

STEEL SHOT & THE ALTERNATIVES TO LEAD

REVISION 2.1



WILLIAM POWELL
since 1802

williampowell.com/gunroom

An Introduction

We originally wrote this in May 2020, but much has happened since to require it to be updated, which it has been, twice in 2021.

The seven main landowning and shooting organisations issued their press release in February 2020, saying they were working towards a voluntary ban on all single use plastics, (including cartridge wads and cases), as well as a voluntary ban on lead shot, all within 5 years. Then the Minister in March 2021 announced a public review with the likely phasing out of lead shot in Game within two years. This was followed on 31st March 2021 by the National Game Dealers Association announcing that as from July 2022 – a little over a year away, they will not take in any Game or Venison shot with lead. As a result and after this season, Game shot with lead will be much much harder to enter the human food chain; this is of course where all sound shot Game must go.

There will probably in the short term (and who knows how long this will be for), be some Game Dealers willing to buy/take in Game shot with lead, but perhaps not that many and probably not the bigger ones. However, no one knows what the scale of this will be. There will also be some Shoots who will continue to sell their Game to end users such as pubs and restaurants, or those who give away their Game or consume it themselves and hence their Game does not go to a Game Dealer. These Shoots will still be able to shoot Game using lead shot, if they wish and for a time, this might mean that there will still be demand for Game shot with lead, but in due course this will almost certainly mostly be phased out and at some time it is very probable that an outright ban will come into force.

We at William Powell and at our sister companies, JM Osborne Rural & Sporting and William Powell Sporting have been closely monitoring all these developments. It is certain that within a very short timescale now, we are facing massive change. This is because whereas currently 99.9% of all Game in the UK is shot using lead shot, this will not be the case in the very near future.

The discussions about a move away from lead started some considerable time ago, initially because of evidence that wildfowl were ingesting lead shot. This led to the banning of lead shot over wetland areas and for duck/geese shooting in 1999 in England. However, there has been continuing pressure for a ban on using lead shot because lead is known to be dangerous to human health. For example, lead in petrol was banned due to it being in a gas form and as a result, it was easy for humans to inhale.

Whilst it was not at all unanimous, the Lead Ammunition Group (LAG) report in 2015 confirmed that they believed there was an issue with humans ingesting lead from shot Game. In reality, the actual risk appears to be very low indeed. This however, is not going to be accepted as any argument in lead shot's defence and those who wish to see lead shot banned seem now to be within sight of their objective.

Waitrose announced in 2019, that they would not buy Game to sell to their customers from 2020, which contained lead. We are told that Waitrose buy approximately 300,000 units of dead Game a year.

However, the Game Dealers Association's recent announcement is the real game changer. There is now an absolute inevitability of a move away from using lead shot and very soon. We do not believe that it is justified, but that does not mean (like the banning of handguns), it is not going to happen. We are also aware of the arguments that some of the alternatives to lead will create their very own problems. However, we now know when the main changeover is going to happen and we **ALL** need to prepare for it.

So, what are your options?

We have set out below, some relevant facts as we at William Powell see them. Please remember this is a developing situation and we can only comment on how we currently see matters. We do expect further changes and hopefully more clarity occurring going forwards. None of these details are set in stone, but what is, is that lead shot will not be the main component in the majority of Game cartridges from early 2022 and indeed there may be very few if any Game cartridges made using lead shot after the end of this year.

We should probably be aiming to shoot most/all of our lead shot Game cartridges before the end of this coming season i.e. by 1st February 2022. Do **NOT** think that this is scaremongering. You may after that date be able to use lead shot cartridges on Shoots where Game does not go into any of the main Game Dealers, but the vast majority (and by that we mean 75% and maybe more) of Game, will after this season, probably have to be shot using lead free cartridges. The actual percentage is at this stage unknown, but the direction of travel is very clear.

The Cartridge Manufacturers tell us that it is very unlikely there will be many other realistic or suitable alternatives developed in the future, however much we might wish. There are already one or two "mixed" substance shot cartridges now being developed, but do not hold your breath that there will be many further alternatives coming forward, nor do we yet know how effective they will be. The fundamentals of metals and weight very much apply and we think most of the alternative pellets have probably already been explored.

