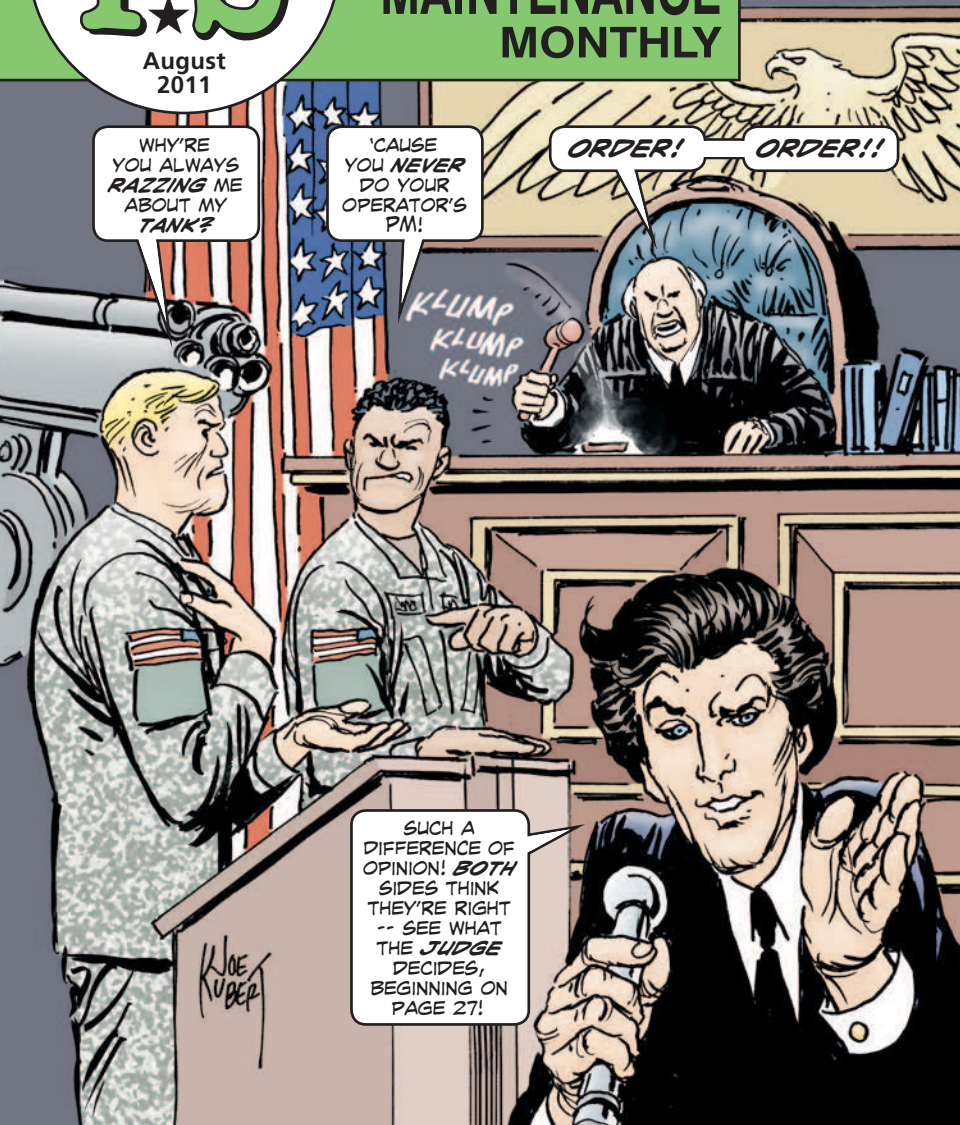
Issue 705

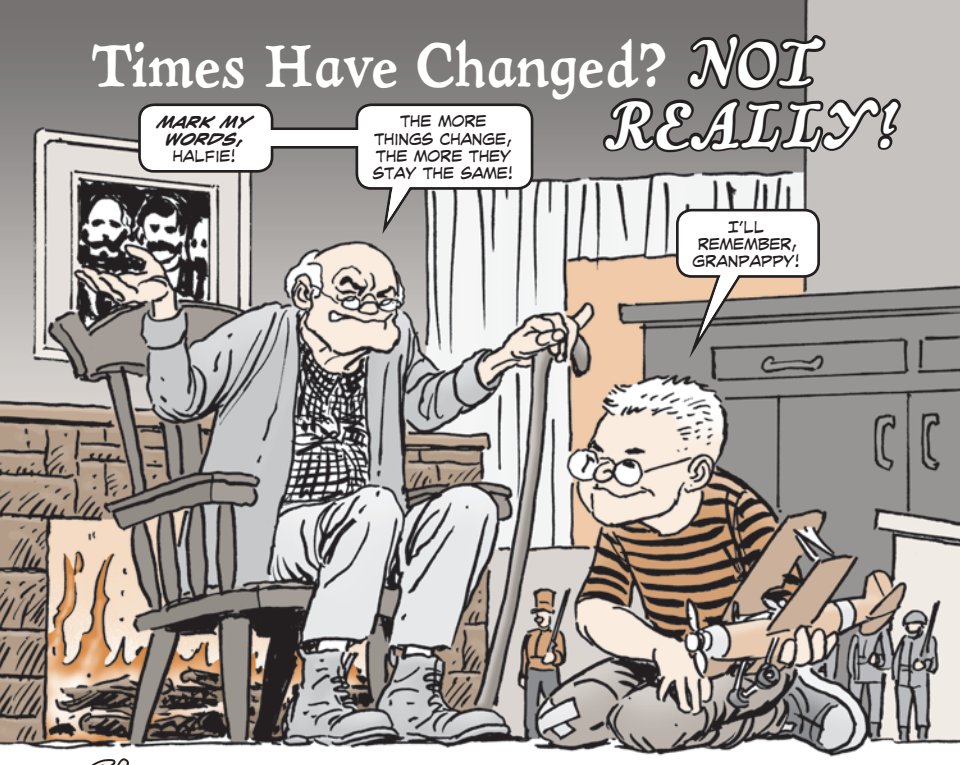
PS

August 2011

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-705





My ol' granpappy was fond of saying, *"The more things change, the more they stay the same!"*

And that's true. Just take a look at the evolution of Army equipment. During the Revolutionary War, our weapons were flintlocks and cannon. If you wanted to get somewhere, it was on horseback or boot leather.

During the Civil War, we moved up to rifles and revolvers. The first crude hand grenade was introduced, as was the Gatling gun. Old Nelly was still the main means of transportation, but the logistics train became more dependent on the steam locomotive and river boats to move food, ammunition and materiel.

The first and second World Wars brought machine guns, long-range artillery, mortars, aircraft, trucks and tanks. Today, we have much of the same types of equipment, but with tremendous modifications and improvements.

So, while it's obvious that things have changed, how have they stayed the same?

Preventive maintenance is the constant. No matter how much a piece of equipment improves, it still needs PM to stay in the action. Whether it's a Minuteman cleaning and oiling his musket or a Soldier who's headspacing and timing his M2 machine gun today, PM is the thread that weaves history together.

After all, without PM would you stake your life ***right now*** on the condition of your equipment?

Half-Mast

PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-705, 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 poducts, services or companies by the U.S. Army.

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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:
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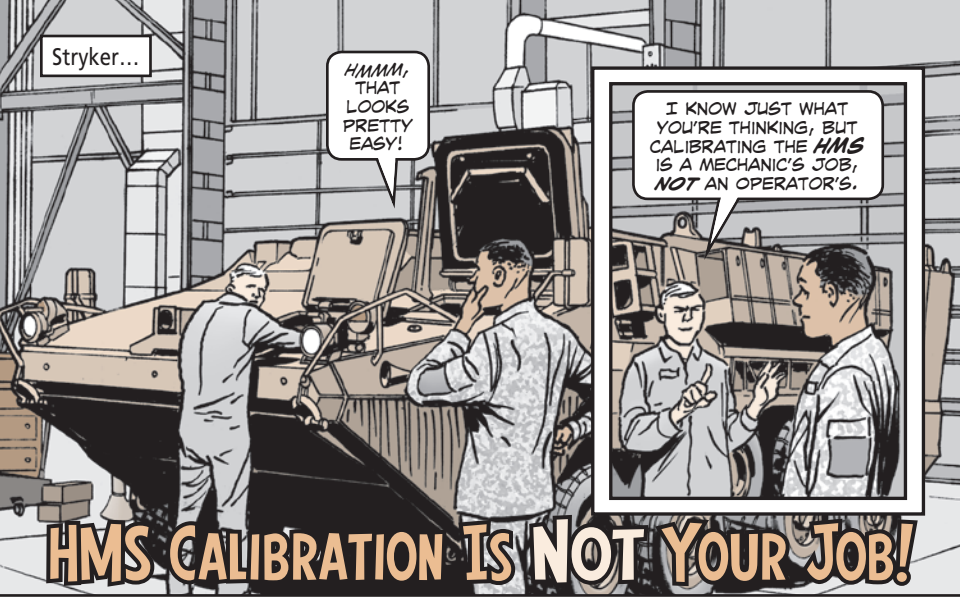
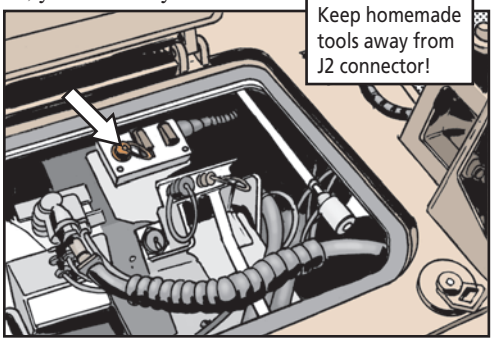


Crewmen, trying to do your mechanic's job will sometimes get you into trouble and your vehicle damaged. You don't have to look any farther than the Stryker's height management system (HMS) to learn that valuable lesson.

When the HMS isn't working properly, some of you have watched while a mechanic calibrated the system through the J2 connector on the air transport box assembly. *That doesn't look so hard,* you think to yourself.

Then, the next time your vehicle won't level using the HMS controls, you grab a paperclip or something similar and try to calibrate the HMS yourself. Big mistake!



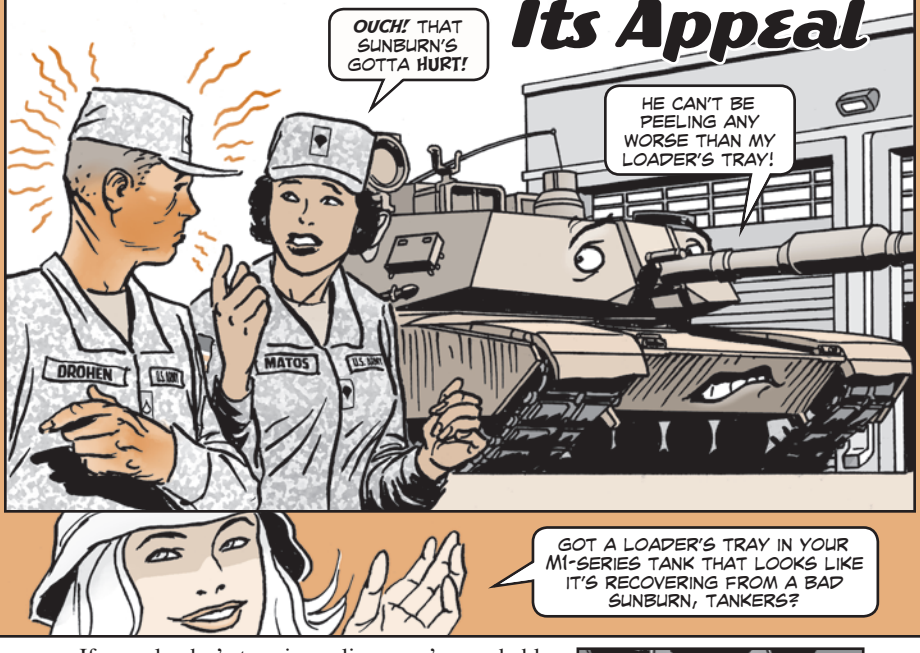
Mechanics have a special tool and the know-how that's needed to calibrate the HMS. And if there's something else wrong, they can troubleshoot the system to fix the problem.

Using your own homemade tool will just damage the system. And even worse, some crewmen will forget to remove the paperclip afterward. That leaves the J2 connector open and the system stuck in the calibration mode!

Bottom line: If your Stryker is sagging and you can't level it using the HMS controls, don't try to fix it yourself. Call your mechanic!

M1-Series Tanks...

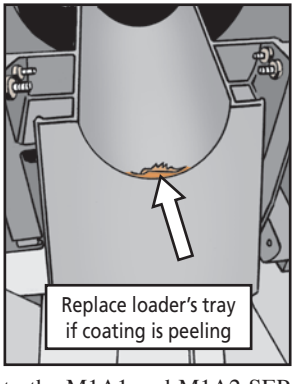
Loader's Tray Losing Its Appeal



If your loader's tray is peeling, you've probably got a "3rd generation" tray, NSN 1015-01-537-0697 (PN 13010524). Those trays had a Teflon® coating added for extra protection, but they haven't lived up to expectations.

So if your tray is peeling, stop using it now! The peeled coating can get lodged in the chamber or breech and cause problems with firing the main gun.

Get the tray replaced with a new "4th generation" tray, NSN 1015-01-590-9661 (PN 13010524-1). The Teflon® coating on these trays has been replaced with a dry film lube phosphate coating that won't peel.

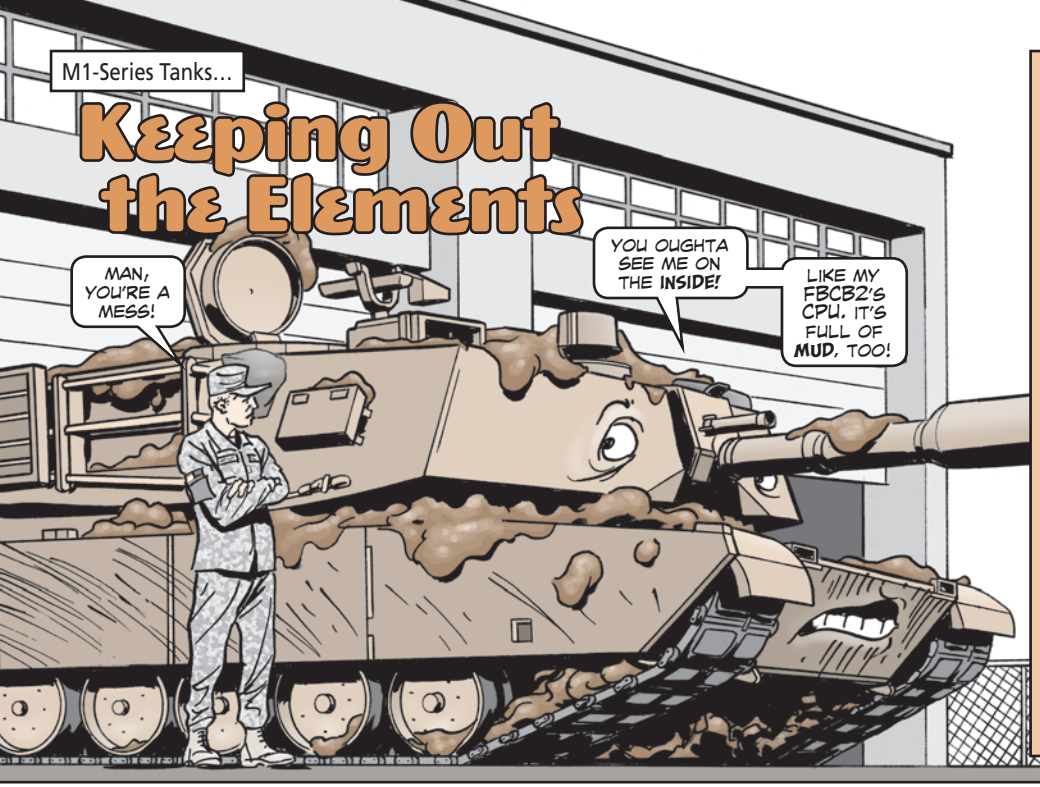


The new tray will appear in an upcoming revision to the M1A1 and M1A2 SEP parts manuals. Until then, grab your stubby pencils and add the new NSN as Item 73 in Fig 101 of TM 9-2350-264-24P-2 and Item 72 in Fig 64 of TM 9-2350-388-24P-2.

Questions? Contact TACOM-Rock Island's Christopher Wahlberg, DSN 793-0329, (309) 782-0329, or email: **christopher.a.wahlberg.civ@mail.mil**

M1-Series Tanks...

Keeping Out the Elements



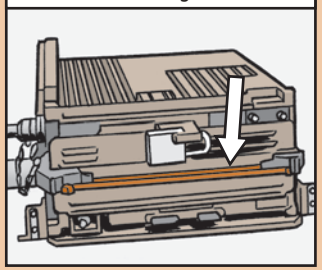
Dear Editor,

We've noticed a big problem with mud, dirt and water getting inside the FBCB2's CPU on M1-series tanks. The biggest problem is location. The CPU is on the turret floor where dirt and water also collect.

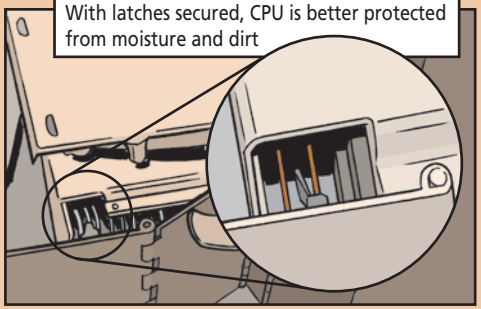
Even worse, the two latches on the CPU case are constantly being opened whenever they're accidentally snagged by feet or gear. That lets in mud and water and it doesn't take long for the CPU to short out.

We've fixed this problem by running a wire tie through the two latches. The tie keeps the latches from opening, but still allows easy access if you need to get inside the CPU case.

Run wire ties through CPU latches



With latches secured, CPU is better protected from moisture and dirt



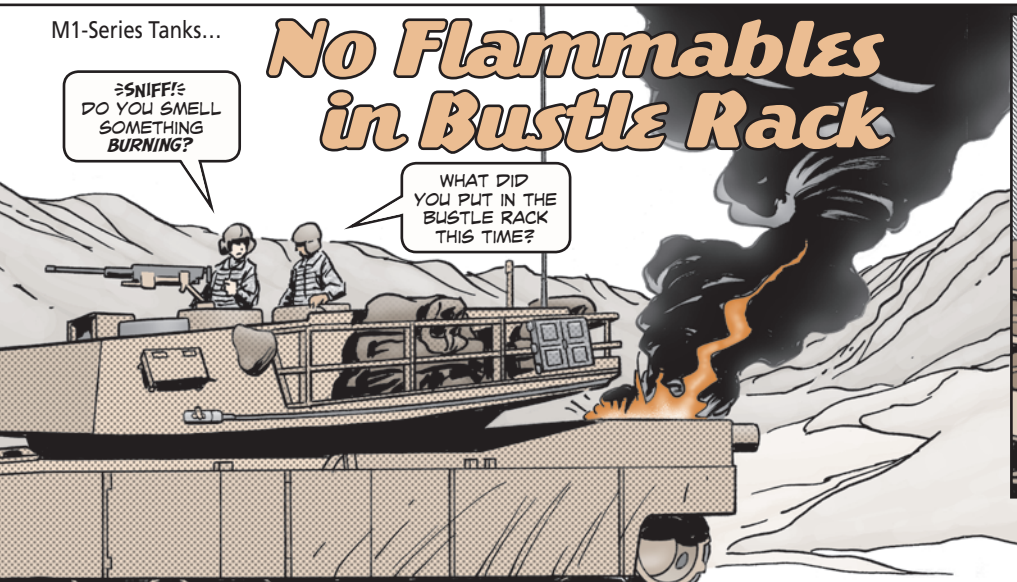
It's hard to find a single wire tie that's long enough, so you may need to piece two or three together to do the job.

Dennis Kreutzer
TMSA Commo Shop
Ft Knox, KY

Editor's note: *An excellent idea, Dennis! NSN 5975-00-133-8696 brings 100 26-inch long ties. They should be long enough to secure the latches.*

M1-Series Tanks...

No Flammables in Bustle Rack



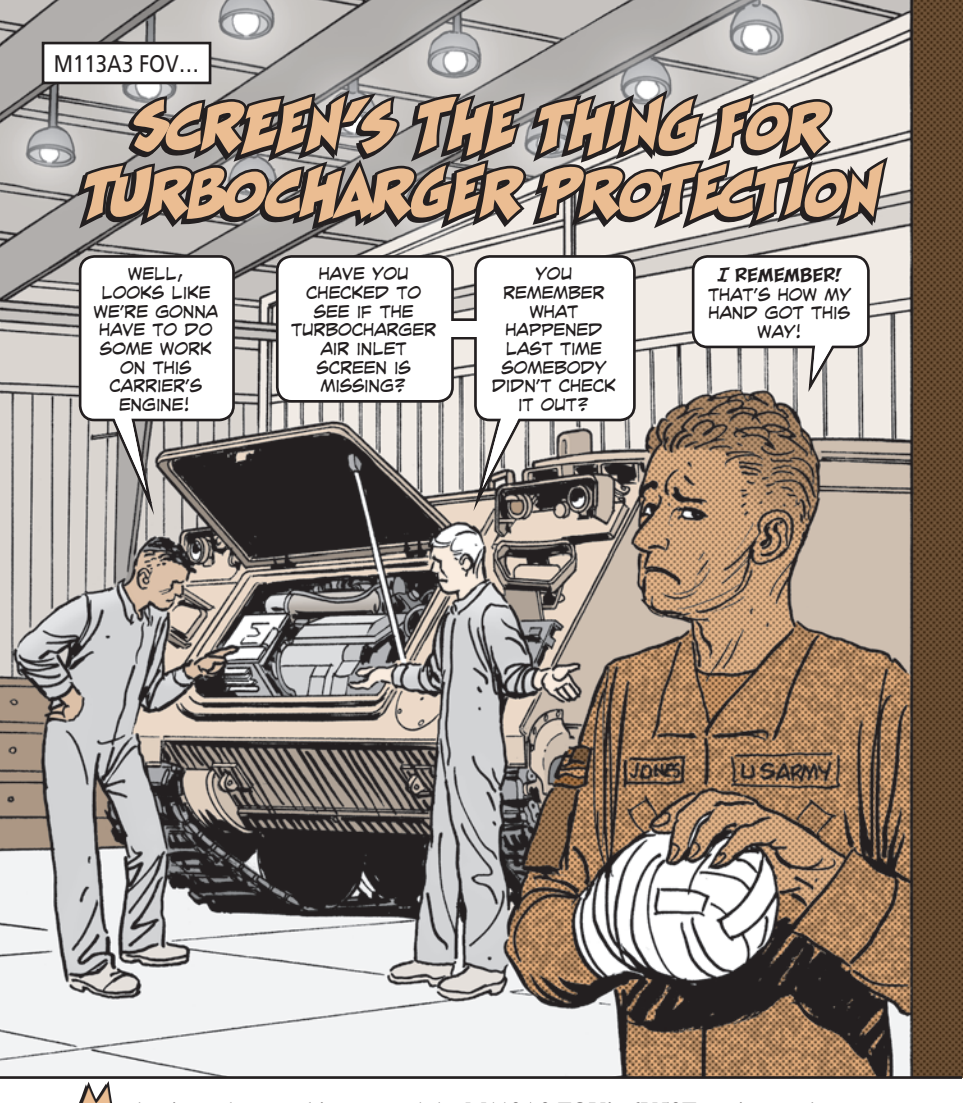
TANKERS, THE BUSTLE RACK ON YOUR M1-SERIES TANK IS A GREAT PLACE TO STORE ALL KINDS OF ITEMS.

