



Cleaning a Ruger 10/22 10 round magazine

MISFEEDING!

Misfeeding occurs when a round fails to be loaded into the breach usually because of a failure of the magazine. Most (all?) of the magazines we use are manufactured by Ruger.

They are beautifully simple, well-engineered pieces of equipment. They are universal to all Ruger 0.22 calibre, semi-auto rifles. So why do they misfeed quite so often?

When propellant burns, a small amount of water is produced along with a fair bit of burned / unburned powder. Together they produce a thin 'paste' which sticks to the insides of the magazine, particularly the vanes of the rotor. The spacing between the rotor blades only has to be slightly compromised by sticky walls, for a misfeed to occur.



Apart from frustration, what are our reactions to a magazine-caused misfeed?

- we clear the jam and carry on or
- we select another magazine next time or
- we buy a new magazine (at about £30) a go these days.

There is another way – ***clean the magazine!***

How often? If you are using your own rifle, after about 200 rounds have been fired from a magazine is reasonable.

If you are using a club rifle – why not ask your Head of Section if you could take a magazine home to clean it? Do please ask before taking one and have it checked by somebody else to **make sure it is empty!** We often hear comments about dirty rifles and magazines, but have you ever heard a complaint that one is too clean?

It really does only take 15 minutes to clean one, and it is a **very straight forward procedure:**



Ruger state that no cleaning fluids or lubrication should be used in a 10/22 magazine.

The order of cleaning is:

1. Disassemble the magazine
2. Clean
3. Reassemble
4. Test before use.

Always wash your hands after cleaning magazines because of the risk of lead residues.

You will need:

A washing up bowl

A few drops of detergent

Some warm water

A small-headed toothbrush

Cotton buds and possibly some cocktail sticks

A hair dryer

A 9/64th allen key or a T20 star driver (Ruger is an American company and therefore uses imperial units)

A pencil with a rubber at the end

Disassembly:

Make certain that the magazine is empty of cartridges.

Using the allen key or star driver, engage the screw on the side of the magazine (A).

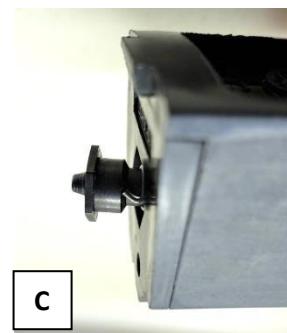
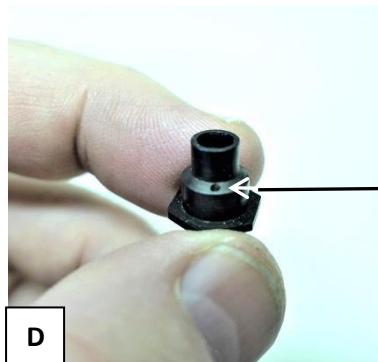
Hold the hex nut on the other side of the magazine to prevent it jumping out (B)





Unscrew the screw on the side of the magazine and gently remove it whilst still holding the hex nut in place.

Replace the screw and use it to gently push the hex nut out of the casing. The hex nut is spring loaded and will pop out when you remove your finger/thumb (C). Lift the hex nut away (D).



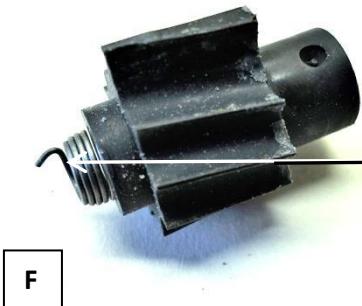
C

Lift off the side of the magazine where the hex nut was located.

**Remove the rotor and spring assembly (E).
Note the hook on the end of the spring (F).**



E

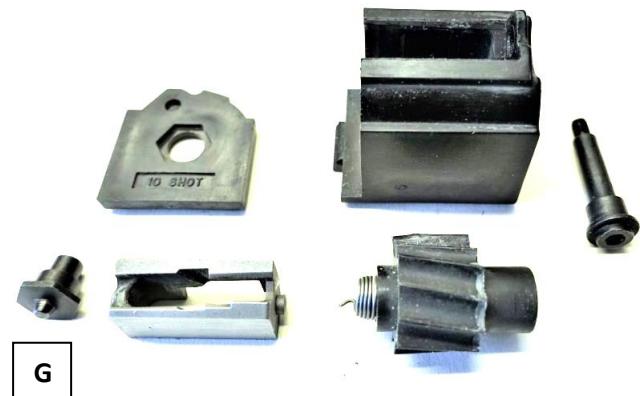


Note the hook at the end of the spring.

F

Remove the steel feed lips.

You will now have completed the disassembly (G).



G



Cleaning:

The reason Ruger recommend no cleaning fluids or lubricants be used in the cleaning process is that they act as a trap for all the powder residues and make misfeeds much more likely.

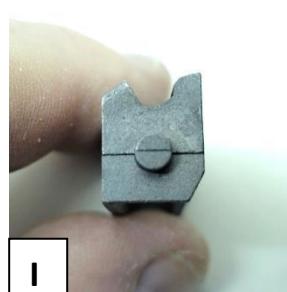
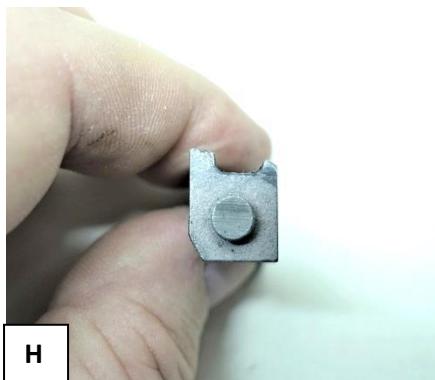
Mix up a little detergent in warm water. Make sure a hair dryer is to hand. Use any of the cleaning tools listed above to clean the individual components.

IMMEDIATELY you have cleaned a steel part, use the hair dryer to evaporate all the water from it. Do not wait until you have finished cleaning all the parts before doing this. The spring in particular will rust within minutes!

Ensure that all of the parts are *completely dry* before commencing reassembly.

Reassembly:

Replace the feed lips into the main housing. Use the larger circular lug at the end of the steel lip's mounting to engage the corresponding hole in the casing (H).

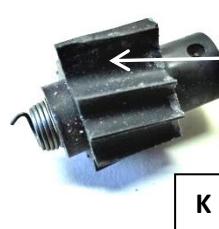


Note: the lugs at either ends of the feeding lips are not the same size.

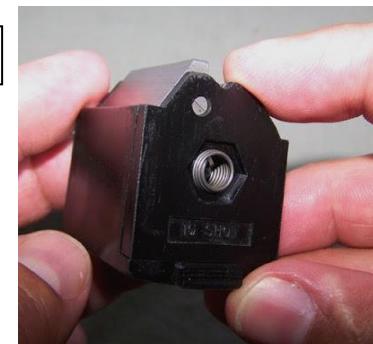
Insert the rotor until it seats with the spring end towards the outside (J)



Turn the long vane on the rotor clockwise until it touches the feeding lips (K).



Note: the longer vane on the rotor.



Replace the side cover of the magazine (L).

The spring should extend out of the casing (M).



Place the hex nut over the spring and engage the hook at the end of the spring into the tiny hole in the hex nut (D &F).

L & M

Rotate the hex nut about one and a half turns and hold it in place.

Replace the screw. Don't over-tighten this or you could risk breaking the plastic casing.

Testing:

Fully load the magazine. With the rubber end of a pencil, push each round out in quick succession.

If they all eject normally, JOB DONE!

Happy, safe and misfeed-free shooting to you all.