

A close-up photograph of a bicycle wheel hub and spokes. The hub is black with a red cylindrical component on the right side. The spokes are thin and black, radiating from the hub. The background is a solid orange color.

ZIPF[®]

404 Firestrike

Service Manual



SRAM LLC WARRANTY

EXTENT OF LIMITED WARRANTY

Except as otherwise set forth herein, SRAM warrants its products to be free from defects in materials or workmanship for a period of two 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 bicycle or the SRAM component was purchased. Original proof of purchase is required. **Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantability, or fitness for a particular purpose) are hereby disclaimed.**

LOCAL LAW

This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

- a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).
- b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

For Australian customers:

This SRAM limited warranty is provided in Australia by SRAM LLC, 1333 North Kingsbury, 4th floor, Chicago, Illinois, 60642, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

LIMITATIONS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall SRAM or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

LIMITATIONS OF WARRANTY

This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at sram.com, rockshox.com, avidbike.com, truvativ.com, or zipp.com.

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers specifications of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.

This warranty does not apply when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

Wear and tear parts are identified as:

- | | | | |
|---|--|--------------------------|----------------------|
| • Dust seals | • Stripped threads/bolts (aluminium, titanium, magnesium or steel) | • Handlebar grips | • Transmission gears |
| • Bushings | • Brake sleeves | • Shifter grips | • Spokes |
| • Air sealing o-rings | • Brake pads | • Jockey wheels | • Free hubs |
| • Glide rings | • Chains | • Disc brake rotors | • Aero bar pads |
| • Rubber moving parts | • Sprockets | • Wheel braking surfaces | • Corrosion |
| • Foam rings | • Drivers | • Bottomout pads | • Tools |
| • Rear shock mounting hardware and main seals | • Shifter and brake cables (inner and outer) | • Bearings | • Motors |
| • Upper tubes (stanchions) | | • Bearing races | • Batteries |
| | | • Pawls | |

Notwithstanding anything else set forth herein, the battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

This warranty shall not cover damages caused by the use of parts of different manufacturers.

This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.

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SAFETY FIRST!

We care about YOU. Please, always wear your safety glasses and protective gloves when servicing ZIPP products.

Protect yourself! Wear your safety gear!

Rear Hub Service

You can service your hub while the hub is still in the wheel. However, if your spokes or rim are damaged, you can remove the hub from the wheel which will make servicing your hub easier. To remove the hub, use a spoke wrench to detension the spokes, then use a pair of metal snips to cut the spokes, remove the hub from the wheel, and remove the spoke ends from the hub (not pictured).

Tools Needed for Service

- Safety glasses
- Clean, lint-free rags
- Nitrile gloves
- 5 mm hex wrench
- 20 mm hex bit socket
- 5 mm hex bit socket
- Socket wrench
- Wheels Manufacturing Press-1 Sealed Bearing Press Kit
 - (2) 6803 Adapters from Press-1 Kit
- Flat blade screwdriver
- SRAM® Butter
- Grease brush
- Torque wrench
- Needle nose pliers
- Pick
- Grease syringe
- Enduro Universal Blind Hole Bearing Puller Set
- 17 mm slide hammer bearing puller attachment

