

GENERAL HINTS FOR THE USE OF FIREARMS

Before using any firearm, muzzleloading or cartridge guns, we ask you to read carefully this booklet, and to get thoroughly familiar with the operation of the specific gun.

GENERAL HINTS

A firearm is a sport and law enforcement tool capable of injuring and killing. It is a precision instrument designed to function reliably with proper care and knowledgeable use. If you do not have full knowledge of the power and function of firearms, we recommend that you seek proper training. Careless and improper handling of guns could result in unintended discharge causing injury, death or property damage. Safety must be the first and constant consideration when handling a firearm and ammunition. Various safety features have been incorporated into each firearm but relying on mechanical features alone is, at most, only half safe. Mechanical safety devices are not failsafe, but more importantly the safe use of any mechanical instrument is dependent upon intelligent use.

Accidents do not "just happen" but occur as the result of human behavior, thoughtless acts jeopardize the wellbeing of the user and those around him or her.

Insure the safe use of firearms by following these guidelines.

NOTE: SAFETY DEVICES ON GUNS ARE EXTRAS AND ARE NOT SUBSTITUTE FOR PROPER AND SAFE HANDLING PRACTICES.

DISCLAIMER OF LIABILITY

Davide Pedersoli Co. shall not be responsible for product malfunction or for physical injury, death, or property damage from the gun's intentional or accidental discharge, its criminal or negligent use, improper or careless handling, unauthorized modifications or alterations, corrosion or other failure to maintain, use of defective, improper, hand-loaded or reloaded ammunition, or other than original, good condition, high quality, commercially manufactured ammunition, from its use for purposes or subjection to treatment for which it was not designed. Davide Pedersoli Co. will not honor claims made by second or subsequent owner of the firearm.

While this firearm was tested, carefully inspected, and packaged before it left the factory, Davide Pedersoli Co. cannot thereafter control product handling. Please be sure to examine this firearm carefully when purchase to ensure it is unloaded and undamaged. Your gun dealer will assist you in making this examination and answer any further questions in this regard.

PROOF HOUSE TEST

According to the Italian Law ruling production and sale of arms, all muzzle loading and breech loading firearms must be submitted to forced firing tests at the National Proof House in Gardone Val Trompia, Brescia (C.I.P. rules).

Proper marks stating the tests are stamped both on the barrels and on the frame.

PRECAUTIONS

- Before shooting, learn this gun's mechanical and handling characteristics, and read and be thoroughly familiar with these safety instructions. If you do not fully understand any of the instructions in this manual, consult a competent firearms instructor through your local gun club or you can contact Davide Pedersoli Co. directly.
- Always point the gun in a safe direction, and handle it as though it were loaded. This is especially important when loading and unloading the gun, and when handing it to someone else. Never take someone's word it is unloaded, but always check it yourself with your fingers off the trigger and the gun pointed in a safe direction.
- If your firearm is shipped disassembled, read instructions and totally understand proper assembly before proceeding.
- Place your finger inside the trigger guard only when you are ready to fire.
- Do not make any modifications or adjustments to your firearm, which will affect the safe and normal function of the gun.
- When purchasing accessories such as leather or when adding accessories such as grips or sights, be sure they are compatible with the firearm and do not interfere with safe operation.

- While at a shooting range, always carry the gun unloaded and open until preparing to shoot. Keep it pointing towards the backstop when loading, shooting and unloading.
- If you must carry a loaded gun, always carry it with the muzzle pointing in a safe direction and with the safety in the “safe” position. But remember that no mechanical safety is failsafe.
- Never carry firearms with an exposed hammer with the hammer cocked. In auto loading or hand repeating guns, do not chamber a round.
- Do not use your firearm for purposes other than those for which it was designed.
- Do not allow a firearm to be used by untrained individuals.
- When transporting your firearm in any vehicle, be sure it is unloaded and that the action is open.
- Never leave a gun, especially a loaded gun, unattended as someone, especially a child, could accidentally shoot it causing injury, death or property damage.

FIRING

- Whenever firing any type of firearm, wear safety glasses to protect your eyes from sparks, lead fragments, black powder residues, pieces of caps or flints, pellet rebound etc., and ear protection for the loud report.
- In selecting a place to shoot, be sure the area has a safe backstop, is free from obstructions and water surfaces which cause ricochets, and is protected so that persons or animals cannot accidentally walk into the shooting field. Making sure there is a proper backstop, which will stop and contain bullets. A bullet can travel through or past your target for several kilometers. If you have any doubt, **DO NOT SHOOT**.
- When firing on a target range, follow the range officer's commands to load, fire, and cease-fire and unload.
- Before anyone is allowed to move forward the firing position on a range, be sure all actions of firearms are open and unloaded, without cartridges or ammunition of any kind, as well as igniting caps, and that they are safely positioned.
- Never use alcoholic beverages or other drugs before or during shooting.
- If your firearms fail to function properly, do not try to fire it and do not force an action that is jammed.
- Beware of obstructions in the barrel. If, when firing, a weak or peculiar report is heard, cease firing, open the action, if possible, and unload the gun and inspect the barrel for an obstruction or for damage. Do not fire a gun with an obstructed or damaged barrel.
- If you are carrying a loaded gun in the field, never follow a companion.
- Never cross obstacles such as fences or streams with a loaded gun.
- Never run with a loaded gun.
- Do not smoke while handling, loading or shooting any ammunition, especially black powder. Keep black powder in a closed container at all times, closing again the container after each and every use.
- Never shoot the gun near an animal, as the animal could be startled and cause an accident.
- Never engage in “horseplay” while holding your gun.
- Make sure slide lock safety is applied while gun is cocked and ready to fire. Otherwise, the gun could accidentally discharge, causing injury, death, or property damage.
- Place the hammer rearward only when you are ready to shoot.
- Never place or permit the hammer to remain in the half-cock notch, as this is not a safe carrying position. You might end up accidentally perching the hammer on the lip of the half cock notch, which is extremely dangerous given the hammer in this condition could fall forward and discharge the gun, causing injury, death, or property damage.

- Always be aware of other people around you. Keep spectators or others to your rear. Keep hands and face clear and keep others clear of the ejection port as ejected spent cartridges can cause injury. To prevent burns or injury from the slide moving forward, make sure your hand and fingers do not touch or obstruct the ejection port.

STORAGE

- Make sure your gun is not loaded before cleaning, storing or traveling and the magazine is removed with slide-latched open before laying it down, and/or handing it to another person.
- Store your unloaded firearm and ammunitions separately and in places inaccessible to unauthorized persons and/or children.
- Do not encase your firearm in anything which will attract or hold moisture.
- The internal mechanism should be oiled after use and periodically during storage, with an acid-free lubricating oil, while the external mechanism plus frame and barrel should be coated with anti rust oil.
- Before using your gun, be sure to clean it and to check it for signs of wear or defects.
- If your firearm is to be used or stored in a cold climate, be sure to use oil, which will not freeze, at low temperatures.
- After use, the stock and wood parts must be cleaned with a soft woolen cloth and film covered with linen oil for wood.

GENERAL TECHNICAL INSTRUCTIONS

DOUBLE & SINGLE SET TRIGGER ADJUSTMENT - SAFETY

Your gun can be provided with set trigger as:

- **double triggers:** the rear trigger is the set trigger while the front one is the firing trigger.
- **single set trigger** (also called French set trigger): move the trigger forwards in order to set the trigger pull, just a light touch on the trigger will then be needed to fire.

Under certain circumstances, an activated set trigger may release the cocked hammer due to the shock of the mechanism.

Properly adjusted, set triggers will not release the cooked hammer unexpectedly and the instructions below should be read carefully und trigger adjustments made correctly.

BEFORE MAKING ANY ADJUSTMENTS MAKE CERTAIN THE GUN IS UNLOADED.

See figures at page 5 of this booklet.

DOUBLE SET TRIGGER

The rear adjusting screw (# 1) controls the tension on the main spring (# 2) by raising or lowering the main spring. Turn the screw (# 1) inwards until the hammer will stay cocked without having the rear trigger "set" (*clicked*).

If the screw (# 1) has been set inwards too far, the hammer will not fall when the front trigger is pulled strongly.

If the screw (# 1) is not set inwards enough, the hammer will fail to remain at full cock position unless the rear trigger is "set" (clicked) first. Therefore, if the hammer will not remain in full cock, the screw must be turned inwards further until the hammer will remain in full cock without first "setting" the rear trigger.

NOTE: when making adjustments on screw (# 1) always move the screw in $\frac{1}{4}$ to $\frac{1}{2}$ turn increments and recheck your results before making more adjustments.

The front trigger will release the hammer even if the rear trigger has not been "set". With the rear trigger **NOT** set, the pressure required to release the hammer will be much more that when the rear trigger has been "set" (clicked).

The front trigger adjustment screw (# 3) changes the amount of movement or travel, which the front trigger, will have before the hammer is released.

Turning the adjustment screw (# 3) inwards will reduce the front trigger movement required to release the hammer. Turning the screw outwards will increase the required front trigger movement. If this screw (# 3) is turned inwards too far, it will not "hold" the setting against the rear trigger sear notch (# 4).

Proper adjustment should produce a very small trigger movement with light pressure required. Such a setting helps a good shooter to obtain better accuracy.

We recommend to periodically verifying the screws that may loosen due to the shot vibrations.

For some set triggers there is a side screw (# 5) to make sure that the screw (# 1) doesn't loosen. This however does not happen too often and only to guns that have very strong recoil.

SINGLE SET TRIGGER

A small adjustment screw (# 1) is located right behind the trigger blade (# 2). Turning this screw inward will reduce the pressure required to release the trigger and turning the screw downward will increase the required trigger release pressure.

Pressing the trigger blade forward does the actual setting of the trigger.

The screw (# 1) has a slot head to allow a small screwdriver to be used and there is also a small-drilled hole, which allows a pin or small nail to be used to turn the screw.

Note that gun equipped with the single set trigger can also be fired without first setting the trigger. With a cocked hammer simply pull back on the trigger and the hammer will be released. Of course the amount of pressure required will be greater than when the trigger has been "set".

WARNING

If the set trigger has been adjusted for a short and light release, it may be possible that a strong shock or a strong vibration may cause an unexpected hammer fall.

