Introduction to Collecting the 9mm Parabellum (Luger) Cartridge

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In the November 1958 American Rifleman, Charles Yust had a three page article on the 9mm Parabellum cartridge which illustrated 27 headstamps and listed 110 headstamp codes, many of which never appeared on a 9mm Parabellum cartridge. I was fascinated by the variety of headstamps and loads and began accumulating 9mm Para cartridges at the tender age of 17, and have documented over 9000 different variations. Nobody, to my knowledge has a collection approaching 9000 9mm cartridges. A very good collection that doesn’t include date variations would be about 1000 specimens, and a truly outstanding collection would number over 2500. Note that there are over 1500 different headstamps documented. If a collection includes dates, then it could be expected to be two or three times this size.

Origin of the 9mm Parabellum Cartridge

The 9mm Parabellum cartridge was originally developed by George Luger, at the German company DWM (DWM). In early 1902, George Luger, through the Vickers Limited offered a 9mm version of his pistol to the Small Arms Committee. In mid-1903, three Luger prototype pistols in 9mm were delivered to the US Army for testing at Springfield Arsenal. These are the first pistols known to be chambered for the 9mm Parabellum cartridge. An additional 50 pistols in 9mm, along with 25,000 rounds of ammunition, were provided the US Army for testing in April 1904. The first evidence of German military interest in a 9mm version of the Luger was in March 1904. The caliber was used extensively, initially in pistols, and then in machine pistols (submachine guns) produced by Germany in World War I. A reduced power version of the cartridge was introduced in Italy in 1910 for the 9mm Glisenti pistol and later used in machine pistols. Figure 1 illustrates a sectioned 9mm Glisenti showing the wad on top of the powder to fill the case. During this time frame, 9mm pistols were adopted by a number of other countries including Holland and Bulgeria. After World War I, the caliber spread rapidly with the widespread development of the machine pistol, most of which were chambered for this caliber. Pistols and machine pistols chambered for 9mm Parabellum were also introduced in a number of countries including Belgium, Bulgeria, Czechoslovakia, Finland, Poland, Sweden and Switzerland before World War II. Today, the 9mm Parabellum cartridge has been manufactured by, or for more than 70 different countries, with very significant production by 27 countries. It has truly become the world’s standard pistol and machine pistol cartridge. It remains the standard pistol caliber for NATO and for the military in most other countries in the world.

Loads

During over 100 years of use, the 9mm Parabellum cartridges have been manufactured with a wide variety of loads. The vast majority of these are full-metal jacket (FMJ) ball loads with solid bullets. In addition to these standard ball loads a wide variety of loads have been produced to include tracers, blanks, dummies and proof loads, as well as exotic loads for special police usage, duplex & triplex loads, squeeze bore loads, shot loads and tubular bullets to list just a few. Some bullets are marked on the base, particularly pre-WW I German bullets and some British bullets made before WW II. The markings illustrated in Figure 2 are all German. Note that “278F” is the DWM designation for the truncated cone bullet. Below is an overview of some of the loads encountered in 9mm Parabellum.
Ball: The earliest loads have FMJ truncated cone bullets weighing 124 grains. These were replaced in Germany with 124 grain FMJ bullets with a round ogive in 1915-1916 (Figure 3) though truncated cone bullets were used on commercial loads in the United States into the 1930s. Later, round nose FMJ 115 grain bullets, usually having a concave base were introduced by a number of countries including Britain (Figure 4). During the early stages of World War II, Germany developed two new bullets in an attempt to conserve lead. The first of these bullets was designated the 08mE (for mit Eisenkern) or “with iron core”. As shown in the illustration the normal lead core is replaced by an iron core with lead around the base of the iron core. This bullet was initially identified by the black bullet jacket, but in 1944, it became the standard German ball load and the blacken bullet jacket was dropped. The second of these bullets was made by compressing iron powder at high temperature into a solid material known as Sintered Iron or Sintered Eisen. This was designated as the 08SE bullet and is identified by its dark gray color. The SE bullet was introduced into general service in 1943. Until recently, the Swiss ball load used a bullet with a deep groove to facilitate a case crimp to hold the bullet in place. Figure 6 illustrates this bullet and a WW II Swill ball load with an aluminum case.

