

GROUP TEST





## LOTUS ECLAT EXCEL, PORSCHE 944 LUX

Long gone are the days of the cheap and cheerful sports car, that open topped roadster bought for a song and run on a shoestring. Safety regulations, industry rationalisation and much improved ordinary family saloons have put paid to that sort of motoring.

Now that the major car manufacturers have all but abandoned making sports cars, the job of satisfying the still present demand has fallen on the shoulders of the smaller specialist builders, and in rising to this challenge they have turned the traditional sports car into a very different breed.

With a variety of sporting style machinery bearing everyday names ready to snatch away potential customers from the specialist builders, the guidelines for being successful in the sports car business are strict. Performance and handling must be of the highest order, it must be a well refined motor car, and perhaps above all, it must be reliable.

Rolling all these qualities into a small scale production has resulted in the need to go right up-market and sell the cars at a decent profit so as to finance continual investment, and two such companies who have followed this path are Lotus and Porsche, the subject of this two car set-to.

Pitching Lotus and Porsche together represents the classic duel. Although the two marques do not generally do battle on the same race track, both are race bred with a long and distinguished competition record and are amongst the handful of cars which cannot fail to spring to mind the instant sports cars are mentioned. Both cars are carefully marketed to ensure the maximum competition spin-off, a key element in their respective public images.

The Eclat Excel, introduced last year, is not very different outwardly to the previous Eclat, yet it marks a significant step forward for Lotus. Despite the Norwich-based company's racing glamour, the road car side of the business has seen some hard times in the recent past, and although a lot of the trouble has been financial, the cars had a poor reputation for reliability and quality control. The Excel is, therefore, the first visible fruit of the Lotus-Toyota link which will result in co-produced sports cars in the future.

The car is still mostly Lotus, but the Toyota Supra gearbox is used and there are also a few other, smaller Toyota items fitted such as door handles, a component Lotus would previously have had to take from one of BL's bread and butter models and which was a detail which did not look good on this sort of sports car.

Mechanically the Eclat remains much the same as before. The Eclat's engine is placed longitudinally at the front driving the rear wheels and the unit used is the same 16 valve double overhead camshaft engine displacing

2174cc and producing 160 bhp which powers the Elite and mid-engined Esprit. Rather than opt for the sophistication of fuel-injection which is found on most high performance engines, Lotus have retained two double choke Dellortos. That gearbox is a five-speed, non overdrive.

The Excel's body has been slightly redesigned with a new nose and boot section, and has a different window line. Lotus claim this gives a drag factor of 0.32. The body is made of injection moulded materials which are described as composite, and it is grafted on to a steel chassis.

Front suspension is by wishbones, though it is the rear suspension which will be of the most interest, being

and lower wishbones at the front, and semi-trailing arms with torsion bars at the rear. Steering is rack and pinion, and brakes are all ventilated discs.

Porsche charge £14,969 for the 944, and there is a long list of desirable but very expensive extras.

### PERFORMANCE

LOTUS	●●●●●
PORSCHE	●●●●●

Being roughly the same weight, and with about the same horsepower, one would expect the two cars' performance to be closely matched, and indeed they are. But on the open road they are two different animals.

Far more appealing to begin with is

revs in top (the Excel final ratio is slightly lowered over the old Eclat), the car never felt undergeared and the engine does not roar its head off at high cruising speeds.

If the Lotus breathes excitement at the first touch of the throttle, the Porsche fights back with its immense torque, making the lower gears seem at times almost superfluous. Boot the accelerator pedal and the Porsche just shoots forward emitting its gruff disciplined note. 40-60 mph and 50-70 mph for example are impressively quick in fifth gear, taking around eight seconds.

Whilst flexibility is the Porsche's strongest suit, that's not to say the engine isn't an exciting one to use hard. It does not have, say, the silkiness of a BMW six, but it is uncannily smooth, those balancer shafts really doing their job well. The engine revs freely, easily up to the limit.

