

Issue 713

PS

April
2012

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-713

Approved for
Public Release;
Distribution is
Unlimited



JOE
LUBER
'12

HAHAHAHA
HAHAHAHA

THERE
SHE IS!
GET HER!

@#
&\$*
xxx

**CONNIE?
BAD PM
ADVICE?!
SEE PAGE 27!**

Operator TMs . . . *Keep a Hard Copy*

THESE PMCS CHARTS DON'T COVER 'OPERATIONS UNDER UNUSUAL CONDITIONS'.

MAN, I REALLY NEED THE **WHOLE** OPERATOR'S MANUAL!



Here are two good questions:

- How much of the -10 operator's manual is needed to operate a piece of equipment?
- Will PMCS charts alone suffice, or should the vehicle's -10 TM hard (paper) copy manual be on hand at all times?

Some field maintenance pub clerks have already answered these questions by not bothering to order hard copies of the -10 operator's manuals anymore. Some have decided to put CD-ROMs on their pubs distribution accounts, citing the "paperless Army" as the reason not to order the hard copies.

Now, here's the problem: An operator is not going to run back-and-forth to the motor pool or pubs office to look at the vehicle's -10 TM on a computer just to perform checks and services. No way, no how.

Also, what happens when an operator is in the field doing his checks and services under unusual conditions, like a wet climate or below-zero temperatures? PMCS charts on a computer won't do him much good in the middle of nowhere... if you catch our drift.

An operator's manual is more than just PMCS charts. It contains lubricating, cleaning, inspection and operating instructions. PMCS charts alone won't give you the lowdown on equipment characteristics and data, descriptions and use of vehicle controls.

The operator's manual contains information needed to keep equipment mission-ready. So play it safe, be smart and make sure there's a hard copy of the manual in the vehicle at **all** times.

PS**THE
PREVENTIVE
MAINTENANCE
MONTHLY****ISSUE 713 APRIL 2012**

TB 43-PS-713, 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. The use of product or company names does not constitute endorsement of those products, services or companies by the U.S. Army. The use of non-DoD hyperlinks, along with their content, does not constitute endorsement by DoD or DA. Neither DoD nor DA exercises any editorial control over, and cannot vouch for, content on non-DoD websites.

**COMBAT VEHICLES**

M1129A1 MCV Stryker Mortar Replenisher
M1A2 SEP Tank BFT Connector
M1-Series Tank Feed Tray Cover
Fire Bottle Safety Step
M777A2 Towed Howitzer Stabilizer Arms
M777A2 Towed Howitzer Lubing Tips

**WHEELED VEHICLES**

HEMTT -A4 Maintenance Allocation Chart
HEMTT -A4 Ground Wire Clamp Replacements
Tactical Vehicles Tire Shine Is Wrong
Fuel Can Stowage Clarification
HMMWV Tire Pressure Corrections

**MRAP/ROUTE CLEARANCE**

MRAP Fording Safety
MRAP M-ATV Floor Mats

**ROBOTICS**

Irobot 510 Packbot Robotic PM

**AVIATION**

CH-47D/F Cockpit Fire Detection Lights
UH-60 Series Blade Pin Removal
All Aircraft Hardware Reminder
UH-60A/L Helmet Placement
HGU-56/P Unauthorized Stickers

**MISSILES**

Hellfire Missile System PM Tips

2**SMALL ARMS****38**

2 MK 19 Machine Gun NSN Change 38
3 M203 Grenade Launcher Gaging Reminder 39
4 M2 Machine Gun M19 BFA TM Now Available 39
5 M67 GLPS Power Up Reminder 40
6-7 M16-Series Rifle, M4/M4A1 Carbine New Magazine 41
8-9

**CBRN****42**

10 M40/M42-Series Masks Expired MWOs 42-43
11 ICAM Battery Choice 43
12 M26 Deconning Operating Tips 44
13
14-15

**SOLDIER SUPPORT****45**

ULCANS Use Reduces Fuel Consumption 45
DRASH Medium Shelter Trailer PM 46-48

**COMMUNICATIONS****49**

19 Tactical Quiet Generators Wanted 49
Tactical Quiet Generators Bung Check 50-51
19-21

**LOGISTICS MANAGEMENT****52**

22 Equipment Loading in SAMS-E 52-53
SAMS-E Upgrade Improves Recordkeeping 54-55
23 New Doctrine Divides FM 7-0 56
24 Get SMART at New URL 56
25 CALL Website Gets Makeover 56
26 DA PAM 220-1 Released 56
DA Form 2404 Submission Choice 57
MICH Chin Straps Inspection, Replacement 58
Military Packaging Courses Available 59
35 Operator TMs... Keep a Hard Copy 1FC
35-37

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
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5307 Sparkman Circle
Redstone Arsenal, AL 35898

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half.mast@us.army.mil

Internet address:

https://www.logsa.army.mil/psmag/pshome.cfm

By order of the Secretary of the Army:

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Official:

Joyce E. Morrow

JOYCE E. MORROW

Administrative Assistant to the Secretary of the Army

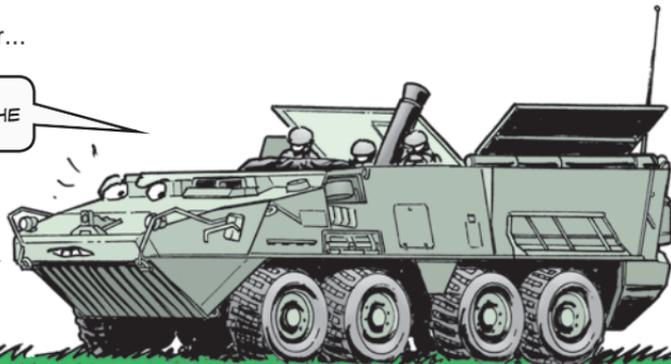
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HEY, ARE WE
READY TO FIRE THE
MORTAR YET?

NOT
TILL YOU
CHECK MY
REPLENISHER
LEVEL,
YOU'RE NOT!



REPLENISHER MAY NEED REPLENISHING!

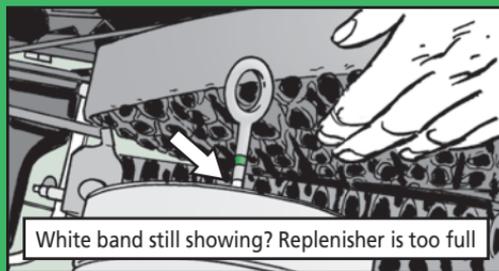
Crewmen, checking the FRH level in the replenisher of your M1129A1 Stryker's mortar is a before-operations PMCS check. And it's not something you want to forget!

If the hydraulic fluid level is low, the gun tube can recoil out of battery when it's fired. Besides damaging your mortar, anyone that's in the way could be seriously injured or killed!

Checking the fluid level is quick and easy. Here's how:

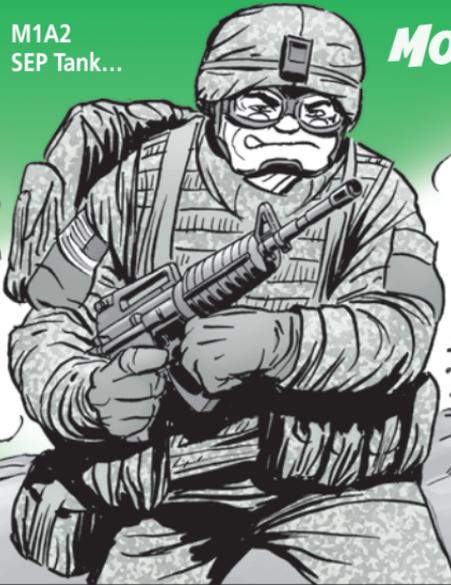
With the mortar in the stowed position, slide the dipstick all the way into the replenisher port. If the white band on the dipstick goes inside the port while the red band stays outside, the oil level is good.

If the white band is still visible, the replenisher is too full. Drain the oil to the proper level. But if the dipstick slides in past the red band, you'll need to add oil to the replenisher.



When dealing with FRH, you'll need to take some precautions, too. Make sure you're wearing long sleeves, gloves, goggles and a faceshield when adding or draining the oil. FRH contains a chemical that can cause paralysis if it's swallowed. FRH can also be absorbed through the skin, so wash thoroughly with soap and water if you get any on you.

Move BFT Connector or Lose it!



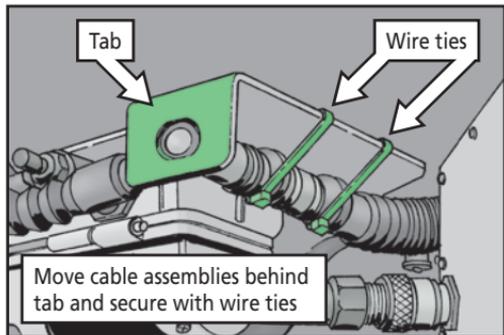
MECHANICS,
THE **BEST** TIME TO
FIX A PROBLEM
IS **BEFORE** IT
HAPPENS.

HERE'S YOUR
CHANCE TO FIX
ONE OF THOSE
PROBLEMS ON
THE M1A2 SEP.

The 1W102-7 P8 connector for the Blue Force Tracker (BFT) system is mounted to the turret roof next to the gunner's dome light. That puts it right smack in the way of the recoil path of the main gun when it's fired at maximum depression.

The 1W102-7 P8 connector bracket is being redesigned to eliminate this interference. But until that happens, you'll need to move the connector out of harm's way. Here's how:

1. Disconnect the 1W102-7 P8 connector from the 1W352-7 J1 harness connector.
2. Remove the harness connector from its current position on the bracket tab.
3. Connect the 1W102-7 P8 and 1W352-7 J1 connectors back together.
4. Move the reconnected cable assemblies **behind** the mounting bracket's tab.
5. Secure the cable assemblies to the mounting bracket using two cable ties.



FOR THE FULL SCOOP ON THIS FIX, CHECK OUT
TACOM MAINTENANCE ACTION MESSAGE 11-011:
[https://tulsa.tacom.army.mil/
safety/mam/tacom_wn/ma11-011.html](https://tulsa.tacom.army.mil/safety/mam/tacom_wn/ma11-011.html)

New Feed Tray Cover Causes Glitch

OUCH!

WAS THAT MY
M240'S FEED
TRAY COVER?

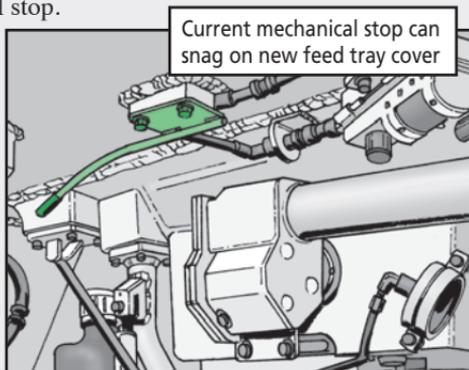
CRUNCH



The introduction of a new style feed tray cover for the M240 machine gun doesn't work well with the current mechanical stop.

The mechanical stop, NSN 5340-01-482-8376, is designed to automatically close the old feed tray cover. But the stop can bind or break the integrated rail of the new feed tray cover, NSN 1005-01-432-9538.

A new mechanical stop, PN 12988436-1, is being designed to work with both the old and new feed tray cover. PS will let you know when it's available in the supply system.



Until then, be aware of the potential snagging problem and always follow the instructions for loading and unloading the M240 machine gun. You'll find the procedures starting on Page 2-349 of TM 9-2350-264-10 (Mar 03, w/Ch 6, Jun 09) and WP 0209 of TM 9-2350-388-10 (Feb 09). Keep the cover closed as much as possible.

Questions? Contact TACOM's Ben Krueger, DSN 786-8479, (586) 282-8479, or by email:

benjamin.c.krueger.civ@mail.mil

Safety...



Dear Editor,

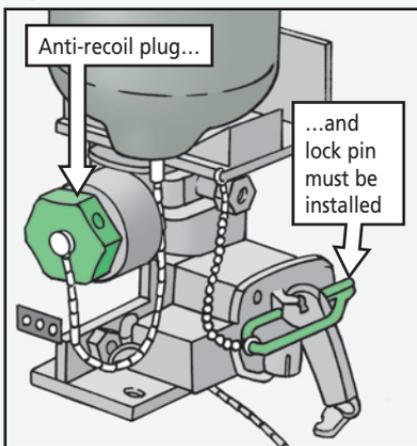
The importance of fire extinguisher safety can never be overstated. Recently, a mechanic was replacing a faulty hull power distribution unit (HPDU) on an M1A2 tank. In order to access the HPDU, he had to remove the crew fire bottle from the driver's compartment.

After installing the new HPDU, he was replacing the fire bottle when it discharged, spraying him with Halon and making him bump his head. The Soldier ended up with a ruptured eardrum and second degree burns.

It turns out that the mechanic overlooked the crucial step of installing the anti-recoil plug and lock pin before removing the fire bottle.

Without these two items installed, there's nothing to prevent an accidental discharge like the one this Soldier experienced. Can you remind Soldiers of how important these safety items are?

Terry D. Smart
PM HBCT Safety Manager, TACOM



Editor's note: Consider it done, Terry! This particular Soldier got lucky because the fire bottle was actually secured before it discharged. An unsecured bottle can be a dangerous rocket, bouncing around inside of your vehicle. **Always** make installing the anti-recoil plug and lock pin the first step any time you remove a fire bottle. A new video on automatic fire extinguisher systems (AFES) is now available on the Unit Training Assistance Program (UTAP) website: <https://utap.army.mil>. On your first visit, you'll be prompted to register your CAC. Once that's completed, click the Agree button and select the VIDEOS tab. Under UTAP Produced Videos, select Introduction to Fire Suppression Systems. You'll be prompted to save or open the video.

SECURE THOSE

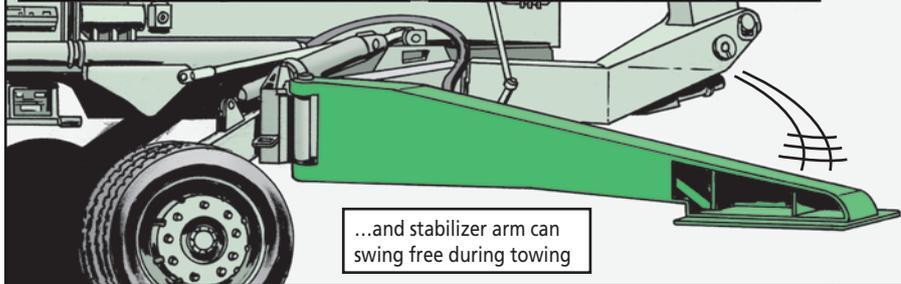
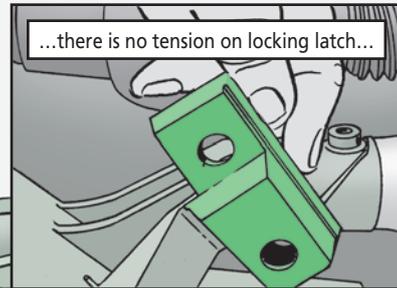
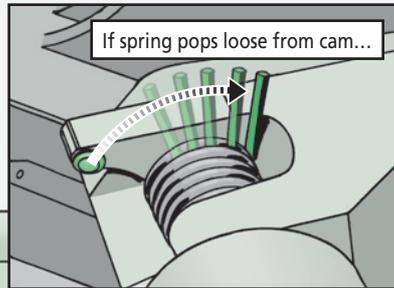
FLAPPING ARMS!



Dear Editor,

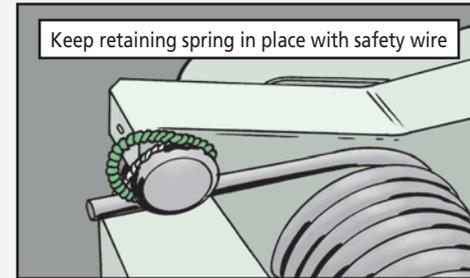
We've had a couple of close calls lately with the stabilizer arms on our M777A2 howitzers coming free and swinging out during transport. Those arms can swing out pretty far, so needless to say, it's a real danger to anyone on the side of the road as well as to any traffic passing by.

