



# FINDING THE EUROPEAN EXPRESS

**BMW 323i Lancia Beta HPE  
Saab 900 Turbo  
Volvo 242GT**





**S**PORTING SEDANS still live and don't let anybody tell you otherwise. You just have to pay rather more for their pleasures and go searching among the Europeans for the real thing. Tragically, it's hard to find even a pretender among the local cars — mention the Datsun 200B SX and we'll laugh, loudly — although you can still build up a big muscle Falcon or Commodore, though GMH's five-litre engine option has disappeared with the new VC. The penalty you pay, of course, is in excessive fuel consumption and, ultimately, in poor resale value. Perhaps the closest of all is the two-litre Escort, a much under-rated small car but then we told you all about it in March.

We would define proper sporting sedans as those which pander to the driver in their dynamics. Sharp steering, a responsive engine and precise handling are more important than straight line acceleration though good performance is an integral part of the overall balance 'at' any sporting sedan.

You start with the Alfasud ti, few people would deny its place in any short list of desirable driver's cars, and journey upwards in price, if not necessarily quality. And that is what we did when gathering together our four rivals for this comparison.

Readers have been asking for a shoot-out between the hot-shoe Europeans for months. We were only too happy to oblige once we had worked our way through the other comparisons which were higher on our list of priorities. It also gave us the chance to test a couple of models which, for a variety of reasons, had yet to pass through the road test crew's hands.

Initially we had intended to include our long term test, five-door Saab 900 Turbo but the week we began organising the cars we learned that the 1980 models were about to arrive so we arranged a three-door Turbo with the new five-speed gearbox for the 10-day-long comparison.

Like the Cooper S and BMW 2002 before it, the Turbo has very quickly earned a reputation among enthusiasts as a formidable road car, not just for its sheer performance but also a point to point express. It is a car which is always admired as it goes by for it manages to set off its driver as a discerning motorist in a way no other current sedan achieves. It was a must in any such comparison.

BMW's compact, six-cylinder 323i was another model we had yet to run the watches over but an introductory drive showed it clearly belonged among the sporting sedans. The revised 1980 model with improved interior fittings had just arrived but Capitol Motors, the NSW distributors, provided us with a nicely run-in example.

Back in September, 1978, we tested the prototype Volvo 242GT with the standard 2.1-litre engine. Since then the GT has become an important member of Volvo's model line-up with its enlarged 2.3-litre engine but it has had to wait until now before being put through the



*They will never travel faster. The next four pages show speedo readings clocked in totally favorable conditions . . . we don't suggest they could be achieved on a flat road, but down hill anything is possible.*

rigors of a WHEELS road test. After David McKay's impressive run at Bathurst in a stock 242GT the Volvo seemed to be a logical entry, especially since reader enquiry indicated substantial interest in the car. Once again we were lucky enough to get a 1980 model with its new 15-inch wheels and Pirelli P6 tyres.

Finding a fourth car which slotted automatically into this company was more difficult. We could have chosen the Alfa Romeo 2000L in its new, luxury GLE form but since the Alfa had been both tested and compared in the past 12 months that seemed unnecessarily repetitious, despite its qualities on the road.

That left the Renault 20TS, the BMW 528i and the Lancia Beta in both sedan and HPE forms. The Renault we ignored because our road test had shown it just wasn't sporting enough; the BMW because we already had a Munich car although we knew that the 528i is a brilliant performer with most of the desirable features of a driver's car.

Road tests have shown the Beta sedan is a fine car but very much a family sedan. So it was to be the HPE, which combines the sleek appearance of the Beta coupe with most of the room and practicality of



the sedan. Besides, it would add to the flavor of the comparison if the fourth car was a two-door like its rivals. The HPE had the latest Lancia improvements to the instruments, seats and steering wheel.

#### PRICES:

All four cars have suffered price increases since we began this comparison. The Volvo is the cheapest at \$14,890 (up \$310 in recent months) and on paper appears to offer the best value for money. Certainly it is the biggest of the quartet. The only option fitted to the test car was air conditioning (\$785) but we doubt that many buyers would go without so the Volvo should be considered a 16 grand car.

The Lancia is only slightly more expensive at \$15,670 (up \$345), but to this must be added \$550 for the sunroof fitted to the test car, \$1195 for the air conditioning and about \$400 for the radio/cassette. The only other option available is metallic paint at \$400. Automatic transmission and power steering are both down the pipeline and would increase the general appeal of the HPE, and the other Betas, enormously. The bottom line figure for the test HPE was \$17,815.

The BMW 323i is now \$19,320 (a rise of \$1230) in manual form and \$20,545 as an automatic. But it doesn't end there. Air conditioning can be \$2025 when it is fitted at the factory, or \$1230 if added locally which most are, including the unit on the test car. Alloy wheels are \$756, limited slip differential \$495, metallic paint \$456, power steering \$855 and the radio/cassette \$475, for a very grand total of \$23,567 for the test car. And you could shell out another \$690 for a steel sunroof.

Saab's Turbos have seen the biggest price increase. The three-door has gone from \$22,573 to \$25,450 and the five-door from \$23,601 to a prodigious \$26,500. There are no options — at those prices it is just as well — so the BMW remains the only car to be offered in automatic form.

Can the Saab be worth \$9775 more than the Volvo? Or put another way, you could have a two-car garage of the Volvo 242GT and Alfa-sud ti for the price of the Turbo. Hmmm.

#### PERFORMANCE. . . On the dyno

As usual the test cars were dynoed at Stewart Service Centre, Miranda, NSW with a correction factor applied to the figures to avoid the measurable differences that can otherwise appear due to variations in ambient temperature, pressure and relative humidity.

