



4-H Bicycle Program

Unit III - Enlarging Your Cycling World



Personalizing Your Bike

As you get to know your bicycle, you will find that it takes on a personality of its own. No matter how much it looks like someone else's bike, you will be able to recognize it instantly, even in a crowded bike parking area with dozens of other bikes.

What creates this personality? Your use of the bike. The way you take care of it. The accessories you have added to it. The scratches, dents, and signs of wear that help identify it to you.

You will discover, too, that there are things you can do to personalize your bicycle even more. They will be fun to do, and they will add to your pleasure in using the bike.

One word of caution: No matter how much you change, "accessorize" or "customize" your bike, be sure you do not interfere with its safe operation. Don't let extra trim, frame extensions or other gimmicks make your bike unsafe.

Painting

If your bike is old or has had a lot of use and looks shabby, you may want to touch up the paint. Complete repainting is usually a job for a professional. To do it right, the bike must be taken completely apart and all old paint stripped off.

But you can touch up the old paint or add decorative trim yourself. Here are a few tips to help you:

First, find out what kind of paint was used on your bike at the factory or the last time it was painted. If you intend to paint over the old coating, be sure the new and old paints are compatible. Handy aerosol paint cans make painting much easier today than the old brush method, but air dry lacquer won't mix satisfactorily with enamel

paint. You may have to remove a section of the old paint entirely before applying the new finish.

Before painting, clean the area thoroughly. Remove grease and old wax. Spray-paint only in a well ventilated place. Outdoors is best. Select a dry, dust-free spot, preferably in the shade to avoid too-fast drying.

Ask your bicycle dealer or serviceman to help you choose the right type of paint. He can give you pointers on how to get best results. Most shops carry touch up paint in small bottles or cans.

Unless you are trying for a special effect such as a rough texture finish, you will want to apply paint evenly. Avoid streaks and "runs." The paint must be of uniform and proper consistency to flow and dry correctly.

Customizing

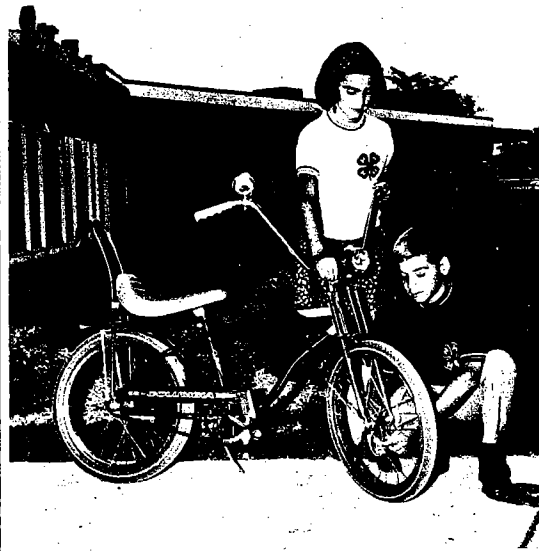
Painting is one means of customizing. You can add stripes, flowers, and other decorations to give your bike that distinctive "you" look.

Other means of customizing include adding new accessories, trim, and decals. Translucent, flamboyant "mod" colors so popular today indicate the desire of bike owners to be different. Hi-riser bikes themselves are evidence of the trend toward customizing bicycles to fit individual preferences.

Standard saddles have yielded to polo and banana seats and other unusual shapes with equally descriptive names. Extended pretzel handlebars and sissy-back bar rests are other accessories that help make bikes different.

Professional designers and manufacturers have combined to capitalize on this "daring to be different" attitude by offering a vast assortment of customized bicycles for original purchase. Now, you can begin with a highly





Customizing A Bicycle With Accessories

stylized, customized bike — and turn right around and change it some more yourself!

From the safety standpoint, manufacturers are careful to preserve such essentials as strength, alignment, balance, and styling in their customized models. You must keep the same essentials in mind. Removing fenders, for example, will make your bike look different, but it can be uncomfortable in rainy weather.

Comfort is another important consideration. Don't trade basic riding comfort and ease for a fanciful flair of individuality. The "new look" will lose its appeal if you are uncomfortable when you ride it.

Tires

One good place to personalize your bike is in your selection of tires. The new mod-colored tires can add a dressy appearance. There are tires for racing, heavy-duty work, or for riding on ice and snow in winter. Treads vary from slicks to studded.

Visit your bike dealers and look over the various styles, tread patterns, and colors of tires available.

Cleaning and Adjusting Bearings

Your bicycle is a precision machine. It should not be taken apart unless you are expert enough to put it back together again "RIGHT". If you have sufficient mechanical ability, however, you can dismantle and clean the bearings.