The locking lever retaining spring hooks under a cam to keep tension on the locking latch. If that spring pops loose, the locking latch releases and the stabilizer arm swings free.



My team developed an easy, low-cost solution to this problem that we use every time we transport the howitzer:

1. Make sure the retaining spring is tight and in place.
2. Get your mechanic to use his safety wire pliers to secure the retaining spring to the cam with .041 gage safety wire, NSN 9505-00-076-8640.



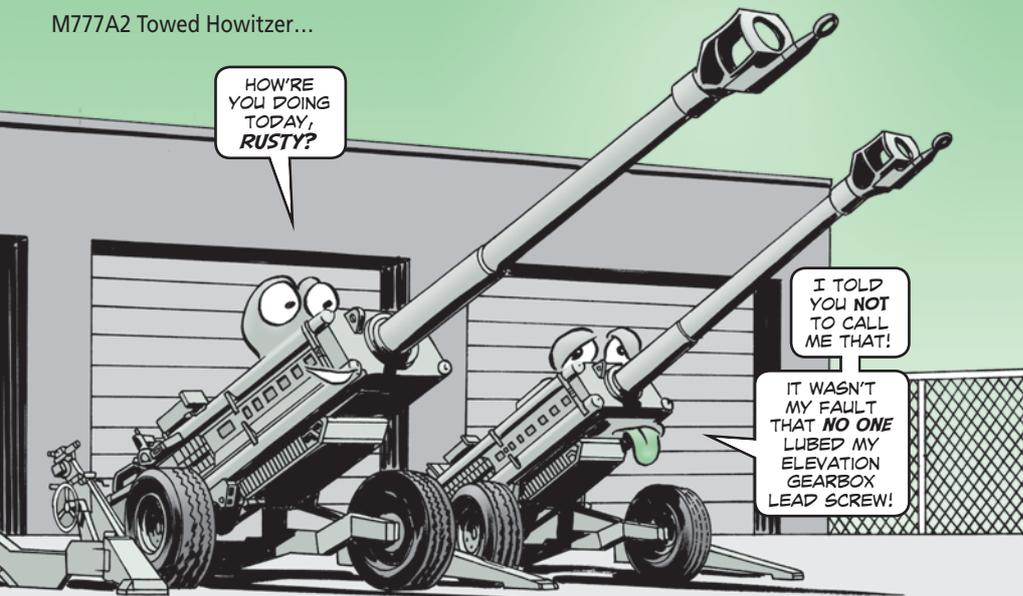
3. Make checking the safety wire part of your safety checks when hooking up the howitzer for towing. Then, double-check the safety wire again when you secure the stabilizer arms for the return trip after firing or emplacing the howitzer.

CW3 Harold R. Peck, Jr.
SGT Elias Martinez
SPC Maurice Sparks
B Co, 702d BSB, 4/2 SBCT
Ft Lewis, WA

THAT'S A QUICK AND EASY FIX TO A POTENTIALLY DANGEROUS PROBLEM!

GOOD WORK, GENTLEMEN!





HOW'RE YOU DOING TODAY, RUSTY?

I TOLD YOU NOT TO CALL ME THAT!

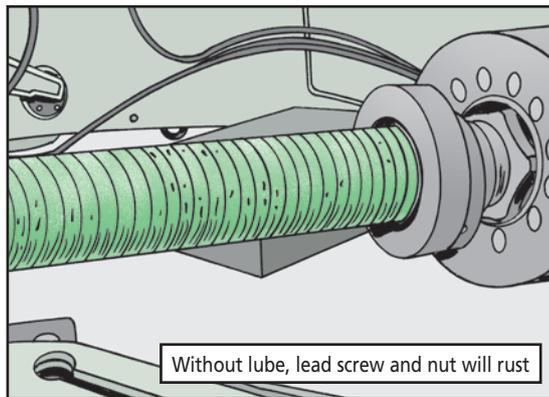
IT WASN'T MY FAULT THAT **NO ONE** LUBED MY ELEVATION GEARBOX LEAD SCREW!

A LITTLE LUBE NOW BEATS A LOTTA RUST LATER!

Dear Editor,

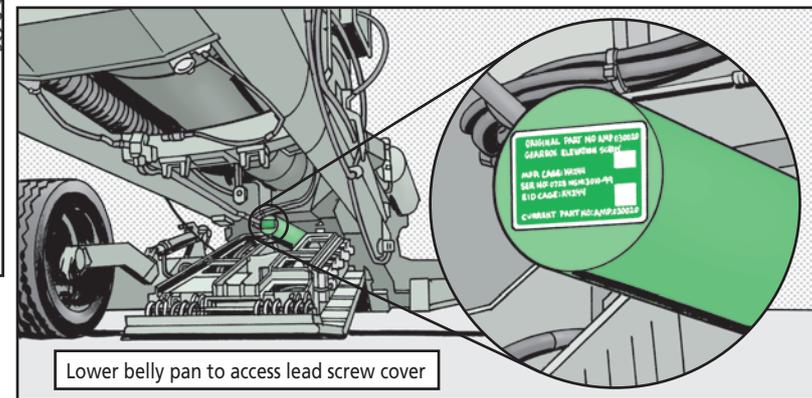
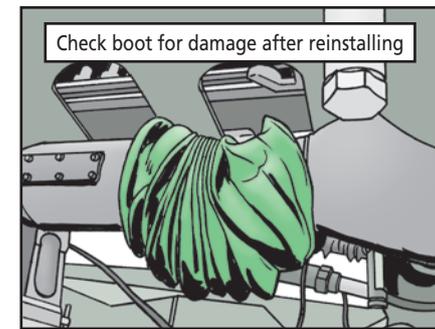
The importance of lubing the elevation gearbox's lead screw during quarterly services cannot be overstated. If the lead screw is left unlubed or only partly lubed, it will rust and the cylindrical nut seizes in place.

Repairing the damage is a very expensive and time-consuming process. It means removing the cannon tube, cradle and possibly even replacing the elevation gear box.



Without lube, lead screw and nut will rust

- Here's the way we lube the lead screw:
1. Raise the cannon tube to its maximum elevation.
 2. Loosen the clamp attached to the back of the elevation gearbox and slide back the boot.
 3. Clean off all the old grease and dirt. Then apply fresh WTR grease to the elevation lead screw. NSN 9150-00-944-8953 brings a 1 3/4-lb can of WTR.
 4. Reinstall the boot, then check it carefully to make sure it didn't rip or tear. A damaged boot lets in moisture that will wash away the WTR and quickly rust the lead screw. A replacement boot comes with NSN 5342-01-571-9453.
 5. Fully depress the cannon tube.
 6. Lower the undercradle electronics assembly (belly pan) located under the cradle. Inside you'll find the lead screw cover.



7. Open the cover to access the lead screw. Clean the exposed portion of the screw and apply new WTR. If the gasket on the lead screw cover shows no damage, you can reuse it until a new one is available. Install a new gasket from the elevation gearbox screw seal kit, NSN 1090-99-282-2448.
8. Close the lead screw cover and secure the belly pan back in place.
9. Fully depress and elevate the cannon tube a few times. That will ensure the entire length of the lead screw is properly lubed.

CW3 Robert M. Goldsmith Ft Carson, CO
 Curtis Bradley Ft Bragg, NC
 Rick Banning Ft Sill, OK
 CW3 Brent Wacasey Ft Sill, OK

Editor's note:
 Excellent work, gentlemen!
 Keeping that rust at bay will save units a lot of time and money later.

MAC Update



Dear Half-Mast,

I used the maintenance allocation chart (MAC) in TM 9-2320-326-14&P (EM 0288) to order parts for my unit's HEMTT -A4. I think Table 2 (Tools and Test Equipment) needs to be updated because the NSNs for Item 17, the arbor press (gauge); Item 71, chemical oil protection gloves; and Item 125, refrigerant reclaimer, aren't good. Which NSNs bring these parts?

SGT I.D.

Dear Sergeant I.D.,

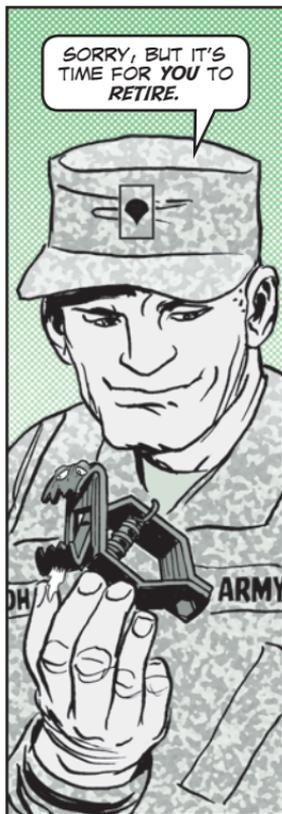
You're right. The NSNs for those parts are listed incorrectly in the IETM. Note the following NSN changes:

- The arbor press (gauge), Item 25, NSN 5120-00-613-3779, should be changed to **NSN 5120-00-613-6779**.
- The gloves, chemical oil protection, Item 106, NSN 8415-00-641-4601, should be changed to **NSN 8415-00-266-8675**.
- The reclaimer, refrigerant, Item 107, NSN 4250-01-396-8928, should be replaced with **NSN 4250-01-555-7587**.

You should see these corrections when the HEMTT -A4's IETM is updated.

Half-Mast

Use Replacement Clamp



Dear Half-Mast,

I'm with FMS #4 in Santa Rosa, CA. Our unit just received four new -A4 HEMTT tankers with the old-style ground wire clamps.

These old-style ground wire clamps are known to fall apart from rust and broken springs.

Is there a better clamp in the supply system?

SSG K.M.

Dear Sergeant K.M.,

You bet!

Order a new, durable clamp that comes with NSN 5999-00-134-5844. The new clamp is a snap to install.

Just remove the old clamp, snip off the wire eyelet if there is one, and fit the wire into the new clamp. Use a $\frac{3}{32}$ -in hex wrench from the General Mechanic's tool set to tighten the clamp's handle screws to the ground wire.

Half-Mast

Tactical Vehicles...

Tire Shine is Out of Line!



If you're thinking of shining your vehicle's tires with a commercial product, think again! That's **not** authorized.

That's because it doesn't help the tires and it doesn't help camouflage your vehicle.

We know you want to protect your vehicle's tires. After all, vehicles that sit parked on hardstand in the blazing sun for weeks and months can wear out from ozone damage, heat and age. That wear can show up as cracks in the tire sidewall. When the cracks expose inner cords or belts, the tire is no longer good.





Stow That Fuel Can!

Dear Half-Mast,

Is it OK to transport full 5-gal fuel cans of JP-8 in HMMWVs if the cans are not stowed in the brackets?

SFC B.J.R.

Dear Sergeant B.J.R.,

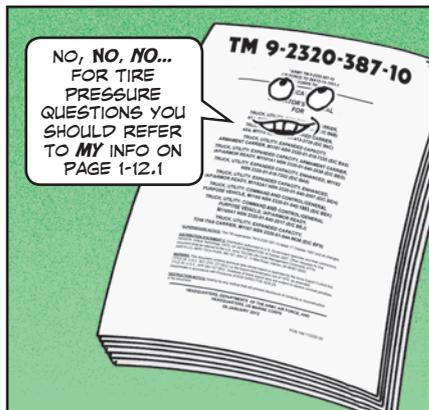
*No. It's not OK. In fact, it's downright unsafe. Fuel cans **must not** be carried "loose" inside a vehicle. They could tip over, spill JP-8 and create a fire hazard. It doesn't matter whether they're full or half full. Loose fuel cans pose a risk.*

For proper stowage of fuel cans and other equipment, see Appendix F, On-Vehicle Equipment Loading Plans, in your vehicle's -10 TM. This is a standard load plan, and every vehicle has one. Your HMMWV's load plan calls for stowing each fuel can where it belongs: in the fuel can stowage bracket. Use the footman loops and strap to secure the can. If equipment's not shown in the load plan or in Appendix B, Stowage and Sign Guide, load it according to local command policy.

FOR MORE INFORMATION ON LOAD PLANS AND FUEL CANS, CONTACT BUCKY MCCUISTON AT TACOM LCMC: (586) 282-4760 OR EMAIL...
bucky.v.mccuiston.civ@mail.mil



TIRE PRESSURE CORRECTIONS



Dear Half-Mast,
 Your article on pages 10-11 of PS 698 (Jan 11) lists tire pressures for load range D and load range E tires used on HMMWVs. You told us that this info is also found in change 6 of TM 9-2320-387-10 on Page 1-12.1. But I'm not so sure the TM and PS information match. Which is correct?

SSG P.S.I.

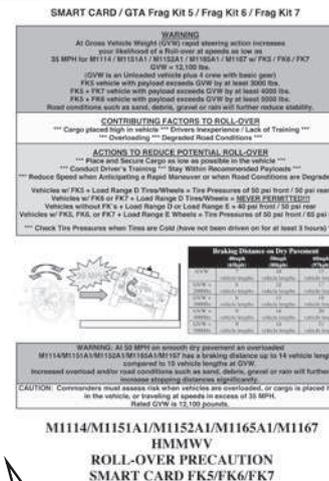
Dear Sergeant P.S.I.,
 Good eye! There was a little confusion surrounding the tire pressures because the TM presentation left room for different interpretations. But that's been fixed. The next update will clearly connect each HMMWV to the right tire pressure and will show the latest tire pressure information.

Note that the TM's tire pressure tables **don't** apply to HMMWVs with FRAG kits applied. Use the HMMWV rollover SMART card for limits on those vehicles. See the PS article at this link for more details:

<https://www.logsa.army.mil/psmag/archives/PS2010/686/686-10-12.pdf>



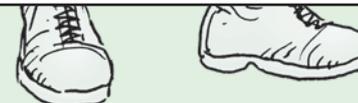
THIS IS WHAT THE HMMWV ROLLOVER SMART CARD LOOKS LIKE...



AND HERE ARE THE TIRE PRESSURE CORRECTIONS...

Load Range D and E Tire Pressures

HMMWV Model	Front standard psi	Rear standard psi
Unloaded (driver plus one passenger): M1113, M1151, M1152, M1165	20	25
M1114, M1151A1, M1151A1 w/B1, M1152A1, M1152A1 w/B2, M1165A1, M1165A1 w/B3, M1167	35	45
At gross vehicle weight (GVW): M1113, M1151, M1152, M1165	30	45
M1114, M1151A1, M1151A1 w/B1, M1152A1, M1152A1 w/B2, M1165A1, M1165A1 w/B3, M1167	40	50
Mud, sand and snow (30 mph max. speed)	20	30

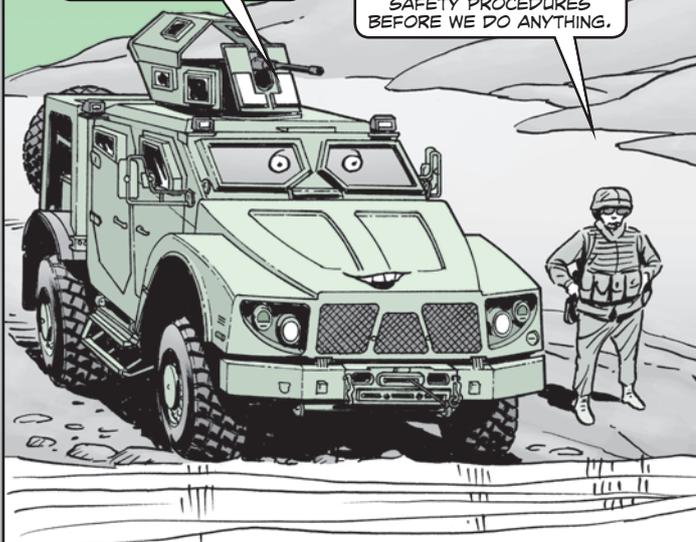


Half-Mast

Focus ON SAFE FORDING

THIS RIVER DOESN'T LOOK TOO DEEP, I THINK WE CAN FORD IT.

MAYBE SO, BUT I'M GONNA PLAY IT SAFE. I NEED TO CHECK THESE SAFETY PROCEDURES BEFORE WE DO ANYTHING.



SOME SOLDIERS IN AN M-ATV RECENTLY TRIED TO FORD A RIVER IN AFGHANISTAN THAT WAS 5 FEET DEEP.

