

Bloch MB 174



[Bloch MB 174 français en vue plongeante](#)

En 1936, l'armée de l'air lança un programme d'un avion utilitaire, transportant des passagers, qui pourrait servir à la reconnaissance et au bombardement. Il s'agissait de répondre au réarmement outre-Rhin. Mais dans le même temps, les nationalisations de 1937 réduisirent la société Marcel Bloch à un simple bureau d'étude au sein de la SNCASO. Bloch proposa un bimoteur d'allure moderne, le MB.170, conçu par Déplante. Celui-ci était biplace et vola pour la première fois le 15 février 1938. 2 prototypes furent construits avec des moteurs Gnome-Rhône 14N-06, l'un comme avion de reconnaissance, l'autre comme bombardier. Le premier fut accidenté pendant les essais. Le deuxième, triplace, vola le 30 juillet. Plusieurs versions furent envisagées avant d'arriver à la version définitive, le MB.174. Celle-ci abandonnait notamment la tourelle ventrale présente sur le MB.170. Le Bloch 174 était un bimoteur au nez vitré, à train rétractable et à double dérive. Le pilote et le mitrailleur de queue prenaient place dans un cockpit surélevé. Il disposait de deux MAC 1934 de 7,5 mm placés dans les ailes, de 3 MAC 1934 en position ventrale, et le mitrailleur arrière d'un MAC 1934 jumelé. Destiné à la reconnaissance, il était équipé de moteurs Gnome-Rhône 14N-49. Il effectua son vol inaugural le 5 janvier 1939 entre les mains de René Le Bail. 50 exemplaires sont commandés dès le 1er février 1939, mais les modifications demandées retardèrent la mise en production. Celle-ci commença en novembre 1939. Il entra en service en mars 1940 au sein du groupe II/33, afin de remplacer notamment le Potez 637 qui avait prouvé sa vulnérabilité pendant la drôle de guerre. Sa première mission de guerre eut lieu le 29 mars 1940. Son pilote était Antoine de Saint-Exupéry, qui se servira de son expérience sur Bloch 174 pour écrire "pilote de guerre". 56 exemplaires furent construits jusqu'en mai 1940, et seuls 3 furent perdus pendant la campagne de France. Il pouvait emporter des bombes de 50 kg, jusqu'à 400 kg. Au Bloch 174 succéda le Bloch 175, destiné au bombardement. Celui-ci était motorisé par des Gnome-Rhône 14N-48. Son fuselage fut agrandi afin de loger une soute à bombes, et il emportait des bombes de 100 et 200 kg, pour une charge utile de 600 kg. Il vola pour la première fois le 3 décembre 1939 entre les mains de Daniel Rastel.

