

PS**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-672, 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.

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Just write to:

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PS, the Preventive Maintenance Monthly
USAMC LOGSA (AMXLS-AM)
5307 Sparkman Circle
Redstone Arsenal, AL 35898

Or email to:

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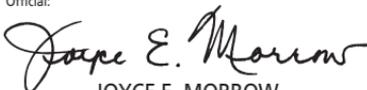
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By order of the Secretary of the Army:

GEORGE W. CASEY, JR.
 General, United States Army Chief of Staff

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JOYCE E. MORROW
 Administrative Assistant to the Secretary of the Army

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Issue 672

PS

November
2008

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-672

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MAN, I'M
FROM KEY
WEST, FLORIDA
-- I'VE NEVER
EVEN *SEEN*
ICE!

HOW AM I
SUPPOSED
TO DRIVE
ON IT?

(JOE
KUBER)

**COLD
WEATHER
ISSUE**

**NEED DRIVING
TIPS FOR SNOW
AND ICE? --
SEE PAGE 27**

A LOT OF THINGS IN LIFE WE CAN LOOK BACK ON AND LAUGH AT. BUT IT'S

NO LAUGHING MATTER

WHEN YOU LOOK BACK AND DISCOVER THAT AN AIRCRAFT WAS BROUGHT DOWN BY FOD.



Foreign Object Damage is a preventable problem if you pay attention and look for the things that cause it. You're playing a game of Russian roulette if you assume someone else has already looked for foreign objects and debris.

We've all heard of incidents in which instruments have been left behind in a patient's body after an operation. Maintenance personnel "operate" on aircraft, too, and they can leave tools behind!

Forgotten items left in the wrong place—such as pens, pencils, paperclips, safety wire and tools—can make for one sick bird.

The rule is if you drop something—whether it's a nut, bolt, tool or shop towel—PICK IT UP! If you can't locate an item you used while performing maintenance, FIND IT. Become a 100% FOD finder before you button up the bird.

FOD PREVENTION CANNOT BE OPTIONAL.

THE CONSEQUENCES OF FOD ARE NO LAUGHING MATTER.



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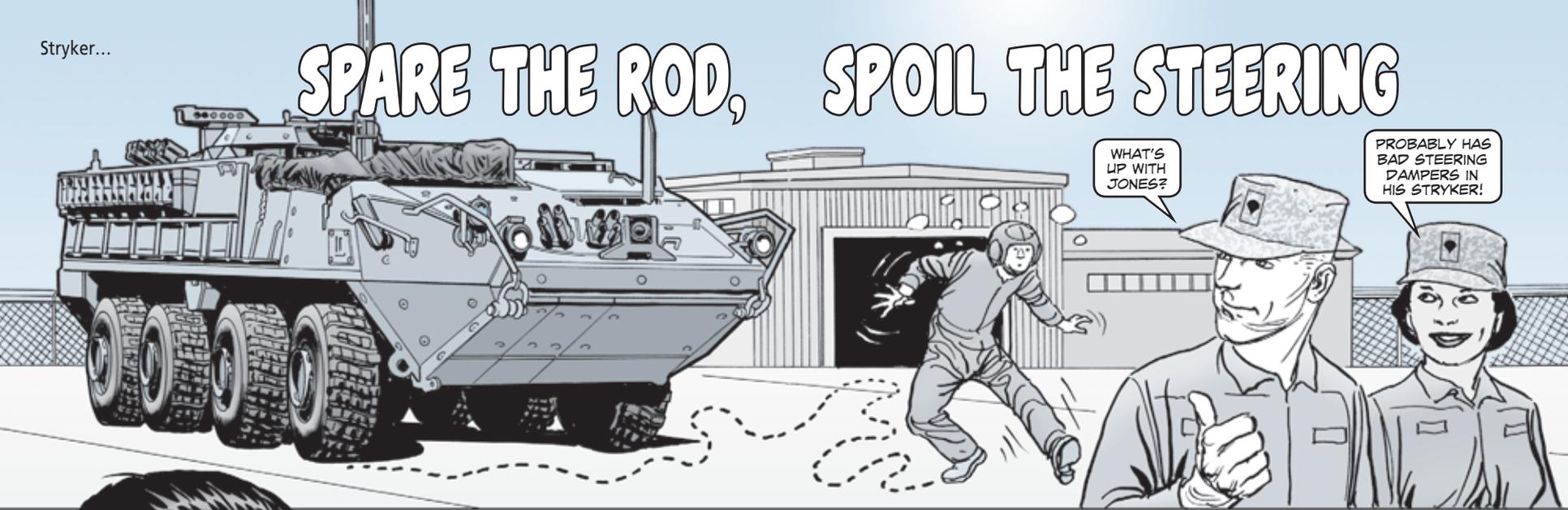
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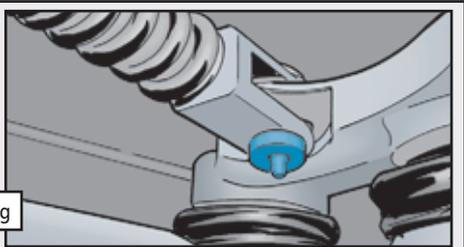
SPARE THE ROD, SPOIL THE STEERING



YOUR STRYKER IS DESIGNED TO GIVE YOU A SMOOTH RIDE, DRIVERS.

BUT THAT'LL LAST ONLY AS LONG AS YOU TAKE CARE OF THE STEERING DAMPERS.

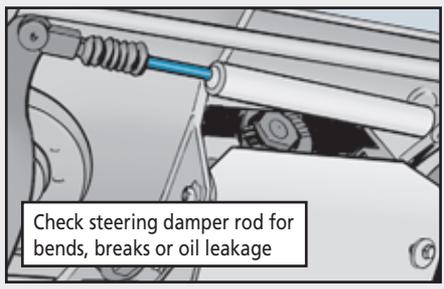
You'll also need to keep the dampers lubed monthly with GAA. Without lube, the rod binds and will soon bend like a pretzel. You'll find the lube point at the end of the damper rod.



Lube damper to prevent binding

The dampers are like mini shock absorbers that act as a stabilizer for the steering system. Without 'em, the steering column can give you a good shake down.

Rough terrain, rocks, and heavy brush can take a toll on the damper rods. So you need to crawl under your Stryker to visually inspect them, especially after a mission over rough terrain. Look for a bent or broken rod or evidence of oil on the cylinder that could indicate a leaking wiper seal. Report any problems to your mechanic.



Check steering damper rod for bends, breaks or oil leakage

Cold Weather Problems

Extreme cold weather has a negative effect on the steering dampers. Sustained temperatures at or below 0°F result in a very high number of steering damper failures.

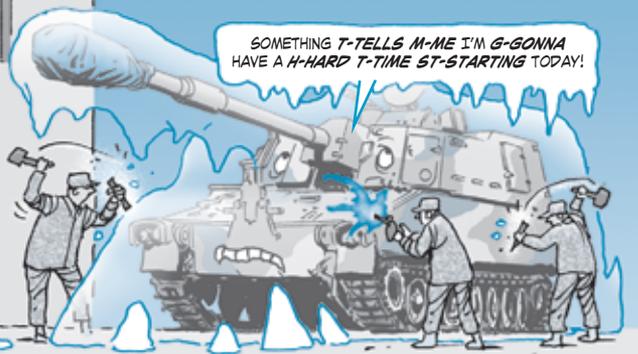
So, vehicles that are part of the 3rd Stryker Brigade in Alaska are now authorized to remove the steering dampers when the temperature drops below 0°F for a sustained period.

Removing the dampers may result in higher amounts of wheel kick and vibration in the steering system, especially over rough terrain. That can result in increased wear on steering components. So, inspect the steering system often for damage if you've removed the dampers.

All drivers with vehicles that have had the dampers removed should receive a precautionary briefing about the dangers of sudden steering movement and how best to reduce it. You'll find complete details in TACOM GPM 08-013:

https://aeqs2.rta.army.mil/commodity/gpm/tacom_wa/08/gpm08-013.html

A HOT START ON A COLD DAY

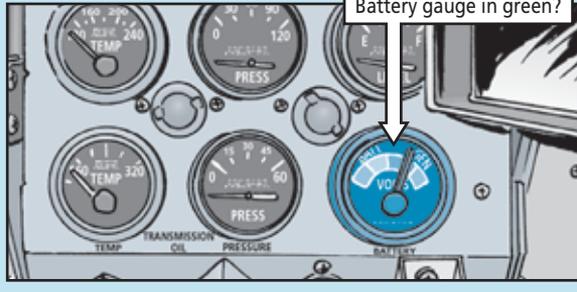


DRIVERS, IF YOU DON'T START YOUR M109A6 PALADIN THE RIGHT WAY IN COLD WEATHER, YOU'RE GOING NOWHERE FAST.



Before You Start

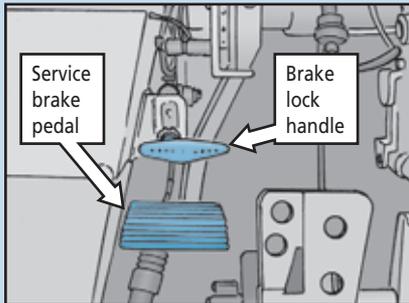
1. If you've been using the winterization kit, you must stop the heater before trying to start the engine.
2. Remove and secure all tarps.
3. Install the exhaust outlet plug.
4. Turn off the automatic fire control system and all radios.
5. Make sure the battery indicator gauge is in the green range. If not, charge the batteries.



Starting

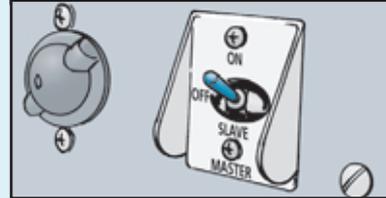
NOW YOU'RE READY TO START THE VEHICLE...

1. Press down on the service brake pedal, then pull out and down on the brake lock handle to set the brake.

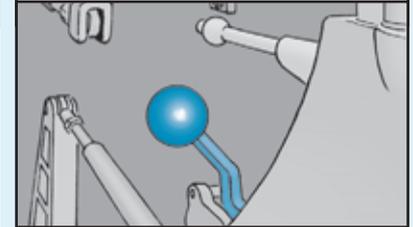


2. Shift the transmission into neutral.

3. Turn the MASTER switch to ON. The indicator lamp should light up.



4. Place the engine throttle in the full throttle position.

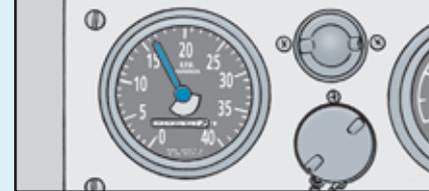


5. Move the GLOW PLUG switch to ON.

The glow plug WAIT lamp should come on and stay on.
6. After 35 seconds, when the WAIT lamp flashes on and off, move the STARTER switch to START. That will engage the starter.

Hold the STARTER switch to START for about two or three seconds, but for no longer than five seconds. And do not move the engine throttle.

- 7a. The engine starts and increases in speed. When engine speed reaches 1,500 to 1,800 rpm, reduce the throttle and hold engine speed to 1,200 to 1,500 rpm.



or...

- 7b. The engine fails to start. Wait 10 seconds and engage the STARTER switch again. If the engine won't start after four attempts, stop and call in your mechanic.

8. With the brakes still locked, set the throttle to 1,200 rpm and shift the transmission to fourth gear.
9. When the coolant temperature gauge reaches 120-140°F, shift into neutral and idle the engine. If the transmission temperature approaches 300°F during warmup, immediately shift to neutral until the temperature comes down to normal range.

10. Shift the transmission to first gear and drive the vehicle slowly forward about 100 yards. Be careful not to stall the engine. This step warms up the lubricants properly for normal operation.

M109-Series SP Howitzers...

SET AIR CLEANER FOR 'WINTER'

HOW COME YOU'RE NOT FREEZING LIKE ME?

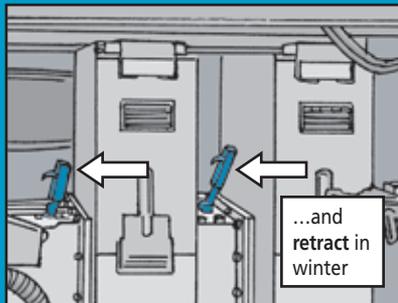
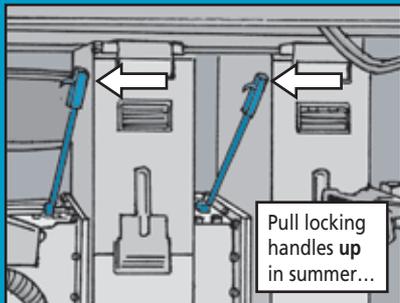
'CAUSE THEY REMEMBERED TO MOVE MY AIR CLEANER HANDLES TO THE WINTER POSITION!



When the bottom drops out of the thermometer this winter, make sure your howitzer's air cleaners are set for the season.

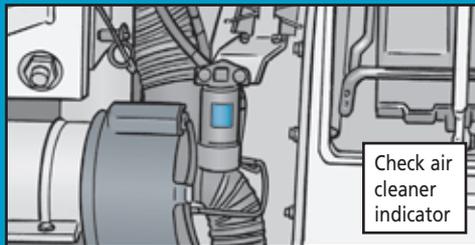
The air cleaner locking handles need to be down and locked in their holders when the temperature is below 25°F. If you extend 'em, the air is too cold and your engine won't run properly.

For intermediate temperatures (25-40°F), start the engine with the locking handles in the winter position. Then, move the handles to the up position when the engine reaches operating temperature.



Remember, though, that when temperatures climb above 40°F, you must put the handles in the up, extended position. Leaving the handles down during warm winter days—and especially during the summer—will overheat your engine and maybe burn up some valves.

While you're at it, take a close look at the air cleaner indicator. If the indicator reads 25-in H₂O or higher, the air cleaner element needs to be serviced. A reading of less than 25-in H₂O is OK.



M1-Series Tanks...

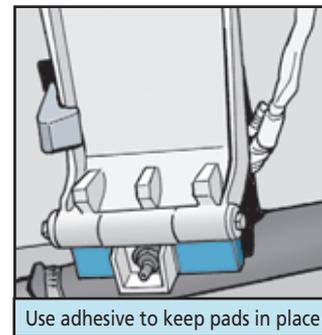
KEEP PADS IN PLACE



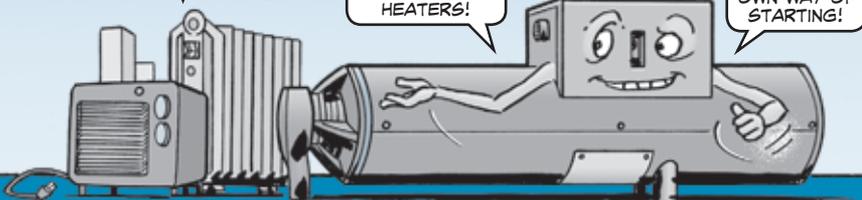
The adhesive that holds the two cushioning pads, NSN 5340-01-079-3031, on each side of your tank's knee switch actuator sometimes wears out. When that happens, the pads fall off.

