

ENERGY COMPARISONS

[ADVICE FOR ENQUIRY OFFICERS]

The Home Office guidance document '*Firearms Law: Guidance to the Police 2002*' provides a table at chapter 13.15 (page 77) to assist with judging the suitability of rifle cartridge chamberings for certain quarry. The common link between the various cartridges is the four energy/quarry species bandings. By necessity the examples given in the guidance are brief. Therefore the following table has been compiled to extend those examples. It is not intended to be a definitive list, but merely to provide simple and basic extension to the information at 13.15.

The examples are primarily taken from Barnes 11th edition of *Cartridges of the World*. Most current cartridges in America, Britain and Europe have been provided. Examples of a larger number of British obsolete cartridges have been included as they may still be seen from time to time. Obsolete American and European cartridges are not covered to the same extent. A number of military chamberings have also been included where they may have an application for live quarry.

The list contained in '*Firearms Law: Guidance to the Police 2002*' at page 77 should **not be used in an arbitrary way**; this document may be used more as an extended information source to assist with decision-making. The energy bandings used are taken from the maximum and minimum figures shown by Barnes. There will be many other loadings, both commercial and hand loaded which may or may not extend the examples given and in cases of confusion the applicant should be in a position to provide the relevant information. However, it should be noted that reloading data is NOT an indication of how a particular load will perform in any particular rifle. There are many variables which come into play and if there is any doubt, it may be appropriate for police licensing staff to ask the certificate holder to provide some evidence, which would assist in making a final decision.

It is also important to remember that there are a number of instances where the energy levels span two bandings i.e. either side of ballistic minima prescribed in law e.g. the Deer Acts. It is also important that the extended table below should be read in conjunction with the whole of Chapter 13, but in particular, paragraphs, 13.15, 13.17, 13.23, 13.25, 13.29, 13.32, 13.34 and 13.35.

It is critical to use Chapter 13 in '*Firearms Law: Guidance to the Police 2002*' as a guide for the 'initial reason' the firearm is sought. The "No's" in the chart on page 77 do not prohibit calibres from being utilised on smaller species. Where larger rifles are sought to shoot smaller species, once initial good reason has been demonstrated, secondary quarry species should be allowed. Such applications may be perceived to be outside the realms of Page 77's chart; however the primary concern for licensing staff should be whether the calibre is capable of achieving a humane dispatch of the quarry species concerned. Chapter 13.14 and 13.22 of '*Firearms Law: Guidance to the Police 2002*' explains about dealing with reasonable eventualities in detail.

Additionally, energy levels may need to be adequate for a particular legal requirement, remember that, in particular, bullet weight and velocity (in Scotland) and minimum calibre (in England & Wales) also need to be taken into account where deer are the intended quarry.

N.B. Care must be taken to make a correct correlation between the energy comparison chart below and that of stated energies listed in the chart in 'Firearms Law: Guidance to the Police 2002' at page 77

This document does not, at this time, form part of 'Firearms Law: Guidance to the Police 2002'

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
.17HMR	Y	N	N	N	
.17 MACH2	Y	N	N	N	
.17 MACH IV	Y	Y	N	N	
.17 Remington	Y	N	N	N	
.204 Ruger	N	Y	N	N	
.218 Bee	Y	N	N	N	
.22 Accelerator	N	Y	Y	N	(Smaller bullet held in a sabot, available in the following calibers - .30-30, .308 & .30-06)
.22 WMR (Winchester Magnum Rimfire)	Y	N	N	N	
.223 WSM (Winchester Short Magnum)	N	Y	Y	N	
.22 Hornet	Y	N	N	N	(5.6mmx36R)
.22 PPC	N	Y	N	N	
.22 WCF	Y	N	N	N	5.6mmx35R Vierling
.220 Swift	N	Y	Y	N	
.222 Remington	N	Y	N	N	.22 Varminter, .22 Watkins Original Swift
.222 Remington Magnum	N	Y	N	N	
.22-250 Remington	N	Y	N	N	
.223 Remington	N	Y	N	N	(5.56mmx45)
.223 WSSM	N	Y	Y	N	.223 Winchester Super Short Magnum
.225 Winchester	N	Y	N	N	
.22RF Long Rifle	Y	N	N	N	Included for comparison only
.240 Magnum	N	Y	Y	N	Also flanged and rimless. H&H .240 Apex
.240 Weatherby Magnum	N	N	Y	N	
.242 Rimless Nitro Express	N	Y	Y	N	
.243 Winchester	N	Y	Y	N	
.243 WSSM (Winchester Super Short Magnum)	N	Y	Y	N	
.244 Magnum (H&H)	N	N	Y	N	
.244 Remington	N	Y	Y	N	6mm Remington
.246 Purdey	N	Y	Y	N	
.250 Savage	N	Y	Y	N	(.250-3000)
.25-06 Remington	N	N	Y	N	
.25-20 Winchester	Y	N	N	N	(.25-20 WCF)
.25-35 Winchester	N	Y	N	N	(.25-35 WCF)
.255 Jeffrey Rook	Y	N	N	N	
.256 Gibbs Magnum	N	N	Y	N	
.256 Mannlicher	N	Y	Y	N	6.5mmx53 Mannlicher

