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**BR RACING
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THIS 190 SL PUTS
THE ART INTO ARTISAN

TEXT / Colin Ryan
PHOTOGRAPHY / Isaac Mion



IF THERE IS A POINT WHERE ENGINEERING TRANSCENDS ITS NUTS AND BOLTS TO BECOME ART, IT'S RIGHT HERE.

This is, or was, a '61 Mercedes-Benz 190 SL. Its owner loved the lines (who wouldn't?), but wanted a car he could just jump into and drive any time he felt like it, while retaining that vibe of a classic machine.

This could only be achieved by ingenuity, hard work and a lot of money. Much of the first two was supplied by Sean Dell of Hot Rods & Custom Stuff, based in Escondido, California; an operation well regarded by those in the know.

To be a reliable car, it couldn't have kept the original 50-year-old, 1.9-liter four-potter under the hood, which was never rated that highly in the first place (balancing its two twin-choke Solex carburetors was tricky). "We were looking at different engines," says Dell. "We even considered an LS7 (the V8 that famously powers Corvettes). Then the Mercedes-Benz twin-turbo V12 was mentioned." One of the cars with this 6.0-liter beauty is the SL 600.

Trying to fit a V12 into the space allocated for an inline-four was never going to fly, so Dell went the other way: rebuild the old car around a new engine. "Once I figured out we could do it, we got an '04 SL 600, with only 9,000 miles on the clock, and cut the body away."

Easier said than done. To take the newer metal's place, the 190's bodywork had to be widened by 6 inches, and another 8 inches were eased into the length, in five separate places along each flank. Naturally, things like the grille and bumpers were no longer the right size. And the door handles seemed out of proportion. So replacements were carved out of billet aluminum. The grille was fashioned from a 640-pound chunk of the stuff by Evod Industries of Fallbrook, California, the fabricators who also made the hood vents, bumpers and door handles.

It was a similar story for the windshield frame, which also required custom glass. At least the retractable three-layer fabric roof was OEM. And many of the modern SL's amenities could be retained, such as the pedals, e-brake, electrics and wiring harnesses, gauges, air conditioning and even the satellite navigation system. Behind the '60s lenses of the front and rear lights is



'04 SL illumination, subjected to heavy adaptation. Sadly, the airbags had to go, since they hadn't been invented when the 190's body was designed.

Elsewhere in the cabin are hand-built bezels and HVAC vents, along with a custom steering wheel. The seats from the younger car were cut down, reshaped and re-covered to simulate period-correct chairs while preserving their power adjustment and heating functions. The same rich "red with hints of terra cotta" hide was used to fashion a bespoke luggage set that fills the trunk so elegantly; credit for the leather work goes to Armando's Auto Upholstery of Los Angeles.

The 20-inch wheels are another custom contribution from Evod. Their three-pointed star emblems over the hubs are attached in such a way that they always remain upright. A little touch of gangster can sometimes be a good thing.

INTERVIEW WITH OWNER RICHARD MOTT

ONCE IN A WHILE A CAR COMES ALONG THAT ABSOLUTELY BLOWS YOUR MIND.

It is more likely to occur in a normal, everyday setting if say a Bugatti rolls by but when you're at SEMA it's more rare as there's miles and miles of stunning modified cars in every direction. To stand out like this 190 SL did at SEMA is truly a rarity. So who woke up one day and said, "I want to stuff an '04 Renntech motor into a 190 SL?" Richard Mott did, that's who. After acquiring world exclusive feature shots for European car, Isaac Mion got to know the man behind the white swan with the concealed fangs.

ec: Richard, why did you build this car?

Richard: I thought it had really cool lines. They're almost sensual. Besides, Southern California is the perfect place to own and drive a car like this.

ec: I understand that when you built this you were adamant that the car remain true to its German heritage.

Richard: I had always wanted to keep it German. The guys at Hot Rods (& Custom Stuff) are in their comfort zone with Chevy engines on custom frame chassis. I wanted to put the entire body onto a newer Mercedes chassis. I obviously took them out of their comfort zone.

ec: How long did the project take?

