Operation and Maintenance Procedures for the Century L1A1 Sporter Rifle

Safety Rules

1. Always treat every gun as if it were loaded.
2. Always keep the firearm pointed in a safe direction.
3. Keep your finger outside of the trigger guard and off the trigger until you have aimed at the target you intend to shoot and are ready to fire.
4. Always be certain that your target and the surrounding area are clear and it's safe to shoot before firing.
5. Always wear ear and eye protection when shooting.
6. Always use clean, dry, factory-made ammunition of the proper type and caliber for your firearm.
7. Never point any firearm, whether loaded or unloaded at anything you do not intend to shoot.
8. All firearms should be stored unloaded and in a secure and safe storage case that is inaccessible to children and untrained adults. Always store ammunition separately.
9. Always ensure that your firearm is in good working order and that the barrel is free of dirt, grease and other obstructions before firing.
10. Always leave the safety on until you intend to fire.

Please note: The company will not be responsible for any damage or injury resulting from improper adjustments to the firearm or the use of handloaded ammunition.
General Construction and Method of Operation

Century's L1A1 rifle is a semi-automatic, or self-loading, gas operated, magazine fed repeating rifle. Gas pressure generated by a fired cartridge is diverted to operate the rifle's piston system which will eject the spent cartridge case, re-cock the hammer and load the next cartridge in the magazine. A single shot will be fired with each pull of the trigger until the magazine is emptied. The trigger must be released before the next shot can be fired. Except for the synthetic buttstock and handguard, all components feature solid steel construction.

WARNING: To insure the proper function of the rifle, be absolutely certain that the mechanism is clean and the bore and chamber are free of any obstructions. Also check your ammunition to be sure it's in good condition and the correct type and caliber for this rifle. The proper caliber is .308 Winchester (.762 x 51 mm NATO).

Specifications

Caliber: .308 Winchester (.762 x 51 mm NATO)
System of Operation: Gas
Overall Length: 41"
Length of Barrel: 20.8"

Specifications (continued)

Rifling: 6 groove RH. 1 turn in 12"
Weight: 10 Lbs. (rifle only)
Type of Sights: Rear - Aperture; Front - Blade
Sight Range: 200 to 600 yds.
Muzzle Velocity: 2750 f/s (with .308 mm M80 Ball ammo)
Effective range: 700 yds.

Manual Safety Operation

This rifle is equipped with a manually operated safety device in the form of a short pivoted lever located on the left side of lower receiver. It can be operated by the shooter's right thumb if right handed or left index finger if left handed. When the lever is set to S, the safety spindle is in contact with the tail of the trigger which will prevent the trigger from rotating and movement of the trigger sear. Be sure that the safety positively engages the recess in the body housing. Failure to do so may allow the trigger to rotate the catch and fire the rifle when pressed.

Loading the Magazine

This rifle is fed by a detachable steel box magazine. To load, hold the magazine in one hand while pressing cartridges (bullet to the front end) between the two lips on the top of the magazine until the round snaps into place and is held securely by the follower.

Repeat this process, being sure that the cartridges do not protrude beyond the front of the magazine, for the desired number of rounds or until the magazine has reached its maximum capacity.

Loading the Rifle

When inserting a loaded magazine into the rifle, please observe the following precautions:

1. Be sure that the safety is set on the S position.
2. Keep the muzzle pointed toward the ground and away from you.

Place a loaded magazine into the port under the lower receiver by it's front end; then pivot the rear of the magazine back and up until the magazine latch locks into place. Draw the cocking handle fully to the rear to cock the hammer and release. The bolt will pick up the top round in the magazine and carry it into the chamber. When you are ready to fire the rifle, switch the selector lever from S (safety) to R (repetition).

Note: Unless the rifle is to be used immediately; the selector should be kept on the S setting.

Gas Regulator Adjustment

The gas regulator and gas plug control the quantity of gas operating the piston. (See the section concerning disassembly for details about the gas plug.) The gas regulator consists of a shroud covering the end of the gas cylinder. This shroud can be adjusted to different settings which will allow additional gas to operate the rifle when needed or allow excess gas to escape. This system allows you to regulate the power and keeps fouling to a minimum.

Hold Open Catch

Note: On these rifles, the pin in the front of the catch is not long enough to engage the magazine follower. The catch may be engaged by hand to hold the bolt open when the rifle is empty. Leaving the action open for a prolonged period may allow the introduction of foreign matter (dirt, mud) which may cause a malfunction.

