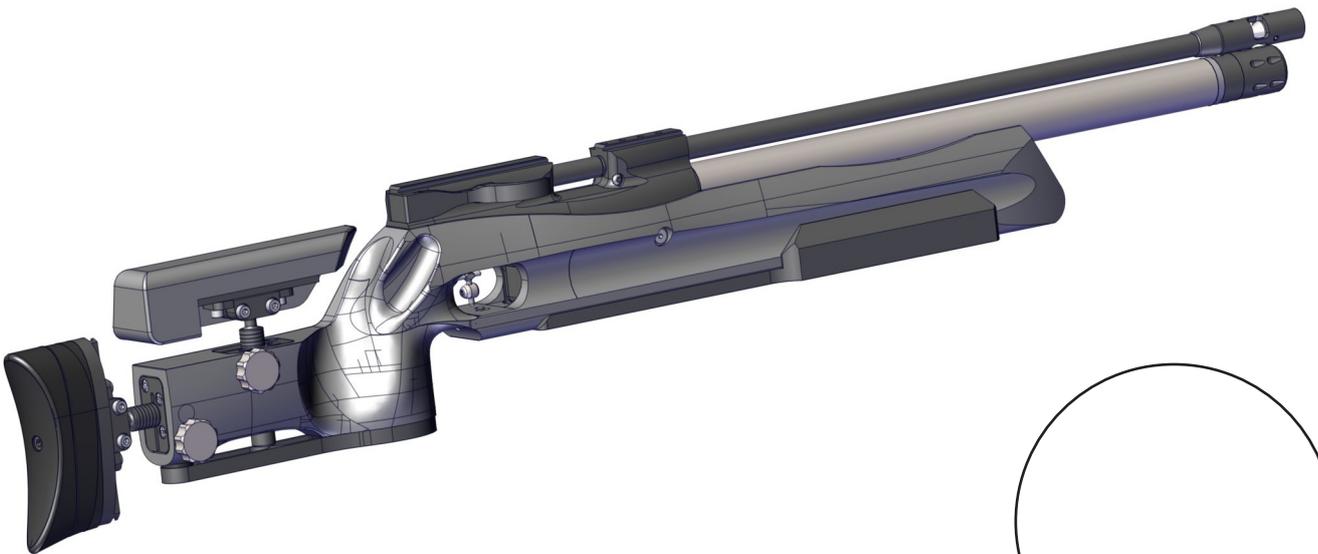




# AIR ARMS

## Users Handbook XTi-50 Benchrest



\*\*\*\*\* SAFETY CODE \*\*\*\*\*

- 1 - TREAT THIS AIR RIFLE AS IF LOADED.
- 2 - NEVER POINT IT AT ANYONE, EVEN IF UNLOADED.
- 3 - NEVER LEAVE THIS RIFLE UNATTENDED WHEN COCKED OR LOADED.
- 4 - ALWAYS BE SURE OF WHAT LIES BEYOND YOUR TARGET.
- 5 - ALWAYS CONDUCT YOURSELF IN A SPORTSMAN-LIKE MANNER.

ALWAYS BE AWARE THAT YOUR ACTIONS WILL BE UNDER THE SCRUTINY OF OTHER MEMBERS OF THE PUBLIC WHO MAY NOT SHARE YOUR ENTHUSIASM FOR AIR WEAPONS. BAD PRACTICES PROMOTE BAD PUBLICITY. DO NOT JEOPARDISE YOUR FUTURE ENJOYMENT BY MISUSING THIS WEAPON.



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*AIR ARMS RESERVE THE RIGHT TO ALTER THE CONSTRUCTION, APPEARANCE OR PERFORMANCE OF ANY PRODUCT WITHOUT PRIOR NOTIFICATION. ALL ILLUSTRATIONS ARE FOR INFORMATION PURPOSES ONLY AND DO NOT NECESSARILY SHOW THE EXACT MODEL THAT WAS PURCHASED.*

## Contents of Packing Case

- XTi-50 rifle x 1
- User handbook x 1
- Pellet Tin x 1
- Butt Pad Assembly x 1
- S701-XTi-P Spare Seal Kit x 1
- Tool kit
  - 1.5mm allen key x 1
  - 2mm allen key x 1
  - 2.5mm allen key x 1
  - 3mm allen key x 1
  - 4mm allen key x 1
  - 5mm allen key x 1
- Female filling adaptor x 1

## Gun Security

It is important to make sure that your gun is always kept in a safe and secure fashion when not in use.

For rifles purchased in the UK and that are NOT FAC rated (high power) a free gun lock and mounting eyes are supplied. Please follow the simple fixing instructions and keep our sport safe.

**Note: If there is no gun lock in the box please contact the dealer you purchased the rifle from.**



PLEASE READ THIS MANUAL BEFORE USING YOUR NEW RIFLE, IT  
CONTAINS IMPORTANT SAFETY INFORMATION AND INSTRUCTION ON  
ADJUSTMENT AND MAINTENANCE.

WARNING ! - UNAUTHORISED DISASSEMBLY OF THIS RIFLE WILL INVALIDATE THE MANUFACTURERS WARRANTY

## Important Information

Before leaving the factory this rifle passed a Q. A. inspection and was test-fired using Air Arms pellets to check operation and final adjustment.

It was dispatched in a sealed purpose designed box. Air Arms may not be responsible for any damage to the contents or missing items if the box is not original, if it is damaged or if the seals are not intact.

Air Arms cannot be held responsible for damage or missing items due to transit damage, mishandling or being tampered with after leaving the factory.

If this rifle is not received in the original box with the seals intact, please examine it carefully for any damage, missing tools or documentation.

In the first instance, any problems or complaints regarding this product should be referred to the supplier.

The air cylinder is a highly pressurised unit that must not be modified in any way. Serious personal injury may result if this, and the advice below is not followed.

Do not pressurize the cylinder if there are any surface abrasions or dents. Contact Air Arms for advice.

Do not store the rifle in places with, or near sources of high temperature such as fires or boilers.

Do not attempt to dismantle when pressurised.

Do not pressurize beyond the stated filling pressure (see filling instruction section). Damage caused by such action is not covered by the manufacturers warranty.

Only use clean, filtered and dry compressed air. Never use any other gas, particularly industrial or welding gases such as oxygen, carbon dioxide, acetylene, hydrogen, argon, etc.

If compressed air is being used other than from a diving shop, the inside of the cylinder should be inspected for corrosion at least annually. If in doubt contact Air Arms for advice.

In any event the cylinder should be inspected every two to three years depending upon usage.

Air Arms can provide this service at a reasonable cost.

To maintain this rifle in good working order it should be serviced annually by a competent gunsmith, your supplier may be able to provide this service or contact air arms.

A reasonable amount of advice will be provided to enable the end user to service their own rifle, however this is at the discretion of Air Arms and may not be given in all cases.

The velocity of this rifle has been set using Air Arms field pellets. If any other make or type of pellet is to be used the rifle must be re-tested with the pellet that is to be used, to ensure the muzzle energy is within the limits determined by current legislation.

Due to the nature of hand pumps and their relative inefficiency in removing moisture from the compressed air, the chances of corrosion damage to the cylinder and other internal components are increased. Therefore the rifle should be regularly serviced and/or checked for any signs of damage by a competent gunsmith.

Air Arms recommend using a dry pack filter kit on any hand pumps used to fill our air rifles.

If accessories not manufactured by Air Arms are used on this rifle, Air Arms can not be held responsible for any loss of performance. Contact your supplier or Air Arms for any advice on this matter.

Do not store this rifle in a damp place such as garden shed or garage.

Do not store this rifle in a plastic or PVC gun bag without first applying a surface corrosion inhibitor.

Always ensure the loading bolt is fully closed before firing.

Poorly adjusted rifles are not covered by the warranty

## CHECKING VELOCITY

1. Use a reliable chronograph to check velocity, (the formula below requires the reading to be in feet per second - FPS)
2. Use fine measurement scales to weigh the pellet, If scales are unavailable the pellet weight may be stated on the pellet container lid or contact the supplier. (The formula requires the weight to be in grains). To convert from grams to grains multiply by 15.432, i.e. 0.69 grams x 15.432 = 10.65 grains.
3. To find the muzzle energy in ft/lbs use the formula  $(FPS \times FPS \times Grains) / 450240$ , i.e.  $(700 \times 700 \times 10.65) = 5218500$  divide by 450240 = 11.59.

*CURRENT LEGISLATION LIMITS NON-FAC HOLDERS, IN THE UK, TO AIR RIFLES WITH A MAXIMUM OF 12 ft/lbs MUZZLE ENERGY.*

**WARNING!** IT IS A VERY SERIOUS OFFENCE TO BE IN POSSESSION OF AN AIR RIFLE THAT YOU ARE NOT CERTIFICATED FOR. CONVICTION CAN RESULT IN CONFISCATION OF YOUR RIFLE, A HEAVY FINE OR IMPRISONMENT, EVEN A COMBINATION OF ALL THREE.

### \*\*\*\*\* LIMITED LIABILITY WARRANTY \*\*\*\*\*

UK Customers only.

*This product is warranted to the retail customer for 3 years from date of purchase against defects in materials and workmanship and is not transferable to any subsequent owner.*

*Proof of purchase is required to receive warranty repairs, retain your purchase invoice and complete the warranty registration online as soon as possible after purchase. The warranty details must show the dealer/supplier name and address and date of purchase.*

***To safeguard your warranty, please ensure regular servicing is carried out as recommended.***

#### **What is covered**

Replacement parts & labour on a 'back to base' basis, return transportation to the consumer (mainland UK only).

#### **What is not covered**

Transportation from the consumer to Air Arms.

Damage caused by misuse, abuse, lack of routine maintenance, poor adjustments, transit damage between the dealer/supplier and the consumer or unauthorized disassembly.

Parts subject to normal wear and tear.

Any other consequential cost incurred by the consumer.

Return transportation to consumers outside mainland UK.

No warranty is implied as to the fitness for any particular purpose.

# Introduction

Thank you for purchasing the Air Arms XTi-50.

This rifle has been designed to offer the field target and hunter field target shooter a complete package of accuracy, ergonomics and usability.

There are many features on the XTi-50 to make your shooting experience as enjoyable and successful as possible, we therefore request you read this manual completely before using your new rifle to get the most the rifle has to offer.

## Spare Seals

This rifle has been supplied with spare seals for several areas.

- S474 x 4 - These are for the male connector.
- FP121 x 4 - These are breech seals.
- S912 x 4 - These are the dowty seals used below the cylinder venting screw. See the section 'Removing Air From the Cylinder'.

## Finding the Serial Number

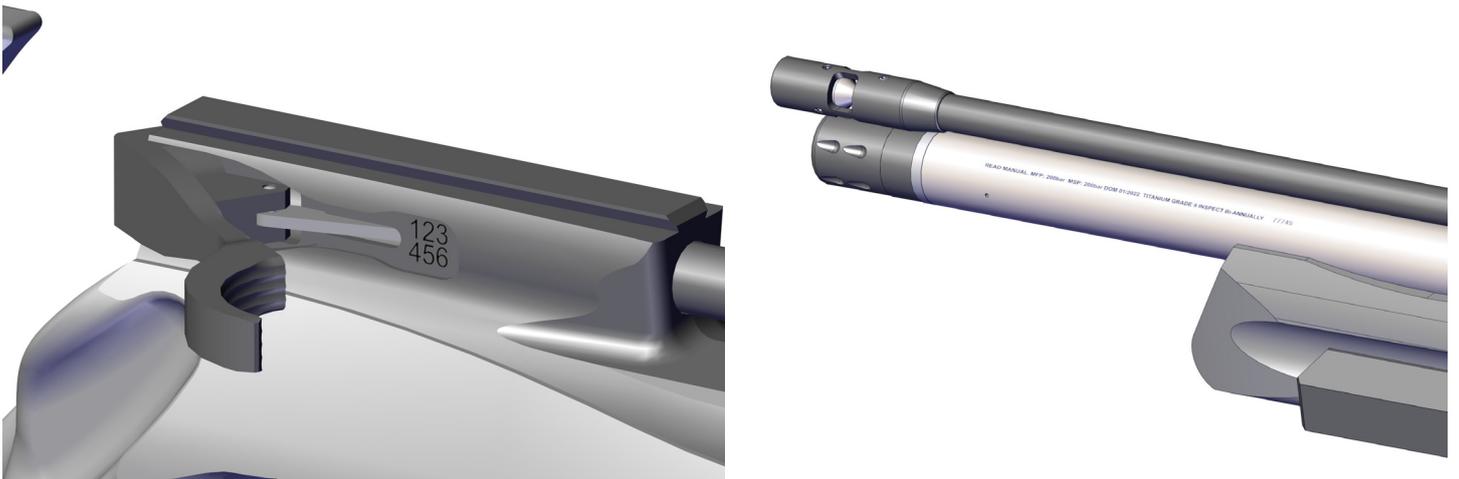
If you need to contact Air Arms regarding your XTi-50 please quote the serial number, which can be found engraved on the main body under the cocking lever. See the image below.

## Cylinder Safety Information

On the left side of the cylinder towards the front of the action, you will see safety information engraved. Please note the numbers below are used as an example and may not be the numbers engraved on your rifle. See the image below.

*'READ MANUAL. MFP 200 bar (2900 psi). MSP 200 bar (2900 psi). DOM ##/##/####.  
TITANIUM GRADE 9. INSPECT ANNUALLY*

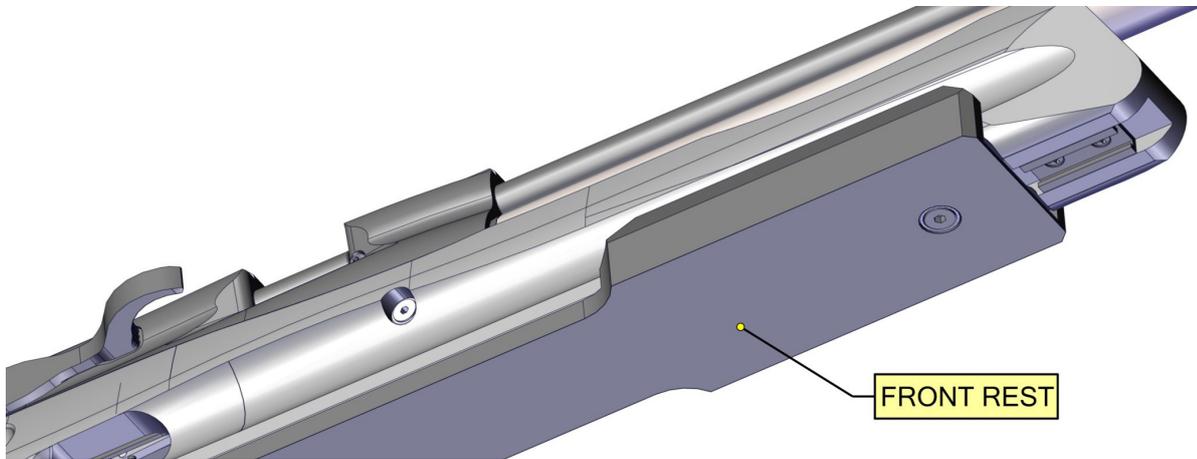
- MFP - Maximum Filling Pressure. The pressure is stated.
- MSP - Maximum Safe Pressure. The pressure is stated.
- DOM - Date of Manufacture. The date is stated.



# Shooting Aids

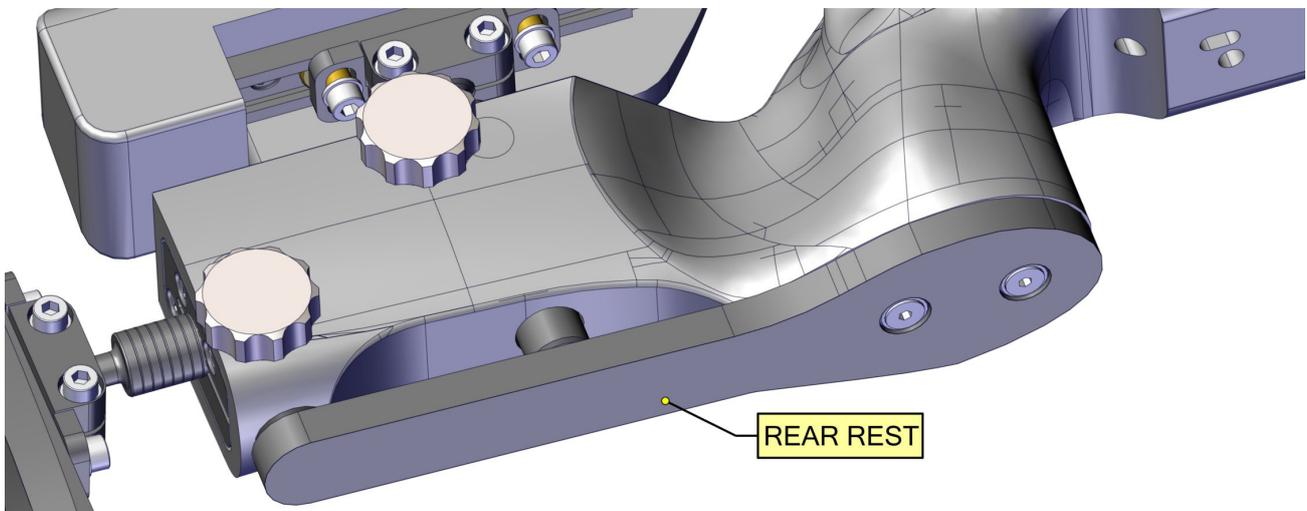
## Front Rest

The front rest is the heart of the XTI benchrest stability. Designed to offer a large flat area that is parallel to the barrel and includes two upright sides at 90 degrees to the base.



