

Issue 667

PS

June
2008

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-667

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FLAG DAY PARADE

WHEELER'S RESTAURANT

IN MEMORY OF OUR FALLEN SOLDIERS WE WON'T FORGET

HEY OLD TIMER!
HOW DO YOU KEEP
THIS MOTORCYCLE
IN TIP-TOP SHAPE?

PREVENTIVE
MAINTENANCE,
YOUNGIN'!

WE SURE KNEW
HOW TO TAKE
CARE OF THESE
VEHICLES BACK
IN THE DAY!

WE
STILL
DO!

GO GUARD

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ARE YOU READY,
WILLING AND ABLE?



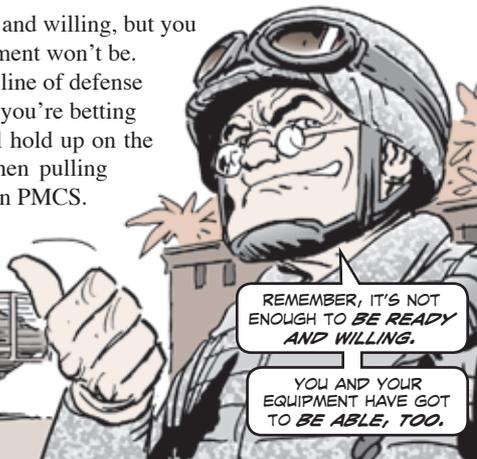
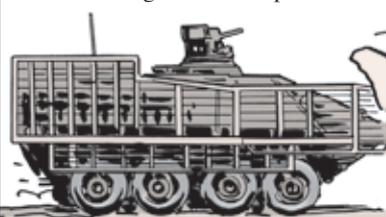
When asked to serve the cause of freedom in Iraq and Afghanistan, thousands of troops have replied, "We're ready and willing!"

But there's another question that must be answered: Are you **able**?

That's a question that can't be answered with words, but only with action. And the best action you can take is PM.

Without PM, you may be ready and willing, but you won't be able because your equipment won't be.

As the operator, you're the first line of defense against equipment failure. In fact, you're betting your life that your equipment will hold up on the battlefield. Keep that in mind when pulling before-, during- and after-operation PMCS.



REMEMBER, IT'S NOT ENOUGH TO BE READY AND WILLING.

YOU AND YOUR EQUIPMENT HAVE GOT TO BE ABLE, TOO.

PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-667, 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. Masculine pronouns may refer to both genders.

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

Just write to:
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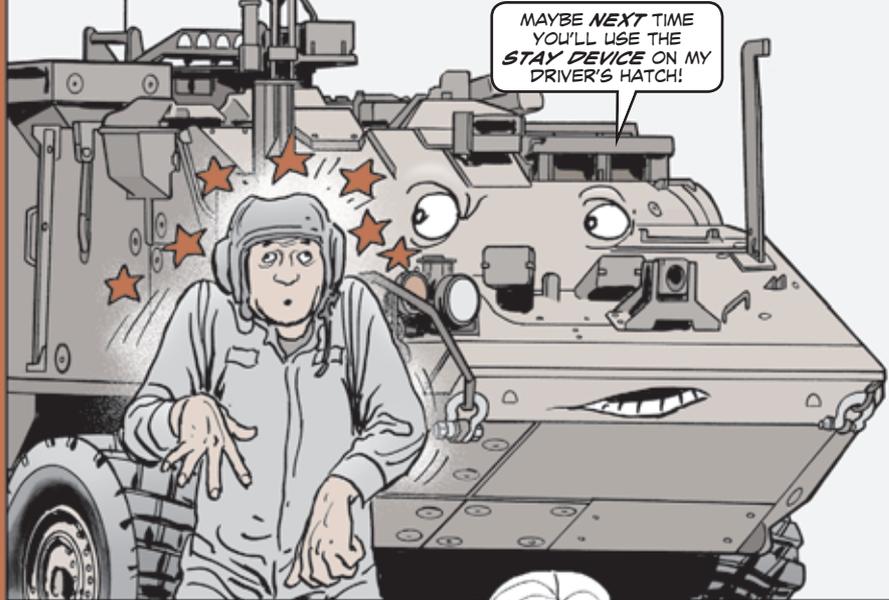
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Stryker...

STAY SAFE WITH STAY DEVICE

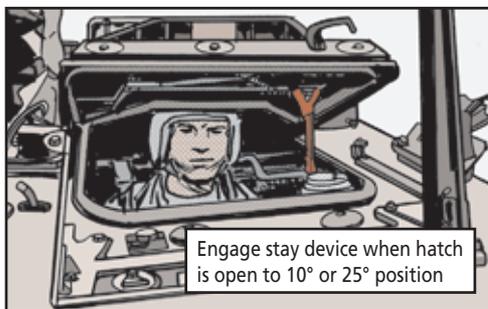


DRIVERS, THE HATCH ON YOUR STRYKER WEIGHS ABOUT 250 POUNDS, SO IT'S IN YOUR BEST INTEREST TO DO EVERYTHING YOU CAN TO KEEP IT OFF YOUR HEAD.



Whenever you have the hatch open to the 10° or 25° position, you're supposed to engage the stay device. The stay device will keep the hatch from crashing down on your head if the hatch spring fails.

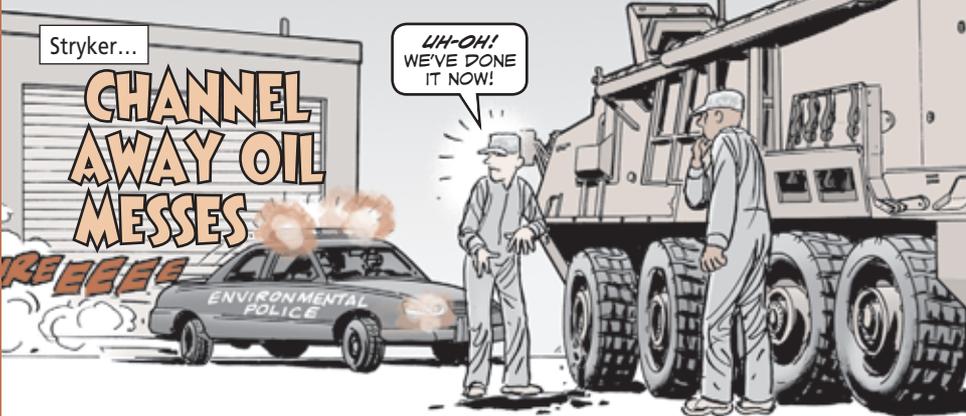
To engage the stay device, follow the instructions starting in WP 0016-7 of TM 9-2355-311-10-1-1.



Stryker...

CHANNEL AWAY OIL MESSSES

REEEEEE

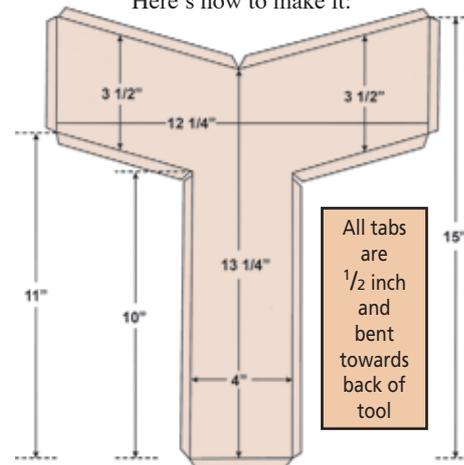


No mechanic looks forward to draining the Stryker's wheel hubs. Because as soon as you remove the drain plug, oil pours out all over the hub, tire and ground.

It's not only a big mess, but an environmental problem as well if you don't clean it up properly.

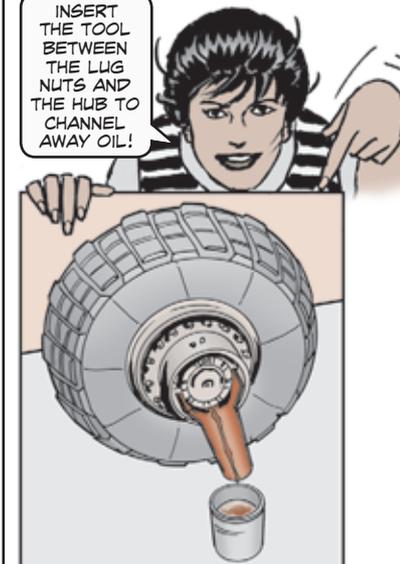
You can avoid this environmentally unsound practice with a homemade tool. It's a special trough made of 24-gauge steel that hooks between the hub and lug nuts to channel the oil straight into a can or drip pan with no mess.

Here's how to make it:



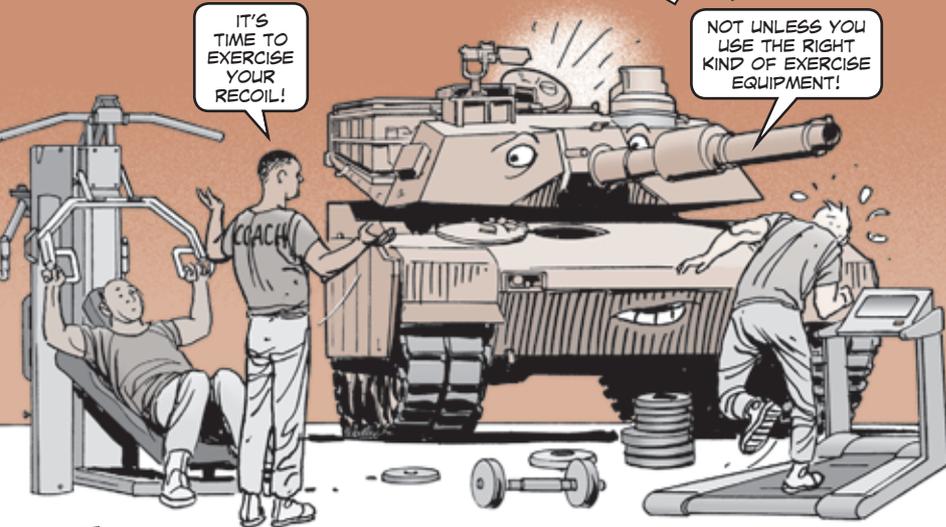
When the tool is finished, curl it slightly to fit under the hub. You may also want to put some duct tape around the outside edges to keep from cutting yourself.

INSERT THE TOOL BETWEEN THE LUG NUTS AND THE HUB TO CHANNEL AWAY OIL!



Then follow the instructions in IETM 9-2320-311-13&P for draining the wheel hubs.

Use the Right Exercise Equipment



Exercising the recoil of your tank's main gun is a semi-annual requirement, crewmen. But before it's done, you need to know about a change to TB 9-1000-234-13, *Exercising of Recoil Mechanisms and Equilibrators*.

Currently, Table 2-2 says you can use a hydraulic jack or a wrecker with an improvised exercising bracket to exercise the recoil. That's no longer true.

Now the only authorized methods are the M3 oil pump, the gun mount exerciser, or by firing the gun. Make a note until the references to Para 2-2d and 2-2e can be removed from Table 2-2 for M1-series tanks. The change is authorized on Page 5-58 of TB 43-0001-62-06-4 (Apr 07), *Equipment Improvement Report and Maintenance Digest for Tank, Automotive, and Armament Equipment*.

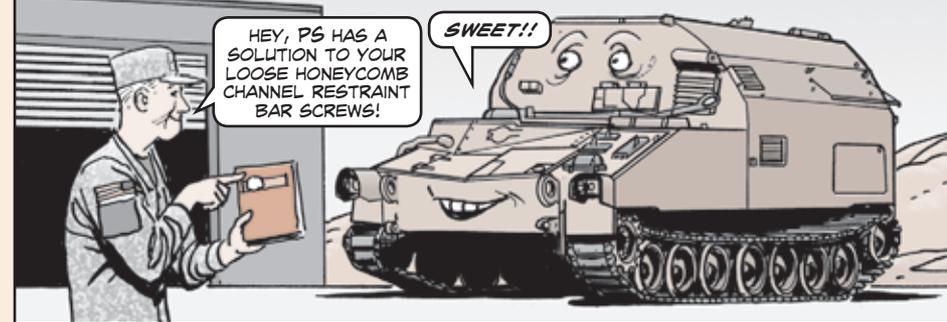
And don't forget to update your electronic DA Form 2408-4 after exercising the recoil. Go to:

<https://aeps2.ria.army.mil/commodity/guncard/index.cfm>

M1A1 Tank NBC Housing

The M1A1 tank's NBC prioritization regulating valve assembly housing, listed as Item 13 in Fig 359 of TM 9-2350-264-24P-1, is now available for requisition by field units with NSN 2590-01-519-7682. Make a note until the SMR code is changed in the TM from XBOZZ to PAOZZ.

A SWEET SOLUTION TO LOOSE HONEYCOMB SCREWS



That old enemy, vibration, is rearing its ugly head again, mechanics. This time it's affecting the honeycomb channel restraint bar screws in the M992A2 ammo carrier.

During operation, the screws, NSN 5305-01-549-7766, are vibrating loose and backing out. If they fall out, the restraint bar comes loose and ammo can go flying.

A little adhesive, NSN 8030-01-559-4889, will keep those screws nice and tight. Apply it like this:

1. Remove and throw out the old screw from the channel restraint bar and honeycomb assembly.

2. Clean the threaded hole to remove any dirt or oil.

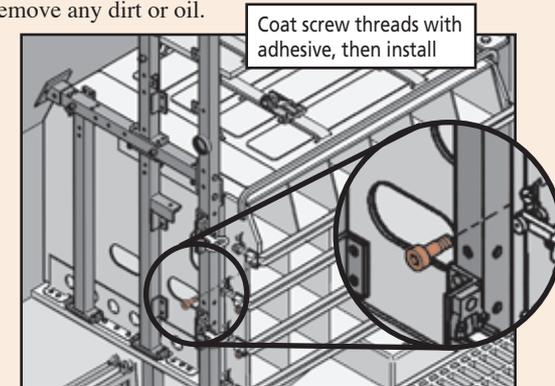
3. Put several drops of adhesive into the honeycomb's threaded hole and onto the threads of a new screw. The screw threads should be fully coated with the adhesive.

4. Install the new screw through the channel restraint bar into the honeycomb assembly and tighten firmly. Wipe away any excess adhesive with a clean cotton rag like NSN 7920-00-205-1711.

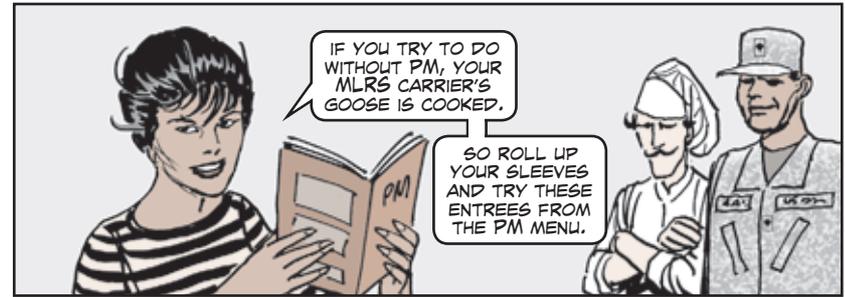
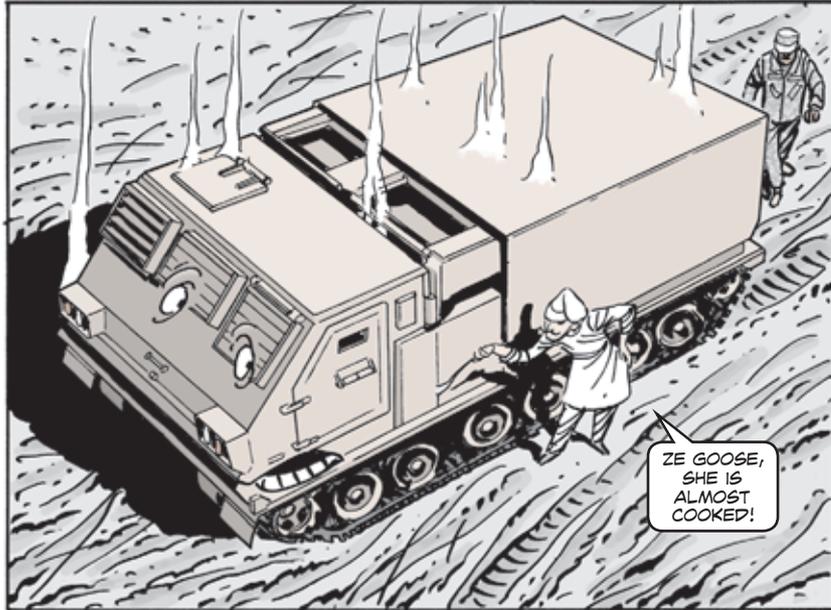
5. Apply lubricating oil, NSN 9150-01-518-9484, to the channel restraint bar and the head of the new screw. That allows the restraint bar to rotate under the screw.

6. Repeat steps 1-5 for the 11 remaining screws on the 2x8 and 4x6 honeycomb assemblies.

The adhesive will cure to full strength in about 24 hours.

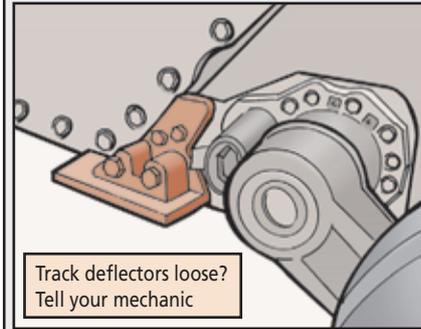


PM: A Recipe for Success



Track Deflectors

Before moving out, take a look at the track deflectors. They protect the roadwheel arms from track slap. If the bolts are loose, the deflector can get caught in the track and break off. Tell your mechanic about loose bolts.



