PRESS INFORMATION

BIRMINGHAM MOTOR SHOW

2004

INDEX

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INTRODUCTION

The Tuscan 2 is a significant launch for TVR. It blends all the most successful elements of TVRs past with the progress that the company has made over the past few years. A myriad of detail changes demonstrate the attention to detail that TVR's engineers and stylists have dedicated themselves to while evolving the most popular TVR of recent years. Since the Tuscan was first launched in 2000, TVR has achieved what was previously thought to be impossible for a company of its size, but TVR has never been intimidated by projects that would daunt much larger car manufacturers.

Every car is hand-built to a customer's own specification; every engine has the engine builder's initials on it. Nowhere else can you buy a car of such sophistication, which is all hand-made, to your own order, for a price even remotely comparable. In the case of the latest generation of cars, this philosophy has been implemented even further and everything, from body to chassis to engine and in this case even the switchgear and instrumentation, is designed and crafted in house.

Yet despite all this talk of craftsmanship, it would have been impossible for TVR to have engineered such cars ten or fifteen years ago. The very latest high technology has been used, not in the styling but in the design engineering, to enable one of the largest British-owned car manufacturers to produce simple and elegant solutions to problems of how to hand-build such sophisticated cars in such small volumes. It is only at the stage that a design has to be compromised in order to mass-produce it where TVR parts company from high tech – a robot could never assemble an engine of the sophistication of the Speed Six.

TUSCAN 2

The most important debut of all for TVR at the 2004 Birmingham Show is that of the Tuscan 2. The TVR Tuscan Speed Six originally went into production early in 2000 and since then TVR have built more than 2,500 of them. The changes to the car are significant:

- Now available in three variants – Targa, new Convertible and S
- New evolved styling with improved aerodynamic package
- New suspension geometry for all T350s, Tamoras and Tuscans
- New slower steering rack for Targa and Convertible
- New spring, damper and anti-roll bar combinations for Tuscan S
- New dashboard including new digital instrument binnacle, flat panel speakers, starter button and door and window controls
- Revised seats with extra lateral support available and revised seatbelt design

While the roof and rear screen have always been removable on the Tuscan, many customers have expressed a desire for a full convertible. The new Tuscan convertible is launched with the 350 bhp Speed Six engine and is priced at £39,750, which is identical to that of the targa. It features twin rollover hoops that are bolted through to the chassis and slightly staggered for increased rollover stiffness as well as being trimmed for elegance. The carbonfibre roof panel is lighter than those of convertible TVRs of old for ease of use and the roof hoop is locked onto the rollover protection by means of screw catches which are very easy to fit as well as making the whole structure immensely strong. Boot space is also increased to cavernous compared to any of its competition, which adds even further to the surprising practicality of Tuscan 2.

The styling of all Tuscans has been changed with aerodynamics at the forefront of the stylists' minds. Led by Graham Browne and with Peter Wheeler's customary considerable input, TVR's design team have worked with the brief of reducing drag and increasing downforce. They have achieved this with the aero package of the Tuscan S reducing its lift even further, necessitated by the higher performance engendered by its 400 bhp motor. Its front splitter has been influenced by the aerodynamics work performed by TVR's engineers in the Le Mans programme and it has a higher tail to place its larger gurney well up into the airflow.

TVR's suspension engineers have not been idle either. All TVRs on the Tuscan platform (including Tamoras and T350s) will now feature new suspension geometry adding more castor and camber change to suit the latest tyre designs with the rack position having to move to maintain zero bump steer.

While this has necessitated an adjustment to the rack height, the opportunity has been taken to use the electro-hydraulic power assisted steering rack from the Tamora and the T350, which has had its speed reduced by 10%.

The spring, damper and anti-roll bar rates stay largely the same on the Targa and Convertible and, while most customers opt for the 18" wheels for cosmetic reasons, 16" wheels remain standard which, with the latest tyres from the Goodyear Dunlop stable, give outstanding levels of ride comfort for the class. 18" wheels give a sportier look and feel without degrading the ride by any significant degree. The suspension is now much stiffer on the Tuscan S, which will run a similar set-up to the Sagaris with much higher spring, damper and anti-roll bar rates which help to keep the attitude of the car flat, quite significantly adding to the aerodynamic efficiency of the car.

