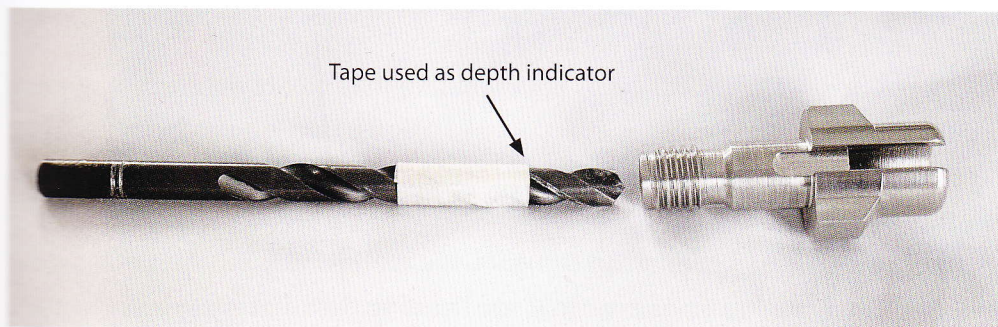


SHROUD MODIFICATIONS

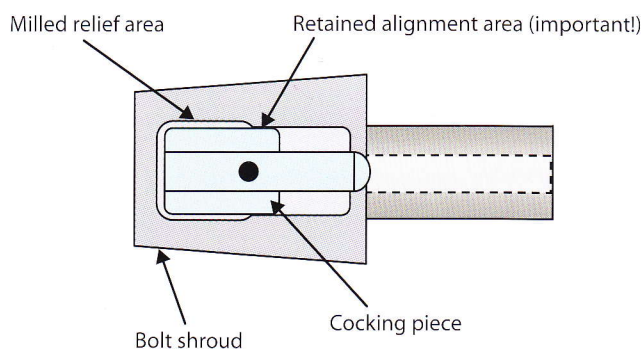
One of the modifications that I have made to the shrouds of my rifles is to decrease the amount of rubbing area that the firing pin experiences in its travel. The shroud guides the firing pin on its forward travel, but in some action designs the amount of guide area can be excessive in my opinion.

Only a small guide area is required, yet it is not uncommon to find it to be in excess of 1 inch in length. In those instances, I will drill out half the length of the guide area providing 0.010" to 0.032" of additional clearance in the drilled area. This reduces friction, and reduces the probability that the firing pin motion will vary with temperature and contamination (lubricant viscosity, dust, etc.).

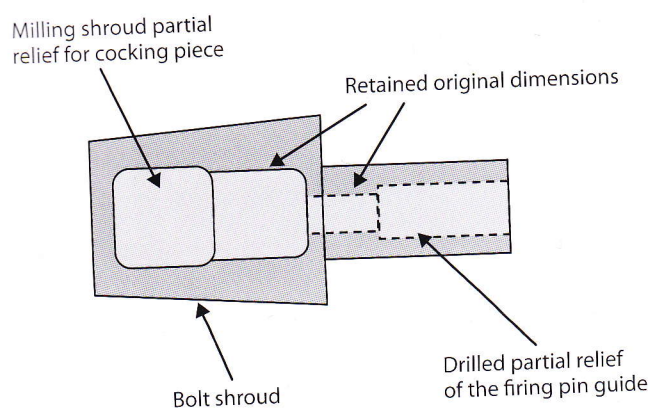


Drill ready to remove some of the firing pin guide channel.

The second modification that I typically make to shrouds is to lightly mill some relief over a part of the area where the cocking piece is housed. Mill out 0.005" in depth in this area, and make sure that when the cocking piece is in the cocked position that there is a retained (overlapping) alignment area.



Relief milling of shroud area where cocking piece is housed.

