

Toyota Celica ST & GT

Bullet-proof running gear and rust-prone bodies mean anti-rust wax is more important than spanners. David Lillywhite takes a close look

THE CELICA had a special niché to fill as it was designed to bridge the gap between a true sports car and a coupé, even though underneath, the influence was Carina. When it went on show at the Tokyo Motor Show in October 1970, press releases raged how it was a new concept for Japan.

ENGINE

THERE ARE two basic engine designs used in the first generation Celicas, and they're both tough as old boots: the ST model was fitted with a single-overhead camshaft unit, while the GT got a more exotic twin-overhead camshaft version. Both are remarkably conventional, with cast-iron cylinder blocks and alloy heads, and they're dead easy to work on. If you're wondering, yes, the GT engine will fit straight into an ST.

Oil changes, as ever, are best carried out more regularly than originally recommended, particularly if the car isn't used very often. A change every 5000 miles should suffice. Most owners will use a 20W/50 oil but, because these engines were built to tighter tolerances than their British contemporaries, they will take slightly thinner, more modern

specification oils, such as a 10W/40.

Any oil filter that is fitted with a non-return valve (which most are) should be good enough for these engines, but if you don't mind paying a little extra, it's worth opting for a genuine Toyota part. You may find that the filter you buy from a Toyota dealer is significantly smaller in physical size than the original, but there's no need to worry as it will still flow the same volume of oil.

If there's anything that reduces the life of the Celica's engine, it is a build-up of sludge in the cooling system. The result, in the worst cases, is blocked waterways within the engine and radiator, leading to overheating and head gasket problems.

Using antifreeze with a corrosion inhibitor all year round is a must. Toyota recommends (unsurprisingly) that you stick with its own Forlife coolant, which comes already diluted (and is bright red). This may be part commercial scam, but the water will be more pure than tap water, and the ratio of antifreeze to water spot-on. Toyota aficionados swear by it.

The major difference in maintenance procedures between the single-cam and the

twin-cam engine is in setting the valve clearances. The single-cam uses simple screw and locknut that requires feeler gauges and patience to adjust. The twin-cam is bucket and shim, for which you'll need a micrometer on the rare occasions they need adjusting.

The camshaft (or shafts in the twin-cam's case) drive is by chain, which is tensioned automatically. Eventually the tensioner slipper wears through, by which time the chain will be in need of replacement too (a partial engine stripdown job).

If you do hear a rattle from the front of the engine, don't immediately assume the chain needs to be replaced. Sometimes the automatic tensioner sticks. If you remove it from the side of the engine block, clean it and replace it; there's a good chance the rattle will disappear.

Similarly, you shouldn't worry about low oil pressure at idle: they all do that. Officially, there should be seven psi showing on the gauge at idle, but the gauge is rarely accurate enough to register at such a low pressure. A better test is to rev the engine and watch the gauge: expect 30psi on a hot engine, and 60psi when it's cold.

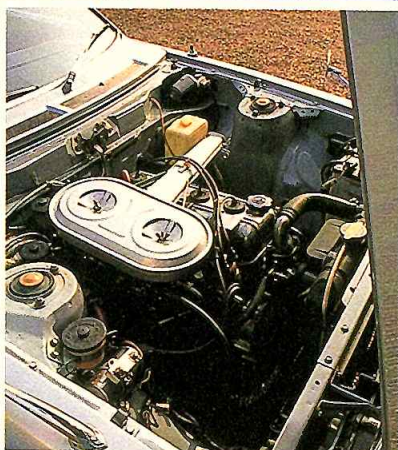
As an engine does begin to wear (usually



The Celica 1600ST has a single-overhead camshaft and was targeted at the young and young at heart.

CELICA ST AND GT AT A GLANCE

- ❖ The Celica's design was a conventional four-cylinder front engine, rear-wheel-drive, with front struts and rear coil-suspended live axle located by four links.
- ❖ Engine size was initially 1.9 litres. This went up to 2.0 litres in 1972 and 2.2 litres in '75. The ST model's engine was single-overhead camshaft, but the GT (introduced in 1974) had a more powerful twin-cam.
- ❖ Until 1975, a four-speed gearbox was the basic specification of the ST model, although a three-speed automatic was available from 1972, and a five-speed manual was optional on the ST and standard on the GT.
- ❖ A hatchback body, the Liftback, was introduced in 1976.
- ❖ The first generation Celica was replaced by a new model in 1978.



Celica engines are very easy to work on. The GT will fit straight into an ST.

at well over the 100,000-mile mark), the engine breathers will quickly block and will need to be cleaned out. There's one on the side of the crankcase, low down on the cylinder block, and the other is on the rocker cover. A blocked breather will cause more oil leaks, which typically occur from front and rear crankshaft oil seals, the rocker cover gasket and the fuel pump gasket.

Carburetors are twin Solex-Keihin side-draughts on both the single- and twin-cam engines. They're fairly vice-free other than suffering from wear in the throttle spindles at high mileages.

Rebuild kits are still available from carburettor specialists but, if you want something a little more familiar, there are Weber DCOE conversions available.