THE MAXIMUM FORDING DEPTH OF AN M-ATV IS 3 FEET IN CALM WATER.

FOUR SOLDIERS DIED.



DON'T LET THIS HAPPEN TO YOU!

MAKE SURE YOU KNOW THE FORDING DEPTH OF YOUR MRAP VEHICLE BEFORE YOU FORD.

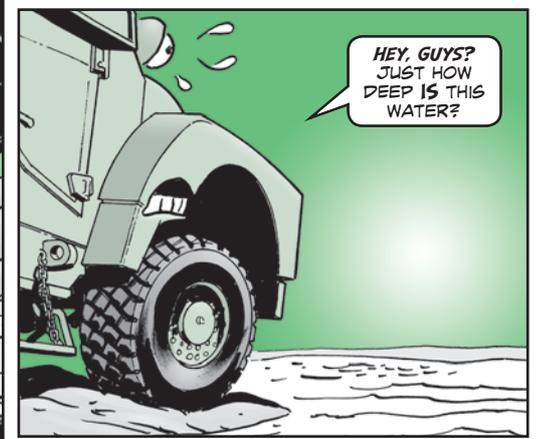
YOU SHOULD ALSO CONDUCT ROUTE RECONS AND REHEARSE THE ROLLOVER AND EGRESS DRILLS GIVEN IN MRAP GTA 07-09-001.



YOU CAN GET TO IT ONLINE:
<https://safety.army.mil/LinkClick.aspx?fileticket=BMdwoKpIdQ%3d&tabid=653>



USE THIS GUIDANCE FROM THE GTA WHEN YOU OPERATE MRAPS NEAR WATER AND AS TACTICAL CONDITIONS ALLOW...



HEY, GUYS? JUST HOW DEEP IS THIS WATER?

- Reduce speed and stop vehicle when you reach water
- Inform the crew and others with the need to know that you are operating around potential water hazards.
- Conduct a risk assessment of the terrain and route before proceeding.
- Wear seatbelts.
- Unlock combat door locks if the enemy situation permits.
- Turn on filtered dome lights.

HERE ARE SOME KEY POINTS ABOUT WATER FORDING THAT SHOULD BE A PART OF YOUR UNIT'S SOP.

IT'S FROM THE TC 7-31 MRAP FOV DRIVER'S TRAINING ON SHALLOW WATER FORDING OPERATIONS.



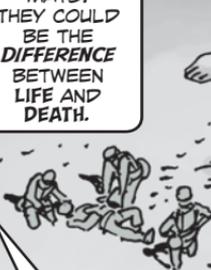
1. Ensure the fording site has adequate entrance and exit points and a firm bottom.
2. Check that the water depth at the fording site is below the vehicle's fording limit and clear of submerged obstacles.
3. During training exercises, make sure drivers and crew members wear life vests if water is over 4 feet deep. (This doesn't apply to the M-ATV since its maximum fording depth is 3 feet.) Do not exceed 4 mph.
4. Follow all vehicle fording and swimming instructions in accordance with the vehicle TM.
5. Do not wear load-bearing equipment (LBE) during fording operations. It could snag on vehicle components and prevent crew members from evacuating through the top hatches during emergencies.

FLOOR MAT MISHAP



THAT FLOOR MAT
SAVED MY LIFE!

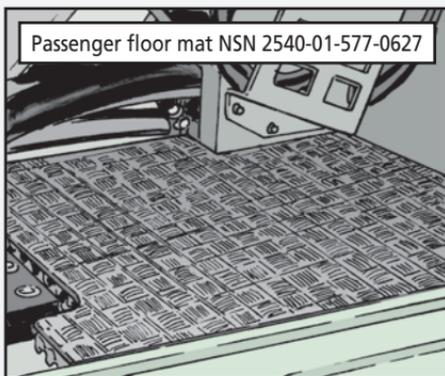
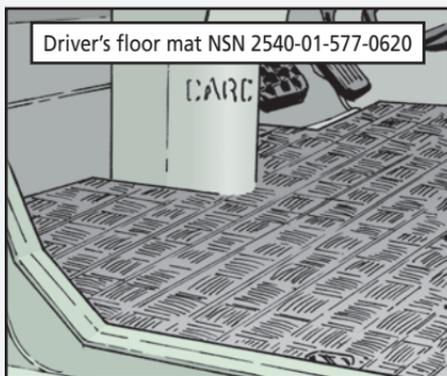
SOLDIERS,
DO NOT
REMOVE
THE M-ATVS
BLAST-
ABSORBING
REAR FLOOR
MATS!
THEY COULD
BE THE
DIFFERENCE
BETWEEN
LIFE AND
DEATH.



SOME PASSENGERS DISCARD THE
MATS WHILE STOWING UNSECURED
EQUIPMENT UNDER THE VEHICLE'S
BLAST-ABSORBING SEATS.

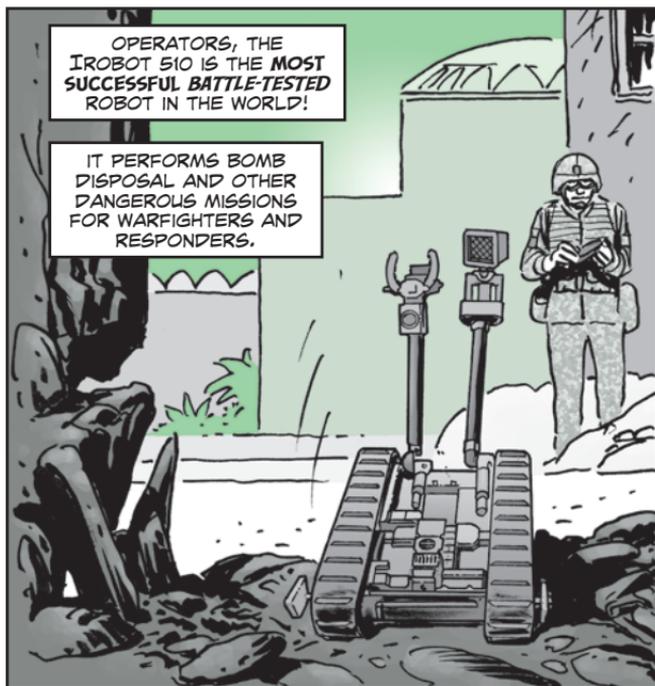
WITH THE MATS REMOVED, THERE'S A **GREATER**
RISK OF SERIOUS INJURY IF THE VEHICLE IS
HIT BY AN IED AND LOOSE EQUIPMENT GETS
TOSSED ABOUT DURING A ROLLOVER.

The M-ATV is not NMC if it's missing the mats—but why increase your risk of injury? Replace a missing rear floor mat (left-side) with NSN 2540-01-577-0620. Use NSN 2540-01-577-0627 to replace the rear right-side mat.

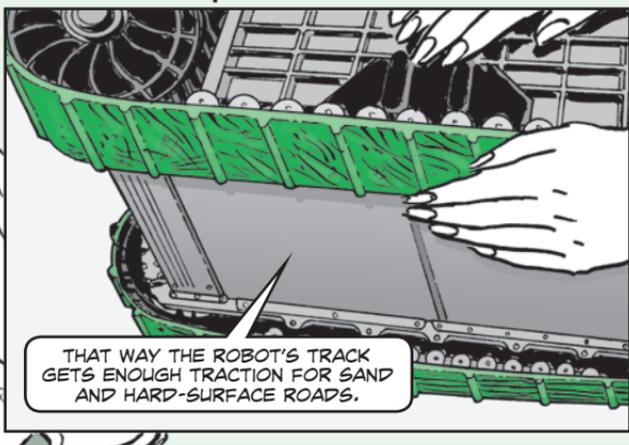


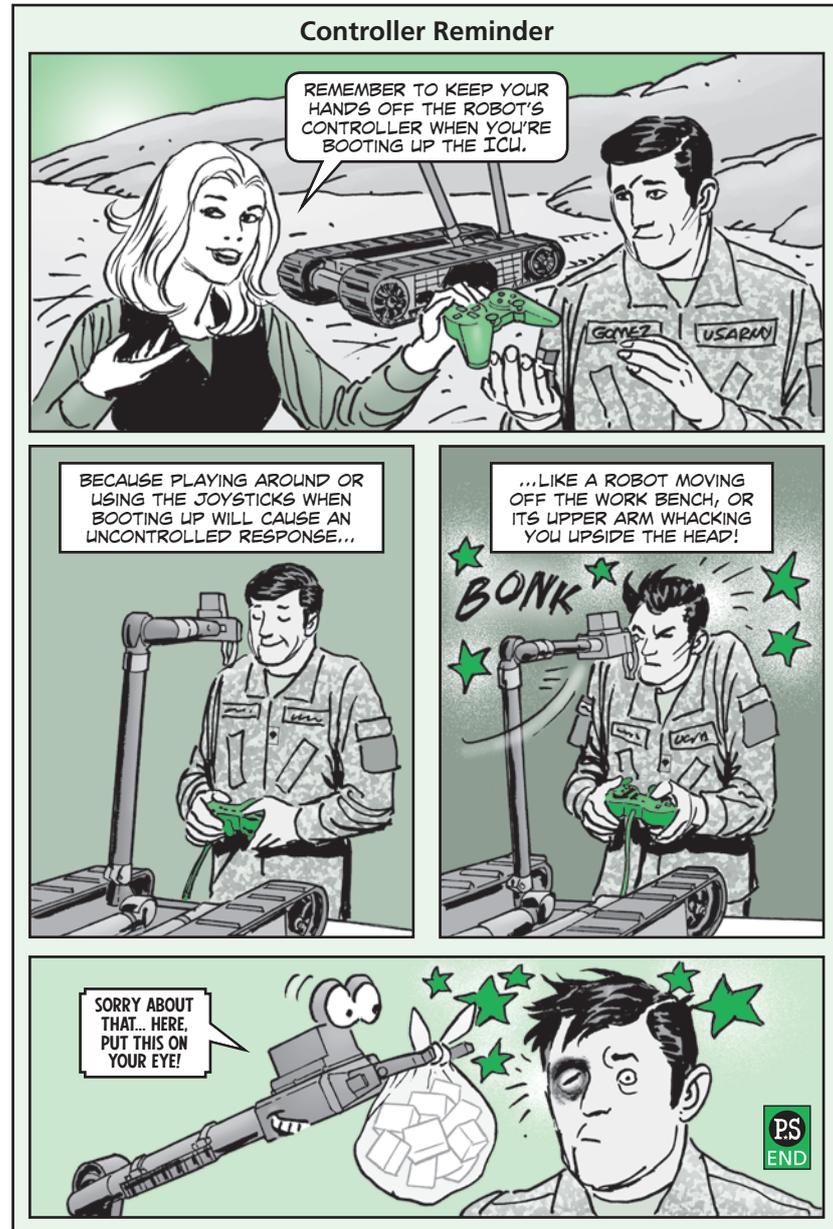
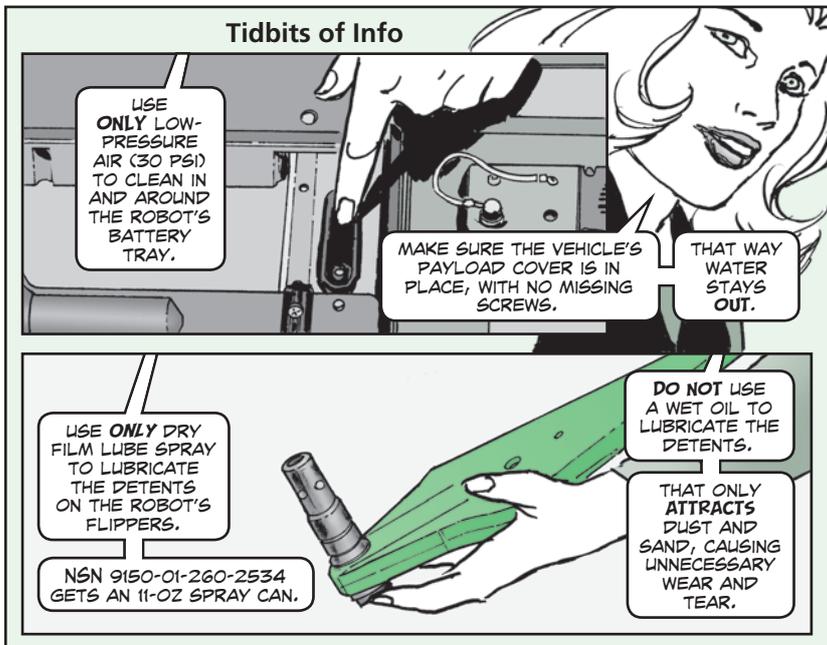
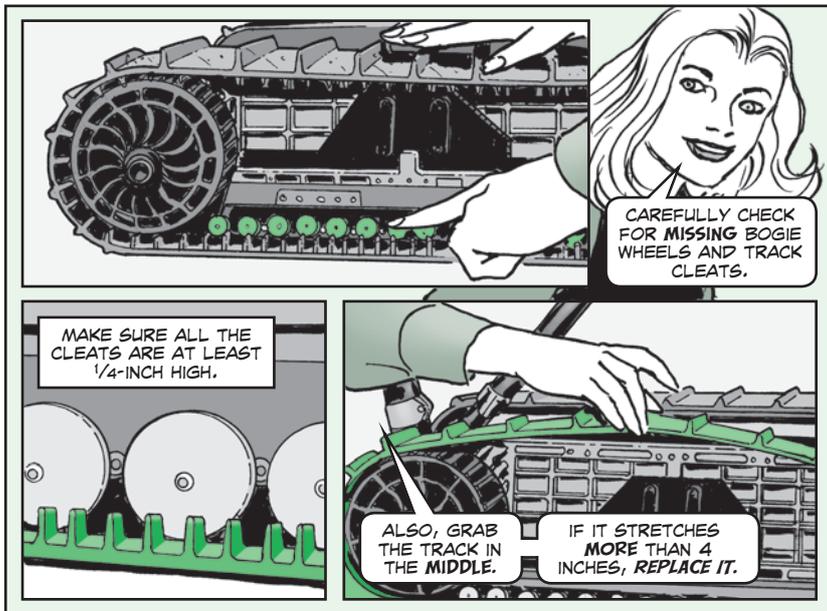
Wondering what to do with that unsecured equipment? Take a look at WP 0039 in TM 9-2355-335-10 for the lowdown on how to properly secure and stow equipment inside the M-ATV.

IROBOT 510 PACKBOT ROBOTIC PM



Track Inspection





**OH NO! THE FIRE
DETECTION LIGHTS
ARE ON! WE MUST HAVE
AN ENGINE FIRE!**

**OR IT COULD JUST BE THE
SENSING ELEMENT LINES
CHAFING SINCE WE FORGOT
TO INSPECT THEM.**

IS THERE AN ENGINE FIRE?

THESE D-MODEL
PILOTS ARE ON TO
SOMETHING. YOU
F-MODEL PILOTS
SHOULD TAKE
NOTICE, TOO.

THE CHINOOK COCKPIT FIRE
DETECTION LIGHTS MIGHT
SPOOK YOU BY COMING
ON, BUT THINK **TWICE**
BEFORE YOU PULL THE FIRE
EXTINGUISHER HANDLE.

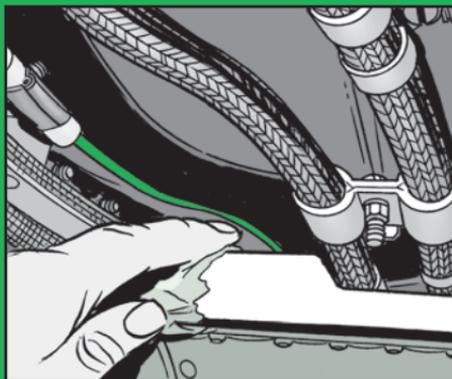


When the lights flicker on the pilot pulls the fire extinguisher handle to snuff out flames if the crew chief confirms the fire by checking through the observation bubble window.

Fire detection lights can deliver false alarms. Sometimes the fire sensing element lines, NSN 1680-00-895-9426 and NSN 1680-00-895-9427, chafe against the airframe surface.

Stop chafing by checking the sensing element lines during pre-flight inspections. Push the lines away from the airframe, but make sure they are not kinked because that will set off a fire light. On the next phase inspection, try positioning the lines differently so they are not too close to the airframe. Replace damaged lines.