During World War II the Germans also produced a special load with a 150gr FMJ bullet with a subsonic muzzle velocity for use silencers. These loads are identified by either a green lacquered steel case or by an “X” on the headstamp (Figure 7). Similar heavy bullet loads for use with silencers were produced by the British after World War II with bullet weights up to 170gr and are often identified by various color dots on the case head. A number of other countries subsequently developed heavy bullet subsonic loads for use with silencers.
In addition to the full metal jacket ball cartridges, 9mm Parabellum has been produced with a wide variety of hollow point and soft point loads. DWM produced hollow-point truncated bullet loads before World War I for use by its colonial troops in Africa. Commercial and police hollowpoint and soft point loads have been in regular production by many countries, but particularly by the United States. There is even a unique hollowpoint, softpoint bullet with a sawtooth tip called a “Pingrabler” used in the north-eastern US for the sport of shooting bowling pins.

**Tracer:** The German Navy identified a requirement for a tracer/signal load in 9mm Parabellum prior to World War I, and there are illustrations of such a load in the DWM records, but there is no evidence of production, and no specimens are known. Other than the DWM records, there is no evidence that tracers were produced until the 1930s. A Polte drawing dated October 1926 describes a tracer bullet, and similar bullets have been discovered on DWM test ranges that were used prior to World War II. A red tip tracer bullet was produced by Geico in the mid-1930s for Gen Franco’s forces during the Spanish Civil War. The only other tracer known to have been produced prior to the 1940s was produced experimentally by Kynoch for the 1939 British Army night-fighting trials with the Finnish Soumi machine pistol. During World War II various nations tested tracers, but high-rate production of tracers only began after the end of World War II and France led the widespread introduction of 9mm Parabellum tracers.

**Dummy:** Inert dummy (or drill cartridges) have been produced from the earliest days of the 9mm Parabellum. The DWM listing of casetypes illustrates a dummy load as one of the earlist of the DWM products in 9mm Parabellum. World War I German dummy loads (or Exercizer Patronen) were generally overall with a hollow bullet jacket making them very light weight. Between the wars, Germany introduced another style of dummy with no primer pocket and only a small dimple in the base. This style dummy sometimes has four holes in the case. In 1940, Germany introduced plastic dummies with a steel head in
both black and red plastic. Both varieties occur with and without headstamps. The Polte headstamped black plastic dummy is quite scarce. The red plastic dummies with the “lpk” headstamp are seldom encountered and the “ay” and “nts” headstamped dummies are quite rare.

During World War II Australia, Canada and Britain produced a variety of dummies, and Winchester produced dummy loads on contract for Britain during the war. Some of these dummy loads used a wooden spacer (sometimes painted red) inside the case to prevent the bullet from being forced into the case by repeated usage. The spacer can often be seen through the case holes.

Dummies for both military and commercial usage have been produced worldwide, and an interesting collection can be put together which consists entirely of 9mm Parabellum dummies.

**Blank:** During the 1920s and 1930s, a number of German companies produced a wide variety of commercial blanks one by Geco with a red paper bullet filled with iron powder to give it the weight to operate the action. These is also an unheadstamped German load from

![German Dummies from before 1945](image1)

![British Dummies](image2)

![German Commercial Blanks](image3)
this period with a mercury filled wood bullet (Figure 14). The German military, through the end of World War II, made little use of blank ammunition in 9mm Parabellum. In the 1920s and 1930s, Polte produced small lots of blanks with blue wood bullets and red paper bullets (Figure 15). DWM apparently experimented with blanks before and during WW I but no specimens are known. There is no record of the Germans even experimenting with blanks in 9mm Parabellum during WW II.

