

International Bicycle Fund

4887 Columbia Drive South, Seattle WA 98108-1919 USA

Tel/Fax: 1-206-767-0848 ~ Email: ibike@ibike.org ~ Internet: www.ibike.org

A non-governmental, nonprofit organization promoting bicycle transport, economic development and international understanding worldwide.

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Pre-Lesson #1

BICYCLE SIZING AND EQUIPMENT CHECK

Objective:

To teach the importance of proper bike sizing and maintenance in reducing accidents.

Introduction

Both the selection of the proper bicycle frame size and the proper adjustment of the seat and handle-bars for the person riding the bike are imperative to safe bicycling. It is equally important that the bike be maintained in good mechanical condition. Improper adjustment and size, or faulty equipment, can severely impair the rider's ability to control the bicycle. The student must learn the importance of good maintenance and learn to recognize for himself any mechanical problems with his bicycle.

Generally, the ability to make repairs on bicycles during a regular lesson is limited. For this reason it is preferable that the materials for this lesson be distributed for use at home a week before the unit starts in school or at registration for independent programs. Stress that the checklist should be taken home and worked on by the student with an adult, then brought to the first regular lesson.

Ideally this topic is handled with material sent home. The participation of an adult needs to be emphasized. With the help of the student's parents or an adult friend the following activity is intended to enable the student to adjust his handlebars and seat to their proper height, to insure that he is riding a bicycle that is the correct size, and to acquaint him fully with the equipment on his bicycle and any repairs that should be made.

Activity:

1. Send materials on bicycle safety and equipment inspection home with each student who plans to take the class. The completed inspection sheet should be brought back to the first class.

With your parents or an adult friend work through this bicycle safety checklist. Request that an adult take an interest in how well your bike is working. They might also be able to provide some mechanical expertise or get you to a bike shop if you need parts or additional advice for a problem.

As you go through the inspection sheet discuss what might happen if each part is not kept in good repair.

* Bicycles must pass these safety criteria to be used in the bicycle safety program. Those bicycles without these features will not be useable.

BIKE SAFETY INSPECTION CHECKLIST

Owner's Name _____ Age _____

Address _____ State _____ Zip _____

Bicycle Make and Model _____ Color _____ Frame Size _____

Wheel Size _____ Serial Number _____

	<u>O.K.</u>	<u>Oops</u>
Size - Fit of bike to driver:		
*Can driver straddle frame with both feet flat on the ground?	___	___
Check height of seat--(for standard and multi-speed bicycles).		
When the rider is seated with their heels on the pedals, without rocking their hips, their leg should be fully extended when the pedals are at their lowest point.	___	___
*Check height of seat post (2" minimum in frame).	___	___
Frame:		
All tubes in line, and free of dents, bends and kinks?	___	___
Front Fork:		
Front fork straight, in good condition?	___	___
Is headset adjusted correctly, no play between fork and frame?	___	___
Handlebars:		
In line with front wheel and tight?	___	___
Height of grip below driver's shoulder level?	___	___
*Check height of handlebar stem (2" minimum in frame)?	___	___
Grip tight and in good condition?	___	___
Front Wheel:		
Spokes: Good tension, none missing and tight?	___	___
Rim: No dents, twists or kinks?	___	___
Tire (Casing): Good tread and no side wall damage?	___	___
Tire (Inflation): Inflated properly and valve stem straight?	___	___
Alignment: When spun, wheel is true and centered in the fork?	___	___
Bearings: Wheel does not wiggle laterally and spins freely and evenly?	___	___
Rear Wheel:		
Spokes: Good tension, none missing and tight?	___	___
Rim: No dents, twists or kinks?	___	___
Tire (Casing): Good tread and no side wall damage?	___	___
Tire (Inflation): Inflated properly and valve stem straight?	___	___
Alignment: When spun, wheel is true and centered in the stays?	___	___
Bearings: Wheel does not wiggle laterally and spins freely and evenly?	___	___

<u>O.K.</u>	<u>Oops</u>	
Brakes:		
Coaster brakes:		
Operate within 20 degrees of horizontal?	___	___
*Brakes operate effectively and smoothly?	___	___
Hand brakes (front and rear):		
Brake lever tight?	___	___
Sufficient reserve when brake shoe is engaged?	___	___
Cable taut, no breaks in the cable, no frayed ends (pull open the brake lever and check most carefully for any fraying adjacent to the anchor ball at the end of the cable)?	___	___
Caliper brakes centered and tight?	___	___
Nuts tight on brake shoes?	___	___
At least 3/16-inch rubber on shoes?	___	___
Break shoes meet the rim squarely?	___	___
*Front and rear brakes operate effectively and smoothly?	___	___
Pedals and Cranks:		
*Pedals tight, intact, no binding, free spinning?	___	___
Crank can turn freely and evenly, no looseness or binding, not bent?	___	___
Chain:		
1/2-inch play, no excessive looseness? (non-derailleur model)	___	___
Chainguard secure, free of chain? (non-derailleur model)	___	___
Chain clean and free of rust, lubricated?	___	___
Derailleur:		
Shift control operating properly?	___	___
Multi-speed mechanism operating properly?	___	___
Seat:		
In good condition, tightly secured in a horizontal position?	___	___
Reflectors:		
Front reflector?	___	___
Rear reflector?	___	___
Wheel reflectors?	___	___
Head Light:		
Bright and operating satisfactory?	___	___
Bell or horn:		
Working and audible?	___	___
Accessories:		
*Fenders, racks, carriers, etc., securely attached?	___	___
No illegal or unsafe accessories?	___	___
No unsafe modification of bicycle?	___	___
Remarks:		

This bicycle has passed the safety inspection. _____

Inspectors Signature: _____