



## Thoroughbred & Classic Cars - May 1982

LAST OF THE LIGHTWEIGHTS by Roger Bell

Jaguar made only a dozen Lightweight E-types for racing, yet we've been driving the thirteenth. Roger Bell reports on a unique car.



How history will treat the thirteenth and last Lightweight competition E-type to be made remains to be seen. The first 12 (all hardtop roadsters) produced exclusively for racing in 1963-64 were followed by a couple more — one constructed for use on the road with a steel monocoque, the other a fixedhead for a French collector. Discounting these two, a thirteenth racer doesn't exist

according to the records.

The answer to this puzzling contradiction lies with Jaguar specialists Lynx Engineering, best known for their XJS convertible conversions, C and D-type replicas and racer rebuilds, though Guy Black's flourishing engineering outfit tackles many other projects too. "If it interests me, I'll buy it" explained the former Weslake design engineer when showing us round his overflowing workshop recently. As his interests include old tanks and aeroplanes (he owns two Spitfires) as well as Jaguars, his Hastings headquarters, not to mention various lockups and garages nearby, are piled high with bits that "might come in useful". It was from this stockpile that the thirteenth—or fifteenth, depending on your point of view — Lightweight E-type emerged.

For some years Anthony Bamford's JCB stable, which used to race Lightweight Es, had held a large collection of spares, including two complete body shells, acquired from Jaguar when the company ceased its post D-type low-key competition involvement. The stock changed hands when JCB had no further use for it and last year was bought, still intact, by Lynx, to join the remains of the famous but ill-fated Lindner/Nocker car—arguably the quickest racing E-type that Jaguar ever made — in which Lindner had a horrific fatal accident at Montlhery back in 1964.

The plan was not only to rebuild the old 'German' Jaguar (of which more later) but also to construct another from the ex-JCB spares. "There are virtually no reproduction parts in it at all other than nuts and bolts", explained Guy Black. "It is made from original unused Jaguar components — many of which came from unwrapped boxes — so we like to think of it as the thirteenth in the line. It's not a replica but the real thing, the last of the true Lightweights."

Even the number plate, 5081 WK, is right for the car, due to a stroke of luck that presented Lynx with a decrepit roadgoing E-type roadster, registered by Jaguar in Coventry at the same time as the original Lightweights. By transferring the registration number, the new car has a legal identity in keeping with that of its 1963 contemporaries.

Despite the production E's debut racing victory (by Graham Hill at Oulton Park in April, 1961) only a month after the car's sensational launch at the Geneva Show, ordinary E-Types, fast though they were, couldn't match the pace of the lighter and more powerful Ferrari GTOs that dominated the new Grand Touring championship introduced in 1962. Just as Ferrari allegedly bent the rules to satisfy the 100-off homologation regulation, so too did Jaguar in response to the pleas of frustrated privateers who could see a potential winner in the E-Type, given more power and less weight. Jaguar rose to the occasion with a splendid ruse. What they did was to homologate the standard car as the racer, and the racer as the production model — a ploy which evidently satisfied the authorities though it's hard to believe that it actually fooled them

As Paul Skilleter explained in his story about the racing Es (T&CC, April 1975), the Lightweights evolved from the John Coombs car which Jaguar helped to develop through the back door. With its greater power and lighter (steel) monocoque tub, it clearly showed the way forward. The steel shell gave way to one fabricated in aluminium, also used for the bonnet and body panels, though the tubular spaceframe ahead of the bulkhead remained a steel structure. In its design, the suspension was essentially the same as the road car's, but the geometry and spring/damper/anti-roll bar rates were all changed. Mk 10 hubs carried perforated disc wheels patterned on those of the D-Type with larger discs. The brakes (with racing pads), ought to have been adequate for the job but on demanding circuits they weren't, even with additional air ducting to cool them.



