

Running in a barrel. Yes or no (or don't know!).

There would not be a week go by that I am not asked about running in a rifle barrel. Usually the person asking is confused as to how to go about it because he or she has had conflicting reports as to how many shots between cleanings should they fire, or, when is the running in process completed. One shot-clean-next shot-clean; or one shot-clean, 5 shots-clean; 10 shots- clean; 20 shots- clean, 50 shots-clean (and hope?).

To begin with I have to state that I don't have the answer. What I do have is a few points to make, based not upon subject knowledge but rather upon logic. Some of you might find something of value in what follows.

In my father's day, nobody ever talked about, let alone carried out, such a procedure as "running in a rifle barrel". Accepting that there is more knowledge these days about simply everything, I willingly accept we have learned a lot of new things. What I would debate, though, is the ability of factories to produce an equivalently advanced rifle today when compared to, say a motor car. Think of the advancements in motor cars and aeroplanes in the last one hundred years and then think of firearm improvements. There is a glaring disparity in the degree of improvement I think it's fair to say.

What I have observed is that with the advent of firearm manufacturers falling under corporate ownership, the degree of finish has slipped in some areas. One such area is the internal bore finish.

Some rifle manufacturers (and I think, probably, all the custom barrel makers) today still lap their rifle bores whereas others no longer appear to deem it necessary. The rifle still ignites the primer and powder and the bullet gets out the muzzle. What else does the customer need?

There is going to be a difference, then, in the internal smoothness of a lapped barrel compared with an un-lapped one. The un-lapped one with a rougher surface must scrape off more bullet jacket material than a smoother, lapped barrel. This, along with the powder residue, will build up and will need to be removed at some stage. The smoother the bore, the more shots can probably be fired between cleans. If a drop off of accuracy is noted then a clean is most likely due or overdue.

Personally, I think that this is why we are being told that we "need?" to run-in a barrel. Some makers are not finishing the job and expect the customer to do this work instead. At least that is half the story.

The other half comes from a completely different angle: the perspective of the barrel maker. Without being able to confirm it, there is a suggestion that the need to run in a new rifle barrel, is rumoured to have been started in Australia and spread to America and to us here in New Zealand.

Consider how profitable it is for any barrel maker to have his client use up a hundred rounds running in his new barrel to make it perform the way he expects it to. If a .300 Winchester Magnum barrel has a working life expectancy of roughly 1000 rounds, then ten percent of that life is gone before the owner feels as though he has the rifle in the peak state he is seeking to achieve. That's 100 rounds of prospective hunting pleasure he is never going to get from that barrel. Personally I can't see sense in that at all.

Here's why.

The rifling, no matter how it is produced, will never be as sharp as it was before the rifle was fired for the first time. Every subsequent shot will cause throat erosion and barrel wear, neither of which is likely to improve the product. It is accepted that there might be tooling marks in the bore which, ideally should not be there. Maybe with repeated shots, some of those will get smoothed out. My question is though: do I really need to devote 50 to 100 rounds trying to improve the performance before I actually get to enjoy my shooting? Why don't I just get shooting whatever I intended to shoot; clean the barrel carefully after each shooting session and just get on with enjoying EVERY shot instead of the last 90% of them?

Bottom line: if you have a custom made, match grade, air gauged barrel from a respected maker, then it seems reasonable to expect that it will foul less quickly than a mass-produced factory barrel which has possibly had a chamber cut with a reamer which should have been scrapped many barrels before, which has turned some of the lands over on the trailing edge and left a ragged edge on each land along the length of the leade.

Meanwhile, I will still be happy to sell you bore cleaning products whichever way you decide to go about looking after your rifle.

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An interesting section of the break-in procedure from Howa is worth mentioning here. Howa states the following:

To keep the temperature cool in the barrel, wait at least 5 minutes between break-in shots. The barrel must remain cool during the break-in procedure. If the barrel is allowed to heat up during the break-in, it will destroy the steel's ability to develop a home registration point, or memory. It will have a tendency to make the barrel "walk" when it heats up in the future. We have all seen barrels that, as they heat up, start to shoot high and then "walk" to the right. This was caused by improperly breaking-in the barrel (generally by sitting at a bench rest and shooting 20 rounds in 5 minutes or so). If you take a little time in the beginning and do it right, you will be much more pleased with the barrel in the future.