



**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-616, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

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You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems and questions or comments on material published in PS.

Just write to:

MSG Half-Mast
PS, the Preventive Maintenance Monthly
USAMC LOGSA (AMXLS-AM)
5307 Sparkman Circle
Redstone Arsenal, AL 35898-5000

Or e-mail to:

psmag@logsa.redstone.army.mil or
half_mast@us.army.mil

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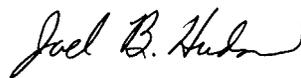
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By order of the Secretary of the Army:

PETER J. SCHOOMAKER

General, United States Army Chief of Staff

Official:



JOEL B. HUDSON

Administrative Assistant to the Secretary of the Army

0400702

PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898-5000. Periodical postage is paid at the Huntsville, AL post office and at additional mailing offices. Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, USAMC LOGSA (AMXLS-AM), 5307 Sparkman Circle, Redstone Arsenal, AL 35898-5000.

Issue 616

PS

March
2004

The Preventive Maintenance Monthly

TB 43-PS-616

Approved for
Public Release;
Distribution is
Unlimited

ARR, THIS
TREASURE BE
MORE VALUABLE
THAN SILVER
'R GOLD!

RIGHT YOU ARE,
MATEY! THE
CURSE OF THE
BLACK OYSTER IS
LIFTED AT LAST!



Dig for pirate treasure
on page 27!

PM Talk

MAN, I JUST GAVE MY TRUCK A QUICK ONCE-OVER AND THAT WAS IT!

YEAH, ME, TOO. IT'LL DO.

THOSE WORDS SPEAK VOLUMES ABOUT *THEIR* PM. ARE YOU WALKING OR TALKING?



Everybody loves talking about the latest fad in clothing, shoes, and whatever makes people look good. But it takes more than talking to make you look sharp.

The same is true for PM. Talking PM is great, but talk is cheap without a little action. If you're gonna talk the PM talk, you've gotta walk the PM walk.

That means getting down and dirty—turning wrenches, performing PMCS, doing daily inspections, changing oil and filters or lubing when your TM calls for it.

So how do you spend your time? Do you talk about how good your equipment looks? Do you put off maintenance because you think there'll be time to do it tomorrow? Do you treat PM like a fad?

If so, start walking the PM walk now! Your life depends on what you have **done** to keep your equipment mission ready, not on what you've talked about doing.



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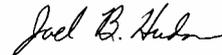
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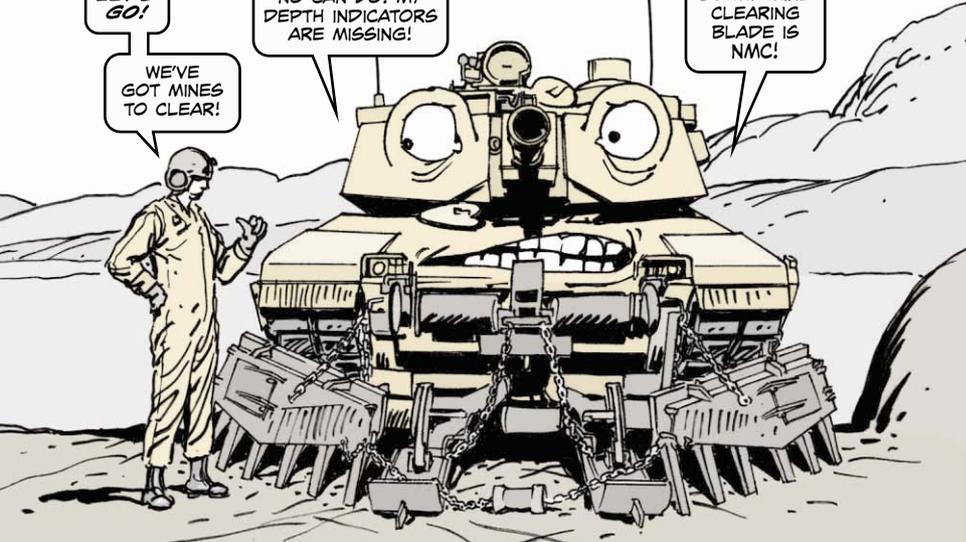
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OUT OF YOUR DEPTH

LET'S GO!
WE'VE GOT MINES TO CLEAR!

NO CAN DO! MY DEPTH INDICATORS ARE MISSING!

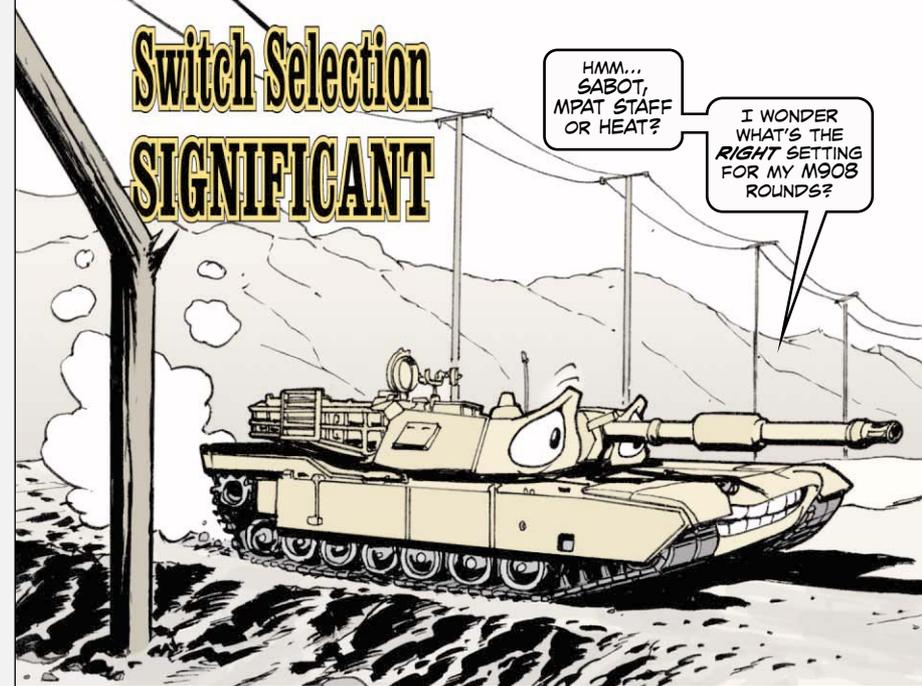
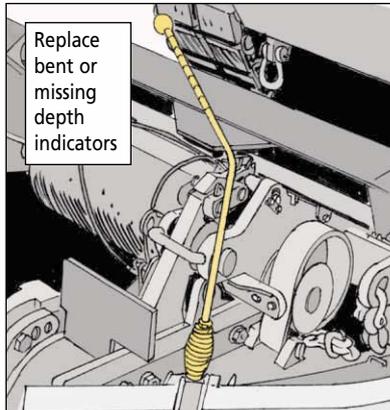
SO MY MINE CLEARING BLADE IS NMC!



When taking your M1-series tank's mine clearing blade through brushy areas, the depth indicators take a beating. Sometimes the beating's bad enough to bend or even break the indicators.

A broken or missing indicator dead-lines your mine blade. A bent one does not. But it still makes it hard to tell how deep you're plowing. When it comes to dealing with mines, you never want to be out of your depth!

There's no NSN for a replacement shaft. Instead, you'll have to order a complete depth indicator kit, NSN 2590-01-462-3313. The kit costs \$109, but includes 2 depth indicators and all the hardware needed for installation. Instructions for installing the kit are on Page 2-132 of TM 9-2590-509-23&P.



Switch Selection SIGNIFICANT

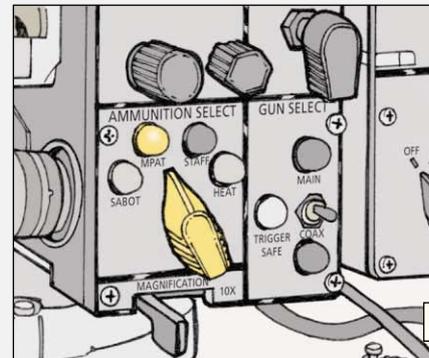
HMM... SABOT, MPAT STAFF OR HEAT?

I WONDER WHAT'S THE RIGHT SETTING FOR MY M908 ROUNDS?

Gunners, selecting the right position on the GPS ammunition select switch isn't so clear-cut when it comes to using M908 high explosive obstacle reduction tracer rounds. The switch doesn't specifically pinpoint the right setting to use.

The correct setting is MPAT. Until the TMs can be updated, get out your stubby pencils and make the following change to the -10-1 TMs:

(Note: When firing M908 ammunition, gunners must select MPAT on the ammunition select switch.)

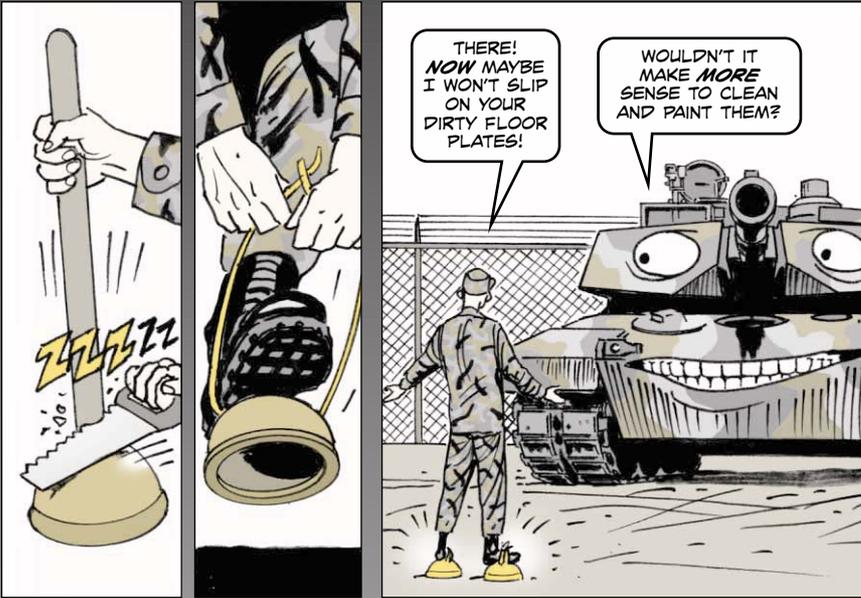


Select MPAT when firing M908 rounds

Add the note after Step C on Page 2-421 of TM 9-2350-264-10-1 (M1A1). The note goes after Step D on Page 2-598 of TM 9-2350-288-10-1 (M1A2) and Page 2-581 of TM 9-2350-388-10-1 (M1A2 SEP).

The complete scoop's in TACOM Maintenance Advisory Message 03-015. See your local TACOM LAR for a copy.

GIVE DIRTY FLOOR THE SLIP



It doesn't take a banana peel to make you slip inside the turret of your M1-series tank, crewmen. When water, mud, oil, and hydraulic fluid collect on the turret floor plates, it's easy to take a dive when you least expect it.

And it's dangerous! One soldier recently had two fingers partially amputated and broke a third when he slipped on dirty floor plates.

Avoid slipups by cleaning dirty floor plates with a bucket of soapy water and a nylon brush. Make sure you open the hull drain plugs so water has a way out.

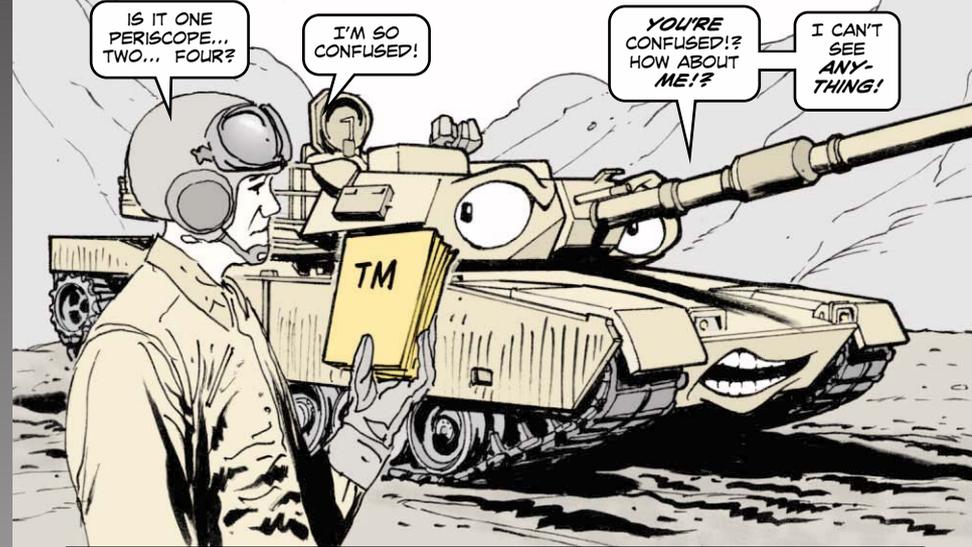
Once you're finished, take a close look at the non-skid paint on the turret floor plates. If the paint has worn down to bare metal, you can slip even if the plates are clean.

Apply a new coat of white non-skid paint, NSN 8010-01-499-0443, if needed. Order the paint on a DD Form 1348-6 and put "NSN not on AMDF" in the REMARKS block.

The -10-1 TMs currently require non-skid paint only on exterior surfaces and the back of the loader's seat, but a change is in the works to correct that.

Check out TM 43-0139, *Painting Instructions for Army Materiel*, for help on preparing the floor plates for painting.

Stop the Confusion!



Dear Half-Mast,
 I'm confused. How many periscopes, NSN 6650-01-320-5628, are needed for the driver's hatch center position and loader's hatch on my M1A1 tank?
 Item 1 on Page B-3 in the old version of TM 9-2350-264-10-2 (Sep 90 w/Ch 17) listed 1 ea as the quantity required. But when the TM was updated in Apr 03, the quantity required changed to 2.
 Do I need only 1 periscope, 1 for each hatch, or two for each hatch? *Help!*
 SFC I.A.C.

Dear Sergeant I.A.C.,
 I can understand your confusion. The answer is a total of 2 periscopes, one for the driver's hatch center position and one for the loader's hatch.
 TACOM-Rock Island is going to modify the description in the next change to the TM to clear up the confusion.

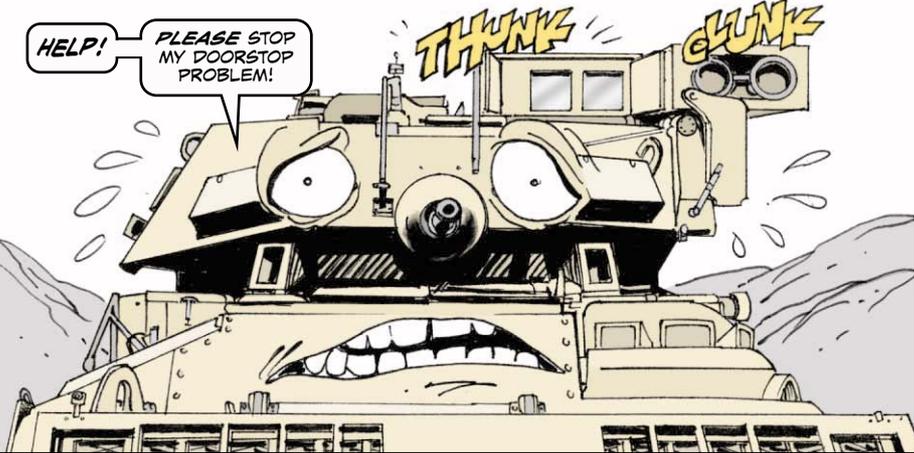
Half-Mast



Periscope, armored vehicle: driver's hatch center hatch position (1 ea), loader's hatch (1 ea) (19207) 12357848

M2/M3-Series Bradley...

