



Figure 7--Browning Machine Gun, Col. .50, M2, Heavy Barrel, Flexible

SPECIFICATIONS	
Weight of gun	= 84 lb.
Length of gun	= 65 1/2 in.
Weight of barrel	= 28 lb.
Length of barrel	= 45 in.

  

CHECK LIST	
Spade grip back plate (with bolt latch release and buffer tube sleeve assembly)	Trigger bar
Front cartridge stop	Extracting slide group assembly
Rear cartridge stop	Front sight assembly
R.R. rear cartridge stop assembly	Rear sight group assembly
Limb stopper	Barrel carrier assembly
Bolt latch and related parts	Bolt stud

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- **browning 50 cal manual, browning 50 cal machine gun, browning 50 cal muzzleloader, browning 50 cal m2 tools, browning 50 cal machine gun cost, browning 50 cal machine gun parts, browning 50 cal machine gun price, browning 50 cal machine gun weight, browning 50 cal machine gun diagram.**

For the Browning .3006 machine gun, see M1919 Browning machine gun. Its design is similar to Brownings earlier M1919 Browning machine gun, which was chambered for the .3006 cartridge. The M2 uses the much larger and much more powerful .50 BMG cartridge, which was developed alongside and takes its name from the gun itself BMG standing for Browning machine gun. The design has had many specific designations; the official US military designation for the current infantry type is Browning Machine Gun, Cal. .50, M2, HB, Flexible. It is effective against infantry, unarmored or lightly armored vehicles and boats, light fortifications, and lowflying aircraft. It is the primary heavy machine gun of NATO countries, and has been used by many other countries as well. The M2 has been in use longer than any other firearm in U.S. inventory except the .45 ACP M1911 pistol, also designed by John Browning. The larger rounds were needed to defeat the armor that was being introduced to the battlefield, both on the ground and in the air. These guns were used experimentally from 1921 until 1937. They had lightweight barrels and the ammunition fed only from the left side. Service trials raised doubts whether the guns would be suitable for aircraft or for anti-aircraft use. Between 1927 and 1932, S.H. Green studied the design problems of the M1921 and the needs of the armed services. The result was a single receiver design that could be turned into seven types of .50 caliber machine guns by using different jackets, barrels, and other components. The new receiver allowed right or left side feed. In 1933, Colt manufactured several prototype

Browning machine guns including what would be known as the M1921A1 and M1921E2. The added mass and surface area of the heavy barrel compensated somewhat for the loss of watercooling, while reducing bulk and weight the M2 weighs 121 lb 55 kg with a water jacket, but the M2 HB weighs 84 lb 38 kg. <http://dogalakustik.com/depo/sayfaresim/canon-np-6317-manual-service.xml>

Due to the long procedure for changing the barrel, an improved system was developed called QCB quick change barrel. The M2 fires from a closed bolt, operated on the short recoil principle. The M2 fires the .50 BMG cartridge, which offers long range, accuracy, and immense stopping power. The closed bolt firing cycle made the M2 usable as a synchronized machine gun on aircraft before and during World War II, as on the early versions of the Curtiss P40 fighter. These maximum rates of fire are generally not achieved in use, as sustained fire at that rate will wear out the bore within a few thousand rounds, necessitating replacement. In addition to full automatic, the M2HB can be selected to fire singleshots or at less than 40 rounds per minute, or rapid fire for more than 40 rounds per minute. In its groundportable, crew-served role as the M2HB, the gun itself weighs 84 pounds 38 kg and the assembled M3 tripod another 44 pounds 20 kg. The spade handles are gripped and the butterfly trigger is depressed with one or both thumbs. Recently, new rear buffer assemblies have used squeeze triggers mounted to the hand grips, doing away with the butterfly triggers. Conversely, the bolt release can be unlocked into the up position resulting in singleshot firing the gunner must press the bolt latch release to send the bolt forward. The operator must also convert the topcover belt feed slide assembly from left to right hand feed as well as the spring and plunger in the feed arm. This will take a well trained individual less than two minutes to perform. The M2 can be battle-ready and easily interchanged if it is preemptively fitted with a retracting slide assembly on both sides of the weapon system. This eliminates the need to have the weapon removed from service to accomplish this task. This is achieved by using a 0.30-inch diameter 7.6 mm tungsten penetrator. The SLAPT adds a tracer charge to the base of the ammunition.