BUT ONE THING YOU DEFINITELY NEED TO **KEEP OUT** OF IT IS ANY CONTAINER HOLDING **FLAMMABLE LIQUIDS.**

ONE TANK CREW RECENTLY USED THE BUSTLE RACK TO STORE FLAMMABLE LIQUID AND LEARNED A HARD LESSON.

A LEAK IN THE CONTAINER LET LIQUID DRIP THROUGH THE ENGINE COMPARTMENT ACCESS GRILLE.

THAT RESULTED IN A FIRE.

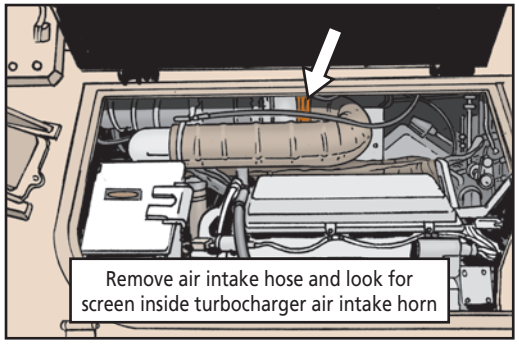


Mechanics, when working around the M113A3 FOV's 6V53T engine, make **very** sure the turbocharger guard screen and seal are mounted on the air intake horn.

Without the screen, just about anything can be sucked into the turbocharger's impeller. The turbocharger is damaged by any debris that gets sucked inside. Even more importantly, you'll be in a world of hurt if your fingers and hands get too close to the intake.

Do not run the engine unless the screen is in place and properly bonded with its seal to the turbocharger air intake horn.

When the engine is mated to the CTX-200-4A transmission and mounted in the carrier, you'll also need to make sure the screen is in place. With the engine stopped, remove the air intake hose from the turbocharger air intake horn. Eyeball the turbocharger at the intake horn for the screen and seal.


Remove air intake hose and look for screen inside turbocharger air intake horn

No screen? Check inside the air intake hose. The screen and seal may have gotten stuck inside the hose when it was removed. If you find them there, reinstall them.

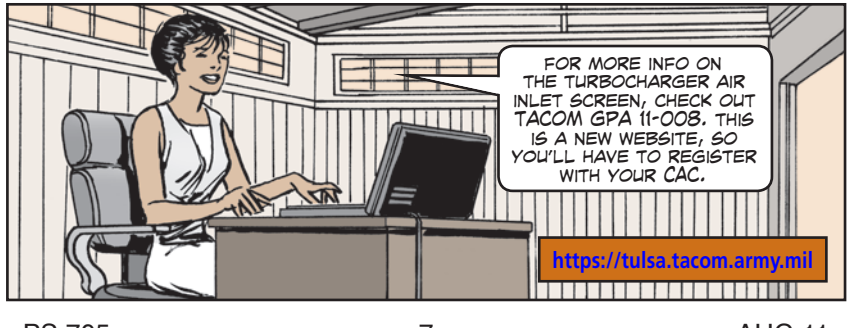
If the screen is missing, order a new one with NSN 2815-01-281-4930. That NSN also brings the seal. You'll find them listed as Item 24 in Fig 39 of TM 9-2815-205-34P (Oct 05).

Until the new screen and seal arrive, you can use the turbo protection shield, NSN 4910-01-127-7959, while working around an open turbocharger air intake horn. This shield is part of the direct support special tools kit and is listed as Item 25 in Fig 68 of TM 9-2815-205-34P. Remember, this shield is a special tool, not a repair part. It should be used only as a **temporary** fix.


Use turbo protection shield, NSN 4910-01-127-7959, as a temporary fix only

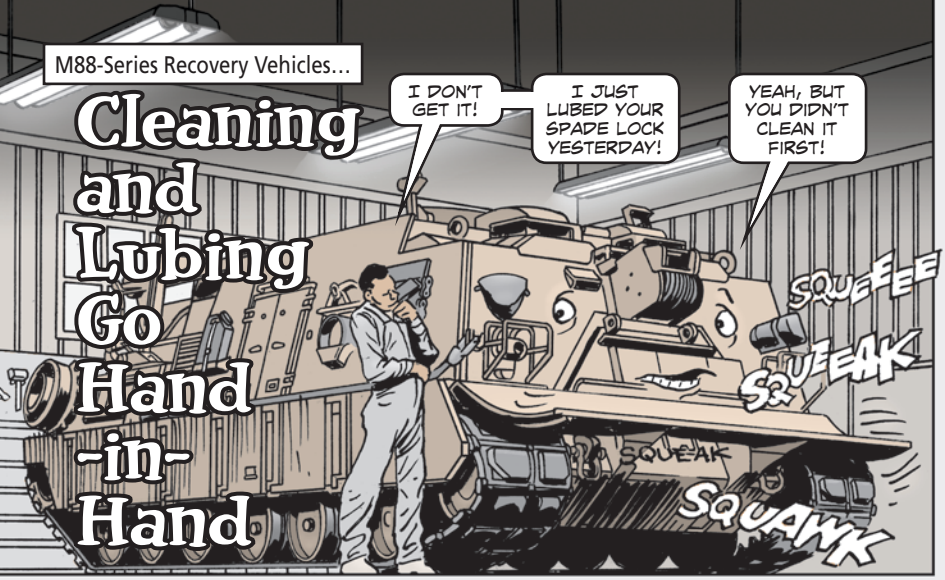
When replacing an engine, look for the guard screen and seal as you remove the replacement engine from its shipping container. The screen and seal should either be installed on the turbocharger air intake horn or tied in some fashion to the engine.

If the replacement engine did not come with the screen or seal, submit a Quality Deficiency Report (QDR), making sure the rebuild facility is identified. You'll find the rebuild facility identified on the engine's data plate.



M88-Series Recovery Vehicles...

Cleaning and Lubing Go Hand-in-Hand

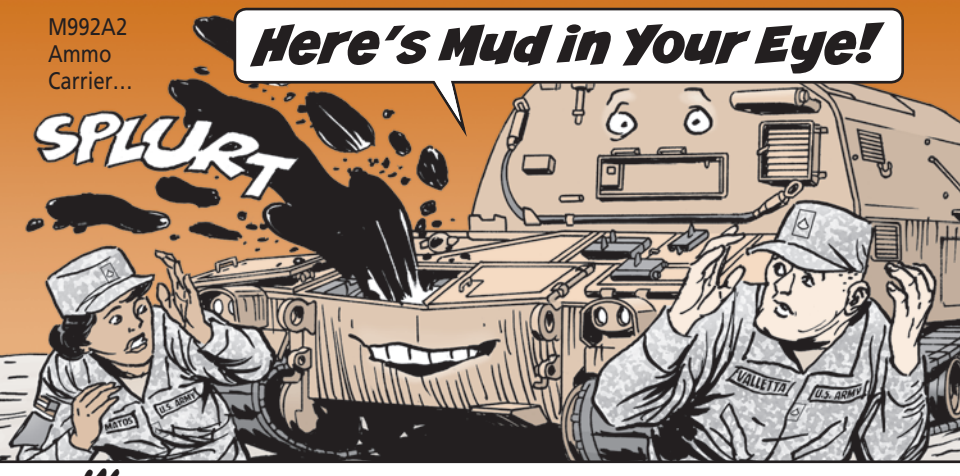


Mechanics, the spade lock on M88-series recovery vehicles needs more than lube to keep it working right. You have to give it a good cleaning, too.

The spade lockpin gets coated with dirt, mud and sand. As the lockpin goes up and down, that gunk gets pulled inside the mechanism. Pretty soon, you have a spade that won't lock or release.

Clean and lube the mechanism like this:

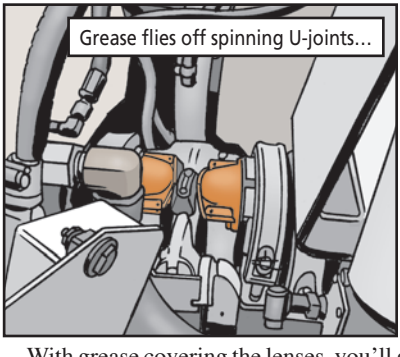
1. Clean off the worst of the dirt, mud, sand and old grease with a rag. Loosen any hard-to-remove gunk by scrubbing it with a nylon brush like NSN 7920-00-061-0037.
2. Wipe the spade lockpin again with a clean cloth. If dirt still shows on the cloth, keep cleaning.
3. Once the mechanism is clean, apply a very light coat of GAA to the exposed part of the spade lockpin. If you're in a desert environment, skip this step. In the desert, grease just attracts more sand.
4. Pump GAA into the grease fitting on the right side of the pin housing quarterly. Old, dirty grease will start coming out of the relief valve. Keep pumping until you see new grease, then wipe the old grease off the relief valve.
5. Operate the spade lock a few times. That ensures the lube is spread evenly throughout the entire mechanism.

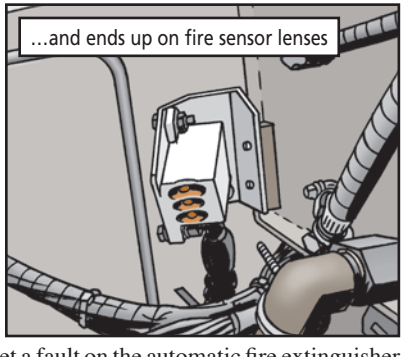


When you've finished lubing the final drive U-joints, your job's not over. At least not until you wipe away the excess grease.

So what's the big deal, you might ask. It's only a little grease, after all.

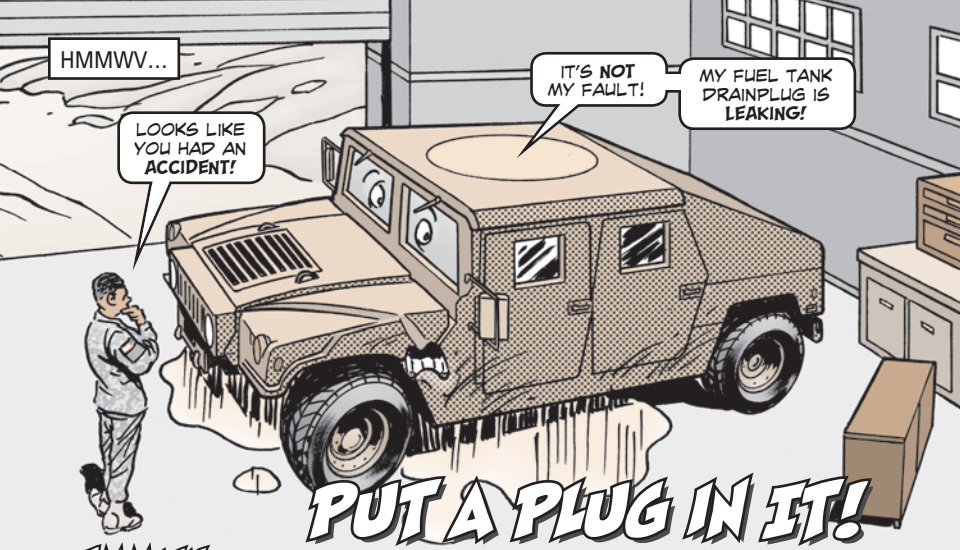
Well, that little glob of grease becomes a fast-moving projectile when the final drive starts spinning. And where does it end up? KER-SPLAT! Right on the lenses of the fire suppression system sensor, NSN 6350-01-430-7176.





With grease covering the lenses, you'll get a fault on the automatic fire extinguisher system (AFES) control panel. And unless you already know what happened, you're in for a very long troubleshooting session! The sensor faces the final drive U-joints, so you can't see the lenses unless you use a mirror or lean way up over the edge of the engine compartment.

So save yourself a whole bunch of trouble. It only takes an extra second or two to wipe the excess grease off the U-joint's grease fitting. Even if you miss it, you're still supposed to wipe the fire sensor lenses with a damp rag as part of your before-operations PMCS.



PUT A PLUG IN IT!

HMMWVs can get you just about anywhere you want to go, but they don't get the best gas mileage.

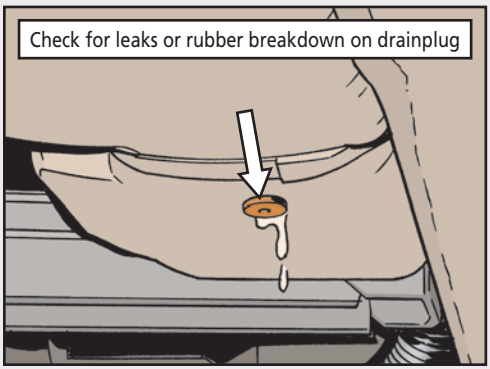
Unfortunately, that gas mileage will get a whole lot worse if you've got a leaky fuel tank drainplug. And that's in addition to the unwanted attention you'll get from your environmental folks!

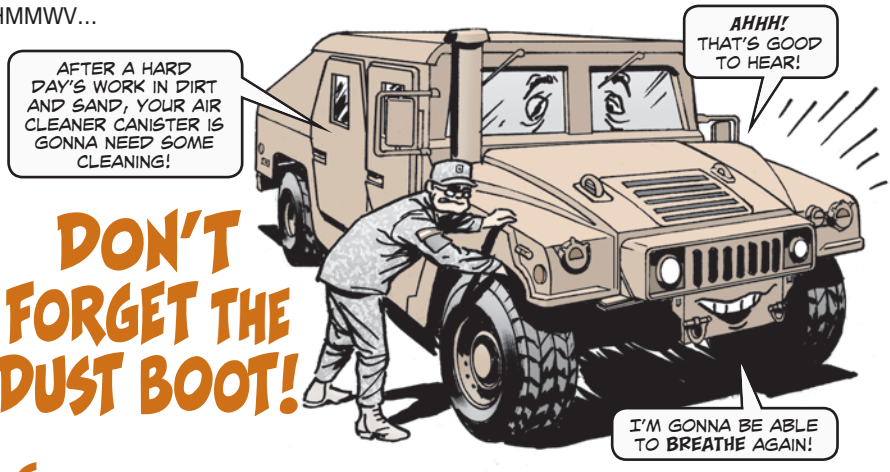
The drainplug consists of a metal screw surrounded by a rubber gasket. If the drainplug is over-tightened, the sharp edge of the hole may cut the rubber. Even if the drainplug's properly seated, the rubber will eventually deteriorate. Either way, you've got a fuel leak.

Drainplug is a metal screw surrounded by rubber

Check the plug before operations as part of your PMCS. A leak should be reported immediately. But even if there's no leak, you should search for signs of deterioration. If the rubber has hardened or is overly soft and smooshy to the touch, report it.

A new drainplug, NSN 5340-01-244-5765, costs about $3. That's a lot cheaper than paying for a fuel spill!





DON'T FORGET THE DUST BOOT!

So, you've just come back from the field. Did you take your HMMWV through any dirt, sand or water? Of course you did!

That means it's time to service the air cleaner dust boot. Dust boot, you ask? What's a dust boot?

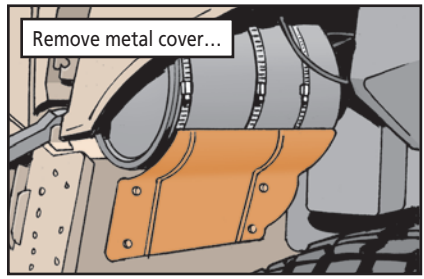
Seems a **lot** of drivers don't know what the dust boot is, let alone where it's located. They need to take a gander at Para 3-16 in TM 9-2320-280-10 (Jan 96, w/Ch 3, Jul 04) and TM 9-2320-387-10 (Oct 97, w/Ch 6, Jun 09).

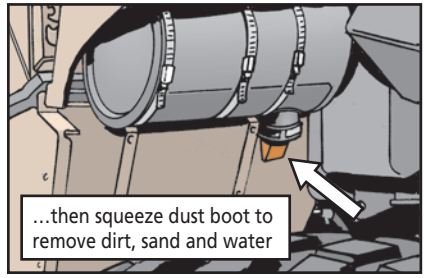
With a simple squeeze, the dust boot allows you to remove any dirt, sand or water that has collected at the bottom of the air cleaner canister. If too much of that stuff builds up, the filter element gets clogged and air flow to the engine is cut off.

So where do you find the dust boot? It's under the air cleaner in the wheel well behind a metal cover. The cover protects the air cleaner from road debris, but it also hides the dust boot.

Just remove the four screws holding the cover in place, then squeeze the dust boot to remove gunk from the bottom of the canister. Reinstall the plate and you're all done!

You'll find this procedure starting on Page 3-20 of TM 9-2320-280-20-2 (Jan 96, w/Ch 3, Jul 04) and Page 3-22 of TM 9-2320-387-24-1 (Dec 97, w/Ch 6, Jun 09).

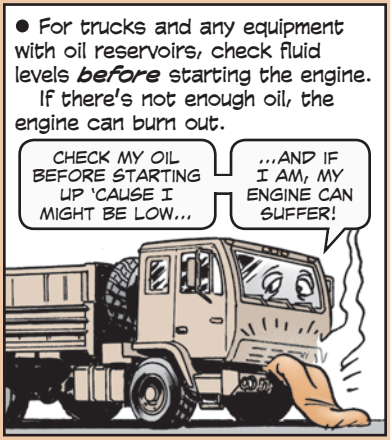


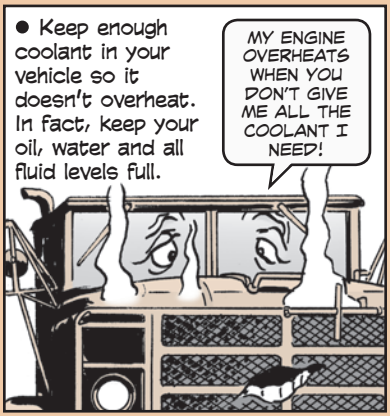


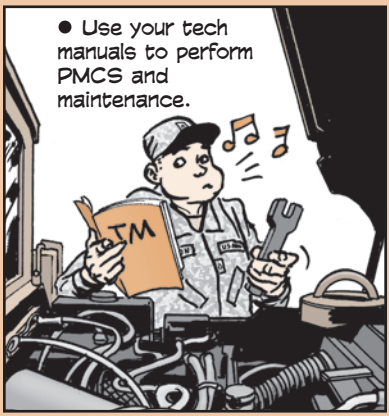
OPERATOR OBSERVATIONS

Dear Editor,

We have a few suggestions that can help operators maintain their vehicles:







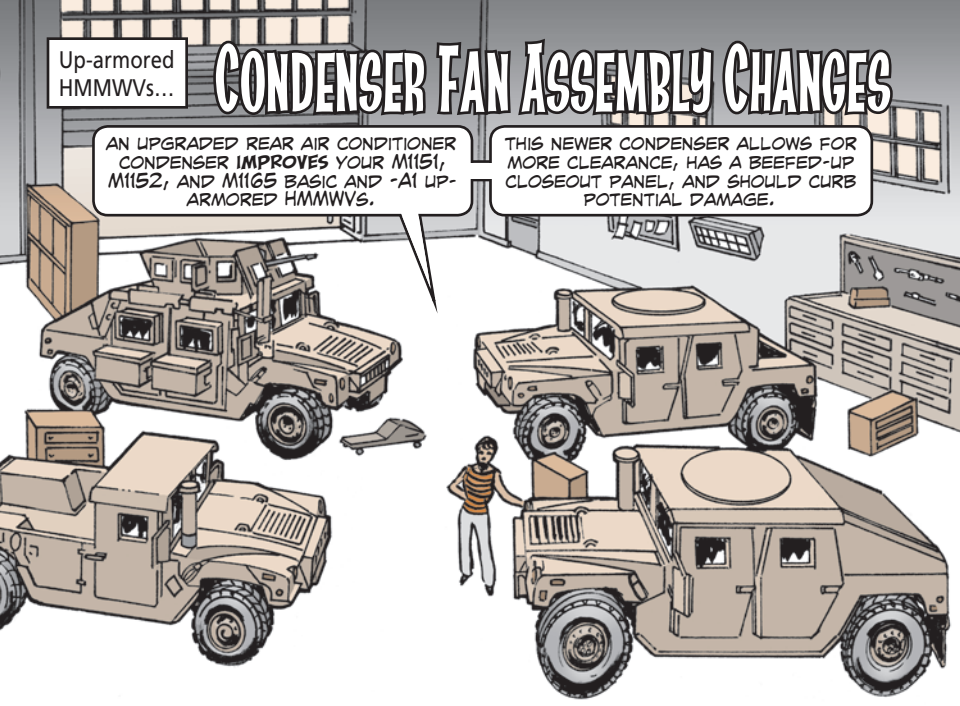
Please share these tips with other equipment operators.

SFC Jeffrey McKenzie,
SGT Chadick, and
SGT Lisa Aman
2nd Chem BN
Ft Hood, TX

Editor's note: *Soldiers, consider it done and thanks for teaming up to help drivers. Paying attention to little things can make a big difference. Make sure you check transmission oil from a warm engine, though!*

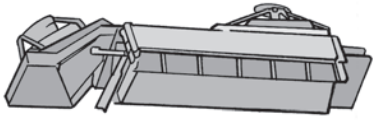
Up-armored HMMWVs...

Condenser Fan Assembly Changes

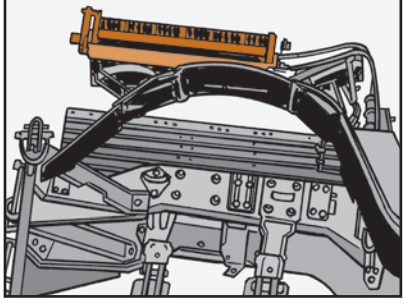


The original rear condensers, NSN 4130-01-537-4847 and NSN 4130-01-536-5561, are no longer available. But you can get the replacement condensers, closeout panel and related hardware in upgrade kits that TACOM LCMC assembled.

Replacement condensers come in kits



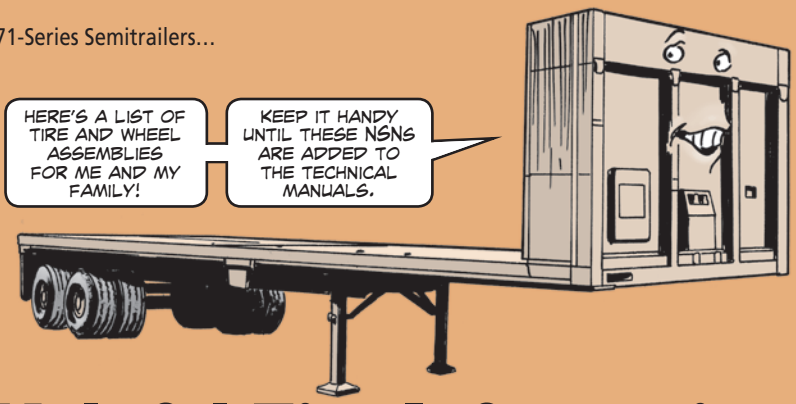
Improved rear condenser allows for more clearance and has stronger panel



Order the left-hand rear condenser kit using NSN 2540-01-558-3448, and the right-hand rear condenser kit using NSN 2540-01-558-3450.

Two fans that pull the air through are mounted underneath the condenser. Get the front condenser fan with NSN 4140-01-548-2496 and the rear condenser fan using NSN 4140-01-548-1171.

