



Spring Bars



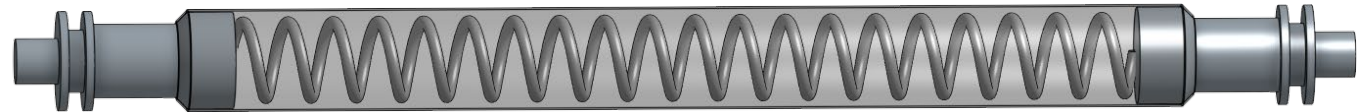
Objective

- To be able to identify the different types of spring bars, when to use them, and how to properly remove and install them

Spring Bar

A metal cylinder with at least one spring loaded end used in watchmaking to hold two items together, such as:

- Securing a strap or bracelet to the watch case,
- Securing links together
- Securing a clasp to the bracelet



Spring Bar

Spring bars appear simple and are often overlooked but they are very important!

- When a spring bar fails:
 - The watch falls off the wrist
 - It can get lost
 - The crystal can break
 - At the very least the customer is upset

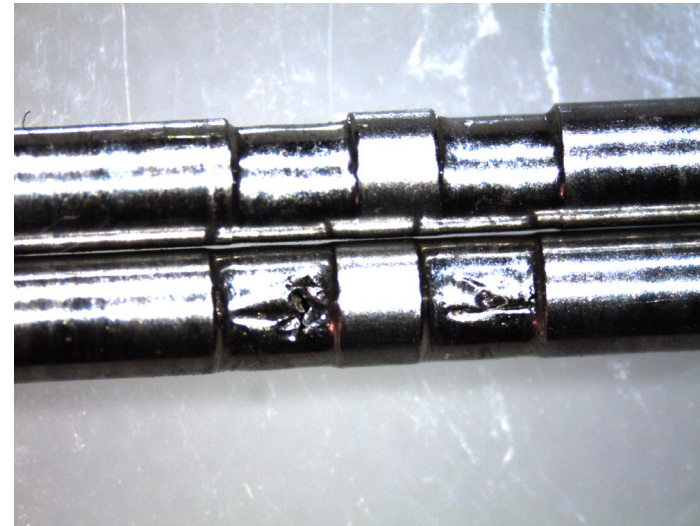
Don't let a \$2 part cause
\$1000 of damage



Spring Bar

You should examine spring bars any time you have a watch on your bench

- Replace damaged, worn, bent, or incorrect spring bars



Types of Spring Bars



No such thing!

Spring Bar Tools



Spring Bar Tools

Using the right tool can help avoid damage and make installation and removal of spring bars faster and easier.



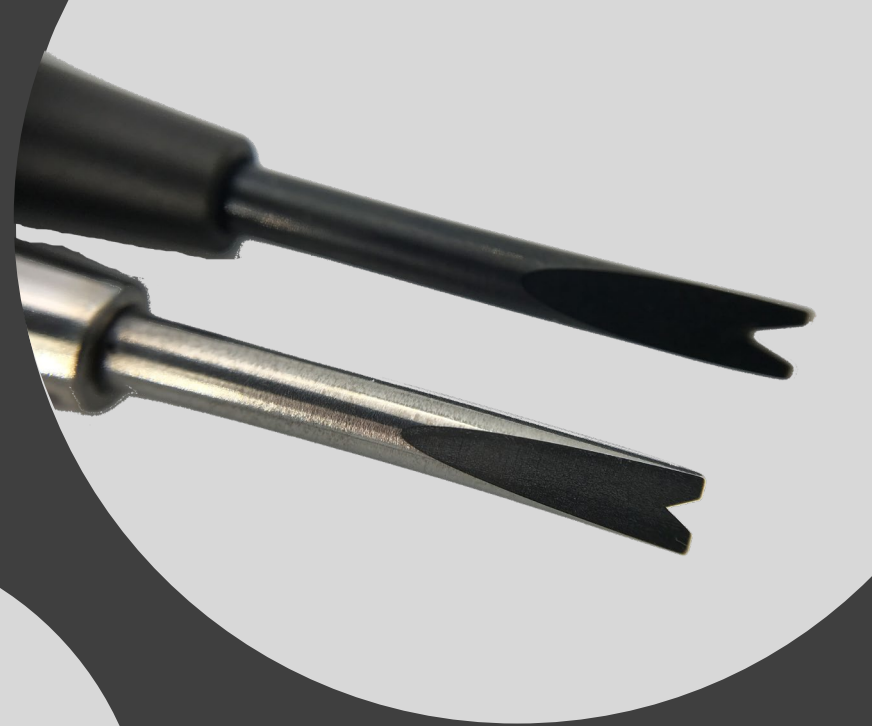
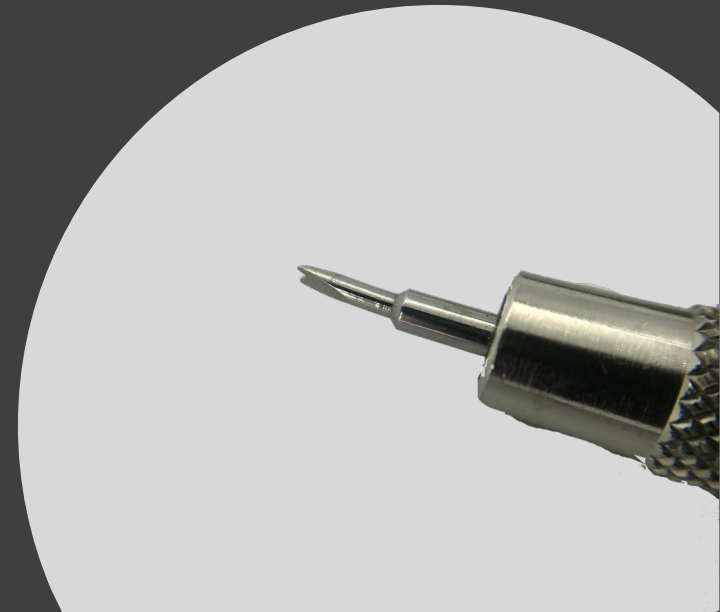
Bergeon 6111

