



It was in 2007 that Testfakta tested elk bouncers before the elk hunt. Sweden's approximately 300,000 hunters were then expected to shoot approximately 75,000 moose.

Testfakta has investigated the quality of eight common elk bouncers and what distinguishes the models. The test was carried out by Försvarets Materielverk (FMV), which primarily works to supply the Swedish defense with weapons and other materiel. The practical tests were carried out over three days this summer at FMV's testing facility outside Karlsborg. The hunting weapons were tested in four stages: precision in normal temperature and cold, corrosion test, extraction test and blast test.

The most dramatic result was the blast test. If, for example, a small stone or bullet gets stuck in the barrel of the rifle, the shooter risks injury if he or she fires the weapon. To simulate such an accident, the test staff rammed a bullet into the barrel of each rifle. The guns were then screwed into a special vise before being fired. In order to more easily assess how the different rifles behaved, FMV's testing staff filmed the test with a high-speed camera.

The images show how two of the tested weapons – Browning and Remington – explode and shatter.

– When you see the pictures, you understand what it looks like and how injured you can be, says **Börje Kindbom**.

What would happen to the shooter if this happened in real life?

– The shooter's left hand would be seriously injured and the shoulder would be broken. Split eyes mean risk of blindness. The shooter probably survives shrapnel in the throat if he or she is not particularly unlucky, says Börje Kindbom.

The other six rifles passed the test with a deformed barrel. A positive thing was that the breech on all weapons held up, which could otherwise lead to serious injuries to the shooter's head.

Anders Toresson is CEO of Torsbohandels, which represents Remington in Sweden. He is surprised by the result and questions how FMV has designed the test.

– There is an international testing organization, CIP, whose test standard all dignitary manufacturers adhere to. If something happens to a weapon, it is sent to the CIP, who can assess whether something is wrong. I don't know what system FMV has used, but if this test is to have any grounding in reality, the weapon should be sent down to CIP and then FMV can explain how they proceeded, says Anders Toresson.

Is there any risk in using this weapon?

– No, absolutely not, no greater risk than with any other make. And how likely is it that two of the world's largest arms manufacturers would dare to send out a product that cannot withstand a blast? says Anders Toresson.

Börje Kindbom, what do you say about the objections?

– I can't answer how CIP does it, but among other things Mannlicher in Austria basically does it the same way we did. There are a thousand tests to be done, this is the result of what we did and the test was the same for everyone, he says.

Testfakta has also sought the representative for Browning in Sweden, but despite repeated contact, no comment has been left.

The overall winner in the entire test was the cheapest weapon, the Howa 1500, which retails for approximately SEK 5,900. The test's most expensive weapon, the Blaser R93, which costs around SEK 26,000, came in second place.

– The test shows that the cheapest weapon is also the best. It is especially funny that the Howa 1500 won not because the other weapons were particularly bad, but because it is a very good elk bouncer, says Börje Kindbom.

– However, the test says nothing about how good it is after a few years of use or how the weapons feel.

A good moose bouncer should be easy to hit with, even when the animal is moving. In

order to get as fair a precision test as possible, a special shooting bench was created in which the weapons were locked.

A day before the test firing, the rifles were closed in a 20 degree warm room. Before the test, the scopes were calibrated. Since the accuracy of the weapon can be affected by the choice of ammunition, the moose bouncers were test fired with three different types of ammunition.

- We used the types of ammunition that are most common on the market. The result of the test firings was not affected by the choice of ammunition, says Börje Kindbom.

The precision shooting was carried out in three different stages.

- In the first phase, we have stayed as close to normal hunting conditions as possible and, among other things, have taken into account what is a normal number of shots fired, recoil and the like.

- The second part was hot shooting. Problems with hot shooting occur above all during training on the shooting range. In connection with ordinary hunting, you don't shoot more than a couple of three shots in a row and then the weapon doesn't have time to get so hot that it is affected.

Then why did you do the test?

- For the same reason as we examined how the weapons behaved after being in a cold chamber at minus 40 degrees for 16 hours. By testing how the rifles handle the

Swedish → English

normal conditions. Our exam is the test, among other things, ammunition for the Armed Forces with good results. First in the precision part was the overall winner Howa. Last came Remington.

To find out how well the weapons resist rust, they had to stand for two hours in salt fog and then for 15 hours in a 40 degree warm room with 95 percent humidity, which corresponds to approximately 14 days in an environment close to the sea without weapon maintenance. The least rusted test's most expensive weapon, the Blaser R93. Most roasted Anotonio Zoli Luxury.

The entire test was carried out by test leader Börje Kindbom and his colleagues at FMV.

- In total there were four of us at FMV who worked on the test. All of them are experts

in weapons, although only I am a hunter.

Why?

– We wanted to reduce the risk that the people who answered the test itself would have preconceived notions about the merits of different brands, says Börje Kindbom.

FACTS

The test took place at FMV's test firing facility in Karlsborg during the period 26-29 June 2007.

- **During the test shooting, the binoculars of the brand Swarovski were used with magnification 3-9 x 36. The shooting distance was 100 meters.**
- **Ammunition from the brands Sako Range, Norma Oryx and Sako Hammerhead was used in the test firings.**
- **In the precision shooting at normal temperature, two series of four shots of each type of ammunition are fired. After each series, the distance between the two outermost shots in the hit image was noted. The shorter the distance, the better the precision.**
- **Firearm accuracy and repeatability are affected by temperature changes. To test how much the guns are affected by heat, they are hot fired by firing a series of four by four shots in rapid succession. Afterwards, the distance between the two outermost shoots in each series was measured.**
- **To test how the weapons are affected by cold, they were placed in a cold chamber with a temperature of minus 40 degrees. After 16 hours, the weapons were taken out. The races were cleaned before being inspected and click tested. Four-shot bursts were then fired. The distance between the two outermost shoots was measured. All weapons functioned without complaint in severe cold, however, the accuracy was affected.**
- **To test the extraction mechanism, an empty case was locked in the cartridge position using a nut. With the help of a force meter, the force at which the pull-out mechanism released was tested. The measurement ended at 100 kilos. Weapons weighing between 60-80 kg had the best extraction mechanism. Under 60 kg the mechanism releases too easily and over 80 kg it can be difficult to get the mechanism to release the sleeve. All guns except Antonio Zoli passed the test without the extraction mechanism in the breech piece breaking.**
- **In the blast test, a situation was simulated where a fired bullet gets stuck in the barrel,**

whereupon the subsequent shot is blocked and explodes or, at best, deforms the barrel. A bullet was struck 10 cm into the barrel from the cartridge position. The weapon is attached to a vise and fired. The process was filmed with a high-speed camera (4,000 frames per second) in order to be able to assess shrapnel and explosive effects.

- Two of the weapons tested exploded. The others passed the test with only a deformed barrel as a result.
- In the overall rating, the results from the various test moments have been weighted together as follows: Precision (of which the result during normal shooting accounts for 60 percent) 40 percent, barrel burst 30 percent, the extraction mechanism 15 percent and corrosion resistance 15 percent.

Tags: **Remington - Browning - Antonio Zoli - Sako - Tikka - Mannlicher - Blaser - Howa - Moose bouncer test - Moose bouncer**



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