This situation can be extremely dangerous, as shot may occur. Therefore after you make an adjustment, please make the following safety tests:

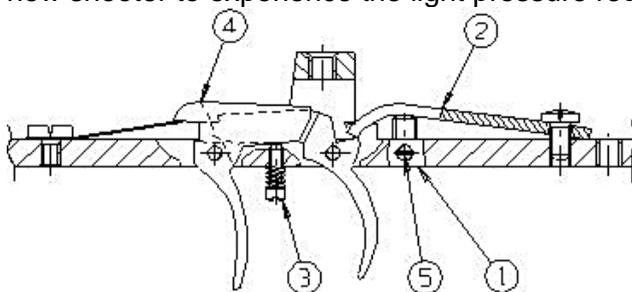
- **with a muzzle loading gun:**

- 1) Make certain the gun is unloaded, unprimed or uncapped and no powder charge in the chamber.
- 2) Full cock the hammer.
- 3) Press the trigger blade forward, or set the rear trigger by pressing it back until you hear a click sound indicating the action has been "set".
- 4) Holding the gun pointing upwards, knock the butt sharply, several times, against a wood surface protecting the stock in a proper way. Repeat this shock test while holding the gun in other positions.
- 5) The hammer must not be accidentally released. If the hammer does release you must increase the release pressure slightly and repeat these shock tests until the hammer never releases when the gun is shock tested in several positions.

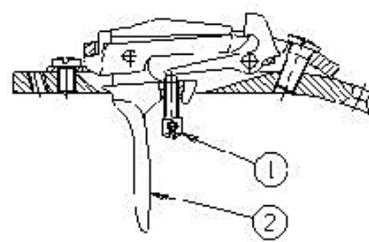
- **with a breech loading gun:**

- 1) Make certain the gun is unloaded, without any cartridge into the chamber.
- 2) Place the hammer in the safe half-cock position and insert a fired cartridge case, so the firing pin will have something to strike against. (For the Rolling Block model it will be necessary to cock the hammer to enable the breechblock opening).
- 3) Full cock the hammer, then set the trigger properly.
- 4) Lower the breech lever (Sharps) fully and slam it closed at least 10 times. Use more force than normally would be used, or holding the gun pointing upwards, knock the butt sharply, several times, against a wood surface protecting the stock in the proper way. Repeat this shock test while holding the gun in other positions.
- 5) The hammer must not be released by this strong shocking. If the hammer remains in full cocked position, your trigger setting is normal and safe.
- 6) If the hammer does release during this shock test, you must change the adjustment of the front, rear or both triggers in order to obtain proper safety.

Caution: If you allow others to shoot your pistol or rifle, we suggest letting them try the set triggers before allowing live ammunition to be fired. The very light trigger pressure is a big surprise to many shooters who have not had previous experience with the single or double set trigger system. The hammer does not have to be cocked to allow this trigger practice. Just set the trigger and allow the new shooter to experience the light pressure required.



Double set trigger



Single set trigger called French style

SIGHTING ADJUSTMENT

Your gun can be equipped with a non-adjustable rear sight, or with an adjustable rear sight. In the first case, sighting adjustments should be made with the front sight, which is drift adjustable for windage. With a brass drift, the front sight can be moved left or right, depending on which direction your rifle happens to be shooting. Move the front sight in the direction you are shooting: if you are

shooting to the left, move your front sight left; if it shoots right, move the front sight right. For short range elevation adjustments, it may be necessary to file the front sight blade down a little.

For the models provided with adjustable rear sight, its regulation can be done in combination with the front sight.

The elevation adjustment will be obtained moving the sliding aiming notch to the opposite shooting position. If the gun shoots low, you have to adjust the sliding aiming notch towards the high and vice-versa.

The windage adjustment will be on the opposite side where the mistake is.

IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING

- 1) Use Black Powder or equivalent propellant (Pyrodex) only to load your muzzle loading firearm.

WARNING: The use of smokeless powder, or a mixture of smokeless and Black Powder (duplex loads) or the wrong type or granulation of Black Powder or Pyrodex or overloading may cause serious injury and/or death to the shooter or bystanders and damage to property.

The reason for using a low yield powder such as Black Powder or equivalent propellant (Pyrodex) is quite basic and it is related to firearm design. When used as a propellant, Black Powder or Pyrodex generates a relatively low breech pressure. Muzzleloading firearms, even those with modern steel barrels, are not designed to withstand the high pressures produced by a Smokeless Powder charge.

People who become interested in muzzleloading tend to research and to seek out some of the early journals which describe loading implements, components and powders of yesterday. Reading these old books can be pleasurable. Never assume, however, that obsolete printed material has a safe application in today's world.

All our guns have been regularly proof tested to the NATIONAL PROOF HOUSE in Gardone V.T. with a forced test firing, as the mark stamped on each gun or pistol testifies. Still stamped on the barrel they all carry the words "**BLACK POWDER ONLY**".

Never use smokeless powder of any type or in any quantity in a muzzleloading firearm, and never mix powders.

Black powder producers in the world use different grains identification methods, following the metric system of each Country.

Our company suggests the following comparing chart for guns type with the purpose to correlate the various types of black powder produced in different countries following the adopted classification.

| Gun | Suisse Black Powder | French Black Powder "Vectan" | Black Powder Powex | U.S.A. Black Powder |
|---|---------------------|------------------------------|--------------------|---------------------|
| Big caliber guns/small scale cannons | 4 | PNF1 | Fg | 1f or fg |
| .45 caliber and larger caliber rifles | 3 | PNF1 | FFg | 2f or ffg |
| Revolvers, pistols and rifles up to .45 caliber | 2 | PNF2 | FFFg | 3f or fffg |
| Pistols up to .31 caliber / flintlock gun pans | 1 | PNF4 | FFFFg | 4f or ffff |

Black powder **SHOULD NEVER BE STORED IN A PLASTIC CONTAINER**, which could build a static electricity charge. In case, make sure they are made of anti-static material. Keep the container away from heat sources.

Davide Pedersoli Co. declines any responsibility for the use of different from original propellant or that is not of commercial production high quality and for the use of maximum loads different from those recommended in this manual.

Unreasonably heavy charges of Black Powder or equivalent propellant (Pyrodex) can be dangerous. Heavier loading showed marked increases in pressure and substantially more recoil for only minor gains in velocity.

- 2) Percussion caps and black powder should be stored in separate locations.
- 3) Caps are sensitive to static electricity, heat, flame and percussion.
- 4) **Do not use glass containers to store them**, but leave them in their original containers.
- 5) **Never smoke while loading**, shooting or handling black powder.
- 6) Make sure that spectators are completely behind you when firing.
- 7) Never let the hammer on a percussion firearm fall without a cap on nipple or it will damage the nipple. On a flintlock arm, never let the hammer fall on the frizzen without a flint in the hammer.

- 8) **BLACK POWDER LEAVES HEAVY RESIDUES**, after firing a prompt and through bore and all metal parts cleaning is an absolute necessity to black powder shooters.
- 9) Use only non-synthetic cloth patching.
- 10) **PROTECT YOUR EYES** from sparks, lead fragments, pieces of caps or flints, by wearing shatterproof shooting glasses.
- 11) It is advisable to protect your ears by using ear-plugs or muff, when firing your muzzleloader.
- 12) Never fire at water, flat or hard surfaces.
- 13) Always check your barrel for obstructions prior to loading or firing. Water, mud, snow or any other materials could obstruct the barrel and cause it to be blown apart.
- 14) **TREAT A MISFIRE FOR FAILURE WITH EXTREME CARE.** Keep the gun pointed to a safe direction and wait for at least one full minute before repriming; there is always the chance a spark could be smoldering in the powder and the gun could fire at any moment.
- 15) Make sure your gun is in firing condition before you pull the trigger.
- 16) **NEVER POUR POWDER INTO THE BORE DIRECTLY FROM A POWDER FLASK OR CONTAINER** a sudden powder ignition from a lingering spark could cause the entire flask to explode. Instead use an individual charge from a powder measure when loading your muzzleloading gun (item USA 199).
- 17) **NEVER ATTEMPT TO SHOOT OUT A BALL WHICH IS NOT FIRMLY SEATED AGAINST THE POWDER CHARGE.** Any air space between the projectile and/or wad and powder could cause serious damages to the firearms and injury to the shooter. If powder fouling or other circumstances should cause the projectile to become lodged in the bore, partially down the barrel, the ball must be removed with a screw tip style bullet-puller (item USA 545) of the proper caliber. Some black powder solvents can be poured to soften any fouling which could be holding the ball. **UNDER NO CIRCUMSTANCES SHOULD THE INDIVIDUAL ATTEMPT TO REMOVE THE PERCUSSION DRUM OR BREECH PLUG FROM THE FIREARM.**
- 18) Before you start loading, make always sure that the gun is not already loaded. For the purpose we suggest you to insert the ramrod into the empty barrel and mark a line on it at the muzzle height. This line will be your reference for the empty barrel. Make another line marking after you loaded first the powder and so one for the wad (if used) and one for the ball. The three reference lines (four if you use a wad) will give you an immediate vision of possible future loading mistakes.
- 19) Never bring a loaded firearm into a house, or car, or truck...
- 20) Never drink alcoholic beverages before or while shooting.
- 21) Consult a competent firearm instructor to clarify any instructions that you might not understand or contact us directly.
- 22) If you sell, trade or give this weapon to another person, make sure to give him this booklet or at least inform him that a copy is available at no charge from Davide Pedersoli Co.
- 23) Be a safe shooter.

LOADING AND SHOOTING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

On all the arms provided with set triggers you could regulate the release hardness, by acting on the screw situated behind the front trigger.

To adjust the set trigger, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

PERCUSSION FIREARMS

- 1) Place the hammer at half cock position.
- 2) The bore area should receive a good cleaning just before the gun is loaded, so clean all oil and grease from inside the barrel, by running fresh patches down the barrel until they come out clean and dry.
- 3) With gun pointed in a safe direction, place the cap on the nipple, set the hammer in a full position and fire. This operation will dry out the base of the bore and the nipple and should be repeated two or three times.
- 4) With the muzzle pointed in upright position well away from your face and body and the hammer on rest position (down) measure and pour the powder down the barrel (*see point 15 of section "IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING" in this booklet*), following the doses indicated in this manual chart.
- 5) To be sure the powder is positioned correctly on the barrel's bottom. Slap the side of the barrel in front of the lock.
- 6) Lay a well greased patch over the bore and press round ball into the bore; to facilitate this operation we suggest the use of a bullet starter (art. USA 510), that will help the introducing of the ball for the first 15 cm (6"), then you can continue with the ramrod.
- 7) With ramrod seat the ball down firmly against the powder, but without crushing it. **MAKE SURE THE BALL IS FIRMLY SEATED AGAINST POWDER SO THAT NO AIR SPACE EXISTS BETWEEN THE BALL AND POWDER-CHARGE.** A good system to check what above is the one to insert the ramrod into the barrel loaded with black powder, mark the line at the muzzle height. Check with this line when you put the wad (if used) and again for the ball. The three reference lines (four if the wad is used) will give you the vision of possible loading mistakes.
- 8) With the gun pointed to a safe direction and the hammer set at half cock position, place a percussion cap on the nipple. **NOW THE GUN IS LOADED.**
- 9) Place the hammer on the full cock position; **THE GUN IS NOW READY TO FIRE.**
- 10) After firing slide the ramrod into the empty bore and **wait for one full minute before loading the next powder charge**; this will allow any remaining sparks in the barrel to burn out.
- 11) In case of a misfire make sure you keep the gun pointed in a safe direction and just wait for at least one minute before repriming. There is always the chance a spark is smoldering in the powder and the gun could fire at any moment. If still a misfire using new cap, place a small charge of fresh black powder in the nipple using a nipple charger (art. USA 080), place the cap and fire.
If after some attempts the gun still should not fire, **UNLOAD IT** using the proper caliber bullet puller. **MAKE SURE YOU HAVE REMOVED ANY CAP ON THE NIPPLE AND THE HAMMER IS IN A SAFETY POSITION.**
In this case screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling. You can now remove the powder

