



The .450 Rigby Magnum Rimless:- A Look At The Cartridge And A Rifle

By Charlie Haley

This cartridge has an old-style name to it, and without closely examining its designation one may be forgiven for looking at the title and thinking it concerns a classic caliber from a bygone era. In actual fact it can be considered as a blend of the old with the new, a modern development but with roots which go back many years. With this in mind, I'll give a brief overview of this caliber's origins and development without the customary preface of 'for those readers who have been living as a hermit in a remote cave for the past 50 years...', as this cartridge is by no means well known, even among the professional hunting fraternity of this part of the world. At this stage, you may be thinking 'Do we *really* need another .450 caliber big game round???' There are indeed quite a plethora of them around now, some in standard form while others are wildcats, and it seems there are more and more big game rounds for fewer and fewer hunting opportunities. Such things have never really been governed by need, though, more by what people desire, but this new round does make sense from Rigby's perspective. John Rigby & Co. has been around in one form or another for a great many years – John Rigby started business in Dublin in the year 1735, opening in St. James's Street in London in 1867. Always regarded as one of the foremost British gunmakers, Rigby's were the developers of the very first and original .450 Nitro-Express in 1898. Loaded with a 480 grain jacketed bullet and the then new and revolutionary smokeless nitro propellant (in the form of Cordite), this is the cartridge which you may well have thought of when looking at the title of this article. This cartridge took the big game hunting world by storm, producing hitherto undreamed-of velocities and penetration from what, up until then, was regarded as a smallbore. At the time, the only suitable equivalents were the old black powder 8 and 10 bores, and the .450 Nitro Express soon became the standard by which all others were judged. Even the modern .458 is an attempt to duplicate the ballistics of this fine round in a more efficient, shorter and bolt-action friendly cartridge. Designed with a rim for use in doubles and single-shot rifles, the .450 Nitro-Express was followed by the .416 Rigby, a highly regarded caliber of old which is now enjoying renewed popularity. The .416 Rigby is a rimless case, designed for the splendid Rigby Mauser bolt-actions, and although designed and introduced in 1911, this cartridge is of modern appearance (more on this later).

Let us now skip the intervening years and go to 1993, when Paul Roberts (then owner of John Rigby & Co), was on an elephant hunt in the Zambezi Valley with Zimbabwean PH Joe Wright. Both were armed with .416 Rigby rifles, and an elephant was on the menu. A suitable elephant was located, and was duly given a lung shot with one of the .416's. However, said elephant went a considerable distance further than was expected after receipt of this shot, and more were required before the elephant in question did the decent thing and stopped trying to run off. Both men were somewhat disappointed with this performance, and when the inevitable post-hunt discussion took place both felt that a bit of extra bullet weight and caliber would not have gone amiss. Paul Roberts consequently returned to the UK and conceived of a new cartridge, the .416 case necked up to .458 calibre. This made a lot of sense as far as John Rigby & Co. went, as they were currently making .416 Rigby bolt-actioned rifles. Necking up this already existent case would not introduce any huge manufacturing expenses or

complexities, and should prove even more effective than the greatly-admired .416, so in 1994 the 1911-designed .416 Rigby cartridge was necked up to receive the 480 grain bullet of the 1898 .450 Nitro-Express, sending said bullet on its way at a velocity listed at 2 378 fps (from a proof barrel of 25.5 inches). This gives us a recently developed cartridge which is nonetheless of venerable origins. This new caliber was duly christened the .450 Rigby Magnum Rimless.

As a cartridge, the new .450 Magnum Rimless shares many of the advantages and disadvantages of its .416 parent. Of impressive and formidable appearance, its huge case makes possible the desired 2 300 – 2 400 fps velocity at very moderate pressures. Unfortunately, this large case is also somewhat inefficient with modern powders, being of greater than necessary case capacity, and also necessitates the use of a magnum length action and non-standard magazine width to accommodate it. Large quantities of powder are required, and the hottest of magnum primers are recommended. Any rifle designed for the .416 Rigby would be relatively simple to convert, but the .416 Rigby is of distinctly non-standard dimensions, so any rifle designed for more readily available calibers may present a lot of unanticipated problems in conversion. The .450 Rigby Magnum is really a 'proprietary' caliber, designed and



After 10 shots the recoil caused a small piece of the stock to break off.

marketed by (and generally only available from) a specific firm or gunmaker – a bit like the Weatherby range of calibers.

Speaking of the Weatherbys, the large .378 and .460 Weatherby big game cartridges are very close to the original .416 Rigby in dimensions, being basically the .416 Rigby case with a belt and necked to the appropriate caliber, with some minor changes to the shoulder shape. Put another way, the .450 Rigby Magnum could be regarded as a beltless .460 Weatherby, loaded to more sensible velocities and pressures. Although in a way reverting to a 1911-era cartridge, the .450 Rigby should be regarded as the more advanced and 'modern' of the case designs. The belt on a belted case is really for headspacing only, and on any

cartridge with a reasonable shoulder the belt is increasingly being recognized as unnecessary and superfluous. Contrary to popular belief, the belt provides no strengthening reinforcement to the case head, and it seems it was mainly put in place for the perception of the buying public in America. They wanted MAGNUMS, but would not believe any case without a belt was worthy of the term. Belt = Magnum, and that was that!

