

Proton 1.5SE Aeroback



Proton 1.5 Aeroback shown in GLS guise

SINCE WE LAST TESTED THE PROTON 1.5 it has received two lots of changes. In 1991 the Mitsubishi-sourced engines went to three valves per cylinder and this summer the 1993 models adopted multi-point fuel injection throughout the range, accompanied by catalysers. This has boosted power from 75bhp on our 1989 test car to 89bhp on this latest version. Even the 1.3 engine produces 74bhp these days.

This retest gave us a chance to see how the five-door (called Aeroback by Proton) shapes up. The test cars we sampled this time were both top of the range SE versions, one with the automatic option.

At the wheel

Instant starting, smooth, gulp-free accelerator response and noticeably livelier acceleration for overtaking will be readily apparent to the owners of earlier Protons as they sample the new model. Two seconds are carved off the 30–70mph time through the gears, and although it's slightly lower geared

nowadays, the new 1.5 seems quieter at a motorway 70mph. The 1.3 is even more refined, however; the 1.5 can feel a bit coarse in its mechanical manners – when accelerating hard, for instance. Full marks for minimum effort when gearchanging, however.

Talking of which, the automatic transmission does it all, of course – and smoothly, too – but this 'box has only three speeds and is even shorter-striding in top. Performance and economy are noticeably compromised. The 30–70mph overtaking dash takes a full 5sec longer and consumption averages only about 30mpg. The manual version itself is quite a gas-guzzler compared with the earlier 1.5 – but then, it's quicker, too.

The latest cars all have more supportive front seats – except for the basic GE, which retains the old ones. The SE is clad in posh velour as well, and has steering height adjustment to offset the prominent wheel. We felt very comfortable at the helm. Even the tacky wheel and its garish badges have been tidied up and the Blaupunkt radio offers reasonable reception and tone.

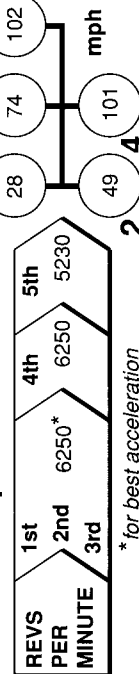
PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph	3.8	0-60mph	12.0	1/4 mile	18.9
THROUGH THE GEARS	30	40	50	60	70	
		2.1	4.8	8.2	12.6	
IN 5TH GEAR		6.4	13.2	19.7	26.9	
IN 4TH GEAR		4.9	9.5	14.4	20.3	

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES	13.5/10.2	13.3/9.5	13.2/9.5	13.7/10.8	

Maximum speeds



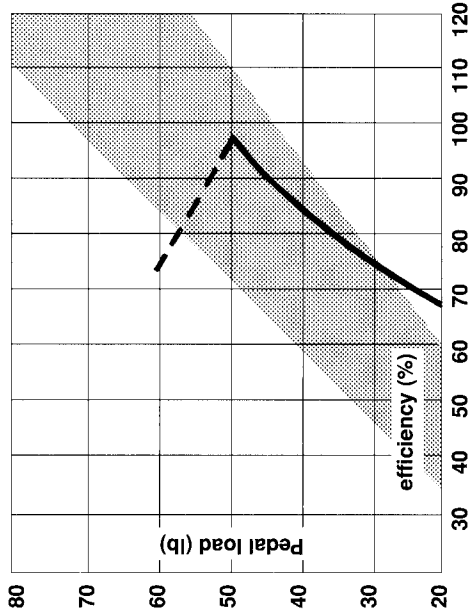
FUEL CONSUMPTION

Fuel grade for tests: unleaded Premium, 95 octane	
Normal range	mpg
Hard driving, heavy traffic	27
Short journeys in the suburbs	27 1/2
Motorway – 70mph cruising	34
Brisk driving, mixed roads	35
Gentle driving, rural roads	40
Typical mpg overall	34
Realistic tank range *	38 litres/285 miles

* based on fuel gauge/warning lamp and filling station experience

SAFETY

Brakes How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g). Ideally the braking curve should be a gentle sweep and lie within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light – although this is more acceptable on cars with ABS. When the curve becomes broken, the wheels are skidding.

