

Rear Hub Overhaul page 1

American Classic Rear Hub - 17mm axle

Starting and finishing this repair will require that the wheel be in the bike, and the skewer clamped down.

Tools: Two 19mm cone wrenches will be needed to complete this repair. We also recommend a degreaser such as Finish Line Citrus BioSolvent and a synthetic waterproof grease such as Pedro's SynGrease.

While disassembling the hub we recommend keeping all loose parts organized on a clean rag or paper towel.



1 Using two 19mm cone wrenches, remove lock nut and adjusting nut.



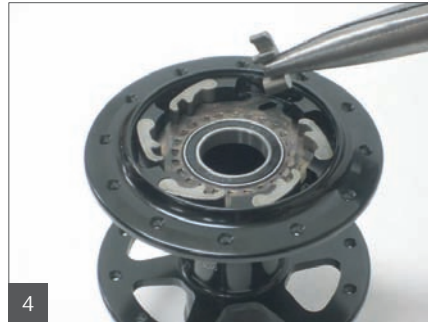
2 Separate cassette body and axle from the hub shell by grabbing the body and pulling out from the drive side.

Locate the .5mm axle spacer, which will be stuck to the outer bearing on the hub shell or the inner bearing on the cassette body. This part is critical, so once you find the spacer keep it on the axle with the cassette body as shown in the picture.

Step 2 continued.



3 Remove large black seal.



4 Remove pawls.



5 Remove Cam Plate.

Cleaning and inspection:

While the hub is apart is a good time to degrease, clean, and re-grease if needed. Be careful and do not get degreaser in the bearings.

Bearing replacement:

Changing the bearings in your American Classic hub is simple. First make sure you have the correct bearings. For the 17mm axle New Style hub show in this example you will need 4 - 6803 C3 bearings. The bearing link on amclassic.com lists all of our bearing sizes.

To remove the bearings - you will need a hammer and small punch (at least 1/4" thick). Tap lightly with a hammer to remove each bearing.

To install a new bearing - position a new bearing onto the hub shell. Place one of the old bearings on top of the new bearing (to protect it) and gently tap in the bearing. Do not force the bearing. Make sure when tapping the bearing the bearing is going into the bearing bore straight.

All repairs should be performed by a Professional Bicycle Mechanic.

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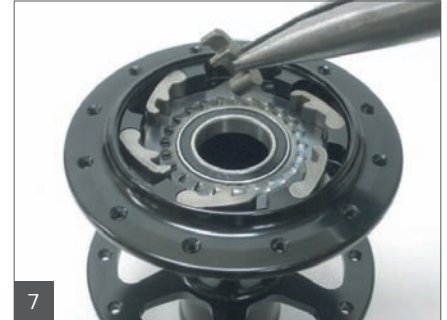
American Classic Rear Hub - 17mm axle

Re-assembly: After cleaning and before you re-grease is also a good time to inspect for any damage to the internal moving parts. If you changed your bearings, now is the time to make sure they are installed completely and evenly into the bearing bore.

Beginning of re-assembly.



6 With a thin layer of clean grease coating the hub shell, install the Cam Plate. Refer to the picture for the correct orientation.



7 With a thin layer of clean grease coating the top of the Cam Plate, install all 6 pawls. Once completed the pawls should freely engage in unison with the Cam Plate.



8 With a thin layer of clean grease coating the pawls, join the axle, cassette body, and spacer with the hub shell.



9 With the axle pushed completely into the hub shell and the pawls engaged with the cassette body, install the large black seal.

Very important!

The large black seal **MUST** be installed after the cassette body and axle have been joined with the hub shell.

Be sure the seal is securely in the groove on the cassette body and you can rotate the body freely without the seal moving. A bit of Tri-Flow or similar lubricant will help with friction between the groove in the body and this seal.

Is the large black seal installed correctly?



10 With some grease on the threads, first install the adjusting nut with dust seal until it is finger tight. Then install the lock nut and adjust accordingly. Be sure the two outer dust seals on each end of the axle are covering the bearings completely.



Hubs with a sleeve between the bearings in the hub shell and a sleeve between the bearings in the cassette body
Newer style, production started early 2006. Hubs with sleeves should have no side-to-side play in the bearings.

Hubs without sleeves - all 17mm hubs produced before Jan. 1, 2006 with some from early 2006

If there is no side-to-side play in the bearings, you have over-tightened the bearings. The correct amount of play is just slightly more than no play. If you cannot adjust your bearings to "slightly more than no play," call or email for technical assistance.

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