

BE YOUR OWN INSPECTOR:

THE M14 RIFLE

So you've been issued the M14 rifle. And, if you used to have the M1 rifle, you can see where they look alike in some ways . . . and different in others.

They're dead-alike in one way, though—both need maintaining. And to make it easy for you to spot trouble before and when it starts, read on and you'll see the maintenance points that need checking.

Notice those trouble spots that're in **BOLD TYPE**. These add up to serious gig points . . . and want to be fixed now.

As you've probably noticed, there are two M14's. One has a fiberglass handguard and hinged butt plate. It's

the latest. The other doesn't have a hinged butt plate and it has a wooden handguard. One day the man'll be around to "dress" the butt plate in the latest style. The fiberglass handguard is listed in TM 9-1005-223-20P under FSN 1005-690-4068.

If you, as the rifleman, have any questions about the rifle, see your armorer-artificer. And if the armorer has any, he wants to check with your Ordnance support.

HANDGUARD (FIBERGLASS)—broken, cracked around vent ports; spring doesn't clamp tight.

HINGED BUTT PLATE—loose, bent, **broken**, doesn't open or close.

SLING—worn, broken; clamps weak, faulty.

BUTT PLATE—screws loose, missing; base access plate doesn't close, is loose; latch bent, doesn't hold; spring weak, missing. (This also goes for the M14 without the hinged butt plate).

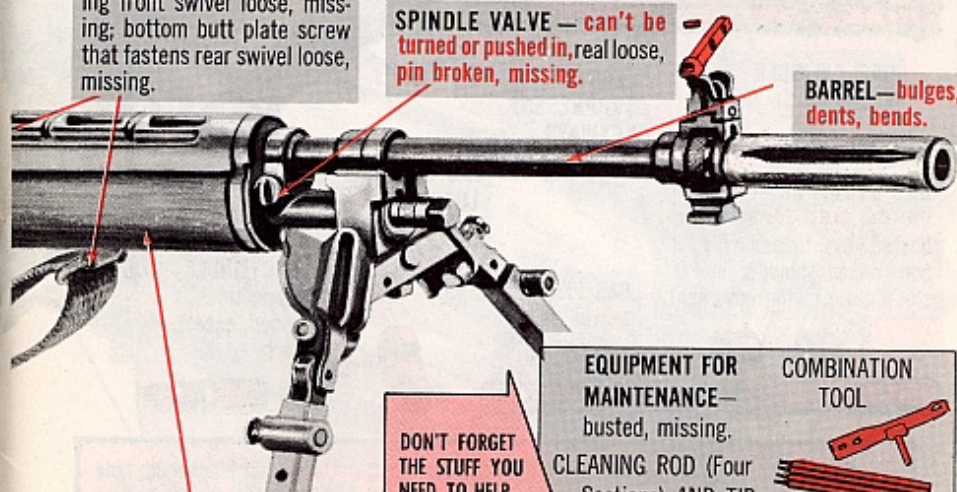
HANDGUARD (WOODEN)—cracked, dry, spring doesn't hold tight.



SWIVELS—don't move freely, battered, missing; rivets holding front swivel loose, missing; bottom butt plate screw that fastens rear swivel loose, missing.

SPINDLE VALVE—**can't be turned or pushed in**, real loose, pin broken, missing.

BARREL—bulges, dents, bends.



STOCK—ferrule loose, missing; wood dry, cracked (keep your good eye on the look for cracks between the two swivel rivets and the front end of the stock); **liner loose**.

DON'T FORGET THE STUFF YOU NEED TO HELP KEEP YOUR WEAPON IN SHAPE:

EQUIPMENT FOR MAINTENANCE—busted, missing.

CLEANING ROD (Four Sections) AND TIP
BORE CLEANING BRUSH
CONTAINER

CLEANING PATCHES
CHAMBER CLEANING BRUSH

COMBINATION TOOL



FLASH SUPPRESSOR NUT—damaged threads, loose.

FRONT SIGHT—**cracked, busted off, burred, loose**, securing screw loose; not blackened; **blades broken, cracked, bent**, not blackened.

BAYONET LUG—cracked, burred, bent, broken off.

FLASH SUPPRESSOR—**loose, burred or busted keys**; loaded with carbon; bent, cracked; **socket-head lock screw loose, missing**. Threads stripped, point rounded.

BARREL THREADS FOR FLASH SUPPRESSOR AND GAS CYLINDER LOCK—**damaged**.

GAS CYLINDER KEYWAYS—burred.

FLASH SUPPRESSOR KEYWAYS—burred.