'If there's anything that reduces the life of an engine, it is a build-up of sludge'

REBUILD CORNER

UNLEADED PETROL

The single-cam and the twin-cam will survive unleaded, although they may need the ignition timing to be retarded by up to about five degrees if pinking occurs.

UNAVAILABLE SPARES

A large number of spares are still available from Toyota, although they're not cheap (but they do last longer than pattern parts). Secondhand mechanical parts are rife, but body panels are more difficult — Toyota can supply some, but has run out of offside front wings, for example. The clubs have built up stocks of panels and trim.

SPECIAL TOOLS

On the twin-cam, you'll need a micrometer to measure shims when you're resetting valve clearances.

SPECIALISTS

Parts

- ❖ Toyota GB head office, Surrey (01737 768585)
- ❖ Toyota Celica Breakers, Cornwall (01579 383879)
- ❖ Bob Clark (club spares scheme), Bristol (0117 935 3736)

BEST BOOK

Toyota Celica by Brian Long, Longford International, ISBN 1 899154 027

JOIN THE CLUB

- ❖ Toyota Enthusiasts Club
- ❖ Toyota Celica Enthusiasts Club



Styling inspiration came from America.

CELICA RUSTBUSTER

- ❖ All that stainless steel brightwork allows water to collect underneath, with predictable results. Spray thinner anti-rust wax or similar behind it. Roof gutters, window surrounds and so on all need the treatment.
- ❖ The leading edge of the bonnet and, to a lesser extent, the boot, rots from the inside out. Spray anti-rust wax inside.
- ❖ Keep the undersides of the front and rear wings clean and well protected with rust-inhibiting wax or paint (or both). Keep an eye on the closing panels of the sills under the wheelarches.
- ❖ The underside of the Celica doesn't rust badly, but it's worth hosing down occasionally and spraying with wax.



TRANSMISSION

ALMOST ALL Celicas in the UK are now fitted with the five-speed gearbox that was standard in the GT and optional in the ST. It's a tough unit, although it's usual to hear a bit of bearing noise and feel a slight vibration through the gearlever at high mileages (don't worry about it). If synchromesh is weak (typically with crunching into first gear) then the 'box has seen a lot of action and is best replaced with a secondhand unit.

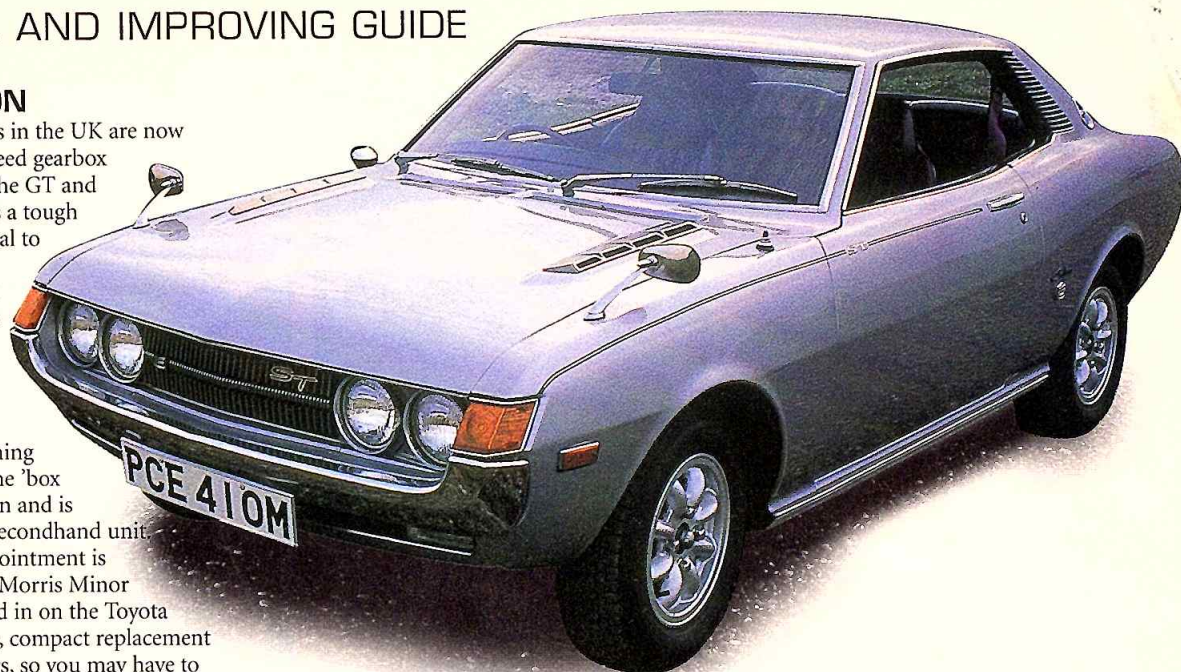
The only fly in the ointment is that MG Midget and Morris Minor modifiers have homed in on the Toyota five-speed as a strong, compact replacement for their four-speeders, so you may have to search a bit harder than you'd expected to find one. If you've still got a four-speed in your Celica, there's no need to worry — it's also a strong 'box, but the five-speed slots in its place without hassle.