Given the large case capacity, something I am at a loss to understand is why the new .450 Rigby Magnum is loaded with 480 grain bullets. That huge case with modern propellants is quite capable of sending the standard 500 grain bullets to at least 2400 fps – the Weatherby manages 2700 fps after all! Maybe it was a nostalgic hearkening back to the very first .450 Rigby Nitro-Express with its 480 grain bullet. Perhaps it was the recognition that the 480 grain bullet is still adequate while providing somewhat less recoil than heavier projectiles. Nonetheless, the perception among most professionals is that while the 480 grain .458" bullet is OK, the 500 grain is better, and there are a great many excellent 500 grain .458" bullets to choose from. Having said that, the new .450 Rigby Magnum was designed to fire the 480 grain .458" Woodleigh bullets, and the Woodleighs are among the best there is.

So much for the caliber – what of the rifle? My first reaction upon examining it was to think:- "This is a *seriously* nice rifle!" It had all the

features which make lovers of classic big-game bolt actions drool, like an absolutely gorgeous piece of walnut for the stock – that was an immediate eye-popper. Of classic style, the stock had ample coverage of nicely done hand chequering and was fitted with a high grade recoil pad, which was rounded off at the heel. This is a seldom seen but nonetheless desirable custom feature, as it prevents the edge of the recoil pad catching on the shirt when mounted to the shoulder in a hurry. The grip cap was another high grade and very classy accessory, being made of steel and tastefully colour case hardened, and furthermore having a trap plate which contained a spare foresight. As pleasing as the stock may be to the eye, it isn't much good if it doesn't fit the firer properly. I'm pleased to report that the stock fitted me perfectly, and is also very well designed for controlling recoil. The comb was of good width, and had minimal drop – this keeps the recoil more or less in a straight line, and avoids excessive muzzle lift upon firing (not to mention excessive face battering – I have had some unhappy experiences firing rifles with skinny combs and bags of drop at the heel!) The grip and fore-end both had a chunky, substantial feel to them, which is also needed when controlling substantial recoil. An added custom touch was a gold plated oval set underneath the stock for the owners initials to be engraved upon – this was a feature seen on high grade British rifles and shotguns many years ago, but is seldom encountered now.

The action is one to bring tears of joy to the eyes of any lover of classic big-game rifles. It is an honest to goodness Model '98 Magnum Mauser action, of current commercial manufacture and of single square bridge design! I don't know where this action was made, but it's exactly like the original Rigby Magnum Mauser actions of yesteryear in design and appearance. It's good to know that such things are still available. The magazine box is extended a tad from the base in order to fit a useful four rounds of ammunition – this is pretty good, considering the largest Weatherbys fit two rounds of similar sized ammunition in their magazine boxes. A further nice touch is that the extended magazine floorplate is rounded off, to make it comfortable for the user to carry. The firm's name and the rifle's caliber is highlighted in gold on the base of the floorplate, though, so I don't know if you'd necessarily want to put your sweaty palms anywhere *near* this tastefully and expensively inscribed portion. The safety catch is pure M-98 Mauser, being a rotating flag-type design which locks firing pin and bolt handle, with an intermediate position permitting safe loading and unloading. The 'safe' and 'fire' positions are tastefully highlighted in gold, no doubt for your edification should you ever be in any doubt as to which way round is which. (Actually, that probably sounds a bit sarcastic, but us grizzled, hoary and no doubt hairy gun-writers need to remember that there are a whole bunch of folks out there who like their shooting and are interested in guns, but lack practical hands-on experience about things we take for granted – like which way a Mauser '98 safety works). It certainly looks good, and in this litigious age it should be very spectacular to demonstrate in a court of law should one ever be daft enough to shoot anyone by accident... not that I can really imagine anyone well-struck by a .450 Rigby Magnum Rimless bullet ever standing in a court of law to press charges – or standing anywhere at all.....



After three shots the magazine floor plate started springing open on every shot.

The barrel is a visually pleasing, well-balanced and practical length of 24 inches, enough to extract full ballistic potential without being unwieldy. The sights mounted thereupon are very tasteful, absolutely traditional and extremely practical. The foresight is a white bead, which can be slid forward out of its housing if desired (remember the spare in the grip cap), and the rear is a wide angle 'V', fixed on a very well executed quarter rib and with the almost mandatory two flip-up leaves for longer range. They are not necessarily as redundant as one might think, though – if playing with other bullet weights and velocities when reloading they could come in very useful, particularly with heavier

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bullets which tend to shoot above the line of sight. The underside of the barrel ahead of the fore-end provides an anchor-point for the foremost sling swivel, which is another visually appealing point with a practical aspect to it. The sling swivel, when mounted on the fore-end of the stock, often mashes the forefinger of the weak hand under recoil. It is out of the way on the barrel, and unlikely to damage one. Overall weight of this rifle comes in at just over 10 pounds, about right as a balance between portability and shootability (that is, the ability to touch off a round combined with a fair chance of surviving the recoil). Maybe a touch more shootable than portable, though – this rifle would be a fair weight to carry for any extended period of time.

