

Issue 677

**PS**

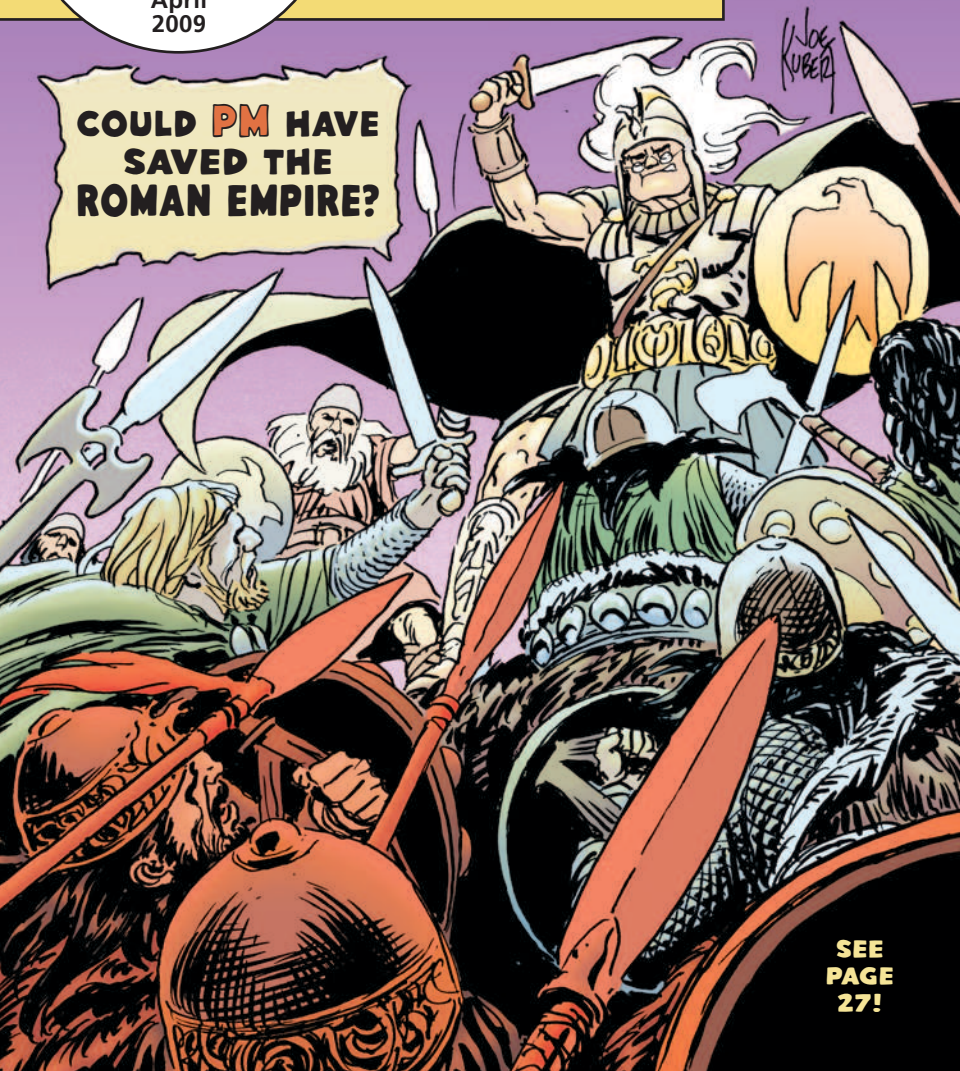
April  
2009

# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-677

Approved for  
Public Release;  
Distribution is  
Unlimited

**COULD PM HAVE  
SAVED THE  
ROMAN EMPIRE?**



**SEE  
PAGE  
27!**

# The PROBLEM with Horseplay

SOMETIMES HORSEPLAY AND PRACTICAL JOES ARE FUNNY.

A LITTLE HUMOR EVERY NOW AND THEN BREAKS UP THE MONOTONY.

BUT PLAYING PRACTICAL JOES WITH POL CAN GET YOU INTO HOT WATER.

LET'S SAY, FOR EXAMPLE, THAT AFTER YOU'VE DRAINED SOME HYDRAULIC FLUID FROM A COMPONENT INTO A WATER BOTTLE WITH NO LABEL, YOU PUT IT NEXT TO ANOTHER SOLDIER'S WATER BOTTLE TO PLAY A TRICK.

WHAT DO YOU THINK WILL HAPPEN?

WILL THE SOLDIER KNOW THE DIFFERENCE?

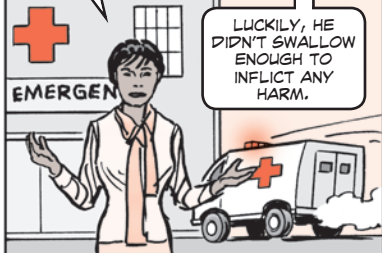
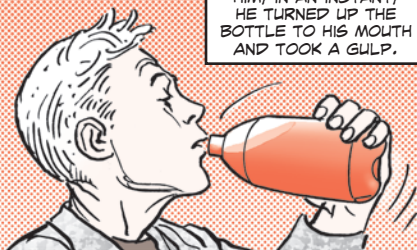
WELL, IN ONE CASE, A SOLDIER *DIDN'T* KNOW WHAT HIS BUDDIES WERE UP TO.

HE PICKED UP WHAT HE THOUGHT WAS HIS RED DRINK AND BEFORE THEY COULD STOP HIM, IN AN INSTANT, HE TURNED UP THE BOTTLE TO HIS MOUTH AND TOOK A GULP.

THAT'S A SCARY SITUATION.

THE SOLDIER WAS RUSHED TO THE HOSPITAL, EXAMINED AND TREATED.

LUCKILY, HE DIDN'T SWALLOW ENOUGH TO INFLICT ANY HARM.



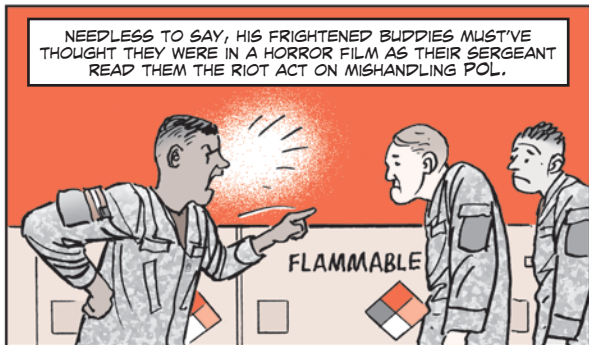
NEEDLESS TO SAY, HIS FRIGHTENED BUDDIES MUST'VE THOUGHT THEY WERE IN A HORROR FILM AS THEIR SERGEANT READ THEM THE RIOT ACT ON MISHANDLING POL.

DON'T PLAY AROUND WITH POL.

IT'S NO JOKE!

FLAMMABLE

HANDLE IT RIGHT AND YOU *WON'T* GET THE FRIGHT OF YOUR LIFE.





# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-677, 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 677 APRIL 2009



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M1A1 Tank Panel Lights  
M88A1 Powerpack Installation Tools  
M992A2 Ammo Carrier Cargo Hatch Latches  
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Small Arms Ammo Cautions



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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**

Or email to:

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

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

Internet address:

**<http://www.logsa.army.mil/psmag/pshome.cfm>**

By order of the Secretary of the Army:

**GEORGE W. CASEY, JR.**

General, United States Army Chief of Staff

Official:

*Joyce E. Morrow*

**JOYCE E. MORROW**

Administrative Assistant to the Secretary of the Army

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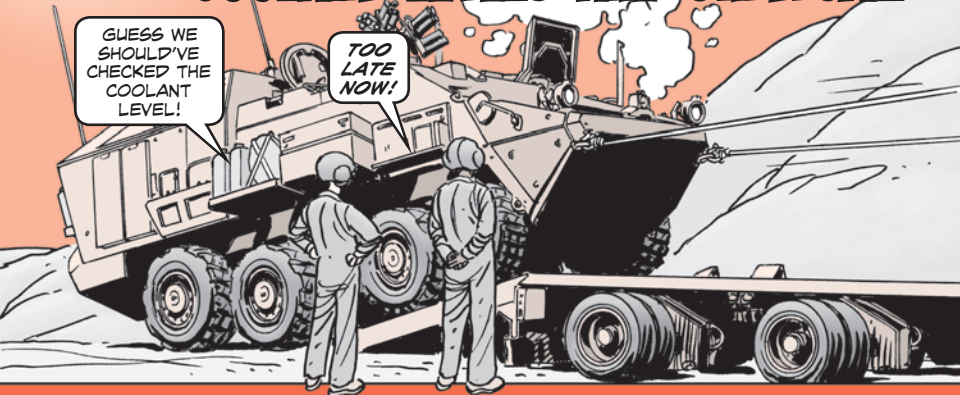
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Stryker...

# COOLANT LEVELS ARE CRITICAL

GUESS WE SHOULD'VE CHECKED THE COOLANT LEVEL!

TOO LATE NOW!



**Y**our Stryker's going to get a little hot under the collar if you don't keep an eye on coolant levels, drivers.

To help your Stryker keep its cool, check those coolant levels after every operation. Just make sure you let the engine cool before removing the cap to make the check.

Otherwise, hot coolant can spray from the opening, causing severe burns. It's also a good idea to wear protective gloves and chemical goggles to protect your eyes and skin just in case.

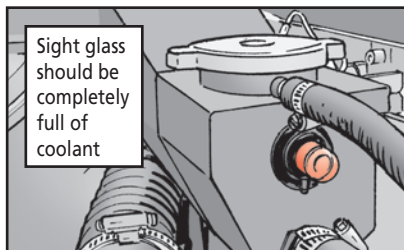
HERE'S HOW TO MAKE THE CHECK...

Open the front service and engine cover hatches and eyeball the sight glass on the surge tank. The sight glass should be completely full. If it's not, remove the pressure cap on top of the surge tank and add coolant until the sight glass is full.

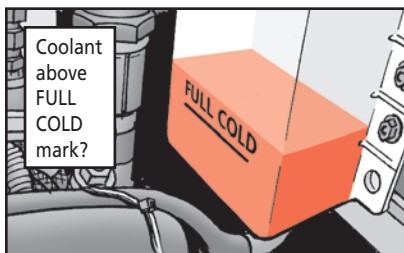
Next, check the coolant overflow reservoir. If the coolant isn't above the FULL COLD mark, remove the cap and add coolant.

The right amount of coolant in the surge tank and overflow reservoir is just what your Stryker needs when the heat is on.

Sight glass should be completely full of coolant

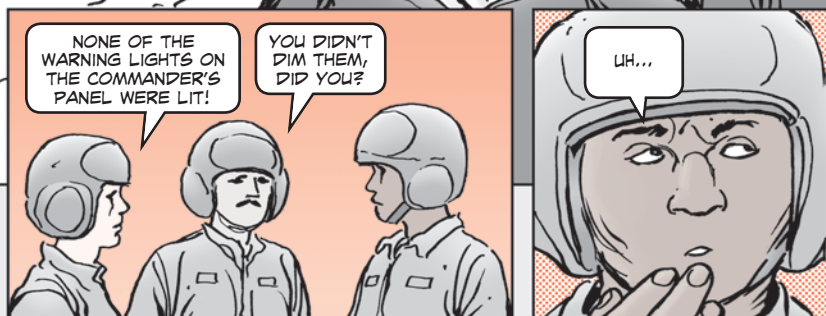


Coolant above FULL COLD mark?





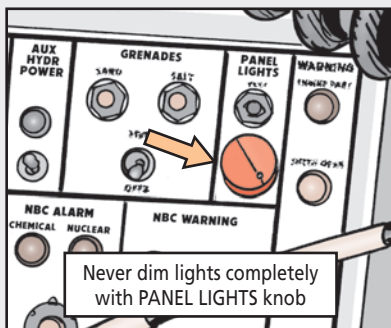
# WHO TURNED OUT THE LIGHTS?



Just because you **can** use the PANEL LIGHTS knob to completely dim the lights on the commander's panel of your M1A1 tank doesn't mean you **should**. In fact, you definitely shouldn't.

Dimming those lights completely is a real safety hazard, especially when it comes to the warning lights.

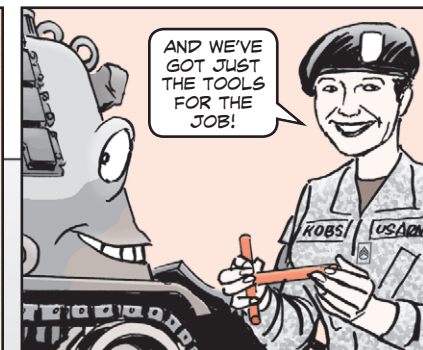
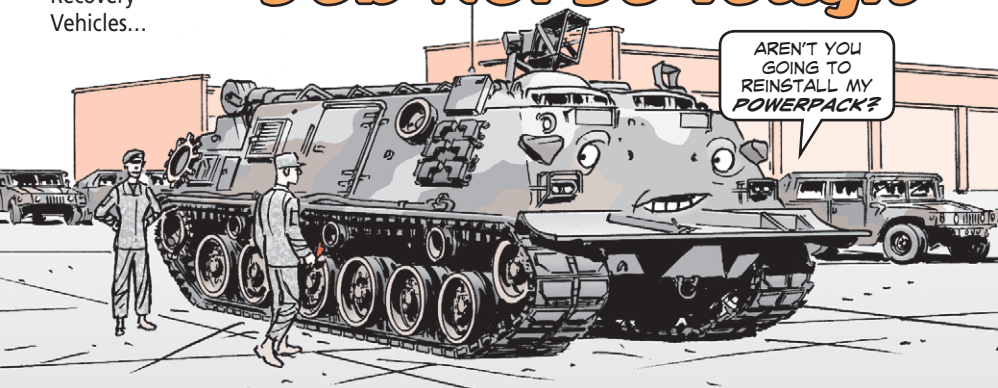
One crew learned that lesson the hard way when the NBC filter on their tank caught fire after the air cycle turbine failed. The crew reported that the NBC OVERHEAT SPONSON OUT light didn't provide any warning. It turned out that the warning light was working but had been completely dimmed.



So follow the information on Page 2-301 of TM 9-2350-264-10-1 (Mar 02 w/Ch 4, Dec 07). It tells you how to test the panel lights and adjust the PANEL LIGHTS knob so the lights are dimmed but still readable. Never dim them completely.

# Job Not So Tough

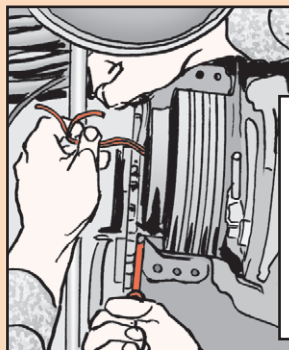
# with New Tools



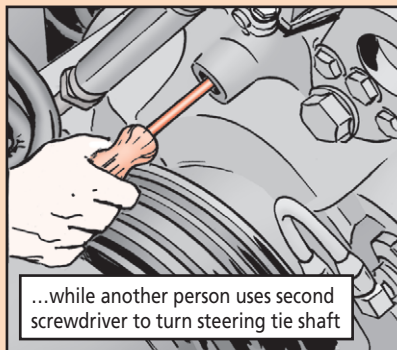
Dear Editor,

Installing the powerpack on an M88A1 recovery vehicle is a tough, time-consuming job for mechanics. The last thing you need is anything that makes the job harder.

Unfortunately, the procedure for meshing the final drive and transmission is difficult and cumbersome. Steps 25 and 26 in WP 0098 00-16 of TM 9-2350-256-20-1 (Nov 05) have you use a screwdriver and a piece of wire to lift and push the coupling flange toward the steer clutch housing while also using a second screwdriver to turn the steering tie shaft to engage the gear teeth.



One person pulls up on coupling with wire while wedging with first screwdriver...

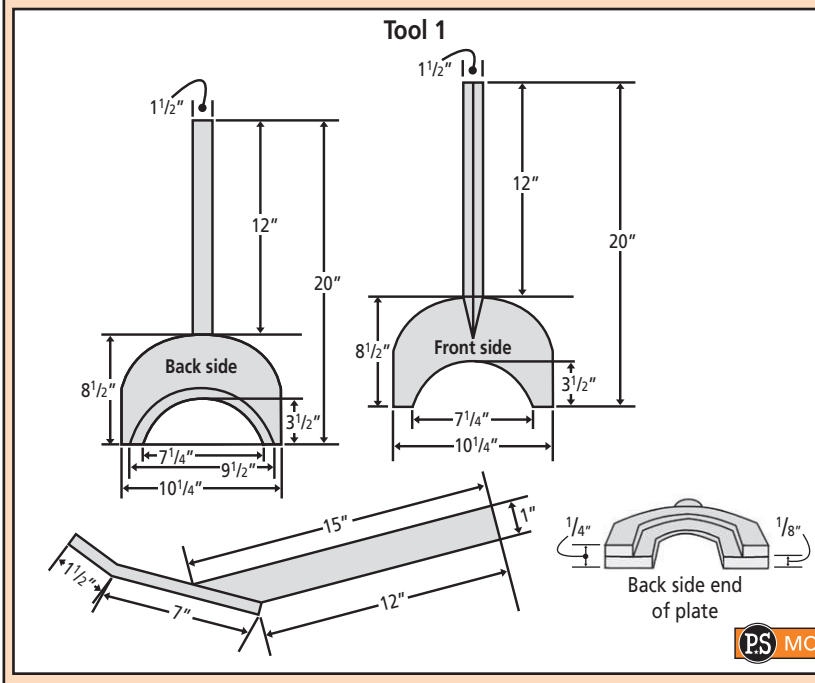


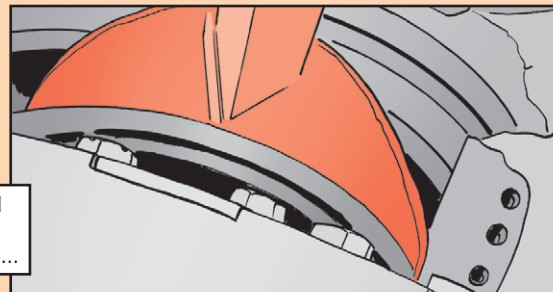
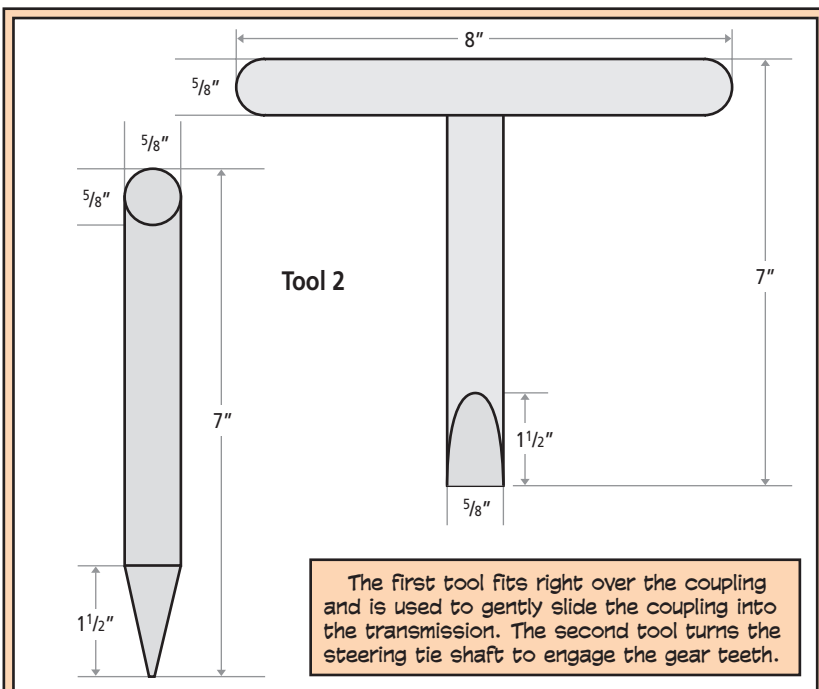
...while another person uses second screwdriver to turn steering tie shaft

It's a tough job in a tight space, especially because it takes more than one person to do it. Prying with a screwdriver is a good way to scar the coupling. It's also easy to accidentally drop one or both of the screwdrivers into the hull. If you can't fish the dropped screwdriver out, you have to pull the pack and start all over again.