We have the figures and we believe them, for they are borne out on the road, but that doesn't mean we accept that the Saab Turbo's behavior is typical. Four times we collected the test car but it never performed as well as our 1979 long term test car. Problems with the waste-gate valve and the fuel cut-off system always prevented it from giving of its best, the splendid surge of seemingly endless power as the



turbo comes into effect at 3000 rpm just didn't exist. In the end we ran out of time. . .four goes at one test car is quite enough thank you, even if it is a Saab.

The manufacturer's power claims for the Saab, BMW and Volvo cover a span of only four kW. On the dyno the BMW and Volvo confirm this closeness but the Saab is well down and only gave 66.2 kW at 5000 rpm, compared to 81.7 kW at 5500 rpm from the Volvo and 80.2 kW at 5500 rpm from the BMW. The Turbo's maximum torque was more impressive but not when viewed in the light of the maker's claims. No, this Turbo was sub-standard.

We didn't expect the HPE to have the same power as the others but its 58.8 kW at 5000 rpm is still impressively healthy from a two-litre carburettor engine.

The output details are all thoroughly presented elsewhere in this comparison so we won't reiterate them here.

#### PERFORMANCE. . . On the road

Perhaps even this category should be divided into performance on the Castlereagh Drag Strip, where all WHEELS road test figures are run, and performance on the road. For at Castlereagh a difference of two-tenths of a second seems important when you are staring at stop watches at the end of the drag strip, but becomes totally insignificant on the road.



Before driving the four cars we expected the performance battle to rage between the BMW and the Saab, we didn't know the Turbo was going to let us down. As a consequence the Volvo took over the role as the BMW's front line antagonist although our experience with other Saab Turbos leaves us in no doubt that they are capable of better things. We've included the 1979 test figures in our performance panel for comparative purposes.

Despite the worthy challenge by the Volvo the BMW emerged as a clear leader against the stop watch. With a standing 400-metre time of 17.3 seconds it is a strong performer and can go on to reach 160 km/h (the old ton) in just 27.5 seconds.

However, these times are only marginally quicker than those we obtained from the four-cylinder two-litre 320i tested in WHEELS March, 1978, and below the manufacturer's claims to the benefits of the extra capacity and two extra cylinders aren't immediately apparent. In fact, while it is a smooth, free-revving engine with excellent initial response to the accelerator it doesn't feel quite as willing or as sporting as the four-cylinder engine in the 320i.

There is more fan noise than expected and while the engine will pull from low revs it doesn't really begin to perform until 2000 rpm but then pulls strongly all the way to the cut-out point of 6400 rpm, 400 rpm below the redline on the tachometer.

Any initial impression that the engine might be excessively noisy is forgotten on the road for it has an effortless and powerful feel that almost overcomes the wide ratio gearbox and the occasional desire by the driver to change up a gear from fourth.

The Volvo has a noisy, even coarse engine that delivers little power under 2000 rpm but is very strong at the top end though above 5500 rpm the driver's ears plead for an upward gear change.

At 1260 kg, the Volvo is the heaviest of the four cars but its 17.7 seconds for the standing 400 metres and 31.8 seconds to 160 km/h indicates its performance potential, just as the times in the gears reflect the lack of bottom end power and the frequent need for gear changing if you want to make the most of the available power. Equally, the 0.80 overdrive is so high that it is seldom used except on the open road where it does provide quiet and effortless high speed cruising. Any gradient, however, knocks back the speed so quickly that a change down to fourth or even third is mandatory to maintain or build up speed again.

There was still a trace of the drive train vibration and general harshness that has afflicted Volvos for as long as we can remember, no way is the 242GT as smooth as the BMW or the Saab. And the throttle still requires a fairly hefty push despite Volvo's efforts to reduce the generally heavy feel of the controls.

The Saab, as we've mentioned too often, was not performing up to scratch and almost seemed to be missing any effect of the turbo, so



that it felt flat, though even so at 5500 rpm it ran sweetly. The new five-speed gearbox has a closer spread of ratio, first is lower and therefore take-offs are easier on the clutch.

Lancia's Fiat-based twin overhead camshaft engine is good for pottering or, if you use the last 10 mm of the accelerator's travel, rapid motoring. The car's quite low overall gearing no doubt contributes to its general ease of driving but even so the engine is surprisingly flexible and an excellent performer in the gears. It is noisy when pressed, intrusively so above 5000 rpm but has no trouble reaching the 6500 rpm redline.

The HPE weighs in at 1090 kg so it's the lightest, but not sufficiently lighter for its lower power to compensate. With a standing 400 metre time of 18.3 seconds and rest to 160 km/h in 32.4 seconds it is a willing performer by most standards, if not in this company. In the gears, however, the HPE is often as quick as its rivals and sometimes surpasses them. In the 60-90 km/h range, for instance, in fourth gear the HPE takes 7.2 seconds, compared with 8.4 seconds in the BMW and 8.7 seconds in both the Volvo and Saab.

Fifth gear is an overdrive but at 31.5 km/h per 1000 rpm it is slightly lower geared than fourth in the BMW which gives 31.8 km/h per 1000 rpm. Fifth is definitely there to be used in normal driving.

So the BMW wins (with a question mark over the Saab), not just on paper but as much for the way in which it goes about its task.



## FUEL ECONOMY:

Over 1000 km which included the performance testing and some high-speed touring the Lancia emerged as the most frugal, returning 7.8 km/l (22.1 mpg), followed by the BMW with a very good 7.6 km/l (21.5 mpg), the Saab with 6.7 km/l (19 mpg) and the Volvo with 6.5 km/l (18.2 mpg).