Do your daily inspection of the fire detection elements like it says in TM 1-1520-271-PMS1 for the F-Model. For the D-model, use TM 1-1520-240-PMS1, insp# 12.22 and insp# 14.21.



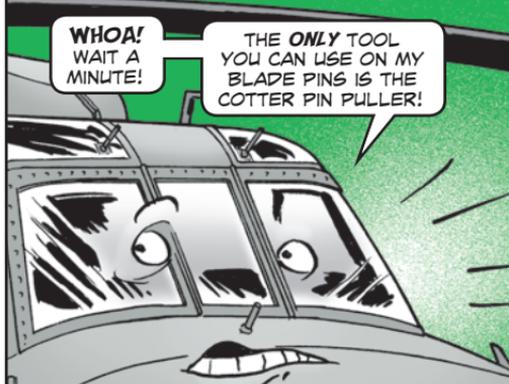
Make sure line is not chafing against airframe

Go Easy on Blade Pins



HEY, I HAVE THE CHANNEL LOCK!

AND I'VE GOT THE DIAGONAL WIRE CUTTERS. LET'S GET TO WORK ON THOSE BLADE PINS!



WHOA! WAIT A MINUTE!

THE **ONLY** TOOL YOU CAN USE ON MY BLADE PINS IS THE COTTER PIN PULLER!

Mechanics, using the right tool to remove your Black Hawk main rotor blade pins is the right way to do the job.

When removing blade pins, always use a cotter pin puller to pull out the cotter pin. Blade pins must be removed if:

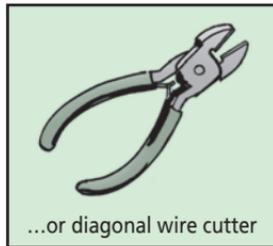
1. the breakaway torque is less than 32 lb-ft.
2. less than two threads are shown after a tension check and the nut is tightened.
 - a. Inspect the blade pin for nicks, dents, scratches, corrosion and tool or scuff marks within critical areas as shown in Fig 1 of WP 0542 00-2.
 - b. Replace the pin if tolerances exceed work package specs.

The wrong way to remove the blade pin is to use channel lock pliers or diagonal wire cutters to extract the cotter pin. These tools are often braced against the spindle cuff washer for leverage. Removing blade pins this way can damage the pins.

Damage can also occur if you try to pound the pin out of the spindle instead of tapping it out lightly with a rubber hammer. Beating on a blade pin damages and unseats the pin's bushings.

If you use the wrong tools or pound on the pin, you might not be able to completely remove a damaged or stuck blade pin at all. If you damage the spindle washer or blade pin, and the pin gets stuck, remove it like it says in the main rotor blade work package of TM 1-1520-237-23. A stuck blade pin is a monster to get out.

When you use the right tool, you'll get the right result and no headaches.



All Aircraft... **DON'T FORGET HARDWARE**



Turnlock fasteners, nuts and bolts that secure access doors, panels and covers should not have missing, loose or the wrong type of hardware, such as a screw that's too long.

For example, turnlock fasteners on Black Hawk and AH-64 airframes are sometimes reinstalled without the retaining star washer.

Turnlock fasteners installed without the star washer can vibrate loose and fall out during flight. If that happens, the fastener can ricochet off the spinning tail rotor blades, hit the stabilator like a missile and punch a hole in it.

When doing aircraft daily and pre-flight inspections, double-check your helicopter airframe for missing, loose or incorrect hardware and fix the problem. Check your -23P manual for the right size and type of hardware to use.

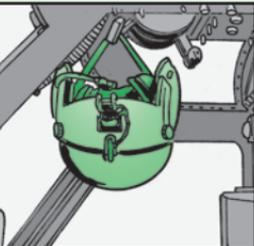
HANG YOUR HELMET ANYWHERE?

NOT!

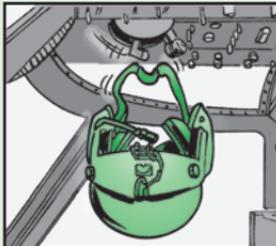
PILOTS AND CO-PILOTS, THE HGU-56/P AIRCREW INTEGRATED HELMET SYSTEM (AIHS) CAN SIT ON TWO PLACES IN YOUR BLACK HAWK COCKPIT—YOUR HEAD OR THE HOOKS!

THE HOOKS ARE LOCATED ON EITHER SIDE OF THE UPPER CONSOLE. **USE THEM.**

PROBLEM IS, IF THE HOOKS ARE MISSING, SOME THINK THE NEXT BEST HANGER FOR THE HELMET IS THE # 1 OR 2 ENG EMER OFF FIRE HANDLES.



NOT SO! HANGING YOUR HELMET ON ANY LEVER OR HANDLE ON THE UPPER CONSOLE IS A BAD IDEA.



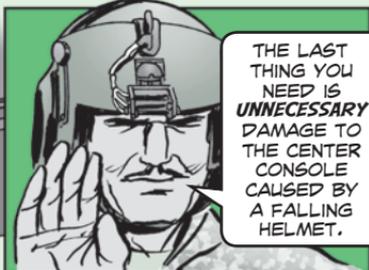
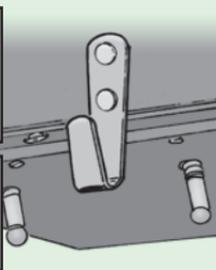
LEVERS AND HANDLES ARE NOT STRONG ENOUGH TO SUPPORT THE WEIGHT OF A HELMET.

IT WILL FALL OFF AND DAMAGE CENTER CONSOLE KNOBS, SWITCHES, SCREENS AND OTHER COMPONENTS.



MAKE SURE YOUR COCKPIT HAS HOOKS. IF THEY ARE MISSING, GET THEM REPLACED SO YOU CAN HANG YOUR HELMET IN THE RIGHT PLACE.

HAVE YOUR MECHANIC ORDER HOOKS WITH NSN 5965-00-052-7596 AND THE RIVETS WITH NSN 5320-00-754-0992.



THE LAST THING YOU NEED IS **UNNECESSARY** DAMAGE TO THE CENTER CONSOLE CAUSED BY A FALLING HELMET.



WHAT DO YOU WANT ME TO DO WITH *THIS*?

I CAN'T INSPECT YOUR HELMET WITH ALL THESE *STICKERS* ON IT.

DON'T YOU KNOW...

...AUTHORIZED STICKERS ONLY!

Pilots and copilots, don't become sticker friendly with your HGU-56/P aircrew integrated helmet system (AIHS).

Remember, **no** unauthorized stickers or other self-adhesive items are allowed on the helmet shell or the dual visor housing.

There are certain authorized adhesive-backed items that can be placed on your helmet. They are the pile fastener pieces that secure the ANVIS battery pack and weight bag, the lip light battery pack, the dual visor assembly for IFR flight training, and pile fastener to secure the blown air port on the helmet.

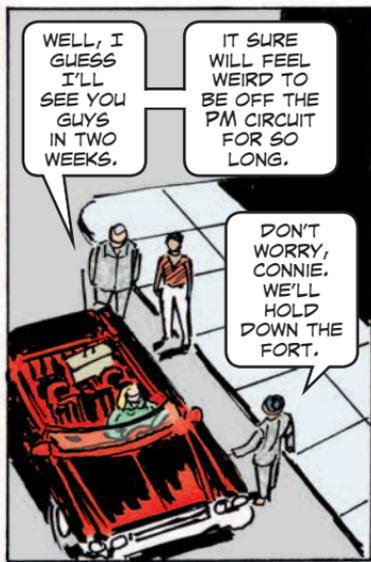
Putting unauthorized stickers or self-adhesive items on the HGU-56/P shell or visor assembly will limit the ALSE tech's ability to inspect the helmet shell for cracks or soft spots. That puts your noggin in harm's way.

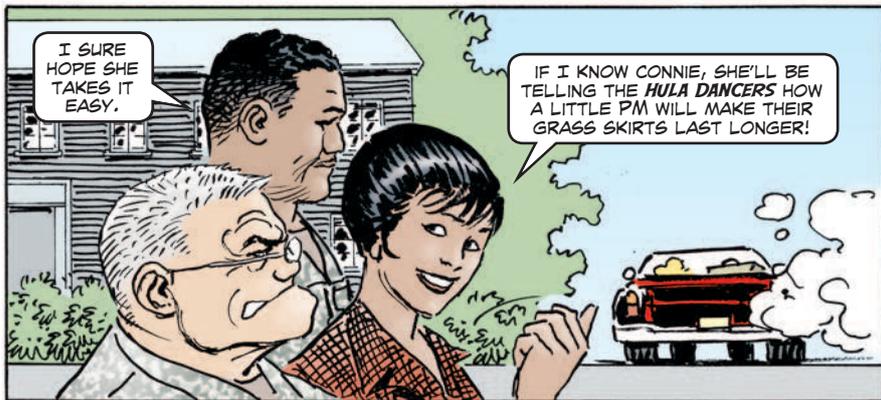
You can view the details of this change in PM Air Warrior message (ALSE 10-03). Also make a note, that these changes will be added to the next update of TM 1-1680-377-13&P, EM 0250.



REMEMBER, THIS INFORMATION **ALSO** APPLIES TO THE HELMET AND DISPLAY SIGHT SYSTEM (IHADSS) HELMET, LIKE WE SAID ON PAGE 37 IN PS 667.

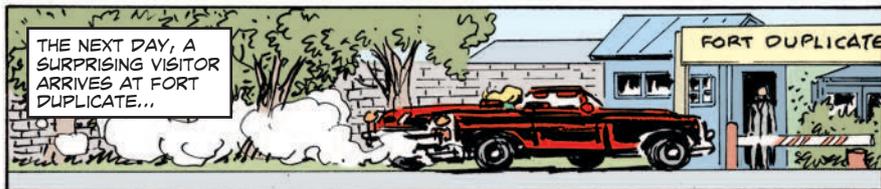
Out-Classed **AGAIN!**





I SURE HOPE SHE TAKES IT EASY.

IF I KNOW CONNIE, SHE'LL BE TELLING THE **HULA DANCERS** HOW A LITTLE PM WILL MAKE THEIR GRASS SKIRTS LAST LONGER!



THE NEXT DAY, A SURPRISING VISITOR ARRIVES AT FORT DUPLICATE...



PRIVATE...I'VE GOT AN APPOINTMENT WITH ONE OF YOUR UNITS TODAY.

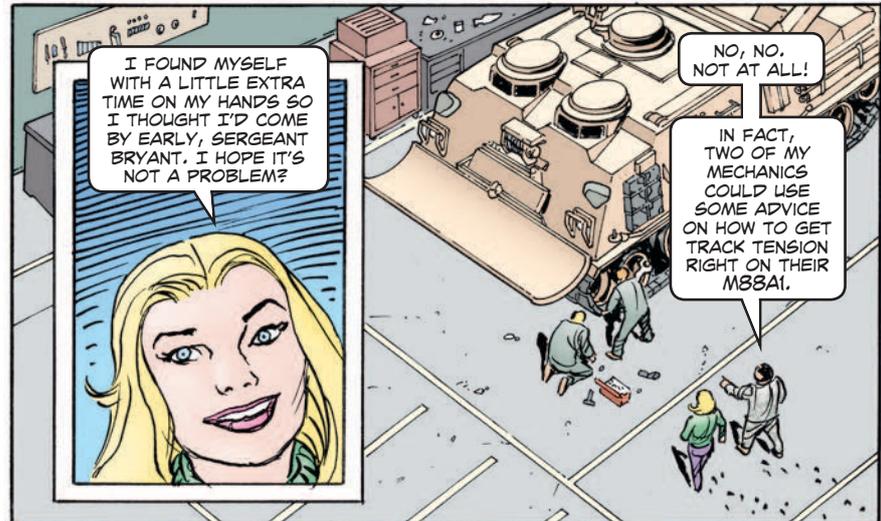
HOLY COW! YOU'RE CONNIE RODD FROM PS MAGAZINE.

THIS IS A **REAL HONOR!** DRIVE ON THROUGH, MA'AM!



CONNIE! WHAT AN UNEXPECTED SURPRISE.

I THOUGHT YOU WEREN'T SUPPOSED TO BE HERE FOR ANOTHER TWO WEEKS.



I FOUND MYSELF WITH A LITTLE EXTRA TIME ON MY HANDS SO I THOUGHT I'D COME BY EARLY, SERGEANT BRYANT. I HOPE IT'S NOT A PROBLEM?

NO, NO. NOT AT ALL!

IN FACT, TWO OF MY MECHANICS COULD USE SOME ADVICE ON HOW TO GET TRACK TENSION RIGHT ON THEIR M88A1.



NAH! THAT'S TOO TIGHT!

BUT WE DON'T WANT IT TOO LOOSE.



HEY, GUYS...**TIGHTER** IS ALWAYS BETTER!

NOW GET ON THAT WRENCH AND GIVE IT ALL YOU'VE GOT!



HMM... THAT **DOESN'T** SOUND RIGHT!

TRACK THAT'S TOO TIGHT CAN **WEAR OUT** SPROCKETS AND END CONNECTORS.



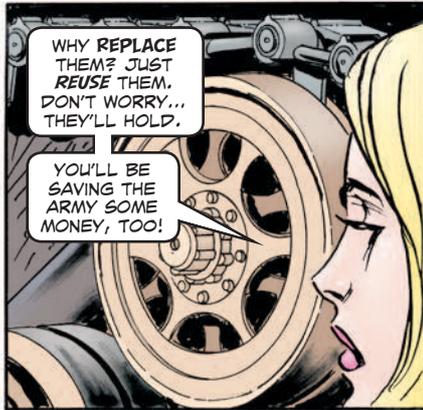
BUT... SURELY CONNIE KNOWS WHAT SHE'S DOING!



A FEW MINUTES LATER...

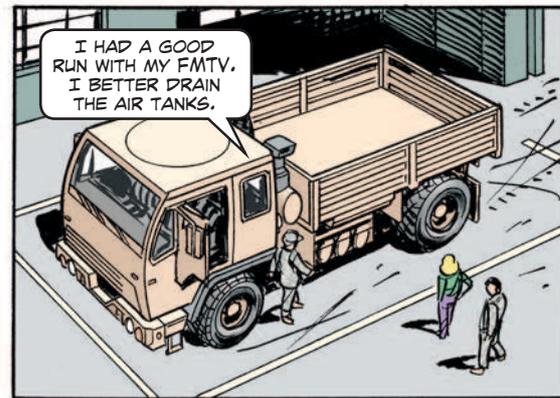
THE NUTS ON THIS BRADLEY'S IDLER WHEEL LOOK LOOSE. I THINK WE SHOULD REPLACE 'EM.

DON'T!



WHY REPLACE THEM? JUST REUSE THEM. DON'T WORRY... THEY'LL HOLD.

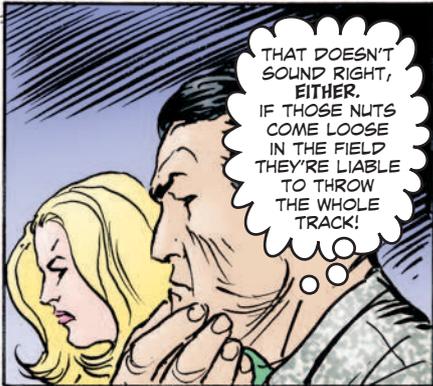
YOU'LL BE SAVING THE ARMY SOME MONEY, TOO!



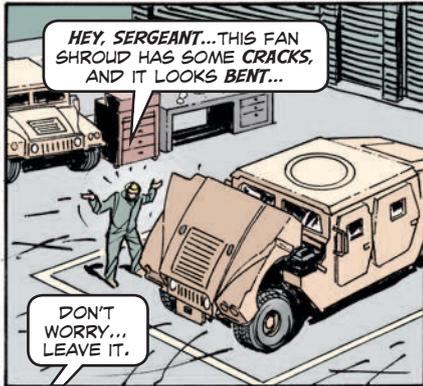
I HAD A GOOD RUN WITH MY FMTV. I BETTER DRAIN THE AIR TANKS.