Not a big deal, you think? Well, those pads do have an important job. They keep the manual control lever from activating the switch and opening the ammo doors until the loader presses against the lever.

So keep a close eye on the pads. If they start to loosen, apply new adhesive, NSN 8040-00-880-7332, to keep 'em in place. Use dry cleaning solvent, NSN 6850-00-285-8011, to clean the old adhesive off the actuator bracket first. That allows the pads to adhere tightly.



ALL HEATERS ARE NOT A-20'S



The Stewart-Warner and Hupp personnel heaters have been around so long that most combat vehicle crewmen have the start-up procedures memorized.

You can hold the RUN-OFF-START switch to START for up to two minutes for the Stewart-Warner and no longer than four minutes for the Hupp. If the heater won't start in that time, you have to let it cool down or risk burning out the ignitor or ignition control resistor.

But those start-up procedures will cause no end of trouble if you try to use 'em on the new A-20 heater, NSN 2540-01-396-2826!

After holding the switch on START for just 10 seconds, the heater automatically goes into a 4-minute purge mode. The heater's fuel supply is cut off and all remaining fuel inside the heater is burned off.

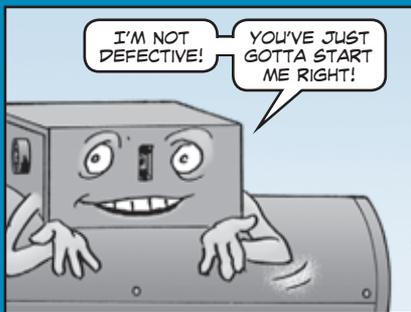
Because the heater doesn't start, most operators assume it's defective and turn it in for repair.

But the heater's not the problem! It's the improper start-up procedure that causes all the trouble.

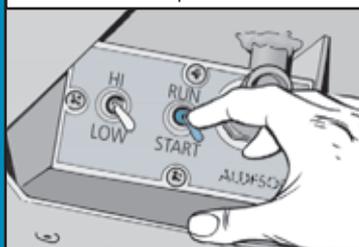
To start the A-20 heater correctly, hold the RUN-OFF-START switch on START for four seconds, then flip it to RUN. The heater will go through a quick self-diagnosis and then should start.

If the heater won't start when you do it the right way, check out the troubleshooting procedures in TM 9-2540-207-14&P.

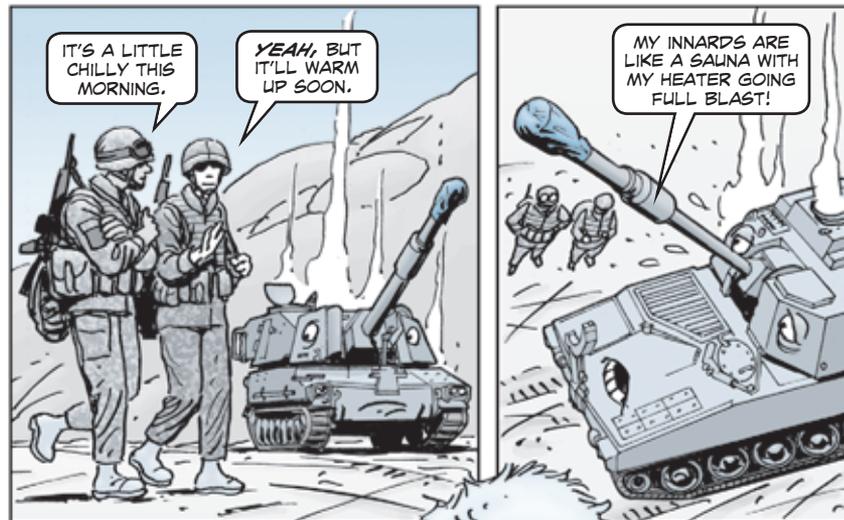
If your vehicle is an M1A2 SEP or M2/M3 Bradley, refer to your TMs for vehicle-unique starting instructions.



Hold switch to START for four seconds, then flip to RUN

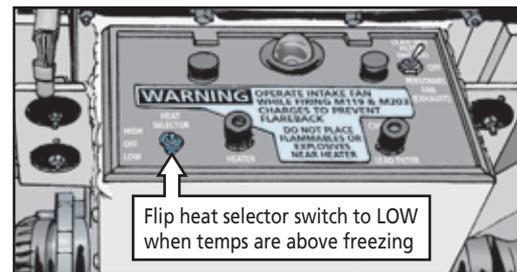


CHOOSE THE SETTINGS WISELY



The heater has two settings, HIGH (60,000 BTUs) and LOW (30,000 BTUs). But too many crewmen seem fixated on the HIGH setting. Whether it's mildly cool or bone-chilling cold, the HIGH setting is what they go for.

If it's cold enough to need the heater, but not below freezing, set the heater to LOW. That will provide ample heat. If you constantly run the heater on HIGH, especially when it's not all that cold outside, you'll burn out the wick. Then nobody's getting warm.



Wheeled Vehicles...

HEY, WHAT HAPPENED TO OUR TRUCK?

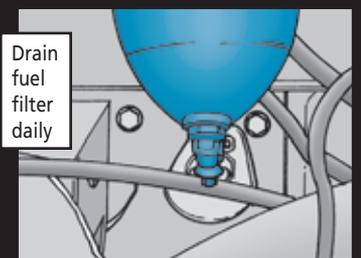
OH NO! I FORGOT TO DRAIN THE FUEL FILTER AND ADD ICING INHIBITOR!

ICE IN FUEL FREEZES MOVEMENT

In freezing temperatures, ice on the road can make you go when you want to stop. And ice that forms in fuel tanks and fuel lines can make you stop when you want to go!

SO WHAT CAN YOU DO TO KEEP THE FUEL FLOWING AND YOUR VEHICLE GOING?

- Drain fuel filters every day you operate, just like your PMCS says. If you get more water than usual when you drain the filter, report it. The tank may need to be cleaned out.
- Refuel with care to keep water or snow out of the tank.
- Keep the fuel tank filled to the FULL mark to stop condensation.



YOU CAN ALSO USE ICING INHIBITOR.

BUT FIRST MAKE SURE IT HASN'T ALREADY BEEN ADDED!

TOO MUCH INHIBITOR CAN CUT PERFORMANCE AND DAMAGE ENGINES, SO BE SURE TO FOLLOW THIS GUIDANCE...

ADD ICING INHIBITOR TO DIESEL AND JET A-1 FUEL AFTER YOU FILL THE TANK.

HERE'S WHAT TO USE...

| Qty | NSN 6850-01- |
|-------------|------------------------------|
| 5-gal can | 377-5074 |
| | 057-6427 (local purchase) |
| 55-gal drum | 089-5514 |

Add one pint of additive for every 125 gallons of fuel. The less fuel you use, the less inhibitor you'll need.

If you use JP-8 jet fuel, don't add icing inhibitor because it's already in there! Jet A-1 does not have the inhibitor, so treat it just like diesel fuel.

FMTV...

INFLATE DEFLATED AIR SPRINGS

DRIVERS, YOU'RE IN FOR A ROUGH RIDE IN YOUR 2 1/2- OR 5-TON FMTV IF YOU DON'T KEEP THE VEHICULAR AIR SPRINGS INFLATED.

IF THE CAB GETS DOWN TO METAL-TO-METAL CONTACT, PAIN WON'T BE A STRANGER TO YOU.



Some operators think they have to deflate both air springs before tilting the cab. Then they forget to re-inflate them when they finish their work.

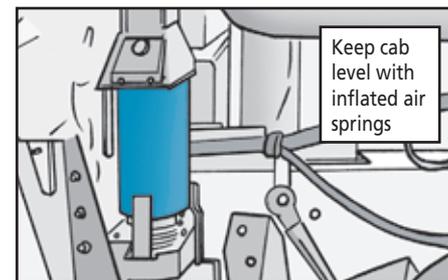
With no air, the cab isn't level. Bumps and jars during operation can make the springs pinch the bag. A damaged bag won't hold air so your backside suffers big time on a bumpy road.

The only time you need to deflate the air springs is when you're preparing for air transport. So leave 'em alone at all other times.

If the air springs on your truck are flat, re-inflate 'em. The panel's a little misleading. Just **press and turn to the right** the CAB knob on the hydraulic manifold control panel.

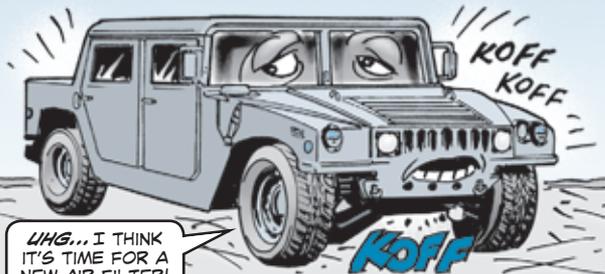
And if you have to replace the air springs, order them using NSN 2510-01-481-7663 and NSN 2510-01-481-7651. Use your parts manual as a guide.

Or both air springs on basic and -A1 model FMTVs (serial numbers under 100,000) can be repaired by replacing the air bag. To order the air bag, use PN PP997900 with CAGE 26952. An NSN will be assigned later. Cab air bags aren't on -AIR model FMTVs (serial numbers 100,001 and higher).



HMMWVs...

Air Filter NSN



UHG... I THINK IT'S TIME FOR A NEW AIR FILTER!

Dear Half-Mast,

My HMMWV's air cleaner filter element, NSN 2940-01-188-3776, shows up in FED LOG as a terminal item. What's the replacement?

SSG A.R.

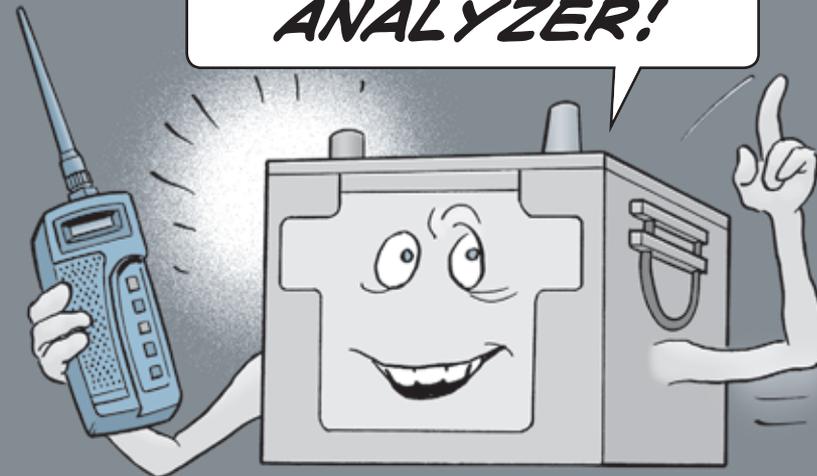
Dear Sergeant A.R.,

Breathe easy. The old, separate hex nut-type air filter, NSN 2940-01-188-3776, has been replaced with the improved caged wing nut with filter design, NSN 2940-01-548-1183. This new design makes removal and installation easier by hand—without tools.

Half-Mast

Hawker Batteries...

DON'T FORGET MY BATTERY ANALYZER!



Dear Editor,

You published a very good article on the Hawker battery and related chargers in PS 664 (Mar 08). However, one important item was left out—the analyzer.

I was at Camp Casey, ROK, when the 2nd ID started using Hawkers. Due to a lack of analyzers, chargers, and training, there was a maintenance issue with the battery. But once all the components were together and personnel were properly trained, the battery problems dropped considerably.

I think the battery analyzer should be included whenever there's any discussion about the Hawker battery.

TACOM LAR, 5/2 BLST
Ft. Lewis, WA

Battery analyzer's important for Hawker battery life



Editor's note: Thanks for sharing your experience with us.

Readers, you can choose from the following battery analyzer NSNs: NSN 6130-01-510-9594, NSN 6625-01-433-6786, or NSN 6625-01-477-4704. Or go to FED LOG for more options.

Get Snow Plow Kits

If snow is in your way, using your HMMWV and a snow plow kit can make your path smooth.

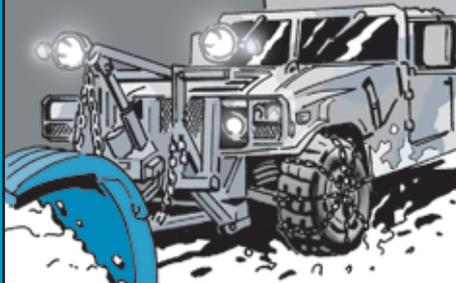
The Army's Cold Regions Research and Engineering Laboratory (CRREL) developed snow plow kits for use on HMMWVs, except those with a winch.

The complete snow plow kit, NSN 3820-01-473-2777, includes the snow plow with hardware and hydraulics. You can also get the removable plow assembly with NSN 3820-01-473-2783, or the affixed vehicle plow kit hardware with NSN 3820-01-473-2793.

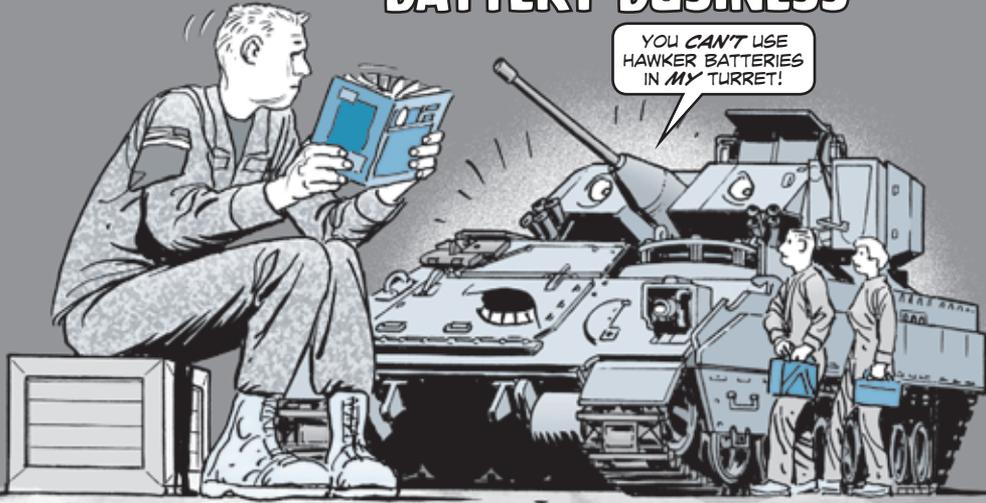
Instructions come with each kit you order, but only depot is authorized to install it on your HMMWV. If your maintenance facility doesn't have depot capability, call the CRREL at DSN 220-4470 or (603) 646-4470. They can help you make an appointment with the snow plow's manufacturer to install it on your HMMWV.