STOPS STOP SWINGING ISU DOORS

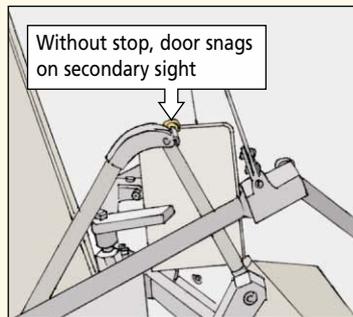


If the doors for your Bradley's integrated sight unit (ISU) swing open too far, you could be headed out the door when it comes to the ISU.

A left door that opens too far hangs up on the TOW launcher and a right door with the same problem catches on the secondary sight when the M242 gun is raised. Soon the ISU doors are bent and can't be opened from inside the Bradley.

If the ISU doors don't stop where they're supposed to, the problem is either missing or incorrectly installed doorstops or catches. They're removed when the door cables are adjusted and sometimes repairmen forget to put them back on or put them on wrong.

During your WEEKLY PMCS, make sure the ISU doors don't swing all the way open. If they do, tell your repairman.



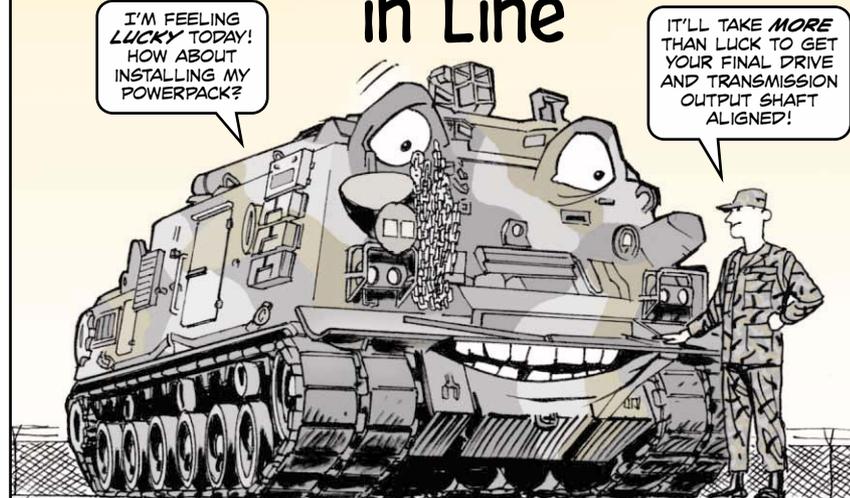
YOUR REPAIRMAN CAN GET A DOORSTOP FOR THE RIGHT DOOR WITH NSN 5340-01-318-9854...

AND A CATCH FOR THE LEFT DOOR WITH NSN 5340-01-313-4781.



M88A1 Recovery Vehicle...

Get Splines and Teeth in Line

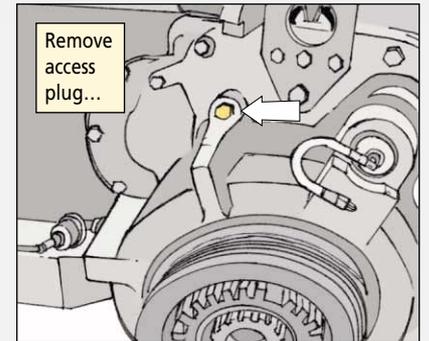


Mechanics, when reinstalling the M88A1 recovery vehicle's powerpack, you have to align the splines on the final drives with the teeth on the transmission output shaft.

Unless you're extremely lucky, the splines and teeth won't line up exactly. That means you're going to have a devil of a time getting them together.

Some mechanics try using a screwdriver to wedge the two together. But usually that just ends up damaging the splines and teeth.

The solution is behind the output shaft access plug. If you remove the plug, you'll find a screw that turns the shaft. Just use a flat-tipped screwdriver to turn the screw until the shaft teeth line up with the final drive.



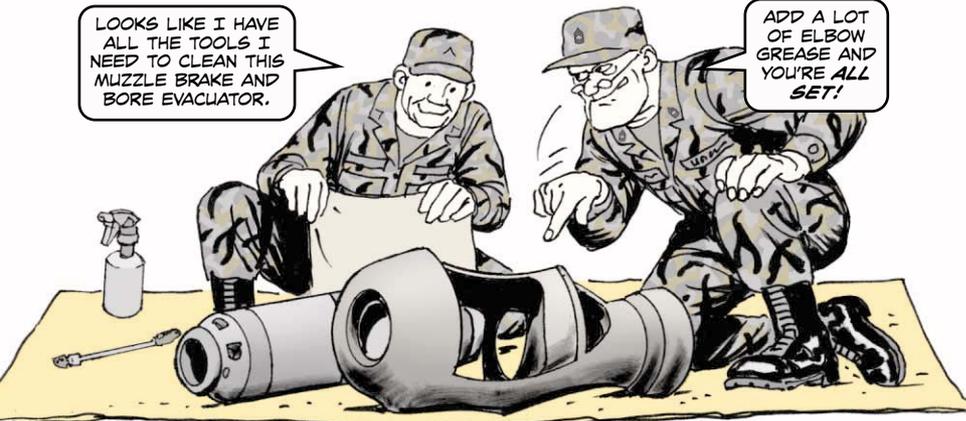
M109-Series SP Howitzers...

Give Carbon the Boot

LOOKS LIKE I HAVE ALL THE TOOLS I NEED TO CLEAN THIS MUZZLE BRAKE AND BORE EVACUATOR.

ADD A LOT OF ELBOW GREASE AND YOU'RE ALL SET!

HERE'S HOW TO GIVE THAT CARBON BUILDUP THE BOOT...



Crewmen, keeping the muzzle brake and bore evacuator free of carbon is one secret to straight shooting with your M109-series SP howitzer.

Each time the cannon is fired, a little carbon builds up inside. Wait too long for a cleaning and enough accumulates to freeze the two parts in place. They become almost impossible to remove.

Avoid that sticky problem by removing, cleaning, and greasing the muzzle brake quarterly or after every 300 rounds fired. The bore evacuator should be cleaned after firing and monthly if not fired.

1. Eyeball the muzzle brake for cracks. If you spot one longer than one inch, you need a new muzzle brake.
2. Remove the muzzle brake and bore evacuator following the instructions starting on Page 3-53 of TM 9-2350-311-10 and Page 3-97 of TM 9-2350-314-10. The muzzle brake weighs about 350 pounds and the bore evacuator is no lightweight, either, so always use the proper lifting equipment.
3. Lay the parts on a clean dropcloth to prevent contamination by dirt and sand.
4. Thoroughly spray all the carbon-coated surfaces of the muzzle brake and bore evacuator with CLP, NSN 9150-01-054-6453. Let the CLP soak for a few minutes, then scrub until all the carbon is removed. Use the bore evacuator brush from the cleaning and preservative artillery kit, NSN 1025-01-196-2172, and some clean rags. You can also substitute bore evacuator brush, NSN 1005-00-903-1296, for scrubbing.
5. Lightly coat the muzzle brake threads with general purpose grease, NSN 9150-00-754-2595. Then, lightly lube the inside, valve balls, valve ring and all unpainted surfaces on the bore evacuator.
6. Reassemble the muzzle brake and bore evacuator following the instructions in the operator's manuals.

M113-series FOV...

TURN 'EM IN!

MY REQUISITION FOR A NEW CARRIER ENGINE WAS REJECTED.

THERE AREN'T ANY AVAILABLE IN THE SUPPLY SYSTEM.

I GUESS WE SHOULD TURN IN A FEW OF THOSE UNSERVICEABLE ONES WE'VE BEEN HOLDING.



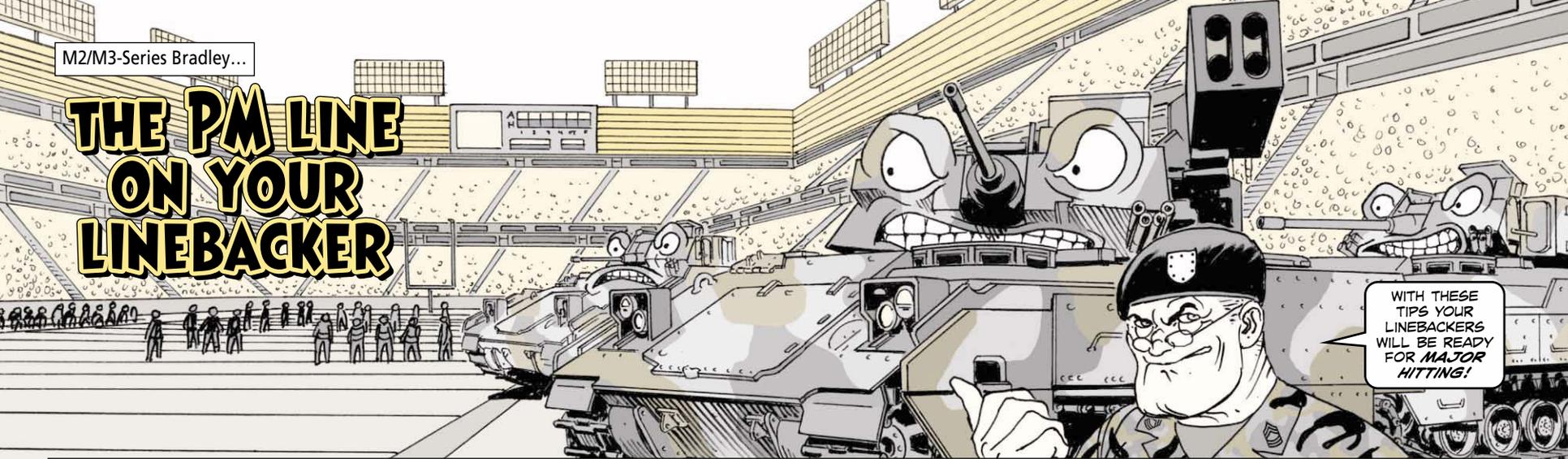
Mechanics, when you get a newly repaired engine or generator for your M113-series vehicle, what do you do with the unserviceable one?

When unserviceable items aren't turned in, the depot runs out of stuff to repair. Pretty soon, the supply system dries up.

The following items are particularly needed for turn-in to Anniston Army Depot (BA4) for repair:

Item	Vehicle	Part Number	NSN
Engine w/container	M113A3 FOV	5705597	2815-01-248-7644
Engine w/container	M113A3 FOV	57K1006	2815-01-412-2715
Generator, engine AC	M113 FOV	A0012260AB	2920-01-147-1575
Generator, engine AC	M113A3 FOV	A0012266AA	2920-01-238-9710
Final drive assembly	M113/A2/A3 FOV	12253512	2520-01-061-5766

THE PM LINE ON YOUR LINEBACKER



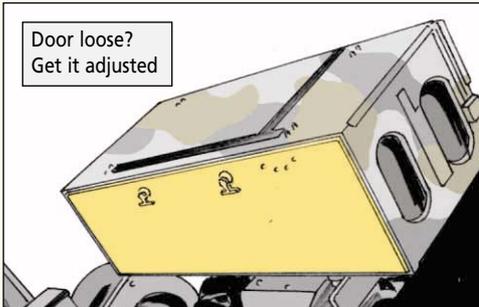
WITH THESE TIPS YOUR LINEBACKERS WILL BE READY FOR MAJOR HITTING!

Dear Editor,

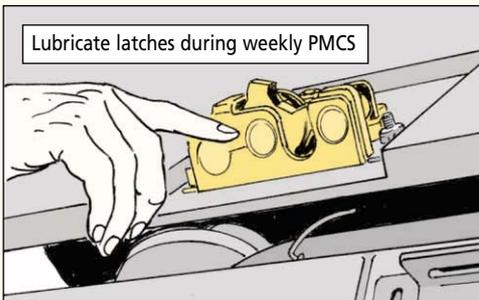
I have a few tips for Bradley crews to keep their Linebackers in line for firing Stingers:

- Pay attention to the top and bottom doors of the Linebacker. They can become loose after miles of rough travel. If they bounce around too much, their latches break and your Linebacker is out of business. If you notice the doors bouncing around, tell your repairman so he can adjust them. Check the doors for looseness during your weekly PMCS, too.

- Also make a point during PMCS to oil the door latches with a light oil. The latches are usually ignored and eventually corrosion freezes them in place. But don't lube in the desert. Lube attracts sand, which makes it difficult to latch the latch.



Door loose?
Get it adjusted



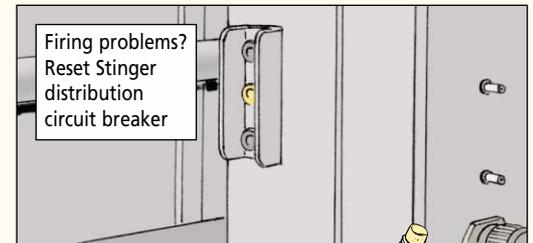
Lubricate latches during weekly PMCS

- Use a shop vac to vacuum dust out of the inside of the Linebacker. Dust will affect the Linebacker's cryogenics and electronics and cause firing problems. It helps to keep the Linebacker closed as much as possible so more dust can't get in.

- If you're having problems firing the Linebacker, try resetting the Stinger distribution circuit breaker. Sometimes that does the trick. **Don't** use pliers to pull out the circuit breaker—that damages it. Use your fingers.



Vacuum dirt out of Linebacker



Firing problems?
Reset Stinger distribution circuit breaker

SFC Mark Maidens
A Btry, 1/3 ADA
Ft Stewart, GA

From the desk of the Editor

Good job, Sergeant. You've lined up some excellent Linebacker tips.

WHAT YOU CAN USE ON YOUR WEAPON

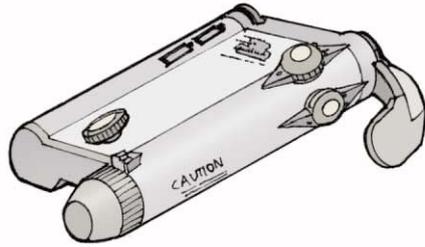


Today's Army offers several different sights, lasers and infrared illuminators that can be used on rifles and machine guns. But sometimes it's difficult to tell what can be used on what.

HERE ARE MOST OF THE AVAILABLE AIDS FOR YOUR WEAPON, THEIR NSN, THEIR TM, AND WHICH WEAPONS YOU'RE AUTHORIZED TO USE THEM WITH...



