

Thompson/Center's New Compass is an Affordable All-American Hunter

Thompson Center Arms are proud of their completely American produced firearms and calls itself 'America's Master Gunmaker'.


Thompson/Center (T/C) Arms, established in 1967, have largely avoided the fierce price/quality competition that exists among mainstream firearms manufacturers because they started out by producing innovative and diverse firearms, from break action, high power and highly accurate pistols to modernised muzzle loading rifles. However, in 2010

they released the bolt-action Venture series to compete in the lower priced bolt action segment. Two years later the Venture was followed by the upmarket switch barrel Dimension series, a very different rifle both in design and in appearance. In January this year a new rifle called the Compass has joined the T/C bolt-action line indicating that T/C Arms is fully committed to competing in the mainstream hunting rifle market.

GUNS Australia received a new T/C Compass from Australian distributor Frontier Arms for evaluation, in the evergreen 30-06 Springfield calibre. The Compass is a no frills bolt-action repeating hunting rifle with a synthetic composite charcoal coloured stock whose trigger guard and grip embossing are all part of the stock moulding. It weighs a relatively light 3.2kg without

scope and has an overall length of 106cm. Available in ten of the most common calibres from .204 Ruger to 7mm Remington and .300 Win. Magnums. Standard calibres have 22 inch (560mm) barrels and the two magnums have 24 inch (610mm) barrels.

Shooters familiar with T/C rifles may well say 'so what, we already have the successful and accurate Venture rifles, why the Compass?' According to T/C the Compass is designed to be a 'highly capable bolt action rifle that can match any budget'. In other words, T/C wants a rifle in the lowest price bracket just like most of its competitors have but assures us that the professional grade performance, accuracy, handling and ease of maintenance that the established T/C rifles are known for, will not be compromised. Shooters must realize that in order to produce a



The Compass is claimed to be a 'professional grade rifle', it is robustly built and should handle hard hunting in tough country.



ABOVE: The classic style stock shape of the Compass helps to accommodate the wide variety of shooting positions encountered in hunting. Moulded gripping surfaces are a cost saving in a non-critical area.



ABOVE: The compact rotary magazine holds five rounds. Polymer construction keeps cost, weight, and operating noise down.

wobble as it is withdrawn. A fully enclosed bolt face encircles the cartridge head and offers a high level of safety should a rupture or gas leak occur. Gas is vented from the bolt body via a large hole straight down into the magazine well. The bolt head is a separate unit and has a typical sliding extractor and a plunger ejector to fling cartridges out as they clear the front of the ejection port. A shear-pin holds the bolt head in place and the shear-pin itself is held in place by the firing pin. The bolt is easy to disassemble without tools for cleaning or service by removing the separate bolt handle, which is held in place by the force of the compressed firing pin spring. There are detailed descriptions for rifle and bolt disassembly and assembly in the comprehensive Compass manual.

This type of repeating action push feeds the rounds from the magazine, this is the method used on most modern bolt-action repeaters. The alternative, controlled feed loading, introduced by Mauser in the 1890's, is considered a more positive loading action but does not seal the chamber as well and is therefore not as safe.

There is a three way wing safety mounted on the bolt shroud easily within reach of the thumb. It follows the standard pattern of forward position to fire, middle locks the firing pin only and rear blocks firing pin and bolt operation. The middle position offers the ability to load and unload the chamber with the safety on, this is an important safety feature and it is good to see it on a lower priced rifle. Another likeable feature of the Compass safety is its direct operation. This safety blocks the firing pin, considered to be a better/safer design than the indirect safeties that block or disengage the triggering system. There is over 60° of swing between

each of the three wing positions and because the wing in the middle, safe position, protrudes at 90° to the bolt, the safety status is always indicated very clearly, either by look or by feel. The mechanical execution will need some refining, the operation is stiff and clunky and needs an extra finger to achieve a near silent 'safety off' movement. There are sound reasons why a manufacturer does not want safety catch or trigger operations to be very light, however an owner can have the detent mechanism of the safety smoothed by a gunsmith to a more acceptable yet safe level.

A single stage adjustable trigger is fitted to the Compass, it is the style of trigger that most Australian hunters prefer. Adjustment range is given as 5lb down to 3.5lb (about 2.25 - 1.5kg), which is fine for this rifle which will mainly be sold in larger calibres as a walk about hunting rifle. Trigger pull weight was measured and consistently produced 1.5kg release. Adjustable refers to weight of pull and over travel, and both appeared to be factory set to minimum. The sear engagement of the trigger is fixed but it is obviously precisely machined because the trigger releases without any noticeable movement or creep. On the whole, the Compass has a very good hunting trigger that will keep most users very happy.

