

CUNNINGHAM C4-RK



RE-CREATIONAL ACTIVITY

*The original Cunningham C4-RK raced at Le Mans in 1952 –
and earned huge respect. So does this sanctioned continuation*

Words Simon Aldridge Photography Simon Aldridge and Sean Smith





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s I look over this car for the first time, I'm struck by how large it is. Those 16in Halibrand wheels with their correct-profile Firestone tyres have a huge overall diameter that, thanks to the visual trick of proportion, makes the car appear smaller in photographs than in reality. The body's glasshouse is very tightly drawn, the seats are squeezed closely

together and the roofline is set as low as it can be, giving a hunkered-down look that is remarkably modern for its time.

Then there are the aerodynamic details, such as doorhandles set flush into the bodywork and painted to match. You press the leading edge, which pops out the rear edge so you can grasp it to open the latch and swing the door open. The shape of the door itself is heavily hipped, the car's flat flanks almost a foot wider than the door-glass frame. Once inside, you grab a thin tubular-steel crossmember to pull the door closed.

Once I have snaked my legs under the big wood-rimmed steering wheel and settled into the bucket seat, the cockpit turns out to be very comfortable and with plenty of room in the aluminium footwell. The glasshouse wraps around me, the central windscreen made up of a flat sheet of glass with curved Plexiglass pieces forming the corners of the canopy, like

a World War Two fighter aircraft. It feels like a roadgoing P-51 Mustang in the same way that a few years later the Jaguar D-type felt like a Spitfire, an intriguing combination of near-future and just-past for 1952. The hand-painted switchgear labels are just like the original car's and the illusion – for illusion it is – that we have motored back to 1952 is made complete by the typewritten gear-ratio cards in a vinyl folder attached to the flat black dashboard.

So, what am I about to drive? A Cunningham C4-RK. And to discover how I have come to be in this particular example, part-recreation, part-period-original in the provenance of its parts, we need to imagine ourselves at Le Mans, 1952, and the start of that year's 24 Hours.

There a crowd of 400,000 has massed, many of them eager to see how the invaders from the US will fare against the European outfits. Briggs Cunningham, sportsman and gentleman racer, is here for the third time with his all-American team, hoping for an outright win with the new C4-R roadsters and C4-RK coupe. Competing against them are Alfred Neubauer's Mercedes team with the new W194 300 SL prototypes, Ferrari with eight entrants including last year's 340 America and the new 250 Sports, Aston Martin with its new DB3s, and Jaguar with new aerodynamic bodywork for the C-type models that won the previous year.

At the starter's signal Phil Walters sprints across the track and climbs into the white C4-RK, pulling away in third place behind



his teammate John Fitch in the sister C-4R and the pole-sitting Talbot. By the time the first cars come around the final bend, the C4-RK is heading the pack. An American privateer who builds his own cars in West Palm Beach, Florida, leads the greatest race in the world against the combined might of the European works teams.

Victory will elude the team 24 hours later, but a Cunningham C4-R places fourth to beat all the Ferrari, Jaguar and Aston Martin competition. It's a wake-up call for the Europeans and a huge achievement for Cunningham, which will inspire the efforts of Carroll Shelby a decade later and culminate in a US-tinged victory for Ford and its GT40.

