

HOW TO...

FIT COIL SPRINGS AND SHOCKS

Cash left over from Christmas? Put it towards an Old Man Emu kit for your Defender 90

When your 4x4 was at the design stage, a man in a white coat spent hours working out the best suspension set-up. He didn't, however, factor into his equations you bolting on a winch and winch bumper. Hanging a sizeable chunk of iron over the front axle upsets those factory settings, alters the stance of the vehicle, increases wear on suspension components and, most importantly, adversely affects the handling.

We decided it was time to counter the 1970s jacked-up Cortina stance our 90 had adopted since being equipped with a Warn winch, but just to complicate matters the Ed fancied a two-inch suspension lift as well.

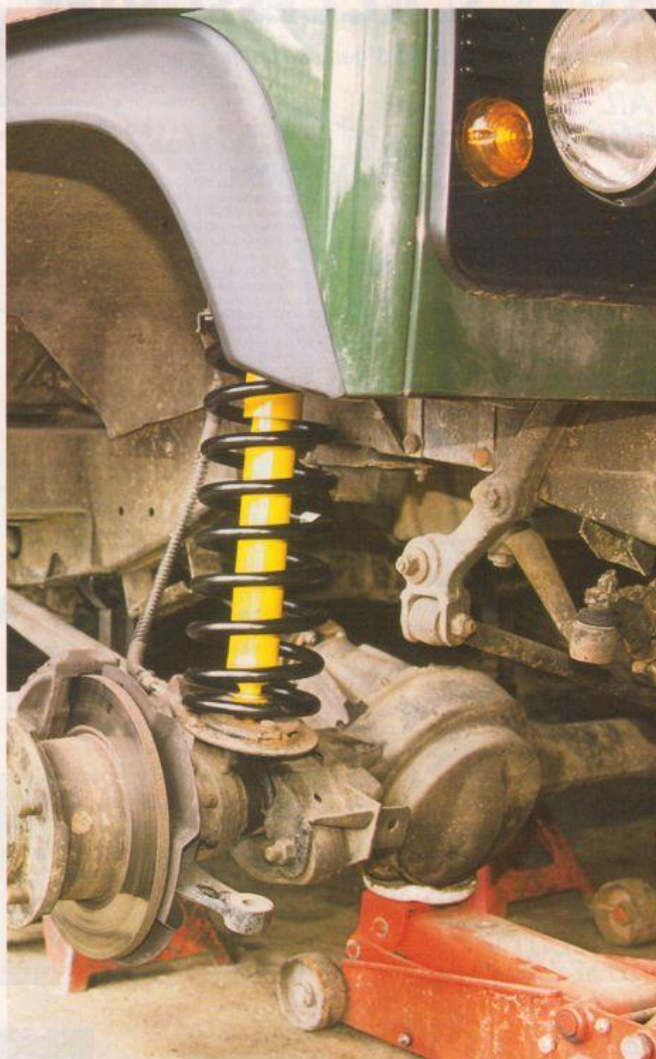
Lifting the suspension is a popular modification for anyone contemplating more challenging off-roading. Longer springs and shocks allow your suspension greater axle movement but remember that a suspension lift makes no difference to ground clearance – the lowest part of the vehicle (axles, diffs and lower wishbone arms) are untouched. It does improve approach, departure and ramp breakover angles though. Two inches of lift is generally regarded as the safe maximum before encountering problems with prop UJs locking out and screwing up your front axle geometry. Don't forget brake flexi-hoses may also need to be extended.

Devon 4x4 market Old Man Emu (OME) suspension kits, which, like the box says, are: "Designed and built tough in Australia". Simon Buck shows us the OME catalogue which lists a dozen springs and shocks applications for Land Rovers alone. With this 'bible', Simon can tailor-make a springs and shocks combination for whatever you want.

For us he went for OME 764 springs all round with N45 shocks on the front and N46s out back. The OME kit has revolutionised the Land Rover's ride and handling. No longer do you brace yourself over potholes, the traditional Land Rover lean on corners has all but disappeared, the limits of grip are now set by the Mud Terrain tyres rather than chassis dynamics. In fact, with its lifted look, Jeremy Fearn chipped and blown Td5 and Ifor Williams canopy, the Ed has the ultimate hot rod farmer's truck.

Devon 4x4 can supply OME replacement suspension for almost any 4x4 on sale in the UK. All OME kit comes with a standard two-year warranty. **Devon 4x4: 01769 550900, email: info@devon4x4.com.**

Story: Kevin Baldwin Photos: Wayne Mitchelson



1 With the LR parked level, Simon checked the distance from the ground to the bumper to ensure the car had indeed been lifted when the Old Man Emu suspension had been fitted



2 The rear was jacked up and stands placed under the chassis. With the rear shocks removed this would allow the axle to drop right down when the jack was lowered



3 The securing plates then have to be removed from the bottom of the spring, so the rear springs can be lifted out from under the Land Rover



4 New springs can now be slid into place and securing plate refitted. To stop them popping out of their top seats when on full travel, they are secured using a jubilee clip



5 Shocks are a straightforward replacement. Nuts on shocker mountings may need a dose of WD40 to free off. If stubborn cut them, you're not going to need them again



6 The top front shocker mount on a Land Rover is accessed under the plastic cap on the inner wheelarch. With the caps removed, the top shocker mounts can be undone



7 Once again the axle stands are placed under the chassis, and then the vehicle is lowered causing the axle to drop – take care not to strain the brake flexi-hoses



8 A pipe wrench may be needed to prevent the shocker body turning when trying to undo the bottom nut. With the shocker and spring loose they can be manhandled out



9 The new shock absorber's threads are then cleaned of excess paint prior to their installation. This makes tightening the nuts an easier job



10 You'll need to compress the shocker to slot it back under the wheelarch. Be quick though, it's a race against time before the sponge-like part extends again



11 Getting the spring back into place can be tricky. Use spring compressors to 'wind' the spring down to make life easier. Alternatively, use an extra pair of hands



12 With the bottom spring mount and bottom shocker mount both secure, the axle can be jacked up and the top shock mount guided into place



13 With the vehicle sat back on all four wheels, the tape measure was offered up. Simon's choice had been 'bang on'; the vehicle now stands exactly 50mm above standard trim



14 The various modifications to the 90 detailed here in recent months; snorkel, winch, hardtop and suspension fitting prepared the LR for Iceland - see page 48