This press pack accompanied the UK launch of the third generation MR2, the MR2 Roadster, in March 2000. Changes to the model can be tracked using the Timeline feature on the MR2 archive web page. More information about the MR2 range can be obtained from the Toyota press office.

NEW MR2 ROADSTER

KEY POINTS

- The new MR2 Roadster is light weight (975kg) for maximum agility
- 1.8 VVT-i, 16-valve four cylinder engine produces 140PS@6,400rpm and 125lbft(170Nm)@4,400rpm
- 0-62mph in 7.9 sec, top speed 130mph
- Class leading power to weight ratio of 146hp per ton (6.96kg/PS)
- Costs just £18,495 on-the-road
- Optional hard top, air conditioning and leather covered seats
- MR2 stands for Midship Runabout 2-seater
- Independent MacPherson strut suspension and front and rear anti-roll bars
- 14in ventilated disc brakes all round
- Limited slip differential as standard
- Front-to-rear weight bias of 42:58
- Cd 0.35
- Strong A-pillars ensure rigidity equal to saloons
- Electro-hydraulic power assisted steering for precise control and reduced power drain on engine
- UK suggested chassis improvements adopted world-wide
- Four easy to understand Drive Plans to offer tailored finance options – a MR2 for just £219 per month
- 20,000mile/24 month service intervals with 10,000mile/12 month 'health check'
- Low cost parts and servicing (e.g. MGF 94% more for service parts)
- The MR2 was first launched in 1984; the Mark II was launched in 1990.
- The new vehicle is far lighter than the previous model - 975kg versus 1305 kg
- The fully retractable soft-top with glass rear window
- Light, plastic intake manifold reduces intake temperature and increases volumetric efficiency
- Stainless steel exhaust manifold adopts 4-into-2-into-1 design for smoother gas flow and improved mid-range torque
- 13E insurance group targeted (to be confirmed)
- On sale from 5 April

NEW MR2 ROADSTER – 100% SPORTS CAR

- Mid-engined, rear wheel drive
- Two-seater soft-top with optional hard-top
- 1.8-litre VVT-i engine for high performance and mid-range torque
- 'Intelligent engineering' cuts weight, adds performance
- Agile handling with excellent stability

The new Toyota MR2 Roadster is a no-compromise roadster designed to excite true sports car enthusiasts. It is fun to drive, good to look at and affordable to own.

The new Toyota MR2 Roadster combines traditional sports car characteristics with modern engineering. Returning to concept basics, Toyota drew upon its heritage of lightweight sports cars, the Sports 800, and the two previous generations of MR2, to create a new style sports car for the 21st century.

Like its predecessors, the new Toyota MR2 Roadster is mid-engined, rear wheel drive for precise handling. The new car also offers excellent stability and balance thanks to a longer wheelbase. Toyota engineers have used the very latest technology to cut weight and boost performance and it is in the area of agility that the mid-engine and lightweight design really shines.

Excellent weight distribution, thanks to the mid-engine design, combined with an ideal wheelbase to overall length ratio make this one of the most nimble of vehicles on the road. Quick and accurate response to driver commands is the name of the game for the new MR2 Roadster.

The MR2 Roadster's 1.8-litre engine has VVT-i (Variable Valve Timing-intelligent) for maximum mid-range torque (125lbft) and superb top-end power (140PS), with the best fuel consumption in its class (38.2mpg combined cycle).

MODERN SPORTS CAR STYLING

The MR2 Roadster is a sports car with striking looks. The basic characteristics are its long wheelbase, short overhangs and strong horizontal line, accentuated by the dramatic air scoop for the engine. The body is short (152in/3885mm) relative to the wheelbase (96.4in/2450mm) which increases responsiveness and lowers the centre of gravity. The wide track and long wheelbase also give it stability.

The interior is comfortable but clearly sporting. The bucket seats and the leather trimmed three-spoke steering wheel create the ideal sports car driving environment, which is enhanced by the aluminium pedals. The dashboard is clean, simple and the race car style instrumentation clear to read.

But drivers will not find the MR2 Roadster lacking in comfort. Power steering, power windows and remote control central locking are among the items that will be offered as standard equipment. An engine immobiliser, Thatcham category 1 alarm and double locking will help make the desirable MR2 Roadster secure.

A detachable hard top, creating a striking coupe look, is available as an option, as is a tailored hard top storage cover made from velour lined marine canvas. This, and a stand for safe storage during the long English summer months, have been developed by Toyota GB. Air conditioning and leather upholstery are the only other options available.

LIGHTWEIGHT DESIGN PHILOSOPHY

The light weight of the new MR2 Roadster is the key to its sparkling performance, low fuel consumption, agile handling and stable road holding.

Design engineers worked to a target of less than 1,000kg – they achieved 975kg - not just by reducing the weight of each individual component but looking at the design as a whole when considering performance. As a result, new MR2 Roadster has the best weight-to-power ratio in its class at 6.96kg/PS (146hp/ton).

MODERN SAFETY STANDARDS

As with all Toyota vehicles, safety has been a critical consideration in the design of the new Toyota MR2 Roadster which has a strong, stiff body.

Driver and passenger airbags are standard equipment and seat belts are pre-tensioned with force limiters to reduce the risk of chest injury in the event of an accident. The electro-hydraulic power steering offers precise steering assistance without drawing on engine power and is itself lightweight and compact.

With its mid-engined, rear-wheel drive configuration MR2 Roadster has an ideal weight distribution for maximum stability and excellent active safety. The lightweight platform means excellent braking performance and anti-lock braking is standard equipment.

INTELLIGENT ENGINE TECHNOLOGY

A sophisticated 1.8-litre, VVT-i engine developing 140PS at 6,400rpm and maximum torque of 125 lbft (170Nm) at 4,400rpm powers the new Toyota MR2 Roadster.

Thanks to its low body weight (less than 1000kg) the new MR2 Roadster has the best power-to-weight ratio in its class and performance to match. The car will hit 62mph from rest in 7.9 seconds and has a top speed, where allowed, of 130mph.

The VVT-i (Variable Valve Timing - intelligent) delivers power where it is needed most - at high engine speeds - and torque throughout the rev range, making the new MR2 Roadster easy and relaxing to drive. The precise five-speed manual gearbox has a slick, positive action to allow the driver to make the most of this exciting car's performance.

But the power comes without a penalty in fuel consumption. On the combined EU cycle, the MR2 Roadster will achieve 38.2 mpg, making it the most fuel-efficient car in its class and with exhaust emissions reduced to match.

The new MR2 Roadster is also equipped with Toyota Direct Ignition - individual computer controlled coils acting directly onto the spark plugs - which improve ignition timing, cut harmful emissions and reduce service costs. Toyota Direct Ignition means there is no distributor to be maintained and no ignition timing to be reset.

SOPHISTICATED SUSPENSION

The suspension design calls upon Toyota's long experience with mid-engined sports cars and has been developed to offer a firm, but comfortable ride that keeps the car stable and true.

The rear suspension is a dual link MacPherson strut design that has been refined and engineered for stability and light weight. The front suspension uses MacPherson struts, optimised to suit the mid-engined, rear wheel drive weight balance and characteristics.

Stylish, 15-inch alloy wheels are standard equipment with 185/55 R15 tyres at the front and 205/50 R15 at the rear. A limited slip differential for improved traction is also standard.

1. NEW MR2 ROADSTER IN THE UK

UK SPECIFICATION & PRICES

The new MR2 Roadster will come in just one derivative that has a very high level of standard equipment. It will cost £18,495 on-the road making the new MR2 Roadster great value for money as well as a great drive.

Standard Equipment:

- 15" alloy wheels
- 4-speaker audio with Sony radio/cassette/CD
- Leather-covered steering wheel
- Sports-style seats
- Electric/heated mirrors
- Electric Windows
- Thatcham Category 1 alarm and immobiliser
- Remote central locking with double locking

Options:

• Air conditioning	£ 900
• Colour coded hard top*	£1,500
• Leather upholstery	£ 500

* N.B. The hard top is only available as a factory option; there is no accessory hard top available. Black or dark red leather upholstery will be offered.

SPECIFICATION ADJUSTED PRICE COMPARISONS (see following table)

The MR2 Roadster represents an extremely high value specification and pricing proposition versus its main competitors.

Only the very stripped out, basic MX-5 undercuts the new MR2 Roadster, but to do so you have to sacrifice 15" wheels, CD player, ABS, remote and double locking and even alarm. Back to basics indeed.

Against the similarly powered MGF VVC, MR2 starts with a £2,500 advantage before you add a further £250 for the passenger air bag and no amount of money can add the heated glass rear window that comes standard on the MR2 Roadster.

Details of the Vauxhall VX220 are not yet known, but it will have to undercut the Lotus Elise on which it is based by a considerable margin to lessen the almost £5,000 price gap between the MR2 Roadster and the Elise.

