



A diamond day for British F3

British F3 is celebrating its 60th birthday this year, so we had a special track test at Brands Hatch. *BEN ANDERSON and MARCUS PYE* joined in the fun

British Formula 3 is 60 this year. Well, 60-and-a-bit really – the F3 name was attached to the 500cc movement born soon after the second world war. But the first F3 championship in Britain took place in 1951, so it's indisputably a sexagenarian.

From humble, low-cost, post-war amateur beginnings, F3 has evolved into the hi-tech, mega-bucks, F1 training ground of today thanks to six decades of constant development.

British Formula 3 is part of the motorsport furniture – the favoured son of grand prix racing, a place where many of the most able practitioners of our sport have cut their teeth and honed their craft.

After its beginnings in the UK, it spread worldwide: Moss, Mansell,

Stewart, Senna, Piquet, Prost, Hill, Hakkinen, Button, Brabham, Hunt, Hamilton, Scheckter, Schumacher have all passed through F3 on their way to the pinnacle.

Sixty years of nurturing talent is worth a celebration – and what better way than getting (most of) the old family back together for a reunion?

From the early 500cc motorbike-engined machines of the 1940s and '50s, to the high-downforce Dallaras of the now, via the one-litre 'screamer' era of the '60s, AUTOSPORT (with a little help from the Historic Sports Car Club and other friends) decided to bring together a selection of cars from the six decades of Formula 3's life for a special track test.

We didn't get them all (the Ralts that prevailed and dominated for much of

the '80s and early '90s were missing, and we ignored the Formula Junior years of 1959-63), but birthday parties always suffer a few no-shows!

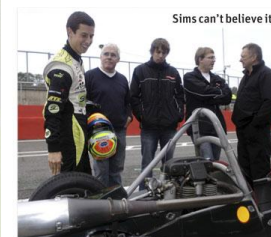
We also decided we needed a top 'entertainer' to keep the guests amused during our Brands Hatch-hosted bash. Step forward 2008 McLaren AUTOSPORT BRDC Award winner Alexander Sims – a man who wasn't even born when most of our cars were doing their thing in period, but equally someone who has been one of the top drivers in F3 these past two seasons.

Here's what happened when one of Britain's best junior racing drivers got acquainted with the history of motor racing's most significant junior single-seater category. Happy birthday Formula 3! Now blow out the candles and make a wish...

COOPER MKVIII



TECH SPEC
MAKE/MODEL/YEAR:
COOPER/T38 MkVIII/
1954
CHASSIS:
Tubular steel, curved
DESIGNER:
Owen Maddock
ENGINE:
1959 Manx Norton
single-cylinder
499cc
POWER OUTPUT:
51bhp on methanol
GEARBOX:
AMC Dominator,
4-speed, chain-drive



Sims can't believe it...



...but gets under way

Our story begins with the Owen Maddock-designed Cooper T38 MkVIII, a hallmark of the category's early 500cc era and the car in which Sir Stirling Moss first rose to prominence.

The 500cc movement galvanised would-be racers post World War 2, and Cooper was in at the start. Built around Fiat Topolino front-suspension units, the first eponymous '500' from father and son Charles and John Cooper was hillclimbed in 1947. A young Moss, in his JAP-powered car, won a race at Goodwood's inaugural meeting in September '48, and soon folk were knocking on Cooper's factory door.

The FIA's adoption of Formula 3 in 1950 brought focus, and such was the demand for its predominant marque that Surbiton, Surrey could claim to be the birthplace of Britain's series production racing-car industry. Cooper made around 300 ever-sleeker F3 race winners throughout the '50s, for customers including Jim Russell and Bernie Ecclestone.

Our MkVIII has the hallmarks of a works car. Driven by Smethwick garage (and quadruple British hillclimb champion) Ken Wharton in 1954, it was given to family friend Tommy Norton after Wharton's death in '57. Jim Payne (who nicknamed it 'Rubberduck'), Bob Groves and Paul Schroeder hillclimbed it until '88, but it hadn't run for 16 years before ardent racer Nigel Challis bought it in 2004.