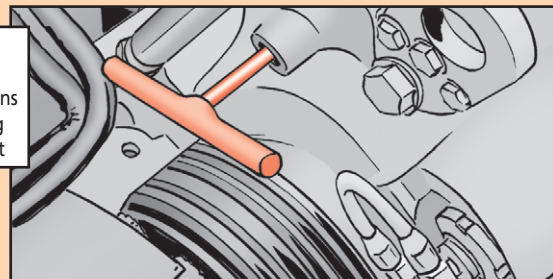
We've designed two special tools that makes this job much easier. And there's no danger of scarring the coupling or having to worry about dropping a tool into the hull.

The first tool is made of 1-in angle iron and two pieces of  $\frac{1}{8}$ -in thick steel plate welded together for support. The second tool is made of  $\frac{5}{8}$ -in steel rod. All measurements are in inches.



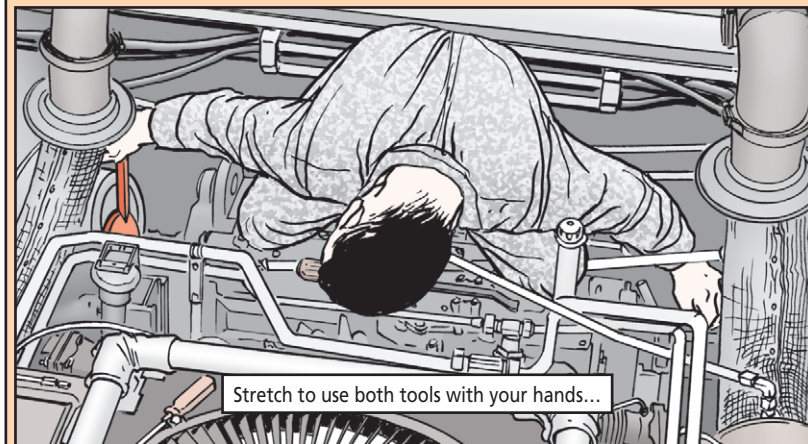


First tool fits over coupling...

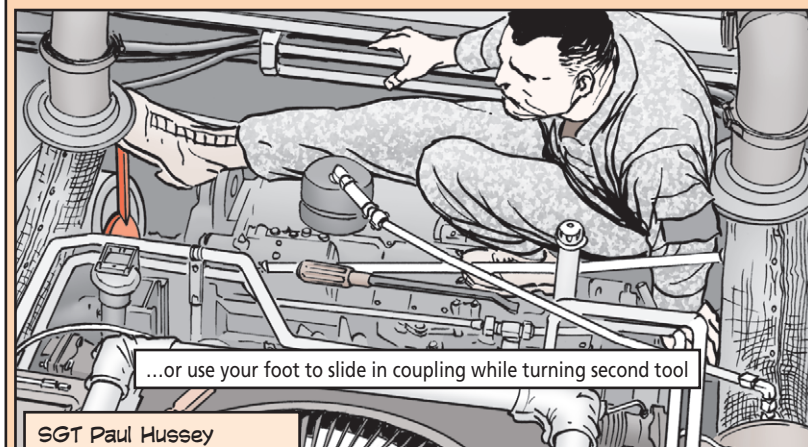


...while second tool turns steering tie shaft

And, it takes only one person to do the job. You can stretch to do it with one hand on each tool, or use your foot to slide the coupling in place while turning the second tool.



Stretch to use both tools with your hands...



...or use your foot to slide in coupling while turning second tool

SGT Paul Hussey  
SGT Rebekah Ann Kobs  
OR ARNG  
LaGrande, OR

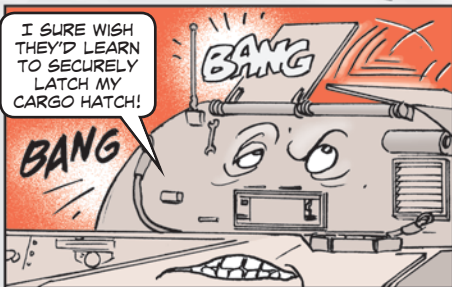
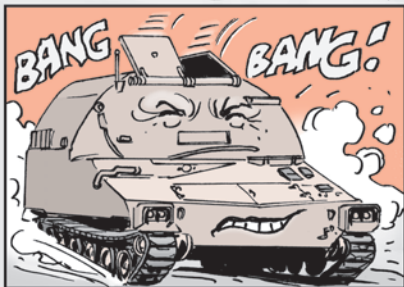
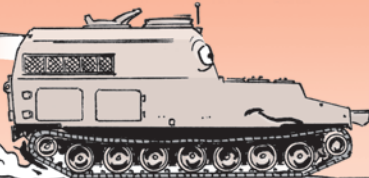
**Editor's note:** TACOM knows a good idea when they see one! They've decided to add your tools to the fabricated tools section of the TM.

Sergeants Hussey and Kob's idea was submitted and approved through the SMART suggestion program. If you have a time- or money-saving idea, submit it to SMART online: <https://aeps.ria.army.mil/smart/smarthome.cfm>

Not only can your idea help others, but you may make a few bucks, too!

PS END





## HOW TIGHT ARE YOUR LATCHES?

CREWMEN, WHEN YOU FINISHED LOADING OR UNLOADING YOUR AMMO CARRIER THROUGH THE CARGO HATCH, DID YOU **REMEMBER** TO LATCH THE HATCH SECURELY?

TAP TAP ✓



You think so, huh? Well, maybe it would be a good idea to go back and make sure those latches are screwed in all the way.

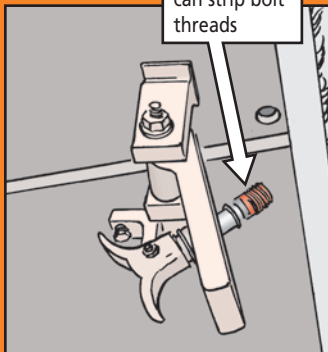


Screw latch in completely...

...or movement can strip bolt threads

You see, if the two latches that secure the cargo hatch aren't tight, the hatch will bounce up and down during operation. Enough of that bouncing will strip out the latch bolts. Then you can't secure the hatch at all.

So, keep those latches tight and they'll keep on latchin'!



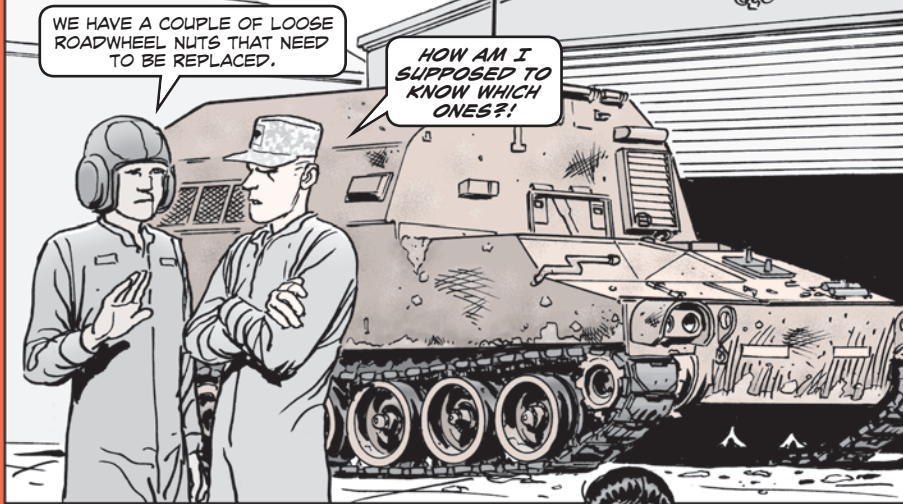


M109A6 Paladin,  
M992A2 Ammo Carrier...

# Once Only on Roadwheel Nuts

WE HAVE A COUPLE OF LOOSE  
ROADWHEEL NUTS THAT NEED  
TO BE REPLACED.

HOW AM I  
SUPPOSED TO  
KNOW WHICH  
ONES?!



WHEN YOU'RE IN THE FIELD AND  
YOU FIND A LOOSE ROADWHEEL  
NUT ON YOUR PALADIN OR AMMO  
CARRIER, WHAT DO YOU DO?

YOU  
TIGHTEN  
IT, OF  
COURSE.

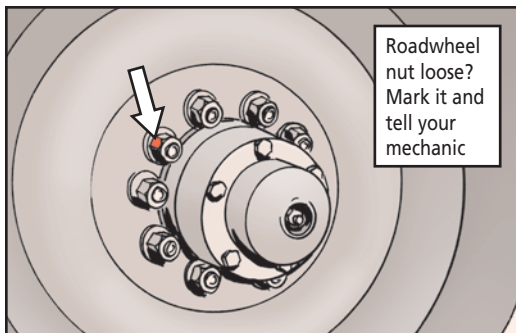


Leave it alone and that loose nut puts more stress on the surrounding nuts. They may loosen as well and pretty soon you might lose the roadwheel.

Problem is, those roadwheel nuts are supposed to be tightened only once.

That's why it's a good idea to use something to mark the loose nut before tightening. Then, when you return to the motor pool, you can get your mechanic to replace the marked nut with NSN 5310-00-982-6809.

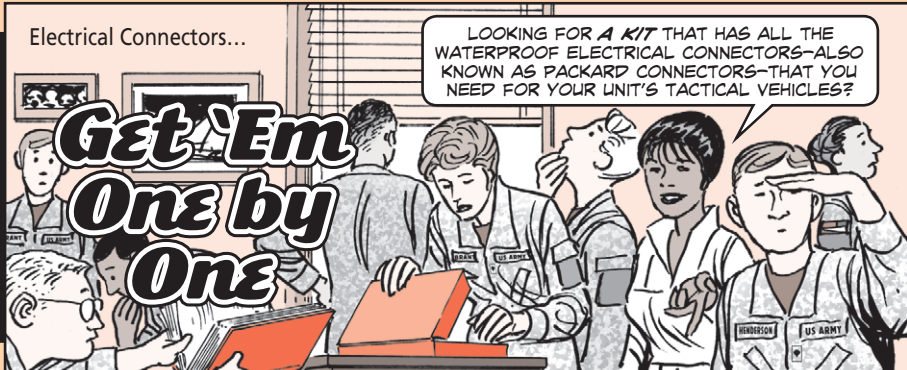
Use a dab of paint or a permanent ink marker to ID the loose nut.













Electrical Connectors...

LOOKING FOR A KIT THAT HAS ALL THE WATERPROOF ELECTRICAL CONNECTORS—ALSO KNOWN AS PACKARD CONNECTORS—THAT YOU NEED FOR YOUR UNIT'S TACTICAL VEHICLES?

**Get 'Em One by One**



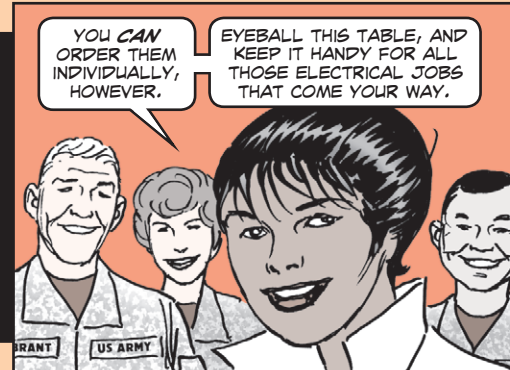
NSN	Description	Quantity
5935-00-900-6281	Adapter, connector, "Y"  1	1
5975-00-660-5962	Cable nipple, electrical (male shell for 16 AWG wire)  2	100
5935-00-833-8561	Shell, electrical connector (male shell for 14 AWG wire)  3	1
5935-00-399-6673	Connector (ribbed male shell for 14 AWG wire)  4	1
2590-00-695-9076	Shell, headlight circuit (male shell for 12 AWG wire)  5	1
5935-00-691-5591	Shell, electrical connector (female shell for 16 AWG wire)  6	1
5935-00-572-9180	Shell, electrical connector (female shell for 14 AWG wire)  7	1
5935-00-695-9077	Shell, electrical connector (female shell for 12 AWG wire)  8	1
5999-00-926-3144	Electrical contact for 16 AWG wire  9	1
5999-00-057-2929	Electrical contact for 14 AWG wire  10	1









LOOK NO MORE. IT DOESN'T EXIST!

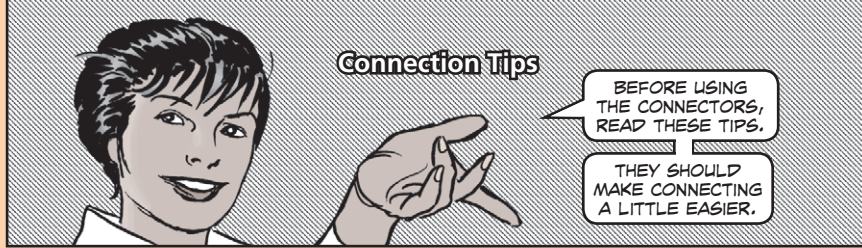


YOU CAN ORDER THEM INDIVIDUALLY, HOWEVER.

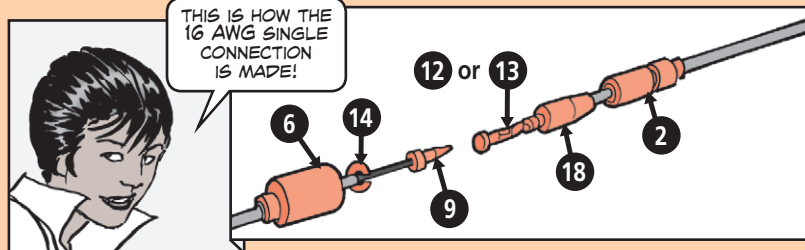
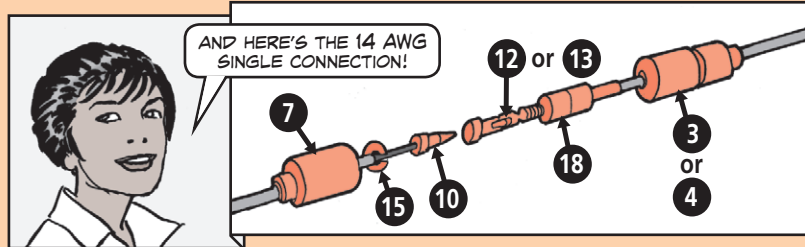
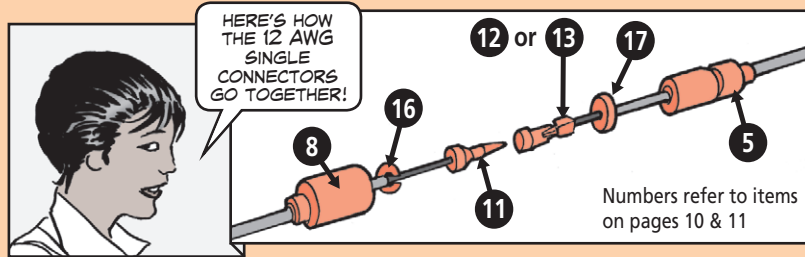
EYEBALL THIS TABLE, AND KEEP IT HANDY FOR ALL THOSE ELECTRICAL JOBS THAT COME YOUR WAY.



NSN	Description	Quantity
5999-00-925-6495	Electrical contact for 12 AWG wire  11	1
5940-00-846-5012	Ferrule, electrical connector, (female solder terminal for 12, 14 and 16 AWG wire)  12	5/pkg
5940-00-399-6676	Terminal assembly (female crimp terminal for 12, 14 and 16 AWG wire)  13	25/pkg
5310-00-656-0067	Slotted washer for 16 AWG wire  14	100
5310-00-833-8567	Slotted washer for 14 AWG wire  15	100
5310-00-595-7044	Slotted washer for 12 AWG wire  16	100
5310-00-298-8903	Flat washer (terminal retainer for 12 AWG wire)  17	100
5970-00-833-8562	Insulator (plastic insert for 14 and 16 AWG wire)  18	100



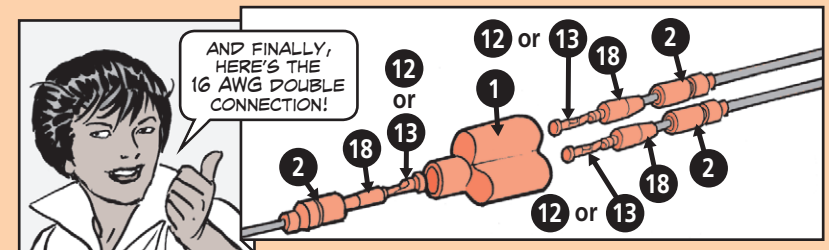
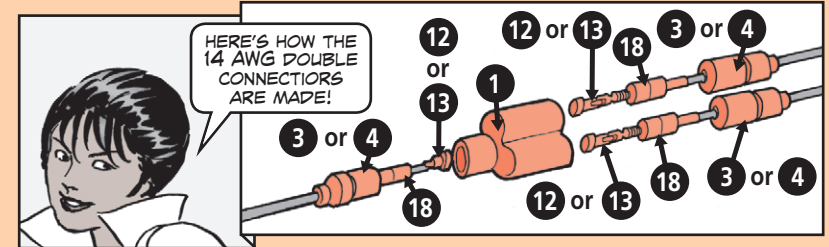
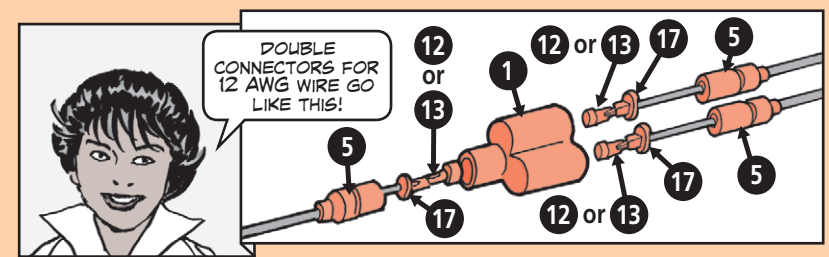
- Match the parts with the wire (12, 14 or 16 AWG wire).
- Use washer, NSN 5310-00-298-8903, instead of plastic sleeve, NSN 5970-00-833-8562, when working with 12 AWG wire.
- Use the two types of male shells (ribbed and plain) to identify the positive (+) and negative (-) hookups on polarized units. For instance, always use ribbed for positive and plain for negative—or vice-versa.
- Never mash down on the rubber shells to get a good connection. You'll just mangle the female connector and make it tougher to get a connection.