Though very little separates the acceleration figures of the two cars, there's clearly an important kudos in having the faster car, and here the Porsche loses to the Lotus. It's a little slower to 60 mph taking 7.8 seconds, and 100 is 22.5 seconds. However, in top speed the high geared Porsche easily outruns the Lotus by a good ten mph, reaching a 140 mph maximum.

The gearchange is a lot stiffer than the Toyota box, and is less fun to use but it nevertheless has a satisfying movement. It is short and changes can be made very quickly and is coupled to a precise if slightly heavy clutch. Gear ratios, like the Lotus, are fairly close except that fifth is an obvious overdrive, and the maximum speeds in each of the others save top are a little less.

### HANDLING AND RIDE

LOTUS	●●●●●
PORSCHE	●●●●●

It goes without saying that both of these cars have terrific handling, and both grip the road at limits far higher than the average driver would even think about.

The Lotus has the rare combined qualities of exceedingly high levels of grip and at the same time being very predictable when the adhesion runs out. When the front does begin to go a gentle understeer sets in, and rather than a whipping oversteer following on, the Excel remain neutral. Getting the tail to break loose is difficult; it can only happen when the throttle is suddenly lifted off, or perhaps more commonly if too much of that 160 bhp is applied mid-corner.

A Lotus would not be a Lotus without highly responsive and precise steering, and the Excel is no exception. At three turns lock to lock the gearing is ideal enabling the car to be hurled through a series of bends—the tighter the better. Our car came with the optional power steering, and a

# Double edged

**The latest and most markedly improved Lotus challenges Porsche for coupe superiority with some surprising results**

carried over from the Esprit. A lower wishbone is now complemented by an upper link which means the drive shaft no longer bears cornering loads. Brakes are discs front and rear, and steering is rack and pinion. Our car came with the optional power assistance.

The 'basic' Eclat Excel costs £14,273 and there are a number of expensive options such as air conditioning and full leather trim.

Also a four cylinder engine, but this time one of the biggest around, the 944's all alloy 2479cc overhead cam unit produces 163 bhp, and in order to eliminate vibration inherent in fours, Porsche have employed a Colt-style balancer shaft. Further refinement is added by the Bosch L-Jetronic fuel injection system.

To distribute the 944's 23.5 cwt as evenly as possible, the five-speed overdriven gearbox is positioned in a rear mounted transaxle.

The suspension is similar to the 924 set-up, with MacPherson struts

the Excel. Its engine revs superbly with delightful throttle response as the engine gulps in fuel through those two huge carburettors. The engine is smooth up to the 7000 rpm red line.

On a standing start the Excel darts happily off the line with good traction, reaching 60 mph in 7.2 seconds, 100 mph in just over 21, and hurtling on to a top speed of 129 mph.

The delightful twin cam engine apart, the real joy of the Lotus is the absolutely perfect gearbox. Not only is the change superb with just the right amount of feel, the five ratios are a perfect choice. Closely spaced second, third and fourth gears are ideally set for floor-it-and-go acceleration without worrying too much about which one you're in, and that compliments the already impressive mid range punch of the engine.

The gap between gears stacked high for cruising, and set low for maximum acceleration is well bridged on the Excel. Despite the fact that maximum speed coincides with full



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## LOTUS ECLAT EXCEL, PORSCHE 944 LUX

worthwhile addition it is too, giving just enough assistance to lighten the load without robbing it of feel.

Adding to the delicacy of the Lotus is the pedal arrangement. Being small and close together they allow fast footwork and quick heel-and-toeing when changing gear and braking, which itself is excellent inspiring total confidence.

The Eclat's wishbone suspension gives the Lotus a good ride with enough suspension travel to soak up most bumps, and on such a sporting car this really is an achievement. There is none of the unpleasant firmness usually found on chassis which are set up for flat roll free cornering, and even running on Goodyear NCT 60-series tyres does not result in a significant amount of bumpiness.

The Porsche feels equally grippy as the Lotus and is endowed with handling manners just as thoroughbred, but it feels a very different car. The controls are generally heavier than the delicate Lotus, and as such it feels much more of a traditional sports car.

