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MILES Behind the Wheel

Blown ranger

An odd match from Range Rover specialists Rapport International

IT SEEMS the Arabs are mainly responsible for the way an industry has grown up around the Range Rover — an industry that provides every conceivable extra, some silly, some practical, and one that BL should have offered years ago as a factory option — automatic transmission.

It was through commodity trading with Middle Eastern states that Rapport International found a demand for standard Land and Range Rovers bordering on the desperate. And when a wealthy Arab says he wants a turbocharged, six-wheel-drive, air conditioned Range Rover convertible, with wickerwork overlay and a fake Rolls Royce radiator as a gift for a favoured compadre, who are Rapport, or anybody else, to argue?

Ours didn't have the wickerwork, but talk about making a working vehicle into something that was not originally intended: the restyled and be-spoilered front end incorporated square (Volvo?) headlights; flared wheelarches; leary (only a personal opinion) and incredibly expensive metal flake paintwork (£1,295); and TURBO sidewinders complete the outside. But what *about* that interior? Everything; the steering wheel spokes, the choke bracket; everything, had been beautifully upholstered in Burgundy coloured Draylon. "Gawd" said one of our number mumbling something about a house of ill repute, "It only needs pink Wilton on the floor." "How did you guess?" I said.

And the turbo conversion? This was a standard PAO Allard (a Swindon based firm) bolt-on kit. In this application the turbocharger is bolted directly to a modified right hand exhaust manifold casting, so in effect only one bank of cylinders provides gas pressure to drive the turbocharger. A wastegate limits boost to a mere 4psi and is mounted in a cross pipe that bridges the down pipes from each bank. As usual with Roto-master kits, mixture is drawn through an SU carburettor (1¾in. used here) by the compressor and then ducted across to the standard inlet manifold. A heat shield around the turbocharger protects the underbonnet paintwork and the brake servo from being roasted, and the conversion is nicely arranged so that no sheet metal modifications have to be done to accommodate it. An oil cooler is fitted.

With the standard engine in such a low state of tune, even a small amount of boost is bound to improve performance considerably. Performance, flexibility, and no sacrifice in economy — the turbocharging creed. The trouble is, there is a distinct difference between the flexibility and tractability usually conferred by a turbocharger, and sheer low down slogging ability — for which the Range Rover is renowned. It doesn't seem to matter what size of engine a turbocharger is fitted to, or indeed how finely the turbo housings are tuned to try and maintain bottom end performance, most turbo conversions we have come across rob some of the standard car's performance in the pre-boosted part of the rev range.

Does it matter? In most cases not really; the top end gains more than make up for any bottom end loss, yet somehow this characteristic — and it wasn't at all marked — seemed to niggle more here. Tractability was every bit as good as standard, the Rapport Turbo pulling quite happily from 10 mph (around 500 rpm) in top. The real urge came in progressively with a nice push in the back at around 2,000 rpm, but it's surprising how much time one spends even in a Range Rover, or any other big-engined car for that matter, especially in traffic, wanting some part throttle acceleration bite below that.

A glance at the mid range acceleration figures amply illustrates what I am trying to say. In second gear the Rapport Turbo was quicker overall because the engine was well on the boost curve at around 18mph and then made up ground lost early on in the 10-30 mph span. A better illustration of the difference in performance between the standard and turbocharged cars are the third and top gear acceleration times below 30 and 40 mph respectively.

