

Issue 661

PS

December  
2007

# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-661

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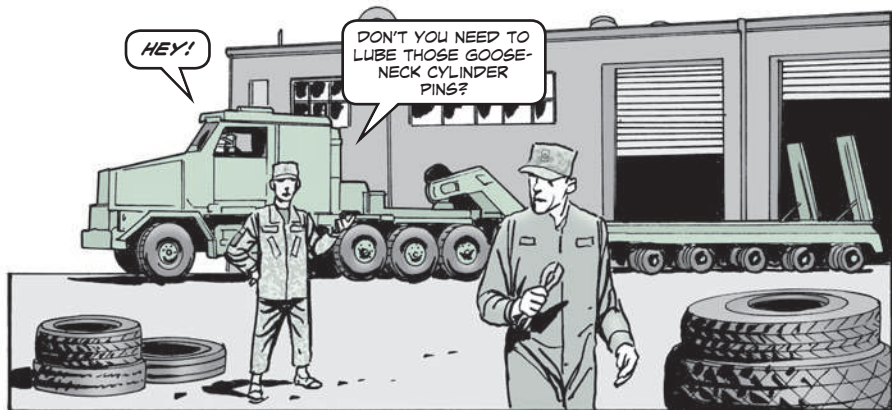
OH, BOY,  
UNCLE  
HALF-MAST!  
A NEW  
TOOLBOX!

SANTA  
BROUGHT AN  
**ONLINE TOOLBOX**  
FOR DRIVING  
TRAINERS, TOO!

Go to pages 58-59  
for more about  
the Driving Trainers'  
Toolbox!

(KLOE  
KUBER)

# PAY ATTENTION NOW... OR PAY LATER!



**H**ere's a problem that's bad and getting worse: neglect of PM checks and services that's causing escalating repair bills.

Much of the equipment deploying back from Southwest Asia is being processed directly to RESET programs. What's happening is that too many units are "writing off" that equipment as far as scheduled PM goes. The end result can include huge, unnecessary costs.

For example, gooseneck cylinder pins on an M1000 heavy equipment transporter (HET) headed for RESET rust up from lack of lube.

The contractor hired to remove the transporter's frozen-in-place hinge pins needed a special tool just to do the job. Cost? 600,000 big ones for the tool alone!

Maybe that's a rare situation, but the lesson learned here is to keep equipment up-to-snuff even if it's going back to a RESET program.

Or someone's going to pay —and that's all of us!



# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-661, 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.

ISSUE 661 DECEMBER 2007



## COMBAT VEHICLES

Stryker Service Kits  
M1-Series Tank Safety Reminder  
AVLB Transverse Brace  
M2/M3-Series Bradley, MLRS Track PM  
MLRS Generator Pulleys and Belts  
M88A1/A2 Recovery Vehicle Suspension  
M109-Series SP Howitzer Travel Lock Linings



## WHEELED VEHICLES

Dexron VI Fluid Clarification  
M915-Series Truck Tire Information  
M1114 HMMWV A/C Flush Kit  
M1114 HMMWV Front Blower Motor Parts  
M871R/A1R/A2R Tire Pressure Stenciling  
M871/A1/A2 Semitrailer Tie-Down Assembly  
M915 FOV Armor Kit Caution  
Annual Service Kit NSNs



## SMALL ARMS

AN/PEQ-15 Advanced Target Pointer  
M9 Pistol Laser Pointer  
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M249 Machine Gun Mounting, Sling



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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:

**logsa.psmag@conus.army.mil** or

**half.mast@us.army.mil**

Internet address:

**<https://www.logsa.army.mil/psmag/pshome.html>**

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**GEORGE W. CASEY, JR.**

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**JOYCE E. MORROW**

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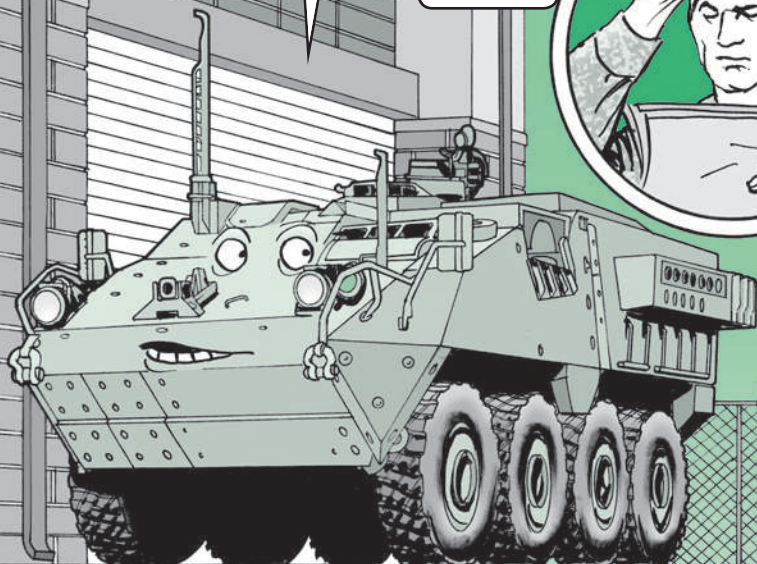
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Stryker...

# Are There Service Kit NSNs?

HEY, ISN'T IT ABOUT TIME FOR MY ANNUAL SERVICE?

YEAH, BUT I **CAN'T FIND** AN NSN FOR THE SERVICE KIT!



Dear Half-Mast,

I need some help getting service kits for my Stryker. But I haven't been able to find the NSNs. Can you help?

SSG J.R.W.

Dear Sergeant J.R.W.,

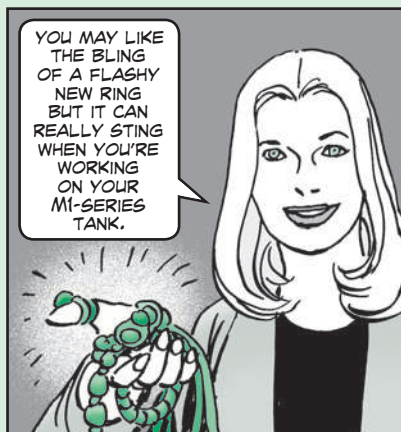
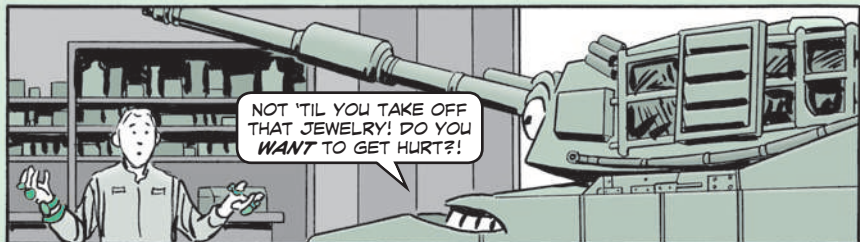
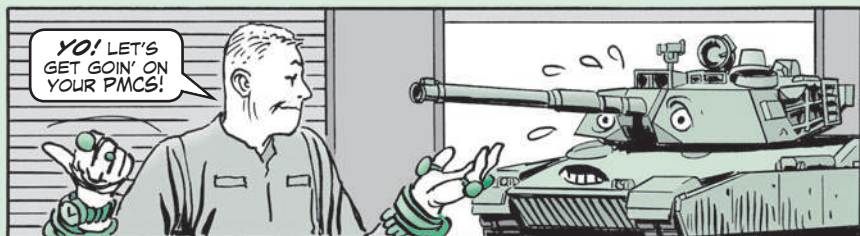
Unfortunately, no NSNs have been assigned to the three Stryker service kits. However, you can order them by part number and CAGE on a DD Form 1348-6:

*Half-Mast*

Kit	PN	CAGE
3-month	10658350-011	56161
6-month	10658351-011	56161
12-month	10658352-011	56161



# The Ring Bling Thing



Truth is, if you don't take precautions, even the most routine tasks can be safety hazards. So before operating or performing **any** maintenance on your tank, make sure you first remove all jewelry, including watches, wedding rings and necklaces.

Not only can jewelry catch on equipment, resulting in lost fingers and other severe injuries, but it can also short across electrical circuits, causing shock.

Check out the **WARNINGS** in the front of your -10 manual. They'll tell you about the importance of removing jewelry to decrease the likelihood of injury.

## AVLB Transverse Brace

The part number and NSN for the AVLb's transverse brace, shown as Item 16 in Fig 9 of TM 5-5420-203-24P (Nov 88), are being deleted from the supply system. Use PN 13230E6447 and NSN 5340-00-542-3123 instead. Make a note until the TM is updated.

# TIPS FOR A TRACK TENSION TUNEUP



Track that's too tight wears out sprockets before their time and can blow track tensioner seals. Track that's too loose gets thrown.

Keep track tension just right by checking it after every operation. All it takes is a pencil and a little know-how:

Let the vehicle roll forward to a complete stop on firm, level ground. Stop the engine and try turning the rear support roller with one hand.

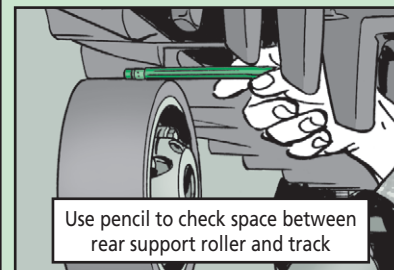
The roller should turn freely, but with only enough room between the track and roller for a pencil to pass through.

If there's more room than that, the track is too tight. If the roller won't turn at all, the track is too loose.

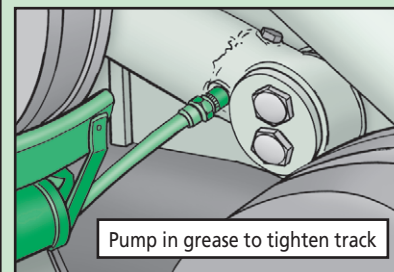
Either way, it's time to make some adjustments.

## Tightening Track

1. Place a pencil between the track and the rear support roller.

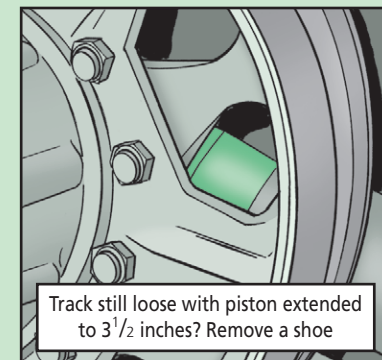


2. Wipe the lube fitting with a clean cloth and pump grease into the track adjuster.



3. Watch the pencil. The tension is right when there's just enough room between the track and the rear support roller for the pencil to fit.

4. Keep an eye on the track adjuster piston, too. The maximum extension for the piston is 3 1/2 inches. If you've reached that limit and the track is still too loose, you'll need to remove a track shoe from the stretched track and start over.



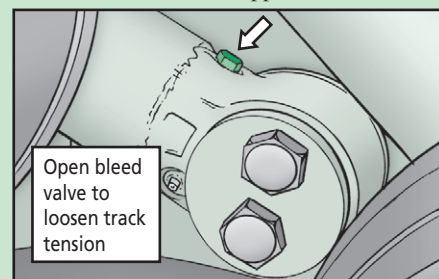
## Loosening Track

1. Once again, place a pencil between the track and the rear support roller.

2. With a 5/8-in open-end wrench, loosen the track adjuster bleed valve just enough to allow grease to flow.

3. Watch the pencil. When there's just enough room between the track and the rear support roller for the pencil to fit, the tension is right.

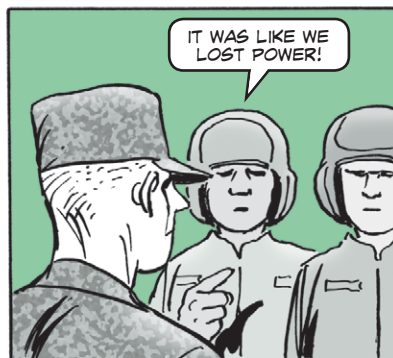
4. Re-tighten the bleed valve and wipe away excess grease.



Don't stop there, crewmen. The job's not finished until you've driven the vehicle 100 feet, coasted to a stop and checked the track tension once more.



# Getting Performance



THE SECOND GENERATOR ON YOUR MLRS IS ONLY AS GOOD AS ITS V-BELT AND PULLEYS, MECHANICS.

IF EITHER ARE WORN OR OUT OF ALIGNMENT, ALL THAT'LL BE GENERATED ARE PROBLEMS.

## Pulleys

The V-belt passes over the pulleys at high speed. That builds up a lot of friction between the belt and the pulley grooves. So take a close look at the sides of the grooves on each pulley. If the grooves are cupped, the pulley is not good. Replace it.

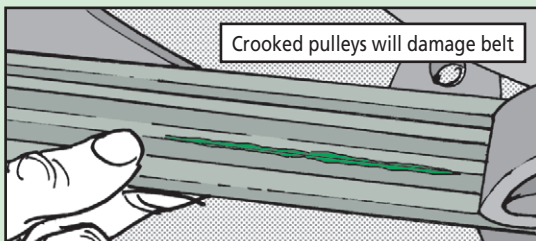
Look for cupped pulley grooves



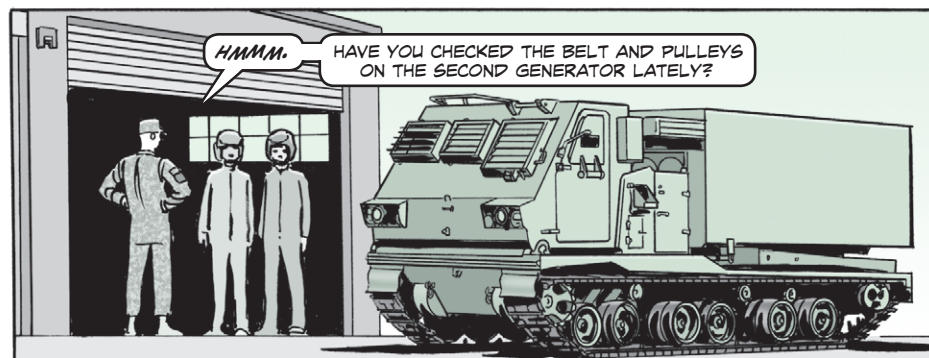
Next, eyeball the pulleys where they come in contact with the V-belt. If the belt bottoms out on a pulley, the grooves are too worn and the pulley should be replaced.

Check to make sure the pulleys are straight. A belt running on crooked pulleys will wear out much faster than on ones that are properly aligned.

Crooked pulleys will damage belt

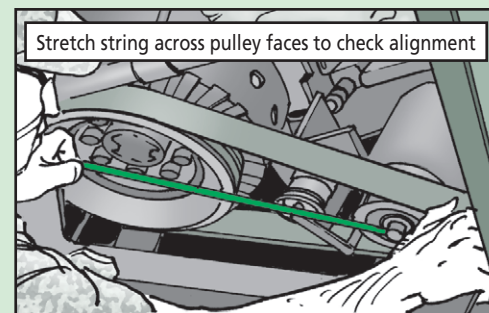


# from Pulleys and Belts



Hold one end of a string across the face of the pulley on the harmonic balancer and the other end across the face of the pulley on the bearing unit. Pull the string tight. If there are no bends in the string and no gaps between the string and the pulley faces, the pulleys are in alignment.

Stretch string across pulley faces to check alignment

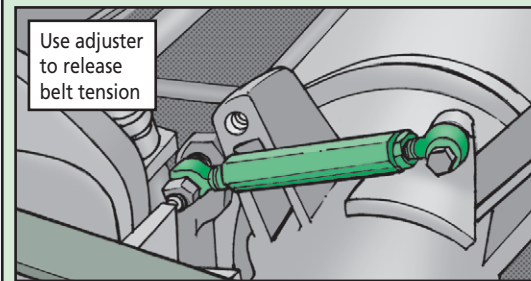


## V-belt

When changing a V-belt, don't stretch or roll it onto the pulley. There's a good chance the V-belt will suffer damage and early failure.

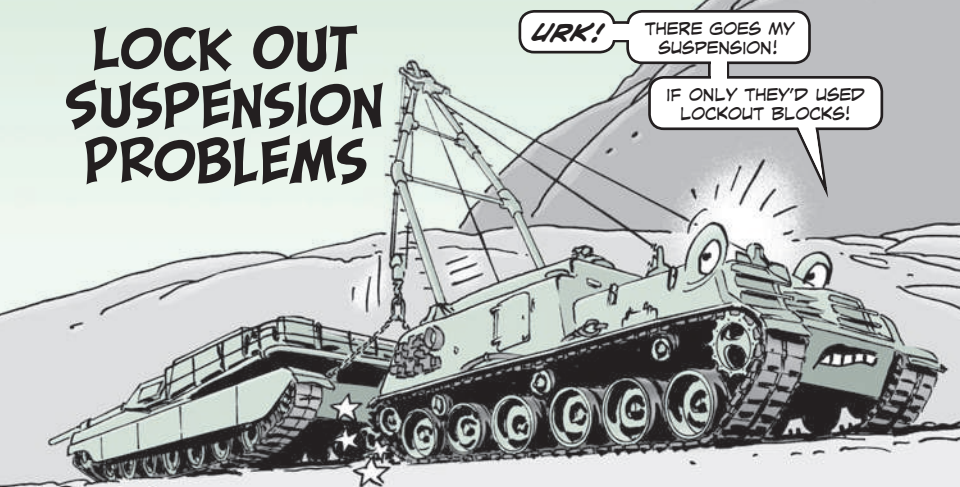
Always release tension first, then slip the V-belt in place.