Make a note of these NSNs in the TM until it's updated.

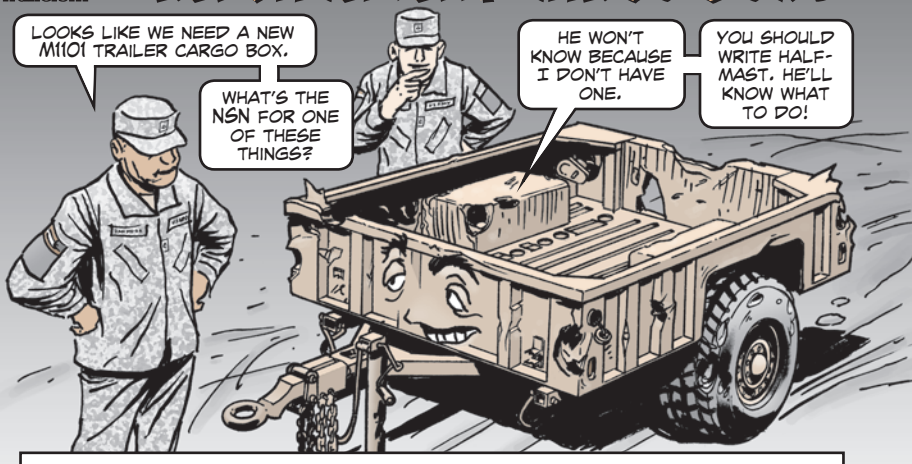


Helpful Tire Information

Vehicle System	Item	NSN
M871/A1/A2	Tire/Wheel assembly (one-piece/radial, stud piloted)	2530-01-506-4129
	Down parts:	
	Radial tire	2610-01-481-5378
	Wheel (one piece)	2530-01-329-7523
	Tire valve	2640-00-555-2824
M871A3	Tire/wheel assembly (one-piece/radial-hub piloted) for semitrailers with 70R x 22.5-inch tires	2530-01-508-2786
	Down parts:	
	Wheel	2530-01-478-7603
	Radial tire	2610-01-519-0940
	Tire, valve	2640-00-555-2823
	Cap, valve	2640-01-098-2029
M871R/A1R/A2R	Tire/wheel assembly (one-piece/radial-hub piloted) for semitrailers with 11R x 22.5-inch tires	2530-01-584-7914
	Down parts:	
	Radial tire	2610-01-569-2153
	Wheel	2530-01-478-7603
	Tire, valve	2640-00-555-2823
	Cap, valve	2640-01-098-2029

M1101/M1102 Trailers...

REPLACEMENT CARGO BOX?



Dear Half-Mast,

We need the NSNs for the cargo boxes on M1101 and M1102 light tactical trailers. How do we get them?

SFC H.E.P.

Dear Sergeant H.E.P.,

This is a popular question! TACOM LCMC tells us that there aren't any NSNs. Here's why:

You can get a new cargo box for $4,700 plus shipping and handling. A phone call to Kevin Mulrenin of Silver Eagle Manufacturing, (800) 547-6792, gets you help with this. His email is: **kevin.mulrenin@silvereaglemfg.com**

But listen. The cargo box is anchored to the frame using "huck" rivets. (It's not bolted down to the frame like the old M101-series trailers of the past.)

Now here's where it gets interesting. Got your calculator handy? If your unit doesn't have a huck rivet gun, getting one will set you back $3,500 on top of the cost of the cargo box. That's at least an $8,200 repair job! A new trailer costs $8,900 and the current MEL for the trailer is 65%.

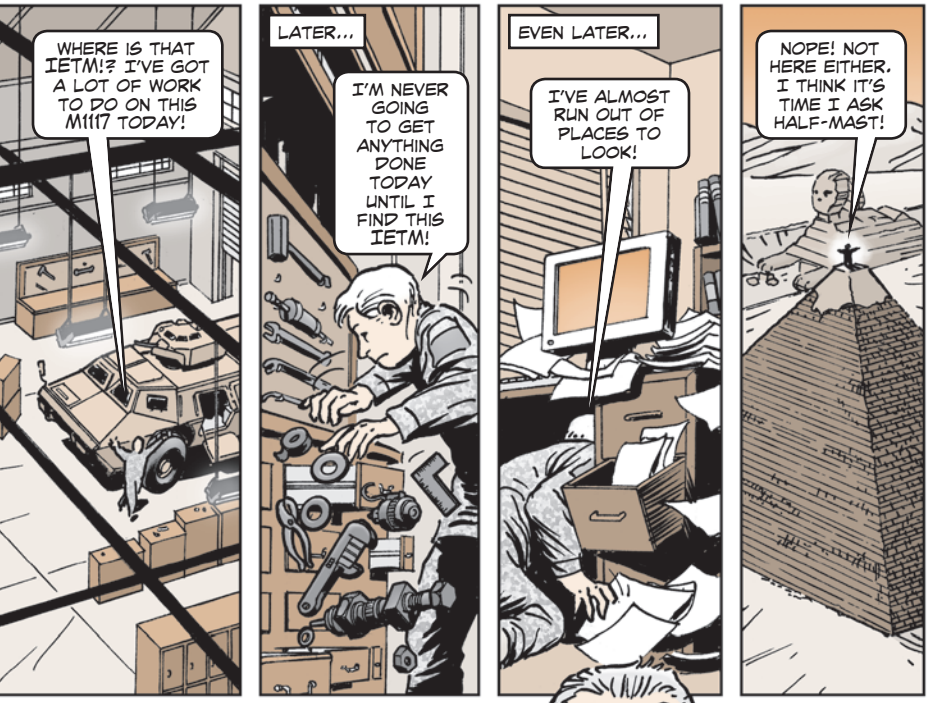
So you'll have to get a new trailer if you don't have a huck rivet gun. If you do have one, it'll take two Soldiers two days to do the repair job.

I hope the drivers in your unit aren't turning too quickly while hauling these trailers. That could roll over or jack-knife the trailer. Trailers with extensive damage should be coded out as Code H and sent to the bone yard for scrap.

Contact Mark Worden at TACOM LCMC if you need more help. He's at (248) 588-9335 and **mark.worden.civ@mail.mil**

Tell him Half-Mast sent you.

Half-Mast



WHERE ARE THOSE TMS?

Dear Half-Mast,

I've looked high and low but cannot find the IETM for the M1117 armored security vehicle (ASV). I've got a lot of maintenance to do, so can you lend a hand?

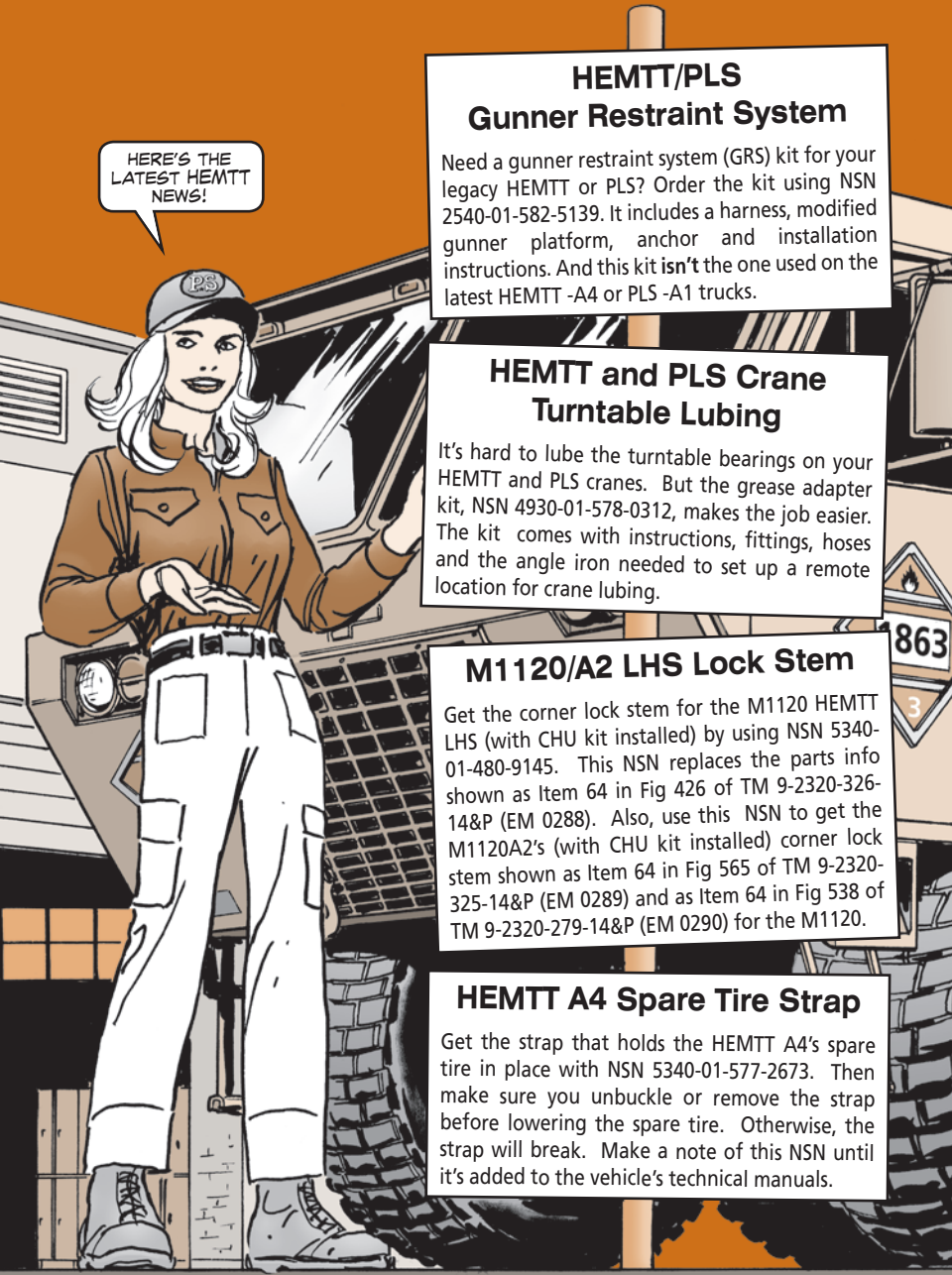
SFC R.C.

THE ASV IS NOT AVAILABLE ON AN IETM, BUT YOU CAN FIND AND DOWNLOAD EACH OF ITS TECHNICAL MANUALS ON THE LOGSA ETM WEBSITE: https://www.logsa.army.mil/index.cfm

OR YOU CAN ORDER THEM. HERE ARE THE TMS AVAILABLE...

Turret
TM 9-2320-309-10
TM 9-2320-309-23
TM 9-2320-309-24P

Hull
TM 9-2320-307-10
TM 9-2320-307-23-1
TM 9-2320-307-23-2
TM 9-2320-307-23-3
TM 9-2320-307-23-4
TM 9-2320-307-24P



HEMTT/PLS Gunner Restraint System

Need a gunner restraint system (GRS) kit for your legacy HEMTT or PLS? Order the kit using NSN 2540-01-582-5139. It includes a harness, modified gunner platform, anchor and installation instructions. And this kit **isn't** the one used on the latest HEMTT -A4 or PLS -A1 trucks.

HEMTT and PLS Crane Turntable Lubing

It's hard to lube the turntable bearings on your HEMTT and PLS cranes. But the grease adapter kit, NSN 4930-01-578-0312, makes the job easier. The kit comes with instructions, fittings, hoses and the angle iron needed to set up a remote location for crane lubing.

M1120/A2 LHS Lock Stem

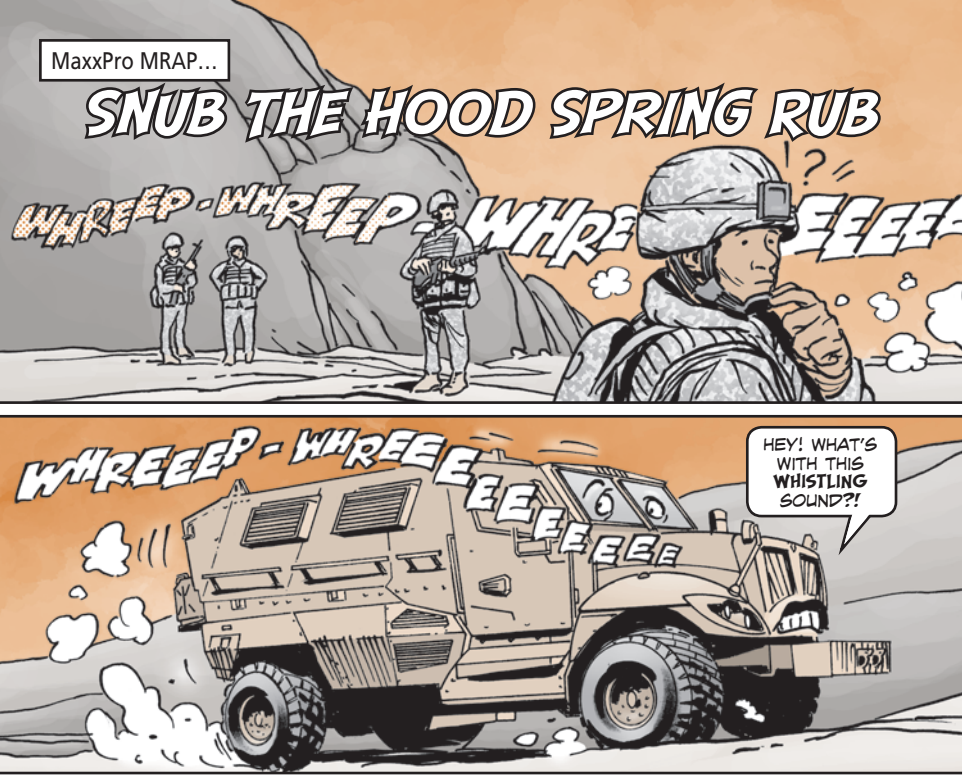
Get the corner lock stem for the M1120 HEMTT LHS (with CHU kit installed) by using NSN 5340-01-480-9145. This NSN replaces the parts info shown as Item 64 in Fig 426 of TM 9-2320-326-14&P (EM 0288). Also, use this NSN to get the M1120A2's (with CHU kit installed) corner lock stem shown as Item 64 in Fig 565 of TM 9-2320-325-14&P (EM 0289) and as Item 64 in Fig 538 of TM 9-2320-279-14&P (EM 0290) for the M1120.

HEMTT A4 Spare Tire Strap

Get the strap that holds the HEMTT A4's spare tire in place with NSN 5340-01-577-2673. Then make sure you unbuckle or remove the strap before lowering the spare tire. Otherwise, the strap will break. Make a note of this NSN until it's added to the vehicle's technical manuals.

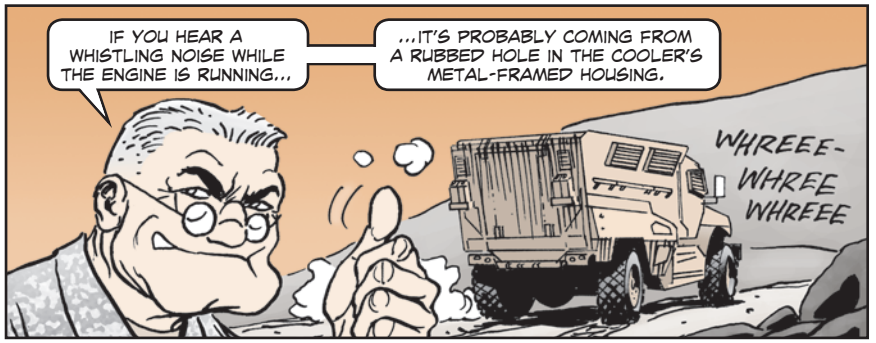
MaxxPro MRAP...

SNUB THE HOOD SPRING RUB

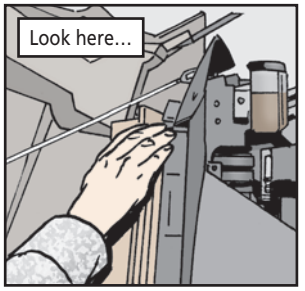


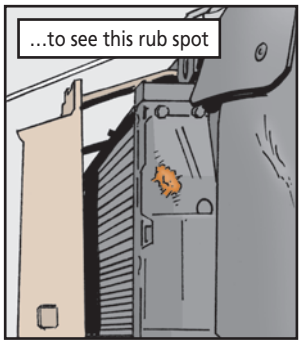
The MaxxPro's hood spring is known to rub against the engine's air intake cooler when the hood is being opened and closed.

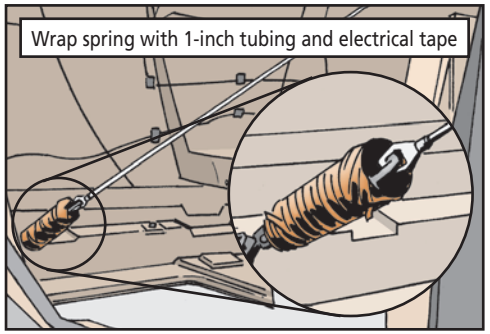
Enough rubbing creates a hole in the cooler. That causes an air leak and a loss of intake pressure. Then the engine doesn't get enough cool air to keep it running smoothly—especially in hot weather.



Want to stop the rub? Cut a piece of 1-in tubing, NSN 4720-01-422-0242, and wrap it around the hood spring. You can use duct or electrical tape to hold the tubing in place.







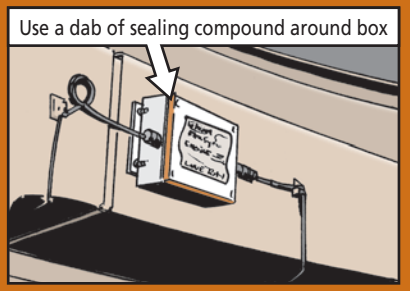
MaxxPro MRAP...

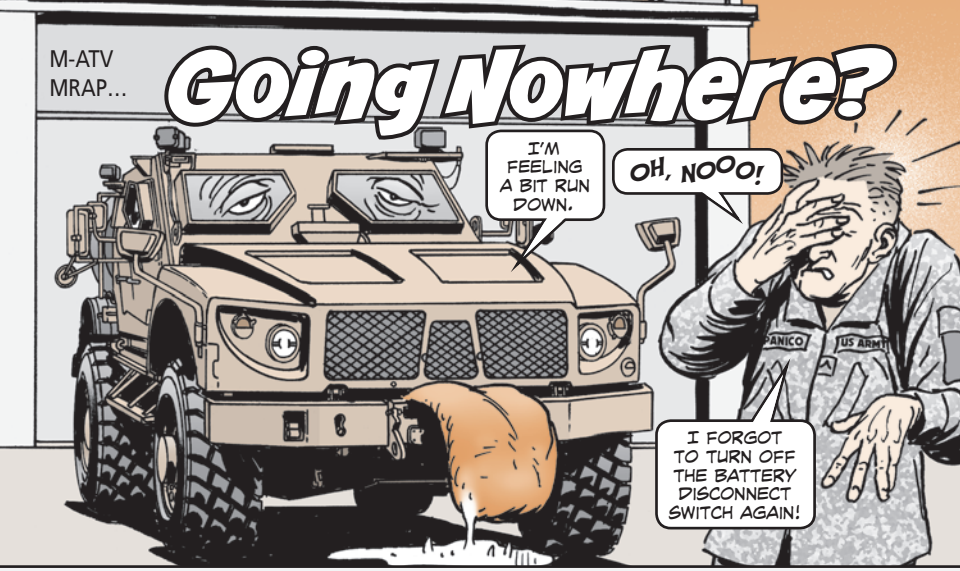
CIRCUIT BOARD SHORTS OUT!

Enough condensation will short out the linear detector circuit board for the MaxxPro's fire suppression system (FSS).

The circuit board is mounted in a box under the vehicle's hood. Water that forms under the hood's surface can get past the boxes. Once inside the box, water will short out the circuit board, making the FSS non-mission capable.

To keep water out of the box, use a dab of sealing compound, NSN 8030-01-014-5869, and smear it around the box's lid on the outside of the seal.





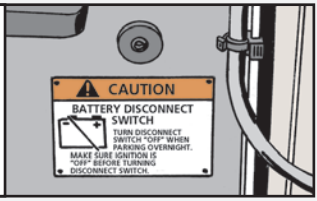
Drivers, make sure your MRAP M-ATV's battery disconnect switch is turned off after the day's run.

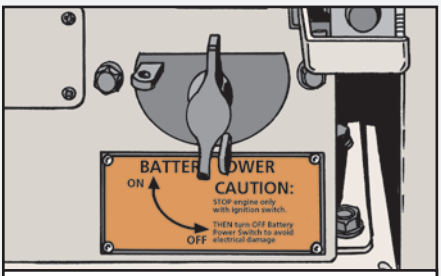
If the switch is left on, the batteries can lose their charge in just a week or two. No juice means your M-ATV needs a slave start—or you'll be going nowhere!

Whatever you do, though, don't use the switch to turn off your vehicle. That's what the engine ignition switch is for. If you do use the battery disconnect switch to shut down, you'll fry your MRAP's electrical circuits!

And make sure you let the vehicle idle at 800-1,000 rpms for 3 minutes with the transmission in neutral before shutdown. That allows the turbocharger to slow down and cool off. You'll find that info in WP 0021 of TM 9-2355-335-10 (Oct 09).

Use driver's side door caution label as reminder of shutdown sequence

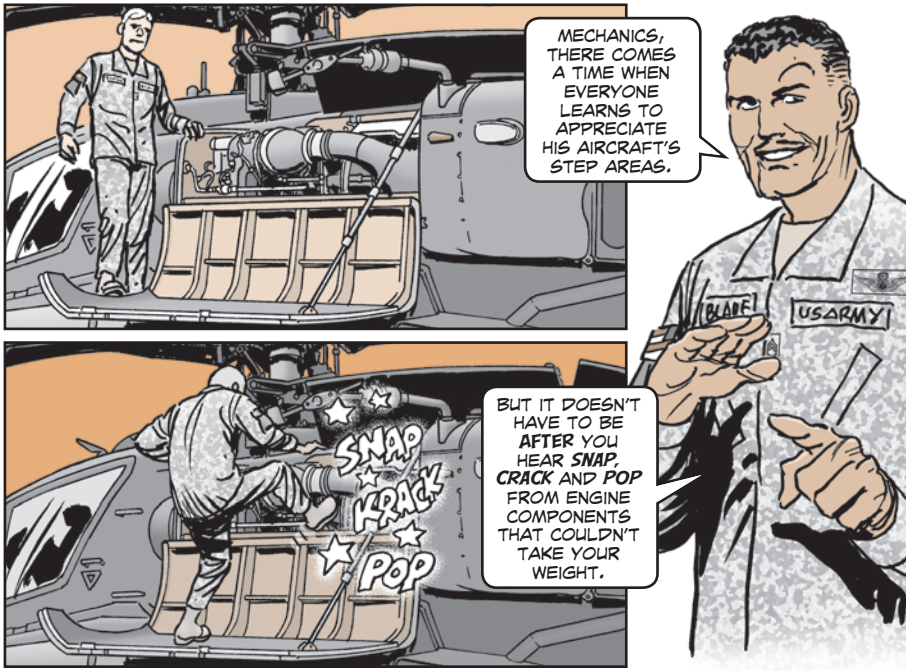




Don't turn battery disconnect switch to OFF until after turning off engine ignition switch

By the way, when the battery disconnect switch is turned off, battery power is retained for about 30 seconds. That provides enough time for the vehicle's electronics to shut down properly.

