

NZART ID: 151, Arm Type: Rifle, Date of Draft: (V1) 12 March 2012, Compiled by: Phil Cregeen

Pattern: East India Company Percussion Musket Pattern A to F, Introduced in NZ 1845s, Withdrawn

Maker: Various contractors in London and Birmingham

Calibre: 0.760 in. (11 bore) Bore: Smooth, Barrel length: 39.0 in. OA Length: 55.0 in. Weight: 10 lb .

Type of Action: Muzzle Loader Percussion ignition Sights: fixed block rear sight.

Bayonet: 16 in triangular socket.



Pattern C Musket



Pattern E Musket



Pattern F Musket

These muskets are often incorrectly described as Pattern 1842 because of their similarity to the Ordnance Board Pattern 42 Musket. In fact with the introduction of percussion ignition to EIC muskets in 1840 the EIC had six successive patterns of musket A to F, starting with those converted from flintlock (A & B) through the old series percussion side lock (C & D) to new series side lock (E) with Hanoverian Bayonet catch and new design "Brunswick" style brass furniture and finally (F) with a new design bayonet catch. Patterns A B & D were made from stocks of old parts (D being a transition to E using parts made for C) and accounted for some 20,000 arms whereas patterns C E & F were new production and amounted to some 310,780.

Musket Pattern	Year + View Code	Lock Type	Breech	Bayonet catch	Furniture	Production
A	1840 C	Converted Flint	Braised Lump	3 motion zig-zag	As Flint Bakers Pattern	5,000
B	1840 D	Converted Flint	Braised Lump	3 motion zig-zag	ditto	5,000
C	1840 D 1841 E 1842 F	Old series Side lock	Plug Breech	2 motion slot and EIC spring	As flint Light Inf. Bakers	11,000 17,500 15,000
D	1842 F	Old series Side lock	Plug Breech	Same as C or E	Same as C or E	10,000
E	1843 G 1844 H 1845 K	New series Side lock	Welded Lump	Hanovarian catch	New with Brunswick type guard	22,000 18,700 20,000
F	1845 K 1846 L 1847 M 1848 N 1849 P 1850 Q 1851 Q	New series Side lock	Welded Lump	Pattern F catch	Same as E	20,000 40,000 60,000 40,000 20,000 16,300 10,280

Summary of EIC Percussion Muskets

The lump referred to in the Breech column of the above table is the lump that was attached to the barrel to hold the percussion nipple. A Plug Breech was one screwed into the end of the barrel with an integral lump. The Hanovarian catch was a spring catch that clipped over a rib around the base of the bayonet socket and was proved ineffective, whereas the Pattern F catch worked through a hole in the extended rim of the socket base.

These muskets share many common features: a 39 in. barrel of 11 bore (Cal .76 in.), side action lock, copper cap ignition, fixed sights, overall length 55 in. and weight of about 10 lb. They fixed a 16 in. triangular socket bayonet. They all fired the same ammunition and had similar ballistic characteristics to the Ordnance Pattern 42.

At the time that these muskets were in use the system of procurement (muskets only) was as now described. The three main Company Administrations in India, known as Presidencies, Bombay, Bengal and Madras, would indent for their small arms requirements in October and send the order home with the first returning ship arriving in the following spring. Col J G Bonner the Inspector of Military Stores would then assess the order, taking into account stores that were known to be in transit and recommend the final procurement order to the Court of Directors. Once approved Bonner had to negotiate prices, delivery dates, a programme for inspections with the gun makers and also organise space on outbound ships.

For each arm a pattern was held at the pattern room at the Military Store Warehouse and from this gun makers could take measurements to make their own "muster" (copy pattern), which was then approved by the Company Viewers. In simple terms the Company procured the major components, barrels, locks, ram rods, nipples, and bayonets from the Birmingham gun trade and these were then shipped by canal to London. The Company then issued the required quantities to London gun makers on a strict quota system, based on their workshop capacity and past record, for setting up. The setters up supplied stocks and small components themselves. At each stage of setting up the muskets were taken in batches to the Military Store Warehouse where they were inspected by the company viewers. The barrels were proofed twice,

once as a plain tube fitted with a temporary plug (16 drams and 11 bore ball) and again when finished (11 drams and 14.5 bore ball), at the London Proof House. Assembly and inspection for each musket would take about six weeks. Following final inspection the iron parts were coated with mutton suet to prevent rust and the muskets packed in special crates and loaded onboard ship. The cost of a Pattern F Musket in 1847 was 58 s 2 ½ d.

The main users of these muskets were EIC line infantry, British infantry regiments serving in India and some local Indian auxiliary corps.

In service these percussion muskets had an average point blank range (ball hitting the ground when fired horizontally from the shoulder) of 182 yds., using 4 ½ drams of powder and a ball of 0.68 in. A soldier had a 1 in 3 chance of hitting a man at 100 yds. and 1 in 13 at 200 yds. These figures are based on trials conducted in India.

Markings: The locks of these muskets are marked with the EIC crest of a rampant lion holding a crown and the barrel is marked with London private proof marks, together with inspection marks in the form of a letter C to Q (see table above) denoting the financial year of manufacture. On the underside of the barrel may be found the name of the barrel maker and/or the setter up, the lock makers name may be found inside the lock.



Flint lock converted to Percussion as Pat A & B



EIC ownership mark



Proof & View



Old Series Sidelock as Pat C & D



New Series Sidelock as Pat E & F

Use in New Zealand

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 EIC Flintlock and Percussion Muskets were being employed at this time, however so far no documentary evidence has been found to indicate which type of musket was used in New Zealand.

Acknowledgements: John Osborne, Bill Curtis

Reference: Small Arms of the East India Company 1600-1856 by DF Harding.

Article NZAHAA Gazette Dec 2012-East India Company Percussion Musket by Phil Cregeen