Replacement Parts

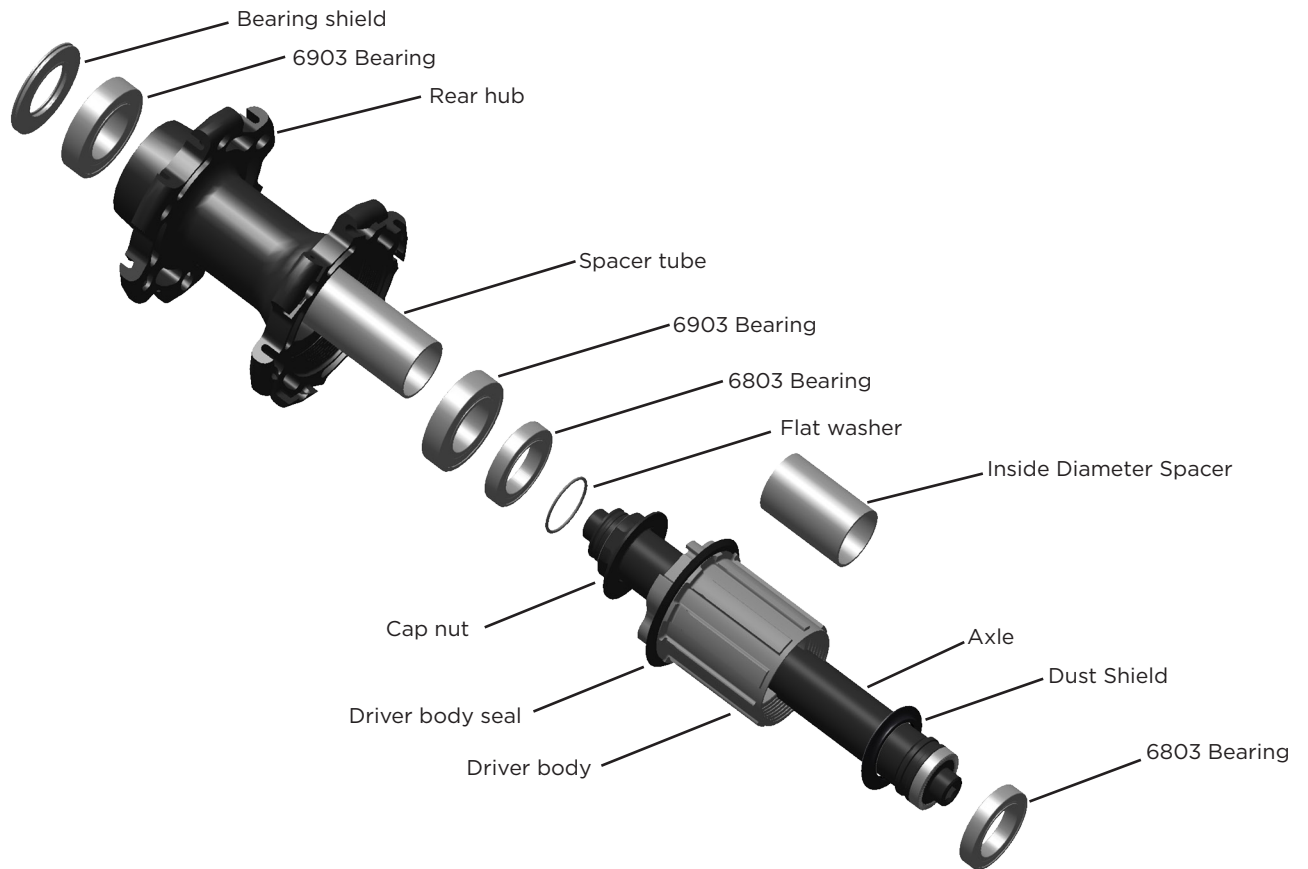
- (2) 6803 and (2) 6903 Hub bearings
- Driver body
- Driver body pawls
- Driver body leaf springs
- Driver body seal
- Flat washer

For part numbers, please refer to the [Zipp Spare Parts Catalog](#) in the Support section of www.zipp.com.

SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

Rear Hub Exploded View



Rear Hub Bearing Removal

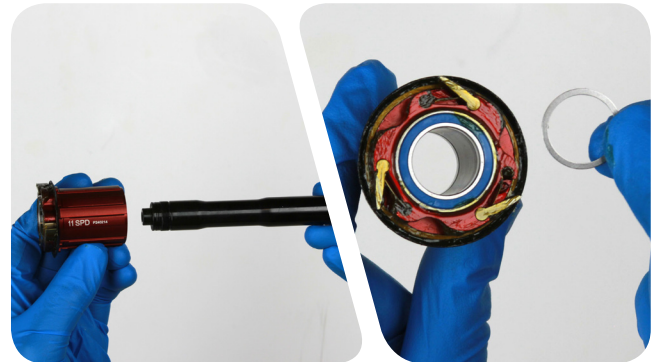
- 1 Insert a 5 mm hex wrench into the axle while holding the non-drive side cap nut with a 20 mm hex bit socket and socket wrench. Hold the socket wrench in place and use the hex wrench to turn the non-drive side cap nut counter-clockwise to remove it.