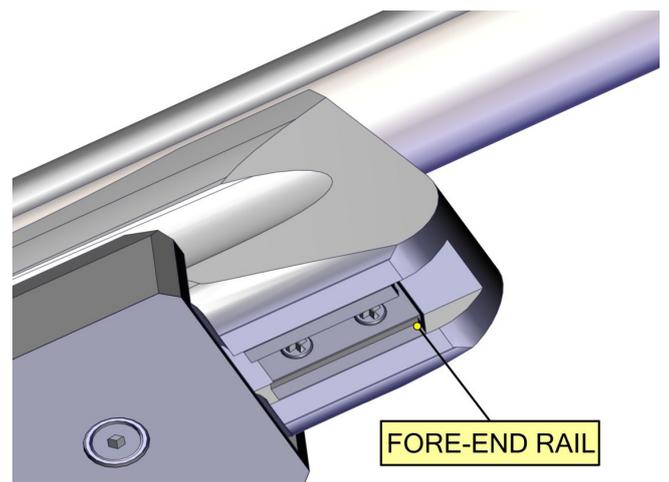
## Rear Rest

The rear rest gives a flat parallel surface to match the front rest. Narrower in width, it fits within the plan view profile of the stock and provides secure support.



## Stock Rail

There is a rail mounted on the underside of the stock at the front. This rail is a standard size and fits many accessories available to shooters today, such as hand stops, bipods, or rifle rests.



## Filling Instructions

*NOTE: ONLY USE CLEAN, DRY AND FILTERED COMPRESSED AIR, PREFERABLY FROM A DIVE SHOP. OVER PRESSURIZATION MAY DAMAGE THE RIFLE OR CYLINDER BEYOND REPAIR.*

When to fill the rifle	The rifle should be refilled once the cylinder pressure is down to approximately 100 bar (1450 psi)
What pressure to fill to	The filling pressure of your rifle is 200 bar (2900 psi)

The recommended filling pressure for the XTi-50 is **200 bar (2900 psi)**. This will return the best possible performance from the rifle.

The XTi-50 is filled via a male filling connector at the front of the cylinder using the female filling adaptor supplied with the rifle. The female connector has a 1/8 BSP thread, this screws into the hose of the filling equipment.

The rifle can be filled from either a bottle or a manual pump.

To access the male connector, remove the dust cover by unscrewing in an anti-clockwise direction. Once the dust cover is removed, the female part of the filling kit can be placed onto the male connector. Please see images on page 8.

The female adaptor has a slot in the rear face, the tee piece of the male connector should be located through the slot in the female which can then be twisted to lock it into place. With the female adaptor locked, the cylinder can now be filled.

The procedure on the below assumes the rifle has some air in the cylinder and is NOT empty. If filling the rifle from empty please see the section '**Filling from Empty**'.

## Using a Bottle

1. Ensure the bleed valve is closed on the filling kit.
2. Slowly open the main valve on the bottle and air will start to flow into the hose.
3. The pressure will equalize in the hose to that of the pressure in the cylinder, at this point the valve on the rifle will open and allow air into the cylinder.
4. Using the gauge on the filling equipment, and NOT the rifle, allow the pressure to rise until the required refill pressure is reached, i.e. 200 bar (2900 psi).
5. Close the main valve on the filling equipment. This will stop the flow of air. **REMEMBER, THE HOSE OF THE FILLING EQUIPMENT IS STILL PRESSURIZED AT THIS STAGE.**
6. Slowly open the bleed valve on the filling equipment to vent the air trapped in the hose.
7. Once all the air has vented from the hose, twist the female to align the slot and the tee piece on the male connector and slide off.
8. IF AT ANY POINT THERE IS RESISTANCE OR THE COMPONENTS ARE NOT MOVING FREELY, STOP AND CHECK TO SEE THAT THE AIR HAS BEEN SHUT OFF AND THE SYSTEM HAS BEEN VENTED. NEVER REMOVE THE FEMALE WHILST PRESSURIZED.

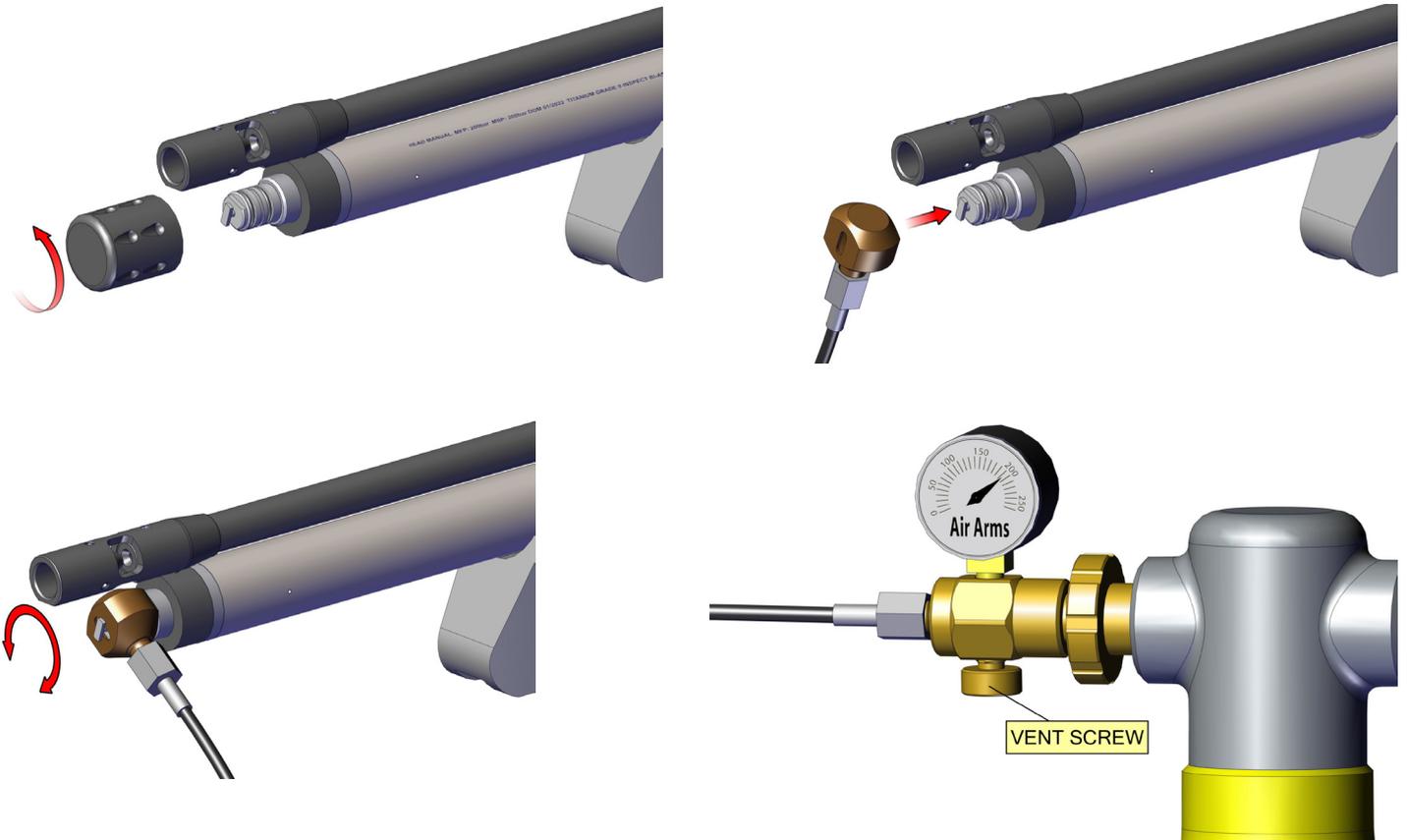
## Using a Pump

1. Ensure the bleed valve on the pump hose is closed.
2. Start using the pump as per the manufacturers instructions.
3. The first few strokes of the pump will pressurize the hose and female connector until they reach the same level as the pressure in the cylinder.
4. Continue pumping until the pressure indicated on the pump gauge, and NOT the gauge on the rifle, reaches the required filling pressure, i.e. 200 bar (2900 psi).
5. Open the vent on the pump to release the pressure in the hose.
6. Once all the air has vented from the hose, twist the female to align the slot and the tee piece on the male connector and slide off.
7. IF AT ANY POINT THERE IS RESISTANCE OR THE COMPONENTS ARE NOT MOVING FREELY, STOP AND CHECK TO SEE THAT THE AIR HAS BEEN SHUT OFF AND THE SYSTEM HAS BEEN VENTED. NEVER REMOVE THE FEMALE WHILST PRESSURIZED.

## Filling from Empty

It is always good practise to leave the cylinder pressurized at all times. If, however, the rifle is fired below the pressure required to keep the firing valve sealed, approximately 60-70 bar (870-1019 psi), there is the possibility the cylinder will vent all of the remaining air. If this happens please follow this procedure.

1. Cock the rifle as described in the 'Cocking and Loading' section, but DO NOT load a pellet into the rifle. Close the lever.
2. Follow the procedure for filling the rifle using your chosen method i.e. pump or bottle.
3. The firing valve requires pressure in the cylinder to hold it closed, therefore air may vent from the barrel until the sealing pressure is reached, this is approximately 60-70 bar (870-1019 psi). Once the air stops venting from the barrel follow the standard filling practise as previously described.

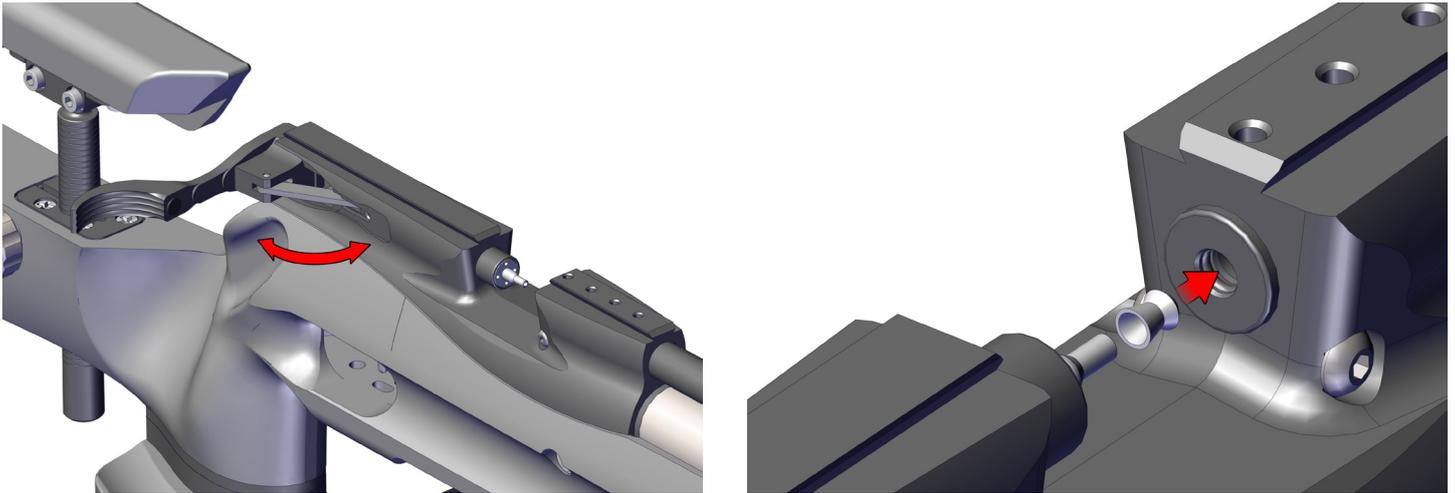


## Cocking and Loading

The XTi-50 is a lever operated rifle. The lever is opened and operated by pulling it backwards to the rear of the action, the trigger mechanism and striker are then engaged and the breech is opened to allow a pellet to be loaded. The lever should move with ease, and not require excessive force. If the lever does not operate smoothly please seek advice from Air Arms or another airgun technician.

With the lever in the rear position, insert a pellet directly into the breech of the barrel. Close the breech by pushing the lever forwards and back into the body of the rifle.

***CAUTION THE RIFLE IS NOW LOADED AND LIVE, READY TO FIRE.***



## De-cocking the Rifle

It may be required to de-cock the rifle from time to time and by de-cock we mean disengage the trigger and striker mechanisms making the rifle unable to fire until re-cocked.

If this is the case please follow the procedure below. It must be remembered that if the rifle was loaded before the de-cocking process takes place, the pellet will remain in the breech.

De-cocking the rifle should only be used if the option to fire the pellet off is not available for any reason. Safely firing the rifle off is the preferred method of making the rifle safe.

1. Open the cocking lever and pull completely to the rear as if cocking the rifle. Hold the lever in this position.
2. Pointing the rifle in a safe direction, remember the rifle is potentially loaded, and holding the lever in the open position, squeeze the trigger as if firing the rifle.
3. Whilst squeezing the trigger, allow the cocking lever to travel forwards under your control. You may feel the spring tension increase as the striker spring extends.
4. Close the lever completely. The rifle is now 'De-cocked'. Test by trying to fire in a safe direction e.g. into soft ground, pellet catcher or safe target.

***REMEMBER IF THERE WAS A PELLET IN THE BREECH BEFORE THE DE-COCKING PROCEDURE THE PELLET IS STILL THERE AND WILL BECOME LIVE ONCE THE RIFLE IS COCKED***

## Stock Adjustments

The XTi-50 benchrest has two main stock adjustments the shooter can use to fit the rifle perfectly to their shooting style. All adjustment screws are friction-locked, so loosen each screw only enough to allow movement of the component you wish to adjust.

The two areas of adjustment are.

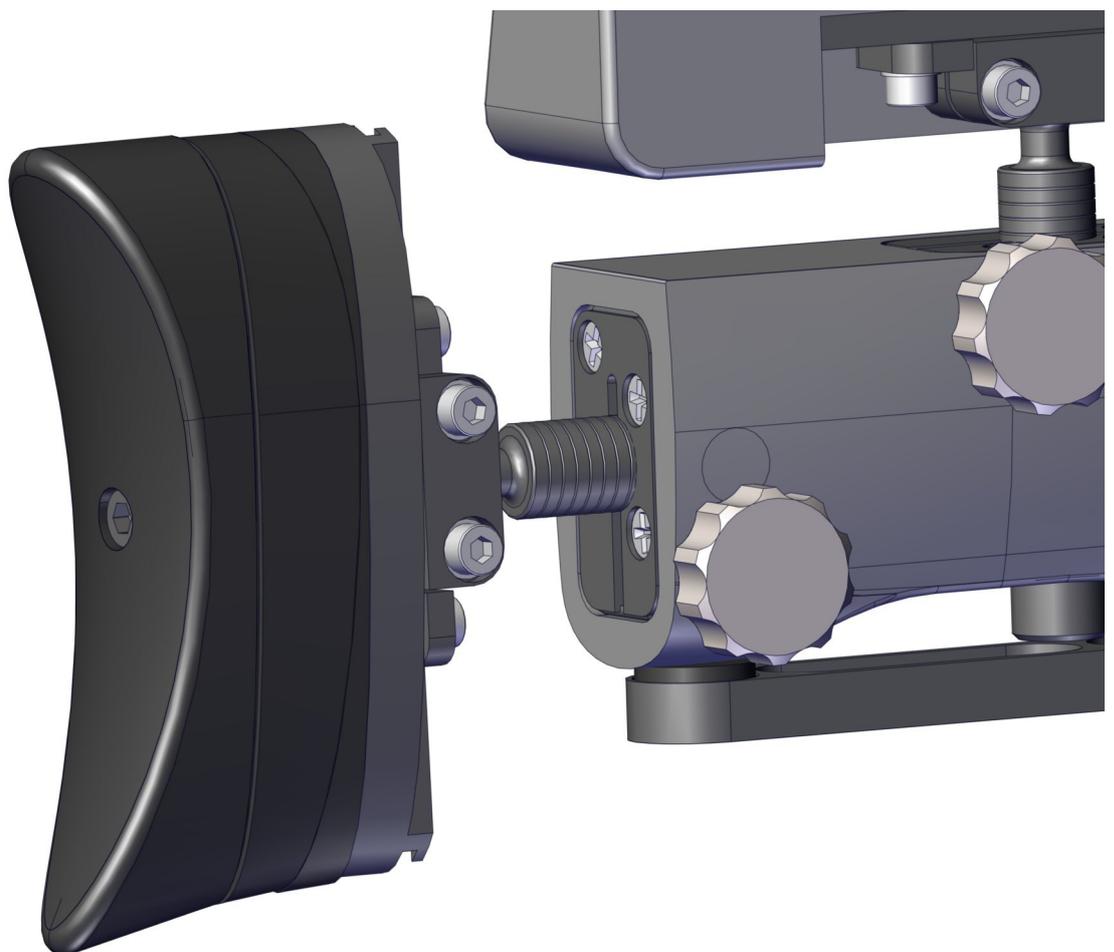
- The butt pad assembly.
- The cheek piece assembly.

### Butt Pad Assembly

The butt pad assembly is mounted to the stock via a sliding rod with a ball-joint knuckle. The ball joint allows the entire butt assembly to slide in and out of the stock, changing the length of pull, and to pivot or rotate the pad about the ball joint, allowing exact positioning.