ALEXANDER SIMS IN THE COOPER

Sims's face is incredulous as he surveys the car and its scuffed rollhoop. He has to be push-started in the car and suddenly it looks as though we are re-enacting a scene from '90s comedy film *Cool Runnings*.

He is away down the pitlane at the third time of asking and gives a thumbs-up as he passes the pitwall first time around.

He completes a steady run of half a dozen laps – visibly sawing at the wheel through

the quick left at Surtees. Sims looks slightly like a duck out of water in this car, but enjoys his run as he grapples with a totally alien environment.

"If the whole day had been just for those five laps it would've been worth it," he says with a grin. "The first thing the owner said to me was, 'Do you want seatbelts?' I said, 'Yes please!' It's ridiculous! I can't believe this is actually what they used to drive. I can't believe how small the tyres are – they're smaller than cadet kart tyres! The wheels wobble by 5cm and when you go round a corner you have to put your elbow out!"



'Seat belts? Yes please'



CHEVRON B17



ALEXANDER SIMS IN THE CHEVRON
Sims is tentative with the Chevron's graunchy gearbox at first, but a hard shove into first gets him going.

He looks calm, serene and drama-free out on track – clearly feeling more at home in a more modern machine than the Cooper, although still not totally comfortable with the low-grip treaded tyres during his nine-lap stint.

“The Chevron is a little bit soft and moves around on its tyres,” Sims explains. “Driving is easier nowadays. In the older cars you don't have as much brainpower left to think about what they're doing on the limit – there's more going on.”

Genial Lancastrian Derek Bennett made his name building world-class Chevron sports racers on the back of six ultra-rapid Clubmans cars in 1965 and '66.

The growing 1000cc F3 class – built around high-revving production engines – broadened horizons, and the first single-seater 'Bolton wanderer' to roll out of the Old Chorley Road mill was the B7 prototype, which Peter Gethin debuted at the end of 1967.

Eight production B9 versions followed for 1968, when Tim Schenken scored the marque's maiden success, then added five more at the end of a promising season, which netted the Lombank F3 crown.

Alan Rollinson, Reine Wisell and Peter Hanson put Chevron on the map with continental success against the might of Brabham, Tecno and Lotus, as the B9 evolved through the B15 to the stiffer B17 chassis.

Privateer Ken Sedgley raced this car (the eighth of nine completed) in 1971. Current owner David Pullen's love affair with F3 'screamers' was strengthened when he worked with Low Cost Racing, which traded and ran the cars in the 750MC's Formula 4 club racing category that it promoted post-period.

Pullen has done more than most to fuel the 1000cc class's revival with the HSCC and beyond.

TECH SPEC
MAKE/MODEL/YEAR:
CHEVRON/B17/1970
CHASSIS:
Tubular steel, sheet steel panelled
DESIGNER:
Derek Bennett
ENGINE:
Ford Holbay R70 MAE
4-cylinder 997cc
POWER OUTPUT:
110bhp
GEARBOX:
Hewland Mk8, 4-speed



B17 is 41 years old...

LOTUS 69



Lotus felt more suitable for modern F3 racer

Lotus's Type 69 nomenclature in 1971 is confusing, for David Baldwin's designs covered Formula 2, Atlantic/FB, F3 and FF1600 derivatives, the most senior versions using sheet-alloy monocoque chassis, the junior ones tubular-steel spaceframes. Gold Leaf Team Lotus, the factory equipe, was very much at the forefront of F3 in Britain and Europe at the time.

Having won the final 1000cc Lombank British championship title in 1970 in a Lotus 59A, Australian Dave Walker propelled himself towards F1 by remaining at the top of the tree in the first 1600cc season, driving the wedgie 69. While not a works car, the test chassis has raced in a tribute livery for far longer than any other. Its history, however, is equally compelling.