This functions on the principle of a recoil booster, to increase the recoil force acting on the short recoil action. This is the exact antithesis of a muzzle brake. Without this adaptor, the reduced-charge blank cartridge would develop too little recoil to cycle the action fully. The adapter is very distinctive, attaching to the muzzle with three rods extending back to the base. The BFA can often be seen on M2s during peacetime operations. The original watercooled version of the M2 was used on a tall AA tripod or vehicle-mounted anti-aircraft weapon on a sturdy pedestal mount. Twin or quad-mount .50 M2 guns normally used alternating left-hand and right-hand feed. One vehicle would fire exclusively to the right, the following vehicle to the left, the next one to the right, and so on in order to cover both flanks of the advancing convoy. This was used by U.S. AA battalions, fitted either on a towed trailer or mounted in a half-track carrier M16 AA half-track. With 200 rounds per gun in a powered tracking mount, the guns proved very effective against low-flying aircraft. In 2012, the IDF upgraded its M2HB machine guns to the M2HQCB model, with heavy quick change barrel. Today the M2 serves as an infantry crew-served heavy machine gun, as a remote-controlled external coaxial gun on Merkava main battle tanks, as the main weapon on the Samson RCWS, and as a secondary weapons on Israeli Sea Corps gunboats and missile boats. Soldiers during the Korean War used scoped M2s in the role of a sniper rifle, but the practice was most notably used by US Marine Corps sniper Carlos Hathcock during the Vietnam War. When firing semiautomatically, Hathcock hit man-size targets beyond 1,800 metres 2,000 yd—twice the range of the standard-caliber sniper rifle of the time a .3006 Winchester Model 70. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.

December 2010 Learn how and when to remove this template message Jungle Infantry soldier of the Brazilian Army mans an M2HB in the Amazon rainforest The basic designation as mentioned in the introduction is Browning Machine Gun, Cal..50, M2, with others as described below. These weapons were designated Browning Machine Gun, Cal..50, M2, WaterCooled, Flexible. There was no fixed

watercooled version. The subvariant designation Browning Machine Gun, Cal. .50, M2, HB, TT was only used for manufacturing, supply, and administration identification and separation from flexible M2s. The M2 Heavy Barrel, M48 Turret Type was developed for the commanders cupola on the M48 Patton tank. Three subvariants were also developed for use by the U.S. Navy on a variety of ships and watercraft including the soft mount and fixed type versions. The fixed types fire from a solenoid trigger and come in left or right hand feed variants for use on the Mk 56 Mod 0 dual mount and other mounts. With the machine tools available at that time, the dimensions that established the location of the bolt face and the depth of the chamber could not be held tightly enough to control the fit of the cartridge in the chamber. The round can be too tight in the chamber and the gun would not shoot, or be too loose in the chamber, resulting in a stoppage or ruptured cartridge. The other dimension that could not be held close enough was when the firing pin would fall. By the late 20th century, the M2 was the only adjustable headspace weapon in the U.S. inventory. With rising reports of injuries from improperly headspaced weapons, the U.S. military held a competition for a quick change barrel conversion kit with fixed timing and headspace in 1997. Three companies offered kits and Saco Defense won the competition. However, funding was lost before the design could be fully evaluated and the program ended. In 2007, the military found money to start a new competition.