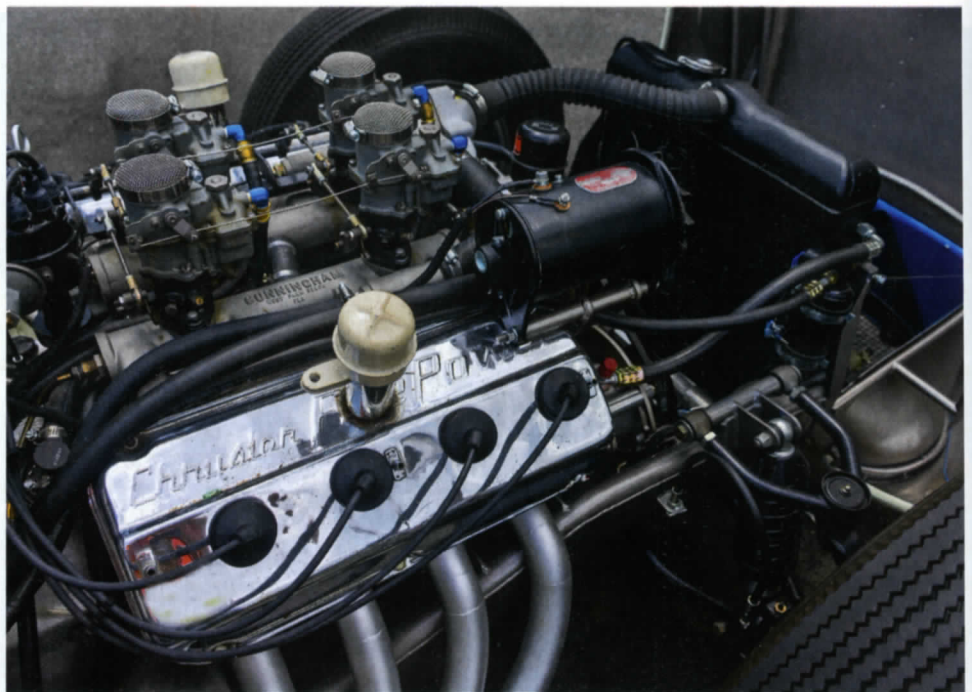
BRIGGS SWIFT CUNNINGHAM II was a sportsman of the old school, a post-war American version of the European gentleman racers of the pre-war era. Born in 1907 in Cincinnati, he was wealthy and driven to competition of all sorts, including athletics, sports car racing and yachting (he won the first post-war America's Cup in 1958). His ambition extended to an all-American victory at Le Mans, a quest that began in 1950 with a two-car entry of Cadillac-powered cars. One was a production Coupe De Ville, the other a futuristic aerodynamic wedge built by Grumman aircraft engineers out of hours, known as 'Le Monstre'. The cars finished tenth and 11th, a respectable debut.

In 1951, Cunningham brought three of his own C2-R sports racers powered by Chrysler's new 5.4-litre Hemi V8. Chrysler →



Above and top
Le Mans, 1952, and the unique original Cunningham C4-RK coupe – with aerodynamic tail by Dr Wunibald Kamm – is flanked by its roadster siblings; this Cunningham-sanctioned C4-RK continuation is equally unique.

CUNNINGHAM C4-RK



Clockwise from right C4-RK steers, rides and handles with great sweetness; 24-hour clock from a B-17 bomber; author Aldridge takes to the track; Monza-style fuel filler; four-carb Chrysler V8 is capable of 335bhp and oozes torque.

engineers had developed their first experimental Hemi engine, a V16, for the XP-47H Thunderbolt aircraft, and applied the knowledge to cars for the 1951 model year. Chrysler, sensing a publicity opportunity, happily supplied a 220bhp competition version of the new Fire Power V8 to Cunningham as part of what was, in effect, a factory effort.

Phil Walters set the fastest practice lap in the C2-R, but the cars weighed around 1400kg and their brakes wilted in the race. Walters' C2-R was the only one to finish, in 18th place, but Walters and the Chrysler Hemi had clearly showed race-winning potential. They just needed better braking for 1952.

Cunningham achieved this in three ways. The new C4-R chassis was smaller and lighter than the C2's, cutting weight to around 1100kg for the roadster version. Chrysler engineers designed new, larger, 13in aluminium brake drums cooled by transverse fins. Special wheels complemented the brake design, functioning as extractor fans with a plate bolted to their outer faces, much like those used in 1980s sports-racing cars.

The team also found ways to make the C4-R faster on the Mulsanne Straight. Chrysler supplied a more powerful V8, and lower, narrower (by 6in) bodywork reduced frontal area. Aerodynamics were taken a step further with the C4-RK coupe

thanks to Dr Wunibald Kamm, who visited the full-size clay model in March 1952. The cut-off tail is an early manifestation of Kamm's theories and later became a well-known shape in sports-car racing. Other aero improvements were a front air intake moved forwards, right into the high-pressure point at the car's nose, plus slab sides and a rear window split to raise the rear roofline. In plan, the glasshouse is curved into a teardrop shape, created with flat glass and curved Plexiglass.