Bergeon 6767

Bergeon 7767

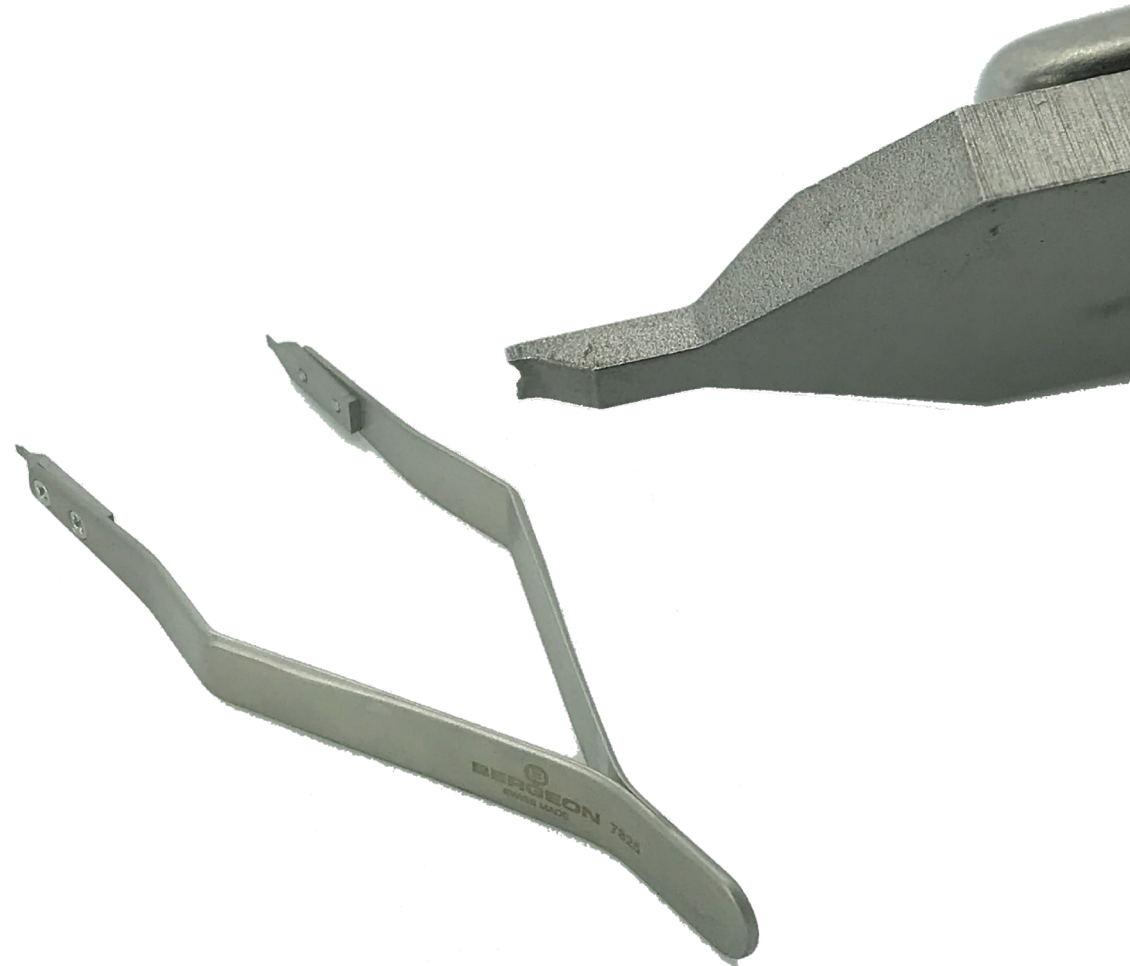
Spring Bar Tools

- Bergeon 6767
 - Threaded replaceable tips
 - Wide tip for Straps
- Bergeon 6767-F
 - Threaded replaceable tips
 - Narrow tip for flanged bars in bracelets with metal endpieces
- Bergeon 7767
 - Heavy Knurling
- Bergeon 6111
 - Reversible tips



Spring Bar Tweezer

- Bergeon 7825
 - Wide body fits around bracelets
 - Replaceable Tips
 - Contracts both ends of the spring bar at once



Why choosing the right spring bar is so important

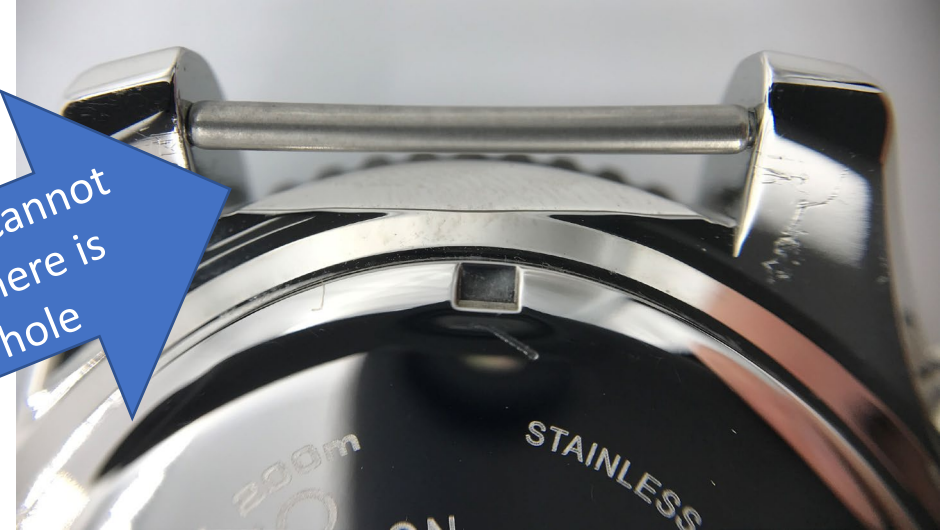
- You want to provide the proper fit.



Why choosing the right spring bar is so important

- You don't want the bracelet or strap to come off
 - You become responsible for damage
- You want to make your job easier when the watch is in for repair the next time

This Spring bar cannot compress if there is no access hole



How will you remove it?