Richard: It took about 13 months, with 6 to 9 months planning. So around two years altogether.

ec: When did you first get involved with cars?

Richard: I've been into 'em since I was a little kid and we used to race the HO cars. I

had a Ferrari, a Porsche and a 300 SL.

ec: Is this your first foray onto the restomod scene or have you had a lot of other cars built?

Richard: Well, I have a '67 Firebird but this is the first time I've done anything this extreme.

ec: What has been your most memorable experience with the car?

Richard: Well, one time the paparazzi shot me on

this project. Can we ask what field you're in and how you got your start?

Richard: My start was relatively modest I degreed in biomedical engineering and worked my way into medical technology and biotechnology developing products that change peoples lives.

ec: What kinds of things?

Richard: Well, one example is an intracranial pressure sensor that gauges pressure in the heads of trauma



the freeway and it ended up on the Internet. But the first time I saw the car was at SEMA and I was really happy about the reaction the car got.

ec: Yeah, so were we. In fact, we talked to you there. You mentioned then that the car would take place in the Optima Challenge that Sunday after SEMA. How'd that go?

Richard: That was another memorable experience. Seeing the car do well against more traditional restomods like Camaros and Mustangs.

ec: So I have to ask you Richard, this couldn't have been a cheap project. I imagine there could be a quarter of a million dollars in

victims and makes sure they don't get injured again. I also run a pro fishing outfit that fishes for pelagic fish like marlin and mahimahi.

ec: I understand you book charitable trips?

Richard: Yes, we do one for the Purple Heart Association and two trips per year for the Make a Wish Foundation. I'm also a significant donor to the Mel Washington Institute. He is an ex pro tennis player who has a foundation for troubled kids in Florida.

ec: Would you consider donating \$100,000 to the Isaac Mion Foundation for troubled underpaid motoring hacks who want to build a car like yours?

Richard: (dial tone)



It's usual for builders (house builders, at least) to estimate a time of completion that will turn out to be laughably optimistic. From the outset, Dell and company reckoned this project would take 18 months. It was done and dusted in 13, just in time for the 2010 SEMA Show (where it won an Excellence in Automotive Design award) in Las Vegas, despite the "thousands upon thousands upon thousands of man-hours," according to Dell.

And that includes all the drivetrain work done by Renntech. This Florida-

based tuning house is run by Hartmut Feyhl. A German by birth, he grew up in Affalterbach, the village that puts the A into AMG. It was almost predestined that Feyhl would become an apprentice there, going on to become first a master mechanic and then technical director of AMG's North American headquarters. He is godfather and midwife to the famed Hammer sports sedan of the mid-'80s.

An ideal choice, then, to conjure some more power from an engine that leaves the factory with 493 hp at 5000

rpm and 590 lb-ft of torque at 1800 rpm. The ECU and TCU (transmission control unit) were both reflashed with software developed in-house, and the turbo system was augmented by Renntech's intercooler upgrade program, which includes a new pump that handles a greater flow of coolant, plus all the attendant plumbing and electrical connections.

The stock turbochargers run at 14.5 psi; Renntech boosted that to 21 psi. Measured at the wheels, the new output is 650 hp at 5500 rpm and 785

lb-ft at 2000 rpm, quite enough to get someone into a heck of a lot of trouble while enjoying every second.

Mercedes-Benz is a company known for over-engineering. For example, the five-speed automatic transmission that usually accompanies this V12 can handle its torque and then some. But Feyhl's AMG background couldn't stop him from leaving things alone. "With increased performance, it becomes necessary to improve the driveline components," says Dan Steinhauser, designer at Renntech, "to ensure maximum power goes to the driven wheels without transmission slippage." Steinhauser says this cannot be done by software alone, but with a mechanical upgrade to the clutch packs, as well as a complete teardown and rebuild using new gaskets seals, O-rings, electrical connectors and a new transmission pan filter.

