



EV2 USERS HANDBOOK

THIS HANDBOOK REFERS TO THE EV2 MODEL

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



******* 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, OR OTHERS FUTURE ENJOYMENT BY MISUSING THIS WEAPON.

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

Manufacturers Warranty

This product has a limited 12 month back-to-base warranty commencing from the date of purchase and is transferable. The warranty is limited to defects in materials and/or workmanship. Proof of purchase is required to receive warranty repairs. The most effective way to prove date of purchase is to get the warranty registration card supplied with every rifle stamped or signed by the supplier and post it. Failing that you may be asked to produce a copy of the purchase receipts.

WHAT IS COVERED:

- 1> Replacement of parts and labour.
- 2> Return transportation to the consumer (mainland UK only).

WHAT IS NOT COVERED:

- 1> Transportation from consumer to Air Arms.
- 2> Damage caused by misuse, abuse, lack of routine maintenance or disassembly.
- 3> Parts subject to normal wear and tear.
- 4> Any consequential costs to the consumer.

Checking Performance

The current laws on ownership and use of air rifles make it very difficult for manufacturers to satisfy both the shooter and legislation. The shooter wants maximum power, legislation demands an upper limit. Pellets vary in size, weight and design; every rifle performs slightly differently; this results in a performance variable that can in some cases make a 12ft/lb rifle into a firearm just by a pellet change.

Air Arms have adopted the principle of setting up all rifles on AA brand pellets only. The most important factors behind this decision are that the pellets are made to our design parameters in respect of weight and size thus removing the major variables. It is still essential that regular velocity checks are made particularly in the first year of ownership.

EV2 models are set up using Air Arms Field pellets to produce between 11.3 and 11.5ft/lbs. This is to allow for a normal increase in performance during the running in period, approximately 2000 shots.

With access to a reliable chronograph it is possible to check velocity and calculate the muzzle energy in ft/lbs. Calculate using the following formula applying the constants, V = velocity in feet per second. W = weight of pellet in grams. Check that the chronograph readings are in feet per second.

$$\frac{V \times V \times W \times 15.432}{450240}$$

Example: V = 800fps, W = 0.52grams

therefore $800 \times 800 \times 0.52 \times 15.432 = 5135769.6$ divide by 450240 = 11.4067ft/lbs.

This Air Rifle is not a toy and may cause death or serious injury if used incorrectly or carelessly.

Read all instructions before use.

The user has the responsibility to conform to all legislation relating to the ownership and use of air weapons within the country of use.

In the United Kingdom of Great Britain, the use of this air rifle requires adult supervision if the user is under the age of 14 years. The supervisor must be at least 21 years old.

1> Before leaving the factory this rifle was inspected and test fired using Air Arms Field pellets to check operation and final adjustments.

It was dispatched in a sealed purpose designed box. Air Arms will not be responsible for any damage to the contents or missing items if the box is not original or has been opened between dispatch from the factory and receipt by the end user.

In the event of any complaint regarding this product the supplier should be informed. The consumers rights are with the supplier not the manufacturer.

2> The air cylinder fitted to this product will have very high internal pressure when ready for use and must **not** be modified in any way. Serious personal injury may result if this and the advise below is not followed.

a> Only use clean, filtered and dry compressed air. **NEVER** use any other gas particularly industrial or welding gases such as Oxygen, Acetyline, Hydrogen etc.

b> Do **not** fill the cylinder if there are any surface abrasions or dents. Contact Air Arms for advise if you have any doubts on the suitability of the cylinder to be filled.

c> Do **not** store the rifle in a place or near sources with high temperatures such as fires or boilers.

d> Do **not** dismantle when filled.

e> Do **not** fill beyond the stated filling pressure (see filling instructions section). Damage caused by over filling is not covered by the manufacturers warranty and in any case is potentially very dangerous.

3> If the rifle is being filled by a hand pump it is essential to prevent the ingress of water. The compression of air always results in the seperation of water, the higher the pressure the greater the effect. Air that is put into scuba tanks by the likes of diving shops is filtered to a high level and therefore helps to keep the internals of the rifle in good condition. Most hand pumps do not have filtration to match that of diving air compression systems and as a consequence may result in internal corrosion. Internal corrosion caused by the use of unfiltered air is **not** covered by the manufacturers warranty. Some hand pumps have a purpose designed filtration system that work almost to the levels of divers air, it is highly recommended that this type of pump/filter combination is used at all times.