There have however been significant improvements in non-toxic (non-lead) cartridges in recent years.

What are the current alternatives to Lead Shot?

There are currently four main options:

Steel (soft iron) - page 4

Bismuth - page 8

Tungsten Matrix - page 8

'Mixes' such as Bioammo



Steel

Steel shot first came into the UK many years ago and was then generally regarded as much less effective than lead, as it is only around 70% as dense as lead.

There have been significant improvements in steel cartridges in recent years and today's steel cartridges are a significant improvement on what we remember from twenty years ago.

Modern steel shot cartridges are actually "soft iron" and not steel and millions of them are made and shot in the USA, Scandinavia, Denmark and throughout Europe. However, its use in these markets is generally with plastic wads **AND** many of these cartridges are loaded to a much higher specification than can be loaded for the UK, which operates under current CIP regulations. Therefore, you must be very careful when comparing the steel shot cartridges which are available in Denmark, the USA and elsewhere, with those currently available in the UK. Unless we have regulatory change, we cannot use these in the UK.

UK Wildfowlers have been using steel shot for years and generally seem to get on well with them, having adapted their shooting techniques. Modern steel shot cartridges also now have better components than were previously available, due in particular to technical advances in the powders being used.

One of the problems with steel shot is that it must be used in a shot cup to protect the barrels from direct contact, which would otherwise cause damage. This means that "felt" wads are not suitable, which they are for lead shot cartridges. In the main these shot cups are made of plastic, but other options are becoming available, such as Gamebore's Precision Steel with bio-wad, Eley's PRO ECO, as well as other materials which are currently under development. However, it is fair to say that we are still a considerable way away from having available in quantity, enough high-quality non plastic cases and wads, and almost certainly and most importantly, the quantity of high-quality steel shot which is needed to make the change on the scale required from lead to steel shot. For those who yearn to revert to paper cases, sadly they are not currently suitable for steel shot loads and may never be. It would therefore seem to be somewhat ironic, for toxic lead to be replaced in some instances with pollutant plastic shot cups and cases!

There is now "soft iron" shot cartridges availability in the UK which are 2½"/65mm long in 12-gauge. This is a very recent (and very welcome) development. At the time of writing, these are available from Eley but we believe are also being developed by Gamebore and BioAmmo. This could be a real game changer (no pun intended!) for users of "old" English guns with 2½" chambers, but please read more on this below, **BEFORE** you rush off and use them.

Whilst modern steel (soft iron) cartridges loaded to CIP (the required UK regulations) are much better than they used to be, they are not as effective when shooting high birds as the equivalent lead shot cartridges. There is hope that CIP may change their current rules, so that higher performance steel shot cartridges could be made and be legal to use in the UK. If these were similar to the steel shot cartridges available in America or Denmark, this would be a significant improvement.

Standard steel cartridges very confusingly can be 2½" (65mm) or 2¾" (70mm) and must have a shot size of 3.25mm or less. Those cartridges which are on sale in the UK now, are very effective at shooting mid height birds, as may be found on the vast majority of UK Game Shoots. The sort of traditional Pheasant shown flying out of woodland or Partridges over hedges, are perfectly capable of being shot using this length of steel shot cartridges.

To make steel shot cartridges roughly as effective as lead, the Cartridge Manufacturers have recommended reducing the size of the shot by two sizes. Therefore, if you normally shoot 6 shot lead cartridges they suggest you shoot 4 shot steel ones.

However, we at William Powell are worried that this will lead to numerically inferior shot patterns (but will enable a more powerful strike), which will be particularly noticeable at range. We think that there will need to be further research (and practice) in this area and that you should first try going down one shot size and see how you get on, before reducing by two pellet sizes, when using steel over lead.

We have found that even 2½" steel shot cartridges are both noisier and have more "kick" than their lead equivalent.

Please be under no illusion that steel shot cartridges are an exact substitution for lead ones – they are not. They are pretty good, but not as good and particularly when using standard ones.