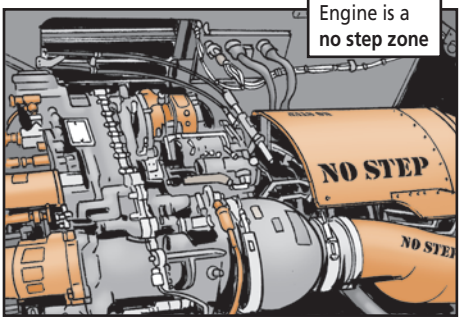
DON'T BE DEFEATED BY THE FEET



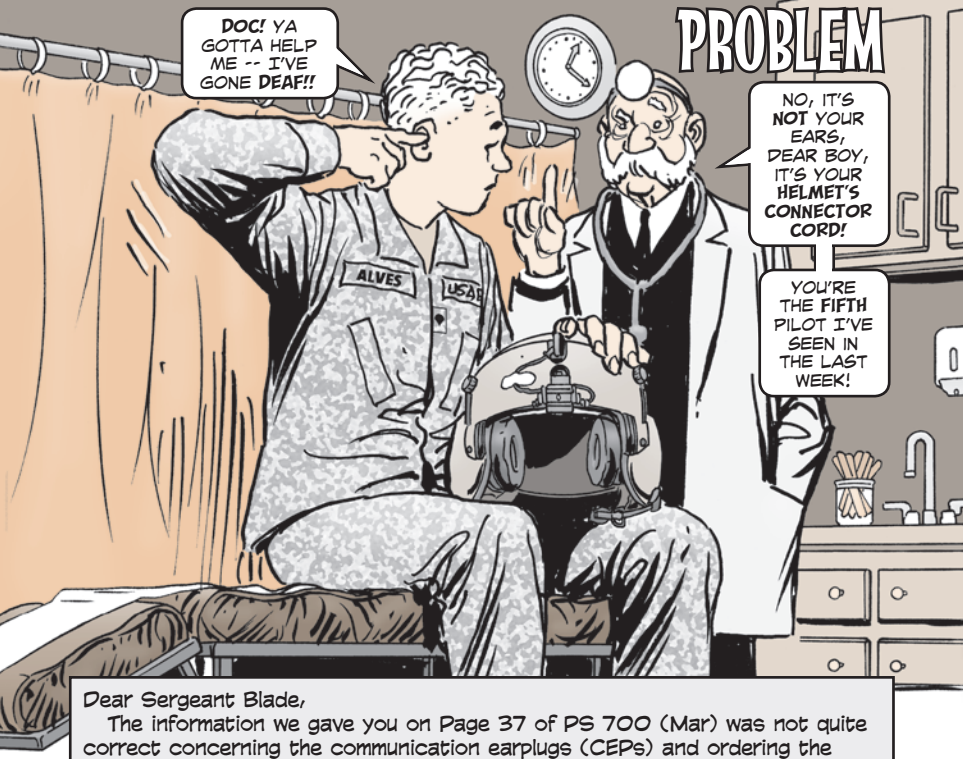
Always use a work stand, a work platform or aircraft step areas for your feet. That way, you avoid breaking the engine's temperature bulb, alternator connector, starter speed sensor wiring, bleed air tube and the hydromechanical unit (HMU). If you step on the HMU, you can break the shaft that goes into the accessory gearbox, including the spline. When your feet contact the engine, that puts the fuel line at risk, too.

You may not notice that damage has occurred, but the internal connections and wiring to the starter speed sensor will let you know. For example, the starter will not sense the engine speed and won't shut off after the engine reaches optimum speed. So the pilot has to shut off the starter manually.

The only thing your feet can cause when stepping on an engine is defeat. So watch your step.



REVISIT COMMUNICATION CORD PROBLEM



Dear Sergeant Blade,

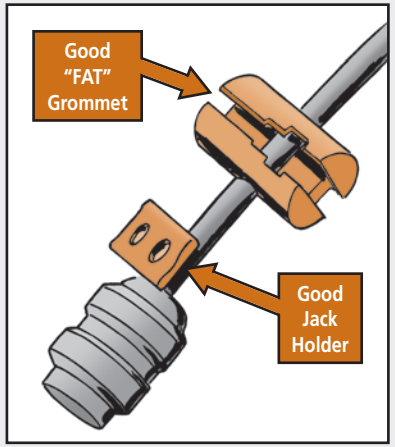
The information we gave you on Page 37 of PS 700 (Mar) was not quite correct concerning the communication earplugs (CEPs) and ordering the right integrated communication cords for the aircrew integrated helmet system (AIHS). The article didn't identify a new and separate problem that appeared with aftermarket communication cords.

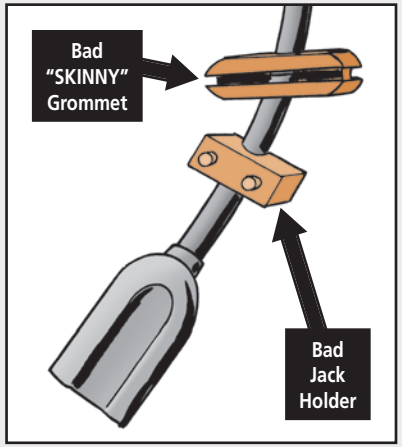
So the question is, *"what's the deal with the cords?"* The information we gave you in the article dates back to 2007 and applies to the initial lot of communications cords provided by Gentex that had the CEP wiring branch integrated into the helmet's communication cord. Unfortunately, this first lot of cords had a manufacturer defect and some of them found their way into the supply system. There was no effective way to recall these cords, so Gentex offered a voluntary one-for-one replacement for any defective cords.

That being the case, there is a chance some units might still run across one of the 2007 cords, but by now they should have been flushed from the supply system.

Since then, there have been no product quality deficiency reports (PQDR) submitted against Gentex (CAGE 97427) for this cord.

We forgot to tell you that there was a new problem with the communication cord that developed after the first lot. In 2008, DLA stopped purchasing the communication cords directly from Gentex and began to purchase cords directly from several aftermarket manufacturers whose CAGE codes are: 38LK9, 305Q5, and 7Z016. Units started submitting PQDRs against the aftermarket manufacturers in May of 2010. The problems with these aftermarket communications cords involve problems with loose and sloppy over-braiding, cold solder joints, and the failure to use parts called out on the drawing that can be seen in the picture below.





DLA was able to freeze internal stocks of these aftermarket communications cords so no more bad ones would hit the field. Future procurement will be from Gentex.

If your readers have any bad cords marked with cage code 38LK9, 305Q5, and 7Z016 in their ALSE shop, they should not send them back to Gentex. To get credit for any bad cords, they must submit a PQDR like it says in AR 702-7-1, *Reporting of Product Quality Deficiencies Within the U.S. Army*.

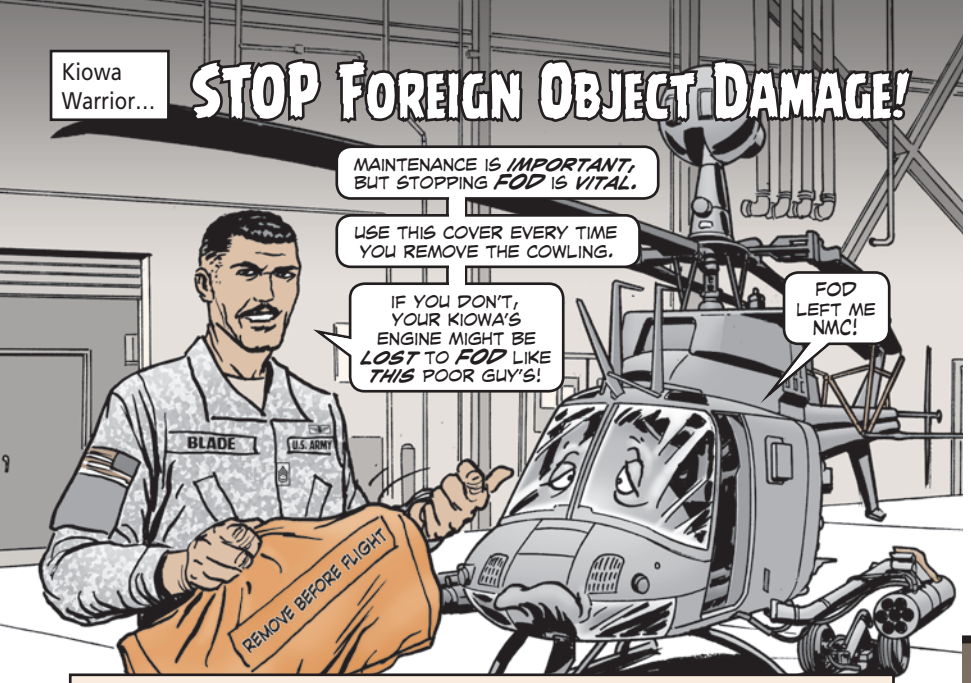
To order the correct electrical branched cord assembly for their helmets, they should use NSN 5995-01-519-9234 (P/N 1680-ALSE-410-1).

If a unit has problems with their helmet communication cord signal not reaching the CEP, they should follow the diagnostic procedures in the Air Warrior IETM, TM 1-1680-377-13&P.

Jim Hauser
PM Air Warrior

Kiowa Warrior...

STOP FOREIGN OBJECT DAMAGE!



Dear Sergeant Blade,

When we perform maintenance on our Kiowa Warrior, the air induction cowling gets removed for access to the engine.

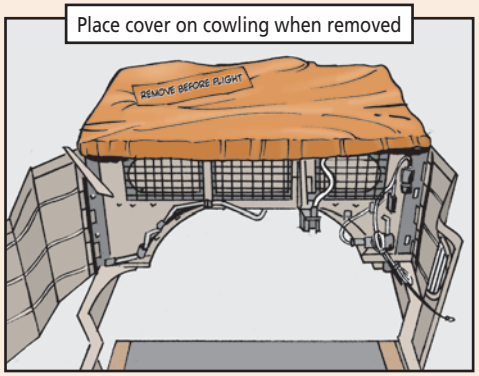
The cowling has open crevices and other places where nuts, bolts, and screws could fall in and become lodged in the cowling. When the cowling is reinstalled and the aircraft is started, those small parts work loose and are sucked into the engine. That always spells disaster!

Something as small as a tiny washer can cause a perfectly good engine to be lost to FOD.

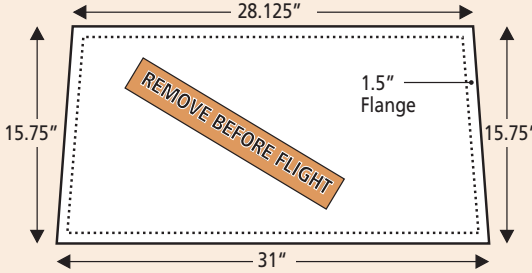
We've come up with a FOD cover to place over the aft opening of the air induction cowling to keep small parts from falling into the cowling. The cover will be added to Task 4-2-1 of TM 1-1520-248-23 in the next change to the TM.

We make the cover from red 18-oz, embossed Tri-Lam vinyl 1000 Denier Polyester Taffeta. Using the diagram and the dimensions below, anyone can make one.

Place cover on cowling when removed



The cover is 28.125 inches wide at the top by 31 inches wide at the bottom by 15.75 inches high. The flange should be 1.5 inches high with a 0.125-in bungee cord (optional) around the perimeter. We also sew on a REMOVE BEFORE FLIGHT streamer



There is no NSN for the vinyl material so we had to contact the manufacturer to order some at 1-800-327-1830. The cover can be made from other material, but it should be water-proof or water-resistant.

Steven Gatto
Kevin Garner
ACLC & AFS
Sunrise, FL

Dear Mr. Gatto and Mr. Garner,
Great job! Looks like the FOD issue with the cowling is covered and will save Kiowa engines.
"Rotor" Blade

OH-58D...

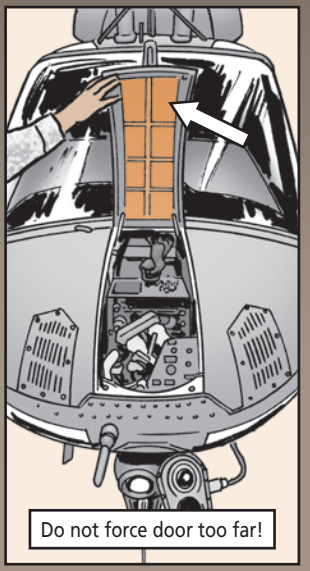
EASY ON THE DOOR

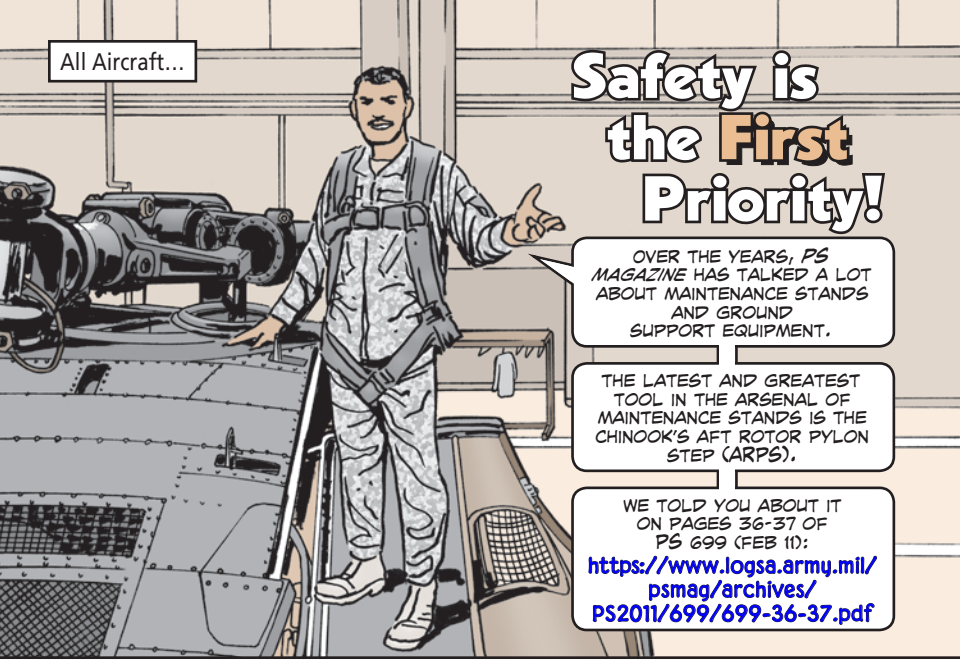
CREW CHIEFS, AVOIDING AIRFRAME REPAIRS ON YOUR KIOWA WARRIOR IS **SIMPLE**... GO EASY WHEN OPENING AIRCRAFT DOORS AND COMPARTMENTS DURING PRE-FLIGHT INSPECTIONS.

On the next pre-flight inspection, don't shove the battery access compartment door too far back because that'll break the lanyard and bracket.

Forcing the door back too far means you'll be telling the airframe repairer the bad news about the extra work you just created. And that means unnecessary aircraft downtime for repairs.

Remember, some parts of your aircraft are not made for rough handling and cannot take a licking and keep on ticking.

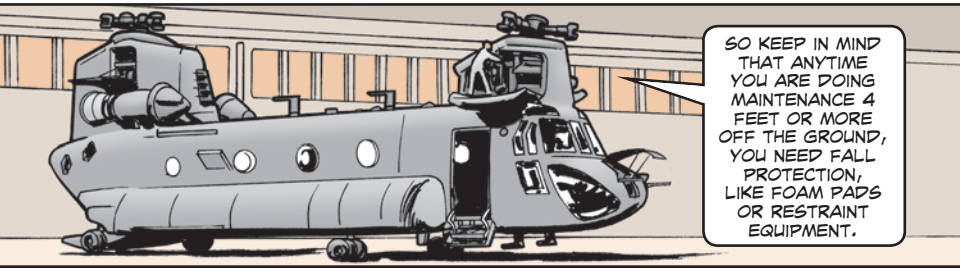




However, there are some other tidbits you need to know to remain safe when using maintenance stands. Within hangars, maintenance stands are a must. But there are other factors to pay attention to—specifically, protection against falls to avoid injuries or death.

AR 385-10, *The Army Safety Program,* directs units to draft guidelines and procedures to meet a number of the Army and OSHA safety requirements, including fall protection.

When using a maintenance stand, note that TM 1-1500-204-23-1, *General Aircraft Maintenance*, warns, *"...to prevent accidental falls, appropriate maintenance platforms/safety stands illustrated in appropriate work stand manuals or any other approved locally procured/manufactured safety stands restraint equipment will be used when working (above 4 feet) on aircraft in a non-tactical environment."*



THE PM COURT

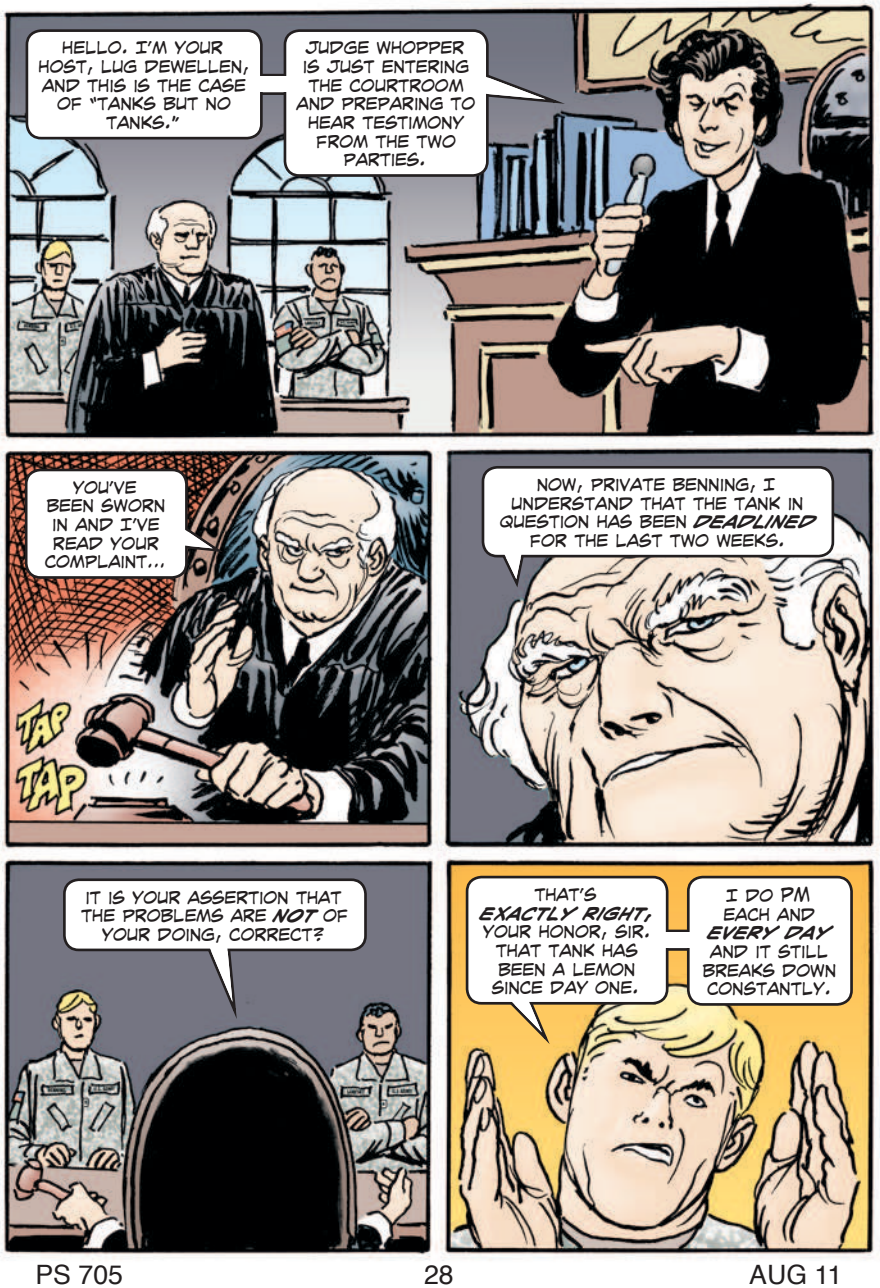
THIS IS ***PRIVATE VICTOR BENNING...*** THE PLAINTIFF. A ***TANK DRIVER*** WITH THE 5/32D CAV AT FORT GAVEL.

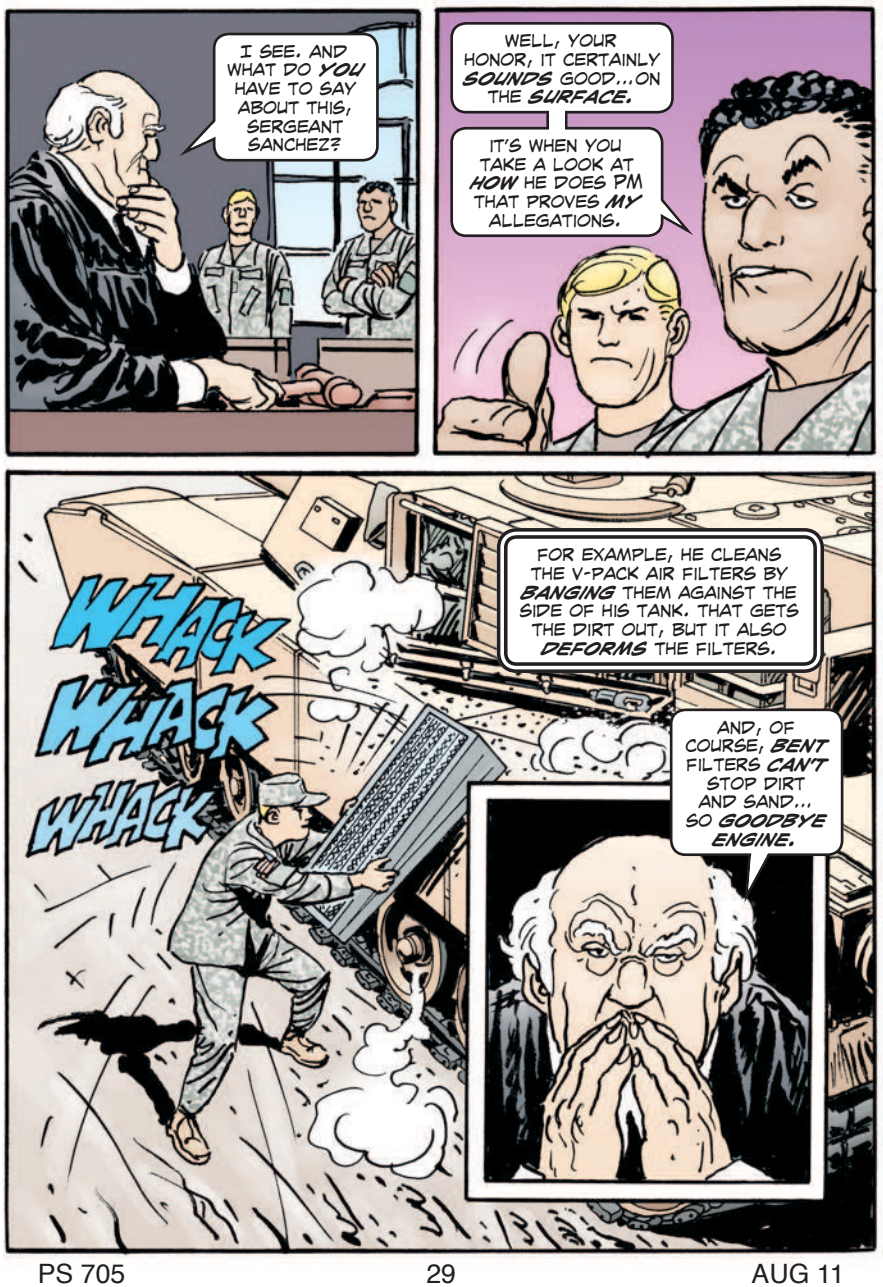
PRIVATE BENNING SAYS HE IS BEING UNFAIRLY HELD RESPONSIBLE FOR DAMAGE TO HIS M1A2 TANK. HE'S CLAIMING DEFAMATION OF CHARACTER AND IS SUING FOR THE DEFENDANT'S DINNER DESSERT FOR THE NEXT THREE WEEKS.

