

7.62 mm Pressures

The article "Why Are Service Rifle Scores Improving?" that appeared in the March, 1982, issue of the American Rifleman has generated some interest on the subject of chamber pressure for the M1A/M14.

According to my information, SAAMI recommends a maximum of 50,000 c.u.p. for these rifles. However, the article states that the M118 load was tested in "... the SAAMI-approved manner," and was determined to be 55,100 c.u.p.

If this is the case, then why are most handloading data limited to 50,000 c.u.p. for the M1A? Further, if this is the case, then why is it apparently safe to use M118 issue in this rifle?

If it were safe to load within the higher pressure range, that is between 50,000 c.u.p. and 55,100 c.u.p., would a more accurate load conceivably result using the 168-gr. match bullet?

Answer: The SAAMI standards formerly listed the nominal "average maximum pressure" for the .308 Win. cartridge at 52,000 c.u.p. The present standard (dating from March, 1981) lists the "Maximum Product Average" as 55,200 c.u.p. The Maximum Product Average is a number derived by a statistical procedure too complicated to explain here, but in general terms, it is the pressure that is very unlikely to be exceeded, on an individual pressure test, of a sample taken arbitrarily from the lot of ammunition in question, subsequent to its manufacture. It implies a normal working pressure of about 52,000 c.u.p., so the pressure limits have not actually changed, but only the way in which the limits are expressed.

The requirements of the military specification for 7.62 mm M118 ammunition are not directly comparable to the SAAMI requirements, partly because the design of the military and commercial pressure barrels is not quite the same, and also because the test procedures differ somewhat. The military specification calls for a maximum average chamber pressure not exceeding 50,000 p.s.i. (copper), which is about equivalent to an average pressure of 52,000 c.u.p. in terms of commercial SAAMI equipment and procedures. The two requirements are not inconsistent, therefore, although the numbers differ somewhat. As you have noted, the M118 cartridge sample tested in accordance with commercial SAAMI practice produced 55,100 c.u.p., which does not exceed the SAAMI Maximum Product Average limit of 55,200 c.u.p. for commercial .308 Win. ammunition.

There is no evidence indicating that loading to higher chamber pressures would improve the accuracy of 7.62 mm NATO or .308 Win. match ammunition. —W.C.D., Jr.

Loctite Removal

I recently removed the scope mount bases from a Remington Model 700 receiver. The screws and bases had been secured with Loctite and the hardened material on the receiver defied removal.

I have tried various solvents (acetone, powder solvent, Liquid Wrench, lacquer thinner and cleaning fluid) without success.

I do not want to use a scraper as it may mar the bluing. Is there a solvent that will remove this material?

Answer: You are correct, a hard scraper could mar the blued finish. However, the squared edge of a piece of soft copper can be used as a scraper, and if used carefully and lightly, there will be no damage to the blued surface. If some copper adheres to the surface of the receiver, it can be removed by scrubbing with bore solvent.

I have also found that a paint and finish remover called TM-4 will soften the hardened Loctite to a point where it can be wiped away with a cloth. When using this or another finish remover, the metal should be removed from the stock, as even a small amount will severely damage any stock finish.—R.C.

.22 WRF cartridges for owners of Winchester Model 1890 and other obsolete rifles of this caliber—a limited run only; available from any Winchester dealer*

Olin Corp./Winchester Group, East Alton, Ill. 62064

In My Experience

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Annealing Bullets

Editor:

I have found that annealing cast bullets by plunging them into water works very well. It is no longer necessary to buy the expensive, and increasingly hard to find, linotype metal to obtain hard bullets. I just cast wheelweight metal into bullets and drop them from the mold directly into water. The result is a bullet which tests about 20 on the Brinell hardness scale, about the same as linotype.

A bothersome set of problems showed up: the bullets would plunge through the water and strike other bullets on the bucket-bottom with goodly force. This produced dents and a high rejection rate. Just as bad was the amount of water splashed up. The larger bullets, such as the .45 rifle bullets, were particularly bad for this.

If I held the mold close to the water in order to minimize the splash, I got water into the hot mold, a most hazardous situation! For the uninitiated, if molten lead is poured into a wet mold, a steam explosion is sure to occur, splattering molten lead over a wide area.

During a recent casting session, I discovered by sheer luck (as opposed to logic) a method which caused no splash or denting from drop-annealing.

I had placed the sponge on the water in order to soak it. One can cool an overly hot cutoff plate by pressing it against a wet sponge just prior to cutting off the sprue.

By accident, I dropped a bullet directly

Where Can I Get?

The NRA offers the following information in response to multiple inquiries by members, but has not tested and does not necessarily recommend the products mentioned. Items marked with an asterisk (*) are available only through a federally licensed dealer. It is suggested that all inquiries to companies listed be accompanied by a stamped, self-addressed envelope.

Source information on other products is available from Mark Ness c/o The National Rifle Ass'n., 1600 R.I. Ave. N.W., Washington, D.C. 20036. In this case please include a legal size stamped, self-addressed envelope.

Clip-on shell deflector for Ruger Mark I and II pistols

Robert D. Rainey Enterprises, P.O. Box 676, Aromas, Calif. 95004

Kit for applying microdot identification to firearms and other possessions

I-Dot, Inc., P.O. Box 6738, Lake Charles, La. 70605

Parts for Harrington & Richardson firearms

Gun Parts Corp., West Hurley, N.Y. 12491