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- 2004 Combe & NEC pics



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# ANGLO-AMERICAN

# MINI





**Californian Bill Brooks has taken the best of two nations' car industries to transform his 1962 Austin Mini into something spectacular**

**Words and pics: Richard Truesdell**



**Y**ou are looking at one of the most unusual Minis in North America, if not the world. Its owner, Bill Brooks, from Grass Valley, California, is a fixed-wing patrol pilot for the California Highway Patrol and, as such, is one of the eyes in the sky that patrols

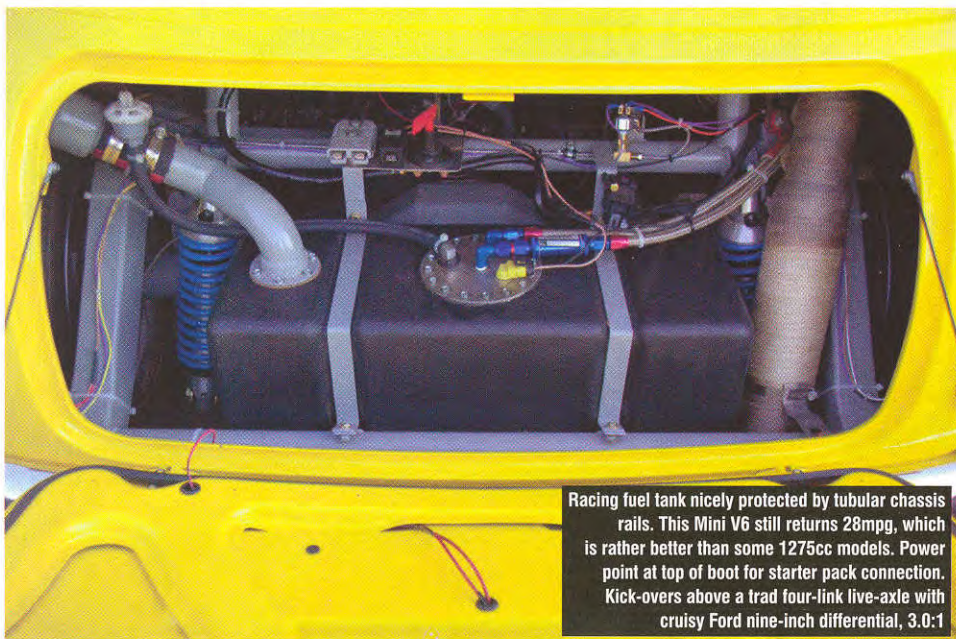
desolate stretches of Northern California Interstates. Together with ground-based patrol cars, he helps to keep the locals from exceeding the posted speed limits.

Bill lives in a unique housing development, which is built around a 4350-foot runway

about 3000 feet above sea level, located at the Nevada County Airpark. While it's not uncommon for Americans to have homes with a three-car garage, Bill's three-aircraft hanger is within a stone's throw of his home and it is here that he stores his private planes and his highly modified 1962 Austin Mini.

While you might think you've seen just about every possible drive-train configuration installed in a Mini, be prepared to be shocked by this one: front-engined, rear-wheel-drive, powered by a 3.1-litre, pushrod Chevrolet V6. He bought this machine as a rusted project car for \$800 in March 1997 and, while the engine may be 'stock' in the American sense of the word, little else is on this yellow Mini. When asked why he went to all this trouble to install a V6 lump, he said: "because it fit. With the way that the tuned port injection system is designed, very low profile, it was short enough to fit without destroying the lines of the car. When the fibreglass hood is snapped down in place, it still looks like a Mini." Sounds easy, doesn't it?

The 140bhp Chevy V6 (donated by a 1992 Camaro) is a pretty antiquated engine by today's standards. It has a cast iron block



Racing fuel tank nicely protected by tubular chassis rails. This Mini V6 still returns 28mpg, which is rather better than some 1275cc models. Power point at top of boot for starter pack connection. Kick-overs above a trad four-link live-axle with cruise Ford nine-inch differential, 3.0:1

# “A MINI THAT TURNS HEADS WHEREVER IT GOES”

Bill's centre of operations – the V6 Mini stays in a hangar with his commuting aircraft. Rear drive requires subtle alterations to floorpan and rear seat area. Form, function, that's all



and heads, and no contemporary overhead camshafts, just a solid, basic design that stretches back to the beginning of the small-block Chevy V8 era in 1955.