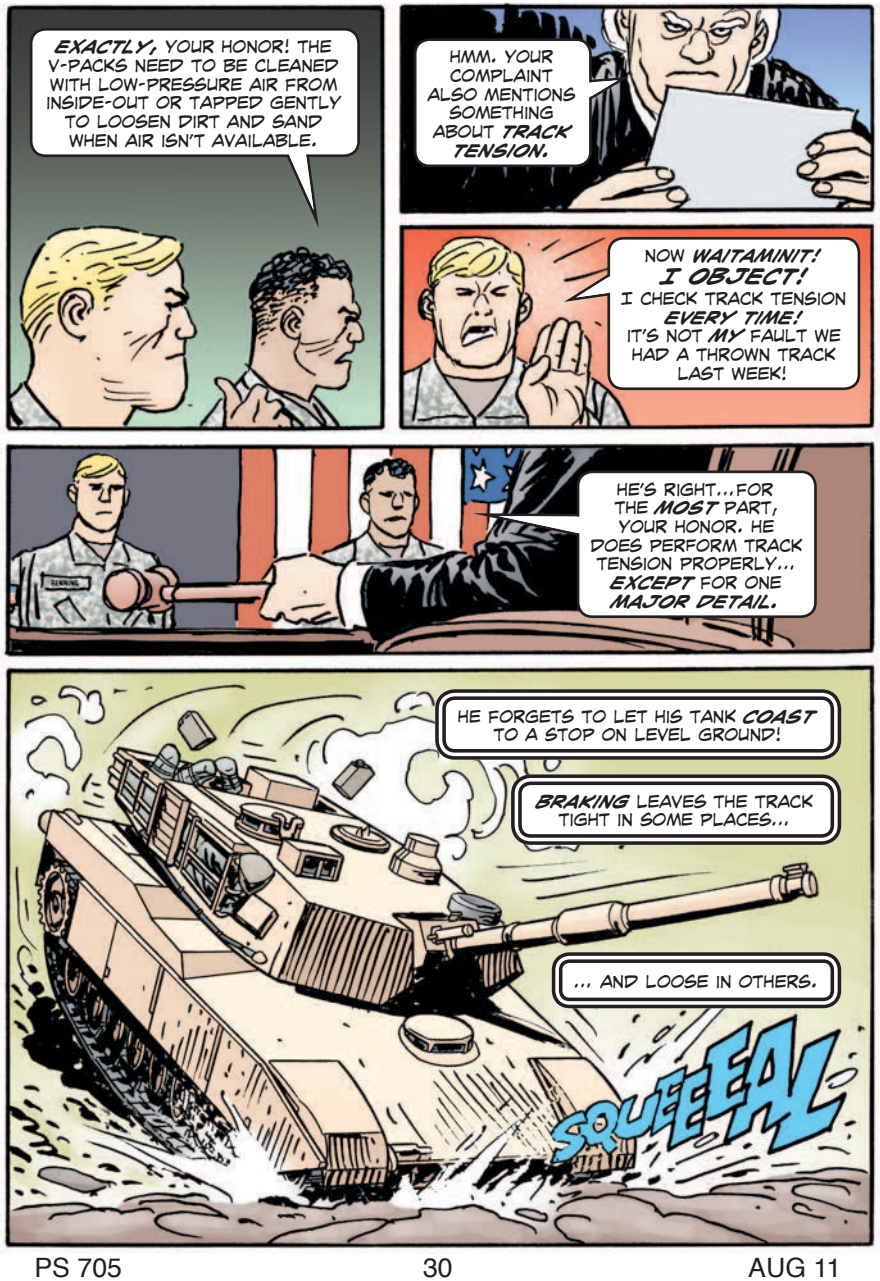
JOE LIEBER

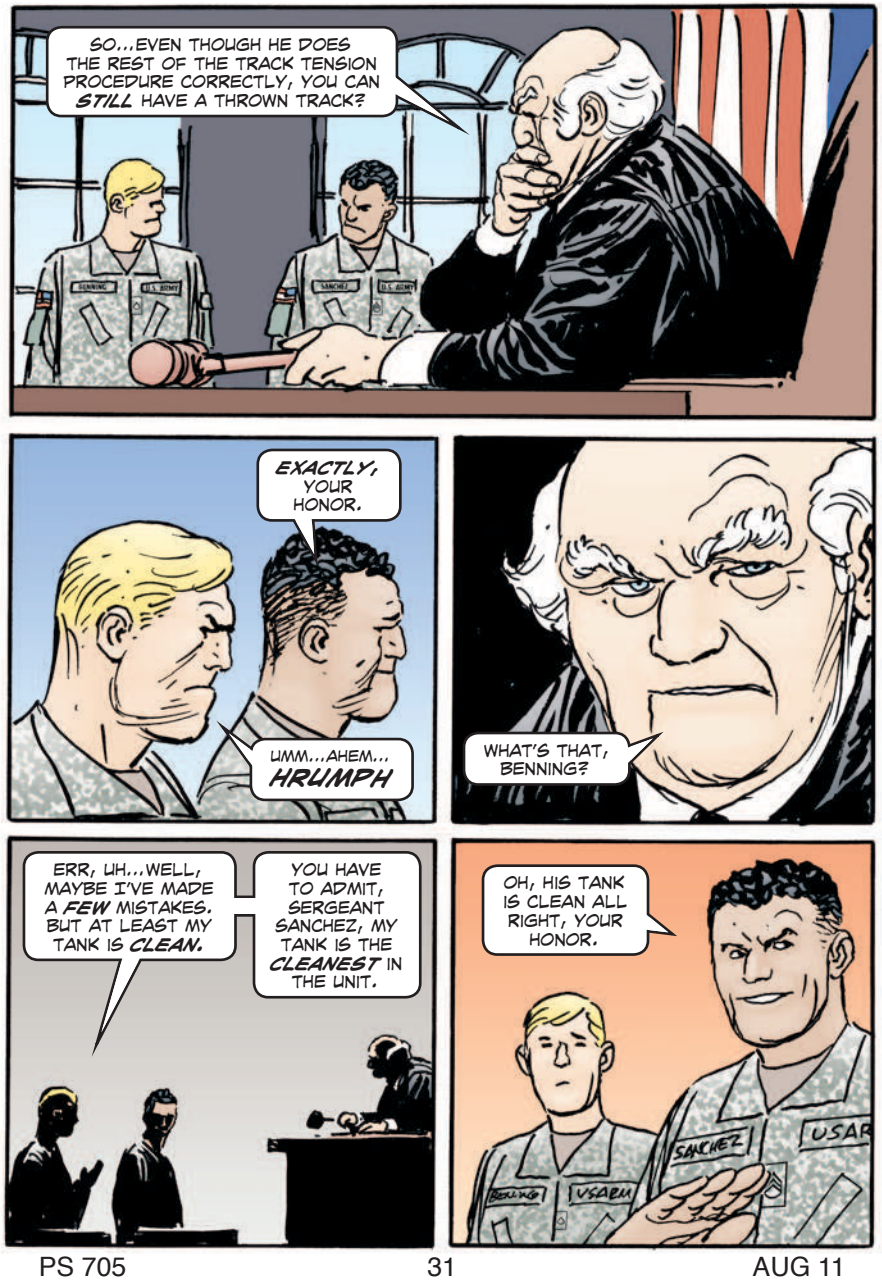
THIS IS ***SERGEANT MARIO SANCHEZ,*** THE DEFENDANT. SERGEANT SANCHEZ IS THE MOTOR SERGEANT FOR THE 5/32D CAV. HE CLAIMS THE DEFENDANT IS ***RUINING*** HIS TANK THROUGH CARELESS PM.

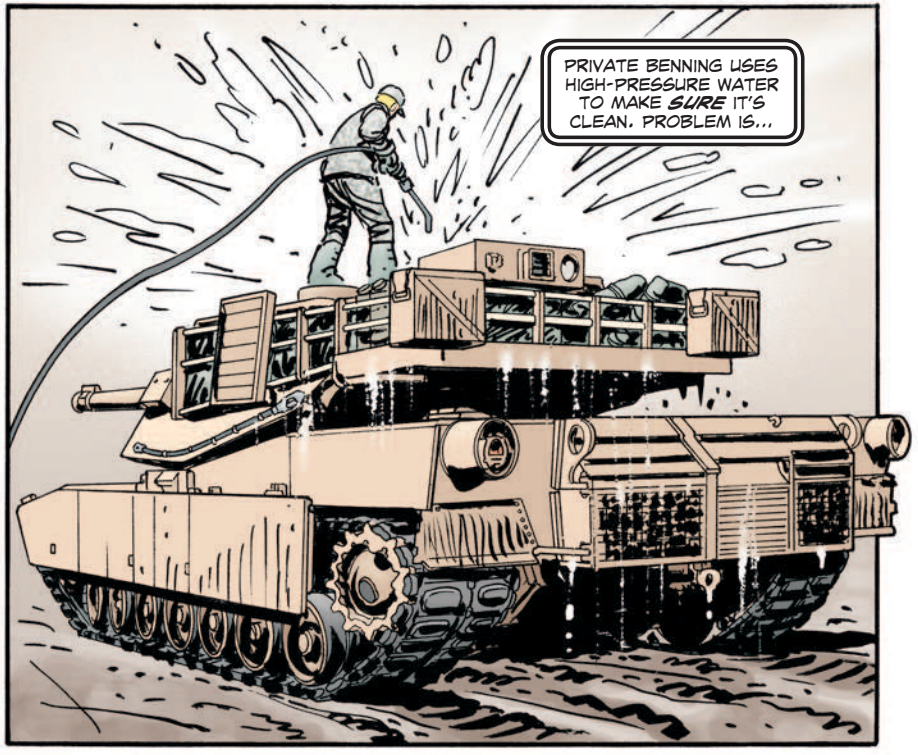
HE'S COUNTER-SUING TO HAVE THE PLAINTIFF'S MOUTH ***TAPED SHUT*** TO STOP ALL THE GRIPING AND COMPLAINING... PLUS COURT COSTS.

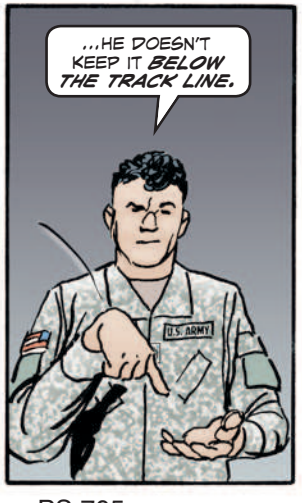

HELLO. I'M YOUR HOST, LUG DEWELLEN, AND THIS IS THE CASE OF "TANKS BUT NO TANKS."
JUDGE WHOPPER IS JUST ENTERING THE COURTROOM AND PREPARING TO HEAR TESTIMONY FROM THE TWO PARTIES.
YOU'VE BEEN SWORN IN AND I'VE READ YOUR COMPLAINT...
TAP TAP
NOW, PRIVATE BENNING, I UNDERSTAND THAT THE TANK IN QUESTION HAS BEEN DEADLINED FOR THE LAST TWO WEEKS.
IT IS YOUR ASSERTION THAT THE PROBLEMS ARE NOT OF YOUR DOING, CORRECT?
THAT'S EXACTLY RIGHT, YOUR HONOR, SIR. THAT TANK HAS BEEN A LEMON SINCE DAY ONE.
I DO PM EACH AND EVERY DAY AND IT STILL BREAKS DOWN CONSTANTLY.


I SEE. AND WHAT DO YOU HAVE TO SAY ABOUT THIS, SERGEANT SANCHEZ?
WELL, YOUR HONOR, IT CERTAINLY SOUNDS GOOD...ON THE SURFACE.
IT'S WHEN YOU TAKE A LOOK AT HOW HE DOES PM THAT PROVES MY ALLEGATIONS.
WHACK WHACK WHACK
FOR EXAMPLE, HE CLEANS THE V-PACK AIR FILTERS BY BANGING THEM AGAINST THE SIDE OF HIS TANK. THAT GETS THE DIRT OUT, BUT IT ALSO DEFORMS THE FILTERS.
AND, OF COURSE, BENT FILTERS CAN'T STOP DIRT AND SAND... SO GOODBYE ENGINE.


EXACTLY, YOUR HONOR! THE V-PACKS NEED TO BE CLEANED WITH LOW-PRESSURE AIR FROM INSIDE-OUT OR TAPPED GENTLY TO LOOSEN DIRT AND SAND WHEN AIR ISN'T AVAILABLE.
HMM. YOUR COMPLAINT ALSO MENTIONS SOMETHING ABOUT TRACK TENSION.
NOW WAITAMINIT! I OBJECT! I CHECK TRACK TENSION EVERY TIME! IT'S NOT MY FAULT WE HAD A THROWN TRACK LAST WEEK!
HE'S RIGHT...FOR THE MOST PART, YOUR HONOR. HE DOES PERFORM TRACK TENSION PROPERLY... EXCEPT FOR ONE MAJOR DETAIL.
HE FORGETS TO LET HIS TANK COAST TO A STOP ON LEVEL GROUND!
BRAKING LEAVES THE TRACK TIGHT IN SOME PLACES...
... AND LOOSE IN OTHERS.
SQUEEEAL

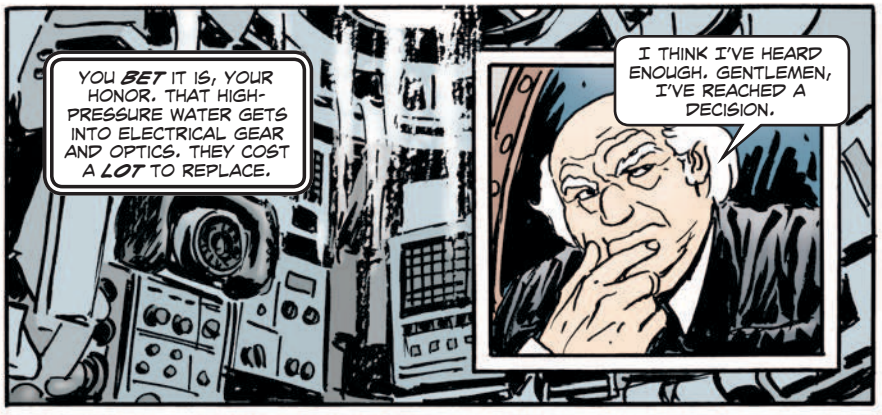

SO...EVEN THOUGH HE DOES THE REST OF THE TRACK TENSION PROCEDURE CORRECTLY, YOU CAN STILL HAVE A THROWN TRACK?
EXACTLY, YOUR HONOR.
UMM...AHEM... HRUMPH
WHAT'S THAT, BENNING?
ERR, UH...WELL, MAYBE I'VE MADE A FEW MISTAKES. BUT AT LEAST MY TANK IS CLEAN.
YOU HAVE TO ADMIT, SERGEANT SANCHEZ, MY TANK IS THE CLEANEST IN THE UNIT.
OH, HIS TANK IS CLEAN ALL RIGHT, YOUR HONOR.
SANCHEZ
USAR

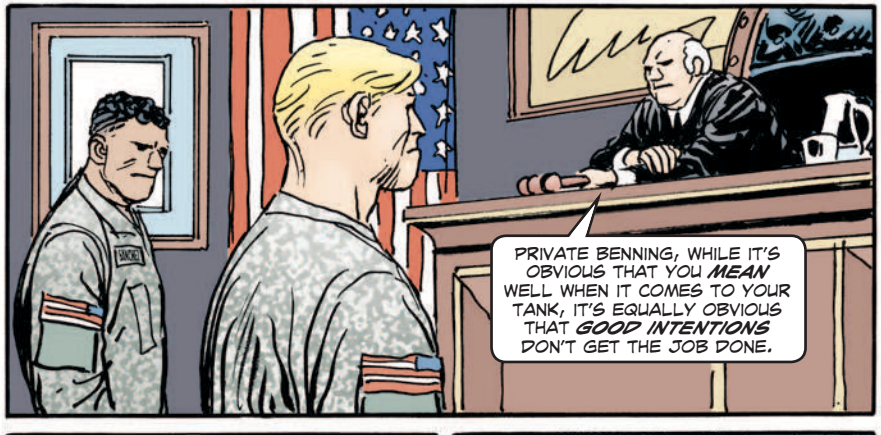

PRIVATE BENNING USES HIGH-PRESSURE WATER TO MAKE SURE IT'S CLEAN. PROBLEM IS...

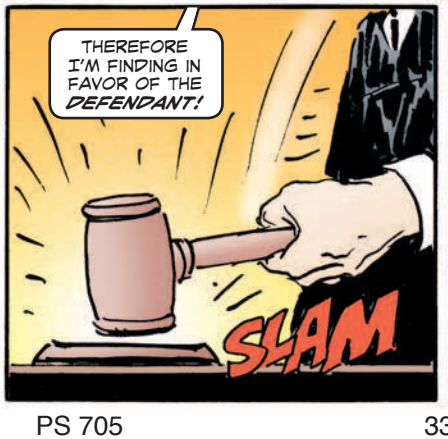

...HE DOESN'T KEEP IT BELOW THE TRACK LINE.
U.S. ARMY

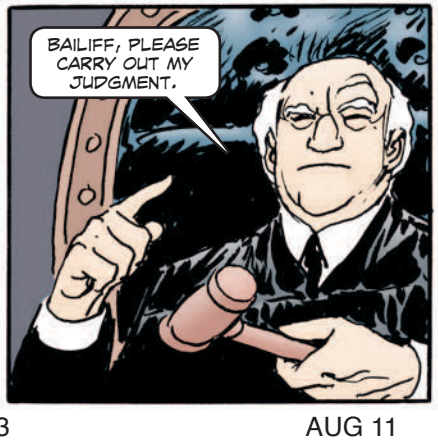

UH-OH!
U.S. ARMY

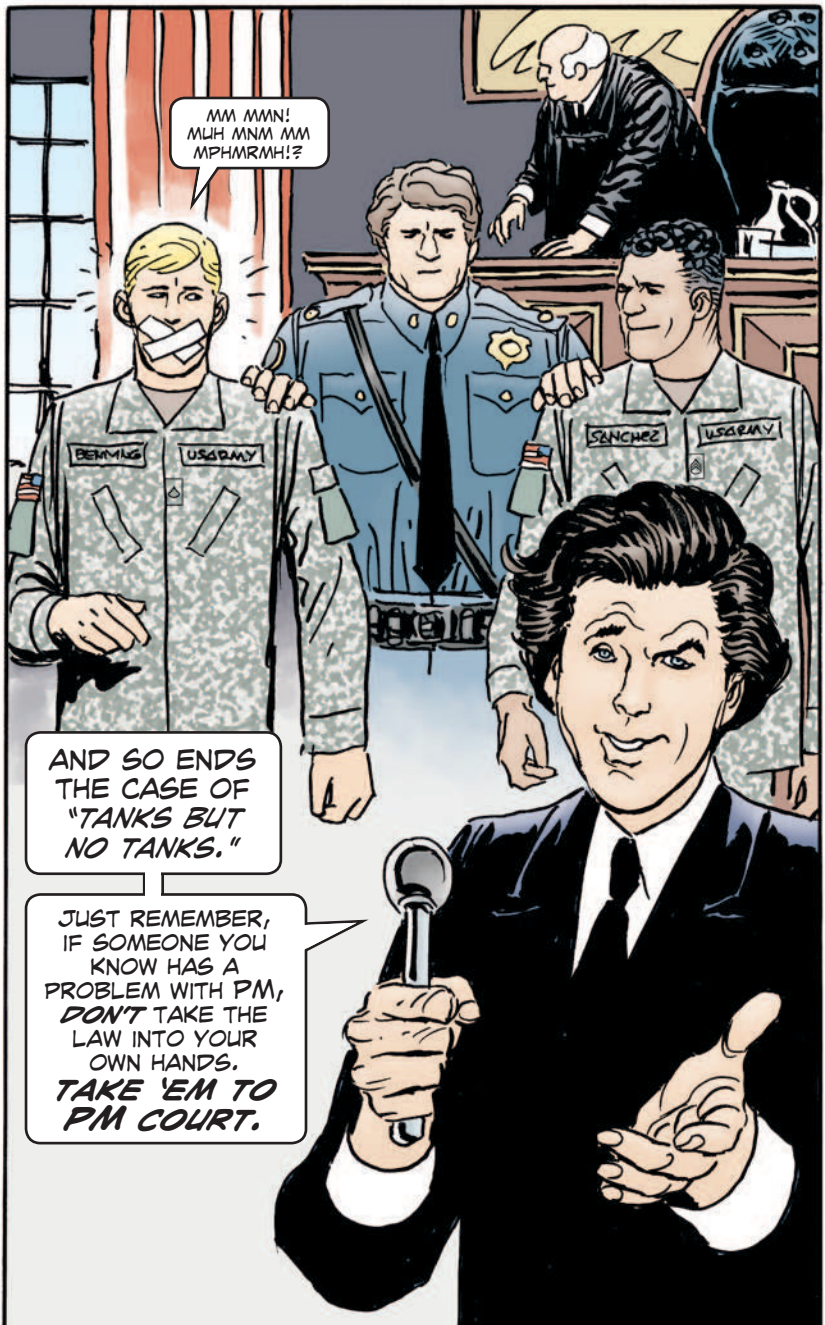

SO THAT'S A BAD THING?


YOU BET IT IS, YOUR HONOR. THAT HIGH-PRESSURE WATER GETS INTO ELECTRICAL GEAR AND OPTICS. THEY COST A LOT TO REPLACE.
I THINK I'VE HEARD ENOUGH. GENTLEMEN, I'VE REACHED A DECISION.


PRIVATE BENNING, WHILE IT'S OBVIOUS THAT YOU MEAN WELL WHEN IT COMES TO YOUR TANK, IT'S EQUALLY OBVIOUS THAT GOOD INTENTIONS DON'T GET THE JOB DONE.

