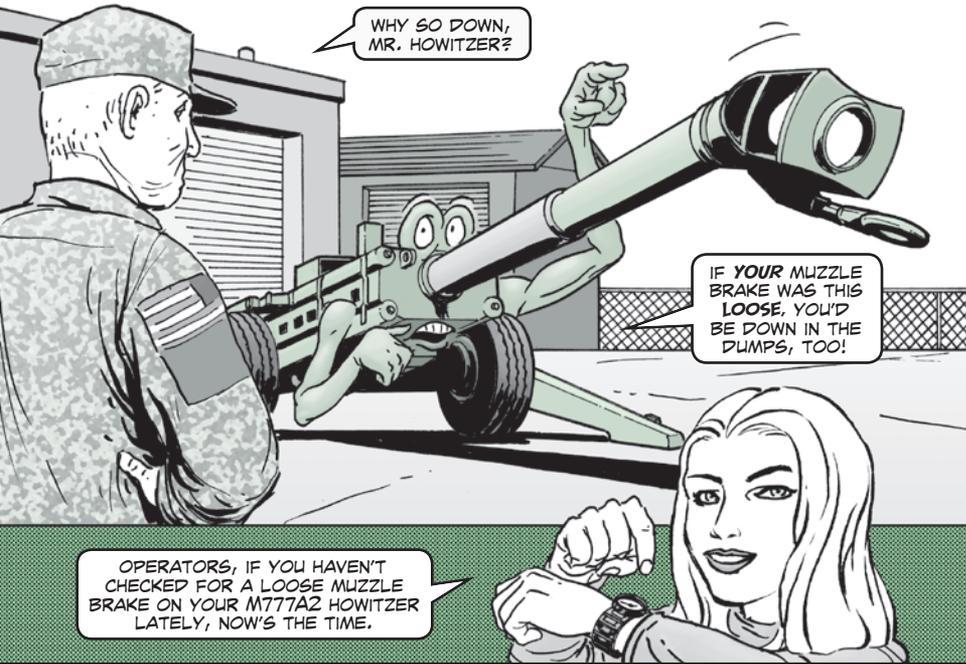


# FIND THE **KEY** TO LOOSE MUZZLE BRAKE



WHY SO DOWN, MR. HOWITZER?

IF **YOUR** MUZZLE BRAKE WAS THIS LOOSE, YOU'D BE DOWN IN THE DUMPS, TOO!

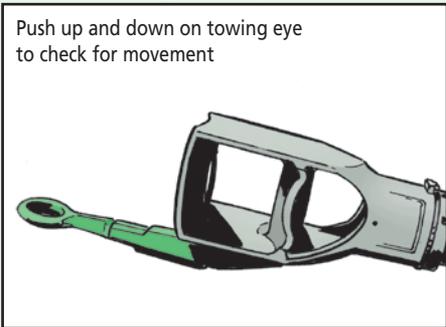
OPERATORS, IF YOU HAVEN'T CHECKED FOR A LOOSE MUZZLE BRAKE ON YOUR M777A2 HOWITZER LATELY, NOW'S THE TIME.

Seems quite a few howitzers have been found with loose muzzle brakes lately. That can result in damage to the muzzle brake key. While that's not necessarily a safety concern, a damaged muzzle brake key can eventually damage the thrust collar teeth because of looseness or vibration.

To check for a loose muzzle brake, grab hold of the lunette and towing eye and try to move the muzzle brake up and down. If you notice any free play, look closely to see whether it's the towing eye or the muzzle brake that is moving.

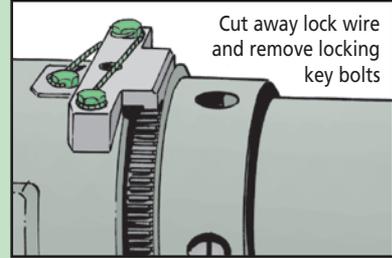
If there's no movement at all, you're good to go. If the towing eye is moving, make sure its long nut is properly torqued to 350 lb-ft.

If it's the muzzle brake that's loose, you've got some work to do.



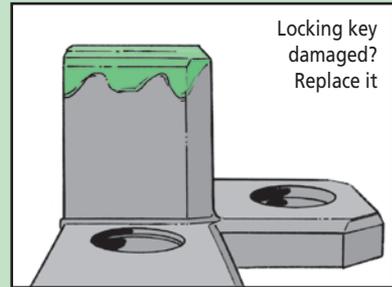
Push up and down on towing eye to check for movement

1. Use a set of side-cutting pliers to remove the lock wire from the locking key's mounting bolts.



Cut away lock wire and remove locking key bolts

2. Remove the locking key's bolts using a  $\frac{9}{16}$ -in socket wrench.
3. Lift out the locking key and check it for damage. Replace a bad locking key with NSN 5315-01-531-4476.



Locking key damaged? Replace it

4. Use a spanner wrench to loosen and free the thrust collar from the muzzle brake.
5. Make sure the muzzle end of the cannon tube is visible to centered in the witness hole of the muzzle brake and the towing eye is at the 6 o'clock position. Then insert a 4" x 4" x 8' timber, NSN 5510-00-220-6178, into the end of the muzzle brake to support it.
6. Insert the muzzle brake alignment tool into the muzzle brake to keep it from rotating.

7. Rotate the thrust collar counterclockwise until it contacts the muzzle brake.
8. Using the spanner wrench, tighten the thrust collar while rocking the muzzle brake up and down with the wooden stave. Continue tightening the thrust collar until all play is gone from the muzzle brake.
9. With the muzzle brake alignment tool still installed, slide the key down to align with the teeth on the thrust collar. You may need to tighten the thrust collar a bit more to align it. **Never** loosen the collar to get it aligned.
10. Remove the muzzle brake alignment tool.
11. Apply CLP to the muzzle brake locking key and insert it so that the teeth on the key line up with the teeth on the thrust collar. Don't force it or you'll damage the locking key! If the locking key won't go in, reinstall the muzzle brake alignment tool and repeat step 9.
12. Remove the timber.
13. Install and torque the bolts to 30 lb-ft. Undamaged bolts can be reused.
14. Lock wire the front mounting bolt to the key. Then lock wire the two rear mounting bolts together.



MAKE A NOTE OF THIS NEW PROCEDURE UNTIL IT'S ADDED TO THE IETM.