

LIGHT ENTERTAINMENT

Racebred but a riot on the road, Alfa Romeo's stripped-down and muscle-bound GTA Stradale is perfect proof that less definitely can mean more

WORDS Robert Coucher // РНОТОGRАРНУ Tim Andrew



58 MAY 2013 OCTANE

FEATURE GTA.indd 58-59

IT ALL BEGAN with a colossal shunt. In true Italian style, a drama turned into an opportunity and then into one of the best-loved and most successful Alfa Romeos of all time: the Alfa Romeo Giulia Sprint GTA.

The original 'step front' Alfa Giulia Sprint GT, penned by the young maestro Giorgetto Giugiaro at Bertone, has always looked right. Square-edged enough not to render it dainty, the diminutive coupé is beautifully balanced and totally fit for purpose. It is neat and tidy and you can tell it is going to be a ball to drive hard.

And this special GTA – A for *Alleggerita* or 'lightened' – version by Autodelta, being a 1966 1600cc model, is even better looking than the usual Sprint GT. It's even leaner, painted in AR501 *Rosso Alfa* (the only alternative was AR013, *Bianco Spino*), sitting on fat Campagnolo-style alloys, with a minimal grille treatment, delicate doorhandles, and wearing light stick-on *Quadrifoglio* decals with pride. Owner Richard Norris is rightfully smitten with his rare GTA Stradale.

OCTANE MAY 2013 59







Above and right Alloy panels, no bumpers and lightweight alloy wheels – though these are replicas, as the originals are porous; simple interior features hardboard dash panel. It's still elegant. Richard has owned Alfas since he was 18 years old and he now runs Classic Alfa, the company that specialises in supplying Alfa parts all over the UK, Europe and the rest of the world. His grandfather was Sid Greene who owned the F1 racing team Gilby Engineering, and his uncle Keith Greene was a GP racer and managed the Brabham F1 Alfa team. Naturally Richard knows his Alfas extremely well and rates the GTA as one of its all-time greats.

'Like most desirable classic cars, GTA prices have rocketed recently and well-prepared race cars start around £120,000. The roadgoing GTA is named Stradale, while the race-prepared car is a Corsa. Road cars are very difficult to find and value as they so seldom come up for sale,' says Norris. 'All GTAs are in huge demand because they are so usable and they make superb historic race cars, the upshot being that most have been converted to stripped-out full race cars, so finding a Stradale in original condition like this is rare, especially in righthand drive as only about 50 were ever constructed. The bottom line is that it probably carries a premium over a race-converted GTA.'

So back to that shunt. It happened a long time ago, in 1956 on the Mille Miglia. Carlo and Dore Leto di Priolo had borrowed brother Massimo's new Alfa Giulietta Sprint Veloce and comprehensively stuffed it! Once all the shouting and screaming subsided at the Leto di Priolo household, the brothers decided to fix their *problemo* in the time-honoured way - by throwing lots of money at it. Not being short of a few lire they popped down to the local chop shop, Carrozzeria Zagato, and asked for a new, lightweight aerodynamic body to be fitted. The finished car, which became known as a Giulietta Sprint Veloce Zagato, weighed just 750kg. Massimo sensibly decided to race the car himself at the Coppa Intereuropa in Monza on 2 September 1956 and won his class. Zagato immediately received another 20 orders for the good looking and effective SVZ.

Alfa Romeo took note and realised the SVZ was faster than its own Giulietta Sprint Speciale, so signed a contract with Zagato to produce what became the SZ in 1960. Special lightweight Alfa Romeos were starting to be incubated by specialist race-prep teams...

In 1963 the Autodelta company was founded by Carlo Chiti and Ludovico Chizzola. They had met while working at Ferrari and both had worked at Alfa. They left Ferrari in 1961 (in the 'palace revolt') and Chizzola went off to start a race preparation workshop, while Chiti created ATS backed by Count Volpi, but that didn't last long. Alfa Romeo soon realised Autodelta was rather good at race preparation and handed over most of its racing cars, and the result was a string of victories. (We won't go into the lovely TZ and TZ2 here.) In 1964 Alfa Romeo effectively bought Autodelta and moved it to Milan to be near its HQ.