FLINTLOCK FIREARMS

- 1) Percussion muzzleloader loading instructions also apply to flintlock but no percussion caps are needed to fire. (See points 1b, 2b, 4b, 5b, 6b, 7b).
- 2) Insert the flint in the hammer between two pieces of thin lead and tighten the hammer screw to hold the flint firmly in place.
- 3) Point the gun in a safe direction, prime the pan with a small amount of fine black powder using a "pan primer" (item USA 085), and pull the frizzen down to cover powder in flash pan. **NOW THE GUN IS LOADED.**
- 4) Set the hammer in full cock position. **NOW THE GUN IS READY TO FIRE.**
- 5) When the trigger is pulled, the hammer will move forward and down across the face of the frizzen. The flint edge, striking the frizzen, will produce sparks. The sparks, upon reigniting the priming, will cause flashes that travelling through the touch hole will ignite the main charge. **ATTENTION:** both flint and frizzen must be completely dry.
- 6) After firing slide the ramrod into the empty bore and **wait for one full minute before loading the next powder charge;** this will allow any remaining sparks in the barrel to burn out.
- 7) If a misfire or a failure to fire should occur, keep the muzzle-loader pointed in a safe direction and wait for at least one minute, then reprime and use a nipple pick to force a small amount of the priming powder charge into the touch hole and then fire again.
- 8) If after some attempts the gun does not fire, **UNLOAD IT,** using the proper caliber bullet puller. **MAKE SURE THE HAMMER IS IN A SAFETY POSITION.**
- 9) In this case screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling. You can now remove the powder.

CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

HOW TO REMOVE THE BARREL FROM STOCK

Our line of muzzleloader is divided in two groups of weapons: the first ones which barrel ends with a breech plug into the stock. The second ones with a hook breech tang and plug.

- 1) For the guns of the first group to remove the barrel from the stock, once removed the ramrod, you have to unscrew the tang screw and then take the pins and/or the wedge off.
- 2) For the guns of the second group, the barrel is fixed to the stock with wedges. Once removed the ramrod, retract the wedge or wedges, handle the barrel at the muzzle and rotate towards the height, the lug will disengage from its seat.

CLEANING

Black powder leaves a lot of fouling in the barrel and it is highly corrosive. After the day's shooting, an accurate cleaning is recommended.

- 1) Percussion rifles or pistols: remove the nipple.
- 2) Flintlock rifles or pistols: remove the vent.
- 3) Scrub bore with hot soapy water or in hot water with specific detergent (item USA 487) and wipe all powder fouling from all other metallic parts too.
- 4) Flush the barrel with the hottest clean water available to remove soap.
- 5) Dry barrel and all metallic parts rapidly with fresh patches while they are still hot.
- 6) Oil the barrel lightly as soon as it cools inside and out. Apply a coat of oil to all metallic parts too.
- 7) Replace the nipple (on percussion models), or vent (on flintlock models).

HOW TO REMOVE THE BREECH PLUG FROM BARREL

- 1) Percussion rifles or pistols with drum: remove the nipple and the drum. Before removing the drum, mark a small position line for the drum and the barrel, such to mount it in the same position. When reassembling the drum and the nipple do not apply an excessive strength, or you may break the parts. Make sure that the male thread perfectly matches with the one of the hole.

Percussion rifles or pistols without drum: remove the nipple.

Flintlock rifles or pistols: remove the vent.

- 2) **For all firearms indicated at point 1f:** before proceeding to the removing of breech plug, make sure to have done a "reference mark" between barrel and breech plug, for the right position.
- 3) With the barrel held in a bench vice (protected grip), unscrew the breech plug, by using an appropriate wrench.

INSTRUCTIONS FOR DISASSEMBLING AND ASSEMBLING MUZZLE LOADING ROLLING BLOCK

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See figures and exploded view at [pages 1a, 2a, 3a](#) of this booklet.

DISASSEMBLING THE FRAME

Tools required:

- Medium and small screwdrivers
- Hammer
- 1/4" brass punch
- 1/16" steel punch

(N/E)=NOT ESSENTIAL

- 1) (N/E) – Undo the screw at the top rear of the tang (part. # 37) and pull the butt off, (part. # 16) it may be tight so slap the front of the comb with your hand.
- 2) Looking at the left side of the receiver (part. # 19) you will see the hammer and breech block axis pins; (part. # 27) in-between is a locking plate (part. # 29 / fig. 2a). Remove the screw (part. # 40) that secures it and take the plate off. Note both pins have flat faces that engage with the sides of the plate to stop them rotating. These face inwards (fig. 2b).
- 3) Cock the hammer (part. # 20) and drive or push out the forward front (breech block) axis pin to the left with the brass punch. As the pin clears the block (part. # 28) will jump up slightly (fig. 3a).
- 4) Lower the hammer and push it down/forward past its normal position and tap or push out its pivot pin to the left and lift it up and out (see 3b).
- 5) (N/E) - Undo the two screws (part. # 38-39) at the front and rear of the left side of the receiver (lower edge) and pull the trigger mechanism (part. # 21) out. These can be very tight, so it's important to use the correct sized blade.

At this stage you have access to the breech block should you need to remove the firing pin or replace the trigger and hammer springs.

6) Back together

For breech block and hammer insertion, both axis pins go in from the left and their milled ends have to face inwards.

- 7) Drop in the hammer and push it forward so you can insert the axis pin through the left side of the the receiver.
- 8) Cock the hammer.
- 9) In this position, slide the block back in and align and insert its pivot pin here. Downwards pressure must be applied to the block to allow easy operation.
- 10) Reposition the trigger plate and re-fit the front retaining screws. Once in position, push a long screwdriver up through the rear of the action to ensure the main spring engages the lobe at the rear of the hammer. Re-fit the rear retaining screw.
- 11) Re-position the button between the pivot pins and re-fit the retaining screw. This can only be achieved if both flats are facing inwards.
- 12) Re-fit the butt and insert the stock screw.

DISASSEMBLING THE NIPPLE AND THE BREECH PLUG

- 1) Cock the hammer (part. # 20).

- 2) Withdraw the breech block (part. # 28).
- 3) With the nipple and breech plug wrench (part. # 46) it is possible to get between the breech block and the barrel (part. # 1) to unscrew the nipple (part. # 4) and/or the breech plug (part. # 12).

DISASSEMBLING THE BARREL FROM THE FRAME

- 1) Unscrew and remove the forend screw (part. # 10).
- 2) Loosen, without removing, the screw (part. # 49) which is inside the hole previously closed by the screw (part. # 10) using the proper hexagonal wrench (part. # 51).
- 3) Move the rear band (part. # 8a) and push forward the forend, (part. # 13) to disassemble it from the frame (part. # 19).
- 4) Pay attention to the ramrod spring (part. # 6) which can engage the forend hampering disassembling. In this case keep the spring slightly compressed using a screwdriver or a punch.
- 5) If you need to remove the rear band from the barrel, it will be necessary:
- 6) disassemble the front sight (part. # 5).
- 7) disassemble the front and middle bands (part. # 8-9) undoing the screws (part. # 17).
- 8) Cock the hammer (part. # 20).
- 9) Withdraw the breech block (part. # 28).
- 10) Using the wrench (part. # 2), eventually helping with the wrench, (part. # 46) undo the blocking ring (part. # 3) counterclockwise.
- 11) Keeping the rifle in a standing position with the muzzle at the top, tap on the frame front, using a wood or plastic hammer, until the barrel separates from the frame.
- 12) To re-assemble the rifle work in reverse order.

HOW TO CHANGE THE FIRING PIN

- 1) To replace the firing pin (part. # 30), please follow instructions points 1, 2, 3 of the "disassembling the frame".
- 2) Pay attention that once the breech block is disassembled from the rifle, do not uncock the hammer or the mainspring (part. # 26) will get out of alignment and placing it back can be difficult.
- 3) When the breech block is disassembled, undo the screw (part. # 41) remove the spring (part. # 42) and the firing pin ball (part. # 43).
- 4) Remove the pin (part. # 44) using the 1/16" punch and remove the firing pin retractor (part. # 23).
- 5) Remove the firing pin.
- 6) To reassemble the firing pin follow instructions in reverse taking care backwards, caring to place the firing pin in the correct position with the cut on the bottom, such that the firing pin retractor lever can fit into this cut.

209 PRIMER CONVERSION

Your Rolling Block Muzzleloader can be converted to the use of the #209 primer and vice-versa. The conversion can be made replacing the following parts:

- breech block (part. # 28);
- firing pin (part. # 30);

- breech plug (part. # 12);
- nipple (part. # 4).

LOADING AND SHOOTING INSTRUCTIONS FOR SIDE BY SIDE SHOTGUNS SMOOTH BORE

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section “*IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING*” in this booklet.

ASSEMBLING

- 1) Do not force barrel into stock.
- 2) Hook the barrel breech plug into the tang make sure the barrel fits properly to the tang. Gently lower the barrel into the barrel channel in the stock. **DO NOT FORCE** the barrel.
- 3) The barrel must fit into the stock perfectly, with a minimal amount of tension in order to hold the wedges in.
- 4) Gently insert the wedges **RIGHT TO LEFT**.

LOADING

- 5) With the gun pointing in a safe direction place caps on the nipples, set the hammers in full position and fire. This operation should be repeated two or three times in order to dry out the base of bores and the nipples. Now you can start loading.
- 6) With the hammers placed at a rest position (down) pour down the righthand barrel the pre-weighed powder charge (*see loading tables in this booklet*).

Always make sure of the barrel you start with.

- 7) Slap the side of the barrel in front of the lock, this will allow a small quantity of powder to go into the nipple.
- 8) Place on the muzzle an over powder cork wad (item USA 093) and a wad (item USA 087) and with the ramrod, carefully press it to a firm seat on top of the powder load.
- 9) Some shooters use instead of the wad a felt wad (item USA 094) and an additional over powder cork (item USA 093).
- 10) It is advisable to mark your ramrod at the muzzle in order to have a reference (*see point 17 of section “IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING” in this booklet*).
- 11) Measure and pour the required weight and size of shot down the barrel (*see loading tables in this booklet*), by using a shot-bag (item DP 560) and the over shot wad (item USA 086).

THERE IS NO NEED TO PRESS TOO MUCH. Now mark again your ramrod at the muzzle. This will insure that all future shots are at the right depth.