GAS CYLINDER—**dented, burred, cracked**; burred or busted keys; loaded with carbon; raised shoulder in "D" slot fouls up piston movement.

GAS CYLINDER LOCK—**cracked, loose, bad threads**.

GAS PISTON—**burred**, excessive carbon.

GAS CYLINDER PLUG—loose, threads stripped, excessive carbon.

COVER
WINDAGE KNOB
BASE
ELEVATING KNOB
APERTURE

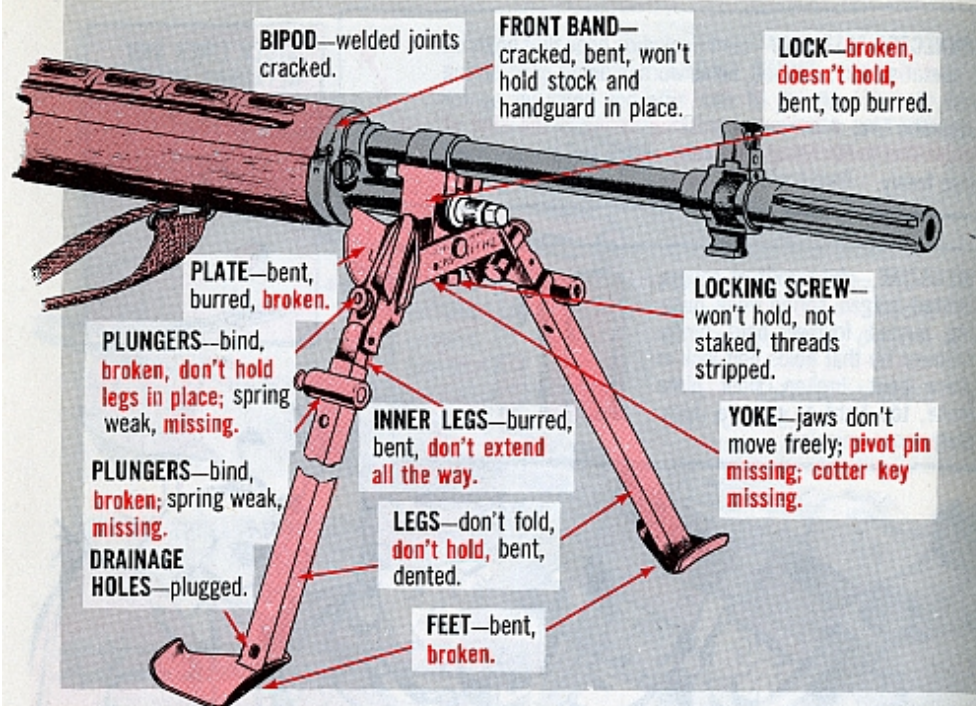
REAR SIGHT—**aperture loose**, not blackened, hole plugged, **notches in rack busted**; knobs loose, turn hard, **missing, no clicking sound when turned**, elevation and windage markings not clear; **pinions stripped**; threads stripped; cover cracked, out of shape, **missing**; **sight base cracked**, threads stripped, aperture groove battered.

CONNECTOR ASSEMBLY—bent (including hook that holds on to operating rod), cracked, holes worn; plunger bent; spring weak, broken, missing (if your rifle has been set up for automatic fire, **a broken or missing spring is the kind of trouble that needs fixing—but now**); spring and plunger don't move freely.

MAGAZINE—tube split at seams, dented, bulged; spring weak, missing, busted; follower bent, binds; follower tip that holds bolt lock in place bent, broken; floor plate loose, too tight to remove; lock-plate loose, missing.

STOCK LINER AND RETAINING SCREWS—loose, missing.

TELESCOPE MOUNT HOLE—threads burred.

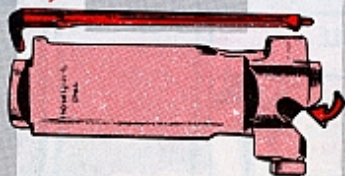


EJECTOR PLUNGER—worn, broken, bent, missing, tip rounded.

EXTRACTOR—loose, broken, missing, lip burred, beat up; shaft worn.

EXTRACTOR SPRING AND PLUNGER—broken, won't hold extractor, missing; spring weak, not straight; plunger bent.

BOLT AND ROLLER ASSEMBLY—bolt cracked, sliding surfaces burred, spring and firing pin recesses filled with carbon, brass chips; lugs worn, burred; roller burred, broken, missing, doesn't turn freely.



EJECTOR SPRING—broken, weak, missing, loaded with carbon, brass chips.