Sight Adjustment

Foresight: This is screwed into the gas block and is raised or lowered by turning. Under-cutting of the blade at the back and front gives good sight definition at each half turn.

Backsight: Of aperture type, the backsight is mounted on an inclined bed dovetailed into the top of the lower receiver. A catch engages notches on the right side of the bed to hold the sights from 200 to 600 yds. at 100 yd. intervals. Overtravel is prevented by a small pin at the front of the base and a lip at the rear. Windage adjustment can be made by adjusting the tension of the screws on the side of the sight bed to force it to one side.
Zeroing

The rifle should be zeroed on a day with good light and little wind. It should be carried out at 100 m (109 yds) unless unavoidable, since the longer range will give a more reliable result.

Unloading the Rifle

With the rifle pointed in a safe direction, and the safety selector on the S setting, grasp the magazine with the firing hand and place your thumb on the magazine release lever. While pressing the lever forward, pull the magazine body forward and down to remove it from the receiver. Use your left hand to draw back the cocking handle while using the thumb of the opposite hand to push up and lock the hold open catch. Visually inspect the bolt face and chamber to confirm that they are unloaded. Pull the cocking handle back slightly to release the hold open catch and, release the bolt. Set the selector to R and, squeeze the trigger to drop the hammer on an empty chamber. Reset the selector to the S setting.

Disassembling the Rifle

Stripping and maintenance in normal circumstances is done without the aid of tools. With the magazine removed, press the release catch on the left rear side of the lower receiver (see illus.) and, pivot the body of the rifle up and away from the lower receiver exactly as in the case of a double barrel shotgun. Remove the bolt carrier, then withdraw the bolt carrier and bolt from the receiver by pulling the rod attached to the carrier. Push out the retaining pin at the rear of the bolt while holding onto the rear of the firing pin and, the pressure of the spring will force it out of the bolt. Insert the nose of a bullet or a small screwdriver under the extractor then pry upward and outward to withdraw the extractor.

Press the plunger on the gas plug and, rotate the gas plug 90 degrees to the right to remove it. The gas piston and spring may be withdrawn from the gas cylinder for cleaning.

Note: There is a small recess machined in the top front of the gas plug. When seating the plug in the gas block, this recess should face up or the flow of gas will be blocked from the cylinder preventing normal function of the action.

Under certain circumstances, it will be necessary to remove the buttstock for servicing or repair. First remove the lower receiver from the rifle by loosening and removing the joint pin and retaining pin. This will give you access to the screw that holds the grip to the lower receiver. Remove this screw. Remove the screws that hold the buttplate then take off the buttplate and set it aside. Loosen and remove the spring plug in back of the retaining spring.

Warning: The plug is under tension from the return spring and caution should be taken to avoid injury or the loss of any parts.

Cleaning

With the rifle disassembled:

Using a suitable cleaning rod and brush, saturate the brush with a commercial rifle solvent and run the brush from the muzzle end through the length of the bore and out the chamber; repeat several times. Follow this procedure but substitute cleaning patches soaked in solvent for the brush. The bore and chamber are clean when no further residue is visible on the patches. Remove any remaining solvent from the barrel with dry cloth patches.

Run a patch with a small amount of gun oil through the barrel if you do not intend to use the rifle soon. This will help preserve the bore.

The stripped parts should be wiped clean of any residue with solvent and dried. These parts should then be lightly oiled for protection and lubrication.

Note: The gas piston and gas tube should not be oiled; just cleaned and dried. Ensure the bore is cleaned before firing.

All exposed metal surfaces should be periodically wiped clean and lightly oiled to protect them from the elements.

Notes

1. Do not remove the buttstock unless absolutely necessary.
2. Do not use abrasive cleaners on the gas system. Just clean and leave dry.
3. Original instructions state that one-half turn of the front sight will change the point of impacts elevation 2" at 100 meters (109.4 ft.) or .5" at 25 meters. Windage adjustments are made in the same manner by adjusting the screws at the base of the rear sight. (Loosen the front sight retaining screw before making any adjustments.)
4. Original sources note that because of the difficulty in making exact adjustments to the standard sights; a variation of 25% of the diameter of the avg. group size is allowed from the point of true zero.
5. Please refer to BATF concerning regulations on modifications.