Like the 3-litre Cunningham prototype E-Type that ran at Le Mans in 1960, the 3.8-litre Lightweights had aluminium blocks (to save weight) fitted with the D-Type's wide-angle cylinder head — so called because of the greater angle between the inlets and exhausts necessary to make the valves bigger. With a high-lift camshaft, Lucas mechanical fuel injection and dry sump lubrication, the engine delivered over 300bhp. Later on, developed still further in the Lindner/Nocker car, the venerable old hemi-head twin-cam was coaxed to deliver over 340bhp — enough to propel a clean Lightweight at over 170mph down the Mulsanne straight at Le Mans with the right gearing.

Both Jaguar's four-speed Moss box and a heavier ZF five-speeder were used in the Lightweights, the first of which was delivered (to John Coombs) in March, 1963. Skilleter reported in his '75 article that others went to Tommy Atkins (for Roy Salvadori to drive), Peter Lindner (who ran a Jaguar distributorship in Frankfurt), Messrs Lumsden and Sargent, Kjell Qvale, Briggs Cunningham (who had three), Peter Sutcliffe (the fifth Peter to be involved), Bob Jane, Wilkins and hillclimber Phil Scragg.





The alloy engine brought its share of problems, not least that of warping under excessive heat with resultant bearing and cylinder head gasket failure. The open aluminium tub behind the heavily laden spaceframe was not really rigid enough either, which is why the Lightweights always ran with hardtops that were actually an integral part of the structure. But with an extra 40bhp to propel 500lb less (the Lightweights scaled about 18cwt), the competition Es were spectacularly fast compared with the road cars — certainly fast enough to give quick Astons, ACs and Corvettes a good run for their money.

In British sprint events, the Lightweights were terrific: it was again Graham Hill who gave the car its first win (at Snetterton), and its second too (at Easter Goodwood shortly after), beating Mike Parkes' GTO in the process. At the Daily Express Silverstone meeting in May, Hill and Salvadori (who set a new GT record at 102.9mph) again beat the Ferrari.

Internationally, the racing E-Types had little significant success, though they did enjoy brief moments of glory. In the 1963 Nurburgring 1000km Peter Lindner headed the entire field at the end of the first lap, leading Ferrari's 250P mid-engined prototypes, never mind the GTOs. But the racing Es lacked the stamina of their illustrious steel-blocked C and D-type forebears in long-distance events even though they became very fast — the Lindner car especially so once it was cloaked in its Malcolm Sayer inspired streamlined body. Even had Lindner lived (his wrecked car was impounded for inspection after the Monthery accident in 1964 and not released until 1976 pending threatened litigation that never happened), even the fastest of the Lightweights would have been outclassed in 1965 by purpose-built mid-engined machinery. At club level, though, the cars remained formidable opposition — as they still are today in historic racing.

Number 13, assembled "like a Meccano kit" over a period of nine months has yet to establish a competition history, though it's certainly ready to make one, as I discovered recently when driving the car back to its Hastings base from our Sutton offices.

Despite its rather high stance on tall profile narrow section Dunlop racing tyres, the racing pedigree is immediately obvious from the lovely knock-on alloy wheels, strapped and handled bonnet, boot-top fuel filler, stark interior and air vents (particularly the extractors on the boot lid to help cool the rear discs) never mind the roundels and two-tone blue paint job.

Lynx's Derek Green, who had put 700-odd running-in miles behind the car in the previous 48 hours, advised keeping my anorak on — and with good reason. There's no heater, of course, and any warmth does penetrate the bulkhead, on a cold day it's overwhelmed by ambient air entering the cockpit through numerous holes and crevices. Draught proofing gets low priority on a racer like this.

My briefing from Derek was confined to a word of caution about the temperature gauge. Anything over 90 degrees, easily exceeded in slow traffic, is danger level for the very heat sensitive aluminium block. During the course of our run to the south coast, it was usually Derek who juggled with the electric fan switch and 'bath plug' chain that hitched and lowered the radiator blind.



Getting in is a tight squeeze unless the steering wheel is telescoped right in, and the driving position for me far from ideal as the embracing bucket seat was fixed a little too far forward, and the hanging alloy pedals protruded too far. Even so, they're perfectly placed for heel-and-toe operation (actually sole and side-of-foot). The excessively large wood rimmed steering wheel is the best cockpit reminder of the car's Sixties vintage: something much smaller and chunkier would no doubt be specified for racing now, especially as the steering is remarkably light and direct. E-types are still most revered for their performance, roadholding and comfortable ride: it's often overlooked that they're also endowed with extraordinarily good steering. Would that subsequent power assisted Jaguars (like my XJ 4.2C) steered as well.