- 12) Start now loading the left side barrel.
- 13) With one hammer placed on half cock position and the other on a rest position (down), (**NEVER PLACE BOTH HAMMERS AT HALF COCK POSITION AT THE SAME TIME**), place the first cap; **PLACE JUST ONE CAP AT A TIME**, you can place the second one only after having fired the first barrel.
Caution: never reload a fired barrel without removing cap from the other.
- 14) It is possible for the recoil of the first shot to jar the second load from the powder charge so, after having fired the first barrel, wait for at least one minute, then check the position of the loading charge of the second barrel with the reference marks done on your ramrod.
- 15) If it is not at the right depth, press it down until the reference mark will be at the muzzle of the barrel.

Caution: be sure there is no cap on the nipple.

LOADING MISTAKE

If you have accidentally reloaded the same barrel (you will notice this after having checked the reference marks on your ramrod), **UNLOAD THE GUN COMPLETELY**, by using a patch-puller (item USA 555), **MAKE SURE YOU HAVE NOT ANY CAP ON THE NIPPLE.**

In this case, screw the patch-puller to the ramrod, insert it into the barrel reaching the over shot wad and pull it out. Repeat the same thing for the felt wad.

CLEANING

Our shotguns have chromed barrel bores, however the same procedures seen at point 2d and at "CLEANING" of section "CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS" in this booklet, are to be followed.

Attention: the breech plug cannot be removed.

DOUBLE BARREL SHOTGUN WITH INTERCHANGEABLE CHOKE TUBES

Your side by side shotgun can be equipped with interchangeable chokes of various sizes. (see table at [page 4a](#) of this booklet)

- Never change choke tubes on a loaded firearm.
- Make sure choke tube is properly tightened before shooting. It is wise to check tube periodically when hunting or shooting for an extended period of time.
- We do not recommend chokes tighter than improved-cylinder for steel shot.

LOADING AND SHOOTING INSTRUCTIONS FOR SIDE BY SIDE MUZZLE LOADING RIFLED BARREL GUNS KODIAK & SAFARI EXPRESS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section “*IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING*” in this booklet.

ASSEMBLING

- 1) Do not force barrel into stock.
- 2) Hook the barrel breech plug into the tang make sure the barrel fits properly into the tang. Gently lower the barrel into the barrel channel in the stock. **DO NOT FORCE** the barrel.
- 3) The barrel must fit into the stock perfectly, with a minimal amount of tension in order to hold the wedges in.
- 4) Gently insert the wedges **RIGHT TO LEFT**.

LOADING

- 5) With the gun pointed in a safe direction place caps on the nipples, set the hammers in full position and fire.

This operation should be repeated two or three times in order to dry out the base of bores and the nipples. Now you can start loading.

- 6) With the hammers placed at a rest position (down), pour down the righthand barrel the pre-weighed powder charge. (*see loading tables in this booklet*). **ALWAYS MAKE SURE OF THE BARREL YOU START WITH**. Slap the side of the barrel in front of the lock, this will allow a small quantity of powder to go into the nipple.
- 7) Center a lubricated cloth patch over the muzzle and place the round ball over it (see points 6b, 7b of section “LOADING AND SHOOTING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS” of this booklet).
- 8) With one hammer placed on half cock position and the other on a rest position (down), **NEVER PLACE BOTH HAMMERS AT HALF COCK POSITION AT THE SAME TIME**, place the first cap; **PLACE JUST ONE CAP AT A TIME**, you can place the second one only after having fired the first barrel.
Caution: never reload a fired barrel without removing caps from the other.
- 9) Start now loading the left side barrel.
- 10) It is possible for the recoil of the first shot to jar the second load from the powder charge so, after having fired the first barrel, wait for at least one minute, then check the position of the loading charge of the second barrel with the reference marks done on your ramrod. If it is not at the right depth, press it down until the reference mark is at the muzzle of the barrel.

Caution: be sure there is no cap on the nipple.

LOADING MISTAKE

- 11) If you have accidentally reloaded the same barrel (you will notice this after having checked the reference marks on your ramrod), **UNLOAD THE GUN COMPLETELY**, using the proper caliber bullet puller. **MAKE SURE YOU HAVE REMOVED ANY CAP ON THE NIPPLE.**

In this case screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling. You can now remove the powder.

CLEANING

- 12) See point 2d and “Cleaning” of section “Cleaning instructions for single shot muzzle loading guns” in this booklet.

Attention: the breech plug **cannot be removed**.

SIGHTING

Your Kodiak & Safari Express rifles have been regulated to group at 50 meters within a diameter of about 15 centimeters, using the suggested loads in the chart.

The rear sight is adjustable in elevation and windage. The blade front sight is interchangeable. For sighting adjustment, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

LOADING AND SHOOTING INSTRUCTIONS FOR BRISTLEN A MORGES RIFLE

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) The Minié bullet .447 (item USA 523) you can make with our bullet mould block (item USA 304-447) must be sized into the proper sizing device USA 515-445 (11,30 mm or 11,28 mm / .445 or .444) and greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS FOR WAADTLÄNDER RIFLE

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) The maxi bullet .454/250 grs. (item USA 522) you can make with our bullet mould block (item USA 308-454), must be greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item. USA 346).
- 3) It is recommended to put inside the barrel a carton wad 1 mm thick between the bullet and black powder, or a felt wad sized to the gun's caliber (item USA 097).
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS FOR TRYON CREEDMOOR & MORTIMER WHITWORTH RIFLES

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) The long bullet .451/485 grs (item USA 521) you can make with our bullet mould block (item USA 318-451) and the Minié bullet .450 (item USA 523) you can make with our bullet mould block (item USA 309-450) must be sized into the proper sizing device USA 514-450 (11,43 mm or 11,41 mm / .450 or .449) and greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS FOR TRYON MATCH RIFLE

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) The Minié bullet .450 (item USA 523) you can make with our bullet mould block (item USA 309-450) must be sized into the proper sizing device USA 515-450 (11,43 mm or 11,41 mm / .450 or .449) and greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS FOR GIBBS RIFLE .40 and .45 calibers

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

.40 CALIBER

- 1) The Minié bullet .400/316 grs. (item USA 523), you can make with our bullet mould block (item USA 304-400), sized through the sizing device USA 515-400 (10,16 mm or 10,14 mm / .400 or .399) and greased with soft grease (item USA 488).

or

The long bullet .400/310 grs. (items USA 526), you can make with our bullet mould block (item USA 318-400), sized through the sizing device USA 514-400 (10,16 mm or 10,14 mm / .400 or .399) and greased with soft grease (item USA 488).

- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round

.45 CALIBER

- 1) The long bullet .451/535 grs. (items USA 526), you can make with our bullet mould block (item USA 308-451), sized through the sizing device USA 514-450 (11,43 mm or 10,41 mm / .450 or .449) and greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS FOR WÜRTTEMBERGISCHE/MAUSER RIFLE

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) The Minié bullet .547 (item USA 523), you can make with our bullet mould block (item USA 302-547), must be sized into the proper sizing device USA 515-547 (13,90 mm or 13,88 mm / .547 or .546) and greased with soft grease (item USA 488).
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

REAR SIGHT ADJUSTMENT

See exploded view at [page 5a](#) of this booklet.

To adjust the rear sight in elevation, please follow these instructions to avoid damaging or destroying the small teeth on the lower part of item n.7. The small teeth get inserted into the adjusting grooves, as evidenced on the left side of the part # 2.

- 1) Unscrew the screw (part. # 1), turning to left.
- 2) Move up or down the rear side blade, according to your necessity.
- 3) Fix the screw (part. # 1), turning to right.

Use the item # 8, which is in an aluminum control accessory, as reference to the rear sight, leaning it on the corresponding step.

LOADING AND SHOOTING INSTRUCTIONS FOR DERRINGER LIEGI & POCKET PISTOLS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

See exploded view at [page 6a](#) of this booklet.

- 1) Unscrew the barrel (part. # 3) using the wrench (part. # 17) and check to make sure there is nothing obstructing the inside of the barrel. **DO NOT** attempt to fire with any type of barrel obstruction.
- 2) Load the Derringer by pouring a pre-measured amount of black powder, in the chamber in the frame (part. # 2). **MAXIMUM LOADS** of black powder or equivalent propellant (**PYRODEX**) must fill the chamber until it reaches the concave portion of the frame (about 9 grs of Swiss N. 1).
- 3) Place a lead round ball on top of the powder chamber. The recommended round ball is .451 (11,45 mm) diameter for .44 caliber and .362 (9,19 mm) diameter for .36 caliber.
- 4) Screw the barrel back onto the frame until using the wrench and make sure the barrel is well seated.
- 5) With the pistol pointed to a safe direction, place the hammer (part. # 6) at half cock position and place the percussion cap on the nipple firmly. **NOW THE PISTOL IS LOADED.**
- 6) When ready to shoot, set the hammer back until locked firmly in the full-cock position. This will unlock and release the trigger (part. # 12) into the fire position.
- 7) After having fired replace the trigger in the up or closed position. **ALWAYS HAVE THE TRIGGER IN THE UP OR CLOSED POSITION WHEN LOADING YOUR DERRINGER.**
- 8) **NEVER** carry the pistol loaded in your pocket and never keep the Derringer loaded in the book or box with comes included.

LOADING AND SHOOTING INSTRUCTIONS FOR DERRINGER RIDER PISTOL

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section "*GENERAL HINTS FOR THE USE OF FIREARMS*" in this booklet.

This gun is to use only caps (rws 1075 type) to shoot the pellet.

We strongly recommend not to use any kind of black powder, nor any smokeless powder.

See exploded view at [page 7a](#) of this booklet.

- 1) Cock the hammer (part. # 7).
- 2) Extract the special nipple (part. # 8) turning it counterclockwise.
- 3) Into the nipple chamber insert a lead pellet of the proper caliber size.
- 4) Reassemble the nipple to the barrel's chamber, turning it clockwise till it gets fixed to the proper seat on the frame.
- 5) Put a cap on the nipple.

NOW YOUR DERRINGER RIDER IS READY TO SHOOT.

WARNING

It is suggested to wear safety glasses and gloves to be protected from possible caps chips.

BE AWARE: Even if it is a gun of reduced dimension, it is not a toy and it can be quite dangerous if shot without observing the necessary safety rules, or inside closed areas, where the pellet may rebound striking, causing serious accidents.

LOADING AND SHOOTING INSTRUCTIONS FOR ZIMMER & SALOON PISTOLS 4,5 mm caliber

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *“GENERAL HINTS FOR THE USE OF FIREARMS”* in this booklet.

This gun is to use only musket caps four wings (rws 1081 type) to shoot the pellet.

We strongly recommend not to use any kind of black powder, nor any smokeless powder.