AN/PAQ-4(A)(B)(C) infrared aiming lights:



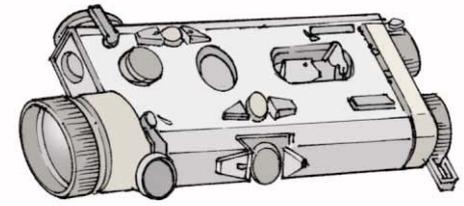
- AN/PAQ-4A,**
NSN 5855-01-312-5160,
TM 11-5855-297-12&P;
- AN/PAQ-4B,**
NSN 5855-01-361-1362;
- AN/PAQ-4C,**
NSN 5855-01-398-4315.

Both the **-4B** and **-4C** are covered by TM 11-5855-301-12&P

The **AN/PAQ-4s** can be used on the M16-series rifles, the M4/M4A1 carbine, the MWS, and the M249 and M240B machine guns.

AN/PEQ-2A target pointer illuminator/aiming light:

NSN 5855-01-447-8992, TM 11-5855-308-12&P.



The **AN/PEQ-2A** can be used on the M16-series rifle, M4/M4A1, MWS, M249, M60, M240B, M2, and MK 19.

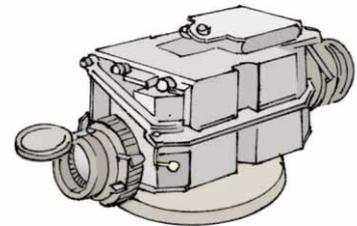
AN/PAS-13 thermal sight:

AN/PAS-13(V)2

- NSN 5855-01-383-6558, TM 11-5855-302-12&P
- NSN 5855-01-458-0210, TM 11-5855-309-12&P
- NSN 5855-01-464-3152, TM 11-5855-312-10

AN/PAS-13(V)3

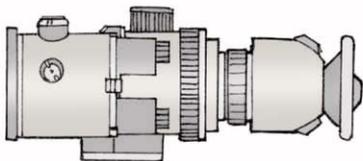
- NSN 5855-01-383-6544, TM 11-5855-302-12&P
- NSN 5855-01-458-0211, TM 11-5855-309-12&P
- NSN 5855-01-464-3151, TM 11-5855-312-10



The **AN/PAS-13(V)2** medium weapon thermal sight can be used on the M16-series rifle, the M4/M4A1 carbine, and the M240 and M249 machine guns. All AN/PAS-13(V)2 versions are interchangeable on these weapons.

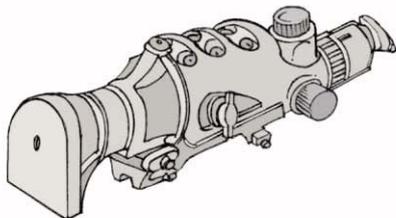
The **AN/PAS-13(V)3** heavy weapon thermal sight can be used on the M2 and MK 19 machine guns, and the M24 sniper rifle. All AN/PAS-13(V)3 versions are interchangeable on these weapons.

AN/PVS-4(A) night vision sights:
NSN 5855-00-629-5334 for the AN/PVS-4
and NSN 5855-01-422-8782 for the -4A



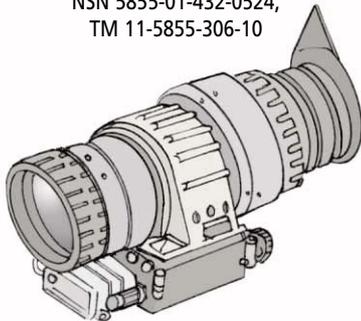
Both are covered by TM 11-5855-213-10. The AN/PVS-4 and -4A can be used on the M16-series rifle, the M4/M4A1, the MWS, the M249, the M60, and the M240B.

AN/PVS-10(V)1 night vision sniper scope:
NSN 5855-01-410-8979,
TM 11-5855-303-12&P



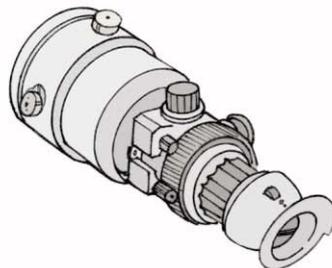
The AN/PVS-10(V)1 is used only on the M24 sniper rifle.

AN/PVS-14 monocular night vision device:
NSN 5855-01-432-0524,
TM 11-5855-306-10



The AN/PVS-14 is used on the MWS and is mounted behind the M68 site.

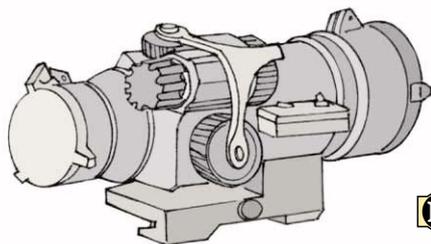
AN/TVS-5(A) night vision sights:
NSN 5855-00-629-5327 for AN/TVS-5
and NSN 5855-01-422-8777 for the -5A



Both are covered by TM 11-5855-214-10. The AN/TVS-5 and -5A can be used on the M2 and MK 19 machine guns.

M68 reflex sight:
NSN 1240-01-411-1265,
TM 9-1240-413-12&P

The M68 can be used on M16-series rifle, the M4/M4A1, and the MWS.



PS END

M16-Series Rifle, M4/M4A1 Carbine...

LIGHT SPOTS CARBON

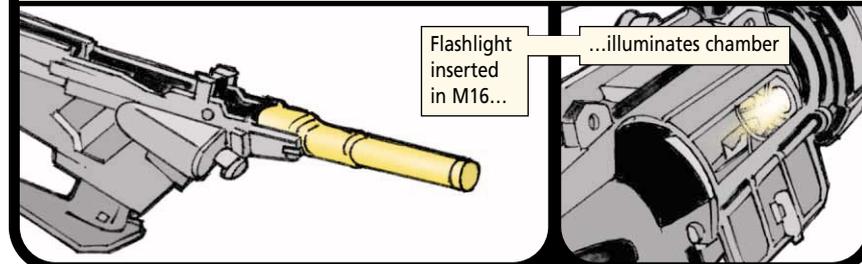
Dear Editor,

When you clean the "star chamber" in your M16-series rifle or M4/M4A1 carbine, it's difficult to see into the chamber to make sure you've gotten all the carbon.

I found the mini mag light does a good job lighting up the inside of the star chamber. Just insert it where

the charging handle fits in the receiver and put the light on its brightest setting. Then you can easily see any carbon you've missed.

1SGT Phillip Zahn
1/293 Inf
INARNG
Huntington, IN



Flashlight inserted in M16...

...illuminates chamber

M249 Machine Gun...

Slide Assembly DS Job

Dear MSG Half-Mast,

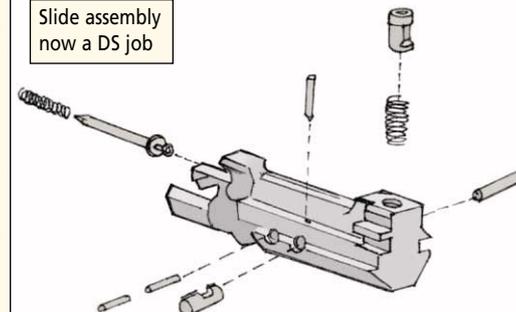
I'm confused. Change 7 to TM 9-1005-201-23&P lists on Page C-6-1 all the parts of the M249 machine gun slide assembly as PAFZZ (direct support). But the procedure for disassembling and assembling the slide assembly is in Para 12-12, which is unit-level maintenance. How can that be? M.H.

Dear M.H.,

Oops! You caught a mistake in the TM. Para 12-12 should have been moved to Chapter 3, the chapter for direct support. DS is now responsible for taking apart and putting back together the slide assembly. Make a note in your copy of the TM until the next change comes out.

Half-Mast

Slide assembly now a DS job

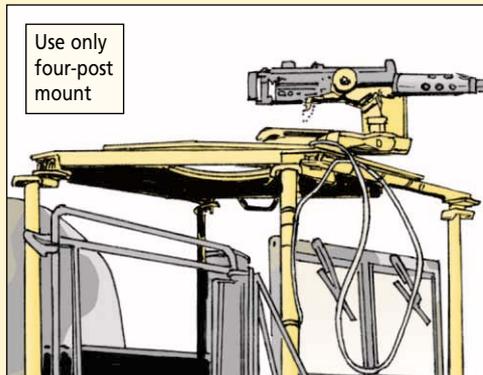


FOUR-POST WEAPON STATION ONLY

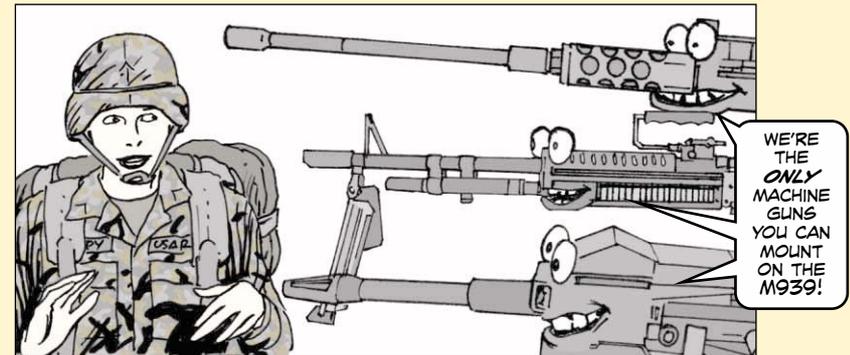


There is one and only one machine gun mount kit that can be used on the M939-series truck: machine gun mount kit, NSN 1005-01-432-3339, which is a 4-post lightweight weapon station. To mount the weapon station, you must also install the cab reinforcement kit, NSN 2590-01-436-9144, to prevent damage to the cab.

The only machine gun mounts that can be used with the lightweight weapon station are the MK93 Mod 1, NSN 1005-01-383-2757, which is covered by TM 9-1005-245-13&P, and the MK64 Mod 9, NSN 1010-01-412-3159, which is covered by TM 9-1010-231-13&P. Eventually, a new version of TM 9-1005-245-13&P will cover both mounts.



The only weapons safety certified to date for this weapon station are the MK 19, M2, and M60 machine guns. It's important to use a catch bag with the mounts to prevent spent casings and links from falling into the cab and possibly injuring the driver.



Some units have tried substituting the 3-post M66 mount that's used on most other trucks. That's a bad mistake. The M66 mount can't be properly stabilized and secured to the M939's platform. In as few as 100 miles on the road, the cab can suffer structural damage. This damage can become so severe that the cab can slide over the truck frame or the mount can work loose during firing. Either situation could be fatal for someone.

If you have installed M66s on your M939s, remove them ASAP and order the 4-post ring mount and the cab reinforcement kit.

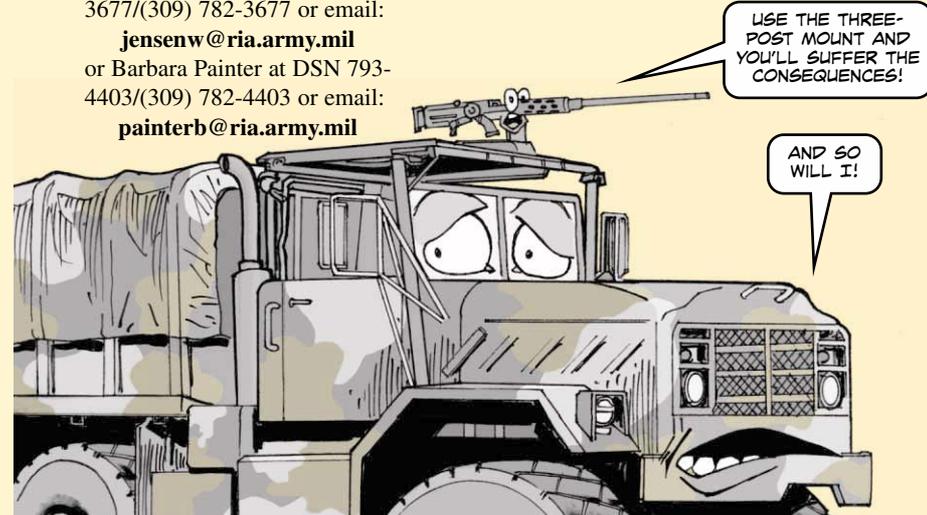
Direct support installs the weapons station and cab reinforcement kit. The weapons ring comes with the mount kit. For parts info on the ring mount, see Fig 602 in TM 9-2320-272-24P-2.

For additional info on the M939's mount, contact William Jensen at DSN 793-3677/(309) 782-3677 or email:

jensenw@ria.army.mil

or Barbara Painter at DSN 793-4403/(309) 782-4403 or email:

painterb@ria.army.mil



Spring Height Check



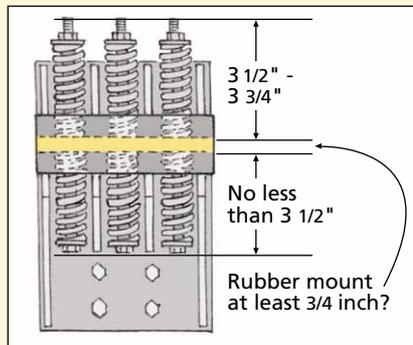
Dear MSG Half-Mast,
Is there a torque requirement for the front fuel tank springs on the M978 HEMTT fuel tanker? These springs hold the fuel tank to the vehicle's frame.
SGT T.M.

Dear SGT T.M.,
There is no torque requirement for the front fuel tank springs.
However, take a look at Page 2-46 of Change 2 in TM 9-2320-279-20-1 (Apr 93). It has the lowdown on a height check for the springs.
But before you check the spring's height, tap the bottom of the spring bolt to make sure it's seated properly.

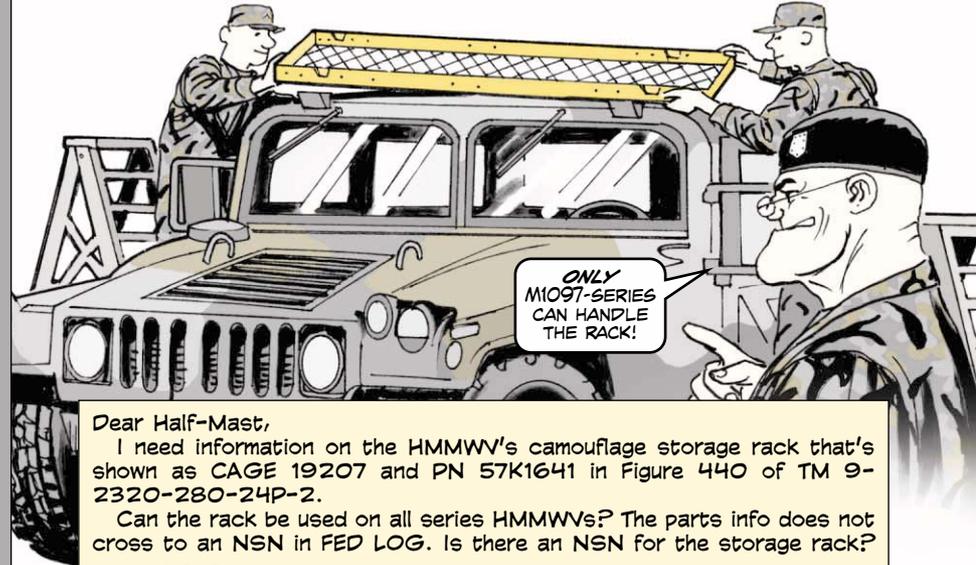
The height of the top portion of the spring should be between 3 1/2 to 3 3/4 inches. The bottom portion should measure no less than 3 1/2 inches. Also, make sure the spring's rubber mount measures at least 3/4 inch.