The second type of steel shot cartridge is High Performance (which have a shot size larger than 3.25mm), **IF** your gun is suitable to use these High Performance cartridges, you will literally have more firepower and this will mean when using these High Performance steel shot cartridges, you will be able to shoot longer range quarry, **BUT** you **MUST** make sure your gun is suitable to use with this type of cartridge; most guns will not be! Please read on for more details of what this involves. Please also note that in our own trials, we have found High Performance cartridges noisy and with considerable "kick". We are far from convinced that many people would want to shoot many of these High Performance cartridges on a days shooting. You will need awesome ear defenders (obviously from William Powell!) and preferably either a heavy gun or a "kick-easi" type recoil pad – these are very punchy cartridges indeed and even if safe, completely unsuitable to shoot through any lightweight gun.

Q. What are the options for smaller gauges?

A. Currently steel cartridges with non-plastic cups/wads are not readily available in the UK for 16 bore, 28 bore or .410 guns and may never be. If you want/have to shoot steel shot in these gauges, this may involve using plastic wads. Tungsten Matrix and Bismuth cartridges may be available for the other gauges but both alternatives will be much more expensive than we have been used to when shooting lead and we believe **ALL** cartridges will (probably significantly) increase in price in 2022.

Before you do anything, check your gun is suitable for shooting steel shot cartridges and if it is, which ones i.e. "Standard", "High Performance" or is not suitable at all, to use with steel shot.

This absolutely essential. Last year the Proof Houses were not stating what their recommendations were for any gun proofed before 1954 being used with any steel shot cartridges. The Birmingham Proof House is now recommending that all such 65mm chambered guns should have their chambers extended to 70mm with a long forcing cone, reduce the choke cone angle and ease the chokes to less than half (** please see our note on the following page*) and then rejoin and reproof for standard steel shot. This is very specific and is in clear contrast to what many people, including Cartridge Manufacturers and Gunsmiths have all been saying. The Proof Houses are **NOT** recommending if you own a pre-1954 nitro proofed gun, that you shoot **ANY** steel cartridges through it, and the Birmingham Proof House is recommending that you do so only after you have carried out the work they have specified above. This is **VERY** important as to do otherwise could be very dangerous.

Before you do anything, check your gun is suitable for shooting steel shot cartridges and if it is, which ones.

Read on

Steel *continued...*

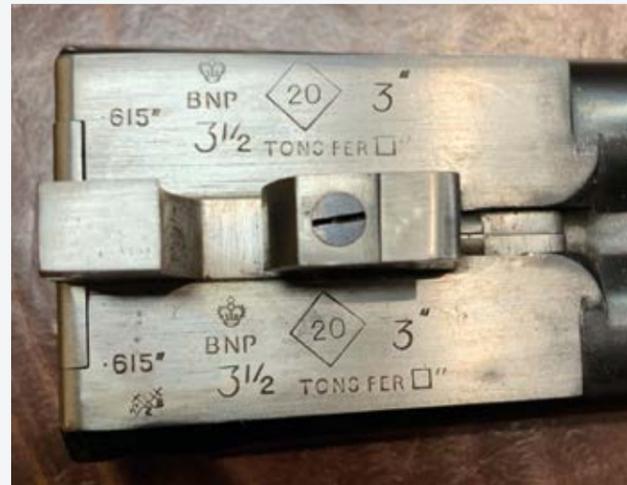
Images illustrating proof markings on an Over & Under (left) and a Side by Side (right)



Over & Under Proofing Marks

Explanation starting top left

- Bore Size and Chamber Length in mm (12/76)
- Date of manufacture (2019)
- Manufacturers stamp (BR)
- Serial Number (CO17124)
- Nitro Proof - An overseas CIPS mark
- Italian Proof House Stamp (Crossed Guns with star above)
- Fleur-de-lys - High Performance Steel Shot Proof (CIP)
- Italian date stamp - 2019 (CU)



Side by Side Proofing Marks

Explanation starting top left

- Bore Diameter (.615")
- Birmingham Proof House 1954 (BNP - 3 1/2 TONS PER □)
- Gauge (20 bore)
- Chamber Length (3")
- Birmingham Mark (Crossed swords, showing the date code and the inspectors number who did the proofing)
- Unlike the adjacent Over and Under, despite having 3" chambers this Gun is not High Performance Steel Shot proofed, as it does not show the Fleur-de-lys stamp*