FIRING PIN—broken, bent, missing; tip flattened or sharply pointed, broken; tang damaged, angle rounded.

RECEIVER SLOT FOR FIRING MECHANISM—burred.

BOLT LOCKING LUG SLIDE RECESS—burred.

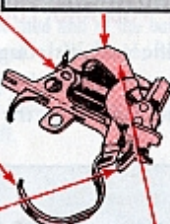
SELECTOR OR SELECTOR LOCK—busted, doesn't turn freely; pin missing; spring weak, missing; selector shaft doesn't turn easily when disengaged from sear release.

FIRING MECHANISM...
HOUSING—tough to get in and out of receiver, cracked, locking notch damaged, rib battered.

TRIGGER GUARD—won't lock in firing mechanism housing, twisted out of shape, busted, "new" bend put in hook; point damaged.

MAGAZINE LATCH—worn, binds, won't hold magazine, busted; spring weak, broken; pin bent, busted, sticks out beyond housing surface.

TRIGGER AND SEAR ASSEMBLY—sear worn, battered; points broken; trigger busted; lugs damaged; pin bent, missing, moves sideways.



HAMMER—cracked, chipped.



HAMMER SPRING PLUNGER—damaged.



HAMMER SPRING—weak, missing, misshapen, ends cut.



HAMMER PIN—bent, missing, hard to install and remove.



HAMMER SPRING HOUSING—dented, cracked.



SAFETY SPRING—weak, out of shape, missing.



SAFETY—won't move, cracked, chipped.



CARTRIDGE CLIP CHARGER GUIDE—loose, damaged, misshapen enough to foul up ammo loading; retaining pin sticks out beyond top inside surface of receiver.

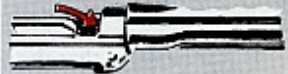
BOLT LOCK—binds, worn; spring weak, missing; pin broken, missing, won't hold bolt back or let it return when released.

OPERATING ROD TUBE—burred, bent, dented.

OPERATING ROD—bent, cracked, worn.

OPERATING ROD HANDLE—cracked, bent, bolt roller cramming recess battered enough to foul up bolt movement; notched "boss" burred, damaged.

CONNECTOR LOCK—missing; connector lock pin broken, installed loosely.



BORE AND CHAMBER—excessive pitting, carbon.



OPERATING ROD GUIDE—damaged, loose enough to batter or foul up movement of operating rod.

SPRING GUIDE AND DRIVE SPRING—guide bent; hole in guide worn; spring kinked out of shape, broken, weak; tip that holds magazine bent, broken.

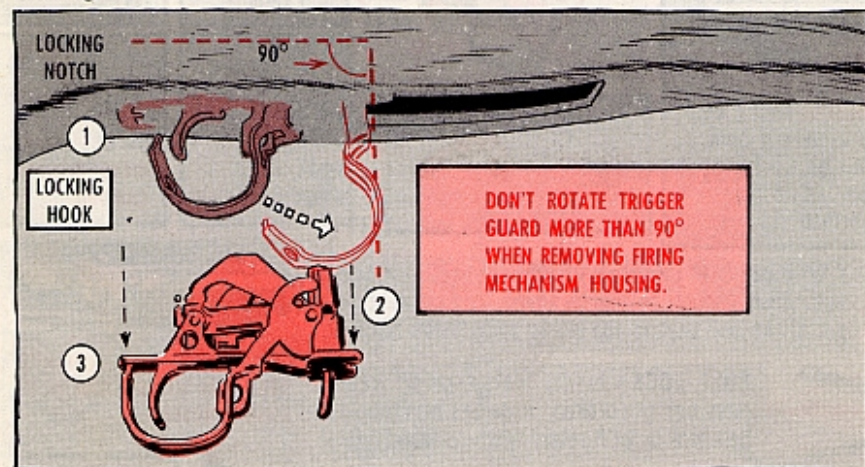
It figures that you want to be on the lookout for rust on all metal parts of the rifle. And dirt is something else you look for—inside and outside the rifle.

Every good rifleman knows that two publications are important to him. Those'd be TM 9-1005-223-12 (26 May 61) ... and TM 9-1005-223-20P (22 Nov 60).

NOW COMES THE TIME FOR SOME:

TIPS THAT'LL HELP YOU AND YOUR RIFLE...

1. So you're disassembling your rifle and it's rougher'n a cob to get the locking "hook" on the trigger guard free of the locking notch in the firing mechanism housing. You know ... so you can rotate the guard and then remove the housing.