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
.257 Roberts	N	Y	Y	N	(.257 Roberts +P)
.257 Weatherby Magnum	N	N	Y	N	
.260 Remington	N	N	Y	N	6.5 - 08 A-Square
.264 Winchester Magnum	N	N	Y	Y	
.270 Weatherby Magnum	N	N	Y	N	
.270 WSM (Winchester Short Magnum)	N	N	Y	N	
.270 Winchester	N	N	Y	N	
.275 Magnum (H&H)	N	N	Y	N	Belted & Flanged
.275 No 2 Magnum	N	Y	Y	N	7mm Rigby Magnum Flanged
.275 Rigby	N	N	Y	N	7mmx57
.276 Enfield	N	N	Y	N	
.280 Flanged	N	N	Y	N	.280 Lancaster
.280 Jeffrey	N	N	Y	N	.33/.280 Jeffrey
.280 Remington	N	N	Y	N	(7mm Express Remington)
.280 Ross	N	N	Y	N	.280 Rimless
.284 Winchester	N	N	Y	N	
.297/ .230 Morris Short	Y	N	N	N	Also Long, Extra Long & Lancaster Sporting
.297/ .250 Rook	Y	N	N	N	
.300 (.295) Rook	Y	N	N	N	
.300 Belted Rimless Magnum (H&H)	N	N	Y	Y	.30 Flanged Magnum (H&H Super .30)
.300 Holland & Holland Magnum	N	N	N	Y	(.300 H&H Super)
.300 Remington SA (Short Action) Ultra Magnum	N	N	N	Y	
.300 Savage	N	Y	Y	N	
.300 Sherwood	Y	N	N	N	
.300 Weatherby Magnum	N	N	N	Y	
.300 Winchester Magnum	N	N	N	Y	
.300 WSM (Winchester Short Magnum)	N	N	N	Y	
.30 Carbine	N	Y	N	N	.30 M1 Carbine
.30-06 Springfield	N	N	Y	Y	7.62mmx63 & .30 Government M'06
.303 British	N	N	Y	N	
.303 Magnum	N	N	N	Y	
.30-30 Winchester	N	Y	Y	N	.30-30 WCF, .30 Winchester, 7.62mmx51R
.30-378 Weatherby	N	N	N	Y	
.30-40 Krag	N	Y	Y	N	.30 Army
.307 Winchester	N	N	Y	N	
.308 Winchester	N	N	Y	N	7.62x51mm NATO
.308 Norma Magnum	N	N	N	Y	
.30R Blaser	N	N	N	Y	
.310 Cadet	Y	N	N	N	.310 Greener
.318 Rimless Nitro Express	N	N	Y	N	.318 Westley Richards & .318 Accelerated Express
.32 WS (Winchester Special)	N	Y	Y	N	.32 WS