Stay safe by never driving over 10 mph while plowing.

While plowing, use tire chains on all wheels and don't drive faster than 10 mph



MORE HAWKER BATTERY BUSINESS



YOU CAN'T USE HAWKER BATTERIES IN MY TURRET!

Dear Editor,

You ran a great article on using the Hawker battery in PS 664 (Mar 08). But there are three points you might want to clarify:

1. There is ONE exception to the prohibition on "mixing Hawker and other battery types on the same vehicle" mentioned on the top of page 11. There isn't a Hawker battery for the Bradley turret!

Because the systems are electrically separated, you may safely use four Hawkers under the driver's seat, while using the standard pair of "little" batteries in the turret. I am unaware of any other safe exceptions to the "all or none" rule.

2. If you are replacing 6TMFs with Hawkers because of battery problems, make sure the problem is not elsewhere in the electrical system. Hawkers will not fix bad wiring.

And if only one battery of a set is bad, make sure the batteries with remaining life go back to your battery shop to be mated with batteries of similar characteristics for non-critical applications.

3. TB 9-6140-252-13 is THE Hawker technical information source. If there is a conflict between the TB and TM 9-6140-200-14 related to the Hawker battery, the TB guidance is what you should follow.

Mechanical Engineer, G-4
Army Sustainment Command
Rock Island, IL

Editor's note: Readers, keep in mind what just told us. And thanks for that update, Sir.

Tire Mounting Tips



THESE TIRES NEED TO BE UNWRAPPED AND STORED ON A RACK!



BY FOLLOWING THESE TIPS, YOU CAN TAKE THE HASSLE OUT OF MOUNTING TIRES, ESPECIALLY ON HMMWVs.

FOR EXAMPLE, THESE TIPS WILL MAKE INSTALLING A RUNFLAT SPACER MUCH EASIER FOR HMMWV MAINTAINERS.

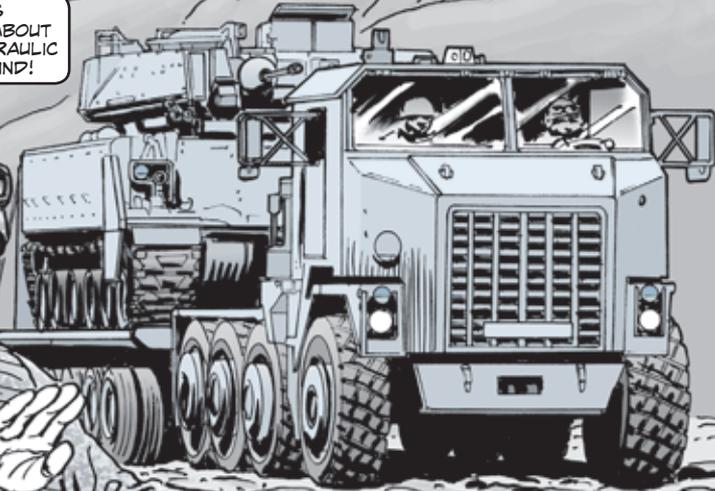
- Remove tires from the manufacturer's wrapping as soon as you can after they get to the motor pool. That way they loosen up a little before you work with them.
- Tires that sit in cold weather should come indoors at least 24 hours before they're mounted. Cold weather contracts and stiffens rubber.
- Store tires on their treads. That widens the gap between the beads and makes mounting easier.



STORE US ON OUR TREADS AND LET US WARM UP BEFORE MOUNTING!

HYDRAULIC OIL INFO

KEEP THIS INFORMATION ABOUT THE HET'S HYDRAULIC SYSTEM IN MIND!



Dear Half-Mast,
We service the M1000 heavy equipment transporter (HET) in our units. Is there a directive or message to put fire resistant hydraulic (red) oil in the semitrailer's hydraulic system? I can't find a technical manual change or update that says so.

Mr. Dave Keilly
TACOM LAR
Taji, Iraq

Dear Mr. Keilly,
You can use MIL-H-46170, Type II, hydraulic (red) fluid oil in place of Type I (yellow) hydraulic fluid. Both are fire resistant and you can substitute one fluid for the other, since the dye doesn't cause any difference in the fluid's performance. Use NSN 9150-01-131-3325 to get a 5-gal can of Type II (red) hydraulic fluid or NSN 9150-01-158-0462 to get a 55-gal drum of Type I (yellow) hydraulic fluid. This is spelled out in this bulletin online:

Half-Mast

<https://aeps2.ria.army.mil/Commodity/Pubs/Tacom/Bulletin/M1000hyd.html>

Hope this helps.

New AAL Items

DRIVERS, HERE ARE TWO NEW ITEMS THAT WILL HELP YOU WHEN TOWING THE M105A2 1 1/2-TON OR M149A2 WATER TRAILERS.

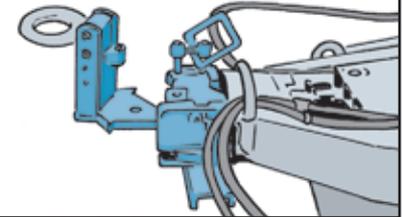
MAKE A NOTE UNTIL THEY'RE ADDED TO THE ADDITIONAL AUTHORIZATION LIST (AAL) IN EACH VEHICLE'S TECHNICAL MANUAL.



Swivel Lunette

Get your CO's approval to replace the trailer's original lunette with a swivel lunette that comes with NSN 2540-01-557-0056. The swivel lunette makes lining up the trailer with the truck's towing pintle a whole lot easier—especially in rough terrain or crappy weather. Mount the new lunette into the old lunette's recess.

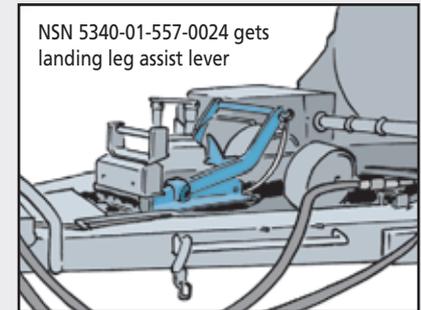
NSN 2540-01-557-0056 gets swivel lunette



Landing Leg Assist Lever

It's no secret the landing legs on both trailers are a bear to raise and lower into position. NSN 5340-01-557-0024 gets an assist lever that makes raising and lowering the legs easier. The lever gives you more leverage to operate the legs and can be released from its locked position all in one motion. By the way, the assist lever fits into position without drilling or modifications.

NSN 5340-01-557-0024 gets landing leg assist lever



Advice to Armorer's from COMET



LISTEN UP, ARMORERS!

THIS ADVICE COMES STRAIGHT FROM COMET AND THEY KNOW WHAT THEY'RE TALKING ABOUT!

Dear Editor,

In my work as part of the Ft Lewis COMET (Command Maintenance Evaluation and Training Team), I run into several misconceptions about small arms that are causing problems, sometimes serious problems. Let me tell PS readers what I tell armorers here.

Solvent tanks are not a substitute for a thorough cleaning and lubing. Soldiers dunk their weapons in a solvent tank and then turn them in to the arms room. Solvent tanks certainly clean out carbon, but they leave the weapons bone dry by removing all lube. Putting your weapon into storage unlubricated lets corrosion do its worst. Parts like the takedown pin spring and the ejector spring are usually what are ruined first. Even if you lube your weapon after it goes through the solvent tank, it's still difficult to re-lube everything the way it should be.

The best thing you can do for your weapon is to clean and lube it just like its -10 TM shows—you know, the old-fashioned way.



Militec and other lubes are not better than CLP. Army studies have shown that and soldiers coming back from the sandbox testify to that. Use only the cleaning materials and lubes listed in your -10.

SARET can take care of your annual gaging. The Rock Island SARET (small arms readiness evaluation team) can take care of your annual gaging requirements for your small arms. But if they do the gaging, you need to make sure you document it on a DA Form 2404 or 5998E. That's the only way you can prove you've had the gaging done if your arms room is inspected.



THANKS FOR TAKING CARE OF MY ANNUAL GAGING. YOU SARET FOLKS ARE GREAT!

YOU'RE WELCOME, BUT MAKE SURE YOU DOCUMENT THE GAGING. THAT WAY YOU CAN PROVE IT WAS DONE.

Editor's note: Excellent points, Sir. Soldiers will save themselves lots of trouble by remembering them.

COMET
Ft Lewis, WA

Help with What Goes Where



Armorer's, if you need help teaching soldiers what parts go where on their rifles or machine guns, the Army's TASC can help. They have layout sheets that show the parts breakdown of several different weapons.

Your pubs clerk can order the Graphic Training Aids (GTA) with these numbers:

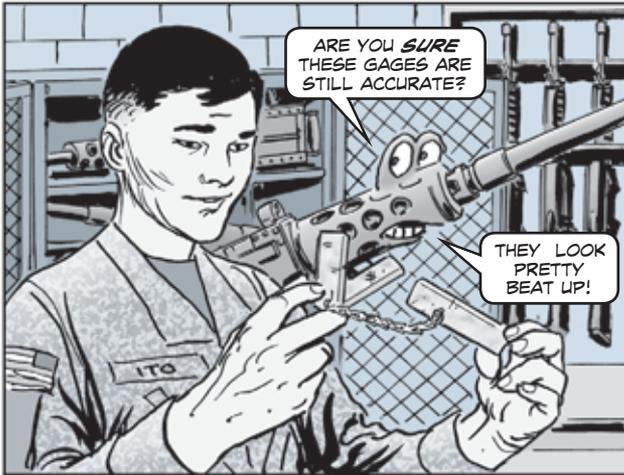
| GTA | Weapon |
|-----------|-------------------|
| 07-01-035 | MK19 machine gun |
| 07-01-039 | M16A2 rifle |
| 10-08-007 | M2 machine gun |
| 07-01-036 | M9 pistol |
| 07-01-042 | M249 machine gun |
| 07-01-044 | M240B machine gun |

You can also download and print them at the Reimers Digital Library:

<https://atiam.train.army.mil/soldierPortal/>

After logging in, click on the RDL Services tab. Select Graphic Training Aids under Types and click **Submit**. Cycle through until you find the GTA you want and download it.

DO GAGES NEED GAGING?



Dear Half-Mast,

We've been using our headspacing and timing gages for our M2, M3, and M296 machine guns for years. After all this time, we're wondering how accurate these gages are. But we can't find anything in the TMs about how often the gages should be calibrated. What should we do?

CW2 T.W.

Dear Mr. T.W.,

TB 43-180, Calibration and Repair Requirements for the Maintenance of Army Materiel, is the word on calibration of small arms gages. It's on EM 0022, the CD that contains most of the TMDE regs.

Small arms gages must be calibrated every 360 days, regardless of whether your unit is Active, Guard, or Reserve. The calibration can be done only by one of the five TMDE labs.

Gages must be calibrated every 360 days

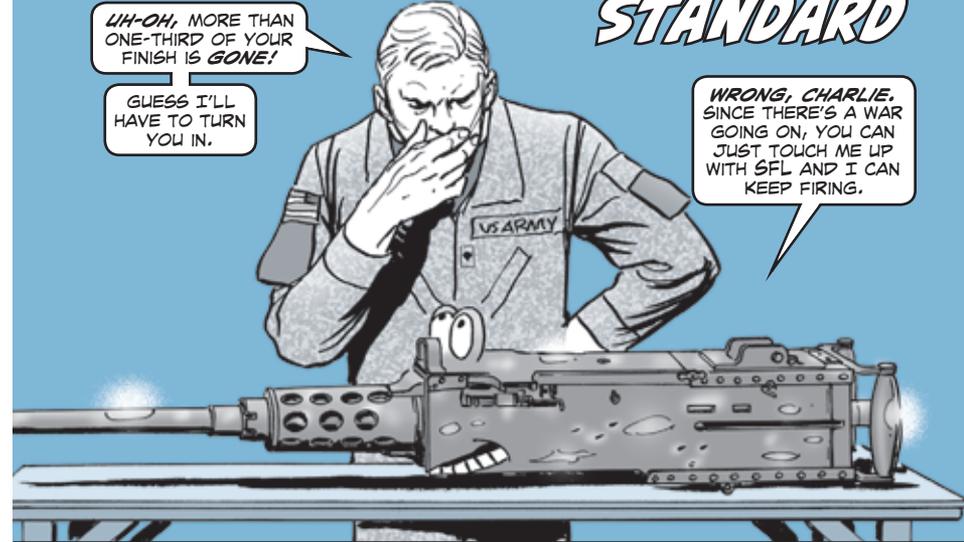


If you have any questions about small arms gages, contact TACOM-Rock Island's at DSN 793-2359/(309) 782-2359 or email:

conus.army.mil

Half-Mast

WAR CHANGES FINISH STANDARD



How much of the M2 machine gun's finish can be missing before the weapon must be turned in to depot? If you look that up in the M2's TM 9-1005-213-23&P, the answer is more than one-third of the M2's surface.

But that criteria is for peacetime. In extended combat operations like Iraq, the M2 doesn't need to be turned in, no matter how much of its finish has worn off. As long as the M2 is fully functional, you can keep firing it.

But you do need to touch up those shiny spots with solid film lubricant (SFL), NSN 9150-01-260-2534, to prevent corrosion and to keep light from reflecting off the weapon and pinpointing your position to the enemy.

Armorsers, before applying SFL, first clean the shiny areas with dry cleaning solvent. The solvent gets rid of all lubricant in the metal. Lubricant prevents SFL from sticking to the weapon, so soon you'll have a shiny spot again.

After cleaning with solvent, let it dry completely. Then apply the SFL and let it dry for 12 hours. Then re-lube the weapon. You're done.