The Lancia ranged from a best of 8.8 km/l (25 mpg) to a worst of 7.1 (20 mpg); the BMW from 9 (25.5) to 7.1 (20.1); the Saab gave 7.4 km/l (20.9) to a worst of 6.2 (17.4) while the Volvo produced from 8.1 (22.9) down to 6.3 (17.8). Our best figures were obtained on the Hume Highway with 100-120 km/h cruising while the worst was achieved during high-speed motoring with a capital M.

The BMW has the longest touring range. In theory it can cover 440 km before filling, with the Lancia at 405, the Volvo at 390 and the Saab at only 368. The BMW and Volvo permit the theory to be turned into practice but on both the Lancia and Saab the warning light comes on rather early and psychologically force a conservative driver in for a fill-up. Worst still, the Saab actually runs out of petrol before the warning light stays on and any up-hill running produces a splutter and cough almost as soon as the light shows.

## TRANSMISSION

Both the front wheel drives — the Saab and Lancia — have five-speed gearboxes, the Volvo has four speeds with overdrive operating on fourth gear while the BMW has a straight four-speed gearbox. Both five-speed boxes have fifth up on the dogleg while the Volvo's overdrive is controlled by a small switch on top of the gear lever knob.

The BMW has a precise, rather notchy gear change and very wide gear ratios. A five-speed gearbox with overdrive fifth is now optional in Germany, we hope it eventually finds its way to the local market.

It has a simple, easy and mechanical change that suits the character of the 323i. During our time with the car the gear lever developed a very annoying rattle somewhere down at the base of the linkage. Holding the lever stopped the noise but you can't drive with one hand on the wheel all the time.

By front wheel drive standards the Lancia has a fine gear change. It is rubbery, a little heavy and occasionally fifth gear is confused for third but a huge gear knob contrives to make the change awkward.

Today's Volvo has a far lighter clutch than the models of five years ago. Its short gear lever has short throws in the one-two and three-four planes but is wide across the gate. Flicking the overdrive switch gives an almost imperceptible change, indeed sometimes only the drop in engine revs on the tachometer is a **give-away**, and this is without using the clutch.

After a long drive when the overdrive is frequently used the



engagement is slower but it is still an excellent system. Going down out of overdrive there can be a slight jolt and the driver must remember — or watch the overdrive warning light on the dashboard — to switch out of overdrive after going back from third gear or he'll find that he gets overdrive on changing up to fourth. In other words there is no automatic disengagement.

Controversy still rages in our office regarding the quality of the Saab's gear change. Some of our testers, those who lightly guide the lever from ratio to ratio by holding it from above, seldom had cause for complaint while others, who push the lever sideways, continually got lost in a slot going nowhere. Finding third gear was often a hit or miss affair, both on the way up from second and down from fourth, and first occasionally graunched home if you tried to change down too quickly. Happily the four-five change in both directions is satisfying, but clearly we can't give the Saab gear change top marks.

## HANDLING/ROADHOLDING/STEERING

The BMW and Lancia have independent suspension all round with struts up front on both. The HPE also has struts at the rear while the 323i continues to use BMW's semi-trailing arm set-up with coil springs. The suspension has been uprated by means of stronger dampers and stiffer anti-roll bars at both ends. The Saab uses wishbones and coil springs at the front and has a dead rear axle located



by four links and a Panhard rod with springing by coils. Volvos have had struts and coil springs for a few years now and the GT doesn't deviate from that although it does have stiffer front and rear anti-roll bars and gas-filled shock absorbers. It retains a live rear axle which is located by longitudinal arms and torque rods.

If it's an old-fashioned sporting feel you're after then the Lancia is the obvious first choice. Where you don't need very much suspension travel and compliance the Lancia is a little sports car with a taut, firm feel about it that makes the HPE a joy to drive quickly on the open when you can appreciate its responsiveness and the precise steering. But bumps soon use up the limited suspension movement and it is all too easy to bottom the front end and have the suspension crashing through, especially under brakes on a series of potholes.

On the road the steering feels more direct than the 3.75 turns lock to lock might indicate, largely because the HPE can be steered on the throttle. Tighter conditions, and when parking, point up the need for the power steering which is standard on the left hand drive models but has yet to be offered as an option on right hand drive models although we understand that it could arrive at the same time as the automatic transmission.

The heavy steering makes the HPE a tiring car to drive in suburban conditions and a couple of our drivers complained of the way it loads up quickly in tight corners.

On a rough, bumpy, off-camber slice of Australian blacktop we used for comparative testing the HPE retained its composure and sits flat for longer than the Volvo, although it did hit the bumps stops on a couple of occasions and felt decidedly nose-heavy. Straightline stability is good.

No doubt the low profile Pirelli P6 tyres contribute to the excellent adhesion of the 242GT but even with the stiffer springs and roll bars it feels comparatively soft and bounces around with plenty of vertical movement that is emphasised because the occupants seem to be sitting up so high that they are remote from the road and find the grab handles essential. On a good surface the Volvo just rolls across the countryside with mild understeer, its tenacious grip is spoiled only by the power steering which lacks feel and requires constant correction to hold the car on line through a sweeping corner. Of course the Volvo has a tight turning circle that is always appreciated.

We were unhappy about the handling and roadholding of the road test 320i and said so. The 323i is far better but, like the modified 528i, is not yet perfect and is below the standard achieved by the Saab. It will still oversteer progressively if you back off in the middle of an apex though it is more likely that the weight transfer will merely tuck the nose in and move the tail out ever so slightly. It is very sporting in its feel, partly because the car's compact dimensions and its relatively firm ride all combine with the six-cylinder engine's noise to suggest to one tester that the 323i was something akin to being a refined Torana XU-1.

