



Tokarev SVT-40 Range Report



About two inches longer than a Mosin-Nagant 1891/30 and almost one pound lighter - all 48.27 inches and 8.9 lbs of the SVT-40

The Samozaryadnaya Vintovka Tokareva (SVT-40) was designed by Soviet Arms Designer Fedor Tokarev. It was manufactured between 1941 and 1945. The SVT-40 is an improved and simplified rifle design over the SVT-38.

During WWII SVT-40 rifles were highly prized captures by both German and Finnish troops. I have seen many pictures in books of German troops on the eastern front carrying the SVT-40 (or the German nomenclature of SIG.259r).

There were many reasons for this fact:

- captured ammo was abundant,
- the SVT-40 rifles were very accurate,
- very reliable in properly trained hands,
- and provided a higher rate of fire than the German

Kar 98k rifle.

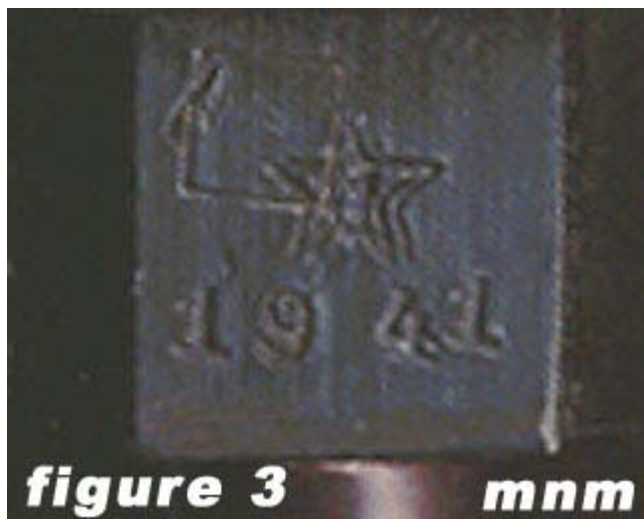
Many SVT rifles were sent back to Germany for further study and contributed to the development of Germany's semi-automatic rifles.

Ironically the SVT-40 in Soviet hands did not meet with high success. This is attributed to the complexity of functionality in comparison to the typical Mosin-Nagant bolt action rifle or carbine.



My friend Tony shooting the SVT




The SVT-40 rifle is chambered for the 7.62x54r cartridge, the same cartridge used in the Mosin-Nagant rifles and carbines.



1941 Tula Manufactured, Soviet Refurbished SVT-40

The SVT-40 rifles were primarily manufactured at three Soviet arsenals:

Arsenal	Symbol
Izhevsk (arsenal mark: triangle w/upright arrow inside)	

	
Tula (arsenal mark: star w/upright arrow inside)	
Kovrov (arsenal mark: vertical oval w/upright arrow inside)	



SVT-40 removable 10 round magazine



Ten round 7.62x54r magazine. Note magazine release

The SVT has a very large detachable ten round magazine.

The magazine release pictured in **figure 5** shows the release in the ready position - by pushing the magazine release lever forward you will be able to remove the magazine. The magazine release can also be pulled to the rear and locked down flat against the stock of the rifle.

Even though the magazine can be removed, it was intended that the SVT-40 be loaded from the top of the receiver via a stripper clip. A full magazine of 7.62x54r ammo adds considerable (*and in my opinion needed*) weight to the SVT.

In my opinion it is too bad they did not carry the detachable magazine design forward with the SKS. Even when the SKS was manufactured the prevalent thought was that detachable magazines cost too much to manufacture and added unnecessary weight to the soldier's already hefty pack.



Simple, yet effective safety

The rifle's safety is simple enough to operate: It is flipped up to the right to **"fire"** position or is placed in the **"safe"** position as pictured in **figure 6**.

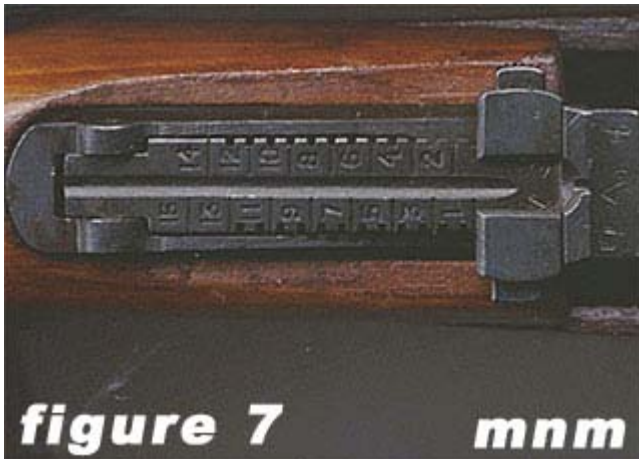
Trigger pull is heavy but smooth and breaks cleanly every time. Recoil is noticeable, yet not uncontrollable. I think if the stock was made of a heavier wood (*I know I sound like a broken record*), then recoil would be lessened.

