

THE UK CHINESE AIRGUN FORUM PRESENTS...

HOW TO TUNE A QB SERIES CO2 AIRGUN FOR NOOBS.

DISCLAIMER: THE FOLLOWING GUIDE WILL IMPROVE THE PERFORMANCE AND SMOOTHNESS OF THESE AIRGUNS, IT IS ESSENTIAL THAT AFTER FOLLOWING THIS GUIDE YOU ENSURE THAT THE RIFLE IS WITHIN YOUR COUNTRIES MUZZLE VELOCITY LIMIT USING A CHRONOGRAPH.

THE UK CHINESE AIRGUN FORUM AND ITS MEMBERS ACCEPT NO LIABILITY SHOULD YOUR AIRGUN, BECAUSE OF THIS GUIDE BE ILLEGAL.

ITEMS REQUIRED

A SELECTION OF ALLEN KEYS

A SELECTION OF FLAT HEAD SCREWDRIVERS

A SELECTION OF PHILLIPS HEAD SCREWDRIVERS

DOWEL ROD 1/2" TO 3/4" WIDE 18" LONG

CORRECT SEAL KIT, AVAILABLE FROM WELSHWILLY ON

<http://ukchineseairgunforum.myfreeforum.org/>

MOLY GREASE



STEP ONE.

MAKING SURE THERE IS NO PELLET LOADED AND THAT THE AIRGUN IS DISCHARGED OF CO2 PUT THE AIRGUNS SAFETY LEVER TO SAFE.



STEP TWO

USING A BRASS PUNCH OR END OF A BLUNT PENCIL, DOWEL OR SIMILAR, PUSH THE SAFETY LEVER OUT FROM ITS HOUSING. IT MAY BE DIFFICULT AT FIRST.



KEEP THE SAFETY IN A SAFE PLACE AFTER REMOVAL



REMOVE THE THUMB SCREW FROM UNDERNEATH THE STOCK AND KEEP IT SAFE, THIS MAY BE TIGHT SO USE A CORRECT SIZE ALLEN KEY THROUGH THE SLOT FOR LEVERAGE.

NEXT HOLDING THE STOCK FIRMLY, PUSH FROM THE BOTTOM OF THE TRIGGER GUARD, PUSH THE ACTION OUT FROM THE TOP OF THE RIFLE, A FIRM UPWARD FORCE SHOULD SEE IT LOOSE. PUT THE STOCK SOMEWHERE SAFE.

STEP FOUR

USING THE CORRECT SIZE ALLEN KEY, REMOVE THE GRUB SCREW FROM THE TOP OF THE BREECH, KEEP IT SAFE.



REMOVE THE NUT AND BOLT FROM THE BARREL BAND, THE BAND WILL SLIDE UP AND DOWN THE BARREL/MAINTUBE WITH THIS REMOVED.

NEXT, FROM THE MUZZLE END OF THE BARREL PULL THE BARREL OUT FROM THE BREECH, IF NEED BE TWIST THE BARREL FROM SIDE TO SIDE AS YOU PULL IT.

STEP FIVE

USING A FLAT BLADED SCREWDRIVER UNSCREW THE REAR TRIGGER SCREW, THIS IS A LONG SCREW THAT HOLDS THE TRIGGER/MAINTUBE/BREECHTUBE AND ENDCAPS TOGETHER, PUT THIS SCREW ASIDE.



TO MAKE THINGS EASIER, ALSO REMOVE THE FRONT TRIGGER SCREW (NOT SHOWN) THIS WILL ALLOW THE TRIGGER MECHANISM TO BE REMOVED FROM THE RIFLE, PUT IT ASIDE.

STEP SIX

USING A CORRECT FITTING SCREWDRIVER, UNSCREW THE BREECH HOLD DOWN SCREW (THIS IS USUALLY MADE OF CHEESE AND DAMAGES EASILY)

AGAIN PLACE THE SCREW ASIDE, FOR NOW THE BREECH TUBE AND MAIN TUBE WILL SEPERATE, BE CAREFUL NOT TO DROP THE TWO PINS THAT APPEAR AFTER REMOVING THE BREECH TUBE. YOU WILL ALSO SEE THE ORIGINAL TRANSFER PORT SEAL,



FROM THE BACK OF THE BREECH TUBE LOOKING IN YOU WILL SEE A HEX HEAD GRUBSCREW, PULL THE BOLT UP AND BACK (AS IF TO LOAD) THEN USING THE CORRECT ALLEN KEY LOOSEN THE GRUB SCREW UNTIL THE BOLT HANDLE PULLS OUT OF THE BOLT, IT SHOULDN'T BE NECESSARY TO COMPLETELY REMOVE THIS GRUBSCREW, ONCE THE BOLT HANDLE IS REMOVED NIP THE GRUBSCREW BACK UP, NOW THE BOLT SHOULD SLIDE OUT OF THE BREECH TUBE AND YOU SHOULD BE LEFT WITH THE COMPONENTS AS SHOWN BELOW.