Turning in power of the Porsche's front end is roughly similar to that of the Lotus, with understeer telling the driver that the limits of grip are soon to be reached. At the back the Porsche's traction is impressive, due in part to the rear transaxle which puts more weight over the rear wheels.

The sting in the tail comes should the driver lift off mid-corner, as the tail will rapidly flick round and the car can quickly spin. If caught in time however, re-applying the power will instantly bring the car back into line.

Steering is one count where the Porsche is unable to match the Lotus. There is plenty of feel in the system but it is heavy and there is no power-assistance available as an option. At 3.6 turns from lock to lock it is not quite as quick as the Lotus.

Ride quality too, is inferior to the British car; one feels one is in a firmly sprung sports car with handling put before comfort. The ride is not actually uncomfortable, but there is very little spring travel to soak up bumps and the result is a taut firmness which can become hard on some roads.

### ACCOMMODATION

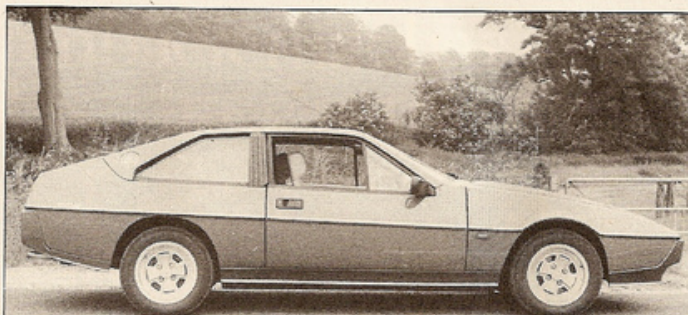
LOTUS  
PORSCHE



Both cars attempt to offer four-seat accommodation, but only the Lotus is in any way successful, with the Porsche managing only two-plus-two. But the score is evened up on boot space as the German car offers at least a small hatchback compared to the Excel's ordinary boot.

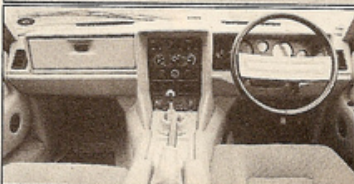
The Lotus has an excellent driving position, the type that on first acquaintance seems a trifle low and close fitting, but with familiarity soon shows itself to be ideal.

October 1983



New Excel version of familiar Lotus coupe has detail body changes but revised suspension to further enhance handling. Big four cylinder engine is ultra smooth but facia remains dull and boot is tiny

### LOTUS EXCEL



The front seats are very comfortable giving good side support, but we would take issue with the leather trim of our test car. It's quite likely that it will wear less well than cloth.

There is not the feeling of being in a very small cramped box when one is driving the Lotus, but as with all these types of sports cars, frontal and particularly rear vision is difficult thus making the Lotus tricky in town.

Passenger accommodation in the rear is limited, but by sports car standards it is good. A low bodyline and massive rear-drive transmission tunnel contrive to make things tricky in the rear, but there are two deeply sculptured seats either side of it and providing the front seats are not too far back there is enough room for average sized adults.

The Porsche front seats are comfortable, if not on the eyes due to

brightly patterned slightly off-check design which could lead to optical illusions. What spoils the driving position to some extent is a very low mounted, knee brushing steering wheel, which also may be too near.

In the rear, the seating is for small children only; adults would have difficulty in getting in, let alone enduring even short journeys. In order to maximise what room there is, Porsche have adopted the same method as Lotus in digging deep down either side of the transmission.

Luggage space favours the Porsche. Its hatchback is not exactly capacious, but the glass hatch opens wide and the rear 'seats' fold down. There's also a very handy luggage covering blind which pulls out of the seat back and clips neatly to the rear of the boot. A space saver spare tyre (not actually legal in Britain) is fitted in

a bay to the left hand side.

Boot space is a weak point on the Excel, as a flimsy little lid opens to reveal just a small load capacity with poor access. It's one area which belongs to a previous, less sophisticated generation of Lotus cars.

