

## ASTONDB6 ASFORDABLE AGAIN?

INSIDE: LOTUS'S NAUGHTY 40 SAAB'S HISTORIC GEMS

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y nerves were fluttery and my jaw a jitter as I prepared to climb into Peter Denty's gleaming Lotus 40. Its infamous reputation will never die, thanks to one wag's comment at the Riverside Los Angeles Times GP in October '65: "Ten more mistakes than the 30," he quipped. Some say it was Lotus teamster Richie Ginther. Dig deeper in the history books and the message is even louder.

A fearful testing accident at Silverstone late in '66 ended 'Gentleman' Jack Sears' racing career. If major suspension componentry didn't snap, the nose had a habit of imitating a



Brands '65 - Clark drifts at Clearways

Top Fuel dragster. Said Bruce McLaren of maestro Jim Clark's struggle at Brands in the Guards Trophy: "Like a paper hanger in a storm." After two mighty spins at South Bend, Jimmy finally called it a day when the diff seized, causing another dramatic gyration at Clearways. Hence, you understand, a degree of tension at braving this hunky group 7 'pancake' racer, the biggest-engined Lotus ever built.

But sports-racing cars don't come more seductive than Chapman's rushed effort to catch the V8 pack of Lola T70 spiders and McLaren Elva Oldsmobiles in the class of '65.



His production Lotus 30s (all 33 of them), with back-breaking 289 Ford power, were being trounced by most, not to mention the giantkiller Brabham BT8s. And, after the Indy spoils had been claimed in June, attention was focused on beefing up the 'tuning fork' backbone and deploying 5.7-litres of Detroit iron to whip the 30 (now 40) up the grid. Only three were eventually built and within eight months the remains of the works cars were found in *Autosport*'s classifieds in a Lotus Components Ltd box ad – 'fresh' from America at £3750 each. For £100 less you could have purchased The Chequered Flag's

## Forgotten forty

Some might say best forgotten, but was it simply rushed development that prevented the fearsome Lotus 40 from making the winner's circle?

Mick Walsh braves the action seat of a rare survivor

Cobra 289 racer the very same week.

As the only 40 left this side of the Atlantic, Peter Denty's 10-year restoration project not surprisingly turned heads last April when it made its first public outing at Silverstone. Gleaming in ivy green with a demon yellow centre flash, and riding on mean black Lotus four-spoke wheels with three-eared spinners, it looked sensational. The Sperex-yellow exhaust manifold hugged the Mathwall-prepared 302cu in Ford V8, its army of Webers looking like a pair of lazy pythons. Tubular artistry.

Few sports racers match the aura of the mid-sixties big bangers. These swoopy open-cockpit muscle machines were a swangsong before the wedge school, an era when artists like Michael Turner were called upon to style the new McLaren Elva Olds. The 40's bold, undulating form was the vision of Lotus' New Zealand stylist Jim Clarke, before Len Terry attempted to make the controversial one-piece body practical. Accessibility was never a strong consideration on any Lotus sports car, and the 30/40 was no exception – particularly with its closed underbody.

Despite the side door, which pre-viously closed over a saddle gas tank, the wraparound screen is slung low enough to clamber over into the snug black plastic bucket seat. Once strapped up in the modern five-point Willans race harness, I took stock of the cockpit. The seat is flat on the body floor, the backbone box section of the chassis riding high in the centre. The dash is spread into a stressed body section - much like an aircraft fuselage brace. A large hoop is cut out for the footwell (as well as extensive

holes for further lightness) and the metal edges are protected by thick foam padding. The pedal layout is typically offset, and outstretched legs are conveniently supported at the back of the knee by the body section. The flat, low driving position still puts your eye level over the screen, so buffeting is guaranteed. A small, thick leather-rimmed Moto-lita wheel is ideally positioned for a relaxed racing pose, while the stubby gear selector sits close on the right, its polished linkage running back to the protruding Hewland box.

Under your right foot the throttle cable runs back to the volume control. The crucial tacho hides behind the wheel redlined at 6500rpm with a cheeky 'Mooneyes' logo on the original Jones dial. To the left are scattered Smiths water temperature, oil temperature and oil pressure gauges complete with red warning light, fuel and ignition flick switches and action key.