The C4-RK set the fastest lap during the race, averaging 105.6mph – beating any lap recorded by the eventual race winner, the Mercedes-Benz W194 of Hermann Lang and Fritz Reiss. The coupe also achieved 150.24mph on the Mulsanne Straight, compared with 146.21mph for the C4-R roadster. During practice, however, the liners for the new brake drums had begun to crack so they were replaced with Alfin units. The five-speed gearbox failed, too, and was swapped for a three-speed unit.

In the race all three Cunninghams suffered from brake fade as the drums overheated, forcing their drivers to use the three-speed transmission to slow down and leading to over-revving. Duane Carter, having taken over from Walters, lodged the C4-RK into a sandbank on his out lap at Tertre Rouge corner and



it took him almost two hours to dig the car out. Any hopes for an overall win for the coupe were gone, its fate sealed during the night when it retired with valve trouble caused by that over-revving. The Fitch/Rice C4-R had already suffered the same fate, which left the final C4-R limping to the finish with failing brakes and a slipping clutch. Briggs himself drove a 19-hour stint in it, nursing it home to a lucky fourth place – beating all of that year’s competition from Ferrari, Jaguar and Aston Martin.

Cunningham came back in 1953 with the C4-Rs, then with four-speed gearboxes and Halibrand wheels, plus a new and lighter C5-R, but he didn’t have the disc brakes from Dunlop that he had hoped would cure his braking woes. Instead, Jaguar had intervened to prevent Dunlop from fulfilling its offer to supply the new discs to Cunningham, and Jaguar’s disc-brake-equipped C-types claimed first, second and fourth places – split by the Walters/Fitch Cunningham C4-R in third.

That was Cunningham’s high spot, for Jaguar’s new D-types were uncatchable in 1954 and 1955. Briggs then decided to stop building his own cars, because US laws at that time required loss-making companies to turn a profit within five years. Cunningham had built 36 cars in all, but only eight of those were all-out racers.

TODAY, ALL THREE original 1952 C4-R race cars are in private collections, #5217R at the Simeone Foundation in Philadelphia, #5216R and #5218R (the RK coupe) at Miles Collier’s Revs Institute in Naples, Florida. In the early 1990s, though, Cunningham enthusiast Larry Black of Seattle set about creating a faithful recreation. Seeing this proposed C4-R revival as an opportunity to honour his father’s legacy, Briggs Cunningham III invested heavily in the project.

