

ITEM NO.	PART NUMBER	DESCRIPTION
1	.HD01117-01B	Blue O-Ring for 1-1/8"
2	.HD1861K	AER - Integrated/ZS Top Cover
3	.HSS22040B	1-1/8" Compression Ring - Blue
4	.HD1862X2	AER Headset Composite Bearing - X2
5	.HD1860K	AER - IS Bearing Seat
6	.HD01113-03	Split-Lip, Black Oxide Bearing
7	.HD01105-03	Aluminum 110 Crown Race
8	.HSS2050	0.25mm Headset Shim

Wear and Durability:

Under ideal riding conditions the Norglide® composite bearing will last several thousand miles, however this product was designed with weight, not durability as the primary goal. As such one should expect to replace the upper bearing about as often as a chain, approximately every 2 to 3 thousand miles.

To check for wear, disassemble the headset and closely examine the tan colored outer surface of the Norglide® bearing. After extended use this surface may become stained and discolored by embedded dirt particles however, unless these areas feel noticeably rough they should not be detrimental to the headset's function. The bearing is only considered worn-out when the tan PTFE layer has been completely worn through and the metal backing material becomes visible.

If metal is visible anywhere on the outer surface of the Norglide® composite bearing it should be replaced. Replacement bearings are available from your local Cane Creek Dealer or at www.canecreek.com.

WARNING:

The AER line of headsets was developed and tested for road bicycle use ONLY. Use on mountain bikes, cyclocross bikes, tandems, recumbents, etc is not recommended and not covered under warranty.

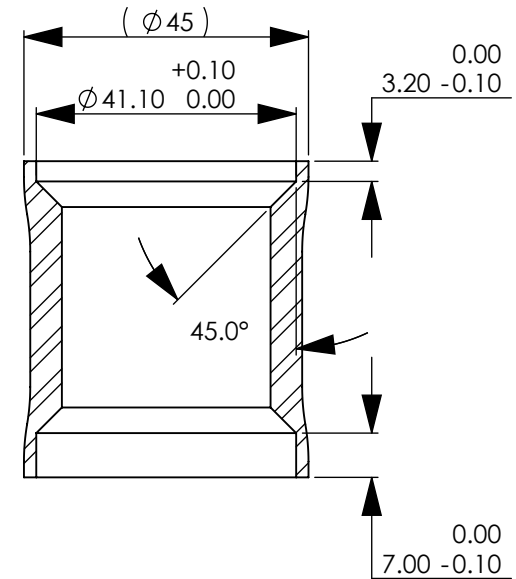
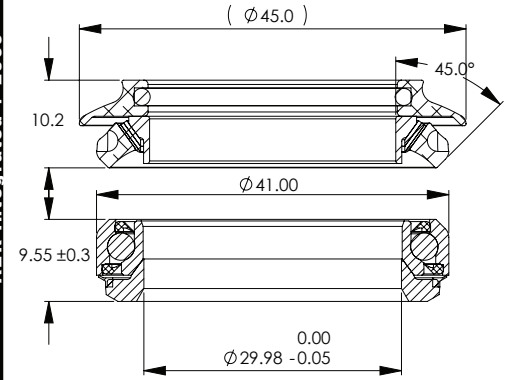
WARRANTY

Cane Creek Cycling Components warrants its bicycle products for a period of 2 years from the original date of purchase. Any product that is found to be defective in materials or workmanship will be repaired or replaced at the discretion of Cane Creek. This warranty applies to the original owner only. This warranty does not cover damage or failure resulting from misuse, abuse, alteration, neglect, wear and tear, crash or impact, lack of maintenance or other conditions judged by Cane Creek to be abnormal, excessive, or improper. It is mandatory that a Return Authorization Number (RA#) be obtained by calling Cane Creek before any product is returned. Additionally, a dated Proof of Purchase must accompany the product when returned.

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AER Integrated 7-2009

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1-1/8" IS
Head Tube Specifications



aER Headset Instructions

Frame and Fork Preparation:

Use head tube reaming and facing tools to prepare the top and bottom of the frame's head tube. (Be sure to use the correct reamer diameter corresponding to the headset being installed.)

Use a crown race cutting tool to turn and face the crown race seat of the fork, again being sure to use the correct diameter tool.

