Reunited

S/n 0588M lost its original engine more than 40 years ago. Now, thanks to DK Engineering, this four-cylinder Ferrari is complete again.

STORY BY WILLIAM EDGAR

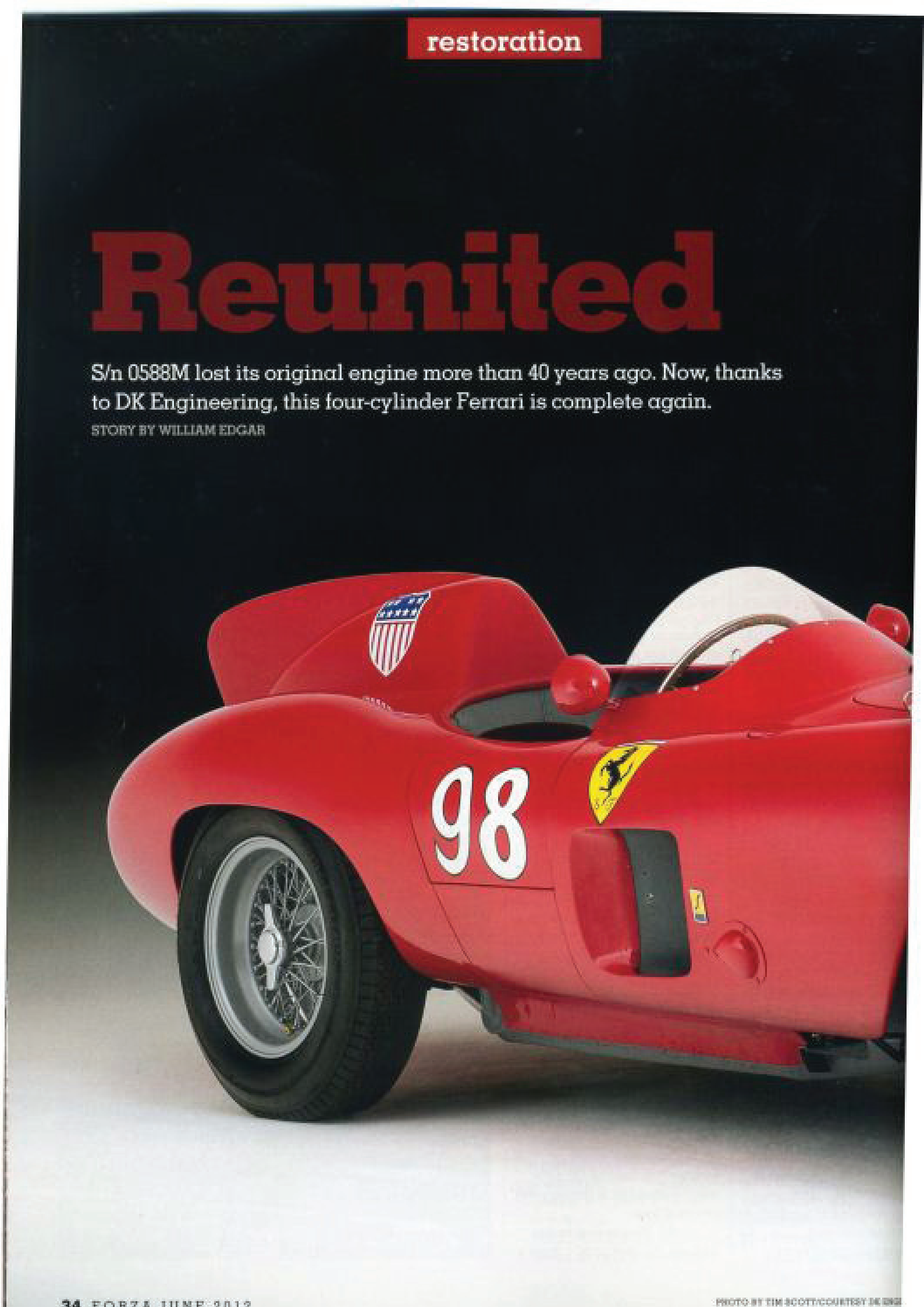


PHOTO BY TIM SCOTT/COURTESY DK ENG

This 1955 Ferrari 857 Sport (s/n 0588M) is the final example of four such four-cylinder Scaglietti-bodied cars built. It is the only 857 with a tail fin and, because of its prominent owners and provenance over the past 57 years, it is arguably the best known of the "Monza Spyders."

