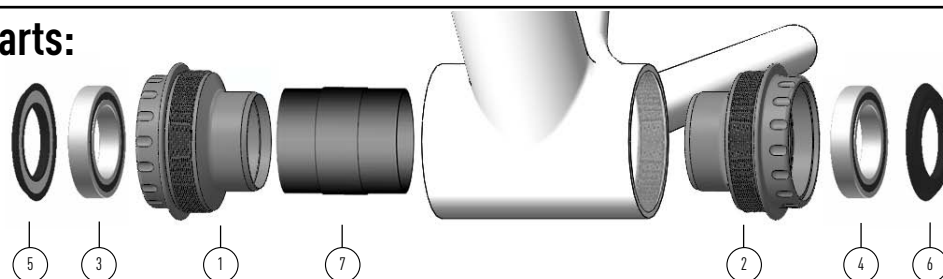


# T47 Outboard Bearing Threaded Bottom Brackets for 24mm Spindle

T47-OUT-SHIM-AC



## Parts:



## BB Cup Tool Size:



## Dimensions:

**Bottom Bracket/Frame Interface:** T47  
**Bottom Bracket Shell Width:** 68mm - 132mm  
**Bottom Bracket Shell I.D.:** M47 x 1 Threaded  
**Crank Spindle Diameter:** 24mm, 22/24mm (GXP)

#	Description	T47-OUT-SHIM-AC
1	DRIVE SIDE CUP (LEFTHAND THREADS)	
2	NON-DRIVE SIDE CUP (RIGHTHAND THREADS)	
3	DRIVE SIDE SEALED BEARING	SB-24X37AC-1
4	NON-DRIVE SIDE SEALED BEARING	SB-24X37AC-1
5	DRIVE SIDE OUTER SILICONE DUST SEAL	SHIM-SPACER-PK
6	NON-DRIVE SIDE OUTER SILICONE DUST SEAL	SHIM-SPACER-PK
7	CUP SLEEVE (4 DIFFERENT LENGTHS)	
	0.5MM CRANK SPINDLE SPACER (QTY 2)*	SHIM-SPACER-PK
	1MM CRANK SPINDLE SPACER (QTY 2)*	SHIM-SPACER-PK

\* Please refer to your crankset instructions for exact crank spindle spacers and wave washer placement.

## Wheels Mfg Limited Warranty

Wheels Manufacturing warrants bottom bracket components to be free from defects in materials or workmanship for a period of 2 years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the Wheels Manufacturing component was purchased. Life expectancy of Wheels Manufacturing bottom brackets and bottom bracket sealed bearings depends on factors like frequency of use, environmental conditions and intended use. Failure to maintain bearings will void any and all bearing warranties. For full warranty and limitations to warranty visit: <https://wheelsmfg.com/warranty>.

## Tools:

### INSTALL



Grease or Anti-Sieze  
Compound



BB Socket  
[BBT00L-48-44]

OR



Flat Wrench  
[WRENCH-BB48-44]

### SERVICE



Bearing Extractors  
[BB-EXT]



Bearing Grease  
[GR-001]

# Installation / Removal:

## IMPORTANT:

- **DO NOT USE BEARING RETAINING COMPOUND OR EPOXY DURING INSTALLATION, USE OF WHICH WILL VOID ANY WARRANTY.**
- With threaded bottom bracket shells, it is critical that the shell's threads have been properly chased and the shell faced.
- If the cups do not turn in easily, do not force them. Remove and re-chase the BB shell threads.
- For steel and aluminum BB shells, use a high quality grease.
- For titanium BB shells, anti-sieze compound is recommended.

*Bottom bracket installation and service by a professional or certified mechanic is recommended.*



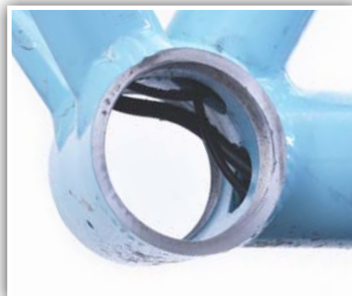
1. Thoroughly clean frame's bottom bracket shell. Do not install cups dry. Apply grease to threads on both sides of the shell.