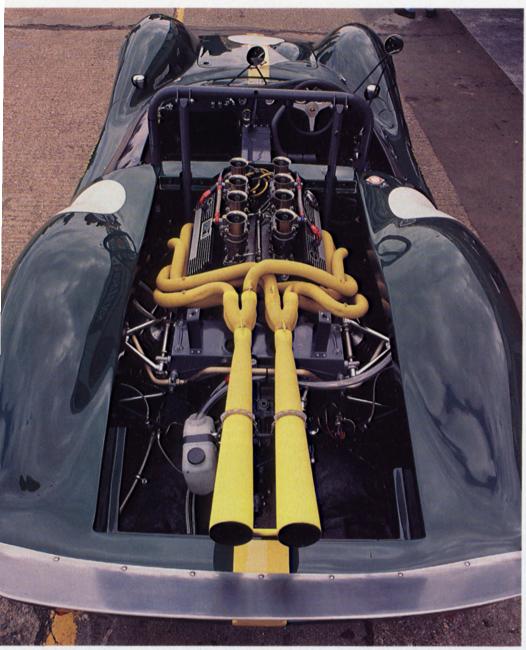
The view forward is as voluptuous as a plastic form can get – tall, curvy wing forms with flat centre deck and offset bulge for extra pedal height. Centre and to the right are

towering mirror stalks. In all, sparse and efficient, but oozing charisma from every rivet. Too new perhaps to feel heroes had once planted their famous butts here, but the fastidious finish is better than anything the works rushed to the grid.

There's nothing like cranking up a full-race V8 to get the adrenalin pumping. Flick on the ignition and fuel supply, prime the legion of Weber chokes and then churn the big four-bearing crank over on the key until it cracks into life behind. Flex the right



Walsh straps up

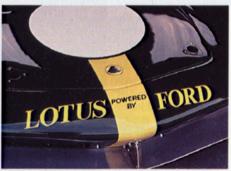


foot and that rumbustious idle clears to a carnivorous roar. Heady stuff, just sitting still in the pit lane. Peter Denty briefs me to take it easy for a couple of laps for the oil to warm up as I buckle up my ancient Bell open-face skid lid. The paint is still tacky on the peak — in honour of Clark, I sprayed it white just the night before. With a final adjustment of the goggles, Peter gives the all-clear in the pit lane, and I graunch the lever into first, haul up the clutch and we rumble on to the circuit.

First observations during the initial warm-up laps are the finger-light steering for such a brutish-looking machine, and unnerving brake pedal travel before the big discs grab. As we gain speed, this pumping-up becomes a real handicap, particularly for rapid down-changes. With the laboured Hewland LG500 'truck' box you really need to keep the cogs moving, so heel-and-toeing is essential. But the deep pumping up of the anchors means wasted time before stepping back on the gas. Since the first test at Snetterton the brakes have been a problem with this 40. Strong when they do haul, the problem seems to lie with the balance between master cylinder and calipers but on only its second shake-

down run, the car's still in the sorting stage.

Although the brake problem unnerves me, the car's handling is quite the reverse: through the right-handers on the Luffield complex and charging round Woodcote, the 40 feels stable and confident. On the fast turn-in for Copse it changes direction superbly, particularly considering the weight of the car. Towards the end of the short session the lightness of the steering almost becomes irrelevant, and on tighter bends the throttle balances out slight understeer.



Chisel nose with essential air dam



Left: 302 V8 powerhouse with hugging tubes. Above: big disc and four-spoke

The 40's steering is very, very light. And the harder you accelerate, the lighter it gets as the nose lifts. The lack of aerodynamics on what is left of the club straight is even more unnerving as the 40's dragster punch pushes you up to an easy 130mph before hauling back for the Brooklands left hook. Intoxicating it is, as I settle down and use the V8's pounding torque for a lazy last lap. With the Ford heavyweight yowling behind the shoulders it could be the '66 Martini Trophy as we sweep through Woodcote for the last time. For a V8 it feels cammy, with power (about 340bhp at the rear wheels) charging in at 4000rpm. An easy car to drive at sixtenths but full bore would be another situation, I suspect.

Historic racer Mike Littlewood, who is regularly entrusted with Peter Denty's testing, took over for a few quicker laps and came in frustrated with the brakes. But otherwise he felt enthusiastic about the infamous 40, having taken it as close as he dared to the limit: "Once you get over the initial lightness and drive harder the chassis feels right. Such cars have the confidence – it just takes longer for the driver to build up his. But with this, the harder you push it, the better it gets. Although there is lift on the straight, it doesn't wander and so far feels safe," Mike explained.