DON'T DO THAT! YOU'LL WEAR OUT THE VALVES IF YOU DRAIN IT MORE THAN ONCE A MONTH.



THAT DOESN'T SOUND RIGHT, EITHER. IF THOSE NUTS COME LOOSE IN THE FIELD THEY'RE LIABLE TO THROW THE WHOLE TRACK!



HEY, SERGEANT...THIS FAN SHROUD HAS SOME CRACKS, AND IT LOOKS BENT...

DON'T WORRY... LEAVE IT.



WHOA! NOT A GOOD IDEA!

LEFT-OVER MOISTURE CAN CORRODE THE AIR LINES AND RELIEF VALVES... AND CAN PLUG UP THE SYSTEM.

I THINK I'LL GIVE HALF-MAST A CALL.



...WAIT A MINUTE, SERGEANT. LET ME PUT YOU ON THE SPEAKER PHONE.

...AND SHE'S GIVING ADVICE THAT CAN DAMAGE EQUIPMENT.



THOSE SHROUDS ARE MADE TO LAST!



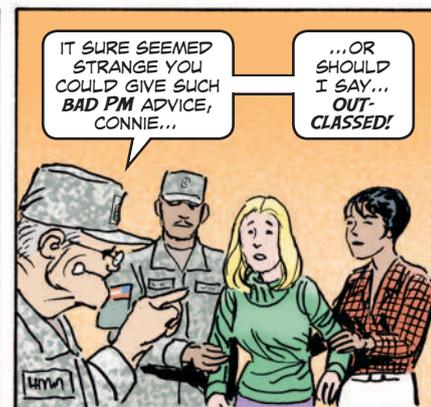
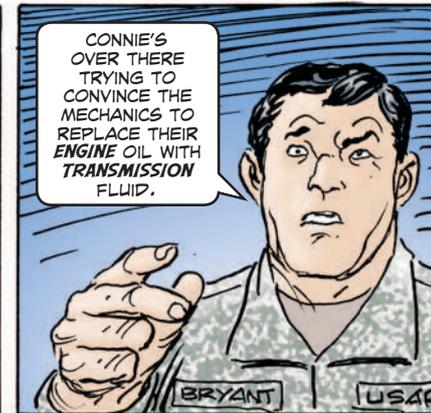
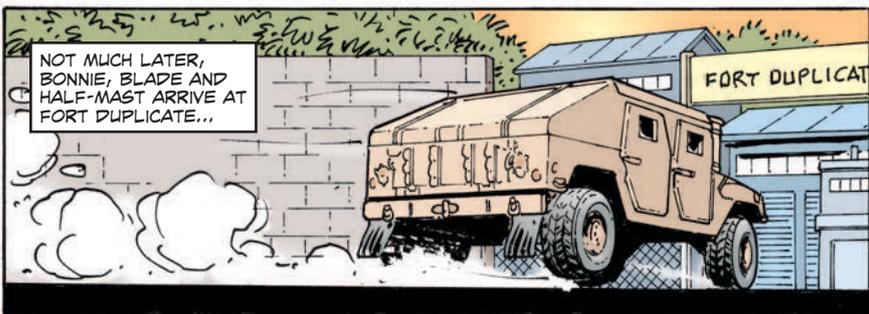
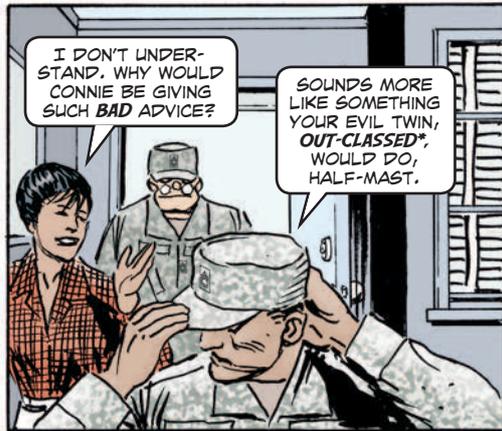
THAT SHROUD MAY BE DAMAGED ENOUGH TO HIT AND BREAK THE FAN BLADES... LEAVING THE VEHICLE STRANDED!



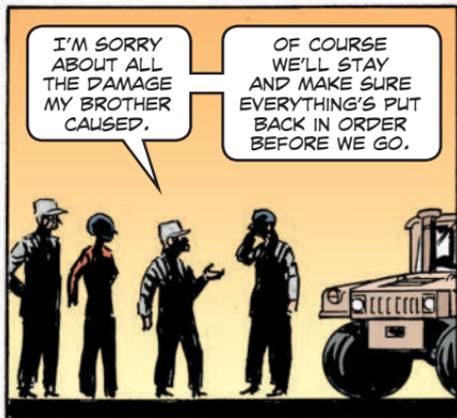
THAT DOESN'T MAKE ANY SENSE! CONNIE SHOULD BE VACATIONING IN HAWAII!!



BELIEVE ME, IT'S HER! SOMETHING'S DEFINITELY WRONG!



* HALF-MAST'S EVIL TWIN!? SEE PAGES 27-34 OF PS 690 (MAY 10)
<http://halfmastpsmag.wordpress.com>



What the Heck! How Can You Beat PM?

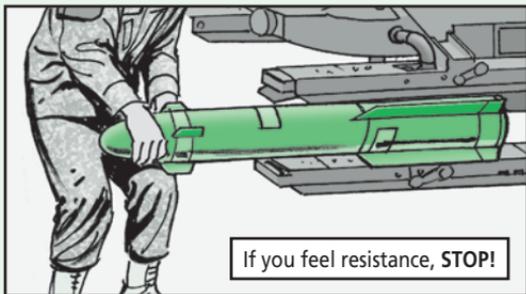
WHAT
THE
HECK!

IS THERE ANY
BETTER WAY TO
KEEP ME FIRING
THAN A STEADY
DIET OF PM?

WE
THINK
NOT.

FOR
INSTANCE...

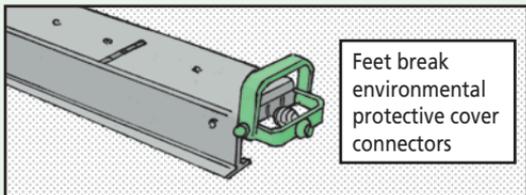
Be gentle—Most of the Hellfire's problems are caused by crews forgetting to be gentle. When you load missiles, don't slam the missiles in place. That can cause all kinds of damage. If you feel any resistance while sliding a missile in place on the launcher, STOP!



If you feel resistance, STOP!

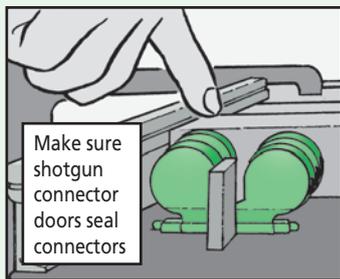
Check out the connectors—They could be plugged with dirt. Or the launcher connector covers may not be lifting up like they should. Just don't try to muscle the missile in place.

Keep your feet off the launcher—If you use it as a ladder, the environmental protective cover connectors or the SAFE/ARM switch soon will be busted.

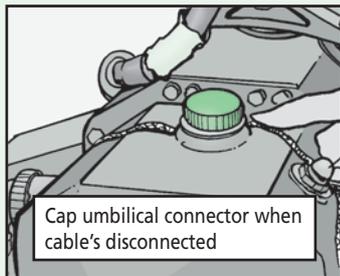


Feet break
environmental
protective cover
connectors

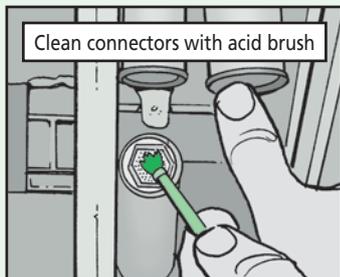
Seal out dirt and sand—Loading and firing will be much easier if you prevent dirt and sand from plugging shotgun connectors. With the missiles downloaded, inspect the shotgun connectors to ensure they are free from obstructions and debris. Make sure the doors and seals are in good shape. If the seals are torn, damaged or missing or the door doesn't align properly on the shotgun probes, tell your repairman.



When the launcher is downloaded, the umbilical connector W1J5 on the M299 launcher and W1J1 connector on the M272/M279 launcher are unprotected from dirt and debris. Protect the connector by installing its cap, NSN 5340-01-499-8793. If you've lost the cap, the cleaned cap from a sports drink bottle makes a good substitute until you can get a new cap.

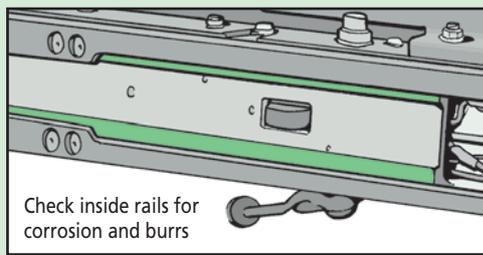


Of course, no matter how valiant your efforts, eventually those connectors are going to get dirt in them. Before a mission, check all wiring harness connectors for dirt. If you spot any, clean the connector with a paint brush and a water-detergent solution. NSN 7930-00-282-9699 gets a good detergent. Use the brush and solution to loosen up any dirt and then flush the connector with clean water. Let the connectors air dry and ensure they are completely dry before loading any missiles.



Check for burrs and corrosion—What often causes the missiles to hang up during loading are burrs and corrosion on the inside of the launcher rails. As part of your weekly PMCS, check the rails for burrs and corrosion.

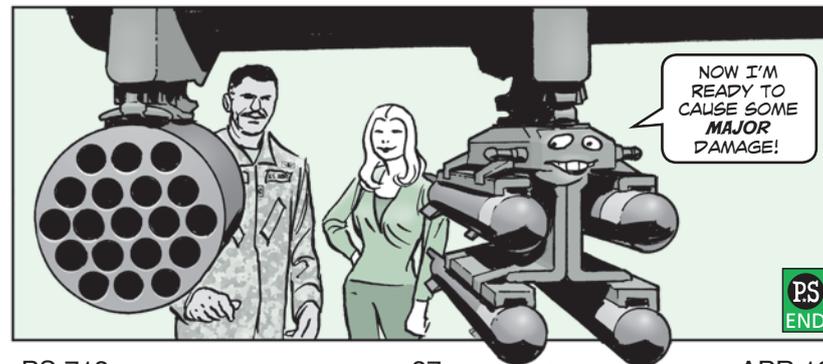
Corrosion can be rubbed off by following the cleaning procedures in TM 9-1425-475-23&P. Never file or sand the launcher. The plating residue can be dangerous if it gets in your lungs. Don't put lube on the rails either. That just attracts dirt and sand.



Handle latching handle problems— Sometimes you can load a missile and think you're ready to go. But the missile isn't really locked in and can fall off during flight. That's not an easy one to explain away. After you've loaded the missiles, feel the latching handles for movement. If the handle moves freely, the missile isn't locked in. Slide the missile forward and then try and reset it.



Troubleshooting help—The launcher test station (LTS), NSN 4935-01-475-9118, makes troubleshooting much easier and faster. When used with the AN/AWM 101A test set, NSN 4935-01-452-0958, the launcher can be tested off the aircraft and any problems can be fixed right away. Plus you can quickly check all your unit's launchers prior to installing them on the aircraft.



MWO Changes NSN



EVER SINCE I GOT MODIFIED, I DON'T KNOW WHAT MY NSN IS ANYMORE!

WELL, YOU'RE IN LUCK. THIS ARTICLE IN PS WILL SET YOU STRAIGHT!

Dear Editor,

I review Army Materiel Status System (AMSS) information as I travel around to units with the MIARNG. A common problem I find is that units have the wrong NSN listed for their MK 19s.

When the MK 19 had MWO 9-1010-230-50-1 applied, its NSN was changed from 1010-01-126-9063 to 1010-01-490-9697, its model from MK 19 to MK 19 MOD3, and its end item code (EIC) from 4AE to 4BL.

But when you look up the MK 19's line item number (LIN) of M92362 on the Maintenance Master Data File (MMDF), it has the NSNs and EICs reversed. So the wrong NSN and EIC are often entered into SAMS-E.

Armorers need to double check that they have NSN 1010-01-490-9697 and EIC 4BL listed for their MK 19 MOD3s. All MK 19s should have been modified by now.

SGT Phil Michmerhuizen
COMET
Lansing, MI

Editor's note: Good point, Sergeant. Making this correction now, armorers, can save you headaches later.

LEAVE M203 MOUNTED FOR GAGING

WAIT A MINUTE!
IF YOU SEND MY 203
OFF TO GAGING ALONE,
THEY CAN'T TELL IF IT'S
MOUNTED RIGHT.

YEAH, THAT
COULD AFFECT MY
BARREL. SEND US
OFF **TOGETHER!**



Dear Editor,

Sometimes units turn in their M203 grenade launchers for annual gaging without their host weapons, the M16 rifle or M4/M4A1 carbine.

That causes a problem. If the M203s are not left on the weapons, we can't verify that the M203s are properly mounted. We have seen M203s mounted so loosely that the host weapon's barrel nut was damaged. And we have seen other M203s whose quick-disconnect bracket was so tight that the host weapon's barrel straightness gage couldn't pass through.

So please tell units to leave the M203s on the host weapon when they turn it in for gaging. That way we can make sure the M203s are in good shape and mounted correctly.

Peter Jennings
DOL Small Arms Shop
Ft Stewart, GA

Editor's note: Good tip, Peter. We will gladly pass it on to armorers.

M2
Machine
Gun...

Where's the BFA?

Dear Half-Mast,

The blank firing attachments (BFA) for our M2 machine guns have some parts that need to be replaced. We can't find anything in the M2 TMs. Where can we find parts info?

SFC D.S.

Dear Sergeant First Class D.S.,

The M19 BFA actually has its own TM, TM 9-1005-314-13&P (Feb 10), which lists all the repair parts. You can find the TM at the ETM site:

<https://www.logsa.army.mil/etms/online.cfm>

The repair parts are listed in WP 0010 00.

Half-Mast

M67 GLPS...

HEY, TURN OFF THE VEHICLE BEFORE YOU TURN ME ON.

YOU WANT TO RUIN MY GYROS!?

TURN OFF VEHICLE BEFORE TURNING ON GLPS!

IF YOU POWER UP THE M67 GUN LAYING AND POSITIONING SYSTEM (GLPS) **WRONG**, IT QUICKLY WILL BE **POWERLESS** TO DO ITS JOB.

The GLPS can be powered through its own battery or by using its power adapter and connecting it to a vehicle power supply through the NATO plug.

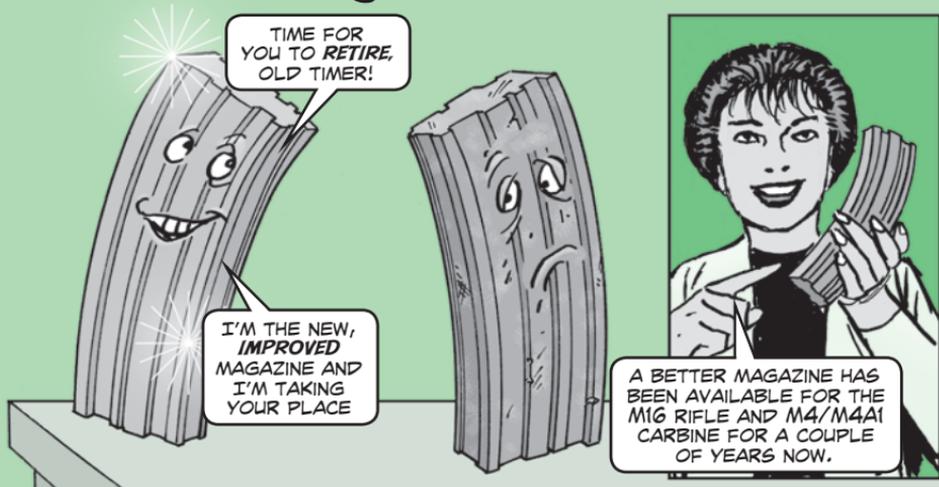
Unfortunately, many GLPS batteries have reached the end of their life and no longer charge properly. (If you charge a battery like it says in Section II of TM 9-6675-347-13&P and the battery shows a charge of less than 80 percent, the battery needs to be sent in for maintenance.) So the only power choice then is vehicle power. And that's where the damage can occur.

