

Buyer's View: TVR



What's in a name?

In his delightful and witty monologue "Albert and the Lion", Stanley Holloway, one of Britain's much-loved actors (who was famous for his performance in *My Fair Lady*), claims that Blackpool is "noted for fresh air and fun". Situated on the west coast of England, it is in fact the most popular seaside town in Britain recording the highest number of tourist visits, year after year. But it does have another claim to fame: it is the unlikely home of one of the largest remaining British car manufacturers, now owned by a Russian entrepreneur.

The company, TVR, is one of the leading British sports car manufacturers and is unique among companies of its size in that it designs and manufactures in-house its own range of engines to power its spectacular range of sports cars. *World Leather* was recently given a fascinating insight into the world of hand built, high performance, specialist sports cars at its factory.

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

engine giving remarkable performance at an affordable price.

By 1956, the cars were being sold in the USA and in 1958 production of the Grantura—fast, agile and good-looking—emerged. Something of a TVR formula was emerging, too: a strong chassis covered in good looking bodywork and propelled by a strong engine to give impressive performance at a very reasonable price.

In 1963, the first TVR Griffith, fundamentally a Grantura with a modified chassis and a big American V8 under the bonnet, rolled out. Its performance was very much in the AC Cobra league, enough to severely embarrass the Jaguars and Ferraris of the day.

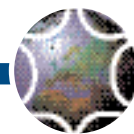
The management of the company was stabilised in the hands of the Lilley family in 1966. In 1970 TVR moved to its

current factory which has been expanded enormously over the last 30 years. The company employs 400 people in Blackpool and new investment in the factory and technology will bring great benefits to both the cars and the workforce. In 1982 TVR's current engineering and design consultant, Peter Wheeler, took over and the cars have got faster and more sophisticated with new models and its latest series of cars looks certain to confirm TVR's position in the front rank of the world's sports car manufacturers.

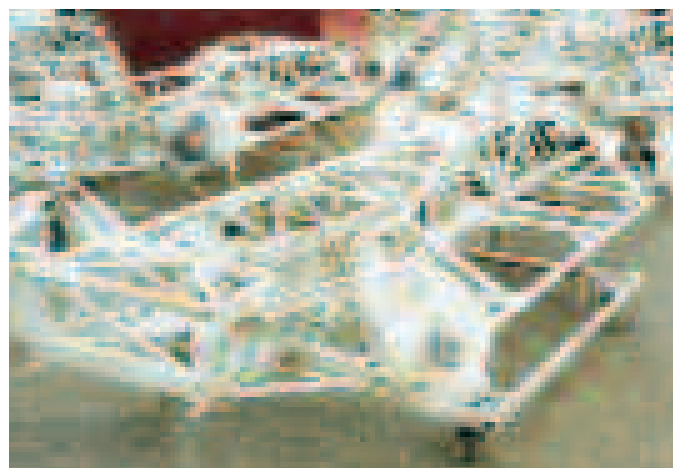
The latest development has been the purchase of the company in 2004 by Russian entrepreneur Nikolai Smolenski. "I am very enthusiastic about the potential of TVR and am grateful for the opportunity to become a car manufacturer," explains Smolenski. "I have always been a fan of British car manufacturing and believe that the best automotive designers and engineers are in this country." TVR is now looking forward to a period of growth and development with renewed confidence.



Tuscan Speed Six, one of the current generation of TVR performance cars.



TVR has always produced bespoke cars with every car being hand-built to the customer's own specification and every engine having the engine builder's name on it. In the case of the Tuscan Speed Six, this has been taken even further and everything, from body to chassis, engine and in this case even the switchgear and instrumentation, is designed and crafted in house. Indeed, TVR is irrationally proud of the fact that there are probably more employees per car produced here than anywhere else in the business.



The manufacture of the body is the single most time consuming part of producing a TVR taking about 160 man-hours per car. After the body shells and chassis have been bolted together they are prepared for painting. Each TVR receives four coats of primer, each coat being oven cured. The body is then smoothed to perfection ready for the paint spraying of the customer's chosen colour. (TVR mixes its own two pack paint using a mixing station and offers about 42,000 colours to each customer, with each car made to order.)

Bespoke cars

A tour of the factory highlights that there is a strong feeling of pride in the product with small teams of specialists taking each individual car through its various production stages. The most obvious difference to other car plants is the complete absence of any moving production line, the cars themselves being moved through their various stages.