- 2 Use your fingers to remove the driver body assembly from the hub shell.



- 3 Remove the axle, by hand, from the driver body.
A flat washer rests on the bearing located on the side of the driver body with the pawls and leaf springs. If this washer falls off when you remove the axle, set it aside until you are ready for assembly.



- 4 Use your finger to remove the bearing shield from the non-drive side of the hub.



- 5** Insert the 17 mm Slide Hammer Bearing Puller slotted attachment through the non-drive side bearing. Align the slotted attachment with the bottom of the bearing, and tighten the slotted attachment to expand the puller inside the bearing.

NOTICE

Do not over tighten the slotted attachment. Over tightening the bearing puller can damage the hub shell or bearing.

For more detailed assembly and usage, see your bearing puller's manufacturer's instructions.

Thread the rod of the bearing puller into the attachment. Grip the slide hammer and forcefully pull away from the slotted attachment to remove the bearing from the hub shell.



- 6** Remove the bearing from the slide hammer bearing puller.



7 Remove the bearing spacer tube.



8 Repeat steps 6 and 7 to remove the drive side bearing.



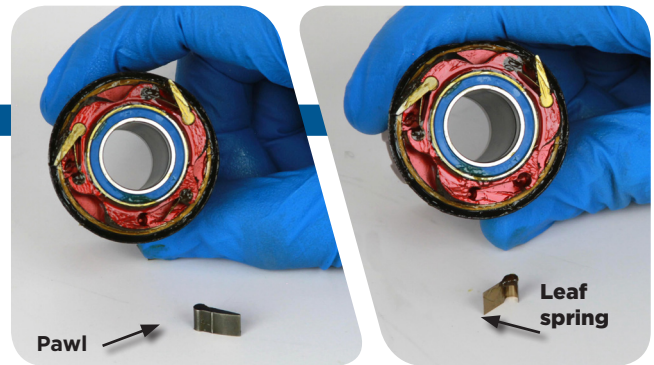
Driver Body Bearing Removal

- 1 Use your fingers or a pick to carefully remove the pawls and leaf springs.

Inspect the pawls and leaf springs for signs of damage or wear.

NOTICE

If any of the pawls or leaf springs exhibit signs of damage or wear, replace all of them. Otherwise, remove any grease on the pawls and leaf springs with a clean rag.



- 2 Use a lint-free rag to clean the driver body and pawl slots.



- 3 Remove any grease on the driver body seal with a clean rag. Inspect the driver body seal for signs of damage or wear. If there are any signs of damage or wear, replace the driver body seal.



- 4 Press the driver body seal, with the smooth side facing the driver body, over the leaf spring and pawl carrier. The driver body seal must be fully seated against the thin shoulder of the driver body.



- 5** Insert the 17 mm Slide Hammer Bearing Puller slotted attachment through the outboard bearing. Align the slotted attachment with the bottom of the bearing, and tighten the slotted attachment to expand the puller inside the bearing.

NOTICE

Do not over tighten the slotted attachment. For more detailed assembly and usage, see your bearing puller's manufacturer's instructions.



