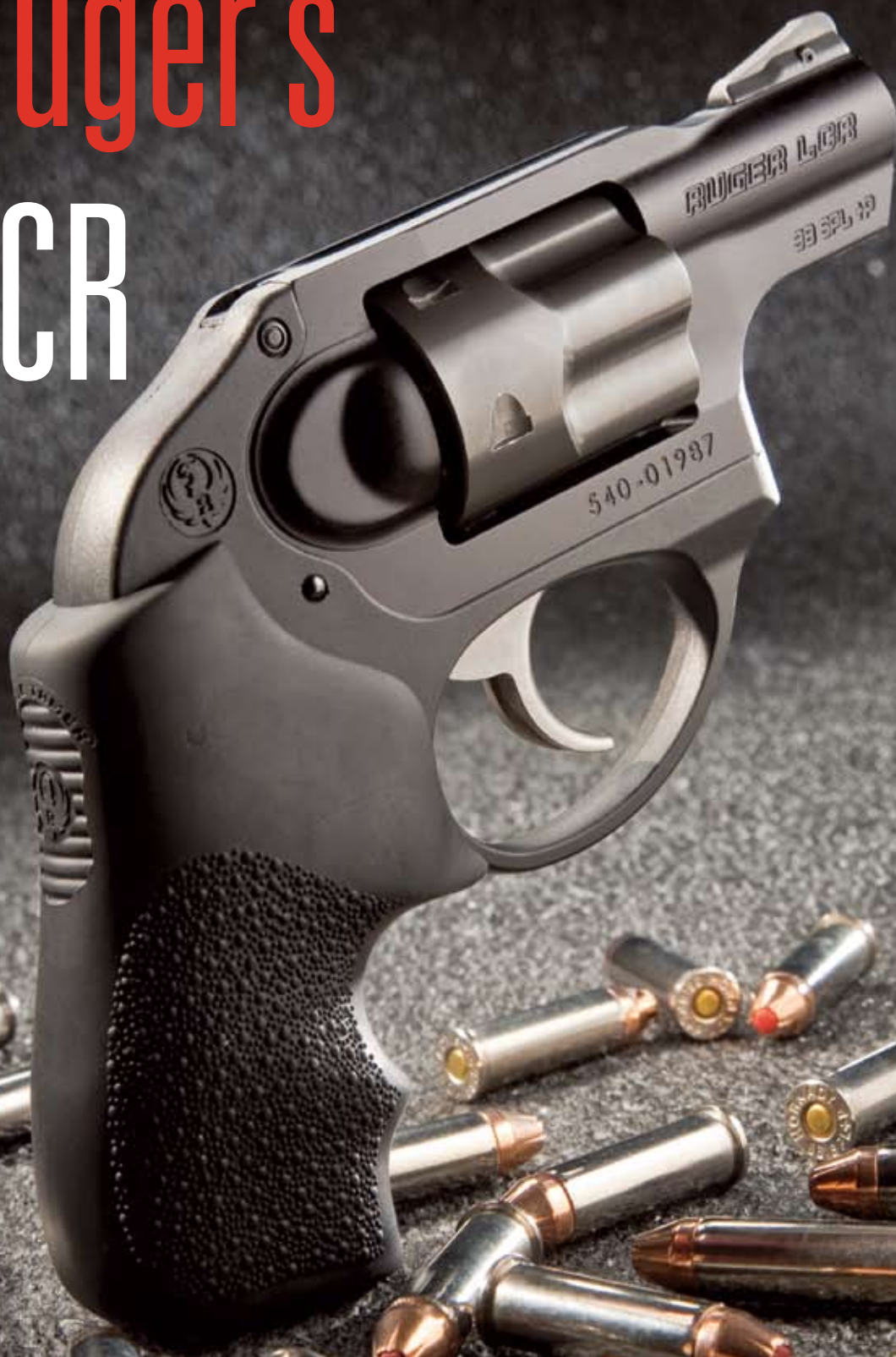


FEATURE **RUGER LCR**

Ruger's LCR



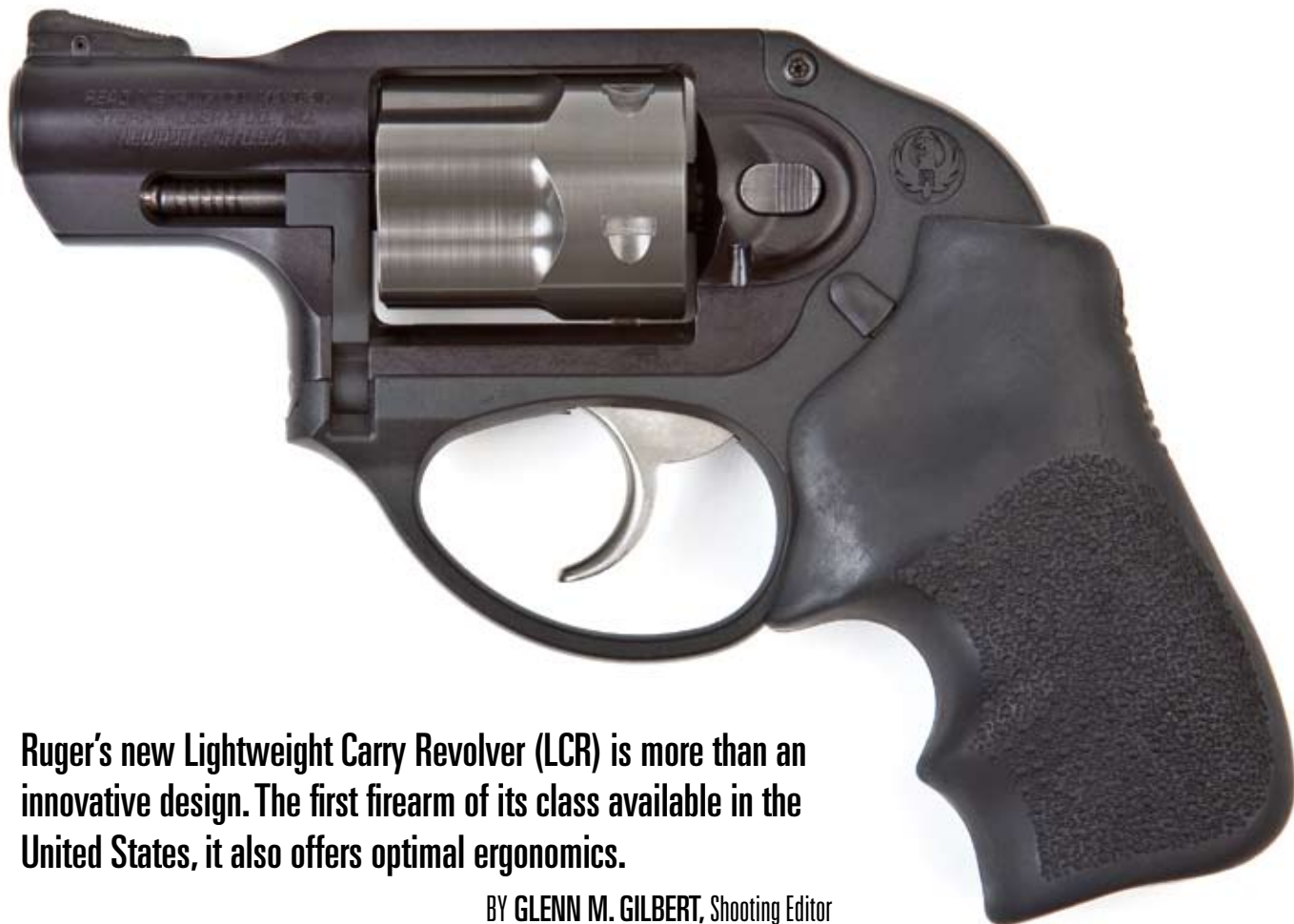
Ruger has dubbed its latest revolver the LCR, for Lightweight Carry Revolver—a name that is certainly appropriate, as it possesses all the features one would want in a snub-nose wheelgun. It has a short, 1 $\frac{7}{8}$ " barrel, and a slim, five-shot cylinder rated for .38 Spl. + P. Its hammer is shrouded by the frame, so it cannot be deliberately or accidentally thumb-cocked. In sum, the LCR has what it is supposed to have and does what it is supposed to do; and on that basis alone, it is certainly worthy of note.

