

Thames Valley Guns

Kongsberg M393

Introduction

Six years ago I use to shoot 1000 yrds using a .300 Winchester magnum and due to a loss of a friend I decided to packed it in and limited my shooting to 100 & 600 yrds engagements. At the same time shooting on many MOD ranges became more onerous with restrictions being introduced on high muzzle energy rifles (HME) to ensure rounds could not leave the range safety template and therefore I decided to sell the .300WM.

In 2015 I had the opportunity to start shooting out to 1000 yrds again, but the various .308's I owned were all configured for shooting out to 600 yrds and their scope/rifle/ammunition configuration struggled to make the grade and prevented me shooting accurately at the new distances. Therefore I started to search for a new "interesting" rifle.



I wasn't entirely sure what I wanted, I wanted a rifle in .308, have a quality heavy barrel, good trigger, good stock and generally a more modern design. My budget was limited to a £1000 which restricted my choice but what I didn't want an Remington or a Savage rifle. After some substantial searching, I narrowed my search down to a Howa 1500 Varmint but although a good "out of the box" rifle and within my price bracket, it didn't really rock my boat. I contacted my supplier to discuss the Howa and mentioned my requirements. To my surprise he stated he might have a solution and had I heard the name Kongsberg. I had, but I typically thought of the M59 and M62 and I didn't feel this was what I required. My supplier explained that he had a new modern version and this was the model M393 with a target stock and heavy barrel. With my interest stimulated, I carried out some researched in my library and on the Internet but found very little, however what I did find was sufficient to ensure this rifle was interesting and should be snapped up at the first opportunity.

Upon arrival, you could see straight away that the rifle was different, the ergonomic thumb hole stock was unusual, adjustable cheek pad, bluing was deep and of good quality, heavy tapered barrel, bedded action, long action slab sided receiver, with integral scope mounts, match trigger and rotary magazine. This rifle felt right the moment I picked it up, yet it had been sitting on the shelf collecting dust, unused for years and therefore this rifle was not only interesting but intriguing.

History

The history of this rifle appears to be both complicated and confusing and therefore the information supplied in these notes may not be accurate but I will attempt my best. The rifle design appears to have originated in Finland and was known as the Lakelander TAP-375, TAP standing for Tampereen Asepaja OY. After the plants closure in Finland, production began in Sweden under the name of Varberger. I am unsure if production ceased in Sweden or simply the design was sold under license, however production started in Norway under the name Kongsberg. However the original Kongsberg factory had closed their doors in 1987 and therefore a new organisation was formed under the name Kongsberg Small Arms company to produce the M393. Production started in March 1993 with the design being based on the Swedish Varberg model 717.

The M393 was available in several designs and numerous calibres. Models typically consisted of hunting, sporting/match and a carbine version. My rifle is the sporting/Match model and as can be seen in the image above sports a large bulky precision stock and an adjustable cheek pad. Researching Varberger I found this image of the Varberger Super Sporter which has many similarities and clearly shows the rifles heritage.



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The basic design being lakelander, Varberger or Kongsberg have proved popular in Scandinavia, despite small overall production numbers. They have proven to have a reputation for good accuracy, robustness and longevity with many remaining in service for twenty years or more.

Receiver

The receiver is manufactured from steel bar stock, turned to 36mm in diameter and is 230mm in length with two large flats either side of the side of the receiver and two smaller flats, running top to bottom giving a rather pleasing cosmetic look.



The front of the receiver is threaded to receive the barrel and either side of the receiver are the two largest flats measuring 18.5mm. These two ground surfaces match corresponding surfaces in the stock thereby provid-

ing more stability than designs with cylindrical receivers. The left side of the receiver provides the surface for the rifles title, serial number. On the right side of the receiver is some proof stamps, text "Made in Norway", the gas vent and the loading/ejection port which is 84mm wide permitting the use of two calibres .308 and 6.5mm Swedish. To the rear of the ejection port and above the trigger unit is the plunger assembly for the bolt release/bolt stop. This is a very good design, which is simple, reliable and very study.

