FIRING PINS: TYPES AND USES

By Heidi Lyn Rao

One of the major parts to a firearm's action is the firing pin. The firing pin is what sets off the initial detonation when the trigger is pulled, by striking the primer of the cartridge or shotshell. Once the primer is struck, the gun powder ignites, builds pressure inside the case, and sends the projectile (a bullet or shot) down the barrel and leaves the muzzle. Without the development of the modern firing pins, firearms would be restricted to primitive-type guns such as matchlocks, flintlocks, and percussion caps.

The most important part of a firing pin, and a component of every firing pin, is the nose. The nose of the firing pin is the part that makes contact with the primer of a cartridge or shotshell to start the ignition process. Sometimes the nose of the firing pin is referred to as the "tip." What is found after the nose determines what type of firing pin you have.

Firing pin terminology can be very confusing to those unfamiliar with how a firearm works. Different types of firearms use different types of firing pins, so knowing the different ignition systems helps you understand how your firearm works.

Free-Floating Firing Pin – A free floating firing pin is held securely in a place but is unrestrained by a firing pin spring. Many firearms that have a bolt such as the M1 Garand and the AR-15 contain free floating firing pins. Firearms that have this type of firing pin can have unintentional discharges because of the possibility of a "slam fire."

Fixed Firing Pin – Fixed firing pins are the simplest type of firing pins. This type of firing pin can be a protruding piece on a bolt face or extending from an exposed hammer. Fixed firing pins are found on older revolvers, machine guns or sub-machine guns, and blow-back machine guns. Because this type of firing pin is fixed, it has the potential of accidental discharges before the cartridge is fully seated in the chamber in automatic firearms or even by striking the hammer spur on a revolver. Revolvers with fixed firing pins can be integral or swivel.

Integral Fixed Firing Pin – Integral firing pins are revolver fixed firing pins that are attached to the hammer and are a solid, non-moving component that impacts the primer of a cartridge or shotshell.

Swivel Fixed Firing Pin – Swivel firing pins are revolver fixed firing pins that are attached to the hammer and have a pivot pin to allow the firing pin to move freely.

Active Firing Pins – Active firing pins are attached to a revolver's hammer, regardless of if it is integral or swivel, that moves with the hammer to the primer of the cartridge or shotshell.

Passive Firing Pins – Passive firing pins are detached from the revolver's hammer and remain in the frame of the firearm. This type of firing pin is usually found in revolvers with a transfer bar safety system. In revolvers with a passive firing pin, the hammer swings forward, striking the firing pin in the frame, sending it to impact the primer of the cartridge or shotshell.

Striker Firing Pin – A striker firing pin works by being propelled forward by a compressed firing pin spring. In this type of firing system, the hammer and firing pin is one piece, activated by the firing pin spring. Striker fire firing pins are found in many modern semi-automatic pistols. Usually, striker fire firearms are not fully cocked when the gun is charged. The cocking process is not complete until the trigger is depressed. This prevents the firearm from discharging if dropped or bumped. If the firing pin was to drop without the trigger being squeezed, it should prevent the gun from discharging by hitting the primer with only a "light strike."

Linear Hammer Firing Pin – Bolt action firearms that utilize a spring to propel a firing pin into the primer of a cartridge or shotshell is a type of linear hammer firing system. In this type of firing system, the hammer and firing pin are separate pieces, activated by the firing pin spring. The spring releases the hammer which hits the firing pin, propelling it into the primer. Within the category of linear hammer firing pins, there are two cocking systems. These are cock-on-open and cock-on-close actions.

Lock-On-Open Bolts – Some linear hammer firing pins are lock-on-open bolts. This type of bolt action is cocked when the bolt is rotated to open, and the striker is set rearward by compressing the firing pin spring. The sear is set before the bolt is closed.

Lock-On-Close Bolts – Some linear hammer firing pins are lock-on-close bolts. This type of bolt, when opened, pulls the striker to the rear, over the sear. When the bolt is rotated forward, the striker is held to the rear by the sear.

It is the responsibility of every firearm owner to know how to use their firearm properly and safely. This is where the "average" gun owner's responsibility ends. If you are a firearms instructor, an employee who works behind the gun counter, or someone the public looks toward for correct information on firearms, it is your responsibility to always use the correct terminology when referring to guns or their components. If you consider yourself an expert on firearms, then you have a responsibility to sound like an expert and know the components of your firearm.