The interior of Tuscan 2 has also been dramatically changed over the existing model. Most immediately obvious is the new instrument binnacle. For three years, TVR has been building Tamoras and latterly T350s with a combined analogue and digital set up and it appears that the analogue part of it has become redundant. As Britain's roads become more and more plagued by cameras, extremely accurate speed readings have become of paramount importance and a digital readout is the only way of delivering this. On the revs side, no-one can tell when to change gear in a car of a TVR's performance by using an analogue rev counter and so a combination of digital read out and shift lights has been found to work best on both racing and road cars. An analogue gauge gives a rough impression of engine speed but anyone who has lived with a car for longer than a weekend can do that by ear. The shift light system also has the benefit of being automatically set lower until the oil temperature is sufficient to allow sympathetic use of higher engine revs. All the other extra data that TVR owners have become accustomed to such as outside air temperature, battery volts, oil pressure and temperature, water temperature, fuel level etc. are all available to the driver as is a small warning on the rare occasions that the car's extremely sophisticated self-diagnosis system might have picked anything up.

The Tuscan 2, along with all other new TVRs, features the new British designed and made NXT AFR extremely thin high quality speakers which are mounted high up in the car to raise the sound stage, and which provide an extremely clear and even sound to both driver and passenger.

The Tuscan 2 also sees a return to the starter and stop buttons system seen on the Cerbera back at the Motor Show back in 1993 and much copied by other manufacturers since.

The door and window controls are developed from those used in the flagship Typhon range. Machined from billet aluminium the switchgear is as elegant as it is easy to use.

The seats of the Tuscan have always featured removable squabs for additional lateral location but the seats have now been redesigned to make that level of lateral design permanent. As TVRs are all built to order, customers who prefer a higher seating position will be able to specify one as will those who wish for the extra two inches of legroom and headroom on top of the snugger seat arrangement.

It is well known that TVR takes safety extremely seriously and as part of this, the seatbelts have always locked earlier than on a conventional set-up, in order to get a little closer to a racing harness type application. Tuscan 2 features an altered set-up to keep this useful safety feature while making it easier to use the seatbelt when parked on a steep angle.

The design brief for the Tuscan was that it should be a car in which the roof should come off while having sufficient for two people and their luggage to go on holiday for a month, in safety, with creature comforts like air conditioning and power steering but without the car weighing much more than 1000kg.

No computers have been used in the styling of the car and TVR's team of stylists took two years sculpting the shape of this future classic. There are a number of advantages in designing a car in the manner that TVR does. Sculpting and developing the shape solely by hand is an inordinately time-consuming business. Just as one only truly appreciates the lines of a car when one washes it, so it is TVR's belief that one can only really get to grips with the design of a car over a long period of time. Furthermore, it is impossible to control a surface as subtly on a computer screen as when sculpting the car by hand. It is with this in mind that one should view the new Tuscan. When a vehicle is mass-produced the tooling takes longer to develop than the styling but that is categorically not the case here. The whole philosophy at TVR is that the shape of the car comes first so the constraints of conventional industry thinking have not been an issue.

As such, the philosophy behind the styling of the car has been that function and form have been combined and the result has been left on show. Many of the features that make this car extraordinary are there for sound engineering reasons but the simplicity and elegance of their form enhances the overall look of the car. For instance, the unusual bonnet arrangement, whereby the main piece of the bonnet is bolted into the car, is there for the reasons that it is in most racing cars. It is actually lightly stressed and means that one is able to duct the airflow

very precisely. Furthermore, it is bolted into place and therefore can be manufactured lighter. One of the notable features of the car is the way that the shutlines run along the top of the car so that if you draw them, you draw the shape of the car. This shows its lines off to the best advantage but also gives a far bigger boot opening to make the roof much easier to stow in the boot.

While it might be possible to say that the exterior design of the car is relatively extravagant in concept, TVR has taken a minimalist approach to the interior. The very highest quality components have been used and once again, function has determined form. The curved aluminium top to the dash, for example, actually acts as one of the transverse strengthening beams for the car. The pedal box, again hand made from extremely high quality components, is left on show as it would be a shame to hide craftsmanship like it and it also serves to make individual fittings for customers that much easier.

The chassis is based on that of the Cerbera but in this case is 8" shorter. This means that it has improved interior room over the Griffith and Chimaera but as the overall thinking behind it, and indeed the dimensions, stem from the Tuscan Challenge racing car, the balance of the chassis between ride and handling is as well honed as ever. The other advantage of basing the chassis on that of TVR's one make race series car is that there is probably no chassis anywhere in the world that has been so often and so comprehensively crash tested. Safety has been uppermost in the designers thoughts throughout the process and the roll cage, door beams and transverse aluminium tube are evidence of that. The brakes are 294mm at the front with superb four pot aluminium callipers and are 273mm at the rear.

