

Issue 672

PS

November
2008

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-672

Approved for
Public Release;
Distribution is
Unlimited



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.**



PS**THE
PREVENTIVE
MAINTENANCE
MONTHLY****ISSUE 672 NOVEMBER 2008**

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.

**COMBAT VEHICLES**

Stryker Steering Damper Rods
M109A6 Paladin Cold Starting Tips
M109-Series SP Howitzer Air Cleaner Setting
M1-Series Tank Knee Switch Actuator Pads
Personnel Heater Starting Procedures
A-20 Personnel Heater Setting

**WHEELED VEHICLES**

Fuel Cautions, Icing Inhibitor
FMTV Cab Air Springs
HMMWV Air Filter Element NSN
HMMWV Snow Plow Kits
Hawker Battery Analyzer
Hawker Battery Use, Tire Mounting Tips
M1000 HET Semitrailer Hydraulic Oil
M105A2, M149A2 Trailer Lunette, Landing Leg
Winter Driving Tips

**SMALL ARMS**

Small Arms Cleaning, Lubing
Small Arms Graphic Training Aids
M2, M3, M296 Machine Gun Gauges
M2 Machine Gun Finish Standard

**MISSILES**

Avenger Missile System Maintenance

**CBRN**

Shelf Life Info on the Internet

2

**TOOLS**

26

2-3

PM-SKOT Source for Tools

26

4-5

**AVIATION**

35

6

7

8

9

OH-58D Jettison Rack Fix
AH-64 30MM Gun Lube Options
UH-60 Tail Rotor Blades
CH-47D ERF5 II Tank Pressure Refueling

35

36-37

38

39

10

**COMMUNICATIONS**

40

10

11

12

12

13

Rechargeable Batteries
Preventable Commo Problems

40-43

44-46

14-15

16

17

27-34

**COMBAT ENGINEERING**

47

HYEX Hydraulic Cylinder Damage
HYEX Cold Weather PM

47

48-49

18

18-19

19

20

21

**SOLDIER SUPPORT**

50

Cold Weather Boot and Foot Care

50-55

22

**LOGISTICS MANAGEMENT**

56

22-24

Waivers for HAZMAT Military Air Shipments
ISO Container Authorizations

56-58

59

25

25

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

Just write to:

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

Or email to:

logsa.psmag@conus.army.mil or
half.mast@us.army.mil

Internet address:

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

By order of the Secretary of the Army:

GEORGE W. CASEY, JR.

General, United States Army Chief of Staff

Official:

Joyce E. Morrow

JOYCE E. MORROW

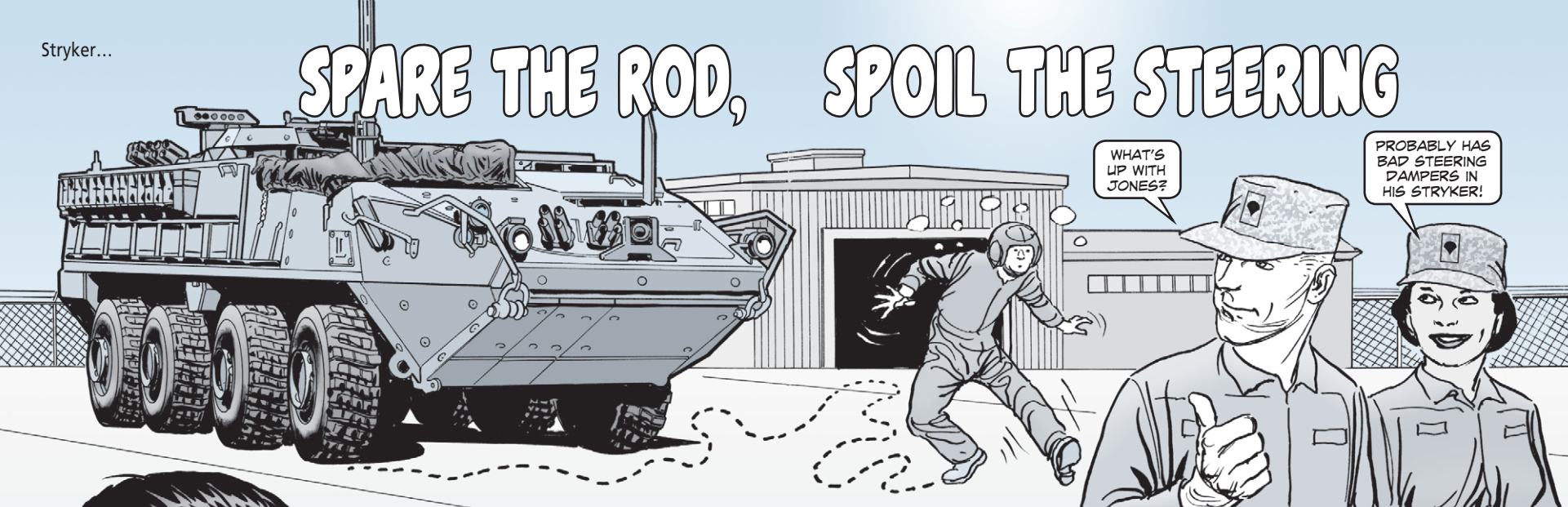
Administrative Assistant to the Secretary of the Army

0823407

PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898-5000. Periodical postage is paid at the Huntsville, AL post office and at additional mailing offices.

Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, USAMC LOGSA (AMXLS-AM), 5307 Sparkman Circle, Redstone Arsenal, AL 35898-5000.

SPARE THE ROD, SPOIL THE STEERING

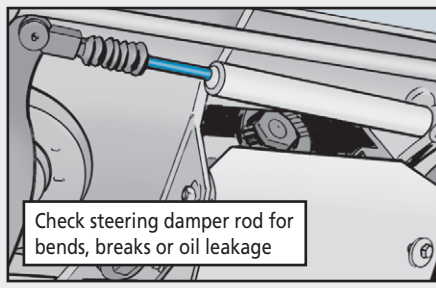


YOUR STRYKER IS DESIGNED TO GIVE YOU A SMOOTH RIDE, DRIVERS.

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

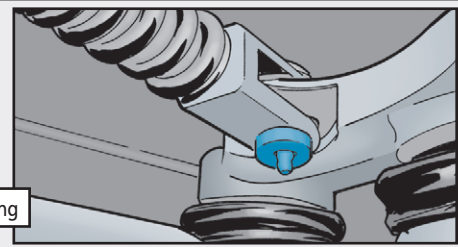
The dampers are like mini shock absorbers that act as a stabilizer for the steering system. Without 'em, the steering column can give you a good shake down.

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.



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



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://aeps2.rla.army.mil/commodity/gpm/tacom_wn/08/gpm08-013.html

M109A6 Paladin...

A HOT START ON A COLD DAY

SOMETHING T-TELLS M-ME I'M G-GONNA HAVE A H-HARD T-TIME ST-STARTING TODAY!

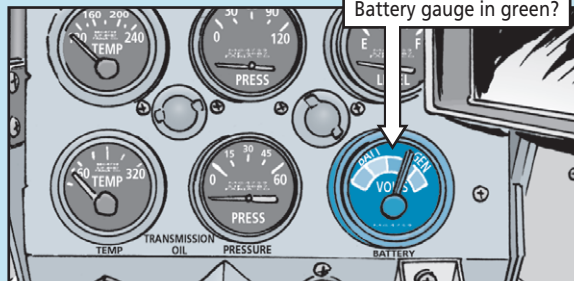


DRIVERS, IF YOU DON'T START YOUR M109A6 PALADIN THE RIGHT WAY IN COLD WEATHER, YOU'RE GOING NOWHERE FAST.



Before You Start

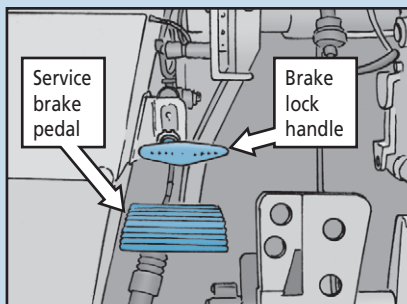
1. If you've been using the winterization kit, you must stop the heater before trying to start the engine.
2. Remove and secure all tarps.
3. Install the exhaust outlet plug.
4. Turn off the automatic fire control system and all radios.
5. Make sure the battery indicator gauge is in the green range.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



Starting

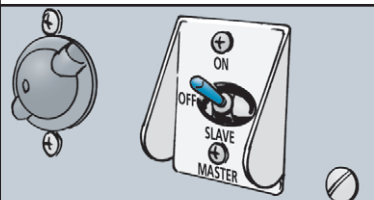
NOW YOU'RE READY TO START THE VEHICLE...