Part of the attraction of a hand built car is the tailoring process. In this respect, a wide choice of colour is essential with customer's cars being matched to anything from a lipstick to a pair of ski boots.

The individuality of TVR cars is most evident in the trim shop which prepares all

carpets, trim and dashboards prior to installation. This involves cutting and sewing a range of materials such as carpet, leather, vinyls and mohair (for the convertible's hoods) to exacting standards. These are then fitted to each individual car depending on the unique order which means that no work is done for stock.

Rob Lord, Trim Development Technician, claims that the kinds of people who buy TVRs generally prefer a less traditional car interior with strong colours and cutting edge design features.

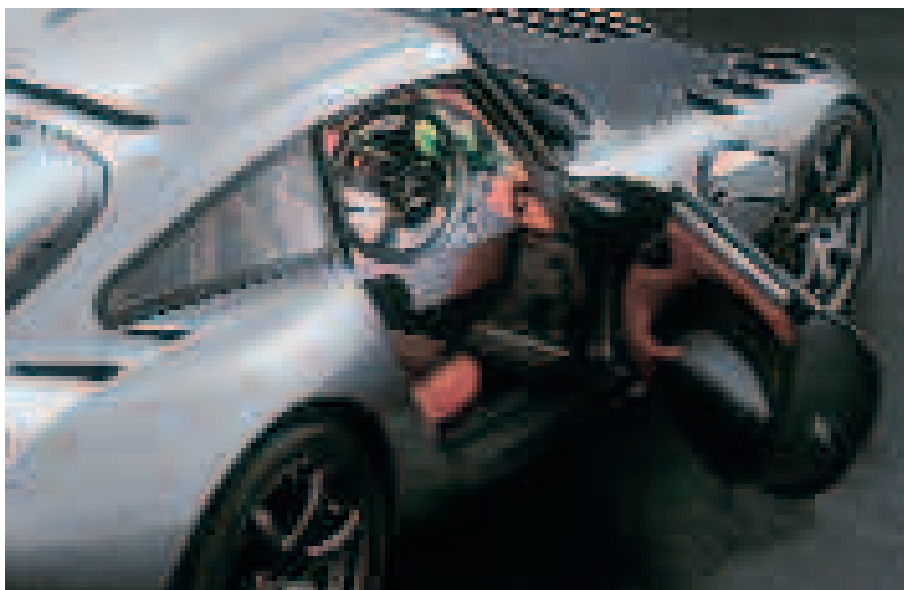
The TVR design team pushes the parameters to the limits for leather as they try to achieve that show stopping interior finish with the necessary wow factor

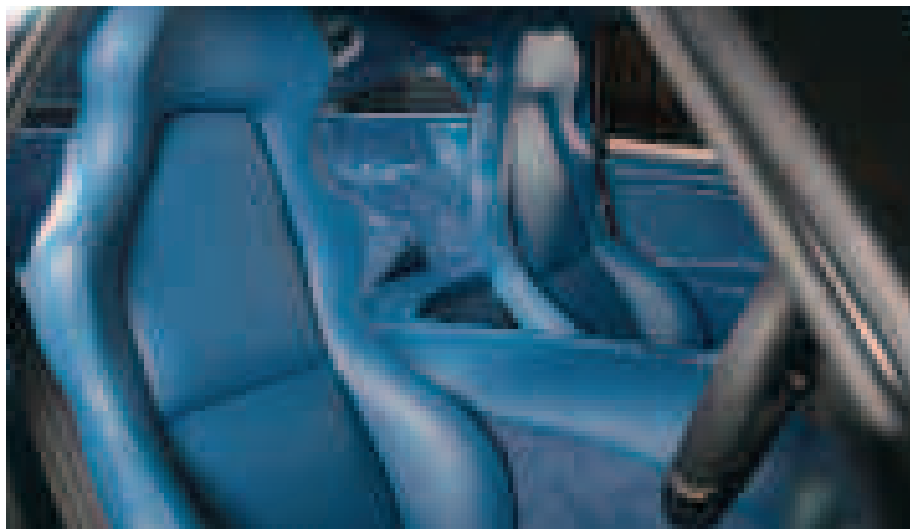
befitting such high performance machines. This, to some extent, limits TVR's choice of leather upholstery suppliers, as too many are considered too staid in style. The leather is required to have a softer handle than is usual for car upholstery but coupled to this there is a very high requirement for rub fastness and finish adhesion. These demands tend to work against each other and some suppliers have produced too firm a leather in trying to achieve the finish performance. As well as the soft handle and high fastness TVR do not like a too pronounced grain but, although it has specific requirements, the company is not able to order the very large volumes of leather which appear to be of interest to too many suppliers.