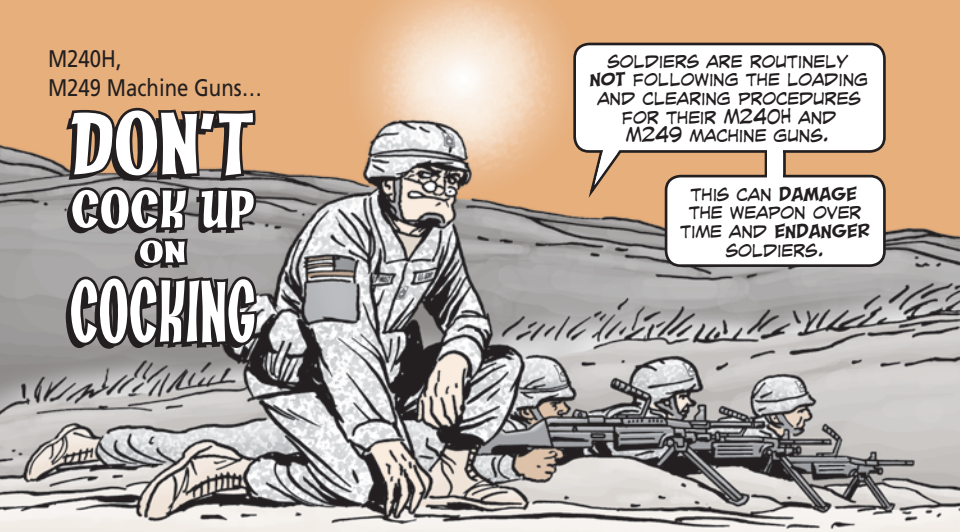

THEREFORE I'M FINDING IN FAVOR OF THE DEFENDANT!
SLAM


BAILIFF, PLEASE CARRY OUT MY JUDGMENT.


MM MMN! MUH MNM MM MPHMRMH!?
BEMMLG
USARMY
SANCHEZ
USARMY
AND SO ENDS THE CASE OF "TANKS BUT NO TANKS."
JUST REMEMBER, IF SOMEONE YOU KNOW HAS A PROBLEM WITH PM, DON'T TAKE THE LAW INTO YOUR OWN HANDS. TAKE 'EM TO PM COURT.

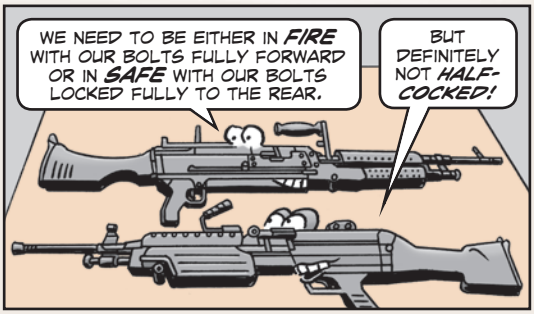
M240H,
M249 Machine Guns...

DON'T COCK UP ON COCKING



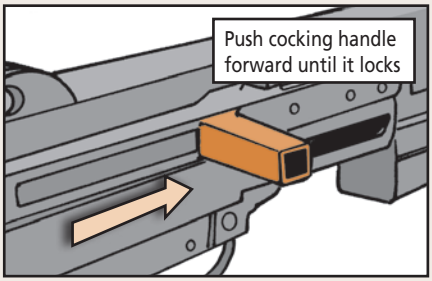
Both the M240H and M249 should be in either the FIRE position with the bolt fully forward or in the SAFE position with the bolt locked to the rear.

If the gunner puts the weapon on SAFE with the bolt forward and then tries to charge the gun, he jams and/or damages it.



Pulling the bolt halfway back and then putting the selector in SAFE causes the sear to rise, blocking the bolt from moving forward. If the gunner then tries to charge the weapon, he damages the sear, plus he can cause the machine gun to jam.

The cocking handle also needs to be locked fully forward after you lock back the bolt. The handle should click into place if it's fully forward. If the handle is not locked forward, it will bang against the cocking handle stop during firing. That wears out the receiver rails and the handle. There is no fix for worn out rails. The weapon must be replaced.



Again, your M240H or M249 should be in either the FIRE position with the bolt fully forward or the SAFE position with the bolt locked to the rear.

Small Arms...

Safe Training with EST 2000

Here's what you need to do to avoid becoming a statistic:

- Read, understand, and learn the warnings, cautions and procedures listed in Para 3.3.1 in TD-07-6910-702-10 and in Page 3-11 in the EST 2000 M16/M4/M203 operator's manual.

The principal rules to remember are:

- Fire simulated weapons only if they are pointed downrange.
- Do not allow personnel to stand downrange from the firing line.

WARNING: EST 2000 TRAINING

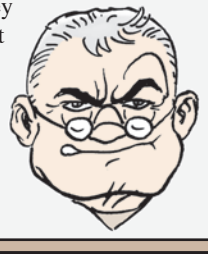
- Post WARNING signs at all entry doors.

Instruct weapons handlers never to look directly into a barrel.

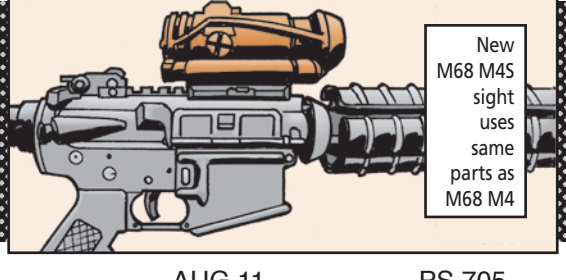
- Take the weapon off-line for testing and service at the first indication of malfunction and refer to the troubleshooting procedures.
- Instructors need to give a safety briefing before the EST 2000 is fired.
- After the briefing, Soldiers should visually inspect the EST 2000 for damaged and/or loose parts. If they find anything suspicious, they should tell the EST 2000 instructor.

Soldiers should *never* attempt to disassemble or repair the EST 2000. The suspect trainer should be segregated from the other EST 2000s.

- If there's a misfire, follow the normal misfire procedures. If the weapon can't be cleared, remove the power and air connectors of the weapon from the weapon box. Notify the instructor or support maintenance personnel so they can troubleshoot the weapon.



New Version of M68 M4 Reflex Sight



The M68 M4S reflex sight, NSN 1240-01-540-3690, is now being fielded. It is exactly like the M68 M4, except the M4S battery case is on the right-side bottom instead of the right-side top.

All the repair parts for the M4 listed in TM 9-1240-413-13&P are also good for the M4S. The M4S has the same capability as the M4.

Don't turn in your M4s for the M4S. Continue to use the old sights until they become non-reparable.

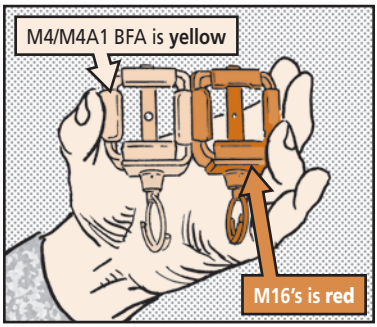
Small Arms... SRTA Is REAL Ammo

Dear Editor,

I just read your article on Page 24 in PS 698 (Jan 11) on using the M2 practice bolt with the M16 rifle and M4/M4A1 carbine. You said "The M2 bolt converts the weapon gas operation to blowback and prevents accidental firing of a REAL (emphasis mine) round."

Through my work with the OHARNG, I have seen what damage short-range training ammo (SRTA) can do to corrugated steel panels 100 yards down range. ***SRTA is REAL ammo and can kill at short range.*** Soldiers need to treat SRTA with the same care and caution they do with normal rounds.

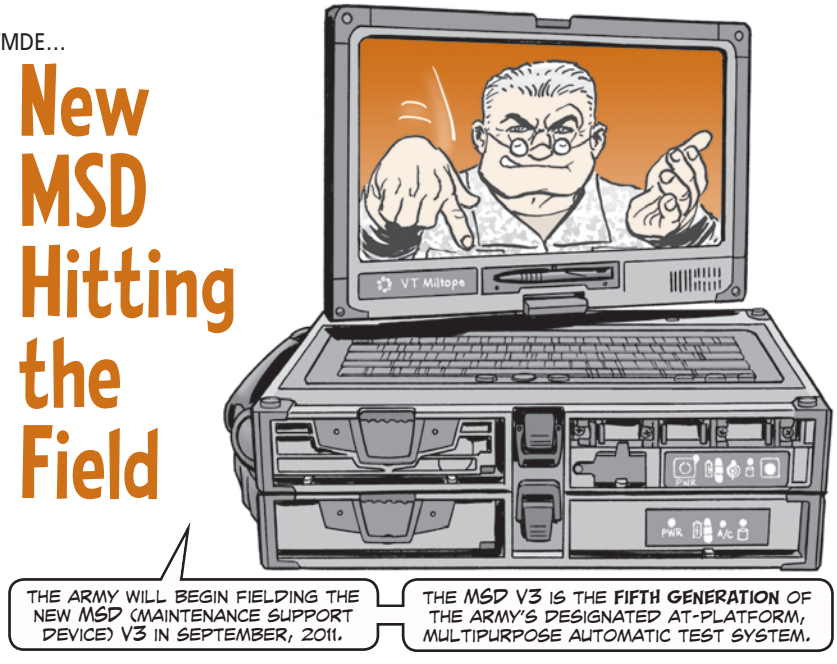
One other point: On the next page, you talked about the difference between the M16 and M4 BFAs. One thing you didn't mention is that if you use an M16 BFA on an M4 or an M249 machine gun, it can deform the BFA so much it flies off the weapon and becomes a projectile. Not too safe! So Soldiers need to make sure they're using the correct BFA. The M4/M4A1 BFA is yellow, the M16's is red.



SGM Todd Friend
OHARNG
Whitehall, OH

Editor's note: *Excellent safety points, Sergeant Major.*

New MSD Hitting the Field



The new MSD V3 is smaller, faster and more capable than the previous MSD versions, plus it can be upgraded. It is used for troubleshooting, diagnostic testing and hosting IETMs and weapon-specific software. It also uploads and downloads mission data and software.

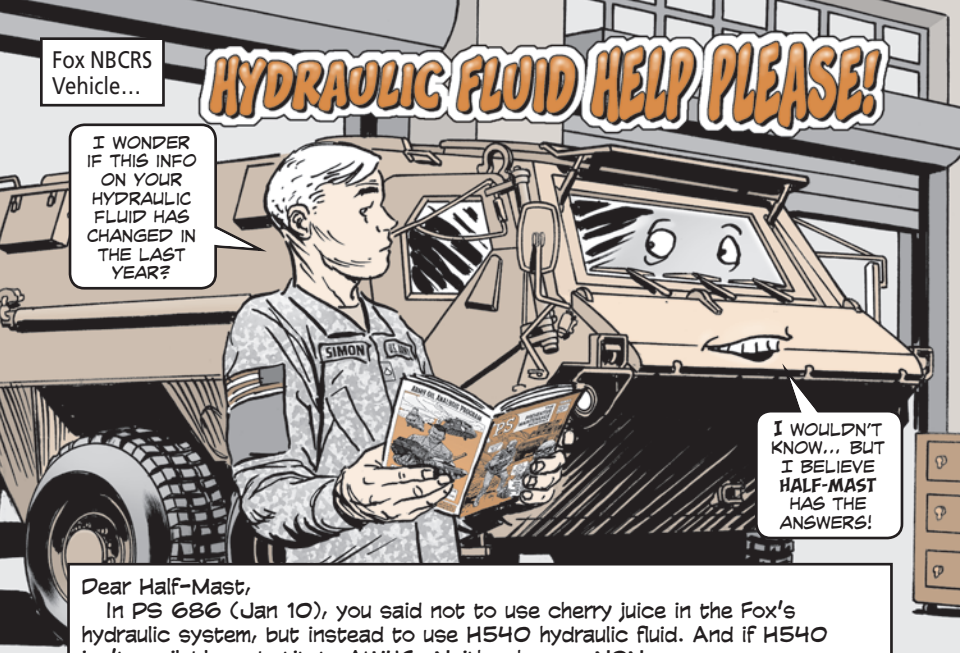
But before you get the MSD V3 you need to turn in the older versions of multipurpose automatic test systems:

- **AN/PSM-80 contact test sets (CTS), V1 (LIN T77431), V2 (LIN T77499), and V3 (LIN T77567), all serial numbers**
- **AN/PSM-95 soldier portable on-system repair tool (SPORT), LIN T92889 and NSN 6625-01-445-0085, all serial numbers**
- **AN/PSM 95A MSD, LIN T92889 and NSN 6625-01-493-8968, serial numbers through MSD-209867**
- **AN/PSM-95B MSD, LIN T92889 and NSN 6625-01-493-8984, serial numbers through MSD-209867**

All of these devices should be turned in to your local DRMO after their hard drives have been erased and their recovery disk sets have been destroyed.

For more information, contact Bill Burke at DSN 897-2910, (256) 313-2910, or email: **bill.burke3@us.army.mil**

Or you can contact Daniel Moody at DSN 687-1421, (804) 734-1421, or email: **daniel.moody@us.army.mil**



Dear Half-Mast,

In PS 686 (Jan 10), you said not to use cherry juice in the Fox's hydraulic system, but instead to use H540 hydraulic fluid. And if H540 isn't available, substitute AW46. Neither has an NSN.

I have these questions:

- **Are H540 and AW46 still unavailable in the supply system?**
- **We have found vendors for AW46, but we are unsure their product meets the Fox requirements. How can we be sure?**
- **When you use a different hydraulic fluid in the Fox, should you first purge the system to get rid of the old fluid?**

N.C.

Dear N.C.,

Excellent questions!

H540 and AW46 are still unavailable in the Army supply system. But they can be purchased through your Fox's mobile backup team (MBT), which should be a part of every Fox unit. They are the contractors that support the Foxes locally. If you have trouble locating your MBT, contact Henry St. Pierre, (410) 436-5527, or email: **henry.stpierre@us.army.mil**

Since you will be getting hydraulic fluid through your MBT, you won't need to worry if it's the right kind.

Do not mix hydraulic fluids. *When different kinds of fluids are mixed, that hurts the fluid's effectiveness and can lead to damage of vital parts. If you're changing kinds of fluid, first purge the old fluid from the hydraulic system.*

Half-Mast

M40/M42-Series Masks...

Beware of Loose Nosecup

Dear Editor,

In my work with the MAIT at Camp Casey, Korea, I often run into M40/M42 masks in which the nosecup has pulled away from the back of the front voicemitter housing.

Even though Item 12 in the AFTER PMCS in TM 3-4240-346-10 (Aug 10) is a check for a loose nosecup, Soldiers often miss it. The consequences can be serious.

When a Soldier clears his mask or exhales, all of the air is supposed to be blown out the air outlet. If the nosecup is unsealed from the front voicemitter housing, contaminated air can remain in the mask and be inhaled by a Soldier. And the PATS test doesn't always pick up a loose nosecup.

I strongly recommend CBRN specialists check all their masks for a loose nosecup. They should also emphasize to their units during training the importance of checking the nosecup before they go to the field.

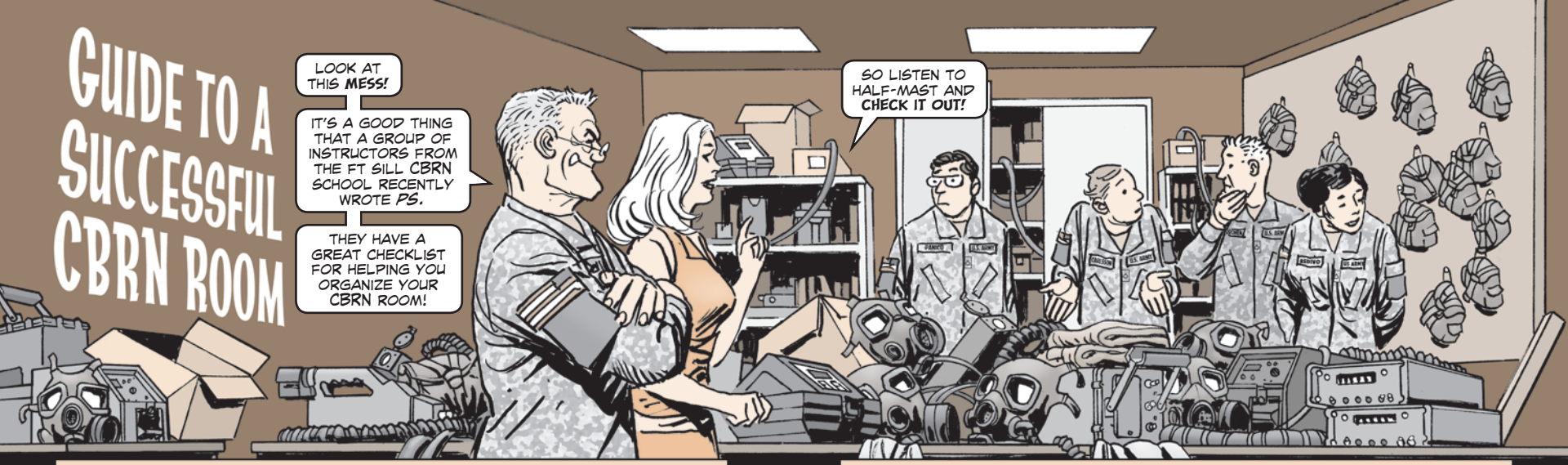
If the nosecup is not seated around the outlet valve body or has pulled away from the back of the front voicemitter housing, the facepiece should be replaced.

Make very sure to check for a loose nosecup during PMCS

Gary Mead
Camp Casey, S. Korea

Editor's note: *Thanks for the nosecup alert, Gary.*

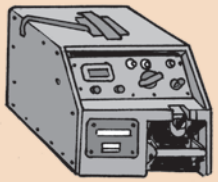
GUIDE TO A SUCCESSFUL CBRN ROOM



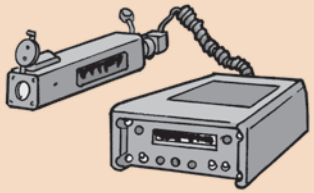
Dear Editor,

We help train Soldiers at the Ft Sill CBRN School. Through our work over the years, we've developed a checklist for new CBRN specialists to help them organize their CBRN room. The checklist is too long for *PS Magazine*, but we thought some of its high points might benefit other specialists:

Are primary and alternate operators identified for the following pieces of equipment:



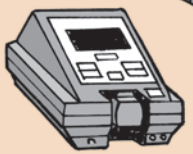
- AN/PDR-75 radiac sets



- AN/VDR-2 radiac sets

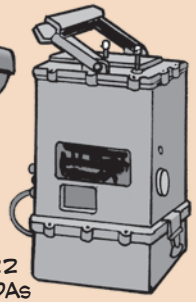
- AN/UDR-13 radiac sets

- JCADs



- M41 PATS

- ICAMs



- M22 ACADAs

Does the unit have a current CBRN annex to the unit's SOP?
Do you have a mask status chart with the following information:

- mask administrative number
- Soldier's name
- mask type and size
- mask lot number
- date of last PMCS
- date last cleaned or sanitized
- date last fitted or tested
- date filter canister installed
- filter canister lot number
- inserts installed in protective mask

Do you have a JSLIST roster that includes:

- Soldier's name
- coat size
- trousers size
- overshoes size
- glove size

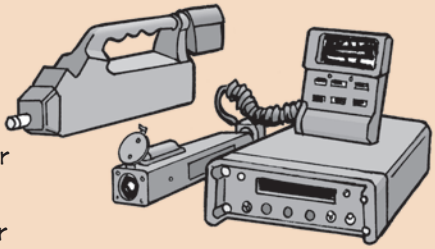
Has the unit conducted training in the following in the last 12 months and is the training documented in accordance with Chapter 4 of AR 350-1:

- mask confidence exercise
- MOPP 4
- marksmanship in masks
- decontamination exercises
- PATS testing

PS MORE

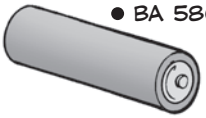
Has the unit conducted documented training for primary and alternate operators within the past six months for:

- M22 ACADA
- JCAD
- ICAM
- AN/VDR-2
- AN/PDR-75
- AN/UDR-13
- M256A1 chemical agent detector
- M274 CBRN marking kit
- M17-series decon
- M20 collective protective shelter

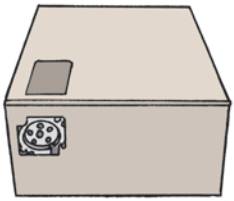


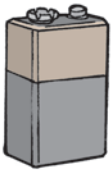
Do you have these batteries:

- BA 5800 (two per ICAM)



- BA 3030 (eight per ACADA and JCAD M42 alarm)





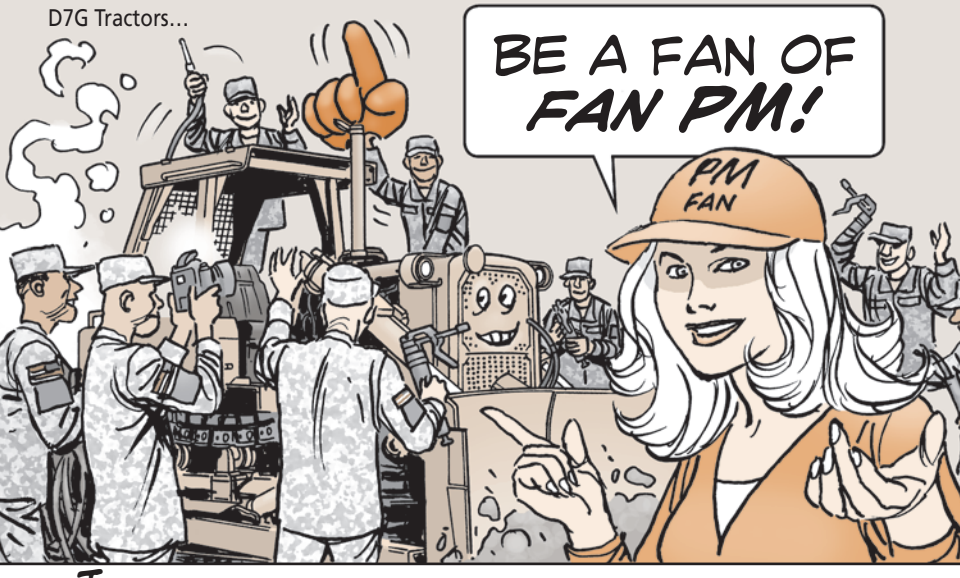
- 9V batteries (two per ICAM buzzer and six per AN/VDR-2)
- BA 5590 (two per ACADA and two per AN/PDR-75)
- AAA (four per AN/UDR-13 radiac set)
- AA (four per JCAD)

Is there an operator-level TM available for each piece of equipment?

Are there adequate supplies of calcium hypochlorite and cleaning materials to sanitize and maintain masks?

Does each mask have all of its components and is it properly stored?

James Hardison
Gregory Hall
Richard Hammonds
Ft Sill, OK



The engine cooling fan system in your dozer is designed to move air through the radiator when the vehicle is moving slowly or stopped. The air flow removes heat from the engine coolant in the radiator.

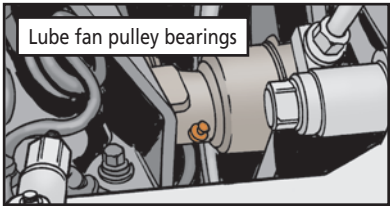
Here are two PM pointers that keep the dozer's fan system operating smoothly.

Grease Fitting Reminder

One grease fitting that's often overlooked during scheduled services is the one that lubes the fan pulley bearings. It's hidden behind the fan blades.

