

Air apparent - Walther's LP400

by Jack Crawford



The LP400 trigger system is infinitely adjustable for all the usual things, as well as the position and angle of the trigger.

Benchrest shooters can spend small (and sometimes medium-sized) fortunes on their equipment and components in the pursuit of the elusive one-hole group. Admittedly, the range is only 10m, but when taking a new Walther LP400 Carbon air pistol that had arrived for testing out of its box, the first thing that caught my eye was the five-shot test group that came with the pistol - it was *one* .177 pellet sized hole! The accuracy that is being extracted from the current generation of match air pistols is nothing short of astonishing and it reflects the effort that has gone into match airguns since they were first introduced into international competition in the late 1960s.

Air pistol shooting as a competitive sport was introduced in Australia around 1970 and over the past 40 years, it has become one of the most popular of the shooting events, particularly in Europe and the United Kingdom, where firearms laws minimise restrictions on the ownership of airguns compared to cartridge firearms. As a result, European air pistols (and air rifles) have undergone a long period of progressive refinement, from the early days of spring and piston match pistols such as the Feinwerkbau

Carbon



The Walther LP400 Carbon is designed to be lighter than the standard aluminium-shrouded LP400s. Accuracy is not compromised by the lighter barrel.

Model 65 to the carbon-dioxide-powered pistols to the current crop of high-pressure compressed air match pistols.

The complex and wonderfully engineered Feinwerkbau spring and piston system was superseded by carbon dioxide power to minimise recoil, reduce loading effort and simplify manufacture. The move from carbon-dioxide to compressed air is again a move to improve performance and get around the variations inherent in carbon dioxide propulsion - namely the variations in gas pressure with temperature and the greater mass of the carbon-dioxide compared to compressed air that makes a slight but significant contribution to recoil.

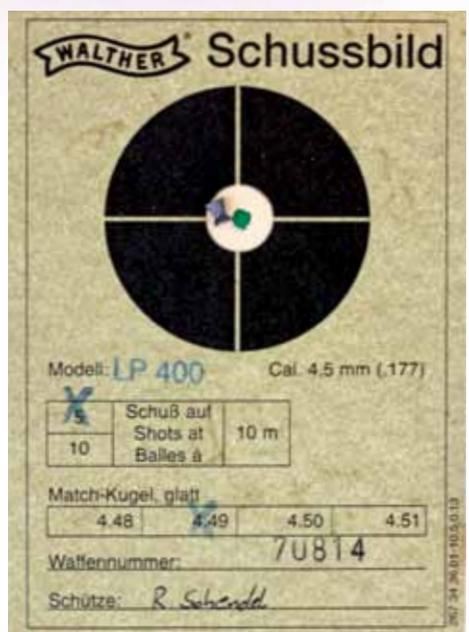
If all target pistol shooters put some range time in with a match air pistol, their mastering of the art of target pistol shooting would come a lot more quickly than if they started out blazing away with a .38 Super self-loader at targets the size of dinner plates.

Not a carbon copy

The Walther LP400 Carbon is one of the company's 'Ready for London' (Olympic Games, that is) models that have been recently introduced.

The model complements the LP300 series of already high-tech match air pistols produced by Walther. The most obvious feature of the new pistol is the barrel. Instead of the conventional steel tube or aluminium housing, the test pistol was fitted with the 'carbon' option - a carbon-fibre barrel jacket that encases a steel inner tube. The barrel jacket would do justice as a piece of jewellery with what appears to be a spiral of stainless steel wire wound around the barrel encased in a clear polymer sleeve!

The use of carbon fibre in Walther firearms is not new, so the company has had some experience in that area and I surmise that the use of carbon-fibre sleeves in its airguns' barrels is a way of reducing upfront and overall weight, while using a material that has acknowledged vibration damping characteristics. Walther still uses standard (aluminium shrouded) barrels in its standard LP400s and they are identical in every other respect to the Carbon models. The big difference, however, is in their weight; the LP400 Carbon weighs 870g, while the standard model weighs 950g, with all the additional weight being in the front end of the pistol.



The test group supplied with the LP400 is the same size as a 4.5mm pellet, which is a zero group at 10m.



The rear-sight is fully adjustable for everything, including the width and depth of the rear-sight notch.

The ISSF Air Pistol match is a gruelling one, requiring 60 scoring shots plus sighters to be fired in the Open section of the match. The 10-ring is only 10mm in diameter, so it is time-consuming to execute that many precision shots where the shooting arm needs to be held up for an average of 10 seconds per shot. On the other hand, if the pistol is too light, it is likely to be less stable and more easily affected by small movements associated with the shooter's physiology and the functioning of the pistol's mechanism. The Walther LP400 Carbon has addressed these issues in its design of the LP400's dynamics and operation. The Vario trigger system, for example, is ball bearing mounted and attached as close to the barrel axis as possible, so that torque on the pistol that exerts downward pressure at the muzzle is minimised when pressure is applied to the trigger. The trigger is naturally fully adjustable

for distance, angle, release weight, take-up and backlash.

The LP400 Carbon has an aluminium muzzle sleeve that carries the front-sight and muzzle brake arrangement. Dovetail grooves down each side of the sight accommodate two sliding barrel weights. While these weights only weigh 14g each, their location right at the front of the barrel increases their effectiveness without significantly increasing the weight of the pistol.

The test pistol came with a set of large adjustable orthopaedic right-hand grips, but they proved a little large for my average-sized hand. There are six grip sizes available for right-handers and three sizes for left-handers. The grip frame on the LP400 Carbon has been designed to accommodate smaller than average grips if required for young or female shooters. There is also an LP400 Compact Carbon model, which is shorter (375mm versus

410mm) and lighter (850g versus 870g) than the standard Carbon.