Hardware

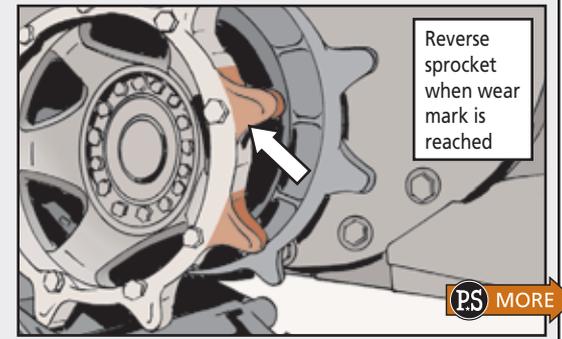
At first glance, it may seem cheaper and easier to re-use bolts, screws and self-locking nuts on the MLRS's suspension, steering and braking components. **It's not.**

Used hardware won't hold. It works loose and falls out. That results in damaged components. So toss old hardware and replace it with the parts called out in the TM.



Final Drive Sprockets

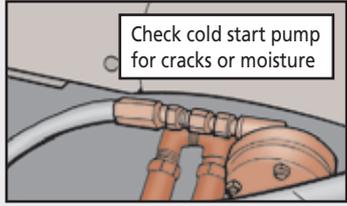
Reverse the final drive sprockets when they wear down to the wear circle. If the wear goes too far past the circle, the sprocket starts hooking the track shoes. That damages the shoes and could result in a thrown track. When both sides of the sprocket are worn to the circle, replace the sprocket.



Cold Start Pump

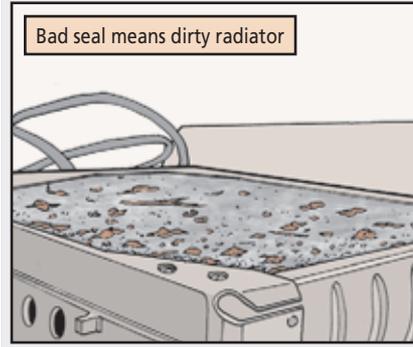
The fittings on the cold start pump crack from wear and vibration. Fuel drips from the fittings to the rocker arm covers and then onto the exhaust—a real fire hazard.

Eyeball the fittings for cracks before every operation. Feel for moisture and then smell your fingers for any trace of fuel. Immediately report a potential leak.



Radiator Plenum Seal

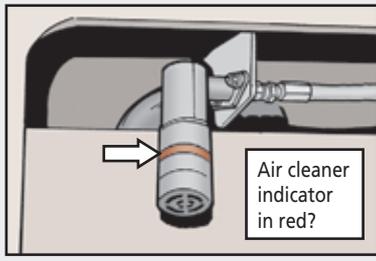
Check the radiator's plenum seal at least semiannually for cracks and tears. A bad seal lets in dirt, sand and insects that will coat the radiator fins and keep your engine from cooling off.



Air Filters

Eyeball the air cleaner indicator in the engine compartment **before** every operation. If the indicator is in the red, double check it like this:

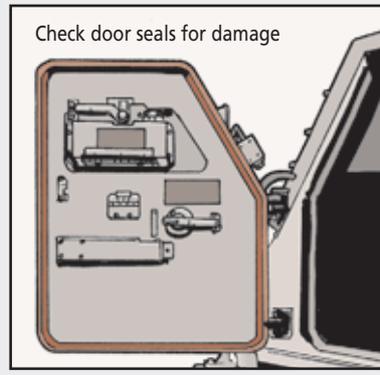
1. Push the reset button.
2. Start the engine and hold the accelerator pedal all the way down for 5 seconds. Then let the engine idle for about 30 seconds.
3. Cut the engine and recheck the indicator. If it's in the red again, remove and clean the air filter V-pack.



Door Seals

The cab is over-pressurized during firing to prevent toxic fumes from entering the cab. If the door seals aren't in good shape, rocket exhaust gas can enter the cab.

Check the rubber seals **before** every operation. If they are dry or brittle, get 'em replaced.



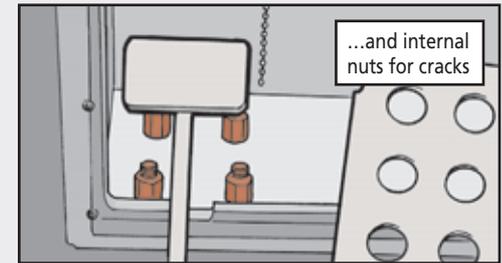
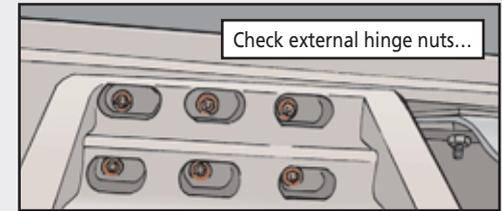
Raising the Cab

Before raising the cab, eyeball the cab hinge studs and nuts for cracks. If you find any, let your mechanic know. Don't raise the cab until cracked studs and nuts have been replaced. You don't want to be under the cab if the hinges fail!

Also, remove all equipment stowed on top of the cab before raising it. The elevating jack assembly can't take the extra strain, and falling equipment could kill or injure you or others.

Slow and easy is the way to raise the cab. The faster you go, the more the cab rocks back and forth. That puts a lot of strain on the hinges.

Once the cab is up, check the hinge studs and nuts on the inside, too. Again, your mechanic should replace any damaged ones.



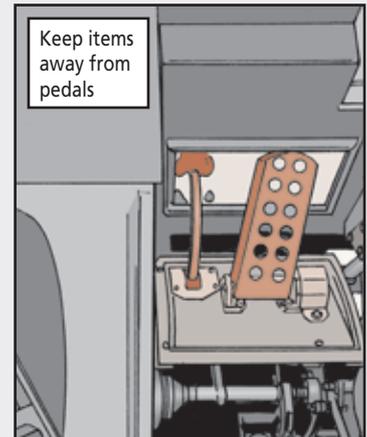
Lowering the Cab

Before lowering the cab, check inside for any TMs, tools or other items that may have fallen around the accelerator and brake pedals. Anything that gets in the way will be crushed and can damage the control linkages as the cab is lowered.

Once the cab is down, lock it down right or you could ruin the threads on the hold-down nuts or crack the frame.

If the nuts are not seated or tightened right, the cab sits cockeyed. The frame can crack as the cab flexes. The nuts can bind, too, so keep the threads clean. Never cross-thread 'em or the entire hold-down assembly has to be replaced. Use a little oil on the threads occasionally to make the job easier, too.

Release the tension on the elevation mechanism after the hold-down nuts are tightened. That way, there's no pressure on the mechanism while you're in operation. If you can move the elevation mechanism with your fingers, the tension is released.



MLRS, HIMARS...

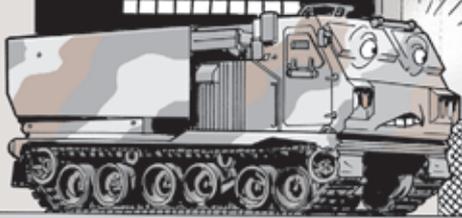
Easy with Ethernet Cables

I SEEM TO BE HAVING TROUBLE COMMUNICATING WITH MY GDU.

IT'S LIKE MY BRAIN HAS LOOSE WIRES!

HMMM...

... WE *MAY* HAVE OVER-TIGHTENED ONE OF HIS ETHER-NET CABLES.

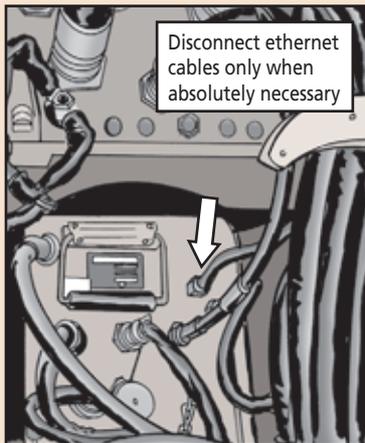


Dear Editor,

The ethernet cables transmit the computer information that's so vital for accurate firing by the MLRS and HIMARS. But the cables themselves are one of the most fragile items on the system and one damaged ethernet cable can stop the MLRS in its tracks. MLRS crews sometimes refer to this as "death by ethernet cable".

So you want to do everything you can to protect all 20 ethernet cables. The best way is to leave them connected. If you continually disconnect and connect them for cleaning and maintenance, the middle of the cable connector gets crunched down. The cable starts having trouble carrying information.

But the ethernet cables do work loose from the tremendous vibration of the MLRS during travel and operation. Loose cable connections mean poor or no information goes to the gunner's display unit. So during your weekly PMCS you need to *gently* check all the ethernet cable connections for looseness.

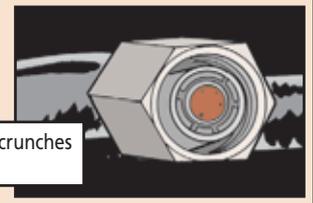


The TM says the cables should be tightened to 21 lb-in if they're loose. Use a torque wrench to do this. Don't guess at the torque.

SFC
SSG
HMB, 1/78th FA
Ft Sill, OK

, SSG

Over-tightening cables crunches center of connector



Editor's note: Those are excellent ethernet suggestions that will save MLRS units lots of troubleshooting frustration! Thanks.

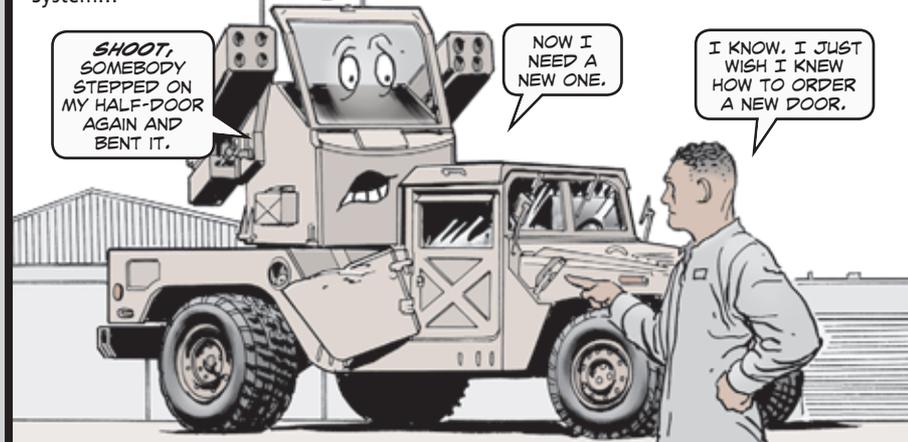
Avenger Missile System...

WHERE DO YOU GET HALF-DOORS?

SHOOT, SOMEBODY STEPPED ON MY HALF-DOOR AGAIN AND BENT IT.

NOW I NEED A NEW ONE.

I KNOW, I JUST WISH I KNEW HOW TO ORDER A NEW DOOR.



Dear Half-Mast,

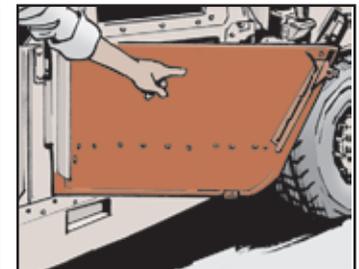
We have looked and looked but we can't find an NSN for the half-doors used on the Avenger's HMMWV. Can you help?

CW4 D. W.

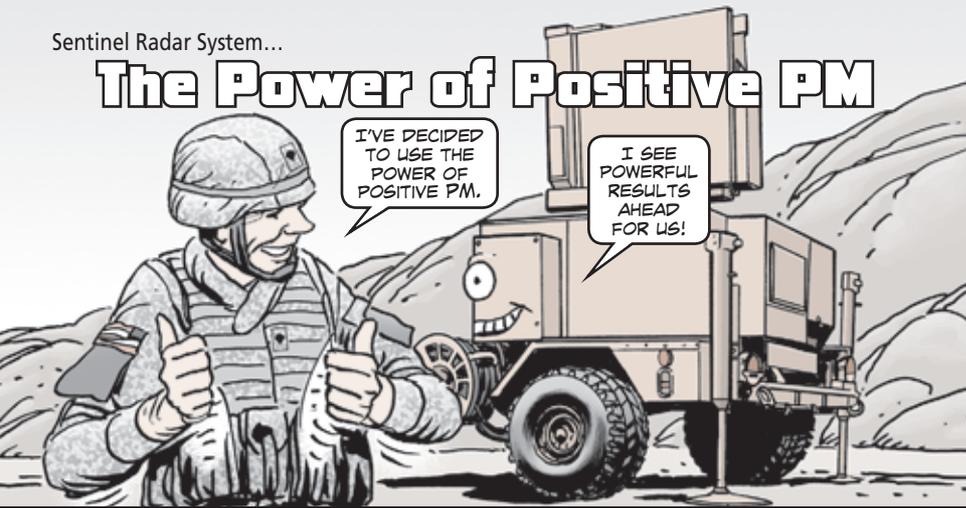
Dear Chief D.W.,

Certainly. The right-side door comes with NSN 2510-01-350-2516 and the left-side door comes with NSN 2510-01-370-4264. They're part of Fig 121 in TM 9-1440-433-24P.

Half-Mast



The Power of Positive PM



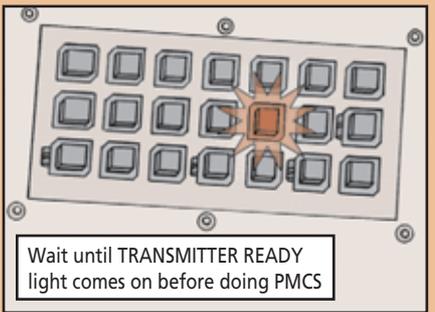
I'VE DECIDED TO USE THE POWER OF POSITIVE PM.

I SEE POWERFUL RESULTS AHEAD FOR US!

PM can have a powerful effect on your Sentinel's ability to alert you to the enemy. Here's how you can tap in to the power of positive PM:

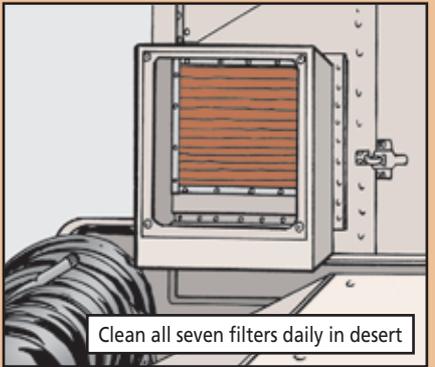
PMCS

To do a PMCS that gives you an accurate diagnosis of your Sentinel, you need to power it up until the TRANSMITTER READY light comes on and then rotate the radar. If you don't give the Sentinel that much time, it won't have enough time to show you faults. You won't discover problems until you're ready to operate for real.



Wait until TRANSMITTER READY light comes on before doing PMCS

In the desert, clean all seven filters daily, even if you're not operating daily. Blowing sand can quickly clog them and that leads to overheating and transmitting faults.



Clean all seven filters daily in desert

Remember, trailer PM for the Sentinel is important, too. Some units disagree who's responsible for the trailer, the vehicle mechanic or Sentinel repairmen. As a result, no one services the trailer. But if it can't go anywhere, neither can the Sentinel.

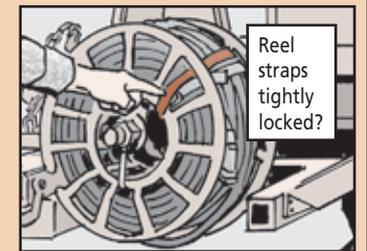
Carefully follow the lube instructions in Appendix G of TM 9-2330-392-14&P, particularly the part about the wheel hubs. In the desert, they may need lubing monthly instead of semiannually. Check the brake fluid more frequently in the desert, too.



Wheel hubs need lubing more often in desert

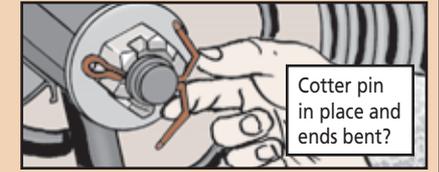
Reel Facts

It can be very discouraging to look back while on the road and see the Sentinel's data cable reel unreeling. Before hitting the road, make sure all cable reel straps are fastened and the cable reel nuts are tightly locked. Also check that both cables have their protective caps installed so that their connectors don't finish the trip plugged up.



Reel straps tightly locked?

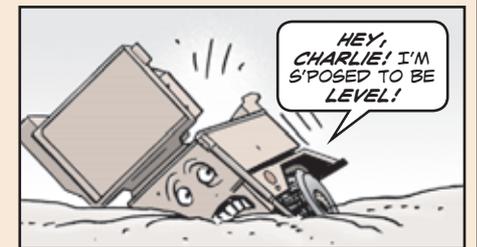
The power cable reel has a cotter pin to keep the reel's hub bolt tight. If the pin's missing, the bolt can work loose and the reel takes a tumble. Check that the cotter pin is installed and its ends are bent so it can't work its way out.



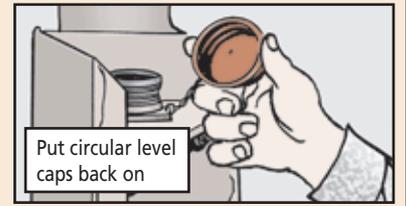
Cotter pin in place and ends bent?

On the Level

The Sentinel needs to be level to operate. So when you emplace it, try to put it on as solid ground as possible. In the desert, that's not always possible. In those cases, put something solid under the jack pad, such as a flat piece of metal or sturdy plywood, to increase the footprint of the jack pad. Use heavy duty materials that can support the weight of the trailer.



When you're finished checking the circular levels, put their caps back on. If the gauges are left exposed, sun and moisture can ruin them.