My father, team owner John Edgar, bought s/n 0588 from the Ferrari factory in February 1956. While the 857 was described to him as new, it was widely believed the car had been driven—and crashed—by factory pilot Olivier Gendebien during practice for the RAC TT at Northern Ireland's Dundrod circuit in September 1955. Whatever the case, my father quickly put the Ferrari into the hands of his drivers, Jack McAfee and Carroll Shelby, and they road-raced it all around the United States throughout the '56 season.

I wrote about the Ferrari and its history, which after my father's ownership included a few Corvette V8 engines, drag racing and a repaint with Andy Warhol, in issue #54's "Sexy Beast." Beyond that story, I hadn't thought too much about the car in recent years—at least until my phone rang in December 2010. It wasn't a call I was expecting, but it was one I was thrilled to get.

The British gentleman on the other end of the line introduced himself as Jeremy Cottingham, son of David Cottingham, whose DK Engineering in Hertfordshire, England had just purchased and was ready to restore s/n 0588. Jeremy told me he'd seen a photograph of the car "racing past pine trees at Pebble Beach" in the hands of Jack McAfee, and that DK's goal was to restore the car to its condition at that time. Thus, the Cottingham clan—father David and adult sons Jeremy, James and Justin—wanted all the detailed pictures and information they could muster. "It's got to look right, and it's got to be right," said Jeremy. I couldn't have agreed more.

I soon began emailing Jeremy photographs of s/n 0588 that had been shot by my father, a wary man, as references in case he had needed to repair the car. These photos were exactly what the Cottinghams hoped they would be: crisp blow-ups from 35mm, and some from 4x5 sheet film so detailed that the smallest wrench nicks on nuts and bolts could be seen, while weld beads billowed to reveal how they were laid. The images had remained in my archives for decades, and a deal was made to put them to good use.

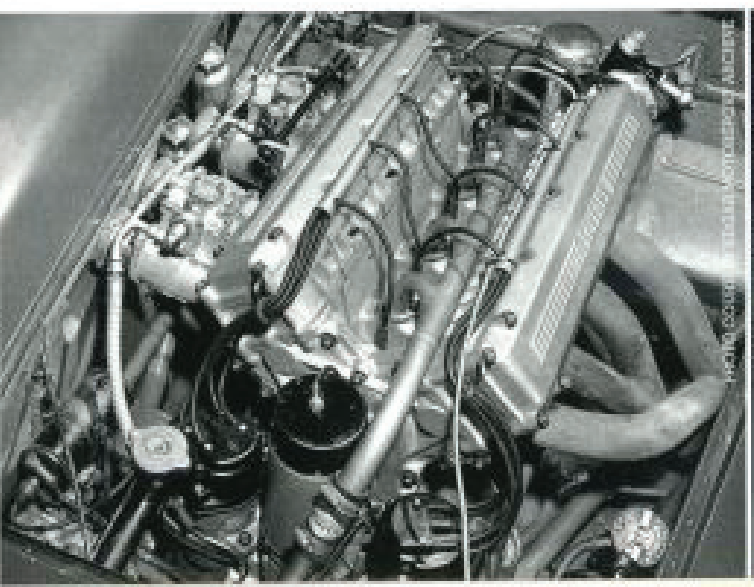
DK Engineering was founded in 1977 by then 35-year-old David Cottingham and his wife Kate. "I liked Ferraris and I could see an opening when there was only one guy in England, David Clark, who was good doing work on old Ferraris," he told me. Impressively, Cottingham, who had honed his skills on Austin 7s and Jaguars, had done his first Ferrari restoration just four years earlier, restoring in his home garage a 365 GTC he'd managed to afford while working by day at Kodak's vast research lab in Harrow and at night studying for his Physics qualifications.