A wide variety of short-case and full-length blanks were produced in the United States, primarily by Stenbridge, for use in the movies. After World War II Britain and France produced a variety of blanks. The French blanks are interesting in their use of a one piece molded plastic case and bullet with a cast aluminum head. The standard military French blank is white plastic, but over time the type of plastic obviously changed and specimens vary from opaque white to opaque cream to various degrees of translucent white. An interesting French produced blank was produced for the movie “The Longest Day” where the normal French blank was produced with a bronze color plastic and the case head was painted a bronze color so the blanks would look like loaded ammunition in the movie. French plastic blanks were also produced in a variety of colors, though at least some of these appear to have been purely experimental. The French also produced a “Paulet” blank with a white plastic “bullet” shape that extended well into the case and was crimped in place (Figure 17). These blanks were loaded into both aluminum and brass cases, and are an interesting addition to any collection.

During or just after World War II, Sweden adopted a 9mm Parabellum blank with a red plastic bullet with a deep recess in the base (Figure 18). This blank was designed for use with a bore constrictor which attached to the end of the barrel and reduced the opening to about 3mm. When the plastic bullet hit the constrictor, it was crushed to powder, but raised the chamber pressure to a level that allowed automatic operation of the weapon. The early blanks had no case mouth seal. In the 1950s a blue case mouth seal was introduced and in the late 1960s the case mouth seal color was changed to black. These blanks
appear to have been loaded almost exclusively with fired cases and all three variations can be found with dates back to the early 1940s.

The Danes also produced blanks beginning in the 1950s. Originally their blanks used plain white wood or red wood bullets, and with red plastic bullets in the Swedish style. Later they introduced an extended, brass-case blank. In the early 1960s the Danes adopted a blank barrel for their Carl Gustav machine pistols with a reduced bore to allow automatic fire with blanks. To prevent a ball load from being fired in the blank barrel, the chamber was extended, and after the early 1960s all Danish blanks have a 21mm case length, the extra 2mm's allow a normal 19mm case to drop too far into the chamber to be fired. While not truly 9x19mm blanks, these rounds are included since they are part of the Danish 9mm Parabellum family of cartridges.

Fabrique de National in Belgium has produced a wide variety of full-length blanks since the end of WW II. Many of these blanks were for special purposes or for particular contracts. A selection of their blanks are illustrated in Figure 20.

**Proof:** Most countries that produce weapons chambered for 9mm Parabellum and also produce the ammunition, also produce special high pressure ammunition for proof testing the weapons. The Markings on proof ammunition varies from country to country and over time within a single country. German WW I proof ammunition was frequently only identified on the box label, though some had a special headstamp (Figure 21). During WW II German proof loads were identified by a green painted base, and after the war the German’s generally knurled the rim of proof loads.

A number of countries, use a red painted base, or red markings on the base to identify a proof load. The US usually uses a tinned case, with or without a red case head and red bullet. Canada identifies the proof loads with nickel-plated cases or blackened cases. Both Britain and Belgium use copperwashed cases to identify proof loads. The Czech Republic uses red case heads on nickelled cases, and also uses green case heads to identify proof loads. Given the variations in marking proof loads, loads with unusual markings should NEVER be shot. Failure to follow this simple rule can destroy a valuable firearm, and could result in serious injury to the shooter.
Special Loads: Beyond the loads described above, there are a large number of special loads, designed for special purposes. The most common of the special loads are short range training loads, armor penetrating loads, and quite a few special police loads.

The shortrange training loads are of particular interest. The Swedish army adopted a version of the blank described earlier, but, instead of the red plastic bullet, the short range load has a black plastic bullet with a 3mm steel ball in the tip (Figure 23) which will pass through the blank adapter described earlier. Norway experimented with an all plastic version of this round (Figure 24).

The Canadians also produce quite a variety of training cartridges, including rounds with plastic bullets (Figure 25) intended to fire in a special barrel and paint ball cartridges which can be used with the same special reduced caliber barrel. Note the paintball cartridge with the steel collar. This is an experimental load with a 9mm bullet. This approach was dropped in favor of a reduced caliber barrel for training which would not accept a normal 9mm Parabellum cartridge.

