

Bicycle Overhaul Check List

Bike type _____ Color _____ Bench Number _____

Student Names _____

NOTE: READ EACH SECTION ENTIRELY BEFORE BEGINNING.

Disassemble Bike

- ☐ Clamp bike in repair stand by **seat post**.
 - ☐ **Before bike disassembly**, quickly assess the condition of the bike and its systems. Make note of any issues in the space allotted below. Also note cosmetic issues (paint damage, etc.)
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- ☐ Make sure derailleurs are in the neutral position before removing cables and housings. Cut derailleur cables and remove cables and housing.
- ☐ Cut brake cable ends and remove cables and housings.
 - If bicycle is equipped with linear pull brakes, first loosen brake quick releases and remove brake cables from brake levers.
- ☐ If necessary to access housing, unwrap bar tape from handlebars.
- ☐ Remove wheels.
- ☐ If bicycle is equipped with a threadless stem, remove stem faceplate and remove handlebars from bicycle.
- ☐ Remove pedals.
- ☐ Remove chain from bicycle. If equipped with a master link, use master link to remove chain.
- ☐ Remove cranks.
 - Be sure to check for crank bolt washers.
- ☐ Remove chainrings.
- ☐ Remove bottom bracket.
 - Check BB cable guide bolt length before removing BB.
- ☐ Remove front and rear derailleurs.
- ☐ Remove brake calipers / arms from bicycle.
- ☐ Remove brake pads from calipers/arms.
 - Pay attention to the orientation of washers, if any are present.
- ☐ If bicycle is equipped with a threadless headset, loosen top cap, measure stem/steerer gap, remove stem, any spacers or accessories, compression ring, and headset race. Set fork aside, keeping track of bearing orientation.
- ☐ **Do not remove headset pressed races.**
- ☐ **Do not remove crown race.**
- ☐ Remove cassette from rear wheel.
- ☐ Remove tires and tubes from both wheels.

Instructor Check: _____

Stop! Do not continue until directed by instructor.

Headset – Chapter 13

- ☐ Clean pressed races.
- ☐ Assemble headset.
- ☐ Headset should be adjusted so bearings operate as smoothly as possible without play.
- ☐ Install handlebars and stem faceplate (if threadless) and secure bolts. **DO NOT TORQUE.** Handlebar/stem bolts will be tightened to manufacturer's torque specification at the end of the overhaul.

Instructor Check: _____
Stop! Do not continue until directed by instructor.

Wheels – Chapter 3 and 4

- ☐ Disassemble both front and rear hubs.
- ☐ Assemble and adjust front and rear hubs so bearings operate as smoothly as possible without play.
- ☐ Wheels should be laterally true, radial true and dished to within a **1mm** tolerance. Spoke tensions should be **+/- 1** point on the Park Tension meter.
- ☐ Adjust the hubs so that there is play in the hubs with the quick release lever at 45 degrees, but no play in the hubs when quick releases are fully closed. Readjust hubs if necessary. When correct, remove wheels.
- ☐ Install cassette, grease locking threads, install and torque to manufacturer's specifications.
- ☐ Install tubes and tires, centering label over valve hole with label facing the drive side.
- ☐ Inflate tires to **20 psi** and check that the tire bead is properly seated, and then inflate to **60 – 80 psi**.

Instructor Check: _____
Stop! Do not continue until directed by instructor.

Crank and Bottom Bracket - Chapter 7

- ☐ Install chainrings and tighten chain ring bolts to manufacturer's torque specification.
- ☐ Install bottom bracket and tighten to manufacturer's torque specifications.
 - Make sure to clean the threads of the bottom bracket shell and the bottom bracket cups before applying new grease.
- ☐ Install crank arms.
- ☐ Tighten crank bolts to manufacturer's torque specifications.
- ☐ Grease threads on pedals and install, tighten to manufacturer's torque specifications.
 - Make sure to reuse pedal spindle washers if present.

Instructor Check: _____
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Brakes – Chapter 11

All Rim Brakes:

- ❑ **Install wheels all the way in the drop outs and with quick releases properly tightened.**
- ❑ Inspect all brake housing, replace if necessary.
- ❑ Install brake cables, grease if desired. Install cable housing.
- ❑ Install brake calipers, using appropriate washers if necessary.
- ❑ Make sure ALL fasteners are tightened to manufacturer's torque specifications

Adhere to the following guidelines when setting up brake shoes:

- ❑ **Shoe Height:** Pads should contact rim so it is in the center of the braking track.
- ❑ **Shoe Angle:** Pads should follow radius of the rim.
- ❑ **Shoe Interface:** Pad face should contact rim squarely and equally with surface of rim.
- ❑ **Shoe Toe-in:** If the bicycle is equipped with linear pull brakes, there should be a .5 – 1.5mm gap at the rear of the pad just as the front makes contact with the rim. For road calipers there is no toe-in required on classroom bikes.

Final Brake Check and Failure Test:

- ❑ Stress cables and seat the housing system by squeezing the brake levers several times.
- ❑ When finished pre-stretching, lever travel should not exceed one half of its full travel to the handlebars.
- ❑ Brakes should be centered and both brakes should feel the same at the lever.
- ❑ Make sure ALL fasteners are tightened to manufacturer's torque specifications
- ❑ Trim and cap cables.

Instructor Check: _____
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Derailleurs - Chapter 10

- ❑ Install front derailleur.
- ❑ Tighten front derailleur clamp bolt to manufacturer's torque specification.
- ❑ Install rear derailleur, tighten mounting bolt to manufacturer's torque specification.
Avoid trapping "B" tension screw against face of derailleur hanger.
- ❑ Adjust rear derailleur limits.
- ❑ Install derailleur cables (make sure shifters are in the neutral position) Install cable housing, check for proper cable routing through BB cable guide.
- ❑ Install chain.
- ❑ Perform rear derailleur index adjustment.
- ❑ Once rear derailleur index adjustment is acceptable, perform front derailleur limit and index adjustments.

Final Derailleur Adjustment and Fine Tuning:

- ❑ Shift through all possible gear combinations and fine tune front and rear derailleur adjustments, if necessary.
- ❑ Make sure ALL fasteners are tightened to manufacturer's torque specifications.
- ❑ Trim and cap cables.

Instructor Check: _____
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Finish

- ☐ Align handlebar and stem with front hub or fork crown and torque stem bolts and stem faceplate bolts to manufacturer's specifications.
- ☐ If necessary, wrap handlebars with bar tape.
- ☐ Perform a complete safety check on bicycle:
 - Check brakes by firmly squeezing levers several times.
 - Check tightness of stem, handlebars, control levers, seat post and saddle.
 - Check tightness of front and rear quick release skewers and/or axle lock nuts.
- ☐ Completely wipe down bicycle as if returning it to a customer.

Call instructor for final inspection.

- ☐ Deliver bicycle to storage area, per directions from instructor.
- ☐ Turn in overhaul checklist.
- ☐ **Student daily check list must be initialed also.**

Final Instructor Check: _____

DO NOT WRITE BELOW THIS LINE. FOR INSTRUCTOR USE ONLY.

CHECKED BY: _____ ***DATE:*** _____

INSTRUCTOR EVALUATION:
