

turbo espirit

HC



SPECIFICATION

ENGINE

Transverse, mid, rear-wheel drive
Head/ block al. alloy/al alloy. 4 cylinders in line.
Bore 95.3mm, stroke 76.2mm,
capacity 2174cc.
Valve gear 2ohc. 4 valves per cylinder.
Compression ratio 80 to 1.
Electronic breakerless ignition.
Twin Dellorto DHLA 45 carburetors
Garrett T3 turbocharger.
boost pressure 9.5psi (0.67bar).
Max power 215bhp (PS-DIN) (160kW ISO) at 6250rpm.
Max torque 220lb ft (298 Nm) at 4250rpm.

TRANSMISSION

5-speed manual
Gear Ratio
Top 0.82
4th 1.03
3rd 1.38
2nd 2.05
1st 3.36
Final drive ratio 3.88:1.

SUSPENSION

Front, independent, double wishbone. coil springs, telescopic dampers, and-roll bar.
Rear, independent, upper and lower transverse link with radius arms, coil springs, telescopic dampers, anti-roll bar.

STEERING

Rack and pinion.
Steering wheel diameter 14ins,
2.9 turns lock to lock.

BRAKES

Front 10.1ins(258mm) dia ventilated discs.
Rear 10.8ins (275.9mm) dia discs.
Vacuum servo.

WHEELS

Al alloy, 7ins rims front. 8ins rear.
Goodyear Eagle NCT tyres
size 195/60VR15 F, 235/60VR15 R.

ACCELERATION FROM REST

<i>True</i>	<i>Time mph (secs)</i>
30	2.05
40	2.85
50	4.20
60	5.35
70	7.35
80	9.25
90	11.85
100	14.65

Standing quarter mile: 14.4secs, 98mph

FUEL CONSUMPTION

Urban 15.7mpg, 56mph 35.6mpg and 75mph 28.8mpg. Grade of fuel: Premium, 4-star (96 RM) or unleaded (95RM) Fuel tank: 18.0 Imp galls (82 litres)

CLUTCH

Pedal 15lb; Travel: 6.0 ins

WEIGHT

kerb 3052lb/1386kg distribution % F/R 51/49 Test 3434lb/1559kg Max payload 501lb/227kg

WARRANTY

12 months/unlimited mileage. 8-years anti corrosion

The high-compression route for the normally-aspirated SE was a hint of how the final Turbo models ran out of production, prior to the October 1987 adoption of a completely new and much more rounded outline for the Esprit.

The Turbo Esprit HC (High Compression) appeared at the October 1987 Motor show in London. That occasion was also used to unveil another limited edition, based on HC running gear, that was intended to celebrate twenty years of Lotus in Norfolk and up the price per Esprit.

Sharing the limited Earls Court stand space in the autumn of 1986 were two versions of the HC, both offering 215bhp at an unchanged 6,250rpm (a 2.5 per cent bonus in power). Torque (the power to pull you through mid-range blues) was more urgently tweaked: 220lb ft at 4,250rpm representing a 10 per cent elevation, and a 250rpm drop in peak torque engine revs.

To make an Esprit HC yield another 5bhp and an additional 20lb of torque, Lotus had utilized some Excel SE engine techniques. Compression could not escalate beyond 10:1 with a turbocharger huffing in its four-valve-per-cylinder ears, but 8:1 was then reasonably advanced, especially given that this was not an electronically-managed fuel injection engine. In fact, Lotus increased the size of the carburetors (specifying Dell'Orto DHLA 45M), specified a balance pipe and ensured that the intake tracts were modelled on those of the Excel SE.



Mahle-forged pistons brought the increase in ratio from 7.5:1 to 8:1; Nikasil process for the liners was specified once more. Lotus rather reluctantly joined the European low-lead petrol age stating: 'The new Lotus turbo engine can be safely operated on unleaded fuel (minimum 95 RON). We recommend 4 star (98 RON) for maximum engine durability.' In other words, 'don't call us if it pinks a piston to death . . .'

Other fundamental changes to the engine at this point included new cast-iron manifold castings 'to improve gas flow' and a replacement casing for the Garrett AiResearch T3 turbocharger. Lotus also allow the boost to increase from 8psi to 9.5psi, which was approaching boldness, given the increase in the compression ratio.

Full performance results, according to Lotus, are given below, but can be summarized as offering a lot more mid-range acceleration (plus 20 per cent, said Lotus). Maximum speed was unaffected; fuel consumption was improved at constant speeds, and acceleration was just fractionally better than the already sensationally rapid 0-60mph time of 5.5 seconds achieved by the 210bhp turbocharger.

Interior improvements on all Esprits now included adjustable rake for the seat backs, and you could release the rear 'hatch' from within via remote control.