

cannondale[®]

HUB BEARING SPACER INSTALLATION

And stuck wheel removal

HUB BEARING SPACER INSTALLATION

Bearing Spacer

- These instructions are intended to help troubleshoot removal of wheels stuck on Lefty forks due to the hub bearing retainer circlip slipping out of its groove.
- These instructions provide a potential short term field fix solution until CSG has a kit available.
- The bearing spacer that is installed to remedy the problem is **NOT** a CSG manufactured or supported part. CSG claims no responsibility related to the manufacturing and installation of this part.
- To implement this field fix, you must have a bearing spacer made to the specification of the drawing on the last page of this document to successfully follow these instructions.

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Wheel Removal

1. Loosen the hub bolt until it disengages from the Lefty spindle. Remove the hub end cap and bolt with a Shimano cassette tool.
 - This cap is reverse threaded.
2. Drive the hub bearing off of the Lefty spindle by alternating between striking the top and bottom of the hub at the disc rotor bolts with a plastic punch.
 - A piece of 20mm (1/2") schedule 80 PVC pipe works well because of the thick walls.



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Circlip Removal

3. Remove the brake rotor.
4. Use a pick to remove the circlip from the hub. Discard the circlip.
5. Remove the plastic dust shield covering the bearing.



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Bearing Reinstallation

6. Use a bearing press to reinstall the disc side bearing into the hub.
7. Reinstall the hub end cap. Put one drop of blue Loctite® 242 on the threads and tighten to 15 Nm.
 - This cap is reverse threaded.



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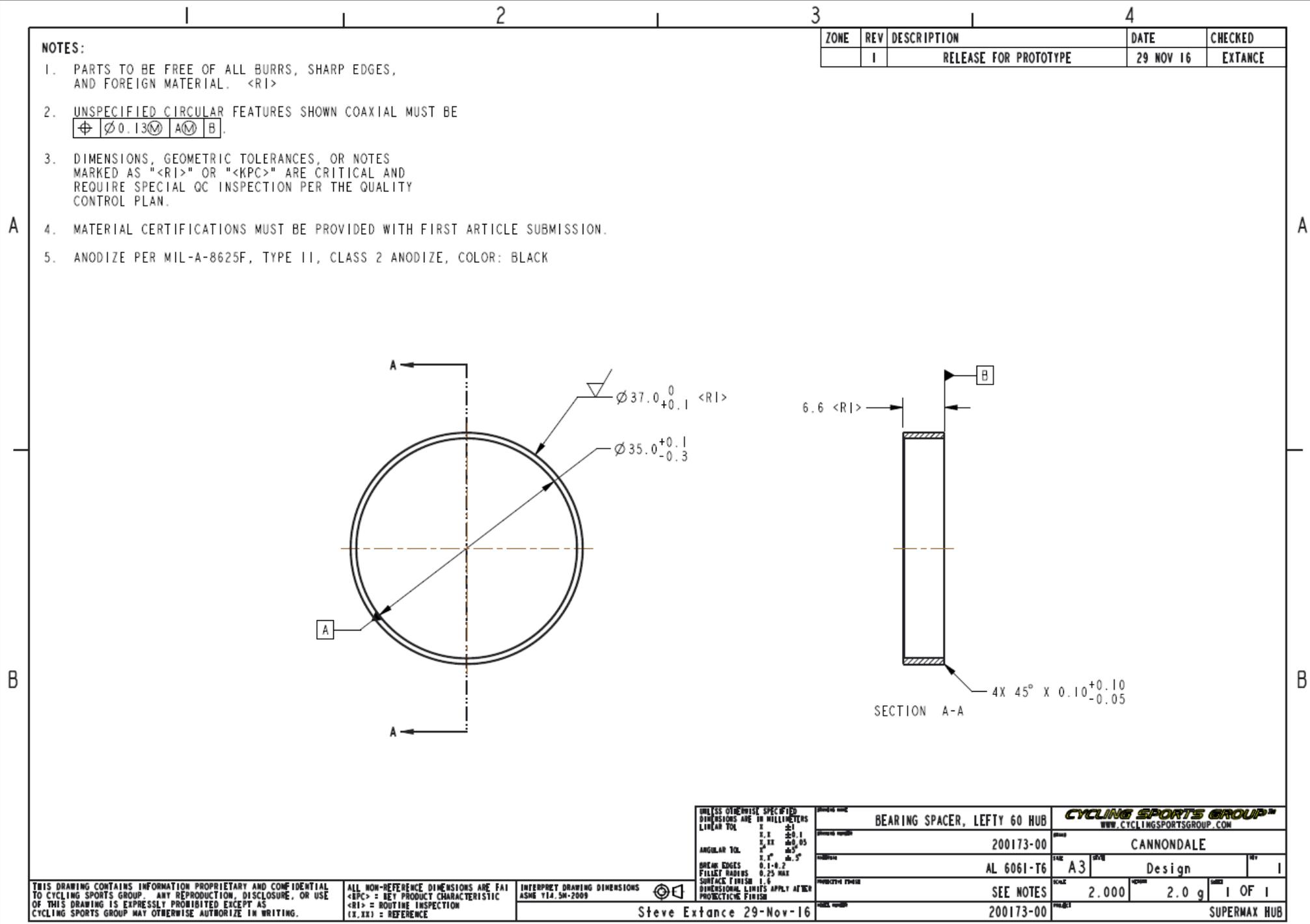
Spacer Installation