NEXT ONTO THE MAINTUBE, IF THE TWO PINS DIDN'T FALL OUT WHEN REMOVING THE BREECH TUBE, YOU WILL SEE IN THE TWO SLOTS OF THE MAINTUBE THE TWO PINS, THE FRONT ROUNDED PIN IS THE HAMMER PIN, THE SQUARED OFF REAR PIN IS THE COCKING PIN, REMOVE THESE AND STORE SAFELY, SOME ARE LOOSE IN THEIR HOLES OTHERS ARE TIGHT.



NOW THE HAMMER, HAMMER SPRING AND COCKING BLOCK SHOULD SLIDE FROM THE BACK OF THE MAINTUBE, NEXT REMOVE THE STUD FROM WHICH THE STOCK NUT ATTACHES, IT SHOULD JUST UNSCREW THEN THE STOP BLOCK (TOP OF PICTURE) SHOULD SLIDE OUT OF THE MAINTUBE.

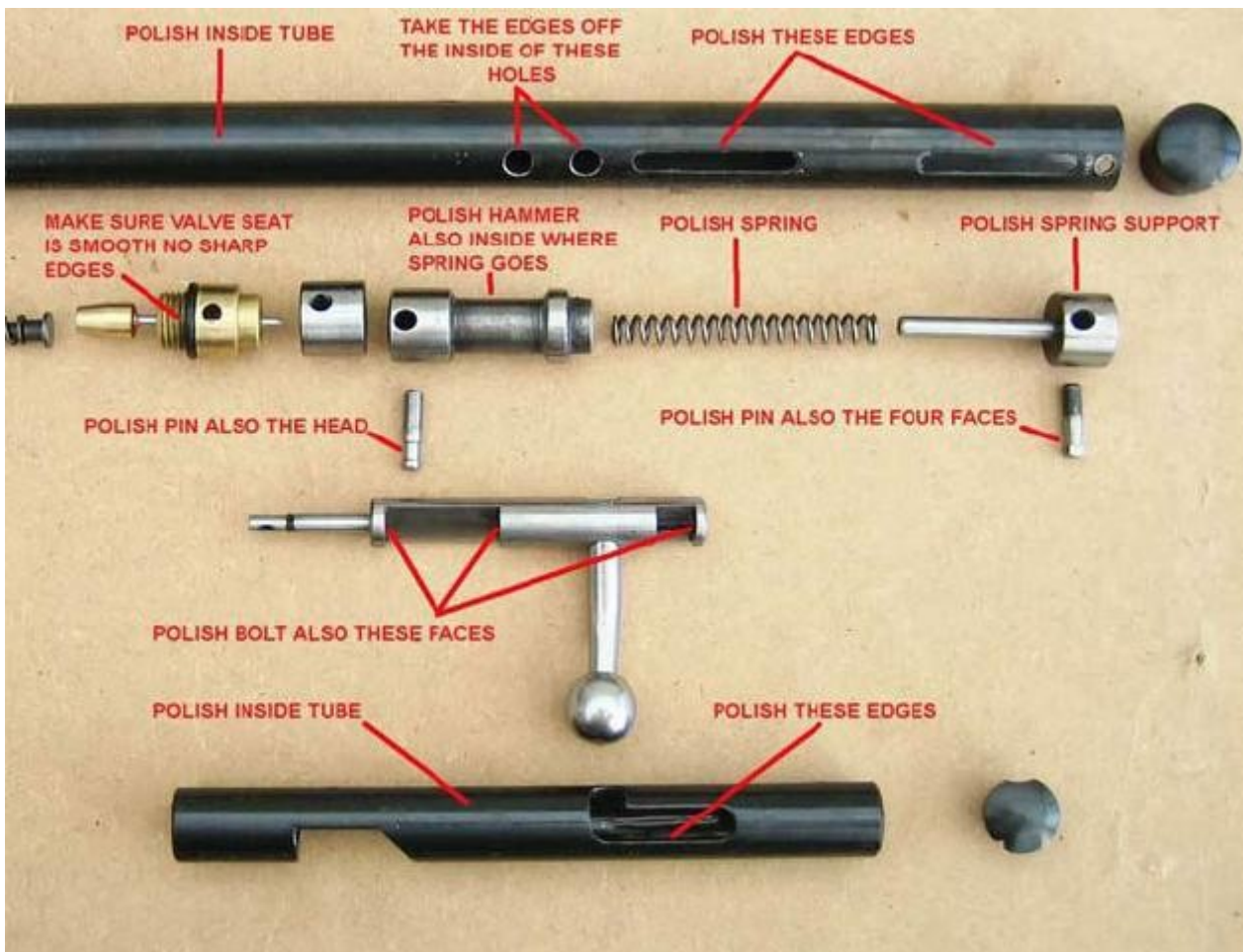
FROM THE FRONT OF THE MAIN TUBE (THE THREADED SECTION) LOOK INTO THE TUBE, YOU WILL SEE THE VALVE UNIT. USING A VERY WIDE BLADE LONG SCREWDRIVER OR SIMILAR MADE TOOL (SEE WEBSITE FOR INFO) UNSCREW THE VALVE HALF A TURN ANTI CLOCKWISE, NOW TO THE THE FINAL SCREW LEFT IN THE MAIN TUBE, THIS SCREW HOLDS THE VALVE IN PLACE, REMOVE THIS SCREW AND STORE SAFELY THEN USING THE DOWEL ROD, PUSH THE VALVE UNIT FROM OUT OF THE TUBE, FROM FRONT TO BACK IS RECOMMENDED. THE SEAL WILL BE DAMAGED AS IT PASSES THE HOLES AND SLOTS SO DO NOT WORRY.