Although the LCR is similar in size and weight to a Smith & Wesson Airweight J-frame and compatible with many of the same holsters, it is not a clone. The LCR's construction, like its two-piece frame without sideplates, is a mixture of proven features associated

with Ruger revolvers and fresh innovation. Foremost among the latter is its polymer grip frame, or as Ruger calls it, the fire-control housing, which contains the trigger, hammer, sear and mainspring. It may not be the first revolver with a major component built from polymer, but it is the first available for commercial sale in the United States. Having closely examined the LCR in detail and shot it extensively, I am comfortable saying that it is not just a curiosity. The LCR is a mechanically sound, good-shooting wheelgun well-suited for discreet carry.

Described in detail, the Ruger LCR consists of three major component groups: an aluminum cylinder frame/barrel assembly; the polymer fire-control housing; and the stainless steel cylinder/crane assembly. Forged from 7000-series aircraft-grade aluminum, Ruger

Innovation With A Purpose



Ruger's new Lightweight Carry Revolver (LCR) is more than an innovative design. The first firearm of its class available in the United States, it also offers optimal ergonomics.

BY GLENN M. GILBERT, Shooting Editor

describes the cylinder frame/barrel assembly as monolithic, in that the barrel sleeve is an integral part of the frame, rather than a separate piece. Hardened steel bushings reinforce the area around the center pin and firing pin. The aluminum frame supports the cylinder and crane and provides the housing for the front cylinder latch, firing pin and cylinder release. The 1 $\frac{7}{8}$ "-long, 1714 stainless steel barrel is threaded into the barrel sleeve. The cylinder gap is determined by the barrel's thread-in-depth seating, so only one pass with a file is needed as a final check for fit. The stepped contour of the recoil shield is a stylistic carryover from other Ruger revolvers. Given its purpose as a carry arm, Ruger paid particular attention to the finish of the LCR. Accordingly, hard anodizing is fused with a baked-on polymer surface filler to produce the black finish on the cylinder frame. Ruger claims this process creates a rugged finish with a C60 Rockwell hardness comparable to the durability of a metal file. Ruger tested the finish against saltwater exposure and the unique corrosive effects of body sweat.

The aluminum frame supports a 400-series stainless steel cylinder deeply fluted to minimize weight and reduce its tendency to print. The cylinder measures

just 1.280" in diameter, making it the smallest .38-cal. revolver cylinder on the market. Ruger's chief engineer for revolvers, Joseph Zajk, told me, "Ruger prides itself on its metallurgy. Impurities in the steel have been thoroughly removed, so we can be sure that this minimum-dimension cylinder will withstand the stress of +P loads." The LCR's cylinder is retained by a spring-loaded front cylinder latch pin in the barrel shroud that mates with the front of the ejector rod. Depressing the tail of the cylinder release button, located on the left-hand side of the frame, allows the cylinder and crane to swing out to the left for loading and unloading. Despite Ruger's expertise in investment casting, the cylinder crane is the only major component of the LCR made through that process.

Zajk was concerned that the weight of steel center and latch pins could transmit sufficient recoil energy to temporarily unlock the cylinder assembly under the load of recoil at the moment of firing. The solution was to make the center pin and front latch pin of titanium. Lightweight, yet resilient, titanium pins transmit less recoil energy through the cylinder. High-speed (15,000 frames per second) photography confirmed that the LCR's cylinder stays securely locked at the moment of firing. Ruger's tight control of production tolerances ensures that the cylinder is drop-in fit for any frame, so fitting is file-free, but the cylinder does get one pass on a grinder. Additionally, once the ratchet is cut, computer measuring matches it with the

The LCR's trigger can be locked with a key supplied with the gun. This system has been used on the single-action New Vaquero since 2004.



SHOOTING RESULTS (25 YDS.)

