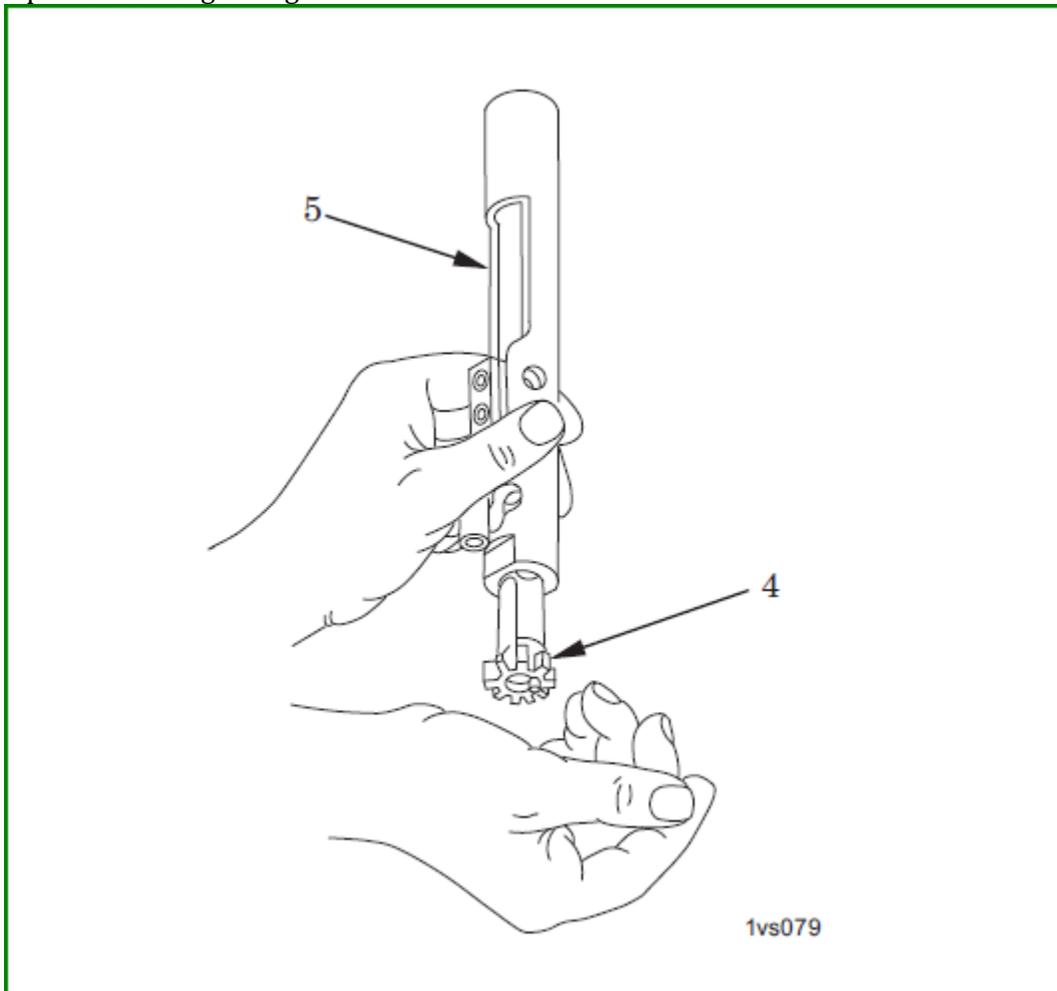


Hot Topic Item. M4 / M16

It has come to our attention via PDQRs and reports from the field that there has been three significant issues with some bolt carrier assemblies, (NSN 1005-01-441-1619, Part Number 8448505). The first issue is extensive wear and/or destruction of gas rings on the bolt itself. Testing confirms that the interior chamfer on *some* bolt carrier assemblies is not to specification. As a result, when the weapon is fired, there is a loss of gas pressure which reduces the cycle rate of rounds or jams the weapon. The loss of gas pressure is caused by the gas rings being damaged when the bolt is installed into the assembly or through damage incurred by firing the weapon.