NEXT TIME FOR POLISHING

USE THIS PICTURE AS A GUIDE OF WHERE TO POLISH THE COMPONENTS OF THE RIFLE

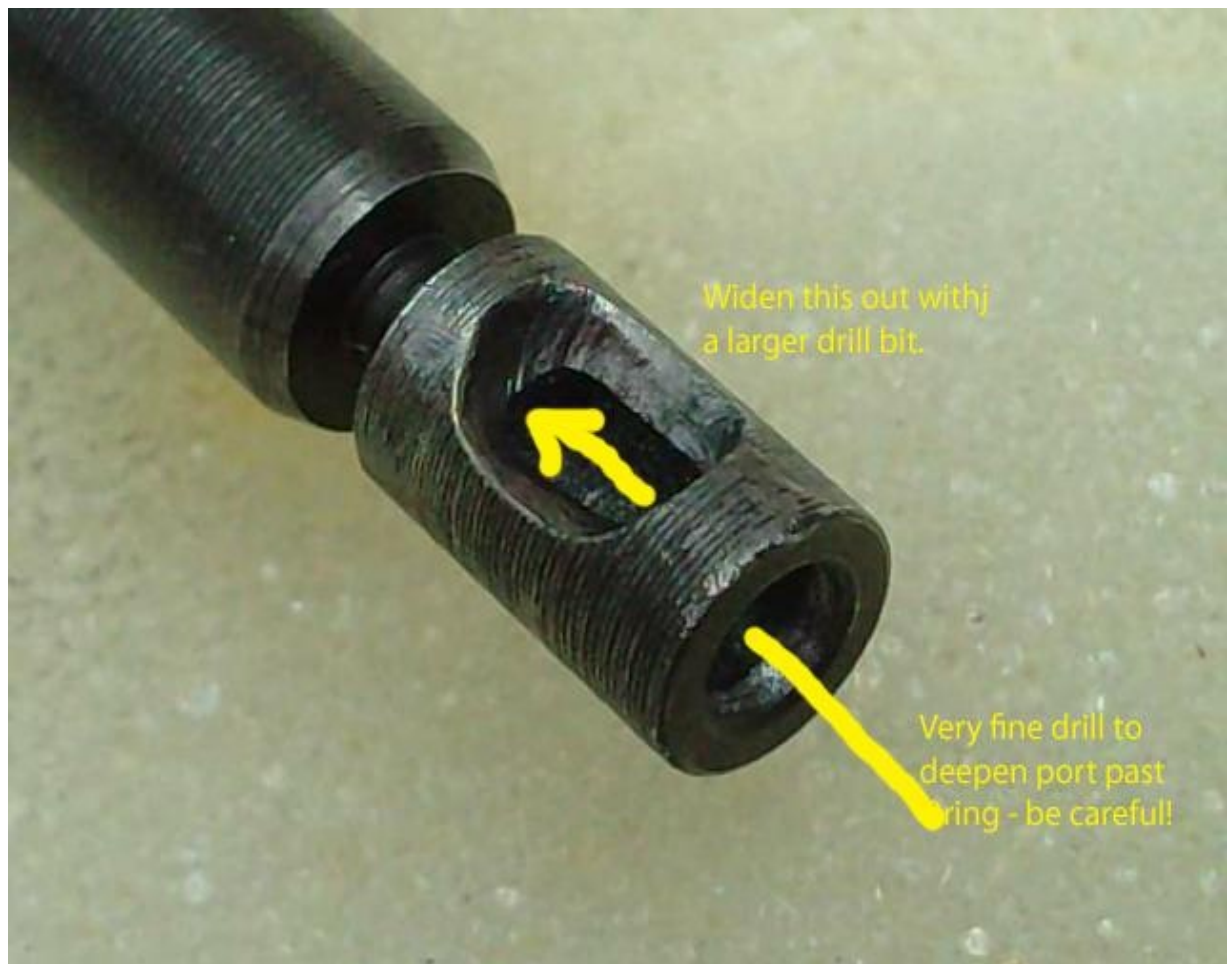
TO POLISH THEM START WITH A COARSE GRADE OF WET & DRY / ALUMINIUM OXIDE PAPER, GRADUALLY FINISHING IN A FINE GRADE I.E START WITH 400 GRIT AND FINISH WITH 800 OR 1000, SOME PEOPLE HAVE THEN POLISHED WITH ABRASIVE PASTES SUCH AS SOLVOL AUTOSOL FOR A MIRROR FINISH