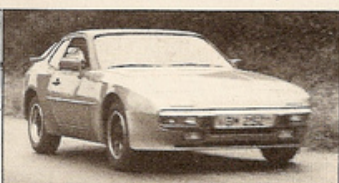
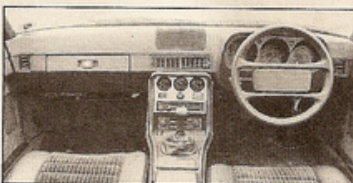
### LIVING WITH THE CARS

PORSCHE  
LOTUS



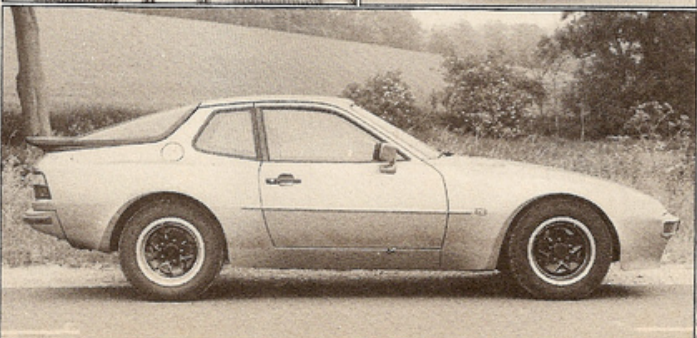
A quick look round the Excel confirms that Lotus are making continual progress away from their 'kit car' image of old which used to throw up some tatty design details.

The facia itself is neat, but the styling is on the dull side. The main – and dated – Smiths instruments are grouped ahead of the driver, and can all be seen well through the spokes of the steering wheel, and minor func-



Striking looking Porsche has impressive build quality; big engine is smooth but very high gearing takes edge off high performance; handling is taut and boot sensible size but facia ought to be better

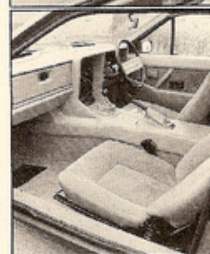
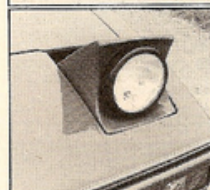
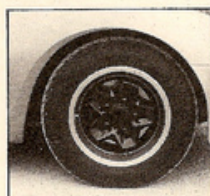
### PORSCHE 944 LUX





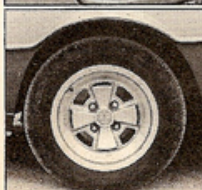
## GROUP TEST

## LOTUS ECLAT EXCEL, PORSCHE 944 LUX



Lotus rides well even on ultra-low profile 60 series NCT tyres. Interior has good passenger room, with tolerable room for those in the back seat

Porsche has many neat details, including rear spoiler and headlamp wash system. Tyres are less sophisticated than Lotus but still grip well



CAR	Lotus Eclat Excel	Porsche 944 Lux
<b>PRICE</b>	£14,273	£14,989
<b>PERFORMANCE</b>		
Max Speed (mph)	129	140
Max in 4th (mph)	116	115
Max in 3rd (mph)	91	85
Max in 2nd (mph)	62	58
Max in 1st (mph)	36	34
0-30 (sec)	2.3	3.0
0-40 (sec)	3.9	4.7
0-50 (sec)	5.6	6.1
0-60 (sec)	7.2	7.8
0-70 (sec)	10.3	10.7
0-80 (sec)	13.3	12.9
0-90 (sec)	16.9	17.2
0-100 (sec)	21.5	22.5
0-400 metres (sec)	16.6	15.9
Terminal speed (mph)	89	85
30-50 in 3rd/4th/5th (sec)	5.5/7.7/10.6	5.0/7.7/9.8
40-60 in 3rd/4th/5th (sec)	4.7/6.8/10.4	3.9/5.6/8.6
50-70 in 3rd/4th/5th (sec)	4.3/6.0/10.1	4.3/5.8/8.1
60-80 in 3rd/4th/5th (sec)	5.6/6.8/10.7	5.4/6.5/9.0