Our recommendation for avoiding this issue is as follows: Remove the bolt from the bolt carrier assembly and visually inspect the gas rings for excessive wear or damage. Next, perform Work Package 0011-6, Figure 8, step 9 of the TM 9-1005-319-23&P, checking for fit of the bolt assembly.

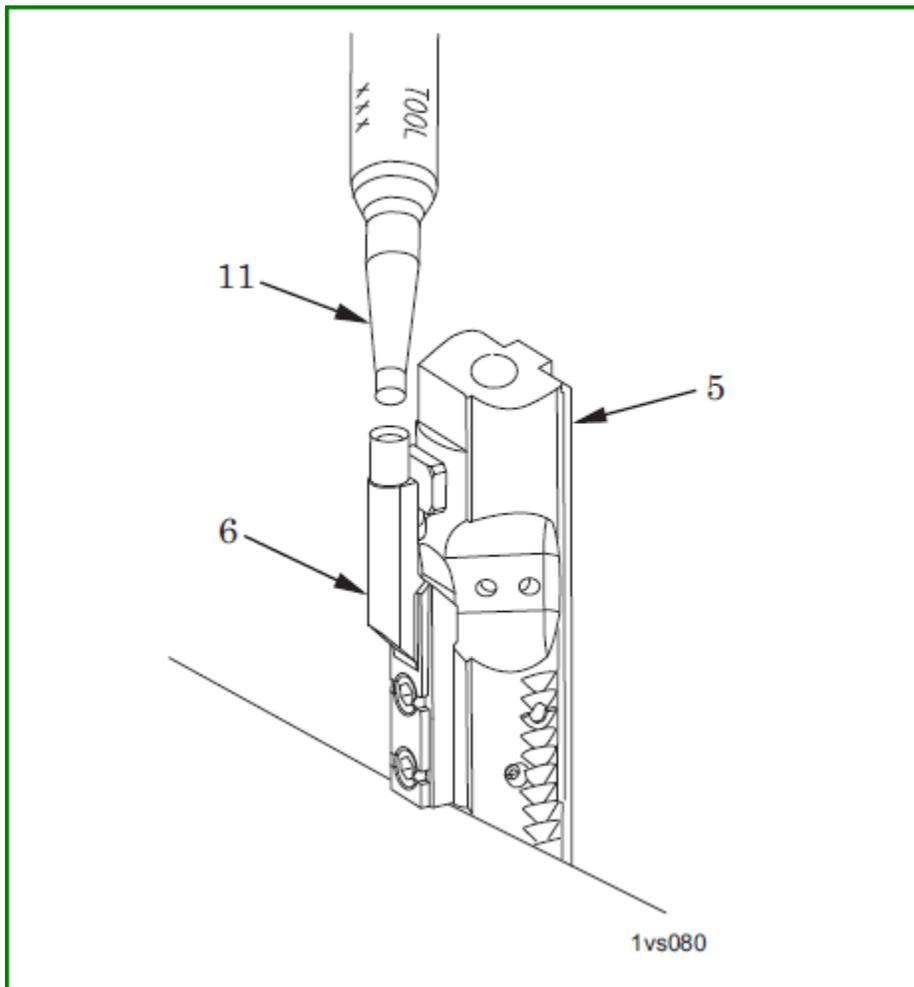
Check bolt assembly (4) for proper fit with bolt cam pin removed. Turn key and bolt carrier assembly (5) and suspend so the bolt assembly is pointed down. The bolt assembly must not drop out. If weight of bolt assembly allows it to drop out of key and bolt carrier assembly, you must replace the bolt gas rings.



If the user cannot perform these tasks, then there is a good possibility that your weapon may have a deficient bolt carrier assembly.