- Distinguish between the two types of female connectors—crimp-on and solder. The connector with a solid sleeve gets crimped on the wire. With the other type, you bend the larger tabs around the insulated part of the wire and the smaller tabs around the bare wire. Then add a dab of solder.

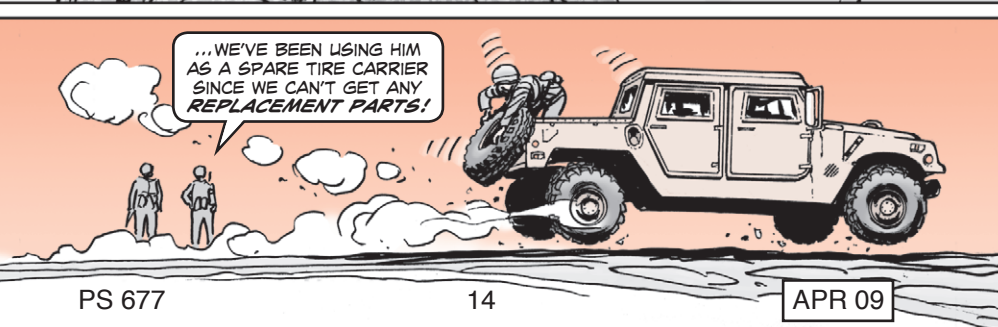
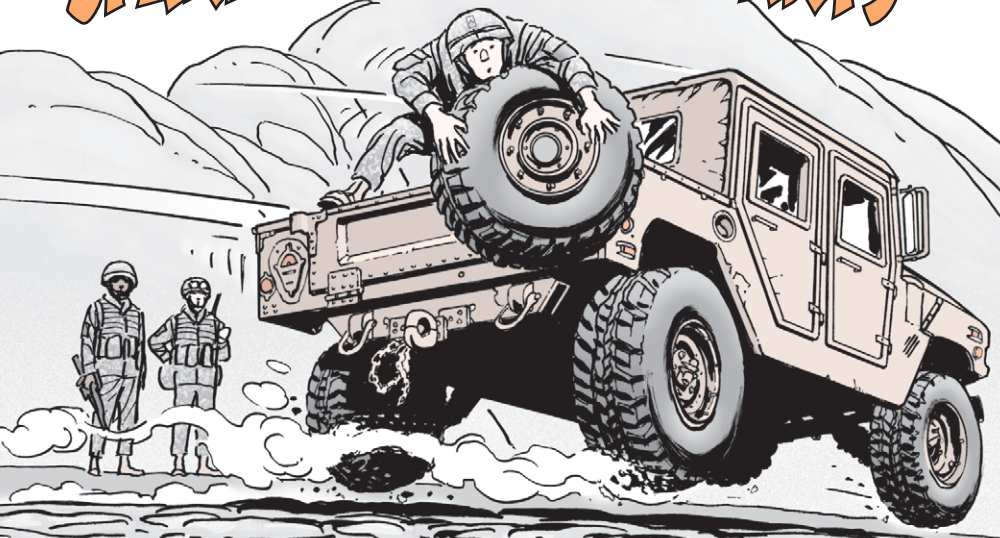
You can use either type of connector with 14 or 16 AWG wire. But for 12 AWG wire, the crimped version is better. If you use the solder type, the large tabs can't be used to latch onto the insulation because the small washer must be used. The washer goes between the insulation and the terminal. Peel off the insulation, slip on the washer and add the terminal. Bend over the tabs and solder on the terminal.

- Use a dab of silicone compound, NSN 6850-00-880-7616, to make hookups easier. Put the compound on the male shell before you mate it to the female shell. It'll also help when you disconnect.
- Don't bend connections up and down to separate them. If you can't pull on the wires to separate the connection, try inserting something between the shells—carefully—and pry gently until you can pull the connectors apart.





# SPARE TIRE CARRIER PARTS



Dear Connie,

Here in Kuwait, I see hundreds of vehicles each day at our maintenance facility. Many of the HMMWV spare tire carriers, NSN 2590-01-525-1995, are missing parts and I get the same question. How do we get parts?

At first we couldn't find replacement parts, so we did a little research and learned that TACOM LCMC doesn't support the carrier. Then we tracked down the manufacturer:

RICO Equipment, Inc.

691 West Liberty  
Medina, OH 44256

Phone (330) 723-4050, ext. 244

Fax (330) 723-4012 or (330) 722-6980

Website: <http://www.ricoequipment.com>

Email: [jhardacre@ricoequipment.com](mailto:jhardacre@ricoequipment.com)

I called the manufacturer and talked with their spare parts POC. I think what he told me will be helpful information for the field. This chart gives the tire carrier parts they sell and the current prices as of early 2009:

Item	Qty	Part Number	Cost
Pivot mount	1	STA001-05P	\$173.50
Double pivot	1	STA002-02P	\$195.00
Main arm	1	STA003-04P	\$308.76
Ratchet jack	1	99221173P	\$125.00
Main arm pin	1	STO21-01P	\$12.18
Handle wrench	1	STA010-01P	\$22.88
Wrench safety pin	1	70061342	\$2.05
Main arm safety pin	1	70061343	\$5.14
Lanyard	2	70061338	\$4.06
Bumper lock mount	1	STA005-05P	\$80.11

CW3 Andy L. Bolinger  
Battalion Maintenance  
Officer  
Camp Patriot, Kuwait

GOOD INFO,  
ANDY.  
THANKS.

READERS,  
THESE SPARE  
TIRE CARRIER  
PARTS ARE  
**ONLY** FOR  
HMMWVs WITH  
AN AIRLIFT  
REAR BUMPER:  
M113, M114,  
M1025A2,  
M1097, M1151,  
M1152, AND  
M1165.

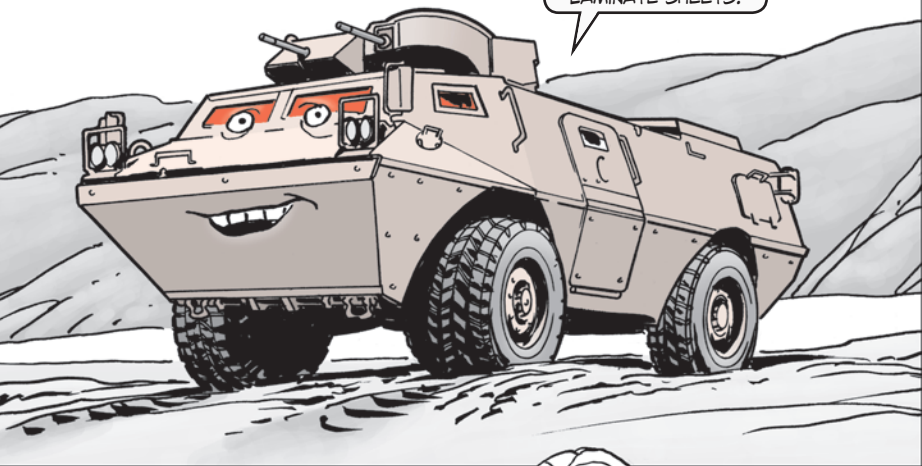
AND  
REMEMBER,  
GET THE  
CURRENT  
PRICES AND  
PART NUMBERS  
FROM THE  
VENDOR  
BEFORE YOU  
PLACE YOUR  
ORDER.





# KEEP A CLEAR VIEW

TO KEEP A **CLEAR** VIEW, USE PULL-OFF LAMINATE SHEETS!



**N**ot only does blurred vision occur as you get older, it also happens when the windshield and side vision blocks on your armored security vehicle (ASV) get dirty, chipped or cracked.

To keep a clear view, use pull-off laminate sheets that come with kit, NSN 2510-01-566-4009. These clear, mylar sheets have an adhesive backing that holds 'em in place. Each package of sheets, made up of four removable layers and a base layer, mount onto the windshield or vision block to ward off damage from small rocks and flying debris. Also, each sheet has a recessed corner for easy removal of each layer as needed.

THE KIT INCLUDES A PACKAGE CONTENT LIST WITH INSTALLATION AND USAGE INSTRUCTIONS.

HERE'S WHAT COMES IN THE KIT...

- Windshield laminates—2 packages
- Side block laminates—2 each
- 8-oz trigger spray bottle—1 each
- 1-oz bottle w/measured cleaning and installation soap—1 each
- Pillar label/ID and care information—1 each
- Bar squeegee—1 each
- Razor blade—1 each
- Lint free paper towels—10 each

# Technical Manual Info



Dear Half-Mast,

I'm trying to locate the -10 TM series for our unit's M984A1P1 HEMTT wrecker. When I search the IETM online, either by NSN 2320-01-523-1070 or LIN, I come up empty.

Could PS help us out with the right info?

SFC R.F.

Dear Sergeant R.F.

You bet—here's the info you need.

That NSN is the M984A1P1 HEMTT, which is the M984A1 with Add-on-Armor. There is no specific technical manual for it. The way to go is to use TM 9-2320-279-10-1 for the vehicle's basic operations, TM 9-2320-279-10-2 for specific M984A1 wrecker operations, and TB 9-2320-279-13&P-2 for information on the armor kit.

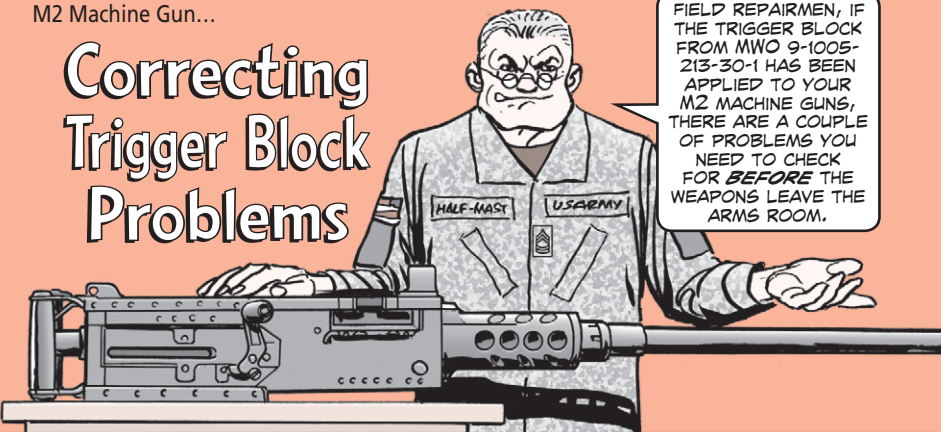
*Half-Mast*

## Polaris ATV Website

You'll scratch your head trying to find anything about the Polaris ATV in the Army's supply system. It's not there! For the lowdown on the ATV's parts and commercial service manual support, go to the Defense Logistics Agency website:

<http://www.dscc.dla.mil/programs/polaris/>

# Correcting Trigger Block Problems



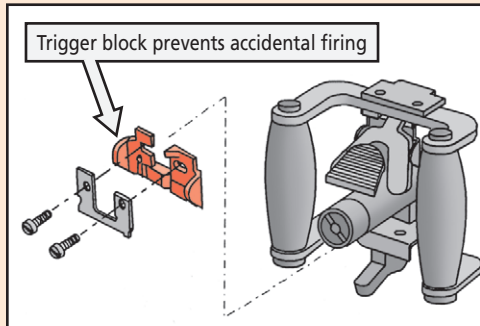
## Back Plate Hook

The back plate hook engages the bolt latch release lever for AUTO MODE. Sometimes the hook can prevent the trigger block from sliding between FIRE and SAFE because the hook is bent so that it holds the bolt latch release too tightly against the trigger assembly. This happens during AUTO MODE, but not SINGLE SHOT MODE.

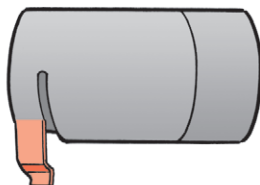
Solve this problem by slightly bending the hook outward. The hook should keep the bolt latch release lever in the full-down position for AUTO MODE, but still let the trigger block assembly function correctly.

Do it like this:

1. Push the bolt latch release lever completely in during AUTO MODE.
2. Bend the hook slightly so that the trigger block assembly slides from FIRE to SAFE while in AUTO MODE and the bolt stop clears the bolt during repeat-fire operation.
3. If the hook can't be bent so that the bolt stop clears the bolt, then the metallic tube, NSN 4710-00-726-5562, should be replaced.



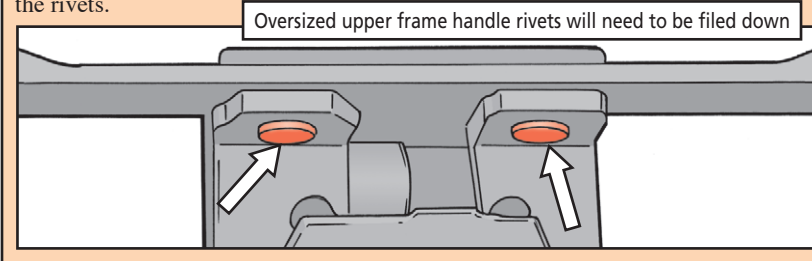
Bend hook out slightly so it doesn't interfere with trigger block



## Rivets Too Big

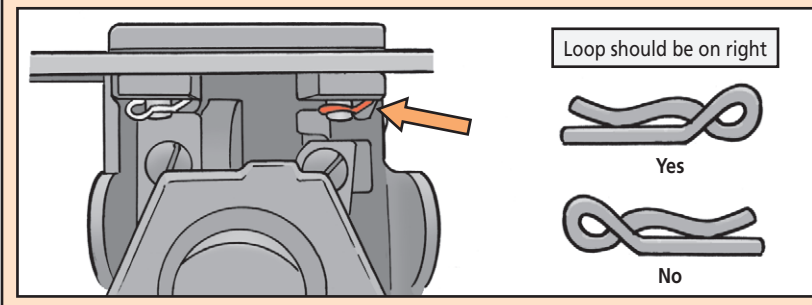
Sometimes the rivets for the upper frame handles are big enough that they interfere with the trigger block. The trigger block can't slide between FIRE and SAFE.

Correct this problem by filing the rivets enough so that they don't interfere with the trigger block. File between the face of the backplate and the rear side of the rivet. When you're done filing, put some solid film lubricant, NSN 9150-00-754-0064, on the rivets.



## Backplate Lock Pins

There is also a possible problem with the lock pins on the backplate handle when the trigger block is installed. If the upper right frame handle lock pin is installed with the loop end on the left, it interferes with the trigger block sliding from FIRE to SAFE. Solve the problem by reversing the lock pin so the loop end is on the right.



## MWO

If MWO 9-1005-213-30-1's trigger block hasn't yet been applied to your M2s, contact TACOM-RI's MWO Coordinator Vanya Cowser at DSN 793-1054, (309) 782-1054, or email: [vanya.cowser@us.army.mil](mailto:vanya.cowser@us.army.mil)

Your support unit can install the trigger block kit, which comes with NSN 1005-01-414-9706.

If you have M2 questions, contact TACOM-RI's Walter Hilliard at DSN 793-2108, (309) 782-1054, or email: [walter.hilliard@us.army.mil](mailto:walter.hilliard@us.army.mil)

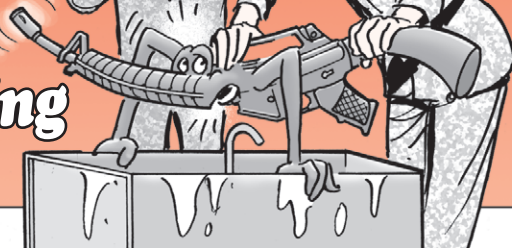


# Cleaning with Cleaning Tanks

CLEANING SMALL ARMS IN CLEANING TANKS IS OK, IF DONE CORRECTLY.

BUT IMPROPER USE OF CLEANING TANKS CAN TURN A GOOD WEAPON INTO **JUNK**.

ARE YOU **SURE** ABOUT THIS?!



The Army doesn't recommend a specific cleaning tank. But you should **never** use an ultrasonic cleaning system. They can completely remove a weapon's protective coating, which leaves the weapon defenseless against corrosion.

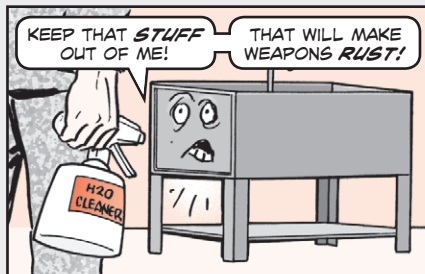
You should also **never** use a water-based cleaning fluid. That leads to corrosion.

Use only the cleaning materials listed in the back of the weapons' -23&P TMs. These cleaners have been tested and approved by the Army. MIL-PRF-680 Type II dry cleaning solvent, NSN 6850-01-474-2317, is authorized by the Army.

Do not clean several weapons at once in a cleaning tank. It's too easy to mix up bolts and receivers, which would ruin headspacing.

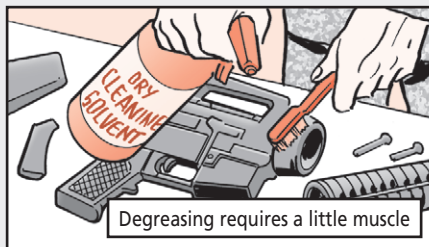
KEEP THAT **STUFF** OUT OF ME!

THAT WILL MAKE WEAPONS **RUST**!



## Applying SFL

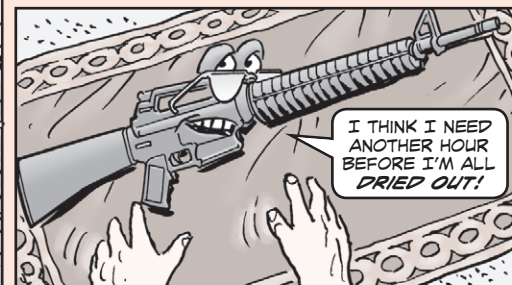
If you need to degrease a weapon in order to touch it up with solid film lubricant (SFL), use MIL-PRF-680 Type II dry cleaning solvent. It's not enough to let the weapon's parts soak in the solvent. You also need to scrub the parts with the solvent and a non-metallic brush to clean out all dirt and grease.