THE IMAGE SHOWS THE VALVE DISASSEMBLED, ITS NOT REQUIRED TO DO TO A UK LIMIT RIFLE AS THE POLISHING AND SEAL REPLACEMENTS ARE SUFFICIENT FOR THIS POWER LEVEL, ALTHOUGH THE SEAL ON THE VALVE WILL HAVE TO BE CHANGED TO ONE SUPPLIED IN THE SEAL KIT.



ALSO POLISH / DRILL THE HOLES IN THE BOLT PROBE (AS BELOW) THIS WILL ALLOW THE GASES TO ENTER THE BARREL, A LESS RESTRICTIVE PATH GIVES MORE POWER.

BE VERY CAREFUL WITH THIS MODIFICATION AS THE END OF THE PROBE COULD EASILY BREAK OFF, A 3MM DRILL BIT IS THE BIGGEST RECOMMENDED DRILL SIZE.



MAKE SURE ALL COMPONENTS ARE FULL CLEAN BEFORE REASSEMBLY

ALL SEALS SHOULD BE LUBRICATED WITH SILICONE GREASE PROIR TO REASSEMBLY

- 1. CHANGE THE VALVE SEAL TO ONE SUPPLIED IN THE KIT, THEN REASSEMBLE THE VALVE, LEAVING THE VALVE HEAD / BODY SLIGHTLY LOOSE MAKES IT EASIER TO SLIDE INTO THE MAINTUBE. FROM THE THREADED END, VALVE STEM FIRST SLIDE THE UNIT DOWN TO WHERE THE VALVE SET SCREW FITS, YOU MAY HAVE TO ROTATE THE VALVE IN THE TUBE TO ALIGN THE SCREW HOLE AND THREAD UP, FIT THE SCREW AND NIP UP, THEN USING THE LONG WIDE SCREWDRIVER OR TOOL, NIP THE VALVE BODY UP FROM THE FRONT OF THE MAINTUBE, DON'T OVERTIGHTEN, THIS IS JUST TO COMPRESS THE SEAL AND MAKE IT GAS TIGHT.**
- 2. SLIDE IN THE STOP BLOCK, THIS HAS TWO THREADED HOLES IN AND BOTH ARE DIFFERENT, IT FITS AS IN THE PICTURE ABOVE. USING THE THREADED STOCK BOLT, SCREW INTO THE STOP BLOCK TO STOP IT FROM MOVING AROUND.**
- 3. LIGHTLY LUBRICATE WITH MOLY GREASE AND ASSEMBLE THE HAMMER/HAMMER SPRING AND COCKING BLOCK AS PICTURED AND SLIDE INTO THE MAINTUBE, LINE THE HAMMER PIN UP IN THE FRONT SLOT AND FIT THE ROUNDED PIN AND THE SQUARE PIN SITS IN THE COCKING BLOCK IN THE REAR SLOT.**