The independent suspension does give the 323i advantages over rough roads that only the Saab can surpass, despite its dead rear axle. Our rough road test had the 323i pitching around, its steering wheel shaking unhappily in protest though it was still more relaxing than either the Lancia or Volvo over the same road.

A little lost motion at the straight ahead and a strange diagonal yawl, together with a squirm over any bump encountered mid-corner means that it lacks the poise and inherent stability of the Saab. And

*BMW has few instruments but they are easily read. Seats are hard, our testers didn't find them comfortable. Finish is excellent in a practical German way.*



*Lancia has new seats and instruments but plentiful gauges are difficult to read. Steering wheel is adjustable for rake, driving position is still a little Italian.*



at very high speeds the BMW requires plenty of concentration from the driver to maintain a straight line.

You pay plenty for the Saab but its dynamics go a long way towards justifying the outlay for it proved a clear winner in this category with its immense stability, its flat ride and the surprisingly supple suspension's ability to soak up bumps. It quickly became our collective favorite. The power steering is a little on the light side but the driver is always aware of what is happening down at road level.

The Saab understeers more than the BMW and there is some body roll but once the body has taken up the slack it proceeds around corners with the Pirelli P6s hanging on like limpets. Perhaps they produce a rumble on coarse surfaces and we suspect they are slightly more harsh at low speeds than the Michelin TRXs on the five-door but there can be no doubting their sheer adhesion. More than anything else, it is the Saab's ability to cope with Australian roads that gives it a definite edge over its rivals in this comparison.

#### **BRAKES:**

Four wheel discs across the board gives them a head start but doesn't mean they're perfect. Even the Saab, which has incredible stopping power, was criticised because the brakes were over-servoed and required just a brushing of the pedal to bring the car to a halt. They reminded us a little of the Citroen's hydraulic system. The BMW's pedal has a longer travel and the brakes do become spongy, although their initial feel leads the driver to believe they will be more progressive than the brakes in the Saab. The Volvo has good brakes but with a longish pedal travel. They can be made to fade in tortuous conditions and lack the subtle responsiveness of the Saab's brakes in

a high speed stop. Pedal pressures are also higher and build up progressively. The Lancia has brakes which are, in the Italian tradition, over-servoed, though not absurdly so. They stop the car well once the driver becomes accustomed to their feel. Pad life, we suspect, after looking at the front wheels of the test car, is not going to be long.

#### **NOISE:**

The Lancia is the loudest car of the quartet and easily so. Its engine is always audible and becomes very noisy above 5500 rpm. Some of our drivers enjoyed the rasping exhaust and induction roar over a short distance but all found it tiring over a long distance. There is also too much wind noise from the A-pillar and even the B-pillar and tyre roar over coarse surfaces. Perhaps the level of noise in the HPE is part of its sports car character but it does detract from its capacity to put down hundreds of kms at a sitting.

Our sound meter readings tell us the 323i is the quietest of the foursome, at least at 110 km/h and under full throttle acceleration and our ears didn't deny that, although at high speeds we found both wind noise and engine noise increased rather more than in either the Volvo or the Saab. Even so it is still quiet enough for the occupants not to complain about this aspect of the car.

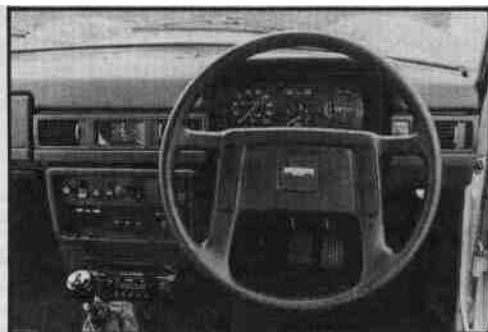
The Volvo is noisy when pressed and few people will enjoy running the engine beyond 5500 rpm, but once out on the open road and in overdrive it is almost as quiet as the Saab which sounds like a jet under hard acceleration as the turbo emits its eerie whistle. There is a rustle of wind from around the A-pillar but generally the Saab is only let down by rattles in the dashboard and the doors. Since these

*(Continued on page 96)*

*Saab has controls which can be reached by hands on the steering wheel. New-for-1980 seats have adjustable headrests and more lateral support. Instruments are legible, limited in number.*



*Volvo has big interior with old-fashioned dashboard. Controls are confusing and require long reach. Seats are fully adjustable, suit tall people. Tacho is rather small.*





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**Express**

(Continued from page 49)

also became apparent in our long term test car we have to assume that they are a trouble spot with the Turbo and perhaps produced by the sometimes excessive harshness of the Michelin and Pirelli low profile tyres. Owners' comments would be appreciated.

One noise in the Volvo we could not tolerate was the incessant beeping if you leave the ignition key in the ignition and happen to open the driver's door. The audible seat belt warning is bad enough but the beeper had to go and did during our first hours with the car. It is very easy to disconnect and only involves pulling out a small electrical plug under the dash to the right of the steering column.

## ACCOMMODATION;

Our testers concluded that the foursome could logically be divided into two groups. The two-plus-twins in the form of the BMW and Lancia and the five seaters in the Saab and Volvo. The Lancia HPE shares the same wheelbase with the Beta sedan so it has a surprisingly roomy cockpit area but poorly designed rear seats — partly, we suspect, to give them added versatility — and a lack of rear head room means that while short adults can be comfortable even they will complain because the backrest is too vertical and almost convex in its shape and there is a prominent ridge in the padding around the rear wheel arches.