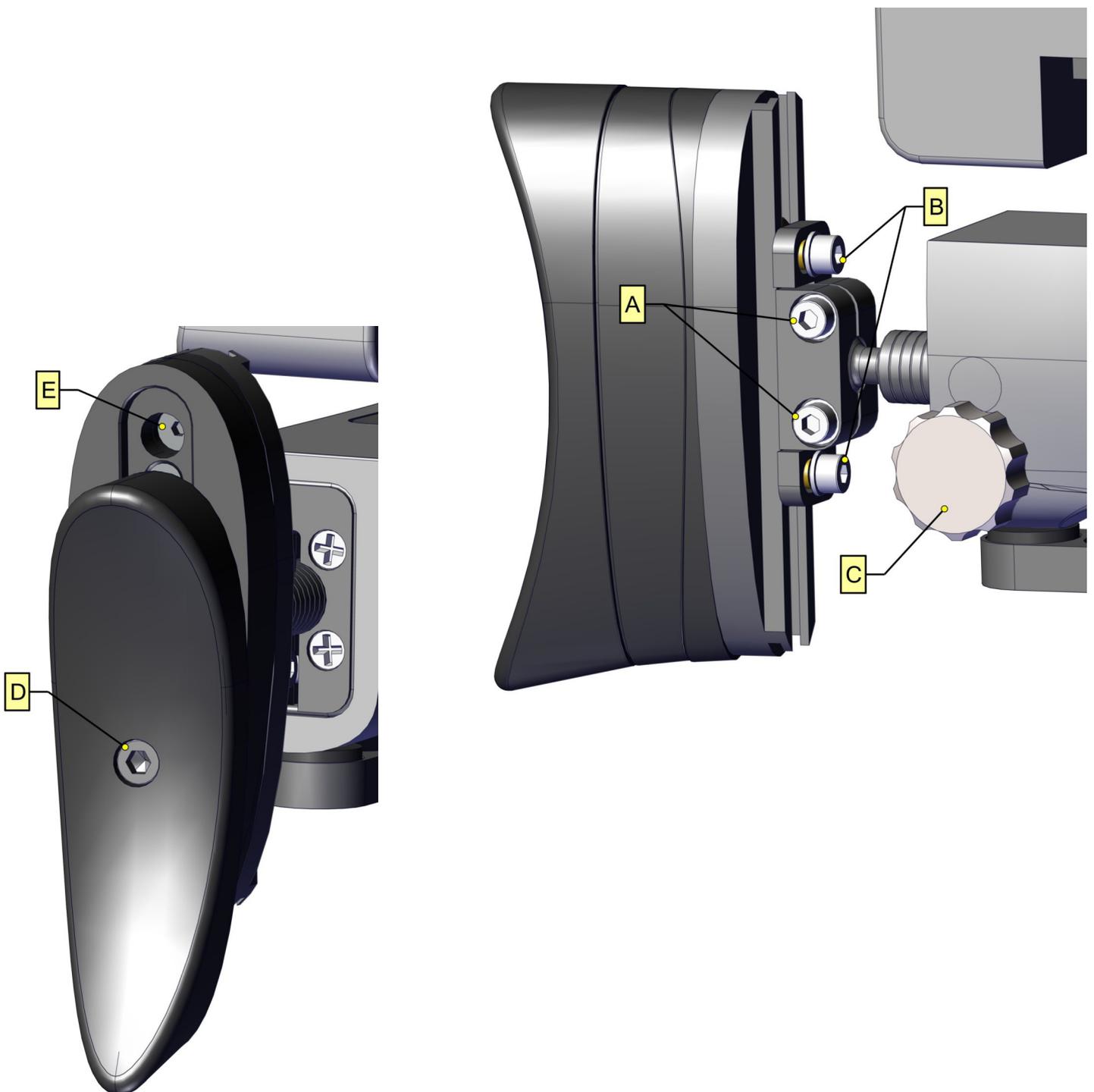
The pivot block that clamps onto the ball joint is fitted to the main butt assembly via a rail. The rail allows adjustment in the vertical plane.

The final adjustment allows the pad itself to pivot left or right, enabling further adjustment in this area.

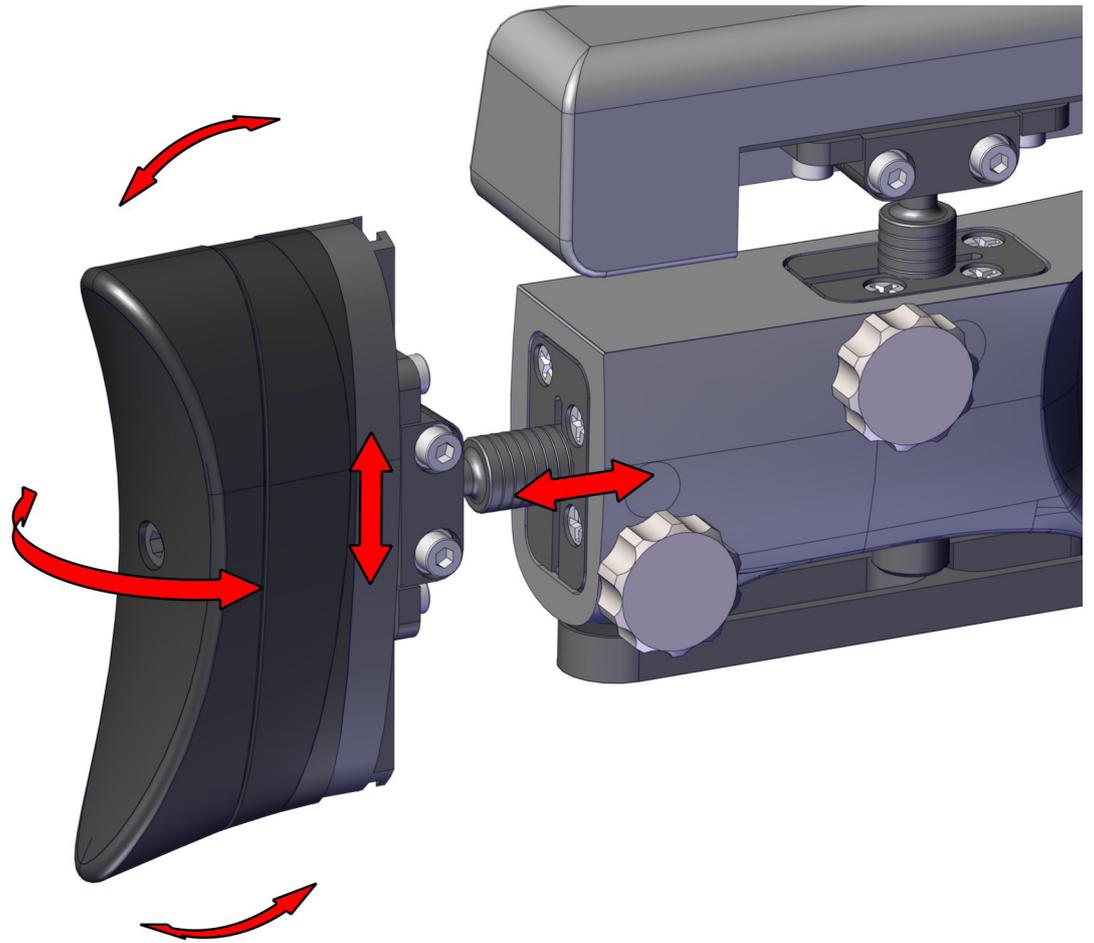


## Screw Identification

- A - These screws lock the ball joint. Use a 4mm allen key to adjust these screws.
- B - These screws lock the rail nuts that control the vertical positioning. Use a 4mm allen key to adjust these screws.
- C - This is the adjuster thumb-wheel that locks the rod. No allen key needed.
- D - This screw locks the butt pad and controls the vertical movement. Use a 4mm allen key to adjust this screw.
- E - These screws (one top and one bottom) control the pivot of the pad. The butt pad must be moved up or down to access the screw. Use a 2.5mm allen key to adjust these screws.



Using the screws shown on the previous page, you can adjust the butt pad in many ways. The image below shows the possible movement.



## Cheek Piece Adjustment

The cheek piece on the XTi-50 can be adjusted at 4 points, allowing the shooter to position the cheek piece edge exactly where it needs to be to achieve precise, repeatable head placement when preparing for a shot.

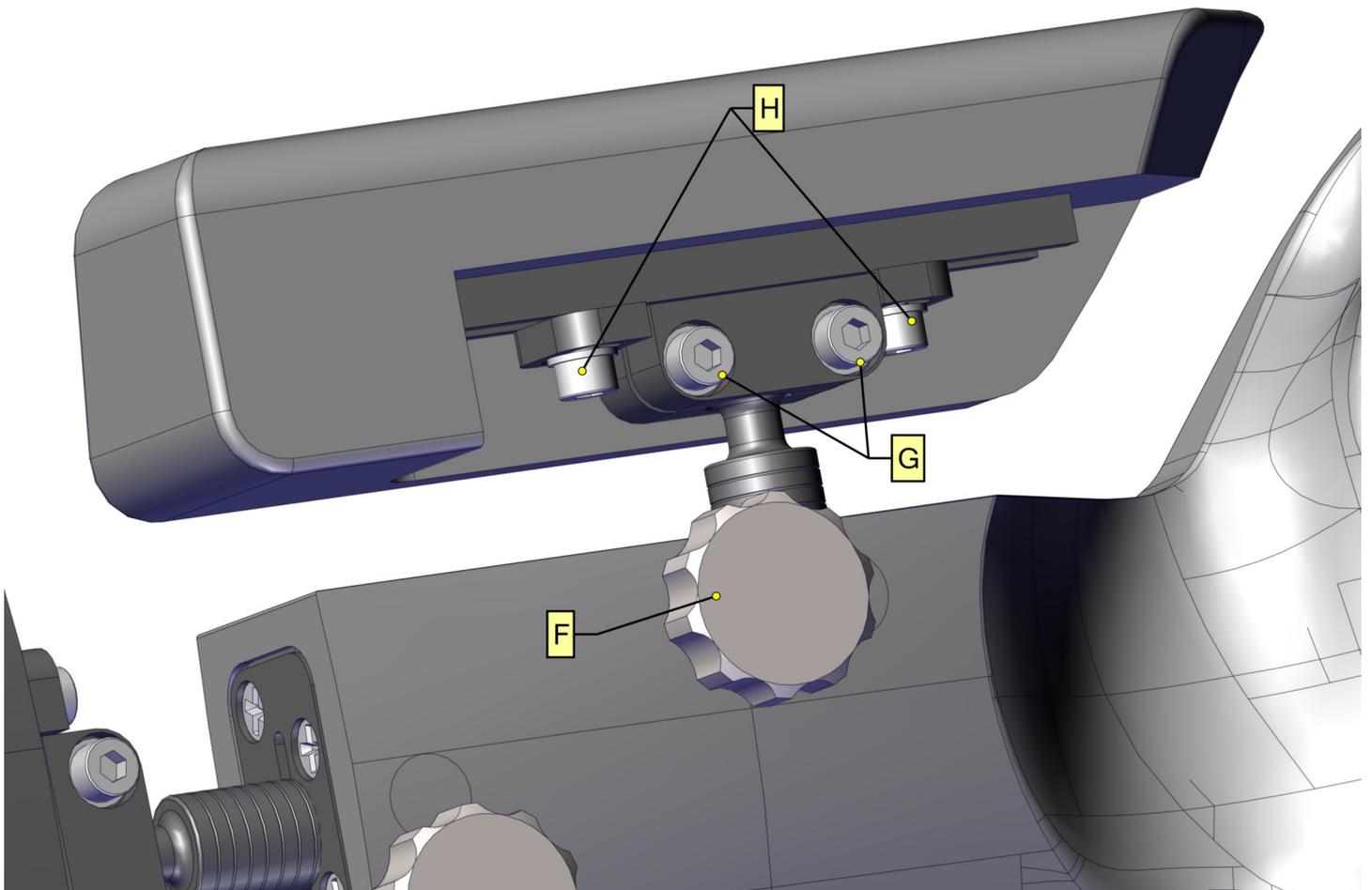
The cheek piece assembly is fixed to the stock via a rod with a ball joint at the cheek piece end. This rod slides in and out of the stock to increase or decrease the height and is locked utilising a thumb wheel.

The ball joint allows the cheek piece to pivot, tilt, and twist in almost every direction.

The cheek piece is also mounted on a rail, allowing forward and backward movement. The rail fixings are through slotted holes, so the cheek piece can also move side to side and, indeed, pivot to a degree.

### Screw Identification

- G - These screws lock the ball joint and adjust all movement associated with it. Use a 4 mm allen key.
- H - These screws lock the cheek piece rail. Adjustment can be made here to slide the rail forward and backwards as well as to pivot the cheek piece. Use a 4 mm allen key.
- F - This is the thumb wheel that locks the cheek piece rod. These are designed to be used by hand, no tools required.



## Ball Joint and Height Adjustment

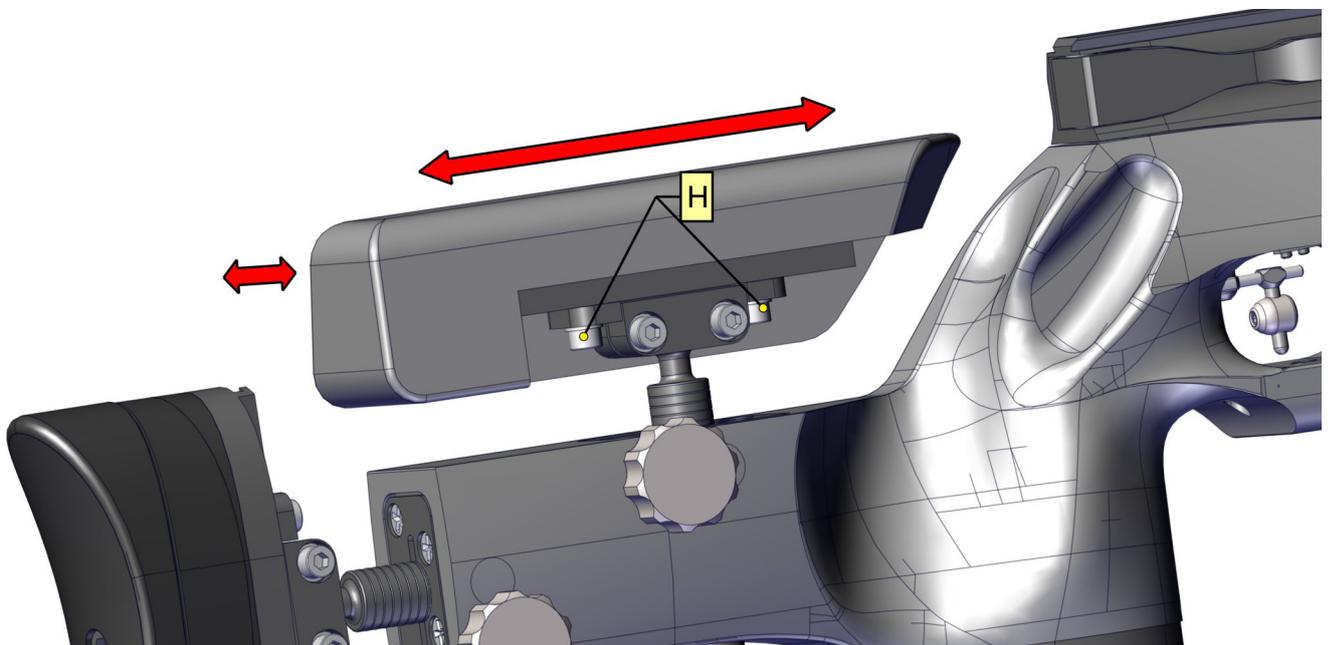
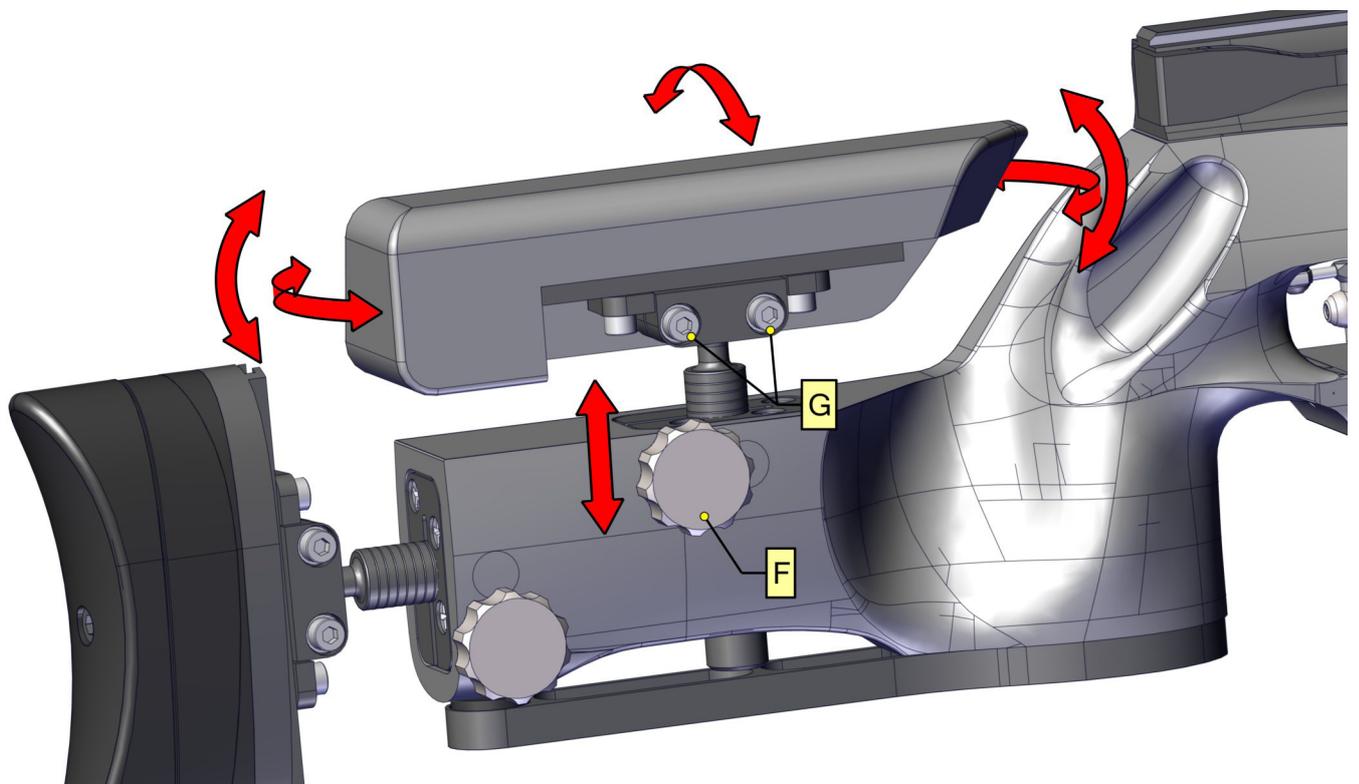
To adjust the ball loosen both 'G' screws , using a 4 mm allen key. This will allow the cheek piece to pivot, twist and rotate around the joint. Once the desired position is achieved re-tighten both 'G' screws .