Use adjuster to release belt tension



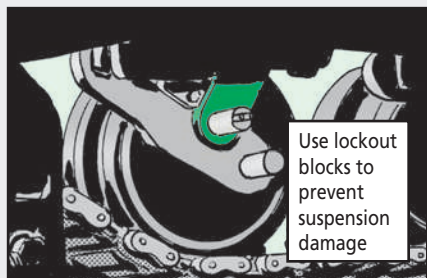
Once the V-belt is in place, don't rely on a "calibrated thumb" to adjust the tension. Always use a belt tension scale to measure deflection. Then, after the vehicle has been operating a few hours, check and adjust the tension again if needed.

# LOCK OUT SUSPENSION PROBLEMS



It's sometimes hard to tell the difference between light and heavy loads for your M88A1/A2 recovery vehicle, crewmen. Yet it's a distinction that can mean the difference between an easy lift and suspension damage.

Loads over six tons can play havoc with torsion bars, shock absorbers and road arms. That's why you should always use lockout blocks when lifting heavy loads. It's also a good idea when you're not sure just how heavy the load is.



Lockout blocks take the extra stress off the front suspension system. You'll find the procedures for installing and using lockout blocks for the M88A1 starting on Page 2-144 of TM 9-2350-256-10 and in WP 0047 00-14 of TM 9-2350-292-10 for the M88A2.

Don't think you're in the clear, though, even if the load's less than six tons.

Some operators leave the engine deck on the ground between the tank and the recovery vehicle while pulling a powerpack. The M88A1 straddles the deck as it gets ready to lift the pack.

As the pack goes up, the weight compresses the suspension enough that the hull bottoms out on the deck. The pressure can warp the deck.

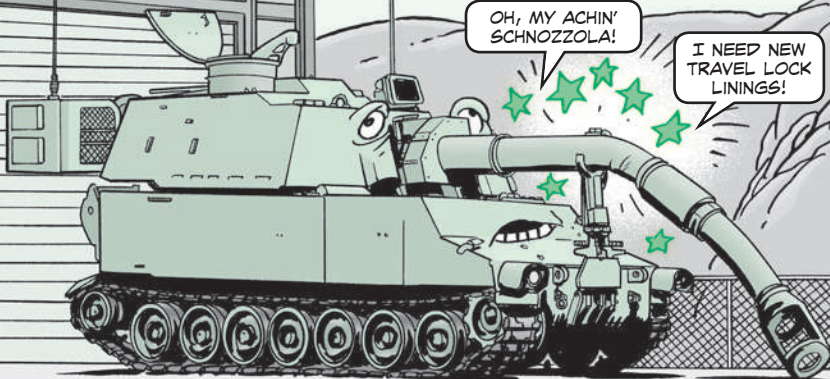
Play it safe on light loads. Either use the lockout blocks or keep anything that might be damaged out of the way.



# Travel Lock Needs Linings

OH, MY ACHIN' SCHNOZZOLA!

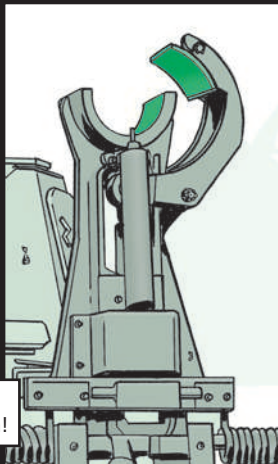
I NEED NEW TRAVEL LOCK LININGS!



**M**echanics, missing or worn-out travel lock friction linings will do a lot of damage to your howitzer's cannon tube. So check the linings and replace them if necessary. After all, linings are easier and cheaper to replace than cannon tubes.

The linings cushion the tube when it's in the travel lock, keeping metal from banging and scraping on metal.

Linings damaged or missing? Replace 'em!



To replace the M109A2-A5 linings, you'll need two of lining, NSN 2530-01-060-7229. The M109A6 takes a bottom lining, NSN 2530-01-354-0400, and a top lining, NSN 2530-01-354-0401.

Remove the old linings and adhesive residue with a wire brush. Apply new adhesive, NSN 8040-00-664-4318, to the replacement linings using an acid swabbing brush, NSN 7920-00-514-2417.

INSTALL THE NEW LININGS AND LEAVE THE TRAVEL LOCK OPEN AND UNUSED FOR ONE HOUR WHILE THE ADHESIVE DRIES.



# ENDING THE DEXRON VI CONFUSION

IF YOU'RE  
CONFUSED ABOUT  
WHETHER I'M  
OKAY TO USE IN  
YOUR ALLISON  
TRANSMISSION,  
**READ ON!**



On Page 61 of PS 656 (Jul 07), we told Stryker crewmen and mechanics to avoid using Dexron VI in their 3000-, 4000-, AT-, MT-, HT-, and CLT-series Allison transmissions. That's caused a little confusion among operators and mechanics whose tactical wheeled vehicles have Allison transmissions.

According to Allison Transmission, Dexron VI is not approved for use in Allison transmissions that were built prior to Jan 2007. However, TACOM's Fuels and Lubricants Technology office says **all** tactical vehicles with Allison transmissions can use engine lubricating oil (MIL-PRF-2104) instead of Dexron. In fact, most TMs and LOs **specify** using this oil in the transmission. It's always best to follow your manuals when using any kind of lubricant.

**HMMVV TRANSMISSIONS  
ARE MANUFACTURED BY  
GM AND ARE COMPATIBLE  
WITH DEXRON VI.**

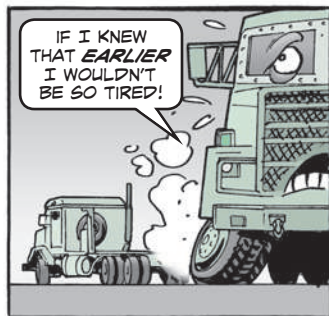
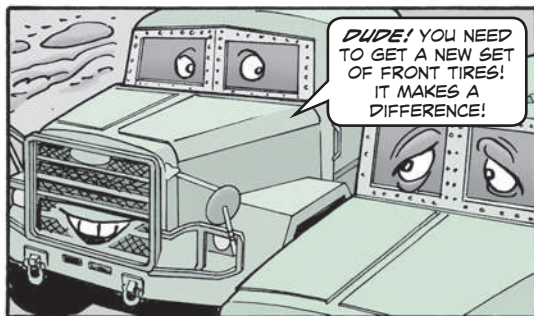
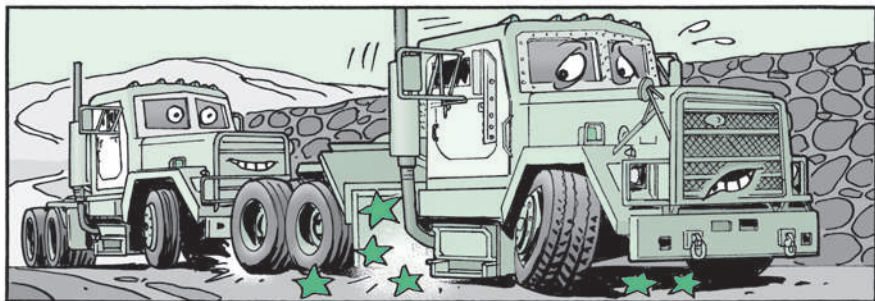
IF YOU NEED TO  
ORDER DEXRON VI,  
USE THESE NSNs...



NSN 9150-	Size
00-698-2382	1 quart
01-353-4799	1 quart (plastic)
00-657-4959	5 gallons
01-114-9968	55 gallons

Note that these are the same NSNs that were previously used for Dexron III.

# NEW TIRES HELP HOLD AOA LOAD



Dear Editor,

A new tire is available for all M915A3 trucks. This Michelin tire, NSN 2610-01-465-5823, is designed to carry the load of Add-on-Armor (AoA). All new M915A3 trucks will come with this tire.

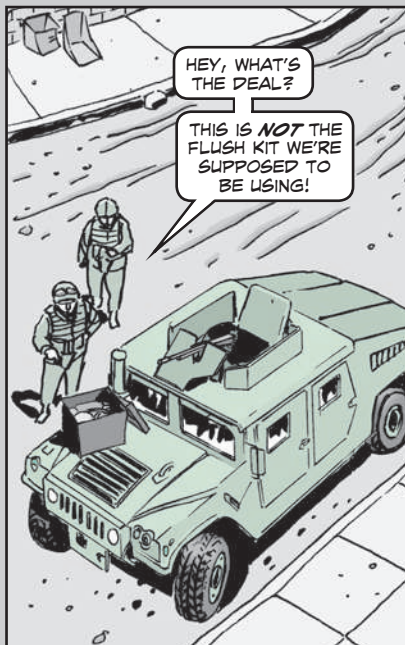
*But this tire can be used only on the front axle of the vehicle!* Units shouldn't use the new tire on the rear axles of the vehicle. That causes the fifth wheel plate to exceed the maximum allowable height for the trailers it hauls. It'll also require users to reset the dual inline package (DIP) switch settings on their speedometers to account for the differences in tire sizes.

This tire can also be used on M915A2 and M915A4 trucks, but not the M915A1.

M916A3 (SNs W14044 and up only) and M917A2 (SNs W14475 and up only) trucks also have a new Michelin tire for the front axle only to help hold up the weight of AoA. It comes with NSN 2610-01-552-6448. And the tire and wheel assembly for these trucks comes with NSN 2530-01-557-2625. The data plate on these trucks indicates AoA prep.

Russell Chestnut  
Heavy Truck Group Maintenance Mgr  
TACOM LCMC - Warren

*Editor's note: That info ought to hold weight for armored tractor truck users. Thanks!*



Dear Editor,

I read your article on the M1114's new flushing procedures on pages 10-11 of PS 655 (Jun 07). There's been a change to that information that your readers should know about. We now have a different flush kit, NSN 4130-01-549-7064.

Also, the manufacturer's compressed air inlet Schrader fitting on the flushing agent cylinder can be used with a compressed air system. To convert the flush agent cylinder inlet for use with nitrogen, you'll need a 1/4-in flare to 1/4-in male pipe half union fitting, part number A-80.

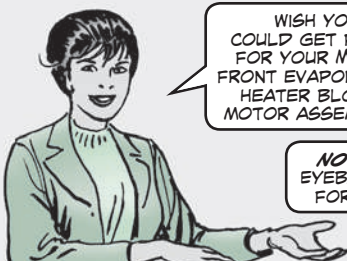
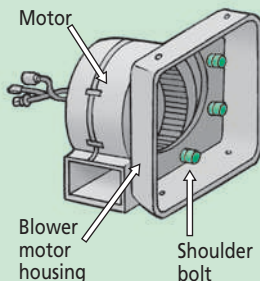
Douglas Fairbank  
HMMWV Equipment Specialist  
TACOM LCMC-Warren

*Editor's note: This chart gives the kit's components. Thanks for that update, Mr. Fairbank.*

Nomenclature	Qty	CAGE	P/N	NSN
Instructions	1	042W1	98-03811	No NSN
Refrigerant oil 150, 12 oz. can	1	042W1	41-00309	9150-01-514-3508
Flushing agent, 32 oz. can	2	042W1	41-00310	6850-01-554-6114
Flush tank, hose and gun	1	042W1	42-00964	No NSN



# Front Blower Motor Parts



WISH YOU  
COULD GET PARTS  
FOR YOUR M1114'S  
FRONT EVAPORATOR/  
HEATER BLOWER  
MOTOR ASSEMBLY?

**NOW YOU CAN!**  
EYEBALL THIS CHART  
FOR MORE INFO...

CAGE	P/N	Nomenclature	NSN
6W728	01-05087	Blower motor housing	N/A
6W728	40-00410	Direct current motor	6150-01-460-4950
6W728	22-00080	Shoulder bolt	5306-01-462-3335

Order by part number to get the blower motor housing. Fill out a DD Form 1348-6 and use CAGE code 6W728. Then send the form to [esoc@dsccl.dla.mil](mailto:esoc@dsccl.dla.mil) or contact DLA-Columbus' Richard Fuller at DSN 850-1038 or [richard.fuller@dlamail](mailto:richard.fuller@dlamail)

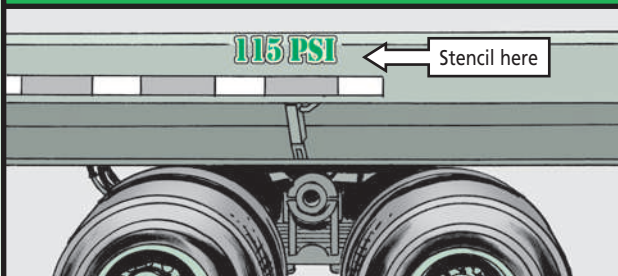
M871R/A1R/A2R...

## Eye on Tire PSI

THAT 22 1/2-TON  
SEMITRAILER  
JUST GOT  
BACK FROM THE  
RESET PROGRAM  
LOOKING LIKE  
NEW, **EXCEPT...**



Before the rig is hooked up and heads out of the motorpool, you mechanics have to make sure "115 PSI" is stenciled on the side rails. It's a quick and visual reminder of the tire pressure for drivers.



These semitrailers left the RESET shop with 82 psi in the tires. That tire pressure is still in the range limits of the tire, but it needs a bit more for heavy duty operation. So, make sure all nine tires are inflated to 115 psi, including the spare, and the rails get stenciled.

# Use Replacement Tie-Down Assembly

YOU PROBABLY ALREADY KNOW HOW TO USE THE TIE-DOWN ASSEMBLY THAT ORIGINALLY CAME WITH YOUR SEMITRAILER.

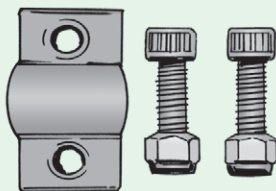
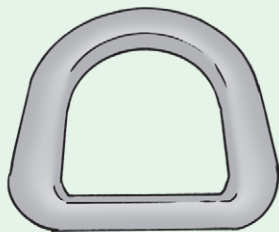
BUT **DON'T** BUY ANOTHER ONE WHEN IT NEEDS TO BE REPLACED, **UNLESS YOU OWN THE M871A3 MODEL!**



WHY?

BECAUSE A REPLACEMENT TIE-DOWN ASSEMBLY IS AVAILABLE FOR YOU NOW.

AND THE TMS WILL BE UPDATED WITH THIS INFORMATION LATER.



Complete D-ring repair kit

HERE'S WHAT YOU'LL NEED FOR ONE ASSEMBLY...

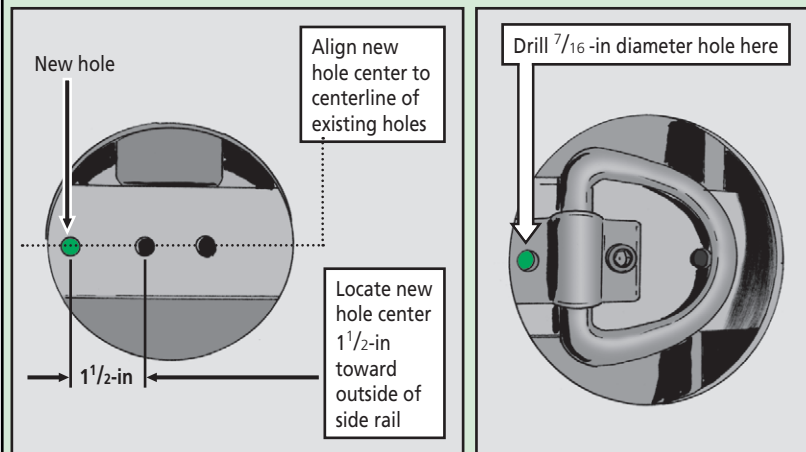
Item	Part Number	NSN	CAGE	QTY
D-ring and strap	F187-20-8	5365-01-314-6592	94658	1
3/8" x 1-1/2" socket head bolt	B1821BH038C100D	5305-00-942-2196	80204	2
3/8" locknut	MS51943-35	5310-00-935-9021	96906	2

You'll have to drill a new hole to make room for the bigger D-ring, though. Then replace the tie-down assembly like it says in TM 9-2330-335-14&P or TM 9-2330-386-14&P. The -386-14&P shows a nut and lockwasher as mounting hardware, but the procedure is the same.

FOLLOW THESE INSTRUCTIONS TO REPLACE YOUR TIE-DOWN ASSEMBLY...