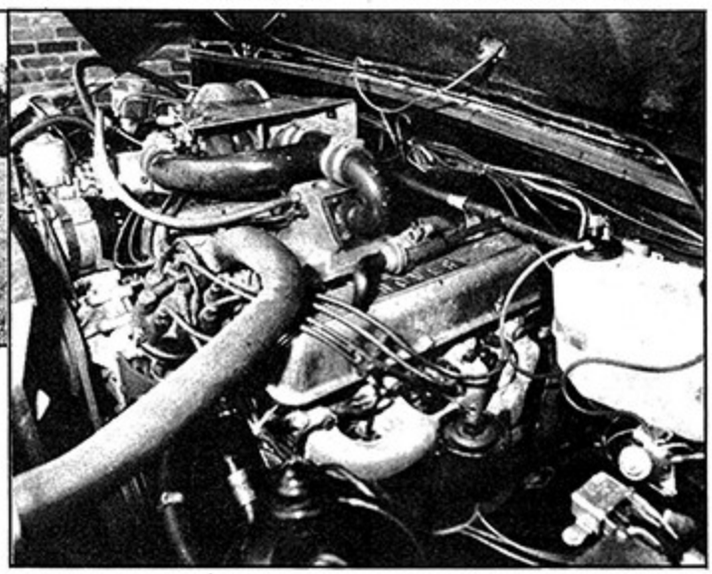
Possibly Rapport also feel that this slightly hesitant and dead period low down is a little out of character. In co-operation with Range Rover specialists Chris Humberstone Design Ltd. (the two companies have merged) they now offer the Australian BL built 4.4 litre Terrier V8 as an option. In standard form it gives no more power than the Rover unit, but as you can imagine, has enough low down torque to pull the proverbial tree trunk.

Once the Rapport Turbo came on song, it was quick, quiet (especially so cruising at 70 mph in O/D top), tractable, fuss free, and most impressively just as economical as standard, averaging over 15 mpg over a very short test period. Without any initial wheelspin, starts needed a little clutch slip for the best result — 3.1 sec to 30 mph — quicker than all but very sporting family cars can manage. Thereafter the Rapport Turbo wooshed unconcernedly up MIRA'S one mile horizontal straights reaching 90 mph in 29.4 sec (unattainable in the standard car within a mile) and 100 mph in 42.7 — an acceleration curve that comments aptly on the Range Rover's large and bluff fronted body. Mid range improvements are equally striking, for example the oft used 40-60 mph in third which comes down from 8.1 to 5.8 sec.

During hard acceleration we noticed a smell of fuel together with fluctuating boost pressure and sympathetic surging in power — both problems experienced before in similar in conception Janspeed conversions. Better quality inlet pipe hosing and a smaller wastegate have apparently provided cures.

Turbo power would obviously be a big asset for those who persistently tow, yet ultimately there is no substitute in a vehicle of this kind for cubic capacity. The bigger Leyland Terrier engine, automatic transmission (Rapport supply the Borg Warner/Furguson system with or without anti lock braking) and air conditioning, are available. Also the Rapport/Humberstone combine can offer a bewildering variety of body (4 door or 6 wheel) mechanical, trim, and other specialist options. Me? I'll take the standard one thanks and spend the odd £5,000-£7,000 on a trailer and boat . . . . □

Metal flake paintwork, front spoiler, and flared wheel arches are standard on the Rapport Turbo



Right: The Turbo installation is crowded but reasonably neat. Heat shielding protects the servo. Note the water heated "hot spot" between the carburettor and compressor — it also serves as the vacuum take off for the servo

***Colour page:** Can I take your order madame? Her eyes appear to indicate a degree of shock concerning the colour of a beautifully upholstered interior. A boost gauge and revcounter (also upholstered) sit in the centre of the dash*

ACCELERATION

Rapport Range Rover		Range Rover
3.1	30	4.1
5.5	40	6.9
7.8	50	10.1
11.3	60	14.3
15.1	70	20.5
21.1	80	29.3
29.4	90	—
42.7	100	—

Rapport Range Rover			mph	Range Rover		
Top	3rd	2nd		Top	3rd	2nd
22.1	10.1	4.3	10-30	13.1	7.9	4.4
15.4	6.5	3.6	20-40	12.8	7.1	4.7
10.5	5.2	4.4	30-50	12.2	7.1	6.1
9.4	5.8	—	40-60	12.7	8.1	—
10.3	7.2	—	50-70	14.3	10.4	—
11.3	10.3	—	60-80	17.8	16.2	—
13.8	—	—	70-90			
21.7	—	—	80-100			

Rapport Range Rover	Range Rover
Standing ¼ mile:	
17.9 sec 76 mph	19.7sec 69 mph
Standing kilometre:	
33.4 sec 92 mph	37.4sec 83mph

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