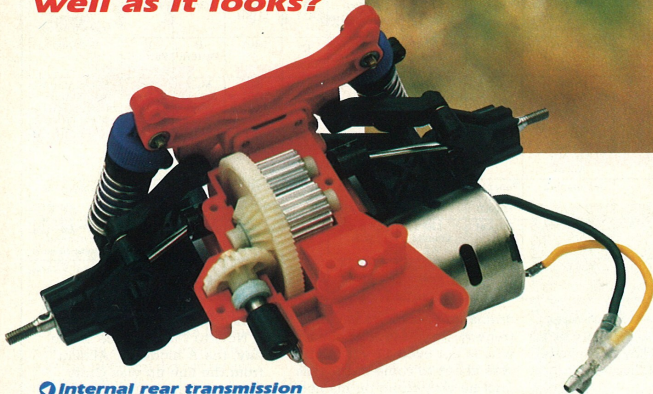


TOYOTA CELICA GT-FOUR RALLY



The Toyota Celica GT Four Rally from Tamiya is one of the most realistic looking R/C model cars to date. Does it really perform as well as it looks?



Internal rear transmission detail.



The Toyota Celica GT Four is the latest release from the huge Japanese model company Tamiya. This particular model is a beautiful 1/10 scale copy of one of Japan's largest car companies rallying flagship.

Toyota decided to revamp the ageing Celica by turbo charging their 2.0 litre 16 valve engine. This produced extra muscle to push the power output of the road-going car to around 180bhp. In order to ensure Mr Average could utilise all of the extra power, Toyota fitted permanent 4WD, rather than continue with the restrictive front wheel drive configuration. The men that pull the

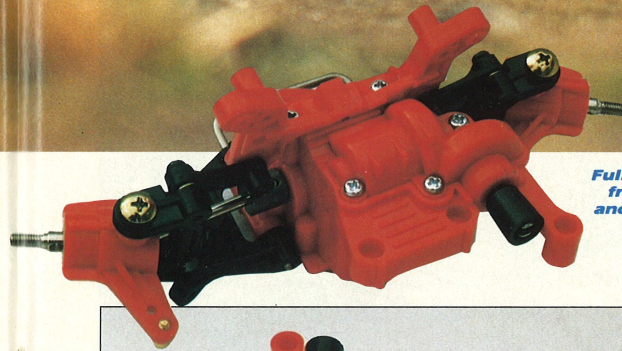
strings at Toyota also had ulterior motives, the move to 4WD would make the Celica GT four an excellent rally car.

They obviously saw the marketing and R&D benefits to be gained from the high profile world of top class rallying. The Celica GT four was soon highly successful in rallies across Europe and North Africa, although in a much more savage rally specification. The clever men in Japan not only sold more cars due to their rally team's results, but they were also able to test and develop new components and designs in the most arduous conditions a road-going saloon is likely to face.

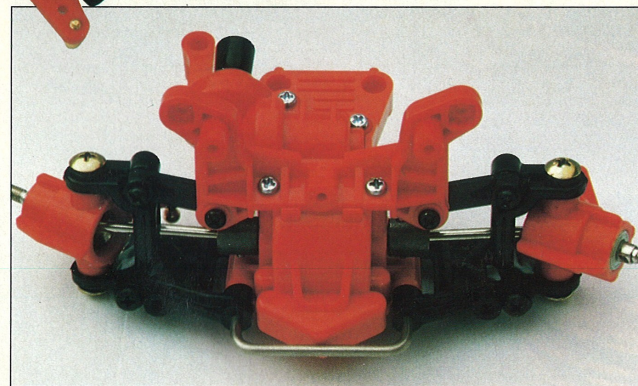
Tamiya, with the release of this car, are aiming to steal some of the Celica's glory and give the man without £20,000 to invest a taste of Toyota's rally classic.

Little Brother

Tamiya's Celica GT four is a real scale R/C model, unlike so many of the jelly moulds on the market. The crystal clear polycarbonate bodyshell is moulded to a level of quality and precision which I have not seen equalled in a decade of building R/C model cars. The excellent