COMPETITOR SPECIFICATION ADJUSTED PRICE COMPARISONS

	Toyota MR2 Roadster 1.8 VVTi	Mazda MX-5 1.8i	Mazda MX-5 1.8i S	Rover MGF 1.8i	Rover MGF 1.8i VVC	Lotus Elise 1.8i
OTR Price	**£18,495**	**£16,845**	**£18,820**	**£18,270**	**£20,999**	**£22,675**
15" alloy wheels	✓	×	✓	✓	✓	✓
14" alloy wheels	×	✓	×	×	×	×
Radio/cassette player	✓	✓	×	✓	×	×
In dash CD player	✓	×	×	£150	✓	£150
4 speaker audio system	✓	×	×	✓	✓	×
Twin airbags	✓	✓	✓	£250	£250	×
ABS	✓	×	✓	£550	✓	×
Remote locking	✓	×	✓	✓	✓	×
Double locking	✓	×	×	✓	✓	×
Alarm and immobiliser	✓	×	×	✓	✓	£295
Power front windows	✓	×	✓	✓	✓	×
Heated glass rear window	✓	✓	✓	×	×	×

Spec Adjusted Price	**£18,495**	**£16,845**	**£18,820**	**£19,220**	**£21,249**	**£23,120**
% Price Difference	**-**	**-8.9%**	**+1.8%**	**+3.9%**	**+14.9%**	**+25%**

THE TWO-SEATER SPORTS CAR MARKET IN THE UK

The overall UK sports car market has been growing in recent years. In 1999 UK sales amounted to almost 69,000 units. The 2-seater sports car segment accounts for 37% of sports car sales.

The 2-seater sports car market can be broken down into four main areas:

Extreme Sports:

- These are 2 seater sports cars that are for the real sporting enthusiast
- They are often stripped of items such as carpets and audio equipment
- Purposely lightweight to optimise driving performance and fun
- Lotus Elise and Renault Spyder

Prestige Low Sports:

- These cars are premium priced, but at the lower end of the premium scale
- Between £20,000 and £35,000
- Alfa Romeo Spider, TVR Chimaera, Mercedes-Benz SLK, and BMW Z3

Prestige High Sports:

- These are priced at the top end of the premium scale
- Prices starting from £40,000
- Jaguar XK8 and Mercedes-Benz SL

Accessible Sports:

- It is this sector where the new MR2 Roadster will compete
- Prices range from £15,500 to £21,000
- This sector is dominated by the Mazda MX-5 and Rover MGF
- Fiat's Barchetta was launched in 1995, but as it is only available in left-hand drive, its contribution to the 2-seater segment has been very small

UK MARKET POTENTIAL

Toyota GB expects to deliver 2,700 new MR2 Roadsters in 2000 with a running rate in a full year of 3,500, significantly higher than the previous model has achieved for a decade.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
UK sales	4053	3022	2170	1357	997	827	771	684	370

COMPETITOR COMPARISONS

Power to Weight Ratio

Like the new Celica, the new MR2 Roadster has been designed to be light in weight (975 kg). The power to weight ratio is a good indicator of the vehicle "feel":

	Power to weight ratio BHP/ton
New MR2 Roadster 1.8	**146**
Mazda MX-5 1.8	137
Rover MGF 1.8 (145 bhp)	136
Fiat Barchetta 1.7	125
Rover MGF 1.8 (120 bhp)	113

Fuel Economy and CO_2 Emissions

The MR2 Roadster has a very impressive combined fuel consumption figure and consequently low emissions.

	Combined MPG
Rover MGF 1.8 (120 bhp)	38.3
New MR2 Roadster 1.8	**38.2**
Rover MGF 1.8 (145 bhp)	36.3
Mazda MX-5 1.8	33.2
Fiat Barchetta 1.7	33.2

Dimensions

MR2 Roadster has the longest wheelbase, but the shortest overall length among its competitors. Extending the wheelbase length within a shorter body has the effect of improving the vehicle's stability. Allied to the MR2's light weight agility, it makes for a very controllable, fun to drive car.

Dimension Comparison (mm)	Overall Length	Overall Width	Wheelbase	W'Base /Length % Ratio
New MR2 Roadster	**3885**	**1695**	**2450**	**63%**
Rover MGF	3910	1630	2380	61%
Fiat Barchetta	3911	1640	2275	58%
Mazda MX-5	3975	1680	2265	57%

Performance

The new MR2 Roadster features Toyota's new 1.8 16v VVT-i petrol engine. VVT-i engine technology delivers performance that is flexible throughout the range, quiet, economic and clean when compared to competitive offerings.

	Engine cc	Power bhp	Torque lb.ft	Comb. mpg	0-60 mph	Max speed mph
New MR2 Roadster	**1794**	**140**	**125**	**38.2**	**7.9***	**130**
MGF (145 bhp)	1796	145	128	36.3	7.5	126
MX-5	1839	140	120	33.2	7.4	123
MGF (120 bhp)	1796	120	122	38.3	8.5	120
Barchetta	1747	131	120	33.2	8.7	118

* 0-62mph time for MR2 Roadster

TOYOTA DRIVE PLANS FOR MR2 ROADSTER

The whole Toyota range of Toyota Drive Plans is available to MR2 Roadster customers who can choose from four specific Toyota Drive Plans or benefit from a Drive Plan tailored to meet their individual needs. For example, a typical MR2 Roadster customer may welcome the low entry costs offered by **Easy Start**.

Toyota Drive Plans Summary

The four specific Drive Plans for MR2 Roadster are:

1. Easy Start

Easy Start makes the MR2 Roadster affordable and it is especially suited to younger buyers. Its key features are:

- Low start Toyota Terms package
- One rental in advance + 23 monthly payments + GFV (guaranteed future value)
- Appeals to younger buyers, newly qualified professionals and in particular to second car buyers
- This is quite unique in the retail market place where it is more common to see deposits of 10% or more

2. Easy Drive

Easy Drive, available over 2 or 3 years on new MR2 Roadster models, is a worry-free motoring package based on a Toyota Terms agreement. Its key features are:

- The cost of the car on a 2 or 3 year Toyota Terms agreement with deposits of between 10% and 35%
- A 2 or 3 year Easy Care Servicing Plan
- Extended Club Toyota membership to cover 2 or 3 years in total
- As a further option the cost of 2 or 3 years car insurance from Toyota Insurance can also be included.

3. Business Drive

The new MR2 Roadster is likely to have a limited appeal to the fleet sector, but will be popular among small business customers. Business Drive could be the ideal solution for this type of customer.

Business Drive is a fully maintained Contract Hire package available over 2 or 3 years. As the monthly rentals attract VAT (50% of which is reclaimable on the finance rental and 100% on the maintenance element) Business Drive is particularly suited to VAT registered businesses.

MR2 Roadster Business Drive includes:

- The cost of the car on a 2 or 3 year Contract Hire agreement
- Routine scheduled servicing
- Mechanical repairs (required through fair wear and tear)
- Replacement tyres
- Relief vehicle in the event of mechanical failure
- Renewal of road fund licence in 2nd/3rd year
- RAC Cover/European Cover/Extended Club Toyota
- Accident Management Service

4. Easy Care

Easy Care is a stand alone pre-paid servicing plan which customers can buy either as an outright purchase or by 10 monthly direct debit payments. This is the same servicing plan that is packaged into Easy Drive.

The key features are:

- Available over 2 or 3 years with various mileage options
- Covers major service and intermediate oil/filter change(s), service, parts and consumables

Drive Plans Flexibility

Whatever the needs of the MR2 Roadster customer a Drive Plan can be created to suit their requirements using the breadth of the Toyota Financial Service's portfolio.

EXAMPLES OF TYPICAL MR2 ROADSTER DRIVE PLANS

Easy Start

On the road cash price	£18,495
Deposit/Initial payment	£505
23 Monthly Payments	£505
Guaranteed Future Value/Final Payment	£10,886.22
Total amount payable*	£23,116.22
APR	17.12%

Based on 10,000 miles per year (non-maintenance) on Toyota Terms.
Additional mileage charged at 15.3p per mile (inc. VAT).
*Includes £70 Credit Facility Fee (charged with first payment) and £40 Option to Purchase Fee (charged with Final Payment).

Drive Plan based on Toyota Terms – 20% deposit

On the road cash price	£18,495
Deposit/Initial payment	£3,699
23 Monthly Payments	£349
Guaranteed Future Value/Final Payment	£10,829.17
Total amount payable*	£22,665.17
APR	17.52%

Based on 10,000 miles per year (non-maintenance) on Toyota Terms.
Additional mileage charged at 15.3p per mile (inc. VAT).
*Includes £70 Credit Facility Fee (charged with first payment) and £40 Option to Purchase Fee (charged with Final Payment).