Running the full length along the top of the receiver is a ribbed flat, which is 12.4mm wide and corresponds with the dovetail immediately below. This permits the fitting of weaver style scope rings or alternatively the ribbed flat is drilled and tapped to accept pivot or claw mounts should the user require them.

At the bottom of the receiver there are two flat surfaces of different sizes. The narrow of the two, runs the full length of the receiver and supports the trigger assembly and the front king screw. The second larger flat surfaces consists of two sections, the first acts as the recoil recess and can be seen in the R/H image above and then second supports the rotary magazine assembly and corresponds with the feed port. Most modern rifles use a recoil lug sandwiched between the barrel and the receiver therefore it is slightly unusual to see an alternative design which has the corresponding recoil lug built into the stock.

Another slightly unusual feature is the receiver secures to the stock using three kings screws and therefore provides three points of contact. Personally I torque all three screw to ensure evening balance however one must be careful as the rear two king screws pass through the trigger guard which is plastic and if over-tightened can crush and fracture the trigger guard.

Overall the receiver is extremely well made, has good engraving, is nicely finished with a quality blue.

Barrel

The heavy tapered barrel is 22" long and has a round crown, is 1.08" at the chamber tapering to 0.75" at the muzzle. The barrel has little in the way of markings and is limited to .308 win, proof mark and the stamp TRA but I am unsure what this represents. Manufacturing quality is good, with sharp rifling, deep blueing and a good profile that is neither too heavy nor too light therefore contributing to a well balanced rifle that will permit engagements from 100 - 1000 yds.



The barrel is not tapped for front or rear sight and is designed to be fully floating.

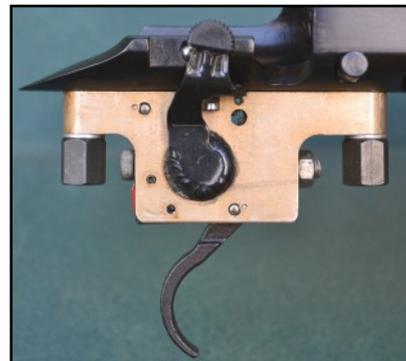
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Trigger Assembly

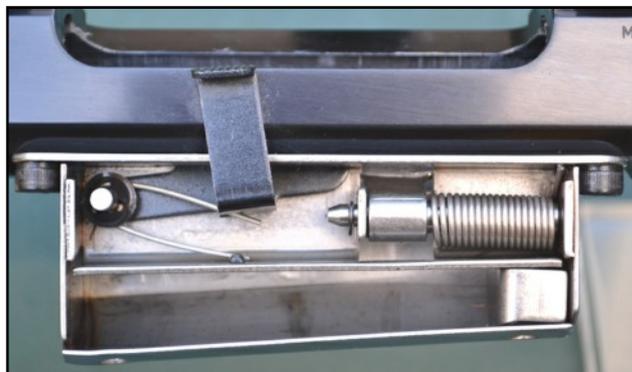
The match trigger assembly consists of a one piece aluminium frame which is fully adjustable for length of pull, trigger pressure and trigger tension. With the exception of the frame, all component parts are steel which lends a feel of quality. Whilst fully adjustable the single pull trigger was factory set at a shade under 3lbs and breaks cleanly. The two bolts which secure the frame to the receiver also secure the two rear king screws.

The safety catch is a three position affair which is both substantial and positive in its operation. The safety cannot be applied unless the action is cocked, once cocked the second position allows the bolt to function thus removing the round from the chamber but the sear cannot be released. The third and final position locks the bolt in the closed position and locks the sear.



Magazine

The magazine is an internal rotary type and is not detachable. Although in principle its function is similar to the Krag (also made by Kongsberg) its operation is slightly different. The self contained unit it is secured to the receiver by two screws. During assembly some movement is allowed between the screws, magazine and the receiver. Care should be taken as this movement allows the magazine to be positioned correctly to prevent the mechanism binding.



Unlike Mauser magazines which have a drop plate to eject unwanted rounds the rotary magazine is sealed and the only way to eject unwanted rounds is through the loading port. To achieve this, the magazine has a spring loaded gate, controlled by a lever as shown above. Each time a new round is inserted into the magazine the gate is pushed to one side, reasserts itself and holds the round in place. If the rounds require removing the lever is depressed which depresses the gate and the rounds are ejected from the magazine under the influence of the magazine platform and its spring.

