

Misfire Drill

There are a number of reasons a cannon may misfire: Number 3 may not have broken open the powder charge with the vent prick, the primer may be bad, the charge may have rolled away from the vent, etc. If the cannon fails to go off, the Gunner will give the command:

FAILED PRIMER – DO NOT ADVANCE!

Number 1 – places the rammer on the wheel to signal that the cannon is loaded and is not to be approached.

Number 2 – takes three large steps backwards, sets down the worm on the ground in front of him, and raises both hands to the chest level, facing out.

Number 5 – secures the pliers and other primer removal implements from the limber, places them in his pouch, and gives them to Number 3.

The remaining members of the gun crew remain in their READY positions.

When at least 3-5 minutes have elapsed from the time the gun has stopped smoking, the Gunner will give the command:

REPRIME!

Number 2 – takes three steps forward, carefully steps inside the wheel, keeping his chest facing the wheel at all times (turning clockwise as he steps around the wheel), and ensures that his body is behind the muzzle by leaning left toward the axle.

Number 3 – steps forward to the right wheel and hands Number 2 a pair of pliers across the wheel and the tube, making sure to never get behind the wheel or the carriage.

Number 2 – still facing away from the tube, Number 2 takes the pliers in his left hand, removes the faulty primer, and hands the pliers back to Number 3.

Number 3 – takes back the pliers and hands Number 2 the vent prick.

Number 2 – takes the vent prick the same way the pliers were taken, holds the prick between the index finger and the thumb making sure that no part of his hand is directly above the prick or inside the prick ring, inserts the prick into vent and re-pricks the powder charge, and gives the vent prick back to Number 3.

Number 3 – takes back the vent prick and returns to READY position.

Number 4 – steps forward to the left wheel and hands Number 2 the lanyard with another primer attached.

Number 2 – inserts the primer and holds the lanyard against the rear and left of the tube while Number 4 removes the slack in the lanyard.

Number 4 – removes the slack in the lanyard and signals with a nod to Number 2 that he may withdraw.

Number 2 – upon receiving the nod from Number 4, steps out of the wheel, facing the wheel at all times and turning his body counter clockwise as he moves back around the wheel carefully and returns to a position outside the wheel facing the tube. He then takes three steps backwards, making sure not to step on the worm, retrieves the worm, and returns to the READY position.

Gunner – ensures everyone is in their READY position before giving the command to FIRE the cannon again.

If the cannon fires, the cannon is serviced normally. If the cannon fails to fire, the above procedure shall be followed again to extract the primer. However, rather than attempt

another firing, the vent shall be flooded with water to put out any spark left by the primer, and then the muzzle shall be flooded with water. The Gunner will give the order:

FLOOD THE TUBE!

All members of the gun crew not directly involved should fall in behind the limber.

Number 5 – brings forward a large syringe to Number 3.

Number 3 – injects at least 10 syringe loads into the vent.

Number 2 – uses the sponge bucket to flood the muzzle.

After the powder charge has had time to be sufficiently soaked, the command is given:

REMOVE THE CHARGE!

Number 3&4 – raise the trail handspike, pointing the muzzle down. If this does not work, then the charge needs to be wormed.

Number 1 – worms the charge out and submerges it in the water bucket. After several minutes, Number 1 takes the powder charge out of the water, walks it forward of the cannon a safe distance, and, using the worm, breaks it open.

The United States National Park Service also recommends using a CO₂ fire extinguisher, rather than water, to handle rendering a misfired charge inert in the tube. The CO₂ is injected into the tube via the vent. This deprives the charge of the oxygen needed to ignite, and in many cases will actually cause the misfired charge to exit the tube due to the pressure introduced by the CO₂ fire extinguisher. All members of the gun crew should take positions well away from the cannon carriage when the CO₂ is released into the vent.

There is a slight chance of a static spark being created by the movement in the tube of the misfired charge in the CO₂ environment, but the risk is substantially less than what Number 2 faces during the Misfire Drill. If the misfired charge is rolled according to the USFAA standards outlined in Section 8 of the drill manual, the risk is minimal and any spark created by the CO₂ should not be able to ignite the powder. As with all misfires, extreme caution should be used to prevent injury should the powder accidentally ignite.

Once the misfired charge has been removed from the tube, either by being forced out from the CO₂ or by the means described in the Misfire Drill, the misfired charge needs to be handled according to the Misfire Drill (submerged and broken open – see above).