

Brown Bess Muskets

in New Zealand, used by Maori, Military, Police and Settlers
by John Osborne AA,ACRA,NCGM,DTT,PhD,FSG

Brown Bess was by far the most famous British Musket. According to the Hythe School of Musketry it was first issued in 1700 and was used by Marlborough at the Battle of Blenheim in 1704, by Wellington at Waterloo in 1815 and was still going strong in the Crimean War in the 1850s. Originally flintlock, its firing mechanism was later changed to percussion from the mid / late 1830s. Brown Bess was issued to the Royal Marines and sailors who accompanied Captain James Cook on his voyages of discovery including New Zealand from 1768.



c1759 Marine and Militia pattern Brown Bess, a lighter, shorter barrel version (36"-42" barrel lengths) Type used by the Marines who accompanied Captain Cook on his voyages of discovery from 1768. Note the four ramrod pipes and the early type goose neck cock with peg and groove top jaw location. This cock was replaced with the slotted top jaw in the 1770s by BEIC and adopted by the British Military later. Refer close up image of lock below. Tower dated some of their locks but it was rarely done because many of the locks in store at the Tower were not fitted till years after they were made. The early 1700 to the 1750s Brown Bess's started off with 48" barrels (Long Land Pattern), as black powder was improved the barrels were reduced to 42"(Short Land Pattern) from the 1750s, then 39" from the 1770s on. The early Bess's had very large curved banana shaped locks until the 1759 pattern with a less curved lock which was about 7" long. Brown Bess was the name given to all British Smooth bored Muskets of 11 bore .75" cal flintlock and percussion from 1700 till replaced by the rifled muskets (still with a 39" barrel) in the 1850s. All parts were hand made, most were not interchangeable from one musket to another. A simple triangular socket bayonet fitted over barrel.

During the Napoleonic Wars 1799-1815 the British Government issued some anti-invasion instructions and the British people were told that "Any degree of precision with the common musket (Brown Bess) is not to be reckoned on at a greater distance than from 50 to 60 paces".

Brown Bess was the principle arm that caused such havoc in New Zealand during the intertribal Maori Wars known as the "Musket Wars" from 1819. New Zealand was then under the theoretical jurisdiction and administrative control (since 1788) of the Governor of New South Wales, Australia.

By 1829 every one of approximately 3,000 Maori warriors in the Bay of Islands area owned at least one musket, some fitted with bayonets. New South Wales Customs records reveal that over 8,000 muskets, 72,000 pounds of gun powder, 42,000 flints, as well as shot and balls, flasks and belts were imported into New Zealand from Australia during the period 1st January 1830 to 8th December 1831. The trading rate (about £2 value) for muskets mostly ex Napoleonic Wars India Pattern (over one and a half million were made) during that period varied between 8 to 25 pigs or 120 to 200 bags of potatoes for one musket and one good size pig for 30 musket balls. The Napoleonic War Surplus India Pattern Brown Bess was excellent value for money, British and American Sealers and Whalers did direct "Deals" with Maori.

This situation led Missionary George Clarke to write: "The great and grand cry of the natives is who will supply us with muskets, lead and powder. For a musket a New Zealander will make great sacrifices, he will labour hard for many months to obtain his musket, in fact it is his idol, he values it above all he possesses. He will not only part with his slaves for one but even prostitute his children to a diseased sailor for one of these instruments of destruction".



c1770 /1796 British Military India Pattern Brown Bess with a 39" barrel first introduced by BEIC from c1770 this one is the British Military version officially adopted c1796 with three ramrod pipes. Originally fitted with a goose neck cock but many of them snapped off through the neck and were replaced with a reinforced ring neck cock as shown. The triangular socket bayonet was held in place by a spring lever pressing against the foresight. These muskets can be found cut down, and many were later converted to percussion



From c1759 Marine and Militia Pattern Brown Bess with goose neck cock From c1796 BM India Pattern Brown Bess with ring neck reinforced cock



George III crown engraved on lock plate Proof marks stamped on barrel Later type George III crown proof marks stamped on barrel

By 1835 the North Island of New Zealand was saturated with firearms; in some areas each boy had two or three and men, ten firearms. Armies of up to 4,000 warriors carrying muskets attacked enemy tribes, making New Zealand a lawless country, frightening and formidable to the would be settlers.