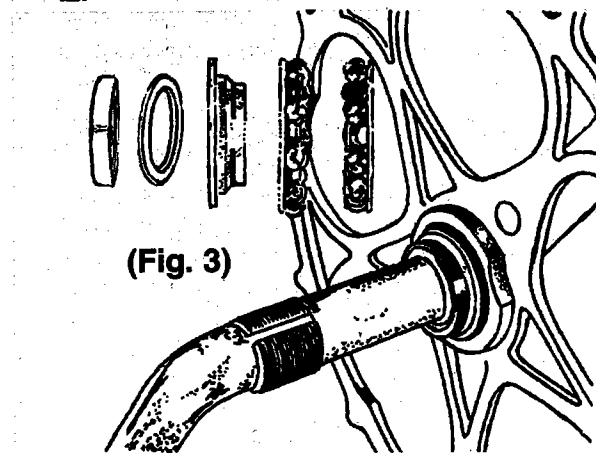
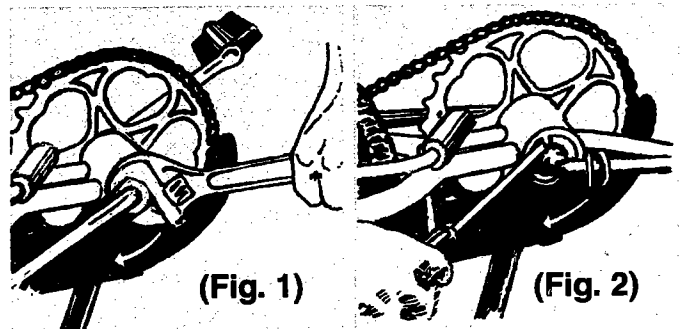
When dismantling any part to clean it, loosen and note carefully whether the ball bearings are loose or in cages. If they are loose, count them before removing and take care not to lose any.

Threaded parts are usually tightened by turning clockwise. The left pedal and left crank hanger are exceptions.

Note the way ball cages face the cups or cones. Lay out all parts in the order and direction in which they are removed.

Head, front-wheel, pedal and rear-wheel bearings may be cleaned by loosening the cones and injecting kerosene into them. Keep the assembly moving slowly so that every part of the bearing is flooded. Remove caked up grease and grit. Dry all parts with a clean cloth, then regrease with clean light bearing grease.

Remove one-piece crank hangers by unscrewing the lock nut (Fig. 1) and then the cone (Fig. 2) on the left side. Slip the cone and balls on the retainer over the left crank.



The whole unit — crank and sprocket — can then be slipped out of the crank housing (Fig. 3). Watch for the cones and bearings on the right crank.

After cleaning, drying, and regreasing crank hangers, reassemble and adjust them. Leave enough play so that the cranks revolve freely without binding.

Three-piece axle and crank assemblies require special care. Remove nuts on tapered pins holding cranks to axle and press out pins with a "C-clamp" and spacer. Hammering may bend or dent the pin and may bend the axle. Apply penetrating oil and tap pin lightly to work the oil down the pin. Note direction the flat side faces when pin is removed. Slip off cranks, loosen locking ring on left side, and remove it. The left bearing cup may then be removed and the axle withdrawn.

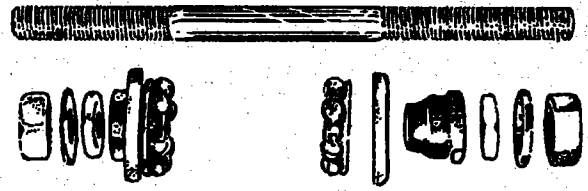
Clean wheel bearings in the same manner as crank hanger bearings. Observe the same care in reassembling.

In most cases, it will not be necessary to take down head bearings. Simply loosen cones and flush out bearings with kerosene. Grease and readjust them properly.

If your bike is equipped with a coaster brake, detach the brake arm on the left side before removing the rear wheel. If there is a three-speed gear in the hub, the cable must also be removed.

Both the coaster brake hub and three-speed hub are complicated mechanisms. (DO NOT TAKE THEM APART.) At first sign of wear or faulty adjustment, take your bike to a trained serviceman for repair.

Loosening Cones For Cleaning



Front Wheel Hub Assembly

If the three-speed hub slips in any gear, you may adjust cable length through the adjusting nut and sleeve. If this does not take care of the problem, take your bike to a serviceman.

Simple 1/8-inch chains are taken apart for cleaning by removing the master link. (See cleaning and adjusting instructions in Unit II.) Derailleur chains require a special tool for disassembly. Leave this job to your serviceman.