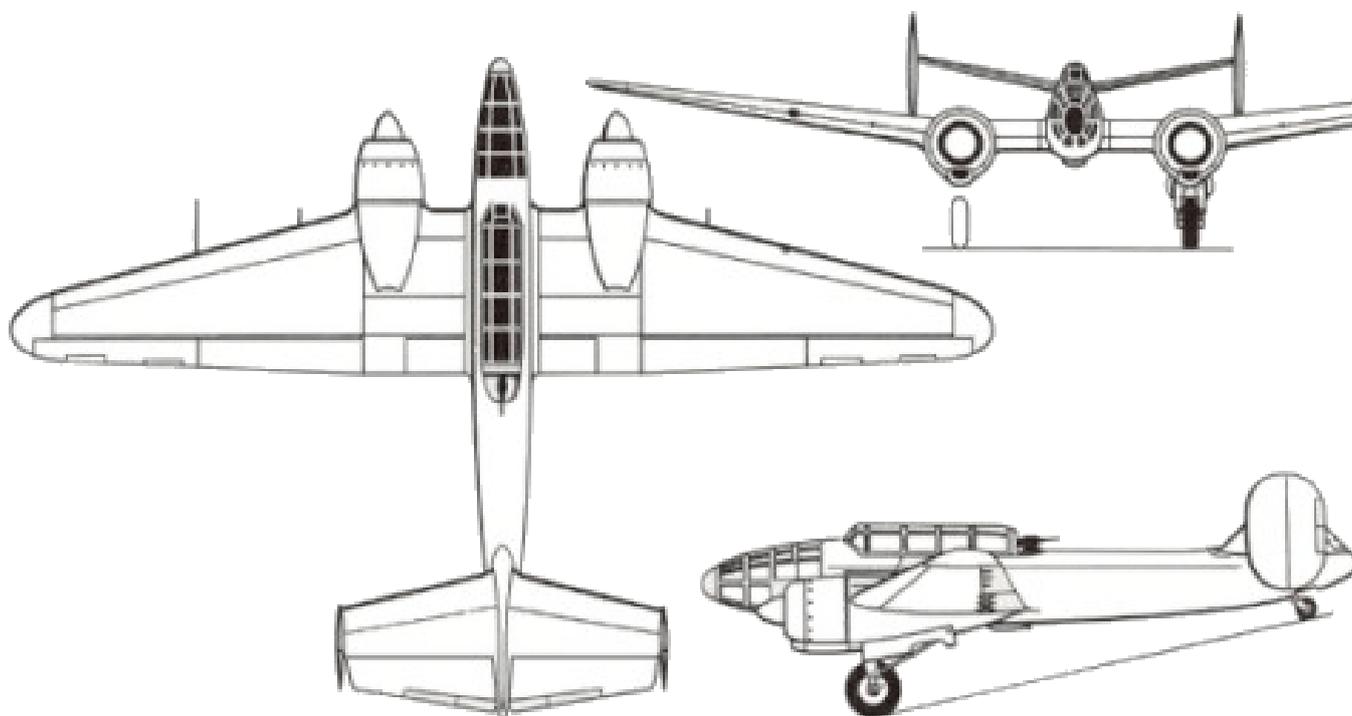
Il fut livré à partir d'avril 1940 au GR II/52. 25 exemplaires seulement furent construits avant la défaite, et servirent, en réalité, à la reconnaissance. 56 autres exemplaires désarmés furent construits pour la Luftwaffe, et servirent à l'entraînement. Le MB.176 était une version motorisée par des Pratt & Whitney R-1830 SC 3-G. Celle-ci s'avéra inférieure au Bloch 175, mais fut tout de même construite à cinq exemplaires en plus du prototype. Ils rejoignirent le GR I/55 en Afrique du Nord. Le MB.177 resta au stade de prototype (un seul exemplaire). Il était doté de moteurs Hispano-Suiza 12Y-31 en ligne. Le MB.178 était en cours de construction lors de la défaite : il fut réquisitionné par la Luftwaffe pour être testé à Rechlin. Son destin est inconnu. La majorité des Bloch 174/175 s'échappèrent en Afrique du Nord, d'autres furent détruits et 10 furent capturés par les Allemands. Ceux-ci s'en servirent pour l'entraînement, ou utilisèrent les moteurs pour en équiper leurs Me 323. Les Bloch 174 furent utilisés par Vichy, notamment pour surveiller les navires britanniques et survolèrent régulièrement Gibraltar. Lorsque l'Afrique du Nord passa dans le camp allié, ils effectuèrent leurs dernières missions de guerre au-dessus de la Tunisie avant d'être remplacés par les F-5 Lightning. Ils furent alors relégués au transport ou au remorquage de cibles. Les MB.175 du II/52 furent eux tous détruits lors d'un bombardement. Après la guerre, une version bombardier-torpilleur fut développée pour l'Aéronavale, qui en commande 100 en 1945. Nommée Bloch 175T, elle sera construite à 80 exemplaires et livrée à partir de janvier 1947 à la 6F. Elle restera en service jusqu'en 1952, mais se révéla dépassée. Le Bloch 175T fut remplacé par l'Avenger et fut retiré en 1960 à Rochefort, après avoir servi à l'entraînement ou à des essais en vol au sein de la 10S. L'appareil fut moderne pour son époque et excellent dans son rôle, mais comme beaucoup d'autres matériels, il arrivait trop tard et en trop petit nombre. Aucun exemplaire n'a survécu.