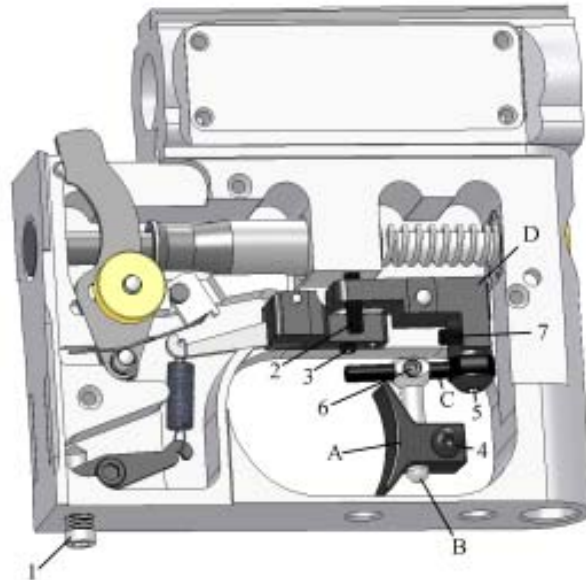
4> The cylinder should be inspected for internal corrosion at least every 2 years. Normally a divers shop will have the equipment to inspect the cylinder but some may not be prepared to give this service to anything other than a scuba tank. Air Arms can provide this service at the factory.

5> To maintain this rifle in good working order it should have an annual inspection/service. Your supplier may be able to provide this service or contact Air Arms.

6> 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 it will need testing on a chronograph to establish whether the velocity needs adjusting to ensure the muzzle energy is within the the limits determined by current legislation. Contact your supplier or Air Arms for any advise on this matter.

7> Do **not** store the rifle in a damp place such as garden shed also storage in unlined plastic or pvc type gun bags should be avoided. The surface treatments applied to the parts of this rifle are not intended to protect the surfaces from corrosion if left in such conditions. External corrosion caused by poor storage conditions or accidental contact with corrosive substances is not covered by the manufacturers warranty. It should be noted that many substances found in the average household are sufficiently corrosive to effect the surface finish of this rifle i.e. vinegar, orange juice and many cleaning products.

Trigger Adjustments



Anotation

- | | |
|---------------------------------------|------------------------|
| 1> Weight of pull adjuster. | A> Trigger Shoe |
| 2> 1st Stage length of pull adjuster. | B> Trigger Pillar |
| 3> 2nd Stage adjuster. | C> Trigger Bar |
| 4> Trigger Shoe locking screw. | D> Trigger Pivot Block |
| 5> Trigger Bar locking screw. | |
| 6> Trigger Pillar locking screw. | |
| 7> Follow-through adjuster. | |

The position of the Trigger Shoe (A) can be adjusted in four planes as below:

- i: Radially around B - Loosen screw 4, move to required angle and tighten.
- ii: Vertically - Loosen screw 4, slide Shoe up/down B to required position and tighten.
- iii: Axially - Loosen screw 6, slide B forward/backward along C to required position and tighten.
- iv: Radially around D - Loosen screw 5, move to required angle and tighten.

The weight of pull may be adjusted with screw 1. Turn clockwise to increase or anticlockwise to decrease the weight of pull. Access to this screw is through the bottom of the stock.

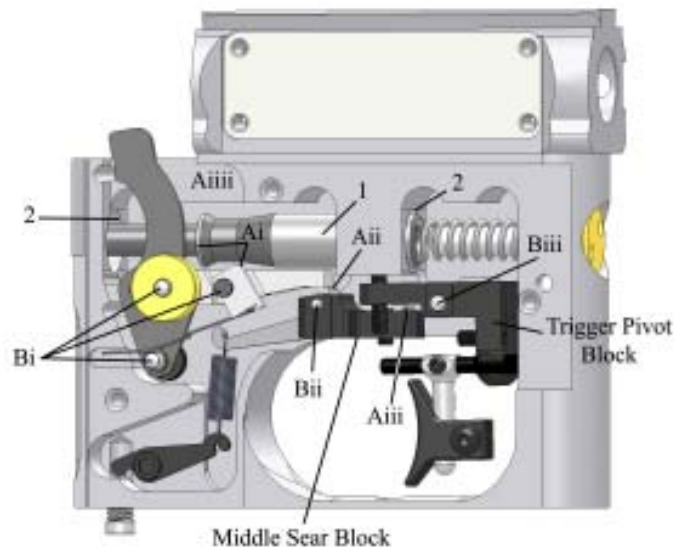
1st Stage travel may be adjusted with screw 2. Turn clockwise to decrease and anticlockwise to increase travel.