The Tuscan S is a development of the old red rose Tuscan but with a number of significant developments. At the forefront of these is a revision of the chassis geometry with different kingpin inclination and less bump steer to specifically set the car up for the 18” wheels which come as standard on this car. Spring and damper rates are also now stiffer than they were originally to complement the car’s new chassis and extra power. The brakes have also been enlarged to 322mm at the front and 298mm at the rear. They remain cross-drilled and ventilated all round and the callipers remain the same also.

The engine of the Tuscan S has been further developed to produce 400 bhp at 7000rpm and 310 ft.lbs of torque at 5250 rpm. The Tuscan S also features most of the Tuscan’s options list as standard. Among these are air conditioning, gas discharge main beam headlamps and a DAB stereo, which receives the latest digital radio broadcasts. It is the first production car to have one of these fitted as standard.

SAGARIS

The first two TVR Sagaris off the line are on display here at the Birmingham Show. Production is now ramping up and the first deliveries will be in July.

The Sagaris is an exciting step on from the T350 on which it is based. While motorsport was already uppermost in the designers' minds with the T350, the styling of the Sagaris is a direct result of the rigorous demands of the endurance motorsport arena. Racing versions will compete in categories where modifications to the road car are limited so the road car carries its aerodynamic advantages as standard. Front splitter and rear diffuser are built into the bodywork and a great deal of attention has been paid to the use and venting of the high pressure air in the wheelarches. The ride height at which road cars have to run limits their aerodynamic efficiency but as the Sagaris has been designed to sit as low as TVR dares, the sophisticated aero package will help considerably.

It has a 2" wider track than the T350 and sits 1" lower to reduce the effective height of the centre of gravity for even greater grip and stability and has spring rates some three times stiffer than that of the T350. It is propelled by the mighty 400 bhp TVR Straight Six engine from the Tuscan S and has very big exhaust cans which exit laterally forward of the diffuser to reduce back pressure. Because of this an imaginative solution to a potential heat build up problem has had to be sought which can be seen just above the diffuser, which has changed since the car was first seen last December. With an emphasis on lightweight composites inside, the Sagaris represents the latest in TVR's thinking on the road racer theme.

It is priced at £49,995 to match that of its Tuscan S stablemate. Standard equipment includes a full leather interior, extremely lightweight and strong advanced composite bodywork.

The intention is for race car and road car to be very similar and to be even quicker than the TVR Tuscan Challenge racers, which are themselves quite a bit quicker than British Touring Cars. The first racer will be out testing later this year and at least half a dozen are expected to be competing in the Carlube TVR Challenge as well as the various National and International GT series for which they will be eligible in 2005.

T400R, T440R & TYPHON

TVRs have always been fast, as spectacular to drive as they are to look at. With the Typhon series of cars, those traditional strengths have been taken to an altogether higher level. Its stunning bodywork is all carbonfibre, its massively strong chassis uses aluminium honeycomb to greatly improve its stiffness, and its hugely powerful engine, which is now capable of putting out 580 bhp, is connected to TVR's own six speed sequential gearbox. It is TVR's technological *tour de force*, a spectacular showcase for TVR's abilities.

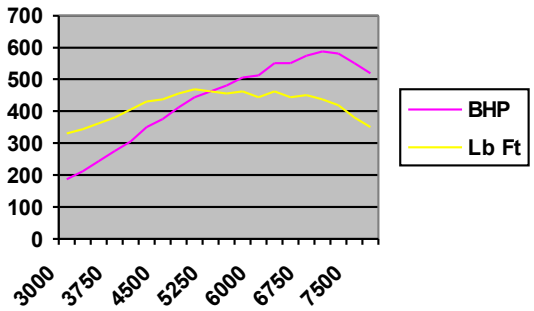
Three versions of the car are available – the T400R which has a 400 bhp 4 litre engine, the 4.2 litre 440 bhp T440R and the new supercharged version named the Typhon. When first announced, the Typhon was meant to have only 500 bhp but all the tests have shown that the supercharged engine is still well within its comfort zone pumping out a staggering 585 bhp at 7,000 rpm and 467 lb ft of torque at 5,000 rpm. It has twin intercoolers and the centrifugal supercharger is driven by a belt off the crankshaft. It also benefits from sequential injection.

