Fly Bikes 3-pc Crank with Fly Bikes Spanish BB Install

Fly Bikes Cranks – Included Parts

A. Right Crank Arm
B. Left Crank Arm
C. 22 mm Spindle
D. Spindle Bolt
E. Chainwheel Bolt

Fly Bikes three-piece cranks. Part # 451048

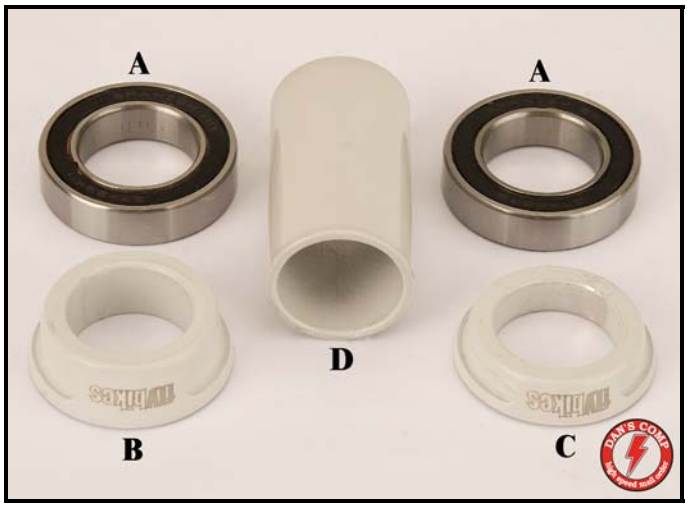
Fly Bikes Spanish BB Kit – Included Parts

A. Bearing
B. Cone Spacer (10mm thick)*
C. Cone Spacer (7mm thick)*
D. Internal Tube Spacer

*Right Hand Drive (RHD) installation.
Right side spacer = Driveside Cone Spacer (7mm thick)
Left side spacer = Non-Driveside Cone Spacer (10mm thick)

*Left Hand Drive (LHD) installation.
Right side spacer = Non-Driveside Cone Spacer (10mm thick)
Left side spacer = Driveside Cone Spacer (7mm thick)

Fly Bikes Spanish Bottom Bracket Kit Part # 451048



Tools Needed

1. Wooden or Rubber Mallet
2. Bearing Cup Press
3. Adjustable Wrench
4. Grease* or Light Oil
5. Anti-Seize Compound**
6. File or Sandpaper ***(Not Pictured)***
7. 6mm Allen Wrench
8. 8mm Allen Wrench

Phil Wood grease 3oz. Tube. Part # 811195
****Finish Line Anti-Seize Lube. Part #811142***

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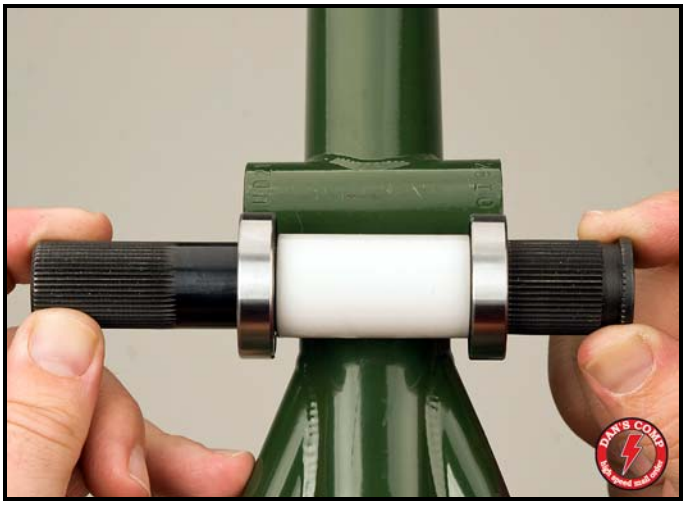

Measuring the Frame

- Slide one sealed bearing on the spindle.
- Place the internal tube spacer on the spindle.
- Slide the other sealed bearing on the spindle.
- Place the assembly underneath the bottom bracket shell. The outer edge of both bearings should line up with the ends of the bottom bracket shell. If the internal tube spacer is too short, replace it with a longer spacer. If the spacer is too long, you can either grind one end of the spacer to the desired length or use a shorter spacer along with one or two thin alignment spacers (not included).
- It is very important that the tube spacer is installed and is the correct length. Taking a little extra time during this step will insure that you are not overloading the bearing with side load pressure.

Preparing the Frame

- If you are replacing and existing crankset, be sure to remove the old bearings.
- Inspect the inside surface of the bottom bracket shell. Use a piece of fine sandpaper to remove any dirt, grit or paint which would prevent the bearing from pressing into the frame smoothly.
- Use a small amount of grease or light oil to lubricate the inner surface of the bottom bracket shell.

Installing the Right Bearing

- Press the right bearing into the frame using a bearing cup press. You can also use a wooden or rubber mallet if you don't have a bearing cup press.
- Lay the frame on a workbench or something strong to support it while installing the bearing.
- Be careful not to damage the bearing by directly hitting the bearing seal. If you damage the seal, it may not spin smoothly.
- Make sure the bearing is pressed in completely against the bearing stop that's built into the bottom bracket shell.