Drive Plan based on Toyota Terms – 35% deposit

On the road cash price	£18,495
Deposit/Initial payment	£6,473.25
23 Monthly Payments	£219
Guaranteed Future Value/Final Payment	£10,643.80
Total amount payable*	£22,225.05
APR	18%

Based on 10,000 miles per year (non-maintenance) on Toyota Terms.
Additional mileage charged at 15.3p per mile (inc. VAT).
*Includes £70 Credit Facility Fee (charged with first payment) and £40 Option to Purchase Fee (charged with Final Payment).

Full written quotations available on request from Toyota Financial Service (UK) PLC. Indemnities may be required. All applications for credit are subject to acceptance. Prices correct at time of going to print.

FULL AFTER SALES SUPPORT

SERVICE SCHEDULE

As with other new engines recently introduced by Toyota, the MR2 Roadster benefits from reduced servicing time thereby reducing the cost of ownership. The service schedule is as follows:

- A full Health and Safety service every 20,000 miles or 2 years, whichever comes sooner
- An intermediate oil and filter service, with additional "health check" inspections at a Toyota dealer every 10,000 miles or 12 months

The Health and Safety checks performed by the dealer will cover the areas of braking system, steering system, lighting and tyres.

LOW COST OF OWNERSHIP

Over a three-year/60,000 mile period this will bring maintenance costs, including tyres and brake pads, of just £1,608.44 (and that's allowing for 5 per cent per annum inflation too). The equivalent figures for the MGF and MX-5 are £2,425 and £1,880 respectively.

These comparatively low maintenance costs are achieved partly by the longer service intervals, but also Toyota's policy of offering good value, genuine parts. For example the basket of typical service parts listed in the following table shows that MR2 Roadster is almost half the price of MGF and only two thirds of Mazda MX-5.

LOW COST PARTS

Crash repairs are likewise cheaper for the new MR2 Roadster. The parts required to repair a common front impact are 47 per cent more expensive on both MGF and MX-5. It is a similar story for rear impact damage with the MGF parts costing 49 per cent more, the Mazda's 24 per cent. These higher costs will also be reflected in higher insurance ratings and premiums.

FULL WARRANTY

Like all new Toyotas, the new MR2 Roadster will be backed by a pan-European three-year, 60,000mile warranty, six-year paint warranty and a 12-year, anti-perforation bodywork warranty. Full after sales support is available through Toyota's extensive and highly trained dealer network.

ACCIDENT AND SERVICE PARTS PRICE COMPARISON

	Toyota MR2 Roadster	Mazda MX-5	MGF
Bonnet (Hood)	**139.00**	219.15	218.36
Radiator Grille	**32.22**	not applicable	not applicable
Front Bumper Cover	**97.51**	206.53	171.38
Front Wing *	**79.59**	96.13	95.09
Headlamp (excl. bulb) *	**69.27**	92.39	99.27
Front Indicator *	**part of headlamp**	part of headlamp	28.18
Total Front	**417.59**	614.20	612.28
% Diff. vs. MR2 Roadster	**+ 0%**	+ 47%	+ 47%
Rear Bumper Cover	**115.25**	201.13	171.38
Tailgate / Engine Cover	**196.59**	158.34	265.49
Rear Quarter Panel **	**128.19**	168.58	201.68
Rear Combi Light (excl. bulb) **	**25.76**	48.38	56.18
Total Rear	**465.79**	576.43	694.73
% Diff. vs. MR2 Roadster	**+ 0%**	+ 24%	+ 49%
Oil Filter	**6.95**	5.90	5.45
Air Filter	**12.89**	13.60	11.40
Front Brake Pads	**34.91**	54.98	55.35
Rear Brake Pads	**29.83**	49.98	74.50
Spark Plug each	**3.49**	2.38	11.16
Spark Plugs (set)	**13.96**	9.52	44.64
Total Maintenance	**98.54**	133.98	191.34
% Diff. vs. MR2 Roadster	**+ 0%**	+ 36%	+ 94%
Total all parts	**981.92**	1,324.61	1,498.35
% Diff. vs. MR2 Roadster	**+ 0%**	+ 35%	+ 53%

* = RH part / ** = LH part

Sources : Manufacturer & Thatcham Parts Analysis

2. LIGHT WEIGHT MR2 ROADSTER IS A BASIC CONCEPT

- New MR2 Roadster breaks the 'more power, more weight' cycle
- Weighs under 1,000kg (975kg to be precise)
- Best power to weight ratio in class -146hp per ton (6.96kg/PS)
- More economical, more agile as a result
- Appeals to young, single buyers

The new Toyota MR2 Roadster sets a new standard for mass market, affordable sports cars by going back to basics. With this car performance is not about power - powerful cars need powerful brakes, stronger chassis, heavier suspension and larger, thirstier engines. With MR2 performance is about the triumph of power over weight.

Chief engineer, Tadashi Nakagawa, explains: "Putting a big engine into a heavy structure is easy, but we did not want to create a car that would become a dinosaur. Our aim was to break the negative cycle where adding more power adds more weight.

"Our aim was to create an agile and lean sports car, easy to drive and responsive to the driver's command. I think we have succeeded."

WHOLE VEHICLE INTELLIGENT ENGINEERING

- Consider the car as a whole, not individual components

Weight reduction was not just a theoretical target during new MR2 Roadster development, it was a fundamental concept. New MR2 Roadster had to weigh less than 1,000kg - or it would not get built.

All new cars in development have a weight target. But, in practice, the individual engineers working on each component leave their own individual small margins, "just to be sure", rather than reduce to the minimum specification. These small safety margins add up and often become self-fulfilling prophecies. The car is overweight, so the margin was necessary!

Not so with MR2 Roadster: each development engineer was told to abandon individual margins and treat the car as a whole. The result - new MR2 Roadster is actually 25kg under target.

GAINING BENEFITS FROM SAVING WEIGHT

- More economical, 1.8-litre VVT-i engine
- Lowest in class running costs

The new MR2 Roadster could have been designed with a more powerful engine but reducing engine power reduces the demands on the chassis as a whole - enabling further weight savings and better overall performance.

"The MR2 Roadster will reach 130mph and accelerate to 62mph in 7.9 seconds says Tadashi Nakagawa. "Why install a more powerful engine which would have needed a heavier chassis, bigger brakes, a bigger radiator, wider wheels and so on?"

With its 1.8-litre VVT-i engine, the new MR2 Roadster is the most economical sports car in its class, achieving 38.2mpg on the European combined cycle, but fuel saving is not the only benefit. Other whole-life running costs, such as replacement tyres, servicing costs and insurance (particularly important for the youth market) are reduced accordingly.

MORE AGILE HANDLING

- Reducing the yaw moment of inertia (here comes the science bit!)

New MR2 Roadster has the longest wheelbase in its class. This means more stable handling but, ironically, can make a car less quick to turn, less agile - unless the weight is reduced.

If the wheel base is lengthened, the distance between the car's centre of gravity and the front tyres increases. The product of this distance and the 'cornering force' (CF) required to make the car turn defines the yaw moment of inertia, its 'agility' rating.

The best way to reduce the CF is cut weight, making new MR2 Roadster potentially the most 'agile' car in its class - a characteristic enhanced by the front-to-rear weight balance of 42:58.

WHO NEEDS A BOOT?

- Target market is young and single, and "empty nesters"

Creating luggage space was not a priority in the MR2 Roadster although there is room for small bags and lightweight overnight luggage. The decision not to include a boot enabled the designers to achieve yet more weight saving.

In most cars, structural body members have to be shaped to create as much interior space as possible. However, curved members are not very strong and require additional strengthening or more complex design, all of which add weight.

In the new MR2 Roadster, straight body members are adopted throughout. The result is a frame that is strong, stiff and light.

Deciding not to include a rear boot reduced the number of bulkheads required and also simplified the design of the engine exhaust manifolds. Attempting to retain the boot would have meant more rear overhang, complex heat-absorption measures and considerable weight increase. It would also have compromised the near perfect weight distribution that the new car currently enjoys.

3. STYLED TO EXCITE THE MARKET

- Two-seat, mid-engined sports roadster
- Affordable performance for young, single buyers
- Compact body, long wheelbase
- Easy to use soft top
- Optional hard-top for coupe look

New MR2 Roadster enters a market where style, image and performance are all important. But, in the two-seater market, affordability and some degree of practicality are important too.

New MR2 Roadster is more extreme than some of its rivals, more pure in concept and certainly offers better performance. It is both faster and more economical than established players in the market.