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

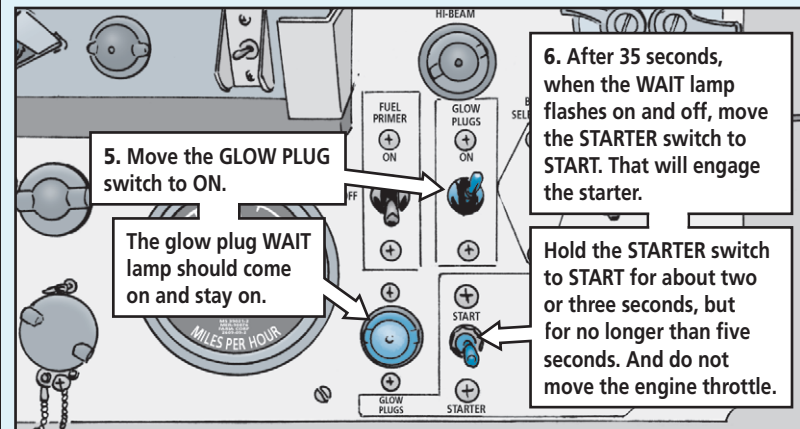
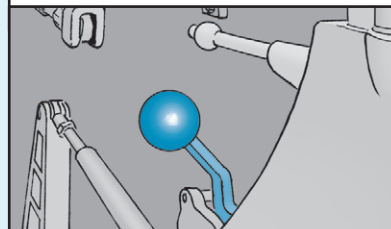


2. Shift the transmission into neutral.

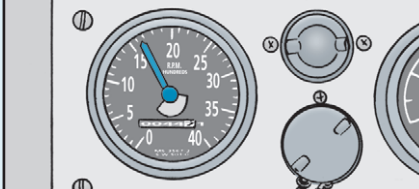
3. Turn the MASTER switch to ON. The indicator lamp should light up.



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



- 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...

HOW COME YOU'RE NOT FREEZING LIKE ME?

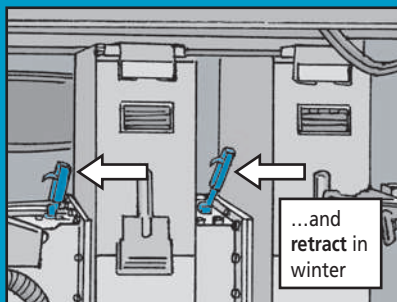
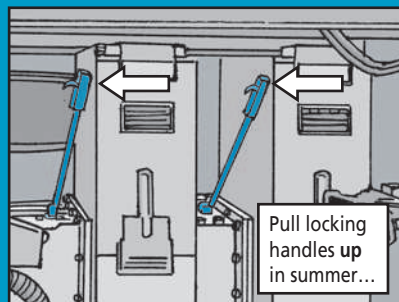
'CAUSE THEY REMEMBERED TO MOVE MY AIR CLEANER HANDLES TO THE WINTER POSITION!

SET AIR CLEANER FOR WINTER

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

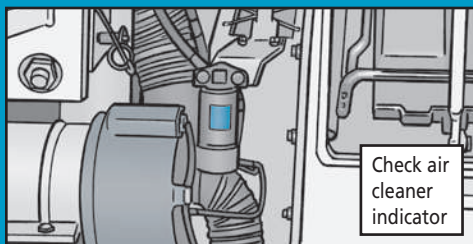
The air cleaner locking handles need to be down and locked in their holders when the temperature is below 25°F. If you extend 'em, the air is too cold and your engine won't run properly.

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.



KEEP PADS IN PLACE



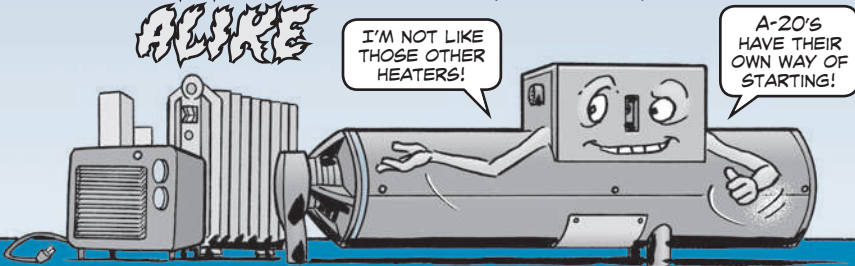
The adhesive that holds the two cushioning pads, NSN 5340-01-079-3031, on each side of your tank's knee switch actuator sometimes wears out. When that happens, the pads fall off.

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 AREN'T 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.

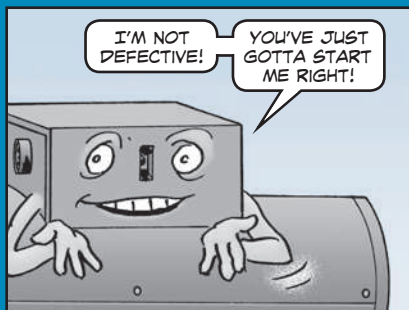
Because the heater doesn't start, most operators assume it's defective and turn it in for repair.

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

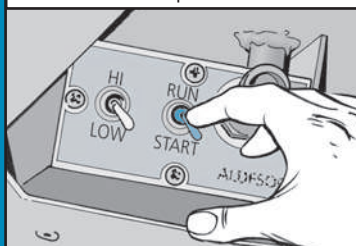
To start the A-20 heater correctly, hold the RUN-OFF-START switch on START for four seconds, then flip it to RUN. The heater will go through a quick self-diagnosis and then should start.

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.

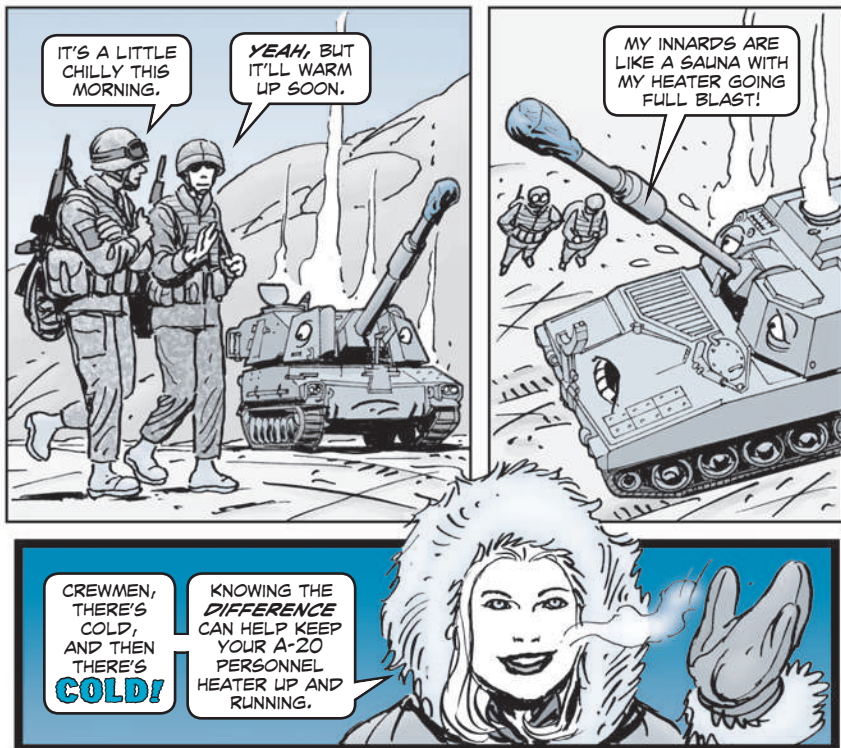
If your vehicle is an M1A2 SEP or M2/M3 Bradley, refer to your TMs for vehicle-unique starting instructions.



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

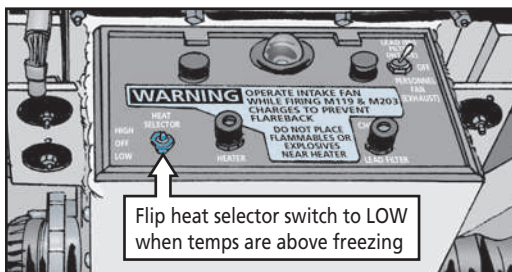


CHOOSE THE SETTINGS WISELY



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.

Drain
fuel
filter
daily

- 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.

INFLATE DEFLATED AIR SPRINGS

DRIVERS, YOU'RE IN FOR A ROUGH RIDE IN YOUR 2½- 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.

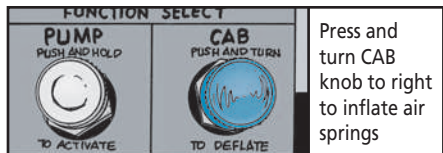
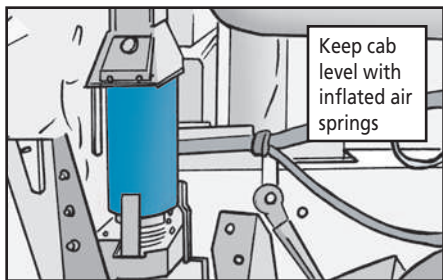
With no air, the cab isn't level. Bumps and jars during operation can make the springs pinch the bag. A damaged bag won't hold air so your backside suffers big time on a bumpy road.