Safety check list

Steering	true 'feel' of the road?	X
Brakes	powerful?	✓
	sensible effort?	✓
	fade resistant?	X
Seatbelts	front – effective?	✓
	convenient?	X
	rears – effective?	✓
	convenient?	X
Head restraints	front – effective?	X
	rear – effective?	X
Interior	thoroughly padded?	X
Fuel	shielded filler?	✓
	protected tank?	✓

50-0mph best stop 90% / 93ft

Handbrake only 35%

Fade test How hard use affects braking (ideal brakes show no change)

Pedal load needed for 75% stop (lb) 30

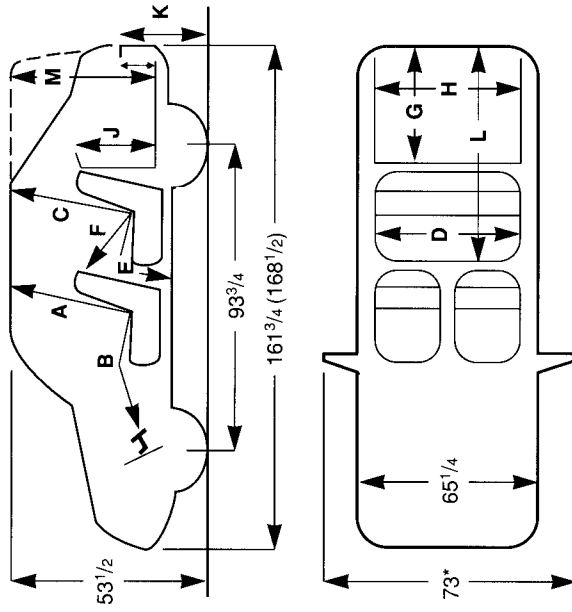
At start of test 30

After constant use 55

After severe use 80

MEASUREMENTS

Dimensions (inches). Four-door saloon in brackets, where different



* mirrors don't fold

Kerb weight in lb (full of fuel) 2315

Inside (inches) Four-door saloon in brackets, where different

A Front headroom (with/without sunroof)	34 1/2 (36)	G Load length	31 (38 1/2)
B Front legroom (min - max)	34-40 1/2	H Load floor width (min - max)	38 1/2-52 (39-60)
C Rear headroom	33 1/2 (34 1/2)	J Load height	15 (17)
D Back seat width (between armrests)	51-53 (52)	K Sill height (inner/outer)	6 1/2/25 (13 1/2/33)
E Typical rear * legroom	36 3/4	L Load length († SE only)	61 (68†)
F Typical rear * knee room	24 1/4 (25)	M Load height (to tailgate hinge)	–

* "Typical" represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

The power steering certainly takes away the effort of manoeuvring, but it's rather lifeless in its responses and provides no feel of the road when cornering in more enterprising fashion. In general, the Proton offers little gratification to the keener driver, but is secure and steady in its handling.

Space and comfort

The Aeroback's rear headroom is even tighter than the saloon's and its seat isn't quite as comfortable and supportive, either. Actually, the SE saloon's split-folding rear backrest makes a nice compromise – the length is actually 7in better between the rear load sill and front seat backrest because the saloon is longer. The rear cushion is fixed on both versions.

The tilt and slide sunroof does no good to front headroom and it's not quiet enough at cruising speed to leave fully open, unless the hot weather demands it.

The SE's equipment is quite generous, but doesn't extend to rear footwell heating or rear armrests that you can take seriously. Legroom and especially kneeroom are inferior to those of rivals of equivalent external size – you get the feeling that this is a car built by and for smaller people. Even the several oddments spaces are quite cramped.

Living with the Proton

The brakes are still fade-prone, but produce an even, progressive response in less arduous use. The extra pedal effort now required for the car's commendable best stop isn't unwelcome either – it makes it easier to avoid skidding.

Safety padding could be better, although the front seatbacks are improved. The under-facia area and the frame for the sunroof aren't insulated enough for our liking, and if you're taller, the front head restraints don't rise high enough to prevent whiplash. More seriously, the windscreen on the GE basic car is made of lacerating toughened glass, which also has the nasty habit of shattering into a thousand pieces when struck by stones. The belts lack sophistication, too – fixed shoulder mounts, stiff wire centre clasps and untidy rear ones with no stowage tags, all leave something to be desired.

Our car's underbonnet layout looked pristine and we noted the hydraulic clutch as well as a massive battery. It all looks very Japanese and reassuring. The bodywork and fittings don't hit quite such a high standard – our car's key didn't fit the keyhole very well and the saloon's boot lid would flop shut, unasked, on a windy day. Latest Protons have plastic instead of metal bumpers, but the SE's are painted – not very well, either.

Still, the warranty is quite generous, running to two years or 50,000 miles (whichever comes first). This and the six-year anti-perforation warranty have some exclusions and limitations, but none is too worrying if you're the sort who is happy to leave servicing to the Proton dealer. This comes around every 6000 miles, with an average of two hours' labour time on every other visit.