2nd Stage may be adjusted with screw 3. Turn clockwise to decrease and anticlockwise to increase the travel between the end of 1st travel and beginning of 2nd stage. If this screw is turned too far clockwise the rifle will fire before the end of the 1st travel is reached.

Follow through distance can be adjusted with screw 7. Turn clockwise to decrease and anticlockwise to increase the follow through distance. The mechanism on the EV2 requires the trigger to follow-through a small amount to allow the sears to reset.

Lubrication

Trigger Mechanism:



Anotation:

Correct types of lubricant:

For Points A: Molybdenum Disulphide based grease. B: Low viscosity mineral oil.

Points A:

i: Cocking Plate to Striker contact point and Striker Plate to Striker contact point.

ii: Top Sear to Middle Sear contact point.

iii: Trigger Pivot Block to Middle Sear Block contact point.

iiii: Main Body face to Cocking Plate.

Points B:

i: Cocking Plate, Striker Plate and Main Sear pivots.

ii: Middle Sear pivot.

iii: Trigger Pivot Block pivot.

The trigger mechanism has been designed to require minimal lubrication during normal use. The lubrication applied during assembly at the factory is normally sufficient for 10000 shots, however any roughness of operation may indicate that re-lubrication is necessary prior to this usage.

If you have limited knowledge of the workings of a precision mechanism, maintenance and lubrication is best left to an experienced gunsmith or preferably the factory.

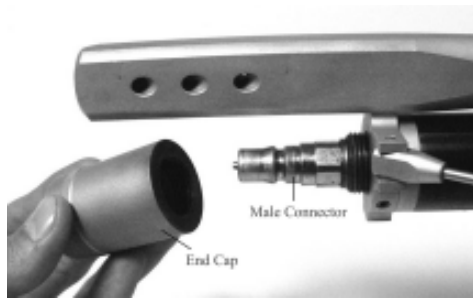
Do **not** allow any lubricant to come into contact with the Striker (1) in the area of the Striker Bushes (2) or else the shot-to-shot velocity consistency may be effected. It is strongly advised that the EV2 is only serviced by Air Arms or a competent gunsmith. The frequency of servicing is determined by the amount of use but should be at least once a year.

Under and/or over lubrication will effect the operation of this rifle.

SILICONE OR SYNTHETIC BASED OILS SHOULD NOT BE USED FOR THE TRIGGER MECHANISM.

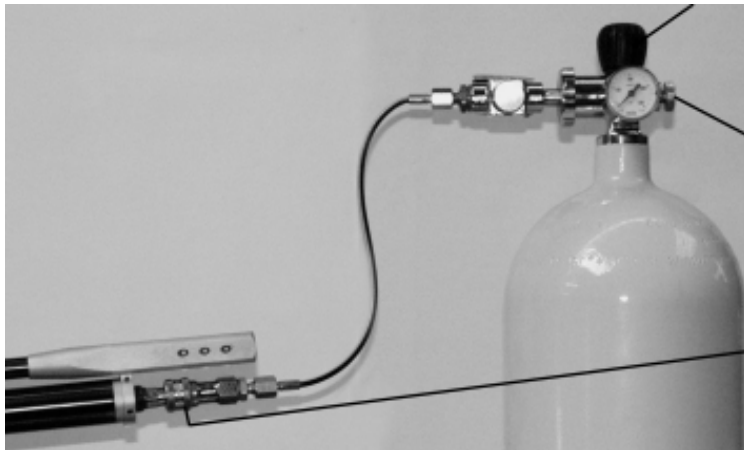
Filling Instructions

Note! Only use clean, filtered and dry compressed air, preferably from a diving shop. **OVER PRESSURISATION WILL DAMAGE THE CYLINDER TUBE BEYOND REPAIR.**



1> Remove the End Cap by turning anticlockwise.