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.

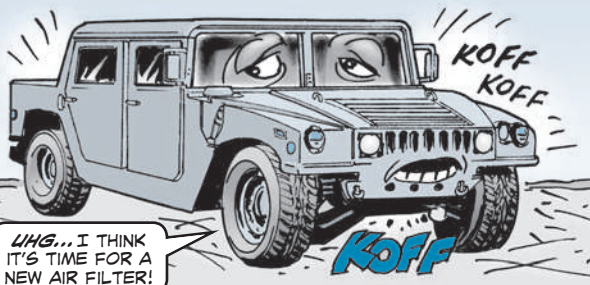
And if you have to replace the air springs, order them using NSN 2510-01-481-7663 and NSN 2510-01-481-7651. Use your parts manual as a guide.

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 -A1R model FMTVs (serial numbers 100,001 and higher).



HMMWVs...

Air Filter NSN



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

Get Snow Plow Kits

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

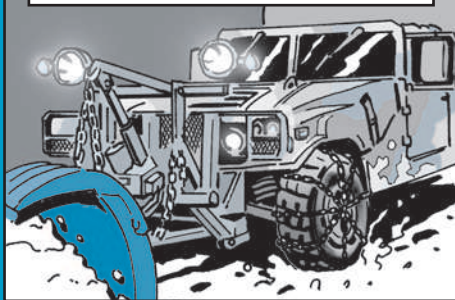
The Army's Cold Regions Research and Engineering Laboratory (CRREL) developed snow plow kits for use on HMMWVs, except those with a winch.

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.

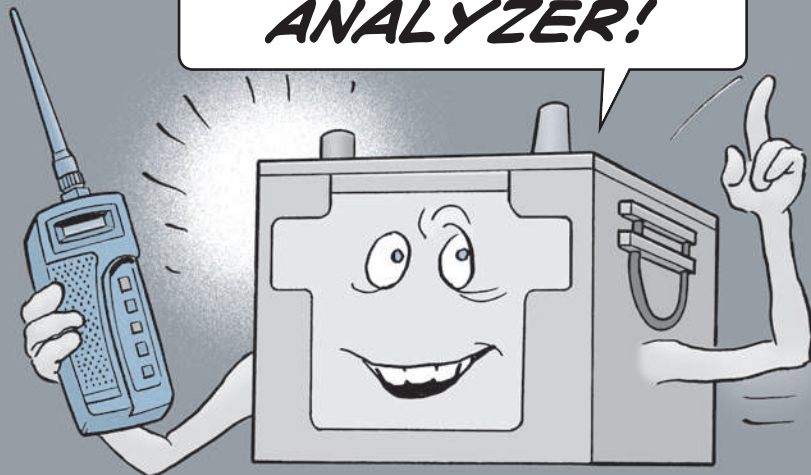
Instructions come with each kit you order, but only depot is authorized to install it on your HMMWV. If your maintenance facility doesn't have depot capability, call the CRREL at DSN 220-4470 or (603) 646-4470. They can help you make an appointment with the snow plow's manufacturer to install it on your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



**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.

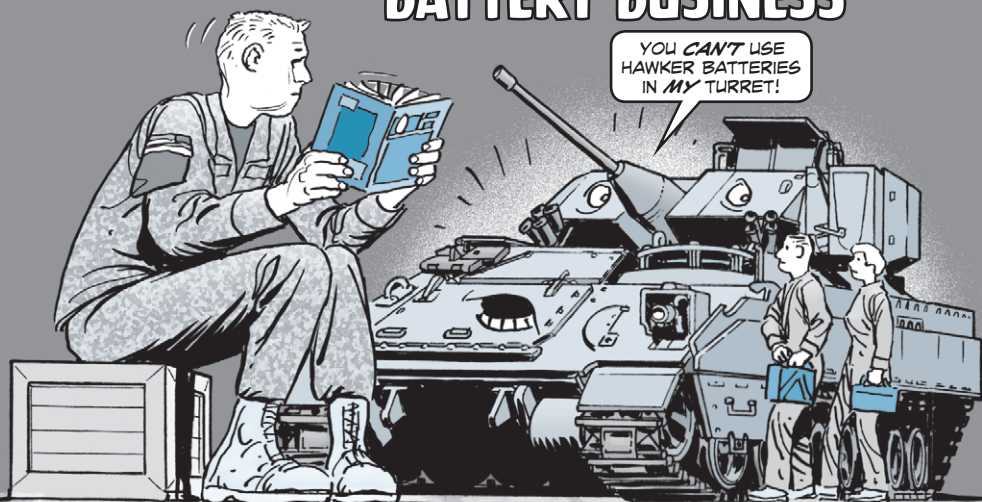
Terry W. Belcher
TACOM LAR, 5/2 BLST
Ft. Lewis, WA

Battery
analyzer's
important
for Hawker
battery life



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

MORE HAWKER BATTERY BUSINESS



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.

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

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

Wheeled Vehicles...

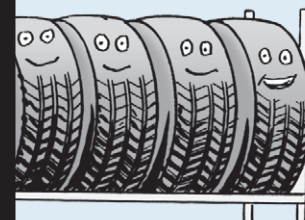
Tire Mounting Tips



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:

<https://aeaps2.ria.army.mil/Commodity/Pubs/Tacom/Bulletin/M1000hyd.html>

Hope this helps.

Half-Mast

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.

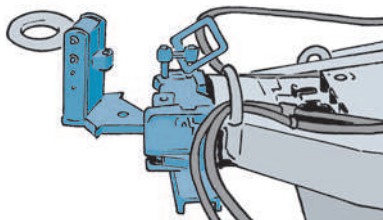
MAKE A NOTE UNTIL THEY'RE ADDED TO THE ADDITIONAL AUTHORIZATION LIST (AAL) IN EACH VEHICLE'S TECHNICAL MANUAL.



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.

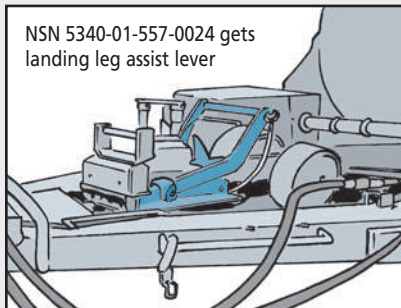
NSN 2540-01-557-0056 gets swivel lunette



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 Armorerers from COMET

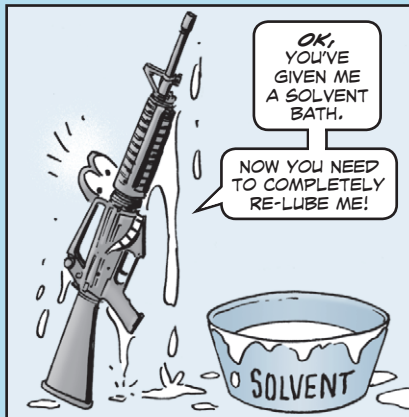


Dear Editor,

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 armorerers 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.



Chet Mainwaring
COMET
Ft Lewis, WA

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

Small Arms...

Help with What Goes Where

Armorerers, 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.

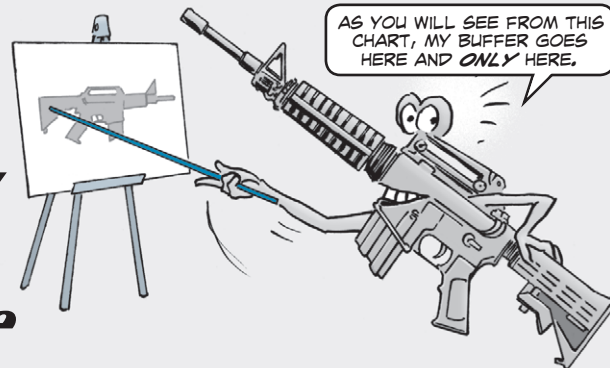
Your pubs clerk can order the Graphic Training Aids (GTA) with these numbers:

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

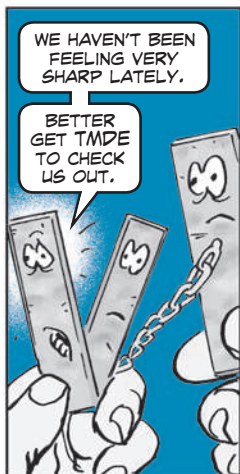
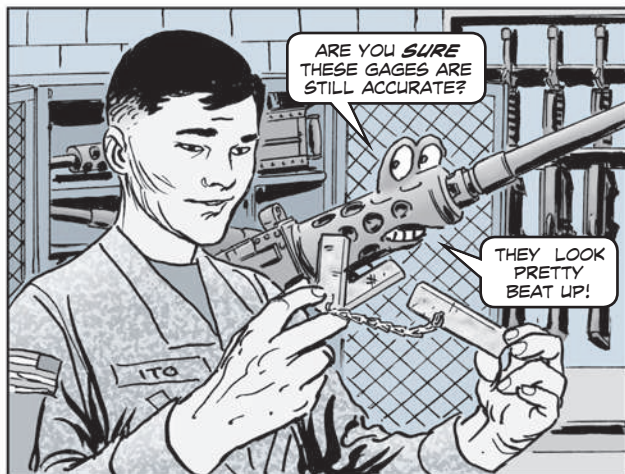
You can also download and print them at the Reimers Digital Library:

<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 Kevin Moore at DSN 793-2359/(309) 782-2359 or email:

kevin.o.moore@conus.army.mil

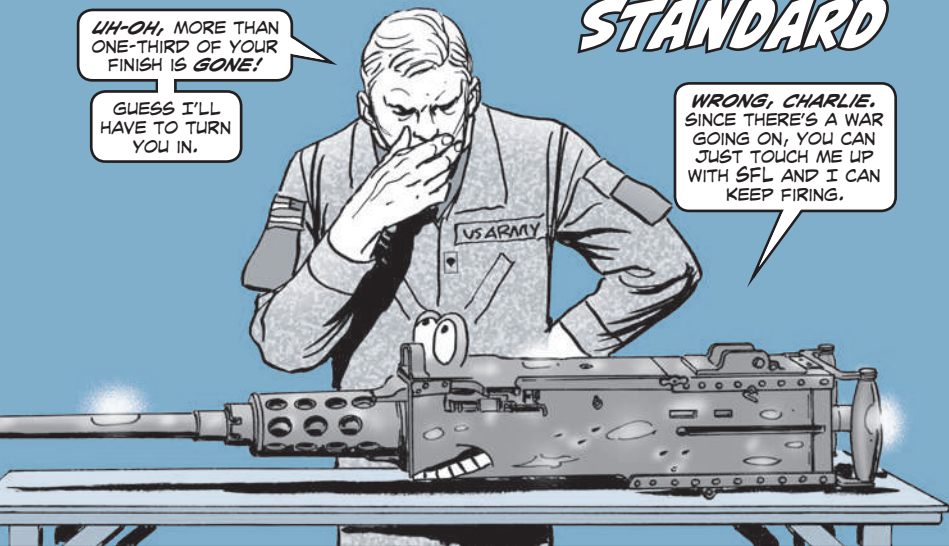
Half-Mast

WAR CHANGES FINISH STANDARD

UH-OH, MORE THAN ONE-THIRD OF YOUR FINISH IS GONE!

GUESS I'LL HAVE TO TURN YOU IN.

WRONG, CHARLIE. SINCE THERE'S A WAR GOING ON, YOU CAN JUST TOUCH ME UP WITH SFL AND I CAN KEEP FIRING.



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.

Armorer's, 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.

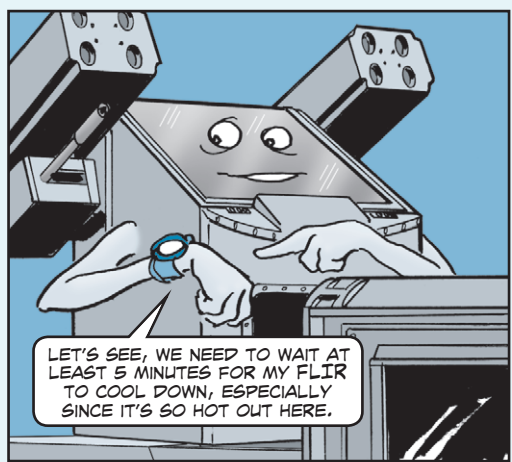
IF YOU HAVE ANY QUESTIONS ABOUT THE PROCEDURE, CONTACT TACOM-RI'S WALTER HILLIARD AT DSN 793-2108, (309) 782-2108, OR EMAIL walter.hilliard@us.army.mil



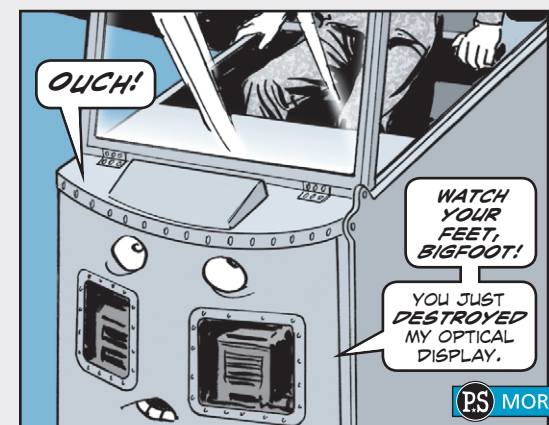
PM WITH AVENGENCE



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.



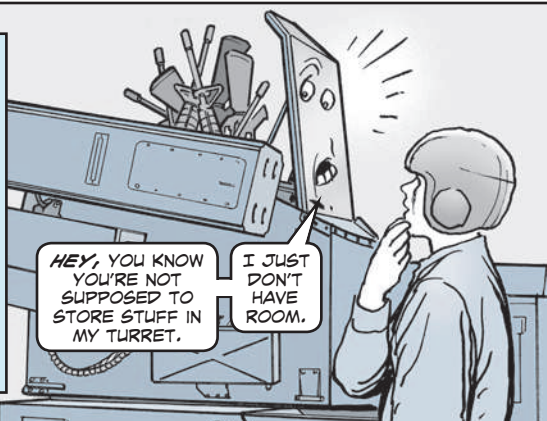
Watch your feet. There's little room in the turret and if you don't watch your feet when you climb in and out of the turret you can easily damage components like the optical display and the gunner's hand station. Those are expensive items to repair. Use the step on the left side of the turret and the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



PS MORE

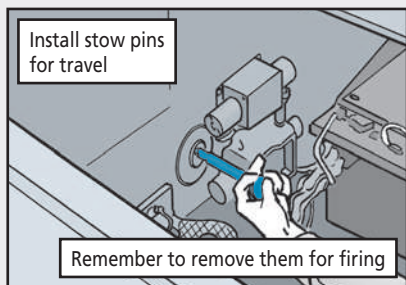
Don't use the turret for storage.

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.



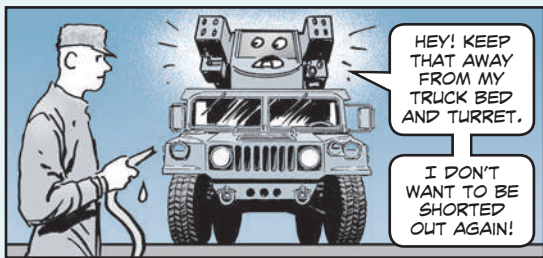
Remember the stow pins.

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.



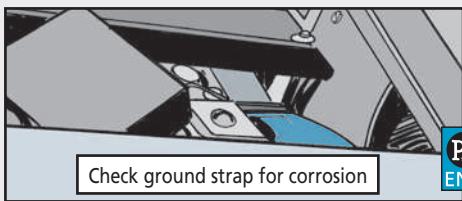
Keep water away from the base of the turret.

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.

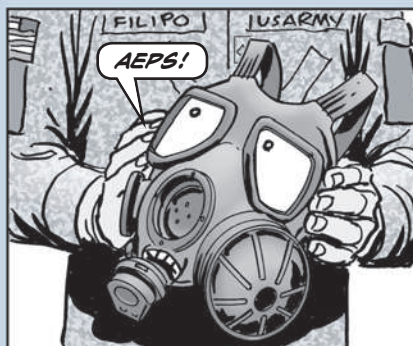


Check the battery ground strap.

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.



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://aeprs.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

keith.moses1@us.army.mil

PM-SKOT *First Source for Tools*

Product Manager - Sets, Kits, Outfits & Tools

PM-SKOT



1st Source
Tool Replacement/Warranty
Ordnance Systems
Engineer Systems
Non-Standard Support Systems
Tool Store
Suggestions & Issues
Reset Information
Links
About PM-SKOT



PM-SKOT IS YOUR **FIRST** AND **BEST** SOURCE FOR THE TOOLS YOU NEED TO DO YOUR JOB!



1-800-4-PM-SKOT
E-Mail: ROCK-PM-SKOT@conus.army.mil
Rock Island Arsenal
Rock Island, Illinois, USA
[Privacy & Security Notice](#)



Accessibility



On 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.



JOE
KUBERT

Speed

ADJUST YOUR SPEED TO ROAD CONDITIONS.

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

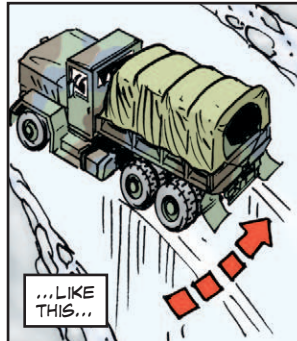
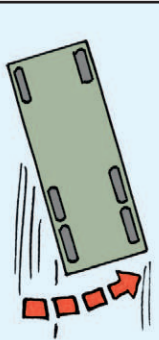
AND ON A SLICK ROAD, **DON'T** COUNT ON YOUR BRAKES TO STOP YOU IN A HURRY.