Supplied to German Alfa Romeo dealer Manfred Weissmann, our test car was raced in 1971 with an Alfa twin-cam engine, and in '72 with Lotus Ford power, mainly by versatile Austrian journalist Harald Ertl, who went on to compete in F1. It also contested the final 1600cc season with Kurt Scholtyssek. Subsequently raced in historic by Helmut Dango, Fredy Kumschick and Albert Clements, it is prepared by veteran engineer Rex Hart – who built it at Lotus Components in 1971!



Great in GLTL livery



Don't look back...

MAKE/MODEL/YEAR:
LOTUS/69/1971
CHASSIS:
Tubular steel, alloy panelled
DESIGNER:
David Baldwin
ENGINE:
Lotus LF 4-cylinder twin-cam
1594cc
POWER OUTPUT:
125bhp (21.5mm air restrictor)
GEARBOX:
Hewland Mk8, 5-speed, LSD

ALEXANDER SIMS IN THE LOTUS

Sims jumps straight into the Lotus after his nine laps in the Chevron, but only gets three more tours in before the red flags fly. HSCC members are out in force ahead of the following day's race meeting at Brands, and some are clearly trying a bit too hard...

Sims might only have managed three laps aboard the 69, but they're enough to convince car owner Clements that he's yet to reach the full potential of his beloved steed.

“He sounds quicker than me,” offers Clements as Sims comes past the pits on his first proper lap. “That's the quickest I've ever seen it go,” he adds as Sims clocks 54.2s on his second flyer.

“I'm going home. What's he doing tomorrow?” asks Clements as Sims posts a 51.9s before the stoppage.

Sims is clearly starting to feel more at home as the cars become more modern; the Lotus is the first to feature slick tyres and the F3 Euro Series ace is revelling in the absence of tread pattern.

“The Lotus felt more nimble and more like I expected it to feel, and from that point it was more rewarding and it got easier,” he says. “The Lotus is much sharper, stiffer and more responsive – it feels more like a [modern] F3 car. The biggest thing is the tyres – they give a more proper feel.

“It's incredible how uncomfortable it is to change gear; you have to really get your hand around it, but it stops well.”

Bedfellow to British F3

Avon Tyres

This will be the 30th season that Wiltshire-based Avon Tyres Motorsport has produced the control tyre for British Formula 3.

Avon began as the sole tyre supplier in 1982, having started making motorsport tyres in the '50s.

Towards the end of the '80s, F3 tyres followed Formula 1's lead by switching from cross-ply to radial construction.

The next big change was when the

Dallara came in at the start of the '90s. Never before had a chassis manufacturer developed such a big advantage over its rivals, and the cars began working the tyres much harder.

This led to Avon increasing the diameter of the front tyres by 20mm. Since then, as downforce levels have increased with each new generation of chassis, the rubber has been adapted further to cope with higher loads.



...and driver is just 22



ALL PICS GARY HAWKINS

ALL PICS GARY HAWKINS

MALLOCK U2 Mk11B

Like countless others, Major Arthur Mallock earned his competition spurs within the 750 Motor Club, building and fielding Austin Seven and Ford-based specials in every branch of 'low cost' sport. His subsequent U2s were more remarkable. Not only did he and army pal Major John Harwood rampage through Europe with Formula Junior and F3 versions, the stoically front-engined cars did not disgrace themselves in F2, with Mallock and future FIA president Max Mosley up.

Batting above their weight when properly driven, U2s often matched the lap times of more sophisticated machinery. Son Ray Mallock (head of last year's WTCC/BTCC-winning Chevrolet team) raced this classic Mk11B in F3 in 1971. Despite being hamstrung by a four-speed gearbox and live axle (with interchangeable diff to alter the overall gearing), he finished fourth first time out, at Thruxton!

Subsequently a Clubmans racer in Ireland, it then fell into disuse. Keith Norman had it rebuilt (and also raced) by Richard Mallock, before selling it to Terry Nightingale. He drove it to the German Open historic and UK 1600cc Classic F3 titles. Richard Walters, who prepared the car for Nightingale, rued not buying it next but eventually snared it and went racing.