MAIN VALVE



2> If the rifle cylinder is empty the mechanism must be fully cocked first.

3> Check that the bleed valve is closed. Turn clockwise to close.

4> Pull the release ring on the Female Connector in backwards direction and push it on to the Male Connector fitted on the cylinder end.

5> Slowly open the Main Valve (anticlockwise) and observe the pressure gauge. When it indicates 200bar, close the Main Valve (clockwise). Be very careful not to allow the pressure in both cylinder and scuba tank to equalise if the scuba tank has more than 200 bar present.

NOTE! At least 50 bar (725psi) is required in the cylinder before the Firing Valve fully seals. Air may escape from the Barrel until this pressure is reached.

6> Open bleed valve (anticlockwise) to release the air from the connecting hose.

7> Pull the release ring on the Female Connector back and remove from Male Connector.

8> Replace the End Cap, do not over tighten.

The EV2 has a pressure indicator mounted under the stock fore end which provides a visual check on the amount of remaining air in the cylinder. The graduations indicate 0-250bar, **DO NOT** fill to the required pressure by watching this indicator, the needle reaction speed has been slowed to prevent damage whilst filling and takes time to synchronise to the actual pressure in the cylinder. In the interests of safety the cylinder is machined so that the cylinder deforms and allows the seals to fail if the pressure is increased to an unacceptable level. This occurs at approximately 250bar once either seal fails (indicated by deformation of the cylinder end) the cylinder tube is beyond further use and must be replaced.

MAXIMUM FILLING PRESSURE = 200 BAR.

MINIMUM WORKING PRESSURE = 100 BAR.

NOTE !

FILLING TO HIGHER PRESSURES WILL **NOT** INCREASE POWER AND MAY CAUSE CYLINDER TUBE DAMAGE.

FILLING TO LOWER PRESSURES WILL NOT REDUCE POWER ONLY THE NUMBER OF SHOTS.



Cocking/Loading Instructions



Fig. 1

Grip Cocking Lever as illustrated in fig. 1 pull back until at full travel as illustrated in fig. 2.



Fig.2



Fig. 3

Load pellet as illustrated in fig. 3 and return Cocking Lever to fully closed position as illustrated fig. 4.

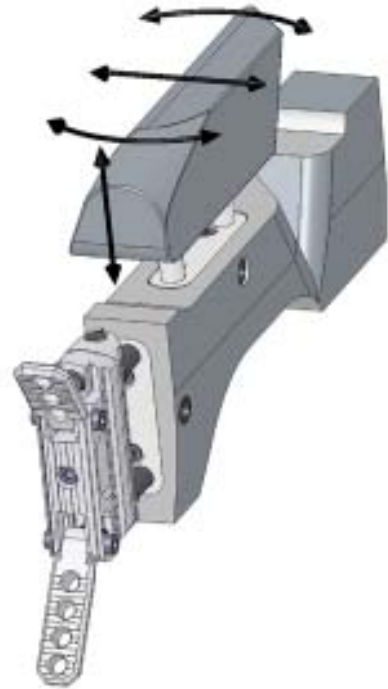


Fig. 4

Stock Adjustments

Cheek Piece

The Cheek Piece is adjustable vertically, radially and laterally.



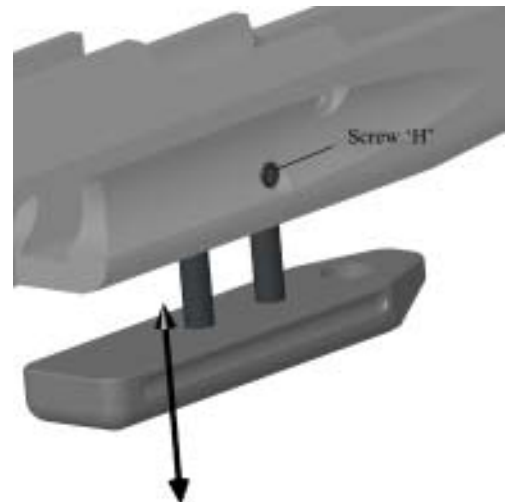
To adjust the cheek piece vertically you must first loosen screw 'G'. This will release the pillars and allow the cheek piece to be raised and lowered.

The radial and lateral adjustment is carried out by releasing screws 'F', positioning the cheek piece and retightening the screws.