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

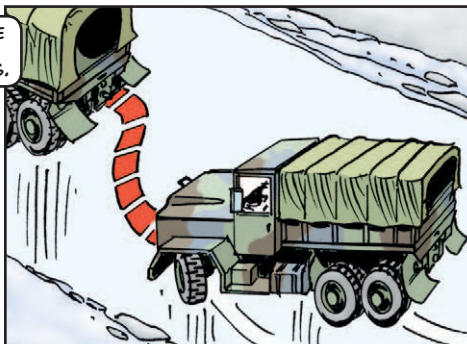
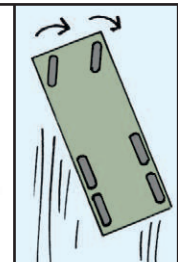
OK, FINE. HOW ABOUT **SKIDDING**?

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.

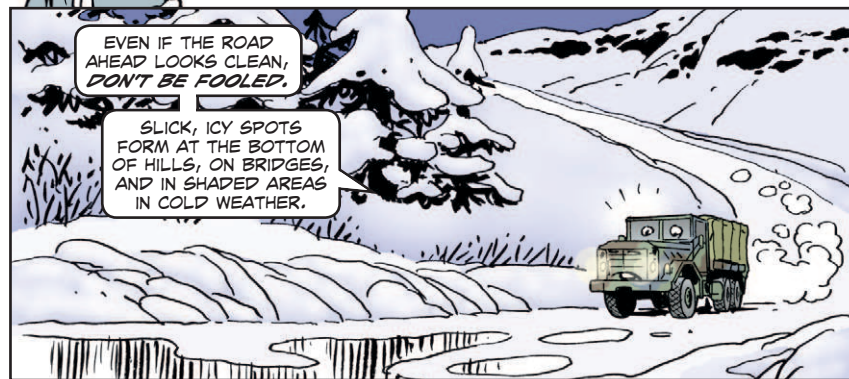
USE ENOUGH POWER TO HELP YOU AROUND CURVES AND TO HOLD TRACTION—THE ALL-IMPORTANT GRIP YOUR TIRES HAVE ON THE ROAD.

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**.

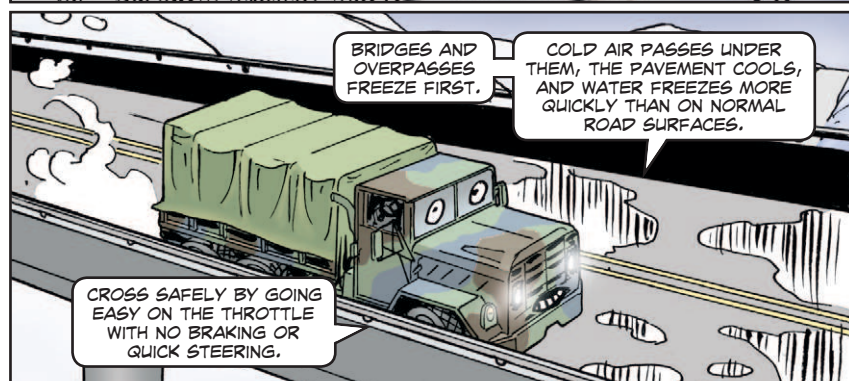
SLICK, ICY SPOTS FORM AT THE BOTTOM OF HILLS, ON BRIDGES, AND IN SHADED AREAS IN COLD WEATHER.



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.

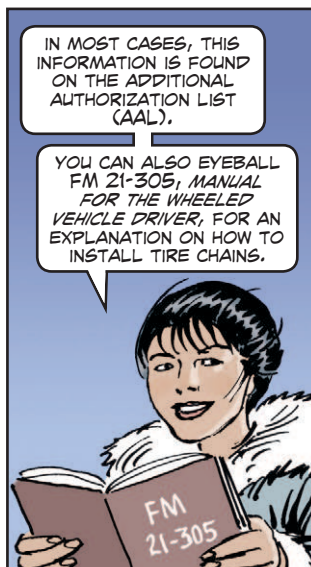
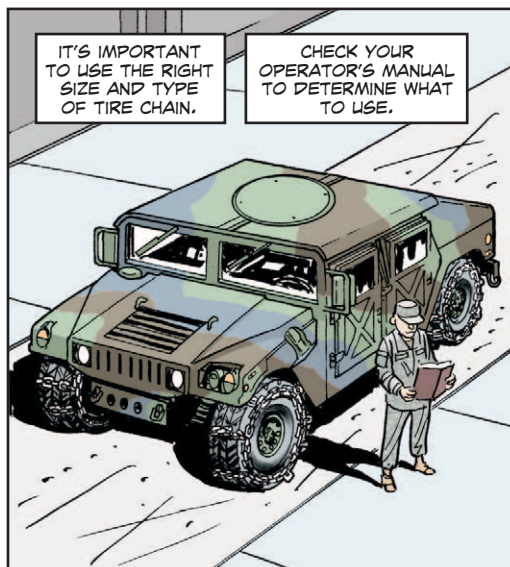
AVOID POOR DRIVING, LIKE QUICK STARTS, SUDDEN STOPS AND SHARP TURNS.

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.



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

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



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 5055V, ONLY THROUGH PEWAG, THE VENDOR.

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

mikeu@pewagchain.com or jjmd@pewagchain.com

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@dlamail

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

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.

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



APPLY FIRM, EVEN PRESSURE INSTEAD.



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

DON'T PUMP 'EM, EITHER.

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

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.

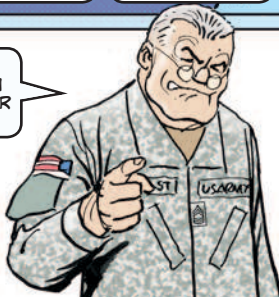


AND **NEVER** SLAM ON THE BRAKES!

FRONT WHEELS LOCK WITH HEAVY BRAKING AND YOU LOSE STEERING.

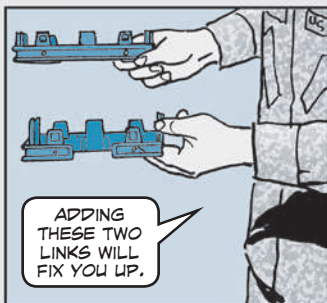


SO DON'T SLIP UP ON YOUR WINTER DRIVING!



THE RESULTS COULD BE **CHILLING!**

GOT GUN PROBLEMS?



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.

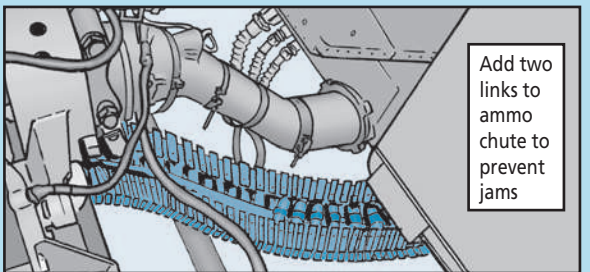
Since we've added the links, the gun operates without any problems.

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

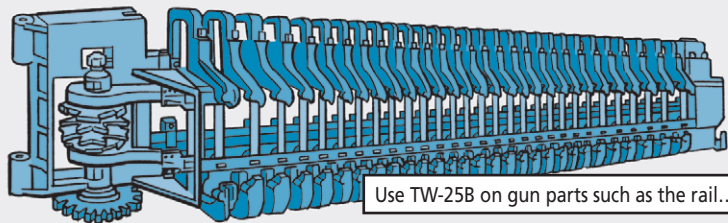
I'M GOING
IN FOR A
GREASE JOB!

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.

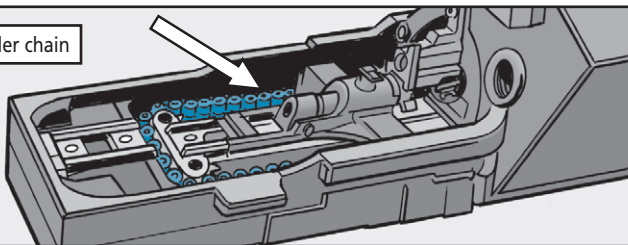
First, you should always clean old grease off parts with isopropyl alcohol before applying TW-25B.

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 NATE BIRKS AT
(309) 782-3589,
DSN 793-3589 OR EMAIL
nate.birks@us.army.mil

UH-60...

TAIL ROTOR BLADES CRACKING UP?

ANOTHER
LEADING EDGE
CRACK.

