



— BAZOOKA FARMSTAR —
BEARING HOUSING
GUIDE

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BEARING HOUSING TOOLKIT COMPONENTS

TOOLS IN KIT:



PART #	DESCRIPTION
20-3951	Impeller Puller
10-0022	Impeller Removal Bolt



PART #	DESCRIPTION
10-0093	Small Race Driver



PART #	DESCRIPTION
10-0092	Large Race Driver



PART #	DESCRIPTION
90-1568	Top Bearing Support



PART #	DESCRIPTION
90-1563	Bearing Driver



PART #	DESCRIPTION
20-4209	Lock Nut Wrench

Use part number **20-4249** to order all of the bearing housing toolkit components outlined above.



PART #	DESCRIPTION
20-3919	Top Seal Driver



PART #	DESCRIPTION
10-0090	Shaft Wrench



PART #	DESCRIPTION
13920C	5/8" Greaseable Bolt



PART #	DESCRIPTION
90-1558	
A	Bottom Seal Driver
B	.119" Tall
C	.808" Tall
D	.375" Tall



TOOLS REQUIRED:

PART #	BEARING HOUSING COMPONENTS	QTY
10-7611	Bearing Shaft	1
20-3157	Bearing Housing (Instructions/components work for all bearing housings used across all BF product lines.)	1
70-1650	Spline Side Tapered Roller Bearing	1
70-1651	Shaft Side Tapered Roller Bearing	1
70-1652	Bearing Nut Lock Washer	1
70-1653	Bearing Housing Lock Nut	1
70-1654	Shaft End Seal (black)	4
70-1655	Spline End Seal	1
70-1656	Snap Ring Spline Side	1
70-1657	Snap Ring Shaft Side	1

TOOLS NOT INCLUDED

- Bazooka Farmstar Bearing Housing Tool Kit
- 20-Ton Hydraulic Press
- Rubber Cement
- T-Handle Retaining Ring Tool (3.5" to 7" ID) - Lang Tools Model #87
- Multi-Purpose Lithium Grease Meeting NLGI #2
- Flathead Screwdriver
- 2.360-18 Die (optional)

Use part number **20-4371** to order all of the bearing housing components outlined to the left with a yellow line next to it.

HOW-TO DISASSEMBLE A BEARING HOUSING WITH A BF TOOLKIT

STEP 1: Remove the shaft key and snap rings from both sides of the bearing housing.



STEP 2: Remove the top seal with a flathead screwdriver or self-tapping screw.



STEP 3: Remove the bottom seals with a flathead screwdriver or self-tapping screw.



STEP 4: Push down the tab so the lock washer will free the lock nut.



HOW-TO DISASSEMBLE A BEARING HOUSING WITH A BF TOOLKIT

STEP 5: Loosen and remove the lock nut using the shaft wrench and lock nut wrench.



STEP 6: Press the key end of the shaft out of the housing with the hydraulic press.



STEP 7: Press the upper bearing off of the shaft.



STEP 8: Press the races out of the bearing housing.



HOW-TO DISASSEMBLE A BEARING HOUSING WITH A BF TOOLKIT

STEP 9:

Thoroughly clean the inside of the housing. Ensure no metal shavings are left from usage or the disassembly process.



STEP 10:

Inspect the spine shaft for wear. Check to verify that the shaft has no grooves worn into it, and there is no visible damage.



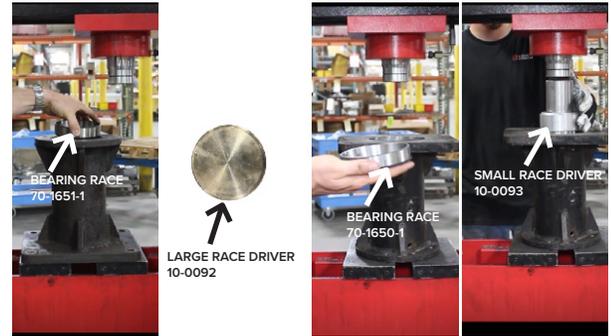
HOW-TO ASSEMBLE A BEARING HOUSING WITH A BF TOOLKIT

Part numbers shown in the illustrations throughout this document align with components that can be found in the bearing housing toolkit.

STEP 1:

Install the top and bottom races using the race installer tools.

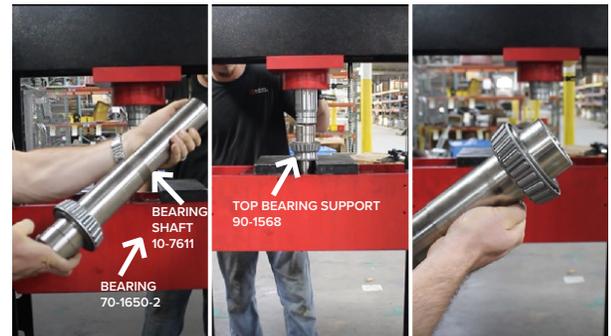
- A. Press races into bearing housing using a hydraulic press (20T recommended) and the appropriate driver.
- B. 10-0092 drives in the lower race and 10-0093 drives in the top race.
- C. Ensure races are fully seated against the shoulder before moving to the next steps.