When a standard M2 had a barrel change, the headspace and timing had to be manually set. Improper adjustment could damage the weapon and cause serious injury to the user. Their aim was to make a light, reliable heavy machine gun with the same damage output as a 20 mm autocannon. Besides the new cartridge they designed a new bullet exclusively for this gun. The bullet was of a high explosive type and was designed to take down a small aircraft with a single hit. Sweden also gave the blueprints to Finland so they could produce the weapon. Some famous examples being the P40, P47, and P51 for the USAAF and the F4F, F6F, and F4U for the US Navy. In fixed offensive configurations, like on the B25 Mitchell, commonly carried 6 to 12 fixed guns for strafing. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. December 2010 Learn how and when to remove this template message . These weapons use the M2HB barrel, and are typically set up as lefthand feed, righthand charging weapons, but on the HH60 Pave Hawks that use the EGMS External Gun Mount System the gun is isolated from the shooter by a recoilabsorbing cradle and all weapons are set up as righthand charge but vary between left and righthand feed depending on what side of the aircraft it is on. A feed chute adapter is attached to the left or righthand feed pawl bracket allowing the weapon to receive ammunition through a feed chute system connected to externally mounted ammunition containers holding 600 rounds each. Today, it can be found on the Embraer EMB 314 Super Tucano as designated as M3W with minor modification, which are installed in the wings 2 ea of M3Ws with 250 rounds each. A brief listing of designations for M2 family weapons follows Usually mounted on vehicles, such as the Pasi XA180 and XA188, but the tripod version is also in use. Retrieved 20080211. November 2000. Archived from the original on 20171011. Retrieved 20100715.

Retrieved 25 December 2014. Retrieved 20080908. When a 24-year-old Marine sharpshooter named Carlos Norman Hathcock II chalked up the farthest recorded kill in the history of sniping—2,500 yards a distance greater than 22 football fields in February 1967, he fired a Browning M2.50 Cal. Machine Gun. Viet Cong shot dead by a round fired from a scopemounted Browning M2.50 caliber machine gun at the unbelievable range of 2,500 yards 2,300 m. Retrieved April 12, 2016. Retrieved 20190512. Retrieved 20080908. Retrieved 26 December 2011. Retrieved 20180904. Retrieved 25 December 2014. Retrieved 20110919. Archived from the original on 12 June 2012. Retrieved 26 May 2016. Small Arms Survey and United Nations Operation in Cote d'Ivoire. p. 15. ISBN 9782940548057. Archived PDF from the original on 20181009. Retrieved 20180905. Retrieved 20141221. Retrieved 25 December 2014. Retrieved 4 June 2017. Retrieved 20110919. A Samworth Book on Firearms. Plantersville, SC SmallArms Technical Publishing Co. Ian Hogg, ed. London, UK Greenhill Books, ISBN 9781853674709 Alternative via scribd Oxford, UK Osprey Publishing, ISBN

9781841764689 By using this site, you agree to the Terms of Use and Privacy Policy. Please try again. Please try again. Please choose a different delivery location. Reprint of the November 1944 edition of the War Department Manual for M2 Browning .50 Caliber HB Heavy Barrel Machine Gun. Covers description, disassembling and assembling, care and cleaning, functional operation, stoppages, accessories, spare parts, ammunition, training ground and vehicular mounts, antiaircraft gunnery, advice to instructors, appendices preliminary gunners test, familiarization firing, and aerial target course, and index. 88 illustrations. If you are a seller for this product, would you like to suggest updates through seller support Amazon calculates a product's star ratings using a machine learned model instead of a raw data average.