Have your mechanic replace a wornout spring. Never try to shim a short spring with washers.

Half-Mast



CAMOUFLAGE STORAGE RACK



Dear Half-Mast,
I need information on the HMMWV's camouflage storage rack that's shown as CAGE 19207 and PN 57K1641 in Figure 440 of TM 9-2320-280-24P-2.
Can the rack be used on all series HMMWVs? The parts info does not cross to an NSN in FED LOG. Is there an NSN for the storage rack?
SSG C. L.
Ft Riley

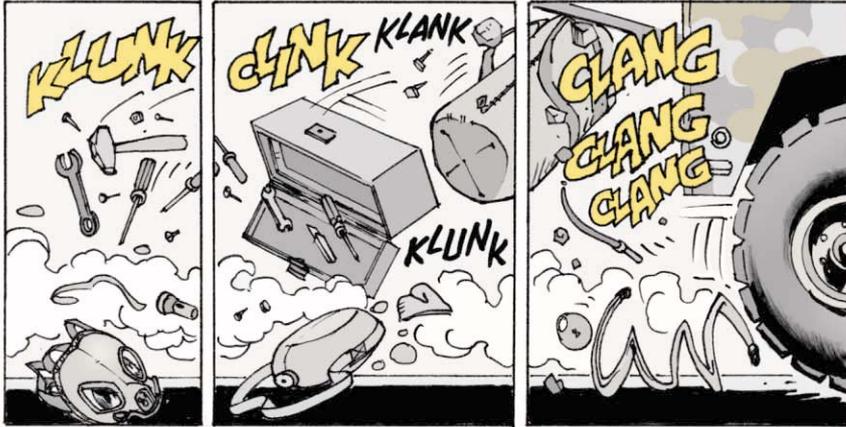
Dear Sergeant C.L.,
The camouflage storage rack (PN 57K1641) is designed specifically for the heavy M1097-series HMMWVs equipped with either the howitzer prime mover (HPM) or towed Vulcan system (KTV) kits. The camouflage rack kit was not made for HMMWVs without the HPM or KTV kits. The M998-, M1038- and M1037-series HMMWVs are easy to overload. The addition of the camouflage rack would overload them, so an NSN is not available.

Half-Mast

Radiator Testing Kit

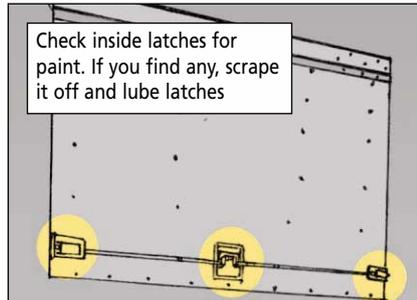
ST255 and SVT262 radiator testing kits are great for testing the cooling system on your vehicle—except when your vehicle happens to be a 2 1/2-ton or larger truck. The tester head in both kits won't fit on the radiator neck in those trucks, so use the adapter kit that comes with NSN 4910-01-447-5586.

KEEPING REAR



Some units who use the SECM (shop equipment, contact maintenance) truck or BEOD (body explosives ordnance disposal) vehicle have reported problems keeping the rear door shut while the vehicle is moving. If you've had that experience, try these checks:

- Inspect the door latch for paint. Paint can cause the latch to stick in the open position. If you spot paint buildup, scrape it off and lube the latch with a light oil.
- Check if the latch shims are damaged and preventing the latch from locking properly. Damaged shims are usually caused by slamming the door, which you shouldn't do. To correctly close the door, pull up on the latch handle as you close the door firmly.
- Check for a bad latch. Some latches are just plain defective and won't lock the door securely.
- Inspect the door for damage. If the door was bumped by another truck, it could have been knocked out of alignment. After every mission it's a good idea to check that the door shuts securely.

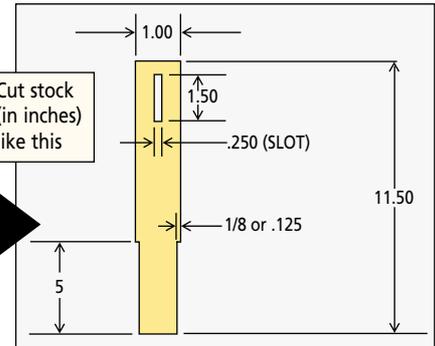


DOOR SHUT

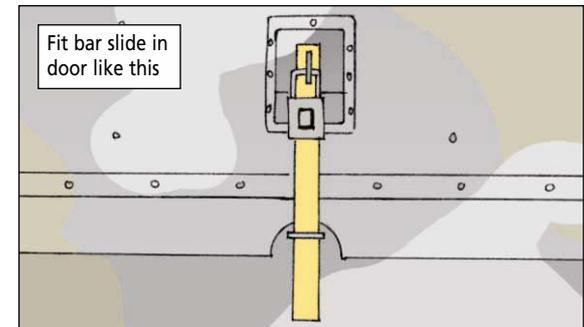


If you find latch problems, your support can fix the latch using the part NSNs in TM 9-4940-563-13&P and TM 9-4940-566-13&P.

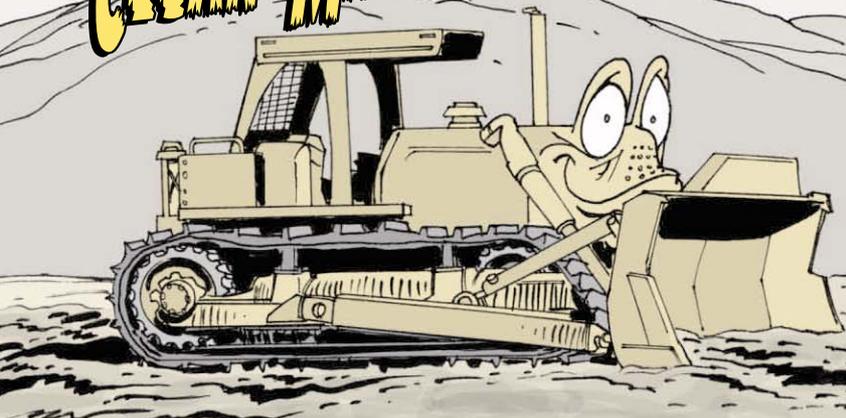
If you want to help keep the door shut and provide extra security for the shelter, make a bar slide for the door. Use 1/4-in thick aluminum flat stock or aluminum C-channel stock or steel stock and cut the slide like this:



Position the slide in the tailgate's footmen loop below the door latch. The bar slide gives more security and support to the door, but does not take the place of the latch. If you expect the door to stay shut, make sure the latch works.



CLEAN MAGNETIC STRAINER



RATS! I, MAGNET MAN, THOUGHT I COULD BRING THIS TRACTOR TO A STANDSTILL BY PUTTING METAL SHAVINGS INTO ITS TRANSMISSION OIL!

AND YOUR EVIL SCHEME WOULD'VE WORKED, TOO, IF NOT FOR GOOD PM AND THIS MAGNETIC STRAINER!



Mechanics, metal shavings in the transmission oil is the last thing your dozer needs for smooth operation.

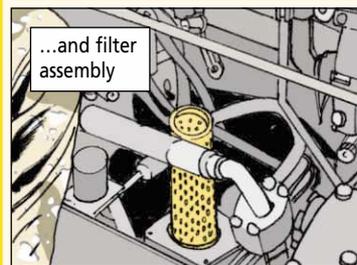
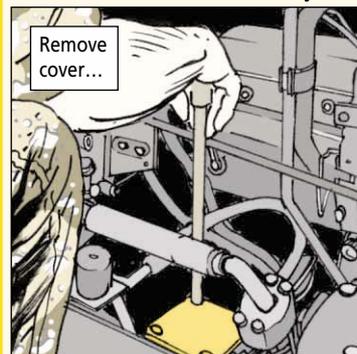
Contaminated oil with metal shavings will clog the screen in the transmission system's magnetic strainer. A clogged screen restricts oil flow. The end result is wear and tear on the dozer's engine and transmission, not to mention a bad AOAP report!

So after changing the transmission's primary filter, don't forget about the magnetic strainer.

Cleaning the screen and magnets is a 250-hr service in LO 5-2410-237-12.



1. Remove the cover and spring, then remove the filter assembly.



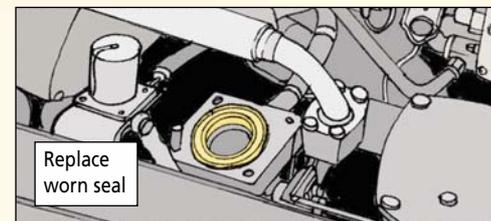
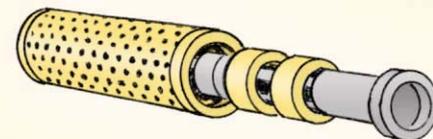
2. If you're in the motor pool, steam clean the screen magnets, and then dry them with pressurized air. In the field, wash the screen in MIL-PRF-680 cleaning compound. Clean the magnets with a stiff bristle brush. **Don't use a wire brush!** That can scratch or demagnetize them. And don't drop or tap magnets. That can demagnetize or break them.

3. Check the cover seal for cracks, tears or mashed edges. If you find any, replace the seal, NSN 5331-00-863-5549.

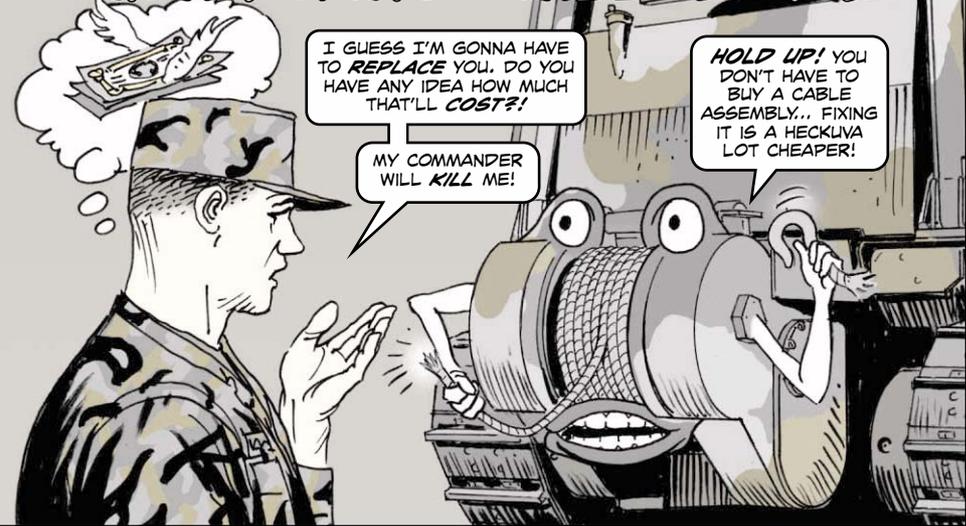
4. Install the magnets, screen, spring and cover, in that order. Torque the cover nuts to 31-34 lb-ft dry (no oil) or 23-25 lb-ft wet (threads lubed with oil).

5. With the engine running and the transmission in neutral, pull the dipstick to measure the oil level. Add oil to bring it to the FULL mark on the dipstick.

Wash screen and magnets



REAR WINCH CABLE PARTS



I GUESS I'M GONNA HAVE TO REPLACE YOU. DO YOU HAVE ANY IDEA HOW MUCH THAT'LL COST?!

MY COMMANDER WILL KILL ME!

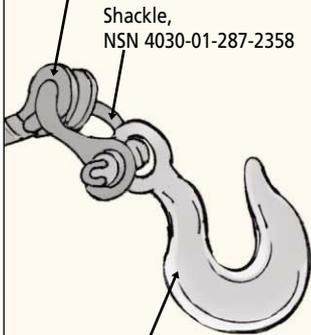
HOLD UP! YOU DON'T HAVE TO BUY A CABLE ASSEMBLY... FIXING IT IS A HECKUVA LOT CHEAPER!

HERE'S WHAT YOU NEED TO MAKE REPAIRS TO THE 200-FT LONG WINCH CABLE ASSEMBLY; NSN 4010-01-259-2713, THAT'S USED ON THE D7G TRACTOR.

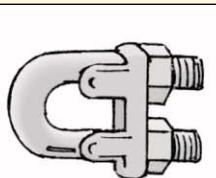
Wire rope thimble, NSN 4030-00-266-0071

Shackle, NSN 4030-01-287-2358

Hook, NSN 4030-01-289-6202



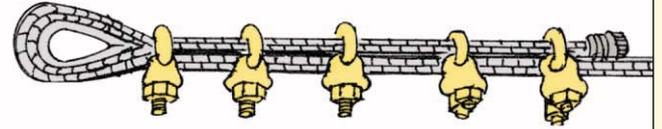
To repair a cable, cut off the damaged end. You'll need a thimble and 5 clamps. Seize the ends so the wires won't unravel.



Wire rope clamp, NSN 4030-00-243-4438

Measure back 6 feet and bend the end back to there. Put a clamp around both wires, with the cast saddle on the live wire. Tighten the clamp.

Place clamps and thimble like so:

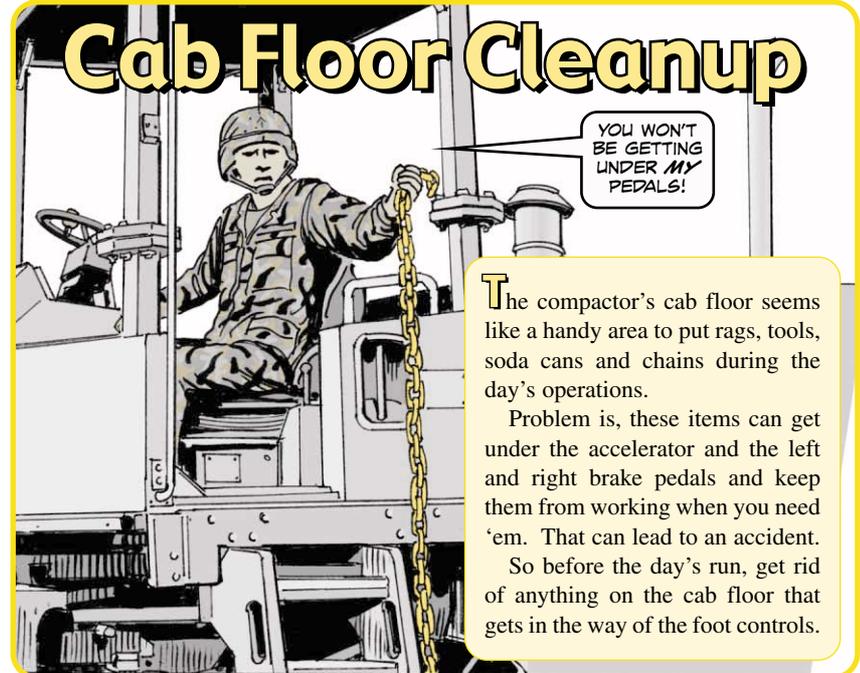


Continue adding clamps every 6 inches and tightening them. Be sure the saddles are on the live wire. Don't forget to put the thimble in place.