Belgium has also done quite a bit of experimentation with short range cartridges. Figure 26 illustrates a set of experimental projectiles which were tested by Belgium in the early 1980s. Note that all of these projectiles have a skirt or other technique to increase drag and reduce the range of the projectile.
Besides the training ammunition there are such odd and exotic cartridges as the set of flare signal cartridges illustrated in Figure 27. These cartridges were developed by DELA Industries in California in the late 1960s for use in survival kits and similar applications. They were made with yellow, green and red flares. Similar smoke single cartridges were also produced. The amount of smoke available in a 9mm projectile must be extremely limited and the utility of these loads is questionable. Germany also experimented with signal cartridges in 9mm Parabellum.

Another interesting load is the squeeze-bore multiball load developed by Colt for Israel in the 1960s. The concept was a taper-bore barrel on a Uzi machine pistol firing loads which had three projectiles in a plastic jacket. Initially, the cartridges were 9mm, but were squeezed as they transited the barrel to a smaller caliber. The process created three separate small caliber, high velocity projectiles from each round fired. The load appears to have been intended for short range work (Figure 28). The Israelis developed another load for similar applications. This load has steel shot case in an amber plastic matrix so that each cartridge sent a spray of steel balls out the barrel (Figure 29).

The Swedish army also tested a squeeze bore machine pistol in the same timeframe. In this case the loads were a single bullet in each case. The barrel tapered from 9mm to 6.5mm and test loads were produced with both steel and copper projectiles (Figure 30). These loads are seldom encountered today.

Since the introduction of the 9mm Parabellum cartridge, and particularly since the end of WW II, there has been quite a bit of development work designing projectiles which have enhanced penetration over the standard ball cartridge in 9mm Parabellum. One of the early attempts was a load for an experimental Hi-Standard pistol tested by the USAF. The experimental ammunition can still be found on occasion, and the majority of the loads used a turned steel bullet or a sintered iron bullet for enhanced penetration (Figure 31).

The Swedish army adopted an enhanced penetration ball load in the 1960s. The bullet was of normal construction with a steel jacket which was thickened in the front to provide for improved penetration. This load was produced into the 1990s and was sold commercially in the US by Norma in the late 1970s (Figure 32).
In the 1970s, France began the development of enhanced penetration projectiles in 9mm Parabellum and other calibers. They adopted a very different approach using a very light weight copper-alloy projectile with a unique spire point. These projectiles were known as Tres (Very) High Velocity or THV loads. The detail design of the projectile varied considerably and many variations of the bullet can be found (Figure 33).

This design found favor in South Africa where it was produced. Over time the design has been modified by the South Africans and a plastic cap has been added to the bullet tip to improving feeding in an automatic weapon (Figure 34).

The variety of special loads in 9mm Parabellum could fill a book on their own, but one more round bears mention. German law prohibits the police from using hollow point ammunition. To provide police units, particularly special police units with effective ammunition, considerable development has been done to develop effective police loads that do not have hollow point bullets. One of the results of this development are the bullets pictured in Figure 35. These are solid copper-alloy bullets with plastic caps. The caps make them solid point when fired, but the hole through the bullet allows the barrel pressure to eject the plastic tip and the solid bullet body is designed for the ideal combination of penetration and stopping power.

**Headstamps**

The headstamp is the key to understanding a 9mm Parabellum cartridge. It can tell you which country produced the round and what company the round or case. The headstamp may tell you whether it is a commercial, military or police load, when it was manufactured, how it was manufactured, who provided the metal used in the case, the load or the case design. The code on the headstamp is important and the IAA website (cartridgecollectors.org) contains a listing of headstamp codes which include all of the codes illustrated in this paper. The listing identifies the manufacturer and country of origin. The codes are not unique and must be considered within the context of the entire cartridge. A “13” at the top of a headstamp may mean it was manufactured in Castro’s Cuba, or it could identify the type of load on ammunition manufactured in the Republic of South Africa. Illustrated below are some of the headstamps which may be encountered on 9mm Parabellum cartridges. The code associated with each headstamp is the identification code used in the the 9mm Para Headstamp Checklist available free on http://gigconceptsinc.com.
Germany:

1.-C01A  2.-DW03H  3.-MW01B  4.-RM01D  5.-DW01A  6.-P02B
7.-P103D  8.-RW01I  9.-AU01E  10.-EM01D  11.-FB01A  12.-RF01B
13.-DW03C  14.-GE02C  15.-DA03G  16.-ME02R  17.-GE03H  18.-SI01A

1-4: World War One military headstamps showing the date and month of manufacture
5-8: Military and Police headstamps from the period between the wars and early World War Two
9-12: World War Two military headstamps showing date and lot number as well as the case metal code
13-14: Pre-World War Two commercial headstamps
15-16: Post-World War Two military headstamps
17-18: Post-World War Two commercial headstamps

Belgium:

1.-AE02B  2.-CB01B  3.-FN01G  4.-FN01M  5.-AE02A  6.-FN01B

1-4: Military headstamps
5-6: Commercial headstamps

Britain:

1.-BE02C  2.-CP01A  3.-HN01C  4.-RG01H  5.-EL01A  6.-HO01A

1-4: Military Headstamps
5-6: Commercial Headstamps
Czechoslovakia (Now the Czech Republic and the Slovak Republic):

1.-OM01A  2.-PS02B  3.-Sy05A  4.-SB02F  5.-LIO1B  6.-CT01A
1-4: Military Headstamps  5-6: Commercial Headstamps

France:

1.-AT01A  2.-LM01B  3.-RY01C  4.-IS01B  5.-GE05A  6.-SF03B
1-3: Military headstamps  4: Police headstamp  5-6: Commercial headstamps

United States:

1.-AB01A  2.-CS01A  3.-MA03A  4.-RA02A  5.-SE01A  6.-GE04A
7.-AM04A  8.-NA01A  9.-DF01A  10.-EL01C  11.-NE01A  12.-LR01A
1-5: Military headstamps  6: Police headstamp  7-12: Commercial headstamps
Other:

1.-FM04C  2.-FM07B  3.-H02B  4.-HP01F  5.-MF01A  6.-BA01B  
7.-DA01B  8.-IV01B  9.-Sy10A  10.-FM02B  11.-HA01A  12.-Ar01A  
13.-S03A  14.-KF01B  15.-Hb02A  16.-Hb04A  17.-AI01C  18.-NW01B  
19.-RA01C  20.-Sy04B  21.-N02B  22.-FN03B  23.-PM02G  24.-Ar05B  

1-2: Argentina  3-4: Austria  5: Australia  6: Bulgaria  7-8: Canada  9: China  

**Case Material**

**Brass:** The vast majority of 9mm cartridges produced since 1902 have had cases made of brass. The brass cases have sometimes been plated with brass or nickel for identification, or appearance or to make them more durable.

**Steel:** The German’s experimented with copper-washed steel cases during World One, did not put this case design into production. The steel cases were washed (coated) with copper to prevent corrosion and to ease extraction of the fired case. The most significant production of 9mm Parabellum steel cases occurred in Germany, and the occupied countries during World War Two. In the late 1930s Germany began production of steel cases in an effort to save brass for higher priority applications. In 1939 they began production of copper-washed steel-case ammunition in 9mm Parabellum, and in 1940 began converting to steel cases.
lacquered a dark gray. These lacquered steel cases continued in massive production by German factories to and end of the war, practically to the exclusion of brass case 9mm Parabellum ammunition. The Czech factories which were occupied during the war continued to produce these lacquered steel cases into the early 1950s. The French also produced 9mm Parabellum ammunition with lacquered steel cases from the end of the war through mid-1960. The US tested steel cases in 9mm Parabellum during World War Two but did not adopt them. Czechoslovakia and Germany has also experimented with steel cases, employing a variety of finishes through the 1990s. Copper-washed steel case and lacquered steel case ammunition in 9mm Parabellum continues to be produced in Russia and is available on the commercial market.