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

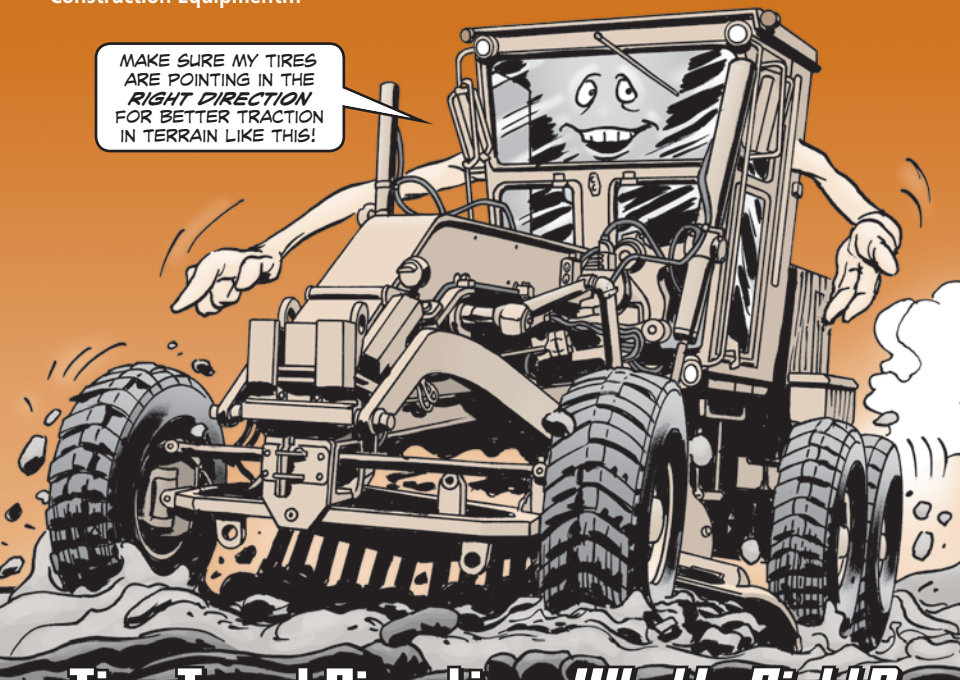
Keep the fan pulley bearings lubed. During scheduled services, give all the fittings four or five pumps of grease.



Open Air Flow

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

So, clean off dirt or mud with low-pressure water or air.



Tire Tread Direction: *What's Right?*

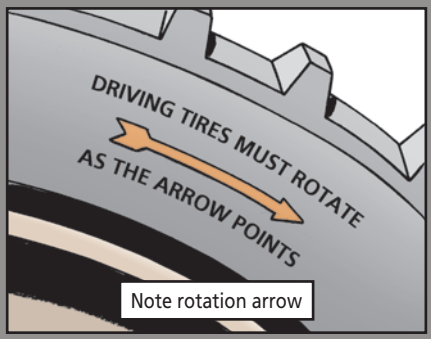
What direction a tire is mounted on a vehicle is one conversation you'll find in any engineering battalion.

Tactical vehicles, like HEMTTs and M939-series trucks, use non-directional tires. That means the tires can be mounted any way you want.

But, with the large tires used on construction equipment, it's a different story. Those tires are designed for off-road use in loose sand, dirt, mud and gravel. When pointed in the right direction, the driving tires' chevron pattern provides the traction the vehicles need.

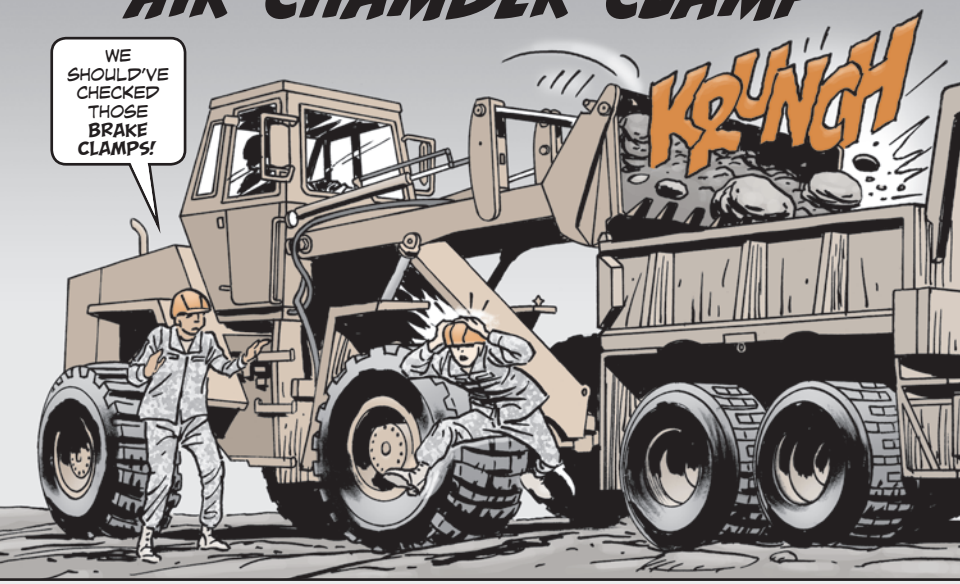
If you're not sure which way the tire mounts, look at the direction arrow on the tire's sidewall. It shows you the way.

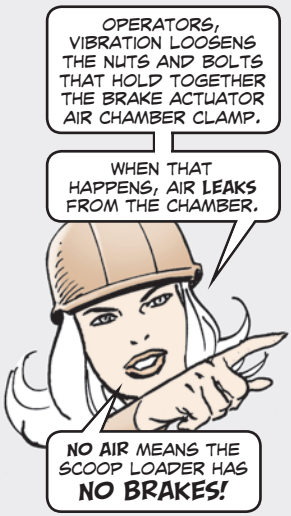
Tires on non-driving wheels can be mounted either way.



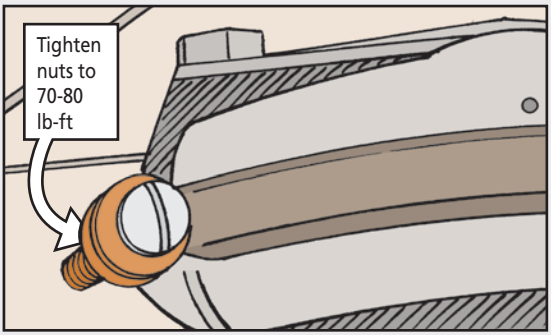
MW24C
Scoop
Loader...

CLAMP DOWN ON AIR CHAMBER CLAMP





So grab the clamp to see if it's loose. If it is, get your mechanic to re-torque the nuts to 70-80 lb-ft.



Between scheduled 250-hr services, look for loose nuts, shiny spots or rust around the bolt heads and nuts on both the front and rear air brake chambers. If you spot any, tell your mechanic.

SOME POINTERS ON TENT PINS

ARMY TENTS COME IN **MANY SIZES, SHAPES AND STYLES.** BUT THEY ALL **SHARE** ONE THING IN COMMON...

THEY NEED **ANCHORS** TO HOLD THEM DOWN.

WHETHER YOU CALL THEM STAKES, PEGS OR PINS, IT MAKES NO DIFFERENCE. THE POINT IS, THEY GRIP THE GROUND AND HOLD YOUR TENT FIRMLY IN PLACE.

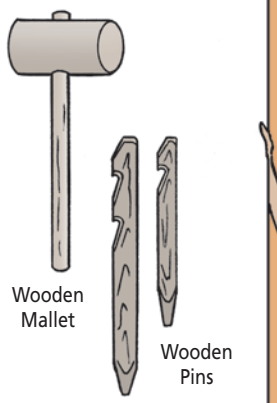
THAT'S WHAT COUNTS WHEN YOU'RE FACING **WIND, RAIN OR SNOW.**

HERE ARE SOME GENERAL GUIDELINES FOR USING PINS WITH YOUR **VINYL-COATED POLYESTER** TENT...

MAKE SURE YOU HAVE THE **RIGHT NUMBER** OF PINS FOR YOUR TENT. COUNT THEM. THEN PACK **SPARES** IN CASE YOU DAMAGE OR LOSE SOME.

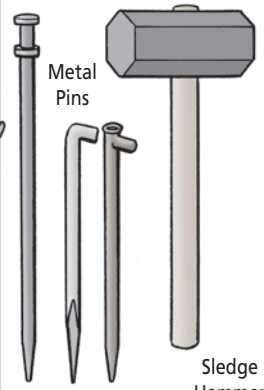
REMEMBER TO TAKE **VARYING SIZES.** STORE PINS IN A STRONG BAG (CANVAS WORKS WELL) AND PACK THEM WITH THE TENT.

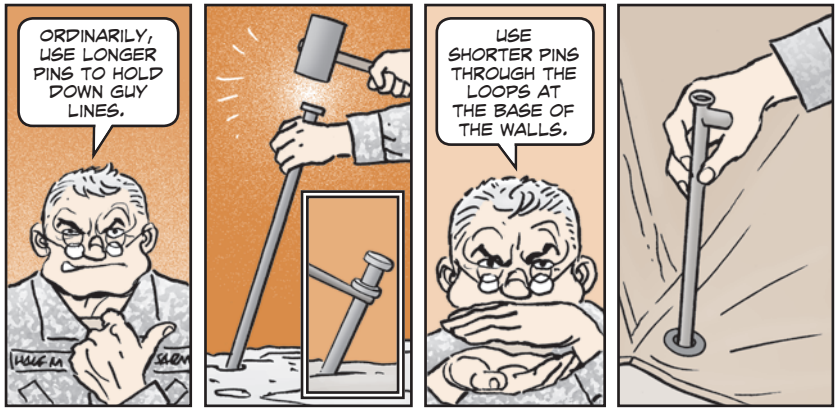
Pitching



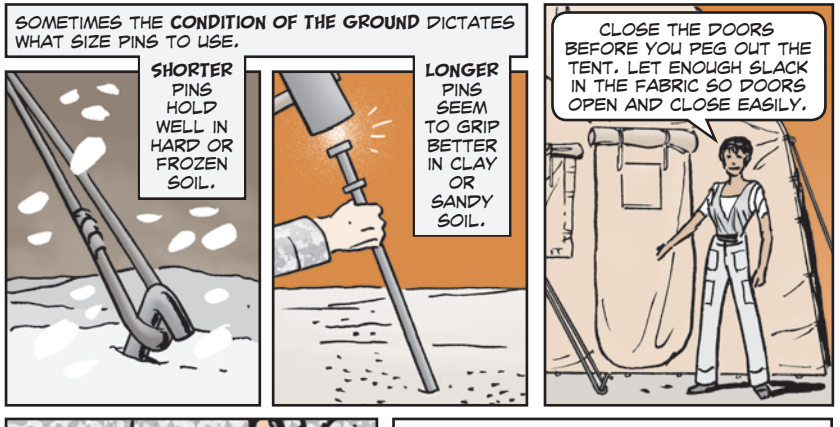
USE A WOODEN MALLET TO DRIVE WOODEN PINS.

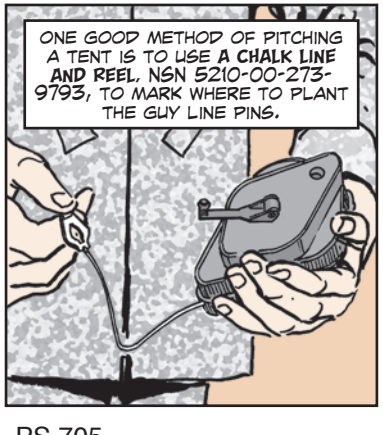
USE A SLEDGE OR 4-LB HAMMER TO DRIVE LARGE METAL PINS.



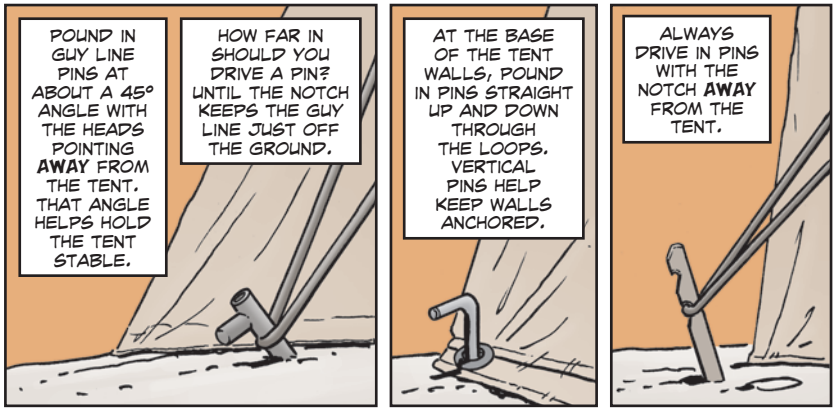


SOMETIMES THE **CONDITION OF THE GROUND** DICTATES WHAT SIZE PINS TO USE.





YOUR TENT TM SHOULD HAVE MEASUREMENTS ON THE LOCATIONS OF THESE PINS. NEXT, POUND IN THE PINS. ONCE THEY'RE ALL IN THE GROUND, CENTER THE TENT FABRIC AND ERECT THE TENT.



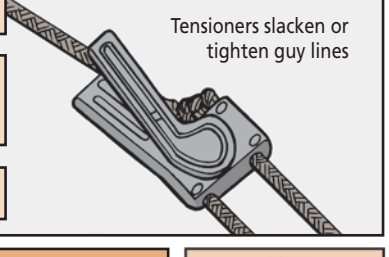
WHEN YOU PITCH AN A-TYPE OR RIDGE TENT, PEG OUT CORNER GUY LINES AND EAVE LINES **FIRST.** THIS HELPS SHAPE THE TENT.

PUSH THE TENSIONERS (ALSO KNOWN AS RUNNERS) **AWAY** FROM THE TENT **TO SLACKEN** THE GUY LINES. LOOP THE LINES OVER THE PINS.

PUSH TENSIONERS **TOWARD** THE TENT TO **TIGHTEN** LINES. SET PINS FOR THE SIDE GUY LINES STRAIGHT OUT FROM THE TENT. TIGHTEN THE LINES.

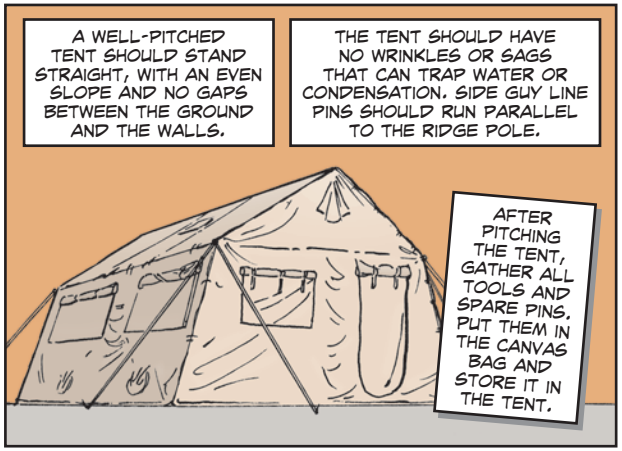
ALL GUY LINES SHOULD PULL ON THE PINS AT AN ANGLE OF ABOUT 90 DEGREES.

FINALLY, DRIVE IN PINS ALONG THE TENT WALLS. NOW GIVE THE TENT A FEW TUGS; MAKE SURE THE GUY LINES DON'T HAVE SLACK AND THE PINS ARE SNUG. EACH LINE SHOULD HAVE ABOUT THE SAME TENSION.



A WELL-PITCHED TENT SHOULD STAND STRAIGHT, WITH AN EVEN SLOPE AND NO GAPS BETWEEN THE GROUND AND THE WALLS.

THE TENT SHOULD HAVE NO WRINKLES OR SAGS THAT CAN TRAP WATER OR CONDENSATION. SIDE GUY LINE PINS SHOULD RUN PARALLEL TO THE RIDGE POLE.



PITCHING YOUR TENT ON LOOSE SOIL, SAND OR SNOW?

TIE GUY LINES AROUND ROCKS OR LOGS. BURY THEM IF YOU HAVE TO. YOU CAN ALSO TIE LINES TO TREES. IN SOME CASES, YOU CAN USE TWO OR EVEN THREE PINS FOR EACH LINE.

MORE

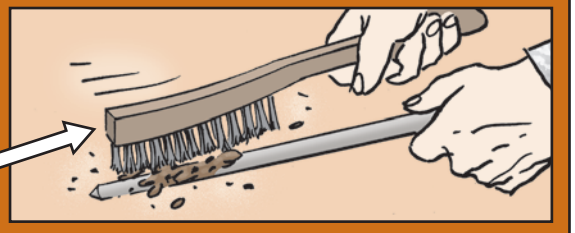
Striking

TO REMOVE TENT PINS, SLACKEN THE GUY LINES, THEN TAP THE PINS BACKWARDS AND FORWARDS. NOT TOO HARD; WOOD PINS CAN SPLIT AND METAL ONES CAN BEND.

RE-PACK PINS IN THE CANVAS BAG. STORE THEM WITH THE REST OF THE TENT'S COMPONENTS.

INSPECT GUY LINES FOR CUTS, FRAYING, AND WEAR AND TEAR. REPLACE IF NEEDED.

SCRAPE AND WIPE DIRT FROM PINS AND LET THEM DRY.



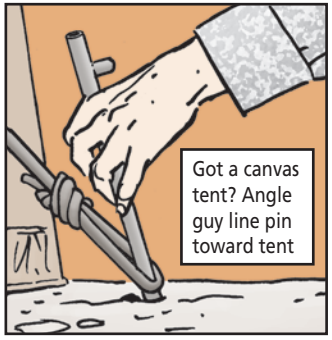
Honk If You Love Canvas

FOR THOSE FEW SOLDIERS STILL CAMPING OUT IN **CANVAS DUCK TENTS**, HERE'S SOME GOOD ADVICE...

AS WET CANVAS DRIES, IT **SHRINKS**. AND WHEN IT SHRINKS, GUY LINES TUG HARD ON PINS. A PIN WITH ITS HEAD ANGLED AWAY FROM THE TENT ACTS LIKE A LEVER UNDER THE TUG OF THE TIGHT LINE. THE PIN ENLARGES ITS HOLE IN THE GROUND AND WORKS LOOSE UNTIL IT PULLS OUT.

WORSE YET, THE PIN DOESN'T PULL FREE BUT CONTINUES TO **STRAIN** THE TENT UNTIL THE CANVAS **TEARS**.

THIS CALLS FOR A MINOR CHANGE IN YOUR PIN-POUNDING METHOD. ALONG THE TENT WALLS, POUND IN PINS STRAIGHT UP AND DOWN THROUGH THE LOOPS, AS YOU NORMALLY WOULD. BUT POUND IN GUY LINE PINS WITH THE HEADS SLIGHTLY ANGLED TOWARD THE TENT—ABOUT 15 DEGREES FROM VERTICAL. THAT ALLOWS SOME GIVE WHEN THE CANVAS SHRINKS.



TO GET THE WHOLE STORY ON PITCHING AND STRIKING A TENT, SEE THE OPERATOR INSTRUCTIONS IN YOUR TENT'S TM.

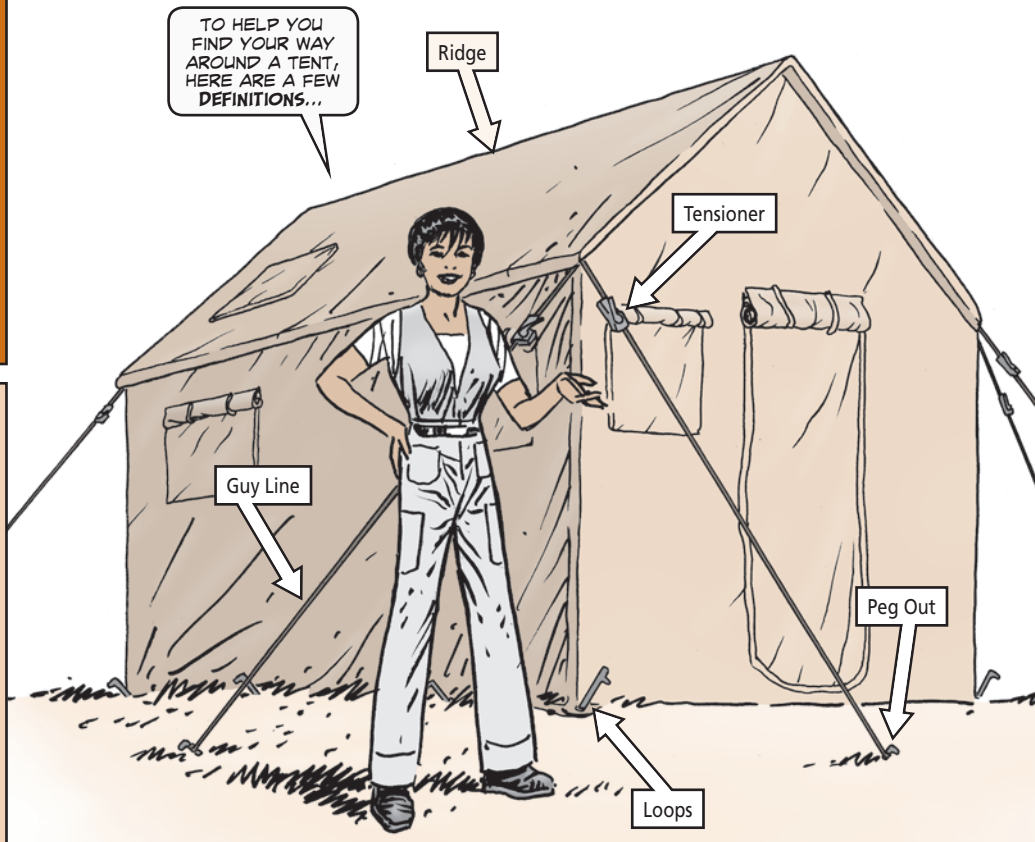
YOU ALSO MIGHT WANT TO GO ONLINE TO TENTNET:
http://www.tentnet.org/tentnet/Tentnet/index.htm

ONCE YOU'RE ON THE HOME PAGE, CLICK ON *BASE CAMP*, WHERE YOU'LL FIND PARTS NSNS FOR THE ARMY'S TENTS.

YOU CAN ALSO GO TO DOD EMALL'S TENT SUPERSTORE:
https://dod-emall.dla.mil

ONCE YOU'RE LOGGED IN, EXPAND THE SHOP TAB, THEN CLICK *SPECIALTY STORES*. ON THE NEXT SCREEN, SCROLL DOWN AND CLICK *TENT SUPERSTORE*.

DEFINITIONS



Guy line—Also known as line, guy or guy rope. This is a single line or rope extending from the tent. When all guy lines are pinned to the ground and tightened, they anchor the tent and make it stable.

Tensioner—Also known as runner. This is a wooden or plastic bracket attached to the guy line. It's used to tighten or slacken the line.

Peg out—To anchor a tent by driving pins into the ground.

Ridge—The top of an A-type tent where the two sides slope away.

Loops—Some tents have reinforced, fabric fasteners at the base of the walls. Others have metal grommets. These are loops. Along with the pins, they anchor the walls to the ground, so wind and rain can't blow through.