Source : <https://aviationsmilitaires.net/v3/kb/aircraft/show/1221/bloch-mb-174>

Version anglaise

MB.174 - all-metal reconnaissance bomber of the Second World War with retractable landing gear, with a tail wheel. This machine traced its ancestry to the MB.170, a multipurpose two-three-seat aircraft, which began work at the end of 1936. The MB.174 was intended mainly for reconnaissance and target marking, but could also be used to a limited extent as a bomber. The aircraft made its first flight on January 5, 1939. The undoubted advantages of the design prompted the Air Force headquarters to formulate requirements for the version of the bomber based on the MB. 174. This plane was assembled. Soon, the bomber in two modifications, MB.175 and MB.176, began to gradually displace its predecessor from the assembly lines. Intended primarily for reconnaissance, MB. 174 had a very small bomb bay. It included only eight bombs of 50 kg. From September 1939, priority was given to bombers. No more orders were received for reconnaissance modification. The 50th and last production aircraft left the Bordeaux factory floor in May 1940. In late 1936 SNCASO initiated the contract of a two/three-seat multi-role bomber which it identified as the Bloch M.B.170. Under the direction of Bloch's Chief Designer Henri Deplante, the design and building of the prototype progressed but as a result of indecision by the Armée de l'Air this took three years to evolve into the Bloch 174 A.3 reconnaissance and target-marking aircraft, with secondary capabilities as a bomber. The M.B.170.01 prototype flew for the first time on 15 February 1938. It was of cantilever low-wing monoplane configuration, and the wing and tail-plane both had marked dihedral, the latter carrying twin end plate fins and rudders. Landing gear was of the retractable tailwheel type, and the powerplant comprised two 950 hp (708 kW) Gnome-Rhône 14N-6/7 radial engines. The prototype featured an unusual cupola mounted beneath the fuselage, and intended to house a camera for use in the reconnaissance role, or alternatively to provide an additional position for a defensive gun. When the M.B.170.01 prototype was damaged as the result of a crash-landing, a second rather different M.B.170.02 prototype continued the flight test programme. This was configured to serve essentially as a high-speed bomber. The under-fuselage cupola was deleted, the undersurface of the forward fuselage was extensively glazed, and the tail unit was provided with fins and rudders of increased area.



A Three-sided view of the Bloch M.B.174 A.3 Reconnaissance Bomber

While this programme had been in progress, the design team had evolved a series of variants for differing roles, and allocated the identifications M.B.171, M.B.172, M.B.173 and M.B.174. It was this last proposal which aroused the interests of the French air ministry, leading to construction of the MB.174.01 prototype, which flew for the first time on 5 January 1939. This differed yet again, with the crew accommodation and glazed canopy moved further aft, the fuselage nose extensively glazed, and powerplant comprising two 1,030 hp (768 kW) Gnome-Rhône 14N-20/21 engines.

Six pre-production examples of this version were ordered before flight testing began, but there was no need for recriminations from the French Air Ministry, as the test programme proceeded smoothly, without any major problems. In consequence an order for an additional 50 production aircraft was placed. The pre-production and production aircraft all had more powerful Gnome-Rhône 1,100 hp (820 kW) 14N-48/49 engines, but early testing of the first pre-production aircraft showed that the cooling of these engines was only marginal, leading to a reduction in the diameter of the propeller spinners to allow an increased air-flow to the engine cylinders. Just before the first examples were delivered to units, it was decided to modify the defensive armament as a result of early combat experience with other types, and it was not until mid-March 1940 that the first M.B.174 A.3 production aircraft were delivered to Groupe de Reconnaissance II/33. By the time production of the M.B.174 A.3 stopped in May 1940 a total of 50 had been delivered to operational units. The first operational sortie was flown on 29 March 1940 by the famed Capitaine Antoine de Saint-Exupery. As it had an insignificant bombload the M.B.174 A.3 made little impact on the Blitzkrieg, but performance and handling were so outstanding and made such a difference to the casualty-rate among squadrons equipped with the type, that the Bloch M.B.175 B.3 was hurriedly planned as a purpose-designed bomber capable of carrying 1,323 lbs (600kg) of bombs. Altogether 25 Bloch M.B.175 B.3s were completed before France collapsed. with more than 200 on the production line. Had France been able to resist longer the 175 would have been a potent weapon. It was only in 1942 in Tunisia, North Africa that the survivors (M.B.174s) were fitted to conduct shallow dive-bombing with bombs of up to 1,102 lbs (500 kg). Groupes I/33, I/52, and II/36 each received examples during the following month, and early operational experience with these aircraft proved them to be an excellent type for deployment in a reconnaissance role, sufficiently fast and manoeuvrable at altitude to be able to elude Luftwaffe interceptors. When the collapse of France was imminent, many of the M.B.174s in use with squadrons were destroyed to prevent their capture, but despite this a number remained in service with the Vichy French air force in Tunisia until after VE-Day. Additionally, isolated examples were used for development projects for two or three years after the war's end. A few M.B.174 A.3 and M.B.175 B.3 aircraft saw service with the Luftwaffe, but most served with Vichy France in North Africa and many survived the war. Indeed the torpedo-carrying M.B.175 T remained in production for the Aéronavale until 1950. Ironically, in March 1941, the Germans used the same engines of the Bloch M.B.175 to power the Messerschmitt Me 323 Gigant cargo transport, some of which actually flew with engines, cowlings and propellers taken from Bloch M.B.175s already completed.

Variants

Bloch M.B.170.01 - The M.B.170.01 prototype flew for the first time on 15 February 1938. The prototype featured an unusual cupola mounted beneath the fuselage, and intended to house a camera for use in the reconnaissance role, or alternatively to provide an additional position for a defensive gun. the powerplant comprised two 950 hp (708 kW) Gnome-Rhône 14N-6/7 radial engines.