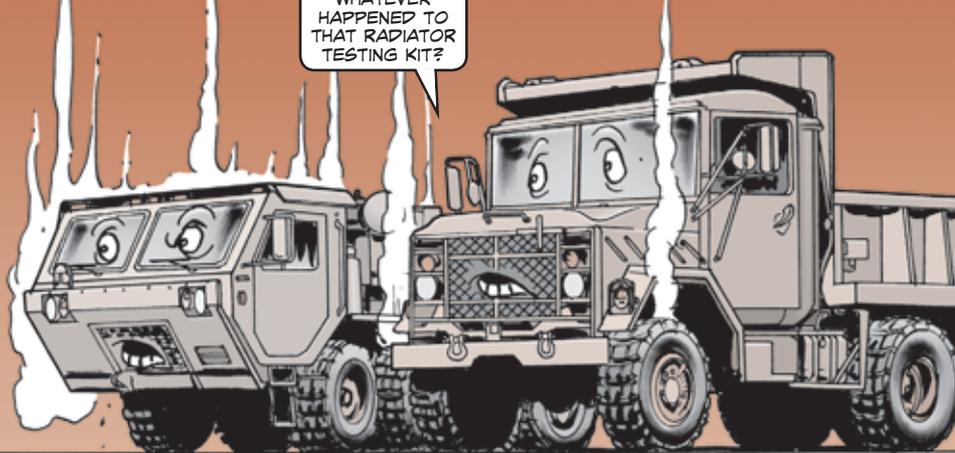
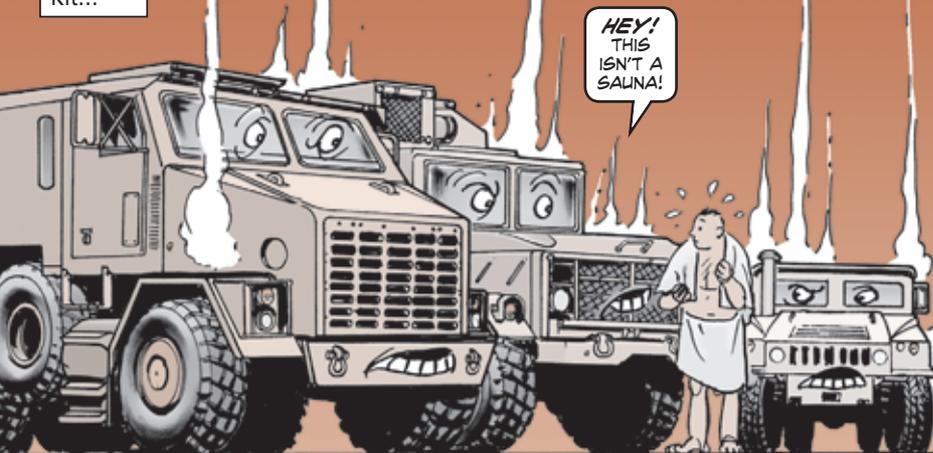


Put circular level caps back on

ST255
Radiator
Testing
Kit...

CAN YOUR VEHICLE'S COOLING

SYSTEM PASS THE TEST?



WANT YOUR
VEHICLE'S COOLING
SYSTEM TO STAY IN
BUSINESS?

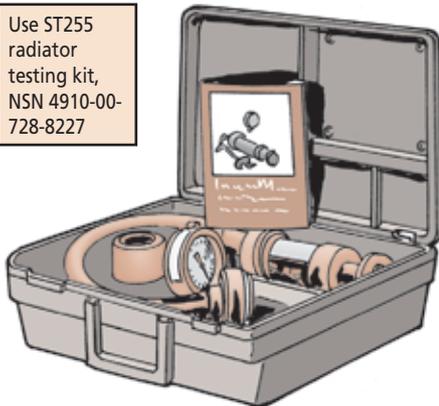


WELL, HERE ARE
PREVENTIVE MAINTENANCE
EQUIPMENT AND TESTS
THAT CAN SAVE ON
REPAIR BILLS, AND KEEP
YOU OUT OF HOT WATER!

Using the ST255 radiator testing kit, NSN 4910-00-728-8227, allows you to test the radiator cap and your vehicle's entire cooling system. The kit is listed in TM 750-254, *Cooling Systems: Tactical Vehicles*.

The ST255 radiator testing kit includes a hand pump, a pressure gauge, and adapter fittings for attaching to the various types of caps.

Use ST255
radiator
testing kit,
NSN 4910-00-
728-8227



Radiator Cap

Radiator caps should be tested periodically to make sure they work properly. A defective cap can cause loss of coolant, over-pressure damage or collapse of cooling system components.

Here's how to test the radiator cap with this tester:

Begin by looking at the radiator cap to make sure the gasket is not cracked or torn. Replace the cap if the gasket is damaged.

Get an adapter from the testing kit that will fit your radiator cap.

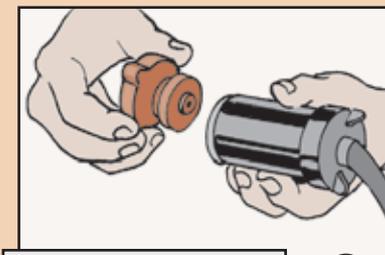
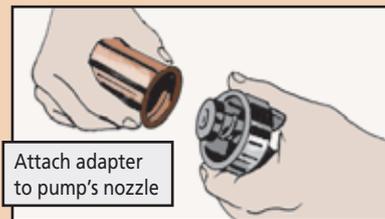
Attach the adapter to the pump's nozzle.

Moisten the gasket on the cap with water or antifreeze, the way it would be under normal conditions.

Attach the radiator cap to the adapter.

Work the pump until the gauge shows the required pressure (psi). The psi is stamped on the radiator cap.

If the cap is good, the needle on the gauge will hold at the required psi. If the needle doesn't hold, the cap is losing pressure. And it's time for a new cap.



PS MORE

Cooling System

Small problems in the cooling system—like low coolant level or cracked hoses—can quickly turn into big problems. Anything that'll interrupt the flow of coolant can make the engine overheat. If that happens for even a little while, you're headed for trouble!

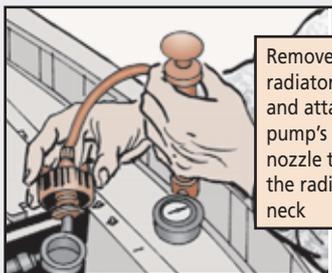
JUST ONE LEAKY HOSE CAN DRAIN THE SYSTEM OF COOLANT.

PREVENT THIS FROM HAPPENING BY TESTING THE ENTIRE COOLING SYSTEM FOR LEAKS.

FOLLOW THESE STEPS...

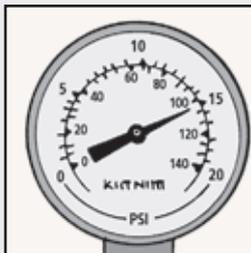


1. Make sure the engine's cool before testing.
2. Remove the radiator cap and attach the pump's nozzle to the neck of the radiator.



Remove radiator cap and attach pump's nozzle to the radiator neck

3. Work the pump until the gauge shows the required psi.



Work pump until gauge shows required psi

4. Keep an eye on the gauge. If the pressure's dropping, there's a leak in the cooling system. Listen for escaping air. And look for coolant leaks at these places:
 - hoses
 - hose connections
 - water pump
 - radiator
 - engine freeze plugs
 Also look for swollen or bulging personnel heater hoses. They probably need to be replaced.
5. After inspecting, gradually release the pressure on the pump so that coolant doesn't gush out. Remember, the system's under pressure.



Gradually release pressure on pump's nozzle so coolant won't gush out

BY THE WAY, IF YOUR VEHICLE IS A 2 1/2-TON OR LARGER TRUCK, THE ST255 RADIATOR TESTING KIT'S TESTER HEAD WON'T FIT ON THE RADIATOR NECK.

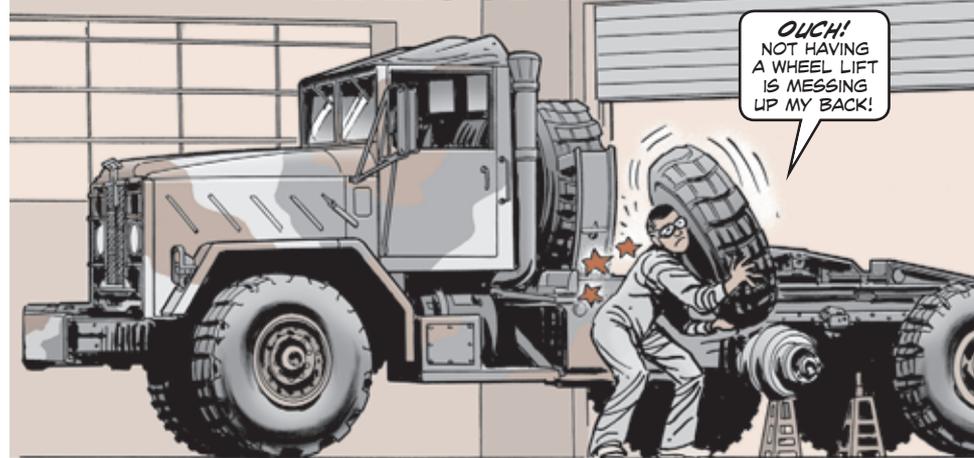
SOLVE THIS PROBLEM BY USING THE ADAPTER KIT THAT COMES WITH NSN 4910-01-447-5586.



PS
END

Wheeled
V

Motor Pool Wheel Lift



Dear Half-Mast,

I'm looking for the NSN for the wheel lift that removes wheels from trucks or semitrailers. It has hydraulics, and I've seen it used on M939-series trucks before in the motor pool. Can you help me?

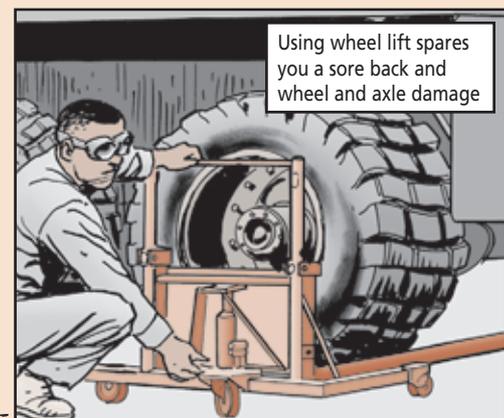
SSG M.U.V.

Dear SSG M.U.V.,

Look no more. You can get that wheel lift using NSN 4910-00-554-5983. That should spare you a sore back and wheel and axle damage, but get a buddy to help you with the lift.

And order parts through Scott Brusser at Capitol Logistics, LLC, by calling (301) 493-8674. Or e-mail: scott@caplogonline.com

Half-Mast



Using wheel lift spares you a sore back and wheel and axle damage

FMTV...

CTIS Wheel Info

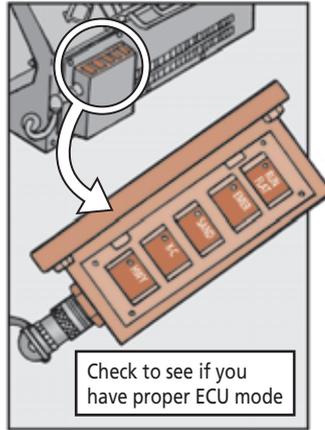


Don't be tempted to manually add air to any tire on the vehicle while operating the central tire inflation system (CTIS). You can mess up the CTIS' electronic control unit (ECU). Then your mechanic will have to disconnect the CTIS system to manually add air.

The CTIS regulates the air pressure, adding or removing air as necessary. Once you crank up your truck, the ECU automatically checks and regulates the air pressure in each tire.

If you suspect the tire pressure is still not right, check to see that you have selected the proper ECU mode.

For example, if you select "sand," the CTIS lowers the tire's air pressure for driving in the sand.

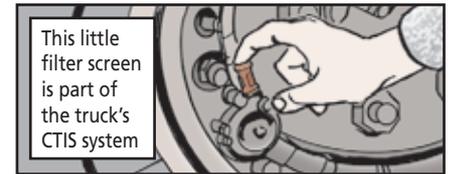


If after several minutes you notice under-inflated tires and you've done the checks in the -10 TM, **stop**. That's all you should do. Call in your mechanic for some help.

Air Filter Screen

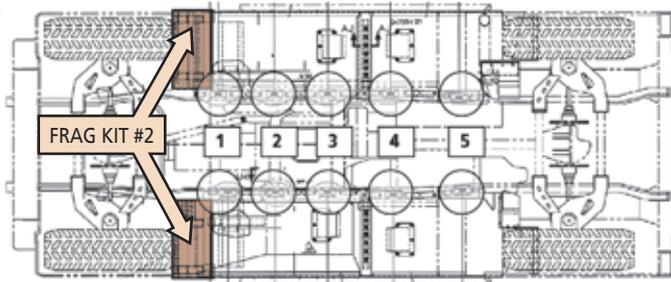
Something your mechanic can check out is the little air filter (screen) that filters out dust, sand and dirt in the trucks' CTIS. The little filter, shown as Item 21 in Fig 153 of TM 9-2320-391-24P, clogs up, causing restricted air flow in the CTIS.

Suspect a clogged filter? Your best bet is to have your mechanic clean the filter or replace it with NSN 4460-01-284-2344. The filter should be replaced at least once a year.



Up-Armored HMMWVs...

NMC Standards Temporarily Change for Underbody



Having trouble with the underbody attachments failing on your M1114, M1116 or M1145 up-armored HMMWV? You're not alone.

This growing problem has led TACOM LCMC to buy improved, extreme duty underbody retainer plates for up-armored HMMWVs. But they're not available in the supply system yet. Until that happens, NMC standards will temporarily be relaxed if the HMMWV has the Frag Kit 2—the front wheel well fragmentation kit—installed.

With the Frag Kit 2, your HMMWV is considered fully mission capable (FMC):

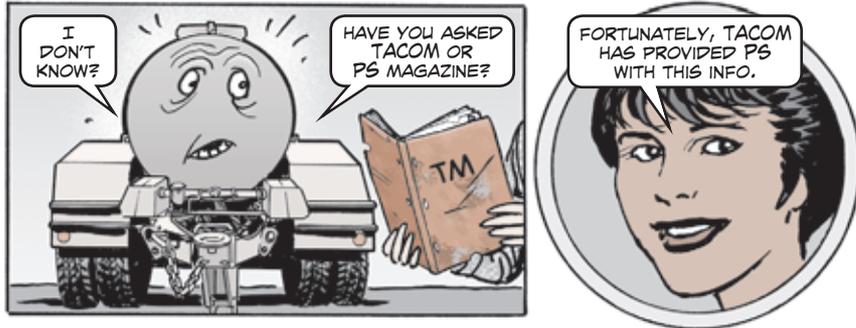
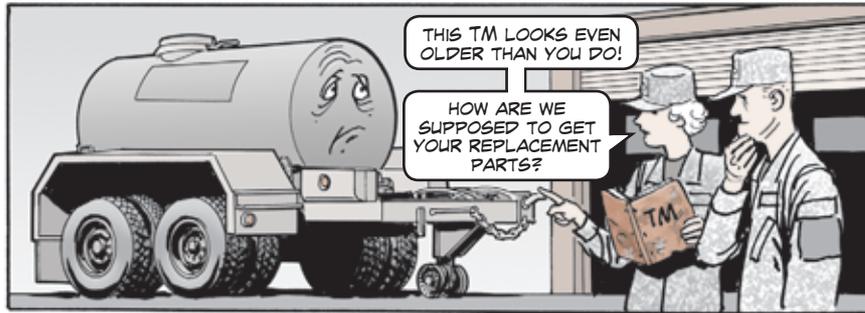
- even if it has missing plates at position 1
- if it has at least 3 bolts present between positions 2, 3, and 4 per side

Without the Frag Kit 2, your HMMWV is considered not fully mission capable (NMC) if it:

- has missing plate or hardware from stations 1 and 5, per side
- has more than 3 bolts missing, from stations 2, 3, and 4, per side

Make sure the underbody bolts and plates are not loose as you perform these **BEFORE** and **AFTER** PMCS inspections! If they are loose, tighten 'em.

GIMME A BREAK FOR MY BRAKES!



Dear Half-Mast,

Getting brake parts for our unit's M1112 water trailers has been a big task because TM 9-2330-397-14&P isn't up-to-date. Some part numbers in the TM don't have NSNs, and some parts we order end up being the wrong ones when they arrive. Everyone I talk to about this problem tells me that this isn't a new issue!

I've ended up having to purchase parts from a local vendor, but it seems to me that the better solution is to fix this problem. Would you lend us a hand so those of us in the field don't waste time trying to get the spare parts that we need?

SSG R.M.

Dear Sergeant R.M.,

Lack of funding seems to be why some TMs aren't updated. The good news is that TACOM LCMC can provide you with the help you need.

They've put together a list of brake parts that you'll find helpful. Use NSN 2530-01-396-7770 to get the brake drum assembly listed as Item 24 in Fig 13. And this table gives you what should be in Fig 7 of the TM:

Item	Description	Part Number	NSN
1	Brake assembly, right hand	2351200	NA
1	Brake assembly, left hand	2351300	NA
2	Pin, toggle	18508	5315-01-287-8770
3	Cover, dust brake	9254	5342-01-087-9679
5	Screw assembly	23457	5305-01-321-3522
6	Plate, backing brake	18496	2530-01-287-6869
7	Cylinder assembly, hydraulic brake, left side	9777	2530-00-161-7576
7	Cylinder assembly, hydraulic brake, right side	0977600	2530-00-161-7575
8	Guide, shoe	5-113	5365-01-396-3906
9	Spring, helical, extension (orange)	9786	5360-01-288-5870
10	Cup, hydraulic brake cylinder	9789	2530-01-263-7061
11	Spring, helical, compression (black)	9791	5360-01-287-7297
12	Strut, parking brake	11686278	2530-01-074-7001
13	Spring, helical, extension, parking	046-130-00	5360-01-454-5761
14	Spring, helical, compression (yellow)	9784	5360-01-320-5815
15	Adjusting screw assembly, brake	23323	2530-01-288-3979
16	Socket, brake adjusting screw	18836	2530-01-287-9409
17	Clip, spring tension (retainer)	9795	5340-01-277-0300
18	Washer, spring tension	9794	5310-01-466-0901
19	Washer, flat	44869	5310-01-462-3212
20	Lever, parking brake right hand	4486500	2530-01-461-2900
20	Lever, parking brake left hand	4486600	2530-01-461-2899
21	Brake shoe, front	23492	2530-01-289-2365
22	Brake shoe, rear	18503	2530-01-287-4451
23	Washer, flat	MS27183-14	5310-00-080-6004
24	Screw, cap, hexagon head	B1821BH038C112N	5305-01-407-9006
NA	Brake shoe kit, right hand	71-270	2530-01-395-5262
NA	Brake shoe kit, left hand	71-269	2530-01-395-2297
NA	Adjuster assy	043-029-00	2530-01-482-5731

Note that Item 4 was deleted. It's no longer part of this application. And you'll have to order the brake parts that don't have NSNs directly from Jeff Lyng of Titan International: jeff.lyng@titan-intl.com or (217) 277-1291.

If you need help with other parts that are missing from or aren't listed correctly in the TM, contact TACOM LCMC directly. The M1112 water trailer equipment specialist, _____, can assist you. He's at DSN 786-8647, (586) 574-8647, or @us.army.mil

Half-Mast

BARREL DOESN'T NEED EXTRA HELP

KEEP THAT LOCTITE AWAY FROM ME!

I DON'T NEED ANY EXTRA BARREL HELP.



SOME ARMORERS THINK THE MK 19 BARREL NEEDS EXTRA HELP STAYING TIGHT.

SO THEY PUT LOCTITE ON THE BARREL THREADS BEFORE SCREWING ON THE BARREL.



THAT CERTAINLY KEEPS THE BARREL TIGHT, BUT THE LOCTITE MAKES IT ALMOST IMPOSSIBLE TO UNSCREW THE BARREL.

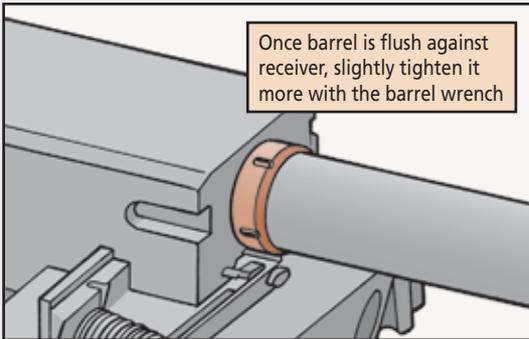
If you screw in the barrel the correct way, you don't need extra help keeping the barrel tight. The spin of the rounds going through the barrel will actually help keep it tight because the spin twists the barrel tighter.

Screw in the barrel the right way by turning it clockwise until it's flush against the receiver. Then put on the barrel wrench and tap it lightly once with a hammer so the barrel turns a bit farther clockwise. The barrel is now tight for firing and it will stay tight.



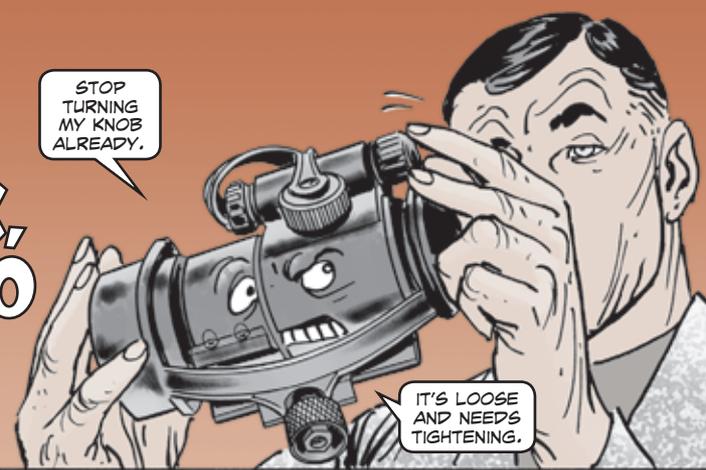
THE PROCEDURE IS IN WP 0065 00-4 IN TM 9-1010-230-23&P.

Once barrel is flush against receiver, slightly tighten it more with the barrel wrench



NO CLICK, NO GO

STOP TURNING MY KNOB ALREADY.



IT'S LOOSE AND NEEDS TIGHTENING.



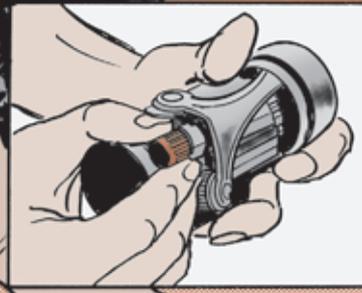
IF YOU HAVE TO TURN AND TURN THE ON/OFF KNOB ON YOUR M68 REFLEX SIGHT TO TURN IT OFF OR ON, YOU'VE GOT A LOOSE KNOB.

ALL THAT TURNING WEARS OUT THE SWITCH!

THEN YOU CAN'T TURN THE M68 OFF OR ON.



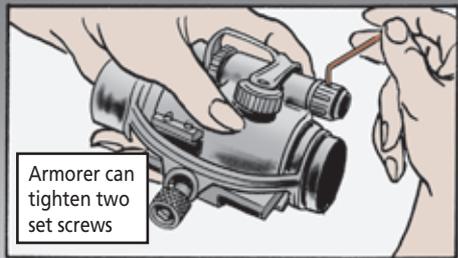
DURING PMCS, MAKE SURE THE KNOB IS FLUSH AGAINST THE HOUSING AND THAT IT CLICKS WHEN YOU TURN IT.



If knob isn't flush or doesn't click when you turn it, it's loose

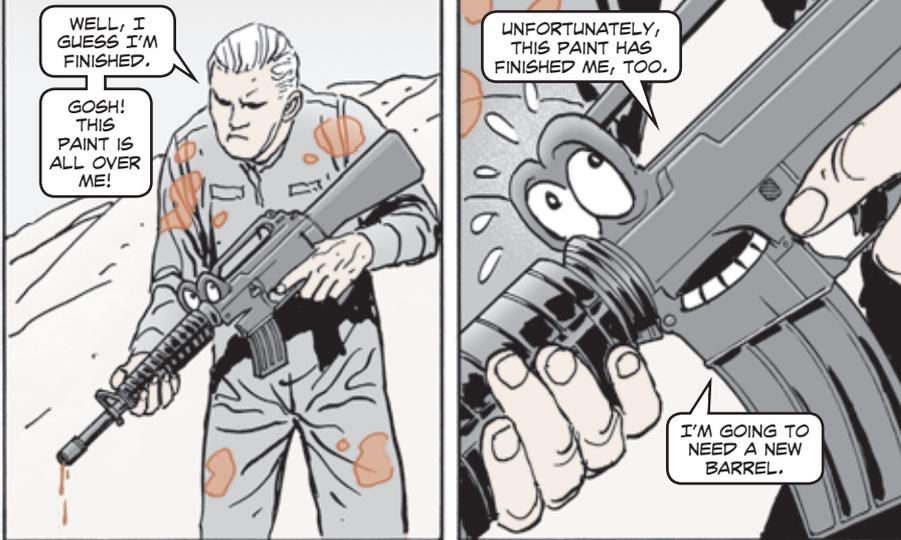


TELL YOUR ARMORER.



Armorer can tighten two set screws

UTMs Not Approved.. Yet



The Army is working on providing more realistic training with the ultimate training munition (UTM), which is used with the close combat mission capability kit (CCMCK).

UTMs are paint-filled rounds that can be shot from the M9 and M11 pistols, the M16-series rifle, the M4/M4A1 carbine and the M249 machine gun.

The Army, however, has not approved use of CCMCKs and UTMs and doesn't expect to do so until the early fall.

Unfortunately, units have locally purchased off-the-shelf versions of CCMCKs already and have been training with them. The paint from the UTMs has ruined numerous barrels as a result.

Before firing any kind of round—live as well as blanks—you must thoroughly clean and lube your weapon like it says in the weapon's -10 TM. If your commander directs you to train with UTMs, then you must clean your weapon after firing a basic load. Make especially sure you clean out any debris in the bore from the UTM. Otherwise, you risk a ruined barrel.

Watch PS for word on when the CCMCK is released for issue. If you have questions about CCMCK and UTM, contact TACOM-Rock Island's at DSN 793-0640, (309) 782-0640, or email: [@us.army.mil](mailto:us.army.mil)

MILKING IS DEADLY

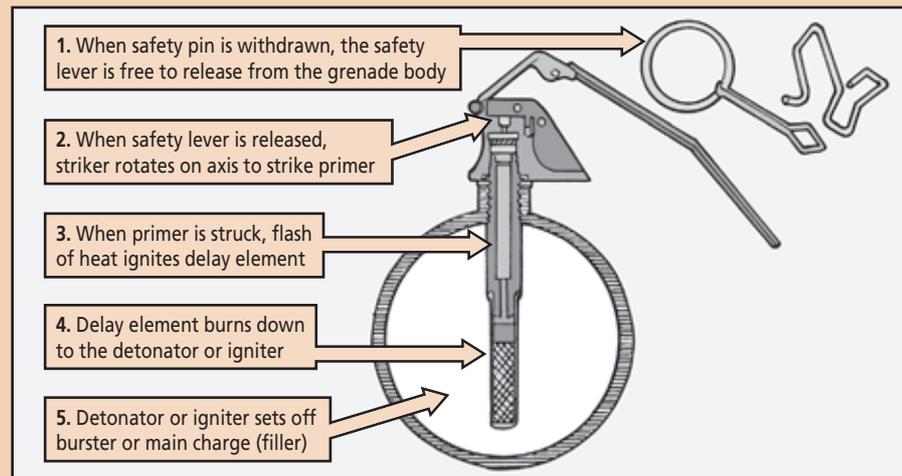


DURING A LIVE-FIRE TRAINING EXERCISE, A SOLDIER WAS KILLED BECAUSE HE "MILKED" AN M67 FRAGMENTATION GRENADE.

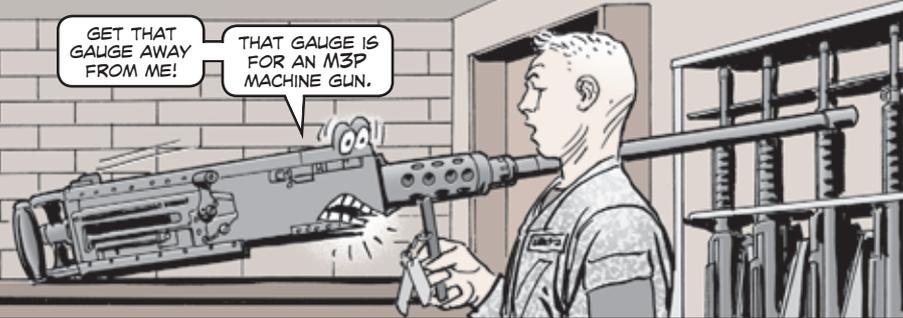
THE GRENADE EXPLODED BEFORE HE THREW IT, KILLING HIM AND WOUNDING THREE OTHER SOLDIERS.

What is milking a grenade? Milking is the unintentional loosening of your grip on the grenade safety lever before you throw the grenade. Milking lets the striker hit the primer, which initiates the fuze delay element without the thrower being aware the fuse is burning. Disaster follows.

To avoid milking, remember that releasing the safety lever even slightly can make the grenade live. Any time you remove the safety pin you must hold the safety lever tightly against the grenade until you throw the grenade. And don't remove the safety pin until you have to.



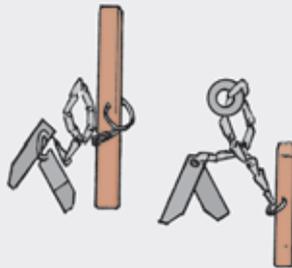
GOT THE RIGHT GAUGE?



A unit recently had an M2 machine gun blow up during firing. At first, the problem appeared to be someone not following the correct headspace and timing procedure.

But that wasn't it! It was the wrong headspace and timing gauge. The unit had mixed up M2 gauges with those for the M3P, the .50-cal weapon used on the Avenger. The M2 and M3P gauges are different sizes and can't be interchanged.

M3P gauge is longer than the M2's



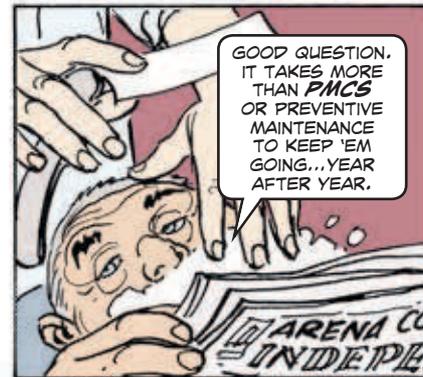
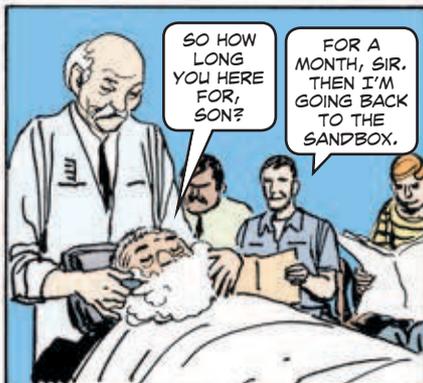
How do you tell the difference? The M2 gauge comes with NSN 5220-00-535-1217 and its headspace gauge is marked both NO FIRE and FIRE. The M3P gauge comes with NSN 5280-13-116-6359 and its headspace gauge is marked NO FIRE, but not FIRE. The M3P headspace gauge is also noticeably longer than the M2's.

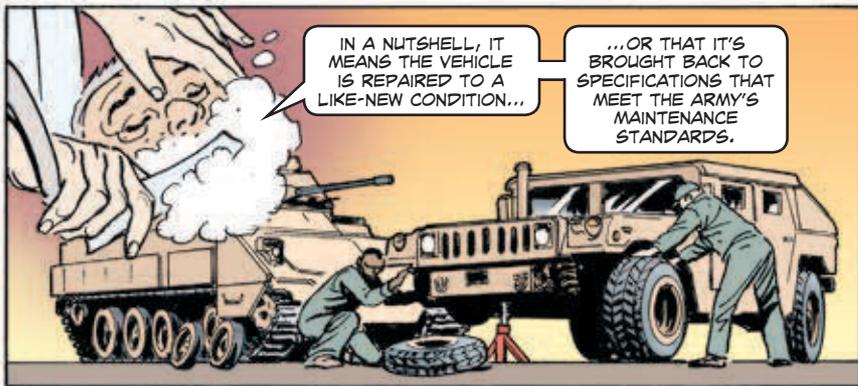
Of course, even if you have the right gauge, it won't do you any good if it's rusted, pitted or bent. If your headspace and timing gauge is in bad shape, tell your armorer you need a new one.



Armorer, the gauges must be calibrated every year by your local TMDE if they are to stay accurate. It's your responsibility to make sure that happens and the calibration is documented on a DA FORM 3023 with the gauge's serial number.







IN A NUTSHELL, IT MEANS THE VEHICLE IS REPAIRED TO A LIKE-NEW CONDITION...

...OR THAT IT'S BROUGHT BACK TO SPECIFICATIONS THAT MEET THE ARMY'S MAINTENANCE STANDARDS.

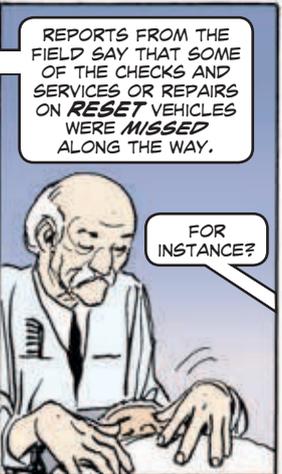


SO WHEN THE VEHICLE COMES BACK FROM A **RESET** PROGRAM, YOU'RE **GOOD TO GO!**

WELL... ALMOST.

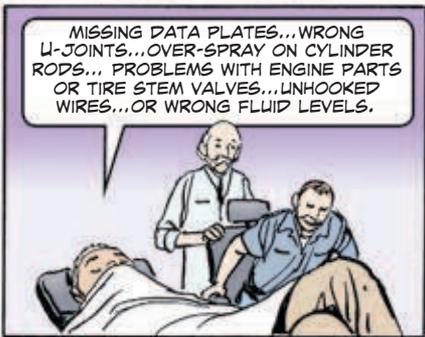


ONCE A **RESET** VEHICLE IS RECEIVED BACK INTO THE UNIT, IT NEEDS A FINE-TOOTH COMB INSPECTION.



REPORTS FROM THE FIELD SAY THAT SOME OF THE CHECKS AND SERVICES OR REPAIRS ON **RESET** VEHICLES WERE **MISSED** ALONG THE WAY.

FOR INSTANCE??

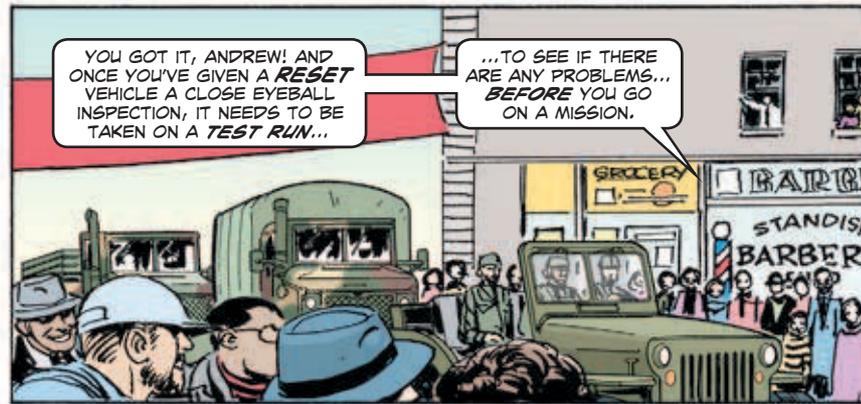


MISSING DATA PLATES...WRONG U-JOINTS...OVER-SPRAY ON CYLINDER RODS... PROBLEMS WITH ENGINE PARTS OR TIRE STEM VALVES...UNHOOKED WIRES...OR WRONG FLUID LEVELS.



SNIP SNIP

SOUNDS LIKE YOU REALLY NEED TO CHECK OUT A **RESET** VEHICLE!