The images above show examples of the Gunmaker's stamps which can be found on both Over & Under and Side by Side barrels. Once the Proof House stamp has been identified, use the table below to distinguish which proof house did the proofing and when. These will then tell you if you can use "Standard Steel" or "High Performance Steel" loads through your barrels. This is very important as the two are not at all the same! ***DO NOT**, under any circumstances unless your gun is High Performance steel shot proofed, shoot 3 shot or larger steel cartridges through it, and we are told by the Proof Houses, then only with a maximum of half choke. However, there have been a number of bulged or rippled barrels at the choke on both newish and older guns of all types, which has occurred with half choking. We therefore believe that to be absolutely certain that your barrels will not suffer the same fate, you should only shoot any steel shot cartridges through quarter choke or less. Most guns will probably not have a problem if they are half choke or under, but some will, perhaps even with Standard steel shot cartridges. This is because steel shot is less soft (and malleable) than lead and therefore when it meets the choking in the barrels, it will not "adapt" and hence may well cause damage to the barrels.

Again, using the table on page 7, please check carefully to ensure your gun and the cartridges you intend to use are compatible.

We are also increasingly aware that some people now use 2 3/4" / 70mm cartridges in guns with 2 1/2" / 65mm chambers. This "shorter" chamber length is what most side by side guns have, unless they were either built for wildfowling, live pigeon shooting or were built quite recently. This misuse occurs currently with the wrong sized lead shot cartridges being used.

Please be aware **THIS IS HIGHLY DANGEROUS** and must **NEVER** happen with steel shot cartridges and High Performance steel shot cartridges must not be used even in a 70mm chambered gun, **UNLESS** it is proofed for High Performance steel shot cartridges and is Fleur-de-lys stamped.

Please check and ensure you are using the correct ammunition in your gun and this includes with lead shot cartridges but particularly so with steel.

The table above illustrates 'standard' and 'high performance steel' proofing marks from London and Birmingham proof houses from 1954 to 2020

| CIP / UK | STANDARD STEEL | HIGH PERFORMANCE STEEL |
|-----------------|--|--|
| London 2020 | CIP  N NP | CIP  NP |
| Birmingham 2020 | CIP  N BNP | CIP  BNP |
| London 2006 |   NP STD |    NP SUP |
| Birmingham 2006 |   BNP STD |    BNP SUP |
| London 1989 |  NP 850 BAR | |
| Birmingham 1989 |  BNP 850 BAR | |
| London 1954 |  NP 3 TONS PER □ " | |
| Birmingham 1954 |  BNP 3 TONS PER □ " | |

This table shows whether your gun is safe to use with the two different types of steel shot cartridges. Please note that there are different proof marks from both Proof Houses going back to the 19th Century and the above are relatively recent examples.

NO steel shot cartridges should be used through any gun with twist Damascus barrels and under no circumstances, should **ANY** gun be shot which is out of proof or with thin barrel wall thickness. The latest recommendation we have from the Proof House is that pre 1954 proofed guns should be submitted for standard steel shot proofing, before these cartridges are used in these guns. However, this should only be done after the work we have described above is completed. This is a very clear recommendation by the responsible body. However, we worry that **SOME** of these guns, whilst still in proof for Nitro, may not have either strong enough actions or barrels for even standard steel shot cartridge use. Some of these guns are well over 100 years old and have already given a lifetime of service. Some might be well able to cope with the transition to steel but some will not (and no-one knows what percentage may not!). We believe that many old side by side guns will fail reproofing for even standard steel but could be safely used with Bismuth cartridges. If such a gun fails reproofing (which is at a higher charge level than a normal bought cartridge), it almost certainly will be a write off. Many people are suggesting that all 65mm chambered guns are suitable for shooting Standard steel shot through them. This is definitely not true and we are advising considerable care is taken and the Proof House's recommendations as above are followed.