While most of the engine's internals are stock, Bill was able to adapt a high volume cone-style air filter on a custom-welded intake runner, which he fabricated to get air in. The installation, like everything else on the car, is ultra clean, the workmanship utterly flawless. To deal with the cooling requirements of such a swap, he turned to Ron Davis Racing Products for a high performance two-core aluminium radiator. Adequate air flow comes from a Flex-A-Lite model 30 electric fan.

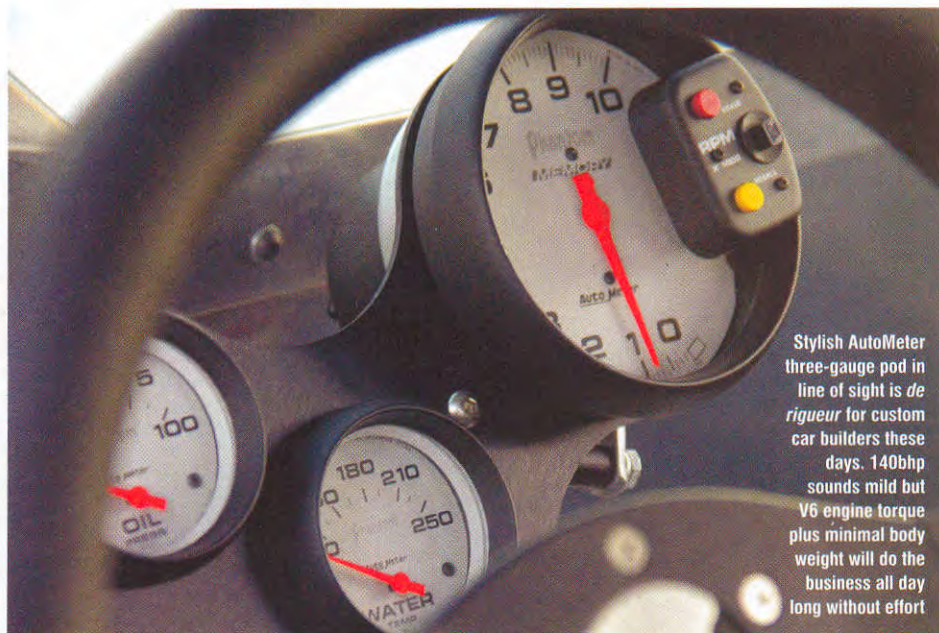
While he retained the OEM (Original Equipment Manufacturer) cast iron manifolds, it was necessary to fabricate a custom exhaust system. He took advantage of his skills as a welder and a fabricator, which he has honed over the last 30 plus years. He has owned a variety of cars, including two Austin Healey Sprites, two Mustangs and several Chevy, Dodge and Toyota pick-ups. For the Mini he used 2.5-inch diameter stainless steel tubing running down the right side of the car, through

two mufflers, a Mega dual muffler followed by a Turbo tail muffler supplied by Stainless Specialties, ultimately exiting through a deceptively modest single tailpipe.