Degreasing requires a little muscle

THIS IS THE PROPER PROCEDURE FOR APPLYING SFL...

- Thoroughly clean and degrease the weapon.
- Thoroughly dry the weapon.



- Apply an even coating of SFL to the areas that need touchup.



- Allow the SFL to fully cure for 24 hours before returning the weapon to service.

See the weapon's -23&P for the limits on how much of the weapon can be touched up with SFL.

NSN 9150-01-260-2534 brings a 16-oz aerosol can of SFL. You can also get a 1-qt can with NSN 9150-01-360-1908 and a 1-gal can with NSN 9150-00-142-9361. These are non-aerosol and must be applied with a brush, which will produce a more even application than spraying on SFL. Whichever kind of SFL you use, carefully follow the instructions on the can for best results.

IF YOU HAVE ANY QUESTIONS ABOUT CLEANING TANKS OR SFL, CONTACT TACOM-RI'S KEVIN MOORE AT DSN 793-2359, (309) 782-5951, OR EMAIL: [kevin.o.moore@conus.army.mil](mailto:kevin.o.moore@conus.army.mil)





# Load This Ammo Info

IF YOUR AMMO IS IN BAD SHAPE, YOU'RE NOT GOING TO TAKE OUT THE ENEMY, NO MATTER HOW WELL YOU'VE TAKEN CARE OF YOUR WEAPON.

IT DOESN'T GET ANY SIMPLER THAN THAT.

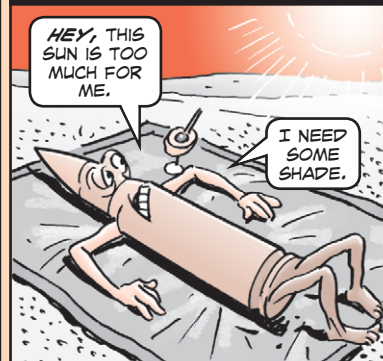


SO LOAD UP ON THIS AMMO INFO TO KEEP YOUR WEAPON LETHAL...

- Protect ammo from mud, sand, and water. They can cause firing problems or damage to your weapon. If ammo gets dirty or wet, wipe it off ASAP with a clean, dry cloth. If you spot corrosion on any rounds, wipe it off. If corrosion is heavy, turn in the round.

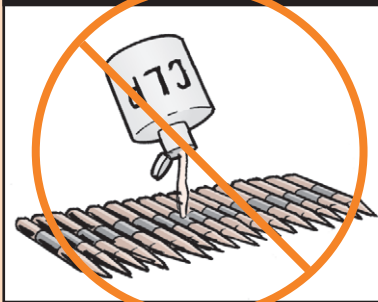


- Keep ammo out of direct sunlight as much as possible. If ammo powder is hot, it can create excessive chamber pressure during firing that can damage the weapon and change the battle sight zero.



- Keep ammo clean. Load what you think you need, but don't open ammo cases or cans if you don't need them.
- Daily, unload and wipe clean opened ammo cans and magazines that have been exposed to dust and sand.

- Don't lube ammo, ammo cans, or magazines. Oil on cartridges can contaminate primers or powder, cause misfires, and put excessive pressure on weapon locking surfaces during firing. Plus the oil collects dust and sand that can slow down and wear out moving parts in your weapon.



- Check for rounds that are dented or have loose bullets. Turn them in.
- Use only ammo issued by your unit. Don't use loose rounds that could have been tampered with.

## Watch Out for PB

Ammo boxes marked with a "PB", "P", "PA" or "PC" should be handled with care. They've been treated with preservative pentachlorophenol, which can cause a violent allergic reaction.

If you must handle any wood ammo boxes, wear leather-palmed gloves and avoid skin contact. If the boxes are wet or crystals have formed on them, wear goggles. Wash frequently when handling the boxes even if you're wearing protective clothing. Don't chew gum or tobacco, eat, drink, use snuff or smoke while handling the boxes.

The preservative can vaporize if heated, so don't burn any boxes treated with the stuff. It can also become airborne in sawdust, which is why you shouldn't sand or saw the boxes.

Handle ammo boxes marked P, PB, PA or PC with care



# IT'S THE SIMPLE THINGS!

WHEN WE TAKE CARE OF YOU, WE KNOW YOU'LL TAKE CARE OF US.

WE'RE A TEAM!

AH, YOU DO TAKE GOOD CARE OF ME.

I SURE APPRECIATE IT!

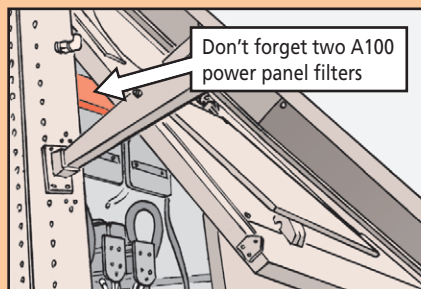
THE PATRIOT'S AN/MPQ-53 RADAR IS A SOPHISTICATED, COMPLEX PIECE OF EQUIPMENT, BUT OFTEN IT NEEDS JUST THE SIMPLEST THINGS TO KEEP IT RADIATING HEALTH.

FOR INSTANCE...

**Vents and filters**—The AN/MPQ-53 has lots of electronics that produce lots of heat. If the radar can't get enough cool, fresh air, those electronics overheat and the radar stops working.

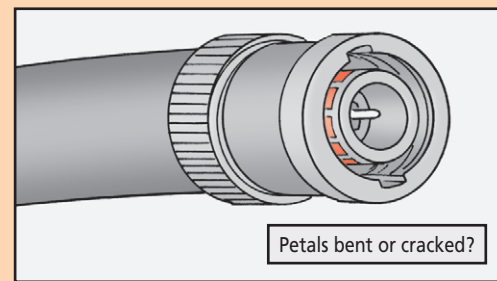
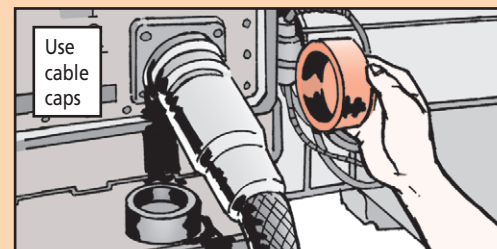
Before powering up, make sure all eight vents are open and clean. You can clean them with your shop vac.

The two antenna filters and the two A100 power panel filters are often forgotten during PMCS. They need to be checked at least monthly. In an area with lots of blowing dirt and sand, make that weekly. Clean them if possible. If they're too dirty, replace them. It's a good idea to keep extra filters on hand. It can take a long time to get replacements.



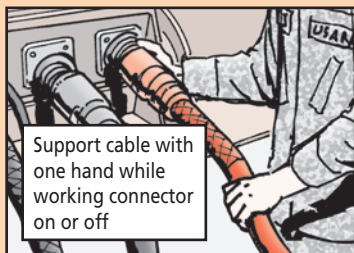
**Cables**—Cap the cables and their connectors when they're not connected. Otherwise, dirt clogs them and you get poor connections and faults. Caps also seal out moisture that can cause pins to corrode. If caps have disappeared, tell your repairman so he can order more. In the meantime, cover the cables and their connectors with plastic.

Check the shielding for the radio frequency (RF) cable connectors. If the shielding petals are bent or cracked, you get RF interference. Get damaged cables replaced.





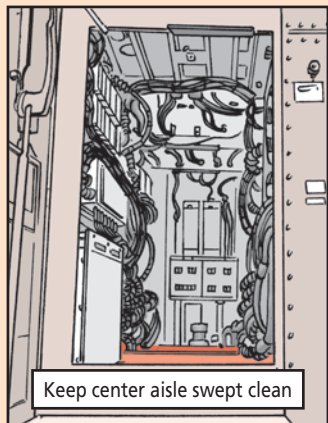
**More cables**—Use two hands with the J1, J2, and J3 cables. They are too heavy to put on or take off with one hand without damaging wiring. Use one hand to support the cable and take the weight off the connector. Use the other hand to screw the connector on or off. Pull the connector straight off and lay the cable on the ground. Don't drop it or you could damage the connector.



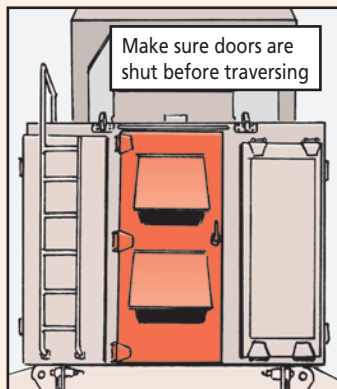
**Cleaning**—Keep the center aisle inside the radar compartment swept clean. Otherwise, dust accumulates and is sucked into the electronics, where it causes problems. Keep dirt out by keeping the door shut as much as possible.

Weekly, wipe clean the IFF cabinet if your maintenance officer approves. If it becomes clogged with dirt, its circuit cards can overheat. During semiannual maintenance, remove the IFF from the radar, take out its circuit cards, and blow out the IFF with low-pressure air.

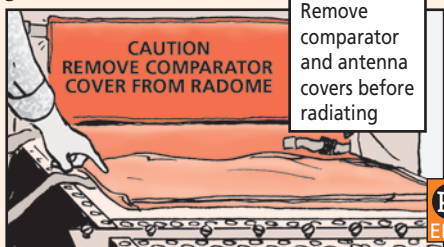
Never use a water hose above wheel level on the radar trailer. If you forget, water shoots into expensive electronics and shoots up your unit's repair bills.



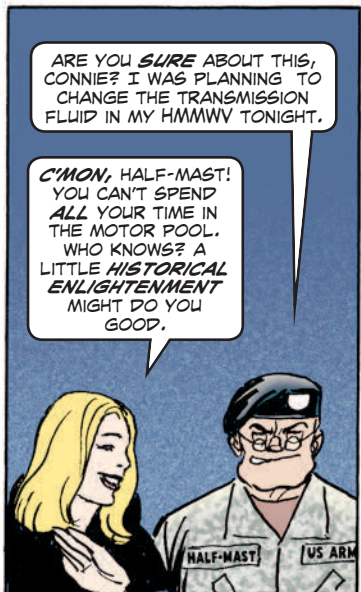
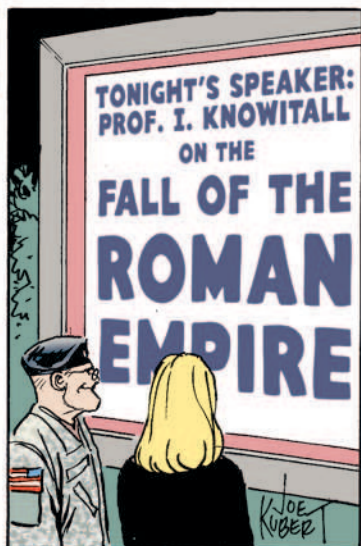
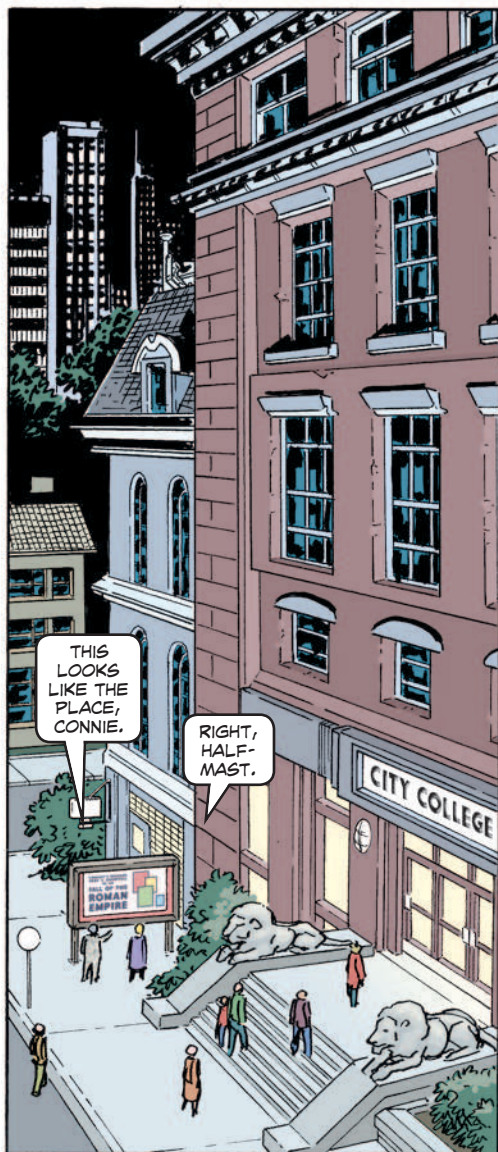
**Radiating**—Before traversing, make sure all doors are shut tight. If you forget even one door, it can get caught on something and bend. That ruins the electromagnetic interference (EMI) shield.



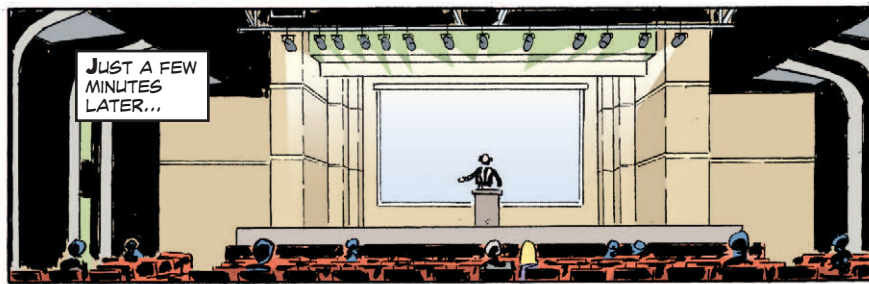
Also double-check that the covers for the comparator assembly and antenna have been removed. If a cover's left on, radio waves are trapped and stuff like the wave guide window gets cooked.



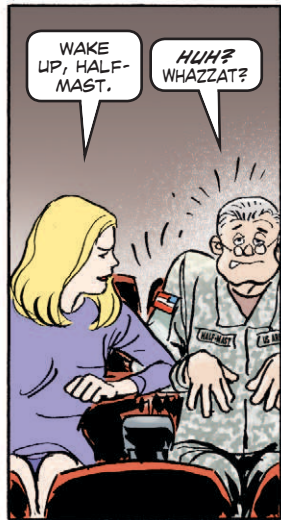
# The **REAL** FALL of the **ROMAN** EMPIRE





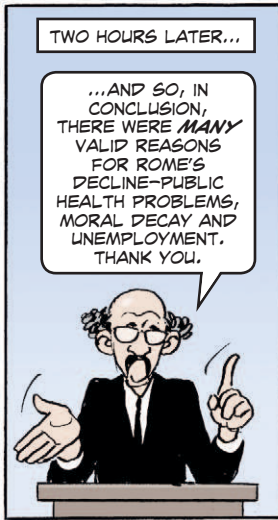


JUST A FEW MINUTES LATER...



WAKE UP, HALF-MAST.

HUH? WHAZZAT?



TWO HOURS LATER...

...AND SO, IN CONCLUSION, THERE WERE *MANY* VALID REASONS FOR ROME'S DECLINE—PUBLIC HEALTH PROBLEMS, MORAL DECAY AND UNEMPLOYMENT. THANK YOU.



CLAP  
CLAP  
CLAP



WASN'T THAT FASCINATING? THAT PROFESSOR KNOWITALL REALLY KNOWS IT ALL!

YAWN!

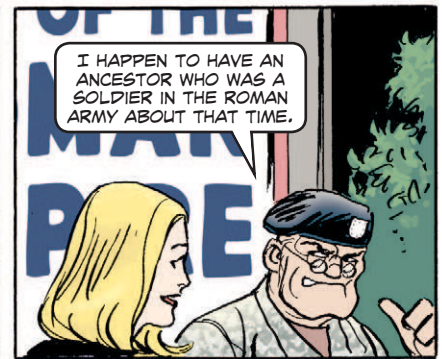


KNOWS IT ALL? HAH! HE DOESN'T KNOW THE HALF OF IT!

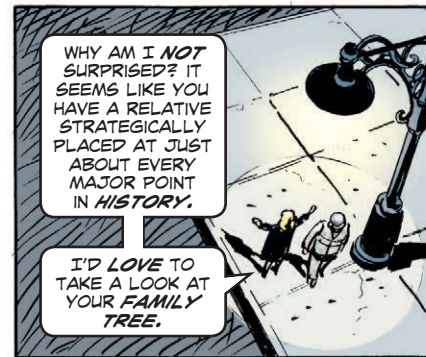


WHAT? HOW CAN YOU SAY THAT? PROFESSOR KNOWITALL HAS SPENT MOST OF HIS LIFE STUDYING THE ROMAN EMPIRE.

YEAH, BUT HE WASN'T THERE.

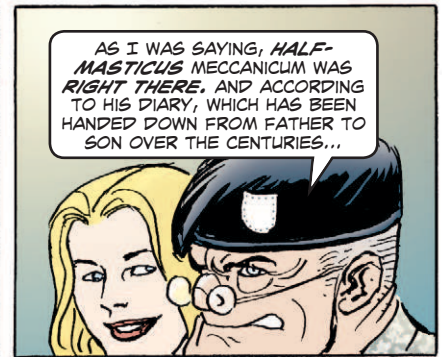


I HAPPEN TO HAVE AN ANCESTOR WHO WAS A SOLDIER IN THE ROMAN ARMY ABOUT THAT TIME.

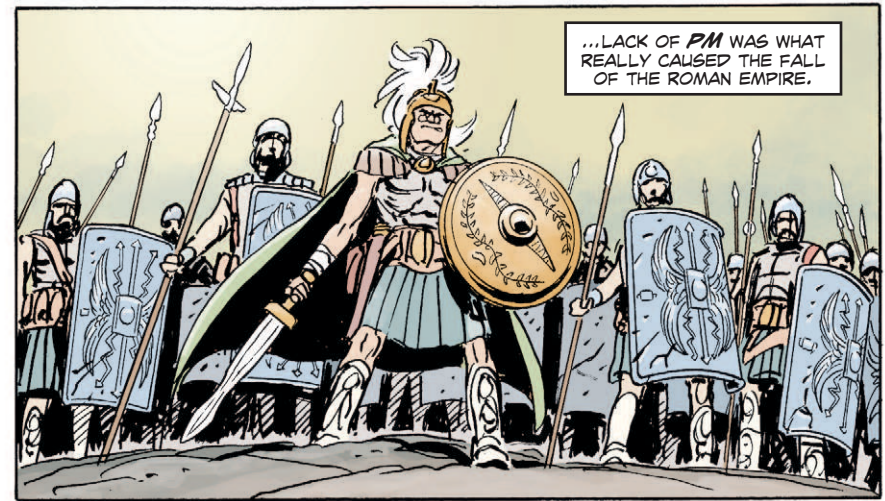


WHY AM I *NOT* SURPRISED? IT SEEMS LIKE YOU HAVE A RELATIVE STRATEGICALLY PLACED AT JUST ABOUT EVERY MAJOR POINT IN *HISTORY*.