SPECIFICATIONS	Lotus Eclat Excel	Porsche 944 Lux
Cylinders/capacity (cc)	4/2174	4/2479
Bore x stroke (mm)	95x76	100x79
Valve gear	dohc	ohc
Induction	2 twin-choke	injection
Compression ratio	9.4:1	10.6:1
Power/rpm (bhp)	160/5500	163/5800
Torque/rpm (lbs/ft)	160/5000	151/3000
Steering	rack/pin	rack/pin
Turns lock to lock	3.3	3.6
Turning circle (ft)	34.0	34.0
Brakes	S/Di/Di	S/Di/Di
Suspension front	I/W/C	I/STA/Tor
Suspension rear	I/W/C	I/STA/Tor

COSTS	Lotus Eclat Excel	Porsche 944 Lux
Test mpg	22.1-26.2	24.5-30.1
Govt mpg City/56/75	20.0/36.2/29.4	24.8/40.4/32.5
Tank galls (grade)	14.7(4)	14.5(4)
Major service miles (hours)	6000(-)	12,000(4.9)

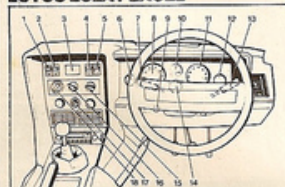
Parts costs (fitting hours)	Lotus Eclat Excel	Porsche 944 Lux
Front wing	N/A	£116.00(1.6)
Front bumper	£132.56(2.0)	£44.51(0.4)
Headlamp unit	£23.45(0.3)	£26.33(0.7)
Rear light lens	N/A	£34.01(0.6)
Front brake pads	£13.28(0.5)	£33.04(0.7)
Shock absorber	£24.62(1.0)	£65.06(2.2)
Windscreens	£270.65(9.0)	£198.00(2.9)
Exhaust system	£384.45(2.0)	£288.60(0.8)
Catch unit	£108.32(9.0)	£79.80(7.6)
Alternator	£91.58(0.5)	£275.00(1.2)
Insurance group	9	8
Warranty	12/UL	24/UL
Anti rust	5 yrs	7 yrs

EQUIPMENT	Lotus Eclat Excel	Porsche 944 Lux
Alloy wheels	yes	yes
Automatic choke	yes	yes
Automatic transmission	£298	£557
Electronic ignition	yes	yes
Central locking system	N/A	N/A
Power steering	£650	N/A
Air conditioning	£852	£912
Halogen lights	yes	yes
Electric mirrors	yes	yes
Electronic windows	yes	yes
Laminated screen	yes	yes
Tinted glass	yes	yes
Radio/Cassette	yes	yes
Leather trim	£774	£264-£832
Seat height adjustment	no	no
Sunroof	no	no
Rear wash-wipe	no	yes

DIMENSIONS	Lotus Eclat Excel	Porsche 944 Lux
Front headroom (ins)	35	38.5
Front legroom (ins)	41-46	38-46
Steering wheel-seat (ins)	16-22	16-26
Rear headroom (ins)	32	31
Rear knee room (ins)	33-40	13-23
Length (ins)	172.3	165.3
Wheelbase (ins)	97.8	94.5
Height (ins)	40.4	50.2
Boot Load height (ins)	35	35
Overall width (ins)	71	68.3
Int. width (ins)	56	54
Weight (cwt)	22.3	23.2
Boot capacity (cu. ft)	13.0	4.8/7.7

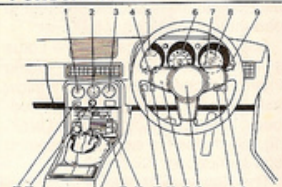
**KEY.** Valve gear: ohc, overhead camshaft; dohc, double overhead camshaft; Steering: rack/pin, rack and pinion; Brakes: Di, discs; S, servo assistance; Suspension: I, independent; C, coil springs; Tor, torsion bar springs; W, wishbones; McP, MacPherson struts; STA, semi-trailing arm location.