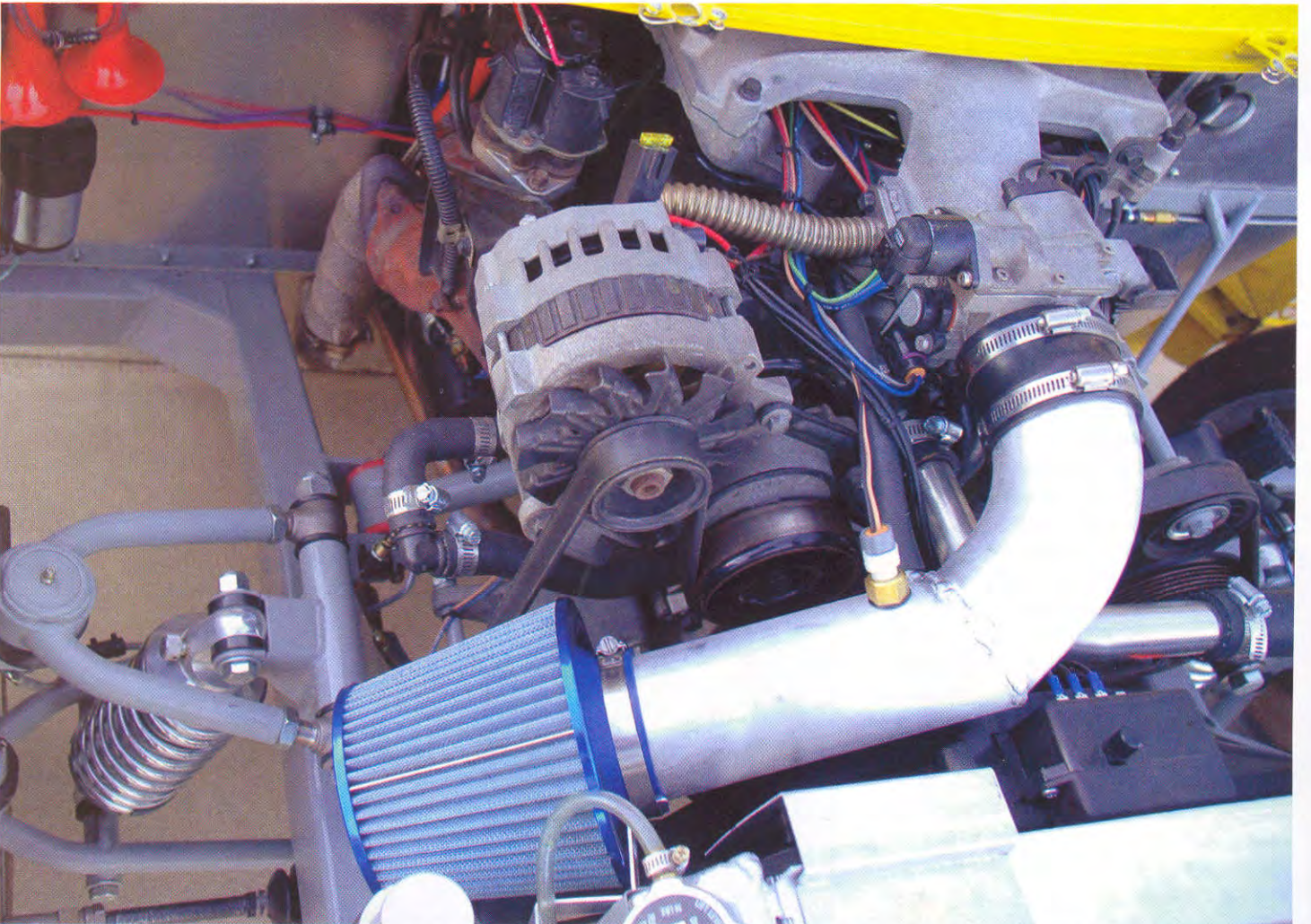
The rest of the drive-train consists of a Borg Warner T5 five-speed manual gearbox, using

a Riebes single plate hydraulic clutch, a custom fabricated propshaft and the old hot rodder's standby, a rugged and dependable Ford nine-inch limited slip differential with a 3.0:1 final drive ratio.