The GLPS gyros are very sensitive to voltage spikes from the vehicle. The way to prevent these spikes is to first shut off the vehicle before you power up the GLPS. And leave the vehicle off while the GLPS is on.

ONE MORE TIME...
VEHICLE OFF,
GLPS ON!

PS 713

Better Magazine Available

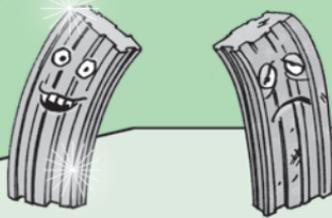


YOU CAN ORDER THE **NEW** MAGAZINE WITH NSN 1005-01-561-7200.

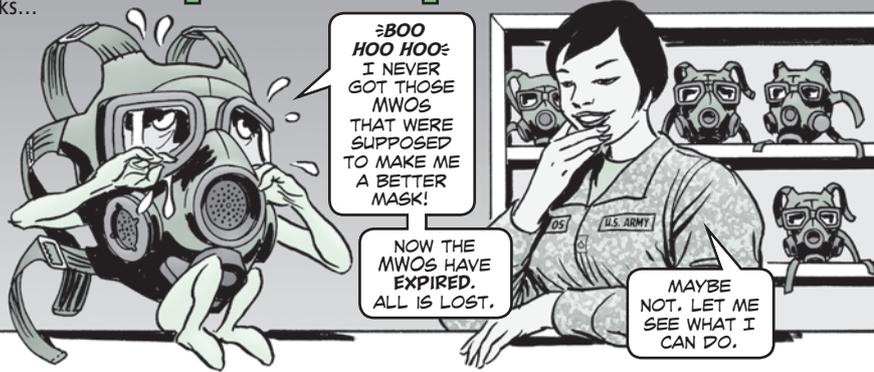
THE OLD MAGAZINE, NSN 1005-00-921-5004, IS BEING PHASED OUT AND WILL BE REPLACED BY THE NEW MAGAZINE.

BUT CONTINUE TO USE THE OLD MAGAZINES UNTIL THEY NEED REPLACING.

THEN ORDER THE NEW ONE.



Help for Expired MWOs



Dear Half-Mast,

We have M40/M42-series masks that either never had MWOs 3-4240-346-20-1 or 3-4240-346-20-2 done or need to have the -20-1 MWO re-done. But the MWOs expired several years ago. What should we do?

SFC S.H.

Dear Sergeant S.H.,

Since the MWOs have expired, the Army no longer supports them. MWO 3-4240-346-20-1 applied a retaining clamp (zip tie) to the facepiece to prevent the silicone rubber from separating from the outlet valve housing. If the clamp was never installed or it has worn out, you have two choices:

Order the clamp installation tool for \$251 at:

<http://www.newark.com>

In the SEARCH box, type 78F547 and click FIND.

For 1,000 clamps for \$70, go to

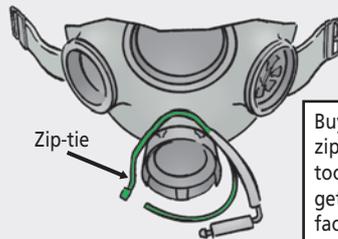
<http://www.digikey.com>

In the Part Search box, type 298-1045-ND and click the GO button.

Unless you have quite a few masks that need the clamp, this isn't cost-effective. In that case, just order new facepieces:

- small, NSN 4240-01-415-4517
- medium, NSN 4240-01-415-4518
- large, NSN 4240-01-416-0430

What you shouldn't do is try to replace the clamps with ones you find locally. Those clamps have not been tested for strength and durability.

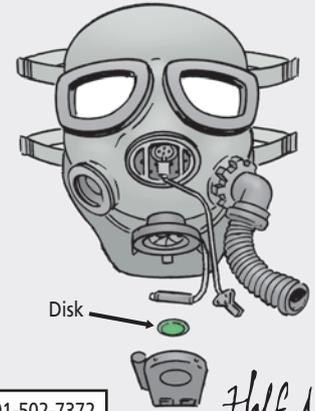


Buy new zip ties and tool or just get a new facepiece

MWO 3-4240-346-20-2 replaced the outlet valve disk with an improved disk that minimizes the chance of the disk collapsing into the outlet valve housing during extreme negative pressure checks.

If the outlet valve disks in your masks are olive green, you've got the new disks. If not, order the disk with NSN 4820-01-502-7372.

Of course, the best way to get the most out of your mask is to do the weekly PMCS called out in the -10 TM. Don't let your mask sit in the CBRN room. Give it the attention it needs.

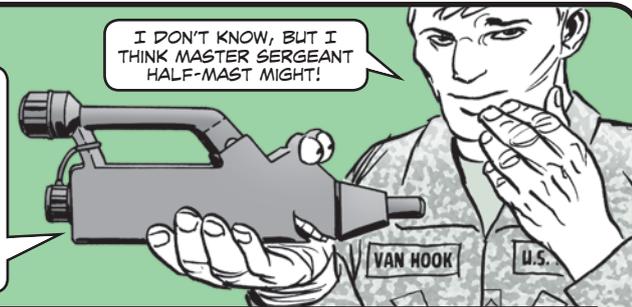


New outlet valve disk comes with NSN 4820-01-502-7372

ICAM...

WHAT BATTERY DO WE USE?

I DON'T KNOW, BUT I THINK MASTER SERGEANT HALF-MAST MIGHT!



Dear Half-Mast,

The BA-5800/U battery, NSN 6135-01-440-7774, is supposed to be used for the ICAM (improved chemical agent monitor), but FED LOG says the battery is a terminal item (AAC V). What should we use instead?

MSG M.E.

Dear Master Sergeant M.E.,

Even though the NSN is a terminal item, the DOD EMALL shows there are more than 5,000 packages of 8 BA-5800s in stock. So you can continue to use the BA-5800 for some time. Once it's depleted, order non-rechargeable battery BA-5380/U, NSN 6135-01-517-4954.

Or you can use rechargeable battery BB-2800/U, NSN 6140-01-490-5372. The BB-2800/U will normally power the ICAM for 9 1/2 hours. To recharge the BB-2800/U, you will need the PP-8498/U charger, NSN 6130-01-495-2839, and an adapter, NSN 5940-01-493-6750. It lets you charge two batteries at once.

Half-Mast

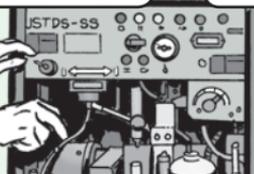
Deconning with Your New M26



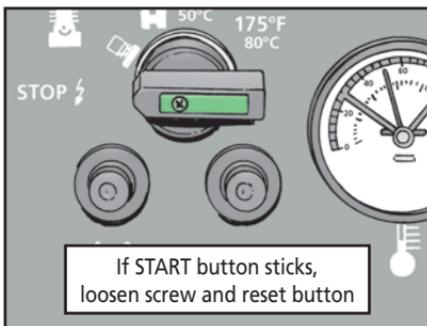
YOUR NEW M26 DECON WILL DO A TERRIFIC JOB DECONNING.

BUT EVERY NEW PIECE OF EQUIPMENT HAS ITS QUIRKS THAT YOU NEED TO WATCH FOR.

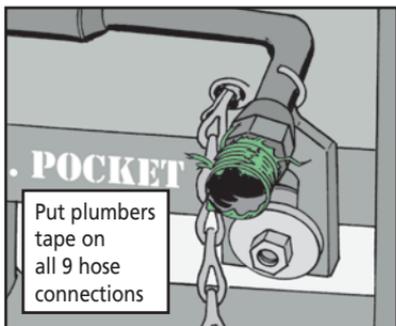
THE M26 IS NO DIFFERENT...



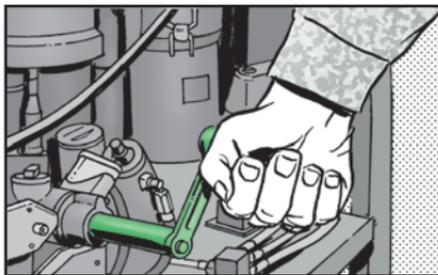
- The START button on the function switch can stick when pushed in and then the function switch itself stops working. The solution is NOT to muscle the switch past its normal settings. The only thing that does is damage the function switch. Loosen the screw in the START button until the button can be pulled back. Then re-tighten the screw. If this is a chronic problem, tell your repairman. The function switch may need to be replaced.



- Plumbers tape, NSN 8030-00-889-3535, can help prevent messes when you decon. If O-ring seals for hose connections are in good shape and you wrap the tape around the threads for the 9 hose connections, the hoses won't leak. But after four or five decons, change the tape or you'll start getting leaks. Putting on the tape takes just a few minutes and can save you many minutes of cleanup. The tape is part of the M26's expendable durable items list.



- Be cautious with the hand crank. It can snap back and do a number on your hand if your fingers are sticking out. When cranking, wrap your hand completely around the handle with all your fingers balled into a fist.



Keep fingers wrapped around crank when cranking M26

STAY COOL WITH ULCANS



MAN, IT IS **HOT** OUT HERE!

FOR YOU, MAYBE. BUT THE EQUIPMENT I'M COVERING HAS GOT IT **MADE IN THE SHADE!**



THE HOT SUMMER SUN BEATS DOWN ON YOUR EQUIPMENT, SHELTERS AND TENTS -- AND CAUSES **HEAT BUILDUP** AND **SOLAR LOADING**.

GENERATORS AND ENVIRONMENTAL CONTROL UNITS (ECUs) HAVE TO WORK VERY HARD TO KEEP IT **COOL** ENOUGH FOR YOU AND YOUR EQUIPMENT TO KEEP OPERATING.

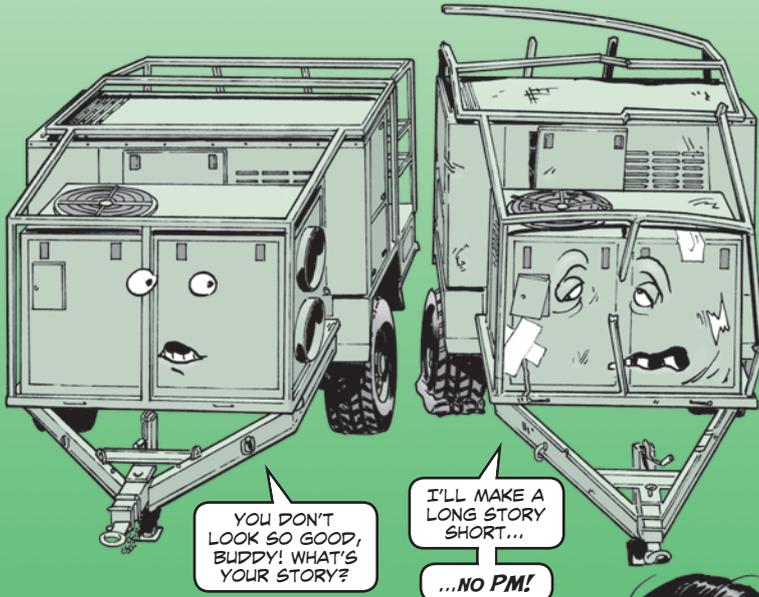
Except for fuel used in aviation operations, generators account for 80 percent of the fuel used by the Army. If that fuel consumption can be cut, fewer fuel supply convoys are required in theatre, which means less risk to Soldiers. Plus you save your unit lots of money.

Shading equipment, shelter and tents with the ultra-lightweight camouflage net system (ULCANS) keeps things cool and drastically reduces fuel consumption by generators and ECUs. But ULCANS also reduces ultraviolet (UV) exposure, which helps equipment last longer.

Testing at Fort Irwin, CA, showed that keeping a shelter or tent covered with ULCANS reduced the power required for cooling by 22 percent. And an ULCANS-shaded ECU was shown to operate more efficiently, keeping the shelter cool even during the hottest part of the day with reduced power.

Order the ULCANS desert radar scattering system with NSN 1080-01-475-0696; desert radar transparent system with NSN 1080-01-475-0694; woodland radar scattering system with NSN 1080-01-457-2956; and woodland radar transparent system with NSN 1080-01-475-0697.

THE TALE OF A TRAILER



YOU DON'T LOOK SO GOOD, BUDDY! WHAT'S YOUR STORY?

I'LL MAKE A LONG STORY SHORT...
...NO PM!

THE PROPER CARE AND USE OF A TRAILER CAN SPELL THE DIFFERENCE BETWEEN ACCOMPLISHING YOUR MISSION OR **GETTING STUCK ON THE ROADSIDE.**

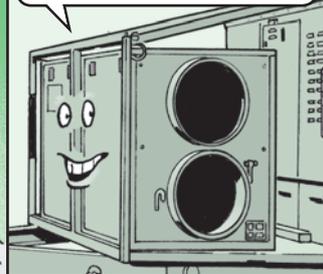
LOADING AND UNLOADING, OVER-THE-ROAD TOWING AND A LITTLE PREVENTIVE MAINTENANCE ALL PLAY IMPORTANT ROLES IN KEEPING THE TRAILER WORKING.



THE TRAILER THAT COMES WITH YOUR DRASH® TRAILER-MOUNTED SUPPORT SYSTEM (TMSS) MX MEDIUM SHELTER IS NO EXCEPTION.

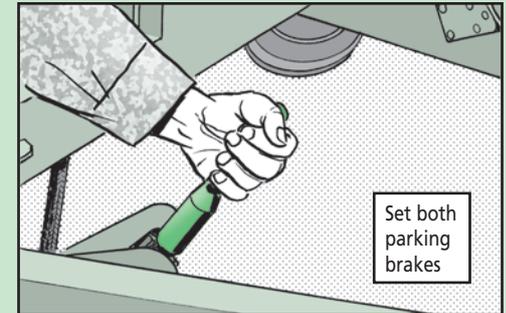
THAT'S THE DRASH® HP-2C 18/5 UTILITY SHELTER TRANSPORT (UST) TRAILER, NSN 8340-01-533-5396.

HERE'S WHAT YOU NEED TO KNOW TO KEEP US ROLLING...

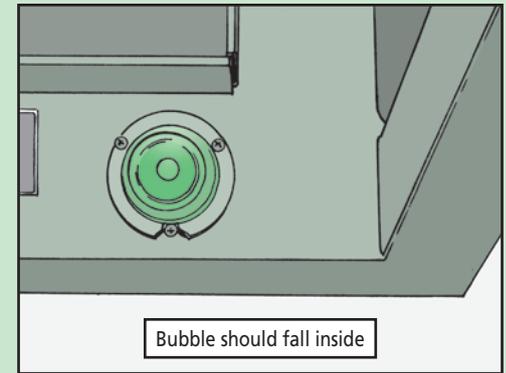


Loading and Unloading

- Before loading or unloading:
 - Park the trailer on a flat, level surface.
 - Set both parking brakes by pushing the levers forward.
 - Use the tongue jack to raise and lower the trailer for leveling.
 - Lower the stabilizer legs in the rear and pin them in place. They help keep the rear of the trailer from dropping.
 - Look at the bubble level. The bubble should fall within the circle.
 - Remove the tailgate at the rear of the trailer. Start by removing the four pins that hold it in place, then raise and remove it. Of course, before you move out, replace the tailgate and lock it in place with the pins.
 - After loading, put the tarpaulin over the trailer. Make sure its straps are tight.