.38 SPL. CARTRIDGE	VEL. @ 15' (F.P.S.)	ENERGY (FT.-LBS.)	GROUP SIZE IN INCHES		
			SMALLEST	LARGEST	AVERAGE
BLACK HILLS 125-GR. JHP+P	916 Avg. 19 Sd	233	2.72	3.96	3.48
FEDERAL NO. AE38K 130-GR. FMJ	763 Avg. 18 Sd	168	2.38	4.39	3.86
HORNADY NO. 90310 FTX 110-GR. JHP	903 Avg. 12 Sd	199	2.86	4.12	3.77

AVERAGE EXTREME SPREAD

3.70

MEASURED AVERAGE VELOCITY OF 10 ROUNDS FROM A 1 $\frac{7}{8}$ " BARREL MEASURED WITH AN OEHLER 43 CHRONOGRAPH. RANGE TEMPERATURE 62° F. HUMIDITY: 56%. ACCURACY FOR FIVE CONSECUTIVE, FIVE-SHOT GROUPS AT 25 YDS. FROM A CALDWELL HAMMR REST. ABBREVIATIONS: FTX (FLEX TIP EXPANDING), JHP (JACKETED HOLLOW-POINT), FMJ (FULL METAL JACKET), Sd (STANDARD DEVIATION).

RUGER LCR REVOLVER

MANUFACTURER: STURM, RUGER & CO., INC. (DEPT. AR), 411 SUNAPEE ST., NEWPORT, NH 03773;
(603) 865-2442; WWW.RUGER.COM

CALIBER: .38 SPL. +P

ACTION TYPE: DOUBLE-ACTION, CENTER-FIRE REVOLVER

FRAME: 7000-SERIES ALUMINUM ALLOY (400-SERIES STAINLESS STEEL CYLINDER, LONG-STRAND GLASS-FILLED POLYMER FIRE-CONTROL HOUSING)

BARREL: 1 $\frac{7}{8}$ " STAINLESS STEEL

RIFLING: SIX-GROOVE, 1:16" RH TWIST

CYLINDER CAPACITY: FIVE

SIGHTS: PINNED FRONT RAMP; FIXED SQUARE-NOTCH REAR INTEGRAL WITH FRAME

TRIGGER PULL: DOUBLE-ACTION; 10 LBS., 2 OZS.

OVERALL LENGTH: 6 $\frac{1}{2}$ "

WIDTH: 1 $\frac{5}{16}$ "

HEIGHT: 4 $\frac{1}{2}$ "

WEIGHT: 13.5 OZS.

ACCESSORIES: SOFT CASE, CABLE LOCK, USER'S MANUAL

SUGGESTED RETAIL PRICE: \$525

proper size pawl for correct timing. As a result, the LCR is not fitted during assembly, instead selective parts are chosen for best functioning.

The LCR's polymer lower frame assembly, or as Ruger calls it, the fire control housing, is what makes it a real breakthrough in revolver development. Similar two-piece frame construction without a sideplate was pioneered on Ruger's other double-action revolvers beginning with the Security Six, which used a steel modular trigger housing. The LCR's fire-control housing is molded from long-strand, glass-filled nylon polymer. Another significant difference is that the hammer of the Security Six was housed in the cylinder frame, whereas the LCR's polymer fire-control housing contains almost everything, including the trigger, the hammer and its transfer bar, the cylinder bolt and the coil mainspring.

Ruger describes the joint between the LCR's cylinder frame and fire control housing as a trapped V-block. The sides of the fire-control housing wrap around the aluminum cylinder frame. The rearward direction of the recoil energy reinforces rather than undermines this joint. A Torx-head machine screw parallel to the bore runs through the cylinder frame and the cylinder crane. It threads into a titanium bushing in the fire-control housing, thus creating a common anchor for all three assemblies. Zajk added a second, smaller Torx screw at the top joint between the cylinder frame and the fire-control housing.