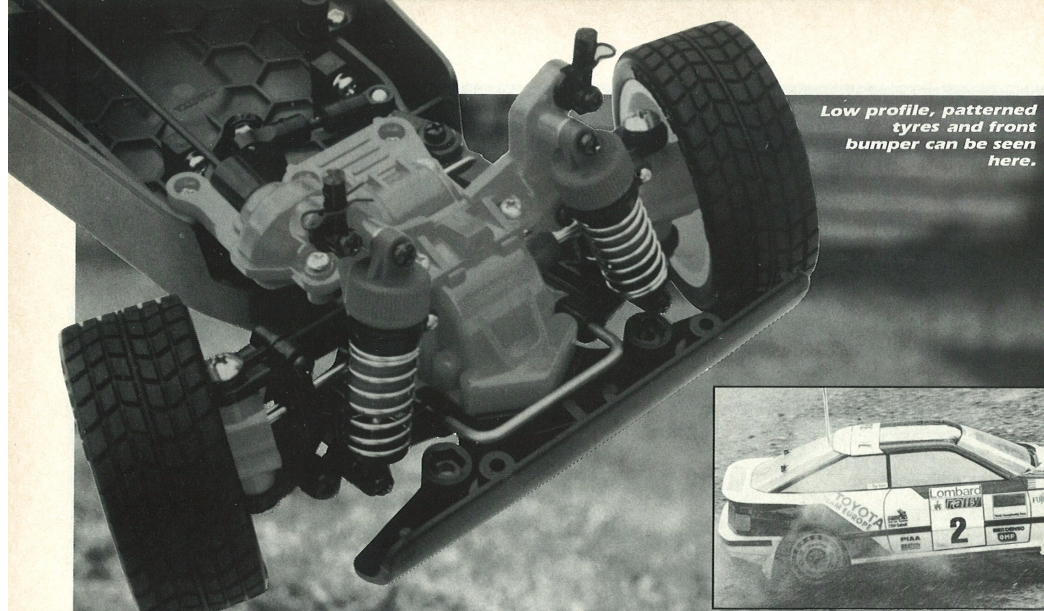


Fully assembled front gearbox and suspension arms.



bodyshell even has mounting holes and wheel arches already cut out, to ensure perfect alignment and a quality finish.

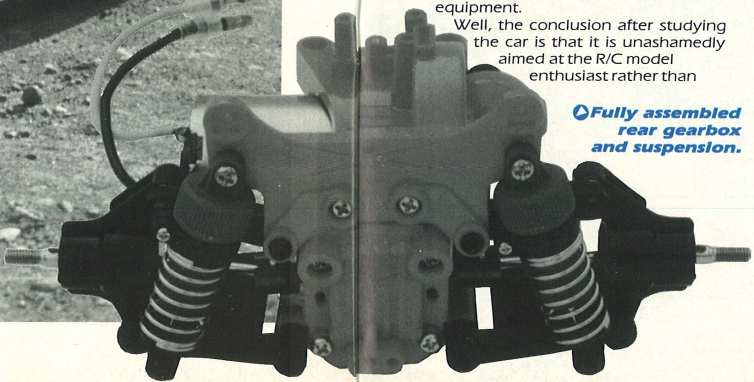
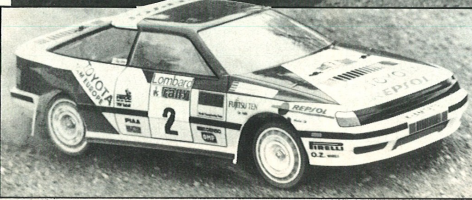
The Celica shell, in full Repsol livery, sits on a chassis supporting unequal length wishbone suspension on each corner. Each wheel is independently sprung and its movement is damped by individual oil-filled shock absorbers. All four wheels are driven by the Mabuchi 540 kit motor. A robust geared transmission drives the rear ball differential and the propshaft which provides drive to the front axle. A more heavy duty geared differential is utilised



Low profile, patterned tyres and front bumper can be seen here.



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Fully assembled rear gearbox and suspension.

within the front transmission housing. On the face of it, the little brother produced by Tamiya has much in common with its full-size counterpart.

Beauty or the Beast?

The Tamiya Celica GT four is based around the moulded 'tub' chassis which was introduced in the Manta Ray (RRC, Feb '91) off-road car. The Celica uses short wishbones to keep the track width within the scale bodyshell. Identical low profile treaded tyres are used all round to get the power down. The wheels and tyres are of true scale size rather than the usual oversized tyres used on other R/C model cars. The transmission uses large tooth moulded gears of around 32dp (diametrical pitch). The gears rotate around steel shafts which run in plastic bushes which must be well greased.

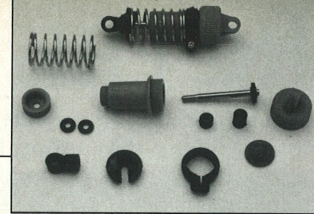
The rear differential is of a ball type but is not adjustable, in contrast to the heavy duty geared front differential. The use of this format can only be because the differential units are borrowed from other existing Tamiya kits, and I cannot think of any sound mechanical advantage for the use of this format. Bevel gears are used in each gearbox to transmit power to a rather crude but effective wire driveshaft. The driveshaft runs down the side of the tub chassis which leaves plenty of space for your radio gear.