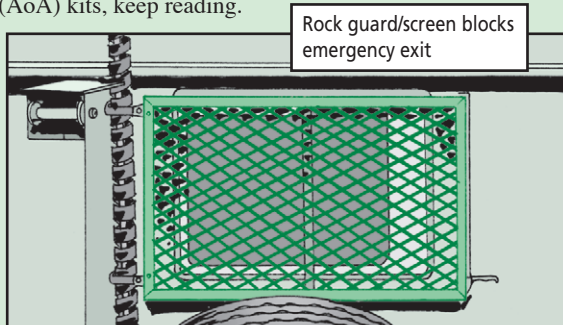
1. Determine which M871 model you have. Again, if you own an M871A3 model, this doesn't apply to you.
2. If your M871A2 or M871A2R already uses D-ring and strap, NSN 5365-01-314-6592, you may not need to modify the mounting plate holes like you'll need to for M871 basic and -A1 models. But make sure strap bolt holes align with original mounting plate holes before you install the tie-down assembly.
3. Make sure you have the complete tie-down assembly you'll need to replace the tie-down.
4. Remove the original manufacturer's tie-down.
5. Using the existing original equipment manufacturer's (OEM) mounting hole closest to the siderail, install one capscrew to show position for the new hole to be drilled. The furthest inboard OEM mounting hole is not used. Lay the ring flat facing center of deck.
6. Align the new hole center to the centerline of the existing holes. Make sure you position the new hole's center 1 1/2 inches toward the outside of the side rail. Drill a new 7/16" mounting hole into the tie-down recess mounting plate.



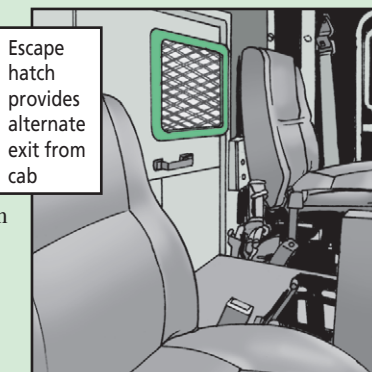
7. After drilling a hole, finish mounting using two capscrews and two locknuts. Two 3/8-in locknuts are positioned under mounting plate in recess. Torque nuts to 20-28 lb-ft. **Don't** overtorque or re-use locknuts.

# ARMOR KIT MAY PREVENT ESCAPE

**W**hen there's danger, you don't want anything preventing you from getting to safety. So if your unit has M915 models M915A2P1, M915A3P1, M915A4P1, M916A1P1, M916A2P1, or M916A3P1 with Simula add-on armor (AoA) kits, keep reading.



Unless the rock guard/screen is removed, the rear window can't be kicked out in an emergency. And a second problem, improper installation of the emergency egress panel, can also prevent you from getting out when you need to!



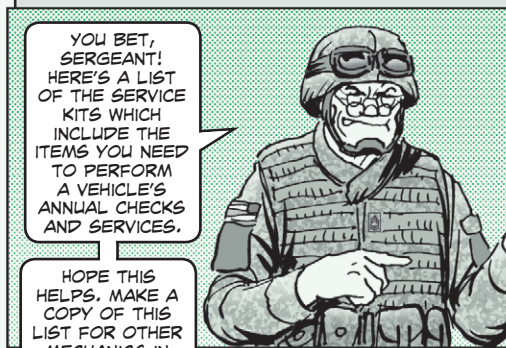
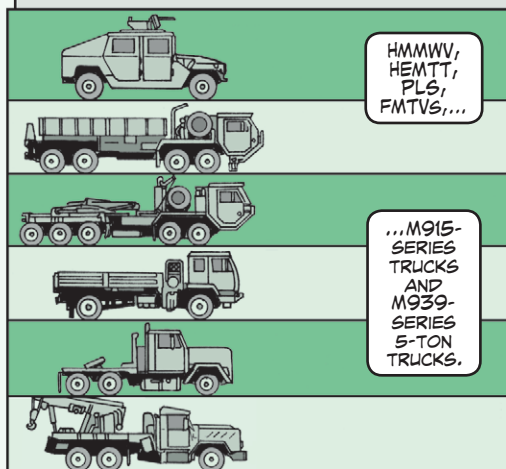
The key to identifying the Simula kit is looking at the cab floor. Its floor armor is installed inside the cab, so you can see it from the inside.

If your M915 has Simula AoA, check to see if these problems have been fixed. If they haven't been fixed, comply with TACOM GPM 06-019 right away! View it online:

[https://aeps2.ria.army.mil/commodity/gpm/tacom\\_wn/06/gpm06-019.html](https://aeps2.ria.army.mil/commodity/gpm/tacom_wn/06/gpm06-019.html)

Tactical Vehicles...

## ANNUAL SERVICE KIT NSNs



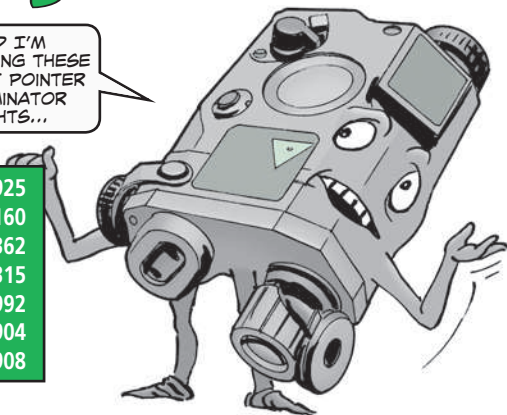
Vehicle System	NSN
M1074/M1075 PLS	4910-01-521-9978 4910-01-521-9985 (semi-annual)
M1000 HET	4910-01-523-1410
M1070 HET	4910-01-523-1645 4910-01-523-1408 (semi-annual)
HMMWV	4330-01-495-6900 4910-01-496-0055 (semi-annual)
HEMTT (cargo)	2530-01-496-2588 2530-01-496-3052 (semi-annual)
HEMTT (tanker)	2530-01-496-1974 2530-01-496-4057 (semi-annual)
HEMTT (wrecker)	2530-01-496-2839 2530-01-496-2097 (semi-annual)
M915 tractor truck	4330-01-538-9910
M915A1	4330-01-538-9934
M915A2	4330-01-538-9919
M915A3	4330-01-538-9926
M915A4	4330-01-539-1488
M916/M920	4330-01-538-9955
M917, M918, M919	4330-01-538-9946
M916A1, M916A2 M917A1, M917E1	4330-01-538-9923
M916A3, M917A2, M917E2	4330-01-538-9930
M939/A1-series	2590-01-541-4620
M939A2-series	2590-01-541-4611
MTV A1 Serial numbers 11,438 – 99,999	2590-01-528-7507
LMTV A1 Serial numbers 11,438 – 99,999	2590-01-528-7239
MTV AR1 Serial numbers 100,001 and up	2590-01-533-6748
LMTV AR1 Serial numbers 100,000 and up	2590-01-533-6745
MTV AO Serial numbers 0001 – 11,437	2590-01-528-7508
LMTV Serial numbers 0001 – 11,437	2590-01-528-7243

# AN/PEQ-15 Is New Target Pointer

LISTEN UP! I'M  
THE AN/PEQ-15,  
THE ADVANCED  
TARGET POINTER  
ILLUMINATOR LIGHT!

AND I'M  
REPLACING THESE  
TARGET POINTER  
ILLUMINATOR  
LIGHTS...

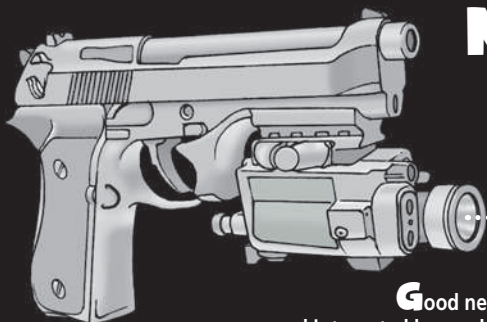
- AN/PAQ-4, NSN 5855-01-107-5925
- AN/PAQ-4A, NSN 5855-01-312-5160
- AN/PAQ-4B, NSN 5855-01-361-1362
- AN/PAQ-4C, NSN 5855-01-398-4315
- AN/PEQ-2A, NSN 5855-01-447-8992
- AN/PEQ-2B, NSN 5855-01-515-6904
- AN/PEQ-2C, NSN 5855-01-515-6908



Order the AN/PEQ-15 with NSN 1005-01-534-5931 using routing identifier code (RIC) B14. When you receive it, list it on your property book with the SLAMIS non-standard LIN (NSLIN) ZA055S until the NSN is linked with LIN J03261, which will happen when the updated SB 700-20 is published in June 2008.

Continue to use your current target pointers, but order the AN/PEQ-15 when they need replacing.

If you have questions about the AN/PEQ-15, contact Tom Grover at DSN 312-654-3784, (703) 704-3784 or email [thomas.w.grover@us.army.mil](mailto:thomas.w.grover@us.army.mil)



## M9 Pistol Laser Pointer

**G**ood news for MPs. The Army now has an approved integrated laser white light pointer for the M9 pistol. Order the AN/PEQ-14 with NSN 5855-01-538-0191.



# RESET Help for Small Arms



If your unit is returning from SWA, your small arms need lots of attention after what they've been through.

As part of the RESET program, the small arms readiness evaluation team (SARET) is standing by to help. They will inspect and repair your weapons and get them back in fighting shape.

Normally, SARET plans for a brigade-sized mission (5,000 to 6,000 weapons), but they will assist units with as few as 1,500 weapons.

Here's how to schedule a SARET visit:

- Inventory your weapons. SARET needs an accurate count of each kind of weapon you have, such as the M16 rifle. That way they can estimate how many repair parts and people and how much time they will need for the mission.
- Contact SARET. To schedule a visit, fill out the online request form on AEPS:

<https://aeps2.ria.army.mil/commodity/saret/request.cfm>

You will need your AKO user name and password or your common access card (CAC) to access the form. You will need to provide SARET your unit name; a POC with name, phone number, and email; and a time frame for the visit.

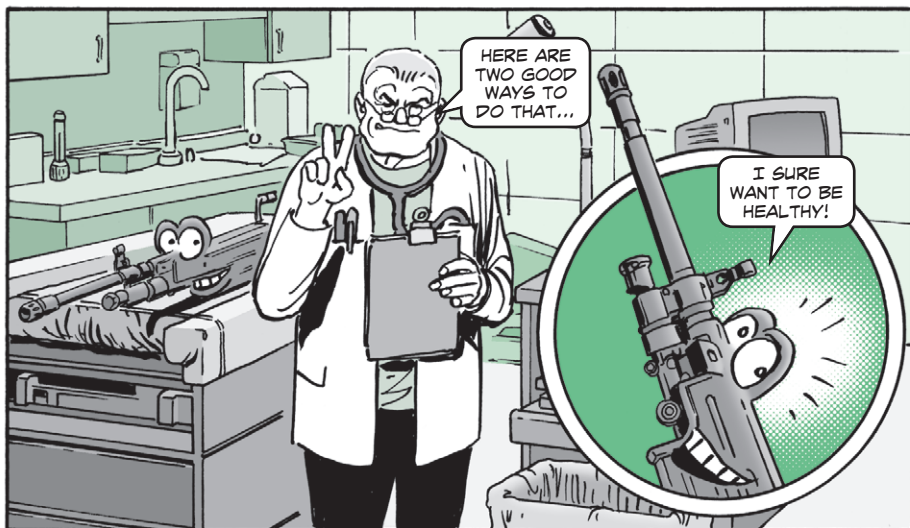
- Be ready for SARET to contact you with further instructions and requirements.

The best time for a SARET visit is shortly after you return from SWA. Contact them 60 to 90 days before you return home to set a date.

If you have questions about CONUS visits, contact Billy Riggs at DSN 793-5524/(309) 782-5524 or email [william.g.riggs@conus.army.mil](mailto:william.g.riggs@conus.army.mil)

For OCONUS visits, contact Thomas Jefferson at DSN 793-3394, (309) 782-3394 or email [thomas.g.jefferson@us.army.mil](mailto:thomas.g.jefferson@us.army.mil)

# Bad Pintle, Better Swivel



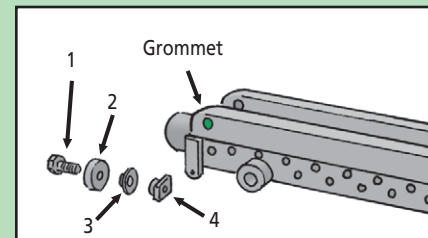
**Do not use the M60 pintle to mount the M249 if you can avoid it.** Even though WP 0009-00-1 in TM 9-1005-245-13&P, the machine gun mount TM, says that's OK, it's not preferred. The M60 pintle can damage the M249 receiver.

To mount the M249 on the M122A1 tripod or the M197 mount, use the M249/M240 machine gun pintle, NSN 1005-01-461-2656, and the rear adapter, NSN 1005-01-225-1156.

**Use the new sling swivel adapters.** The snap hooks on the sling tend to wear and even crack the upper receiver hole where the snap hooks attach to the receiver. The new sling swivel adapter will stop that wear. Order the front sling mounting kit with NSN 1005-01-529-8408, the rear sling mounting kit with NSN 1005-01-529-8406, and the quick-release swivel with NSN 1005-01-529-9309. You'll need two swivels.

If the M249 receiver still has the grommet assembly, install the front mounting sling assembly like this:

1. Place lug (1) into the thick spacer (2).
2. Place and hold the stud (4) in the inside of the grommet lip end first.
3. Add one drop of blue Locktite 246, NSN 8030-01-499-3589, to the threads of the lug.
4. Screw the lug with spacer into the stud and snug down the lug.

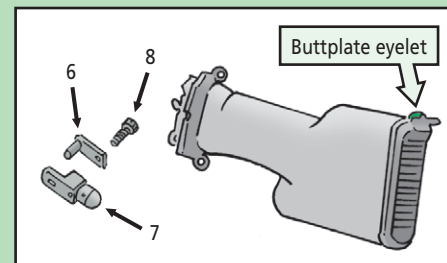


If the receiver is missing the grommet assembly, install the sling like this:

1. Place the lug (1) into the thick spacer (2).
2. Place the spacer (3) lip end first into the inside of the receiver where the grommet would normally be.
3. Place and hold the stud (4) lip end first in the inside of the receiver and into the spacer (3).
4. Add one drop of Locktite to the threads of the lug. Screw the lug with spacer into the stud and snug down the lug.

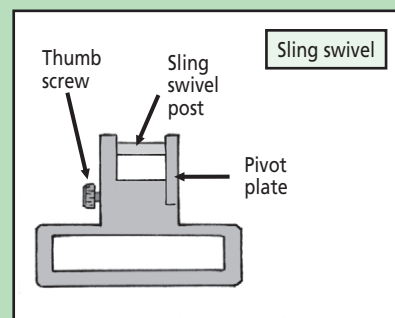
To install the rear mounting sling assembly:

1. Place the lug (6) through the hole in the buttplate eyelet.
2. Install the stud lug (7) on the opposite side of the buttplate eyelet.
3. Apply one drop of Locktite to the threads of the cap screw (8).
4. Attach the lug to the stud lug by screwing the cap screw through the lug and into the stud lug. Snug down the cap screw.



To attach the quick-release swivel to the stud lugs:

1. Turn the thumb screw counterclockwise all the way out.
2. Push in on the thumb screw and turn the pivot plate to expose the sling swivel post.
3. Attach the sling swivel post to the lug or stud lug.
4. Push in on the thumb screw and turn the pivot plate up and onto the sling swivel post. The thumb screw will spin on the shaft and won't lock down.
5. Screw the thumb screw clockwise all the way down to hold the sling swivel in place.

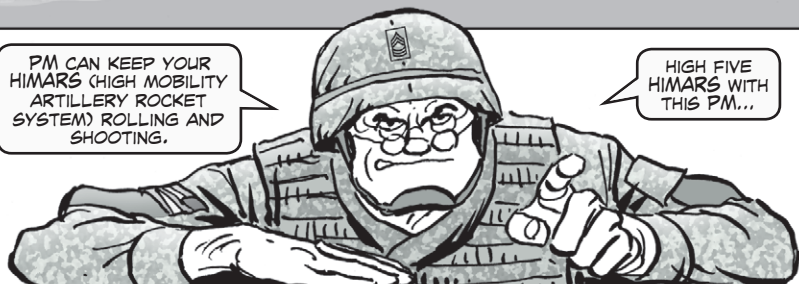


# High Five HIMARS with PM

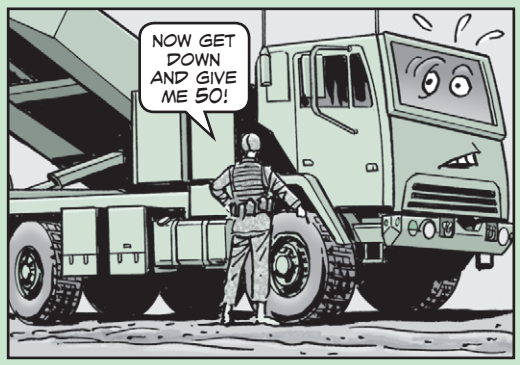


PM CAN KEEP YOUR HIMARS (HIGH MOBILITY ARTILLERY ROCKET SYSTEM) ROLLING AND SHOOTING.

HIGH FIVE HIMARS WITH THIS PM...