*YEAH, THIS
HAPPENS TOO
MANY TIMES.*

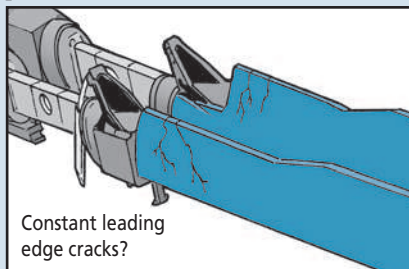
I'VE SEEN THIS
BEFORE. THE FITTING
AND RETAINER INSIDE
THE PITCH HORN ARE
LOOSE.

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

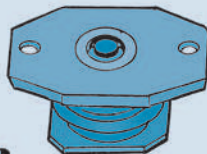
When the leading edge cracks, eyeball the pitch horn area. That's because the culprit causing the cracks could be a worn out and loose structural fitting, NSN 1560-01-100-1701, and retainer assembly, NSN 1615-01-082-9253, inside the pitch horn.

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.

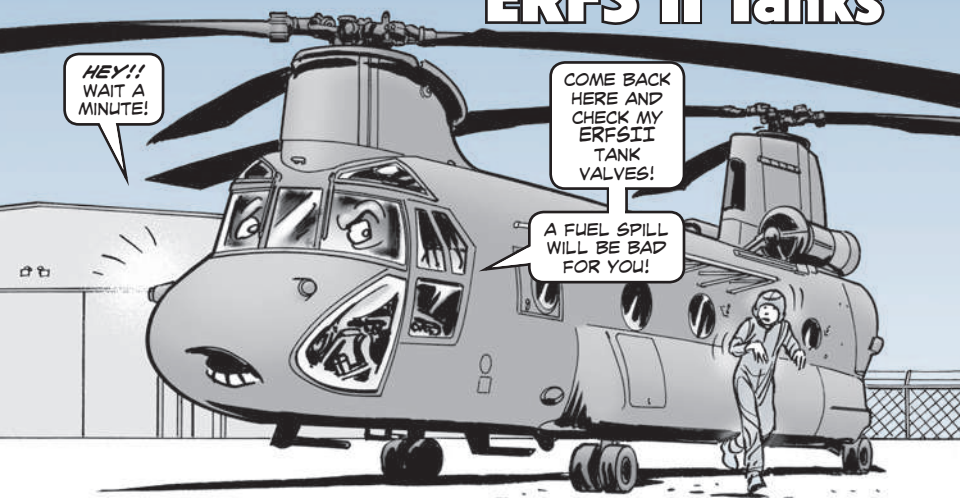
The next time you repair a tail rotor blade leading edge like it says in WP 0585 of TM 1-1520-237-23-7, make sure you don't have a shake, rattle and roll inside the pitch horn.



Check for
loose fitting
and retainer



Pressure Refueling ERFS II Tanks

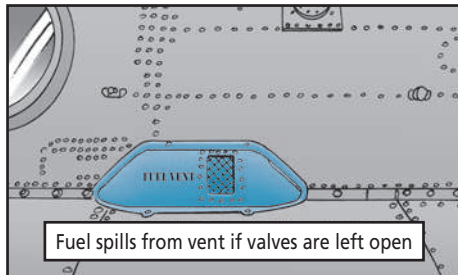
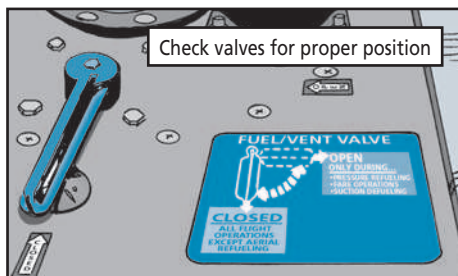


Crews, you can't afford to miss a beat when it comes to your Chinook extended range fuel system II (ERFS II).

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.



[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

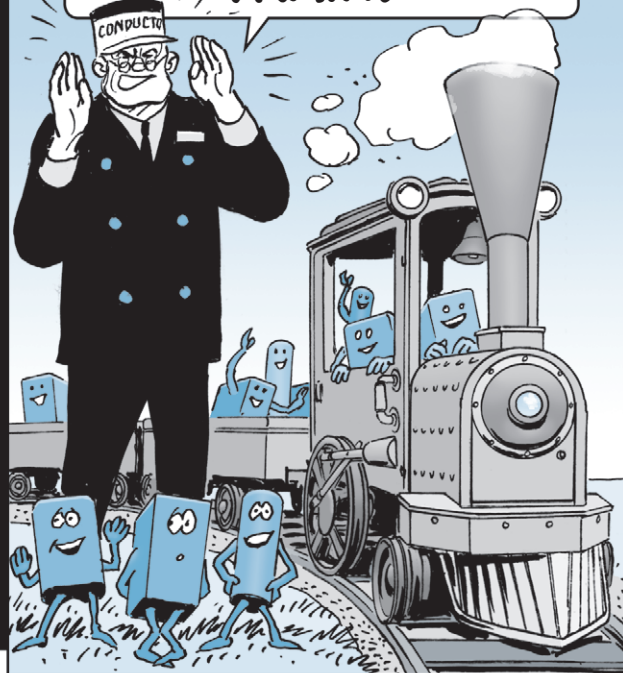
RECHARGEABLE BATTERIES HAVE BEEN CALLED THE WAVE OF THE FUTURE.

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'.

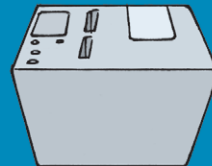
But batteries get used up and thrown away and more batteries need to be trucked in. Piles and piles of dead batteries grow and the logistics train is tasked to the max. The only thing that shrinks is your unit's pocketbook. That's why rechargeables are here and why you need to use them!

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

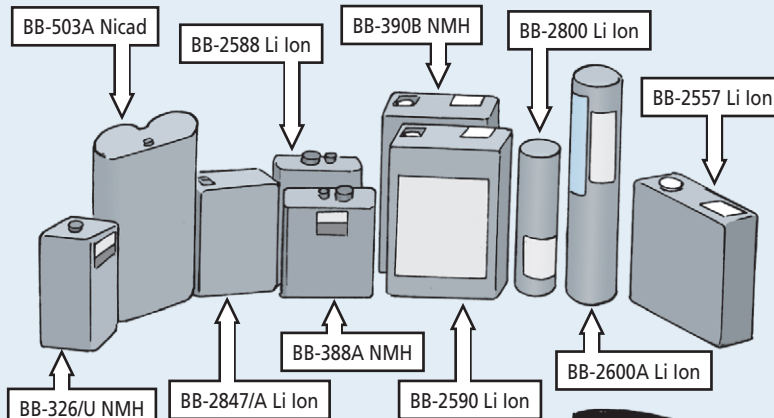
Rechargeable Battery	NSN 6140-01-	End Item Example	Non-chargeable Equivalent
BB-2590/U	490-4316	SINGARS, M22	BA-5590/5390
BB-388A/U	490-4313	AN/PRC-126, FBCB2	BA-5588
BB-2588/U	493-7623	AN/PRC-126	BA-5588
BB-326/U	533-7674	MELIOS, AN/PVS-6	BB-516A/U
BB-2847A/U	493-8092	TWS, AN/PAS-13	BA-5347
BB-557/U	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/U'S.



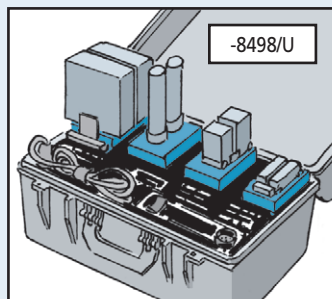
A QUICK TIP TO IDENTIFY BATTERIES...

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



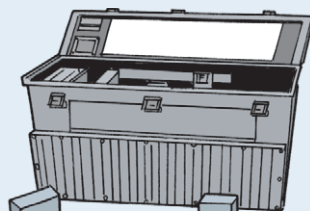
Chargers

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

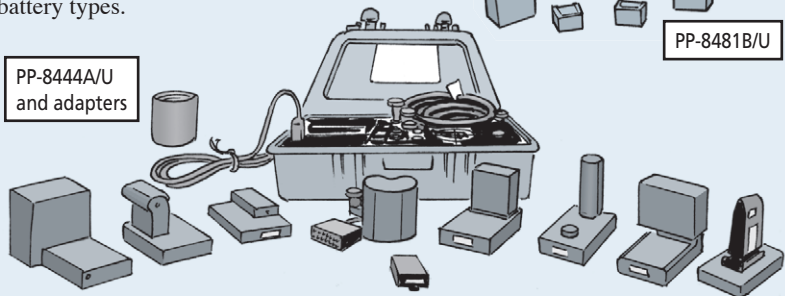


PP-8498/U is the latest and greatest table-top charger. It will hold eight batteries, charging two at a time before moving on to the next two. It will recharge every kind of rechargeable battery listed here.

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-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.