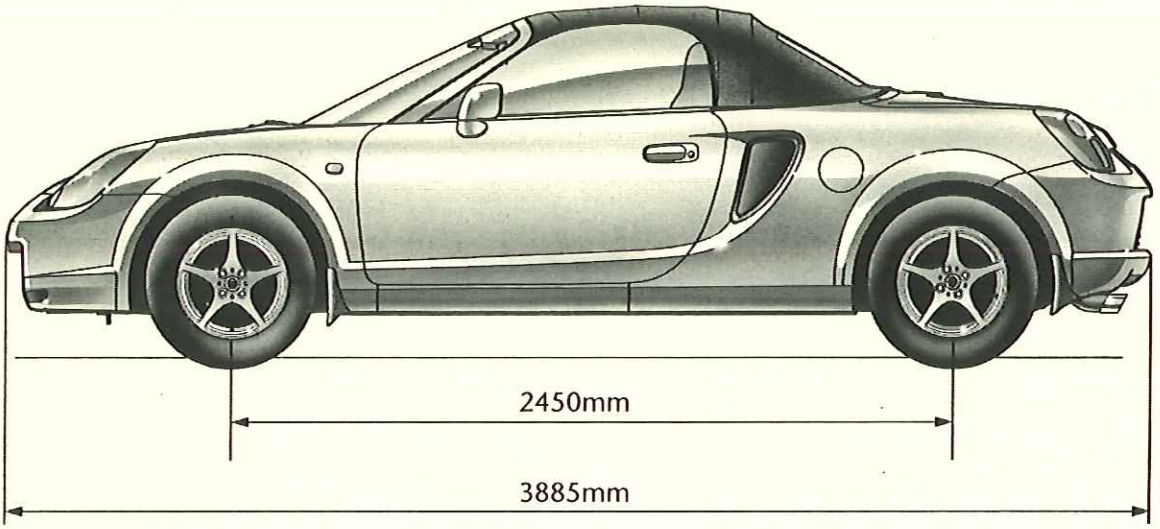
It is also more accessible than low volume roadsters from specialist manufacturers as it will be fully supported by Toyota's pan-European dealer network and warranty; backed by Toyota's unrivalled reputation for quality engineering and reliability.

Customers for new MR2 Roadster will predominantly come from two groups – the young and mainly single – and the older so-called 'empty nesters'. In general they will be well-informed enthusiasts and, unlike buyers for other models in the segment, are more likely to be male than female.

COMPACT DESIGN

- Short overall length (152in/3,885mm)
- Longest wheelbase in class (96.4in/2,450mm)
- Squat, wide design (width, 66.7in/1,695mm)

The new Toyota MR2 Roadster is compact and purposeful. The low front grille gives it an aggressive look while the side view accentuates the wedge-shaped, mid-engined stance. The characteristic side intakes and sharp lines emphasise its sporting heritage.



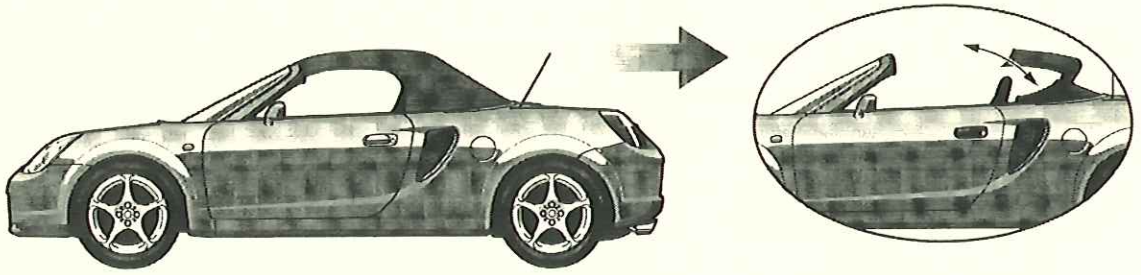
From the rear the width of the car and its low, flat styling become apparent, taking styling cues from the great names of sports car design.

THAT OPEN-TOP FEELING

- Easy use manual soft-top
- Glass rear window with electric de-mister
- Wind deflector for reduced turbulence
- Optional hard-top

The new MR2 Roadster features an easily operated soft-top that can be raised or lowered from within the car. Two catches lock the fabric hood down onto the top of the windscreen.

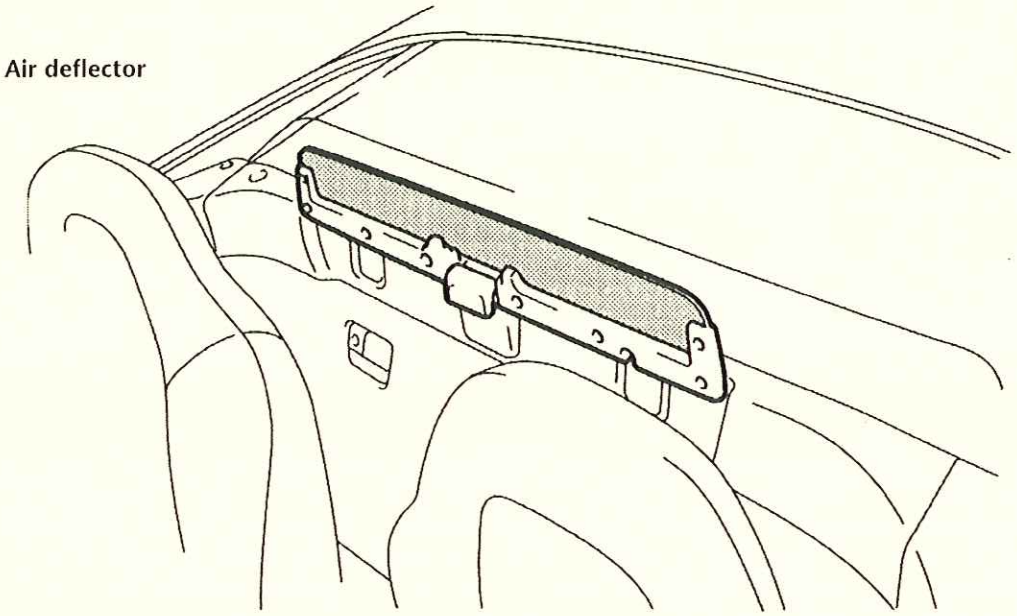
The hood has only two folds (most soft-tops have three folds). This means the roof folds neatly down into the space behind the seats without turning 'inside-out'. There is no need for a tonneau cover to keep the hood looking neat - and less soiling of the hood interior because it is always facing downwards.



A single catch holds the hood securely and neatly in place.

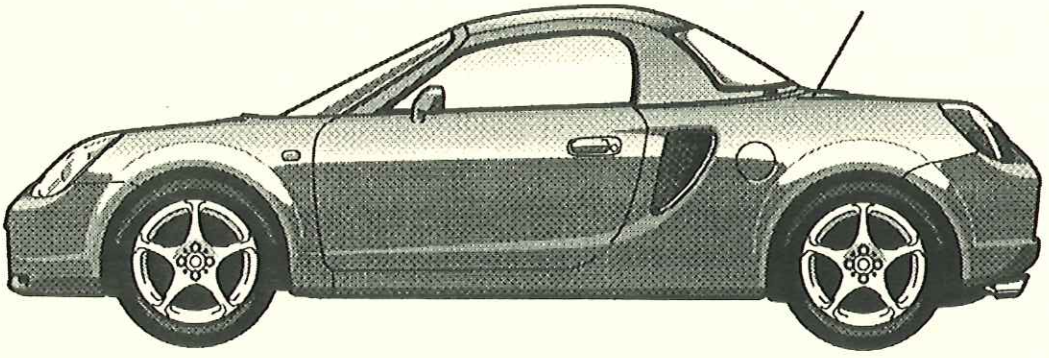
The MR2 Roadster rear window is 2.5mm reinforced glass with an electric de-fogger for excellent rear visibility at all times.

A simple, manual air deflector on the rear bulkhead can be popped up to reduce turbulence when driving with the top down.



For extra comfort, particularly in winter, an optional hard-top can be fitted. This factory fitted option is styled to follow the sleek lines of the new MR2 Roadster and creates a coupe look that enhances the vehicle's presence on the road.

A UK developed hard top cover and storage stand is available. The cover is velour lined marine canvas and will cost £149.95 and the storage stand £89.85. A full range of accessories is also available.



SPORTS STYLE INTERIOR

- Three-spoke, leather steering wheel
- Clear, simple instrumentation
- Sports-style bucket seats
- Aluminium pedals and footrest

The interior of new MR2 Roadster is sporty but not spartan. There are several storage compartments for small items, two cup holders and a door pocket for folding maps. A rotary-control heater is standard equipment and air-conditioning is an option.

Power windows - driver's one-touch down - are standard equipment, with switches mounted in the centre console. A four-speaker, Sony CD/cassette/radio system is fitted as standard as is an electric aerial.

TWIN LUGGAGE COMPARTMENTS

Luggage space, divided into two sections, is provided behind the seats. The compartment has lockable lids and a folding parcel shelf is also available for use when the soft-top is closed and with an open top.

There is additional storage space in the front box, which also accommodates the spare tyre. There is also a spacious, lockable glove box.

