LIGHT TOUCH

Richard Atkins is impressed by the sophistication behind the new synthetic semi-automatic A400 Lite shotgun from Beretta

Semi-automatic shotguns are like Marmite: some love them and others wouldn't have one. I've had a soft spot for semi-autos since I owned a Breda copy of the famous Browning Auto-5 as a teenager, and I still have a Winchester Super-X1 from 40 years ago. When comparing these against the latest Beretta A400 Lite, it is clear that semi-autos have gone through serious developments over the last 10 years or so.

They used to be made to a price, as a tool for hard use and little attention used on farms and homesteads of America and kept readily to hand in a pick up truck – all that mattered was that it was a rugged, reliable repeater at a budget cost. That resulted in plenty of basic guns – some fine others less so – but probably served to leave UK shooters wary of the breed.

Then in the 1960s came the game-changer: the Remington 1100 gas-operated semi-automatic that took the clay shooting world by storm. Fifty plus years on it has sold millions and is still available. It began a trend that showed what semi-autos could do.

Beretta realised the potential for good semi-auto shotguns and the company has since developed a long line of successful models dating back 40-plus years to the 300 series. Worth noting is that these can still be found in use and for sale today as testament to how a semi-auto can provide years of service. Beretta has constantly evolved their semi-automatic range, with specialist models for almost every type of shooting: this includes Sporting clay models to 3½" magnums for steel loads on the foreshore. The model we have here, the A400 Lite, is an extremely versatile three-shot gas-operated model designed to fulfil a range of tasks that can include clays and foreshore.

ROBUST, VERSATILE AND SOPHISTICATED

The A400 Lite is clearly intended to be robust and versatile, as is indicated by the black synthetic stock and forend, matt black barrel plus black finish to the aluminium receiver and breech bolt. The synthetic stock is impervious to wet and will shrug off knocks while also being adjustable for drop, cast and length and incorporates the latest Beretta recoil reduction technology.

The concept of semi-

The gas port is one you'll find on standard gas operated semi-automatics, and works reliably

BERETTA HAS TAKEN ITS KICK OFF TECHNOLOGY TO A NEW LEVEL WITH THIS STOCK

Study springs and polymer plugs mean the stock reduces recoil dramatically

autos was originally based around simplicity. All parts were relatively easy to make by machine and readily assembled without need of gunsmithing skills, keeping costs low while producing guns that handled surprisingly well. Handling was helped considerably by the single barrel format with raised sighting rib and the classic appearance this produces hasn't changed much. Closer inspection reveals a remarkable amount of Beretta developments and considerable sophistication within almost every component.

The basics are, as for all gas systems, with barrel ports directing some of the gases to propel the wad and shot directed into a cylinder under the barrel. Within that cylinder a piston transfers the gas energy into a rearward impulse that unlocks the breech bolt and drives it back to cycle the action. This A400 has Beretta's latest Blink system, so called for its speed of operation said to be the fastest around. Cyclic speed is frankly less important than versatility and reliable functioning, but Beretta has all bases covered.

Being chambered for 3" cartridges, the A400 is designed to handle cartridges from 28-gram clay and game loads to over 46-gram waterfowl loads. It achieves this using a large diameter, lightweight, stainless steel piston fitted with a piston ring (similar to a car engine). This close fit makes best use of the gas energy and also prevents spent gases fouling the mechanism. Crucially, gases vent from the front of the gas cylinder and pass through spring-loaded gas vents that control the flow.

With light loads the valve only opens slightly but with heavy loads the spring allows more gas to escape. In this way most excess gas pressure to operate the system is vented, preventing undue forces being applied to gas system components, ensuring longer service life and helping minimise felt recoil.

The gas piston and valve assembly is largely self-cleaning, so can function reliably for many hundreds of rounds without need for cleaning.

Motion from the piston is transferred to unlock and power the breech bolt via a sturdy, steel transfer carrier with twin steel rods securely welded to a steel ring at the front and welded directly to the underside of the breech bolt, making for a strong, lightweight arrangement.

Following the later A400 design, the spring that propels the breech bolt forward again back into battery, locking the breech bolt's rotary twin lug head into mating recesses in the barrel hood extension, fits around the outside of the magazine tube. This has the advantage of allowing that spring to be large, hence robust, and centrally positioned for good weight distribution. It also removes the need for a rat's tail extension to the breech bolt, saving weight, cost and complexity while also making it simpler for the stock to be adjustable for cast and drop using shims. A nice extra touch is a strong protective polymer shield that fits over the return spring, which serves the dual purposes of stopping the gas piston's rearward movement in a controlled and cushioned manner (also helping reduce stresses and aiding smooth function) while also keeping the spring and other parts clean.

Another refinement is a breech bolt damper, set into the enlarged head of the stock-fixing bolt, that gently halts the bolt's rearmost motion. This is another energy absorbing feature for smoothness and stress reduction.

