's speed limit at the time—while motoring uphill.

1906 Léon Levassieur showcased his light, compact aircraft V-8 in an automobile at the Paris Salon. A few such cars were produced by Antoinette in France and Adams in England.

1907 American aviation pioneer Glenn Curtiss became the fastest man on earth by riding his V-8-powered "motor bicycle"

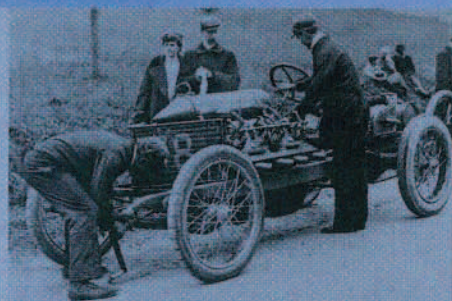
to 136 mph at Florida's Ormond Beach.

1910 De Dion-Bouton of France began selling the first series-production V-8 automobile. Stripped-down De Dion-Bouton touring cars finished fourth at the Targa Florio in 1913 and 1914.

1915 The first mass-produced V-8 automobile was Cadillac's Model 51. By 1920, two dozen other American brands, including Chevrolet and Oldsmobile, had sold competing V-8s.

1954 BMW joined the V-8 club with a 2.6-liter, 95/100-hp powerplant for its 501/502 sedans. This engine's aluminum block and head construction was an industry first.

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retards ignition timing a few degrees to halt premature combustion.

The exhaust headers that evacuate spent gases from the cylinder heads also have that unmistakable F1 look. These tightly nested, thin-wall, stainless-steel pipes are hydroformed for low restriction and minimal heat absorption. Four catalysts cleanse any nastiness that exits the engine.

While the M department's V-8 and V-10 share most of the above features, these engines differ in certain areas. A double-row chain drives the V-8's intake cams, compared with the V-10's single-row chain, and the eight-cylinder's variable valve timing mechanisms are simpler, so the V-10's complex high-pressure oil system isn't needed. The V-8 is an even-firing design while the V-10 is not. (Equalizing the intervals between power pulses in the 90-degree V-10 would necessitate a split-pin crankshaft, an inherently weaker design that is unsuitable for ultrahigh power and rpm appli-

cations.) Thanks to the V-8's shorter, stiffer crankshaft, it benefits from an 8400-rpm redline versus the V-10's 8250-rpm limit. Power and torque peaks are spread farther apart, meaning that the 4.0-liter V-8 is the over-achiever, with a torque peak of 295 lb-ft at 3900 rpm and a maximum 414 hp at 8300 rpm. (The 5.0-liter V-10 crests with 383 lb-ft at 6100 and 500 hp at 7750 rpm.) Eighty-eight percent of the M3's peak torque is available from 2400 rpm to its redline.

All this bodes well for stunning performance. Since the new V-8 is 33 pounds lighter than the 333-hp, 3.2-liter in-line six it replaces, the power-to-weight ratio is clearly moving in a positive direction. To maintain its svelte balance, the new M3 continues with a domed aluminum hood and nineteen-inch forged-aluminum wheels. The front fenders and side sills are molded plastic, while the roof is carbon fiber. (A similar panel installed on the M6 coupe saves twelve pounds.) As these factory

photos reveal, the new M3's body is well-ventilated by three hungry intakes below the front bumper, two slots in the hood, a gill in each front fender, and a large diffuser in back. The dual-strut mirrors consumed hours of wind-tunnel time. The headlamps, taillamps, doors, deck lid, and glass are the only exterior parts shared with standard 3-series coupes.

BMW's transmission lab also is throwing a bone at the iconic Bimmer. The SMG six-speed, which prompted intense love-it/hate-it reactions upon its arrival five years ago, is gone. Take your pick between a conventional stick-and-pedal six-speed and BMW's first dual-clutch automatic. While purists will cringe at the thought of an automatic anything in their pet M3s, they won't whine about this new seven-speed's uninterrupted flow of power during upshifts.

So take a seat where you're safe from collateral damage. When the new M3 arrives next spring, the V-8 bombs will fly. ■