Steerer Tube Length

For the safe and proper installation of a threadless headset system it is imperative that the top of the fork's steerer tube end 3mm below the top face of a spacer on top of the stem when fully assembled. In order to achieve this it is usually necessary to cut the steerer tube. To ensure the correct steerer tube length:

1. Fully assemble the fork and headset as shown in the figure on page one.
2. Install the number of spacers you desire on top of the top cover.
3. Install your stem without tightening the clamp bolts.
4. Install a small spacer on top of the stem to allow the stem to fully clamp on the steerer tube.
5. Manually compress the fork/head-tube/stem assembly to remove as much play as possible. Tighten one of the stem's clamp bolts to hold the assembly in place.
6. Make a mark on the steerer tube at the top of the topmost spacer, you will make your cut 3mm below this mark. Disassemble headset assembly and using an appropriate guide cut the steerer tube 3mm below the mark you made earlier.
7. If the steerer must be cut without assembly the following formula may be used to calculate the steerer tube length:

$$\text{ST Length} = \text{Lower Stack Height} + \text{Head Tube Length} + \text{Upper Stack Height} + \text{Height of all Spacers} + \text{Stem Clamp Height} - 3\text{mm}$$

Cutting Steerer Tube:

Cut the steerer tube using a good quality hacksaw and an appropriate guide. To ensure a clean cut always use a sharp, fine toothed hacksaw blade, and in the case of carbon fiber steerers, an abrasive blade is preferable. Be sure to file and de-burr the freshly cut edge before assembly.

Installing the Crown Race:

Press the fork crown race onto the fork with an appropriate crown race installation tool until the bottom of the race is flush with the fork crown. This should be a press fit.

Pre-loading the Headset Assembly:

With the headset fully assembled and with the stem bolts loose, tighten the headset preload bolt just until slight resistance is felt. Carefully continue tightening until all play is taken out of the headset assembly, this should require very little force. Align the stem with the front wheel and tighten the stem clamp bolts. Check for play by firmly holding the front brake and rocking the bike backwards and forwards. With the headset properly adjusted there should be no play in the assembly and the fork should rotate easily without binding.

Notes:

1. If the headset will not tighten properly check to be sure your steerer tube sits 3mm below the top of the stem or any spacers above the stem.
2. If the headset binds when tight be sure that the preload bolt is not too tight. If binding occurs while the headset is still loose check the gap between the top cover and upper bearing cup. If there is interference you can insert spacer shims between the compression ring and the top cover to increase this clearance.
3. After an initial break-in period you may need to repeat this process.

Cane Creek vs. Italian IS Head-Tubes:

While the Cane Creek integrated standard head-tube is the most common, many bicycles come equipped with Italian Standard integrated head-tubes. The AER IS was designed to be compatible with both head-tube standards. In the case of an Italian head-tube it will likely be necessary to use the included 0.25mm shim between the compression ring and the top cover to provide clearance between the headset cover and the head-tube. This shim may also be needed on Cane Creek head-tubes with an excessive build-up of paint.

AER - Special Considerations:

Due to the nature of the Norglide® composite upper bearing, the AER headsets are very sensitive to small changes in bearing preload. As a result, it may take several attempts to achieve the proper level of preload to remove play from the assembly without creating an undesirable level of friction. A small dab of grease on the outside surface of the Norglide® bearing can help reduce friction and make the adjustment process easier.

If a micro-torque wrench is available, it can be used to set a baseline preload torque of 0.25 N-m (2 in-lbs). Every steering assembly is different though so this value is only an approximation.

In order to maintain proper adjustment it is critical that the stem be perfectly fixed on the steerer tube. To ensure this, always torque the stem bolts to the manufacturer's specifications.

To ensure that the stem has the maximum possible gripping surface on the steerer tube it is recommended that the top of the steerer is cut flush with the top of the stem with a spacer being placed on top of the stem to allow for preload adjustment.

Lastly, after properly preloading the headset and tightening the stem bolts, tighten the preload cap firmly to further ensure that the stem cannot slide upwards during use.

Break-In Period:

It is important to note that in the first 100 miles some additional friction and/or a "stick-slip" feel may be experienced as the PTFE material transfers from the bearing to the cup and the assembly "breaks-in". This phenomenon will become less noticeable over time though it may not disappear completely.

Additional Notes:

After a particularly wet/rainy ride the headset may exhibit greater than usual friction. This is due to small particles infiltrating the area of sliding contact. As these particles become embedded in the PTFE layer and coated-over, the level of friction will return to normal over a period of time.