"Tve raced 23s a great deal, and never really liked them. Chassis flex and an unpredictable rear end always tried to catch the driver out, but so far the 40 feels better balanced. If we could find the right group – mixing it with Piper's Ferraris and some GT40s – I'd relish the chance to find out what it can do."

Certainly the record books show the 40 was on the pace straight out of the box. Even on the bumpy Zeltweg airfield circuit for the Austrian GP in August '65 it broke the lap record (Gurney's F1 time) by 2secs. Still with the ZF gearbox, Mike Spence retired on lap 13 due to overheating.

But a combination of Chapman's weightsaving philosophy ('if it makes it out of the pit lane it's okay'), the back-breaking iron Ford block, and lack of serious development, made it a loser from the word go. Even Clark's genius couldn't counter its fragile makeup.

Thanks to the dedication of Peter Denty, this glorious loser has been reconstructed. Regarded as chassis No 1, it was the car Spence debuted at Zeltweg and which Clark later spun three times at Brands before a last works outing driven by Ginther at Riverside in the *LA Times* GP. The close-cropped LA racer claimed it, "the most evil thing I've ever driven." Privateer Bob Walters acquired the car from the works sale and after several seasons' club racing, used the engine, gearbox, exhaust and various other components



for his Concord F5000 car - a dreadful project that even upstaged the 40, Walters recalls: it's an affair he'd rather forget.

Back in the early seventies Peter Denty was searching for a Hewland LG500 gearbox and tracked down the remains of the 40 in Maidstone. The engine had just been sold for a road-going Capri, but he eventually acquired the delapidated remains of the car which were delivered to Mallory Park where: "Everyone just fell about laughing. We dragged it home, pushed it to the back of the workshop and forgot about it."

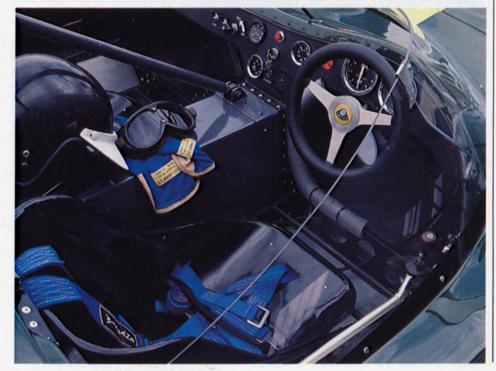
But by 1984, Denty set to on restoring the project. The chassis reconstruction was the most time-consuming job. Using thicker gauge metal than standard, the sections were spot welded up as before but with nickel input to stop the dreaded splitting. During the 10-year-project several Lotus 30s came to Denty's Norfolk shop for restoration, providing valuable reference. For the body moulds another 30 in Germany was used, while the No 2 Lotus 40 (Clark's second-place *Times* GP car) was tracked down to New Jersey and the owner Peter Regner generously allowed Denty to study it extensively.

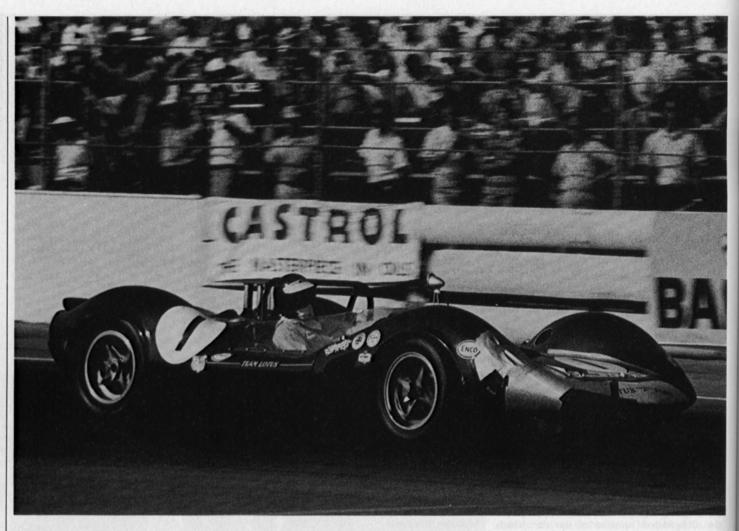
The suspension was remade but again improvements were carefully considered, knowing how the big brakes snapped the original wishbones. Instead of Chapman's original Z-section design, a square profile was felt preferable: "In general the 40 is a very road-orientated design in the way it was hung together," Peter considers.