We have also received reports from the field indicating there have been some carrier keys that do not have the correct inside taper. This may cause miss alignment with the gas tube. The result of misalignment of the gas tube is a loss in gas pressure and potential damage to the gas tube itself. Special machine key tool, NSN 5315-01-310-0370, should be used to check the correct taper of the bolt carrier key.

1. Repair small dents and/or distortions in carrier key (6) using bolt carrier key tool (11) as follows:
 - a. Place the key and bolt carrier assembly (5) in a vertical position, supported so that contact is made with the rear surface of the carrier key (6).
 - b. Insert the small end of the key tool (11) into the tube portion of the carrier key (6).
 - c. Strike the large end of the key tool (11) lightly with a 4-ounce, soft-brass hammer.
 - d. Repeat striking (gently) until carrier key (6) is reformed to original configuration.
 - e. If carrier key (6) cannot be reformed to original configuration, see WP 0013 for replacement.
2. Replace all authorized unserviceable items. Retest all replaced parts.



Lastly, we have received reports from the field that there has been trouble with some bolt carrier assemblies having an improper chamfer where the bolt cam pin is installed. This will lead to an inability to install the cam pin into the assembly. As a result, the weapon will not be mission capable.

1. Lubricate parts; refer to TM 9-1005-319-10.

NOTE

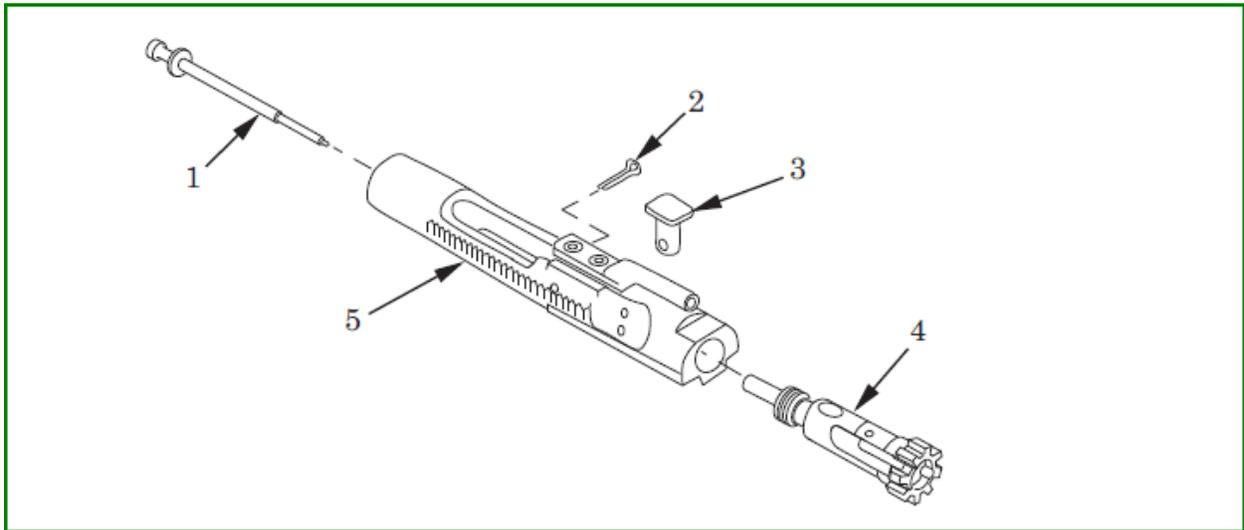
Before installing bolt assembly, check to see that the bolt ring gaps are staggered to prevent loss of gas pressure.

2. Install bolt assembly (4) into key and bolt carrier assembly (5).

3. Install bolt cam pin (3) and rotate one turn to secure bolt assembly (4).

4. Hold key and bolt carrier assembly (5) with bolt assembly (4) down and drop in firing pin (1).

5. Install firing pin retaining pin (2) from left side only to ensure proper installation. Check installation by attempting to shake out firing pin (1).



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