The sporter weight barrel of the Compass is a little under the nominated 22 inch length at 55cm and has a one turn in ten inch (25.5cm) twist rate. There is a 5/8" -24 UNEF, (1/2"-28 for smaller than .243 bores) thread on the end of the barrel to accept a muzzle brake should it be required. The muzzle has a shallow recessed crown and gets extra protection from an over-reaching knurled protective cap whose primary purpose is to protect the

thread. There are no barrel sights but the rifle arrives with Weaver bases fitted to the receiver. The main features of the barrel are the button rifling, considered by most to be the best method for cut rifling and the 5R rifling, both features are considered to enhance accuracy. The 5R rifling has five grooves and therefore each land is opposite a groove so the bullet suffers less deformation and thus achieves higher accuracy. Another beneficial feature of 5R rifling is that the grooves have sloping sides resulting in wider bottom corner angles, which makes cleaning easier. A low gloss blued finish protects the Compass barrel and receiver but the blued bolt handle is polished.

Capacity of the compact magazine is a generous five rounds, (four rounds for magnums). It uses steel rotor spindle, springs and a roll pin but the bulk of it is made of polymer. As a result, it is light, its operation is smooth and relatively quiet. Easily removed and replaced with one hand and easy to load and unload. The magazine body is flush with the fore end and the release catch is recessed to reduce the chance of accidental loss and to enable snag free handling and balanced one handed carry. The round at the top is centred and chamber feed is reliable even when fed deliberately slow to minimise noise. This magazine is a good example of the many little things that display hunter friendly design features on this rifle, indicating significant input by practical hunters.

An injection moulded (mainly polymer) composite stock plays an important part in reducing cost without losing the vital performance functions. The moulding has textured grip panels on the pistol grip and fore end, which are effective when gripped firmly, but not comfortable. The rest of the stock surface is finely textured, resulting in a low sheen and has a cheek piece for right-handed



Early 100y groups of 30mm, shot in a cross wind, indicate that they could easily shrink to 25mm on a calmer day with a fully 'run-in' barrel.

shooters. The only soft part on the stock is the very effective recoil pad. Ergonomics of the stock dimensions are good, pistol grip to trigger relationship, 34cm trigger pull and the sufficiently long fore end with a slight beaver tail and cut back tip will fit the vast majority of shooters well. In order for T/C Arms to achieve their MoA accuracy guarantee, a strong and stable stock and good bedding are vital. The Compass stock is made of a very tough material with webbing used to reduce weight but retain stiffness. Aluminium bedding pillars are moulded into the stock to ensure consistent bedding and a free floated barrel. Bedding pillars also avoid the need for a costly bottom metal and metal trigger guard design. Recoil is managed by a steel lug glued into and protruding from the stock to engage in a slot cut into the bottom of the receiver as the rifle is assembled. Two sling swivel studs and a Compass logo on the pistol grip cap complete the stock.

For the practical evaluation of the Compass, three readily available brands of factory ammunition, Federal Premium with 150gr Nosler Ballistic Tip projectiles, Sellier & Bellot with 180gn round nose projectiles and 150gn Remington Core-Lokt were selected. In addition, some left over RWS 181gn H-mantle copper hollow point bullet loads were used just because they were available. These are typical hunting ammunition, although for most Australian game, the flatter trajectory and better expansion of the 150gn projectiles are of more value than the extra weight and penetration of the 180gn projec-

SPECS

COMPASS

Manufacturer:

Thompson Center Arms (US)

Calibre: 30-06 Springfield

Length: 106cm

Weight: 3.2kg

Action: Bolt repeater

Magazine: Rotary, 5 rounds

Barrel length: 55cm (22")

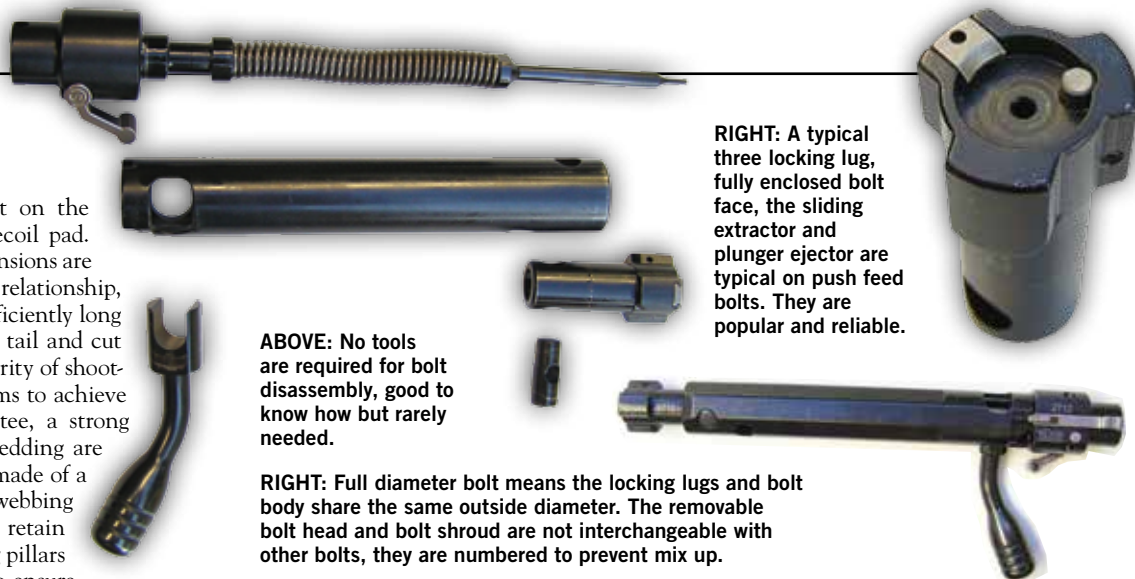
Rifling twist: 1:10"