Owing to its light overall weight, he found

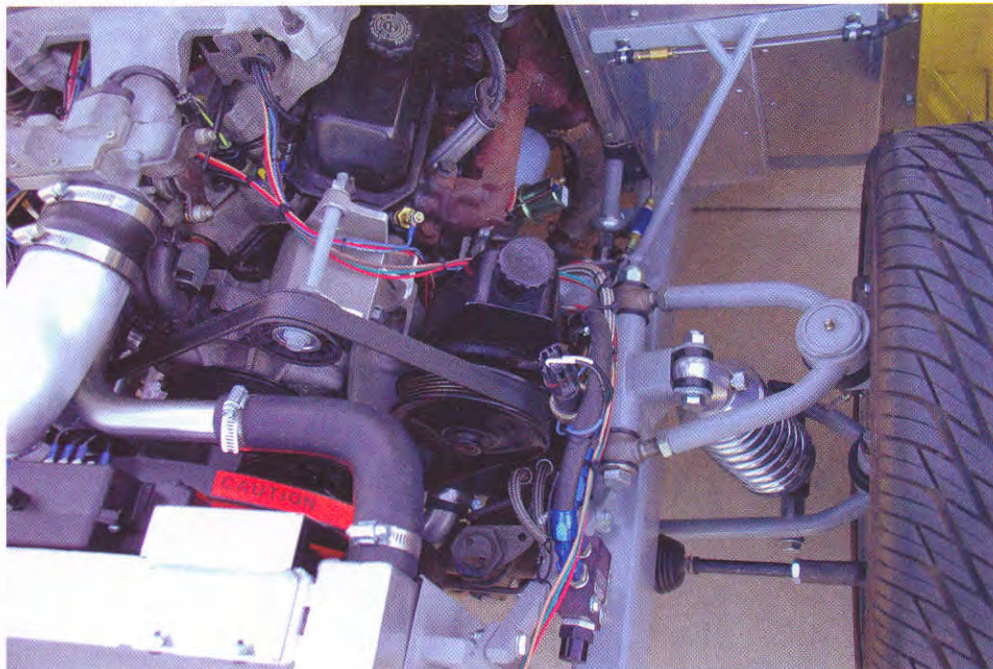


Stylish AutoMeter three-gauge pod in line of sight is *de rigueur* for custom car builders these days. 140bhp sounds mild but V6 engine torque plus minimal body weight will do the business all day long without effort



Not much evidence of Mini bodyshell or subframe here. If you're going to install an in-line V6 motor and rear drive, it saves a lot of heartache to build the car around the engine and gearbox

16-inch alloys permit brake discs which are easily up to the job. Front double unequal length wishbone suspension looks truly independent. Main structure based on twin chassis rails



no need for anything too exotic as far as the brakes were concerned and uses a set of 10.5-inch GM vented rotors, clamped with a set of metric callipers up front. As most Yank tanks came equipped with rear drum brakes until very recently, he turned to Speedway Motors for a set of 11.75-inch vented rotors, which use GM metric callipers, to be used at the rear. The front/rear bias is fully adjustable.

Unlike the drive-train, the suspension is slightly out of the ordinary but uses a variety of off-the-shelf aftermarket components well known to US street rodders. Up front, this Mini is equipped with Heidt's Superide II coil-over set up featuring their coil-over shocks, which offer six different positions of rate adjustment. Surrounding the Ford nine-inch rear is a custom

Chassis Works four-link full floating live axle sprung by Alden Eagle coil-over shocks. The set up works to keep all four wheels planted firmly on the pavement. The rolling stock includes Lite Speed alloy modular racing wheels, 16x7-inch up front, 16x7.5-inch in the rear. Nitto supplied the rubber, 205/50VR16s all around. This combination of components results in a Mini that zips from zero to 60mph in 9.5 seconds while easily topping 120 miles per hour. And it sticks to the road like glue, all the while returning over 28 miles per gallon.

"The car is very stable," says Bill. "It's a firm ride, no doubt, but it never feels twitchy. It turns in nicely, no drama, without requiring any excessive steering correction, even with the bigger wheels and tyres."

All of these upgrades are covered up by Fortech body components. Their one-piece front end and rear arch panels, all finished with a stunning combination of PPG yellow and white single-stage urethane paint, produce a Mini that turns heads wherever it goes, especially in the company of other modified Minis. As you can imagine, given the drive-train, the structure is extensively modified. The front end, the floor and most of the rear wheel openings were removed in order to accommodate the Chevy/Borg Warner/Ford drive-train.

The front end is secured to the structure using Dzus fasteners, facilitating quick removal and re-installation on the street or strip. The rest of the body is secured to the main structure by 14



Bill out for a quick spin on his front drive. The traffic's not too bad but occasionally you have to get out of the way when a neighbour is landing an aircraft. Chevy bonnet badge leaves no doubt about the engine source. Who said the Americans don't do irony?



bolts, while the rear flares employ button-head Allen bolts. GT 300 spun alloy mirrors on custom brackets finish up the exterior accents and work well with the Lite Speed alloy wheels.

Looking in to the interior, it's all business. Bill can get comfortable behind the quick-release Momo steering wheel by planting his bottom firmly in the Kirkey Aluminium racing seats, where he is strapped in with a Simpson harness system. The custom Chassis Works dash houses a full complement of AutoMeter gauges: tacho, oil pressure, water temperature and Volt meter. A bank of toggle switches controls the turn signals, headlights, high beams, wipers and the cooling fan, with a push

button employed for the horn. He used standard Mini door latches and handles but shaped some sheet aluminium for the inner door panels, floor and firewall, all in the interest of maximum weight saving.