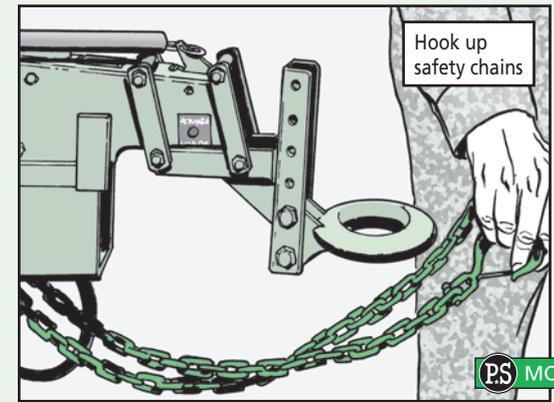
Set both parking brakes



Bubble should fall inside

Preparing to Tow

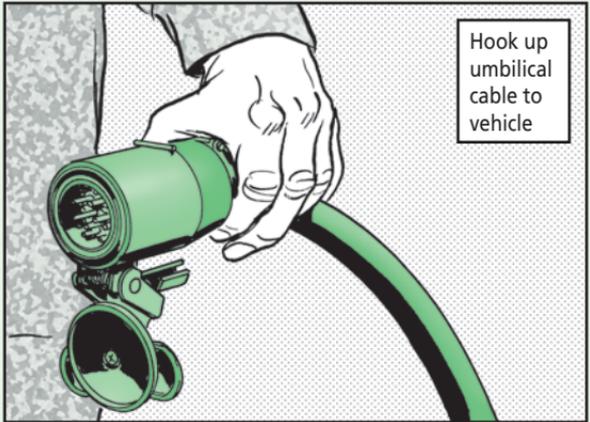
- Remove the nuts and bolts from the trailer's lunette. Raise the lunette until it's level with the towing vehicle's pintle. Reinsert the bolts. Install and tighten the nuts.
- Hook up safety chains and the safety chain brake to the vehicle. The safety chain brake triggers the trailer brakes if the trailer and vehicle separate.



Hook up safety chains

PS MORE

- The umbilical cable provides power for the trailer's taillights and blackout lights. Hook up the cable to the vehicle. If it's not hooked up, the connector can work loose from its holding clamp during towing. Then cable and connector go bouncing down the road. Before long, they're both damaged.

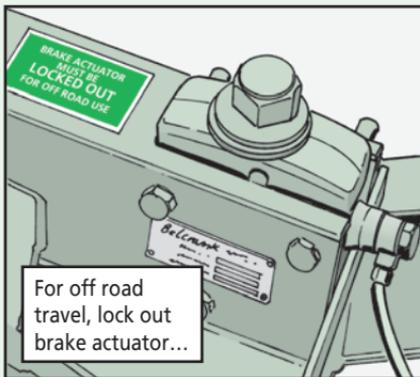


Hook up umbilical cable to vehicle

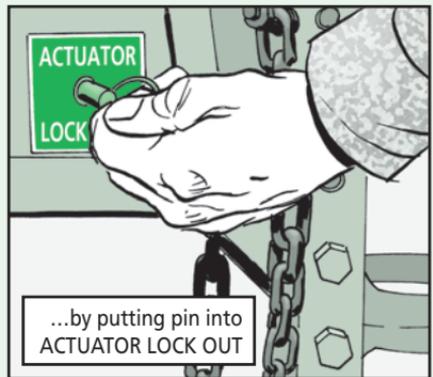
- Stow the tongue jack so that it won't get caught on anything during towing. First, crank up the tongue jack. Then remove the jack's two dolly wheel pins. Lift up the jack and set it on the pedestal. Using the two dolly wheel pins, fasten it to the pedestal.

Then remove the pin for the telescoping tongue jack. Slide the jack extension up into the tongue jack and reinsert the pin.

- Off-road travel can trigger the trailer's brakes. So, before you go off road, lock out the brake actuator. Install the pin into the ACTUATOR LOCK OUT to disengage the brakes. Also, remember to unhook the safety chain brake.



For off road travel, lock out brake actuator...



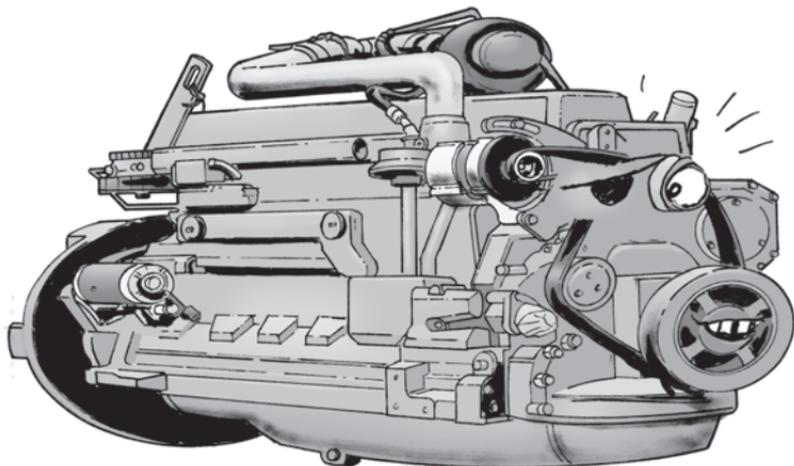
...by putting pin into ACTUATOR LOCK OUT

A Little PM

- Keep the brake fluid reservoir topped off. Use the same brake fluid, NSN 9150-01-102-9455, that you use in the HMMVV.
- Use your vehicle lug wrench to test the lug nuts. Are they tight? If not, snug them up.
- Don't forget to check the tire pressure. Keep it at 20 psi.

Tactical Quiet
Generators...

WANTED



DEAD OR ALIVE

**NAME: MODEL B DIESEL ENGINE, NSN 2815-01-462-3596,
IN THE 60-KW TACTICAL QUIET GENERATOR**

LAST SEEN IN THE FIELD, DEPOTS AND JUNKYARDS!

REWARD

DEAD (UNSERVICEABLE CREDIT): \$5,853.00

ALIVE (SERVICEABLE CREDIT): \$12,013.00

IF FOUND, CONTACT R. W. BURKE, ITEM MANAGER, CECOM LCMC

**POWER AND ENVIRONMENTAL DIVISION,
GENERATORS ABERDEEN PROVING GROUND**

PHONE DSN 648-6933 OR (443) 395-6933. OR EMAIL:

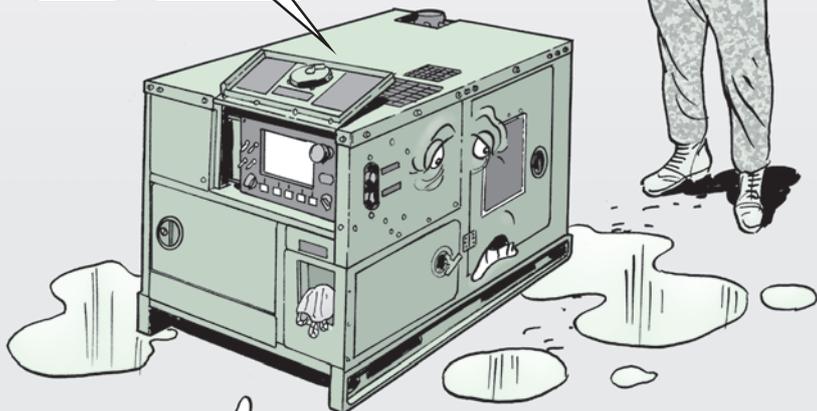
ROOSEVELT.W.BURKE.CIV@MAIL.MIL

DO YOU HAVE A BUM BUNG?



WHAT DO YOU THINK?

I COULD USE SOME PM HERE!

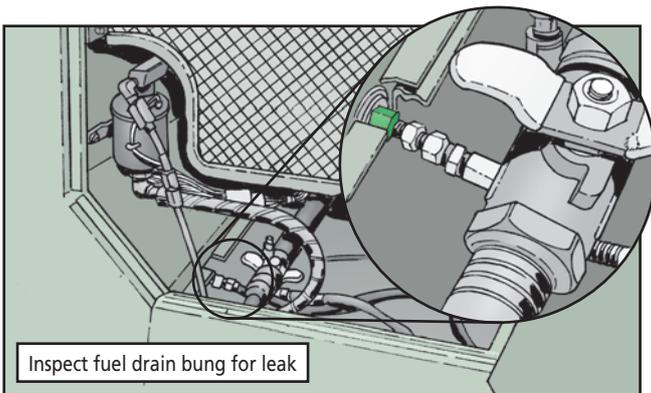


WHEN YOU PULL PMCS ON YOUR TACTICAL QUIET GENERATOR (TQG), LOOK FOR A LEAK AT THE FUEL DRAIN'S BUNG ON THE FUEL TANK.

SOME BUNGS TEND TO LEAK. LEAKS HAVE BEEN FOUND ON 5-KW THROUGH 60-KW TQGS.

ON THE 10-KW THROUGH 60-KW TQGS, THE FUEL DRAIN IS LOCATED ON THE SKID BASE.

ON THE 5-KW, THE FUEL DRAIN IS INSIDE THE GENERATOR HOUSING NEAR THE OIL DRAIN VALVE.



Inspect fuel drain bung for leak

LEAKS OCCUR FOR A COUPLE OF REASONS...

- JP-8 fuel causes the rubber in some bungs to swell. The rubber softens, cracks, splits and eventually leaks.
- Another reason for leaks is that bungs are sometimes installed too tightly. Overtighten a bung and you're likely to crack and split the rubber. Then you've created a leak.

IF YOU FIND A LEAKING BUNG, **DO NOT** TIGHTEN IT IN AN EFFORT TO STOP THE LEAK.

CHANCES ARE, YOU'LL *SPLIT* THE RUBBER AND THE ENTIRE BUNG (BUSHING, WASHER AND ADAPTER) COULD FALL OUT OF THE FUEL TANK.

THEN YOU'LL HAVE A STREAM OF FUEL SPILLING OUT OF THE TANK.

GET A REPLACEMENT BUNG WITH NSN 5310-01-595-3536. THIS IS A NEW BUNG MADE ESPECIALLY FOR USE AROUND FUEL TANKS, FITTINGS, VENTS AND THE LIKE. IT'S MADE WITH NITRILE, WHICH STANDS UP TO JP-8 FUEL; IT WON'T SWELL, SOFTEN, CRACK OR SPLIT!

Installing a New Bung

- Make sure the fuel tank and bung are clean and dry before you install the bung.
- Put the bung into the tank opening.
- Coat the threads of a straight adapter, NSN 4730-01-387-7158, with sealing compound.

An Assortment of Sealing Compounds

NSN 8030-00-	Size
849-0071	1 1/2-oz tube
220-6973	4-oz can
252-3391	11-oz tube
656-1426	1-pt can

SEALANT LIQUID

CAUTION: EYE IRRITANT
HARMFUL IF SWALLOWED
NET 16 FL. OZ. (473ML)

- Put a flat washer, NSN 5310-01-365-8138, over the bung.
- Insert the straight adapter through the flat washer and into the bung.
- Tighten the adapter with a torque wrench to 40 in-lb.

LOADING EQUIPMENT IN SAMS-E

I HOPE THAT IN THE FUTURE WHEN WE HAVE TO TRACK OUR EQUIPMENT IT WILL BE EASIER THAN THIS.

I HAVE A FEELING THAT IT WILL.

Dear Half-Mast,

Where can I find out which nonreportable equipment should be loaded into our unit's SAMS-E?

Mr. T.B.

Dear Mr. T.B.,

PS can get you squared away. But first, check out Chapter 3 in DA Pam 750-8, The Army Maintenance Management System (TAMMS) Users Manual. You'll find the whole scoop on maintenance processes, forms and records.

Some of us old-timers remember how equipment used to be manually tracked, and we had to wade through rivers of forms like DD Form 314 (Preventive Maintenance Schedule and Record), DA Form 2408-14 (Uncorrected Fault Record), and various other piles of papers.

Now, thanks to the Logistics Information System (formerly called STAMIS), which includes systems like SAMS-E and ULLS-AE, the process is automated. So it's much easier for units to track equipment history, and report total cost of ownership (TCO) and readiness information. That information is also more accurate and timely.

When it comes to adding equipment to SAMS-E, it's divided into three categories: Reportable B1, Reportable B2 and Nonreportable.

AR 700-138, Army Logistics Readiness and Sustainability, is a good general guide in this area, but the Maintenance Master Data File (MMDF) is the definitive source of what should be reported in SAMS-E. The MMDF is updated every quarter and lists all reportable end items, systems, subsystems and nonreportable items that the Army has determined needs some form of maintenance, like scheduled services, load tests, etc.

So, items listed in the MMDF **must** be entered in SAMS-E. For other items, a good rule of thumb is if that item is on your unit's property book, and your commander has determined it requires some form of regular maintenance, then it should be entered in SAMS-E.

If your unit has other equipment that is not on its MMDF, you can still manage it using SAMS-E. Use the option to create MMDF local records. These records should be inserted at the SAMS-2E level, and pushed down to the SAMS-1E system(s). For assistance, see the embedded user manual within the SAMS-E program.

If you run into any hurdles, folks at the Logistics Support Activity (LOGSA) Soldier Support Center (SSC) Process Integration Division (PID)—Maintenance Section or at Ft Lee's SAMS-E Help Desk can advise and assist.

Half-Mast

For assistance, contact:

LOGSA's SSC PID — Maintenance Section

Contact Joyce L. Myers, DSN 645-9568, (256) 955-9568, or email: joyce.l.myers@us.army.mil

Customer Support Office at Ft Lee

DSN: 687-1051
Toll Free: (866) 547-1349
OCONUS: 312-687-1051
Fax: 804-734-2974
Email: leee.secl.cao@conus.army.mil
Submit a help request at the website: <https://s4if.lee.army.mil>

Regional Automated Logistics Assistance Teams (ALATs)

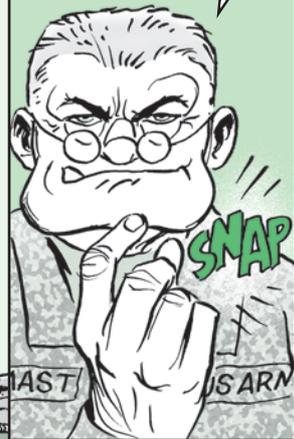
ALAT-Afghanistan
Kandahar (South)
DSN: (318) 421-6099
Email: alatafghanistan@swa.army.mil

ALAT-Afghanistan
Bagram (North)
DSN: (318) 431-4490/4493
Email: bgrmalat@afghan.swa.army.mil

Kuwait Theater SASMO
DSN: (318) 430-5582

SAMS-E Upgrade Improves Recordkeeping

...A **SNAP!**
A RECENT MAJOR UPGRADE TO SAMS-E MAKES TRANSFERRING RECORDS JUST THAT **EASY!**



SO YOU'RE TRANSFERRING TO A NEW UNIT?

WITH SAMS-E'S RECENT UPGRADE, TRANSFERRING YOUR RECORDS WILL BE...



THE RECORDS CAN EITHER BE TRANSFERRED ONTO REMOVABLE MEDIA OR SENT ELECTRONICALLY FROM THE OPERATOR'S OLD UNIT.



NOW WHEN A SOLDIER TRANSFERS TO A NEW UNIT, THE MAINTENANCE CLERK IN THE RECEIVING UNIT NO LONGER HAS TO MANUALLY "RECREATE" THAT SOLDIER'S OPERATOR QUALIFICATION RECORDS.



THE RECEIVING UNIT'S MAINTENANCE CLERK THEN IMPORTS THE RECORDS INTO SAMS-E, COMPLETES THE DUTY ASSIGNMENT IN THE PERSONNEL RECORD, AND PRINTS THE NEW OPERATOR'S PERMIT.



END ITEM CODES (EICS) WILL ALSO BE USED INSTEAD OF EQUIPMENT CLASS CODES (ECCS) FOR OPERATOR LICENSING AND DISPATCH QUALIFICATIONS.

IN MANY CASES, THE OLD ECCS DEFINED EQUIPMENT TOO BROADLY--FOR EXAMPLE, CODE W3 COVERED ALL 5-TON TRUCKS AND BELOW.

SO A "CODE W3 VEHICLE" COULD MEAN A CARGO TRUCK, A TRACTOR WITH A FIFTH-WHEEL, A VEHICLE WITH A TIRE INFLATION SYSTEM, OR ANOTHER VEHICLE THAT REQUIRES SPECIAL TRAINING.

SO SOMETIMES, RECORDS LISTED SOLDIERS AS QUALIFIED TO OPERATE CERTAIN EQUIPMENT WHEN THEY WEREN'T.

CHAMBERS, YOU'LL TAKE THE M1088 TODAY.
SORRY SARGE, BUT I'VE NEVER DRIVEN ONE OF THOSE TRACTOR TRUCKS BEFORE.



HMM, IT SAYS HERE YOU'RE QUALIFIED... BUT I GUESS THERE'S A MISTAKE IN THE RECORDS.



THE SWITCH TO EICS NOW TIES OPERATOR QUALIFICATIONS TO SPECIFIC EQUIPMENT.