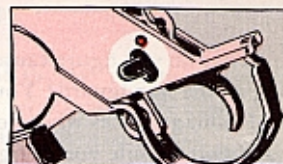
It just happens that the tight fit is built into the rifle. One thing it does is make the weapon more accurate.

So don't bend the hook or file the notch to make it easier to free the trigger guard. If you figure it's too much of a fight to remove the trigger, pass along your troubles to your armorer-artificer.

2. Something else you want to remember about the trigger guard ... don't rotate it more'n 90 degrees when you're removing the firing mechanism housing. If you feel the cocking stud on the guard coming in contact with the point at the bottom of the hammer, you've turned the guard too much. You want to remove the housing before you feel this metal-to-metal contact.

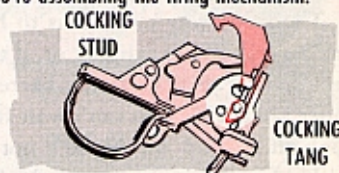
3. The deal is that if you rotate the trigger guard too far and then go to remove the housing, you can batter the rib on the housing as it slides in the slot in the receiver. And a damaged rib'll make it tough removing and replacing the housing.

Another thing ... take a look now and again to see if the trigger pin rubs against the stock when you remove the firing mechanism housing. If it does, get your armorer to remove about $\frac{1}{4}$ -inch from the pointed end of the pin.



There're also a coupla good points to keep in mind while you're assembling the firing mechanism.

First ... make sure the bottom pointed end of the hammer—the cocking tang—is forward of the inside (the right one) cocking stud on the trigger guard. If it's not, you won't be able to install the firing mechanism right ... and it won't work up to snuff.

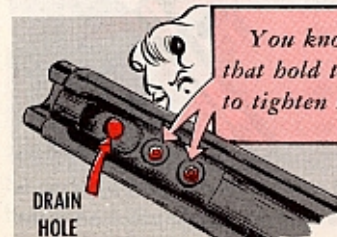


Second ... install the hammer spring housing so the cutaway part faces the safety. The housing is open that way so the safety will work. You had the same deal on your M1 rifle.

STOCK TIPS

The stock's not made for using as a pry bar or to hammer down tent pegs. Maybe your stock is made of light-colored wood (birch) and the other guys have dark colored stocks (walnut). Makes no difference. One is just as good as the other—with the right treatment.

And that also includes rubbing it with raw linsced oil now and again to stop splintering and drying out before they start. Never use gun oil or bore cleaner on wooden surfaces.



You know those rivets in the front of the stock—the ones that hold the swivel? There's a right way and a wrong way to tighten them. So let your support unit handle the job.

One more thing about the stock—in case you're wondering—that's a drain—or vent—hole in the front end of it.

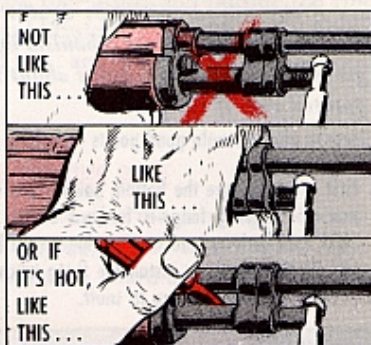
Another thing that you don't want to do is cut or whittle away at any part of the stock. And it's your support people's job—not yours—to repair the stock.



GAS CYLINDER PLUG TIPS

What do you figure causes the most damage to the handguard? You're wrong. The real damage comes when you hold on to the handguard while you're tightening or loosening the gas cylinder plug.

The right way to do it is to hold on to the barrel and gas cylinder or, if the bipod's attached, grab that. If the barrel and cylinder are hot... you can't wait for them to cool off... and the bipod's not attached, stick a screwdriver between the barrel and cylinder for leverage.



By the incidentally... that combination tool, FSN 4933-768-0211, is the only thing you want to use for removing and installing the gas cylinder plug. Use the combination tool to tighten the plug as tight as you can get it. Don't—double don't—use any extension on the tool for added leverage when you tighten the plug. The only time you might need extra leverage on the tool is when you go to remove a carboned-up plug.

Speaking about tightening again... you can see that the cylinder and plug threads are fine, so you have to be careful or you'll cross-thread them.

It's worth remembering that the only stuff you use to clean the gas piston, gas cylinder bore and gas cylinder plug is bore cleaner. The thing to do is soak the piston and plug in bore cleaner and then wipe them with patches or a clean cloth soaked with bore cleaner. You don't have to put the gas cylinder in bore cleaner, but you do clean the bore with patches or a clean cloth loaded with bore cleaner.



Don't use any kind of abrasive or something sharp for scraping. The piston, for instance, is made to mighty fine tolerances... and trying to clean it with something like crocus cloth, steel wool or sand sure can mess up things.