The drive is taken from each differential via short steel and plastic driveshafts, out to each stub axle. The axles are drilled and must be fitted with a drive pin, onto which a hexagonal hub is fitted. The stub axles, like the rest of the transmission, run in greased plastic bushes.

Once built, the suspension gives the Celica a firm, well damped ride, which would be more suited to on-road use rather than off-road or rallycross. The only adjustment available on the suspension is the spring position over the oil-filled dampers, which effectively changes the ride height of the car.

A standard proven Tamiya mechanical speed controller is included in the kit and instructions for an electronic unit are also included. The kit also includes a servo saver and all the hardware for fitting your chosen R/C equipment.

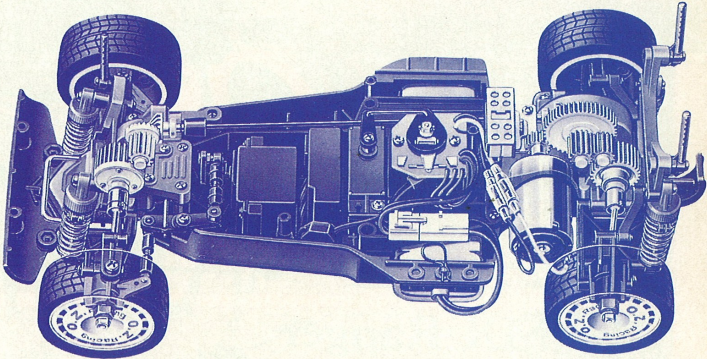
Well, the conclusion after studying the car is that it is unashamedly aimed at the R/C model enthusiast rather than



Shock absorber detail.

the racer. The transmission is not designed with the efficiency required for racing and the plastic bushes used throughout would not stand up to the rigours of competition. The suspension and tyres are again not really designed for full-blown off-road competition and would give only low levels of grip on anything other than tarmac.

As this car is clearly not a competition car it is unfair to compare it with the very well engineered R/C racing cars on the market. The same could be said about any pointless comparison between the full-size road-going Celica GT four and the full-blown Team Rally car. Because the Tamiya car is so close to scale it could not really be used in competition against anything other than similar models.



Anyway, now that we have identified that the Tamiya GT four Rally has most in common with a road-going GT four in team colours we can correctly judge its potential.

Building the Kit

If you have ever had the pleasure of building a Tamiya model you will know that the instructions are just simply the best. Each stage of construction is explained by the aid of diagrams and notes. A key is used to identify parts and the moulded sprues are labelled to make the whole process almost idiot-proof.

All the parts fit perfectly, no finishing of the high quality moulded components is required. All lubricants are included in the kit, as is a motor and speed control. Just fit a standard two-channel R/C kit as instructed, a nicad battery pack, spray the bodyshell and drive away!

Spraying the bodyshell requires care to achieve a quality finish. Time spent at the masking stage will make things much easier when applying the paint. The final touches are made by applying the decals which transform the simple red and white scheme into the Repsol

'Team Europe' rally car. The decals should be cut out (carefully!) using a scalpel and laid onto the superb bodyshell. This is a very time-consuming process (over two hours) as every detail of the car is included on the decal sheet.

Market

- Competition — Not what it's made for
- Beginner — Ideal
- Street Racer — Good fun
- Off-road — Not really
- On-road — Definitely

Additional Parts Required

- Two-channel radio set with two servos
- 7.2 volt nicad battery pack
- Fast charger for nicad pack
- Supply for charger

Performance

As the Tamiya Celica GT four is not designed primarily for speed its performance is very respectable but not exhilarating for an experienced racer. The handling is safe and the four-wheel-drive transmission gives a reassuring feel. Speed could be much improved by upgrading the motor and replacing the plastic bushes with ballraces. There is also potential for modification to the suspension to tune the handling to your liking.

Conclusion

The Tamiya Celica GT four is a model before it's a racer, and the potential customer is unlikely to consider competition. I am sure that many Celicas will be seen sprinting up and down cul-de-sacs around the country, for the benefit of the builder is seeing his car in all its glory.

It has more in common with its road-going big brother than the rally car and if driven with respect will give much enjoyment. The build quality, spares back-up and aesthetics make the Celica an excellent introduction to the world of R/C model cars. ●