SO EXCEPT FOR UNIT-UNIQUE EQUIPMENT, OPERATOR QUALIFICATIONS WILL STAY THE SAME FROM ONE UNIT TO ANOTHER.

THE CHANGE TO EICS WILL ALSO EASE RECORDS MIGRATION TO GLOBAL COMBAT SUPPORT SYSTEM-ARMY (GCSS-ARMY), WHICH USES ONLY EICS.

UNITS CAN STILL ASSIGN UP TO 52 USER-DEFINED CLASS CODES FOR UNIT-SPECIFIC ITEMS, AND UNIT SOPS SHOULD STILL INCLUDE PROCEDURES FOR HANDLING RECORDS WHENEVER SOLDIERS TRANSFER.

IMPORTANT NOTE:
WHEN SOLDIERS TRANSFER TO NEW UNITS, THEY SHOULD TAKE ALONG BOTH THEIR MANUAL DA FORM 348, OPERATOR QUALIFICATION RECORD, AND A PRINTED COPY OF THEIR DA FORM 348-E, WHICH IS THE SAMS-E VERSION.
DA FORM 348-E ALONE IS NOT YET AN AUTHORIZED REPLACEMENT FOR THE MANUAL DA FORM 348.



FOR HELP WITH SAMS-E TECHNICAL ISSUES AFTER UPGRADING, CONTACT THE SOFTWARE ENGINEERING CUSTOMER SERVICE CENTER AT FT LEE AT DSN 687-1051, (804) 734-1051, OR EMAIL: cao@sdc1.lee.army.mil



New Doctrine Divides FM 7-0

FM 7-0, *Training Units and Developing Leaders for Full Spectrum Operations* (Feb 11), will be replaced in 2012 by two documents: Army Doctrine Publication (ADP) 7-0, and Army Doctrine Reference Publication (ADRP) 7-0. The ADP will be an executive summary about Army training, and the ADRP will cover the Army's general training processes. Unit Training Management (UTM) on the Army Training Network (ATN) will cover the details discussed in the ADRP. Visit:

<https://atn.army.mil>

Get SMART at New URL

Got a great idea? If your logistics suggestion can save the Army time, money or lives, it's worth sending in. Approved ideas earn cash awards. The Army's Supply and Maintenance Assessment Review Team (SMART) website has relocated. Check out their new home:

<https://smart.lia.army.mil/smart/smarthome.cfm>

CALL Website Gets Makeover

If it's been a while since you visited the Center for Army Lessons Learned (CALL) website, check out its new and improved look. It's easier to find products, participate in forums and submit your own observations and lessons learned. Download a useful tutorial on how to use the new website at:

<https://call2.army.mil/toc.aspx?document=6866>

DA PAM 220-1 Released

A new publication, DA Pam 220-1, *Defense Readiness Reporting System—Army Procedures*, went into effect in Nov 2011.

This release combines the basic processes and procedures from AR 220-1, *Army Unit Status Reporting and Force Registration—Consolidated Policies*, and AR 220-20, *Army Status of Resource and Training System*.

It has new, detailed information on how the commander's unit status report is prepared, reviewed and submitted, and how force registration is done. It's available on the Army Publishing Directorate's website:

http://www.apd.army.mil/pdf/files/p220_1.pdf

Rinky-Dink Typewriter Ink?

MAINTENANCE
CAFE



Dear Half-Mast,

A question came up in our shop about filling out DA Form 2404 for -10 and -20 services. Someone said faults can only be handwritten on the form according to DA Pam 750-8, *The Army Maintenance Management System (TAMMS) Users Manual*. But I can't find anything that says the forms must be handwritten. Can entries be typed instead, for the sake of neatness?

Mr. P.R.

Dear Mr. P.R.,

DA Pam 750-8 never directly addresses the matter of ink versus typed entries. Nothing in 750-8 forbids someone from typing up a DA Form 2404. However, the examples in the pamphlet clearly show hand-printed faults as the norm, and in some cases describe the entering of fault information as being "printed" (with the examples shown printed by hand).

Most mechanics won't haul a typewriter along when doing PMCS; they'll fill out the forms by hand. Even taking forms back to the office and typing them up adds a step that isn't listed in the pamphlet. (Remember, too, that not all Soldiers have ready access to typewriters or computers.)

Chapter 5 in DA PAM 750-8 states that either typed **or** handwritten records are acceptable, or even by pencil if the designated form so instructs:

"5-1 (g): Historical records are always filled out in ink or typewritten, unless the specific instructions for the form say to use pencil. Blue or black ink is used."

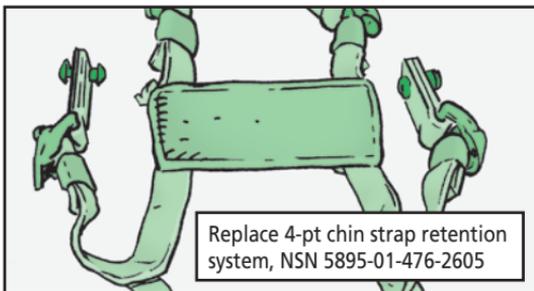
So it seems the choice is yours.

Half-Mast



**INSPECT
AND
REPLACE
MICH CHIN
STRAPS!**

Unit supply personnel and Soldiers should immediately inspect chin strap retention systems on all modular integrated communications helmets (MICHs). Defective buckles may break during use, causing helmets to fall off and exposing Soldiers to potential head injuries. The item affected is the 4-Pt Chin Strap Retention System, NSN 5895-01-476-2605.



HERE'S
HOW TO
CHECK
FOR THE
PROBLEM
PART
ON A
MICH...



- If the MICH chin strap has an identification label with the contract number "USZA22-99-D-0004," it should be replaced.
- If the MICH chin strap is black, check the buckle. If the center prong of the buckle has the word "STEALTH," the chin strap should be replaced.

Order the following replacement: strap assembly, chin, foliage green, CO/PD 05-04, NSN 8470-01-530-0868. Units can order replacement chin straps through normal supply channels or their supporting Central Issue Facility. Cost is \$18.51 each.

Soldiers can install their own MICH chin straps by following instructions in WP 0018 of TM 10-8470-2-4-10, *Operator's Manual for Advanced Combat Helmet* (May 10). The TM's instructions apply to both ACHs and MICHs. Access the TM on LOGSA's website (CAC login required):

<https://www.logsa.army.mil/etmpdf/files/080000/080445.pdf>

For more information, see TACOM LCMC's maintenance advisory 12-006 in the "Safety First" section at:

<https://tulsa.tacom.army.mil>

Military Packaging Courses Available

I DON'T UNDERSTAND HOW THIS COULD HAVE HAPPENED.

HOW CAN THE SAME PARTS ARRIVE IN SUCH DIFFERENT CONDITIONS?



PACKAGING CAN MAKE THE DIFFERENCE BETWEEN PARTS OR EQUIPMENT WORKING OR NOT.

YOU CAN LEARN THE RIGHT WAY TO PACKAGE MILITARY ITEMS WITH DAC COURSES!



The course *Military Preservation and Packaging for Storage and Shipment* is now offered at the Defense Ammunition Center (DAC) in McAlester, OK. The course has two phases. Phase 1 (PACK-1A-DL) is done through distance learning, while Phase 2 (PACK-1B) is a two-week course taught on-site at DAC.

PACK-1A-DL offers in-depth training in military packaging policy, packaging specifications and how to apply the standards in real world scenarios. This phase builds knowledge and covers everything from unit packs to loading containers.

PACK-1B covers the same topics, but is mostly hands-on practical exercises to help build skills needed in the field.

Information on the course can be found in the Army Training Requirements and Resources System (ATRRS) or from the course catalog found on the DAC website. Visit ATRRS at:

<https://www.atrrs.army.mil/>

Check out the DAC website at:

<http://ammo.okstate.edu>

6K VRRT FORKLIFT SOLENOID

To get the fuel shutoff solenoid for the 6K variable reach rough terrain forklift, use NSN 5945-01-452-9300. Make a note until the NSN is added to TM 10-3930-660-24P.

EPM Protects HMMWV Batteries

Leaving the linear amp or the blue force tracker (BFT) antenna power switch turned on drains and kills batteries on your HMMWV. Avoid this trouble by ordering an electric power manager (EPM) kit, NSN 5999-01-576-9653. It works on M997A2, M998A2, M1025A2, M1035A2, M1043A2, M1045A2, M1097A2 and ECV vehicles: M1113, M1114, M1151, M1151A1, M1151A1 w/B1, M1152, M1152A1, M1152A1 w/B2, M1165, M1165A1 and M1165A1 w/B3. We'll tell you when a kit for basic and other -A1 series HMMWVs is available.

VRLA Battery Pubs Updated

Two maintenance publications involving VRLA (valve-regulated lead-acid) batteries have been updated.

TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries*, dated May 2011, covers all types of automotive batteries.

TB 9-6140-252-13, *Recharging Procedures for Automotive Valve Regulated Lead-Acid Batteries*, dated September 2011, is also available.

New VRLA batteries should come with a maintenance sticker that tells you the battery can be charged many times before disposal is authorized. It will also reference the latest pub.

You can view the battery TM and TB online:

<https://www.logsa.army.mil/etms/online.cfm>

M113A3 FOV, M58 Ramp Hydraulic Hose NSN

Get a new hydraulic hose for the ramp actuator on your M113A3, M577A3, M1068A3, and M58 vehicles with NSN 4720-00-278-4892 (PN 2565-6, CAGE 01276). NSN 4720-00-006-4006, which is listed as Item 4 in Fig 328 of TM 9-2350-277-24P (Oct 03, w/Ch 4, Oct 09), is a terminal item.

M109A6 Paladin Traverse and Elevation Selector Valves

Get a new socket-head screw for your Paladin's traverse and elevation selector valves with NSN 5305-01-185-4493 (PN NAS1352-5-12P, CAGE 80205). NSN 5305-00-983-5346, which is listed as Item 17 in Fig 196 and Item 13 in Fig 197 of TM 9-2350-314-24P-2 (Feb 99, w/Ch 5, Jul 09), is a terminal item.

MaxxPro MRAP Tank Cap

The overflow cap for the MaxxPro's radiator (surge) tank is now available separately with NSN 2930-01-588-5040. You'll find the tank shown as Item 2 in Fig 33 of TM 9-2355-106-23P.

M113-Series FOV Seat Pin

Get a new spring pin for the driver's and radio operator's seat on your M113-series FOV with NSN 5315-00-814-4456 (PN NAS561C4-24, CAGE 80205). NSN 5315-00-584-9221, which is shown as Item 22 in Fig 243 of TM 9-2350-261-24P (Aug 05) and Item 22 in Fig 266 of TM 9-2350-277-24P (Oct 09), is a terminal item.

M901A1 Anti-Tank Vehicle Driver's Hatch Yoke Support Assembly

Get a new socket-head screw for the driver's hatch yoke support assembly on your M901A1 with NSN 5305-00-038-8995 (PN NAS1352-4-16P, CAGE 80205). NSN 5305-00-978-9385, which is shown as Item 23 in Fig 220 and Item 56 in Fig 223 of TM 9-2350-261-24P (Aug 05), is a terminal item.

CEP for IHADSS Helmet

Here's the latest word on communications earplugs (CEPs) for your integrated helmet and display sighting system (IHADSS). NSN 5965-01-536-5644 brings you the CEP Kit. Installation instructions can be found at: <http://www.cep-usa.com>

If you have problems getting the instructions, contact David Jirak at (586) 282-1091 or email:

david.e.jirak.civ@mail.mil

IHADSS Helmet Visors

Here's the latest word on visors. If you still have legacy SPH-4 style visors on hand, they are obsolete and no longer supported. If you need assistance on what to do with old visors, contact David Jirak, (309) 782-7185, or email:

david.e.jirak.civ@mail.mil

For the air warrior POC contact Clayton Pitts, (256) 955-8712 or email:

clay.pitts1@us.army.mil

M915A4 Engine RPM Correction

There are several references in TMs 9-2320-303-10, -24-1 and -24-2 where the Max (no-load) engine rpms are shown as 2,100. This is wrong. It should read 2,400.

Up-Armored HMMWV Brake Caliper Adapters

The brake caliper adapters listed as Item 4 in Fig 125A and Item 14 in Fig 125B in TM 9-2320-387-24P (Mar 02, w/C5 Aug 09) are wrong. The front and rear adapter NSNs are reversed. Get the left front adapter with NSN 2530-01-567-0607, and the right front with NSN 2530-01-567-0587. The left rear adapter comes with NSN 2530-01-567-0232, and the right rear with NSN 2530-01-567-0400. Make a note until the TM is updated.

HOT STUFF: PS INDEX HOOKS YOU UP

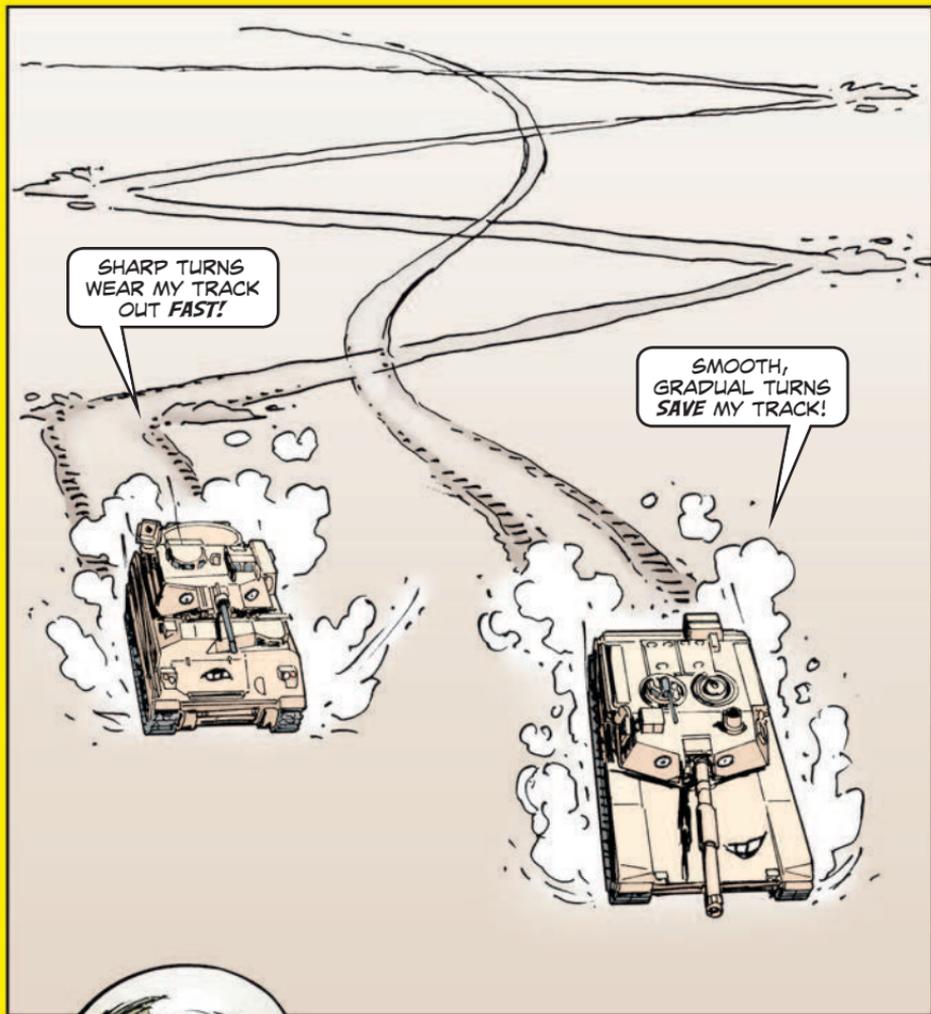
A hotlinked index of PS articles from 2000-2011 is now at your fingertips. You can even save a copy of the index to your computer's hard drive. When you find a PS article that you want to read, just click on its link in the index and the article will open in your web browser. Visit:

https://www.logsa.army.mil/pub/psissuesA/PS_index2000-2011.pdf

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?

SAVE YOUR TRACK!



**AVOID SHARP TURNS
UNLESS YOU'RE IN A
COMBAT SITUATION!**