Rifling: 5R (5 groove)

Stock: Synthetic composite

Trigger: Single stage, adjustable

Price RRP: \$745



ABOVE: No tools are required for bolt disassembly, good to know how but rarely needed.

RIGHT: Full diameter bolt means the locking lugs and bolt body share the same outside diameter. The removable bolt head and bolt shroud are not interchangeable with other bolts, they are numbered to prevent mix up.

RIGHT: A typical three locking lug, fully enclosed bolt face, the sliding extractor and plunger ejector are typical on push feed bolts. They are popular and reliable.

tiles. The Compass showed itself to be very competent and flexible in terms of accuracy. Regardless of which of the above four ammunition was fed into it, the Compass produced three shot groups averaging around 33mm (1¼") without exceeding 38mm (1½") at 100 yards. To shoot under 1½" groups with all four available ammunition shows unusual flexibility. At this stage, the barrel was not run-in and it was a breezy day. This is good accuracy, more than enough for a .30 calibre hunting rifle because the group size is easily within the humane kill zone of a deer, pig or goat to 300 yards and even beyond. Precision shooting to check for MoA (minute of angle) accuracy did not eventuate due to two weeks of consecutive windy range days and limited time with the rifle. However the early wind affected groups shot with the Sellier & Bellot and RWS indicate that either of these would shoot inside MoA on a calm day.

Reliability of mechanical operation was faultless during the review, the Compass felt strong and robust as the rifle did everything asked of it. Magazine feed and the chambering worked smoothly during slow or fast bolt operation. Same for extraction and ejection, with ejected shell landing about a metre from the shooter, a sign of a correct ejector plunger-spring, a small issue but something that will be appreciated by the majority of hunters who want to pick up their brass. Three locking lug bolts have a 60° bolt lift, which is said to result in a faster reload and not foul the scope, but it can also feel heavy if the bolt handle is too short, the Compass handle has sufficient length to give an easy to manage bolt lift. The loading and reloading operations were relatively quiet thanks to the polymer construction of the magazine, a noteworthy point on a hunting rifle.

Handling of the Compass has some real plusses. Size weight and proportions were very good and the effective recoil pad made it a pleasure to use. The 60° bolt lift allowed a full grip on the bolt handle without fouling the scope when reloading. If there is a weakness in the handling, it is the relatively low friction between the hands and the all-poly-

mer stock. Shooters used to a rubberised synthetic stock or one with rubber inserts will be likely to notice it. No, the rifle is not likely to fall out of anybody's hands, it just has to be held more firmly than one with a tacky surface. It is probably a complement to the manufacturer that the lack of tackiness of the polymer stock is the only real gripe on this relatively low priced rifle.

Cost cutting or producing a lower cost rifle can be achieved by many ways, methods like the use of lower cost materials, cutting corners on manufacturing processes, omitting features will reduce quality as well as price. Innovative design and the associated manufacturing processes can result in lower costs with retained basic quality and features. In general, the more a manufacturer relies on innovation rather than cutting corners, the more likelihood that their rifle will offer the best value for money. T/C Arms seem to found a good formula, because the Compass in not missing any important hunting features and the performance and reliability are all there. The T/C Compass is a fully-fledged hunting rifle that leaves the hunter no rifle associated excuses for failure. Very good accuracy and handling complemented by a reliable five shot repeating action and good trigger cover the basics. The firmer grip needed on the good handling stock and the stiff operation of the otherwise very good safety, take little away from a very effective hunting rifle. The Compass is a good value for money rifle considering its performance and full list of features. It should be mentioned that the author's regular hunting rifle for the past three and a half years has been a T/C Venture. Hopefully without bias, it can be said that the Compass imparted the same sense of confidence as the Venture has built up over time. Prospective Australian buyers of sub &1000 hunting rifles should take a serious look at the T/C Compass before making their choice. Thompson Center arms are distributed in Australia by Frontier Arms Company and for more information on TC products, check the FAC web site at www.frontierarms.com.au. 