



# DINAN S3 M6

Velvet-wrapped bunker buster

BY DOUGLAS KOTT » PHOTOS BY JEFF ALLEN

ARRIVING AT MASSIVE, AXLE-TWISTING levels of performance without sacrificing day-to-day driveability is the Pushmi-pullyu conundrum of tuners. Like Doctor Dolittle's fictional two-headed llama, one side (power, handling) tends to out-tug the other (civility), and the modifications can easily end up turning a quick, comfortable car into something fast, yet temperamental, bone-jarring and obnoxious—fine if you're 45 going on 19.

Steve Dinan, on the other hand, has a 30-year history of making earth-scorchingly fast BMWs for grown-ups, cars comfortable enough for grocery runs yet thoroughly track-day capable. His latest work, a 628-bhp 5.6-liter version of the V-10-powered M6, powers through the quarter mile in a magma-hot 11.9 seconds at 124.8 mph, circles our skidpad at 0.94g and hauls itself down from 80 mph in 194 ft. (respective numbers for a stock M6 are 12.4 at 118.1, 0.88 and 209). A 3.8-sec. romp to 60 mph, assuming some right-foot talent in wheelspin modulation, will see you nostril-to-nostril with a certain prancing horse, the F430. Wanna race a 911 GT2 to 120 mph? A dead heat at 10.9 sec.

Key to the transformation was Dinan's cracking the encryption of BMW's engine-management computers—a process that has taken years, a brain trust of software

personnel and copious infusions of cash. Less determined competitors have either folded under the strain or simply reverted to piggyback engine controllers.


Choreographing fuel and spark will get you only so far, so a significant bump in displacement, from 5.0 to 5.6 liters, accounts for 65 bhp of the 128-bhp gain. A billet crank nets an extra 8 mm of stroke, and forged Mahle pistons fill bores enlarged by 1 mm, to 93 mm, for a total displacement of 5640 cc. Lightweight Carrillo rods, an underdrive crank pulley and a stainless-steel cat-back exhaust terminating in four 3.5-in. polished tips all contribute. This last item makes for exotic, feral sounds, almost sportbike-worthy in tone and intensity; putting the windows down through tunnels is highly recommended for the full reverb effect.

The induction side hasn't been neglected either. "We found 21 horsepower in this area alone," says Dinan, pointing to the carbon-fiber-lidded twin airboxes containing less-restrictive oval filters and larger air mass meters. What you can't see are the 10 separate throttle bodies, each bored out and fitted with correspondingly larger butterfly valves.

A racer at heart, Dinan well knows the benefits of aggressive alignment, reducing unsprung mass, increasing roll stiffness

and sticky rubber. So Michelin Pilot Sport PS2s (275/35ZR-19 front, 295/30ZR-19 rear) on signature Dinan 19-in. forged wheels optimize adhesion and shed a total of 32 lb. versus stock. Springs are roughly 10 percent stiffer (they lower ride height by 0.75 in.) and tuned to match the middle setting of BMW's electronically controlled shocks. Anti-roll bars are 35 percent stiffer, and an additional 1.5 degrees of caster is dialed into the front suspension, along with more static negative camber all around. Brakes get a makeover, too—monobloc Brembo fixed calipers (6-piston front, 4-piston rear) squeezing 15.0-in. floating slotted rotors all around.

The upshot? A car that feels planted and responsive, the extra caster making the steering feel more alive around center. Turn-in is *right now* without being twitchy, and the wider front tires relative to the stock M6 reduce understeer to negligible levels. And the torque! It peaks at 480 lb.-ft., with more than 400 lb.-ft. on tap from 3000 to 8000 rpm. It's one of those "freeze frame" cars, in that when you floor it and paddle-click through a couple of the SMG 7-speed's gears, the explosive closing speeds make it appear that other traffic has suddenly stopped.

So Dinan's slogan "performance without sacrifice" rings true, except that you'll have to throw your checkbook into the volcano, along with the virgin. The modifications add roughly \$65,000 to the price of an M6 (the 2008 version starts at \$100,300), \$34,995 alone for the balanced and blue-printed long block. Steve's confident you'll like it and that it'll last, matching the factory's 4-year/50,000-mile warranty. That, fellow car people, is confidence. 



» Dinan's free-breathing airboxes help the bored-and-stroked 5.6-liter V-10 make a rousing 628 bhp. Throttle response is ultra-crisp.