To raise or lower the cheek piece, loosen the thumb wheel 'F' and position as required. Re-tighten the thumb wheel to lock the rod.

It is possible to slide the rod completely from the clamp, this is normal.

## Adjusting the Cheek Piece Rail

The rail controls the forward and backward movement of the cheek piece as well as side-to-side motion. Two screws control both actions, screw 'H', loosen these screws using a 4 mm allen key, position as required and then re-tighten the screws.



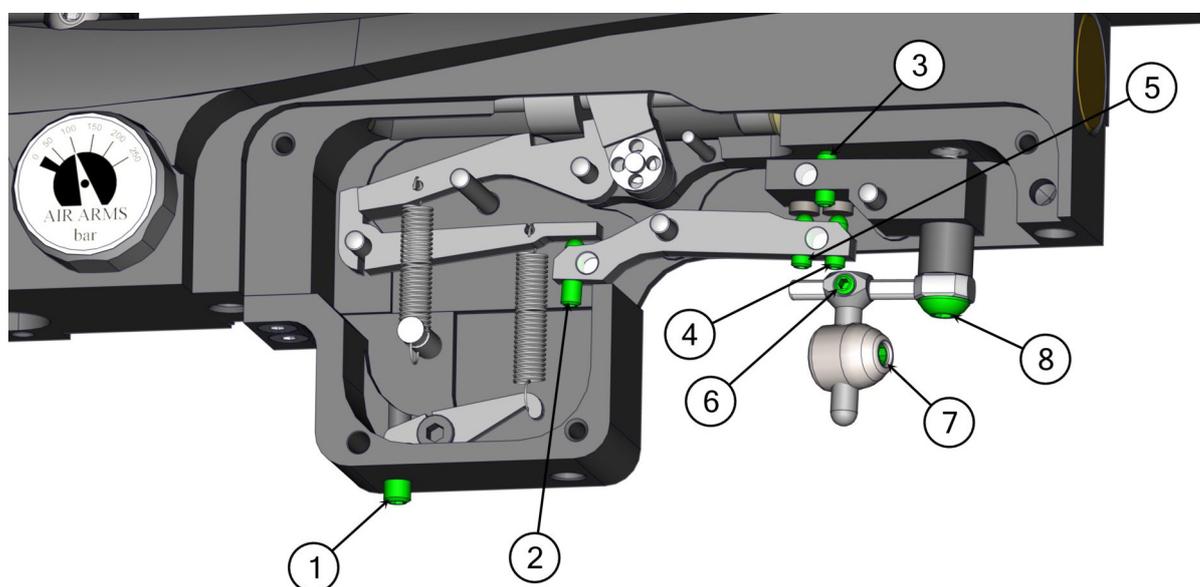
## Trigger Adjustment

The trigger on the XTi-50 is a multi-adjustable two-stage match trigger with 4 positional adjustments and five pull-off and sensitivity settings.

This allows the shooter to place the trigger button in the perfect position and have the feel of the trigger to their exact requirements.

**NOTE: Two-stage triggers can be very difficult to set or adjust. An adjustment of any of the screws will affect the position of the other screws and contact points in the trigger. If you have little or no experience consider leaving as set by the factory. If you do wish to change the settings it is good practise to make very small adjustments (1/8 or 1/4 of a turn) taking written notes of what you have done so that it is possible to return the trigger to the original settings. A POORLY ADJUSTED TRIGGER CAN BE DANGEROUS.**

1. This is the trigger weight screw. Adjusting this screw in (clockwise) will increase the spring tension on the trigger.
2. This screw is the fine pivot screw for the bottom sear. Adjusting this screw in (clockwise), shortens the engagement and therefore the sensitivity.
3. This screw is the primary screw used to adjust the first stage. Adjusting this screw in (clockwise) shortens the stage.
4. This screw is the stop screw for the second stage. Adjusting this screw in (clockwise) will bring the trigger movement to a stop sooner therefore shortening the first stage.
5. This screw adjusts the pivot point of the first stage. Altering this screw alters the pivot point and can be used to lengthen or shorten the first stage.
6. This screw locks the trigger pillar to the trigger bar. The trigger pillar can move forwards and backwards along the trigger bar.
7. This screw locks the trigger button in place. The button can be raised or lowered on the pillar as well as rotated around it.
8. This screw is the trigger bar pivot locking screw. This allows the trigger bar to pivot from side to side.



***MAKE SURE THE RIFLE IS NOT COCKED OR LOADED BEFORE MAKING ANY ADJUSTMENT TO THE TRIGGER.***

### **First Stage Adjustment**

First stage adjustment is primarily set using screw 3, adjust this screw in (clockwise) to shorten the stage and out (anti-clockwise) to lengthen the stage.

### **Second Stage Adjustment**

To adjust the second stage use screws 4 & 5. These screws adjust in (clockwise) & out (anti-clockwise) to set the exact let-off point.

Screw 5 is the primary screw, adjusting this in will increase sensitivity. Screw 4 can be used to change the stop point and therefore the length of each stage.

### **Trigger Weight**

The weight or spring load on the sears is controlled by the trigger weight screw 1, turn the screw in (clockwise) to increase weight and out (anti-clockwise) to make the trigger load lighter. If the load is too light you may experience some problems with the sears resetting if you decide not to take the shot after taking up the first stage.

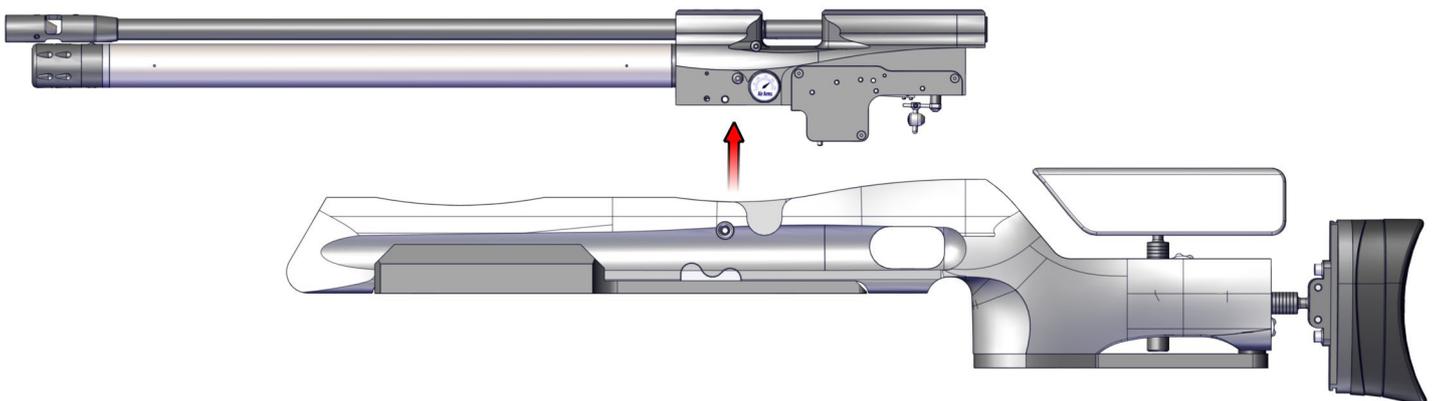
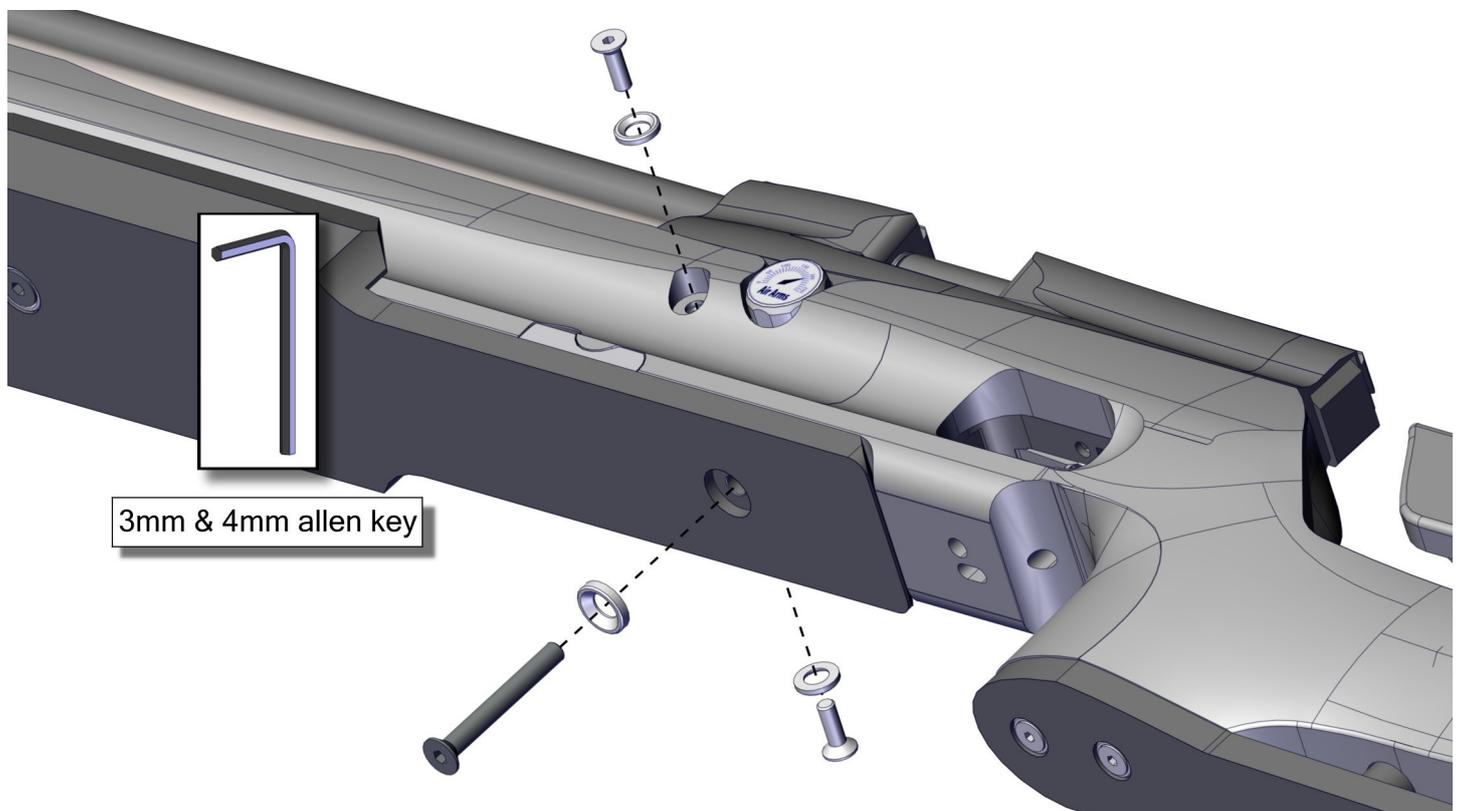
***CARE MUST BE TAKEN WHEN ADJUSTING THE TRIGGER, CHANGES TO EACH SCREW WILL AFFECT THE OTHER SCREW SETTINGS AND THE TRIGGER MAY NOT PERFORM AS EXPECTED. ALWAYS MAKE SURE THE RIFLE IS NOT LOADED DURING TRIGGER ADJUSTMENTS.***

## Stock Removal

To remove the action from the main stock body please follow the below procedure.

**Ensure the rifle is not loaded or cocked before carrying out any maintenance on the rifle.**  
**It is also easier to remove the action if the scope has been removed although this is not necessary.**

1. Remove the two side stock screws using a 3mm allen key. There is a washer below the bolt that may be loose so take care not to drop it.
2. Lastly, remove the bottom stock screw using a 4 mm allen key. Again there is a washer below the screw that may drop out, so take care.
3. The action will now lift out of the stock.
4. To refit the action into the stock is the reverse action. Loosely fit the three stock screws starting with the side screws. Once all three screws are fitted they can all be tightened fully. Do not use excessive force as the screws only need to be hand tight.



## Maintenance and Lubrication

***ALWAYS CHECK TO ENSURE THE RIFLE IS NOT COCKED OR LOADED BEFORE CARRYING OUT ANY MAINTENANCE.***

### Correct types of lubrication

Air Arms recommend Molybdenum Disulphide based grease on lubrication points 'A' and low viscosity mineral based oils on pivot points. See below.

### Where to use lubrication

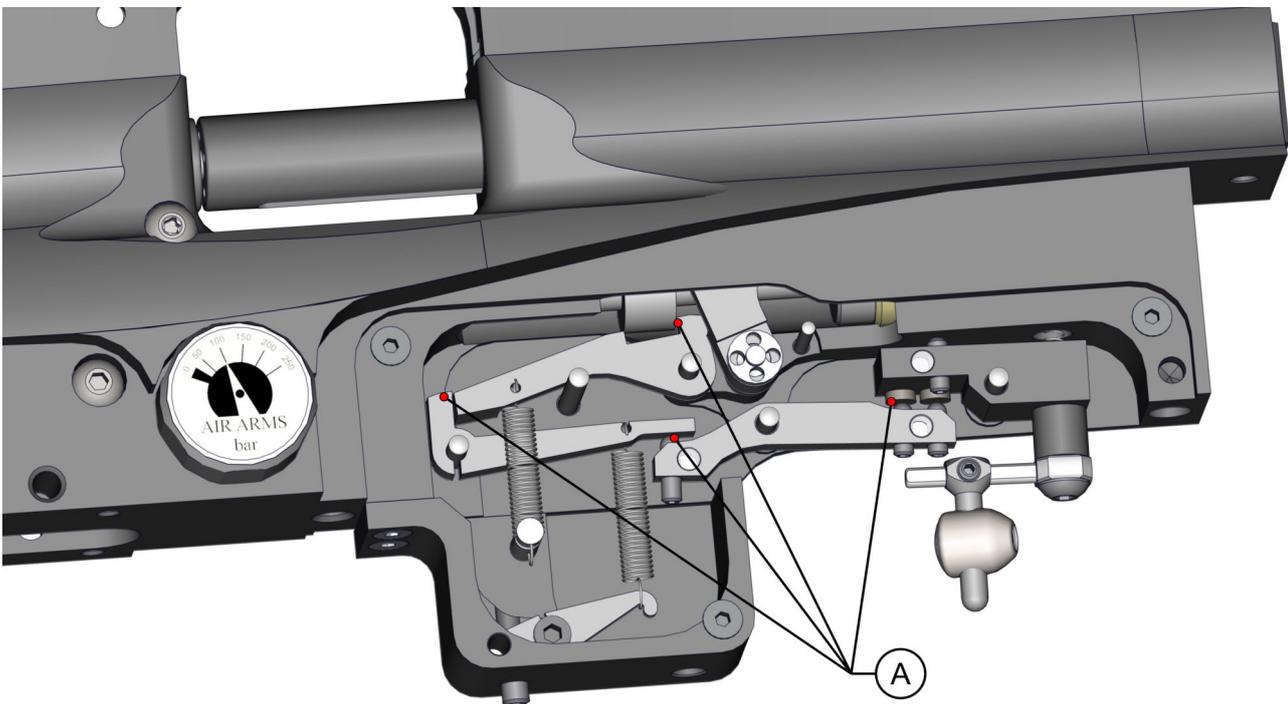
To maintain the surface finish of your rifle we recommend that all metal surfaces are wiped after use with an oil impregnated cloth. This will help to protect the surface finish and remove any corrosive liquids that have touched the metal. Pay particular attention to areas that come into contact with your hands or skin.

***If the rifle has been used in wet/damp conditions it is a wise precaution to remove the action from the stock and clean the metal work below stock level. Please see the section on stock removal.***

***Also, check if water has entered the muzzle. If this is the case remove the muzzle from the barrel to dry and re-grease this area. This is achieved by loosening the screw on the top of the muzzle and sliding it from the barrel. When refitting ensure that the screw is aligned with the dimple in the barrel before tightening.***

### The trigger unit

The lubrication points for the trigger are marked 'A' on the image below. These areas are all metal-to-metal contact points. Use mineral oil on all pivot points i.e., dowels and roller or bearings. Oil should be used sparingly. If the mechanism becomes covered in oil or grease this will encourage the build-up of dust and slowly clog the system possibly causing it to jam. The striker runs on synthetic bearings and should be free of oil and grease. Applying lubrication to the striker can cause performance issues.



## Barrel cleaning

To keep your rifle at the peak of performance it is recommended that the barrel is periodically cleaned and re-oiled. The exact time or when to clean the barrel will vary from rifle to rifle, we generally state that if you see the accuracy 'going off' now is the time to clean. Lead is a natural lubricant and most barrels will benefit from having several hundred shots fired after cleaning to come back to their best performance.

The best way to clean the barrel is with a pull-through and rifle cleaning pads using a little cleaning fluid and gun oil. Air Arms use Napier cleaning products.

### ***BEFORE CLEANING MAKE SURE THE RIFLE IS NOT COCKED OR LOADED***

1. Cut several 30 mm lengths of cleaning cloth
2. Spray a small amount of the cleaning fluid into the bore of the rifle, be sure not to soak the action
3. Thread the pull-through down the barrel, this may be easier with a straw or similar plastic tube when feeding from the muzzle end
4. Place a piece of cleaning cloth through the loop and spray a little more cleaning fluid onto the cloth, now pull the cloth slowly through the barrel.
5. Repeat this process until the cloth comes through clean
6. Now repeat the process with an oiled pad

Once this has been completed it is recommended that 10-20 shots are fired through the barrel to clear excess oil and re-lead the barrel.