Having relinquished F1 racing after two wins in 1951 and 1952, Alfa Romeo had started concentrating on Saloon Car racing, which originated in England. Alfa Romeo was now building affordable saloon and GT cars, so the 'race on Sunday, sell on Monday' approach appealed. The foursquare little Giulia saloon was race-developed and did well but, even though it shed 100kg in Giulia TI Super guise, it was still too heavy against the all-conquering Lotus Cortina. But the Giulia Sprint GT was to become the answer to the Cheshunt flyer.

In 1964 Carlo Chiti started development of the Giulia Sprint GT, supported by Orazio Satta Puliga of Alfa Romeo, in the quest for a lightweight racer to contest Group 2 in the ever-popular Touring Car series.

And on 18 February 1965 the first Giulia Sprint GTA Stradale was unveiled at the Autosalon in Amsterdam. It was followed by a GTA 1300 Junior in 1968 and then the 1750/2000GTAm. At first glance the GTA looked little different to the standard Giulia apart from the simplified grille, minimal door handles and *Quadrifoglio* decals on the front wings. On closer inspection you will notice the pop rivets that run the length of the roof in the rain gutters. The outer skin is made entirely of Peraluman 25, a light alloy consisting of aluminium, magnesium, manganese, copper and zinc.

Peraluman is delicate so the car's substructure remained steel, including the sill panels. However, the bonnet and bootlid were made entirely from alloy, and the rear inner panel support and spare wheel well were also lightweight, along with the dash and parcel shelf support panels and the rear seat support. Peraluman floor centre sections were available to special order for a while. No wonder the GTA was so expensive when launched.

Lightening continued with minimal sound deadening, Perspex side and rear windows on Corsa cars, lightweight window winding mechanisms, front bucket seats and a slim rear seat. The lovely drilled, wood-rim steering wheel by Hellebore completed the race-car look and the result was a loss of 205kg for a dry weight of just 820kg. The GTA's effectiveness was proved when it became the first Touring Car to lap the infamous Nürburgring Nordschleife in under 10 minutes.

Alfa Romeo really started to focus on the Group 2 series but in order to compete it had to manufacture 1000 examples of the model. The Stradale version helped in that regard, being manufactured on the Arese assembly line. Complete GTAs were then taken from there to Autodelta, where they were disassembled and race-prepared. Exact specs were determined by the teams purchasing them and included adding an oil cooler and fitting a deeper sump, →







Above Quadrifoglio stickers and those minimalist doorhandles are the giveaways when you can't see the badge. In racing trim, the Alleggerita weighs 205kg less than a standard GTV.

polishing and porting work to the twin-plug heads, higher-compression pistons, high-lift cams, lightened flywheels and fine balancing, upping the GTA Stradale's output from 115 to 150bhp and later 175bhp. A limited-slip differential was standard but a special slidingblock rear axle locating system could be specified. Front suspension was modified with adjustable top arms to allow more negative camber for increased front-end grip.

At the start of the European Touring Car Challenge racing season at Monza on 20 March 1966, Alfa Romeo GTAs, against the might of BMW, Ford, BMC and Lancia, took the first

seven places. Andrea de Adamich/Zeccoli won and set the fastest lap. And this was followed by a win at the Nürburgring 6 Hours in July. At the end of the season Andrea de Adamich won the Division 2 drivers' title ahead of Sir John Whitmore in the Cortina and Alfa Romeo won the manufacturers' title. Over in America Jochen Rindt won the SCCA Trans-American Sedan Championship race at Sebring. And many more victories followed.

Richard Norris's GTA, chassis number 752520, has had an interesting and wellrecorded history. Extremely original, with just half-a-dozen owners, it has never been raced

and Richard was involved in finding the car and its subsequent restoration some 20 years ago. The first owner in 1966 was a member of the Rothschild family.