Fore End

The palm rest at the front of the stock can be adjusted by loosening Screw 'H'.

The palm rest can be removed completely if desired. If this is done make sure that screw 'H' is retightened so the clamping mechanism does not rattle.



Stock Adjustments

Shoulder Butt Plate Assembly

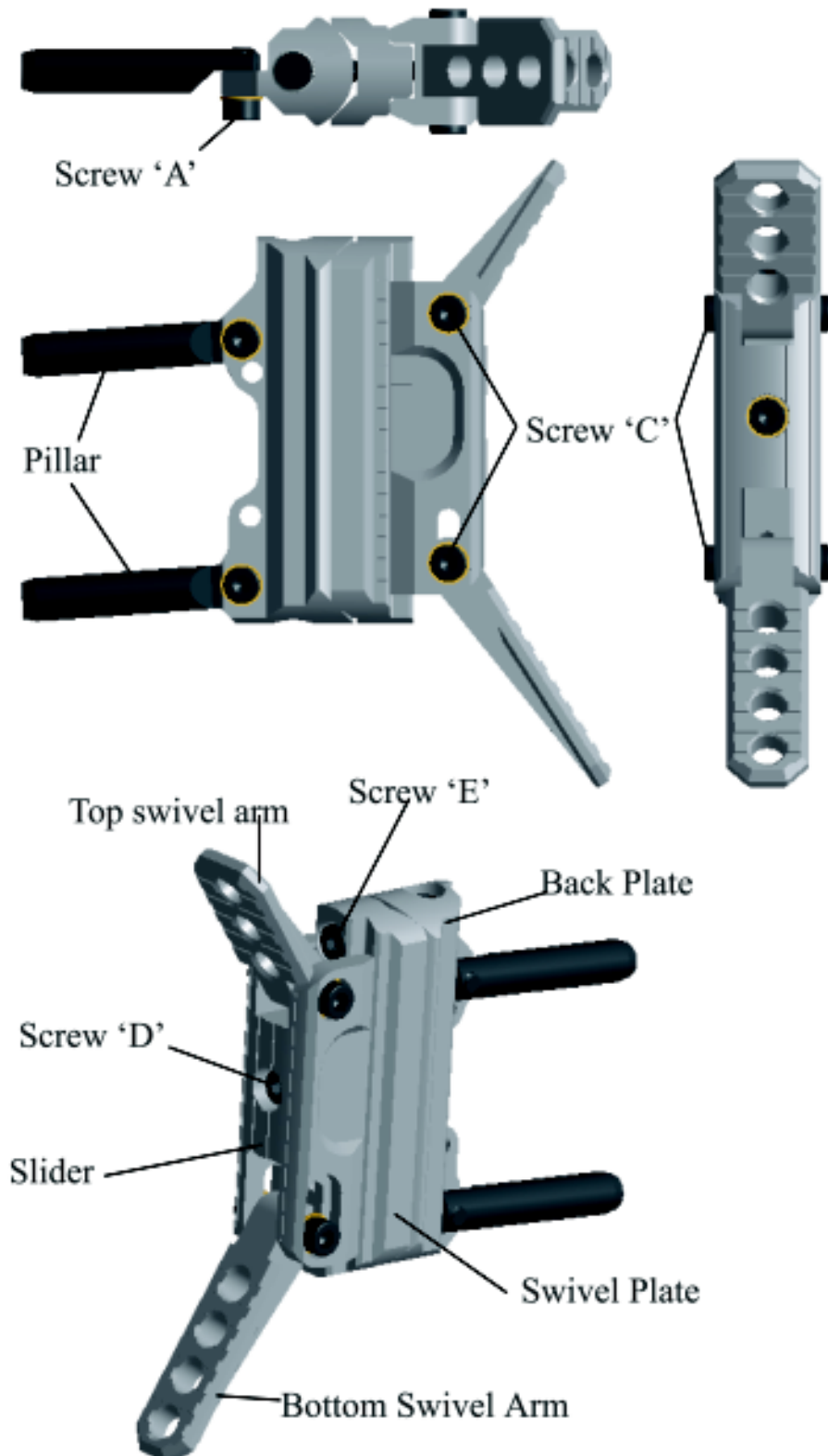
The EV2 aluminium Butt Plate assembly has multiple adjustment facilities. All elements are independently adjustable.