Mathwall Engineering prepared a Ford 302 (4.8-litre) to GT40 spec, as a 5.7-litre Cleveland proved difficult to find, and only one centre fuel tank was fitted. The project was finally finished last year but an engine failure caused withdrawal from the HSCC enduro at Snetterton last October. Hopefully we will see the car out in anger this summer.

The car is currently for sale – contact Peter Denty on 0953 498529 Above: with inspiring turn in, the 40 lent Mick confidence at Silverstone's complex. Right: Walsh and Mike Littlewood discuss braking dilemma. Below: low seat and high backbone of cockpit







## Did the Lotus 40 deserve its infamous reputation as a truly evil racer? Doug Nye discusses

or those with long memories I'll get it out of the way right here at the beginning. Yes, Richie Ginther really did describe the Lotus 40 as being "...the Lotus 30 with 10 more mistakes...".

Now Richie was able to make that point with feeling, as he had just driven one of the two works cars in the big *Los Angeles Times* GP at Riverside, California, in 1965.

There is a theory among some of Colin Chapman's former employees that the man really to blame for his celebratedly 'difficult' sports-racing cars – the front-engined Lotus 17, and the big Ford V8 mid-engined 30 and 40 – was Eric Broadley, of Lola Cars.

Team Lotus designer Len Terry told me: "Colin had been pretty miffed when Eric's new Lola 1100 replaced the Lotus 11 as the car to beat, so he responded with the 17 to outdo the Lola – but the strut-type suspension he insisted upon just couldn't work. It was a disaster.

"Then, while Lotus was running the Indy programme with Ford in '63, Colin angled for what would become the Ford GT contract, but Broadley got it instead thanks to his Lola GT. I think Colin set out to prove that Lotus could build a lighter, better, faster sports car using the Ford V8 than anything Lola could do. And the result was the backbone-chassised Lotus 30 which was structurally so frail its

backbone chassis 'oil canned' and took on a set twist when they first ran – and then the 40 followed which looked even worse... and it was in effect all just to prove a point."

In fairness, the three Lotus 40s built were never properly developed to achieve their paper potential. In effect the design was prepared to put right what had been proved wrong with the 21 Lotus 30 Series 1 sportsracing cars built in 1964, and the 12 muchimproved Series 2s which followed for '65.

While the basic Type 30 concept involved a grown-up version of the Elan's successful fabricated-sheet backbone chassis, it was reversed in layout to place an iron-block, initially 289cu in – 4.7-litre – Ford V8 engine behind the cockpit, driving via a ZF 5DS25 transaxle. An exceptionally low and rakish flat-roofed concept study had been prepared for a Lotus 30GT but the model emerged as an open Group 7 'big banger' sports-racing car which demanded Jim Clark's virtuosity to

## **Team Lotus clearout from Autosport**



make it a race winner. Its backbone frame flexed, its original brakes were far too small within their tiny 13-inch wheels and the iron-block engine was too heavy and underpowered against McLaren's 4.5-litre alloy-block Oldsmobiles.

For 1965 the 30 Series 2 was much improved with 15-inch wheels enclosing larger, ventilated brakes and with Tecalemit-Jackson-injected V8s delivering around 360bhp, but the engine's iron block remained a major disadvantage, since Lola was now running its T70 with 5.4 Chevy V8 power.

Consequently Chapman adopted enlarged 5.3-litre Ford V8s for the works 30 S2 in an attempt to offset the smaller Olds engine's weight advantage. And with development engineer John Joyce, a stronger backbone chassis was designed to carry an even larger 351cu in – 5754cc – unit on T-J fuel injection with a cross-over exhaust system feeding two upswept exhaust megaphones projecting through the tail deck. This 450bhp unit drove via a new Hewland LG500 transaxle, and the car now boasted meaty 11½in ventilated disc brakes and an even more floridly curvaceous 30-type body with air-pressure relief vents in its enormous wheel humps.

The prototype Lotus 40 made its debut in the Austrian GP sports car race at Zeltweg Aerodrome in August '65, with Team Lotus number two driver Mike Spence immediately qualifying on pole, 2.1secs faster than Dan Gurney's F1 record. He led for 13 laps on the bumpy concrete course until the 40's engine overheated.

Back in the Lotus plant at Delamare Road,

Cheshunt, the car was returned home and hurriedly prepared for the Guards Trophy at Brands Hatch on August Monday — where even Jim Clark spun its twice in heat one before stopping with the gear linkage adrift. In heat two its brakes gave out and the car subsided against the bank at Clearways.