ANTI-THEFT SECURITY

- Engine immobiliser
- Thatcham category 1 alarm
- Double locking
- Lockable fuel-filler and engine cover
- Front box opener in glove compartment

New MR2 Roadster uses a key-code engine immobiliser that means the engine cannot be started without the correct ignition key. The engine ECU looks for a matching code from a transponder buried in the ignition key.

Remote control central locking with double locking is standard equipment. The front box storage compartment cannot be accessed without unlocking the glove compartment.

A Thatcham approved category 1 alarm system also helps keep insurance premiums to a minimum for this type of car.

BRIGHT COLOURS AND TRIM

New MR2 Roadster will come in five lively colours (red, black, silver, blue and green) to suit its sports styling and seat trims can be either red or grey-black, depending on exterior colour.

Tyre sizes are 185/55R15 at the front and 205/50R15 at the rear with sporty five-spoke aluminium wheels as standard.

4. SAFETY FROM THE START

- Driver and passenger airbags
- Anti-lock braking as standard
- Strong, stiff bodyshell
- Precise power steering
- Independent, MacPherson strut suspension all round

The new MR2 Roadster is the first Toyota to be designed from the outset as an open-topped sports car. It is not a remodelled coupe or a saloon with the top cut off. Thus, the safety requirements of a sports roadster were integrated from the start.

SRS (Supplemental Restraint System) airbags are standard equipment for both driver and passenger. They work in conjunction with the pretensioning seats belts and force limiters to reduce chest and upper body injury in the event of a frontal impact.

The MR2 Roadster is also equipped with a fuel cut-off control that stops the fuel pump to minimise fuel leakage if the airbags are deployed.

POWERFUL, EFFECTIVE BRAKES

- Ventilated discs front and rear
- Anti-lock braking as standard

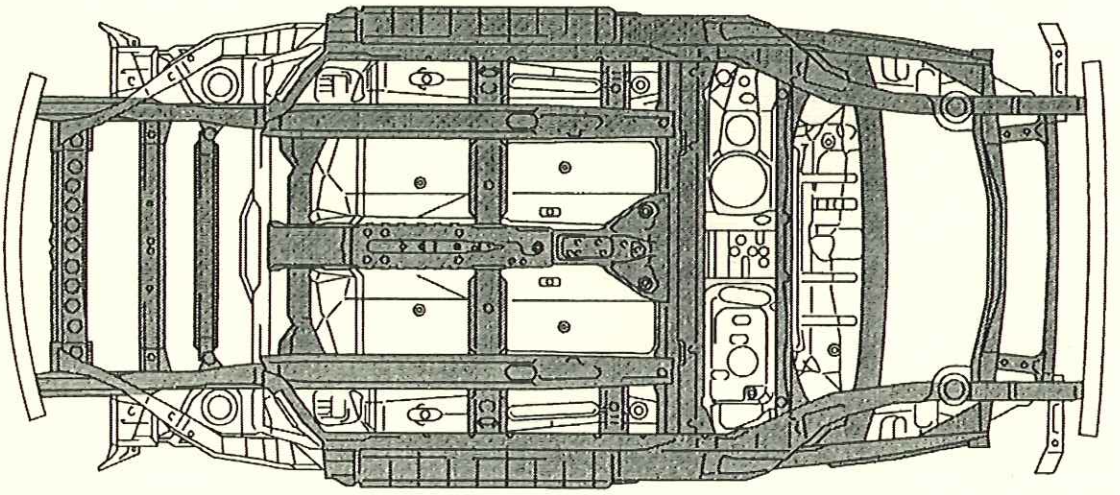
The weight reduction programme for MR2 Roadster has helped its braking performance but powerful, 14-inch ventilated discs are fitted front and rear nonetheless. A lightweight 8-inch brake pressure booster is used.

The brake pedal mechanism has been designed to retract in the event of a frontal collision, reducing the risk of injury to the driver's lower legs.

STRONG, STIFF BODYSHELL

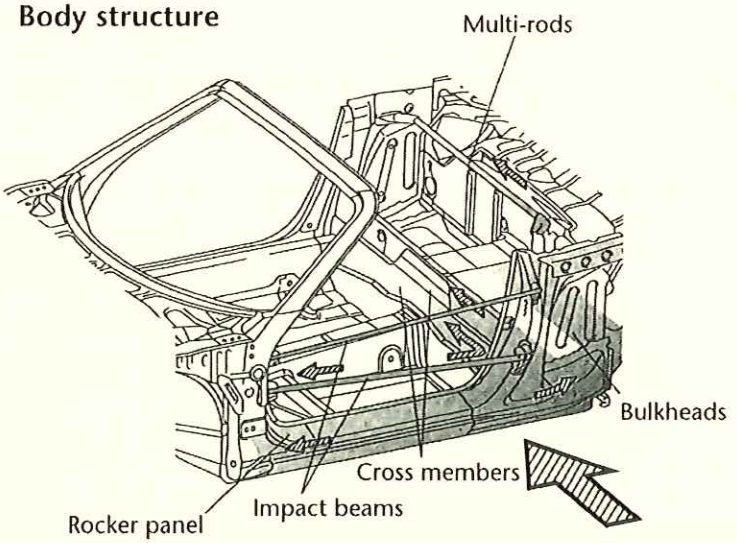
- High tensile sheet steel construction
- Straight main members for light weight and rigidity
- Impact absorbing structure front and rear
- Side impact door beams and energy absorbing pads

The simple, straight main framework of the new MR2 Roadster is not only light; it is also highly rigid and contributes greatly to the structural strength of the chassis and bodyshell. High tensile sheet steel for the majority of the body panels adds to this strength.

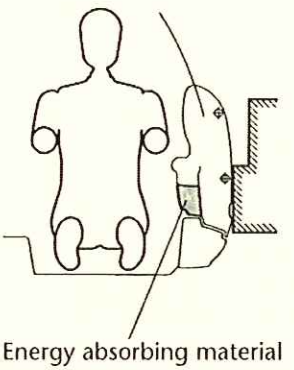


In a side impact, the integrated door beams dissipate energy to the main cabin structure and a door trim centre pad helps dampen any impact to the occupants during the collision.