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Printed Various Dates Available. Printed September, 1984. Piece Caliber.50 AA Machine Gun. Printed 4 October, 1943. M1919A4, Ground. Printed 14 August, 1940. This is the hardest manual to keep in stock. Ordnance Field Service Technical Bulletin Nos. 23451, 23502, 23552. 15 pages. New Condition. Quality Bound Reprint. Includes one copy of the illustrationCaliber.30, M1917. Printed 20 June, 1940. HB, M2 Ground. Printed 25 September, 1940. November, 1944. Field Manual for the M45.50 Cal. Quadmount and M33.50 Cal. Printed January 1945. Machine, Cal..50, Browning, ANM2, Aircraft, Basic. Printed February, 1951. Printed 1985. Machine Gun, Squad and Platoon. Printed 1931. Quad Fifty Field Manual Field Maintenance Multiple Gun Mount, Machine Gun Mount, Machine Gun Trailer Mount M55, Multiple CAL..50 Macine Gun Mount, M45D and Multiple Cal..50 Machine Gun Mount M45F. May 1958, 324 Pages, Hand copied and enlarged. Part Three MachineGun Company. Printed 3 January, 1938. Printed 1917. By the AC Spark Plug Division, General Motors Corporation, Frigidaire Division. Printed. January 1943. Machine Gun. By the AC Spark Plug Division, General Motors Corporation, Frigidaire. Division. Printed January 1943. Gun Battery. Printed 1924. AntiAircraft Mounts; M63, M3. Ammunition Chest M2 and Water Chest M3.Excellent Condition. Quad Fifty Field Manual, Service of the Piece Multiple MachineQuad Fifty Technical Manual, Multiple Cal..50 MachineTwin and Quad Fifty Ordnance Maintenance Manual, Twin Cal.50 Machine Gun Mount M33 And Multiple Cal.50 Machine Gun Mount M45. 1 June 1944. 130 Pages. Hand copied and enlarged. Twin and Quad Fifty Technical Manual. Twin Cal.50 Machine Gun Mount M33 And Multiple Cal.50 Machine Gun Mount M45. July 1944. 118 Pages. Hand copied and enlarged. Quad Mount Technical Manual. Multiple Cal.50 Machine Gun Mounts M45, M45C, M45D And M45F Multiple Cal.50 Machine gun Mount M55 and Mount Trailer M20 Formerly TM9223. 184 pages. Hand copied and enlarged.

Quad Mount Technical Manual. Trailer, Mount M20 Component of Mount, Trailer, Multiple

Caliber.50 Machine Gun, M55. 16 September 1944. Hand copied and enlarged. G220 Combined. Organizational Spare Parts and Equipment Higher Echelon Spare Parts and Equipment Addendum Service Parts Catalog for Mount, Trailer, Multiple Cal.50 Machine Gun, M55 Trailer, Mount, M20 Portion Only. 48 pages. Hand copied and enlarged. Fixed Type Left Hand Feed 1005001229368 NAVY. Printed August, 1994. The complete collection of You can also call us at 775 6717500 or FAX your order to 877 BMG1919. History text moved here. These dimensional images represent a best effort on my part, please confirm dimensions and information given here for yourself if errors cannot be tolerated. Images are for noncommercial personal use only, please obtain permission for any other use. Being closely flanked by the ammo guides and mount, PT images often have gun details obscured. The guns in turn hide parts of the mount. Wartime military manuals and part images helped fill the gaps. Please let me know if you notice any errors. Some other online information sources Maybe a good thing if you consider your idiot neighbor being able to buy one at a pawn shop, and that being inside of a brick building is no protection against one. Not to mention that a misadjusted gun can explode with lethal force since chamber pressure is about 50,000 pounds. As far as I know, only guns already manufactured and registered by about mid 1986 can be owned. Even a long lost old classic is not registrable although certain official agencies and museums are able to take ownership. Even the cutaway training guns have to be registered. In addition, states may have their own laws. For obvious reasons, besides being unnecessary for modelers, the plans shown here do not include any of the internal details to attempt to make a working version.