With its carbonfibre bodywork, identical in weight to that of the Le Mans cars, its power to weight ratio is a quite extraordinary 530 bhp per tonne. 60 mph comes up in less than 4 seconds but it is from there to its top speed of over 215 mph that the Typhon really leaves the competition standing. To cope with all that power, the car has not just a new chassis, but a new type of chassis. Designed from the ground up with the aid of sophisticated CAD/CAM software, the rigidity of the steel chassis is added to significantly by the race-type rollcage and the use of aluminium honeycomb and carbonfibre for the floor. Also a first for a roadgoing TVR is to have adjustable dampers whereby customers will be able to fine-tune the suspension set up of their cars for road or circuit use.

You can count the number of road cars that have had all-carbonfibre bodywork on the fingers of one hand – Mclaren F1, Ferrari Enzo and now Typhon. More normally found in the aerospace or Motorsport industries, this material is expensive but is extraordinarily light and strong.

Aerodynamics have played an increasingly significant role in the design of TVRs over the last few years and these cars take this to the logical next level. A lot of attention has been paid to drag and lift with the result that its coupé shape owes most of its from to the demands of the aerodynamicists. A phenomenally low drag co-efficient of 0.32 is the result of all this attention to detail and its virtually flat floor, front splitter and rear diffuser work together to give it unparalleled high speed stability.

The interior reflects its race car underpinnings with a distinctly minimalist style pervading the interior. Unusually, the carbonfibre and aluminium structure of the car is highly polished and left on show, giving the cabin a utilitarian but extremely high quality feel. The seats are unique to the model and are manufactured from carbonfibre but trimmed from the highest quality Scottish hides. The T400R is now £74,995, the T440R is £79,995 and the Typhon is £84,995. Such is the demand for these models that the waiting list currently stands at two years and is steadily climbing.



T350

The T350 is a brand new coupé based on the running gear of the universally acclaimed Tamora. The concept is to apply TVR's expertise gained in Motorsport to a road car, and both shape and engineering owe much to TVR's racing programme. It is intended to form the basis of a racing car for the new GT Cup class of the British GT Championship as well as for a number of overseas one-make race series. This car is available in two forms – the T350C, where C stands for coupé, and the T350T, for targa, which is the version with two removable carbonfibre panels overhead.

The T350 enjoys the performance its looks promise. It is propelled by the same 350 bhp version of TVR's Speed Six engine that has helped the Tamora to such critical and sales success already. In the case of the T350, acceleration, top speed and handling have been helped by its aerodynamically superb shape as well as its lower weight and centre of gravity. Now in production for five years, the Speed Six is a tried and tested unit and has performed admirably in the hothouse environment of GT endurance racing including the Spa 24 hour race in 2002. In all variants, TVR's own engine has been designed with responsiveness in mind which is the reason for it having individual throttle butterflies per cylinder and a race-type twin plate clutch and small flywheel.

Function dominates form with the T350 and its Motorsport application determines the way the car looks. As a result, every effort has been made to maximise downforce while minimising drag. The frontal area is very smooth without a central radiator intake which helps it punch through the air easily while the sharply cut off tail punctuates the airflow sharply to reduce drag. The sloping roofline at the back has been very precisely profiled to ensure that the airflow remains attached to the car in order to negate lift. Allied to a diffuser under the exhausts and a splitter at the front, the T350's shape has been optimised aerodynamically in a way that is simply impossible with a two-seater convertible.

The interior of the T350 is largely based on that of the Tamora and is all the better for that. It has the same analogue readout for speed and engine revs above a switchable multi-function display which gives the driver the fullest range of information from engine water and oil temperature, outside air temperature and battery volts to maximum and minimum values achieved (including maximum speed). With a hatchback above the large luggage area, an unexpected advantage will also come in terms of plenty of boot space with easy loading.

The T350C is priced at £38,500 and includes 18" wheels as standard.

The T350T is the new targa version of TVR's latest sportscar, which has immediately become one of TVR's fastest selling models. With its reinforced roof and full safety rollcage, it loses nothing in structural rigidity to its fixed head sister. This is despite the size of its lift out panels which run lengthwise down the roof rather than transversely in order to maximise the sensation of open air motoring while reducing buffeting to virtually nothing. The panels are made out of carbonfibre for light weight and consequent ease of handling and they stow simply behind the seats to minimise their effect on luggage capacity.