The inside of the piston, tho, can be cleaned with your bore brush and bore cleaner. The same goes for the gas cylinder plug.



The deal that is like to tear most guys out of the frame is the way components of the gas system change color once the rifle is fired. They figure they have to get the parts looking like new—polished to a shine. So they give the parts a good going over—short of sand blasting.

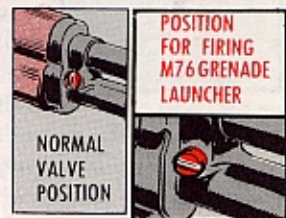
Just remember. That change of color is caused by gas and heat. And it doesn't have anything to do with the way the rifle works. So, skip trying to polish up those parts.

Another thing... seeing's how the components of the gas system are made of corrosion resisting steel, they're not going to rust. So you assemble them dry. That's right... no oil. Only the exterior surfaces get a light coat of oil.

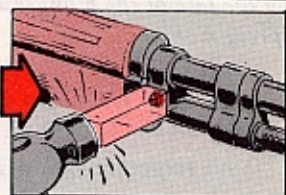


There're two places you don't want to forget to put oil. Those're the inside of the operating rod tube and the spring and plunger for the connector assembly. You get at the inside of the tube with an oily patch and your cleaning rod.

You can run into a rough situation when you get carbon between the spindle valve and gas cylinder. When this happens, it's a real job to rotate the valve. 'Course... the only time you rotate the valve from vertical to horizontal for firing is when you use the M76 grenade launcher. You want to push it in and rotate it once in awhile just to break loose and get rid of excess carbon.



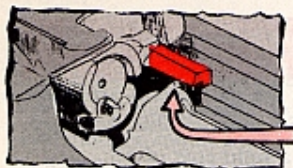
Anyway... if you can't push in the valve so you can rotate it, put a block of wood against it and give the wood a few raps until you're able to move the valve in and out. Then you should be able to turn the valve. Don't try to take it apart. That's a job for Ordnance.



Now for some quick scoop. But it's important. When the firing mechanism's installed in the receiver and the selector is set for automatic fire, make sure the sear release is touching the sear.

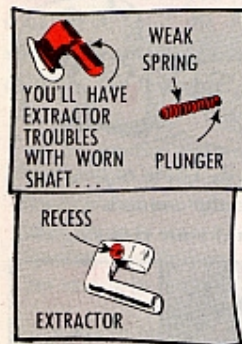
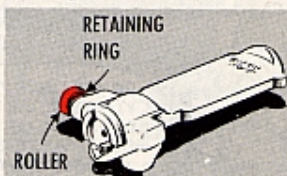
Something else that needs checking—before and after firing—is the flash suppressor and front sight. Give the suppressor and sight a coupla shakes. And if either moves at all, ask your armorer to see if he can spot the trouble.





If you have an empty magazine in the receiver, or when the last round leaves the rifle, and the bolt doesn't stay to the rear, check the follower in the magazine. It should be catching on the bolt lock to keep the bolt back.

While you've got your eyeballs around the bolt, take a look at the roller and retaining ring. They want to be oiled lightly. And it's a good deal if the roller spins easy-like. But it's still good even if it doesn't turn freely.



It's time to call for support unit help if the roller works off the stud. You'll get a new retaining ring and roller.

Does the extractor have a bad habit? Like jumping out of the bolt. That's usually caused by a worn extractor shaft and a weak spring and plunger.

Another thing about the extractor plunger... the round bottom head of the plunger wants to seat in the recess of the extractor. And if the plunger is bent, it'll foul up the movement of the spring. And you'll have extractor troubles. Something else... don't forget to keep a light coat of oil on the plunger.

It's time to get a new ejector spring and plunger when the empty cartridges start flying to the right rear of the weapon when you're on automatic fire. You'll find the three angles on the face of the plunger are usually worn real bad and the spring is shot.

You never, ever, never want to take a bolt from one rifle and put it in another—unless your support unit checks the bolt and says it's OK. Making this kind of switch can mess up the headspace and you.



Don't forget the new deal on cleaning the bore. You only have to do it once with the newer bore cleaner after firing. Of course, you don't stop running patches through until one comes out clean. Then you follow through with a light coat of oil.

The best way to keep the chamber clean is to do the job whenever it needs doing—or any time you're not sure just how clean it is.

When it comes to the bipod, you tighten or loosen the locking screw in the bottom of the right-hand jaw with your combination tool. Don't try to remove the screw. You could ruin the jaw and screw threads.