When all the clamps are on, go back and torque the nuts to 165 lb-ft.

Retighten the clamps after the first time you use the cable, and before using it each time.

Cab Floor Cleanup



YOU WON'T BE GETTING UNDER MY PEDALS!

The compactor's cab floor seems like a handy area to put rags, tools, soda cans and chains during the day's operations.

Problem is, these items can get under the accelerator and the left and right brake pedals and keep them from working when you need 'em. That can lead to an accident.

So before the day's run, get rid of anything on the cab floor that gets in the way of the foot controls.

Cool Fan PM

I'M A REAL FAN OF THESE PM POINTERS!



Operators, the radiator in your compactor needs some cool relief during construction operations. Keep these PM pointers in mind during PMCS.

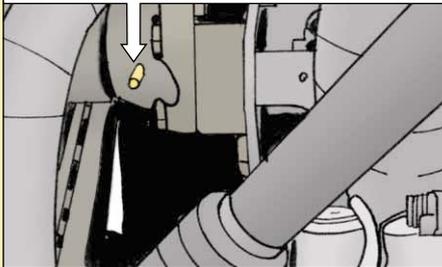
Grease Fitting Reminder

One grease fitting that's often overlooked during scheduled services is the one that lubes the fan pulley bearings. It's hidden behind the fan blades. See Page 111 of the TM 5-3805-380-10.

Without lube, the bearings seize up. Then the blade stops turning freely, letting the engine and transmission overheat.

Keep the fan pulley bearings lubed. During scheduled services, lube all fittings and wipe off any excess that gets squeezed out.

Make sure fan pulley bearings get lubed

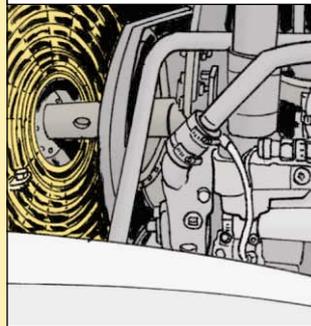


Open Air Flow

Any dirt or mud caked on the compactor's fan blade screen stops the air flow that carries away heat from the radiator. Blocked air flow also leads to overheating of the engine and transmission.

Clean off dirt, mud or debris.

Keep fan blade screen clean for air flow



The Pirates of PM

CURSE OF THE BLACK OYSTER

THE HMS DAUNTLESS, BOUND FOR PORT ROYAL IN THE CARIBBEAN SEA.



BE CAREFUL WHAT YOU WISH FOR, MISS CONSTANCE.

THE PIRATES OF THE CARIBBEAN ARE A BLOOD-THIRSTY LOT!

BUT, CAPTAIN, I THINK IT WOULD BE FASCINATING TO MEET A PIRATE.

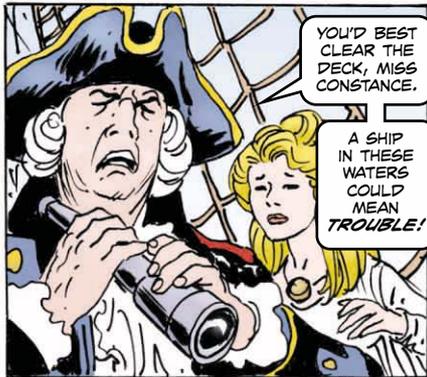
WHERE DID YOU GET SUCH A FINE PENDANT?

IT LOOKS AS THOUGH IT COULD HAVE COME FROM THE TREASURE OF BLACKBEARD HIMSELF—

MY FATHER GAVE IT TO ME MANY YEARS AGO.

AHOY, CAPTAIN! SHIP OFF THE STAR-BOARD BOW!

JOE KUBER



YOU'D BEST CLEAR THE DECK, MISS CONSTANCE.

A SHIP IN THESE WATERS COULD MEAN TROUBLE!



BLAST ME IF THAT ISN'T THE BLACK OYSTER!



MAN THE CANNONS!



PREPARE FOR BATTLE!



THE BLACK OYSTER GIVES NO QUARTER!



REPEL THE PIRATES!



WHUPS!

THE PIRATES ARE SLIPPING AND SLIDING!



SNAP

SNAP

THEIR ROPES ARE BREAKING!



KALUMP



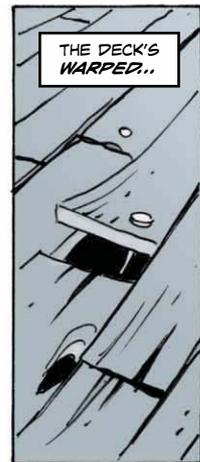
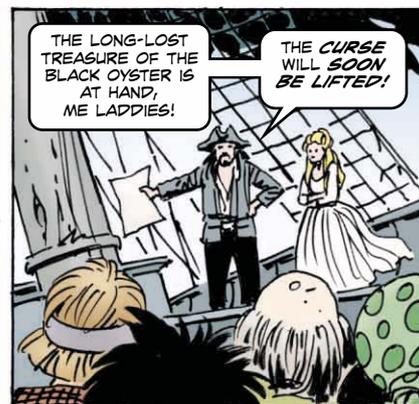
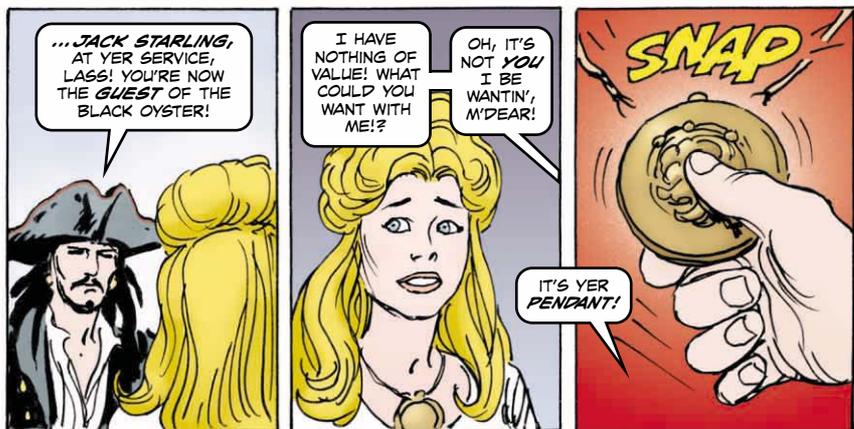
ARR! ME LEG-



HAHAHA



MY WORD... IT WOULD APPEAR THESE PIRATES ARE REPELLING THEMSELVES! HEH, HEH.





WHEN WAS THE LAST TIME THIS PLACE GOT SOME GOOD OLD-FASHIONED PREVENTIVE MAINTENANCE?

NEVER YE MIND, YOUNG MISS!



ALL WILL BE MADE RIGHT WHEN WE GET BACK OUR MISSING TREASURE.

'TIL THEN, STAY OUT OF THE WAY OR I'LL CLAP YE IN IRONS!



A FEW DAYS LATER...

THIS TREASURE MAY BE ENOUGH TO BUY A NEW SHIP, CAPTAIN...

...BUT ALL THE BLACK OYSTER REALLY NEEDS IS SOME PREVENTIVE MAINTENANCE.

WAIT 'N' SEE, LASS, WHEN WE GET OUR TREASURE BACK, THE CURSE WILL BE GONE.

IT SEEMS SUCH A WASTE.



HMMM... FIFTY PACES NORTH BY NORTHEAST...



...FORTY-NINE, FIFTY!



HEAVE TO, YA SCURVY BILGE RATS! LET'S HAVE AT THAT TREASURE!



X MARKS THE SPOT, HUH? FIGURES.



CAP'N, THIS IS IT! WE'VE FOUND IT!

AVAST, YE LUBBERS! BRING UP THAT TREASURE!



UGH!

GRUNT!

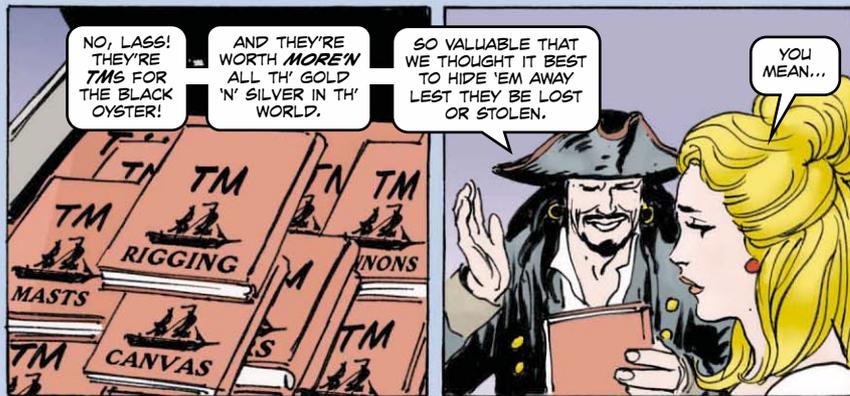


'TIS A THING OF BEAUTY, ME HEARTIES!

SHIVER ME TIMBERS!

WOW!

WHAT IS IT! GOLD!?! SILVER?! GEMS!?!



NO, LASS! THEY'RE **TMS** FOR THE BLACK OYSTER!

AND THEY'RE WORTH **MOREN'** ALL TH' GOLD 'N' SILVER IN TH' WORLD.

SO VALUABLE THAT WE THOUGHT IT BEST TO HIDE 'EM AWAY LEST THEY BE LOST OR STOLEN.

YOU MEAN...



YES! FOR TEN YEARS, WE'VE BEEN CURSED WITH NO PREVENTIVE MAINTENANCE AS THE BLACK OYSTER FELL APART AROUND US.

NOW, WITH **THESE** WE CAN AT LONG LAST BE THE SCOURGE OF THE CARIBBEAN AGAIN!

AHA! THAT NEW **YARDARM** COMES WITH NSN 1665-00-000-0002!

WE'LL ORDER THAT AS SOON AS WE REACH TORTUGA!



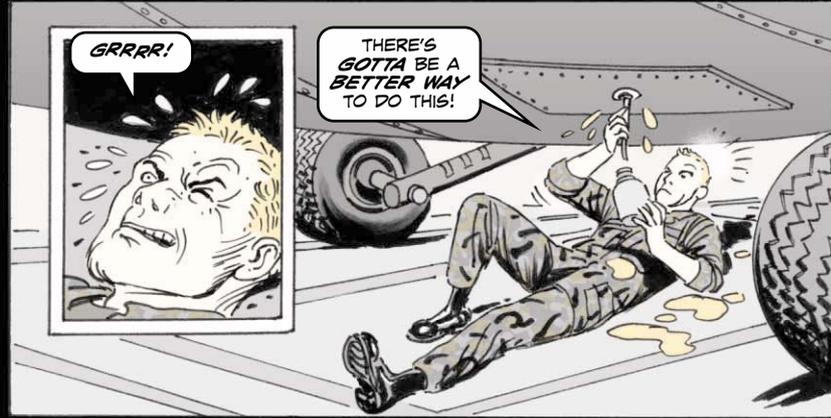
TMS SHOULD BE AS HIGHLY PRIZED AS PIRATE'S TREASURE.

SO AVOID THE CURSE OF POOR P.M. KEEP THOSE MANUALS HANDY AND USE 'EM **EVERY DAY!**



UH-60, AH-64D, OH-58D...

FUEL SAMPLER TOOL



GRRRR!

THERE'S **GOTTA** BE A **BETTER** WAY TO DO THIS!

MECHANICS, THERE IS A **BETTER** WAY TO TAKE FUEL SAMPLES...

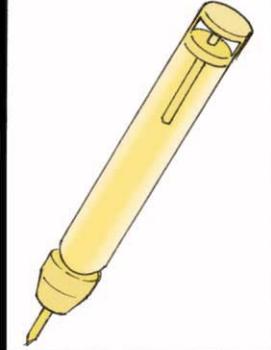
...**BETTER** THAN USING **HOMEMADE** CONTRAPTIONS THAT USUALLY SPILL FUEL.



GET RID OF THE MASON JARG, PLASTIC CAPS AND SCREWDRIVER BITS...



...AND GET AN AIRCRAFT FUEL SAMPLING DEVICE, NSN 4910-01-129-7273.



ALL AIRCRAFT, EXCEPT THE CHINOOK, CAN USE THE SAMPLER TO CHECK FOR WATER OR OTHER CONTAMINATION AND DETERMINE FUEL TYPE.



ORDER ONE FOR EACH AIRCRAFT AND ONE FOR EACH AVUM NO. 1 AND NO. 2 TOOL KIT. THE SAMPLER COSTS \$3.11.

WORKING HARD UNDER JOB PRESSURE

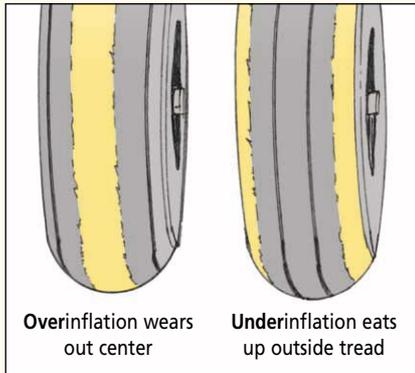


Aircraft tires carry a lot of weight. They need the right amount of air pressure to get the job done when the rubber meets the road.

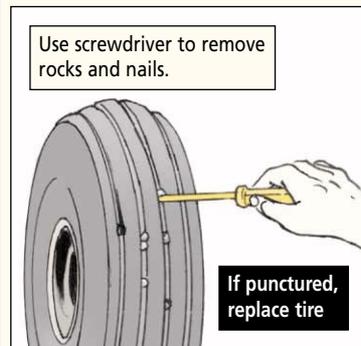
Service your aircraft tires by the book, with no shortcuts just like it says in each bird's maintenance TM and/or TM 55-2620-200-24. Shortcuts can cost you your life.

When you remove tires to repair and adjust them, put 'em in an approved tire cage, NSN 4910-01-459-7080, to inflate them. Make sure you stand out of harm's way outside the wheel failure zone while inflating tires. Plus, wear safety goggles to protect your eyes and use a remote tire inflator assembly, NSN 6685-00-124-4336, with a 10-ft air hose.

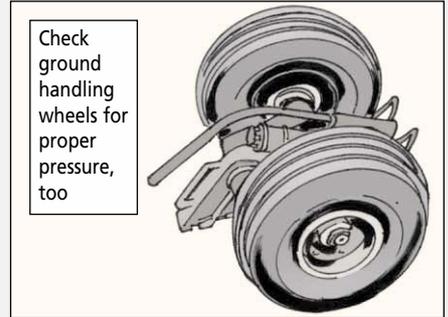
Remember that overinflated tires wear out faster in the **center** of the tread. Tires without enough pressure tend to wear out faster on the **outer** tread and shoulders.



Always inflate tires when they're cool. While you're checking your tires, use a medium, cross-tip screwdriver to remove rocks, nails or other foreign matter stuck in the tread.