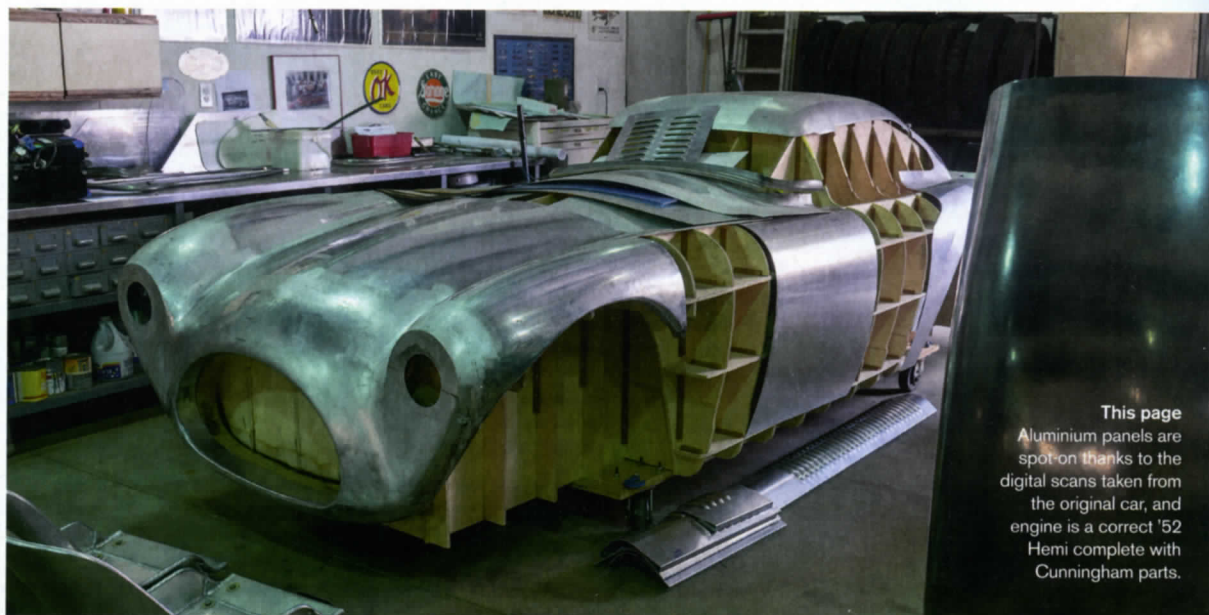
By 1997, the resurrected Cunningham operation had moved to Lime Rock, Connecticut, famous for its race circuit. With the Cunningham family behind it, the new C4-R became a true ‘continuation’ of the original design and was designated as such. Veteran Cunningham team drivers John Fitch and Phil Walters helped hone the prototype, ensuring the car’s performance and handling would impress journalists and delight enthusiasts. Only four C4-R continuation cars were completed at that time under the auspices of the Cunningham family. A fifth, based on an original Cunningham C3 chassis, was built by Jim Stokes Workshops for an English collector in 2012.

The car you see here, which I am about to drive, is the first of the Cunningham-sanctioned continuations – possibly the prototype. Its chassis is numbered R5219; the 1952 cars had →

CUNNINGHAM C4-RK

'It took years to source all the componentry, ranging from Halibrand wheels to the 24-hour clock from a B-17 bomber'





This page
Aluminium panels are
spot-on thanks to the
digital scans taken from
the original car, and
engine is a correct '52
Hemi complete with
Cunningham parts.



the R added after the four digits, ending with 5218R, and the continuation cars are numbered R5219 to R5224. Current owner Chuck Schoendorf, a well-known Cunningham collector, acquired it in 2012. He was touring the old Cunningham family garage in Greens Farms, Connecticut, with Briggs II's wife Lucie, and found the chassis under a tarpaulin.

It turned out to be another C4-R continuation chassis, bearing the lowest of the continuation numbers but never built up into a complete car. Chuck also happened to have a 1952 Chrysler Hemi engine incorporating 1952 Cunningham team parts, just like the ones in the original C4-Rs. So a plan was formed with Lucie Cunningham to unite the chassis and engine and build a C4-RK continuation, as none existed.

Don Breslauser of Salisbury, Connecticut – just a few miles from the Cunningham continuation operation's site in the 1990s – masterminded the build. Miles Collier allowed a complete computer scan of the body from the original C4-RK, enabling a wooden body buck to be made over which Mark Barton at The Panel Shop in Stratford, Connecticut, artfully formed new replica body panels in aluminium. Details such as the mesh grilles on the flanking vents, white on one side and black on the other, were faithfully copied. The uneven panel gaps and heavily chipped paint of the original were not.

It took years to source all the period componentry, ranging from a correct set of Halibrand magnesium wheels to the 24-hour dashboard clock from a World War Two B-17 bomber,

the latter found by Chuck on eBay. Many parts, such as the steering wheel, were custom-fabricated according to photographs and inspections made of the original car. Sadly, Lucie died in 2012 at the age of 104, but Chuck carried on until the 'new' C4-RK was finished in 2018. It was just in time for the Cunningham 60th Reunion, held in June at the Greenwich Concours d'Elegance in Connecticut.

