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Howitzer Bottom Bracket System

Congratulations!

Thank you for purchasing a Truativ bottom bracket. The following instructions should be read thoroughly before installation. Improper installation of your Truativ bottom bracket may cause an unexpected failure of the parts that could cause you to lose control of your bicycle resulting in serious injury or death. We recommend having your parts installed by a qualified bicycle technician. Truativ assumes no responsibility for malfunction or injury due to faulty installation.

Application Chart

Part No.	Road	XC	AM	DH
BB-##-HW-(XR/TM)-(50CL/56CL)-(68/73)				
BB-##-HW-TM-56CL-83				
BB-##-HW-TM-66CL-100				

Key: XC = Crosscountry AM = All-Mountain DH = Downhill
= last two digits of model year

Compatibility

Part No. ## = last two digits of model year	Frame Shell Width (mm)	Chainline (mm)	Shiftguide/Chainguide
BB-##-(XR/TM)-50CL-(68/73)	68 or 73	50	OK
BB-##-TM-56CL-(68/73)	68 or 73	56	OK*
BB-##-TM-56CL-83	83	56	OK**
BB-##-TM-66CL-100	100	66	OK**

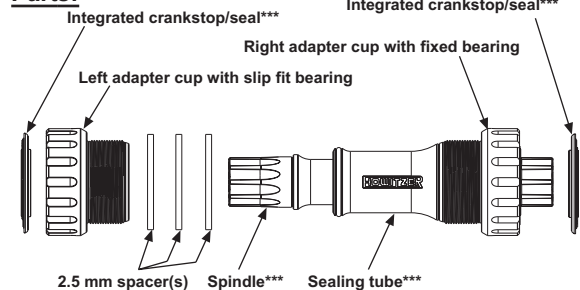
- Compatible with 1.375" x 24 tpi bottom bracket threading only
- Compatible only with Howitzer system crankarms

*Boxguide OK, Shiftguide not OK use 50CL BB for Shiftguide.

**Boxguide OK, Shiftguide not OK-shell and chainline not compatible with front shifting

Parts and Tools

Parts:



***These parts are not interchangeable between bottom brackets with different part numbers

Tools:

- Bottom bracket installation tool (Truativ BB-06-GXP-TOOL, Park™ BBT9, or equivalent)
- Torque wrench

Supplies:

- Grease

Parts Preparation

Step 1

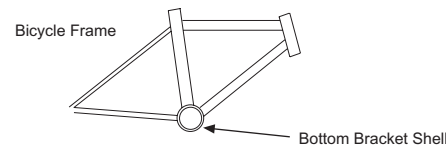
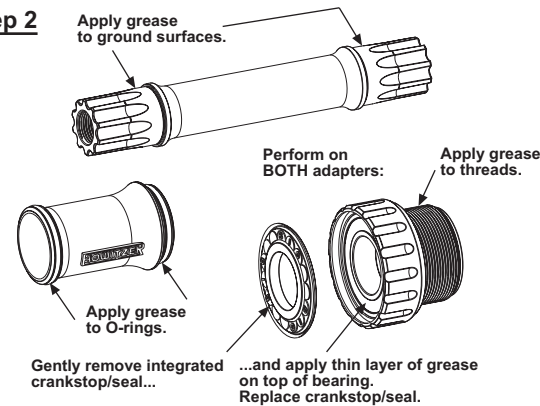


Figure 1

Assure the frame's bottom bracket shell threads are clean and undamaged, there should be no paint or dirt present. Have your bottom bracket shell chased and faced by your bike shop for best results.

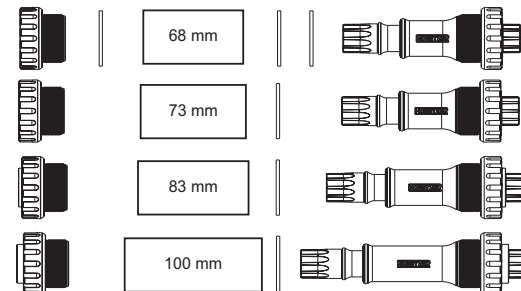
Step 2



Spacer Configuration

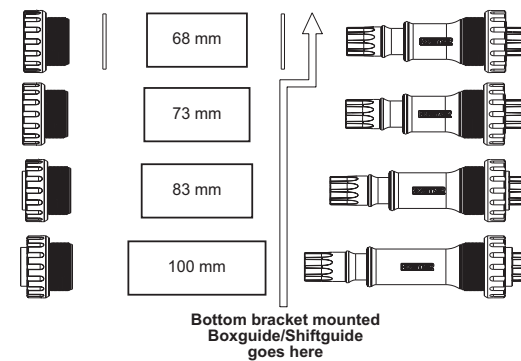
These configurations for:

- Standard triple ring or double/Rockguard setup with seat tube mounted front derailleur
- ISCG mounted chainguide



These configurations for:

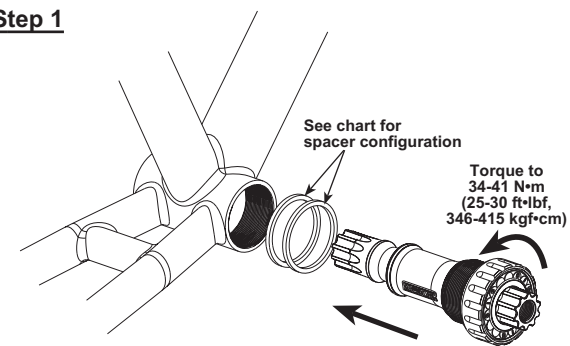
- Shiftguide
- Bottom bracket mounted chainguide



Bottom bracket mounted Boxguide/Shiftguide goes here

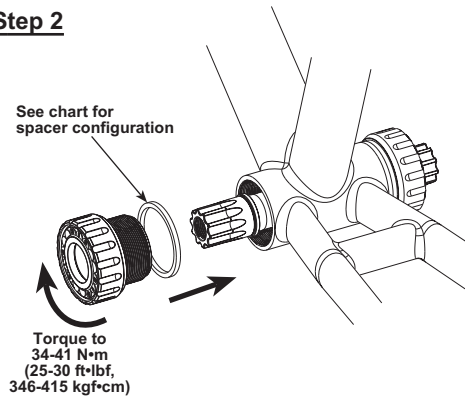
Assembly

Step 1



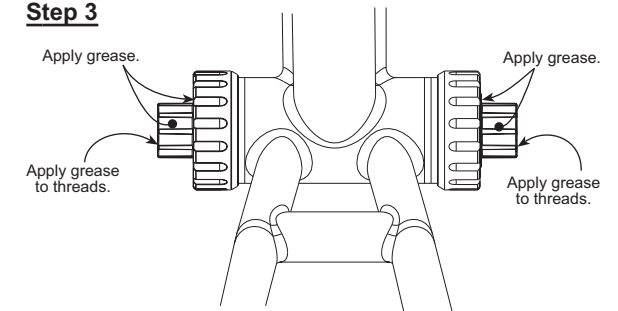
Install drive (right) side adapter, spindle, and sealing tube and any necessary spacers/Shiftguide/Boxguide. Torque to: 34-41 N•m (25-30 ft•lbf, 346-415 kgf•cm)

Step 2



Install non-drive (left) side adapter, spindle, and sealing tube and any necessary spacers. Torque to: 34-41 N•m (25-30 ft•lbf, 346-415 kgf•cm)

Step 3



Note: Do not exceed 47 N•m (35 ft•lbf, 484 kgf•cm) torque when tightening the crankarm bolts.

Apply grease to the spline surfaces of the spindle, the faces of the crank stops, and also to the crankbolt threads in order to prepare the bottom bracket for crankarm installation.

When installing the crankarms do not exceed 54 N•m (40 ft•lbf, 553 kgf•cm) torque when tightening. Consult your crankarm instruction manual for exact torque specifications.

Warranty

We at Truativ stand behind our products and our customers. Our Howitzer bottom brackets are warranted for one year from the date of purchase against manufacturing defects and workmanship. This warranty is not valid for "abused" or neglected products, or products that are damaged by improper installation or assembly. We define an abused product as one that was subjected to use outside of its design intent. Please pay special attention to the Application Chart shown earlier in this manual to verify you are using the product for its intended purpose.

If you feel you have a warranty claim, would like to learn more about our warranty policy, or have further questions or comments please visit our web site at www.truativ.com. You may also contact us using the information below:

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