<i>Cleaner:</i>	<i>'Napier Formula x', alternatively white spirit.</i>
<i>Oil:</i>	<i>'Napier Gun Oil', alternatively '3 in 1' oil.</i>
<i>Grease:</i>	<i>'Napier Gun Grease', alternatively a moly based grease</i>
<i>Pull-through pad:</i>	<i>'Napier Rifle Clean', alternatively soft cotton cloth.</i>
<i>Pull-through line:</i>	<i>'Napier Pull Through Kit' , alternatively 20 lb fishing line</i>

## Miscellaneous

The pivot points of the wind indicator/level housing, cocking arm and link will benefit from a small amount of oil occasionally and the loading bolt shaft should be wiped over with an oil impregnated cloth after use.

## Removing Air From the Cylinder

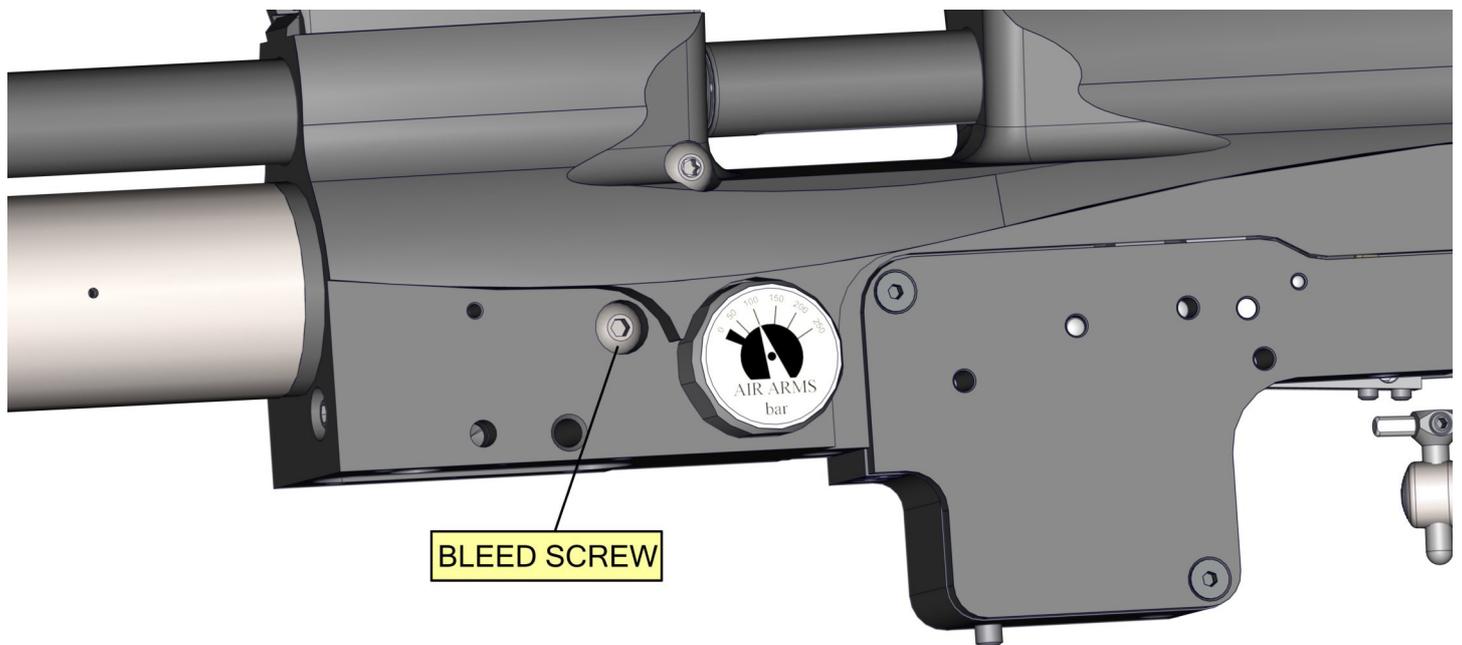
There may be occasions when you need to remove all the air from the cylinder. To do this on the XTi-50 first remove the action from the stock (see the Stock removal section).

With the action out of the stock, the cylinder bleed screw can now be accessed. It is located on the left hand side of the action below the stock line and forward of the gauge mount area.

Using a 2.5 mm allen key, carefully loosen the button headed screw shown in the below image. **ONLY LOOSEN THIS SCREW UNTIL THE AIR STARTS TO FLOW. DO NOT REMOVE THE SCREW WHILST AIR IS FLOWING.**

Once the air stops flowing check the gauge for air level and if it shows '0', test the rifle by dry firing (shooting without a pellet loaded) in a safe direction. If no air comes from the barrel the cylinder is empty. If air comes from the barrel this indicates there is still air in the system. Check the bleed screw to see if it is still releasing air and dry fire the rifle again.

Once you are satisfied the cylinder is empty of air, re-tighten the bleed screw.

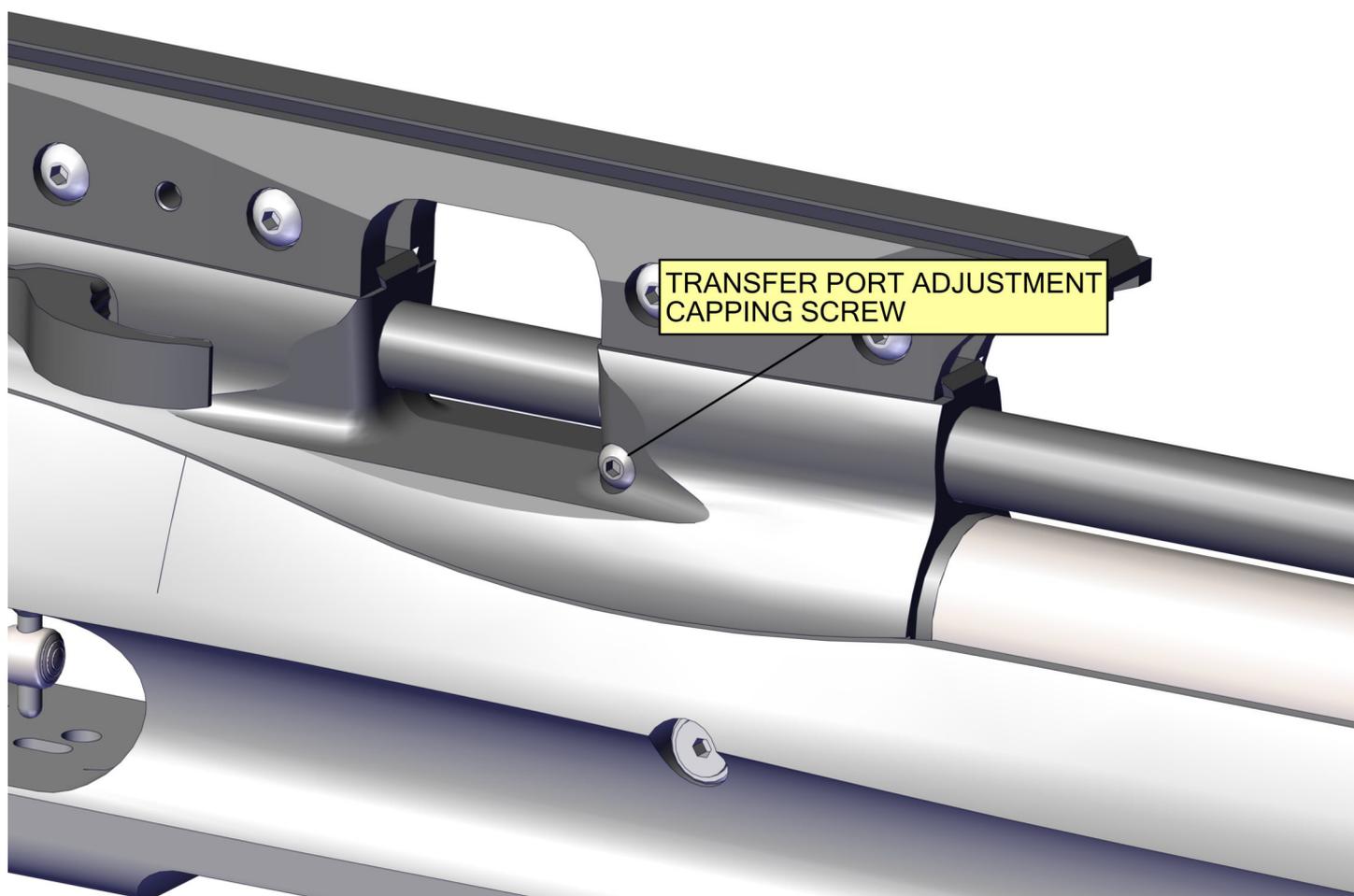


## Transfer Port Adjustment

The XTi-50 has two transfer port adjusters (one on each side below the breech) built in to the rifle. These are used to control the flow of air to the barrel and fine tune the output of the rifle. On export models both ports are accessible to the shooter, although only one is needed. UK rifles have only the right hand port available. These ports are for fine tuning the rifle to different pellet brands and allow the shooter to reduce the power if required.

To access the port simply remove the covering button head screw, underneath of which is the adjuster screw. Turn the screw in or out and test the rifle over a chronograph to set the velocity to the required output. Once the setting is complete replace the cover screw to reduce the chance of dust or moisture entering the action.

To lower the power the screw should be turned clockwise.



Intentionally Blank

## Air Stripper Adjustment

The XTi-50 is fitted with an adjustable air stripper. An air stripper is designed to remove as much of the turbulent air from around the pellet as it exits the barrel.

Making this element adjustable allows the shooter to set the cone at precisely the required distance from the muzzle to suit their pellet of choice. It does mean that it is possible to set the cone within the muzzle incorrectly adversely affecting the grouping.

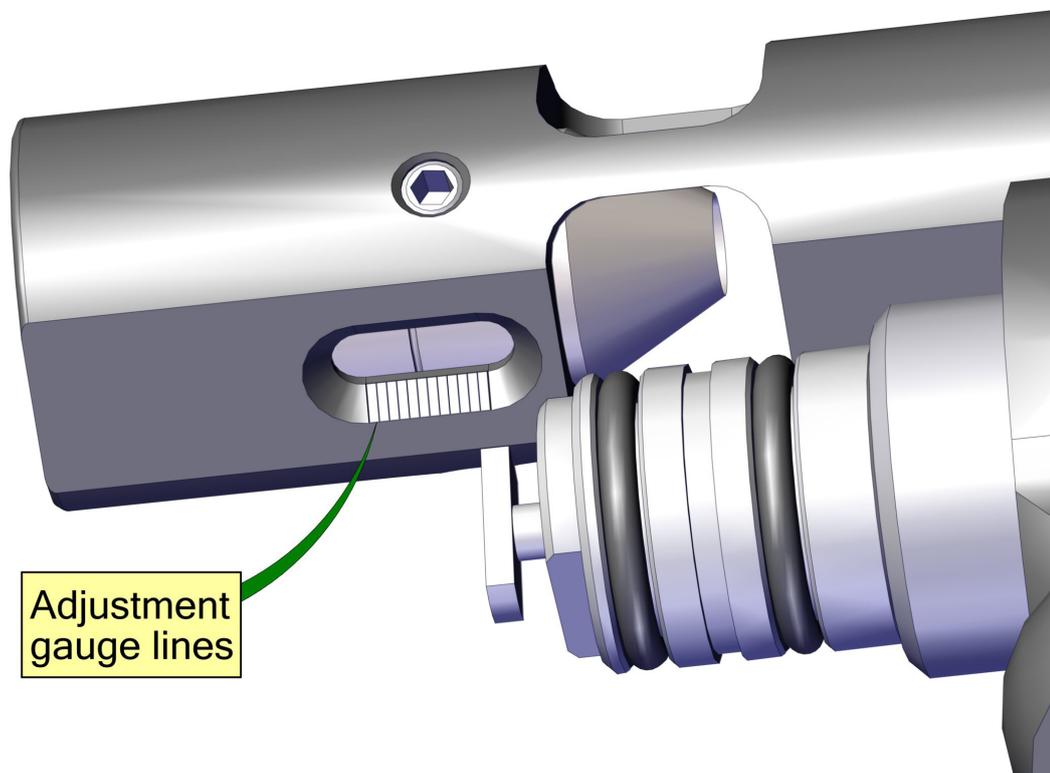
Setting the air stripper is very much a trial-and-error process to find what works for you. Make small adjustments and keep records of all adjustments. Carry out tests between changes in comparable conditions. Be aware, a poorly adjusted cone can have a detrimental affect on accuracy. Air Arms do not cover accuracy issues due to poor cone adjustment under warranty.

### Adjusting the Stripper Cone

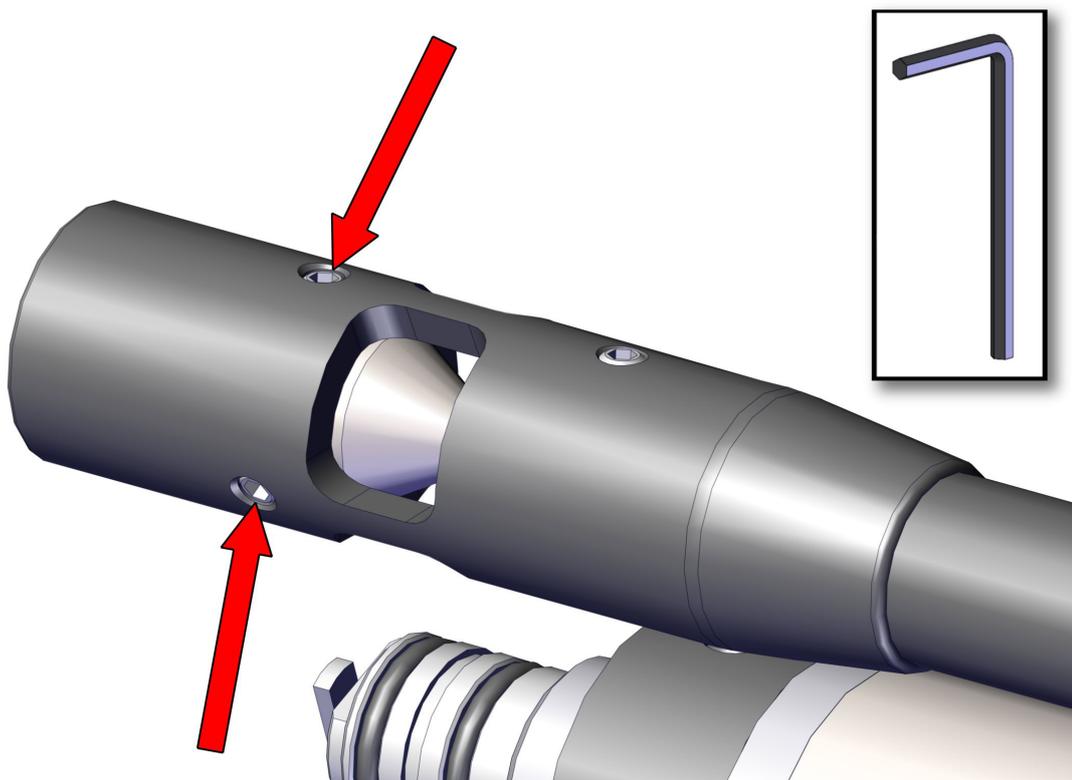
*Warning - When working on the air stripper ensure the rifle is not cocked or loaded. You will be making adjustments on the rifle at the point the pellet leaves barrel and personal harm may occur if extreme care is not taken.*

Before starting any adjustments ensure you have the correct tools and remove the end cap from the rifle to make access easier.

1. Make a note of the starting position of the cone using the gauge lines on the underside of the muzzle body and the line in the cone as a guide.

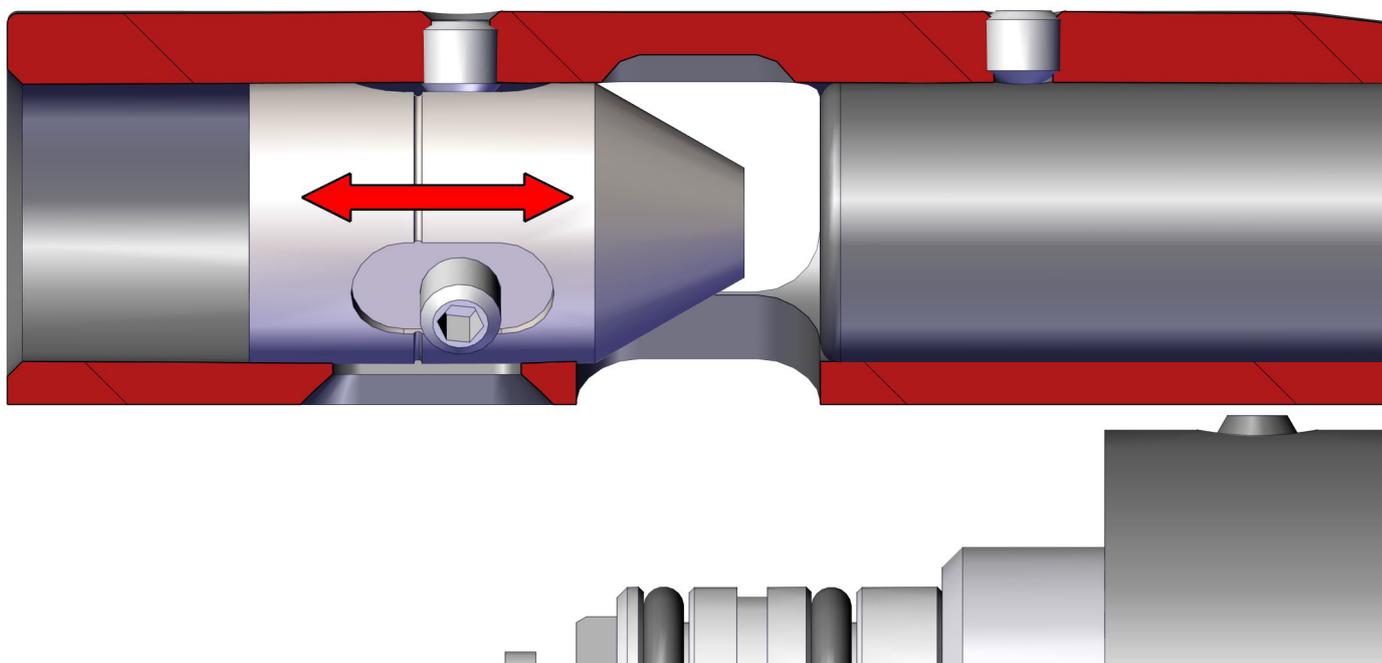


2. Loosen the 3 set screws holding the cone in position using a 2 mm allen key. Loosen these screws only enough to allow the cone to slide.