- 1) With the hammer placed at a rest position (down) insert into the barrel a lead pellet of the proper caliber size.
- 2) With the pistol pointed to a safe direction place the hammer at half cock position and place the percussion musket cap on the nipple firmly.
- 3) When ready to shoot, set the hammer in a full cock position.

NOW THE PISTOL IS READY TO SHOOT.

WARNING

It is suggested to wear safety glasses and gloves to be protected by possible caps chips.

BE AWARE: the gun can be quite dangerous if shot without observing the necessary safety rules, or inside closed areas, where the pellet may rebound striking, causing serious accidents.

LOADING AND SHOOTING INSTRUCTIONS FOR REVOLVERS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) Keep the revolver's barrel upward, hammer in the safety position (1st. cock) to rotate the cylinder for loading. Prepare the black powder charge, as suggested in the corresponding chart, using a powder measure (item USA 192). Pour the load into one chamber.
- 2) Always with the barrel upward, insert an over powder felt wad of the proper caliber size (item USA 094), then seat the round ball on top of it at the chamber mouth.
- 3) Rotate the cylinder to place the loaded chamber under the loading lever and push it until the ball is well seated on the felt wad. The ball must seat slightly under the cylinder chamber rim. Use the same procedure for all the chambers.
- 4) Put some grease (item USA 488) on each ball and seal all the chambers. This may prevent possible flash back, as well as the simultaneous ignition of the other loads. The grease also helps the cleaning.
- 5) After having sealed with the grease all the chambers, keep the muzzle lowered and the revolver pointed to a safe position, put the caps onto each nipple; if necessary squeeze them slightly to ensure their snug fit on the nipples. This will avoid to loose the other caps at the first shot.

INSTRUCTIONS FOR ASSEMBLING THE RIFLE KIT

WARNING:

These instructions sheets are only a general guide.
Please check the correct part number of your gun on specific spare parts list.

Our compliments on your choice! A scrupulous selection of the materials and the accurate working techniques make your new gun a product, which is synonymous of prestige and quality.

The kit that you are going to finish has been pre-assembled; all the metal parts have fit to the stock and you have only to polish and finish them.

If it is not so, you may proceed paying attention to our instructions.

Reminding that the most feared enemy of the “do it yourself” is hurried work, we wish you good luck ... enjoy it.

These brief notes want to be an explicative guide to enable you to finish work a kit of any kind of our models.

Following you will find some examples featuring various building solutions.

See figures and exploded view at [pages 8a, 9a, 10a, 11a, 12a](#) of this booklet.

- 1) (See fig.1) - Start by installing the barrel into the barrel channel of the pre-carved stock. Carefully remove any excess wood beneath and around the barrel tang. File the tang down until it is flush with the stock wrist. File from metal to wood, not the reverse. This prevents chipping or splintering of the wood.
- 2) **INSTALLATION OF TRIGGER** (See fig. 4) - With barrel installed in stock (use a clamp or heavy rubber band to keep barrel from falling out), install tang screw (11) through tang and stock. This will line up trigger plate. (part. # 23) As with the tang, install trigger plate flush with stock surface. Next install trigger (part. # 24), using trigger pin (part. # 25), to trigger plate. Install into stock, removing the wood as necessary to allow the trigger to move freely. If kit has set triggers (fig. 12), follow the same procedure as with the trigger, fitting one piece at a time. The trigger assembly is held to the stock by the tang screw and a small wood screw at the rear of the trigger plate.
- 3) **INSTALLATION OF LOCK AND SIDE PLATE** (See figs. 2, 6, 9) - Disassemble lock. Stock is pre-inletted for the lock. The location of the lock is determined by the hammer (part. # 40) to the nipple (part. # 14) / fig. 9, and the sear (part. # 38) to the trigger (part. # 24) / fig. 2. Install lock plate into recess removing only what wood is necessary to make lock surface flush with stock. (In the case of a flintlock, the plate must be fitted tight against and in contact with the barrel flat). Using fig. 6, install lock mounting screws (part. # 10) through side plate (part. # 9), through pre-drilled holes in stock and screw them into the pre-tapped holes in the lock plate. Install side plate (part. # 9) into stock. As with trigger assembly, install lock parts to lock plate and fit to stock one part at a time. Remove wood necessary to allow full and free movement of parts.
- 4) **FOR FLINTLOCK** (See fig. 9a) - Install touch hole liner (part. # 16A) into the pre-threaded hole in the side of the barrel. The liner should be flush with the surface of the barrel flat.

FOR PERCUSSION (See fig. 9) - Install the drum (part. # 16) into the pre-threaded hole in the side of the barrel. The drum should fit so that nipple (part. # 14) will align with hammer nose (part. # 40a). If it does not, file the drum shoulder a little at a time to obtain the proper fit. GO SLOWLY SO AS NOT TO STRIP THE THREADS WHEN TIGHTENING THE DRUM TO THE BARREL.
- 5) **COMPLETE THE LOCATION OF THE BARREL TO THE STOCK** (See fig. 5) - With barrel in stock, fit nose cap (part. # 8) into position. Remove only wood as necessary to have a tight fit. Carefully measure and drill hole for pin (part. # 18). Finish nose cap and stock flush to each other (Fig. 5a). Remaining barrel pins can now be installed. To find locations for pins (part. # 18) and to secure barrel to stock:
 - measure from barrel muzzle to the center of each barrel lug (these are already attached to the bottom of the barrel);

- use the top of the barrel to locate the depth for drilling stock through the barrel lugs. Get measurement from barrel, then re-install barrel into stock. Clamp barrel and stock together. Mark spot to drill on stock and DRILL STOCK AND BARREL TOGETHER.
- 6) **INSTALLATION OF THIMBLES** (See fig. 7) - Install and drill as with barrel pins.
 - 7) **INSTALLATION OF CAP BOX OR PATCH BOX** (See fig. 11) - Install into pre-contoured recess on butt stock. Remove only enough wood to make the metal flush with the wood surface. Install wood screws. Finish flush with stock.
 - 8) **INSTALLATION OF SIGHTS** (See fig. 8) - Front sight (part. # 13) and rear sight. (part. # 12) Clean up dove tail slots and dove tail on sights. Cut in sights using a three cornered jeweler's file removing only enough metal to make a tight fit of the sights into the dovetails.
 - 9) **INSTALLATION OF THE RAMROD TIPS** (See fig. 10) - Parts # 3 and # 30. Install as shown. Clamp in place and drill. Use a countersink drill to enlarge the mouth of the holes you have drilled. This will allow you to peen the ends of the pins to make a tight fit. Finish flush with ramrod diameter.
 - 10) **INSTALLATION OF TRIGGER GUARD** - To find location, install front screw through pre-drilled hole in trigger guard and screw into pre-threaded hole in trigger plate (see fig. 2, d). This will locate the correct position. Install wood screw through pre-drilled hole in rear of trigger guard (part. # 5) and into stock.
 - 11) **WOOD FINISHING** - Remove trigger guard (part. # 5), trigger (part. # 24), lock (part. # 39) and thimbles (part. # 22). Thimble (part. # 21) should be left installed as it will be flush with the finished stock. Use a smooth file to bring the stock and metal parts down to each other. These file marks must be removed by using consecutively finer and finer grades of sandpaper. Care should be taken around the lock recess. **DO NOT REMOVE TOO MUCH WOOD HERE.** By sanding in this manner, it will assure that metal and wood surfaces are flush. The metal parts can now be taken off the stock. Stain can be applied. Additional coats of stain can be added to darken the stock to the desired shade. **LET EACH COAT DRY BETWEEN APPLICATIONS.** This may raise the grain of the wood making it feel rough to the touch. If this occurs, rub with 4/0 steel wool dipped in a little stain. **LET DRY.** The sealer can now be applied. Follow the manufacturer's directions. **LET DRY COMPLETELY BETWEEN APPLICATIONS.** The brass parts can be polished with emery paper and polished or buffed. Finishing of steel parts, barrel and screws. Barrel flats which can be seen should be draw filed and polished with consecutively finer and finer emery paper. Follow same procedure with heads of steel screws. For cold bluing or rust, follow manufacturer's instructions. For best blue or rust finish, wash all surfaces with a degreaser after polishing and **DO NOT HANDLE AGAIN WITH BARE HANDS UNTIL PROCESS IS COMPLETED.**

Re-assemble rifle. **Kit is now complete.**

If you chose another kit gun of our models, some of the features may be different from those listed in these assembling instructions.

Even if there is a different shaped patch box (drawing 11) a trigger guard with set trigger (drawing 12), a forged drum into the barrel, instead of a screwed one (drawing 13) a different barrel to stock fitting (drawing 14) or other variations, these will not prevent you from finishing the kit gun.

INSTRUCTION FOR ASSEMBLING THE PISTOL KIT

See figures and exploded view at [pages 13a, 14a, 15a, 16a](#) of this booklet.

- 1) (See fig. 1) - Start by installing the barrel into the barrel channel of the pre-carved stock. Carefully remove any excess wood beneath and around the barrel tang. File the tang down until it is flush with stock wrist. File from metal to wood, not the reverse. This prevents chipping or splintering of the wood.
- 2) **INSTALLATION OF TRIGGER** (See fig. 4) - With barrel installed in stock (use a clamp or heavy rubber band to keep barrel from falling out), install tang screw (part. # 3) through tang and stock. This will line up trigger plate. As before, with the tang, install trigger plate (part. # 13) flush with stock. Next install trigger (part. # 14) using trigger pin (part. # 12) to trigger plate. Install the assembly into stock removing wood as necessary to allow the trigger to move freely. If the kit has set triggers, follow the same procedure as with the first trigger fitting one piece at a time. The trigger assembly is held to the stock by the tang screw (part. # 3) and a small wood screw at the rear of the trigger plate.
- 3) **INSTALLATION OF LOCK AND SIDE PLATES** (See figs. 2, 6, 9) - Disassemble lock. The stock is pre-inletted for the lock. The location of the lock is determined by the hammer (part. # 36A) to the nipple (part. # 40) / fig. 9, and the sear (part. # 27) to the trigger (part. # 14) / fig. 2.

Install lock plate into recess removing only what wood is necessary to install into stock. (In case of a flintlock, plate must fit tight against the barrel).
Install lock mounting screw (part. # 1) through pre-drilled holes in stock (fig. 6). Screw into pre-tapped holes in lock plate. Install side plate (part. # 2) into the stock flush with wood surface. As with trigger assembly, install lock parts to lock plate and fit to lock recess one part at a time. Remove wood as necessary to allow full free movement of all internal parts.
- 4) **FOR FLINTLOCK:** install touch hole liner (part. # 7) into pre-threaded hole in side of barrel (see fig. 9a). Liner should be flush with barrel flat.