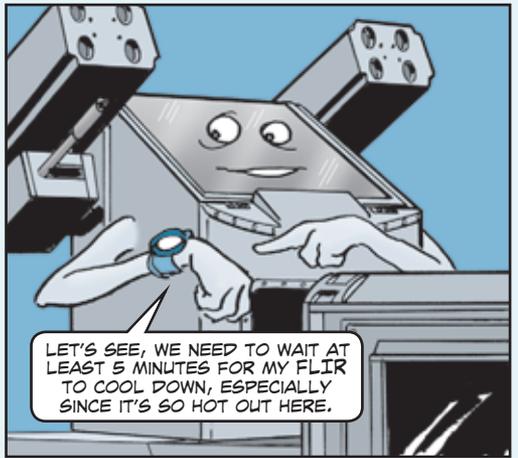
IF YOU HAVE ANY QUESTIONS ABOUT THE PROCEDURE, CONTACT TACOM-RI'S AT DSN 793-2108, (309) 782-2108, OR EMAIL us.army.mil



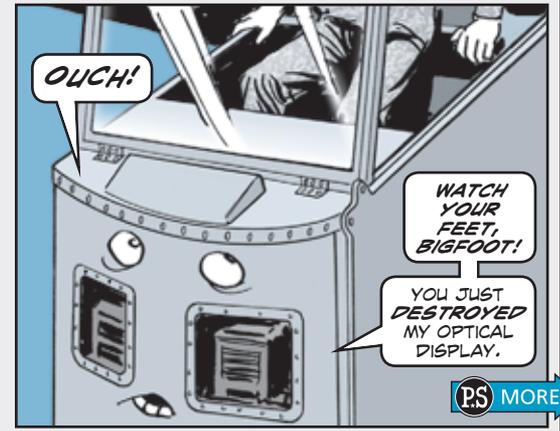
PM WITH AVENGENCE



Be patient with the FLIR. The FLIR needs time to cool down when you turn it on. If you rush the FLIR, you risk damaging the monitor, which is expensive to repair. When you turn on the FLIR, put it in **STANDBY** until the **FLIR READY LIGHT** comes on. That usually takes about five minutes. In the extreme heat of Iraq, it may take longer than five minutes for the FLIR to cool down.

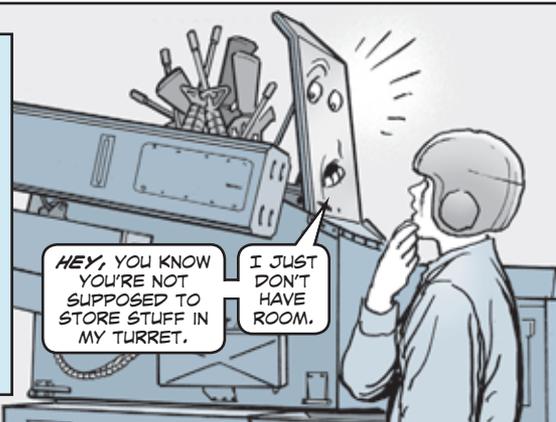


Watch your feet. There's little room in the turret and if you don't watch your feet when you climb in and out of the turret you can easily damage components like the optical display and the gunner's hand station. Those are expensive items to repair. Use the step on the left side of the turret and the side of the seat to climb in and out.

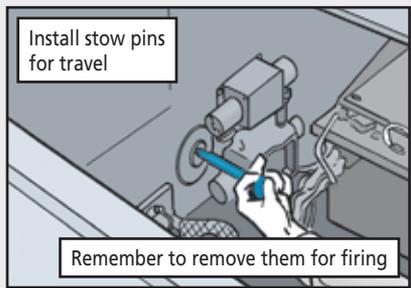


PS MORE

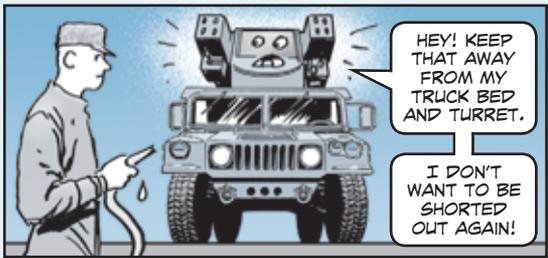
Don't use the turret for storage. There is just room in the turret for you—that's it. Some units try to keep items like antennas or rifles in there. They poke holes in the turret walls or the gyro box. Soon you have trouble with moisture shorting electronic components.



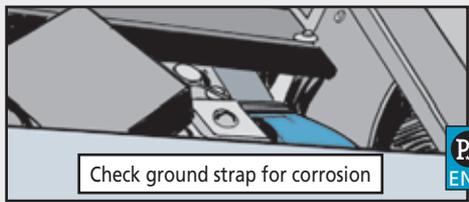
Remember the stow pins. There are two for the missile pods and one for the turret. Before you travel, insert all three pins and set the azimuth brake. Otherwise, the turret and pods can bounce around, which damages gears and motors. But remember to remove the pins when you are ready to operate. If you forget, the pins get bent, which makes it difficult to get them out.



Keep water away from the base of the turret. If you spray water in the bed of the truck during cleaning, it can get into the Avenger's slipping bowl. That can lead to major electrical problems.



Check the battery ground strap. When you do your weekly check of the system batteries, don't forget the ground strap. If it's corroded, you will soon have power problems. Use a wire brush to clean off any corrosion.



PS
END

Are My CBRN Items Still Good?



CBRN specialists need to know for sure if items like mask canisters or M291 decon kits are still good. You don't want to give a soldier a mask canister whose shelf life—and effectiveness—has expired.

Shelf life info for all CBRN items is a few clicks away on the Internet:

Go to Army Electronic Product Support (AEPS) website: <http://aeps.ria.army.mil> You will need to sign in with your CAC, AKO password or request an AEPS password by filling out a system access request.

After entering AEPS, click the **TACOM Soldier and Biological Chemical** box in the center of the page. On the next page, go to the Product Information drop down menu and click on **CDE Shelf Life Information**. In the NSN box, select the piece of equipment you're researching and hit **GO**. This will bring up lot numbers and their expiration dates and condition codes.

If the item you are looking for is not in the NSN drop down listing, use your browser's back button to return to the previous page. Click on the **PRODUCT INFORMATION** box again and select **Product Information**. On the **PRODUCT INFORMATION** page the items are sorted by weapon code into categories. Select the item you are looking for from the drop down listings and hit **GO**. If the item is not in the listings, you can use the search by NIIN, NSN or LIN or search by nomenclature to find the item.

After you hit **GO** you will be taken to the **ITEM LOGISTICAL INFO** page where you will find logistics information including a phone number and email link direct to the National Inventory Control Point manager for that item.

Another link with shelf life information is the Joint Acquisition CBRN Knowledge System provided by the Joint Program Executive Office-Chemical and Biological Defense: <https://jacks.jpeocbd.osd.mil>

If you have questions about the shelf life information, contact the TACOM LCMC Chemical Biological Surveillance Team at DSN 793-5864/(309) 782-5864 or email @us.army.mil

PM-SKOT First Source for Tools

Product Manager - Sets, Kits, Outfits & Tools **PM-SKOT**



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Ordnance Systems
Engineer Systems
Non-Standard Support Systems
Tool Store
Suggestions & Issues
Reset Information
Links
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1-800-4-PM-SKOT
E-Mail: ROCK-PM-SKOT@conus.army.mil
Rock Island Arsenal
Rock Island, Illinois, USA
Privacy & Security Notice



TOOLS ON TARGET

In Jan 08, the Army directed that all units make Program Manager-Sets, Kits, Outfits and Tools (PM-SKOT) the first source for the tools they need to do their jobs.

Before this, commanders often purchased tools locally. Unfortunately, some of these tools were not up to the job and had to be replaced, sometimes again and again, due to breakage.

Tools purchased through PM-SKOT don't have this problem. They have been tested to high standards and their manufacturers stand behind them with warranties, usually for the life of the tool.

Units don't need to already have a SKOT to purchase a particular tool. All you need is to know what type of tool you need. PM-SKOT usually has several vendors to choose from.

If PM-SKOT can't provide that particular tool, they will issue you a waiver so that you can buy the tool locally. PM-SKOT tracks tools they've provided waivers for and, if the demand is high enough, they add the tool to the PM-SKOT list.

If a PM-SKOT tool fails, you can file a warranty claim at the PM-SKOT website:
<https://pmskot.army.mil>

Usually you will get a replacement tool in 5-7 business days.

If you're deployed to SWA, PM-SKOT has tool stores at Victory Base Camp and Camp Anaconda in Iraq and Bagram Air Force Base in Afghanistan. At these stores, you can exchange a broken tool for a new one on the spot.



IF YOU HAVE SKOT QUESTIONS, CONTACT (800) 4-PM-SKOT OR EMAIL ROCK-PM-SKOT@conus.army.mil



WINTER DRIVING TIPS

THE WEATHER OUTSIDE IS **FRIGHTFUL**.

AND SLIPPING AND SLIDING ON SNOW AND ICE IS NOT DELIGHTFUL.

DRIVE SAFELY BY USING THE GUIDANCE FOUND IN YOUR VEHICLE'S -10 TM.

PLUS, HEED THE FOLLOWING TIPS TO PREVENT A PROBLEM DOWN THE ROAD.

Click here for a copy of this article to save or email.

Speed

ADJUST YOUR SPEED TO ROAD CONDITIONS.

STEEP HILLS, SHARP CURVES AND ICE- OR SNOW-COVERED ROADS MEAN **TROUBLE** IF YOU DON'T!

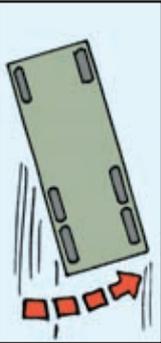
AND ON A SLICK ROAD, **DON'T** COUNT ON YOUR BRAKES TO STOP YOU IN A HURRY.

SLAMMING ON THE BRAKES WILL MAKE YOUR VEHICLE **SLIDE**.

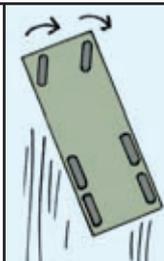
OK, FINE, HOW ABOUT **SKIDDING**?

EASY!

SUPPOSE YOUR TAIL IS SWINGING TO THE RIGHT...



TURN YOUR STEERING WHEEL IN THE DIRECTION YOUR REAR IS SKIDDING AND TAKE YOUR FOOT OFF THE GAS.



IF YOU SKID, TAKE YOUR FOOT OFF THE THROTTLE AND STEER IN THE DIRECTION THE REAR OF THE VEHICLE IS HEADED.

IF DRIVING A TRACTOR-TRAILER, STEER AWAY FROM THE DIRECTION OF THE SLIDING TRAILER.

DON'T OVERSTEER. STEER JUST ENOUGH TO CORRECT THE SKID.

ALSO, LOOK AHEAD FOR DANGERS AND KEEP YOUR EYES MOVING. BE READY TO REACT OR STOP AT ALL TIMES. WHEN STOPPING, AIM TO STOP 20 TO 30 FEET SHORT TO ALLOW FOR UNEXPECTED TROUBLE.

USE ENOUGH POWER TO HELP YOU AROUND CURVES AND TO HOLD TRACTION—THE ALL-IMPORTANT GRIP YOUR TIRES HAVE ON THE ROAD.

BE **ESPECIALLY CAUTIOUS** ON SHARP CURVES. NEVER GO TOO FAST OR CENTRIFUGAL FORCE WILL SLING YOU OFF THE ROAD, CREATING A BAD DAY FOR BOTH YOU AND YOUR UNIT.

SO SLOW DOWN **BEFORE** GOING INTO A CURVE OR DOWNGRADE. ENGINE DRAG HELPS, TOO. JUST EASE OFF THE THROTTLE.

EVEN IF THE ROAD AHEAD LOOKS CLEAN, **DON'T BE FOOLED**.

SLICK, ICY SPOTS FORM AT THE BOTTOM OF HILLS, ON BRIDGES, AND IN SHADED AREAS IN COLD WEATHER.

BRIDGES AND OVERPASSES FREEZE FIRST.

COLD AIR PASSES UNDER THEM, THE PAVEMENT COOLS, AND WATER FREEZES MORE QUICKLY THAN ON NORMAL ROAD SURFACES.

CROSS SAFELY BY GOING EASY ON THE THROTTLE WITH NO BRAKING OR QUICK STEERING.

Hills

WHEN CLIMBING A HILL, MOMENTUM AND TRACTION ARE YOUR FRIENDS.

HOWEVER, YOU CALL THE SHOTS. REMEMBER...

- If momentum is too slow for wheel speed, the result is lost traction and the wheels spin.
- If momentum is too fast for wheel speed, that also results in lost traction and the vehicle skids.
- If the momentum is in tune with wheel speed, you have traction and good control.

GOING UPHILL, THE MORE MOMENTUM YOU HAVE, THE LESS TRACTION YOU NEED.

IT'S A GOOD IDEA TO LET THE VEHICLES AHEAD OF YOU MAKE IT TO THE TOP FIRST.

THEN YOU WON'T HAVE TO STOP HALF-WAY UP.

AND REMEMBER TO KEEP YOUR DISTANCE!

TRY TO GET TO THE TOP OF THE HILL IN ONE SMOOTH UNINTERRUPTED RUN.

GET A RUNNING START SO WHEN YOU REACH THE PEAK, YOU'VE GOT ENOUGH MOMENTUM LEFT TO GET YOU OVER.

Tires

KEEP TIRES PROPERLY INFLATED AND IN GOOD CONDITION TO HELP TRACTION.

DISTRIBUTE LOADS EVENLY AND PLACE PARTIAL LOADS OVER THE REAR AXLE.

AVOID POOR DRIVING, LIKE QUICK STARTS, SUDDEN STOPS AND SHARP TURNS.

THEY CAUSE YOU TO LOSE TRACTION.

AND USE TIRE CHAINS IF YOU NEED THEM.

TIRE CHAINS IMPROVE TRACTION ON ICE AND PACKED SNOW, BUT **ONLY** IF THEY ARE INSTALLED PROPERLY AND CLEANED REGULARLY.

CHAINS THAT ARE PACKED WITH ICE WILL LOSE THEIR EFFECTIVENESS.



IT'S IMPORTANT TO USE THE RIGHT SIZE AND TYPE OF TIRE CHAIN.

CHECK YOUR OPERATOR'S MANUAL TO DETERMINE WHAT TO USE.

IN MOST CASES, THIS INFORMATION IS FOUND ON THE ADDITIONAL AUTHORIZATION LIST (AAL).

YOU CAN ALSO EYEBALL FM 21-305; MANUAL FOR THE WHEELED VEHICLE DRIVER, FOR AN EXPLANATION ON HOW TO INSTALL TIRE CHAINS.