Both Swivel Arms can be adjusted for angle and the Bottom Arm is also adjustable for height.

The Slider is adjustable for height.

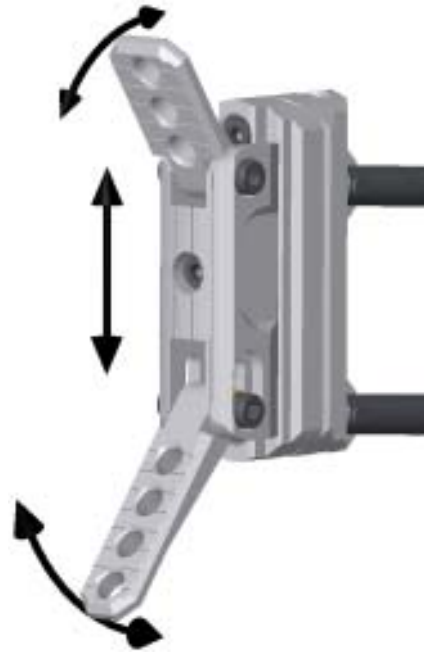
The Swivel Plate is radically adjustable for angle.

The whole assembly can be adjusted fore and aft, laterally left to right, and canted both laterally and fore/aft.



The top and bottom arms of the butt plate can be adjusted to suit by releasing screw 'c'

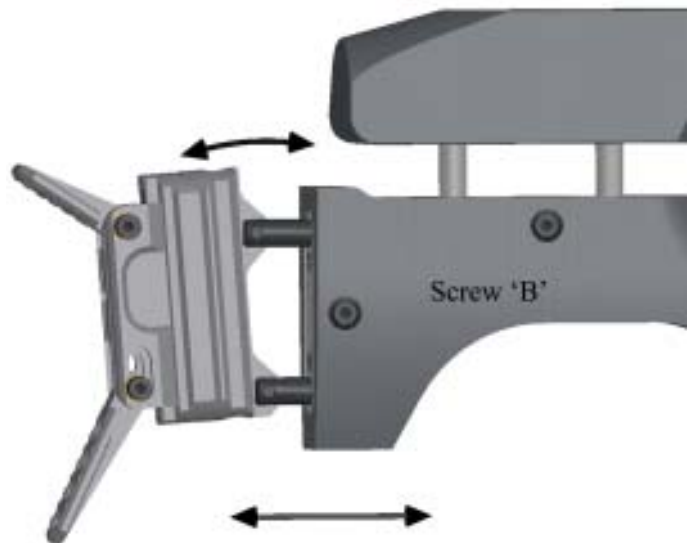
To move the slider loosen screw 'D'



The bottom arm can also be moved vertically using screw 'C'

The whole butt pad can be moved in and out by loosening screw 'B'

Loosening screws 'A' and 'B' will allow whole butt pad to tilt 12 degrees forwards or backwards from the vertical position.



Adjustment screw 'E' allows the swivel plate to be adjusted. Both screws need to be loosened to make the adjustment.

Stock Adjustments

The last adjustment available is sideways tilt of about 6 degrees see fig.1.
This tilt is achieved by swapping the top pillar over to the other side of the back plate as shown in fig.2.