You know what they say about having too much money? The original owner bought what was then a lightweight, carefully engineered racing car for the road and subjected the Italian beauty to a... Radford conversion! That's like ordering a rucola e parmigiano insalata and smothering it with roast grouse and all the trimmings. Harold Radford & Co was a purveyor of Rolls-Royce and Bentley motor cars that specialised in

62 MAY 2013 OCTANE

bespoke coachwork. Initially famous for the Bentley Countryman, Radford conversions of dubious taste were then applied to hapless Minis of the 1960s, resulting in the Grande Luxe Mini de Ville. No doubt, as this was the Swinging Sixties, Rothschild thought this would be a good thing for the Alfa GTA. Really. The red Stradale was resprayed dark blue. Square Renault Cibié headlamps were frenched into the front grille and the lovely, delicate Autodelta doorhandles were swapped for standard Alfa items. The lightweight trim was replaced with big heavy seats, including a large, overstuffed Cleopatra chair in the rear. \rightarrow THE ALFA 105s

The GTA was a road car before it went racing. Meet the family



Giulia saloon

Launched in 1962 and immortalised as the police cars in The Italian Job. Boxy shape was actually designed with aerodynamics in mind; spec featured disc brakes and five-speed gearbox Produced up to 1978; rare 1600TI sought after.



Giulia Sprint GT, GTV and Junior Debuted in 1963, with subtle vet elegant bodywork by Giugiaro at Bertone. Road car offered as 1300, 1600, 1750 and 2000, with only small changes made in its 14-year run. Also built as the convertible GTC. 1000 of these from 1964 to '66.



Zagato coupés

TZ and TZ2 launched on tubular chassis ('T' for tubolare) with shortened Giulia wheelbase and tuned 1570cc engines; 170 built during 1963-66. Junior Zagato (above) was a lightweight coupé on Spider underpinnings; 1520 built 1969-75.



Duetto/Spider

Round-tail Duetto launched in 1966, though not badged as such and renamed Spider after 18 months. Kamm tail arrived '67, plastic bumpers from '83 new interior from '86, S4 with altered nose and tail '89-93. Engines 1300-2000cc.



ALL THE GTAs

Autodelta evolved the GTA to ensure it remained a giant-killer



The first GTA was a lightweight version of the Giulia GT, featuring a 1570cc twin-plug engine. In Stradale guise the 9.75:1 engine produced 115bhp but this was soon increased to 130bhp and finally 175bhp with the 11:1 high compression head in the trick Autodelta works Corsa cars.

In September 1966 Alfa introduced the 1290cc GT Junior to beat the Italian tax on engines larger than 1300cc and it became the best seller of the range. Autodelta launched its Tipo 105.59 GTA Junior in June 1968 and got power up to 160bhp at 8300rpm. Multiple race victories followed.

The 1750GTV of 1968 was homologated as Tipo 105.51 GTV America with Spica fuel injection. Some say GTAm stood for GTA maggiorata (Italian for 'increased') and the GTAm, weighing 920kg and using no Peraluman skins, was not alleggerita in any way. It was, in fact, a GT America. In ultimate spec it cranked out 220bhn

It remained in this ignominious state until the 1980s, though ironically this treatment probably saved it from becoming a club racer and being thrashed to death. The GTA was rescued in 1992 by Alfa enthusiast Ron O'Connor with a lot of help from Richard (as Ron was unwell in hospital during the restoration) and returned to its proper GTA Stradale spec by specialist Bob Dove. Richard bought it from Ron's widow in 2005.

'The car has never needed major restoration due to rust - the steel monocoque was in good original condition and the cosmetic Radford alterations were easily rectified. Body-wise it was just a question of cutting out small areas stripping old Alfas for spare parts for his own where the alloy panels have an electrolytic reaction with the steel underneath. Finding the original dark grey perforated lightweight seats operation of today. was not easy but fortunately I managed to swap a close-ratio GTA gearbox with someone who was stripping the interior out of another right-hand-drive GTA to go racing.'

