



TECHNICAL DATA - VEHICLE

SECTION TDM - M111 ELISE

	<u>Page</u>
Dimensions	2
Capacities	2
Tyres	2
Winter Tyres	3
Wheels	3
Front Suspension	3
Rear Suspension	4
Electrical	4
Transmission	4
Clutch	5
Brakes	5
Steering	5
Fuel Consumption	5



DIMENSIONS

Overall length	- std		3726 mm (146.7 in)	
	- 111S		3734 mm (147.0 in)	
Overall width	- exc. mirrors	- std	1701 mm (67.0 in)	
		- 111S	1703 mm (67.0 in)	
	- inc. mirrors		1850 mm (72.8 in)	
Overall height (at kerb weight)			1148 mm (45.2 in)	
Wheelbase			2300 mm (90.6 in)	
Track	- front		1440 mm (56.7 in)	
	- rear	- std	1458 mm (57.4 in)	
		- 111S	1470 mm (57.9 in)	
Ground clearance			160 mm (6.3 in)	
Front overhang			746 mm (29.4 in)	
Rear overhang	- std		680 mm (26.8 in)	
	- 111S		688 mm (27.1 in)	
Approach angle			12.4°	
Departure angle			28°	
Unladen weight	- std	- total	755 kg (1664 lb)	>
		- front	303 kg (668 lb)	>
		- rear	452 kg (996 lb)	> inc.full fuel tank
	- 111S	- total	770 kg (1698 lb)	>
		- front	303 kg (668 lb)	>
		- rear	467 kg (1030 lb)	>
Max. weight	- std	- total	974 kg (2147 lb)	}
		- front	386 kg (851 lb)	}
		- rear	588 kg (1296 lb)	} inc.
	- 111S	- total	992 kg (2187 lb)	} occupants
		- front	376 kg (829 lb)	} & luggage
		- rear	616 kg (1358 lb)	}
Trailer towing			Not permissible	

CAPACITIES

Engine oil - dry		5.0 litre (8.8 imp. pt)
	- refill inc. filter	4.5 litre (7.9 imp. pt)
High/low dipstick mark difference		1.0 litre (1.8 imp. pt)
Transmission oil - dry		2.4 litre (4.2 imp. pt)
	- refill	2.1 litre (3.7 imp. pt)
Fuel tank		36.4 litre (8.0 imp.gall)
Coolant		8.0 litre (14.1 imp. pt)
Refrigerant (R134a)		0.85 kg (1.87 lb)

TYRES (Normal Use)

Standard Fitment

Type		Pirelli P Zero	
Size - front		185/55 R15 81V	
	- rear	- std	* 205/50 ZR16 87W
		- 111S & std. option	# 225/45 ZR16
Pressure (cold) - front		1.6 bar (23 lb/in ²)	
	- rear	- 205	1.7 bar (24.5 lb/in ²)
		- 225	1.9 bar (27.5 lb/in ²)

* *Pirelli Zero 205/50 rear tyres*: There are variations in the specification of Pirelli tyres with this designation, dependent on where and when they were manufactured. Lotus fitment should be:

- either: i) Made in Italy (moulded on inside tyre wall)
 or: ii) Made in Great Britain (moulded on inside tyre wall) **and** with a DOT date of week 35 year 1997, coded as 357, or later (see below).



- Note:
- a) The U.K. built tyre was introduced on production at VIN: V 1700 (approx).
 - b) Italian and U.K. variations of rear tyre should not be mixed on the same axle.
 - c) The DOT code is moulded on the outside wall, with only the last number group relevant to this issue. Note that the three digits represent a date code as explained above, and not an ordinary sequential number.

Pirelli Zero 225/45 rear tyres: There are variations in the specification of this Pirelli tyre dependent on when it was manufactured. For the Elise, use only tyres with a DOT date code of week 35 of year 98, coded as '358' or later.

Alternative Service Fitment

As an alternative to Pirelli tyres, a complete vehicle set of Michelin Pilot SX-GT tyres may be fitted in service using the wider rear tyre specification. It is not recommended to mix Pirelli and Michelin tyres on the same vehicle.

Type	Michelin Pilot SX-GT
Size - front	185/55 R15 81V
- rear	225/45 ZR16 89V
Pressure (cold) - front	1.6 bar (23 lb/in ²)
- rear	1.7 bar (24.5 lb/in ²)

WINTER TYRES

Type	Michelin X M+S 130
Size - front	185/55 R15 81T
- rear	195/60 R15 88T mounted on standard 15 inch front wheels
Pressure (cold) - front	1.6 bar (23 lb/in ²)
- rear	1.7 bar (24.5 lb/in ²)
Studding	Not permitted
Tyre chains	Pewag FX 67 S Ring-Super-X (A100G6011F) fitted only on rear winter tyres

WHEELS

Type	- std. prior April '99 approx. VIN X 6429	AWI light alloy; 5 split-spoke style
	- std. from April '99 approx. VIN X 6429	Rimstock light alloy; 12 spoke style
	- 111S & std. option	O.Z. light alloy; 6 spoke style
Size - front		5.5J x 15CH/H2 ET14
- rear	- std	7J x 16H2 ET16
	- 111S & std. option	7.5J x 16H2 ET10
PCD		95.25 mm
Inset - front		+ 14 mm
- rear	- std	+ 16 mm
	- 111S & std. option	+ 10 mm
Wheel nut torque		80 - 85 Nm