Further back in the drivetrain, the propshaft may eventually knock out a universal joint (you'll feel vibration through the car and hear various clunks and knocks). The live rear axle is tough, even in the GT's limited-slip differential form.

SUSPENSION AND BRAKES

SURPRISINGLY, the front suspension contains several grease points. Nipples weren't fitted — there were just caps to be replaced with nipples at service time — so they're often overlooked. Make sure you get the grease gun on them.

The steering seems just as outdated, even for the period. It's a worm and wheel steering box, not the expected rack and pinion, but it does have the advantage of an adjustment to remove play. There should be no more than 1/2in movement at the steering wheel rim,



'Japanese cars in the Seventies often came with awful-looking wheels'

although it is important to check that there are no tight spots in the steering action lock-to-lock after you've adjusted the steering box (do this with both front wheels in the air).

Japanese cars in the Seventies often came with awful-looking wheels, and the Celica is no exception. The result was a whole host of aftermarket wheels fitted to them, some of which were a little too wide for the health of the wheel bearings, so listen out for the tell-tale drone from one corner.

Brakes are no trouble, but they can be fitted with harder compound pads at the front from Mintex or Ferodo if yours are fading under hard use.

ELECTRICS

IT'S UNLIKELY you'll have problems with the electrics unless the wiring has previously been chopped about to fit spotlamps or,

typically, air horns (the standard horn is embarrassingly high-pitched and weedy).

TRIM

THE MAJORITY of the Celica's trim is stainless steel, a bonus on a model known for its ability to rust. Unfortunately, the fittings that hold the trim in place were mild steel. It's wise to replace them with the plastic clips that Toyota started to use in the early Eighties.

It is relatively easy to source new-old-stock or decent secondhand exterior trim, although it's often expensive. Inside, it's generally only the driver's seat that suffers, but matching vinyl is held at many of the major retrimmers (except where it's an unusual colour, in which case it will need to be recoloured).

THANKS TO

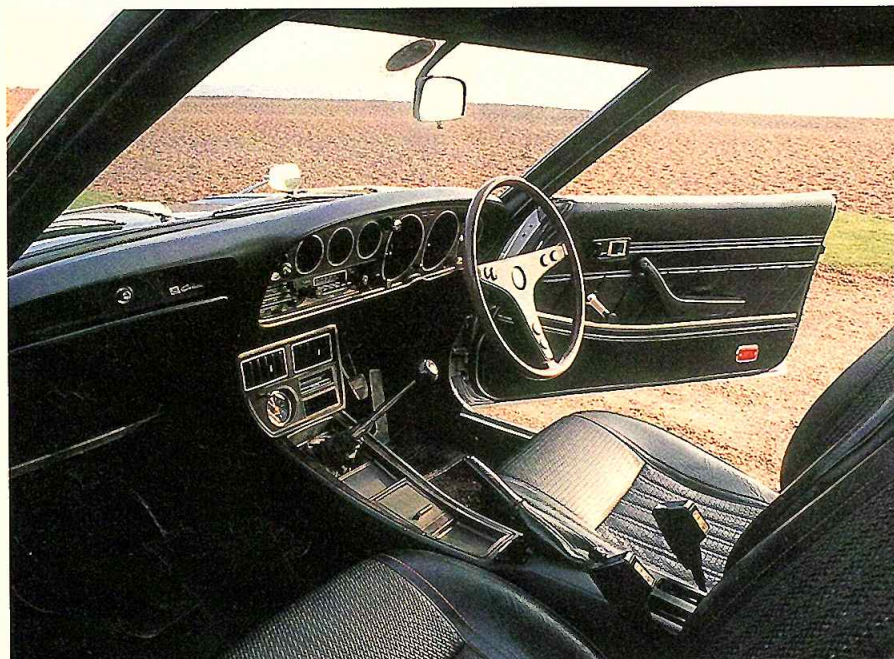
Billy Wells of the Toyota Enthusiasts Club.

HOTLINKS

- Price Guide: page 167
- Club Guide: page 176
- Best website: www.celicas.org
- Dealers' cars for sale: page 82

PREVIOUS 13 GUIDES

- | | |
|----------------------|-----------------------------------------------|
| May 99 | Wolseley/Riley 1.5 |
| June 99 | Mazda RX7 |
| July 99 | Ford Cortina Mk III-V |
| August 99 | Porsche 924/944 |
| September 99 | Ford Sierra RS Cosworth |
| October 99 | Saab 99 |
| December 99 | Jaguar XJ-S |
| January 2000 | Land Rover SI-SIII |
| February 2000 | BMC 1100/1300 |
| March 2000 | Jaguar Mk II, S-type, 420 & Daimler Sovereign |
| April 2000 | Triumph 2000/2500/2.5PI |
| Spring 2000 | Toyota MR2 |
| May 2000 | Ford Granada Mk I & II |



Celica's dash is filled to brimming with gauges. You could almost be in a plane's cockpit.