Before Octane's studio shoot, I had taken afternoon with Richard and the GTA. His impressive Classic Alfa facility is housed in a parts and supplies for older Alfa Romeos, with a seven-man team providing a knowledgeable, efficient next-day service. Richard used to have a real job, being a sound engineer and producer for musicians including Bryan Ferry and film composer Craig Armstrong. Back in the early 1990s, as an amateur enthusiast, he started

'LIFTING THE BONNET REVEALS THE TWIN-PLUG. TWIN-CAM HEAD FITTED WITH DUAL 45 WEBER **CARBURETTORS WEARING CORSA INLET TRUMPETS**

restorations and his hobby has subsequently evolved into the professional Classic Alfa

Ensconced in his workshop, the GTA looks diminutive and purposeful. It is clean and tidy but no show queen. Richard has removed the bumpers because he likes the pure look. It wears the famous *Quadrofoglio* decals on the the train down to Croydon and spent an wings and rear panel. The car sits on desirable, chunky magnesium Campagnolo wheels. Except they are not - Richard shows me the smart industrial estate and holds 8000sq ft of original 6in mags piled in a corner. They are pitted and he is not happy running the car on 47-year-old rims that may be porous so he has fitted a set of his remanufactured alloys. 'They have been double-sandblasted to look like the roughly finished originals,' he points out.

> The purely functional interior is of dark grey perforated vinyl, the light bucket seats are tight and the dash, which is of a lightweight hardboard, houses Veglia instruments including oil pressure and oil temperature gauges. The revcounter runs up to 8000rpm!

> Lifting the bonnet reveals the twin-plug, twin-cam head fitted with dual 45 Weber carburettors wearing natty Corsa inlet trumpets. In stock trim the engine produces 115bhp at 6500rpm. The racing 1600cc Autodelta Group 2 engine produced 170bhp and, amazingly, the short-stroke 1300cc GTA Junior Group 2 engine developed 135bhp at a heady 8000rpm (the 2.0-litre GTAm Group 2 engine with fuel injection managed 220bhp).

> Richard points out the narrower GTA radiator, to make room for the oil cooler and to allow better airflow to the carburettors. Also noteworthy is the deeper magnesium sump to increase oil capacity. There were two further depths of sump available to order for race cars. There are also a lightweight magnesium valve cover and bellhousing, and the gears are drilled and mounted on hollow shafts in the gearbox. At the rear the normally heavy Sprint GT T-arm that locates the rear axle is cast in aluminium and the halfshafts are hollow. All indicative of clever racing car development and weight reduction.

We hop into the GTA and Richard drives it out of the city, carefully warming the alloy \rightarrow





64 MAY 2013 **OCTANE**



'THE GTA IS MORE THAN THE SUM OF ITS PARTS. CHITI STARTED WITH A WELL-BALANCED MACHINE, THEN DEVELOPED IT WITH FANATICAL ATTENTION'

engine as we go in search of backroads. Then it's my turn to have a drive. The delicate door catch reminds me of a Ferrari Dino's as the light door swings open. The bucket seat is low and snug. The engine fires and emits that lovely Weber gurgle, but the Alfa needs revs to pull away as the carbs are not happy below 3000rpm. Visibility is excellent as the 'box snicks up through the tightly stacked ratios into fifth gear. Meanwhile, the suspension is pliant but controlled and the GTA feels light and nimble but not nervous.

As the lanes open up the Alfa comes alive, the worm-and-roller steering proving light and accurate. It leans quite a lot into corners, but once you have chosen your line the GTA just stays on it. Original Dunlop disc brakes were criticised and many have been replaced with later ATE brakes, but these are perfectly effective on the road.

'You really notice the GTA's light weight at a track day,' says Richard. 'You can brake later into the corners and carry quicker cornering speeds and the car is just that much more reactive than a standard GT.'