YOU GOT IT, ANDREW! AND ONCE YOU'VE GIVEN A **RESET** VEHICLE A CLOSE EYEBALL INSPECTION, IT NEEDS TO BE TAKEN ON A **TEST RUN**...

...TO SEE IF THERE ARE ANY PROBLEMS... **BEFORE** YOU GO ON A MISSION.

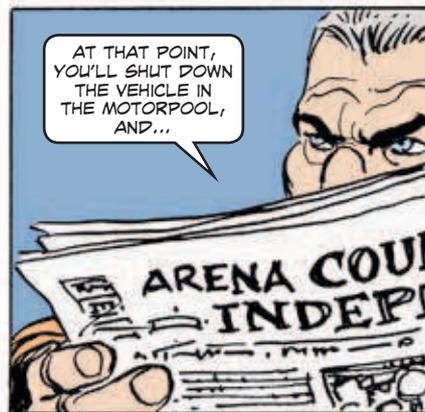


THAT MAKES **SENSE!**

YOU WANT TO CATCH THE PROBLEM **SOONER** RATHER THAN **LATER.**



WHAT HAPPENS IF YOU FIND SOMETHING THAT NEEDS ATTENTION??



AT THAT POINT, YOU'LL SHUT DOWN THE VEHICLE IN THE MOTORPOOL, AND...



...CONTACT YOUR **MAINTENANCE SUPERVISOR**, WHO WILL GET A HOLD OF THE HAND-OFF TEAM THAT ACCEPTS THE VEHICLE ON POST.



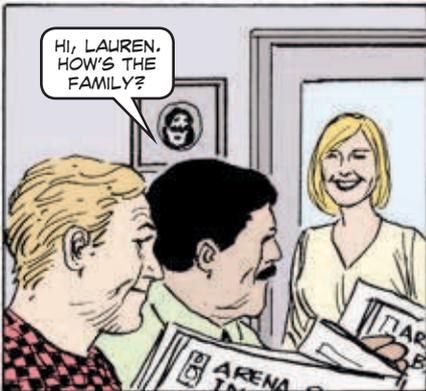
RECORDS NEED TO BE MADE OF THE PROBLEM AREAS FOR THAT SPECIFIC VEHICLE. SOLDIERS SHOULD NOT CONTINUE OPERATING THE VEHICLE!



ALL FINISHED... CUT AND POLISHED, SON.



IS ANDREW STILL HERE?



HI, LAUREN. HOW'S THE FAMILY?



THEY'RE FINE, THANKS!

ANDREW... THERE YOU ARE.



THERE... FINISHED!

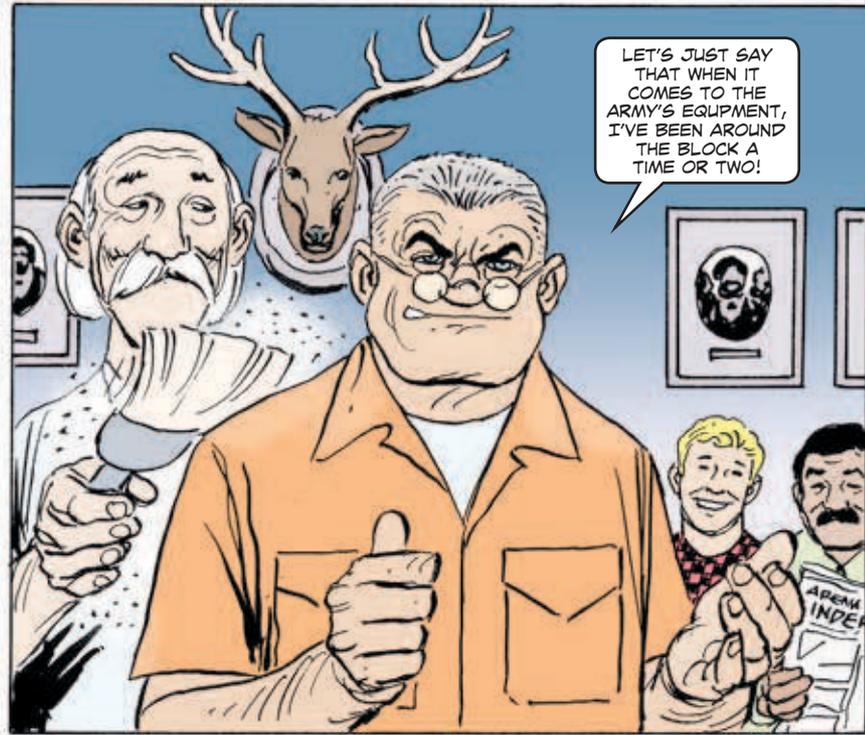
COME ON...OR WE'LL MISS THE PARADE.

OKAY LAUREN... BE RIGHT WITH YOU.

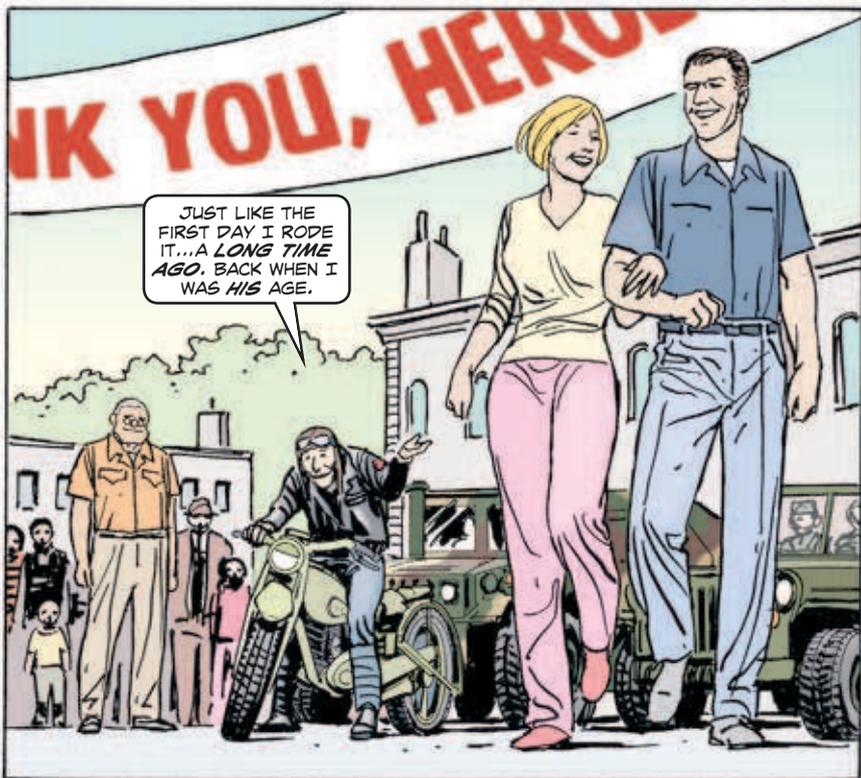
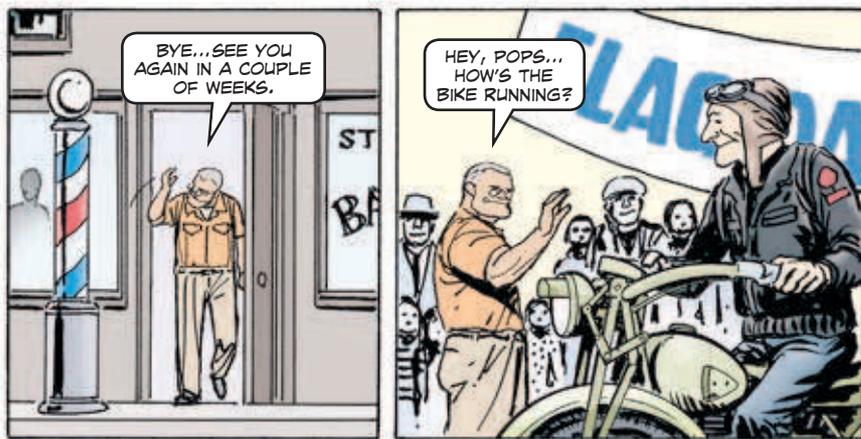


I GOT MORE THAN JUST A HAIR CUT TODAY. THANKS FOR ALL THE GREAT INFO.

BY THE WAY... HOW DO YOU KNOW SO MUCH ABOUT ARMY EQUIPMENT?



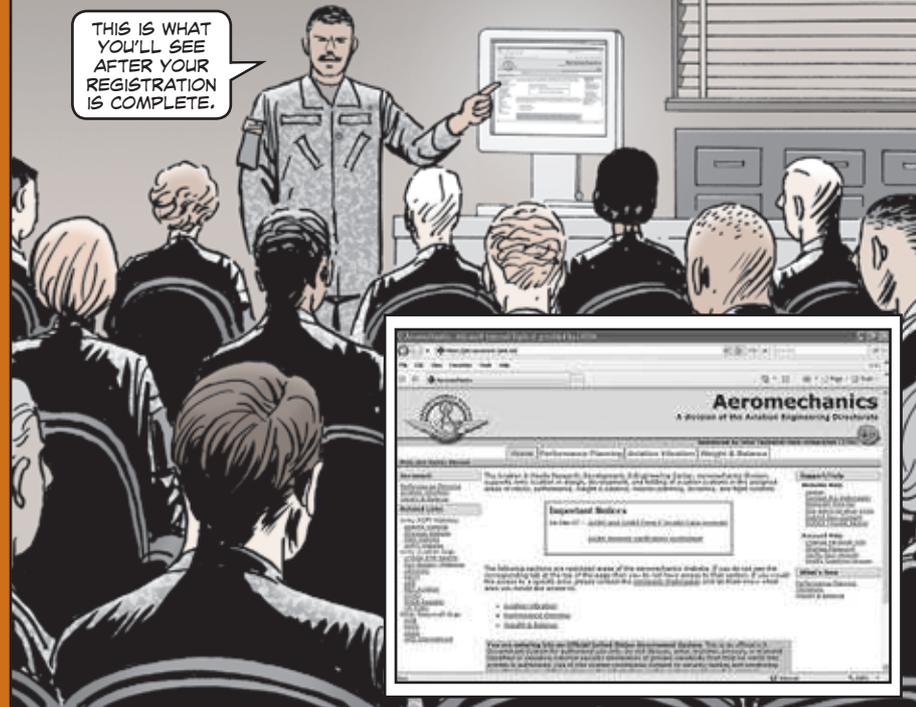
LET'S JUST SAY THAT WHEN IT COMES TO THE ARMY'S EQUIPMENT, I'VE BEEN AROUND THE BLOCK A TIME OR TWO!



All Aircraft...

AEROMECHANICS CAN HELP WITH TOOLS

THIS IS WHAT YOU'LL SEE AFTER YOUR REGISTRATION IS COMPLETE.



The Aeromechanics Division of the Army Aviation Engineering Directorate (AED) website has a wide range of tools to help aviators and mechanics with aviation maintenance on AH-64s, CH-47s, OH-58s, UH-1s and UH-60s.

Once you register for Aeromechanics website access with your CAC, you can get help with rotor smoothing, performance planning, weight and balance and more. At a unit's request, Aeromechanics will pay you a visit free of charge to help with vibration analysis, questions on rotor smoothing and weight and balance procedures.

The website has a listing of the most current POCs for all questions covered and a frequently asked question section for quick reference.

Check out the Aeromechanics website at: <http://www.aeromech.jatdi.mil/>

Have questions? Contact DSN 897-3165, (256) 955-3165, or email: us.army.mil

Or DSN 897-9015, (256) 313-9015, email:

us.army.mil

NEW ARMY AIRCREW COMBAT UNIFORM COMES IN ALL SIZES



People come in different sizes and shapes. So does clothing. If you need the new Army aircrew combat uniform (A2CU) coat and trousers, one size doesn't fit all.

To get the right size, order from this list. The A2CU is available on your friendly supply system/ DLA web site:

<https://warfighter.dla.mil/newmenu/Index.jsp>

Item	NSN 8415-01-526	Size	UI
Coat	-9177	XS-S	EA
Coat	-9227	XS-R	EA
Coat	-9231	XS-L	EA
Coat	-9234	S-S	EA
Coat	-9238	S-R	EA
Coat	-9240	S-L	EA
Coat	-9243	M-S	EA
Coat	-9248	M-R	EA
Coat	-9252	M-L	EA
Coat	-9649	L-S	EA
Coat	-9651	L-R	EA
Coat	-9655	L-L	EA
Coat	-9661	XL-S	EA
Coat	-9703	XL-R	EA
Coat	-9669	XL-L	EA
Trousers	-9728	XS-S	PR
Trousers	-9729	XS-R	PR
Trousers	-9730	XS-L	PR
Trousers	-9736	S-S	PR
Trousers	-9738	S-R	PR
Trousers	-9739	S-L	PR
Trousers	-9756	M-S	PR
Trousers	-9758	M-R	PR
Trousers	-9759	M-L	PR
Trousers	-9763	L-S	PR
Trousers	-9764	L-R	PR
Trousers	-9765	L-L	PR
Trousers	-9767	XL-S	PR
Trousers	-9769	XL-R	PR
Trousers	-9770	XL-L	PR

Heads Up On Helmet Care



TACOM-Rock Island wants you to know that if you're tempted to put unauthorized items on your integrated helmet and display sight system (IHADSS) helmet, **don't!**

The only authorized adhesive-backed items that can be placed on your helmet are pile fastener pieces that secure the ANVIS and lip light components.

Remember, **NO** stickers or other self-adhesive items are authorized on the helmet shell or the visor assembly.

For the ANVIS battery pack pile, order NSN 5855-01-149-4108. The lip light pile is part of the lip light kit, NSN 6240-01-362-4902.

If you catch the Picasso bug and want to paint your helmet, hold up on that brush! The only authorized paint for the helmet shell and the visor assembly housing, NSN 8010-01-331-6113, is listed in TM 9-1270-233-23&P and EM 0126, TM 1520-Longbow/Apache.



More Knives, More Choices



I NEED TO PICK UP MY AIR WARRIOR GEAR.

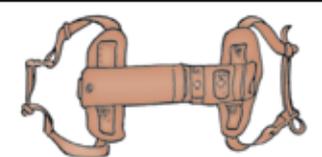
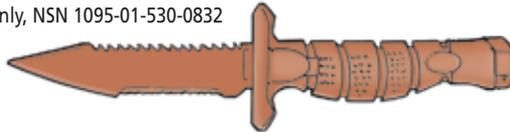
YOU'RE IN LUCK! WE'VE GOT THE NEW ASEK CAMO KNIFE!!

IF YOU'RE DRESSING OUT IN CAMO GEAR, HERE'S THE NEW CAMO KNIFE.



ASEK system, NSN 1095-01-530-0833

ASEK only, NSN 1095-01-530-0832



ASEK scabbard, NSN 1095-01-530-0827

ASEK strap cutter, NSN 1095-01-530-0826



Replacement strap cutter blade (not shown), NSN 1095-01-518-6879

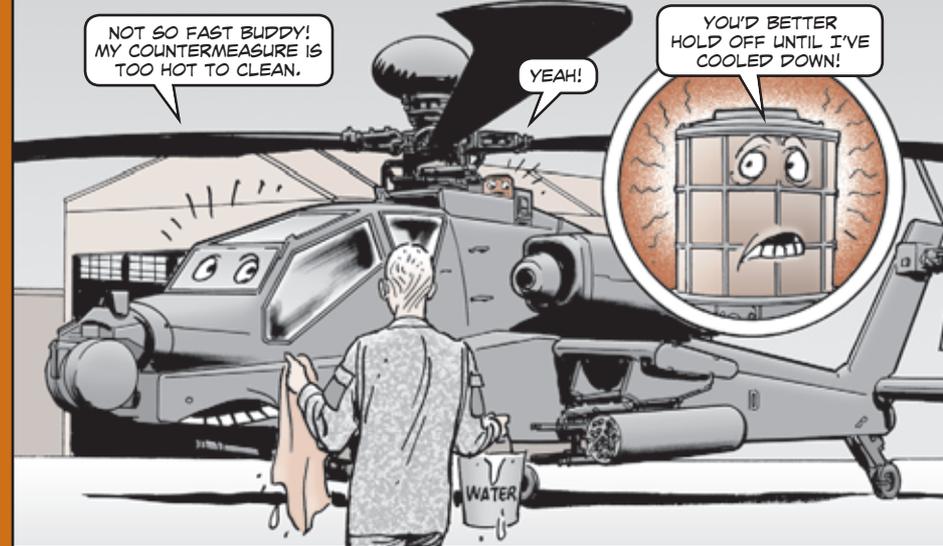
ELSE techs, in PS 641 (Apr 06) we gave you the approved aircrew survival egress knife (ASEK) NSNs for your air warrior survival gear.

Now you have another choice of knives for your gear with the new approved universal camouflage ASEK knife system.

See ELSE message 07-05 for approved survival knives.

For information on the universal camo ASEK knife, contact (256) 746-7538, DSN 876-6538, email: @us.army.mil

COUNTERMEASURE SET TOO HOT TO CLEAN



NOT SO FAST BUDDY! MY COUNTERMEASURE IS TOO HOT TO CLEAN.

YEAH!

YOU'D BETTER HOLD OFF UNTIL I'VE COOLED DOWN!

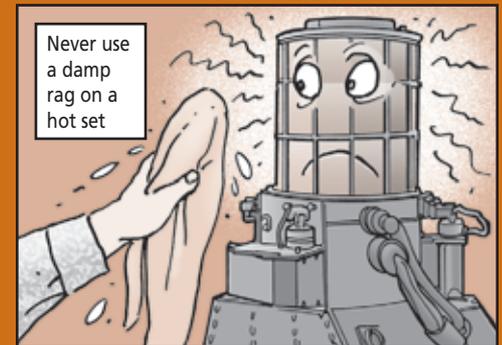
Mechanics, the countermeasure set is a hot piece of equipment when it's turned on. When it's off, the set stays hot for a while, so you'll have to wait until it cools before putting on the cover.

Now here's another tip to remember. Wait until the set cools down before you clean it! Don't put a damp cloth on a hot window pane. That's like putting a hot glass baking dish into cold water. All you'll hear is a cracking sound!