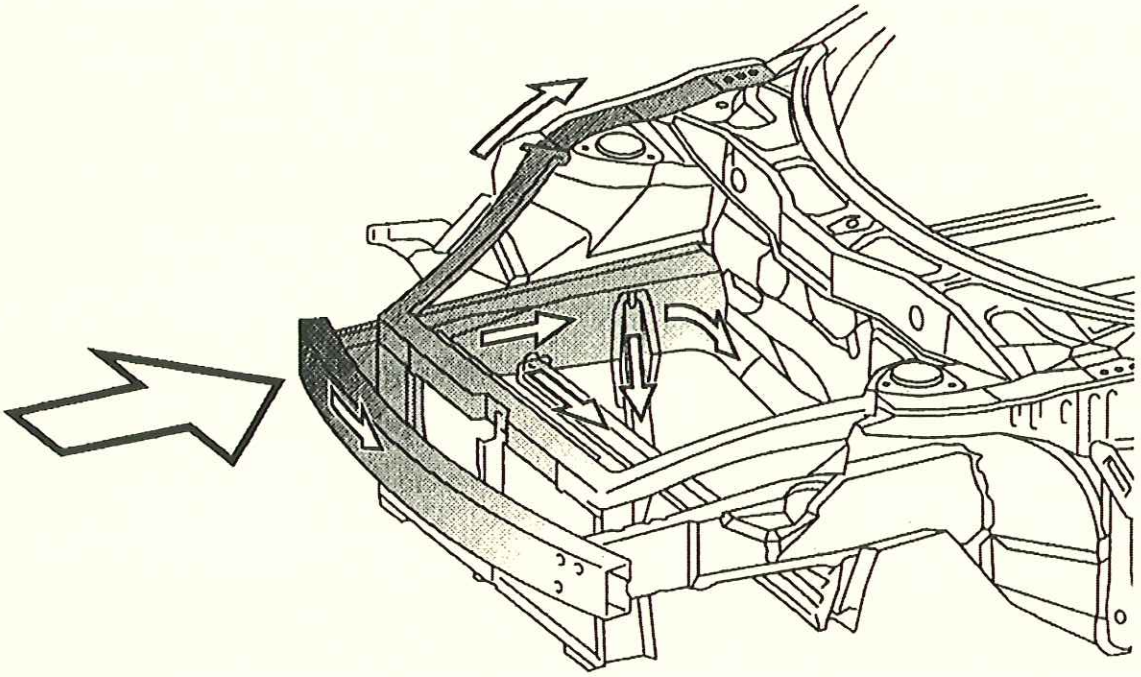
Body structure

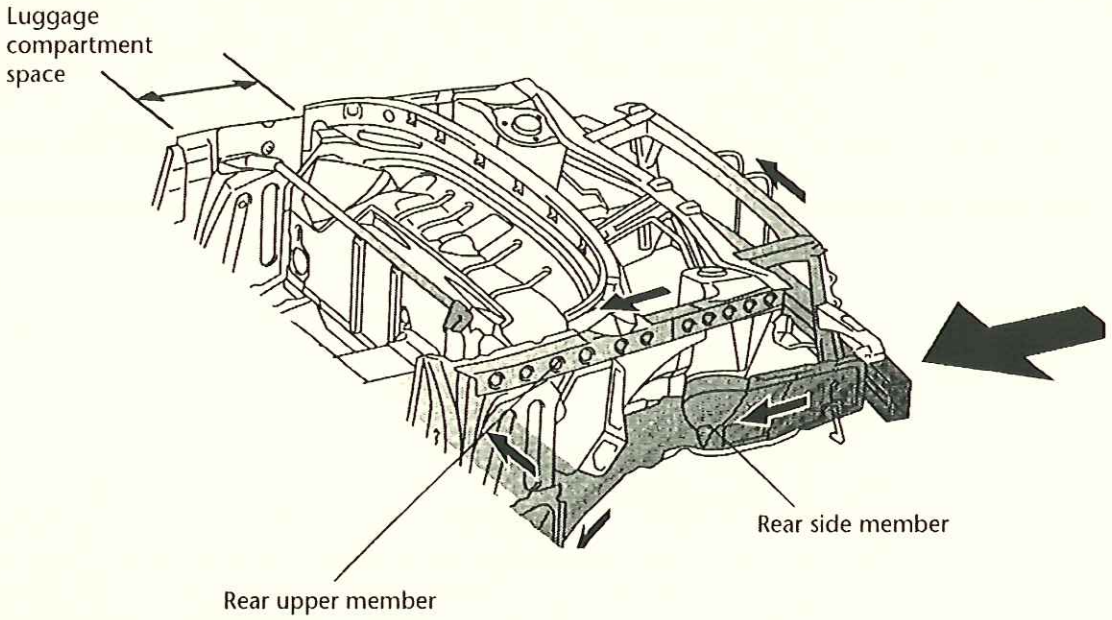


Door structure



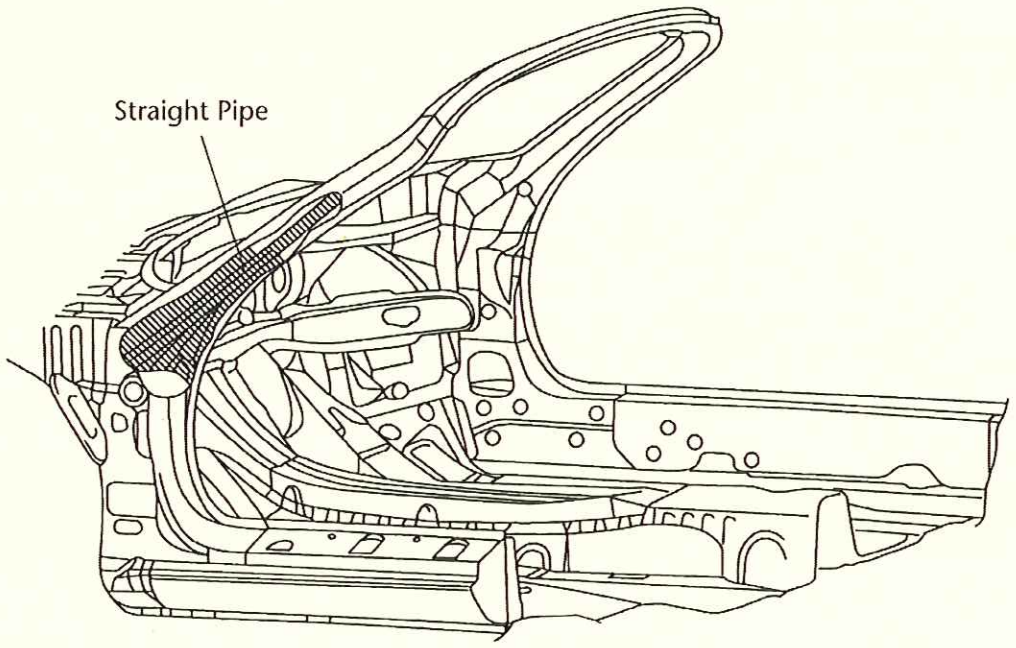
Front and rear body sections are designed to absorb and dissipate impact energy and reduce cabin deformation. The luggage compartment space helps protect occupants from any movement of the engine forward (by progressively collapsing).





Crossmembers and braces, including a rear suspension upper brace, have been located to ensure maximum rigidity and excellent suspension performance.

The front (A-) pillars are stiffened with a straight pipe to ensure rigidity equal to a conventional saloon car. The bottom of the A-pillar has been enlarged to increase its strength at the mounting with the door sill.

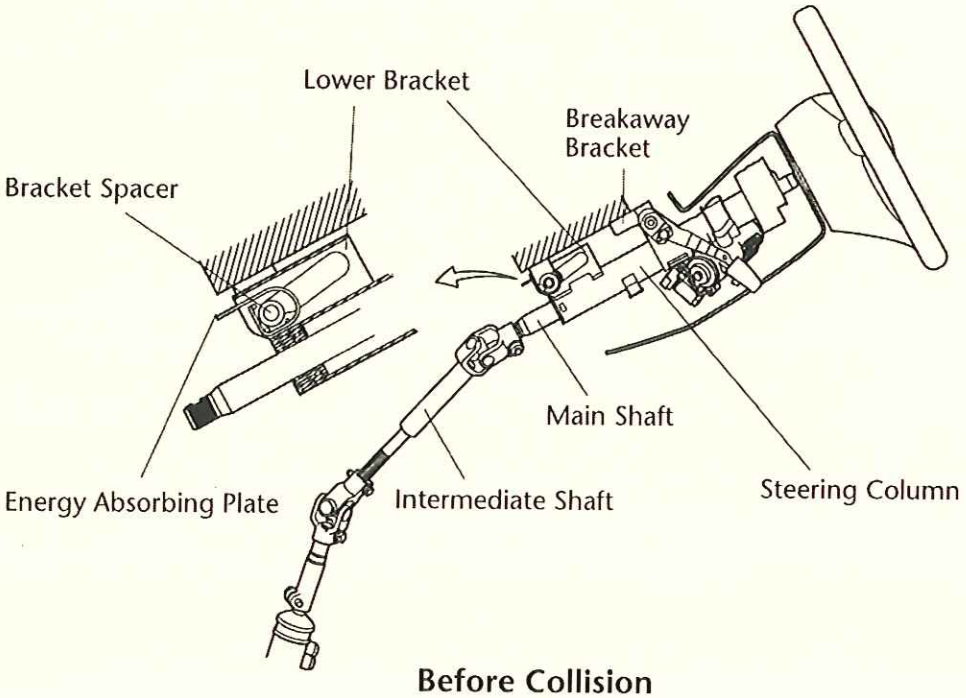


NEWLY DEVELOPED POWER STEERING

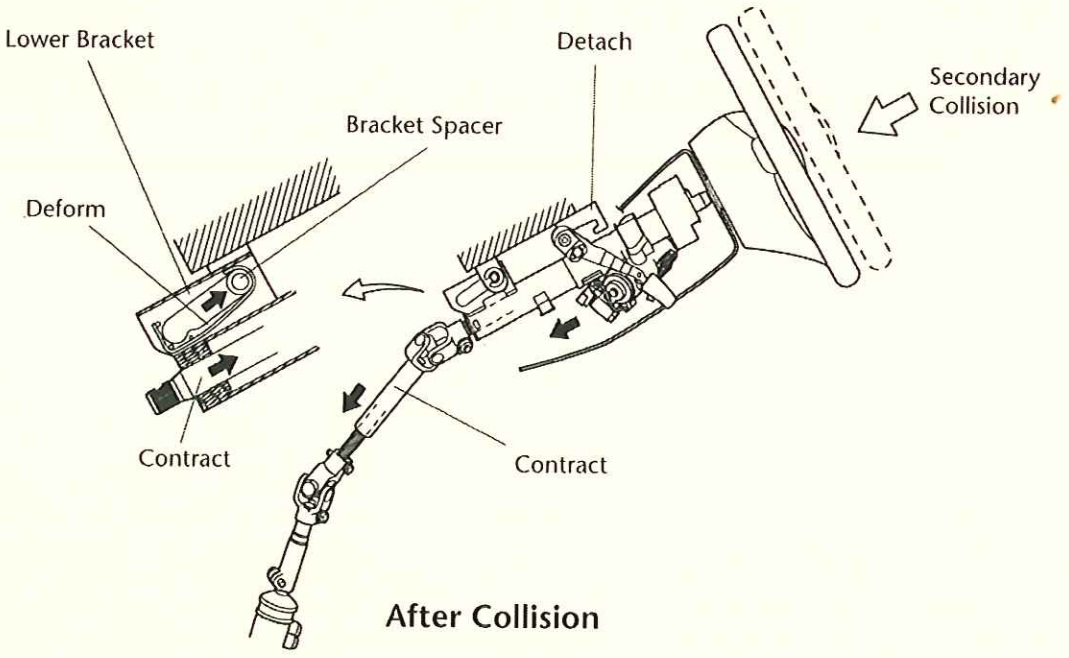
- Precise steering control (2.7 turns, lock to lock)
- Reduces power loss from engine

The MR2 Roadster uses newly developed electro-hydraulic power steering in which the pressure pump is turned by an electric motor, rather than the car's engine. This compact, lightweight system gives more precise power steering control and means the steering reduces power loss from the engine.