Eventually with such loss of life and lawlessness Maori petitioned the British Crown for protection which was granted with the signing of the Treaty of Waitangi in 1840 and New Zealand became a British Crown Colony in its own right.



Left image; from a contemporary woodcut, Maori warriors armed with Brown Bess's dance the Haka (challenge) before attacking enemy tribes. Note leather flap covered wooden cartridge boxes on waist belts. In the distance a large waka taua (war canoe) arrives with another Maori war party. Centre image; Paramount Maori Chief Hone Heke armed with Brown Bess, with his wife Hariata and the Great Chief Te Ruki Kawiti, designer of Ruapekapeka Pa (Maori Fort). Heke and Kawiti were the leaders of the rebellion in the north, and opposed British Colonisation of New Zealand Right image; Paramount Maori Chief Tamati Waka Nene with his Brown Bess, major supporter of British Colonisation of New Zealand and with his army fought on the side of the British. Nene did more than any other Maori to promote colonisation and to establish the Queens authority.

On the 8 May 1845 the British armed with Brown Bess's attacked Heke's Pa (fort) at Puketutu, just as the British force was about to attack the Pa Kawiti's force also armed with Brown Bess's who had been hiding in the bush attacked the British storming party from the rear. The British fought Kawiti back only to be attacked by Heke's party from the Pa. As Heke's party withdrew back to the Pa Kawiti attacked again. The British had the upper hand in the fighting with Kawiti, however the British had lost a quarter of its number and was forced to withdraw. Puketutu is an example of brilliant improvisation of established Maori military tactics by Kawiti and Heke.

The British learned some hard lessons and not to underestimate the fighting skills of Maori. In the attack on Kawiti's Pa "Ruapekapeka" in the Bay of Islands, in December 1845 – January 1846 the British ordnance used comprised three 32-Pounders, one 18 – pounder, two 12 – pounders and one 6 – pounder smoothbore cannon, four 5.5" (24 pounder) Mann's Mortars, two 4.4" (12 pounder) Coehorn Mortars, and two 6 pounder rocket tubes with Congreve's shell and incendiary rockets. Approximately 1,500 Government troops included a Rocket Brigade, Colonial Artillery, Royal Marines, officers and seamen from the four British warships (HMS Castor, North Star, Racehorse, Calliope) and officers and seamen from the Honourable British East India Company's warship "Elphinstone", soldiers from the 58th and 99th Regiments and several hundred well-armed Maori Warriors under Waka Nene. British Military and BEIC flintlock and percussion Brown Bess Muskets were being employed. The battle started on the 31st December 1845 with day after day of bombardment but it was not until the 10th January 1846 that two small breaches were made in the strongly constructed out-walls of the Pa, forcing the Rebels to evacuate. So impressed were the British of the design of the Pa with its interconnecting trenches and shell proof underground caverns like a bats nest (Ruapekapeka) that a model of the Pa was exhibited in the Great Exhibition in London in 1851. After the Battle at Ruapekapeka Heke and Kawiti told Nene they had had enough fighting and to tell the British the war was over in the North

Heke and Kawiti were only defeated once at the Battle of Te Ahu Ahu in open warfare on the 12 June 1845, by Waka Nene and his army with no help from the British.

Other wars continued in the Wellington and Hutt District 1846 and the Wanganui District in 1847

Brown Bess was the first arm taught by the Hythe School of Musketry. Training with Brown Bess was extremely rudimentary. The Target for recruits was eight feet in diameter, at a distance of 30 yards, then 50 yards and for trained soldiers 100 yards. Shooting beyond this range was considered rather more from an interest point of view than for any military reason. Few musketeers could hit a house at 100 yards. With such inaccuracy, refinements in sighting were useless. A small knob near the muzzle for locating the socket bayonet also acted as a foresight to give the rough general direction. There was no back-sight until the 1830s and it was difficult to judge elevation. The Platoon Commander had to see that the barrels were not too high and not too low or the bullets could roll out.