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
.32-20 Winchester	Y	Y	N	N	.32-20 WCF
.33 B.S.A.	N	N	N	Y	.33 Belted Rimless & .330 B.S.A.
.333 Jeffrey	N	N	N	Y	Flanged & Rimless
.338 Lapua Magnum	N	N	N	Y	8.58mmx71
.338 Remington Ultramag	N	N	N	Y	
.338 Winchester Magnum	N	N	N	Y	
.338-06 A-Square	N	N	N	Y	.338-06
.338-378 KT	N	N	N	Y	.338-378 Weatherby
.340 Weatherby Magnum	N	N	N	Y	
.348 Winchester	N	Y	Y	N	
.35 Remington	N	Y	Y	N	
.35 Whelen	N	N	Y	Y	
.350 No 2 Rigby	N	N	N	Y	.350 Rigby Magnum
.350 Remington Magnum	N	N	N	Y	
.356 Winchester	N	N	Y	N	
.357 S&W Magnum	Y	N	N	N	
.358 Winchester	N	N	Y	Y	
.358 Norma Magnum	N	N	N	Y	
.360 No. 5 Rook	Y	N	N	N	
.360 NE	N	N	N	Y	
.360 Nitro Express	N	N	N	Y	
.369 Nitro Express	N	N	N	Y	.369 Purdey Nitro Express
.375 Flanged Magnum	N	N	N	Y	.375 Belted Rimless Magnum, .375 H&H Magnum -(slight dimensional differences)
.375 Flanged Nitro Express (2 1/2")	N	N	Y	N	.370 Flanged
.375 Holland & Holland Magnum	N	N	Y	Y	.375 H&H Magnum
.375 Remington Ultra Magnum	N	N	N	Y	
.375 Rimless NE (2 1/4")	N	N	Y	N	9.5x57mm MS
.375 Weatherby Magnum	N	N	N	Y	
.375 Winchester	N	Y	Y	N	
.375/.303 Westley Richards	N	N	Y	N	.375/.303 Axite
.376 Steyr	N	N	N	Y	
.378 Weatherby Magnum	N	N	N	Y	
.38-40 Winchester	N	Y	N	N	.38-40 WCF
.38-55 Winchester	N	Y	N	N	.38-55 Ballard
.400 Jeffrey NE	N	N	N	Y	.450/.400 3"
.400 Holland & Holland	N	N	N	Y	
.400 Purdey (3") Light Express	N	N	Y	N	.400 Straight 3"
.400/.350 Rigby	N	N	N	Y	
.400/.360 NE (2 3/4")	N	N	Y	N	Westley Richards, Fraser, Evans & Purdey
.400/.375 Belted Nitro Express (H&H)	N	N	Y	N	
.404 Jeffrey	N	N	N	Y	.404 Rimless NE

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
.416 Remington Magnum	N	N	N	Y	
.416 Rigby	N	N	N	Y	
.416 Weatherby Magnum	N	N	N	Y	
.425 Westley Richards Magnum	N	N	N	Y	.425 Westley Richards Semi-rimmed Magnum
.44 Remington Magnum	Y	Y	N	N	
.444 Marlin	N	N	Y	N	
.44-40 Winchester	Y	N	N	N	.44 WCF, .44 Winchester
.450 3 1/4" Nitro Express	N	N	N	Y	
.450 Marlin	N	N	N	Y	
.450 No. 2 Nitro Express	N	N	N	Y	3 1/2 "
.450 Rigby	N	N	N	Y	
.45-70 Government	N	Y	Y	N	.45 Government, .45-70-330, .45-70-350, .45-70-405 & .45-70-500
.458 Winchester Magnum	N	N	N	Y	
.458 LOTT	N	N	N	Y	
.465 Holland & Holland	N	N	N	Y	
.470 Nitro Express	N	N	N	Y	.470 NE
.475 3 1/4" Nitro Express	N	N	N	Y	
.475 No. 2 Nitro Express	N	N	N	Y	.475 No. 2 Jeffery
.476 Nitro Express	N	N	N	Y	.476 Westley Richards
.50 Browning Machine Gun	N	N	N	Y	.50 BMG
.500 Express (BPE) Nitro-for-Black	N	N	N	Y	
.500 Jeffrey	N	N	N	Y	
.500 Nitro Express (3" & 3 1/4")	N	N	N	Y	
.500/.450 3 1/4" Magnum Express (BPE)	N	N	Y	N	
.500/.450 No. 1 Carbine	N	N	Y	N	.500/.450 No. 1 Express & Musket. .500/.450 No. 2 Musket
.500/.465 Nitro Express	N	N	N	Y	
.505 Gibbs	N	N	N	Y	.505 Rimless
.577 Nitro Express (2 3/4", 3" & 3 1/4")	N	N	N	Y	
.577 Snider (14.7mm)	N	N	Y	N	
.577/.450 Martini Henry	N	N	Y	N	
.577/.500 3 1/8" Nitro Express	N	N	Y	N	
.577/.500 No. 2 BP Express	N	N	Y	N	
.600 Nitro Express (2 8/10" & 3")	N	N	N	Y	
.700 Nitro Express	N	N	N	Y	
5.6mmx57RWS	N	Y	N	N	5.6mmx57R RWS
5.6mmx61 Vom Hofe Super Express	N	Y	Y	N	5.6mmx61R Vom Hofe Super Express
6.5mm-08 A-Square	N	N	Y	N	.260 Remington
6.5mmx284 Norma	N	N	Y	Y	
6.5mmx52 Italian (Mannlicher-Carcano)	N	Y	Y	N	
6.5mmx53R Mannlicher (Dutch & Romanian)	N	Y	Y	N	.256mm Mannlicher