If you break a pane trying to clean off baked-on crud with a damp rag while the set is hot, remember it's \$36 to replace each broken pane and it's your unit's dime.

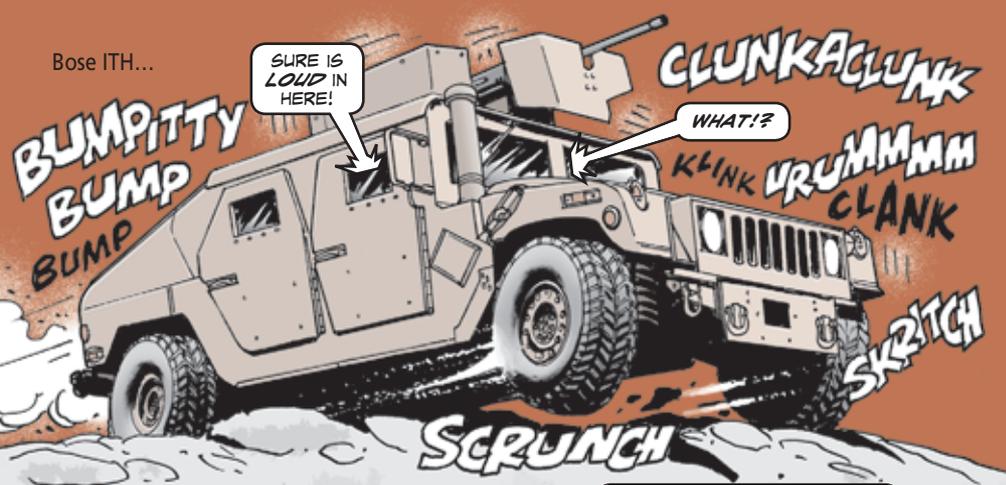
Your best bet is to clean the set before each takeoff and after it's cooled down after landing. That's the word in Chap 4 of TM 11-5865-200-12.

So if it's too hot to cover, it's too hot to clean.



Never use a damp rag on a hot set

Bose ITH...



The Headset for the HMWWV!



IF YOU'RE TRAVELING IN AN UP-ARMORED M114 HMWWV OR OTHER WHEELED TACTICAL VEHICLE WITHOUT HEARING PROTECTION, YOU ARE DAMAGING YOUR HEARING!

YOU **MUST** WEAR HEARING PROTECTION!

OF COURSE, WEARING SOME HEARING PROTECTION CAN KEEP YOU FROM HEARING THINGS YOU NEED TO HEAR, LIKE LIFE AND DEATH WARNINGS AND THE SOUNDS OF THE APPROACHING ENEMY.

THAT'S WHERE THE BOSE IMPROVED TACTICAL HEADSET (ITH), NSN 5965-01-521-0941, COMES IN.

THE HEADSET PROTECTS YOUR HEARING, BUT STILL LETS YOU HEAR WHAT NEEDS TO BE HEARD.

IT'S THE VITAL COMPONENT TO THE INTERCOM SYSTEM OF YOUR HMWWV AND, EVENTUALLY, OTHER LIGHT TACTICAL VEHICLES.



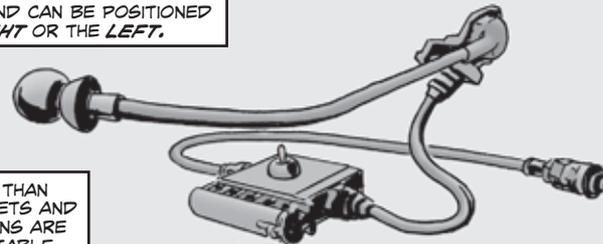
THE HEADSET FITS OVER THE ADVANCED COMBAT HELMET (ACH) OR UNDER IT. OVER THE HELMET, IT CAN BE REMOVED **WITHOUT** REMOVING THE HELMET.

ADJUSTMENTS TO FIT EVERY HEAD ARE MADE WITH THE HOOK-AND-PILE NECK STRAPS AROUND THE NECK AND OVER THE HEAD.



It fits *under* or *over* the ACH

ITS MICROPHONE ASSEMBLY IS REPLACEABLE AND CAN BE POSITIONED ON THE **RIGHT** OR THE **LEFT**.



IT'S **LIGHTER** THAN PREVIOUS HEADSETS AND THE EAR CUSHIONS ARE MORE COMFORTABLE.

THE HEADSET PROVIDES HEARING PROTECTION THROUGH BOTH ACTIVE AND PASSIVE NOISE REDUCTION.

WHAT DOES THAT MEAN?

IT MEANS A **SNUG FIT** ON THE HEAD AND EARS GIVES YOU PASSIVE NOISE REDUCTION...

...AND THE **ELECTRONICS** GIVE YOU ACTIVE NOISE REDUCTION.



THE HEADSET ALSO HAS A "TALK-THRU" CIRCUIT THAT LETS YOU DISMOUNT FROM THE VEHICLE AND HEAR AMBIENT SOUND IN STEREO AND HAVE A NORMAL CONVERSATION WITHOUT HAVING TO REMOVE THE HEADSET.

PS MORE

THE CONTROL MODULE ON THE CABLE/MICROPHONE ASSEMBLY HAS A THREE-POSITION PUSH-TO-TALK SWITCH AS WELL AS THE TWO-POSITION TALK-THRU SWITCH.

THE PUSH-TO-TALK SWITCH IS SPRING LOADED AND POSITIONED ON THE FACE OF THE CONTROL MODULE IN THE CENTER.

THE SWITCH CAN BE HELD MOMENTARILY IN THE PUSH-TO-TALK POSITION OR IT CAN BE "LATCHED" IN THE LIVE INTERCOM POSITION.

THE TALK-THRU SWITCH IS LOCATED ON ONE SIDE OF THE CONTROL MODULE. THE BATTERY COMPARTMENT WITH ONE AA ALKALINE BATTERY IS ON THE OTHER SIDE.

THE CONTROL MODULE ALSO HAS AN M42 GAS MASK MICROPHONE CONNECTION.

PREVENTIVE MAINTENANCE ON THE HEADSET MEANS KEEPING IT CLEAN, DRY, STORING IT OUT OF HARM'S WAY, AND CHECKING FOR CRACKS AND OTHER DAMAGE.

HERE ARE THE REPAIR PARTS THAT ARE AVAILABLE FOR THE HEADSET...

Part	NSN
Headband one	5965-01-525-1695
Headband two	5965-01-525-2635
Outer ear cushion	5965-01-525-1694
Inner ear cushion	5965-01-525-2016
Microphone harness	5965-01-525-2019
Microphone shield	5965-01-525-1684
Electrical headset	5965-01-525-1685
Cable assembly	5995-01-525-1680
Electrical cover	5930-01-525-1675

FOR MORE INFORMATION ON THE HEADSET AND THE ADAPTER CABLES, GO TO WEBSITE www.bose.com/tth OR CONTACT AT DSN 992-5415 OR (732) 532-5415.

YOU CAN REACH HIM BY EMAIL:

us.army.mil

TELL 'IM HALF-MAST SENT YA!

PS END

PP-8564/GRC...

SUPPLYING THE POWER TO SWA

THERE'S A NEW GENERAL PURPOSE DC POWER SUPPLY AVAILABLE THAT WILL MAKE SUPPLYING POWER IN SWA A BIT SWEETER.

THAT POWER SUPPLY IS THE PP-8564/GRC, NSN 6130-01-552-8132.

USE IT IN PLACE OF POWER SUPPLY PP-4763A, NSN 6130-00-113-9768.

WHAT ARE THE ADVANTAGES OF THIS NEW POWER SUPPLY OVER THE OLD ONE?

IT'S DESERT TAN. IT WEIGHS LESS. IT'S SMALLER.

IT'S DC RATED UP TO 60 AMPS, WHICH IS 10 MORE THAN THE OLD ONE.

ITS OUTPUT IS FROM 12 TO 30 VOLTS.

TOP THAT ALL OFF WITH A 10-YEAR WARRANTY AND YOU'VE GOT A SWEET DEAL.

FOR MORE INFO ON THIS POWER SUPPLY, CONTACT THE C-E LCMC POC, 992-6181 OR (732) 532-6181. AT DSN

OR EMAIL :

us.army.mil

AB-1339/G Antenna Covers

Mobile subscriber equipment (MSE) is rapidly disappearing from the active Army. However, not from Reserve and National Guard units. Now, more than ever, these units need to keep their MSE in good shape. Start by keeping the weather and dirt out of mastheads when the AB-1339/G antenna is stored on trailers. Use masthead covers, NSN 5340-01-270-5083.

SINGGARS...

INSTALLATION KITS AT YOUR FINGERTIPS

THERE ARE MORE THAN 200 INSTALLATION KITS FOR INSTALLING SINGGARS IN WHEELED AND TRACKED VEHICLES.

EACH KIT HAS ITS *OWN* COMPONENTS LISTED IN ITS *OWN* TB.

THERE ARE FOUR INSTALLATION KITS USED IN HMMWVS. HERE THEY ARE...

Radio	Kit	NSN 5895-01-	TB 11-5820-890-20-
AN/VRC-87/88/90	MK-2325/VRC	225-0510	27
AN/VRC-89/91/92	MK-2326/VRC	225-3332	28
AN/VRC-89/91/92	MK-2327/VRC	229-1285	29
AN/VRC-87/88/90 and AN/VRC-89/91/92	MK-2328/VRC	297-8000	90

THE MK-2327/VRC AND THE MK-2328/VRC ARE INSTALLED ONLY IN THE M998 AND M1038 HMMWVS WITH SOFT TOPS.

IT'S IMPORTANT TO MATCH THE VEHICLE, KIT AND TB **BEFORE** YOU BEGIN INSTALLATION.

ONE AREA OF CONFUSION IS WITH THE CABLES.

CABLES ARE BEING STORED TOGETHER AND LOSING THEIR SPECIFIC KIT IDENTITY.

THIS LEADS TO THE WRONG CABLE BEING USED.

IF YOU'RE DOING AN INSTALLATION WHERE THE CABLE CONNECTOR DOESN'T FIT QUITE RIGHT OR THE CABLE IS TOO LONG OR TOO SHORT, CHANCES ARE YOU HAVE THE WRONG CABLE!



HERE ARE THE CABLES FOR EACH KIT...



Cable	NSN 5995-01-	Length (ft)	Qty
MK-2325/VRC			
CG-3855/VRC	219-7035	18	1
CX-13302/VRC	274-5084	6	1
MK-2326/VRC			
CG-3855/VRC	219-7035	18	1
CG-3855/VRC	225-1660	21	1
CX-13292/VRC	219-4704	6	2
CX-13302/VRC	274-5084	6	1
MK-2327/VRC			
CG-3855/VRC	219-7035	18	2
CG-3855/VRC	219-7034	15	1
CG-3855/VRC	225-1660	21	1
CX-13292/VRC	259-9283	8	4
CX-13302/VRC	274-5084	6	2
MK-2328/VRC			
CG-3855/VRC	219-7035	18	2
CG-3855/VRC	225-1660	21	1
CX-13302/VRC	274-5084	6	2
CX-13292/VRC	259-9283	8	2

ONE MORE THING ABOUT THE CABLES—THEY WEAR OUT!

CHECK THE CABLES FOR OBVIOUS WEAR AND TEAR AND IF YOU FIND ANY, REPLACE THEM.

A GOOD CABLE SHOULD HAVE LESS THAN 1 WATT OF LOSS FROM END TO END.

SOME RECENTLY CHECKED CABLES THAT WERE INSTALLED AND BEING USED HAD AN 8 WATT LOSS!

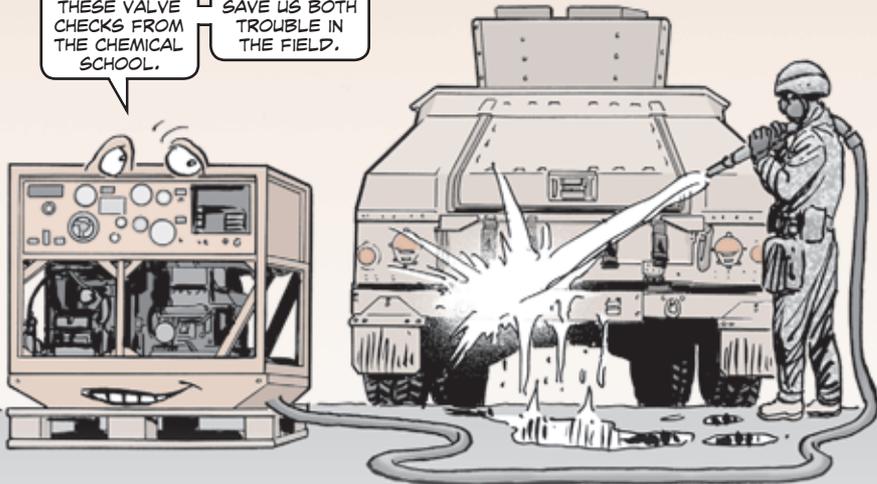
THAT KIND OF LOSS COULD CUT THE DISTANCE OF YOUR CONVERSATION IN HALF.



Valuable Valve Checks

CHECK OUT THESE VALVE CHECKS FROM THE CHEMICAL SCHOOL.

THEY WILL SAVE US BOTH TROUBLE IN THE FIELD.

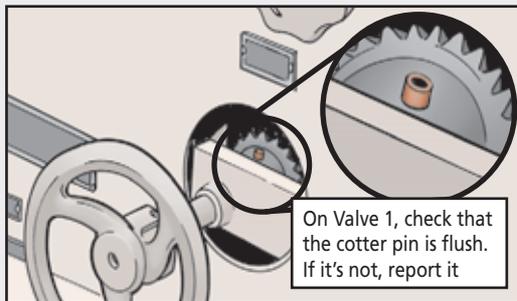


Dear Editor,

Any M12A1 decon that sees much deconning will almost always have trouble with Valves 1 and 4. Both valves are turned on and off many times and that causes their parts to wear out. PMCS usually doesn't catch valve problems until the valves just quit working. Then you can't decon.

Here are a few ways to catch valve problems before they become fatal:

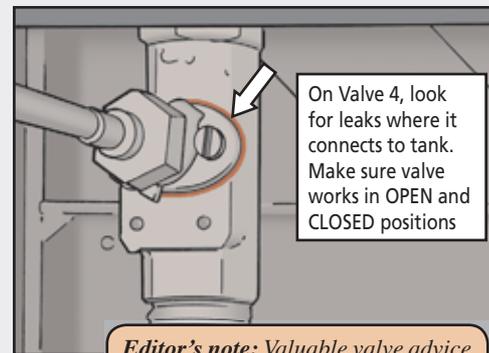
With Valve 1, the trouble is usually the cotter pin that connects the valve to the gear. If the pin works out, the gear won't engage when you turn the valve. The solution is simple. During PMCS, look to see if the cotter pin is flush. If it's sticking out, tell your repairman. It needs to be replaced.



With Valve 4, it's not so simple. It connects to a ball valve inside the prime detergent tank where you can't inspect it. The screws for the ball valve housing work loose and then the valve can't engage the ball valve. This can also cause leaks in the pump.

The best way to spot Valve 4 trouble is to fill up the detergent tank with water. Put the valve in the OPEN position and look for leaks where it connects to the tank. If there are no leaks, make sure the tank drains when the valve is in the OPEN position and stops draining in the CLOSED position. If you spot any problems, tell your repairman.

SSG
US Army Chemical School
Ft Leonard Wood, MO



Editor's note: Valuable valve advice for deconners, Sergeant. Thanks.

ICAM...

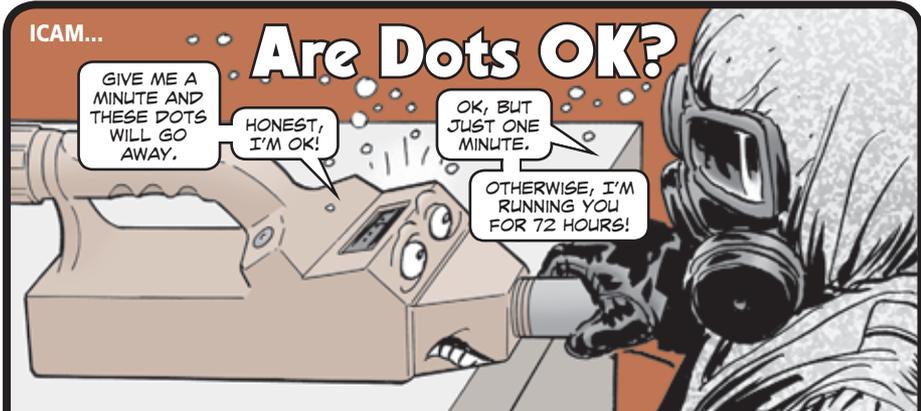
Are Dots OK?

GIVE ME A MINUTE AND THESE DOTS WILL GO AWAY.

HONEST, I'M OK!

OK, BUT JUST ONE MINUTE.

OTHERWISE, I'M RUNNING YOU FOR 72 HOURS!



Dear Half-Mast,

We have been taught that the dots on our ICAM (Improved chemical agent monitor) are supposed to disappear from the display once the WAIT light goes off. But with some of our ICAMs, the dots don't disappear until about a minute after the WAIT light goes off. Are these ICAMs OK or should we send them to maintenance?