I'D LOVE TO TAKE A LOOK AT YOUR *FAMILY TREE*.



AS I WAS SAYING, *HALF-MASTICUS* MECCANICUM WAS *RIGHT THERE*. AND ACCORDING TO HIS DIARY, WHICH HAS BEEN HANDED DOWN FROM FATHER TO SON OVER THE CENTURIES...



...LACK OF *PM* WAS WHAT REALLY CAUSED THE FALL OF THE ROMAN EMPIRE.





SUPERCILIOUS, THE BATTLE  
WILL BE UPON US SOON.  
NOW THAT I'M BACK FROM  
ROME, WE SHOULD INSPECT  
THE MEN'S EQUIPMENT TO  
ENSURE IT IS READY.

AS  
YOU  
SAY,  
SIR.



PREPARE  
FOR  
INSPECTION!

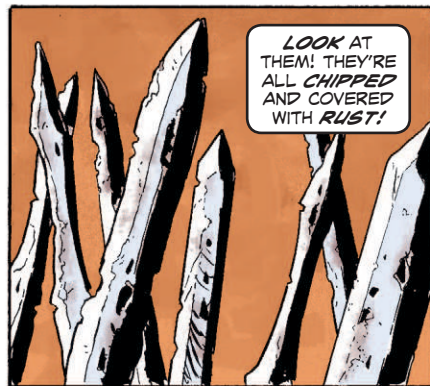
HOLD OUT  
YOUR SWORDS,  
SOLDIERS!



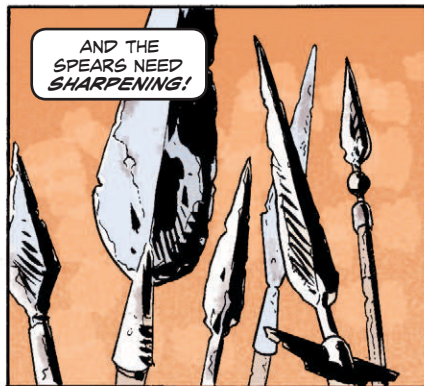
WITH WEAPONS  
IN SUCH DISREPAIR  
AND IN NEED OF  
PM... HOW CAN  
WE EVER WIN IN  
BATTLE?



SWORDS MUST  
BE **SHARPENED**  
AND PROTECTED  
FROM RUST  
BY OIL.



LOOK AT  
THEM! THEY'RE  
ALL **CHIPPED**  
AND COVERED  
WITH **RUST!**



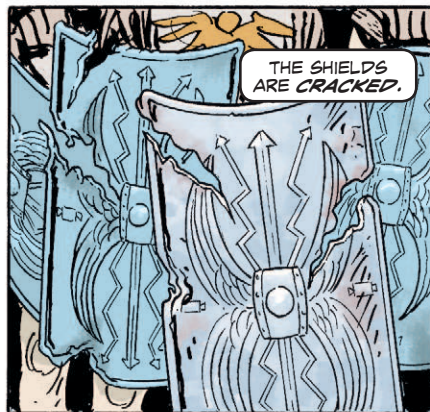
AND THE  
SPEARS NEED  
**SHARPENING!**



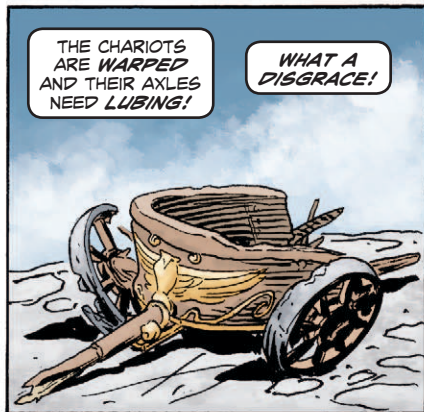
SPEARHEADS  
MUST BE  
**SHARPENED**  
TO REMOVE  
ROUGH EDGES.



CHARIOTS MUST BE PAINTED  
TO PROTECT THE WOOD...

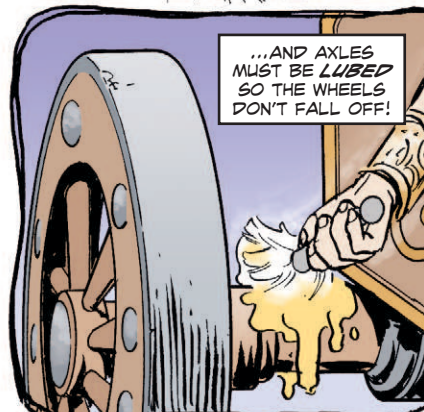


THE SHIELDS  
ARE **CRACKED**.



THE CHARIOTS  
ARE **WARPED**  
AND THEIR AXLES  
NEED **LUBING!**

WHAT A  
**DISGRACE!**



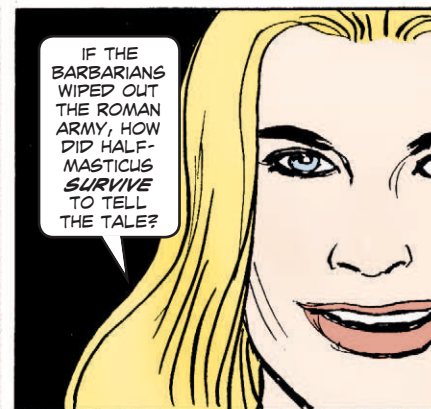
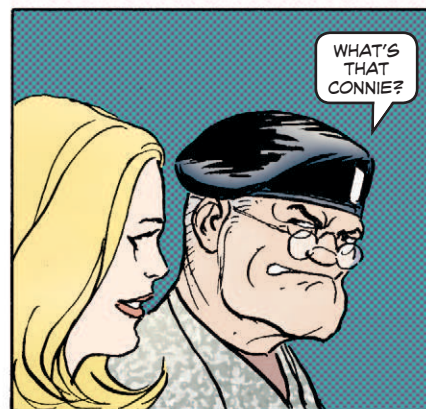
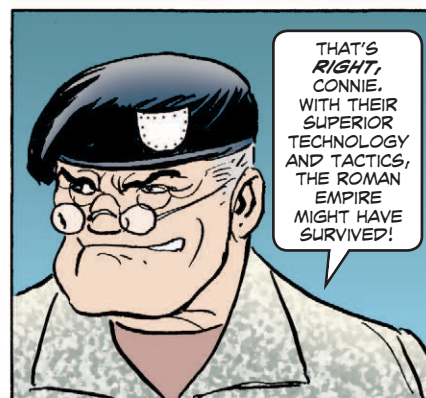
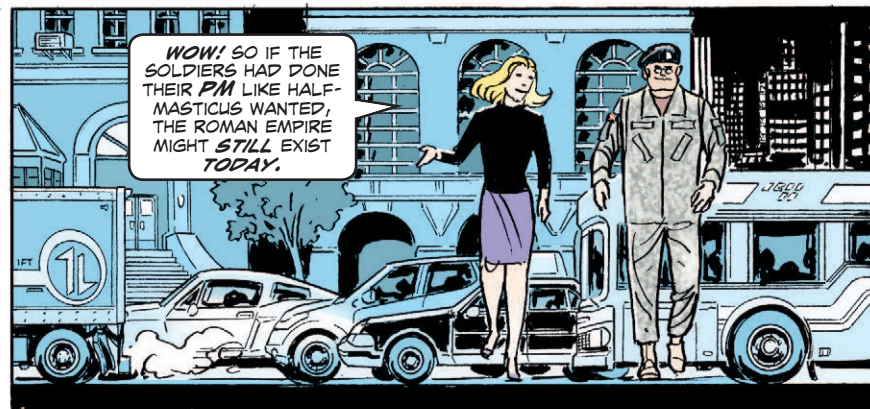
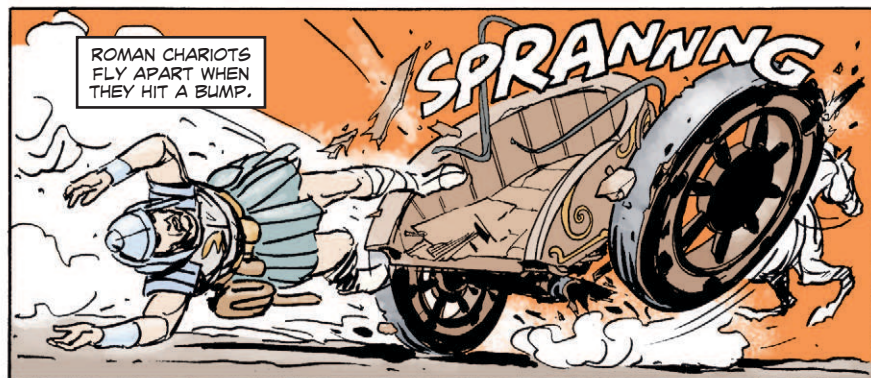
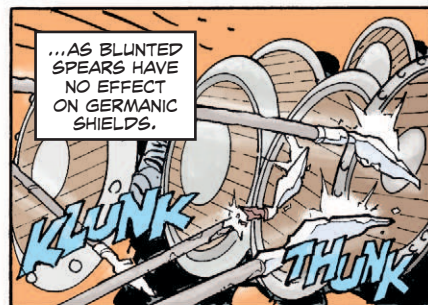
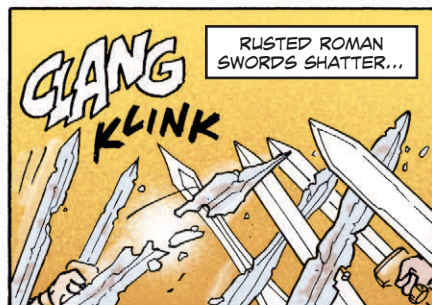
...AND AXLES  
MUST BE **LUBED**  
SO THE WHEELS  
DON'T FALL OFF!



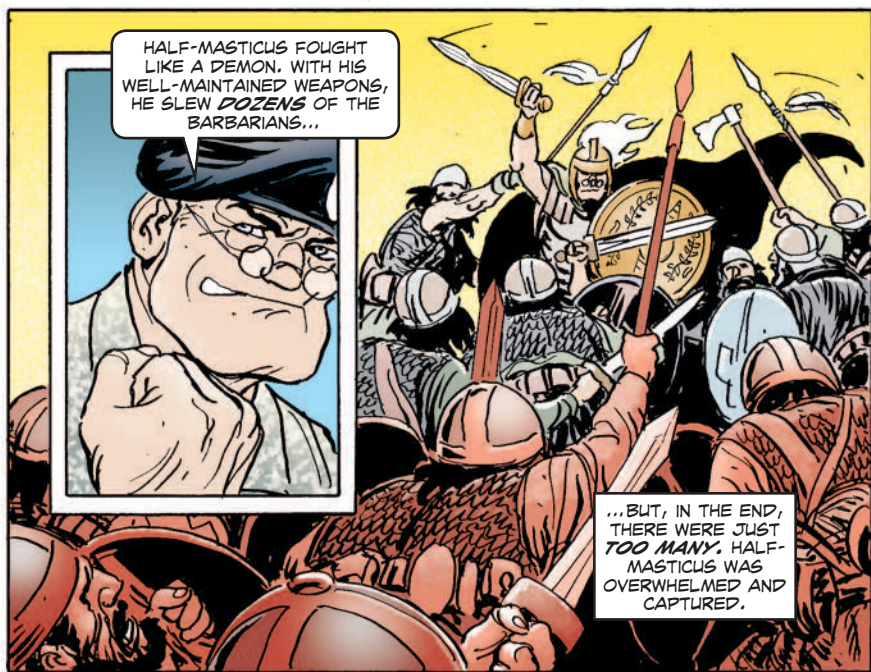
WE WILL BE FACING THE GERMANIC  
HORDES IN BATTLE. YOU WILL  
BE STAKING YOUR **LIVES** ON THE  
CONDITION OF YOUR **EQUIPMENT**.  
**PM MUST BE DONE NOW—**

IT'S  
**TOO LATE...**









HALF-MASTICUS FOUGHT LIKE A DEMON. WITH HIS WELL-MAINTAINED WEAPONS, HE SLEW *DOZENS* OF THE BARBARIANS...

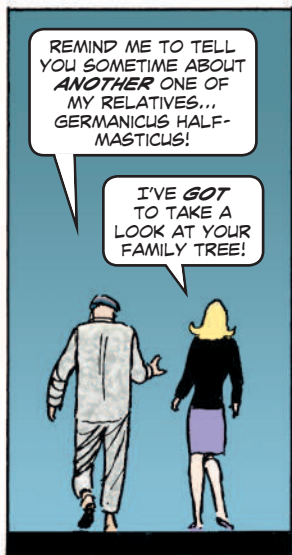
...BUT, IN THE END, THERE WERE JUST *TOO MANY*. HALF-MASTICUS WAS OVERWHELMED AND CAPTURED.



BUT THAT'S *ANOTHER* STORY.



?



REMIND ME TO TELL YOU SOMETIME ABOUT *ANOTHER* ONE OF MY RELATIVES... GERMANICUS HALF-MASTICUS!

I'VE *GOT* TO TAKE A LOOK AT YOUR FAMILY TREE!

AH-64D...

# Take Care of Dispenser

MECHANICS, MAINTAINING YOUR AH-64's M130 DISPENSER IN THE DESERT MEANS PAYING CLOSER ATTENTION NOW THAT FLARES HAVE BEEN ADDED TO THE ARMAMENT MIX.

TM  
9-1095-  
206-12

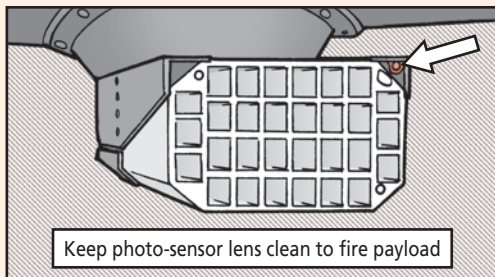
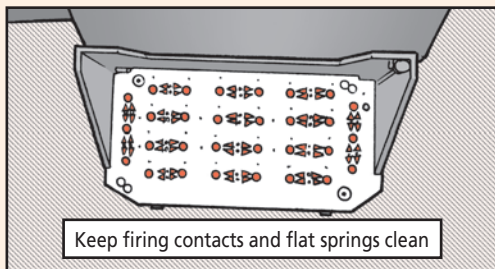
TO KEEP THE DISPENSER MISSION CAPABLE, CLEAN IT **BEFORE** OPERATION, **AFTER** OPERATION, **EVERY 25 HOURS** OF OPERATION AND **MONTHLY** LIKE IT SAYS IN TM 9-1095-206-12.

Since the dispenser fires flares in the desert, it's important to check it for small rocks and sand from aircraft rotor wash.

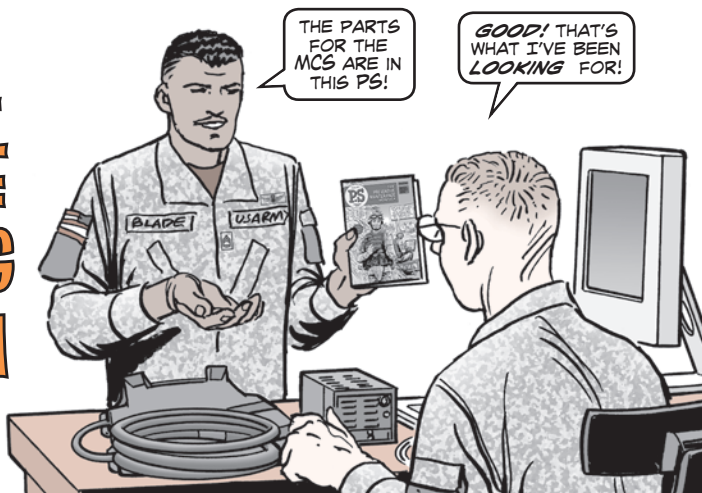
If rocks and sand get into the payload module and foul up the firing contacts and the firing springs, the flares will not fire. And there's no onboard digital display in the pilot or copilot area to detect a misfired flare.

The M130 has a photo-sensor to determine if a flare is launched, but fails to ignite. If the photo-sensor lens is blocked by sand or dust, the dispenser may inadvertently fire up to two more flares.

To avoid misfires in the desert, make sure you clean your chaff/flare dispenser like the TM says and more often if necessary.



# MICRO-CLIMATE COOLING SYSTEM PARTS

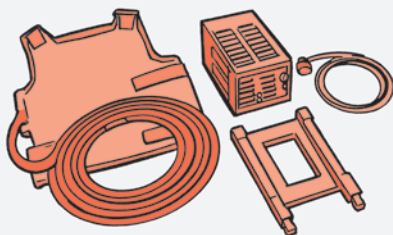


Operators and mechanics, PS told you on Pages 35-37 of PS 651 what maintenance tasks were authorized and not authorized on the microclimate cooling system (MCS).

To keep the MCS cooling, here are some NSNs for the cooling garment, the cooling unit and additional items you'll need for the MCS.

Need parts for MCS? Order from list!

Cooling Garment	
NSN 8515-01-508-	Size
1510	S
1511	M
1512	L



If you need a microclimate cooling unit, order one with NSN 8415-01-508-6626.

For the UH-60 and the CH-47 umbilical assemblies, order these parts:

## UH-60 Umbilical Assembly

Item	NSN 4720-01-
Pilot hose assembly	548-9972
Copilot hose assembly	550-1866
Crew 1 hose assembly	549-5829
Crew 2 hose assembly	548-9966

## CH-47 Umbilical Assembly

Item	NSN 4720-01-
Pilot hose assembly	561-9298
Copilot hose assembly	561-0939
Troop seat #1	517-2190
Troop seat #3	522-2721
Troop seat #32	522-2724

You'll also need the following for the MCS: propylene glycol, NSN 6810-01-181-7121; bacteriostatic solution, NSN 6840-01-546-5323; and a 12ml syringe, NSN 6520-01-173-2081.



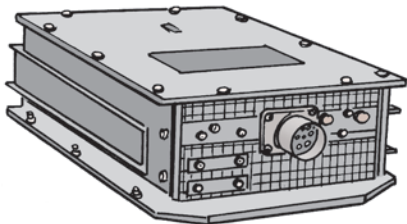
CECOM WANTS  
INVERTERS FOR A  
REPAIR PROGRAM.

IF YOU GOT 'EM  
TURN 'EM IN.