STEP 2:

Install the upper shaft bearing. (70-1650-2)

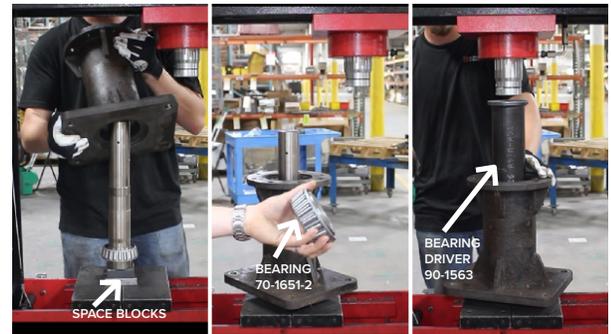
- A. Slide the smaller bearing onto the shaft from the keyed end.
- B. Place bearing support under the inner bearing race.
- C. Press the top (spline) end of the shaft with the press until the bearing meets the top shoulder of the shaft.
- D. Ensure the bearing is fully seated against the shoulder.



STEP 3:

Install the shaft (10-7611) into the bearing housing.

- A. Place a spacer under the shaft, so the assembly is resting on the shaft, not the bearing housing.
- B. Install a shaft and bearing assembly through the top of the housing.
- C. Slide the lower bearing (70-1650-2) onto the shaft.
- D. Use the hydraulic press and the bearing driver (90-1563) to press against the inner race of the bottom bearing.
- E. Ensure the bearing is fully seated against the shoulder.



To check that the bearing is pressed correctly, please reference the tips at end of the document.

STEP 4:

Install the locking washer (70-1652) and retaining nut. (70-1653)

- A. Install the locking washer on the shaft ensuring the inside tab lines up with the key ways.
- B. Use a flat blade screwdriver to press the washer into place.
- C. Place the retaining nut onto the shaft with the beveled side down.
- D. Use the lock nut wrench and shaft wrench to tighten the nut. Use the cheater bar as necessary.



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STEP 4 CONT.

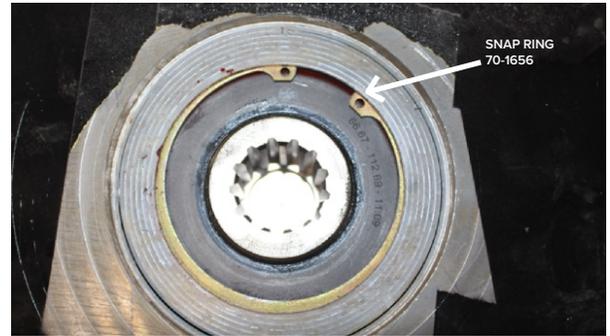
- E. Align one of the tabs on the locking washer with a cutout on the nut.
- F. Use a flathead screwdriver to bend the tab into the cutout.



STEP 5:

Install the top oil seal. (70-1655)

- A. Ensure the retaining ring groove is clear of burrs.
- B. Apply grease to the inner seal.
- C. Place the seal in the housing with the large opening facing down.
- D. Press seal just below the retaining ring groove using the hydraulic press with the top seal driver (20-3918).



STEP 6:

Install the seal retaining ring.

- A. Use the retaining ring tool to install the retaining ring in the housing.
- B. Ensure the retaining ring is fully seated by verifying all edges are fully secured within the groove.

STEP 7:

Install the bottom seals (70-1654) into the housing.

- A. Apply grease to the inside lip of all 4 seals.
- B. Place seal 1 on the shaft with the outer lip toward the center of the housing on the shaft.
 - 1. Apply rubber cement to the outside lip of the seal.
 - 2. Press with the bottom seal driver (90-1558) until the tool flange hits the housing.
 - 3. Check to ensure the seal is flat and undamaged.
- C. Place seal 2 on the shaft with the outer lip away from the center of the bearing housing.
 - 1. Apply rubber cement to the outside lip of the seal.
 - 2. Press with the bottom seal driver and spacer B (.119") until the spacer hits the tool flange.
 - 3. Check to ensure the seal is flat and undamaged.
- D. Place the spacer (10-0002) between seals 2 and 3.



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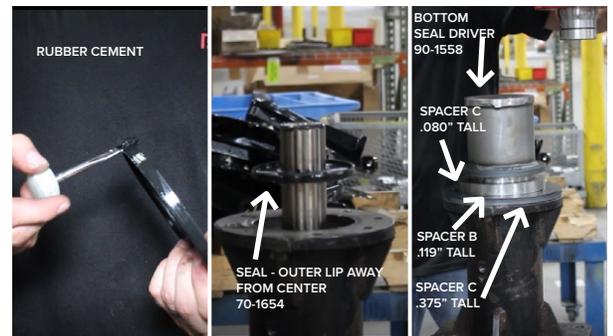
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STEP 7 CONT.

- E. Place seal 3 on the shaft with the outer lip away from the center of the bearing housing.
1. Apply rubber cement to the outside lip of the seal.
 2. Press with the bottom seal driver and spacers B and C until the spacer hits the tool flange.
 3. Check seal to ensure it is flat and undamaged.



- F. Place seal 4 on the shaft with the outer lip away from the center of the bearing housing.
1. Apply rubber cement to the outside lip of the seal.
 2. Press with the bottom seal driver and spacers B, C, & D until the spacers hit the tool flange.
 3. Check seal to ensure it is flat and undamaged.
 4. The fourth seal may need multiple presses to overcome the pressure built up in the housing.



STEP 8:

Install the bottom housing retaining ring.

- A. Use the retaining ring tool to install the retaining ring in the housing.
- B. Ensure the retaining ring is fully seated by verifying all edges are fully secured within the groove.



HOW-TO INDICATE THAT THE BEARINGS ARE PRESSED CORRECTLY:

- The bearings are not pressed enough if there is any vertical or side-to-side motion with the shaft.
 - The bearings are pressed too tight if you can feel the bearings working past the shaft when you rotate it.
 - The bearings are pressed correctly if you can rotate the shaft by hand or with the help of the shaft wrench.
- There should not be any lateral motion in the shaft, only rotational.