6 degrees



fig. 1

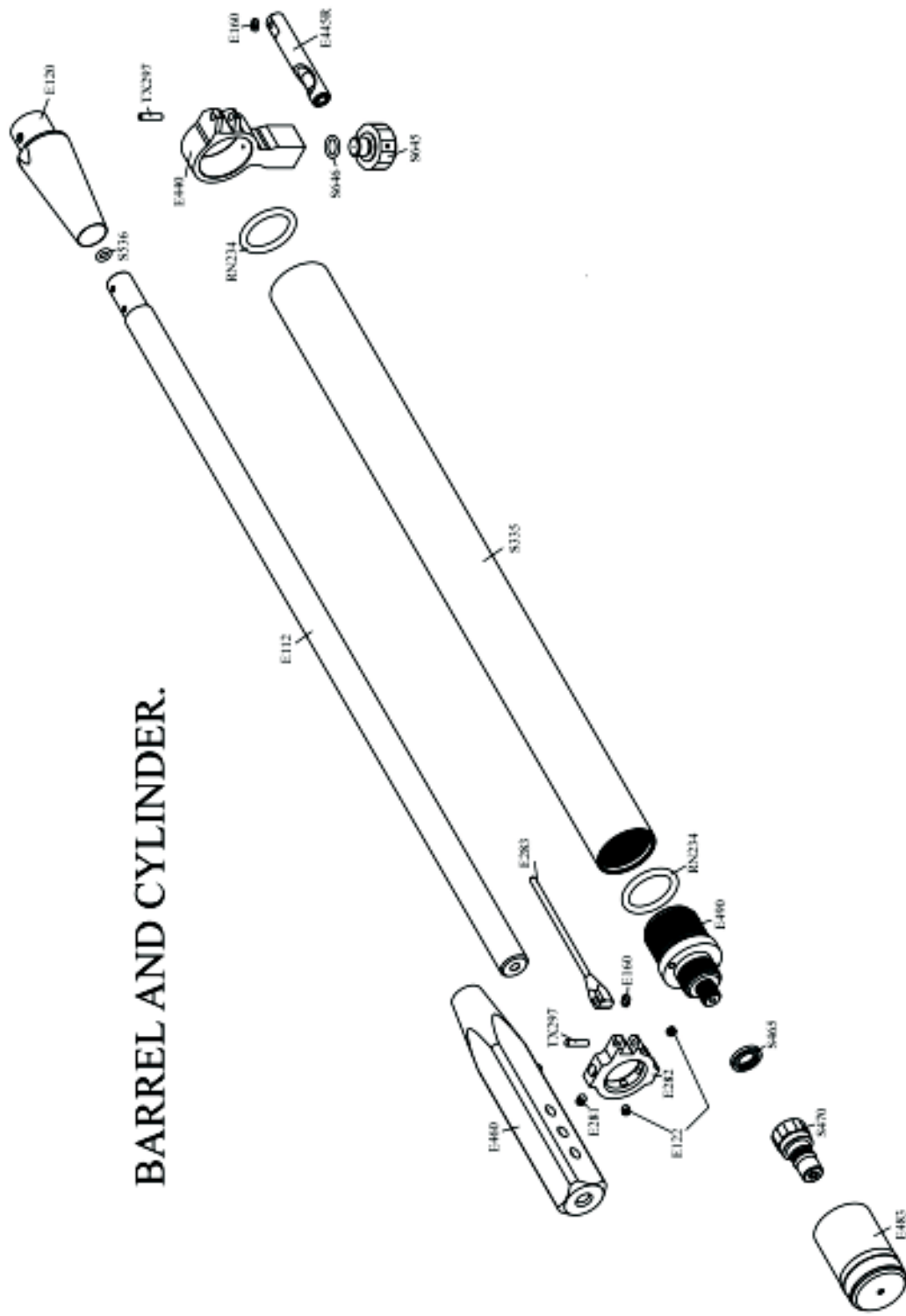


fig. 2.

BARREL AND CYLINDER ASSEMBLY

Part No:	Description	Qty per Ass	Part No:	Description	Qty per Ass
E112	BARREL ASSEMBLY	1	E483	END CAP	1
E120	BARREL SUPPORT	1	E490	FILLING VALVE BODY	1
E122	SCREW M4x4 CONE POINT	2	RN234	O' RING BS213	2
E160	WAVY WASHER M3	2	S335	STANDARD CYLINDER TUBE	1
E281	SCREW M4x6 SKT SET	1	S465	BONDED SEAL	1
E282	FRONT CLAMP	1	S470	MALE SNAP CONNECTOR	1
E283	WINDAGE INDICATOR	1	S536	O' RING BS008	1
E440	GAUGE MOUNT	1	S645	GAUGE	1
E445R	LEVEL HOUSING ASSEMBLY	1	S646	O' RING BS011	1
E460	MUZZLE END ASSEMBLY	1	TX297	PIN 3x13.8 ROLLER	2

BARREL AND CYLINDER.