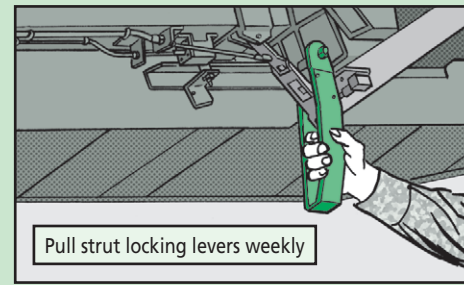


**Exercise, exercise, exercise.** The best thing you can do for your HIMARS is to exercise the whole system every week. If you don't, moving parts like the limit switches and rollers stop moving and start sticking. Then you get faults when you try to fire rockets. So don't let your HIMARS sit idle.

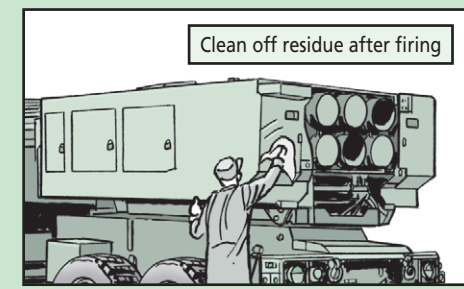


**Take it slow and easy loading and unloading rocket pods.** Raise and lower the pods as straight up and down as possible. That prevents cables from fraying and makes it easier on the HIMARS LLM (launcher loader module) motor. Keep an eye on the cables to make sure they don't twist and become tangled. Stop and reposition the pod if necessary.

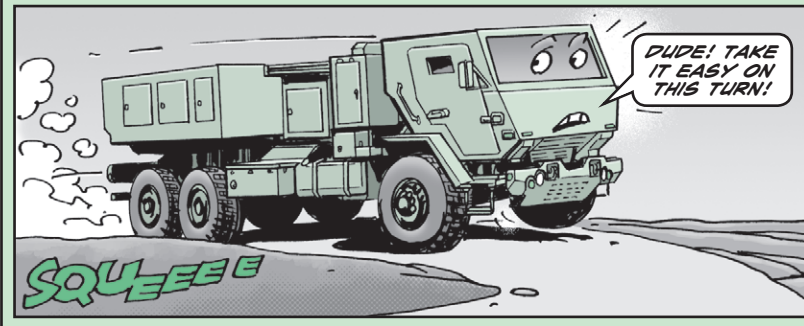
**Don't forget the strut locking mechanisms.** Every week pull the levers that release the jury struts. If the levers are never operated, their cables freeze from corrosion and then you can't use the struts to work under the LLM. If the levers start to bind, lube them with dry lube, NSN 9150-01-260-2534.



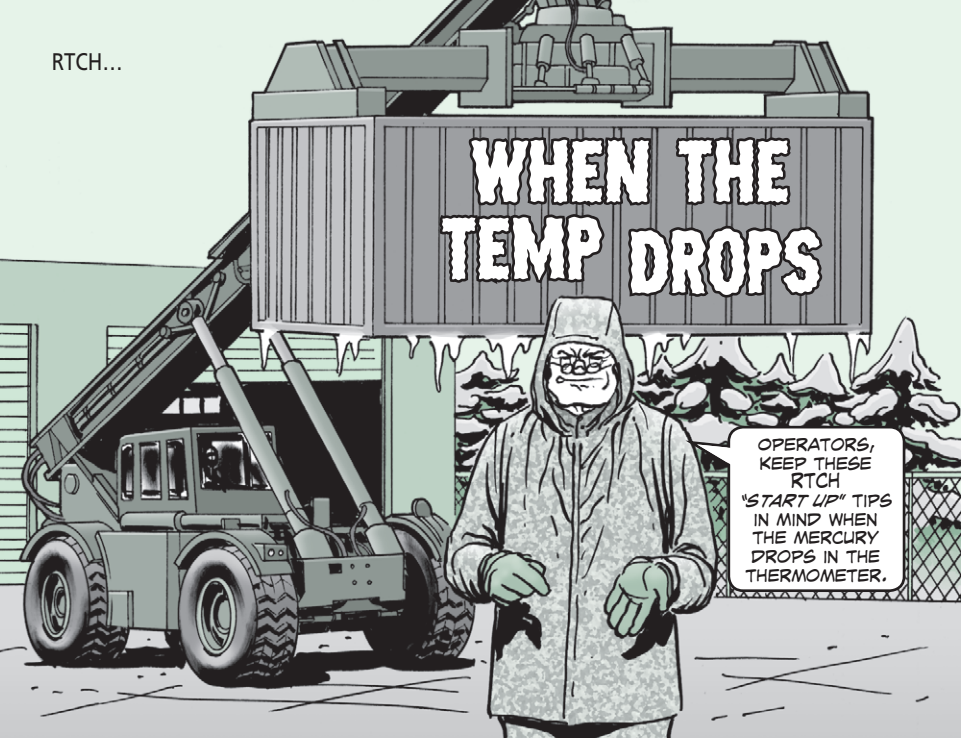
**Clean, clean, clean after firing.** The residue from the rockets is very corrosive. If you don't clean off the residue ASAP, soon you've got major corrosion problems. Unfortunately, the only way to get rid of residue is with lots of CLP and elbow grease. But the sooner you clean after firing, the easier the job is.



**Drive very carefully.** Remember HIMARS adds a huge amount of weight to the truck. Braking and turning will be much more difficult. So take it slow and easy.







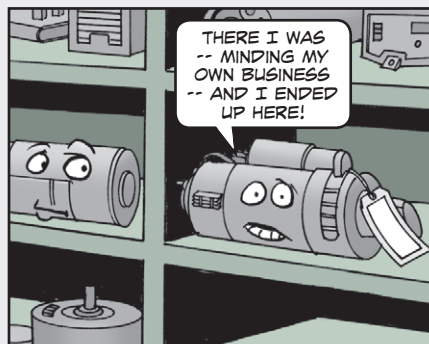
### Starter Reminder

It's a fact that many engine starters end up at support for service and repair, especially during cold weather.

So remember, all it takes is one itchy finger stuck on the starter switch to burn out a good starter motor.

When you're trying to start your container handler's engine, never keep the starter engaged for more than 30 seconds. If the engine doesn't start by then, stop! Give the starter at least two minutes to cool off before trying again. You'll find this info in WP 0005 00-2 of TM 10-3930-675-10-1.

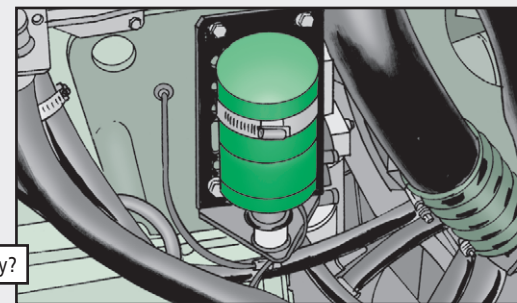
If the RTCH won't start after three tries, call it quits. Get your mechanic to find out what's wrong.



### Hard to Start?

These vehicles have a fuel canister that automatically injects ether into the engine for cold weather starting. If the container handler is hard to start, chances are the canister is empty. Have your mechanic replace it.

Canister empty?



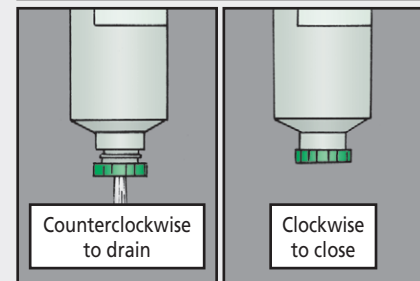
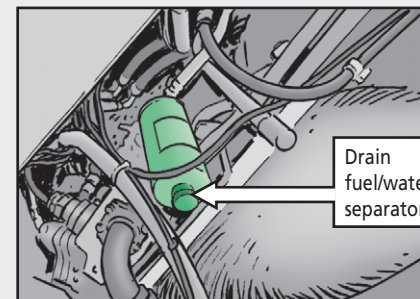
### Drain Out Water

Water in your RTCH's fuel will leave its engine running rough or not at all.

Water gets in the fuel when warm days and cool nights cause condensation to form in the vehicle's fuel tank. You get rid of water by draining the fuel/water separator each week like it says in the TM.

Open the separator—located behind the roadside engine access door—by turning its drain cock counterclockwise. Store drained fuel in an approved hazardous waste container. **Never** dump it down a drain or let it run on the ground.

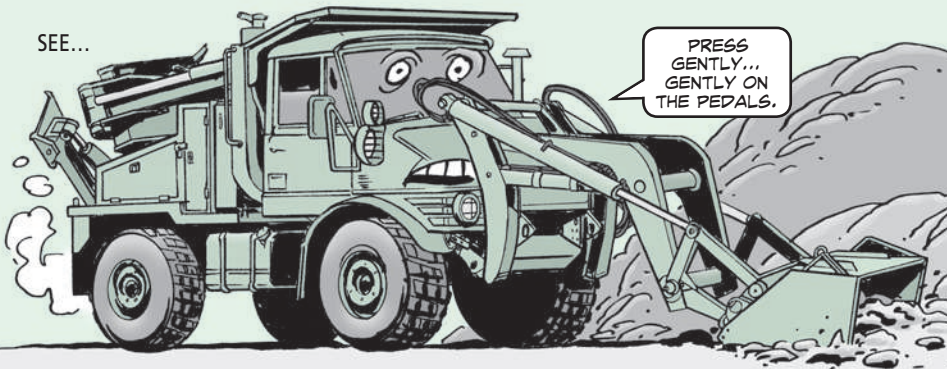
If the fuel is clear, you're OK. If the fuel doesn't run clear after you've drained half a pint or so, close the valve and report it to your mechanic.



ALSO, MAKE SURE YOUR MECHANIC REPLACES THE FUEL FILTER AT SEMIANNUAL SERVICE TIME.



SEE...



## WHERE THE BOOT LIES

**A**lmost sounds like the title of a gaudy daytime soap opera . . . but hardly.

If your left boot rests on the SEE's clutch while driving, every bump engages and disengages the vehicle's clutch—causing it to wear out! Soon your excavator is going nowhere!

So, keep your boot off the clutch pedal while driving or operating the vehicle.

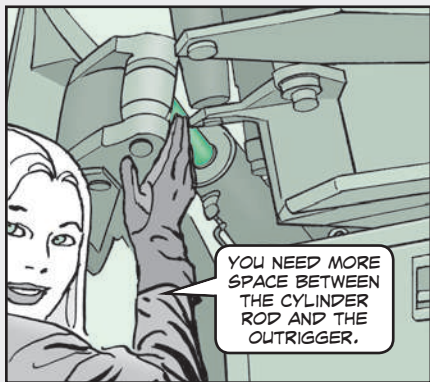


## STOW IN THE KNOW

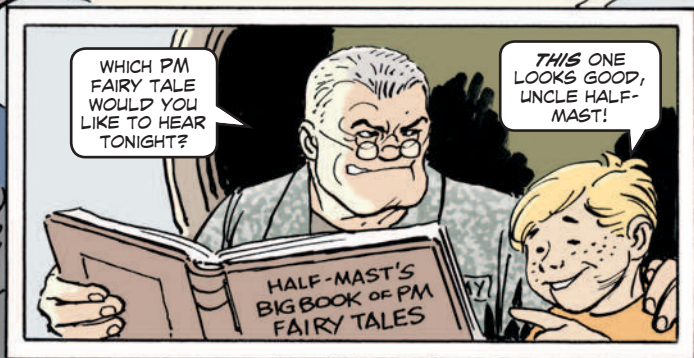
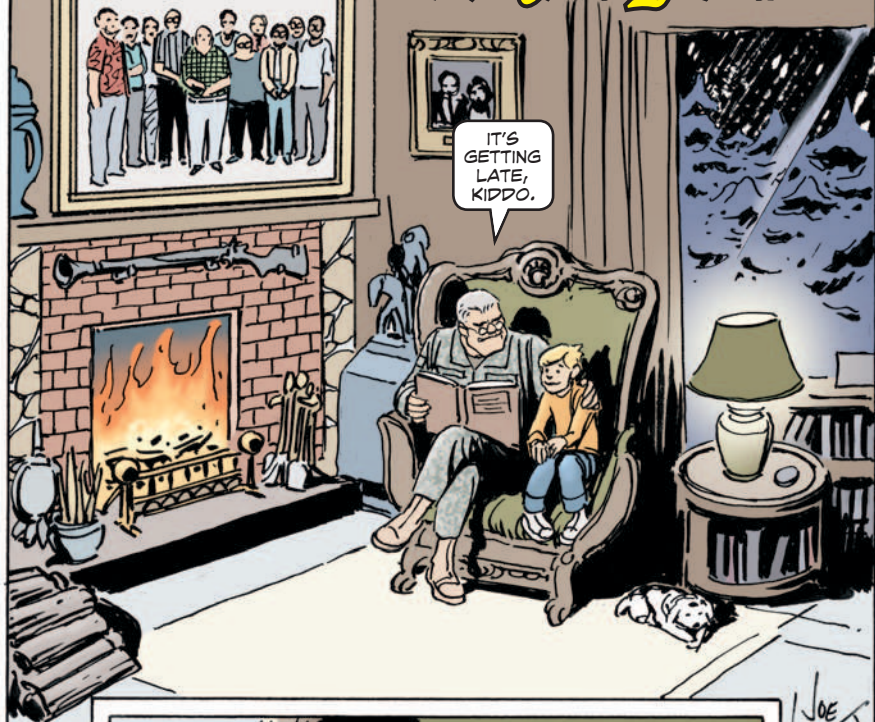
**E**asy does it when you stow the excavator's outriggers and backhoe. Slow down and use some TLC when you retract the vehicle's outriggers before leaving the worksite.

Banging the vehicle's cylinder rod with the outrigger causes damage—like scuffs and dents in the cylinder rod. Damage causes the rod's seals to leak.

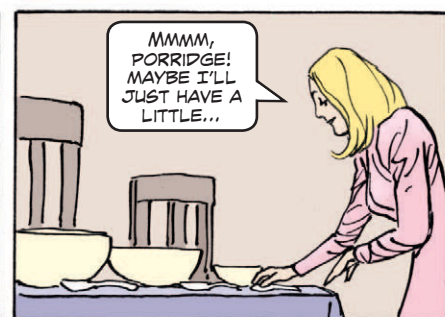
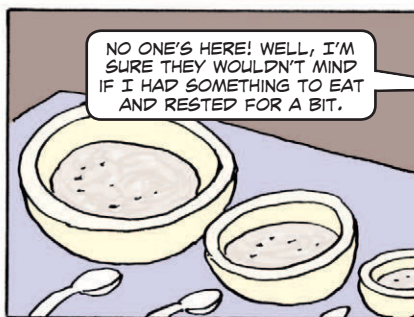
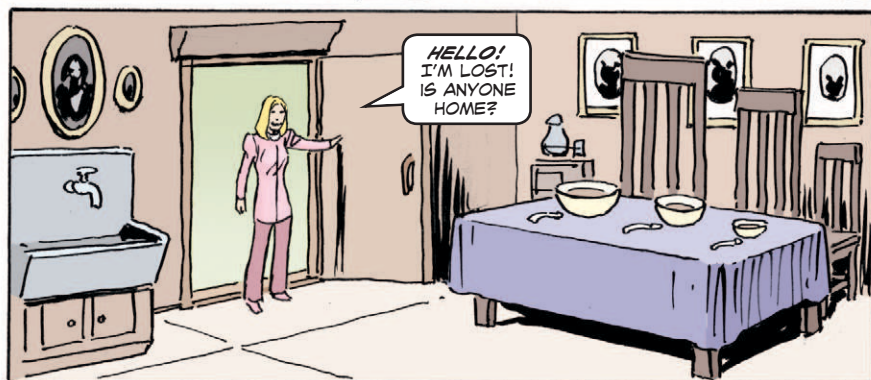
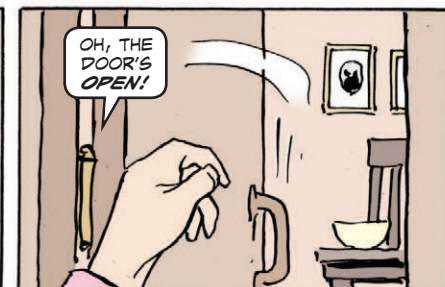
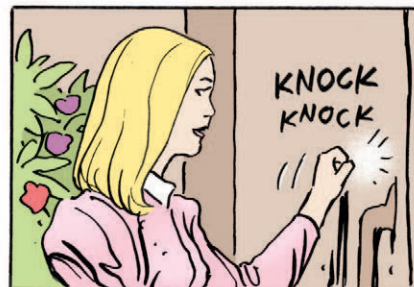
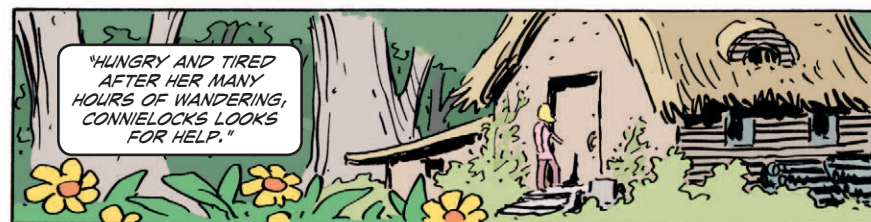
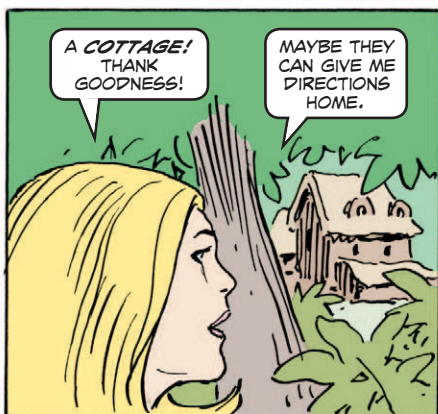
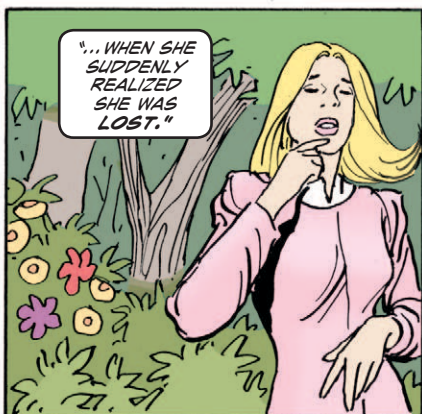
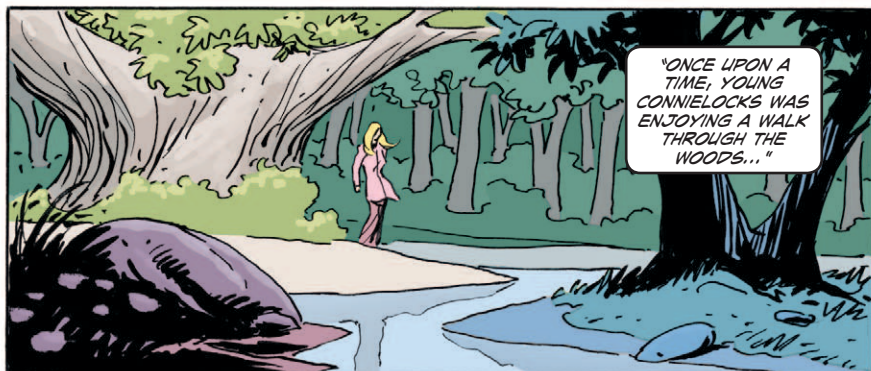
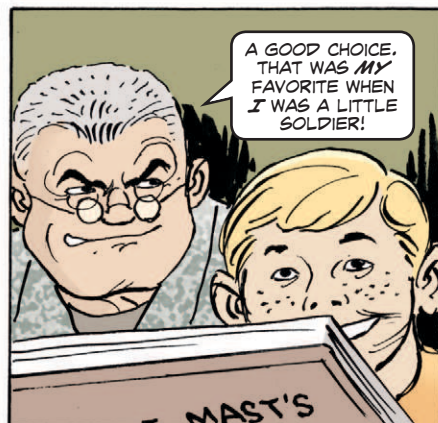
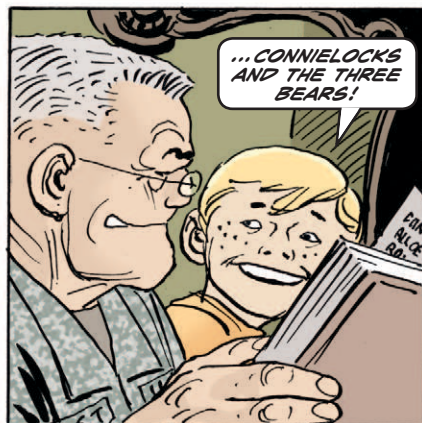
Play it safe. Stow the outrigger at least three inches from the backhoe boom.