The front seats are far superior to the old short-backed and very stylised perches and they do place the driver rather low in the car as befits its sporting feel. The steering wheel is adjustable for rake but not reach and this together with the pedals which are too high, too close and slightly flat does produce a mild version of the typical Italian driving position.

Heavily padded yet still soft bucket seats provide enough lateral support to hold the front seat occupants in place even in hard driving

and they fold well forward to make access easy to the roomy rear compartment.

In judging the BMW it is important to remember that it is a small car. In wheelbase it is longer than both the Saab and the Lancia and it is 70 mm longer overall than the HPE but 384 mm shorter than the Saab. It is also narrower than the other three and lower than all but the Lancia, and because it is a conventional three-box design, its cockpit is the smallest of all four cars, as its 1550 mm from dashboard to rear seat back proves. The Saab measures 1650, the Lancia, with its hatchback semi-station wagon design, 1700 and the Volvo 1730 mm.

All this is to explain why the 323i is not a genuine four-seater. All our drivers had the front bucket seat at its rearward-most position and thus reduced rear seat leg and knee room to the point where it can only be regarded as cramped. Even so, tall drivers would prefer even more rear adjustment. The driving position is good but could be better with a slightly higher-mounted steering wheel and more room around the pedals. As it is, the wheel sits in the driver's lap.

You sit reasonably high on very hard seats that are almost so curved in their backs that there isn't enough shoulder support. Most of our drivers found them only marginally comfortable on a long trip.

The Volvo is roomy by the standards of this comparison and with large front bucket seats which are completely adjustable (like the Saab) for cushion height, the driving position is very good, especially for tall drivers. You sit high, much higher than those in the rear, and this contributes to a general feeling that those in the front roll around with the car. More lateral support would be welcome.

The back seat is comfortable and two large or three smaller adults have more than enough room in every direction. It is, however, not quite in the same league as the Saab which has a rear seat that comes close to the Peugeot 604 in providing genuine travelling comfort for adults over a long distance. Both front and rear seat cushions in the Saab are not particularly large but because they are well off the floor and superbly shaped and designed the Saab is a relaxing, comfortable touring car. New front seats with adjustable head restraints have improved rear visibility and reduced the claustrophobic feeling induced



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## OFFICIAL TEST RESULTS! \*

*Make & Model Fitted with Kamei Front & Rear Spoiler		BMW Series 3
•IMPROVED SAFETY	by Decreasing Uplift	-35%
•INCREASED PERFORMANCE	Higher Top Speed	+20%
•IMPROVED ECONOMY	Reduction in Fuel Consumption	-4%
•INCREASED EFFICIENCY	By Decreasing aerodynamic Drag.	-11%



## PERFORMANCE

	BMW 323i	LANCIA HPE	SAAB 900 TURBO	VOLVO 242 GT
<b>ACCELERATION</b>				
0-50 km/h	3.2 sec	3.5	3.3 (3.3)	3.5
0-70	5.3	6.0	5.8 (5.8)	5.3
0-90	7.5	9.3	9.0 (8.7)	8.2
0-110	11.6	13.6	13.8(12.2)	12.8
0-130	16.4	19.8	19.7(17.6)	17.9
0-160	27.5	32.4	32.9 —	31.8
Standing 0400m	17.3	18.3	18.1 (17.2)	17.7
<b>PASSING ACCELERATION</b>				
Second gear				
30-60	3.9	3.2	5.0	3.8
40-70	3.9	3.4	4.5	3.3
50-80	3.9	3.6	5.1	3.4
60-90	3.4			
70-100	3.6			
Third gear				
30-60	6.1	5.2	6.4	7.0
40-70	5.9	5.2	6.0	6.0
50-80	5.5	5.0	4.9	5.5
60-90	5.4	5.8	5.0	5.7
70-100	5.8	5.8	5.1	6.0
80-110	6.1	6.4	5.4	6.3
90-120	6.4	7.5	6.2	6.9
100-130	7.1			7.4
Fourth gear				
30-60	8.6	7.7	10.8	12.4
40-70	8.4	7.5	10.5	10.8
50-80	8.4	7.5	10.0	9.6
60-90	8.4	7.2	8.7	8.7
70-100	8.3	7.7	7.1	8.6
80-110	9.0	8.3	7.0	8.3
90-120	9.5	8.7	7.3	9.2
100-130	10.3	8.9	7.8	9.4
Fifth gear				
30-60		11.5	15.6	O/D 19.0
40-70		10.4	15.0	18.7
50-80		10.5	13.2	17.4
60-90		10.5	12.1	15.3
70-100		11.1	10.8	14.3
80-110		11.8	10.1	12.7
90-120		12.5	10.3	14.0
100-130		13.2	11.8	14.3
<b>Speed in gears</b>				
First	54 km/h (6400 rpm)	54 (6500 rpm)	50 (5800 rpm)	54 (6500 fpm)
Second	101 (6400 rpm)	81 (6500 rpm)	83 (5800 rpm)	93 (6500 rpm)
Third	154 (6400 rpm)	124 (6500 rpm)	124 (5800 rpm)	147 (6500 rpm)
Fourth	184 (5800 rpm)	164 (6500 rpm)	172 (5800 rpm)	186 (5000 rpm)
Fifth		181.5 (5800 rpm)	190 (5200 rpm)	188 (5000 rpm)
<b>FUEL ECONOMY</b>				
Overall	7.6 km/l (21.8mpg)	7.8 km/l (22.1 mpg)	6.7 km/l (19mpg)	6.5 km/l (18.2 mpg)

i^A^

## Carburettor Conversions

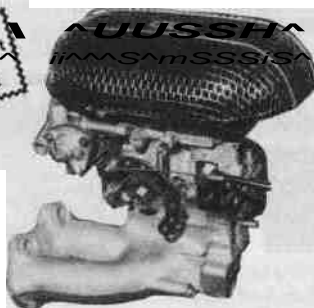
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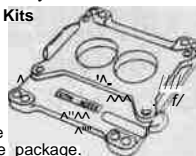


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come complete with all gaskets and hardware for easy bolt-on fitment. LYNX cable-operated linkage kits complete the package.