Priced at £40,500, the T350T makes up 50% of overall T350 production.

TAMORA

The £36,500 TVR Tamora followed the Tuscan in the new generation of TVRs. In the same way that the Chimaera was engineered to be a more accessible sister to the Griffith, so the Tamora is based on the Tuscan Speed Six, whose platform it shares. Having been shown for the first time at the Birmingham Motor Show in October 2000, the first cars were delivered to customers in early January 2002.

With more conservative styling than its bigger stablemate and more easily recognisable TVR styling cues, the Tamora has been designed to be less extreme and indeed simpler in some aspects. For example, the car is a full convertible with the roof mechanism being the acclaimed stowable hardtop design from the Griffith and Chimaera. The covered headlights and clean lines have echoes of Griffith and Chimaera but are right up to date.

The engine is a new 3.6 litre version of TVR's own straight six, pushing out 350 bhp at 7200 rpm and 290 ft. lb. of torque at 5500 rpm which will give the car extremely brisk performance. Maximum revs is at 8000 rpm. It shares the same dry sump, 24 valve technology as the 4.0 litre Speed Six engine found in the Cerbera and the Tuscan as well as that found in the successful Tuscan R racing car. It does, however, sound different due to an all-new stainless steel and titanium exhaust system. Performance is on a par with much more exotic machinery with 60 mph coming up in 4.4 seconds and 100 mph in 9.5. Top speed is over 170 mph.

Handling is benign but involving with double wishbones and coil springs over gas filled shock absorbers and the ride makes it easy to use every day. Riding on the 16" wheels of the standard Tuscan (18" wheels are an optional extra), the handling has been fine-tuned so as to provide a very high level of grip in both wet and dry with a very progressive breakaway in the end. The steering is an all-new arrangement with electrical assistance that gives an informative but not intimidating level of feedback. Brakes are considerable cross drilled and ventilated discs all round (304mm front and 282mm rear) with four piston callipers at the front and the front roll cage and door beams are manufactured out of very strong T45 steel. Despite all this hardware, the composite bodywork and weight-saving construction methods means that this car is the lightest of the current generation of TVRs at just over 1,000 kg.

It is again the interior where the stylists and engineers have surpassed themselves with a multi-function digital display, shift lights and two analogue dials for quick glance down viewing of speed and engine revs. There are two race-style bucket seats made out of lightweight composites to hold the driver and passenger in place and a floor mounted pedal box that is mounted through to the chassis. The window mechanism is of the Tuscan/Cerbera generation in that the window slides up into the seal as the door is closed for less wind noise at speed.

The car is named after Tamora, who was a Queen of the Goths.

New at the 2002 Birmingham International Motor Show were new front spotlights, repositioned taillights and body coloured bonnet vents and diffuser. For the 2004 show, the lower dash of both the Tamora and the T350 has been changed to make the radio even more accessible as TVR believes it is very important for real world safety to have the radio as close to the driver's line of sight as possible. An unintentional bonus is that the new design also increases the size of the cubbyhole beneath it.

CERBERA

The TVR Cerbera began life in the early summer of 1993 as a styling exercise by TVR's team of designers, who were very quickly given the go-ahead to start building full-scale models. They sculpted the car out of full-size blocks of foam rather than being constrained by the two dimensions of a paper sketch or the dehumanising aspects of design by computer.

A handsome Grand Tourer began to take shape and it was easy to see that the car would be a winner so a running prototype was prepared for the 1993 London Motor Show. Unencumbered by endless committees, TVR was able to complete the prototype in record time and the Cerbera was unveiled at the show. It was greeted with tremendous acclaim. Orders flooded in, a further 276 of them at the 1994 Birmingham Motor Show alone.

Since then, almost every aspect of the car has been improved. Originally, the Cerbera was designed to be powered by the TVR Power Rover based engines but it was decided that TVR's own engine, the Speed Eight, would be a more suitable power plant. The Cerbera was the first roadgoing TVR to feature the Speed Eight engine.