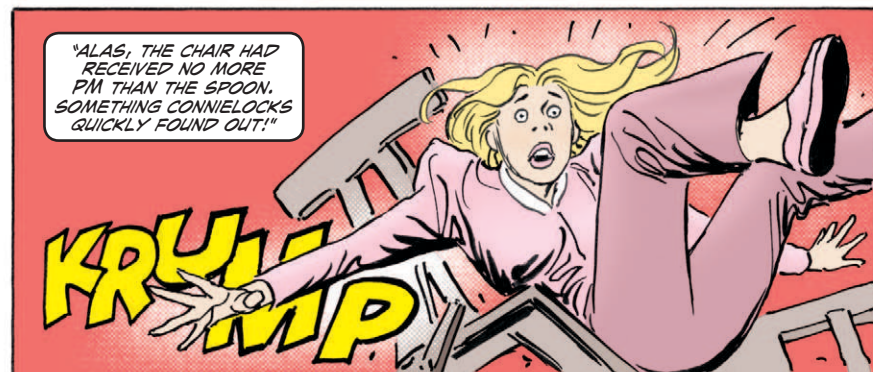
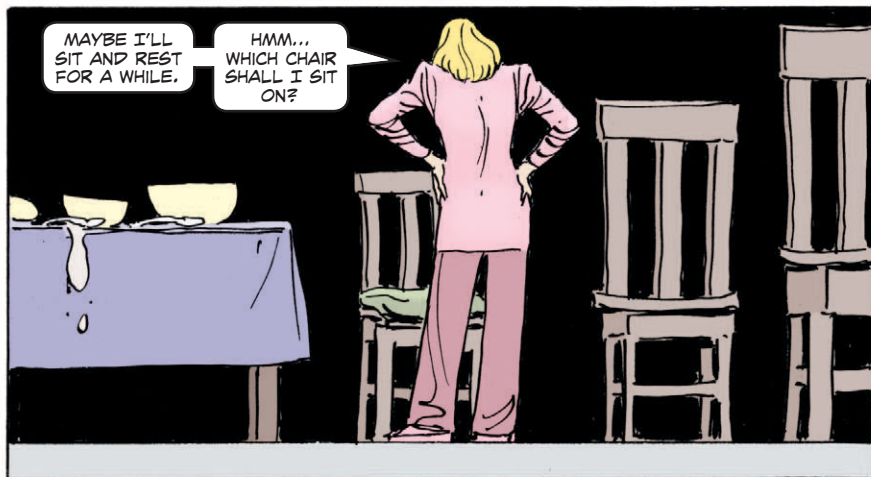
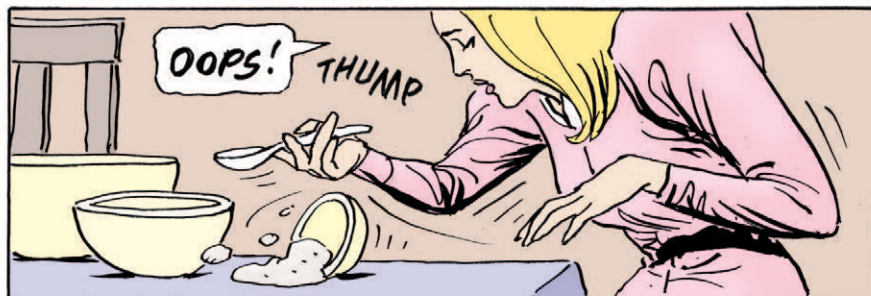
# HALF-MAST'S PM Fairy Tales



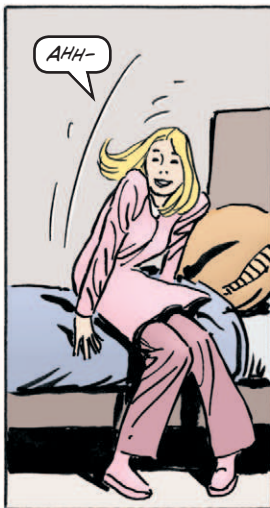
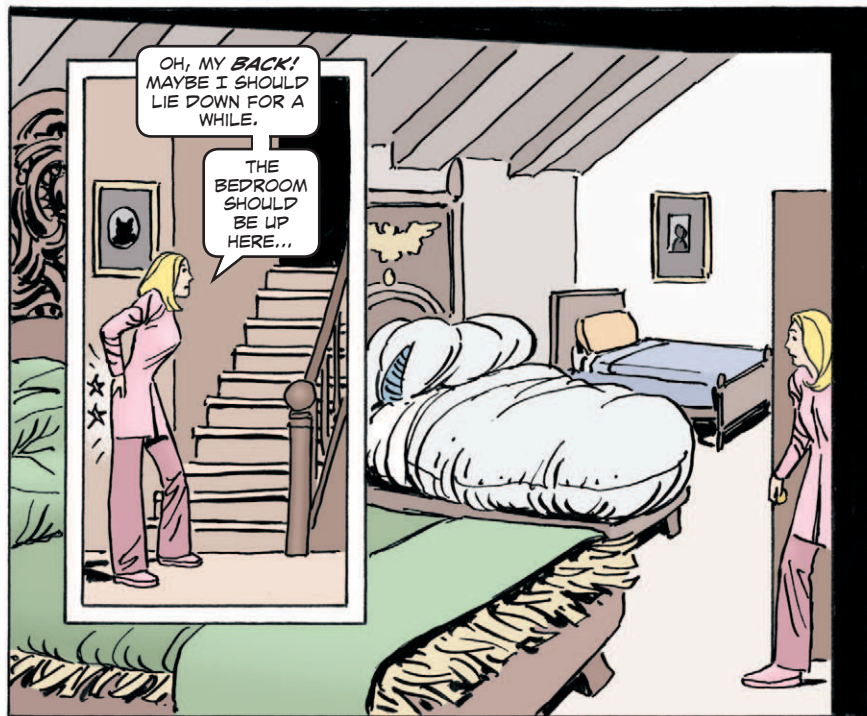




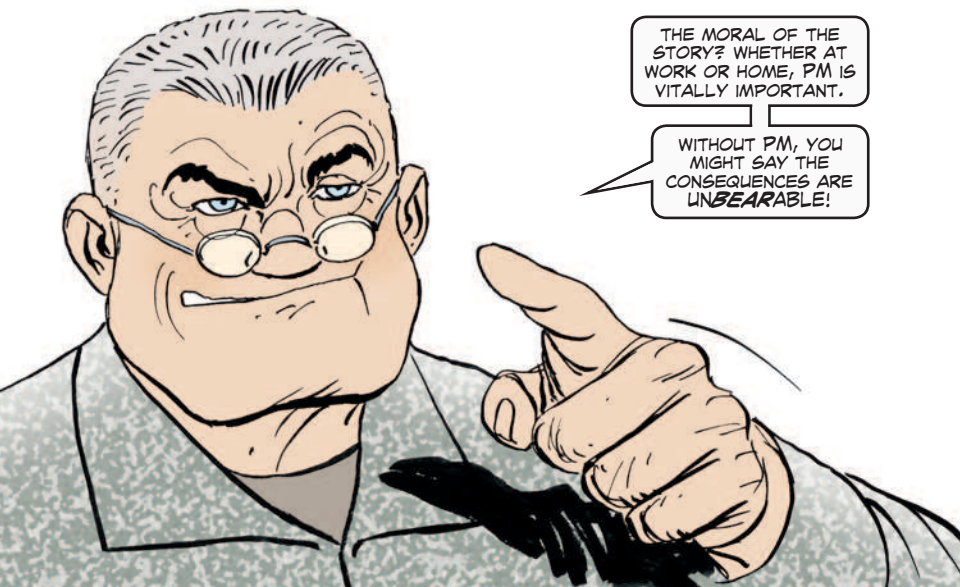
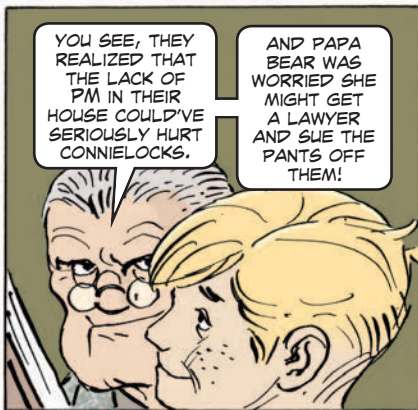










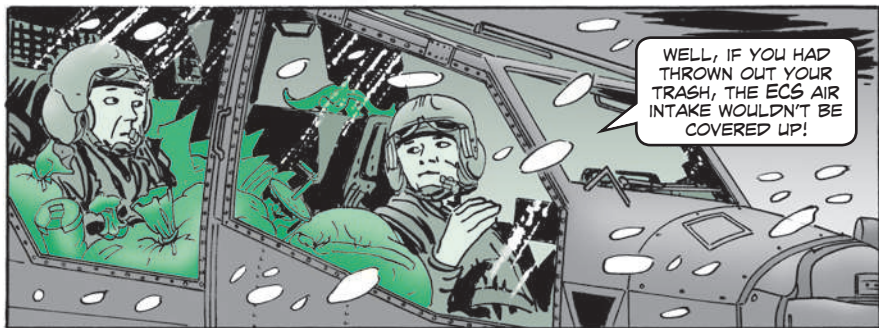


AH-64D...

IT'S FREEZING  
OUT THERE  
**AND IT'S  
FREEZING IN  
HERE!**



## ENVIRONMENTAL CONTROL SYSTEM NEEDS AIR!



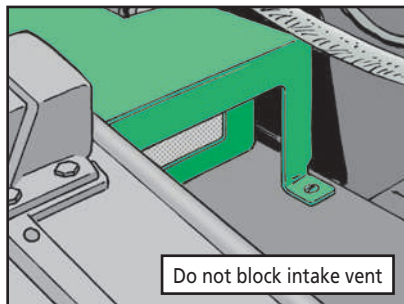
Pilots and gunners, while the temperature outside is out of your control, you **can** control the temperature inside the AH-64 cockpit.

Piling trash and other items that block the environmental control system (ECS) air intake means you won't be able to stay cool or warm when you need to.

So if you don't want to sweat like a pig in the summer or freeze in the winter, keep trash, bags and other stuff away from the air intake vent.

Blocking the intake vent can also overwork the fan motor and burn it out. Reduced evaporator air flow can raise system pressure and can knock out the ECS. An ECS that's down and out means no air to keep cool in the summer and no heat to stay warm in the winter.

To maintain a comfortable cockpit, put your trash and other stuff like pubs bags in the proper storage areas. Otherwise, the temperature might not be to your liking!





# CLOSE THE LATCHES



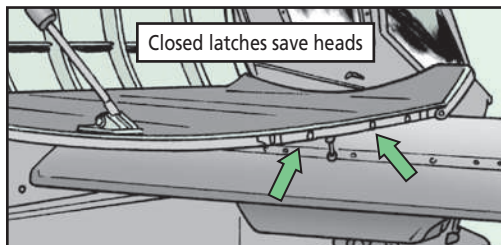
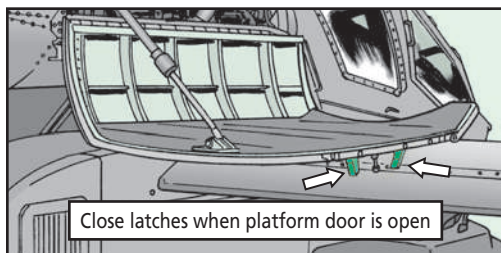
**M**echanics, when your AH-64 engine platform door is open for engine maintenance, you can be set up for a harmful head gash.

Let's get straight to the point: Close the latches on the engine nacelle door before performing maintenance or pre-flights.

If you don't, you or other mechanics who walk around the bird can duck under the door and run into an open latch and gouge out a piece of scalp.

That's not good news because now you have an injured mechanic who can't work on the bird because he's sitting in an emergency room waiting for stitches to close up a cut open head.

Remember, maintenance is important, but so is personal safety. So when the platform is open, always close the latches to save a head—maybe yours—from a latch gash.



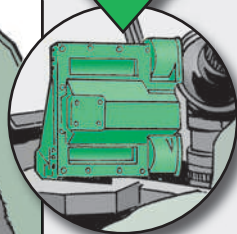
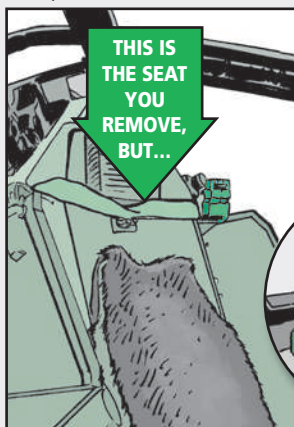
# Co-pilot Seat Maintenance



**M**echanics, when removing the co-pilot crew station seat from the AH-64, be careful. Otherwise the seat can damage other components.

Paying attention to detail is the way to go when removing the co-pilot seat. The seat and the sensor surveyor unit mounts are very close. The mounts are not made of strong material, so they break easily. The seat is heavy, so banging against the mounts will break them.

The sensor surveyor unit, NSN 1270-01-159-7994, sends signals to the integrated helmet and display sighting system (IHADSS). The helmet controls aircraft weapons and the target acquisition designation sight (TADS).