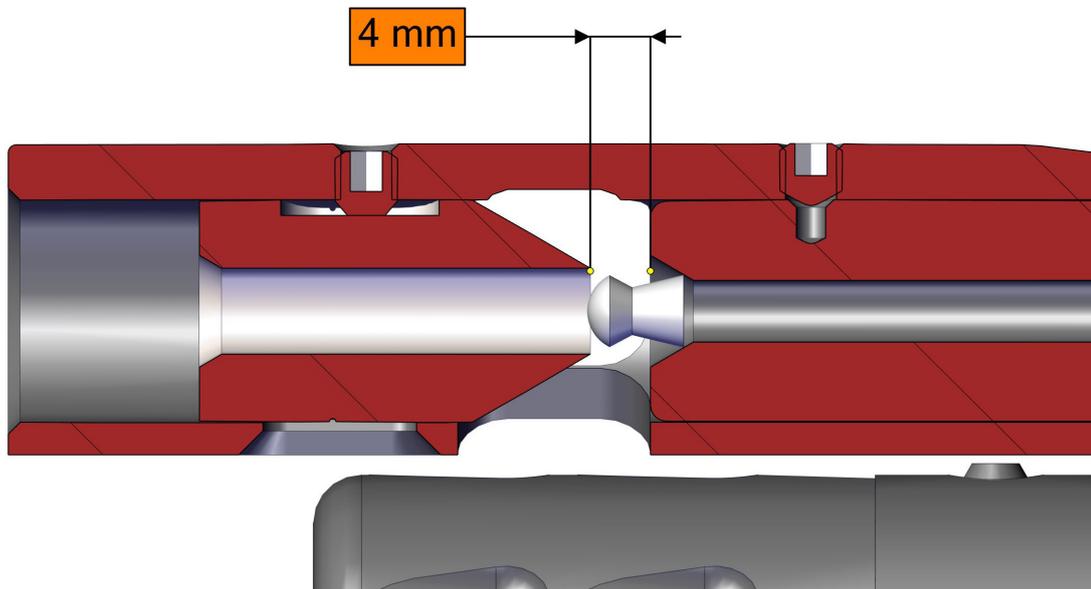


3. Slide the cone to the required position and re-tighten the screws. Ensure the screws are not over-tightened. The torque setting for the 3 screws is 2 N/mm. If you do not have access to a torque wrench then 'pinch' tight will work.

4. Make a note of the new position, once you are happy with the results, and check for movement at regular intervals.



The factory set position of the cone is 4 mm. This distance has been chosen as a good starting position for most pellets. Note - This distance was the result of testing under factory conditions and may not be the best position in every case.



*Warning. As mentioned earlier in the handbook, working on the muzzle is potentially dangerous due to the fact you are making adjustment on the rifle at the point the pellets leaves the barrel. Ensure the gun is not cocked or loaded whenever working on your rifle. IF IN DOUBT CHECK AGAIN.*

## Stabilizer

The XTi-50 has an in-built stabiliser that counteracts the motion and energy of various components of the rifle during the firing cycle, including the movement of the pellet and the air released.

The stabiliser is a piston mounted inside the loading bolt shaft. When the rifle is fired, the piston travels backwards toward the butt, releasing energy in the opposite direction to that required to fire the pellet. This motion counteracts some of the 'recoil'.

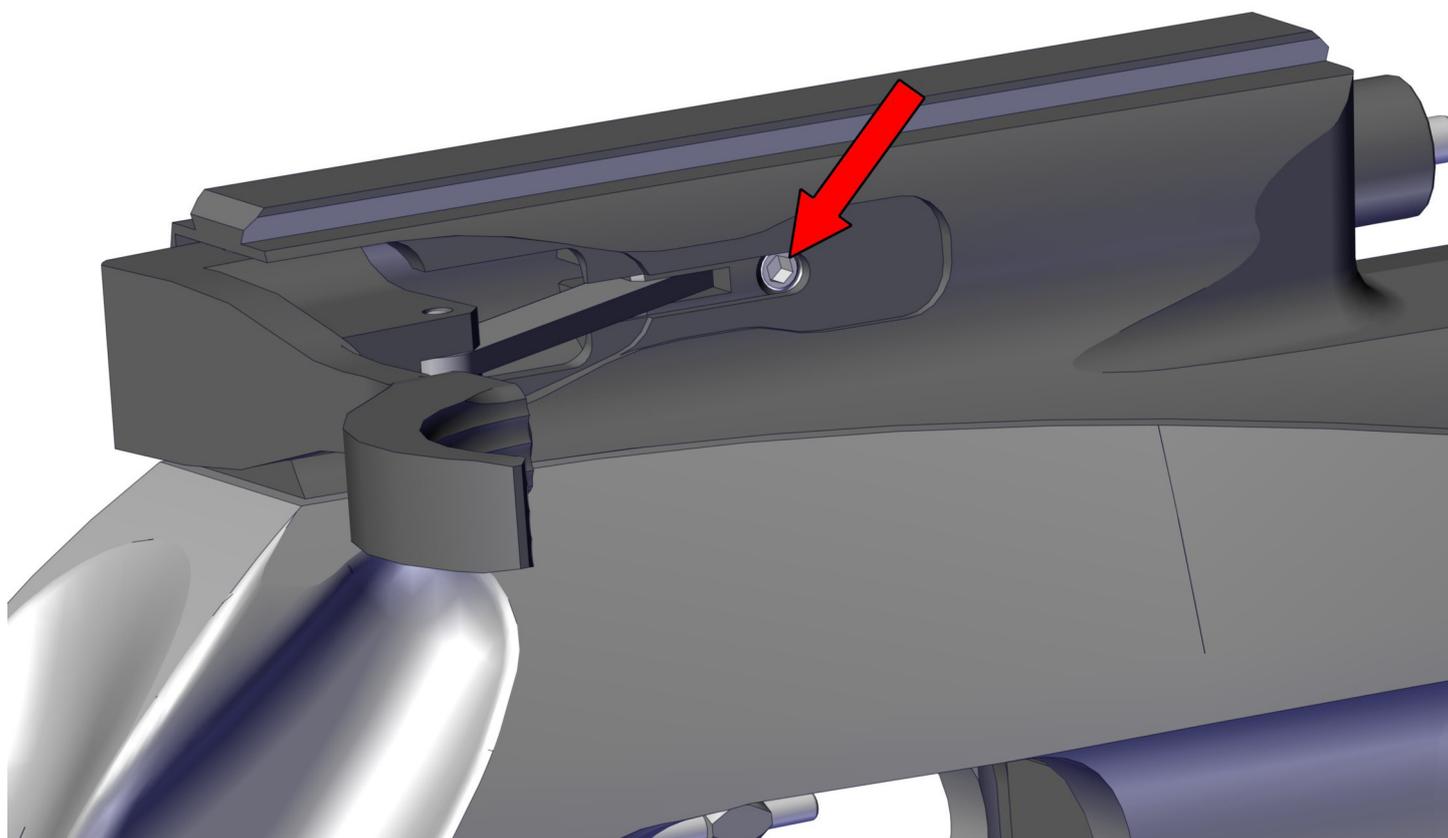
The piston speed can be controlled via a screw accessible through the cocking lever slot. The screw controls the speed at which the piston can displace air from the bore, which in turn controls the piston's speed.

The piston can be made to move faster if the screw is turned anti-clockwise (out) and slower if the screw is turned clockwise (in).

Care must be taken when adjusting the screw not to turn it too far anti-clockwise (out). If the screw is unwound too much, it will be proud of the shaft and foul the bore of the main body. This will cause damage to the bore and may impede operation.

Changes to the stabiliser screw adjustment produce tiny differences in performance, and it is advised to leave the rifle as factory-set.

The factory position of the stabiliser screw is 2.5-3 mm from the surface of the shaft to the top of the screw head.

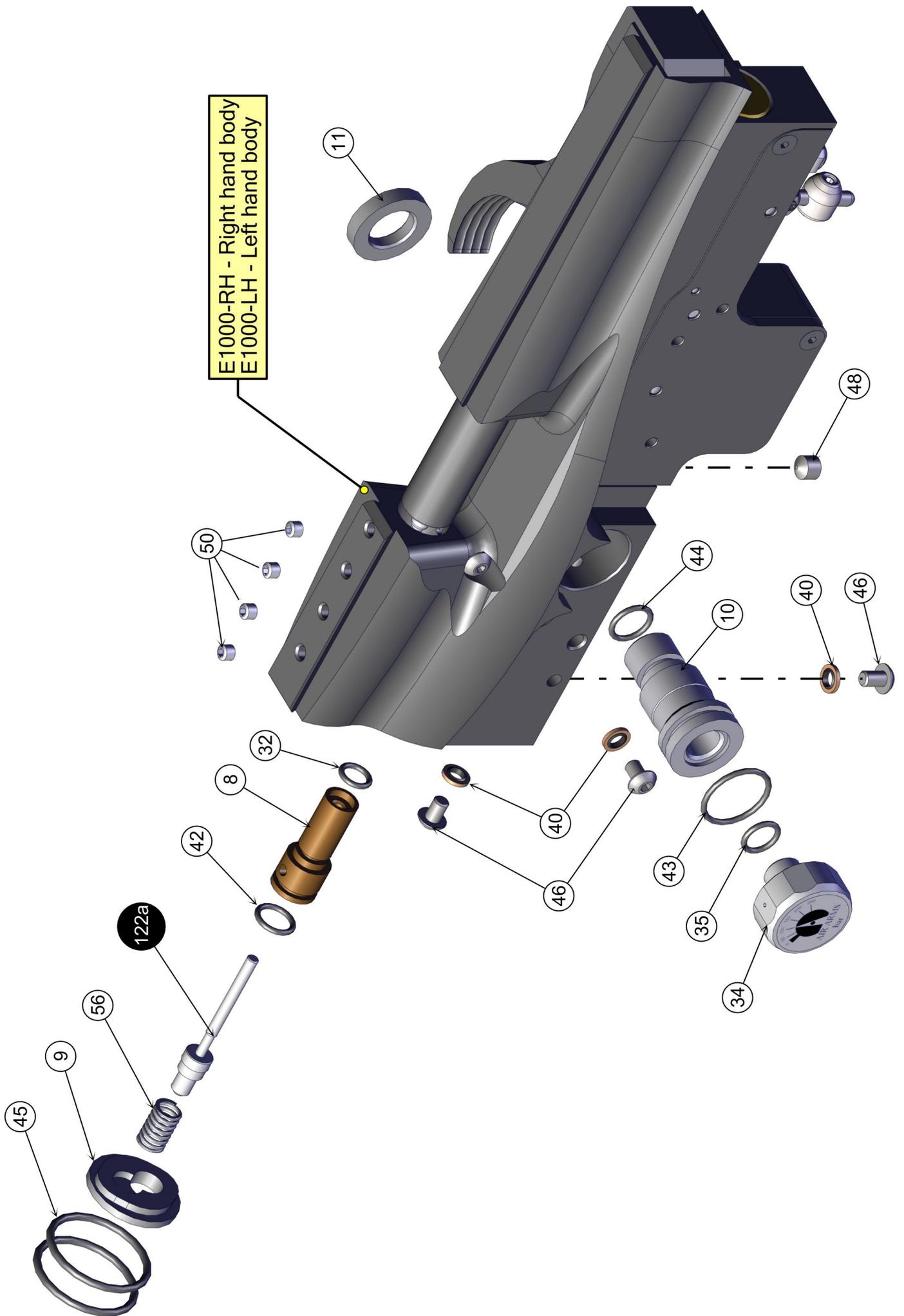


## Main Body Assembly Part One

## Exploded Diagrams

BOM ID	Part No.	Description	Qty
8	E1042	VALVE SEAT	1
9	E1072	SPRING SUPPORT	1
10	E1024	GAUGE MOUNT	1
11	E1026	GAUGE MOUNT NUT	1
32	FP122	6 X 1.5 NBR70	2
34	S645	GAUGE	1
35	RN219-9	BS011 NBR70	1
40	S912	BONDED SEAL - 7.20 X 4.1 X1	3
42	S966	8 X 1.5 NBR70	1

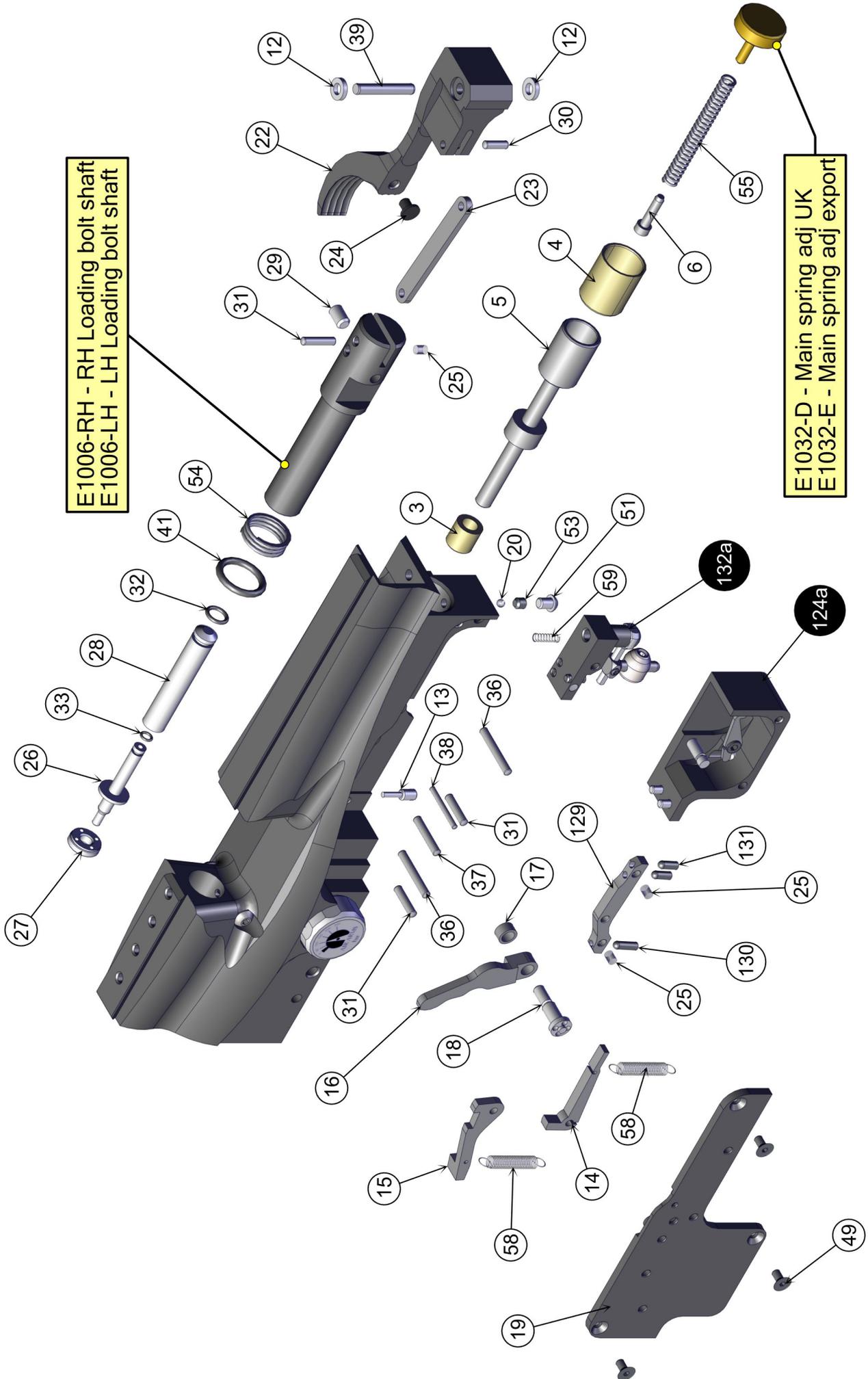
BOM ID	Part No.	Description	Qty
43	E625-2	16 X 2 NBR70	1
44	FP231	9 X 2 NBR70	1
45	E935	24 X 2 NBR70	2
46	E1224	M4 X 6 SKT BTN ST/ST	3
48	S934	M6 X 6 SKT SET CONE PT	1
50	E113	M4 X 4 SKT SET CONE PT ST/ST	4
56	E1044	COMPRESSION SPRING	1
122a	E1040A	FIRING VALVE	1



## Main Body Assembly Part Two

BOM ID	Part No.	Description	Qty
3	E1038	FRONT STRIKER BEARING	1
4	E1036	REAR STRIKER BEARING	1
5	E1030	STRIKER	1
6	E1034	FRONT GUIDE	1
12	E810	COCKING ARM WASHER	2
13	E1022	RESET PIN	1
14	E1048	MIDDLE SEAR	1
15	E1050	TOP SEAR	1
16	E1056	INTERNAL COCKING LEVER	1
17	E1054	LEVER SUPPORT	1
18	E1052	INTERNAL LEVER PIVOT PIN	1
19	E1004	COVER PLATE	1
20	E146	FRICTION PAD	1
22	E1018	COCKING ARM	1
23	E1016	COCKING LINK	1
24	TX227	BUFFER	1
25	TX432	ADJ SCREW LOCKING PAD	5
26	E1008	PELLET PROBE	1
27	E1010	PROBE RETAINER	1
28	E1012	COUNTER PISTON	1
29	E1020	M5 X 8 SKT SET FT PT ST/ST	1
30	RN127	3 X 9.8 ROLLER	1