**Aluminum:** Cases made from aluminum have offered another alternative to brass. The earliest production of Aluminum case 9mm Parabellum occurred in Switzerland in 1941, again in an attempt to conserve brass. Although generally acceptable, and produced in significant quantities, the Swiss production of Aluminum cases in 9mm Parabellum ceased in 1945 and was never renewed. France, Belgium and Britain all experimented with the use of aluminum cases in 9mm during the post war years, with British development continuing into the mid-1950s. Aluminum cases were never fully successful until the Sporting Equipment Division of Omark Industries (CCI) perfected an aluminum case design in their non-reloadable Blazer line of ammunition.

**Other Materials:** Plastic has been widely used in the production of short range and blank ammunition and is available in a variety of colors and from a number of countries. These cases normally have metal heads and are illustrated below along with other blank cartridges. Plastic has also been used experimentally to produce cases for ball ammunition. There are also experimental cases made from titanium and from molded powder (propellant) which is consumed when the cartridge is fired.

**Boxes:**

Collecting the boxes for the 9mm cartridge is also a great hobby. I have about 2500 different 9mm boxes logged in my database and over 500 waiting around to be entered. These boxes go back to the very early days of the cartridge like the UMC box which was produced February 5, 1910. There are a wide variety of German boxes dating back before WWI. Some are illustrated below.

- German Navy 1911
- German (DWM) Contract with Persia 1936
- German Army 1911
- German (DWM) Contract with Holland 1917
- German Army 1940
Some other interesting boxes.

- Western Contract for Italy 1917
- Yugoslavian Military 1962
- Pakistani Military 1980
- Belgian (FN) Contract for Holland 1922
- Bulgarian Military 1947
- Belgian Commercial 1930s
- Very Early Belgian Military 1934
- Polish Military 1939
- Thai Commercial ~2000
Collecting 9mm Parabellum (Luger) Cartridges:
The cartridges, headstamps and boxes illustrated in this article represent a tiny fraction of the specimens available. In fact the variety seems endless and many collectors limit themselves to a particular era or country or some other subset of the 9mm Parabellum universe. The cartridges and headstamps illustrated vary from relatively common to extremely rare. You can expect quite a few of the items illustrated to show up at gun shows, and more to show up at regional cartridge shows. On the other hand, some of the items illustrated are extremely rare and will only be found in the most advanced collections, and a few appear to the sole surviving specimen.

Regardless of your level of available resources, collecting 9mm cartridges and the associated boxes can be an interesting and absorbing subject area with fascinating areas for research, and great rarities still waiting to be discovered. If you are interested in collecting 9mm Parabellum cartridges, feel free to contact me at gigconceptsinc@gmail.com or at lcurtis@gigconceptsinc.com.

Where To Go Next:
If you are interest in more information on the 9x19mm cartridge, try my website at http://gigconceptsinc.com. The site contains a lot of free information and reference material on 9mm Parabellum ammunition and includes a 2002 listing of all the 9x19mm headstamps known at that time, with the country and manufacturer identified as well as illustrations of a number of headstamps. This listing is a free download. The website also includes other information on books related to ammunition and ammunition research that are available for sale.

A great source of information is the International Ammunition Assoication (IAA) which hosts this website. The IAA Journal is published everyother month and includes interesting information on 9mm, and many other types of ammunition. You can join the IAA and subscribe to the Journal from the IAA home page (http://cartridgecollectors.org) and the electronic copy of the journal is available worldwide at a very modest price.

Another source of a great deal of information is the IAA Forum at http://www.iaaforum.org/forum3/. There has been a great deal of information on the 9mm Parabellum posted on the Forum and it is all available. You can also join the Forum and ask your own questions.

Finally, if you really want a graduate education on ammunition, including 9mm Parabellum ammunition, and do not have anything to do the few days before Easter, plan to attend the St Louis International Cartridge Show (SLICS). You can find all the details here on the IAA website. It typically runs the Thursday and Friday before Easter each year and is well worth a visit whether you are just considering cartridge collecting or already a very advanced collector.