

14.5mm ARTILLERY TRAINER

This group of cartridges forms the ammunition component of an artillery training system called the Artillery Trainer M31. The weapon is a miniature artillery piece with a standard gun sight that is used on a reduced-size firing range. The trainee goes about his work but instead of using a very expensive full size gun and ammunition he uses this group of cartridges. There are three cartridges in the group:

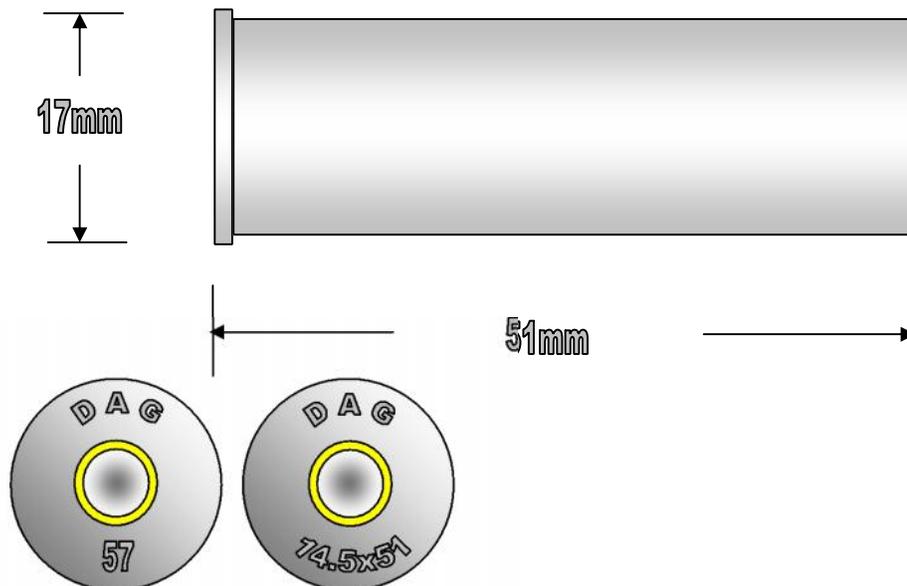
1. Spotter M181A1 fitted with a pyrotechnic delay element to give an air burst (simulating a time fuze)
The time delay is three seconds
2. Spotter M182A1 fitted with a pyrotechnic delay element to give either an air burst or ground burst
The time delay is six seconds
3. Spotter M183A1 fitted with an impact fuze to give a ground burst (simulating an HE projectile)

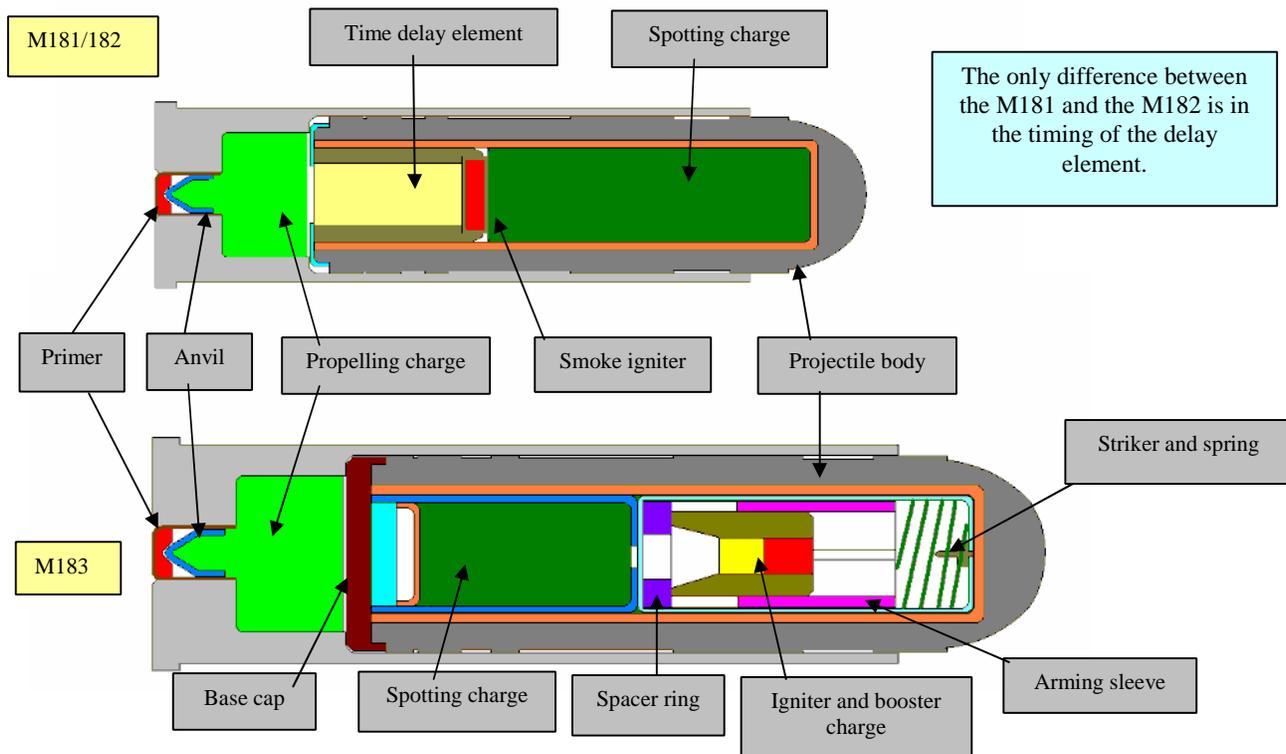
Each round uses an aluminium cartridge case fitted with a percussion primer, a propelling charge and a projectile.