Check your tire inflation pressure daily and eyeball your bird's maintenance manual for correct tire air pressure. Remember, pressure varies with temperature.



For tires that require 50 psi or less, use pressure gauge, NSN 4910-00-204-3170. For pressures over 50 psi, use the tire inflator, NSN 6685-00-124-4336.

Black Hawk and Apache tires use nitrogen only. All other Army aircraft tires can use compressed air.



Aircraft	Position	Cut Limit (inch)	Pressure (psi)
AH-64A/D	MLG	—	105±5*
AH-64A/D	TLG	—	105±5*
CH-47D	FWD	3/32	88
CH-47D	AFT	3/32	88
MH-47E	FWD	3/32	98
MH-47E	AFT	3/32	127
OH-58D	GH	3/32	38
UH-60A	MLG	4/32	130-140*
UH-60A	TLG	3/32	115-125*

*Use regulated nitrogen pressure source

When you've inflated a tire, eyeball it daily for the next few days. If it loses more than 5 percent of its minimum operating pressure within 24 hours, repair it like it says in Table 3-1 of the TM 55-2620-200-24.

Replace tires when wear and cuts are beyond damage limits. To make sure cuts, cracks or holes haven't exceeded damage limits, use a depth gage, NSN 5210-00-357-5951.

Some aircraft tires have inner tubes, such as the Chinook. The tube can be a pain in the neck to get into the tire. So pay attention that the tube doesn't get pinched by the wheel halves when tightening bolts.

Here's a tip not in the TM that'll make inserting the tube easier. Apply a little talcum powder, NSN 6810-00-270-9989, to the tube and fill it with a small amount of air to get the wrinkles out before you insert it into the tire.



Keep Them Wheels Turnin'

THIS FIXTURE IS JUST WHAT THE DOCTOR ORDERED!



YOU BETCHA. SINCE WE GOT THE PLANS FROM PS, MOUNTING TIRES HAS BEEN A BREEZE.

Dear Sergeant Blade,

Our mechanics had a tough time assembling tires on rims for our Black Hawks using the suggested line-up bolts in Paragraph 3-4-13 of TM 1-1520-237-23 to help draw the wheel halves together.

The problem is that the line-up bolts are not long enough and we can't screw the nuts onto the other bolts to tighten the wheel halves together, especially when assembling new tires.

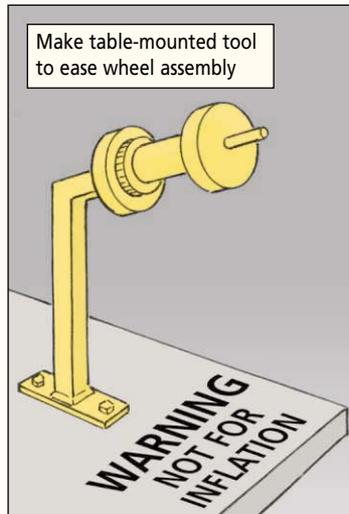
Also, because of the position of the bolt pattern, the halves do not rest evenly when bolted together on the floor. That can cause leaks through the packing once the tire is fully assembled.

We've come up with a table-mounted fixture that lets you assemble the wheel without using line-up bolts to draw the wheel halves together.

Your AVIM shop can make the tire fixture. Then you can attach it to a table.

Follow the TM procedures as usual, except use the fixture instead of bolts to draw the wheel halves together like it shows on the next page.

Sgt Andres Chamorro, Jr
MAARNG

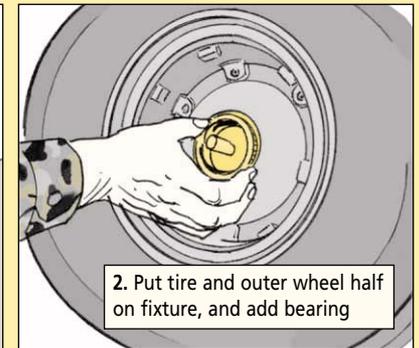


PS 616

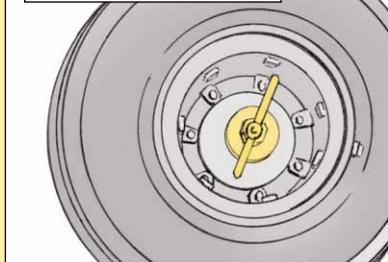
1. Put old bearing and inner wheel half on fixture



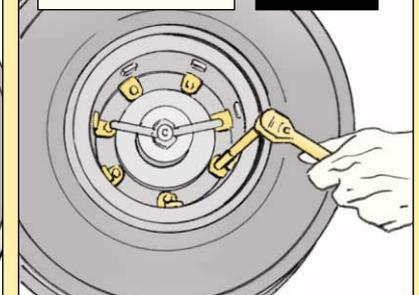
2. Put tire and outer wheel half on fixture, and add bearing



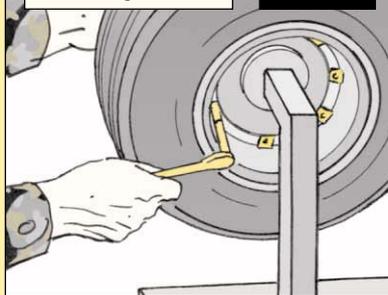
3. Add round plate. Use nut handle to tighten plate



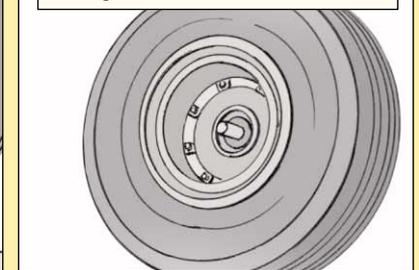
4. Add wheel bolts... **Front of tire**



5. ...and tighten them **Rear of tire**



6. Remove wing nut, pressing plate, old bearing and assembled tire from fixture

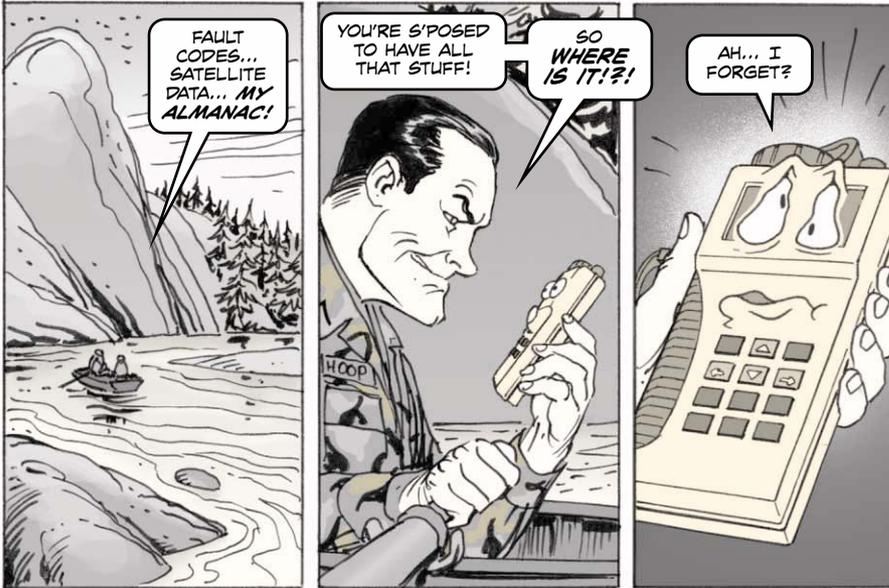


SERGEANT CHAMORRO, THAT'S A SMART IDEA!

UNITS, IF YOU WANT TO HAVE THE FIXTURE MADE, EMAIL OR WRITE PS AND WE'LL SEND YOU A COPY OF THE PLANS.



THANKS FOR THE MEMORIES



Once a year, cowboy, you need to say adios to the 3.6-volt, lithium memory battery, NSN 6135-01-301-8776, in your precision light-weight GPS receiver (PLGR).

The memory battery preserves the fault codes, satellite data and almanac when your PLGR is not in use. But like any battery, this one will eventually run out of juice.



Don't wait to replace the battery until you get the low memory battery warning. Depending on how often you use the PLGR, that warning might come and go without your seeing it. If the battery is a year old, this is your warning!

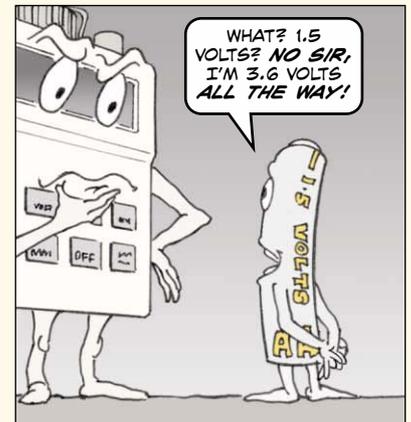
Also, be aware that a dead memory battery might leak. If it does, it could damage the battery compartment and other areas of the PLGR.

Some leaks happen when you screw the memory battery cover back on. The cover's coiled spring punctures the battery. Make sure the spring has not been twisted out of alignment. If it has, get it back in place before you put the cover back on.

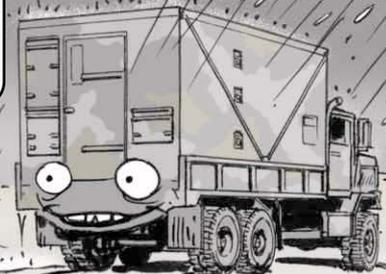
When you replace the 3.6-volt, lithium battery don't be fooled into using an AA battery. The 1.5-volt, L91, lithium battery, NSN 6135-01-333-6101, likes to impersonate the memory battery. It will fit into the compartment, but it lacks the power to hold on to the stored data.

When you're changing the memory battery, don't forget to have a primary battery installed or to connect your PLGR to an external power source. Otherwise, you'll wonder where your memory went.

Finally, when you send your PLGR in for repair, send the memory battery with it—installed in the PLGR! To diagnose and repair the PLGR, the manufacturer will need to see the info the memory battery has stored.



DRY. DRY. DRY. DRY. STAYING DRY!



MOISTURE IS A COMMO GEAR KILLER.

WHETHER IT COMES FROM RAIN OR HUMIDITY, MOISTURE IN YOUR SHELTER CORRODES GEAR AND KOS COMMUNICATIONS.

STAYING DRY TAKES REGULAR PM.

Airing It Out

Closing the door to your commo shelter makes it practically airtight. If the outside temperature changes, condensation forms in the closed shelter.

Keep things dry by opening the door's vent cover. Also turn on the ventilating fan and open the fan vent covers. That'll get fresh air flowing through the shelter and across the gear. The airflow helps keep your commo dry. When the weather permits, open the shelter's door for an hour or so each day to get rid of moist air.



Mats Matter

If your shelter has rubber floor mats, take a peek underneath. Moisture has a way of collecting under them and forming mold and mildew. If you find moisture, pull up the mats and hang them out to dry. Wipe the shelter floor dry with a mop or rag.



Dry Receptacles

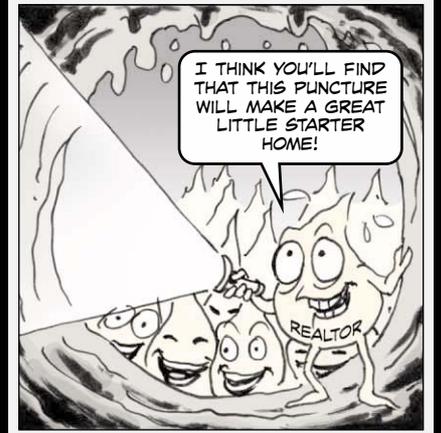
Cable receptacles, like those used with 26-pair cables, are easy prey for moisture and the corrosion it brings.

When you're not using the receptacles, keep the covers on them. If the receptacle gets wet, dry it immediately with a clean cloth. Corrosion on the contacts? Clean it off with isopropyl alcohol, NSN 6810-00-753-4993. Apply a light coat of silicone, NSN 6850-00-880-7616, on the receptacle's gasket. The silicone helps preserve the gasket, which makes for a tight, water-proof connection.

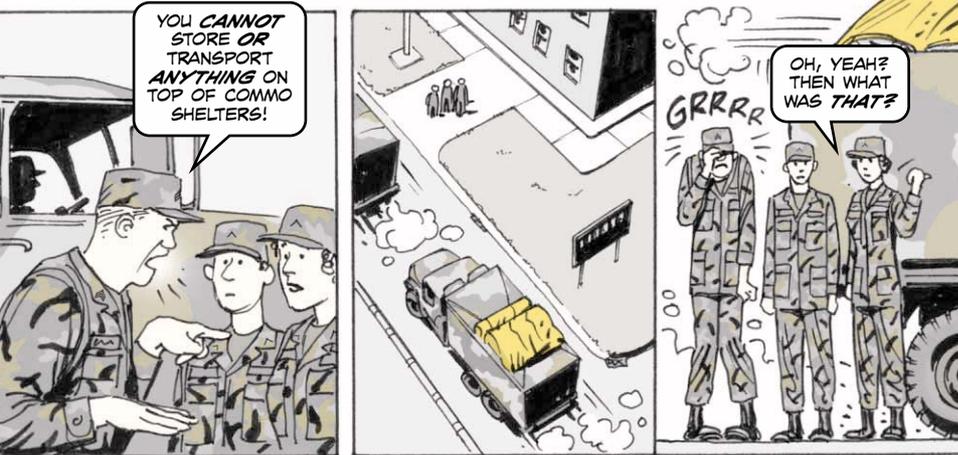
Save Your Skin

Punctures in the shelter's skin are an open invitation to leaks. Look for punctures and tears during operator PMCS. If you find any, have your unit repairman patch them right away.

TB 43-0124, *Maintenance and Repair Procedure for Shelters*, tells what unit maintenance can repair, as well as the tools and materials needed. You'll also want to check out TM 10-5411-205-13 for the S-250 shelter and TM 10-5411-207-14 for the S-280 shelter. They'll give you additional tips on saving your skin.



CAN ANYTHING GO ON TOP?

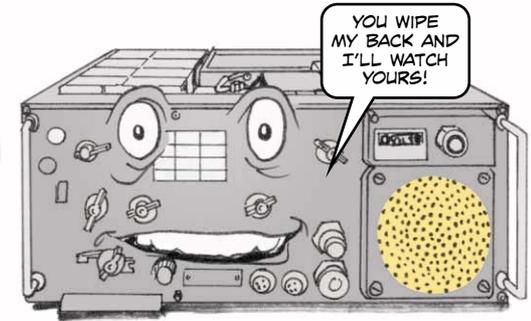


Dear Half-Mast,
Once and for all, can we or can we not store and transport anything on top of commo shelters?
SGT I.W.K

Dear Sergeant I.W.K.,
You cannot!
CECOM and the folks at Ft Huachuca that have to fix the shelters are dead set against storing or transporting anything on top of the shelters. In the past, PS has recommended that if you must do it, use pallets to save the shelter skin, but CECOM has nixed this idea, too. So, the bottom line is, look elsewhere for storage areas. To reinforce this, you might get your commander's authorization to stencil THIS IS NOT A LOAD-BEARING SURFACE on top of your shelters. If you're not satisfied with this answer, put on your thinking cap and come up with a light-weight, non-interfering, over-the-cab design with a total added load not exceeding 150 lbs. Send your suggestion to CECOM for evaluation. If CECOM says you're good to go, submit your idea to the SMART program. You might be the guy who solves this storage problem and earns a few bucks to boot!