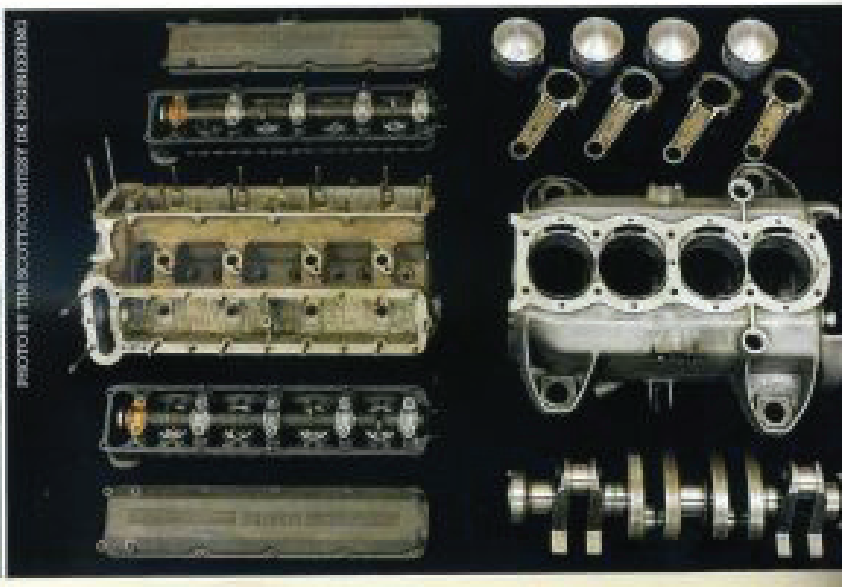
But, as they say, some things were meant to be. Today, DK has 28 employees, and has over the years restored a staggering variety and volume of everything Ferrari from Barchetta to BB/LM. And I was fascinated to discover that David Cottingham's connection to s/n 0588 began a couple of decades before his son called me.

Way back in 1983, Cottingham had the good fortune to buy the 857's original four-cylinder Aurelio Lampredi-designed engine—which was widely called a 3.5 despite displacing just 3,432cc—from Australian media magnate Barry Batagol; he was directed to this find by American Ferrari sage Ed Niles. At the time, the car itself, then powered by a 3-liter Ferrari V12, was owned by Italy's Count Bobily (Luigi P. Rezzonico Castelbarco).

In August 1997, the Count sold s/n 0588 to Corrado Cupellini, who, just eight days later, passed it to collector Jean-Claude Bajol in Toulouse, France. Bajol, who once told me s/n 0588 was "the most sexy of all Monzas," nearly lost the car when some 200 tons of ammonium nitrate in a nearby fertilizer-factory warehouse exploded, killing 31 people and injuring more than 2,400. Bajol's garage collapsed, destroying everything in his collection except the 857. This may have contributed to his desire to reunite the Ferrari with its original engine.

Cottingham shared his longtime friend Bajol's goal—the problem was that each man wanted to buy what the other had. "Jean-Claude Bajol wanted to buy the engine from





Dad, and Dad was saying, 'I won't sell him that engine,'" recalls Jeremy.

In the early 2000s, after ten years of this gentlemen's stand-off, Jeremy took over the effort, calling Bajol every six months to see if he would sell them the car. Eventually, the Cottinghams' resolve paid off; in November 2010, they purchased the 857 from Bajol, who passed away the following March.

In December 2010, s/n 0588 arrived at DK's establishment on Little Green Street Farm in Chorleywood, a brick edifice that dates from 1858 and looks more like an elegant equestrian stable than a place to take apart old cars and put them back together again. I spoke with David Cottingham as the restoration was beginning, and he was elated at what was to come: "It's amazing to think that we have the original chassis, body, engine and transaxle!"

At the time, the 857 had a modified 250 GT Boano engine and a transaxle from a 275 GTB in it, as well as a long air scoop in the middle of the hood. DK's first steps were to yank the incorrect V12 and drivetrain, and fabricate a new aluminum double-bubble "bonnet" to accommodate the original engine's twin cam covers.

