



July 29, 1996

TECHNICAL NOTE 18: M16A2 REAR SIGHTS

BACKGROUND: Customer calls have disclosed considerable confusion over the construction of the M16A2 type sight used on ArmaLite AR-10 and M15 series rifles.

FACTS:

1. The rear sight of M16A2 rifles is spring loaded in such a manner that it tends to rotate counterclockwise, as viewed from above. This biasing is caused by a ball and plunger in the left wall of the sight base, which presses against a surface of the receiver and forces the base to rotate. This is a means of taking up accumulated slack in the parts of the sight. The spring loading insures that the sight is always in the same position, even if cocked somewhat to the side. Keeping the sights consistently in the same position aids accuracy.
2. Depending on the buildup of tolerances, the cocking of the rear sight may be quite noticeable. While this may be somewhat unattractive, it is intentional, and is supportive of good accuracy. All M16A2 pattern sights display this cocking to some degree.
3. Some manufacturers produce rear sights with a ball and spring in the right sidewall of the sight base to counteract the ball and spring in the left side. This is an error: duplicating the spring on the right side neutralizes the left side spring. Removing both sets of balls and springs would have the same effect.
4. ArmaLite produces a National Match rear sight assembly which bears a rail on the front of the right sidewall of the sight base. This rail tends to reduce or eliminate the cocking of the sight base. In case of unusually tight parts, it may be necessary to reduce the rail with a file or stone.
5. ArmaLite purposely machines and assembles the rear sight aperture of its sights with the flat surface facing the eye of the shooter. The common G.I. assembly has a curved surface facing the eye of the shooter. This "poor mans hooded aperture" suffers a serious disadvantage: the spherical surface reflects light into the eye of the shooter, no matter what the incident angle of the light. The flat surface does not do so.

In summary, neither the rotated angle of the rear sight nor the flat faced aperture are defective.

MAW

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