The Alfa GTA is a sports car that is more than the sum of its parts. Chiti was a very clever engineer. He started with a compact and well-balanced machine, then set about developing it with fanatical attention. The tough and reliable twin-cam engine is enlivened with the twin-plug head, while all the lightening work has reduced mass where it simply is not needed.

The GTA excelled in tough long-distance Touring Car racing, garnering respect as a 'giant killer', and this Alfa Romeo GTA Stradale is a tremendous combination of a carefully developed racing car that is really usable on the road. The engine really wants to rev and just gets smoother towards the top end whilet emitting a hard, staccato rasp. All the controls are beautiful to use when pressing on and the handling is benign and flattering.

The Alfa GTA looks fabulous, but it is even better to drive.

THANKS TO Richard Norris of Classic Alfa, +44 (0)20 8679 0707, www.classicalfa.com.





1966 ALFA ROMEO SPRINT GTA STRADALE

ENGINE 1570cc four-cylinder, DOHC, twin plugs per cylinder POWER 115bhp @ 6500rpm TORQUE 110lb ft @ 4000rpm TRAMSMISSION Five-speed manual, rear-wheel drive, LSD STEERING Worm and roller SUSPENSION Front: double wishbones, coil springs, telescopic dampers, anti-roll bar. Rear: live axle, radius rods, A-bracket, coil springs, telescopic dampers BRAKE Discs WEIGHT 820kg PERFORMANCE Top speed 120mph. 0-60mph 8.5sec





DELIVERING THE GOODS

Class wins all around the globe pale into insignificance next to four European Manufacturers' Championships



Top and above The Brescia Corse Alfa GTAJ of Uberti and Zeccoli at the Ring 6 Hours in 1970 ndrea de Adamich on the limit at the 1966 Budapest 4 Hour Grand Prix having already secured the ETCC drivers' crown. The car is currently being restored by specialist Alfaholics

DESPITE BEING INTRODUCED at the February 1965 Amsterdam motor show, the GTA was relaunched at the '66 Geneva Salon and, about two weeks after, its first race results were obtained when, on 20 March, de Adamich and Zeccoli brought their example home to win the European Touring Car Monza 4 Hours race.

A week later, on the other side of the Atlantic, a GTA that had been crashed in practice by Bussinello was rebuilt and entrusted to up-and-coming F1 and F2 driver Jochen Rindt, for the 4 Hours at Sebring. Despite nine large-capacity cars ahead on the grid, including AJ Foyt's Mustang, Rindt won by a lap from the Tullius/Adamowicz Dodge Dart. Other GTAs followed in third, fourth, fifth and eighth.

Monza was the first race of four European Manufacturers' Championship-winning years for the car. In the US TransAm series, in the hands of men such as Horst Kwech, they were also very quick class winners.

The results continued with wins at the Nürburgring 6 Hours Touring Car round of the European Championship, the Snetterton 500Kms and a 1-2-3 at the daunting Budapest street circuit, where Pinto beat Zeccoli and the Belgian Serge Damseaux.

To prove its versatility, a GTA in the hands of Jean Rolland won the Coupe des Alpes rally and later took many second places in '67 championship rally events.

For that year, Porsche 911s were admitted to Touring Car Racing and, although they took many outright wins, GTAs won the Tourist Trophy at Oulton Park and, again, the Nürburgring 6 Hours, plus many class wins.

Meanwhile, a supercharged version was introduced in '67 and a 1300GTA debuted in '68. While the factory Autodelta GTA team was racking up class wins and taking the European Touring Car Manufacturers series once again in 1968, in virtually any country that held motor races the model was doing the same. However, the cars were intended for long-distance events and were very expensive in the UK, so conservative racers here went for home-bred machinery. It must also be recorded that UK racer Rhoddy Harvey Bailey piloted works GTAs - there's more about him on page 68.