Derailleur gear changers can be cleaned in place. The idler wheel can be cleaned, flushed with kerosene, and re-oiled. See your owner's manual for instructions on maintenance and adjustment of derailleur gear shifters.

Your bicycle serviceman is best qualified to adjust derailleur-geared rear wheels. He has the special tool needed to remove the sprocket cluster from the free wheel.

Final adjustments of bearings and chain should not be too tight. Leave a barely perceptible play in all bearings. Wheels, cranks, and pedals should balance back and forth for some time before stopping. Keep pedals straight and tight in the cranks. Replace them when they become worn.

With derailleur-geared bikes, keep limit screws set properly so that chain does not slip off either side. You can also adjust the amount of slack in the control cables. With three-speed bikes, the cable length is the only adjustment you can make.

Respoking a Wheel

Another repair task you can handle is replacing a broken spoke. Complete respoking of a wheel, however, is usually a job for a trained serviceman.

To replace a broken or bent spoke, first remove old spoke or pieces of it. Obtain new spoke of exactly same size. Stick it through hole in hub in same direction as original spoke. Place threaded end in rim fitting and tighten with spoke wrench. If fitting has damaged threads, you may have to remove tire and insert a new fitting in the rim.

To judge correct tightness and tension of new spoke, compare it with other spokes by pressing or pulling them with your finger or plucking for sound tone. If you're replacing more than one spoke, it's best to let your serviceman check the tension for you. All spokes must be adjusted to the same tension to maintain proper wheel alignment and prevent undue tire wear.



Planning Bike Trips

One of the greatest pleasures of owning a bicycle is the opportunity to take trips on it. It's especially fun to travel with a group such as your 4-H club.

Before starting a trip, however, be sure your bike is in top condition. Check all adjustments and inspect tires carefully. Good tires are essential on long trips.

Be sure you are thoroughly familiar with safe riding practices of the road. Review these carefully in advance.

Map reading is another skill often required on longer trips. Determine your route in advance and mark it carefully on a map. Study the map symbols so that you know what they mean. Learn how to tell directions. If possible, every member of the group should have his own map.

Check the route in advance. It's best to have a junior leader or other responsible member actually ride over it. Avoid heavily congested areas, detours and rough roads. Arrange for rest stops and meeting places along the route.

Your leader may want to appoint a "road captain" and "lieutenants" to keep your group riding together yet at safe intervals. These "officers" should see that all riders obey rules and traffic laws, signal properly, and do not "horse around" while riding. Their job is also to watch for motorists and signal them when it is safe to pass your group or when you're going to change direction. If you are given this responsibility, be sure you understand exactly what you are assigned to do and keep alert!

For a long trip or overnight, make a checklist of things you will need: food, extra clothing, raincoat, hat, jacket, bike tools and repair kit, first aid kit, wire or heavy twine to tie things on your bike. Extra socks and a neckerchief or scarf for dust protection are especially handy. Use a basket or luggage carrier for your equipment. Keep your hands free for riding chores.

Don't try to ride too far at one time. Stop often to rest. Relax and enjoy the fresh air, good exercise, scenery, points of interest, and good company!

Serving Your Community

There are many ways in which you as an individual and your 4-H bicycle club can serve your local community. One of the most important, of course, is in teaching proper riding techniques and safety to younger bike riders.

You can also help your local police department or service club organize and conduct a bicycle inspection program. For those bikes found faulty, you can even help the owners make minor adjustments or corrections.

If your community has no marked bicycle trails, you can help plan and mark them. Keeping them in good condition is another worthwhile activity. A community bike-riders hazard hunt can make cycling safer and more enjoyable for all.

Bicycle parades, games, and contests are other activities in which you can participate as a club or as an individual. Many communities include such activities as part of the July 4th celebration. Here's a chance to demonstrate leadership as well as service.

You might organize a message or delivery service for elderly persons or bed-ridden patients as a community project. There are many ways you and your bicycle can help other people.

Your enthusiasm and active support of community bicycle programs and bike riding in general can promote more "fun on wheels" for everyone.

TV Covers Bike Inspection



ACKNOWLEDGMENT

This educational material was prepared for 4-H use by the National 4-H Bicycle Committee composed of representatives of the Cooperative Extension Service, National 4-H Service Committee, National Safety Council, Bicycle Institute of America and The Goodyear Tire & Rubber Company, national donor.

This publication was promulgated at an annual cost of \$224.80, or 4.5 cents per copy, to be used in 4-H bicycle safety programs. 3-5M-80