# WANTED

NAME: 6130-01-186-8815  
ALIAS: PART #406-075-802-103  
LAST SEEN: AS AN INVERTER ON BOARD  
AN OH-58D KIOWA WARRIOR



## DEAD OR ALIVE

**REWARD:**

**DEAD:** [UNSERVICABLE CREDIT]: \$1094.00

**ALIVE:** [SERVICABLE CREDIT]: \$4173.00

**IF FOUND, NOTIFY:**

**CHARLIE PULEO, POWER SOURCES, ITEM MANAGER**

**DSN: 987-4767 COM: 732-427-4767**

**[CHARLES.PULEO@US.ARMY.MIL](mailto:CHARLES.PULEO@US.ARMY.MIL)**

**M**echanics, check your hangars and your Kiowa Warriors. Have you seen any idle inverters, NSN 6130-01-186-8815, PN 406-075-802-103, lately?

If you locate unused serviceable or unserviceable inverters sitting unused or discarded, CECOM needs them ASAP!

Units should turn in inverters to CECOM for repair. There is a serious backlog in the supply system because of long lead times from the supplier. For a dead inverter, you get a \$1,094 unserviceable credit. For a live inverter, you get a \$4,173 serviceable credit.

# Another Angle on Blade Booting

IF YOU DON'T HAVE  
EITHER OF THESE  
TOOLS, THEN USE  
SOME 550 CORD.

IT'LL GET THE  
JOB DONE WITH A  
LITTLE MUSCLE!

MECHANICS,  
IN PS 612  
(NOV 03),  
WE TOLD  
YOU HOW  
TO MAKE A  
BLADE BOOT  
INSTALLATION  
TOOL FOR  
THE BLACK  
HAWK'S  
TAIL ROTOR  
BLADE.

THE CURRENT  
LOCALLY MADE  
TOOL LISTED  
ON FIG 207,  
WP 1805 00  
OF TM 1-1520-  
237-23-20  
CAN SCRAPE  
AND SCAR THE  
BLADE AS YOU  
SLIDE THE  
BOOT DOWN  
THE BLADE.

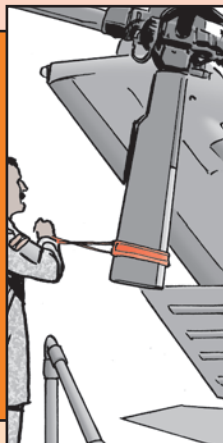
AS THE  
OL'  
SAYING  
GOES,  
THERE'S  
**MORE  
THAN  
ONE  
WAY**  
TO SKIN  
A CAT.

SO HERE'S  
**ANOTHER  
WAY**  
TO  
INSTALL  
THE BOOT,  
NSN  
5340-01-  
108-3681,  
IF YOU  
DON'T HAVE  
EITHER  
TOOL ON  
HAND.

GRAB A BOOT  
AND LOOP A  
PIECE OF  
550 CORD,  
NSN 4020-  
00-240-2146,  
AROUND IT.

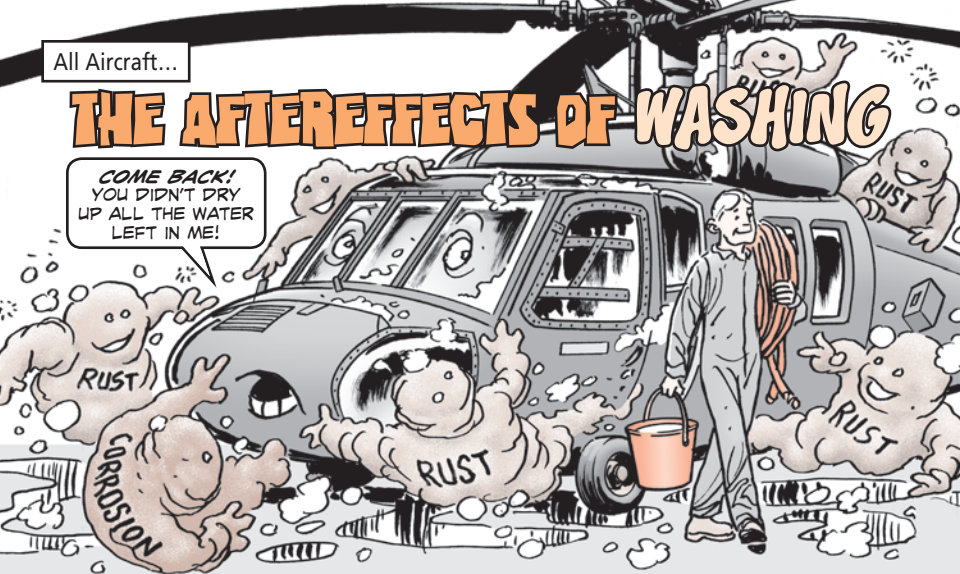
SLIDE THE  
BOOT ON AND  
UP THE BLADE  
USING THE  
CORD ON BOTH  
SIDES.

IT'LL TAKE A  
LITTLE MUSCLE  
TO MANEUVER,  
BUT IT BEATS  
TRYING TO USE  
YOUR BARE  
HANDS.



# THE AFTEREFFECTS OF WASHING

COME BACK!  
YOU DIDN'T DRY  
UP ALL THE WATER  
LEFT IN ME!

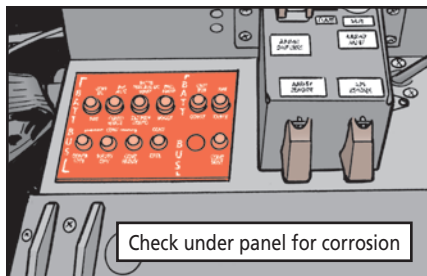


**M**echanics, your bird is not watertight. Corrosion still happens any time and any place where water drips into the bird after washing.

After a thorough washing of your aircraft, water pools in hidden areas. Not locating and drying up that water invites corrosion. To prevent it, look for water in the most unlikely places.

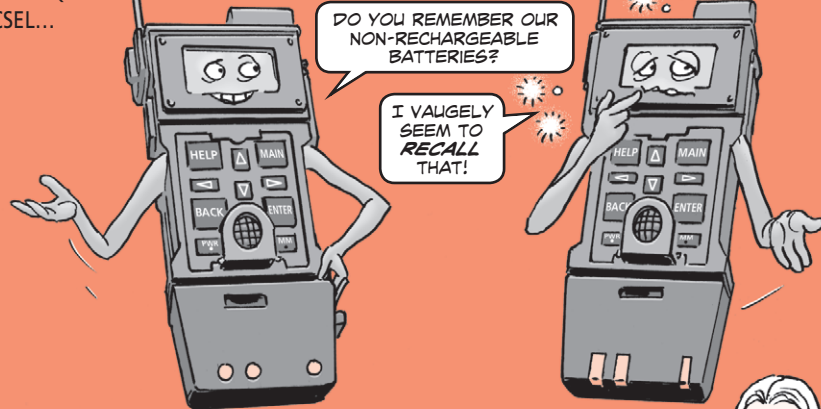
For example, on a Black Hawk, if you haven't removed the battery utility bus circuit breaker panel lately, it's time to take a peek behind the panel.

Another place that's often overlooked after washing is the Black Hawk's lower console. Look underneath the circuit breaker panel and inspect the box and the terminal lugs for signs of corrosion. If you see corroded parts, call the avionics folks to the rescue.





AN/PRQ-7  
CSEL...



**DO YOU RECALL THE BATTERY?**



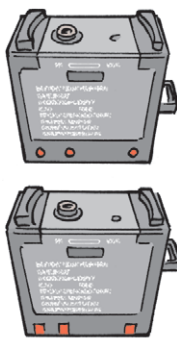
THE ANSWER IS "YES," IF THE BATTERY IS THE NON-RECHARGEABLE, NSN 6135-01-512-8740, MANUFACTURED BY MATTHEWS ASSOCIATES.

The AN/PRQ-7 combat survivor evader locator (CSEL) was issued with two types of batteries—a rechargeable and a non-rechargeable. The rechargeable, NSN 6140-01-534-3856 or NSN 6140-01-512-8757, manufactured by BREN-TRONICS, Inc. is okay. The non-rechargeable, NSN 6135-01-512-8740, which has no state-of-charge indicator nor charge contacts, manufactured by Matthews Associates, is being recalled due to a defect.

This radio will help you survive



The rechargeables are okay.



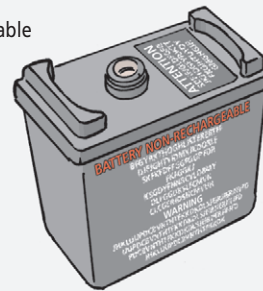
SO, CHECK ALL YOUR LOCATORS AND YOUR STOCKS OF NON-RECHARGEABLE BATTERIES.

IF YOU HAVE SOME OF THESE NON-RECHARGEABLES, CAREFULLY PACKAGE THEM AND SEND THEM TO...



Matthews Associates, Inc  
Attn: Phil Perreault  
220 Power Court  
Sanford, FL 32771

Send this non-rechargeable battery back!



CALL CECOM LCMC AT DSN 992-7859 PRIOR TO SHIPPING.



THE SHIPMENT IS FREE TO YOU.

JUST USE THE FEDEX ACCOUNT NUMBER...

0900-0413-1

In return for your bad battery, Matthews will eventually ship you a good one. To ensure this happens, you must contact the CECOM LCMC POC, Richard Ring, before you ship the batteries back to Matthews. You can reach Richard at DSN 992-7859 or (732) 532-7859. Or email him: [richard.ring@us.army.mil](mailto:richard.ring@us.army.mil)

Richard will need to get some standard info from you including the number of batteries you are returning. He will also help you fill out the correct paperwork to make the return happen.

ONE MORE THING: **DO NOT** ACTIVATE THE COMPLETE DISCHARGE DEVICE (CDD) ON THE BATTERY BEFORE SHIPPING.

YOUR NATURAL TENDENCY WOULD BE TO **ACTIVATE** THE CDD AND DISCHARGE THE BATTERY BEFORE SHIPPING.



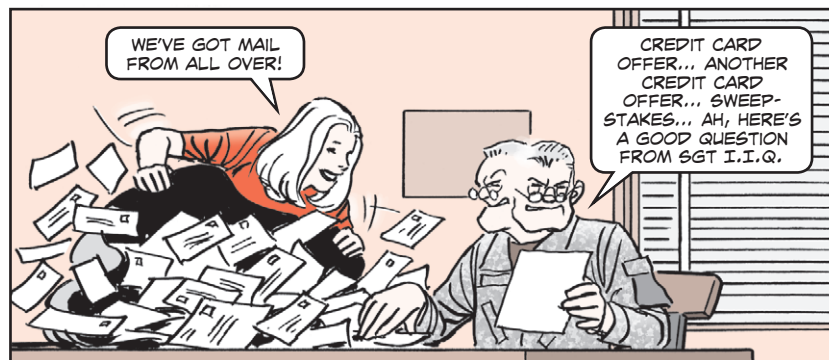
**RESIST THAT URGE!**

THE MANUFACTURER WANTS THE BATTERIES WITH THEIR JUICE STILL IN THEM TO GIVE YOU THE CREDIT.



# DO YOU RECALL THE BATTERY?

## PART II



Dear Half-Mast,

We've heard through the grapevine that the non-rechargeable battery used in the combat survivor evader locator (CSEL) is being recalled, but not the rechargeable one. I seem to remember that there was a recall on the rechargeables, too. Am I nuts or right on the money?

SGT I.I.Q.

Dear Sergeant I.I.Q.,

You're right on the money!

The non-rechargeables are being recalled and you can read all about that on the previous pages in this issue. But there was, at one time, a recall of the rechargeable batteries, too.

Those batteries, NSN 6140-01-534-3856 and NSN 6140-01-512-8757, made by BREN-TRONICS, Inc, had a problem with the state-of-charge indicator (SOCI).

But the recall was not for all the batteries. The only rechargeable batteries recalled were those with serial numbers between 17895 and 26001 and a date of March 06 through July 06.

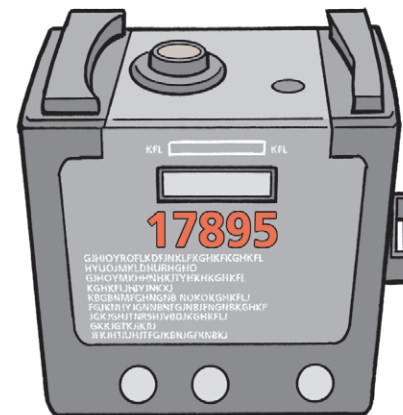
Those batteries are out of the supply system and should be long gone from your stock. However, you may want to check just to make sure. If you find any, contact the CECOM LCMC POC, Richard Ring at DSN 992-7859 or (732) 532-7859. Or email him:

[richard.ring@us.army.mil](mailto:richard.ring@us.army.mil)

Richard will help you with disposal.

There is still a non-recall problem with the SOCI on these rechargeable batteries. Sometimes the window on the SOCI fogs. That's okay as long as you can still read the indicator. Keep using those batteries. However, if you can no longer read the indicator because of the fog, contact Richard and he will help you return those batteries, too.

Half-Mast



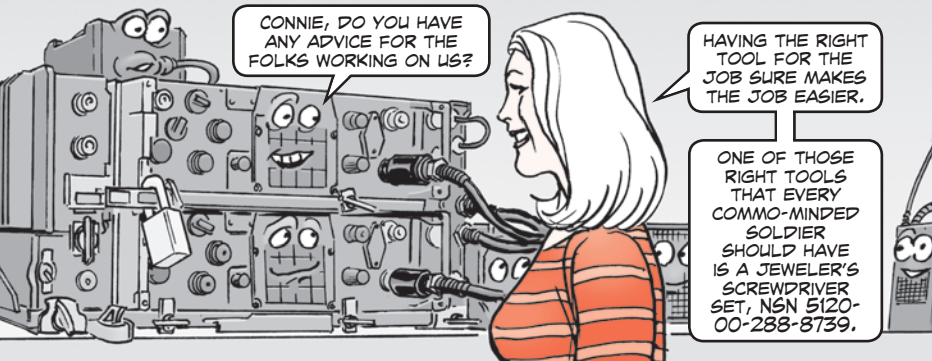
Check serial numbers





Commo  
Tools...

# A Million Uses for a Jeweler's Screwdriver Set



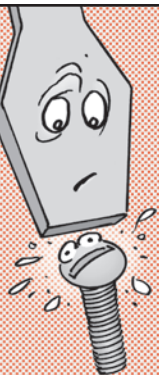
CONNIE, DO YOU HAVE ANY ADVICE FOR THE FOLKS WORKING ON US?

HAVING THE RIGHT TOOL FOR THE JOB SURE MAKES THE JOB EASIER.

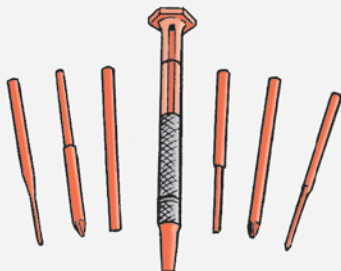
ONE OF THOSE RIGHT TOOLS THAT EVERY COMMO-MINDED SOLDIER SHOULD HAVE IS A JEWELER'S SCREWDRIVER SET, NSN 5120-00-288-8739.

LET'S FACE IT-TOO MANY SCREWDRIVERS ARE TOO DARN BIG FOR MANY SCREWS.

OH, WE TRY TO USE 'EM, BUT THE RESULTS ARE DESTROYED SCREW HEADS AND SCRATCHED EQUIPMENT AND A JOB NOT WELL DONE.



FOR A MEASLY 10 BUCKS, YOU CAN GET A JEWELER'S SCREWDRIVER SET WITH SIX BLADES—.025, .040, .055, .070, .080, AND .100 INCHES.



IT'S MONEY WELL SPENT BECAUSE THE SET WILL COME IN HANDY OVER AND OVER AGAIN WHEN WORKING WITH SMALL SCREWS IN TIGHT PLACES.

THE BLADES ARE FLAT-TIPPED AND 2 3/4 INCHES LONG.

THE WHOLE SCREWDRIVER IS 3 3/4 INCHES LONG, INCLUDING THE CHUCK-TYPE, KNURLED HANDLE AND THE BLADE.



IF YOU ALREADY HAVE A SET, CHANCES ARE GOOD YOU'VE LOST A TIP OR TWO.

THE GOOD NEWS IS, YOU CAN REPLACE THEM...

Tip Width	NSN 5120-00-180-
.025	0705
.040	0706
.055	0727
.070	0728
.080	0729
.100	0730

Electrical Connectors...

# STRAIGHTEN THOSE PINS!

## I'LL STRAIGHTEN YOU OUT!

OH, NO!  
IT'S  
PLIER-  
ZILLA!

WE'LL BE  
PINCHED!

I WANTED  
TO GO  
STRAIGHT!

WE'RE  
SCREWED!

NO, WE'RE  
PLIERED!

DON'T  
PINIC!

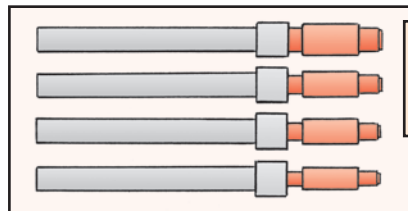
**T**he pins in electrical connectors must be straight. A bent pin means a poor connection or no connection. And, eventually, a bent pin becomes a broken pin.

But straightening bent pins is not easy. Needle-nosed pliers are the tool most often used to straighten pins. But, that's the wrong tool for the job. Needle-nosed pliers are too big and too clumsy. While you straighten one pin, you'll bend or break others.

Instead, use NSN 5120-00-765-3688, to get a pin removal tool kit. The kit is not only good for removing pins, but for straightening them, too!

The kit comes with four tips to adjust to different pin sizes. Just slip the right tip over the bent pin and gently, carefully, bend it back in shape.

One more tip: Prevent bent pins from happening by lining up the key way on a connector with the key on the connection. Lined up right, your pins should always be straight.

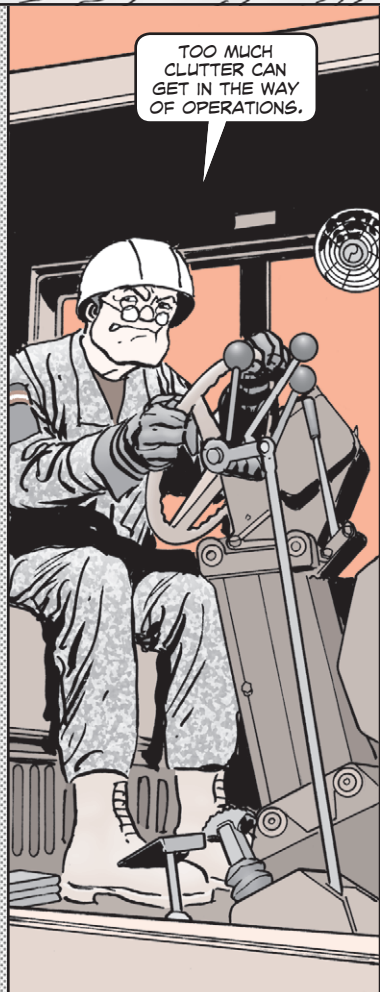
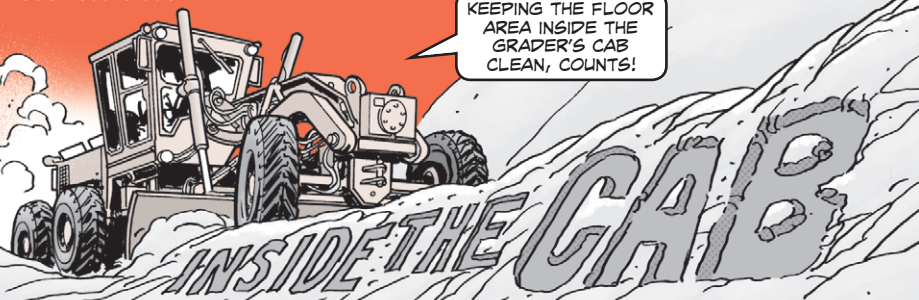


Use kit  
tips to  
straighten  
pins

RUN,  
YOU PIN-  
HEADS!