ALEXANDER SIMS IN THE MALLOCK

Alexander manages a chunky 15-lap run in the Mallock, which allows him to really get to grips with its quirky front-engined layout.

"You don't notice it [the weight at the front] at all," he says. "I didn't feel a handling imbalance – maybe a bit of understeer.

"I don't know whether it's the set-up or weight at the front that makes it understeer. I was pitching it in on the brakes to get some oversteer and it turned on the nose quite well.

"It's strange having four gears [instead of six in the modern machines] – you have to compromise a bit and the car moves around, but it's fun. The closer [in age] they get the more comfortable I am, and the more willing I am to push to find the limit – that didn't even enter my mind in the Cooper!"

Cripes, where's the engine?



Oh yeah, it's down this end

MAKE/MODEL/YEAR:

MALLOCK U2/
Mk11B/1971

CHASSIS:
Tubular steel, alloy
panelled

DESIGNER:
Major Arthur Mallock

ENGINE:

Lotus LF 4-cylinder
twin-cam, 1594cc

POWER OUTPUT:
125bhp (21.5mm
restrictor)

GEARBOX:
Ford 'Bullit', 4-speed,
Ford diff
(choice of ratios)

BIRTHDAY BASH F3 SUPERTEST



MAKE/MODEL/YEAR:

ARGO/JM6/1980

CHASSIS:
Sheet aluminium
monocoque

DESIGNER:
Jo Marquart

ENGINE:

Toyota Novamotor 2TG
4-cylinder twin-cam
1998cc

POWER OUTPUT:
165bhp
(24mm air restrictor)

GEARBOX:
Hewland Mk9, 5-speed,
LSD



F3's next Argonaut

ARGO JM6

Former Lotus, McLaren, Huron, GRD and Modus designer Jo Marquart's ultimate stop was at Anglia Cars in Norfolk, from whence the first Argo cars emerged – in the shapely form of the F3 JM1 – in 1977. Production was always relatively small, across several formulae, but the Swiss's finest brainchild was the skirtd 'semi-ground-effect' JM6 of 1980.

Rival Ralt's design guru Ron Tauranac and development driver Rob Wilson had not tamed the revolutionary RT3 'wing car' at that stage, and March's 803 was not a leap forward over its predecessor, so the season was unusually open. It was only when Stefan Johansson switched to a sorted Ralt that the well-backed Swede secured the British title. Colombian Roberto Guerrero won five rounds in his works JM6, chassis 039, but was pipped to second by



Distinctive side-on view of JM6

Kenny Acheson (March). All used Toyota engines.

Today the MSA's 40mm ride-height rule outlaws skirts, but the wieldy Argos remain competitive in Classic F3. Dave Clark's car started life as a Formula Super Vee (tubs were identical, but running gear differed) in Switzerland, but was later raced in F3 spec by Warren Gomm, son and grandson of late motorsport metalwork geniuses Frank and Maurice respectively.

ALEXANDER SIMS IN THE ARGO

Only five laps for our man in the Argo before those pesky red flags are at it again. Sims finds the car a bit of a tight fit, but is comfortable enough to manage frontrunning Classic F3 pace during his small window of opportunity.

"These older cars feel small – they're a lot more cramped than my usual F3 car," says Sims. "I couldn't believe the steering column in the Argo – you have to put your feet under it and then onto the pedals as you lower yourself in – it's bizarre!"

"I didn't think about safety when I was on track, but you do take things massively for granted when you realise what drivers had to put up with. Even though I've always only driven carbonfibre-tubbed cars I just thought 'sod it!' and got on with it."

MARCH 743



This car launched Keegan towards F1...

Evolved from the iconic 733 – the most successful car of the final 1600cc season in 1973 – March's 743 continued the momentum in what was a slow start to the new two-litre formula. The works team, run by Mike Rowe, was best-prepared and in Brian Henton also had the quickest driver. He switched from 'stretched' Lotus Ford twin-cam power to the new Toyota Novamotor – developed from the Celica road-car unit by the Pedrazzani brothers in Italy – very late on.

