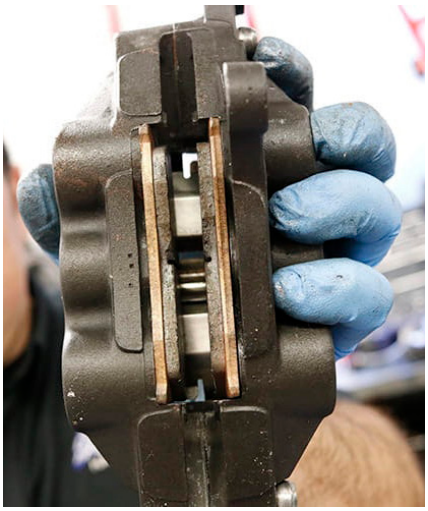
Fitment Guide for TRK Caliper Rebuild Kits



Working on your motorcycle's brakes requires extra caution. Before starting, carefully read this guide along with your bike's manual. Take your time—if you encounter difficulties, step back and reassess. Avoid tackling this task under time pressure; rushing can lead to mistakes.

Keep in mind that some motorcycles use calipers with varying piston sizes. Pay close attention when removing and reinstalling them to ensure proper placement.

Safety First: Always wear protective gear, including latex gloves and eye protection, to safeguard yourself during the process.

Step 1: Drain the Brake Fluid and Loosen the Caliper Bolts

1. Prepare the Calipers:
Before starting, with the calipers still mounted on the bike, apply the brakes to ensure all pistons extend as much as possible, bringing the pads into contact with the disc.

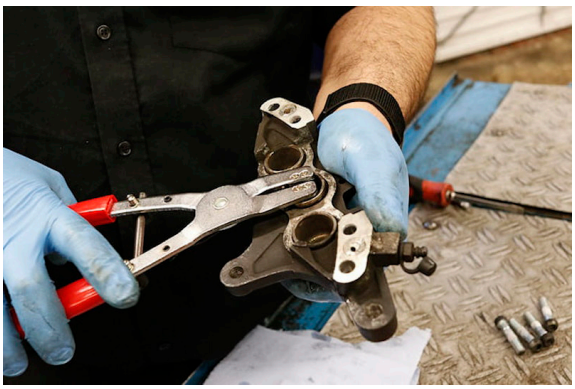
2. Drain the Brake Fluid:
Keeping the calipers in place, remove the banjo bolt and carefully drain the brake fluid into an appropriate container. Brake fluid can damage paintwork, so clean up any spills immediately.

3. Loosen Caliper Bolts:
If your bike doesn't have monobloc calipers or uses pistons on both sides, loosen the bolts that join the two halves of the caliper.

4. Handle the Bleed Nipple:
You can also remove the bleed nipple at this point. Be cautious—if it's seized, forcing it may cause it to snap. If it's stuck, leave it in for now and use gentle heat after removing the caliper. Warning: Brake fluid is flammable, so exercise extreme care. If unsure, seek professional help.

5. Remove the Calipers:
With the fluid drained and bolts loosened, you can now safely remove the calipers for further work.
Tip for Single-Piston Calipers:
Use hydraulic pressure to push the piston fully out. To avoid spills, do this carefully and use protective measures, such as placing the caliper inside a clear plastic bag. This prevents brake fluid from getting on the bike—or you.

Step 2: Remove the Pistons



1. Remove Retaining Pins and Pads:
Start by taking out any retaining pins and springs, then remove the brake pads. Check carefully for hidden R-clips, as some calipers use two. The retaining pin may need to be driven out from a specific side, so inspect it before proceeding. If the pin is seized, apply gentle heat to loosen it—just remember, brake fluid is flammable, so take proper precautions.

2. For Monobloc Calipers:
Push the pistons fully back into the caliper body to create space for the removal tool. Be cautious of any remaining brake fluid that may squirt out. Use brake piston pliers for extraction. While modern radial monobloc calipers are less prone to seizing, older models can be more stubborn. If the pistons are badly stuck, extra effort may be needed.

3. For Split Calipers:
If your bike uses split calipers, remove the bolts to separate the two halves. Ideally, you can twist and pull the pistons out using piston pliers. However, if they're severely seized, you might need to use plumbers pliers—just note that this will damage the pistons, making them unfit for reuse. As an alternative, use a dedicated piston removal tool, which can safely extract stuck pistons without damage. Keep in mind, though, that this tool won't work on monobloc calipers.