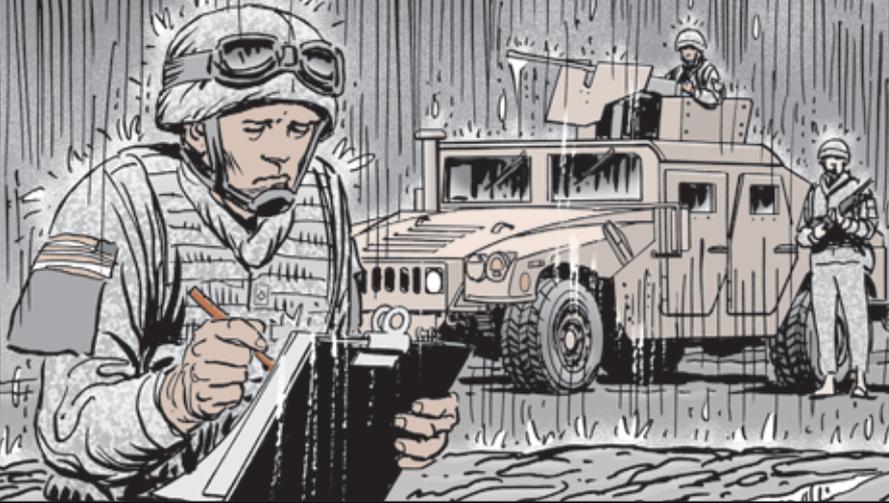
SSG T.C.

Dear Sergeant T.C.,

As long as the dots disappear within a minute, your ICAM is OK. If the dots don't disappear, install a nozzle cap and run the ICAM for 72 hours. Then do the self-test and confidence test again. Dots still won't go away? Your ICAM needs to go to direct support for a checkup.

Half-Mast

Writing When It's WET



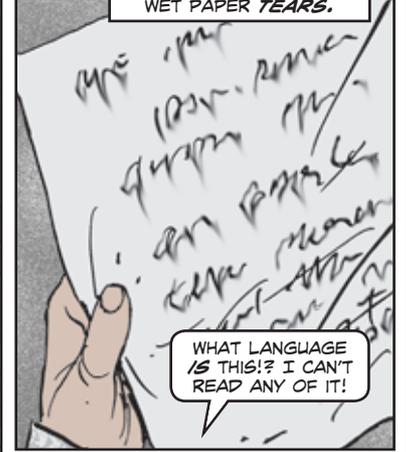
YOU JOT DOWN A LOT OF NOTES WHEN YOU'RE ON A MISSION.

THEY COVER EVERYTHING FROM UNIT STRENGTH, ENEMY WEAPON SYSTEMS AND SKETCHES OF TERRAIN TO MEDEVAC INFO, PERSONAL DATA AND THE LOCATION OF IEDS OR UNEXPLODED ORDNANCE.



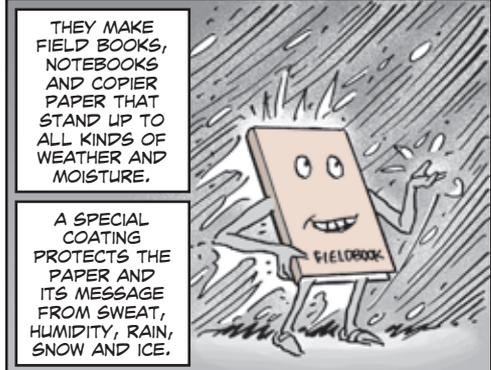
JUST DON'T TRY TAKING NOTES THE USUAL WAY WHILE HUDDLED OUTSIDE IN RAIN OR SNOW.

INK RUNS... LEAD PENCILS *SMEAR*... WET PAPER *TEARS*.



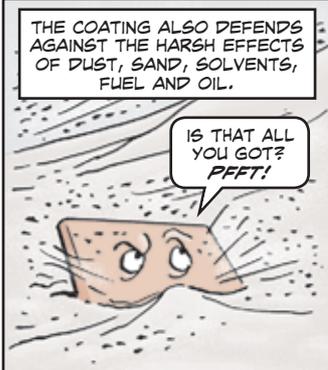
YOU NEED **OUTDOOR** WRITING PRODUCTS THAT RESIST MOISTURE.

ONE SUCH LINE OF PRODUCTS IS CALLED RITE IN THE RAIN®.



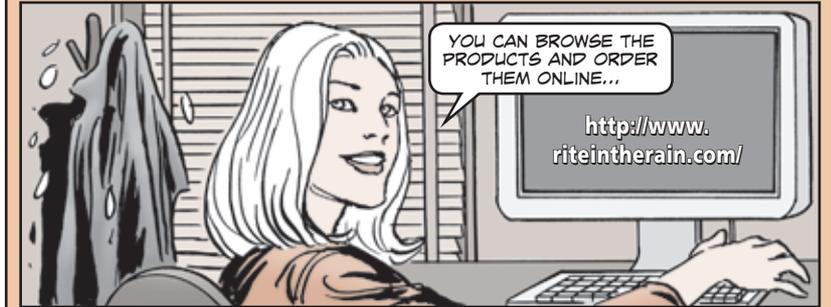
THEY MAKE FIELD BOOKS, NOTEBOOKS AND COPIER PAPER THAT STAND UP TO ALL KINDS OF WEATHER AND MOISTURE.

A SPECIAL COATING PROTECTS THE PAPER AND ITS MESSAGE FROM SWEAT, HUMIDITY, RAIN, SNOW AND ICE.



THE COATING ALSO DEFENDS AGAINST THE HARSH EFFECTS OF DUST, SAND, SOLVENTS, FUEL AND OIL.

Online Is Just Fine



YOU CAN BROWSE THE PRODUCTS AND ORDER THEM ONLINE...

- To qualify for reduced GSA pricing, you must:
- have an active government-issued email address ending in **.mil**, **.gov** or **.fed.us**
 - have a \$100.00 minimum order.
 - open an online account.

To open an account, click on the GSA icon in the bottom right corner of the home page. On the next screen you'll be asked to submit information, including an email address. You'll then receive a username and password by email.



Browsing for Products

After you've logged in, you can search for specific products by using the **product finder**. Or you can browse the military products by opening the drop-down menu found in the banner near the top of the screen. Rest your cursor on **Products**. Then slide the cursor down to **by industry/activity**. A second drop-down menu will appear. Click on **military**.

You'll be linked to products, item numbers, descriptions and prices.

Here's a sample of what you'll find:

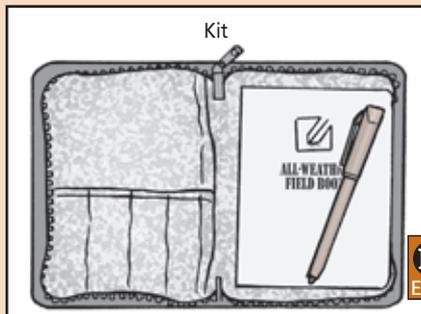
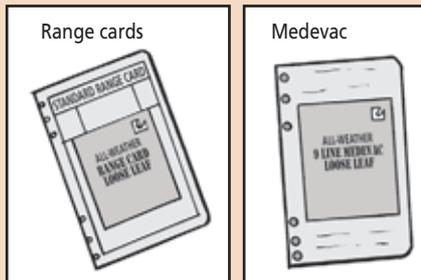
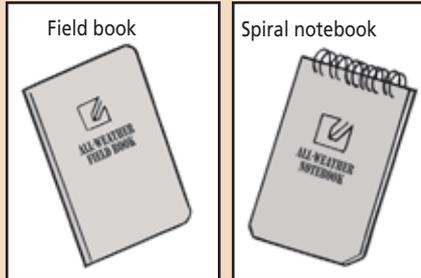
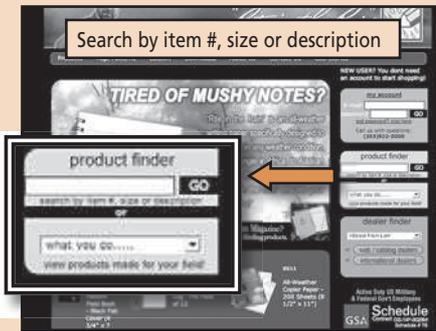
- bound field books, memo books and spiral pocket notebooks with non-glare green or desert tan pages
- field ring binders that hold loose-leaf sheets
- loose-leaf tactical forms such as range card, call for fire, warning order, UXO/IED and medevac
- tactical reference card set
- all-weather copier paper
- kits that include a field book or spiral notebook, all-weather pen and a Cordura® book cover with zipper.

Other kits come with ring binder, pen, book cover and tactical reference card set.

The website also has some helpful downloads:

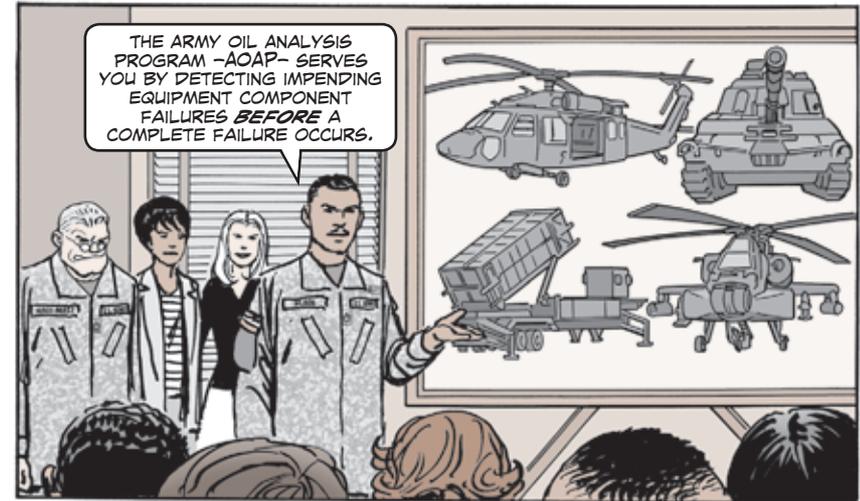
- loose-leaf forms you can print on all-weather copier paper
- templates you can use to create your own forms
- a military brochure with NSNs and prices
- printer's tips

In addition to buying products from the Rite in the Rain® website, you can also order them through the Army supply system, your local base supply store, or online from GSA Advantage and DoD EMALL.



PS
END

AOAP Can Help



FOR A LIST OF ARMY EQUIPMENT ENROLLED IN AOAP, SEE THEIR WEBSITE AT THE END OF THIS ARTICLE.

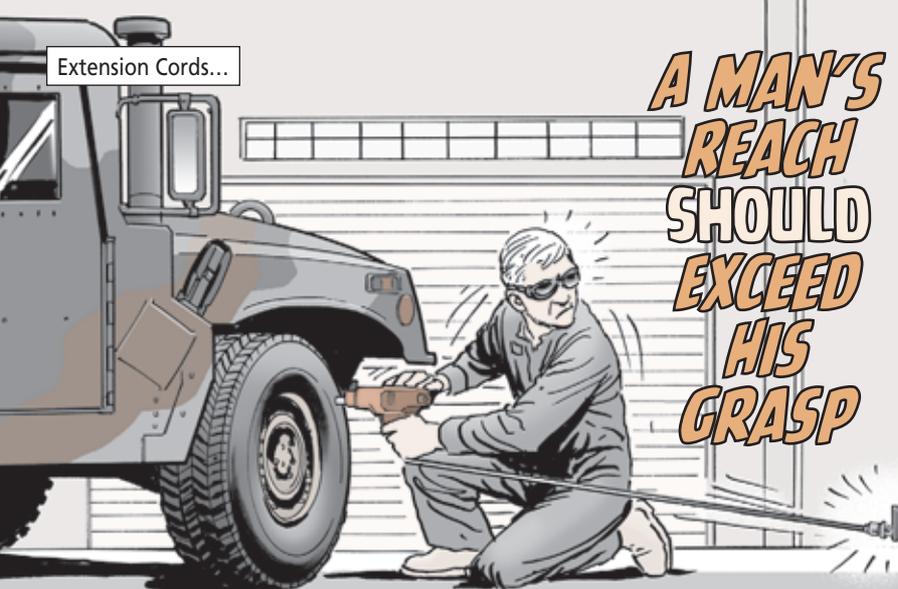
IF YOUR EQUIPMENT IS LISTED, ENROLLMENT IS MANDATORY UNLESS THE DEPUTY CHIEF OF STAFF, G-4, APPROVES AN EXCEPTION.

SELECTED NON-AERONAUTICAL EQUIPMENT MAY BE ENROLLED IN AOAP FOR TEST AND ANALYSIS ON A CASE-BY-CASE BASIS, WHEN RESOURCES ARE AVAILABLE.

AOAP ALSO HELPS TO CONSERVE PETROLEUM RESOURCES BY EXTENDING OIL LIFE. AOAP MANAGES 18 LABORATORIES, FIXED AND MOBILE, AROUND THE WORLD.

CHECK AR 750-1, ARMY MATERIAL MAINTENANCE POLICY, FOR MORE INFORMATION.





A MAN'S REACH SHOULD EXCEED HIS GRASP

Sometimes you have to use power tools many feet away from an electrical outlet. You need to extend your reach, so it makes sense to stock a few extension cords in a variety of lengths.

You have four basic options for getting extension cords:

- fabricate them locally
- purchase them locally
- search FED LOG for suitable cords
- order cords with the NSNs in this article

LET'S LOOK AT THE LAST TWO OPTIONS...

FED LOG Search

From the Army Interactive Query screen, fill in the Item Name field with the following: CABLE ASSEMBLY POWER ELECTRICAL. You can also search with the words CABLE ASSEMBLY SPECIAL PURPOSE E. Click on Search. The Item Name Pick List screen comes up. Choose one of the item names on the screen and click on NSN List. The NSN Pick List screen appears, downloading NSNs.

Remember, any time you look for items on FED LOG, read the characteristics data for descriptions. For further information about items, research FED LOG for the supplier's name, CAGE and the manufacturer's part number. Then go online and use a search engine to find the supplier's name. When you get to the supplier's website, look for item descriptions and technical data.

A List of Extension Cords

NSN 6150-	Length (feet)	Rating (amperes)	AWG	Color
01-429-5481*	25	15	12	Yellow
01-131-4882	50	15	12	Orange
00-233-4144*	50	15	14	Orange
01-245-7809	100	13	14	Orange
01-290-1707*	100	13	14	Blue
01-226-2057	100	15	12	Orange
01-146-6899	100	15	12	Yellow

* THESE NSNS ARE NOT ON THE AMDF.

ORDER ON DD FORM 1348-6 FROM SMS.

PUT "NSN NOT ON THE AMDF" IN THE REMARKS BLOCK.



All extension cords listed in the table have three-prong plugs and connectors.

The orange cords have insulation that resists moisture, abrasion and prolonged exposure to light.

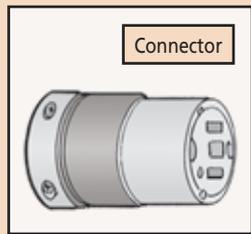
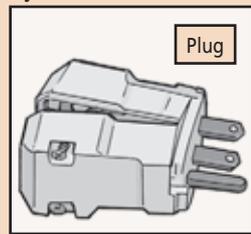
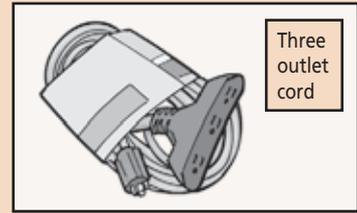
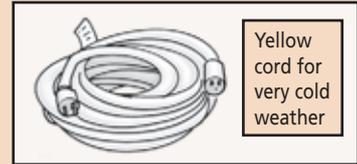
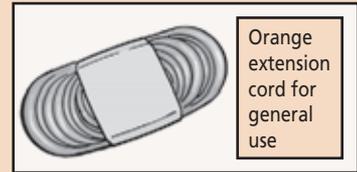
The blue cord has a thermoplastic rubber jacket that stays flexible down to -58°F.

The yellow cords have thermoplastic rubber jackets that resist moisture, abrasion, ozone, oil, grease and chemicals. They stay flexible to -67°F.

You can also get standard extension cords with a three-outlet receptacle on one end. NSN 6150-01-325-6136 brings a yellow cord 25 feet long. It uses 12 AWG wire and can carry up to 600 volts and 15 AMPS. It stays flexible to -40°F. NSN 6150-01-396-2615 is an orange cord 50 feet long. It uses 14 AWG wire and can carry up to 300 volts and 15 AMPS. And it stays flexible to -35°F.

Remember, the lower number gauge wire (12 AWG) should be used with larger electrical loads. Loads are usually rated in watts.

Got a damaged plug or connector on your extension cord? No need to throw out the whole cord. NSN 5935-01-005-3579 brings a three-prong plug. A three-prong connector comes with NSN 5935-01-012-3066.

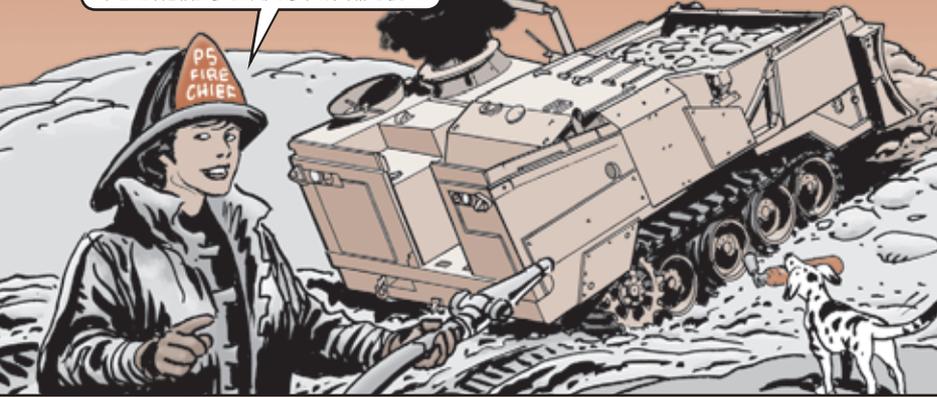


M9 ACE...

MECHANICS, WHERE THERE'S SMOKE, THERE'S FIRE!

KEEP THAT IN MIND WHEN IT COMES TO THE FIVE HYDRAULIC LINES MOUNTED DIRECTLY ACROSS FROM THE ENGINE'S EXHAUST MANIFOLD.