"This allows us to maximize the amount of friction materials within the transmission and, in turn, the amount of power that can be transmitted." He claims the work improves shift response and shift timing and provides better drivability under extreme conditions, without sacrificing around-town comfort. Steinhauser reckons the updated trans can handle more than 800 hp and 1000 lb-ft of torque.

Out at the rear axle is a locking limited-slip differential, developed in conjunction with specialists OS Giken. "This LSD will lock 100 percent and provide torque equally to each



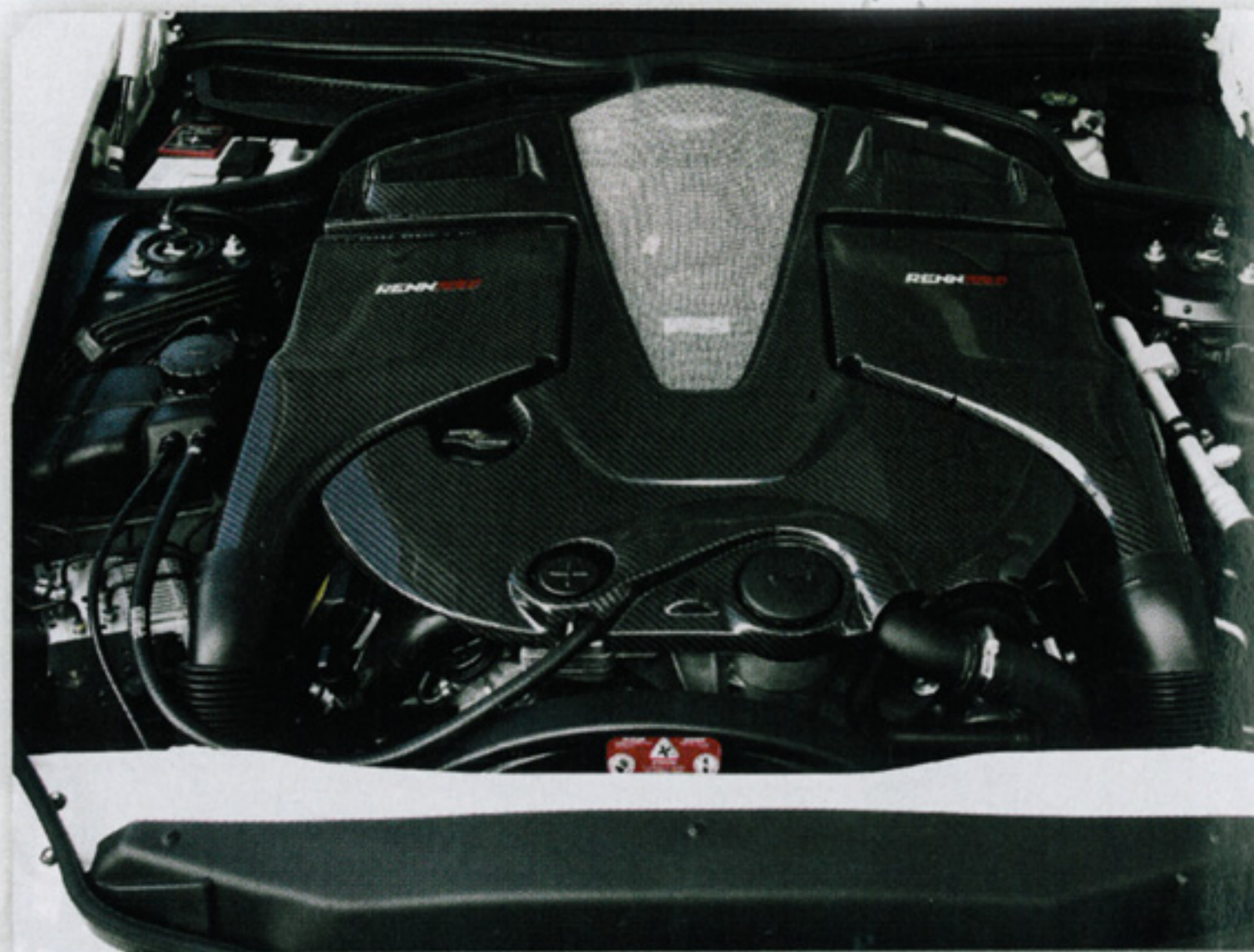
powered wheel, for stable straight-line runs," says Steinhauser. "When exiting a corner, the transition to the full lock position is smooth and predictable. This gives the vehicle better traction and stability."