IF YOUR VEHICLE *ISN'T* LISTED IN THE FIRST CHART, GET THE CHAINS YOU NEED USING THIS CHART FOR COMMON TIRE SIZES...

| Tire size | Chain assembly (Pair) NSN 2540- | Cross chain NSN 2540-00-933- | Swivel hooks NSN 2540-00-937- |
|-----------------------|---------------------------------|------------------------------|-------------------------------|
| 7.50x16 | 00-528-7360 | 6960 | *See note below. |
| 9.00x20 | 00-933-9024 | 6916 | 0404 |
| 9.50x16.50 | 00-057-0204 | 6916 | 0404 |
| 10.00x15 | 01-185-8306 | 6916 | 0404 |
| 10.00x20 | 00-933-9034 | 6916 | 0404 |
| 10.00x20 (dual tires) | 00-933-9034 | 6916 | 0404 |
| 11.00x18 | 00-933-6933 | 6915 | 0404 |
| 11.00x20 | 00-933-9022 | 6915 | 0404 |
| 11.00x24 | 00-933-6935 | 6915 | 0404 |
| 12.00x20 | 00-933-6922 | 6915 | 0404 |
| 14.00x20 | 00-933-9033 | 6992 | 0404 |
| 14.00x24 | 00-933-9023 | 6992 | 0404 |
| 16.00x20 | 00-933-6937 | Not Available | Not Available |

*Use NSN 4030-00-937-0405.

HAVE YOUR SUPPLY CLERK CHECK FSC 2500 FOR OTHER CHAINS NOT LISTED HERE.

FOR MORE INFORMATION, CONTACT THE DLA CONTACT CENTER AT DSN 661-7766/(877) 353-2255 OR EMAIL: dlaccontactcenter@dla.mil

ALTHOUGH TIRE CHAINS ARE DESIGNED TO FIT SNUGLY, YOU SHOULD STILL ALLOW ROOM FOR SOME CREEP.

ALSO, TIGHTEN THE CHAINS BY HAND, INSTEAD OF USING TOOLS.

THIS HELPS PREVENT OVERTIGHTENING THAT CAN GOUGE TIRES.

IF THE CHAINS ARE TOO LOOSE AFTER YOU TIGHTEN THEM BY HAND, USE TIRE STRAPS TO SNUG DOWN THE TIRE CHAINS.

HERE'S SOME GUIDANCE FOR SELECTING STRAPS...

| Size (in inches) | Stretch (in inches) | NSN 5340-01- |
|------------------|---------------------|--------------|
| 15 | 20-30 | 029-9084 |
| 21 | 26-42 | 231-6015 |
| 31 | 36-42 | 029-9085 |

| Wheeled vehicle | Tire size | Chain assembly NSN 2540- |
|----------------------------------|--|----------------------------|
| FMTV | 14x20 or 395/85R20 | 01-483-2930 or 01-492-2989 |
| HEMTT/HET/PLS | 16x20 | 01-152-7813 |
| HMMWV | 37x12.5x16.5 (radial) or 36x12.5x16.5 (bias) | 01-214-1264 or 01-530-6341 |
| M915A2/A3/A4 | 11R22.5 | 01-453-0497 |
| M916A1/A2/A3 and M917A1/A2/E1/E2 | 315/80R22.5 | 01-396-1914 |
| M939 | 11x20 | 21-911-1360 |

USE THIS CHART TO ORDER TIRE CHAIN ASSEMBLIES FOR THE SPECIFIED WHEELED VEHICLE...

NOTE THAT FOR THE M35A3, TIRE SIZE 14.5R20XL, THERE IS NO NSN ASSIGNED FOR THE TIRE CHAIN.

YOU CAN GET THOSE CHAINS, PART NUMBER S056V, ONLY THROUGH PEWAG, THE VENDOR.

TO ORDER, CALL (800) 526-3924, FAX (630) 323-2292, OR EMAIL...

mikeu@pewagchain.com or jimd@pewagchain.com

Shifting

USE CARE WHEN SHIFTING DURING WINTER DRIVING, ESPECIALLY WHILE DOWNSHIFTING. DOWNSHIFTS CAN BREAK TRACTION, SO MAKE EACH SHIFT AS SMOOTH AS POSSIBLE.

WITH A MANUAL TRANSMISSION, YOU COULD GET OVER THE TOP OF THE GRADE USING ONE OR TWO GEARS HIGHER THAN YOU'D USE UNDER IDEAL CONDITIONS.

ON A DRY ROAD, YOU MIGHT WANT TO SHIFT DOWN TO A LOWER GEAR TO USE THE ENGINE AS A BRAKE. ON ICE, THAT CAN CAUSE PROBLEMS.

THE ENGINE HOLDING BACK YOUR WHEELS IS APPLYING FORCE TO THEM JUST AS THE BRAKES WOULD DO. IT CAN THROW YOU INTO A SKID. SO IF YOU FEEL YOUR VEHICLE START TO SLIDE, SPEED UP UNTIL YOUR WHEELS ARE NO LONGER SLIDING.

Braking

IF YOU HAVE CONVENTIONAL HYDRAULIC BRAKES, PUMPING 'EM IS PERMITTED.

APPLY FIRM, EVEN PRESSURE INSTEAD.

AND IF YOU HAVE AIR BRAKES, APPLY LIGHT, STEADY PRESSURE.

BUT IF YOUR VEHICLE HAS ANTI-LOCK BRAKES (ABS), DO NOT PUMP THEM.

DO NOT PUMP 'EM, EITHER.

IF YOUR VEHICLE HAS A JACOBS BRAKE (KNOWN AS A JAKE BRAKE), DON'T USE IT IN SLIPPERY CONDITIONS.

AND NEVER SLAM ON THE BRAKES!

FRONT WHEELS LOCK WITH HEAVY BRAKING AND YOU LOSE STEERING.

IN ICY CONDITIONS, IT TAKES MORE DISTANCE—UP TO 12 TIMES AS FAR—TO STOP.

SO MAKE SURE YOU ALLOW PLENTY OF ROOM TO STOP.



SO DON'T SLIP UP ON YOUR WINTER DRIVING!

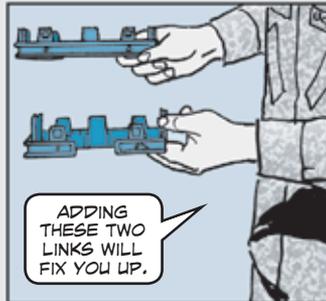
THE RESULTS COULD BE CHILLING!

OH-58D...

GOT GUN PROBLEMS?



I HAVE THE SOLUTION RIGHT HERE!



Dear Sergeant Blade,

As armorers, our Kiowa Warrior's M296 .50-cal machine gun has had some feeding and jamming problems since the installation of the new gun jettison rack, NSN 1095-14-553-8310.

Because the gun sits lower with the new jettison rack, the ammo chute is too short, causing feeding problems for the rounds. The chute is not as flexible and a little too short with the new rack.

We've come up with a simple solution to stop gun jams. We added two extra links, NSN 1010-01-368-0242, to the end of the chute to get the rounds to feed properly into the gun.

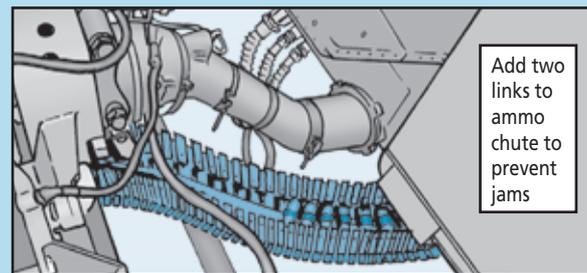
Since we've added the links, the gun operates without any problems.

SPC J.S.

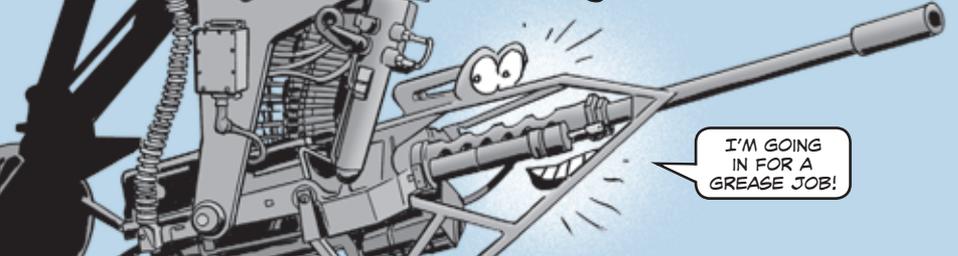
Dear Specialist J.S.,

Good job! Looks like you found the missing links to solve this problem.

Rotor Blade



LUBRICATION OPTIONS FOR YOUR GUN



I'M GOING IN FOR A GREASE JOB!

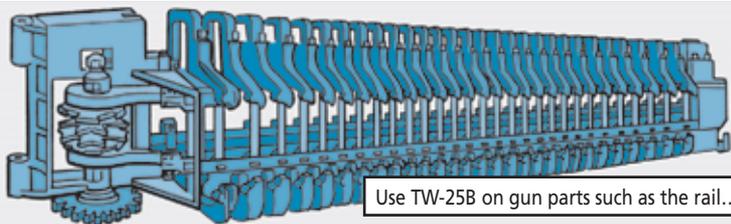
MECHANICS, IN THE DESERT THE 30MM GUN ON YOUR AH-64 NEEDS ALL THE HELP IT CAN GET TO STOP SAND FROM RUINING ITS DAY.



To prevent sand buildup and extend gun use, the TACOM head shed says it's OK to use TW-25B as an alternate lubricant on the flex-chute, the rails of the ammo handling system, and components in the gun's receiver assembly.

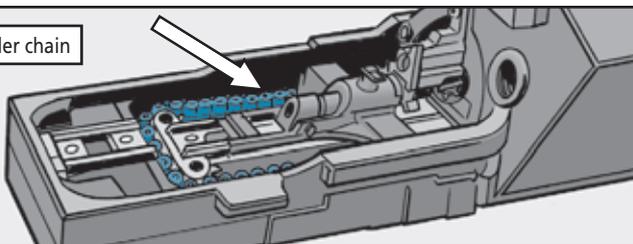
First, you should always clean old grease off parts with isopropyl alcohol before applying TW-25B.

When you touch up gun parts like the roller chain, drive gear/bearing, and the bearing surfaces where the rotor mates, apply heavy lubricant. Use a brush, caulk or grease gun, or bearing packer to apply it. When you're finished, white grease should be visible and plentiful.



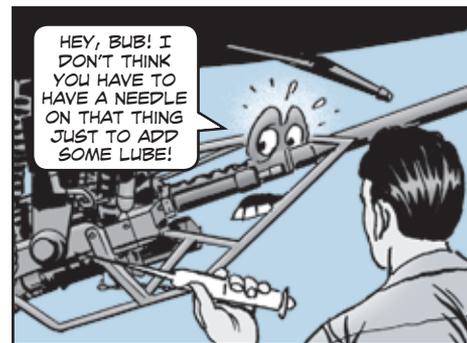
Use TW-25B on gun parts such as the rail...

...and on the roller chain



For the forward and aft tracks, bolt and cam area, bolt locking lugs, receiver walls, breech, barrel support, gun support bearings, and ammo rails, use a brush, cloth, or syringe and apply a light to moderate amount of lubricant. When done, white grease should be slightly visible.

Make sure you don't get lubricant on areas of the feeders that contact the ammunition, and limit the amount you apply to areas that the feeders slide on.



HEY, BUB! I DON'T THINK YOU HAVE TO HAVE A NEEDLE ON THAT THING JUST TO ADD SOME LUBE!

ORDER THE LUBRICANT OIL YOU NEED FOR THE TYPE OF MAINTENANCE BEING DONE AND FOLLOW THE APPLICATION INSTRUCTIONS TO THE TEE.

ORDER FROM THIS LIST.

KEEP IN MIND THAT YOU SHOULD STILL USE MOLY-B LUBRICANT, NSN 9150-00-754-2595, ON PARTS OF THE GUN NOT EXPOSED TO SAND OR WHERE SAND DOES NOT GET IN, LIKE ON THE CONSTANT SPEED DRIVE.



| NSN 9150-01 | P/N | Size |
|-------------|--------------|------------------|
| -448-2266 | TW25B-1SY12 | 0.5 oz syringe |
| -439-0859 | TW25B-1SP11 | 1.5 oz tube |
| -439-1873 | TW25B-4SP14 | 4 oz tube |
| -448-2298 | TW25B-CA16EP | 16.9 oz EP spray |
| -439-0858 | TW25B-1JSL16 | 8 oz jar |
| -535-8338 | TW25B-1JSL17 | 16 oz jar |
| -535-8687 | TW25B-1JSL18 | 32 oz jar |
| -439-1864 | TW25B-INC17 | 16 oz caulk |
| -439-0857 | TW25B-6NZ17 | 16 oz cartridge |

IF YOU NEED MORE INFO FROM THE HEAD SHED, CONTACT AT (309) 782-3589, DSN 793-3589 OR EMAIL us.army.mil



UH-60...

TAIL ROTOR BLADES CRACKING UP?

ANOTHER LEADING EDGE CRACK.

YEAH, THIS HAPPENS TOO MANY TIMES.

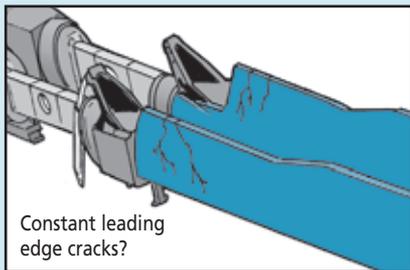
I'VE SEEN THIS BEFORE. THE FITTING AND RETAINER INSIDE THE PITCH HORN ARE LOOSE.

MECHANICS, FREQUENTLY REPAIRING LEADING EDGE CRACKS ON YOUR BLACK HAWK'S TAIL ROTOR BLADES COULD BE A SIGN THAT **SOMETHING ELSE** IS WRONG.

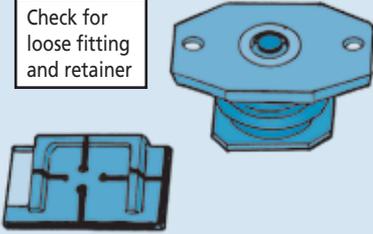
When the leading edge cracks, eyeball the pitch horn area. That's because the culprit causing the cracks could be a worn out and loose structural fitting, NSN 1560-01-100-1701, and retainer assembly, NSN 1615-01-082-9253, inside the pitch horn.

The pitch horn, the hollow part of the tail rotor blade, contains a structural fitting. When the fitting breaks loose, it moves and causes splits in the blade's leading edge.

The next time you repair a tail rotor blade leading edge like it says in WP 0585 of TM 1-1520-237-23-7, make sure you don't have a shake, rattle and roll inside the pitch horn.