The steering column is tilt adjustable and has an energy absorbing mechanism which, in the event of a frontal collision, is designed to move the column down and away from the driver's upper body.



Before Collision

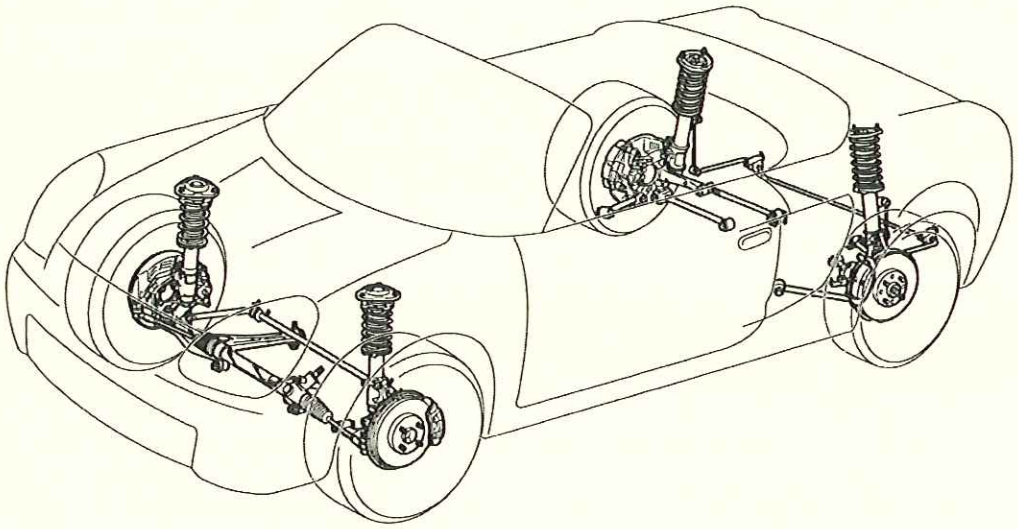


After Collision

FULLY INDEPENDENT SUSPENSION

- MacPherson struts front and rear
- Anti-roll bars front and rear
- 'Long coil' springs for improved feel

The MR2 Roadster suspension has been developed to offer optimum feel, ride comfort, safety and stability under sports driving conditions. The MacPherson struts used are light, effective and maintain the correct geometry over long stroke lengths.



The front suspension uses an L-shaped lower arm for weight reduction and an anti-roll bar mounted on that lower arm.

Dual links are used on the rear suspension, with the anti-roll bar acting on the struts.

Chassis testing took place in Europe, especially in the UK as it is the largest European market. Initial testing showed the car was capable of high cornering G, but was tricky at the limit.

Subsequent tuning – stiffer chassis parts and stiffer rear suspension mountings combined with fine-tuning of the dampers – resulted in the safe, controllable balance of the production car. So positive was the reaction to this UK inspired change that the settings have been adopted around the world.

5. INTELLIGENT ENGINE DELIVERS MAXIMUM PERFORMANCE

At a glance:

- 1.8-litre, four-cylinder, 16-valve VVT-i engine for maximum torque
- 140PS at 6,400rpm; 125lbft/170Nm torque at 4,400rpm
- Best power to weight ratio in class (146hp per ton)
- Top speed 130mph, 0-62mph in 7.9 seconds
- Excellent fuel consumption and reduced emissions

The new Toyota MR2 Roadster offers dramatic performance to match its exciting looks. This is a true driver's car with lively acceleration, agile handling and comfortable, stable high speed cruising.

Like the new Toyota Celica, Corolla and Yaris, the new MR2 Roadster benefits from VVT-i (Variable Valve Timing – intelligent). As a result, new MR2 Roadster offers exciting sports performance from a compact and powerful, 1.8-litre engine without comprising fuel economy or weight.

Chief engineer, Tadashi Nakagawa, said: "In a lightweight sports car, absolute power delivery and performance at ultra-high speeds are less important. More important is the instant response that gives the car its light and lively feel. We concentrated on this aspect of the engine performance."

HIGH PERFORMANCE ENGINE

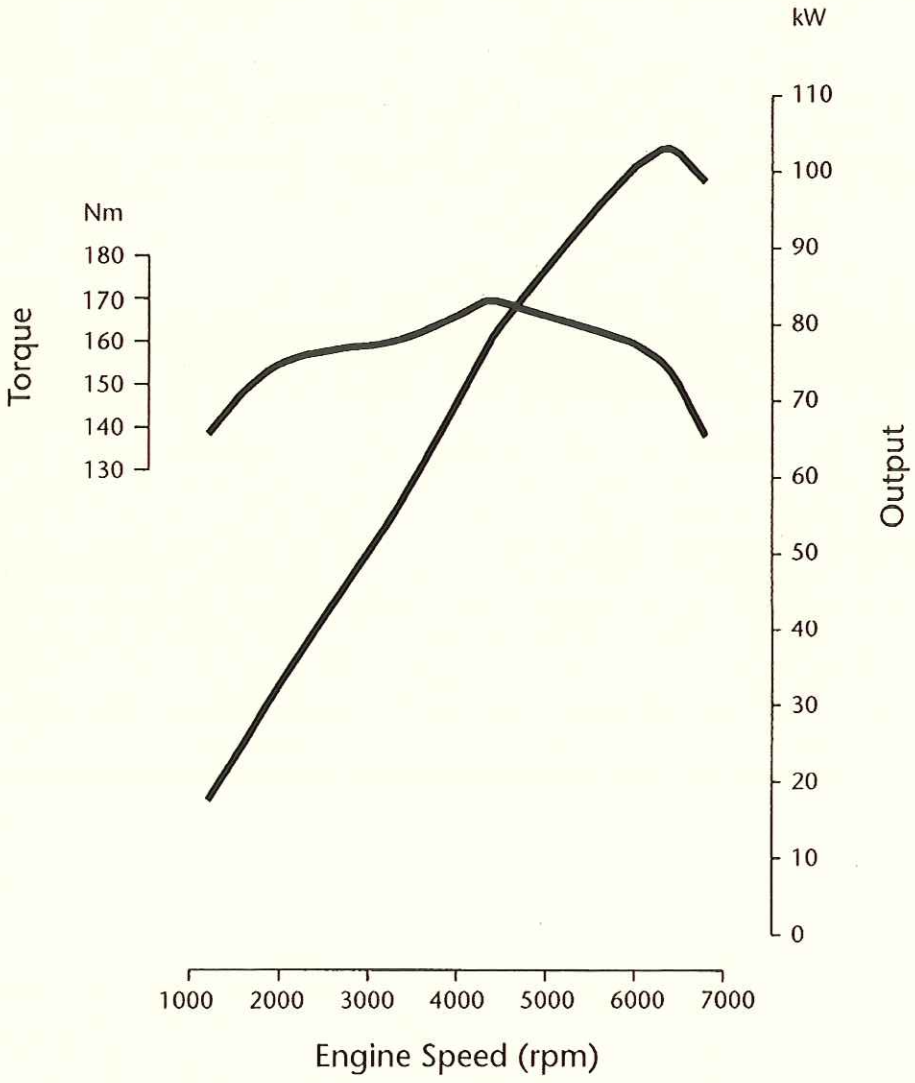
- 1.8-litre, four cylinder, 16-valve VVT-i unit
- Light weight aluminium block
- Tuned for torque and mid-range performance

The MR2 Roadster engine, designated 1ZZ-FE, is basically the same unit as fitted to the highly acclaimed new Toyota Celica. This is a lightweight aluminium-alloy blocked four-cylinder unit with twin overhead camshafts and four valves per cylinder.

It is an ultra-long stroke engine with 1,794cc displacement (79mm x 91.5mm, bore and stroke) and high compression ratio at 10:1 for maximum efficiency.

The cylinder head is a cross-flow, aluminium alloy unit. Knock resistance and fuel efficiency have been improved through the use of newly developed valve seats and a carefully designed combustion chamber.

The engine develops a maximum 140PS of power at 6,400rpm with maximum torque of 125lbft/170Nm at 4,400rpm. Torque output is very constant, thanks to the variable valve timing and ultimate power has been sacrificed to achieve good mid-range torque, making MR2 Roadster lively and safe to drive under real road conditions.



