

TUNING THE TURBO 2 & THE MYTHS

RENAULT 5

(A much abridged extract taken from *The Renault 5 Turbo the Forgotten French Supercar* by Peter Meaney) - November 1996

I am often asked "how do I get more power from my T2", there is no easy answer I am afraid and which ever way you tackle it you will have to spend money. The first golden rule is not to spend a fortune on an old clapped out engine. Wait until it is on its last legs or you will terminate it sooner with the extra stress you put on it. A tappety engine which when adjusted, goes tappety again, will signify cam wear and a low oil pressure will mean a tired old engine, possibly with a worn crank and camshaft, it should be coaxed not thrashed. A smoking turbo will cost you dearly unless it is replaced and excessive oil usage will signify ring wear or that a turbo oil seal is on the way out. Using a synthetic, light oil can help you bring the older engine to its end, if it is tired already. So what do you do first about tuning your car. The secret is a balance between reliability and useable power, anyone can adjust the wastegate and fuelling and get 250bhp, but after a couple of miles it will be no more. The secret lies in protecting the engine from the extra heat and stress created when it is tuned, with more cold air introduced and increasing fuel to prevent lean running, this should help prevent detonation which will occur if more boost is dialled in.

produces 160bhp. Wrong, I would like to bet that there are only a very, very, small number of proper 210 conversions in the U.K. actually giving 210 at the flywheel, as that is where it is measured. The same applies to the 185bhp cars, there are very few out there. A standard 160bhp car well serviced, well run in and at its peak is a swift car. The torque figure produced in fact is a much more important value than any bhp.

Most so-called 210 cars do not have steel liners or a 4 into 1 exhaust system fitted, do not have the large uprated intercooler or large heat shield which is necessary to accommodate the 4 into 1. Many have a standard exhaust system fitted and no combustion chamber head-work and are possibly not running the right distributor matched to the high lift cam. Even more

power will mean a look at the compression ratio, reducing it to a correct 7:1, many of our cars tend to be 8:1 or 8:2. So in my book the conversion is not complete unless it is done in full. Just a listen to the tick over, it is another give away of the state of tune, as the larger bhp cars will not run smoothly much under 1400 or 1500 rpm. They also come on cam at a different rev

range from the standard cars. A basic 210bhp car probably gives you 190bhp at the wheels, if you are lucky.

The so called 185bhp cars often produce a figure of 160bhp or less in reality and the standard cars are also usually well down in power probably struggling at 145bhp. Now that information is based on rolling roads figures achieved in the past, dyno and bench testing with advice from competent engine tuner/builders, and the fact that I have driven a couple of dozen different cars. I will

hoses, actuator and turbocharger. A fresh 210 engine will often blow a standard turbocharger unless it has been modified.

The turbo conversion means a T4 larger compressor housing, a 360 thrust bearing and 10% clipping of the fan blades to start with, and it is not cheap. You can go on with other mods. as well, including Sodium valves. You should also fit silicon intercooler hoses. If you run a tuned engine, the fact is that the modified distributor matching the wild cam will not allow you to run as much



discuss rolling roads and the reasons why you should not use them, later. Think about it, a T2 built in 1983, 1984 or 1985 will not be as fresh now as it was when it was new and unless it has been rebuilt or had a new engine it will be tired. Turn up the boost and alter the C.O. and slap on a bigger intercooler and in theory get 185bhp. Well it is not as simple as that, is it?, you need to consider the efficiency of the fuel system and pressures, the integrity of the

boost as you can with a standard set - up (probably about 1 bar max) and you will have to retard ignition to prevent pinking. One way around this is to fit an uprated or to modify the metering head (not a DIY but a specialist job) and to look at intercooler design and possibly different injectors. The best reliable one available is the Renault Sport Intercooler, but