17 mm Slide Hammer Bearing Puller

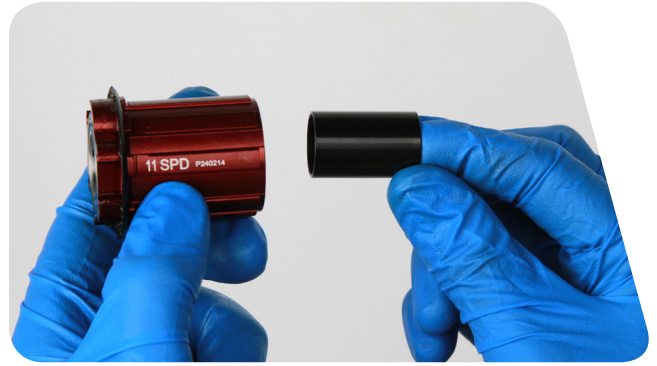
- 6** Thread the rod of the bearing puller into the attachment. Grip the slide hammer and forcefully pull away from the slotted attachment to remove the bearing from the driver body.



17 mm Slide Hammer Bearing Puller



- 7 Use your fingers to remove the Inside Diameter (ID) spacer.



- 8 Insert the 17 mm Slide Hammer Bearing Puller slotted attachment through the inboard bearing. Align the slotted attachment with the bottom of the bearing, and tighten the slotted attachment to expand the puller inside the bearing.

NOTICE

Do not over tighten the slotted attachment. For more detailed assembly and usage, see your bearing puller's manufacturer's instructions.

Thread the rod of the bearing puller into the attachment. Grip the slide hammer and forcefully pull away from the slotted attachment to remove the bearing from the driver body.



17 mm Slide Hammer Bearing Puller

Driver Body Bearing Installation

NOTICE

To prevent damage when pressing the bearings into the driver body hub, make sure that the drift contacts both the inner and outer bearing races.

- 1 Apply a thin layer of SRAM® Butter to the bearing bores.



- 2 Install a new 6803 bearing into the inboard side of the driver body.



- 3 Slide the Wheels Manufacturing 6803 adapter onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the inboard side of the driver body. Slide the SRAM 6803 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the outboard bearing bore until it is hand-tight.

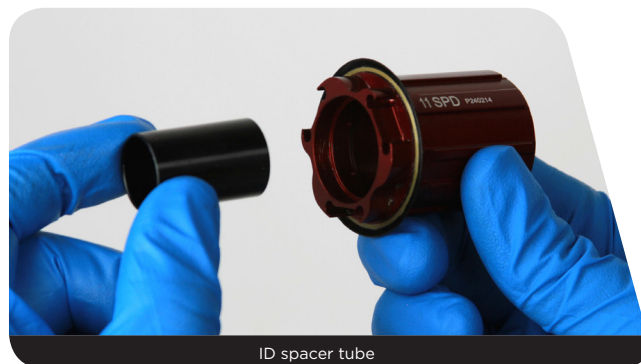
Remove the bearing press tool.



NOTICE

Do not overtighten the bearing.

- 4** Insert the ID spacer tube.
Align the ID spacer tube with the inside race of the previously installed bearing.



- 5** Install a new 6803 bearing into the outboard side of the driver body.



- 6** Slide a Wheels Manufacturing 6803 bearing press tool onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the outboard side of the driver body. Slide the SRAM 6803 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the outboard bearing bore until it is hand-tight.

Remove the bearing press tool.



NOTICE

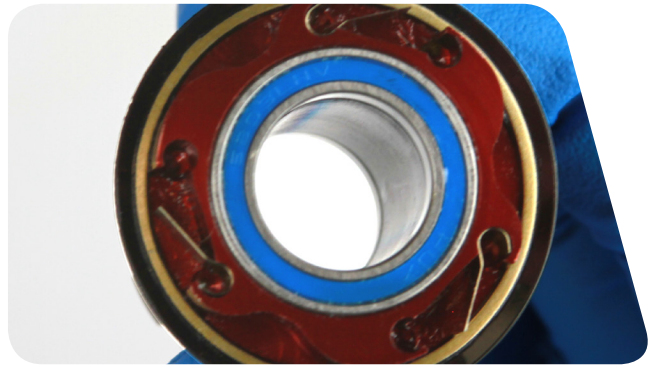
Do not overtighten the bearing.