Constant leading edge cracks?



Check for loose fitting and retainer

[Click here for a copy of this article to save or email.](#)

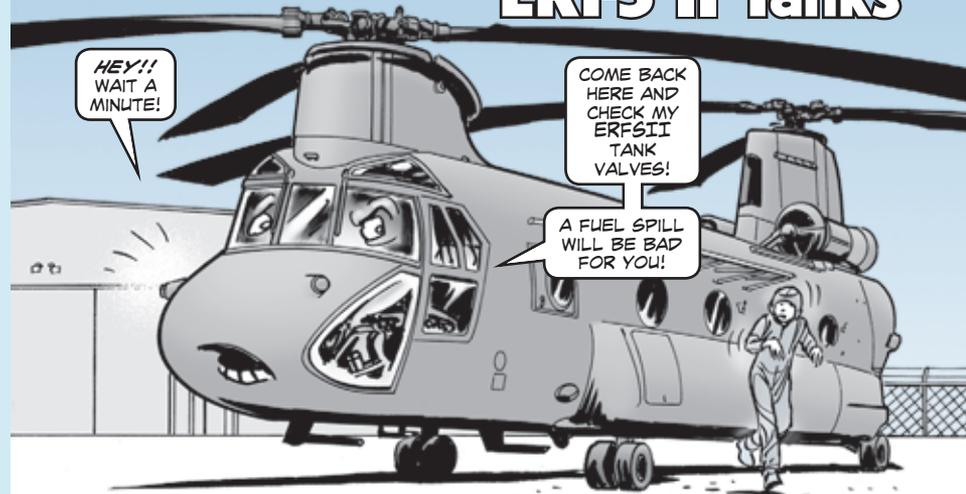
CH-47D...

Pressure Refueling ERFS II Tanks

HEY!! WAIT A MINUTE!

COME BACK HERE AND CHECK MY ERFSII TANK VALVES!

A FUEL SPILL WILL BE BAD FOR YOU!

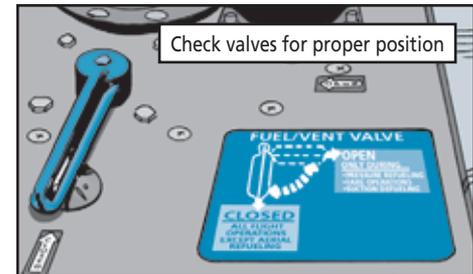


Crews, you can't afford to miss a beat when it comes to your Chinook extended range fuel system II (ERFS II).

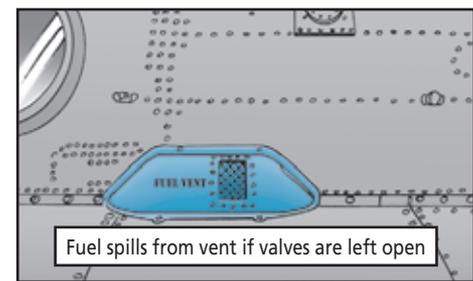
When the ERFS II tanks are pressure refueled, make sure you follow the procedures like it says in Paras 2-248-2-249 of TM 1-1520-240-10. Place all the valves in their proper positions during and after pressure refueling. After refueling is complete, your bird's main fuel tanks could overflow if the valves on the ERFS II tanks are not in their proper positions.

Make a note of the warning on page 2-110 and 2-111 before manually operating the fuel/defuel valve.

If you leave the valves in the wrong position, fuel spills will occur. That's a nightmare because a fuel spill is a messy cleanup.



Check valves for proper position



Fuel spills from vent if valves are left open

[Click here for a copy of this article to save or email.](#)

[IF WE DIDN'T USE RECHARGEABLE BATTERIES] WE WOULD PROBABLY BE BROKE SIX MONTHS INTO THE FISCAL YEAR.

- MAJOR JEFF SCHILLING

THE BB-2590'S SAVED US. THERE WERE MANY TIMES WHEN WE COULDN'T GET AIRCRAFT DUE TO WEATHER FOR RESUPPLY. WITH THE EXTENDED RUN TIME ON THE BB-2590'S VERSUS BB-390, IT SAVED US.

- SSG JOHN WORTHEN

RECHARGEABLE BATTERIES HAVE BEEN CALLED THE WAVE OF THE FUTURE.

WELL, THE WAVE OF THE FUTURE HAS HIT THE BEACH!

IT'S HIGH TIDE FOR RECHARGEABLES AND HIGH TIME YOU GOT ON BOARD.

- MSG HALF-MAST MCCANICK



ALL ABOARD THE RECHARGEABLE TRAIN!



LET'S FACE IT, TROOPS:
**NO POWER,
NO COMMO,
NO COMBAT!**

A PRIMARY SOURCE OF POWER FOR COMMUNICATIONS EQUIPMENT IS **BATTERIES**. WITHOUT THEM, NOBODY TALKS TO ANYBODY ABOUT NOTHIN'.

But batteries get used up and thrown away and more batteries need to be trucked in. Piles and piles of dead batteries grow and the logistics train is tasked to the max. The only thing that shrinks is your unit's pocketbook. That's why rechargeables are here and why you need to use them!

Here are the rechargeable battery NSNs; the NSNs for the chargers needed to recharge them; the NSNs for the adapters you need on the chargers; and some NSNs for other stuff you may need to get the most out of the batteries:

Rechargeable Batteries

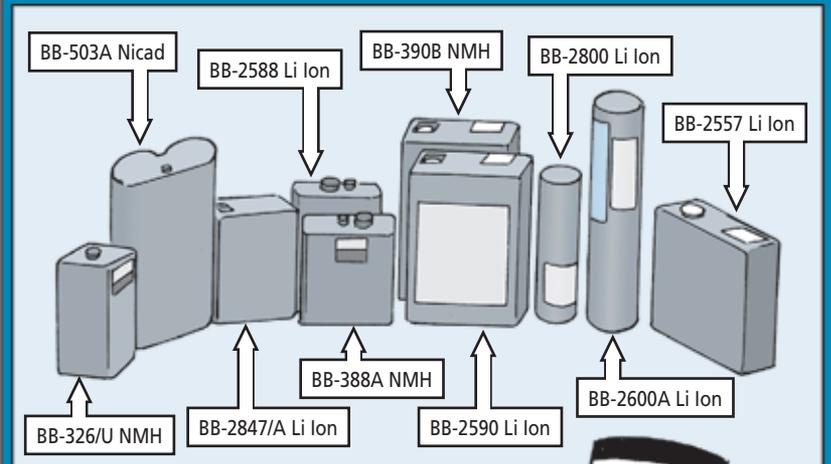
| Rechargeable Battery | NSN 6140-01- | End Item Example | Non-chargeable Equivalent |
|----------------------|--------------|-------------------|---------------------------|
| BB-2590/U | 490-4316 | SINGGARS, M22 | BA-5590/5390 |
| BB-388A/U | 490-4313 | AN/PRC-126, FBCB2 | BA-5588 |
| BB-2588/U | 493-7623 | AN/PRC-126 | BA-5588 |
| BB-326/U | 533-7674 | MELIOS, AN/PVS-6 | BB-516A/U |
| BB-2847A/U | 493-8092 | TWS, AN/PAS-13 | BA-5347 |
| BB-557/U | 071-5070 | REMBASS | BA-5557 |
| BB-2557/U | 490-5387 | REMBASS, RAVEN | BA-5557 |
| BB-2600A/U | 490-4311 | HTU | BA-5600 |
| BB-2800/U | 490-5372 | PLGR, CAM | BA-5800 |
| BB-2001A/U | 534-3856 | CSEL | BA-5301/U |

BB-2590/U
NSN 6140-01-490-4316



REPLACE YOUR BB-390'S WITH THE BB-2590 FOR DRAMATIC RUNTIME IMPROVEMENTS AND LIGHTER LOADS.

JAVELIN USERS STILL REQUIRE BB-390B/L'S.



A QUICK TIP TO IDENTIFY BATTERIES...

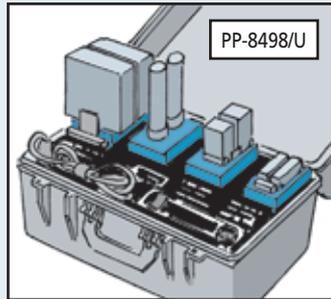
...THE RECHARGEABLES START WITH BB AND THE NON-RECHARGEABLES, THE THROWAWAYS, START WITH BA.



PS MORE

Chargers

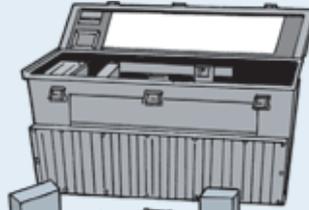
| Charger | NSN 6130-01- | Description |
|------------|--------------|-------------------------------------|
| PP-8498/U | 495-2839 | Soldier portable charger |
| PP-8481B/U | 527-2726 | Charger-on-the-move/vehicle mounted |



PP-8498/U

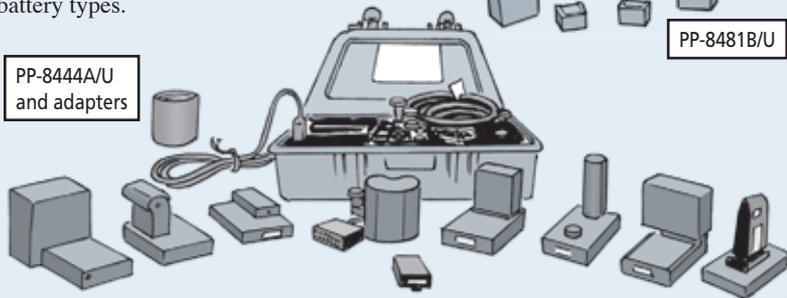
PP-8498/U is the latest and greatest table-top charger. It will hold eight batteries, charging two at a time before moving on to the next two. It will recharge every kind of rechargeable battery listed here.

The PP-8498/U and the PP-8481B/U are the only approved chargers that can charge the BB-2590/U. The obsolete PP-8444A/U will not do the job, but can still charge many battery types.



PP-8481B/U

PP-8444A/U and adapters



Accessories

To power a PP-8498/U from a vehicle's 24-volt NATO slave receptacle, order DC cable, NSN 5940-01-501-6714. To use this cable to power two PP-8498 chargers, order an add-on cable, NSN 5995-01-505-7883.

For the BB-390 battery, you will also need the self-discharge cap, NSN 6130-01-490-4310. The BB-2590 requires no discharge cap.

The Charger-on-the-Move, PP-8481B/U, has been upgraded to charge more BB-2590s faster and provide more expandability. The PP-8481B/U comes fully loaded with AC and DC cables and two universal adapters to hold and charge BB-2590, BB-390, BB-516, BB-326, BB-388, BB-2588, BB-2800, BB-2847 and MBITR batteries.

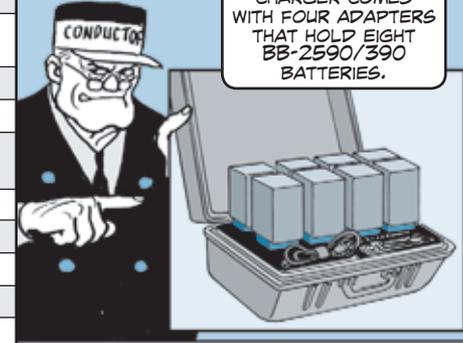
If you're using the new Charger-on-the-Move, you can order a bulk adapter with NSN 5940-01-494-7116 that holds four BB-2590s.

Adapters

| Adapter | NSN 5940-01- | Battery |
|-----------|--------------|-------------------------|
| J-6358B/P | 501-3312 | BB-390B/U, BB-2590/U |
| J-6357A/P | 493-6388 | BB-388A/U, BB-2588/U |
| J-6356/P | 427-9183 | BB-516A/U, BB-326 |
| J-6355/P | 427-9247 | BB-503A/U |
| J-6354/P | 427-9278 | BB-2847A/U |
| J-6523A/P | 492-7328 | BB-557/U, BB-2557/U |
| J-6521/P | 467-8813 | BB-2600A/U |
| J-6587/P | 493-6750 | BB-2800/U |
| J-6588/P | 493-6751 | MBITR |
| J-6589/P | 493-7622 | AA |
| J-6769A/P | 544-3476 | CSEL |

TO MAKE THE PP-8498/U BATTERY CHARGERS DO THEIR CHARGING JOB, YOU'LL NEED ONE OF THESE ADAPTERS TO INTERFACE BETWEEN THE CHARGER AND THE BATTERY IT'S CHARGING.

THE PP-8498/U CHARGER COMES WITH FOUR ADAPTERS THAT HOLD EIGHT BB-2590/390 BATTERIES.



Moving Out

Whether in training or in combat, a good rechargeable battery program needs a good SOP. Find help in writing an SOP at the rechargeable battery website:

<https://lrc3.monmouth.army.mil/cecomlrc/index.cfm>

Click on Customer Support, then Battery Support, then on Rechargeable Battery Program.

SET UP A GOOD RECHARGEABLE BATTERY SHOP BY KEEPING...



- a dedicated charging area that is organized
- charging and discharging batteries separately
- maintainers trained in basic battery maintenance and management
- batteries charged seven or fewer days prior to mission
- a budget for replacement batteries

Remember, stored rechargeables will permanently lose capacity, so charge them at least every six months and more often in hot environments. If you're using them, you're charging them and you should get about three years of life from them.

Rechargeables, like all batteries, need to be stored correctly, handled safely and disposed of properly. Some rechargeables are under warranty and that will dictate how you dispose of them.

For more information on rechargeable batteries, contact _____ at DSN 992-4948, (732) 532-4948, or email: _____

@us.army.mil



WANTED: COMMON COMMO KILLERS



**CONSIDERED
DANGEROUS
BUT
PREVENTABLE!**

THE COMMO KILLERS ARE HERE... AND THEY MEAN BUSINESS!



THE BIGGEST THING YOU CAN DO IS **PREVENTIVE MAINTENANCE.**

THERE ARE **PLENTRY** OF PROBLEMS THAT CAN BE **AVOIDED** IF YOU JUST STAY UP WITH THE NEEDS OF YOUR EQUIPMENT.

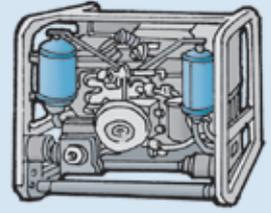
HERE ARE 10 COMMO KILLERS THAT CAN BE PREVENTED...