Lotus-Cortina team driver Jack Sears had done much testing on the works 30 S2 and had raced it once at Silverstone when Colin Chapman invited him to carry out some tyre testing on Jimmy's 40, ready for shipping to Riverside, California, for the major Los Angeles Times GP. Jack liked the 30 S2: "Quite a pleasant and pretty car and the fastest thing I had ever driven up to that time..." and as harvest was over he agreed to test the 40 at Silverstone on September 24.

"We were running back-to-back tests between Dunlop and Firestone tyres. I remember we ran Dunlops in the morning and then Firestones after lunch. I found the Dunlops quite progressive, giving plenty of warning as they broke away but it was quite difficult to maintain the car in a slide or drift, it was certainly very twitchy — but *very* powerful and *very* fast. The Firestones then appeared to give more grip but much less warning as one approached breakaway.

"On one lap through the fast left-hander at Abbey it just let go and floated out to the right-hand verge. I got onto the grass there and then the tail came round and it spun back across the road to the left-hand side... the next thing I recall is waking up in the ambulance on the way to hospital..."

The 40 had careered into the left-side bank and rolled, injuring 'Gentleman' Jack's left arm and neck so badly he would spend 14 weeks in hospital and another nine months regaining fitness. He consequently missed the entire 1966 racing season, and early in '67 he decided against a comeback. His racing career was over...

The car that ended it was rebuilt at Cheshunt and shipped with two sisters to Riverside, the green-and-yellow works cars for Clark (race number 1) and Richie Ginther (race number 30) plus a pale-blue car for Holman & Moody, to be driven by AJ Foyt.

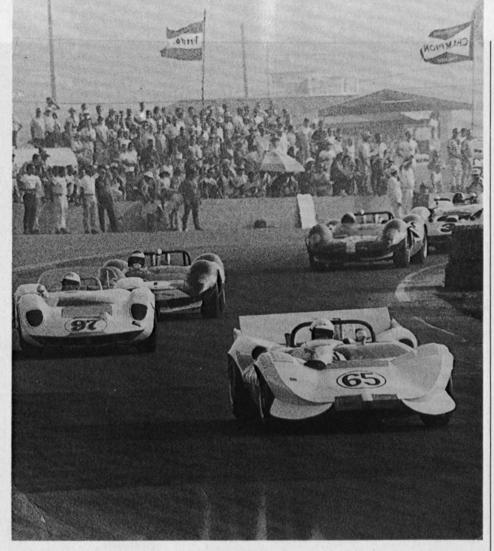
However, during Riverside testing, H&M mechanic/part-time driver Bob Tattersall shunted the Foyt car. In the race Ginther retired early with transmission problems. Hap Sharp's Chaparral won, while one report read: 'It was no secret that the three Lotus 40s that arrived at Riverside were anything but ready to race, their newness and undoubtedly accounting for the fact that they were not set up as well as they might... even Clark was heard muttering some very unkind things about the untested car...'

He still finished second – 9secs adrift of Sharp, 18secs ahead of Bruce McLaren.

Holman & Moody then rebuilt their car for Foyt's use in the Bahamas Speed Week at Nassau where it reputedly 'just fell to pieces', on lap three of the Governor's Trophy race.

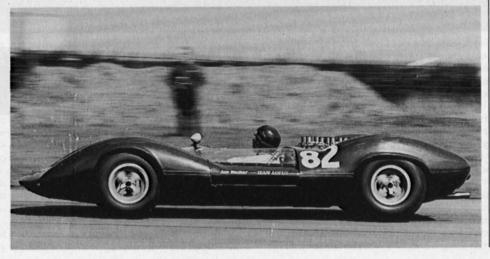
In April 1966, Lotus Components offered its two works 40s for sale; 'Just returned to England' ex-Riverside, 'option of tyres and spares to customer's choice extra – £3,750 each, fully race prepared.'.

And off they went into obscurity. In truth the undeveloped Lotus 40 was never given a chance to demonstrate its potential – leaving it, as Jack Sears recalls: "Hard work – a very highly-strung and twitchy car..."



Left: maestro Clark in the 40 at Riverside. Above: rare sight of two 40s—Clark and Ginther chase Hap Sharp's Chaparral in LA Times GP. Right: Clark looks unconcerned about hub failure at Goodwood with Lotus 30. Below: first outing of 30, Aintree 1964





Classic and Sportscar, July 1992