Applying excessive force while installing the second bearing may result in damage to one or both bearings.

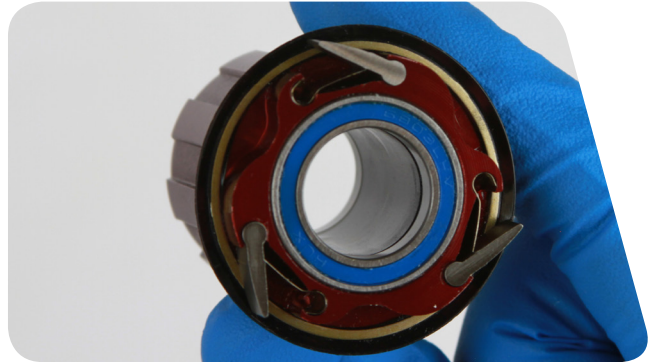
- 7** Use a syringe to apply a small amount of SRAM® Butter into the pawl pocket



- 8** Insert the leaf springs into the spring slots. Orient the long edge of each spring along the inside of the carrier so that it points clockwise.



- 9** Insert the pawls into the pawl slots. You may need to use a pick or flat blade screwdriver to compress each leaf spring to assist with inserting the pawls.
- Orient the cambered edge (the edge that is slightly more curved) of each pawl along the outside of the carrier so that it points counter-clockwise.



Rear Hub Bearing Installation

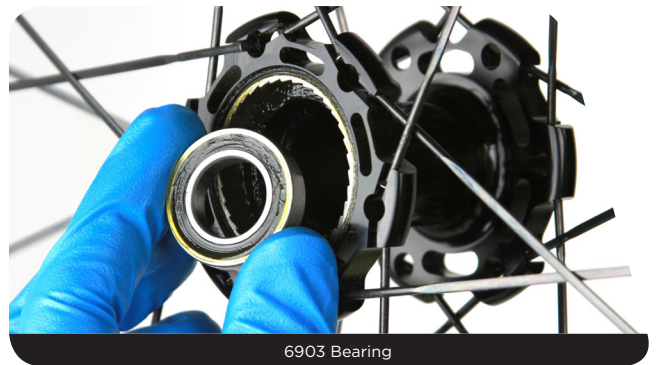
NOTICE

To prevent damage when pressing the bearings into the rear hub, make sure that the bearing press adaptors contact both the inner and outer races of the bearing.

- 1 Apply a thin layer of SRAM® Butter to the bearing bores on either side of the hub.



- 2 Install a new 6903 bearing into the drive side of the hub.



- 3 Slide the SRAM 6903 bearing press tool onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the non-drive side of the hub shell. Slide the SRAM 6903 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the hub until it is hand-tight.

NOTICE

Do not overtighten the bearing.

Remove the bearing press tool.



- 4 Insert the spacer tube through the non-drive side of the hub.



- 5** Insert a new 6903 bearing into the non-drive side of the hub.

NOTICE

The spacer tube can be crushed during bearing installation if it is not aligned with the inside race of each bearing.



- 6** Slide a SRAM 6903 bearing press tool onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the drive side of the hub shell. Slide the second SRAM 6903 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the hub until it is hand-tight.

NOTICE

Do not overtighten the bearing.

Applying excessive force while installing the second bearing may result in damage to one or both bearings.

Remove the bearing press tool.



- 7** Install a new bearing shield onto the non-drive side.



- 8** Use the SRAM® Butter grease syringe to dispense 1 gram of grease onto the ratchet ring. Then using your finger or a brush to spread the grease around the ratchet ring.



- 9** Insert the axle through the driver body.
Make sure the black dust shield is installed on the axle on the outboard side.
Make sure the driver body seal is seated into the seal groove on the axle.



- 10** Slide the axle and driver body, ratchet side first, into the rear drive side hub shell.
Use your fingers to compress the pawls to allow the driver body to fully seat inside the hub shell.