How to select a spring bar

Use genuine material from the manufacturer if it is available

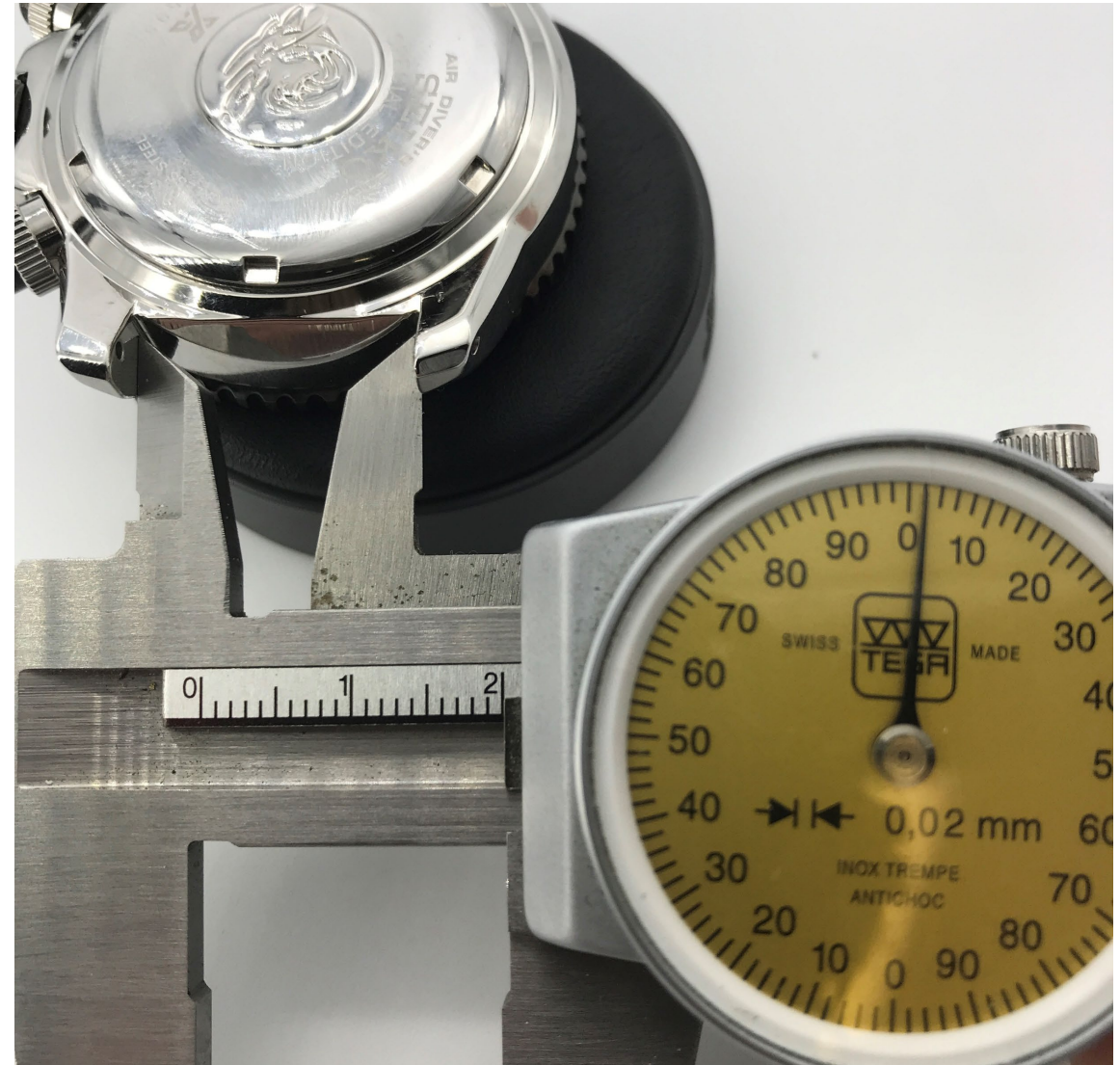
When you don't have access to the genuine material be sure to consider:

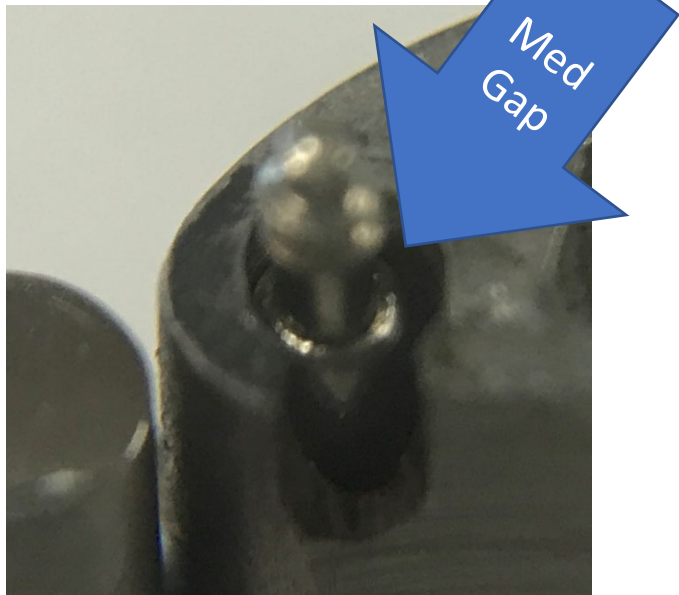
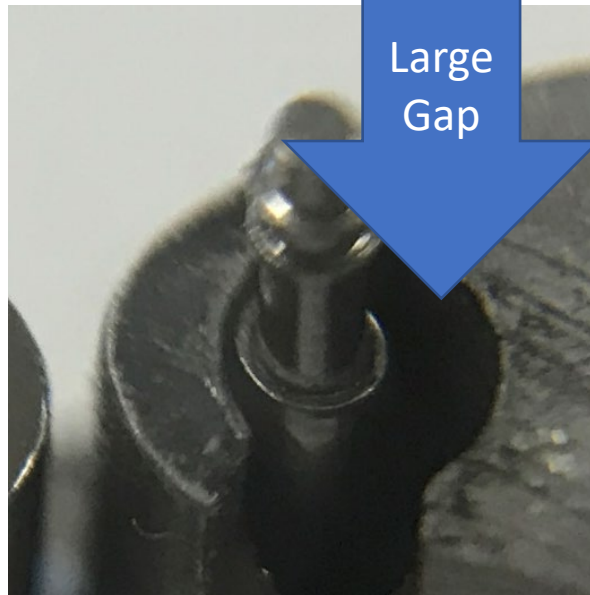
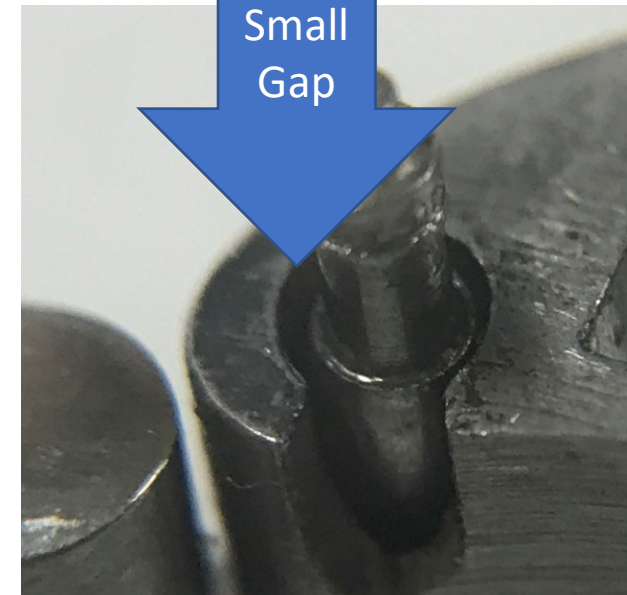
- Length
- Diameter
- Material
- Type

How to select a spring bar

Length

- Measures the gap between lugs or inside the clasp or buckle
- This will correspond to the spring bar length listed on the spring bar packaging (not the length of the expanded spring bar)
- Too short of a spring bar may allow the watch and bracelet/strap to separate
- Too long of a spring bar usually won't fit, but if it does it will be very difficult to remove later on





How to select a spring bar

Diameter

You should use the largest diameter spring bar that will fit in the hole of the bracelet or clasp to reduce the likelihood it may break.

How to select a spring bar



Diameter

If the old spring bar fit correctly, you can measure its diameter.



How to select a spring bar

Diameter

What if you don't have the old spring bar?

- Measure the opening in the bracelet or endpiece
- Use the largest diameter spring bar that will fit in the hole

How to select a spring bar

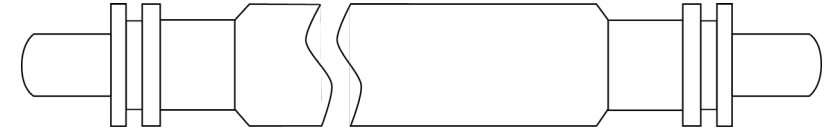
Material

- Spring bars usually should match the material of the case to avoid any electrolytic action or corrosion.
- Avoid using inexpensive base metal spring bars
 - Use Stainless Steel or better
- Beware of special cases
 - Tissot T-Touch
 - Using the wrong spring bar can affect the performance of the compass function
 - Factory T-Touch spring bars do not have steel springs inside them

How to select a spring bar

Flanged Spring Bar

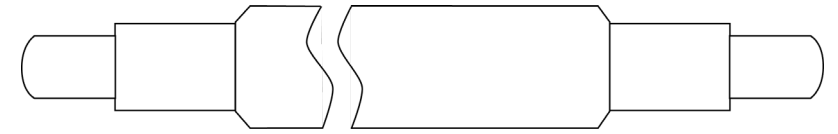
- Use flanged spring bars when the case or clasp does not have “pierced lugs” or in other words when it has “blind holes”
- Flanged Spring bars provide a way to remove the spring bar from the inside.