FOR PERCUSSION: install drum (part. # 7A) into pre-threaded hole in side of barrel (fig. 9). Drum should fit so that nipple (part. # 40) will align with hammer nose (part. # 36A). If not, file drum shoulder a little at a time to adjust the fit. Go slowly so as not to strip the threads when tightening.
- 5) **COMPLETE THE LOCATION OF BARREL TO STOCK** (See fig. 5) - With barrel in stock, fit nose cap (part. # 9) into position. Remove only wood as necessary to have a tight fit. Finish nose cap and stock flush to each other.

Barrel pins can now be installed (fig. 7). To find location for pin (part. # 11) to hold barrel to stock:
Measure from barrel muzzle to center of each barrel lug (the lugs are already attached to the bottom of the barrel).
Use the top of the barrel to locate the depth for drilling through stock and barrel lug. Get measurement from barrel, then re-install barrel into stock and clamp barrel and stock together. Mark spot to drill on stock and **DRILL STOCK AND BARREL TOGETHER.**
- 6) **INSTALLATION OF THIMBLES** (See fig. 7) - Install and drill holes in same manner as with barrel pins.
- 7) **INSTALLATION OF SIGHTS** (See fig. 8) - Front sight (part. # 5), and rear sight (part. # 6). Clean up dovetail slots and check fit of sights to dovetail. Use a three-cornered jeweler's file to remove what metal necessary to make a tight fit.
- 8) **INSTALLATION OF TRIGGER GUARD** - To find proper location, install front screw (part. # 16) through pre-drilled hole in trigger guard and screw into pre-tapped hole in trigger plate. This will properly locate it. Install wood screw (part. # 17) through pre-drilled hole in rear of trigger guard (part. # 15) and into stock.
- 9) **WOOD FINISHING** - Remove trigger guard (part. # 15), trigger (part. # 14), lock (part. # 29A) and thimble (part. # 39).

Thimble (part. # 38) should be left installed as it will be flush with the finished stock. Use a smooth file to bring stock and metal parts down to each other. These file marks must be removed by using consecutively finer and finer grades of sandpaper. Care should be taken around the lock recess. DO NOT SAND TOO MUCH WOOD OFF. By doing the sanding in this manner, it will assure that metal and wood surfaces are flush.

The metal parts can now be taken off the stock. Stain can be applied. Additional coats of stain can be applied to darken the stock to the desired shade. LET STAIN DRY BETWEEN APPLICATIONS. This may raise the grain of the wood making it feel rough. If grain is raised, rub with 4/0 steel wool dipped in a little stain. LET DRY.

The sealer can now be applied. Follow the manufacturer's instructions. LET DRY COMPLETELY BETWEEN APPLICATIONS.

The brass parts can be polished with emery paper and polished or buffed.

Finishing of steel parts-barrel and screws. Barrel flats which can be seen should be draw filed and polished with consecutively finer and finer emery paper. Follow same procedure with heads of screws. For cold bluing or rust, follow manufacturer's instructions.

For best blue or rust finish, after polishing, wash all surfaces with a degreaser and DON'T HANDLE WITH BARE HANDS UNTIL PROCESS IS COMPLETE.

10) Re-assemble pistol. **KIT IS NOW COMPLETE.**

Following these instructions and the exploded view drawing, you will be able to custom finish your kit and have **YOUR NEW MUZZLE LOADING GUN!**

SPECIAL AND GENERAL CAUTIONS FOR SHOOTING WITH BREECH LOADING GUNS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section “GENERAL HINTS FOR THE USE OF FIREARMS” in this booklet.

- Using a quality gun solvent, remove all excess factory lubricant.
For Sharps models, field stripping the firearm will facilitate this process (see “FIELD STRIPPING” of section “LOADING AND SHOOTING INSTRUCTIONS FOR 1874 SHARPS” in this booklet).
- Relubricate all moving contact points with a quality "spray type" gun lubricant (item USA 489).
- Thoroughly clean the bore, and remove all excess solvent with clean, dry patches (item USA 497) replacing them as often as necessary until they come out clean and dry.

A slight film of gun oil should be left in the barrel during long periods of storage, however, the cleaning procedure **MUST** be repeated before shooting the firearm.

THE BARREL MUST ALWAYS BE CLEAN AND DRY BEFORE SHOOTING.

AMMUNITION

- Use only commercially manufactured ammunition.
- Your gun has been designed for ammunition of a specific gauge or caliber do not alter the barrel, chamber, caliber or gauge for which your gun was designed.
- Be sure you never mix ammunition.
- Use only ammunition specifically recommended for your firearm.

Our rifles are stronger than their original versions due in part to improved steels as well as minor changes made to strengthen original design weakness and add safety features. However it is important to respect the safety rules, including the features of the cartridges and their maximum developed pressure.

Our rifles, according to the Italian Law, are proof tested at the National Firing Proof House according to the rules imposed by C.I.P. (International Proof Commission); proof test pressure is 30% superior to the maximum pressure of a commercial cartridge. (Pmax)

Commercial cartridges Pmax pressure is measured in BAR, and it is the maximum pressure **never to be exceeded** during the normal use of the gun.

The equivalent maximum pressure value of the commercial cartridge measured according to the English/American P.S.I. / C.U.P. system, it is obtained multiplying the BAR value x 14,5037.

The list below, complying with the C.I.P. charts, represents the maximum pressure to be developed by a **commercial cartridge** to be used with our guns, in the various calibers. The below mentioned data are compared to the Crusher (C.U.P) / P.S.I method.

IN NO CASE SHOULD THE CARTRIDGES EXCEED SUCH VALUES OR THOSE SET FOR THE SPECIFIC MODEL RECOMMENDATIONS.

| CALIBERS | PRESSURE BAR | PRESSURE C.U.P. / P.S.I |
|-------------------|--------------|-------------------------|
| .30-30 Winchester | 2800 | 40610 |
| .30-40 Krag | 2850 | 41335 |
| .38-55 Winchester | 2150 | 31183 |
| .357 Magnum | 3200 | 46412 |
| .45 Long Colt | 1100 | 15954 |
| .45-70 Gvt | 2000 | 29007 |
| 8x57 JRS | 2900 | 42061 |
| 9,3x74 R | 3000 | 43511 |

MALFUNCTIONS

The proper function of your firearm is directly related to care and maintenance and to the ammunition used. Your firearm has been designed to function with high quality ammunition

produced to commercial standards. Some of the more common types of malfunctions which may occur are as follows:

- **MISFIRE:** a failure of the cartridge to ignite when the hammer falls.

CAUTION: if this occurs, keep the firearm pointed in a safe direction, wait 20 seconds, remove the cartridge from the chamber and dispose of it properly.

CAUSE: The most common cause of misfire is faulty ammunition.

- **FAILURE TO EXTRACT OR EJECT:** a fired case is not fully extracted from the chamber or ejected from the gun.

CAUTION: If this occurs, keep the firearm pointed in a safe direction, clear the gun by removing or emptying the magazine, if present, opening the action and removing any cartridge or cartridge case manually. Check the unloading procedures for each specific firearm.

CAUSE: The most common causes are a damaged extractor or ejector, black powder fouling or also powder and oil residues both in the chamber or on the extractor slides, or improperly loaded or sized cartridges. If any of the above problems cannot be corrected by cleaning the mechanism or by the use of another brand of ammunition, the firearm should be returned, unloaded, to your dealer with a full description of the problem. Do not attempt to make repairs or modifications since these can be completed only by a qualified gunsmith.

LOADING AND SHOOTING INSTRUCTIONS FOR 1859 & 1863 SHARPS RIFLES

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at [page 17a, 18a](#) of this booklet.

The exploded view drawing shows the SHARPS SPORTING model, but the suggestions apply for all 1859 & 1863 Sharps rifles.

FIELD STRIPPING

- 1) With the action (part. # 37) **OPEN**, place the hammer (part. # 4) in the half-cock position. You will notice a tiny plunger pin (part. # 49) located on the right side of the frame.
- 2) The lever hinge pin (part. # 48) is located on the lower front of the frame on the right-hand side of the rifle. While pushing in on the tiny plunger pin, rotate the arm of the lever hinge pin forward past the plunger pin, approximately 180 degrees from its original position. Turn the rifle upside down. While rotating forward and backward a few degrees, and pulling outward, remove the lever hinge pin. After the lever hinge pin has been removed, slide the lever and the breech block up and out of the rifle. To avoid that the hinge pin bumps against the forend (part. # 31), we suggest you disassemble the wood, loosening the screw (part. # 62) or remove the barrel's bands.
- 3) You have now field stripped the rifle.
- 4) Reverse the above procedure for reassembly.

Further disassembly should be attempted only by a competent gunsmith

CLEANING

- 1) Remove block (part. # 37), see "FIELD STRIPPING".
- 2) After the day's shooting, the sleeve (part. # 18) will need to be moved slightly into the chamber by using an appropriate tool (item USA 500). This is very important. If the sleeve is not cleaned and greased on a regular basis, due to carbon residues it will become fouled, stick, and no longer set back against the breech face and seal the breech to stop the gas from leaking.

Gas leaking around the gas check can do two things:

- it can possibly injure the shooter;
- it will gas cut the breech face and compound the problem.

- 3) Periodically we suggest to remove the gas seal plate (part. # 38) to clean it properly from the powder residue. To remove it, use one simple screw driver working on the side of it. Clean it with a good solvent (item USA 487) and put it back in place, pushing it with a certain pressure.
- 4) Use a good bore solvent to clean the bore and breech (item USA 487).
- 5) Oil the bore and breech with a good grade of oil (item USA 489).
- 6) Put a thin coat of grease on the gas check and make it rotate and slide it back into the breech.
- 7) Replace the block.

The seal plate has been covered with a particular product, which helps to resist the high temperature produced by the black powder combustion inside the chamber and thus reducing the "ring" appearance on the plate. The use of a loaded brass case will also reduce such high temperature developed in the area.

Attention: the gas check cannot be removed completely.

GAS CHECK MOVING TOOL - ITEM USA 500



USA 500

This new tool has been made to ease the partial removal of the gas check placed inside the chamber of 1859 SHARPS. As we always recommended the gas check must be kept clean and oiled for its contact into the chamber. However a complete removal is possible only disassembling the barrel, **which must be done by a gunsmith.**

An ordinary and efficient maintenance is obtained moving the gas check forwards and backwards, making it rotate, cleaning and oiling it to avoid its sticking inside the chamber due to possible rust caused by the combustion residues.

Such maintenance can be performed with an unloaded rifle, after having removed the breech block.

The moving tool is made by a rod having a conic threaded part and a threaded cylinder, vertically cut in two parts which are united by two rubber rings.

One of this two parts is equipped with a perpendicular pin.

Insert the moving tool into the gas check up to the further rubber ring, rotate the rod clockwise. The pin touching the frame will react enabling the expansion of the two halves inside the gas check, such to move it forwards and backwards.

After the cleaning, it will be sufficient to counter clock the rod to unscrew it and reduce the expansion of the two halves and extract the tool.