- 11** Thread the cap nut onto the non-drive side axle by hand.
Insert a torque wrench with a 5 mm hex bit socket into the drive side axle while holding the non-drive side cap nut with a 20 mm hex bit socket and socket wrench. Hold the cone wrench in place and use the torque wrench to tighten the cap nut to 10 N·m (88.5 in-lb).



20 mm hex bit

10 N·m (88.5 in-lb)

5 mm hex bit

Front Hub Service

You can service your hubs while the hub is still in the wheel. However, if your spokes or rim are damaged, you can remove the hub from the wheel, which will make servicing your hub easier. Use a spoke wrench to detension the spokes, and then use a pair of metal snips to cut the spokes, remove the hub from the wheel, and remove the spoke ends from the hub.

Tools Needed for Service

- Safety glasses
- Nitrile gloves
- Clean, lint-free rags
- (2) 5 mm hex wrenches
- 5 mm hex bit socket
- Enduro Universal Blind Hole Bearing Puller Set
- Plastic mallet
- Torque wrench
- Wheels Manufacturing Press-1 Sealed Bearing Press Kit
 - (2) 6803 Adapters from Press-1 Kit
 - (2) 17 mm Spacers from Press-1 Kit
- SRAM® Butter
- Grease brush
- 17 mm slide hammer bearing puller
- Bench vise
- Axle and Spindle Vise Insert