Advantage and disadvantages, as long as the magazine is kept clean, it appears extremely reliable, constant and even spring pressure presents the correct presentation angle time and time again and to date I have yet to experience a problem. However the ingress of debris may cause the more complicated mechanism to jam, by design the rotary magazine is more complicated, has more parts and therefore more expensive to manufacture and maintain, plus the rotary magazine is only suitable for hunting or target rifles where higher rates of fire are not required.

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Bolt

The bolt is a one piece design, 18cm in length and is extremely well made. The bolt head consists of three locking lugs, recessed bolt face, plunger style ejector and extractor. On the bottom of the bolt and in alignment with the firing pin recess is two gas vents, the first one approx 1/2" from the bolt face and the second 1 3/4". The polished bolt body is slightly larger in diameter than the bolt head and provides the bearing surface for the bolt in the receiver. As the bolt is a one piece design the bolt shroud and the bolt head are integral with the bolt body and rotate as the bolt is locked and unlocked. The locking lugs engage in the receiver when the bolt is fully locked but when the bolt is disengaged and withdrawn to the rear the lugs run in their own tracks in the receiver making the action extremely smooth with very little bolt slop when the bolt is fully extended.



The bolt handle is of traditional size and length but is slightly swept to the rear as can be seen in the image above. Lifting the bolt

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handle approximately ½" generates a number of simultaneous actions, it allows the bolt handle to clear the bolt handle recess and to impinge on the receiver cam to generate primary extraction. The lifting action withdraws the firing pin and positions the firing pin cocking piece on the cam within the bolt shroud (cocks on opening) and the bolt lugs disengaged the correspond lugs in the receiver and the bolt is free to move to the rear.



As the bolt nears the end of its rearward movement, the empty case clears the ejection port and the ejector forces the case away from the rifle whilst pivoting its rim on the extractor. Rearward movement is arrested by the bolt stop. Forward movement causes the lower rim of the bolt face to feed a cartridge from the magazine platform, up the feed ramp and in to the chamber and only when the forward bolt movement is fully arrested can the bolt be locked and the cocking piece engaged on the sear. This latter action is mechanical safety and prevents the firing pin being released before the bolt is fully locked.

Stock

The stock is a oiled thumbhole walnut design with a deep butt and a large forend which gives the rifle its slightly unusual



appearance. The layout of the pistol grip creates a deep butt assembly which has an adjustable cheek piece whose height is controlled by two large grub screws threaded directly into the walnut stock. The butt pad is a simple plastic plate that is glued in place and then ground to fit which leaves a unpleasant tide mark around the butt. The receiver recess, barrel channel and recesses for the bolt stop, bolt handle etc are very well machined, the action is bedded at the factory and the forend & pistol grip have a stippling effect, which gives an impression of quality.



However that impression of quality is somewhat lost as it is the stock that I have most of my criticisms. The oiled stock finish is prone to water damage and will

stain if left untreated. There is no provision for any sling fittings or an accessory rail, the butt plate is cheap & tacky and the web for the thumbhole appears very minimal, therefore weak and should be treated with care to avoid any breakage. The trigger guard



is plastic, weak and if you screw down the rear king screws to hard you split the plastic which I learnt from experience.

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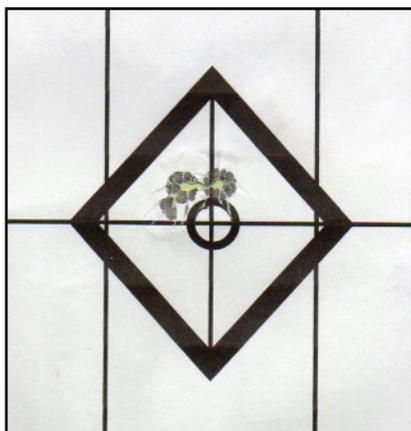
Therefore I felt there was a genuine need to upgrade the stock. I fitted an accessory rail, cushioned butt pad, applied a water proof finish and fitted a rear sling swivel. Fitting the rear sling swivel was not because I had a need to fit a sling but because it provides an additional benefit of a rear grip when shooting prone and protects the heel of the butt when the rifle is supported by the bipod.