CAUTION

- We strongly recommend you point the muzzle downrange in a safe direction **BEFORE** attempting to load and fire the rifle.
- To place the rifle on safe, slowly drop the hammer in the half-cock position. We strongly recommend not loading the rifle until you are in the hunting field, or on the target range and you are ready to shoot safely.
- Insure that the nipple and vent are clean and clear of oil or other obstructions prior to loading.

LOADING AND FIRING

- 1) Place the rifle on safe, by placing the hammer in the half cock position. Extend the lever downward, fully opening the breech. Carefully insert one bullet of proper caliber into the breech, allowing it to firmly seat into the front of the chamber. Slightly overfill the remaining chamber with black powder or equivalent propellant (Pyrodex) previously prepared with the proper measurer (item USA 196).

Maximum loads should not exceed 60 grains in .45 caliber or 80 grains in .54 caliber.

All powder grain weights given are for Swiss n.3 black powder.

Make sure that the chamber is completely filled with powder to avoid any empty space between powder and ball.

The chamber should hold approximately 50 to 60 grains of black powder in .45 caliber, and 60 to 80 grains in .54 caliber. Actual powder capacity can vary, depending on bullet type, or configuration.

Note: a paper cartridge can be inserted in the chamber instead of the bullet and powder method at this time; to make a paper cartridge, we suggest you consult the specialized manuals for black powder loads.

- 2) With the barrel pointed straight down, tap the rifle a few times to allow the powder to settle in the chamber. **If using the paper cartridge method, push the cartridge firmly into the cylinder, slightly compacting the powder and insuring that the paper cartridge you allow to make a complete charge and that there are no empty spaces inside the chamber.** With the barrel still pointed down, carefully close the breech. Keeping the gun horizontal, turn the rifle right or left with the muzzle pointed downrange in a safe direction, so any excess paper and powder will fall away from the top of the breech and onto the ground.
- 3) With the barrel pointed safely downrange, cap the rifle with musket cap and fully cock the hammer. While pointing at your target, slowly pull on the **REAR** trigger until it sets. While aiming at your target, slowly pull the **FRONT** trigger and your rifle will fire.

- 4) In the event the rifle does not fire, continue pointing the rifle downrange in a **SAFE DIRECTION** for a period of at least **ONE MINUTES**, or until you are sure that the **CHARGE IS "DEAD"** and the chance of a hangfire has passed. After placing the rifle on safe, remove the musket cap and verify that the powder fills all the space in the chamber and repeat the shot. If the rifle continues to misfire, unloading may be necessary. See *"UNLOADING PROCEDURE"* below.
- 5) **WARNING:** During the loading it may happen that some black powder trickle down into the bottom of the forend in spite the cleaning as mentioned at the point 2b). A periodical control, disassembling the forend is recommended to avoid any black powder cumulous. If powder gets into this area, there is a chance that the flash from the cap communicating with the now accumulated powder at the gas seal, **COULD EXPLODE** causing **DAMAGE TO THE RIFLE** and **INJURY TO THE SHOOTER**.

To disassemble the forend, loosen the screw (part. # 62), or remove the barrel's bands

To adjust and use the set trigger and for sighting adjustment, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

UNLOADING PROCEDURE

- 1) We suggest not to open the breech block when the rifle is loaded, but if you have to, make sure to follow the instructions below.
- 2) With the barrel pointed in a safe direction, place the hammer on safe position. **CAREFULLY** remove the musket cap. After the cap has been removed, point the muzzle toward the ground. Tap the rifle a few times to settle the powder back towards the front of the main chamber. This will allow you to open the breech without pulling powder which would normally settle in the chamber and into the gas seal.
- 3) With the barrel still pointing down, and after the rifle has been tapped a few times, carefully draw down the slide and open the breech. Turn the rifle upsidedown so the powder will flow down, away from the forend and out of the top of the breech, inside a water filled bowl to avoid that the black powder may get spilled on the ground. **FOREND SHOULD BE UP AND TOP OF THE BREECH SHOULD BE FACING DOWN**. Do not allow powder to trickle down into the bottom of the breech or the forend. Check and clean the parts disassembling the breech block and the forend.
- 4) Use a wooden dowel or ramrod to push the bullet from the muzzle out of the chamber.
- 5) Clean and inspect the vent and nipple before reloading. Fire a couple of caps through the unloaded rifle to aid clearing out the nipple and vent, prior to loading.
- 6) **Warning:** Make sure there is no smoldering paper residue left in chamber **BEFORE LOADING AGAIN**.

BRASS CASES LOADING

As an alternative to the traditional paper cartridge we offer new brass cases for the .45 caliber (USA 517-451) and for the .54 caliber modern style bullet (USA 517-54A) and for original style bullet (USA 517-54B).

The modern style bullet (USA 524) and the original style bullet (USA 519) have a different shape. The first have a more cylindrical section than the second therefore it catches first with the rifling through the free bore, while the second gets into the rifling having the bottom base section in the free bore. This is the reason of two brass cases for the .54 caliber USA 517-54A shorter, but with a larger diameter for the modern bullet and USA 517-54B longer with a less wide diameter. In spite the different lengths the inside volume is the same.

- 1) Our shooting tests have shown good results with Swiss brand black powder no.2 grain size. In the 45 caliber try between 50 and 60 grains and for the larger .54 caliber try between 60 and 80 grains. Note that when using the brass cartridge cases this large amount cannot be used and the .45 cal. will take 47 to 50 grs. and the .54 will take 52 to 55 grs. (depending upon the powder grain size being used as well as the length of bullet being used). Among all the currently available powders the Swiss brand has been found to be somewhat more powerful so if you use another brand you may require more grains of powder. Lower bullet velocity

sometimes produces better accuracy so full loads may not always be required or desirable. Try various powder brands and loads to determine what your rifle likes best.

- 2) To prevent powder grains falling through the flash hole of the case, place a small piece of "cigarette" paper inside the case and covering the flash hole.
- 3) Pour in the powder charge so that the powder level is slightly above the bullet seating shoulder and carefully press in the lubricated bullet so it is fully seated against the shoulder in the brass case and also in full contact with the black powder. **THERE MUST NEVER BE ANY AIR SPACE BETWEEN THE POWDER AND THE BASE OF THE BULLET** as dangerous pressures can occur if any air space exists. For this reason the powder must always be compressed at least a small amount.
- 4) After loading the cartridge case into your rifle, punch a small hole through the paper to allow the primer flash to reach the powder effectively. Make sure that any small powder quantity does not trickle down the breech block, in case wipe it away.

To make the bullet for our brass cases, we offer the steel bullet block which can be equipped with wooden handles and the already made bullets packed in 50 units. The same bullets can be used to make the paper cartridges, as originally intended.

| Caliber | Brass case Our code | Bullet mould Our code | 50 bullets box Our code | Bullet design / Weight |
|---------|------------------------|--------------------------|----------------------------|---------------------------|
| .45 | USA 517-451 | USA 319-458 | USA 519-458 | Modern design / 380 grs |
| .54 | USA 517-54A | USA 317-541 | USA 524-541 | Modern design / 525 grs |
| .54 | USA 517-54B | USA 319-541 | USA 519-541 | Original design / 530 grs |

LOADING AND SHOOTING INSTRUCTIONS FOR 1874 SHARPS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at [page 19a, 20a](#) of this booklet.

The exploded view drawing shows the SHARPS SPORTING model, but the suggestions apply for all 1874 Sharps rifles.

FIELD STRIPPING

- 1) With the action (part. # 46) **OPEN**, place the hammer in the half-cock position. You will notice a tiny plunger pin (part. # 42) located on the right side of the frame.
- 2) The lever hinge pin (part. # 41) is located on the lower front of the frame on the right-hand side of the rifle. While pushing in on the tiny plunger pin, rotate the arm of the lever hinge pin forward past the plunger pin, approximately 180 degrees from its original position. Turn the rifle upside down. While rotating forward and backward a few degrees, and pulling outward, remove the lever hinge pin. After the lever hinge pin has been removed, slide the lever and the breech block up and out of the frame. To avoid that the hinge pin bumps against the forend (part. # 30), we suggest you disassemble the wood, loosen the screw (part. # 28) or remove the barrel's bands.
- 3) You have now field stripped the rifle.
- 4) Reverse the above procedure for reassembly.

Further disassembly should be attempted only by a competent gunsmith

CAUTION

- We strongly recommend you practise the procedure of placing the rifle on safe **BEFORE** attempting to load and fire the rifle.
- To place the rifle on safe, slowly drop the hammer in the half-cock position. We strongly recommend not loading the rifle until you are in the hunting field, or on the target range and you are ready to shoot safely.
- Whenever the hammer is fully down, the firing pin will remain pushed forward in contact with the primer. If you now lowered the breech block with the firing pin in contact with the primer, the firing pin would be dragged across the cartridge rim, causing a score mark in the brass case as well as possibly damaging the firing pin or even firing if a loaded cartridge is inserted.
- We suggest that after firing a shot, the hammer be pulled back into half cock position and then the lever operated to fully lower the breech block, ejecting the fired case.

LOADING AND FIRING

- 1) Use only factory loaded ammunition, C.I.P ruled or reload with black powder or equivalent propellant (Pyrodex), in the gun's caliber.

The .45-70 caliber can be loaded with commercial smokeless factory made ammunition, not exceeding the 29.007 C.U.P. / P.S.I. or reloaded cartridges with black powder or equivalent propellant (Pyrodex) not exceeding the 25.000 C.U.P./P.S.I.
- 2) To load the rifle, first point the muzzle downrange in a safe direction. Place the rifle on safe, by placing the hammer in the half-cock position (1st. click). Extend the lever downward, fully opening the breech. Carefully insert one cartridge of the proper caliber completely into the breech and close the action, pulling back the lever. You are now ready to fire the rifle.
- 3) To fire, point the rifle downrange toward your target and fully cock the hammer (2nd. click). While pointing at your target, slowly pull on the rear trigger until it sets. While aiming at your target, slowly pull the front trigger and your rifle will fire.

To adjust and use the set trigger and for sighting adjustment, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

BLACK POWDER RELOADING FOR SHARPS RIFLES .40-65 / .45-90 / .45-110 / .45-120 / .50-70 / .50-90 CALIBERS AND OTHERS

Sharps rifles .40-65, .45-90, .45-110, .45-120, .50-70 or .50-90 calibers has been manufactured for the use of cartridges exclusively reloaded with **BLACK POWDER** or equivalent propellant (**PYRODEX**), as is indicated by the stamped writing on the barrel **BLACK POWDER CARTRIDGE ONLY**, not to exceed the 25.000 C.U.P./ P.S.I.

For reloading data, we suggest to consult Lyman Handbook for reloading or any other recognized reloading manual.

LOADING AND SHOOTING ISTRUCTIONS FOR ROLLING BLOCK RIFLES

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at pages [3a](#), [23a](#), [24a](#) of this booklet.