PS END

Combined Logistics Excellence Awards 2011

ARMY AWARDS FOR MAINTENANCE EXCELLENCE

ACTIVE ARMY

Depot Category

Winner: Tobyhanna Army Depot, Tobyhanna, PA
Runner-up: Red River Army Depot, Texarkana, TX

ACTIVE ARMY MTOE

Small Category

Winner: B Btry, 2/20th FA, Ft Hood, TX (FORSCOM)
Runner-up: HHSC, 1st MI Bn, Wiesbaden, Germany (INSCOM)

Medium Category

Winner: 317th Maint Co, Bamberg, Germany (USAREUR)
Runner-up: D Co, 6/101st Avn Regt, Ft Campbell, KY (FORSCOM)

Large Category

Winner: 2/4th FA Regt, Ft Sill, OK (FORSCOM)
Runner-up: 532d MI Bn, Camp Humphreys, Korea (INSCOM)

Aviation Category

Winner: 3d MI Bn (Aerial Exploitation), Camp Humphreys, Korea (INSCOM)
Runner-up: None

ACTIVE ARMY TDA

Small Category

Winner: USAG-Humphreys TMP, Camp Humphreys, Korea (IMCOM)
Runner-up: USAG-Daegu Maint Div, Camp Henry/ Camp Carroll, Korea (IMCOM)

Medium Category

Winner: HHC, US Army JMTC, Grafenwoehr, Germany (USAREUR)
Runner-up: 39th Sig Bn, Chievres, Belgium (NETCOM)

Large Category

Winner: Army FSB-NE Asia, Camp Carroll, Korea (AMC)
Runner-up: 58th Trans Bn, Ft Leonard Wood, MO (TRADOC)

ARMY RESERVE MTOE

Small Category

Winner: HHC, 415th Chem Bde, Greenville, SC
Runner-up: None

Medium Category

Winner: 238th Maint Co, San Antonio, TX
Runner-up: 471st Engr Co, Ft Buchanan, PR

Large Category

Winner: 346th Trans Bn, Ceiba, PR
Runner-up: None

ARMY RESERVE TDA

Small Category

Winner: Area Maint Spt Acty #101 (G), St. Joseph, MN
Runner-up: Area Main Spt Acty #57 (G), New Century, KS

NATIONAL GUARD MTOE

Small Category

Winner: FSC, 1140th Engr Bn, Cape Girardeau, MO
Runner-up: D Btry, 2/174th Maneuver Air Missile Def Bn, McConnelsville, OH

Medium Category

Winner: 267th Maint Co, Lincoln, NE
Runner-up: 153d MP Co, Delaware City, DE

Large Category

Winner: 216th Engr Bn, Cincinnati, OH
Runner-up: 113th Sus Bde, Greensboro, NC

NATIONAL GUARD TDA

Small Category

Winner: Combined Spt Maint Shop-Oregon, Clackamas, OR
Runner-up: Field Maint Shop #12, West Paducah, KY

Medium Category

Winner: Combined Spt Maint Shop-Raleigh, Raleigh, NC
Runner-up: 183d Reg Trng Institute Maint and Supply Shop, Ft Pickett, VA

INSTALLATION MANAGEMENT COMMAND

Small Category

Winner: 6981st Civ Spt Grp, Mannheim, Germany (NETCOM)
Runner-up: Busan Storage Ctr, Busan, Korea (EUSA)

Medium Category

Winner: Maint Act Vilseck, Vilseck, Germany (USAREUR)
Runner-up: Installation Materiel Maint Acty, Ft McCoy, WI

Large Category

Winner: DOL, Materiel Maint Div, Ft Bragg, NC
Runner-up: Maint Act Kaiserslautern, Kaiserslautern, Germany

DEPLOYMENT EXCELLENCE AWARDS

ALL ARMY

Operational Deployment Category

Small Category

Winner: Regimental HHT 2d Stryker Cav Reg, Rose Barracks, Vilseck, Germany
Runner-up: B Btry, 1st Bn, 182d FA, Detroit, MI

Large Category

Winner: 3d IBCT, 25th ID, Schofield Barracks, HI
Runner-up: 1st Bn, 119th FA, Charlotte, MI

Army Installation CONUS Category

Winner: Ft Bragg, NC
Runner-up: Ft Hood, TX

Army Installation OCONUS Category

Winner: USAG-Vicenza, Vicenza, Italy
Runner-up: USAG-Baumholder, Baumholder, Germany

ACTIVE ARMY

Small Category

Winner: A Btry, 5/7 ADA Bn, Kaiserslautern, Germany
Runner-up: 240th QM Supply Co, Bamberg, Germany

Large Category

Winner: 2d Bn (A), 503d Inf Regt, Vicenza, Italy
Runner-up: 54th Engr Bn, Bamberg, Germany

Supporting Unit Category

Winner: 14th Trans Bn, Vicenza, Italy
Runner-up: 39th Trans Bn, Kaiserlautern, Germany

ARMY NATIONAL GUARD

Small Category

Winner: B Co, 3d Bn, 20th SFG, Roanoke Rapids, NC
Runner-up: HQ Co, 732d CSSB, Tomah, WI

Large Category

Winner: 53d IBCT, Pinellas Park, FL
Runner-up: 30th HBCT, Clinton, NC

Supporting Unit Category

Winner: Camp Atterbury Trng Ctr, Edinburgh, IN
Runner-up: JTF HQ—Ohio, Columbus, OH

ARMY RESERVE

Small Category

Winner: HHC, CA/PsyOps Cmd, Ft Bragg, NC
Runner-up: 811th Ord Co, Rainelle, WV

Large Category

Winner: STB, 377th TSC , Belle Chasse, LA
Runner-up: 642d Regt Spt Grp, Decatur, GA

Supporting Unit Category

Winner: 11th Avn Cmd, Ft Knox, KY
Runner-up: 1397th DDSB, Vallejo, CA

SUPPLY EXCELLENCE AWARDS

ACTIVE ARMY

Unit Level MTOE
Winner: B Co, 53d Sig Bn, Ft Meade, MD
Runner-up: E Co, 1/1 ADA Bn, Okinawa, Japan

Unit Level TDA
Winner: F Btry, 1st Bn, 19th FA, Ft Sill, OK
Runner-up: Maint Act Vilseck, Theater Log Spt Ctr—Europe, Vilseck, Germany

Property Book Level MTOE
Winner: 2d HBCT, 1st ID, Ft Riley, KS
Runner-up: 4th Mil Info Spt Ops Grp (A), Ft Bragg, NC

Property Book Level TDA
Winner: 719th MI Bn, USAG-Humphreys, Korea
Runner-up: 21st Cav Bde, Ft Hood, TX

Parent Level MTOE
Winner: 532d MI Bn, 501st MI Bde, USAG- Humphreys, Korea
Runner-up: 204th BSBn, 2d BCT, 4th ID, Ft Carson, CO

Parent Level TDA
Winner: 715th MI Bn, Schofield Barracks, HI
Runner-up: None

Supply Support Activity MTOE
Winner: 595th Maint Co, Supply Pt 51, Yongsan, Korea
Runner-up: HHC, 160th SOAR (A), Ft Campbell, KY

Supply Support Activity TDA
Winner: Avn Ctr Log Cmd, Ft Rucker, AL
Runner-up: 498th CSSB, Supply Pt 60, Camp Carroll, Korea

ARMY RESERVE

Unit Level MTOE
Winner: 396th Med Co, Winston-Salem, NC
Runner-up: None

Unit Level TDA
Winner: AMSA 39 (G), Topeka, KS
Runner-up: AMSA 11 (G), Lubbock, TX

Property Book Level TDA
Winner: HQs, 1st Mission Spt Cmd, Ft Buchanan, PR
Runner-up: HQ Det 1394th Trans Bde, Camp Pendleton, CA

Parent Level TDA
Winner: Med Readiness and Trng Cmd, San Antonio, TX
Runner-up: None

Supply Support Activity MTOE
Winner: 1011th QM Co, Det 1, Pittsburg, KS
Runner-up: 238th Maint Co SARSS-1, San Antonio, TX

NATIONAL GUARD

Unit Level MTOE
Winner: Det 2, 165th QM Co (Lt Ad Sp), Seward, NE
Runner-up: 1473rd QM Spt Co, San Juan, PR

Unit Level TDA
Winner: 66th Trp Cmd, Jackson, MS
Runner-up: HQ 209th Regional Trng Inst, Ashland, NE

Property Book Level MTOE
Winner: HQ 254th Trans Bn, West Palm Beach, FL
Runner-up: 1486th Trans Co, Ashland, OH

Property Book Level TDA
Winner: JFHQ—Maine, Augusta, ME
Runner-up: JFHQ—Florida, St. Augustine, FL

Parent Level MTOE
Winner: 110th Multifunctional Med Bn, Lincoln, NE
Runner-up: 113th Sus Bde, Greensboro, NC

Parent Level TDA
Winner: 721st Trp Cmd, Milford, DE
Runner-up: None

Supply Support Activity
Winner: USP&FO-Indiana, Indianapolis, IN
Runner-up: JFHQ—Idaho, Boise, ID

Explosives Safety Training

More than 56 DAC explosives safety courses are available through self-paced distance learning and instructor-led training at locations throughout the world.

Four new distance learning courses, AMMO-99-DL, AMMO-100-DL, AMMO-101-DL and AMMO-102-DL, provide self-paced instruction on explosives safety quantity distance (ESQD) principles, Army safety site planning, and tutorials on using an Automated Quantity Distance Calculator approved by the Department of Defense Explosive Safety Board (DDESB).

Several courses, such as AMMO-28, *Electrical Explosives Safety for Army Facilities,* and AMMO-29, *Electrical Explosives Safety for Naval Facilities,* are even tailored to specific service requirements.

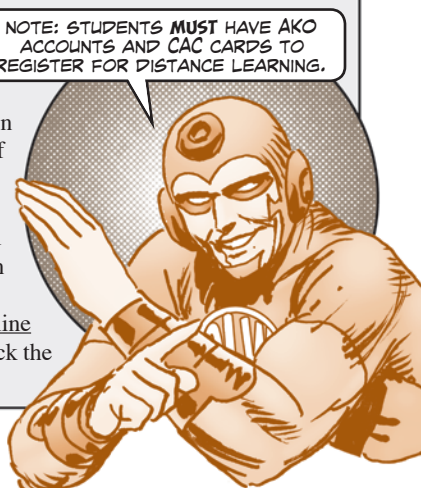
To see all the available courses, go to the DAC training directorate website:

http://ammo.okstate.edu

Click on Course Catalog under the Main Menu heading, then click on a course title of your choice to read the course's description, its intended audience, and included topics.

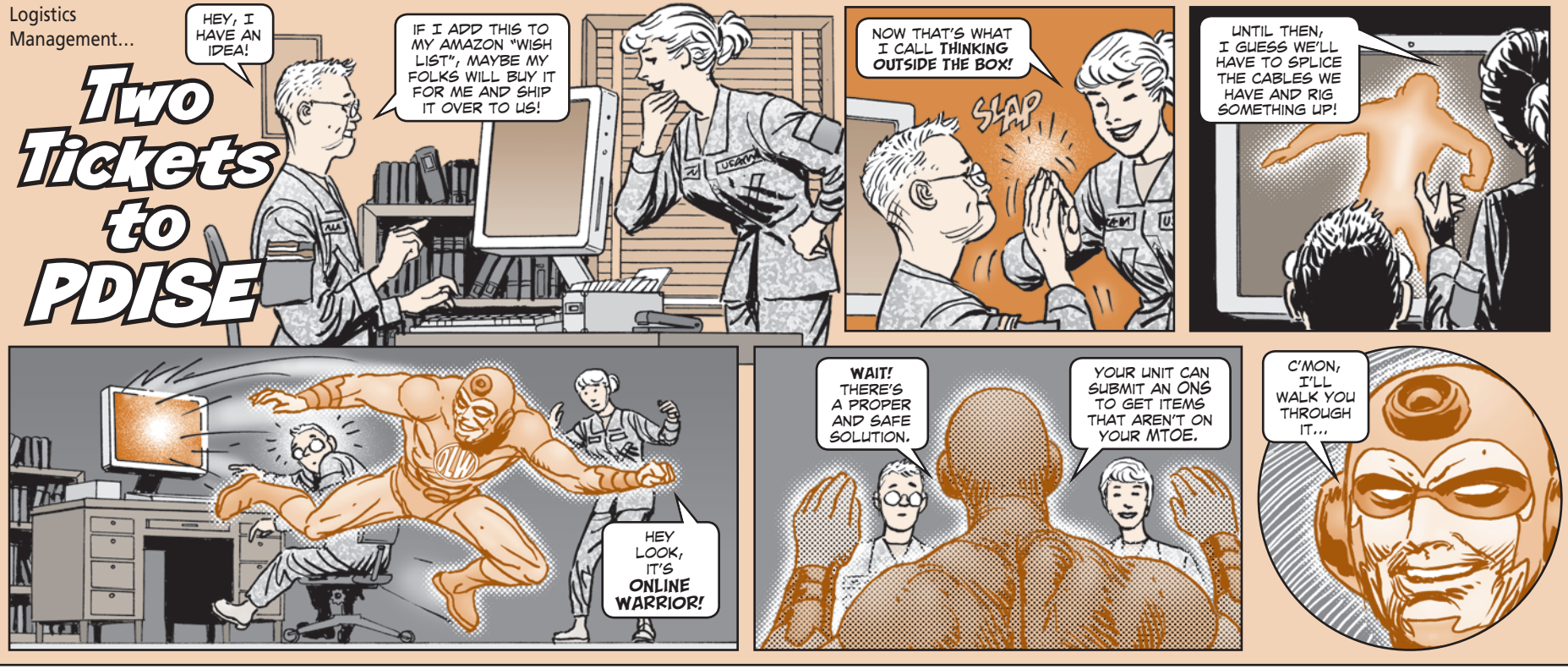
If an instructor-led course is scheduled, you'll also see a list of dates and locations. Click on Availability and contact the POC to register.

For distance learning registration, click Online Training under the Main Menu heading, then click the specific course title to self-register.



Logistics Management...

Two Tickets to PDISE



Some deployed units have reported a tough time getting PDISE (power distribution illumination systems, electrical) boxes to power their equipment. Some also assumed jury-rigged wiring was a valid workaround for that problem. Nope. That's unsafe and unnecessary!

Here's the scoop: Because PDISE is a Class VII item, you can't get it through normal requisition channels. When your unit needs items like PDISE that are not on your MTOE, an Operational Needs Statement (ONS) must be submitted through the Equipment Common Operating Picture (ECOP) at HQDA.

Access to ECOP is only through SIPRNET, and an authorized .smil email address is required to register.

G-8 has a detailed brochure that explains the ECOP and ONS processes:

https://www.g8.army.mil/pdf/ECOP_POCKET_GUIDE.pdf

AR 71-9, *Warfighting Capabilities Determination,* also covers ECOP/ONS policy and guidance. Check it out:

http://www.apd.army.mil/pdffiles/r71_9.pdf

Nomenclature	NSN	LIN
M200 Feeder System	6150-01-308-5672	F55689
M100 Feeder System	6150-01-308-5671	F55621
M60 Distribution System	6150-01-307-9445	F55553
M40 Distribution System	6150-01-307-9446	F55485
M46 Utility Assembly	6150-01-208-9751	U89185

PDISE components of end item (COEI) include pigtail cables (4-ft), service/feeder cables (25- or 50-ft), extension cables (25- or 50-ft), duplex receptacle boxes, transit containers, and cable-carrying straps. All of these components come with PDISE.

However, if you find any COEI is damaged or missing, your unit can order replacements because they are Class IX. You'll find a complete COEI list in the TM.

So, before you plug in and on, get the whole enchilada on PDISE by checking out TM 9-6150-226-13, *Operator, Unit and Direct Support Maintenance Manual for Distribution Illumination Systems, Electrical (DISE) and Power Distribution Illumination Systems, Electrical (PDISE)* (Nov 08).

Connie's POST SCRIPTS PS

GCSS-Army Materials Available

Units, to get the latest Global Combat Support System-Army (GCSS-Army) informational DVDs, brochures or flyers, send an e-mail request with your physical address (no P.O. Boxes) and complete contact information to:
jim.mcdonough@us.army.mil

2011 Defense Logistics Agency Customer Assistance Handbook

The 18th edition of the DLA Customer Assistance Handbook is available online and in hard copy for DLA customers. To register to access the online version or to order a hard copy, visit:
http://www.dla.mil/dla_customerpub/communications.aspx
For additional information, email: handbook@dla.mil

HMMWV Engine Oil Pressure Changes

The current engine oil pressure requirements in all HMMWV national maintenance work requirements (NMWRs) and technical manuals have been revised.

Operating oil pressure requirements for engine rpm above idle should be changed from 30-50 psi to 25-65 psi and 30 psi should be changed to 25 psi. Minimum oil pressure at idle will remain 10 psi. Make a note until updates are made.

SEE Drive Shaft Boot

To get the rubber, one-piece boot for the front and rear drive shafts on the small emplacement excavator (SEE), use NSN 9390-01-240-4662. It's shown as Item 5 in Fig 126 and Item 24 in Fig 127 of TM 5-2420-224-24P-1. Do **not** use any commercial split-type boot. The SEE has a fording requirement that prevents the use of a split-type boot.

Quick Fix for Viewing PS Online

Has your computer been upgraded from Adobe Reader 9® to Adobe Reader X® recently? Then you've probably noticed a problem when trying to open a copy of *PS Magazine* online.

There is an incompatibility problem between Adobe Reader X® and Internet Explorer 7® (IE 7®) that causes a failure when trying to open large PDF files like *PS Magazine*. Adobe is looking into the problem.

Until a solution is found, there are two work-arounds to try. First, use the Mozilla Firefox® Internet browser to access *PS Magazine*. Firefox® is a bit slower than IE 7®, so be patient until the file opens.

Second, you can use IE 7® to download PS issues directly to your hard drive. Just right mouse click on the cover for the issue you want, choose Save Target As and select where you'd like to save the issue on your hard drive. Then open the issue using Adobe Reader X®.

Starting with PS 704 (Jul 11), the red box links (Click here for a copy of this article to save or email) at the bottom of each article were changed to hotlinks. Even if you've downloaded the issue to your hard drive, you can still click on the link to open that individual article in IE 7®.

The red box links in issues prior to PS 704 will not work if you've downloaded the issue to your hard drive. They were designed to open files on the *PS* server and will only work when viewing the issue in IE 7® or Firefox®.

Test AN/UDR-13 for Beeping

Some AN/UDR-13 radiacmeters have a software problem that causes them to beep–and you can't turn off the beeping. That could be disastrous in a combat situation where the beeping could alert the enemy. So it's critical you CBRN specialists check to see if any of your AN/UDR-13s are beepers, especially if their serial numbers range from 6000C to 33000C.

Turn them on and let them operate away from a radiation source for at least 20 minutes. If one beeps, mark it so you know not to use it in a situation requiring silence. CECOM is working on a fix, which PS will let you know about.

It's OK to use the beepers in non-combat situations. They still accurately measure radiation.

CAIMAN MRAP DAS Battery

Use *only* NSN 6140-01-569-6570 when you need to order a battery for the door assist system (DAS) on CAIMAN MRAPs. Do *not* replace the DAS battery with one that comes from a different vehicle system. If you use the wrong battery, the DAS will malfunction. Then the rear door won't open or close properly—meaning you won't be able to get in-or-out of the vehicle!

M870A1 Wood Decking Kit

Use NSN 5510-01-540-5724 to get a complete wood decking kit for the 40-ton lowbed semitrailer. Make a note until this NSN is added to Fig 29 of TM 5-2330-378-14&P.

Calibration Changed for JCBRAWM Radiacmeter

If your unit has the M329 Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM), you need to change the calibration date for its IM-263/PDR-77 radiacmeter, NSN 6665-01-348-4688. The radiacmeter's calibration date has been extended three years from the DATE CALBR listed on the radiacmeter. This change applies only to the -PDR-77s used with JCBRAWM.

M939/A1/A2-Series Wheel Stud Nut

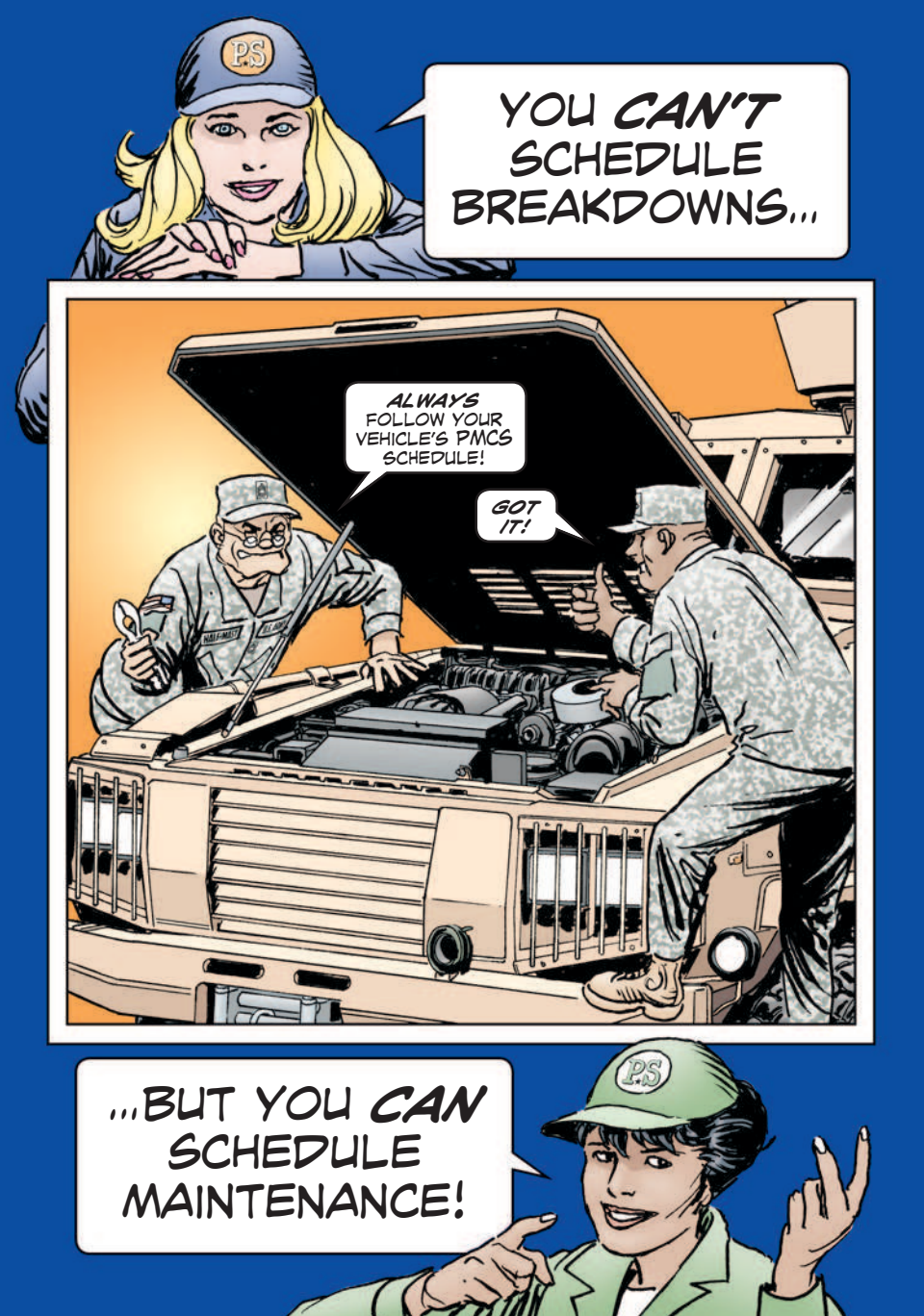
A nut for the wheel stud nut for the M939/A1/A2-series 5-ton truck comes with NSN 5310-01-445-6872. This NSN replaces the one shown as Item 7 in Fig 292 of TM 9-2330-272-24P-1.

M939/A1/A2 Axle Gasket

To get a non-asbestos gasket for the top access cover on your M939 5-ton's axle differential, use NSN 5330-01-514-6882. This NSN replaces the one shown as Item 4 in Fig 240 of TM 9-2320-272-24P.

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?


YOU CAN'T SCHEDULE BREAKDOWNS...
ALWAYS FOLLOW YOUR VEHICLE'S PMCS SCHEDULE!
GOT IT!
...BUT YOU CAN SCHEDULE MAINTENANCE!