The rifle is very light for its size. To put this in perspective:

Soviet Rifle Size and Weight Comparison			
Dimension	1891/30	m44 carbine	SVT-40
Overall Length	46.5 inches	40 inches	48.27 inches

Barrel Length	27 inches	20 inches	24.02 inches
Weight (Unloaded)	9.5 lbs	8.9 lbs	8.9 lbs

The SVT-40 weighs the same as a Mosin-Nagant m44 carbine yet is over eight inches longer. The SVT-40 is almost two inches longer than the Mosin-Nagant 1891/30 but weighs about one pound less. I found when cleaning that it takes a very long cleaning rod to push a patch all of the way out of the end of the SVT-40 barrel.



SVT-40 Mauser style leaf gradient rear sight

The rear sight of the SVT is of Mauser leaf gradient design and is very similar to the rear sight on the SKS. The rear sight ranges in distance from 100 to 1500 meters graduated in 100 meter increments. The hooded front post sight looks just like the Mosin-Nagant front sights, but can be adjusted for elevation by screwing the post in or out. Windage is also adjusted via the front sight by drifting the sight's dovetail left or right.



Barrel shrouds, gas adjustment valve, front sight, cleaning rod, and flash suppressor

The SVT-40's gas system operates almost identical to the SKS and the FN-49. If you have experience with either rifle you will easily understand how the SVT

functions.

The SVT-40 gas adjustment has a five position gas regulator to adjust the gas system for any variance in weather conditions or ammunition type. The regulator can be found at the front of the barrel shrouds where the gas assembly curves and meets the barrel. It is easier to adjust the regulator via the SVT gas adjustment tool but can be accomplished with hand tools if you are careful and do not scar the metal.



Action photo of bolt and bolt carrier moving to rear while spent ejected case can be seen tumbling in mid air

I tried all different manufacture of ammo from Wolf to cheap corrosive surplus. All functioned fairly well and supplied excellent accuracy.



Case ejection failure

I did find that certain ammo did not eject properly on a consistent basis. Usually this occurred while shooting the cheap surplus stuff. This could be remedied by adjusting the gas system or not using this ammo.



Striations or flutes left on spent case from fluted chamber

After examining the spent cases I discovered that they had striations or vertical lines on their necks (as shown in **figure 11**). This design was added purposely to aid in extraction of the fired case from the chamber. This is a similar problem experienced with the FN-49 when it has extreme gas pressures. Extreme gas pressure can cause early extraction of the case before bore pressures have reduced enough to allow the cartridge case to contract and be released from the walls of the chamber. The fluting facilitates gas being bled off and rapid cooling of the metal case to allow the metal's contraction required for proper ejection. Fluting of the chamber also aids in extraction of the fired case if buildup of residue from firing a high quantity of ammo or firing low quality ammo (lacquered steel cases, etc).

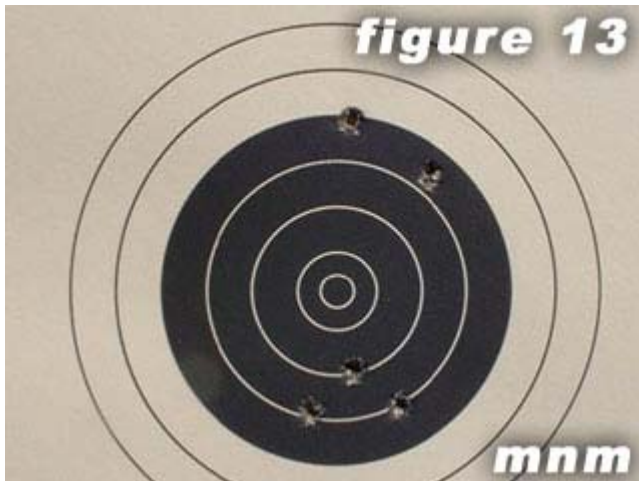
Excerpt from Heckler & Koch

Cartridge case obturation, the greatest uncertainty factor in every automatic weapon, is reduced so much by the introduction and further development of the fluted chamber and has become uniform for all types of cartridge cases, including lacquered steel cases, that operation is reliable in every situation, even under the most adverse firing conditions.



5 shots at 100 yards

Accuracy on the SVT-40 was well above my expectations. I thought accuracy would be comparable to an SKS carbine. I was surprised when it was more like the Mosin-Nagant 1891/30. The groups shown in **figures 12 and 13** were common. **Figure 12** was my first group ever fired.



5 shots at 100 yards

Prices range from \$300 to around \$650 for an SVT-40 depending upon condition and arsenal of origin.

The SVT-40 used in this article is in excellent arsenal refurbished condition. The rifle's metal finish is 100% and the bore is smooth and shiny.

The only negative statement I would make is about wood the stock is made from. It is almost "**pine like**", not very rugged or durable, light and porous, and is prone to scarring and damage. I can take my finger nails (*of which I have very little*) and make deep indentations in the wood's surface. Kind of reminds me of the early Chinese Norinco SKS and AK stocks - pretty crappy. I have not seen enough SVT's to know if this is a common ailment.

I am glad I purchased the SVT and find it fun to shoot and also cheap to shoot because of a surplus of available ammunition. Most is corrosive and you should take care to clean the gas system and rifle properly to eliminate the risk of corrosion caused by the corrosive salts in the ammo.

Overall the SVT is one of the most interesting pieces in my collection.

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