

# Muscle FOREVER

*Although his Northern TVR Centre business has changed hands, the speedy David Haughin continues to run his specialist TVR supercharging and Range Rover concerns from the same premises. His incredible supercharged TVR SX350 certainly sets the pace.*

IF YOU'RE RACING DOWN THE country lanes in your Toyota Supra Turbo one day and you see a 350i TVR come sailing effortlessly by, think very hard before risking life, limb and pride on pursuit. If this macho two-seater disappearing into the distance has the legend SX inscribed on its rear spoiler or on the side skirts, then it's the supercharged version produced by Haughin's of Barrow-in-Furness. And there's not much on the road that can cope with this machine's very special brand of muscle.

The TVR SX350 combines super light weight with nearly lag-less supercharging, horsepower slightly less than a V12 Jaguar and a remarkable torque of around 290 lb/ft at a mere 3500 rpm. In short, it's a fire breathing monster with British sportscar handling to match.

Once installed at Barrow, in the plush Haughin showroom, you'll be informed that the special conversion on new TVRs is really

a simple but ingenious masterpiece. Whereas a turbocharger usually uses exhaust gas pressure to ram fuel/air mixture into the engine, the supercharger is directly belt driven from the engine crank pulley. A turbo 'lags' because certain exhaust pressure has to build up before the forced induction creates a noticeable difference. In many turbo cars, this translates into a screaming lack of poke below around 3000 rpm, exaggerated by the necessity of lowering the compression ratio.

The advantage of a supercharger is that it is driven directly by the engine and therefore induces air to good effect much earlier in the rev range. Because it doesn't use hot exhaust gases to power it, the unit also runs at a lower temperature, which improves reliability. The TVR SX uses a Sprintex S102 supercharger which can maintain a 15,500 rpm peak, sucking 500

cu ft/min of air for the V8. The best point is that the S102 is a service-free unit.

Converting the Rover V8 engine was not at all as complex as one might have thought. The Sprintex unit is rather bulky but only the power steering pump needed repositioning and a specially cast inlet was made for the Rover V8 plenum chamber (that big oblong alloy box sitting right at the top of the engine where the carburetors used to go). The inlet for the supercharger extends around to the rear of the engine block, terminating at a free-flow air filter.

Of course, an increase of 75 bhp for the Rover V8 means that certain other aspects of the car have to be considered. With such a phenomenal power-to-weight ratio, braking, steering and suspension aren't left as standard on the SX350. The clutch has been uprated to competition specification, the Lucas L-type fuel injection system has been modified for cold running and acceleration fuel enrichment, the cylinder heads have been gas flowed with bigger ports, and the compression ratio has been lowered to 9.5:1. As exhaust pressure isn't used to power the supercharger, the tubular TVR system has been left as standard, again saving costs.

Because of the increased efficiency of the forced induction system, the huge mid-range torque means that the driver can get away with much less gearchanging. It's like having an engine of much greater capacity under the bonnet, but without the weight penalties. Also, it may well improve fuel consumption under some conditions, as you'll be less likely to need low gears.

Let's face it. The standard TVR V8s are thunderously quick sports cars, but with a supercharger added you could be in for world class supercar performance without any of the extravagant maintenance costs and accelerated depreciation associated with such. The TVR 350i Convertible comes in at around £20,000 and details of the SX conversion should be aimed at *David Haughin, 2 Holker Street, Barrow-in-Furness, Cumbria LA14 5RA. Telephone: 0229 22385/21973.*

