= T19 Howitzer Motor Carriage =

The T19 Howitzer Motor Carriage (HMC) , was a 105 mm (4 @.@ 1 in) howitzer mounted on a M3 Half @-@ track chassis . It saw service during World War II with the U.S. Army . Its secondary armament consisted of an air @-@ cooled .50 in (13 mm) M2 machine gun for local defense . It was produced by Diamond T between January 1942 and April 1942 .

It principally served in the North African Campaign , although some served in the Allied invasion of Sicily and the subsequent Italian Campaign , and even as late as the invasion of southern France in 1944 .

= = Specifications = =

The T19 Howitzer Gun Motor Carriage was similar to the M3 Half @-@ track , as it shared the same chassis , engine , suspension , armor , and fuel tank . It was 20 ft 2 in long , 6 ft 5 in wide , 7 ft 8 in high , with a weight of 9 @.@ 54 short tons . The suspension consisted of semi @-@ elliptical longitudinal leaf springs for the wheels and vertical volute springs for the tracks . It was powered by a White 160AX , 147 hp , 386 in3 , six @-@ cylinder gasoline engine with a compression ratio of 6 @.@ 3 : 1 . It was capable of a maximum road speed of 45 mph . The power @-@ to @-@ weight ratio was 14 @.@ 7 hp / ton .

The vehicle was operated by a crew of six . Maximum armor was only 0 @.@ 5 inch at the windshield and 0 @.@ 25 inches everywhere else . The armament consisted of one 105 mm M2A1 howitzer (equipped with eight rounds of ammunition) with a single .50 caliber (12 @.@ 7 mm) M2 Browning machine gun (equipped with 300 rounds of ammunition) for local defense .

= = Development = =

In the autumn of 1941 , when the Armored Force expanded , an urgent need for self @-@ propelled artillery arose . Although a full @-@ track chassis was preferred , the situation required the use of whatever vehicles were immediately available . The M3 Half @-@ track was selected to carry a 105 mm M2A1 howitzer . Although this design had originally been suggested in September 1941 , it had not been taken up . However , the urgency of the requirement resulted in the approval by the Adjutant General and the construction of a prototype was authorized by OCM 17391 , dated 31 October 1941 ; the new vehicle designated as the 105 mm Howitzer Motor Carriage T19 .

As with other American self @-@ propelled guns produced during the early World War II period , the prototype was assembled and tested at the Aberdeen Proving Ground . The M2 recoil mechanism and other parts of the M2 howitzer carriage were used in the vehicle mounting . After several tests , the gun carriage proved fragile on bumpy terrain . The problem was corrected by reinforcing the frame , and redesigning the howitzer mount . Demountable headlights were recommended because of the muzzle blast , although they were not available for early production models . Early models had no shield for the howitzer either , but a foldable shield was added during testing . The gun faced forward , like many other half @-@ track models . The total traverse was 40 degrees and the elevation was from ? 5 to + 35 degrees . The armored windshield cover was remounted so it could fold onto the hood . After further testing , it was accepted for production .

After the design was accepted , a prototype was shipped to Diamond T as a guide for production . The first production vehicle was delivered to the US Army in January 1942 . A total of 324 T19s had been made by the time production ended in April 1942 .

= = Service history = =

The T19 HMC was designed as a stopgap measure until better self @-@ propelled artillery pieces were made ; it served in the Tunisia Campaign in North Africa in 1942 ? 43 . It was employed mainly in most battalions ' headquarter platoons , and the " cannon companies " of infantry divisions . The T19 was soon replaced in armored divisions by the M7 Priest , a 105 mm howitzer on a fully tracked

chassis .

It served with only a few units in Sicily and Italy . On one occasion in Sicily , a T19 company (part of the 16th Infantry Regiment) halted a German tank attack by destroying six tanks , for the loss of one T19 . That unit was later awarded the Presidential Unit Citation . A few served as late as 1945 in southern France . It was finally declared obsolete in July 1945 . That month , the contractor Brown & McLaughlin converted 90 T19s into M3A1 Half @-@ tracks .