

Lithgow Arms

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Engineered for Accuracy



Article by Editor
Photos by Editor and
Lithgow Arms

Turning not only a new page in rifle manufacturing within Australia, but also in its own manufacturing history, Lithgow Arms have expanded production to now include their first commercially available bolt action centrefire sporting rifle.

Selecting to chamber the first of the new Crossover centrefire rifles in the very popular .308 Winchester, where the tolerance of refinement is measured in no less than microns, with all the steps of machining the solid round bar receiver blanks performed on new 5 axis multi head CNC lathes, producing not only a flawless finish, but also delivering a standard easily comparable with several reputable German made rifles.

Manning these machines is a highly skilled workforce of Australian trades people, together with a pool of 10 apprentices, that live and breathe the fine art of tool making.

Within the heart of the machine shop is the only cold rifle barrel forge located in Australia. Fitted to the non drive-end of the forge is the mandrel / arbor - handmade in house by one of Lithgow's toolmakers over a two week period, with a working life of between 900-1,000 barrels.

Fitting the profiled and pre-drilled barrel with the chuck / hammer shoes (also made on site) the mandrel / arbor is inserted into the chamber end of the barrel. Cycling at approximately 1,000 blows per minute the barrel is swaged under extreme pressure taking internal shape of the mandrel / arbor to produce a uniform chamber, that is perfectly centre to the bore. During the process of forging, the barrel is slightly rotated producing a distinct spiral finish to the outer surface of the barrel. Manufacturing barrels using this process is certainly a lot slower than drawing a button die internally down the bore of the barrel and then cutting a chamber with reamers, the benefits of producing a barrel using the cold forge method is the finished barrel is stress relieved with extremely constant bore diameter.

Each barrel is then painstaking checked with a bore scope, together with a final check after polishing done by a very select few and the ultimate optical instrument "the human eye".

Capable of measuring a total of 114 internal & external dimensional points on the new centrefire







Crossover, Chambered in .308 Win - Walnut Stock, Cerakote Finish



Crossover, Chambered in .308 Win - Synthetic Stock, Cerakote Finish



Crossover, Chambered in .308 Win - Laminated Timber, Cerakote Finish







action, quality control falls between zero and plus or minus three microns. Located up on the second floor in a purpose built insulated temperature controlled room, that is set up for the task of providing both quality assurance together with early detection of any potential problems. This area is fitted with solid granite tables, that are designed to provide an extremely constant datum point for the computer controlled Zeiss measuring system to place the pointed shaped ruby tip for an exact reading. “A hell of a lot of trouble to build a hunting rifle you might say” and I would have to agree. To shine a little more light on why the good people at Lithgow Arms go to so much trouble, delivering a rifle built to such fine tolerances, well it is fairly straightforward, commercially available rifles are manufactured on the same machines and are subjected to meet the same standards that apply to military firearms. It would not make any sense what so ever to produce anything less. That is great news for the Australian hunter & target shooter.

Located a few hundred metres to the south of the manufacturing complex is the company’s 900 yard rifle range and testing facilities. Shooting from a distance of 100 yards with Richard and Mick, I had the opportunity to shoot both the new .308 Winchester Crossover and the Crossover chambered 22 Long Rifle. Accuracy from the Crossover Rimfire was consistent with several more expensive target grade .22LR that I have previously used. Locking up on three massive rear-locking lugs, the tolerance in regards to thrust when the bolt is cammed closed on the Crossover with a round in the chamber is zero, “*perfect*”.

The accuracy achieved with the new centrefire Crossover when range shooting in the middle of the day with factory 165grain .308Win Australian Outback ammunition was very consistant, with little in the way of noticeable movement in relation to the barreled action and stock . The tolerance between the bolt and the action raceway provides smooth trouble free chambering; noticeable is the lack of tooling marks to both the internal and external finish of the action. Extraction is via the large extraction port located on the right hand side of the action.

Moving back to 600 yards with balloons for a target, the factory set four pound trigger was appreciated, the wind on the other hand was more than a challenge for myself, but in the hands of Richard, the rifle performed exceptionally well,



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again shooting factory 165gr Australian Outback ammunition.

After spending the day at Australia's only commercial rifle manufacturing facility, it is apparent to myself, that not only is the new Lithgow built Rifle using the very best materials and the latest technology, it is a lot more than just another rifle, it is in my opinion what the iconic Lithgow name standards for, heritage, pride in manufacture and quality.

Expected delivery for distribution from Outdoor Sporting Agencies in May 2016, the new Lithgow is on course to generate a lot of interest with both the Australian hunting and target shooting communities.

Thank you to Julian, Bruce, Stephen, Richard, Mick, and all the staff of Lithgow Small Arms



Specifications

Safety type: Three position, bolt shroud mounted. Trigger disconnect and firing pin blocking.

Overall Weight: 3.5kg (polymer); 3.7kg (timber)

Barrel length: 560mm

Barrel profile: Medium Varmint

Barrel material: Proprietary, military grade steel. Coated in Cerakote

Barrel type: Cold hammer forged, medium varmint weight

Crown type: Target

Threaded muzzle with cap standard: Yes

Twist rate: 1:12

Free bore: Yes

Magazine type: Detachable

Magazine capacity: 3 round

Maximum internal magazine length:
Approximately 74mm

Magazine material: Composite polymer

Interchangeable magazine: No

Receiver: One piece with Integral Recoil Lug

Receiver type: Bolt action

Receiver material: High tensile steel

Number of bolt lugs: 3

Extractor type: Claw

Large extraction port: Yes

Integral 10 MOA Piccatinny rail standard:
Yes

Adjustable trigger: Single stage, 0.75kg - 1.9kg

Available Stock types: Walnut, Timber Laminated & Polymer.

Length of pull: 338-358mm (Polymer); 348mm (Timber)

Sling studs standard: Yes

Available in Right & Left handed: Right hand only

Country of Origin: Made in Australia