High utilisation

Production is currently running at around 15 cars/week with around 5-8 hides per car depending on the model, trim combinations and material specified.

With such a bespoke service it is even more important than usual to obtain maximum yield from the upholstery hides purchased. Ian Taylor, the trim shop foreman, manages to achieve a utilisation of up to 90% by means of very careful examination of the hides and an excellent use of offcuts in the various dashboard components. Cutting is entirely carried out by hand, which also helps to achieve high utilisation and a very good use of the directional properties of the various hide areas in components such as steering wheels.





The trimming process is highly labour intensive with stitching, backing and forming of the various panels, seat components and dashboards all being carried out in-house. Apart from the physical properties of the finish the upholstery hides must also have a supple handle with a slight sheen, not too bold a grain and the "correct" smell. The futuristic interior styling shapes place special demands on the leather, which has to keep its subtle grain even when pulled tightly over and into sharp convex and concave curves. Various suppliers have been tried but most have failed to get the right combination of grain pattern, softness and natural look with the finish performance required. TVR has found that too many tanners seem to overload the leather with finish resulting in an artificial appearance and bland looking car interiors. Many offer leather which is either far too soft and easily loses its grain or far too firm to form around the complex shapes required.

TVR has formed a good working relationship with tanners Andrew Muirhead and Son who seems to be able to meet the requirements of handle, performance and grain and who also is willing to supply the quantities and ranges of colours required. Leather orders are usually placed weekly for a specified date but in the exceptional cases of special orders, delivery is rarely takes more than two days.

Rob Lord commented that the only real problem area with upholstery leather seemed to be in the very pale cream colours, which were often firmer in handle and had less stretch than other colours. Feedback from customers is generally very positive with the majority being very pleased with the colour combinations that they select. There have been isolated cases

of watermarking at the bottoms of the door trims but colour transfer or finish abrasion problems are almost never encountered.

The value of reliable suppliers was stressed and TVR do not themselves check specifications for the upholstery leather, relying instead on the supplier to deliver the correct material. This implies a degree of trust between supplier and consumer but is a method of operation, which has served the company very well over the years. The main reasons for rejection of hides are evident scars in the prime cutting area or occasionally too firm a handle. The company did try upholstery suede on a trial basis but the results were not at all satisfactory with problems of soiling, abrasion and colour transfer. Occasionally customers specify synthetic suede or vinyl but the clear majority selects leather for seats, fascia and door trims.

Cutting edge design

The interiors of the latest models are at the cutting edge of design. For example, the interior of the T440R reflects its racing car underpinnings with a distinctly minimalist style pervading the interior. Unusually, the carbon fibre and aluminium structure of the car is highly polished and left on show, giving the cabin a utilitarian but extremely high quality feeling. The seats are unique to the model and are manufactured from carbon fibre but trimmed from the highest quality Scottish hides. Door panels are also trimmed in a "carbon fibre look" upholstery, combining the very latest feel from a long established material.

In the Tuscan S interior TVR has taken a minimalist approach, there is a subtle use of aluminium and brass which is a combination not seen in a car for many decades and which gives a sensation of warmth in the car without using staid



traditional walnut. The very highest quality components have been used and once again, function has determined form with the leather trimmed, curved aluminium top to the dashboard acting as one of the transverse strengthening beams for the car.

The original thinking of TVR's team of engineers and designers has also manifested itself in the instrument binnacle, again manufactured in house by TVR. The advantage of this is that it enables it to be linked to the engine management system that, combined with a number of other sensors, results in the availability of an extremely comprehensive range of instrumentation.

TVR cars are unique, they are hand built but still manage to employ the very latest in materials and design technology, combining the very latest techniques with the traditional tried and tested methods. The result is a unique race proven thoroughbred which is equally at home on the ordinary road. The future of the company seems assured by the recent change of ownership and its injection of capital which will ensure continued development of the Blackpool factory. The names of the cars will however still reflect the highly tuned exciting machines produced, thus we have Cerbera and Chimaera with their ferocious mythical origins, Tamora a queen of the Goths and T350 and T400R with racing connections. However what about TVR itself? On questioning the origin of the company name it was very easily explained, TVR comes from the name of the original founder **TREVOR** Wilkinson; as we said at the beginning of the article; what's in a name? 🐾