Although sharing styling cues with the Chimaera, the Cerbera is a completely new car with new brakes, chassis, suspension and a different construction method. Introduced in response to overwhelming customer demand for a 2+2, the Cerbera has seen TVR return to a market sector that it has not inhabited since 1985. With the Cerbera's interior, TVR have discarded conventional thinking and have created a dashboard binnacle in which all the instruments are right in front of the driver. The clock and the fuel gauge, visible through the steering wheel, and a fresh air vent are situated under the steering column and are adjustable for reach and rake with it. Mounted on the steering wheel are controls for the main beam, windscreen washers and wipers as well as the horn.

The Cerbera is more than a normal 2+2 in that, in terms of the configuration of its seating arrangement, it would be better described as a 3+1. The front passenger seat is able to slide forward further than normal, thereby freeing a substantial amount of extra legroom for the passenger sitting directly behind. Attention has been paid to the ease of access to the rear seats which in too many 2 + 2s is unnecessarily difficult. Therefore, the Cerbera's doors are long enough to make getting into the back seats much easier.

Cerbera is pronounced Sir - burr - uh and is derived from the mythological beast, Cerberus, who was the brother of the Chimaera. In addition, in Italian, *una cerbera* is a frightening, fierce woman.

The Cerbera actually comes with three different engines. The Cerbera Speed Six was the first car to be fitted with TVR’s own straight six and has softer suspension and higher profile tyres to give a more comfortable ride and less road noise in line with its grand touring design. Very much in the tradition of British sports cars of the sixties but with modern abilities, the Cerbera Speed Six is a coupe with a very British, very sporting nature.

The Cerbera 4.2 remains in production for those customers who prefer a V8 and the Cerbera 4.5 gives a range topping 420 bhp and 380 ft.lbs. of torque. Getting to 60 mph in 3.9 seconds, 100 in 8.1 and 150 in 17.9, the Cerbera 4.5 is one of the fastest road cars in existence. With larger brakes, modified suspension and larger wheels and tyres, the Cerbera 4.5 offers the handling and braking to match its performance, stopping from 100 mph in only 3.8 seconds. The 4.5 Cerbera also includes a Hydratrak speed sensitive differential as standard.

For the 2000 model year, lights, A pillars, roofline and seats were changed and lightweight bonnet, doors and bootlid were introduced on the Cerbera 4.5. In 2002, the headlight housings were faired into the wings for even smoother lines at the same time as the suspension being upgraded.

For 2002, all TVR Cerberas had a new suspension set-up, the most notable parts of which are gas-filled dampers which TVR has developed in conjunction with HBE to incorporate a highly unusual damper curve. By ramping up the rebound very quickly at higher piston speeds, traction and ride can be improved at the same time as high-speed body control. Cerbera prices, however, remain unchanged at £41,100 for the 4.2 and Speed Six and £46,500 for the 4.5.

It is also now possible for customers to have a red rose conversion for any TVR Cerbera 4.5. It gives 440 bhp at 7250 rpm and 390 ft.lbs. at 5500 rpm (up from 420 bhp at 6750 rpm and 380 ft.lbs at 5500 rpm). With reshaped inlet and exhaust ports to increase the flow of gases and a higher compression ratio giving about 50% of the improvement, the rest is only available when using 97 octane super unleaded petrol. The red rose conversion actually has a dashboard mounted switch to control which fuelling and ignition map is used to enable the engine to take advantage of the higher octane fuel while avoiding detonation when using the more easily available lower octane fuel. The conversion is priced at £2350.

THE TVR ENGINES

TVR is unique among car manufacturers of their size in that they design and build their own range of engines and it is these engines that are the heart of the cars.

Straight sixes have somewhat gone out of fashion because they cannot be mounted transversely, be it in the front, middle or back of the car. However, TVR's adherence to the true course of sportscar manufacture, i.e. mounting the engines in the front to drive the rear wheels, makes it possible to use this most classic of sportscar engines. However, while one eye has been on the past in terms of the tradition of the layout, the other has been resolutely forward as the engine is very much up to date. Gruelling tests over the last seven years have shown its performance and reliability in all the current TVR models. Furthermore, it has seen plenty of competition exposure, achieving a first second of third in the British Empire Trophy last year and of course wowing the crowds at Sebring, Le Mans and Monza. In its doubled up, twelve cylinder form, the engine has achieved racing victories for the mighty Speed Twelve.