The key element in bringing the 1,900-pound Ferrari back to correct 1956 specs was restoring that four-cylinder engine. Its castings were in good shape, with no cracks or signs of a major blow-up, but, says Cottingham, "we did need new cylinder liners, and that's always

PHOTO COURTESY OF DAVID COTTINGHAM

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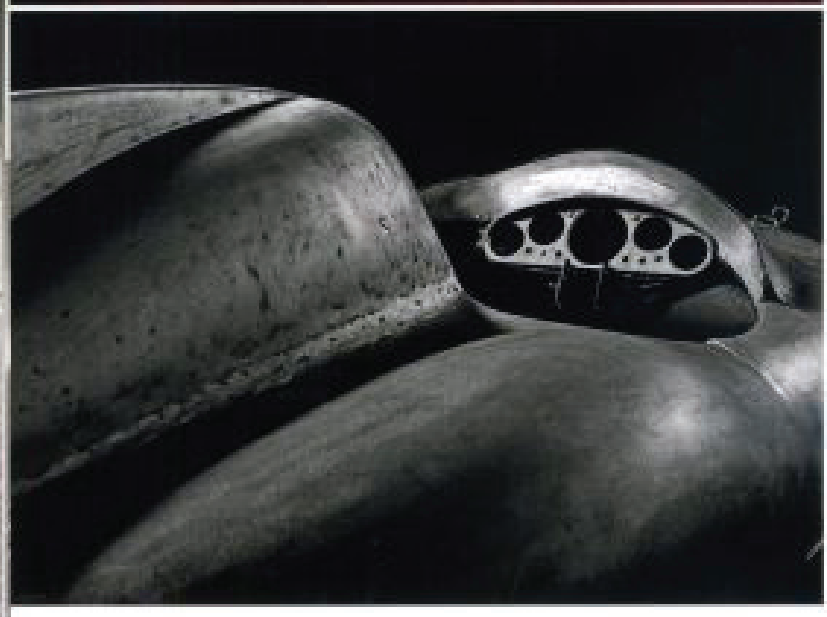
OPPOSITE TOP When the Cottinghams bought it, s/n 0588 featured a long hood scoop. ABOVE DK's restorers compare the Ferrari to period photos. FROM FAR LEFT Original owner John Edgar took this photo of the engine bay; disassembled four-cylinder; pre-restoration engine bay. RIGHT Fully restored and ready-to-race engine.



a bit of a job with those four-cylinder engines because you have to make them accurately so the four liners screw in parallel and absolutely symmetrical."

New pistons and connecting rods were also called for. Luckily, Cottingham already had these, left-over sets made years earlier when he had restored an 860 Monza (s/n 0602) he then owned. Through special order, Cosworth made the pistons, Farndon produced the rods.

The engine's main bearing shells, which are specific to the 857's four and very difficult to find, were replaced with exact-fit shells used in, of all things, SAME Deutz-Fahr Italian tractors. The original camshafts were good enough to re-profile and re-use. Replacement valve springs came from DK's stock, but new valves had to be made. "Originally, the exhaust valves were sodium-filled," says Cottingham. "We don't do that anymore, but we lightened them a bit compared to what they would have been."

Then there was the crankshaft. "One of the great things is that it's got its original crankshaft in it, which is quite remarkable," Cottingham says. "The original crankshaft was still in really good condition, hardly worn, obviously not cracked. It's an incredibly heavy thing—massively heavy."

The two twin-choke Weber 58 DCOA/3 carburetors are the same ones that were on the four-cylinder engine when Cottingham bought it, although DK had to experiment with fuel jets different than those shown on s/n 0588's factory build sheets to avert flooding. The non-electronic ignition's original distributors worked fine as-is, with decent points and condensers being ample for an engine that doesn't demand more than 5,500 rpm.

In the meantime, the engineless 857 was sent off to be stripped of paint at a nearby shop called Body Lines. When the Ferrari returned to DK, Cottingham was thrilled with its originality and overall condition. He was also intrigued by the chance to answer a question that had bedeviled historians for decades: Did or did not Gendebien wreck this car at Dundrod in late 1955?

"There were signs of big repairs under the back, beautifully done and in perfect alignment, so I am convinced that was done at the factory," says Cottingham, adding that the car's spare wheel mount support tubes had also been cut and welded, perhaps to repair roll-over damage. "And since I don't know of the car being crashed heavily at any time between '56 and now, in my opinion it was crashed by Gendebien."