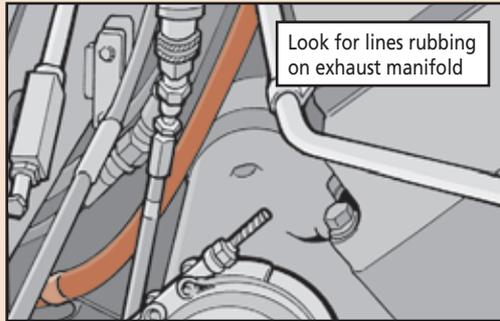
MISPLACED STRAP



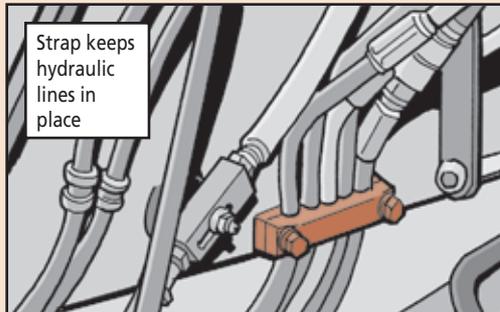
The lines are held in place by a retaining strap that keeps them snug against the wall.

Straps get misplaced when a hydraulic line is repaired, or when the engine is removed by support. How it happens makes no difference. An earthmover that's operating with a missing strap means those hydraulic lines will eventually rub up against the engine's exhaust manifold—causing a fire!

Replace a missing retaining strap with NSN 5340-01-179-7530, or secure the lines with a tie-down strap, NSN 5975-00-570-9598, until the retaining strap is replaced. Retaining straps are shown as Item 40 in Fig 140 of TM 5-2350-262-24P.



Look for lines rubbing on exhaust manifold



Strap keeps hydraulic lines in place

M9 ACE...

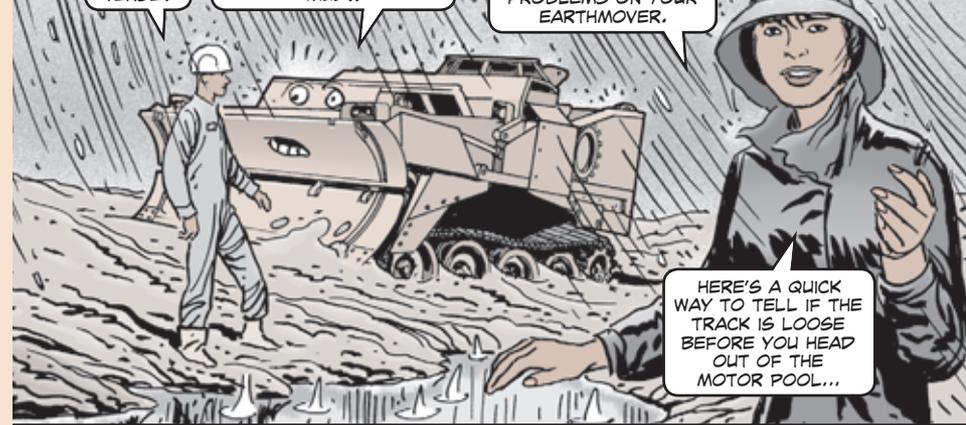
TWO FINGERS WILL DO

HEY BUDDY, WHY SO TENSE?

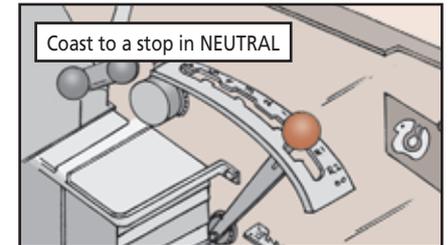
THAT'S THE PROBLEM... I'M *NOT* TENSE! NOW I'M WORKING IN THE MUD!!

WORKING IN THE MUD OR KNEE-DEEP IN THE SAND IS NO TIME FOR TRACK TENSION PROBLEMS ON YOUR EARTHMOVER.

HERE'S A QUICK WAY TO TELL IF THE TRACK IS LOOSE BEFORE YOU HEAD OUT OF THE MOTOR POOL...



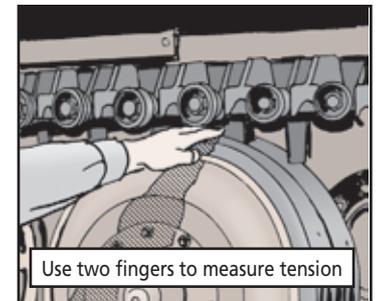
1. Start the engine to keep the suspension charged.
2. Shift to SPRUNG mode and reverse (R1). Drive at max speed for about 50 feet on a hard, level surface.
3. Shift into neutral and coast to a stop without using the brakes or turning the steering wheel.
4. Do not set the parking brake.
5. Let the engine idle at 750-850 rpm for five minutes. Doing this maintains hydraulic pressure and lets the vehicle settle completely.



Coast to a stop in NEUTRAL

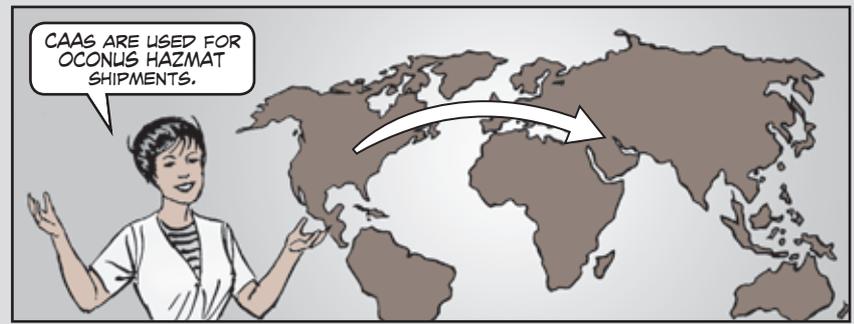
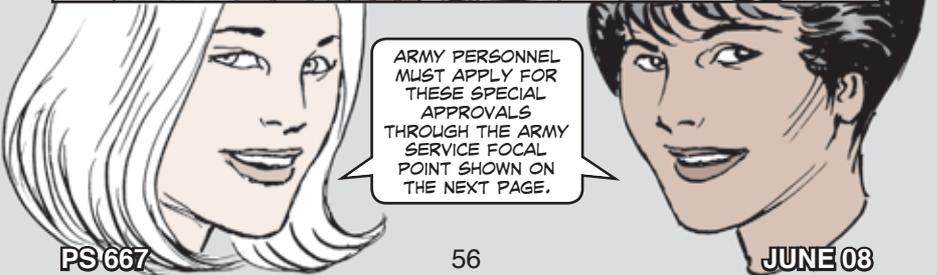
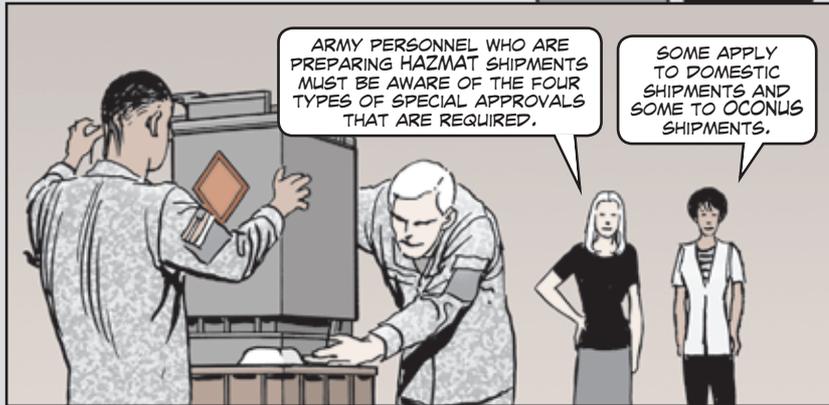
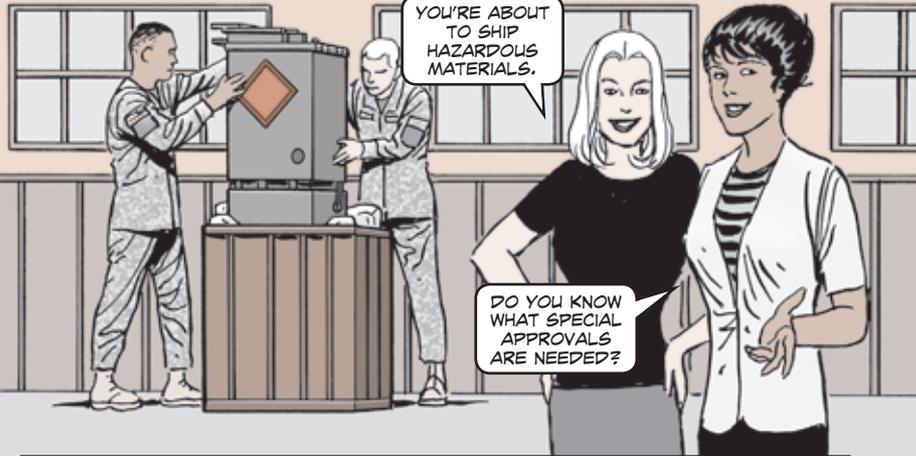
6. Eyeball each track at the No. 3 and No. 4 road wheels (from the front of the vehicle). The track should just touch the No. 3 road wheel and be about two finger widths or 1 1/4 to 2 inches above the top of the No. 4 road wheel.

If track adjustment is needed, follow the info on Page 3-26 of TM 5-2350-262-10. Remember, the ACE should be placed in the SPRUNG mode—not UNSPRUNG—before making the track adjustment.



Use two fingers to measure tension

HAZMAT SHIPMENTS NEED APPROVALS



- **Competent Authority Approvals (CAA).** CAAs are used on OCONUS HAZMAT shipments when the 49 Code of Federal Regulations (49 CFR) specifies the packaging must comply with the shipper's national CAA, when the package of materials exceeds the non-bulk packaging criteria, or when the packaging conflicts with the prescribed packaging of the modal regulations. A CAA issued for international shipments may also be used for domestic shipments.
- **Department of Transportation Special Permit (DOT-SP).** DOT-SPs are used for HAZMAT shipments within the continental United States that are not authorized by 49 CFR. It provides authority to use a design-type package without further testing.
- **Certificate of Equivalency (COE).** A COE is issued when an alternate packaging design from the one prescribed in 49 CFR is used. A COE may be used for domestic shipments of HAZMAT. It may also be used for OCONUS shipments if the airport of destination is a DoD activity and the material will not leave the activity. A COE certifies that the proposed packaging design equals or exceeds the requirements of 49 CFR for the commodity being shipped.
- **Military Air Transportation Waiver (MILAIR Waiver).** A MILAIR Waiver is issued for either packaging or compatibility. A packaging or compatibility MILAIR Waiver is needed when a HAZMAT shipment does not meet the requirements of the Joint Military Publication, TM 38-250, *Preparing Hazardous Materials for Military Air Shipments*.



PROCEDURES FOR APPLYING FOR SPECIAL APPROVALS AND THEIR RENEWALS ARE FOUND IN THE JOINT MILITARY PUBLICATION, AR 700-143, PACKAGING OF HAZARDOUS MATERIAL.

THE ARMY'S SERVICE FOCAL POINT FOR CAAS, DOT-SPS, COES, AND MILAIR WAIVERS IS A PART OF AMC'S LOGISTICS SUPPORT ACTIVITY (LOGSA).

FOR MORE INFO, CALL THE PSCC, DSN 795-7070, 570-895-7070, OR EMAIL: toby.pt@us.army.mil.

LOGSA'S PACKAGING, STORAGE, AND CONTAINERIZATION CENTER (PSCC) WILL PROCESS AND ISSUE THESE SPECIAL APPROVALS.

PS
END

U.S. Army Combat Readiness/Safety Center...

YEEOWTCH!

SAFETY - Save Your Aching Back!

Saving your back is heavy stuff! In 2007, a specialist at Ft Carson suffered a herniated disk as he repetitively lifted heavy equipment from the ground to install them on a HMMWV. A severe sharp pain in his back and back spasms resulted in a hospital visit and lost time while he was on medical quarters.

When moving heavy items, use proper lifting techniques. This link to the National Institute for Occupational Safety and Health (NIOSH) Pub 94-110, *Revised NIOSH Lifting Equation*, provides proper lifting information: <http://www.cdc.gov/niosh/docs/94-110/>

SMART...

Tap Saves Many NVG Lenses

SEE, I CAN'T GET THE SACRIFICIAL WINDOW ON BECAUSE THE THREADS ARE DAMAGED.

WELL YOU SHOULD HAVE HAD THE WINDOW ON IN THE FIRST PLACE.

BUT, YOU'RE IN LUCK. I THINK OUR DOL CAN FIX THOSE THREADS.

Too many soldiers aren't using their sacrificial windows or light interference filters on the AN/PVS-7B and other night vision goggles. That results in a lot of damaged mount threads.

Richard Hup and his co-workers in the Material Maintenance Division at Ft Bragg found a way to save a lot of those NVGs by refurbishing the threads.

They had a thread tap made at a cost of \$270. Each mount that they saved would have cost \$224 to replace. They were replacing about 20 NVG mounts each month. The thread tap will save Ft Bragg more than \$53,000 each year.

The Army adopted the suggestion but restricts tap use to DS units and DOLs.

TAPCO already makes the right tap. DS units and DOLs can order Tap 1.200-32 H5 6F Bottoming, PN 21620, for \$167.75 each. Expect a two to three working day delivery. They take VISA and Mastercard. Orders can be placed by phone or email:

(800) 827-7787

julie@tapcousa.com

Also, see PS 664, Page 40-41 for more info about protecting your NVGs:

<https://www.logsa.army.mil/psmag/archives/PS2008/664/664-40-41.pdf>

So, do you have any \$53,000 bright ideas in mind? Send them to SMART Online using the link on the Army Electronics Products Support (AEPS) public website:

<https://aeps.ria.army.mil/aepspublic.cfm>

DAMAGED THREADS MIGHT BE SAVED IF DS OR DOL USES A TAP TO FIX THEM.



PROUDLY PRESENTS

Connie's

POST SCRIPTS

Correct AN/PEQ-15 NSN

We steered you wrong on page 18 of PS 661 (DEC 07) on the NSN for the new AN/PEQ-15 target pointer. The correct NSN is 5855-01-534-5931. The POC for questions about the AN/PEQ-15 has changed. Now contact _____ at DSN 793-1674, (309) 782-1674, or email: @us.army.mil

Mask Canister Website Correction

The website address for checking CBRN equipment shelf life that we gave you on Page 60 in PS 665 (Apr 08) was wrong. It should be <https://jacks.jpeocbd.osd.mil/>

Need Hellfire Help? Call JAMS

If you fire Hellfire missiles, you need to remember the JAMS War Room next time you get in a jam. JAMS stands for Joint Attack Munition Systems and their war room has a 24/7 hotline to help you with Hellfire problems. Contact JAMS War Room at DSN 788-0295, (256) 842-0295, or email: @us.army.mil

AFS Replaces GVO, BVO Boots

The alternative footwear solution (AFS) is replacing the green vinyl overshoe (GVO) and black vinyl overshoe (BVO) as the chemical protective boot. The AFS is a lightweight chemical and biological agent protective overboot made of compounded butyl rubber. It should provide 24 hours of protection when exposed to chemical agents. AFS can be worn for up to 45 days. For sizes, NSNs, and general info on AFS, go to: <https://aeps2.ria.army.mil/sbcom/gtw/intro.cfm>

WD CARC SPOT PAINTING TB

The newly revised TB 43-0242, *WD CARC Spot Painting* (Dec 07), is now available. The TB covers the how, when and where of spot painting with the new water dispersible CARC. It also includes NSNs for new WD CARC products such as aerosol sprays and bottles with roller-top and brush-top applicators. You'll find it on the LOGSA ETM website: <https://www.logsa.army.mil/etmpdf/files/080000/084390.pdf>

M939-SERIES TRUCK WHEEL SEALS

There's a new NSN and part number for the plain encased seal used on your M939-series truck front and rear wheel assemblies. It's shown as Item 19 in Fig 293 and Item 13 in Fig 295 of TM 9-2320-272-24P-1. Update your TM using NSN 5330-00-740-9550 and part number 7979349.

New Screw for M16 Rifle Rail

The socket head cap socket screw, NSN 5305-01-453-2725, that holds the upper rail to the M16A4 rifle and the M4/M4A1 carbine has been replaced with an improved slotted head screw, NSN 5305-01-540-4805. Unlike the old screw, the new one can be reused. Note the change on Pages 39-23 and 39-25 in TM 9-1005-319-23&P.

MRAP TRAINING AT RED RIVER ARMY DEPOT

Need mine resistant ambush protected (MRAP) vehicle driver's and maintenance training? Get it at Red River Army Depot through MRAP University. This training is available for all services, LARs, RRAD maintenance personnel, LOGCOM and OEM field service reps. The length of training depends on what training you need and your skill level before attending. For more information, contact _____, MRAP University site lead: DSN 829-4905, (903) 334-4905, or email: @conus.army.mil

Or reach _____ : DSN 829-4913, (903) 334-4913, or email: @us.army.mil

LBS Replaces M30 Boresight

When it's time to replace the M30 boresight for your rifles or machine guns, don't order another M30. The laser bore light system (LBS), NSN 5860-01-471-2091, replaces the M30 and costs \$400 less. The LBS has a LIN of FA6000.

One Left Out!

We blew it on the email address of _____ in our article about FLIR parts on Pages 40 and 41 of PS 665. We left a 1 out! email is: @us.army.mil

AOA GRADER WHEEL ASSEMBLY

Use NSN 2530-01-549-6588 to get the wheel assembly for the 130G road grader with add-on-armor (AoA). The assembly includes a new 16-ply rated tire that can handle the added weight of the armor. Make a note until the NSN is added to Fig 186 of TM 5-3805-261-23P.

HYEX BII UPDATE

Make a note of these NSNs until they are updated in the BII list on Pages B-3 and B-4 of TM 5-3805-280-10:

Item	Name	NSN
3	Wrench, 3-in	5120-01-376-5124
7	Pliers, vise grips	5120-01-400-0314
8	Hammer, wood handle	5120-01-434-9158
10	Gun, grease, lever action 18-in flex hose	4930-00-640-4090
13	Fire extinguisher (new item)	6830-00-555-8837

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?

Click here for a copy of these articles to save or email.