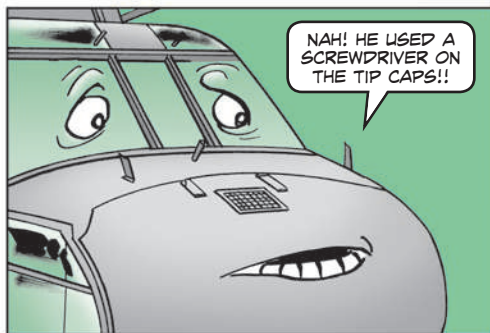
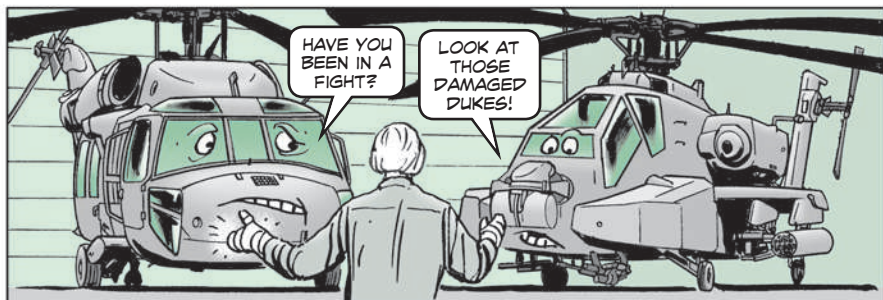


Once the seat hits one of the mounts and breaks it, your bird is as good as dead. A broken mount earns your bird a red X and it's NMC until the component gets repaired by depot maintenance.

This is a lesser problem for the pilot crew station seat because there's more clearance between the surveyor unit and the seat. But if you don't pay attention, the sensor surveyor mounts in the pilot station will suffer damage, too.

So don't knock yourself out removing the seat or you just might knock out the sensor surveyor unit!

# Easy Screw Removal

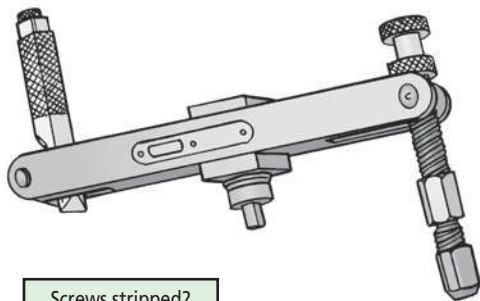


**M**echanics, are you frustrated trying to remove blade tip caps with a screwdriver?

After a painful workout, all you'll get is knuckle damage, stripped screw threads, destroyed screwdriver heads, and a gouged tip cap and blade.

Before damage is caused by a screwdriver, save your knuckles and blade tip cap screws by using screw extractor, NSN 5120-01-398-2868. It will also help remove those tough panel screws.

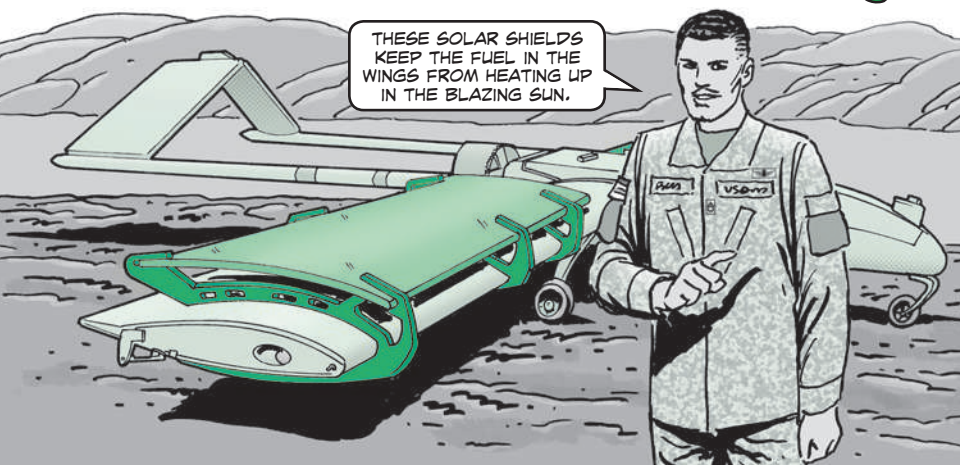
This class II item costs more than \$300. You may need your commander's approval to purchase it.



Screws stripped?  
Use screw extractor



# Solar Shields Are Coming



**S**hadow units, keep your eyes peeled. The AMCOM PEOAVN is working a plan to field solar shields to protect the wings of your Shadow 200 RQ-7B Tactical Unmanned Aircraft System (TUAS) from the blazing sun.

If you've been using sleeping mats to shield the wings, remember they were only a substitute, not the primary equipment. The shield kit consists of six wing clips and two foam pads. Store the pads flat, not rolled up.

Solar shields minimize fuel loss through the fuel relief valve on the wing tip. Fuel loss is caused by fuel expansion from heat. The lost fuel is caught in the overflow container on the wing tip relief valve. If the valve fails to relieve the pressure, the wing can be damaged.

Make sure you check your operator's manuals on how to use the solar shields.

As fielding of the solar shield kits continues, make sure you add them to your unit's property book as part of the Shadow system. The shield kits are being fielded directly from the prime contractor. No NSN has been assigned to the shields. Order replacement parts through AAI Corporation's field representatives.

If you have questions, call  
Tom Lamar  
(256) 313-5370  
Charles Charlton  
(256) 842-7196  
Alfred Martin  
(256) 313-5432 or  
Ron Smith  
(256) 313-5395.



tom.lamar@  
us.army.mil  
charles.charlton@  
us.army.mil  
alfred.martin@  
peoav.army.mil  
ron.smith@  
us.army.mil

# Turn 20 into 21

THE 25-OUTLET, GENERAL ILLUMINATION LIGHT SET, NSN 6230-00-299-7077, THAT PROVIDES LIGHT IN THE FIELD FOR TENTS AND OTHER STRUCTURES, HAS 20 INDIVIDUAL COMPONENTS.

HERE THEY ARE...

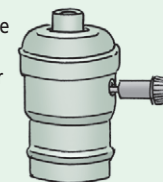
Component	NSN	Qty
Lampholder adapter, cross shape	5935-00-494-0690	6
Connector adapter, double cross shape	6150-00-549-5409	6
Connector adapter, cross shape	6150-00-577-8612	10
Lampholder adapter, straight shape	5935-00-642-5331	6
Power cable assembly	6150-00-240-8014	1
100-ft cable assembly	6150-00-636-8061	2
100-ft No 12 cable assembly	6150-00-636-8062	4
Electric power cable	6140-00-617-1383	1
Lighting equipment chest	6210-00-382-9173	2
GFCI circuit breaker	5925-01-466-0676	1
Circuit breaker box	5925-01-393-7193	1
Slip-on mounting connectors	5935-00-259-7513	52
Lamp holder locknut	5975-00-377-0650	36
Incandescent lamp	6240-00-143-3119	40
Lampholder, medium screw base/socket	6250-00-371-9446	8
10-ft extension light	6230-00-299-7697	16
25-ft extension light	6230-00-299-7698	16
Light reflector	6210-00-273-9218	32
Telescoping shield	6210-00-371-9451	8
Cotton twine	4020-00-243-3152	1

BUT ARE 20 COMPONENTS ENOUGH?

WHY NOT ADD ONE MORE?

WHY NOT ADD METAL SHELL LAMPHOLDER, NSN 6250-01-556-9131?

Just replace lamp-holder



USE THE LAMPHOLDER TO REPLACE THE TURN KNOB SWITCH ON YOUR 10- AND 25-FT EXTENSION LIGHTS WHEN THE SWITCH FAILS.

AS IT STANDS, YOU'RE REPLACING THE ENTIRE EXTENSION LIGHT WHEN THE TURN KNOB SWITCH FAILS.

AN EXTENSION, WHETHER 10- OR 25-FT, COSTS AROUND \$50.

THE LAMPHOLDER SHELL COSTS LESS THAN \$4 AND IT'S EASY TO REPLACE!

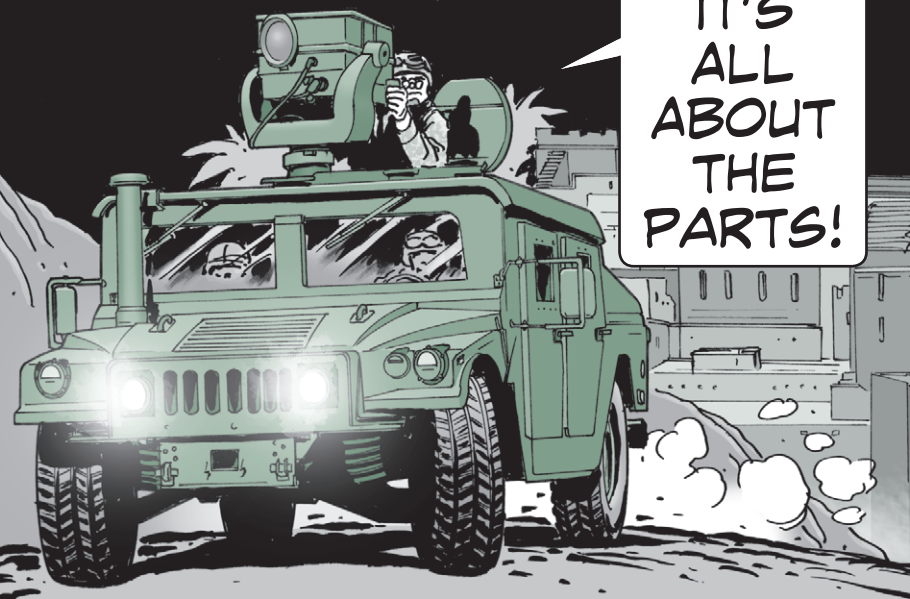
SO TURN YOUR 20-COMPONENT LIGHT SET, SC 6230-91-E01, INTO A 21-COMPONENT SET.

YOU'VE IMPROVED YOUR SET AND SAVED MONEY, TOO!

## 15-KW Light Set Lamp

On all your "important NSNs" lists scratch out NSN 6240-00-143-3124 for the incandescent lamp used in the 15-KW light set, NSN 6230-00-299-7080. That lamp is gone. Add to your "important NSNs" lists NSN 6240-01-157-5114 for a new incandescent lamp.





Dear Editor,

I'm a supply manager for the long range advanced scout surveillance system (LRAS3) infrared night vision sight (AN/TAS-8) and we've got parts problems!

The LRAS3 is taking a beating in Iraq and the need for repair parts is great. In PS 648, we asked soldiers to send reparable back and many of them stepped up and did just that.

My thanks to all of them.

Unfortunately, many of those items returned are beyond repair. Replacement is the only option. Procuring new items takes time and our stock levels are very low!

So, we need soldiers to step up again. But this time, we need them to be diligent in placing part orders.

First, they should not order beyond their requirement objective (RO).

Second, they must take great care not to duplicate orders. Often, when an order does not come in quick enough, they will reorder. This puts extra demand on the system!

Finally, they need to contact me if they are concerned about receiving a critical part. They can reach me at DSN 992-2173 or (732) 532-2173. Or by email: [lisa.keefer@us.army.mil](mailto:lisa.keefer@us.army.mil)

Lisa Keefer  
Supply Specialist  
C-E LCMC

IT'S  
ALL  
ABOUT  
THE  
PARTS!

**Editor's note:** Thanks, Ms Keefer. Warfighters, if you have been complaining about how long it takes to get LRAS3 parts, make sure you're not part of the problem by failing to turn in unserviceable parts or by failing to pay attention when ordering new parts.

One part that is still in very short supply is the integrated optical bench (IOB) assembly, NSN 5860-01-486-5044 or NSN 5860-01-506-8843.

Item	NSN
IOB assembly	5860-01-486-5044
IOB assembly	5860-01-506-8843
IOB assembly	5860-01-532-0190
IOB assembly	5860-01-536-9374
Infrared lens	5855-01-486-5022
Display unit	7025-01-486-5024
Adapter assembly (tan)	4920-01-486-5029
Adapter assembly	4920-01-486-5040
Adapter assembly (green)	4920-01-494-5187
Electrical panel	5975-01-486-5035
Tripod mount leg	1020-01-486-5041
Inclinometer	6605-01-486-6395
Housing	5999-01-486-6396
Housing	5999-01-494-3670
Housing	5999-01-518-8796
Housing	5999-01-518-8833
Laser rangefinder	1240-01-486-5003
Laser rangefinder	1240-01-506-8841
Circuit card	5998-01-486-5004
Circuit card	5998-01-486-5005
Circuit card	5998-01-486-5019
Circuit card	5998-01-486-5020
Circuit card	5998-01-486-5021

WAR TAXES THE  
SUPPLY SYSTEM  
AND THE LRAS3 IS  
UNDER THE GUN.

TURN IN  
REPARABLES  
AND ORDER  
NEW PARTS  
WITH GREAT  
CARE.



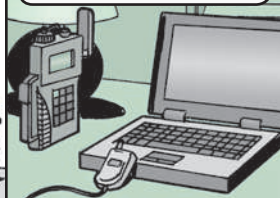
# A CONVERTER TO GET FROM 24 TO 12

YOUR TACTICAL VEHICLE  
HAS A 24-VOLT DC  
ELECTRICAL SYSTEM...

...BUT YOUR GPS,  
LAPTOP COMPUTER, AND  
CELL PHONE ALL NEED  
12-VOLTS OF DC POWER.

WHAT  
CAN YOU  
DO?

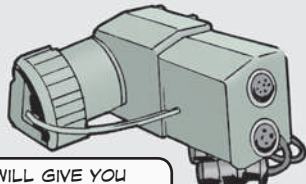
WHAT  
CAN YOU  
DO!?



YOU CAN DO SOME CREATIVE  
SPlicing ON THE BATTERY CABLE  
AND HOPE YOU DON'T SHORT OUT  
THE VEHICLE WIRING OR RUIN YOUR  
12-VOLT EQUIPMENT.

OR!

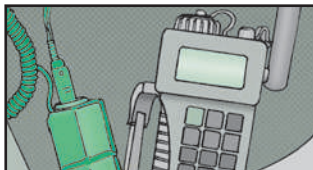
YOU CAN ORDER THE NATO POWER  
CONVERTER, NSN 6130-01-548-4844.  
THE CONVERTER PLUGS INTO THE NATO  
RECEPTACLE ON YOUR VEHICLE.



IT WILL GIVE YOU  
70 WATTS OF FUSE-  
PROTECTED POWER FOR  
12-VOLT EQUIPMENT.

If you find the recommended DAGR external power cable NSN 6150-01-521-6755 is out-of-stock, you can still safely get vehicle power to your DAGR using the converter. Use the DAGR cigarette lighter, NSN 6150-01-521-2548, (which is in-stock), to connect your DAGR to the converter for 12V of fuse-protected power! Same solution works for PLGR with the cigarette lighter cable 6150-01-450-9262. You can get it from Rockwell Collins using CAGE 13499 and PN 988-2163-001.

For more info on portable power systems, check [http://commandandcontrol.monmouth.army.mil/army\\_power.htm](http://commandandcontrol.monmouth.army.mil/army_power.htm) and for alternatives to provide external power to DAGR, check Army PM GPS at <https://gps.army.mil>



It works with PLGR and DAGR



Need cell  
phone  
power?  
No  
problem!

AN/VIC-3  
VIS...

# INSTALL THEM RIGHT! THEN LEAVE THEM ALONE!

THE WORLD IS A  
TOUGH PLACE  
TO LIVE.

LIVING IN A  
WAR ZONE IS  
EVEN TOUGHER.

SO WHY  
MAKE A BAD  
SITUATION  
**EVEN WORSE**  
BY INSTALLING  
VEHICLE  
INTERCOM  
SYSTEMS (VIS)  
WRONG?

AN INCORRECTLY INSTALLED VIS IN  
YOUR TACTICAL TRACKED OR WHEELED  
VEHICLE CAN BECOME A PROJECTILE  
HAZARD AND A HEAD-STRIKE HAZARD.

THERE'S ANOTHER PROBLEM THAT'S  
MAKING YOUR VIS A HEADACHE AND THAT'S  
USING THE WRONG PARTS OR CANNIBALIZING  
PARTS FROM OTHER SYSTEMS.

USING THE WRONG CABLES IS BECOMING  
AN ALL-TOO-COMMON PROBLEM AND SO  
IS COMMO FAILURE BECAUSE OF IT.

WRONG  
CABLES

REUSING MOUNTING PARTS  
FROM ONE SYSTEM TO ANOTHER  
RESULTS IN POOR, LOOSE AND  
UNSTABLE MOUNTS.