Replacement Parts

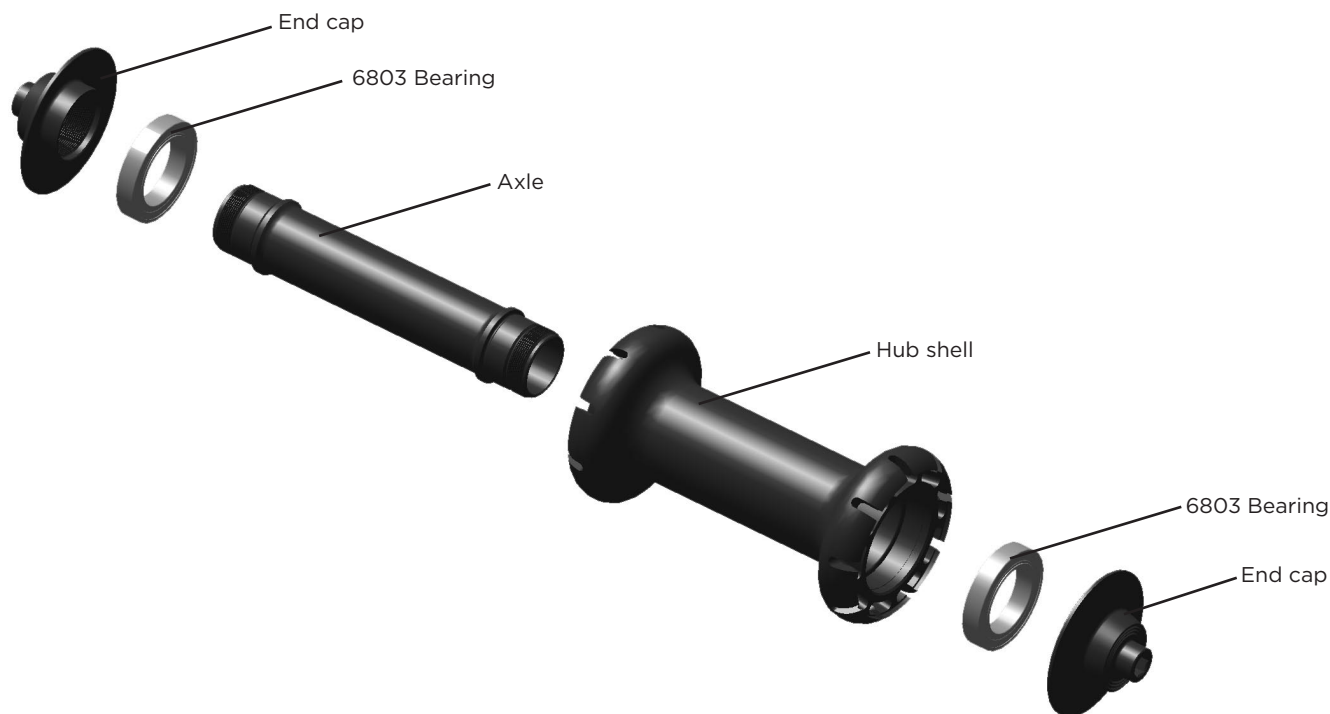
- (2) 6803 Hub bearings

For part numbers, please refer to the [Zipp Spare Parts Catalog](#) in the Support section of www.zipp.com.

SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

Front Hub Exploded View

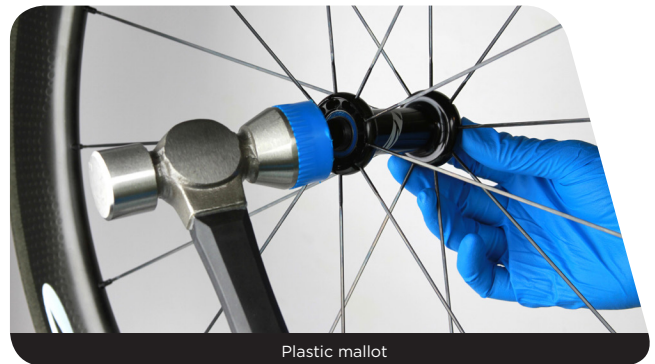


Front Hub Disassembly

- 1 Insert a 5 mm hex wrench into both end caps. Hold one wrench in place while turning the other wrench counter-clockwise to remove the end cap.



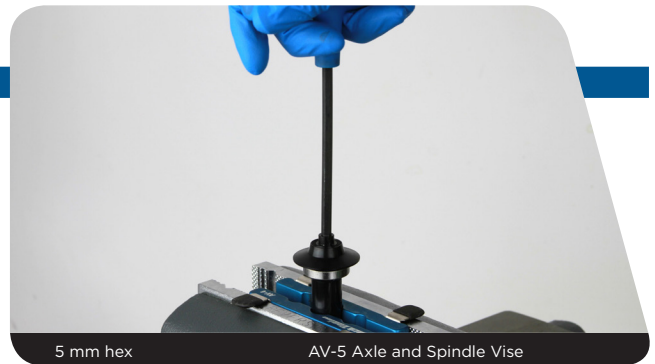
- 2 Use a plastic mallet to gently tap exposed axle end to dislodge the bearing. Remove the bearing and slide the axle out of the hub shell.



- 3 Clamp the axle into the Park Tool AV-5 Axle and Spindle Vise. Use a 5 mm hex wrench to unthread and remove the end cap.

NOTICE

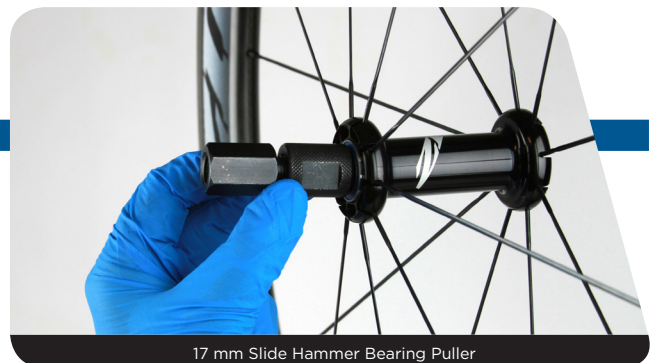
Do not damage the axle threads.



- 4 Insert the 17 mm Slide Hammer Bearing Puller slotted attachment through the outboard bearing. Align the slotted attachment with the bottom of the bearing, and tighten the slotted attachment to expand the puller inside the bearing.