One of the inherent characteristics of a straight six is that it can be perfectly balanced. The all aluminium engine breaks away from the TVR mould in that it has a number of new features. It is the first of TVR's own engines to feature a four valves per cylinder head which gives higher volumetric efficiency at high rpm which helps to give it its sporty nature. Furthermore it has finger followers which allow higher valve accelerations which improve the engine's torque. It also has chain driven twin overhead camshafts for a quiet reliable drive. However, it also features a grade of high quality components and a level of high technology design on a parallel with its eight and twelve cylinder sisters.

Like the Speed Twelve and racing variants of the Speed Eight engine, it has a dry sump which means it can sit very low in the chassis and that it doesn't suffer from oil surge which can be a problem with the long sump required for this configuration of engine. In addition, the engine is canted over 15 degrees to enable the bonnet line to be even lower. It also features forged steel conrods, slipper style lightweight pistons, thin wall cylinder liners and a fully counterweighted nodular iron crankshaft.

This Speed Eight engine found in most Cerberas is also quite remarkable in design in that it owes more to the current trend in racing engines than to anything that has ever been seen before in a road car. In other words, instead of basing a race engine on an existing road engine, TVR have developed an engine for the Cerbera out of a race engine. The result is that the Speed Eight has many features in it which would be more commonly found on an F1 engine. Examples of these are its extremely sophisticated water circulation system, its lubrication system which delivers oil at high pressure to the engine and at low pressure to the crankshaft and a block so rigid that it can be used as a stressed member. An all alloy engine with its eight cylinders arranged in a 75 degree Vee, the Speed Eight engine has more torque in its various specifications than any other normally aspirated petrol engine of equivalent size and weight.

At 121 kg, the engine is indeed lighter than the V8 F1 and F3000 engines with which it shares so many features. Many Speed Eight engine components are of extremely high quality such as the pistons and connecting rods, which are forged, and the camshafts, which are rifle-bored and are made of solid billet EN40B steel. The net result is that the Speed Eight has performed extremely well in the most gruelling test known to engineers: to give a couple of dozen of them to TVR Tuscan racing drivers to try to blow up every weekend for the past nine seasons.

MOTORSPORT

TVR has been involved in motor racing since the days when it was only a fledgling sportscar manufacturer. However, unlike most car manufacturers, TVR has not just used Motorsport as part of a marketing programme. Racing is an absolutely core part of TVR's make-up. Key components are almost always trialled in the cauldron of Motorsport before finding their way into road cars and lessons learnt on the track, especially in the sphere of aerodynamics, are applied to road car design. Such is TVR's commitment to the sport that from Peter Wheeler down, many of TVR's senior staff race themselves.

The early high point of TVR Motorsport was in 1962 when TVR entered three Granturas in the Le Mans 24 hours race. In the 1970s, there were a large number of works-assisted cars competing in the Prodsports championships and a 1600M won the CAV-BRSCC Prodsports series in 1979 and a 3000M won every race it was entered in and the BRDC Prodsports series in 1980. V6 and V8 engined Tasmins were campaigned with some success over the ensuing years until a 420SEAC was banned from racing in 1986 because it was too fast and was running away with every race it was entered in.

The next stage was the TVR Tuscan Challenge for which a new car was designed and built. The world's fastest one-marque race series is now into its sixteenth season and is more successful than ever. With 460 bhp in a car only weighing 860kg, the Tuscans are spectacularly fast but, with long braking distances and more power than grip, they have developed into an extremely popular race series. As many as forty-two cars have been on the grid at the same time and the championship has proved extremely successful with sponsors, competitors and spectators alike. Lancashire-based oil company Carlube announced a three year sponsorship deal guaranteeing over £50,000 a year in prize money. Television audiences all over the world are watching the closest racing that the championship has ever seen between young chargers Lee Caroline and Phillip Keen battling it out against Le Mans ace Richard Hay and Tuscan stalwart David Mason.

However, Tuscan racing has only been part of TVR's Motorsport effort since the first Cerbera GT car was announced in 1994. Three versions of the Cerbera have been campaigned and all have won races. The first Cerbera GT2 used the 4.5 litre Speed Eight engine whereas the Cerbera GTO that completed the gruelling 24 hour FIA GT race at Spa in 2002 was propelled by the Speed Six engine. The third of TVR's family of engines, the mighty 7.7 litres Speed 12 has also been used in two GT cars including the extraordinary Cerbera Speed 12 which pioneered TVR's use of carbonfibre and aluminium honeycomb.