BONK  
BONK

These problems are serious enough that C-E LCMC has issued a ground precautionary action safety message, GPAM 07-006, to make sure all intercom users are informed of the problems. See your C-E LCMC LAR for a copy of this message or download it at:

[https://www.monmouth.army.mil/cecom/safety/asset/sf\\_cd/soum/gpam07006.pdf](https://www.monmouth.army.mil/cecom/safety/asset/sf_cd/soum/gpam07006.pdf)

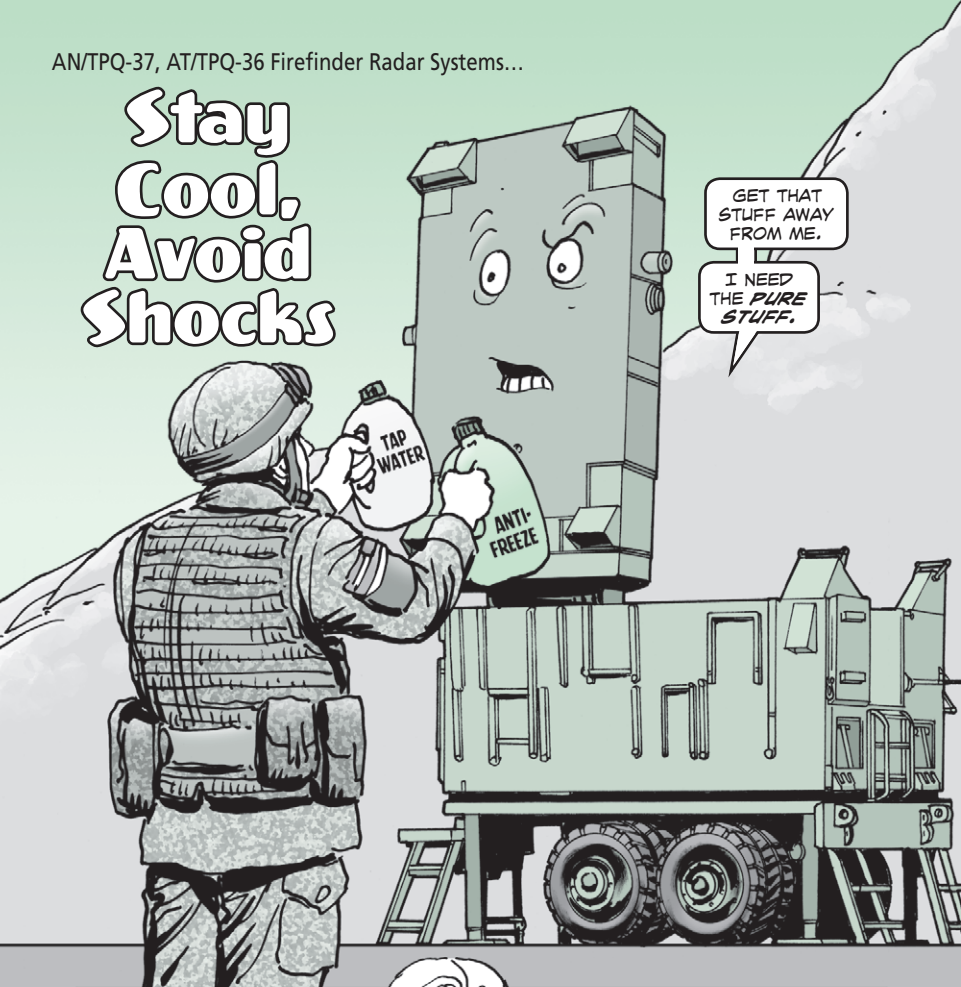
Limit your VIC-3 maintenance activities to the legitimate replacement of failed parts! Don't try to build kits for vehicles that don't have or aren't authorized intercoms.

If you have problems and need further advice, contact Major Ronald Claiborne, email:

[ronald.claiborne@us.army.mil](mailto:ronald.claiborne@us.army.mil)

Or call him at DSN 992-5415 or (732) 532-5415.

# Stay Cool, Avoid Shocks

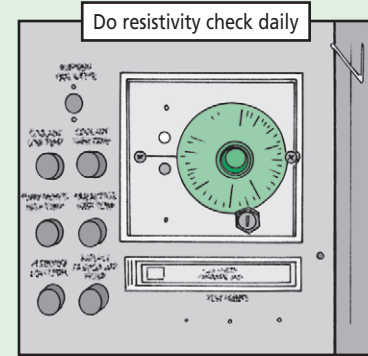


## Stay Cool

The AN/TPQ-37's transmitter cooler is very particular about what you put in it. If you don't use purified glycol, NSN 6810-00-006-4205, and distilled water, NSN 6810-00-682-6867, in the cooler, you get problems. Plain antifreeze—instead of purified glycol—causes the cooler to overheat. Undistilled water causes the filters to plug up and again the cooler overheats.

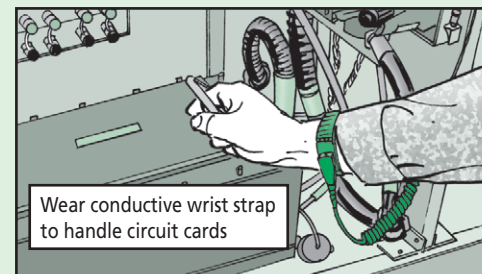
To make sure you have enough glycol in the cooler, you need to do a specific gravity test every other week. How to do that is on Page 3-118.13 in TM 11-5840-355-20-1.

But the cooler checks don't stop there. To prevent contamination and corrosion in the cooler system, you also must check the liquid coolant resistivity **daily**. See Pages 3-106 through 3-108 for info. If the Firefinder is running continuously and the resistivity drops below five megohms, the check should be done every few hours to ensure resistivity doesn't drop below one megohm. When the resistivity gets near that, the resistivity filter should be changed. Otherwise, the Firefinder shuts itself down.

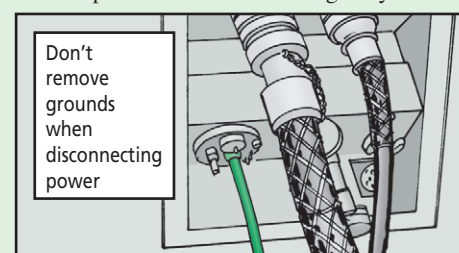


## Avoid Shocks

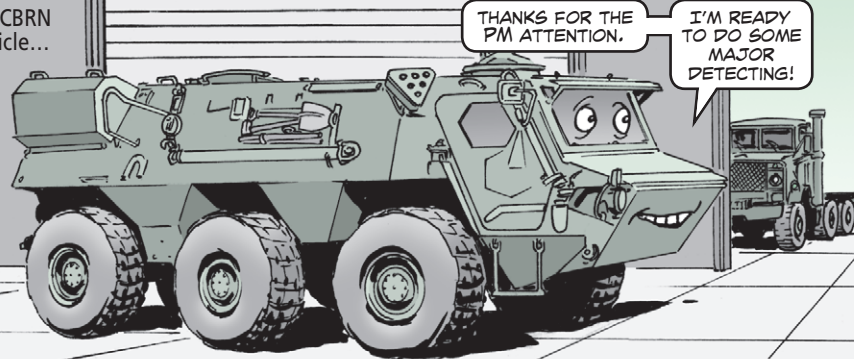
When replacing circuit cards in either Firefinder, wear a conductive wrist strap. NSN 4940-01-250-4236 brings a whole kit to prevent ESD. The strap prevents electrostatic discharge from damaging sensitive electrical components, which are often very expensive to replace. It's also a good idea to touch tools and test equipment to metal to discharge any static before you use them to touch circuit cards or any other component that can be damaged by static.



When you disconnect the power cables to the Firefinder for maintenance, it's extremely important **not to remove the grounds** for the Firefinder and its components. Without the grounds, static can build up in the Firefinder and damage test equipment or injure crew members.







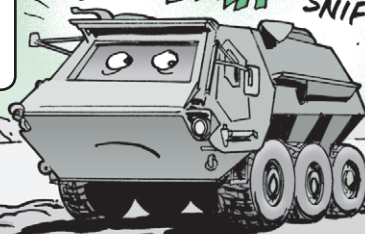
YEP, I THINK WE'VE OUTFOXED ANY PROBLEMS!

# Outfox Problems with PM



YOUR FOX CBRN VEHICLE WILL HAPPILY SNIFF OUT CHEMICAL PROBLEMS IF YOU DO THIS PM...

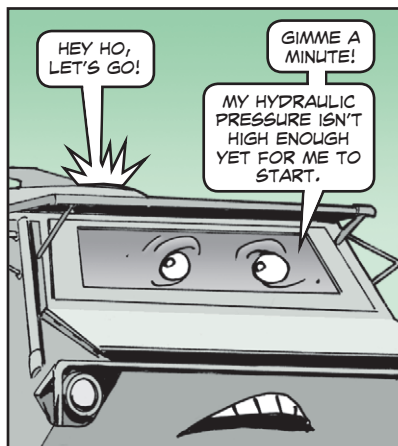
SNIFF SNIFF **SNIFF** SNIFF SNIFF



## Start Like This

Let the hydraulic pressure build up before you hit the START button. Otherwise, you can blow seals for the steering gear, the auxiliary motor, and the winch motor. After you turn the key from 0 to 1, wait 20 seconds for the auxiliary hydraulic motor to build up pressure. You'll hear it shut off when it's finished. Then hit START. If the motor doesn't shut off, you probably have a hydraulic leak. Tell your repairman.

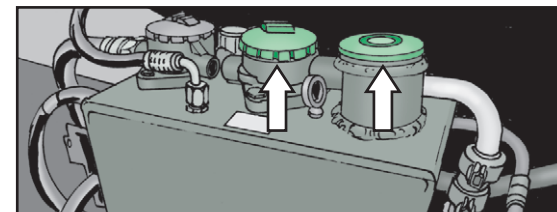
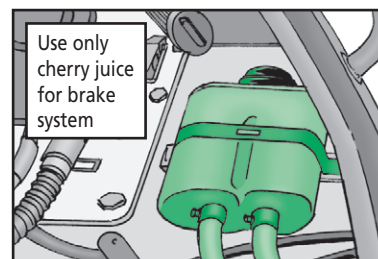
Be patient when you turn on the MM1 spectrometer. Wait till it reaches operating temperature in STANDBY before you operate. Otherwise, you will get sensor failures.



## Fluid Facts

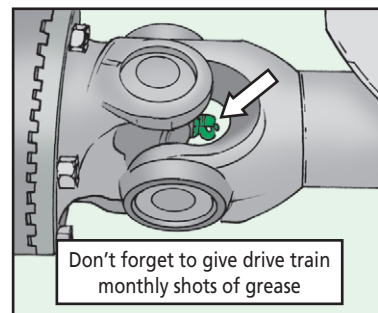
Unlike most Army vehicles, the Fox does not use synthetic brake fluid. The only brake fluid for the Fox is H515 "cherry juice". If you use anything else, it damages the seals for the brake system.

Because the openings for the transmission fluid and hydraulic fluid are close to each other, it's easy to put in the wrong fluid if you're not paying attention. Just remember 10W oil goes in the transmission and 15-40 oil goes in the hydraulic system. The openings are marked to help you get it right.



## Get Your Gun

The grease gun is your Fox's best friend, but some Fox crews are forgetting that, especially when it comes to the drive train. What usually gets no grease relief are the steering knuckle and the yoke on the drive shaft. Major damage results. Get out the grease gun monthly and carefully follow the lubing instructions in the Fox's IETM. It doesn't take long but can save lots of repair costs.



# You'll Feel More Secure

WHAT CAN YOU STORE IN GENERAL SERVICES ADMINISTRATION (GSA) APPROVED SECURITY CONTAINERS?

JUST ABOUT ANYTHING OF VALUE: MONEY, JEWELS, PRECIOUS METALS...

...EVEN WEAPONS!

BUT YOU'RE MORE LIKELY TO STORE CLASSIFIED INFORMATION SUCH AS DOCUMENTS, DRAWINGS...

...MAPS, PLANS AND FILM.

GSA OFFERS THE FOLLOWING TYPES OF SECURITY CONTAINERS...

- filing cabinets
- map and plan containers
- field safes
- weapon storage containers

Currently, there are two classes of containers being manufactured: Class 5 and Class 6.

Use Class 5 containers to store weapons, funds and jewels. Also use them to store classified documents, components, materials and equipment. They come in file cabinet, weapon storage and map and plan varieties. Class 5 containers provide the same protection as Class 6. In addition, Class 5 containers offer 10 minutes of protection against forced entry.

Use Class 6 containers to store classified drawings, maps, plans and other classified material.

FOR THE FULL STORY ON GSA APPROVED SECURITY CONTAINERS, GO TO THE DOD LOCK PROGRAM WEBSITE:

<https://portal.navy.mil/go/locks>

Once you get to the home page, rest your cursor on Security Hardware in the left-hand banner. A drop-down menu will appear. Click on GSA Approved Security Containers in the drop-down menu. The links on the next page will take you to descriptions, dimensions and photos of the containers, plus ordering information and NSNs.

JUST REMEMBER, NEVER STORE CLASSIFIED MATERIAL, MONEY AND WEAPONS-OR ANY COMBINATION OF THESE-IN THE SAME SECURITY CONTAINER.

FOR MORE INFO, SEE PAGE 75 OF DOD 5200.1-R, INFORMATION SECURITY PROGRAM (JAN 97).

FOR GUIDANCE ABOUT THE STORAGE OF CLASSIFIED INFORMATION, SEE THESE REGULATIONS...

FOR GUIDANCE ABOUT THE STORAGE OF CONVENTIONAL WEAPONS, SEE THESE REGULATIONS...

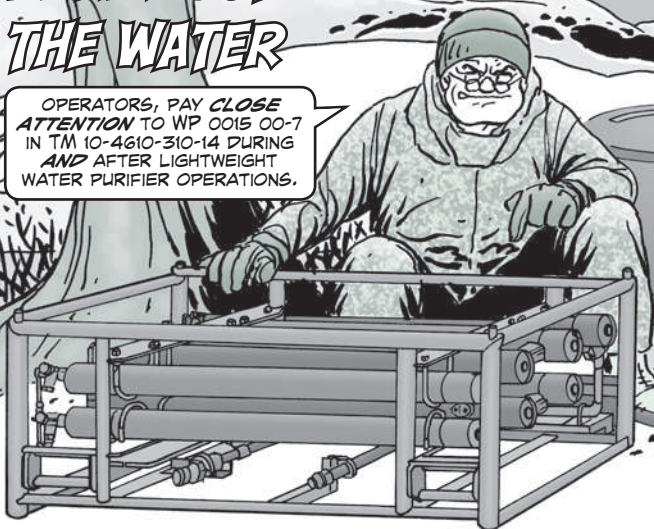
• DoD 5200.1-R,  
Information Security Program  
• AR 380-5,  
Department of the Army  
Information Security Program

• DoD 5100.76-M,  
Physical Security of Sensitive Conventional  
Arms, Ammunition, and Explosives  
• AR 190-11,  
Physical Security of Arms,  
Ammunition and Explosives



# DRAIN OUT THE WATER

OPERATORS, PAY **CLOSE ATTENTION** TO WP 0015 00-7 IN TM 10-4610-310-14 DURING **AND AFTER** LIGHTWEIGHT WATER PURIFIER OPERATIONS.



Make sure you drain all water from the reverse osmosis (RO) module before the temperature drops below freezing. Water that freezes in the RO module will ruin the system's titanium pressure vessels. Then operations come to a screeching halt!

So-o-o, drain water from the module's hoses, membranes, piping, tubing, tanks, service and high-pressure pump like this:

- Uncap the module's inlet, outlet and reject connections and open the reject valve.
- Tilt the module on its side with the inlet port pointing down.
- Place the module back to its upright position and wait for any water to drain from the module's reject connection.
- Stand the module on its end with the sample ports pointing up. Wait for any water to settle.
- Then stand the module on its other end with the sample ports facing down. Wait for the water to settle. Drain water from the sample ports—and the membrane filters when they're installed.

DO THESE  
STEPS AGAIN IF  
YOU STILL HEAR  
WATER MOVING  
THROUGH THE  
MODULE.

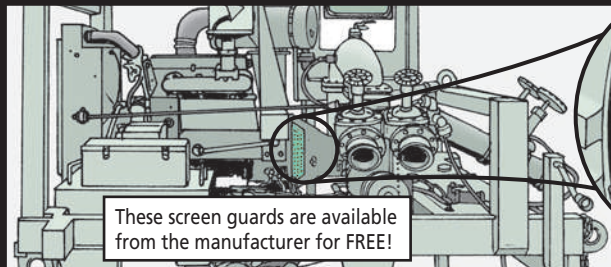




## Free Bell Housing Guards

**M**echanics, keep fuel pump operations safe with screen guards that enclose the open areas of the pump assembly's engine bell housing.

Each of the guards (left and right) keeps tools, spare parts and fingers from getting inside the housing where the pump shaft and flywheel rotate.



These screen guards are available from the manufacturer for FREE!

The guards are **only** available from the manufacturer, LaBarge Products, Inc., by calling (314) 776-2900 or emailing Mr. Bill Wertheimer:

[wertheimer@labargepro.com](mailto:wertheimer@labargepro.com)

You can also write to the company:

LaBarge Products Inc.

3445 Bent Avenue

St. Louis, MO 63116-2601

Order the bell housing guards with PN LPIAHS0289. By the way, they're FREE!

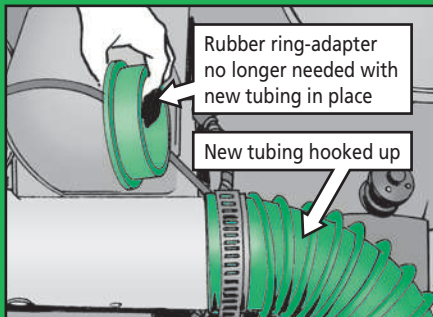
The manufacturer needs the assembly's serial number when ordering. You'll find it on the data plate located on the vehicle's frame. Make sure you provide your unit's shipping address and point of contact.