1. Missing parts. Every time a part is missing—even one that may not be essential to operation—a hole is created where sand, dust, dirt and debris can find its way into your equipment. Make sure all your equipment has all its caps, knobs, bells and whistles and that you're Johnny-on-the-spot to replace missing ones.



2. Air filters not clean. You must start your mission with clean filters and you must monitor the filters to ensure they stay clean. Just like a human being, there's a lot in the air your equipment is allergic to.



You must filter it out!

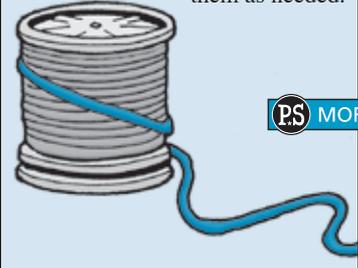
3. Nothing clean. Vacuum it out, sweep it out or blow it out—before, during and after operation. Wipe and brush it off. In the commo world, cleanliness ensures communications.



4. Cables hooked up wrong. Before you pitch one as bad, make sure it's hooked up correctly. Far too many cables can be forced to fit a connector they were not meant to fit.



5. Cables not repaired. Cables don't need frays, breaks, busted connectors, or broken pins. Check 'em out regularly and replace them as needed.



PS MORE



YOU HAVE ENOUGH ON YOUR MIND IN THE SANDBOX THAT YOU DON'T NEED TO WORRY ABOUT WHETHER YOUR COMMUNICATIONS EQUIPMENT WILL WORK.

HEAT AND SAND ARE GOING TO DO THEIR DAMAGE, BUT THERE ARE SOME THINGS YOU CAN DO TO REDUCE THAT DAMAGE.

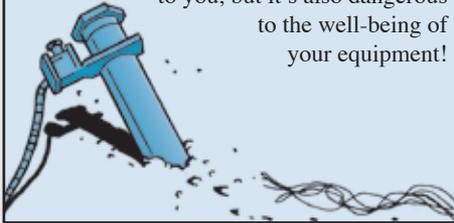
[Click here for a copy of this article to save or email.](#)

6. Bad switches. Like the ignition on your car, a bad switch can start (or not start) a series of problems.

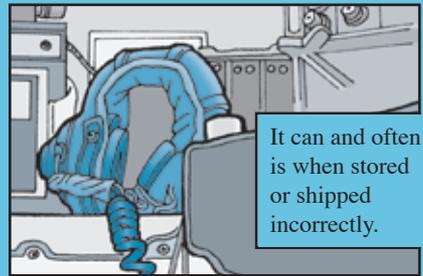


7. Poor grounding. Have you prepared the soil around your ground? Have you driven your ground rods deep enough? Have you used the right grounding wire and the right connection? Have you hooked the ends of the wire correctly and to the right spots?

Poor grounding is not only dangerous to you, but it's also dangerous to the well-being of your equipment!



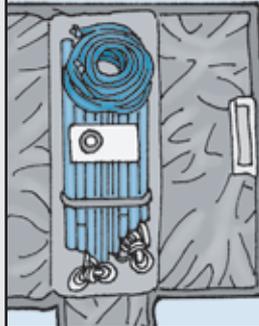
8. Bad storage procedures. Toss it here, toss it there, toss it everywhere—and break things in the process. Just because your equipment is ruggedized, does not mean it can't be damaged.



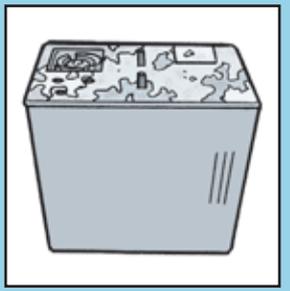
9. No antenna maintenance.

Just stick it in the air. It's bound to work, right?

Sorry, I can't hear your response.



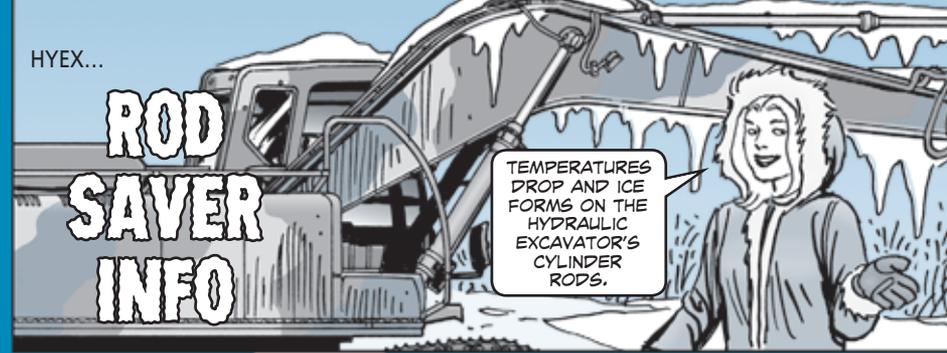
10. Bad batteries. Yes, replacing them is often easier than maintaining them, but what happens when you run out and the supply well is dry? Battery maintenance is basic and not tough, so do it! If you're not using rechargeables, now's a good time to start.



PREVENTABLE!

HYEX...

ROD SAVER INFO



TEMPERATURES DROP AND ICE FORMS ON THE HYDRAULIC EXCAVATOR'S CYLINDER RODS.

PROBLEM IS, ANY ICE BUILD-UP ON THE RODS WILL SCRAPER OR CUT SEALS WHEN THE ROD MOVES.

DAMAGED SEALS LEAD TO FLUID LEAKS, WHICH LEAD TO NMC EQUIPMENT.

IF YOU FIND ANY ICE, GET RID OF IT!

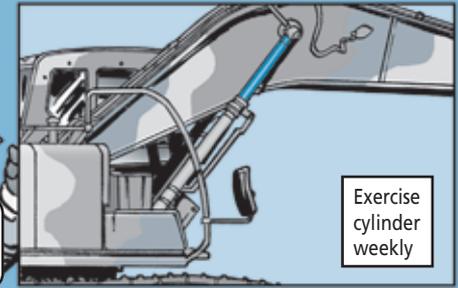


Remove any ice build-up on rods

ANOTHER ROD SAVER, NO MATTER WHAT THE WEATHER, IS TO EXERCISE THE CYLINDERS WEEKLY.

THIS FIGHTS RUST BY SPREADING A THIN COAT OF OIL ON THE RODS.

RUST, LIKE ICE BUILD-UP, WILL SCRAPER AND CUT THE ROD'S SEAL.



Exercise cylinder weekly

IF THE EXCAVATOR SITS LONGER THAN A MONTH, SPRAY THE RODS WITH RUST INHIBITOR, NSN 8030-01-127-4187.

MAKE SURE YOU DON'T GET ANY INHIBITOR ON THE EXCAVATOR'S PAINTED SURFACES.

IT'LL DISSOLVE THE PAINT RIGHT DOWN TO THE VEHICLE'S METAL SURFACE.



BEFORE OPERATIONS, REMOVE ANY RUST INHIBITOR FROM THE CYLINDER ROD WITH CLEANING SOLVENT.

YOU'LL FIND THIS INFO ON PAGES 23-3 AND 23-5 OF TM 5-3805-280-10.

COLD WEATHER JITTERS

JUST CAN'T GET IT GOING THIS MORNING!!!

UUGGHH
UNHHHH

A HARD-TO-START ENGINE AND COLD WEATHER SEEM TO GO HAND-IN-HAND.

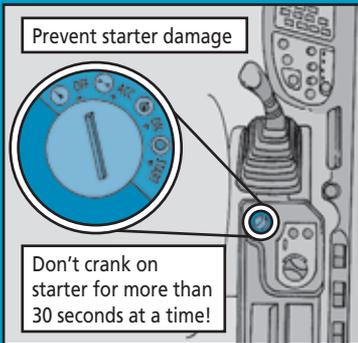
KEEP THESE PM POINTERS IN MIND TO GET RID OF YOUR HYDRAULIC EXCAVATOR'S COLD WEATHER JITTERS.

Stuck Starter Reminder

Too many starters end up at support for service or repair. All it takes is one finger stuck too long on the start switch to burn out a good starter.

Follow the word on Page 5-2 of TM 5-3805-280-10. That is, when you try to start your vehicle's engine in cold weather, never keep the starter engaged for more than 30 seconds. Then stop! Give the starter at least two minutes to cool off before trying again.

After an unsuccessful start, do not turn the starter switch back to START until the engine stops. That saves the starter and flywheel teeth. If your excavator's engine won't start in three tries, call it quits. Get your mechanic to find out what's wrong.



Ether Canister Empty?

Operators, one reason your excavator may be hard to start in cold weather is an empty ether canister.

The starter system has a fuel canister that automatically injects ether into the engine when you push the starting aid switch.

So when your excavator is hard to start, chances are the ether canister is empty. Have your mechanic replace it.

BY THE WAY, MAKE SURE THE DUST CAP IS IN PLACE ON THE STARTER VALVE WHEN A CYLINDER IS NOT INSTALLED.

Check ether canister

Water In – Water Out

COOL NIGHTS CAUSE CONDENSATION TO FORM IN THE EXCAVATOR'S FUEL TANK. THAT MEANS YOU OPERATORS HAVE TO DRAIN THE FUEL/WATER SEPARATOR BEFORE THE DAY'S RUN.

Not draining the separator leaves water and crud in the fuel system. Then the engine runs rough... or not at all.

Open the separator, located behind the engine access door (curbside), by turning its drain cock counterclockwise. Push down on the press pump to get water out of the separator.

Store drained fuel in an approved hazardous waste container. Never dump it down a drain or on the ground from the separator's drain hose.

If the fuel is clear, you're OK. If the fuel doesn't run clear, close the valve and report it to your mechanic.

Drain fuel/water separator to get water and crud out of fuel system

Cold Weather Boots...

THE FEET ARE THE FOUNDATION

COLD, WET FEET.

NOTHING FEELS MORE MISERABLE ON A WINTER'S DAY-AND NOTHING IS MORE DANGEROUS.

FREEZING TEMPERATURES AND HOWLING WINDS CAN CREATE WIND CHILL THAT INFLECTS FROSTBITE.

YOUR FEET AND TOES ARE ESPECIALLY VULNERABLE.

FROSTBITE CAN NUMB AND CRIPPLE YOUR FEET, LEAVING YOU STRANDED ALONE IN THE WILD.

YOU NEED TO UNDERSTAND THE *GRAVE DANGER* POSED BY BRUTAL COLD.

AND YOU NEED TO WEAR BOOTS AND SOCKS MADE TO RESIST THAT COLD.

Cold, Brutal Facts

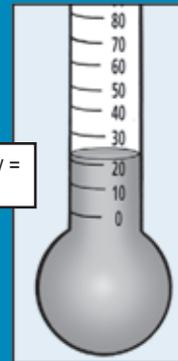
Frostbite is defined as the freezing of your tissues. It can range from surface freezing of the skin all the way to freezing of muscle and bone. The longer you're exposed to cold below 32°F, the worse it gets. A severe case of frostbite could permanently cost you the use of your feet. It could even require amputation.

HERE ARE SOME OF THE FACTORS THAT PLAY A ROLE IN FROSTBITE...

● Air temperature.

The lower the mercury falls below freezing, the greater the risk.

Lower mercury = greater risk



● Wind chill. As wind speed increases, it causes the skin to cool faster. Even when natural wind speeds are low, you can be exposed to dangerous wind chill. Riding in open vehicles, running and skiing all produce wind across your body.

● Wet skin. Wet skin loses heat at a faster rate than dry skin.

PS MORE

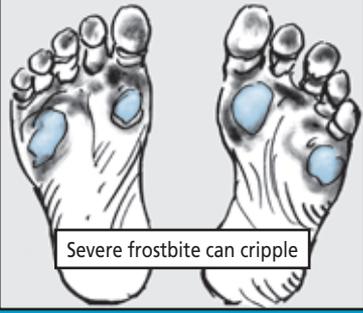
Frostbite Symptoms

THE FIRST SIGN OF FROSTBITE IS NUMBNESS.

OTHER SYMPTOMS MAY FOLLOW, INCLUDING...

- a tingling or burning sensation
- red skin, later turning to a waxy yellow (grayish in dark-skinned soldiers)
- tissue that feels wooden to the touch

IF YOU HAVE ANY OF THESE SYMPTOMS, GET MEDICAL AID FAST.



Severe frostbite can cripple



Best Defense

ALTHOUGH WE'RE NOW TALKING ABOUT PROTECTING ONLY YOUR **FEET** AGAINST THE COLD, ALWAYS REMEMBER: SEVERE COLD THREATENS YOUR **ENTIRE BODY**.

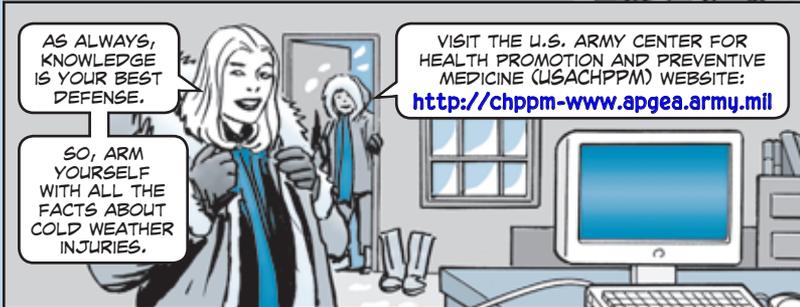
FROSTBITE ATTACKS NOT ONLY THE FEET AND TOES, BUT THE HANDS AND FINGERS, EARS, NOSE AND CHEEKS AS WELL.



AS ALWAYS, KNOWLEDGE IS YOUR BEST DEFENSE.

SO, ARM YOURSELF WITH ALL THE FACTS ABOUT COLD WEATHER INJURIES.

VISIT THE U.S. ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE (USACHPPM) WEBSITE:
<http://chppm-www.apgea.army.mil>



FROM THE HOME PAGE, CLICK ON **Cold Weather Injury Prevention**.

YOU'LL FIND A VARIETY OF DOCUMENTS AND GRAPHIC AIDS COVERING CAUSES, SYMPTOMS, FIRST AID AND PREVENTION.



Boots, Socks and Such

● intermediate cold wet boots...

... with removable liners



They provide warmth down to 14°F. They now come in tan flesh-side-out leather.

● extreme cold weather boots, white, with air release valve. They provide warmth down to -60°F.



● extreme cold weather socks. See below.

MORE THAN ANYTHING ELSE, YOUR BOOTS AND SOCKS DETERMINE HOW WELL YOUR FEET WITHSTAND THE COLD.

SO, WEAR THE ONES MEANT FOR WINTER...