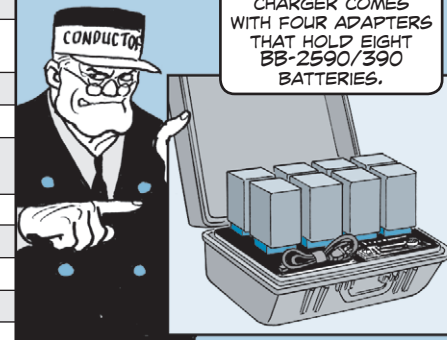
If you're using the new Charger-on-the-Move, you can order a bulk adapter with NSN 5940-01-494-7116 that holds four BB-2590s.

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://irc3.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 Don Brockel at DSN 992-4948, (732) 532-4948, or email: donald.brockel@us.army.mil

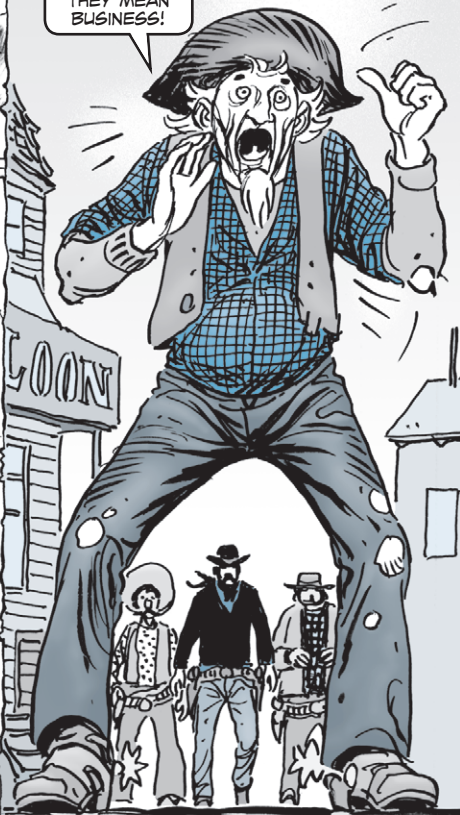


WANTED: COMMON COMMO KILLERS



CONSIDERED
DANGEROUS
BUT
PREVENTABLE!

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



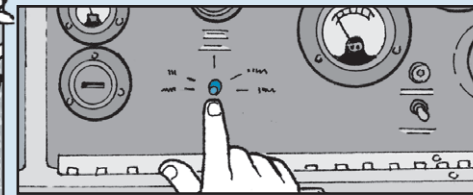
THE BIGGEST
THING YOU
CAN DO IS
**PREVENTIVE
MAINTENANCE.**

THERE ARE
PLENTY 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...

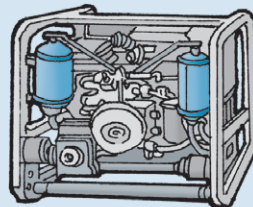


1. Missing parts. Every time a part is missing—even one that may not be essential to operation—a hole is created where sand, dust, dirt and debris can find its way into your equipment. Make sure all your equipment has all its caps, knobs, bells and whistles and that you're Johnny-on-the-spot to replace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

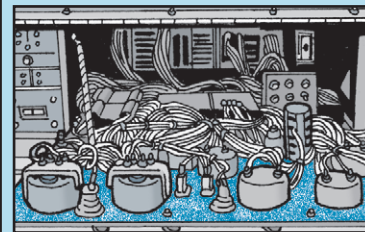


2. Air filters not clean. You must start your mission with clean filters and you must monitor the filters to ensure they stay clean. Just like a human being, there's a lot in the air your equipment is allergic to.

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.



I JUST
DON'T
FIT IN!

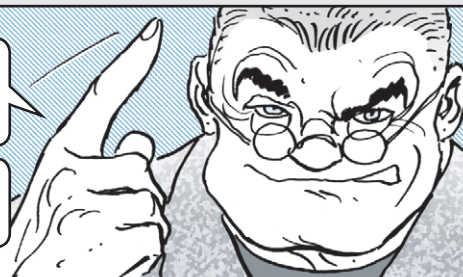
5. Cables not repaired. Cables don't need frays, breaks, busted connectors, or broken pins. Check 'em out regularly and replace them as needed.



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.

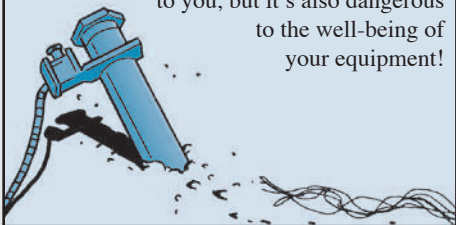


6. Bad switches. Like the ignition on your car, a bad switch can start (or not start) a series of problems.

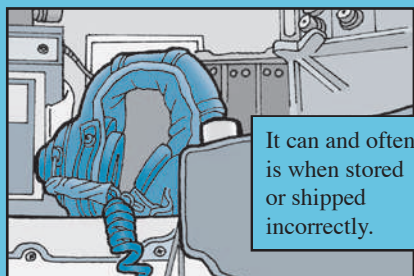


7. Poor grounding. Have you prepared the soil around your ground? Have you driven your ground rods deep enough? Have you used the right grounding wire and the right connection? Have you hooked the ends of the wire correctly and to the right spots?

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



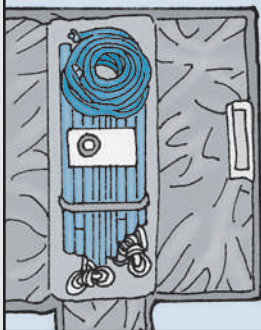
8. Bad storage procedures. Toss it here, toss it there, toss it everywhere—and break things in the process. Just because your equipment is ruggedized, does not mean it can't be damaged.



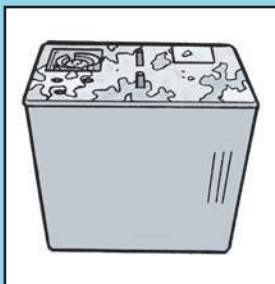
9. No antenna maintenance.

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

Sorry, I can't hear your response.

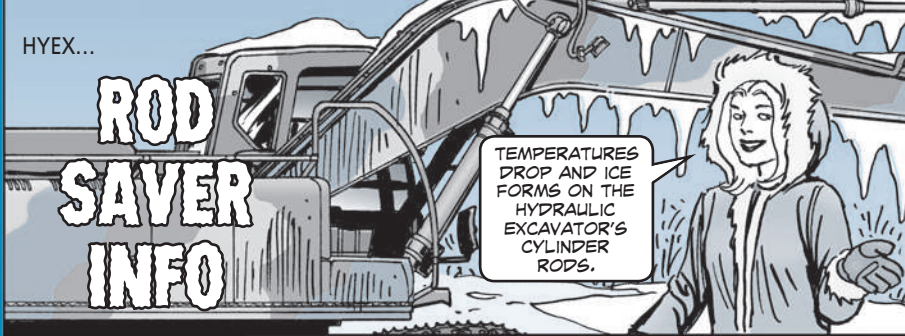


10. Bad batteries. Yes, replacing them is often easier than maintaining them, but what happens when you run out and the supply well is dry? Battery maintenance is basic and not tough, so do it! If you're not using rechargeables, now's a good time to start.



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 SCRAPE 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!



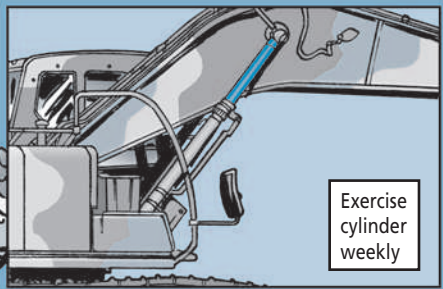
Remove any ice build-up on rods



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 SCRAPE 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!!!

UUGHHH
UNHHHHH

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

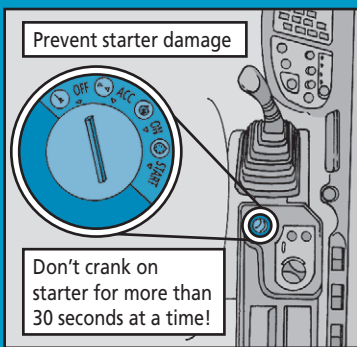
KEEP THESE PM
POINTERS IN MIND TO GET
RID OF YOUR HYDRAULIC
EXCAVATOR'S COLD
WEATHER JITTERS.

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.

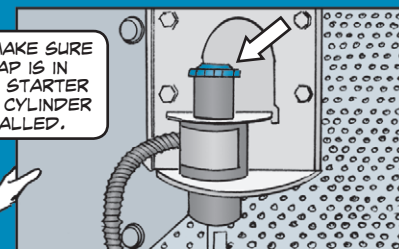
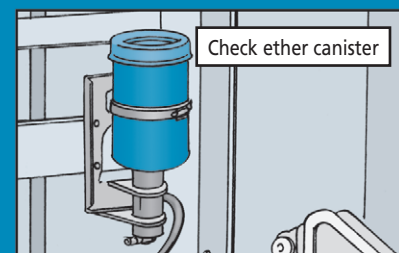


Ether Canister Empty?