## New Airduct Tubing

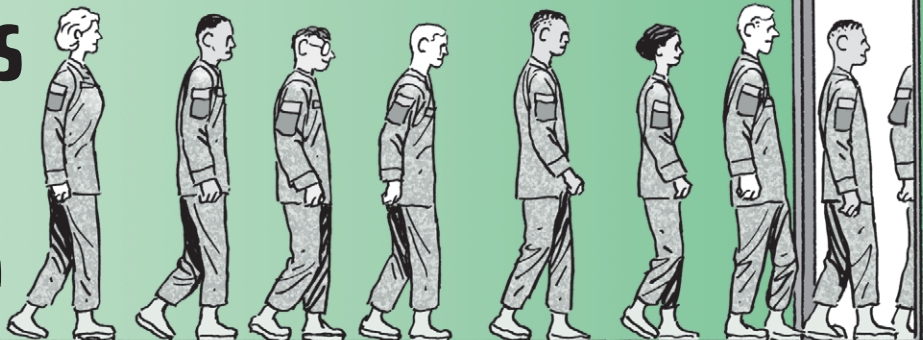
**U**se NSN 4720-01-549-7226 to get an 18-in piece of airduct tubing that replaces the elbow shown as Item 3 in Fig 4 of TM 10-4320-226-24P and TM 10-4320-343-24P.

The new tubing has a 3-in diameter opening that attaches to the pump's air cleaner housing. The 2 <sup>3</sup>/<sub>4</sub>-in diameter end is attached to the engine's intake manifold.

If there's a rubber ring adapter on the manifold, toss it. You don't need it with the new tubing.



# GETTING MATERIALS FOR DRIVERS TRAINING



NEW SOLDIERS NEED TO BE TRAINED ON ARMY EQUIPMENT.

SO DO SOME SOLDIERS WHO TRANSFER TO YOUR UNIT.



UNITS CAN GET THAT TRAINING STARTED...

...RIGHT AT COMPANY LEVEL!

Dear Connie,

I need training aids for drivers training. Anything you can provide in the way of videos, tapes, DVDs, or PowerPoint slide shows would be great.

MSG J. G.

Dear Master Sergeant J. G.,

The Transportation Center has recently modified its website:

<http://www.transchool.eustis.army.mil>

## Web-based Courses

The school offers web-based training on the following topics:

- Unit Movement Planning
- Ethical Decision Making
- Heavy Equipment Transporter System
- M998 HMMWV
- Marine Deck Warrant Officer Diagnostic
- PLS Truck
- Rail Operations Sustainment
- Senior Transportation Officer Qualification Course
- Highway/Rail Track
- Marine/Terminal Track
- Strategic Deployment Planning Course
- Unit Movement Officer Deployment Planning
- Wheeled Vehicle Accident Avoidance

## Training Circulars

The Transportation School has also expanded its Army Driver Standardization Office (ADSO) website to improve access to drivers training materials:

[http://www.transchool.eustis.army.mil/ADSO/ADSO\\_index.htm](http://www.transchool.eustis.army.mil/ADSO/ADSO_index.htm)

TC NUMBER	Training Program
21-305	Wheeled Vehicle Accident Avoidance
21-305-1	Heavy Expanded Mobility Tactical Truck (HEMTT)
21-305-2	Night Vision Goggle Driving Operations
21-305-3	M939-series 5-ton Cargo Truck
21-305-4	High Mobility Multipurpose Wheeled Vehicle (HMMWV)
21-305-5	Equipment Transporters (Heavy, Medium and Light)
21-305-6	Tractor and Semitrailer (M915, M931 and M932)
21-305-7	Light Vehicles
21-305-8	Medium Vehicles
21-305-9	Heavy Equipment Transporter System
21-305-10	Palletized Loading System
21-305-11	Family of Medium Tactical Vehicles
21-305-100	Military Commercial Driver's License Driver's Manual



## Television Tapes (TVTs)

ITS LINK TO TRAINING CIRCULARS PROVIDES CLICKABLE LINKS TO EACH TC. HOWEVER, THE CIRCULARS CHART ALSO LISTS TELEVISION TAPES AND COMPACT DISCS ON DRIVERS TRAINING THAT YOU CAN ALSO ORDER.



TVT	PIN	Title
55-15	709184	Operation of the HMMWV
55-16	709233	Driving the M939A2-series Cargo Truck
55-17	709234	M931 PMCS (Part 1) and M931 Driving (Part 2)
55-18	709235	M915 PMCS (Part 1) and M915 Driving (Part 2)
55-19	709236	C-HET PMCS
55-20	709237	C-HET Coupling and Uncoupling
55-21	709238	C-HET Loading and Unloading the M1A1 Tank
55-22	709239	C-HET Driving
55-23	709710	HEMTT PMCS
55-24	709711	HEMTT Winch Operations
55-25	709712	HEMTT Crane Operations
55-26	709713	HEMTT Driving Techniques
55-27	709528	Driving a HMMWV Equipped with CTIS
55-36	710046	PLS Truck PMCS (Part 1), PLS Driving Techniques (Part 2) and PLS Crane Operations (Part 3)
55-37	710336	PLS Load Handling System (Part 4) and PLS Winch Operations (Part 5)
55-48	710750	HETS, PMCS for M1070 Tractor and M1000 Semitrailer
55-49	710751	HETS, Coupling/Uncoupling M1070 Tractor and M1000 Semitrailer
55-50	710752	HETS, Loading/Unloading M1070 Tractor and M1000 Semitrailer
55-54	710939	Family of Medium Tactical Vehicles (FMTV) Driving Techniques
55-55	710940	Family of Medium Tactical Vehicles (FMTV) PMCS
20-928	708983	Preparation and Use of the AN/PVS-5 Series Night Vision Goggle
20-929	708929	Preparation and Use of the AN/PVS-7B Night Vision Goggle

THESE CDS HAVE BEEN SENT TO SELECT UNITS, LOCAL TASCs, USAR COMMANDS AND TRAINING CENTERS AND STATE ADJUTANTS GENERAL.



## Compact Discs

CD	PIN	Title
CDR 55-01	711259	Wheeled Vehicle Accident Avoidance (also online—see web-based courses)
55-15	None	M1083 5-ton Medium Tactical Vehicle
55-16	None	M977 HEMTT
55-17	None	M1070/M1000 HETS
55-18	None	M998 HMMWV
55-19	None	M35A3C 2.5 Light Truck
55-20	None	M915 14-ton Tractor and Semitrailer
55-21	None	M939 5-ton Tactical Cargo Truck
55-22	None	M813 5-ton Tactical Cargo Truck
55-23	None	M1074 PLS

The TVTs and CDs can also be ordered online from the Defense Automated Visual Information System/Defense Instructional Technology Information System (DAVIS/DITIS):

<http://dodimagery.afis.osd.mil/>

Once there, click on Central DoD Production Databases@DAVIS/DITIS. Then enter the TVT name or CD number you want to order.

You can also order by using email, fax, or regular mail. Include your name, full military mailing address, the title and PIN of the item, format (VHS, for example) and the number you need.

APO addresses must include a unit/box number, CMR box number or PSC box number.

**Email:** [vibuddy@hq.afis.osd.mil](mailto:vibuddy@hq.afis.osd.mil)

**Fax:** DSN 795-6106 or (570) 895-6106

**Mail:** Joint Visual Information Services  
Distribution Activity  
Warehouse 3/Bay 3  
11 Hap Arnold Blvd  
Tobyhanna, PA 18466-5102

If you have questions about driver training, send a letter to:

Commandant, USATSCH  
ATTN: ATSP-TDI-ADSO  
705 Read St, Rm 230  
Ft Eustis, VA 23604-5389

*Connie*



SO CHECK OUT THE ADSO WEBSITE TODAY.

YOU'LL HAVE BETTER DRIVERS TOMORROW!



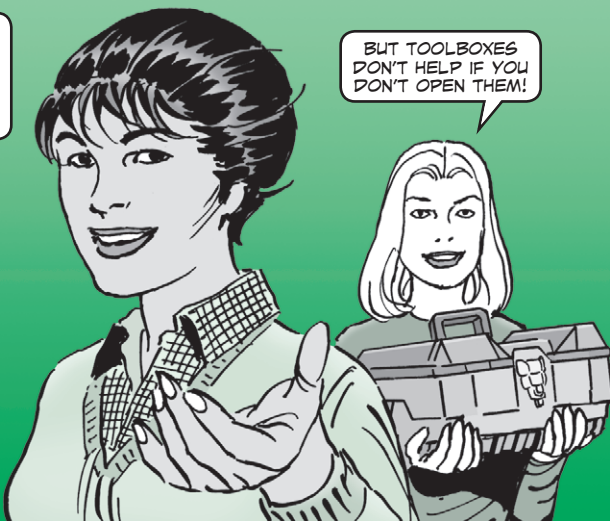


Training...

A NEW SOURCE OF DRIVER'S TRAINING MATERIALS IS AVAILABLE!

BUT TOOLBOXES DON'T HELP IF YOU DON'T OPEN THEM!

# DRIVING TRAINERS GET TOOLBOX



Materials for training Army drivers have been available on the Army Transportation School's website for a long time.

Now, the Army Combat Readiness Center (USACRC) website offers the *Driver's Training Toolbox*, giving commanders and trainers additional training resources.

NAVIGATING THE TOOLBOX is **EASY** BECAUSE THE MENU AND WEB PAGE LAYOUT ARE WELL-DESIGNED.

THE WEBSITE FEATURES SEPARATE MENU LISTINGS FOR PUBLICATIONS, INCLUDING REGULATIONS, TRAINING CIRCULARS AND TRAINING SUPPORT PACKAGES.



HOME
REGULATIONS
TRAINING CIRCULARS
TRAINING SUPPORT PACKAGES
SAMPLE SOP
GRAPHIC TRAINING AIDS
NHSTA EMERGENCY VEHICLE OPERATOR TRAINING MANUAL
GSA DRIVING SAFETY VIDEOS
AUDIOVISUAL PRODUCTS
HMMWV EGRESS ASSISTANCE TRAINER (HEAT) INFO
HMMWV OFF-ROAD OBSTACLES
PRESENTATIONS
LINKS
ACCIDENT AVOIDANCE COURSE

FOR UNITS NEEDING TO ESTABLISH AN SOP, A SAMPLE IS AVAILABLE.



Support materials are listed in six categories...

- Graphic training aids
- NHSTA Emergency Vehicle Operator Training Manual
- GSA driving safety videos
- Audio-visual products
- HMMWV Egress Assistance Trainer (HEAT) information
- HMMWV off-road obstacle instructions

Presentations

There are PRESENTATIONS on 15 topics including...

- 1ST ARMY DRIVING CLASS
- NIGHT VISION GOGGLE CLASS 1, 2, 3
- ARMY MOTOR VEHICLE SAFETY CLASS
- WINTER DRIVING 1, 2, 3-4
- DRIVER IMPROVEMENT TRAINING
- TC 21-305, TRAINING FOR WHEELED VEHICLE ACCIDENT AVOIDANCE PRESENTATIONS
- GROUND GUIDE PROCEDURES 1, 2
- FLIGHT LINE DRIVER TRAINING AND CERTIFICATION
- DRIVER COMMUNICATION CLASS
- FORKLIFT TRAINING 1, 2
- USARMC RAILHEAD CERTIFICATION TRAINING
- WINTER VEHICLE PREPARATION CLASS
- HMMWV ROLL-OVER PREVENTION
- VEHICLE CREW COORDINATION CLASS
- GATOR TRAINING

- 1st Army Driving Class
- Night Vision Goggle Class
- Winter Driving
- Ground Guide Procedures

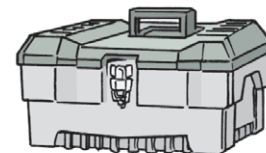
You can also find links to...

- Army Traffic Safety Program
- Ammo Courses (HAZMAT Requirements)
- TMs, PS Magazine and SafetyMessages

Finally, you can also access the accident avoidance course.

So, if you're a soldier who wants to sharpen your driving skills, or if you're a leader who needs background materials to develop SOPs or drivers' training materials, this site will make your efforts a lot easier:

<https://crc.army.mil/drivertrainingtoolbox>



SO WHAT ARE YOU WAITING FOR?



THESE ARE TOOLS YOU CAN USE!

**ARMY SAFE IS ARMY STRONG!**

## ARMY TIRE SUPPLY UPDATE

Army users, BRAC 2005 turned tire supply management over to DLA. And then DLA awarded a contract to Michelin for support. That won't change how you order tires and track requisitions, but it does change how you handle worn out aircraft tires at CONUS sites. For details and for the latest tire information, including fact sheets on the recent land and aircraft tire contracts with Michelin, eyeball the Defense Supply Center-Columbus (DSCC) website:

<http://www.dsccl.mil/programs/tiremgmt/index.html>

## CORROSION PREVENTION PUB REVISED

TB 43-0213, *Corrosion Prevention and Control for Tactical Vehicles*, has been revised with its Sep 2007 release. You can obtain a copy on the ETM Online web page of the Logistics Support Activity's website: <https://www.logsa.army.mil/index.cfm>

## 2007 Yellow Book Available

The Defense Ammunition Center's hazard classification "Yellow Book" is available online through LOGNet: <https://forums.bcks.army.mil/secure/communitybrowser.aspx?id=387668>  
You can also get the pub by emailing: [yellowbook@dac.army.mil](mailto:yellowbook@dac.army.mil)

## 3-Point Seatbelts Free for M1025R1 and M1097R1 RECAP HMMWVs

Does your unit have M1025R1 (serial numbers: 550,000-series) or M1097R1 (serial numbers: 500,000-, 600,000- and 700,000-series) RECAP HMMWVs that don't have 3-point seatbelts? Well, the HMMWV RECAP program will provide and install 3-point seatbelts at *no cost to units!* Get the full scoop by contacting Frederick Burdine: DSN 786-6314, (586) 574-6314, or

[frederick.burdine1@us.army.mil](mailto:frederick.burdine1@us.army.mil)

Or reach Marie Lee: DSN 786-6425, (586) 574-6425, or

[marie.lee@us.army.mil](mailto:marie.lee@us.army.mil)

## Hawker Battery TB

Tell your pubs clerk that TB 9-6140-252-13, *Field and Sustainment Maintenance and Recovery Procedures for Automotive HAWKER ARMASAFE Plus Battery*, NSN 6140-01-485-1472, is available now. Eyeball it on LOGSA's ETM website:

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

## Hawker Battery Customer Support Line

A 24/7 military customer support line is now available to answer questions on the Hawker A+ battery, NSN 6140-01-485-1472. Call toll-free: 877-485-1472. But you can't place orders here! A Hawker battery website is in the works, too. We'll give you that link when it becomes available.

## M113A2 FOV Pin Replacement

The straight, headed pin listed as Item 16 in Fig 39, Item 11 in Fig 188 and Item 13 in Fig 313 of TM 9-2350-261-24P is no longer available. To get a replacement pin, use NSN 5315-01-537-1410. Make a note until the TM is updated.

## BRADLEY AIR CLEANER DOOR

Get a replacement door for your M2A2/M3A2 Bradley's air cleaner with NSN 5342-01-439-5897. The NSN was left out of Fig 130 in TM 9-2350-284-24P-1 (Feb 97).

## ADD-ON ARMOR SMARTBOOK FOR TACTICAL VEHICLES AVAILABLE

PM Tactical Vehicles has published an Add-on Armor (AoA) Smartbook. You can eyeball it on AKO using this link: <https://www.us.army.mil> After logging in, search for Armor Smartbook. Then select PM TV Armor Smartbook 20070412.

## M1A1 TANK NBC EXHAUST PIPE

The exhaust pipe that runs between the NBC system's particle separator and pre-cooler is rusting in some M1A1 tanks. However, the only pub that references the exhaust pipe is Fig 372 of TM 9-2350-264-24P-1, where it's "ghosted" in. The pipe is now available with NSN 2990-01-521-7974. Make a note until it's added to the parts TM.

## FMTV Door Armor NSN Corrections

If you've ordered transparent armor for the doors on your FMTV's low signature armor cab (LSAC), then you probably know that TB 9-2320-320-13&P gives the wrong information. NSN 2510-01-527-4963, shown as Item 8 in WP 0223 00-3, brings the right door part, not the left as the TB lists. Use NSN 2510-01-527-4939, shown as Item 7, to get the left door part.

## FMTV Shelter Ladder Kit

NSN 4010-01-470-2864 gets a ladder kit for FMTVs carrying the S-280 shelter. Not only will the ladder reach the ground with the kit, but there's more space to maneuver at the shelter door. Eyeball Fig 474 of TM 9-2320-366-24P-2 or Fig 299 of TM 9-2320-391-14&P to see the kit and its components.

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

Would You Stake Your Life <sup>right now</sup> on  
the Condition of Your Equipment?

**Being stranded  
in the middle  
of nowhere is  
one thing...**

IS THE  
RADIO  
WORKING?

**YEP!**  
GOOD THING WE  
INSPECTED OUR LIFE  
SUPPORT EQUIPMENT  
BEFORE WE TOOK OFF.

AT LEAST WE CAN  
RADIO FOR HELP.

**...SURVIVING  
is another  
thing!**

**Shape up your  
ALSE equipment  
before you ship out**