The suspension enjoys new toe links and adjustable camber bushings from the Renntech drawing board, along with a digital lowering module (DLM): the V3. "The DLM V3 allows the vehicle to return to its factory ride height at a preset speed," says Steinhauser. "This

removes the need to be aligned after lowering and allows the factory speed lowering to still occur as normal. The user can maintain the factory longevity and still have the lowered look at low speeds."

This clever little box only takes half an hour to install (easy for a tuning shop to say that) and is 32-bit Windows-compatible. "Hook it up to your laptop and adjust your settings with the click of a mouse," says Steinhauser.

Coming under the snappy title of Renntech Performance Brake Package 3, the front anchors now have 16.2-inch two-piece rotors grabbed by eight-piston Brembo calipers, while four-piston Brembo calipers bite at 14.2-inch rotors at the rear. "Also in that package are our CNC-machined brake hats," says Steinhauser. Each corner gets upgraded



Anyone even vaguely good at geography will know that Florida is something of a drive away from Southern California. This SL did not make the trip to Renntech's HQ. "We worked closely with Hot Rods & Custom Stuff to develop the perfect performance package for this car and sent everything to them to have it installed at their shop," says Steinhauser.

On a serious car with serious performance and production values, one little piece of humor has crept in. The traditional blue-and-chrome Mercedes-Benz badge with the laurel

wreath has been subverted here in this hand-made example. The wording actually says: "Mercedes Bent." According to Dell, the name came about because the old body was bent around the newer platform.

Arguing the point whether or not this car is art rests on definition. It certainly fulfills an aesthetic function, but there's one other crucial element. Having encountered a work of art, the looker (or listener) comes away transformed, however subtly. In which case, the "Mercedes-Bent" 190 SL is surely art. It's most definitely more than engineering. ☺

PERFORMANCE*

Peak Power: **650 hp @ 5500 rpm**
Peak Torque: **785 lb-ft @ 2000 rpm**
*measured at the wheels

pads, and specialist motorsport brake fluid pumps through stainless steel braided lines.

Renntech did not stop there. It also added stainless steel sport mufflers, plus airboxes and a carbon-fiber engine cover.

{ 1961/2004 "MERCEDES-BENT" 190 SL }

LAYOUT

Longitudinal front engine, rear-wheel drive

ENGINE

6.0-liter V12, sohc, 36-valve, turbocharged and intercooled

TRANSMISSION

Five-speed automatic w/ Renntech upgrade, Renntech/OS Giken 100 percent locking limited-slip differential

SUSPENSION

Independent double wishbone, gas shock absorbers, coil springs (f); independent five-link, gas shock absorbers, coil springs (r); Renntech lowering module, toe links, adjustable camber bushings

BRAKES

Eight-piston Brembo calipers, 16.2-in. two-piece rotors, slotted and ventilated (f); four-piston Brembo calipers, 14.2-in. two-piece rotors, slotted and ventilated (r); Pagid brake pads; Goodridge stainless steel braided lines

WHEELS AND TIRES

Custom Evod wheels, 8.5x20 (f), 10x20 (r); Nitto Invo tires, 255/30 (f), 285/30 (r)

EXTERIOR

OEM retractable fabric hood; custom aluminum grille, bumpers, hood vents, door handles, windshield frame and glass

INTERIOR

Custom seats, steering wheel, dashboard