Refuelling seemed easier this time, to the last two litres short of brim full. This is helpful, as the tank isn't particularly large; a sensible low-level lamp helps, too. Of course, our range is less because the latest car uses fuel faster.

VERDICT

To most buyers, the Proton represents value for money combined with an aura of Japanese dependability, and on the strength of these twin expectations the UK importer expects to sell 18,000 units in 1993. The fact remains, however, that it's the clever marketing of this product, rather than its technical brilliance, that has ensured sales success so far.

The latest power units represent a real advance in terms of performance and driveability – but sadly not fuel economy. The SE has plenty of showroom appeal, too, but at £9000, we still feel that the car's shortcomings are harder to justify.

Because the less decorous 1.3GL still manages to perform quite well, its £2000-lower price tag makes it a much more persuasive Proton, in our book. We might be tempted by the power steering option, but apart from that, we would sooner keep the change or spend the SE's money on something closer to home and more up to the minute.

HOW IT COMPARES	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom – front (in)	Typical leg/kneeroom – rear (in)	Steering turns/circle (ft)	Overall length (in)
Proton 1.5SE Aeroback (5 door) (c)	1468/89	102	12.6	26.9/20.3	34	97/50	40½	36¾/24¼	2.9/32½ (p)	161¾
Fiat Tipo 1.4ie S (c)	1372/71	99	15.3	30.6/22.5	36½	96/35	41¾	39½/29¾	3.1/35½ (p)	155¾
Vauxhall Astra 1.4i L 82PS (5 door) (c)	1389/80	108	13.2	37.4/24.7	41	100/60	42¼	39½/28	3.5/32½ (p)	159¾
Hyundai Pony X2 1.5GSi (5 door) (c)	1468/82	100	13.9	29.7/21.6	37½	96/33	42	37½/26¾	2.9/33¼ (p)	161½
VW Golf 1.8CL (5 door) (c)	1781/75	104	14.4	29.6/22.7	38	99/45	42½	38½/27½	3.2/33½ (p)	158¼
(c) with catalyser					(p) with power steering					

TECHNICAL SPECIFICATION

	1.5	1.3 differences
ENGINE		
Type and size	front-mounted, transverse 4 in line; water-cooled. 75.5mm bore x 82mm stroke = 1468cc. Iron block and aluminium alloy head; 5 main bearings	71mm bore x 82mm stroke = 1299cc
Compression ratio	9.2:1	9.5:1
Valve gear	single (belt-driven) overhead camshaft, actuating three valves per cylinder	
Fuel system	electronic multi-point fuel injection, three-way closed-loop catalyser with lambda sensor. 45-litre (10-gallon) tank with low-level warning lamp. Fuel required: unleaded only, 95 octane minimum	
Ignition system	fully programmed electronic, integrated with fuel system; distributor with inbuilt coil	
Maximum power	89bhp at 6000rpm	74bhp at 6000rpm
Maximum torque	93 lb ft at 4000rpm	80 lb ft at 4000rpm
TRANSMISSION		
Clutch	diaphragm spring, dry plate; hydraulically operated. Pedal load/travel: 18 lb/5 ¹ / ₂ in	
Gearbox	manual 5-speed (all synchromesh) and reverse standard. Ratios: first 3.36, second 1.95, third 1.29, fourth 0.94, top 0.78 and reverse 3.08:1. Automatic with torque converter and epicyclic 3-speed and reverse optional extra. Ratios: first 2.85, second 1.58, top 1.0 and reverse 2.18:1	no automatic option
Final drive	4.32:1 to front wheels (automatic 3.60:1)	
Mph per 1000rpm	19.5 in top, 16.2 in 4th (automatic 18.3)	
Rpm at 70mph	3600 in top gear	
CHASSIS		
Suspension	front: independent by MacPherson damper/struts with coil springs and an anti-roll bar. Rear: independent by trailing arms, coil springs and an anti-roll bar. Dampers: telescopic all round	
Steering	power-assisted rack and pinion with 2.9 turns between full locks. Turning circles average 32 ¹ / ₂ ft between kerbs, with 48 ¹ / ₄ ft for one turn of the wheel	power steering standard on GLS, optional extra on GL. Unassisted version gives 4 ¹ / ₂ turns between locks and 71 ¹ / ₂ ft for one turn of the wheel
Wheels	5J steel with 175/70R13 82H tyres (Dunlop D7 on test car)	155R13 78S tyres
Brakes	9 ¹ / ₂ in solid discs front; 7 ¹ / ₄ in drums rear with vacuum servo	