For sizes, photos and NSNs, go to the **warfighter** website:

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

Once there, rest your cursor on Specialty Shops. You'll get a drop down menu. Click on ECWCS. The link will take you to the Extended Cold Weather Clothing System web page. Near the bottom of the page, you'll find links to boots, socks and liners.

For the utmost protection and warmth, choose extreme cold weather socks. They have these NSNs:

| NSN | Sock Size | Men's Shoe Size | Women's Shoe Size |
|----------|-----------|-----------------|-------------------|
| 511-0446 | Small | N/A | 4 to 6 |
| 511-0453 | Medium | 5.5 to 8.5 | 6.5 to 10 |
| 502-2744 | Large | 9 to 12.5 | 10.5 to 13 |
| 502-2745 | X-large | 13 to 15 | N/A |



These are heavy, over-the-calf socks made for wear in sub-zero temperatures on rugged terrain. The toes are 100% worsted wool for warmth.

Because of the thickness of these socks, you may need to wear cold weather boots one-half size larger than you normally would. Wear the socks when you're being fitted for cold weather boots.

Boot and Foot Care

HERE'S HOW TO TAKE CARE OF YOUR BOOTS...



Intermediate cold wet boots with removable liners. Wipe dirty boots with a clean, damp cloth. Or brush them with a stiff, nylon brush. Remove the liners and cushion insoles. Dry the boots, liners and insoles at room temperature. The boots are made of waterproof, breathable leather. No need to put waterproofing products on them. That just clogs the pores in the leather so it can't breathe. Then, when you wear the boots, heat and moisture get trapped inside, making your feet uncomfortable.

Use nylon brush for caked-on dirt



When you order these boots, you get two sets of liners. Switch them out every day to let them dry.

White extreme cold weather boots. Clean these rubber boots by washing them in water and mild detergent. Wash the insides once a month. Remove the laces and clean between the tongue and the eyelets. Grit lodged there can wear a hole in the boots. Got a stubborn stain? Use spray-on detergent, NSN 7930-00-357-7386. (Just don't use this detergent on tan, flesh-side-out leather boots.)

DON'T USE PAINT OR SHOE POLISH TO COVER SCRATCHES AND SCUFFS ON YOUR BOOTS.

THEY BREAK DOWN THE RUBBER COATING.

SOON YOU'LL NEED A NEW PAIR.



Polish breaks down the rubber

Puncturing a boot is serious business. Water leaks in and insulation gets wet. Wet insulation can't stop the cold from seeping in. That can lead to frostbite. For a temporary field fix, patch holes with the cold weather boot maintenance kit, NSN 8465-00-753-6335. Put adhesive on both the boot and the patch. When you return from the field, turn the boots in for repair or replacement.

The only time you need the air pressure relief valve open is when you're flying in an aircraft. Close it once you land. On the ground an open valve lets in too much moisture.

Never dry your boots next to a stove, heater or open flame. Rubber melts. In the field, hang your boots from the center of the tent, if possible. Heat from the space heater rises and dries them.

Dry Feet Are Happy Feet

NO ONE SHOULD TRAMP AROUND IN DAMP OR WET SOCKS. IT'S NOT PLEASANT AND IT'S SURE **NOT HEALTHY.**

IN THE FIELD, CARRY PLENTY OF DRY SOCKS. CHANGE THEM AT LEAST ONCE A DAY OR ANY TIME YOU FEEL THE SOCKS GETTING MOIST.

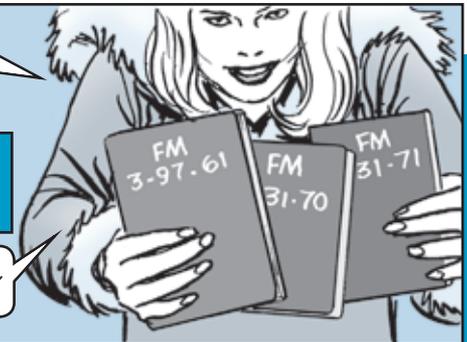


Change socks every day

ONE OTHER REMINDER... IF YOU'RE HEADING TO MOUNTAINS OR SNOWFIELDS THIS WINTER, TAKE ALONG THESE FIELD MANUALS...

FM 3-97.61, Military Mountaineering
FM 31-70, Basic Cold Weather Manual
FM 31-71, Northern Operations

THEY'RE **ESSENTIAL READING** FOR SOLDIERS DEPLOYED IN HIGH COUNTRY OR IN FREEZING CLIMATES.



THE FMS COVER TACTICS, OPERATIONS, SURVIVAL SKILLS, CLOTHING, SHELTER, PERSONAL GEAR, SLEEPS, FIRST AID AND MUCH MORE.

YOU'LL FIND THE FMS AT THE ARMY PUBLISHING DIRECTORATE WEBSITE:
<http://www.apd.army.mil/>



HAZMAT...

THE LOAD PLAN SAYS THIS IS HAZARDOUS MATERIAL.

WHERE'S THE WAIVER?



WHAT ARE MILITARY AIR WAIVERS AND WHEN MUST YOU USE THEM?

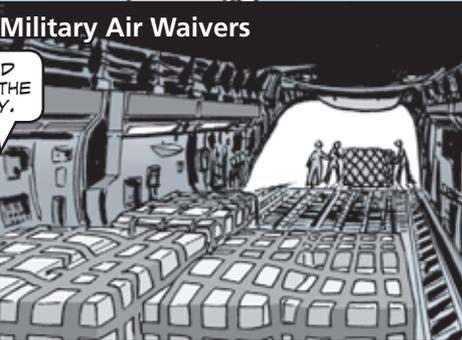


WHENEVER UNITS DEPART FROM THE PROCEDURES IN TM 38-250, PREPARING HAZARDOUS MATERIALS FOR MILITARY AIR SHIPMENTS, THEY MUST FIRST GET THE APPROPRIATE PACKAGING OR COMPATIBILITY WAIVERS.

Applying for Military Air Waivers

LOGGA'S PACKAGING, STORAGE, AND CONTAINERIZATION CENTER (PSCC) IS THE ARMY'S WAIVER-GRANTING AUTHORITY.

WAIVERS WILL **NOT** BE GRANTED WHEN SURFACE TRANSPORTATION IS REASONABLY AVAILABLE.



Packaging Waivers



THE SHIPPER MUST GET A PACKAGING WAIVER FOR ANY HAZARDOUS ITEM OR PACKAGING NOT AUTHORIZED IN ATTACHMENT 5-13, TM 38-250.

IT IS IMPORTANT TO NOTE THAT DOD CANNOT ISSUE WAIVERS TO UNITED NATIONS SPECIFICATIONS.

PARAGRAPH 2.3.1 IN TM 38-250 REQUIRES WAIVERS TO INCLUDE...



- A detailed description of the package, including pertinent test data.
- A proper shipping name including its:
 - hazard class
 - identification number
 - packaging group
 - the net quantity of the material.
- A detailed explanation of why the established requirements cannot be met.
- A transportation analysis showing why surface transportation cannot be effectively used.



THE LAST TWO ITEMS HAVE A GREAT EFFECT ON WHETHER A WAIVER IS GRANTED OR DENIED.

A COPY OF THE WAIVER MUST ACCOMPANY THE SHIPMENT.



Compatibility Waivers

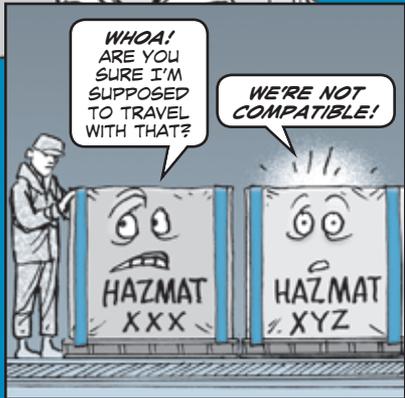
COMPATIBILITY WAIVERS ARE **REQUIRED** WHEN NON-COMPATIBLE HAZARDOUS MATERIALS ARE SHIPPED ABOARD THE SAME MILITARY AIRCRAFT.

SEE TABLE A1B.1, SEGREGATION TABLE FOR HAZARDOUS MATERIALS, AND TABLE A1B.2, COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS.



PS MORE

HOWEVER, COMPATIBILITY WAIVERS ARE **NOT** AUTHORIZED FOR CONTRACTED COMMERCIAL AIRCRAFT.

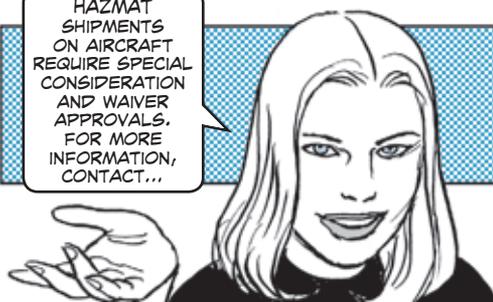


PARAGRAPH 2.3.2.2 REQUIRES WAIVERS TO INCLUDE...



- The reason incompatible materials require shipment together
- The reason for air movement
- Why other transportation modes cannot be used.
- Statement that if one item detonates or leaks, incompatible items (in the same container or on the same aircraft) will not cause a secondary explosion, fire, corrosive effect on, or contamination of the aircraft.
- A brief description (include tests, if performed) that support your safety conclusions.
- Any additional safety controls the carrier must exercise.
- The intended date of movement, routing, and type of airlift required.
- The national stock numbers, model numbers of explosive items, proper shipping names, hazard classes, identification numbers, quantity or net explosive weight (individual and total as applicable), and packaging paragraphs.
- Points of contact at origin and destination bases.

HAZMAT SHIPMENTS ON AIRCRAFT REQUIRE SPECIAL CONSIDERATION AND WAIVER APPROVALS. FOR MORE INFORMATION, CONTACT...



USAMC/LOGSA
Packaging, Storage, and Containerization Center
ATTN: AMXLS-AT
11 Hap Arnold Blvd,
Tobyhanna, PA 18466-5097
DSN 795-7070/6408,
570-895-7070/6408
toby.pt@us.army.mil



Logistics Management...

Don't Order ISO Containers without Authorization



The Army has released interim guidance for procuring general cargo containers. Army message #102/2008 (dated 041750Z Apr 08) requires Army organizations to obtain authorization from their Army command, Army service component command, or direct reporting unit G-4.

The authorizations are sent to USAMC's Army Intermodal and Distribution Platform Management Office (AIDPMO) to see if assets are available in the Army inventory or if lease or purchase is more advantageous. The message is on the Army's S1NET website: <https://forums.bcks.army.mil/secure/CommunityBrowser.aspx?id=541082&lang=en-US>

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Submitted by: STUART A. HENDERSON, Production Manager

IS THERE ANYTHING BETTER THAN BUILDING A SNOWMAN IN WINTER?

YES! DOING PM!

Connie's ★ POST ★ SCRIPTS

HEMTT LHS SWITCH KNOB

Your HEMTT's load handling system rotary switch knob is shown as Item 13 in Fig 2001 of EM 0232, TM 9-2320-315-14&P. But the NSN listed is obsolete now because the knob is no longer available by itself. Get a replacement switch assembly, which includes a new knob, using NSN 5930-01-372-9489 and part number 3533104.

HMMWV V-Belt Inversion Works

Having problems with the adjustable link V-belt used on your HMMWV's serpentine belt system and found in your BDAR kit? You know, it's the V-belt that has a tendency to walk off the pulleys.

You can fix this by inverting the V-belt, a solution approved through the SMART suggestion program. Putting the flat side against the serpentine pulleys is the trick. Testing shows this allows the V-belt to perform better and it's less likely to wander off the pulleys.

DEXRON VI OK for HMMWV

All HMMWV transmissions and power steering systems are compatible with DEXRON VI fluids. And you don't have to flush your transmission or steering system before adding DEXRON VI to it. That's because testing proved that mixing DEXRON III and DEXRON VI won't degrade the transmission or steering system performance.

Keep this info handy until HMMWV technical manuals and lubrication orders are updated.

M777-SERIES HOWITZER SOLAR CHARGER

Use NSN 6130-01-521-1387 to get a new solar charger/AC charger (w/o case, with solar panel) for your M777-series towed howitzer. NSN 6130-01-521-1386, which is listed as Item 76 on Page B-16 of TM 9-1025-215-10, gets the wrong item.

CHECK FMTV ANNUAL SERVICE KITS FOR FAULTY AXLE SEAL

A faulty axle seal, NSN 5330-01-360-5252, has been mistakenly included in some FMTV annual service kits: NSN 2590-01-528-7507, NSN 2590-01-528-7239, NSN 2590-01-533-6748, NSN 2590-01-533-6745, NSN 2590-01-528-7508, and NSN 2590-01-528-7243.

The seal, made by YEI, has an inside diameter that's too small. If you find any of these seals in these kits, don't try to use them. Use all the other kit components and submit a PQDR for the kit. Request credit for the seals; DFAS will allow it. Then order just the correct Meritor seals from DLA using NSN 5330-01-360-5252.

Turn the wrong seals in to DRMO or destroy them using local SOP.

M915A3 Sending Unit

Use NSN 6685-01-081-9721 to get the sending unit for the tractor truck's transmission cooler line that's shown in Item 9, Fig 93 of TM 9-2320-302-24P.

V-Belt for M35A3

NSN 3030-01-460-1030 gets the 2 1/2-ton truck's V-belt shown as Item 8 in Fig 49 of TM 9-2320-386-24P. The NSN shown in the TM for the V-belt is wrong.

M149A2 WHEEL BEARING NSN

NSN 3110-00-100-5951 gets a complete wheel bearing assembly for the water buffalo. The NSN shown as Item 16 in Fig 17 of TM 9-2330-267-14&P gets only the tapered roller bearing.

TANK AND PUMP UNIT HOSES

Use NSN 4720-01-022-6016 to get the hose that connects the forward tank to the manifold on the mil design tank and pump unit. This NSN replaces the one shown as Item 1 in Fig 14 of TM 10-4930-236-13&P. NSN 4720-01-360-4360 gets the hose shown as Item 3 in the same figure.

Use Project Code 924 for MRAP Parts!

MRAP users, whenever you order parts to support your MRAP vehicle, use project code 924, not 9GJ, the code for OEF, OIF, and HOA. Code 924 also gives priority air transport for MRAP parts.

New M68 Sight Lens Cover

The M68 sight CompM2 lens cover has been replaced with the CompM4 lens cover. Order it with NSN 5895-01-549-5835 (p/n 11790).

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?

A RUNNING TRUCK
IS WARM AND
COZY, BUT IT'S
NO PLACE FOR
A SNOOZE!



**CARBON MONOXIDE LURKS NEARBY,
AND IN THE END, YOU'LL LOSE!**



**EXHAUST
FUMES
KILL!**

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