Last of the BEIC flintlock muskets c1833 converted to percussion from 1837 a very well made Brown Bess with a new type lock, quickly removable barrel attached by three steel wedges and tang screw, a rear vee sight added to assist musketeer with elevation, extended brass trigger guard gave added grip and control, and a bayonet retaining spring catch under the barrel on the end of the forewood. Refer to images below for lock and proof marks. The Rev. Alexander John Forsyth a Scottish clergyman patented his percussion system in 1807. London gunsmith Joseph Egg claimed to be the inventor of the copper cap, by applying Forsyth's detonating mixture into a copper cap about 1818, however it was not until the early 1830s before the copper percussion cap was in general use.



The new design BEIC percussion musket c1839 with a new extended triggerguard, new lock assembly, continuing with 39" barrel secured with three wedges rear ramrod pipe moved forward, rear vee sight retained. New design socket bayonet retaining spring clip fitted. A best quality, innovative and very robust musket which set the world wide standard and the finest the British Gunsmith could produce. Refer image below for lock and proof marks.

The British East India Company (BEIC) was granted a Royal Charter by Queen Elizabeth 1 on 31 December 1600, the company transformed from a commercial trading venture to one which virtually ruled India as it acquired auxiliary governmental and military functions.

BEIC became the biggest and richest company in the world and was able to afford the best arms available incorporating the latest British arms technology, equally as good and often superior to British Military arms.

The passing of the “Tea Act” in 1773 gave the BEIC Company greater autonomy in running its trade in America but the BEIC Companies monopolistic activities triggered the Boston Tea Party in the Province of Massachusetts Bay, one of the major events leading up to the American War for Independence.

The Indian rebellion of 1857 brought about the end of the British East Indian Company’s rule in India, and led to direct rule by the British Government (British Raj). The BEIC Military became part of the British forces in 1858



c1833? BEIC flintlock musket converted to percussion from c1837?

c1838 BEIC new pattern percussion Brown Bess Musket

In 1808 BEIC adopted the Rampant Lion supporting the Crown as their logo which is engraved on these locks. In times of urgent need the British Military bought BEIC muskets. BEIC muskets will be found with British Military issue marks. Note rear vee sights now fitted to these muskets.



BEIC Rampant lion holding William IV crown Proof marks on barrel

BEIC Rampant Lion holding Victorian crown proof marks on barrel

No two engravings are the same as they were done free hand and each engraver had their own style. With the demand by the BEIC and being able to afford to have the best design and quality of arms in the world British Gunsmiths were constantly improving on military arms design, manufacturing techniques and materials which included proof testing of all barrels and final inspection to make sure they came up to or better than British Military standards.

King William I “The Lion” (1143 – 1214) adopted the “Lion Rampant” i.e. rearing up with three paws outstretched. This became the Scottish Royal Coat of Arms. Legend has it that the inspiration came from King Williams own Lion that he supposedly kept in Edinburgh Castle



c1837 Originally referred to as the Standard British Military Victorian Flintlock Musket incorporating some of the BEIC flintlock musket design changes, still with a 39" barrel, Converted to percussion and commonly referred to as the 1838 pattern percussion musket. All new parts awaiting assembly were modified and made up into a new percussion musket known as the 1839 pattern. Barrel secured to stock with three wedges, rear sight added, rear ramrod pipe moved forward, bayonet retaining spring catch fitted to end of fore-wood. New redesigned lock assembly with new shape hammer copied from BEIC. Stock shape similar to BEIC. Refer image below for lock and barrel proof markings.



c1842 Pattern. New British Military design percussion musket incorporating all the best design features available. New Lock assembly, this one fitted with a pattern 1853 hammer with straight cocking ear. Refer image below for lock and proof markings. Also rifled for use by the Royal Marines.



