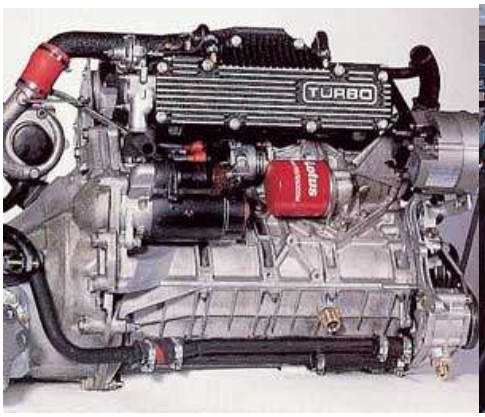
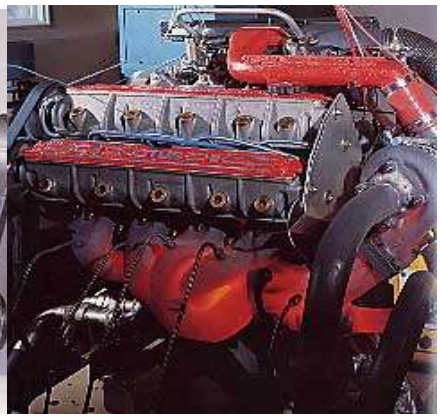
1980 LOTUS TURBO ESPRIT

Engine
Lotus 910 2174 cc four-cylinder in-line, 16-valve DOHC,
two Dellorto DHLA4OH side draugh carburettors.
Bore & Stroke: 95.25mm x 76.2mm. Compression: 7.5:1.
Block & Head: Aluminum alloy
Garrett AiResearch T3 Turbocharger running at 8psi
Power and Torque
210bhp @ 6250rpm
200lb ft @ 4500rpm
Body/Chassis
Glassfibre-reinforced plastic body with galvanised steel backbone chassis.
Passenger compartment encapsulated in a 'safety-cell structure'.
Transmission
Five-speed manual unit. Rear-wheel drive.
Clutch: 9.5in diaphragm spring, hydraulically operated.
Brakes
10.5in discs front
9.7in inboard discs rear
Dual braking system, split front/rear circuits
Steering
Rack-and-pinion
Suspension
Front: Independent by upper wishbones, lower transverse links, coil springs, anti-roll bar.
Rear: independent by non-parallel unequal-length double transverse links, radius arms, coil springs.
Wheels & Tyres
Front: 7J x 15
Rear: 8J x 15
Goodyear Grand Prix
Front: 195/60 VR15
Rear: 235/60 VR15
Weight
1,148kg
Performance
Top speed: 150mph
0-60mph: 5.6 sec
Fuel
Consumption: 23mpg.
Tank capacity: 15 gallons
Width: 73"
wheel base: 96"
Length: 169"
Height: 46

Though the car still carries the Esprit tag, the 1980 Turbo Esprit is effectively a new car, where the 6-valve engine has been punched out to 2174cc, using a bore of 95.25mm and a stroke of 76.20mm. The four-cylinder aluminium engine provides a manufacturer's claimed 210bhp at 6250rpm and 200lb ft of torque at 4500rpm. A Garrett T3 turbocharger which is mounted downstream of the twin Dellorto carburetors supplies boost up to 8lb p.s.i. and the engine operates on a 7.5:1 compression ratio. The turbocharger lubrication is direct from the main oil gallery, with drain to the dry sump (which later changed to a wet sump).





The current Esprit 5-speed gearbox has been retained and is attached to the engine block by a new alloy bell housing, while power is transmitted via a new clutch with increased capacity to the wheels via plunging constant velocity jointed driveshaft.

The Turbo Esprit's backbone chassis is completely new — zinc galvanised and with a five year guarantee subject to normally use — incorporating a wider front box section and suspension mounting points. A new space frame engine and transmission section is included, giving a four point wide-based mounting system and increased torsional stiffness. The front of the chassis houses a new full-width radiator and oil cooler with increased capacity.

The new front suspension has been adopted from the Elite, with the track increased by an inch, while the rear suspension is also revised, with unequal length transverse links with radius arms.

Bodyshell changes include large wrap-around front and rear bumpers, a full-width front spoiler for better air flow to the larger radiator/oil cooler and improved aerodynamics and a redesigned tailgate area to provide direct cooling airflow. NACA ducts have been moulded into the sills to provide cooling air into the engine compartment.


Cockpit changes have been made, including an instrument panel which now boasts a turbo boost gauge and speedometer running up to 170mph. Air conditioning controls are now situated in a centre console panel and all swith-gear is backlit when main and side lights are illuminated. The seats have revised foam foundations and with new head restraints.