NOTICE

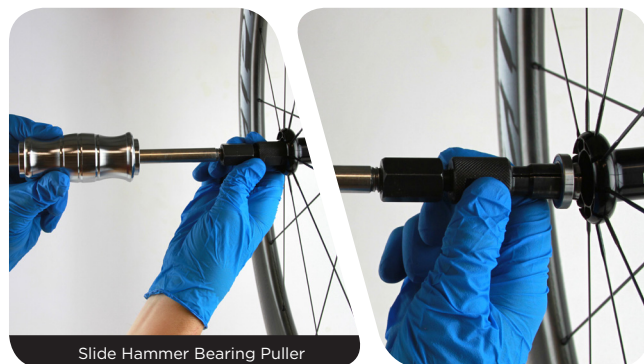
Do not over tighten the slotted attachment. For more detailed assembly and usage, see your bearing puller's manufacturer's instructions.



5 Thread the shaft of the bearing puller into the attachment. Forcefully pull back on the slide of the bearing puller to remove the bearing from the hub shell.

Remove the bearing from the slide hammer bearing puller.

Use a lint-free rag to remove any existing grease.

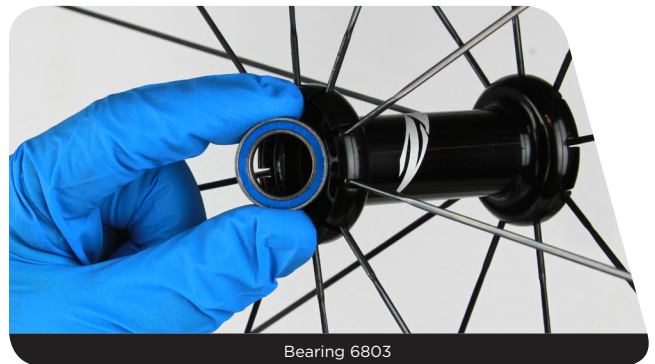


Front Hub Assembly

- 1 Apply a thin layer of SRAM® Butter to the outside of each new bearing and each bearing bore.



- 2 **Install the drive side bearing first.**
Insert a new 6803 bearing into the drive side bearing bore of the front hub.



- 3 Slide a SRAM 6803 bearing press tool onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the drive side of the hub shell. Slide the second SRAM 6803 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the hub until it is hand-tight.

NOTICE

Do not overtighten the bearing.

To prevent damage to the bearing, only use a bearing press tool that contacts both the inner and outer races of the bearing. Do not use a bearing press tool that contacts only one race.

Remove the bearing press tool.



- 3 Insert the axle through the hub shell assembly and through the installed bearing.



- 4** Insert a new 6803 bearing into the non-drive side bearing bore of the front hub.



- 5** Slide a SRAM 6803 bearing press tool and a 17 mm over axle bearing spacer onto the threaded rod of the Wheels Manufacturing Press-1 Sealed Bearing Press tool. Insert the threaded rod of the bearing press through the drive side of the hub shell. Slide the second SRAM 6803 bearing press tool and second 17 mm over axle bearing space onto the threaded rod.

Thread the bearing press handle onto the threaded rod.

Turn the threaded handle clockwise to press the bearing into the hub until it is hand-tight.

NOTICE

Do not over tighten the bearing.

To prevent damage to the bearing, only use a bearing press tool that contacts both the inner and outer races of the bearing. Do not use a bearing press tool that contacts only one race.



- 6** Thread the end caps onto the axle by hand until each end cap bottoms out on the bearing race.

Insert a 5 mm hex wrench into the drive side end cap. Hold the hex wrench in place and use the torque wrench with a 5 mm hex socket to tighten the non-drive side end cap to 5 N·m (45 in-lb).



This concludes the service for Zipp 404 hubs.



“We will revolutionize the relationship that our users have with SRAM products, cultivating a bond between the rider and bicycle. Our technical communication will be delivered in innovative and exciting ways, with deliberation and accuracy that inspires loyalty and trust across the globe.”

-SRAM TechCom Vision Statement



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