The 28" barrel is hammer forged to Beretta's usual high standard inside and out. The bore is 18.6mm, which a modest size of over-bore that worked fine with fibre wad loads ands plastic, something to be wary of with large over-bores (especially when combined

with extended forcing cones and longer chambers). A precision-machined steel, 6mm wide, raised and ventilated rib with a short style red fibre optic front bead is fitted. The muzzle is threaded for Beretta Optima flush chokes, three of which are supplied (Cylinder, Modified and Full).

The trigger mechanism gave a good, light and consistent trigger pull that broke a fraction over 4lb pull weight via its medium width, nicely curved and highly polished chrome finish trigger blade. The trigger unit is housed in a high strength polymer housing with a fairly small trigger guard – it might be a tight fit with larger, gloved fingers but I found it to be fine. This unit is easily dropped out of the receiver for cleaning just by pushing through a single pin and pulling downward.

SPECIAL STOCK FEATURES AND ADJUSTMENTS

This is no ordinary stock. Gas operated guns tend to be smooth shooting anyway but Beretta has taken its Kick Off technology to a new level with this stock. First it has a thick and efficient micro-cell butt pad with a mixture of smooth and textured areas – plus a rounded top edge – for easy, snag-free mounting into the shoulder securely. In addition to this, the stock has the latest Kick Off system centrally located – this is some recoil reduction system. The polymer stock is in two parts, being split just behind the pistol grip, with a V-shaped polymer insert sitting between front and rear parts. The rear section comprises:

1) A pair of sturdy springs around two large pillars on a butt plate positioned at top and bottom. These pillars sit within cylinders in the rear section.

2) Another pair of smaller pillars, which also sit within cylinders, positioned just inward of the larger sprung pillars

3) A pair of polymer compression plugs

Basically, the outer pillars and cylinders permit the butt pad to be compressed under recoil by several millimetres and a smaller diameter inner set have the polymer plugs inside that control and dampen the compression of the springs while all four cylinders help ensure all movement happens in a straight line as the central V polymer is compressed. Similar to a car's dampers, the polymer plugs take the place of oil, so it's not a hydraulic system. Combined with the large central V shaped polymer dividing insert it certainly does reduce felt recoil.

The stock also contains Beretta's new GunPod2. This is a device that can be connected via blue-tooth to suitable smart-phones. Used in conjunction with a free App download this enables things like shot count and miles walked around the shoot to be recorded. It is not something I tried but if gadgets are your thing then this is worth looking at more closely.

The Blink system makes for exceptional cycling speed

HOW IT PERFORMS

Above all, semi-autos must be reliable. Yes, some older semi-autos could be fussy feeders (some still are) but many problems are simply using unsuitable ammunition or lack of proper maintenance. If over-oiled they can gum up and unduly light, or soft ammunition may well not feed – some 3" chambered guns may prefer 70mm cartridges too, not 67 or 65mm. The A400 Lite fired a variety of 70mm 28-gram clay loads without a hitch, some 67mm 24-gram loads failed to cycle but that may improve after a few hundred rounds.

I tested the gun as it came, with just the 55mm drop shim in place. A 10-straight on the first Sporting-pairs stand followed by a nine on the next told me I could leave well alone.

On a mixed layout I was happy with 42ex-50 and better concentration would have upped that.

The gun handles really well. At 6lb 14 oz (3.12kg), it is very easy to bring swiftly and securely to the shoulder. The 28" barrel with a slim raised rib looks longer due the semi-auto's receiver, and points and swings extremely well.

The trigger released smoothly at a weight of 4lb 2oz, which is a real bonus – Beretta knows how good trigger pulls raise the performance of guns and shooters. A decent Sporting score straight from the box says this gun is a good performer, and with the stock shims and an extension piece to lengthen the pull from 14.5 to 15" it is easily adjusted to suit most shooters.

Lighter guns can recoil unpleasantly, but not this one. The new Kick Off system works very well and Beretta claims it reduces felt recoil up to 70 per cent. I can't measure that but multiple people readily acknowledged that it feels really smooth. The stock damping can be detected in operation, a slight forward movement (shuffle effect' being detectable as the springs reset the stock to length but, remarkably, it's so swiftly and softly achieved it doesn't appear to disturb one's aim. Weight for weight I'd say its the softest shooting semi-auto I have fired to date.

Light enough to carry all day, capable of cycling lighter loads – and taming heavier ones – this has to be a top contender as an all-round shotgun. As 'Big' Jim Henderson said after a blast: "That would be absolutely amazing in a pigeon hide." He's not wrong. ■

TECHNICAL SPECIFICATION

Make:	Beretta
Model:	A400 Lite 12 gauge
Type:	Semi-auto (three-shot)
Action:	Gas operated (Blink)
Gauge/chamber:	12g/76mm (steel proof)
Barrel length:	28"
Overall length:	48¾"
Weight:	3.12kg (6lbs 14oz)
Special features:	Kick Off recoil system
SRP:	£1,275
UK distributor:	GMK 01489 587500 www.gmk.co.uk