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
6.5mmx54 Mannlicher-Schoenauer	N	Y	Y	N	
6.5mmx55 Swedish Mauser	N	Y	Y	N	
6.5mmx57 Mauser	N	Y	Y	N	6.5mmx57R RWS
6.5mmx65	N	N	Y	Y	6.5mmx65R RWS
6mm Norma BR	N	Y	Y	N	
6mm PPC	N	Y	Y	N	
6mm Remington	N	Y	Y	N	.244 Remington
7.35mm Italian Carcano	N	Y	Y	N	
7.62mmx39	N	N	Y	N	7.62mmx39 Soviet
7.62mmx51	N	N	Y	N	.308 Winchester
7.5mmx54 French MAS	N	N	Y	N	
7.5mmx55 Swiss Schmidt-Rubin	N	N	Y	N	
7.62mmx53R Russian	N	N	Y	N	7.62mmx54R Russian
7.62mmx58 Japanese Arisaka	N	N	Y	N	
7.65mmx53mm Mauser (Argentine)	N	N	Y	N	
7-30 Waters	N	Y	Y	N	
7mm Express Remington	N	N	Y	N	.280 Remington
7mm Mauser	N	N	Y	N	7mmx57
7mm Remington Magnum	N	N	Y	Y	
7mm Remington Magnum SA (Short Action)	N	N	N	Y	
7mm Remington Ultra Magnum	N	N	N	Y	
7mm Shooting Times Westerner	N	N	N	Y	7mm STW
7mm Weatherby Magnum	N	N	Y	Y	
7mm WSM (Winchester Short Magnum)	N	N	N	Y	
7mm-08 Remington	N	Y	Y	N	
7mmx57 Mauser	N	Y	Y	N	
7mmx64 Brenneke	N	N	Y	N	
7mmx66 Vom Hofe Super Express	N	N	N	Y	
8mm German Mauser	N	N	Y	N	7.9mmx57J & 79x57JS
8mm Mauser	N	N	Y	N	7.92mm Mauser, 8mmx57J, 8mmx57L, 8mmx57S & 8x57JS
8mm Remington Magnum	N	N	N	Y	
8mmx50R Austrian Mannlicher	N	N	Y	N	
8mmx50R Siamese Mauser	N	N	Y	N	
8mmx52R Siamese	N	N	Y	N	
8mmx57J Mauser	N	N	Y	Y	
8mmx57RJS Mauser	N	N	Y	Y	
8mmx58R Danish Krag	N	N	Y	Y	
8mm x60 Mauser	N	N	Y	N	
8mmx63 Swedish	N	N	N	Y	
8mmx64J & S Brenneke	N	N	Y	Y	8mmx65RJ & S Brenneke
8mmx68S RWS	N	N	N	Y	
8mmx69J & S Mauser & RWS	N	N	Y	Y	8mmx60RJ & S Mauser & RWS

Cartridge	Muzzle energy (ft/lbs)				Alternative name(s)
	>12 - 900	600 - 2100	1600 - 3000	>3000	
9mmx57 Mauser	N	N	Y	N	
9.3mmx62 Mauser	N	N	N	Y	
9.3mmx64 Brenneke	N	N	N	Y	
9.3mmx66 SAKO	N	N	N	Y	
9.3mmx74R	N	N	N	Y	
10.75mmx73	N	N	N	Y	.404 Rimless NE, .404 Jeffrey

BASC wishes to thank Michael Sykes and Lancashire Constabulary Firearms Licensing Department for providing the majority of this documents content. BASC has designed this document as an aide to the shooting community in the UK and in particular, police licensing staff. The data contained in this document, along with the original chart in Home Office guidance is not law or arbitrary in any way and it must be remembered that every case must be decided on its individual merits.

Additional information can be found in BASC's "**Rifles, Calibres and Land - Advice for Enquiry Officers**" contained on the BASC Firearms Department web pages.

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