2. Apply a thin layer of high quality grease to threads on both cups.



3. Find the appropriate length sleeve and slip over or into one cup.



4. If the frame has internal wires and/or hoses, make sure that they are pushed out of the way so that the cup and sleeve can be inserted into the shell.



4. Insert drive side cup into frame by hand. Turn counter-clockwise to thread in. Check that any internal wires or hoses are out of the way of the cup.



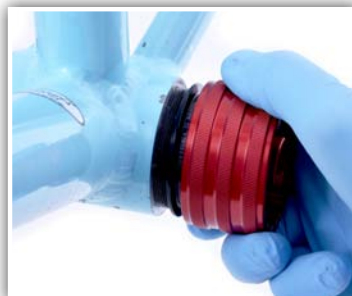
6. Continue to turn cup counter-clockwise until flush against the outer face of frame. Finish tightening cups using Wheels Mfg BB Socket [BBT00L-48-44] or Flat Wrench [WRENCH-BB48-44]. Tighten cup to 35Nm.



7. Insert non-drive side cup into frame by hand. Turn clockwise to thread in. Check that any internal wires or hoses are out of the way of the cup.



8. Continue to turn cup clockwise until flush against the outer face of frame. Finish tightening cups using Wheels Mfg BB Socket [BBT00L-48-44] or Flat Wrench [WRENCH-BB48-44]. Tighten cup to 35Nm.



9. Removal is opposite of installation. Drive side cup backs out clockwise. Non-drive side backs out counter-clockwise



10. Bottom bracket is now installed. Install crankset per crank manufacturer's instructions.

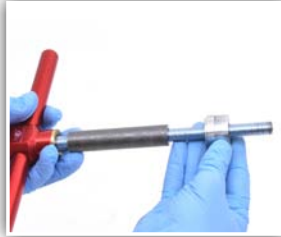


11. Outer silicone dust seals are placed directly against bearings. For added sealing, apply grease between seal and bearing.

## Bearing Replacement:



1. Insert appropriate size extractor into bearing. Push extractor completely in until you feel it snap in place.



2. Slide the bearing extractor pusher onto a Wheels Mfg Universal BB Press [PRESS-7 or PRESS-7-PRO] rod. Next, add the matching adapter with the tapered end of the adapter opposite the pusher.



3. Insert handle, rod, pusher and adapter into the backside of the bearing you are removing.



4. Select a sleeve size that has a larger ID than the bearing's OD. Slide receiver cup + reducer sleeve over the rod and up against cup.



5. Spin on second handle and tighten handles together until you feel the bearing pop out of the cup.



6. Bearing is now removed from cup.



7. Remove handle from press. Remove adapter from extractor. Remove extractor from bearing.



8. Clean and dry bearing bore in cup. Apply thin film of Loctite 603 retaining compound to cup.



9. Slide one BB adapter over the press rod. Match the correct size step on the adapter with the cup or bearing. Insert into bearing or cup opposite the bearing you are installing.



10. Slide new bearing onto second BB adapter, matching up the correct size step on the adapter with the bearing ID. Slide both onto press rod.



11. Spin on second handle and tighten handles together until the bearing is seated in the cup.



12. Remove press handles and adapters from cups. Bearing is now installed.

### IMPORTANT:

Angular Contact bearings are direction specific! They must be installed in the bottom bracket cup with red seal facing outwards and black seal facing inwards.

## Bearing Service:

### IMPORTANT:

- Bearings can be serviced without removing from the cups. However, it is often easier to get a more thorough service completed with bearings removed from cups.
- Angular Contact bearings are direction specific and come with two different color seals! Mark your bearings to note which side takes the black seal.



1. Lift up seal using a utility knife or pick. If servicing bearings outside of BB cups, remove both seals. Clean seals and set aside. For Angular Contact bearings, note which side takes the black seal.



2. Flush out old grease with a de-greaser. Dry bearing to remove any traces of degreaser.



3. Pack bearing with new, clean bearing grease [GR-001].



4. Lightly press seals onto bearing. Seals should sit flush to the outer face of the bearing races.