



TECHNICAL DATA - VEHICLE

SECTION TDM - M111 ELISE

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## 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 <sup>2</sup> )	
	- rear	- 205	1.7 bar (24.5 lb/in <sup>2</sup> )
		- 225	1.9 bar (27.5 lb/in <sup>2</sup> )

\* *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 <sup>2</sup> )
- rear	1.7 bar (24.5 lb/in <sup>2</sup> )

### WINTER TYRES

Type	Michelin X M+S 130
Size - front	185/55 R15 81T
- rear	195/60 R15 88T mounted on standard 15 inch <b>front</b> wheels
Pressure (cold) - front	1.6 bar (23 lb/in <sup>2</sup> )
- rear	1.7 bar (24.5 lb/in <sup>2</sup> )
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

*Light Bulbs*

*Wattage*

*Type*

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 <sub>2</sub>	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 <sub>2</sub>	174 g/km