Scope, Rings & Bipod

Before fitting any scope the user must plan and verify his intended use for the rifle before he chooses a suitable scope. As this rifle was originally planned to engage targets out to 1000yds it was fitted with a Leupold VXIII 8.5-25x50 Long range scope and good quality Recknagel 30mm rings. Recknagel are increasingly my rings of choice when there is a requirement for good quality mounts. I have used both their tactical and sporting rings and have yet to find fault. Leupold make good scopes and the the VXIII is eminently suitable for longer range engagements and compliments the Kongsberg nicely.



Range Test



Range testing this rifle was a pleasure, I loaded the magazine with four rounds which slide nicely into place and were retained by the spring loaded gate, the bolt unlocks and cycles rounds into the chamber with precision ease. However one thing that is slightly disconcerting is the closeness of the bolt to your face when its rearward movement is arrested by the bolt stop, in my case it was no more than a thumb width which is approximately 1". This closeness generates a involuntary need to move your face away from the bolt during the cycling action but after a few rounds you gain confidence and overcome this minor issue.

Range test was to shoot fully supported from the bench using 43.5gr of Vihtavouri N140 and 155gr Sierra HPBT. The Sinclair bipod provides an extremely stable shooting platform. Although winter, weather conditions were very pleasant and were unseasonably warm with very little wind and a temperature of 12 degrees Celsius.

I spent a few rounds confirming my zero and then proceeded with the first group. My first and only group was three rounds at 100yds which generated as ragged hole and when measured was 11.10mm or ½", I simply couldn't better it and saw no point in carrying on with the range test.

I must admit I was very pleased. Even when zeroing the rifle indicated excellent groups and therefore as far as rifles go, this must rate as one of the best "out of a box" rifles I have had the pleasure to shoot.

Summary

I read an article that a gun writer had produced in the US about a hunting Kongsberg 393, his summary was that this was a good but quirky rifle. I would only partially agree with that statement, good rifle, definitely, quirky, no, I would say different and in my books different should be applauded as it breeds innovation, it brings alternative designs to the market place that provides the customer with a variety of choice and it shows a brave manufacturer who is willing to produce a product that is just not another clone.

Initially I had purchased this rifle for 1000yrd engagements and having since completed the range test I have had the opportunity to shoot at 900 yards. I must say the rifle shot well at this distance but I did feel that the rifle was in the top end of its performance envelope, my ammunition was also at its limits and I am not a shooter for burning out barrels. The other point was the lack of availability of a 20 moa base and therefore the only way to get to this distance is with a suitable long range scope, normal scope simply will not cut it.

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It should be remembered that M393 is a Norwegian rifle and more importantly a hunting rifle first and foremost, its heritage is completely Scandinavian and therefore its target market must be the Scandinavian countries where winter temperatures are arctic in nature and where you can find large game, followed by Europe and then the US.



The sporting stock is slightly unusual in profile and I have been unable to identify the definitive purpose behind its design. If I may speculate my first thought would be for Biathlon competitions as they are a popular sport in Scandinavia and especially Norway. For an “off the shelf” rifle the Kongsberg shoots remarkably well but with this style of stock its unable to find a niche, its not a hunting rifle but its not a target rifle so where does it sit.

The barrel, action, bolt and trigger unit are superb but it is a shame that Kongsberg seem have “reduced the budget” somewhat on the stock with the tacky butt plate, plastic trigger guard and poor wood finish. Fitting the improved butt pad, ancillary rail and a more effective weather proof finish did not improved the rifle performance, but it did improve its function ability.

The rifles somewhat unusual profile may explain why this rifle remained unsold and on the shelves for many years here in the UK, Hunting models where far more successful, but the unusual stock coupled with a largely unknown brand kept shooters at bay. That's a shame as this is a very good rifle that deserved greater commercial success, especially when compared against it American counterparts.

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