Pattern 1838/9 percussion musket made up from P1837 flintlock parts

Pattern 1842 new design percussion musket fitted with P1853 hammer

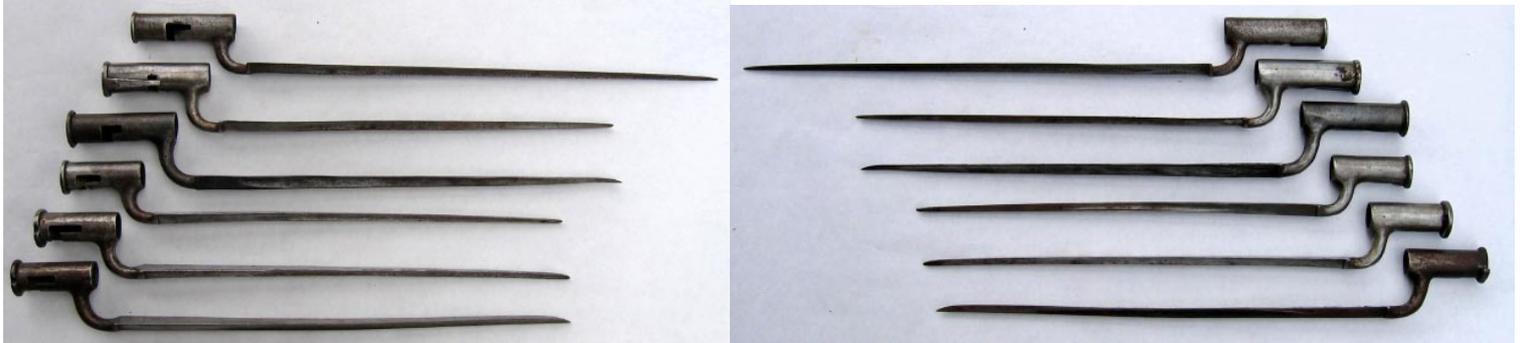


P1839 Victoria crown engraved on lock plate proof marks on barrel P1842 Victoria crown engraved on lock plate proof marks on barrel

The P1842 was also made in a rifled version and issued to the Royal Marines. It was similar to the P1842 smooth bore musket except for the rifling of three or four grooves and a caliber of .748" instead of .753". The barrel was fitted with a foresight and a leaf and ladder rear sight graduated to 1000 yards. In 1851 the New Zealand Colonial Government purchased 500, a mixture of Pattern 1839 and 1842 percussion smooth bore and P1842 rifle muskets and bayonets to replace some of their aging India Pattern flintlock muskets then in use by the Police and Militia Forces.

On 10 June 1858 over 600 flintlock and percussion smooth 11 bore muskets were given to the Auckland Provincial Police by the British 58th Regiment when they were reequipped with 25 bore .577" Enfield Rifled Muskets and short rifles. In 1865 over 600 percussion smooth bore muskets and thirteen Sea Service / P1842 rifled muskets were issued to friendly Maori (mostly from Hawkes Bay Province) who were assisting the New Zealand Colonial Forces with putting down the rebelling Maori during the land wars in the North Island 1860 – 72.

So strong was the influence of Brown Bess that even as late as 1885, British Military Volunteers got their efficiency grant if they did a set number of drills and fired 60 rounds in the direction of the target.



From top down in upper images and from left to right in lower image.

1. c1759-on, light weight and extra long 18" blade (to make up for the shorter barrel length), triangular, fullered blade, 3.75" socket. Socket flange butts against fore-wood end. Zig-zag slot in socket allows movement to butt against fore-end and to retain bayonet.
2. c1770 / 1796 BEIC / BM 15" blade, 4" socket marked with HEIC inside heart and Tower. Retained by flat leaf spring over foresight / knob.
3. c1833 / 1837 BEIC 16" blade, 4" socket, stamped OSBORN & GUNBY and proof marks, locked in place by fore-end "C" spring catch over socket ring flange
4. c1838 BEIC for new percussion musket, 15.25" blade, 3" socket, stamped SH and proof marks, locked in place by shorter fore-end "C" spring catch, socket flange butts against fore-end brass cap.
5. c1838 / 1839 BM for converted flintlock musket, 16" blade, 3" socket, locked in place by spring dog catch through hole in flange. No 56 on flange face
6. c1842 BM for new percussion musket, 17" blade, 3" socket, locked in place by side spring dog catch against flange shoulder. Proof mark's on blade, issue marks C over 694 over PO on socket

Special thanks and acknowledgements to;

Osborne Arms Museum armsmuseum@xtra.co.nz for all images of arms

National Archives of New Zealand. - Colonial Government records, reports, returns of arms www.archives.govt.nz

Alexander Turnbull library www.natlib.govt.nz: for contemporary woodcut images

Mike Carrick; S. James Gooding article "Pellets, Tubes and Caps" www.manatarmsbooks.com

Bruce Cairnes www.hicketytip.tripod.com

Queen Elizabeth II New Zealand Army Memorial Museum, www.armymuseum.co.nz ;

Police Museum, Royal New Zealand Police College, www.police.govt.nz/service/museum

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