This rifle, all in all, simply reeks of quality and looks like what it is – an extremely expensive, virtually semi-custom product with all the features any discriminating user could desire. As my first reaction goes, it's a *seriously* nice rifle – almost *too* nice, in fact... I have carried a heavy rifle a fair number of miles in Africa, and if equipped with a Rigby such as the rifle described I have absolutely no doubt that my thoughts would constantly be focused upon not scratching, denting, rusting or otherwise sully the immaculate finish and gold inlays of this very expensive piece. There are other considerations which should be occupying the mind in dangerous game territory. In other words, it is a rifle for the discriminating (and wealthy) hunter, and not really for heavy, constant use in adverse conditions. Perhaps the finish would survive rain, mud, blood, sweat and tears, but I would cry a LOT inside should any of the forgoing befall such a fine example of the gunmakers art... There again, I'm an impecunious pleb, and as such rifles like this are not designed nor built with the likes of me in mind.

Now for the proof of the pudding, which is in the shooting. I was gratified to note that the sights were spot-on for me at 50 yards, which is a very practical range for this rifle to be zeroed. It will thus hit very close to or right on the point of aim at all practical ranges, and only start shooting noticeably low at distances which one has no business shooting at dangerous game with open sights. No attempt has been made to drill and tap the action for a 'scope sight, which makes sense – this is a close range, immensely powerful rifle for shooting the largest game on the planet at relatively close range, and the sights provided are more than adequate for that. It makes no pretence at being an all-round rifle, and nor should it. I have no doubt that a good gunsmith could install scope mounts, but it seems somewhat sacrilegious to do so. Recoil was quite manageable – one was in no doubt as to when the rifle went off, but there were no painful surprises as long as one held the rifle properly. Rapid fire drills were simple, and the rifle fed and fired well. The cut-out portion on the left part of the action was appreciated during rapid reloads (which no-one practices enough...). It may seem unnecessary, being originally designed for stripper clips on the military Mauser, but that cut-out sure helps the thumb to load those rounds in a hurry. All was fine, until a certain problem manifested itself. The magazine floorplate started coming adrift

when fired, and after a few rounds it started doing it after every shot. This is embarrassing and inconvenient at best – one's contemporaries tend to laugh at one in an ill-mannered fashion, and one's ammunition tends to get dirty after being dumped on the ground. At worst, this characteristic can get you killed.

This problem is actually extremely common in heavy rifles with substantial recoil, and is more to do with bedding than with the angles of the floorplate catch. The barrel and action move to the rear under recoil, and unless substantially bedded these bits move without a reciprocal movement of the trigger guard and floorplate. This happens because the barrel and action are moving within the wooden stock, which they should not do. The secret here is to properly glass bed the stock so that it is reinforced, and the action and barrel cannot move within it. Plain ole wood just ain't going to do this, regardless of whether the stock has been cross-bolted or not. The Rigby had a very well executed cross-bolt, but it couldn't withstand the recoil all on its own. The supposition that the bedding was at fault was reinforced by the fact that a small piece of the stock behind the bolt handle broke off under recoil, and I could see what was going to happen next – if I continued firing, that lovely piece of walnut was going to split at the grip, so I discontinued there and then. As we speak, this rifle is being bedded. This is a disappointing characteristic to find in a heavy rifle of this price range, but if I were to buy *any* heavy rifle from *any* manufacturer, the first thing I would do is to glass bed the stock before firing even one round. I have fired a lot of heavies, and have seen many more fired. I've consequently seen split stocks from ALL manufacturers. Another problem was that the removable foresight kept trying to remove itself under recoil – it regularly slid forward, and whatever catch was supposed to keep it in place had sheared or otherwise broken. You might be using that spare foresight sooner than you expected!

As I said – disappointing. One would expect a rifle in this price and quality range not to do such a thing, but perhaps there is an object lesson here – no matter how much you pay for a heavy rifle, don't think this exempts you from testing, zeroing and otherwise troubleshooting your new prize. I've found few manufacturers truly appreciate the requirements of a heavy, dangerous game rifle, which are as follows:- 1) Reliability. 2) Reliability. 3) Reliability. Other desirable characteristics are good fit of the stock, smoothness of loading, good sights and fine balance, but all are subservient to the first three. A properly glass bedded stock will ensure one's rifle *continues* to operate properly, and also helps to avoid your stock separating into two pieces in your hands (which I've seen). It also helps avoid the floorplate disengaging itself at inconvenient moments.

This new Rigby rifle was an extremely visually appealing and expensive rifle, with the annoying characteristic of not working as a repeater. This should be easily fixed, but bear in mind what you are paying for – you are getting gorgeous wood, gold inlays, a magnum Mauser action, quarter rib, express sights and all the desirable goodies you could think of. For reliable operation, you may have some work ahead of you – from this or any other rifle of its type. 🐾



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