Notes From the Lab: .38 S&W Special

The .38 Smith & Wesson Special was introduced around 1902 and was intended to replace the military adopted .38 Long Colt cartridge. The new cartridge was originally loaded with black powder, however, it was soon upgraded with smokeless propellants. It quickly gained widespread acceptance among civilians and has become the most popular and successful revolver cartridge in history. Sales for target, field, home-defense and concealed carry revolvers remains remarkably strong.

Over the past 110 years ammunition companies have loaded the .38 Special to many different pressure levels, however, today the industry (Small Arms Ammunition Manufacturers Institute, or SAAMI) has settled on 17,000 psi for “standard pressure” loads, while “+P” designated loads have a maximum working pressure of 20,000 psi. Before assembling +P loads, which are noted in remarks in the accompanying handload data, be certain that your gun is rated for the higher-pressure.

There is always a concern that using 140 and 158-grain jacketed bullets in the .38 Special will result in a stuck bullet in the bore. This is not only annoying, but if undetected before the next shot, will ruin the barrel or worse. The reason for this is a combination of several factors and includes the bullets long bearing surface combined with the fact that jacketed bullets offer considerable resistance when being pushed down a bore. Combined with the cartridges’ rather low velocities and pressures, it is actually a common occurrence. Guns with large throats, a wide barrel/cylinder gap, and deep cut rifling are most prone to sticking bullets. As a general rule it will be safest to use loads that generate at least 700 fps muzzle velocity with 800 fps being even better. (Note: There are no Hornady XTP series of bullets that offer expansion at speeds below 800 fps.) Powder charges should not be reduced below the suggested starting loads, especially those containing the above mentioned jacketed bullets.

Lead bullets, such as the various Hornady swaged lead versions, can offer excellent performance in the .38 Special. The 148-grain hollow-base wad-cutter gave excellent accuracy in the Colt Trooper test gun with 25-yard groups often cutting inside 1-inch. Top performance will usually be found in the 700 to 800 fps range. The 140-
grain Cowboy lead bullet also proved accurate and feeds reliably in lever action rifles. The 158-grain LRN, SWC and SWC-HP gave good performance at a variety of velocities, however, when pushed above 900 fps, some barrel leading was observed.

Avoid old .38 Special cases for handloading. Many are balloon head style, are brittle and should be relegated to cartridge collections. Better results will be obtained by choosing modern cases, such as those from Starline, which can be purchased factory direct at 800-280-6660, or www.starlinebrass.com.

All handload data contained herein was shot over the course of a few days in a Colt Trooper with a 4-inch barrel and over a single chronograph. All powder charges were weighed and all ammunition was assembled using a single set of dies. Cases were Starline and were of a single lot number for maximum uniformity, as were the Winchester primers. The point being, unlike data published in most manuals, it was not compiled over years with variations in dies, components, scales, chronographs, cases, etc. Rather, great effort was made to make certain that this new data is accurate and as uniform as possible and is thus representative of the results that will be obtained with today’s components.