Since then there has been a sorting-out programme, including moving the pedals around and adjusting the cooling. Chuck is keen to let me experience his creation, which he says is remarkable fun to drive. I've driven a 1951 Cunningham and already know that the Chrysler motor is absolutely epic – characterful, flexible and seemingly unburstable, with a surprising willingness to rev. It's an engine that can benefit from modern tuning, but Chuck has kept this one to the team's 1952 spec, which includes four Zenith downdraught carbs on a custom Cunningham sand-cast aluminium manifold. It's been tested on the dyno and produces 335bhp at 5200 rpm. That's impressive for 1952.

THE 5.4-LITRE V8 is already running so, once I have fastened and adjusted the aircraft-style belts I push in the clutch, slot the gearlever into first, give it just a hint of revs and try to ease away, thinking that this big engine in a light car will pull away almost from idle. Not so; this is a race-tuned motor that needs some revs, and the competition clutch has a sharp uptake →



Cunningham C4-RK continuation

Engine 5426cc OHV V8, iron block and 'hemi' heads, four Zenith downdraught carburetors
Power 335bhp @ 5200rpm **Torque** 350lb ft (est) **Transmission** Five-speed Tremec manual, rear-wheel drive **Steering** Rack and pinion **Suspension** Front: double wishbones, combined coil spring and adjustable damper units. Rear: live axle, paired parallel trailing links, Panhard rod, combined coil spring and adjustable damper units **Brakes** Vented discs
Weight 1300kg **Top speed** 150mph (5000rpm in fifth gear) **0-60mph** 6sec (est)

despite its long pedal throw. I try again, and with a heavier blip of the throttle we are rolling.

Short-shifting up through the gearbox I notice that the gate is very compact and the action precise. The whole car feels all-of-a-piece, with no rattles or shakes from the structure, and the ride over bumps is unexpectedly good. The real revelation, though, is the steering, which is very light and accurate even by modern standards. The country roads up here in Connecticut are picture-perfect and made for driving fabulous cars, with long straights, well-sighted curves and hardly any traffic. But they suffer through the long New England winters, and are bumpy and scarred. The Cunningham floats over these roads with an imperious sense of purpose, and no trace of bump-steer or kickback. The suspension and steering geometry feel thoroughly sorted; given that John Fitch and Phil Walters developed the chassis on these very roads, this should come as no surprise.

Having driven various examples of 1950s machinery myself on these roads, including Jaguar XK120s, a D-type and a Cunningham C2, I'm surprised at how good this particular Cunningham is. I wonder, too, if the 1990s chassis is flattering the car by feeling more modern than an original. Fortunately, Chuck owns a few other Cunningham road cars. So when I try out a standard C3 road car later, which has very similar front suspension components and steering geometry, I am equally impressed by the roadholding, handling and – particularly – the steering. Clearly Cunningham had a great chassis and steering set-up back in 1952.

The C4-RK generates perfectly the sense of occasion that comes from sitting in a purpose-built Le Mans machine, with scoops and vents all over its bodywork, even if this particular one never actually raced there. The view from the driver's seat and the sound of the Chrysler V8 make you feel as Phil Walters must have felt as he drove into the lead in 1952. I was expecting the drive to be dominated by that remarkable engine, but the chassis handles the power easily. That, plus the long-legged gearing and the arrow-straight tracking, give the Cunningham the feeling of indomitable progress that you need to win Le Mans. After test-driving a C4-R in 1953, Rudolf Uhlenhaut, the legendary Mercedes-Benz engineer, said: 'That's the safest-handling racing car I have ever driven.'

CLOSING UP HIS shop at West Palm Beach was difficult for Briggs. After five years he'd lost his business status, and with it the ability to use his losses for tax-filing purposes. Continuing to operate would become much costlier, and he chose not to. Nevertheless, with 'one rather fragile dynamometer' (as John Fitch described it), a crew of 40 men and a lot of his own money, Briggs Cunningham had proved that America could be a contender in International sports car racing. One man's dedication, enthusiasm and resources came close to winning Le Mans. Now, thanks to one dedicated enthusiast, the design that arguably got him closest to his goal is back on track. **End**

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