

Notes From the Lab: 7.62x39mm (M43) Soviet

The 7.62x39mm Soviet has been the official Russian military cartridge since 1943 and is used in a variety of firearms including the SKS and AK-47 rifles and carbines. Most import and surplus ammunition features a steel case and is corrosive primed, but Federal, Remington and Winchester now offer factory ammunition with boxer priming and reloadable brass cases. Military loads generally utilize a 122-grain bullet at around 2,329 fps, while U.S. manufactured factory loads push 120-, 123- and 125-grain bullets to around 2,365 fps.

Standard bullet diameter is .311 inch to match rifles with similar groove diameter. Although .308 inch bullets can be used for reloading (which requires a smaller neck expander ball), they work less than perfect in rifles with the .311 inch groove diameter. Most bullet makers are now offering .311 inch bullets in suitable weights designed specifically for this cartridge. Incidentally, Winchester is currently using bullets that measure .310 inch in their factory loads.

Beginning in 1987, Ruger began offering the Mini-30 (similar to the Mini-14) rifle with .311-inch groove diameter; however, in 1990 the barrel diameter was changed to .308 inch, which was the version used to develop the accompanying load data. In various tests there was very little if any difference in accuracy when using bullets of .308, .310 and .311 inch.

The 110-grain Hornady SST and SP bullets are .308 inch, while the 123-grain SST and SP are .310 inch, designed specifically for this cartridge. The 130-grain SP, and all 150- and 155-grain bullets listed are .308 inch. The expander ball should measure .002 inch smaller than the bullet diameter to obtain the correct case-to-bullet fit.

Bullets should be crimped in place to further increase pull and obtain correct powder ignition. This also prevents the bullet from deep seating or dislodging while being "slammed" during the feeding and cycling process.

Powders that produced near top velocities and accuracy included Hodgdon H-4198, H-322, Accurate AAC-1680, AAC-2015, Vihtavuori N130 and IMR-4198

None of the accompanying load data exceeds industry maximum average pressure limits currently established at 45,000 psi.