The alloy engine doesn't so much fire as explode into life when you press the button (much more satisfying than turning a key, don't you think?). The noise inside — a lovely rich growl that only a beefy straight six can generate — is loud but tolerable. From behind, the photographic support crew reported the sort of thunderous crescendo that raises goose pimples at 400 metres, not to say the eyebrows of the Law. Fortunately, the engine was so tractable at low revs that the car could be trickled through built up areas without attracting undue attention.

Such exceptional low speed docility is apparently not typical of the injected Es, any more than was 5081 WK's ability to idle at 500rpm almost indefinitely. At first it was thought that this had been achieved, more by chance than intent, at the expense of clean mid range delivery. As Guy Black explained later, it's the devil's own job to make the engine idle at all with the D-type's throttle slide injection system that had been borrowed from the Lindner car.

Valving for the six in line ports is by a sliding plate (carried on roller bearings) with six port size holes in it. As the slide is pulled back by flooring the accelerator, the six ports open up from 'new moon' to 'full moon'. The big advantage over a conventional butterfly valve system, other than that of simplicity, is that when fully open there's no spindle or edge on valve to impede incoming mixture. The snag is that air leaks passed the roller bearing slide, making mixture control difficult to regulate with any precision on a closed or partially open throttle.

This inherent flaw on our first test run was thought to account for the car's tendency to spit back through the intakes when running on a light throttle, and to stutter and hesitate before coming clean when opening up. We were invited to have another go, though, after subsequent routine tuning had revealed that a maladjusted fuel injection system was in fact the root cause of the trouble. On the second run later, the engine's delivery was superbly crisp and clean (though there was still a hint of light throttle spitting) and its potency through the rev range quite startling. Stopwatch acceleration figures taken from the speedometer suggested a 0-100mph time of around 10 seconds, which makes the car considerably faster than, say, a 3.3 Porsche 911 Turbo, as it should be





considering that the Porsche has roughly the same power to pull— sorry push — at least another 6cwt. The Jaguar's low and mid range pickup, when the rev counter's still in the lower half of its modest band, is no less impressive than its ripping performance at the top end of the scale.

With the right gearing, the car is good for around 160mph, even without the slippery body of the long nose Lindner car which, as we were reminded in Lynx's workshop when the dust sheet was removed, has exquisitely flowing lines: apart from being the fastest E-Type Jaguar ever made, it is also unquestionably the most beautiful.

As well as the fuel injection system, the Lynx's new Lightweight had also inherited the Lindner car's four-speed close ratio all-synchromesh gearbox — experimental forerunner of that which later superseded the Moss box on production cars. The short throw lever needed a sharp, decisive hand but was crisp and positive in action, and clutch bite strong if not especially smooth. Changing gear was certainly no chore.

The car's competition pedigree was perhaps best reflected by its ride and brakes. Production E-Types are noted for their resilient suspension but fitting stiffer springs, dampers and bushes to a car weighing so much less has done nothing for refinement or ride comfort. Nor was it meant to.

On secondary roads, it's a real bone shaker, throwing into prominence rattles from the loose fit doors and bonnet. Worse still, the car jiggles off line on bumpy corners — a problem exacerbated by very ridge sensitive racing tyres which, being narrow in section by modern standards, provide nothing like the same sort of cornering power as a modern sportster on low profile radials.



With DS11 racing pads clamping unventilated discs, you have to push very hard on the unassisted brake pedal to anchor quickly. There was no evidence of the brakes' notorious wilting on the road, but they did judder a bit at high speed — just one of a number of inevitable teething troubles highlighted by initial shake down tests, of which our two runs formed a part.

Next on the agenda was workshop attention before the car saw any serious action with John Harper at the wheel at the JDC Silverstone meeting on April 3. Its fate after that remains to be seen. Guy Black would like to keep the car but he's not going to refuse any serious offer close to the £30,000 asking price.