Bloch M.B.170.02 - When the M.B.170.01 prototype was damaged as the result of a crash-landing, a second rather different M.B.170.02 prototype continued the flight test programme. Configured to serve essentially as a high-speed bomber, the under-fuselage cupola was deleted, the under surface of the forward fuselage was extensively glazed, and the tail unit was provided with fins and rudders of increased area.

Bloch M.B.174.01 - The MB.174.01 prototype, which flew for the first time on 5 January 1939, differed yet again, with the crew accommodation and glazed canopy moved further aft, the fuselage nose extensively glazed, and powerplant comprising two 1,030 hp (768 kW) Gnome-Rhône 14N-20/21 engines. Six pre-production examples of this version were ordered before flight testing began, but with Gnome-Rhône 1,100 hp (820 kW) 14N-48/49 radial engines.

Bloch M.B.174.01 A.3 - With successful testing of the pre-production aircraft, an order for 50 production aircraft was placed. They used the same Gnome-Rhône 1,100 hp (820 kW) 14N-48/49 engines of the pre-production aircraft, but incorporated a smaller propeller spinner after cooling problems with the pre-production models. Just before delivery to operational units, the defensive armament was modified. Capable of carrying 882 lbs (400 kg) of light bombs, it was later modified to carry a single 1,102 lbs (500 kg) centreline bomb.

Bloch M.B.175 B.3 - The M.B.174.01 A.3 proved itself a very outstanding aircraft in performance during the initial stages of the Blitzkrieg, but its 882 lbs (400 kg) bomb load was found lacking. A hurried redesign to incorporate a bomb load of 1,323 lbs (600 kg) led to the development of the M.B.175 B.3 which was to be built as a dedicated bomber. 25 aircraft had been completed when France fell, with another 200 aircraft still on the production line. Bomb load usually consisting of three 441 lbs (200 kg) or a single 1,102 lbs (500 kg) centreline bomb and two 110 lbs (40 kg) bombs or flares on under wing racks.

Bloch M.B.175 T - With a good survival rate, many aircraft survived the war and were adopted to the torpedo carrying role with the French Aéronavale until withdrawn from service in 1950.

Specifications (Bloch M.B.174 A.3)

Type: Three Seat Reconnaissance & Light Bomber

Design: Henri Deplante Chief Designer at Bloch

Manufacturer: SNCASO

Powerplant: (M.B.170.01) Two 950 hp (708 kW) Gnome-Rhône 14N-6/7 radial engines. (M.B.170.02) Two 1,030 hp (768 kW) Gnome-Rhône 14N-20/21 14-cylinder radial engines. (M.B.174 A.3) Two 1,100 hp (820 kW) Gnome-Rhône 14N-48/49 14-cylinder radial engines.

Performance: Maximum speed 329 mph (530 km/h) at 17,060 ft (5200 m); cruising speed 248 mph (400 km/h); service ceiling 36,090 ft (11000 m); climb to 26,250 (8000 m) in 11 minutes.

Range: Maximum range 1,025 miles (1650 km) on internal fuel. Range with 882 lbs (400 kg) bombload 802 miles (1290 km).

Weight: (M.B.174 A.3) Empty 12,346 lbs (5600 kg) with a maximum take-off weight of 15,784 lbs (7160 kg). (M.B.175 B.3) Empty 12,480 lbs (5660 kg) with a maximum take-off weight of 17,690 lbs (8023 kg).

Dimensions: Span 58 ft 8 3/4 in (17.90 m); length 40 ft 2 1/4 in (12.25 m); height 11 ft 7 3/4 in (3.55 m); wing area 409.03 sq ft (38.00 sq m).

Armament: (M.B.174 A.3) Two forward firing 7.5 mm (0.295 in) MAC 1934 machine-guns in the wings, two 7.5 mm (0.295 in) MAC 1934 machine-guns in the dorsal position and three 7.5 mm (0.295 in) MAC 1934 machine-guns on aft-firing wobble mounts plus a maximum bombload of up to 882 lbs (400 kg) usually consisting of eight 110 lbs (40 kg) bombs. Underwing racks could be added to carry light bombs or flares. In 1942 surviving aircraft were modified to carry a single 1,102 lbs (500 kg) bomb for shallow dive bombing. (M.B.175 B.3) Bombload was increased to 1,323 lbs (600kg) usually consisting of three 441 lbs (200 kg) or a single 1,102 lbs (500 kg) centerline bomb and two 110 lbs (40 kg) bombs on underwing racks. (M.B.175 T) Carried a single torpedo.