However, the biggest news of recent years has been TVR's return to international Motorsport. Forty one years after a TVR last competed at the Le Mans 24 hours race, two T400Rs were raced there last year. They proved an enormous hit with the crowds, not just with the 1400 TVR drivers who made the pilgrimage to the Sarthe to support them or even the 75,000 Britons but with the global audience of the race. At one point TVR banners adorned most of the marshalls' posts on the Mulsanne Straight as the French showed their support for the underdogs and the grandstands opposite the TVR pit was a sea of TVR purple. The Synergy Chamberlain privateer team have secured two entries for this year's race and the whole squad are hoping for strong finishes this year.

HISTORY

The TVR story effectively began in 1947 when a young engineer, Trevor Wilkinson, built himself a light alloy special based on an Alvis Firebird rolling chassis. The first TVR with its own chassis was built in 1949 with Ford side-valve power.

By 1956, TVRs were being sold in the U.S. and in 1958 production of the Grantura was well and truly under way. By the standards of the day, Granturas were fast, agile and good-looking. Indeed something of a TVR formula was emerging: strong tubular steel chassis covered in good looking bodywork and propelled by a strong engine to give impressive performance at a very reasonable price.

In 1963 a major milestone was reached with the introduction of the first TVR Griffith, which was fundamentally a Grantura with a modified chassis and a big American V8 under the bonnet. Performance of these cars was very much in the AC Cobra league, enough to severely embarrass the Jaguars and Ferraris of the day.

In 1966 management of TVR was stabilised in the hands of the Lilleys and over the next few years the company gradually grew with the Grantura being replaced by the Vixen and the Griffith by the Tuscan V8. In 1970 TVR moved to its current factory in Bristol Avenue from where it has never moved, although the premises have been expanded enormously over the last 30 years.

In 1972, the M series was introduced which was to serve TVR extremely well through the '70s. As the years progressed the M was sold in fixed head coupe, hatchback, convertible and turbocharged forms, the last accelerating quicker than the Porsche 911 Turbo.

In 1980, the Tasmin was introduced with a new chassis, new body and a new engine. Power came from the Ford 2.8 unit and there were Coupé, Convertible and 2+2 models. In 1982 TVR's current owner and chairman, Peter Wheeler, took over and in the following year the first of the Rover V8 engined TVRs was introduced: the 350i. Over the years, the cars got faster and more sophisticated, culminating in the mighty 450 SEAC of 1988 that produced 324 bhp from a TVR modified 4500cc V8 engine.

A new chapter in TVR's history was introduced with the birth of the S, which went into production in 1987. Although it looked superficially like the M Series, it was an all-new car and with its stunningly low price, it transformed TVR's fortunes and saw production almost double in a year.

However, it was the Griffith that was really responsible for TVR's renaissance. The first cars were delivered to customers at the beginning of 1992 and the car was overwhelmingly successful. An order was taken on average every eight minutes at its first Motor Show and, with the introduction of the Griffith 500 in 1993, it reached the first rank of the instant classics. Although an era came to an end in 2002 when the last car rolled off TVR’s production line, the Griffith will be remembered more than anything as being the car that put TVR on the map.

The TVR Chimaera went into production in 1993 and since then more than ten thousand of them have been built, making it the most popular TVR ever.

In 1996, the first roadgoing TVR with a TVR designed and built engine, the Cerbera, was launched. Thanks to five years of development and two years of gruelling testing in the Motorsport arena, the Speed Eight engine, which propels it, has among the highest power and torque to weight ratios of any normally aspirated road engines for the road.

TVR’s second engine to be designed from a clean sheet of paper made its production debut the following year. The Speed Six engine benefits from the latest Motorsport technology but with its six cylinders in line it is firmly part of the tradition of the best of the British sportscars. Only a year later, TVR’s third engine made its competition debut as TVR moved up to the GT1 class. The mighty Speed 12 was powered by TVR’s own 880 bhp, 7.7 litre V12.

In 2000, deliveries of the new Tuscan began and it rapidly became TVR's best selling model. The Cerbera Speed 12 was also introduced with the racing version scoring a maiden win at Silverstone in its very first season whereas in 2001, the Tamora was introduced to bring a new level of accessibility to the TVR range.

The T350 has been an enormous success from its entry into production only three months after the end of the last motor show, at which it was launched, and looks set to cement TVR's place in the front rank of sportscar manufacturers. It is a measure of the company's confidence that over the course of the summer, the company has the introduction of Tuscan 2, the Sagaris and the Typhon to look forward to.