Propellant was 3.5 grains of Hi SKOR 700X giving a velocity of 100mps measured at 4m from the muzzle

Total weight 1065 gns

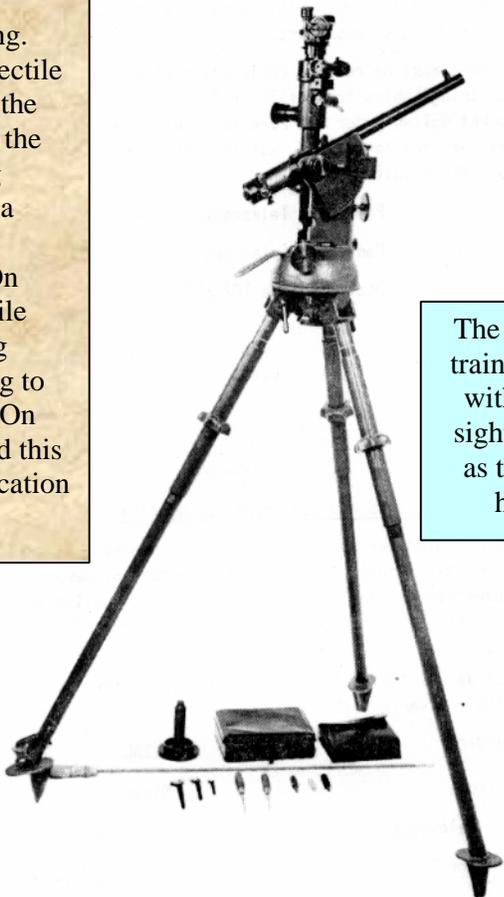
The projectile body is made from lead and is readily identifiable by its very round nose and many grooves. The tip and the primer annulus are coloured yellow.





The only difference between the M181 and the M182 is in the timing of the delay element.

ACTION.
M181/182 No action is necessary prior to firing. On firing the propelling charge ejects the projectile from the weapon and at the same time ignites the delay element. This burns through and ignites the smoke ignition charge this ignites the spotting charge. This ruptures the lead body and gives a clear indication of an air burst.
M183 No action is necessary prior to firing. On firing the propelling charge expels the projectile from the weapon. At the same time the arming sleeve sets back allowing the striker and spring to have access to the igniter and booster charge. On impact the striker is driven onto the igniter and this ignites the spotting charge, giving a clear indication of a ground burst.



The sub-calibre training weapon with the same sighting system as the 105mm howitzer