With regard to High Performance steel shot cartridges, we do not think many old lightweight English Game guns with 65mm chambers will stand being reproofed (after work is done to extend the chambers and easing the cones and rejoining) for this type of cartridge. Even if they will stand reproofing, we doubt you would enjoy shooting these

Continued on the next page...

cartridges through these guns! Heavier actioned guns such as those built for live pigeon or duck shooting are likely to be much more suitable and all guns being reproofed (for either Standard or High Performance steel shot) should have good barrel wall thickness, sound actions and be well jointed.

We would also suggest that guns originally made for use with black powder, even if they have been reproofed for nitro, might be unsuitable to use with **ANY** steel cartridges as they could be particularly vulnerable to failing at reproofing.

Please note we have read claims by certain gun firms that they have some sort of "magic" solution for the barrels of old English guns, so that once this work is completed, this will enable the guns to safely shoot High Performance steel shot. We do not know the details of any such remedy and we would urge massive caution before you go down this route. It is not just minimum wall thickness which is relevant, but the strength/condition of the action which will determine whether the gun will stand reproofing, **BUT** it is doubtful that many old lightweight guns (which most English side-by-sides were built as) will stand reproofing for High Performance steel shot and perhaps just as importantly, whether you would want to shoot this combination!

Please note that currently steel cartridges are not available in the UK for 16, 28 or .410 guns, other than where they have plastic wads. Owners of these calibre guns may have to use one of the available shot alternatives, as discussed below, or in certain cases steel shot with plastic wads.

The current price of an average lead shot Game cartridge (65mm and with a 30-gram load) is approximately between £0.30 and £0.35. The current price of a similar steel loaded cartridge is approximately £0.40 to £0.47. These are based on 32gram of steel and a non-plastic wad. There is minimal price difference between high performance and standard steel cartridges.



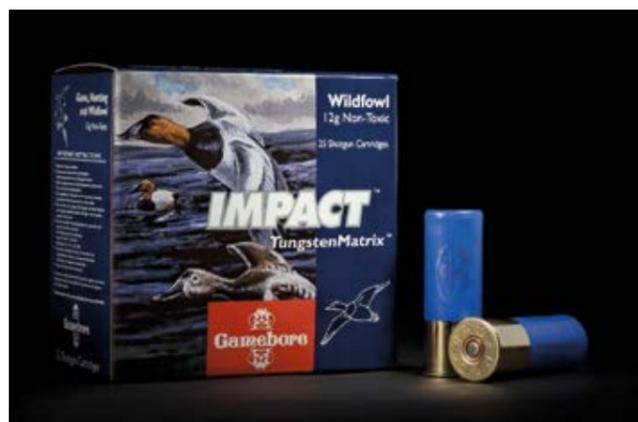
Bismuth

Bismuth cartridges, which are about 85% the density of lead, have been around for some time and were initially thought of as not very effective when compared with lead.

Again, modern Bismuth cartridges are significantly better than they used to be. Some manufacturers (Gamebore in particular), now have a process which ensures the shot is malleable like lead which improves effectiveness and prevents fragmentation on impact, but an increase in one shot size (from 6 to 5 for example) is recommended, to compensate for the lower density and to increase lethality.

Our overall view currently is that Bismuth cartridges are the logical alternative to lead cartridges for old English Side by Side shotguns, perhaps with thinner (but still nitro proofed) barrels and particularly for those with 2½" (65mm) chambers. They will also be ideal for 16 or 28 bore guns where available. These cartridges will be perfectly good for shooting at "normal" height game (including Grouse).

We do not however, think that Bismuth cartridges, along with Standard steel cartridges, are at all ideal for shooting high birds or Game at longer range. There is no doubt that shooting using steel or Bismuth cartridges, as opposed to lead, does take some getting used to. Please do not think that you will shoot exactly the same (or to the same standard), if you change from lead shot cartridges to one of the alternatives,



because most people will not immediately do so. Instead they will need to practice getting used to the change in load, speed and probably recoil. With practice they should, provided the quarry is at "normal" height, shoot to much the same standard as they did before, once they are thoroughly acclimatised to their new type of cartridge.

The current price of a 30 gram 5, 12 bore Bismuth cartridge is approximately £1.18. There is no issue with using Bismuth cartridges through guns with any choke measurements.