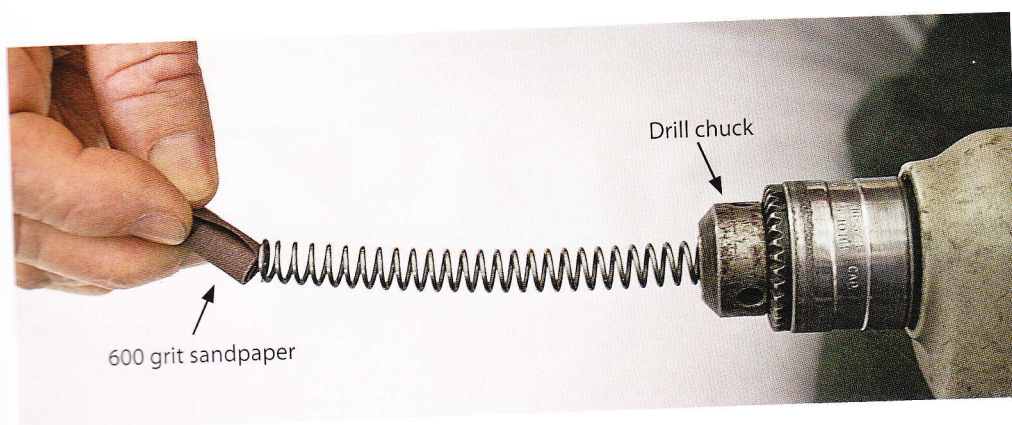


Relief machining of shroud can decrease rubbing area yet maintain firing pin alignment.

As can be seen in the drawings above, relieve the rub areas the cocking piece and the firing pin experience.

These modifications help maintain consistent ignition, giving an edge over a majority of the competition.

To further ensure ignition consistency, work on the firing pin spring. Most firing pin springs used in custom actions are the only part that is routinely outside sourced. The spring may be the only part of an action that is not up to the great standards most of the manufacturers place on their products. Make sure that the spring force is correct, and that there is minimal drag on the firing pin shaft when the spring is compressed. Finally, remove the sharp inside and outside edges on the end of the spring.



Polishing the end of a firing pin spring.

As can be seen from the drawings above, and then clean up with 600 grit sandpaper and finish the end of the spring carefully. Stop once the end is

SPECIFYING A

When specifying a

1. Round or

Some believe that a round action is better than a fluted action. This opinion is based on the fact that a round action has no need for support.) My objective is to

- Dirt to
- Flutes

3. Ejector

This decision is based on the fact that you may not want the action to be without a slower action. This is a sizing w

4. Right

This decision is based on the fact that a bag square left hand then you with a port w

As can be seen from the accompanying photo, simply chuck the spring in a drill and then clean up burrs and sharp edges with sandpaper. Start the clean-up with 400 grit sandpaper and finish with 600 grit as the drill slowly turns. This way, the sharp end of the spring cannot dig in to the shroud or the firing pin spring-holding bevel. Stop once the end and the edges are smoothed. Do not destroy the ground flat surface.

SPECIFYING AN ACTION

When specifying an action, there are a number of things to consider:

1. Round or faceted action?

Some believe that a faceted receiver will stay bedded (glued-in) better than a round action. Some of the leading gunsmiths in the US do not seem to share this opinion. Most thought both types glued-in equally well.

2. Fluted or non-fluted bolt?

Fluting the bolt behind the lugs is a common practice. It is an area that has no need to be strong (everything behind the lugs is strictly guidance and support) and fluting does not remove significant stiffness from the bolt.

My objections to fluting are:

- Dirt tends to get caught in the flutes
- Flutes are difficult to keep lubricated, so they tend to rust.

3. Ejector or non-ejector?

This decision has a lot to do with your style of shooting. If you are a “runner,” you may find an advantage in having an ejector that kicks the cases out of the action. I have seen competitors do a good job of shooting fast (running) without an ejector, but it takes great technique. If you are a “picker” (shoot slower and pick conditions), then you can go without an ejector and the brass sizing will not be quite as critical.

4. Right Port or Left Port (loading)?

This decision depends on your shooting style. If you started shooting as a bag squeezer, then you will have learned to shoot a right port (keeping your left hand on the bag at all times). If you did not start out as a bag squeezer then you could have learned to load from the left. I am a right bolt, right port with ejector shooter; but I do not feel it is detrimental to shoot right bolt, left port with right ejector. This is a matter of personal preference and practice.