During the long and intricate engine rebuild, a dummy engine of proper dimensions was fabricated from marine plywood so work in the car's engine bay could move forward. To keep s/n 0588's hot four-cylinder cool, the original radiator was retained but fitted with a new brass core. The dry-sump oil tank, long gone since the first Corvette V8 was installed, had to be made anew. Happily, there were several sources to rely upon for accuracy. Explains Cottingham, "We used the Edgar archive photographs, along with drawings I had of my old 860 Monza oil tank, and also drawings I made at Pierre Bardinon of the 290 MM tank. We just put everything together, and I'm sure that what we ended up with was either identical, or really close, to the original."

The Ferrari's independent front and De Dion rear suspension was disassembled. All of the components were stripped of their old nickel or cadmium plating, freshened and sent off for crack-checking. "All the forgings were in really good condition," Cottingham says, "with no signs of any damage, no cracks."

One stub axle had been damaged and needed to be replaced. But once again, DK had a new one in stock. "It was as though the gods were looking down on us, because that's a tough old piece to make, the stub axle," notes Cottingham.

OPPOSITE **S/n 0588's body was stripped of paint and found to be in excellent condition, aside from some Bondo: the original hood was missing, so had to be remade.**

RIGHT, TOP TO BOTTOM **At Palm Springs in 1956, Jack McMee drove John Edgar's 857 to second place in its maiden U.S. race: (l-r) David Cottingham, DK senior engineer Adrian King and James Cottingham with s/n 0588 at the 2011 Goodwood Revival: James Cottingham comfortably led his race at Goodwood, but retired the car with a few laps to go due to engine trouble.**

PHOTO BY LESTER NAKAMURA/TEXAS MOTORSPORT ARCHIVE

PHOTO BY STEVE BATTLOCK

PHOTO BY TIM SCOTT/COURTESY DK ENGINEERING

The original steering box, its date stamped as on the factory build sheet, was reused, although its internals were replaced with new components that DK had in stock. Both gearbox and transaxle were original and in good condition, as were all the wheel hubs. Two of the 16-inch Borrani wire wheels were also original, but Cottingham fitted a complete fresh set of correct Borrani RWs, shod in period-type Dunlop Racing rubber that measures 6.00 x 16 front and 6.50 x 16 rear.

Two of s/n 0588's drum brakes were in excellent condition, but the other two were cracked. Once again, Cottingham turned to his stockpile of Ferrari parts. "I had a couple of very good drums," he says. "They came with the Parravano spares."

This seems like another example of something that was just meant to be. Back in the early-to-mid 1950s, southern Californian Tony Parravano bought a number of Ferrari and Maserati racing cars and spares to go with them. When Parravano disappeared in the midst of some financial woes in 1957, the parts were sold off. Cottingham snapped them up from a later owner, and just happened to have them in his shop when s/n 0588, itself once a resident of '50s southern California, rolled in.

As the 857's restoration moved forward, more detail research had to come from photos and comparison with the other three 857 Sports. Only one qualified as correct—the first of the four, s/n 0570M, which was raced to success in period by Phil Hill. Cottingham telephoned owner Bob Dusek, an early collector of '50s Ferraris, who was more than glad to help. "Bob is an architect," Cottingham says, "and he made proper drawings of his chassis frame which showed me the positioning of the original engine mounts, so we were able to reproduce them exactly, and everything fell into place."

DK also had to re-create the dry sump oil-tank's filler neck on the right-front fender; it had been removed along with the original oil tank in the 1960s.

When the metalwork was complete, Cottingham sent s/n 0588 off to paint. While the car's original aluminum skin was quite lean in places, Cottingham decided that, rather than create new panels, the fresh primer and paint would add tensile strength to the old alloy surfaces. Local company Spray Tech painted the Ferrari inside and out. On vulnerable areas, such as the inside fenders, the shop applied a thin coat of rubberized "Stone Chip" paint.

that its rear end was troublesome. I had to wonder what its newest drivers would think.