### Cab Floor Cleanup

The grader's cab floor seems like a handy area to put rags, tools, soft drink cans, water bottles and chains during operations.

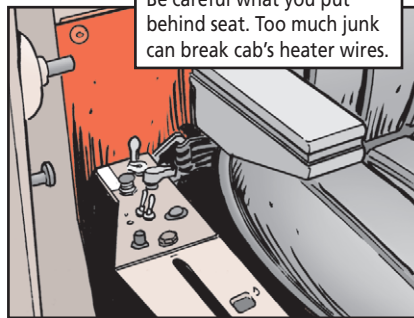
Problem is, these items can get under the accelerator, decelerator or brake pedals and keep them from working when you need them. That can lead to an accident.

So, get rid of anything on the cab floor that gets in the way of the controls. Use the toolbox that's in the front of the grader, above the circle drive, to store items.

### Behind the Seat

Most operators put their jacket behind the seat. Just be careful about what else you put there. The cab's heater wires are exposed in that area. Too much junk behind the seat breaks the wires. Busted wires mean there's no heat!

Be careful what you put behind seat. Too much junk can break cab's heater wires.

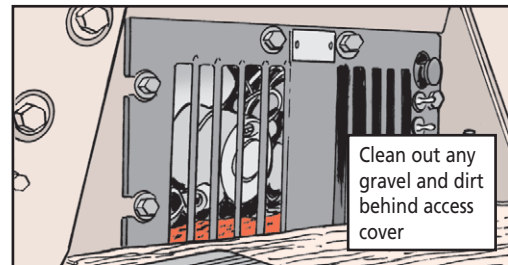
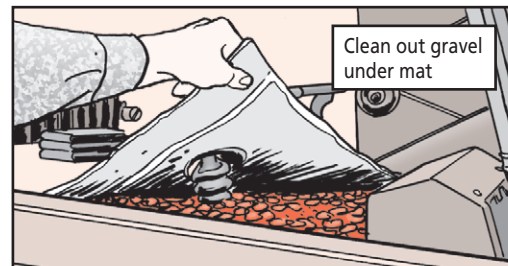


### Under the Floor Mat

What's on and under the floor mat needs to be cleaned out. Gravel and dirt find their way under the mat—and hold in water, too.

Gravel also accumulates from your boots and blocks up the access cover and the heater fan motors. Enough gravel to block air flow can cause an electrical short.

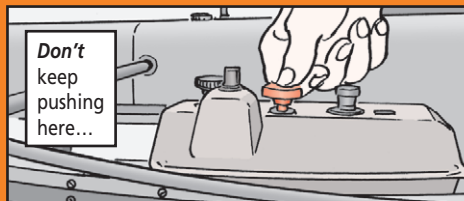
Use a vacuum or low-pressure air to clean out any gravel and dirt behind the access cover. Do not use water behind the access cover because that can cause electrical damage.



### 130G Grader....

## WASHER PUMP BURNOUT

**O**perators, do not crank down on the washer fluid switch for more than a few seconds if fluid doesn't squirt onto the cab's windshield.



Sure, this might sound simple. But way too many washer fluid pumps get replaced needlessly because of this. The pump will easily burn out when you turn and leave the switch on—especially with no fluid in the washer bottle.

So, eyeball the fluid level in the washer bottle before the day's run. Fill it up if it's empty!

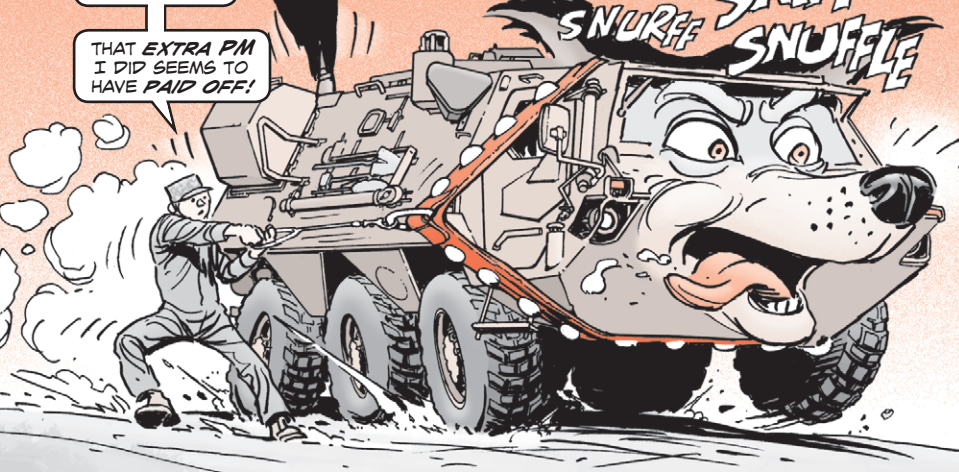




# HELP FOX SNIFF OUT DANGER

WHOA!

THAT EXTRA PM  
I DID SEEMS TO  
HAVE PAID OFF!



YOU REALLY  
ARE READY TO  
SNIFF OUT  
DANGER!



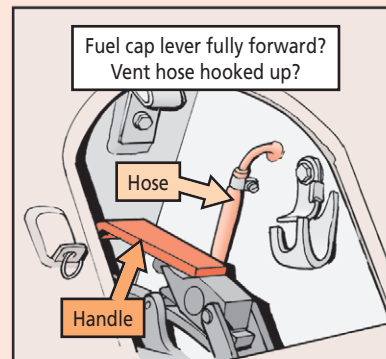
QUIT  
TALKING  
AND LET'S  
GO!

A FEW QUICK  
CHECKS AND  
SERVICES FOR  
YOUR FOX CAN  
DO SO MUCH TO  
HELP IT SNIFF  
OUT DANGER IN  
THE FIELD.



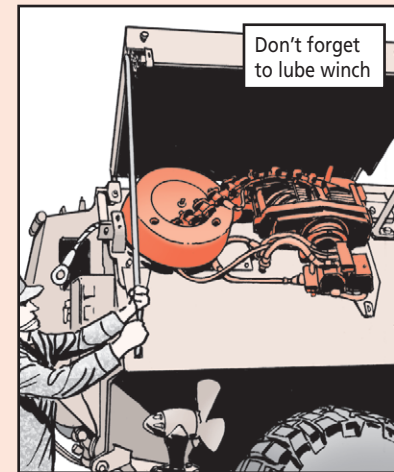
HELP YOUR  
FOX PROTECT  
YOU WITH THIS  
PM...

● If you're going to be swimming your Fox, make sure the seal for the fuel cap is in good shape. And make sure the fuel cap handle is fully forward. If the seal leaks or the fuel cap's not secure, water gets in the fuel and you could stall. Also make sure the fuel vent hose is hooked up or water can get in there, too.



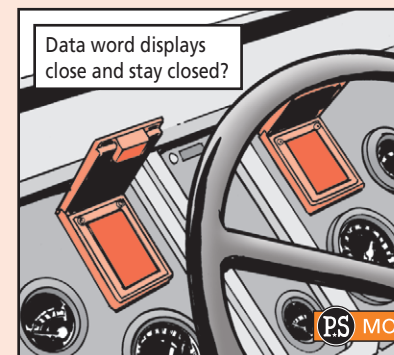
After swimming, remove the fill plug on the differential and check for milky fluid. That's a sign water has gotten in the differential, which could cause blown seals. Tell your repairman.

● When you're lubing, don't forget the winch and tow pintle. They're often ignored; then when you actually need to use them they're frozen with rust. Lube them with GAA weekly.



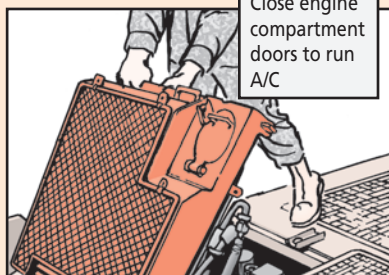
● Don't pull on the cable to disconnect the GPS. That pulls the cable's wiring loose. Hold the cable connector to disconnect.

● Make sure the data word displays close completely and stay closed. If they don't, their flashing lights can point you out to the enemy.

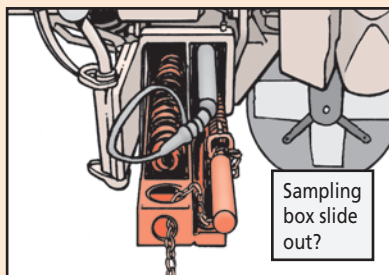




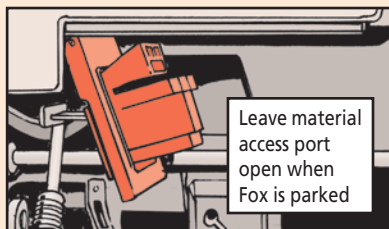
- Keep the front engine compartment doors shut when you run the A/C. If they're left open, the A/C can overheat and blow fuses.



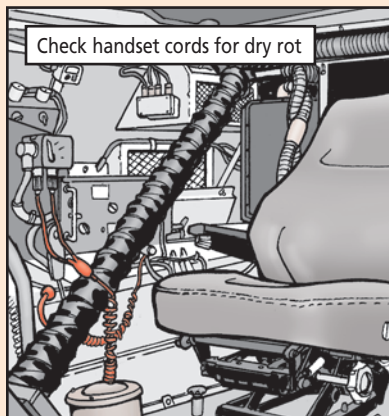
- Check that the sampling box slides out. If the box won't slide, clean and lube the tracks it moves on. Use a light lube like WD-40. Make sure the tongs are chained to the box or they will disappear in the field.



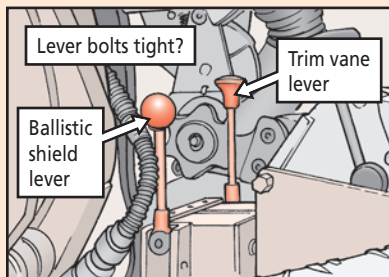
- Keep the material access port open when the Fox is sitting. That lets fresh air in the rear compartment. If the Fox sits sealed, it becomes a mildew jungle. Corrosion, electrical problems, and computer faults result.



- Check the cords for the handset in the rear for signs of dry rot. The handset is the main form of communication to the outside. If the cords short out, you've got problems. Report dry rot.



- All the hatches, windows, and doors have levers held on by bolts. The bolts work loose over time and can come out completely. Then the lever comes off. Check the bolts quarterly for tightness.



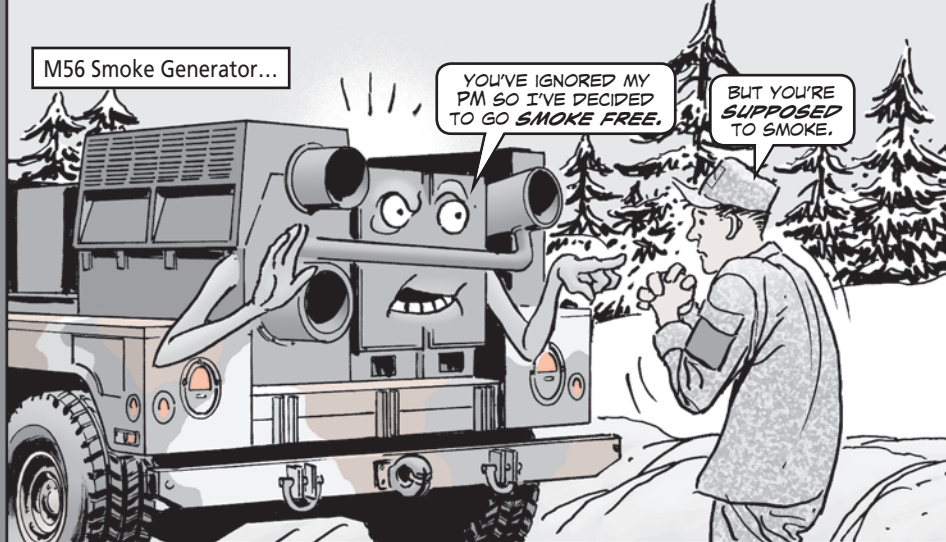
- When you're training at night, check the night vision devices. You can't check them during your daily PMCS because of sunlight, so night is your only opportunity to make sure they work.

- If you have to remove the belly plate, first pull out the hydraulic system fuse. If you don't, you could damage the electronic hydraulic pump.

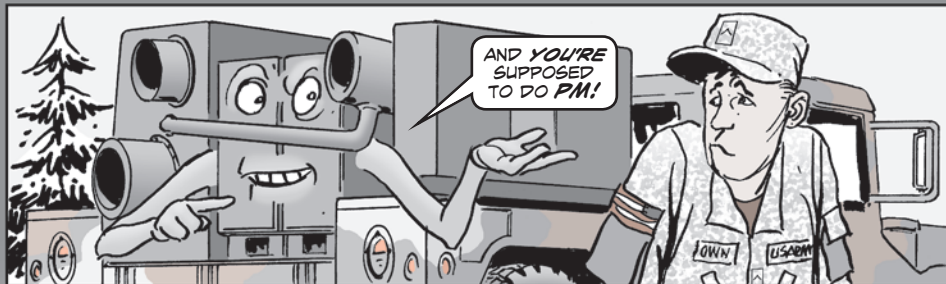
M56 Smoke Generator...

YOU'VE IGNORED MY  
PM SO I'VE DECIDED  
TO GO *SMOKE FREE*.

BUT YOU'RE  
*SUPPOSED*  
TO SMOKE.



AND YOU'RE  
SUPPOSED  
TO DO *PM*!



**GOOD SMOKING  
BEGINS WITH  
GOOD PM**

YOUR M56 SMOKE  
GENERATOR WILL GO  
SMOKE FREE IF YOU DON'T  
LIGHT IT UP WITH PM.

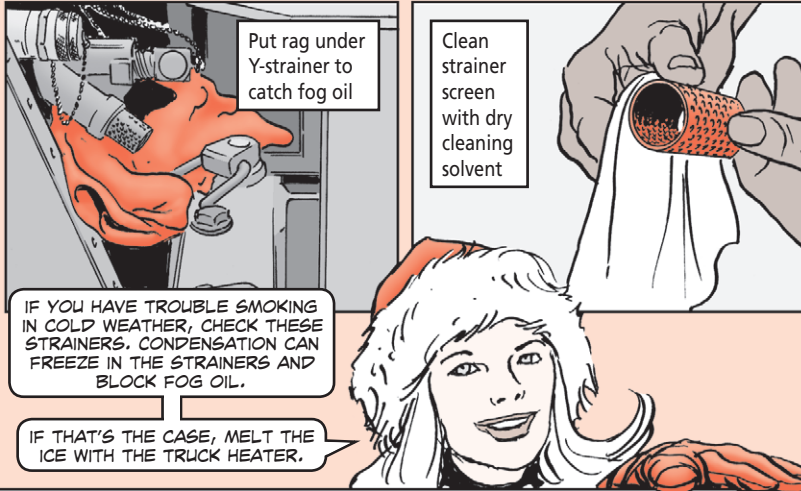
TRY THESE  
SUGGESTIONS  
FOR GENERATING  
GOOD SMOKE...

**PS MORE**

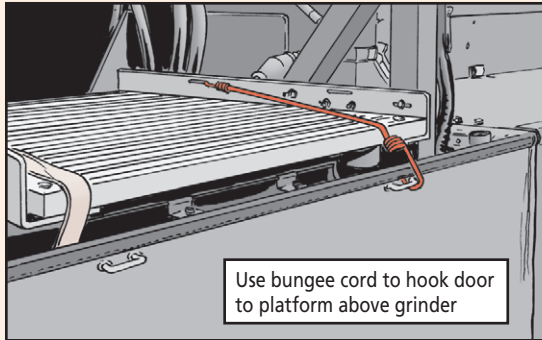


- The PMCS in TM 3-1040-282-10 doesn't pay much attention to the Y-strainer screens. But if they become too dirty, fog oil can't flow to the generator and you don't smoke. So it's a good idea in the field to monthly give the screens a good cleaning.

With the fog oil shut off, use your adjustable wrench to remove the strainer caps. Take out the screens and clean them with dry cleaning solvent and reinstall them. Save yourself clean-up by laying a rag under the Y-strainer before taking off the strainer caps. The rag catches any fog oil dripping out.

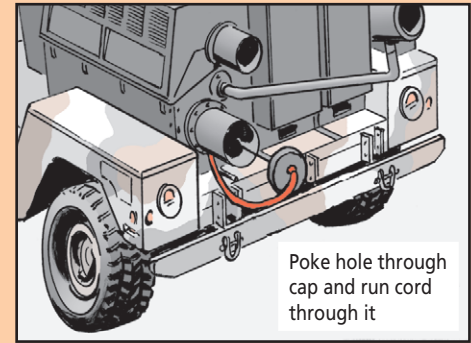


- The half door on the right side of the M56 doesn't latch well. Some units try to fix the problem by tying off the door to the transport hose. Bad idea. That damages the hose. The solution is to use a bungee cord to secure the door to the platform above the grinder.

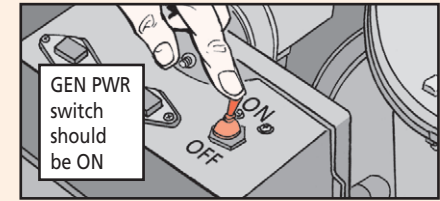


- Don't use the IR hopper for storage. If you accidentally hit the graphite switch when stuff like packs are in the hopper, the hopper is damaged, as well as the intromitter drive assembly and auger shaft.

- If you have trouble with the cap for the dispersion cone disappearing, poke a small hole in the cap, run a piece of 550 cord through the hole, and knot the end of the cord. Tie the other end to the cone's heat shield. Then you can just let the cap dangle when you're operating. Remember you must let the dispersion cone cool down before you put the cap back on or the cap melts.