Half-Mast

RT-524 Cleaning and Covers

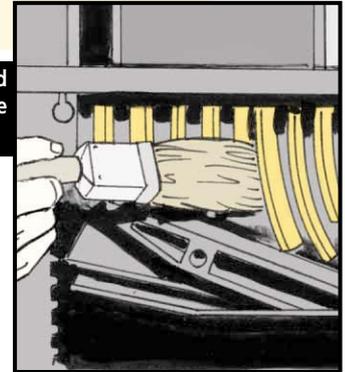


The RT-524 receiver/transmitter of the AN/VRC-12 radio set has been a workhorse for a long time and for some units it's still doing the job. Now it's asking for your steadfast support to keep it clean and its connectors covered.

Here's what to do to keep it clean:

+ Regularly, take off the side and rear panels and brush the dirt off the heat exchanger vanes and the power transistors.

- + Weekly, if operating in a dusty area, take a small brush (a toothbrush will do) to the blower and keep it dirt-free to turn freely.
- + Occasionally, use isopropyl alcohol, NSN 6810-00-753-4993, and a foam swab to clean contact pins.
- + As often as needed, wipe the outside down with a damp cloth. If the RT is muddy, clean it immediately.



HERE'S WHAT YOU NEED TO KEEP THE CONNECTORS COVERED FOR THE RT AND ITS ANTENNA...



Cover	NSN
Dumbbell audio connector	5340-00-973-1732
Antenna connector	5935-01-228-4867
Antenna element	5999-00-264-9213
Junction box connector	5935-00-911-2323
MT-1029 connector	5340-00-933-3752



OK, HERE'S
Your JSLIST PM List
 FOR TAKING CARE OF ME.

NOW, LET'S
 SUIT UP AND
 GET GOING
 ON PM!



NBC NCOS,
 LISTEN UP!

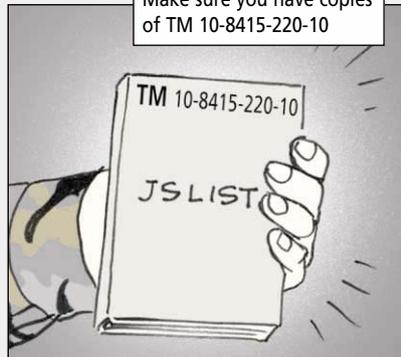
THIS INFORMATION
**DESERVES TO BE ON
 YOUR PM LIST FOR
 TAKING CARE OF YOUR
 JOINT SERVICE LIGHT-
 WEIGHT INTEGRATED
 SUIT TECHNOLOGY
 (JSLIST) CLOTHING.**

SO READ
 AND
 HEED.

TMs

The TM for JSLIST is TM 10-8415-220-10. If you haven't gotten a copy for every soldier in your unit, do so. The TM gives you help for training and gives your unit a source for information. Also check out TC 3-11-55, *JSLIST*, which gives more info on taking care of and using the suits. Your pubs clerk can order both publications for you. It's also a good idea to get EM 0045, the CD that contains most of the NBC TMs, including TM 10-8415-220-10.

Make sure you have copies
 of TM 10-8415-220-10

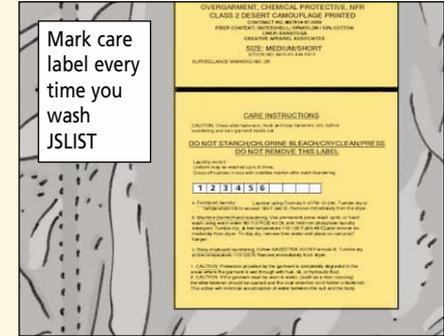


[Click here for a copy of this page to email to a friend](#)

Washing and Wearing

It is very important to keep track of how long you've worn the JSLIST suit, how long it's been out of the bag, and how many times you've washed it. The limit for wearing the suit is 45 days total and the limit for washing it is 6 times. Once the suit is taken out of its bag, it's good for 120 days max. After any of these limits have been reached, it's good only for training. Stencil those suits **FOR TRAINING ONLY**.

The best way to keep track of washings is to use a laundry marker or indelible pen to mark on the JSLIST care label each time you wash it. The label even has boxes for keeping track of washings.



Mark care
 label every
 time you
 wash
 JSLIST

REMEMBER
 THE WASHING
 RULES...

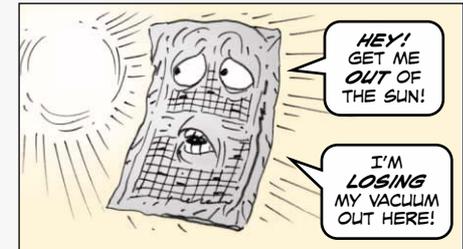


- Make sure all slide and hook-and-pile fasteners are secured to prevent rips during laundering
- Use a mild detergent
- Wash on **PERMANENT PRESS**
- Tumble dry on **GENTLE** or hang it up on a plastic hanger and let it air dry
- **Do NOT use bleach or fabric softener**
- Never dry clean, steam press, or try to remove stains on JSLIST
- See FM 414 for more washing info



No Sunbathing

Don't leave the JSLIST sealed packs in direct sun. The heat can cause the pack to lose its vacuum. JSLIST in puffy or soft bags is still OK to use as long as the bag isn't torn (even though the TM says the opposite). But once the pack loses its vacuum, it becomes bulkier and harder to store in your backpack.



HEY!
 GET ME
 OUT OF
 THE SUN!

I'M
 LOSING
 MY VACUUM
 OUT HERE!

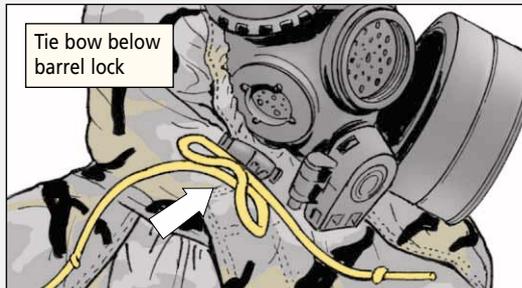
Getting the Most Out of JSLIST



Dear Editor,

Here at the US Army Chemical School we teach soldiers the best ways to use and take care of their joint service lightweight integrated suit technology (JSLIST). These are some of the JSLIST tips we give our students:

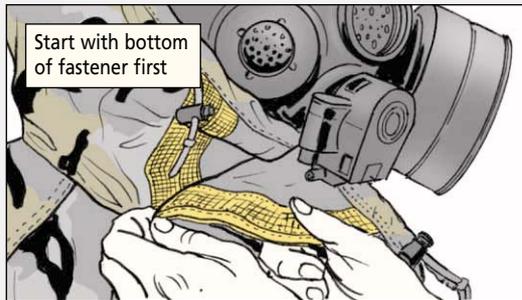
- The barrel lock on the hood drawstring is the part of JSLIST most likely to break. Once that happens, it's difficult to keep the hood tight. You can help the barrel lock last by tying a bow below the lock once you have the hood tight. That keeps the lock from being jerked if the drawstrings are jerked. Tying the bow is easier if you and a friend do it for each other. It's also good to check if the barrel lock is damaged or missing before you go to the field.



- If you have trouble securing the hook-and-pile fasteners for the hood, the drawstring is probably too tight. Work out the kinks in the drawstring (it's much easier if a friend helps) and get as much slack in the drawstring as possible. Then try again.



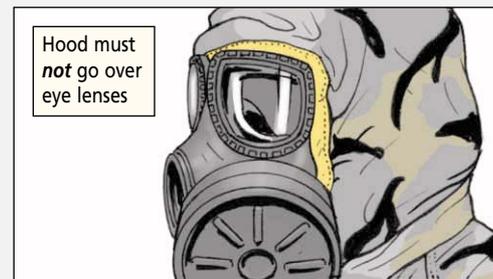
It's better to secure the bottom of the hood fastener first and work your way up. That way you're less likely to leave gaps.



Once you've secured the fastener, make sure the drawstring creates a good seal around the mask second skin before you tighten the drawstring. The drawstring should run just below the outlet valve. If you get the hood too far down on the neck, you won't have a good seal. The hood also shouldn't go over the eye lenses. If it does, you could break the seal.



You and your friend should check each other's suits once you have your JSLIST on and strapped down. A second pair of eyes helps spot gaps that could hurt the suit's seal.



- If you have the newer pants with suspenders and the suspenders are too long even after you adjust them, cross them to take up the slack.



- There is a new mask second skin that doesn't go so far down the neck and is used with JSLIST and the quick-doff hood. You can order a small skin with NSN 4240-01-413-1540 and a medium/large skin with NSN 4240-01-413-1543.

SFC Michael Ebanks
US Army Chemical School
Ft Leonard Wood, MO

From the desk of the *Editor*

Whew! Good job, sergeant. Your suggestions are a good fit for JSLISTers. Thanks.

Container Kitchen...

WINCHES, WINGS AND OTHER THINGS

• YOU ARE THE WIND BENEATH MY WINGS!

MUST BE SOMETHING IN THE CHOW!

NAH. HE JUST LEARNED HOW TO RAISE AND LOWER THE CONTAINER KITCHEN'S WINGS!



Your container kitchen (CK), NSN 7360-01-473-3408, comes with a newly designed winch that lowers and raises the CK's wings. Learn to use it the right way or you could damage the winch or bind the cable.

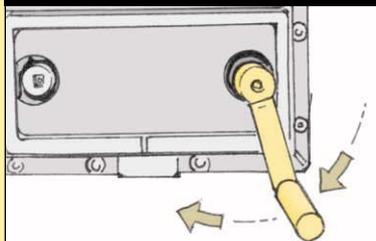
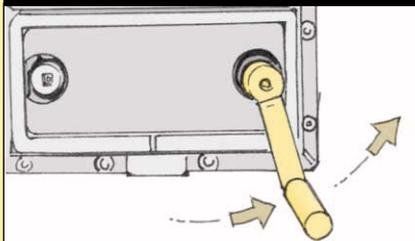
The first step in your education is to understand the operating procedures in TM 10-7360-226-13&P. Get the full details starting on Page 0006 00-5, Shelter Expansion; Page 0006 00-32, Food Preparation Wing Closure; and Page 0006 00-33, Serving Wing Closure.

A Basic Rule

A basic rule to using the winch is to always crank the handle in the right direction:

Crank **counterclockwise** to lower the wings.

Crank **clockwise** to raise the wings.



Use a spotter to make sure the wing is moving in the right direction and to make sure nobody is under the wing when it's lowered.

MOST WINCH AND CABLE PROBLEMS OCCUR WHEN YOU LOWER THE WINGS, ALSO KNOWN AS SHELTER EXPANSION.

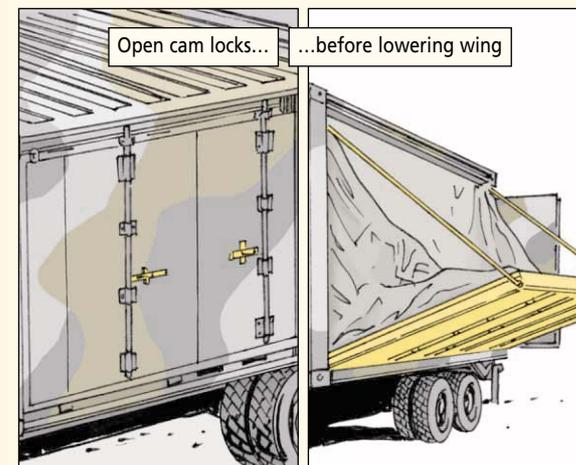
HERE ARE SOME COMMON MISTAKES TO AVOID...



Shelter Expansion

- Cranking the winch clockwise (the wrong direction) with the cam locks still locked. That just makes the winch difficult to crank and the wing won't lower anyway. Remember, you must crank counterclockwise to lower the wing. And don't forget to open the cam locks.
- Cranking the winch counterclockwise (the correct direction) with the cam locks still locked. Do this and the wing never moves because the cam locks stop it. Meanwhile, if you continue to crank, loose cable winds off the winch drum, gets tangled and binds. At this point it's best not to unlock the cam locks, because the wing will drop until the safety strap or cable stops it.

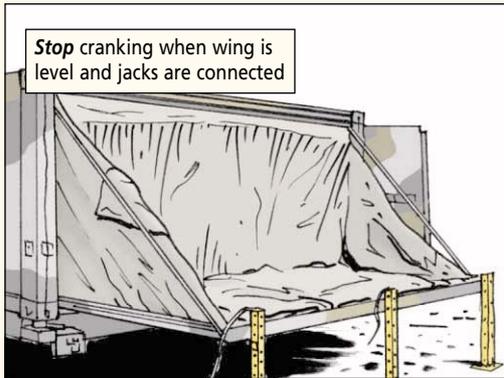
Better to untangle the cable and crank clockwise to wind it back onto the drum. Afterwards you can lower the wing with the cam locks in the open position.



PS MORE

Shelter Expansion (continued)

- **Cranking the winch counterclockwise but forgetting to unhook the safety strap.** The wing lowers until the safety strap stops it. Same old story: If you continue to crank, loose cable winds off the winch drum, gets tangled and binds. Again, you need to untangle the cable and crank clockwise to wind it back onto the drum. Then raise the wing until you can unhook the safety strap.
- **Continuing to crank the winch after the jacks are connected.** You're just asking for more tangled cable.



SO STOP CRANKING ONCE THE WING IS LEVEL AND THE JACKS ARE CONNECTED.



JUST ONE PROBLEM HAS SURFACED WHEN OPERATORS TRY TO RAISE THE WING, ALSO KNOWN AS WING CLOSURE.



Wing Closure

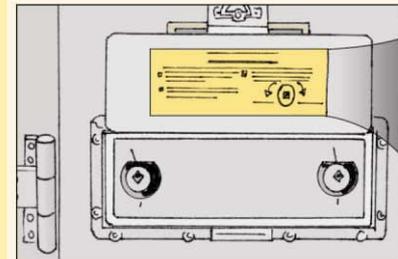
Operators tended to crank counterclockwise (the wrong direction). Here again, loose cable winds off the winch drum, gets tangled and binds. And once again, you need to untangle the cable and crank clockwise to wind it back onto the drum and raise the wing.

If you continue to crank counterclockwise and bind the cable, you'll lose tension on the winch. That causes the winch socket to come loose, and a loose socket's a clear sign you've got cable binding.

One other detail worth knowing: During operations, the cable often slips a little as it moves back and forth around the winch drum, causing the wing to move unevenly. This is normal. Don't worry about it.