The exploded view drawing shows the ROLLING BLOCK L.R. CREEDMOOR RIFLE, but the suggestions apply for all our Rolling Block models.

CAUTION

- We strongly recommend you to practise the procedure of placing the rifle on safe **BEFORE** attempting to load and fire the rifle.
- To place the rifle on safe, slowly drop the hammer in the half-cock position. We strongly recommend not loading the rifle until you are in the hunting field, or on the target range and you are ready to shoot safely.

LOADING AND FIRING

- 1) Use only factory loaded ammunition C.I.P ruled or reloaded with black powder or equivalent propellant (Pyrodex), of the rifle's caliber.

The .45-70 caliber can be loaded with commercial smokeless factory made ammunition, not exceeding the 29.007 C.U.P. /P.S.I. or reloaded cartridges with black powder or equivalent propellant (Pyrodex) not exceeding the 25.000 C.U.P./P.S.I.

- 2) To fire, point the rifle downrange towards your target. Fully cock the hammer and then rotate the breech block (part. # 13). During rotation, the firing pin will drop back, because of the lever action (part. # 15).
- 3) Carefully insert one cartridge completely into the breech and close the breech block, by rotating it forward. You are now ready to fire the rifle.
- 4) Because of Rolling Block particular system, the hammer will not touch the firing pin unless the breech block is completely closed. The hammer will be activated by pulling the trigger.

To adjust and use the set trigger and for sighting adjustment, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

BLACK POWDER RELOADING FOR ROLLING BLOCK RIFLES .40-65 / .45-90 / .45-110 / .45-120 .50-70 / .50-90 CALIBERS AND OTHERS

Rolling Block rifles .40-65, .45-90, .45-110, .45-120, .50-70 or .50-90 caliber has been manufactured for the use of cartridges exclusively reloaded with **BLACK POWDER** or equivalent propellant (**PYRODEX**), as it is indicated by the stamped writing on the barrel **BLACK POWDER CARTRIDGE ONLY**, not exceeding 25.000 C.U.P./ P.S.I.

For reloading data, we suggest to consult Lyman Handbook for reloading or any other recognized reloading manual.

DISASSEMBLING THE FRAME

Tools required:

- **Medium and small screwdrivers**
- **Hammer**
- **1/4" brass punch**
- **1/16" steel punch**

*****(N/E)=NOT ESSENTIAL*****

- 1) (N/E) - Undo the screws (part. # 33) at the top rear, on stocks with pistol grip also at the bottom rear (# 38) of the tang, loosen the small rear peep sight plug screw (# 39) pull the butt stock off, it may be tight so slap the front of the comb with your hand.

- 2) Looking at the left side of the receiver (part. # 1) you will see the hammer and breech block axis pins (part. # 11+12); in-between is a locking plate (fig. 2a). Remove the screw (part. # 31) that secures it and take the plate off (part. # 30). Note both pins have flat faces that engage with the sides of the plate to stop them rotating. These face inwards (fig. 2b).
- 3) Cock the hammer (part. # 10) and drive or push out the forward (breech block) anteriore axis pin to the left with the brass punch. As the pin clears the block (part. # 13) will jump up slightly (fig. 3a).
- 4) Lift the breech block up and out (fig. 3b).
- 5) With the block out you can pull the extractor plate (part. # 16) off from its left side.
- 6) Lower the hammer and push it down/forward past its normal position and tap or push out its pivot pin to the left and lift it up and out (fig. 4).
- 7) N/E – Undo the two screws at the front and rear of the left side of the receiver (lower edge) and pull the trigger mechanism out (part. # 19). These can be very tight, so it's important to use the correct screw driver.

And that's pretty much that. At this stage you have access to the breech block should you need to remove the firing pin. This task is achieved using the 1/16" punch. All you do is drift out the lower cross pin to remove the firing pin retractor.

BACK TOGETHER:

For breech block and hammer insertion, both axis pins go in from the left and their milled ends have to be inwards facing.

- 1) Reposition the trigger plate and install the front retaining screws.
- 2) Drop in the hammer and push it forward so you can insert the axis pin through the left side of the receiver. Once in position push a long screwdriver up through the rear of the action to ensure the main spring engages the lobe at the rear of the hammer. Install the rear retaining screw in the trigger plate.
- 3) Replace the extractor plate into the track on the left side of the breech block and cock the hammer.
- 4) In this position, slide the block back in and align and insert its pivot pin. Downwards pressure must be applied to the block to allow easy insertion.
- 5) Re-position the plate between the pivot pins and install the retaining screw. This can only be achieved if both flats are facing inwards.
- 6) Install the butt stock and insert the stock screws.

LOADING AND SHOOTING INSTRUCTIONS FOR 1873/1875 SPRINGFIELD TRAPDOOR

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at [page 21a, 22a](#) of this booklet.

The exploded view drawing shows SPRINGFIELD TRAPDOOR OFFICER RIFLE, but the suggestions apply for all Trapdoor models.

CAUTION

- We strongly recommend you to practise the procedure of placing the rifle on safe **BEFORE** attempting to load and fire the rifle.
- To place the rifle on safe, slowly drop the hammer in the safe half-cock position. We strongly recommend not loading the rifle until you are in the hunting field, or on the target range and you are ready to shoot safely.
- With this rifle the hammer has four positions, (except the Officer model, which has three of them, lacking of the safety position 1st. click):
 - Fired position.
 - Safe position.
 - Half cock position (used to open breech).
 - Full cock, ready to fire.

LOADING AND FIRING

- 1) Use only factory loaded .45-70 ammunition C.I.P ruled or reloaded with black powder or equivalent propellant (Pyrodex). Ammunition used should not exceed 18,000 C.U.P.
- 2) Put hammer (part. # 21) at half cock. Keep finger off trigger (part. # 49).
- 3) Open action (part. # 15) by pushing forward and up on breech block release lever (part. # 14).
- 4) When open, inspect chamber and barrel to see that they are free of obstruction.
- 5) Insert cartridge into the chamber. Make sure rim of cartridge does not go beyond extractor (part. # 7).
- 6) Close action, making certain locking block is engaged (you can see it from the position of release lever, hammer must be able to swing over release lever).
- 7) Return hammer to the safe position, keeping the thumb on it, while pulling the trigger. The hammer, in this position, should be over the release lever.
- 8) When ready to fire, bring hammer back to full cock.

To adjust and use the set trigger and for sighting adjustment, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

LOADING AND SHOOTING INSTRUCTIONS FOR KODIAK MK IV

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at [page 25a, 26a](#) of this booklet.

This is an "Express Rifle" with external hammers, which characteristics do not include a specific safety blocking the triggers and/or hammers. It is a rifle with the "REBOUNGING HAMMERS SAFETY", which automatically returns the hammer to a safe position after firing. This prevents the hammer from being able to move forward to contact the firing pins until the triggers are depressed. We might point out that the external hammer system is considered to be one of the safest guns, since it enables the user to visually tell whether the action is cocked and to cock the hammers only when he decides to shoot.

SHOOTING SELECTOR

The right barrel fires by depressing the front trigger and the left barrel fires by depressing the rear trigger.

TOP LEVER

The top lever engages the self-adjustable locking lugs with precision into their seats in the barrel. The design of the locking lugs is such that it allows a perfect locking of the barrels for a very long time.

For this reason, and to protect the locking lugs and their seats in the barrel, the top lever should never be forced too much by the thumb to the locked position when closing the action.

In a new gun a little angle between the top lever and the barrel is normal and planned in the design of the action.

LOADING AND FIRING

- 1) Use only factory loaded ammunition, C.I.P. ruled of the rifle's caliber.
- 2) To open the action, rotate the top lever to the right and push the barrels downward. Before doing so, make sure both hammers are in the "rest" position as follows: point your rifle in a safe direction, hold the hammer firmly with your thumb while simultaneously depressing the corresponding trigger **ALWAYS KEEPING YOUR THUMB FIRMLY ON THE HAMMER**, lower the hammer gently to the "rest" position.
- 3) After the barrels are in the open position and the chambers are exposed, insert a cartridge into each chamber or just into the chamber that you intend to shoot. Next, close the action.
- 4) Cock the hammer corresponding to the barrel that you want to shoot.
- 5) The rifle is now ready to fire.

COCK THE RIFLE ONLY WHEN READY TO SHOOT AND ONLY WHEN THE MUZZLE IS POINTED IN SAFE DIRECTION.

INITIAL CARE AND CLEANING

- 1) Using a quality gun solvent, remove all excess factory lubricant. Re-lubricate the mechanism with a quality "spray" type gun oil (item. USA 489).
- 2) Thoroughly clean the bore, and remove all excess solvent and oil with clean dry cleaning patches (item USA 497). Replace them as necessary until they come out clean and dry. **NEVER FIRE THIS OR ANY OTHER FIREARM WITH OIL OR SOLVENTS IN THE BORE.**
- 3) A slight film of gun oil should be left in the barrel during long periods of storage; however, the above cleaning procedure **MUST** be repeated before firing the weapon. **THE BORES MUST ALWAYS BE CLEAN AND DRY BEFORE SHOOTING.**
- 4) With a similar procedure, clean the inside of the action (in particular around the firing pin holes) and lubricate lightly.

- 5) Clean with care all external surfaces of the gun to remove any traces of dirt, sweat or fingerprints. Apply a thin film of gun oil (item USA 489) with a flannel patch.

ASSEMBLY AND DISASSEMBLY

- 1) Remove the fore-end (part. # 48) from the barrels by pulling the fore-end catch lever (part. # 52) down.

Be sure that the hammers are in the “rest” position.

- 2) Inserts the barrels inside the action so that the hinge pin of the action fits into the slot in the mono-block.
- 3) Move the top lever (part. # 12) to the right and move the barrels smoothly and evenly to the closed position until the top lever returns to its closed position.
- 4) Press the fore-end (part. # 48) towards the barrels with enough force to allow the fore-end catch to engage the barrel lug.
- 5) For **DISASSEMBLY** follow the above procedure in reverse order paying attention not to rotate excessively the fore-end before your take it out by moving it towards the muzzle.

NO FURTHER DISASSEMBLY IS RECOMMENDED UNLESS DONE BY A COMPETENT GUNSMITH.

SIGHTING

The Kodiak MK IV rifle has been adjusted to have both right and left barrels shoot groups at 50 meters, with a maximum grouping diameter of 12 centimeters (4,4 inches), using commercially manufactured cartridges.

The rifle is equipped with an “EXPRESS” rear sight containing three sight leaves. This provides extra sight leaves for use at distances greater than 50 meters. However, with distances greater than 50 meters, groups cannot be guaranteed above the 50 meters accuracy.

The rear sight is locked into the dovetail by a set screw. To adjust the rear sight, loosen the set screw and then tap the sight right or left using either a brass or wood punch. Retighten the set screw after adjustment is made.

For sighting adjustment, see section “GENERAL TECHNICAL INSTRUCTIONS” in this booklet.