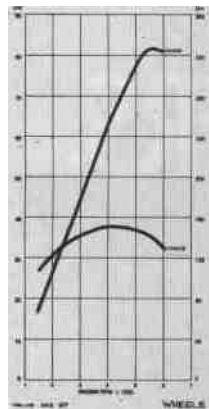


Lynx Carburettor Conversions are available from your local Auto Parts Shop or direct from:

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Victor-an Rep, Rod Wayling (03)3082621

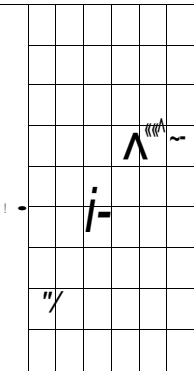
VOLVO  
242 GT



RPM	kW	Mm
6000	81	128.9
5500	81.7	141.9
5000	77.2	147.4
4500	70.3	149.1
4000	62.6	149.6
3500	53.5	145.9
3000	44.3	141
2500	35	133.8
2000	25.8	123.4
1500	16.8	107

**Maximum power:** 81.7 kW at 5500 rpm  
**Maximum torque:** 149.6 Nm at 4000 rpm  
**Comments:** The Volvo emerged as the top performer in the dyno tests, just pipping the BMW for maximum power, and delivering more torque than the others too. A very impressive engine, lively and responsive, which manages good performance and economy in spite of the car being relatively heavy.

LANCIA  
BETA HPE



RPM	kW	Nm
6000	56.5	90
5500	57.3	99.5
5000	58.8	112.3
4500	53.5	113.5
4000	45.8	109.4
3500	38.8	105.9
3000	32.1	102.1
2500	25.8	98.6
2000	19.9	94.8
1500	14.5	92.4

**Maximum power:** 58.8 kW at 5000 rpm  
**Maximum torque:** 113.5 Nm at 4500 rpm  
**Comments:** Though it suffers a bit by comparison against the larger BMW and Volvo engines, and the turbocharged Saab, the Beta is in fact a healthy performer for a carburetted two-litre four, and that's confirmed by its corn-

in rear seat passengers by the old seats. Even so, the wide C-pillar does restrict the driver's vision although the rubber spoiler can be seen and this does make parking easier.

Despite pedals which are offset to the left and a lack of room for the left foot around the clutch pedal the Turbo has an excellent driving position and one with so much adjustment that extremes in size can be very comfortably accommodated.

So while the Saab is the most comfortable, the Volvo has the most room, the BMW is the smallest, while the HPE hasn't made the most of the available space, though it does, like the Saab, have the impressive versatility of a full hatchback body.

CONTROLS/INSTRUMENTS:

Lancia has cleaned up both the instruments and controls on the Beta Coupe and HPE yet they still leave much to be desired. It has by far the most comprehensive range of gauges but they reflect so badly, are so poorly marked and confusing in their similarity that the full benefits of their information is often never communicated to the driver. The digital clock hides under the lower dashboard surround and can't be read from behind the steering wheel.

Compared to the BMW and to a lesser extent the Saab, the HPE has a generally old-fashioned feel about the dashboard. The controls still require a fairly long reach, unlike the Saab which mounts the steering wheel very close to the dashboard and within finger reach of most controls. It doesn't have as many instruments as the Lancia but, like the BMW, they are easily read.

The BMW surrounds the driver with intelligently-planned controls and keeps the instruments down to a speedo and tachometer and fuel and temperature gauge. The heater now has circular dial controls instead of slides and electrically-operated exterior mirrors. Strangely the Saab three-door misses out on this most welcome feature which is standard on the five-door.

Accessories mean  
confident safer driving

Coping with everyday traffic calls for absolute concentration. The demands on the driver increase at night and in adverse weather or traffic conditions. Critical situations may arise that demand the mobilization of safety reserves at the flick of a switch. Hella provide a range of Automotive Electrical Equipment that includes:-

SEAT BELT REMINDER PART No. 5229



"Fasten Seat Belt" flashes red for 10 seconds when the key is turned. This safety reminder kit is suitable for all 12 volt vehicles and comes complete with installation material and instructions.

Recommended Retail Price \$15.00

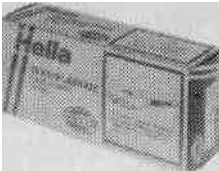
INTERMITTENT WIPER CONTROL  
PART No. 7010

Permits the driver to adjust the wiper stroke frequency anywhere between 2 and 30 times per minute, avoiding the need to continuously switch wipers on and off with light rain or road splash.



Recommended Retail Price \$31.65.

TRANSFLASH TOWING RELAY KIT  
PART No. 5404



This kit features an electronic relay designed to maintain a constant flashing rate, even with mixed bulb wattages. Complete with pilot light to indicate globe or operation failure on trailer. Transflash is easily fitted, without disturbing the existing flasher system.

Recommended Retail Price \$17.95.

HAZARD WARNING FLASHER SYSTEM  
PART No. 5225

Operates all flasher lamps of a car simultaneously. Indication is by a red pilot light in the control knob. Complete with cables and terminals for easy installation.

Recommended Retail Price \$19.00.