Ten wins from 18 starts in this chassis sealed Henton's BARC Forward Trust and BRSCC Lombank F3 titles. While he crashed out of

Monaco, there was an international victory at Hockenheim.

British Air Ferries boss Mike Keegan bought the car for son Rupert's graduation from F1600 in '75, but it proved a steep learning curve. Ninth in Monaco showed potential, before the penny dropped in '76.

Staying with Toyota power, Keegan bagged six wins from his first seven starts, before switching to Adrian Reynard's Hawke design (briefly) and a Chevron B34, in which he nailed the BARC title. Current owner Simon Hadfield bought the March rolling chassis from the March rolling chassis from the Keegan family in 2009.

MAKE/MODEL/YEAR:

MARCH/743/1974

CHASSIS:
Aluminium monocoque

DESIGNER:
Robin Herd

ENGINE:

Toyota Novamotor 2TG
4-cylinder twin-cam
1998cc

POWER OUTPUT:
165bhp
(24mm air restrictor)

GEARBOX:
Hewland Mk9, 5-speed

ALEXANDER SIMS IN THE MARCH

A spate of red-flag interruptions means Sims only manages a handful of laps in the March at Brands, but the 743 still leaves a lasting impression on our young charge.

"That feels like a proper racing car – except that your shoulders are out of it and you're battered around," he says after climbing out.

"It reacted properly and it's the first one in which I've really felt the aero – it gives you a bit more confidence."



...and Sims is hoping it'll do the same for him

DALLARA F308

It is rather unfortunate that our group test doesn't contain an example of the ultra-successful Ralt constructor, or its chief rival Reynard. These two chassis manufacturers dominated British F3 in the 1981 to '92 period, before Dallara began making the category its own.

Alas, you don't always get what you want, and so it is that we take a massive leap forward into the modern era with Double R Racing's current Dallara F308. The Italian constructor has won every British F3 title since 1993, and a lack of sustained competition from rival car makers has virtually turned the category into a single-make series on these shores – at least as far as the chassis go.

It's more than 17 years since sports car ace Oliver Gavin recorded Dallara's first British F3 win, and during that time only seven races have been won by cars other than Dallaras (four by British car builder Lola and three by French maker Mygale).

Our test car is Double R Racing's F308 chassis 008, which has won four races during the past three seasons of British F3, in the hands of Finn Atte Mustonen, Swede Marcus Ericsson and Brazilian Felipe Nasr.



Dallara F308 is what tester Sims is used to



No place like home

MAKE/MODEL/YEAR:

Dallara/F308/2008

CHASSIS:
Carbon and honeycomb
composite monocoque

DESIGNER:
Ferdinando Concari

ENGINE:

HWA Mercedes-Benz
4-cylinder, 16-valve and
double-overhead
camshaft 1997cc

POWER OUTPUT:
207bhp
(26mm air restrictor)

GEARBOX:
Hewland FTR200, 6-
speed, sequential shift

ALEXANDER SIMS IN THE DALLARA

Unsurprisingly, Sims' run in the Dallara mainly serves to show how far 30 years of technological development has advanced speeds.

High downforce and mega grip mean Sims is constantly catching traffic on the short Indy layout.

"It's like being trapped in a Space Invaders game," quips Double R team manager Malcolm Swetnam as Sims darts in and out of gaggles of historic single-seaters.

Despite never finding a clear lap, Sims still manages a best time 6.5-seconds quicker than anything

recorded earlier in the day.

"Having also driven the Dallara, I realised how refined everything has become and that everything has to be perfect for you to be fast," he says.

"In the old days, if you had balls and were a proper man, you got time out of it, but in a modern car you can't just get time by 'manning up' through the corners.

"Now we've got so much more information, we can refine everything, whereas before it was up to the driver to refine himself. I guess the driver was a bigger part of performance in the olden days."