MAIN BODY AND REGULATOR

Part No:	Description	Qty per Ass	Part No:	Description	Qty per Ass
CZ023H	MAINSRING	1	RN130		
E101	MAIN BODY	1	RN193		
E102	PLUG (SHORT)	1	RN215	ADJUSTER LOCKING PAD	1
E103	INFO COVER PLATE	1	RN232	O RING	1
E104	SCREW M3X4 SKT BTN HD ST/ST	9	RN275FT	COCKING PLATE	1
E110	COCKING LINK	1	RN280	TOP SEAR SPRING	1
E113	SCREW	3	RN281	INNER SPACER	1
E115	COCKING LINK PIVOT SCREW	1	RN282	OUTER SPACER	1
E122	SCREW M4X4 SKT SET ST/ST	3	RN284	TOP SEAR ASSY	1
E125	COCKING ARM	1	RN295	COCKING PLATE SPRING	1
E127	PIN M3X7.8	1	RN300	MIDDLE SEAR	1
E130	BOLT SHAFT	1	RN305	MIDDLE SEAR BLOCK	1
E135	PELLET PROBE	1	RN310	MIDDLE SEAR SCREW	1
E136	DETENT BUSH	1	RN315	TRIGGER PIVOT BLOCK	1
E137	DETENT SPRING	1	RN321	SCREW M3X8 SKT SET FP	1
E141	LOADING SHAFT POST ASSY	1	RN322	SCREW	1
E143	COCKING ARM PIVOT BLOCK	1	RN325	TRIGGER BAR	1
E144	PIN M3X23.8	1	RN328	SCREW M4X8 SKT SET	1
E145	SCREW M3X20 SKT CAP	1	RN330	TRIGGER PILLAR	1
E160	WAVY WASHER	4	RN350	TRIGGER SHOE	1
E195	FIRING VALVE ASSY	1	RN351	NUT M3	1
E198	FIRING VALVE SPRING	1	RN352	SCREW M3X8 SKT BTN HD	1
E200	STRIKER	1	RN355	PIN M3X19.8	4
E210	MAINSRING ADJUSTER	1	RN356	PIN 2X19.8	1
E211	MAINSRING GUIDE	1	RN357	PIN M3X17.8	2
E212	MAINSRING SPACER	1	RN360	TRIGGER SPRING	1
E219	REGULATOR ASSY	1	RN365	TRIGGER SPRING PLATE	1
E234	REGULATOR O RING	2	RN370	ADJUSTER PLATE SCREW	1
E390	FIRING VALVE SPRING GUIDE	1	TX239	SCREW M3X	1
E415	FORE END LOCK PLATE	1			
RN103	STRIKER BUSH	2			
RN105	COVER PLATE	1			
RN106	SCREW M3X6 CSK SLTD	3			

STOCK

Part No:	Description	Qty per Ass	Part No:	Description	Qty per Ass
E150	DISC SPRING 10x5.2x0.5	9	E462	BUTT PAD LOCKING PLATE	1
E155	FORE END ADJUSTER ROD	2	E476	SCREW M5x10 SKT CAP ST/ST	4
E410	BUTT PAD ADJUSTER ROD	2	E496	SCREW M5x12 BTN HD ST/ST	2
E441	STOCK RAIL	1	RN380	SCREW M6x20 CSK SKT	1
E450	STOCK R/H	1	RN385	STOCK WASHER FRONT	4
E450B	CHEEK PIECE R/H	1	RN386	STOCK WASHER REAR	1
E451B	CHEEK PIECE L/H	1	RN400	STOCK ADJUSTER TOP PLATE	1
E452	STOCK FORE END	1	RN405	STOCK ADJUSTER BOTTOM PLATE	2
E454	PALM REST	1	RN410FT	STOCK ADJUSTER PILLAR	2
E455	BUTT PAD SLIDER	1	RN415	STOCK ADJUSTER LOCK PLATE	2
E455-1	BUTT PAD TOP ARM	1	RN420	SCREW M5x25 SKT CAP ST ST	6
E455-2	BUTT PAD BOTTOM ARM	1	RN425	STOCK ADJ LOCKING BUSH	3
E456	SCREW M5x16 CSK SKT ST ST	6	RN430	SCREW M5x12 SKT BUTTON HD	2
E457	BUTT PAD SWIVEL PLATE	1	RN431	WASHER M5	2
E457-2	BUTT PAD BACKING PLATE	1	RN435	SCREW No 8x1.25 POZI CSK	4
E458	PALM REST SPACER	1	RN445	SCREW No 6x3/8 POZI CSK	3