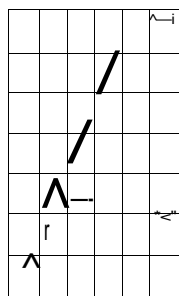


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## BMW3231



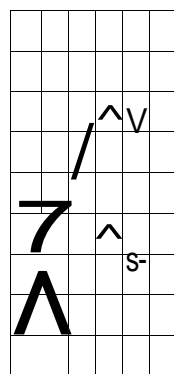
RPM	kW	Nm
6400	76.4	114
6000	79.4	126.5
5500	80.2	139.3
5000	76.5	146.2
4500	65.7	139.4
4000	56.5	135
3500	49.3	134.5
3000	41.3	131.3
2500	31.3	119.6
2000	22.2	105.8
1500	15.3	97.3

**Maximum power:** 80.2 kW at 5500 rpm

**Maximum torque:** 146.2 Nm at 5000 rpm

**Comments:** Notable for very good fuel economy even when driven fairly hard, BMW's fuel-injected 2.3-litre six also gives a good account of itself in performance. On the road it's more flexible than the dyno test's high torque peak might suggest, and very smooth at all speeds.

## 3AAB 900



RPM	kW	Nm
5500	60.2	104.5
5000	66.2	126.4
4500	64.7	137.2
4000	60.2	143.6
3500	53.5	146
3000	46.6	148.4
2500	37.6	143.6
2000	25.7	122.1

**Maximum power:** 66.2 kW at 5000 rpm

**Maximum torque:** 148.4 Nm at 3000 rpm

**Comments:** Where did all the power go? The turbocharged Saab ought to have been the top performer of this quartet, on the dyno and on the road. But it wasn't. The engine ran smoothly enough yet lacked the sheer punch

It's all there on the Volvo but the console area is a mish-mash of controls of different shapes and colors that not only looks ugly but surely could be simplified. Instruments follow the pattern established by the Saab and BMW although the tachometer is rather small. The choice here is clearly between the Saab and the BMW.

### EQUIPMENT AND FEATURES:

Our comments on the prices and options gives a clear indication of the relative equipment levels but to give a more complete listing the chart below should answer all your questions.

	BMW	Lancia	Saab	Volvo
Trip	V'	V'	>'	>'
Day/night mirror	^	v	•	f
Clock	>^	>'	•'	>'
Intermittent wipers	>•	>'	v<	v'
Water temp.	i^	>'	^	>'
Volts		^		
Choke/warm	auto	auto	auto	auto
Adj. str. col.		^		^
Rear window demister	i^	i^	^	^
Spare wheel	under fl.	side	side	side
Radio	FM	AM	FM	FM
	Cass(opt)	Cass(opt)	Cass	Cass
Armrest	4	4	4	4
Grab handles		3	3	1
				1 driver
				2 rear
Map pockets	2 door	2 ftwalls	2 door	2 seats
				2 doors
Tacho	K'	<-	>-	i->
Lumbar adjustment				+2
Cushion tilt			>^	
Overdrive				



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Miranda, Stewart Car Co.	5226666
Parramatta	6333939
Nowra, South Coast Car Care	24677
Lismore	21 2044
Grafton	425311

OLD.	
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Springwood	2081965
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S.A.	
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Perth	321 7941
N.T.	
Darwin	81 6666



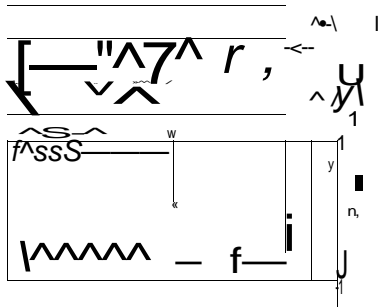


## SPECIFICATIONS

	BMW 323i	LANCIA BETA HPE	SAAB 900 TURBO	VOLVO 242 GT
<b>ENGINE:</b>				
Cylinders	Six	Four	Four	Four
Cooling	Water	Water	Water	Water
Valves	Single ohc	Twin ohc	Single ohc	Single ohc
Comp ratio	9.5 to 1	8.9 to 1	7.2 to 1	10.0 to 1
Bore x stroke	76.8 x 80.0 mm	84 x 90 mm	90 x 78 mm	96 x 80 mm
Capacity	231 B cm <sup>3</sup>	1995cm <sup>3</sup>	1985cm <sup>3</sup>	2315cm <sup>3</sup>
Max power	105kW at 6000 rpm	80.9 kW at 5500 rpm	107 kW at 5000 rpm	103 kW at 5750 rpm
Max torque	190 Nm at 4500 rpm	160 Nm at 3000 rpm	235 Nm at 3000 rpm	191 Nm at 4500 rpm
<b>TRANSMISSION:</b>				
First	3.764	3.5	3.319	3.71
Second	2.022	2.235	2.000	2.16
Third	1.320	1.522	1.342	1.37
Fourth	1.000	1.152	0.966	1.00
Fifth		0.925	0.781	0.80 o/d
Final drive	3.45	3.786	3.89	3.91
Km/h per 1000 rpm	31.84th	25.3 4th 31.5 5th	29.6 4th 36.6 5th	31.1 37.7
<b>SUSPENSION:</b>				
Front	Independent, struts, coil springs, anti-roll bar.	Independent, struts, coil springs, anti-roll bar.	Independent, wishbones, coil springs.	Independent, coil springs, anti-roll bar.
Rear	Independent, semi-trailing arms, coil springs.	Independent, struts, coil springs, anti-roll bar.	Dead axle, located by four links and Panhard rod, coil springs.	Live axle, longitudinal control arms and torque rods, anti-roll bar.
<b>BRAKES:</b> Front/rear	Disc/disc	Disc/disc	Disc/disc	Disc/disc
<b>STEERING:</b>				
Type	Rack and pinion	Rack and pinion	Rack and pinion power assisted	Rack and pinion power assisted
Turning circle	9.6 metres	10.6 metres	10.3 metres	9.8 metres
Turns lock to lock	4.0	3.75	3.6	3.5
<b>TYRES:</b>	Michelin XVS 185/70HR13	Michelin ZX 175/70SR14	Pirelli P6 195/60R1586H	Pirelli P6 195/60R1586H
Kerb mass	1135 kg 1140 kg rego weight	1060kg 1090 kg rego weight	1230 kg 1230 kg rego weight	— 1260 kg rego weight
Fuel capacity	58 litres	52 litres	55 litres	60 litres
<b>NOISE:</b>				
Idle	76 dB	83	78	76
60 km/h	84	86	84	84
110 km/h	85	89	88	85
0-100 km/h	88	95	92	92