To keep the cars at the front of the grids, a developed version, with 2.0-litre injected engine and wider track, was introduced for 1970/1 and this was called the GTAm. They continued winning races, especially at Monza and the Nürburgring 6 Hours in 1970, with Hezemans winning the ETCC Drivers' title in '70 and helping Alfa win the Manufacturers' title in '71 before new kids on the block, Ford with the Capri and BMW with the CSL, took over at the front. Peter Collins



LONG AFTER his retirement, 72-year-old Arnaldo Tonti (above) remembers the numbers he used to get the GTA engine's timing just right. He worked at Autodelta, which had been the racing arm of Alfa Romeo since 1963. 'My timecard said I was employee number

28, hired in the summer of 1966, soon after Autodelta moved from Tavagnacco di Udine to Settimo Milanese. I remained a mechanic,

For a selection of Alfa Romeo specialists, see page 237

68 MAY 2013 **OCTANE**

FEATURE GTA.indd 68-69

THE MECHANIC'S VIEW

Arnaldo Tonti tells Massimo Delbò about life as part of the team that honed GTA engines to race-winning perfection

> ending up in the F1 department, until Fiat purchased Alfa Romeo and engineers from Turin arrived. When they started to report that alloy engines were too expensive to build and that our way of working was too high-quality and racing was not interesting, I quit,' he says. Aged 14, Tonti started work as a mechanic at motorcycle company Rumi. At Autodelta (pictured below) he assembled racing engines for the TZ and the GTAs.

> 'They were exactly the same, very Giulia. 1.3 to 1.6, the narrow head and the twin-spark followed by the injection one, they changed very little. Each mechanic had their own engines and was responsible for everything about them – we never allowed someone else to touch them. There was a fantastic friendship between us, but an engine was your own "son" and there was a bit of competition for the test-bed results. The rule was very simple: the maximum tolerance accepted from the intended final output was of 2-2.5bhp. More than this and the engine was discarded.

Every mechanic had his own way of working and many said they could distinguish their engines from all the others. 'It's true,' says Tonti, 'I could recognise mine. Not from the outside, but if you gave me a little time and the chance to open up the engine, I could recognise my work. The real secret was the cylinder heads. We received them from Alfa Romeo and we reworked the internal channels. Everything was done by hand, and the gasflow could differ guite a lot according to the smoothness of your work. The output did not change a lot, but torgue and guickness of revving were affected much more.

'Normal procedure was to balance the pistons and match them to the cylinders, the crankshaft with the connecting rod - every single one had to be balanced in weight with a tolerance between them of 0.05 grams - and the reworking of the internal channels and their polishing. We did not have a lot of time to spare: ten days to finish from scratch five engines was the rule, but if something went





wrong you had to fix it in time. I can't remember how many nights I spent working, but we had so much passion that we didn't feel the need to sleep.'

The GTA, since its very first race, was always the car to beat. What was its secret?

'There were many. The car had the perfect balance between a very good chassis, with a very low centre of gravity, and a very strong, powerful and reliable engine capable of lasting through qualifying, the race and some hours of testing. The Autodelta idea of the slittone ["big sledge", or sliding block] for the rear suspension was a piece of engineering art: lowering the car made it much quicker and more stable in the corners and gave the GTA the characteristic raised front wheel. The engines were capable of 6800/7000rpm and gave enough output to win, and the final result was the European Championship for seven years in a row against the Fulvia and, with the 1.6-litres, against the Capri with the 2.8- and 3.0-litre engines.'

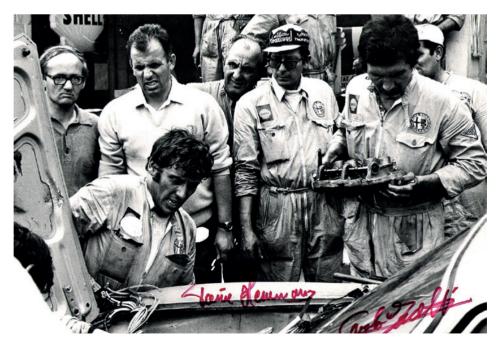
What about the drivers? 'The best drivers were racing for us, so they were all good!'

