## Self-contained Bicycle Touring: Bicycle Check-up

In most circumstances, the theory and practice for bicycle touring in Africa, Asia and South America is little different from that used in the North America or Europe. The duration, geography and the surface characteristics of the roads you plan to use, and the kind of load you will be carrying, will influence the quality (durability) of the equipment you choose and the style of bicycle, the gearing and the kind of tires you select, but in the end "spinning wheels got to go round."

## **BIKE CHECKUP**

Supply lines for bike parts in most of the world are very long. If you are not starting with a new bike, begin the preparation of your equipment with a very <u>thorough</u> and <u>complete major</u> <u>checkup</u> of your bike. You need to check not only that it is working well, but also that it is properly equipped. (If necessary have a friend or a bike shop help you.) If your bike is new make sure that it is properly equipped and ride it enough to get the kinks out of it and out of you before you set out.

Minimally, check these points:

• Check the wheels: hubs, spokes, rims and tires (front and rear). Service the hubs so that they are clean inside and properly adjusted. True the rims. Replace bent or broken spokes. Pay particularly close attention to the spokes on the rear wheel behind the freewheel. (If you are a large person using 27-inch rims, consider using forty-spoke wheels -- they are stronger.)

It's always wise to start a major trip with new tires. For the 26-inch wheels on most MTB's, either  $26 \times 1.5$  or  $26 \times 1.75$  tires are generally adequate, unless you are heading out on an expedition. For narrow 27 inch or 700 wheels try to use 1 3/8 inch / 35C or fatter tires. The beefier the tire is the better (as long as your frame can accommodate them.) Tires should have tread but usually shouldn't and don't need to be knobby. Several manufactures have made tires with these specifications, but they are harder to find now that MTB's have become popular.

Rule of thumb: If you are using 27-inch wheels, bring an extra tire if your tour is over 200 miles long. If you are using 26-inch wheels, bring an extra tire if your tour is over 1000 miles long.

Note: Thorn-proof tubes and Mr. Tuffy's have not proved very useful in Africa. Thorn-proof tubes work well for road-glass, but most of the world has little glass on the road and they seem to be of less benefit for African thorns. When punctured, thorn-proof tubes are difficult to patch and require special patch kits and adhesives that are not available in Africa. The sharp edges of Mr. Tuffy's have repeatedly sliced through the sides of inner tubes on African trips. Perhaps the problem is function of lower tire pressure used on rough roads or the composition of the inner tube is softened from the heat.

• Inspect and adjust the brakes system: Brake pad clearance from rim (1/16" maximum). Thickness of brake pads (3/16" minimum). Check that the brake pads hit the rims squarely. Inspect the brake cables for rust, frays and kinks, especially the section close to where they are anchored inside the brake lever on the handlebars.

Note: Avoid "U-brakes" and "roller-cam brakes" if you will be riding off-road with a possibility of wet weather. If conditions are at all muddy, the brakes catch a lot of mud and can bring the bike to a skidding halt. Seat stay mounted cantilever brakes tend to accumulate the least mud.

- Check the drive train: crank, bottom bracket, chainrings, freewheel/cassette and chain. Bottom bracket should be lubricated and properly adjusted. Crank arms and pedals should be bolted tight. No part of the drive train (chain, chainrings and freewheel/cassette) should be too worn. Because of the way the chain, chainrings and freewheel/cassette wear together you should replace the entire set if you need to replace any one these components.
- Check the derailleur and derailleur cables for adjustment, rust, fraying and binding.
- Examine the headset and fork: Headset should be lubricated and neither bind nor be too loose. The fork should not be bent.
- Check your gear range. You want a <u>wide</u> gear range for touring. If your range is narrow now, you may be able to widen it relatively inexpensively by changing the freewheel/cassette or a chainring -- depending upon the limits of your derailleurs. Your lowest gear should be <u>lower than 30 gear inches</u>. Gear inches can be calculated by taking the number of teeth on the chainring, dividing that by the number of teeth on a freewheel cog and multiplying the results by the wheel size. (For example: with a small chainring of 32 teeth, a large freewheel cog of 30 teeth and a 27 inch wheel, would have a low gear of 29.)

If everything is repaired, greased and adjusted, your bike should be ready to go. Test ride it. Shift through all the gears. Give the brakes a thorough workout.