Tungsten Matrix

Tungsten Matrix can have almost identical properties to lead in terms of density and cartridges made using this material, we believe are just as effective (or even more so) than lead shot cartridges, including at high birds. If cost is not an issue, then Tungsten Matrix cartridges can safely be used in old English shotguns again irrespective of choking. However, currently the majority of these cartridges may be loaded using plastic wads and in 12-bore are 70mm; if so, they are not suitable for 65mm (2½") chambered guns. Therefore, please check if you use Tungsten Matrix cartridges, that they are of the right chamber length for your gun.

The current price of a 32 gram 5, 12 bore Tungsten Matrix cartridge is approximately £2.60 per shot.

So, what do you need to do now?

There is **NO** immediate rush to do anything as lead cartridges have not been banned by the authorities and you will be able to use them for this coming shooting season, but we would urge most people to aim to change to non-toxic alternatives from the end of the 2021/2022 shooting season, unless they only "shoot for the pot" where for some time to come, they may be able to continue to use lead cartridges.

It is therefore very important to plan for the future, particularly if you were thinking of what gun you intend to use in the longer term. It is clear that some guns now in use, are almost certainly not suitable for shooting **ANY** steel cartridges through and only a very small proportion are safe to shoot High Performance steel cartridges through.

Please do not think that the way to get around the problem is to buy thousands of lead shot cartridges "to see you out", as most Shoots sell their Game to a Game Dealer and we are now told that a proportion of Game Dealers will not take in Game shot using lead after July 2022. There will be exceptions to this, but no-one has any idea how many and for how long.

It is therefore in our view, essential to look at the alternatives now, to include looking at what guns you use and then make the change when necessary, to protect our sport and ensure its future for everyone. This is the main change in how we shoot to have occurred for a very, very long time and may involve some people having to change the equipment they use. However, our Grandparents used to fish with Greenheart or Split cane rods and tennis rackets were made of wood with cat gut stringing! Indeed, our forebears used to shoot with hammer guns whilst few people do that now. Times have changed and we are going to have to adapt to the change for shooting game going forwards. It is **NOT** the end of game shooting as we know it, just as moving away from Cane rods was far from the end of fishing. It may be that older English guns will be kept for high days and holidays, with a newer High Performance steel shot proofed gun being used for shooting on most other days.

It is therefore very important that you get your Guns checked out by a competent Gunsmith if you are in any doubt as to what cartridges you can safely shoot. In summary therefore;

1. If your gun is proved for High Performance Steel Cartridges, the barrels will be marked with a 'Fleur-de-Lys', showing the gun has been tested to High Performance steel proof pressures.



2. If your gun does not carry the 'Fleur-de-Lys', it should have Nitro proofed markings. There are many marks for the Nitro proofing in the UK; one for each Proof House used in Birmingham and London. Again, we have shown these below but only dating back to 1954.

All of the above marks, show that guns bearing them can in theory shoot "Standard" steel cartridges, provided the gun is in proof, does not have Damascus barrels, the chokes are less than half, there is good barrel wall thickness and the action to barrel fit is "tight". However, these guns cannot be used with High Performance steel shot cartridges.

CIP S For more modern guns with nitro proof barrels from outside of the UK, these will have a mark of CIP with an S underneath showing they meet CIP proof.

| | | | |
|-------------|-------------------|-----------------|--------------------|
| London 2020 | CIP N NP | Birmingham 2020 | CIP N BNP |
| London 2006 | NP STD | Birmingham 2006 | BNP STD |
| London 1989 | NP 850 BAR | Birmingham 1989 | BNP 850 BAR |
| London 1954 | NP 3 TONS PER □ " | Birmingham 1954 | BNP 3 TONS PER □ " |

3. Knowing this, you must consider the chamber length of your gun, to ensure you are not going to buy or use cartridges which are too long for the chamber. The chamber length is also stamped in the same area, normally in the format of 12-65 or 12/70 for modern guns and old English guns usually have a stamp of 2 ½" or 2 ¾".

4. If your gun is not "High-performance" steel shot proofed, (i.e. does not have the 'Fleur de Lys' mark), you should **NEVER USE** High Performance steel shot cartridges through it.