How to select a spring bar

Shouldered Spring Bar

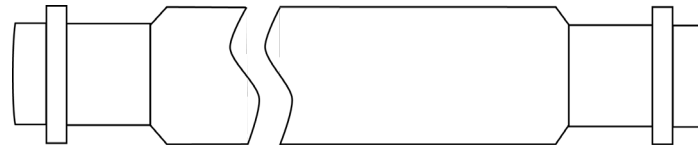
- The most secure spring bars
- Only use shouldered spring bars when the case frame or clasp has “through holes” and you can compress the spring bar using a pin through the hole
- You risk damaging the watch because you have to destroy the spring bar to remove it from “blind holes”



How to select a spring bar

Clasp Bar

- Most clasps require a spring bar with a short tip so that it doesn't protrude and catch on things
- Clasps with through holes may have shouldered spring bars
- Clasps with blind holes require flanged spring bars



How to select a spring bar

Clasp Bar

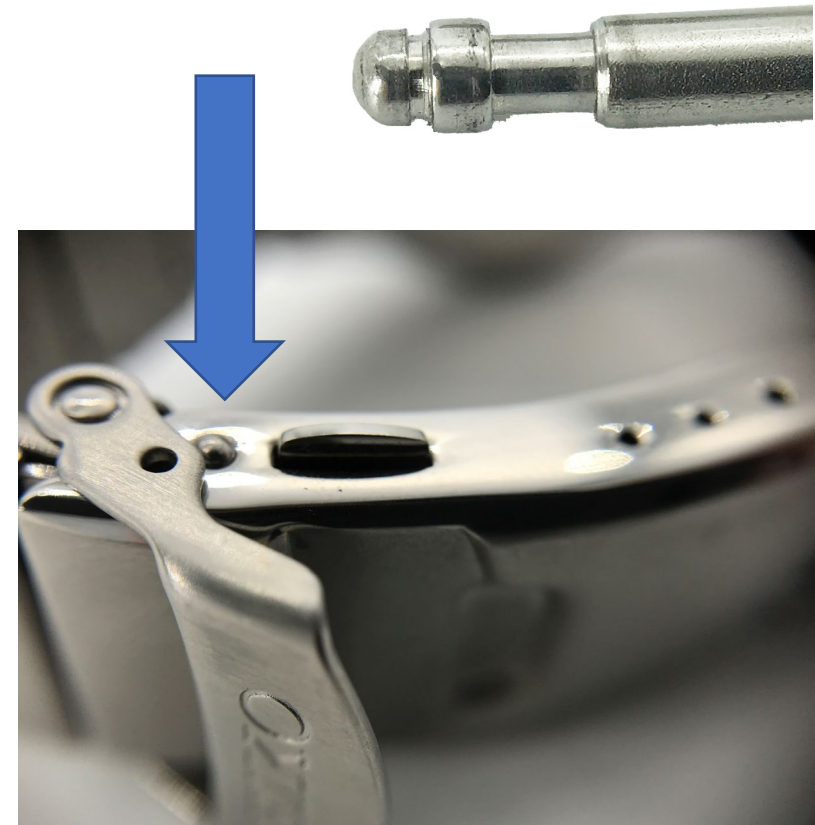
- Seiko clasps and buckles have their own style spring bars



How to select a spring bar

Clasp Bar

- Dive watch bracelet clasps with a safety often require a special spring bar which doubles as the catch for the safety
- These spring bars have a large rounded end
- Usually are brand specific



How to select a spring bar

Curved Spring Bar

- Curved spring bars are used to attach leather straps to watches with short lugs
- You can make your own curved spring bar with special tools
 - If you curve your own spring bar it is important that the curve be smooth so that it doesn't interfere with the spring and that the ends be straight to allow the tips to expand and contract



Bergeon 5973



How to select a spring bar

Speed-Fit

- Used with leather or rubber straps to allow the customer to quickly change straps
- New speed straps come equipped with spring bars
- The lever can be unscrewed on some bars to allow for installation
- If the lever does not unscrew—
 - insert through the opening for the lever
 - depress the end of the bar and pass through the opening



How to select a spring bar

Female Spring Bar

- Not very common
- Used with watches like the one pictured which were sometimes converted from fixed lug designs

