

SUSPENSION

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Front Geometry

Amazon, P18, 140, 164

- Toe-in: 0-2mm
- Camber: -0.5°

...this will result in much sharper handling than the +ve book value

Bushes

(detailed tips below)

Polyurethane bushes are available for the 120/P1800/140: these are quieter, transmit less vibration, and tauter than the original rubber/metallistics. A great improvement!

Road Springs

- Road springs are very easy to replace, and very good value.
- For those with more sporting expectations, we also supply the 1" lowered progressive springs: a better solution than heavier anti-roll bars, as you don't compromise the independent suspension.

Amazon Cars, UK

Tel: (+44) 01379 388400 Fax: (+44) 01379 388424

volvo@amazoncars.co.uk

Technical Tips

Shock Absorbers

- Gas shock absorber units improve the ride yet again, we stock both Bilsteins, and the standard oil shocks.
- P1800E & ES's were supplied from new with gas units!

Suspension Bushes: fitting polyurethanes

Front Bushes

Upper wishbone: easy, simply slide off/on.

Lower wishbone: it is important to leave the slim metal outer sleeve in the wishbone, simply drive out the the rubber.

Anti-roll bar clamps: early cars have a single bolt clamp, and use OE rubber bushes; later cars have a 2-bolt clamp, for which we supply the poly bush.

Anti-roll upright links: the sleeve can "freeze" on the bolt, replacements are available.

Rear Bushes

Panhard Rod: the chassis bush has a metal inner sleeve, this must be kept and used with the polybush.

There are 3 types of rear axle arrangements on the Amazon...

Early: with pressed steel support arms which "wrap" around the axle. These have 2 sizes of axle bush depending on the axle: **Spicer** (rear inspection cover to the differential); **ENV** (front loading differential).

Mid: identified by a large *cylindrical* bush on the support arm at the axle.

Late: using a large "hourglass" or waisted bush on the support arm at the axle.

220 Estate: the large support arm block is only available in OE metallastic.

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Suspension Terms

- *Support Arm*: the arm that locates the axle fore/aft; either a pressed steel item clamping around the axle, or tubular mounted beneath the axle.
- *Torque Arm*: the arm that prevents the axle winding up or rotating around the half-shaft axis; either with doughnut bushes (early pressed steel support arm); or with transverse bushes.
- *Panhard Rod*: locates the axle transversely. We often fit nylon bushes to the axle end, with the polyurethane bush insulating the chassis end.

Suspension Bush: replacement problems

The only significant problem is getting the old bolts out.

- *Lower wishbone*: before trying to drift out the bolt, make sure that you can rotate the bolt first, using as much releasing oil as possible and a good "breaker bar" to get the leverage. Then carefully drift out the bolt. These are available as "used" items.
- *Torque/Support arm bolts*: if these have corroded into the sleeves, then it's a matter of hacksaws, cutting discs, and some judicious (and positive) hammering. These bolts are stock items.
- *Pressed steel support arms* are available new, but the clamp is not.

PV544/PV444 twin shock absorber front mounts

Used by Joghinder Singh on the Safari Rally, the PV's were adapted to accept twin front shock absorbers to control the short travel nodding that the PV is prone to.

These are stocked by us.

Steering Adjustment: PV/Amazon/140/164

- Set the wheels dead ahead: I mean, dead-ahead
- Slacken off the steering adjuster locknut (top of the steering box, 19mm spanner/socket)
- Slacken off the adjuster (slot head screwdriver)
- Now wind in/tighten the adjuster until the play is *almost* removed: ie when you grab and jiggle the steering column with your left hand, you can see an *almost* direct reaction in the steering arm. I suggest you don't remove all play, as you may well introduce slightly over-tight steering.
- Tighten the locknut while maintaining the adjuster position.
- The steering is now correctly adjusted.

Beware though

If a garage adjusts the steering box when not dead-ahead, you will get horrible notchy and dead steering; and the steering box will rapidly wear out...