Ruger has shot the LCR extensively without this second screw and without any ill effects, so it may be unnecessary. But when crossing into unknown territory,



All of the LCR's fire-control components, including the trigger, hammer, transfer bar, mainspring and cylinder bolt, are contained within its polymer lower frame assembly.

like building a revolver with polymer components, it is hard to argue with this kind of “belt and suspenders” thinking. I had the opportunity to shoot an LCR that was tested for endurance. More than 10,000 rounds of .38 Spl. + P had been fired through the gun. It didn’t look or handle like a gun that had been torture tested or worn out. Everything worked, it shot straight, and it still locked up tight.

Zajk made optimal ergonomics a priority in the LCR’s design. His goal was to create a revolver that is as comfortable to shoot as it is to carry. Accordingly, he paid particular attention to addressing two nagging problems common to carry revolvers, namely stiff trigger pulls and harsh recoil.

Mastering a double-action trigger pull can be challenging, even for experienced shooters, and since compact revolvers generally have worse trigger pulls than their full-size counterparts, they can make this task even more difficult. Simple mechanics dictate that smaller frames shrink the space available for hammer and sear movement. Shorter travel distances and steeper arcs of movement imposed on the components of the trigger mechanism tend to create heavier trigger pulls with a steep buildup of resistance and a sharp let-off.

To address this issue, Zajk designed corresponding cammed-engagement surfaces for the LCR’s hammer dog and sear that produce less friction compared with the flat surfaces commonly used in double-action triggers. The rolling contours of the hammer dog and sear generate smoother trigger travel that slowly and steadily increases in pull weight before letting off and allowing the hammer to fall. The LCR has a lockable fire-control system on the seat of the mainspring like the one used on the New Vaquero single-actions. To activate it, the grip must first be removed by turning out its recessed, slotted retaining screw.

Ruger’s LCR has two features that mitigate perceived recoil. First is the natural elasticity of its



Ruger engineers worked with Crimson Trace during the design phase so the revolver’s frame can accommodate the firm’s Lasergrips. The LCR can be had from Ruger with Lasergrips installed or they may be added later.

polymer fire-control housing. Polymer may lack the aesthetic appeal of aluminum and steel, but one cannot deny its ability to dampen perceived recoil. The second is the design and construction of its one-piece rubber grip. It completely surrounds the grip extension so the backstrap has no direct contact with the firing hand. The Hogue Tamer insert, which is standard on the LCR, acts like a shock absorber. In total, these qualities result in a carry gun that is very comfortable to shoot. Make no mistake: Inexperienced shooters will doubtless consider its recoil stout. It is not an all-day plinker, but I think those committed to concealed carry will find it taxes their endurance on the firing line far less than any comparable compact steel or aluminum snub-nose revolver.

The LCR’s sights are fixed. They include a U-notch cut into the topstrap and a ramp pinned to the top of the barrel. The sight radius measures 3.75". For testing I chose three self-defense loads from Federal, Hornady and Black Hills. The latter two were .38 Spl. + P loads. The shooting results table on p. 70 shows that its accuracy compares favorably with other compact revolvers of this type. There were no malfunctions, but the smooth, curved trigger blade of the LCR did not like to be preset. In order for the hammer to consistently reset, the trigger had to be allowed to fully return to its resting position. Other than that, the trigger was well-behaved—certainly the best I’ve tried in a compact carry revolver. Despite the long double-action pull, it exhibited no take-up, stacking or creep, and its over-travel was almost imperceptible.

I found the LCR to be compatible with a number of carry holsters from Blackhawk and Uncle Mike’s. In addition, HKS’ 36-A speedloader fed the LCR’s five-shot cylinder without any hiccups.

It has to be said that a polymer revolver is a development that immediately inspires curiosity, but also disbelief, especially given the troubled early history of aluminum-frame guns. But if the proof of the pudding is in the tasting, shooting the LCR shows that Ruger has done its homework. The LCR is not polymer for polymer’s sake or an attempt to show that it can be done, rather, the material enhances the LCR’s shooting qualities.

Now *that* is a revolutionary development in firearms. ★



The LCR’s barrel shroud is an integral part of its aluminum frame. A Torx-head machine screw unites the cylinder frame, fire-control housing and crane.