4. Single-Piston Calipers Tip:
On some single-piston calipers (like the ZX-6R rear), after removing the banjo bolt, you can push a tool through the opening to pop the piston out.
Maintenance Matters:
With regular care and maintenance, this process should be much smoother and less time-consuming.

Step 3: Remove the Seals

1. Extract the Seals:
Use a 90° pick to carefully lift the seals out of the caliper. Corrosion behind the seals can cause the rubber to bulge, leading to piston binding—an issue common with Tokico calipers.

2. Check for Corrosion:
Inspect the seal grooves for any signs of corrosion. Even minor buildup can affect brake performance, so thorough cleaning is essential before reassembly.

3. Remove the Caliper Split Seal:
Don't forget to remove the seal that connects the two fluid pathways at one end of the caliper. This is crucial for ensuring proper fluid flow once reassembled.

Step 4: Clean Out Debris
If the brake fluid hasn't been changed for a long time, it can crystallize and create a buildup inside the piston wells.

1. Remove Debris:
Use a cloth and a quality brake cleaner—one that fully evaporates without leaving any residue—to clean out the gunk.

2. Use the Right Cleaner:
Never use petrol-based cleaners, as they can damage the caliper components and leave harmful residues. Thorough cleaning ensures smooth piston movement and proper brake performance after reassembly.

Step 5: Clean the Fluid Pathways
Neglected brake fluid can clog the fluid pathways within the caliper body, leading to poor brake performance and potential corrosion.

1. Clear the Blockages:
Use a small drill bit by hand (do not use a power drill) to gently clear any blockages in the fluid pathways. This allows for precise cleaning without damaging the caliper.

2. Inspect for Corrosion:
In severe cases, like this one, the blocked passage may show signs of corrosion caused by degraded brake fluid. This highlights the importance of regular brake maintenance.

3. Troubleshooting Tip:
If you ever struggle to bleed your calipers properly, a blocked fluid pathway could be the culprit. Keeping these channels clear is crucial for safe and responsive braking.

Step 6: Clean the Seal Seats
Spray the caliper generously with brake cleaner and use a pick to scrape out any debris from the seal channels. For stubborn buildup, use wire wool or a wire brush wheel attached to a hobby drill to ensure the channels are completely clean.

Step 7: Clean the Caliper Mating Faces
Use a wire brush or, for more thorough cleaning, a wire wheel to clean the caliper's mating faces. This ensures a smooth, debris-free surface for reassembly.

Step 8: Thoroughly Flush the Calipers
Apply more brake cleaner to flush out any remaining dirt and debris. For a deeper clean, use compressed air (make sure it's filtered and oil-free) to blow out the calipers. Don't worry if the metal inside the caliper is slightly discolored, especially at the bottom—what's crucial is that the fluid pathways and seal channels are spotless and free from corrosion. Minor pitting inside the channels isn't an issue as long as there are no sharp edges or ridges.

Step 9: Install the New Seals and Pistons
Lightly coat the new seals with red grease using your fingers before placing them into the cleaned channels. The TRK seal set from Wemoto includes enough grease for the job.
Next, install the new stainless steel pistons, ensuring you press it straight and evenly to avoid damaging the new seals; you can also try lightly lubricating the piston with red rubber grease before installation to help it slide in smoothly, sometimes a small gentle clockwise twist can help get pass the seals.

Apply a thin layer of red grease to each piston—if the cleaning was done properly, they should slide smoothly into place.

Step 10: Reassemble the Caliper
Before bolting the caliper halves together, don't forget the seal that bridges the two fluid pathways. Apply a small amount of red grease to this seal—just enough for lubrication but not so much that it could block the passage. Make sure the seal sits in the side with the deeper recess to keep it secure during assembly.
Clean the caliper joining bolts and lightly coat them with copper grease. Start tightening the bolts by hand, alternating between sides to ensure even pressure, and then torque them to the correct specification. If you can, secure the caliper in a vice while tightening. Otherwise, complete the final torque once it's back on the bike.
Pro Tip: Don't forget to fully tighten the bolts! Use a bit of BluTack as a visual reminder if needed.