The freshly restored 857 made its public debut at the 2011 Goodwood Revival. Two of Cottingham's sons, 36-year old James and 40-year old Jeremy, were ready to climb behind its wheel, but, says Jeremy, "We decided, because James had driven Dad's TRC extensively over the last two seasons, that we would let him drive the 857 at Goodwood." (Don't feel too bad for Jeremy; he drove his father's 250 LM instead.)

During pre-race testing, the Cottinghams struggled to get the gearbox and transaxle sorted. Then, with only two

driving cars like this, I always watch the gauges religiously, and I noticed the oil pressure was dropping slightly," he says. "So I eased off a little bit and then it started to drop a little bit more, and then I saw the oil temperature going right up. I knew I only had a lap or two left, but we'd had the engine for such a long time, and it was the key to our whole project, and it wasn't worth risking for just a chance to win."

With two laps to go, James pulled s/n 0588 onto pit road, a DNF. It turns out it was the right move. The Cottinghams later discovered that interior engine paint meant to seal the porosity of the block had not

The four-cylinder Ferrari engine packed an impressive punch: 230 hp at 5,000 rpm, with torque ranging from 225 lb-ft at an early 2,500 rpm up to 265 lb-ft at 3,700 rpm.

Dusek and his son, Rob, also got under s/n 0570 and shot pictures of everything to send to Cottingham, along with a photo of their 857's pedal mount, which had been altered in s/n 0588 at some past time. Says Rob Dusek, "We were happy to help get the car back to the way it needs to be."

Cottingham also dove back into my father's photos—"The exhaust and headers, and how the exhaust was down the side, we could never have got that right otherwise," he says—and turned to friend Franco Lombardi, who's been working with Antoine Prunet on a book about inline-engine Ferraris. Lombardi was able to find a perfect set of the four small dashboard gauges that had been lost somewhere along the way.

The car's front end showed evidence of repairs, as well as Bondo, so the aluminum was panel-beaten back into shape.

Nine months after the restoration began, the 857 was finished. Now it was time to test it on DK's rolling-road dynamometer. "The beauty of our rolling road is we can set up the air-fuel ratio perfectly," says Cottingham, "but it always tells us lower power and torque figures than anybody else's seems to. We are always ten or twelve percent shy of other people's figures."

Nonetheless, the four-cylinder Ferrari engine packed an impressive punch: 230 horsepower at 5,000 rpm, with torque ranging from 225 lb-ft at an early 2,500 rpm up to 265 lb-ft at 3,700 rpm. It's easy to see why his engine didn't need high revs to be fast around a road-race course.

In an interview years ago, Jack McAfee told me that s/n 0588 "handled great." Carroll Shelby, who won two races with the car, complained

days left before Goodwood, trouble arose with the engine; the dry sump sometimes filled up with oil, which then poured out of the breathers. This problem was still unsolved when race day arrived.

Qualifying for Goodwood's 16-lap Freddie March Memorial Trophy race went well, with s/n 0588 easily claiming pole by three seconds. The race itself, the last one of the afternoon, saw the Ferrari stuck in traffic until Lap 5, when it broke free and took the lead. "The car was brilliant," recalls James. "I had the bit between the teeth and I just went out there and gave it the message."

S/n 0588 behaved like a sure winner on track, reminiscent of some movie plot in which the comeback kid holds on and earns the laurels. But such a scenario wasn't to be. Still in front after the race's half-way mark, James noticed a small loss of power. "After all my years of

properly adhered to the interna surfaces. During the race, as the engine got hot, then hotter, enough of the paint flaked off to clog the oil sump's scavenge pump and filter. So instead of being sent to lubricate the engine, the oil was simply accumulating inside the sump. To remedy the problem, the engine had to be partially taken down again, and all the paint stripped from inside the block.

"I think it made a bit more "of a story," says James of parking the Ferrari just short of a ver sweet win at Goodwood. "It was more than just 'another victory.'"

What's next for s/n 0588? The Cottinghams plan to both vintage race and show the car, and are hoping to be at this year's Pebble Beach Concours d'Elegance. I can think of no better conclusion to the story of this historic Ferrari than a return to California, where it was sold "new" and raced so many years ago.