

SPUD Service

SPDs aren't like ordinary pedals; you can actually get at and service the entire bearing unit because it just unscrews from the pedal body. We're also seeing quite a few higher-end pedals from other manufacturers that use similar arrangements.

Your SPDs need attention if the bearing is loose or rough. If you suspect that there isn't much grease in there, but the pedal is otherwise fine, there is a simple way to add loads more. The way SPDs come from Shimano there's enough, but more – to completely seal out British crud – is a good idea. All you have to do is take out the bearing unit, two-thirds fill the pedal cavity with grease and re-assemble the bearing into the pedal, which squeezes grease through the bearings. See steps 6 and 7 for how to do this.

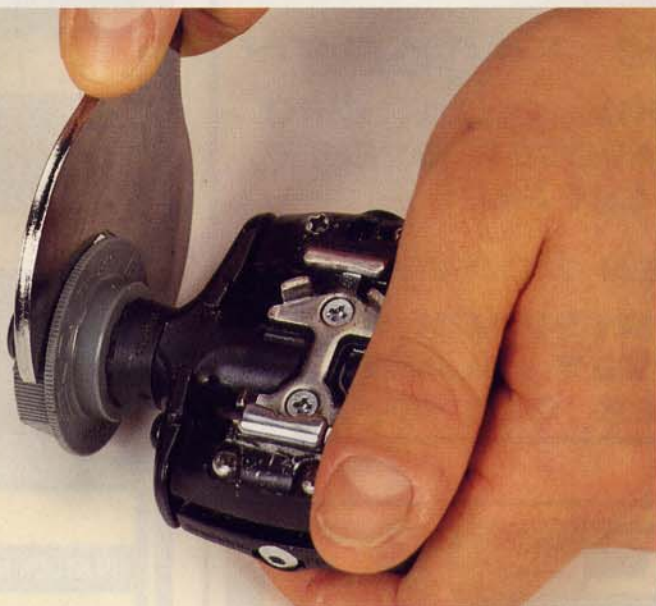
Routine care and feeding of SPDs is simple; wash 'em with car shampoo and water, scrub out any excess crud with a toothbrush or in extreme cases dig it out with a small screwdriver and liberally spray the mechanism with WD-40. Add a thicker lube over the top if you like, or apply WD-40 regularly.

Workshop notes

- Make sure you grease the bolts that hold SPD cleats to your shoes and spray them with WD-40 when you wash them to help prevent them from rusting. When the allen key holes fill up with mud and you want to get the bolts off, you'll be glad that they aren't seized into place.

- Keep an eye on the various bolts and screws that hold the engagement plates and other bits of a SPD together. If they come loose, use Loctite to keep them in place next time round. Don't try to undo the bolts on the top of the engagement plates.

- A few very early SPDs were prone to a nasty habit of fracturing the bearing car-



GRIME TIME:

Shimano's SPD pedals use an increasingly common design with a removable bearing cartridge. JOHN STEVENSON shows you how to service the bearings. ROB SCOTT takes the grease-injected photos

1 To remove the bearing cartridge you need the special tool that should have come with your pedals (it's a TL-PD40 in Shimano-speak). There is a mark on the bearing collar that indicates the direction in which they tighten (anti-clockwise on the right hand pedal, clockwise on the left). Turn them the opposite way to remove them, holding the tool with a 36mm headset spanner, a fixed cup spanner or a very big adjustable.

2 This is what the bearing cartridge looks like on its own. To dismantle or adjust it you'll need a pair of spanners. XT (PD-M737) SPDs need a 7mm and a 10mm spanner, while LX SPDs take an 8mm and an 11mm. Alternatively, Shimano tool TL-PD 73 incorporates sockets of all four sizes and can also be used on other Shimano pedals.

tridge collar when you tried to take it out. If this happens to yours, then take them back to the dealer where you got them from or contact the importers Madison Cycles (☎ 081-954 7798) for assistance. Stronger aluminium collars are available from sources including Allintex (☎ 0705 327760) and SRP (NTI ☎ 0895 238484), and are only slightly heavier.

- SPD bearing balls are more susceptible than any other balls we know to Fridge Suck. This is, of course, the strongest force in the universe and is the attraction between any bearing and the exact centre of the space under any large, heavy, white object in the kitchen. For engineers out there, Fridge Suck follows the famous inverse square law; it increases in inverse proportion

to the square of the size of the bearing, so very small ones are very susceptible. Fridge Suck is best dealt with by gluing the loose balls together with a blob of grease so that they can't roll away. Car Suck is a closely related phenomenon that afflicts frisbees.

- When adjusting the release tension, make sure you don't undo the adjuster screw all the way, that is, beyond the point where it stops clicking as you turn it. If it comes out of its mounting it's a pain to get back in.

- As with any other pedal, make sure there is plenty of grease in the crank thread and on the pedal thread, and remember that the left hand pedal has a left hand thread and so unscrews clockwise and screws in anti-clockwise.

3 Hold the cone with the larger spanner while undoing the locknut with the smaller one. These nuts are usually very firmly locked together and may need considerable force to separate them. Holding the axle unit in a vice (perch it on a 6mm allen key held in the vice) can help, by letting you get both hands on the spanners.



4 The bits that are in there and the order in which they go. Those ball bearings are tiny (3/32in) and more susceptible to Fridge Suck (see workshop notes) than any other bearing we know. Take everything apart, clean it thoroughly and replace anything that shows signs of damage or wear.



5 Reassemble the bearing; a thin screwdriver dipped in grease is handy to manipulate the tiny bearings. To put the inboard bearing together, place the balls on the steel ring that goes over the plastic collar, then drop the central bearing cylinder over them and gently ease the balls into place. Place the outboard bearings into the bearing cylinder and screw on the cone and locknut. Adjust the cone so the bearing cylinder turns smoothly but with no play and tighten the locknut.



6 To thoroughly lube the bearings, make sure the pedal body is spotlessly clean then two-thirds fill it with fresh, clean grease.



7 Screw the bearing unit into the pedal body. As you do so the cartridge will displace the grease and squeeze it out through the bearings, filling them with grease as it does so. This is also a very neat, quick way to re-lubricate SPD bearings, and we tend to do our pedals every 6-12 months.



Release tension adjustment

A Just in case you've lost the instructions, the way to tweak the amount of force needed to kick out of an SPD is with the 3mm allen keys on either end of the pedal. To get the adjustment the same on all four screws, either loosen them all the way and count the number of clicks to your preferred adjustment or use the little red indicators. If you're new to SPDs, set them about a quarter of the way in from the loosest setting so you can get out easily, then adjust them as you get used to them.