5. If your gun is Nitro proofed after 1954, then you can safely shoot standard steel cartridges but subject to the above. If you wish to use Bismuth or Tungsten Matrix cartridges through a Nitro proofed gun, you can do so without any alteration to your chokes, however tight they may be, but in the case of Tungsten Matrix, check the chamber length.

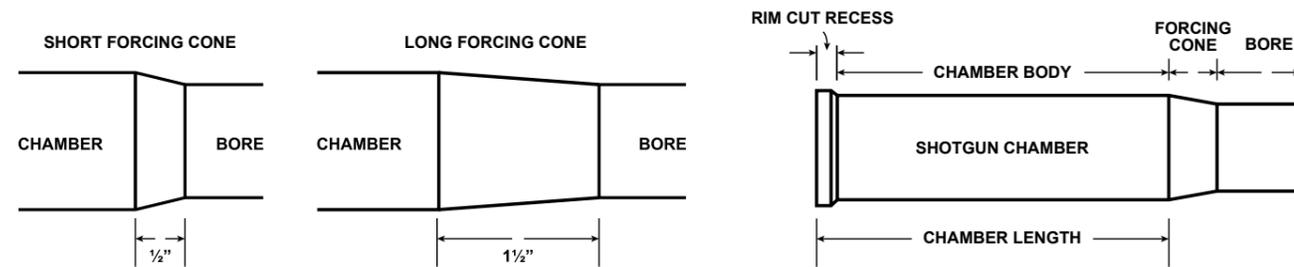
6. We have attached the latest recommendations regarding the use of steel shot from BASC and would strongly advise that you make yourself familiar with this advice, but please see our comments above and our new recommendation that chokes should not be greater than a quarter when used with steel shot, because of the potential for barrel damage.

Forcing Cones and Chamber Length Alterations

Forcing cones are the part of the barrel from the end of the chamber (where the cartridges sit) to the start of the barrel of the gun. In some older guns, this was very steep and was designed to house the old paper cased rolled turnover cartridges. Modern cartridges have crimp closure and these also need chamber space for the crimp to open into.

Some people think that increasing the length of the cone or even the chambers themselves is a good idea. However, this means removing metal from the chamber to the bore and any removal of metal in this part of a gun, is likely to reduce its strength in a critical area. We would strongly advise taking expert advice from either a qualified and experienced Gunsmith or the Proof House before carrying this out.

Your safety and the safety of those around you is paramount and please be aware, that if you undertake this work to your gun, it will mean the gun will need to be resubmitted to Proof – and it might fail!



This illustrates, in proportion, the difference between the two types of forcing cones. While there are variations, of course, the dimensions shown are average.

Standard shotgun chamber with short forcing cone.

Q. Can you get your existing gun High Performance Steel Shot Proofed?

A. The answer is possibly yes. However, it really will depend on the design, construction, probably the age and definitely the condition of each gun, as to whether a gun which is currently nitro proofed, will stand being re proofed for High Performance steel shot. We have heard worrying estimates of how many “old” English side by sides are likely to fail when they are High Performance steel shot proofed. We believe that most English side by side guns with 2 1/2” chambers, will fail such reproofing even after remedial work is done. We are only recommending that relatively new and very sound guns, with plenty of barrel wall thickness and an excellent fit between the action face and the barrels, are sent to be High Performance steel shot proofed and ideally that they should have been built on “heavy” actions, such as the old live Pigeon and Wildfowling guns.

Please remember that in most instances, when a gun fails being reproofed, it is then un-useable and is almost certainly of little or no value.

Q. Can you alter your gun's chamber lengths?

A. The short answer is yes, this can be done, **BUT** you must get it done by a very competent Gunsmith, and the gun will again need resubmitting to proof. The Birmingham Proof House is recommending that 65mm chambered guns proofed before 1954 should have their chambers extended to 70mm and work will also need doing to the cones (and possibly to the chokes) and then the gun rejointed, before being reproofed for standard steel shot.



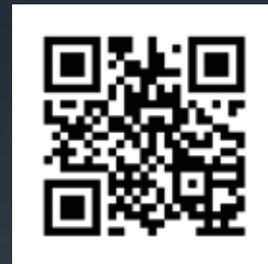
Our Next Briefing Note

We will shortly be issuing another briefing note on different aspects of steel shot, including the effects of shot size, choking and patterns, particularly comparing the difference between steel and lead shot cartridges. This will help you decide which steel or other non-toxic cartridges, might suit your gun and your shooting requirements, in the future.