The new MR2 Roadster 'back to basics' design concept and tight weight reduction targets mean the car has best power to weight ratio in its class - weighing just 6.96kg for each PS of power. The MR2 Roadster will cover the standing 400m in 15.2 seconds.

HOW VVT-i WORKS

- Computer controlled valve timing
- Improved mid-range torque
- Better fuel consumption
- Less harmful emissions

VVT-i (Variable Valve Timing - intelligent) varies the air intake valve open and close timing according to driving conditions and engine load.

By varying the 'overlap' time between exhaust valve closing and intake valve opening, the engine characteristics can be changed to create optimum burn - resulting in more efficient use of fuel, cleaner exhaust emission and maximum torque output.

The Toyota developed system has the benefit of offering continuously variable (not stepped) valve timing and allows the engine management computer to specify the optimum timing for the full range of driving conditions. It means the valve overlap timing no longer has to be fixed in advance to suit a predetermined driving environment.

More complete combustion, at a higher combustion temperature, means less nitrogen oxides emissions. An increase in valve overlap, at lower engine speeds, results in some recycling of unburned fuel that reduces unburned hydrocarbons. Both conditions result in better fuel consumption.

Toyota cars equipped with VVT-i are more flexible and easier to drive; offer better performance than comparable cars with the same engine size; use less fuel and emit less carbon dioxide, less nitrogen oxides and less hydrocarbons.

OUTSTANDING FUEL CONSUMPTION

Thanks to the use of VVT-i and its smooth aerodynamic shape (Cd 0.35), the new MR2 Roadster offers best in class fuel economy of 38.2mpg on the combined Euro cycle. On the extra urban cycle, consumption drops to 47.9mpg; on the urban cycle, 27.9mpg.

TOYOTA DIRECT IGNITION

- More accurate ignition timing
- Reduced voltage loss
- Reduced maintenance costs

The Toyota Direct Ignition system on the new MR2 Roadster provides four ignition coils, one for each spark plug. The coils are integrated with the spark plug cap to provide direct contact.

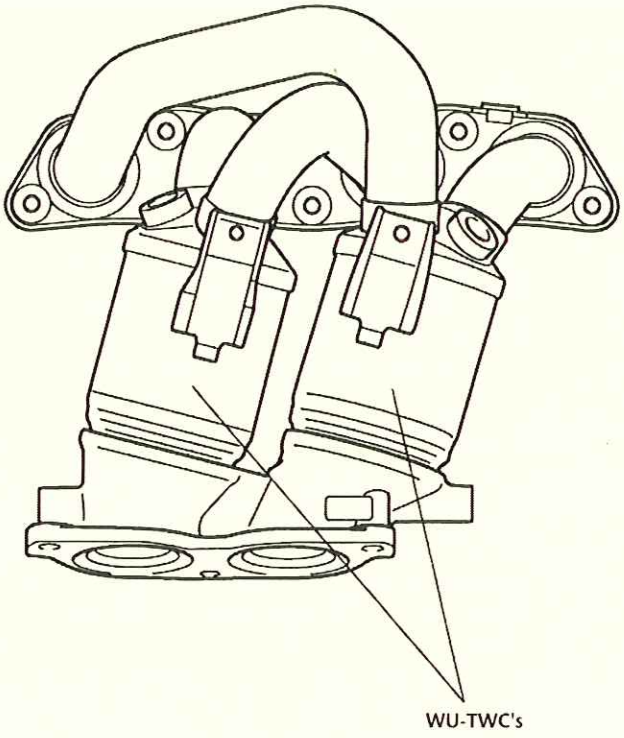
Ignition timing is controlled by the engine control unit that takes information from the crankshaft position, the camshaft position and various other relevant engine sensors.

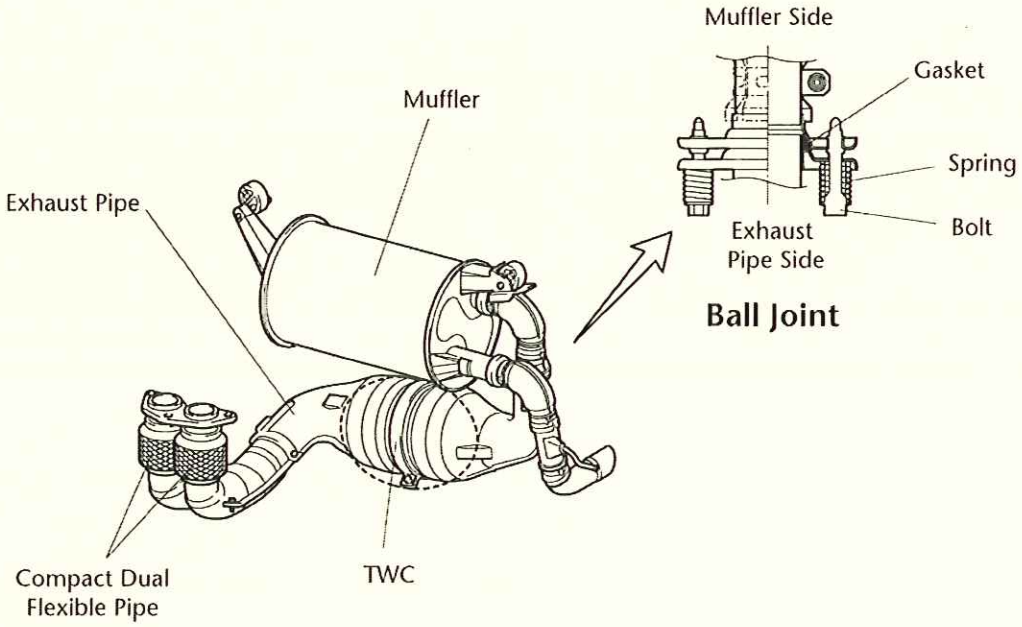
INTELLIGENT MANIFOLD DESIGN

- Light, plastic intake manifold
- Stainless steel exhaust manifold
- Complex exhaust pipe with three catalytic converters

The intake and exhaust manifolds play a key role in the efficiency of the MR2 Roadster engine. The intake manifold is made of plastic, in order to cut heat transfer from the cylinder head and reduce air intake temperatures, thus increasing volumetric efficiency.

The exhaust manifold is more complex, due to the restricted space in which it has to operate, and accounts for the main difference in engine characteristics between new MR2 Roadster and Celica. The MR2 Roadster adopts a 4-into-2-into-1 design which allows good, clean airflow away from the cylinder head - indeed it actually improves mid-range torque.





Two 'warm-up' catalytic converters are in the manifold, close to the head, and a third catalytic converter is in the main exhaust pipe, just under the main silencer. A ball joint mounts the silencer to the exhaust for optimum reliability.

SLICK FIVE-SPEED GEARBOX

- Improved shift feel
- Optional limited slip differential (selected markets)

The five-speed manual gearbox has been improved by using a straighter linkage. The short-throw gear lever is close to the driver's hand to create true 'sports car' feel.

The single plate, dry clutch, is operated hydraulically.

A limited slip differential is standard on UK cars. The differential improves traction and handling characteristics in slippery conditions or when driving hard.

TOYOTA MR2 ROADSTER

TECHNICAL SPECIFICATIONS

ENGINE	
Code name	1ZZ-FE
Valve Mechanism	DOHC 16 Valve (VVT-i)
Bore x Stroke (mm)	79 x 91.5
Displacement (cc)	1794
Max. Power (PS)	140@6,400rpm
Max. Torque (lb.ft/Nm)	125/170@4,400rpm

ACCELERATION	
0-62mph	7.9 sec
0-400m	15.6 sec
20-60km/h (2nd)	4.3 sec
40-80km/h (3rd)	6.1 sec
60-100km/h (4th)	8.9 sec
80-120km/h (5th)	12.6 sec
Max.Speed (mph)	130

FUEL CONSUMPTION (mpg)	
Combined	38.2
Urban	27.9
Extra Urban	47.9

DIMENSIONS (exterior)	
Overall length (in/mm)	152/3885
Overall width (in/mm)	66.7/1695
Overall height (in/mm)	48.8/1240 Soft top 49.2/1250 Hard top
Wheelbase (in/mm)	96.4/2450
Tread width (in/mm) front	58.0/1475
Tread width (in/mm) rear	57.5/1460
Fuel Tank capacity (gal)	10.6
Coefficient of Drag	0.35
Minimum turning radius (m)	5.0
Kerb Weight (kg)	975

SUSPENSION	
Front	MacPherson Strut
Rear	Dual Link MacPherson Strut

BRAKES	
Front	14" Ventilated Discs
Rear	14" Ventilated Discs

STEERING	
Type	Rack and pinion
Ratio	13.6
Turns lock to lock	2.7

TYRES AND WHEELS	
Wheel size	15"
Tyre size (front) Tyre size (rear)	185/55 R15 205/50 R15
Spare tyre	Space-saver type