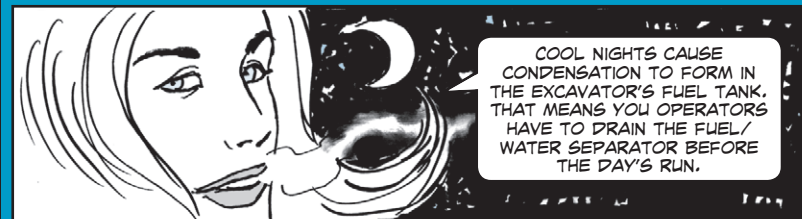
Operators, one reason your excavator may be hard to start in cold weather is an empty ether canister.

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.



Water In – Water Out

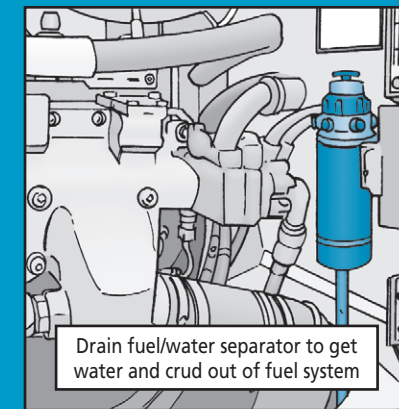


Not draining the separator leaves water and crud in the fuel system. Then the engine runs rough... or not at all.

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.



Cold
Weather
Boots...

THE FEET ARE THE FOUNDATION

COLD,
WET
FEET.

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

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

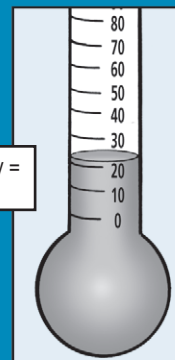
Frostbite is defined as the freezing of your tissues. It can range from surface freezing of the skin all the way to freezing of muscle and bone. The longer you're exposed to cold below 32°F, the worse it gets. A severe case of frostbite could permanently cost you the use of your feet. It could even require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

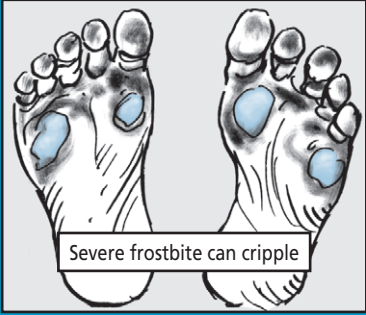
Frostbite Symptoms

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.

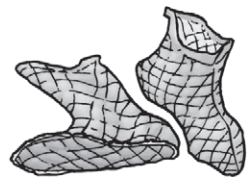


Boots, Socks and Such

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

SO, WEAR THE ONES **MEANT** FOR WINTER...

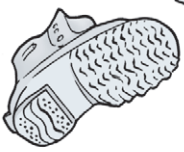
● **intermediate cold wet boots...** ... with removable liners

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.**

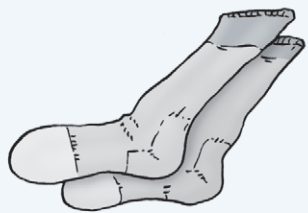
For sizes, photos and NSNs, go to the **warfighter** website:

<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 8415-01-	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.

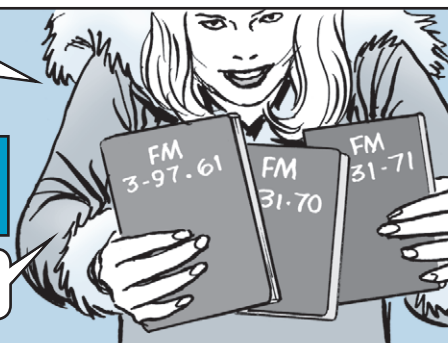


Change socks every day

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

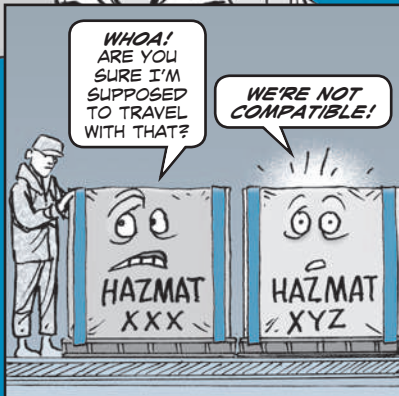
COMPATIBILITY WAIVERS ARE **REQUIRED** WHEN NON-COMPATIBLE HAZARDOUS MATERIALS ARE SHIPPED ABOARD THE SAME MILITARY AIRCRAFT.

SEE TABLE A18.1, SEGREGATION TABLE FOR HAZARDOUS MATERIALS, AND TABLE A18.2, COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS.



PS MORE

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

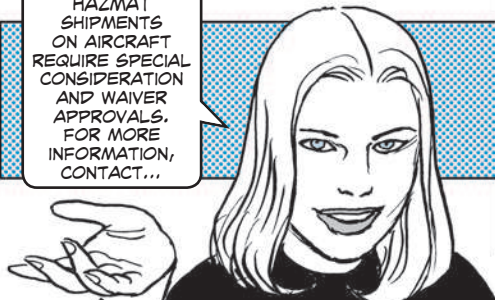


PARAGRAPH
2.3.2.2
REQUIRES
WAIVERS TO
INCLUDE...



- 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

PS
END

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>

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Title of Publication:

PS, The Preventive Maintenance Monthly

Publication No. 341-0950

Date of Filing: 23 Sept 08

Frequency of Issue: Monthly

No. of Issues Published Annually: 12

Annual Subscription Price:

Domestic \$45.00 Foreign \$63.00

Complete Mailing Address of Publication:

USAMC Logistics Support Activity, PS Magazine

5307 Sparkman Circle, AMXLS-AM

Redstone Arsenal, AL 35898-5000

Complete Mailing Address of Headquarters or

General Business Office of Publisher:

Department of the Army

The Pentagon

Washington, DC 20310

Publisher: Department of the Army

Editor: W. RICHARD MORRIS

Managing Editor: JONATHAN W. PIERCE

Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or other Securities: None

Tax Status: The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes has not changed during the preceding 12 months.

Extent and Nature of Circulation	Last year	Last issue (Oct 08)
a.Total # copies	61,609	61,186
b.(1) Subscriptions	59,539	58,918
b.(4) Other USPS	67	68
c. Total paid distrib	59,606	58,986
d.(3) Free through USPS	129	118
d.(4) Other free	588	780
e. Total free	717	898
f. Total distribution	60,323	59,884
g. Copies not distributed	1,272	1,302
h. Total	61,595	61,186
i. Percent paid	98.8%	98.5%

Submitted by: STUART A. HENDERSON, Production Manager



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.

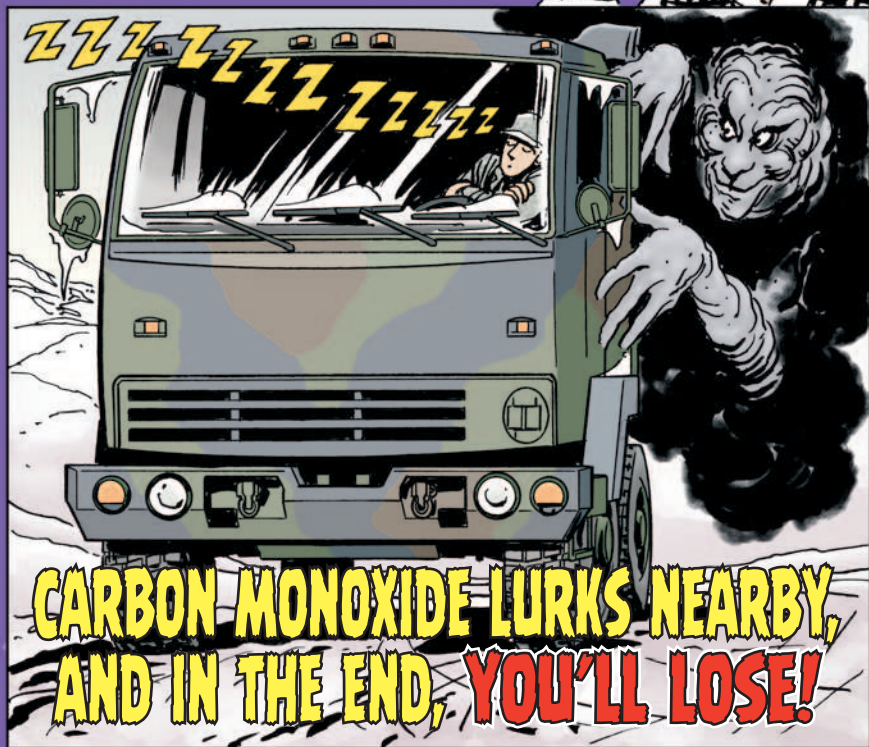
New M68 Sight Lens Cover

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!



EXHAUST
FUMES
KILL!