Note: The bearing should fit tight into the frame. This prevents the bearing from shifting while riding.

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Install the Spindle and Tube Spacer

- Skip this step if you're using a bearing cup press to install the bearings.
- Lightly lubricate the outer surface of the spindle. This allows the spindle to slide into the bearings easier.
- Slide the spindle into the bearing until the right end of the spindle is up against the outside of the bearing. The right end of the spindle has taller splines and a shoulder on the end.
- Slide the internal tube spacer over the spindle until it stops against the inside of the bearing.
- This will help keep the internal tube spacer aligned and allows the left bearing to go in straight.

Install the Left Bearing

- If you are using a bearing cup press, slide the bearing and internal tube spacer over the press and insert it in the frame.
- You can use a wooden or rubber mallet to tap the bearing into the frame if you're not using a bearing cup press.
- Lay the frame on a workbench or something strong to support it while installing the bearing.
- Be careful not to damage the bearing by directly hitting the bearing seal. If you damage the seal, it may not spin smoothly.
- Make sure the bearing is pressed in completely against the bearing stop that's built into the bottom bracket shell.

Installing the Right Crank Arm

- Slide the spindle completely out of the bearings. You may need to use a wooden or rubber mallet to get the spindle out. Do not use a regular hammer to tap on the end of the spindle, you will damage the splines.
- Lubricate the taller splines on the spindle with grease or anti-seize lube. This will allow the arm to slide on and off the splines easier.
- Slide the spindle in from the outside of right crank arm and push it onto the splines.
- Use a wooden or rubber mallet to tap on the shoulder on the right end of the spindle until it is completely installed in the crank arm. If it doesn't go on completely, don't worry, it'll go on the rest of the way once you install the other crank arm and tighten the spindle bolt.

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Install the Chainwheel

- Measure the spindle hole in your chainwheel. If it measures 15/16", you'll need a 15/16" to 22mm adapter (not included). If it measures 7/8" (22mm), you do not need an adapter. If it measures ¾" (19mm), you'll need a different chainwheel.
- If a chainwheel adapter is needed, install it in the backside of the chainwheel.
- Lubricate the threads of the chainwheel bolt.
- For RHD installations, slide the chainwheel over the spindle. Line up the bolt holes on the right arm and the chainwheel and thread the chainwheel bolt into the crank arm with a 6mm allen wrench. Do not tighten completely.
- For LHD installations, line up the bolt holes on the left arm and the chainwheel and thread the chainwheel bolt into the crank arm with a 6mm allen wrench. Do not tighten completely.

Re-Install the Spindle

- For RHD installations, slide the Driveside cone spacer (7mm thick) over the spindle with the narrow end against the backside of the chainwheel or chainwheel adapter.
- For LHD installations, use the non-driveside (10mm thick) cone spacer instead.
- Slide the end of the spindle into the right bearing and push it through as far as it will go. You may need to use a wooden or rubber mallet to tap on the crank arm and spindle until the cone spacer is up against the bearing.
- Lubricate the splines on the spindle with grease or anti-seize lube. This will allow the arm to slide on and off the splines easier.

Install the Left Arm

- For RHD installations, slide the non-driveside cone spacer (10mm thick) over the spindle with the wide end against the bearing.
- For LHD installation use the driveside cone spacer (7mm thick) instead.
- Line up the splines in the crank arm and spindle. Make sure both crank arms face opposite directions.
- Push the arm on the spindle until it stops against the cone spacer.

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Adjustments

- Slowly spin the cranks around a couple times to make sure there's plenty of clearance between the end of the crank arms and the chain stays of the frame. There should be at least 5mm clearance between the end of the crank arms and the chain stays.
- If more clearance is needed, pull the arms and spindle apart and add a couple thin 22mm alignment spacers (not included) between the crank arms and cone spacers.
- Be sure you check your chain for alignment if you already have a wheel and chain installed. You may need to pull the cranks apart and add a couple thin 22mm alignment spacers on the drive side.

Install the Spindle Bolt

- Lubricate the threads on the spindle bolt with grease or anti-seize lube. This will allow the bolt to thread into the spindle easier and prevent corrosion.
- Thread the bolt into the end of the spindle.
- Using a 8mm allen wrench, completely tighten the spindle bolt.
- Make sure the cranks spin freely and smooth as you're tightening the spindle bolt.
- Make sure that the spindle bolt doesn't bottom out against the end of the spindle. If it does, this will cause the cranks to feel loose. To fix this problem, remove the left crank arm and add a small 22mm alignment spacer to the non-driveside of the cranks.

Last, but not least…

- Tighten the chainwheel bolt completely with a 6mm allen wrench.
- Install your pedals. Look for the "**R**" or "**L**" on the ends of the spindles. The "**R**" indicates the right pedal and the "**L**" indicates the left pedal. The left pedal has reversed threading. Be sure you thread the correct pedal into the correct pedal boss.

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