4. NOW TAKE THE BREECH TUBE, LUBRICATE THE BOLT WITH MOLY AND SLIDE THE BOLT PROBE INTO IT, TAKING THE BOLT HANDLE LINE IT UP WITH THE HOLE IN THE SIDE OF THE BOLT AND SLIDE IT IN, NIP UP THE GRUB SCREW FROM THE BACK OF THE TUBE TO HOLD THE HANDLE IN PLACE
5. THE TRICKY BIT! PLACE A NEW TRANSFER PORT SEAL IN THE FRONT HOLE IN THE MAIN TUBE, THEN WHILST STILL HOLDING THIS TAKE THE ASSEMBLED BREECH TUBE AND LINE THE SQUARE PIN UP WITH THE NOTCH IN THE REAR OF THE BOLT, SLIDING THIS FORWARD COMPRESSES THE SPRING SLIGHTLY, NOW CATCH THE FRONT PIN WITH THE FRONT NOTCH AND PUSH THE TWO TUBES TOGETHER, MAKING SURE THE TRANSFER PORT SEAL HASN'T DROPPED OUT! IF CORRECTLY DONE HOLDING THE TWO TUBES TOGETHER YOU SHOULD BE ABLE TO CYCLE THE BOLT ACTION FREELY.
6. TAKE THE BREECH HOLD DOWN SCREW AND LOCK WASHER (IF FITTED) AND WITHOUT DAMAGING THE HEAD, SCREW THE BREECH AND MAINTUBE TOGETHER, IT DOESN'T NEED TO BE OVERLY TIGHT JUST TIGHT ENOUGH TO COMPRESS THE TRANSFER PORT SEAL, MAKE SURE THIS SEAL IS CENTRALISED AND SQUARELY SEATED BEFORE NIPPING UP.
7. TAKE THE TRIGGER MECHANISM AND LINE UP AND INSTALL THE FRONT TRIGGER SCREW, DONT OVERTIGHTEN AT THIS STAGE, THEN TAKE THE REAR TRIGGER SCREW, PUSH IT INTO THE MAINTUBE FRACTIONALLY THEN FIT THE MAIN TUBE END CAP AND BREECH TUBE ENDCAP, CORRECTLY ALIGNED THE TRIGGER SCREW SHOULD SLIDE INTO THESE CAPS THEN SCREW HOME.
8. AGAIN TEST THE BOLT ACTION, IT SHOULD BE SMOOTH AND THE TRIGGER SHOULD RELEASE THE SEAR AND FIRE THE HAMMER,
9. NOW REMOVE THE THREE BARREL O RINGS, THESE WILL NO DOUBT BE DAMAGED, REPLACE WITH 3 NEW ONES , SLIDE THE BARREL THROUGH THE BARREL BAND AND DOWN TOWARDS THE BREECH, LINE IT UP CAREFULLY AND PUSH IT STRAIGHT HOME, DO NOT TWIST IT TO GET IT IN, IF NEED BE GO SLOWLY AND PUSH THE ORINGS DOWN FROM THROUGH THE SET SCREW HOLE TO AVOID DAMAGING THEM.
10. REFIT THE BARREL SET SCREW, NIPPING UP NOT OVER TIGHTENING.
11. REFIT THE BARREL BAND NUT AND BOLT, POSITIONING THEM CORRECTLY IN THE BARREL GROOVE (15MM BARRELS ONLY)
12. REFIT THE ACTION INTO THE STOCK, FITTING THE STOCK NUT AND NIPPING IT UP.
13. FINALLY USING A SMALL FLAT BLADED SCREWDRIVER PUSH THE SAFETY PISTON BACK INSIDE THE TRIGGER THROUGH THE SAFETY HOLE, WHILST SLIDING THE SAFETY IN FROM THE RIGHT SIDE, IT SHOULD BE EASIER IF IT IS IN THE "SAFE" POSITION.

CHRONOGRAPH THE RIFLE USING HEAVYWEIGHT PELLETS AND A TEMPERATURE OF AROUND 20 CELCIUS.

**MANY THANKS TO THE MEMBERS OF THE UK CHINESE AIRGUN FORUM FOR
THEIR PICTURES THAT WENT TOWARDS THIS GUIDE, PORKYYORKY, JETSKI
AND ALSTONE TO NAME A FEW**