## LOTUS ECLAT EXCEL



1. Heated rear window
2. Hazard warning
3. Clock
4. Rear fog
5. Lights
6. Fuel
7. Rev. counter
8. Oil pressure
9. Temperature
10. Speedometer
11. Volts
12. Wipers
13. Choke
14. Indicators/dip/flash/horn
15. Air distribution
16. Lighter
17. Fan
18. Temperature control

## PORSCHE 944



1. Oil pressure
2. Clock
3. Volts
4. Fuel
5. Temperature
6. Speedometer
7. Rev. counter
8. Economy
9. Wipers
10. Lights
11. Rheostat
12. Horn
13. Indicators/dip/flash
14. Heated rear window
15. Hazard warning
16. Heater controls
17. Speaker balance
18. Lighter
19. Rear fog

tions are placed in the large centre console. Heating and ventilation is reasonable, but as air conditioning is offered, it is worth having.

Noise levels on the Excel are a lot lower than the deafening mid-engined Esprit Turbo we last tested, but they are still high.

The 944's interior is something of a disappointment, particularly in its fascia. Instruments are a yellow on black design with cheap looking perspex which distorts in the centre of each dial. Parts of the main dials are hard to read due to the steering wheel position, and the smaller dials in the centre console are poor.

Noise levels are less intrusive in the Porsche than in the Lotus, though this time the chief source of noise are the suspension and tyres.

Credit is due to the Lotus for quality control, but it certainly does not match the standard laid down by the Porsche. Everything about the Porsche is well engineered, the doors for example hang perfectly on their hinges and easily 'clunk' shut.

Ventilation is adequate with a quiet fan providing enough cool air for all but the hottest days, and as with the Lotus, there is an air conditioning option available.

## COSTS

PORSCHE	LOTUS
●●●	●●●
●●●	●●●

There's no question that both these cars are going to be expensive to run, but unusually, the fuel costs alone will not be prohibitive.

With its higher gearing the 944 is the better of these two cars. On long journeys with a lot of constant speed cruising, 30 mpg should be easily within the reach of drivers, and in a mixture of driving conditions one should be looking for around 25 mpg.

The Excel has less potential for outstanding fuel figures, having lower gearing, and throughout the test it gave from 24 to 26 mpg.

Porsche have a service schedule of 12,000 miles, and before that there are three free services, 1000, 3000 and 6000 miles.

The Lotus needs attention every 5000 miles, and so over an extended mileage will inevitably run up bigger servicing costs, and some replacement items such as an exhaust are very expensive indeed.

Understandably, there are few appointed dealers for either Porsche or Lotus, with 29 and 47 respectively. Porsche give a two-year/unlimited mileage guarantee along with seven year's worth of anti-corrosion warranty. Lotus guarantee their mechanical parts for one year and unlimited mileage; the chassis for five years.

## VERDICT

PORSCHE	LOTUS
●●●●●	●●●●●

It's a difficult decision, but in the end we would opt for the Porsche. From a driver's point of view the cars are closely matched; both are tremendous fun to drive. However, seen as an overall package the Porsche comes closer to perfection.

At one end of the scale the Porsche can trickle along in town traffic in top, its superbly flexible engine giving miserly fuel figures, and at the other, the same gear will sweep the car to a maximum of 140 mph with a minimum of fuss. It has a build quality which the Lotus cannot match and that alone may be enough to sway buyers unsure of spending so much money on a sports car.

The 944 isn't without its faults though. Rear accommodation is one area where it is bettered by the Excel, and trim and fascia could be better.

Placing the Lotus second in this test seems almost an injustice, as the Excel is probably the most refined Lotus we have tested yet, and certainly the most sensible.

To drive, the Lotus is excellent with a delightful engine and superb handling; some drivers might prefer it to the Porsche as it is alive with character compared to the slightly clinical nature of the German car. But it is in the more mundane day to day functions that the Porsche demonstrates its superiority, and that is what ultimately puts it ahead.

What Car?