

How to... fit front struts and springs

INTRO

Almost every car you come across has this type of suspension on the front. The only real differences are that some lowering kits are complete struts, while others use damper inserts. This 14-steps tutorial will explain how to do it yourself. As an example a Pug 106 was used but basically these steps are valid for all cars which use inserts.

THE KIT

The Pug 106 dampers are inserts that slide inside the front struts on the car. The coil springs then fit over the strut and rest on a spring platform halfway up the strut. The spring fits up against the top mount spring plate at the top of the strut, held in place by the top nut which screws on to the end of the damper shaft.

THE LOWDOWN

Time: 2-3 hours

Skills: Need to be half-competent with a spanner

Cost: £220 (Pug 106)

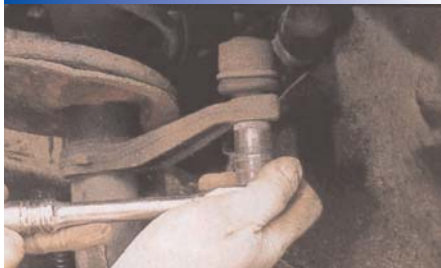
Tools: socket set, spanners, Allen key, trolley jack, axle stands, spring clamps, big fuck-off hammer, ball-joint splitter, peg spanner, torque wrench

STEP 1



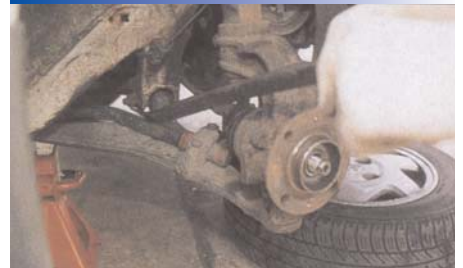
Unscrew the two large bolts that hold the brake caliper to the wheel hub. Remove the bolts and move the caliper out of the way. Don't let it dangle!

STEP 2



The steering arm is connected to the strut with a ball joint. With a socket, undo it and pop the ball joint out. You may need a ball joint splitter to help here.

STEP 3



The bottom of the struts is held onto the suspension arm with a pinch bolt. Remove the bolt. You may need a crowbar to prise the two apart.

STEP 4



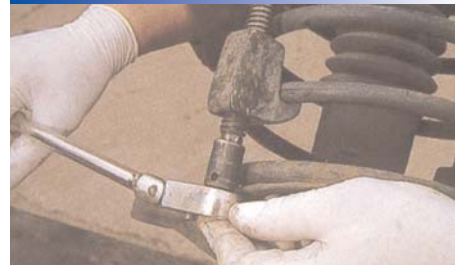
The strut is almost ready to come out. Under the bonnet you'll see where the strut bolts to the body. Undo the bolts and it will fall out easier than a ho's tit.

STEP 5



If it's a bit stubborn, give it a tug. Once you clamp the whole lot in a vice (your dad's Workmate is ideal). You're now going to strip it down, OK?

STEP 6



Now you fit the spring clamps, one on each side as shown. If not, when you take the strut apart, the coil will fire out and smack you in the face.

STEP 7



Undo the top mount nut while holding the damper shaft with an Allen key. Pull off the top mount bearing and plates, noting their order.

STEP 8



The clamped spring will come off now. Carefully undo your spring clamps bit by bit, side by side, until they're loose. Cheer as you chuck old springs away.

STEP 9



The damper's hidden inside the strut. Using a peg spanner, undo the collar that holds the damper in the strut. Don't damage it. Pull out the old insert.

STEP 10



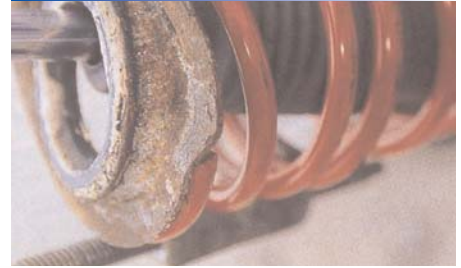
Slide your smart new uprated damper into the strut the right way. Carefully spin on the collar and tighten with your peg scanner

STEP 11



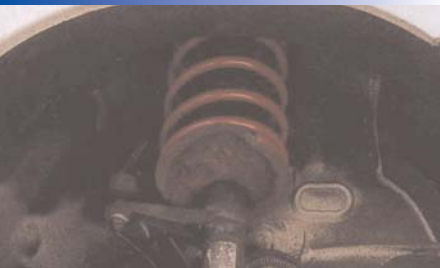
Using your spring clamps, fit them to your new, lowered springs, tightening each side until they're compressed. Slip the spring onto the strut.

STEP 12



Refit the rubber dust boot, and make sure the springs sits in its lower cup. Slide on the upper cup and strut top before tightening up the top mount nut

STEP 13



Slide the strut back under the wheelarch, bolting it in place at the top, the bottom, and at the steering arm. Refit the driveshaft through the wheel hub

STEP 14



Refit the brake disc and caliper. Fit the wheel and drop the car back. Tighten the drive-shaft/disc nut to the recommended torque setting

THE RESULT



After 2-3 hours of hard labour your car's 4x4 look finally disappeared. When you drive around you'll notice that the handling also has improved. So, it was definitely worth the effort

