

Pattern: "Gun, Vickers .303 inch" or "Gun, Machine .303, Mark I*"; air cooled aircraft gun.

Introduced into NZ service : 1916. Withdrawn: c1920s

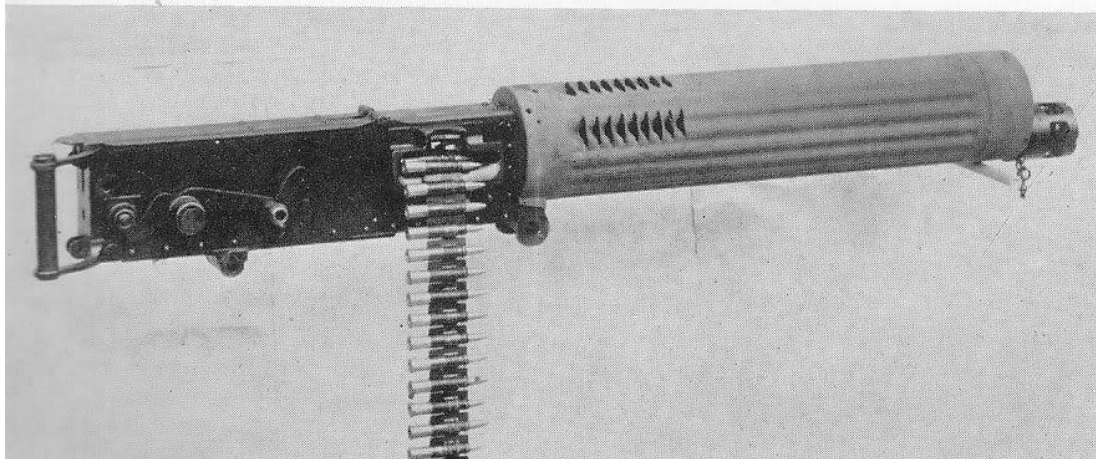
Makers: Vickers Ltd, Erith and Crayford Works, UK in WW I.

Calibre: .303", Bore: 6 groove RH twist 1 in 10", Barrel length: 28.4 in. OA Length: 41.0 in. Weight: about 22 Lb.

Type of Action: Short recoil with muzzle gas boost-full auto; Cyclic rate: 600 - 900 rpm;

Magazine: 200 to 500 fabric belt or disintegrating link. Sights: Various types of aircraft sight

As the air war developed in WW I and aircraft got faster it was soon realized that there was a need for a forward facing rapid firing machine gun to engage the enemy aircraft. This was first achieved by mounting a Vickers Mk I (NZAR 201) in the Vickers "Gun Bus" which was a pusher with the propeller mounted at the rear of the cockpit, however, the Vickers were soon replaced with lighter Lewis Guns. By March 1916 the problem of synchronizing a Vickers to fire through the propeller had been solved and the first Bristol Scout Type C fitted with an Mk I* Vickers was on its way to France. The Mk I* was initially a Mk I lightened by slotting the cooling water jacket to allow a flow of air, removing redundant parts such as rear sight and grips and fitting it with a synchronizer that allowed the gun to fire only when a propeller blade was not in line with the gun. A number of mechanical interrupters or synchronizers were tried but the final solution was hydraulic. On new aircraft guns the cyclic rate could be increased to 850-900 rounds per minute and included left or right hand feed, one hand cocking and loading and disintegrating belts. By 1918 Mk I* air cooled aircraft guns manufactured new accounted for a third of all Vickers MG production. In 1919 a Mk II version went into production with a slimmer 2.25" diameter air cooling jacket and cyclic rate of 750 RPM and during the 1920s and 30s Vickers further refined their air cooled aircraft guns resulting in Mk III and Mk V being adopted by the RAF, all based on the original Mk I design. They also developed the gas operated Vickers K or GO gun (NZAR 196) based on the Vickers Berthier. In the 1930s the RAF commenced replacing fixed Vickers guns with faster and lighter Browning machine guns.



Vickers Mk I* showing slotted water jacket and disintegrating link belt



Sopwith Triplane RNAS with its single .303" Vickers MMG



Sopwith Camel RFC / RNAS / RAF with its twin .303" Vickers MMG's



New Zealand Service

During WWI hundreds of New Zealanders joined the Royal Flying Corps (RFC) and Royal Naval Air Service (RNAS) after pilot training in New Zealand or by transferring from the New Zealand Expeditionary Force or by direct enlistment. The Royal Flying Corps and the Royal Naval Air Service united on 1 April 1918 to form the Royal Air Force. At the time of the merger, the Navy's air service had 55,066 officers and men including New Zealanders, 2,949 aircraft including Sopwith Triplanes (image above left), some of No. 1 (Naval) Squadron RNAS, Another of the fighter planes piloted by New Zealanders in WWI was the Sopwith Camel images above right, a British single-seat biplane fighter introduced on the Western Front in 1917. Manufactured by the Sopwith Aviation Company, it had a short-coupled fuselage, heavy, powerful rotary piston engine, and concentrated fire from twin synchronized .303 Vickers machine guns with interrupted firing through the propeller. The Camel provided unmatched maneuverability. A superlative fighter, the Camel was credited with shooting down 1,294 enemy aircraft, more than any other Allied fighter in WWI.