

Muzzle Loading Cannons

PLACEMENT OF THE CANNON:

To start, place your cannon in an area that will accommodate Newton's Third Law of Motion; **"for every action there is an equal and opposite reaction."** that is... the cannon recoil. When your cannon expels the hot gasses out the muzzle end, this will cause the cannon to roll backwards. The amount of roll depends on the carriage design, the amount of powder you placed in the cannon (see powder chart below) and the size / weight of the cannon itself. For some larger cannons, a small bag of sand may be placed a foot or two behind to catch the cannon. Other cannons may not need anything but may roll several feet. It's important to note; allowing the cannon to roll backwards "recoil" is a very important aspect in the physics of not damaging your cannon. The energy released when the recoil moves the cannon backwards, helps alleviate the stress the cannon trunnions feel. It is NOT recommended you prevent the cannon recoil from moving the cannon backwards. The cannon must remain free to move to avoid damaging the cannon.



LOADING THE CANNON:

Cut a piece of fuse at least 4" long- or long enough to allow at least 3" of fuse protruding from the breech hole once the fuse is pushed to the bottom of the bore. If using black powder, reference the chart below and pour it into the bore. Crumple up some newspaper wads and using a wooden ramrod, push the paper to the bottom of the bore. DO NOT pack black powder- it is unnecessary and dangerous. If using Pyrodex, pour the appropriate amount according to the chart below. Crumple up several newspaper wads. Using a wooden dowel, pack the barrel tightly. DON'T place the wooden dowel in the palm of your hand- grab the dowel like a baseball bat. This will prevent the dowel from going through your hand if it accidentally ignites.

LIGHTING THE CANNON:

Ensure the muzzle is pointing away from people and objects- the wadding and flame exiting the barrel will easily damage / injure items and people. Standing to the side of the cannon, light the fuse and retreat to a safe area. DO NOT STAND DIRECTLY BEHIND THE CANNON. After the cannon sounds-off, use a damp towel or paper towel to swab out the barrel. Wait several minutes before attempting to reload your cannon as hot embers may still be present at the bottom. When finished using your cannon, use a wet cloth and wash / wipe your barrel. Black powder is very corrosive and shouldn't be allowed to remain in the barrel. Place the barrel cork into the barrel when stored.



Bore diameter in inches	<u>Typical barrel length in inches</u> (depends on barrel style)	<u>Black Powder Grains Maximum</u>	<u>Black Powder Ounces Maximum</u>	<u>Approximate volume fg - powder - Using a aluminum measuring spoon (level measure)</u>
1/8	1.5 - 2 L	10	.02 oz	1/8 teaspoon
3/16	2 - 3 L	15	.03 oz	
1/4	3 - 5 L	20	.05 oz	1/4 teaspoon
3/8	5 - 7 L	40	.1 oz	1/2 teaspoon
1/2	7 - 8 L	60	.15 oz	3/4 teaspoon
5/8	8 - 12 L	100	.23 oz	1.25 teaspoon
3/4	12 - 14 L	140	.32 oz	1.75 teaspoon
1	14 - 26 L	438	1 oz	2 tablespoons
1.5	25 - 40 L	656	1.50 oz	3 tablespoons
2	40 - 50 L	875	2.00 oz	4 tablespoons
2.25	50 -60 L	1313	3.00 oz	6 tablespoons
2.5	60 L	1313	3.00 oz	6 tablespoons
3	65 L	1750	4.00 oz	8 tablespoons

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