With the seats virtually straddling the Chevy V6 set back in the chassis, he modified the shift linkage to a forward position so it falls comfortably to hand. There's no ICE system or any other creature comforts, like power windows or heated glass. This is a purpose-built car whose aim in life is to get from one point to the next in the minimum amount of time with a maximum amount of fun.

As mentioned earlier, Bill's taste in cars is

eclectic, if anything. His girlfriend has commented that the car is like a granddaughter and often refers to it as "Bill's silly car". When asked which car he has no desire to own, his answer is a Chevrolet Corvette.

When asked how much he's invested in his one-of-a-kind Mini, he smiles as he says: "About \$30,000". It was his plan from the start to turn his Mini into a rear-wheel-drive custom Mini, utilising as much of the original bodywork as possible. Inspiration for this came from local Mini racer and enthusiast Mike Kearney whose company, Seven Enterprises Limited, is based near Bill's home in Auburn, California. "I used the same bodywork as on Mike Kersey

Racing's Fortech Racing Mini that was featured in the first *MiniWorld* issue. The car has been utterly dependable and we drive it often to car shows but, quite frankly, I wouldn't find it too comfortable to drive over any great distance, plus it lacks luggage space."

In an amusing incident, we shot Bill's Mini on the quarter-mile airstrip that borders his home in Grass Valley. While we were getting the car-to-car tracking shots, a small plane took a pass at landing at the airstrip, which lacks a control tower. A few minutes later, as we were making our last pass, a resident of long standing came running out of his hanger and started screaming at us: "This is an airport, not a drag strip." We had to tell Bill, who had already sped back to his hanger, that he'd have some fence mending to do with his neighbours.

In the spirit of other noteworthy combinations of a British chassis and body with American drive-train components, Bill has combined the two into a unique high performance package, in this case a Chevy-powered, rear-wheel-drive classic Mini. While getting from start to finish wasn't a lark, he says that, with the help and patience of family and friends, anything is possible. After seeing and driving his Mini, we definitely agree.

## TECH SPEC

### CUSTOM 1962 3.1-LITRE V6 AUSTIN MINI

**ENGINE:** 3.1-litre Chevy pushrod V6 . standard pistons, heads, camshaft, cast iron exhaust manifold . tuned-port fuel injection . custom-fabricated high-volume cone air filter  
**GEARBOX:** Borg-Warner T-5 five-speed all-synchro manual gearbox  
**SUSPENSION:** Front: Heidt's coil-over Superide II . double tubular wishbones . Rear: Chassis Works four-link . full floating

live axle . Aldan adjustable coil-over shocks . tubular chassis front, rear

**BRAKES:** Front: 10-inch discs . GM vented rotors . stock callipers . Rear: 11.75-inch discs . Speedway Motors vented rotors . GM metric callipers

**WHEELS AND TYRES:** Lite Speed alloy modular racing wheels . 16x7-inch front . 16X7.5-inch rear . Nitto Racing 205/40VR16 front, rear tyres

**INTERIOR:** Kirkey aluminium racing seats . black carpet . Autometer gauges in custom pod . MOMO quick-release steering wheel system . aluminium door panels, firewall, floor . tubular rollcage and structural frame

**EXTERIOR:** Fortech one-piece front end . Fortech flared rear quarter panels . yellow, white PPG single stage urethane paint . GT 300 spun alloy mirrors

## OWNER

### BILL BROOKS

**AGE:** 50  
**OCCUPATION:** Fixed-wing patrol pilot, California Highway Patrol  
**MOST EXPENSIVE ITEM ON YOUR CAR:** The whole car  
**HOW MUCH HAVE YOU SPENT?** US\$30,000

**ANY SPECIAL SKILLS THAT CAME IN HANDY BUILDING YOUR MINI?** Welding and metal fabricating  
**BESIDES THE MINI, WHAT ELSE CURRENTLY RESIDES IN YOUR GARAGE?** 2003 Chevrolet half-ton 4X4 pick-up

**IF COST WAS NO OBJECT, WHAT CAR WOULD YOU LIKE TO OWN?** Ford GT-40 or a Superperformance Cobra  
**WHAT KEPT YOU GOING ON THIS PROJECT?** My love of all things Mini  
**WHAT WAS YOUR FIRST CAR?** 1967 Austin Cooper S