8. Install the dust shield against the bearing.
9. Install the bearing spacer against the dust shield.
10. Install the disc rotor.
11. Install the wheel onto the Lefty.
12. Installation is complete.



PART DRAWING

- All measurements are in millimeters unless otherwise noted.
- To implement this field fix, you must have a bearing spacer made to the specification of the drawing



- NOTES:
1. PARTS TO BE FREE OF ALL BURRS, SHARP EDGES, AND FOREIGN MATERIAL. <R1>
 2. UNSPECIFIED CIRCULAR FEATURES SHOWN COAXIAL MUST BE $\varnothing 0.13 \text{ } M \text{ } A \text{ } B$.
 3. DIMENSIONS, GEOMETRIC TOLERANCES, OR NOTES MARKED AS "<R1>" OR "<KPC>" ARE CRITICAL AND REQUIRE SPECIAL QC INSPECTION PER THE QUALITY CONTROL PLAN.
 4. MATERIAL CERTIFICATIONS MUST BE PROVIDED WITH FIRST ARTICLE SUBMISSION.
 5. ANODIZE PER MIL-A-8625F, TYPE II, CLASS 2 ANODIZE, COLOR: BLACK

ZONE	REV	DESCRIPTION	DATE	CHECKED
	1	RELEASE FOR PROTOTYPE	29 NOV 16	EXTANCE

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS L10/AR TOL H X .25 H, XX .25, 1 ANGULAR TOL H, XX .5, .05 H, .5 H, .5 BREAK EDGES FILLET RADIUS SURFACE FINISH DIMENSIONAL LINES APPLY AFTER PRODUCTIVE FINISH</small>	PROJECT NAME	BEARING SPACER, LEFTY 60 HUB		 <small>WWW.CYCLINGSPORTSGROUP.COM</small>		
	PROJECT NUMBER	200173-00		BRAND CANNONDALE		
	MATERIAL	AL 6061-T6		SCALE A3	DESIGN Design	REV 1
	PRODUCTIVE FINISH	SEE NOTES		SCALE 2.000	WEIGHT 2.0 g	SHEET 1 OF 1
MODEL NUMBER		200173-00		PROJECT SUPERMAX HUB		

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ALL NON-REFERENCE DIMENSIONS ARE FAI <BPC> = NET PRODUCT CHARACTERISTIC <R1> = ROUTINE INSPECTION (X, XX) = REFERENCE

INTERPRET DRAWING DIMENSIONS ASME Y14.5M-2009

Steve Extance 29-Nov-16

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