BOM ID	Part No.	Description	Qty
31	TX297	3 X 13.8 ROLLER	3
32	FP121	4.5X 1.5 NBR70	1
33	CZ014	3 X 1 NBR70	1
36	E785	3 X 21.8 ROLLER	2
37	RN357	3 X 17.8 ROLLER	1
38	RN356	2 X 19.8 ROLLER	1
39	E805	4 X 24 ISO2338 (EXT m3)	1
41	FA469	BS113 NBR70	1
49	FP257	M3 X 6 CSK SKT	3
51	S974-AT	ANTI TAMPER SCREW - UK ONLY	1
53	TX228	M4 X 4 SKT SET FT PT	1
54	E1014	COMPRESSION SPRING	1
55	RN205	COMPRESSION SPRING	1
58	RN360	TENSION SPRING	2
59	E1062	COMPRESSION SPRING	1
124a	A1	SPRING HOUSING ASSEMBLY	1
129	E1046	BOTTOM SEAR	1
130	S421	M3 X 10 SKT SET FT PT	1
131	RN310	M3 X 8 SKT SET CONE PT	2
132a	A2	TRIGGER ASSEMBLY	1



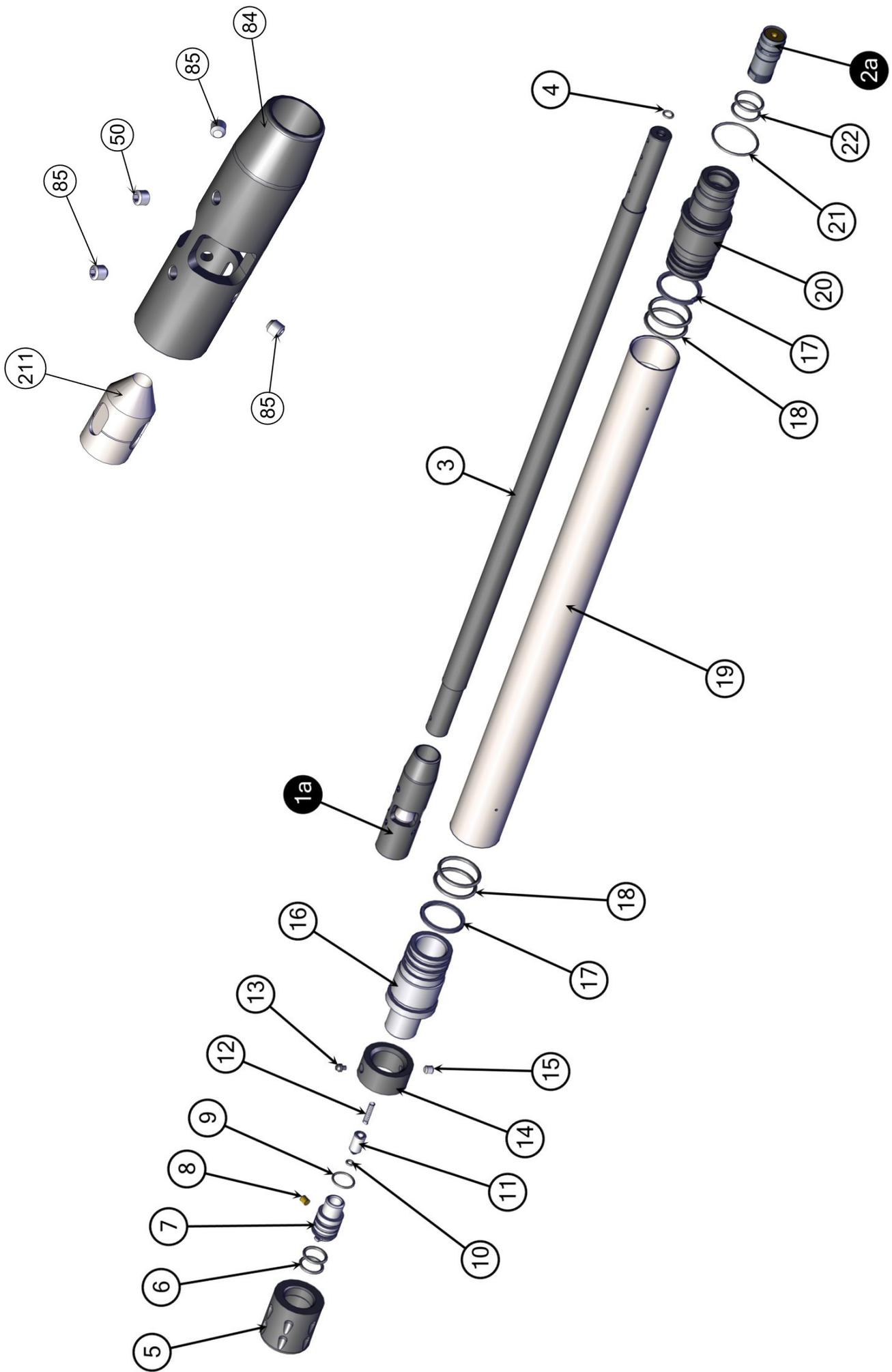
## Barrel and Cylinder Assembly

BOM ID	Part No.	Description	Qty
1a	E1092A	MUZZLE ASSEMBLY	1
2a	S962A	REGULATOR	1
3	E1090	BARREL	1
4	FP121	4.5 X 1.5 NBR70	1
5	E1082	END CAP	1
6	S474	12 X 2 NBR70	2
7	S472	MALE CONNECTOR	1
8	S471	SINTERED FILTER	1
9	S484	12 X 1.5 NBR70	1
10	S327	BS005 NBR90	1
11	S473	FILLING VALVE	1
12	S319	COMPRESSION SPRING	1

BOM ID	Part No.	Description	Qty
13	E870	GROMMET	1
14	E1084-B	WIND INDICATOR MOUNT	1
15	E1218	M5 X 5 SKT SET FL PT ST/ST	1
16	E1080	FILLING VALVE BODY	1
17	S837	23 X 2.5 BACKUP RING	2
18	S836	23 X 2.5 NBR90	4
19	E1078	CYLINDER	1
20	E1074	REGULATOR HOUSING	1
21	E1148	BS023 NBR70	1
22	S342	15 X 2 NBR90	2

## Muzzle Assembly

BOM ID	Part No.	Description	Qty
50	E113	M4 X 4 SKT SET CONE PT ST/ST	1
84	E1092	MUZZLE END	1
85	E122	M4 X 4 SKT SET FT PT ST/ST	3
211	E1094	AIR STRIPPER	1

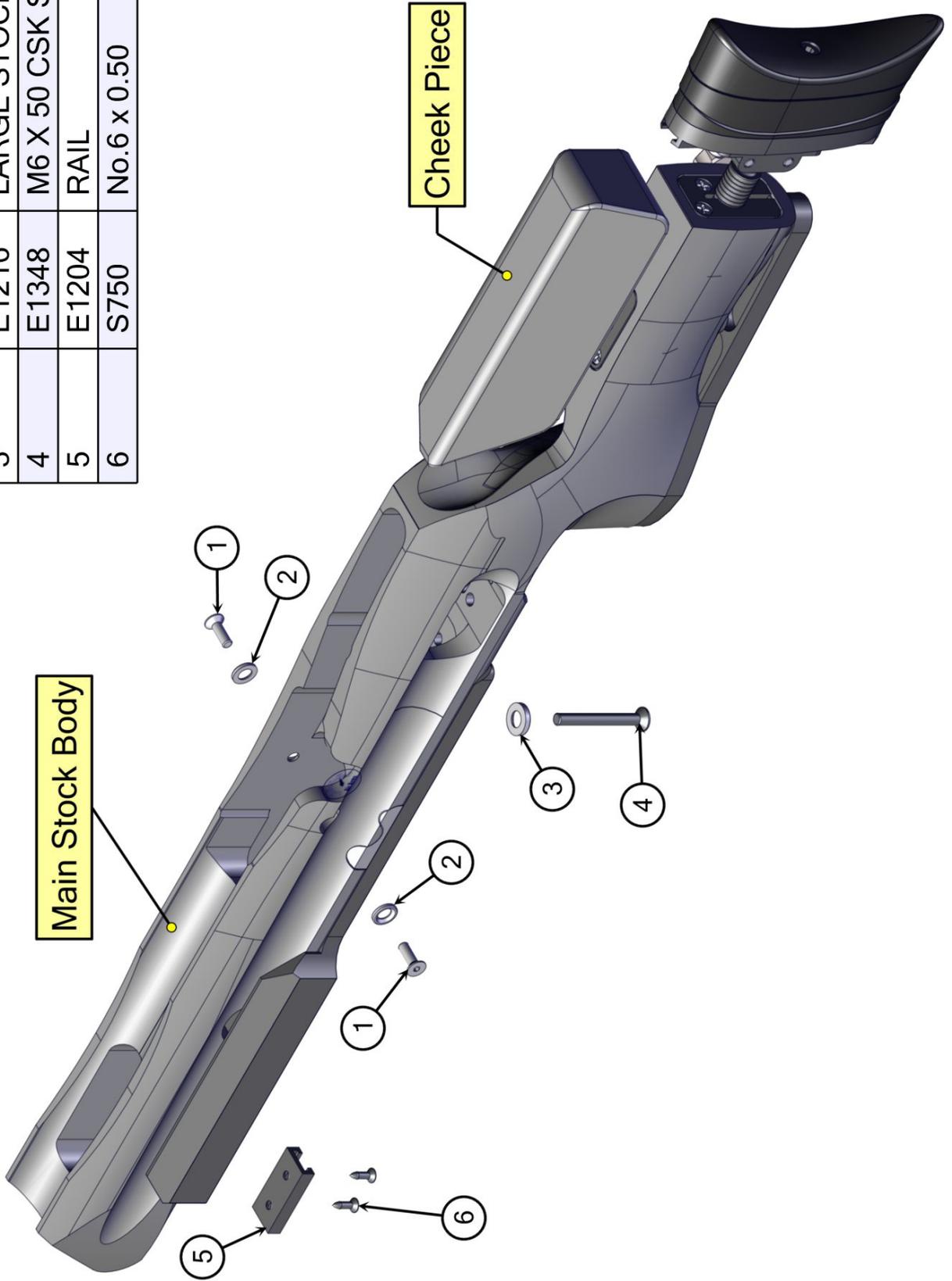


## Main Stock Body Assembly

### Stock Component Part Numbers

Main Body	E1210-RH-PT1-BLK	- Black Laminate RH
	E1210-LH-PT1-BLK	- Black Laminate LH
Cheek Piece	E1210-RH-PT1-SG-BSW-BO	- Orange Laminate RH
	E1210-LH-PT1-SG-BSW-BO	- Orange Laminate LH
	E1210-RH-PT2-BLK	- Black Laminate RH
	E1210-LH-PT2-BLK	- Black Laminate LH
	E1210-RH-PT2-SG-BSW-BO	- Orange Laminate RH
	E1210-LH-PT2-SG-BSW-BO	- Orange Laminate LH

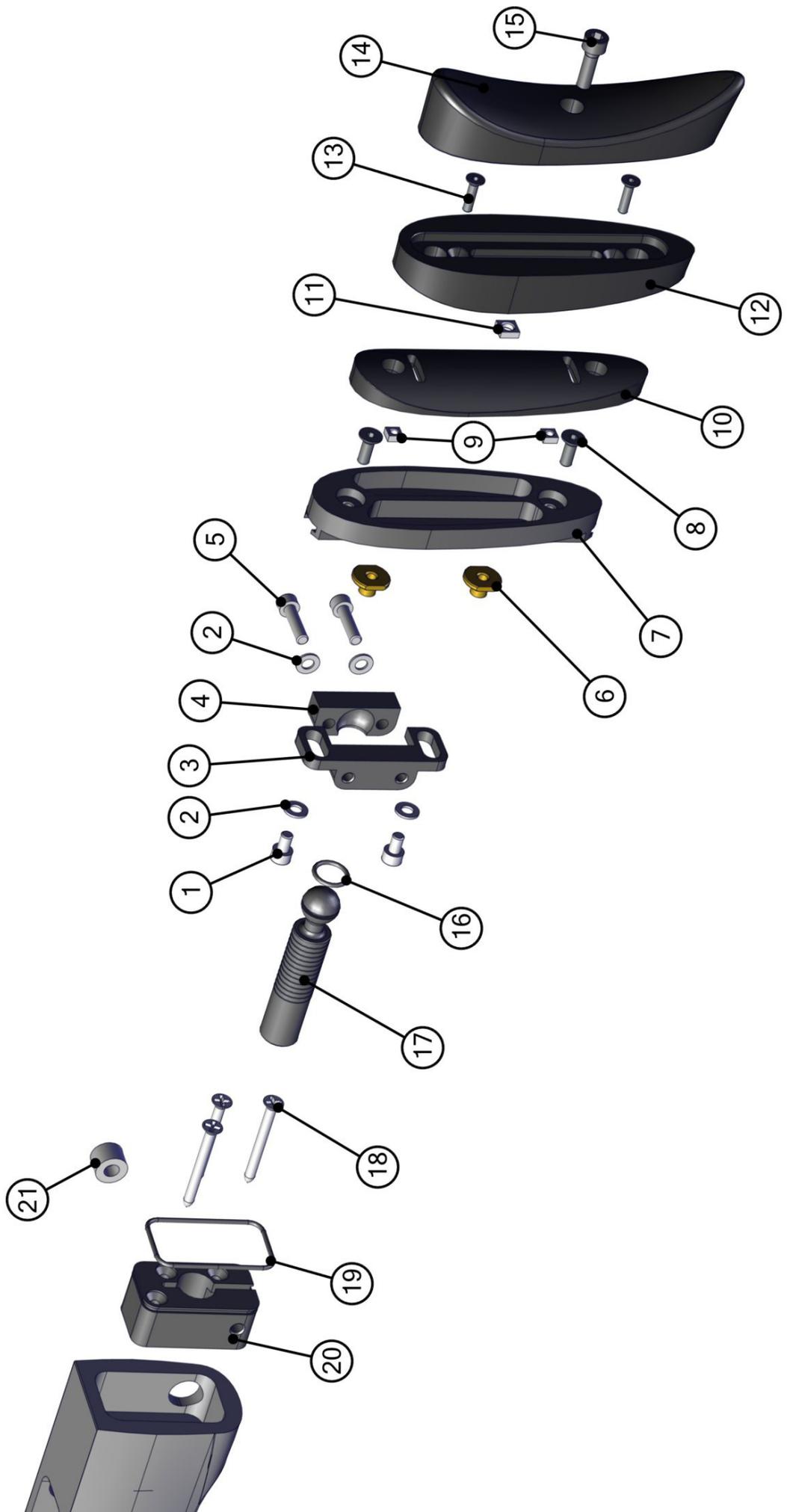
BOM ID	Part No.	Description	Qty
1	E456	M5 X 16 CSK SKT ST/ST	2
2	E1214	SMALL STOCK WASHER	2
3	E1216	LARGE STOCK WASHER	1
4	E1348	M6 X 50 CSK SKT ST/ST	1
5	E1204	RAIL	1
6	S750	No.6 x 0.50	2



## Butt Hook Assembly

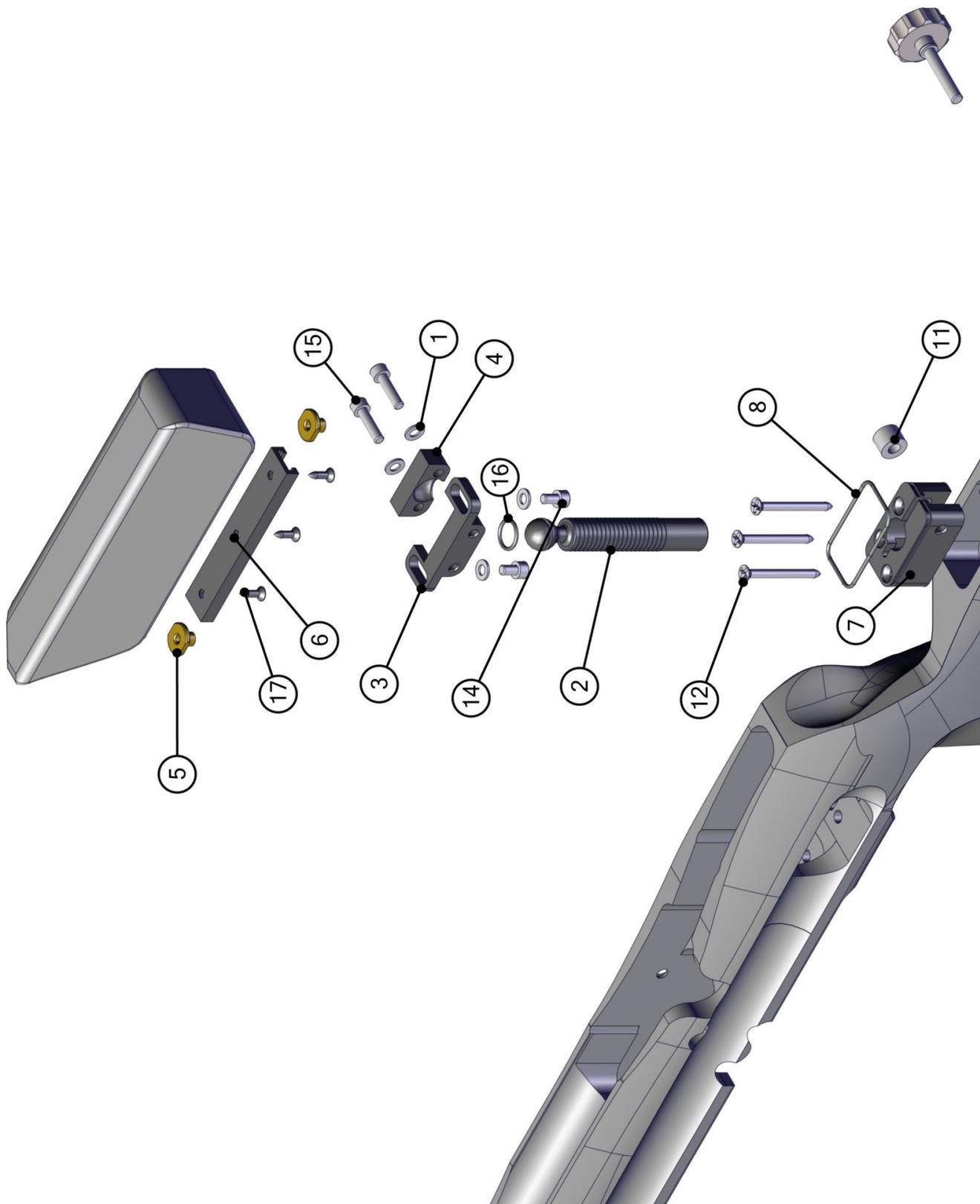
BOM ID	Part No.	Description	Qty
1	E1230	M5 X 8 SKT CAP ST/ST	2
2	BS-PART-16	M5 WASHER ST/ST	4
3	E1132-PT1	PIVOT BLOCK CLAMP - PT1	1
4	E1132-PT2	PIVOT BLOCK CLAMP - PT2	1
5	E420	M5 X 20 SKT CAP ST/ST	2
6	E1134	RAIL NUT	2
7	E1346	BUTT PAD BASE	1
8	TX436	M5 X 14 CSK SKT	2
9	S896-6	M4 NUT	2
10	S896-3	BASE PLATE	1
11	S896-5	M6 NUT	1
12	S896-2	BASE PIVOT	1