While satisfactory for its intended use as an anti-aircraft gun, there was also a need for lighter, more flexible guns not attached to a 40lb jug of water. The Browning .50 caliber M2 machine gun, put into service in 1933, was the answer. It was designed for three different basic configurations. They are the aircraft AC, heavy barrel the HB, still in use today, and watercooled WC. They all use the same operating mechanism which was a great advantage in their manufacturing and service. Another feature of the M2 is the flexibility to feed ammunition from the left or right, a requirement of the Air Corps for its aircraft installations. Various assemblies to accommodate a particular mount and usage include an operating slide with a rear mounted charging handle, back plate grips and trigger, a side plate trigger, solenoid triggers, feedway and short round protectors, sights, and heaters. Mounts usually included the correct trigger. Because of its shorter, lighter barrel the AC gun has a higher rate of fire although the tradeoff is that velocity is reduced. Spent links get pushed out the side opposite of the feed, spent cases exit out of the bottom of the gun. United States World War II manufacturers, Browning Machine Gun, Caliber .50, M2 PT boats used this basic gun along with a mount supplied trigger and usually a simple bolt handle for charging the gun instead of the RSG. Unlike the RSG, which operates against a short stud and remains stationary during firing, the bolt handle travels back and forth with the bolt. A canister style seems to be most prevalent on earlier boats PTs 61, 108, 109, 141. I have images of a few later boats PTs 363, 519, and PT 59, with a large cone shaped hider, and PT 588 with a smaller cone type. Modern parkerizing appears lighter. The coating has a porosity that will hold a layer of corrosion preventing oil. I've lightened the colors on the plans images for better detail visibility.

The auxiliary charging handle appears bare metal silver in PT images although an image found below shows one parkerized. Color can range from a well-oiled glossy black to light greenish gray. Vintage parts stored in cosmoline can turn a dark green. Here is a good article about the parkerizing process. Training toward higher standards of personnel operating efficiency should be continuous. Safety orders will be posted in conspicuous places near the ordnance equipment concerned. These safety orders must be rigidly observed at all times. They are exposed to large quantities of salt spray and even under most favorable conditions will receive rough treatment. Every effort should be made to keep all guns in a high state of readiness. In this connection light canvas muzzle bags should be fitted on guns when it is necessary to keep them trained on bearings where salt water is likely to fill up the bores. In case of emergency the gun can be fired with muzzle bags on. Their fire must be held

until the target comes within their range. Indiscriminate firing at distant targets must not be permitted. The ammunition for these guns is expended very rapidly, only a limited amount can be carried on board, it is precious and for use at the proper time. These guns are for defense against dive bombers, strafers, low position glide bombers, and for offense or defense against small surface craft, large surface craft during close in or night attacks and submarines on the surface. During night torpedo attacks MTBs will seldom, if ever, be in formation. During daylight torpedo attacks it is doubtful if the attack can be pressed in to machine gun range. Against aircraft, the nearest and most menacing target should be engaged and concentrated on. Whenever the number of torpedo boats exceeds the number of enemy ships, the fire will be distributed as evenly as possible. Crossfire should be avoided.

Maneuvers should be made in a manner that will not mask the fire of any boat, but if, possible to mask some of the enemys guns. Against a submarine, it is possible with well directed machine gun fire to prevent the submarine from manning his guns, and either force him to surrender, or to submerge and lose the men on deck. During daylight high visibility, it can be assumed that an MTB has been sighted by the time the enemy is within gun range. However, any boat observing aircraft actually attacking should fire a short burst in the direction of the attack if it is believed the other boats have not seen the plane or planes. Vessels observing enemy surface craft or distant aircraft which it is believed the leader has not seen, should pass the information by visual signal or radio. Orders to open and cease fire will always be given from the conning station and must be strictly obeyed. When firing at aircraft, opening fire ranges considerably less than 2,000 yards should be used in order that fire will not have to cease due to an expended magazine in the case of the 20mm. It should always be directed at incoming planes. The principle of engaging the nearest and most dangerous targets applies. Each man having a battle station above deck should be assigned a search sector. Dive bombers invariably attack from the direction of the sun. The lookout assigned that sector should wear dark glasses. MTB engines are as loud as those of an airplane. This is due to the relative movement between target and tracer. It is the angle between a line from gun muzzle to any given point in space and the axis of the gun when laid so that projectiles will hit the given point. He must assume a relaxed position behind the gun and focus his eyes on the target. With his eyes so focused, he is best able to distinguish where the tracers are going in relation to the target. When hitting, tracers appear to be going through target in a curved line tracer cut back. Do not attempt to follow tracers from gun.