The grips can be adjusted for rake and cant, as well as having an adjustable palm rest. Walther uses a system called Memory-Effect with these grips, which allows the grips to be removed from the gun for cleaning or adjustment without losing their original setting.

The LP400 Carbon's sights are adjustable for the usual windage and elevation, but the pistol also has a rear-sight notch adjustment for both width and depth. These latter features are important on airguns that are usually shot indoors under artificial light, as the ability to tune the sights to the lighting conditions is critical in competition.

The rear-sight assembly is quite large and this allows all the adjustments and their direction to be clearly marked on the sight housing. The front-sight is triangular and can be rotated to each of its three sides to vary the width of the front-sight. >

Power up!

Power comes from a pre-compressed air cylinder, which screws into the front of the receiver. It has its own pressure gauge built into the front of the cylinder with the pressure zones marked in red and green.

The LP400 is specified to operate at a maximum pressure of 200 bar (2800psi) and with a fully charged cylinder, this is usually good for at least two full matches. The metering system on these match-grade air pistols ensures that velocity is consistent as the pressure drops in the cylinder.

A filter has been incorporated into the air supply's pressure reducer on the LP400 to keep any fouling out of the valving system, and a magnetic impulse (from the pellet) energy absorber called the Equaliser Magnetic Absorber System is incorporated into the mechanism that is pressure independent.

Loading

The LP400 Carbon has a large double-sided loading lever that is lifted 90 degrees to open the 'bolt' and expose the loading ramp, as well as set the trigger system. This makes loading easy, as the loading ramp area has cut-outs on either side that



The LP400 Carbon has a pressure gauge in the cylinder and is designed to operate at pressures up to 200 bar (2800psi). The triangular front-sight can be rotated to change its width.



The cocking lever is ambidextrous. Walther has a dry-firing facility via the button in the frame above the trigger.

allow a pellet to be dropped in the ramp without the fingers fouling the frame. Another internal development on the air pistol is a low-impulse striker valve, which is again designed to minimise any motion of the pistol on discharge.

Testing

With all these features, how does it shoot? Going by the test target, accuracy is not an issue. Velocity is another important feature of airguns. Early match air pistols operated at velocities around 300fps, but with gas and compressed air-powered guns, velocities have increased for the simple reason that the quicker the pellet can get out of the barrel, the more likely it is to arrive at where the shooter wants it to go.

I tested the LP400 Carbon over an Oehler chronograph with RWS, H&N and Gamo match pellets. Pellet weight has a significant effect on velocity in airguns, as it is the only variable, so lighter pellets will always be launched faster than heavier pellets. When shooting indoors, wind effects are not an issue, but may be if the air pistol range is outdoors, where the heavier pellets may have a slight advantage. The RWS pellets weighed 8.5 grains, which is fairly heavy for a .177 pellet. The H&Ns weighed 7.5 grains and the Gamos weighed 7.4 grains.

The first batch of chronograph tests were done with the cylinder pressure on about 130

bar or halfway into the green zone. After they were done, I pumped the cylinder up to its full 200 bar capacity with my Axor pump and reshoot the sequence. I found no significant difference in velocity with any of the pellets with the full pressure cylinder. The RWS pellets averaged 495fps, the H&Ns averaged 520fps and the Gamos averaged 522fps. As is the case with match airguns, there was very little shot-to-shot variation with each type of pellet; it was typically less than 5fps.

The LP400 Carbon was handed over to a number of club members including a couple of ladies to get their impressions and I also shot a full 60-shot match with it. As stated previously, I prefer a front-heavy set-up and found that the LP400 Carbon handled better for me with both barrel weights fitted. The male shooters generally had the same opinion, while the ladies loved the lighter feel of the LP400 Carbon.

Sight adjustment is via hex head screws embedded in the rear-sight body and a hex head screwdriver is supplied to make these adjustments. The directions are clearly marked and the adjustments are accompanied by audible 'clicks'. The trigger position required adjustment for me and this is also done using another hex shaft screwdriver to unlock the two small socket head grub screws that lock the trigger in place on its shaft.



The LP400 Alu is the companion pistol to the Carbon model. It is about 70g heavier and has its Lothar Walther match barrel in an aluminium shroud. Apart from the extra weight, the aluminium shroud allows more latitude in positioning the sliding barrel weights.

Specifications

Manufacturer: Walther

Model: LP400 Carbon

Distributor: Frontier Arms

Calibre: .177 (4.5mm)

Barrel Length: 227mm

Overall Length: 410mm

Weight: 870g bare, 898g with barrel weights

Width: 50mm

Height: 135mm

Power: Compressed air to 200 bar

Sights: Fully adjustable rear including notch width and depth; interchangeable and rotating front-sight; three width on each unit

RRP: \$2200

While the large grip did not fit me all that well, I managed to put each 10 shots fired close enough to the 10-ring to score in the 90s on each target. The operation of the LP400 Carbon is effortless, with a minimum of force required to open and cock the loading gate and the cut-outs on either side of the feed ramp to facilitate loading the pellets.

Summary

The Walther LP400 Carbon air pistol comes in a fitted hard plastic case along with its tools,

barrel weights, comprehensive instructions and an adapter to allow connection of the cylinder to a high pressure pump or air cylinder. The quality of finish on both the LP400 Carbon and its accessories is flawless, and the pistol's appearance is further enhanced by the silver spiralled carbon-fibre sleeve that encases the Lothar Walther match barrel.

Between this LP400 Carbon version and its Alu (aluminium sleeved) relation, both of which are available in shorter and lighter variants, as well as all of the grip and sight options, I am

sure there is something in the LP400 range for everyone and at a very affordable price for a pistol of this quality and performance. ■



The LP400 Carbon package includes all required tools, barrel weights and a cylinder adapter.