Alternatively, you can keep up to date with informative articles about steel shot on the 'steel shot updates' section of the William Powell Sporting website, just visit, williampowellssporting.co.uk/steel_shot_updates for more information.

Sign up

If you would like to receive more information about steel shot, the restrictions on lead shot and the effects it will have on your gun and the shooting industry, please sign up to our newsletter by scanning the QR code on the right (simply scan it using the photo app on your phone).



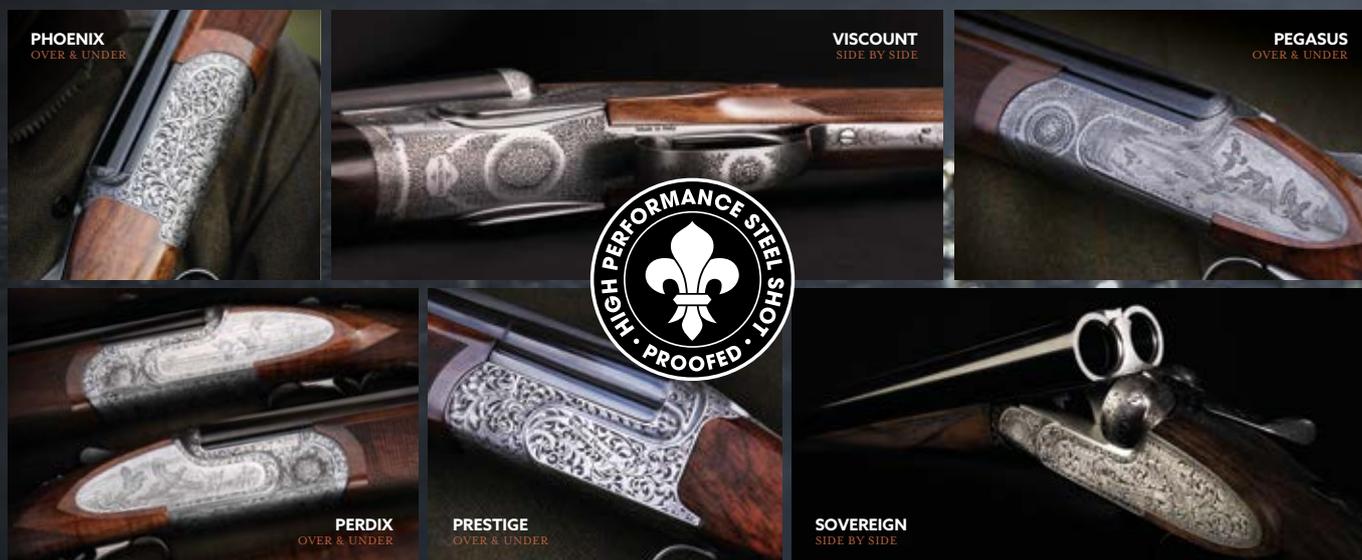
Advice

If you would like to discuss any of these points further, please come and talk to us in our Gunroom at Carrs House in Banbury or call us on **01295 701701**.

We would be very pleased to help you.

New Gun Alternatives

William Powell have been at the forefront of shooting improvements for a very long time and realising that rightly or wrongly lead was on the way out, we started looking at how this might affect many of our customers over four years ago. We worked with Rizzini, the maker of our over and under guns on building two new models of side by side guns which are suitable for High Performance steel shot (as well as lead, Bismuth and Tungsten Matrix). These are the Sovereign and the Viscount models. These are exact copies of English side by side shotguns, at a fraction of the price. These guns are available in single or pairs, 12 bore, 16 bore or 20 bores, made to measure or off-the-shelf. Please look at our Gunroom website being williampowell.com/gunroom for further details.



WILLIAM POWELL
since 1802

William Powell, Carrs House, Tramway, Banbury, Oxfordshire, OX16 5TD
Tel: 01295 701701 | Email: gunroom@williampowell.com
williampowell.com/gunroom