## DIMENSIONS

	BMW 323i	Lancia HPE	Saab Turbo	Volvo 242
WB Wheelbase	2563 mm	2540	2525	2640
TF Track, front	1386	1406	1430	1420
TR Track, rear	1399	1392	1440	1350
OAL Length	4355	4285	4739	4880
OAW Width	1610	1650	1690	1710
OAH Height	1380	1310	1420	1430
GC Ground clearance	—	120	150	—
A Dash to rear seat	1550	1700	1650	1730
B S/wheel to front seat; min/max	510/720	550/720	510/670	510/665
C Front cushion depth	500	510	480	510
D Pedals to front seat; min/max	325/510	330/500	350/475	350/505
E Rear cushion depth	470	520	455	480
F Rear legroom; min/max	130/320	190/340	245/360	180/340
G Cushion to floor height; min/max	290	260	315/330	310/360
H Rear cushion to floor height	370	320	390	340
I Luggage floor length (seat down)	—	1500(1960 fronts! down)	1760	—
J Luggage floor length (seat up)	1100	980	1120	1160
K Floor to lid/roof; min/max	360/450	410/810	300/900	330/540
L Lid/door opening	720	1100	1290	775
M Loading lip height	840	570	500	500
N Rear floor width (max)	1420	1210	1300	1230
O Rear floor width (between arches)	820	850	1010	1075
P Opening width	1230	1020	1055	1300
Q Shoulder width	1310	1280	1305	1340
R Front door length	1000	1100	960	1010
R1 Front door height	920	870	970	720



Hazard	i^	v^		
Carpet	>^	^		
Folding rear seat		>/		
Cloth	•	v^		v^
Coat hanger	>_	+3		2
Locking pet. cap	^	v^		
Rear courtesy	2 dr	2dr	2dr	2dr
Infinite rake		•/	v	i^
Boot light	v	v^	v	
Headlight wash			v	
Headlight halogen	•/		1^	
Remote rear v. mirror adj.	2 elec.			
Heated cushion				
Door open warning buzzer				
Oil temp. gauge				
Oil level gauge				
Rear wiper		v^		
Fasten belts warn			^	
Air	Opt	Opt	^	
Auto antenna	Opt		v^ power	
Inertia reel rear belts	^		^	
Driving lights			v^	
Centre rear armrest		No-split	^	1^
		.backrest		
Tinted windows	v			

#### LUGGAGE:

You can't beat the Saab, it has a huge boot with the rear seats up and an even huger boot with the seats folded, and a low sill makes loading very easy. The HPE is a full hatchback and has a split rear seat so that long loads and a third person can be carried, but it lacks the sheer volume capacity of the Saab. The Volvo has a large boot that is sensibly shaped but it also has a high sill — though it is lower than Volvos of a couple of years ago — while the BMW's boot is slightly smaller but practical in its shape and still big enough to carry plenty of luggage.



## The New Volvo 242GT has really earned it's stripes

Come and see for yourself at Whitehorse Motors now. The 242GT offers all the dynamic safety that is Volvo, with dynamic performance. And that doesn't mean a few fancy stripes here and there. The 2 door, 242GT is designed and engineered in the manner of the true European Grand Touring car. There's a new 2.3 litre, 140 brake horse power engine, a 4 speed manual transmission with overdrive, and full Grand Touring suspension and special styling. The 242GT will be available in limited volume so arrange a test drive now. We promise you'll find its stripes well earned.



# Whitehorse Motors

Whitehorse Motors Consolidated Pty Ltd., 296 Whitehorse Rd., Nunawading, 31 31. Ph: 878 6677 A.H. 232 8529 LMCT1541. 8701580

WM1480



#### CONCLUSIONS:

It is hard, indeed impossible, for most of our testers to go beyond the Saab Turbo knowing (hoping?) that the performance level of the '80 model is up to the standard of the '79ers. It is the best on the road and not only in its ability to cope with our dreadful roads. It is comfortable, roomy, has brilliant brakes, is fun to drive and very safe. It is also expensive and in objective terms isn't worth almost \$10,000 more than the Volvo which, despite the occasional crude touch, impressed us rather more than we expected. The 242GT is, we believe, very good value for money in this class and will do much to improve the image of Volvo in Australia.

The BMW is too expensive and doesn't offer the kind of value for money obtained in the slightly more expensive Saab. Perhaps this is why BMW has decided we should also get the 318i. It is cramped, still doesn't make it in matching BMW's reputation as a fine road car and while the engine is most impressive it is let down in some important areas that many people consider mandatory in a driver's car. The Lancia is the sports car, its suspension fails on rough roads and it doesn't have quite the sheer acceleration of the opposition. A good car but showing its age and more at home in Europe than Australia.

The Saab wins but the Volvo is the best buy.

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