BOM ID	Part No.	Description	Qty
13	S910-BP	M4 X 16 CSK SKT	2
14	S896-1	BUTT PAD	1
15	S896-4	M5 X 20 SKT CAP	1
16	S474	12 X 2 NBR70	1
17	E1102	ADJUSTER ROD	1
18	E1146	No 8 X 1.75"	3
19	E1140	CLAMP GASKET	1
20	E1138-RH	CLAMP - RH	1
21	E1144	ADJUSTER BUSH	1
21a	E1142A	ADJUSTER SCREW	1

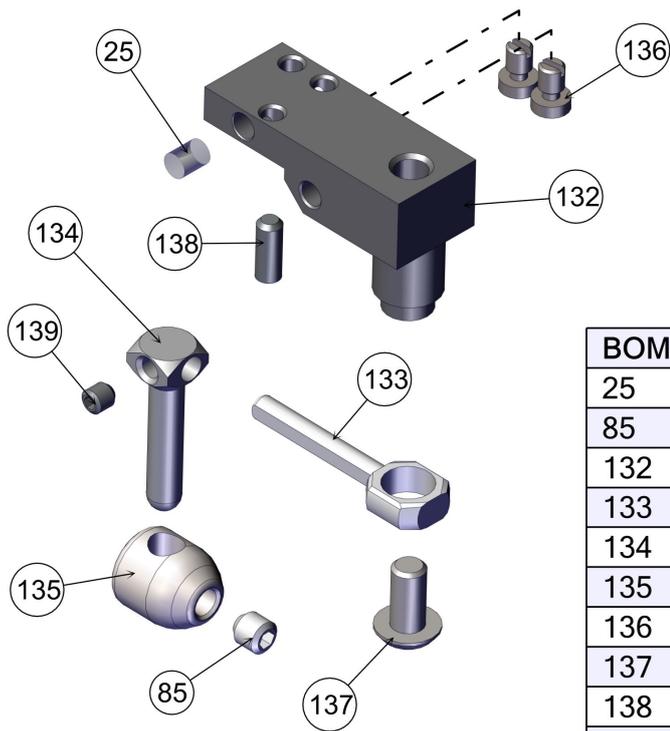


## Cheek Piece Assembly

BOM ID	Part No.	Description	Qty
1	BS-PART-16	M5 WASHER ST/ST	4
2	E1130-HFT	CHEEK PIECE ROD - HFT	1
3	E1132-PT1	CHEEK PIECE TOP CLAMP - PT1	1
4	E1132-PT2	CHEEK PIECE TOP CLAMP - PT2	1
5	E1134	CHEEK PIECE RAIL NUT	2
6	E1136	CHEEK PIECE RAIL	1
7	E1138-RH	CLAMP - RH	1
8	E1140	CLAMP GASKET	1
11	E1144	ADJUSTER BUSH	1
12	E1146	No 8 X 1.75"	3
14	E1230	M5 X 8 SKT CAP ST/ST	2
15	E420	M5 X 20 SKT CAP ST/ST	2
16	S474	12 X 2 NBR70	1
17	S750	No.6 x 0.50	3

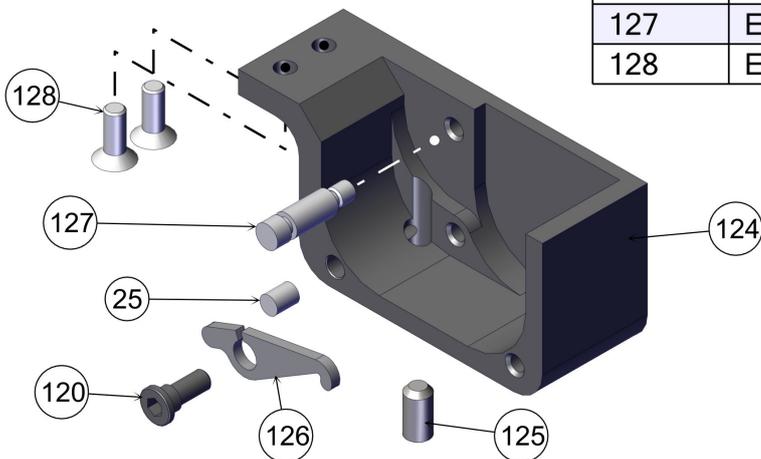


## Trigger Assembly



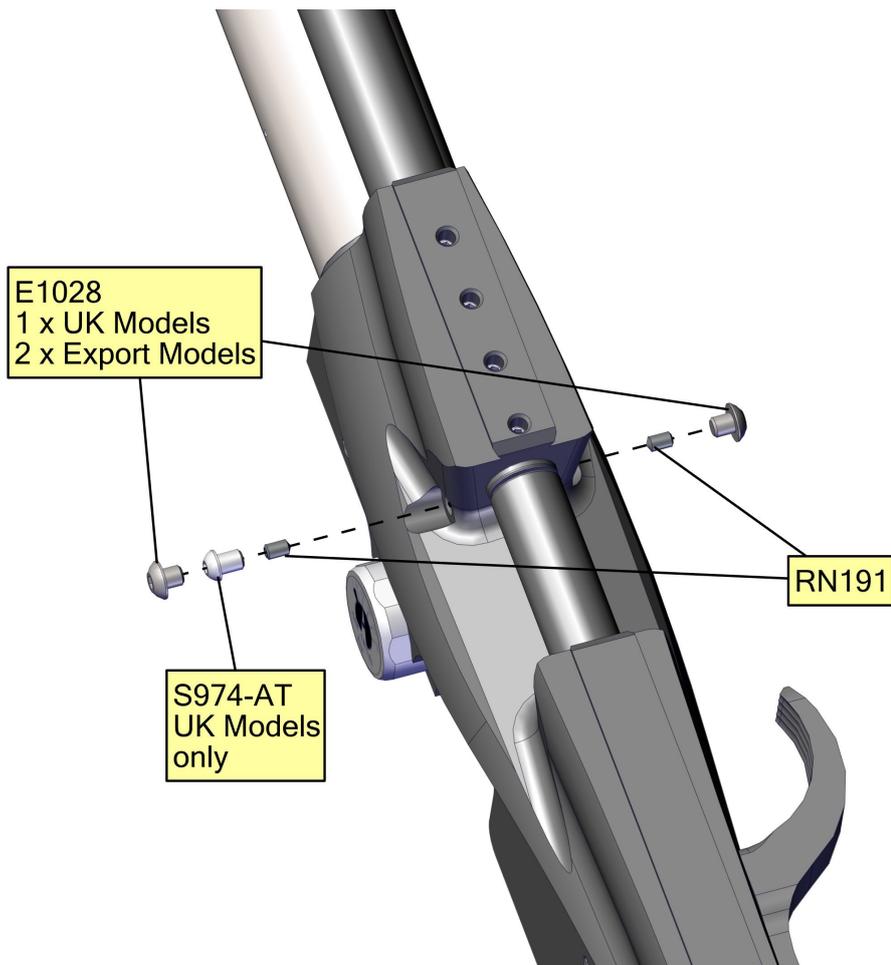
BOM ID	Part No.	Description	Qty
25	TX432	ADJ SCREW LOCKING PAD	1
85	E122	M4 X 4 SKT SET FT PT ST/ST	1
132	E1058	TRIGGER PIVOT BLOCK	1
133	RN325	TRIGGER BAR	1
134	RN330	TRIGGER PILLAR	1
135	E1064	TRIGGER BUTTON	1
136	E1060	TRIGGER PAD	2
137	E1226	M4 X 8 SKT BTN ST/ST	1
138	RN321	M3 X 8 SKT SET FT PT	1
139	TX239	M3 X 3 SKT SET FT PT	1

## Sear Spring Housing Assembly



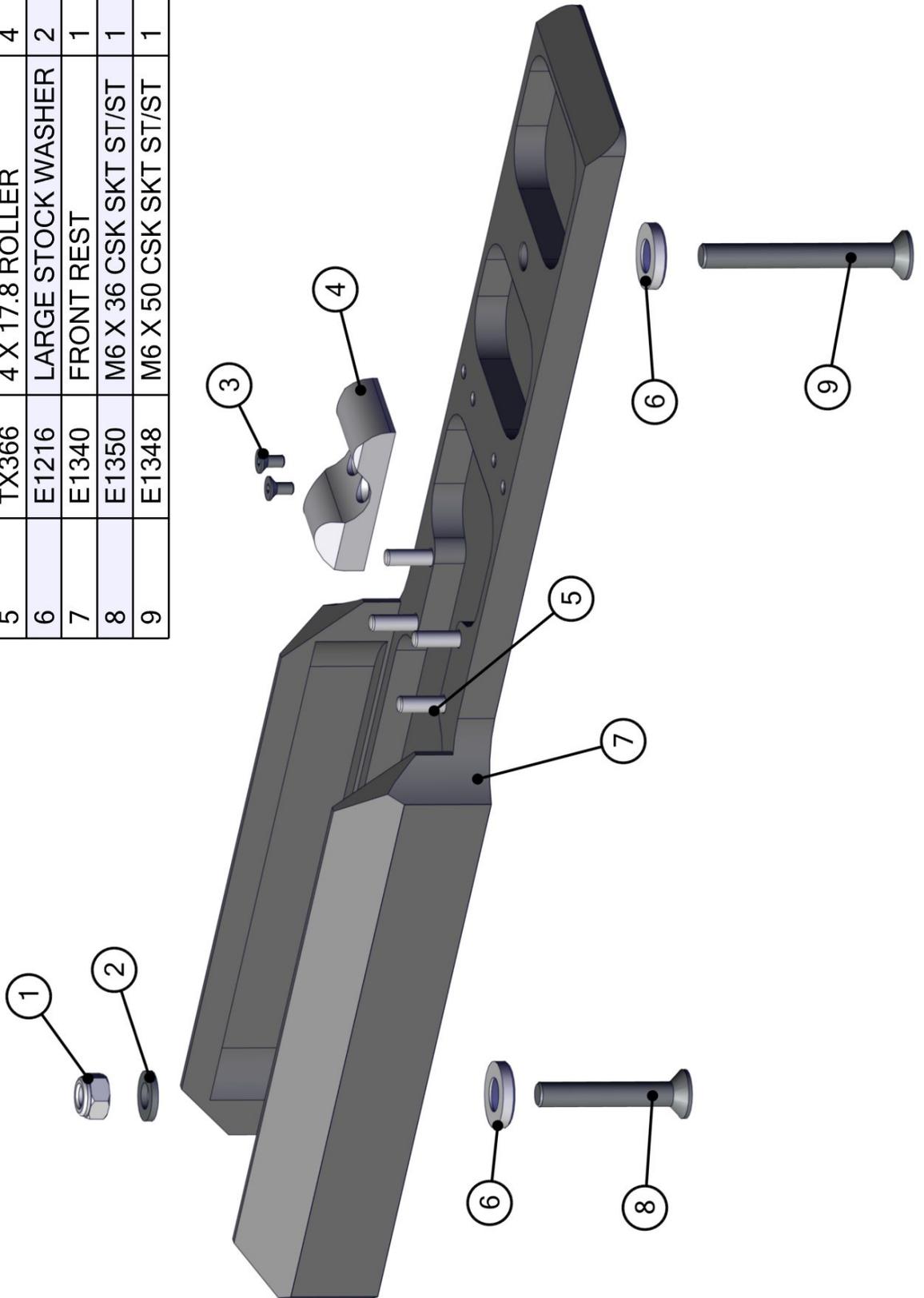
BOM ID	Part No.	Description	Qty
25	TX432	ADJ SCREW LOCKING PAD	1
120	E1194	PIVOT PLATE SCREW	1
124	E1002	SPRING HOUSING	1
125	FP292	M4 X 8 SKT SET FT PT	1
126	E1068	TRIGGER WEIGHT ADJ PLATE	1
127	E1066	SPRING POST	1
128	E1234	M3 X 8 CSK SKT ST/ST	2

## Transfer Port Screws

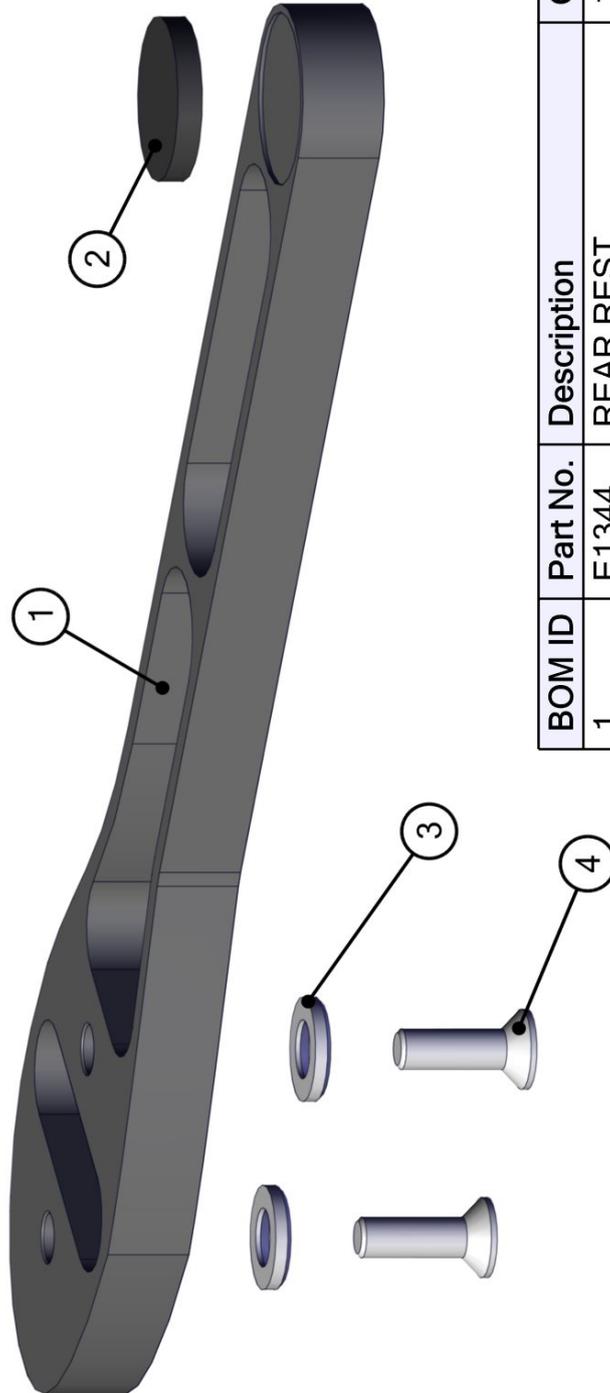


# Front Rest Assembly

BOM ID	Part No.	Description	Qty
1	RW13	M6 X 1 NYLOC NUT	1
2	S655	M6 WASHER	1
3	FP257	M3 X 6 CSK SKT	2
4	E1342	INFILL	1
5	TX366	4 X 17.8 ROLLER	4
6	E1216	LARGE STOCK WASHER	2
7	E1340	FRONT REST	1
8	E1350	M6 X 36 CSK SKT ST/ST	1
9	E1348	M6 X 50 CSK SKT ST/ST	1



# Rear Rest Assembly



BOM ID	Part No.	Description	Qty
1	E1344	REAR REST	1
2	E1352	RUBBER FOOT	1
3	E1214	SMALL STOCK WASHER	2
4	E456	M5 X 16 CSK SKT ST/ST	2



## Warranty (UK Only)

The Air Arms warranty covers repairs free of charge if the item is up to 3 years old, from date of purchase (UK only). The warranty covers faulty materials and workmanship, not reasonable wear and tear. The warranty applies to items purchased from new; proof of purchase is required. This cover is not transferable, therefore it applies to the original purchaser only. Please retain your receipt and register the warranty online at: [www.air-arms.co.uk/warranty-submission](http://www.air-arms.co.uk/warranty-submission).

***To safeguard your warranty, please ensure regular servicing is carried out as recommended.***

### What is covered

Replacement parts and labour. Return transportation to the consumer (UK mainland only).

### What is not covered

Transportation from the consumer to Air Arms.

Damage caused by misuse, abuse, disassembly or lack of routine maintenance/servicing.

No warranty is implied as to the fitness for any particular purpose. Return transportation to consumers outside the UK mainland. Any rifle with serial number removed or altered.

Please visit [www.air-arms.co.uk](http://www.air-arms.co.uk) to register your rifle and details or scan the QR code below.



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