New Caution Label

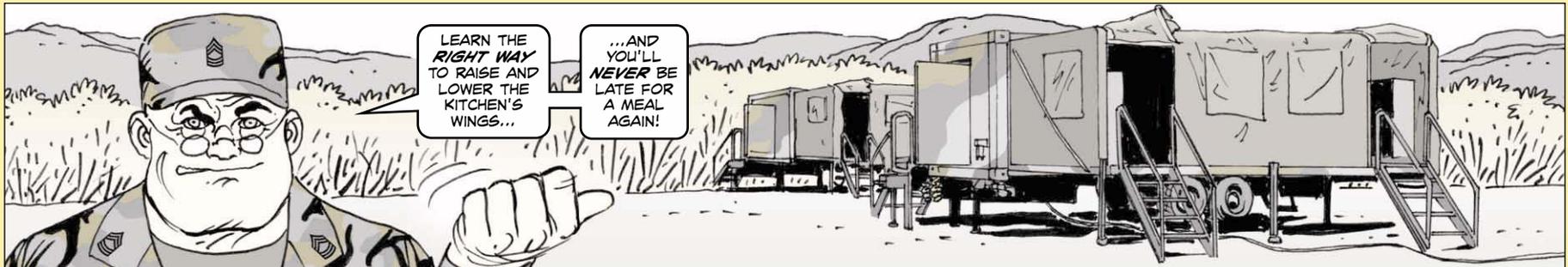
To point you in the right direction, your CK will get a new caution label. The logistics assistance representative (LAR) who works with the container kitchen has the label. He'll attach it inside the winch cover. Among other things, the label reminds you to crank the winch counterclockwise to lower the wings and clockwise to raise them.



CAUTION

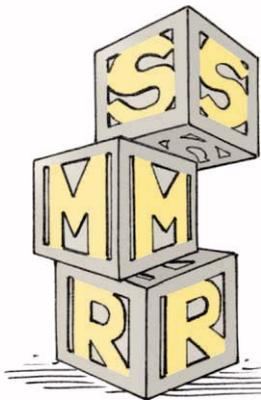
To avoid binding and damage to the winch or the cable:

- Make sure the cam locks are in the open position before cranking wing down.
- Crank handle in correct direction, clockwise to raise the wing and counterclockwise to lower the wing.
- After cam locks are fully free do not forget to detach safety straps.



LEARN THE RIGHT WAY TO RAISE AND LOWER THE KITCHEN'S WINGS...

...AND YOU'LL NEVER BE LATE FOR A MEAL AGAIN!



RENOVATING THE BUILDING BLOCKS FOR PARTS REQUESTS



Watch out for falling blocks! SMR codes have been updated by the *Joint Regulation Governing the Use and Application of Uniform Source Maintenance and Recoverability [SMR] Codes*, AR 700-82, (31 March 2003).

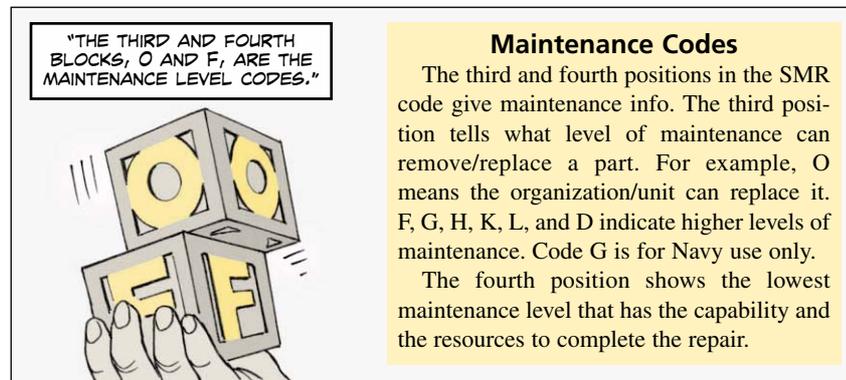
The revised regulation adds new source codes and changes the order of some maintenance and recoverability codes.

The good news is SMR codes still work pretty much as they always have, but with a few changes for joint application. SMR codes have five standard positions and a sixth position that is service specific.



Source Codes

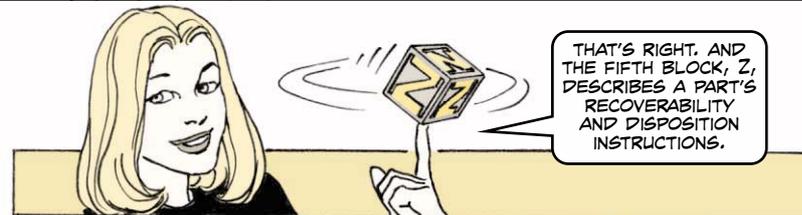
The first two positions of an SMR code tell you the source of a part. It also explains why a part may not have an NSN.



Maintenance Codes

The third and fourth positions in the SMR code give maintenance info. The third position tells what level of maintenance can remove/replace a part. For example, O means the organization/unit can replace it. F, G, H, K, L, and D indicate higher levels of maintenance. Code G is for Navy use only.

The fourth position shows the lowest maintenance level that has the capability and the resources to complete the repair.



Recoverability Codes

The fifth position tells you who can condemn and dispose of unserviceable or non-reparable parts.

The third, fourth, and fifth positions also now follow the same coding order: O, F, G, H, K, L, D and Z. Code Z in the third position is also restricted to Navy use.

The sixth position is reserved for service specific coding. The Army uses this position to indicate demilitarization actions.

The revised AR 700-82 is available in XML and PDF formats online at: http://www.usapa.army.mil/series_range_pubs.asp?range=700. It's 16 pages in length.



KEEP THIS SMR CHART HANDY!

JOINT SERVICE CODING REFERENCE CHART

(REF: AR 700-82/OPNAVIST4410.2/AFR66-45/MCO 4400.120/DLAR 4100.6)

SOURCE		MAINTENANCE		RECOVERABILITY	
1ST	2ND POSITION	3RD POSITION	4TH POSITION	5TH POSITION	6
	Means of Acquiring the Item				
P (Procure)	A ITEM: Stocked	USE: Lowest level authorized to remove or replace.	REPAIR: Lowest level with capability and resources to perform complete repair.	DISPOSITION: When unserviceable or uneconomically repairable, condemn or dispose.	S E R V I C E O P T I O N C O D E S
	B ITEM: Stocked, Insurance				
	C ITEM: Stocked, Deteriorative				
	D ITEM: Support, Initial Issue or Outfitting and Stocked only for additional Initial Issue				
	E EQUIP: Support, Stocked, Initial Issue or Outfitting of Specified maint Activities				
	F EQUIP: Support, Non-Stocked, Centrally Procured on demand				
	G ITEM: Stocked, for Sustained Support, Uneconomical to Produce at Later Time				
	H ITEM: Stocked, Contains HAZMAT. HMIS/MSDS Reporting Required				
	R Terminal or Obsolete, Replaced				
Z Terminal or Obsolete, Not Replaced					
K (Kit)	D ITEM: Depot O/H & Maintenance Kits	O Organization/Unit	O Organization/Unit	O Organization/Unit	
	F ITEM: Maintenance Kit, Place at O,F,H,L				
	B ITEM: in both Depot Repair & Maint Kits				
M (Manufacture)	O MFG OR FAB at Unit Level	F Direct Support	F Direct Support	F Direct Support	
	F MFG OR FAB at DS Level				
	H MFG OR FAB at GS Level				
	L MFG OR FAB at Special Repair Activity (SRA)				
	G MFG OR FAB at Both Afloat and Ashore (Navy Only)				
	D MFG OR FAB at Depot Maintenance Level				
A (Assembled)	O ITEM: Assembled at Unit	G Navy Use Only	G Navy Use Only	G Navy Use Only	
	F ITEM: Assembled at DS Level				
	H ITEM: Assembled at GS Level				
	L ITEM: Assembled at SRA				
	G ITEM: Assembled at Afloat and Ashore (Navy Only)				
	D ITEM: Assembled at Depot Maintenance Level				
X (Not Stocked)	A ITEM: Requisition Next Higher Assembly	H General Support	H General Support	H General Support	
	B ITEM: Not Procured or Stocked. If not available thru salvage, order using CAGE/Part Number				
	C Order using Installation Drawing, Diagram, Instruction Sheet. Identify by Cage/Part Number				
	D Not Stocked. Obtain via Local Purchase+C17				
		L Special Repair Activity	L Special Repair Activity	L Special Repair Activity	
		K Contractor Facility	K Contractor Facility	K Contractor Facility	
		L Special Repair Activity	L Special Repair Activity	L Special Repair Activity	
		D Depot	D Depot	D FLR: Condemn or Dispose at Depot	
		Z Nonreparable,	Z Nonreparable,	Z Nonreparable,	
		B Recondition	B Recondition	A Nonreparable, needs special handling	
		Z Navy Use Only	B Recondition	A Nonreparable, needs special handling	

SPREADING THE WORD BY COMPUTER

FEW THINGS ARE AS CERTAIN AS GOOD PREVENTIVE MAINTENANCE LEADING TO SAFETY AND READINESS.

WHAT'S BETTER THAN GOOD PM? GOOD PM KNOW-HOW BEING SHARED THROUGHOUT THE MAINTENANCE AND SUPPLY COMMUNITY.



HERE ARE **THREE** EXAMPLES OF THAT KNOWLEDGE AND EXPERIENCE BEING SHARED ON THE WEB.

- Some soldiers are dyed-in-the-wool, through-and-through logisticians. One such soldier is WO1 Guerra Bernabe Jr. from Ft Hood, TX. WO1 Bernabe created an online publication he calls *The Motor Pool!* website. We've found his info through two different AKO listings. His website has info about ULLS-G, Maintenance Management Tools, Safety, HAZMAT, PMCS, and more. Bernabe has brought together a number of links related to maintenance and supply operations. It's worth your time to visit the website and find what's of value to you.



Here's the direct url:

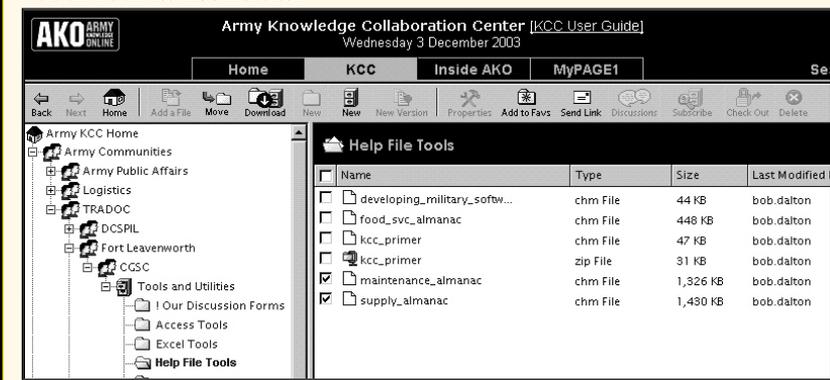
<http://www.ewaservices.com/fthoodwoa/motorpool/MP%20New%20Site/Motor%20Pool%20Home.htm>

- A supply sergeant asked PS if anyone had a good list of MARKS file numbers. He'd just taken over a supply room and didn't want to reinvent the wheel if someone already had a list they could share. We asked the field using the Army Knowledge Online Logistics Knowledge Center Supply Bulletin Board. A few days later, SGT Simon Krystosek of the Minnesota National Guard provided the list, all set up for printing folder labels. The list is available through psmag@logsa.army.mil



- Our third example is MSG (Ret) Bob Dalton's maintenance and supply almanacs which are available on the AKO Knowledge Collaboration Center (KCC) webpage at: <https://www.us.army.mil/portal/jhtml/community.jhtml>

This master of the trade has put together Useful Logistics Tips and Advice, Useful Logistics and Supply Websites, National Stock Numbers from *PS Magazine*, and NSNs from other sources. In addition to his almanacs, Dalton also helps soldiers, retirees, and DoD civilians with info and free logistical computer application tools, that he has developed, via the AKO Tools and Utilities KCC website.



SO, IF YOU NEED HELP, THERE **ARE** SOLDIERS OUT THERE WILLING TO HELP.

DO YOU HAVE SOMETHING TO CONTRIBUTE? SHARE IT WITH THE FIELD.

THE WEB IS A GREAT TOOL. **USE IT!**





VIDEO AVAILABLE

There's a 20-minute video available on snow-plow operations for HMMWV drivers in cold weather. The video also shows how to install and use tire chains on the vehicle. You can get two free copies of the video just by asking. Write to:

Commander
US Army Research and
Development Center
Cold Regions Research and
Engineering Laboratory
Attn: Librarian
72 Lyme Road
Hanover, NH 03755-1290

Make sure to include your name, unit and address when writing. Or e-mail:
Elizabeth.R.Hoffmeister@erdc.usace.army.mil

M101/M116 Brake Strut

Use NSN 2530-01-074-7001 to get the left (road side) parking brake strut for the M101- and M116-series 3/4-ton trailers. The NSN is missing from Fig 8 of TM 9-2330-202-14&P.

PROTECT BATTERY RECEPTACLES

Listen up! Nickel-cadmium battery receptacles need protection from corrosion and external shorts while in storage. Terminal covers used on generator batteries are OK to use. Order with NSN 5999-01-382-8223.

FMTV Desert Tan Covers

The FMTV parts manuals come up short when it comes to the desert tan cargo cover with bows. Get the cover and bows for your 2 1/2-ton with NSN 2540-01-437-1463. NSN 2540-01-436-9658 gets the cover and bows for 5-tonners.

M872/A1/A2 Semitrailer Axle

NSN 2530-01-197-2032 gets a non-driving axle assembly for the 34-ton flatbed semitrailer. The parts info shown as Item 1 in Fig 13 of TM 9-2330-359-14&P gets the wrong assembly.

M871A2 Quick Release Pin

NSN 5315-01-507-4461 gets the new quick release pin for the side panel stakes on the 221/2-ton semitrailer. This NSN replaces the one shown as Item 8, Fig 30 of TM 9-2330-386-14&P.

M1022 DOLLY SET AXLE SEAL

Use NSN 5330-01-082-7965 to get an axle grease seal ring for the M1022 dolly set. This NSN replaces the parts info shown for Item 18, Fig 12 of TM 9-2330-379-14&P.

M915A3 HEADLIGHT SWITCH

NSN 5930-00-307-8856 gets the headlight switch for the tractor truck. The NSN is missing from Item 13, Fig 69, of TM 9-2320-302-24P.

M915-Series Seat Belt

NSN 2540-00-894-1273 gets the seat belt for the M915-series tractor truck. This NSN replaces the parts info shown as Item 17, Fig 255, of TM 9-2320-273-24P.

NO MO' CAMO

The Army is no longer ordering the lightweight camouflage screening system (LCSS), its parts or repair kits. If you have to repair your LCSS, use parts from old nets as long as possible. When your LCSS is beyond repair, order the ultralightweight camouflage net systems (ULCANS). You'll find the NSNs in TM 5-1080-250-12&P.

GENERATOR BATTERY COVERS

Use battery terminal covers, NSN 5999-01-382-8223, on your generator batteries. They will give corrosion protection and keep metal to metal contact from happening.

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

Would You Stake Your Life *right now* on
the Condition of Your Equipment?

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WHAT ARE YOU RIDING ON?

...SO THERE I WAS! THAT FLAT TIRE WAS SO BADLY WORN I COULD SEE THE BELTS...

YOU *SHOULD*A DONE PM ON YOUR POV.

AND YOU *SHOULD*A DONE PM ON *ME!* MY TIRES ARE READY TO GO, TOO.



TIRE PM SAVES LIVES!

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