At this point Tonti stays silent for few seconds, sighs, and then... 'But of course, as the mechanics, we knew very well who was respecting the car most. Toine Hezemans was very fast but he was one who calculates everything. A kind of Lauda: no thrills and frills, but very effective. A car after a race with him was still as-new. The opposite was Enrico Pinto, he used everything and more. Once, during the Spa-Francorchamps 24 Hours, he broke the seat rails. He was heavy and big, and we had to strap in a wooden fruit box as a seat for the last laps. If I had to choose the best drivers, to me they were Ignazio Giunti, Andrea de Adamich and Nanni Galli.'

Reliability was one of the key features of the GTA's career. 'Back than we did not have any clue what was happening on the race track, other than reports from the drivers,' says Tonti. 'Once in a while an engine exploded, and of course the burden of the fault was always on our shoulders. Then we put a telltale needle on the revcounter, and discovered that drivers were jumping the gears while braking: fifth to first or second was guite normal, and overrevving was the main cause of engine failures. Once we saw the needle at the end of the scale... a fantastic 13,000rpm! But the engine was very strong. The weakest point was the very thin space between the cylinders, so thin that sometimes it simply did not last the whole race, and water entered the cylinder. But reliability was never a big issue. Sometimes emergency repairs were needed, as when a broken windscreen wiper motor meant we had to strap a cord between the doors and the driver had to pull to wipe. I wonder what a marshal would say about that today.'

And what about Chiti? 'Carlo Chiti was the father of the GTA; he thought of everything on it. Chassis, set-up, engine, everything was imagined by him in person, most of the time without drawing up a technical sheet but simply in the workshop or on location. He was always there. During race days he was sleepless, always in the pits looking at and listening to what was going on. He was a very strong chief, but a fantastic human being. If you were not doing your job well, you were in deep trouble, but if you had a personal problem, he would kill to help.'

How would you define the GTA? 'It was normal in the workshop to ask where we were supposed to go "winning" next time, instead of "racing". And that says it all.'



Tonti kneeling to change a stuck valve at Spa-Francorchamps. The rules allowed a 31-minute pit stop; it was done in 27!



THE BRITISH RACER

RHODDY HARVEY BAILEY was a works driver for Autodelta and enjoyed racing Alfa GTAs in the 1960s and 1970s. He raced and tested many other marques and is a suspension-tuning guru, setting up the legendary Harvey Bailey Engineering company.

'I started driving an Alfa GTA here in Britain for privateer Derek Morley and we did quite well. Autodelta sent a mechanic over to fit some of the specialised components like the rear axle's sliding block. This makes a significant difference because the sliding block properly locates the live rear axle laterally, controlling rear-end steering.

'But, as with all things that slide and depend on lubrication, the sliding block could begin to bind. This could exacerbate the cocked-front-wheel cornering antics. I remember oversteering through Corum corner at Snetterton, lap after lap, with the inside wheel in the air.

'I went over and tested in Italy with Autodelta and got a works drive. I was the only Englishman racing for them and I won my class in the Autosport 500Km at Snetterton in '68. Five cars were supposed to come over from Italy but due to some complication or other only one arrived on the back of an open trailer. It was absolutely filthy but the mechanics didn't seem to worry. They were only interested in the way the Alfa performed. I eventually persuaded them to at least give it a wipe over. Recently I saw a line-up of GTAs at an historic race meeting and thought they looked different. Then it struck me: they were all immaculate.

'All the factory cars raced in left-hand drive. I like them because you are sitting in line with the wheels doing the work [most circuits run clockwise with righthand corners]. But the problem with the GTA is that the battery is mounted on the left-hand side at the front and the fuel tank is mounted left at the back, as is the driver and the steering column and instruments, so all the weight is in a line down the left-hand side of the car. For that reason, a right-hand-drive GTA rolls less with lateral load.

'I suppose I am fortunate because I can feel that sort of difference. I am no engineer but I can drive a car and understand what needs to be changed to improve its handling.' **Robert Coucher**