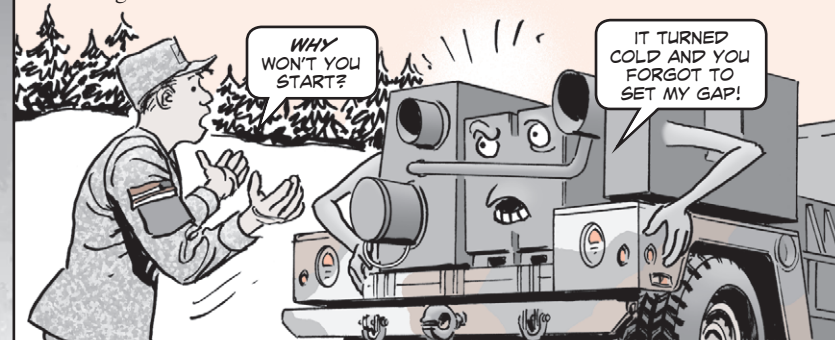


- If nothing happens when you try to start the M56, check the GEN PWR switch. It should be ON. If the switch is ON, make sure the three circuit breakers are pushed in. No change? Do the troubleshooting in Table 3-1 in TM 3-1040-282-10.



- Stand forward of the front of the rear tire when the turbine is operating. This puts you out of danger if the turbine fins ever break and come flying out or debris shoots out the turbine exhaust.

- Remember to reset the ejector gap setting when the temperature changes a lot. Otherwise, you'll have smoking problems. The procedure and temperature settings are on Page 2-44 in the -10.



- Wear your helmet when driving the M56. If you don't, you may dent your head on the bracket for the driver's vision enhancer during a sudden stop.

# Pump It Up!

WE  
VANT TO  
POMP  
YOU  
UP...

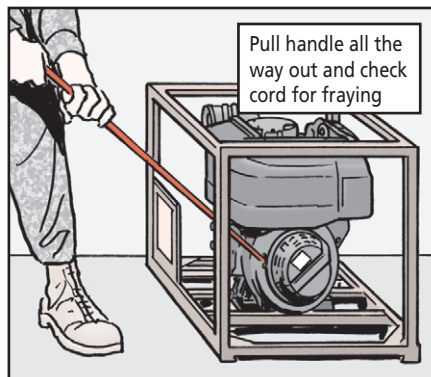
...VITH DESE  
SUGGESTIONS!

I'M  
PUMPED!  
LET'S  
GO!

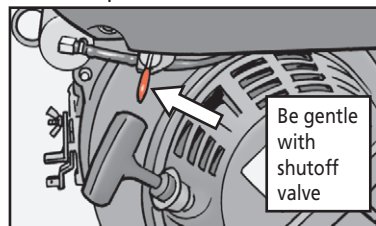
Dear Editor,

Here are a few tips we've come up with at the U.S. Army Chemical School to keep the 125-gpm pump pumped for pumping water:

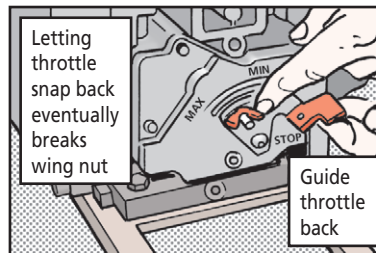
- The item that breaks most often on the pump is its pull handle. Operators yank on the handle (as they must to start it) and the cord snaps off. Before you leave the motor pool, slowly pull the handle all the way out and check the cord for fraying. If the cord's worn out, get it replaced before you go to the field.



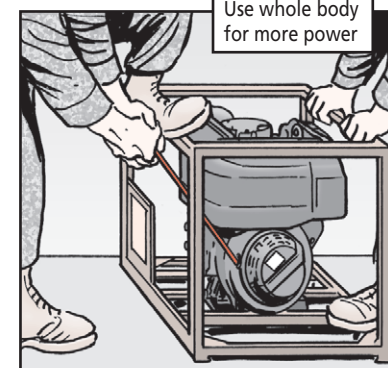
- The fuel shutoff valve and throttle also break if you're not careful. Be gentle when pushing in the shutoff valve. If you jam it, the valve snaps off.



When you release the throttle at the end of operations, don't let it snap back. That eventually causes the wing nut bolt for the throttle to break and then the throttle won't stay in one position. Guide the throttle back into place.



- Short soldiers may have trouble starting the pump because they have difficulty pulling the handle all the way back. It's easier if you put your left foot on the top bar of the frame, grasp the handle with both hands, and then use your body and leg to push off hard as you pull back the handle.



SSG Brian Francis  
U.S. Army Chemical School  
Ft Leonard Wood, MO

*Editor's note: Your suggestions will help decon units pump up, Sergeant. Thanks.*

**HARD  
TO FIT?  
KEEP  
YOUR  
M45!**

WELL, I'M MOVING  
ON TO MY NEW UNIT  
SO I'M TURNING IN  
MY MASK.

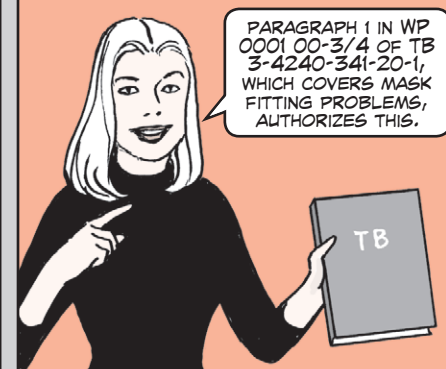
**NO, THAT'S THE  
M45 MASK WE  
ORDERED SPECIALLY  
FOR YOU BECAUSE  
YOU'RE HARD TO FIT.**

**YOU NEED TO  
KEEP THAT  
MASK AS LONG  
AS YOU'RE IN  
THE ARMY!**



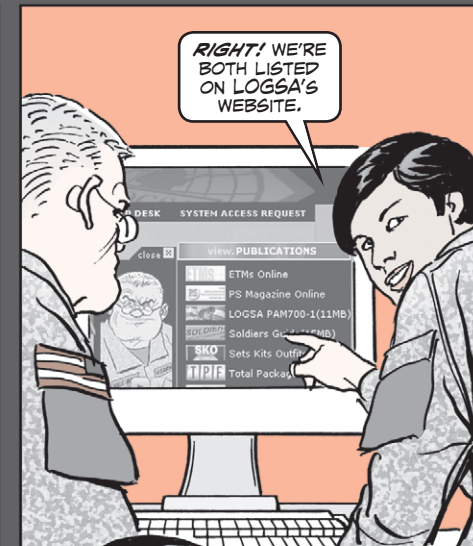
**I**f you must wear an M45 protective mask because you can't fit into an M40 or M42 mask, then you need to keep the M45 when you transfer units.

M40 and M42 masks stay with the unit when a Soldier transfers. But it's a different story with the M45 if it's used for a hard-to-fit Soldier. As long as that Soldier stays in the Army, he should keep that specific M45 mask.





# WHO DO YOU CALL?!



Sometimes it can get a little confusing knowing whom to call to get logistics and maintenance questions answered.

The Logistics Support Activity offers two avenues to answers.

**PS Magazine** provides a reader service to resolve problems and answer questions as required by AR 700-138, *Army Logistics Readiness and Sustainability*. PS focuses on helping to resolve maintenance and supply issues, and clarifying logistics publications and forms.

So, if you have a question or suggestion related to a deficiency in a TM, an out-of-date NSN, a fabricated tool, maintenance or PMCS procedures or the use of maintenance forms or publications, PS is for you.

**LOG911** answers technical problems and questions related to the Army-wide databases, products and services that LOGSA maintains and offers.

LOG911 ANSWERS QUESTIONS RELATED TO SIX BROAD CATEGORIES...

- **Readiness** covers trends, optempo, analysis, indicators, MMDF and RIDB data.
- **Supply/Support** info includes visibility/pipeline, MRDB, TPE, ERPS, SSF, UIC, DODAAC, SB 38-101, SIR and RIC.
- **Maintenance** data covers electronic TMs, SKO&T, TEDB, and AOAP.
- **Distribution/Transportation** includes info on packaging, Army airlift clearance authority and Defense transportation regulations.
- **Property Accountability** data covers vehicle registration, WS management, and MIR.
- **Catalog Data** responds to questions concerning the AMDF, UIC, SB 700-20 and FED LOG.
- **Force and Accountability** also cover UIC, DODAAC, RIC, DA project codes, UIT, ARSNT, PBUSE, SIR and assets.



PS Magazine

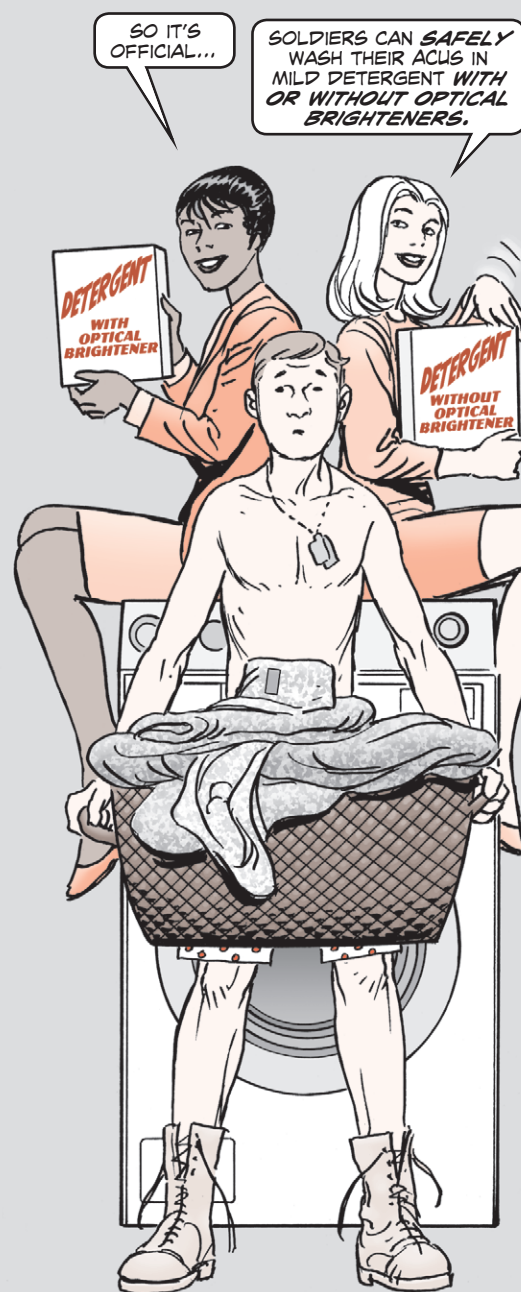
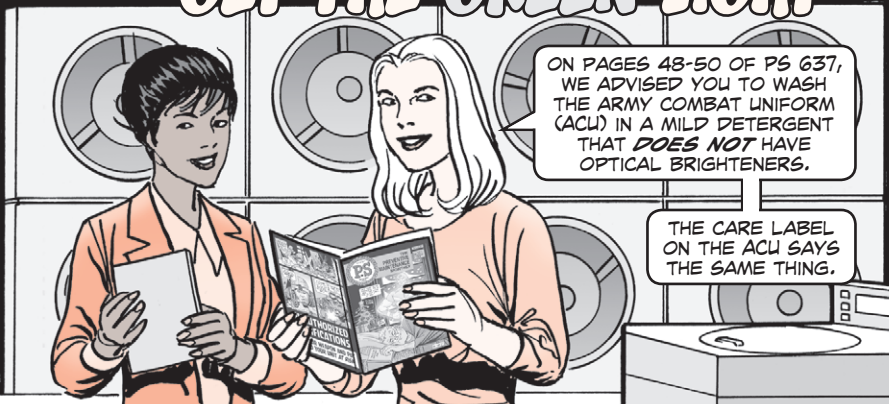
Email: [logsa.psmag@conus.army.mil](mailto:logsa.psmag@conus.army.mil)  
or [half.mast@us.army.mil](mailto:half.mast@us.army.mil)

LOG911

Webpage: <https://weblog.logsa.army.mil/log911/index.cfm>



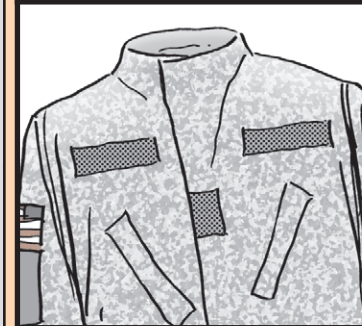
# OPTICAL BRIGHTENERS GET THE GREEN LIGHT



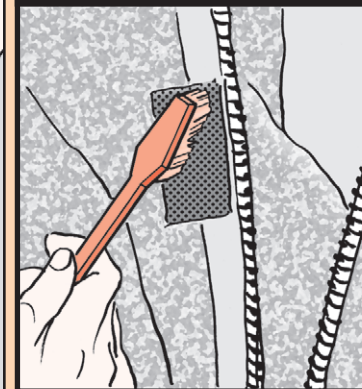
## Laundering

### Coat and Trousers:

- Remove all patches and tapes from the coat and all items from pockets.



- Lightly brush the hook-and-loop fasteners with a toothbrush to remove debris.



- Close all hook-and-loop fasteners to prevent snagging.
- Close the zipper and knot the waistband tie strings.
- Turn the coat and trousers inside out. That prolongs the life of the hook-and-loop fasteners and keeps them from catching on other items.

- Machine wash on the permanent press cycle, or hand wash, in cold water and a mild detergent that does not contain bleach. Cold water doesn't fade or wear out the ACU as fast as hot water.



- Rinse completely, but do not wring or twist.
- Hang dry or machine dry on low to medium setting only (between 140-160°F).

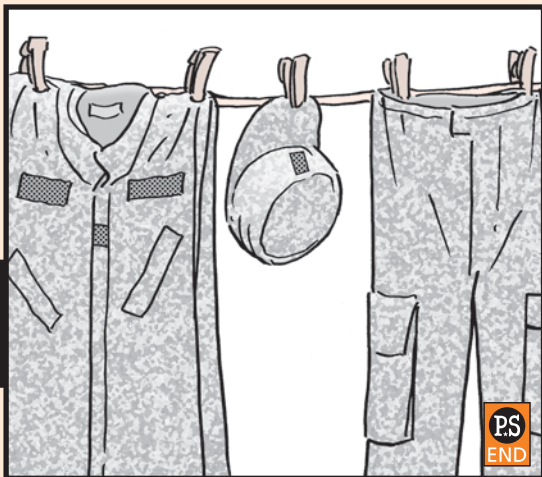
- DO NOT dry clean, starch, use chlorine bleach or have the ACU commercially pressed. All will cause permanent damage.



- DO NOT apply heat or a hot iron to any hook-and-loop fastener or to the infrared tab. That will cause permanent damage.

### Patrol Cap

- Machine wash on the permanent press cycle, or hand wash, in cold water and a mild detergent that does not contain bleach.
- Rinse completely, but do not wring or twist.
- Hang dry or machine dry on low setting only (no higher than 130°F).
- DO NOT starch or use chlorine bleach. They'll damage the cap.



## BRADLEY BATTERY CHARGING REVISITED

Page 5 of PS 674 (Jan 09) didn't give enough info about keeping the Hawker batteries charged in your M2/M3-series Bradley. Remember to follow the warm-up procedures in the -10 TMs before going to high idle for battery charging. Then, run the engine at low idle for 15 minutes before shutdown so the turbocharger can cool down. Both steps are important to avoid engine and transmission failures.

## Improved HMMWV Tires Available To All Units

On page 10 of PS 665 (Apr 08), we told you that there was a limited supply of Goodrich Baja and Goodyear MT/R tires, NSN 2610-01-541-4090. Now they are available to all units, CONUS and OCONUS.

Remember, Goodrich Baja and Goodyear MT/R tires or tire and wheel assemblies can be mixed with each other. But DO NOT mix them with the Goodyear MT tires or tire and wheel assemblies. And make sure the spare tire on your HMMWV is compatible with the tires on the vehicle.

## M240H MWO Solves Bipod Problems

An MWO corrects problems with bipod mounting on the M240H machine gun and with the forward folding bipod.

MWO 9-1005-313-23-1 contains a shorter replacement pin for the gas tube, two new pins for holding the upper legs together, two new pivot shoulder screws with lock nuts, and a new clamp to limit bipod rotation on the gas tube.

The MWO can be applied by field support.

Units in SWA should contact the Small Arms Support Center in either Balad, Iraq, or Bagram, Afghanistan.

The Balad POC is Bruce Coleman, DSN (312) 987-5130 (ext 6203) or email:

[bruce.coleman2@mmcs.army.mil](mailto:bruce.coleman2@mmcs.army.mil)

The Bagram POC is Leroy Obray, DSN (312) 987-5130 (ext 6050), or email:

[leroy.obray1@mmcs.army.mil](mailto:leroy.obray1@mmcs.army.mil)

All other units should contact their MWO coordinator.

For more information on the MWO, contact TACOM-RI's MWO coordinator Gary Nellis at DSN 793-6539, (309) 782-6539, or email:

[gary.p.nellis@us.army.mil](mailto:gary.p.nellis@us.army.mil)

For technical questions on the M240H, contact TACOM-RI's Dennis Bowrey at DSN 793-5943, (309)782-5943, or email:

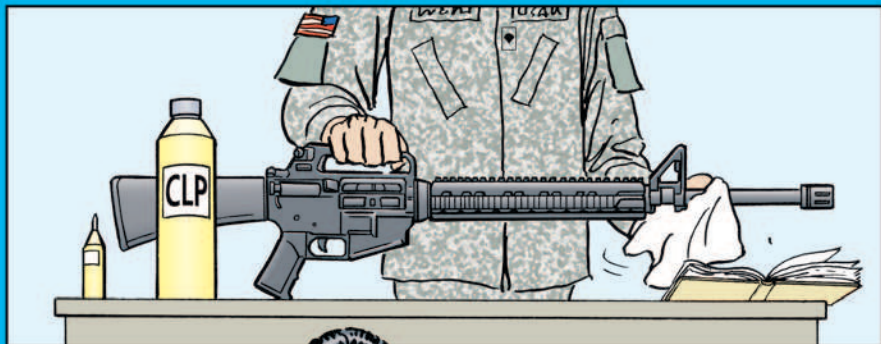
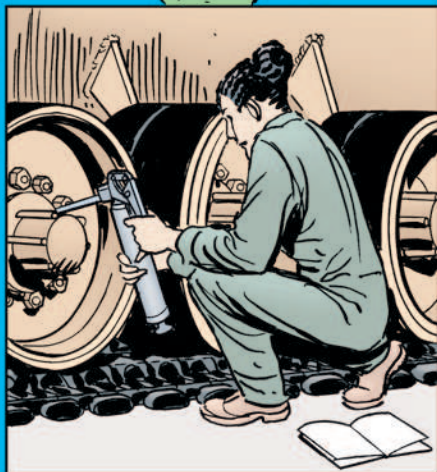
[dennis.bowrey@us.army.mil](mailto:dennis.bowrey@us.army.mil)

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BOOK!**



**NOW  
THAT'S  
A PLAN!**