FRONT SUSPENSION

Type	Independent. Upper and lower wishbone; coaxial coil spring/telescopic damper unit; anti-roll bar.
Geometry check ride height (2 persons, ½ tank fuel)	
- front	140 mm below front end of chassis siderail
- rear	140 mm below rear end of chassis siderail
Alignment	0.2 mm toe-out overall; - 0, + 0.2 mm (0.03° toe-out overall; - 0, + 0.03°)
Camber	- 0.1°; + 0.1°, - 0.2°. Max side/side; 0.2°
Castor	+ 3.8°; ± 0.2°. Max. side/side; 0.2°
Steering axis inclination	12° nominal



REAR SUSPENSION

Type	Independent. Upper and lower wishbone; co-axial coil spring/telescopic damper.
Geometry check ride height (2 persons, ½ tank fuel)	
- front	140 mm below front end of chassis siderail
- rear	140 mm below rear end of chassis siderail
Alignment	1.2 mm toe-in each side; + 0.2 mm, - 0 (0.18° toe-in each side; + 0.03°, - 0)
	Max. difference side/side; 0.2 mm (0.03°)
Camber	- 1.8°; ± 0.2°. Max. side/side; 0.2°

For Motorsport suspension settings: see Section XA

ELECTRICAL

<i>Light Bulbs</i>	<i>Wattage</i>	<i>Type</i>
Headlamps	60/55	H4 P43t
Driving lamps	55	H1
Front side/parking lamps	5	W2x4.6d
Side repeater lamps	5	W2x4.6d
Front & rear turn indicators	21	SCC BA15s
Stop/tail lamps	5/21	SBC BAY15d
High mounted stop lamp	11	891
Rear fog lamp	21	SCC BA15s
Reversing lamp	21	SCC BA15s
Licence plate lamps	5	SU 8.5-8
Interior lamp	10	SU 8.5-8
Fascia switches	1.2	W2x4.6d
System voltage/polarity	12V negative earth	
Alternator	85A	
Battery - type	Tungstone 063	
- cranking power	380 A (SAE); 210 A (DIN); 38 Ahr	
- reserve capacity	60 minutes	
- European Type Number (ETN)	543-16	

TRANSMISSION

Type	5 speed manual transaxle. Bevel gear differential.
------	---

Standard:

<i>Gear</i>	<i>Ratio</i>	<i>Final Drive</i>	<i>mph(km/h)/1000 rpm</i>
First	3.17 : 1	)	5.5 (8.9)
Second	1.84 : 1	)	9.5 (15.3)
Third	1.31 : 1	) 3.94 : 1	13.4 (21.5)
Fourth	1.03 : 1	)	16.9 (27.2)
Fifth	0.77 : 1	)	22.9 (36.8)
Reverse	3.00 : 1)	

111S (close ratio):

<i>Gear</i>	<i>Ratio</i>	<i>Final Drive</i>	<i>mph(km/h)/1000 rpm</i>
First	2.92 : 1	)	5.6 (9.0)
Second	1.75 : 1	)	9.4 (15.1)
Third	1.31 : 1	) 4.20 : 1	12.6 (20.3)
Fourth	1.03 : 1	)	16.0 (25.7)
Fifth	0.85 : 1	)	19.4 (31.2)
Reverse	3.00 : 1)	



CLUTCH

Type	Single dry plate. Diaphragm spring cover. Hydraulic release.
Friction plate diameter	215 mm
Diaphragm finger clearance	1.00 mm
Diaphragm finger height - new	37.5 - 32.1 mm
- service limit	42.75 mm
Friction plate thickness - new	7.4 - 6.9 mm
- service limit	5.6 mm
Rivet depth - new	1.00 mm
- service limit	0.20 mm
Friction plate run-out - new	0.80 mm
- service limit	1.00 mm
Pressure plate warp - service limit	0.15 mm

BRAKES

Type	Ventilated front & rear discs. Opposed piston alloy front calipers. Single piston sliding rear calipers.
Disc material - prior June '98	Aluminium metal matrix
- from June '98	Cast iron
Disc size - front & rear	282.5 mm
Operation	Tandem master cylinder
Parking brake	Cable operation of rear calipers, self adjusting for pad wear.

STEERING

Type	Rack and pinion
Turns, lock to lock	2.4
Gear ratio	15.8:1

FUEL CONSUMPTION

93/116/EC - std	- urban	9.6 l/100 km (29.4 mpg)
	- extra urban	5.7 l/100 km (49.6 mpg)
	- combined	7.1 l/100 km (39.8 mpg)
	- CO ₂	168 g/km
- 111S	- urban	9.9 l/100 km (28.5 mpg)
	- extra urban	5.9 l/100 km (47.8 mpg)
	- combined	7.3 l/100 km (38.6 mpg)
	- CO ₂	174 g/km