

Ordnance Notes -- by Bob Stoner GMCM (SW) Ret.

Heckler and Koch HK33 5.56mm Rifle



Early H&K rifles shown are the G3A3 rifle in 7.62 NATO (top) and its smaller brother, the HK33A2 rifle in 5.56 NATO, are shown here with the original "slim" forearm. Navy SEALs of SEAL Team 2 made limited use of the HK33A2 variant in Viet Nam operations from 1968 to 1969. (Photo: H&K)

Navy SEALs had chosen limited numbers of the German G3A3 for operations in Viet Nam. The G3 was reliable but heavy and too inaccurate when fired full automatic using 7.62 NATO caliber ammunition. In 1968, Heckler and Koch in Germany marketed the HK33A2 (fixed stock) and HK33A3 (telescoping stock) rifles in the smaller 5.56 NATO caliber. So far as is known, only limited numbers of HK33A2 rifles were used by SEAL Team TWO in 1968 and 1969. The SEALs did not use the telescoping stock HK33A3. The HK33 used the same operating principles of the larger G3.

Operation: when the bolt chambers a cartridge, the bolt head (with locking rollers retracted) enters the trunnion block. The following bolt carrier closes and the locking cam extends the bolt rollers into their locking recesses in the trunnion block. When the firing pin fires the cartridge, the rollers hold the bolt locked in the trunnion block until the pressure drops to acceptable levels. The HK33 uses a fluted chamber to float the cartridge case on propellant gases to prevent the case from sticking to the sides of the chamber. Once the pressure drops to a safe level, the bolt carrier moves back, the locking cam retracts, and the bolt rollers move into the bolt head (unlock). Extraction and ejection of the fired case from a HK33 is very positive and violent. Fired cases will typically show blackened, longitudinal scorch marks around the diameter of the case and a dent where the case has hit the edge of the ejection port. The HK33 is a select fire rifle and is very simple to maintain in the field. The rifle is easily fitted with a quick-detachable telescopic sight or night vision devices for special missions.

Heckler and Koch HK33A2 Specifications:

Caliber: 5.56x45mm NATO

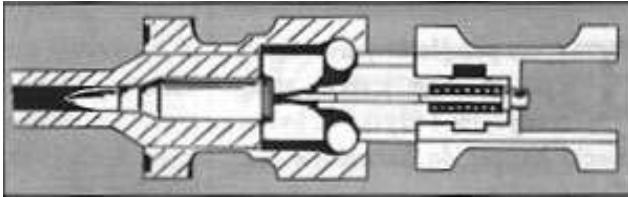
Length -- 36.2 inches

Barrel -- 15.4 inches

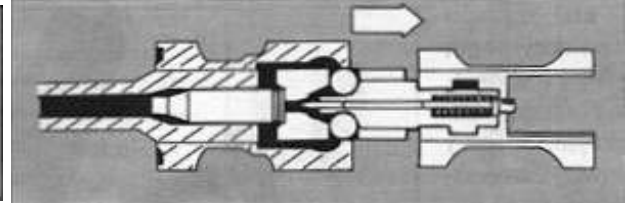
Magazine -- 25, 30, 40 rounds

Weight (empty) -- 8.05 lbs.

Max. Effective Range – 100 to 400 meters (limited by diopter sight)



HK33 receiver section diagram shows the rifle ready to fire with the bolt rollers locked. (Drawing: H&K)



HK33 receiver section diagram shows the rifle after firing with the bolt rollers retracted, (Drawing: H&K)



Al Ashton (SEAL) covers a captured VC with his HK33A2 rifle. This rifle has the 40-round magazine. Navy SEALs of SEAL Team 2 made limited use of the HK33A2 variant in Viet Nam operations from 1968 to 1969. (Photo: Erasmo Riojas)